Coelacanth-1

Vic/P-45

Well Completion Report

Basic Data

October 2008

GENERAL DATA SHEET

Well:	Coelacanth-1	**Partners:**	Apache Northwest Pty Ltd (Operator) Moby Oil & Gas Limited Exoil Limited
Well Type:	Exploration		
Basin:	Gippsland		
Tenement:	Vic/P-45		
Status:	Plugged & Abandoned		
Spudded:	13:00 hrs 10 March 2008	**Latitude:**	38º 42' 49.7296" S
TD Reached:	04:00 hrs 22 March 2008	**Longitude:**	148º 18' 07.0098" E
Rig Released:	24:00 hrs 5 April 2008	**Northing:**	5 714 176.613 m
Total Depth:	-3035.8 mTVDAHD (3074.0 mMDRT)	**Easting:**	613 192.770 m
RT Elevation:	38.0 m above AHD		
Water Depth:	90.0 m below AHD		
Drill. Contr.:	Seadrill	**Datum:**	GDA94
Rig (Type):	West Triton	**Projection:**	MGA94, UTM Zone 55 S

MWD/LWD Logs

Run No.	Log Suite	Interval mTVDAHD (mMDRT)	Max °C	Hole Size (mm)	Remarks
1	TeleScope-GeoVISION(SLB)	-241.0 to -869.0 (279.0 to 907.0)	32.2	311	No real-time LWD. All recorded data was recovered.
2	TeleScope-GeoVISION-adnVISION(SLB)-BATSONIC(HLS)	-869.0 to -1959.9 (907.0 to 1998.0)	49.4	216	No real-time LWD. All recorded data was recovered.
3	TeleScope-GeoVISION-adnVISION(SLB)-BATSONIC(HLS)	-1959.9 to -2077.9 (1998.0 to 2116.0)	48.6	216	All data was recovered at surface.
4	TeleScope-GeoVISION-adnVISION(SLB)-BATSONIC(HLS)	-2077.9 to -2661.9 (2116.0 to 2700.0)	58.8	216	All data was recovered at surface.
5	TeleScope-GeoVISION-adnVISION(SLB)-BATSONIC(HLS)	-2661.9 to -3035.8 (2700.0 to 3074.0)	62.0	216	All data was recovered at surface.

Wireline Logs

Suite	Run	Log Suite	Interval mTVDAHD (mMDRT)	BHT (°C)	Hrs *	Remarks
1	1	PEX-DSI	-90.0 to -867.0 (128.0 to 905.0)	34.0	10.2	All data acquired.
2	1	VSI-GR	-3028.8 to -188.4 (3066.9 to 226.4)	NA	26.75	15 m levels until loss of signal.
	2	CST-GR	-3014.4 to -2587.9 (3052.5 to 2626.0)	80.0	39.17	30 attempted, 21 recovered, 3 lost, 4 misfires, 1 empty, 1 rejected.

* Hours since circulation stopped

General Data Sheet (continued)

Hole and Casing Details

Hole Size (mm)	Interval (mMDRT)	Interval (mTVDAHD)	Casing Size (mm)	Depth (mMDRT)	Depth (mTVDAHD)
660	128.0 to 279.0	-90.0 to -241.0	508/340	275.7	-237.7
311	279.0 to 907.0	-241.0 to -869.0	244	902.6	-864.6
216	907.0 to 3074.0	-869.0 to -3035.8			

Cement Plugs

Plug No.	Interval mTVDAHD (mMDRT)	Tagged
1	-2551.9 to -2491.9 (2590.0 to 2530.0)	N
2	-902.0 to -814.0 (940.0 to 852.0)	N
3	-205.0 to -145.0 (243.0 to 183.0)	N

Testing: No testing was carried out.

Coring: No conventional cores were cut. CST: 21 cores recovered of 30 attempted.

Comments: The Coelacanth-1 surface location is 0.78m at a bearing of 247.71° True from the proposed surface location.

West Triton

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GENERAL

Delivery	01-Jan 2008
Hull ID	P2011
Major Upgrades	-
Design	Baker Marine-375 Pacific Class
Previous Names	Seadrill 2
Flag	Singapore
Classification Agency	ABS-CDS✠ Self Elevating Unit
Dimensions	236' x 224' x 27.9'
Operating Draft	18.8 Ft
Transit draft	19.5 Ft
Target VDL - Operating	7,496 kips
Target VDL - Survival	6,500 kips
Target VDL - Transit	6,000 kips
Outfitted Max WD	375 Ft
Min WD	30 Ft
Leg Length	506' (incl spudcan tip)
- usable below hull	435 (incl spudcan tip)
Leg Spacing	155.2' transverse 145.3' longitudinal
Usable Deck Space	32,722 Ft 2
Spudcan Diameter	55.446ft
Max Drilling Depth	30,000'
Cantilever Envelope	70' aft 30' transverse
Max Combined Load	2599 kips at 70' aft
Quarters	115
Helideck Size	75.5' diameter
Helideck Capacity	S61N or 20,500 lbs
Helideck Certification	CAP437

DRILLING PACKAGE

Derrick (SHL)	1,500 kips
Racking Capacity	30,000' x 5.5" dp
Drawworks	NOV-D3000UE- 3450HP AC
Rotary Table	NOV-D 495 –API 7K
Top Drive	Hydralift Power Swivel HPS750
- continuous torque	64,175 ft lbs @ 94 rpm
Pipehandling	Hydra Tong MPT-200

MUD SYSTEM

Pressure Rating	7.5M
Pumps	3 x NOV 14-P-220 triplex
Solids Control	1 x dual gumbo box 4 x VSM 300

CAPACITIES

Diesel	3900bls
Drillwater	4850-bbls
Potable Water	3,556 bbls
Bulk Product	11,654 cu ft
Sack Storage	5,000 sacks
Base Oil	1,274 bbls
Brine	1310
Liquid Mud	4,727 bbls
Mudpits (excl slug/mix)	8

WELL CONTROL

Diverter	49.5" KFDJ -500psi
Annular Preventer	1 x Hydril GX 18 ¾" 10M
High pressure BOP	2 x Hydril 18 ¾" 15M double
C&K Manifold	3 1/16" I.D.- 15M

CRANES

Pedestal Cranes	3 ea Baker Marine (900 / 1600 / 2250)
API SWL-Short Tons	7.8ST@100' / 25.0ST@20' 8.7ST@100' / 44.9ST@25' 17.0ST@120' / 55ST@25'
BOP Crane	2 x 50MT

POWER

Main Engines	5 x CAT3516HD
Total Power	10,750 hp
Main Generators	5 x Baylor SR4
Emergency Power	1 x CAT3508

OTHER

Mooring System	4 x Baker/Series 70
Conductor Tensioner	500 kips vertical

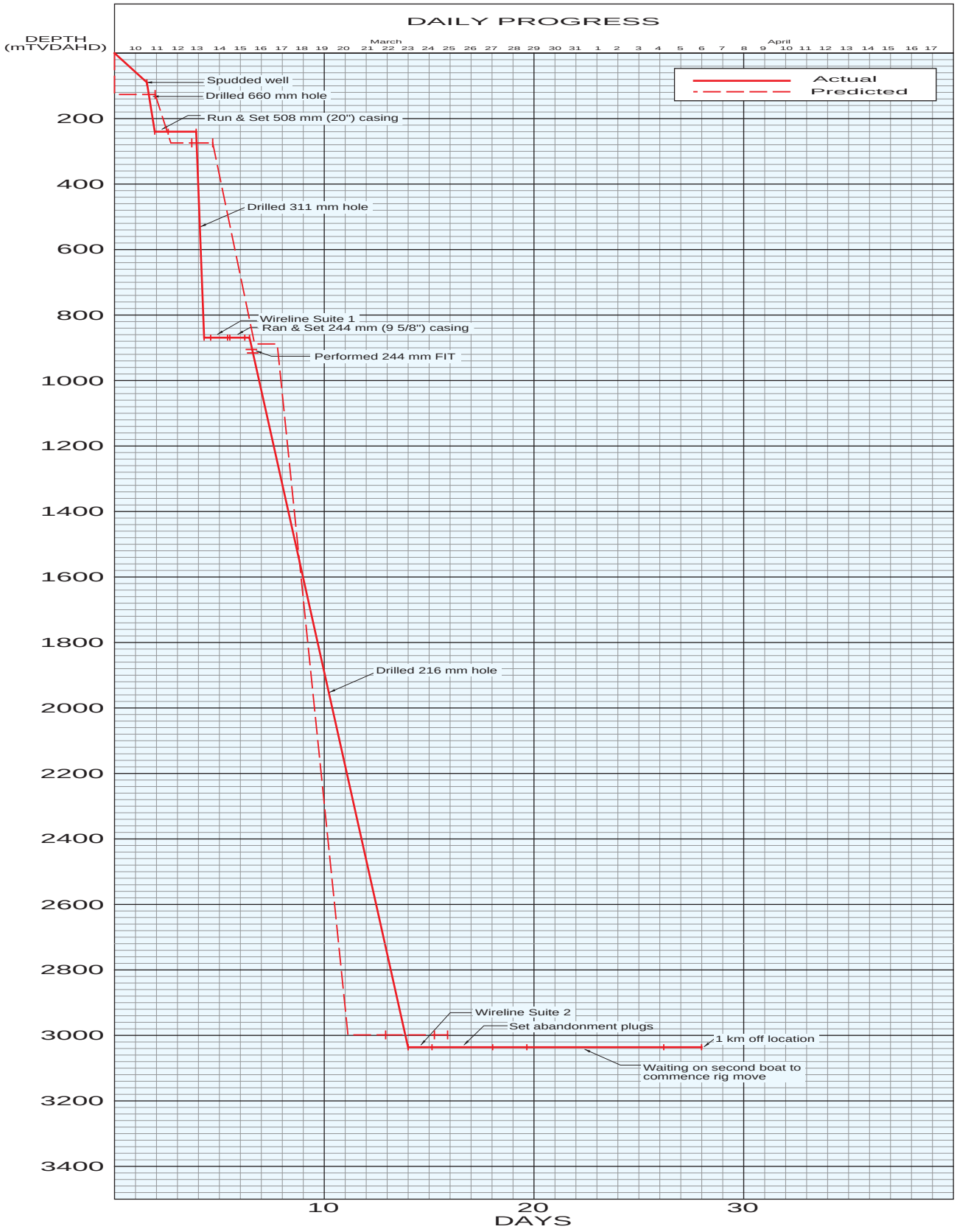
TUBULARS

Drillpipe	15750' x 5.5" x S-135 XT-57 tooljoints, Arnco 300XT

FEATURES	Helo refuelling system Single stage preload Coring Caisson

Date of Update: 21 Jun 07

COELACANTH-1



LATITUDE :	38 °42' 49.7296" S	UTM:	5,714,176.613 mN
LONGITUDE :	148 °18' 07.0098" E		613,192.770 mE

SPUD DATE :	10 March 2008, 13:00 hrs
REACHED T.D.:	22 March 2008, 04:00 hrs
ELEVATION R.T.:	38.0 m above AHD
WATER DEPTH :	90.0 m below AHD
SEA BED :	128.0 m below R.T.
STATUS :	Plugged and Abandoned
RIG :	West Triton
RIG RELEASED :	5 April 2008, 24:00 hrs

GDA

Apache ENERGY

VIC/P45

GIPPSLAND BASIN

COELACANTH-1

WELL HISTORY

Author :	WCR	Date :	10 July 2008
Drawn :	Perth Exploration Dept.	Plan No.	WHu10582

APACHE CORPORATION

Daily Drilling Report

WELL NAME				DATE
COELACANTH-1				08-03-2008
API #	**24 HRS PROG**	**TMD**	**TVD**	**REPT NO**
	(m)	(m)	(m)	1

RIG NAME NO	FIELD NAME	AUTH TMD	PLANNED DOW	DOL	DFS / KO	WATER DEPTH
WEST TRITON			15.92 (days)	0.33 (days)	(days)	90.00 (m)

SPUD DATE	Rig Release	WELL SUPERVISOR	OIM	PBTMD
08-03-2008		RICHARD READINGS / S SCHMIDT/P SHEENAN	MICHAEL BARRY	

REGION	DISTRICT	STATE / PROV		RIG PHONE NO	RIG FAX NO
AUSTRALIA	OFFSHORE	VICTORIA			

AFE # 1008E50	AFE COSTS	DAILY COSTS	CUMULATIVE COSTS
DESCRIPTION:	DHC: 12,691,688	DHC: 421,029	DHC: 421,029
	DCC:	DCC:	DCC:
	CWC:	CWC:	CWC:
	Others:	Others:	Others:
	TOTAL: 12,691,688	TOTAL: 421,029	TOTAL: 421,029

DEFAULT DATUM / ELEVATION	LAST SAFETY MEETING	BLOCK	FORMATION	BHA HRS OF SERVICE
ROTARY TABLE / 38.00 (m)		Vic-P45		

LAST SURVEY	LAST CSG SHOE TEST (EMW)	LAST CASING	NEXT CASING
MD 38.00 (m) INC 0.00° AZM 0.00°	(sg)		

CURRENT OPERATIONS: Positioning rig onto location.

24 HR SUMMARY: Jacked down and under tow to new location.

24 HR FORECAST: Position rig, jack up and perform preload test skid out cantilever and prepare for drillingoperations.

OPERATION SUMMARY

From	To	HRS	Phase	Operation	PT/NPT	NPT CODES	ACTIVITY SUMMARY
16:00	0:00	8.00	R-MOB-DEM OB	MOB	PP		On tow to Coelacanth-1 Position report at 18.00 hrs 38.34 .46.45 S 147.30 24.62.8E Distance travelled 12nm distance to travel 41.3NM spedd 5.1 knots. Position report at 24.00 hrss 38.45.9S 148.00.8E Distance travelled 18.7nm distance to travel 15.3nm total distance travelled 38.7nm Rig crew installing stabmaster. Replace pipe handler link tilt cylinders.

8.00 = Total Hours Today

06:00 UPDATE

0000-0600 00:00 - 06:00 - Under tow to location Coelacanth-1.
Commence run in to Coelacanth-1 at 02.30hrs.
Pacific Battler released from tow bridle at 02.55 hrs and attached to port aft tow point.

00:00 TO 24:00 Hrs ON 08 Mar 2008
Operational Comments:
Interface between IBOP and PH rotating requires attention as at present it is in creep mode, hence the longer times for handling BHA's.
Drillers screen still locking up. This has occurred in open hole while tripping and also while drilling.
Link tilt activating cylinder bent requires replacing. This is increasing the stress on the other cylinder. The latching and unlatching of the elevators is affected by this bent cylinder thus slowing down BHA handling times and tripping times.
Operational Comments: Jar hours (serial number 09147) = 145.5 hours.

MUD PUMPS/HYDRAULICS

	STROKE	SPM	LINER	FLOW
# 1		20	165.10	0
# 2		20	165.10	0
# 3		20	165.10	0

SPP:

SPR

	SPM	PPSR

Daily Drilling Report

WELL NAME				DATE
COELACANTH-1				08-03-2008
API #	**24 HRS PROG**	**TMD**	**TVD**	**REPT NO**
	(m)	(m)	(m)	1

PERSONNEL DATA

COMPANY	QTY	HRS	COMPANY	QTY	HRS
TAMBORITHA	2		HALIBURTON	2	
SCHLUMBERGER MWD/LWD	1		APACHE	2	
WEATHERFORD	4		BHI	1	
TOTAL MARINE CATERING	9		SEA DRILL	13	
FUGRO	2		ADA	4	
DRIL-QUIP	2		HALIBURTON (BROID)	1	
SEA DRILL SERVICES	40				

TOTAL PERSONNEL ON BOARD: 83

SUPPORT CRAFT

TYPE	REMARKS

MATERIALS/CONSUMPTION

ITEM	UNITS	USAGE	ON HAND	ITEM	UNITS	USAGE	ON HAND
BARITE BULK	MT		76	BENTONITE	MT		21
CEMENT	MT		94	FUEL OIL	m3		315
WATER, POTABLE	MT		155	WATER, DRILLING	MT		254

WEATHER

TIME	SWELL HT/DIR/PER	WAVE HT/DIR/PER	WIND SPEED/DIR	GUST SPEED/DIR	TEMP
	0.20/ /15	0.20/90.00/15	/	/90.00	

Daily Drilling Report

WELL NAME				DATE
COELACANTH-1				08-03-2008
API #	**24 HRS PROG**	**TMD**	**TVD**	**REPT NO**
	(m)	(m)	(m)	1

MUD INVENTORY

ITEM	UNIT	USAGE	Day Cost ($)	ON HAND
			0.00	0.00
OMYACARB 5	25.00 kg		0.00	48.00
			0.00	0.00
BARAZAN D PLUS	25.00 kg		0.00	29.00
			0.00	0.00
			0.00	0.00
			0.00	0.00
BENTONITE	1,000.00 kg		0.00	20.80
			0.00	0.00
			0.00	0.00
			0.00	0.00
			0.00	0.00
KWIKSEAL (F)	40.00 lbs		0.00	39.00
			0.00	0.00
			0.00	0.00
			0.00	0.00
CLAYSEAL PLUS	216.00 kg		0.00	8.00
			0.00	0.00
			0.00	0.00
			0.00	0.00
			0.00	0.00
			0.00	0.00
			0.00	0.00
			0.00	0.00
			0.00	0.00
			0.00	0.00
BAROFIBRE (FINE)	25.00 lbs		0.00	50.00
			0.00	0.00
			0.00	0.00
			0.00	0.00
			0.00	0.00
GUAR GUM	25.00 kg		0.00	4.00
			0.00	0.00
			0.00	0.00
			0.00	0.00
CAUSTIC SODA - NaOH	25.00 kg		0.00	98.00
			0.00	0.00
			0.00	0.00
			0.00	0.00
			0.00	0.00
			0.00	0.00
STEELSEAL FINE	25.00 kg		0.00	60.00
			0.00	0.00
			0.00	0.00
			0.00	0.00
CITRIC ACID	25.00 kg		0.00	38.00
			0.00	0.00
NEW DRIL HT PLUS	50.00 lbs		0.00	90.00
ALDACIDE G	25.00 l		0.00	11.00
			0.00	0.00
			0.00	0.00
			0.00	0.00
			0.00	0.00
			0.00	0.00
EZ MUD	25.00 kg		0.00	13.00

Daily Drilling Report

WELL NAME				DATE
COELACANTH-1				08-03-2008
API #	**24 HRS PROG**	**TMD**	**TVD**	**REPT NO**
	(m)	(m)	(m)	1

MUD INVENTORY

ITEM	UNIT	USAGE	Day Cost ($)	ON HAND
			0.00	0.00
			0.00	0.00
POTASH - POT. CHLORIDE - KCl	1,000.00 kg		0.00	4.00
			0.00	0.00
		7.30	3,612.62	-7.30
			0.00	0.00
			0.00	0.00
			0.00	0.00
			0.00	0.00
POTASSIUM HYDROXIDE	25.00 kg		0.00	87.00
		1.00	44.98	-1.00
			0.00	0.00
			0.00	0.00
			0.00	0.00
		1.00	13.25	-1.00
			0.00	0.00
BARABLOK	50.00 lbs		0.00	30.00
			0.00	0.00
			0.00	0.00
			0.00	0.00
			0.00	0.00
			0.00	0.00
			0.00	0.00
			0.00	0.00
			0.00	0.00
			0.00	0.00
			0.00	0.00
			0.00	0.00
			0.00	0.00
CALCIUM CHLORIDE 74-77%	25.00 kg		0.00	94.00
			0.00	0.00
			0.00	0.00
			0.00	0.00
			0.00	0.00
			0.00	0.00
			0.00	0.00
			0.00	0.00
			0.00	0.00
			0.00	0.00
			0.00	0.00
			0.00	0.00
			0.00	0.00
			0.00	0.00
			0.00	0.00
			0.00	0.00
			0.00	0.00
			0.00	0.00
			0.00	0.00
			0.00	0.00
			0.00	0.00
SODIUM BICARBONATE - NaHCO3	25.00 kg		0.00	35.00
			0.00	0.00
			0.00	0.00
			0.00	0.00
			0.00	0.00
			0.00	0.00
			0.00	0.00
SODA ASH- SOD.CARBONATE-Na2CO3	25.00 kg		0.00	52.00

Daily Drilling Report

WELL NAME				DATE
COELACANTH-1				08-03-2008
API #	**24 HRS PROG**	**TMD**	**TVD**	**REPT NO**
	(m)	(m)	(m)	1

MUD INVENTORY

ITEM	UNIT	USAGE	Day Cost ($)	ON HAND
			0.00	0.00
			0.00	0.00
			0.00	0.00
BARITE (bulk)	1,000.00 kg		0.00	77.00
			0.00	0.00
CIRCAL 60/16	1,200.00 kg		0.00	9.00
			0.00	0.00
			0.00	0.00
EZ SPOT	55.00 gal		0.00	8.00
			0.00	0.00
			0.00	0.00
			0.00	0.00
			0.00	0.00
			0.00	0.00
CIRCAL Y	1,200.00 kg		0.00	11.00
			0.00	0.00
			0.00	0.00
			0.00	0.00
			0.00	0.00
			0.00	0.00
			0.00	0.00
			0.00	0.00
			0.00	0.00
BARA-DEFOAM WS300	5.00 gal		0.00	3.00
LIME	20.00 kg		0.00	41.00
NO-SULF	17.00 kg		0.00	48.00
PAC L	25.00 kg		0.00	40.00
			0.00	0.00
			0.00	0.00
			0.00	0.00

APACHE CORPORATION

Daily Drilling Report

WELL NAME				DATE
COELACANTH-1				09-03-2008
API #	**24 HRS PROG**	**TMD**	**TVD**	**REPT NO**
	(m)	127.50 (m)	127.50 (m)	2

RIG NAME NO	FIELD NAME	AUTH TMD	PLANNED DOW	DOL	DFS / KO	WATER DEPTH
WEST TRITON			15.92 (days)	1.33 (days)	(days)	90.00 (m)

SPUD DATE	Rig Release	WELL SUPERVISOR	OIM	PBTMD
08-03-2008		RICHARD READINGS / S SCHMIDT/P SHEENAN	MICHAEL BARRY	

REGION	DISTRICT	STATE / PROV		RIG PHONE NO	RIG FAX NO
AUSTRALIA	OFFSHORE	VICTORIA			

AFE # 1008E50	AFE COSTS	DAILY COSTS	CUMULATIVE COSTS
DESCRIPTION:	DHC: 12,691,688	DHC: 643,640	DHC: 1,064,669
	DCC:	DCC:	DCC:
	CWC:	CWC:	CWC:
	Others:	Others:	Others:
	TOTAL: 12,691,688	TOTAL: 643,640	TOTAL: 1,064,669

DEFAULT DATUM / ELEVATION	LAST SAFETY MEETING	BLOCK	FORMATION	BHA HRS OF SERVICE
ROTARY TABLE / 38.00 (m)		Vic-P45		

LAST SURVEY	LAST CSG SHOE TEST (EMW)	LAST CASING	NEXT CASING
MD 38.00 (m) **INC** 0.00° **AZM** 0.00°	(sg)		

CURRENT OPERATIONS: Continuing rigging up, preparing Hi/vis, off laoding bulks and cargo from boat.

24 HR SUMMARY: Move onto location , position rig and conduct pre load test. skidding out cantilever.

24 HR FORECAST: Position cantilever, installed CTU and work platform to Texas deck and make Texas deck ready for drilling, make up BHA and prepare to spud well.

OPERATION SUMMARY

From	To	HRS	Phase	Operation	PT/NPT	NPT CODES	ACTIVITY SUMMARY
0:00	8:30	8.50	R-MOB-DEM OB	MOB	PP		Under tow to location Coelacanth-1. Commence run in to Coelacanth-1 at 02.30hrs. Pacific Battler released from tow bridle at 02.55 hrs and attached to port aft tow point at 04.40 hrs. Pin legs at 08.20 hrs.
8:30	9:30	1.00	R-MOB-DEM OB	MOB	PP		Jack hull up to zero draft . Change over from sea chests to deepwell pumps.
9:30	10:00	0.50	R-MOB-DEM OB	MOB	PP		Jack up to 3.5 ft air gap. Bow leg 116.5 m. Stb leg 116.5 m. Port leg 115 m. Initial penetrations Bow 2.4 m. Stb 2.4 m. Port 1.9 m
10:00	18:30	8.50	R-MOB-DEM OB	MOB	PP		Commenced 100% preloading . Release Pacific Battler from port aft at 10.15 hrs and attach to main tow bridle at 11.25 hrs.
18:30	20:30	2.00	R-MOB-DEM OB	MOB	PP		Preloading completed, held for 2 hrs. Rig crew activities. installed hydraulic cylinders to link tilt bails and test, tested okay. Assist weatherford to install stabmaster. Function test weartherford stabmaster grabber, tested okay
20:30	21:00	0.50	R-MOB-DEM OB	MOB	PP		Dumped pre load. Final leg penetration Bow 2.4 meters Stbd 1.9 meters Port 2.4 meters Hold pre job safety meeting prior to commencing jacking operations.
21:00	22:00	1.00	R-MOB-DEM OB	MOB	PP		Commenced jacking oprations, jacked down to zero air gap, set RFD readings, jacked up to air gap of 14.6 meters.
22:00	22:30	0.50	R-MOB-DEM OB	MOB	PP		Hold JSA with crew before commencing skidding out cantilever to drilling position.
22:30	0:00	1.50	R-MOB-DEM OB	MOB	PP		Skidded out cantilever to drilling position.

24.00 = Total Hours Today

Daily Drilling Report

WELL NAME				DATE
COELACANTH-1				09-03-2008
API #	**24 HRS PROG**	**TMD**	**TVD**	**REPT NO**
	(m)	127.50 (m)	127.50 (m)	2

06:00 UPDATE

0000-0600 00:00 - 02:00 - Continued to skid cantilever out, Lowered Texas deck, instaled gumbo shaker overboard line, connected service lines.
02:00 - 06:00 - Installed stairs to Texas deck, continued to hook up service lines. Installed CTU and work platform.
Preparing hi-vis mud.

00:00 TO 24:00 Hrs ON 09 Mar 2008
Operational Comments: Provisional rig location details Latitude 38deg 42"49.7"S
Longitude 148deg 18'7"E
Heading 102.80 deg
Distance from proposed location .65 m bearing 61 deg

PERSONNEL DATA

COMPANY	QTY	HRS	COMPANY	QTY	HRS
SEA DRILL	13		SEA DRILL SERVICES	41	
DRIL-QUIP	2		ADA	4	
APACHE	2		TAMBORITHA	2	
FUGRO	2		HALIBURTON (BROID)	2	
WEATHERFORD	4		HALIBURTON	2	
TOTAL MARINE CATERING	9		BHI	1	

TOTAL PERSONNEL ON BOARD: 84

SUPPORT CRAFT

TYPE	REMARKS
HELICOPTER	

MATERIALS/CONSUMPTION

ITEM	UNITS	USAGE	ON HAND	ITEM	UNITS	USAGE	ON HAND
BARITE BULK	MT		76	BENTONITE	MT		21
CEMENT	MT		94	FUEL OIL	m3		295
WATER, POTABLE	MT	36	106	WATER, DRILLING	MT	43	137

WEATHER

TIME	SWELL HT/DIR/PER	WAVE HT/DIR/PER	WIND SPEED/DIR	GUST SPEED/DIR	TEMP
00:00	0.20/ /15	/ /	/	/90.00	

Daily Drilling Report

WELL NAME				DATE
COELACANTH-1				09-03-2008
API #	**24 HRS PROG**	**TMD**	**TVD**	**REPT NO**
	(m)	127.50 (m)	127.50 (m)	2

MUD INVENTORY

ITEM	UNIT	USAGE	Day Cost ($)	ON HAND
STEELSEAL FINE	25.00 kg		0.00	60.00
SODIUM BICARBONATE - NaHCO3	25.00 kg		0.00	35.00
BENTONITE	1,000.00 kg		0.00	20.80
BARITE (bulk)	1,000.00 kg		0.00	77.00
POTASSIUM HYDROXIDE	25.00 kg		0.00	87.00
NO-SULF	17.00 kg		0.00	48.00
POTASH - POT. CHLORIDE - KCl	1,000.00 kg		0.00	4.00
CITRIC ACID	25.00 kg		0.00	38.00
CALCIUM CHLORIDE 74-77%	25.00 kg		0.00	94.00
BARA-DEFOAM WS300	5.00 gal		0.00	3.00
LIME	20.00 kg		0.00	41.00
NEW DRIL HT PLUS	50.00 lbs		0.00	90.00
PAC L	25.00 kg		0.00	40.00
		3.00	3,750.00	-3.00
BAROFIBRE (FINE)	25.00 lbs		0.00	50.00
ALDACIDE G	25.00 l		0.00	11.00
BARABLOK	50.00 lbs		0.00	30.00
BARAZAN D PLUS	25.00 kg		0.00	29.00
EZ MUD	25.00 kg		0.00	13.00
OMYACARB 5	25.00 kg		0.00	48.00
SODA ASH- SOD.CARBONATE-Na2CO3	25.00 kg		0.00	52.00
CIRCAL 60/16	1,200.00 kg		0.00	9.00
CIRCAL Y	1,200.00 kg		0.00	11.00
CLAYSEAL PLUS	216.00 kg		0.00	8.00
EZ SPOT	55.00 gal		0.00	8.00
		3.00	3,750.00	-3.00
CAUSTIC SODA - NaOH	25.00 kg		0.00	98.00
KWIKSEAL (F)	40.00 lbs		0.00	39.00
GUAR GUM	25.00 kg		0.00	4.00

APACHE CORPORATION

Daily Drilling Report

WELL NAME				DATE
COELACANTH-1				10-03-2008
API #	**24 HRS PROG**	**TMD**	**TVD**	**REPT NO**
	151.50 (m)	279.00 (m)	279.00 (m)	3

RIG NAME NO	FIELD NAME	AUTH TMD	PLANNED DOW	DOL	DFS / KO	WATER DEPTH
WEST TRITON			15.92 (days)	2.33 (days)	0.46 (days)	90.00 (m)

SPUD DATE	Rig Release	WELL SUPERVISOR	OIM	PBTMD
08-03-2008		RICHARD READINGS / S SCHMIDT/P SHEENAN	MICHAEL BARRY	

REGION	DISTRICT	STATE / PROV		RIG PHONE NO	RIG FAX NO
AUSTRALIA	OFFSHORE	VICTORIA			

AFE # 1008E50	AFE COSTS	DAILY COSTS	CUMULATIVE COSTS
DESCRIPTION:	DHC: 12,691,688	DHC: 899,706	DHC: 1,964,375
	DCC:	DCC:	DCC:
	CWC:	CWC:	CWC:
	Others:	Others:	Others:
	TOTAL: 12,691,688	TOTAL: 899,706	TOTAL: 1,964,375

DEFAULT DATUM / ELEVATION	LAST SAFETY MEETING	BLOCK	FORMATION	BHA HRS OF SERVICE
ROTARY TABLE / 38.00 (m)		Vic-P45		

LAST SURVEY	LAST CSG SHOE TEST (EMW)	LAST CASING	NEXT CASING
MD 263.67 (m) **INC** 0.15° **AZM** 47.87°	(sg)	508.000 mm @ 274.0 m	311.000 mm @ 907.0 m

CURRENT OPERATIONS: Make up well head to 20" casing, install wear bushing into well head.

24 HR SUMMARY: Prepare rig for spud at end of rig move. Pick up 26" BHA, RIH, tag seabed at 127.5m, drill 26" hole to 279m. Pump 200bbl sweep, make wiper trip and spot 200bbl Bentonite mud. POOH, rig up and run 20" casing.

24 HR FORECAST: Land out 20" casing on CTU, run inner string. Cement 20" casing, POOH with inner string. Rig up & run BOP's, pressure test BOP's.

OPERATION SUMMARY

From	To	HRS	Phase	Operation	PT/NPT	NPT CODES	ACTIVITY SUMMARY
0:00	2:00	2.00	R-MOB-DEM OB	MOB	PP		Continued to skid cantilever out, Lowered Texas deck, installed gumbo shaker overboard line, connected service lines.
2:00	6:00	4.00	R-MOB-DEM OB	MOB	PP		Installed stairs to Texas deck, continued to hook up service lines. Installed CTU and work platform. Preparing hi-vis mud.
6:00	7:00	1.00	R-MOB-DEM OB	RIGSER	PP		Lay out BOP slings, install elevators, run stand of DP to check alignment, installed mousehole.
7:00	8:30	1.50	C-DRL	BHA	PP		Picked up stnd 9 1/2" DC's from derrick, change bit to 26", check float, install XO, run stand 8 1/4"DC's from derrick to 60m
8:30	10:00	1.50	C-DRL	BHA	PN	DW	Change encoder on D/works. (Pressure test mud lines to 3000psi)
10:00	12:00	2.00	C-DRL	TRIPBIT	PP		Continued RIH 8 1/4" DC's & HWDP, lay out 1 DP, picked up 1 8 1/4" DC to 117m.
12:00	12:30	0.50	C-DRL	SFTY	PP		Pre-spud meeting with crew. Tagged seabed at 127.5m
12:30	13:00	0.50	C-DRL	ROVDIV	PP		Jumped ROV to check seabed, observed tagged seabed with ROV at RT/Seabed 127.50m.
13:00	17:00	4.00	C-DRL	DRLG	PP		Drill 26" hole from 127.5m to 279m.
17:00	17:30	0.50	C-DRL	CIRC	PP		Displaced hole with 200bbls 1.15sg mud at 279m
17:30	18:30	1.00	C-DRL	STRIP	PP		POOH to 128m and work tight spot @ 128m with 10-20 overpull.
18:30	19:00	0.50	C-DRL	STRIP	PP		RIH from 128m to 279m.
19:00	19:30	0.50	C-DRL	CIRC	PP		Displaced hole with 200bbls 1.15sg mud at 279m.
19:30	22:00	2.50	C-DRL	TRIPBIT	PP		POOH to surface.
22:00	22:30	0.50	C-CSG	RIGSER	PP		M/up TIW & side entry sub on 5 1/2" pipe and rack back same.
22:30	23:00	0.50	C-CSG	SFTY	PP		Hold JSA for ruinning casing.
23:00	0:00	1.00	C-CSG	CSGRP	PP		P/up 13 3/8" shoe & collar& test. P/up X/O 13 3/8" x 20", Baker lock joint.

24.00 = Total Hours Today

06:00 UPDATE

0000-0600 00:00 - 06:00 - Continued to make up 13 3/8" shoe track, changed over to 20" casing handling equipment, continued RIH with 20" casing to 240m.

BIT DATA

BIT / RUN	SIZE (mm)	MANUFACTURER	TYPE	SERIAL NO	JETS OR TFA	DEPTH IN / DATE IN	I-O-D-L-B-G-O-R
1RR / 1	660.0	SMITH	XR+C	MZ176	4x18	127.50 / 10-03-2008	1-1-WT-A-E-I-NO-TD

APACHE CORPORATION

Daily Drilling Report

WELL NAME				DATE
COELACANTH-1				10-03-2008
API #	**24 HRS PROG**	**TMD**	**TVD**	**REPT NO**
	151.50 (m)	279.00 (m)	279.00 (m)	3

BIT OPERATIONS

BIT / RUN	WOB	RPM	FLOW	PRESS	P BIT	HRS	24 Hr PROG	24 HR ROP	CUM HRS	CUM PROG	CUM ROP
1RR/1	1/4	60/80	4,542.49	17,650	8109	4.50	151.50	33.7	4.50	151.50	33.7

MOTOR OUTPUT

RPG: | ROTARY CURRENT: 80 | TOTAL RPM: 150

LCM: | MUD TYPE:

MUD PROPERTIES

VIS (s/l)	PV/YP (cp) / (Pa)	GELS (Pa)	WL/HTHP (ml/30 min)	FC/T.SOL (mm) / (%)	OIL/WAT (%)	% SAND/MBT (%)/(sg)	pH/Pm (mL)	Pf/Mf (mL)	Cl (ppm)	Ca (ppm)	H2S (%)	KCL (ppm)	LGS (%)

PP		DAILY COST	9681	CUM COST	9681	%OIL	

BHA / HOLE CONDITIONS

BHA	1	JAR S/N		JAR HRS		BIT	1RR

BHA WT BELOW JARS	STRING WT UP	STRING WT DN	STRING WT ROT	TORQUE/UNITS	BHA LENGTH
(tonne)	(tonne)	(tonne)	(tonne)	(kN-m)	144.45 (m)

ITEM DESCRIPTION	NO JTS	LENGTH	O.D	I.D	CONN SIZE	CONN TYPE
Heavy Weight Drill Pipe	6	56.41	139.70	82.55		
Crossover	1	1.22	206.50	69.85		
Drill Collar	6	55.69	209.55	69.85		
Crossover	1	1.22	212.85	76.20		
Drill Collar	3	28.02	241.30	76.20		
Bit Sub	1	1.23	241.30	76.20		
Tri-Cone Bit	1	0.66				

MUD PUMPS/HYDRAULICS

	STROKE	SPM	LINER	FLOW
# 1				
# 2				
# 3				

SPP: 17,650 (kPa)

HP: 0.180 (kW/cm²)

SPR

	SPM	PPSR

PERSONNEL DATA

COMPANY	QTY	HRS	COMPANY	QTY	HRS
ADA	5		SCHLUMBERGER MWD/LWD	2	
TOTAL MARINE CATERING	9		FUGRO	2	
APACHE	2		DRIL-QUIP	2	
TAMBORITHA	2		BHI	3	
HALIBURTON (BROID)	2		SEA DRILL SERVICES	37	
SEA DRILL	13		WEATHERFORD	4	
HALIBURTON	4				

TOTAL PERSONNEL ON BOARD: 87

SUPPORT CRAFT

TYPE	REMARKS
HELICOPTER	

MATERIALS/CONSUMPTION

ITEM	UNITS	USAGE	ON HAND	ITEM	UNITS	USAGE	ON HAND
BARITE BULK	MT		151	BENTONITE	MT		49
CEMENT	MT		176	FUEL OIL	m3		290
WATER, POTABLE	MT	26	280	WATER, DRILLING	MT	295	188

APACHE CORPORATION

Daily Drilling Report

WELL NAME				DATE
COELACANTH-1				10-03-2008
API #	**24 HRS PROG**	**TMD**	**TVD**	**REPT NO**
	151.50 (m)	279.00 (m)	279.00 (m)	3

WEATHER

TIME	SWELL HT/DIR/PER	WAVE HT/DIR/PER	WIND SPEED/DIR	GUST SPEED/DIR	TEMP
00:00	0.20/ /15	/ /	/	/90.00	

MUD INVENTORY

ITEM	UNIT	USAGE	Day Cost ($)	ON HAND
BAROFIBRE (FINE)	25.00 lbs		0.00	50.00
POTASH - POT. CHLORIDE - KCl	1.00 MT	1.00	441.46	0.00
CALCIUM CHLORIDE 74-77%	25.00 kg		0.00	94.00
BARITE (bulk)	1,000.00 kg		0.00	152.00
NO-SULF	17.00 kg		0.00	48.00
BARA-DEFOAM WS300	5.00 gal		0.00	3.00
POTASSIUM HYDROXIDE	25.00 kg	3.00	134.94	84.00
PAC L	25.00 kg		0.00	40.00
GUAR GUM	25.00 kg	24.00	2,316.24	100.00
CAUSTIC SODA - NaOH	25.00 kg		0.00	98.00
		1.00	1,250.00	-4.00
EZ MUD	25.00 kg		0.00	13.00
SODA ASH- SOD.CARBONATE-Na2CO3	25.00 kg	3.00	39.75	49.00
POTASH - POT. CHLORIDE - KCl	1,000.00 kg		0.00	4.00
		1.00	1,250.00	-4.00
OMYACARB 5	25.00 kg		0.00	48.00
ALDACIDE G	25.00 l		0.00	11.00
CIRCAL Y	1,200.00 kg		0.00	11.00
BARABLOK	50.00 lbs		0.00	30.00
CIRCAL 60/16	1,200.00 kg		0.00	9.00
SODIUM BICARBONATE - NaHCO3	25.00 kg		0.00	35.00
STEELSEAL FINE	25.00 kg		0.00	60.00
BENTONITE	1,000.00 kg	12.00	6,748.32	48.80
LIME	20.00 kg		0.00	41.00
NEW DRIL HT PLUS	50.00 lbs		0.00	90.00
CITRIC ACID	25.00 kg		0.00	38.00
CLAYSEAL PLUS	216.00 kg		0.00	8.00
KWIKSEAL (F)	40.00 lbs		0.00	39.00
BARAZAN D PLUS	25.00 kg		0.00	29.00
EZ SPOT	55.00 gal		0.00	8.00

APACHE CORPORATION

Daily Drilling Report

WELL NAME				DATE
COELACANTH-1				11-03-2008
API #	**24 HRS PROG**	**TMD**	**TVD**	**REPT NO**
	0.00 (m)	279.00 (m)	279.00 (m)	4

RIG NAME NO	FIELD NAME	AUTH TMD	PLANNED DOW	DOL	DFS / KO	WATER DEPTH
WEST TRITON			15.92 (days)	3.33 (days)	1.46 (days)	90.00 (m)

SPUD DATE	Rig Release	WELL SUPERVISOR	OIM	PBTMD
08-03-2008		RICHARD READINGS / S SCHMIDT/P SHEENAN	MICHAEL BARRY	

REGION	DISTRICT	STATE / PROV		RIG PHONE NO	RIG FAX NO
AUSTRALIA	OFFSHORE	VICTORIA			

AFE # 1008E50	AFE COSTS	DAILY COSTS	CUMULATIVE COSTS
DESCRIPTION:	DHC: 12,691,688	DHC: 871,375	DHC: 2,835,750
	DCC:	DCC:	DCC:
	CWC:	CWC:	CWC:
	Others:	Others:	Others:
	TOTAL: 12,691,688	TOTAL: 871,375	TOTAL: 2,835,750

DEFAULT DATUM / ELEVATION	LAST SAFETY MEETING	BLOCK	FORMATION	BHA HRS OF SERVICE
ROTARY TABLE / 38.00 (m)		Vic-P45		

LAST SURVEY	LAST CSG SHOE TEST (EMW)	LAST CASING	NEXT CASING
MD 38.00 (m) **INC** 0.00° **AZM** 0.00°	(sg)	508.000 mm @ 274.0 m	311.000 mm @ 907.0 m

CURRENT OPERATIONS: Troubleshooting leaking test tool to test BOP

24 HR SUMMARY: Run 13 3/8" / 20" Casing, land in CTU, run stinger and cement casing. Lay down stinger, install BOP and rig up to test same.

24 HR FORECAST: Complete BOP test, pick up BHA and RIH to drill 12 1/4"

OPERATION SUMMARY

From	To	HRS	Phase	Operation	PT/NPT	NPT CODES	ACTIVITY SUMMARY
0:00	6:00	6.00	C-CSG	CSGRP	PP		Continued to make up 13 3/8" shoe track, changed over to 20" casing handling equipment, continued RIH with 20" casing to 240m.
6:00	8:00	2.00	C-CSG	CSGRP	PP		Change elevators, P/up W/head X/O Assy, pick up 1 stand D/pipe and wash down to 275m. Land out on CTU.
8:00	9:00	1.00	C-CSG	CSGRP	PP		Pressure up CTU, back out landing Jnt, install W/bushing and lay out running tools.
9:00	10:30	1.50	C-CMT	CMTPRI	PP		Lay out single DP, make up stinger & X/over, RIH same on 5 1/2" DP. Sting into float collar.
10:30	11:00	0.50	C-CMT	CMTPRI	PP		Break circulation, pump 80bbl seawater, hook up cement lines
11:00	12:30	1.50	C-CMT	CMTPRI	PP		Hold JSA, pump 5bbl seawater, test lines to 1000psi, pump 15bbl seawater, perform cement job as per programme, unsting stinger & check for backflow - OK
12:30	13:00	0.50	C-CMT	CMTPRI	PP		Rig down surface lines, rack 1 stand back in derrick. Drop drillpipe wiper ball and circulate 2 string volumes.
13:00	13:30	0.50	C-CMT	CMTPRI	PP		POOH wtih stinger and lay down same.
13:30	16:00	2.50	S-NUP	RIGSER	PP		Move one side work platform at Texas deck and install wing valve.
16:00	21:00	5.00	S-NUP	BOPS	PP		Niipple up BOP, hook up choke line.
21:00	22:30	1.50	S-NUP	BOPS	PP		Re-install T-piece at TD gooseneck with new o-ring & install slip joint.
23:00	23:00	0.00	S-NUP	BOPS	PP		Fill BOP with seawater
23:00	0:00	1.00	S-NUP	BOPS	PP		M/up BOP test plug assy.

23.50 = Total Hours Today

06:00 UPDATE

0000-0600

00:00 - 00:03 - POOH test assy to remove diverter bag
00:30 - 01:00 - Lay out 20" cement pumping assy from stand in derrick.
01:00 - 02:00 - Flush lines, attempt test BOP's, unable to get BOP test - flow past test tool. Start to commission W/ford Stabmaster.
02:00 - 03:00 - POOH test tool, check o-ring, RIH test plug. Attempt to test - no success
03:00 - 04:00 - POOH test tool, change out to back-up tool and RIH same.
04:00 - 05:00 - Attempt BOP test - no success. Leak past test tool. POOH tool and rack back.
05:00 - 06:00 - Decide to run TIW valve below test tool to check potential leak from within BOP to inside of D/pipe. M/up TIW on DP below test tool.

Daily Drilling Report

WELL NAME				DATE
COELACANTH-1				11-03-2008
API #	**24 HRS PROG**	**TMD**	**TVD**	**REPT NO**
	0.00 (m)	279.00 (m)	279.00 (m)	4

PERSONNEL DATA

COMPANY	QTY	HRS	COMPANY	QTY	HRS
SEA DRILL	13		SEA DRILL SERVICES	38	
ADA	4		BAKER HUGHS	1	
HALIBURTON	4		FUGRO	2	
BHI	3		APACHE	2	
DRIL-QUIP	2		TOTAL MARINE CATERING	9	
WEATHERFORD	4		HALIBURTON (BROID)	2	
TAMBORITHA	2				

TOTAL PERSONNEL ON BOARD: 86

SUPPORT CRAFT

TYPE	REMARKS
HELICOPTER	

MATERIALS/CONSUMPTION

ITEM	UNITS	USAGE	ON HAND	ITEM	UNITS	USAGE	ON HAND
BARITE BULK	MT		151	BENTONITE	MT		41
CEMENT	MT	33	143	FUEL OIL	m3	7	283
WATER, POTABLE	MT	22	268	WATER, DRILLING	MT		501

WEATHER

TIME	SWELL HT/DIR/PER	WAVE HT/DIR/PER	WIND SPEED/DIR	GUST SPEED/DIR	TEMP
00:00	0.20/ /15	/ /	/	/90.00	

Daily Drilling Report

WELL NAME				DATE
COELACANTH-1				11-03-2008
API #	**24 HRS PROG**	**TMD**	**TVD**	**REPT NO**
	0.00 (m)	279.00 (m)	279.00 (m)	4

MUD INVENTORY

ITEM	UNIT	USAGE	Day Cost ($)	ON HAND
GUAR GUM	25.00 kg		0.00	100.00
LIME	20.00 kg		0.00	41.00
CAUSTIC SODA - NaOH	25.00 kg		0.00	98.00
PAC L	25.00 kg		0.00	40.00
NEW DRIL HT PLUS	50.00 lbs		0.00	90.00
BARA-DEFOAM WS300	5.00 gal		0.00	3.00
POTASH - POT. CHLORIDE - KCl	1,000.00 kg		0.00	4.00
BARITE (bulk)	1,000.00 kg		0.00	152.00
EZ SPOT	55.00 gal		0.00	8.00
POTASH - POT. CHLORIDE - KCl	1.00 MT		0.00	0.00
BARAZAN D PLUS	25.00 kg		0.00	29.00
EZ MUD	25.00 kg		0.00	13.00
CLAYSEAL PLUS	216.00 kg		0.00	8.00
POTASSIUM HYDROXIDE	25.00 kg	1.00	44.98	83.00
BAROFIBRE (FINE)	25.00 lbs		0.00	50.00
BENTONITE	1,000.00 kg	7.30	3,612.62	41.50
BARABLOK	50.00 lbs		0.00	30.00
SODIUM BICARBONATE - NaHCO3	25.00 kg		0.00	35.00
STEELSEAL FINE	25.00 kg		0.00	60.00
KWIKSEAL (F)	40.00 lbs		0.00	39.00
OMYACARB 5	25.00 kg		0.00	48.00
		1.00	1,250.00	-5.00
ALDACIDE G	25.00 l		0.00	11.00
SODA ASH- SOD.CARBONATE-Na2CO3	25.00 kg	1.00	13.25	48.00
CITRIC ACID	25.00 kg		0.00	38.00
CIRCAL Y	1,200.00 kg		0.00	11.00
CIRCAL 60/16	1,200.00 kg		0.00	9.00
NO-SULF	17.00 kg		0.00	48.00
CALCIUM CHLORIDE 74-77%	25.00 kg		0.00	94.00
		1.00	1,250.00	-5.00

APACHE CORPORATION

Daily Drilling Report

WELL NAME				DATE
COELACANTH-1				12-03-2008
API #	**24 HRS PROG**	**TMD**	**TVD**	**REPT NO**
	0.00 (m)	279.00 (m)	279.00 (m)	5

RIG NAME NO	FIELD NAME	AUTH TMD	PLANNED DOW	DOL	DFS / KO	WATER DEPTH
WEST TRITON			15.92 (days)	4.33 (days)	2.46 (days)	90.00 (m)

SPUD DATE	Rig Release	WELL SUPERVISOR	OIM	PBTMD
08-03-2008		RICHARD READINGS / S SCHMIDT/P SHEENAN	MICHAEL BARRY	

REGION	DISTRICT	STATE / PROV		RIG PHONE NO	RIG FAX NO
AUSTRALIA	OFFSHORE	VICTORIA			

AFE # 1008E50	AFE COSTS	DAILY COSTS	CUMULATIVE COSTS
DESCRIPTION:	DHC: 12,691,688	DHC: 669,740	DHC: 3,505,490
	DCC:	DCC:	DCC:
	CWC:	CWC:	CWC:
	Others:	Others:	Others:
	TOTAL: 12,691,688	TOTAL: 669,740	TOTAL: 3,505,490

DEFAULT DATUM / ELEVATION	LAST SAFETY MEETING	BLOCK	FORMATION	BHA HRS OF SERVICE
ROTARY TABLE / 38.00 (m)		Vic-P45		

LAST SURVEY				LAST CSG SHOE TEST (EMW)	LAST CASING	NEXT CASING
MD	38.00 (m)	**INC** 0.00°	**AZM** 0.00°	(sg)	508.000 mm @ 274.0 m	311.000 mm @ 907.0 m

CURRENT OPERATIONS: Drilling ahead at 540m

24 HR SUMMARY: Troubleshoot problems to test BOP, continue to test BOP. Shock in string during BOP test, POOH to check - pipe parted below test plug. Rig up fishing tools, RIH w/same and fish out 2 stands HWDP. Set W/bushing and diverter packer and make up 12 1/4" BHA.

24 HR FORECAST: Drill ahead 12 1/4" hole to final TD of +/- 900m

OPERATION SUMMARY

From	To	HRS	Phase	Operation	PT/NPT	NPT CODES	ACTIVITY SUMMARY
0:00	0:30	0.50	C-NUP	BOPS	PP		POOH test assy to remove diverter bag
0:30	1:00	0.50	C-NUP	BOPS	PP		Lay out 20" cement pumping assy from stand in derrick.
1:00	2:00	1.00	C-NUP	BOPS	PN	SO	Flush lines, attempt test BOP's, unable to get BOP test - flow past test tool. Start to commission W/ford Stabmaster
2:00	3:00	1.00	C-NUP	BOPS	PN	SO	POOH test tool, check o-ring, RIH test plug. Attempt to test - no success
3:00	4:00	1.00	C-NUP	BOPS	PN	SO	POOH test tool, change out to back-up tool and RIH same.
4:00	5:00	1.00	C-NUP	BOPS	PN	SO	Attempt BOP test - no success. Leak past test tool. POOH tool and rack back.
5:00	6:00	1.00	C-NUP	BOPS	PN	SO	Decide to run TIW valve below test tool to check potential leak from within BOP to inside of D/pipe. M/up TIW on DP below test tool.
6:00	7:00	1.00	C-NUP	BOPS	PP		Discover main reason for unsuccessful BOP test. Make up test assy, RIH same & flush lines.
7:00	10:00	3.00	C-NUP	BOPS	PP		Test BOP, high pressure test on middle pipe rams - leaking 20psi/min. Leak on Cmt manifold valve. Reroute test through Cmt hose - hose connection leaking, leak on Cmtr's line at unit. Change lines. Test MPR's, UPR's and annular to 200/2500 psi 10/10 mins OK
10:00	11:00	1.00	C-NUP	BOPS	PN	SO	Shock in string during BOP test, pull to surface to check. Tool parted at ACME thread below test tool.
11:00	13:00	2.00	C-NUP	BOPS	PN	SO	Prepare and make up fishing tools assy. (commission casing stabber)
13:00	16:00	3.00	C-NUP	BOPS	PN	SO	RIH with fishing assy and tag top of fish at 214.7m. Rotate slowly to engage on fish. Swallow in to .66m. POOH w/fish to surface. Rack back fishing assy.
16:00	16:30	0.50	C-NUP	BOPS	PP		Line up and pressure test CSG against shear rams to 1100psi for 10min OK.
16:30	17:30	1.00	C-NUP	BOPS	PN	SO	Lay down 3 Jnts bent HWDP.
17:30	18:30	1.00	C-NUP	BOPS	PN	SO	B/out fishing tools and L/down 3 Jnts HWDP.
18:30	21:00	2.50	C-NUP	WLHEAD	PP		M/up R/tools with 2 stands HWDP below tool and set W/bushing at second attempt.
21:00	21:30	0.50	C-NUP	BOPS	PP		Install diverter packer.
21:30	0:00	2.50	S-DRL	BHA	PP		P/up and make up 12 1/4" BHA as per programme and RIH to 83m.

24.00 = Total Hours Today

06:00 UPDATE

0000-0600

00:00 - 02:00 - Continue make up 12 1/4" BHA from 83m and RIH to float at 274m. Callibrate MWD tools

02:00 - 03:00 - Drill float and shoe and drill cement to 279m. Pump carbide pill around and obtain good gas readings with logging unit sensor.

03:00 - 06:00 - Drill 12 1/4" hole from 279m to 540m

APACHE CORPORATION

Daily Drilling Report

WELL NAME				DATE
COELACANTH-1				12-03-2008
API #	**24 HRS PROG**	**TMD**	**TVD**	**REPT NO**
	0.00 (m)	279.00 (m)	279.00 (m)	5

MUD PUMPS/HYDRAULICS

	STROKE	SPM	LINER	FLOW
# 1				
# 2				
# 3				

SPP:

HP: 0.000 (kW/cm²)

SPR

	SPM	PPSR

PERSONNEL DATA

COMPANY	QTY	HRS	COMPANY	QTY	HRS
HALIBURTON (BROID)	2		FUGRO	2	
APACHE	2		SEA DRILL SERVICES	38	
TAMBORITHA	2		HALIBURTON	4	
BAKER HUGHS	1		SEA DRILL	13	
TOTAL MARINE CATERING	9		DRIL-QUIP	2	
ADA	4		BHI	3	
WEATHERFORD	4				

TOTAL PERSONNEL ON BOARD: 86

SUPPORT CRAFT

TYPE	REMARKS
HELICOPTER	

MATERIALS/CONSUMPTION

ITEM	UNITS	USAGE	ON HAND	ITEM	UNITS	USAGE	ON HAND
BARITE BULK	MT		151	BENTONITE	MT		41
CEMENT	MT		143	FUEL OIL	m3		290
WATER, POTABLE	MT	25	253	WATER, DRILLING	MT		525

WEATHER

TIME	SWELL HT/DIR/PER	WAVE HT/DIR/PER	WIND SPEED/DIR	GUST SPEED/DIR	TEMP
00:00	0.20/ /15	/ /	/	/90.00	

Daily Drilling Report

WELL NAME				DATE
COELACANTH-1				12-03-2008
API #	**24 HRS PROG**	**TMD**	**TVD**	**REPT NO**
	0.00 (m)	279.00 (m)	279.00 (m)	5

MUD INVENTORY

ITEM	UNIT	USAGE	Day Cost ($)	ON HAND
CAUSTIC SODA - NaOH	25.00 kg		0.00	98.00
CIRCAL 60/16	1,200.00 kg		0.00	9.00
POTASH - POT. CHLORIDE - KCl	1.00 MT		0.00	0.00
ALDACIDE G	25.00 l		0.00	11.00
NEW DRIL HT PLUS	50.00 lbs		0.00	90.00
EZ MUD	25.00 kg		0.00	13.00
PAC L	25.00 kg		0.00	40.00
BARITE (bulk)	1,000.00 kg		0.00	152.00
BAROFIBRE (FINE)	25.00 lbs		0.00	50.00
POTASH - POT. CHLORIDE - KCl	1,000.00 kg		0.00	4.00
STEELSEAL FINE	25.00 kg		0.00	60.00
BARABLOK	50.00 lbs		0.00	30.00
BENTONITE	1,000.00 kg		0.00	41.50
BARAZAN D PLUS	25.00 kg		0.00	29.00
BARA-DEFOAM WS300	5.00 gal		0.00	3.00
CIRCAL Y	1,200.00 kg		0.00	11.00
		1.00	1,250.00	-6.00
LIME	20.00 kg		0.00	41.00
CLAYSEAL PLUS	216.00 kg		0.00	8.00
CALCIUM CHLORIDE 74-77%	25.00 kg		0.00	94.00
OMYACARB 5	25.00 kg		0.00	48.00
EZ SPOT	55.00 gal		0.00	8.00
SODA ASH- SOD.CARBONATE-Na2CO3	25.00 kg		0.00	48.00
GUAR GUM	25.00 kg		0.00	100.00
POTASSIUM HYDROXIDE	25.00 kg		0.00	83.00
KWIKSEAL (F)	40.00 lbs		0.00	39.00
SODIUM BICARBONATE - NaHCO3	25.00 kg		0.00	35.00
NO-SULF	17.00 kg		0.00	48.00
CITRIC ACID	25.00 kg		0.00	38.00
		1.00	1,250.00	-6.00

APACHE CORPORATION

Daily Drilling Report

WELL NAME				DATE
COELACANTH-1				13-03-2008
API #	**24 HRS PROG**	**TMD**	**TVD**	**REPT NO**
	628.00 (m)	907.00 (m)	907.00 (m)	6

RIG NAME NO	FIELD NAME	AUTH TMD	PLANNED DOW	DOL	DFS / KO	WATER DEPTH
WEST TRITON			15.92 (days)	5.33 (days)	3.46 (days)	90.00 (m)

SPUD DATE	Rig Release	WELL SUPERVISOR	OIM	PBTMD
08-03-2008		RICHARD READINGS / S SCHMIDT/P SHEENAN	MICHAEL BARRY	

REGION	DISTRICT	STATE / PROV		RIG PHONE NO	RIG FAX NO
AUSTRALIA	OFFSHORE	VICTORIA			

AFE # 1008E50	AFE COSTS	DAILY COSTS	CUMULATIVE COSTS
DESCRIPTION:	DHC: 12,691,688	DHC: 668,533	DHC: 4,174,023
	DCC:	DCC:	DCC:
	CWC:	CWC:	CWC:
	Others:	Others:	Others:
	TOTAL: 12,691,688	TOTAL: 668,533	TOTAL: 4,174,023

DEFAULT DATUM / ELEVATION	LAST SAFETY MEETING	BLOCK	FORMATION	BHA HRS OF SERVICE
ROTARY TABLE / 38.00 (m)		Vic-P45		

LAST SURVEY	LAST CSG SHOE TEST (EMW)	LAST CASING	NEXT CASING
MD 887.36 (m) **INC** 0.25° **AZM** 215.41°	(sg)	244.000 mm @ 902.0 m	

CURRENT OPERATIONS: Waiting on Schlumberger to obtain T-clamp to remove wireline from hole.

24 HR SUMMARY: Continue make up 12 1/4" BHA, RIH w/same, tag float at 274m, drill out float and shoe at 275m and drill cement to 279m. Drill 12 1/4" hole from 279m to 907m, circulate to clean hole and displace hole to 9.6ppg mud. POOH, lay down 12 1/4" BHA. Rig up and r

24 HR FORECAST: Prepare to run 9 5/8" CSG, run CSG in hole and cement same.

OPERATION SUMMARY

From	To	HRS	Phase	Operation	PT/NPT	NPT CODES	ACTIVITY SUMMARY
0:00	2:00	2.00	S-DRL	BHA	PP		Continue make up 12 1/4" BHA from 83m and RIH to float at 274m. Callibrate MWD tools
2:00	3:00	1.00	S-DRL	DRLG	PP		Drill float, shoe and cement to 279m. Pump carbide pill around and obtain good gas readings with logging unit sensor.
3:00	10:00	7.00	S-DRL	DRLG	PP		Drill 12 1/4" hole from 279m to 907m. Pump 25 bbl sweep @ middle of stand, 50 bbl @ end of stand.
10:00	11:00	1.00	S-DRL	CIRC	PP		Pump 150 bbl PHG mud & circulate out same with seawater, 200 SPM 2900 psi
11:00	12:00	1.00	S-DRL	CIRC	PN	SO	Leak on Schlumberger T-piece on standpipe in derrick. Remove rotary hose and change out o-ring
12:00	13:00	1.00	S-DRL	CIRC	PP		Circulate hole clean with seawater & displace hole to 9.6ppg mud.
13:00	13:30	0.50	S-DRL	CIRC	PP		Flowcheck well - static for 15 min. Pump slug
13:30	15:00	1.50	S-DRL	TRIPBIT	PP		POOH from 907m to Csg shoe.
15:00	15:30	0.50	S-DRL	TRIPBIT	PP		Trip drill at shoe - 42 sec. Flowcheck well - static.
15:30	18:30	3.00	S-DRL	TRIPBIT	PP		POOH and lay down BHA. Break out bit.
18:30	20:00	1.50	S-DRL	RIGSER	PP		Clear rig floor and change out elevators for Schlumberger sheeve. Rig up Schlumberger wireline. Hold JSA For wireline ops.
20:00	22:00	2.00	S-DRL	RURDWL	PP		Schlumberger made up PEX-DSI tools, install sources.
22:00	0:00	2.00	S-DRL	LOG	PP		RIH Schlumberger wireline tools and log as per programme.

24.00 = Total Hours Today

06:00 UPDATE

0000-0600 00:00 - 02:30 - RIH with Schlumberger PEX-DSI wireline tools and log as per programme
02:00 - 06:00 - During POOH with Schlumberger wireline tools, the Schlumberger generator tripped out - tool 30m from surface. Troubleshoot problem - find a short back to windings and rig unable to supply power to Schlumberger unit on short notice. Prepare to pull wireline from hole using T-clamp.

BIT DATA

BIT / RUN	SIZE (mm)	MANUFACTURER	TYPE	SERIAL NO	JETS OR TFA	DEPTH IN / DATE IN	I-O-D-L-B-G-O-R
2 / 1	311.0	SMITH	XR+CPS	PF5792	1x20, 3x18	279.00 / 13-03-2008	0-0-NO-A-E-I-NO-TD

APACHE CORPORATION

Daily Drilling Report

WELL NAME				DATE
COELACANTH-1				13-03-2008
API #	**24 HRS PROG**	**TMD**	**TVD**	**REPT NO**
	628.00 (m)	907.00 (m)	907.00 (m)	6

BIT OPERATIONS

BIT / RUN	WOB	RPM	FLOW	PRESS	P BIT	HRS	24 Hr PROG	24 HR ROP	CUM HRS	CUM PROG	CUM ROP
2/1	4/25	80/170	4,400.00	25,550	6789	4.40	628.00	142.7	4.40	628.00	142.7

MOTOR OUTPUT

RPG:	ROTARY CURRENT: 170	TOTAL RPM: 290

MUD PROPERTIES

LCM: | MUD TYPE:

VIS (s/l)	PV/YP (cp) / (Pa)	GELS (Pa)	WL/HTHP (ml/30 min)	FC/T.SOL (mm) / (%)	OIL/WAT (%)	% SAND/MBT (%)/(sg)	pH/Pm (mL)	Pf/Mf (mL)	Cl (ppm)	Ca (ppm)	H2S (%)	KCL (ppm)	LGS (%)

PP		DAILY COST	5791	CUM COST	19,635	%OIL	

BHA / HOLE CONDITIONS

BHA	2	JAR S/N	246700	JAR HRS		BIT	2

BHA WT BELOW JARS	STRING WT UP	STRING WT DN	STRING WT ROT	TORQUE/UNITS	BHA LENGTH
18 (tonne)	75 (tonne)	74 (tonne)	(tonne)	3 (kN-m)	226.52 (m)

ITEM DESCRIPTION	NO JTS	LENGTH	O.D	I.D	CONN SIZE	CONN TYPE
Heavy Weight Drill Pipe	8	75.18	139.70	82.55		
Cross Over	1	1.22	177.80	73.15		
Drilling Jar	1	9.33	165.10	73.15		
Cross Over	1	1.22	177.80	73.15		
Heavy Weight Drill Pipe	6	56.40	139.70	82.55		
Cross Over	1	1.22	209.55	73.15		
Drill Collar	6	56.69	209.55	69.85		
Integral Blade Stabilizer	1	1.60	311.15	73.15		
Cross Over	1	0.47	209.55	107.95		
Saver Sub	1	0.47	209.55			
MWD Tool	1	7.57	209.55			
Saver Sub	1	0.47	209.55			
Logging While Drilling	1	3.87	309.63			
Cross Over	1	0.37	203.20	76.20		
Float Sub	1	0.84	203.20	73.15		
Bent Housing	1	9.26	308.10			
Tri-Cone Bit	1	0.34	311.15			

MUD PUMPS/HYDRAULICS

	STROKE	SPM	LINER	FLOW
# 1				
# 2				
# 3				

SPP: 25,550 (kPa)

HP: 0.656 (kW/cm²)

SPR

	SPM	PPSR

PERSONNEL DATA

COMPANY	QTY	HRS	COMPANY	QTY	HRS
DRIL-QUIP	2		HALIBURTON	4	
TOTAL MARINE CATERING	9		SEA DRILL SERVICES	38	
SEA DRILL	14		WEATHERFORD	7	
TAMBORITHA	2		ADA	4	
APACHE	3		SCHLUMBERGER MWD/LWD	7	
BAKER HUGHS	1		BHI	4	

TOTAL PERSONNEL ON BOARD: 95

APACHE CORPORATION

Daily Drilling Report

WELL NAME				DATE
COELACANTH-1				13-03-2008
API #	**24 HRS PROG**	**TMD**	**TVD**	**REPT NO**
	628.00 (m)	907.00 (m)	907.00 (m)	6

SUPPORT CRAFT

TYPE	REMARKS

MATERIALS/CONSUMPTION

ITEM	UNITS	USAGE	ON HAND	ITEM	UNITS	USAGE	ON HAND
BARITE BULK	MT		151	BENTONITE	MT		41
CEMENT	MT		143	FUEL OIL	m3		275
WATER, POTABLE	MT	35	228	WATER, DRILLING	MT	28	497

WEATHER

TIME	SWELL HT/DIR/PER	WAVE HT/DIR/PER	WIND SPEED/DIR	GUST SPEED/DIR	TEMP
00:00	0.20/ /15	/ /	/	/90.00	

MUD INVENTORY

ITEM	UNIT	USAGE	Day Cost ($)	ON HAND
		1.00	1,250.00	-7.00
BARA-DEFOAM WS300	5.00 gal		0.00	3.00
		1.00	1,250.00	-7.00
ALDACIDE G	25.00 l		0.00	11.00
CAUSTIC SODA - NaOH	25.00 kg		0.00	98.00
CITRIC ACID	25.00 kg		0.00	38.00
GUAR GUM	25.00 kg	60.00	5,095.80	40.00
KWIKSEAL (F)	40.00 lbs		0.00	39.00
CIRCAL 60/16 (BAKER HUGHES)	25.00 kg		0.00	144.00
PAC L	25.00 kg		0.00	320.00
POTASSIUM HYDROXIDE	25.00 kg		0.00	83.00
EZ MUD	25.00 kg		0.00	13.00
POTASH - POT. CHLORIDE - KCl	1,000.00 kg		0.00	33.00
CIRCAL Y	1,200.00 kg		0.00	11.00
SODA ASH- SOD.CARBONATE-Na2CO3	25.00 kg		0.00	48.00
BARAZAN D PLUS	25.00 kg		0.00	191.00
NO-SULF	17.00 kg		0.00	48.00
SODIUM BICARBONATE - NaHCO3	25.00 kg		0.00	35.00
CALCIUM CHLORIDE 74-77%	25.00 kg		0.00	94.00
OMYACARB 5	25.00 kg		0.00	48.00
LIME	20.00 kg		0.00	41.00
BENTONITE	1,000.00 kg		0.00	41.50
NEW DRIL HT PLUS	50.00 lbs		0.00	90.00
BARABLOK	50.00 lbs		0.00	280.00
POTASH - POT. CHLORIDE - KCl	1.00 MT		0.00	0.00
EZ SPOT	55.00 gal		0.00	8.00
CLAYSEAL PLUS	216.00 kg		0.00	60.00
BARITE (bulk)	1,000.00 kg		0.00	152.00
STEELSEAL FINE	25.00 kg		0.00	60.00
BAROFIBRE (FINE)	25.00 lbs		0.00	50.00
CIRCAL 60/16	1,200.00 kg		0.00	9.00

APACHE CORPORATION

Daily Drilling Report

WELL NAME				DATE
COELACANTH-1				14-03-2008
API #	**24 HRS PROG**	**TMD**	**TVD**	**REPT NO**
	0.00 (m)	907.00 (m)	907.00 (m)	7

RIG NAME NO	FIELD NAME	AUTH TMD	PLANNED DOW	DOL	DFS / KO	WATER DEPTH
WEST TRITON			15.92 (days)	6.33 (days)	4.46 (days)	90.00 (m)

SPUD DATE	Rig Release	WELL SUPERVISOR	OIM	PBTMD
08-03-2008		RICHARD READINGS / S SCHMIDT/P SHEENAN	MICHAEL BARRY	

REGION	DISTRICT	STATE / PROV		RIG PHONE NO	RIG FAX NO
AUSTRALIA	OFFSHORE	VICTORIA			

AFE # 1008E50	AFE COSTS	DAILY COSTS	CUMULATIVE COSTS
DESCRIPTION:	DHC: 12,691,688	DHC: 1,142,293	DHC: 5,316,316
	DCC:	DCC:	DCC:
	CWC:	CWC:	CWC:
	Others:	Others:	Others:
	TOTAL: 12,691,688	TOTAL: 1,142,293	TOTAL: 5,316,316

DEFAULT DATUM / ELEVATION	LAST SAFETY MEETING	BLOCK	FORMATION	BHA HRS OF SERVICE
ROTARY TABLE / 38.00 (m)		Vic-P45		

LAST SURVEY	LAST CSG SHOE TEST (EMW)	LAST CASING	NEXT CASING
MD 887.36 (m) **INC** 0.25° **AZM** 215.41°	(sg)	244.000 mm @ 902.0 m	

CURRENT OPERATIONS: Attempting to unscrew running tool from 9 5/8" CSG hanger in W/head. Applying L/hand torque causes landing string CSG to back off at first box coupling at rig floor level.

24 HR SUMMARY: Continue Schlumberger wireline logs, lose power to unit. Troubleshoot problem, retrieve tools from wellbore using T-bar and rig floor tugger. RetrieveW/bushing, run dummy 13 3/8" CSG hanger, rig up and run 9 5/8" CSG and land same in W/head.

24 HR FORECAST: Retrieve 9 5/8" CSG landing string, set seal assy, run W/bushing, pick up new BHA for 8 1/2"hole and RIH same.

OPERATION SUMMARY

From	To	HRS	Phase	Operation	PT/NPT	NPT CODES	ACTIVITY SUMMARY
0:00	2:30	2.50	S-DRL	LOG	PP		RIH with Schlumberger PEX-DSI wireline tools and log as per programme
2:30	6:00	3.50	S-DRL	LOG	PN	WL	During POOH with Schlumberger wireline tools, the Schlumberger generator tripped out - tool 30m from surface. Troubleshoot problem - find a short back to windings and rig unable to supply power to Schlumberger unit on short notice. Prepare to pull wireline from hole using T-bar.
6:00	6:30	0.50	S-DRL	LOG	PN	WL	Install T-Bar on wireline & pull tools to surface with tugger.
6:30	9:30	3.00	S-DRL	LOG	PP		Tools ar surface. remove RA source from tools, lay out toolstring and rig down Schlumberger
9:30	10:30	1.00	S-NUP	WLHEAD	PP		Remove diverter bag, M/up wearbushing retrieveing tool and retrieve W/bushing
10:30	12:00	1.50	S-NUP	WLHEAD	PP		RIH 2 stnds HWDP, M/up dummy 13 3/8" hanger, RIH same on DP and set in wellhead. POOH & rack back running tool & HWDP.
12:00	15:00	3.00	S-CSG	CSGRP	PP		Rig up Weatherford equipment to run 9 5/8" CSG. Hold JSA
15:00	21:00	6.00	S-CSG	CSGRP	PP		Pick up 9 5/8" CSG shoe jnt, test same. RIH CSG to 868m. Pump mud into CSG every jnt, fill completely every 10th jnt.
21:00	21:30	0.50	S-CSG	CSGRP	PP		Wash down last CSG jnt from 868m to 880m.
21:30	23:00	1.50	S-CSG	CSGRP	PP		P/up 9 5/8" CSG hanger and RIH same.
23:00	0:00	1.00	S-CSG	CSGRP	PP		Rig down 500T elevators and fill up tools. Run and land 9 5/8" CSG in W/head. 2m sling has fallen into the 20" x 9 5/8" annulus. See detail under comments.

24.00 = Total Hours Today

06:00 UPDATE

0000-0600

00:00 - 00:30 - Rig up cement head & lines.
00:30 - 01:30 - Circulate one CSG volume, hold PJSM.
01:30 - 03:30 - Pump 20 bbl seawater and test surface lines to 3000psi OK. Pump 60 bbl tuned spacer, drop bottom plug and cement CSG with 347 bbl lead slurry at 12.5ppg and 34 bbl tail slurry at 15.8 ppg.
03:30 - 04:30 - Drop top plug and displace cement with seawater. Bump plug at 217.5 bbl volume and pressure test CSG to 2500 psi 20 mins OK. Dump returns @ W/head. No cement to surface and full returns during cmt job.
04:30 - 05:00 - Rig down cement head and lines.
05:00 - 06:00 - (IN PROGRESS) Attempt to unscrew landing string and running tools from 9 5/8" CSG hanger - coupling broke at brig floor. Weld straps on same and B/out running tool. Lay out landing string.

1) A sling approx. 2m long has fallen into the hole. While attempting to land the 9 5/8" CSG hanger in the W/head, it hung up on the top of the BOP and rig tuggers had to be used to pull the CSG string from side to side to try to get the hanger to pass the fouling point. While undoing the tugger lines, the sling used to wrap around the casing slipped from the floorhand's grip and slid down the outside of the CSG into the 20" x 9 5/8" annulus.

Daily Drilling Report

WELL NAME				DATE
COELACANTH-1				14-03-2008
API #	**24 HRS PROG**	**TMD**	**TVD**	**REPT NO**
	0.00 (m)	907.00 (m)	907.00 (m)	7

PERSONNEL DATA

COMPANY	QTY	HRS	COMPANY	QTY	HRS
TOTAL MARINE CATERING	9		SPERRY SUN	1	
SEA DRILL SERVICES	37		APACHE	4	
BHI	4		DRIL-QUIP	2	
TAMBORITHA	2		SCHLUMBERGER MWD/LWD	10	
WEATHERFORD	6		BAKER HUGHS	1	
ADA	4		SEA DRILL	14	
HALIBURTON	4				

TOTAL PERSONNEL ON BOARD: 98

SUPPORT CRAFT

TYPE	REMARKS
HELICOPTER	

MATERIALS/CONSUMPTION

ITEM	UNITS	USAGE	ON HAND	ITEM	UNITS	USAGE	ON HAND
BARITE BULK	MT	3	148	BENTONITE	MT		41
CEMENT	MT		143	FUEL OIL	m3		254
WATER, POTABLE	MT	46	192	WATER, DRILLING	MT	159	460

WEATHER

TIME	SWELL HT/DIR/PER	WAVE HT/DIR/PER	WIND SPEED/DIR	GUST SPEED/DIR	TEMP
00:00	0.20/ /15	/ /	/	/90.00	

Daily Drilling Report

WELL NAME				DATE
COELACANTH-1				14-03-2008
API #	**24 HRS PROG**	**TMD**	**TVD**	**REPT NO**
	0.00 (m)	907.00 (m)	907.00 (m)	7

MUD INVENTORY

ITEM	UNIT	USAGE	Day Cost ($)	ON HAND
CIRCAL 60/16 (BAKER HUGHES)	25.00 kg		0.00	144.00
BENTONITE	1,000.00 kg		0.00	41.50
ALDACIDE G	25.00 l	4.00	397.12	7.00
CLAYSEAL PLUS	216.00 kg	28.00	13,045.20	32.00
BAROFIBRE (FINE)	25.00 lbs		0.00	50.00
NEW DRIL HT PLUS	50.00 lbs		0.00	90.00
STEELSEAL FINE	25.00 kg		0.00	60.00
SODA ASH- SOD.CARBONATE-Na2CO3	25.00 kg	8.00	106.00	40.00
POTASSIUM HYDROXIDE	25.00 kg		0.00	83.00
OMYACARB 5	25.00 kg		0.00	48.00
LIME	20.00 kg		0.00	41.00
CITRIC ACID	25.00 kg		0.00	38.00
BARA-DEFOAM WS300	5.00 gal		0.00	3.00
POTASH - POT. CHLORIDE - KCl	1.00 MT		0.00	0.00
GUAR GUM	25.00 kg		0.00	40.00
BARITE (bulk)	1,000.00 kg	7.40	4,026.93	144.60
NO-SULF	17.00 kg		0.00	48.00
SODIUM BICARBONATE - NaHCO3	25.00 kg		0.00	35.00
PAC L	25.00 kg	96.00	7,859.52	224.00
POTASH - POT. CHLORIDE - KCl	1,000.00 kg		0.00	33.00
CALCIUM CHLORIDE 74-77%	25.00 kg		0.00	94.00
BARAZAN D PLUS	25.00 kg	32.00	5,536.00	159.00
CIRCAL 60/16	1,200.00 kg		0.00	9.00
BARABLOK	50.00 lbs		0.00	280.00
CAUSTIC SODA - NaOH	25.00 kg	8.00	0.00	90.00
KWIKSEAL (F)	40.00 lbs		0.00	39.00
EZ MUD	25.00 kg		0.00	13.00
EZ SPOT	55.00 gal		0.00	8.00
CIRCAL Y	1,200.00 kg		0.00	11.00

APACHE CORPORATION

Daily Drilling Report

WELL NAME				DATE
COELACANTH-1				15-03-2008
API #	**24 HRS PROG**	**TMD**	**TVD**	**REPT NO**
	0.00 (m)	907.00 (m)	907.00 (m)	8

RIG NAME NO	FIELD NAME	AUTH TMD	PLANNED DOW	DOL	DFS / KO	WATER DEPTH
WEST TRITON			15.92 (days)	7.33 (days)	5.46 (days)	90.00 (m)

SPUD DATE	Rig Release	WELL SUPERVISOR	OIM	PBTMD
08-03-2008		RICHARD READINGS / S SCHMIDT/P SHEENAN	MICHAEL BARRY	

REGION	DISTRICT	STATE / PROV		RIG PHONE NO	RIG FAX NO
AUSTRALIA	OFFSHORE	VICTORIA			

AFE # 1008E50	AFE COSTS	DAILY COSTS	CUMULATIVE COSTS
DESCRIPTION:	DHC: 12,691,688	DHC: 770,528	DHC: 6,086,844
	DCC:	DCC:	DCC:
	CWC:	CWC:	CWC:
	Others:	Others:	Others:
	TOTAL: 12,691,688	TOTAL: 770,528	TOTAL: 6,086,844

DEFAULT DATUM / ELEVATION	LAST SAFETY MEETING	BLOCK	FORMATION	BHA HRS OF SERVICE
ROTARY TABLE / 38.00 (m)		Vic-P45		

LAST SURVEY	LAST CSG SHOE TEST (EMW)	LAST CASING	NEXT CASING
MD 887.36 (m) **INC** 0.25° **AZM** 215.41°	(sg)	244.000 mm @ 902.0 m	

CURRENT OPERATIONS: Drilling cement at 872m

24 HR SUMMARY: Rig up and cement 9 5/8" CSG, bump plugs and pressure test CSG to 2500psi OK. Back out running tool and lay down same. Run seal assy, energise and pressure test to 1800psi OK. Run W/bushing. Slip and cut drill line. Pick up 11 stnds DP & rack in derrick.

24 HR FORECAST: Drill cement, float, shoe and rathole to 907m. Drill 3m new formation, circulate and perform leak-off test. Drill ahead.

OPERATION SUMMARY

From	To	HRS	Phase	Operation	PT/NPT	NPT CODES	ACTIVITY SUMMARY
0:00	0:30	0.50	S-CMT	RURDCU	PP		Rig up cement head & lines.
0:30	1:30	1.00	S-CMT	CIRC	PP		Circulate one CSG volume, hold PJSM.
1:30	3:30	2.00	S-CMT	CMTPRI	PP		Pump 20 bbl seawater and test surface lines to 3000psi OK. Pump 60 bbl tuned spacer, drop bottom plug and cement CSG with 347 bbl lead slurry at 12.5ppg and 34 bbl tail slurry at 15.8 ppg.
3:30	4:30	1.00	S-CMT	CMTPRI	PP		Drop top plug and displace cement with seawater. Bump plug at 217.5 bbl volume and pressure test CSG to 2500 psi 20 mins OK. Dump returns @ W/head. No cement to surface and full returns during cmt job.
4:30	5:00	0.50	S-CMT	RURDCU	PP		Rig down cement head and lines.
5:00	7:00	2.00	S-NUP	WLHEAD	PN	SO	Attempt to unscrew landing string and running tools from 9 5/8" CSG hanger - coupling broke at brig floor. Weld straps on same and B/out running tool. Lay out landing string.
7:00	8:30	1.50	S-NUP	RIGSER	PP		R/down S/D elevators, power tong, change out bails and clear rig floor.
8:30	10:00	1.50	S-NUP	WLHEAD	PP		M/up seal assy on running tool, RIH & set same - test to 1800psi OK.
10:00	10:30	0.50	S-NUP	WLHEAD	PP		M/up wearbushing running tool, RIH and set same
10:30	14:30	4.00	P-DRL	CUTDL	PP		Hold PJSM and commence Slip & Cut drill line. Hold PJSM with new crew. Callibrate block.
14:30	18:30	4.00	P-DRL	BHA	PP		Install insert diverter packer, pick up 11 stands 5 1/2" DP and rack back in derrick.
18:30	21:00	2.50	P-DRL	BHA	PP		M/up 8 1/2" BHA and MWD tools & RIH to 36.5m.
21:00	21:30	0.50	P-DRL	BHA	PP		Install RA sources.
21:30	23:30	2.00	P-DRL	BHA	PP		P/up 9 Jnts 6 1/2" DC's & RIH to 150m.
23:30	0:00	0.50	P-DRL	BHA	PP		Callibrate block for Schlumberger MWD.

24.00 = Total Hours Today

06:00 UPDATE

0000-0600

00:00-00:30 - Continue RIH BHA from 150m to 265m.
00:30 - 04:00 - Hold PJSM and pick up 18 stnds DP from deck (rabbit pipe). RIH same to 805m.
04:00 - 04:30 - Fill pipe and adjust link tilt.
04:30 - 05:00 - Service top drive
05:00 - 05:30 - RIH from 805m to 852m. M/up TDS, wash down and tag cement at 859m.
05:30 - 06:00 - Drill cement from 859m to 872m.

APACHE CORPORATION

Daily Drilling Report

WELL NAME				DATE
COELACANTH-1				15-03-2008
API #	**24 HRS PROG**	**TMD**	**TVD**	**REPT NO**
	0.00 (m)	907.00 (m)	907.00 (m)	8

PERSONNEL DATA

COMPANY	QTY	HRS	COMPANY	QTY	HRS
TAMBORITHA	2		APACHE	4	
TOTAL MARINE CATERING	8		SPERRY SUN	1	
BHI	4		SEA DRILL SERVICES	37	
HALIBURTON	4		SEA DRILL	14	
SCHLUMBERGER MWD/LWD	10		BAKER HUGHS	1	
ADA	4				

TOTAL PERSONNEL ON BOARD: 89

SUPPORT CRAFT

TYPE	REMARKS

MATERIALS/CONSUMPTION

ITEM	UNITS	USAGE	ON HAND	ITEM	UNITS	USAGE	ON HAND
BARITE BULK	MT	26	122	BENTONITE	MT		41
CEMENT	MT	44	99	FUEL OIL	m3	13	241
WATER, POTABLE	MT	39	163	WATER, DRILLING	MT	19	641

WEATHER

TIME	SWELL HT/DIR/PER	WAVE HT/DIR/PER	WIND SPEED/DIR	GUST SPEED/DIR	TEMP
00:00	0.20/ /15	/ /	/	/90.00	

MUD INVENTORY

ITEM	UNIT	USAGE	Day Cost ($)	ON HAND
STEELSEAL FINE	25.00 kg		0.00	60.00
CITRIC ACID	25.00 kg		0.00	38.00
BAROFIBRE (FINE)	25.00 lbs		0.00	50.00
BARABLOK	50.00 lbs		0.00	280.00
NO-SULF	17.00 kg		0.00	48.00
NEW DRIL HT PLUS	50.00 lbs		0.00	90.00
EZ MUD	25.00 kg		0.00	13.00
CAUSTIC SODA - NaOH	25.00 kg		0.00	90.00
POTASH - POT. CHLORIDE - KCl	1.00 MT		0.00	0.00
BARA-DEFOAM WS300	5.00 gal		0.00	3.00
CIRCAL 60/16 (BAKER HUGHES)	25.00 kg		0.00	144.00
BENTONITE	1,000.00 kg		0.00	41.50
SODIUM BICARBONATE - NaHCO3	25.00 kg		0.00	35.00
POTASSIUM HYDROXIDE	25.00 kg		0.00	83.00
POTASH - POT. CHLORIDE - KCl	1,000.00 kg	15.00	6,621.60	18.00
CIRCAL Y	1,200.00 kg		0.00	11.00
CLAYSEAL PLUS	216.00 kg		0.00	32.00
BARITE (bulk)	1,000.00 kg		0.00	144.60
CALCIUM CHLORIDE 74-77%	25.00 kg		0.00	94.00
PAC L	25.00 kg		0.00	224.00
BARAZAN D PLUS	25.00 kg		0.00	159.00
OMYACARB 5	25.00 kg		0.00	48.00
LIME	20.00 kg		0.00	41.00
ALDACIDE G	25.00 l		0.00	7.00
GUAR GUM	25.00 kg		0.00	40.00
CIRCAL 60/16	1,200.00 kg		0.00	9.00
EZ SPOT	55.00 gal		0.00	8.00
SODA ASH-SOD.CARBONATE-Na2CO3	25.00 kg		0.00	40.00
KWIKSEAL (F)	40.00 lbs		0.00	39.00

APACHE CORPORATION

Daily Drilling Report

WELL NAME				DATE
COELACANTH-1				16-03-2008
API #	**24 HRS PROG**	**TMD**	**TVD**	**REPT NO**
	586.00 (m)	1,493.00 (m)	1,492.97 (m)	9

RIG NAME NO	FIELD NAME	AUTH TMD	PLANNED DOW	DOL	DFS / KO	WATER DEPTH
WEST TRITON			15.92 (days)	8.33 (days)	6.46 (days)	90.00 (m)

SPUD DATE	Rig Release	WELL SUPERVISOR	OIM	PBTMD
08-03-2008		RICHARD READINGS / S SCHMIDT/P SHEENAN	MICHAEL BARRY	

REGION	DISTRICT	STATE / PROV	RIG PHONE NO	RIG FAX NO
AUSTRALIA	OFFSHORE	VICTORIA		

AFE # 1008E50	AFE COSTS	DAILY COSTS	CUMULATIVE COSTS
DESCRIPTION:	DHC: 12,691,688	DHC: 659,958	DHC: 6,746,802
	DCC:	DCC:	DCC:
	CWC:	CWC:	CWC:
	Others:	Others:	Others:
	TOTAL: 12,691,688	TOTAL: 659,958	TOTAL: 6,746,802

DEFAULT DATUM / ELEVATION	LAST SAFETY MEETING	BLOCK	FORMATION	BHA HRS OF SERVICE
ROTARY TABLE / 38.00 (m)		Vic-P45		

LAST SURVEY						LAST CSG SHOE TEST (EMW)	LAST CASING	NEXT CASING
MD	1,420.57 (m)	**INC**	0.99°	**AZM**	275.48°	1.80 (sg)	244.000 mm @ 902.0 m	

CURRENT OPERATIONS: Drilling ahead 8 1/2" hole at 1622m.

24 HR SUMMARY: RIH to 805m picking up D/pipe. Adjust link tilt and service TDS. Continue RIH, tag cement at 859m and drill cement and shoe track from 859m to 907m. Float at 874m shoe at 902m. Drill 3m new formation and perform FIT to 850psi (1.78SG EMW). Drill ahead 8 1

24 HR FORECAST: Drill ahead..

OPERATION SUMMARY

From	To	HRS	Phase	Operation	PT/NPT	NPT CODES	ACTIVITY SUMMARY
0:00	0:30	0.50	P-DRL	BHA	PP		Continue RIH BHA from 150m to 265m.
0:30	4:00	3.50	P-DRL	DPIPE	PP		Hold PJSM and pick up 18 stnds DP from deck (rabbit pipe). RIH same to 805m.
4:00	4:30	0.50	P-DRL	RIGSER	PP		Fill pipe and adjust link tilt.
4:30	5:00	0.50	P-DRL	RIGSER	PP		Service Top Drive.
5:00	5:30	0.50	P-DRL	TRIPBIT	PP		RIH from 805m to 852m. M/up TDS, wash down and tag cement at 859m.
5:30	8:30	3.00	P-DRL	DOCMT	PP		Drill cement, shoe track and rathole from 859m to 907m, float at 874m, shoe at 902m. Drill 3m new formation to 910m.
8:30	9:00	0.50	P-DRL	CIRC	PP		Circulate to condition mud.
9:00	10:00	1.00	P-DRL	LKOFF	PP		Perform FIT test to 850psi (1.78 SG EMW) - no leak-off yet.
10:00	10:30	0.50	P-DRL	DRLG	PP		Drill 8 1/2" hole from 910m to 947m.
10:30	11:00	0.50	P-DRL	DRLG	PN	MW	Troubleshoot MWD tool problems.
11:00	0:00	13.00	P-DRL	DRLG	PP		Continue drill 8 1/2" hole from 947m to 1493m.

24.00 = Total Hours Today

06:00 UPDATE

0000-0600

BIT DATA

BIT / RUN	SIZE (mm)	MANUFACTURER	TYPE	SERIAL NO	JETS OR TFA	DEPTH IN / DATE IN	I-O-D-L-B-G-O-R
3 / 1	216.0	REED	RSX616B	216126	1x15, 5x14	907.00 / 16-03-2008	1-1-BU-A-X-I-CT-PR

BIT OPERATIONS

BIT / RUN	WOB	RPM	FLOW	PRESS	P BIT	HRS	24 Hr PROG	24 HR ROP	CUM HRS	CUM PROG	CUM ROP
3/1	10/22	80/180	2,271.25	19,305	2546	9.80	586.00	59.8	9.80	586.00	59.8

MOTOR OUTPUT

RPG:	ROTARY CURRENT: 180	TOTAL RPM: 280

LCM: | MUD PROPERTIES | MUD TYPE:

VIS (s/l)	PV/YP (cp) / (Pa)	GELS (Pa)	WL/HTHP (ml/30 min)	FC/T.SOL (mm) / (%)	OIL/WAT (%)	% SAND/MBT (%)/(sg)	pH/Pm (mL)	Pf/Mf (mL)	Cl (ppm)	Ca (ppm)	H2S (%)	KCL (ppm)	LGS (%)

				PP		DAILY COST	17,576	CUM COST	74,804	%OIL	

APACHE CORPORATION

Daily Drilling Report

WELL NAME				DATE
COELACANTH-1				16-03-2008
API #	**24 HRS PROG**	**TMD**	**TVD**	**REPT NO**
	586.00 (m)	1,493.00 (m)	1,492.97 (m)	9

BHA	3	JAR S/N	246700	BHA / HOLE CONDITIONS	JAR HRS		BIT	3

BHA WT BELOW JARS	STRING WT UP	STRING WT DN	STRING WT ROT	TORQUE/UNITS	BHA LENGTH
16 (tonne)	(tonne)	(tonne)	(tonne)	3 (kN-m)	264.96 (m)

ITEM DESCRIPTION	NO JTS	LENGTH	O.D	I.D	CONN SIZE	CONN TYPE
Heavy Weight Drill Pipe	8	75.18	177.80	82.55		
Cross Over	1	1.22	177.80	73.15		
Drilling Jar	1	9.33	165.10			
Cross Over	1	1.22	177.80	73.15		
Heavy Weight Drill Pipe	6	56.40	177.80	82.55		
Cross Over	1	1.22	177.80	73.15		
Drill Collar	9	83.88	165.10	73.15		
Logging While Drilling	1	6.25	176.28			
Cross Over	1	0.36	174.75	85.85		
Logging While Drilling	1	6.80	168.40	50.80		
MWD Tool	1	8.46	171.45			
Logging While Drilling	1	3.51	174.75			
Float Sub	1	0.83	171.45	71.37		
Bent Housing	1	10.06	184.15			
Polycrystalline Diamond Bit	1	0.24	215.90			

MUD PUMPS/HYDRAULICS

	STROKE	SPM	LINER	FLOW
# 1				
# 2				
# 3				

SPP: 19,305 (kPa)

HP: 0.263 (kW/cm²)

SPR

	SPM	PPSR

PERSONNEL DATA

COMPANY	QTY	HRS	COMPANY	QTY	HRS
ADA	4		BAKER HUGHS	1	
TOTAL MARINE CATERING	8		SPERRY SUN	1	
SEA DRILL	14		TAMBORITHA	2	
SCHLUMBERGER MWD/LWD	10		BHI	4	
APACHE	4		HALIBURTON	4	
SEA DRILL SERVICES	37				

TOTAL PERSONNEL ON BOARD: 89

SUPPORT CRAFT

TYPE	REMARKS
HELICOPTER	

MATERIALS/CONSUMPTION

ITEM	UNITS	USAGE	ON HAND	ITEM	UNITS	USAGE	ON HAND
BARITE BULK	MT		122	BENTONITE	MT		41
CEMENT	MT		99	FUEL OIL	m3		229
WATER, POTABLE	MT	37	336	WATER, DRILLING	MT	90	351

Daily Drilling Report

WELL NAME				DATE
COELACANTH-1				16-03-2008
API #	**24 HRS PROG**	**TMD**	**TVD**	**REPT NO**
	586.00 (m)	1,493.00 (m)	1,492.97 (m)	9

WEATHER

TIME	SWELL HT/DIR/PER	WAVE HT/DIR/PER	WIND SPEED/DIR	GUST SPEED/DIR	TEMP
00:00	0.20/ /2	/ /120.00	/	/45.00	

MUD INVENTORY

ITEM	UNIT	USAGE	Day Cost ($)	ON HAND
NEW DRIL HT PLUS	50.00 lbs		0.00	90.00
NO-SULF	17.00 kg		0.00	48.00
PAC L	25.00 kg	12.00	982.44	212.00
STEELSEAL FINE	25.00 kg		0.00	60.00
ALDACIDE G	25.00 l		0.00	7.00
CALCIUM CHLORIDE 74-77%	25.00 kg		0.00	94.00
BARAZAN D PLUS	25.00 kg	12.00	2,076.00	147.00
CIRCAL Y	1,200.00 kg		0.00	11.00
POTASH - POT. CHLORIDE - KCl	1,000.00 kg	6.00	2,648.64	12.00
BENTONITE	1,000.00 kg		0.00	41.50
OMYACARB 5	25.00 kg		0.00	48.00
BARITE (bulk)	1,000.00 kg	21.60	11,754.29	123.00
KWIKSEAL (F)	40.00 lbs		0.00	39.00
CLAYSEAL PLUS	216.00 kg		0.00	32.00
POTASSIUM HYDROXIDE	25.00 kg		0.00	83.00
BAROFIBRE (FINE)	25.00 lbs		0.00	50.00
BARA-DEFOAM WS300	5.00 gal		0.00	3.00
SODA ASH- SOD.CARBONATE-Na2CO3	25.00 kg		0.00	40.00
POTASH - POT. CHLORIDE - KCl	1.00 MT		0.00	0.00
EZ MUD	25.00 kg		0.00	45.00
GUAR GUM	25.00 kg		0.00	40.00
CITRIC ACID	25.00 kg		0.00	38.00
BARABLOK	50.00 lbs		0.00	280.00
SODIUM BICARBONATE - NaHCO3	25.00 kg		0.00	35.00
LIME	20.00 kg		0.00	41.00
EZ SPOT	55.00 gal		0.00	8.00
CAUSTIC SODA - NaOH	25.00 kg		0.00	90.00
CIRCAL 60/16	1,200.00 kg		0.00	9.00
CIRCAL 60/16 (BAKER HUGHES)	25.00 kg	10.00	115.10	134.00

APACHE CORPORATION

Daily Drilling Report

WELL NAME				DATE
COELACANTH-1				17-03-2008
API #	**24 HRS PROG**	**TMD**	**TVD**	**REPT NO**
	505.00 (m)	1,998.00 (m)	1,997.91 (m)	10

RIG NAME NO	FIELD NAME	AUTH TMD	PLANNED DOW	DOL	DFS / KO	WATER DEPTH
WEST TRITON			15.92 (days)	9.33 (days)	7.46 (days)	90.00 (m)

SPUD DATE	Rig Release	WELL SUPERVISOR	OIM	PBTMD
08-03-2008		RICHARD READINGS / S SCHMIDT/P SHEENAN	MICHAEL BARRY	

REGION	DISTRICT	STATE / PROV		RIG PHONE NO	RIG FAX NO
AUSTRALIA	OFFSHORE	VICTORIA			

AFE # 1008E50	AFE COSTS	DAILY COSTS	CUMULATIVE COSTS
DESCRIPTION:	DHC: 12,691,688	DHC: 654,417	DHC: 7,401,219
	DCC:	DCC:	DCC:
	CWC:	CWC:	CWC:
	Others:	Others:	Others:
	TOTAL: 12,691,688	TOTAL: 654,417	TOTAL: 7,401,219

DEFAULT DATUM / ELEVATION	LAST SAFETY MEETING	BLOCK	FORMATION	BHA HRS OF SERVICE
ROTARY TABLE / 38.00 (m)		Vic-P45		

LAST SURVEY	LAST CSG SHOE TEST (EMW)	LAST CASING	NEXT CASING
MD 1,983.37 (m) **INC** 0.73° **AZM** 333.68°	1.80 (sg)	244.000 mm @ 902.0 m	

CURRENT OPERATIONS: Pulling out of hole at 9 5/8" shoe. Flowcheck

24 HR SUMMARY: Drill 8 1/2" hole from 1493m to 1998m. Slow ROP - decide to POOH for bit change. Flowcheck well, pump slug & POOH from 1998m to 1679m.

24 HR FORECAST: Complete POOH, change out bit and tools on BHA, RIH with new tools and bit

OPERATION SUMMARY

From	To	HRS	Phase	Operation	PT/NPT	NPT CODES	ACTIVITY SUMMARY
0:00	21:00	21.00	P-DRL	DRLG	PP		Drill ahead 8 1/2" hole from 1493m to 1995m.
21:00	22:30	1.50	P-DRL	DRLG	PN	BT	Drop off in torque, differential pump pressure and associated ROP. Drill from 1995m to 1998m. Unable to revive slow driiling rate. Decision to POOH and change bit.
22:30	23:00	0.50	P-DRL	CIRC	PN	BT	Flow check - well static. Pump 25bbl slug.
23:00	0:00	1.00	P-DRL	TRIPBHA	PN	BT	POOH from 1998m to 1679m. No drag.

24.00 = Total Hours Today

06:00 UPDATE

0000-0600

BIT DATA

BIT / RUN	SIZE (mm)	MANUFACTURER	TYPE	SERIAL NO	JETS OR TFA	DEPTH IN / DATE IN	I-O-D-L-B-G-O-R
3 / 1	216.0	REED	RSX616B	216126	1x15, 5x14	907.00 / 16-03-2008	1-1-BU-A-X-I-CT-PR

BIT OPERATIONS

BIT / RUN	WOB	RPM	FLOW	PRESS	P BIT	HRS	24 Hr PROG	24 HR ROP	CUM HRS	CUM PROG	CUM ROP
3/1	5/20	120/180	2,271.25	17,926	2568	18.10	505.00	27.9	27.90	1,091.00	39.1

MOTOR OUTPUT

RPG: | ROTARY CURRENT: 180 | TOTAL RPM: 380

LCM: | MUD PROPERTIES | MUD TYPE:

VIS (s/l)	PV/YP (cp) / (Pa)	GELS (Pa)	WL/HTHP (ml/30 min)	FC/T.SOL (mm) / (%)	OIL/WAT (%)	% SAND/MBT (%)/(sg)	pH/Pm (mL)	Pf/Mf (mL)	Cl (ppm)	Ca (ppm)	H2S (%)	KCL (ppm)	LGS (%)

PP | DAILY COST 10,437 | CUM COST 85,240 | %OIL

BHA 3 | JAR S/N 246700 | BHA / HOLE CONDITIONS | JAR HRS | BIT 3

BHA WT BELOW JARS	STRING WT UP	STRING WT DN	STRING WT ROT	TORQUE/UNITS	BHA LENGTH
16 (tonne)	(tonne)	(tonne)	(tonne)	3 (kN-m)	264.96 (m)

ITEM DESCRIPTION	NO JTS	LENGTH	O.D	I.D	CONN SIZE	CONN TYPE
Heavy Weight Drill Pipe	8	75.18	177.80	82.55		
Cross Over	1	1.22	177.80	73.15		

Daily Drilling Report

WELL NAME				DATE
COELACANTH-1				17-03-2008
API #	**24 HRS PROG**	**TMD**	**TVD**	**REPT NO**
	505.00 (m)	1,998.00 (m)	1,997.91 (m)	10

ITEM DESCRIPTION	NO JTS	LENGTH	O.D	I.D	CONN SIZE	CONN TYPE
Drilling Jar	1	9.33	165.10			
Cross Over	1	1.22	177.80	73.15		
Heavy Weight Drill Pipe	6	56.40	177.80	82.55		
Cross Over	1	1.22	177.80	73.15		
Drill Collar	9	83.88	165.10	73.15		
Logging While Drilling	1	6.25	176.28			
Cross Over	1	0.36	174.75	85.85		
Logging While Drilling	1	6.80	168.40	50.80		
MWD Tool	1	8.46	171.45			
Logging While Drilling	1	3.51	174.75			
Float Sub	1	0.83	171.45	71.37		
Bent Housing	1	10.06	184.15			
Polycrystalline Diamond Bit	1	0.24	215.90			

MUD PUMPS/HYDRAULICS

	STROKE	SPM	LINER	FLOW
# 1				
# 2				
# 3				

SPP: 17,926 (kPa)

HP: 0.265 (kW/cm²)

SPR

	SPM	PPSR

PERSONNEL DATA

COMPANY	QTY	HRS	COMPANY	QTY	HRS
TAMBORITHA	2		SPERRY SUN	1	
BHI	4		SCHLUMBERGER MWD/LWD	13	
SEA DRILL	14		ADA	6	
TOTAL MARINE CATERING	9		NOPSA	2	
APACHE	3		HALIBURTON	4	
SEA DRILL SERVICES	36		NATIONAL OILWELL	1	

TOTAL PERSONNEL ON BOARD: 95

SUPPORT CRAFT

TYPE	REMARKS
HELICOPTER	
HELICOPTER	

MATERIALS/CONSUMPTION

ITEM	UNITS	USAGE	ON HAND	ITEM	UNITS	USAGE	ON HAND
BARITE BULK	MT		122	BENTONITE	MT		41
CEMENT	MT		99	FUEL OIL	m3		221
WATER, POTABLE	MT	30	316	WATER, DRILLING	MT	90	261

WEATHER

TIME	SWELL HT/DIR/PER	WAVE HT/DIR/PER	WIND SPEED/DIR	GUST SPEED/DIR	TEMP
00:00	0.20/ /2	/ /120.00	/	/45.00	

Daily Drilling Report

WELL NAME				DATE
COELACANTH-1				17-03-2008
API #	**24 HRS PROG**	**TMD**	**TVD**	**REPT NO**
	505.00 (m)	1,998.00 (m)	1,997.91 (m)	10

MUD INVENTORY

ITEM	UNIT	USAGE	Day Cost ($)	ON HAND
				0.00
				0.00
				0.00
ALDACIDE G	25.00 l	1.00	99.28	6.00
CAUSTIC SODA - NaOH	25.00 kg		0.00	90.00
CLAYSEAL PLUS	216.00 kg	7.00	3,261.30	25.00
				0.00
CALCIUM CHLORIDE 74-77%	25.00 kg		0.00	94.00
POTASSIUM HYDROXIDE	25.00 kg	9.00	404.82	74.00
				0.00
				0.00
CITRIC ACID	25.00 kg		0.00	38.00
EZ SPOT	55.00 gal		0.00	8.00
POTASH - POT. CHLORIDE - KCl	1.00 MT		0.00	0.00
				0.00
KWIKSEAL (F)	40.00 lbs		0.00	39.00
				0.00
EZ MUD	25.00 kg		0.00	45.00
				0.00
				0.00
				0.00
STEELSEAL FINE	25.00 kg		0.00	60.00
				0.00
				0.00
OMYACARB 5	25.00 kg		0.00	48.00
				0.00
BENTONITE	1,000.00 kg		0.00	41.50
GUAR GUM	25.00 kg		0.00	40.00
				0.00
SODA ASH- SOD.CARBONATE-Na2CO3	25.00 kg	2.00	26.50	38.00
CIRCAL 60/16 (BAKER HUGHES)	25.00 kg		0.00	134.00
				0.00
SODIUM BICARBONATE - NaHCO3	25.00 kg		0.00	35.00
				0.00
				0.00
				0.00
				0.00
POTASH - POT. CHLORIDE - KCl	1,000.00 kg		0.00	12.00
				0.00
NEW DRIL HT PLUS	50.00 lbs		0.00	90.00
LIME	20.00 kg		0.00	41.00
CIRCAL 60/16	1,200.00 kg	2.00	0.00	7.00
NO-SULF	17.00 kg		0.00	48.00
BARABLOK	50.00 lbs		0.00	280.00
				0.00
BARA-DEFOAM WS300	5.00 gal		0.00	3.00
BARITE (bulk)	1,000.00 kg	2.00	1,088.36	121.00
				0.00
				0.00
BAROFIBRE (FINE)	25.00 lbs		0.00	50.00
CIRCAL Y	1,200.00 kg	2.00	1,106.08	9.00
				0.00
				0.00

Daily Drilling Report

WELL NAME				DATE
COELACANTH-1				17-03-2008
API #	**24 HRS PROG**	**TMD**	**TVD**	**REPT NO**
	505.00 (m)	1,998.00 (m)	1,997.91 (m)	10

MUD INVENTORY

ITEM	UNIT	USAGE	Day Cost ($)	ON HAND
				0.00
PAC L	25.00 kg	29.00	2,374.23	183.00
BARAZAN D PLUS	25.00 kg	12.00	2,076.00	135.00

APACHE CORPORATION

Daily Drilling Report

WELL NAME				DATE
COELACANTH-1				18-03-2008
API #	**24 HRS PROG**	**TMD**	**TVD**	**REPT NO**
	47.00 (m)	2,045.00 (m)	2,044.91 (m)	11

RIG NAME NO	FIELD NAME	AUTH TMD	PLANNED DOW	DOL	DFS / KO	WATER DEPTH
WEST TRITON			15.92 (days)	10.33 (days)	8.46 (days)	90.00 (m)

SPUD DATE	Rig Release	WELL SUPERVISOR	OIM	PBTMD
08-03-2008		RICHARD READINGS / S SCHMIDT/P SHEENAN	MICHAEL BARRY	

REGION	DISTRICT	STATE / PROV		RIG PHONE NO	RIG FAX NO
AUSTRALIA	OFFSHORE	VICTORIA			

AFE # 1008E50	AFE COSTS	DAILY COSTS	CUMULATIVE COSTS
DESCRIPTION:	DHC: 12,691,688	DHC: 670,927	DHC: 8,072,146
	DCC:	DCC:	DCC:
	CWC:	CWC:	CWC:
	Others:	Others:	Others:
	TOTAL: 12,691,688	TOTAL: 670,927	TOTAL: 8,072,146

DEFAULT DATUM / ELEVATION	LAST SAFETY MEETING	BLOCK	FORMATION	BHA HRS OF SERVICE
ROTARY TABLE / 38.00 (m)		Vic-P45		

LAST SURVEY						LAST CSG SHOE TEST (EMW)	LAST CASING	NEXT CASING
MD	1,983.37 (m)	**INC**	0.73°	**AZM**	333.68°	1.80 (sg)	244.000 mm @ 902.0 m	

CURRENT OPERATIONS: Pulling out of hole at 2003m to change bit.

24 HR SUMMARY: POOH to change bit. Tight at 1300m. Circulate hi-vis sweep around. Back-ream using pumps from 1300m to 9 5/8" shoe. Continue POOH. Change out tools and RR bit (bit balled). RIH to 1974m & wash down from 1974m to 1998m. Drill 8 1/2" hole from 1998m to 2045

24 HR FORECAST: POOH, change bit and RIH to drill.

OPERATION SUMMARY

From	To	HRS	Phase	Operation	PT/NPT	NPT CODES	ACTIVITY SUMMARY
0:00	1:00	1.00	P-DRL	TRIP	PN	BT	POOH from 1679m to 1300m. 30k O/Pull
1:00	5:30	4.50	P-DRL	RMWASH	PN	BT	Atempt to work past 1300m. Break circulation & pump 30bbl Hi-vis sweep and circulate out same. Backream out of hole from 1300m to 9 5/8" shoe using 600gpm, 50rpm, 1800psi. Attempt several times unsuccessful to POOH without pumping.
5:30	6:00	0.50	P-DRL	CIRC	PN	BT	Flowcheck at shoe and pump slug. Check dolly track bearings on TDS.
6:00	7:00	1.00	P-DRL	TRIP	PN	BT	Continue to POOH from 881m to 256m. Held trip drill - 47 seconds.
7:00	8:30	1.50	P-DRL	TRIPBHA	PN	BT	Flow check at BHA , continue to POOH from 256m to 36m . Rack back HWDP. Change elevators, rack back drill collars
8:30	9:00	0.50	P-DRL	TRIPBHA	PN	BT	Hold pre job safety meeting, remove radio active source from ADN tool
9:00	11:00	2.00	P-DRL	TRIPBHA	PN	BT	Continue to POOH from 36m to surface and lay out 8 1/2" BHA
11:00	12:00	1.00	P-DRL	TRIPBHA	PN	BT	Pick up new motor and install bit
12:00	13:30	1.50	P-DRL	TRIPBHA	PN	BT	M/up 8 1/2" BHA and RIH to 35m
13:30	14:00	0.50	P-DRL	TRIPBHA	PN	BT	Install RA source
14:00	19:00	5.00	P-DRL	TRIP	PN	BT	RIH from 35m to 1974m. Trip drill - 43 sec
19:00	19:30	0.50	P-DRL	TRIP	PN	BT	Wash down from 1974m to 1998m. Pick up off bottom & pump 800 gpm
19:30	0:00	4.50	P-DRL	DRLG	PP		Drill 8 1/2" hole from 1998m to 2045m. Pump 20bbl seawater at 2029m

24.00 = Total Hours Today

06:00 UPDATE

0000-0600 00:00 - 05:30 - Drill 8 1/2" hole from 2045m to 2116m. Pump 1 pill seawater and soak around bit on connection and 2 pills 25bbl each of seawater with Calcium Carbonate at 20ppb pumped around to attempt to revive drilling rate. ROP increased significantly for about 5 minutes after Calcium Carbonate pills. Decision to POOH to change bit. Perform flowcheck - OK
05:00 - 06:00 - POOH from 2116m to 2003m.

BIT DATA

BIT / RUN	SIZE (mm)	MANUFACTURER	TYPE	SERIAL NO	JETS OR TFA	DEPTH IN / DATE IN	I-O-D-L-B-G-O-R
3 / 1	216.0	REED	RSX616B	216126	1x15, 5x14	907.00 / 16-03-2008	1-1-BU-A-X-I-CT-PR
3RR / 2	216.0	REED	RSX616B	216126	1x15, 5x14	1,998.00 / 18-03-2008	1-1-BU-A-X-I-CT-PR

BIT OPERATIONS

BIT / RUN	WOB	RPM	FLOW	PRESS	P BIT	HRS	24 Hr PROG	24 HR ROP	CUM HRS	CUM PROG	CUM ROP
3RR/2	15/20	120/150	2,460.52	18,961	3067	3.50	47.00	13.4	3.50	47.00	13.4

APACHE CORPORATION

Daily Drilling Report

WELL NAME				DATE
COELACANTH-1				18-03-2008
API #	**24 HRS PROG**	**TMD**	**TVD**	**REPT NO**
	47.00 (m)	2,045.00 (m)	2,044.91 (m)	11

LCM: | MUD PROPERTIES | MUD TYPE:

VIS (s/l)	PV/YP (cp) / (Pa)	GELS (Pa)	WL/HTHP (ml/30 min)	FC/T.SOL (mm) / (%)	OIL/WAT (%)	% SAND/MBT (%)/(sg)	pH/Pm (mL)	Pf/Mf (mL)	Cl (ppm)	Ca (ppm)	H2S (%)	KCL (ppm)	LGS (%)

PP		DAILY COST	15,191	CUM COST	100,431	%OIL	

BHA	4	JAR S/N	246700	BHA / HOLE CONDITIONS	JAR HRS		BIT	3RR

BHA WT BELOW JARS	STRING WT UP	STRING WT DN	STRING WT ROT	TORQUE/UNITS	BHA LENGTH
(tonne)	(tonne)	(tonne)	(tonne)	(kN-m)	264.96 (m)

ITEM DESCRIPTION	NO JTS	LENGTH	O.D	I.D	CONN SIZE	CONN TYPE
Heavy Weight Drill Pipe	8	75.18	177.80	82.55		
Cross Over	1	1.22	177.80	73.15		
Drilling Jar	1	9.33	165.10			
Cross Over	1	1.22	177.80	73.15		
Heavy Weight Drill Pipe	6	56.40	177.80	82.55		
Cross Over	1	1.22	177.80	73.15		
Non-Mag Pony Collar	9	83.88	165.10	73.15		
Logging While Drilling	1	6.25	176.28			
Cross Over	1	0.36	174.75	85.85		
Logging While Drilling	1	6.80	168.40	50.80		
MWD Tool	1	8.46	171.45			
Logging While Drilling	1	3.51	174.75			
Float Sub	1	0.83	171.45	71.37		
Positive Displacement Motor	1	10.06	184.15			
Polycrystalline Diamond Bit	1	0.24	215.90			

MUD PUMPS/HYDRAULICS

	STROKE	SPM	LINER	FLOW
# 1				
# 2				
# 3				

SPP: 18,961 (kPa)

HP: 0.343 (kW/cm²)

SPR

	SPM	PPSR

PERSONNEL DATA

COMPANY	QTY	HRS	COMPANY	QTY	HRS
BAKER HUGHS	4		TOTAL MARINE CATERING	9	
ADA	4		TAMBORITHA	2	
SPERRY SUN	1		SCHLUMBERGER MWD/LWD	13	
SEA DRILL	14		SEA DRILL SERVICES	41	
HALIBURTON	4		APACHE	4	
NOPSA	2				

TOTAL PERSONNEL ON BOARD: 98

SUPPORT CRAFT

TYPE	REMARKS
HELICOPTER	

APACHE CORPORATION

Daily Drilling Report

WELL NAME				DATE
COELACANTH-1				18-03-2008
API #	**24 HRS PROG**	**TMD**	**TVD**	**REPT NO**
	47.00 (m)	2,045.00 (m)	2,044.91 (m)	11

MATERIALS/CONSUMPTION

ITEM	UNITS	USAGE	ON HAND	ITEM	UNITS	USAGE	ON HAND
BARITE BULK	MT	4	118	BENTONITE	MT		41
CEMENT	MT		99	FUEL OIL	m3		206
WATER, POTABLE	MT	31	295	WATER, DRILLING	MT	124	137

WEATHER

TIME	SWELL HT/DIR/PER	WAVE HT/DIR/PER	WIND SPEED/DIR	GUST SPEED/DIR	TEMP
00:00	0.20/ /2	/ /120.00	/	/45.00	

MUD INVENTORY

ITEM	UNIT	USAGE	Day Cost ($)	ON HAND
BARITE (bulk)	1,000.00 kg	1.00	544.18	120.00
POTASH - POT. CHLORIDE - KCl	1.00 MT		0.00	0.00
STEELSEAL FINE	25.00 kg		0.00	60.00
CLAYSEAL PLUS	216.00 kg	8.00	3,727.20	17.00
SODA ASH-SOD.CARBONATE-Na2CO3	25.00 kg		0.00	38.00
POTASH - POT. CHLORIDE - KCl	1,000.00 kg	13.00	5,738.72	10.00
EZ SPOT	55.00 gal		0.00	8.00
CIRCAL Y	1,200.00 kg		0.00	9.00
CITRIC ACID	25.00 kg		0.00	38.00
BENTONITE	1,000.00 kg		0.00	41.50
LIME	20.00 kg		0.00	41.00
POTASSIUM HYDROXIDE	25.00 kg		0.00	74.00
ALDACIDE G	25.00 l		0.00	6.00
SODIUM BICARBONATE - NaHCO3	25.00 kg		0.00	35.00
PAC L	25.00 kg	24.00	1,964.88	159.00
GUAR GUM	25.00 kg		0.00	40.00
NO-SULF	17.00 kg		0.00	48.00
BARA-DEFOAM WS300	5.00 gal		0.00	3.00
CALCIUM CHLORIDE 74-77%	25.00 kg		0.00	94.00
CIRCAL 60/16 (BAKER HUGHES)	25.00 kg	15.00	172.65	119.00
KWIKSEAL (F)	40.00 lbs		0.00	39.00
EZ MUD	25.00 kg		0.00	45.00
OMYACARB 5	25.00 kg		0.00	48.00
BARAZAN D PLUS	25.00 kg	14.00	2,422.00	121.00
NEW DRIL HT PLUS	50.00 lbs		0.00	90.00
CIRCAL 60/16	1,200.00 kg		0.00	7.00
CAUSTIC SODA - NaOH	25.00 kg		0.00	90.00
BAROFIBRE (FINE)	25.00 lbs		0.00	50.00
BARABLOK	50.00 lbs	18.00	621.54	262.00

APACHE CORPORATION

Daily Drilling Report

WELL NAME				DATE
COELACANTH-1				19-03-2008
API #	**24 HRS PROG**	**TMD**	**TVD**	**REPT NO**
	262.00 (m)	2,307.00 (m)	2,306.90 (m)	12

RIG NAME NO	FIELD NAME	AUTH TMD	PLANNED DOW	DOL	DFS / KO	WATER DEPTH
WEST TRITON			15.92 (days)	11.33 (days)	9.46 (days)	90.00 (m)

SPUD DATE	Rig Release	WELL SUPERVISOR	OIM	PBTMD
08-03-2008		MARK PINSON / S SCHMIDT/P SHEENAN	MICHAEL BARRY	

REGION	DISTRICT	STATE / PROV		RIG PHONE NO	RIG FAX NO
AUSTRALIA	OFFSHORE	VICTORIA			

AFE # 1008E50	AFE COSTS	DAILY COSTS	CUMULATIVE COSTS
DESCRIPTION:	DHC: 12,691,688	DHC: 724,937	DHC: 8,797,083
	DCC:	DCC:	DCC:
	CWC:	CWC:	CWC:
	Others:	Others:	Others:
	TOTAL: 12,691,688	TOTAL: 724,937	TOTAL: 8,797,083

DEFAULT DATUM / ELEVATION	LAST SAFETY MEETING	BLOCK	FORMATION	BHA HRS OF SERVICE
ROTARY TABLE / 38.00 (m)		Vic-P45		

LAST SURVEY	LAST CSG SHOE TEST (EMW)	LAST CASING	NEXT CASING
MD 2,219.45 (m) **INC** 0.35° **AZM** 26.58°	1.80 (sg)	244.000 mm @ 902.0 m	

CURRENT OPERATIONS: Drilling ahead at 2414m

24 HR SUMMARY: Drill 8 1/2" hole from 2045m to 2116m. Decision to POOH due to slow ROP. POOH, change bit and RIH with new bit and drill from 2116m to 2307m.

24 HR FORECAST: Drill ahead.

OPERATION SUMMARY

From	To	HRS	Phase	Operation	PT/NPT	NPT CODES	ACTIVITY SUMMARY
0:00	5:30	5.50	P-DRL	DRLG	PP		Drill 8 1/2" hole from 2045m to 2116m. Pump 1 pill seawater and soak around bit on connection and 2 pills 25bbl each of seawater with Calcium Carbonate at 20ppb pumped around to attempt to revive drilling rate. ROP increased significantly for about 5 minutes after Calcium Carbonate pills. Decision to POOH to change bit. Perform flowcheck - OK
5:30	6:30	1.00	P-DRL	TRIP	PN	BT	POOH from 2116m to 1943m (wet)flow check prior to cemmencing trip . Pump slug at 1943m
6:30	9:00	2.50	P-DRL	TRIP	PN	BT	POOH from 1943m to 265m , flowcheck at csg shoe
9:00	11:00	2.00	P-DRL	TRIPBHA	PN	BT	Flow check at BHA , POOH from 265m to surface.Rack back HWDP and D.C's . remove R.A source from ADN tool , lay out ADN tool , break of bit
11:00	12:00	1.00	P-DRL	TRIPBHA	PN	BT	Remove nozzles from bit and install in new bit, make up bit and RIH ,
12:00	12:30	0.50	P-DRL	TRIPBHA	PN	BT	Install RA source at 36m.
12:30	15:00	2.50	P-DRL	TRIP	PN	BT	RIH from 36m to 956m. Trip drill - 42sec. Pump down 1 Gal of PHPA and stage pump for 400, 600 and 700 gpm
15:00	15:30	0.50	P-DRL	RIGSER	PP		Service TDS. Held JSA.
15:30	18:00	2.50	P-DRL	TRIP	PN	BT	RIH from 856m to 2092m. Stage pump at 1500m - 700gpm/2600psi. Wash down to 2116m.
18:00	0:00	6.00	P-DRL	DRLG	PP		Drill 8 1/2" hole from 2116m to 2307m.

24.00 = Total Hours Today

06:00 UPDATE

0000-0600 Drill 8 1/2" hole from 2307m to 2414m. ROP slowed at 2363m. Pump 25bbl Calcium Carbonate pill, spot seawater at bit during connection and pump at high rate while spinning pipe to attempt to revive ROP - no tangible success.

BIT DATA

BIT / RUN	SIZE (mm)	MANUFACTURER	TYPE	SERIAL NO	JETS OR TFA	DEPTH IN / DATE IN	I-O-D-L-B-G-O-R
4 / 1	216.0	REED	RSX519M-A5	216813	3x11, 5x14	2,116.00 / 19-03-2008	1-3-BU-A-X-I-WT-PR
3RR / 2	216.0	REED	RSX616B	216126	1x15, 5x14	1,998.00 / 18-03-2008	1-1-BU-A-X-I-CT-PR

APACHE CORPORATION

Daily Drilling Report

WELL NAME				DATE
COELACANTH-1				19-03-2008
API #	**24 HRS PROG**	**TMD**	**TVD**	**REPT NO**
	262.00 (m)	2,307.00 (m)	2,306.90 (m)	12

BIT OPERATIONS

BIT / RUN	WOB	RPM	FLOW	PRESS	P BIT	HRS	24 Hr PROG	24 HR ROP	CUM HRS	CUM PROG	CUM ROP
4/1	5/15	100/100	2,650.17	27,500	2864	4.40	191.00	43.4	4.40	191.00	43.4
3RR/2	10/20	120/150	2,460.52	18,961	3067	4.40	71.00	16.1	7.90	118.00	14.9

MOTOR OUTPUT

RPG: | ROTARY CURRENT: 150 | TOTAL RPM: 350

MUD PROPERTIES

LCM: | MUD TYPE: KCL/POLYMER

VIS (s/l)	PV/YP (cp) / (Pa)	GELS (Pa)	WL/HTHP (ml/30 min)	FC/T.SOL (mm) / (%)	OIL/WAT (%)	% SAND/MBT (%)/(sg)	pH/Pm (mL)	Pf/Mf (mL)	Cl (ppm)	Ca (ppm)	H2S (%)	KCL (ppm)	LGS (%)
54	18/14	5/8	5/15	1		0/0	9.00/0.10	0.10/0.70	47,000				2

Density (sg)	1.17			PP		DAILY COST	13,003	CUM COST	113,434	%OIL	0

BHA / HOLE CONDITIONS

BHA	5	JAR S/N	246700	JAR HRS		BIT	4

BHA WT BELOW JARS	STRING WT UP	STRING WT DN	STRING WT ROT	TORQUE/UNITS	BHA LENGTH
(tonne)	(tonne)	(tonne)	(tonne)	(kN-m)	264.96 (m)

ITEM DESCRIPTION	NO JTS	LENGTH	O.D	I.D	CONN SIZE	CONN TYPE
Heavy Weight Drill Pipe	8	75.18	177.80	82.55		
Cross Over	1	1.22	177.80	73.15		
Drilling Jar	1	9.33	165.10			
Cross Over	1	1.22	177.80	73.15		
Heavy Weight Drill Pipe	6	56.40	177.80	82.55		
Cross Over	1	1.22	177.80	73.15		
Non-Mag Pony Collar	9	83.88	165.10	73.15		
Logging While Drilling	1	6.25	176.28			
Cross Over	1	0.36	174.75	85.85		
Logging While Drilling	1	6.80	168.40	50.80		
MWD Tool	1	8.46	171.45			
Logging While Drilling	1	3.51	174.75			
Float Sub	1	0.83	171.45	71.37		
Positive Displacement Motor	1	10.06	184.15			
Polycrystalline Diamond Bit	1	0.24	215.90			

MUD PUMPS/HYDRAULICS

	STROKE	SPM	LINER	FLOW
# 1				
# 2				
# 3				

SPP: 27,500 (kPa)

HP: 0.345 (kW/cm²)

SPR

	SPM	PPSR

PERSONNEL DATA

COMPANY	QTY	HRS	COMPANY	QTY	HRS
TAMBORITHA	2		SPERRY SUN	1	
SEA DRILL SERVICES	40		BHI	4	
TOTAL MARINE CATERING	9		HALIBURTON	4	
NOPSA	2		SEA DRILL	13	
ADA	5		SCHLUMBERGER MWD/LWD	13	
APACHE	4				

TOTAL PERSONNEL ON BOARD: 97

APACHE CORPORATION

Daily Drilling Report

WELL NAME				DATE
COELACANTH-1				19-03-2008
API #	**24 HRS PROG**	**TMD**	**TVD**	**REPT NO**
	262.00 (m)	2,307.00 (m)	2,306.90 (m)	12

SUPPORT CRAFT

TYPE	REMARKS

MATERIALS/CONSUMPTION

ITEM	UNITS	USAGE	ON HAND	ITEM	UNITS	USAGE	ON HAND
BARITE BULK	MT	4	114	BENTONITE	MT		41
CEMENT	MT		99	FUEL OIL	m3		188
WATER, POTABLE	MT	32	273	WATER, DRILLING	MT		340

WEATHER

TIME	SWELL HT/DIR/PER	WAVE HT/DIR/PER	WIND SPEED/DIR	GUST SPEED/DIR	TEMP
00:00	0.20/ /2	/ /120.00	/	/45.00	

MUD INVENTORY

ITEM	UNIT	USAGE	Day Cost ($)	ON HAND
OMYACARB 5	25.00 kg		0.00	48.00
SODIUM BICARBONATE - NaHCO3	25.00 kg		0.00	35.00
CIRCAL Y	1,200.00 kg		0.00	9.00
CIRCAL 60/16	1,200.00 kg	15.00	0.00	-8.00
NO-SULF	17.00 kg		0.00	48.00
SODA ASH-SOD.CARBONATE-Na2CO3	25.00 kg	2.00	26.50	36.00
PAC L	25.00 kg	36.00	2,947.32	123.00
BAROFIBRE (FINE)	25.00 lbs		0.00	50.00
NEW DRIL HT PLUS	50.00 lbs		0.00	90.00
CALCIUM CHLORIDE 74-77%	25.00 kg		0.00	94.00
ALDACIDE G	25.00 l	1.00	99.28	5.00
CIRCAL 60/16 (BAKER HUGHES)	25.00 kg	18.00	207.18	101.00
POTASH - POT. CHLORIDE - KCl	1.00 MT		0.00	0.00
POTASSIUM HYDROXIDE	25.00 kg	2.00	89.96	72.00
KWIKSEAL (F)	40.00 lbs		0.00	39.00
EZ MUD	25.00 kg	21.00	2,048.13	24.00
EZ SPOT	55.00 gal		0.00	8.00
GUAR GUM	25.00 kg		0.00	40.00
LIME	20.00 kg		0.00	41.00
POTASH - POT. CHLORIDE - KCl	1,000.00 kg		0.00	10.00
CAUSTIC SODA - NaOH	25.00 kg		0.00	90.00
CITRIC ACID	25.00 kg		0.00	38.00
CLAYSEAL PLUS	216.00 kg	7.00	3,261.30	10.00
BARAZAN D PLUS	25.00 kg	19.00	3,287.00	102.00
BARITE (bulk)	1,000.00 kg		0.00	120.00
BARABLOK	50.00 lbs	30.00	1,035.90	232.00
STEELSEAL FINE	25.00 kg		0.00	60.00
BENTONITE	1,000.00 kg		0.00	41.50
BARA-DEFOAM WS300	5.00 gal		0.00	3.00

APACHE CORPORATION

Daily Drilling Report

WELL NAME				DATE
COELACANTH-1				20-03-2008
API #	**24 HRS PROG**	**TMD**	**TVD**	**REPT NO**
	393.00 (m)	2,700.00 (m)	2,699.89 (m)	13

RIG NAME NO	FIELD NAME	AUTH TMD	PLANNED DOW	DOL	DFS / KO	WATER DEPTH
WEST TRITON			15.92 (days)	12.33 (days)	10.46 (days)	90.00 (m)

SPUD DATE	Rig Release	WELL SUPERVISOR	OIM	PBTMD
08-03-2008		MARK PINSON / S SCHMIDT/P SHEENAN	MICHAEL BARRY	

REGION	DISTRICT	STATE / PROV		RIG PHONE NO	RIG FAX NO
AUSTRALIA	OFFSHORE	VICTORIA			

AFE # 1008E50	AFE COSTS	DAILY COSTS	CUMULATIVE COSTS
DESCRIPTION:	DHC: 12,691,688	DHC: 671,024	DHC: 9,468,107
	DCC:	DCC:	DCC:
	CWC:	CWC:	CWC:
	Others:	Others:	Others:
	TOTAL: 12,691,688	TOTAL: 671,024	TOTAL: 9,468,107

DEFAULT DATUM / ELEVATION	LAST SAFETY MEETING	BLOCK	FORMATION	BHA HRS OF SERVICE
ROTARY TABLE / 38.00 (m)		Vic-P45		

LAST SURVEY	LAST CSG SHOE TEST (EMW)	LAST CASING	NEXT CASING
MD 2,573.28 (m) **INC** 0.49° **AZM** 40.74°	1.80 (sg)	244.000 mm @ 902.0 m	

CURRENT OPERATIONS: Bit on surface being changed out.

24 HR SUMMARY: Drill 8 1/2" hole from 2307m to 2700m. POOH for bit change.

24 HR FORECAST: RIH with new bit and drill ahead

OPERATION SUMMARY

From	To	HRS	Phase	Operation	PT/NPT	NPT CODES	ACTIVITY SUMMARY
0:00	6:00	6.00	P-DRL	DRLG	PP		Drill 8 1/2" hole from 2307m to 2414m. ROP slowed at 2363m. Pump 25bbl Calcium Carbonate pill, spot seawater at bit during connection and pump at high rate while spinning pipe to attempt to revive ROP - no tangible success.
6:00	20:00	14.00	P-DRL	DRLG	PP		Continue drilling 8 1/2" hole from 2414m to 2700m. ROP speeded up again from 2425m. ROP slowed down dramatically at 2691m. Decision to pull bit.
20:00	20:30	0.50	P-DRL	TRIP	PN	BT	Flowcheck 15min - well static. Pump slug
20:30	0:00	3.50	P-DRL	TRIP	PN	BT	POOH from 2700m to 1888m. Tooljoints very tight and difficult to break.

24.00 = Total Hours Today

06:00 UPDATE

0000-0600 POOH from 1888m to 36m, Unload RA source, POOH to surface. Change out AND-6 and reload Bat Sonic while changing out bit.

BIT DATA

BIT / RUN	SIZE (mm)	MANUFACTURER	TYPE	SERIAL NO	JETS OR TFA	DEPTH IN / DATE IN	I-O-D-L-B-G-O-R
4 / 1	216.0	REED	RSX519M-A5	216813	3x11, 5x14	2,116.00 / 19-03-2008	1-3-BU-A-X-I-WT-PR

BIT OPERATIONS

BIT / RUN	WOB	RPM	FLOW	PRESS	P BIT	HRS	24 Hr PROG	24 HR ROP	CUM HRS	CUM PROG	CUM ROP
4/1	15/20	100/150	2,271.25	19,305	2086	14.70	393.00	26.7	19.10	584.00	30.6

MOTOR OUTPUT

RPG: | ROTARY CURRENT: 100 | TOTAL RPM: 300

MUD PROPERTIES

LCM: 0 | MUD TYPE: KCL/POLYMER 1

VIS (s/l)	PV/YP (cp) / (Pa)	GELS (Pa)	WL/HTHP (ml/30 min)	FC/T.SOL (mm) / (%)	OIL/WAT (%)	% SAND/MBT (%)/(sg)	pH/Pm (mL)	Pf/Mf (mL)	Cl (ppm)	Ca (ppm)	H2S (%)	KCL (ppm)	LGS (%)
57	23/16	6/11	5/14	1/6	0/0	0/0	9.00/0.10	0.02/1.00	44,000	0	0	0	4

Density (sg)	1.16	ECD (sg)	0.00	PP (sg)	0.00	DAILY COST	16,442	CUM COST	129,876	%OIL	0

BHA	5	JAR S/N	246700	BHA / HOLE CONDITIONS	JAR HRS		BIT	4

BHA WT BELOW JARS	STRING WT UP	STRING WT DN	STRING WT ROT	TORQUE/UNITS	BHA LENGTH
(tonne)	(tonne)	(tonne)	(tonne)	(kN-m)	264.96 (m)

Daily Drilling Report

WELL NAME				DATE
COELACANTH-1				20-03-2008
API #	**24 HRS PROG**	**TMD**	**TVD**	**REPT NO**
	393.00 (m)	2,700.00 (m)	2,699.89 (m)	13

ITEM DESCRIPTION	NO JTS	LENGTH	O.D	I.D	CONN SIZE	CONN TYPE
Heavy Weight Drill Pipe	8	75.18	177.80	82.55		
Cross Over	1	1.22	177.80	73.15		
Drilling Jar	1	9.33	165.10			
Cross Over	1	1.22	177.80	73.15		
Heavy Weight Drill Pipe	6	56.40	177.80	82.55		
Cross Over	1	1.22	177.80	73.15		
Non-Mag Pony Collar	9	83.88	165.10	73.15		
Logging While Drilling	1	6.25	176.28			
Cross Over	1	0.36	174.75	85.85		
Logging While Drilling	1	6.80	168.40	50.80		
MWD Tool	1	8.46	171.45			
Logging While Drilling	1	3.51	174.75			
Float Sub	1	0.83	171.45	71.37		
Positive Displacement Motor	1	10.06	184.15			
Polycrystalline Diamond Bit	1	0.24	215.90			

MUD PUMPS/HYDRAULICS

	STROKE	SPM	LINER	FLOW
# 1				
# 2				
# 3				

SPP: 19,305 (kPa)

HP: 0.216 (kW/cm²)

SPR

	SPM	PPSR

PERSONNEL DATA

COMPANY	QTY	HRS	COMPANY	QTY	HRS
BHI	4		SPERRY SUN	1	
TOTAL MARINE CATERING	9		APACHE	4	
HALIBURTON	4		ADA	4	
SEA DRILL SERVICES	39		SEA DRILL	12	
NOPSA	2		TAMBORITHA	2	
SCHLUMBERGER MWD/LWD	13				

TOTAL PERSONNEL ON BOARD: 94

SUPPORT CRAFT

TYPE	REMARKS

MATERIALS/CONSUMPTION

ITEM	UNITS	USAGE	ON HAND	ITEM	UNITS	USAGE	ON HAND
BARITE BULK	MT	4	110	BENTONITE	MT		41
CEMENT	MT		99	FUEL OIL	m3		171
WATER, POTABLE	MT	38	245	WATER, DRILLING	MT	52	288

WEATHER

TIME	SWELL HT/DIR/PER	WAVE HT/DIR/PER	WIND SPEED/DIR	GUST SPEED/DIR	TEMP
00:00	0.20/ /2	/ /120.00	/	/45.00	

Daily Drilling Report

WELL NAME				DATE
COELACANTH-1				20-03-2008
API #	**24 HRS PROG**	**TMD**	**TVD**	**REPT NO**
	393.00 (m)	2,700.00 (m)	2,699.89 (m)	13

MUD INVENTORY

ITEM	UNIT	USAGE	Day Cost ($)	ON HAND
KWIKSEAL (F)	40.00 lbs		0.00	39.00
POTASSIUM HYDROXIDE	25.00 kg		0.00	72.00
PAC L	25.00 kg	19.00	0.00	104.00
EZ MUD	25.00 kg	3.00	257.49	21.00
GUAR GUM	25.00 kg		0.00	40.00
BAROFIBRE (FINE)	25.00 lbs		0.00	50.00
CLAYSEAL PLUS	216.00 kg		0.00	10.00
OMYACARB 5	25.00 kg		0.00	48.00
BENTONITE	1,000.00 kg		0.00	41.50
NEW DRIL HT PLUS	50.00 lbs		0.00	90.00
BARABLOK	50.00 lbs	20.00	607.80	212.00
NO-SULF	17.00 kg		0.00	48.00
CIRCAL Y	1,200.00 kg	1.00	486.67	8.00
CAUSTIC SODA - NaOH	25.00 kg		0.00	90.00
ALDACIDE G	25.00 l		0.00	5.00
POTASH - POT. CHLORIDE - KCl	1.00 MT	10.00	4,414.60	-10.00
LIME	20.00 kg		0.00	41.00
STEELSEAL FINE	25.00 kg		0.00	60.00
CIRCAL 60/16 (BAKER HUGHES)	25.00 kg	18.00	182.34	83.00
CITRIC ACID	25.00 kg		0.00	38.00
BARAZAN D PLUS	25.00 kg	19.00	2,892.56	83.00
BARITE (bulk)	1,000.00 kg	10.00	4,788.80	110.00
SODA ASH- SOD.CARBONATE-Na2CO3	25.00 kg		0.00	36.00
CALCIUM CHLORIDE 74-77%	25.00 kg		0.00	94.00
EZ SPOT	55.00 gal		0.00	8.00
CIRCAL 60/16	1,200.00 kg		0.00	-8.00
SODIUM BICARBONATE - NaHCO3	25.00 kg		0.00	35.00
POTASH - POT. CHLORIDE - KCl	1,000.00 kg		0.00	10.00
BARA-DEFOAM WS300	5.00 gal		0.00	3.00

APACHE CORPORATION

Daily Drilling Report

WELL NAME				DATE
COELACANTH-1				21-03-2008
API #	**24 HRS PROG**	**TMD**	**TVD**	**REPT NO**
	248.00 (m)	2,948.00 (m)	2,947.88 (m)	14

RIG NAME NO	FIELD NAME	AUTH TMD	PLANNED DOW	DOL	DFS / KO	WATER DEPTH
WEST TRITON			15.92 (days)	13.33 (days)	11.46 (days)	90.00 (m)

SPUD DATE	Rig Release	WELL SUPERVISOR	OIM	PBTMD
08-03-2008		MARK PINSON / S SCHMIDT/P SHEENAN	MICHAEL BARRY	

REGION	DISTRICT	STATE / PROV		RIG PHONE NO	RIG FAX NO
AUSTRALIA	OFFSHORE	VICTORIA			

AFE # 1008E50	AFE COSTS	DAILY COSTS	CUMULATIVE COSTS
DESCRIPTION:	DHC: 12,691,688	DHC: 743,432	DHC: 10,211,539
	DCC:	DCC:	DCC:
	CWC:	CWC:	CWC:
	Others:	Others:	Others:
	TOTAL: 12,691,688	TOTAL: 743,432	TOTAL: 10,211,539

DEFAULT DATUM / ELEVATION	LAST SAFETY MEETING	BLOCK	FORMATION	BHA HRS OF SERVICE
ROTARY TABLE / 38.00 (m)		Vic-P45		

LAST SURVEY	LAST CSG SHOE TEST (EMW)	LAST CASING	NEXT CASING
MD 2,750.62 (m) **INC** 0.57° **AZM** 139.67°	1.80 (sg)	244.000 mm @ 902.0 m	

CURRENT OPERATIONS: Preparing to POOH

24 HR SUMMARY: POOH from 1888m and change out bit. Service BAT Sonic and change out AND-6 tools. RIH and drill from 2700m to 2948m.

24 HR FORECAST: POOH logging hole section from 2700m to 2433m with LWD tools. Continue POOH and run wireline logs

OPERATION SUMMARY

From	To	HRS	Phase	Operation	PT/NPT	NPT CODES	ACTIVITY SUMMARY
0:00	4:30	4.50	P-DRL	TRIP	PN	BT	POOH from 1888m to 36m
4:30	5:00	0.50	P-DRL	TRIPBHA	PN	BT	Unload RA source
5:00	6:00	1.00	P-DRL	TRIPBHA	PN	BT	POOH to surface. Change out AND-6 and reload Bat Sonic while changing out bit.
6:00	6:30	0.50	P-DRL	TRIPBHA	PN	BT	RIH to 36m
6:30	7:00	0.50	P-DRL	TRIPBHA	PN	BT	Install RA source
7:00	10:30	3.50	P-DRL	TRIP	PN	BT	RIH from 36m to 907m. Place PHPA in pipe and stage pump at 400, 500, 600 and 700 gpm.
10:30	11:30	1.00	P-DRL	TRIP	PN	BT	RIH from 907m to 1500m. Stage pump at 400, 500, 600 and 700 gpm
11:30	16:00	4.50	P-DRL	TRIP	PN	BT	Continue RIH from 1500m to 2700m. Wash & ream last 18m. Pumps at 695gpm & 3050psi
16:00	0:00	8.00	P-DRL	DRLCPA	PP		Drill from 2700m to 2948m

24.00 = Total Hours Today

06:00 UPDATE

0000-0600 Drill from 2948m to 3074m. **** FINAL TD of well ****. Pump 90bbl Hi-Vis sweep and circulate bottoms up. Pump 100bbl Hi-Vis sweep and continue circulate to clean hole.

BIT DATA

BIT / RUN	SIZE (mm)	MANUFACTURER	TYPE	SERIAL NO	JETS OR TFA	DEPTH IN / DATE IN	I-O-D-L-B-G-O-R
4 / 1	216.0	REED	RSX519M-A5	216813	3x11, 5x14	2,116.00 / 19-03-2008	1-3-BU-A-X-I-WT-PR
5 / 1	216.0	HUGHES CHRISTENSEN	HC506ZX	7211635	6x14	2,700.00 / 21-03-2008	0-0-NO-A-0-I-NO-TD

BIT OPERATIONS

BIT / RUN	WOB	RPM	FLOW	PRESS	P BIT	HRS	24 Hr PROG	24 HR ROP	CUM HRS	CUM PROG	CUM ROP
4/1	15/20	100/150	2,271.25	19,305	2086	0.00	0.00	0.0	19.10	584.00	30.6
5/1	1/5	80/120	2,649.79	21,029	3798	6.10	248.00	40.7	6.10	248.00	40.7

MOTOR OUTPUT

RPG:	ROTARY CURRENT: 100	TOTAL RPM: 420

APACHE CORPORATION

Daily Drilling Report

WELL NAME				DATE
COELACANTH-1				21-03-2008
API #	**24 HRS PROG**	**TMD**	**TVD**	**REPT NO**
	248.00 (m)	2,948.00 (m)	2,947.88 (m)	14

LCM: 0 | MUD PROPERTIES | MUD TYPE: KCL/POLYMER

VIS (s/l)	PV/YP (cp) / (Pa)	GELS (Pa)	WL/HTHP (ml/30 min)	FC/T.SOL (mm) / (%)	OIL/WAT (%)	% SAND/MBT (%)/(sg)	pH/Pm (mL)	Pf/Mf (mL)	Cl (ppm)	Ca (ppm)	H2S (%)	KCL (ppm)	LGS (%)
57	8/19	5/9	5/13	1/5	0/0	0/0	8.70/0.10	0.01/0.90	46,000	0	0	0	1

Density (sg)	1.19	ECD (sg)	0.00	PP (sg)	0.00	DAILY COST	6605	CUM COST	136,481	%OIL	0

BHA	6	JAR S/N	246700	BHA / HOLE CONDITIONS	JAR HRS		BIT	5

BHA WT BELOW JARS	STRING WT UP	STRING WT DN	STRING WT ROT	TORQUE/UNITS	BHA LENGTH
(tonne)	(tonne)	(tonne)	(tonne)	(kN-m)	264.96 (m)

ITEM DESCRIPTION	NO JTS	LENGTH	O.D	I.D	CONN SIZE	CONN TYPE
Heavy Weight Drill Pipe	8	75.18	177.80	82.55		
Cross Over	1	1.22	177.80	73.15		
Drilling Jar	1	9.33	165.10			
Cross Over	1	1.22	177.80	73.15		
Heavy Weight Drill Pipe	6	56.40	177.80	82.55		
Cross Over	1	1.22	177.80	73.15		
Non-Mag Pony Collar	9	83.88	165.10	73.15		
Logging While Drilling	1	6.25	176.28			
Cross Over	1	0.36	174.75	85.85		
Logging While Drilling	1	6.80	168.40	50.80		
MWD Tool	1	8.46	171.45			
Logging While Drilling	1	3.51	174.75			
Float Sub	1	0.83	171.45	71.37		
Positive Displacement Motor	1	10.06	184.15			
Polycrystalline Diamond Bit	1	0.24	215.90			

MUD PUMPS/HYDRAULICS

	STROKE	SPM	LINER	FLOW
# 1				
# 2				
# 3				

SPP: 21,029 (kPa)

HP: 0.458 (kW/cm²)

SPR

	SPM	PPSR

PERSONNEL DATA

COMPANY	QTY	HRS	COMPANY	QTY	HRS
SCHLUMBERGER MWD/LWD	13		TOTAL MARINE CATERING	9	
WEATHERFORD	1		TAMBORITHA	2	
APACHE	4		HALIBURTON	3	
BHI	4		SPERRY SUN	1	
SEA DRILL	12		SEA DRILL SERVICES	40	
PetroTech	1		ADA	4	

TOTAL PERSONNEL ON BOARD: 94

SUPPORT CRAFT

TYPE	REMARKS

MATERIALS/CONSUMPTION

ITEM	UNITS	USAGE	ON HAND	ITEM	UNITS	USAGE	ON HAND
BARITE BULK	MT	4	106	BENTONITE	MT		41
CEMENT	MT		99	FUEL OIL	m3		161
WATER, POTABLE	MT	25	230	WATER, DRILLING	MT	50	238

APACHE CORPORATION

Daily Drilling Report

WELL NAME				DATE
COELACANTH-1				21-03-2008
API #	**24 HRS PROG**	**TMD**	**TVD**	**REPT NO**
	248.00 (m)	2,948.00 (m)	2,947.88 (m)	14

WEATHER

TIME	SWELL HT/DIR/PER	WAVE HT/DIR/PER	WIND SPEED/DIR	GUST SPEED/DIR	TEMP
00:00	0.20/ /2	/ /120.00	/	/45.00	

MUD INVENTORY

ITEM	UNIT	USAGE	Day Cost ($)	ON HAND
KWIKSEAL (F)	40.00 lbs		0.00	39.00
GUAR GUM	25.00 kg		0.00	40.00
PAC L	25.00 kg	29.00	2,374.23	75.00
LIME	20.00 kg		0.00	41.00
SODIUM BICARBONATE - NaHCO3	25.00 kg		0.00	35.00
CIRCAL 60/16 (BAKER HUGHES)	25.00 kg		0.00	83.00
BENTONITE	1,000.00 kg		0.00	41.50
ALDACIDE G	25.00 l	1.00	99.28	4.00
CLAYSEAL PLUS	216.00 kg	3.00	1,397.70	7.00
OMYACARB 5	25.00 kg		0.00	48.00
NO-SULF	17.00 kg		0.00	48.00
BARITE (bulk)	1,000.00 kg		0.00	110.00
EZ MUD	25.00 kg	2.00	195.06	19.00
CIRCAL Y	1,200.00 kg		0.00	8.00
BARAZAN D PLUS	25.00 kg	14.00	2,422.00	69.00
CITRIC ACID	25.00 kg		0.00	38.00
POTASH - POT. CHLORIDE - KCl	1,000.00 kg		0.00	10.00
SODA ASH-SOD.CARBONATE-Na2CO3	25.00 kg	2.00	26.50	34.00
STEELSEAL FINE	25.00 kg		0.00	60.00
CIRCAL 60/16	1,200.00 kg		0.00	-8.00
EZ SPOT	55.00 gal		0.00	8.00
NEW DRIL HT PLUS	50.00 lbs		0.00	90.00
BAROFIBRE (FINE)	25.00 lbs		0.00	50.00
BARABLOK	50.00 lbs		0.00	212.00
BARA-DEFOAM WS300	5.00 gal		0.00	3.00
CALCIUM CHLORIDE 74-77%	25.00 kg		0.00	94.00
POTASH - POT. CHLORIDE - KCl	1.00 MT		0.00	-10.00
POTASSIUM HYDROXIDE	25.00 kg	2.00	89.96	70.00
CAUSTIC SODA - NaOH	25.00 kg		0.00	90.00

APACHE CORPORATION

Daily Drilling Report

WELL NAME				DATE
COELACANTH-1				22-03-2008
API #	**24 HRS PROG**	**TMD**	**TVD**	**REPT NO**
	126.00 (m)	3,074.00 (m)	3,073.87 (m)	15

RIG NAME NO	FIELD NAME	AUTH TMD	PLANNED DOW	DOL	DFS / KO	WATER DEPTH
WEST TRITON			15.92 (days)	14.33 (days)	12.46 (days)	90.00 (m)

SPUD DATE	Rig Release	WELL SUPERVISOR	OIM	PBTMD
08-03-2008		MARK PINSON / S SCHMIDT/P SHEENAN	MICHAEL BARRY	

REGION	DISTRICT	STATE / PROV		RIG PHONE NO	RIG FAX NO
AUSTRALIA	OFFSHORE	VICTORIA			

AFE # 1008E50	AFE COSTS	DAILY COSTS	CUMULATIVE COSTS
DESCRIPTION:	DHC: 12,691,688	DHC: 655,043	DHC: 10,866,582
	DCC:	DCC:	DCC:
	CWC:	CWC:	CWC:
	Others:	Others:	Others:
	TOTAL: 12,691,688	TOTAL: 655,043	TOTAL: 10,866,582

DEFAULT DATUM / ELEVATION	LAST SAFETY MEETING	BLOCK	FORMATION	BHA HRS OF SERVICE
ROTARY TABLE / 38.00 (m)		Vic-P45		

LAST SURVEY	LAST CSG SHOE TEST (EMW)	LAST CASING	NEXT CASING
MD 2,967.93 (m) **INC** 0.68° **AZM** 143.30°	1.80 (sg)	244.000 mm @ 902.0 m	

CURRENT OPERATIONS: Running VSP-Seismic wireline log

24 HR SUMMARY: Complete drilling well from 2948m to final TD of 3074m. Circulate to clean hole, POOH and re-log well with LWD tools from 2739m to 2420m. Continue POOH and lay down LWD tools and motor

24 HR FORECAST: Run wireline logs

OPERATION SUMMARY

From	To	HRS	Phase	Operation	PT/NPT	NPT CODES	ACTIVITY SUMMARY
0:00	4:00	4.00	P-DRL	DRLCPA			Drill from 2948m to 3074m. **** FINAL TD of well ****
4:00	6:00	2.00	P-DRL	CIRC			Pump 90bbl Hi-Vis sweep and circulate bottoms up. Pump 100bbl Hi-Vis sweep and continue circulate to clean hole.
6:00	7:30	1.50	P-DRL	TRIP			Flowcheck - well static. POOH from 3074m to 2743m.
7:30	14:00	6.50	P-DRL	RMWASH	PN	MW	Re-log well with LWD tools from 2739m to 2420m at a max. speed of 120m/h.
14:00	21:00	7.00	P-DRL	TRIP			Pump slug and POOH from 2420m to 36m. Flowcheck well at 9 5/8" shoe and 265m.
21:00	21:30	0.50	P-DRL	TRIPBHA			Hold PJSM and remove RA source.
21:30	0:00	2.50	P-DRL	TRIPBHA			Continue POOH laying down BHA tools.

24.00 = Total Hours Today

06:00 UPDATE

0000-0600 00:00 - 01:30: Rig up Schlumberger wireline.
0130 - 0430: Wait on weather - high winds of 30 to 38 knots - to run Seimic guns over side of rig. Run in hole with seismic tools to 800m.
0430 - 0500: Wind speed dropped. Hold JSA. Continue to run Seismic guns over side of rig.
0500 - 0600: VSP-Seismic wireline log.

BIT DATA

BIT / RUN	SIZE (mm)	MANUFACTURER	TYPE	SERIAL NO	JETS OR TFA	DEPTH IN / DATE IN	I-O-D-L-B-G-O-R
5 / 1	216.0	HUGHES CHRISTENSEN	HC506ZX	7211635	6x14	2,700.00 / 21-03-2008	0-0-NO-A-0-I-NO-TD

BIT OPERATIONS

BIT / RUN	WOB	RPM	FLOW	PRESS	P BIT	HRS	24 Hr PROG	24 HR ROP	CUM HRS	CUM PROG	CUM ROP
5/1	5/8	50/100	2,649.79	21,718	3798	3.00	126.00	42.0	9.10	374.00	41.1

MOTOR OUTPUT

RPG: | ROTARY CURRENT: 100 | TOTAL RPM: 300

MUD PROPERTIES

LCM: 0 | MUD TYPE: KCL/POLYMER

VIS (s/l)	PV/YP (cp) / (Pa)	GELS (Pa)	WL/HTHP (ml/30 min)	FC/T.SOL (mm) / (%)	OIL/WAT (%)	% SAND/MBT (%)/(sg)	pH/Pm (mL)	Pf/Mf (mL)	Cl (ppm)	Ca (ppm)	H2S (%)	KCL (ppm)	LGS (%)
58	16/13	5/9	5	1/5	0/0	0/0	9.00/0.10	0.01/0.90	46,000	0	0	0	1

Density (sg)	1.19			PP (sg)	0.00	DAILY COST	12,694	CUM COST	149,175	%OIL	0

APACHE CORPORATION

Daily Drilling Report

WELL NAME				DATE
COELACANTH-1				22-03-2008
API #	**24 HRS PROG**	**TMD**	**TVD**	**REPT NO**
	126.00 (m)	3,074.00 (m)	3,073.87 (m)	15

BHA	6	JAR S/N	246700	BHA / HOLE CONDITIONS	JAR HRS		BIT	5

BHA WT BELOW JARS	STRING WT UP	STRING WT DN	STRING WT ROT	TORQUE/UNITS	BHA LENGTH
16 (tonne)	136 (tonne)	133 (tonne)	(tonne)	4 (kN-m)	264.96 (m)

ITEM DESCRIPTION	NO JTS	LENGTH	O.D	I.D	CONN SIZE	CONN TYPE
Heavy Weight Drill Pipe	8	75.18	177.80	82.55		
Cross Over	1	1.22	177.80	73.15		
Drilling Jar	1	9.33	165.10			
Cross Over	1	1.22	177.80	73.15		
Heavy Weight Drill Pipe	6	56.40	177.80	82.55		
Cross Over	1	1.22	177.80	73.15		
Non-Mag Pony Collar	9	83.88	165.10	73.15		
Logging While Drilling	1	6.25	176.28			
Cross Over	1	0.36	174.75	85.85		
Logging While Drilling	1	6.80	168.40	50.80		
MWD Tool	1	8.46	171.45			
Logging While Drilling	1	3.51	174.75			
Float Sub	1	0.83	171.45	71.37		
Positive Displacement Motor	1	10.06	184.15			
Polycrystalline Diamond Bit	1	0.24	215.90			

MUD PUMPS/HYDRAULICS

	STROKE	SPM	LINER	FLOW
# 1				
# 2				
# 3				

SPP: 21,718 (kPa)

HP: 0.458 (kW/cm²)

SPR

	SPM	PPSR

PERSONNEL DATA

COMPANY	QTY	HRS	COMPANY	QTY	HRS
BHI	4		PetroTech	1	
ADA	4		SCHLUMBERGER MWD/LWD	13	
SPERRY SUN	1		HALIBURTON	3	
WEATHERFORD	1		APACHE	4	
TOTAL MARINE CATERING	9		SEA DRILL SERVICES	40	
TAMBORITHA	2		SEA DRILL	12	

TOTAL PERSONNEL ON BOARD: 94

SUPPORT CRAFT

TYPE	REMARKS

MATERIALS/CONSUMPTION

ITEM	UNITS	USAGE	ON HAND	ITEM	UNITS	USAGE	ON HAND
BARITE BULK	MT	4	23	BENTONITE	MT		41
CEMENT	MT		99	FUEL OIL	m3		154
WATER, POTABLE	MT	40	200	WATER, DRILLING	MT	65	373

WEATHER

TIME	SWELL HT/DIR/PER	WAVE HT/DIR/PER	WIND SPEED/DIR	GUST SPEED/DIR	TEMP
00:00	0.20/ /2	/ /120.00	/	/45.00	

Daily Drilling Report

WELL NAME				DATE
COELACANTH-1				22-03-2008
API #	**24 HRS PROG**	**TMD**	**TVD**	**REPT NO**
	126.00 (m)	3,074.00 (m)	3,073.87 (m)	15

MUD INVENTORY

ITEM	UNIT	USAGE	Day Cost ($)	ON HAND
PAC L	25.00 kg		0.00	75.00
NO-SULF	17.00 kg		0.00	48.00
BENTONITE	1,000.00 kg		0.00	41.50
CLAYSEAL PLUS	216.00 kg		0.00	7.00
CIRCAL Y	1,200.00 kg		0.00	8.00
POTASH - POT. CHLORIDE - KCl	1.00 MT		0.00	-10.00
NEW DRIL HT PLUS	50.00 lbs		0.00	90.00
CIRCAL 60/16	1,200.00 kg		0.00	-8.00
CAUSTIC SODA - NaOH	25.00 kg		0.00	90.00
KWIKSEAL (F)	40.00 lbs	1.00	59.50	38.00
BARAZAN D PLUS	25.00 kg	18.00	3,114.00	51.00
EZ SPOT	55.00 gal		0.00	8.00
CITRIC ACID	25.00 kg	1.00	52.55	37.00
BARABLOK	50.00 lbs	132.00	4,557.96	80.00
POTASH - POT. CHLORIDE - KCl	1,000.00 kg		0.00	10.00
CIRCAL 60/16	25.00 sks	21.00	241.71	-21.00
BARA-DEFOAM WS300	5.00 gal	1.00	0.00	2.00
ALDACIDE G	25.00 l	3.00	297.84	1.00
SODIUM BICARBONATE - NaHCO3	25.00 kg		0.00	35.00
CIRCAL 60/16 (BAKER HUGHES)	25.00 kg		0.00	83.00
POTASSIUM HYDROXIDE	25.00 kg		0.00	70.00
EZ MUD	25.00 kg		0.00	19.00
BAROFIBRE (FINE)	25.00 lbs		0.00	50.00
GUAR GUM	25.00 kg		0.00	40.00
OMYACARB 5	25.00 kg		0.00	48.00
SODA ASH- SOD.CARBONATE-Na2CO3	25.00 kg		0.00	34.00
CALCIUM CHLORIDE 74-77%	25.00 kg	8.00	125.60	86.00
BARITE (bulk)	1,000.00 kg	7.80	4,244.60	22.20
STEELSEAL FINE	25.00 kg		0.00	60.00
LIME	20.00 kg		0.00	41.00

APACHE CORPORATION

Daily Drilling Report

WELL NAME				DATE
COELACANTH-1				23-03-2008
API #	**24 HRS PROG**	**TMD**	**TVD**	**REPT NO**
	0.00 (m)	3,074.00 (m)	3,073.87 (m)	16

RIG NAME NO	FIELD NAME	AUTH TMD	PLANNED DOW	DOL	DFS / KO	WATER DEPTH
WEST TRITON			15.92 (days)	15.33 (days)	13.46 (days)	90.00 (m)

SPUD DATE	Rig Release	WELL SUPERVISOR	OIM	PBTMD
08-03-2008		MARK PINSON / S SCHMIDT/P SHEENAN	MICHAEL BARRY	

REGION	DISTRICT	STATE / PROV		RIG PHONE NO	RIG FAX NO
AUSTRALIA	OFFSHORE	VICTORIA			

AFE # 1008E50	AFE COSTS	DAILY COSTS	CUMULATIVE COSTS
DESCRIPTION:	DHC: 12,691,688	DHC: 818,123	DHC: 11,684,705
	DCC:	DCC:	DCC:
	CWC:	CWC:	CWC:
	Others:	Others:	Others:
	TOTAL: 12,691,688	TOTAL: 818,123	TOTAL: 11,684,705

DEFAULT DATUM / ELEVATION	LAST SAFETY MEETING	BLOCK	FORMATION	BHA HRS OF SERVICE
ROTARY TABLE / 38.00 (m)		Vic-P45		

LAST SURVEY	LAST CSG SHOE TEST (EMW)	LAST CASING	NEXT CASING
MD 2,967.93 (m) **INC** 0.68° **AZM** 143.30°	1.80 (sg)	244.000 mm @ 902.0 m	

CURRENT OPERATIONS: Running in hole for P & A cement plugs

24 HR SUMMARY: Rig up Schlumberger, WOW (strong winds) and then run seismic tool. Continue wireline logging programme and run side-wall core gun.

24 HR FORECAST: Continue with P & A programme

OPERATION SUMMARY

From	To	HRS	Phase	Operation	PT/NPT	NPT CODES	ACTIVITY SUMMARY
0:00	1:30	1.50	P-EVAL	LOG	PP		Rig up Schlumberger wireline
1:30	4:30	3.00	P-EVAL	LOG	PN	WOW	Wait on weather - high winds of 30 to 38 knots - to run Seimic guns over side of rig. Run in hole with seismic tools to 800m.
4:30	5:00	0.50	P-EVAL	LOG	PP		Wind speed dropped. Hold JSA. Continue to run Seismic guns over side of rig.
5:00	18:30	13.50	P-EVAL	LOG	PP		Run VSP-Seismic wireline log, POOH and lay down tool.
18:30	8:01		P-EVAL	LOG	PP		Hold PJSM and move to radio silence. Make up side-wall core gun, RIH same and fire CST's as per programme.

18.50 = Total Hours Today

06:00 UPDATE

0000-0600 Complete CST wireline run - 23 recovered, 3 lost and 4 misfires. Rig down Schlumberger. RIH with open ended pipe to 2650m

PERSONNEL DATA

COMPANY	QTY	HRS	COMPANY	QTY	HRS
WEATHERFORD	1		SCHLUMBERGER MWD/LWD	13	
APACHE	4		TAMBORITHA	2	
SPERRY SUN	1		HALIBURTON	3	
SEA DRILL SERVICES	40		PetroTech	1	
SEA DRILL	12		TOTAL MARINE CATERING	9	
BHI	4		ADA	4	

TOTAL PERSONNEL ON BOARD: 94

SUPPORT CRAFT

TYPE	REMARKS

MATERIALS/CONSUMPTION

ITEM	UNITS	USAGE	ON HAND	ITEM	UNITS	USAGE	ON HAND
BARITE BULK	MT		23	BENTONITE	MT		41
CEMENT	MT		99	FUEL OIL	m3		152
WATER, POTABLE	MT	47	163	WATER, DRILLING	MT	23	350

APACHE CORPORATION

Daily Drilling Report

WELL NAME				DATE
COELACANTH-1				23-03-2008
API #	**24 HRS PROG**	**TMD**	**TVD**	**REPT NO**
	0.00 (m)	3,074.00 (m)	3,073.87 (m)	16

WEATHER

TIME	SWELL HT/DIR/PER	WAVE HT/DIR/PER	WIND SPEED/DIR	GUST SPEED/DIR	TEMP
00:00	0.20/ /2	/ /120.00	/	/45.00	

MUD INVENTORY

ITEM	UNIT	USAGE	Day Cost ($)	ON HAND
OMYACARB 5	25.00 kg		0.00	48.00
SODA ASH-SOD.CARBONATE-Na2CO3	25.00 kg		0.00	34.00
LIME	20.00 kg		0.00	41.00
EZ MUD	25.00 kg		0.00	19.00
CIRCAL 60/16	25.00 sks		0.00	-21.00
NEW DRIL HT PLUS	50.00 lbs		0.00	90.00
BARAZAN D PLUS	25.00 kg	1.00	173.00	50.00
ALDACIDE G	25.00 l		0.00	1.00
BAROFIBRE (FINE)	25.00 lbs		0.00	50.00
POTASH - POT. CHLORIDE - KCl	1.00 MT		0.00	-10.00
CAUSTIC SODA - NaOH	25.00 kg		0.00	90.00
KWIKSEAL (F)	40.00 lbs		0.00	38.00
BENTONITE	1,000.00 kg		0.00	41.50
GUAR GUM	25.00 kg		0.00	40.00
SODIUM BICARBONATE - NaHCO3	25.00 kg		0.00	35.00
POTASH - POT. CHLORIDE - KCl	1,000.00 kg		0.00	10.00
EZ SPOT	55.00 gal		0.00	8.00
NO-SULF	17.00 kg		0.00	48.00
CIRCAL 60/16	1,200.00 kg		0.00	-8.00
CIRCAL Y	1,200.00 kg		0.00	8.00
PAC L	25.00 kg		0.00	75.00
CLAYSEAL PLUS	216.00 kg		0.00	7.00
STEELSEAL FINE	25.00 kg		0.00	60.00
BARABLOK	50.00 lbs		0.00	80.00
CIRCAL 60/16 (BAKER HUGHES)	25.00 kg		0.00	83.00
POTASSIUM HYDROXIDE	25.00 kg		0.00	70.00
BARA-DEFOAM WS300	5.00 gal		0.00	2.00
CITRIC ACID	25.00 kg		0.00	37.00
BARITE (bulk)	1,000.00 kg		0.00	22.20
CALCIUM CHLORIDE 74-77%	25.00 kg		0.00	86.00

APACHE CORPORATION

Daily Drilling Report

WELL NAME				DATE
COELACANTH-1				24-03-2008
API #	**24 HRS PROG**	**TMD**	**TVD**	**REPT NO**
	0.00 (m)	3,074.00 (m)	3,073.87 (m)	17

RIG NAME NO	FIELD NAME	AUTH TMD	PLANNED DOW	DOL	DFS / KO	WATER DEPTH
WEST TRITON			15.92 (days)	16.33 (days)	14.46 (days)	90.00 (m)

SPUD DATE	Rig Release	WELL SUPERVISOR	OIM	PBTMD
08-03-2008		MARK PINSON / S SCHMIDT/P SHEENAN	MICHAEL BARRY	

REGION	DISTRICT	STATE / PROV		RIG PHONE NO	RIG FAX NO
AUSTRALIA	OFFSHORE	VICTORIA			

AFE # 1008E50	AFE COSTS	DAILY COSTS	CUMULATIVE COSTS
DESCRIPTION:	DHC: 12,691,688	DHC: 794,171	DHC: 12,478,876
	DCC:	DCC:	DCC:
	CWC:	CWC:	CWC:
	Others:	Others:	Others:
	TOTAL: 12,691,688	TOTAL: 794,171	TOTAL: 12,478,876

DEFAULT DATUM / ELEVATION	LAST SAFETY MEETING	BLOCK	FORMATION	BHA HRS OF SERVICE
ROTARY TABLE / 38.00 (m)		Vic-P45		

LAST SURVEY	LAST CSG SHOE TEST (EMW)	LAST CASING	NEXT CASING
MD 2,967.93 (m) **INC** 0.68° **AZM** 143.30°	1.80 (sg)	244.000 mm @ 902.0 m	

CURRENT OPERATIONS: Laying down last 2 stands of 6 1/2" DC's.

24 HR SUMMARY: Complete CST wireline cores and rig down. RIH DP. Spot 60m open hole plug#1, reverse circ. POOH, spot cement plug #2 across shoe, reverse circ DP.

24 HR FORECAST: Pressure test cement plug over 9 5/8" shoe, cut 9 5/8" CSG and retrieve same. Spot cement plug over 9 5/8" cut CSG. Cut 20" CSG below seabed, nipple down BOP and retrieve 20" CSG. Prepare for rig move.

OPERATION SUMMARY

From	To	HRS	Phase	Operation	PT/NPT	NPT CODES	ACTIVITY SUMMARY
0:00	2:30	2.50	P-EVAL	LOG	PP		Complete CST wireline run - 23 recovered, 3 lost and 4 misfires.
2:30	3:00	0.50	P-EVAL	RURDWL	PP		Rig down Schlumberger.
3:00	9:00	6.00	P-CMT	BPLUG	PP		RIH with open ended pipe to 2650m
9:00	9:30	0.50	P-CMT	BPLUG	PP		Spot 60m HI-VIS pill , 2650m to 2590m Held JSA for cement job
9:30	10:00	0.50	P-CMT	BPLUG	PP		POOh to 2590m , rig up for cementing and pressure test line
10:00	10:30	0.50	P-CMT	BPLUG	PP		Halliburton mix and pump cement plug , 60m balanced plug from 2590m to 2530m as per program
10:30	11:30	1.00	P-CMT	BPLUG	PP		POOH to 60m above top of cement
11:30	12:30	1.00	P-CMT	CIRC	PP		Reverse circulate 2 drill pipe volumes
12:30	13:00	0.50	P-CMT	BPLUG	PP		Open BOP & break off circulating head.
13:00	16:00	3.00	P-CMT	BPLUG	PP		POOH from 2530m to 1000m.
16:00	16:30	0.50	P-CMT	BPLUG	PP		Spot 20bbl Hi-Vis pill, 1000m to 940m
16:30	17:00	0.50	P-CMT	BPLUG	PP		Held PJSM, POOH from 1000m to 940m.
17:00	18:00	1.00	P-CMT	BPLUG	PP		Rig up cement lines and pressure test same to 1000psi. Spot balanced cement plug from 940m to 852m as per programme.
18:00	18:30	0.50	P-CMT	RURDCU	PP		Break off cement lines & POOH from 940m to 852m.
18:30	19:00	0.50	P-CMT	CIRC	PP		Rig up circ head, close BOP and reverse circ 2x DP volume.
19:00	0:00	5.00	P-CMT	BPLUG	PP		Open BOP, break off cement head and lines and POOH laying down 5 1/2" DP from 852m to 148m.

24.00 = Total Hours Today

06:00 UPDATE

0000-0600 00:00 - 06:00 - Continue POOH laying down 5 1/2" DP leaving 75 stands DP in derrick. Lay down 5 1/2" HWDP, 6 1/2" DC's and jar.

APACHE CORPORATION

Daily Drilling Report

WELL NAME				DATE
COELACANTH-1				24-03-2008
API #	**24 HRS PROG**	**TMD**	**TVD**	**REPT NO**
	0.00 (m)	3,074.00 (m)	3,073.87 (m)	17

PERSONNEL DATA

COMPANY	QTY	HRS	COMPANY	QTY	HRS
HALIBURTON	3		FUGRO	1	
DRIL-QUIP	1		SEA DRILL	12	
SEA DRILL SERVICES	43		ADA	4	
SCHLUMBERGER MWD/LWD	4		APACHE	2	
WEATHERFORD	1		TOTAL MARINE CATERING	9	
BAKER HUGHS	4		TAMBORITHA	2	

TOTAL PERSONNEL ON BOARD: 86

SUPPORT CRAFT

TYPE	REMARKS

MATERIALS/CONSUMPTION

ITEM	UNITS	USAGE	ON HAND	ITEM	UNITS	USAGE	ON HAND
BARITE BULK	MT		23	BENTONITE	MT		41
CEMENT	MT	14	85	FUEL OIL	m3	7	145
WATER, POTABLE	MT	85	88	WATER, DRILLING	MT	52	298

WEATHER

TIME	SWELL HT/DIR/PER	WAVE HT/DIR/PER	WIND SPEED/DIR	GUST SPEED/DIR	TEMP
00:00	0.20/ /2	/ /120.00	/	/45.00	

MUD INVENTORY

ITEM	UNIT	USAGE	Day Cost ($)	ON HAND
NO-SULF	17.00 kg		0.00	48.00
STEELSEAL FINE	25.00 kg		0.00	60.00
LIME	20.00 kg		0.00	41.00
ALDACIDE G	25.00 l		0.00	1.00
PAC L	25.00 kg		0.00	75.00
CITRIC ACID	25.00 kg		0.00	37.00
CIRCAL Y	1,200.00 kg		0.00	8.00
BARITE (bulk)	1,000.00 kg		0.00	22.20
KWIKSEAL (F)	40.00 lbs		0.00	38.00
GUAR GUM	25.00 kg		0.00	40.00
POTASH - POT. CHLORIDE - KCl	1,000.00 kg		0.00	10.00
BARA-DEFOAM WS300	5.00 gal		0.00	2.00
EZ MUD	25.00 kg		0.00	19.00
OMYACARB 5	25.00 kg		0.00	48.00
CIRCAL 60/16	25.00 sks		0.00	-21.00
CIRCAL 60/16 (BAKER HUGHES)	25.00 kg		0.00	83.00
BARABLOK	50.00 lbs		0.00	80.00
SODA ASH-SOD.CARBONATE-Na2CO3	25.00 kg		0.00	34.00
SODIUM BICARBONATE - NaHCO3	25.00 kg		0.00	35.00
CLAYSEAL PLUS	216.00 kg		0.00	7.00
POTASSIUM HYDROXIDE	25.00 kg		0.00	70.00
CIRCAL 60/16	1,200.00 kg		0.00	-8.00
EZ SPOT	55.00 gal		0.00	8.00
CALCIUM CHLORIDE 74-77%	25.00 kg		0.00	86.00
BARAZAN D PLUS	25.00 kg	1.00	173.00	49.00
NEW DRIL HT PLUS	50.00 lbs		0.00	90.00
BAROFIBRE (FINE)	25.00 lbs		0.00	50.00
CAUSTIC SODA - NaOH	25.00 kg		0.00	90.00
BENTONITE	1,000.00 kg		0.00	41.50
POTASH - POT. CHLORIDE - KCl	1.00 MT		0.00	-10.00

APACHE CORPORATION

Daily Drilling Report

WELL NAME				DATE
COELACANTH-1				25-03-2008
API #	**24 HRS PROG**	**TMD**	**TVD**	**REPT NO**
	0.00 (m)	3,074.00 (m)	3,073.87 (m)	18

RIG NAME NO	FIELD NAME	AUTH TMD	PLANNED DOW	DOL	DFS / KO	WATER DEPTH
WEST TRITON			15.92 (days)	17.33 (days)	15.46 (days)	90.00 (m)

SPUD DATE	Rig Release	WELL SUPERVISOR	OIM	PBTMD
08-03-2008		MARK PINSON / S SCHMIDT/P SHEENAN	MICHAEL BARRY	

REGION	DISTRICT	STATE / PROV		RIG PHONE NO	RIG FAX NO
AUSTRALIA	OFFSHORE	VICTORIA			

AFE # 1008E50	AFE COSTS	DAILY COSTS	CUMULATIVE COSTS
DESCRIPTION:	DHC: 12,691,688	DHC: 626,880	DHC: 13,105,756
	DCC:	DCC:	DCC:
	CWC:	CWC:	CWC:
	Others:	Others:	Others:
	TOTAL: 12,691,688	TOTAL: 626,880	TOTAL: 13,105,756

DEFAULT DATUM / ELEVATION	LAST SAFETY MEETING	BLOCK	FORMATION	BHA HRS OF SERVICE
ROTARY TABLE / 38.00 (m)		Vic-P45		

LAST SURVEY	LAST CSG SHOE TEST (EMW)	LAST CASING	NEXT CASING
MD 2,967.93 (m) **INC** 0.68° **AZM** 143.30°	1.80 (sg)	244.000 mm @ 902.0 m	

CURRENT OPERATIONS: Casing spear engaged in 9 5/8" casing , working string trying to make free.

24 HR SUMMARY: Continue POOH after setting 2nd cement plug . Layed out drill pipe as pulling out and excess tubulars from derrick. Presssure test cmt plug . Cut 9 5/8" casing at 153 mtetres and unseccessfully attempt to pull. Nipple and rack BOP's

24 HR FORECAST: Pull and lay out 9 5/8" casing set cmt plug number 3 . Cut and pull 20" casing

OPERATION SUMMARY

From	To	HRS	Phase	Operation	PT/NPT	NPT CODES	ACTIVITY SUMMARY
0:00	7:00	7.00	R-MOB-DEM OB	RU_RD	PP		Continue POOH laying down 5 1/2" DP leaving 75 stands DP in derrick. Lay down 5 1/2" HWDP, 6 1/2" DC's and jar.
7:00	8:00	1.00	P-NUP	BOPS	PP		Pull diverter insert packer.Retreive wear bushing , seal assembly retreived with wear bushing
8:00	8:30	0.50	P-CSG	CSGRP	PP		Make up and RIH with 9 5/8" casing cutter to 153 metres
8:30	9:30	1.00	P-CMT	BPLUG	PP		Rig up cement hose and pressure test 9 5/8" casing shoe cement plug to 1285 psi surface pressure for 10 minutes
9:30	10:00	0.50	P-CSG	CSGRP	PP		Cut 9 5/8" casing at 153 metres
10:00	10:30	0.50	P-CSG	CSGRP	PP		POOH and lay down 9 5/8" casing cutter
10:30	11:30	1.00	P-CSG	CSGRP	PP		Make up 9 5/8" casing spear , RIH and engage casing. Attempt to pull casing , no success. Overpull to 60k. Release spear and POOH
11:30	12:00	0.50	P-CSG	CSGRP	PN	SO	Make up 9 5/8" casing cutter and RIH to 143 metres
12:00	12:30	0.50	P-CSG	CSGRP	PN	SO	Attempt to cut 9 5/8" casing at 143 metres without success , indications that casing already cut .
12:30	13:00	0.50	P-CSG	CSGRP	PN	SO	POOH layout casing cutter.
13:00	14:00	1.00	P-CSG	CSGRP	PN	SO	Make up 9 5/8" casing spear , RIH and engage casing , overpull to 60k , no movement.
14:00	15:00	1.00	P-CSG	CSGRP	PN	SO	POOH lay out casing spear .
15:00	16:00	1.00	P-NUP	BOPS	PN	SO	Make up mill and flush tool , RIH and flush casing hanger
16:00	16:30	0.50	P-NUP	BOPS	PN	SO	POOH with mill and flush tool and lay out same.
16:30	17:30	1.00	P-CSG	CSGRP	PN	SO	Make up 9 5/8" casing spear , RIH and engage casing , attempt to pull casing , 60k overpull , no movment.
17:30	18:00	0.50	P-CSG	CSGRP	PN	SO	POOH , layout casing spear.
18:00	21:00	3.00	P-NUP	BOPS	PN	BO	Rig up to pull and layout out diverter and diverter overshot , problems with diverter lockdown dogs not energising , trouble shoot and fix same.
21:00	21:30	0.50	P-NUP	BOPS	PP		Pull and layout diverter and diverter overshot
21:30	0:00	2.50	P-NUP	BOPS	PP		Nippling down BOP"s

24.00 = Total Hours Today

APACHE CORPORATION

Daily Drilling Report

WELL NAME				DATE
COELACANTH-1				25-03-2008
API #	**24 HRS PROG**	**TMD**	**TVD**	**REPT NO**
	0.00 (m)	3,074.00 (m)	3,073.87 (m)	18

06:00 UPDATE

0000-0600

00:00 - 01:30 - Nipple down BOP's . Secure BOP's on stump

01:30 - 03:00 - Inspect casing hanger in well head , no visible sign of fouling or damage, flush out with water . Make up and engage 9 5/8" casing hanger running tool.Apply 5k torque while working weight from netural to 15k over string weight . No movement. Disengage and POOH and layout running tool.

03:00 - 04:00 - Make up 9 5/8" casing cutter and RIH to 143 metres

04:00 - 05:00 - Cut casing at 143 metres, positive indication's of casing cut .

05:00 - 06:00 - Make up 9 5/8" casing spear RIH 21 metres and engage casing . Overpull casing 60k , no movement , continue to work string neutral weight to 60k overpull.

PERSONNEL DATA

COMPANY	QTY	HRS	COMPANY	QTY	HRS
TAMBORITHA	2		ADA	4	
APACHE	1		FUGRO	2	
SEA DRILL	12		WORLEY	2	
TOTAL MARINE CATERING	9		SEA DRILL SERVICES	42	
DRIL-QUIP	1		WEATHERFORD	1	
HALIBURTON	3		BAKER HUGHS	3	

TOTAL PERSONNEL ON BOARD: 82

SUPPORT CRAFT

TYPE	REMARKS
CREW VEHICLE	

MATERIALS/CONSUMPTION

ITEM	UNITS	USAGE	ON HAND	ITEM	UNITS	USAGE	ON HAND
BARITE BULK	MT		23	BENTONITE	MT		41
CEMENT	MT		85	FUEL OIL	m3		133
WATER, POTABLE	MT	60	65	WATER, DRILLING	MT	8	290

WEATHER

TIME	SWELL HT/DIR/PER	WAVE HT/DIR/PER	WIND SPEED/DIR	GUST SPEED/DIR	TEMP
00:00	0.20/ /2	/ /120.00	/	/45.00	

MUD INVENTORY

ITEM	UNIT	USAGE	Day Cost ($)	ON HAND

APACHE CORPORATION

Daily Drilling Report

WELL NAME				DATE
COELACANTH-1				26-03-2008
API #	**24 HRS PROG**	**TMD**	**TVD**	**REPT NO**
	0.00 (m)	3,074.00 (m)	3,073.87 (m)	19

RIG NAME NO	FIELD NAME	AUTH TMD	PLANNED DOW	DOL	DFS / KO	WATER DEPTH
WEST TRITON			15.92 (days)	18.33 (days)	16.46 (days)	90.00 (m)

SPUD DATE	Rig Release	WELL SUPERVISOR	OIM	PBTMD
08-03-2008		ADA SUPERVISOR / R.ROUSSOUW/P.SHEENAN	MICHAEL BARRY	

REGION	DISTRICT	STATE / PROV		RIG PHONE NO	RIG FAX NO
AUSTRALIA	OFFSHORE	VICTORIA			

AFE # 1008E50	AFE COSTS	DAILY COSTS	CUMULATIVE COSTS
DESCRIPTION:	DHC: 12,691,688	DHC: 629,994	DHC: 13,735,750
	DCC:	DCC:	DCC:
	CWC:	CWC:	CWC:
	Others:	Others:	Others:
	TOTAL: 12,691,688	TOTAL: 629,994	TOTAL: 13,735,750

DEFAULT DATUM / ELEVATION	LAST SAFETY MEETING	BLOCK	FORMATION	BHA HRS OF SERVICE
ROTARY TABLE / 38.00 (m)		Vic-P45		

LAST SURVEY						LAST CSG SHOE TEST (EMW)	LAST CASING	NEXT CASING
MD	2,967.93 (m)	**INC**	0.68°	**AZM**	143.30°	1.80 (sg)	244.000 mm @ 902.0 m	

CURRENT OPERATIONS: Retrieving 20" casing

24 HR SUMMARY: Retrieved 9 5/8" casing . Unsuccessfully attempted to retrieve 9 5/8" casing stump. Set cement plug

24 HR FORECAST: Retrieve and layout 20" casing . Skid in cantilever

OPERATION SUMMARY

From	To	HRS	Phase	Operation	PT/NPT	NPT CODES	ACTIVITY SUMMARY
0:00	1:30	1.50	P-NUP		PP		Nipple down BOP's . Secure BOP's on stump
1:30	3:00	1.50	P-CSG	CSGRP	PN	SO	Inspect casing hanger in well head , no visible sign of fouling or damage, flush out with water . Make up and engage 9 5/8" casing hanger running tool.Apply 5k torque while working weight from netural to 15k over string weight . No movement. Disengage and POOH and layout running tool.
3:00	4:00	1.00	P-CSG	CSGRP	PN	SO	Make up 9 5/8" casing cutter and RIH to 143 metres
4:00	5:00	1.00	P-CSG	CSGRP	PN	SO	Cut casing at 143 metres, positive indications of casing cut .
5:00	7:30	2.50	P-CSG	CSGRP	PN	SO	Make up 9 5/8" casing spear RIH 21 metres and engage casing . Overpull casing 60k , no movement , continue to work string neutral weight to 60k overpull.
7:30	9:00	1.50	P-CSG	CSGRP	PN	SO	POOH , lay down casing spear. Make up mill & flush tool, RIH to wellhead , set down 2k to 4 k w/20 rpm, 70/90 spm.Stop rotation , set down 15k , repeat 3 times .
9:00	9:30	0.50	P-CSG	CSGRP	PN	SO	Pooh with mill and flush tool. make up casing spear , RIH, engage casing. POOH with casing .
9:30	11:30	2.00	P-CSG	CSGRP	PP		Layout 9 5/8" casing , held JSA prior to commencing job.
11:30	12:00	0.50	P-CSG	CSGRP	PN	SO	Make up 9 5/8" casing spear , RIH to 145 metres and attempt to retreive 10 metre casing stump.
12:00	12:30	0.50	P-CSG	CSGRP	PN	SO	POOh to surface , no fish engaged
12:30	13:00	0.50	P-CSG	CSGRP	PN	SO	RIH to 145 metres attempt to engage fish as per weatherford instruction.
13:00	14:00	1.00	P-CSG	CSGRP	PN	SO	POOH to surface , no fish engaged.
14:00	14:30	0.50	P-CSG	CSGRP	PN	SO	RIH to 145 metres , attmpt to engage fish.
14:30	15:30	1.00	P-CSG	CSGRP	PN	SO	POOH to surface , no fish engaged . Layout 9 5/8" spear.
15:30	16:00	0.50	P-NUP	WLHEAD	PP		Retreive 13 3/8" dummy casing hanger
16:00	16:30	0.50	P-CMT	BPLUG	PP		RIH with 5 1/2" drill pipe to 177 metres
16:30	21:00	4.50	P-CMT	BPLUG	PN	RO	Loss of clutch sytem controls on draworks , trouble shoot same.
21:00	22:00	1.00	P-CMT	BPLUG	PN	RO	Rack back one stand drill pipe and perform draworks calibration procedure.
22:00	22:30	0.50	P-CMT	BPLUG	PP		RIH with open drill pipe to 243 metres
22:30	23:00	0.50	P-CMT	BPLUG	PP		Spot 60 m high vis pill POOH to 183 metres
23:00	0:00	1.00	P-CMT				Mix and pump cement plug from 183 metres to 138 metres as per halliburton cement program

24.00 = Total Hours Today

APACHE CORPORATION

Daily Drilling Report

WELL NAME				DATE
COELACANTH-1				26-03-2008
API #	**24 HRS PROG**	**TMD**	**TVD**	**REPT NO**
	0.00 (m)	3,074.00 (m)	3,073.87 (m)	19

06:00 UPDATE

0000-0600
- 00:00 - 01:00 - Pooh to 138 metres and circulate pipe clean.
- 01:00 - 02:00 - Make up 20" casing cutter and RIH to 130.5 metre.
- 02:00 - 02:30 - Cut 20" casing at 130.5 metres , 3 metres below seabed.
- 02:30 - 03:00 - POOH to surface and layout cutter assemly.
- 03:00 - 06:00 - Make up drill quip wellhead running tool and engage in well head.

PERSONNEL DATA

COMPANY	QTY	HRS	COMPANY	QTY	HRS
SEA DRILL SERVICES	43		WEATHERFORD	1	
TAMBORITHA	2		TOTAL MARINE CATERING	9	
DRIL-QUIP	1		SEA DRILL	12	
BAKER HUGHS	3		ADA	4	
HALIBURTON	3		FUGRO	2	

TOTAL PERSONNEL ON BOARD: 80

SUPPORT CRAFT

TYPE	REMARKS
CREW VEHICLE	

MATERIALS/CONSUMPTION

ITEM	UNITS	USAGE	ON HAND	ITEM	UNITS	USAGE	ON HAND
BARITE BULK	MT		23	BENTONITE	MT		41
CEMENT	MT		85	FUEL OIL	m3		122
WATER, POTABLE	MT	32	123	WATER, DRILLING	MT	6	584

WEATHER

TIME	SWELL HT/DIR/PER	WAVE HT/DIR/PER	WIND SPEED/DIR	GUST SPEED/DIR	TEMP
00:00	0.20/ /2	/ /120.00	/	/45.00	

MUD INVENTORY

ITEM	UNIT	USAGE	Day Cost ($)	ON HAND

APACHE CORPORATION

Daily Drilling Report

WELL NAME				DATE
COELACANTH-1				27-03-2008
API #	**24 HRS PROG**	**TMD**	**TVD**	**REPT NO**
	0.00 (m)	3,074.00 (m)	3,073.87 (m)	20

RIG NAME NO	FIELD NAME	AUTH TMD	PLANNED DOW	DOL	DFS / KO	WATER DEPTH
WEST TRITON			15.92 (days)	19.33 (days)	17.46 (days)	90.00 (m)

SPUD DATE	Rig Release	WELL SUPERVISOR	OIM	PBTMD
08-03-2008		ADA SUPERVISOR / R.ROUSSOUW/P.SHEENAN	MICHAEL BARRY	

REGION	DISTRICT	STATE / PROV		RIG PHONE NO	RIG FAX NO
AUSTRALIA	OFFSHORE	VICTORIA			

AFE # 1008E50	AFE COSTS	DAILY COSTS	CUMULATIVE COSTS
DESCRIPTION:	DHC: 12,691,688	DHC: 602,974	DHC: 14,338,724
	DCC:	DCC:	DCC:
	CWC:	CWC:	CWC:
	Others:	Others:	Others:
	TOTAL: 12,691,688	TOTAL: 602,974	TOTAL: 14,338,724

DEFAULT DATUM / ELEVATION	LAST SAFETY MEETING	BLOCK	FORMATION	BHA HRS OF SERVICE
ROTARY TABLE / 38.00 (m)		Vic-P45		

LAST SURVEY	LAST CSG SHOE TEST (EMW)	LAST CASING	NEXT CASING
MD 2,967.93 (m) **INC** 0.68° **AZM** 143.30°	1.80 (sg)	244.000 mm @ 902.0 m	

CURRENT OPERATIONS: Seafastening and preparing rig for jacking down and towing. Operations dependant on repair of Pacific Valkyrie. CURRENT STATUS ON VALKYRIE: 1) NEED TO CHANGE OUT LUBE OIL PUMP ON GEARBOX 2) ONLY ONE BOW THRUSTER OPERATIONAL. 3) EMERGENCY GENERATOR NOT OPE

24 HR SUMMARY: Cut 20" casing 3 metres below seabed, retreive and layout. Rig down CTU and associated equipment from texas deck. Commence skidding cantilever

24 HR FORECAST: Jack down rig and prepare for tow to Speke.

OPERATION SUMMARY

From	To	HRS	Phase	Operation	PT/NPT	NPT CODES	ACTIVITY SUMMARY
0:00	1:00	1.00	P-CMT	BPLUG	PP		Pooh to 138 metres and circulate pipe clean.
1:00	2:00	1.00	2P-CSG	CSGRP	PP		Make up 20" casing cutter and RIH to 130.5 metre.
2:00	2:30	0.50	P-CSG	CSGRP	PP		Cut 20" casing at 130.5 metres , 3 metres below seabed.
2:30	3:00	0.50	P-CSG	CSGRP	PP		POOH to surface and layout cutter assemly.
3:00	5:00	2.00	P-NUP	WLHEAD	PP		Make up drill quip wellhead running tool and engage in well head. Pull W/head to surface. Remove running tool.
5:00	6:30	1.50	P-NUP	WLHEAD	PP		Change out bails for longer ones, M/up R/tool to lifting sub.
6:30	10:00	3.50	P-NUP	WLHEAD	PP		Hold JSA, lay down wellhead, cut and lay down 20" casing.
10:00	12:00	2.00	P-NUP	WLHEAD	PP		R/down sidedoor elevator, change out bails to drilling bails, B/out XO, Dril-Quip R/tools and lay down same.
12:00	13:00	1.00	R-MOB-DEMOB	RU_RD	PP		Rig up and prepare to rig down CTU and platforms from texas deck.
13:00	18:00	5.00	R-MOB-DEMOB	RU_RD	PP		Remove BOP/wellhead work platforms and CTU from texas deck. Install sling to texas deck , concurrently rearrange drill pipe in derrick from forward side to aft side for VDL reason.
18:00	22:30	4.50	R-MOB-DEMOB	RU_RD	PP		Prepare for skidding cantilever.
22:30	0:00	1.50	R-MOB-DEMOB	RU_RD	PP		Commence skidding cantilver , held pre job safety meeting.

24.00 = Total Hours Today

06:00 UPDATE

0000-0600

00:00 - 04:00 - Skid in cantilever

04:00 - 06:00 - Continue with sea fastening and prepare rig for jacking and towing ; At 00.30 hr's Pacific Valkyrie devoloped engine problem while transferring drill water to rig and was unable to hold position. Had to stand off and troubleshoot problem.

NOTE:

1. At 00.30 hr's Pacific Valkyrie devoloped engine problem while transferring drill water to rig and was unable to hold position resulting in water transfer hose being parted. Had to stand off and troubleshoot problem with starboard engine At 04.00 hr's Pacific Valkyrie reports changing engine filters and engine oil, at 05.00 hrs report that this has not fixed problem and now are changing out gearbox lube oil pump. Will have completed change-out in at 09:00 hrs and could go on tow provided situation acceptable to parties concerned. (See status at 06:00 hrs in report)
2. Completed ROV survey of well at seabed - OK.

APACHE CORPORATION

Daily Drilling Report

WELL NAME				DATE
COELACANTH-1				27-03-2008
API #	**24 HRS PROG**	**TMD**	**TVD**	**REPT NO**
	0.00 (m)	3,074.00 (m)	3,073.87 (m)	20

PERSONNEL DATA

COMPANY	QTY	HRS	COMPANY	QTY	HRS
DRIL-QUIP	1		TOTAL MARINE CATERING	9	
HALIBURTON	2		SEA DRILL SERVICES	44	
TAMBORITHA	2		FUGRO	2	
SEA DRILL	12		ADA	5	
BAKER HUGHS	3				

TOTAL PERSONNEL ON BOARD: 80

SUPPORT CRAFT

TYPE	REMARKS

MATERIALS/CONSUMPTION

ITEM	UNITS	USAGE	ON HAND	ITEM	UNITS	USAGE	ON HAND
BARITE BULK	MT		23	BENTONITE	MT		41
CEMENT	MT		85	FUEL OIL	m3		116
WATER, POTABLE	MT	35	88	WATER, DRILLING	MT	65	230

WEATHER

TIME	SWELL HT/DIR/PER	WAVE HT/DIR/PER	WIND SPEED/DIR	GUST SPEED/DIR	TEMP
00:00	1.50/ /5	/ /120.00	/	/180.00	

MUD INVENTORY

ITEM	UNIT	USAGE	Day Cost ($)	ON HAND

APACHE CORPORATION

Daily Drilling Report

WELL NAME				DATE
COELACANTH-1				28-03-2008
API #	**24 HRS PROG**	**TMD**	**TVD**	**REPT NO**
	0.00 (m)	3,074.00 (m)	3,073.87 (m)	21

RIG NAME NO	FIELD NAME	AUTH TMD	PLANNED DOW	DOL	DFS / KO	WATER DEPTH
WEST TRITON			15.92 (days)	20.33 (days)	18.46 (days)	90.00 (m)

SPUD DATE	Rig Release	WELL SUPERVISOR	OIM	PBTMD
08-03-2008		ADA SUPERVISOR / B.OPENSHAW/R.ROUSSOUW	MICHAEL BARRY	

REGION	DISTRICT	STATE / PROV		RIG PHONE NO	RIG FAX NO
AUSTRALIA	OFFSHORE	VICTORIA			

AFE # 1008E50	AFE COSTS	DAILY COSTS	CUMULATIVE COSTS
DESCRIPTION:	DHC: 12,691,688	DHC: 600,388	DHC: 14,939,112
	DCC:	DCC:	DCC:
	CWC:	CWC:	CWC:
	Others:	Others:	Others:
	TOTAL: 12,691,688	TOTAL: 600,388	TOTAL: 14,939,112

DEFAULT DATUM / ELEVATION	LAST SAFETY MEETING	BLOCK	FORMATION	BHA HRS OF SERVICE
ROTARY TABLE / 38.00 (m)		Vic-P45		

LAST SURVEY	LAST CSG SHOE TEST (EMW)	LAST CASING	NEXT CASING
MD 2,967.93 (m) **INC** 0.68° **AZM** 143.30°	1.80 (sg)	244.000 mm @ 902.0 m	

CURRENT OPERATIONS: Waiting on second boat to commence rig move

24 HR SUMMARY: Lock in conductor deck, lay down staircase, prepare and skid in cantlever deck, pin same. Proceed with seafastening and housekeeping. Prepare and jack down rig to 1m air gap, connect boats. Valkyrie lost one engine - release both boats, send Valkyrie in.

24 HR FORECAST: Waiting on second boat to commence rig move. General maintenance, repairs and preparation for next well.

OPERATION SUMMARY

From	To	HRS	Phase	Operation	PT/NPT	NPT CODES	ACTIVITY SUMMARY
0:00	4:00	4.00	R-MOB-DEMOB	DEMOB	PP		Skid in cantilever
4:00	12:00	8.00	R-MOB-DEMOB	DEMOB	PP		Continue with sea fastening and prepare rig for jacking and towing. At 00.30 hrs Pacific Valkyrie devoloped engine problem while transferring drill water to rig and was unable to hold position. Had to stand off and troubleshoot problem
12:00	13:00	1.00	R-MOB-DEMOB	DEMOB	PP		Hold JSA, prepare to jack down rig.
13:00	14:00	1.00	R-MOB-DEMOB	DEMOB	PP		Jack rig down to 1m air gap. Connect tug boats Pacific Battler and Pacific Valkyrie
14:00	16:00	2.00	R-MOB-DEMOB	DEMOB	PN	SO	Valkyrie down to one engine - unable to commence with rig tow. Release both boats
16:00	0:00	8.00	R-MOB-DEMOB	DEMOB	PN	SO	Waiting on second boat to commence tow to new location. Pacific Valkyrie steaming for shore base to undergo repairs

24.00 = Total Hours Today

06:00 UPDATE

0000-0600 (IN PROGRESS) Waiting on second boat to commence rig move. Perform general maintenance, prepare Dril-Quip wellhead and first 20" CSG jnt for next well - rack back in derrick. Perform rig maintenance including service of top-drive.

PERSONNEL DATA

COMPANY	QTY	HRS	COMPANY	QTY	HRS
TOTAL MARINE CATERING	9		FUGRO	2	
BHI	4		HALIBURTON	2	
SEA DRILL	12		TAMBORITHA	2	
ADA	4		DRIL-QUIP	2	
SEA DRILL SERVICES	44				

TOTAL PERSONNEL ON BOARD: 81

SUPPORT CRAFT

TYPE	REMARKS

APACHE CORPORATION

Daily Drilling Report

WELL NAME				DATE
COELACANTH-1				28-03-2008
API #	**24 HRS PROG**	**TMD**	**TVD**	**REPT NO**
	0.00 (m)	3,074.00 (m)	3,073.87 (m)	21

MATERIALS/CONSUMPTION

ITEM	UNITS	USAGE	ON HAND	ITEM	UNITS	USAGE	ON HAND
BARITE BULK	MT		23	BENTONITE	MT		41
CEMENT	MT		85	FUEL OIL	m3		111
WATER, POTABLE	MT	29	124	WATER, DRILLING	MT		230

WEATHER

TIME	SWELL HT/DIR/PER	WAVE HT/DIR/PER	WIND SPEED/DIR	GUST SPEED/DIR	TEMP
00:00	1.50/ /5	/ /	/	/350.00	

MUD INVENTORY

ITEM	UNIT	USAGE	Day Cost ($)	ON HAND
EZ MUD	25.00 kg			19.00
STEELSEAL FINE	25.00 kg			60.00
BARABLOK	50.00 lbs			80.00
CLAYSEAL PLUS	216.00 kg			7.00
KWIKSEAL (F)	40.00 lbs			38.00
BARA-DEFOAM WS300	5.00 gal			2.00
EZ SPOT	55.00 gal			8.00
CITRIC ACID	25.00 kg			37.00
BARITE (bulk)	1,000.00 kg			22.20
CIRCAL 60/16	1,200.00 kg			-8.00
NEW DRIL HT PLUS	50.00 lbs			90.00
POTASH - POT. CHLORIDE - KCl	1.00 MT			-10.00
BAROFIBRE (FINE)	25.00 lbs			50.00
GUAR GUM	25.00 kg			40.00
CIRCAL 60/16 (BAKER HUGHES)	25.00 kg			83.00
NO-SULF	17.00 kg			48.00
SODA ASH- SOD.CARBONATE-Na2CO3	25.00 kg			34.00
ALDACIDE G	25.00 l			1.00
CIRCAL Y	1,200.00 kg			8.00
BENTONITE	1,000.00 kg			41.50
BARAZAN D PLUS	25.00 kg			49.00
CALCIUM CHLORIDE 74-77%	25.00 kg			86.00
LIME	20.00 kg			41.00
CAUSTIC SODA - NaOH	25.00 kg			90.00
POTASSIUM HYDROXIDE	25.00 kg			70.00
PAC L	25.00 kg			75.00
POTASH - POT. CHLORIDE - KCl	1,000.00 kg			10.00
CIRCAL 60/16	25.00 sks			-21.00
OMYACARB 5	25.00 kg			48.00
SODIUM BICARBONATE - NaHCO3	25.00 kg			35.00

APACHE CORPORATION

Daily Drilling Report

WELL NAME				DATE
COELACANTH-1				29-03-2008
API #	**24 HRS PROG**	**TMD**	**TVD**	**REPT NO**
	0.00 (m)	3,074.00 (m)	3,073.87 (m)	22

RIG NAME NO	FIELD NAME	AUTH TMD	PLANNED DOW	DOL	DFS / KO	WATER DEPTH
WEST TRITON			15.92 (days)	21.33 (days)	19.46 (days)	90.00 (m)

SPUD DATE	Rig Release	WELL SUPERVISOR	OIM	PBTMD
08-03-2008		ADA SUPERVISOR / B.OPENSHAW/R.ROUSSOUW	MICHAEL BARRY	

REGION	DISTRICT	STATE / PROV		RIG PHONE NO	RIG FAX NO
AUSTRALIA	OFFSHORE	VICTORIA			

AFE # 1008E50	AFE COSTS	DAILY COSTS	CUMULATIVE COSTS
DESCRIPTION:	DHC: 12,691,688	DHC: 600,388	DHC: 15,539,500
	DCC:	DCC:	DCC:
	CWC:	CWC:	CWC:
	Others:	Others:	Others:
	TOTAL: 12,691,688	TOTAL: 600,388	TOTAL: 15,539,500

DEFAULT DATUM / ELEVATION	LAST SAFETY MEETING	BLOCK	FORMATION	BHA HRS OF SERVICE
ROTARY TABLE / 38.00 (m)		Vic-P45		

LAST SURVEY	LAST CSG SHOE TEST (EMW)	LAST CASING	NEXT CASING
MD 2,967.93 (m) **INC** 0.68° **AZM** 143.30°	1.80 (sg)	244.000 mm @ 902.0 m	

CURRENT OPERATIONS: Waiting on second boat to commence rig move

24 HR SUMMARY: Waiting on second boat to commence rig move. Prepare Dril-Quip wellhead (from Coelacanth) for use on Speke - rack back in derrick. General rig maintenance including service of top-drive

24 HR FORECAST: Waiting on second boat to commence rig move

OPERATION SUMMARY

From	To	HRS	Phase	Operation	PT/NPT	NPT CODES	ACTIVITY SUMMARY
0:00	0:00	24.00	R-MOB-DEM OB	DEMOB	PN	SO	Waiting on second boat to commence rig move. Perform general maintenance, prepare Dril-Quip wellhead and first 20" CSG jnt for next well - rack back in derrick. Perform rig maintenance including service of top-drive

24.00 = Total Hours Today

06:00 UPDATE

0000-0600 (IN PROGRESS) Waiting on second boat to commence rig move. Perform ongoing rig maintenance and improvements

PERSONNEL DATA

COMPANY	QTY	HRS	COMPANY	QTY	HRS
ADA	4		TAMBORITHA	2	
BHI	4		DRIL-QUIP	2	
FUGRO	2		SEA DRILL SERVICES	44	
HALIBURTON	2		TOTAL MARINE CATERING	9	
SEA DRILL	12				

TOTAL PERSONNEL ON BOARD: 81

SUPPORT CRAFT

TYPE	REMARKS

MATERIALS/CONSUMPTION

ITEM	UNITS	USAGE	ON HAND	ITEM	UNITS	USAGE	ON HAND
BARITE BULK	MT		23	BENTONITE	MT		41
CEMENT	MT		85	FUEL OIL	m3		181
WATER, POTABLE	MT	18	106	WATER, DRILLING	MT		230

WEATHER

TIME	SWELL HT/DIR/PER	WAVE HT/DIR/PER	WIND SPEED/DIR	GUST SPEED/DIR	TEMP
00:00	1.60/ /5	/ /120.00	/	/245.00	

Daily Drilling Report

WELL NAME				DATE
COELACANTH-1				29-03-2008
API #	**24 HRS PROG**	**TMD**	**TVD**	**REPT NO**
	0.00 (m)	3,074.00 (m)	3,073.87 (m)	22

MUD INVENTORY

ITEM	UNIT	USAGE	Day Cost ($)	ON HAND
CITRIC ACID	25.00 kg			37.00
STEELSEAL FINE	25.00 kg			60.00
BENTONITE	1,000.00 kg			41.50
POTASH - POT. CHLORIDE - KCl	1.00 MT			-10.00
GUAR GUM	25.00 kg			40.00
CALCIUM CHLORIDE 74-77%	25.00 kg			86.00
CAUSTIC SODA - NaOH	25.00 kg			90.00
ALDACIDE G	25.00 l			1.00
NEW DRIL HT PLUS	50.00 lbs			90.00
CIRCAL 60/16	1,200.00 kg			-8.00
BARITE (bulk)	1,000.00 kg			22.20
CIRCAL Y	1,200.00 kg			8.00
CLAYSEAL PLUS	216.00 kg			7.00
SODIUM BICARBONATE - NaHCO3	25.00 kg			35.00
EZ SPOT	55.00 gal			8.00
EZ MUD	25.00 kg			19.00
CIRCAL 60/16 (BAKER HUGHES)	25.00 kg			83.00
SODA ASH- SOD.CARBONATE-Na2CO3	25.00 kg			34.00
CIRCAL 60/16	25.00 sks			-21.00
OMYACARB 5	25.00 kg			48.00
BARABLOK	50.00 lbs			80.00
KWIKSEAL (F)	40.00 lbs			38.00
PAC L	25.00 kg			75.00
POTASH - POT. CHLORIDE - KCl	1,000.00 kg			10.00
BARAZAN D PLUS	25.00 kg			49.00
BARA-DEFOAM WS300	5.00 gal			2.00
NO-SULF	17.00 kg			48.00
BAROFIBRE (FINE)	25.00 lbs			50.00
POTASSIUM HYDROXIDE	25.00 kg			70.00
LIME	20.00 kg			41.00

APACHE CORPORATION

Daily Drilling Report

WELL NAME				DATE
COELACANTH-1				30-03-2008
API #	**24 HRS PROG**	**TMD**	**TVD**	**REPT NO**
	0.00 (m)	3,074.00 (m)	3,073.87 (m)	23

RIG NAME NO	FIELD NAME	AUTH TMD	PLANNED DOW	DOL	DFS / KO	WATER DEPTH
WEST TRITON			15.92 (days)	22.33 (days)	20.46 (days)	90.00 (m)

SPUD DATE	Rig Release	WELL SUPERVISOR	OIM	PBTMD
08-03-2008		ADA SUPERVISOR / B.OPENSHAW/R.ROUSSOUW	MICHAEL BARRY	

REGION	DISTRICT	STATE / PROV		RIG PHONE NO	RIG FAX NO
AUSTRALIA	OFFSHORE	VICTORIA			

AFE # 1008E50	AFE COSTS	DAILY COSTS	CUMULATIVE COSTS
DESCRIPTION:	DHC: 12,691,688	DHC: 599,693	DHC: 16,139,193
	DCC:	DCC:	DCC:
	CWC:	CWC:	CWC:
	Others:	Others:	Others:
	TOTAL: 12,691,688	TOTAL: 599,693	TOTAL: 16,139,193

DEFAULT DATUM / ELEVATION	LAST SAFETY MEETING	BLOCK	FORMATION	BHA HRS OF SERVICE
ROTARY TABLE / 38.00 (m)		Vic-P45		

LAST SURVEY	LAST CSG SHOE TEST (EMW)	LAST CASING	NEXT CASING
MD 2,967.93 (m) **INC** 0.68° **AZM** 143.30°	1.80 (sg)	244.000 mm @ 902.0 m	

CURRENT OPERATIONS: Waiting on second boat to commence rig move. Perform ongoing rig maintenance and improvements

24 HR SUMMARY: Waiting on second boat to commence rig move

24 HR FORECAST: Waiting on second boat to commence rig move. Perform ongoing rig maintenance and improvements

OPERATION SUMMARY

From	To	HRS	Phase	Operation	PT/NPT	NPT CODES	ACTIVITY SUMMARY
0:00	0:00	24.00	R-MOB-DEM OB	DEMOB	PN	SO	Waiting on second boat to commence rig move. Perform ongoing rig maintenance and improvements

24.00 = Total Hours Today

06:00 UPDATE

0000-0600 Waiting on second boat to commence rig move. Perform ongoing rig maintenance and improvements.

PERSONNEL DATA

COMPANY	QTY	HRS	COMPANY	QTY	HRS
TOTAL MARINE CATERING	9		HALIBURTON	2	
BHI	4		SEA DRILL SERVICES	44	
DRIL-QUIP	2		FUGRO	2	
ADA	4		TAMBORITHA	2	
SEA DRILL	12				

TOTAL PERSONNEL ON BOARD: 81

SUPPORT CRAFT

TYPE	REMARKS

MATERIALS/CONSUMPTION

ITEM	UNITS	USAGE	ON HAND	ITEM	UNITS	USAGE	ON HAND
BARITE BULK	MT		93	BENTONITE	MT		60
CEMENT	MT		85	FUEL OIL	m3		174
WATER, POTABLE	MT	30	76	WATER, DRILLING	MT		230

WEATHER

TIME	SWELL HT/DIR/PER	WAVE HT/DIR/PER	WIND SPEED/DIR	GUST SPEED/DIR	TEMP
00:00	1.80/ /5	/ /120.00	/	/290.00	

Daily Drilling Report

WELL NAME				DATE
COELACANTH-1				30-03-2008
API #	**24 HRS PROG**	**TMD**	**TVD**	**REPT NO**
	0.00 (m)	3,074.00 (m)	3,073.87 (m)	23

MUD INVENTORY

ITEM	UNIT	USAGE	Day Cost ($)	ON HAND
CIRCAL 60/16	1,200.00 kg			-8.00
NO-SULF	17.00 kg			48.00
POTASH - POT. CHLORIDE - KCl	1.00 MT			-10.00
EZ MUD	25.00 kg			19.00
LIME	20.00 kg			41.00
POTASSIUM HYDROXIDE	25.00 kg			70.00
CIRCAL 60/16 (BAKER HUGHES)	25.00 kg			83.00
POTASH - POT. CHLORIDE - KCl	1,000.00 kg			10.00
GUAR GUM	25.00 kg			40.00
CITRIC ACID	25.00 kg			37.00
BARA-DEFOAM WS300	5.00 gal			2.00
KWIKSEAL (F)	40.00 lbs			38.00
BENTONITE	1,000.00 kg			41.50
STEELSEAL FINE	25.00 kg			60.00
OMYACARB 5	25.00 kg			48.00
CLAYSEAL PLUS	216.00 kg			7.00
PAC L	25.00 kg			75.00
SODA ASH- SOD.CARBONATE-Na2CO3	25.00 kg			34.00
SODIUM BICARBONATE - NaHCO3	25.00 kg			35.00
NEW DRIL HT PLUS	50.00 lbs			90.00
BARABLOK	50.00 lbs			80.00
CIRCAL 60/16	25.00 sks			-21.00
CIRCAL Y	1,200.00 kg			8.00
BAROFIBRE (FINE)	25.00 lbs			50.00
CAUSTIC SODA - NaOH	25.00 kg			90.00
CALCIUM CHLORIDE 74-77%	25.00 kg			86.00
ALDACIDE G	25.00 l			1.00
EZ SPOT	55.00 gal			8.00
BARITE (bulk)	1,000.00 kg			22.20
BARAZAN D PLUS	25.00 kg			49.00

APACHE CORPORATION

Daily Drilling Report

WELL NAME				DATE
COELACANTH-1				31-03-2008
API #	**24 HRS PROG**	**TMD**	**TVD**	**REPT NO**
	0.00 (m)	3,074.00 (m)	3,073.87 (m)	24

RIG NAME NO	FIELD NAME	AUTH TMD	PLANNED DOW	DOL	DFS / KO	WATER DEPTH
WEST TRITON			15.92 (days)	23.33 (days)	21.46 (days)	90.00 (m)

SPUD DATE	Rig Release	WELL SUPERVISOR	OIM	PBTMD
08-03-2008		ADA SUPERVISOR / B.OPENSHAW/R.ROUSSOUW	MICHAEL BARRY	

REGION	DISTRICT	STATE / PROV		RIG PHONE NO	RIG FAX NO
AUSTRALIA	OFFSHORE	VICTORIA			

AFE # 1008E50	AFE COSTS	DAILY COSTS	CUMULATIVE COSTS
DESCRIPTION:	DHC: 12,691,688	DHC: 599,693	DHC: 16,738,886
	DCC:	DCC:	DCC:
	CWC:	CWC:	CWC:
	Others:	Others:	Others:
	TOTAL: 12,691,688	TOTAL: 599,693	TOTAL: 16,738,886

DEFAULT DATUM / ELEVATION	LAST SAFETY MEETING	BLOCK	FORMATION	BHA HRS OF SERVICE
ROTARY TABLE / 38.00 (m)		Vic-P45		

LAST SURVEY	LAST CSG SHOE TEST (EMW)	LAST CASING	NEXT CASING
MD 2,967.93 (m) **INC** 0.68° **AZM** 143.30°	1.80 (sg)	244.000 mm @ 902.0 m	

CURRENT OPERATIONS: Waiting on second boat to commence rig move.

24 HR SUMMARY: Waiting on second boat to commence rig move. Perform ongoing rig maintenance and improvements.

24 HR FORECAST: Waiting on second boat to commence rig move.

OPERATION SUMMARY

From	To	HRS	Phase	Operation	PT/NPT	NPT CODES	ACTIVITY SUMMARY
0:00	0:00	24.00	R-MOB-DEMOB	DEMOB	PN	SO	Waiting on second boat to commence rig move. Perform ongoing rig maintenance and improvements

24.00 = Total Hours Today

06:00 UPDATE

0000-0600 Waiting on second boat to commence rig move. Perform ongoing rig maintenance and improvements.

PERSONNEL DATA

COMPANY	QTY	HRS	COMPANY	QTY	HRS
ADA	3		BHI	4	
TOTAL MARINE CATERING	9		TAMBORITHA	2	
SEA DRILL	12		SEA DRILL SERVICES	44	
FUGRO	2		HALIBURTON	2	

TOTAL PERSONNEL ON BOARD: 78

SUPPORT CRAFT

TYPE	REMARKS

MATERIALS/CONSUMPTION

ITEM	UNITS	USAGE	ON HAND	ITEM	UNITS	USAGE	ON HAND
BARITE BULK	MT		93	BENTONITE	MT		60
CEMENT	MT		85	FUEL OIL	m3		166
WATER, POTABLE	MT	38	38	WATER, DRILLING	MT		230

WEATHER

TIME	SWELL HT/DIR/PER	WAVE HT/DIR/PER	WIND SPEED/DIR	GUST SPEED/DIR	TEMP
00:00	1.80/ /5	/ /120.00	/	/290.00	

MUD INVENTORY

ITEM	UNIT	USAGE	Day Cost ($)	ON HAND

APACHE CORPORATION

Daily Drilling Report

WELL NAME				DATE
COELACANTH-1				01-04-2008
API #	**24 HRS PROG**	**TMD**	**TVD**	**REPT NO**
	0.00 (m)	3,074.00 (m)	3,073.87 (m)	25

RIG NAME NO	FIELD NAME	AUTH TMD	PLANNED DOW	DOL	DFS / KO	WATER DEPTH
WEST TRITON			15.92 (days)	24.33 (days)	22.46 (days)	90.00 (m)

SPUD DATE	Rig Release	WELL SUPERVISOR	OIM	PBTMD
08-03-2008		ADA SUPERVISOR / B.OPENSHAW/R.ROUSSOUW	MICHAEL BARRY	

REGION	DISTRICT	STATE / PROV		RIG PHONE NO	RIG FAX NO
AUSTRALIA	OFFSHORE	VICTORIA			

AFE # 1008E50	AFE COSTS	DAILY COSTS	CUMULATIVE COSTS
DESCRIPTION:	DHC: 12,691,688	DHC: 599,693	DHC: 17,338,579
	DCC:	DCC:	DCC:
	CWC:	CWC:	CWC:
	Others:	Others:	Others:
	TOTAL: 12,691,688	TOTAL: 599,693	TOTAL: 17,338,579

DEFAULT DATUM / ELEVATION	LAST SAFETY MEETING	BLOCK	FORMATION	BHA HRS OF SERVICE
ROTARY TABLE / 38.00 (m)		Vic-P45		

LAST SURVEY	LAST CSG SHOE TEST (EMW)	LAST CASING	NEXT CASING
MD 2,967.93 (m) **INC** 0.68° **AZM** 143.30°	1.80 (sg)	244.000 mm @ 902.0 m	

CURRENT OPERATIONS: Waiting on second boat to commence rig move

24 HR SUMMARY: Waiting on second boat to commence rig move. Perform ongoing rig maintenance and improvements

24 HR FORECAST: Wait on second boat to commence rig move.

OPERATION SUMMARY

From	To	HRS	Phase	Operation	PT/NPT	NPT CODES	ACTIVITY SUMMARY
0:00	0:00	24.00	R-MOB-DEMOB	DEMOB	PN	SO	Waiting on second boat to commence rig move. Perform ongoing rig maintenance and improvements.

24.00 = Total Hours Today

06:00 UPDATE

0000-0600 Waiting on second boat to commence rig move. Perform ongoing rig maintenance and improvements.

PERSONNEL DATA

COMPANY	QTY	HRS	COMPANY	QTY	HRS
BHI	3		SEA DRILL SERVICES	43	
TOTAL MARINE CATERING	9		ADA	4	
TAMBORITHA	2		FUGRO	2	
SEA DRILL	12				

TOTAL PERSONNEL ON BOARD: 75

SUPPORT CRAFT

TYPE	REMARKS

MATERIALS/CONSUMPTION

ITEM	UNITS	USAGE	ON HAND	ITEM	UNITS	USAGE	ON HAND
BARITE BULK	MT		93	BENTONITE	MT		60
CEMENT	MT		85	FUEL OIL	m3		156
WATER, POTABLE	MT	14	154	WATER, DRILLING	MT		230

WEATHER

TIME	SWELL HT/DIR/PER	WAVE HT/DIR/PER	WIND SPEED/DIR	GUST SPEED/DIR	TEMP
00:00	1.80/ /5	/ /120.00	/	/45.00	

MUD INVENTORY

ITEM	UNIT	USAGE	Day Cost ($)	ON HAND

APACHE CORPORATION

Daily Drilling Report

WELL NAME				DATE
COELACANTH-1				02-04-2008
API #	**24 HRS PROG**	**TMD**	**TVD**	**REPT NO**
	0.00 (m)	3,074.00 (m)	3,073.87 (m)	26

RIG NAME NO	FIELD NAME	AUTH TMD	PLANNED DOW	DOL	DFS / KO	WATER DEPTH
WEST TRITON			15.92 (days)	25.33 (days)	23.46 (days)	90.00 (m)

SPUD DATE	Rig Release	WELL SUPERVISOR	OIM	PBTMD
08-03-2008		ADA SUPERVISOR / B.OPENSHAW/R.ROUSSOUW	MICHAEL BARRY	

REGION	DISTRICT	STATE / PROV		RIG PHONE NO	RIG FAX NO
AUSTRALIA	OFFSHORE	VICTORIA			

AFE # 1008E50	AFE COSTS	DAILY COSTS	CUMULATIVE COSTS
DESCRIPTION:	DHC: 12,691,688	DHC: 599,693	DHC: 17,938,272
	DCC:	DCC:	DCC:
	CWC:	CWC:	CWC:
	Others:	Others:	Others:
	TOTAL: 12,691,688	TOTAL: 599,693	TOTAL: 17,938,272

DEFAULT DATUM / ELEVATION	LAST SAFETY MEETING	BLOCK	FORMATION	BHA HRS OF SERVICE
ROTARY TABLE / 38.00 (m)		Vic-P45		

LAST SURVEY	LAST CSG SHOE TEST (EMW)	LAST CASING	NEXT CASING
MD 2,967.93 (m) **INC** 0.68° **AZM** 143.30°	1.80 (sg)	244.000 mm @ 902.0 m	

CURRENT OPERATIONS: Waiting on second boat to commence rig move

24 HR SUMMARY: Waiting on second boat to commence rig move. Perform ongoing rig maintenance and improvements.

24 HR FORECAST: Waiting on second boat to commence rig move

OPERATION SUMMARY

From	To	HRS	Phase	Operation	PT/NPT	NPT CODES	ACTIVITY SUMMARY
0:00	0:00	24.00	R-MOB-DEMOB	DEMOB	PN	SO	Waiting on second boat to commence rig move. Perform ongoing rig maintenance and improvements.

24.00 = Total Hours Today

06:00 UPDATE

0000-0600 Waiting on second boat to commence rig move. Perform ongoing rig maintenance and improvements.

PERSONNEL DATA

COMPANY	QTY	HRS	COMPANY	QTY	HRS
ADA	4		TOTAL MARINE CATERING	9	
SEA DRILL SERVICES	41		SEA DRILL	12	
TAMBORITHA	2		FUGRO	2	
BHI	3				

TOTAL PERSONNEL ON BOARD: 73

SUPPORT CRAFT

TYPE	REMARKS

MATERIALS/CONSUMPTION

ITEM	UNITS	USAGE	ON HAND	ITEM	UNITS	USAGE	ON HAND
BARITE BULK	MT		93	BENTONITE	MT		60
CEMENT	MT		85	FUEL OIL	m3		146
WATER, POTABLE	MT	25	129	WATER, DRILLING	MT		230

WEATHER

TIME	SWELL HT/DIR/PER	WAVE HT/DIR/PER	WIND SPEED/DIR	GUST SPEED/DIR	TEMP
00:00	5.00/ /5	/ /	/	/270.00	

MUD INVENTORY

ITEM	UNIT	USAGE	Day Cost ($)	ON HAND

APACHE CORPORATION

Daily Drilling Report

WELL NAME				DATE
COELACANTH-1				03-04-2008
API #	**24 HRS PROG**	**TMD**	**TVD**	**REPT NO**
	0.00 (m)	3,074.00 (m)	3,073.87 (m)	27

RIG NAME NO	FIELD NAME	AUTH TMD	PLANNED DOW	DOL	DFS / KO	WATER DEPTH
WEST TRITON			15.92 (days)	26.33 (days)	24.46 (days)	90.00 (m)

SPUD DATE	Rig Release	WELL SUPERVISOR	OIM	PBTMD
08-03-2008		ADA SUPERVISOR / B.OPENSHAW/R.ROUSSOUW	MICHAEL BARRY	

REGION	DISTRICT	STATE / PROV		RIG PHONE NO	RIG FAX NO
AUSTRALIA	OFFSHORE	VICTORIA			

AFE # 1008E50	AFE COSTS	DAILY COSTS	CUMULATIVE COSTS
DESCRIPTION:	DHC: 12,691,688	DHC: 598,045	DHC: 18,536,317
	DCC:	DCC:	DCC:
	CWC:	CWC:	CWC:
	Others:	Others:	Others:
	TOTAL: 12,691,688	TOTAL: 598,045	TOTAL: 18,536,317

DEFAULT DATUM / ELEVATION	LAST SAFETY MEETING	BLOCK	FORMATION	BHA HRS OF SERVICE
ROTARY TABLE / 38.00 (m)		Vic-P45		

LAST SURVEY	LAST CSG SHOE TEST (EMW)	LAST CASING	NEXT CASING
MD 2,967.93 (m) **INC** 0.68° **AZM** 143.30°	1.80 (sg)	244.000 mm @ 902.0 m	

CURRENT OPERATIONS: Waiting on second boat to commence rig move.

24 HR SUMMARY: Waiting on second boat to commence rig move. Perform ongoing rig maintenance and improvements

24 HR FORECAST: Waiting on second boat to commence rig move

OPERATION SUMMARY

From	To	HRS	Phase	Operation	PT/NPT	NPT CODES	ACTIVITY SUMMARY
0:00	0:00	24.00	R-MOB-DEMOB	DEMOB	PN	SO	Waiting on second boat to commence rig move. Perform ongoing rig maintenance and improvements.

24.00 = Total Hours Today

06:00 UPDATE

0000-0600 0000 0430 Waiting on second boat to commence rig move. Perform ongoing rig maintenance and improvements.
0430 0600 Wait on weather to attach boats to tow bridle. Campbell Cove arrived at location at 03:40hrs, Sirius Cove arrived at location at 04:20hrs

PERSONNEL DATA

COMPANY	QTY	HRS	COMPANY	QTY	HRS
SEA DRILL SERVICES	43		BHI	3	
TAMBORITHA	2		TOTAL MARINE CATERING	9	
ADA	4		SEA DRILL	13	
FUGRO	2				

TOTAL PERSONNEL ON BOARD: 76

SUPPORT CRAFT

TYPE	REMARKS

MATERIALS/CONSUMPTION

ITEM	UNITS	USAGE	ON HAND	ITEM	UNITS	USAGE	ON HAND
BARITE BULK	MT		93	BENTONITE	MT		60
CEMENT	MT		85	FUEL OIL	m3		141
WATER, POTABLE	MT	21	108	WATER, DRILLING	MT		230

WEATHER

TIME	SWELL HT/DIR/PER	WAVE HT/DIR/PER	WIND SPEED/DIR	GUST SPEED/DIR	TEMP
00:00	1.80/ /5	/ /	/	/270.00	

MUD INVENTORY

ITEM	UNIT	USAGE	Day Cost ($)	ON HAND

APACHE CORPORATION

Daily Drilling Report

WELL NAME				DATE
COELACANTH-1				04-04-2008
API #	**24 HRS PROG**	**TMD**	**TVD**	**REPT NO**
	0.00 (m)	3,074.00 (m)	3,073.87 (m)	28

RIG NAME NO	FIELD NAME	AUTH TMD	PLANNED DOW	DOL	DFS / KO	WATER DEPTH
WEST TRITON			15.92 (days)	27.33 (days)	25.46 (days)	90.00 (m)

SPUD DATE	Rig Release	WELL SUPERVISOR	OIM	PBTMD
08-03-2008		ADA SUPERVISOR / B.OPENSHAW/R.ROUSSOUW	MICHAEL BARRY	

REGION	DISTRICT	STATE / PROV		RIG PHONE NO	RIG FAX NO
AUSTRALIA	OFFSHORE	VICTORIA			

AFE # 1008E50	AFE COSTS	DAILY COSTS	CUMULATIVE COSTS
DESCRIPTION:	DHC: 12,691,688	DHC: 598,045	DHC: 19,134,362
	DCC:	DCC:	DCC:
	CWC:	CWC:	CWC:
	Others:	Others:	Others:
	TOTAL: 12,691,688	TOTAL: 598,045	TOTAL: 19,134,362

DEFAULT DATUM / ELEVATION	LAST SAFETY MEETING	BLOCK	FORMATION	BHA HRS OF SERVICE
ROTARY TABLE / 38.00 (m)		Vic-P45		

LAST SURVEY	LAST CSG SHOE TEST (EMW)	LAST CASING	NEXT CASING
MD 2,967.93 (m) **INC** 0.68° **AZM** 143.30°	1.80 (sg)	244.000 mm @ 902.0 m	

CURRENT OPERATIONS: Wait on weather to rig move.

24 HR SUMMARY: Wait on boats to tow to new location Trouble time still attributed to Valkyrie gear box lube oil pump failure.. Wait on weather to rig move.

24 HR FORECAST: Wait on weather to rig move. Attach tow bridle, lower rig, tow rig to new location, pin rig and conduct 100% pre-loading.

OPERATION SUMMARY

From	To	HRS	Phase	Operation	PT/NPT	NPT CODES	ACTIVITY SUMMARY
0:00	4:30	4.50	R-MOB-DEM OB	MOB	PN	SO	Waiting on second boat to commence rig move. Perform ongoing rig maintenance and improvements.
4:30	0:00	19.50	R-MOB-DEM OB	MOB	PN	SO	Wait on weather to attach boats to tow bridle. Campbell Cove arrived at location at 03:40hrs, Sirius Cove arrived at location at 04:20hrs. Trouble time still attributed to Valkyrie gear box lube oil pump failure.

24.00 = Total Hours Today

06:00 UPDATE

0000-0600 00:00 - 06:00 - Wait on weather to attach boats to tow bridle. Trouble time still attributed to Valkyrie gear box lube oil pump failure
Perform ongoing rig maintenance and improvements.

PERSONNEL DATA

COMPANY	QTY	HRS	COMPANY	QTY	HRS
TOTAL MARINE CATERING	9		ADA	4	
BHI	3		SEA DRILL SERVICES	44	
FUGRO	2		TAMBORITHA	2	
SEA DRILL	13				

TOTAL PERSONNEL ON BOARD: 77

SUPPORT CRAFT

TYPE	REMARKS
CREW VEHICLE	

MATERIALS/CONSUMPTION

ITEM	UNITS	USAGE	ON HAND	ITEM	UNITS	USAGE	ON HAND
BARITE BULK	MT		93	BENTONITE	MT		60
CEMENT	MT		85	FUEL OIL	m3		136
WATER, POTABLE	MT	18	97	WATER, DRILLING	MT		230

WEATHER

TIME	SWELL HT/DIR/PER	WAVE HT/DIR/PER	WIND SPEED/DIR	GUST SPEED/DIR	TEMP
00:00	1.80/ /5	/ /	/	/270.00	

Daily Drilling Report

WELL NAME				DATE
COELACANTH-1				04-04-2008
API #	**24 HRS PROG**	**TMD**	**TVD**	**REPT NO**
	0.00 (m)	3,074.00 (m)	3,073.87 (m)	28

MUD INVENTORY

ITEM	UNIT	USAGE	Day Cost ($)	ON HAND

APACHE CORPORATION

Daily Drilling Report

WELL NAME				DATE
COELACANTH-1				05-04-2008
API #	**24 HRS PROG**	**TMD**	**TVD**	**REPT NO**
	0.00 (m)	3,074.00 (m)	3,073.87 (m)	29

RIG NAME NO	FIELD NAME	AUTH TMD	PLANNED DOW	DOL	DFS / KO	WATER DEPTH
WEST TRITON			15.92 (days)	28.33 (days)	26.46 (days)	90.00 (m)

SPUD DATE	Rig Release	WELL SUPERVISOR	OIM	PBTMD
08-03-2008		ADA SUPERVISOR / B.OPENSHAW/R.ROUSSOUW	MICHAEL BARRY	

REGION	DISTRICT	STATE / PROV		RIG PHONE NO	RIG FAX NO
AUSTRALIA	OFFSHORE	VICTORIA			

AFE # 1008E50	AFE COSTS	DAILY COSTS	CUMULATIVE COSTS
DESCRIPTION:	DHC: 12,691,688	DHC: 598,045	DHC: 19,732,407
	DCC:	DCC:	DCC:
	CWC:	CWC:	CWC:
	Others:	Others:	Others:
	TOTAL: 12,691,688	TOTAL: 598,045	TOTAL: 19,732,407

DEFAULT DATUM / ELEVATION	LAST SAFETY MEETING	BLOCK	FORMATION	BHA HRS OF SERVICE
ROTARY TABLE / 38.00 (m)		Vic-P45		

LAST SURVEY	LAST CSG SHOE TEST (EMW)	LAST CASING	NEXT CASING
MD 2,967.93 (m) **INC** 0.68° **AZM** 143.30°	1.80 (sg)	244.000 mm @ 902.0 m	

CURRENT OPERATIONS: On tow to Speke South - 1.

24 HR SUMMARY: Wait on boats to tow to new location, Wait on weather to rig move. Hook up Tow Bridlle to Battler, lower rig into water, preform water intigerty checks while attaching tugs to Port and Stabquater. Lower rig and tow rig to new location.

24 HR FORECAST: Soft pin rig, comfirm position, jack up and preform 100% preload. Dump preload and jack up to operating height. Prepare to spud Speke South -1.

OPERATION SUMMARY

From	To	HRS	Phase	Operation	PT/NPT	NPT CODES	ACTIVITY SUMMARY
0:00	21:00	21.00	R-MOB-DEM OB	MOB	PN	WOW	Wait on weather to attach boats to tow bridle. Trouble time still attributed to Valkyrie gear box lube oil pump failure Perform ongoing rig maintenance and improvements.
21:00	0:00	3.00	R-MOB-DEM OB	MOB	PP		Hook up Tow Bridlle to Battler, lower rig into water, preform water intigerty checks while attaching tugs to Port and Stab quater. Lower rig and tow rig to new location. Rig 1nm of location at 24:00 hrs. Rig released from Coelacanth @24:00 hrs on the 05-04-2008.

24.00 = Total Hours Today

06:00 UPDATE

0000-0600 00:00 - 06:00 - Rig on tow to Speke South - 1. At 05:30 Distance Traveled 20.1nm, Distance to go 15.4nm, Heading 277 deg, Speed 5 knts
ETA Speke South -1 at 08:40 hrs.

PERSONNEL DATA

COMPANY	QTY	HRS	COMPANY	QTY	HRS
TOTAL MARINE CATERING	9		FUGRO	2	
ADA	4		SEA DRILL SERVICES	44	
SEA DRILL	13		BHI	3	
TAMBORITHA	2				

TOTAL PERSONNEL ON BOARD: 77

SUPPORT CRAFT

TYPE	REMARKS

MATERIALS/CONSUMPTION

ITEM	UNITS	USAGE	ON HAND	ITEM	UNITS	USAGE	ON HAND
BARITE BULK	MT		93	BENTONITE	MT		60
CEMENT	MT		85	FUEL OIL	m3		124
WATER, POTABLE	MT	31	66	WATER, DRILLING	MT		230

WEATHER

TIME	SWELL HT/DIR/PER	WAVE HT/DIR/PER	WIND SPEED/DIR	GUST SPEED/DIR	TEMP
00:00	1.80/ /5	/ /	/	/270.00	

Daily Drilling Report

WELL NAME				DATE
COELACANTH-1				05-04-2008
API #	**24 HRS PROG**	**TMD**	**TVD**	**REPT NO**
	0.00 (m)	3,074.00 (m)	3,073.87 (m)	29

MUD INVENTORY

ITEM	UNIT	USAGE	Day Cost ($)	ON HAND

DAILY GEOLOGICAL REPORT

Date:	13 March 2008	**Rig:**	West Triton
Report Number:	5	**Bit Diameter:**	311 mm (12 ¼")
Report Period:	06:00 - 06:00 Hours	**Last Casing:**	508 mm Conductor @ 275.2 mMDRT
Spud Date:	10-Mar-2008 13:00 Hours	**Integrity Test:**	N/A
Days From Spud:	2.7	**Mud Weight:**	1.06 sg
Depth @ 0600 Hrs:	540.0 mMDRT -502.0 mTVDAHD	**Mud Type:**	Sea Water/Gel Sweeps
Lag Depth:	520.0 mMDRT	**Mud Chlorides:**	2100.00 mg/L
Last Depth:	279.0 mMDRT		
Progress:	261.0 m		
Water Depth:	90.0 m	**Last Survey:**	500.26 mMDRT
RT:	38.0 m	**Deviation:**	Inc. 0.32° Az. 0.00°

OPERATIONS SUMMARY

24 HOUR SUMMARY: Pressured tested BOP. Rigged up fishing tools and retrieved 2 x HWDP that parted during pressure test. Set wear bushing and diverter packer. Made up 311 mm drilling assembly, ran in hole and drilled float, shoe track and cement. Drilled 311 mm section from 279.0 to 540.0 mMDRT.

NEXT 24 HOURS: Drill 311 mm to target depth of +/-900.0 mMDRT. Pull out of hole to run intermediate wireline logs.

CURRENT OPERATION @ 06:00 HRS (13-Mar-2008): Drilling 311mm section.

GEOLOGICAL SUMMARY

LITHOLOGY

INTERVAL: 279.0 to 410.0 mMDRT (-241.0 to -372.0 mTVDAHD)
ROP (Range): 28.7 to 263.0 m/h
Av. ROP: 162.2 m/h

Interbedded CALCILUTITE and CALCISILTE.
CALCILUTITE (80%): light grey to light brown grey, light olive grey to medium grey, light yellow in part, common to abundant fossils, trace very coarse quartz grains, moderately hard to hard, sub-blocky to blocky.
CALCISILTITE (20%): white to light grey, common light to medium grey, common fossils, moderately hard to hard, sub-blocky to blocky.

INTERVAL: 410.0 to 520.0 mMDRT (-372.0 to -482.0 mTVDAHD)
ROP (Range): 47.1 to 193.2 m/h
Av. ROP: 151.1 m/h

CALCILUTITE with interbedded CALCARENITE.
CALCILUTITE (90%): very light grey to light grey, light blue grey, off white, minor light to medium grey, light brown grey, common fossils, trace to rare fine quartz grains, firm to moderately hard, sub-blocky to blocky.
CALCARENITE (10%): light to medium grey, light to medium blue grey, light olive grey, trace carbonaceous specks, common fossil fragments, trace very fine quartz grains, moderately hard to hard, sub-blocky to blocky.

HYDROCARBON FLUORESCENCE
No Shows

GAS SUMMARY

Background Gas							
INTERVAL (m MDRT)	**Total Gas (%)**	**C1 (ppm)**	**C2 (ppm)**	**C3 (ppm)**	**iC4 (ppm)**	**nC4 (ppm)**	**C5 (ppm)**
279.0 - 410.0	0.0023	5	1	0	0	0	0
410.0 - 520.0	0.0017	7	1	0	0	0	0

MWD/ LWD
MWD / LWD Sensor offset from bit:
GR : 11.63m
RES : 12.10m
SURVEY: 18.80m

REMARKS

This is the first Daily Geological Report (DGR) for Coelacanth-1 and is numbered DGR 05 to tally with the Daily Drilling Report (DDR) 05 of the Drilling Supervisor.

The West Triton Jack-up drilling rig was 1 km from Coelacanth-1 location at 02:30 hrs on 09 March 2008. The rig was positioned, jacked-up and pre-loaded. The West Triton drill stem was 0.78 m on a bearing of 247.7º (True) from the intended Coelacanth-1 location.

The surface location coordinates for Coelacanth-1 are:
Latitude: 38º 42' 49.7296" S Easting: 613,192.770 mE
Longitude: 148º 18' 07.0098" E Northing: 5,714,176.613 mN

Rig elevations are as follows:
RT to AHD: 38.0 m
Water Depth: 90.0 m
RT to seabed: 128.0 mMDRT

The rig was jacked to drilling elevation and the cantilever skidded out. The 660 mm BHA was picked up and run in hole to a tagged sea-bed depth of 127.5 mMDRT (128.0 mMDRT currently official RT-SB). Coelacanth-1 was spudded at 13:00 hours 10 March 2008 and the section drilled riserless to 279.0 mMDRT. The 508 mm conductor was run and cemented at 275.2 mMDRT.

The BOP was installed and pressured tested. During the pressure test the pipe parted below test plug. Rigged up fishing tools and ran in hole to fish two stands of heavy weight drill pipe (HWDP). Retrieved fish and laid out same. Set wear bushing and diverter packer. Made up 311 mm drilling assembly, ran in hole to top of cement at 274.0 mMDRT. Drilled float, shoe track and cement. Drilled 311 mm section from 279.0 to 540.0 mMDRT.

WELLSITE GEOLOGISTS
Fred Fernandes

DAILY GEOLOGICAL REPORT

Date:	14 March 2008	**Rig:**	West Triton
Report Number:	6	**Bit Diameter:**	311mm (12 ¼")
Report Period:	06:00 - 06:00 Hours	**Last Casing:**	508mm Conductor @ 275.2 mMDRT
Spud Date:	10-Mar-2008 13:00 Hours	**Integrity Test:**	N/A
Days From Spud:	3.7	**Mud Weight:**	1.15 sg
Depth @ 0600 Hrs:	907.0 mMDRT -869.0 mTVDAHD	**ECD:** **Mud Type:**	 KCL Polymer
Lag Depth:	907.0 mMDRT	**Mud Chlorides:**	38000.00 mg/L
Last Depth:	540.0 mMDRT		
Progress:	367.0 m		
Water Depth:	90.0 m	**Last Survey:**	887.36 mMDRT
RT:	38.0 m	**Deviation:**	Inc. 0.25° Az. 0.00°

OPERATIONS SUMMARY

24 HOUR SUMMARY: Drilled 311mm section from 540.0 to 907.0 mMDRT. Circulated hole clean, pulled out of hole at section total depth to record intermediate wireline logs. Laid out 311mm drilling assembly and LWD tools. Commenced wireline logging operation as per the programme, suite 1 / run 1: PEX-DSI.

NEXT 24 HOURS: Rig down wireline loggers. Run in hole 244mm casing and cement.

CURRENT OPERATION @ 06:00 HRS (14-Mar-2008): Rigging down wireline loggers.

GEOLOGICAL SUMMARY

LITHOLOGY

INTERVAL: 520.0 to 610.0 mMDRT (-482.0 to -572.0 mTVDAHD)
ROP (Range): 64.6 to 193.2 m/h
Av. ROP: 156.6 m/h

Interbedded CALCARENITE and CALCILUTITE
CALCARENITE (20 to 80%): light to medium grey, light to medium olive grey, light brown grey, trace to common fossil fragments, common fine to medium quartz grains, moderately hard, sub-blocky to blocky.
CALCILUTITE (20 to 80%): light to medium grey, medium dark grey to dark olive grey, common fossil fragments, moderately hard to hard, sub-blocky to blocky.

INTERVAL: 610.0 to 878.0 mMDRT (-572.0 to -840.0 mTVDAHD)
ROP (Range): 43.9 to 199.5 m/h
Av. ROP: 154.5 m/h

CALCARENITE with minor interbedded CALCILUTITE
CALCARENITE (90%): light to medium grey, predominantly medium grey, light blue grey, minor medium dark grey, common very fine to fine quartz grains, common fossil fragments, moderately hard to hard, sub-blocky to blocky.
CALCILUTITE (10%): light to medium grey, medium dark grey to dark olive grey, common fossil fragments, moderately hard to hard, sub-blocky to blocky.

INTERVAL: 878.0 to 907.0 mMDRT (-840.0 to -869.0 mTVDAHD)
ROP (Range): 47.4 to 196.0 m/h
Av. ROP: 168.2 m/h

CALCARENITE with minor interbedded CALCILUTITE
CALCARENITE (90%): light to medium grey, predominantly medium grey, light blue grey, minor medium

dark grey, common very fine to fine quartz grains, common fossil fragments, moderately hard to hard, sub-blocky to blocky.
CALCILUTITE (10%): light to medium grey, medium dark grey to dark olive grey, common fossil fragments, moderately hard to hard, sub-blocky to blocky.

HYDROCARBON FLUORESCENCE
No Shows

GAS SUMMARY

Background Gas							
INTERVAL (mMDRT)	Total Gas (%)	C1 (ppm)	C2 (ppm)	C3 (ppm)	iC4 (ppm)	nC4 (ppm)	C5 (ppm)
520.0 - 610.0	0.001	11	0	0	0	0	0
610.0 - 878.0	0.001	10	0	0	0	0	0
878.0 - 907.0	0.020	134	0	0	0	0	0

Gas Peak							
INTERVAL (mMDRT)	Total Gas (%)	C1 (ppm)	C2 (ppm)	C3 (ppm)	iC4 (ppm)	nC4 (ppm)	C5 (ppm)
900.0 - 907.0	0.37	3474	6	2	0	0	0

WIRELINE

WATER BASED MUD DATA

DATE MUD CHECK	MUD TYPE	MW (sg)	pH	KCl (%)	Cl (mg/L)	Barite (%)	Rm (ohm.m)	Rmf (ohm.m)	Rmc (ohm.m)
13-Mar-2008	KCL Polymer	1.15	8	0	38000	0	0.1378	0.1301	0.1467

RUN SUMMARY

Run #	Tool String	Log From Depth (m)	Log To Depth (m)	Repeat From Depth (m)	Repeat To Depth (m)	Comments
1	PEX-DSI	279.0	907.0	0.0	0.0	Main pass recorded @ 1800 ft/hr (550 m/hr). Sonic was logged to surface. Depth to be confirmed.

TEMPERATURE DATA
Date Mud Checked: 13-Mar-2008
Date Time Circulation Stopped: 13-Mar-2008 01:20 PM
Circulation Time: 3.00 h

Run #	Run Date	Tool String	Max BHT (°C)	Max BHT Depth (m)	Date Time Logger on Bottom	Time Since Circ. Stopped (h)
1	3/13/2008	PEX-DSI	31.44	907.0	13-Mar-2008 23:32	10.20

REMARKS
311mm section TD of 907.0 mMDRT was reached at 10:00 hrs on 13th March 2008. Then rigged up and ran Wireline Suite 1Run 1 PEX-DSI.

WELLSITE GEOLOGISTS
Fred Fernandes

DAILY GEOLOGICAL REPORT

Date:	15 March 2008	**Rig:**	West Triton
Report Number:	7	**Bit Diameter:**	N/A
Report Period:	06:00 - 06:00 Hours	**Last Casing:**	244 mm (9 5/8") casing @ 902.1 mMDRT
Spud Date:	10-Mar-2008 13:00 Hours	**Integrity Test:**	N/A
Days From Spud:	4.7	**Mud Weight:**	1.15 sg
Depth @ 0600 Hrs:	907.0 mMDRT -869.0 mTVDAHD	**ECD:** **Mud Type:**	 KCL Polymer
Lag Depth:	907.0 mMDRT	**Mud Chlorides:**	38000.00 mg/L
Last Depth:	907.0 mMDRT		
Progress:	0.0 m		
Water Depth:	90.0 m	**Last Survey:**	887.36 mMDRT
RT:	38.0 m	**Deviation:**	Inc. 0.25° Az. 0.00°

OPERATIONS SUMMARY

24 HOUR SUMMARY: Ran and set 244 mm (9 5/8") casing.

NEXT 24 HOURS: Run wear bushing. Rig up and RIH with 216 mm (8 ½") BHA.

CURRENT OPERATION @ 06:00 HRS (15-Mar-2008): Rigging down 244mm casing running tool from casing hanger in the well head.

GEOLOGICAL SUMMARY

LITHOLOGY

No new lithology drilled.

REMARKS

Rigged down wireline loggers, trouble shoot wireline logging unit generator. Run in hole 244mm (9 5/8") casing and cement same, casing shoe set at 902.1 mMDRT.

WELLSITE GEOLOGISTS

Fred Fernandes / Adam Cruickshank

DAILY GEOLOGICAL REPORT

Date:	16 March 2008	**Rig:**	West Triton
Report Number:	8	**Bit Diameter:**	216mm (8 ½")
Report Period:	06:00 - 06:00 Hours	**Last Casing:**	244" Intermediate casing @ 902.1 mMDRT
Spud Date:	10-Mar-2008 13:00 Hours	**Integrity Test:**	N/A
Days From Spud:	5.7	**Mud Weight:**	1.15 sg
Depth @ 0600 Hrs:	907.0 mMDRT -869.0 mTVDAHD	**ECD:** **Mud Type:**	 KCL Polymer
Lag Depth:	907.0 mMDRT	**Mud Chlorides:**	40000.00 mg/L
Last Depth:	907.0 m MDRT		
Progress:	0.0 m		
Water Depth:	90.0 m	**Last Survey:**	887.36 mMDRT
RT:	38.0 m	**Deviation:**	Inc. 0.25° Az. 0.00°

OPERATIONS SUMMARY

24 HOUR SUMMARY: Retrieved 244mm casing landing string, set seal assembly, ran wear bushing. Made up 216mm (8 1/2") BHA and LWD tools, RIH, drill cement.

NEXT 24 HOURS: Drill cement, float & shoe track along with 3 m of new formation, displace well to new KCL/Polymer mud system. Conduct leak off test, drill ahead 216mm production hole to TD.

CURRENT OPERATION @ 06:00 HRS (16-Mar-2008): Drilling cement at 872m.

GEOLOGICAL SUMMARY

LITHOLOGY
No new lithology drilled.

MWD
MWD SENSOR OFFSET FROM BIT

GR	: 12.33m
RES	: 12.86m
SURVEY	: 18.74m
SONIC	: 26.53m
NEUTRON	: 34.53m
DENSITY	: 33.42m

Gamma and resistivity logs will be run in realtime mode. Other logs will all be run in recorded mode only.

REMARKS
The 244mm casing landing string was retrieved, the seal assembly set and the wear bushing installed. The 216 mm drilling assembly was then made up consisting of a Reed RSX-661-D3 PDC bit and LWD tools for the acquisition of gamma ray, resistivity, neutron density, neutron porosity, sonic and directional data.

The drilling assembly was run in hole and tagged top of cement at 859.0 mMDRT.

WELLSITE GEOLOGISTS
Fred Fernandes / Adam Cruickshank

DAILY GEOLOGICAL REPORT

Date:	17 March 2008	**Rig:**	West Triton
Report Number:	9	**Bit Diameter:**	216 mm (8 ½")
Report Period:	06:00 - 06:00 Hours	**Last Casing:**	244mm (9 5/8") casing @ 902.1 m MDRT
Spud Date:	10-Mar-2008 13:00 Hours	**FIT:**	1.78 sg EMW @ 902.0 m MDRT
Days From Spud:	6.7	**Mud Weight:**	1.14 sg
Depth @ 0600 Hrs:	1622.0 mMDRT -1583.9 mTVDAHD	**ECD:** **Mud Type:**	 KCL Polymer
Lag Depth:	1622.0 mMDRT	**Mud Chlorides:**	50000.00 mg/L
Last Depth:	907.0 mMDRT		
Progress:	715.0 m		
Water Depth:	90.0 m	**Last Survey:**	1550.00 mMDRT
RT:	38.0 m	**Deviation:**	Inc. 0.99° Az. 280.13°

OPERATIONS SUMMARY

24 HOUR SUMMARY: Drilled out shoe track and 3 m of new formation to 910.0 mMDRT. Displaced well to KCL Polymer mud. Conducted formation integrity test. Drilled ahead 216mm hole from 910.0 to 1622.0 mMDRT.

NEXT 24 HOURS: Drill 216mm section to target depth.

CURRENT OPERATION @ 06:00 HRS (17-Mar-2008): Drilling 216mm section at 20-30 m/hr.

GEOLOGICAL SUMMARY

LITHOLOGY

INTERVAL: 907.0 to 980.0 mMDRT (-868.9 to -941.9 mTVDAHD)
ROP (Range): 46.0 to 198.0 m/h
Av. ROP: 124.0 m/h

CALCARENITE
CALCARENITE (100%): light grey to light blue grey; light brown grey to off white, common fine quartz grains, trace very coarse quartz grains, trace fossil fragments, moderately hard, sub-blocky.

INTERVAL: 980.0 to 1130.0 mMDRT (-941.9 to -1091.9 mTVDAHD)
ROP (Range): 38.0 to 198.0 m/h
Av. ROP: 164.0 m/h

MARL with minor CALCARENITE interbeds
MARL (70%): light grey to light green grey, light olive grey, trace glauconite grains, trace carbonaceous specks, trace calcite grains, soft to firm, dispersive, amorphous to sub-blocky.
CALCARENITE (30%): light grey to light brown grey, off white to light blue grey, trace fossil fragments, trace very fine to fine quartz grains, moderately hard, sub-blocky.

INTERVAL: 1130.0 to 1223.0 mMDRT (-1091.9 to -1184.9 mTVDAHD)
ROP (Range): 53.0 to 187.0 m/h
Av. ROP: 133.0 m/h

MARL with trace interbedded CALCARENITE
MARL (100%): light grey to light green grey, light olive grey, trace glauconite grains, trace carbonaceous specks, trace calcite grains, soft to firm, dispersive, amorphous to sub-blocky.
CALCARENITE (Trace): light grey to light brown grey, off white to light blue grey, trace fossil fragments, trace very fine to fine quartz grains, moderately hard, sub-blocky.

INTERVAL: 1223.0 to 1295.0 mMDRT (-1184.9 to -1256.9 mTVDAHD)
ROP (Range): 22.0 to 150.0 m/h
Av. ROP: 69.0 m/h

Massive MARL
MARL (100%): light grey to light green grey, light brown grey to off white, trace glauconite grains, trace carbonaceous specks and micro laminations, trace very fine quartz and calcite grains, soft to dispersive, amorphous to sub-blocky.

INTERVAL: 1295.0 to 1412.0 mMDRT (-1256.9 to -1373.9 mTVDAHD)
ROP (Range): 10.0 to 94.0 m/h
Av. ROP: 31.0 m/h

Interbedded MARL and CALCARENITE
MARL (70%): light grey to light green grey, light brown grey to light olive grey, trace carbonaceous specks and micro laminations, trace very fine quartz grains, in part grading to a Calcarenite, trace glauconite grains, soft to moderately hard, sub-blocky to in part blocky.
CALCARENITE (30%): light grey to light brown grey, off white, predominantly argillaceous, grading to arenaceous Marl, trace carbonaceous specks, trace glauconite, firm to moderately hard, sub-blocky.

INTERVAL: 1412.0 to 1470.0 mMDRT (-1373.9 to -1431.9 mTVDAHD)
ROP (Range): 33.0 to 177.0 m/h
Av. ROP: 99.0 m/h

Interbedded CALCILUTITE, CALCARENITE and MARL
CALCILUTITE (80%): pale to medium grey, off white to pale grey, light to medium brown grey, common carbonaceous laminations and specks, abundantly argillaceous, rare micro-fossils, minor spherical quartz grains, moderately hard to hard, dispersive in part, sub-blocky to blocky.
CALCARENITE (20%): light to medium grey, medium brown grey, off white, abundant argillaceous material, common carbonaceous laminations and specks, occasional lithics, common fine to medium spherical quartz grains, hard to very hard, sub-blocky to blocky.
MARL (100%): pale to medium grey, pale to medium brown, argillaceous, common carbonaceous laminations and specks, rare lithics and nodular pyrite, common silty laminations, locally grading to calcisiltite, firm to moderately hard, hard in part, sub-blocky to blocky.

INTERVAL: 1470.0 to 1530.0 mMDRT (-1431.9 to -1491.8 mTVDAHD)
ROP (Range): 18.0 to 77.0 m/h
Av. ROP: 44.0 m/h

Massive MARL
ARENACEOUS MARL (100%): pale to medium grey, light brown grey, translucent in part, common fine to coarse angular to spherical quartz grains, common micro fossils, abundant argillaceous material, minor to locally common carbonaceous laminations & specks, minor nodular pyrite, firm to hard, sub-blocky.
MARL (100%): light to medium grey, medium brown grey, off white, abundant argillaceous material, common carbonaceous laminations and specks, occasional lithics, minor fine to medium spherical quartz grains, localised silty laminations and grading to calcisiltite, moderately hard to hard, sub-blocky to blocky, dispersive in part.

INTERVAL: 1530.0 to 1610.0 mMDRT (-1491.8 to -1571.8 mTVDAHD)
ROP (Range): 10.0 to 107.0 m/h
Av. ROP: 31.0 m/h

Interbedded MARL and CALCILUTITE
MARL (90%): pale to medium grey, medium brown, grey, common to abundant ooliths, minor carbonaceous specks, and common to abundant nodular and disseminated pyrite, firm to moderately hard, sub-blocky.
CALCILUTITE (10%): pale brown, tan, argillaceous, minor micro-crystalline, increasingly common micro-fossils and spicules, hard to very hard, sub-blocky to sub-fissile.

HYDROCARBON FLUORESCENCE
No Shows

GAS SUMMARY

Background Gas							
INTERVAL (m MDRT)	**Total Gas (%)**	**C1 (ppm)**	**C2 (ppm)**	**C3 (ppm)**	**iC4 (ppm)**	**nC4 (ppm)**	**C5 (ppm)**
907.0 - 980.0	0.18	861	5	2	0	0	0
980.0 - 1130.0	0.67	5387	5	3	1	0	0
1130.0 - 1223.0	0.84	3271	6	2	0	0	0
1223.0 - 1295.0	0.47	5391	4	3	0	0	0
1295.0 - 1415.0	0.18	1504	5	2	0	0	0
1415.0 - 1470.0	0.45	3592	9	3	0	0	0
1470.0 - 1530.0	0.28	2302	7	3	0	0	0
1530.0 - 1610.0	0.17	1592	5	3	0	0	0

SAMPLE QUALITY
20 m samples were collected from 1030 to 1290 mMDRT due to fast ROP'S.

MWD
MWD SENSOR OFFSET FROM BIT
GR : 12.33m
RES : 12.86m
SONIC : 26.53m
NEUTRON : 34.53m
DENSITY : 33.42m
SURVEY : 18.74m

No communication was established with GVR tools in real time. Intermittent MWD data available.

REMARKS
Drilled cement, float & shoe track along 3 m of new formation from 907.0 to 910.0 mMDRT. Circulated hole clean and displaced well to KCL Polymer mud system. Conducted formation integrity test to 850 psi, EMW calculated at 1.78 sg.

Drilled 216mm section from 910.0 to 1622.0 mMDRT.

WELLSITE GEOLOGISTS
Fred Fernandes / Adam Cruickshank

DAILY GEOLOGICAL REPORT

Date:	18 March 2008	**Rig:**	West Triton
Report Number:	10	**Bit Diameter:**	216 mm (8 ½")
Report Period:	06:00 - 06:00 Hours	**Last Casing:**	244mm casing @ 902.1 mMDRT
Spud Date:	10-Mar-2008 13:00 Hours	**FIT:**	1.78 sg EMW @ 902.0 mMDRT
Days From Spud:	7.7	**Mud Weight:**	1.18 sg
Depth @ 0600 Hrs:	1998.0 mMDRT -1959.8 mTVDAHD	**ECD:** **Mud Type:**	 KCL Polymer
Lag Depth:	1998.0 mMDRT	**Mud Chlorides:**	49000.00 mg/L
Last Depth:	1622.0 mMDRT		
Progress:	376.0 m		
Water Depth:	90.0 m	**Last Survey:**	1895.34 mMDRT
RT:	38.0 m	**Deviation:**	Inc. 0.85° Az. 336.21°

OPERATIONS SUMMARY

24 HOUR SUMMARY: Drilled 216mm section from 1622.0 to 1998.0 mMDRT. POOH for bit change.

NEXT 24 HOURS: POOH to surface. Change out LWD tools and BHA. RIH to drill ahead 216mm section.

CURRENT OPERATION @ 06:00 HRS (18-Mar-2008): Pulling out of hole to change bit - at 216mm casing shoe.

GEOLOGICAL SUMMARY

LITHOLOGY

INTERVAL: 1610.0 to 1645.0 mMDRT (-1571.8 to -1606.8 mTVDAHD)
ROP (Range): 10.0 to 36.0 m/h
Av. ROP: 22.0 m/h

Interbedded CALCAREOUS CLAYSTONE and MARL
CALCAREOUS CLAYSTONE (Trace to 90%): light grey to light green grey, light to medium olive grey, grading to a MARL, trace glauconite grains, trace disseminated pyrite, trace to common calcite grains, trace fossil fragments, soft to firm, sub-blocky.
MARL (10 to 100%): light green grey to light olive grey, medium grey, grading to a calcareous CLAYSTONE, trace glauconite, trace carbonaceous specks, trace disseminated pyrite, soft to firm, sub-blocky.

INTERVAL: 1645.0 to 1705.0 mMDRT (-1606.8 to -1666.8 mTVDAHD)
ROP (Range): 8.0 to 82.0 m/h
Av. ROP: 22.0 m/h

Interbedded MARL and CALCAREOUS CLAYSTONE with minor CALCILUTITE and CALCARENITE beds
MARL (40 to 90%): light green grey to light olive grey, medium olive grey to light grey, in part grading to a calcareous CLAYSTONE, trace glauconite, trace fossil fragments, trace disseminated pyrite.
CALCAREOUS CLAYSTONE (10 to 50%): light to medium grey, medium olive grey, grading to MARL, trace carbonaceous specks and micro laminations, trace glauconite, trace disseminated pyrite, firm, sub-blocky.
CALCILUTITE (10%): white to very light grey, trace calcite grains, trace fossil fragments, soft to firm, sub-blocky.
CALCARENITE (20%): light grey to light blue grey, white, common very fine quartz and calcite grains, om fossil fragments, moderately hard, sub-blocky.

INTERVAL: 1705.0 to 1725.0 mMDRT (-1666.8 to -1686.8 mTVDAHD)
ROP (Range): 11.0 to 39.0 m/h
Av. ROP: 20.0 m/h

Interbedded MARL and CALCAREOUS CLAYSTONE
MARL (40 to 50%): light to medium green grey, medium olive grey, trace carbonaceous specks, trace glauconite, rare fossil fragments, soft to firm, sub-blocky.
CALCAREOUS CLAYSTONE (50 to 60%): light grey to light brown grey, medium grey to medium olive grey, slightly arenaceous, trace carbonaceous specks, trace glauconite, firm to moderately hard, sub-blocky.

INTERVAL: 1725.0 to 1740.0 mMDRT (-1686.8 to -1701.8 mTVDAHD)
ROP (Range): 13.0 to 44.0 m/h
Av. ROP: 28.0 m/h

Interbedded MARL and CALCAREOUS CLAYSTONE
MARL (70 to 80%): light to medium green grey, olive grey, grading to a calcareous CLAYSTONE, trace glauconite, trace carbonaceous specks, rare fossil fragments, soft to firm, sub-blocky.
CALCAREOUS CLAYSTONE (20 to 30%): light to medium grey, medium green grey to medium olive grey, trace carbonaceous specks, trace disseminated pyrite soft to firm, sub-blocky.

INTERVAL: 1740.0 to 1797.0 mMDRT (-1701.8 to -1758.8 mTVDAHD)
ROP (Range): 29.0 to 70.0 m/h
Av. ROP: 49.0 m/h

Interbedded CALCAREOUS SILTSTONE, CALCAREOUS CLAYSTONE and MARL
CALCAREOUS SILTSTONE (20 to 40%): medium to dark grey, medium olive grey, trace disseminated pyrite, trace carbonaceous specks, moderately hard to hard, sub-blocky to blocky, in part sub-fissile.
CALCAREOUS CLAYSTONE (30 to 60%): light to medium grey, medium olive grey to dark grey, grading to MARL in part, trace carbonaceous specks, trace disseminated pyrite, trace glauconite, firm to moderately hard, sub-blocky.
MARL (20 to 40%): light to medium grey, light green grey to light olive grey, trace glauconite, trace carbonaceous specks, soft to firm, sub-blocky.

INTERVAL: 1796.0 to 1910.0 mMDRT (-1758.8 to -1871.8 mTVDAHD)
ROP (Range): 29.0 to 157.0 m/h
Av. ROP: 103.0 m/h

Interbedded CALCAREOUS SILTSTONE & CLAYSTONE with minor MARL
CALCAREOUS SILTSTONE (40 to 50%): medium to dark grey, medium olive grey, trace disseminated pyrite, trace carbonaceous specks, moderately hard to hard, sub-blocky to blocky, in part sub-fissile.
CALCAREOUS CLAYSTONE (20 to 50%): light to medium grey, medium olive grey, trace carbonaceous specks and micro laminations, trace glauconite, trace disseminated pyrite, firm to moderately hard, sub-blocky.
MARL (10 to 40%): light to medium grey, light green grey to light olive grey, trace glauconite, trace carbonaceous specks, soft to firm, sub-blocky.

INTERVAL: 1910.0 to 1998.0 mMDRT (-1871.8 to -1959.8 mTVDAHD)
ROP (Range): 4.0 to 64.0 m/h
Av. ROP: 29.0 m/h

Interbedded CALCAREOUS SILTSTONE & CLAYSTONE with minor MARL
CALCAREOUS CLAYSTONE (45 to 70%): light to medium grey, medium brown grey, abundant calcareous material, common micro fossils and ooliths, silty in part and locally grading to calcareous siltstone, occasional carbonaceous material, firm to hard, dispersive, sub-blocky.
CALCAREOUS SILTSTONE (30 to 55%): pale to medium grey, dark grey in part, medium brown grey, abundant calcareous material, common micro-fossils, commonly argillaceous and grading to calcareous claystone, minor nodular and disseminated pyrite, moderately hard to hard, very hard where dark grey, sub-blocky.
MARL (10 to 30%): light to medium grey, light green grey to light olive grey, slightly arenaceous, trace glauconite, trace carbonaceous specks, soft to firm, sub-blocky.

HYDROCARBON FLUORESCENCE
No Shows

GAS SUMMARY

Background Gas							
INTERVAL (mMDRT)	**Total Gas (%)**	**C1 (ppm)**	**C2 (ppm)**	**C3 (ppm)**	**iC4 (ppm)**	**nC4 (ppm)**	**C5 (ppm)**
1615.0 - 1645.0	0.12	1053	5	2	0	0	0
1645.0 - 1705.0	0.07	615	6	2	0	0	0
1705.0 - 1725.0	0.07	594	7	2	0	0	0
1725.0 - 1740.0	0.08	435	4	2	0	0	0
1740.0 - 1797.0	0.15	1200	6	3	0	0	0
1796.0 - 1889.0	0.31	2247	7	5	1	1	0
1889.0 - 1944.0	0.01	53	0	0	0	0	0
1944.0 - 1998.0	0.08	693	3	2	0	0	0

CALCIMETRY

Interval (mMDRT)	Calcite Range	Dolomite Range
1610.0 - 1645.0	27 - 33 %	1 - 1 %
1645.0 - 1705.0	36 - 45 %	1 - 8 %
1705.0 - 1725.0	35 %	12 %
1725.0 - 1740.0	58 - 58 %	7 - 7 %

SAMPLE QUALITY
5 m samples were collected from 1610.0 to 1740.0 mMDRT, 5-10 m samples were collected from 1740.0 to 1995.0 mMDRT.

MWD
MWD SENSOR OFFSET FROM BIT
GR : 12.33m
RES : 12.86m
SONIC : 26.53m
NEUTRON : 34.53m
DENSITY : 33.42m
SURVEY : 18.74m

REMARKS
Drilled 216mm section from 1622.0 to 1998.0 mMDRT. At 1998.0 mMDRT the hole was circulated clean and the bit pulled out of hole due to slow ROP. Pulled out of hole to 1300.0 mMDRT, back reamed out of the hole from 1300.0 to 902.0 mMDRT due to tight hole conditions.

WELLSITE GEOLOGISTS
Fred Fernandes / Adam Cruickshank

DAILY GEOLOGICAL REPORT

Date:	19 March 2008	**Rig:**	West Triton
Report Number:	11	**Bit Diameter:**	216 mm (8 ½")
Report Period:	06:00 - 06:00 Hours	**Last Casing:**	244 mm casing @ 902.1 mMDRT
Spud Date:	10-Mar-2008 13:00 Hours	**FIT:**	1.78 sg EMW @ 902.0 mMDRT
Days From Spud:	8.7	**Mud Weight:**	1.17 sg
Depth @ 0600 Hrs:	2116.0 mMDRT -2077.8 mTVDAHD	**ECD:** **Mud Type:**	 KCL Polymer
Lag Depth:	2110.0 mMDRT	**Mud Chlorides:**	55000.00 mg/L
Last Depth:	1998.0 mMDRT		
Progress:	118.0 m		
Water Depth:	90.0 m	**Last Survey:**	1983.37 mMDRT
RT:	38.0 m	**Deviation:**	Inc. 0.73° Az. 333.68°

OPERATIONS SUMMARY

24 HOUR SUMMARY: POOH for bit change. R/U backup LWD tools and RIH. Drilled 216 mm section from 1998.0 to 2116.0 mMDRT. POOH for bit change.

NEXT 24 HOURS: POOH to surface. Change out bit. RIH to drill ahead 216 mm section.

CURRENT OPERATION @ 06:00 HRS (19-Mar-2008): Pulling out of hole to change bit. Current depth 2003.0 mMDRT.

GEOLOGICAL SUMMARY

LITHOLOGY

INTERVAL: 1998.0 to 2030.0 mMDRT (-1959.8 to -1991.8 mTVDAHD)
ROP (Range): 4.0 to 70.0 m/h
Av. ROP: 25.0 m/h

Interbedded MARL and CALCAREOUS SILTSTONE with minor CALCARENITE
MARL (70 to 80%): pale to medium grey, dark grey in part, medium brown grey, abundant calcareous material, trace micro-fossils, commonly argillaceous, common nodular pyrite, moderately hard to hard, dispersive, sub-blocky to blocky.
CALCAREOUS SILTSTONE (10 to 30%): pale to medium grey, dark grey in part, medium brown grey, abundant calcareous material, trace micro-fossils, commonly argillaceous and grading to calcareous claystone, common nodular pyrite, moderately hard to hard, very hard where dark grey, sub-blocky.
CALCARENITE (10 to 20%): pale to medium grey, light bluish grey, off white to translucent in part, trace orange brown, abundantly argillaceous and grading to calcareous siltstone in part, common to abundant fine to medium angular to sub-angular calcite fragments, common to abundant nodular and disseminated pyrite, trace siderite, firm to hard, sub-blocky.

INTERVAL: 2030.0 to 2116.0 mMDRT (-1991.8 to -2077.8 mTVDAHD)
ROP (Range): 6.0 to 43.0 m/h
Av. ROP: 18.0 m/h

Interbedded CALCAREOUS CLAYSTONE and SILTSTONE
CALCAREOUS CLAYSTONE (35 to 90%): pale to medium grey, light bluish grey, medium brown grey in part, occasional calcareous fragments, trace micro-fossils, commonly argillaceous, minor nodular pyrite, moderately hard to hard, dispersive, sub-blocky.
CALCAREOUS SILTSTONE (10 to 65%): pale to medium grey, dark grey in part, medium brown grey, common calcareous fragments, trace micro-fossils, commonly argillaceous and grading to calcareous claystone, common nodular pyrite, moderately hard to hard, very hard where dark grey, sub-blocky.

HYDROCARBON FLUORESCENCE
No Shows

GAS SUMMARY

Background Gas							
INTERVAL (mMDRT)	**Total Gas (%)**	**C1 (ppm)**	**C2 (ppm)**	**C3 (ppm)**	**iC4 (ppm)**	**nC4 (ppm)**	**C5 (ppm)**
1998.0 - 2030.0	0.06	599	2	1	0	0	0
2030.0 - 2110.0	0.07	642	0	0	0	0	0

CALCIMETRY

Interval (mMDRT)	**Calcite Range**	**Dolomite Range**
1980.0 - 2110.0	18 - 56 %	1 - 10 %

MWD
MWD SENSOR OFFSET FROM BIT
GR : 12.33m
RES : 12.86m
SONIC : 26.53m
NEUTRON : 34.53m
DENSITY : 33.42m
SURVEY : 18.74m

REMARKS
POOH from 902.0 mMDRT to surface. Laid out GVR and ADN tools, downloaded memory data. Bit 3 found to be balled up but otherwise in good condition. Made up bit 4RR1, picked up and made up backup GVR-ADN tools with BHA. The assembly was run back in hole and continued drilling the 216mm hole from 1998.0 to 2116.0 mMDRT. Commenced POOH for a bit change due to low ROP.

WELLSITE GEOLOGISTS
Fred Fernandes / Adam Cruickshank

DAILY GEOLOGICAL REPORT

Date:	20 March 2008	**Rig:**	West Triton
Report Number:	12	**Bit Diameter:**	216 mm (8 ½")
Report Period:	06:00 - 06:00 Hours	**Last Casing:**	244mm casing @ 902.1 mMDRT
Spud Date:	10-Mar-2008 13:00 Hours	**FIT:**	1.78 sg EMW @ 902.0 m MDRT
Days From Spud:	9.7	**Mud Weight:**	1.17 sg
Depth @ 0600 Hrs:	2414.0 mMDRT -2375.8 mTVDAHD	**ECD:** **Mud Type:**	 KCL Polymer
Lag Depth:	2410.0 mMDRT	**Mud Chlorides:**	47000.00 mg/L
Last Depth:	2116.0 mMDRT		
Progress:	298.0 m		
Water Depth:	90.0 m	**Last Survey:**	2116.50 mMDRT
RT:	38.0 m	**Deviation:**	Inc. 0.57° Az. 332.49°

OPERATIONS SUMMARY

24 HOUR SUMMARY: POOH to change bit, laid out bit 4RR. Made up bit 5 and RIH, drilled 216 mm section from 2116.0 to 2414.0 mMDRT.

NEXT 24 HOURS: Drill 216 mm section to target depth.

CURRENT OPERATION @ 06:00 HRS (20-Mar-2008): Drilling 216 mm section at 15-20 m/hr.

GEOLOGICAL SUMMARY

LITHOLOGY

INTERVAL: 2116.0 to 2150.0 mMDRT (-2077.8 to -2111.8 mTVDAHD)
ROP (Range): 12.0 to 111.0 m/h
Av. ROP: 55.0 m/h

Interbedded CALCAREOUS CLAYSTONE and SILTSTONE
CALCAREOUS CLAYSTONE (80 to 90%): pale to light grey, light to medium grey, occasionally medium brown grey, common to abundant calcite fragments, trace micro fossils, occasional ooliths, trace very fine quartz grains, minor to locally common carbonaceous laminations and specks, occasional nodular and disseminated pyrite, firm to moderately hard, sub-blocky to blocky, dispersive in part.
CALCAREOUS SILTSTONE (10 to 20%): medium grey, medium grey brown, minor dark grey, abundantly argillaceous and common grading to calcareous claystone, common nodular and disseminated pyrite, common micro fossils and ooliths, occasional calcite fragments, minor carbonaceous specks, moderately hard to hard, very hard in part, sub-blocky.

INTERVAL: 2150.0 to 2210.0 mMDRT (-2111.8 to -2171.8 mTVDAHD)
ROP (Range): 22.0 to 137.0 m/h
Av. ROP: 61.0 m/h

Interbedded CALCAREOUS SILTSTONE and CLAYSTONE
CALCAREOUS SILTSTONE (10 to 70%): pale to medium grey, light brown grey, minor dark grey, argillaceous and locally grading to calcareous claystone, common nodular and disseminated pyrite, common to abundant micro fossils and ooliths, common to abundant fine to coarse calcite fragments, minor carbonaceous specks, moderately hard to hard, very hard in part, sub-blocky.
CALCAREOUS CLAYSTONE (30 to 90%): off white to pale grey, pale to light grey, light brown grey, minor calcite fragments, trace micro fossils, minor to locally common carbonaceous laminations and specks, occasional nodular and disseminated pyrite, firm, sub-blocky, dispersive.

INTERVAL: 2210.0 to 2295.0 mMDRT (-2171.8 to -2256.8 mTVDAHD)
ROP (Range): 26.0 to 130.0 m/h
Av. ROP: 66.0 m/h

Interbedded CALCAREOUS SILTSTONE and CLAYSTONE
CALCAREOUS SILTSTONE (70 to 90%): medium to dark grey, dominantly medium grey, argillaceous and locally grading to calcareous claystone, trace nodular and disseminated pyrite, trace micro fossils, occasional fine to medium calcite fragments, trace carbonaceous material, trace micromicaceous, firm to moderately hard, sub-fissile to sub-blocky.
CALCAREOUS CLAYSTONE (10 to 30%): off white to pale grey, pale to light grey, light brown grey, minor calcite fragments, trace micro fossils, minor carbonaceous laminations and specks, trace nodular and disseminated pyrite, common silty laminations and locally grading to calcareous siltstone, firm, sub-blocky, dispersive in part.

INTERVAL: 2295.0 to 2340.0 mMDRT (-2256.8 to -2301.8 mTVDAHD)
ROP (Range): 29.0 to 105.0 m/h
Av. ROP: 65.0 m/h

CALCAREOUS SILTSTONE with minor CALCAREOUS CLAYSTONE interbeds
CALCAREOUS CLAYSTONE (5 to 20%): off white to pale grey, pale to light grey, light brown grey, minor calcite fragments, trace micro fossils, minor carbonaceous laminations and specks, trace nodular and disseminated pyrite, common silty laminations and grading to calcareous siltstone, firm, sub-blocky, dispersive in part.
CALCAREOUS SILTSTONE (85 to 95%): medium to dark grey, dominantly medium grey, trace medium bluish grey, argillaceous and locally grading to calcareous claystone, common nodular and disseminated pyrite, common micro fossils, common to abundant fine to medium translucent calcite fragments, trace carbonaceous material, trace micromicaceous, moderately hard to hard, very hard in part, sub-fissile to sub-blocky.

INTERVAL: 2340.0 to 2370.0 mMDRT (-2301.8 to -2331.8 mTVDAHD)
ROP (Range): 9.0 to 103.0 m/h
Av. ROP: 63.0 m/h

Interbedded CALCAREOUS SILTSTONE and CALCAREOUS CLAYSTONE
CALCAREOUS CLAYSTONE (10%): off white to pale grey, pale to light grey, light brown grey, minor calcite fragments, trace micro fossils, minor carbonaceous laminations and specks, trace nodular and disseminated pyrite, common silty laminations and grading to calcareous siltstone, firm, sub-blocky, dispersive in part.
CALCAREOUS SILTSTONE (90%): light to medium grey, medium to dark grey, trace medium bluish grey, commonly argillaceous and locally grading to calcareous claystone, minor nodular and disseminated pyrite, common micro fossils, common to abundant fine to medium translucent calcite fragments, trace carbonaceous material, trace micromicaceous, moderately hard to hard, very hard in part, sub-blocky to sub-fissile.

INTERVAL: 2370.0 to 2410.0 mMDRT (-2331.8 to -2371.8 mTVDAHD)
ROP (Range): 8.0 to 36.0 m/h
Av. ROP: 15.0 m/h

CALCAREOUS CLAYSTONE with minor CALCAREOUS CLAYSTONE beds
CALCAREOUS SILTSTONE (90 to 95%): off white to pale grey, medium to dark grey in part, commonly argillaceous and locally grading to calcareous claystone, occasional micromicaceous, common to abundant calcareous fragments, common nodular and disseminated pyrite, occasional lithics and carbonaceous specks, firm to hard, sub-blocky.
CALCAREOUS CLAYSTONE (10 to 5%): off white to pale grey, pale to light grey, light brown grey, minor calcite fragments, trace carbonaceous laminations and specks, trace nodular and disseminated pyrite, common silty laminations and grading to calcareous siltstone, firm, sub-blocky, dispersive.

HYDROCARBON FLUORESCENCE
No Shows

GAS SUMMARY

Background Gas							
INTERVAL (m MDRT)	**Total Gas (%)**	**C1 (ppm)**	**C2 (ppm)**	**C3 (ppm)**	**iC4 (ppm)**	**nC4 (ppm)**	**C5 (ppm)**
2116.0 - 2150.0	0.11	778	2	1	0	0	0
2150.0 - 2210.0	0.15	796	2	1	0	0	0
2210.0 - 2295.0	0.11	966	1	0	0	0	0
2295.0 - 2340.0	0.02	115	0	0	0	0	0
2340.0 - 2370.0	0.01	46	0	0	0	0	0

CALCIMETRY

Interval (m MDRT)	Calcite Range	Dolomite Range
2116.0 - 2150.0	24 - 24 %	8 - 8 %
2150.0 - 2210.0	20 - 30 %	3 - 3 %
2210.0 - 2295.0	21 - 35 %	2 - 5 %
2295.0 - 2340.0	23 - 23 %	2 - 2 %
2340.0 - 2370.0	46 - 46 %	4 - 4 %

MWD

MWD SENSOR OFFSET FROM BIT

GR : 12.33m
RES : 12.86m
BAT SONIC : 26.53m
NEUTRON : 34.53m
DENSITY : 33.42m
SURVEY : 18.74m
RAB : 5.91m

REMARKS

When inspected at surface bit 4RR was found to be balled, the bit was laid out and new 216 mm five blade Reed RSX519M-A6 bit 5 was made up and run in hole to 2116.0 mMDRT, washing and reaming as required. Drilling of the 216 mm section continued from 2116.0 to 2414.0 mMDRT. Calcium Carbonate and sea water pills were pumped around the bit during connections and whilst drilling to minimise bit balling.

WELLSITE GEOLOGISTS

Fred Fernandes / Adam Cruickshank

DAILY GEOLOGICAL REPORT

Date:	21 March 2008	**Rig:**	West Triton
Report Number:	13	**Bit Diameter:**	216 mm (8 ½")
Report Period:	06:00 - 06:00 Hours	**Last Casing:**	244 mm casing @ 902.1 mMDRT
Spud Date:	10-Mar-2008 13:00 Hours	**FIT:**	1.78 sg EMW @ 902.0 mMDRT
Days From Spud:	10.7	**Mud Weight:**	1.16 sg
Depth @ 0600 Hrs:	2700.0 mMDRT -2661.8 mTVDAHD	**ECD:** **Mud Type:**	 KCL Polymer
Lag Depth:	2700.0 mMDRT	**Mud Chlorides:**	44000.00 mg/L
Last Depth:	2414.0 mMDRT		
Progress:	286.0 m		
Water Depth:	90.0 m	**Last Survey:**	2594.00 mMDRT
RT:	38.0 m	**Deviation:**	Inc. 0.56° Az. 53.27°

OPERATIONS SUMMARY

24 HOUR SUMMARY: Drilled 216 mm section from 2410.0 to 2700.0 mMDRT. Pulled out of hole for bit change due to low ROP.

NEXT 24 HOURS: Run in hole with 216 mm Bit 6 (PDC), drill 216 mm section to target depth +/- 3068.0 mMDRT.

CURRENT OPERATION @ 06:00 HRS (21-Mar-2008): Laying out 216 mm Bit 5.

GEOLOGICAL SUMMARY

LITHOLOGY

INTERVAL: 2410.0 to 2420.0 mMDRT (-2371.8 to -2381.8 mTVDAHD)
ROP (Range): 9.0 to 37.0 m/h
Av. ROP: 17.0 m/h

Interbedded CALCAREOUS SILTSTONE and CALCAREOUS CLAYSTONE
CALCAREOUS SILTSTONE (90%): light grey to off white, light olive grey to medium grey, locally medium dark grey, in part grading to argillaceous SILTSTONE, trace carbonaceous specks and micro laminations, trace micromicaceous, soft to firm, sub-blocky.
CALCAREOUS CLAYSTONE (10%): medium to medium dark grey, medium olive grey, in part arenaceous, trace carbonaceous specks and micro laminations, trace micromicaceous, trace disseminated pyrite, soft to firm, moderately hard in part, sub-blocky.

INTERVAL: 2420.0 to 2450.0 mMDRT (-2381.8 to -2411.8 mTVDAHD)
ROP (Range): 9.0 to 62.0 m/h
Av. ROP: 25.0 m/h

CALCAREOUS SILTSTONE with minor CALCAREOUS CLAYSTONE interbeds
CALCAREOUS SILTSTONE (80 to 95%): light grey to off white, medium grey to medium olive grey, argillaceous in part and grading to a CLAYSTONE, trace disseminated and nodular pyrite, trace carbonaceous specks and micro laminae, firm to moderately hard, sub-blocky.
CALCAREOUS CLAYSTONE (5 to 20%): light grey to medium grey, light olive grey, in part arenaceous, trace carbonaceous specks and micro laminae, trace disseminated pyrite, and trace micromicaceous, soft to firm, sub-blocky.

INTERVAL: 2450.0 to 2500.0 mMDRT (-2411.8 to -2461.8 mTVDAHD)
ROP (Range): 14.0 to 100.0 m/h
Av. ROP: 47.0 m/h

Interbedded CALCAREOUS SILTSTONE and CALCAREOUS CLAYSTONE
CALCAREOUS SILTSTONE (70 to 90%): light grey to off white, medium grey to medium olive grey, argillaceous in part and grading to a CLAYSTONE, trace disseminated and nodular pyrite, trace carbonaceous specks and micro laminae, firm to moderately hard, sub-blocky.
CALCAREOUS CLAYSTONE (10 to 30%): light grey to medium grey, light olive grey, in part arenaceous, trace carbonaceous specks and micro laminae, trace disseminated pyrite, trace micromicaceous, soft to firm, sub-blocky.

INTERVAL: 2500.0 to 2540.0 mMDRT (-2461.8 to -2501.8 mTVDAHD)
ROP (Range): 18.0 to 82.0 m/h
Av. ROP: 58.0 m/h

Interbedded CALCAREOUS SILTSTONE and CALCAREOUS CLAYSTONE
CALCAREOUS SILTSTONE (80 to 95%): light grey to off white, medium grey, common very fine quartz grains, trace nodular to disseminated pyrite, trace carbonaceous specks, trace calcite material, soft to firm, sub-blocky.
CALCAREOUS CLAYSTONE (5 to 20%): light grey to medium grey, light olive grey, in part arenaceous, trace carbonaceous specks and micro laminae, trace disseminated pyrite, and trace micromicaceous, soft to firm, sub-blocky.

INTERVAL: 2540.0 to 2560.0 mMDRT (-2501.8 to -2521.8 mTVDAHD)
ROP (Range): 23.0 to 85.0 m/h
Av. ROP: 54.0 m/h

CALCAREOUS SILTSTONE
CALCAREOUS SILTSTONE (100%): light to medium grey, light olive grey to medium olive grey, light brown grey, cm very fine quartz grains grading to very fine SANDSTONE in part, trace carbonaceous specks, trace disseminated pyrite, rare fossil fragments, moderately hard, sub-blocky to blocky.

INTERVAL: 2560.0 to 2600.0 mMDRT (-2521.8 to -2561.8 mTVDAHD)
ROP (Range): 27.0 to 104.0 m/h
Av. ROP: 68.0 m/h

Interbedded CALCAREOUS SILTSTONE and SANDSTONE
CALCAREOUS SILTSTONE (70 to 90%): light grey to medium grey, medium grey to medium olive grey, common very fine grains quartz, trace carbonaceous specks, trace micromicaceous, firm to moderately hard, sub-blocky to blocky.
SANDSTONE (10 to 30%): white to light grey, light brown grey, very fine to fine grains, poor sorted sub-angular to sub-rounded, moderately to strong calcareous cement, common to abundant white argillaceous matrix, trace carbonaceous specks, trace glauconite, friable to moderately hard, very poor visible and inferred porosity, no fluorescence.

INTERVAL: 2600.0 to 2625.0 mMDRT (-2561.8 to -2586.8 mTVDAHD)
ROP (Range): 24.0 to 166.0 m/h
Av. ROP: 73.0 m/h

Interbedded SILTSTONE and SANDSTONE
SILTSTONE (20 to 30%): medium to dark brown, brown grey to medium dark grey, moderately calcareous, common very fine quartz grains grading to very fine SANDSTONE, trace to common carbonaceous specks and micro laminae, trace micromicaceous, moderately hard to hard, sub-blocky to blocky, in part sub-fissile.
SANDSTONE (70 to 80%): light green to light brown, medium brown, clear to translucent, common opaque grains, very fine to fine grains, common medium grains, rare very coarse grains, poorly sorted, sub-angular to sub-rounded, moderate calcareous cement, common white argillaceous matrix, trace glauconite matrix,

trace to common glauconite grains, trace carbonaceous specks, trace mica specks, trace Fe stained quartz grains, moderately hard aggregates, common loose grains, poor to very poor visible & inferred porosity, no fluorescence.

INTERVAL: 2625.0 to 2670.0 mMDRT (-2586.8 to -2631.8 mTVDAHD)
ROP (Range): 14.0 to 201.0 m/h
Av. ROP: 66.0 m/h

Interbedded SILTSTONE and SANDSTONE
SILTSTONE (50 to 70%): medium brown grey to light brown, light grey to light blue grey, light to medium yellow, trace carbonaceous specks, trace micromicaceous, trace Fe stained fossil fragments, trace glauconite, moderately hard to hard, sub-blocky to blocky.
SANDSTONE (30 to 50%): light grey to off white, light brown grey, light blue grey, clear to translucent, very fine to fine grains, poorly sorted, sub-angular to sub-rounded, moderate calcareous cement, common argillaceous to silty matrix, trace glauconite, common nodular pyrite, trace fossil fragments, moderately hard, poor visible and inferred porosity, trace dull yellow orange mineral fluorescence.

INTERVAL: 2670.0 to 2700.0 mMDRT (-2631.8 to -2661.8 mTVDAHD)
ROP (Range): 3.0 to 89.0 m/h
Av. ROP: 36.0 m/h

Interbedded SILTSTONE and SANDSTONE
SILTSTONE (40 to 70%): medium to dark brown, brown grey, medium dark grey, common very fine quartz grains, in part grading to a very fine SANDSTONE, trace to common pyrite, trace glauconite, trace to common carbonaceous specks, moderately hard to hard, sub-blocky to blocky.
SANDSTONE (30-60%): light grey to light green grey, clear to translucent, common opaque, fine to very coarse grained, very poorly sorted, sub-angular to sub-rounded, minor angular grains, moderate to strong siliceous cement predominantly as quartz overgrowths, trace to common light green grey to white argillaceous matrix, common to abundant glauconite, trace to common pyrite, trace lithics, friable to moderately hard, poor inferred porosity, no fluorescence.

HYDROCARBON FLUORESCENCE
No Shows

GAS SUMMARY

Background Gas							
INTERVAL (mMDRT)	**Total Gas (%)**	**C1 (ppm)**	**C2 (ppm)**	**C3 (ppm)**	**iC4 (ppm)**	**nC4 (ppm)**	**C5 (ppm)**
2410.0 - 2420.0	0.05	373	1	0	0	0	0
2420.0 - 2450.0	0.07	555	2	0	0	0	0
2450.0 - 2500.0	0.06	511	2	0	0	0	0
2500.0 - 2540.0	0.08	607	2	2	0	0	0
2540.0 - 2600.0	0.04	234	1	2	0	0	0
2600.0 - 2625.0	0.04	206	1	1	0	0	0
2625.0 - 2670.0	0.03	210	1	0	0	0	0
2670.0 - 2700.0	0.02	142	1	0	0	0	0

No gas peaks were recorded.

CALCIMETRY

Interval (mMDRT)	Calcite Range	Dolomite Range
2370.0 - 2700.0	2 - 48 %	0 - 5 %

REMARKS
Drilled 216 mm section from 2414.0 to 2700.0 mMDRT. At 2700.0 mMDRT the hole was circulated clean and the bit pulled out of hole due to slow ROP (there was a dramatic change in the ROP at 2691.0 mMDRT). Pulled out of hole to surface. Laid out the bit and ADN6 tool, downloaded memory data from the ADN6 and BAT Sonic tools. The ADN6 tool was replaced.

WELLSITE GEOLOGISTS
Fred Fernandes / Adam Cruickshank

DAILY GEOLOGICAL REPORT

Date:	22 March 2008	**Rig:**	West Triton
Report Number:	14	**Bit Diameter:**	216 mm (8 ½")
Report Period:	06:00 - 06:00 Hours	**Last Casing:**	244 mm casing @ 902.1 mMDRT
Spud Date:	10-Mar-2008 13:00 Hours	**FIT:**	1.78 sg EMW @ 902.0 mMDRT
Days From Spud:	11.7	**Mud Weight:**	1.19 sg
Depth @ 0600 Hrs:	3074.0 mMDRT -3035.7 mTVDAHD	**ECD:** **Mud Type:**	 KCL Polymer
Lag Depth:	3074.0 mMDRT	**Mud Chlorides:**	46000.00 mg/L
Last Depth:	2700.0 mMDRT		
Progress:	374.0 m		
Water Depth:	90.0 m	**Last Survey:**	2701.00 mMDRT
RT:	38.0 m	**Deviation:**	Inc. 0.49° Az. 40.74°

OPERATIONS SUMMARY

24 HOUR SUMMARY: Ran in hole with Bit 6 and drilled 216 mm hole from 2700.0 to 3074.0 mMDRT.

NEXT 24 HOURS: Complete circulating hole clean, pull out of hole from 3074.0 mMDRT, reaming interval from 2735.0 to 2470.0 mMDRT for ADN data. Rig up to run wireline logs.

CURRENT OPERATION @ 06:00 HRS (22-Mar-2008): Circulating hole clean.

GEOLOGICAL SUMMARY

LITHOLOGY

INTERVAL: 2700.0 to 2724.0 mMDRT (-2661.8 to -2685.8 mTVDAHD)
ROP (Range): 3.0 to 198.0 m/h
Av. ROP: 80.0 m/h

Interbedded SILTSTONE and SANDSTONE
SILTSTONE (35 to 60%): light grey to light brown grey, light blue grey to light olive grey, argillaceous, locally grading to a very fine SANDSTONE, trace carbonaceous specks, trace disseminated pyrite, moderately hard, sub-blocky to blocky.
SANDSTONE (40 to 70%): light brown to light green grey, fine to very coarse grained, poorly sorted, sub-angular to sub-rounded, weak to moderate siliceous cement mainly as quartz overgrowths, minor pyritic cement, common light brown argillaceous to silty matrix, trace glauconite matrix, trace to common pyrite, common to abundant glauconite, minor lithics, moderately hard, very poor to poor visible and inferred porosity, no hydrocarbon fluorescence.

INTERVAL: 2724.0 to 2741.0 mMDRT (-2685.8 to -2702.8 mTVDAHD)
ROP (Range): 13.0 to 40.0 m/h
Av. ROP: 28.0 m/h

Interbedded SANDSTONE and SILTSTONE
SANDSTONE (75 to 90%): clear to translucent, light green, light greenish grey, frosted in part, fine to very coarse, dominantly medium, poorly sorted, angular to sub-rounded, rounded in part, minor weak siliceous cement, trace pale grey argillaceous matrix, common to abundant glauconite specks, common lithics, minor nodular pyrite, loose, fair to good inferred porosity, no hydrocarbon fluorescence.
SILTSTONE (10 to 25%): dominantly light grey to light olive grey, medium to dark brown in part, siliceous, commonly arenaceous and common carbonaceous material where dark brown, common micromicaceous, hard to very hard, sub-blocky to fissile.

INTERVAL: 2741.0 to 2791.0 mMDRT (-2702.8 to -2752.8 mTVDAHD)
ROP (Range): 21.0 to 57.0 m/h
Av. ROP: 42.0 m/h

SANDSTONE with thin SILTSTONE interbedded
SANDSTONE (90 to 95%): translucent, frosted, clear, pale grey, very fine to coarse, dominantly medium to coarse grains, poorly sorted, angular to sub-rounded, minor weak calcareous and siliceous cement, trace quartz overgrowths, trace pale grey argillaceous matrix, trace carbonaceous specks, common glauconite specks, occasional lithics, common nodular pyrite, generally loose clean grains, fair to good inferred porosity, no hydrocarbon fluorescence.
SILTSTONE (5 to 10%): dominantly light grey to light olive grey, medium to dark brown in part, pale brown in part, siliceous, commonly arenaceous where medium to dark brown and locally grading to very fine SANDSTONE , common carbonaceous material and fine glauconite specks where dark brown, commonly micromicaceous, minor nodular and disseminated pyrite, hard to very hard, sub-blocky to fissile.

INTERVAL: 2791.0 to 2828.0 mMDRT (-2752.8 to -2789.8 mTVDAHD)
ROP (Range): 25.0 to 60.0 m/h
Av. ROP: 46.0 m/h

SILTSTONE with minor SANDSTONE interbedded
SILTSTONE (5 to 15%): dominantly light grey to light olive grey, minor medium to dark brown in part,siliceous, commonly micromicaceous, minor nodular pyrite, common off white lithics, minor calcareous material, commonly arenaceous where medium to dark brown and locally grading to very fine SANDSTONE, common carbonaceous material and fine glauconite specks where dark brown, hard to very hard, sub-blocky to sub-fissile.
SANDSTONE (85 to 95%): translucent, frosted, clear, pale grey, very fine to coarse, very poorly sorted, angular to sub-rounded, minor weak calcareous and siliceous cement, trace quartz overgrowths, trace pale grey to off white argillaceous matrix, trace carbonaceous specks, common glauconite specks, occasional lithics, common nodular pyrite, generally loose clean grains, fair to good inferred porosity, no hydrocarbon fluorescence.

INTERVAL: 2828.0 to 2925.0 mMDRT (-2789.8 to -2886.8 mTVDAHD)
ROP (Range): 22.0 to 79.0 m/h
Av. ROP: 56.0 m/h

SANDSTONE with minor SILTSTONE interbedded
SANDSTONE (65 to 90%): clear to translucent, off white to pale grey, frosted, very fine to coarse, occasionally very coarse, dominantly medium, poor to moderately sorted, sub-angular to sub-rounded, angular to well rounded very coarse where coarse, trace weak calcareous cement, minor moderate siliceous cement, minor quartz overgrowths, minor pale grey argillaceous matrix, common lithics and carbonaceous specks, occasional platy micas, trace nodular pyrite, generally loose clean quartz grains, fair to good inferred porosity, no hydrocarbon fluorescence.
SILTSTONE (10 to 35%): dominantly light grey to light olive grey, minor medium to dark brown in part, siliceous, commonly micromicaceous, minor nodular pyrite, common off white lithics, minor calcareous material, commonly arenaceous where medium to dark brown and locally grading to very fine SANDSTONE, common carbonaceous material and fine glauconite specks where dark brown, hard to very hard, sub-blocky to sub-fissile.

INTERVAL: 2925.0 to 2939.0 mMDRT (-2886.8 to -2900.8 mTVDAHD)
ROP (Range): 42.0 to 67.0 m/h
Av. ROP: 54.0 m/h

SANDSTONE with minor SILTSTONE interbedded
SANDSTONE (85 to 95%): pale grey, clear to translucent, very fine to coarse, dominantly fine to medium, moderately sorted, sub-angular to sub-rounded, angular where coarse, minor moderate siliceous cement, trace weak calcareous cement, trace pale grey argillaceous matrix, occasional lithics, minor carbonaceous material, trace glauconite specks, generally loose clean grains, fair inferred porosity, no hydrocarbon

fluorescence.
SILTSTONE (5 to 15%): light grey to light olive grey, light brown grey, light greenish grey, siliceous, commonly micromicaceous, common off white lithics, minor calcareous material, locally arenaceous grading to very fine SANDSTONE, minor carbonaceous material, rare nodular pyrite, hard to very hard, sub-blocky to sub-fissile.

INTERVAL: 2939.0 to 2973.0 mMDRT (-2900.8 to -2934.8 mTVDAHD)
ROP (Range): 33.0 to 75.0 m/h
Av. ROP: 49.0 m/h

SANDSTONE with SILTSTONE interbeds
SANDSTONE (90%): pale grey, clear to translucent, very fine to coarse, dominantly fine to medium, moderately sorted, sub-angular to sub-rounded, angular where coarse, minor moderate siliceous cement, trace weak calcareous cement, locally common pale grey to off white argillaceous matrix, occasional lithics, minor carbonaceous material, trace glauconite specks, generally loose clean grains, fair inferred porosity, no hydrocarbon fluorescence.
SILTSTONE (10%): light grey to light olive grey, light brown grey, light greenish grey, siliceous, commonly micromicaceous, common off white lithics, minor calcareous material, locally arenaceous grading to very fine SANDSTONE, minor carbonaceous material, rare nodular pyrite, hard to very hard, sub-blocky to sub-fissile.

INTERVAL: 2973.0 to 3013.0 mMDRT (-2934.8 to -2974.8 mTVDAHD)
ROP (Range): 10.0 to 64.0 m/h
Av. ROP: 35.0 m/h

SANDSTONE with minor SILTSTONE interbeds
SANDSTONE (85 to 95%): clear to translucent, frosted, pale grey, very fine to coarse, occasionally very coarse grains, sub-angular to sub-rounded, angular where coarse to very coarse grained, minor weak calcareous and siliceous cement, trace pale grey argillaceous matrix, occasional carbonaceous material, rare nodular pyrite, loose, fair to good inferred porosity, no hydrocarbon fluorescence.
SILTSTONE (5 to 15%): light grey to light olive grey, light brown to medium brown, light greenish grey, siliceous in part, commonly micromicaceous, common off white lithics, minor calcareous material, commonly arenaceous and locally grading to very fine SANDSTONE, common carbonaceous material, rare nodular pyrite, hard to very hard, sub-blocky to sub-fissile.

INTERVAL: 3013.0 to 3074.0 mMDRT (-2974.8 to -3035.7 mTVDAHD)
ROP (Range): 20.0 to 73.0 m/h
Av. ROP: 59.0 m/h

Interbedded SANDSTONE and SILTSTONE
SANDSTONE (80 to 95%): clear to translucent, pale grey to off white, very fine to coarse, minor very coarse frosted grains, poor sorting, sub-angular to sub-rounded, angular where coarse, common strong siliceous cement and quartz overgrowths, minor calcareous cement, trace pyritic cement, common light grey argillaceous matrix where fine grained and locally grading to arenaceous SILTSTONE, common nodular pyrite, occasional platy micas, occasional lithics and carbonaceous specks, commonly loose, common very hard aggregates, poor visible porosity, fair inferred porosity, trace to 5% hydrocarbon fluorescence.
SILTSTONE (5 to 20%): light grey to light olive grey, light brown to medium brown, dark brown in part, commonly arenaceous and grading to very fine SANDSTONE, commonly micromicaceous, common off white lithics, minor calcareous material, common carbonaceous material, rare nodular pyrite, hard to very hard, sub-blocky to sub-fissile.

HYDROCARBON FLUORESCENCE
3020.0 to 3035.0 mMDRT (Trace to 5%): pale yellow spotted residual fluorescence, no cut or ring residue. Associated with SANDSTONE (90%): clear to translucent, pale grey to off white, very fine to coarse, minor very coarse frosted grains, poor sorting, sub-angular to sub-rounded, angular where coarse, common strong siliceous cement and quartz overgrowths, minor pale grey to off white argillaceous matrix, occasional lithics and carbonaceous specks, common loose, common very hard aggregates, poor visible porosity, fair inferred porosity, fluorescence.

GAS SUMMARY

Background Gas							
INTERVAL (mMDRT)	**Total Gas (%)**	**C1 (ppm)**	**C2 (ppm)**	**C3 (ppm)**	**iC4 (ppm)**	**nC4 (ppm)**	**C5 (ppm)**
2700.0 - 2724.0	0.03	261	0	0	0	0	0
2724.0 - 2741.0	0.01	105	0	0	0	0	0
2741.0 - 2791.0	0.01	96	0	0	0	0	0
2791.0 - 2828.0	0.02	127	0	0	0	0	0
2828.0 - 2925.0	0.02	109	0	0	0	0	0
2925.0 - 2939.0	0.02	124	0	0	0	0	0
2925.0 - 2939.0	0.02	124	0	0	0	0	0
2939.0 - 2973.0	0.02	107	0	0	0	0	0
2973.0 - 3013.0	0.02	106	0	0	0	0	0
3013.0 - 3074.0	0.02	115	0	0	0	0	0

- No drilled gas peaks recorded
- 0.5% Trip Gas recorded following bit trip.

MWD
LWD RUN #4:- No recorded data downloaded from GVR tool.

LWD RUN #5:-
SENSOR OFFSET FROM BIT
GR : 12.43m
RES : 12.96m
BAT SONIC : 26.66m
NEUTRON : 34.69m
DENSITY : 33.57m
SURVEY : 18.87m
RAB : 0.04m

REMARKS
Ran in hole with Bit 6 and back-up ADN to 2700.0 mMDRT. Drilled 216 mm section from 2700.0 to 3074.0 mMDRT. Total depth was reached at 04:00 hrs on 22-Mar-08 at 3074.0 mMDRT. The well was circulated clean and the bit pulled out of hole.

The well bore will be reamed from 2735.0 to 2470.0 mMDRT to acquire LWD ADN (neutron-density data) in memory mode.

WELLSITE GEOLOGISTS
Fred Fernandes / Adam Cruickshank

DAILY GEOLOGICAL REPORT

Date:	23 March 2008	**Rig:**	West Triton
Report Number:	15	**Bit Diameter:**	216 mm
Report Period:	06:00 - 06:00 Hours	**Last Casing:**	244 mm casing @ 902.1 m MDRT
Spud Date:	10-Mar-2008 13:00 Hours	**FIT:**	1.78 sg EMW @ 902.0 mMDRT
Days From Spud:	12.7	**Mud Weight:**	1.19 sg
Depth @ 0600 Hrs:	3074.0 mMDRT 3035.7 mTVDAHD	**Mud Type:**	KCL Polymer
Lag Depth:	3074.0 mMDRT	**Mud Chlorides:**	46000.00 mg/L
Last Depth:	3074.0 mMDRT		
Progress:	0 m		
Water Depth:	90.0 m	**Last Survey:**	2956.53 mMDRT
RT:	38.0 m	**Deviation:**	Inc. 0.67° Az. 150.71°

OPERATIONS SUMMARY

24 HOUR SUMMARY: Pulled out of hole to 2730.0 mMDRT, logged out from 2739.0 to 2420.0 mMDRT, pulled out of hole to surface, laid out LWD. Commenced wireline operations.

NEXT 24 HOURS: Continue wireline logging operations.

CURRENT OPERATION @ 06:00 HRS (23-Mar-2008): Running in hole with Suite 2/ Run 1: VSI-GR @ 902.0 mMDRT.

GEOLOGICAL SUMMARY

WIRELINE

WATER BASED MUD DATA

DATE MUD CHECK	MUD TYPE	MW (sg)	pH	KCl (%)	Cl (mg/L)	Barite (%)	Rm (ohm.m)	Rmf (ohm.m)	Rmc (ohm.m)
22-Mar-2008	KCL Polymer	1.19	9	9	46000	3.6	0.1032	0.0882	0.1083

TEMPERATURE DATA

Date Mud Checked: 22-Mar-2008
Date Time Circulation Stopped: 22-Mar-2008 06:10 AM
Circulation Time: 17.30 h

Run #	Run Date	Tool String	Max BHT (℃)	Max BHT Depth (m)	Date Time Logger on Bottom	Time Since Circ. Stopped (h)
1	3/22/2008	VSI-GR	N/A	N/A	In progress.	N/A

VSP and Environmental Mitigation Measures

Start date/time of whale observation prior to start of seismic source (at least 15 mins)	22/03/08 19:00hrs, intermittent throughout rest of day
Start date/time seismic source	23/03/08 05:00
Was soft start used?	Yes, 500psi build up over 10 minutes
Were whales seen within 3 km prior to VSP starting?	No
Did whales move in within 3 km once VSP started?	No
Did VSP stop due to whales?	No
End date/time seismic source	TBA
Whale sighting sheet filled in?	None sighted
Weather & visibility	Poor visibility at night time, high wind
Additional comments	Nil

NB: VSP cannot commence or must be shutdown if whales are sighted within 3 km of the rig. (http://www.doir.wa.gov.au/documents/mineralsandpetroleum/envsheetmar02.pdf

REMARKS

Completed circulating hole clean and pulled out of hole from 3074.0 to 2730.0 mMDRT. Logged out from 2739.0 to 2420.0 mMDRT at 100 m/hour to obtain missing density and porosity data. Laid out bit 6 and downloaded LWD memory data. Rigged up SLB wireline and commenced wireline logging operations. Made up Suite 2 / Run 1 (VSI-GR) and ran in hole to 450.0 mMDRT. Waited on cranes to lower VSI guns in the water due to high winds. Began running in hole for VSI.

WELLSITE GEOLOGISTS

Fred Fernandes / Adam Cruickshank

DAILY GEOLOGICAL REPORT

Date:	24 March 2008	**Rig:**	West Triton
Report Number:	16	**Bit Diameter:**	216 mm
Report Period:	06:00 - 06:00 Hours	**Last Casing:**	244 mm casing @ 902.1 mMDRT
Spud Date:	10-Mar-2008 13:00 Hours	**FIT:**	1.78 sg EMW @ 902.0 mMDRT
Days From Spud:	13.7	**Mud Weight:**	1.19 sg
Depth @ 0600 Hrs:	3074.0 mMDRT -3035.7 mTVDAHD	**ECD:** **Mud Type:**	 KCL Polymer
Lag Depth:	3074.0 mMDRT	**Mud Chlorides:**	46000.00 mg/L
Last Depth:	3074.0 mMDRT		
Progress:	0 m		
Water Depth:	90.0 m	**Last Survey:**	2956.53 mMDRT
RT:	38.0 m	**Deviation:**	Inc. 0.67° Az. 150.71°

OPERATIONS SUMMARY

24 HOUR SUMMARY: Ran wireline Run 1 VSI-GR and Run 2 CST-GR. Rigged down SLB wireline, made up cement mule shoe assembly and ran in hole same.

NEXT 24 HOURS: Run in hole with cement mule shoe assembly and set cement abandonment plugs as per the programme.

CURRENT OPERATION @ 06:00 HRS (24-Mar-2008): Run in hole with cement mule shoe assembly.

GEOLOGICAL SUMMARY

WIRELINE

VSP and Environmental Mitigation Measures

Start date/time of whale observation prior to start of seismic source (at least 15 mins)	22/03/08 19:00hrs, intermittent throughout rest of day
Start date/time seismic source	23/03/08 05:00
Was soft start used?	Yes, 500psi build up over 10 minutes
Were whales seen within 3 km prior to VSP starting?	No
Did whales move in within 3 km once VSP started?	No
Did VSP stop due to whales?	No
End date/time seismic source	23/03/08 18:00
Whale sighting sheet filled in?	None sighted
Weather & visibility	Poor visibility at night time, high wind
Additional comments	Nil

NB: VSP cannot commence or must be shutdown if whales are sighted within 3 km of the rig.
(http://www.doir.wa.gov.au/documents/mineralsandpetroleum/envsheetmar02.pdf

WATER BASED MUD DATA

DATE MUD CHECK	MUD TYPE	MW (sg)	pH	KCl (%)	Cl (mg/L)	Barite (%)	Rm (ohm.m)	Rmf (ohm.m)	Rmc (ohm.m)
22-Mar-2008	KCL Polymer	1.19	9	9	46000	3.6	0.1032	0.0882	0.1083

RUN SUMMARY

Run #	Tool String	Log From Depth (m)	Log To Depth (m)	Repeat From Depth (m)	Repeat To Depth (m)	Comments
1	VSI-GR	3074.0	125.0	N/A	N/A	-
2	CST	3052.5	2626.0	N/A	N/A	CST: 30 CORES – 21 RECOVERED

TEMPERATURE DATA

Date Mud Checked: 22-Mar-2008
Date Time Circulation Stopped: 22-Mar-2008 06:10 AM
Circulation Time: 17.30 h

Run #	Run Date	Tool String	Max BHT (°C)	Max BHT Depth (m)	Date Time Logger on Bottom	Time Since Circ. Stopped (h)
1	3/22/2008	VSI-GR	N/A	N/A	23-Mar-2008 08:55	26.75
2	3/22/2008	CST	TBA	TBA	23-Mar-2008 21:20	39.17

REMARKS

Wireline logging Suite 2 - Run #1 VSI was completed and pulled out of the hole. The tool was rigged down.

Rigged up and commenced Run#2 CST-GR. Ran in hole to TD and conducted 30 shots from 3052.5 to 2626 mMDRT. The CST tool was then pulled out of hole and laid out. 21 samples were recovered with 3 samples left in the hole, 4 misfires and 2 empty chambers.

Made up and RIH with cement mule shoe assembly to set cement abandonment.

This is the final Daily Geological Report for Coelacanth-1.

WELLSITE GEOLOGISTS

Fred Fernandes / Adam Cruickshank

AUSTRALIA

Bit Summary Report

Well: COELACANTH-1			
District: VIC-P45	Well Name: COELACANTH-1		Rig Name No: WEST TRITON/
Event: OFFSHORE - ORIG DRLG	Start Date: 8/03/2008	End Date:	Spud Date:
Active Datum: ROTARY TABLE @38.00m (above Mean Sea Level)	UWI:		

Bit No.	BHA No.	Size (mm)	Make / Model	IADC Code	Serial No.	Jets (32nd")	MD In-Out (m)	Footage (m)	Hours (hr)	ROP (m/hr)	Flow Rate Min-Max (L/min)	SPP Min-Max (kPa)	RPM Min-Max (rpm)	WOB Min-Max (tonne)	IADC Dull Grade I-O-D-L B-G-O-R
1RR	1	660.0	SMITH/XR+C	115	MZ176	4x18	127.50 - 279.00	151.50	4.50	33.7	4,542.49 - 4,542.49	17,650 - 17,650	60 - 80	1 - 4	1-1-WT-A E-I-NO-TD
2	2	311.0	SMITH/XR+CPS	115	PF5792	3x18, 1x20	279.00 - 907.00	628.00	4.40	142.7	0.00 - 4,400.00	25,550 - 25,550	80 - 170	4 - 25	0-0-NO-A E-I-NO-TD
3	3	216.0	REED/RSX616B		216126	5x14, 1x15	907.00 - 1,998.00	1,091.00	27.90	39.1	2,271.25 - 2,271.25	17,926 - 19,305	80 - 180	5 - 22	1-1-BU-A X-I-CT-PR
3RR	4	216.0	REED/RSX616B		216126	5x14, 1x15	1,998.00 - 2,116.00	118.00	7.90	14.9	2,460.52 - 2,460.52	18,961 - 18,961	120 - 150	10 - 20	1-1-BU-A X-I-CT-PR
4	5	216.0	REED/RSX519M-A5		216813	5x14, 3x11	2,116.00 - 2,700.00	584.00	19.10	30.6	2,271.25 - 2,650.17	19,305 - 27,500	100 - 150	5 - 20	1-3-BU-A X-I-WT-PR
5	6	216.0	HUGHES CHRISTENSEN/HC506ZX		7211635	6x14	2,700.00 - 3,074.00	374.00	9.10	41.1	2,649.79 - 2,649.79	21,029 - 21,718	50 - 120	1 - 8	0-0-NO-A 0-I-NO-TD

HALLIBURTON

Fluid Systems

BAROID FLUID SERVICES RECAP

APACHE AUSTRALIA PTY LTD
WEST TRITON
BASS STRAIT, VICTORIA

Prepared by: James Munford,
Eugene Edwards, Brad Jackson

Date: March, 2008

Table Of Contents

1. WELL SUMMARY

2. COST SUMMARY

3. PERFORMANCE SUMMARY

4. INTERVALS (20" X 13 $^{3}/_{8}$", 12 ¼" and 8 $^{1}/_{2}$" Hole)

5. POST WELL AUDIT
   - Well Summary
   - Total Cost Breakdown
   - Net Well Cost Breakdown
   - Interval Summary
   - Interval Cost Breakdown
   - Interval Inventory Report
   - Fluid Volume Record
   - Interval Chemical Concentrations
   - Fluid Property Recap
   - Fluid Program Exceptions Report
   - Operations Log Recap
   - Well Deviation (Actual)
   - Bit & Hydraulic Record

6. DAILY MUD REPORTS

1. WELL SUMMARY

1.1 Well Data

Well Name	:	Coelacanth-1
Operator	:	Apache Australia Pty Ltd
Well Type	:	Vertical/Exploration
Bottom Hole Temperature	:	49°C
Maximum Inclination	:	Vertical
Location	:	Coelacanth Field, La Trobe Basin, Victoria
Contractor/Rig	:	West Triton
Start Date (Rig)	:	08/03/2008
Baroid On Location	:	09/03/2008
Drill Out Date	:	10/03/2008
RT to Mud line	:	75 m
Total Depth	:	3074m
Date TD Reached	:	22/03/2008
Total Days Actual Drilling	:	10
Date Released	:	27/03/2008
Total Days on Well	:	19

Formation Tops

Formation	MDRT (m)	TVDRT (m)	Length (m MD)
Gippsland	128	128	1285
Lakes Entrance	1413	1413	1125
Gurnard Formation	2538	2538	180
Volador Formation	2718	2718	175
Intra Volador 1	2893	2893	115
Intra Volador 2	3008	3008	66
Total Depth	3074	3074	2946

1.3 Casing Program

20 x 13 $^{3}/_{8}$"	Surface Casing	@	275 m MDRT
9 $^{5}/_{8}$	Intermediate Casing	@	907 m MDRT

1.4 Personnel

Drilling Supervisors	:	Bill Openshaw	Stefan Schmidt	Shaughn Corless
	:	Richard Reading	Mark Pinson	
Baroid Field Service Reps.	:	James Munford	Brad Jackson	Eugene Edwards

2. COST SUMMARY

2.1 Drilling Fluid Costs

	Drilling Fluid	Hole Size	MD From	MD To	Cost USD $
1.	SPUD MUD	20" x 13 3/8"	66 m	279 m	11,822.42
2.	Seawater/Viscous Sweeps	12 ¼"	279 m	907 m	5,095.80
3.	KCL/POLYMER	8 1/2"	907 m	3074 m	144,445.72
Mud Materials Used For Drilling				**USD $**	**161,363.95**
Mud Materials Used For Cementing				**USD $**	**2,959.84**
Products Lost / Damaged				**USD $**	**98.60**
Total Materials				**Total USD $**	**164,422.39**

2.2 Engineering Costs

Service Representatives	From (date)	To (date)	Days
Eugene Edwards	09/03/08	11/03/08	3
James Munford	12/03/08	27/03/08	15
Brad Jackson	09/03/08	21/03/08	13
Da Silva Clive	26/03/08	27/03/08	2
Total Days:			33
Service Cost	**@ USD $ 1250**	**USD $**	**41,250.00**
Total Cost of Materials & Engineering:		**USD $**	**205,672.39**

3. PERFORMANCE SUMMARY

3.1 Comments

The Jackup West Triton was moved from the Wasab-1 location to Coelacanth-1 location on the 8th and 9th March. This exploration well was drilled to assess the Gurnard, Volador and Intra Volador formations.

3.2 Performance Indicators

Interval 1. (128 m – 279 m) – 26" Hole	Program	Actual	Achieved (+/- 10 %)
• Drilled, m	150	151	Yes
• Volume Built, bbl	1435	1734.2	No
• Consumption Rate, bbl/m	9.6	11.5	No
• Mud Cost / bbl, US$	6.16	4.7	No
• Mud Cost / m, US$	58.89	53.98	Yes
• Interval Mud Cost, US$ **	8,834.19	8,151.57	Yes

Interval 2. (279 m – 907 m) – 12 ¼" Hole	Program	Actual	Achieved (+/- 10 %)
• Drilled, m	624	628	Yes
• Volume Built, bbl	2098	900.4	No
• Consumption Rate, bbl/m	3.4	1.4	No
• Mud Cost / bbl, US$	5.96	9.74	No
• Mud Cost / m, US$	20.03	13.96	No
• Interval Mud Cost, US$ **	12,501.34	8,766.65	No

Interval 3. (908 m – 3,074 m) – 8 ½ " Hole	Program	Actual	Achieved (+/- 10 %)
• Drilled, m	2,374	2,166	Yes
• Volume Built, bbl	4,270	4,866.6	No
• Dilution Rate, bbl/m	1.20	1.59	No
• Consumption Rate, bbl/m	1.80	2.25	No
• Mud Cost / bbl, US$	41.74	29.62	No
• Mud Cost / m, US$	75.07	66.55	No
• Interval Mud Cost, US$ **	178,227.52	144,141.24	No

4.

INTERVAL - 1

4.1 SUMMARY

26" Hole From 66 m To 279 m In 1 Days

Drilling Fluid Seawater / Bentonite (Spud Mud)
Formations Gippsland.

The 26" interval was drilled, using seawater and unweighted hi-vis, spud mud sweeps, from 66 m to 279 m. Open hole was then displaced to hi-vis spud mud. The spud mud was built from prehydrated bentonite at 35 ppb, which was later cut back with seawater once hydrated.

Drilling commenced on the 10th March. Drilling in this interval was just 6 hours using seawater and 50 bbl high viscosity sweeps per stand. At interval TD, 200 bbls of high viscosity PHG was used to sweep the hole. Prior to pulling out of hole, 200 bbls of 1.15 s.g KCl/Polymer fluid saved from the previous well was spotted on bottom. There was one incident of tight hole at 128 m.

The 20" and 13 3/8" casing string was ran to bottom without incident and cemented as per program.

Properties	Programmed		Actual (Typical Drilling)		
	Min	Max	Min	Max	Conformance
Mud Weight, sg	1.03	1.05	1.05	1.05	Yes
pH	9	10	9	10	Yes

Maintenance

- All bentonite used was first prehydrated in drill water at a concentration of 35-40 ppb. This was then cut back to 20 ppb using seawater. Lime was added prior to use to enhance viscosity.
- Caustic soda was used to obtain required alkalinity.
- Pit #5 was used for seawater for drilling. The hi-vis sweeps were contained in pits 1, 2, 3 and 6. All 1.15 sg weighted displacement mud was kept in pits 4, 7 and 8.
- A total of 800 bbls of spud mud was prepared for top hole at 35 ppb. This volume was doubled by the addition of 1:1 seawater.

INTERVAL - 2

4.2 SUMMARY

12 1/4" Hole From 279 m To 907 m In 2 Days

Drilling Fluid Seawater and Viscous Sweeps
Formations Lakes Entrance

The 12.25" section was drilled using Seawater and High viscosity sweeps which incorporated in to the fluid system. This interval was initially planned to be drilled with returns dumped at surface but on further consideration, the well was drilled with a closed circulating system.

This interval was drilled in 7 hours through basically unconsolidated limestone. High viscosity sweeps were pumped every half stand at 25 bbls and 50 bbls at the completion of the stand. AT interval TD, a 150 bbls of PHG was pumped to sweep the hole and displaced with seawater. Once hole was clean, the well was displaced to 1.15 s.g mud retained from the previous well, prior to logging and running casing.

The logging tools were ran to bottom successfully and 9 5/8" casing was ran and cemented as per program.

Properties	Programmed		Actual (Typical Drilling)		
	Min	Max	Min	Max	Conformance
Mud Weight, sg	1.12	1.15	1.12	1.15	Yes
pH	8	10	8	9.5	Yes

Maintenance

- The fluid for this interval consisted of prehydrated gel built at 35 ppb and blended with seawater once hydrated at 1:1. Guar Gum at 4 ppb was also built for this interval.

Solids Control Equipment

- The 4 VSM 300 shakers were dressed with screens used on the previous well. As the fluids for this interval was sacrificial, mud was allowed to pour freely from the shakers.

INTERVAL-3

4.3 SUMMARY

8 ½ ” Hole From 907m To 3074m In 7 Days

Drilling Fluid KCL/Polymer/Clayseal
Formations Lakes Entrance/Latrobe Formation

Properties	Programmed		Actual (Typical Drilling)		
	Min	Max	Min	Max	Conformance
Mud Weight, sg	1.12	1.20	1.13	1.19	Yes
pH	8	10	8.5	10	Yes
API WL, mL/30 min	3	6	4.2	5.8	Yes
MBT, ppb		15		8.7	Yes

Maintenance

- The initial 6rpm readings were below the programmed 12 -15. This was primarily due to building new unsheared, mud between 0.8 and 1ppb, to enable circulation and mixing with the mix pumps / hoppers. The 6rpm was raised by 0.5ppb Barazan D additions, to 12-16.
- New fluid was prepared with lower than programmed concentrations of polymers to allow for a smooth displacement without requiring the mud pumps to be slowed down. This was in conjunction with changing the screens for displacement to 98 and 145 mesh.
- KCl brine was built at 20% by weight in Pit 7 and used to alternately build premix or add direct to active to maintain KCL content in conjunction with addition of polymers direct to the active.
- Several methods were attempted to alleviate the bit balling found during drilling the Lakes Entrance formation. This included caustic sweeps at 10 ppb and alternating between high and low inhibition sweeps. From 2,300 m, 1 ppb of EZ-MUD was added to the active system. None of the measures mentioned appeared to fundamentally solve the problem of bit balling.

4.4 EVALUATION

Problems, Causes, Remedial Action Taken or Recommended

Solids Control and Mud Mixing Equipment		
1)	Problem	Mixing pumps losing or failing to prime, rig's drill water pumps losing prime, overfilling of surge tanks causing clouds of vented bulk, incorrect valve usage, bulk movement problems, overflowing hoppers
	Cause	New rig and new crews, undergoing teething problems.
	Action	Learning curve for the crews, which will improve with experience on the West Triton.
2)	Problem	Design faults with mix pumps 3' off the bottom of tanks.
	Cause	Unknowledgeable engineering, short cuts in design and incomplete construction work.
	Action	Need at least 3' volume to be able to pick up prime.

4.5 RECOMMENDATIONS FOR IMPROVEMENT

Drilling Fluid

- All drill water from the supply vessel's, is to be checked for chloride contamination, by the mud engineer. This has already been enforced on the West Triton, following the initial contamination.

Solids Control and Mud Mixing Equipment

- Human error seems to be the cause of some equipment issues. Being a new rig and new crews, this will be overcome in time, as a learning curve.
- Some design faults exist that will require changing. I.e. desilter discharge line, deck hopper.

POSTWELL AUDIT

Baroid Fluid Services

Well Name	**Coelacanth 1**
Operator	**Apache**
Contractor	**Seadrill**
Rig No	**West Triton**
Unit System	**Apache**

Well Summary Report

Well Data

Spud Date		03/10/2008	Fluids/Products: Drilling Cost	$	161,363.95
TD Date		03/22/2008	Fluids/Products: Completion Cost	$	0.00
Project			Solids Control/Waste Management Cost	$	0.00
Days on Well		19	Fluids/Products: Cementing Cost	$	2,849.28
From Date		03/09/2008	Prod Lost/Damaged Cost	$	156.80
To Date		03/27/2008	Engineer Services Cost	$	41,250.00
Drilling Days		10	Equipment Cost	$	0.00
Rotating / Drilling Hours		107.5/102.5	Transport/Packaging	$	0.00
Average ROP	m/hr	30.1	Other Cost	$	52.36
Maximum Density	SG	1.19	Total Well Cost	$	205,672.39
Total Measured Depth	m	3,074	Planned Cost	$	0.00
True Vertical Depth	m	3,074	Fluid Cost Per Fluid Volume	$/bbl	19.97
Distance Drilled	m	3,079	Fluid Cost Per Length Drilled	$/m	52.41
Maximum Deviation	deg	0.67	Fluid Cost/Vol of Hole Drilled	$/bbl	137.56
Max. Horz. Displacement	m	0	Total Additions/Hole Drilled	bbl/bbl	6.888
Bottom Hole Temp	Deg C	49	Total Additions/Length Drilled	bbl/m	2.624

Casing Design

Description	Set Date & Time	Top MD m	Top TVD m	End MD m	End TVD m	CSG OD in	CSG ID in	Max. Hole Size in	Hole MD m	Hole TVD m
20 L-80 133.0	03/11/2008 23:59	0	0	256	256	20.000	18.730	26.000	256	256
13.375 C-90 68.0	03/11/2008 23:59	256	256	275	275	13.375	12.415		279	279
9.625 L-80 47.0	03/15/2008 4:00	0	0	902	902	9.625	8.681		907	907

Fluid Program

Int #	Fluid Type	Interval Days	BHT Deg C	Max. Dens SG	Whole fluid + Mix products	Other material charges	Other charges	Total Interval Cost $		
								Plan	Actual	Variance
1	Prehydrated Bentonite	4		1.06	11,822.42		10,000.00		21,822.42	
2	Old KCl/Polymer	3		1.15	5,095.80	2,849.28	7,500.00		15,445.08	
3	Old KCl/Polymer KCl/Polymer/Clayseal KCL Brine	12	49	1.19	144,445.72	209.16	23,750.00		168,404.88	
Total Well Cost $					**161,363.95**	**3,058.44**	**41,250.00**		**205,672.39**	**205,672.39**

Baroid Fluid Services

Well Name	**Coelacanth 1**
Operator	**Apache**
Contractor	**Seadrill**
Rig No	**West Triton**
Unit System	Apache

Total Cost Breakdown

	Unit Size	Quantity	Total Cost
Engineering/Services			
Drilling Fluids Engineer	day(s)	19.00	23,750.00
Drilling Fluids Engineer 2	day(s)	14.00	17,500.00
		SubTotal	**$ 41,250.00**
Fluids/Products: Cementing Cost			
barite	1000 kg bulk	6.000	2,849.28
		SubTotal	**$ 2,849.28**
Fluid/Product: Lost Damage			
calcium chloride flake 77%	25 kg bag	8.00	110.56
citric acid	25 kg bag	1.00	46.24
		SubTotal	**$ 156.80**
Other			
Kwikseal Fine	40 lb bag	1.00	52.36
		SubTotal	**$ 52.36**
Fluids/Products: Drilling Cost			
ALDACIDE G	25 l can	10.00	873.70
BARABLOK	50 lb bag	200.00	6,078.00
BARA-DEFOAM W300	5 gal can	1.00	616.88
BARAZAN D PLUS	25 kg bag	130.00	19,791.20
barite	1000 kg bulk	43.800	20,799.74
bentonite	1000 kg bulk	19.300	9,551.18
caustic soda	25 kg pail	8.00	353.52
Circal 60/16	1200 kg bag	2.00	733.34
Circal 60/16	25 kg sack	64.00	648.32
Circal Y	1200 kg bag	3.00	1,460.01
CLAYSEAL PLUS	216 kg drum	53.00	50,701.92
EZ-MUD	25 kg pail	26.00	2,231.58
guar gum	25 kg bag	84.00	7,134.12
PAC-L	25 kg bag	244.00	19,976.28
potassium chloride	1000 kg bag	44.00	19,424.24
potassium hydroxide	25 kg bag	17.00	764.66
Prehydrated Bentonite	bbl	1.00	
soda ash	25 kg bag	17.00	225.25
		SubTotal	**$ 161,363.95**
		Total Well Cost:	**$ 205,672.39**

Well	**Coelacanth 1**
Operator	**Apache**
Contractor	**Seadrill**
Rig No	**West Triton**
Unit System	**Apache**

Net Well Cost Breakdown

Cost Breakdown I $	Interval 01	Interval 02	Interval 03	Total
Fluid/Product: Drilling	11,822.42	52,708.65	96,832.87	161,363.95
Fluid/Product: Comp/Filtration				
Solids Control/Waste Management Cost				
Fluids/Products: Cementing Cost		2,849.28		2,849.28
Engineering Services	10,000.00	7,500.00	23,750.00	41,250.00
Fluid/Product: Lost Damage			156.80	156.80
Other Cost			52.36	52.36
Equipment Cost				
Transport/Packaging Cost				
Total Cost	21,822.42	63,057.93	120,792.03	205,672.39

Cost Breakdown II $	Interval 01	Interval 02	Interval 03	Total
Total Products Cost	11,822.42	55,557.93	97,042.03	164,422.39
Total Fluids Cost				
Total Charges Cost	10,000.00	7,500.00	23,750.00	41,250.00
Allocated To / From Other Interval	0.00			
Total Cost	21,822.42	63,057.93	120,792.03	205,672.39
Planned Cost				
Variance				

Volume Breakdown bbl	Interval 01	Interval 02	Interval 03	Total
Total Base Fluids Addition				
Total Chemical Addition	51.5	104.0	200.4	355.9
Total Barite Addition		2.1	63.5	65.6
Total Water Addition	2,675.3	2,172.7	1,563.3	6,411.3
Total Fluid Built	2,726.8	2,278.8	1,827.2	6,832.9
Total Fluid Received	900.0	346.5		1,246.5
Total Influx Addition				
Not Used In Interval	-971.0	-2,100.0		
Total Fluid Volume	2,655.8	2,881.6	4,583.3	8,079.4

Well Name	**Coelacanth 1**
Operator	**Apache**
Contractor	**Seadrill**
Rig No	**West Triton**
Unit System	**Apache**

Interval Summary

Interval # 1	**Max Bit Size: 0.000 in**	**Hole Size Avg/Max**	**18.730 / 0.000 in**

Interval Start Date		03/09/2008	Planned Cost	$	0.00
Interval End Date		03/12/2008	Total Interval Cost	$	21,822.42
Interval TD Date		03/10/2008	Program Variance	$	21,822.42
Drilling Days		1.00	Other material charges		
Rotating/Hours		6.00 / 6.00	Total Fluids Cost	$	11,822.42
Interval Top MD/TVD	m	0.0 / 0.0	Total Charges Cost	$	10,000.00
Interval End MD/TVD	m	279.0 / 279.0	Total Cementing Cost	$	0.00
Footage	m	279.0	Fluid Cost Per Vol Unit	$/bbl	4.45
Average ROP	m/hr	46.5	Fluid Cost/Hole Drilled	$/m	42.37
Max Hole Angle	degrees	0.00	Fluid Cost/Vol Drilled	$/bbl	37.90
Casing Size	in	13.375	Fluid Built	bbl	2,726.8
Casing Shoe MD	m	275.2	Total Additions/Vol Drilled	bbl/bbl	8.51
Casing Length	m	275.2	Total Additions/Hole Drilled	bbl/m	9.52
Bottom Hole Temp			Fluid Loss/Vol Drilled	bbl/bbl	3.43
Max Fluid Density	SG	1.060	Fluid Loss/Hole Drilled	bbl/m	3.84

Interval Product and Base Fluids Usage and Cost

Product Function / Name	Drilling Fluid	Packaging	Quantity Used	Product Cost
Viscosifier/Suspension Agent				
bentonite	AQUAGEL Mud	1000 kg bulk	19.300	9,551.18
guar gum	Brine/seawater	25 kg bag	24.000	2,038.32
			Total	**$ 11,589.50**
Alkalinity Control				
potassium hydroxide	AQUAGEL Mud	25 kg bag	4.000	179.92
soda ash	AQUAGEL Mud	25 kg bag	4.000	53.00
			Total	**$ 232.92**
Whole Fluid				
Prehydrated Bentonite	Prehydrated Bentonite	bbl	1.000	0.00
			Total	**$ 0.00**

Well Name	**Coelacanth 1**
Operator	**Apache**
Contractor	**Seadrill**
Rig No	**West Triton**
Unit System	**Apache**

Interval Summary

Interval # 2	**Max Bit Size: 12.250 in**	**Hole Size Avg/Max**	**12.250 / 12.250 in**

Interval Start Date		03/13/2008	Planned Cost	$	0.00
Interval End Date		03/15/2008	Total Interval Cost	$	15,445.08
Interval TD Date		03/15/2008	Program Variance	$	15,445.08
Drilling Days		2.00	Other material charges	$	2,849.28
Rotating/Hours		9.00 / 8.00	Total Fluids Cost	$	5,095.80
Interval Top MD/TVD	m	0.0 / 0.0	Total Charges Cost	$	7,500.00
Interval End MD/TVD	m	907.0 / 907.0	Total Cementing Cost	$	2,849.28
Footage	m	628.0	Fluid Cost Per Vol Unit	$/bbl	1.77
Average ROP	m/hr	69.8	Fluid Cost/Hole Drilled	$/m	8.11
Max Hole Angle	degrees	0.00	Fluid Cost/Vol Drilled	$/bbl	16.97
Casing Size	in	9.625	Fluid Built	bbl	2,278.8
Casing Shoe MD	m	902.0	Total Additions/Vol Drilled	bbl/bbl	9.59
Casing Length	m	902.0	Total Additions/Hole Drilled	bbl/m	4.59
Bottom Hole Temp			Fluid Loss/Vol Drilled	bbl/bbl	3.04
Max Fluid Density	SG	1.150	Fluid Loss/Hole Drilled	bbl/m	1.45

Interval Product and Base Fluids Usage and Cost

Product Function / Name	Drilling Fluid	Packaging	Quantity Used	Product Cost
Weighting Material				
barite	No Fluid	1000 kg bulk	6.000	2,849.28
			Total	**$ 2,849.28**
Viscosifier/Suspension Agent				
guar gum	Brine/seawater	25 kg bag	60.000	5,095.80
			Total	**$ 5,095.80**

Well Name	**Coelacanth 1**
Operator	**Apache**
Contractor	**Seadrill**
Rig No	**West Triton**
Unit System	**Apache**

Interval Summary

Interval # 3	**Max Bit Size: 12.250 in**	**Hole Size Avg/Max**	**9.000 / 12.250 in**

Interval Start Date		03/16/2008	Planned Cost	$	0.00
Interval End Date		03/27/2008	Total Interval Cost	$	168,404.88
Interval TD Date		03/22/2008	Program Variance	$	168,404.88
Drilling Days		7.00	Other material charges	$	209.16
Rotating/Hours		92.50 / 87.50	Total Fluids Cost	$	144,445.72
Interval Top MD/TVD	m	0.0 / 0.0	Total Charges Cost	$	23,750.00
Interval End MD/TVD	m	3,074.0 / 3,073.9	Total Cementing Cost	$	0.00
Footage	m	2,172.0	Fluid Cost Per Vol Unit	$/bbl	31.52
Average ROP	m/hr	24.8	Fluid Cost/Hole Drilled	$/m	66.50
Max Hole Angle	degrees	0.67	Fluid Cost/Vol Drilled	$/bbl	257.61
Casing Size	in	9.625	Fluid Built	bbl	1,827.2
Casing Shoe MD	m	902.0	Total Additions/Vol Drilled	bbl/bbl	8.17
Casing Length	m	902.0	Total Additions/Hole Drilled	bbl/m	2.11
Bottom Hole Temp	Deg C	49	Fluid Loss/Vol Drilled	bbl/bbl	3.89
Max Fluid Density	SG	1.190	Fluid Loss/Hole Drilled	bbl/m	1.01

Interval Product and Base Fluids Usage and Cost

Product Function / Name	Drilling Fluid	Packaging	Quantity Used	Product Cost
Bactericides				
ALDACIDE G	KCl/Polymer	25 l can	10.000	873.70
			Total	**$ 873.70**
Defoamer				
BARA-DEFOAM W300	KCl/Polymer	5 gal can	1.000	616.88
			Total	**$ 616.88**
Filtration Control				
BARABLOK	KCl/Polymer	50 lb bag	200.000	6,078.00
PAC-L	KCl/Polymer	25 kg bag	244.000	19,976.28
			Total	**$ 26,054.28**
Weighting Material				
barite	KCl/Polymer	1000 kg bulk	43.800	20,799.74
calcium chloride flake 77%	No Fluid	25 kg bag	8.000	110.56
			Total	**$ 20,910.30**
Viscosifier/Suspension Agent				
BARAZAN D PLUS	KCl/Polymer	25 kg bag	130.000	19,791.20
			Total	**$ 19,791.20**
Alkalinity Control				
caustic soda	KCl/Polymer		8.000	353.52
citric acid	No Fluid	25 kg bag	1.000	46.24
potassium hydroxide	KCl/Polymer	25 kg bag	13.000	584.74
soda ash	KCl/Polymer	25 kg bag	13.000	172.25
			Total	**$ 1,156.75**
Shale Control				
EZ-MUD	KCl/Polymer	25 kg pail	26.000	2,231.58
potassium chloride	Brine	1000 kg bag	40.000	17,658.40
potassium chloride	KCl/Polymer	1000 kg bag	4.000	1,765.84
CLAYSEAL PLUS	KCl/Polymer	216 kg drum	53.000	50,701.92

Well Name	**Coelacanth 1**
Operator	**Apache**
Contractor	**Seadrill**
Rig No	**West Triton**
Unit System	**Apache**

Interval Summary

			Total	**$ 72,357.74**
Lost Circulation/Bridging Agent				
Kwikseal Fine	No Fluid	40 lb bag	1.000	52.36
Circal Y	KCl/Polymer	1200 kg bag	3.000	1,460.01
Circal 60/16	KCl/Polymer	1200 kg bag	2.000	733.34
Circal 60/16	KCl/Polymer	1200 kg bag	64.000	648.32
			Total	**$ 2,894.03**

Baroid Fluid Services

Well Name	**Coelacanth 1**
Operator	**Apache**
Contractor	**Seadrill**
Rig No	**West Triton**
Unit System	**Apache**

Interval Cost Breakdown

Interval # 01	**From Date**	**03/09/2008**	**Top of Interval**	**0.0**	**m**
Max. Hole Size / Bit Size	**To Date**	**03/12/2008**	**Bottom of Interval**	**279.0**	**m**

Material	Unit Size	Quantity		Total Cost
Engineering/Services				
Drilling Fluids Engineer	day(s)	4.00		5000.00
Drilling Fluids Engineer 2	day(s)	4.00		5000.00
		SubTotal	**$**	**10,000.00**
Fluids/Products: Drilling Cost				
bentonite	1000 kg bulk	19.300		9551.18
guar gum	25 kg bag	24.00		2038.32
potassium hydroxide	25 kg bag	4.00		179.92
Prehydrated Bentonite	bbl	1.00		
soda ash	25 kg bag	4.00		53.00
		SubTotal	**$**	**11,822.42**
		Interval Total Cost	**$**	**21,822.42**
	Charged To/From Other Interval		**$**	
	Net Description Total Cost		**$**	**21,822.42**
	Programmed Cost		**$**	**0.00**
	Program Variance		**$**	**21,822.42**

Well Name	Coelacanth 1
Operator	Apache
Contractor	Seadrill
Rig No	West Triton
Unit System	Apache

Interval Cost Breakdown

Interval # 02		From Date	03/13/2008	Top of Interval	0.0 m
Max. Hole Size / Bit Size	12.250 / 12.250 in	To Date	03/15/2008	Bottom of Interval	907.0 m

Material	Unit Size	Quantity		Total Cost
Engineering/Services				
Drilling Fluids Engineer	day(s)	3.00		3750.00
Drilling Fluids Engineer 2	day(s)	3.00		3750.00
		SubTotal	**$**	**7,500.00**
Fluids/Products: Cementing Cost				
barite	1000 kg bulk	6.000		2849.28
		SubTotal	**$**	**2,849.28**
Fluids/Products: Drilling Cost				
ALDACIDE G	25 l can	4.00		349.48
BARAZAN D PLUS	25 kg bag	32.00		4871.68
barite	1000 kg bulk	1.400		664.83
caustic soda	25 kg pail	8.00		353.52
CLAYSEAL PLUS	216 kg drum	28.00		26785.92
guar gum	25 kg bag	60.00		5095.80
PAC-L	25 kg bag	96.00		7859.52
potassium chloride	1000 kg bag	15.00		6621.90
soda ash	25 kg bag	8.00		106.00
		SubTotal	**$**	**52,708.65**
		Interval Total Cost	**$**	**63,057.93**
	Charged To/From Other Interval		**$**	**-47,612.85**
	Net Description Total Cost		**$**	**15,445.08**
	Programmed Cost		**$**	**0.00**
	Program Variance		**$**	**15,445.08**

Well Name	**Coelacanth 1**
Operator	**Apache**
Contractor	**Seadrill**
Rig No	**West Triton**
Unit System	**Apache**

Interval Cost Breakdown

Interval # 03		**From Date**	**03/16/2008**	**Top of Interval**	**0.0 m**
Max. Hole Size / Bit Size	**12.250 / 12.250 in**	**To Date**	**03/27/2008**	**Bottom of Interval**	**3,074.0 m**

Material	Unit Size	Quantity		Total Cost
Engineering/Services				
Drilling Fluids Engineer	day(s)	12.00		15000.00
Drilling Fluids Engineer 2	day(s)	7.00		8750.00
		SubTotal	**$**	**23,750.00**
Fluid/Product: Lost Damage				
calcium chloride flake 77%	25 kg bag	8.00		110.56
citric acid	25 kg bag	1.00		46.24
		SubTotal	**$**	**156.80**
Other				
Kwikseal Fine	40 lb bag	1.00		52.36
		SubTotal	**$**	**52.36**
Fluids/Products: Drilling Cost				
ALDACIDE G	25 l can	6.00		524.22
BARABLOK	50 lb bag	200.00		6078.00
BARA-DEFOAM W300	5 gal can	1.00		616.88
BARAZAN D PLUS	25 kg bag	98.00		14919.52
barite	1000 kg bulk	42.400		20134.91
Circal 60/16	1200 kg bag	2.00		733.34
Circal 60/16	25 kg sack	64.00		648.32
Circal Y	1200 kg bag	3.00		1460.01
CLAYSEAL PLUS	216 kg drum	25.00		23916.00
EZ-MUD	25 kg pail	26.00		2231.58
PAC-L	25 kg bag	148.00		12116.76
potassium chloride	1000 kg bag	29.00		12802.34
potassium hydroxide	25 kg bag	13.00		584.74
soda ash	25 kg bag	5.00		66.25
		SubTotal	**$**	**96,832.87**
		Interval Total Cost	**$**	**120,792.03**
	Charged To/From Other Interval		**$**	**47,612.85**
	Net Description Total Cost		**$**	**168,404.88**
	Programmed Cost		**$**	**0.00**
	Program Variance		**$**	**168,404.88**

Baroid Fluid Services

Well Name	**Coelacanth 1**
Operator	**Apache**
Contractor	**Seadrill**
Rig No	**West Triton**
Unit System	**Apache**

Interval Inventory Report

Interval # 01	**From Date**	**03/09/2008**		**Top of Interval**		**0.0 m**	
Max. Hole Size / Bit Size	**To Date**	**03/12/2008**		**Bottom of Interval**		**279.0 m**	
Product Name	**Units**	**Starting**	**Received**	**Used**	**Returned**	**Ending**	**Weight lb**
ALDACIDE G	25 l can		11.0			11.0	666.46
BARABLOK	50 lb bag		30.0			30.0	1,500.00
BARA-DEFOAM W300	5 gal can		3.0			3.0	109.84
BARAZAN D PLUS	25 kg bag		29.0			29.0	1,598.35
barite	1000 kg bulk		152.000			152.000	335,102.62
BAROFIBRE FINE	25 lb bag		50.0			50.0	1,250.00
bentonite	1000 kg bulk		60.800	19.300		41.500	91,491.83
calcium chloride flake 77%	25 kg bag		94.0			94.0	5,180.86
caustic soda	25 kg pail		98.0			98.0	5,401.33
Circal 60/16	1200 kg bag		9.0			9.0	23,809.92
Circal Y	1200 kg bag		11.0			11.0	29,101.02
citric acid	25 kg bag		38.0			38.0	2,094.39
CLAYSEAL PLUS	216 kg drum		8.0			8.0	3,809.59
EZ SPOT	55 gal drum		8.0			8.0	8,440.08
EZ-MUD	25 kg pail		13.0			13.0	716.50
guar gum	25 kg bag		124.0	24.0		100.0	5,511.56
Kwikseal Fine	40 lb bag		39.0			39.0	1,560.00
lime	20 kg bag		41.0			41.0	1,807.79
N-DRIL HT PLUS	50 lb bag		90.0			90.0	4,500.00
NO-SULF	17 kg pail		48.0			48.0	1,798.97
Omyacarb 5	25 kg bulk		48.000			48.000	2,645.55
PAC-L	25 kg bag		40.0			40.0	2,204.62
potassium chloride	1000 kg bag		4.0			4.0	8,818.49
potassium hydroxide	25 kg bag		87.0	4.0		83.0	4,574.59
soda ash	25 kg bag		52.0	4.0		48.0	2,645.55
sodium bicarbonate	25 kg bag		35.0			35.0	1,929.04
STEELSEAL	25 kg sack		60.0			60.0	3,306.93
					Total Weight of Products in Stock lb		**551,575.89**
					Total Weight of Products in Stock, Metric Tons		**250.19**

Well Name	Coelacanth 1
Operator	Apache
Contractor	Seadrill
Rig No	West Triton
Unit System	Apache

Interval Inventory Report

Interval # 02		From Date	03/13/2008		Top of Interval		0.0 m	
Max. Hole Size / Bit Size	12.250 / 12.250 in	To Date	03/15/2008		Bottom of Interval		907.0 m	
Product Name	**Units**	**Starting**	**Received**	**Used**	**Returned**	**Ending**	**Weight lb**	
ALDACIDE G	25 l can	11.0		4.0		7.0	424.11	
BARABLOK	50 lb bag	30.0	250.0			280.0	14,000.00	
BARA-DEFOAM W300	5 gal can	3.0				3.0	109.84	
BARAZAN D PLUS	25 kg bag	29.0	162.0	32.0		159.0	8,763.37	
barite	1000 kg bulk	152.000		7.400		144.600	318,788.42	
BAROFIBRE FINE	25 lb bag	50.0				50.0	1,250.00	
bentonite	1000 kg bulk	41.500				41.500	91,491.83	
calcium chloride flake 77%	25 kg bag	94.0				94.0	5,180.86	
caustic soda	25 kg pail	98.0		8.0		90.0	4,960.40	
Circal 60/16	1200 kg bag	9.0				9.0	23,809.92	
Circal 60/16	25 kg sack		144.0			144.0	7,936.64	
Circal Y	1200 kg bag	11.0				11.0	29,101.02	
citric acid	25 kg bag	38.0				38.0	2,094.39	
CLAYSEAL PLUS	216 kg drum	8.0	52.0	28.0		32.0	15,238.35	
EZ SPOT	55 gal drum	8.0				8.0	8,440.08	
EZ-MUD	25 kg pail	13.0				13.0	716.50	
guar gum	25 kg bag	100.0		60.0		40.0	2,204.62	
Kwikseal Fine	40 lb bag	39.0				39.0	1,560.00	
lime	20 kg bag	41.0				41.0	1,807.79	
N-DRIL HT PLUS	50 lb bag	90.0				90.0	4,500.00	
NO-SULF	17 kg pail	48.0				48.0	1,798.97	
Omyacarb 5	25 kg bulk	48.000				48.000	2,645.55	
PAC-L	25 kg bag	40.0	280.0	96.0		224.0	12,345.89	
potassium chloride	1000 kg bag	4.0	29.0	15.0		18.0	39,683.21	
potassium hydroxide	25 kg bag	83.0				83.0	4,574.59	
soda ash	25 kg bag	48.0		8.0		40.0	2,204.62	
sodium bicarbonate	25 kg bag	35.0				35.0	1,929.04	
STEELSEAL	25 kg sack	60.0				60.0	3,306.93	
XLR-RATE	55 gal drum		8.0			8.0	2,862.29	
					Total Weight of Products in Stock lb		**613,729.25**	
					Total Weight of Products in Stock, Metric Tons		**278.38**	

Well Name	Coelacanth 1
Operator	Apache
Contractor	Seadrill
Rig No	West Triton
Unit System	Apache

Interval Inventory Report

Interval # 03		From Date	03/16/2008		Top of Interval		0.0 m	
Max. Hole Size / Bit Size	12.250 / 12.250 in	To Date	03/27/2008		Bottom of Interval		3,074.0 m	
Product Name	**Units**	**Starting**	**Received**	**Used**	**Returned**	**Ending**	**Weight lb**	
ALDACIDE G	25 l can	7.0		6.0		1.0	60.59	
BARABLOK	50 lb bag	280.0		200.0		80.0	4,000.00	
BARA-DEFOAM W300	5 gal can	3.0		1.0		2.0	73.23	
BARAZAN D PLUS	25 kg bag	159.0		98.0		61.0	3,362.05	
barite	1000 kg bulk	144.600		42.400	80.000	22.200	48,942.62	
BAROFIBRE FINE	25 lb bag	50.0				50.0	1,250.00	
bentonite	1000 kg bulk	41.500				41.500	91,491.83	
calcium chloride flake 77%	25 kg bag	94.0		8.0		86.0	4,739.94	
caustic soda	25 kg pail	90.0				90.0	4,960.40	
Circal 60/16	1200 kg bag	9.0		2.0		7.0	18,518.83	
Circal 60/16	25 kg sack	144.0		64.0		80.0	4,409.25	
Circal Y	1200 kg bag	11.0		3.0		8.0	21,164.38	
citric acid	25 kg bag	38.0		1.0		37.0	2,039.28	
CLAYSEAL PLUS	216 kg drum	32.0		25.0		7.0	3,333.39	
EZ SPOT	55 gal drum	8.0				8.0	8,440.08	
EZ-MUD	25 kg pail	13.0	32.0	26.0		19.0	1,047.20	
guar gum	25 kg bag	40.0				40.0	2,204.62	
Kwikseal Fine	40 lb bag	39.0		1.0		38.0	1,520.00	
lime	20 kg bag	41.0				41.0	1,807.79	
N-DRIL HT PLUS	50 lb bag	90.0				90.0	4,500.00	
NO-SULF	17 kg pail	48.0				48.0	1,798.97	
Omyacarb 5	25 kg bulk	48.000				48.000	2,645.55	
PAC-L	25 kg bag	224.0		148.0		76.0	4,188.78	
potassium chloride	1000 kg bag	18.0	11.0	29.0				
potassium hydroxide	25 kg bag	83.0		13.0		70.0	3,858.09	
soda ash	25 kg bag	40.0		5.0		35.0	1,929.04	
sodium bicarbonate	25 kg bag	35.0				35.0	1,929.04	
STEELSEAL	25 kg sack	60.0				60.0	3,306.93	
XLR-RATE	55 gal drum	8.0				8.0	2,862.29	
					Total Weight of Products in Stock lb		**250,384.16**	
					Total Weight of Products in Stock, Metric Tons		**113.57**	

Company	**Apache**
Well Name	**Coelacanth 1**
Contractor	**Seadrill**
Rig No	**West Triton**
Unit System	**Apache**

Fluid Volume Record Report

			Additions								Losses						Volumes			
Report No	Date	Initial Volume	Received	Mixed	Base	Water	Barite	Chemicals	Other	Daily Total	SCE	Downhole	Misc	Mixed	Returned	Daily Total	Hole Volume	Active Pit Volume	Reserve Volume	Final Volume
		bbl	bbl	bbl	bbl	bbl	bbl	bbl	bbl	bbl	bbl	bbl	bbl	bbl	bbl	bbl	bbl	bbl	bbl	bbl
Interval # 01																				
Fluid Name:	**Old KCl/Polymer**																			
002	10/03/2008		900.0			271.0				1,171.0			200.0			200.0			971.0	971.0
Cumulative Volume			900.0			271.0				1,171.0			200.0			200.0				
Fluid Name:	**Prehydrated Bentonite**																			
002	10/03/2008					1,400.5		30.7		1,431.2			1,070.2			1,070.2			361.0	361.0
003	11/03/2008	361.0				703.0		18.6		721.6							295.6		787.0	1,082.6
004	12/03/2008	1,082.6									0.3					0.3	295.3		787.0	1,082.3
Cumulative Volume						2,103.5		49.3		2,152.8	0.3		1,070.2			1,070.5				
Fluid Name:	**guar gum**																			
002	10/03/2008					300.8		2.2		303.0									303.0	303.0
Cumulative Volume						300.8		2.2		303.0										

Company	**Apache**
Well Name	**Coelacanth 1**
Contractor	**Seadrill**
Rig No	**West Triton**
Unit System	**Apache**

Fluid Volume Record Report

			Additions								Losses						Volumes			
Report No	Date	Initial Volume bbl	Received bbl	Mixed bbl	Base bbl	Water bbl	Barite bbl	Chemicals bbl	Other bbl	Daily Total bbl	SCE bbl	Downhole bbl	Misc bbl	Mixed bbl	Returned bbl	Daily Total bbl	Hole Volume bbl	Active Pit Volume bbl	Reserve Volume bbl	Final Volume bbl
Interval # 02																				
Fluid Name:	**Old KCl/Polymer**																			
005	13/03/2008	971.0									83.2					83.2	597.8		290.0	887.8
006	14/03/2008	887.8	346.5							346.5							549.3		685.0	1,234.3
007	15/03/2008	1,234.3									578.2					578.2	201.2		455.0	656.2
Cumulative Volume			346.5							346.5	661.4					661.4				
Fluid Name:	**Prehydrated Bentonite**																			
005	13/03/2008	1,082.3									1,082.3					1,082.3				
Cumulative Volume											1,082.3					1,082.3				
Fluid Name:	**guar gum**																			
005	13/03/2008	303.0				173.3		5.6		178.9	251.9					251.9			230.0	230.0
007	15/03/2008	230.0											230.0			230.0				
Cumulative Volume						173.3		5.6		178.9	251.9		230.0			481.9				
Fluid Name:	**KCl/Polymer/Clayseal**																			
006	14/03/2008					1,573.0	2.1	50.8		1,625.9									1,626.0	1,626.0
007	15/03/2008	1,626.0				74.0				74.0									1,700.0	1,700.0
Cumulative Volume						1,647.0	2.1	50.8		1,699.9										
Fluid Name:	**KCL Brine**																			
007	15/03/2008					352.4		47.6		400.0									400.0	400.0
Cumulative Volume						352.4		47.6		400.0										

Company	**Apache**
Well Name	**Coelacanth 1**
Contractor	**Seadrill**
Rig No	**West Triton**
Unit System	**Apache**

Fluid Volume Record Report

			Additions									Losses						Volumes			
Report No	Date	Initial Volume	Received	Mixed	Base	Water	Barite	Chemicals	Other	Daily Total	SCE	Downhole	Misc	Mixed	Returned	Daily Total	Hole Volume	Active Pit Volume	Reserve Volume	Final Volume
		bbl	bbl	bbl	bbl	bbl	bbl	bbl	bbl	bbl	bbl	bbl	bbl	bbl	bbl	bbl	bbl	bbl	bbl	bbl
Interval # 03																				
Fluid Name:	**Old KCl/Polymer**																			
008	16/03/2008	656.2									201.2					201.2			455.0	455.0
009	17/03/2008	455.0											400.0	55.0		455.0				
Cumulative Volume											201.2		400.0	55.0		656.2				
Fluid Name:	**KCl/Polymer/Clayseal**																			
008	16/03/2008	1,700.0		249.0			32.4	3.0		284.4	269.4		60.0			329.4	355.0	510.0	790.0	1,655.0
009	17/03/2008	1,655.0		320.0		262.0	3.0	25.7		610.7							635.7	360.0	1,270.0	2,265.7
010	18/03/2008	2,265.7		63.6		500.0	1.5	29.4		594.5	209.0					209.0	634.2	472.0	1,545.0	2,651.2
011	19/03/2008	2,651.2		43.0		250.0		23.2		316.2	114.0		120.0			234.0	751.4	421.0	1,561.0	2,733.4
012	20/03/2008	2,733.4					15.0	9.5		24.5	140.6		200.0			340.6	919.2	382.0	1,116.0	2,417.2
013	21/03/2008	2,417.2		264.0				8.9		272.9	355.3		300.0			655.3	574.8	389.0	1,071.0	2,034.8
014	22/03/2008	2,034.8					11.7	21.5		33.2	52.1		85.5			137.6	777.4	373.0	780.0	1,930.4
015	23/03/2008	1,930.4						0.1		0.1			30.1			30.1	777.4	350.0	773.0	1,900.4
016	24/03/2008	1,900.4		1.0				0.1		1.1	46.1					46.1	777.4	394.0	684.0	1,855.4
017	25/03/2008	1,855.4											21.0			21.0	777.4		1,057.0	1,834.4
018	26/03/2008	1,834.4											20.0			20.0	777.4		1,037.0	1,814.4
Cumulative Volume				940.6		1,012.0	63.6	121.4		2,137.6	1,186.5		836.6			2,023.1				
Fluid Name:	**KCL Brine**																			
008	16/03/2008	400.0				400.0		19.0		419.0				249.0		249.0			570.0	570.0
009	17/03/2008	570.0												265.0		265.0			305.0	305.0
010	18/03/2008	305.0						28.6		28.6				63.6		63.6			270.0	270.0
011	19/03/2008	270.0												43.0		43.0			227.0	227.0
012	20/03/2008	227.0				151.3		31.7		183.0									410.0	410.0
013	21/03/2008	410.0												264.0		264.0			146.0	146.0

Company	**Apache**
Well Name	**Coelacanth 1**
Contractor	**Seadrill**
Rig No	**West Triton**
Unit System	**Apache**

Fluid Volume Record Report

			Additions								Losses						Volumes			
Report No	Date	Initial Volume bbl	Received bbl	Mixed bbl	Base bbl	Water bbl	Barite bbl	Chemicals bbl	Other bbl	Daily Total bbl	SCE bbl	Downhole bbl	Misc bbl	Mixed bbl	Returned bbl	Daily Total bbl	Hole Volume bbl	Active Pit Volume bbl	Reserve Volume bbl	Final Volume bbl
016	24/03/2008	146.0												1.0		1.0			145.0	145.0
Cumulative Volume						551.3		79.3		630.6				885.6		885.6				

Baroid Fluid Services

Well Name	**Coelacanth 1**
Operator	**Apache**
Contractor	**Seadrill**
Rig No	**West Triton**
Unit System	**Apache**

Interval Chemical Concentration

Interval #	**01**	**From Report Date**	**03/09/2008**	**Top of Interval**	**0.0 m**
Max. Hole Size / Bit Size	**0.000 / 0.000 in**	**To Report Date**	**03/12/2008**	**Bottom of Interval**	**279.0 m**

Fluid Name: Prehydrated Bentonite

Material	Average ppb	Minimum ppb	Maximum ppb
bentonite	20.18	18.48	21.03
potassium hydroxide	0.10	0.09	0.12
soda ash	0.10	0.09	0.12

Fluid Name: guar gum

Material	Average ppb	Minimum ppb	Maximum ppb
guar gum	4.37	4.37	4.37

Well Name	**Coelacanth 1**
Operator	**Apache**
Contractor	**Seadrill**
Rig No	**West Triton**
Unit System	**Apache**

Interval Chemical Concentration

Interval # 02		**From Report Date**	**03/13/2008**	**Top of Interval**	**0.0 m**
Max. Hole Size / Bit Size	**12.250 / 12.250 in**	**To Report Date**	**03/15/2008**	**Bottom of Interval**	**907.0 m**

Fluid Name: Prehydrated Bentonite

Material	Average ppb	Minimum ppb	Maximum ppb
bentonite	21.03	21.03	21.03
potassium hydroxide	0.09	0.09	0.09
soda ash	0.09	0.09	0.09

Fluid Name: guar gum

Material	Average ppb	Minimum ppb	Maximum ppb
guar gum	9.61	9.61	9.61

Fluid Name: KCl/Polymer/Clayseal

Material	Average ppb	Minimum ppb	Maximum ppb
ALDACIDE G	0.15	0.14	0.15
BARAZAN D PLUS	1.06	1.04	1.08
barite	1.86	1.82	1.90
caustic soda	0.27	0.26	0.27
CLAYSEAL PLUS	8.02	7.84	8.20
PAC-L	3.18	3.11	3.25
soda ash	0.27	0.26	0.27

Fluid Name: KCL Brine

Material	Average ppb	Minimum ppb	Maximum ppb
potassium chloride	82.67	82.67	82.67

Well Name	Coelacanth 1
Operator	Apache
Contractor	Seadrill
Rig No	West Triton
Unit System	Apache

Interval Chemical Concentration

Interval # 03		From Report Date	03/16/2008	Top of Interval	0.0 m
Max. Hole Size / Bit Size	12.250 / 12.250 in	To Report Date	03/27/2008	Bottom of Interval	3,074.0 m

Fluid Name: KCl/Polymer/Clayseal

Material	Average ppb	Minimum ppb	Maximum ppb
ALDACIDE G	0.15	0.09	0.20
BARABLOK	2.69	0.31	4.20
BARA-DEFOAM W300	0.02	0.02	0.02
BARAZAN D PLUS	1.74	1.18	2.20
barite	24.19	15.28	28.77
caustic soda	0.12	0.10	0.22
Circal 60/16	1.19	0.16	2.34
Circal Y	2.22	1.65	2.60
CLAYSEAL PLUS	6.56	6.38	6.83
EZ-MUD	0.43	0.39	0.45
PAC-L	3.38	2.76	3.70
potassium chloride	19.01	7.09	24.60
potassium hydroxide	0.20	0.17	0.22
soda ash	0.19	0.17	0.22

Fluid Name: KCL Brine

Material	Average ppb	Minimum ppb	Maximum ppb
potassium chloride	103.87	56.53	115.32

Operator	**Apache**
Well Name	**Coelacanth 1**
Contractor	**Seadrill**
Rig No	**West Triton**
Unit System	**Apache**

Fluid Property Recap : Water-Based Fluid

Date	Depth	FL Temp	Density	Funn Visc	Rheology 28 Deg C					Filtration					Filtrate Analysis						MBT	Sand	Retort Analysis				Rheometer Dial Readings					
					PV	lbs/100 ft2				API	HTHP	Cake API	Cake HTHP	Temp	pH	Pm	Pf	Mf	Cl	Total Hardness	ppb Eq.	% by vol	% by vol				600	300	200	100	6	3
	m	Deg C	SG	sec/qt	cP	YP	10S	10M	30M	ml/30 min	ml/30 min	32nd in		Deg C		ml	ml	ml	mg/l	mg/l			Corr Solid	LGS	NAP Base	Water						
Interval # 01										**From Date**				**03/09/2008**						**Top of Interval**			**0.0**		**m**							
Max. Hole Size / Bit Size										**To Date**				**03/12/2008**						**Bottom of Interval**			**279.0**		**m**							
03/11/2008	279		1.060	150											9.00				3,000							95						
03/12/2008	279		1.060	140	13	56	44	48		12.0		2			9.15	0.25	0.05	0.55	2,100	40						95	82.0	69.0	61.0	56.0	42.0	41.0
Interval # 02										**From Date**				**03/13/2008**						**Top of Interval**			**0.0**		**m**							
Max. Hole Size / Bit Size	**12.250 / 12.250 in**									**To Date**				**03/15/2008**						**Bottom of Interval**			**907.0**		**m**							
03/13/2008	908		1.150	43	9	11	4	9		9.0					8.00				38,000	160	2.5		3.91	1.327		93	29.0	20.0	15.0	13.0	4.0	3.0
03/14/2008	907		1.150	43	9	11	4	9		9.0					8.00				38,000	160	2.5		3.91	1.327		93	29.0	20.0	15.0	13.0	4.0	3.0
03/15/2008	908		1.120	44	15	13				5.6					9.50	0.20	0.20	0.90	39,500	160			2.75	1.032		94	43.0	28.0	19.0	14.0	4.0	3.0
03/15/2008	907		1.150	40	13	14				5.5					9.50	0.20	0.20	0.90	40,000	160			3.22	0.13		93.5	40.0	27.0	18.0	13.0	5.0	2.0
Interval # 03										**From Date**				**03/16/2008**						**Top of Interval**			**0.0**		**m**							
Max. Hole Size / Bit Size	**12.250 / 12.250 in**									**To Date**				**03/27/2008**						**Bottom of Interval**			**3,074.0**		**m**							
03/16/2008	1,203		1.130	58	16	17	8	9	11	5.4	15.0	1	2	121	8.90	0.20	0.20	1.10	42,000	160	2.5		3.57	2.218		93	49.0	33.0	26.0	19.0	7.0	5.0
03/16/2008	1,376	40	1.140	58	17	25	10	12	15	5.4	15.0	1	2	121	8.90	0.30	0.20	1.20	50,000	160	2.5		2.89	0.849		93	59.0	42.0	34.0	24.0	10.0	8.0
03/17/2008	1,500	40	1.150	49	12	20	8	10	13	5.4	15.0	1	2	121	9.00	0.20	0.20	1.20	60,000	160	2.5	0.50	3.06	1.311		92	44.0	32.0	26.0	19.0	10.0	7.0
03/17/2008	1,798	40	1.160	45	12	21	8	13		5.8	14.0			121	9.50	0.30	0.20	0.80	52,000	160		0.50	4.81	3.507		91	45.0	33.0	25.0	19.0	9.0	7.0
03/17/2008	1,994	40	1.180	43	8	20	8	10	13	5.8	15.0	1	2	121	9.00	0.20	0.20	1.00	49,000	160	2.5	0.50	5.06	2.536		91	36.0	28.0	21.0	16.0	8.0	6.0
03/18/2008	1,998		1.170	55	17	25	11	14	19	5.5	14.0	1	2	121	9.50	0.30	0.20	1.00	49,000	160	5.0	0.50	4.02	1.115		92	59.0	42.0	35.0	25.0	12.0	10.0
03/18/2008	2,011	40	1.170	58	17	26	11	15	22	5.0	14.0	1	2	121	9.50	0.30	0.20	1.10	55,000	160	6.3	0.50	3.5	0.547		92	60.0	43.0	36.0	26.0	12.0	19.0
03/19/2008	2,095	40	1.160	53	2	41	9	13	18	5.7	15.0	1	2	121	9.50	0.10	0.20	0.90	47,000	160	6.3	0.50	4.19	1.926		92	45.0	43.0	27.0	20.0	10.0	8.0
03/19/2008	2,116		1.160	58	20	30	12	16	21	4.2	15.0	1	2	121	8.50	0.05	0.10	0.65	48,000	160	5.0		4.62	2.856		91.5	70.0	50.0	42.0	32.0	12.0	10.0
03/19/2008	2,243	40	1.170	57	18	29	11	16	20	4.8	15.0	1	2	121	9.00	0.10	0.10	0.70	47,000	160	6.3		4.71	2.323		91.5	65.0	47.0	40.0	29.0	12.0	10.0
03/20/2008	2,392		1.170	53	17	29	11	17	24	5.4	15.0	1	2	121	8.50	0.10	0.01	0.90	46,000	160	6.3		4.79	2.415		91.5	63.0	46.0	38.0	28.0	12.0	10.0
03/20/2008	2,480		1.150	50	16	28	9	15	21	5.6	15.0	1	2	121	9.00	0.10	0.01	0.90	40,000	160	6.3		5.29	4.204		91.5	60.0	44.0	35.0	26.0	10.0	9.0
03/20/2008	2,700		1.160	60	23	34	13	22	31	5.0	14.0	1	2	121	9.00	0.10	0.02	1.00	44,000	160	6.3		5.48	4.242		91	80.0	57.0	47.0	35.0	14.0	11.0
03/21/2008	2,721	40	1.170	64	25	30	12	21	28	4.2	13.0	1	2	121	9.00	0.10	0.02	0.90	44,000	160	6.5	0.02	4.96	2.597		91.5	80.0	55.0	45.0	32.0	12.0	10.0
03/21/2008	2,822	40	1.190	59	8	40	11	18		4.6	13.0	1	2	121		0.10	0.01	0.90	46,000	160	8.7	0.02	4.79	1.165		91.5	56.0	48.0	32.0	24.0	10.0	8.0

Operator	**Apache**
Well Name	**Coelacanth 1**
Contractor	**Seadrill**
Rig No	**West Triton**
Unit System	**Apache**

Fluid Property Recap : Water-Based Fluid

Date	Depth	FL Temp	Density	Funn Visc	Rheology 28 Deg C					Filtration					Filtrate Analysis						MBT	Sand	Retort Analysis				Rheometer Dial Readings					
					PV	lbs/100 ft2				API	HTHP	Cake API	Cake HTHP	Temp	pH	Pm	Pf	Mf	Cl	Total Hardness	ppb Eq.	% by vol	% by vol				600	300	200	100	6	3
	m	Deg C	SG	sec/qt	cP	YP	10S	10M	30M	ml/30 min	ml/30 min	32nd in		Deg C		ml	ml	ml	mg/l	mg/l			Corr Solid	LGS	NAP Base	Water						
03/22/2008	3,074	40	1.190	61	16	28	12	18		4.4		1	2		9.00	0.10	0.02	0.90	46,000	160	10.0	0.25	4.79	1.165		91.5	60.0	44.0	33.0	24.0	11.0	9.0
03/23/2008	3,074		1.190	64	18	26	12	19		4.5		1	2		9.00	0.10	0.01	1.00	46,000	160	10.0	0.25	5.31	2.186		91	62.0	44.0	34.0	24.0	12.0	10.0
03/26/2008	2,074		1.190	55	18	26	12	19		4.5	15.0	1	2		9.50	0.30	0.20	1.00	45,000	160	8.3	0.20	5.19	1.868		91.2	62.0	44.0	34.0	24.0	12.0	10.0

Company	Apache
Well Name	Coelacanth 1
Contractor	Seadrill
Rig Name	West Triton
Unit System	Apache

Fluid Program Exception Report

Report No	Date	Time	Depth m	Property Name	Unit System	Actual Value	Exception	Program Min	Program Max
005	03/13/2008	10:00	908	API Filtrate	ml/30 min	9.0	High	3.0	5.0
005	03/13/2008	10:00	908	Gel, 10 seconds	lbs/100 ft2	4	Low	10	20
005	03/13/2008	10:00	908	Yield Point	lbs/100 ft2	11	Low	20	50
006	03/14/2008	19:00	907	API Filtrate	ml/30 min	9.0	High	3.0	5.0
006	03/14/2008	19:00	907	Gel, 10 seconds	lbs/100 ft2	4	Low	10	20
006	03/14/2008	19:00	907	Yield Point	lbs/100 ft2	11	Low	20	50
007	03/15/2008	20:00	907	API Filtrate	ml/30 min	5.5	High	3.0	5.0
007	03/15/2008	20:00	907	Yield Point	lbs/100 ft2	14	Low	20	50
007	03/15/2008	17:00	908	API Filtrate	ml/30 min	5.6	High	3.0	5.0
007	03/15/2008	17:00	908	Yield Point	lbs/100 ft2	13	Low	20	50
008	03/16/2008	14:00	1,203	API Filtrate	ml/30 min	5.4	High	3.0	5.0
008	03/16/2008	14:00	1,203	Gel, 10 seconds	lbs/100 ft2	8	Low	10	20
008	03/16/2008	14:00	1,203	Yield Point	lbs/100 ft2	17	Low	20	50
008	03/16/2008	20:00	1,376	API Filtrate	ml/30 min	5.4	High	3.0	5.0
009	03/17/2008	4:00	1,500	API Filtrate	ml/30 min	5.4	High	3.0	5.0
009	03/17/2008	4:00	1,500	Gel, 10 seconds	lbs/100 ft2	8	Low	10	20
009	03/17/2008	16:00	1,798	API Filtrate	ml/30 min	5.8	High	3.0	5.0
009	03/17/2008	16:00	1,798	Gel, 10 seconds	lbs/100 ft2	8	Low	10	20
009	03/17/2008	21:00	1,994	API Filtrate	ml/30 min	5.8	High	3.0	5.0
009	03/17/2008	21:00	1,994	Gel, 10 seconds	lbs/100 ft2	8	Low	10	20
010	03/18/2008	18:00	1,998	API Filtrate	ml/30 min	5.5	High	3.0	5.0
011	03/19/2008	3:30	2,095	API Filtrate	ml/30 min	5.7	High	3.0	5.0
011	03/19/2008	3:30	2,095	Gel, 10 seconds	lbs/100 ft2	9	Low	10	20
012	03/20/2008	4:00	2,392	API Filtrate	ml/30 min	5.4	High	3.0	5.0
012	03/20/2008	9:30	2,480	API Filtrate	ml/30 min	5.6	High	3.0	5.0
012	03/20/2008	9:30	2,480	Gel, 10 seconds	lbs/100 ft2	9	Low	10	20

Operations Log Recap

Well Name	**Coelacanth 1**
Operator	**Apache**
Contractor	**Seadrill**
Rig No	**West Triton**
Unit System	**Apache**

Interval		**01**		**From Date**	**001**	**Top of Interval**	**.0 m**
Max. Hole Size / Bit Size		**.000 / .000 in**		**To Date**	**004**	**Bottom of Interval**	**279.0 m**
For Report	**# 001**	**On**	**03/09/2008**	**Operation at Depth**		**.0 m**	
Rig Activity				Moved West Triton from Wasabi-1 to Coelacanth-1 location. Jacked up rig and skidding cantilever at report time.			
Activity				Skid Cantilever			
For Report	**# 002**	**On**	**03/10/2008**	**Operation at Depth**		**279.0 m**	
Rig Activity				Continued to skid out and prepare rig to spud Coelacanth-1. Conducted pre-spud meeting and ROV checked seabed. Drilled 26" hole to 279 m. Pumped 200 bbls high viscosity sweep. POOH to 128 m and worked through tight spot at 128 m. RBIH to 279 m. Spotted 200 bbls 1.15 S.G fluid. POOH and prepare to run casing at report time.			
Activity				Run casing			
Fluid Treatment				Prepared 800 bbls of 35 ppb prehydrated gel and cut back with seawater after hydrated. Received 900 bbls of 1.23 s.g WBM from supply vessel. Prepared mixwater for Halliburton cement. Mixed Guar gum for high viscosity sweeps at 4 ppb.Received barite, bentonite and drill water.			
For Report	**# 003**	**On**	**03/11/2008**	**Operation at Depth**		**279.0 m**	
Rig Activity				Continued making up 20" and 13 3/8" casing and RIH. Landed at 275 m. Made up cement stinger on 5 1/2" DP. Performed cement job as per program. Unsting cement stringer. Circulated hole volume and POOH. At report time Nipple up BOP's and prepare for testing.			
Activity				Testing BOP's			
Fluid Treatment				Prehydrated an additional 400 bbls of bentonite at 35 ppb. At report time prepared: 865 bbls of 9.6 ppg WBM 1,100 bbls of High viscoity PHG to be cut back with seawater to make 2,000 bbls.			
For Report	**# 004**	**On**	**03/12/2008**	**Operation at Depth**		**279.0 m**	
Rig Activity				Attempt to test BOP's, trouble shoot problems. Test BOP's, Testing tool parted at thread. Tag top of fish at 214.7m, engage and POH fish. Test casing to 1100psi. Layout fishing tools. Install wearbushing and diverter packer. Make up 12.25" BHA.			
Activity				Make up 12 1/4" BHA			
Fluid Treatment				Dressed all shakers with second hand screens from previous wells. Commenced unloading 8.5" chemicals from boat. Lined up closed loop system (via gumbo box), to take returns to pit 7.			

Operations Log Recap

Well Name	**Coelacanth 1**
Operator	**Apache**
Contractor	**Seadrill**
Rig No	**West Triton**
Unit System	**Apache**

Interval	**02**		**From Date**	**005**	**Top of Interval**	**.0**	**m**
Max. Hole Size / Bit Size	**12.250 / 12.250**	**in**	**To Date**	**007**	**Bottom of Interval**	**907.0**	**m**

For Report	**# 005**	**On**	**03/13/2008**	**Operation at Depth**	**907.0 m**
Rig Activity				Drilled 12 1/4" hole to TD at 1,200 gpm and at 150 m/hour. Drilled primarily through unconsolidated limestone. From 279m to 907m pumping 25bbl sweeps at middle of every stand and 50 bbl at end of every stand. Pump 150 bbl PHB mud and circ. out clean with seawater. Displace hole with 9.6ppg mud. Flowcheck, static. Pump slug and POOH. JSA wireline and RIH w/pex-dsi on wireline and log as per programme.	
Activity				Wire Line logs	
Fluid Treatment				Unloaded chemicals for 8.5" section from Battler Built 200 bls 2.2 ppb Guar Gum. Lined up closed loop circulation via Gumbo box. Received 900 bbl of Brine.	

For Report	**# 006**	**On**	**03/14/2008**	**Operation at Depth**	**907.0 m**
Rig Activity				Cont. logging run. POOH wireline, tools below BOP. Rig down and lay out wireline sheaves. Remove diverter bag, make up wearbushing retrieving tool and retrieve wearbushing. RIH 2 stds of HWDP and set dummy hanger in wellhead. POOH and rack back. Rig up weatherford equipment to run 9 5/8" casing. Run in casing to 868 m filling with old mud. Wash down on last joint to 880 m. Pick 9 5/8" casing hanger and RIH. Land 9 5/8" casing to wellhead.	
Activity				Run casing and cement	
Fluid Treatment				Continued to prepare 1.12 s.g KCl/Polymer mud for 8 1/2" section. Fluid built with slightly lower concentrations than programmed to allow displacement. Cleaned out solids control area and prepared screens for displacement after casing. Prepared Halliburton Tuned Spacer in slug pit.	

For Report	**# 007**	**On**	**03/15/2008**	**Operation at Depth**	**907.0 m**
Rig Activity				Rig up cement head and surface lines. Circ. one casing volume. Pump 20 bbl seawater, test lines to 3000psi. Perform cement job as per program. Drop top plug, displace cement dumping returns @ wellhead. Bump plug & pressure to 2000psi. Rig down equipment. Commence slip & cut of drilling line. Install diverter packer and calibration block. Make up 8 1/2" BHA and MWD power tools and RIH to 150 m. Calibrate block for schlumberger mwd.	
Activity				Make up BHA	
Fluid Treatment				Continued to prepare 1.12 s.g KCL/Polymer/Clayseal volume. ~1,600 bbls prepared. Cleaned out all shakers and sand-traps from very heavy solids build up from 12 1/4" section. Changed shaker screens to combination 145/89 mesh screens to enable relatively unsheared new mud to pass through screens. Built 420 bbls 20% KCl in pit 7 to allow more room on deck and prepare for future pre-mix	

Operations Log Recap

Well Name	**Coelacanth 1**
Operator	**Apache**
Contractor	**Seadrill**
Rig No	**West Triton**
Unit System	**Apache**

Interval		**03**		**From Date**	**008**	**Top of Interval**	**.0 m**
Max. Hole Size / Bit Size		**12.250 / 12.250 in**		**To Date**	**019**	**Bottom of Interval**	**3,074.0 m**
For Report	**# 008**	**On**	**03/16/2008**	**Operation at Depth**		**1,379.0 m**	
Rig Activity				Cont. making up 8 1/2" BHA and RIH to 805 m. Service TDS-travelling block. RIH from 805 m to 852 m. Wash down and tag cement @ 859m. Drill out cement from 859m to shoe @ 902m. Cont. drilling cement from 902m to 907m and 3m of new formation to 910m. Circ. and condition mud. Perform FIT to 1.78sg with 1.12sg mud. Cont. drill 8 1/2" hole from 910m 1493m, taking survey every 3 stands. Pumped 30 bbl caustic pill @ 1379 m.			
Activity				Drilling 8 1/2" Hole			
Fluid Treatment				Pumped 30 bbl 4 ppb Barazan-D+ high viscosity spacer prior to displacing to 1.12 s.g KCl/Polymer/Clayseal fluid. Added 0.5 ppb Barazan-D+ to active to bring active mud to program specifications. Slowly transferred 20% KCl brine to active to bring KCl concentration from 8 5 to programmed 10%. Changed shaker screens to new 250 mesh. (12 new screens). Prepared 400 bbls of 20% brine to use as base for future premix and create deck space. At 1,300 m added further 0.5 ppb Barazan D+ and 1.0 ppb PAC L to raise viscosity and lower fluid loss to less then 5cc/30min. Pumped 30 bbl caustic/CaCO pill as per company mans instructions to improve ROP.			
For Report	**# 009**	**On**	**03/17/2008**	**Operation at Depth**		**1,998.0 m**	
Rig Activity				Cont. drill 8 1/2" hole from 1493m to 1995m. Spotting 5 bbl seawater around bit at connection @ 1558m. Pumped 50 bbl caustic pill @ 1678m. Observed loose torque and pressure drop slowly. Reduced spm to 84 and 500 gpm. Drill from 1995m to 1998m. Flow check, well static. Pumped 25 bbl slug and POOH from 1998m to 1679m with no excess drag.			
Activity				Tripping out of Hole			
Fluid Treatment				Built 10 ppb Caustic pill in Slug pit and pumped 45 bbl in attempt to alleviate suspected bit balling. No apparent improvement. Changed shaker screens on Shakers 1 and Shakers 3 to 280 mesh (170 mesh API) . Changed scalper screens on shaker 4 to 60 mesh. Ran Desilter. Dumped sandtrap. Transferred active volume and blended new mud to maintain mud weight less than 1.17 s.g. Built slug as per Co. Man request. Built new unweighted premix in Pit 7. Dumped retained Wasabi mud and Seawater from Pits 1 and 2. Captured active mud into reserve pit and make room for dilution.			
For Report	**# 010**	**On**	**03/18/2008**	**Operation at Depth**		**2,029.0 m**	
Rig Activity				Cont. POOH to 1300m. 30k overpull @1300m. Pumped 35bbl hi-vis sweep and circ. out same with small increases in cutting. Attempt to pull - no success. Ream out of hole from 1300m to 881m @ shoe. Flow check, static, pump slug and POOH to surface. Remove radioactive source and lay out BHA. Install new BHA and RA source. RIH from surface to 1974m. Wash down from 1974m to 1998m, tag bottom. Cont. drill 8 1/2" hole from 1998m to 2029m. Pumped 20 bbl seawater pill to spot on connection at 2029m.			
Activity				Drilling			
Fluid Treatment				Pumped Hi-Vis sweep whilst POOH with small increase in cuttings. Added 0.25 pppb Barazan D and 1 ppb PAC L to the active to raise viscosity and lower filtrate loss. Treated heavy reserve mud with drillwater, additional 2% KCl and polymers to build light reserve fluid for future reduction of active mud weight. Sandtraps dumped as required to maintain mud weight. Running Desilter with underflow being dumped @ 10.0ppg. Added Clayseal to active to recommended 2.5% by volume as per Operator request.			
For Report	**# 011**	**On**	**03/19/2008**	**Operation at Depth**		**2,307.0 m**	
Rig Activity				Cont. drill 8 1/2" hole from 2045m to 2116m. Pumped Calcium Carbonate/seawater pills @ 2077m & 2102m. Flowcheck, static, POOH from 2116m to 1943m. Pumped slug & POOH to surface with flowcheck @ shoe. Remove nozzles from bit and install			

Interval	**03**		**From Date**	**008**	**Top of Interval**	**.0**	**m**
Max. Hole Size / Bit Size	**12.250 / 12.250**	**in**	**To Date**	**019**	**Bottom of Interval**	**3,074.0**	**m**

	new bit. RIH to 956m. Trip drill. Service top drive. Cont. RIH from 956m to 2092m. Wash down to bottom at 2116m. Drill 8 1/2" hole from 2116m to 2307m.
Activity	Drilling
Fluid Treatment	Pumped 2X Seawater pill with 20ppb Circal 60/16 due to bitballing. Sandtraps dumped as required to maintain mud weight. Running Desilter with underflow being dumped @ 10.0ppg. Treated active with 0.25 pppb Barazan D and 0.5 ppb PAC L to raise viscosity and lower filtrate loss. Added 1 ppb EZ-MUD to active while RIH. Changed screens in shakers 1 & 2 to 255 & 215 respectively to accommodate the PHPA.
For Report # 012 On 03/20/2008	**Operation at Depth 2,700.0 m**
Rig Activity	Cont. drill 8 1/2" hole from 2307m to 2700m taking surveyevery 3 stands. Encountering bit balling. Flow check 15 minutes, well static. Pump slug. POOH from 2700m to 1888m.
Activity	Tripping
Fluid Treatment	Continued to treat active with additions of viscosifier, fluid loss additives and KCl to maintain targeted properties and maintain mud weight. Added additional 1 ppb Barablok prior to entering the Latrobe formation to enhance coal stability. Built 300 bbls 20% KCl brine. Sandtraps dumped as required to maintain mud weight. Running Desilter with underflow being dumped @ 10.0ppg.
For Report # 013 On 03/21/2008	**Operation at Depth 2,948.0 m**
Rig Activity	Cont. POOH from 1888m to surface, flow check @ shoe. Change Bit due to bitballing. RIH to 907m - stage pump. Fill pipe with PHPA. RIH from 907m to 2700m. Wash and ream the last 18m with 50 rpm, torque 1-3k, 695 gpm, 3050psi. Cont. drill ahead with 8 1/2" hole from 2700m to 2948m. SCR's 2702m with mw @ 9.8ppg.
Activity	Drilling ahead
Fluid Treatment	Continued to treat active with additions of viscosifier, fluid loss additives and KCl to maintain targeted properties and maintain mud weight. Added CLAYSEAL & EZ-MUD to maintain product concentrations. Sandtraps dumped as required to maintain mud weight. Running Desilter with underflow being dumped @ 11ppg. Prepare 150 bbl Hi-vis sweeps for use at TD.
For Report # 014 On 03/22/2008	**Operation at Depth 3,074.0 m**
Rig Activity	Cont. to drill 8 1/2" hole from 2948m to 3074m. Pumped 100 bbls hi-vis, circ. twice bottoms up. Pumped another 100 bbl hi-vis and circ. hole clean. Flow check, well static. POOH from 3074m to 2743m. Re-log well from 2739m to 2429m. Pumped 30 bbl slug, POOH from 2420m to shoe. Flow check at shoe, static. Cont. to POOH to surface and lay out 8 1/2" BHA as per Anadril.
Activity	Wire Line logs
Fluid Treatment	Treated active pits with ALDACIDE G whilst circulating bottoms up @ TD 3074m. Made 200 bbls hi-vis mud for use in sweeps. Made 30 bbl 12 ppg slug for POOH. Note: Some chemicals charged were from an inventory reconciliation.
For Report # 015 On 03/23/2008	**Operation at Depth 3,074.0 m**
Rig Activity	Rig up Schlumberger wireline VSP- Seiemic tools. RIH with wireline tools to 800m. POOH, WOW. RIH to 800m and put seismic guns in the water. Logging with VSP-seimic as per logging programme. POOH layout Schlumberger tool #1. Make up tool #2, sidewall coring tools. RIH with the sidewall coring tools as per programme, in

Operations Log Recap

Well Name	**Coelacanth 1**
Operator	**Apache**
Contractor	**Seadrill**
Rig No	**West Triton**
Unit System	**Apache**

Interval	**03**		**From Date**	**008**	**Top of Interval**	**.0**	**m**
Max. Hole Size / Bit Size	**12.250 / 12.250**	**in**	**To Date**	**019**	**Bottom of Interval**	**3,074.0**	**m**

	progress.
Activity	Wire Line logs
Fluid Treatment	Dump and clean Pits. Prepared 60 bbl Hi-vis as spotting pill for P&A program.
For Report # 016 On 03/24/2008	**Operation at Depth 3,074.0 m**
Rig Activity	Cont. CST-sidewall coring. POOH tools to surface. R/D Schlumberger shieve. M/up mule shoe on 5 1/2" DP and RIH to 2650m. Pump 20 bbls Hi-vis & displace with 176 bbl mud. POOH to 2590m and mix & pump cement as per programme. POOH 4 stands to 2530m. M/up circ. head and reverse circ. 2 DP volume. POOH from 2530m to 1000m, spot 20 bbl hi-vis. POOH to 940m. R/u Halliburton cement lines then cement plug as per programme. Break off and POOH to 852m. Reverse circ. mud clean. Open BOP's, break circ. head. POOH & L/D 5 1/2" DP from 852m to 148m.
Activity	Tripping
Fluid Treatment	Dumped cement contaminated mud during reverse circulation. Made hi-vis pill for P&A programme.
For Report # 017 On 03/25/2008	**Operation at Depth 3,074.0 m**
Rig Activity	Cont. POOH & L/D all the 5 1/2" DP and HWDP. M/up casing cutter and RIH to 153m casing cutting depth. Cut casing and attempt to pull casing with casing spear. No success. M/up cutter and RIH 143m. Attempt to cut as per Weatherford. No success. Attempt to pull again with spear without success. Prepare for nipple down BOPs. M/U flush mill tool as per Drilquip. RIH to 21, flush. L/D Flush tool. RIH with casing spear and attempt to pull 9 5/8" casing. No success. Attempt to pull overshot diverter packer. Troubleshooting with locking system. Pull and L'out overshot diverter packer. Nipple down BOP stack.
Activity	Nipple Down B.O.P.
Fluid Treatment	Treated Remaining pits with loose/broken sacks of Caustic Soda/Caustic Potash. Transfer Desander, Desilter and Centrifuge tanks to Pits. Dumped remainder of sandtrap.
For Report # 018 On 03/26/2008	**Operation at Depth 3,074.0 m**
Rig Activity	N/down BOP set on stump & secure. R/d BOP slings. M/up 9 5/8" hanger tool to attempt to turn casing hanger, no success. M/up casing cutter RIH 143m and cut. Attempt to spear out casing, no success with c/p to 70/80k. M/up Drillquip polish tools. Run in and set down to 2-4k w/20rpm. M/up casing spear, POOH 9 5/8" casing free to surface. Laydown 10 joints and 1 cut joint. RIH with casing spear to 145m, attempt to engage fish 3X no success. Retrieve wear bushing as per Drillquip. RIH 5 1/2" DP to 177m. Loss clutch system on draw works. Recallibrate. Cont. RIH to 233m. Pump 20 bbl hi-vis. POOH to 176m. R/u cement lines & cement as per programme.
Activity	P&A
Fluid Treatment	Pumped 20 bbl hi-vis pill. Treated Surface pits with loose/broken sacks of Caustic Soda/Caustic Potash.
For Report # 019 On 11/11/1111	**Operation at Depth -654,553,024.0 m**

Well Name	Coelacanth 1
Operator	Apache
Contractor	Seadrill
Rig No	West Triton
Unit System	Apache

Deviation Actual

Survey Date	MD m	TVD m	Angle	Direction	Horiz Displ. m
03/23/2008	411	411	0.24	137.0	
03/23/2008	708	708	0.06	46.0	
03/23/2008	1,007	1,007	0.37	205.4	
03/23/2008	2,101	2,101	0.26	259.4	
03/23/2008	2,485	2,485	0.56	53.3	
03/23/2008	2,957	2,956	0.67	150.7	

Company	Apache
Well Name	Coelacanth 1
Contractor	Seadrill
Rig No	West Triton
Unit System	Apache

Bit Record Report

Run No	Bit No	Bit Size in	Bit Manufacturer	Bit Type	Bit Style	IADC Code	Serial Number	Jet or TFA sq-in	Depth Out m	Run Length m	ROP m/hr	WOB lb	Bit RPM	Pump Press psi	Pump OutPut gpm	Fluid Type	Fluid Weight SG	Hole Angle	Bit Grading	Reason Pulled
1	2	12.250	SMITH	SMITH	MB	1041	PF5792	1x24|3x18			150.0		120		1,200	Seawater				

DAILY MUD REPORTS

Baroid Fluid Services

Report No 001

Daily Drilling Fluid Report

Date 03/09/2008		Depth 0.0 m	
Spud Date 03/10/2008		Rig Activity Skid Cantilever	
Operator Apache	Report For Stefan Schmidt/Peter Sheenan	Well Name Coelacanth 1	
Contractor Seadrill	Report For Micheal Barry	Rig Name West Triton	Unit System Apache
Country Australia	State/Province/Region Victoria	Geographic Area/County Victoria	Field or Block Coelacanth

Bit Information		Drill String (in) / (m) OD	ID	Length	in Casing m OD	Set	MD	Circulation/Hydraulics Data			
Bit Size	in							Model			
Make/Type								Bore in			
Jets								Strokes in			
TFA	sq-in							Eff(%)			
Jets Velocity	m/sec							bbl/strk			
Jet Impact Force	lbf							SPM			
Bit HHSI	hhp/in2							gpm|bbl/min			
Press Drop @ Bit	psi							Total GPM		AV, Riser	Circ Press psi
Bit Depth	m							Total Circ Time		AV min DP	Tot Pres Loss
ECD @ Csg Shoe	SG							BU Time , min		AV max DC	Press Drop DP
ECD @ Bit	SG							Total Strokes		BU Strokes	Press Drop An

Properties		1	2	3	4	Targets	Program
Source							
Time							
Depth	m						
FL Temp	Deg C						
Density @ Deg C	SG						
FV @ Deg C	sec/qt						
PV @ Deg C	cP						
YP	lbs/100 ft2						
GELS	lbs/100 ft2						
600/300							
200/100							
6/3							
API Filt	ml/30 min						
HTHP @ Deg C	ml/30 min						
Cake API/HTHP	32nd in						
Corr Solid	% by Vol						
NAP/Water	% by Vol						
Sand	% by vol						
MBT	ppb Eq.						
pH @ Deg C							
ALK Mud	Pm						
ALK Filt	Pf/Mf						
Chlorides	mg/l						
Tot. Hardness	mg/l						
LGS/HGS	% by Vol						
LGS/HGS	ppb						
ASG	SG						
Additional Properties							

Fluid Treatments

Fluid Type

Rig Activity

Moved West Triton from Wasabi-1 to Coelacanth-1 location. Jacked up rig and skidding cantilever at report time.

Product Name	Units	Start	Rec	Used	End	Cost
Drilling Fluids Engineer 2	day(s)			1		$1,250.00
Drilling Fluids Engineer	day(s)			1		$1,250.00
ALDACIDE G	25 l can		11		11	
BARABLOK	50 lb bag		30		30	
BARA-DEFOAM W300	5 gal can		3		3	
BARAZAN D PLUS	25 kg bag		29		29	
barite	1000 kg bulk		152.000		152.000	
BAROFIBRE FINE	25 lb bag		50		50	
bentonite	1000 kg bulk		20.800		20.800	
calcium chloride flake 77%	25 kg bag		94		94	
caustic soda	25 kg pail		98		98	
Circal 60/16	1200 kg bag		9		9	
Circal Y	1200 kg bag		11		11	
citric acid	25 kg bag		38		38	
CLAYSEAL PLUS	216 kg drum		8		8	
EZ SPOT	55 gal drum		8		8	
EZ-MUD	25 kg pail		13		13	
guar gum	25 kg bag		4		4	
Kwikseal Fine	40 lb bag		39		39	
lime	20 kg bag		41		41	
N-DRIL HT PLUS	50 lb bag		90		90	
NO-SULF	17 kg pail		48		48	
Omyacarb 5	25 kg bulk		48.000		48.000	
PAC-L	25 kg bag		40		40	
potassium chloride	1000 kg bag		4		4	
potassium hydroxide	25 kg bag		87		87	
soda ash	25 kg bag		52		52	
sodium bicarbonate	25 kg bag		35		35	
STEELSEAL	25 kg sack		60		60	

Solids Control Equipment

Shaker	Screens	Hrs
VSM-300		
VSM-300		
VSM-300		
VSM-300		

Hydrocyclone	Cones	Screens	Hrs
ATL-1600	16 4		

Centrifuge	Speed	Feed Rate	Hrs

Time

Drilling	
Circulating	
Trips	
Rig	
Surveys	
Fishing	
Run Casing	
Coring	
Reaming	
Testing	
Logging	
Dir Work	
Repair	
Other	24.0
Total	24.0
Rotating	
ROP	
Dil Rate	0.00

Fluid Volume Breakdown

Active	bbl	Additions	bbl	Losses	bbl
Annulus		Base		Fluid Dumped	
Pipe Cap		Drill Water		Transferred	
Active Pits		Dewatering		SCE	
Total Hole		Sea Water		Evaporation	
Total Circ		Whole Mud		Trips	
Reserve		Barite		Other	
Prev Vol		Chemicals		Total Surface	
Net Change		Other		Downhole	
Total Vol		Total		Total Losses	

Fluid Types	Vol bbl

Deviation Information

Survey MD	m
Survey TVD	m
Angle	Deg
Direction	
Horiz Displ.	m

Daily Products Cost	$0.00	Total Daily Cost	$2,500.00
Cumulative Products Cost	$0.00	Total Cumulative Cost	$2,500.00

Baroid Representatives	Eugene Edwards	Brad Jackson	
Office	90 Talinga Rd Melbourne	Telephone	61-03-9581-7555
Warehouse	c/o of Esso Australia Ltd	Telephone	61-3-56-881-445

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Baroid Fluid Services

Report No 002

Daily Drilling Fluid Report

Date 03/10/2008		Depth 279.0 m	
Spud Date 03/10/2008		Rig Activity Run casing	
Operator Apache	Report For Stefan Schmidt/Peter Sheenan	Well Name Coelacanth 1	
Contractor Seadrill	Report For Micheal Barry	Rig Name West Triton	Unit System Apache
Country Australia	State/Province/Region Victoria	Geographic Area/County Victoria	Field or Block Coelacanth

Bit Information		Drill String (in) / (m)			in Casing m		
		OD	ID	Length	OD	Set	MD
Bit Size	in						
Make/Type							
Jets							
TFA	sq-in						
Jets Velocity	m/sec						
Jet Impact Force	lbf						
Bit HHSI	hhp/in2						
Press Drop @ Bit	psi						
Bit Depth	m						
ECD @ Csg Shoe	SG						
ECD @ Bit	SG						

Circulation/Hydraulics Data			
Model	Nat -14-P-220	Nat -14-P-220	Nat -14-P-220
Bore in	0.000	0.000	0.000
Strokes in	14.000	14.000	14.000
Eff(%)	0	0	0
bbl/strk	0.000	0.000	0.000
SPM	0	0	0
gpm|bbl/min			

Total GPM		AV, Riser	Circ Press psi
Total Circ Time		AV min DP	Tot Pres Loss
BU Time , min		AV max DC	Press Drop DP
Total Strokes		BU Strokes	Press Drop An

Properties		1	2	3	4	Targets	Program
Source		Pit 4					
Time		23:59					
Depth	m	0					
FL Temp	Deg C						
Density @ Deg C	SG	1.050					
FV @ Deg C	sec/qt	200					
PV @ Deg C	cP						
YP	lbs/100 ft2						
GELS	lbs/100 ft2						
600/300							
200/100							
6/3							
API Filt	ml/30 min						
HTHP @ Deg C	ml/30 min						
Cake API/HTHP	32nd in						
Corr Solid	% by Vol						
NAP/Water	% by Vol	-/96.0					
Sand	% by vol						
MBT	ppb Eq.						
pH @ Deg C		9.00					
ALK Mud	Pm						
ALK Filt	Pf/Mf						
Chlorides	mg/l	3,000					
Tot. Hardness	mg/l	160					
LGS/HGS	% by Vol						
LGS/HGS	ppb						
ASG	SG						
Additional Properties							

Fluid Treatments

Fluid Type

Prepared 800 bbls of 35 ppb prehydrated gel and cut back with seawater after hydrated. Received 900 bbls of 1.23 s.g WBM from supply vessel. Prepared mixwater for Halliburton cement. Mixed Guar gum for high viscosity sweeps at 4 ppb.Received barite, bentonite and drill water.

Rig Activity

Continued to skid out and prepare rig to spud Coelacanth-1. Conducted pre-spud meeting and ROV checked seabed.

Drilled 26" hole to 279 m. Pumped 200 bbls high viscosity sweep. POOH to 128 m and worked through tight spot at 128 m. RBIH to 279 m. Spotted 200 bbls 1.15 S.G fluid. POOH and prepare to run casing at report time.

Product Name	Units	Start	Rec	Used	End	Cost
Drilling Fluids Engineer 2	day(s)			1		$1,250.00
Drilling Fluids Engineer	day(s)			1		$1,250.00
Prehydrated Bentonite	bbl		1.0	1.0		
bentonite	1000 kg bulk	20.800	40.000	12.000	48.800	$5,938.56
guar gum	25 kg bag	4	120	24	100	$2,038.32
potassium hydroxide	25 kg bag	87		3	84	$134.94
ALDACIDE G	25 l can	11			11	
BARABLOK	50 lb bag	30			30	
BARA-DEFOAM W300	5 gal can	3			3	
BARAZAN D PLUS	25 kg bag	29			29	
barite	1000 kg bulk	152.000			152.000	
BAROFIBRE FINE	25 lb bag	50			50	
calcium chloride flake 77%	25 kg bag	94			94	
caustic soda	25 kg pail	98			98	
Circal 60/16	1200 kg bag	9			9	
Circal Y	1200 kg bag	11			11	
citric acid	25 kg bag	38			38	
CLAYSEAL PLUS	216 kg drum	8			8	
EZ SPOT	55 gal drum	8			8	
EZ-MUD	25 kg pail	13			13	
Kwikseal Fine	40 lb bag	39			39	
lime	20 kg bag	41			41	
N-DRIL HT PLUS	50 lb bag	90			90	
NO-SULF	17 kg pail	48			48	
Omyacarb 5	25 kg bulk	48.000			48.000	
PAC-L	25 kg bag	40			40	
potassium chloride	1000 kg bag	4			4	
soda ash	25 kg bag	52		3	49	$39.75
sodium bicarbonate	25 kg bag	35			35	

Solids Control Equipment			
Shaker	Screens	Hrs	
VSM-300			
VSM-300			
VSM-300			
VSM-300			
Hydrocyclone	Cones	Screens	Hrs
ATL-1600	16 4		
Centrifuge	Speed	Feed Rate	Hrs

Time	
Drilling	6.0
Circulating	
Trips	
Rig	
Surveys	
Fishing	
Run Casing	6.0
Coring	
Reaming	
Testing	
Logging	
Dir Work	
Repair	
Other	12.0
Total	24.0
Rotating	6.0
ROP	46.5
Dil Rate	0.00

Fluid Volume Breakdown

Active	bbl	Additions	bbl	Losses	bbl
Annulus		Base		Fluid Dumped	
Pipe Cap		Drill Water		Transferred	
Active Pits		Dewatering		SCE	
Total Hole		Sea Water		Evaporation	
Total Circ		Whole Mud		Trips	
Reserve		Barite		Other	
Prev Vol		Chemicals		Total Surface	
Net Change		Other		Downhole	
Total Vol		Total		Total Losses	

Fluid Types	Vol bbl

Deviation Information	
Survey MD	m
Survey TVD	m
Angle	Deg
Direction	
Horiz Displ.	m

Daily Products Cost	$8,151.57	Total Daily Cost	$10,651.57
Cumulative Products Cost	$8,151.57	Total Cumulative Cost	$13,151.57

Baroid Representatives	Eugene Edwards	Brad Jackson	
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HALLIBURTON | Fluid Systems

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Baroid Fluid Services

Report No 003

Daily Drilling Fluid Report

Date 03/11/2008		Depth 279.0 m	
Spud Date 03/10/2008		Rig Activity Testing BOP's	
Operator Apache	Report For Stefan Schmidt/Peter Sheenan	Well Name Coelacanth 1	
Contractor Seadrill	Report For Micheal Barry	Rig Name West Triton	Unit System Apache
Country Australia	State/Province/Region Victoria	Geographic Area/County Victoria	Field or Block Coelacanth

Bit Information		Drill String (in) / (m)			in Casing m			Circulation/Hydraulics Data			
		OD	ID	Length	OD	Set	MD				
Bit Size	in				20.000	@	255.9	Model	Nat -14-P-220	Nat -14-P-220	Nat -14-P-220
Make/Type					13.375	@	275.2	Bore in	0.000	0.000	0.000
Jets								Strokes in	14.000	14.000	14.000
TFA	sq-in							Eff(%)	0	0	0
Jets Velocity	m/sec							bbl/strk	0.000	0.000	0.000
Jet Impact Force	lbf							SPM	0	0	0
Bit HHSI	hhp/in2							gpm|bbl/min			
Press Drop @ Bit	psi							Total GPM	AV, Riser	Circ Press psi	
Bit Depth	279.0 m							Total Circ Time	AV min DP	Tot Pres Loss	
ECD @ Csg Shoe	SG							BU Time , min	AV max DC	Press Drop DP	
ECD @ Bit	SG							Total Strokes	BU Strokes	Press Drop An	

Properties		1	2	3	4	Targets	Program
Source		Flow Line					
Time		23:59					
Depth	m	279					
FL Temp	Deg C						
Density @ Deg C	SG	1.060					
FV @ Deg C	sec/qt	150					
PV @ Deg C	cP						
YP	lbs/100 ft2						
GELS	lbs/100 ft2						
600/300							
200/100							
6/3							
API Filt	ml/30 min						
HTHP @ Deg C	ml/30 min						
Cake API/HTHP	32nd in						
Corr Solid	% by Vol						
NAP/Water	% by Vol	-/95.0					
Sand	% by vol						
MBT	ppb Eq.						
pH @ Deg C		9.00					
ALK Mud	Pm						
ALK Filt	Pf/Mf						
Chlorides	mg/l	3,000					
Tot. Hardness	mg/l						
LGS/HGS	% by Vol						
LGS/HGS	ppb						
ASG	SG						
Additional Properties							

Fluid Treatments

Fluid Type Prehydrated Bentonite

Prehydrated an additional 400 bbls of bentonite at 35 ppb.

At report time prepared:

865 bbls of 9.6 ppg WBM

1,100 bbls of High viscoity PHG to be cut back with seawater to make 2,000 bbls.

Rig Activity

Continued making up 20" and 13 3/8" casing and RIH. Landed at 275 m. Made up cement stinger on 5 1/2" DP. Performed cement job as per program. Unsting cement stringer. Circulated hole volume and POOH. At report time Nipple up BOP's and prepare for testing.

Product Name	Units	Start	Rec	Used	End	Cost
Drilling Fluids Engineer 2	day(s)			1		$1,250.00
Drilling Fluids Engineer	day(s)			1		$1,250.00
bentonite	1000 kg bulk	48.800		7.300	41.500	$3,612.62
potassium hydroxide	25 kg bag	84		1	83	$44.98
soda ash	25 kg bag	49		1	48	$13.25
ALDACIDE G	25 l can	11			11	
BARABLOK	50 lb bag	30			30	
BARA-DEFOAM W300	5 gal can	3			3	
BARAZAN D PLUS	25 kg bag	29			29	
barite	1000 kg bulk	152.000			152.000	
BAROFIBRE FINE	25 lb bag	50			50	
calcium chloride flake 77%	25 kg bag	94			94	
caustic soda	25 kg pail	98			98	
Circal 60/16	1200 kg bag	9			9	
Circal Y	1200 kg bag	11			11	
citric acid	25 kg bag	38			38	
CLAYSEAL PLUS	216 kg drum	8			8	
EZ SPOT	55 gal drum	8			8	
EZ-MUD	25 kg pail	13			13	
guar gum	25 kg bag	100			100	
Kwikseal Fine	40 lb bag	39			39	
lime	20 kg bag	41			41	
N-DRIL HT PLUS	50 lb bag	90			90	
NO-SULF	17 kg pail	48			48	
Omyacarb 5	25 kg bulk	48.000			48.000	
PAC-L	25 kg bag	40			40	
potassium chloride	1000 kg bag	4			4	
sodium bicarbonate	25 kg bag	35			35	
STEELSEAL	25 kg sack	60			60	

Daily Products Cost	$3,670.85	Total Daily Cost	$6,170.85
Cumulative Products Cost	$11,822.42	Total Cumulative Cost	$19,322.42

Baroid Representatives	Eugene Edwards	Brad Jackson	
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Solids Control Equipment

Shaker	Screens	Hrs
VSM-300		
VSM-300		
VSM-300		
VSM-300		

Hydrocyclone	Cones	Screens	Hrs
ATL-1600	16 4		

Centrifuge	Speed	Feed Rate	Hrs

Time

Drilling	
Circulating	
Trips	
Rig	
Surveys	
Fishing	
Run Casing	13.5
Coring	
Reaming	
Testing	
Logging	
Dir Work	
Repair	
Other	10.5
Total	24.0
Rotating	
ROP	
Dil Rate	0.00

Fluid Volume Breakdown — Prehydrated Bentonite

Active	bbl	Additions	bbl	Losses	bbl
Annulus		Base		Fluid Dumped	
Pipe Cap		Drill Water	407.4	Transferred	
Active Pits		Dewatering		SCE	
Total Hole	295.6	Sea Water	295.6	Evaporation	
Total Circ		Whole Mud		Trips	
Reserve		Barite		Other	
Prev Vol		Chemicals	18.5	Total Surface	
Net Change	721.5	Other		Downhole	
Total Vol	295.6	Total	721.5	Total Losses	

Fluid Types	Vol bbl

Deviation Information

Survey MD	m
Survey TVD	m
Angle	Deg
Direction	
Horiz Displ.	m

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Baroid Fluid Services

Report No 004

Daily Drilling Fluid Report

Date 03/12/2008		Depth 279.0 m	
Spud Date 03/10/2008		Rig Activity Make up 12 1/4" BHA	
Operator Apache	Report For Stefan Schmidt/Peter Sheenan	Well Name Coelacanth 1	
Contractor Seadrill	Report For Micheal Barry	Rig Name West Triton	Unit System Apache
Country Australia	State/Province/Region Victoria	Geographic Area/County Victoria	Field or Block Coelacanth

Bit Information

Bit Size	12.250	in
Make/Type	SMITH/SMITH	
Jets	1x24|3x18	
TFA	1.187	sq-in
Jets Velocity		m/sec
Jet Impact Force		lbf
Bit HHSI		hhp/in2
Press Drop @ Bit		psi
Bit Depth	1.0	m
ECD @ Csg Shoe		SG
ECD @ Bit		SG

Drill String (in) / (m)

	OD	ID	Length
Motor	9.620	0.000	1.0

in Casing m

OD	Set	MD
20.000	@	255.9
13.375	@	275.2

Circulation/Hydraulics Data

Model	Nat -14-P-220	Nat -14-P-220	Nat -14-P-220
Bore in	0.000	0.000	0.000
Strokes in	14.000	14.000	14.000
Eff(%)	0	0	0
bbl/strk	0.000	0.000	0.000
SPM	0	0	0
gpm|bbl/min			

Total GPM	AV, Riser	Circ Press psi
Total Circ Time	AV min DP	Tot Pres Loss
BU Time , min	AV max DC	Press Drop DP
Total Strokes	BU Strokes	Press Drop An

Properties		1	2	3	4	Targets	Program
Source		Pit 4					
Time		3:00					
Depth	m	279					
FL Temp	Deg C						
Density @ Deg C	SG	1.060 @ 21					
FV @ Deg C	sec/qt	140 @ 21					
PV @ Deg C	cP	13 @ 21					
YP	lbs/100 ft2	56					
GELS	lbs/100 ft2	44/48/-					
600/300		82.0/69.0					
200/100		61.0/56.0					
6/3		42.0/41.0					
API Filt	ml/30 min	12.0					
HTHP @ Deg C	ml/30 min						
Cake API/HTHP	32nd in	2/-					
Corr Solid	% by Vol						
NAP/Water	% by Vol	-/95.0					
Sand	% by vol						
MBT	ppb Eq.						
pH @ Deg C		9.15 @ 21					
ALK Mud	Pm	0.25					
ALK Filt	Pf/Mf	0.05/0.55					
Chlorides	mg/l	2,100					
Tot. Hardness	mg/l	40					
LGS/HGS	% by Vol						
LGS/HGS	ppb						
ASG	SG						
Additional Properties							

Fluid Treatments

Fluid Type Prehydrated Bentonite

Dressed all shakers with second hand screens from previous wells.
Commenced unloading 8.5" chemicals from boat.
Lined up closed loop system (via gumbo box), to take returns to pit 7.

Rig Activity

Attempt to test BOP's, trouble shoot problems. Test BOP's, Testing tool parted at thread. Tag top of fish at 214.7m, engage and POH fish. Test casing to 1100psi. Layout fishing tools. Install wearbushing and diverter packer.
Make up 12.25" BHA.

Product Name	Units	Start	Rec	Used	End	Cost
Drilling Fluids Engineer 2	day(s)			1		$1,250.00
Drilling Fluids Engineer	day(s)			1		$1,250.00
ALDACIDE G	25 l can	11			11	
BARABLOK	50 lb bag	30			30	
BARA-DEFOAM W300	5 gal can	3			3	
BARAZAN D PLUS	25 kg bag	29			29	
barite	1000 kg bulk	152.000			152.000	
BAROFIBRE FINE	25 lb bag	50			50	
bentonite	1000 kg bulk	41.500			41.500	
calcium chloride flake 77%	25 kg bag	94			94	
caustic soda	25 kg pail	98			98	
Circal 60/16	1200 kg bag	9			9	
Circal Y	1200 kg bag	11			11	
citric acid	25 kg bag	38			38	
CLAYSEAL PLUS	216 kg drum	8			8	
EZ SPOT	55 gal drum	8			8	
EZ-MUD	25 kg pail	13			13	
guar gum	25 kg bag	100			100	
Kwikseal Fine	40 lb bag	39			39	
lime	20 kg bag	41			41	
N-DRIL HT PLUS	50 lb bag	90			90	
NO-SULF	17 kg pail	48			48	
Omyacarb 5	25 kg bulk	48.000			48.000	
PAC-L	25 kg bag	40			40	
potassium chloride	1000 kg bag	4			4	
potassium hydroxide	25 kg bag	83			83	
soda ash	25 kg bag	48			48	
sodium bicarbonate	25 kg bag	35			35	
STEELSEAL	25 kg sack	60			60	

Solids Control Equipment

Shaker	Screens	Hrs
VSM-300		
VSM-300		
VSM-300		
VSM-300		

Hydrocyclone	Cones	Screens	Hrs
ATL-1600	16 4		

Centrifuge	Speed	Feed Rate	Hrs

Time

Drilling	
Circulating	
Trips	2.5
Rig	
Surveys	
Fishing	6.0
Run Casing	
Coring	
Reaming	
Testing	13.5
Logging	
Dir Work	
Repair	
Other	2.0
Total	24.0
Rotating	
ROP	
Dil Rate	0.00

Fluid Volume Breakdown — Prehydrated Bentonite

Active	bbl	Additions	bbl	Losses	bbl
Annulus	0.8	Base		Fluid Dumped	
Pipe Cap		Drill Water		Transferred	
Active Pits		Dewatering		SCE	-0.3
Total Hole	295.3	Sea Water		Evaporation	
Total Circ	0.8	Whole Mud		Trips	
Reserve		Barite		Other	
Prev Vol	295.6	Chemicals		Total Surface	
Net Change	-0.3	Other		Downhole	
Total Vol	295.3	Total		Total Losses	-0.3

Fluid Types	Vol bbl

Deviation Information

Survey MD	m
Survey TVD	m
Angle	Deg
Direction	
Horiz Displ.	m

Daily Products Cost	$0.00	Total Daily Cost	$2,500.00
Cumulative Products Cost	$11,822.42	Total Cumulative Cost	$21,822.42

Baroid Representatives: Eugene Edwards; Brad Jackson

Office	90 Talinga Rd Melbourne	Telephone	61-03-9581-7555
Warehouse	c/o of Esso Australia Ltd	Telephone	61-3-56-881-445

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Baroid Fluid Services

Report No 005

Daily Drilling Fluid Report

Date 03/13/2008		Depth 907.0 m	
Spud Date 03/10/2008		Rig Activity Wire Line logs	
Operator Apache	Report For Stefan Schmidt/Peter Sheenan	Well Name Coelacanth 1	
Contractor Seadrill	Report For Micheal Barry	Rig Name West Triton	Unit System Apache
Country Australia	State/Province/Region Victoria	Geographic Area/County Victoria	Field or Block Coelacanth

Bit Information		Drill String (in) / (m)			in Casing m		
		OD	ID	Length	OD Set	MD	
Bit Size	in				20.000 @	255.9	
Make/Type					13.375 @	275.2	
Jets							
TFA	sq-in						
Jets Velocity	m/sec						
Jet Impact Force	lbf						
Bit HHSI	hhp/in2						
Press Drop @ Bit	psi						
Bit Depth	m	Open Hole	12.250	628.0			
ECD @ Csg Shoe	SG						
ECD @ Bit	SG						

Circulation/Hydraulics Data				
Model		Nat -14-P-220	Nat -14-P-220	Nat -14-P-220
Bore in		6.500	6.500	6.500
Strokes in		14.000	14.000	14.000
Eff(%)		97	97	97
bbl/strk		0.139	0.139	0.139
SPM		100	100	0
gpm|bbl/min	585	13.93	585	13.93
Total GPM	1,170	AV, Riser		Circ Press psi
Total Circ Time		AV min DP		Tot Pres Loss
BU Time , min		AV max DC		Press Drop DP
Total Strokes		BU Strokes		Press Drop An

Properties		1	2	3	4	Targets	Program		Fluid Treatments
Source		Pit 2							Fluid Type: Old KCl/Polymer
Time		10:00							Unloaded chemicals for 8.5" section from Battler
Depth	m	908							Built 200 bls 2.2 ppb Guar Gum.
FL Temp	Deg C								Lined up closed loop circulation via Gumbo box.
Density @ Deg C	SG	1.150 @ 49					1.100	1.200	Received 900 bbl of Brine.
FV @ Deg C	sec/qt	43 @ 49							
PV @ Deg C	cP	9 @ 49							
YP	lbs/100 ft2	11				X	20	50	
GELS	lbs/100 ft2	4/9/-				X	10/-/-	20/-/-	
600/300		29.0/20.0							
200/100		15.0/13.0							
6/3		4.0/3.0							
API Filt	ml/30 min	9.0				X	3.0	5.0	
HTHP @ Deg C	ml/30 min								
Cake API/HTHP	32nd in								
Corr Solid	% by Vol	3.9							
NAP/Water	% by Vol	-/93.0							
Sand	% by vol								
MBT	ppb Eq.	2.5							
pH @ Deg C		8.00					8.00	10.00	
ALK Mud	Pm								
ALK Filt	Pf/Mf								
Chlorides	mg/l	38,000							
Tot. Hardness	mg/l	160							
LGS/HGS	% by Vol	1.3/2.6							
LGS/HGS	ppb	12.09/38.02							
ASG	SG	3.657							
Additional Properties									

Rig Activity

Drilled 12 1/4" hole to TD at 1,200 gpm and at 150 m/hour. Drilled primarily through unconsolidated limestone. From 279m to 907m pumping 25bbl sweeps at middle of every stand and 50 bbl at end of every stand. Pump 150 bbl PHB mud and circ. out clean with seawater. Displace hole with 9.6ppg mud. Flowcheck, static. Pump slug and POOH. JSA wireline and RIH w/pex-dsi on wireline and log as per programme.

Product Name	Units	Start	Rec	Used	End	Cost
Drilling Fluids Engineer 2	day(s)			1		$1,250.00
Drilling Fluids Engineer	day(s)			1		$1,250.00
guar gum	25 kg bag	100		60	40	$5,095.80
ALDACIDE G	25 l can	11			11	
BARABLOK	50 lb bag	30	250		280	
BARA-DEFOAM W300	5 gal can	3			3	
BARAZAN D PLUS	25 kg bag	29	162		191	
barite	1000 kg bulk	152.000			152.000	
BAROFIBRE FINE	25 lb bag	50			50	
bentonite	1000 kg bulk	41.500			41.500	
calcium chloride flake 77%	25 kg bag	94			94	
caustic soda	25 kg pail	98			98	
Circal 60/16	1200 kg bag	9			9	
Circal 60/16	25 kg sack		144		144	
Circal Y	1200 kg bag	11			11	
citric acid	25 kg bag	38			38	
CLAYSEAL PLUS	216 kg drum	8	52		60	
EZ SPOT	55 gal drum	8			8	
EZ-MUD	25 kg pail	13			13	
Kwikseal Fine	40 lb bag	39			39	
lime	20 kg bag	41			41	
N-DRIL HT PLUS	50 lb bag	90			90	
NO-SULF	17 kg pail	48			48	
Omyacarb 5	25 kg bulk	48.000			48.000	
PAC-L	25 kg bag	40	280		320	
potassium chloride	1000 kg bag	4	29		33	
potassium hydroxide	25 kg bag	83			83	
soda ash	25 kg bag	48			48	
sodium bicarbonate	25 kg bag	35			35	
Daily Products Cost	$5,095.80	Total Daily Cost				$7,595.80
Cumulative Products Cost	$16,918.22	Total Cumulative Cost				$29,418.22

Solids Control Equipment

Shaker	Screens	Hrs
VSM-300		24.0
VSM-300		24.0
VSM-300		24.0
VSM-300		24.0

Hydrocyclone	Cones	Screens	Hrs
ATL-1600	16 4		

Centrifuge	Speed	Feed Rate	Hrs

Time

Drilling	7.0
Circulating	2.5
Trips	6.5
Rig	
Surveys	
Fishing	
Run Casing	
Coring	
Reaming	1.0
Testing	
Logging	4.5
Dir Work	
Repair	
Other	2.5
Total	24.0
Rotating	8.0
ROP	89.7
Dil Rate	0.00

Fluid Volume Breakdown — Old KCl/Polymer

Active	bbl	Additions	bbl	Losses	bbl
Annulus		Base		Fluid Dumped	
Pipe Cap		Drill Water		Transferred	
Active Pits		Dewatering		SCE	-83.2
Total Hole	295.6	Sea Water		Evaporation	
Total Circ		Whole Mud		Trips	
Reserve	290.0	Barite		Other	
Prev Vol		Chemicals		Total Surface	
Net Change	-83.2	Other		Downhole	
Total Vol	585.6	Total		Total Losses	-83.2

Fluid Types	Vol bbl
guar gum	230.0

Deviation Information		
Survey MD	708.3	m
Survey TVD	708.3	m
Angle	0.06	Deg
Direction	46	
Horiz Displ.		m

Baroid Representatives: Brad Jackson, James Munford

Office: 90 Talinga Rd Melbourne, Telephone 61-03-9581-7555

Warehouse: c/o of Esso Australia Ltd, Telephone 61-3-56-881-445

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Baroid Fluid Services

Report No 006

Daily Drilling Fluid Report

Date	03/14/2008	Depth	907.0 m
Spud Date	03/10/2008	Rig Activity	Run casing and cement

Operator: Apache	Report For: Stefan Schmidt/Peter Sheenan	Well Name: Coelacanth 1	
Contractor: Seadrill	Report For: Micheal Barry	Rig Name: West Triton	Unit System: Apache
Country: Australia	State/Province/Region: Victoria	Geographic Area/County: Victoria	Field or Block: Coelacanth

Bit Information

Bit Size	9.875	in
Make/Type	CASING/9 5/8 " Casing	
Jets	1x32	
TFA	0.785	sq-in
Jets Velocity		m/sec
Jet Impact Force		lbf
Bit HHSI		hhp/in2
Press Drop @ Bit		psi
Bit Depth	880.0	m
ECD @ Csg Shoe		SG
ECD @ Bit		SG

Drill String (in) / (m)

	OD	ID	Length
Drill Collar	9.625	8.681	880.0
Open Hole	12.250		628.0

in Casing m

OD	Set	MD
20.000	@	255.9
13.375	@	275.2

Circulation/Hydraulics Data

Model	Nat -14-P-220	Nat -14-P-220	Nat -14-P-220
Bore in	6.500	6.500	6.500
Strokes in	14.000	14.000	14.000
Eff(%)	97	97	97
bbl/strk	0.139	0.139	0.139
SPM	0	0	0
gpm|bbl/min			

Total GPM | AV, Riser | Circ Press psi
Total Circ Time | AV min DP | Tot Pres Loss
BU Time , min | AV max DC | Press Drop DP
Total Strokes | BU Strokes | Press Drop An

Properties		1	2	3	4	Targets	Program	
Source		Pit 2						
Time		19:00						
Depth	m	907						
FL Temp	Deg C							
Density @ Deg C	SG	1.150 @ 49					1.100	1.200
FV @ Deg C	sec/qt	43 @ 49						
PV @ Deg C	cP	9 @ 49						
YP	lbs/100 ft2	11				X	20	50
GELS	lbs/100 ft2	4/9/-				X	10/-/-	20/-/-
600/300		29.0/20.0						
200/100		15.0/13.0						
6/3		4.0/3.0						
API Filt	ml/30 min	9.0				X	3.0	5.0
HTHP @ Deg C	ml/30 min							
Cake API/HTHP	32nd in							
Corr Solid	% by Vol	3.9						
NAP/Water	% by Vol	-/93.0						
Sand	% by vol							
MBT	ppb Eq.	2.5						
pH @ Deg C		8.00					8.00	10.00
ALK Mud	Pm							
ALK Filt	Pf/Mf							
Chlorides	mg/l	38,000						
Tot. Hardness	mg/l	160						
LGS/HGS	% by Vol	1.3/2.6						
LGS/HGS	ppb	12.09/38.02						
ASG	SG	3.657						
Additional Properties								

Fluid Treatments

Fluid Type Old KCl/Polymer

Continued to prepare 1.12 s.g KCl/Polymer mud for 8 1/2" section. Fluid built with slightly lower concentrations than programmed to allow displacement.
Cleaned out solids control area and prepared screens for displacement after casing.
Prepared Halliburton Tuned Spacer in slug pit.

Rig Activity

Cont. logging run. POOH wireline, tools below BOP. Rig down and lay out wireline sheaves. Remove diverter bag, make up wearbushing retrieving tool and retrieve wearbushing. RIH 2 stds of HWDP and set dummy hanger in wellhead. POOH and rack back. Rig up weatherford equipment to run 9 5/8" casing. Run in casing to 868 m filling with old mud. Wash down on last joint to 880 m. Pick 9 5/8" casing hanger and RIH. Land 9 5/8" casing to wellhead.

Product Name	Units	Start	Rec	Used	End	Cost
Drilling Fluids Engineer 2	day(s)			1		$1,250.00
Drilling Fluids Engineer	day(s)			1		$1,250.00
CLAYSEAL PLUS	216 kg drum	60		28	32	$26,785.92
PAC-L	25 kg bag	320		96	224	$7,859.52
BARAZAN D PLUS	25 kg bag	191		32	159	$4,871.68
barite	1000 kg bulk	152.000		7.400	144.600	$3,514.11
caustic soda	25 kg pail	98		8	90	$353.52
ALDACIDE G	25 l can	11		4	7	$349.48
soda ash	25 kg bag	48		8	40	$106.00
BARABLOK	50 lb bag	280			280	
BARA-DEFOAM W300	5 gal can	3			3	
BAROFIBRE FINE	25 lb bag	50			50	
bentonite	1000 kg bulk	41.500			41.500	
calcium chloride flake 77%	25 kg bag	94			94	
Circal 60/16	1200 kg bag	9			9	
Circal 60/16	25 kg sack	144			144	
Circal Y	1200 kg bag	11			11	
citric acid	25 kg bag	38			38	
EZ SPOT	55 gal drum	8			8	
EZ-MUD	25 kg pail	13			13	
guar gum	25 kg bag	40			40	
Kwikseal Fine	40 lb bag	39			39	
lime	20 kg bag	41			41	
N-DRIL HT PLUS	50 lb bag	90			90	
NO-SULF	17 kg pail	48			48	
Omyacarb 5	25 kg bulk	48.000			48.000	
potassium chloride	1000 kg bag	33			33	
potassium hydroxide	25 kg bag	83			83	
sodium bicarbonate	25 kg bag	35			35	

Daily Products Cost	$43,840.23	Total Daily Cost	$46,340.23
Cumulative Products Cost	$60,758.46	Total Cumulative Cost	$75,758.46

Solids Control Equipment

Shaker	Screens	Hrs
VSM-300		24.0
VSM-300		24.0
VSM-300		24.0
VSM-300		24.0

Hydrocyclone	Cones	Screens	Hrs
ATL-1600	16 4		

Centrifuge	Speed	Feed Rate	Hrs

Time

Drilling	
Circulating	0.5
Trips	
Rig	
Surveys	
Fishing	
Run Casing	11.5
Coring	
Reaming	
Testing	
Logging	9.5
Dir Work	
Repair	
Other	2.5
Total	24.0
Rotating	
ROP	
Dil Rate	0.00

Fluid Volume Breakdown — Old KCl/Polymer

Active	bbl	Additions	bbl	Losses	bbl
Annulus	214.3	Base		Fluid Dumped	
Pipe Cap	211.4	Drill Water		Transferred	
Active Pits		Dewatering		SCE	
Total Hole	425.7	Sea Water		Evaporation	
Total Circ	425.7	Whole Mud	346.5	Trips	
Reserve	685.0	Barite		Other	
Prev Vol	585.6	Chemicals		Total Surface	
Net Change	346.5	Other		Downhole	
Total Vol	1110.7	Total	346.5	Total Losses	

Fluid Types	Vol bbl
KCl/Polymer/Clayseal	1626.0
guar gum	230.0

Deviation Information

Survey MD	708.3	m
Survey TVD	708.3	m
Angle	0.06	Deg
Direction	46	
Horiz Displ.		m

Baroid Representatives	Brad Jackson	James Munford	
Office	90 Talinga Rd Melbourne	Telephone	61-03-9581-7555
Warehouse	c/o of Esso Australia Ltd	Telephone	61-3-56-881-445

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Baroid Fluid Services

Report No 007

Daily Drilling Fluid Report

Date	03/15/2008	Depth	907.0 m
Spud Date	03/10/2008	Rig Activity	Make up BHA

Operator: Apache	Report For: Stefan Schmidt/Peter Sheenan	Well Name: Coelacanth 1	
Contractor: Seadrill	Report For: Micheal Barry	Rig Name: West Triton	Unit System: Apache
Country: Australia	State/Province/Region: Victoria	Geographic Area/County: Victoria	Field or Block: Coelacanth

Bit Information

Bit Size	8.500	in
Make/Type	REEDHYC/RSX661B	
Jets	5x14|1x15	
TFA	0.924	sq-in
Jets Velocity		m/sec
Jet Impact Force		lbf
Bit HHSI		hhp/in2
Press Drop @ Bit		psi
Bit Depth	150.0	m
ECD @ Csg Shoe		SG
ECD @ Bit		SG

Drill String (in) / (m)

	OD	ID	Length
Drill Collar	7.000	2.875	30.0
Drill Collar	6.750	3.000	120.0
Open Hole	12.250		5.0

in Casing m

	Set	MD
20.000	@	255.9
13.375	@	275.2
9.625	@	902.0

Circulation/Hydraulics Data

Model	Nat -14-P-220	Nat -14-P-220	Nat -14-P-220
Bore in	6.500	6.500	6.500
Strokes in	14.000	14.000	14.000
Eff(%)	97	97	97
bbl/strk	0.139	0.139	0.139
SPM	0	0	0
gpm|bbl/min			

Total GPM | AV, Riser | Circ Press psi
Total Circ Time | AV min DP | Tot Pres Loss
BU Time , min | AV max DC | Press Drop DP
Total Strokes | BU Strokes | Press Drop An

Properties		1	2	3	4	Targets	Program	
Source		Pit 4	Pit 3					
Time		17:00	20:00					
Depth	m	908	907					
FL Temp	Deg C							
Density @ Deg C	SG	1.120 @ 28	1.150 @ 28				1.100	1.200
FV @ Deg C	sec/qt	44 @ 28	40 @ 28					
PV @ Deg C	cP	15 @ 49	13 @ 49					
YP	lbs/100 ft2	13	14			X X	20	50
GELS	lbs/100 ft2							
600/300		43.0/28.0	40.0/27.0					
200/100		19.0/14.0	18.0/13.0					
6/3		4.0/3.0	5.0/2.0					
API Filt	ml/30 min	5.6	5.5			X X	3.0	5.0
HTHP @ Deg C	ml/30 min							
Cake API/HTHP	32nd in							
Corr Solid	% by Vol	2.7	3.2					
NAP/Water	% by Vol	-/94.0	-/93.5					
Sand	% by vol							
MBT	ppb Eq.							
pH @ Deg C		9.50 @ 27	9.50 @ 27				8.00	10.00
ALK Mud	Pm	0.20	0.20					
ALK Filt	Pf/Mf	0.20/0.90	0.20/0.90					
Chlorides	mg/l	39,500	40,000					
Tot. Hardness	mg/l	160	160					
LGS/HGS	% by Vol	1.0/1.7	0.1/3.1					
LGS/HGS	ppb	9.40/25.29	1.18/45.56					
ASG	SG	3.600	4.136					

Additional Properties

Fluid Treatments

Fluid Type Old KCl/Polymer

Continued to prepare 1.12 s.g KCL/Polymer/Clayseal volume. ~1,600 bbls prepared. Cleaned out all shakers and sand-traps from very heavy solids build up from 12 1/4" section. Changed shaker screens to combination 145/89 mesh screens to enable relatively unsheared new mud to pass through screens. Built 420 bbls 20% KCl in pit 7 to allow more room on deck and prepare for future pre-mix

Rig Activity

Rig up cement head and surface lines. Circ. one casing volume. Pump 20 bbl seawater, test lines to 3000psi. Perform cement job as per program. Drop top plug, displace cement dumping returns @ wellhead. Bump plug & pressure to 2000psi. Rig down equipment. Commence slip & cut of drilling line. Install diverter packer and calibration block. Make up 8 1/2" BHA and MWD power tools and RIH to 150 m. Calibrate block for schlumberger mwd.

Product Name	Units	Start	Rec	Used	End	Cost
Drilling Fluids Engineer 2	day(s)			1		$1,250.00
Drilling Fluids Engineer	day(s)			1		$1,250.00
potassium chloride	1000 kg bag	33		15	18	$6,621.90
ALDACIDE G	25 l can	7			7	
BARABLOK	50 lb bag	280			280	
BARA-DEFOAM W300	5 gal can	3			3	
BARAZAN D PLUS	25 kg bag	159			159	
barite	1000 kg bulk	144.600			144.600	
BAROFIBRE FINE	25 lb bag	50			50	
bentonite	1000 kg bulk	41.500			41.500	
calcium chloride flake 77%	25 kg bag	94			94	
caustic soda	25 kg pail	90			90	
Circal 60/16	1200 kg bag	9			9	
Circal 60/16	25 kg sack	144			144	
Circal Y	1200 kg bag	11			11	
citric acid	25 kg bag	38			38	
CLAYSEAL PLUS	216 kg drum	32			32	
EZ SPOT	55 gal drum	8			8	
EZ-MUD	25 kg pail	13			13	
guar gum	25 kg bag	40			40	
Kwikseal Fine	40 lb bag	39			39	
lime	20 kg bag	41			41	
N-DRIL HT PLUS	50 lb bag	90			90	
NO-SULF	17 kg pail	48			48	
Omyacarb 5	25 kg bulk	48.000			48.000	
PAC-L	25 kg bag	224			224	
potassium hydroxide	25 kg bag	83			83	
soda ash	25 kg bag	40			40	
sodium bicarbonate	25 kg bag	35			35	

Daily Products Cost	$6,621.90	Total Daily Cost	$9,121.90
Cumulative Products Cost	$67,380.36	Total Cumulative Cost	$84,880.36

Solids Control Equipment

Shaker	Screens	Hrs
VSM-300		
VSM-300		
VSM-300		
VSM-300		

Hydrocyclone	Cones	Screens	Hrs
ATL-1600	16 4		

Centrifuge	Speed	Feed Rate	Hrs

Time

Drilling	
Circulating	
Trips	8.5
Rig	
Surveys	
Fishing	
Run Casing	4.0
Coring	1.0
Reaming	
Testing	
Logging	
Dir Work	1.0
Repair	
Other	9.5
Total	24.0
Rotating	1.0
ROP	
Dil Rate	0.00

Fluid Volume Breakdown — Old KCl/Polymer

Active	bbl	Additions	bbl	Losses	bbl
Annulus	13.9	Base		Fluid Dumped	
Pipe Cap	4.2	Drill Water		Transferred	
Active Pits		Dewatering		SCE	-578.2
Total Hole	201.2	Sea Water		Evaporation	
Total Circ	18.1	Whole Mud		Trips	
Reserve	455.0	Barite		Other	
Prev Vol	1110.7	Chemicals		Total Surface	
Net Change	-578.2	Other		Downhole	
Total Vol	656.2	Total		Total Losses	-578.2

Fluid Types	Vol bbl
KCl/Polymer/Clayseal	1700.0
KCL Brine	400.0

Deviation Information

Survey MD	708.3	m
Survey TVD	708.3	m
Angle	0.06	Deg
Direction	46	
Horiz Displ.		m

Baroid Representatives	Brad Jackson	James Munford	
Office	90 Talinga Rd Melbourne	Telephone	61-03-9581-7555
Warehouse	c/o of Esso Australia Ltd	Telephone	61-3-56-881-445

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Baroid Fluid Services

Report No 008

Daily Drilling Fluid Report

Date	03/16/2008	Depth	1,379.0 m
Spud Date	03/10/2008	Rig Activity	Drilling 8 1/2" Hole

Operator: Apache	Report For: Mark Pinson/Peter Sheenan	Well Name: Coelacanth 1	
Contractor: Seadrill	Report For: Micheal Barry	Rig Name: West Triton	Unit System: Apache
Country: Australia	State/Province/Region: Victoria	Geographic Area/County: Victoria	Field or Block: Coelacanth

Bit Information

Bit Size	8.500	in
Make/Type	REEDHYC/RSX661B	
Jets	5x14|1x15	
TFA	0.924	sq-in
Jets Velocity	63.0	m/sec
Jet Impact Force	607.7	lbf
Bit HHSI	2.23	hhp/in2
Press Drop @ Bit	363	psi
Bit Depth	1,379.0	m
ECD @ Csg Shoe	1.264	SG
ECD @ Bit	1.230	SG

Drill String (in) / (m)

	OD	ID	Length
Drill Pipe	5.500	4.000	1,114.0
Drill Collar	7.000	2.875	145.0
Drill Collar	6.750	3.000	120.0
Open Hole	12.250		477.0

in Casing m

OD	Set	MD
20.000	@	255.9
13.375	@	275.2
9.625	@	902.0

Circulation/Hydraulics Data

Model	Nat -14-P-220	Nat -14-P-220	Nat -14-P-220
Bore in	6.500	6.500	6.500
Strokes in	14.000	14.000	14.000
Eff(%)	97	97	97
bbl/strk	0.139	0.139	0.139
SPM	0	102	0
gpm|bbl/min		597 | 14.21	

Total GPM	597	AV, Riser		Circ Press psi	2200
Total Circ Time	61	AV min DP	37.2	Tot Pres Loss	1504
BU Time , min	21	AV max DC	44.1	Press Drop DP	783
Total Strokes	6,208	BU Strokes	2,093	Press Drop An	176

Properties		1	Hyd 2	3	4	Targets	Program	
Source		Pit 6	Flow Line					
Time		14:00	20:00					
Depth	m	1,203	1,376					
FL Temp	Deg C		40					
Density @ Deg C	SG	1.130 @ 28	1.140 @ 40				1.100	1.200
FV @ Deg C	sec/qt	58 @ 28	58 @ 40					
PV @ Deg C	cP	16 @ 49	17 @ 49					
YP	lbs/100 ft2	17	25			X	20	50
GELS	lbs/100 ft2	8/9/11	10/12/15			X	10/-/-	20/-/-
600/300		49.0/33.0	59.0/42.0					
200/100		26.0/19.0	34.0/24.0					
6/3		7.0/5.0	10.0/8.0					
API Filt	ml/30 min	5.4	5.4			X X	3.0	5.0
HTHP @ Deg C	ml/30 min	15.0 @ 121	15.0 @ 121				12.0	15.0
Cake API/HTHP	32nd in	1/2	1/2					
Corr Solid	% by Vol	3.6	2.9					
NAP/Water	% by Vol	-/93.0	-/93.0					
Sand	% by vol							
MBT	ppb Eq.	2.5	2.5					
pH @ Deg C		8.90 @ 27	8.90 @ 27				8.00	10.00
ALK Mud	Pm	0.20	0.30					
ALK Filt	Pf/Mf	0.20/1.10	0.20/1.20					
Chlorides	mg/l	42,000	50,000					
Tot. Hardness	mg/l	160	160					
LGS/HGS	% by Vol	2.2/1.4	0.8/2.0					
LGS/HGS	ppb	20.21/19.96	7.74/30.01					
ASG	SG	3.207	3.729					
Additional Properties								
KCL %	% by vol	9.0	10.0					

Fluid Treatments

Fluid Type KCl/Polymer/Clayseal

Pumped 30 bbl 4 ppb Barazan-D+ high viscosity spacer prior to displacing to 1.12 s.g KCl/Polymer/Clayseal fluid. Added 0.5 ppb Barazan-D+ to active to bring active mud to program specifications. Slowly transferred 20% KCl brine to active to bring KCl concentration from 8 5 to programmed 10%. Changed shaker screens to new 250 mesh. (12 new screens). Prepared 400 bbls of 20% brine to use as base for future premix and create deck space. At 1,300 m added further 0.5 ppb Barazan D+ and 1.0 ppb PAC L to raise viscosity and lower fluid loss to less then 5cc/30min. Pumped 30 bbl caustic/CaCO pill as per company mans

Rig Activity

Cont. making up 8 1/2" BHA and RIH to 805 m. Service TDS-travelling block. RIH from 805 m to 852 m. Wash down and tag cement @ 859m. Drill out cement from 859m to shoe @ 902m. Cont. drilling cement from 902m to 907m and 3m of new formation to 910m. Circ. and condition mud. Perform FIT to 1.78sg with 1.12sg mud. Cont. drill 8 1/2" hole from 910m 1493m, taking survey every 3 stands. Pumped 30 bbl caustic pill @ 1379 m.

Product Name	Units	Start	Rec	Used	End	Cost
Drilling Fluids Engineer 2	day(s)			1		$1,250.00
Drilling Fluids Engineer	day(s)			1		$1,250.00
barite	1000 kg bulk	144.600		21.600	123.000	$10,257.41
potassium chloride	1000 kg bag	18		6	12	$2,648.76
BARAZAN D PLUS	25 kg bag	159		12	147	$1,826.88
PAC-L	25 kg bag	224		12	212	$982.44
Circal 60/16	25 kg sack	144		10	134	$101.30
ALDACIDE G	25 l can	7			7	
BARABLOK	50 lb bag	280			280	
BARA-DEFOAM W300	5 gal can	3			3	
BAROFIBRE FINE	25 lb bag	50			50	
bentonite	1000 kg bulk	41.500			41.500	
calcium chloride flake 77%	25 kg bag	94			94	
caustic soda	25 kg pail	90			90	
Circal 60/16	1200 kg bag	9			9	
Circal Y	1200 kg bag	11			11	
citric acid	25 kg bag	38			38	
CLAYSEAL PLUS	216 kg drum	32			32	
EZ SPOT	55 gal drum	8			8	
EZ-MUD	25 kg pail	13	32		45	
guar gum	25 kg bag	40			40	
Kwikseal Fine	40 lb bag	39			39	
lime	20 kg bag	41			41	
N-DRIL HT PLUS	50 lb bag	90			90	
NO-SULF	17 kg pail	48			48	
Omyacarb 5	25 kg bulk	48.000			48.000	
potassium hydroxide	25 kg bag	83			83	
soda ash	25 kg bag	40			40	
sodium bicarbonate	25 kg bag	35			35	
Daily Products Cost	$15,816.79	Total Daily Cost				$18,316.79
Cumulative Products Cost	$83,197.14	Total Cumulative Cost				$103,197.14

Solids Control Equipment

Shaker	Screens	Hrs
VSM-300	30 250 250 250	24.0
VSM-300	30 250 250 250	24.0
VSM-300	30 89 89 89	
VSM-300	30 250 250 250	24.0

Hydrocyclone	Cones	Screens	Hrs
ATL-1600	16 4		

Centrifuge	Speed	Feed Rate	Hrs

Time

Drilling	16.5
Circulating	0.5
Trips	4.5
Rig	0.5
Surveys	
Fishing	
Run Casing	
Coring	
Reaming	
Testing	
Logging	
Dir Work	
Repair	
Other	2.0
Total	24.0
Rotating	16.5
ROP	28.6
Dil Rate	0.00

Fluid Volume Breakdown — KCl/Polymer/Clayseal

Active	bbl	Additions	bbl	Losses	bbl
Annulus	291.6	Base		Fluid Dumped	
Pipe Cap	63.4	Drill Water		Transferred	
Active Pits	510.0	Dewatering		SCE	-269.4
Total Hole	355.0	Sea Water		Evaporation	
Total Circ	865.0	Whole Mud	249.0	Trips	
Reserve	790.0	Barite	32.4	Other	-24.0
Prev Vol	1700.0	Chemicals	2.9	Total Surface	-36.0
Net Change	-45.1	Other		Downhole	
Total Vol	1655.0	Total	284.3	Total Losses	-329.4

Fluid Types	Vol bbl
Old KCl/Polymer	455.0
KCL Brine	570.0

Deviation Information

Survey MD	1,006.9	m
Survey TVD	1,006.9	m
Angle	0.37	Deg
Direction	205	
Horiz Displ.		m

Baroid Representatives	Brad Jackson	James Munford	
Office	90 Talinga Rd Melbourne	Telephone	61-03-9581-7555
Warehouse	c/o of Esso Australia Ltd	Telephone	61-3-56-881-445

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Baroid Fluid Services

Report No 009

Daily Drilling Fluid Report

Date	03/17/2008	Depth	1,998.0 m
Spud Date	03/10/2008	Rig Activity	Tripping out of Hole

Operator: Apache	Report For: Mark Pinson/Peter Sheenan	Well Name: Coelacanth 1
Contractor: Seadrill	Report For: Micheal Barry	Rig Name: West Triton / Unit System: Apache
Country: Australia	State/Province/Region: Victoria	Geographic Area/County: Victoria / Field or Block: Coelacanth

Bit Information

Bit Size	8.500	in
Make/Type	REEDHYC/RSX661B	
Jets	5x14|1x15	
TFA	0.924	sq-in
Jets Velocity	63.0	m/sec
Jet Impact Force	629.0	lbf
Bit HHSI	2.31	hhp/in2
Press Drop @ Bit	376	psi
Bit Depth	1,679.0	m
ECD @ Csg Shoe	1.269	SG
ECD @ Bit	1.236	SG

Drill String (in) / (m)

	OD	ID	Length
Drill Pipe	5.500	4.000	1,414.0
Drill Collar	7.000	2.875	145.0
Drill Collar	6.750	3.000	120.0
Open Hole	12.250		1,096.0

in Casing m

OD	Set	MD
20.000	@	255.9
13.375	@	275.2
9.625	@	902.0

Form Integrity SG 1.780

Circulation/Hydraulics Data

Model	Nat -14-P-220	Nat -14-P-220	Nat -14-P-220
Bore in	6.500	6.500	6.500
Strokes in	14.000	14.000	14.000
Eff(%)	97	97	97
bbl/strk	0.139	0.139	0.139
SPM	102	0	0
gpm|bbl/min	597 | 14.21		

Total GPM	597	AV, Riser		Circ Press psi	2600
Total Circ Time	59	AV min DP	37.2	Tot Pres Loss	1411
BU Time , min	28	AV max DC	44.1	Press Drop DP	750
Total Strokes	6,051	BU Strokes	2,904	Press Drop An	134

Properties		1	2	Hyd 3	4	Targets	Program	
Source		Flow Line	Pit 6	Flow Line				
Time		4:00	16:00	21:00				
Depth	m	1,500	1,798	1,994				
FL Temp	Deg C	40	40	40				
Density @ Deg C	SG	1.150 @ 40	1.160 @ 40	1.180 @ 40			1.100	1.200
FV @ Deg C	sec/qt	49 @ 40	45 @ 40	43 @ 40				
PV @ Deg C	cP	12 @ 49	12 @ 49	8 @ 49				
YP	lbs/100 ft2	20	21	20			20	50
GELS	lbs/100 ft2	8/10/13	8/13/-	8/10/13		X * *	10/-/-	20/-/-
600/300		44.0/32.0	45.0/33.0	36.0/28.0				
200/100		26.0/19.0	25.0/19.0	21.0/16.0				
6/3		10.0/7.0	9.0/7.0	8.0/6.0				
API Filt	ml/30 min	5.4	5.8	5.8		X X X	3.0	5.0
HTHP @ Deg C	ml/30 min	15.0 @ 121	14.0 @ 121	15.0 @ 121			12.0	15.0
Cake API/HTHP	32nd in	1/2		1/2				
Corr Solid	% by Vol	3.1	4.8	5.1				
NAP/Water	% by Vol	-/92.0	-/91.0	-/91.0				
Sand	% by vol	0.50	0.50	0.50				
MBT	ppb Eq.	2.5		2.5				
pH @ Deg C		9.00 @ 27	9.50 @ 27	9.00 @ 27			8.00	10.00
ALK Mud	Pm	0.20	0.30	0.20				
ALK Filt	Pf/Mf	0.20/1.20	0.20/0.80	0.20/1.00				
Chlorides	mg/l	60,000	52,000	49,000				
Tot. Hardness	mg/l	160	160	160				
LGS/HGS	% by Vol	1.3/1.7	3.5/1.3	2.5/2.5				
LGS/HGS	ppb	11.94/25.76	31.96/19.12	23.11/37.17				
ASG	SG	3.515	3.032	3.398				
Additional Properties								
KCL %	% by vol	10.0	8.0	8.0				

Fluid Treatments

Fluid Type KCl/Polymer/Clayseal

Built 10 ppb Caustic pill in Slug pit and pumped 45 bbl in attempt to alleviate suspected bit balling. No apparent improvement. Changed shaker screens on Shakers 1 and Shakers 3 to 280 mesh (170 mesh API) . Changed scalper screens on shaker 4 to 60 mesh. Ran Desilter. Dumped sandtrap. Transferred active volume and blended new mud to maintain mud weight less than 1.17 s.g. Built slug as per Co. Man request. Built new unweighted premix in Pit 7. Dumped retained Wasabi mud and Seawater from Pits 1 and 2. Captured active mud into reserve pit and make room for dilution.

Rig Activity

Cont. drill 8 1/2" hole from 1493m to 1995m. Spotting 5 bbl seawater around bit at connection @ 1558m. Pumped 50 bbl caustic pill @ 1678m. Observed loose torque and pressure drop slowly. Reduced spm to 84 and 500 gpm. Drill from 1995m to 1998m. Flow check, well static. Pumped 25 bbl slug and POOH from 1998m to 1679m with no excess drag.

Product Name	Units	Start	Rec	Used	End	Cost
Drilling Fluids Engineer 2	day(s)			1		$1,250.00
Drilling Fluids Engineer	day(s)			1		$1,250.00
CLAYSEAL PLUS	216 kg drum	32		7	25	$6,696.48
PAC-L	25 kg bag	212		29	183	$2,374.23
BARAZAN D PLUS	25 kg bag	147		12	135	$1,826.88
Circal Y	1200 kg bag	11		2	9	$973.34
barite	1000 kg bulk	123.000		2.000	121.000	$949.76
Circal 60/16	1200 kg bag	9		2	7	$733.34
potassium hydroxide	25 kg bag	83		9	74	$404.82
ALDACIDE G	25 l can	7		1	6	$87.37
soda ash	25 kg bag	40		2	38	$26.50
BARABLOK	50 lb bag	280			280	
BARA-DEFOAM W300	5 gal can	3			3	
BAROFIBRE FINE	25 lb bag	50			50	
bentonite	1000 kg bulk	41.500			41.500	
calcium chloride flake 77%	25 kg bag	94			94	
caustic soda	25 kg pail	90			90	
Circal 60/16	25 kg sack	134			134	
citric acid	25 kg bag	38			38	
EZ SPOT	55 gal drum	8			8	
EZ-MUD	25 kg pail	45			45	
guar gum	25 kg bag	40			40	
Kwikseal Fine	40 lb bag	39			39	
lime	20 kg bag	41			41	
N-DRIL HT PLUS	50 lb bag	90			90	
NO-SULF	17 kg pail	48			48	
Omyacarb 5	25 kg bulk	48.000			48.000	
potassium chloride	1000 kg bag	12			12	
sodium bicarbonate	25 kg bag	35			35	

Daily Products Cost	$14,072.72	Total Daily Cost	$16,572.72
Cumulative Products Cost	$97,269.86	Total Cumulative Cost	$119,769.86

Solids Control Equipment

Shaker	Screens	Hrs
VSM-300	30 280 280 280	24.0
VSM-300	30 250 250 250	24.0
VSM-300	30 280 280 280	24.0
VSM-300	60 250 250 250	24.0

Hydrocyclone	Cones	Screens	Hrs
ATL-1600	16 4		24.0

Centrifuge	Speed	Feed Rate	Hrs

Time

Drilling	22.5
Circulating	
Trips	1.0
Rig	
Surveys	
Fishing	
Run Casing	
Coring	
Reaming	
Testing	
Logging	
Dir Work	
Repair	
Other	0.5
Total	24.0
Rotating	22.5
ROP	27.5
Dil Rate	0.00

Fluid Volume Breakdown — KCl/Polymer/Clayseal

Active	bbl	Additions	bbl	Losses	bbl
Annulus	404.6	Base		Fluid Dumped	
Pipe Cap	78.5	Drill Water	262.0	Transferred	
Active Pits	360.0	Dewatering		SCE	
Total Hole	635.7	Sea Water		Evaporation	
Total Circ	843.1	Whole Mud	320.0	Trips	
Reserve	1270.0	Barite	3.0	Other	
Prev Vol	1655.0	Chemicals	25.6	Total Surface	
Net Change	610.6	Other		Downhole	
Total Vol	2265.7	Total	610.6	Total Losses	

Fluid Types	Vol bbl
KCL Brine	305.0

Deviation Information

Survey MD	1,006.9	m
Survey TVD	1,006.9	m
Angle	0.37	Deg
Direction	205	
Horiz Displ.		m

Baroid Representatives: Brad Jackson / James Munford

Office: 90 Talinga Rd Melbourne — Telephone 61-03-9581-7555

Warehouse: c/o of Esso Australia Ltd — Telephone 61-3-56-881-445

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Baroid Fluid Services

Report No 010

Daily Drilling Fluid Report

Date	03/18/2008	Depth	2,029.0 m
Spud Date	03/10/2008	Rig Activity	Drilling

Operator: Apache	Report For: Mark Pinson/Peter Sheenan	Well Name: Coelacanth 1	
Contractor: Seadrill	Report For: Micheal Barry	Rig Name: West Triton	Unit System: Apache
Country: Australia	State/Province/Region: Victoria	Geographic Area/County: Victoria	Field or Block: Coelacanth

Bit Information

Bit Size	8.500	in
Make/Type	REEDHYC/RSX661B	
Jets	5x14|1x15	
TFA	0.924	sq-in
Jets Velocity	69.2	m/sec
Jet Impact Force	752.0	lbf
Bit HHSI	3.03	hhp/in2
Press Drop @ Bit	449	psi
Bit Depth	1,998.0	m
ECD @ Csg Shoe	1.317	SG
ECD @ Bit		SG

Drill String (in) / (m)

	OD	ID	Length
Drill Pipe	5.500	4.000	1,733.0
Drill Collar	7.000	2.875	145.0
Drill Collar	6.750	3.000	120.0
Open Hole	12.250		1,127.0

in Casing m

OD	Set	MD
20.000	@	255.9
13.375	@	275.2
9.625	@	902.0

Form Integrity SG 1.780

Circulation/Hydraulics Data

	Nat -14-P-220	Nat -14-P-220	Nat -14-P-220
Model			
Bore in	6.500	6.500	6.500
Strokes in	14.000	14.000	14.000
Eff(%)	97	97	97
bbl/strk	0.139	0.139	0.139
SPM	57	55	0
gpm|bbl/min	334 | 7.94	322 | 7.66	

Total GPM	655	AV, Riser	Circ Press psi 2600
Total Circ Time	70	AV min DP 40.9	Tot Pres Loss 2256
BU Time , min	34	AV max DC 48.5	Press Drop DP 1314
Total Strokes	7,832	BU Strokes 3,766	Press Drop An 237

Properties		1	Hyd 2	3	4	Targets	Program	
Source		Pit 6	Flow Line					
Time		18:00	21:00					
Depth	m	1,998	2,011					
FL Temp	Deg C		40					
Density @ Deg C	SG	1.170 @ 30	1.170 @ 40				1.100	1.200
FV @ Deg C	sec/qt	55 @ 30	58 @ 40					
PV @ Deg C	cP	17 @ 49	17 @ 49					
YP	lbs/100 ft2	25	26				20	50
GELS	lbs/100 ft2	11/14/19	11/15/22				10/-/-	20/-/-
600/300		59.0/42.0	60.0/43.0					
200/100		35.0/25.0	36.0/26.0					
6/3		12.0/10.0	12.0/19.0					
API Filt	ml/30 min	5.5	5.0			X	3.0	5.0
HTHP @ Deg C	ml/30 min	14.0 @ 121	14.0 @ 121				12.0	15.0
Cake API/HTHP	32nd in	1/2	1/2					
Corr Solid	% by Vol	4.0	3.5					
NAP/Water	% by Vol	-/92.0	-/92.0					
Sand	% by vol	0.50	0.50					
MBT	ppb Eq.	5.0	6.3					
pH @ Deg C		9.50 @ 27	9.50 @ 27				8.00	10.00
ALK Mud	Pm	0.30	0.30					
ALK Filt	Pf/Mf	0.20/1.00	0.20/1.10					
Chlorides	mg/l	49,000	55,000					
Tot. Hardness	mg/l	160	160					
LGS/HGS	% by Vol	1.1/2.9	0.5/3.0					
LGS/HGS	ppb	10.16/42.74	4.98/43.47					
ASG	SG	3.756	3.950					
Additional Properties								
KCL %	% by vol	9.0	10.0					
Clayseal	% by vol	2.0	2.5					

Fluid Treatments

Fluid Type KCl/Polymer/Clayseal

Pumped Hi-Vis sweep whilst POOH with small increase in cuttings. Added 0.25 pppb Barazan D and 1 ppb PAC L to the active to raise viscosity and lower filtrate loss. Treated heavy reserve mud with drillwater, additional 2% KCl and polymers to build light reserve fluid for future reduction of active mud weight. Sandtraps dumped as required to maintain mud weight.

Running Desilter with underflow being dumped @ 10.0ppg.

Added Clayseal to active to recommended 2.5% by volume as per Operator request.

Rig Activity

Cont. POOH to 1300m. 30k overpull @1300m. Pumped 35bbl hi-vis sweep and circ. out same with small increases in cutting. Attempt to pull - no success. Ream out of hole from 1300m to 881m @ shoe. Flow check, static, pump slug and POOH to surface. Remove radioactive source and lay out BHA. Install new BHA and RA source. RIH from surface to 1974m. Wash down from 1974m to 1998m, tag bottom. Cont. drill 8 1/2" hole from 1998m to 2029m. Pumped 20 bbl seawater pill to spot on connection at 2029m.

Product Name	Units	Start	Rec	Used	End	Cost
Drilling Fluids Engineer 2	day(s)			1		$1,250.00
Drilling Fluids Engineer	day(s)			1		$1,250.00
CLAYSEAL PLUS	216 kg drum	25		8	17	$7,653.12
potassium chloride	1000 kg bag	12	11	13	10	$5,738.98
BARAZAN D PLUS	25 kg bag	135		14	121	$2,131.36
PAC-L	25 kg bag	183		24	159	$1,964.88
BARABLOK	50 lb bag	280		18	262	$547.02
barite	1000 kg bulk	121.000		1.000	120.000	$474.88
ALDACIDE G	25 l can	6			6	
BARA-DEFOAM W300	5 gal can	3			3	
BAROFIBRE FINE	25 lb bag	50			50	
bentonite	1000 kg bulk	41.500			41.500	
calcium chloride flake 77%	25 kg bag	94			94	
caustic soda	25 kg pail	90			90	
Circal 60/16	1200 kg bag	7			7	
Circal 60/16	25 kg sack	134			134	
Circal Y	1200 kg bag	9			9	
citric acid	25 kg bag	38			38	
EZ SPOT	55 gal drum	8			8	
EZ-MUD	25 kg pail	45			45	
guar gum	25 kg bag	40			40	
Kwikseal Fine	40 lb bag	39			39	
lime	20 kg bag	41			41	
N-DRIL HT PLUS	50 lb bag	90			90	
NO-SULF	17 kg pail	48			48	
Omyacarb 5	25 kg bulk	48.000			48.000	
potassium hydroxide	25 kg bag	74			74	
soda ash	25 kg bag	38			38	
sodium bicarbonate	25 kg bag	35			35	

Daily Products Cost	$18,510.24	Total Daily Cost	$21,010.24
Cumulative Products Cost	$115,780.10	Total Cumulative Cost	$140,780.10

Solids Control Equipment

Shaker	Screens	Hrs
VSM-300	30 280 280 280	18.0
VSM-300	30 250 250 250	18.0
VSM-300	30 280 280 280	18.0
VSM-300	60 250 250 250	

Hydrocyclone	Cones	Screens	Hrs
ATL-1600	16 4		6.0

Centrifuge	Speed	Feed Rate	Hrs

Time

Drilling	5.0
Circulating	0.5
Trips	13.0
Rig Surveys	
Fishing	
Run Casing	
Coring	
Reaming	4.5
Testing	
Logging	
Dir Work	
Repair	
Other	1.0
Total	24.0
Rotating	9.5
ROP	6.2
Dil Rate	0.00

Fluid Volume Breakdown — KCl/Polymer/Clayseal

Active	bbl	Additions	bbl	Losses	bbl
Annulus	524.8	Base		Fluid Dumped	
Pipe Cap	94.6	Drill Water	400.0	Transferred	
Active Pits	472.0	Dewatering		SCE	-209.0
Total Hole	634.2	Sea Water	100.0	Evaporation	
Total Circ	1091.4	Whole Mud	63.6	Trips	
Reserve	1545.0	Barite	1.5	Other	
Prev Vol	2265.7	Chemicals	29.3	Total Surface	
Net Change	385.4	Other		Downhole	
Total Vol	2651.2	Total	594.4	Total Losses	-209.0

Fluid Types	Vol bbl
KCL Brine	270.0

Deviation Information

Survey MD	1,006.9 m
Survey TVD	1,006.9 m
Angle	0.37 Deg
Direction	205
Horiz Displ.	m

Baroid Representatives: Brad Jackson, James Munford

Office: 90 Talinga Rd Melbourne, Telephone 61-03-9581-7555

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Baroid Fluid Services

Report No 011

Daily Drilling Fluid Report

Date	03/19/2008	Depth	2,307.0 m
Spud Date	03/10/2008	Rig Activity	Drilling

Operator: Apache	Report For: Mark Pinson/Peter Sheenan	Well Name: Coelacanth 1	
Contractor: Seadrill	Report For: Micheal Barry	Rig Name: West Triton	Unit System: Apache
Country: Australia	State/Province/Region: Victoria	Geographic Area/County: Victoria	Field or Block: Coelacanth

Bit Information

Bit Size	8.500	in
Make/Type	REEDHYC/RSX661B	
Jets	5x14|1x15	
TFA	0.924	sq-in
Jets Velocity	73.5	m/sec
Jet Impact Force	848.9	lbf
Bit HHSI	3.63	hhp/in2
Press Drop @ Bit	507	psi
Bit Depth	2,307.0	m
ECD @ Csg Shoe	1.325	SG
ECD @ Bit	1.248	SG

Drill String (in) / (m)

	OD	ID	Length
Drill Pipe	5.500	4.000	2,042.0
Drill Collar	7.000	2.875	145.0
Drill Collar	6.750	3.000	120.0
Open Hole	12.250		1,405.0

in Casing m

OD	Set	MD
20.000	@	255.9
13.375	@	275.2
9.625	@	902.0

Form Integrity SG 1.780

Circulation/Hydraulics Data

Model	Nat -14-P-220	Nat -14-P-220	Nat -14-P-220		
Bore in	6.500	6.500	6.500		
Strokes in	14.000	14.000	14.000		
Eff(%)	97	97	97		
bbl/strk	0.139	0.139	0.139		
SPM	59	60	0		
gpm|bbl/min	345 | 8.22	351 | 8.36			
Total GPM	696	AV, Riser		Circ Press psi	2950
Total Circ Time	71	AV min DP	43.4	Tot Pres Loss	2407
BU Time , min	39	AV max DC	51.5	Press Drop DP	1419
Total Strokes	8,414	BU Strokes	4,602	Press Drop An	258

Properties		1	2	Hyd 3	4	Targets	Program	
Source		Pit 6	Pit 6	Flow Line				
Time		3:30	16:00	22:00				
Depth	m	2,095	2,116	2,243				
FL Temp	Deg C	40		40				
Density @ Deg C	SG	1.160 @ 40	1.160 @ 30	1.170 @ 40			1.100	1.200
FV @ Deg C	sec/qt	53 @ 40	58 @ 40	57 @ 40				
PV @ Deg C	cP	2 @ 49	20 @ 49	18 @ 49				
YP	lbs/100 ft2	41	30	29			20	50
GELS	lbs/100 ft2	9/13/18	12/16/21	11/16/20		X	10/-/-	20/-/-
600/300		45.0/43.0	70.0/50.0	65.0/47.0				
200/100		27.0/20.0	42.0/32.0	40.0/29.0				
6/3		10.0/8.0	12.0/10.0	12.0/10.0				
API Filt	ml/30 min	5.7	4.2	4.8		X	3.0	5.0
HTHP @ Deg C	ml/30 min	15.0 @ 121	15.0 @ 121	15.0 @ 121			12.0	15.0
Cake API/HTHP	32nd in	1/2	1/2	1/2				
Corr Solid	% by Vol	4.2	4.6	4.7				
NAP/Water	% by Vol	-/92.0	-/91.5	-/91.5				
Sand	% by vol	0.50						
MBT	ppb Eq.	6.3	5.0	6.3				
pH @ Deg C		9.50 @ 27	8.50 @ 27	9.00 @ 27			8.00	10.00
ALK Mud	Pm	0.10	0.05	0.10				
ALK Filt	Pf/Mf	0.20/0.90	0.10/0.65	0.10/0.70				
Chlorides	mg/l	47,000	48,000	47,000				
Tot. Hardness	mg/l	160	160	160				
LGS/HGS	% by Vol	1.9/2.3	2.9/1.8	2.3/2.4				
LGS/HGS	ppb	17.55/33.31	26.03/26.04	21.17/35.13				
ASG	SG	3.464	3.212	3.411				
Additional Properties								
KCL %	% by vol	9.0	9.5	9.5				
Clayseal	% by vol	2.5	2.5	2.5				

Fluid Treatments

Fluid Type KCl/Polymer/Clayseal

Pumped 2X Seawater pill with 20ppb Circal 60/16 due to bitballing. Sandtraps dumped as required to maintain mud weight.
Running Desilter with underflow being dumped @ 10.0ppg.
Treated active with 0.25 pppb Barazan D and 0.5 ppb PAC L to raise viscosity and lower filtrate loss.
Added 1 ppb EZ-MUD to active while RIH.
Changed screens in shakers 1 & 2 to 255 & 215 respectively to accommodate the PHPA.

Rig Activity

Cont. drill 8 1/2" hole from 2045m to 2116m. Pumped Calcium Carbonate/seawater pills @ 2077m & 2102m. Flowcheck, static, POOH from 2116m to 1943m. Pumped slug & POOH to surface with flowcheck @ shoe. Remove nozzles from bit and install new bit. RIH to 956m. Trip drill. Service top drive. Cont. RIH from 956m to 2092m. Wash down to bottom at 2116m. Drill 8 1/2" hole from 2116m to 2307m.

Product Name	Units	Start	Rec	Used	End	Cost
Drilling Fluids Engineer 2	day(s)			1		$1,250.00
Drilling Fluids Engineer	day(s)			1		$1,250.00
CLAYSEAL PLUS	216 kg drum	17		7	10	$6,696.48
PAC-L	25 kg bag	159		36	123	$2,947.32
BARAZAN D PLUS	25 kg bag	121		19	102	$2,892.56
EZ-MUD	25 kg pail	45		21	24	$1,802.43
BARABLOK	50 lb bag	262		30	232	$911.70
Circal 60/16	25 kg sack	134		15	119	$151.95
potassium hydroxide	25 kg bag	74		2	72	$89.96
ALDACIDE G	25 l can	6		1	5	$87.37
soda ash	25 kg bag	38		2	36	$26.50
BARA-DEFOAM W300	5 gal can	3			3	
barite	1000 kg bulk	120.000			120.000	
BAROFIBRE FINE	25 lb bag	50			50	
bentonite	1000 kg bulk	41.500			41.500	
calcium chloride flake 77%	25 kg bag	94			94	
caustic soda	25 kg pail	90			90	
Circal 60/16	1200 kg bag	7			7	
Circal Y	1200 kg bag	9			9	
citric acid	25 kg bag	38			38	
EZ SPOT	55 gal drum	8			8	
guar gum	25 kg bag	40			40	
Kwikseal Fine	40 lb bag	39			39	
lime	20 kg bag	41			41	
N-DRIL HT PLUS	50 lb bag	90			90	
NO-SULF	17 kg pail	48			48	
Omyacarb 5	25 kg bulk	48.000			48.000	
potassium chloride	1000 kg bag	10			10	
sodium bicarbonate	25 kg bag	35			35	

Daily Products Cost	$15,606.27	Total Daily Cost	$18,106.27
Cumulative Products Cost	$131,386.37	Total Cumulative Cost	$158,886.37

Solids Control Equipment

Shaker	Screens	Hrs
VSM-300	30 250 250 250	18.0
VSM-300	30 215 215 215	18.0
VSM-300	30 280 280 280	18.0
VSM-300	60 250 250 250	18.0

Hydrocyclone	Cones	Screens	Hrs
ATL-1600	16 4		

Centrifuge	Speed	Feed Rate	Hrs

Time

Drilling	11.5
Circulating	
Trips	11.0
Rig	0.5
Surveys	
Fishing	
Run Casing	
Coring	
Reaming	0.5
Testing	
Logging	
Dir Work	
Repair	
Other	0.5
Total	24.0
Rotating	12.0
ROP	24.2
Dil Rate	0.00

Fluid Volume Breakdown — KCl/Polymer/Clayseal

Active	bbl	Additions	bbl	Losses	bbl
Annulus	641.2	Base		Fluid Dumped	
Pipe Cap	110.2	Drill Water	150.0	Transferred	
Active Pits	421.0	Dewatering		SCE	-114.0
Total Hole	751.4	Sea Water	100.0	Evaporation	
Total Circ	1172.4	Whole Mud	43.0	Trips	
Reserve	1561.0	Barite		Other	-120.0
Prev Vol	2651.2	Chemicals	23.1	Total Surface	
Net Change	82.1	Other		Downhole	
Total Vol	2733.4	Total	316.1	Total Losses	-234.0

Fluid Types	Vol bbl
KCL Brine	227.0

Deviation Information

Survey MD	2,101.1	m
Survey TVD	2,101.0	m
Angle	0.26	Deg
Direction	259	
Horiz Displ.		m

Baroid Representatives: Brad Jackson, James Munford
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Baroid Fluid Services

Report No 012

Daily Drilling Fluid Report

Date	03/20/2008	Depth	2,700.0 m
Spud Date	03/10/2008	Rig Activity	Tripping

Operator: Apache	Report For: Mark Pinson/Peter Sheenan	Well Name: Coelacanth 1	
Contractor: Seadrill	Report For: Micheal Barry	Rig Name: West Triton	Unit System: Apache
Country: Australia	State/Province/Region: Victoria	Geographic Area/County: Victoria	Field or Block: Coelacanth

Bit Information

Bit Size	8.500	in
Make/Type	REEDHYC/RSX661B	
Jets	5x14|1x15	
TFA	0.924	sq-in
Jets Velocity		m/sec
Jet Impact Force		lbf
Bit HHSI		hhp/in2
Press Drop @ Bit		psi
Bit Depth	2,700.0	m
ECD @ Csg Shoe	1.160	SG
ECD @ Bit	1.160	SG

Drill String (in) / (m)

	OD	ID	Length
Drill Pipe	5.500	4.000	2,435.0
Drill Collar	7.000	2.875	145.0
Drill Collar	6.750	3.000	120.0
Open Hole	12.250		1,798.0

in Casing m

OD	Set	MD
20.000	@	255.9
13.375	@	275.2
9.625	@	902.0

Form Integrity SG 1.780

Circulation/Hydraulics Data

Model	Nat -14-P-220	Nat -14-P-220	Nat -14-P-220
Bore in	6.500	6.500	6.500
Strokes in	14.000	14.000	14.000
Eff(%)	97	97	97
bbl/strk	0.139	0.139	0.139
SPM	0	0	0
gpm|bbl/min			

Total GPM | AV, Riser | Circ Press psi
Total Circ Time | AV min DP | Tot Pres Loss
BU Time , min | AV max DC | Press Drop DP
Total Strokes | BU Strokes | Press Drop An

Properties		1	2	Hyd 3	4	Targets	Program	
Source		Flow Line	Flow Line	Flow Line				
Time		4:00	9:30	20:00				
Depth	m	2,392	2,480	2,700				
FL Temp	Deg C							
Density @ Deg C	SG	1.170	1.150	1.160			1.100	1.200
FV @ Deg C	sec/qt	53 @ 40	50	60 @ 40				
PV @ Deg C	cP	17 @ 49	16 @ 49	23 @ 49				
YP	lbs/100 ft2	29	28	34			20	50
GELS	lbs/100 ft2	11/17/24	9/15/21	13/22/31		*	10/-/-	20/-/-
600/300		63.0/46.0	60.0/44.0	80.0/57.0				
200/100		38.0/28.0	35.0/26.0	47.0/35.0				
6/3		12.0/10.0	10.0/9.0	14.0/11.0				
API Filt	ml/30 min	5.4	5.6	5.0		X X	3.0	5.0
HTHP @ Deg C	ml/30 min	15.0 @ 121	15.0 @ 121	14.0 @ 121			12.0	15.0
Cake API/HTHP	32nd in	1/2	1/2	1/2				
Corr Solid	% by Vol	4.8	5.3	5.5				
NAP/Water	% by Vol	-/91.5	-/91.5	-/91.0				
Sand	% by vol							
MBT	ppb Eq.	6.3	6.3	6.3				
pH @ Deg C		8.50 @ 27	9.00 @ 27	9.00 @ 27			8.00	10.00
ALK Mud	Pm	0.10	0.10	0.10				
ALK Filt	Pf/Mf	0.01/0.90	0.01/0.90	0.02/1.00				
Chlorides	mg/l	46,000	40,000	44,000				
Tot. Hardness	mg/l	160	160	160				
LGS/HGS	% by Vol	2.4/2.4	4.2/1.1	4.2/1.2				
LGS/HGS	ppb	22.00/35.03	38.31/16.05	38.66/18.24				
ASG	SG	3.394	2.929	2.962				
Additional Properties								
KCL %	% by vol	9.0	8.0	9.0				
Clayseal	% by vol	2.5	2.5	2.5				

Fluid Treatments

Fluid Type KCl/Polymer/Clayseal

Continued to treat active with additions of viscosifier, fluid loss additives and KCl to maintain targeted properties and maintain mud weight.
Added additional 1 ppb Barablok prior to entering the Latrobe formation to enhance coal stability.
Built 300 bbls 20% KCl brine.
Sandtraps dumped as required to maintain mud weight.
Running Desilter with underflow being dumped @ 10.0ppg.

Rig Activity

Cont. drill 8 1/2" hole from 2307m to 2700m taking surveyevery 3 stands. Encountering bit balling. Flow check 15 minutes, well static. Pump slug. POOH from 2700m to 1888m.

Product Name	Units	Start	Rec	Used	End	Cost
Drilling Fluids Engineer 2	day(s)			1		$1,250.00
Drilling Fluids Engineer	day(s)			1		$1,250.00
barite	1000 kg bulk	120.000		10.000	110.000	$4,748.80
potassium chloride	1000 kg bag	10		10		$4,414.60
PAC-L	25 kg bag	123		19	104	$1,555.53
BARAZAN D PLUS	25 kg bag	102		7	95	$1,065.68
BARABLOK	50 lb bag	232		20	212	$607.80
Circal Y	1200 kg bag	9		1	8	$486.67
EZ-MUD	25 kg pail	24		3	21	$257.49
Circal 60/16	25 kg sack	119		18	101	$182.34
ALDACIDE G	25 l can	5			5	
BARA-DEFOAM W300	5 gal can	3			3	
BAROFIBRE FINE	25 lb bag	50			50	
bentonite	1000 kg bulk	41.500			41.500	
calcium chloride flake 77%	25 kg bag	94			94	
caustic soda	25 kg pail	90			90	
Circal 60/16	1200 kg bag	7			7	
citric acid	25 kg bag	38			38	
CLAYSEAL PLUS	216 kg drum	10			10	
EZ SPOT	55 gal drum	8			8	
guar gum	25 kg bag	40			40	
Kwikseal Fine	40 lb bag	39			39	
lime	20 kg bag	41			41	
N-DRIL HT PLUS	50 lb bag	90			90	
NO-SULF	17 kg pail	48			48	
Omyacarb 5	25 kg bulk	48.000			48.000	
potassium hydroxide	25 kg bag	72			72	
soda ash	25 kg bag	36			36	
sodium bicarbonate	25 kg bag	35			35	

Daily Products Cost	$13,318.91	Total Daily Cost	$15,818.91
Cumulative Products Cost	$144,705.28	Total Cumulative Cost	$174,705.28

Solids Control Equipment

Shaker	Screens	Hrs
VSM-300	30 250 250 250	240.0
VSM-300	30 215 215 215	24.0
VSM-300	30 280 280 280	24.0
VSM-300	60 250 250 250	

Hydrocyclone	Cones	Screens	Hrs
ATL-1600	16 4		22.0

Centrifuge	Speed	Feed Rate	Hrs

Time

Drilling	20.0
Circulating	
Trips	4.0
Rig	
Surveys	
Fishing	
Run Casing	
Coring	
Reaming	
Testing	
Logging	
Dir Work	
Repair	
Other	
Total	24.0
Rotating	20.0
ROP	19.6
Dil Rate	0.00

Fluid Volume Breakdown — KCl/Polymer/Clayseal

Active	bbl	Additions	bbl	Losses	bbl
Annulus	789.3	Base		Fluid Dumped	
Pipe Cap	130.0	Drill Water		Transferred	
Active Pits	382.0	Dewatering		SCE	-140.6
Total Hole	919.2	Sea Water		Evaporation	
Total Circ	1301.2	Whole Mud		Trips	
Reserve	1116.0	Barite	15.0	Other	-200.0
Prev Vol	2733.4	Chemicals	9.6	Total Surface	
Net Change	-316.1	Other		Downhole	
Total Vol	2417.2	Total	24.6	Total Losses	-340.6

Fluid Types	Vol bbl
KCL Brine	410.0

Deviation Information

Survey MD	2,484.8	m
Survey TVD	2,484.6	m
Angle	0.56	Deg
Direction	53	
Horiz Displ.		m

Baroid Representatives: Brad Jackson, James Munford
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Baroid Fluid Services

Report No 013

Daily Drilling Fluid Report

Date	03/21/2008	Depth	2,948.0 m
Spud Date	03/10/2008	Rig Activity	Drilling ahead

Operator: Apache	Report For: Mark Pinson/Peter Sheenan	Well Name: Coelacanth 1	
Contractor: Seadrill	Report For: Micheal Barry	Rig Name: West Triton	Unit System: Apache
Country: Australia	State/Province/Region: Victoria	Geographic Area/County: Victoria	Field or Block: Coelacanth

Bit Information

Bit Size	8.500	in
Make/Type	REEDHYC/RSX661B	
Jets	5x14|1x15	
TFA	0.924	sq-in
Jets Velocity	74.1	m/sec
Jet Impact Force	878.0	lbf
Bit HHSI	3.79	hhp/in2
Press Drop @ Bit	525	psi
Bit Depth	2,948.0	m
ECD @ Csg Shoe	1.327	SG
ECD @ Bit	1.310	SG

Drill String (in) / (m)

	OD	ID	Length
Drill Pipe	5.500	4.000	2,683.0
Drill Collar	7.000	2.875	145.0
Drill Collar	6.750	3.000	120.0
Open Hole	9.000		2,046.0

in Casing m

OD	Set	MD
20.000	@	255.9
13.375	@	275.2
9.625	@	902.0

Form Integrity SG 1.780

Circulation/Hydraulics Data

Model	Nat -14-P-220	Nat -14-P-220	Nat -14-P-220		
Bore in	6.500	6.500	6.500		
Strokes in	14.000	14.000	14.000		
Eff(%)	97	97	97		
bbl/strk	0.139	0.139	0.139		
SPM	60	60	0		
gpm|bbl/min	351	8.36	351	8.36	
Total GPM	702	AV, Riser		Circ Press psi	3100
Total Circ Time	58	AV min DP	103.4	Tot Pres Loss	2713
BU Time , min	26	AV max DC	164.0	Press Drop DP	1499
Total Strokes	6,917	BU Strokes	3,103	Press Drop An	505

Properties		1	Hyd 2	3	4	Targets		Program	
Source		Pit 6	Flow Line						
Time		16:30	20:00						
Depth	m	2,721	2,822						
FL Temp	Deg C	40	40						
Density @ Deg C	SG	1.170 @ 28	1.190 @ 28					1.100	1.200
FV @ Deg C	sec/qt	64 @ 28	59 @ 28						
PV @ Deg C	cP	25 @ 28	8 @ 28						
YP	lbs/100 ft2	30	40					20	50
GELS	lbs/100 ft2	12/21/28	11/18/-					10/-/-	20/-/-
600/300		80.0/55.0	56.0/48.0						
200/100		45.0/32.0	32.0/24.0						
6/3		12.0/10.0	10.0/8.0						
API Filt	ml/30 min	4.2	4.6					3.0	5.0
HTHP @ Deg C	ml/30 min	13.0 @ 121	13.0 @ 121					12.0	15.0
Cake API/HTHP	32nd in	1/2	1/2						
Corr Solid	% by Vol	5.0	4.8						
NAP/Water	% by Vol	-/91.5	-/91.5						
Sand	% by vol	0.02	0.02						
MBT	ppb Eq.	6.5	8.7						
pH @ Deg C		9.00 @ 28						8.00	10.00
ALK Mud	Pm	0.10	0.10						
ALK Filt	Pf/Mf	0.02/0.90	0.01/0.90						
Chlorides	mg/l	44,000	46,000						
Tot. Hardness	mg/l	160	160						
LGS/HGS	% by Vol	2.6/2.4	1.2/3.6						
LGS/HGS	ppb	23.66/34.82	10.61/53.43						
ASG	SG	3.363	3.811						
Additional Properties									
KCL %	% by vol	9.0	9.0						
Clayseal	% by vol	2.5	2.5						

Fluid Treatments

Fluid Type KCl/Polymer/Clayseal

Continued to treat active with additions of viscosifier, fluid loss additives and KCl to maintain targeted properties and maintain mud weight.
Added CLAYSEAL & EZ-MUD to maintain product concentrations.
Sandtraps dumped as required to maintain mud weight.
Running Desilter with underflow being dumped @ 11ppg.
Prepare 150 bbl Hi-vis sweeps for use at TD.

Rig Activity

Cont. POOH from 1888m to surface, flow check @ shoe. Change Bit due to bitballing. RIH to 907m - stage pump. Fill pipe with PHPA. RIH from 907m to 2700m. Wash and ream the last 18m with 50 rpm, torque 1-3k, 695 gpm, 3050psi. Cont. drill ahead with 8 1/2" hole from 2700m to 2948m. SCR's 2702m with mw @ 9.8ppg.

Product Name	Units	Start	Rec	Used	End	Cost
Drilling Fluids Engineer	day(s)			1		$1,250.00
CLAYSEAL PLUS	216 kg drum	10		3	7	$2,869.92
PAC-L	25 kg bag	104		28	76	$2,292.36
BARAZAN D PLUS	25 kg bag	95		14	81	$2,131.36
EZ-MUD	25 kg pail	21		2	19	$171.66
potassium hydroxide	25 kg bag	72		2	70	$89.96
ALDACIDE G	25 l can	5		1	4	$87.37
soda ash	25 kg bag	36		1	35	$13.25
BARABLOK	50 lb bag	212			212	
BARA-DEFOAM W300	5 gal can	3			3	
barite	1000 kg bulk	110.000			110.000	
BAROFIBRE FINE	25 lb bag	50			50	
bentonite	1000 kg bulk	41.500			41.500	
calcium chloride flake 77%	25 kg bag	94			94	
caustic soda	25 kg pail	90			90	
Circal 60/16	1200 kg bag	7			7	
Circal 60/16	25 kg sack	101			101	
Circal Y	1200 kg bag	8			8	
citric acid	25 kg bag	38			38	
EZ SPOT	55 gal drum	8			8	
guar gum	25 kg bag	40			40	
Kwikseal Fine	40 lb bag	39			39	
lime	20 kg bag	41			41	
N-DRIL HT PLUS	50 lb bag	90			90	
NO-SULF	17 kg pail	48			48	
Omyacarb 5	25 kg bulk	48.000			48.000	
sodium bicarbonate	25 kg bag	35			35	
STEELSEAL	25 kg sack	60			60	
XLR-RATE	55 gal drum	8			8	

Solids Control Equipment

Shaker	Screens	Hrs
VSM-300	30 250 250 250	24.0
VSM-300	30 215 215 215	24.0
VSM-300	30 280 280 280	24.0
VSM-300	60 250 250 250	

Hydrocyclone	Cones	Screens	Hrs
ATL-1600	16 4		10.0

Centrifuge	Speed	Feed Rate	Hrs

Time

Drilling	8.0
Circulating	
Trips	15.0
Rig	
Surveys	
Fishing	
Run Casing	
Coring	
Reaming	
Testing	
Logging	
Dir Work	
Repair	
Other	1.0
Total	24.0
Rotating	8.0
ROP	31.0
Dil Rate	0.00

Fluid Volume Breakdown — KCl/Polymer/Clayseal

Active	bbl	Additions	bbl	Losses	bbl
Annulus	432.3	Base		Fluid Dumped	
Pipe Cap	142.5	Drill Water		Transferred	
Active Pits	389.0	Dewatering		SCE	-355.3
Total Hole	574.8	Sea Water		Evaporation	
Total Circ	963.8	Whole Mud	264.0	Trips	
Reserve	1071.0	Barite		Other	-300.0
Prev Vol	2417.2	Chemicals	8.8	Total Surface	
Net Change	-382.5	Other		Downhole	
Total Vol	2034.8	Total	272.8	Total Losses	-655.3

Fluid Types	Vol bbl
KCL Brine	146.0

Deviation Information

Survey MD	2,484.8	m
Survey TVD	2,484.6	m
Angle	0.56	Deg
Direction	53	
Horiz Displ.		m

Daily Products Cost	$7,655.88	Total Daily Cost	$8,905.88
Cumulative Products Cost	$152,361.16	Total Cumulative Cost	$183,611.16

Baroid Representatives: James Munford

Office	90 Talinga Rd Melbourne	Telephone	61-03-9581-7555
Warehouse	c/o of Esso Australia Ltd	Telephone	61-3-56-881-445

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Baroid Fluid Services

Report No 014

Daily Drilling Fluid Report

Date 03/22/2008		Depth 3,074.0 m	
Spud Date 03/10/2008		Rig Activity Wire Line logs	
Operator Apache	Report For Mark Pinson/Peter Sheenan	Well Name Coelacanth 1	
Contractor Seadrill	Report For Micheal Barry	Rig Name West Triton	Unit System Apache
Country Australia	State/Province/Region Victoria	Geographic Area/County Victoria	Field or Block Coelacanth

Bit Information

Bit Size	in
Make/Type	
Jets	
TFA	sq-in
Jets Velocity	m/sec
Jet Impact Force	lbf
Bit HHSI	hhp/in2
Press Drop @ Bit	psi
Bit Depth	m
ECD @ Csg Shoe	SG
ECD @ Bit	SG

Drill String (in) / (m)

	OD	ID	Length
Open Hole	9.000		2,172.0

in Casing m

OD	Set	MD
20.000	@	255.9
13.375	@	275.2
9.625	@	902.0

Form Integrity SG 1.780

Circulation/Hydraulics Data

Model	Nat -14-P-220	Nat -14-P-220	Nat -14-P-220
Bore in	6.500	6.500	6.500
Strokes in	14.000	14.000	14.000
Eff(%)	97	97	97
bbl/strk	0.139	0.139	0.139
SPM	0	0	0
gpm|bbl/min			

Total GPM | AV, Riser | Circ Press psi
Total Circ Time | AV min DP | Tot Pres Loss
BU Time , min | AV max DC | Press Drop DP
Total Strokes | BU Strokes | Press Drop An

Properties		1	2	3	4	Targets	Program	
Source		Pit 6						
Time		9:30						
Depth	m	3,074						
FL Temp	Deg C	40						
Density @ Deg C	SG	1.190 @ 27					1.100	1.200
FV @ Deg C	sec/qt	61 @ 27						
PV @ Deg C	cP	16 @ 27						
YP	lbs/100 ft2	28					20	50
GELS	lbs/100 ft2	12/18/-					10/-/-	20/-/-
600/300		60.0/44.0						
200/100		33.0/24.0						
6/3		11.0/9.0						
API Filt	ml/30 min	4.4					3.0	5.0
HTHP @ Deg C	ml/30 min							
Cake API/HTHP	32nd in	1/2						
Corr Solid	% by Vol	4.8						
NAP/Water	% by Vol	-/91.5						
Sand	% by vol	0.25						
MBT	ppb Eq.	10.0						
pH @ Deg C		9.00 @ 27					8.00	10.00
ALK Mud	Pm	0.10						
ALK Filt	Pf/Mf	0.02/0.90						
Chlorides	mg/l	46,000						
Tot. Hardness	mg/l	160						
LGS/HGS	% by Vol	1.2/3.6						
LGS/HGS	ppb	10.61/53.43						
ASG	SG	3.811						
Additional Properties								
KCL %	% by vol	9.0						
Clayseal	% by vol	2.5						

Fluid Treatments

Fluid Type KCl/Polymer/Clayseal

Treated active pits with ALDACIDE G whilst circulating bottoms up @ TD 3074m.
Made 200 bbls hi-vis mud for use in sweeps.
Made 30 bbl 12 ppg slug for POOH.
Note: Some chemicals charged were from an inventory reconciliation.

Rig Activity

Cont. to drill 8 1/2" hole from 2948m to 3074m. Pumped 100 bbls hi-vis, circ. twice bottoms up. Pumped another 100 bbl hi-vis and circ. hole clean. Flow check, well static. POOH from 3074m to 2743m. Re-log well from 2739m to 2429m. Pumped 30 bbl slug, POOH from 2420m to shoe. Flow check at shoe, static. Cont. to POOH to surface and lay out 8 1/2" BHA as per Anadril.

Product Name	Units	Start	Rec	Used	End	Cost
Drilling Fluids Engineer	day(s)			1		$1,250.00
BARABLOK	50 lb bag	212		132	80	$4,011.48
barite	1000 kg bulk	110.000		7.800	22.200	$3,704.06
BARAZAN D PLUS	25 kg bag	81		18	63	$2,740.32
BARA-DEFOAM W300	5 gal can	3		1	2	$616.88
ALDACIDE G	25 l can	4		3	1	$262.11
Circal 60/16	25 kg sack	101		21	80	$212.73
calcium chloride flake 77%	25 kg bag	94		8	86	$110.56
Kwikseal Fine	40 lb bag	39		1	38	$52.36
citric acid	25 kg bag	38		1	37	$46.24
BAROFIBRE FINE	25 lb bag	50			50	
bentonite	1000 kg bulk	41.500			41.500	
caustic soda	25 kg pail	90			90	
Circal 60/16	1200 kg bag	7			7	
Circal Y	1200 kg bag	8			8	
CLAYSEAL PLUS	216 kg drum	7			7	
EZ SPOT	55 gal drum	8			8	
EZ-MUD	25 kg pail	19			19	
guar gum	25 kg bag	40			40	
lime	20 kg bag	41			41	
N-DRIL HT PLUS	50 lb bag	90			90	
NO-SULF	17 kg pail	48			48	
Omyacarb 5	25 kg bulk	48.000			48.000	
PAC-L	25 kg bag	76			76	
potassium hydroxide	25 kg bag	70			70	
soda ash	25 kg bag	35			35	
sodium bicarbonate	25 kg bag	35			35	
STEELSEAL	25 kg sack	60			60	
XLR-RATE	55 gal drum	8			8	

Daily Products Cost	$11,756.74	Total Daily Cost	$13,006.74
Cumulative Products Cost	$164,117.91	Total Cumulative Cost	$196,617.91

Solids Control Equipment

Shaker	Screens	Hrs
VSM-300	30 250 250 250	16.0
VSM-300	30 215 215 215	16.0
VSM-300	30 280 280 280	16.0
VSM-300	60 250 250 250	

Hydrocyclone	Cones	Screens	Hrs
ATL-1600	16 4		16.0

Centrifuge	Speed	Feed Rate	Hrs

Time

Drilling	4.0
Circulating	2.0
Trips	11.5
Rig Surveys	
Fishing	
Run Casing	
Coring	
Reaming	
Testing	
Logging	6.5
Dir Work	
Repair	
Other	
Total	24.0
Rotating	4.0
ROP	31.5
Dil Rate	0.00

Fluid Volume Breakdown — KCl/Polymer/Clayseal

Active	bbl	Additions	bbl	Losses	bbl
Annulus		Base		Fluid Dumped	
Pipe Cap		Drill Water		Transferred	
Active Pits	373.0	Dewatering		SCE	-52.1
Total Hole	777.4	Sea Water		Evaporation	
Total Circ	373.0	Whole Mud		Trips	
Reserve	780.0	Barite	11.7	Other	-85.5
Prev Vol	2034.8	Chemicals	21.5	Total Surface	
Net Change	-104.4	Other		Downhole	
Total Vol	1930.4	Total	33.2	Total Losses	-137.6

Fluid Types	Vol bbl
KCL Brine	146.0

Deviation Information

Survey MD	2,956.5 m
Survey TVD	2,956.4 m
Angle	0.67 Deg
Direction	151
Horiz Displ.	m

Baroid Representatives James Munford
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Baroid Fluid Services

Report No 015

Daily Drilling Fluid Report

Date	03/23/2008	Depth	3,074.0 m
Spud Date	03/10/2008	Rig Activity	Wire Line logs

Operator: Apache	Report For: Mark Pinson/Peter Sheenan	Well Name: Coelacanth 1	
Contractor: Seadrill	Report For: Micheal Barry	Rig Name: West Triton	Unit System: Apache
Country: Australia	State/Province/Region: Victoria	Geographic Area/County: Victoria	Field or Block: Coelacanth

Bit Information

Bit Size		in
Make/Type		
Jets		
TFA		sq-in
Jets Velocity		m/sec
Jet Impact Force		lbf
Bit HHSI		hhp/in2
Press Drop @ Bit		psi
Bit Depth	3,074.0	m
ECD @ Csg Shoe		SG
ECD @ Bit		SG

Drill String (in) / (m)

	OD	ID	Length
Open Hole	9.000		2,172.0

in Casing m

OD	Set	MD
20.000	@	255.9
13.375	@	275.2
9.625	@	902.0

Form Integrity SG 1.780

Circulation/Hydraulics Data

Model	Nat -14-P-220	Nat -14-P-220	Nat -14-P-220
Bore in	6.500	6.500	6.500
Strokes in	14.000	14.000	14.000
Eff(%)	97	97	97
bbl/strk	0.139	0.139	0.139
SPM	0	0	0
gpm|bbl/min			

Total GPM | AV, Riser | Circ Press psi
Total Circ Time | AV min DP | Tot Pres Loss
BU Time , min | AV max DC | Press Drop DP
Total Strokes | BU Strokes | Press Drop An

Properties		1	2	3	4	Targets	Program	
Source		Pit 6						
Time		10:30						
Depth	m	3,074						
FL Temp	Deg C							
Density @ Deg C	SG	1.190 @ 28					1.100	1.200
FV @ Deg C	sec/qt	64 @ 28						
PV @ Deg C	cP	18 @ 28						
YP	lbs/100 ft2	26					20	50
GELS	lbs/100 ft2	12/19/-					10/-/-	20/-/-
600/300		62.0/44.0						
200/100		34.0/24.0						
6/3		12.0/10.0						
API Filt	ml/30 min	4.5					3.0	5.0
HTHP @ Deg C	ml/30 min							
Cake API/HTHP	32nd in	1/2						
Corr Solid	% by Vol	5.3						
NAP/Water	% by Vol	-/91.0						
Sand	% by vol	0.25						
MBT	ppb Eq.	10.0						
pH @ Deg C		9.00 @ 28					8.00	10.00
ALK Mud	Pm	0.10						
ALK Filt	Pf/Mf	0.01/1.00						
Chlorides	mg/l	46,000						
Tot. Hardness	mg/l	160						
LGS/HGS	% by Vol	2.2/3.1						
LGS/HGS	ppb	19.92/46.05						
ASG	SG	3.542						
Additional Properties								
KCL %	% by vol	9.0						
Clayseal	% by vol	2.5						

Fluid Treatments

Fluid Type KCl/Polymer/Clayseal

Dump and clean Pits.

Prepared 60 bbl Hi-vis as spotting pill for P&A program.

Rig Activity

Rig up Schlumberger wireline VSP- Seiemic tools. RIH with wireline tools to 800m. POOH, WOW. RIH to 800m and put seismic guns in the water. Logging with VSP-seimic as per logging programme. POOH layout Schlumberger tool #1. Make up tool #2, sidewall coring tools. RIH with the sidewall coring tools as per programme, in progress.

Product Name	Units	Start	Rec	Used	End	Cost
Drilling Fluids Engineer	day(s)			1		$1,250.00
BARAZAN D PLUS	25 kg bag	63		1	62	$152.24
ALDACIDE G	25 l can	1			1	
BARABLOK	50 lb bag	80			80	
BARA-DEFOAM W300	5 gal can	2			2	
barite	1000 kg bulk	22.200			22.200	
BAROFIBRE FINE	25 lb bag	50			50	
bentonite	1000 kg bulk	41.500			41.500	
calcium chloride flake 77%	25 kg bag	86			86	
caustic soda	25 kg pail	90			90	
Circal 60/16	1200 kg bag	7			7	
Circal 60/16	25 kg sack	80			80	
Circal Y	1200 kg bag	8			8	
citric acid	25 kg bag	37			37	
CLAYSEAL PLUS	216 kg drum	7			7	
EZ SPOT	55 gal drum	8			8	
EZ-MUD	25 kg pail	19			19	
guar gum	25 kg bag	40			40	
Kwikseal Fine	40 lb bag	38			38	
lime	20 kg bag	41			41	
N-DRIL HT PLUS	50 lb bag	90			90	
NO-SULF	17 kg pail	48			48	
Omyacarb 5	25 kg bulk	48.000			48.000	
PAC-L	25 kg bag	76			76	
potassium hydroxide	25 kg bag	70			70	
soda ash	25 kg bag	35			35	
sodium bicarbonate	25 kg bag	35			35	
STEELSEAL	25 kg sack	60			60	
XLR-RATE	55 gal drum	8			8	

Daily Products Cost	$152.24	Total Daily Cost	$1,402.24
Cumulative Products Cost	$164,270.15	Total Cumulative Cost	$198,020.15

Solids Control Equipment

Shaker	Screens	Hrs
VSM-300		
VSM-300		
VSM-300		
VSM-300		

Hydrocyclone	Cones	Screens	Hrs
ATL-1600	16 4		

Centrifuge	Speed	Feed Rate	Hrs

Time

Drilling	
Circulating	
Trips	
Rig	
Surveys	
Fishing	
Run Casing	
Coring	
Reaming	
Testing	
Logging	24.0
Dir Work	
Repair	
Other	
Total	24.0
Rotating	
ROP	
Dil Rate	0.00

Fluid Volume Breakdown — KCl/Polymer/Clayseal

Active	bbl	Additions	bbl	Losses	bbl
Annulus		Base		Fluid Dumped	
Pipe Cap		Drill Water		Transferred	
Active Pits	350.0	Dewatering		SCE	
Total Hole	777.4	Sea Water		Evaporation	
Total Circ	350.0	Whole Mud		Trips	
Reserve	773.0	Barite		Other	-30.1
Prev Vol	1930.4	Chemicals	0.1	Total Surface	
Net Change	-30.0	Other		Downhole	
Total Vol	1900.4	Total	0.1	Total Losses	-30.1

Fluid Types	Vol bbl
KCL Brine	146.0

Deviation Information

Survey MD	2,956.5	m
Survey TVD	2,956.4	m
Angle	0.67	Deg
Direction	151	
Horiz Displ.		m

Baroid Representatives James Munford
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Baroid Fluid Services

Report No 016

Daily Drilling Fluid Report

Date 03/24/2008	Depth 3,074.0 m		
Spud Date 03/10/2008	Rig Activity Tripping		
Operator Apache	Report For Mark Pinson/Peter Sheenan	Well Name Coelacanth 1	
Contractor Seadrill	Report For Micheal Barry	Rig Name West Triton	Unit System Apache
Country Australia	State/Province/Region Victoria	Geographic Area/County Victoria	Field or Block Coelacanth

Bit Information		Drill String (in) / (m) OD	ID	Length	in Casing m OD	Set	MD
Bit Size	in				20.000	@	255.9
Make/Type					13.375	@	275.2
Jets					9.625	@	902.0
TFA	sq-in						
Jets Velocity	m/sec						
Jet Impact Force	lbf						
Bit HHSI	hhp/in2						
Press Drop @ Bit	psi						
Bit Depth	3,074.0 m	Open Hole	9.000	2,172.0			
ECD @ Csg Shoe	SG						
ECD @ Bit	SG				Form Integrity SG		1.780

Circulation/Hydraulics Data			
Model	Nat -14-P-220	Nat -14-P-220	Nat -14-P-220
Bore in	6.500	6.500	6.500
Strokes in	14.000	14.000	14.000
Eff(%)	97	97	97
bbl/strk	0.139	0.139	0.139
SPM	0	0	0
gpm|bbl/min			
Total GPM	AV, Riser	Circ Press psi	
Total Circ Time	AV min DP	Tot Pres Loss	
BU Time , min	AV max DC	Press Drop DP	
Total Strokes	BU Strokes	Press Drop An	

Properties		1	2	3	4	Targets	Program
Source							
Time							
Depth	m						
FL Temp	Deg C						
Density @ Deg C	SG						
FV @ Deg C	sec/qt						
PV @ Deg C	cP						
YP	lbs/100 ft2						
GELS	lbs/100 ft2						
600/300							
200/100							
6/3							
API Filt	ml/30 min						
HTHP @ Deg C	ml/30 min						
Cake API/HTHP	32nd in						
Corr Solid	% by Vol						
NAP/Water	% by Vol						
Sand	% by vol						
MBT	ppb Eq.						
pH @ Deg C							
ALK Mud	Pm						
ALK Filt	Pf/Mf						
Chlorides	mg/l						
Tot. Hardness	mg/l						
LGS/HGS	% by Vol						
LGS/HGS	ppb						
ASG	SG						
Additional Properties							

Fluid Treatments

Fluid Type KCl/Polymer/Clayseal

Dumped cement contaminated mud during reverse circulation.

Made hi-vis pill for P&A programme.

Rig Activity

Cont. CST-sidewall coring. POOH tools to surface. R/D Schlumberger shieve. M/up mule shoe on 5 1/2" DP and RIH to 2650m. Pump 20 bbls Hi-vis & displace with 176 bbl mud. POOH to 2590m and mix & pump cement as per programme. POOH 4 stands to 2530m. M/up circ. head and reverse circ. 2 DP volume. POOH from 2530m to 1000m, spot 20 bbl hi-vis. POOH to 940m. R/u Halliburton cement lines then cement plug as per programme. Break off and POOH to 852m. Reverse circ. mud clean. Open BOP's, break circ. head. POOH & L/D 5 1/2" DP from 852m to 148m.

Product Name	Units	Start	Rec	Used	End	Cost
Drilling Fluids Engineer	day(s)			1		$1,250.00
BARAZAN D PLUS	25 kg bag	62		1	61	$152.24
ALDACIDE G	25 l can	1			1	
BARABLOK	50 lb bag	80			80	
BARA-DEFOAM W300	5 gal can	2			2	
barite	1000 kg bulk	22.200			22.200	
BAROFIBRE FINE	25 lb bag	50			50	
bentonite	1000 kg bulk	41.500			41.500	
calcium chloride flake 77%	25 kg bag	86			86	
caustic soda	25 kg pail	90			90	
Circal 60/16	1200 kg bag	7			7	
Circal 60/16	25 kg sack	80			80	
Circal Y	1200 kg bag	8			8	
citric acid	25 kg bag	37			37	
CLAYSEAL PLUS	216 kg drum	7			7	
EZ SPOT	55 gal drum	8			8	
EZ-MUD	25 kg pail	19			19	
guar gum	25 kg bag	40			40	
Kwikseal Fine	40 lb bag	38			38	
lime	20 kg bag	41			41	
N-DRIL HT PLUS	50 lb bag	90			90	
NO-SULF	17 kg pail	48			48	
Omyacarb 5	25 kg bulk	48.000			48.000	
PAC-L	25 kg bag	76			76	
potassium hydroxide	25 kg bag	70			70	
soda ash	25 kg bag	35			35	
sodium bicarbonate	25 kg bag	35			35	
STEELSEAL	25 kg sack	60			60	
XLR-RATE	55 gal drum	8			8	
Daily Products Cost	$152.24	Total Daily Cost				$1,402.24
Cumulative Products Cost	$164,422.39	Total Cumulative Cost				$199,422.39

Solids Control Equipment

Shaker	Screens	Hrs
VSM-300		
VSM-300		
VSM-300		
VSM-300		

Hydrocyclone	Cones	Screens	Hrs
ATL-1600	16 4		

Centrifuge	Speed	Feed Rate	Hrs

Time

Drilling	
Circulating	
Trips	16.0
Rig	
Surveys	
Fishing	
Run Casing	
Coring	
Reaming	
Testing	
Logging	3.0
Dir Work	
Repair	
Other	5.0
Total	24.0
Rotating	
ROP	
Dil Rate	0.00

Fluid Volume Breakdown KCl/Polymer/Clayseal

Active	bbl	Additions	bbl	Losses	bbl
Annulus		Base		Fluid Dumped	
Pipe Cap		Drill Water		Transferred	
Active Pits	394.0	Dewatering		SCE	-46.1
Total Hole	777.4	Sea Water		Evaporation	
Total Circ	394.0	Whole Mud	1.0	Trips	
Reserve	684.0	Barite		Other	
Prev Vol	1900.4	Chemicals	0.1	Total Surface	
Net Change	-45.0	Other		Downhole	
Total Vol	1855.4	Total	1.1	Total Losses	-46.1

Fluid Types	Vol bbl
KCL Brine	145.0

Deviation Information

Survey MD	2,956.5	m
Survey TVD	2,956.4	m
Angle	0.67	Deg
Direction	151	
Horiz Displ.		m

Baroid Representatives James Munford

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Baroid Fluid Services

Report No 017

Daily Drilling Fluid Report

Date 03/25/2008		Depth 3,074.0 m	
Spud Date 03/10/2008		Rig Activity Nipple Down B.O.P.	
Operator Apache	Report For Mark Pinson/Peter Sheenan	Well Name Coelacanth 1	
Contractor Seadrill	Report For Micheal Barry	Rig Name West Triton	Unit System Apache
Country Australia	State/Province/Region Victoria	Geographic Area/County Victoria	Field or Block Coelacanth

Bit Information

Bit Size		in
Make/Type		
Jets		
TFA		sq-in
Jets Velocity		m/sec
Jet Impact Force		lbf
Bit HHSI		hhp/in2
Press Drop @ Bit		psi
Bit Depth	3,074.0	m
ECD @ Csg Shoe		SG
ECD @ Bit		SG

Drill String (in) / (m)

OD	ID	Length
Open Hole 9.000		2,172.0

in Casing m

OD	Set	MD
20.000	@	255.9
13.375	@	275.2
9.625	@	902.0

Form Integrity SG 1.780

Circulation/Hydraulics Data

Model	Nat -14-P-220	Nat -14-P-220	Nat -14-P-220
Bore in	6.500	6.500	6.500
Strokes in	14.000	14.000	14.000
Eff(%)	97	97	97
bbl/strk	0.139	0.139	0.139
SPM	0	0	0
gpm|bbl/min			

Total GPM | AV, Riser | Circ Press psi
Total Circ Time | AV min DP | Tot Pres Loss
BU Time , min | AV max DC | Press Drop DP
Total Strokes | BU Strokes | Press Drop An

Properties		1	2	3	4	Targets	Program
Source							
Time							
Depth	m						
FL Temp	Deg C						
Density @ Deg C	SG						
FV @ Deg C	sec/qt						
PV @ Deg C	cP						
YP	lbs/100 ft2						
GELS	lbs/100 ft2						
600/300							
200/100							
6/3							
API Filt	ml/30 min						
HTHP @ Deg C	ml/30 min						
Cake API/HTHP	32nd in						
Corr Solid	% by Vol						
NAP/Water	% by Vol						
Sand	% by vol						
MBT	ppb Eq.						
pH @ Deg C							
ALK Mud	Pm						
ALK Filt	Pf/Mf						
Chlorides	mg/l						
Tot. Hardness	mg/l						
LGS/HGS	% by Vol						
LGS/HGS	ppb						
ASG	SG						

Additional Properties

Fluid Treatments

Fluid Type KCl/Polymer/Clayseal

Treated Remaining pits with loose/broken sacks of Caustic Soda/Caustic Potash.

Transfer Desander, Desilter and Centrifuge tanks to Pits. Dumped remainder of sandtrap.

Rig Activity

Cont. POOH & L/D all the 5 1/2" DP and HWDP. M/up casing cutter and RIH to 153m casing cutting depth. Cut casing and attempt to pull casing with casing spear. No success. M/up cutter and RIH 143m. Attempt to cut as per Weatherford. No success. Attempt to pull again with spear without success. Prepare for nipple down BOPs. M/U flush mill tool as per Drilquip. RIH to 21, flush. L/D Flush tool. RIH with casing spear and attempt to pull 9 5/8" casing. No success. Attempt to pull overshot diverter packer. Troubleshooting with locking system. Pull and L'out overshot diverter packer. Nipple down BOP stack.

Product Name	Units	Start	Rec	Used	End	Cost
Drilling Fluids Engineer	day(s)			1		$1,250.00
ALDACIDE G	25 l can	1			1	
BARABLOK	50 lb bag	80			80	
BARA-DEFOAM W300	5 gal can	2			2	
BARAZAN D PLUS	25 kg bag	61			61	
barite	1000 kg bulk	22.200			22.200	
BAROFIBRE FINE	25 lb bag	50			50	
bentonite	1000 kg bulk	41.500			41.500	
calcium chloride flake 77%	25 kg bag	86			86	
caustic soda	25 kg pail	90			90	
Circal 60/16	1200 kg bag	7			7	
Circal 60/16	25 kg sack	80			80	
Circal Y	1200 kg bag	8			8	
citric acid	25 kg bag	37			37	
CLAYSEAL PLUS	216 kg drum	7			7	
EZ SPOT	55 gal drum	8			8	
EZ-MUD	25 kg pail	19			19	
guar gum	25 kg bag	40			40	
Kwikseal Fine	40 lb bag	38			38	
lime	20 kg bag	41			41	
N-DRIL HT PLUS	50 lb bag	90			90	
NO-SULF	17 kg pail	48			48	
Omyacarb 5	25 kg bulk	48.000			48.000	
PAC-L	25 kg bag	76			76	
potassium hydroxide	25 kg bag	70			70	
soda ash	25 kg bag	35			35	
sodium bicarbonate	25 kg bag	35			35	
STEELSEAL	25 kg sack	60			60	
XLR-RATE	55 gal drum	8			8	

Solids Control Equipment

Shaker	Screens	Hrs
VSM-300		
VSM-300		
VSM-300		
VSM-300		

Hydrocyclone	Cones	Screens	Hrs
ATL-1600	16 4		

Centrifuge	Speed	Feed Rate	Hrs

Time

Drilling	
Circulating	
Trips	7.0
Rig	
Surveys	
Fishing	
Run Casing	10.0
Coring	
Reaming	
Testing	
Logging	
Dir Work	
Repair	
Other	7.0
Total	24.0
Rotating	
ROP	
Dil Rate	0.00

Fluid Volume Breakdown — KCl/Polymer/Clayseal

Active	bbl	Additions	bbl	Losses	bbl
Annulus		Base		Fluid Dumped	-21.0
Pipe Cap		Drill Water		Transferred	
Active Pits		Dewatering		SCE	
Total Hole	777.4	Sea Water		Evaporation	
Total Circ		Whole Mud		Trips	
Reserve	1057.0	Barite		Other	
Prev Vol	1855.4	Chemicals		Total Surface	
Net Change	-21.0	Other		Downhole	
Total Vol	1834.4	Total		Total Losses	-21.0

Fluid Types	Vol bbl
KCL Brine	145.0

Deviation Information

Survey MD	2,956.5	m
Survey TVD	2,956.4	m
Angle	0.67	Deg
Direction	151	
Horiz Displ.		m

Daily Products Cost	$0.00	Total Daily Cost	$1,250.00
Cumulative Products Cost	$164,422.39	Total Cumulative Cost	$200,672.39

Baroid Representatives James Munford

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Baroid Fluid Services

Report No 018

Daily Drilling Fluid Report

Date 03/26/2008	Depth 3,074.0 m		
Spud Date 03/10/2008	Rig Activity P&A		
Operator Apache	Report For Mark Pinson/Peter Sheenan	Well Name Coelacanth 1	
Contractor Seadrill	Report For Micheal Barry	Rig Name West Triton	Unit System Apache
Country Australia	State/Province/Region Victoria	Geographic Area/County Victoria	Field or Block Coelacanth

Bit Information

Bit Size		in
Make/Type		
Jets		
TFA		sq-in
Jets Velocity		m/sec
Jet Impact Force		lbf
Bit HHSI		hhp/in2
Press Drop @ Bit		psi
Bit Depth	3,074.0	m
ECD @ Csg Shoe		SG
ECD @ Bit		SG

Drill String (in) / (m)

OD	ID	Length
Open Hole	9.000	2,172.0

in Casing m

OD	Set	MD
20.000	@	255.9
13.375	@	275.2
9.625	@	902.0

Form Integrity SG 1.780

Circulation/Hydraulics Data

Model	Nat -14-P-220	Nat -14-P-220	Nat -14-P-220
Bore in	6.500	6.500	6.500
Strokes in	14.000	14.000	14.000
Eff(%)	97	97	97
bbl/strk	0.139	0.139	0.139
SPM	0	0	0
gpm|bbl/min			

Total GPM | AV, Riser | Circ Press psi
Total Circ Time | AV min DP | Tot Pres Loss
BU Time , min | AV max DC | Press Drop DP
Total Strokes | BU Strokes | Press Drop An

Properties		1	2	3	4	Targets	Program	
Source		Pit 6						
Time		22:00						
Depth	m	2,074						
FL Temp	Deg C							
Density @ Deg C	SG	1.190					1.100	1.200
FV @ Deg C	sec/qt	55						
PV @ Deg C	cP	18 @ 28						
YP	lbs/100 ft2	26					20	50
GELS	lbs/100 ft2	12/19/-					10/-/-	20/-/-
600/300		62.0/44.0						
200/100		34.0/24.0						
6/3		12.0/10.0						
API Filt	ml/30 min	4.5					3.0	5.0
HTHP @ Deg C	ml/30 min	15.0					12.0	15.0
Cake API/HTHP	32nd in	1/2						
Corr Solid	% by Vol	5.2						
NAP/Water	% by Vol	-/91.2						
Sand	% by vol	0.20						
MBT	ppb Eq.	8.3						
pH @ Deg C		9.50 @ 28					8.00	10.00
ALK Mud	Pm	0.30						
ALK Filt	Pf/Mf	0.20/1.00						
Chlorides	mg/l	45,000						
Tot. Hardness	mg/l	160						
LGS/HGS	% by Vol	1.9/3.3						
LGS/HGS	ppb	17.03/48.90						
ASG	SG	3.624						
Additional Properties								
KCL %	% by vol	9.0						
Clayseal	% by vol	2.5						

Fluid Treatments

Fluid Type KCl/Polymer/Clayseal

Pumped 20 bbl hi-vis pill.

Treated Surface pits with loose/broken sacks of Caustic Soda/Caustic Potash.

Rig Activity

N/down BOP set on stump & secure. R/d BOP slings. M/up 9 5/8" hanger tool to attempt to turn casing hanger, no success. M/up casing cutter RIH 143m and cut. Attempt to spear out casing, no success with c/p to 70/80k. M/up Drillquip polish tools. Run in and set down to 2-4k w/20rpm. M/up casing spear, POOH 9 5/8" casing free to surface. Laydown 10 joints and 1 cut joint. RIH with casing spear to 145m, attempt to engage fish 3X no success. Retrieve wear bushing as per Drillquip. RIH 5 1/2" DP to 177m. Loss clutch system on draw works. Recallibrate. Cont. RIH to 233m. Pump 20 bbl hi-vis. POOH to 176m. R/u cement lines & cement as per programme.

Product Name	Units	Start	Rec	Used	End	Cost
Drilling Fluids Engineer 2	day(s)			1		$1,250.00
Drilling Fluids Engineer	day(s)			1		$1,250.00
ALDACIDE G	25 l can	1			1	
BARABLOK	50 lb bag	80			80	
BARA-DEFOAM W300	5 gal can	2			2	
BARAZAN D PLUS	25 kg bag	61			61	
barite	1000 kg bulk	22.200			22.200	
BAROFIBRE FINE	25 lb bag	50			50	
bentonite	1000 kg bulk	41.500			41.500	
calcium chloride flake 77%	25 kg bag	86			86	
caustic soda	25 kg pail	90			90	
Circal 60/16	1200 kg bag	7			7	
Circal 60/16	25 kg sack	80			80	
Circal Y	1200 kg bag	8			8	
citric acid	25 kg bag	37			37	
CLAYSEAL PLUS	216 kg drum	7			7	
EZ SPOT	55 gal drum	8			8	
EZ-MUD	25 kg pail	19			19	
guar gum	25 kg bag	40			40	
Kwikseal Fine	40 lb bag	38			38	
lime	20 kg bag	41			41	
N-DRIL HT PLUS	50 lb bag	90			90	
NO-SULF	17 kg pail	48			48	
Omyacarb 5	25 kg bulk	48.000			48.000	
PAC-L	25 kg bag	76			76	
potassium hydroxide	25 kg bag	70			70	
soda ash	25 kg bag	35			35	
sodium bicarbonate	25 kg bag	35			35	
STEELSEAL	25 kg sack	60			60	

Solids Control Equipment

Shaker	Screens	Hrs
VSM-300		
VSM-300		
VSM-300		
VSM-300		

Hydrocyclone	Cones	Screens	Hrs
ATL-1600	16 4		

Centrifuge	Speed	Feed Rate	Hrs

Time

Drilling	
Circulating	
Trips	1.5
Rig	
Surveys	
Fishing	
Run Casing	15.5
Coring	
Reaming	
Testing	
Logging	
Dir Work	
Repair	
Other	7.0
Total	24.0
Rotating	
ROP	
Dil Rate	0.00

Fluid Volume Breakdown — KCl/Polymer/Clayseal

Active	bbl	Additions	bbl	Losses	bbl
Annulus		Base		Fluid Dumped	-20.0
Pipe Cap		Drill Water		Transferred	
Active Pits		Dewatering		SCE	
Total Hole	777.4	Sea Water		Evaporation	
Total Circ		Whole Mud		Trips	
Reserve	1037.0	Barite		Other	
Prev Vol	1834.4	Chemicals		Total Surface	
Net Change	-20.0	Other		Downhole	
Total Vol	1814.4	Total		Total Losses	-20.0

Fluid Types	Vol bbl
KCL Brine	145.0

Deviation Information

Survey MD	2,956.5	m
Survey TVD	2,956.4	m
Angle	0.67	Deg
Direction	151	
Horiz Displ.		m

Daily Products Cost	$0.00	Total Daily Cost	$2,500.00
Cumulative Products Cost	$164,422.39	Total Cumulative Cost	$203,172.39

Baroid Representatives Clive Da Silva James Munford

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HALLIBURTON | Fluid Systems

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Baroid Fluid Services

Report No 019

Daily Drilling Fluid Report

Date 03/27/2008	Depth 3,074.0 m		
Spud Date 03/10/2008	Rig Activity		
Operator: Apache	Report For	Well Name: Coelacanth 1	
Contractor: Seadrill	Report For	Rig Name: West Triton	Unit System: Apache
Country: Australia	State/Province/Region: Victoria	Geographic Area/County: Victoria	Field or Block: Coelacanth

Bit Information		Drill String (in) / (m)			in Casing m			Circulation/Hydraulics Data			
		OD	ID	Length	OD	Set	MD	Model	Nat -14-P-220	Nat -14-P-220	Nat -14-P-220
Bit Size	in				20.000	@	255.9	Bore in	6.500	6.500	6.500
Make/Type					13.375	@	275.2	Strokes in	14.000	14.000	14.000
Jets					9.625	@	902.0	Eff(%)	97	97	97
TFA	sq-in							bbl/strk	0.139	0.139	0.139
Jets Velocity	m/sec							SPM	0	0	0
Jet Impact Force	lbf							gpm|bbl/min			
Bit HHSI	hhp/in2							Total GPM	AV, Riser	Circ Press psi	
Press Drop @ Bit	psi							Total Circ Time	AV min DP	Tot Pres Loss	
Bit Depth 3,074.0	m	Open Hole	9.000	2,172.0				BU Time , min	AV max DC	Press Drop DP	
ECD @ Csg Shoe	SG							Total Strokes	BU Strokes	Press Drop An	
ECD @ Bit	SG				Form Integrity SG		1.780				

Properties		1	2	3	4	Targets	Program
Source							
Time							
Depth	m						
FL Temp	Deg C						
Density @ Deg C	SG						
FV @ Deg C	sec/qt						
PV @ Deg C	cP						
YP	lbs/100 ft2						
GELS	lbs/100 ft2						
600/300							
200/100							
6/3							
API Filt	ml/30 min						
HTHP @ Deg C	ml/30 min						
Cake API/HTHP	32nd in						
Corr Solid	% by Vol						
NAP/Water	% by Vol						
Sand	% by vol						
MBT	ppb Eq.						
pH @ Deg C							
ALK Mud	Pm						
ALK Filt	Pf/Mf						
Chlorides	mg/l						
Tot. Hardness	mg/l						
LGS/HGS	% by Vol						
LGS/HGS	ppb						
ASG	SG						
Additional Properties							

Fluid Treatments

Fluid Type: KCl/Polymer/Clayseal

Rig Activity

Product Name	Units	Start	Rec	Used	End	Cost
ALDACIDE G	25 l can	1			1	
BARABLOK	50 lb bag	80			80	
BARA-DEFOAM W300	5 gal can	2			2	
BARAZAN D PLUS	25 kg bag	61			61	
barite	1000 kg bulk	22.200			22.200	
BAROFIBRE FINE	25 lb bag	50			50	
bentonite	1000 kg bulk	41.500			41.500	
calcium chloride flake 77%	25 kg bag	86			86	
caustic soda	25 kg pail	90			90	
Circal 60/16	1200 kg bag	7			7	
Circal 60/16	25 kg sack	80			80	
Circal Y	1200 kg bag	8			8	
citric acid	25 kg bag	37			37	
CLAYSEAL PLUS	216 kg drum	7			7	
EZ SPOT	55 gal drum	8			8	
EZ-MUD	25 kg pail	19			19	
guar gum	25 kg bag	40			40	
Kwikseal Fine	40 lb bag	38			38	
lime	20 kg bag	41			41	
N-DRIL HT PLUS	50 lb bag	90			90	
NO-SULF	17 kg pail	48			48	
Omyacarb 5	25 kg bulk	48.000			48.000	
PAC-L	25 kg bag	76			76	
potassium hydroxide	25 kg bag	70			70	
soda ash	25 kg bag	35			35	
sodium bicarbonate	25 kg bag	35			35	
STEELSEAL	25 kg sack	60			60	
XLR-RATE	55 gal drum	8			8	

Solids Control Equipment

Shaker	Screens	Hrs
VSM-300		
VSM-300		
VSM-300		
VSM-300		

Hydrocyclone	Cones	Screens	Hrs
ATL-1600	16 4		

Centrifuge	Speed	Feed Rate	Hrs

Time

Drilling	
Circulating	
Trips	
Rig	
Surveys	
Fishing	
Run Casing	
Coring	
Reaming	
Testing	
Logging	
Dir Work	
Repair	
Other	
Total	
Rotating	
ROP	
Dil Rate	0.00

Fluid Volume Breakdown — KCl/Polymer/Clayseal

Active	bbl	Additions	bbl	Losses	bbl
Annulus		Base		Fluid Dumped	
Pipe Cap		Drill Water		Transferred	
Active Pits		Dewatering		SCE	
Total Hole	777.4	Sea Water		Evaporation	
Total Circ		Whole Mud		Trips	
Reserve	1037.0	Barite		Other	
Prev Vol	1814.4	Chemicals		Total Surface	
Net Change		Other		Downhole	
Total Vol	1814.4	Total		Total Losses	

Fluid Types	Vol bbl
KCL Brine	145.0

Deviation Information

Survey MD	2,956.5	m
Survey TVD	2,956.4	m
Angle	0.67	Deg
Direction	151	
Horiz Displ.		m

Daily Products Cost	$0.00	Total Daily Cost	$2,500.00
Cumulative Products Cost	$164,422.39	Total Cumulative Cost	$205,672.39

Baroid Representatives: Clive Da Silva, James Munford

Office: 90 Talinga Rd Melbourne — Telephone 61-03-9581-7555

Warehouse: c/o of Esso Australia Ltd — Telephone 61-3-56-881-445

HALLIBURTON | Fluid Systems

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AUSTRALIA

Casing Report

Well:	COELACANTH-1			Report No.: 1	Report Date: 11/03/2008
Project:	VIC-P45	Site:	COELACANTH-1	Rig Name/No.:	WEST TRITON
Event:	OFFSHORE - ORIG DRLG	Start Date:	8/03/2008	End Date:	Spud Date: 10/03/2008
Active Datum:	ROTARY TABLE @38.00m (above Mean Sea Level)			UWI:	

General Information

Assembly Name:	CONDUCTOR	Tubing/Casing Size:	508.00(mm)	Hole MD/TVD:	279.00 (m) / 279.00 (m)	Hole Size:	660.40 (mm)
MD Top:	22.61(m)	Landed MD/TVD:	275.73 (m) / 279.00 (m)	Ground Elevation:	90.00 (m)	Liner Overlap:	
Weight in Slips:		Max Hole Angle:	0.00(°)	Hours Circ:	3.00 (hr)	Vol Fluid Lost:	

Casing Flange/Wellhead

Manufacturer:	DRILQUIP	Model:		Size/Rating:	476.25 (mm)/34,474 (kPa)
Hanger Model:		Packoff Model:		Base Size/Rating:	476.00 (mm)/34,474 (kPa)

Integral Casing Detail

Component Type	Body ID (mm)	Item Description	Body OD (mm)	Weight (kg/m)	Grade	Drift (mm)	Connection	Connection OD		No Jts	Length (m)	MD TOP (m)	MU Torque (kN-m)	THD	Manufacturer	Model No.	Cond	Max OD (mm)	Min ID (mm)
								Bottom (mm)	Top (mm)										
Casing Float Shoe		Casing, Casing Float Shoe, 340 , 101.00 kg/m, L-80,	340.00	101.00	L-80	315.34				1	0.52	275.21	13	N	WEATHERFORD		NEW	340.00	315.00
Casing Float Collar		Casing, Casing Float Collar, 340 , 101.00 kg/m, L-80,	340.00	101.00	L-80	315.34				1	0.58	274.63	13	N	WEATHERFORD		NEW	340.00	315.00
Casing		Casing, Casing, 340 , 101.00 kg/m, L-80,	340.00	101.00	L-80	315.00				1	12.65	261.98	13	N	NIPPON STEEL		NEW	340.00	315.00
Crossover		Casing, Crossover, 508 , 192.00 kg/m, L-80,	508.00	192.00	L-80	476.25				1	5.50	256.48	16	N	NIPPON STEEL		NEW	508.00	476.00
Casing		Casing, Casing, 508 , 192.00 kg/m, L-80,	508.00	192.00	L-80	476.25				18	221.43	35.05	16	N	NIPPON STEEL		NEW	508.00	476.00
Crossover		Casing, Crossover, 508 , 192.00 kg/m, L-80,	508.00	192.00	L-80	476.25				1	11.92	23.13	16	N	NIPPON STEEL		NEW	508.00	476.00
Casing		Casing, Casing, 508 , 192.00 kg/m, L-80,	508.00	192.00	L-80	476.00				1	0.52	22.61		N	WEATHERFORD		NEW	508.00	476.00

Jewelry

Accessory Name	Accessory Group	Manufacturer	Num	Spacing (m)	Interval		Fastener Type	How Fixed	Attach Pattern
					MD Top (m)	MD Base (m)			
CENTRALIZER		Weatherford		9.00	270.00	158.00		CLAMPED	

Comments

AUSTRALIA

Casing Report

Well:	COELACANTH-1			Report No.: 2	Report Date: 15/03/2008
Project:	VIC-P45	Site:	COELACANTH-1	Rig Name/No.:	WEST TRITON
Event:	OFFSHORE - ORIG DRLG	Start Date:	8/03/2008	End Date:	Spud Date: 10/03/2008
Active Datum:	ROTARY TABLE @38.00m (above Mean Sea Level)			UWI:	

General Information

Assembly Name:	SURFACE	Tubing/Casing Size:	244.00(mm)	Hole MD/TVD:	907.00 (m) / 907.00 (m)	Hole Size:	311.00 (mm)
MD Top:	20.30(m)	Landed MD/TVD:	902.59 (m) / 907.00 (m)	Ground Elevation:	90.00 (m)	Liner Overlap:	
Weight in Slips:		Max Hole Angle:	0.00(°)	Hours Circ:	3.00 (hr)	Vol Fluid Lost:	

Casing Flange/Wellhead

Manufacturer:	DRILQUIP	Model:		Size/Rating:	244.00 (mm)/34,474 (kPa)
Hanger Model:		Packoff Model:		Base Size/Rating:	244.00 (mm)/34,474 (kPa)

Integral Casing Detail

Component Type	Body ID (mm)	Item Description	Body OD (mm)	Weight (kg/m)	Grade	Drift (mm)	Connection	Connection OD		No Jts	Length (m)	MD TOP (m)	MU Torque (kN-m)	THD	Manufacturer	Model No.	Cond	Max OD (mm)	Min ID (mm)
								Bottom (mm)	Top (mm)										
Casing Float Shoe		Casing, Casing Float Shoe, 244 , 70.00 kg/m, L-80,	244.00	70.00	L-80	220.50				1	0.58	902.01	11	N	WEATHERFORD		NEW	250.00	220.00
Casing		Casing, Casing, 244 , 70.00 kg/m, L-80,	244.00	70.00	L-80	220.50				2	25.27	876.74	11	N	NIPPON STEEL		NEW	250.00	220.00
Casing Float Collar		Casing, Casing Float Collar, 244 , 70.00 kg/m, L-80,	244.00	70.00	L-80	220.50				1	0.72	876.02	11	N	WEATHERFORD		NEW	250.00	220.00
Casing		Casing, Casing, 244 , 70.00 kg/m, L-80,	244.00	70.00	L-80	220.50				68	854.32	21.70	11	N	NIPPON STEEL		NEW	250.00	220.00
Casing		Casing, Casing, 244 , 70.00 kg/m, L-80,	244.00	70.00	L-80	220.50				1	1.40	20.30	11	N	NIPPON STEEL		NEW	250.00	220.00

Jewelry

Accessory Name	Accessory Group	Manufacturer	Num	Spacing (m)	Interval		Fastener Type	How Fixed	Attach Pattern
					MD Top (m)	MD Base (m)			
CENTRALIZER		Weatherford	20	12.00	310.00	900.00		CLAMPED	

Comments

AUSTRALIA

Cementing Report

Well:	COELACANTH-1			Report No.: 1	Report Date: 11/03/2008
Project:	VIC-P45	Site:	COELACANTH-1	Rig Name/No.:	WEST TRITON
Event:	OFFSHORE - ORIG DRLG	Start Date:	8/03/2008	End Date:	Spud Date: 10/03/2008
Active Datum:	ROTARY TABLE @38.00m (above Mean Sea Level)	UWI:			

General Information

Job Type:	Primary	Job Desc:	Cement 13-3/8" Conductor	Cement Job Start Date/Time:	11/03/2008 10:45AM	Job End Date/Time:	11/03/2008 12:30PM	N2 Used: N	CO2: N	Zone Isolated: N	
Contractor:	HALLIBURTON			Arrival Date/Time:	11/03/2008	Foreman:	R. Stares				
Assembly:	CONDUCTOR			Tubing/Casing Size:	508.00 (mm)	MD Landed:	275.73 (m)	Hole Size:	660.40 (mm)		
Ground Temp:		Air Temp:		Seabed Temp:		Annulus Temp:		BHT:			

Pipe Movement

Pipe Movement:	RECIPROCATING				
Rotating Date/Time (start-End):		Rotating RPM:		Rotating Torque (init/avg/max):	(kN-m)
Reciprocating Date/Time (start-End):		Recip Drag Up/Down:	- (tonne)	SPM:	Stroke Length:

Shoetrack Cement

Shoetrack Top MD:	Shoetrack Drill Date/Time:	Shoetrack Drill MD:

Fluids (1 of 3)

Fluid Name: Flush

Fluid Type: Seawater

Fluids (2 of 3)

Fluid Name: Lead

Fluid Type: Cement

Additives

Name	Type	Amount	Units	Concentration (Pa)	Concentration Unit
ECONOLITE	EXTENDER	240.00	gal	15.000	GAL/SK
NF-6	Defoamer	2.00	gal	0.125	GAL/SK

Fluids (3 of 3)

Fluid Name: Tail

Fluid Type: Cement

Additives

Name	Type	Amount	Units	Concentration (Pa)	Concentration Unit
NF-6	Defoamer	1.00	gal	0.250	GAL/SK
CALC2	ACCELERATOR	8.00	Sack(50Kg)	1.000	%BWOC

AUSTRALIA

Cementing Report

Well:	COELACANTH-1			Report No.: 1	Report Date: 11/03/2008
Project:	VIC-P45	Site:	COELACANTH-1	Rig Name/No.:	WEST TRITON
Event:	OFFSHORE - ORIG DRLG	Start Date:	8/03/2008	End Date:	Spud Date: 10/03/2008
Active Datum:	ROTARY TABLE @38.00m (above Mean Sea Level)	UWI:			

Stages

Stage No.	Type	MD Top (m)	MD Base (m)	Hole Size (mm)	Initial/Final Casing Pressure (kPa)	Circulate Flow Rate (L/min)	Circulate Press (kPa)	Circulate Prior (hr)	Vol Returns (m³)	Volume Lost (m³)
1	PRIM CMT 1ST STAGE	127.00	127.00	660.40	0/1724	1893	2000	3.00		

Pumping Schedule

Fluid Pumped	Volume (m³)	Rate (L/min)	Slurry Top MD (m)	Slurry Base MD (m)	Disp Rate Final (L/min)	Disp Pressure Final (kPa)	Top Of Fluid (m)	Pumping Start Date/Time	Pumping End Date/Time	Operation	Shutdown Time (min)	Foam Job	Foam Gas Type	Foam Gas Vol Used (scm)
Flush - Seawater	3	795						11/03/2008 10:52AM	11/03/2008 10:59AM	Flush		N		

Stages

Stage No.	Type	MD Top (m)	MD Base (m)	Hole Size (mm)	Initial/Final Casing Pressure (kPa)	Circulate Flow Rate (L/min)	Circulate Press (kPa)	Circulate Prior (hr)	Vol Returns (m³)	Volume Lost (m³)
2	PRIM CMT 2ND STAGE	127.00	225.00	660.40	689/1724	795	2000	1.00		

Pumping Schedule

Fluid Pumped	Volume (m³)	Rate (L/min)	Slurry Top MD (m)	Slurry Base MD (m)	Disp Rate Final (L/min)	Disp Pressure Final (kPa)	Top Of Fluid (m)	Pumping Start Date/Time	Pumping End Date/Time	Operation	Shutdown Time (min)	Foam Job	Foam Gas Type	Foam Gas Vol Used (scm)
Lead - Cement	27	795						11/03/2008 11:10AM	11/03/2008 11:45AM			N		

Stages

Stage No.	Type	MD Top (m)	MD Base (m)	Hole Size (mm)	Initial/Final Casing Pressure (kPa)	Circulate Flow Rate (L/min)	Circulate Press (kPa)	Circulate Prior (hr)	Vol Returns (m³)	Volume Lost (m³)
3	PRIM CMT 3RD STAGE	225.00	275.00	660.40	689/1724	795	2000	1.00		

Pumping Schedule

Fluid Pumped	Volume (m³)	Rate (L/min)	Slurry Top MD (m)	Slurry Base MD (m)	Disp Rate Final (L/min)	Disp Pressure Final (kPa)	Top Of Fluid (m)	Pumping Start Date/Time	Pumping End Date/Time	Operation	Shutdown Time (min)	Foam Job	Foam Gas Type	Foam Gas Vol Used (scm)
Tail - Cement	11	795	127.00	275.00		2,068.43		11/03/2008 11:45AM	11/03/2008 12:05PM			N		

AUSTRALIA

Cementing Report

Well:	COELACANTH-1			Report No.: 2	Report Date: 15/03/2008
Project:	VIC-P45	Site:	COELACANTH-1	Rig Name/No.:	WEST TRITON
Event:	OFFSHORE - ORIG DRLG	Start Date:	8/03/2008	End Date:	Spud Date: 10/03/2008
Active Datum:	ROTARY TABLE @38.00m (above Mean Sea Level)	UWI:			

General Information

Job Type:	Primary	Job Desc:	Cement 9-5/8' Surface	Cement Job Start Date/Time:	15/03/2008	1:20AM	Job End Date/Time:	15/03/2008	4:35AM	N2 Used: N	CO2: N	Zone Isolated: N
Contractor:	HALLIBURTON			Arrival Date/Time:	15/03/2008		Foreman:	R. Stares				
Assembly:	SURFACE			Tubing/Casing Size:	244.00 (mm)		MD Landed:	902.59 (m)		Hole Size:	311.00 (mm)	
Ground Temp:		Air Temp:		Seabed Temp:			Annulus Temp:			BHT:		

Pipe Movement

Pipe Movement:	RECIPROCATING				
Rotating Date/Time (start-End):		Rotating RPM:		Rotating Torque (init/avg/max):	(kN-m)
Reciprocating Date/Time (start-End):		Recip Drag Up/Down:	- (tonne)	SPM:	Stroke Length:

Shoetrack Cement

Shoetrack Top MD:	Shoetrack Drill Date/Time:	Shoetrack Drill MD:

Fluids (1 of 3)

Fluid Name: Flush

Fluid Type: Seawater

Fluids (2 of 3)

Fluid Name: Lead

Fluid Type: Cement

Additives

Name	Type	Amount	Units	Concentration (Pa)	Concentration Unit
ECONOLITE	EXTENDER	477.00	gal	15.000	GAL/SK
NF-6	Defoamer	4.00	gal	0.125	GAL/SK

Fluids (3 of 3)

Fluid Name: Tail

Fluid Type: Cement

Additives

Name	Type	Amount	Units	Concentration (Pa)	Concentration Unit
NF-6	Defoamer	2.00	gal	0.250	GAL/SK
HALAD-413	FLUID LOSS	30.00	gal	12.000	GAL/SK
CFR-3	Retarder	7.00	gal	3.000	GAL/SK

AUSTRALIA

Cementing Report

Well:	COELACANTH-1			Report No.: 2	Report Date: 15/03/2008
Project:	VIC-P45	Site:	COELACANTH-1	Rig Name/No.:	WEST TRITON
Event:	OFFSHORE - ORIG DRLG	Start Date: 8/03/2008	End Date:	Spud Date:	10/03/2008
Active Datum:	ROTARY TABLE @38.00m (above Mean Sea Level)	UWI:			

Stages

Stage No.	Type	MD Top (m)	MD Base (m)	Hole Size (mm)	Initial/Final Casing Pressure (kPa)	Circulate Flow Rate (L/min)	Circulate Press (kPa)	Circulate Prior (hr)	Vol Returns (m³)	Volume Lost (m³)
1	PRIM CMT 1ST STAGE	127.00	127.00	406.40	1724/1724	795	1724	2.00		

Pumping Schedule

Fluid Pumped	Volume (m³)	Rate (L/min)	Slurry Top MD (m)	Slurry Base MD (m)	Disp Rate Final (L/min)	Disp Pressure Final (kPa)	Top Of Fluid (m)	Pumping Start Date/Time	Pumping End Date/Time	Operation	Shutdown Time (min)	Foam Job	Foam Gas Type	Foam Gas Vol Used (scm)
Flush - Seawater	3	954						15/03/2008 1:34AM	15/03/2008 1:40AM			N		

Stages

Stage No.	Type	MD Top (m)	MD Base (m)	Hole Size (mm)	Initial/Final Casing Pressure (kPa)	Circulate Flow Rate (L/min)	Circulate Press (kPa)	Circulate Prior (hr)	Vol Returns (m³)	Volume Lost (m³)
2	PRIM CMT 2ND STAGE	150.00	850.00	406.40	1724/4826	795	1724	2.00		

Pumping Schedule

Fluid Pumped	Volume (m³)	Rate (L/min)	Slurry Top MD (m)	Slurry Base MD (m)	Disp Rate Final (L/min)	Disp Pressure Final (kPa)	Top Of Fluid (m)	Pumping Start Date/Time	Pumping End Date/Time	Operation	Shutdown Time (min)	Foam Job	Foam Gas Type	Foam Gas Vol Used (scm)
Lead - Cement		1431						15/03/2008 1:50AM	15/03/2008 3:00AM			N		

Stages

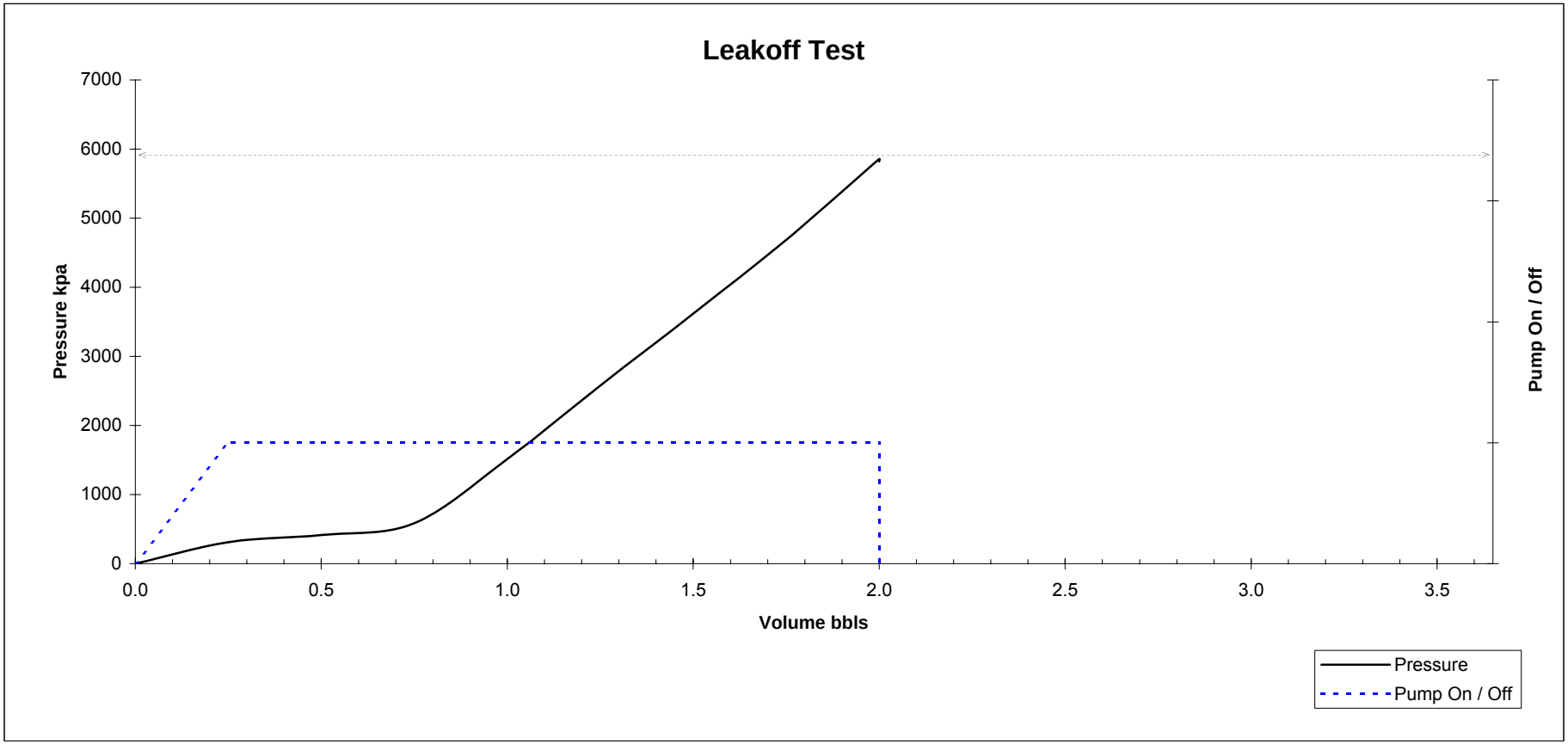
Stage No.	Type	MD Top (m)	MD Base (m)	Hole Size (mm)	Initial/Final Casing Pressure (kPa)	Circulate Flow Rate (L/min)	Circulate Press (kPa)	Circulate Prior (hr)	Vol Returns (m³)	Volume Lost (m³)
3	PRIM CMT 3RD STAGE	850.00	902.00	406.40	1724/4826	795	1724	2.00		

Pumping Schedule

Fluid Pumped	Volume (m³)	Rate (L/min)	Slurry Top MD (m)	Slurry Base MD (m)	Disp Rate Final (L/min)	Disp Pressure Final (kPa)	Top Of Fluid (m)	Pumping Start Date/Time	Pumping End Date/Time	Operation	Shutdown Time (min)	Foam Job	Foam Gas Type	Foam Gas Vol Used (scm)
Tail - Cement	5	1431	150.00	902.00		4,826.33		15/03/2008 3:00AM	15/03/2008 4:00AM			N		

APACHE ENERGY LIMITED

Well	**Coelacanth-1**	Casing Size	**244** mm	Leak Off Pressure from graph	**5856** kpa
Permit	**Vic P45**	Shoe TVD	**902** meters	Equivalent Mud Weight	**1.81** SG
Rig	**West Triton**	Test Fluid	**WBM**		**NO LEAK OFF**
		Density	**1.14** SG		



AUSTRALIA

Cementing Report

Well:	COELACANTH-1			Report No.: 3	Report Date: 24/03/2008
Project:	VIC-P45	Site:	COELACANTH-1	Rig Name/No.:	WEST TRITON
Event:	OFFSHORE - ORIG DRLG	Start Date:	8/03/2008	End Date:	Spud Date: 10/03/2008
Active Datum:	ROTARY TABLE @38.00m (above Mean Sea Level)	UWI:			

General Information

Job Type:	Plug	Job Desc:	Plug and Abandon	Cement Job Start Date/Time:	24/03/2008	8:00AM	Job End Date/Time:	26/03/2008	11:50PM	N2 Used: N	CO2: N	Zone Isolated: N
Contractor:	HALLIBURTON			Arrival Date/Time:			Foreman:	R. Stares				
Assembly:	SURFACE			Tubing/Casing Size:	244.00 (mm)		MD Landed:	902.59 (m)		Hole Size:	311.00 (mm)	
Ground Temp:		Air Temp:		Seabed Temp:			Annulus Temp:			BHT:		

Pipe Movement

Pipe Movement:			
Rotating Date/Time (start-End):		Rotating RPM:	Rotating Torque (init/avg/max): (kN-m)
Reciprocating Date/Time (start-End):		Recip Drag Up/Down: - (tonne)	SPM: Stroke Length:

Plug Detail

Plug Type:	ABANDONMENT	Plug MD Top:	76.00 (m)	Plug MD Base:	2,590.00 (m)	Drilled Out:	Drilled Out Date:
Pipe Pull Rate:	1 (m/s)			Pipe Pulled Wet:		WOC Time:	

Plug Status

Stage No.	Top (m)	Base (m)	Date	Status	Comments
1					
2					
3					

Fluid Name: **Plug #1** — **Fluids (1 of 3)**

Fluid Type: Cement

Fluid Name: **Plug #2** — **Fluids (2 of 3)**

Fluid Type: Cement

Fluid Name: **Plug #3** — **Fluids (3 of 3)**

Fluid Type: Cement

Stages

Stage No.	Type	MD Top (m)	MD Base (m)	Hole Size (mm)	Initial/Final Casing Pressure (kPa)	Circulate Flow Rate (L/min)	Circulate Press (kPa)	Circulate Prior (hr)	Vol Returns (m³)	Volume Lost (m³)
1	ABANDONMENT PLUG	2,530.00	2,590.00	216.00	2068/3792	795	2068	1.00		

AUSTRALIA

Cementing Report

Well:	COELACANTH-1			Report No.: 3	Report Date: 24/03/2008
Project:	VIC-P45	Site:	COELACANTH-1	Rig Name/No.:	WEST TRITON
Event:	OFFSHORE - ORIG DRLG	Start Date:	8/03/2008	End Date:	Spud Date: 10/03/2008
Active Datum:	ROTARY TABLE @38.00m (above Mean Sea Level)	UWI:			

Stages

Stage No.	Type	MD Top (m)	MD Base (m)	Hole Size (mm)	Initial/Final Casing Pressure (kPa)	Circulate Flow Rate (L/min)	Circulate Press (kPa)	Circulate Prior (hr)	Vol Returns (m³)	Volume Lost (m³)
1	ABANDONMENT PLUG	2,530.00	2,590.00	216.00	2068/3792	795	2068	1.00		

Pumping Schedule

Fluid Pumped	Volume (m³)	Rate (L/min)	Slurry Top MD (m)	Slurry Base MD (m)	Disp Rate Final (L/min)	Disp Pressure Final (kPa)	Top Of Fluid (m)	Pumping Start Date/Time	Pumping End Date/Time	Operation	Shutdown Time (min)	Foam Job	Foam Gas Type	Foam Gas Vol Used (scm)
Plug #1 - Cement	3	795						24/03/2008 8:00AM	5/08/2008 1:44AM			N		

Stages

Stage No.	Type	MD Top (m)	MD Base (m)	Hole Size (mm)	Initial/Final Casing Pressure (kPa)	Circulate Flow Rate (L/min)	Circulate Press (kPa)	Circulate Prior (hr)	Vol Returns (m³)	Volume Lost (m³)
2	ABANDONMENT PLUG	852.00	940.00	216.00	1172/1724	795	1172	1.00		

Pumping Schedule

Fluid Pumped	Volume (m³)	Rate (L/min)	Slurry Top MD (m)	Slurry Base MD (m)	Disp Rate Final (L/min)	Disp Pressure Final (kPa)	Top Of Fluid (m)	Pumping Start Date/Time	Pumping End Date/Time	Operation	Shutdown Time (min)	Foam Job	Foam Gas Type	Foam Gas Vol Used (scm)
Plug #2 - Cement	5	715						5/08/2008 1:55AM	24/03/2008 5:45PM			N		

Stages

Stage No.	Type	MD Top (m)	MD Base (m)	Hole Size (mm)	Initial/Final Casing Pressure (kPa)	Circulate Flow Rate (L/min)	Circulate Press (kPa)	Circulate Prior (hr)	Vol Returns (m³)	Volume Lost (m³)
3	ABANDONMENT PLUG	183.00	243.00	216.00	689/827	795	689	1.00		

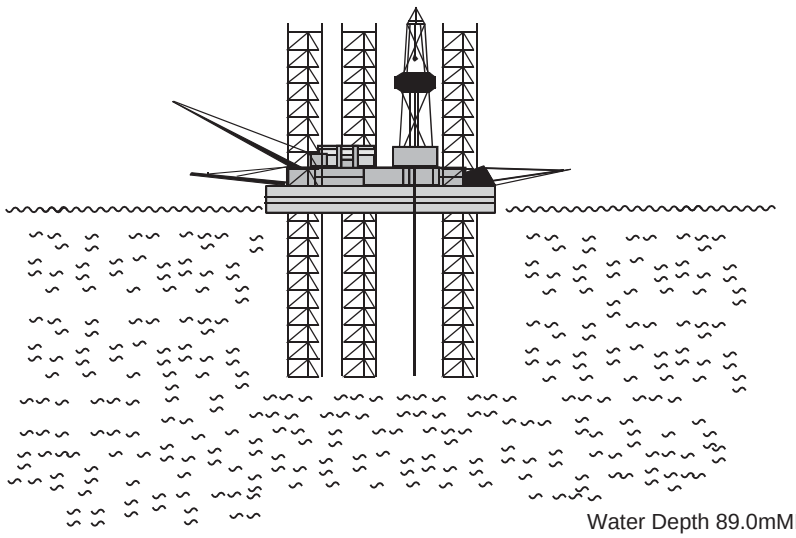
Pumping Schedule

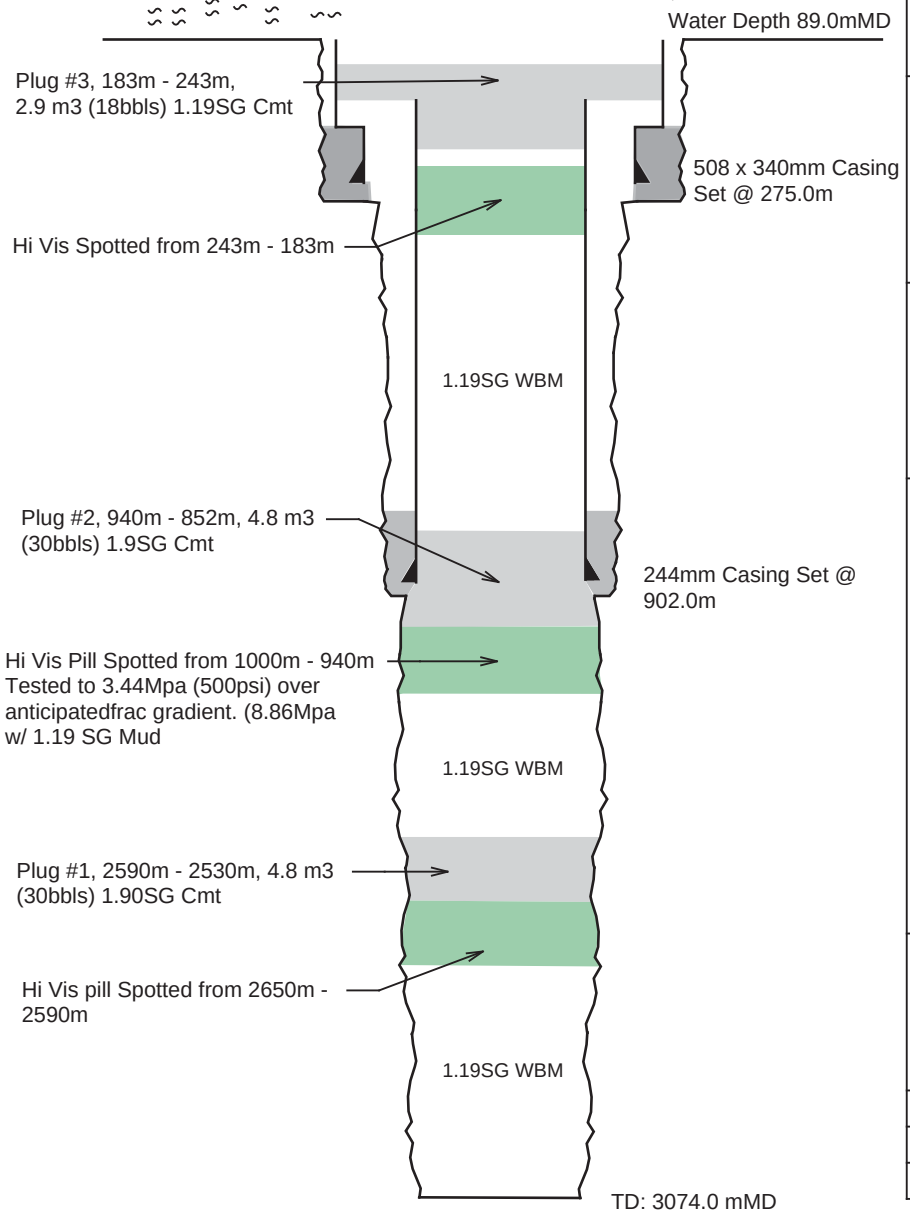
Fluid Pumped	Volume (m³)	Rate (L/min)	Slurry Top MD (m)	Slurry Base MD (m)	Disp Rate Final (L/min)	Disp Pressure Final (kPa)	Top Of Fluid (m)	Pumping Start Date/Time	Pumping End Date/Time	Operation	Shutdown Time (min)	Foam Job	Foam Gas Type	Foam Gas Vol Used (scm)
Plug #3 - Cement	4	795						26/03/2008 11:00PM	26/03/2008 11:50PM			N		

VIC-P45

COELACANTH-1

PLUG AND ABANDONMENT





LOCATION

Lat:	38° 42' 49.720" S
Long:	148 ° 18' 07.040" E

ELEVATIONS

RT to AHD Elevation:	38.00 m
Water Depth (AHD):	89.00m

WELL TRACK DETAILS

660 mm Hole to:	279.0 mRT
340mm Casing at:	275.0 mRT
311 mm Hole to:	907.0 mRT
244 mm Casing at:	902.0 mRT
216 mm Hole to:	3074.0 mRT

ABANDONMENT PLUGS

P&A Plug No3:	183.0 - 243.0 mRT
P&A Plug No2:	940.0 - 852.0 mRT
P&A Plug No1:	2590.0 - 2530.0 mRT

ADDITIONAL INFORMATION

508mm Casing Cut at::	130.5 mRT
340mm Casing Cut at:	143.0 mRT

Approval Signature

Engineer: _____

Drill Manager: _____

All depths MDRT	Scale: NOT TO SCALE
Drawn by: G.COOKS	Date: AUGUST 2008
File Name: Abandonment Coelacanth-1.DGN	

REPORT FOR THE WEST TRITON RIG MOVE TO THE COELACANTH-1 LOCATION

FUGRO BTW JOB NO. – 07066

Client : AUSTRALIAN DRILLING ASSOCIATES PTY LTD

Date of Project : 26 February to 13 March 2008

0	Final			
Rev	Description	Checked	Approved	Date

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CONTENTS

		PAGE NO.
1.0	**EXECUTIVE SUMMARY**	**1**
2.0	**INTRODUCTION**	**2**
2.1	Scope of Work	2
2.2	Sequence of Events	2
3.0	**RESULTS**	**4**
3.1	Final Position	4
3.2	Rig Heading	4
3.3	Height	5
4.0	**SAFETY**	**6**
5.0	**GEODETIC PARAMETERS**	**7**
5.1	Datum and Projection	7
6.0	**DIFFERENTIAL GPS REFERENCE STATIONS**	**8**
7.0	**PROJECT COORDINATES AND TOLERANCES**	**8**
8.0	**PERSONNEL**	**8**
8.1	Personnel Listing	8
9.0	**VESSELS**	**8**
10.0	**CONCLUSIONS AND RECOMMENDATIONS**	**8**
11.0	**DISTRIBUTION**	**9**

FIGURES

FIGURE 1 : COELACANTH-1 GENERAL LOCATION DIAGRAM 3

TABLES

TABLE 2-1 : FINAL COORDINATES AND HEADING 1
TABLE 3-1 : GEOGRAPHICAL POSITIONS 4
TABLE 3-2 : GRID COORDINATES 4
TABLE 3-3 : FINAL HEADING 4
TABLE 3-4 : FINAL HEIGHT 5
TABLE 5-1 : TRANSFORMATION PARAMETERS 7
TABLE 6-1 : GPS REFERENCE STATIONS 8
TABLE 7-1 : PROJECT DESIGN COORDINATES 8

APPENDICES

APPENDIX A - DAILY OPERATIONS REPORTS
APPENDIX B - FINAL POSITIONING DATA
APPENDIX C - CALIBRATIONS
APPENDIX D - VESSEL OFFSET DIAGRAM
APPENDIX E - CLIENT SUPPLIED DATA

1.0 EXECUTIVE SUMMARY

Between the 26 February and 13 March 2008 Fugro BTW Limited (Fugro) provided equipment and personnel for the Jack Up Mobile Offshore Drilling Unit (MODU) West Triton, rig move from Wasabi-1 to the Coelacanth-1 location.

Surface positioning was achieved utilising Fugro's Starfix Differential GPS (DGPS) interfaced to Fugro's SEIS navigation software.

The final position derived from DGPS observations of the West Triton Drill stem at the Coelacanth-1 location is:

Location Name	West Triton : Drill stem
MGA94, UTM Zone 55 S	
Easting	**613192.770 m**
Northing	**5714176.613 m**
GDA94-ITRF2008.50	
Latitude	**38º 42' 49.7296" S**
Longitude	**148º 18' 07.0098" E**
Rig Heading (True)	**102.59° (True)**
Height above Australian Height Datum (AHD)	
Rotary Table (RT)	**37.996m**

TABLE 2-1 : FINAL COORDINATES AND HEADING

This position is **0.78m** at a bearing of **247.71° True** FROM the proposed Coelacanth-1 location.

All coordinates in this report are quoted in terms of Geocentric Datum of Australia 1994 (GDA94) and Map Grid of Australia 1994, UTM Zone 55 S (MGA94) projection unless otherwise stated.

2.0 INTRODUCTION

Fugro BTW Ltd (Fugro) was contracted by Australian Drilling Associates Pty Ltd (ADA) to provide navigation and positioning survey services onboard the Jack Up Rig (JUR) West Triton, during the rig move to the Coelacanth-1 location in the Bass Strait, Australia.

A general location diagram is shown in Figure 1-1.

This report details the equipment used survey parameters adopted, procedures employed and the results achieved. A section on safety is included in Section 4.0 of this report.

2.1 *Scope of Work*

Personnel and equipment were provided on a 24 hour per day basis for:

- Installation of survey navigation equipment Anchor Handling Vessel (AHV) *MV Pacific Valkyrie.*
- Final rig surface positioning at the Coelacanth-1 location using DGPS observations.
- Final reporting of the positioning results.

2.2 *Sequence of Events*

On 26 February 2008, E. Todd and B. Harper departed New Plymouth for Melbourne. On 27 February G Marshall departed Auckland for Melbourne and was present until 29 February whilst mobilising the *MV Pacific Valkyrie.* On 4 March the *MV Pacific Valkyrie* navigation spread and telemetry system was mobilised and operational. On 6 March E. Todd and B. Harper arrived via helicopter on *West Triton*. At 1000 on 8 March 2008 the navigation systems and telemetry links were confirmed as fully operational between the *West Triton* and AHVs. At 1530 on 8 March the tow to Coelacanth-1 commenced. The rig was positioned and the final fix undertaken on the 10 March 2008 after preloading and jacking operations had been completed. Fugro Personnel departed the rig on 11 March. On 13 March 2008 Fugro personnel arrived back in New Plymouth.

Further details of Fugro's involvement in the rig move are presented in the daily operations reports included in **Appendix A.**

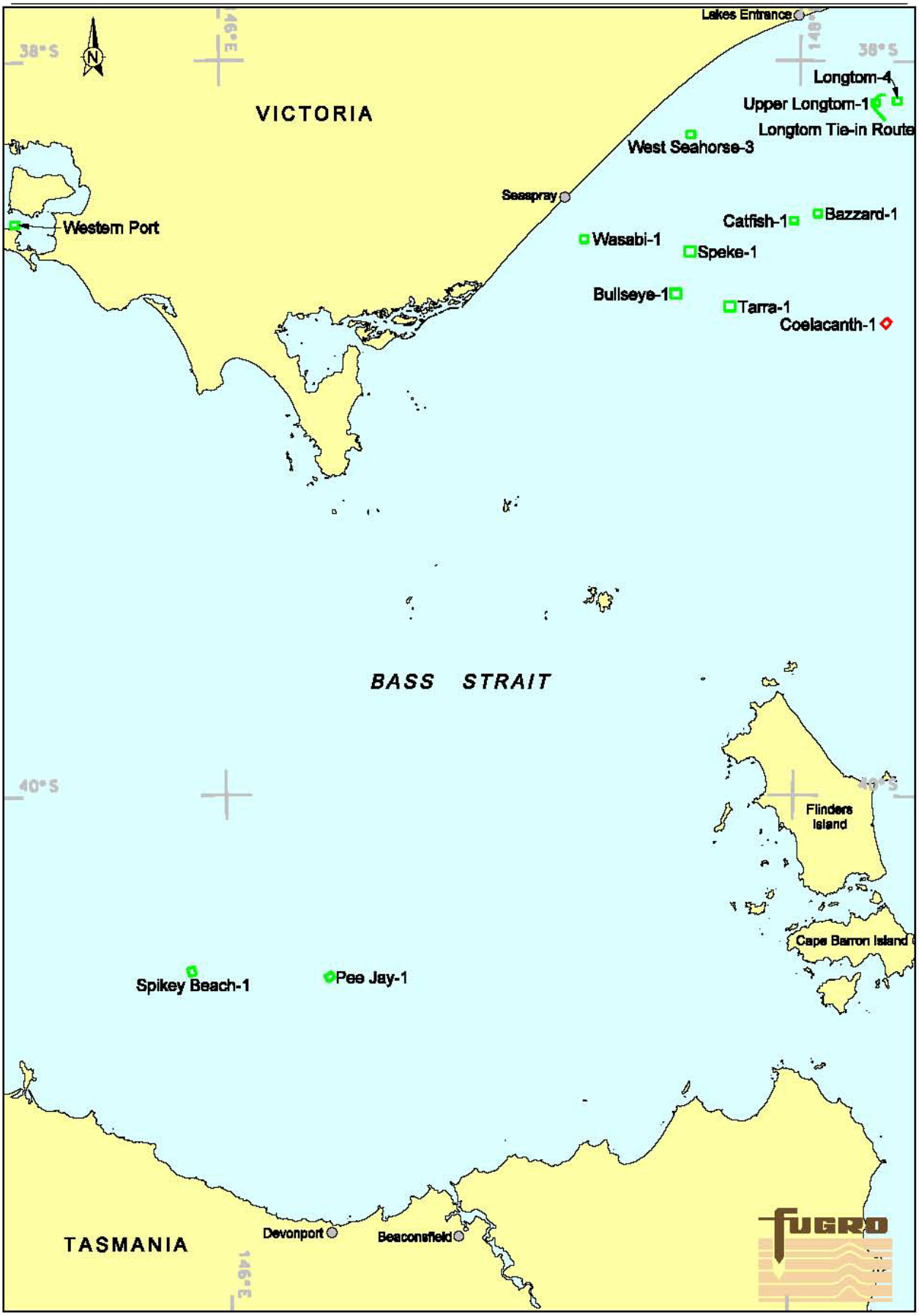


FIGURE 1 : COELACANTH-1 GENERAL LOCATION DIAGRAM

3.0 RESULTS

3.1 *Final Position*

The final position of the West Triton drill stem at Coelacanth-1 was established by calculating the mean position from 1 hour 30 minutes of DGPS data logged between 0239 and 0409 (UTC) on 9 March 2008. During this period, calculated drill stem coordinates from the primary positioning system were logged and the data used to calculate the final position.

Geocentric Datum of Australia 1994 geographical positions for the West Triton drill stem at the Wasabi-1 location are shown in Table 3-1.

Geocentric Datum of Australia 1994, ITRF2008.50			
Position	**Method**	**Latitude**	**Longitude**
West Triton Drill Stem	DGPS	38º 42' 49.7296" S	148º 18' 07.0098" E
Client Supplied Design for Coelacanth-1		38º 42' 49.7200" S	148º 18' 07.0398" E

TABLE 3-1 : GEOGRAPHICAL POSITIONS

Map Grid of Australia 1994 grid coordinates (UTM Zone 55 S, CM 147 E) for the West Triton drill stem at the Coelacanth-1 location are shown in Table 3-2.

Map Grid of Australia 1994, UTM Zone 55 S			
Position	**Method**	**Easting**	**Northing**
West Triton Drill Stem	DGPS	613192.770m	5714176.613m
Client Supplied Design for Coelacanth-1		613193.500m	5714176.900m

TABLE 3-2 : GRID COORDINATES

The position is **0.78m** at a bearing of **247.71º** True (248.52° G) from the design location.

A copy of the original rig position field report is contained in Appendix B.

3.2 *Rig Heading*

Gyro calibration's were undertaken prior to undertaking the rig move at the Wasabi-1 location by sun azimuth to compute the C-O correction.

A copy of the Gyro calibration reports are shown in Appendix C.

The West Triton's heading at Coelacanth-1 is shown in Table 3-3.

Description	**Method**	**True**	**Grid**
West Triton heading at Wasabi-1	GYRO	102.59°	°
Client Supplied Design heading		120°	

TABLE 3-3 : FINAL HEADING

3.3 *Height*

The *West Triton* Rotary Table's (RT) height above Australian Height Datum (AHD) was determined from logging 8 hours 39 minutes of carrier phase GPS data between 1438 on 9 March 2008 (UTC) and 2317 on 9 March 2008 (UTC). During this period, antenna heights from the primary positioning system were logged and the data used to calculate the final height of the RT.

The *West Triton's* Rotary Table height is shown in Table 3-4.

Description	Method	Height above AHD
West Triton Rotary Table at Coelacanth-1	Carrier Phase GPS	37.996m
Client Supplied Design height		38m

TABLE 3-4 : FINAL HEIGHT

4.0 SAFETY

All work undertaken by Fugro personnel during the project was preformed within the guidelines of Fugro's Safety policy, as defined in Fugro's Safety Manual (SMS – P01) and Offshore Survey Practices (SMS SP26)

Fugro personnel worked within all project safety guidelines and plans adopted by Seadrill and ADA.

No safety incidents involving Fugro personnel were reported during the project.

Fugro personnel attended a vessel induction, pre rig move meeting and weekly safety meeting whilst onboard.

5.0 GEODETIC PARAMETERS

5.1 *Datum and Projection*

All coordinates are referenced to the Geocentric Datum of Australia 1994 (GDA94) unless otherwise noted. The Global Positioning System (GPS) operates on the World Geodetic System 1984 (WGS84) datum. Fugro's Differential GPS Reference Stations are currently defined in the International Terrestrial Reference Frame 2000 (ITRF2000 Epoch 2008.50) datum. Due to the continual refinement of the WGS84 reference frame, for all cases, the transformation parameters indicate that the WGS84 and ITRF2000 reference frames are essentially identical.

Datum	**:**	**World Geodetic System 1984 (WGS84)**
Reference Spheroid	:	World Geodetic System 1984
Semi Major Axis	:	6378137.000m
Inverse flattening	:	298.257223563

Datum	**:**	**Geocentric Datum of Australia 1994 (GDA94)**
Reference Spheroid	:	Geodetic Reference System 1980 (GRS80)
Semi Major Axis	:	6378137.000m
Inverse flattening	:	298.257222101

The following seven parameter datum transformation was used in Fugro's software, to transform WGS84 (ITRF2000 Epoch 2008.50) coordinates to GDA94 coordinates. These parameters are calculated from the 14 parameter transformation defined by Geoscience Australia. Fugro follows the Coordinate Frame Rotation convention (as defined by UKOOA) for datum transformations.

Transformation Parameters from WGS84 (ITRF2000 Epoch 2008.50) to GDA94			
dX	+0.0174m	rX	+0.017554"
dY	-0.0484m	rY	+0.015065"
dZ	-0.1035m	rZ	+0.018157"
dS	+0.003362ppm		

TABLE 5-1 : TRANSFORMATION PARAMETERS

No transformation is needed in order to compute between WGS84 to GRS80.

Well grid coordinates are referenced to the Map Grid of Australia.

Grid	**:**	**Map Grid of Australia 1994 (MGA94)**
Projection	:	Universal Transverse Mercator (UTM)
Latitude of Origin	:	0°
Central Meridian	:	147° E (UTM Zone 55)
Central Scale Factor	:	0.9996
False Easting	:	500000m
False Northing	:	10000000m
Units	:	Metres

6.0 DIFFERENTIAL GPS REFERENCE STATIONS

Fugro's Differential GPS Reference Stations are currently defined in the ITRF2008.25 datum and shown in Table 6-1

Datum: ITRF 2000 Epoch 2008.25 Reference Ellipsoid: GRS80					
Station Name	**Station ID**	**Latitude**	**Longitude**	**Height (m)**	**Uplink**
Bathurst	336	33° 25′ 46.87757″	149° 34′ 01.97016″	756.670	OCSat / APSat
Ceduna	355	32° 07′ 03.04719″	133° 41′ 22.85207″	7.280	OCSat
Cobar	316	31° 29′ 57.42962″	145° 50′ 20.34599″	270.176	OCSat / APSat
Melbourne	385	37° 47′ 59.26402″	144° 57′ 39.31144″	67.338	OCSat / APSat

TABLE 6-1 : GPS REFERENCE STATIONS

7.0 PROJECT COORDINATES AND TOLERANCES

Project target coordinates supplied by the client and surface tolerances for the West Triton Drill Stem at the Wasabi-1 location are shown in Table 7.1

Map Grid of Australia 1994, UTM Zone 55 S			
Location	**Easting (m)**	**Northing (m)**	**Tolerance**
West Triton at Coelacanth-1	613193.500	5714176.900	±25 m

TABLE 7-1 : PROJECT DESIGN COORDINATES

8.0 PERSONNEL

8.1 *Personnel Listing*

E Todd	Party Chief / Surveyor	26 February 2007 – 13 March 2008
G Marshall	Party Chief / Surveyor	26 February 2007 – 29 February 2008
B Harper	Surveyor	26 February 2007 – 13 March 2008

9.0 VESSELS

The vessels used for towing the West Triton were the Anchor Handling vessels *MV Pacific Battler* and the *MV Pacific Valkyrie*. Refer to Appendix D for the offset diagram of the West Triton.

10.0 CONCLUSIONS AND RECOMMENDATIONS

On reviewing the rig move and positioning operations undertaken by Fugro the *West Triton* was successfully positioned at the Colecanth-1 location.

11.0 DISTRIBUTION

Australian Drilling Associates Pty Ltd	: 1 electronic copy
Fugro BTW Ltd	: 1 paper copy : 1 electronic copy

APPENDIX A
Daily Operations Reports

Fugro-BTW
PM-F50

DAILY OPERATIONS REPORT

CLIENT: ADA PTY LTD	LOCATION: NEW PLYMOUTH & AUCKLAND, NEW ZEALAND	DATE: 26/02/08
PROJECT: RIG MOVE TO COELACANTH-1 LOCATION	VESSEL: N/A	JOB NO: 07066

FROM	TO	SUMMARY OF OPERATIONS
GMT +13:00		
1520	1605	E. Todd travels from New Plymouth to Auckland.
1935	2020	B. Harper travels from New Plymouth to Auckland and checks into accommodation.

EQUIPMENT RIG	NO.	EQUIPMENT REMOTE	NO.	PERSONNEL	TITLE
Starfix Seis	2	Starfix Wombat (remote)	2	G. Marshall	Party Chief / Surveyor
Starfix HP DGPS	3	Fluxgate Compass	3	E. Todd	Surveyor
Radio Modem	2	Radio Modem	2	B. Harper	Surveyor
UPS	2	Starfix HP DGPS	2		
Theodolite	1				
SG Brown Gyro	2				

VEHICLES:

CONSUMABLES:

ACCOMMODATION: 1 at Centra Auckland Airport, Auckland, New Zealand.

AUTHORISED CONTRACT CHANGES / COMMENTS:

Party Chief Signature:	Client Representative Signature:	D O R Number
E Todd		07066-01

Fugro-BTW
PM-F50

DAILY OPERATIONS REPORT

CLIENT: ADA PTY LTD	LOCATION: NEW ZEALAND & AUSTRALIA	DATE: 27/02/08
PROJECT: RIG MOVE TO COELACANTH-1 LOCATION	VESSEL: N/A	JOB NO: 07066

FROM	TO	SUMMARY OF OPERATIONS
0430	0750	G. Marshall, E. Todd and B. Harper travel to Auckland Airport and check in.
0750	1330	Flight delayed due to engineering problems.
1330	1720	Travel to Melbourne.
GMT +11:00		
1520	2359	Land in Melbourne and check into accommodation. On standby.

EQUIPMENT RIG	NO.	EQUIPMENT REMOTE	NO.	PERSONNEL	TITLE
Starfix Seis	2	Starfix Wombat (remote)	2	G. Marshall	Party Chief / Surveyor
Starfix HP DGPS	3	Fluxgate Compass	3	E. Todd	Surveyor
Radio Modem	2	Radio Modem	2	B. Harper	Surveyor
UPS	2	Starfix HP DGPS	2		
Theodolite	1				
SG Brown Gyro	2				

VEHICLES:

CONSUMABLES:

ACCOMMODATION: 3 at Alexander Motor Inn & Apartments, Essendon, Melbourne, Australia.

AUTHORISED CONTRACT CHANGES / COMMENTS: 1x STOP card filled in by Ben as the webbing in his helmet broke in transit – it has been thrown out.

Party Chief Signature:	Client Representative Signature:	D O R Number
EJ Todd		07066-02

Fugro-BTW
PM-F50
DAILY OPERATIONS REPORT

CLIENT: ADA PTY LTD	LOCATION: MELBOURNE, AUSTRALIA	DATE: 28/02/08
PROJECT: RIG MOVE TO COELACANTH-1 LOCATION	VESSEL: N/A	JOB NO: 07066

FROM	TO	SUMMARY OF OPERATIONS
0001	2359	On standby.

EQUIPMENT RIG	NO.	EQUIPMENT REMOTE	NO.	PERSONNEL	TITLE
Starfix Seis	2	Starfix Wombat (remote)	2	G. Marshall	Party Chief / Surveyor
Starfix HP DGPS	3	Fluxgate Compass	3	E. Todd	Surveyor
Radio Modem	2	Radio Modem	2	B. Harper	Surveyor
UPS	2	Starfix HP DGPS	2		
Theodolite	1				
SG Brown Gyro	2				

VEHICLES:

CONSUMABLES:

ACCOMMODATION: 3 at Alexander Motor Inn & Apartments, Essendon, Melbourne, Australia.

AUTHORISED CONTRACT CHANGES / COMMENTS:

Party Chief Signature:	Client Representative Signature:	D O R Number
		07066-03

Fugro-BTW
PM-F50

DAILY OPERATIONS REPORT

CLIENT: ADA PTY LTD	LOCATION: MELBOURNE AND GEELONG, AUSTRALIA	DATE: 29/02/08
PROJECT: RIG MOVE TO COELACANTH-1 LOCATION	VESSEL: PACIFIC VALKYRIE	JOB NO: 07066

FROM	TO	SUMMARY OF OPERATIONS
0630	0800	G. Marshall, E. Todd and B. Harper travel to Corio Quay, Geelong.
0800	0830	G. Marshall, E. Todd and B. Harper attend Corio Quay port induction.
0830	0840	JHA and toolbox meeting to cover mobilisation of Pacific Valkyrie.
0840	1800	Mobilisation of Pacific Valkyrie.
1100		G. Marshall obtains Permit to Work Aloft.
1800	1900	G. Marshall, E. Todd and B. Harper travel back to Melbourne.

EQUIPMENT RIG	NO.	EQUIPMENT REMOTE	NO.	PERSONNEL	TITLE
Starfix Seis	2	Starfix Wombat (remote)	2	G. Marshall	Party Chief / Surveyor
Starfix HP DGPS	3	Fluxgate Compass	3	E. Todd	Surveyor
Radio Modem	2	Radio Modem	2	B. Harper	Surveyor
UPS	2	Starfix HP DGPS	2		
Theodolite	1				
SG Brown Gyro	2				

VEHICLES:

CONSUMABLES:

ACCOMMODATION: 3 at Alexander Motor Inn & Apartments, Essendon, Melbourne, Australia.

AUTHORISED CONTRACT CHANGES / COMMENTS: JHA-001 Mobilisation of Vessel and Toolbox meeting.

Party Chief Signature:	Client Representative Signature:	D O R Number
E Todd		07066-04

Fugro-BTW
PM-F50

DAILY OPERATIONS REPORT

CLIENT: ADA PTY LTD	LOCATION: MELBOURNE AND GEELONG, AUSTRALIA	DATE: 01/03/08
PROJECT: RIG MOVE TO COELACANTH-1 LOCATION	VESSEL: PACIFIC VALKYRIE	JOB NO: 07066

FROM	TO	SUMMARY OF OPERATIONS
0830	0930	E. Todd and B. Harper travel to Corio Quay, Geelong.
0930	2000	Continue mobilisation of Pacific Valkyrie.
2000	2100	E. Todd and B. Harper travel back to Melbourne.

EQUIPMENT RIG	NO.	EQUIPMENT REMOTE	NO.	PERSONNEL	TITLE
Starfix Seis	2	Starfix Wombat (remote)	2	E. Todd	Party Chief / Surveyor
Starfix HP DGPS	3	Fluxgate Compass	3	B. Harper	Surveyor
Radio Modem	2	Radio Modem	2		
UPS	2	Starfix HP DGPS	2		
Theodolite	1				
SG Brown Gyro	2				

VEHICLES:

CONSUMABLES:

ACCOMMODATION: 2 at Alexander Motor Inn & Apartments, Essendon, Melbourne, Australia.

AUTHORISED CONTRACT CHANGES / COMMENTS: Continuation of JHA-001 from 29/02/08.

Party Chief Signature:	Client Representative Signature:	D O R Number
E Todd		07066-05

Fugro-BTW
PM-F50
DAILY OPERATIONS REPORT

CLIENT: ADA PTY LTD	LOCATION: MELBOURNE, AUSTRALIA	DATE: 02/03/08
PROJECT: RIG MOVE TO COELACANTH-1 LOCATION	VESSEL: N/A	JOB NO: 07066

FROM	TO	SUMMARY OF OPERATIONS
0001	2359	On standby.

EQUIPMENT RIG	NO.	EQUIPMENT REMOTE	NO.	PERSONNEL	TITLE
Starfix Seis	2	Starfix Wombat (remote)	2	E. Todd	Party Chief / Surveyor
Starfix HP DGPS	3	Fluxgate Compass	3	B. Harper	Surveyor
Radio Modem	2	Radio Modem	2		
UPS	2	Starfix HP DGPS	2		
Theodolite	1				
SG Brown Gyro	2				

VEHICLES:

CONSUMABLES:

ACCOMMODATION: 2 at Alexander Motor Inn & Apartments, Essendon, Melbourne, Australia.

AUTHORISED CONTRACT CHANGES / COMMENTS:

Party Chief Signature:	Client Representative Signature:	D O R Number
E Todd		07066-06

Fugro-BTW
PM-F50

DAILY OPERATIONS REPORT

CLIENT: ADA PTY LTD	LOCATION: MELBOURNE, AUSTRALIA	DATE: 03/03/08
PROJECT: RIG MOVE TO COELACANTH-1 LOCATION	VESSEL: N/A	JOB NO: 07066

FROM	TO	SUMMARY OF OPERATIONS
0001	2359	On standby.

EQUIPMENT RIG	NO.	EQUIPMENT REMOTE	NO.	PERSONNEL	TITLE
Starfix Seis	2	Starfix Wombat (remote)	2	E. Todd	Party Chief / Surveyor
Starfix HP DGPS	3	Fluxgate Compass	3	B. Harper	Surveyor
Radio Modem	2	Radio Modem	2		
UPS	2	Starfix HP DGPS	2		
Theodolite	1				
SG Brown Gyro	2				

VEHICLES:

CONSUMABLES:

ACCOMMODATION: 2 at Alexander Motor Inn & Apartments, Essendon, Melbourne, Australia.

AUTHORISED CONTRACT CHANGES / COMMENTS:

Party Chief Signature:	Client Representative Signature:	D O R Number
E Todd		07066-07

Fugro-BTW
PM-F50

DAILY OPERATIONS REPORT

CLIENT: ADA PTY LTD	LOCATION: MELBOURNE AND GEELONG, AUSTRALIA	DATE: 04/03/08
PROJECT: RIG MOVE TO COELACANTH-1 LOCATION	VESSEL: N/A	JOB NO: 07066

FROM	TO	SUMMARY OF OPERATIONS
0730	0830	E. Todd and B. Harper travel to Corio Quay, Geelong.
0830	1230	Waiting for container to arrive.
1230	1400	Continue mobilisation of Pacific Valkyrie.
1400	1500	E. Todd and B. Harper travel back to Melbourne.
1500	2359	On standby.

EQUIPMENT RIG	NO.	EQUIPMENT REMOTE	NO.	PERSONNEL	TITLE
Starfix Seis	2	Starfix Wombat (remote)	2	E. Todd	Party Chief / Surveyor
Starfix HP DGPS	3	Fluxgate Compass	3	B. Harper	Surveyor
Radio Modem	2	Radio Modem	2		
UPS	2	Starfix HP DGPS	2		
Theodolite	1				
SG Brown Gyro	2				

VEHICLES:

CONSUMABLES:

ACCOMMODATION: 2 at Alexander Motor Inn & Apartments, Essendon, Melbourne, Australia.

AUTHORISED CONTRACT CHANGES / COMMENTS: Continuation of JHA-001 from 29/02/08.

Party Chief Signature:	Client Representative Signature:	D O R Number
E Todd		07066-08

Fugro-BTW
PM-F50

DAILY OPERATIONS REPORT

CLIENT: ADA PTY LTD	LOCATION: MELBOURNE, AUSTRALIA	DATE: 05/03/08
PROJECT: RIG MOVE TO COELACANTH-1 LOCATION	VESSEL: N/A	JOB NO: 07066

FROM	TO	SUMMARY OF OPERATIONS
0001	2359	On standby.

EQUIPMENT RIG	NO.	EQUIPMENT REMOTE	NO.	PERSONNEL	TITLE
Starfix Seis	2	Starfix Wombat (remote)	2	E. Todd	Party Chief / Surveyor
Starfix HP DGPS	3	Fluxgate Compass	3	B. Harper	Surveyor
Radio Modem	2	Radio Modem	2		
UPS	2	Starfix HP DGPS	2		
Theodolite	1				
SG Brown Gyro	2				

VEHICLES:

CONSUMABLES:

ACCOMMODATION: 2 at Alexander Motor Inn & Apartments, Essendon, Melbourne, Australia.

AUTHORISED CONTRACT CHANGES / COMMENTS:

Party Chief Signature:	Client Representative Signature:	D O R Number
		07066-09

Fugro-BTW
PM-F50
DAILY OPERATIONS REPORT

CLIENT: ADA PTY LTD	LOCATION: MELBOURNE AND BASS STRAIT, AUSTRALIA	DATE: 06/03/08
PROJECT: RIG MOVE TO COELACANTH-1 LOCATION	VESSEL: WEST TRITON	JOB NO: 07066

FROM	TO	SUMMARY OF OPERATIONS
0730	0745	E. Todd and B. Harper travel to Essendon Airport.
0745	0910	E. Todd and B. Harper check in and attend helicopter safety briefing.
0910	1015	Flight to West Triton.
1015	1115	E. Todd and B. Harper attend West Triton safety induction.
1115	2115	Preparing equipment. JHA-005 Rig Operations covered and Toolbox meeting held for reinstalling GPS antennas.
1830	1845	E. Todd attends evening meeting.

EQUIPMENT RIG	NO.	EQUIPMENT REMOTE	NO.	PERSONNEL	TITLE
Starfix Seis	2	Starfix Wombat (remote)	2	E. Todd	Party Chief / Surveyor
Starfix HP DGPS	3	Fluxgate Compass	3	B. Harper	Surveyor
Radio Modem	2	Radio Modem	2		
UPS	2	Starfix HP DGPS	2		
Theodolite	1				
SG Brown Gyro	2				

VEHICLES:

CONSUMABLES:

ACCOMMODATION:

AUTHORISED CONTRACT CHANGES / COMMENTS: JHA-005 Rig Operations and Toolbox meeting held for reinstalling GPS antennas.

Party Chief Signature:	Client Representative Signature:	D O R Number
E Todd		07066-10

DAILY OPERATIONS REPORT

CLIENT: ADA PTY LTD	LOCATION: BASS STRAIT, AUSTRALIA	DATE: 07/03/08
PROJECT: RIG MOVE TO COELACANTH-1 LOCATION	VESSEL: WEST TRITON	JOB NO: 07066

FROM	TO	SUMMARY OF OPERATIONS
0700	0715	E. Todd attends morning meeting.
0715	1330	Replacing GPS cable to starboard side of helideck. Setting up GPS.
1330	1430	Sun observations for gyro calibration. Calculated C-O= - 114.71. Previous setting is -114.74 so left as this in Seis.
1430	2359	Continue with setup – checking offsets in vessel diagram and filling out workbook. Secondary SG Brown Gyro reporting error, will have to be returned to Ashtead.
1830	1845	E. Todd attends evening meeting.
1630	2335	Start logging to test RINEX heighting data. File: TEST067F.08O.
1930	2030	Start logging for DGPS check. File: COP: 07066_Coelacanth-1_Pre rig move.csv.
2335	2359	Stop logging test RINEX heighting data. Submitted to AusPos processing, requested to resubmit at end of UTC day tomorrow.

EQUIPMENT RIG	NO.	EQUIPMENT REMOTE	NO.	PERSONNEL	TITLE
Starfix Seis	2	Starfix Wombat (remote)	2	E. Todd	Party Chief / Surveyor
Starfix HP DGPS	3	Fluxgate Compass	3	B. Harper	Surveyor
Radio Modem	2	Radio Modem	2		
UPS	2	Starfix HP DGPS	2		
Theodolite	1				
SG Brown Gyro	1				

VEHICLES:		
CONSUMABLES:		
ACCOMMODATION:		

AUTHORISED CONTRACT CHANGES / COMMENTS:

Party Chief Signature:	Client Representative Signature:	D O R Number
E Todd		07066-11

DAILY OPERATIONS REPORT

CLIENT: ADA PTY LTD	LOCATION: BASS STRAIT, AUSTRALIA	DATE: 08/03/08
PROJECT: RIG MOVE TO COELACANTH-1 LOCATION	VESSEL: WEST TRITON	JOB NO: 07066

FROM	TO	SUMMARY OF OPERATIONS
0001	0045	Continue with setup – filling out workbook.
0045	0030	Updated vessel file so Drill Stem and Rotary Table are in new skid out position 19.5ft from Centre Transom: (0.0, -5.944, 0.0)
0030	0630	Standing by.
0630	0700	Offsets checked in vessel file.
0700	0715	E. Todd attends morning meeting followed by pre rig move meeting.
0939	1000	Contacted Pacific Valkyrie and Pacific Battler to confirm navigation suite operating correctly. Both have new vessel shape for West Triton with DS at -5.994.
1000	1129	Runline created for tow track to Coelacanth-1 using coordinates supplied by Pacific Battler.
1129	1144	Pacific Battler moving in to connect up to tow line. Jacking down.
1144	1221	Pacific Battler connected to centre tow line.
1221	1342	Pacific Valkyrie connected to port tow line.
1342	1350	Start logging for rig move. File: 200803080242.
1350	1530	All stop on jacking down for integrity checks.
1530	2359	Begin tow from Wasabi-1 to Coelacanth-1.
1830	1845	B. Harper attends evening meeting.

EQUIPMENT RIG	NO.	EQUIPMENT REMOTE	NO.	PERSONNEL	TITLE
Starfix Seis	2	Starfix Wombat (remote)	2	E. Todd	Party Chief / Surveyor
Starfix HP DGPS	3	Fluxgate Compass	3	B. Harper	Surveyor
Radio Modem	2	Radio Modem	2		
UPS	2	Starfix HP DGPS	2		
Theodolite	1				
SG Brown Gyro	1				
VEHICLES:					
CONSUMABLES:					
ACCOMMODATION:					

AUTHORISED CONTRACT CHANGES / COMMENTS:

Party Chief Signature:	Client Representative Signature:	D O R Number
E Todd		07066-12

DAILY OPERATIONS REPORT

CLIENT: ADA PTY LTD	LOCATION: BASS STRAIT, AUSTRALIA	DATE: 09/03/08
PROJECT: RIG MOVE TO COELACANTH-1 LOCATION	VESSEL: WEST TRITON	JOB NO: 07066

FROM	TO	SUMMARY OF OPERATIONS
0001	0136	Continue tow from Wasabi-1 to Coelacanth-1.
0136	0254	Pacific Battler shortening tow line.
0254	0440	Pacific Battler released from centre tow line.
0440	0543	Pacific Battler connected to port aft tow line.
0543	0657	Confirm skid out distance of 19.5ft (5.944m) from centre of transom to drill centre with OIM (M. Barry).
0657	0751	Given new diagram and told skid out distance is to be 15.5ft (4.724m) from centre of transom to drill centre. Confirmed this new location with OIM (M. Barry) and moved ghost vessel 1.22m ahead. Plan to alter vessel shape *after* boats are released as sending new vessel shape over WOMBAT takes time. Rig movers notified of this and know to line up to ghost shape, not drill stem to waypoint.
0751	0820	Stop logging.
0820	0830	On location at Coelacanth-1, lowering legs.
0830	0908	Change and load new vessel shape so drill stem is -4.724 from centre transom.
0908	0923	Start logging for preliminary position fix.
0923	1050	Finish logging. DS is 1.65m at 189.26°T from intended location. Hdg: 102.59 °T. Primary and secondary antennas compare.
1050	1125	Pacific Valkyrie released from port tow line.
1125	1125	Pacific Battler connected to centre tow line.
1125	1200	Prepare secondary SGBrown gyrocompass for helicopter flight to Essendon airport, and onward freighting.
1200	1830	On standby, waiting for rig to jack up to final position. Equipment inventory.
1830	1845	B. Harper attends evening meeting.
1845	2359	On standby, waiting for rig to jack up to final position.

EQUIPMENT RIG	NO.	EQUIPMENT REMOTE	NO.	PERSONNEL	TITLE
Starfix Seis	2	Starfix Wombat (remote)	2	E. Todd	Party Chief / Surveyor
Starfix HP DGPS	3	Fluxgate Compass	3	B. Harper	Surveyor
Radio Modem	2	Radio Modem	2		
UPS	2	Starfix HP DGPS	2		
Theodolite	1				
SG Brown Gyro	1				
VEHICLES:					
CONSUMABLES:					
ACCOMMODATION:					

AUTHORISED CONTRACT CHANGES / COMMENTS:

Party Chief Signature:	Client Representative Signature:	D O R Number
Todd		07066-13

DAILY OPERATIONS REPORT

CLIENT: ADA PTY LTD	LOCATION: BASS STRAIT, AUSTRALIA	DATE: 10/03/08
PROJECT: RIG MOVE TO COELACANTH-1 LOCATION	VESSEL: WEST TRITON	JOB NO: 07066

FROM	TO	SUMMARY OF OPERATIONS
0001	0005	Stop jacking up, start logging .fbf files. File: 200803091305.
0100	0129	Confirm with company man rig is in final jacked up position.
0129	0139	Start logging .cop file. File: Coelacanth-1 Final Position Fix.csv.
0138	0139	Start logging RINEX file for heighting. File: COEL069O.08O.
0139	0309	Start logging using "Final Fix".
0309	0329	Final Fix stopped logging. Drill stem location: 613192.770mE 5714176.613mN Hdg 102.59T This is 0.78m at 247.71T from intended location at Coelacanth-1.
0329	0400	.fbf and .cop logging stopped and used to check Final Fix position. All agree.
0400	0700	On standby.
0700	0730	E. Todd attends morning meeting.
1017	1018	Stop logging RINEX data.
1300	1330	E. Todd and B. Harper attend weekly safety meeting.
1400	1500	Toolbox meeting held for taping vertical offset from GPS antennas to rotary table as a check. Measurements undertaken, <0.1m difference to initial theodolite measurements.
1500	1530	Send RINEX data to AusPos website for processing.
1530	1535	Receive data from AusPos.
1535	1548	Contact Ashtead Singapore (G. Buchanan), he knows gyro will be returned to them.
1548	1600	Process heighting data. Height of rotary table above Australian Height Datum (AHD): 37.996m
1600	2359	On standby.

EQUIPMENT RIG	NO.	EQUIPMENT REMOTE	NO.	PERSONNEL	TITLE
Starfix Seis	2	Starfix Wombat (remote)	2	E. Todd	Party Chief / Surveyor
Starfix HP DGPS	3	Fluxgate Compass	3	B. Harper	Surveyor
Radio Modem	2	Radio Modem	2		
UPS	2	Starfix HP DGPS	2		
Theodolite	1				
SG Brown Gyro	2				
VEHICLES:					
CONSUMABLES:					
ACCOMMODATION:					

AUTHORISED CONTRACT CHANGES / COMMENTS: Toolbox meeting held for taping vertical offset from GPS antennas to rotary table.

Party Chief Signature:	Client Representative Signature:	D O R Number
E.J.Todd		07066-14

Fugro-BTW
PM-F50

DAILY OPERATIONS REPORT

CLIENT: ADA PTY LTD	LOCATION: BASS STRAIT AND MELBOURNE, AUSTRALIA	DATE: 11/03/08
PROJECT: RIG MOVE TO COELACANTH-1 LOCATION	VESSEL: WEST TRITON	JOB NO: 07066

FROM	TO	SUMMARY OF OPERATIONS
0001	1230	On standy. Tidying up setup and container in preparation for departure.
1230	1300	E. Todd and B. Harper attend helicopter safety briefing.
1330	1530	E. Todd and B. Harper fly to Essendon airport.
1530	1600	Deliver gyrocompass to ABX logistics in Tullamarine for freighting to Ashtead.
1600	1630	Travel to hotel.
1630	2359	On standby.

EQUIPMENT RIG	NO.	EQUIPMENT REMOTE	NO.	PERSONNEL	TITLE
Starfix Seis	2	Starfix Wombat (remote)	2	E. Todd	Party Chief / Surveyor
Starfix HP DGPS	3	Fluxgate Compass	3	B. Harper	Surveyor
Radio Modem	2	Radio Modem	2		
UPS	2	Starfix HP DGPS	2		
Theodolite	1				
SG Brown Gyro	2				

VEHICLES:

CONSUMABLES:

ACCOMMODATION: 2 at Hotel Ibis, Melbourne, Australia.

AUTHORISED CONTRACT CHANGES / COMMENTS:

Party Chief Signature:	Client Representative Signature:	D O R Number
EToddl		07066-15

DAILY OPERATIONS REPORT

CLIENT: ADA PTY LTD	LOCATION: MELBOURNE, AUSTRALIA	DATE: 12/03/08
PROJECT: RIG MOVE TO COELACANTH-1 LOCATION	VESSEL: N/A	JOB NO: 07066

FROM	TO	SUMMARY OF OPERATIONS
0001	1530	On standby.
1530	1600	Travel to Melbourne airport.
1600	1830	Wait at airport for flight to Auckland.
1830	2200	E. Todd and B. Harper fly to Auckland.

EQUIPMENT RIG	NO.	EQUIPMENT REMOTE	NO.	PERSONNEL	TITLE
Starfix Seis	2	Starfix Wombat (remote)	2	E. Todd	Party Chief / Surveyor
Starfix HP DGPS	3	Fluxgate Compass	3	B. Harper	Surveyor
Radio Modem	2	Radio Modem	2		
UPS	2	Starfix HP DGPS	2		
Theodolite	1				
SG Brown Gyro	2				

VEHICLES:

CONSUMABLES:

ACCOMMODATION: 2 at Centra Auckland Airport, Auckland, New Zealand.

AUTHORISED CONTRACT CHANGES / COMMENTS:

Party Chief Signature:	Client Representative Signature:	D O R Number
EJTodd		07066-16

DAILY OPERATIONS REPORT

CLIENT: ADA PTY LTD	LOCATION: AUCKLAND AND NEW PLYMOUTH, NEW ZEALAND	DATE: 13/03/08
PROJECT: RIG MOVE TO COELACANTH-1 LOCATION	VESSEL: N/A	JOB NO: 07066

FROM	TO	SUMMARY OF OPERATIONS
GMT +13:00		
0001	0030	E. Todd and B. Harper arrive in Auckland and travel to accommodation.
0030	0830	On standby.
0830	0845	Travel to airport.
0845	0915	Wait at airport for flight to New Plymouth.
0915	1000	E. Todd and B. Harper fly to New Plymouth.

EQUIPMENT RIG	NO.	EQUIPMENT REMOTE	NO.	PERSONNEL	TITLE
Starfix Seis	2	Starfix Wombat (remote)	2	E. Todd	Party Chief / Surveyor
Starfix HP DGPS	3	Fluxgate Compass	3	B. Harper	Surveyor
Radio Modem	2	Radio Modem	2		
UPS	2	Starfix HP DGPS	2		
Theodolite	1				
SG Brown Gyro	2				
VEHICLES:					
CONSUMABLES:					
ACCOMMODATION:					

AUTHORISED CONTRACT CHANGES / COMMENTS:

Party Chief Signature:	Client Representative Signature:	D O R Number
EJTodd		07066-17

APPENDIX B
Final Positioning Data

Starfix Final Fix Report

Fugro Job Number	07066
Job Name	West Triton Rig Move
Fugro Personnel	E. Todd,B. Harper
Client Name	ADA
Client Representative	R. Reading
Sampling Started	09 Mar 2008 2:39:46 PM UTC
Sampling Ended	09 Mar 2008 4:09:51 PM UTC
Comment	Final Fix

Intended Offset / Well Location

Geodetic Datum	GDA94-ITRF2008.50
Latitude	38°42'49.7200"S
Longitude	148°18'07.0398"E
Projection	Transverse Mercator (UTM) Zone: 55
Easting	613193.500 m
Northing	5714176.900 m
Intended Rig Heading	103.00 °T

Final DGPS Position Fix Summary for West Triton At Coelacanth-1

DS computed from Port OCSAT.GGA (Primary)

DS Offset From CRP	
Starboard	0.000 m
Forward	-4.724 m
Up	0.000 m
Geodetic Datum	GDA94-ITRF2008.50
Latitude	38°42'49.7296"S
Longitude	148°18'07.0098"E
Projection	Transverse Mercator (UTM) Zone: 55
Easting	613192.770 m
Northing	5714176.613 m

Final Rig Heading 102.59 °T (Convergence 0.81° Australia/New Zealand)
Gyro C-O ###### °
Position is 0.78 m @ 247.71 °T (248.52 °G) FROM intended location

DS computed from Stbd APSAT.GGA (Secondary)

Geodetic Datum	GDA94-ITRF2008.50
Latitude	38°42'49.7304"S
Longitude	148°18'07.0090"E
Projection	Transverse Mercator (UTM) Zone: 55
Easting	613192.751 m
Northing	5714176.588 m

Position is 0.81 m @ 246.56 °T (247.37 °G) FROM intended location

Positioning System Comparison (System 2 minus System 1)

Delta Easting	-0.020 m
Delta Northing	-0.025 m

Party Chief: EJ Todd Client Representative:

Fugro BTW Ltd
Australian Drilling Associates Pty Ltd
West Triton Rig Positioning

Field Report One **Final Rotary Table Heighting** **07066**
Date: 10 March 08

The height of the *West Triton* Rotary Table (RT) above Australian Height Datum (AHD) at Coelacanth-1 was determined from 8 hours 39 minutes of carrier phase GPS data logged between 14:38 on 09 March 2008 (UTC) and 23:17 on 9 March 2008 (UTC). During this period, antenna heights from the primary positioning system were logged and the data used to calculate the final height of the RT.

The *West Triton's* Rotary Table height is shown in Table 1.

Description	Method	Height above AHD
West Triton Rotary Table at Coelacanth-1	Carrier Phase GPS	37.996m
Client Supplied Design height		38m

TABLE 1

E. Todd
Party Chief / Surveyor
Fugro BTW Ltd

~~M. Pinson~~
~~Apache Energy~~

10/03/08
Date

Starfix ~~Final~~ Fix Report

Preliminary

Fugro Job Number	07066
Job Name	West Triton Rig Move
Fugro Personnel	E. Todd,B. Harper
Client Name	ADA
Client Representative	R. Reading
Sampling Started	08 Mar 2008 10:08:44 PM UTC
Sampling Ended	08 Mar 2008 10:23:44 PM UTC
Comment	Preliminary Fix

Intended Offset / Well Location

Geodetic Datum	GDA94-ITRF2008.50
Latitude	38°42'49.7200"S
Longitude	148°18'07.0398"E
Projection	Transverse Mercator (UTM) Zone: 55
Easting	613193.500 m
Northing	5714176.900 m
Intended Rig Heading	120.00 °T

Final DGPS Position Fix Summary for West Triton At Coelacanth-1

DS computed from Port OCSAT.GGA (Primary)

DS Offset From CRP	
Starboard	0.000 m
Forward	-4.724 m
Up	0.000 m
Geodetic Datum	GDA94-ITRF2008.50
Latitude	38°42'49.7727"S
Longitude	148°18'07.0289"E
Projection	Transverse Mercator (UTM) Zone: 55
Easting	613193.212 m
Northing	5714175.278 m

Final Rig Heading 102.59 °T (Convergence 0.81° Australia/New Zealand)
Gyro C-O ###### °
Position is 1.65 m @ 189.26 °T (190.07 °G) FROM intended location

DS computed from Stbd APSAT.GGA (Secondary)

Geodetic Datum	GDA94-ITRF2008.50
Latitude	38°42'49.7761"S
Longitude	148°18'07.0310"E
Projection	Transverse Mercator (UTM) Zone: 55
Easting	613193.261 m
Northing	5714175.173 m

Position is 1.74 m @ 187.06 °T (187.87 °G) FROM intended location

Positioning System Comparison (System 2 minus System 1)

Delta Easting	0.049 m
Delta Northing	-0.105 m
Delta Height	-0.022 m

Party Chief: E Todd Client Representative: _____

Rig Move Parameters

Project Details

Fugro Job Number:	07066	**Drilling Rig :**	West Triton
Job Description:	Rig Move from Wasabi-1 to Coelacanth-1	**Company Man**	R. Reading
Client:	Australian Drilling Associates Pty Ltd	**Surveyor:**	E. Todd
Client Representative	N/A	**Time Zone :**	11hrs
Date :	March 8, 2008		

Proposed Location

Name	Coelacanth-1
Easting	613193.50
Northing	5714176.90
Latitude (ϕ)	-038° 42' 49.72" S
Longitude (λ)	148° 18' 7.04" E
Heading (True)	120 ° tbc
Water Depth (m)	89.60 m
Final Fairlead depths(m)	N/A

Current Location

Name	Wasabi-1
Easting	522993.59
Northing	5739963.35
Latitude (ϕ)	-038° 29' 18.16" S
Longitude (λ)	147° 15' 49.15" E
Heading (True)	120 °
Water Depth (m)	29.25 m

NB: RT to AHD 38m at Coelacanth-1
Skid out distance 19.5ft = 5.944m

Antenna Offsets (From CRP relative to Rig Heading)

NAV1 ANTENNA	Offset(X)	-13.70 m
	Offset(Y)	90.40 m
NAV2 ANTENNA	Offset(X)	13.62 m
	Offset(Y)	90.41 m

Geodesy (Proposed)		Read Comment !	Geodesy (Current)	Read Comment !
GPS DATUM				
	Name	WGS84	WGS84	
	Semi-Major Axis	6378137.00	6378137.00	
	Inverse Flattening	298.257223563	298.257223563	
LOCAL DATUM				
	Name	GRS80	GRS80	
	Datum	GDA94-ITRF2008.50	GDA94 (ITRF-2008.50)	
	Semi-Major Axis	6378137.00	6378137.00	
	Inverse Flattening	298.2572221	298.257222101	
TRANSFORMATION PARAMETERS (GPS ==> LOCAL)				
	Dx	0.01740 m	0.01740 m	
	Dy	-0.04840 m	-0.04840 m	
	Dz	-0.10350 m	-0.10350 m	
	Rx	0.01755 "	0.01755 "	
	Ry	0.01507 "	0.01507 "	
	Rz	0.01816 "	0.01816 "	
	Ds	0.00336 ppm	0.00336 ppm	
UTM PROJECTION PARAMETERS				
	Name	Transverse Mercator (UTM)	Transverse Mercator (UTM)	
	Central Meridian	147 °	147 °	
	Zone	55	55	
	Central Scale Factor	0.9996	0.9996	
	False Easting	500000	500000	
	False Northing	10000000	10000000	

EFTodd

RIG POSITIONING
GEODESY AND COORDINATE CHECK LIST

Client :	**Australian Drilling Associates Pty Ltd**	**Job Number :**	**07066**
Rig :	**West Triton**	**Date:**	**March 8, 2008**
Project :	**Rig Move from Wasabi-1 to Coelacanth-1**		

1. CONFIRMATION OF PROPOSED RIG COORDINATES and HEADING.

Well Name	**Coelacanth-1**		Ensure agreement with Client onsite prior to any positioning
Well Location – Latitude(ϕ)	-038° 42' 49.72"	S	Operations. OK (?) (Y) N.
Well Location – Longitude(λ)	148° 18' 7.04"	E	
Rig Heading (True)	120° T (tbc)		

2. GEODETIC PARAMETERS (WGS84 to LOCAL DATUM)

DATUM:	Dx	0.01740 m	Ensure agreement with Client onsite prior to positioning operations.
GRS80	Dy	-0.04840 m	OK (?) (Y) N.
	Dz	-0.10350 m	
	Rx	0.01755 "	
Projection:	Ry	0.01507 "	
	Rz	0.01816 "	
Transverse Mercator (UTM)	Ds	0.00336 ppm	
UTM Zone		55	
Central Meridian		147° East	

3. CHECK TRANSFORMATION OF SITE COORDINATES.

Well Location – Easting	613193.5	Ensure agreement with Starfix.Seis. OK (?) (Y) N
Well Location – Northing	5714176.9	If not, CHECK and RECALC.
Convergence at Location	0.81 °	RT to AHD 38m
Rig Heading (° Grid)	120.81°	Skid out distance 19.5ft = 5.944m

4. MEAS. ANT. OFFSETS from ANT. CRP (Rel. to Datum) (Measure two (2) separate directions, verifying closure.)	**NAV #1 SYSTEM**	**NAV #2 SYSTEM**
Delta X(m)	-13.70 m	13.62 m
Delta Y(m)	90.40 m	90.41 m
Angle between Rig Centreline and Antenna(s) (Grid)	351.38°	8.6°
Distance between CRP (Centre Transom) and Antenna (m)	91.43 m	91.43 m

5. MANUAL COORDINATE VERIFICATION FOR ANTENNAS		**NAV #1 SYSTEM**	**NAV #2 SYSTEM**
Proposed Drill Stem Position	Easting	613193.5	613193.5
	Northing	5714176.9	5714176.9
CRP (Centre Transom) to Antenna	Proposed Hdg (G)	120.814°	120.814°
Brg (G) = Prop. Hdg. + Angle btwn centreline and antenna		112.195°	129.379°
	Distance (m)	91.43 m	91.43 m
Calculated Antenna	Easting	613278.16	613264.17
Coordinates (Local Datum)	Northing	5714142.36	5714118.89
	Latitude (ϕ)	-038° 42' 50.80" S	-038° 42' 51.57" S
	Longitude (λ)	148° 18' 10.56" E	148° 18' 10.00" E
Calculated Proposed Antenna Coords (WGS 84)	Latitude (ϕ)	-038° 42' 50.78" S	-038° 42' 51.54" S
	Longitude (λ)	148° 18' 10.58" E	148° 18' 10.01" E

6. POST RIG MOVE - OBSERVED ANTENNA COORD

Observed GPS Receiver Antenna Position in WGS84.	Latitude (ϕ)	POST MOVE N	POST MOVE N
	Longitude (λ)	E	E

Ensure agreement between calculated and observed coordinates. If **NO**, check calcs., antenna offsets. OK(?) Y / N

PC/Surveyor : E. Todd Company Man : R. Reading Date : 8/03/08

RIG POSITIONING
GEODESY AND COORDINATE CHECK LIST

Client :	**Australian Drilling Associates Pty Ltd**	**Job Number :**	**07066**
Rig :	**West Triton**	**Date:**	**March 10, 2008**
Project :	**Rig Move from Wasabi-1 to Coelacanth-1**		

1. CONFIRMATION OF PROPOSED RIG COORDINATES and HEADING.

Well Name	**Coelacanth-1**		Ensure agreement with Client onsite prior to any positioning
Well Location – Latitude(ϕ)	-038° 42' 49.72"	S	Operations. OK (?) (Y) / N.
Well Location – Longitude(λ)	148° 18' 7.04"	E	
Rig Heading (True)	103° T		

2. GEODETIC PARAMETERS (WGS84 to LOCAL DATUM)

DATUM:	Dx	0.01740 m	Ensure agreement with Client onsite prior to positioning operations.
GRS80	Dy	-0.04840 m	OK (?) (Y) / N.
	Dz	-0.10350 m	
	Rx	0.01755 "	
Projection:	Ry	0.01507 "	
	Rz	0.01816 "	
Transverse Mercator (UTM)	Ds	0.00336 ppm	
UTM Zone		55	
Central Meridian		147° East	

3. CHECK TRANSFORMATION OF SITE COORDINATES.

Well Location – Easting	613193.5	Ensure agreement with Starfix.Seis. OK (?) (Y) / N
Well Location – Northing	5714176.9	If not, CHECK and RECALC.
Convergence at Location	0.81 °	RT to AHD 38m
Rig Heading (° Grid)	103.81°	Skid out distance 15.5ft = 4.724m

4. MEAS. ANT. OFFSETS from ANT. CRP (Rel. to Datum) (Measure two (2) separate directions, verifying closure.)	**NAV #1 SYSTEM**	**NAV #2 SYSTEM**
Delta X(m)	-13.70 m	13.62 m
Delta Y(m)	95.13 m	95.14 m
Angle between Rig Centreline and Antenna(s) (Grid)	351.80°	8.1°
Distance between Drill Stem (DS) and Antenna (m)	96.11 m	96.11 m

5. MANUAL COORDINATE VERIFICATION FOR ANTENNAS		**NAV #1 SYSTEM**	**NAV #2 SYSTEM**
Proposed Drill Stem Position	Easting	613193.5	613193.5
	Northing	5714176.9	5714176.9
Drill Stem (DS) to Antenna	Proposed Hdg (G)	103.814°	103.814°
Brg (G) = Prop. Hdg. + Angle btwn centreline and antenna		95.617°	111.959°
	Distance (m)	96.11 m	96.11 m
Calculated Antenna	Easting	613289.15	613282.63
Coordinates (Local Datum)	Northing	5714167.49	5714140.96
	Latitude (ϕ)	-038° 42' 49.98" S	-038° 42' 50.84" S
	Longitude (λ)	148° 18' 11.00" E	148° 18' 10.75" E
Calculated Proposed Antenna Coords (WGS 84)	Latitude (ϕ)	-038° 42' 49.96" S	-038° 42' 50.82" S
	Longitude (λ)	148° 18' 11.02" E	148° 18' 10.76" E

6. POST RIG MOVE - OBSERVED ANTENNA COORD

Observed GPS Receiver Antenna Position in	Latitude (ϕ)	-38 ° 42' 49.94 " S	-38 ° 42' 50.82 " S
WGS84.	Longitude (λ)	148 ° 18' 10.99 " E	148 ° 18' 10.74 " E

Ensure agreement between calculated and observed coordinates. If **NO**, check calcs., antenna offsets. OK(?) (Y) / N

PC/Surveyor : E. Todd Company Man : R. Reading Date : 10/3/08

RIG POSITIONING
DGPS CHECK LIST (PRE RIG MOVE)

Client : **Australian Drilling Associates Pty Ltd** **Job Number :** **07066**

Rig : **West Triton** **Date:** **7-Mar-08**

Project : **Rig Move from Wasabi-1 to Coelacanth-1**
from Wasabi-1 to Coelacanth-1

1) **ESTABLISHED WELL COORDINATES**
Horizontal Datum: GRS80
Observe 60minutes of DGPS data, logging both Primary and Secondary systems.
Establish a mean drill stem position from the primary navigation system and compare against the established well coordinates.

	Easting	Northing
Established Well Coordinates	522993.59	5739963.35
Observed Coordinates	522992.36	5739963.34
Differences	1.22	0.01

Ensure agreement OK(?) (Y) / N
If No, Check and ensure that rig has not moved off location.

2) PRIMARY/SECONDARY NAV SYSTEMS
From the data logged above, compare the observed coordinates for both Primary and Secondary navigation systems.

	Easting	Northing
Primary Navigation	522992.36	5739963.34
Secondary Navigation	522992.45	5739963.33
Differences	-0.09	0.01

Ensure agreement OK(?) (Y) / N
If No, Check antenna offsets and gyro calibration.

Party Chief/Surveyor: E. Todd

Company Man : R. Reading

APPENDIX C
Calibrations

GYRO COMPASS CALIBRATION BY SUN AZIMUTH - CALCULATION SUMMARY

Fugro Job Number:	07066	**Vessel:**	West Triton
Job Description:	Rig Move from Wasabi-1 to Coelacanth-1	**Instrument:**	Wild T2
Client:	Australian Drilling Associates Pty Ltd	**Serial No:**	252357
Surveyor:	E. Todd	**Date:**	March 7, 2008
Gyro Compass (Serial No):	SG Brown (863)	**Time Zone :**	11hrs

Vessel Details

	D	M	S
Enter correction from RO to vessel centreline	19°	43 '	15 "

Enter approximate WGS84 position of instrument :

	D	M	S
Latitude (ϕ)	-38 °	29 '	18 "
Longitude (λ)	147 °	15 '	49 "

Observations

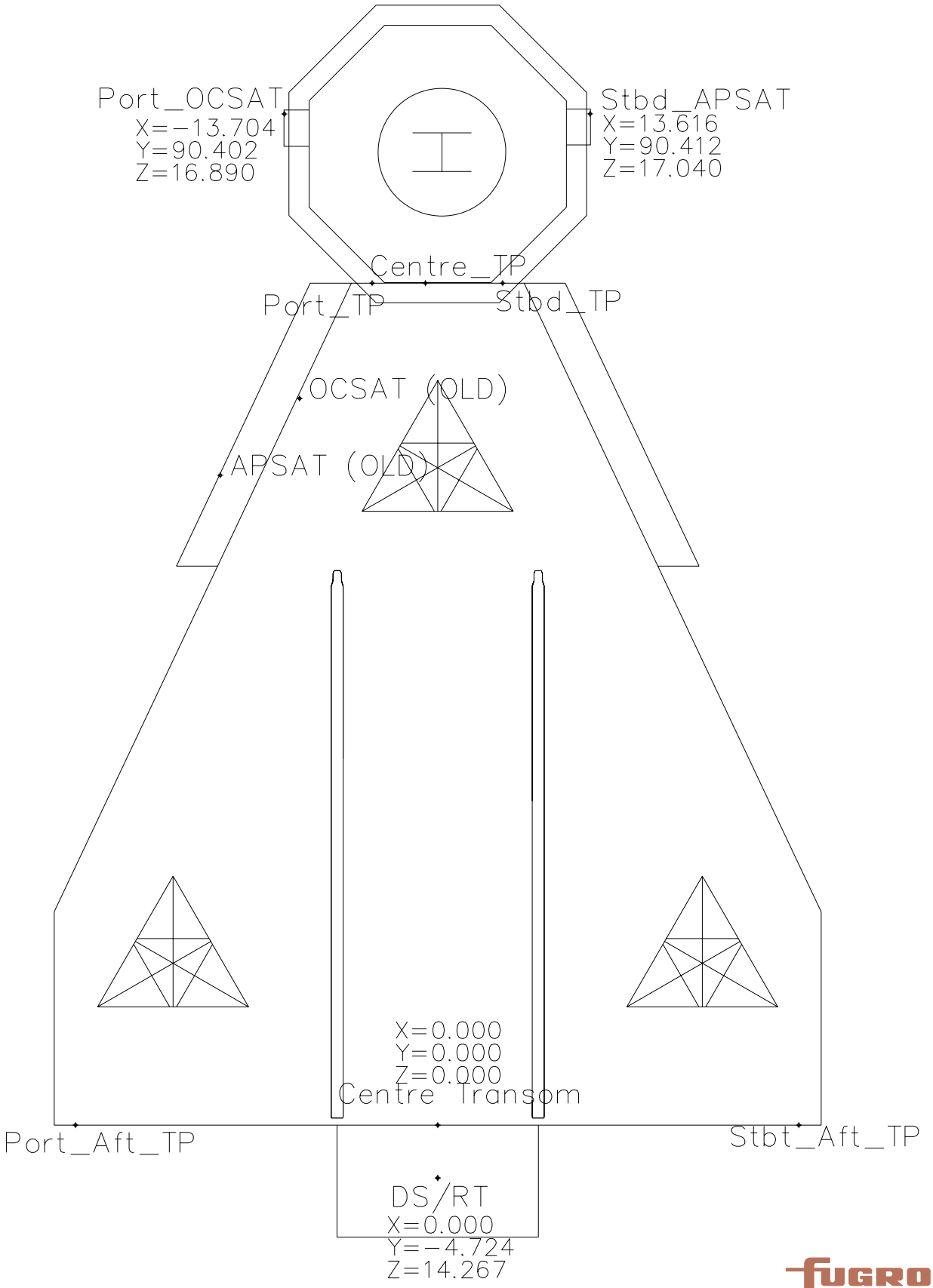
Obs. No.	Date	UTC	Instrument Position		Calculated Sun Azimuth at UTC		Observed Direction to Sun				Calc'd Vessel Hdg	Obs'd Vessel Hdg	Sun Semi Diameter	(C-O) Degrees
			Latitude (ϕ) DMS	Longitude (λ) DMS	DMS	Dec. Deg	Deg	Min	Sec	Dec. Deg				
1	7-Mar-08	2:50:39	-038° 29' 18.25"	147° 15' 49.25"	347° 08' 49.14"	347.147 °	247°	07'	49	247.130	119.738 °	234.50 °	0.2691	-114.76 °
2	7-Mar-08	2:52:52	-038° 29' 18.25"	147° 15' 49.25"	346° 10' 35.09"	346.176 °	246°	06'	55	246.115	119.782 °	234.50 °	0.2690	-114.72 °
3	7-Mar-08	2:54:37	-038° 29' 18.25"	147° 15' 49.25"	345° 24' 49.42"	345.414 °	245°	21'	46	245.363	119.772 °	234.50 °	0.2690	-114.73 °
4	7-Mar-08	2:59:04	-038° 29' 18.25"	147° 15' 49.25"	343° 29' 22.08"	343.489 °	243°	25'	57	243.432	119.778 °	234.50 °	0.2690	-114.72 °
5	7-Mar-08	3:00:17	-038° 29' 18.25"	147° 15' 49.25"	342° 58' 2.49"	342.967 °	242°	55'	13	242.920	119.768 °	234.50 °	0.2690	-114.73 °
6	7-Mar-08	3:01:09	-038° 29' 18.25"	147° 15' 49.25"	342° 35' 47.55"	342.597 °	242°	30'	52	242.514	119.803 °	234.50 °	0.2690	-114.70 °
7	7-Mar-08	3:01:59	-038° 29' 18.25"	147° 15' 49.25"	342° 14' 27.10"	342.241 °	242°	09'	41	242.161	119.800 °	234.50 °	0.2690	-114.70 °
8	7-Mar-08	3:02:52	-038° 29' 18.25"	147° 15' 49.25"	341° 51' 53.25"	341.865 °	241°	48'	27	241.807	119.778 °	234.50 °	0.2690	-114.72 °
9	7-Mar-08	3:04:39	-038° 29' 18.25"	147° 15' 49.25"	341° 06' 30.96"	341.109 °	241°	01'	17	241.021	119.808 °	234.50 °	0.2690	-114.69 °
10	7-Mar-08	3:05:49	-038° 29' 18.25"	147° 15' 49.25"	340° 36' 58.13"	340.616 °	240°	30'	41	240.511	119.826 °	234.50 °	0.2690	-114.67 °
11	7-Mar-08	3:06:23	-038° 29' 18.25"	147° 15' 49.25"	340° 22' 39.39"	340.378 °	240°	17'	47	240.296	119.802 °	234.50 °	0.2690	-114.70 °
12	7-Mar-08	3:07:14	-038° 29' 18.25"	147° 15' 49.25"	340° 01' 14.21"	340.021 °	239°	56'	22	239.939	119.802 °	234.50 °	0.2690	-114.70 °
13	7-Mar-08	3:07:47	-038° 29' 18.25"	147° 15' 49.25"	339° 47' 24.51"	339.790 °	239°	42'	53	239.715	119.796 °	234.50 °	0.2690	-114.70 °

Mean	**-114.71 °**
Std. Deviation	**0.02**
Maximum	**-114.67 °**
Minimum	**-114.76 °**
Range	**0.09**

Previous C-O correction is -114.74, left as this in navigation suite.

Party Chief/Surveyor : E. Todd

APPENDIX D
Vessel Offset Diagram



WEST TRITON VESSEL OFFSET DIAGRAM

APPENDIX E
Client Supplied Data

WELL LOCATIONS (EASTINGS, NORTHNGS) - JACK UP CONSORTIUM

LOCATION	BASIN	OPERATOR	WATER DEPTH	RIG HEADING	WELL CENTRE COORDINATES					
					Easting m	Northing m	Latitude	Longitude	Latitude	Longitude
					GDA 94,MGA,Zone 55,CM 147deg E		GDA 94		WGS84	
Bernoulli-1	Otway	Beach	88.4m	135DEG	505506	5752953	38° 22' 17.7276"S	147° 03' 46.9152"E	38° 22' 17.7019"S	147° 03' 46.9269"E
Fermat-1	Otway	Beach	37.4m	135DEG	504722	5772396	38° 11' 46.9184"S	147° 03' 14.1375"E	38° 11' 46.8927"S	147° 03' 14.1492"E
					Easting m	Northing m	Latitude	Longitude	Latitude	Longitude
					GDA 94,MGA,Zone 55,CM 147deg E		GDA 94		WGS84	
Longtom-4	Gippsland	Nexus	56.1 m	20DEG	616900	5781700	38° 06' 17.8518"S	148° 20' 00.0573"E	38° 06' 17.8263"S	148° 20' 00.0687"E
Upper Longtom-1 (UP-1)	Gippsland	Nexus	56.1m	135DEG	610005	5781170	38° 06' 38.1617"S	148° 15' 17.2989"E	38° 06' 38.1362"S	148° 15' 17.3103"E
West Seahorse-3	Gippsland	3D Oil	39.1m	135DEG	554228	5771040	38° 12' 25.0767"S	147° 37' 09.8102"E	38° 12' 25.0511"S	147° 37' 09.8218"E
Bazzard-1	Gippsland	Stuart	68m	135DEG	592945	5747517	38° 24' 56.7457"S	148° 03' 52.7619"E	38° 24' 56.7202"S	148° 03' 52.7733"E
Catfish	Gippsland	Stuart	63m	135DEG	585751	5745431	38° 26' 07.0046"S	147° 58' 57.0626"E	38° 26' 06.9790"S	147° 58' 57.0740"E
Wasabi-1	Gippsland	Apache	29m	135DEG	522994	5739978	38° 29' 17.6820"S	147° 15' 49.1617"E	38° 29' 17.6563"S	147° 15' 49.1734"E
Speke -1	Gippsland	Apache	53.5m	135DEG	553900	5736650	38° 31' 00.8469"S	147° 37' 05.7941"E	38° 31' 00.8213"S	147° 37' 05.8056"E
Coelacanth-1	Gippsland	Apache	96m	135DEG	613194	5714177	38° 42' 49.7165"S	148° 18' 07.0605"E	38° 42' 49.6910"S	148° 18' 07.0717"E
					Easting m	Northing m	Latitude	Longitude	Latitude	Longitude
					AGD 84,MGA,Zone 55,CM 147deg E		AGD 84		WGS84	
Peejay-1	Bass	Beach	76.5m	135DEG	445668	5516789	40° 29' 51.6725"S	146° 21' 31.7477"E	40° 29' 46.2052"S	146° 21' 36.6297"E
Spikey Beach - 1	Bass	Beach	73.7 m	135DEG	404387	5517966	40° 29' 00.0821"S	145° 52' 18.8491"E	40° 28' 54.6339"S	145° 52' 23.7591"E
					Easting m	Northing m	Latitude	Longitude	Latitude	Longitude
					GDA 94,TM Zone 55,CM 147deg E		GDA 94		WGS84	
Western Port			18.1m	135DEG	350763	5743980	38° 26' 23.9834"S	145° 17' 24.0028"E	38° 26' 23.9575"S	145° 17' 24.0151"E

HERTZE HIRE CAR.
BRISTOWS

Wednesday
QF480. 06.10

Seadrill

0458330817
GML Supervisor

Holiday Inn - Burswood.

WEST TRITON – RIG MOVE PROCEDURE

WASABI 1 - COELACANTH 1

TABLE OF CONTENTS

1.	MOVE OBJECTIVES AND HAZARDS		2
2.	OLD LOCATION DETAILS AND HAZARDS		2
3.	NEW LOCATION DETAILS AND HAZARDS		3
4.	NEW LOCATION SURVEY INFORMATION		3
5.	TOW AND ASSIST VESSELS		4
6.	PREPARATION FOR RIG MOVE		5
7.	EXIT FROM PRESENT LOCATION		7
8.	TOW ROUTE AND WAYPOINTS		8
9.	MOVE INTO FINAL POSITION		9
10.	PRELOAD OPERATION		10
11.	ATTACHMENTS		
	ATTACHMENT 1	Tow Route, Overview Chartlets	11-13
	ATTACHMENT 2	Passage Plan	14
	ATTACHMENT 3	Certificates of Warranty and Approval	15

120 mm
224.5 T.

? VALKYRIE

Lee Nott Master

David Kearney c/o Seadrill Singapore

John McKenzie c/o

Pacific.Valkyrie@swireships.com

1. MOVE OBJECTIVES AND HAZARDS

The Rig WEST TRITON is intending to move from her present position at "WASABI 1" Drilling Location, LAT: LAT: 38° 29.3 S, LONG 147° 15.8 E, to "COELACANTH 1" Drilling Location, at LAT: 38° 42.82 S, LONG 148° 18.12 E. Positions are aproximate and in WGS 84 format.

Both locations are off the South East Coast of Australia, and the 54.9nm Tow is in the Bass Strait Area. The Operator is Apache Drilling.
"Coelacanth 1" is inside the central reservation of a Traffic Separation scheme and therefore in close vicinity to the main shipping channels. The Intercept vessel "Frontier" or one of the larger AHTS's will be on location at all times to protect the Rig.

The primary tow vessel will be the "Pacific Battler" supported by the "Pacific Valkerie". Both vessels have been inspected. The tow will commence with the "Pacific Battler" on the bow. The Pacific Valkerie will either be secured to the Port Bow from the outset if conditions allow, or will be temporarily used on the stern to control the speed of the move off location

Once the legs are well clear of the seabed, the Valkerie will be moved up to the bow and with both Tow vessels towing, the time to "Coelacanth 1" location will be roughly 10 -11 hours at just over five Knots. The rig will need about 1.25hrs hours to jack her legs up on departure and about 3hrs to jack down on arrival. Jacking down will start about an hour before arrival at location. Total move time Pin to Pin about 16-18hrs.

A passage plan is included in these procedures for planning purposes. The final passage plan for the voyage will be submitted by the Captain of the lead tow vessel. Due regard must be held to a number of pipelines in the vicinity.

When a suitable weather/swell window as defined by the MOM and Insurance requirements is available, (40 hrs) the Rig will move away from Wasabi 1, and head out to Coelacanth 1. Providing weather conditions are still suitable on arrival, the Battler will be released from the Bow and re-secured on the Port (or Stbd) Quarter to assist moving in on to location. The Rig will approach the location, turn to final heading, and pin in position within the required tolerances. It is not uncommon to experience 12 – 14sec swells in this area.

2. PRESENT LOCATION – DETAILS AND HAZARDS

Well Location, Position Tolerance, Rig Heading and Air Gap

Well Name/ Port Name	:	WASABI STANDBY LOCATIONA
Basin/Permit	:	Stand By Location
Latitude	:	38° 29.3 S
Longitude	:	147° 15.8 E
Water Depth	:	28.3 m LAT
Heading	:	119.9°

3. NEW LOCATION – DETAILS AND HAZZARDS

Well Location, Position Tolerance, Rig Heading and Air Gap

Well Name/ Port Name		:	COELACANTH 1
Basin/Permit		:	Open Drilling Location
Latitude	WGS 84	:	38° 42.82 S
Longitude		:	148° 18.12 E
M.G.A. Easting		:	TBN
Northing		:	TBN
Position Tolerance		:	25 m Radius
Water Depth		:	89.6 m LAT
Rig Heading	(Coms dependant)	:	120° or 300 decide on rig
Air Gap (Hull to MSL – min Insurance Req)		:	10.65m

38°42'49.72" 148°18'07.06"

38°42.83' 148°18.12'

Note: tidal and current data should be made available for the move.

14.7

4. NEW LOCATION – SURVEY INFORMATION

Geotechnical Analysis has been performed by Frugro Surveys Job No PO 758-2

Bathymetry:

The water depth at the location is approximately 89.6 meters to LAT. A Bathymetry chart of the location should be made available on board the Rig. Site specific tide and current tables should also be made available for reference during the rig move operation.

Seabed Features: Smooth and Featureless

Spudcan – Footprint Interaction: Nil expected

Shallow Geology: Well bedded sequence of Sands

The soil stratigraphy in the survey area: Dense to very dense Siliceous Sand

5. TOW & ASSIST VESSELS

The Vessels (AHV's) for the tow and positioning are the Pacific Battler and the Pacific Wrestler.

Vessel Name	Pacific Valkayre	Pacific Battler	
Operator	Swire Offshore	Swire Offshore	
AHV Positioning	AHTS	AHTS	
Captain			
BHP	8810	12240	
Bollard Pull (MT)	120 mt	142 mt	
Winch Line Pull (MT)	255 mt (first layer)	300 mt	
Tow Wire	1200m x 71mm	1200m x 76mm	
Pennant Reels	Work drum	Work drum	

The vessels have been inspected per SEADRILL requirements by Falconer & Bryan MWS prior to the move

6. PREPARATION FOR RIG MOVE

1. The Barge Engineer, GO Rig Mover, OIM, and Warranty Surveyor shall be familiar with the Vessel's Marine Operating Manual (MOM), its instructions, Vessel description, and in particular limitations to vessel operations found therein.

2. All the Vessel's safety equipment shall be confirmed to be available and ready for service (refer MOM), and its marine systems confirmed to be in operating condition. This will include Helideck safety equipment that may be needed in the case of a Medivac.

3. All Rig's crew shall be familiar with emergency procedures and their duties, emergency drills shall have been conducted in accordance with Company policy and procedure, and a Safety Meeting shall have been conducted which address the specific hazard aspects associated with moving between locations.

4. The Company's Marine Warranty Surveyor shall have issued a Rig Move Approval Certificate and the recommendations contained therein shall be taken into account when planing the move on site. He shall also check the Rigs Stability and compliance with statutory Safety requirements.

5. Company procedures for field moves, with adjustments as may be necessary for moving between locations, shall be followed.

6. Ensure weather forecasts, tidal and current data are available and considered prior to and during the rig move operations. Environmental conditions should meet requirements as detailed in Marine Operations Manual (MOM) and Seadrill Rig Move

Guidance Manual. A 40hr weather window is required to cover the move Forecasts from AWS and BOM Special services.

7. "Site specific" weather forecasts will be received whilst under way by Sat Fax or Sat email.

8. Charts for the tow route should be available in the control room.

9. All pre-rig move checklists to be completed per Marine Opps Manual.

10. Inspect and function test all mooring winches and double secure all anchors as on the previous move. Initial Securing can be achieved using wires and bottle screw, ratchet tighteners, chain blocks or similar. They must be checked periodically and re-tensioned as necessary during the tow.

11. Identify MO 47 riding crew for a 15-18hr tow to the Coelacanth location and arrange timely transport to rig – 2IR's +1 Master.

12. Verify the afloat stability calculations are timely completed. (before floating)

13. Verify Preload Plan is timely completed.

14. Ensure sea fastenings are in place and adequate. In view of the exposed nature of the location, clear decks are recommended with minimum or no pipe in the derrick.

15. The Minimum POB for the move should be identified.

16. Emergency towline to be inspected and ready for deployment, including float line and pick up Buoy.

17. Prepare new Bow and Stern tow lines as appropriate.

18. Electronic positioning system to be set up and operational if onboard. The skid out distance is identified as being 19.5ft from the transom to the drill centre. = 5.944m

19. Conduct pre-rig move meeting with rig crews and those listed below to familiarise all participants with requirements of the rig move procedures, tow route and way points, charts, weather predictions, tidal height predictions, radio channels, positioning methodology, final position tolerances, preload procedure and any other relevant information. Attendees shall include, but not be limited to:

- ✓ Company Man
- ✓ Insurance Underwriters Rep
- ✓ Area Manager/Marine Superintendent
- ✓ OIM
- ✓ Barge Engineer
- ✓ Assistant Rig Manager (Toolpusher)
- ✓ Vessel Masters
- ✓ Surveyors
- ✓ Tow Master + MO 47 lead IR

Minutes of the Meeting will be taken and be distributed to all attendees following the meeting.

20. Command Structure:
    The OIM is at all times in charge of the rig.
    The Barge Engineer will be located in the jacking control room and will raise or lower the legs as directed.
    The GO Tow Master –will direct the vessels and advise as necessary.
    The OIM will monitor all operations and express any concerns if required. He will be guided on the Rigs Limitations by the Warranty Surveyor.
    The Master of the lead tow vessel is in control of the tow while underway.

21. Communications:
    VHF communications to vessels on Marine Channel 72 or as otherwise agreed.
    Communications between Rig Mover/ OIM and Deck Crew will be via VHF Marine Channel 14 or as otherwise agreed on site.
    Communications between OIM and Barge Engineer will be via VHF Marine Channel 14 or as otherwise agreed on site.
    Communications between Barge Engineer and leg observers will be via VHF Marine Channel 14 or as otherwise agreed on site.

19 The Master of the lead Tow vessel will confirm that all Notices to Mariners have been received and charts updated. He will pass on any items of relevance. The Lead Vessel will also perform the AUSREP requirement for the rig Tow, to report its movement to the Australian Authorities and be tracked whilst underway. Notifications will be given for the start and end of the voyage.

20 As per recent NOPSA recommendations, the Rigs Radio operator will confirm that all local area Nav warnings are being received and updated on the Rig, and will pass on any items of interest to the Tow Master, Tug Masters and OIM

21 Ensure Aft Mooring Ropes are pre Rigged and fully prepared for securing the Assist Vessel on arrival and manoeuvring on to location. If a heavy pennant wire is used it may have to be pre rigged before the Cantilever is skidded in.

22 Damaged pipe work in 5C will be fixed and Tested before the rig moves.

7. EXIT FROM PRESENT LOCATION

1. Evaluate which of the following items are pertinent to the present Condition.

2. Dependant on expected sea conditions, Lay down drill pipe out of the Derrick, to apaches requirements.

3. Retract the cantilever into stowed position – install security pins. Centralise Substructure and install security pins/bolts..

4. Prepare the rig for towing as detailed in the MOM

5. After confirming all legs are ready, test jacking system as per Seadrill MOM procedures, and begin jacking down to 6ft draft.

6. Run Anchor Winches and ensure all anchors are tight on the bolsters with back up securing's in place and tensioned up.

7. Attach primary tow vessel to main tow bridle. This can be done prior to jacking, during jacking down, or at 6' draft, as best suites the operation, and with the OIM's approval.

8. Conduct watertight integrity checks at 6ft draft.

9. Prepare Jetting equipment for departure if required. Not expected on this location.

10. Attach the Assist Tug to port or starboard quarter as prevailing conditions dictate. This is in order to control the Rigs departure speed and stop the legs being dragged across the seabed and being unduly stressed. If prevailing conditions are against the bow, it is not necessary.

11. Lower Hull to float draft and pull legs.

12. Lift the Bow leg 3ft, then all legs together – move off maintaining slow speed whilst the legs are raised clear of the seabed. The intention is to keep the bow leg three feet ahead of the stern legs as the cans clear the seabed. This will avoid the bow leg "digging in" as the Rig gathers headway.

13. Exit the start location via the agreed tow route. There are a number of pipelines in the vicinity and the planned tow route will keep the Rig away from them until such time as there is ample clearance to cross them safely. At least 30ft – preferably 50ft. The nearest pipeline is 2 nm distant on the planned routing.

14. Continue jacking legs until raised to planned tow position having due regard to the vicinity and water depths of any shallower patches and pipelines in the area. The planned tow position may not be fully in and will be agreed in the rig move meeting as previously.

15. The second Tow vessel will be released from the stern at a suitable time, and will be re-secured to the Port Bow Pennant wire. This will involve the Tow vessel backing in and passing her tugger wire to be secured to a 45mm Polypropylene messenger which is then Cut away and winched in to the vessel, taking the Rigs Wire Tow pennant from the Rig to the vessels Calm Fork.
However there are many different ways of doing this job and the exact procedure should be discussed and agreed prior to departure.

8. TOW ROUTE & WAY POINTS

1. The move will be conducted in accordance with the Marine Operations Manual (MOM). Responsibility for the safety of personnel and integrity of the MODU will at all times remain with the OIM.

2. The use of the rack chocks will be at the discretion of the OIM and dependant on the Rigs motions and advice from the Marine Warranty Surveyor. Rig motion curves are available in the MOM.

3. The tow will proceed from the "WASABI Drilling Location" with the lead tow vessel on the Main tow bridle and the second Assist vessel on the Port side Tow Pennant.
   The planned tow route is shown in the Annexes. The rig will be towed at a transit (hull) Draft of 15 ½ ft plus any can tip extension. The general intention will be to keep the Tow wire Catenary in deeper water. – It is expected the lead Tow vessel will tow with 500-700m of wire out, and will have a Catenary depth of 15 to 20 meters.

4. A suitable weather forecast, showing a sufficient window to allow transit and time to preload, is to be received before proceeding with the rig move. The method of obtaining the required forecasts whilst the rig is on tow, will be by Satellite Fax. In the event local weather conditions deteriorate or the forecast is not suitable to conduct rig positioning and preload operations, the rig will wait for conditions to improve. Due regard should be had to the strong weather that can develop in the Bas strait at short notice.

5. In the event of the main tow wire parting, the secondary tow Vessel will hold the Rig steady whilst the lead Tow Vessel either reconnects to the Main Tow Bridle or Emergency Tow line, as appropriate.

6. Watertight integrity checks will be maintained throughout the tow on a two hourly basis at the Barge Engineers discretion. Void spaces, preload tanks, pits and lower hull spaces will be monitored. Records of inspections will be included in the tow log.

7. No temporary pin down location or area of shelter has been identified other than the surveyed areas at WASABI 1 and COELACANTH 1. Wilson's Promontory, Flinders Island and other land masses can be used to effect, depending on the prevailing conditions, but are some distance away.

9. MOVE INTO FINAL POSITION

1. When entering the new field, the rig will approach the location as discussed in the Pre move meeting. Due regard should be had to any Pipelines or subsea wells in the vicinity, particularly in relation to the Tow wire catenary at reduced power.

2. Approximately 5nm from the New Drilling location, shorten tow and turn onto approach heading. Start Jacking down legs to 30ft off bottom. Speed +/- 0.75kt. Local accurate current data should be sort from the client or the onboard survey team. It is likely that some surface current data will be available, but it is very rare to receive deep current information. ROV personnel on board may have some useful data.

3. Release the Main Tow vessel from the Centreline Tow pennant as this is the only means of letting go safely in a seaway and retain use of the wire for a later date if necessary.

4. Re-secure the Main Tow vessel on the Port (or Stbd) Quarter Pennant. The procedure will be agreed between the Rig and the boat Captain. Standard procedure is to have the VL back in to the Rig and pass a heaving line across. The VL's tugger wire is hauled back to the Rig and secured to the pre prepared tow pennant which should be ready and secured in a Smit bracket at the Rig end. The Tow pennant is pulled into the Boats Sharks Jaws and secured into the Boats Tow wire. Once ready, the vessel will usually pay out to about 150 or 200m for Tow assist duties. The size of the weakest part of the Stern Tow arrangement should be identified and the Tow vessels power limited if necessary. Usually 50 to 55 TBP is adequate, but it is useful to be able to use up to 70 or 80TBP if possible.

5. Verify proper operation of Survey equipment and lower legs closer to the seabed, +/- 15-20ft off bottom.

6. If deep penetrations are expected, the spud can jetting system should be tested and air removal from the system.

6. The rig will then be maneuvered into the general vicinity of the position tolerance circle and stabilized on the required heading. Rig motions will be checked, and if necessary, the Rig heading adjusted to achieve acceptable motions. (+/- 2°)

7. Water depth to be monitored while moving into the position circle taking into account tides and bathymetry. It is imperative that accurate information for the tides on the day are made available to the Rig, and should be sought from the client.

8. About 5m outside the 25m tolerance circle, lower legs to 3 ft (0.9m) from bottom, ready for pining inside the circle. Whilst the position of the Rig will be accurately monitored on the navigation Screens, stabilizing and maintaining position inside the 25m radius circle will require the skills of an experienced Rig Mover.

8. Maintain Rig speed under the maximum permissible speed allowed by the Rigs MOM (0.5kt) and pin the rig as appropriate. A high degree of control will be required by the Rig mover to hold the rig as steady as possible during transition.

9. It should be noted that in no circumstances should a Rig of this design Pin on one leg only. All three legs should touch the bottom simultaneously with the rig held as close to stationary as possible. Pining and/or turning on one leg may cause severe damage.

   Once the rig is soft-pinned in position, it may be advisable to check the Coms system is functioning prior to requesting acceptance from the company man. Each leg may be raised and lowered to release any residual torque if felt necessary. Usually the swell motions will encourage jacking clear of the sea as quickly as possible.

10. The Main Tow vessel will be released from the stern, and if the Warranty Surveyor approves, the Assist vessel may also be released from the Bow. One of the vessels will maintain close stand by during the Preload period

10. PRELOAD OPERATIONS

Note: The Preload Plan is developed in accordance with Seadrill's Rig Move Guidance Manual Procedures and Marine Warranty Survey recommendations.

1. When out of the water, the preload air gap is to be set as close to zero as practical and not more than five (5) feet above still water level taking into account the state and range of the tide. At no time is the hull of the unit to be more than five (5) feet above the surface of the water.

2. Depending on the prevailing conditions and length of available weather window exceptions can be made to land helicopters, providing it is not during one of the holding periods and an adequate percentage of preload can be dumped prior to the Helicopter landing. This will be entirely at the discretion of the OIM and is unlikely to occur if the Rig is being affected by intermittent large swells.

3. Preloading will start on all three legs simultaneously and is expected to take 12-24 hrs.

4. Full preload is to be held for a period of 2 hour past the last observed settlement.

5. After the preload has been held without settlement DUMP all preload.

6. If not already done, release the primary tow vessel from the main bridle.

7. Jack the hull up to the required operating air gap.

NOTE : All water remaining in preload tanks should be stripped at the earliest opportunity. This water is to be accounted for as variable load until it is removed.

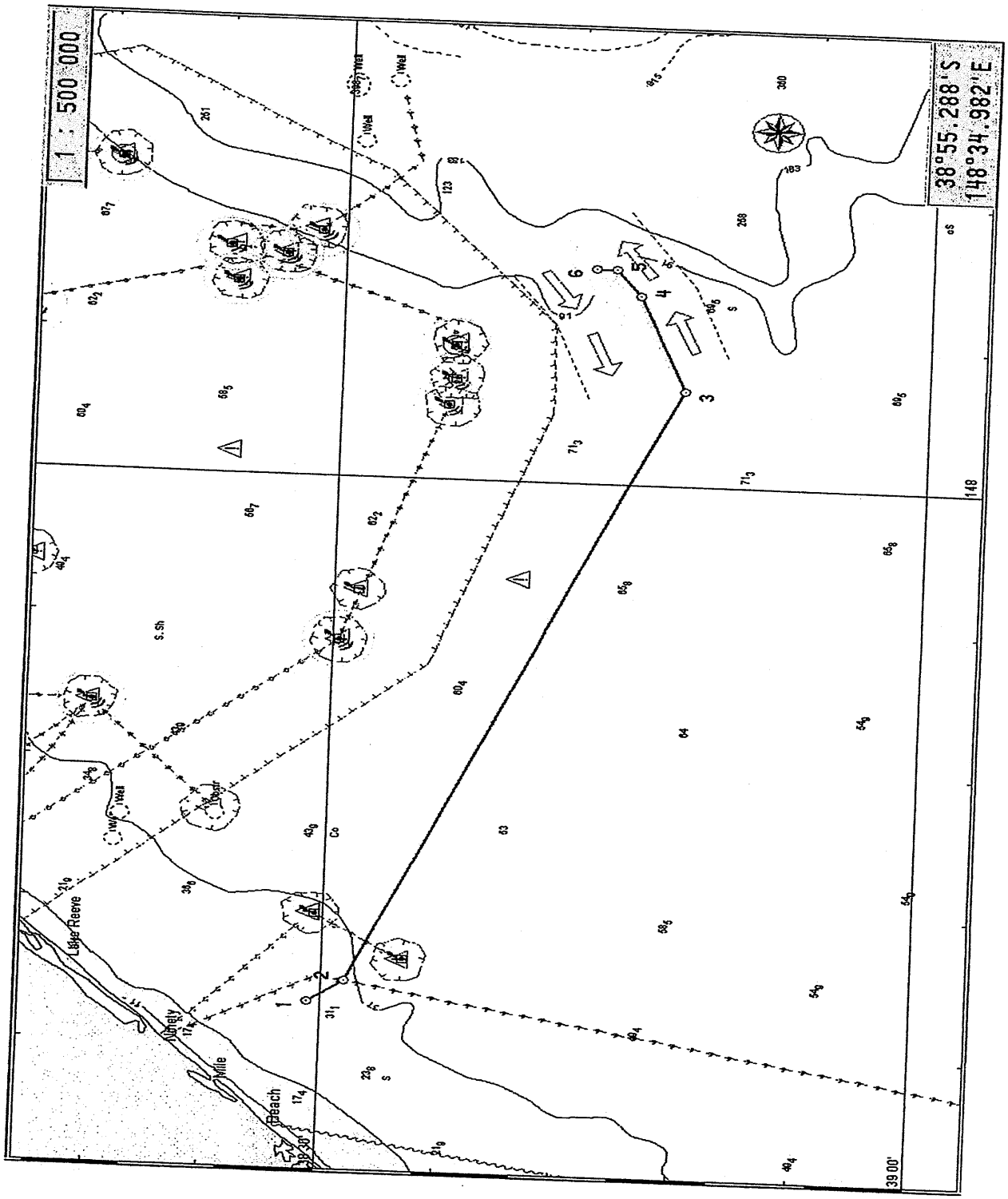
: Record the amount of preload, the depth of each leg penetration and the final air gap on the Daily Drilling Report.

: Record final position and heading

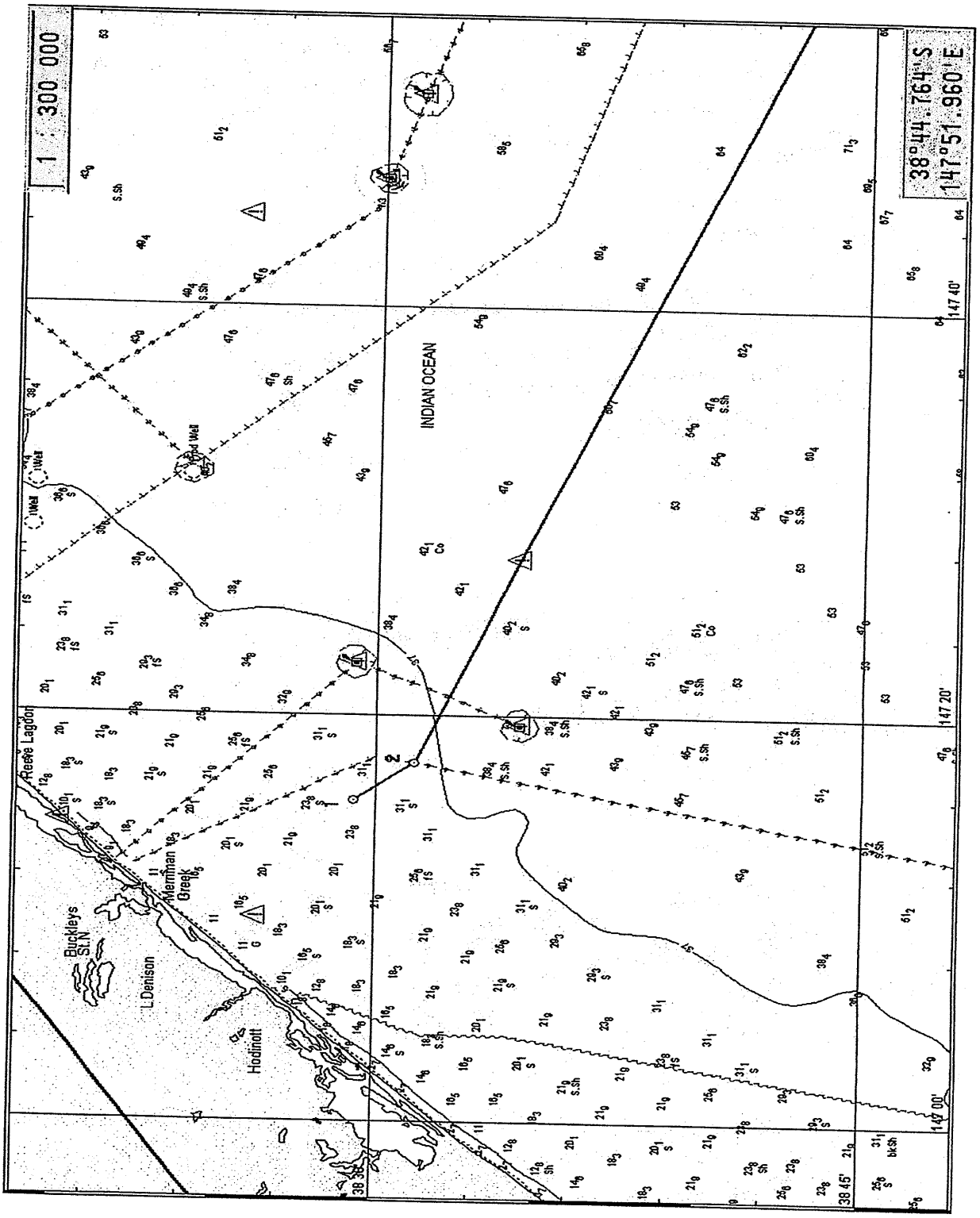
8. De-brief. On board "End of move meeting" – comments/improvements for next time.

END

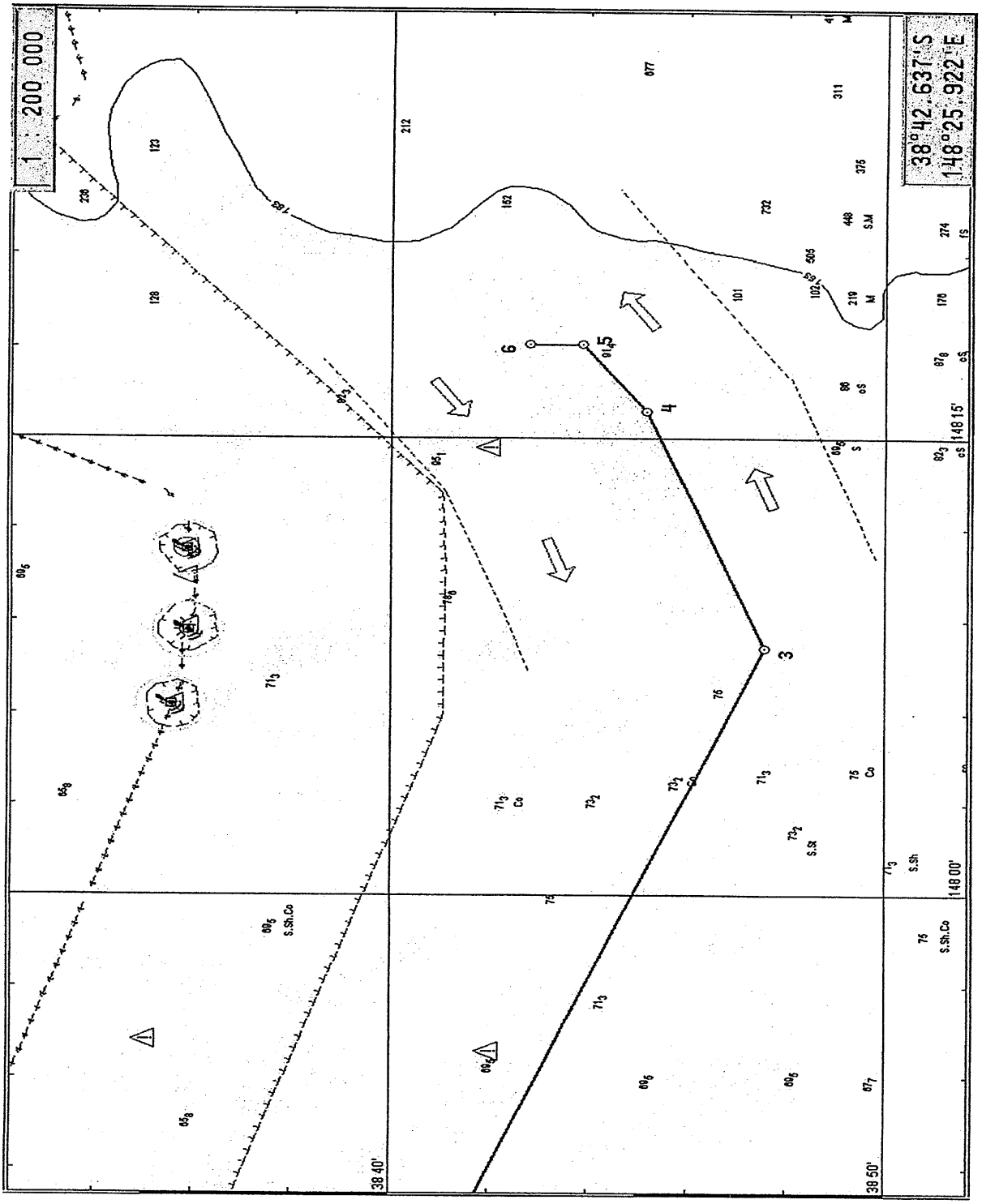
Tow Route Overview



Departure Wasabi



Arrival Coelacanth 1



ATTACHMENT 2 Passage Plan

REPORT FOR THE
COELACANTH-1 SITE SURVEY

FUGRO SURVEY JOB NO. P0758-2

ADA CONTRACT NO. K-10-08-07

Client : Australian Drilling Associates Pty Ltd
Suite 2, Level 9
470 Collins Street
Melbourne, 3000
Victoria

Date of Survey : 27 – 30 October 2007

0	Final	URJ	MJW	28 November 2007
Rev	Description	Checked	Approved	Date

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CONTENTS

		Page No.
EXECUTIVE SUMMARY		***i***
1.0	**INTRODUCTION**	**1-1**
1.1	Project Description	1-1
1.2	Scope of Work	1-1
1.3	Reporting Structure	1-3
2.0	**DATA REDUCTION**	**2-1**
2.1	Navigation and Positioning	2-1
2.2	Single Beam Echo Sounder	2-1
2.3	Side Scan Sonar Data	2-1
2.4	Sub-bottom Profiling Data	2-2
2.5	Drawing Presentation	2-2
3.0	**SURVEY RESULTS**	**3-1**
3.1	Introduction	3-1
3.2	Bathymetry	3-1
3.3	Seabed Features	3-1
3.4	Shallow Geology	3-3
3.5	Seabed Sampling	3-6
4.0	**CONCLUSIONS AND RECOMMENDATIONS**	**4-1**
5.0	**DISTRIBUTION**	**5-1**

FIGURES

FIGURE 1-1 : GENERAL LOCATION DIAGRAM 1-2
FIGURE 1-2 : SURVEY LINE LAYOUT (FROM VESSEL CRP POSITIONS) 1-4
FIGURE 3-1 : SIDE SCAN SONAR RECORD, LINE CO_035, ILLUSTRATING THE SEAFLOOR CONDITIONS AT THE PROPOSED COELACANTH-1 WELL LOCATION 3-2
FIGURE 3-2 : SUB-BOTTOM PROFILER DATA EXAMPLE OF THE SHALLOW GEOLOGY AT THE PROPOSED COELACANTH-1 WELL LOCATION FROM LINE CO_035 3-4
FIGURE 3-3 : SUB-BOTTOM PROFILER DATA EXAMPLE OF THE SHALLOW GEOLOGY AT THE PROPOSED COELACANTH-1 WELL LOCATION FROM LINE CO_013 3-5

TABLES

TABLE 1-1 : COORDINATES – COELACANTH-1 SITE SURVEY LIMITS 1-3
TABLE 3-1 : INTERPRETED GEOLOGICAL SEQUENCE AT THE PROPOSED COELACANTH-1 WELL LOCATION 3-3
TABLE 3-2 : SEABED SAMPLING RESULTS 3-6

APPENDICES

APPENDIX A : SERVICE WARRANTY
APPENDIX B : SOIL SAMPLE LOG

DRAWING

SCALE 1:5,000

FUGRO DRAWING NO.	DESCRIPTION
P0758-2_001	COELACANTH-1 COMPOSITE DRAWING - BATHYMETRY, SEABED FEATURES, ISOPACHS AND SHALLOW GEOLOGICAL PROFILES

EXECUTIVE SUMMARY

Fugro was contracted by Australian Drilling Associates Pty Ltd on behalf of Apache Energy Ltd to provide geophysical survey and seabed sampling services for a site survey at the proposed Coelacanth-1 well location. The offshore fieldwork was carried out between 27 and 30 October 2007.

Scope of Work

The purpose of the survey was to acquire bathymetric and geophysical data as well as seabed samples within a 2km x 1km area to assess the seabed and sub-seabed conditions for the installation of a jack-up rig at the proposed well location (613194mE, 5714177mN).

The survey concluded safely and efficiently, and the project objectives were achieved. Weather conditions and sea state were good.

Bathymetry

Water depth within the site ranges from 88.1 to 108.6m below LAT. The seabed is flat to very gently undulating across the western two thirds of the surveyed site with a gentle eastward dipping slope observed in the eastern third of the site exhibiting gradients up to 1:20 (3°).

The water depth at the proposed location is 89.6m below LAT where the seabed gradient is of the order 1:200 (<0.5°).

Seabed Features

The seabed within the site is comprised of fine to coarse sand with shell fragments. The seabed is smooth and featureless.

Shallow Geology

The shallow stratigraphy is interpreted as a well-bedded sequence of sands becoming silty with increasingly cemented layers at depth. Three main units are delineated from the profiler records and the interpreted composition of the units is as follows:

***Unit A** – Fine to coarse sand, with shell fragments.*

***Unit B** – Cross bedded, silty, siliceous medium to coarse sand, with possible thin cemented layers.*

***Unit C** – Silty, fine, carbonate sand with possible cemented layers.*

If further information regarding the structural characteristics of the shallow geological sequence is required, a geotechnical drilling campaign is advised.

No significant items of debris, obstructions or shallow geological hazards were apparent on the data within the surveyed area.

1.0 INTRODUCTION

1.1 Project Description

Fugro Survey Pty Ltd (Fugro) were contracted by Australian Drilling Associates Pty Ltd (ADA) on behalf of Apache Energy Ltd (Apache) to provide geophysical survey services for the Coelacanth-1 proposed well location within the Gippsland Basin, offshore Victoria.

A general location diagram of the area is shown as Figure 1-1.

The site survey was designed to gather seabed and sub-seabed information to aid in the installation of a jack-up rig. The specified site survey area is approximately 2km x 1km with the proposed well location positioned in the centre of the site (613194mE, 5714177mN, MGA94, 147°E).

Bathymetry was acquired with a single beam pole mounted echo sounder. Seabed lithology and characteristics were determined from side scan sonar and shallow geological structure was investigated using a surface towed boomer sub-bottom profiler. A seabed sample was collected using a grab sampler to correlate with the geophysical data. The survey and seabed sampling was carried out between 27 and 30 October 2007.

Fugro chartered the survey vessel the *MV Pacific Conquest,* owned and operated by East Coast Maritime Pty Ltd, as the platform for the operation.

The survey and report have been conducted in accordance with the Service Contract (Contract No. K-10-08-07) between Fugro and ADA, and is covered by the Service Warranty as presented in Appendix A.

The Service Warranty outlines the limitations of this report, in terms of a range of considerations including, but not limited to, its purpose, scope, the data on which it is based, its use by third parties, possible future changes in design procedures and possible changes in site conditions with time. It should be noted that the Service Warranty does not in any way supersede the terms and condition of the contract between Fugro and ADA.

1.2 Scope of Work

The purposes of the data collection were:

- To accurately measure the water depth and map the seabed topography.
- To determine the nature and composition of the seabed sediments.
- To identify any seabed obstructions or features within the survey area.
- To map the shallow geology and identify any potential hazards for jack-up rig installation.
- To obtain sediment samples for verification of the geophysical data.

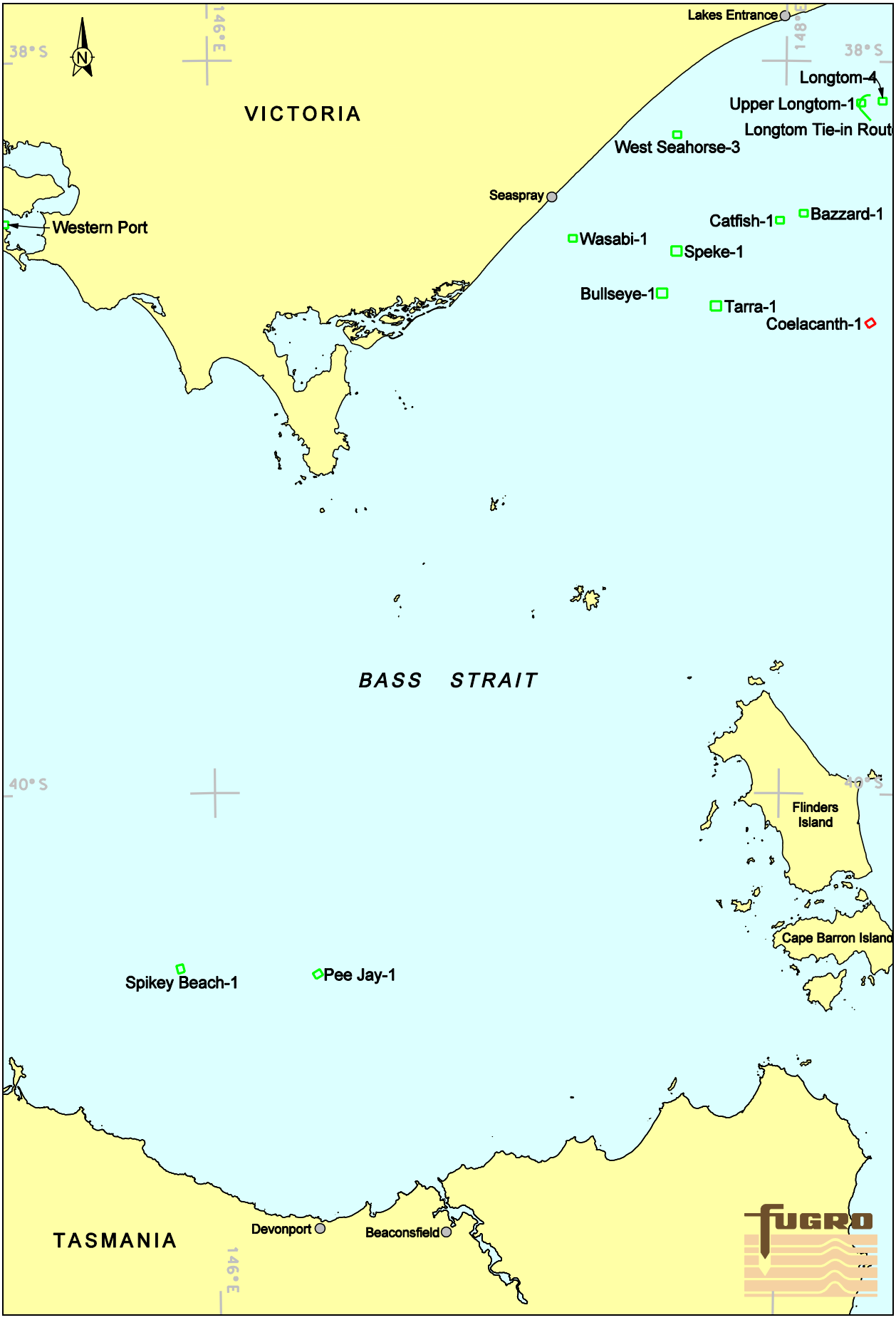


FIGURE 1-1 : GENERAL LOCATION DIAGRAM

The 2km x 1km survey area encompassing the proposed Coelacanth-1 well location is bound by the coordinates in Table 1-1.

GDA94, MGA94, Zone 55, CM 147°E		
Point	**Easting (m)**	**Northing (m)**
Proposed Well Location	613194	5714177
NW	612009	5714216
NE	613640	5715297
SE	614361	5714271
SW	612642	5713028

TABLE 1-1 : COORDINATES – COELACANTH-1 SITE SURVEY LIMITS

These coordinates give a boundary that is not entirely rectangular. Reference to a 2km x 1km site should be taken as a generalisation for the sake of reporting.

A total of 25 x 1km long lines orientated NW-SE and 18 x 2km long SW-NE lines were surveyed, centred on the proposed Coelacanth-1 well location, as shown on Figure 1-2. The two lines either side of the centreline were run at 25m line spacing, while all other lines were run at 100m line spacing. Primary survey lines in a SW-NE direction were run with echo sounder, boomer and side scan sonar while cross-lines in a NW-SE direction were run with echo sounder and boomer only.

1.3 Reporting Structure

During the survey campaign, a total of 14 sites and a proposed pipeline route were surveyed for ADA, of which five of the sites were for Apache. This report presents the Coelacanth-1 site survey. The additional results reports relevant to Apache are:

P0758-3 (Wasabi-1 Site Survey).
P0758-9 (Revised Tarra-1 Site Survey).
P0758-10 (Revised Speke-1 Infill Survey) and
P0758-11 (Revised Bullseye-1 Infill Survey).

A separate report, report P0758-16 (Operations Report), details the survey operations and discusses equipment and field procedures, as well as health, safety and environmental procedures common to all the sites. Relevant supporting information and documentation is provided in the appendices of the Operations Report.

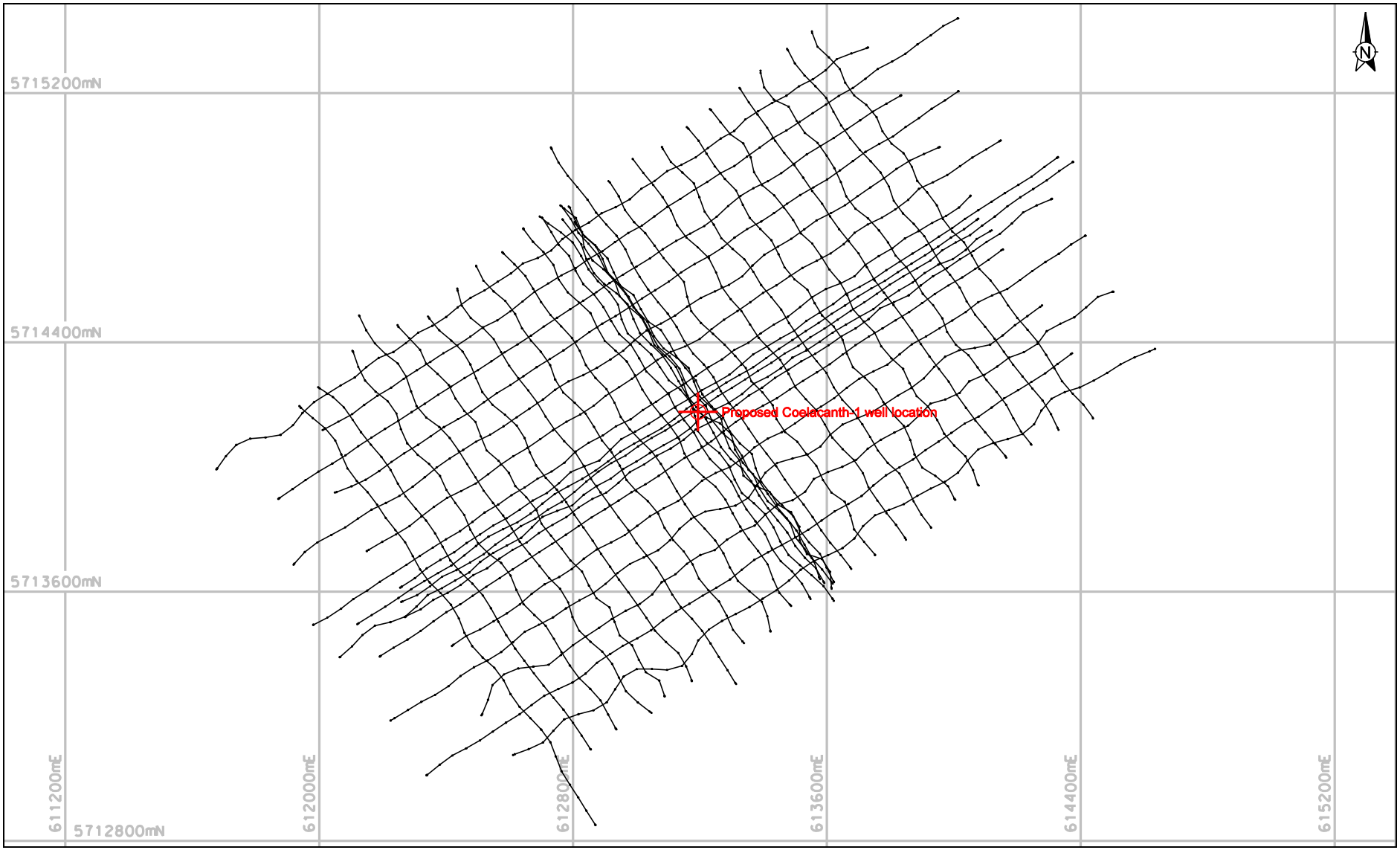


FIGURE 1-2 : SURVEY LINE LAYOUT (FROM VESSEL CRP POSITIONS)

2.0 DATA REDUCTION

After completion of the offshore geophysical data acquisition, all electronic and hard copy records were returned to Fugro's Perth office for processing and final reporting.

The processing, interpretation and charting procedures are briefly outlined in Section 2.1 to Section 2.5.

2.1 Navigation and Positioning

The MRDGPS systems provided reliable and accurate positioning throughout the project. The surface navigation data were of good quality and only minimal data editing was required. An automated trace routine was used to remove the few erroneous position spikes that were evident. No smoothing of position data was required.

2.2 Single Beam Echo Sounder

The single beam echo sounder data were processed in Starfix.Proc using an automated trace routine and by manual editing to remove erroneous spikes from the data. Processed pitch, roll and heave were also applied to the soundings in Starfix.Proc. A sound velocity profile was recorded at the beginning of the survey and applied during the processing of the data.

The quality of the single beam echo sounder data was generally good with only minor tidal related artefacts apparent in the data. However, misclosures of up to ±0.5m are evident between cross-lines and normal lines, this being the result of using predicted tidal data as no real time tides were recorded.

The reduced bathymetric soundings plotted on the bathymetry drawing are colour coded at 1m intervals and contoured at 2m intervals.

2.3 Side Scan Sonar Data

The side scan sonar data was used to check for the presence of debris and to map the seabed features within the survey area. The side scan sonar records show areas of seabed characterised by different sonar reflectivity, indicating variations in the composition and relief of sediments, outcrops or other features on the seabed. Typically, hard rocky seabed produces dark records (high reflectivity), soft fine grained sediments produce light, featureless records (low reflectivity) and a sandy seabed produces intermediate tones (moderate reflectivity). Objects such as outcrops, pipelines, etc. standing proud of the seabed typically show strong reflectivity with associated areas of acoustic 'shadow' behind the object, the shadow being indicative of the height of the object. Seabed with variable surface relief due to specific seabed features or variation in seabed geology (such as rock or reef outcrops, pitted seabed, coarse or gravelly sediments, etc.) will produce variably textured sonar records, ranging from mottled very dark and light printing, to lightly textured records.

The position of the side scan sonar towfish was calculated by measuring the length of tow cable out using a T-count block. The side scan sonar data were recorded digitally as well as on paper hard copy. The data were interpreted and compiled into the seabed features drawing.

2.4 Sub-bottom Profiling Data

Sub-bottom profiler records represent time sections on which the vertical axis shows the two-way travel time (in milliseconds) from the source to the various reflecting surfaces and back to the receiving hydrophone. An assumed seismic velocity through the shallow sediments of 1,650 m/s was used. This converts 10ms of two-way travel time to 8.25 vertical metres.

A recording sweep of 90ms was used during the survey. The boomer system was set to run on either 100 or 200J firing three times per second with filter settings of 500 to 1500Hz. Starfix.Interp is Fugro's software that digitally reads SEG-Y format data (electronic boomer records) and allows the data to be viewed at various scales. This software also allows swell filters and frequency filters to be post applied to the recorded data. Identified reflectors are digitally mapped and transferred to Microstation as XYZ files. These files are then used to create the isopachs and geological profiles included in the composite drawing. The isopach drawing and profiles show the thickness of the upper sedimentary units.

2.5 Drawing Presentation

The results for the site survey are presented in the form of a composite, five panel, A0 north-up drawing showing bathymetry, seabed features, isopachs and sub-seabed profiles at a horizontal scale of 1:5,000 and a vertical scale of 1:200.

In addition to the hard copies, the drawings are also provided in PDF and DGN formats.

3.0 SURVEY RESULTS

Refer to Drawing No. P0758-02_001

3.1 Introduction

The hydrographic and geophysical techniques used within the Coelacanth-1 site comprised single beam echo sounding, side scan sonar and boomer sub-bottom profiling. Forty-three survey lines were run. A seabed sample was recovered in the vicinity of the proposed well location.

3.2 Bathymetry

The processed bathymetric data was reduced to Lowest Astronomical Tide (LAT) using predicted tidal data for the survey area supplied by MetOcean Engineers. Mean Seal Level (MSL) is 1.05m above LAT at the proposed Coelacanth-1 well location.

Water depths range from a minimum of 88.1m along the SW margin of the site to a maximum of 108.6m in the SE corner.

The seabed is flat to gently undulating across the western two thirds of the surveyed site with gradients of approximately 1:200 (0.3°) identified. In the eastern third if the site the seabed dips down to the east with gradients of up to 1:20 (3°). The upper edge of the slope is approximately marked by the 90m contour. The steepest sections of the slope are typically between the 90 and 100m contours. Below the 100m contour the seabed gradient gradually eases to less than 1:75 (0.8°) in the eastern corner of the site.

At the proposed Coelacanth-1 well location the water depth is 89.6m below LAT and the seabed gradient is approximately 1:200 (0.3°).

3.3 Seabed Features

The side scan sonar was operated at 100kHz on a range of 125m per channel. The record quality was good.

The side scan sonar records display uniform, moderate to high acoustic reflectivity at the seabed interpreted as fine to coarse sand with shell fragments and confirmed by seabed sample GS_CO_01. The site is smooth and featureless.

No items of debris were identified within the surveyed area.

Figure 3-1 illustrates the seabed conditions at and around the proposed well location.

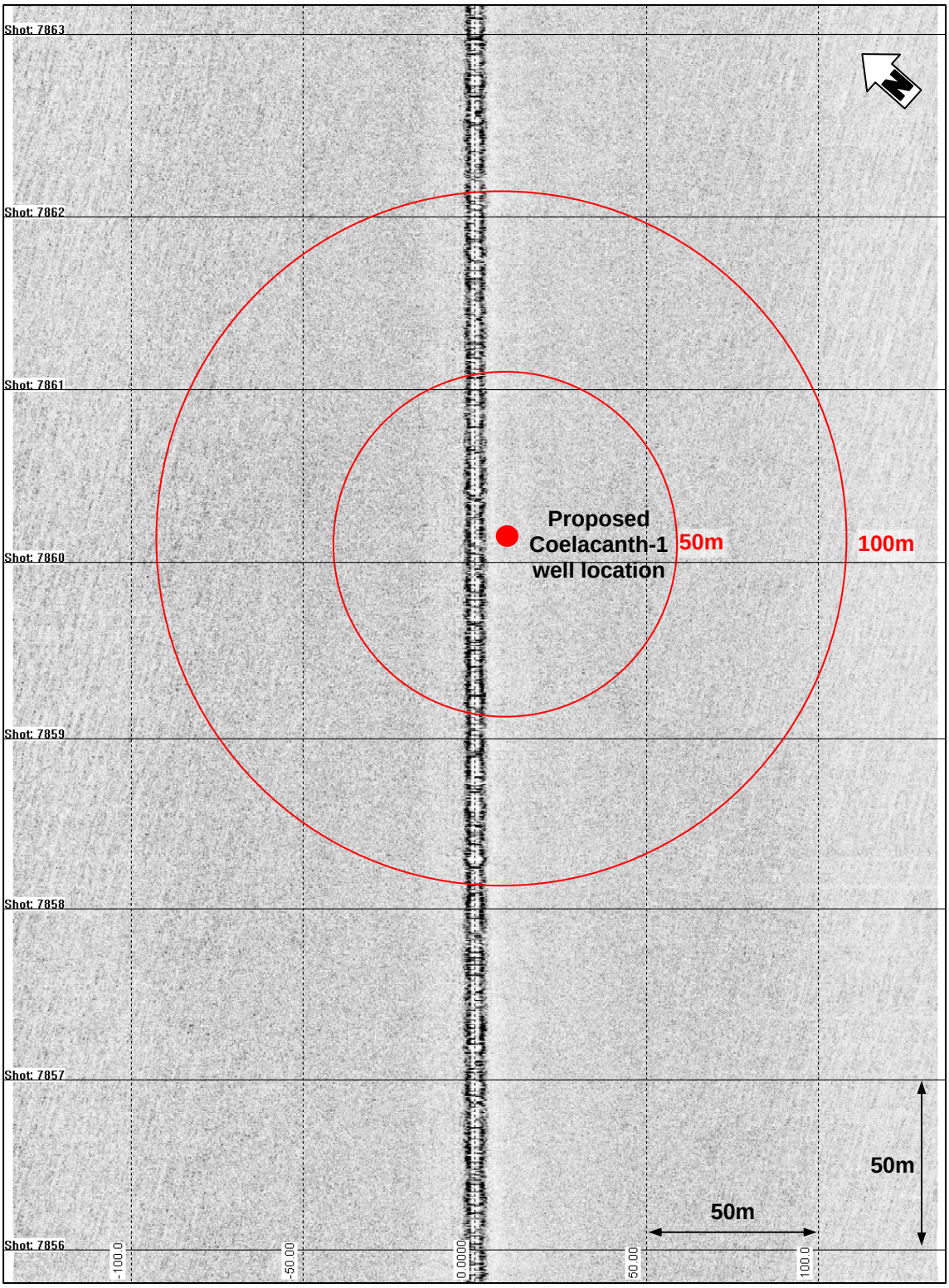


FIGURE 3-1 : SIDE SCAN SONAR RECORD, LINE CO_035, ILLUSTRATING THE SEAFLOOR CONDITIONS AT THE PROPOSED COELACANTH-1 WELL LOCATION

3.4 Shallow Geology

Sub-bottom profile data was acquired with an Applied Acoustics surface-towed boomer system operating at either 100 or 200J firing three times a second with filter settings of 500 to 1500Hz. Data quality was good with penetration to 35m below the seabed.

The shallow geology within the surveyed site is interpreted as consisting of a surficial layer of sandy sediment with shell fragments, overlying thicker sequences of cross bedded and obliquely parallel bedded sandy sediments with possible cemented layers. Three main sedimentary units are identified on the sub-bottom profiler data as summarised below:

Unit A – This surficial unit comprises fine to coarse sand with shell fragments as confirmed by seabed sample GS_CO_01. The unit is identified on the sub-bottom profiler records in the west of the site where the surficial sediments are more than 3m thick. The unit thins eastward to a veneer of less than 0.5m thickness. This veneer is expected to cover the remainder of the surveyed seabed as there is no apparent change in acoustic reflectivity at the seabed on the side scan sonar records. The base of Unit A is marked by a gently westward dipping, low amplitude reflector R1, interpreted as representing a break in deposition. At the proposed Coelacanth-1 well location reflector R1 is interpreted to be less than 0.5m below seabed.

Unit B – Unit B is characterised by distinct cross bedding and several eastward dipping internal reflectors, and is interpreted as well bedded, silty, siliceous, medium to coarse sand with possible thin cemented layers. This unit varies in thickness from approximately 13m in the east to in excess of 25m along the SE margin of the site. The base of Unit B is marked by an unconformable surface, reflector R2, seen on the sub-bottom records as a moderate acoustic strength, smooth, gently eastward-dipping reflector. This surface is interpreted as representing a break in deposition during which the sediments may have undergone cementation. Reflector R2 is identified at a depth of approximately 22m below seabed at the proposed Coelacanth-1 well location.

Unit C – This unit incorporates the remainder of the seismic record and is characterised by low amplitude, dipping internal reflectors. Unit C is interpreted as silty, fine carbonate sand, with possible cemented layers. One such possibly cemented horizon is identified at a depth of approximately 35m below seabed at the proposed Coelacanth-1 well location.

Figure 3-2 and Figure 3-3 illustrate the shallow seismic data underlying the proposed well location. The likely shallow geological sequence which will be encountered at the proposed Coelacanth-1 well location is described in Table 3-1.

Depth Below Seabed (m)	Unit Name	Description
0.0 - 0.5	Unit A	Fine to coarse sand, with shell fragments
0.5 - 22	Unit B	Cross bedded, silty, siliceous, medium to coarse sand, with possible thin cemented layers
>22	Unit C	Silty, fine, carbonate sand with possible cemented layers

TABLE 3-1 : INTERPRETED GEOLOGICAL SEQUENCE AT THE PROPOSED COELACANTH-1 WELL LOCATION

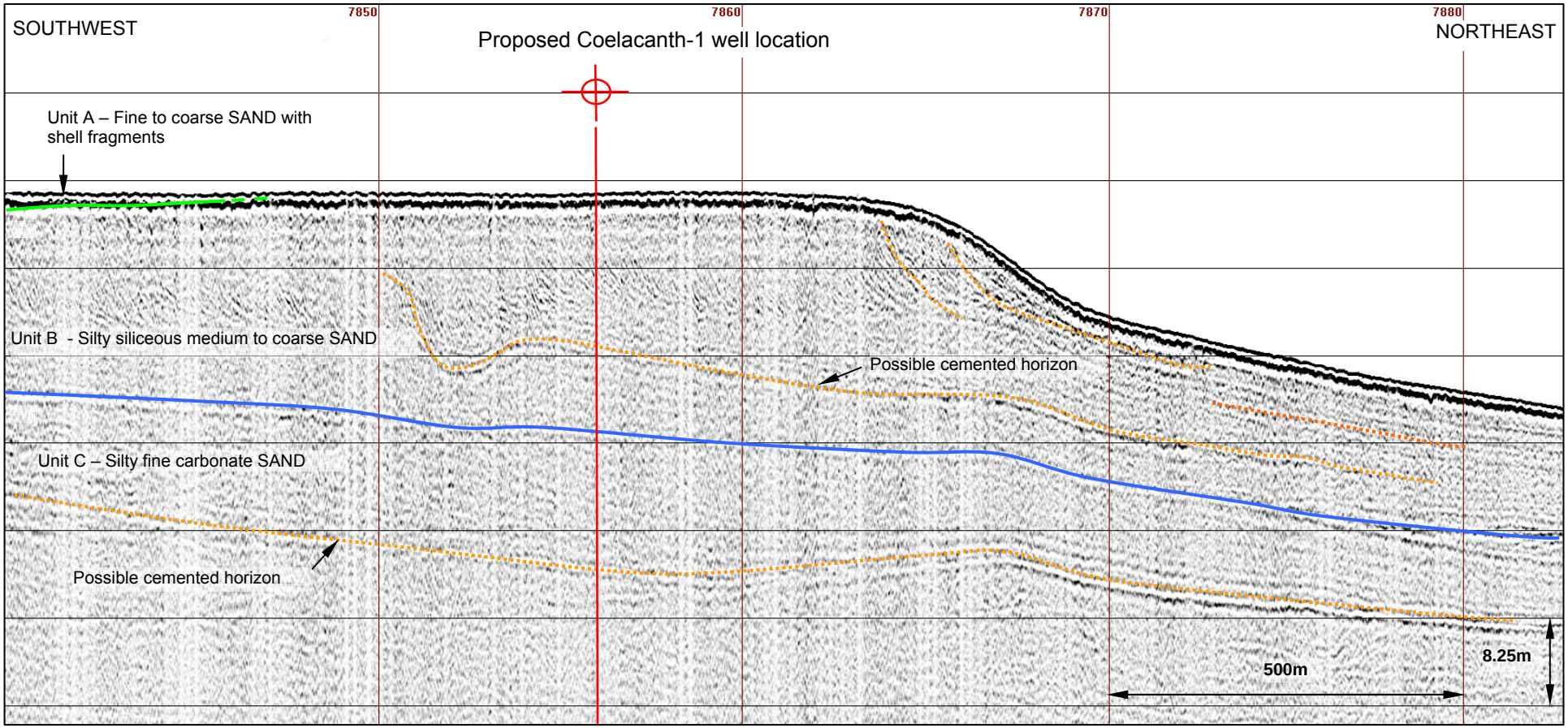


FIGURE 3-2 : SUB-BOTTOM PROFILER DATA EXAMPLE OF THE SHALLOW GEOLOGY AT THE PROPOSED COELACANTH-1 WELL LOCATION FROM LINE CO_035

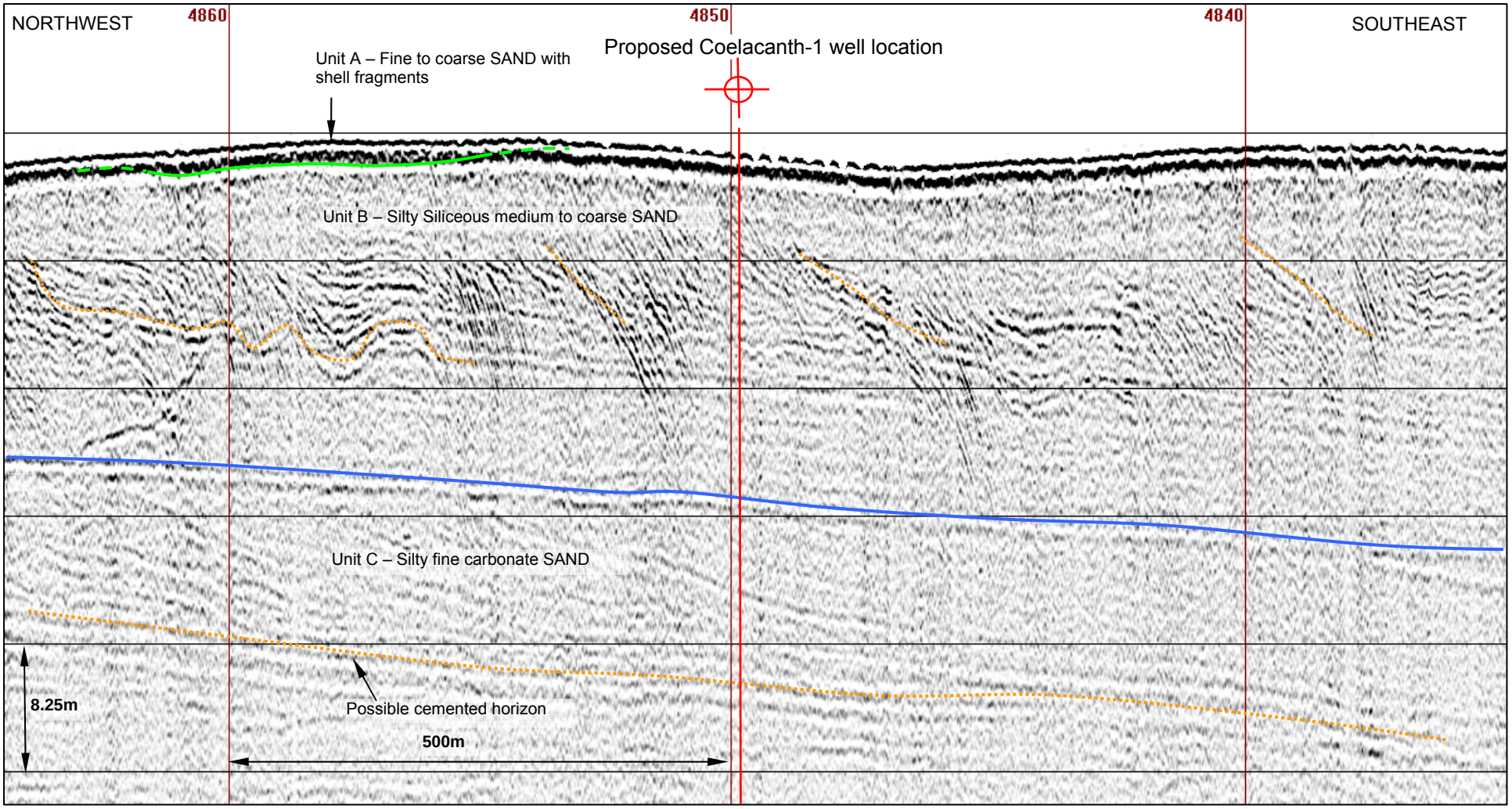


FIGURE 3-3 : SUB-BOTTOM PROFILER DATA EXAMPLE OF THE SHALLOW GEOLOGY AT THE PROPOSED COELACANTH-1 WELL LOCATION FROM LINE CO_013

3.5 Seabed Sampling

A seabed sample was collected using a grab sampler in the vicinity of the proposed well location, in order to assist interpretation of the data sets. The results of the seabed sampling are listed in Table 3-2 and a photographic record and description is included in Appendix B.

GDA94, MGA94, Zone 55, CM 147°E				
Sample No.	**Easting (m)**	**Northing (m)**	**Water Depth (m)**	**Description**
GS_CO_01	613207	5714100	90.2	Brown, fine to coarse, well sorted sand with small shell fragments up to 20mm

TABLE 3-2 : SEABED SAMPLING RESULTS

4.0 CONCLUSIONS AND RECOMMENDATIONS

Water depth within the site ranges from 88.1 to 108.6m below LAT. The seabed is flat to very gently undulating across the western two thirds of the surveyed site with a gentle eastward dipping slope observed in the eastern third of the site exhibiting gradients up to 1:20 (3°).

The water depth at the proposed location is 89.6m below LAT where the seabed gradient is of the order 1:200 (<0.5°).

No topographic anomalies were identified that would pose a hazard to drilling at the proposed location.

The seabed lithology across the survey area consists of fine to coarse sand with shell fragments.

No debris or obstructions were identified on the seafloor within the survey area.

The shallow stratigraphy is interpreted as a well-bedded sequence of sands becoming silty with increasingly cemented layers at depth.

There is no evidence from the profiler records of any shallow geological hazards within the survey area.

If further information regarding the structural characteristics of the shallow geological sequence is required, a geotechnical drilling campaign is advised.

5.0 DISTRIBUTION

Copies of this report have been distributed as follows:

Australian Drilling Associates Pty Ltd
Attn: Mr Phil Stratford : 3 hard copies
: 1 electronic copy

APPENDIX A
SERVICE WARRANTY

1. This report and the geophysical interpretation and assessment carried out in connection with the report (together with the "Services") were compiled and carried out by Fugro Survey Pty Ltd (FSPTY) for Australian Drilling Associates (the "Client") in accordance with the terms of a contract between FSPTY and the Client. The Services were performed by FSPTY with the skill and care ordinarily exercised by a reasonable geophysical survey contractor, at the time the Services were performed. Further, and in particular, the Services were performed by FSPTY taking into account the limits of the scope of works required by the Client, the time scale involved and the resources, including financial, equipment and manpower resources, agreed between FSPTY and the Client.

2. Other than that expressly contained in paragraph 1 above, FSPTY provides no other representation or warranty whether expressed or implied, in relation to the Services and all warranties and conditions implied by law are hereby expressly excluded.

3. The Services were performed by FSPTY exclusively for the purposes of the Client. FSPTY is not aware of any interest of or reliance by any party other than the Client in or on the Services. Unless stated in the contract or report for the Services or expressly provided in writing, FSPTY does not authorise, consent or condone any party other than the Client relying upon the services. Should this report or any part of this report, or otherwise details of the Services or any part of the services be made known to any such party and such party relies thereon that party does so wholly at its own and sole risk and FSPTY disclaims any liability to such parties. Any such party would be well advised to seek (*independent*) advice from a competent (*geophysical survey contractor/consultant*) and/or lawyer.

4. It is FSPTY's understanding that this report is to be used for the purpose described in Section 1 - "Introduction" of the report. That purpose was a significant factor in determining the scope and level of the Services. Should the purpose for which the report is used, or the Client's proposed development or activity change, this report may no longer be valid and any further use of or reliance upon the report in those circumstances by the Client without FSPTY's review and advice shall be at the Client's sole and own risk. Should FSPTY be requested to review the report after the date hereof, FSPTY shall be entitled to additional payment at the then existing rates or such other terms as agreed between FSPTY and the Client.

5. The passage of time may result in man-made and/or natural changes in site conditions and changes in regulatory or other legal provisions, technology or economic conditions which could render the report inaccurate or unreliable. The information and conclusions contained in this report should be not relied upon if any such changes have taken place and in any event after a period not greater than two years (or typically six months in the case of seabed features information) from the date of this report or as stated in the report without the written advice of FSPTY. In the absence of such written advice from FSPTY, reliance on the report after the specified time period shall be at the Client's own and sole risk. Should FSPTY be asked to review the report after the specified time period, FSPTY shall be entitled to additional payment at the then existing rate or such other terms as may be agreed upon between FSPTY and the Client.

6. The observations and conclusions described in this report are based solely upon the Services which were provided pursuant to the agreement between the Client and FSPTY. FSPTY has not performed any observations, investigations, studies or testing not specifically set out or required by the contract between the Client and FSPTY. FSPTY is not liable for the existence of any condition, the discovery of which would require performance of services not otherwise contained in the Services.

7. Where the Services have involved the use of any information provided by third parties or the Client and upon which FSPTY was reasonably entitled to rely then the Services clearly are limited by the accuracy of such information. Unless otherwise stated, FSPTY was not authorised and did not attempt to independently verify the accuracy or completeness of information, documentation or materials received from the Client or third parties, including laboratories and information services, during the performance of the services. FSPTY is not liable for any inaccurate information or conclusions, the discovery of which inaccuracies required the doing of any act including the gathering of any information which was not reasonably available to FSPTY and including the doing of any independent investigation of the information provided to FSPTY save as otherwise provided in the terms of the contract between the Client and FSPTY

8. Neither FSPTY nor any director, officer, agent, or employee of FSPTY shall have any liability (whether direct or indirect, in contract or in tort or breach of statutory duty or otherwise) to the Client (nor to any body corporate related to the Client within the meaning of section 50 of the Corporations Law, nor to any director, officer, agent, or employee of the Client or of any such body) for or in connection with the engagement of FSPTY for the provision of the Services, except to the extent to which it is not permissible by law to exclude, restrict or modify liability and except for any such liability for losses, claims, damages, liabilities or expenses incurred by the Client (or any of them) that are determined by a final judgement of a court of competent jurisdiction to have resulted primarily from actions taken or omitted to be taken by such person illegally or in bad faith from such person's gross negligence.

The above provisions will survive any termination of FSPTY's engagement to provide the Services.

APPENDIX B
SOIL SAMPLE LOG

SEABED SAMPLE LOG

Job No.: P0758	**Date: 30/10/07**	**Time: 17:04**	**SAMPLE No.: GS_CO_01**
Project: Site Surveys Victorian Consortium		**Time Zone :** UTC	**Client:** ADA
Vessel: Pacific Conquest	**Geophysicist:** TK		**Water Depth (LAT) :** 90.2m
Horizontal Datum: GDA 94	**Grid:** MGA94		**Projection:** UTM
Easting (m): 613207	**Northing (m):** 5714100		**Recovery (litres):** 0.5

Description
Brown, fine to coarse, well sorted SAND with small shell fragments (5%) up to 20mm.

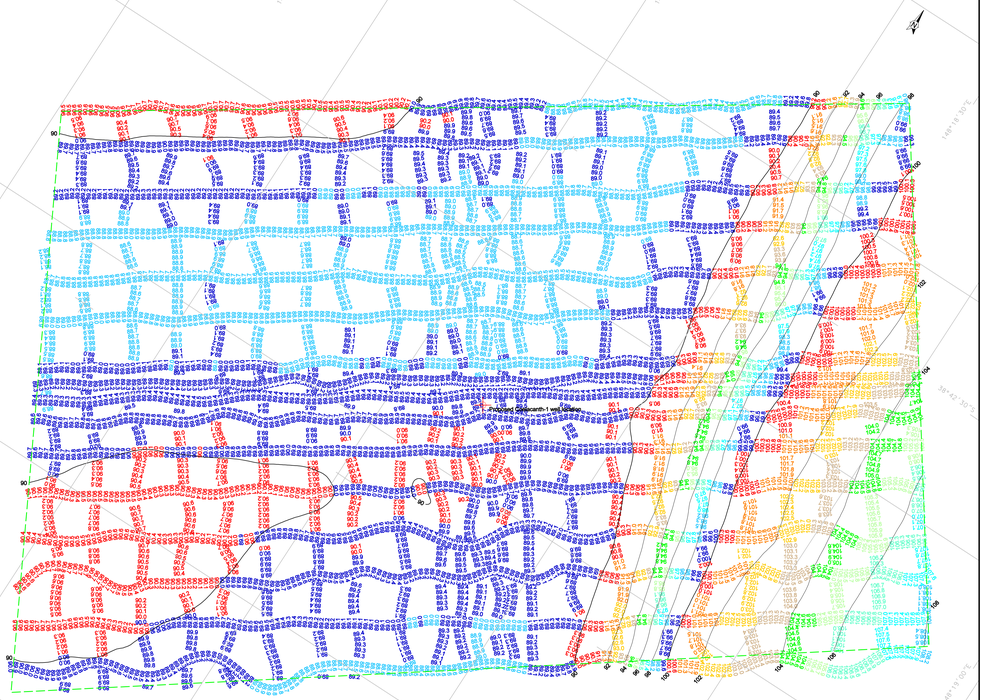
SAMPLE PHOTO

DRAWING

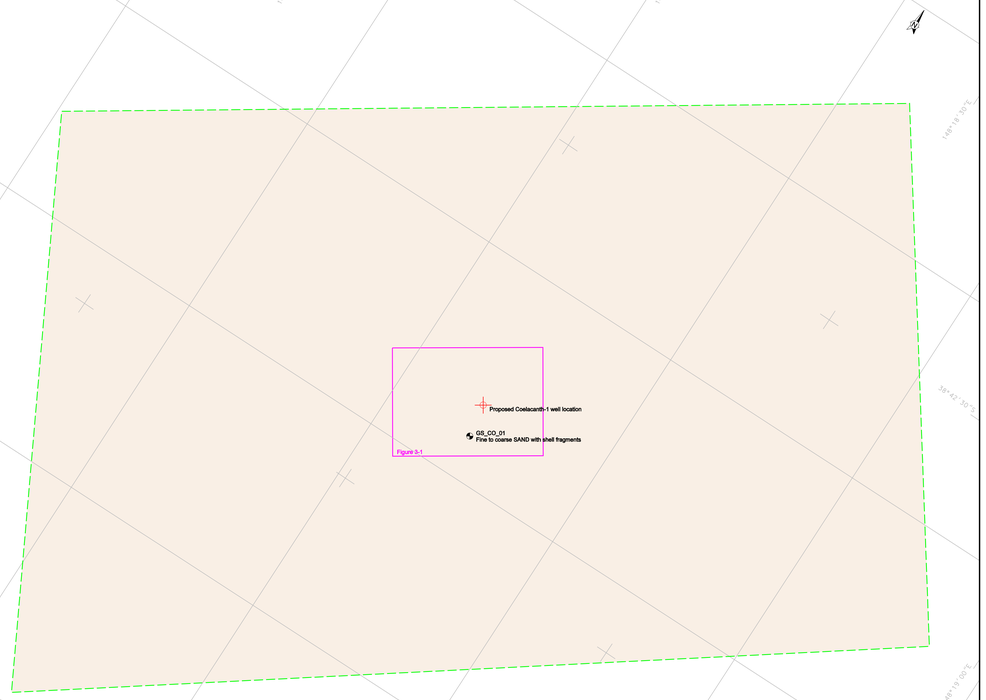
SCALE 1:5,000

FUGRO DRAWING NO.	DESCRIPTION
P0758-2_001	COELACANTH-1 COMPOSITE DRAWING - BATHYMETRY, SEABED FEATURES, ISOPACHS AND SHALLOW GEOLOGICAL PROFILES

BATHYMETRY



SEABED FEATURES



LEGEND:

Proposed Coelacanth-1 well location (613194mE, 5714177mN)

Limit of site survey area (supplied by client)

Figure 2-1 — Location of data example figures in report

BATHYMETRY

Bathymetric soundings in metres (colour banded at 1m intervals)

Bathymetric contours at 2m intervals, indexed every 10m (contours are derived from primary lines)

SEABED FEATURES

A — Uniform moderate to high acoustic reflectivity seabed - interpreted to represent fine to coarse SAND with shell fragments

GS_CO_01 — Seabed sample location with designator (GS: grab sample)

ISOPACHS

2 — Thickness of surficial sediments from seabed to reflector R1 or base of Unit A (m)

Tp — Thickness of sediments from seabed to reflector R2 or base of Unit B (m)

A — A' — Track line used for shallow geological profile

SHALLOW GEOLOGICAL PROFILE

GS_CO_01 — Seabed profile with sample location with designator (GS: grab sample)

Reflector 1, dashed where inferred (seabed to reflector R1 or base of Unit A)

Reflector 2, dashed where inferred (seabed to reflector R2 or base of Unit B)

Internal reflector, dashed where inferred

Figure 3-2 — Location of data examples figures in report

AUSTRALIAN HEIGHT DATUM (AHD) OR MEAN SEA LEVEL (MSL)

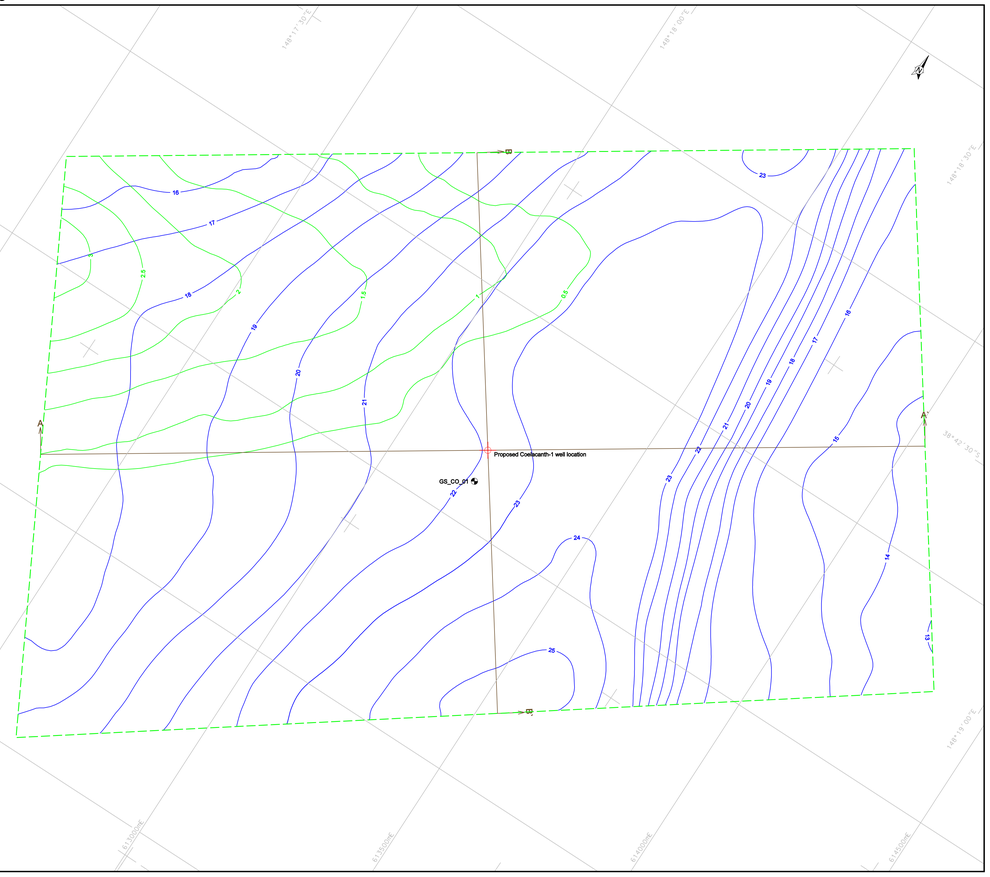
1.05m — LOWEST ASTRONOMICAL TIDE (LAT)

Depth — SEABED

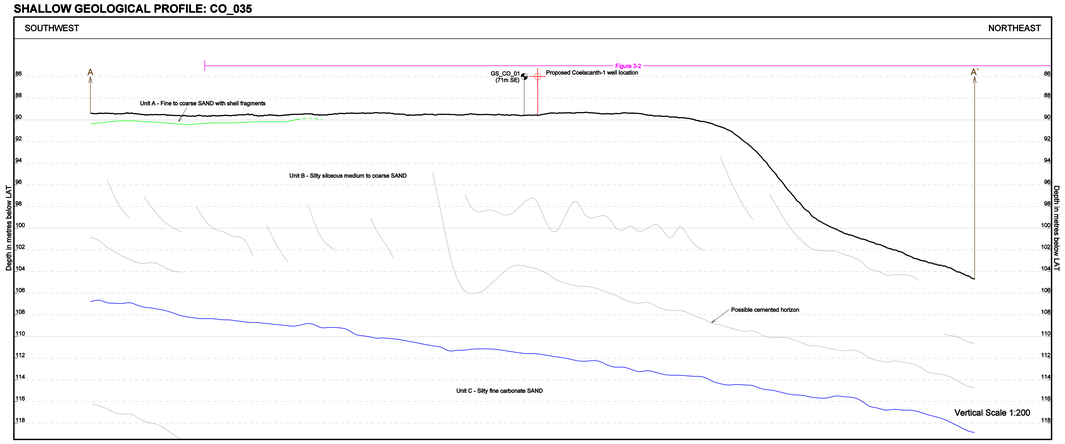
NOTES:

1) Positioning Systems: Starfix MRDGPS.
2) Bathymetry data acquired using an Odom EchoTrack DF3200 Mkll Dual frequency single beam echo sounder.
3) Bathymetry reduced to LAT using predicted tides provided by MetOcean Engineers.
4) Seabed features interpreted from data acquired with a GeoAcoustics TS9D side scan sonar towfish operated at 100kHz frequency and a range of 125m per channel.
5) Shallow geology has been interpreted from data acquired with an Applied Acoustics Boomer system operating on either 100 or 200 Joules energy level.
6) Seismic travel times have been converted to depths using an assumed velocity of 1650m/s within the sub-seabed sediments.
7) Lithological descriptions are interpretations based on the acoustic response of seabed and sub-seabed sediments.

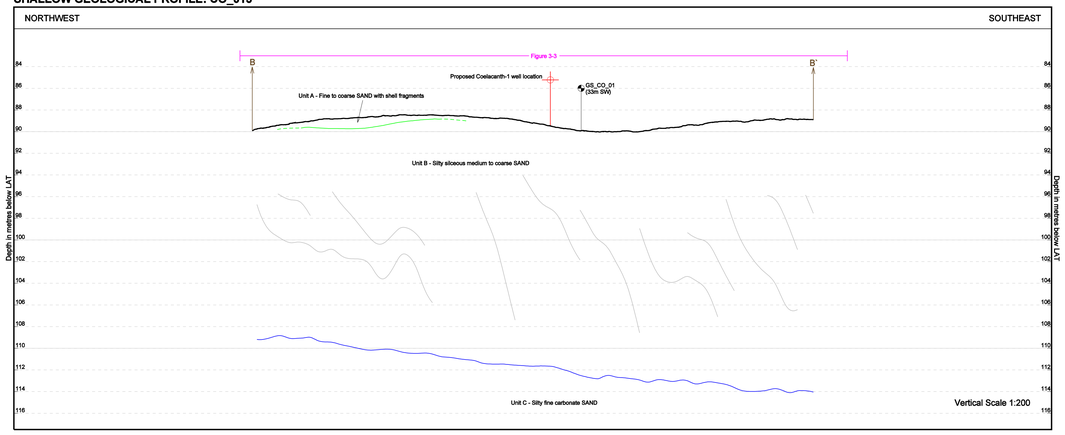
ISOPACHS



SHALLOW GEOLOGICAL PROFILE: CO_035



SHALLOW GEOLOGICAL PROFILE: CO_013



GEODETIC PARAMETERS:

HORIZONTAL COORDINATE SYSTEM

GEODETIC DATUM	:	Geocentric Datum of Australia 1994 (GDA94)
ELLIPSOID	:	Geodetic Reference System 1980 (GRS80)
Semi-major axis	:	6378137.000 m
Inverse flattening	:	298.257222101
GRID	:	Map Grid of Australia (MGA94)
Projection	:	Universal Transverse Mercator (UTM)
Central Meridian (CM)	:	147°E (Zone 55)
Latitude of Origin	:	0°N
False Easting	:	500 000m
False Northing	:	10 000 000m
Scale factor at CM	:	0.9996
DATUM TRANSFORMATION (From WGS84 (ITRF2000 Epoch 2007.5) to GDA94)	:	dX = +0.0064m dY = -0.0439m dZ = -0.0961m rX = 0.016502" rY = 0.014394" rZ = 0.017118" dS = 0.003900ppm
VERTICAL DATUM	:	Lowest Astronomical Tide (LAT)

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BASS STRAIT SITE SURVEY CAMPAIGN

COELACANTH-1

COMPOSITE DRAWING

SCALE 1:5,000

100m 0m 100m 200m 300m 400m 500m

Vessel: MV Pacific Conquest	Survey Date: 27 - 30 October 2007	Project Ref: P0758

Issue No:	Date:	Description:	Surv:	Interpr:	Drawn:	Chkd:	Appr:
0	27/11/2007	Final	DH/ET	TK	BE		

Client Drawing No:	Drawing No: P0758-2_001	Drawing: 1 of 1	Encl: 1

U:\P0758\Dgn\Drawing\P0758-2_001.dgn

Apache Northwest Pty Lyd

Cuttings Descriptions Report

Well Name : Coelacanth-1	**Print Date** 4/09/2008
Wellsite Geologist(s) : A Cruickshank F Fernandes	

Interval (m)	%	Lithology / Show Descriptions	Ca (%)	Mg (%)
Main				
279.0 - 285.0	100	**CALCARENITE:** light to medium grey, light brownish grey to light yellow, arenaceous, common pale grey argillaceous matrix, common fossils, common very coarse frosted & iron stained quartz grains, no fluorescence. Samples were first collected in the 311mm (12 1/4") hole section.		
285.0 - 290.0	90 10	**CALCARENITE:** light to medium grey, light brownish grey to light yellow, arenaceous, common pale grey argillaceous matrix, common fossils, common very coarse frosted & iron stained quartz grains, no fluorescence. **CALCILUTITE:** white to light grey, light to medium yellow, argillaceous, moderately hard to hard, in part very hard, sub-blocky to blocky.		
300.0 - 310.0	80 20	**CALCILUTITE:** light grey to light brown grey, light olive grey to medium grey, light yellow in part, common to abundant fossils, trace very coarse quartz grains, moderately hard to hard, sub-blocky to blocky. **CALCISILTITE:** white to light grey, common light to medium grey, common fossils, moderately hard to hard, sub-blocky to blocky.	88	0
310.0 - 320.0	90 10	**CALCILUTITE:** light grey to light brown grey, light olive grey to medium grey, medium dark grey in part, common to abundant fossils, trace very coarse quartz grains, moderately hard to hard, sub-blocky to blocky. **CALCISILTITE:** as above		
320.0 - 330.0	90 10	**CALCILUTITE:** as above, traces of agate. **CALCISILTITE:** as above		
330.0 - 340.0	90 10	**CALCILUTITE:** as above **CALCISILTITE:** as above	98	0
340.0 - 350.0	80 20	**CALCILUTITE:** as above **CALCISILTITE:** as above		
350.0 - 360.0	80 20	**CALCILUTITE:** light to medium grey, light to medium olive grey, light brown grey in part, abundant fossils, trace agate, trace to rare coarse to very coarse quartz grains, moderately hard to hard, sub-blocky to blocky, sub-fissile in part. **CALCISILTITE:** as above		
360.0 - 370.0	90 10	**CALCILUTITE:** as above **CALCISILTITE:** as above	81	2
370.0 - 380.0	90 10	**CALCILUTITE:** as above **CALCISILTITE:** as above		
380.0 - 390.0	70 30	**CALCILUTITE:** as above **CALCISILTITE:** as above		
390.0 - 400.0	80 20	**CALCILUTITE:** as above **CALCISILTITE:** as above	85	1
400.0 - 410.0	60 40	**CALCILUTITE:** as above **CALCISILTITE:** as above		
410.0 - 420.0	90 10	**CALCILUTITE:** very light grey to light grey, light blue grey, off white, minor light to medium grey, light brown grey, common fossils, trace to rare fine quartz grains, firm to moderately hard, sub-blocky to blocky. **CALCISILTITE:** white to light grey, common light to medium grey, common fossils, moderately hard to hard, sub-blocky to blocky.		

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Interval (m)	%	Lithology / Show Descriptions	Ca (%)	Mg (%)
420.0 - 430.0	90	**CALCILUTITE:** very light grey to light grey, light blue grey, off white, minor light to medium grey, light brown grey, common fossils, trace to rare fine quartz grains, firm to moderately hard, sub-blocky to blocky.	98	2
	10	**CALCARENITE:** light to medium grey, light to medium blue grey, light olive grey, trace carbonaceous specks, common fossil fragments, trace very fine quartz grains, moderately hard to hard, sub-blocky to blocky.		
430.0 - 440.0	70	**CALCILUTITE:** as above		
	30	**CALCARENITE:** light to medium grey, light to medium blue grey, light olive grey, trace carbonaceous specks, common fossil fragments, trace very fine quartz grains, moderately hard to hard, sub-blocky to blocky.		
440.0 - 450.0	60	**CALCILUTITE:** as above		
	40	**CALCARENITE:** as above		
450.0 - 460.0	80	**CALCILUTITE:** as above	90	2
	20	**CALCARENITE:** as above		
460.0 - 470.0	80	**CALCILUTITE:** as above		
	20	**CALCARENITE:** as above		
470.0 - 480.0	70	**CALCILUTITE:** as above		
	30	**CALCARENITE:** as above		
480.0 - 490.0	70	**CALCILUTITE:** light to medium grey, light blue grey, medium dark grey, common to abudant fossils, common coral fragments, moderately hard to hard, sub-blocky to blocky.	98	2
	30	**CALCARENITE:** as above		
490.0 - 500.0	60	**CALCILUTITE:** as above		
	40	**CALCARENITE:** light to medium grey, light olive grey, minor medium dark grey, common fossils, moderately hard to hard, sub-blocky to blocky.		
500.0 - 510.0	90	**CALCILUTITE:** as above, common medium to dark grey.		
	10	**CALCARENITE:** as above		
510.0 - 520.0	70	**CALCILUTITE:** as above	97	2
	30	**CALCARENITE:** as above		
520.0 - 530.0	70	**CALCILUTITE:** as above		
	30	**CALCARENITE:** as above		
530.0 - 540.0	80	**CALCILUTITE:** as above		
	20	**CALCARENITE:** as above		
540.0 - 550.0	80	**CALCILUTITE:** as above	91	2
	20	**CALCARENITE:** as above		
550.0 - 560.0	60	**CALCILUTITE:** as above		
	40	**CALCARENITE:** as above		
560.0 - 570.0	50	**CALCARENITE:** light grey to light brown grey, light blue grey, medium grey to medium dark grey, abundant fossil fragments, common fine to medium quartz grains, moderately hard to hard, sub-blocky to blocky.		
	50	**CALCILUTITE:** as above		
570.0 - 580.0	50	**CALCILUTITE:** as above	83	2
	50	**CALCARENITE:** as above		
580.0 - 590.0	70	**CALCARENITE:** light to medium grey, light to medium olive grey, light brown grey, trace to common fossil fragments, common fine to medium quartz grains, moderately hard, sub-blocky to blocky.		
	30	**CALCILUTITE:** light to medium grey, medium dark grey to dark olive grey, common		

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Interval (m)	%	Lithology / Show Descriptions	Ca (%)	Mg (%)
		fossil fragments, moderately hard to hard, sub-blocky to blocky.		
590.0 - 600.0	80	**CALCARENITE:** as above		
	20	**CALCILUTITE:** as above		
600.0 - 610.0	60	**CALCARENITE:** as above	97	3
	40	**CALCILUTITE:** as above		
610.0 - 620.0	90	**CALCARENITE:** as above		
	10	**CALCILUTITE:** as above		
620.0 - 630.0	90	**CALCARENITE:** as above		
	10	**CALCILUTITE:** light to medium grey, medium dark grey to dark olive grey, common fossil fragments, moderately hard to hard, sub-blocky to blocky.		
630.0 - 640.0	90	**CALCARENITE:** as above	92	3
	10	**CALCILUTITE:** as above		
640.0 - 650.0	90	**CALCARENITE:** as above		
	10	**CALCILUTITE:** as above		
650.0 - 660.0	90	**CALCARENITE:** as above		
	10	**CALCILUTITE:** as above		
660.0 - 670.0	90	**CALCARENITE:** as above	83	3
	10	**CALCILUTITE:** light to medium grey, medium dark grey to dark olive grey, common fossil fragments, moderately hard to hard, sub-blocky to blocky.		
670.0 - 680.0	90	**CALCARENITE:** as above, common Fe staining.		
	10	**CALCILUTITE:** as above		
680.0 - 690.0	90	**CALCARENITE:** light to medium grey, light blue grey, minor medium dark grey, common very fine to fine quartz grains, common fossil fragments, moderately hard to hard, sub-blocky to blocky.		
	10	**CALCILUTITE:** as above		
690.0 - 700.0	90	**CALCARENITE:** as above	89	3
	10	**CALCILUTITE:** as above		
700.0 - 710.0	90	**CALCARENITE:** as above		
	10	**CALCILUTITE:** as above		
710.0 - 720.0	80	**CALCARENITE:** light to medium grey, light blue grey, minor medium dark grey, common very fine to fine quartz grains, common fossil fragments, moderately hard to hard, sub-blocky to blocky.		
	20	**CALCILUTITE:** light to medium grey, medium dark grey to dark olive grey, common fossil fragments, moderately hard to hard, sub-blocky to blocky.		
720.0 - 730.0	90	**CALCARENITE:** as above	86	4
	10	**CALCILUTITE:** as above		
730.0 - 740.0	90	**CALCARENITE:** as above		
	10	**CALCILUTITE:** as above		
740.0 - 750.0	90	**CALCARENITE:** as above		
	10	**CALCILUTITE:** as above		
750.0 - 760.0	90	**CALCARENITE:** light to medium grey,predominatly medium grey, light blue grey, minor medium dark grey, common very fine to fine quartz grains, common fossil fragments, moderately hard to hard, sub-blocky to blocky.	85	4
	10	**CALCILUTITE:** light to medium grey, medium dark grey to dark olive grey, common fossil fragments, moderately hard to hard, sub-blocky to blocky.		

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Interval (m)	%	Lithology / Show Descriptions	Ca (%)	Mg (%)
760.0 - 770.0	90	**CALCARENITE:** as above		
	10	**CALCILUTITE:** as above		
770.0 - 780.0	90	**CALCARENITE:** as above		
	10	**CALCILUTITE:** as above		
780.0 - 790.0	90	**CALCARENITE:** light to medium grey,predominatly medium grey, light blue grey, minor medium dark grey, common very fine to fine quartz grains, common fossil fragments, moderately hard to hard, sub-blocky to blocky.	91	4
	10	**CALCILUTITE:** light to medium grey, medium dark grey to dark olive grey, common fossil fragments, moderately hard to hard, sub-blocky to blocky.		
790.0 - 800.0	90	**CALCARENITE:** as above		
	10	**CALCILUTITE:** as above		
800.0 - 810.0	90	**CALCARENITE:** light to medium grey,predominatly medium grey, light blue grey, minor medium dark grey, common very fine to fine quartz grains, common fossil fragments, moderately hard to hard, sub-blocky to blocky.		
	10	**CALCILUTITE:** light to medium grey, medium dark grey to dark olive grey, common fossil fragments, moderately hard to hard, sub-blocky to blocky.		
810.0 - 820.0	90	**CALCARENITE:** as above	90	3
	10	**CALCILUTITE:** as above		
820.0 - 830.0	90	**CALCARENITE:** as above		
	10	**CALCILUTITE:** as above		
830.0 - 840.0	90	**CALCARENITE:** light to medium grey,predominatly medium grey, light blue grey, minor medium dark grey, common very fine to fine quartz grains, common fossil fragments, moderately hard to hard, sub-blocky to blocky.		
	10	**CALCILUTITE:** light to medium grey, medium dark grey to dark olive grey, common fossil fragments, moderately hard to hard, sub-blocky to blocky.		
840.0 - 850.0	90	**CALCARENITE:** as above	86	3
	10	**CALCILUTITE:** as above		
850.0 - 860.0	90	**CALCARENITE:** as above		
	10	**CALCILUTITE:** as above		
860.0 - 870.0	90	**CALCARENITE:** light to medium grey,predominatly medium grey, light blue grey, minor medium dark grey, common very fine to fine quartz grains, common fossil fragments, moderately hard to hard, sub-blocky to blocky.		
	10	**CALCILUTITE:** light to medium grey, medium dark grey to dark olive grey, common fossil fragments, moderately hard to hard, sub-blocky to blocky.		
870.0 - 880.0	90	**CALCARENITE:** as above	90	4
	10	**CALCILUTITE:** as above		
880.0 - 890.0	90	**CALCARENITE:** as above		
	10	**CALCILUTITE:** as above		
890.0 - 900.0	90	**CALCARENITE:** light to medium grey,predominatly medium grey, light blue grey, minor medium dark grey, common very fine to fine quartz grains, common fossil fragments, moderately hard to hard, sub-blocky to blocky.		
	10	**CALCILUTITE:** light to medium grey, medium dark grey to dark olive grey, common fossil fragments, moderately hard to hard, sub-blocky to blocky.		
907.0 - 910.0	90	**CALCARENITE:** light grey to light brown grey, light blue grey to off white, common very fine quartz grains, trace calcite grains, trace to common fossil fragments, moderately hard to hard, sub-blocky to blocky.		
	10	**CEMENT:**		
		Commenced drilling 8 1/2" section on 16-Mar-2008 at 10:30 hrs.		
910.0 - 920.0	100	**CALCARENITE:** light grey to light brown grey, light blue grey to off white, common		

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Interval (m)	%	Lithology / Show Descriptions	Ca (%)	Mg (%)
		very fine quartz grains, trace calcite grains, trace to common fossil fragments, moderately hard to hard, sub-blocky to blocky.		
920.0 - 930.0	100	**CALCARENITE:** as above		
930.0 - 940.0	100	**CALCARENITE:** as above		
940.0 - 950.0	100	**CALCARENITE:** light grey to light blue grey, light brown grey to light brown, trace very coarse to coarse quartz grains, trace to common fossil fragments, trace lithics, moderately hard, sub-blocky.		
970.0 - 980.0	100	**CALCARENITE:** light grey to light blue grey, light brown grey to off white, common fine quartz grains, trace very coarse quartz grains, trace fossil fragments, moderately hard, sub-blocky.		
980.0 - 990.0	80	**CALCARENITE:** light grey to light blue grey, light brown grey to off white, becoming argillaceous with depth, common fine quartz grains, trace very coarse quartz grains, trace fossil fragments, moderately hard, sub-blocky.		
	20	**MARL:** light grey to light brown grey, light grey to light olive grey, trace glauconite, trace calcite grains, trace fossil fragments, soft to amorphous, dispersive to sub-blocky.		
990.0 - 1000.0	60	**CALCARENITE:** as above		
	40	**MARL:** as above		
1000.0 - 1010.0	60	**CALCARENITE:** as above		
	40	**MARL:** as above		
1010.0 - 1020.0	90	**MARL:** light grey to light green grey, light olive grey, trace glauconite grains, trace carbonaceous specks, trace calcite grains, soft to firm, dispersive, amorphous to sub-blocky.		
	10	**CALCARENITE:** light grey to light brown grey, off white to light blue grey, trace fossil fragments, trace very fine to fine quartz grains, moderately hard, sub-blocky.		
1020.0 - 1030.0	90	**MARL:** as above		
	10	**CALCARENITE:** as above		
1030.0 - 1050.0	70	**MARL:** light grey to light green grey, light olive grey, trace glauconite grains, trace carbonaceous specks, trace calcite grains, soft to firm, dispersive, amorphous to sub-blocky.		
	30	**CALCARENITE:** light grey to light brown grey, off white to light blue grey, trace fossil fragments, trace very fine to fine quartz grains, moderately hard, sub-blocky.		
		SWITCHED TO 20m SAMPLE RATE DUE TO FAST ROP'S		
1050.0 - 1070.0	70	**MARL:** as above	48	12
	30	**CALCARENITE:** as above		
1070.0 - 1090.0	70	**MARL:** as above		
	30	**CALCARENITE:** as above		
1090.0 - 1110.0	80	**MARL:** as above, trace forams.		
	20	**CALCARENITE:** as above		
1110.0 - 1130.0	90	**MARL:** light grey to light green grey, light olive grey, trace glauconite grains, trace carbonaceous specks, trace calcite grains, soft to firm, dispersive, amorphous to sub-blocky.		
	10	**CALCARENITE:** light grey to light brown grey, off white to light blue grey, trace fossil fragments, trace very fine to fine quartz grains, moderately hard, sub-blocky.		
1130.0 - 1150.0	100	**MARL:** as above	47	1
	1	**CALCARENITE:** as above		
1150.0 - 1170.0	100	**MARL:** as above	54	2
	1	**CALCARENITE:** light grey to very light grey, off white to light green grey, light olive grey, trace carbonaceous specks, trace glauconite grains, trace fossil fragments, soft to dispersive, amorphous to sub-blocky.		

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Interval (m)	%	Lithology / Show Descriptions	Ca (%)	Mg (%)
1170.0 - 1190.0	100	**MARL:** light grey to light green grey, light olive grey, trace glauconite grains, off white, trace carbonaceous specks, trace calcite grains, soft to firm, dispersive, amorphous to sub-blocky.	48	9
	1	**CALCARENITE:** as above		
1190.0 - 1210.0	100	**MARL:** as above		
	1	**CALCARENITE:** as above		
1210.0 - 1230.0	100	**MARL:** light grey to light green grey, light brown grey to off white, trace glauconite grains, trace carbonaceous specks and micro laminations, trace very fine quartz and calcite grains, soft to dispersive, amorphous to sub-blocky.	45	2
1230.0 - 1250.0	100	**MARL:** as above		
1250.0 - 1270.0	100	**MARL:** as above	51	3
1270.0 - 1280.0	100	**MARL:** light grey to light green grey, light brown grey to off white, trace glauconite grains, trace carbonaceous specks and micro laminations, trace very fine quartz and calcite grains, soft to dispersive, amorphous to sub-blocky.		
1280.0 - 1290.0	90	**MARL:** as above	57	1
	10	**CALCARENITE:** light brown to light grey, off white, trace very fine to fine quartz grains, trace fossil fragments, moderately hard, sub-blocky.		
1290.0 - 1295.0	70	**MARL:** light grey to light green grey, light brown grey to light olive grey, trace carbonaceous specks and micro laminations, trace very fine quartz grains, in part grading to a Calacrenite, trace glauconite grains, soft to moderately hard, sub-blocky to in part blocky.		
	30	**CALCARENITE:** light grey to light brown grey, off white, predominantly argillaceous, grading to arenaceous Marl, trace carbonaceous specks, trace glauconite, frim to moderately hard, sub-blocky.		
1295.0 - 1300.0	90	**MARL:** as above		
	10	**CALCARENITE:** as above		
1300.0 - 1305.0	60	**MARL:** as above		
	40	**CALCARENITE:** light brown to light brown grey, medium grey, trace quartz grains, trace carbonaceous specks, trace calcite grains, firm to moderately hard, sub-blocky to blocky.		
1305.0 - 1310.0	70	**MARL:** as above		
	30	**CALCARENITE:** as above		
1310.0 - 1315.0	80	**MARL:** light grey to light green grey, light brown grey to light olive grey, trace carbonaceous specks and micro laminations, trace very fine quartz grains, in part grading to a Calacrenite, trace glauconite grains, soft to moderately hard, sub-blocky to in part blocky.		
	20	**CALCARENITE:** light brown to light brown grey, medium grey, trace quartz grains, trace carbonaceous specks, trace calcite grains, firm to moderately hard, sub-blocky to blocky.		
1315.0 - 1320.0	60	**MARL:** as above	64	18
	40	**CALCARENITE:** as above		
1320.0 - 1325.0	70	**MARL:** as above		
	30	**CALCARENITE:** as above		
1325.0 - 1330.0	80	**MARL:** light grey to light green grey, light brown grey to light olive grey, trace carbonaceous specks and micro laminations, trace very fine quartz grains, in part grading to a Calacrenite, trace glauconite grains, soft to moderately hard, sub-blocky to in part blocky.	57	18
	20	**CALCARENITE:** light brown to light brown grey, medium grey, trace quartz grains, trace carbonaceous specks, trace calcite grains, firm to moderately hard, sub-blocky to blocky.		
1330.0 - 1335.0	70	**MARL:** as above		
	40	**CALCARENITE:** as above		

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Interval (m)	%	Lithology / Show Descriptions	Ca (%)	Mg (%)
1335.0 - 1355.0	100	**CALCILUTITE:** pale grey, off white to pale grey, light to medium brown grey, common carbonaceous specks, abundantly argillaceous, moderately hard, dispersive, sub-blocky.	64	9
1355.0 - 1360.0	100	**CALCILUTITE:** as above		
1360.0 - 1370.0	90	**CALCILUTITE:** pale grey, off white to pale grey, light to medium brown grey, common carbonaceous specks, abundantly argillaceous, minor spherical medium quartz grains, moderately hard to hard, dispersive in part, sub-blocky.	64	9
	10	**CALCARENITE:** pale grey, off white to pale grey, light to medium brown grey, common fine to coarse rounded quartz grains, abundantly argillaceous, common carbonaceous specks, moderately hard, dispersive, sub-blocky.		
1370.0 - 1380.0	100	**CALCILUTITE:** pale grey to off white, light grey, pale brown grey, common to abundant carbonaceous laminations & specks, common lithics, occasional sperical quartz grains, locally grading to calcisiltite, moderately hard to hard, sub-blocky, dispersive in part.	52	9
1380.0 - 1390.0	100	**CALCILUTITE:** as above	52	9
1390.0 - 1400.0	80	**CALCILUTITE:** pale to medium grey, off white to pale grey, light to medium brown grey, common carbonaceous laminations and specks, abundantly argillaceous, minor spherical quartz grains, moderately hard to hard, dispersive in part, sub-blocky.		
	20	**CALCARENITE:** pale grey, off white to pale grey, light to medium brown grey, common fine to coarse rounded quartz grains, abundantly argillaceous, common carbonaceous specks, moderately hard, dispersive, sub-blocky.		
1400.0 - 1410.0	90	**CALCILUTITE:** as above	47	5
	10	**CALCARENITE:** as above, minor very coarse spherical grains.		
1410.0 - 1420.0	90	**CALCILUTITE:** pale to medium grey, off white to pale grey, light to medium brown grey, common carbonaceous laminations and specks, abundantly argillaceous, minor spherical quartz grains, moderately hard to hard, dispersive in part, sub-blocky.		
	10	**CALCARENITE:** pale grey, off white to pale grey, light to medium brown grey, common fine to coarse rounded quartz grains, abundantly argillaceous, common carbonaceous specks, moderately hard, dispersive, sub-blocky.		
1420.0 - 1430.0	80	**CALCILUTITE:** pale to medium grey, off white to pale grey, light to medium brown grey, common carbonaceous laminations and specks, abundantly argillaceous, rare micro-fossils, minor spherical quartz grains, moderately hard to hard, dispersive in part, sub-blocky to blocky.	68	5
	20	**CALCARENITE:** light to medium grey, medium brown grey, off white, abundant argillaceous material, common carbonaceous laminations and specks, occasional lithics, common fine to medium spherical quartz grains, hard to very hard, sub-blocky to blocky.		
1430.0 - 1440.0	80	**MARL:** as above		
	20	**ARENACEOUS MARL:** as above		
1440.0 - 1450.0	90	**MARL:** as above	43	8
	10	**ARENACEOUS MARL:** as above		
1450.0 - 1460.0	100	**MARL:** pale to medium grey, pale to medium brown, argillaceous, common carbonaceous laminations and specks, rare lithics and nodular pyrite, common silty laminations, locally grading to calcisiltite, firm to moderately hard, hard in part, sub-blocky to blocky.		
1460.0 - 1480.0	80	**MARL:** pale to medium grey, pale to medium brown, argillaceous, common carbonaceous laminations and specks, rare lithics and nodular pyrite, common silty laminations, locally grading to calcisiltite, minor fine spherical quartz grains, firm to moderately hard, hard in part, sub-blocky to blocky.		
	20	**ARENACEOUS MARL:** light to medium grey, medium brown grey, off white, abundant argillaceous material, common carbonaceous laminations and specks, occasional lithics, common fine to medium spherical quartz grains, hard to very hard, sub-blocky to blocky.		
1480.0 - 1490.0	100	**ARENACEOUS MARL:** pale to medium grey, light brown grey, translucent in part, common fine to coarse angular to spherical quartz grains, common micro fossils, abundant argillaceous material, minor to locally common carbonaceous laminations	37	9

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Interval (m)	%	Lithology / Show Descriptions	Ca (%)	Mg (%)
		& specks, minor nodular pyrite, firm to hard, sub-blocky.		
1490.0 - 1500.0	70	**ARGILLACEOUS MARL:** as above.		
	30	**ARENACEOUS MARL:** as above.		
1500.0 - 1510.0	100	**MARL:** light to medium grey, medium brown grey, off white, abundant argillaceous material, common carbonaceous laminations and specks, occasional lithics, minor fine to medium spherical quartz grains, localised silty laminations and grading to calcisiltite, moderately hard to hard, sub-blocky to blocky, dispersive in part.		
1510.0 - 1520.0	100	**MARL:** light to medium grey, medium brown grey, off white, abundant argillaceous material, common carbonaceous laminations and specks, occasional lithics, common fine to medium spherical quartz grains, localised silty laminations and grading to calcisiltite, moderately hard to hard, sub-blocky to blocky, dispersive in part.	35	3
1520.0 - 1530.0	100	**MARL:** pale to medium grey, light brown grey, translucent in part, common fine to coarse angular to spherical quartz grains, common micro fossils, abundant argillaceous material, minor to locally common carbonaceous laminations & specks, minor nodular pyrite, firm to hard, sub-blocky.		
1530.0 - 1540.0	100	**MARL:** as above	32	2
1540.0 - 1550.0	100	**MARL:** as above		
1550.0 - 1560.0	100	**MARL:** pale to medium grey, light brown grey, translucent in part, common micro fossils, common to abundant fine to coarse translucent to orange brown ooliths, common calcareous fragments, abundant argillaceous material, abundant nodular and disseminated pyrite, minor to locally common carbonaceous laminations and specks, firm to hard, very hard in part, sub-blocky to blocky.	45	1
1560.0 - 1565.0	70	**MARL:** pale to medium grey, medium brown, grey, common to abundant ooliths, minor carbonaceous specks, firm to moderately hard, sub-blocky.		
	30	**CALCILUTITE:** pale brown, tan, argillaceous, minor micro-crystalline, occasional micro-fossils, trace spicules, hard to very hard, sub-blocky to sub-fissile.		
1565.0 - 1570.0	60	**MARL:** as above, occasional nodular and disseminated pyrite.		
	40	**CALCILUTITE:** as above.		
1570.0 - 1575.0	90	**MARL:** pale to medium grey, medium brown, grey, common to abundant ooliths, minor carbonaceous specks, common to abundant nodular and disseminated pyrite, firm to moderately hard, sub-blocky.		
	10	**CALCILUTITE:** pale brown, tan, argillaceous, minor micro-crystalline, increasingly common micro-fossils and spicules, hard to very hard, sub-blocky to sub-fissile.		
1575.0 - 1580.0	100	**MARL:** pale to medium grey, medium brown, grey, common ooliths, common micro-fossils, minor carbonaceous specks, occasional nodular and disseminated pyrite, firm to moderately hard, sub-blocky.	45	1
1580.0 - 1590.0	95	**MARL:** as above		
	5	**CALCILUTITE:** as above		
1590.0 - 1600.0	100	**MARL:** pale to medium grey, medium brown, grey, common ooliths, common micro-fossils, minor carbonaceous specks, occasional nodular and disseminated pyrite, firm to moderately hard, sub-blocky.		
1600.0 - 1610.0	100	**MARL:** as above	35	1
1610.0 - 1615.0	100	**MARL:** light green grey to light grey, light to medium olive grey, trace glauconite grains, trace disseminated pyrite, rare carbonaceous specks, soft to firm, sub-blocky.		
1615.0 - 1620.0	100	**MARL:** generally as above with trace to common calcite grains.		
1625.0 - 1630.0	70	**CALCAREOUS CLAYSTONE:** light grey to light green grey, light to medium olive grey, grading to a MARL, trace glauconite grains, trace disseminated pyrite, trace to common calcite grains, trace fossil fragments, soft to firm, sub-blocky.	27	1
	30	**MARL:** light green grey to light olive grey, medium grey, grading to a calcareous CLAYSTONE, trace glauconite, trace carbonaceous specks, trace disseminated pyrite, soft to firm, sub-blocky.		
1630.0 - 1635.0	90	**CALCAREOUS CLAYSTONE:** as above		
	10	**MARL:** as above.		

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Interval (m)	%	Lithology / Show Descriptions	Ca (%)	Mg (%)
1635.0 - 1640.0	60	**CALCAREOUS CLAYSTONE:** as above	33	1
	40	**MARL:** as above		
1640.0 - 1645.0	60	**MARL:** light green grey to light olive grey, medium grey, grading to a calcareous CLAYSTONE, trace glauconite, trace carbonaceous specks, trace disseminated pyrite, soft to firm, sub-blocky.		
	40	**CALCAREOUS CLAYSTONE:** light grey to light green grey, light to medium olive grey, grading to a MARL, trace glauconite grains, trace disseminated pyrite, trace to common calcite grains, trace fossil fragments, soft to firm, sub-blocky.		
1645.0 - 1650.0	90	**MARL:** as above	36	1
	10	**CALCAREOUS CLAYSTONE:** as above		
1650.0 - 1655.0	90	**MARL:** light grey to light green grey, light olive grey to medium olive grey, grading to calcareous CLAYSTONE, trace glauconite, trace disseminated pyrite, soft to firm, sub-blocky.		
	10	**CALCAREOUS CLAYSTONE:** light grey to medium olive grey, medium grey, grading to a MARL, trace glauconite grains, trace disseminated pyrite, trace to common calcite grains, trace carbonaceous specks and micro laminations, soft to firm, sub-blocky.		
1655.0 - 1660.0	70	**MARL:** light to medium green grey, light olive grey, grading to calcareous CLAYSTONE, trace glauconite, trace fossil fragments, trace disseminated pyrite, soft to firm, sub-blocky.		
	30	**CALCAREOUS CLAYSTONE:** light to medium grey, medium olive grey to medium dark grey, grading to MARL, trace carbonaceous specks, trace disseminated pyrite, firm, sub-blocky.		
1660.0 - 1665.0	70	**MARL:** as above		
	30	**CALCAREOUS CLAYSTONE:** as above		
1665.0 - 1670.0	80	**MARL:** as above		
	20	**CALCAREOUS CLAYSTONE:** as above		
1670.0 - 1675.0	90	**MARL:** as above	38	8
	10	**CALCAREOUS CLAYSTONE:** as above		
1680.0 - 1685.0	90	**MARL:** light to medium green grey, light to medium olive grey, trace to common fossil fragments, trace glauconite, trace dissseminated pyrite, soft to firm, sub-blocky.		
	10	**CALCAREOUS CLAYSTONE:** light to medium grey, medium olive grey, grading to MARL, trace carbonaceous specks and micro laminations, trace glauconite, trace disseminated pyrite, firm, sub-blocky.		
1685.0 - 1690.0	70	**MARL:** light to medium green grey, light to medium olive grey, trace to common fossil fragments, trace glauconite, trace dissseminated pyrite, soft to firm, sub-blocky.		
	20	**CALCARENITE:** light grey to light blue grey, white, common very fine quartz and calcite grains, om fossil fragments, moderately hard, sub-blocky.		
	10	**CALCAREOUS CLAYSTONE:** light to medium grey, medium olive grey, grading to MARL, trace carbonaceous specks and micro laminations, trace glauconite, trace disseminated pyrite, firm, sub-blocky.		
1690.0 - 1695.0	70	**MARL:** light to medium green grey, light to medium olive grey, trace to common fossil fragments, trace glauconite, trace dissseminated pyrite, soft to firm, sub-blocky.	45	3
	30	**CALCAREOUS CLAYSTONE:** light to medium grey, medium olive grey, grading to MARL, trace carbonaceous specks and micro laminations, trace glauconite, trace disseminated pyrite, firm, sub-blocky.		
1695.0 - 1700.0	70	**MARL:** as above		
	30	**CALCAREOUS CLAYSTONE:** as above		
1700.0 - 1705.0	50	**CALCAREOUS CLAYSTONE:** light to medium grey, medium olive grey, grading to MARL, trace carbonaceous specks and micro laminations, trace glauconite, trace disseminated pyrite, firm, sub-blocky.		
	40	**MARL:** light green grey to light olive grey, medium olive grey to light grey, in part grading to a calcareous CLAYSTONE, trace glauconite, trace fossil fragments, trace		

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Interval (m)	%	Lithology / Show Descriptions	Ca (%)	Mg (%)
		disseminated pyrite.		
	10	**CALCILUTITE:** white to very light grey, trace calcite grains, trace fossil fragments, soft to firm, sub-blocky.		
1705.0 - 1710.0	50	**MARL:** as above		
	50	**CALCAREOUS CLAYSTONE:** as above		
1710.0 - 1715.0	60	**CALCAREOUS CLAYSTONE:** as above	35	12
	40	**MARL:** light green grey to light olive grey, medium olive grey to light grey, in part grading to a calcareous CLAYSTONE, trace glauconite, trace fossil fragments, trace disseminated pyrite.		
1715.0 - 1720.0	60	**CALCAREOUS CLAYSTONE:** as above		
	40	**MARL:** as above		
1720.0 - 1725.0	60	**CALCAREOUS CLAYSTONE:** light grey to light brown grey, medium grey to medium olive grey, slightly arenaceous, trace carbonaceous specks, trace glauconite, firm to moderately hard, sub-blocky.		
	40	**MARL:** light to medium green grey, medium olive grey, trace carbonaceous specks, trace glauconite, rare fossil fragments, soft to firm, sub-blocky.		
1725.0 - 1730.0	70	**MARL:**	58	7
	30	**CALCAREOUS CLAYSTONE:**		
1735.0 - 1740.0	80	**MARL:** light to medium green grey, olive grey, grading to a calcareous CLAYSTONE, trace glauconite, trace carbonaceous specks, rare fossil fragments, soft to firm, sub-blocky.		
	20	**CALCAREOUS CLAYSTONE:** light to medium grey, medium green grey to medium olive grey, trace carbonaceous specks, trace disseminated pyrite soft to firm, sub-blocky.		
1740.0 - 1750.0	40	**CALCAREOUS CLAYSTONE:** medium grey to medium olive grey, light grey, slightly arenaceous in part, trace carbonaceous specks and micro laminae, trace glauconite, frim, sub-blocky.		
	40	**MARL:** light grey to light brown grey, medium grey to medium olive grey, slightly arenaceous, trace carbonaceous specks, trace glauconite, firm to moderately hard, sub-blocky.		
	20	**CALCAREOUS SILTSTONE:** white to light grey, light green grey, slightly arenaceous, trace carbonaceous specks and micro laminae, trace fossil fragments, soft to firm, in part moderately hard, sub-blocky.		
1750.0 - 1760.0	40	**CALCAREOUS SILTSTONE:** medium grey to medium green grey, medium olive grey, arenaceous and grading to a calcareous SILTSTONE, trace carbonaceous specks, trace glauconite, firm to moderately hard, sub-blocky to blocky.	38	11
	30	**MARL:** as above		
	30	**CALCAREOUS CLAYSTONE:** medium grey to medium olive grey, light grey, slightly arenaceous in part, trace carbonaceous specks and micro laminae, trace glauconite, frim, sub-blocky.		
1760.0 - 1770.0	40	**CALCAREOUS CLAYSTONE:** as above		
	30	**MARL:** as above		
	30	**CALCAREOUS SILTSTONE:** as above		
1770.0 - 1780.0	60	**CALCAREOUS CLAYSTONE:** light to medium grey, medium olive grey to dark grey, grading to MARL in part, trace carbonaceous specks, trace disseminated pyrite, trace glauconite, firm to moderately hard, sub-blocky.		
	20	**CALCAREOUS SILTSTONE:** medium to dark grey, medium olive grey, trace disseminated pyrite, trace carbonaceous specks, moderately hard to hard, sub-blocky to blocky, in part sub-fissile.		
	20	**MARL:** light to medium grey, light green grey to light olive grey, trace glauconite, trace carbonaceous specks, soft to frim, sub-blocky.		
1780.0 - 1790.0	60	**CALCAREOUS CLAYSTONE:** light to medium grey, medium olive grey to dark grey, grading to MARL in part, trace carbonaceous specks, trace disseminated pyrite, trace glauconite, firm to moderately hard, sub-blocky.	51	8
	20	**MARL:** light to medium grey, light green grey to light olive grey, trace glauconite, trace carbonaceous specks, soft to frim, sub-blocky.		

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Interval (m)	%	Lithology / Show Descriptions	Ca (%)	Mg (%)
1780.0 - 1790.0	20	**CALCAREOUS SILTSTONE:** medium to dark grey, medium olive grey, trace disseminated pyrite, trace carbonaceous specks, moderately hard to hard, sub-blocky to blocky, in part sub-fissile.	51	8
1790.0 - 1800.0	60	**CALCAREOUS CLAYSTONE:** as above		
	20	**CALCAREOUS SILTSTONE:** as above		
	20	**MARL:** as above		
1810.0 - 1820.0	40	**CALCAREOUS SILTSTONE:** medium to dark grey, medium olive grey, trace disseminated pyrite, trace carbonaceous specks, moderately hard to hard, sub-blocky to blocky, in part sub-fissile.		
	40	**CALCAREOUS CLAYSTONE:** light to medium grey, medium olive grey, trace carbonaceous specks and micro laminations, trace glauconite, trace disseminated pyrite, firm to moderately hard, sub-blocky.		
	20	**MARL:** light to medium grey, light green grey to light olive grey, trace glauconite, trace carbonaceous specks, soft to frim, sub-blocky.		
1820.0 - 1830.0	50	**CALCAREOUS CLAYSTONE:** as above		
	40	**CALCAREOUS SILTSTONE:** as above		
	10	**MARL:** as above		
1830.0 - 1840.0	50	**CALCAREOUS SILTSTONE:** medium to dark grey, medium olive grey, trace disseminated pyrite, trace carbonaceous specks, moderately hard to hard, sub-blocky to blocky, in part sub-fissile.	51	8
	40	**CALCAREOUS CLAYSTONE:** light to medium grey, medium olive grey, trace carbonaceous specks and micro laminations, trace glauconite, trace disseminated pyrite, firm to moderately hard, sub-blocky.		
	10	**MARL:** light to medium grey, light green grey to light olive grey, trace glauconite, trace carbonaceous specks, soft to frim, sub-blocky.		
1840.0 - 1850.0	60	**CALCAREOUS CLAYSTONE:** as above		
	30	**CALCAREOUS SILTSTONE:** as above		
	10	**MARL:** as above		
1850.0 - 1860.0	40	**MARL:** light to medium grey, light green grey to light olive grey, slightly arenaceous, trace glauconite, trace carbonaceous specks, soft to frim, sub-blocky.		
	40	**CALCAREOUS CLAYSTONE:** light to medium grey, medium olive grey, trace carbonaceous specks and micro laminations, trace glauconite, trace disseminated pyrite, firm to moderately hard, sub-blocky.		
	20	**CALCAREOUS SILTSTONE:** light to medium grey, medium olive grey, trace disseminated pyrite, trace carbonaceous specks, moderately hard to hard, sub-blocky to blocky, in part sub-fissile.		
1860.0 - 1870.0	40	**MARL:** as above		
	40	**CALCAREOUS CLAYSTONE:** as above		
	20	**CALCAREOUS SILTSTONE:** as above		
1870.0 - 1880.0	40	**CALCAREOUS SILTSTONE:** light to medium grey, medium olive grey, trace disseminated pyrite, trace carbonaceous specks, moderately hard to hard, sub-blocky to blocky, in part sub-fissile.	30	3
	40	**CALCAREOUS CLAYSTONE:** light to medium grey, medium olive grey, trace carbonaceous specks and micro laminations, trace glauconite, trace disseminated pyrite, firm to moderately hard, sub-blocky.		
	20	**MARL:** light to medium grey, light green grey to light olive grey, slightly arenaceous, trace glauconite, trace carbonaceous specks, soft to frim, sub-blocky.		
1890.0 - 1900.0	50	**CALCAREOUS SILTSTONE:** light to medium grey, medium olive grey, trace disseminated pyrite, trace carbonaceous specks, moderately hard to hard, sub-blocky to blocky, in part sub-fissile.	27	5
	40	**CALCAREOUS CLAYSTONE:** light to medium grey, medium olive grey, trace carbonaceous specks and micro laminations, trace glauconite, trace disseminated pyrite, rare fossil fragments, firm to moderately hard, sub-blocky.		
	10	**MARL:** light to medium grey, light green grey to light olive grey, slightly arenaceous, trace glauconite, trace carbonaceous specks, soft to frim, sub-blocky.		
1900.0 - 1910.0	50	**CALCAREOUS SILTSTONE:** as above	27	1

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Interval (m)	%	Lithology / Show Descriptions	Ca (%)	Mg (%)
1900.0 - 1910.0	40	**CALCAREOUS CLAYSTONE:** as above	27	1
	10	**MARL:** as above		
1910.0 - 1920.0	40	**CALCAREOUS CLAYSTONE:** as above, trace disseminated pyrite.	47	2
	30	**CALCAREOUS SILTSTONE:** as above		
	30	**MARL:** as above		
1920.0 - 1930.0	50	**CALCAREOUS SILTSTONE:** as above		
	40	**CALCAREOUS CLAYSTONE:** as above		
	10	**MARL:** as above		
1930.0 - 1940.0	40	**CALCAREOUS CLAYSTONE:** medium to medium dark grey, olive grey, trace carbonaceous specks, trace disseminated pyrite, rare fossil fragments, moderately hard to frim, sub-blocky.	50	5
	30	**MARL:** light to medium grey, light green grey to light olive grey, slightly arenaceous, trace glauconite, trace carbonaceous specks, soft to frim, sub-blocky.		
	30	**CALCAREOUS SILTSTONE:** medium to medium dark grey, medium olive grey, trace carbonaceous specks, trace disseminated pyrite, trace glauconite, moderately hard, sub-blocky.		
1940.0 - 1950.0	50	**CALCAREOUS SILTSTONE:** as above		
	40	**CALCAREOUS CLAYSTONE:** as above		
	10	**MARL:** as above		
1950.0 - 1955.0	50	**MARL:** light to medium grey, medium brown grey, abundant calcareous material, common micro fossils and ooliths, silty in part and locally grading to calcareous silttone, occasional carbonaceous material, firm to hard, dispersive, sub-blocky.		
	50	**CALCAREOUS SILTSTONE:** pale to medium grey, dark grey in part, medium brown grey, abundant calcareous material, common micro-fossils, commonly argillaceous and grading to calcareous claystone, minor nodular and disseminated pyrite, moderately hard to hard, very hard where dark grey, sub-blocky.		
1955.0 - 1960.0	60	**MARL:** as above.	35	5
	40	**CALCAREOUS SILTSTONE:** as above		
1960.0 - 1965.0	60	**MARL:** as above		
	40	**CALCAREOUS SILTSTONE:** as above		
1965.0 - 1980.0	60	**MARL:** as above	32	1
	40	**CALCAREOUS SILTSTONE:** as above		
1980.0 - 1985.0	55	**CALCAREOUS SILTSTONE:** as above		
	45	**MARL:** as above		
1985.0 - 1990.0	70	**MARL:** as above	42	1
	30	**CALCAREOUS SILTSTONE:** as above		
1990.0 - 1995.0	60	**MARL:** light to medium grey, medium brown grey, abundant calcareous material, common micro fossils and ooliths, silty in part and locally grading to calcareous silttone, occasional carbonaceous material, firm to hard, dispersive, sub-blocky.		
	40	**CALCAREOUS SILTSTONE:** pale to medium grey, dark grey in part, medium brown grey, abundant calcareous material, common micro-fossils, commonly argillaceous and grading to calcareous claystone, minor nodular and disseminated pyrite, moderately hard to hard, very hard where dark grey, sub-blocky.		
1995.0 - 2000.0	70	**MARL:** light to medium grey, light bluish grey, medium brown grey in part, abundant calcareous material, minor micro fossils, silty in part and locally grading to calcareous silttone, occasional carbonaceous material, firm to hard, dispersive, sub-blocky.	56	1
	30	**CALCAREOUS SILTSTONE:** pale to medium grey, dark grey in part, medium brown grey, abundant calcareous material, trace micro-fossils, commonly argillaceous and grading to calcareous claystone, rare nodular and disseminated pyrite, moderately hard to hard, very hard where dark grey, sub-blocky.		

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Interval (m)	%	Lithology / Show Descriptions	Ca (%)	Mg (%)
2000.0 - 2010.0	70	**MARL:** as above.		
	30	**CALCAREOUS SILTSTONE:** as above Retrieved wire rope from shakers - probable dropped sling. Blocked nozzles and slow ROP caused by bit balling.		
2010.0 - 2015.0	80	**MARL:** light to medium grey, light bluish grey, medium brown grey in part, abundant calcareous material, minor micro fossils, common ooliths, occasionally silty grading to calcareous silttone, occasional carbonaceous material, firm to hard, dispersive, sub-blocky.		
	20	**CALCAREOUS SILTSTONE:** pale to medium grey, dark grey in part, medium brown grey, abundant calcareous material, trace micro-fossils, commonly argillaceous and grading to calcareous claystone, common nodular pyrite, moderately hard to hard, very hard where dark grey, sub-blocky.		
2015.0 - 2020.0	70	**MARL:** pale to medium grey, dark grey in part, medium brown grey, abundant calcareous material, trace micro-fossils, commonly argillaceous, common nodular pyrite, moderately hard to hard, dispersive, sub-blocky to blocky.		
	20	**CALCARENITE:** pale to medium grey, light bluish grey, off white to translucent in part, trace orange brown, abundantly argillaceous and grading to calcareous siltstone in part, common to abundant fine to medium angular to sub-angular calcite fragments, common to abundant nodular and disseminated pyrite, trace siderite, fim to hard, sub-blocky.		
	10	**CALCAREOUS SILTSTONE:** pale to medium grey, dark grey in part, medium brown grey, abundant calcareous material, trace micro-fossils, commonly argillaceous and grading to calcareous claystone, common nodular pyrite, moderately hard to hard, very hard where dark grey, sub-blocky.		
2020.0 - 2025.0	80	**MARL:** as above		
	10	**CALCAREOUS SILTSTONE:** as above		
	10	**CALCARENITE:** as above		
2025.0 - 2030.0	80	**MARL:** as above		
	10	**CALCAREOUS SILTSTONE:** as above		
	10	**CALCARENITE:** as above		
2030.0 - 2040.0	90	**CALCAREOUS CLAYSTONE:** pale to medium grey, light bluish grey, medium brown grey in part, occasional calcareous fragments, trace micro-fossils, commonly argillaceous, minor nodular pyrite, moderately hard to hard, dispersive, sub-blocky.	30	1
	10	**CALCAREOUS SILTSTONE:** pale to medium grey, dark grey in part, medium brown grey, common calcareous fragments, trace micro-fossils, commonly argillaceous and grading to calcareous claystone, common nodular pyrite, moderately hard to hard, very hard where dark grey, sub-blocky.		
2040.0 - 2050.0	80	**CALCAREOUS CLAYSTONE:** as above		
	20	**CALCAREOUS SILTSTONE:** as above		
2050.0 - 2055.0	80	**CALCAREOUS CLAYSTONE:** as above		
	20	**CALCAREOUS SILTSTONE:** as above		
2055.0 - 2060.0	90	**CALCAREOUS CLAYSTONE:** as above		
	10	**CALCAREOUS SILTSTONE:** as above		
2060.0 - 2065.0	90	**CALCAREOUS CLAYSTONE:** as above, minor micromicaceous, trace carbonaceous specks.		
	10	**CALCAREOUS SILTSTONE:** as above		
2065.0 - 2075.0	70	**CALCAREOUS CLAYSTONE:** pale to medium grey, pale to medium brown grey, common calcareous fragments, common micro-fossils, minor nodular pyrite, occasional carbonaceous specks, moderately hard to hard, dispersive, sub-blocky.		
	30	**CALCAREOUS SILTSTONE:** pale to medium grey, medium brown grey, occasional dark grey, very argillaceous, common to abundant micro fossils and very fine to coarse translucent calcareous fragments, common to abundant nodular and disseminated pyrite, moderately hard to hard, very hard where dark grey, sub-blocky.		

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Interval (m)	%	Lithology / Show Descriptions	Ca (%)	Mg (%)
2075.0 - 2085.0	65	**CALCAREOUS SILTSTONE:** as above	18	10
	35	**CALCAREOUS CLAYSTONE:** as above		
2085.0 - 2090.0	60	**CALCAREOUS SILTSTONE:** pale to medium grey, medium brown grey, occasional dark grey, very argillaceous, trace micro fossils, common to abundant very fine to coarse translucent calcareous fragments, common nodular and disseminated pyrite, moderately hard to hard, very hard where dark grey, sub-blocky.		
	40	**CALCAREOUS CLAYSTONE:** pale to medium grey, pale to medium brown grey, common calcareous fragments, trace micro-fossils, trace nodular pyrite, occasional carbonaceous specks, moderately hard to hard, dispersive, sub-blocky.		
2090.0 - 2095.0	50	**CALCAREOUS CLAYSTONE:** as above		
	50	**CALCAREOUS SILTSTONE:** as above, common nodular and disseminated pyrite.		
2095.0 - 2105.0	80	**CALCAREOUS CLAYSTONE:** as above		
	20	**CALCAREOUS SILTSTONE:** as above		
2105.0 - 2110.0	80	**CALCAREOUS CLAYSTONE:** pale to medium grey, pale to medium brown grey, common calcareous fragments, trace micro-fossils, occasional nodular pyrite, occasional carbonaceous specks, firm to moderately hard, dispersive, sub-blocky.	25	1
	20	**CALCAREOUS SILTSTONE:** pale to medium grey, medium brown grey, occasional dark grey, very argillaceous and common grading to calcareous claystone, trace micro fossils, common very fine to coarse translucent calcareous fragments, common nodular and disseminated pyrite, moderately hard to hard, very hard where dark grey, sub-blocky.		
2110.0 - 2120.0	90	**CALCAREOUS CLAYSTONE:** as above		
	10	**CALCAREOUS SILTSTONE:** as above		
2120.0 - 2130.0	90	**CALCAREOUS CLAYSTONE:** pale to light grey, light to medium grey, occasionally medium brown grey, common to abundant calcite fragments, trace micro fossils, occasional ooliths, trace very fine quartz grains, minor to locally common carbonaceous laminations and specks, occasional nodular and disseminated pyrite, firm to moderately hard, sub-blocky to blocky, dispersive in part.	24	8
	10	**CALCAREOUS SILTSTONE:** medium grey, medium grey brown, minor dark grey, abundantly argillaceous and common grading to calcareous claystone, common nodular and disseminated pyrite, common micro fossils and ooliths, occasional calcite fragments, minor carbonaceous specks, moderately hard to hard, very hard in part, sub-blocky.		
2130.0 - 2140.0	90	**CALCAREOUS CLAYSTONE:** as above		
	10	**CALCAREOUS SILTSTONE:** as above, minor pale green grey.		
2140.0 - 2150.0	80	**CALCAREOUS CLAYSTONE:** as above		
	20	**CALCAREOUS SILTSTONE:** as above, trace very coarse quartz grains.		
2150.0 - 2160.0	70	**CALCAREOUS SILTSTONE:** pale to medium grey, light brown grey, minor dark grey, argillaceous and locally grading to calcareous claystone, common nodular and disseminated pyrite, common to abundant micro fossils and ooliths, common to abundant fine to coarse calcite fragments, minor carbonaceous specks, moderately hard to hard, very hard in part, sub-blocky.		
	30	**CALCAREOUS CLAYSTONE:** as above		
2160.0 - 2170.0	50	**CALCAREOUS CLAYSTONE:** as above	30	3
	50	**CALCAREOUS SILTSTONE:** as above		
2170.0 - 2180.0	60	**CALCAREOUS SILTSTONE:** medium to dark grey, light brown grey, argillaceous and locally grading to calcareous claystone, common nodular and disseminated pyrite, common micro fossils and ooliths, common fine to medium calcite fragments, occasional carbonaceous material, moderately hard to hard, very hard in part, sub-fissile to sub-blocky.		
	40	**CALCAREOUS CLAYSTONE:** light brown grey, pale to light grey, light to medium grey, medium brown grey, minor calcite fragments, trace micro fossils, minor to locally common carbonaceous laminations and specks, occasional nodular and disseminated pyrite, firm to moderately hard, sub-blocky to blocky, dispersive in part.		
2180.0 - 2190.0	60	**CALCAREOUS CLAYSTONE:** as above		

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Interval (m)	%	Lithology / Show Descriptions	Ca (%)	Mg (%)
2180.0 - 2190.0	40	**CALCAREOUS SILTSTONE:** as above		
2190.0 - 2200.0	90	**CALCAREOUS CLAYSTONE:** off white to pale grey, pale to light grey, light brown grey, minor calcite fragments, trace micro fossils, minor to locally common carbonaceous laminations and specks, occasional nodular and disseminated pyrite, firm, sub-blocky, dispersive.		
	10	**CALCAREOUS SILTSTONE:** medium to dark grey, light brown grey, very argillaceous and commonly grading to calcareous claystone, minor nodular and disseminated pyrite, trace micro fossilsand ooliths, common fine to medium calcite fragments, trace carbonaceous material, firm to moderately hard, hard in part, sub-blocky.		
2200.0 - 2210.0	50	**CALCAREOUS SILTSTONE:** medium to dark grey, light brown grey, argillaceous and locally grading to calcareous claystone, minor nodular and disseminated pyrite, trace micro fossils, common fine to medium calcite fragments, occasional carbonaceous material, moderately hard to hard, very hard in part, sub-fissile to sub-blocky.	20	3
	50	**CALCAREOUS CLAYSTONE:** as above		
2210.0 - 2220.0	80	**CALCAREOUS SILTSTONE:** as above, light bluish grey.		
	20	**CALCAREOUS CLAYSTONE:** as above		
2220.0 - 2230.0	80	**CALCAREOUS SILTSTONE:** as above		
	20	**CALCAREOUS CLAYSTONE:** as above		
2230.0 - 2240.0	80	**CALCAREOUS SILTSTONE:** medium to dark grey, dominantly medium grey, argillaceous and locally grading to calcareous claystone, trace nodular and disseminated pyrite, trace micro fossils, occasional fine to medium calcite fragments, trace carbonaceous material, trace micromicaceous, firm to moderately hard, sub-fissile to sub-blocky.		
	20	**CALCAREOUS CLAYSTONE:** off white to pale grey, pale to light grey, light brown grey, minor calcite fragments, trace micro fossils, minor carbonaceous laminations and specks, trace nodular and disseminated pyrite, common silty laminations and locally grading to calcareous siltstone, firm, sub-blocky, dispersive in part.		
2240.0 - 2250.0	70	**CALCAREOUS SILTSTONE:** as above	21	5
	30	**CALCAREOUS CLAYSTONE:** as above		
2250.0 - 2260.0	90	**CALCAREOUS SILTSTONE:** medium to dark grey, dominantly medium grey, trace medium bluish grey, argillaceous and locally grading to calcareous claystone, trace nodular pyrite, trace micro fossils, occasional fine to medium calcite fragments, trace carbonaceous material, trace micromicaceous, moderately hard to hard, very hard in part, fissile to sub-fissile, sub-blocky.		
	10	**CALCAREOUS CLAYSTONE:** off white to pale grey, pale to light grey, light brown grey, minor calcite fragments, trace micro fossils, minor carbonaceous laminations and specks, trace nodular and disseminated pyrite, common silty laminations and locally grading to calcareous siltstone, firm, sub-blocky, dispersive in part.		
2260.0 - 2270.0	90	**CALCAREOUS SILTSTONE:** as above, common nodular pyrite.		
	10	**CALCAREOUS CLAYSTONE:** as above		
2270.0 - 2280.0	80	**CALCAREOUS SILTSTONE:** as above		
	20	**CALCAREOUS CLAYSTONE:** as above		
2280.0 - 2290.0	80	**CALCAREOUS SILTSTONE:** as above	35	2
	20	**CALCAREOUS CLAYSTONE:** as above		
2290.0 - 2300.0	80	**CALCAREOUS SILTSTONE:** medium to dark grey, dominantly medium grey, trace medium bluish grey, argillaceous and locally grading to calcareous claystone, common to abundant nodular and disseminated pyrite, common micro fossils, common to abundant fine to coarse translucent calcite fragments, trace carbonaceous material, trace micromicaceous, moderately hard to hard, very hard in part, sub-fissile to sub-blocky.		
	20	**CALCAREOUS CLAYSTONE:** off white to pale grey, pale to light grey, light brown grey, minor calcite fragments, trace micro fossils, minor carbonaceous laminations and specks, trace nodular and disseminated pyrite, common silty laminations and grading to calcareous siltstone, firm, sub-blocky, dispersive in part.		

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Interval (m)	%	Lithology / Show Descriptions	Ca (%)	Mg (%)
2300.0 - 2310.0	80	**CALCAREOUS SILTSTONE:** as above		
	20	**CALCAREOUS CLAYSTONE:** as above		
2310.0 - 2320.0	90	**CALCAREOUS SILTSTONE:** as above		
	10	**CALCAREOUS CLAYSTONE:** as above		
2320.0 - 2330.0	90	**CALCAREOUS SILTSTONE:** as above	23	2
	10	**CALCAREOUS CLAYSTONE:** as above		
2330.0 - 2340.0	95	**CALCAREOUS SILTSTONE:** medium to dark grey, dominantly medium grey, trace medium bluish grey, argillaceous and locally grading to calcareous claystone, common nodular and disseminated pyrite, common micro fossils, common to abundant fine to medium translucent calcite fragments, trace carbonaceous material, trace micromicaceous, moderately hard to hard, very hard in part, sub-fissile to sub-blocky.		
	5	**CALCAREOUS CLAYSTONE:** off white to pale grey, pale to light grey, light brown grey, minor calcite fragments, trace micro fossils, minor carbonaceous laminations and specks, trace nodular and disseminated pyrite, common silty laminations and grading to calcareous siltstone, firm, sub-blocky, dispersive in part.		
2340.0 - 2350.0	90	**CALCAREOUS SILTSTONE:** as above		
	10	**CALCAREOUS CLAYSTONE:** as above		
2350.0 - 2360.0	90	**CALCAREOUS SILTSTONE:** as above		
	10	**CALCAREOUS CLAYSTONE:** as above		
2360.0 - 2370.0	90	**CALCAREOUS SILTSTONE:** light to medium grey, medium to dark grey, trace medium bluish grey, commonly argillaceous and locally grading to calcareous claystone, minor nodular and disseminated pyrite, common micro fossils, common to abundant fine to medium translucent calcite fragments, trace carbonaceous material, trace micromicaceous, moderately hard to hard, very hard in part, sub-blocky to sub-fissile.	46	4
	10	**CALCAREOUS CLAYSTONE:** off white to pale grey, pale to light grey, light brown grey, minor calcite fragments, trace micro fossils, minor carbonaceous laminations and specks, trace nodular and disseminated pyrite, common silty laminations and grading to calcareous siltstone, firm, sub-blocky, dispersive in part.		
2370.0 - 2380.0	90	**CALCAREOUS SILTSTONE:** as above		
	10	**CALCAREOUS CLAYSTONE:** as above		
2380.0 - 2390.0	95	**CALCAREOUS SILTSTONE:** off white to pale grey, medium to dark grey in part, commonly argillaceous and locally grading to calcareous claystone, occasional micromicaceous, common to abundant calcareous fragments, common nodular and disseminated pyrite, occasional lithics and carbonaceous specks, firm to hard, sub-blocky.		
	5	**CALCAREOUS CLAYSTONE:** off white to pale grey, pale to light grey, light brown grey, minor calcite fragments, trace carbonaceous laminations and specks, trace nodular and disseminated pyrite, common silty laminations and grading to calcareous siltstone, firm, sub-blocky, dispersive.		
2390.0 - 2395.0	60	**CALCAREOUS SILTSTONE:** light to medium olive grey, medium grey, argillaceous grading to a CLAYSTONE, trace carbonaceous specks, trace calcite grains, trace micromicaceous, frim to moderately hard, sub-blocky.		
	40	**CALCAREOUS CLAYSTONE:** medium to medium dark grey, medium olive grey, locally arenaceous and grading to a argillaceous SILTSTONE, trace mica specks, trace carbonaceous specks, frim to moderately hard, sub-blocky.		
2395.0 - 2400.0	70	**CALCAREOUS SILTSTONE:** as above		
	30	**CALCAREOUS CLAYSTONE:** as above		
2405.0 - 2410.0	80	**CALCAREOUS SILTSTONE:** as above	28	5
	20	**CALCAREOUS CLAYSTONE:** as above		
2410.0 - 2415.0	70	**CALCAREOUS SILTSTONE:** as above		
	30	**CALCAREOUS CLAYSTONE:** as above		

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Interval (m)	%	Lithology / Show Descriptions	Ca (%)	Mg (%)
2415.0 - 2420.0	90	**CALCAREOUS SILTSTONE:** light grey to off white, light olive grey to medium grey, locally medium dark grey, in part grading to argillaceous SILTSTONE, trace carbonaceous specks and micro laminae, trace micromicaceous, soft to firm, sub-blocky.		
	10	**CALCAREOUS CLAYSTONE:** medium to medium dark grey, medium olive grey, in part arenaceous, trace carbs specks and micro laminae, trace micromicaceous, trace disseminated pyrite, soft to frim, moderately hard in part, sub-blocky.		
2420.0 - 2425.0	95	**CALCAREOUS SILTSTONE:** as above		
	5	**CALCAREOUS CLAYSTONE:** as above		
2425.0 - 2430.0	95	**CALCAREOUS SILTSTONE:** as above		
	5	**CALCAREOUS CLAYSTONE:** as above		
2430.0 - 2435.0	95	**CALCAREOUS SILTSTONE:** as above, trace to common disseminated and nodular pyrite.		
	5	**CALCAREOUS CLAYSTONE:** as above		
2435.0 - 2440.0	95	**CALCAREOUS SILTSTONE:** as above		
	5	**CALCAREOUS CLAYSTONE:** as above		
2440.0 - 2445.0	95	**CALCAREOUS SILTSTONE:** as above		
	5	**CALCAREOUS CLAYSTONE:** as above		
2445.0 - 2450.0	80	**CALCAREOUS SILTSTONE:** light grey to off white, medium grey to medium olive grey, argillaceous in part and grading to a CLAYSTONE, trace disseminated and nodular pyrite, trace carbonaceous specks and mica laminae, firm to moderately hard, sub-blocky.	48	3
	20	**CALCAREOUS CLAYSTONE:** light grey to medium grey, light olive grey, in part arenaceous, trace carbonaceous specks and mica laminae, trace disseminated pyrite, trace micromicaceous, soft to firm, sub-blocky.		
2450.0 - 2455.0	75	**CALCAREOUS SILTSTONE:** as above		
	25	**CALCAREOUS CLAYSTONE:** as above		
2455.0 - 2460.0	75	**CALCAREOUS SILTSTONE:** as above		
	25	**CALCAREOUS CLAYSTONE:** as above		
2460.0 - 2465.0	70	**CALCAREOUS SILTSTONE:** light grey to off white, medium grey to medium olive grey, argillaceous in part and grading to a CLAYSTONE, trace disseminated and nodular pyrite, trace carbonaceous specks and mica laminae, firm to moderately hard, sub-blocky.		
	30	**CALCAREOUS CLAYSTONE:** light grey to medium grey, light olive grey, in part arenaceous, trace carbonaceous specks and mica laminae, trace disseminated pyrite, trace micromicaceous, soft to firm, sub-blocky.		
2465.0 - 2470.0	70	**CALCAREOUS SILTSTONE:** as above		
	30	**CALCAREOUS CLAYSTONE:** as above		
2470.0 - 2475.0	80	**CALCAREOUS SILTSTONE:** as above, in part grading to a Calcisiltite.		
	20	**CALCAREOUS CLAYSTONE:** as above		
2475.0 - 2480.0	80	**CALCAREOUS SILTSTONE:** as above		
	20	**CALCAREOUS CLAYSTONE:** as above		
2480.0 - 2485.0	70	**CALCAREOUS SILTSTONE:** light grey to off white, medium grey to medium olive grey, argillaceous in part and grading to a CLAYSTONE, trace disseminated and nodular pyrite, trace carbonaceous specks and mica laminae, firm to moderately hard, sub-blocky.		
	30	**CALCAREOUS CLAYSTONE:** light grey to medium grey, light olive grey, in part arenaceous, trace carbonaceous specks and mica laminae, trace disseminated pyrite, trace micromicaceous, soft to firm, sub-blocky.		
2485.0 - 2490.0	90	**CALCAREOUS SILTSTONE:** as above	24	1
	10	**CALCAREOUS CLAYSTONE:** as above		

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Interval (m)	%	Lithology / Show Descriptions	Ca (%)	Mg (%)
2490.0 - 2495.0	90	**CALCAREOUS SILTSTONE:** as above, rare fossil fragments.		
	10	**CALCAREOUS CLAYSTONE:** as above		
2495.0 - 2500.0	90	**CALCAREOUS SILTSTONE:** light grey to off white, medium grey to medium olive grey, argillaceous in part and grading to a CLAYSTONE, trace disseminated and nodular pyrite, trace carbonaceous specks and mica laminae, firm to moderately hard, sub-blocky.		
	10	**CALCAREOUS CLAYSTONE:** light grey to medium grey, light olive grey, in part arenaceous, trace carbonaceous specks and mica laminae, trace disseminated pyrite, trace micromicaceous, soft to firm, sub-blocky.		
2500.0 - 2505.0	80	**CALCAREOUS SILTSTONE:** as above		
	20	**CALCAREOUS CLAYSTONE:** as above		
2505.0 - 2510.0	80	**CALCAREOUS SILTSTONE:** light grey to off white, medium grey to medium olive grey, argillaceous in part and grading to a CLAYSTONE, trace disseminated and nodular pyrite, trace carbonaceous specks and mica laminae, firm to moderately hard, sub-blocky.		
	20	**CALCAREOUS CLAYSTONE:** light grey to medium grey, light olive grey, in part arenaceous, trace carbonaceous specks and mica laminae, trace disseminated pyrite, trace micromicaceous, soft to firm, sub-blocky.		
2510.0 - 2515.0	90	**CALCAREOUS SILTSTONE:** as above		
	10	**CALCAREOUS CLAYSTONE:** as above		
2515.0 - 2520.0	90	**CALCAREOUS SILTSTONE:** light grey to off white, medium grey to medium olive grey, argillaceous in part and grading to a CLAYSTONE, trace disseminated and nodular pyrite, trace carbonaceous specks and mica laminae, firm to moderately hard, sub-blocky.		
	10	**CALCAREOUS CLAYSTONE:** light grey to medium grey, light olive grey, in part arenaceous, trace carbonaceous specks and mica laminae, trace disseminated pyrite, trace micromicaceous, soft to firm, sub-blocky.		
2520.0 - 2525.0	95	**CALCAREOUS SILTSTONE:** as above		
	5	**CALCAREOUS CLAYSTONE:** as above		
2525.0 - 2530.0	90	**CALCAREOUS SILTSTONE:** light grey to off white, medium grey to medium olive grey, argillaceous in part and grading to a CLAYSTONE, trace disseminated and nodular pyrite, trace carbonaceous specks and mica laminae, firm to moderately hard, sub-blocky.	23	3
	10	**CALCAREOUS CLAYSTONE:** as above		
2530.0 - 2535.0	90	**CALCAREOUS SILTSTONE:** light grey to off white, medium grey, common very fine quartz grains, trace nodular to disseminated pyrite, trace carbonaceous specks, trace calcite material, soft to firm, sub-blocky.		
	10	**CALCAREOUS CLAYSTONE:** light grey to medium grey, light olive grey, in part arenaceous, trace carbonaceous specks and mica laminae, trace disseminated pyrite, trace micromicaceous, soft to firm, sub-blocky.		
2535.0 - 2540.0	100	**CALCAREOUS SILTSTONE:** light to medium grey, medium dark grey to medium olive grey, trace very fine quartz grains in part grading to a very fine Sandstone, trace carbonaceous specks, trace disseminated pyrite, trace calcite grains, firm to moderately hard, sub-blocky to blocky.		
2540.0 - 2545.0	100	**CALCAREOUS SILTSTONE:** as above		
2545.0 - 2550.0	100	**CALCAREOUS SILTSTONE:** light to medium grey, light olive grey to medium olive grey, light brown grey, cm very fine quartz grains grading to to very fine SANDSTONE in part, trace carbonaceous specks, trace disseminated pyrite, rare fossil fragments, moderately hard, sub-blocky to blocky.		
2550.0 - 2560.0	100	**CALCAREOUS SILTSTONE:** light to medium grey, light olive grey to medium olive grey, light brown grey, cm very fine quartz grains grading to to very fine SANDSTONE in part, trace carbonaceous specks, trace disseminated pyrite, trace glauconite, rare fossil fragments, moderately hard, sub-blocky to blocky.		
2560.0 - 2570.0	90	**CALCAREOUS SILTSTONE:** light grey to medium grey, medium grey to medium olive grey, common very fine grains quartz, trace carbonaceous specks, trace micromicaceous, firm to moderately hard, sub-blocky to blocky.		
	10	**SANDSTONE:** white to light grey, light brown grey, very fine to fine grains, poor		

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Interval (m)	%	Lithology / Show Descriptions	Ca (%)	Mg (%)
		sorted sub-angular to sub-rounded, moderately to strong calcareous cement, common to abundant white argillaceous matrix, trace carbonaceous specks, trace glauconite, friable to moderately hard, very poor visible and inferred porosity, no fluorescence.		
2570.0 - 2580.0	70	**CALCAREOUS SILTSTONE:** as above	10	1
	30	**SANDSTONE:** as above		
2580.0 - 2590.0	70	**SANDSTONE:** off white to light grey, clear to translucent, very fine to fine grains, poor sorted, sub-angular to sub-rounded, moderate to strong calcareous cement, common to abundant white argillaceous matrix, trace carbonaceous specks, trace glauconite pellets, rare mica, friable to moderately hard, poor to very poor visible and inferred porosity, no fluorescence.		
	30	**CALCAREOUS SILTSTONE:** light grey to medium grey, medium grey to medium olive grey, common very fine grains quartz, trace carbonaceous specks, trace micromicaceous, firm to moderately hard, sub-blocky to blocky.		
2590.0 - 2600.0	80	**SANDSTONE:** as above		
	20	**CALCAREOUS SILTSTONE:** as above		
2600.0 - 2610.0	80	**SANDSTONE:** light green to light brown, medium brown, clear to translucent, common opaque grains, very fine to fine grains, common medium grains, rare very coarse grains, poorly sorted, sub-angular to sub-rounded, moderate calcareous cement, common white argillaceous matrix, trace glauconite matrix, trace to common glauconite grains, trace carbonaceous specks, trace mica specks, trace Fe stained quartz grains, moderately hard aggregates, common loose grains, poor to very poor visible & inferred porosity, no fluorescence.	18	2
	20	**SILTSTONE:** medium to dark brown, brown grey to medium dark grey, moderately calcareous, common very fine quartz grains grading to very fine SANDSTONE, trace to common carbonaceous specks and micro laminae, trace micromicaceous, moderately hard to hard, sub-blocky to blocky, in part sub-fissile.		
2610.0 - 2620.0	70	**SANDSTONE:** as above		
	30	**SILTSTONE:** as above		
2620.0 - 2630.0	60	**SANDSTONE:** light grey to off white, light brown grey, light blue grey, clear to translucent, very fine to fine grains, poorly sorted, sub-angular to sub-rounded, moderate calcareous cement, common argillaceous to silty matrix, trace glauconite, common nodular pyrite, trace fossil fragments, moderately hard, poor visible and inferred porosity, trace dull yellow orange mineral fluorescence.		
	40	**SILTSTONE:** light grey to light blue grey, light to medium yellow, light brown grey to light brown, trace carbonaceous specks, trace micromicaceous, trace Fe stained fossil fragments, trace glauconite, moderately hard to hard, sub-blocky to blocky.		
2630.0 - 2640.0	50	**SANDSTONE:** light grey to off white, light brown grey, light blue grey, clear to translucent, very fine to fine grains, poorly sorted, sub-angular to sub-rounded, moderate calcareous cement, common argillaceous to silty matrix, trace glauconite, common nodular pyrite, trace fossil fragments, moderately hard, poor visible and inferred porosity, trace dull yellow orange mineral fluorescence.		
	50	**SILTSTONE:** medium brown grey to light brown, light grey to light blue grey, light to medium yellow, trace carbonaceous specks, trace micromicaceous, trace Fe stained fossil fragments, trace glauconite, moderately hard to hard, sub-blocky to blocky.		
2640.0 - 2650.0	60	**SILTSTONE:** medium brown grey to light brown, light grey to light blue grey, light to medium yellow, locally argillaceous and grading to arenaceous CLAYSTONE, trace carbonaceous specks, trace micromicaceous, trace Fe stained fossil fragments, trace glauconite, moderately hard to hard, sub-blocky to blocky.	2	0
	40	**SANDSTONE:** as above		
2650.0 - 2660.0	60	**SILTSTONE:** medium brown grey to light brown, light grey to light blue grey, light to medium yellow, locally argillaceous and grading to arenaceous CLAYSTONE, trace carbonaceous specks, trace micromicaceous, trace glauconite, trace Fe stained fossil fragments, trace glauconite, moderately hard to hard, sub-blocky to blocky.		
	40	**SANDSTONE:** light to medium brown, brown grey, clear to translucent, very fine to fine grains, poorly sorted, sub-angular to sub-rounded, weak calcareous cement, common argillaceous to silty matrix, trace to common glauconite, common nodular pyrite, trace fossil fragments, moderately hard, poor visible and inferred porosity, trace dull yellow orange mineral fluorescence.		

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Interval (m)	%	Lithology / Show Descriptions	Ca (%)	Mg (%)
2660.0 - 2670.0	70	**SILTSTONE:** medium to dark brown, brown grey, medium dark grey, common very fine quartz grains, in part grading to a very fine SANDSTONE, trace to common pyrite, trace glauconite, trace to common carbonaceous specks, moderately hard to hard, sub-blocky to blocky.		
	30	**SANDSTONE:** light brown to off white, medium brown, very fine to fine grained, poorly sorted, sub-angular to sub-rounded, weak to moderately calcareous cement, minor pyritic cement, common light brown argillaceous to silty matrix, trace to common pyrite, common glauconite, minor lithics, moderately hard, very poor to poor visible and inferred porosity, no fluorescence.		
2670.0 - 2680.0	70	**SILTSTONE:** medium to dark brown, brown grey, medium dark grey, common very fine quartz grains, in part grading to a very fine SANDSTONE, trace to common pyrite, trace glauconite, trace to common carbonaceous specks, moderately hard to hard, sub-blocky to blocky.		
	30	**SANDSTONE:** light grey to light green grey, clear to translucent, common opaque, fine to very coarse grained, very poorly sorted, sub-angular to sub-rounded, minor angular grains, moderate to strong siliceous cement predominantly as quartz overgrowths, trace to common light green grey to white argillaceous matrix, common to abundant glauconite, trace to common pyrite, trace lithics, friable to moderately hard, poor inferred porosity, no fluorescence.		
2680.0 - 2690.0	70	**SILTSTONE:** as above	4	4
	30	**SANDSTONE:** as above		
2690.0 - 2695.0	50	**SANDSTONE:** as above		
	50	**SILTSTONE:** as above		
2695.0 - 2700.0	60	**SANDSTONE:** as above		
	40	**SILTSTONE:** as above		
2700.0 - 2705.0	60	**SANDSTONE:** as above		
	40	**SILTSTONE:** as above		
2705.0 - 2710.0	65	**SANDSTONE:** light brown to light green grey, fine to very coarse grained, poorly sorted, sub-angular to sub-rounded, weak to moderate siliceous cement mainly as quartz overgrowths, minor pyritic cement, common light brown argillaceous to silty matrix, trace glauconite matrix, trace to common pyrite, common to abundant glauconite, minor lithics, moderately hard, very poor to poor visible and inferred porosity, no fluorescence.		
	35	**SILTSTONE:** light grey to light brown grey, light blue grey to light olive grey, argillaceous, locally garding to a very fine SANDSTONE, trace carbonaceous specks, trace disseminated pyrite, moderately hard, sub-blocky to blocky.		
2710.0 - 2715.0	70	**SANDSTONE:** as above		
	30	**SILTSTONE:** light brown grey to light grey, medium grey, common very fine quartz grains in part grading to Sandy SILTSTONE, trace carbonaceous specks, trace micromicaceous, trace to common disseminated pyrite, frim to moderately hard, sub-blocky to blocky.		
2715.0 - 2720.0	60	**SILTSTONE:** as above		
	40	**SANDSTONE:** light brown to light green grey, very fine to coarse grained, poorly sorted, sub-angular to sub-rounded, weak to moderate siliceous cement mainly as quartz overgrowths, minor pyritic cement, common light brown argillaceous to silty matrix, trace glauconite matrix, trace to common pyrite, common to abundant glauconite, minor lithics, moderately hard, very poor to poor visible and inferred porosity, no fluorescence.		
2720.0 - 2725.0	70	**SANDSTONE:** light to medium green, clear to translucent, fine to coarse grains, predominantly medium grey, poor to very poorly sorted, sub-angular to sub-rounded, common rounded grains, weak to moderately siliceous cement mainly as quartz overgrowths, trace to common glauconite matrix, trace white argillaceous to silty matrix, common to abundant glauconite, trace disseminated and nodular pyrite, trace carbonaceous specks, trace lithics, loose, fair inferred porosity, no fluorescence.		
	30	**SILTSTONE:** as above		
2725.0 - 2730.0	75	**SANDSTONE:** light to medium green, clear to translucent, fine to coarse grains, poorly sorted, sub-angular to sub-rounded, common rounded grains, weak to moderately siliceous cement mainly as quartz overgrowths, trace to common glauconite matrix, trace pale grey argillaceous matrix, common to abundant		

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Interval (m)	%	Lithology / Show Descriptions	Ca (%)	Mg (%)
		glauconite, abundant black lithics, occasional disseminated and nodular pyrite, loose, fair to good inferred porosity, no fluorescence.		
	25	**SILTSTONE:** as above		
2730.0 - 2735.0	85	**SANDSTONE:** clear to translucent, light green, light greenish grey, frosted in part, fine to very coarse, dominantly medium, poorly sorted, angular to sub-rounded, rounded in part, minor weak siliceous cement, trace pale grey argillaceous matrix, common to abundant glauconite specks, common lithics, minor nodular pyrite, loose, fair to good inferred porosity, no fluorescence.		
	15	**SILTSTONE:** dominantly light grey to light olive grey, medium to dark brown in part, siliceous, commonly arenaceous and common carbonaceous material where dark brown, common micromicaceous, hard to very hard, sub-blocky to fissile.		
2735.0 - 2740.0	90	**SANDSTONE:** clear to translucent, light green, light greenish grey, frosted in part, fine to very coarse, poor to very poorly sorted, angular to sub-rounded, rounded in part, minor weak siliceous cement, trace pale grey argillaceous matrix, common to abundant glauconite specks, common lithics, minor nodular pyrite, loose, fair to good inferred porosity, no fluorescence.		
	10	**SILTSTONE:** as above		
2740.0 - 2745.0	95	**SANDSTONE:** clear to translucent, pale grey, light green grey, off white to frosted in part, fine to very coarse, dominantly fine to medium, poor sorted, angular to sub-rounded, minor weak calcareous and siliceous cement, locally common pale grey and off white argillaceous matrix, common nodular pyrite, common carbonaceous material, common glauconite specks, loose, minor rock flour, fair to good inferred porosity, no fluorescence.		
	5	**SILTSTONE:** as above		
2745.0 - 2750.0	95	**SANDSTONE:** clear to translucent, pale grey, light green grey, off white to frosted in part, fine to very coarse, dominantly fine to medium, poorly sorted, angular to sub-rounded, minor weak calcareous and siliceous cement, localised pyritic cmemnting, trace pale grey argillaceous matrix, common nodular pyrite, common carbonaceous material, common glauconite specks, generally loose clean grains, trace rock flour, good inferred porosity, no fluorescence.		
	5	**SILTSTONE:** as above		
2750.0 - 2755.0	95	**SANDSTONE:** clear to translucent, frosted, pale grey to light green grey, fine to very coarse, dominantly medium to coarse, very poorly sorted, angular to sub-rounded, common weak calcareous, minor moderate siliceous cement, trace pale grey argillaceous matrix, common nodular pyrite, trace carbonaceous material, common very fine glauconite specks, generally loose clean grains, locally common rock flour, good inferred porosity, no fluorescence.		
	5	**SILTSTONE:** dominantly light grey to light olive grey, medium to dark brown in part, pale brown in part, siliceous, commonly arenaceous and common carbonaceous material where dark brown, locally grading to very fine SANDSTONE, commonly micromicaceous, minor nodular and disseminated pyrite, hard to very hard, sub-blocky to fissile.		
2755.0 - 2760.0	95	**SANDSTONE:** as above		
	5	**SILTSTONE:** as above		
2760.0 - 2765.0	90	**SANDSTONE:** as above		
	10	**SILTSTONE:** dominantly light grey to light olive grey, medium to dark brown in part, pale brown in part, siliceous, commonly arenaceous and common carbonaceous material where dark brown, locally grading to very fine SANDSTONE, commonly micromicaceous, minor nodular and disseminated pyrite, hard to very hard, sub-blocky to fissile.		
2765.0 - 2770.0	95	**SANDSTONE:** as above		
	5	**SILTSTONE:** as above		
2770.0 - 2780.0	90	**SANDSTONE:** translucent, frosted, clear, pale grey, very fine to coarse, very poorly sorted, angular to sub-rounded, minor weak calcareous and siliceous cement, trace quartz overgrowths, trace pale grey argillaceous matrix, trace carbonaceous specks, common glauconite, occasional lithics, common nodular pyrite, generally loose clean grains, fair to good inferred porosity, no fluorescence.		
	10	**SILTSTONE:** dominantly light grey to light olive grey, medium to dark brown in part, pale brown in part, siliceous, commonly arenaceous where medium to dark brown and locally grading to very fine SANDSTONE , common carbonaceous material and fine glauconite specks where dark brown, commonly micromicaceous, minor nodular		

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Interval (m)	%	Lithology / Show Descriptions	Ca (%)	Mg (%)
		and disseminated pyrite, hard to very hard, sub-blocky to fissile.		
2780.0 - 2790.0	90	**SANDSTONE:** translucent, frosted, clear, pale grey, very fine to coarse, dominantly medium to coarse grains, poorly sorted, angular to sub-rounded, minor weak calcareous and siliceous cement, trace quartz overgrowths, trace pale grey argillaceous matrix, trace carbonaceous specks, common glauconite specks, occasional lithics, common nodular pyrite, generally loose clean grains, fair to good inferred porosity, no fluorescence.		
	10	**SILTSTONE:** as above		
2790.0 - 2800.0	95	**SANDSTONE:** as above		
	5	**SILTSTONE:** as above		
2800.0 - 2805.0	85	**SANDSTONE:** as above		
	15	**SILTSTONE:** dominantly light grey to light olive grey, minor medium to dark brown in part,siliceous, commonly micromicaceous, minor nodular pyrite, common off white lithics, minor calcareous material, commonly arenaceous where medium to dark brown and locally grading to very fine SANDSTONE, common carbonaceous material and fine glauconite specks where dark brown, hard to very hard, sub-blocky to sub-fissile.		
2805.0 - 2810.0	95	**SANDSTONE:** translucent, frosted, clear, pale grey, very fine to coarse, very poorly sorted, angular to sub-rounded, minor weak calcareous and siliceous cement, trace quartz overgrowths, trace pale grey to off white argillaceous matrix, trace carbonaceous specks, common glauconite specks, occasional lithics, common nodular pyrite, generally loose clean grains, fair to good inferred porosity, no fluorescence.		
	5	**SILTSTONE:** as above		
2810.0 - 2820.0	95	**SANDSTONE:** as above, common weak calcareous cement.		
	5	**SILTSTONE:** as above		
2820.0 - 2830.0	80	**SANDSTONE:** clear to translucent, frosted, pale grey, very fine to coarse, very poorly sorted, angular to sub-rounded, minor weak calcareous and siliceous cement, trace quartz overgrowths, trace pale grey to off white argillaceous matrix, trace carbonaceous specks, common glauconite specks, occasional lithics, common nodular pyrite, generally loose clean grains, fair to good inferred porosity, no fluorescence.		
	20	**SILTSTONE:** as above		
2830.0 - 2840.0	90	**SANDSTONE:** clear to translucent, frosted where coarse, pale grey, very fine to very coarse, dominantly fine to medium, poorly sorted, angular to sub-rounded, minor to common weak calcareous, minor siliceous cement, minor pale grey argillaceous matrix, occasional carbonaceous specks, common glauconite specks, occasional platy micas, common lithics, minor nodular pyrite, generally loose clean grains, fair inferred porosity, no fluorescence.		
	10	**SILTSTONE:** as above		
2840.0 - 2850.0	90	**SANDSTONE:** clear to translucent, frosted, pale grey, very fine to coarse, minor very coarse, dominantly fine to medium, poorly sorted, angular to sub-rounded, minor weak calcareous and siliceous cement, minor pale grey silty matrix, common glauconite, minor carbonaceous specks, common lithics, occasional nodular pyrite, generally loose clean grains, fair inferred porosity, no fluorescence.		
	10	**SILTSTONE:** dominantly light grey to light olive grey, siliceous, locally very argillaceous, commonly micromicaceous, trace arenaceous and locally grading to very fine SANDSTONE, trace nodular pyrite, common off white lithics, minor calcareous material, trace glauconite specks, sub-blocky to fissile.		
2850.0 - 2860.0	80	**SANDSTONE:** clear to translucent, frosted, pale grey, very fine to very coarse, very poorly sorted, angular to sub-rounded, minor weak calcareous cement, common moderate siliceous cemen and quartz overgrowths, trace pyritic cement, minor pale grey silty matrix, common glauconite, minor carbonaceous specks, common lithics, common nodular pyrite, generally loose clean grains, fair inferred porosity, no fluorescence.		
	20	**SILTSTONE:** dominantly light grey to light olive grey, minor medium to dark brown in part,siliceous, commonly micromicaceous, minor nodular pyrite, common off white lithics, minor calcareous material, commonly arenaceous where medium to dark brown and locally grading to very fine SANDSTONE, common carbonaceous material and fine glauconite specks where dark brown, hard to very hard, sub-blocky to sub-fissile.		

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Interval (m)	%	Lithology / Show Descriptions	Ca (%)	Mg (%)
2860.0 - 2870.0	80	**SANDSTONE:** clear to translucent,off white, frosted, very fine to very coarse, dominantly fine to medium, poor to moderately sorted, sub-angular to sub-rounded, angular to sub-angular where coarse, minor moderately strong calcareous and siliceous cement, trace quartz overgrowths, locally common off white to pale grey argillaceous to silty matrix, trace grading to arenaceous SILTSTONE, occasional lithics and carbonaceous specks, minor glauconite and carbonaceous specks, generally loose grains, poor to fair inferred porosity, no fluorescence.		
	20	**SILTSTONE:** as above		
2870.0 - 2880.0	65	**SANDSTONE:** clear to translucent,off white, frosted, very fine to very coarse, poorly sorted, sub-angular to sub-rounded, angular to sub-angular where coarse, minor moderately strong calcareous and siliceous cement, trace quartz overgrowths, common off white to pale grey argillaceous to silty matrix and grading to arenaceous SILTSTONE in part, occasional lithics and carbonaceous specks, minor glauconite and carbonaceous specks, generally loose grains, poor to fair inferred porosity, no fluorescence.		
	35	**SILTSTONE:** as above		
2880.0 - 2890.0	80	**SANDSTONE:** as above, common pale grey silty matrix and locally grading to arenaceous SILTSTONE.		
	20	**SILTSTONE:** dominantly light grey to light olive grey, minor medium to dark brown in part,siliceous, commonly micromicaceous, minor nodular pyrite, common off white lithics, minor calcareous material, commonly arenaceous where medium to dark brown and locally grading to very fine SANDSTONE, common carbonaceous material and fine glauconite specks where dark brown, hard to very hard, sub-blocky to sub-fissile.		
2890.0 - 2900.0	80	**SANDSTONE:** as above, common to abundant rock flour.		
	20	**SILTSTONE:** as above		
2900.0 - 2910.0	75	**SANDSTONE:** as above		
	25	**SILTSTONE:** light grey to light olive grey, light brown grey, light greenish grey, siliceous, commonly micromicaceous, minor nodular pyrite, common off white lithics, minor calcareous material, locally arenaceous grading to very fine SANDSTONE, minor carbonaceous material and fine glauconite specks, hard to very hard, sub-blocky to sub-fissile.		
2910.0 - 2915.0	80	**SANDSTONE:** as above		
	20	**SILTSTONE:** as above		
2915.0 - 2920.0	90	**SANDSTONE:** clear to translucent, off white to pale grey, frosted, very fine to coarse, occasionally very coarse, dominantly medium, poor to moderately sorted, sub-angular to sub-rounded, angular to well rounded very coarse where coarse, trace weak calcareous cement, minor moderate siliceous cement, minor quartz overgrowths, minor pale grey argillaceous matrix, common lithics and carbonaceous specks, occasional platy micas, trace nodular pyrite, generally loose clean quartz grains, fair to good inferred porosity, no fluorescence.		
	10	**SILTSTONE:** as above.		
2920.0 - 2930.0	85	**SANDSTONE:** as above, common very coarse frosted grains.		
	15	**SILTSTONE:** as above		
2930.0 - 2940.0	95	**SANDSTONE:** pale grey, clear to translucent, very fine to coarse, dominantly fine to medium, moderately sorted, sub-angular to sub-rounded, angular where coarse, minor moderate siliceous cement, trace weak calcareous cement, trace pale grey argillaceous matrix, occasional lithics, minor carbonaceous material, trace glauconite specks, generally loose clean grains, fair inferred porosity, no fluorescence.		
	5	**SILTSTONE:** light grey to light olive grey, light brown grey, light greenish grey, siliceous, commonly micromicaceous,common off white lithics, minor calcareous material, locally arenaceous grading to very fine SANDSTONE, minor carbonaceous material, rare nodular pyrite, hard to very hard, sub-blocky to sub-fissile.		
2940.0 - 2950.0	90	**SANDSTONE:** as above		
	10	**SILTSTONE:** as above		

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Interval (m)	%	Lithology / Show Descriptions	Ca (%)	Mg (%)
2950.0 - 2960.0	90	**SANDSTONE:** pale grey, clear to translucent, very fine to coarse, dominantly fine to medium, moderately sorted, sub-angular to sub-rounded, angular where coarse, minor moderate siliceous cement, trace weak calcareous cement, locally common pale grey to off white argillaceous matrix, occasional lithics, minor carbonaceous material, trace glauconite specks, generally loose clean grains, fair inferred porosity, no fluorescence.		
	10	**SILTSTONE:** as above		
2960.0 - 2970.0	90	**SANDSTONE:** as above, common weak calcareous cement.		
	10	**SILTSTONE:** as above		
2970.0 - 2975.0	95	**SANDSTONE:** clear to translucent, frosted, pale grey, trace off white, very fine to very coarse, poorly sorted, sub-angular to sub-rounded, minor weak calcareous cement, minor moderate siliceous cement, trace pale grey argillaceous matrix,generally loose grains, occasional lithics and carbonaceous specks, rare nodular pyrite, fair to good inferred porosity, no fluorescence.		
	5	**SILTSTONE:** as above.		
2975.0 - 2980.0	90	**SANDSTONE:** as above, trace pyritic cement, minor nodular pyrite.		
	10	**SILTSTONE:** as above		
2980.0 - 2990.0	85	**SANDSTONE:** clear to translucent, frosted, pale grey, very fine to coarse, occasionally very coarse grains, sub-angular to sub-rounded, angular where coarse to very coarse grained, minor weak calcareous and siliceous cement, trace pale grey argillaceous matrix, occasional carbonaceous material, rare nodular pyrite, loose, fair to good inferred porosity, no fluorescence.		
	15	**SILTSTONE:** light grey to light olive grey, light brown to medium brown, light greenish grey, siliceous in part , commonly micromicaceous,common off white lithics, minor calcareous material, commonly arenaceous and locally grading to very fine SANDSTONE, common carbonaceous material, rare nodular pyrite, hard to very hard, sub-blocky to sub-fissile.		
2990.0 - 2995.0	95	**SANDSTONE:** clear to translucent, frosted, off white to pale grey, very fine to coarse, occasionally very coarse grains, sub-angular to sub-rounded, angular where coarse to very coarse grained, minor weak calcareous and siliceous cement, minor off white argillaceous matrix, occasional carbonaceous material, rare nodular pyrite, loose, fair to good inferred porosity, no fluorescence.		
	5	**SILTSTONE:** as above		
2995.0 - 3000.0	95	**SANDSTONE:** as above		
	5	**SILTSTONE:** as above		
3000.0 - 3005.0	95	**SANDSTONE:** clear to translucent, frosted, off white to pale grey, very fine to very coarse, dominantly medium to coarse grains, poorly sorted, sub-angular to sub-rounded, angular where coarse grained, minor weak calcareous and siliceous cement, minor off white argillaceous matrix, occasional carbonaceous material, occasional nodular pyrite, rare iron staining, common rock flour, generally loose, fair to good inferred porosity, no fluorescence.		
	5	**SILTSTONE:** as above		
3015.0 - 3020.0	95	**SANDSTONE:** clear to translucent, frosted, off white to pale grey, very fine to very coarse, dominantly medium to coarse grains, poorly sorted, sub-angular to sub-rounded, angular where coarse grained, minor weak calcareous and siliceous cement, minor off white argillaceous matrix, occasional carbonaceous material, occasional nodular pyrite, rare iron staining, common rock flour, generally loose, fair to good inferred porosity, no fluorescence.		
	5	**SILTSTONE:** as above		
3020.0 - 3030.0	95	**SANDSTONE:** clear to translucent, pale grey to off white, very fine to medium, minor coarse to very coarse frosted grains, sub-angular to sub-rounded, angular where coarse, moderately sorted, common strong siliceous cement and quartz overgrowths, trace off white argillaceous matrix, occasional lithics and carbonaceous specks, generally loose, occasional very hard aggregates, poor visible porosity, fair inferred porosity, fluorescence. **FLUORESCENCE : (5%)** pale yellow spotted residual fluorescence, no cut or ring residue.		
	5	**SILTSTONE:** as above		

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Interval (m)	%	Lithology / Show Descriptions	Ca (%)	Mg (%)
3030.0 - 3035.0	90	**SANDSTONE:** clear to translucent, pale grey to off white, very fine to coarse, minor very coarse frosted grains, poor sorting, sub-angular to sub-rounded, angular where coarse, common strong siliceous cement and quartz overgrowths, minor pale grey to off white argillaceous matrix, occasional lithics and carbonaceous specks, common loose, common very hard aggregates, poor visible porosity, fair inferred porosity, fluorescence. **FLUORESCENCE : (5%)** pale yellow spotted residual fluorescence, no cut or ring residue.		
	10	**SILTSTONE:** light grey to light olive grey, light brown to medium brown, dark brown in part, commonly arenaceous and grading to very fine SANDSTONE, commonly micromicaceous,common off white lithics, minor calcareous material, common carbonaceous material, rare nodular pyrite, hard to very hard, sub-blocky to sub-fissile.		
3035.0 - 3040.0	85	**SANDSTONE:** as above, minor pyritic cement, common nodular pyrite, common light grey argillaceous matrix where fine grained and locally grading to arenaceous SILTSTONE, common platy micas, no fluorescence.		
	15	**SILTSTONE:** as above		
3040.0 - 3050.0	90	**SANDSTONE:** as above		
	10	**SILTSTONE:** as above		
3050.0 - 3060.0	95	**SANDSTONE:** as above, common to abundant nodular pyrite.		
	5	**SILTSTONE:** as above		
3060.0 - 3070.0	80	**SANDSTONE:** clear to translucent, pale grey to off white, very fine to coarse, minor very coarse frosted grains, poor sorting, sub-angular to sub-rounded, angular where coarse, common strong siliceous cement and quartz overgrowths, minor calcareous cement, trace pyritic cement, common light grey argillaceous matrix where fine grained and locally grading to arenaceous SILTSTONE, common nodular pyrite, occasional platy micas, occasional lithics and carbonaceous specks, commonly loose, common very hard aggregates, poor visible porosity, fair inferred porosity, no fluorescence.		
	20	**SILTSTONE:** as above		
3070.0 - 3074.0	90	**SANDSTONE:** as above		
	10	**SILTSTONE:** light grey to light olive grey, medium to dark brown, light bluish grey in part, commonly arenaceous and grading to very fine SANDSTONE, commonly micromicaceous, common lithics, minor calcareous material, common carbonaceous material, rare nodular pyrite, hard to very hard, sub-blocky to sub-fissile.		

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Apache Northwest Pty Lyd

SIDE WALL CORE DESCRIPTIONS

Well Name :	Coelacanth-1	**Service Company :**	Schlumberger
Suite Number :	2	**Engineers :**	A. Dandi, M. Dawson, V. Torlov
Run Number :	2	**Geologists :**	A. Cruickshank, F. Fernandes
Run Date :	3/22/2008		
Hole Size :	216 (mm)		

Lost:	3	**Empty:**	1	**Rejected:**	1	**Bought:**	21	**Misfired:**	4

Shot No.	SWC No	SWC Depth (m)	Rec. Length (cm)	Shot Type	Lithology / Shows
1	1	3052.5	1.7	Palynology	**SILTSTONE:** 100% medium to dark grey, dark olive grey, common to abdundant mica flecks, trace to common glauconite, trace carbonaceous material, moderately hard to hard.
3	3	2998.0	2.0	Evaluation	**SANDSTONE:** 100% light grey to light green grey, clear to translucent, common opaque, fine to medium grains, common coarse to very coarse grains, moderately sorted, sub-angular to sub-rounded, common round, moderate siliceous cement, trace white argillaceous matrix, trace carbonaceous inclusions, trace to common quartz overgrowths, trace glauconite and fledspars, friable, poor to fair visible porosity, no fluorescence.
4	4	2996.0	1.0	Evaluation	**GLAUCONITIC SANDSTONE:** 100% dark green, clear to translucent, very fine to fine grains, poorly sorted, sub-angular to sub-rounded, moderate siliceous cement, common glauconite matrix, trace to common silty to argillaceous matrix, grading to a Sandy SILTSTONE, abundant glauconite, trace carbonaceous inclusions, trace mica specks, friable to moderately hard, poor visible porosity, no fluorescence.
5	5	2975.0	19.0	Evaluation	**SANDSTONE:** 100% light to medium grey, green grey, fine to coarse grains, common very coarse grains, moderate to poorly sorted, angular to sub-rounded, moderate siliceous cement, trace white argillaceous matrix, trace to common carbonaceous/Coal fragments, trace glauconite, trace disseminated pyrite and micromicaceous, friable, poor to fair visible porosity, no fluorescence.
6	6	2973.5	1.4	Evaluation	**SANDSTONE:** 100% dark grey to dark green grey, clear to translucent, medium to very coarse grains, common fine grains, poorly sorted, sub-angular to sub-rounded, moderate to weak siliceous cement, trace argillaceous, trace to common carbonaceous material, rare glauconite, trace micromicaceous, disseminated pyrite and lithics, friable, fair visible porosity, no fluorescence.
7	7	2972.0	3.0	Palynology	**SANDSTONE:** 100% medium to medium dark grey, dark olive grey, very fine to fine grains, moderately sorted, moderate siliceous cement, trace argillaceous to silty matrix, grading to Sandy SILTSTONE, common mica specks, trace carbonaceous specks, trace disseminated pyrite, common glauconite, friable, poor visible porosity, no fluorescence.
8	8	2947.0	2.4	Palynology	**SANDSTONE:** 100% light grey to light green grey, clear to translucent, very fine to medium grains, moderately sorted, weak to moderate siliceous cement, trace argillaceous to silty matrix, trace glauconite grains, trace carbonaceous specks, trace micromicaceous, friable, poor to fair visible porosity, no fluorescence.

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Lost:	3	Empty:	1	Rejected:	1	Bought:	21	Misfired:	4

Shot No.	SWC No	SWC Depth (m)	Rec. Length (cm)	Shot Type	Lithology / Shows
9	9	2930.0	2.1	Evaluation	**SANDSTONE:** 100% light grey to light green grey, clear to translucent, medium to very coarse grains, common fine grains, moderately sorted, sub-angular to sub-rounded, common rounded grains, weak siliceous cement, trace argillaceous to silty matrix, trace mica and carbonaceous specks, trace feldpars, rare glauconite, friable, fair to good visible porosity, no fluorescence.
11	11	2926.0	0.2	Evaluation	**SANDSTONE:** 100% light grey, clear to translucent, fine to medium grains, common coarse grains, moderately sorted, sub-angular to sub-rounded, common rounded grains, weak siliceous cement mainly as quartz overgrowths, trace white argillaceous matrix, trace carbonaceous specks, trace glauconite, friable, fair to good visible porosity, no fluorescence.
12	12	2920.5	2.5	Palynology	**SANDSTONE:** 100% medium to dark green grey, clear to translucent, very fine to fine grains, grading to Sandy SILTSTONE, moderately sorted, sub-angular to sub-rounded, moderate siliceous cement, common silty matrix, common glauconite, trace to common carbonaceous specks, common mica, friable to moderately hard, poor visible porosity, no fluorescence.
13	13	2868.0	2.6	Palynology	**SANDSTONE:** 100% medium grey to medium green grey, clear to translucent, very fine to fine grains, minor medium grains, moderately sorted, sub-angular to sub-rounded, moderate siliceous cement, trace to common argillaceous to silty matrix, grading to Sandy SILTSTONE, common glauconite grains, common carbonaceous specks, common mica, friable to moderately hard, poor visible porosity, no fluorescence.
15	15	2790.5	2.4	Palynology	**SANDSTONE:** 100% light grey, clear to translucent, opaque, fine to coarse grains, common very coarse grains, poor to moderately sorted, sub-angular to sub-rounded, weak siliceous cement mainly as quartz overgrowths, trace argillaceous matrix, trace glauconite grains, trace mica, trace carbonaceous specks, friable, fair visible porosity, no fluorescence.
17	17	2746.0	1.0	Evaluation	**SANDSTONE:** 100% light grey, clear to translucent, minor opaque grains, very fine to fine grains, minor medium grains, moderately sorted, sub-angular to sub-rounded, weak siliceous cement, trace argillaceous matrix, trace to common glauconite grains, trace mica, trace disseminated pyrite, friable, poor visible porosity, no fluorescence.
19	19	2725.0	3.0	Evaluation	**SANDSTONE:** 100% dark green grey to dark grey, clear to translucent, very fine to fine grains, predominantly very fine grains, moderately sorted, sub-angular to sub-rounded, weak siliceous cement, common argillaceous to silty matrix, grading to a Sandy SILTSTONE, common glauconite grains and carbonaceous material, trace to common mica, friable to moderately hard, poor visible porosity, no fluorescence.
21	21	2720.0	3.2	Palynology	**SILTSTONE:** 100% dark grey to grey black, dark olive grey, common carbonaceous material and COAL fragments, trace micromicaceous, frim to moderately hard, sub-blocky to blocky.
22	22	2713.5	0.7	Evaluation	**SANDSTONE:** 100% medium to dark grey, clear to translucent, minor opaque grains, very fine to fine grains, common medium grain, moderately sorted, sub-angular to sub-rounded, moderate siliceous cement, common argillaceous to silty matrix, grading to a Sandy SILTSTONE, trace to common carbonaceous/COAL fragments, common glauconite grains, trace mica specks, friable to moderately hard, poor visible porosity, no fluorescence.

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Lost:	3	Empty:	1	Rejected:	1	Bought:	21	Misfired:	4

Shot No.	SWC No	SWC Depth (m)	Rec. Length (cm)	Shot Type	Lithology / Shows
23	23	2707.5	2.9	Evaluation	**SANDSTONE:** 100% light to medium grey, clear to translucent, minor opaque grains, very fine to fine grains, common medium grain, moderately sorted, sub-angular to sub-rounded, moderate siliceous cement, common argillaceous to silty matrix, trace carbonaceous/COAL fragments, common glauconite grains, trace mica specks, friable to moderately hard, poor to fair visible porosity, no fluorescence.
25	25	2693.0	4.0	Palynology	**SILTSTONE:** 100% dark grey to dark olive grey, argillaceous, weakly calcareous, trace to common micromicaceous, trace glauconite grains, trace carbonaceous specks, soft to firm, sub-blocky to blocky.
26	26	2657.0	2.9	Palynology	**SANDSTONE:** 100% light to medium brown grey, clear to translucent, very fine to fine grains, poor to moderately sorted, sub-angular to sub-rounded, weak to moderate calcareous cement, common argillaceous to silty matrix, trace to common glauconite, trace pyrite, friable to moderately hard, poor visible porosity, no l fluorescence.
29	29	2627.0	3.2	Evaluation	**SANDSTONE:** 100% medium to dark grey, dark green grey, clear to translucent, very fine to fine grains, minor medium grain, poorly sorted, sub-angular to sub-rounded, weak calcareous cement, common argillaceous to silty matrix, grading to Sandy SILTSTONE, trace glauconite, friable to moderately hard, poor visible poor, no fluorescence.
30	30	2626.0	3.9	Evaluation	**SANDSTONE:** 100% medium to dark grey, dark green grey, clear to translucent, very fine to fine grains, minor medium grain, poorly sorted, sub-angular to sub-rounded, weak calcareous cement, common argillaceous to silty matrix, grading to Sandy SILTSTONE, trace glauconite, friable to moderately hard, poor visible poor, no fluorescence.

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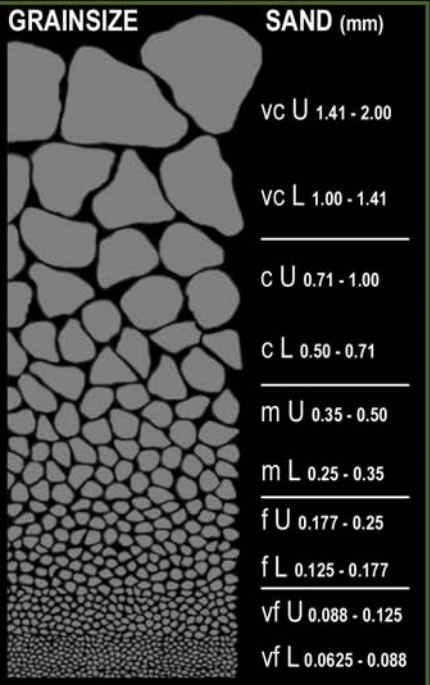
Apache Energy Ltd
COELACANTH - 1
SWC # 1 Depth 3052.5 m



WELLSITE DESCRIPTION

SANDY SILTSTONE (100%): grey to medium grey, dark grey speckled, common very fine quartz sand, common to abundant mica flecks, trace glauconite, trace carbonaceous material, moderately hard to hard.

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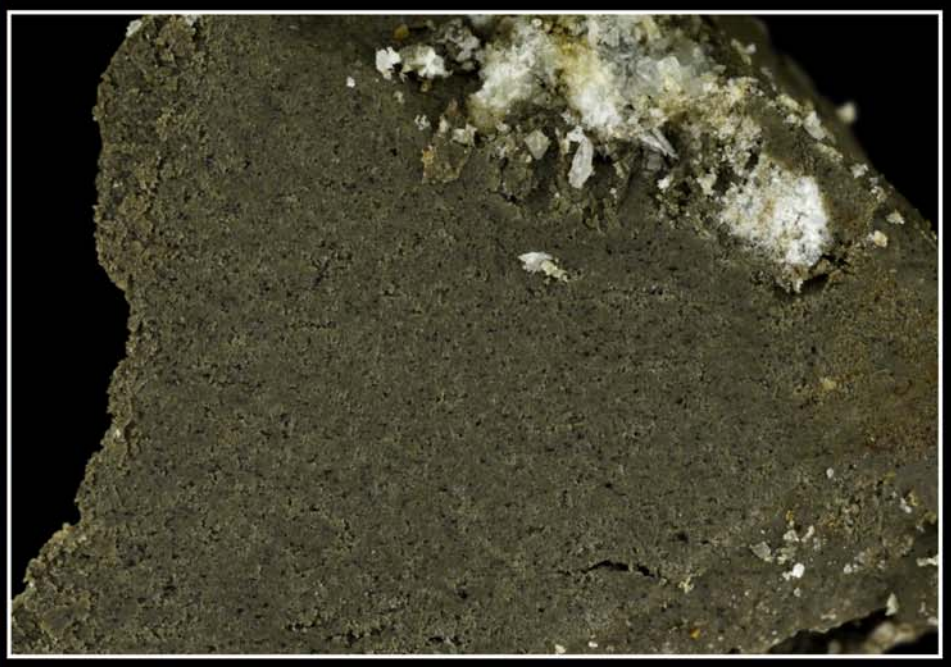
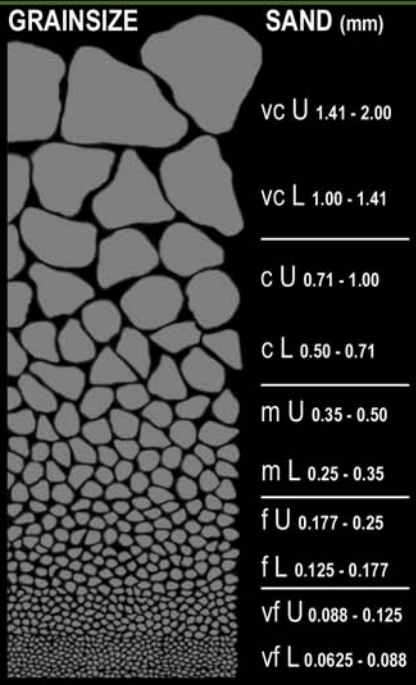
Apache Energy Ltd
COELACANTH - 1
SWC # 2 Depth 3020.0 m





WELLSITE DESCRIPTION

MUD (100%): light olive grey to pale yellow, common dark olive grey to black silt-size speckles, very soft.
Note: common gypsum amongst debris.

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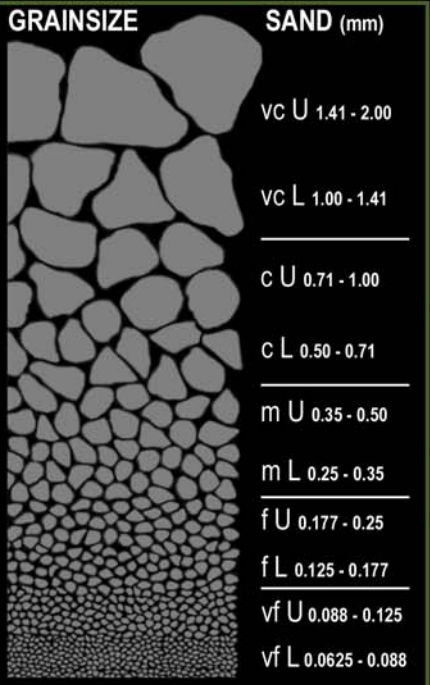
Apache Energy Ltd
COELACANTH - 1
SWC # 3 Depth 2998.0 m



WELLSITE DESCRIPTION

SANDSTONE (100%): light grey to grey, clear to translucent quartz grains, commonly opaque, fine to medium, occasionally coarse to very coarse, moderately sorted, sub-angular to sub-rounded, common round, moderate siliceous cement, trace white argillaceous matrix, trace carbonaceous inclusions, trace to common quartz overgrowths, trace glauconite and feldspars, friable, poor to fair visible porosity, no fluorescence.

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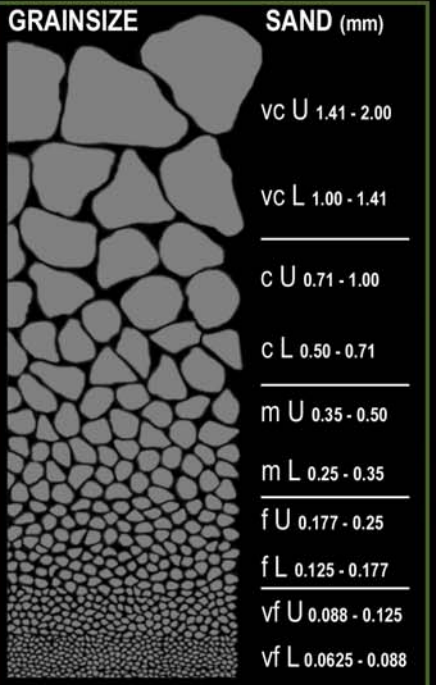
Apache Energy Ltd
COELACANTH - 1
SWC # 4 Depth 2996.0 m



WELLSITE DESCRIPTION

GLAUCONITIC SANDSTONE (100%): dark green, clear to translucent quartz grains, very fine to medium, poorly sorted, sub-angular to rounded, moderate siliceous cement, common glauconite as pellets and matrix, trace to common siliciclastic silty to siliceous argillaceous matrix, grades to a Sandy SILTSTONE, trace carbonaceous inclusions, trace mica specks, friable to moderately hard, poor visible porosity, no fluorescence.

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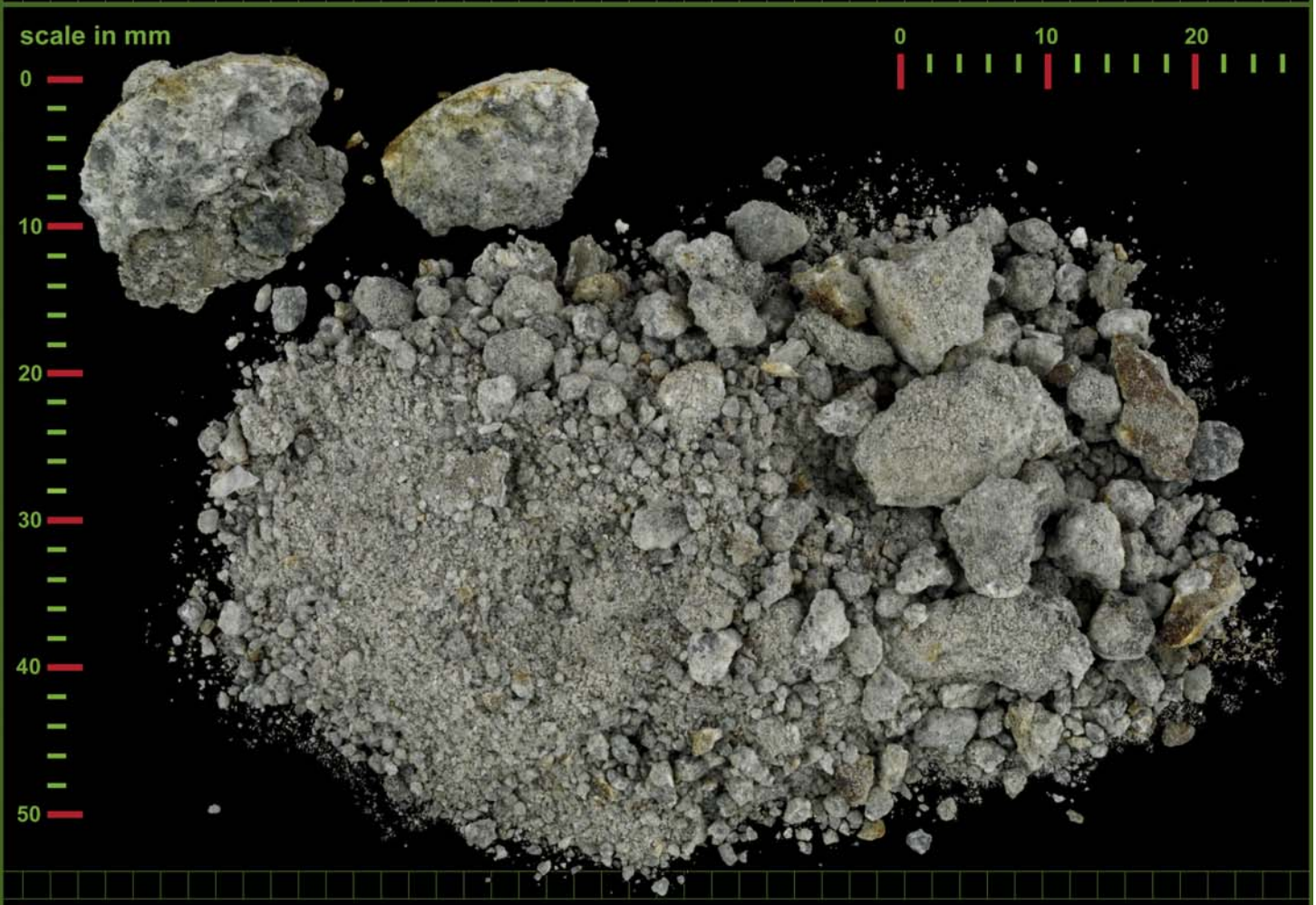
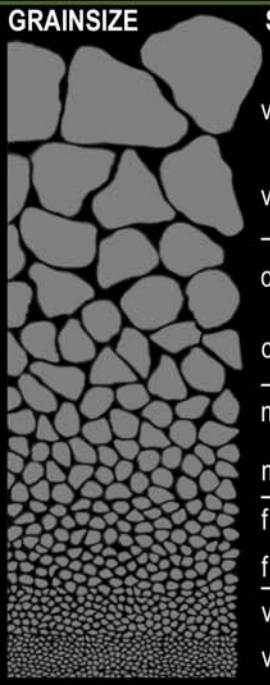
Apache Energy Ltd
COELACANTH - 1
SWC # 5 Depth 2975.0





WELLSITE DESCRIPTION

SANDSTONE (100%): light to medium grey, olive grey where mud-stained, clear to translucent quartz grains, fine to very coarse, occasional granules, moderate to poorly sorted, angular to rounded, moderate siliceous cement, trace white argillaceous matrix, trace to common carbonaceous/COAL fragments, trace glauconite, trace disseminated pyrite and micromicaceous, friable, poor to fair visible porosity, no fluorescence.

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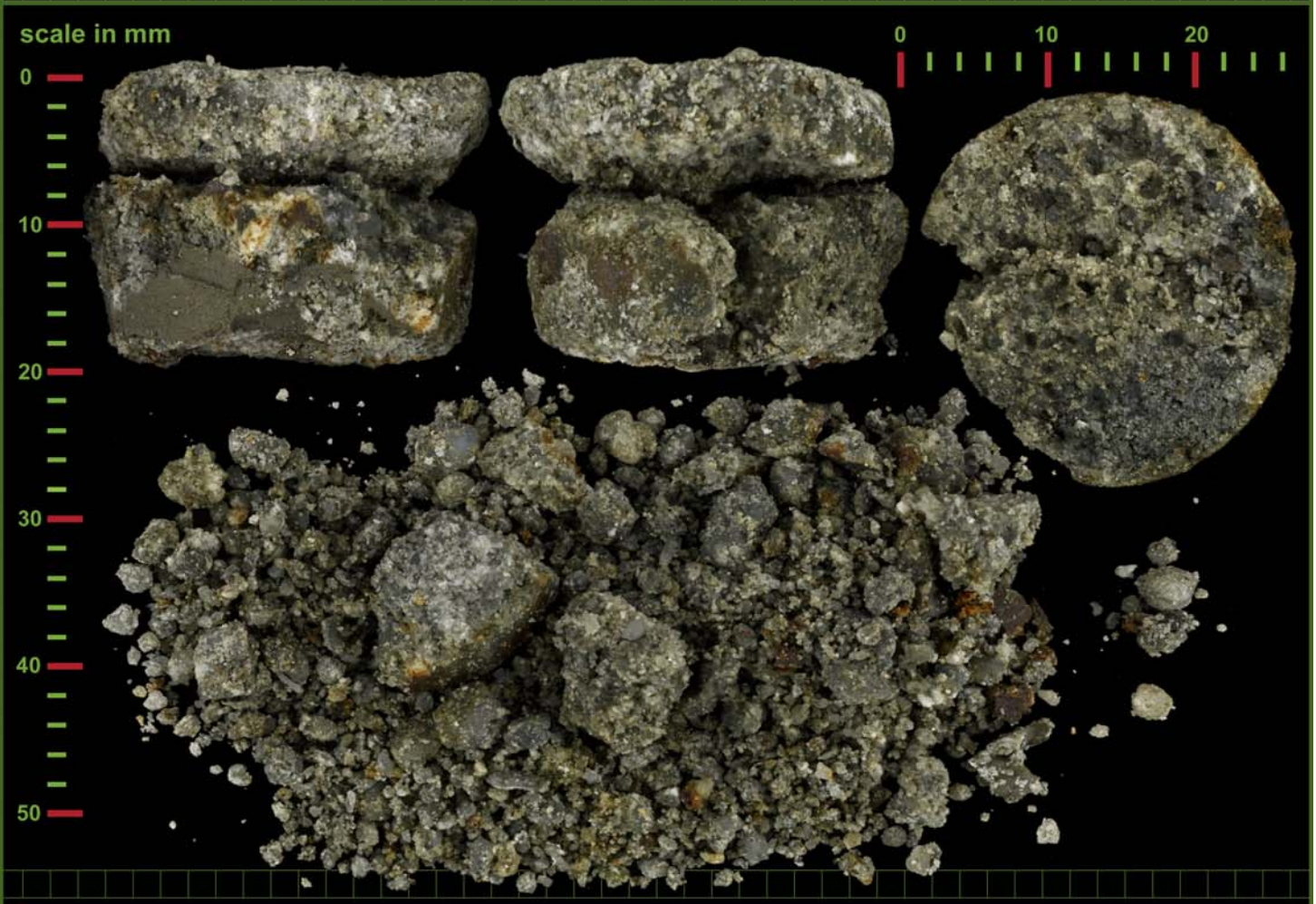
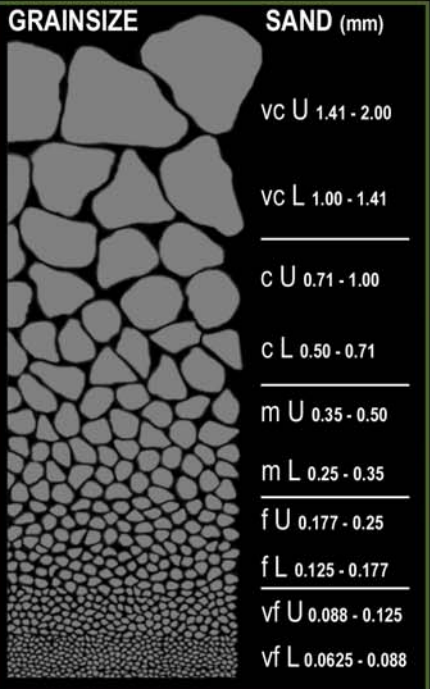
Apache Energy Ltd
COELACANTH - 1
SWC # 6 Depth 2973.5 m





WELLSITE DESCRIPTION

SANDSTONE (100%): dark grey to dark greenish grey, clear to translucent quartz grains, mainly medium to lower granular, common very fine to fine matrix, bimodal, poorly sorted, sub-angular to rounded, moderate to weak siliceous cement, trace argillaceous, trace to common carbonaceous material, rare glauconite, trace micromicaceous, disseminated pyrite and lithics, friable, fair visible porosity, no fluorescence.

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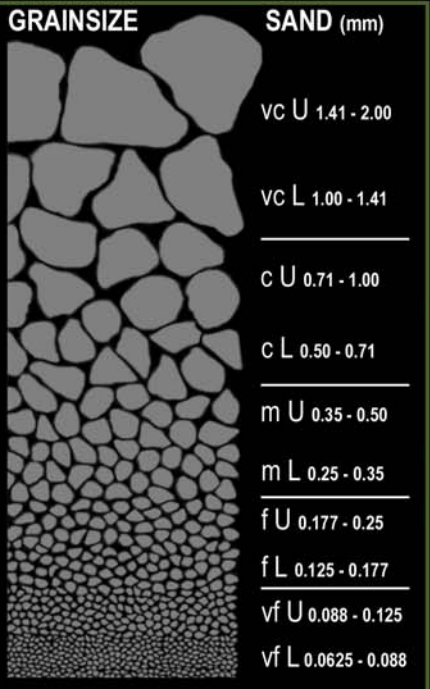
Apache Energy Ltd
COELACANTH - 1
SWC # 7 Depth 2972.0 m



WELLSITE DESCRIPTION

SANDSTONE (100%): grey to medium dark grey, dark olive grey, mainly translucent quartz grains, very fine to medium, moderately sorted, sub-angular to sub-rounded, moderate siliceous cement, trace siliceous argillaceous to siliciclastic silty matrix, common siliciclastic silt, in part grades to SILTY SANDSTONE, common mica specks, trace carbonaceous specks, trace disseminated pyrite, trace glauconite, friable, poor visible porosity, no fluorescence.

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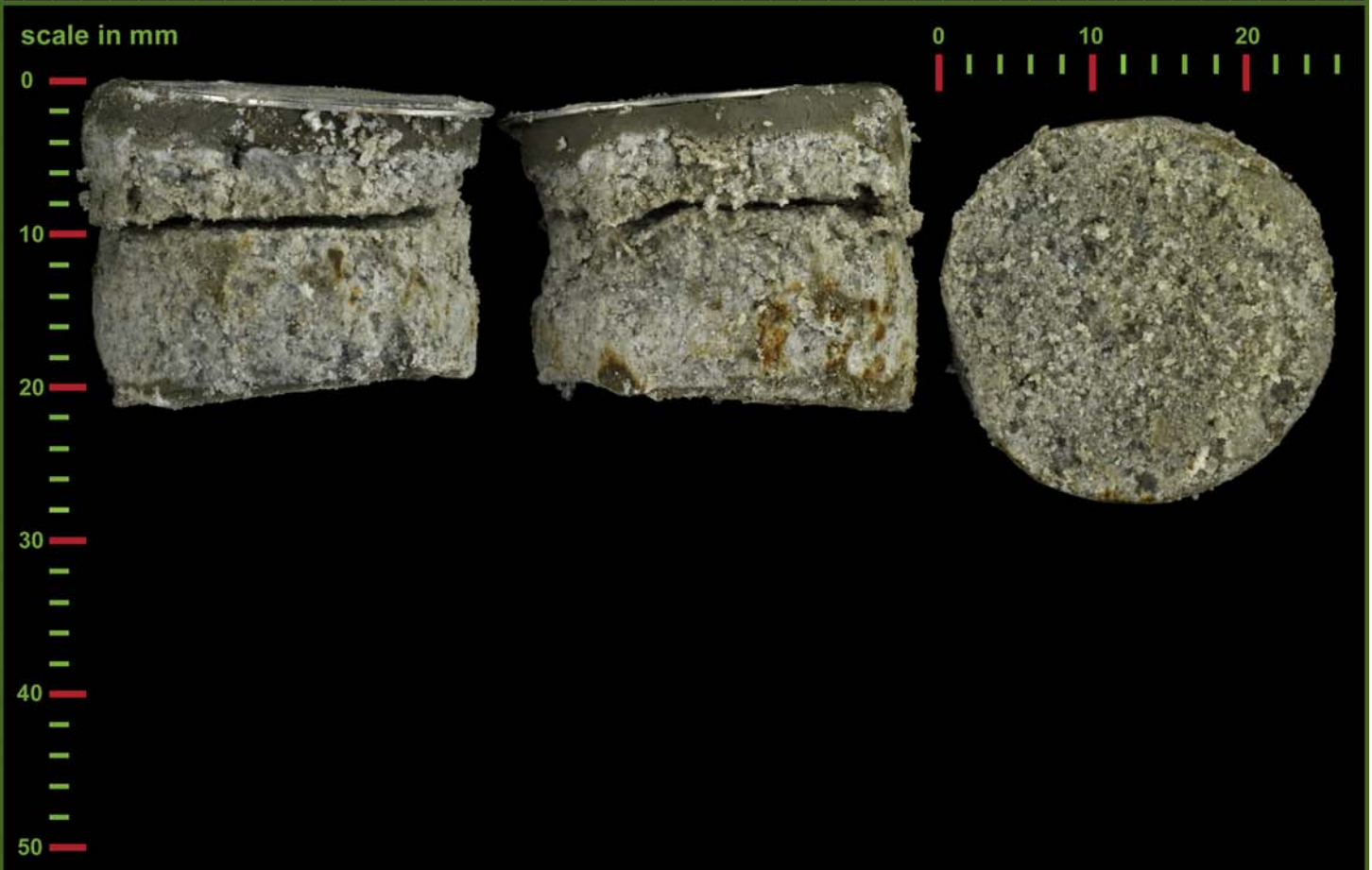
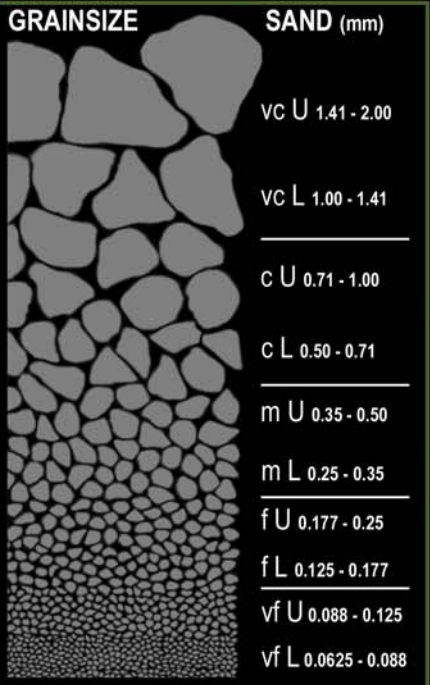
Apache Energy Ltd
COELACANTH - 1
SWC # 8 Depth 2947.0 m





WELLSITE DESCRIPTION

SANDSTONE (100%): light grey to olive grey, clear to translucent quartz grains, very fine to coarse, mainly fine to lower medium, moderately sorted, sub-angular to sub-rounded, weak to moderate siliceous cement, trace siliceous argillaceous to siliciclastic silty matrix, trace glauconite grains, trace carbonaceous specks, trace micromicaceous, friable, poor to fair visible porosity, no fluorescence.

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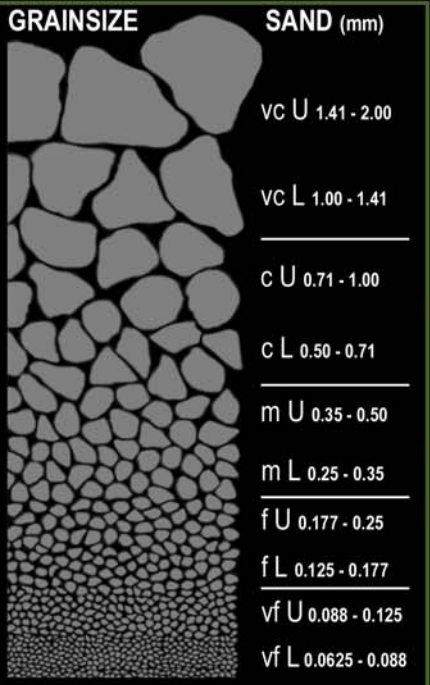
Apache Energy Ltd
COELACANTH - 1
SWC # 9 Depth 2930.0 m



WELLSITE DESCRIPTION

SANDSTONE (100%): light grey to light olive grey, clear to translucent quartz grains, mainly medium to very coarse, common fine grains, moderately sorted, sub-angular to sub-rounded, common rounded grains, weak siliceous cement, trace siliceous argillaceous to siliciclastic silty matrix, trace mica and carbonaceous specks, trace feldspars, rare glauconite, friable, fair to good visible porosity, no fluorescence.

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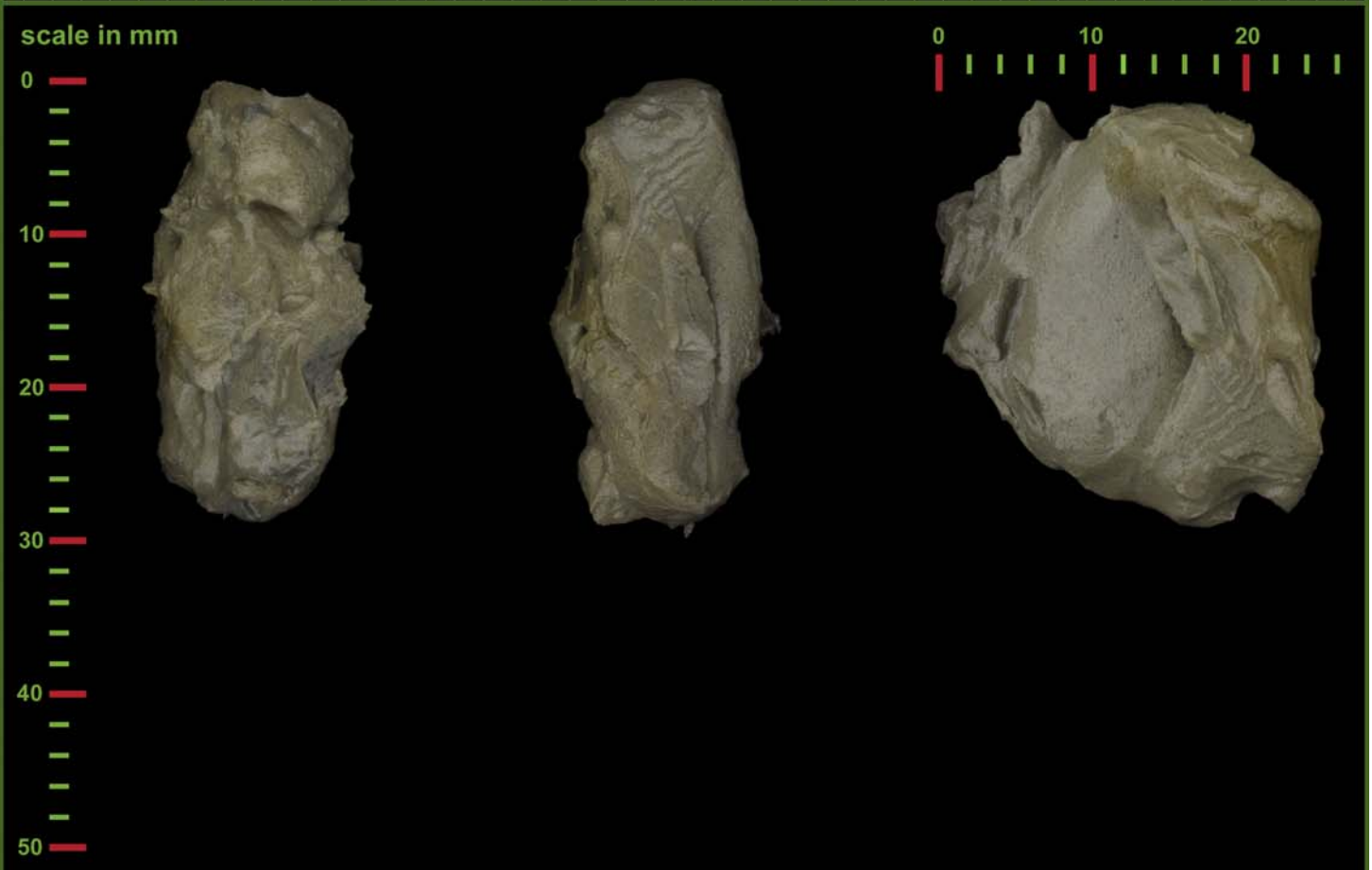
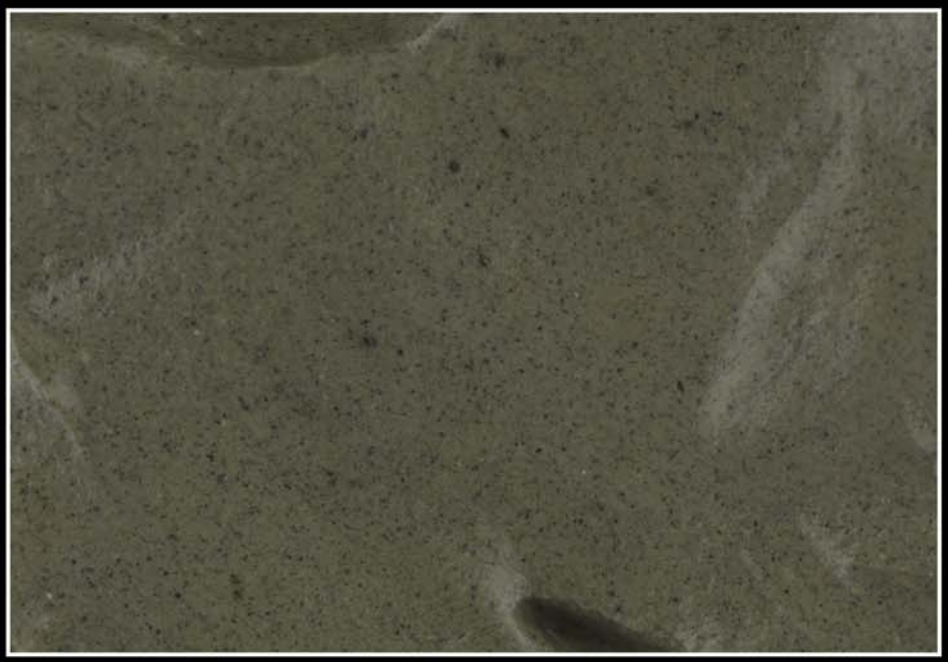
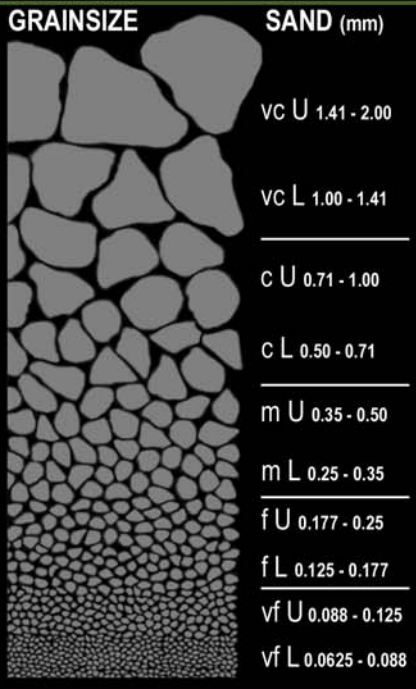
Apache Energy Ltd
COELACANTH - 1
SWC # 10 Depth 2927.0 m







WELLSITE DESCRIPTION

Mud (100%): light olive grey to pale yellow, common dark olive grey silt-size speckles, very soft.

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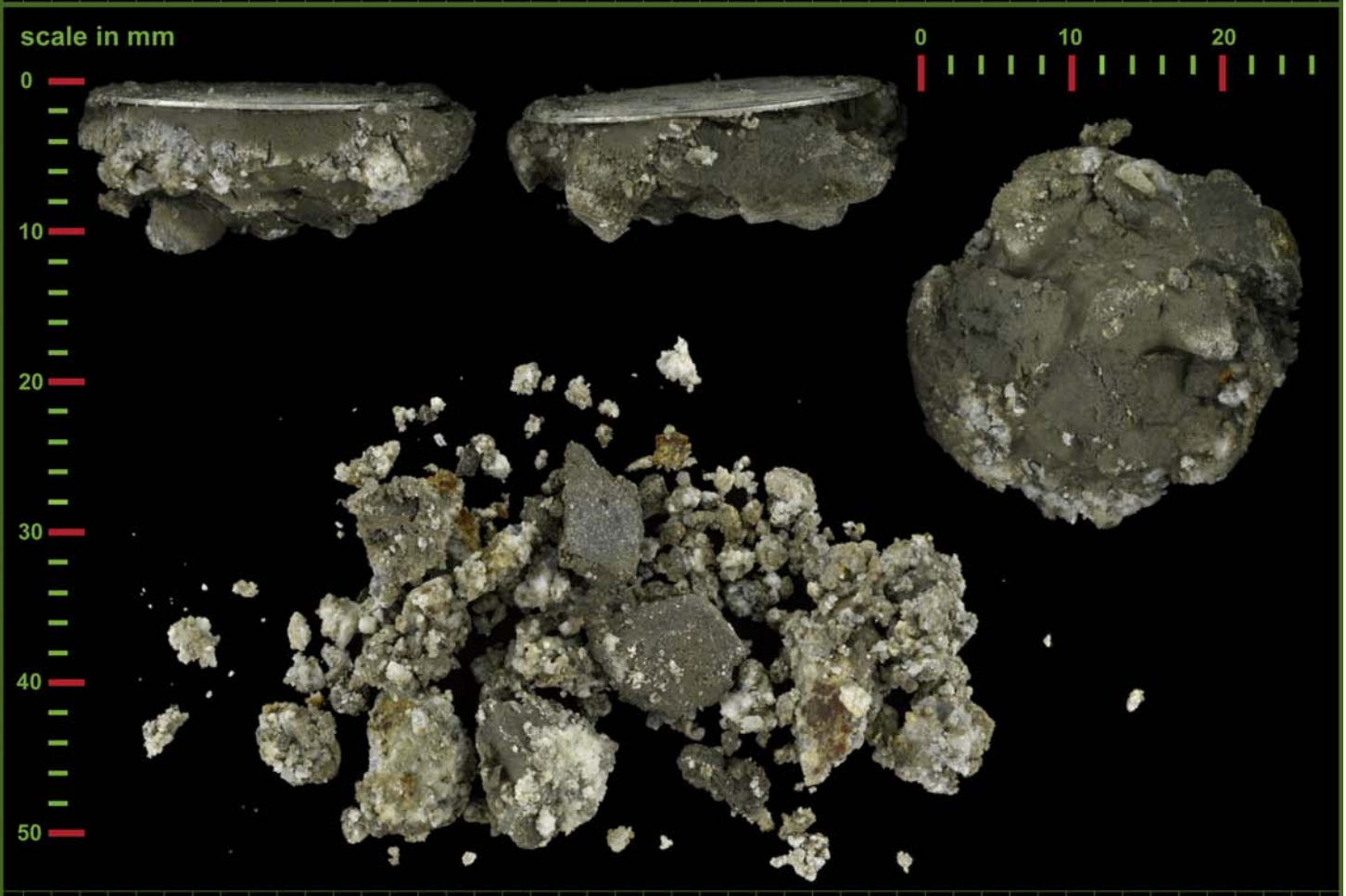
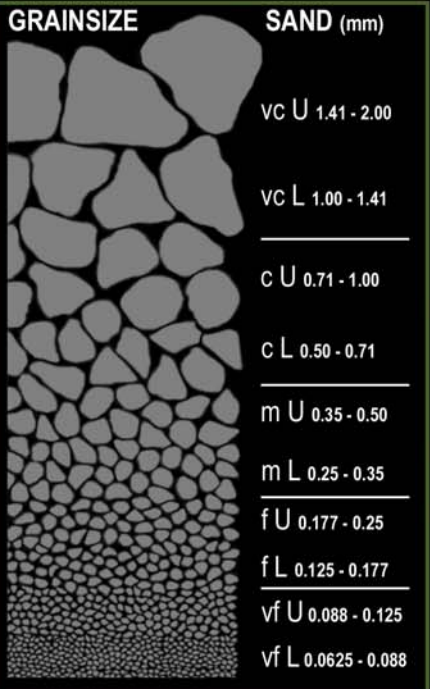
Apache Energy Ltd
COELACANTH - 1
SWC # 11 Depth 2926.0 m





WELLSITE DESCRIPTION

SANDSTONE (100%): light grey, clear to translucent grains, mainly fine to medium, common coarse grains, moderately sorted, sub-angular to sub-rounded, common rounded grains, weak siliceous cement mainly as quartz overgrowths, trace white argillaceous matrix, trace carbonaceous specks, trace glauconite, friable, fair to good visible porosity, no fluorescence.
Note: small sample much disturbed with common associated mud.

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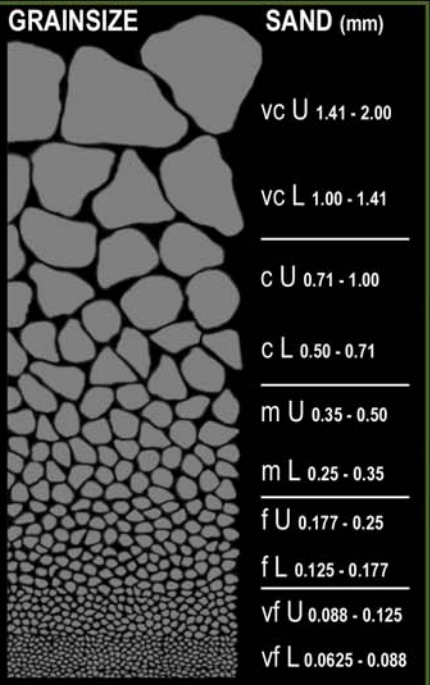
Apache Energy Ltd
COELACANTH - 1
SWC # 12 Depth 2920.5 m



WELLSITE DESCRIPTION

SANDSTONE (100%): light grey to dark grey speckled, clear to translucent quartz grains, very fine to fine, minor medium grains, common siliciclastic silt, in part grades to SILTY SANDSTONE, moderately sorted, sub-angular to sub-rounded, moderate siliceous cement, common glauconite, trace to common carbonaceous specks, common mica, friable to moderately hard, poor visible porosity, no fluorescence.

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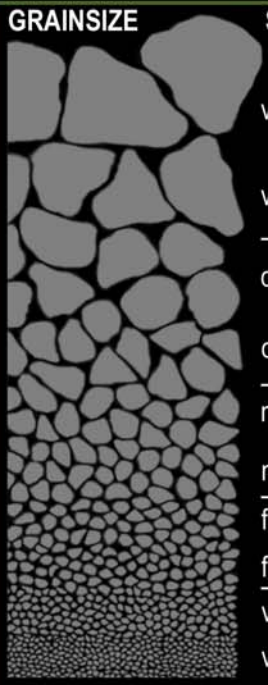
Apache Energy Ltd
COELACANTH - 1
SWC # 13 Depth 2868.0 m



WELLSITE DESCRIPTION

SANDSTONE (100%): light grey to dark grey speckled, clear to translucent quartz grains, very fine to fine, minor medium grains, moderately sorted, sub-angular to sub-rounded, moderate siliceous cement, trace to common siliceous argillaceous to siliciclastic silty matrix, grades to SILTY SANDSTONE, trace glauconite grains, common carbonaceous specks, common mica, friable to moderately hard, poor visible porosity, no fluorescence.

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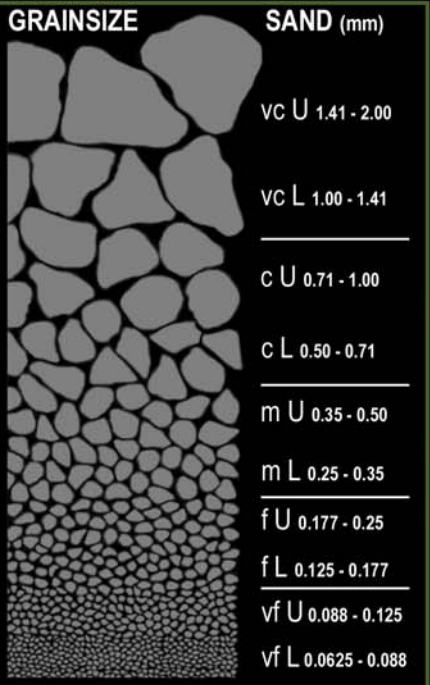
Apache Energy Ltd
COELACANTH - 1
SWC # 15 Depth 2790.5 m



WELLSITE DESCRIPTION

SANDSTONE (100%): light grey to grey speckled, clear to translucent, occasionally opaque quartz grains, mainly fine to coarse, common very coarse to granular grains, poor to moderately sorted, somewhat bimodal, sub-angular to rounded, weak siliceous cement mainly as quartz overgrowths, trace argillaceous matrix, trace glauconite grains, trace mica, trace carbonaceous specks, friable, fair visible porosity, no fluorescence.

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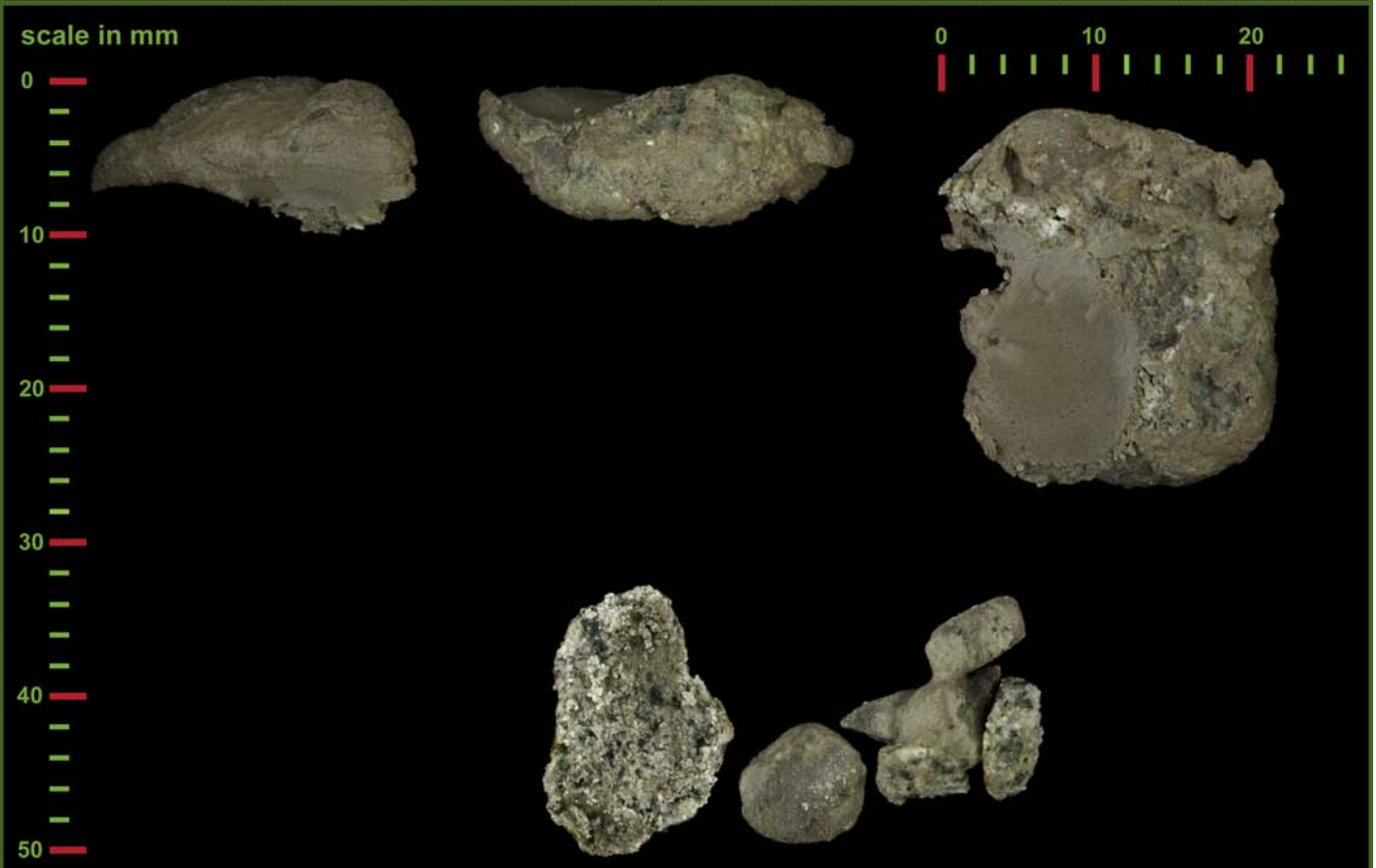
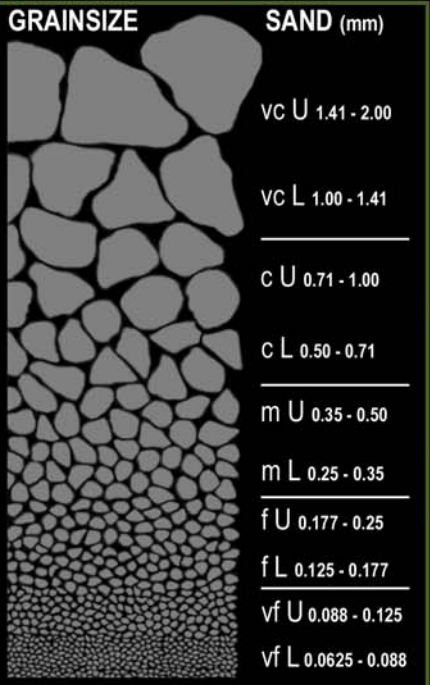
COELACANTH - 1

SWC # 17 Depth 2746.0 m





WELLSITE DESCRIPTION

SANDSTONE (100%): light grey, dark grey to greenish grey speckled, clear to translucent quartz grains, minor opaque, predominantly very fine to fine, minor medium grains, moderately sorted, sub-angular to sub-rounded, weak siliceous cement, trace siliceous argillaceous matrix, trace to common glauconite grains, trace mica, trace disseminated pyrite, friable, poor visible porosity, no fluorescence.

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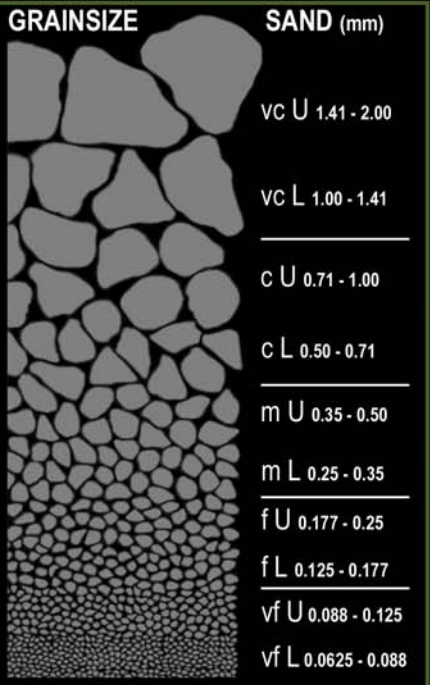
Apache Energy Ltd
COELACANTH - 1
SWC # 19 Depth 2725.0 m



WELLSITE DESCRIPTION

ARGILLACEOUS SILTY SANDSTONE (100%): dark greenish grey to dark grey, light grey speckled, clear to translucent quartz grains, very fine to fine, predominantly very fine, moderately to well sorted, sub-angular to sub-rounded, weak siliceous cement, common siliceous argillaceous to siliciclastic silty matrix, grades to a SANDY SILTSTONE, common glauconite as grains and matrix, trace carbonaceous material, trace to common mica, friable to moderately hard, poor visible porosity, no fluorescence.

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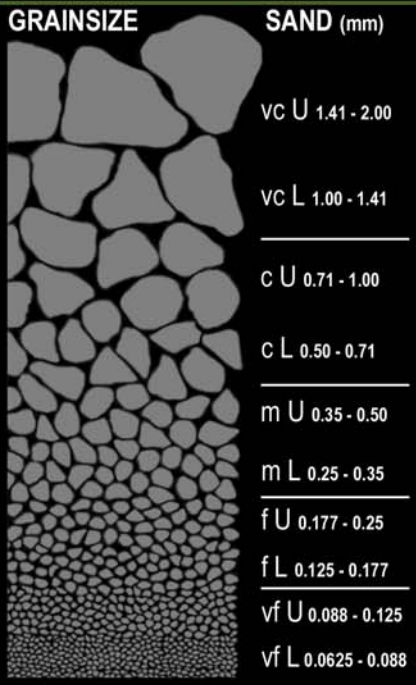
Apache Energy Ltd
COELACANTH - 1
SWC # 21 Depth 2720.0 m



WELLSITE DESCRIPTION

ARGILLACEOUS SILTY SANDSTONE (100%): greenish grey to dark greenish grey, common glauconite as grains and matrix, trace carbonaceous material and COAL fragments, trace micromicaceous, firm to moderately hard, sub-blocky to blocky.

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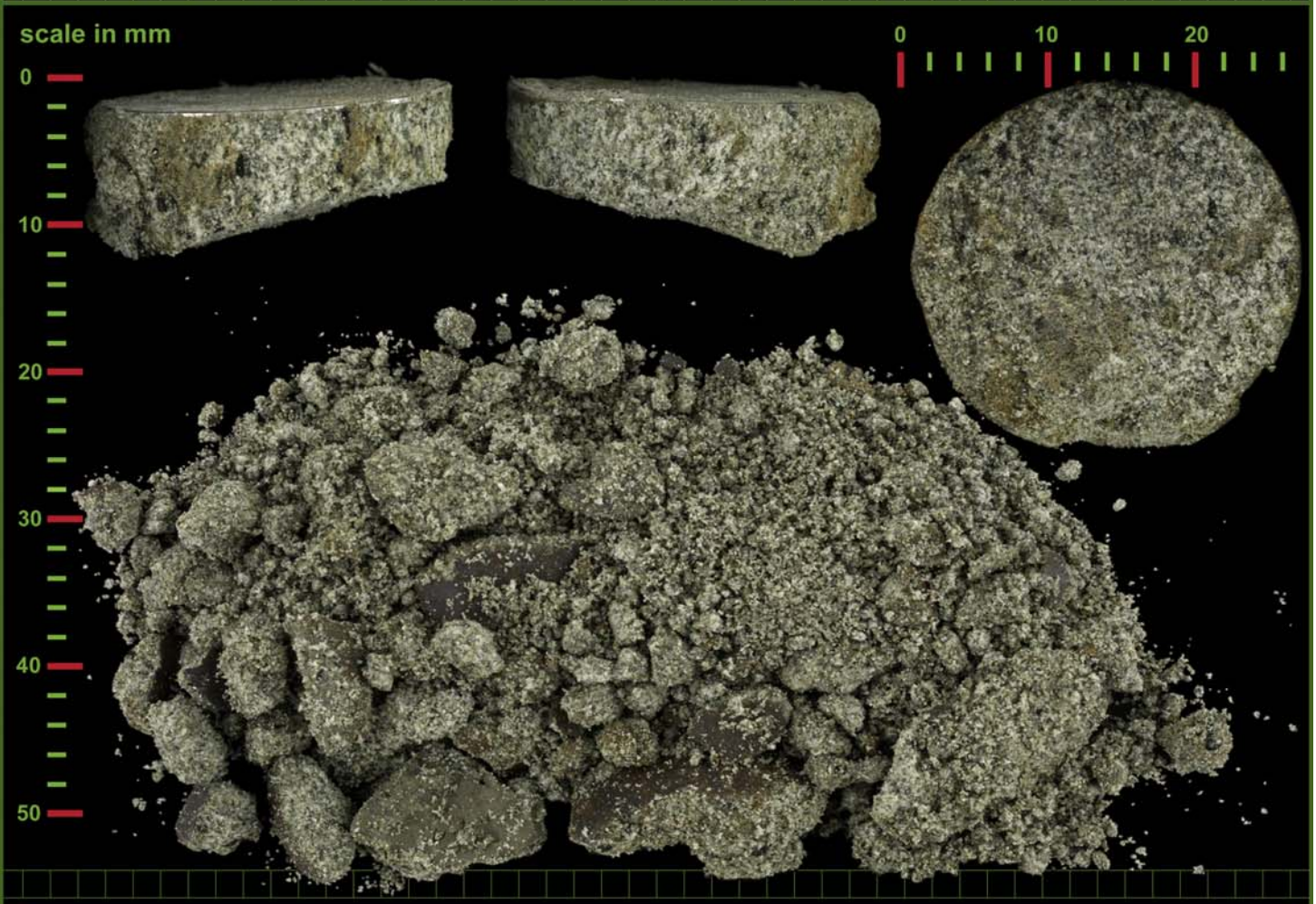
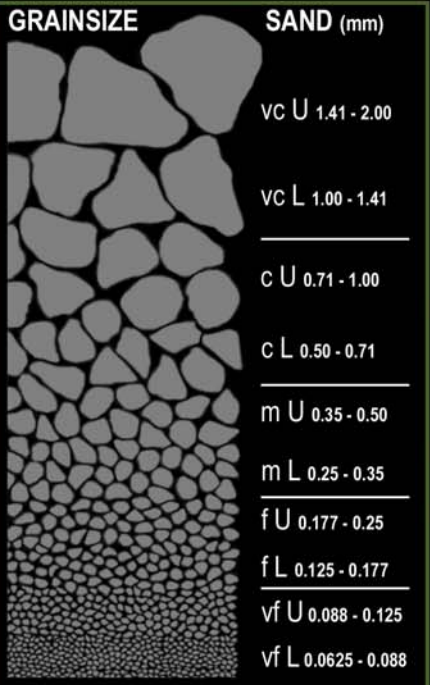
Apache Energy Ltd
COELACANTH - 1
SWC # 22 Depth 2713.5 m





WELLSITE DESCRIPTION

SANDSTONE (100%): light grey, dark olive grey to greenish grey speckled, clear to translucent quartz grains, minor opaque, very fine to fine, predominantly fine, occasional medium grains, moderately sorted, sub-angular to sub-rounded, moderate siliceous cement, common siliceous argillaceous to siliciclastic silty matrix, grades to SILTY SANDSTONE, trace to common carbonaceous/COAL fragments, trace to common glauconite, trace mica specks, friable to moderately hard, poor visible porosity, no fluorescence.

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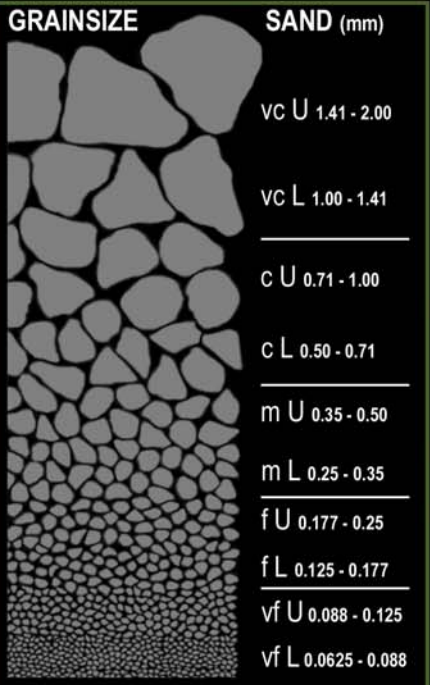
Apache Energy Ltd
COELACANTH - 1
SWC # 23 Depth 2707.5 m



WELLSITE DESCRIPTION

SANDSTONE (100%): light to medium olive grey, dark grey speckled, clear to translucent quartz grains, minor opaque, very fine to lower medium, predominantly upper fine, well sorted, sub-angular to sub-rounded, moderate siliceous cement, common siliceous argillaceous to siliciclastic silty matrix, trace carbonaceous/COAL fragments, trace to common glauconite, trace mica specks, friable to moderately hard, poor to fair visible porosity, no fluorescence.

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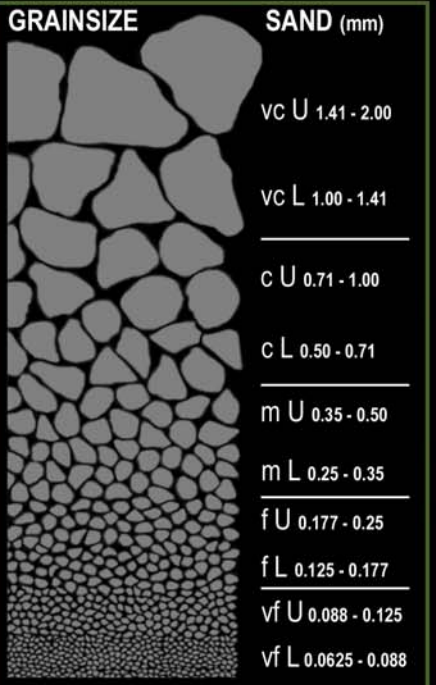
Apache Energy Ltd
COELACANTH - 1
SWC # 25 Depth 2693.0 m



WELLSITE DESCRIPTION

ARGILLACEOUS SILTY SANDSTONE (100%): grey to dark olive grey, common siliceous argillaceous and siliciclastic silty matrix, common glauconite as matrix and rounded pellets up to medium sand-size, weakly calcareous, trace to common mica, trace carbonaceous specks, soft to firm, sub-blocky to blocky.

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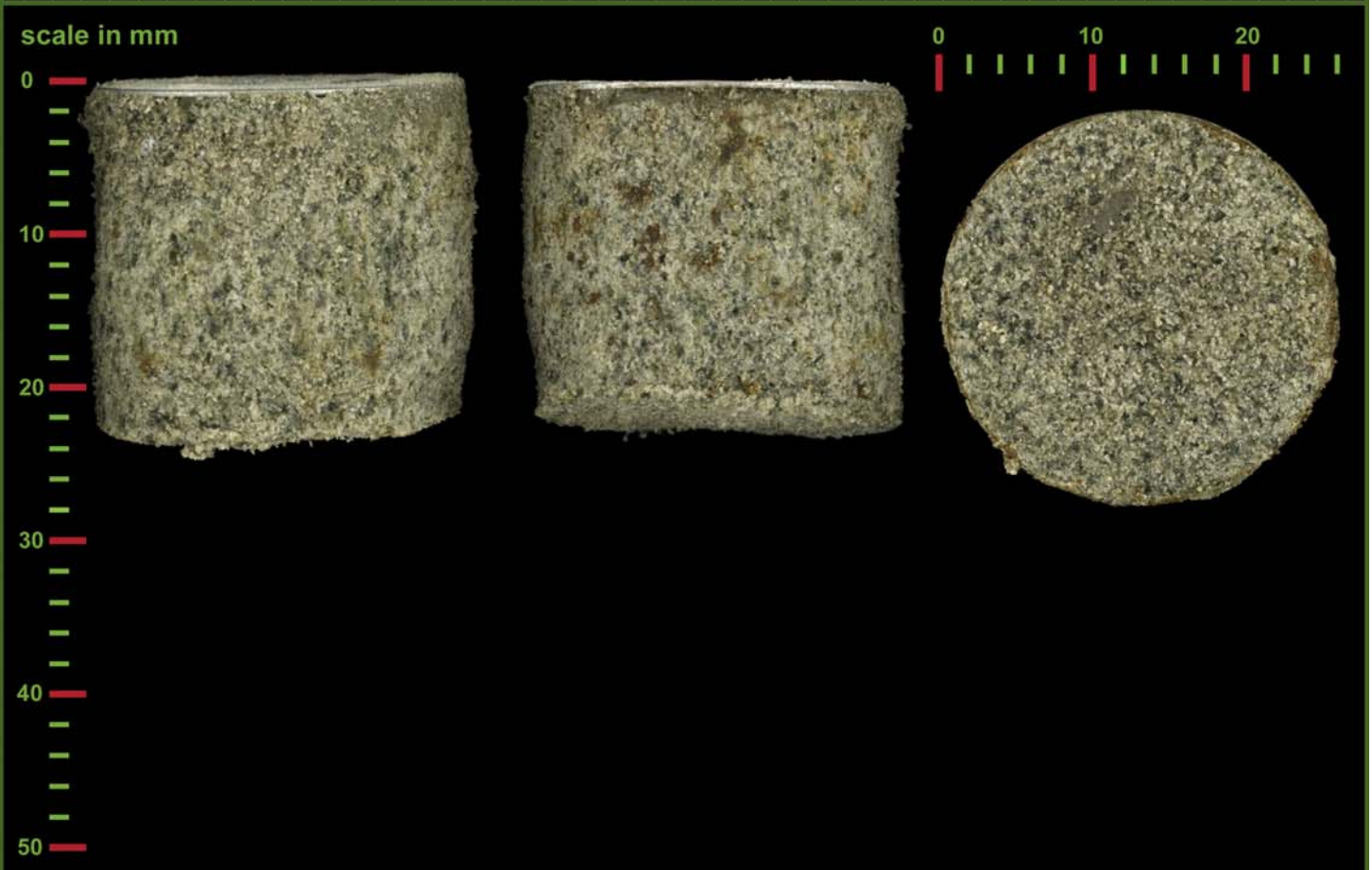
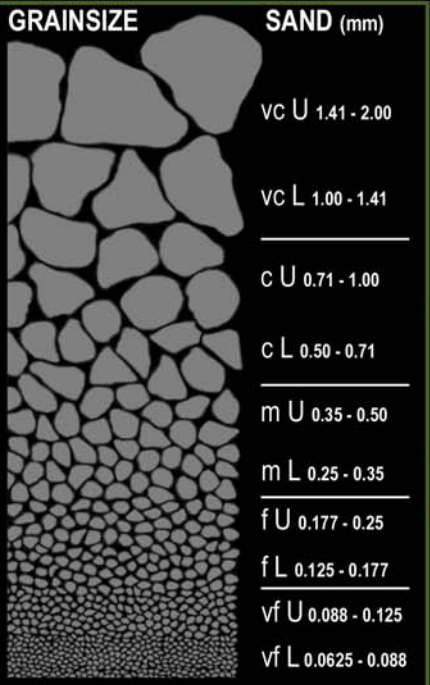
Apache Energy Ltd
COELACANTH - 1
SWC # 26 Depth 2657.0 m





WELLSITE DESCRIPTION

SANDSTONE (100%): light grey, medium olive grey to dark grey speckled, clear to translucent quartz grains, generally very fine to fine, predominantly lower fine, rare medium grains, moderately to well sorted, sub-angular to sub-rounded, weak to moderate calcareous cement, common siliceous argillaceous to siliciclastic silty matrix, trace glauconite, trace carbonaceous matter, trace pyrite, friable to moderately hard, poor visible porosity, no fluorescence.

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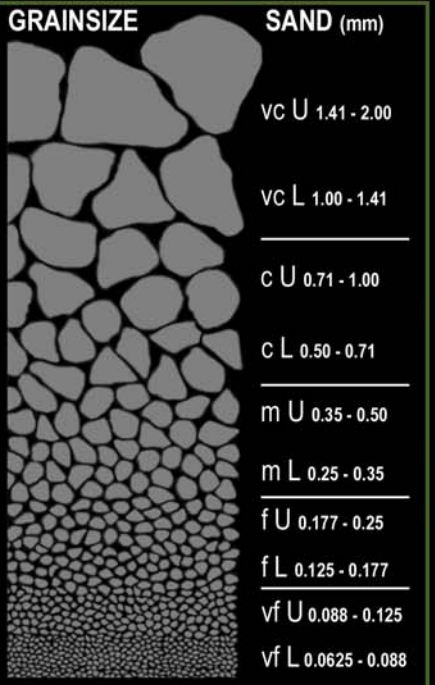
Apache Energy Ltd
COELACANTH - 1
SWC # 29 Depth 2627.0 m



WELLSITE DESCRIPTION

ARGILLACEOUS SILTY SANDSTONE (100%): medium olive grey to dark grey, dark greenish grey speckled, clear to translucent quartz grains, very fine to fine, minor medium, poorly sorted, sub-angular to sub-rounded, weak calcareous cement, common siliceous argillaceous to siliciclastic silty matrix, common glauconite as pellets and matrix, friable to moderately hard, poor visible porosity, no fluorescence.

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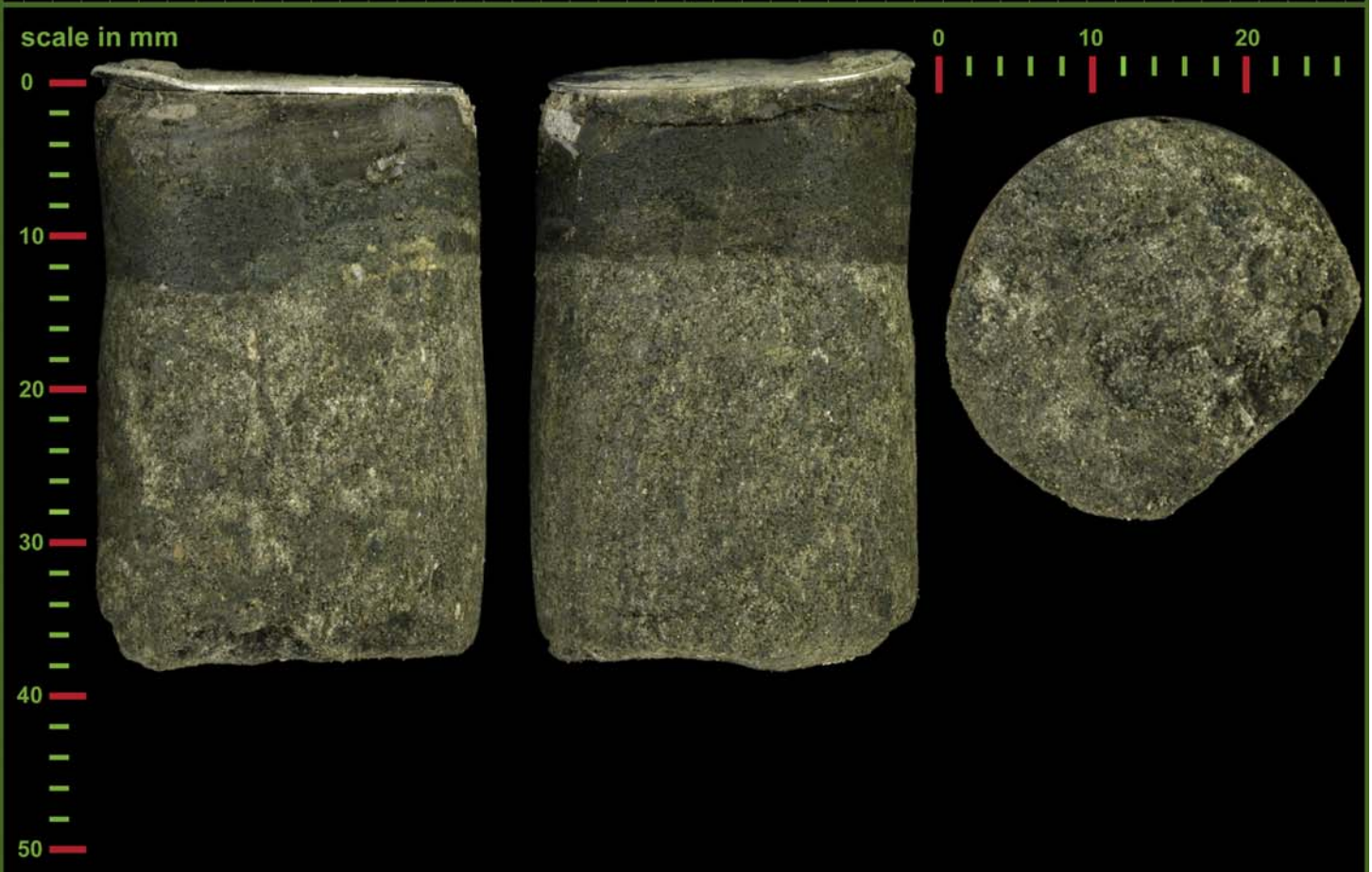
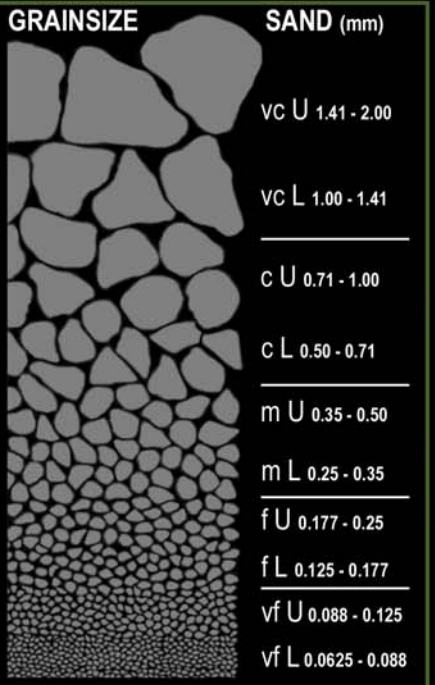
Apache Energy Ltd
COELACANTH - 1
SWC # 30 Depth 2626.0 m





WELLSITE DESCRIPTION

ARGILLACEOUS SILTY SANDSTONE (100%): medium to dark grey, greenish grey speckled, clear to translucent quartz grains, very fine to fine, minor medium, poorly sorted, sub-angular to sub-rounded, weak calcareous cement, common siliceous argillaceous to siliciclastic silty matrix, common glauconite as pellets and matrix, friable to moderately hard, poor visible porosity, no fluorescence.

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Coelacanth-1
End of Well Report

	Name	Signature	Date
Schlumberger QC	Iain McCourt		
Client approval	Mark Pinson		

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Apache Energy

Contents

1. General Information
2. Health, Safety, and Environment
3. Geomagnetic and Survey Reference Criteria
4. Definitive Survey
5. Drilling and Logging Overview
6. BHA Reports
7. Drilling Parameter Sheets
8. Drilling Tool Run Reports
9. Drill Bit Grading
10. Service Quality

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General Information

Well Name:	Coelacanth-1	
Rig:	West Triton	
Field:	Vic/45-P	
Location:	Bass Strait	
Country:	Australia	
Cell Members:	Anagh Kohli	Cell Manager
	Chris Hibberson	MWD/LWD Engineer
	Brendon Low	MWD/LWD Trainee
Town Contacts:	Dwight Hennings	AWA Operations Manager
	Iain McCourt	Field Services Manager
	Arnis Ahmed	Service Quality Coach
Company Representatives:	Mark Pinson	Company Man
	Peter Sheenan	Company Man
	Rocco Russow	Company Man
	Fred Fernandes	Wellsite Geologist
	Adam Cruickshank	Wellsite Geologist

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Geomagnetic and Survey Reference Criteria

Geomagnetic Data

Magnetic Model:	**BGGM version 2007**
Magnetic Date:	13 Mar 2008
Magnetic Field Strength:	60102 HCNT
Magnetic Declination:	13.336 degrees
Magnetic Dip:	-69.11 degrees

Survey Reference Criteria

Reference G:	1000.07 mgal
Reference H:	1202.04 HCNT
Reference Dip:	-69.11 degrees
G value Tolerance:	2.50 mgal
H value Tolerance:	6.00 HCNT
Dip Tolerance:	0.45 degrees

Survey Corrections Applied

Reference North:	Grid North
Magnetic Declination:	13.33 degrees
Grid Convergence:	-0.81 degrees
Total Azimuth Correction:	14.15 degrees
Vertical Section Azimuth:	00.00 degrees

Survey Reference Location

Location Coordinates

Latitude:	38° 42' 49.7296" South
Longitude:	148° 18' 7.0098" East
Easting:	613192.770 m
Northing:	5714176.613 m
MGA:	GDA94/MGA94, UTM Zone 55 S

N 5714176.613m, E 613192.770

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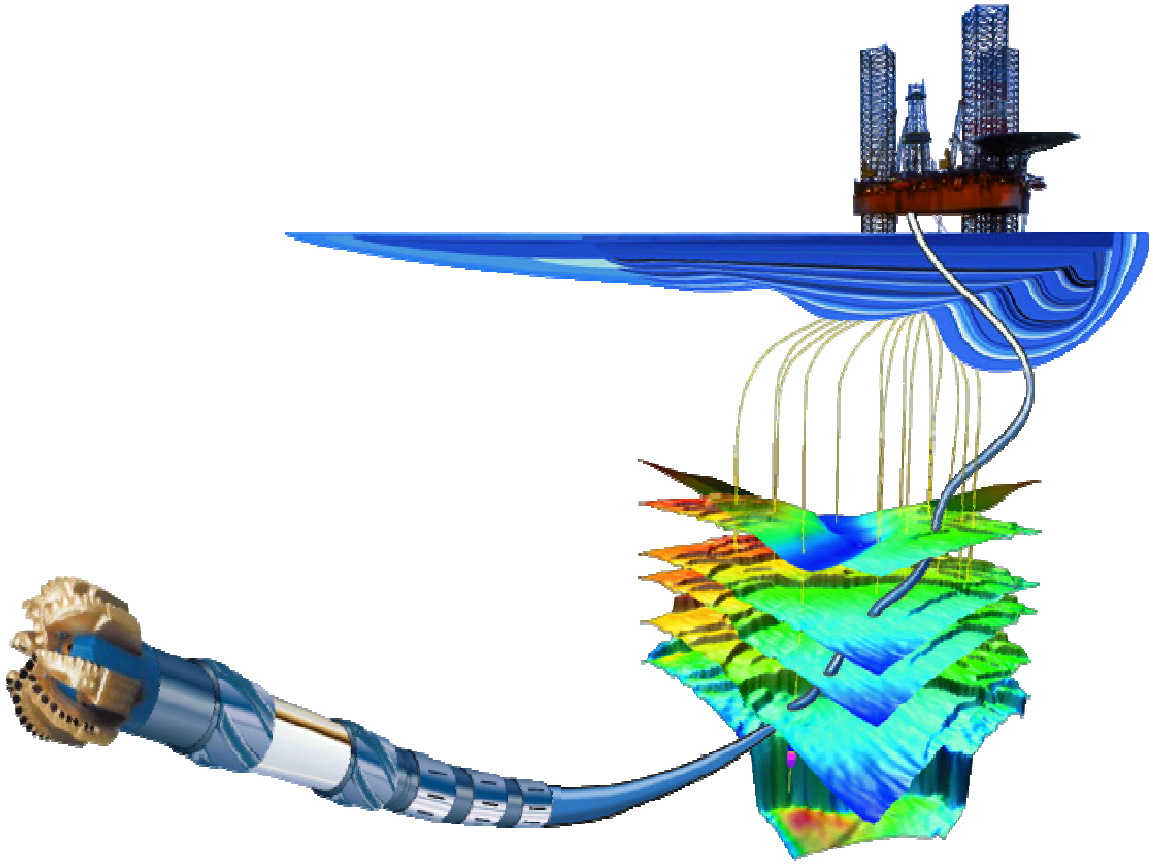
Apache ENERGY

Definitive Survey



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Coelacanth-1 Final Geodetic Survey

Report Date:	May 9, 2008	Survey / DLS Computation Method:	Minimum Curvature / Lubinski
Client:	Apache Energy Ltd	Vertical Section Azimuth:	0.000°
Field:	Vic/45-P	Vertical Section Origin:	N 0.000 m, E 0.000 m
Structure / Slot:	Coelacanth / SLOT3	TVD Reference Datum:	RKB
Well:	Coelacanth-1	TVD Reference Elevation:	38.0 m relative to AHD
Borehole:	Coelacanth-1	Sea Bed / Ground Level Elevation:	-90.000 m relative to AHD
UWI/API#:		Magnetic Declination:	13.336°
Survey Name / Date:	Coelacanth-1 Final / March 13, 2008	Total Field Strength:	60102.017 nT
Tort / AHD / DDI / ERD ratio:	8.627° / 23.35 m / 2.820 / 0.008	Magnetic Dip:	-69.110°
Grid Coordinate System:	GDA94/MGA94 Zone 55	Declination Date:	March 13, 2008
Location Lat/Long:	S 38 42 49.7296, E 148 18 7.0098	Magnetic Declination Model:	BGGM 2007
Location Grid N/E Y/X:	N 5714176.613 m, E 613192.770 m	North Reference:	Grid North
Grid Convergence Angle:	-0.81436941°	Total Corr Mag North -> Grid North:	+14.150°
Grid Scale Factor:	0.99975778	Local Coordinates Referenced To:	Well Head

Comments	Measured Depth (m)	Inclination (deg)	Azimuth Grid (deg)	TVD (m)	Vertical Section (m)	NS Grid North (m)	EW Grid North (m)	DLS (deg/30 m)	Northing (m)	Easting (m)	Latitude	Longitude
Tie-In	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	5714176.90	613193.50	S 38 42 49.720	E 148 18 7.040
Mud Line	128.00	0.00	0.00	128.00	0.00	0.00	0.00	0.00	5714176.90	613193.50	S 38 42 49.720	E 148 18 7.040
	263.67	0.15	47.87	263.67	0.12	0.12	0.13	0.03	5714177.02	613193.63	S 38 42 49.716	E 148 18 7.045
	294.41	0.06	172.52	294.41	0.13	0.13	0.16	0.19	5714177.03	613193.66	S 38 42 49.716	E 148 18 7.047
	323.58	0.12	91.82	323.58	0.11	0.11	0.20	0.13	5714177.01	613193.70	S 38 42 49.716	E 148 18 7.048
	411.41	0.24	137.04	411.41	-0.02	-0.02	0.41	0.06	5714176.88	613193.91	S 38 42 49.721	E 148 18 7.057
	442.19	0.21	124.90	442.19	-0.10	-0.10	0.50	0.05	5714176.80	613194.00	S 38 42 49.723	E 148 18 7.061
	502.26	0.32	90.25	502.26	-0.17	-0.17	0.76	0.09	5714176.73	613194.26	S 38 42 49.725	E 148 18 7.071
	530.50	0.41	92.03	530.50	-0.17	-0.17	0.94	0.10	5714176.73	613194.44	S 38 42 49.725	E 148 18 7.079
	620.59	0.22	141.24	620.59	-0.32	-0.32	1.37	0.10	5714176.58	613194.87	S 38 42 49.730	E 148 18 7.097
	708.29	0.06	46.00	708.29	-0.42	-0.42	1.51	0.08	5714176.48	613195.01	S 38 42 49.733	E 148 18 7.103
	738.63	0.03	73.16	738.63	-0.40	-0.40	1.53	0.04	5714176.50	613195.03	S 38 42 49.732	E 148 18 7.103
	768.37	0.06	56.39	768.37	-0.39	-0.39	1.55	0.03	5714176.51	613195.05	S 38 42 49.732	E 148 18 7.104
	855.79	0.11	357.54	855.79	-0.28	-0.28	1.58	0.03	5714176.62	613195.08	S 38 42 49.728	E 148 18 7.106
	887.36	0.25	215.41	887.36	-0.31	-0.31	1.54	0.33	5714176.59	613195.04	S 38 42 49.729	E 148 18 7.104
	1006.93	0.37	205.42	1006.92	-0.87	-0.87	1.23	0.03	5714176.03	613194.73	S 38 42 49.748	E 148 18 7.091
	1125.19	0.38	223.01	1125.18	-1.50	-1.50	0.79	0.03	5714175.40	613194.29	S 38 42 49.768	E 148 18 7.074
	1243.13	0.37	76.40	1243.12	-1.70	-1.70	0.90	0.18	5714175.20	613194.40	S 38 42 49.775	E 148 18 7.078
	1420.57	0.99	275.48	1420.55	-1.42	-1.42	-0.07	0.23	5714175.48	613193.43	S 38 42 49.766	E 148 18 7.038
	1550.04	0.99	280.13	1550.00	-1.11	-1.11	-2.29	0.02	5714175.79	613191.22	S 38 42 49.757	E 148 18 6.946
	1687.41	0.88	299.49	1687.36	-0.39	-0.39	-4.37	0.07	5714176.51	613189.13	S 38 42 49.734	E 148 18 6.859
	1806.49	0.99	326.29	1806.42	0.92	0.92	-5.74	0.11	5714177.82	613187.76	S 38 42 49.693	E 148 18 6.802
	1895.34	0.85	336.21	1895.26	2.16	2.16	-6.43	0.07	5714179.06	613187.07	S 38 42 49.653	E 148 18 6.772
	1983.37	0.73	333.68	1983.28	3.26	3.26	-6.94	0.04	5714180.16	613186.56	S 38 42 49.617	E 148 18 6.751
	2071.31	0.57	332.49	2071.22	4.15	4.15	-7.39	0.05	5714181.05	613186.11	S 38 42 49.589	E 148 18 6.731
	2101.07	0.26	259.44	2100.98	4.27	4.27	-7.53	0.56	5714181.17	613185.97	S 38 42 49.585	E 148 18 6.726
	2189.40	0.38	9.46	2189.30	4.52	4.52	-7.68	0.18	5714181.42	613185.83	S 38 42 49.577	E 148 18 6.719
	2219.45	0.35	26.58	2219.35	4.70	4.70	-7.62	0.11	5714181.60	613185.88	S 38 42 49.571	E 148 18 6.722
	2307.17	0.23	13.64	2307.07	5.11	5.11	-7.46	0.05	5714182.01	613186.04	S 38 42 49.558	E 148 18 6.728
	2396.09	0.42	29.80	2395.99	5.57	5.57	-7.25	0.07	5714182.47	613186.25	S 38 42 49.543	E 148 18 6.736
	2484.75	0.56	53.27	2484.65	6.11	6.11	-6.74	0.08	5714183.01	613186.76	S 38 42 49.525	E 148 18 6.757
	2573.28	0.49	40.74	2573.17	6.66	6.66	-6.15	0.05	5714183.56	613187.35	S 38 42 49.507	E 148 18 6.781
	2750.62	0.57	139.67	2750.51	6.56	6.56	-5.09	0.14	5714183.46	613188.42	S 38 42 49.510	E 148 18 6.826
	2867.93	0.68	143.30	2867.81	5.56	5.56	-4.29	0.03	5714182.46	613189.21	S 38 42 49.542	E 148 18 6.859
	2956.53	0.67	150.71	2956.41	4.68	4.68	-3.72	0.03	5714181.58	613189.78	S 38 42 49.570	E 148 18 6.883
Projected to TD	3074.00	0.67	150.71	3073.87	3.49	3.49	-3.05	0.00	5714180.38	613190.45	S 38 42 49.608	E 148 18 6.911

Survey Type: Definitive Survey

Survey Error Model: **SLB ISCWSA version 24 *** 3-D 95.00% Confidence 2.7955 sigma**

Surveying Prog:

MD From (m)	MD To (m)	EOU Freq	Survey Tool Type	Borehole -> Survey
0.00	128.00	Act-Stns	SLB_ZERO-Depth Only	Coelacanth-1 -> Coelacanth-1 Final
128.00	2956.53	Act-Stns	SLB_MWD-STD	Coelacanth-1 -> Coelacanth-1 Final
2956.53	3074.00	Act-Stns	SLB_BLIND+TREND	Coelacanth-1 -> Coelacanth-1 Final

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Drilling and Logging Overview

Schlumberger Drilling and Measurements provided Motor-PowerPak and MWD/GeoVISION for 311 mm (12.25") and Motor-PowerPak and MWD/GeoVISION/adnVISION for 216 mm (8.5").

Well Objectives:

Coelacanth-1 is an exploration well to be drilled in the Wasabi field, located in permit Vic/45-P. The well will be assessing the Gurnard, Volador and Intra Volador formations and is programmed to reach total depth below the second formation Intra Volador formation.

Geological objectives require a vertical well.

Coelacanth-1 commences when the drilling MODU, West Triton is 1km from the departing (Wasabi-1) surface location.

A 508mm (20") conductor will be set approximately 150m, below the seabed, at 278m MD RT. The 476mm (18-3/4") unitized wellhead housing and BOP will be installed and tested at this point and all subsequent operations would be carried out through the BOP.

311mm (12 ¼") hole will be drilled to TD at +/-900m MD. Formation Evaluation requirements in this interval will consist of GVR-8 LWD during drilling and a PEX-VSI wireline log at sectional TD. 245mm (9-5/8") casing will be set at 900m.

After performing the leak-off test, the 216mm (8-1/2") hole will be drilled to total depth at +/-3038MDRT/3000m TVD. GVR-6/BAT sonic/ADN-6 LWD shall be run for formation evaluation.

At TD, wireline logs consisting of a VSP shall be run to surface. RFT (pressures and samples), SWC and Image logs will be contingent on the initial evaluation.

No well test is planned. However, the well may be sidetracked for coring if significant hydrocarbon is present. A revised drilling program will be issued should the well be sidetracked.

The well shall be be plugged and abandoned.

The well shall be drilled with water based fluids throughout. Coelacanth-1 is not in close proximity to any marine parks or environmentally sensitive areas.

Coelacanth-1 ends when the rig is 1km from the surface location.

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BHA # 1: Motor-PowerPak and MWD/GeoVISION Assembly

311 mm (12.25") Hole Section – Vertical (279.00 m MD- 907.00 m MD)

The following 311mm (12.25") Motor-PowerPak and MWD/GeoVISION Assembly was made up and run in hole:

311mm (12.25") Mill Tooth Bit (Type: Smith XR+CPS, Jets: 3x 18, 1X20)

9 6/8" PowerPak-A962 with 12 1/8 sleeve

8" Float Sub

8" X-Over

8 1/4" GVR LWD

8 1/4" TeleScope* MWD

8 1/4" X-Over

12 1/4" Stabalizer

6 X 8 1/4 "DC

8 1/4" X-Over

6 X 5 1/2" HWDP

7" X-Over

6 1/2" JAR

2X 8 ½" DC

7" X-Over

8 X 5 1/2" HWDP

Drilling Summary

MWD/LWD Summary

The Telescope* MWD tool was programmed with 12Hz/6bps configuration, to enable transmission of real time data uphole, providing Directional Survey information (Azimuth & Inclination). 2 SPT's were used on this job as apposed to 1 on the last job.

No Shallow Hole test was performed as per Apache instructions. Drilling commenced after tagging the cement at 279.0mMD. Due to lack of non mags in the BHA a lot of magnetic interference was observed in the surveys. Surveys were used as inclination check. Minimal shocks and negligible stick and slip throughout the section. New SPT on T-Piece installed up the top of the stand pipe gave very good, clean and strong signal. ROP was high up around 170-180 m/hr. Large washouts were detected throughout the section of size around 18in.

No real time LWD data was presented to the client due to a failure of real time communication between the LWD and MWD tools, however all RM data was dumped and processed fine.

TD was called at 907m MD. Casing was run successfully with casing shoe at 902m MD.

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BHA # 2: Motor-PowerPak and MWD/(GeoVISION/adnVISION) LWD Assembly

216 mm (8.5") Hole Section – Vertical (907.00 m MD- 1998.00 m MD)

The following 216mm (8.5") Motor-PowerPak and MWD/(GeoVISION/adnVISION) LWD Assembly was made up and run in hole:

216mm (8.5") PDC Bit (Type: REED RSX661B, Jets: 5x 14, 1X15)

7 6/8" PowerPak-A762 with sleeve

6 3/4" Float Sub

6 3/4" GVR-6 LWD

6 3/4" TeleScope* MWD

6 7/8" X-Over

6 5/8" BAT Sonic

6 7/8" X-Over

6 3/4" adnVISION* LWD

9 X 6 ½ "DC

7" X-Over

6 X 5 1/2" HWDP

7" X-Over

5 1/2" JAR

7" X-Over

8 X 5 1/2" HWDP

Drilling Summary

MWD/LWD Summary

The TeleScope* MWD tool was programmed with 12Hz/6bps configuration, to enable transmission of real time data uphole, providing Directional Survey information (Azimuth & Inclination).

GeoVISION and adnVISION LWD tools were programmed at 5 second record rate each. adnVISION was only run in recorded mode.

No Shallow Hole test was performed as per Apache Instructions. Drilling commenced after tagging cement at 870.00mMD. Initially while drilling through cement a flow rate of 450gpm was used and the MWD was working fine. At 900m MD flow rate was increased to 600gpm and MWD lost sync. As there was no Real time data it was assumed that the MWD turbine might have jammed while drilling through cement. Tool anti-jamming procedure was put into practice. Pumps were staged from 350gpm to 400gpm and to 450gpm. Any flow rate above this the tool would turn off.

Rop was high at the start of the run and then it slowed down considerably due to bit balling.
Client wanted to drill ahead at 600gpm and stopped at every third stand to pump up a survey at a lower flow rate. No RT data was presented due to the tool switching off at 600gpm, however on dumping tool was working good and data was delivered to the Wellsite Geologist. Bit was balled up on pulling out. The bit was cleaned and re run.

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BHA # 3: Motor-PowerPak and MWD/(GeoVISION/adnVISION) LWD Assembly

216 mm (8.5") Hole Section – Vertical (1998.00 m MD- 2116.00 m MD)

The following 216mm (8.5") Motor-PowerPak and MWD/(GeoVISION/adnVISION) LWD Assembly was made up and run in hole:

216mm (8.5") PDC Bit (Type: REED RSX661B RR1, Jets: 5x 14, 1X15)

7 6/8" PowerPak-A762 with sleeve

6 3/4" Float Sub

6 3/4" GVR-6 LWD

6 3/4" TeleScope* MWD

6 7/8" X-Over

6 5/8" BAT Sonic

6 7/8" X-Over

6 3/4" adnVISION* LWD

9 X 6 ½ "DC

7" X-Over

6 X 5 1/2" HWDP

7" X-Over

5 1/2" JAR

7" X-Over

8 X 5 1/2" HWDP

Drilling Summary

MWD/LWD Summary

Same GVR was run as from the last BHA. adnVISION and PowerPak were changed. As per Apache orders no Shallow Hole Test was carried out.

Again no SHT was done as per Apache request. The signal was good throught the run. A few anti jam counts were seen while pumping high vis pills and other chemicals. Company man was asked to slow down the flow rate for 5 minutes to 300gpm so that jam could be cleared out. Tool responded immediately and was back working.

ROP was around 30 m/hr at the start of the run and then slowed down considerably on applying more WOB. Signal was very strong and clean throughout the run. The RT data that was produced seemed to be of high quality. High and variable flow rate was able to be used with no issues. Surveys were successfully taken every 3 stands.

It was decided to pull out of the hole and change the bit as rate of penetration really slowed down. Tools were not allowed to be dumped or even the batteries to be changed on pulling out.

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BHA # 4: Motor-PowerPak and MWD/(GeoVISION/adnVISION) LWD Assembly

216 mm (8.5") Hole Section – Vertical (2116.00 m MD- 2700.00 m MD)

The following 216mm (8.5") Motor-PowerPak and MWD/(GeoVISION/adnVISION) LWD Assembly was made up and run in hole:

216mm (8.5") PDC Bit (Type: REED RSX661B RR1, Jets: 5x 14, 1X15)

7 6/8" PowerPak-A762 with sleeve

6 3/4" Float Sub

6 3/4" GVR-6 LWD

6 3/4" TeleScope* MWD

6 7/8" X-Over

6 5/8" BAT Sonic

6 7/8" X-Over

6 3/4" adnVISION* LWD

9 X 6 ½ "DC

7" X-Over

6 X 5 1/2" HWDP

7" X-Over

5 1/2" JAR

7" X-Over

8 X 5 1/2" HWDP

Drilling Summary

MWD/LWD Summary

We only changed the bit from the last run. Same tools were run in the hole. All programming rates remained as from the last run. We went in with a new PDC bit with 5 blades as compared to 6 on the last run. Tools were not allowed to be dumped on the last run.

Signal throughout the run was very good. Moderate to high level stick-slip was experienced toward the end of the run. Client was notified.

ADN6 battery life was discovered to be depleted as of 2433m MD. Therefore no data was collected after this point, we reamed through this section on POOH of the next run to obtain the missing data. RT data was good throughout the run.

We were not permitted to dump the data from the GVR tool to due time restraints. Surveys were taken every 3 stands. Data that was dumped from the ADN was good, apart from the data that was not obtained due to batteries being depleted.

ROP was quite good during the run, however toward the end the ROP plunged due to suspected 'Bit Balling'. This was confirmed upon inspection of bit at the Rotary Table.

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BHA # 5: Motor-PowerPak and MWD/(GeoVISION/adnVISION) LWD Assembly

216 mm (8.5") Hole Section – Vertical (2700.00 m MD- 3074.00 m MD)

The following 216mm (8.5") Motor-PowerPak and MWD/(GeoVISION/adnVISION) LWD Assembly was made up and run in hole:

216mm (8.5") PDC Bit (Type: REED RSX661B RR1, Jets: 5x 14, 1X15)

7 6/8" PowerPak-A762 with sleeve

6 3/4" Float Sub

6 3/4" GVR-6 LWD

6 3/4" TeleScope* MWD

6 7/8" X-Over

6 5/8" BAT Sonic

6 7/8" X-Over

6 3/4" adnVISION* LWD

9 X 6 ½ "DC

7" X-Over

6 X 5 1/2" HWDP

7" X-Over

5 1/2" JAR

7" X-Over

8 X 5 1/2" HWDP

Drilling Summary

MWD/LWD Summary

New Drilling parameters were put to practice in this run. Minimal WOB was applied throughout the run. ROP was quite good ranging between 30 and 50 m/hr. Tools were again not allowed to be dumped from the last run. ADN was changed and was programmed again at 5 second Record Rate.

Some high patches of Stick-Slip were seen and company man was notified, this continued to change in between moderate and high for the majority of the run apart from toward the end of the run where stick-slip was minimal. Minimal shock and vibration was experienced throughout the run. TD was called at 3074m MD which was about 55m further than the original plan due to wireline needing 55m of rat hole to successfully log the section.

Signal strength was good and clear throughout the run. Surveys were taken every 3 stands. MWD tool produced a good strong signal for the entire run, this was backed up by both Real Time and Recorded Mode data that was of a good clear quality. The lost data in last run was re-logged at 50rpm and 100 m/hr ROP.

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BHA Run Summary

Run	Hole Size (mm)	MWD/LWD Services	Start Depth (m)	End Depth (m)	Distance (m)	Run Start Date	Run End Date
1	311	D&I,GR,RES,	279.0	907.0	628.0	12-Mar-08	13-Mar-08
2	216	D&I,GR,RES, Density,Porosity	907.0	1998.0	1091.0	15-Mar-08	18-Mar-08
3	216	D&I,GR,RES, Density,Porosity	1998.0	2116.0	118.0	18-Mar-08	19-Mar-08
4	216	D&I,GR,RES, Density,Porosity	2116.0	2700.0	584.0	19-Mar-08	21-Mar-08
5	216	D&I,GR,RES, Density,Porosity	2700.0	3074.0	374.0	21-Mar-08	22-Mar-08

Run	BRT Hours	Drilling Hours	Circulating Hours	Max Temp (degC)	Trip for MWD	Failure type
1	17.25	4.53	7.3	32.2	No	All RESISTIVITIES in RT
2	61.5	28.16	37.7	49.41	No	All RESISTIVITIES in RT
3	14.86	7.90	9.8	48.63	N0	None
4	42.5	19.38	25.98	58.82	No	None
5	40.00	9.16	17.3	61.96	No	None

Schlumberger

Company: **Apache Energy Ltd.**

Well: **Coelacanth−1**
Field: **Vic/P−45**
Rig: **West Triton** State: **Victoria**

Rig: West Triton
Field: Vic/P−45
Location: Bass Strait
Well: Coelacanth−1
Company: Apache Energy Ltd.

GeoVISION Service
1:200 Measured Depth
Recorded Mode Data, Composite Log

Location

		Elevation		
Total depth:	3074.00 m		K.B.	Top Drive m
Spud date:	10−Mar−2008		G.L.	−90.00 m
Runs:	1 To 5		D.F.	38.00 m

Permanent datum:	AHD	Elev.:	0 m m
Log measured from:	Rotary Table	38.00 m	above Perm. datum
Depth reference:	Driller's Depth		

API serial no.	N 5 714 176.613 m	Longitude	Latitude
07ASQ0029	E 613 192.770 m	E 148° 18´ 07.0098´´	S 38° 42´ 49.7296´´

Depth logged:	275.70 m To 3039.40 m	Mag decl: 13.34 deg.	Other services:
Date logged:	12−Mar−2008 To 22−Mar−2008	Mag dip: −69.11 deg.	See Remarks

Bore hole record

Hole size	from	to
660 mm	127.5 m	279.0 m
311 mm	279.0 m	907.0 m
216 mm	907.0 m	3074.0 m

Casing record

Size	Density	from	to
508 mm	193 kg/m	Wellhead	275.7 m
244 mm	101 kg/m	Wellhead	902.6 m

Mud record

Type	from	to
WBM	275.70 m	3074.00 m

Borehole deviation record

Min	Max	from	to
0.03 deg.	0.41 deg.	275.70 m	902.00 m
0.23 deg.	0.99 deg.	902.00 m	3074.00 m

Surface equipment

Unit	OLU−KC−0702
Depth system	DWE & CLT

Software record

IDEAL Wis	ID13_0C_06
SPM	hspm13_0c_03
LWD	See Remarks
MWD	See Remarks

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OTHER SERVICES FOR RUN1
Directional Surveys

OTHER SERVICES FOR RUN2
Directional Surveys

OTHER SERVICES FOR RUN3
Directional Surveys

REMARKS: RUN NUMBER 1
Depth is referenced to Driller's Depth.

Gamma ray is corrected for mud weght, tool size, bit depth and potassium percentage.

Resistivty is borehole compensated and environmentally corrected.

POOH due to reaching TD of 12.25 in. section of Coelacanth−1.

REMARKS: RUN NUMBER 2
Depth is referenced to Driller's Depth.

Gamma ray is corrected for mud weght, tool size, bit depth and potassium percentage.

Resistivty is borehole compensated and environmentally corrected.

Neutron porosity is corrected for the effects of borehole size (bit size), temperature, mud salinity, and mud hydrogen index (a factor of mud weight, mud temperature and pressure).

Neutron porosity is calculated using a limstone matrix density of 2.71 g/cm3.

REMARKS: RUN NUMBER 3
Depth is referenced to Driller's Depth.

Gamma ray is corrected for mud weght, tool size, bit depth and potassium percentage.

Resistivty is borehole compensated and environmentally corrected.

Neutron porosity is corrected for the effects of borehole size (bit size), temperature, mud salinity, and mud hydrogen index (a factor of mud weight, mud temperature and pressure).

Neutron porosity is calculated using a limstone matrix density of 2.71 g/cm3.

POOH due to Bit Balling.

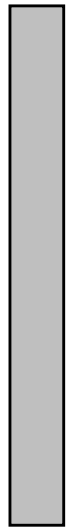
POOH due to Bit Balling.

EQUIPMENT DESCRIPTION

RUN1

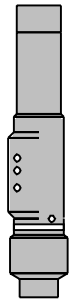
DOWNHOLE E

8−1/4" PowerPulse* 22.72
MDC: FB−46
MEA: 754
MDI: 2421
MGR: 104



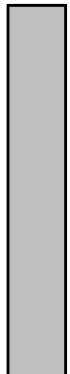
SS 15.15

8−1/4" GeoVISION* 14.68
DHS: V5.0B14
S/N: 41032



FS 10.44
S/N: S58834−4

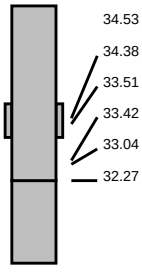
9" PowerPak* Motor 9.60
S/N: 3389



RUN2

DOWNHOLE E

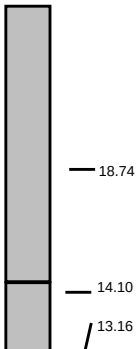
6−3/4 adnVISION* 36.51
DHS: V8.3
S/N: 40778
BladeOD: 8−1/4"



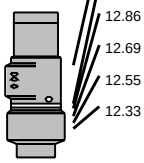
XO 30.26

6−3/4" Bat Sonic 29.90
S/N: PA9016462

6−3/4" PowerPulse* 23.10
MDC: VL09
MEA: 433
MDI: 1562
MGD: 346



6−3/4 GeoVISION* 14.64
DHS: V6.2B01
S/N: 41022



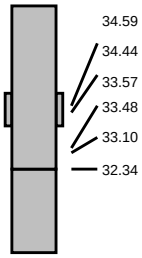
FS 11.13
S/N: S58834

7" PowerPak* Motor 10.30
S/N: N7413

RUN3

DOWNHOLE E

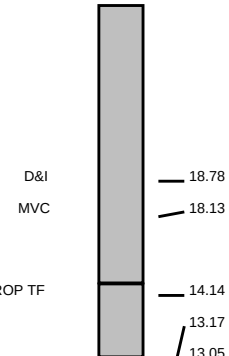
6−3/4 adnVISION* 36.27
DHS: V8.3
S/N: 373
BladeOD: 8−1/4"



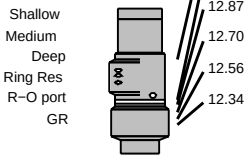
XO 30.31

6−3/4" Bat Sonic 29.94
S/N: PA9016462

6−3/4" PowerPulse* 23.14
MDC: VG67
MEA: 373
MDI: 1841
MVC: 114

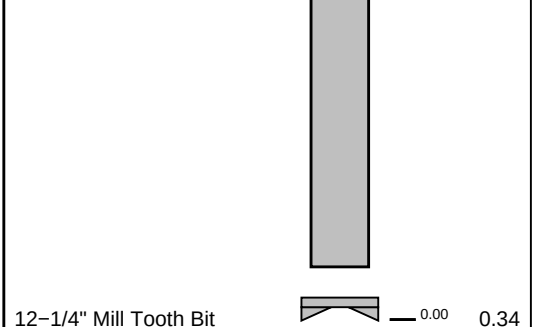


6−3/4 GeoVISION* 14.65
DHS: V6.2B01
S/N: 41373



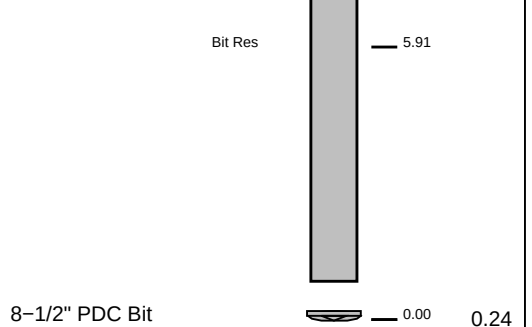
FS 11.14
S/N: S58834

7" PowerPak* Motor 10.31
S/N: 0738



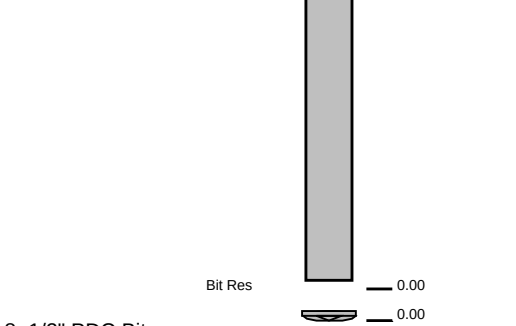
12−1/4" Mill Tooth Bit 0.34
S/N: PF6839

Maximum string dian
All lengths ir



8−1/2" PDC Bit 0.24
S/N: 216126

Maximum string dia
All lengths ir



8−1/2" PDC Bit 0.24
S/N: 216126

Maximum string dia
All lengths ir

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OTHER SERVICES FOR RUN4
Directional Surveys

OTHER SERVICES FOR RUN5
Directional Surveys

OTHER SERVICES FOR RUN

REMARKS: RUN NUMBER 4
Depth is referenced to Driller's Depth.

Gamma ray is corrected for mud weght, tool size, bit depth and potassium percentage.

Resistivty is borehole compensated and environmentally corrected.

Neutron porosity is corrected for the effects of borehole size (bit size), temperature, mud salinity, and mud hydrogen index (a factor of mud weight, mud temperature and pressure).

Neutron porosity is calculated using a limstone matrix density of 2.71 g/cm3.

POOH due to Bit Balling.

adnVISION battery ran out of life at 2433m MD

REMARKS: RUN NUMBER 5
Depth is referenced to Driller's Depth.

Gamma ray is corrected for mud weght, tool size, bit depth and potassium percentage.

Resistivty is borehole compensated and environmentally corrected.

Neutron porosity is corrected for the effects of borehole size (bit size), temperature, mud salinity, and mud hydrogen index (a factor of mud weight, mud temperature and pressure).

Neutron porosity is calculated using a limstone matrix density of 2.71 g/cm3.

POOH due to reaching TD of 8.50 in. section of Coelacanth−1.

Relogged on trip out from 2433MD to 2700MD

REMARKS: RUN NUMBER

EQUIPMENT DESCRIPTION

RUN4 RUN5 RUN

DOWNHOLE E

DOWNHOLE E

6−3/4" adnVISION*
DHS: V8.3
S/N: 373
BladeOD: 8−1/4"
Neutron F
Neutron N
Density S
Density L
UltraSonic
R−O Port
34.59
34.44
33.57
33.48
33.10
32.34
36.27
XO
30.31
6−3/4" Bat Sonic
S/N: PA9016462
29.94
6−3/4" PowerPulse*
MDC: VG67
MEA: 373
MDI: 1841
MVC: 114
23.14
D&I
MVC
ROP TF
18.78
18.13
14.14
6−3/4" GeoVISION*
DHS: V6.2B01
S/N: 41373
Shallow
Medium
Deep
Ring Res
R−O port
GR
13.17
13.05
12.87
12.70
12.56
12.34
14.65
FS
S/N: S58834
11.14
7" PowerPak* Motor
S/N: 0738
10.31
Bit Res
0.00
0.00
8−1/2" PDC Bit
S/N: 41373
0.24
Maximum string dia
All lengths ir
6−3/4" adnVISION*
DHS: V8.3
S/N: 40778
BladeOD: 8−1/4"
Neutron F
Neutron N
Density S
Density L
UltraSonic
R−O Port
34.68
34.53
33.66
33.57
33.19
32.43
36.65
XO
30.40
6−3/4" Bat Sonic
S/N: PA9016462
30.03
6−3/4" PowerPulse*
MDC: VG67
MEA: 373
MDI: 1841
MVC: 114
23.23
D&I
MVC
ROP TF
18.87
18.22
14.23
6−3/4" GeoVISION*
DHS: V6.2B01
S/N: 41373
Shallow
Medium
Deep
Ring Res
R−O port
GR
13.26
13.14
12.96
12.79
12.65
12.43
14.74
FS
S/N: S58834
11.23
7" PowerPak* Motor
S/N: 0738
10.40
Bit Res
0.04
0.00
8−1/2" PDC Bit
S/N: 216813
0.33
Maximum string dia
All lengths ir

Bit Run Summary

Run number		1	2	3	4	5
Bit size	mm.	311	216	216	216	216
Bit start depth	m	279.00	907.00	1998.00	2116.00	2700.00
Bit end depth	m	907.00	1998.00	2116.00	2700.00	3074.00
Top interval logged	m	275.70	902.60	1963.47	2081.40	2666.00
Bottom interval logged	m	894.73	1963.47	2081.40	2666.00	3039.40
Begin log: time		22:00	18:30	17:23	11:30	07:00
Begin log: date		12−Mar−08	15−Mar−08	18−Mar−08	19−Mar−08	21−Mar−08
End log: time		15:15	08:00	10:15	06:00	23:00
End log: date		13−Mar−08	18−Mar−08	19−Mar−08	21−Mar−08	22−Mar−08
Mud data						
Depth	m	902.00	1994.00	2243.00	2700.00	3074.00
Type		WBM	WBM	WBM	WBM	WBM
Mud weight	SG	1.06	1.18	1.17	1.16	1.19
Solids	%	4.70	5.10	4.70	5.50	4.80
Chlorides	mg/l	47000	49000	47000	44000	46000
Rm	ohm.m@°C	0.0139@21	0.089@21.5	0.0962@20.8	0.0975@21.8	0.1043@20
Rmf	ohm.m@°C	0.0123@20.7	0.075@22.1	0.0832@20.5	0.084@21.2	0.0859@20.6
Rmc	ohm.m@°C	0.0152@21.1	0.118@22.3	0.1498@21.2	0.128@21.4	0.1384@21.4
Potassium	%	3.80	3.80	4.00	4.10	4.20
Environmental data						
GR						
Mud weight	SG	1.06	1.18	1.17	1.16	1.19
Bit size	mm.	311	216	216	216	216
Resistivity						
Neutron porosity						
Hole Size	mm.	311	216	216	216	216
Mud weight	SG	1.06	1.18	1.17	1.16	1.19
Temperature	°C	32.2	49.41	48.63	58.82	61.96
Mud salinity	ppk	N/A	71.30	75.88	71.15	74.30
Formation salinity						
Recording rate 1	SEC	10 (GVR)	5 (GVR)	5 (GVR)	5 (GVR)	5 (GVR)
Recording rate 2	SEC	n/a	5 (ADN)	5 (ADN)	5 (ADN)	5 (ADN)
Filtering GR		3 pts	3 pts	3 pts	3 pts	3 pts
Filtering density		N/A	3 pts	3 pts	3 pts	3 pts
Filtering Neutron		N/A	3 pts	3 pts	3 pts	3 pts
Company representative		Mark Pinson	Rocco Russo	Peter Sheenan		
Schlumberger D&M Personnel		A. Kohli	C. Hibberson	B. Low		

Variable Name	Variable Description	Run Name & Value			
	Run Number		1	2	3
	General Information				
BHT_RM	Bottom Hole Temperature (RM)	DEGC	51.000	58.000	58.000
BSAL_RM	Mud Salinity (RM)	PPK	0.000	72.50	74.301
BS_RM	Bit Size (RM)	IN	12.250	8.500	8.500
COEF_M	User Defined FEXP in Clean Sand	----	1.650	1.650	1.650
C_WS	Overpressure correction to Sw and M	----	1.000	1.000	1.000
FEXP	Formation Factor Exponent(RM)	----	2.000	2.000	2.000
FNUM	Formation Factor Enumerator(RM)	----	1.000	1.000	1.000
FPHI_RM	Formation Factor Porosity Source (RM)	----	XPLOT	XPLOT	XPLOT
MST_RM	Mud Sample temperature (RM)	DEGC	23.889	22.100	20.800
MW_RM	Mud Weight (RM)	LB/G	8.860	9.830	9.750
OBMF_RM	Oil Based Mud (RM)	----	NO	NO	NO
RHOF_RM	Mud Filtrate Density (RM)	G/C3	1.000	1.000	1.000
RHOM_RM	Matrix density (RM)	G/C3	2.710	2.710	2.710
RMS_RM	Resistivity of Mud Sample (RM)	OHMM	0.138	0.089	0.096
RWA_COMP_M	Rwa computation model				
RWA_DEN_AD	Rwa Density Input ADN				
RWA_DEN_CD	Rwa Density Input CDN				
RWA_DEN_IN	Rwa Density Input				
RWA_FORM_M	Rwa computation formation model				
RWA_RES_IN	Rwa computation resistivity input				

RWA_RES_IN	Rwa computation resistivity input				
RWS_RM	Resistivity of Connate Water (RM)	OHMM	1.000	1.000	1.000
SHT_RM	Ground Level Temperature (Mud−Line When Offshore)	DEGC	10.000	10.000	10.000
TD_RM	Total Measured Depth (RM)	M	907.000	3048.000	2116.000
TWS_RM	Temperature of Connate Water (RM)	DEGC	23.889	23.889	23.889
VF_ILLI	Fraction of illite in shales	----	0.500	0.500	0.500
VF_KAOL	Fraction of kaolinite in shales	----	0.500	0.500	0.500
VF_MONT	Fraction of montmorillonite in shales	----	0.000	0.000	0.000
XPDM_RM	Cross plot density porosity multiplier	----	0.675	0.675	0.675
XPNM_RM	Cross plot neutron porosity multiplier	----	0.325	0.325	0.325

RAB

RAB/BTN_SLV_SIZE/PARAMETE	IN -- RAB: Button Sleeve Diameter	IN	11.875	8.125	8.125
RAB/STAB_SIZE/PARAMETER	RAB: Stabilizer Diameter	IN	12−12.25	8.25−8.5	8.25−8.5
BDBHCA	RAB: Button Deep Borehole A Factor	----	−0.035	0.004	0.004
BDBHCB	RAB: Button Deep Borehole B Factor	----	−0.019	0.000	0.000
BHA_COEF_VER	RAB: BHA Coef Generator Version	----	2.000	62011.000	2.000
BITBHCA	RAB: Bit A Borehole Factor	----	0.099	0.058	0.058
BITBHCB	RAB: Bit B Borehole Factor	----	−0.074	0.000	0.000
BIT_K_FACTOR	RAB: Bit K Factor	----	15.212	15.168	15.227
BMBHCA	RAB: Button Medium Borehole A Factor	----	0.006	0.023	0.023
BMBHCB	RAB: Button Medium Borehole B Factor	----	−0.020	0.000	0.000
BSBHCA	RAB: Button Shallow Borehole A Factor	----	−0.009	0.022	0.023
BSBHCB	RAB: Button Shallow Borehole B Factor	----	−0.036	0.000	0.000
BUT_KIMP_A	RAB: Button Impedance Coeff A	----	0.002	0.000	0.000
BUT_KIMP_B	RAB: Button Impedance Coeff B	----	0.000	0.000	0.000
DBUTTON_K_FACTO	RAB: Button Deep K factor	----	0.003	0.005	0.005
DHS_VERSION	RAB: DownHole Software Version	----	−999.250	6.200	−999.250
GR_BHC_TOOLSIZE	RAB: Gamma−Ray Borehole Coeff 1	----	8.250	6.750	6.750
HI_CSDEPTH_OUT	RAB: Allow Hi−Resolution CS_DEPTH Image Data Output	----	NO	NO	NO
HI_DLIS_OUT	RAB: Allow Hi−Resolution DLIS Image Data Output	----	NO	NO	NO
HI_RIVER_OUT	RAB: Allow Hi−Resolution River for Image Data Output	----	NO	NO	NO
IMAGE_MAX_GR	RAB: GR Image Maximum Scale Value	GAPI	120.000	120.000	120.000
IMAGE_MAX_RES	RAB: Image Maximum Resistivity Value	OHMM	100.000	100.000	100.000
IMAGE_MIN_GR	RAB: GR Image Minimum Scale Value	GAPI	20.000	20.000	20.000
IMAGE_MIN_RES	RAB: Image Minimum Resistivity Value	OHMM	1.000	1.000	1.000
JSD_RAB	RAB Acquisition start date	OHMM	1.000	1.000	1.000
KPER	Potassium Concentration (RM)	----	4.800	3.800	4.100
MAG_DECL_RAB	RAB: Magnetic Declination	DEG	13.340	13.340	13.340
MAG_INCL_RAB	RAB: Magnetic Dip	DEG	−69.110	−69.110	−69.110
MBUTTON_K_FACTO	RAB: Button Medium K Factor	----	0.004	0.005	0.005
OBM	RAB: Oil base Mud	----	NO	NO	NO
ORIENTATION_RM	Rab Image Orientation	----	TOH	TOH	TOH
RABBDA0	RAB: Button Deep A0 Coeff	----	−0.121	−0.052	−0.052
RABBDA1	RAB: Button Deep A1 Coeff	----	0.112	0.021	0.021
RABBDA2	RAB: Button Deep A2 Coeff	----	−0.049	−0.005	−0.005
RABBDA3	RAB: Button Deep A3 Coeff	----	0.010	0.000	0.000
RABBDA4	RAB: Button Deep A4 Coeff	----	−0.001	−0.000	−0.000
RABBDA5	**RAB: Button Deep A5 Coeff**	**----**	**0.000**	**0.000**	**0.000**
RABBDMIN	RAB: Button Deep Minimum Value	----	0.038	0.051	0.051
RABBITA0	RAB: Bit A0 Coeff	----	4.394	4.095	4.118
RABBITA1	RAB: Bit A1 Coeff	----	−13.106	−3.547	−3.483
RABBITA2	RAB: Bit A2 Coeff	----	36.626	12.345	12.438
RABBITA3	RAB: Bit A3 Coeff	----	−43.327	−15.241	−15.565
RABBITA4	RAB: Bit A4 Coeff	----	24.302	6.786	6.978
RABBITA5	RAB: Bit A5 Coeff	----	−5.275	0.000	0.000
RABBITMIN	RAB: Bit Minimum Value	----	22.433	21.118	21.119
RABBMA0	RAB: Button Medium A0 Coeff	----	−0.120	−0.062	−0.062
RABBMA1	RAB: Button Medium A1 Coeff	----	0.104	0.027	0.027
RABBMA2	RAB: Button Medium A2 Coeff	----	−0.044	−0.006	−0.006
RABBMA3	RAB: Button Medium A3 Coeff	----	0.009	0.001	0.001
RABBMA4	RAB: Button Medium A4 Coeff	----	−0.001	−0.000	−0.000
RABBMA5	RAB: Button Medium A5 Coeff	----	0.000	0.000	0.000
RABBMMIN	RAB: Button Medium Minimum Value	----	0.041	0.060	0.060
RABBSA0	RAB: Button Shallow A0 Coeff	----	−0.127	−0.074	−0.074
RABBSA1	RAB: Button Shallow A1 Coeff	----	0.103	0.031	0.032
RABBSA2	RAB: Button Shallow A2 Coeff	----	−0.042	−0.007	−0.007
RABBSA3	RAB: Button Shallow A3 Coeff	----	0.008	0.001	0.001
RABBSA4	RAB: Button Shallow A4 Coeff	----	−0.001	−0.000	−0.000
RABBSA5	RAB: Button Shallow A5 Coeff	----	0.000	0.000	0.000
RABBSMIN	RAB: Button Shallow Minimum Value	----	0.055	0.086	0.086
RABDHS	RAB Down Hole Software	----	4.000	4.000	4.000
RABEC	RAB: Resistivity Env−Cor	----	YES	YES	YES
RABRNGA0	RAB: RING A0 Coeff	----	−0.118	−0.048	−0.048
RABRNGA1	RAB: RING A1 Coeff	----	0.113	0.019	0.019
RABRNGA2	RAB: RING A2 Coeff	----	−0.049	−0.004	−0.004
RABRNGA3	RAB: RING A3 Coeff	----	0.010	0.000	0.000
RABRNGA4	RAB: RING A4 Coeff	----	−0.001	−0.000	−0.000
RABRNGA5	RAB: RING A5 Coeff	----	0.000	0.000	0.000
RABRNGMIN	RAB: Ring Minimum Value	----	1.150	1.697	1.697
RAB_BIT_ECAL	Bit Resistivity for ECAL_RAB?	----	YES	YES	YES
RAB_BIT_INVERSI	Input Bit Resistivity for Inversion? (Recommended at the bit)		YES	YES	NO
RAB_CALIPER_CAL	Compute ECAL_RAB?	----	NO	NO	NO
RAB_DATA_FIX	RAB: Create A Corrected RAB Time Data File	----	NO	NO	NO
RAB_DATA_LTB	RAB: Create An RAB LTB Data File	----	NO	NO	NO
RAB_DEEPBTN_ECA	Deep Button Resistivity for ECAL_RAB?	----	YES	YES	YES
RAB_DEEPBTN_INV	Input Deep Button Resistivity for Inversion?	----	YES	YES	YES
RAB_INVERSION	Perform Rt Inversion?	----	NO	NO	NO
RAB_INVERSION_B	RAB Bit Sensor Weight for Inversion[0,1]	----	1.000	1.000	0.000
RAB_INVERSION_B	Ending Depth for GR Cutoff in Zone1 (default whole well)	M	30480.000	30480.000	30480.000
RAB_INVERSION_B	Ending Depth of Zone10	M	−304.571	−304.571	−304.571
RAB_INVERSION_B	Ending Depth of Zone2	M	−304.571	−304.571	−304.571
RAB_INVERSION_B	Ending Depth of Zone3	M	−304.571	−304.571	−304.571
RAB_INVERSION_B	Ending Depth of Zone4	M	−304.571	−304.571	−304.571
RAB_INVERSION_B	Ending Depth of Zone5	M	−304.571	−304.571	−304.571
RAB_INVERSION_B	Ending Depth of Zone6	M	−304.571	−304.571	−304.571

RAB_INVERSION_B	Ending Depth of Zone7	M	−304.571	−304.571	−304.571
RAB_INVERSION_B	Ending Depth of Zone8	M	−304.571	−304.571	−304.571
RAB_INVERSION_B	Ending Depth of Zone9	M	−304.571	−304.571	−304.571
RAB_INVERSION_C	Continuity Multiplier[0,1]	----	0.500	0.500	0.500
RAB_INVERSION_D	RAB Deep Button Sensor Weight for Inversion[0,1]	----	1.000	1.000	1.000
RAB_INVERSION_D	RAB inversion for Dh?	----	YES	YES	YES
RAB_INVERSION_D	RAB inversion for Di?	----	YES	YES	YES
RAB_INVERSION_G	GR Cutoff for Shale Formation	----	75.000	75.000	75.000
RAB_INVERSION_G	GR Cutoff for Shale Formation in Zone1(default whole well)	GAPI	75.000	75.000	75.000
RAB_INVERSION_G	GR Cutoff in Zone10	GAPI	75.000	75.000	75.000
RAB_INVERSION_G	GR Cutoff in Zone2	GAPI	75.000	75.000	75.000
RAB_INVERSION_G	GR Cutoff in Zone3	GAPI	75.000	75.000	75.000
RAB_INVERSION_G	GR Cutoff in Zone4	GAPI	75.000	75.000	75.000
RAB_INVERSION_G	GR Cutoff in Zone5	GAPI	75.000	75.000	75.000
RAB_INVERSION_G	GR Cutoff in Zone6	GAPI	75.000	75.000	75.000
RAB_INVERSION_G	GR Cutoff in Zone7	GAPI	75.000	75.000	75.000
RAB_INVERSION_G	GR Cutoff in Zone8	GAPI	75.000	75.000	75.000
RAB_INVERSION_G	GR Cutoff in Zone9	GAPI	75.000	75.000	75.000
RAB_INVERSION_M	RAB Medium Button Sensor Weight for Inversion[0,1]	----	1.000	1.000	1.000
RAB_INVERSION_R	Resistivity Cutoff for Shale Formation	OHMM	2.000	2.000	2.000
RAB_INVERSION_R	Resistive Invasion Allowed	----	NO	NO	NO
RAB_INVERSION_R	RAB Ring Sensor Weight for Inversion[0,1]	----	1.000	1.000	1.000
RAB_INVERSION_R	RAB inversion for Rmud?	----	NO	NO	NO
RAB_INVERSION_R	RAB inversion for Rt?	----	YES	YES	YES
RAB_INVERSION_R	Rt to R−deepest separation penalty multiplier[0,1]	----	0.500	0.500	0.500
RAB_INVERSION_R	RAB inversion for Rxo?	----	YES	YES	YES
RAB_INVERSION_S	GR of Clean Sand Formation	----	−999.250	−999.250	−999.250
RAB_INVERSION_S	GR of Shale Formation	----	−999.250	−999.250	−999.250
RAB_INVERSION_S	RAB Shallow Button Sensor Weight for Inversion[0,1]	----	1.000	1.000	1.000
RAB_INVERSION_T	Inversion Threshold[0, 0.3]	----	0.010	0.010	0.010
RAB_INVERSION_W	Formation Water Resistivity	OHMM	0.100	0.100	0.100
RAB_INVERSION_W	Formation Water Temperature	----	150.000	150.000	150.000
RAB_MEDIUMBTN_E	Medium Button Resistivity for ECAL_RAB?	----	YES	YES	YES
RAB_MEDIUMBTN_I	Input Medium Button Resistivity for Inversion?	----	YES	YES	YES
RAB_QUAD	RAB: Process Quadrant data ?	----	YES	YES	YES
RAB_RIGMODE_ECA	Bit on Bottom?	----	YES	YES	YES
RAB_RING_ECAL	Ring Resistivity for ECAL_RAB?	----	YES	YES	YES
RAB_RING_INVERS	Imput RING Resistivity for Inversion?	----	YES	YES	YES
RAB_SHALLOWBTN_	Shallow Button Resistivity for ECAL_RAB?	----	YES	YES	YES
RAB_SHALLOWBTN_	Input Shallow Button Resistivity for Inversion?	----	YES	YES	YES
RAB_TAB	RAB: Compute TAB ?	----	YES	YES	YES
RAB_TECHLOG	RAB: Generate Techlog ?	----	YES	YES	YES
RAB_TEMP_SELECT	RAB Temperature Selection	----	MEASURED	MEASURED	MEASURED
RAB_TICKS	RAB: Generate Ticks ?	----	YES	YES	YES
READOUT_PORT_MP	RAB: ROP to Bit Face Distance	M	11.600	12.550	12.560
RINGBHCA	RAB: Ring Borehole A Factor	----	0.298	0.159	0.160
RINGBHCB	RAB: Ring Borehole B Factor	----	−0.112	0.000	0.000
RING_KIMP_A	RAB: Ring Impedance Coeff A	----	0.000	0.000	0.000
RING_KIMP_B	RAB: Ring Impedance Coeff B	----	0.000	0.000	0.000
RING_K_FACTOR	RAB: Ring K Factor	----	0.101	0.153	0.153
RSD	LWD run start date dd−mmm−yy	OHMM	0.138	0.089	0.096
RWA_COMP_MOD	Rwa computation model	----	BASIC	BASIC	BASIC
RWA_DEN_ADN	Rwa Density Input	----	RHOB	RHOB	RHOB
RWA_DEN_CDN	Rwa Density Input	----	RHOB	RHOB	RHOB
RWA_DEN_INPUT	Rwa Density Input	----	RHOB	RHOB	RHOB
RWA_FORM_MOD	Rwa computation formation model	----	CLASTIC	CLASTIC	CLASTIC
RWA_RES_INPUT	Rwa computation resistivity input	----	RT	RT	RT
SBUTTON_K_FACTO	RAB: Button Shallow K Factor	----	0.005	0.007	0.007
SCALE_IMAGES	RAB: Process Image Data	----	YES	YES	YES
STAB	RAB: Run with Stabilizer	----	YES	YES	YES
TFF_OFFSET_RAB	RAB Time−Frame File Time Offset	S	0.000	0.000	0.000
TIMEFRAME_FILE_	RAB: Time Frame File Name	S	0.000	0.000	0.000
TOOLTYPE	RAB: Azimuthal Tool	----	YES	YES	YES
TS_VERSION	RAB: ToolScope Software Version	----	−999.250	0.000	−999.250
VRAB6	Rab Tool type (ENP/PILOT)	----	RAB8_ENP	RAB6_C_SERIES	RAB6_C_SERIES
WIN_SIZE_DYN_IM	RAB: Window Size for Scaling Dynamic Image	M	0.914	0.914	0.914
WRK	to Report Potassium Concentration (RM)	----	K_by_Wgt_%	K_by_Wgt_%	K_by_Wgt_%

	ADN				
ADN_CHASSIS_STR	ADN Chassis Type String	----	----	ADN	ADN
ADN_COLLAR_STR	ADN Collar Type String	----	----	ADN	ADN
ADN_DATA_FIX	ADN: Create A Corrected ADN Time Data File	----	----	NO	NO
ADN_DATA_LTB	ADN: Create An ADN LTB Data File	----	----	NO	NO
ADN_STAB_STR	ADN Stabilizer Type String	----	----	NO	NO
ALPHA_COMPUTE_D	Perform Density Enhanced Vertical Resolution process ?	----	----	NO	NO
ALPHA_COMPUTE_N	Perform Neutron Enhanced Vertical Resolution process ?	----	----	NO	NO
AVE_ADN	ADN/Array Channels: perform averaging(RM) :	----	----	YES	YES
A_DHS	ADN Down Hole Software Version String	----	----	YES	YES
CHI_RM	Caliper High limit from BS (RM)	IN	----	3.000	3.000
CLO_RM	Caliper Low limit from BS (RM)	IN	----	0.000	0.000
DEVI	Well Section Deviation	DEG	----	0.004	0.004
DTIK_SEL	ADN: Density Tick Channel Name	----	----	LSAZ	LSAZ
DTMUD	Delta−T for Mud	US/F	----	168.000	168.000
DYN_IMG_COMPUTE	Generate Dynamic Normalized Image?	----	----	NO	NO
ECC_CORR_ADN	Perform Eccentering Correction for TNPH?	----	----	YES	YES
ENVCOR	Neutron Processing: Environmental Correction?	----	----	YES	YES
EVRL	EVR Process averaging number of samples (RM)	----	----	49	49
FCD	Future Casing (Outer) Diameter	IN	----	0.000	0.000
GCSE	Generalized Caliper Selection	----	----	BS	BS
HPS	ADSE−EB (High Pressure Inconel Chassis)?	----	----	NO	NO
IBS	Intergal Blade Stabilizer Collar?	----	----	YES	NO
IDQT	Image Derived Quality Threshold	----	----	1.000	1.000
IHVS	Integrated Hole Volume Start Value(RM)	F3	----	0.000	0.000
IMAGE_MAX_SOA	Image SOA (Quadrant) Right Scale	IN	----	2.500	2.500
IMAGE_MAX_SPEF	Image PEF(Segment) Right Scale	----	----	6.000	6.000
IMAGE_MAX_SRHOB	Image RHOB(Segment) Right Scale	G/C3	----	2.650	2.650

IMAGE_MIN_SOA	Image SOA (Quadrant) Left Scale	IN	----	0.000	0.000	
IMAGE_MIN_SPEF	Image PEF(Segment) Left Scale	----	----	2.000	2.000	
IMAGE_MIN_SRHOB	Image RHOB(Segment) Left Scale	G/C3	----	2.050	2.050	
JSD_ADN	ADN Acquisition start date	G/C3	----	2.050	2.050	
LITHO_TYPE_ADN	Lithology (RM)	----	----	LIME	LIME	
N1FTU_6_RM	ADN: Neutron Bank 1 Far Tubes used :	----	----	1-2-3	1-2-3	
N2FTU_6_RM	ADN: Neutron Bank 2 Far Tubes used :	----	----	1-2-3	1-2-3	
NNTU_RM	ADN Neutron Near Banks Used	----	----	1-2	1-2	
NTIK_SEL	ADN: Neutron Tick Channel Name	----	----	FR11	FR11	
SOCNL	Standoff Distance of the CNL Tool	----	----	1.000	1.000	
SSIZ_ADN	ADN Stabilizer Size	IN	----	8.125	8.125	
STOH	ADN Density Top of Hole Sector (Left Boundary):	----	----	SECTOR_0	SECTOR_0	
TRPM_RM	Average Tool Rotational Speed	RPM	----	20.000	20.000	
USMIN_RM	ADN:Minimum Ultrasonic standoff (RM)	IN	----	0.180	0.180	
USWF_RM	ADN:Process Ultrasonic Waveform?	----	----	YES	YES	
VERS_ADN	ADN Downhole Software Version	----	----	8.300	8.300	
WSDI	Window Size of Dynamic Normalization Image	M	M	4.572	4.572	
RAB/BTN_SLV_SIZE/PARAMETE	IN --- RAB: Button Sleeve Diameter	IN	11.875	8.125	8.125	

Run Number		4	5
General Information			
BHT_RM	Bottom Hole Temperature (RM)	DEGC	62.000	62.000
BSAL_RM	Mud Salinity (RM)	PPK	74.301	74.301
BS_RM	Bit Size (RM)	IN	8.500	8.500
COEF_M	User Defined FEXP in Clean Sand	----	1.650	1.650
C_WS	Overpressure correction to Sw and M	----	1.000	1.000
FEXP	Formation Factor Exponent(RM)	----	2.000	2.000
FNUM	Formation Factor Enumerator(RM)	----	1.000	1.000
FPHI_RM	Formation Factor Porosity Source (RM)	----	XPLOT	XPLOT
MST_RM	Mud Sample temperature (RM)	DEGC	21.800	20.100
MW_RM	Mud Weight (RM)	LB/G	9.750	9.920
OBMF_RM	Oil Based Mud (RM)	----	NO	NO
RHOF_RM	Mud Filtrate Density (RM)	G/C3	1.000	1.000
RHOM_RM	Matrix density (RM)	G/C3	2.710	2.710
RMS_RM	Resistivity of Mud Sample (RM)	OHMM	0.097	0.104
RWA_COMP_M	Rwa computation model			
RWA_DEN_AD	Rwa Density Input ADN			
RWA_DEN_CD	Rwa Density Input CDN			
RWA_DEN_IN	Rwa Density Input			
RWA_FORM_M	Rwa computation formation model			
RWA_RES_IN	Rwa computation resistivity input			
RWS_RM	Resistivity of Connate Water (RM)	OHMM	1.000	1.000
SHT_RM	Ground Level Temperature (Mud-Line When Offshore) (RM)	DEGC	10.000	10.000
TD_RM	Total Measured Depth (RM)	M	2700.000	3074.000
TWS_RM	Temperature of Connate Water (RM)	DEGC	23.889	23.889
VF_ILLI	Fraction of illite in shales	----	0.500	0.500
VF_KAOL	Fraction of kaolinite in shales	----	0.500	0.500
VF_MONT	Fraction of montmorillonite in shales	----	0.000	0.000
XPDM_RM	Cross plot density porosity multiplier	----	0.675	0.675
XPNM_RM	Cross plot neutron porosity multiplier	----	0.325	0.325
ADN				
ADN_CHASSIS_STR	ADN Chassis Type String	ADN	ADN	
ADN_COLLAR_STR	ADN Collar Type String	ADN	ADN	
ADN_DATA_FIX	ADN: Create A Corrected ADN Time Data File	----	NO	NO
ADN_DATA_LTB	ADN: Create An ADN LTB Data File	----	NO	NO
ADN_STAB_STR	ADN Stabilizer Type String	----	NO	NO
ALPHA_COMPUTE_D	Perform Density Enhanced Vertical Resolution process ?	----	NO	NO
ALPHA_COMPUTE_N	Perform Neutron Enhanced Vertical Resolution process ?	----	NO	NO
AVE_ADN	ADN/Array Channels: perform averaging(RM) :	----	YES	YES
A_DHS	ADN Down Hole Software Version String	----	YES	YES
CHI_RM	Caliper High limit from BS (RM)	IN	3.000	3.000
CLO_RM	Caliper Low limit from BS (RM)	IN	0.000	0.000
DEVI	Well Section Deviation	DEG	0.004	0.014
DTIK_SEL	ADN: Density Tick Channel Name	----	LSAZ	LSAZ
DTMUD	Delta-T for Mud	US/F	168.000	144.890
DYN_IMG_COMPUTE	Generate Dynamic Normalized Image?	----	NO	NO
ECC_CORR_ADN	Perform Eccentering Correction for TNPH?	----	YES	YES
ENVCOR	Neutron Processing: Environmental Correction?	----	YES	YES
EVRL	EVR Process averaging number of samples (RM)	----	49	49
FCD	Future Casing (Outer) Diameter	IN	0.000	0.000
GCSE	Generalized Caliper Selection	----	BS	BS
HPS	ADSE-EB (High Pressure Inconel Chassis)?	----	NO	NO
IBS	Intergal Blade Stabilizer Collar?	----	NO	NO
IDQT	Image Derived Quality Threshold	----	1.000	1.000
IHVS	Integrated Hole Volume Start Value(RM)	F3	0.000	0.000
IMAGE_MAX_SOA	Image SOA (Quadrant) Right Scale	IN	2.500	2.500
IMAGE_MAX_SPEF	Image PEF(Segment) Right Scale	----	6.000	6.000
IMAGE_MAX_SRHOB	Image RHOB(Segment) Right Scale	G/C3	2.650	2.650
IMAGE_MIN_SOA	Image SOA (Quadrant) Left Scale	IN	0.000	0.000
IMAGE_MIN_SPEF	Image PEF(Segment) Left Scale	----	2.000	2.000
IMAGE_MIN_SRHOB	Image RHOB(Segment) Left Scale	G/C3	2.050	2.050
JSD_ADN	ADN Acquisition start date	G/C3	2.050	2.050
LITHO_TYPE_ADN	Lithology (RM)	----	LIME	LIME
N1FTU_6_RM	ADN: Neutron Bank 1 Far Tubes used :	----	1-2-3	1-2-3
N2FTU_6_RM	ADN: Neutron Bank 2 Far Tubes used :	----	1-2-3	1-2-3
NNTU_RM	ADN Neutron Near Banks Used	----	1-2	1-2
NTIK_SEL	ADN: Neutron Tick Channel Name	----	FR11	FR11
RSD	LWD run start date dd-mmm-yy	OHMM	0.097	0.104
RWA_COMP_MOD	Rwa computation model	----	BASIC	BASIC
RWA_DEN_ADN	Rwa Density Input	----	RHOB	RHOB
RWA_DEN_CDN	Rwa Density Input	----	RHOB	RHOB
RWA_DEN_INPUT	Rwa Density Input	----	RHOB	RHOB

RWA_DEN_INPUT	Rwa Density Input	----	RHOB	RHOB
RWA_FORM_MOD	Rwa computation formation model	----	CLASTIC	CLASTIC
RWA_RES_INPUT	Rwa computation resistivity input	----	RT	RT
SOCNL	Standoff Distance of the CNL Tool	----	1.000	1.000
SSIZ_ADN	ADN Stabilizer Size	IN	8.125	8.125
STOH	ADN Density Top of Hole Sector (Left Boundary):	----	SECTOR_0	SECTOR_0
TRPM_RM	Average Tool Rotational Speed	RPM	20.000	20.000
USMIN_RM	ADN:Minimum Ultrasonic standoff (RM)	IN	0.180	0.180
USWF_RM	ADN:Process Ultrasonic Waveform?	----	YES	YES
VERS_ADN	ADN Downhole Software Version	----	8.300	8.300
WSDI	Window Size of Dynamic Normalization Image	M	4.572	4.572

RAB

RAB/BTN_SLV_SIZE/PARAMETE	IN --- RAB: Button Sleeve Diameter	IN	8.125	8.125
RAB/STAB_SIZE/PARAMETER	RAB: Stabilizer Diameter	IN	8.25-8.5	8.25-8.5
BDBHCA	RAB: Button Deep Borehole A Factor	----	0.004	0.004
BDBHCB	RAB: Button Deep Borehole B Factor	----	0.000	0.000
BHA_COEF_VER	RAB: BHA Coef Generator Version	----	2.000	2.000
BITBHCA	RAB: Bit A Borehole Factor	----	0.058	0.058
BITBHCB	RAB: Bit B Borehole Factor	----	0.000	0.000
BIT_K_FACTOR	RAB: Bit K Factor	----	15.227	15.311
BMBHCA	RAB: Button Medium Borehole A Factor	----	0.023	0.023
BMBHCB	RAB: Button Medium Borehole B Factor	----	0.000	0.000
BSBHCA	RAB: Button Shallow Borehole A Factor	----	0.023	0.023
BSBHCB	RAB: Button Shallow Borehole B Factor	----	0.000	0.000
BUT_KIMP_A	RAB: Button Impedance Coeff A	----	0.000	0.000
BUT_KIMP_B	RAB: Button Impedance Coeff B	----	0.000	0.000
DBUTTON_K_FACTO	RAB: Button Deep K factor	----	0.005	0.005
DHS_VERSION	RAB: DownHole Software Version	----	-999.250	-999.250
GR_BHC_TOOLSIZE	RAB: Gamma-Ray Borehole Coeff 1	----	6.750	6.750
HI_CSDEPTH_OUT	RAB: Allow Hi-Resolution CS_DEPTH Image Data Output	----	NO	NO
HI_DLIS_OUT	RAB: Allow Hi-Resolution DLIS Image Data Output	----	NO	NO
HI_RIVER_OUT	RAB: Allow Hi-Resolution River for Image Data Output	----	NO	NO
IMAGE_MAX_GR	RAB: GR Image Maximum Scale Value	GAPI	120.000	120.000
IMAGE_MAX_RES	RAB: Image Maximum Resistivity Value	OHMM	100.000	100.000
IMAGE_MIN_GR	RAB: GR Image Minimum Scale Value	GAPI	20.000	20.000
IMAGE_MIN_RES	RAB: Image Minimum Resistivity Value	OHMM	1.000	1.000
JSD_RAB	RAB Acquisition start date	OHMM	1.000	1.000
KPER	Potassium Concentration (RM)	----	3.800	4.100
MAG_DECL_RAB	RAB: Magnetic Declination	DEG	13.340	13.340
MAG_INCL_RAB	RAB: Magnetic Dip	DEG	-69.110	-69.110
MBUTTON_K_FACTO	RAB: Button Medium K Factor	----	0.005	0.005
OBM	RAB: Oil base Mud	----	NO	NO
ORIENTATION_RM	Rab Image Orientation	----	TOH	TOH
RABBDA0	RAB: Button Deep A0 Coeff	----	-0.052	-0.052
RABBDA1	RAB: Button Deep A1 Coeff	----	0.021	0.021
RABBDA2	RAB: Button Deep A2 Coeff	----	-0.005	-0.005
RABBDA3	RAB: Button Deep A3 Coeff	----	0.000	0.000
RABBDA4	**RAB: Button Deep A4 Coeff**	**----**	**-0.000**	**-0.000**
RABBDA5	RAB: Button Deep A5 Coeff	----	0.000	0.000
RABBDMIN	RAB: Button Deep Minimum Value	----	0.051	0.051
RABBITA0	RAB: Bit A0 Coeff	----	4.118	4.151
RABBITA1	RAB: Bit A1 Coeff	----	-3.483	-3.391
RABBITA2	RAB: Bit A2 Coeff	----	12.438	12.570
RABBITA3	RAB: Bit A3 Coeff	----	-15.565	-16.026
RABBITA4	RAB: Bit A4 Coeff	----	6.978	7.250
RABBITA5	RAB: Bit A5 Coeff	----	0.000	0.000
RABBITMIN	RAB: Bit Minimum Value	----	21.119	21.119
RABBMA0	RAB: Button Medium A0 Coeff	----	-0.062	-0.062
RABBMA1	RAB: Button Medium A1 Coeff	----	0.027	0.027
RABBMA2	RAB: Button Medium A2 Coeff	----	-0.006	-0.006
RABBMA3	RAB: Button Medium A3 Coeff	----	0.001	0.001
RABBMA4	RAB: Button Medium A4 Coeff	----	-0.000	-0.000
RABBMA5	RAB: Button Medium A5 Coeff	----	0.000	0.000
RABBMMIN	RAB: Button Medium Minimum Value	----	0.060	0.060
RABBSA0	RAB: Button Shallow A0 Coeff	----	-0.074	-0.074
RABBSA1	RAB: Button Shallow A1 Coeff	----	0.032	0.032
RABBSA2	RAB: Button Shallow A2 Coeff	----	-0.007	-0.007
RABBSA3	RAB: Button Shallow A3 Coeff	----	0.001	0.001
RABBSA4	RAB: Button Shallow A4 Coeff	----	-0.000	-0.000
RABBSA5	RAB: Button Shallow A5 Coeff	----	0.000	0.000
RABBSMIN	RAB: Button Shallow Minimum Value	----	0.086	0.086
RABDHS	RAB Down Hole Software	----	4.000	4.000
RABEC	RAB: Resistivity Env-Cor	----	YES	YES
RABRNGA0	RAB: RING A0 Coeff	----	-0.048	-0.048
RABRNGA1	RAB: RING A1 Coeff	----	0.019	0.020
RABRNGA2	RAB: RING A2 Coeff	----	-0.004	-0.004
RABRNGA3	RAB: RING A3 Coeff	----	0.000	0.000
RABRNGA4	RAB: RING A4 Coeff	----	-0.000	-0.000
RABRNGA5	RAB: RING A5 Coeff	----	0.000	0.000
RABRNGMIN	RAB: Ring Minimum Value	----	1.697	1.697
RAB_BIT_ECAL	Bit Resistivity for ECAL_RAB?	----	YES	YES
RAB_BIT_INVERSI	Input Bit Resistivity for Inversion? (Recommended at the bit)	----	NO	YES
RAB_CALIPER_CAL	Compute ECAL_RAB?	----	NO	NO
RAB_DATA_FIX	RAB: Create A Corrected RAB Time Data File	----	NO	NO
RAB_DATA_LTB	RAB: Create An RAB LTB Data File	----	NO	NO
RAB_DEEPBTN_ECA	Deep Button Resistivity for ECAL_RAB?	----	YES	YES
RAB_DEEPBTN_INV	Input Deep Button Resistivity for Inversion?	----	YES	YES
RAB_INVERSION	Perform Rt Inversion?	----	NO	NO
RAB_INVERSION_B	RAB Bit Sensor Weight for Inversion[0,1]	----	0.000	1.000
RAB_INVERSION_B	Ending Depth for GR Cutoff in Zone1 (default whole well)	M	30480.000	30480.000
RAB_INVERSION_B	Ending Depth of Zone10	M	-304.571	-304.571
RAB_INVERSION_B	Ending Depth of Zone2	M	-304.571	-304.571
RAB_INVERSION_B	Ending Depth of Zone3	M	-304.571	-304.571
RAB_INVERSION_B	Ending Depth of Zone4	M	-304.571	-304.571
RAB_INVERSION_B	Ending Depth of Zone5	M	-304.571	-304.571

RAB_INVERSION_B	Ending Depth of Zone6	M	−304.571	−304.571
RAB_INVERSION_B	Ending Depth of Zone7	M	−304.571	−304.571
RAB_INVERSION_B	Ending Depth of Zone8	M	−304.571	−304.571
RAB_INVERSION_B	Ending Depth of Zone9	M	−304.571	−304.571
RAB_INVERSION_C	Continuity Multiplier[0,1]	----	0.500	0.500
RAB_INVERSION_D	RAB Deep Button Sensor Weight for Inversion[0,1]	----	1.000	1.000
RAB_INVERSION_D	RAB inversion for Dh?	----	YES	YES
RAB_INVERSION_D	RAB inversion for Di?	----	YES	YES
RAB_INVERSION_G	GR Cutoff for Shale Formation	----	75.000	75.000
RAB_INVERSION_G	GR Cutoff for Shale Formation in Zone1(default whole well)	GAPI	75.000	75.000
RAB_INVERSION_G	GR Cutoff in Zone10	GAPI	75.000	75.000
RAB_INVERSION_G	GR Cutoff in Zone2	GAPI	75.000	75.000
RAB_INVERSION_G	GR Cutoff in Zone3	GAPI	75.000	75.000
RAB_INVERSION_G	GR Cutoff in Zone4	GAPI	75.000	75.000
RAB_INVERSION_G	GR Cutoff in Zone5	GAPI	75.000	75.000
RAB_INVERSION_G	GR Cutoff in Zone6	GAPI	75.000	75.000
RAB_INVERSION_G	GR Cutoff in Zone7	GAPI	75.000	75.000
RAB_INVERSION_G	GR Cutoff in Zone8	GAPI	75.000	75.000
RAB_INVERSION_G	GR Cutoff in Zone9	GAPI	75.000	75.000
RAB_INVERSION_M	RAB Medium Button Sensor Weight for Inversion[0,1]	----	1.000	1.000
RAB_INVERSION_R	Resistivity Cutoff for Shale Formation	OHMM	2.000	2.000
RAB_INVERSION_R	Resistive Invasion Allowed	----	NO	NO
RAB_INVERSION_R	RAB Ring Sensor Weight for Inversion[0,1]	----	1.000	1.000
RAB_INVERSION_R	RAB inversion for Rmud?	----	NO	NO
RAB_INVERSION_R	RAB inversion for Rt?	----	YES	YES
RAB_INVERSION_R	Rt to R−deepest separation penalty multiplier[0,1]	----	0.500	0.500
RAB_INVERSION_R	RAB inversion for Rxo?	----	YES	YES
RAB_INVERSION_S	GR of Clean Sand Formation	----	−999.250	−999.250
RAB_INVERSION_S	GR of Shale Formation	----	−999.250	−999.250
RAB_INVERSION_S	RAB Shallow Button Sensor Weight for Inversion[0,1]	----	1.000	1.000
RAB_INVERSION_T	Inversion Threshold[0, 0.3]	----	0.010	0.010
RAB_INVERSION_W	Formation Water Resistivity	OHMM	0.100	0.100
RAB_INVERSION_W	Formation Water Temperature	----	150.000	150.000
RAB_MEDIUMBTN_E	Medium Button Resistivity for ECAL_RAB?	----	YES	YES
RAB_MEDIUMBTN_I	Input Medium Button Resistivity for Inversion?	----	YES	YES
RAB_QUAD	RAB: Process Quadrant data ?	----	YES	YES
RAB_RIGMODE_ECA	Bit on Bottom?	----	YES	YES
RAB_RING_ECAL	Ring Resistivity for ECAL_RAB?	----	YES	YES
RAB_RING_INVERS	Imput RING Resistivity for Inversion?	----	YES	YES
RAB_SHALLOWBTN_	Shallow Button Resistivity for ECAL_RAB?	----	YES	YES
RAB_SHALLOWBTN_	Input Shallow Button Resistivity for Inversion?	----	YES	YES
RAB_TAB	RAB: Compute TAB ?	----	YES	YES
RAB_TECHLOG	RAB: Generate Techlog ?	----	YES	YES
RAB_TEMP_SELECT	RAB Temperature Selection	----	MEASURED	MEASURED
RAB_TICKS	RAB: Generate Ticks ?	----	YES	YES
READOUT_PORT_MP	RAB: ROP to Bit Face Distance	M	12.560	12.650
RINGBHCA	RAB: Ring Borehole A Factor	----	0.160	0.160
RINGBHCB	RAB: Ring Borehole B Factor	----	0.000	0.000
RING_KIMP_A	RAB: Ring Impedance Coeff A	----	0.000	0.000
RING_KIMP_B	RAB: Ring Impedance Coeff B	----	0.000	0.000
RING_K_FACTOR	RAB: Ring K Factor	----	0.153	0.153
SBUTTON_K_FACTO	RAB: Button Shallow K Factor	----	0.007	0.007
SCALE_IMAGES	RAB: Process Image Data	----	YES	YES
STAB	RAB: Run with Stabilizer	----	YES	YES
TFF_OFFSET_RAB	RAB Time−Frame File Time Offset	S	0.000	0.000
TIMEFRAME_FILE_	RAB: Time Frame File Name	S	0.000	0.000
TOOLTYPE	RAB: Azimuthal Tool	----	YES	YES
TS_VERSION	RAB: ToolScope Software Version	----	−999.250	−999.250
VRAB6	Rab Tool type (ENP/PILOT)	----	RAB6_C_SERIES	RAB6_C_SERIES
WIN_SIZE_DYN_IM	RAB: Window Size for Scaling Dynamic Image	M	0.914	0.914
WRK	to Report Potassium Concentration (RM)	----	K_by_Wgt_%	K_by_Wgt_%

Schlumberger Drilling & Measurements ID13 Parameter Insert Header Software version 3.0c

Coelacanth−1 GeoVISION Density Neutron RM 200MD

Format: GeoVISION Density Neutron Log **Vertical Scale: 1:200** **Graphics File Created: 26−Mar−2008 11:53**

PIP SUMMARY

Neutron Samples

Density Samples

Rate of Penetration, Averaged over Last 5ft (ROP5_RM)

200 (M/HR) 0

RAB Gamma Ray (GR_RAB)

0 (GAPI) 200

ROP*5 (ROP5)

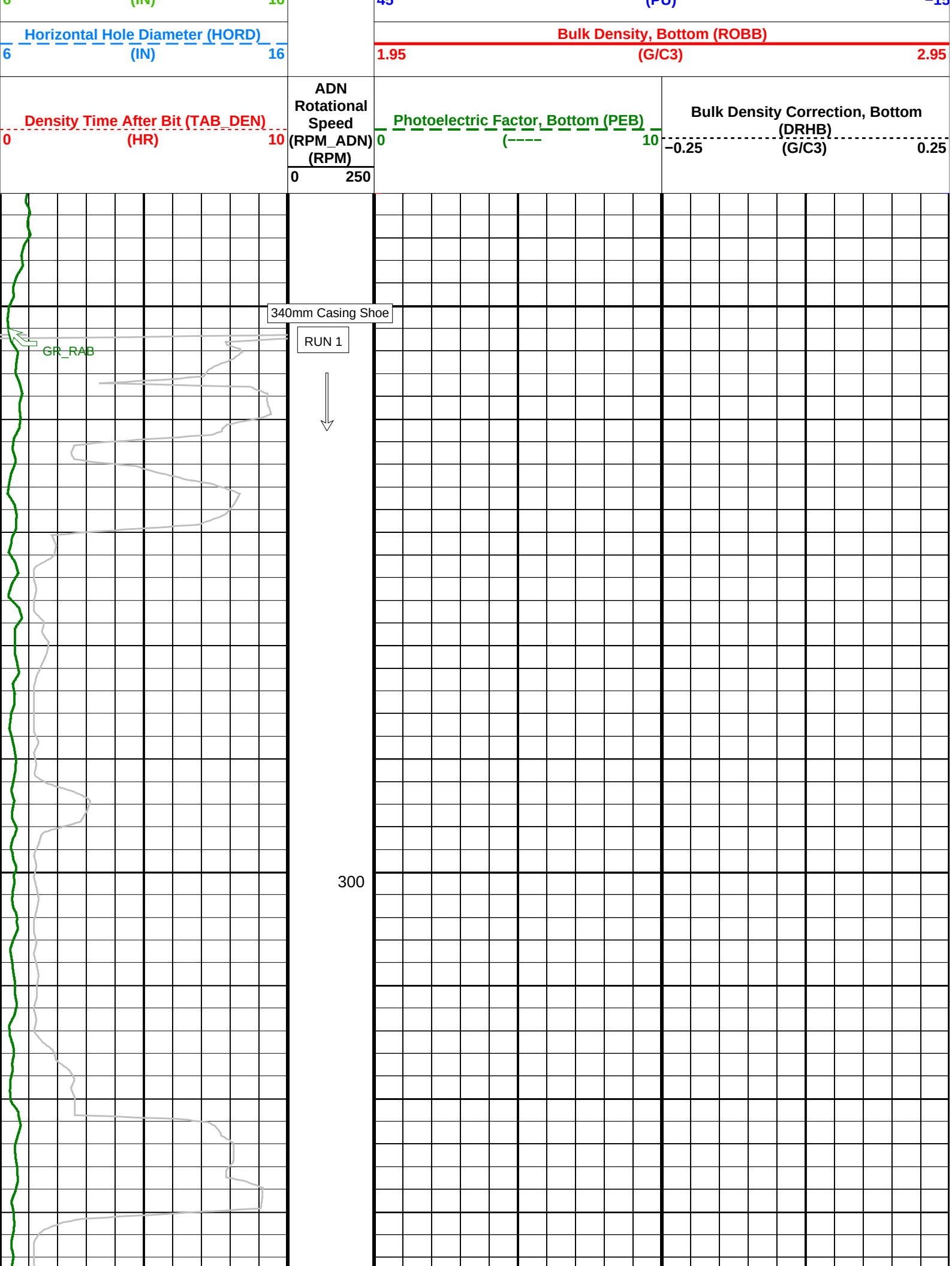
200 (M/HR) 0

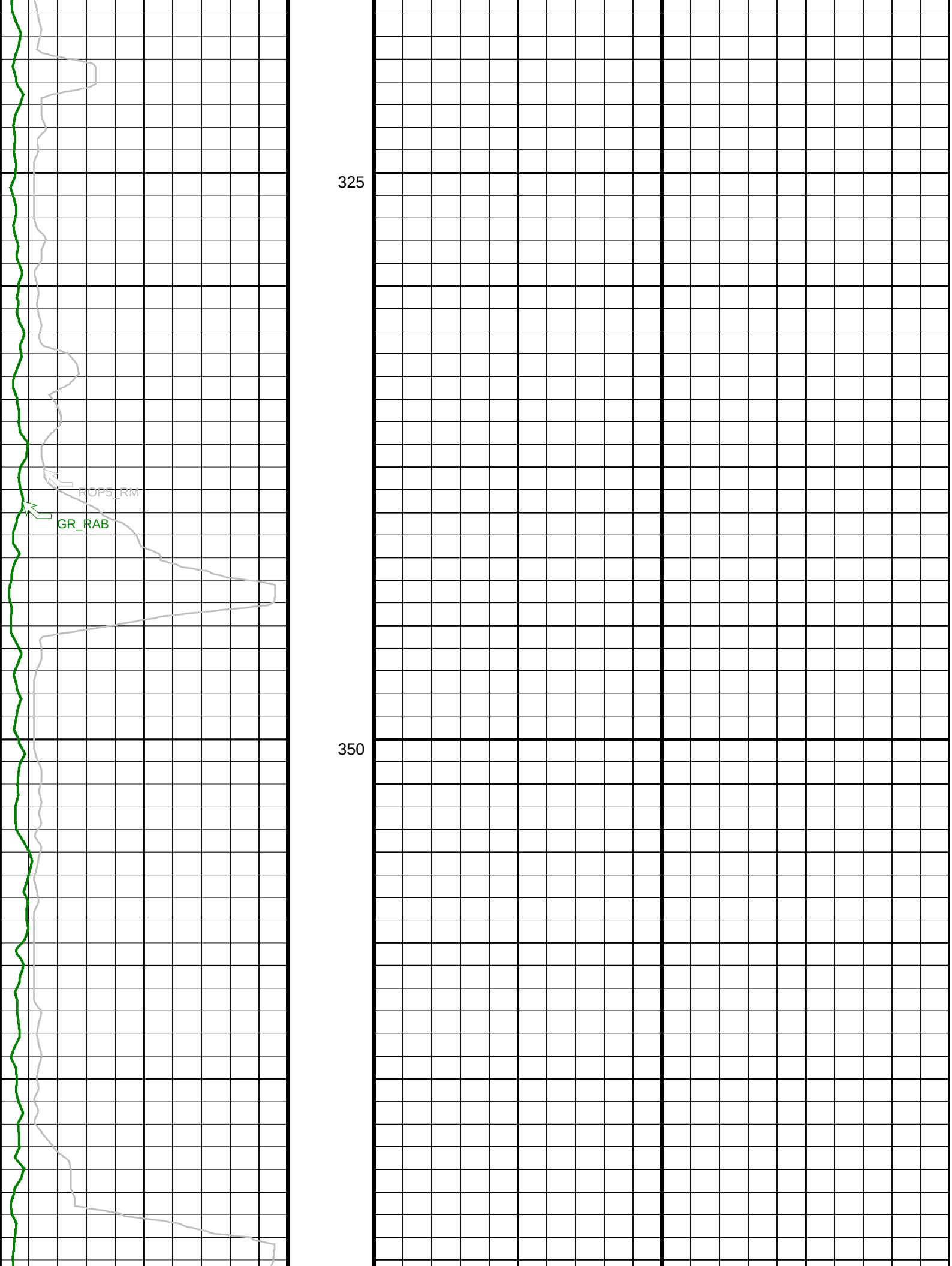
Vertical Hole Diameter (VERD)

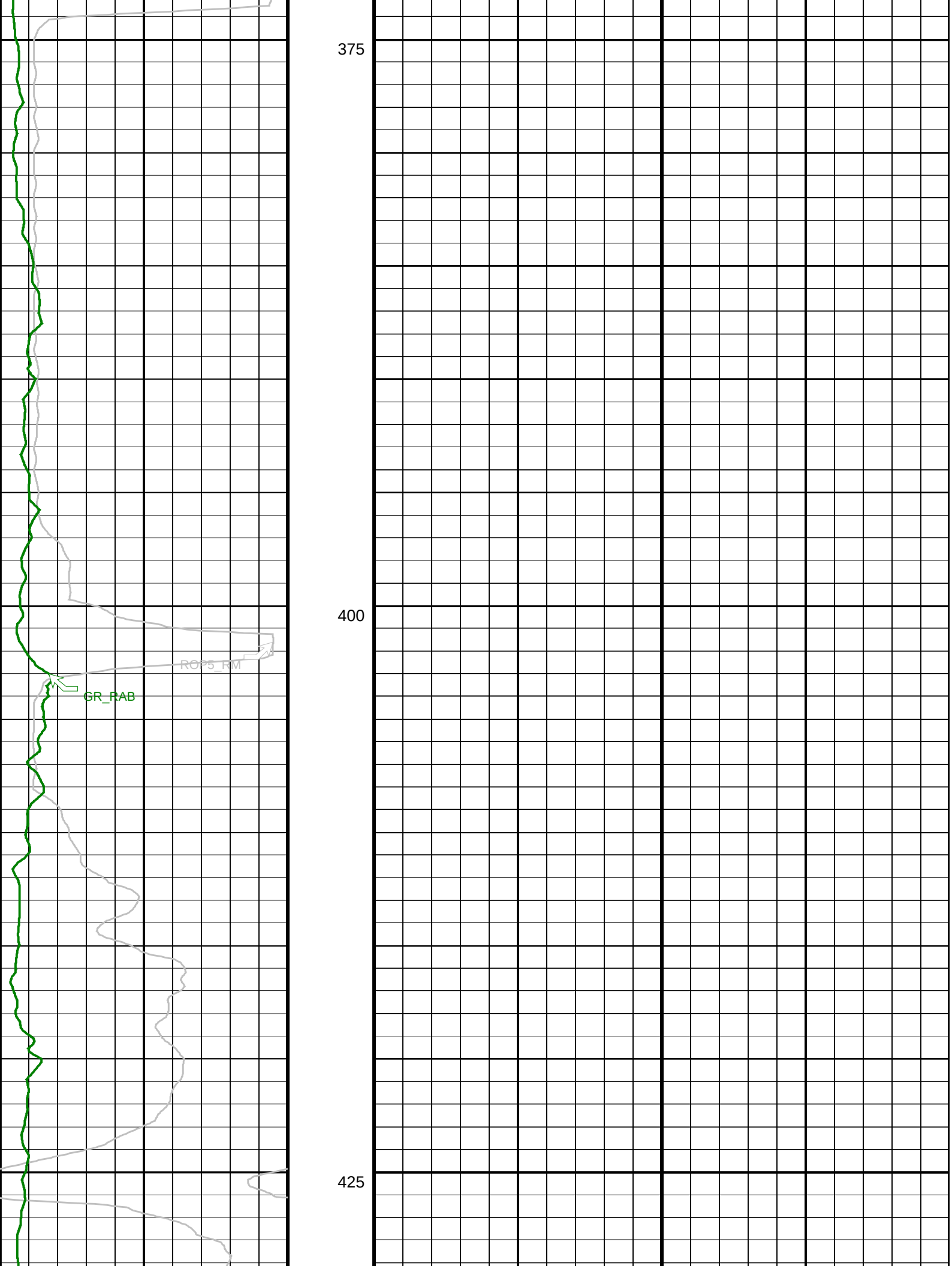
6 (IN) 16

Thermal Neutron Porosity (TNPH)

45 (PU) −15


6 (IN) 16
45 (PU) −15
Horizontal Hole Diameter (HORD)
6 (IN) 16
Bulk Density, Bottom (ROBB)
1.95 (G/C3) 2.95
Density Time After Bit (TAB_DEN)
0 (HR) 10
ADN Rotational Speed (RPM_ADN) (RPM)
0 250
Photoelectric Factor, Bottom (PEB)
0 (~~~~ 10
Bulk Density Correction, Bottom (DRHB)
−0.25 (G/C3) 0.25
340mm Casing Shoe
RUN 1
GR_RAB
300


325
350
ROP5_RM
GR_RAB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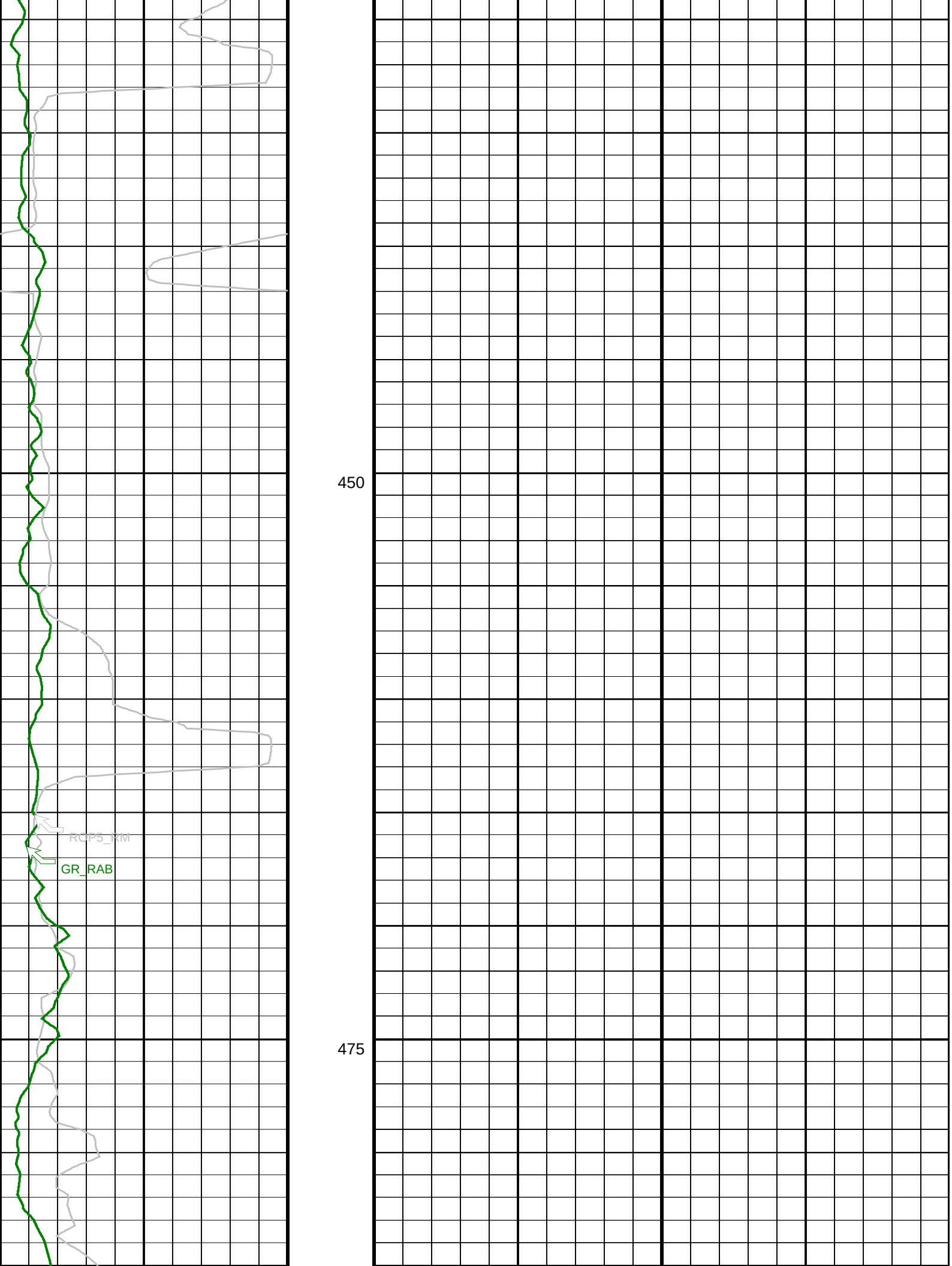
400
425
RO^5_RM
GR_RAB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GR_RAB
450
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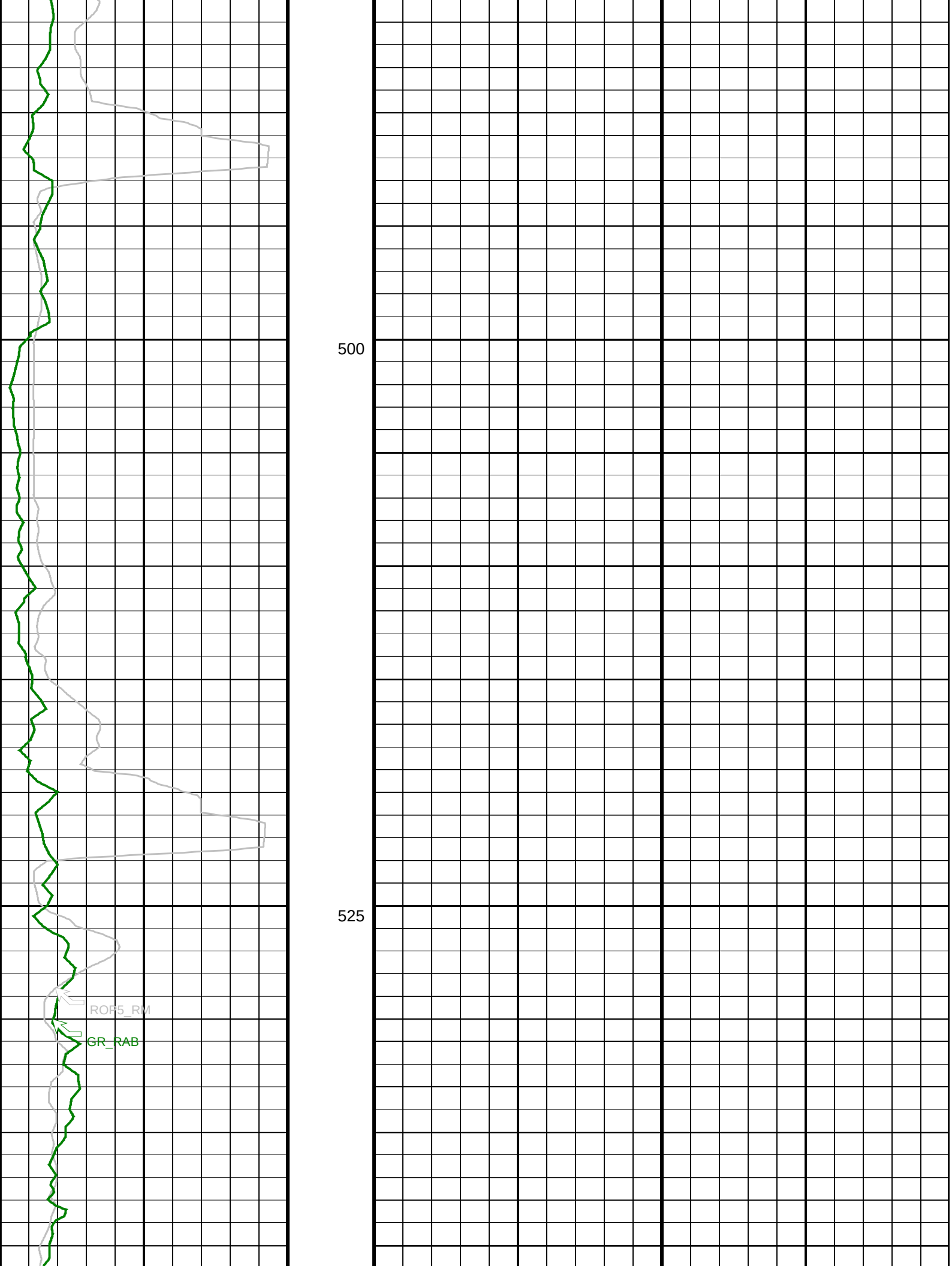
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525
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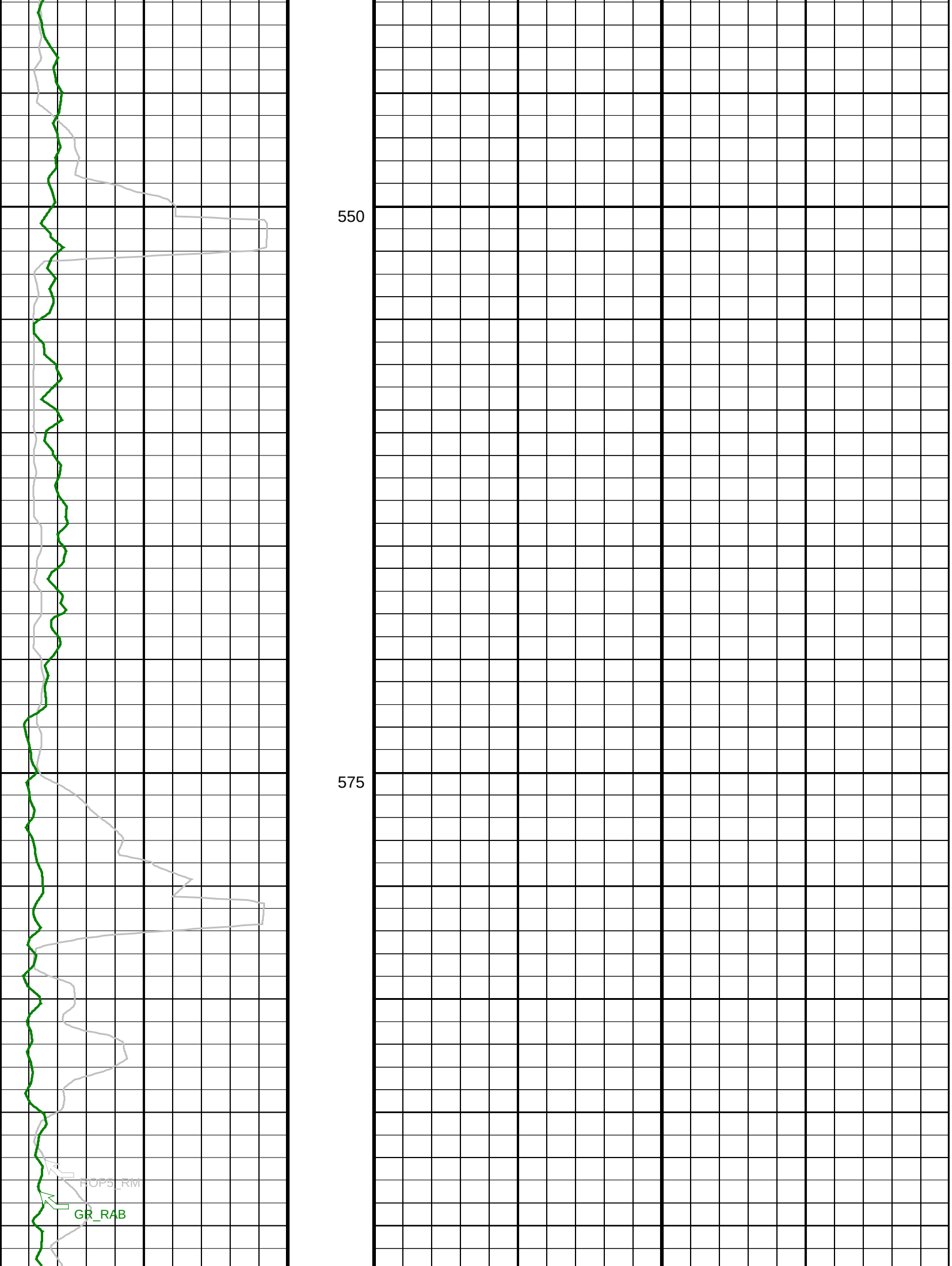
GR_RAB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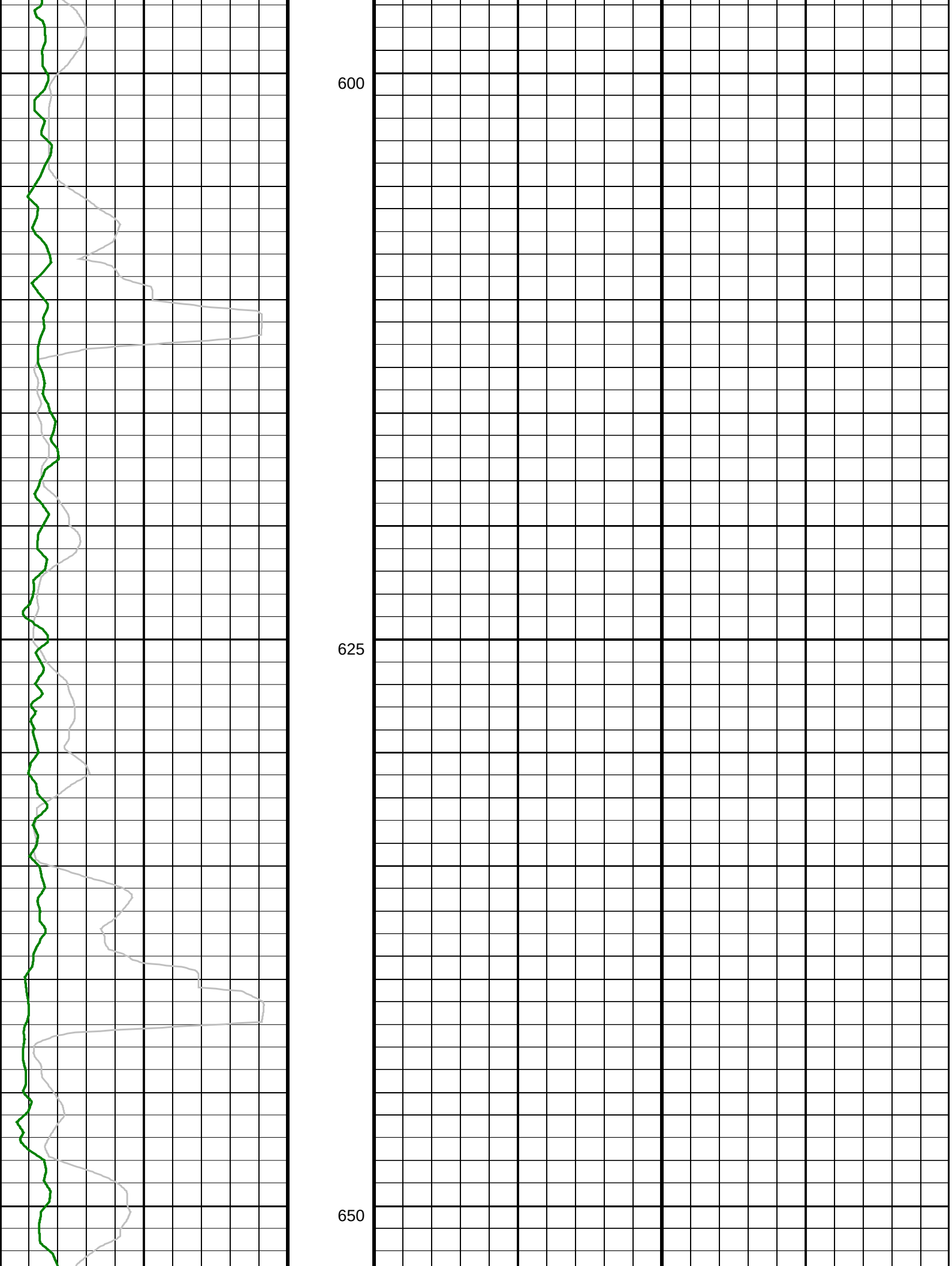
575
ROP5_RM
GR_RAB


600
625
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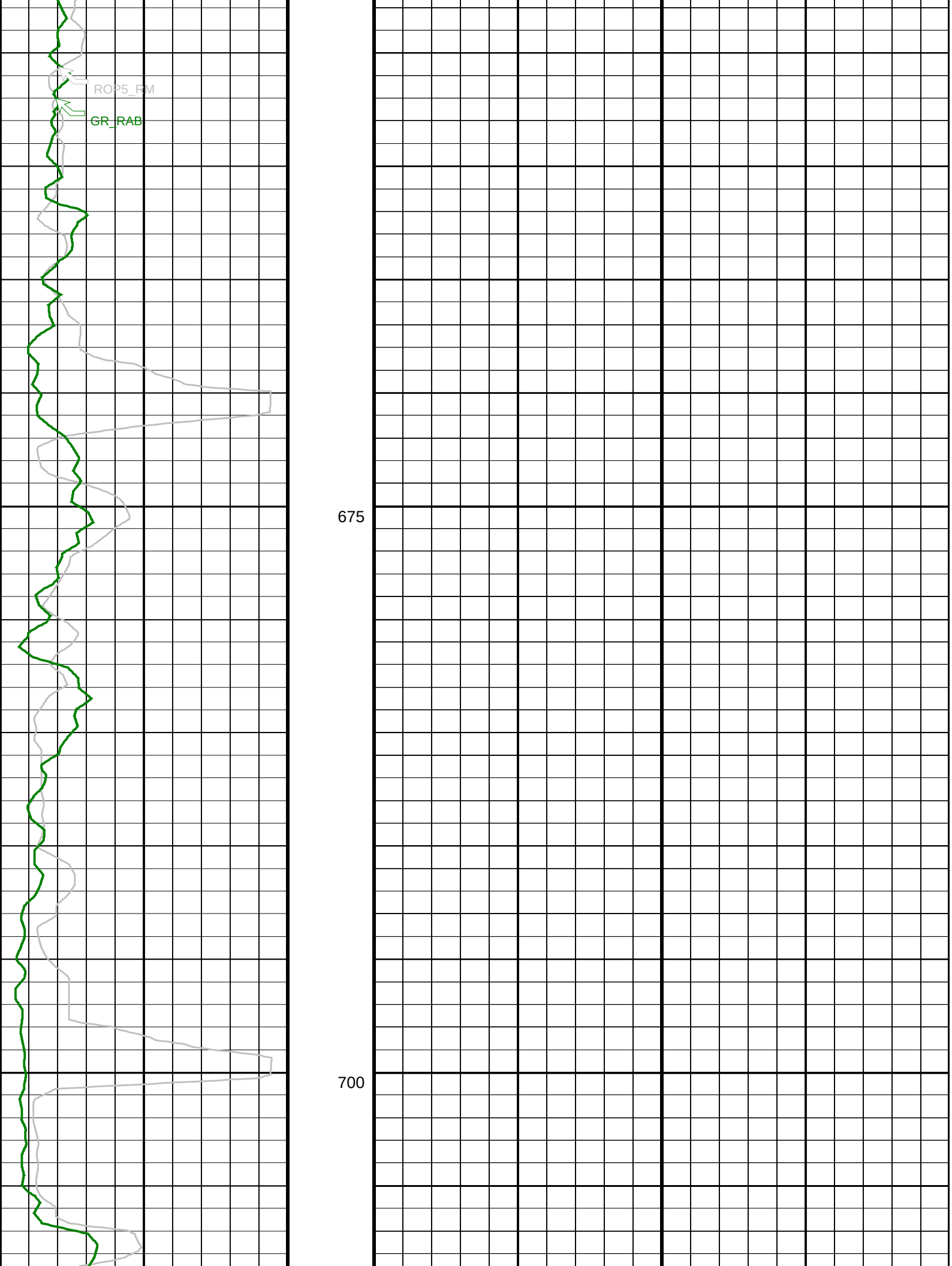
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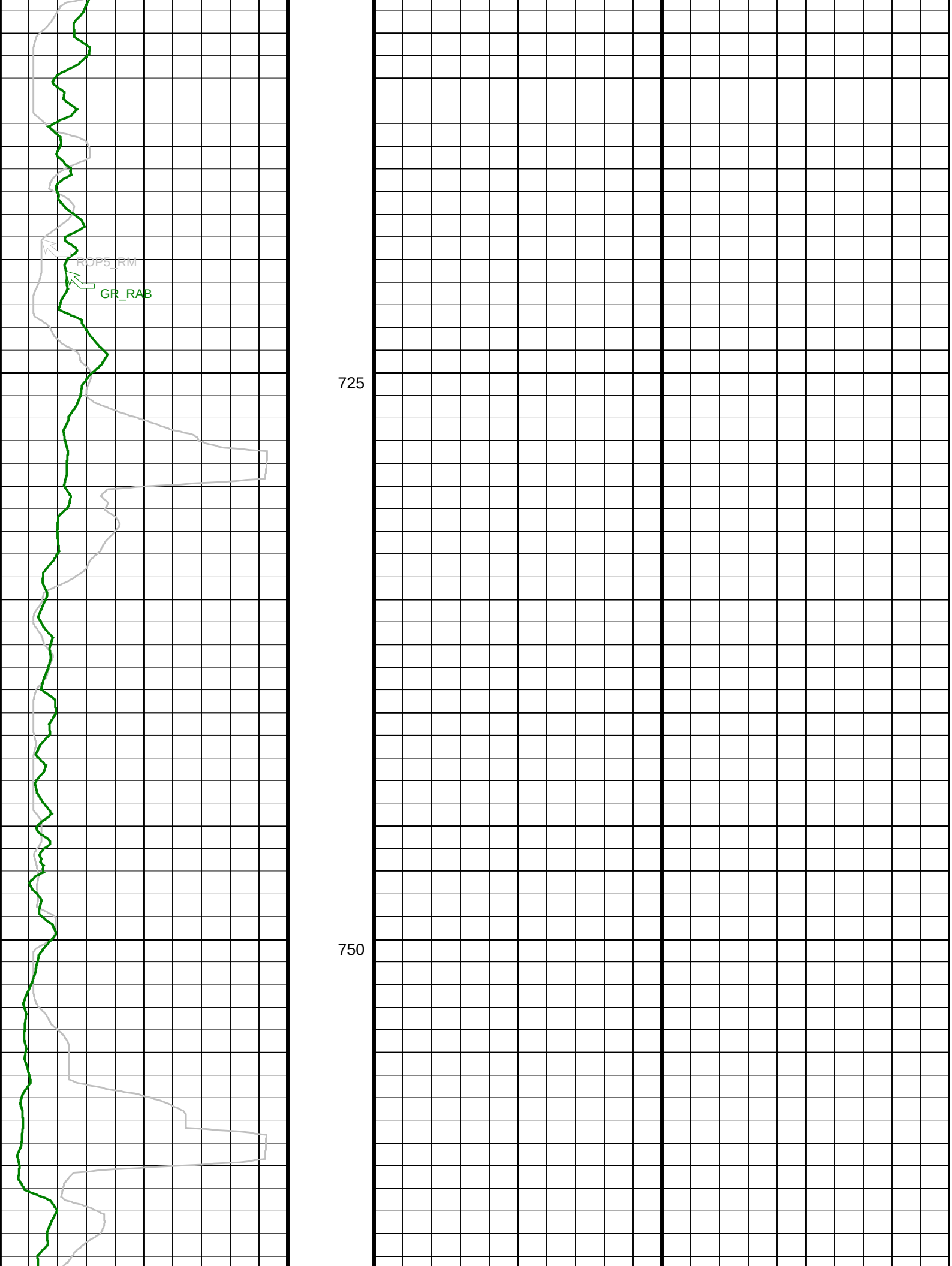
GR_RAB
675
700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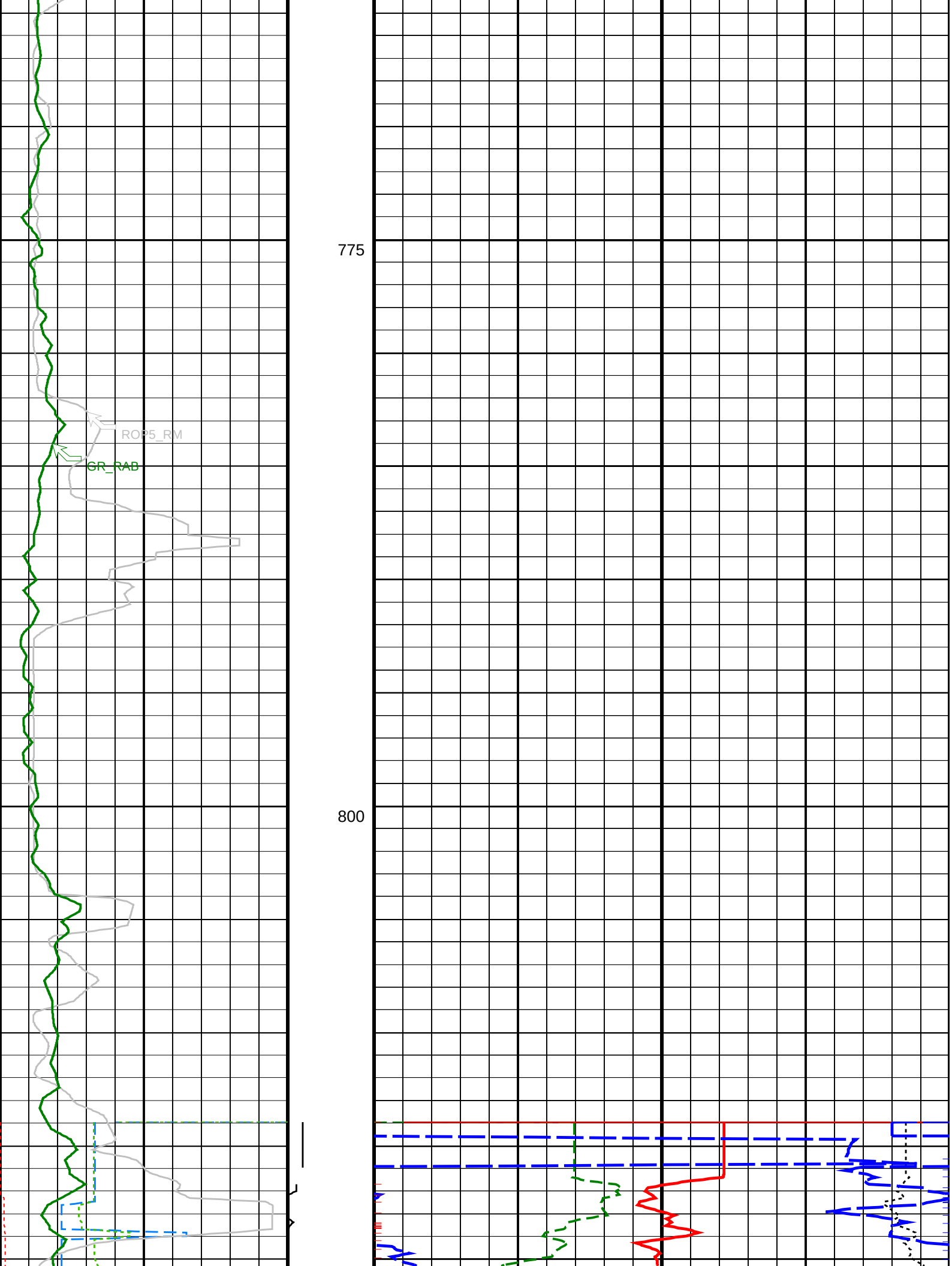
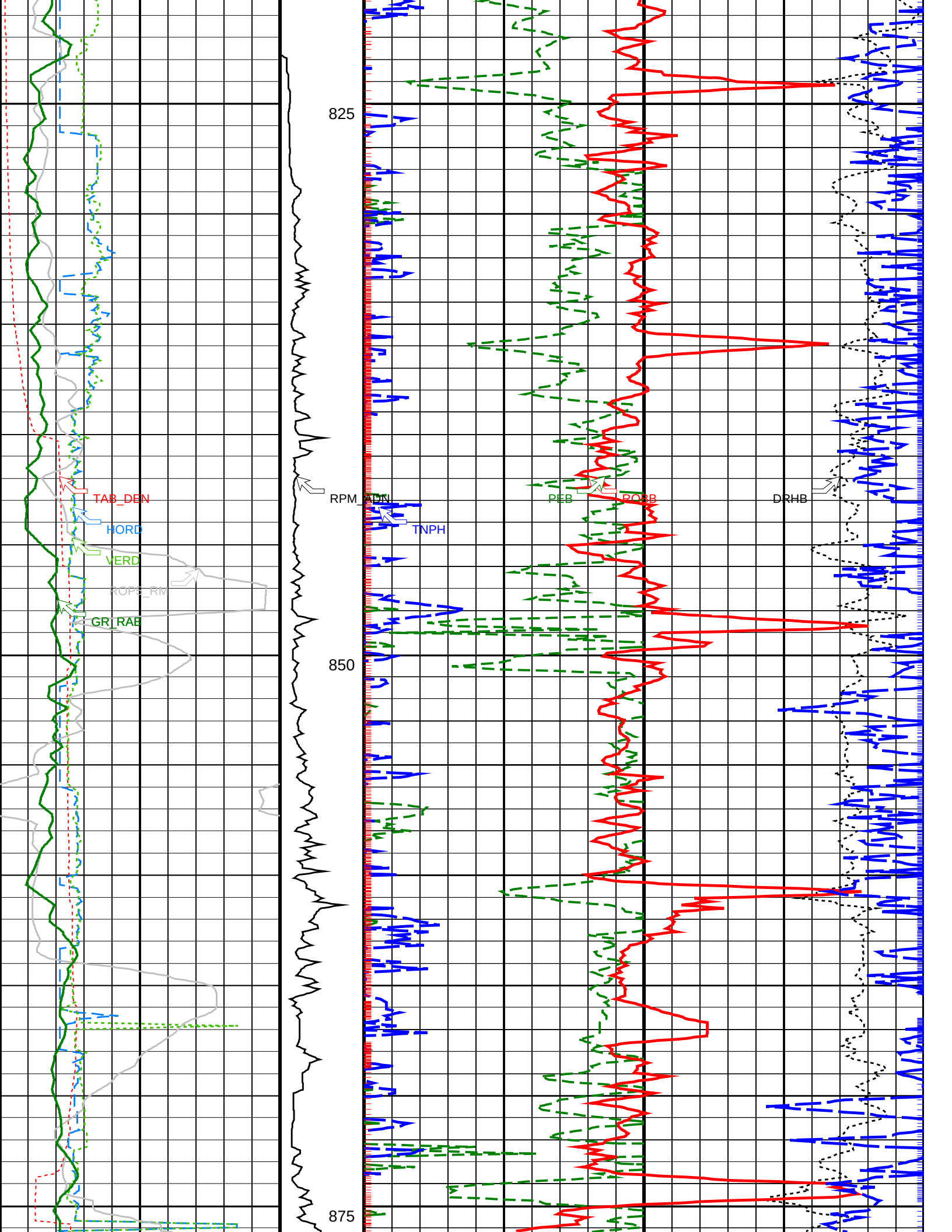
GR_RAB
725
750


775
800
ROP5_RM
GR_RAB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875
TAB_DEN
HORD
VERD
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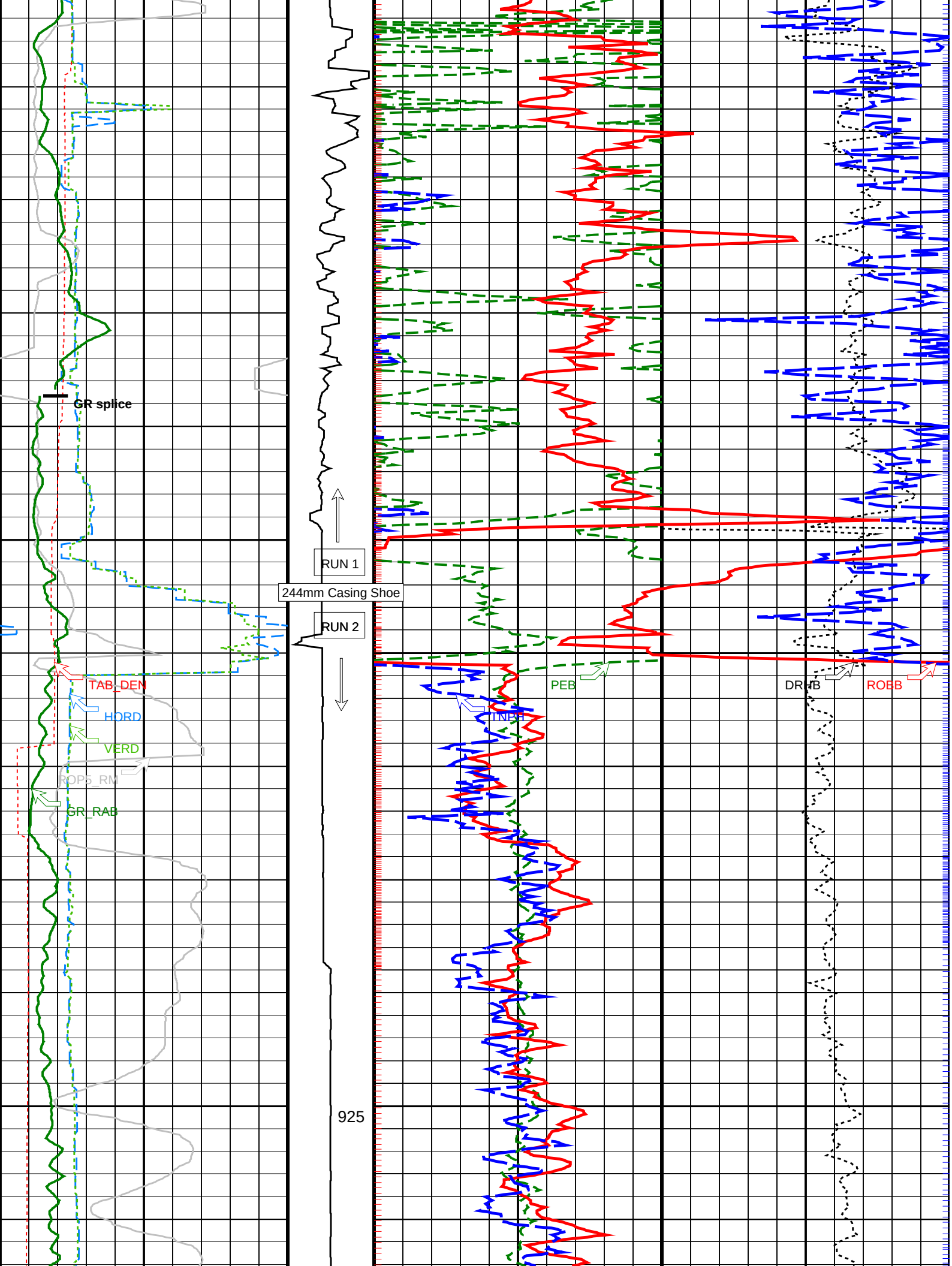
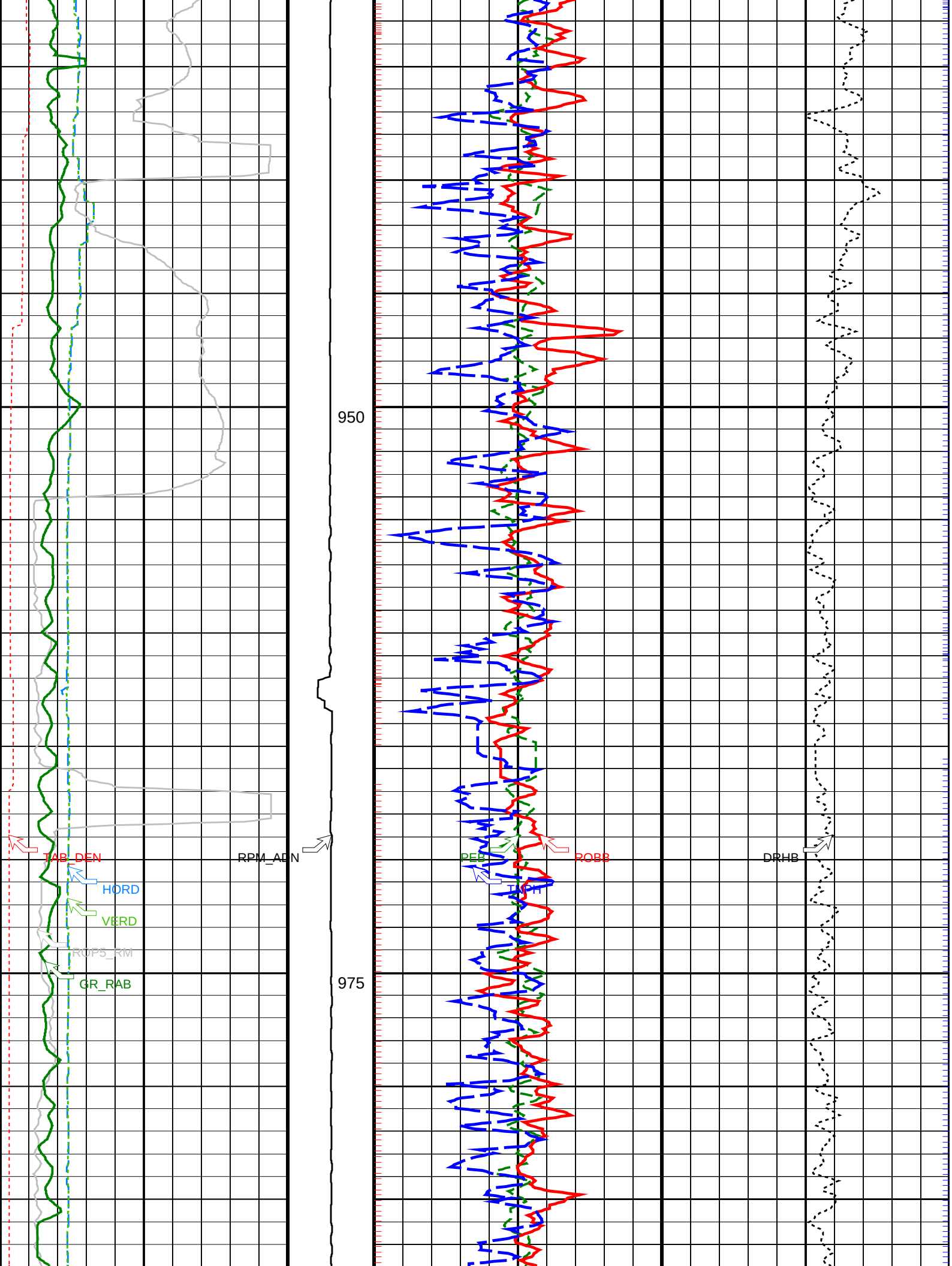
GR_RAB
RPM_ADN
TNPH
PEB
DRHB


GR splice
RUN 1
244mm Casing Shoe
RUN 2
925
TAB_DEN
HORD
VERD
ROP5_RM
GR_RAB
PEB
TNPH
DRHB
ROBB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975
TAB_DEN
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R0P5_RM
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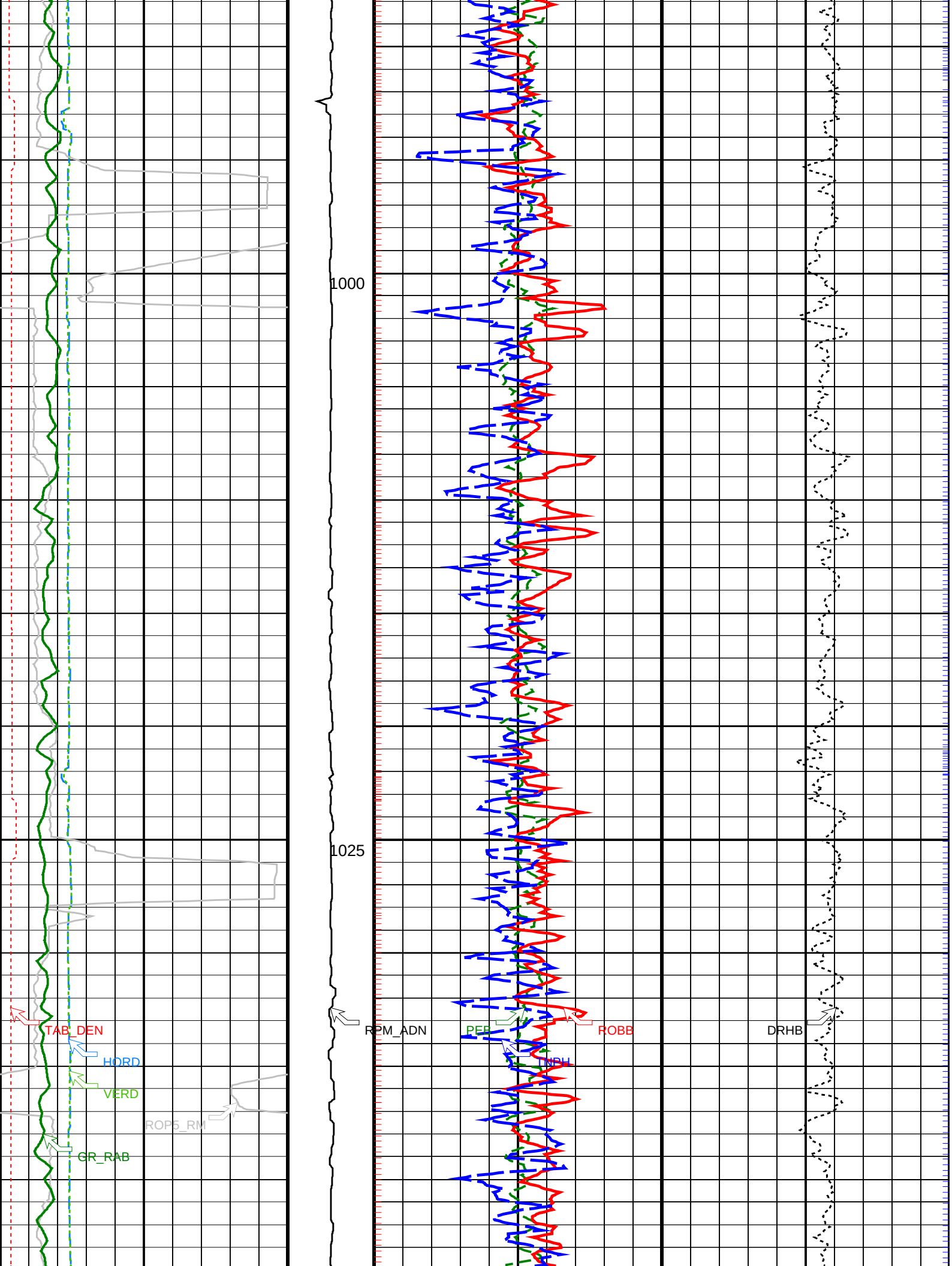
THPH
DRHB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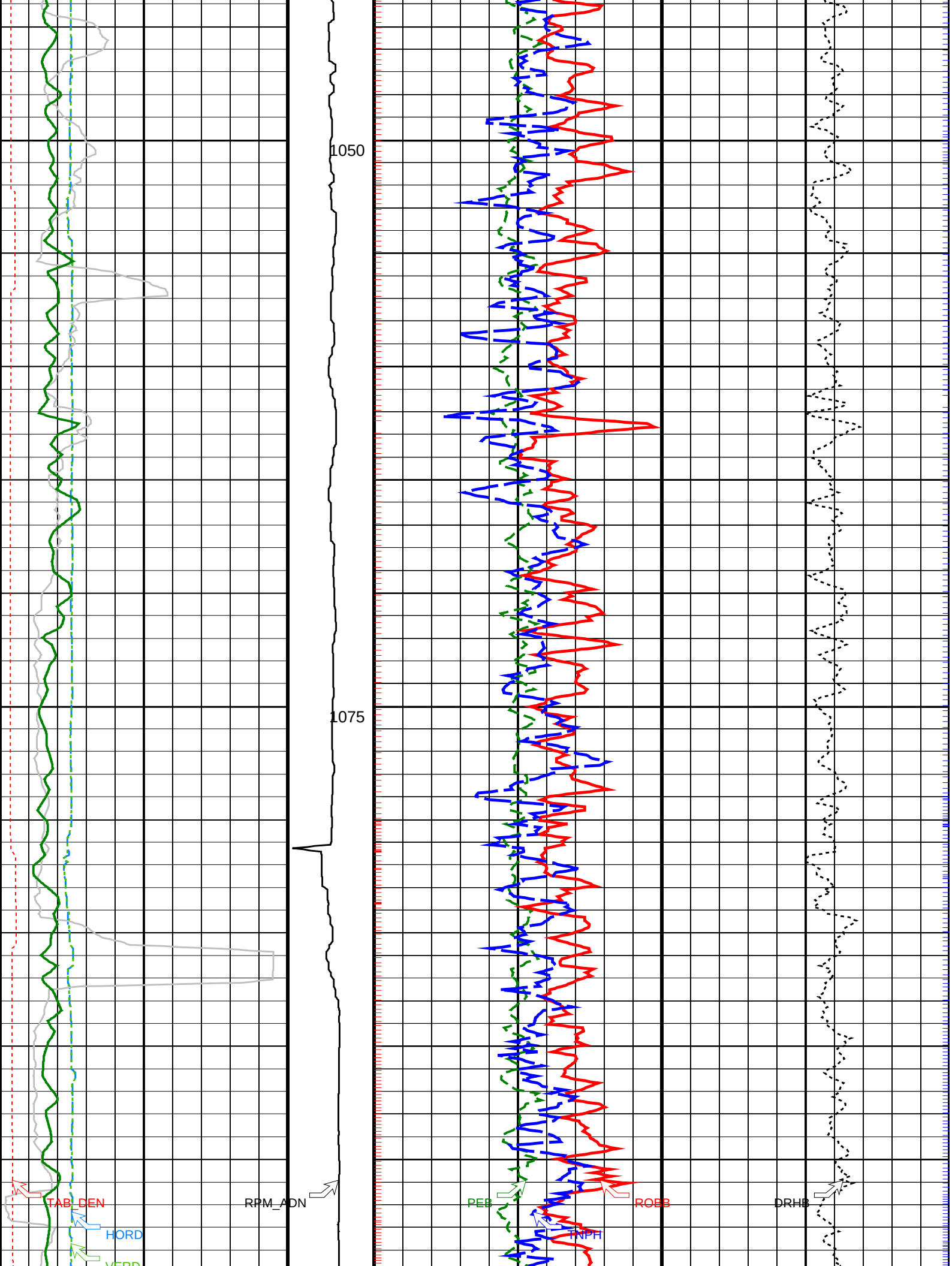
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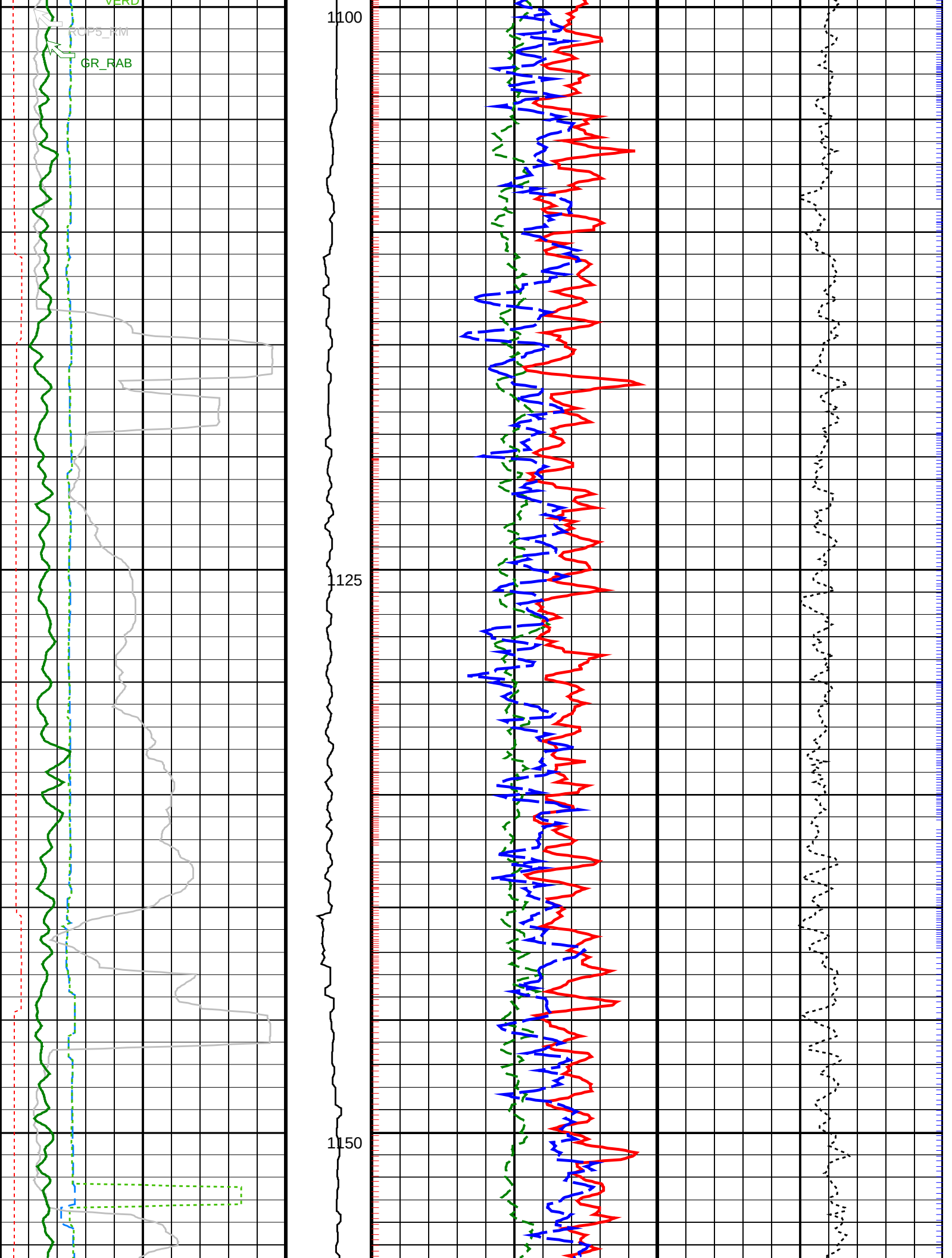
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1100
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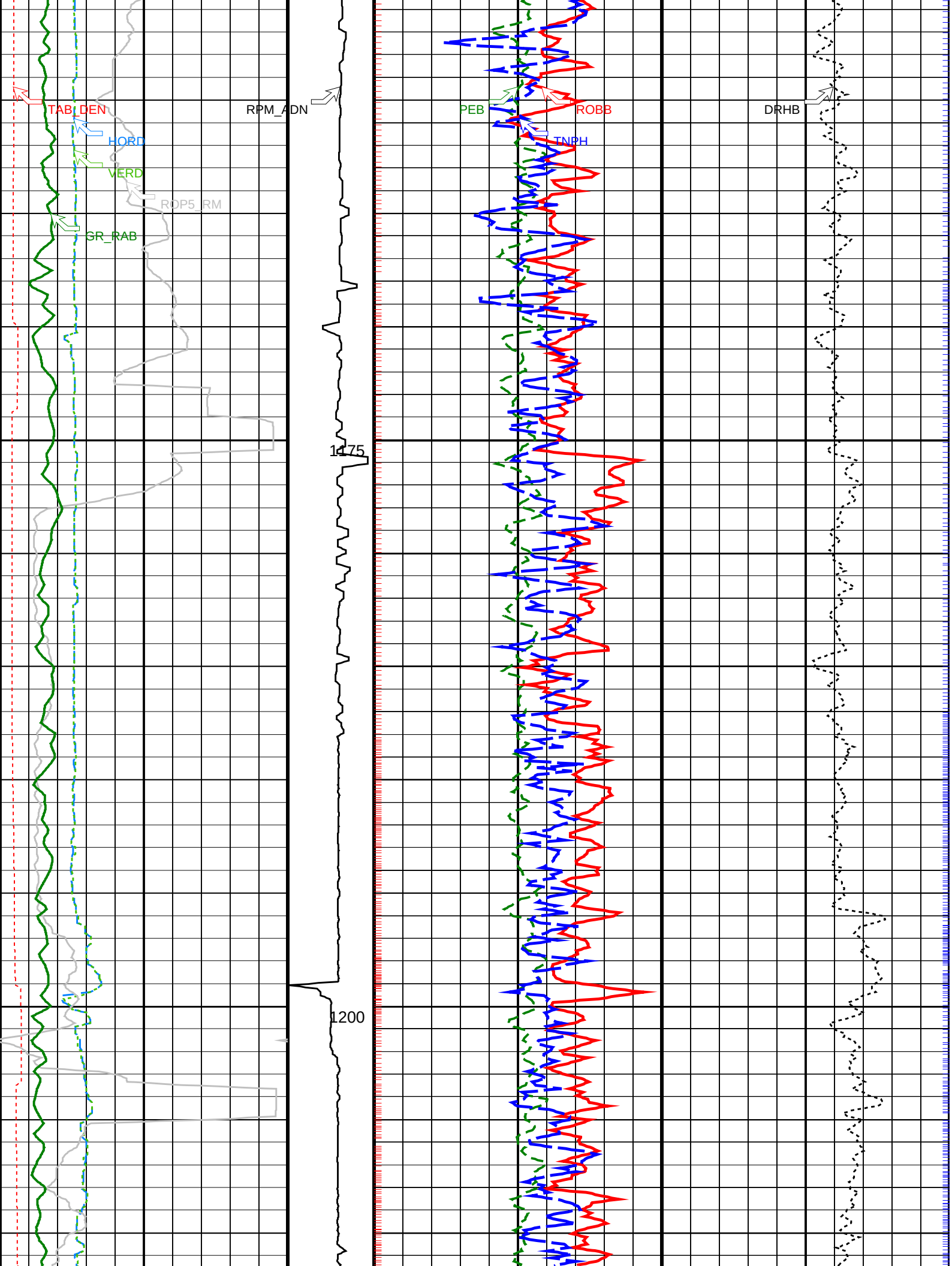
1150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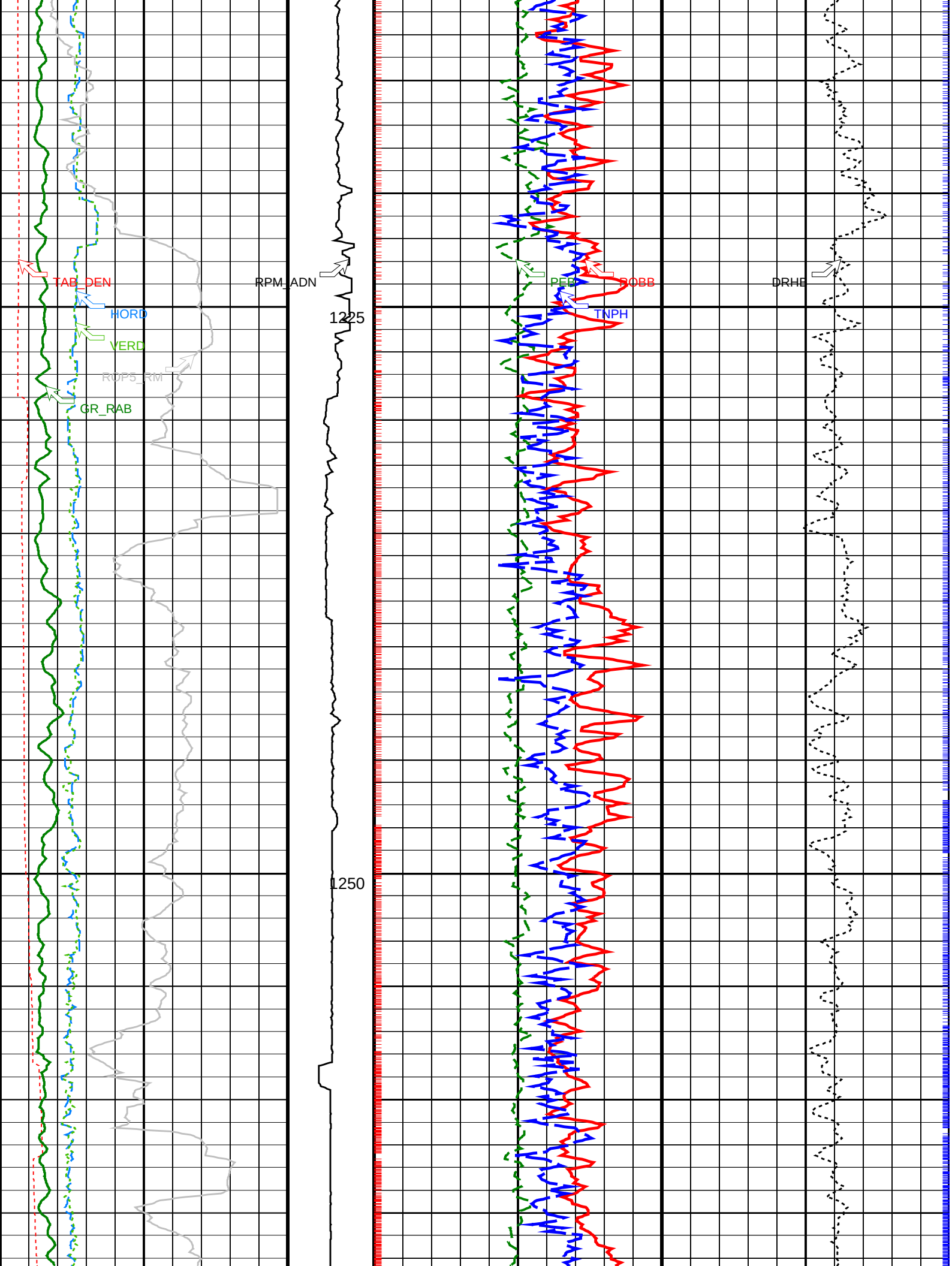
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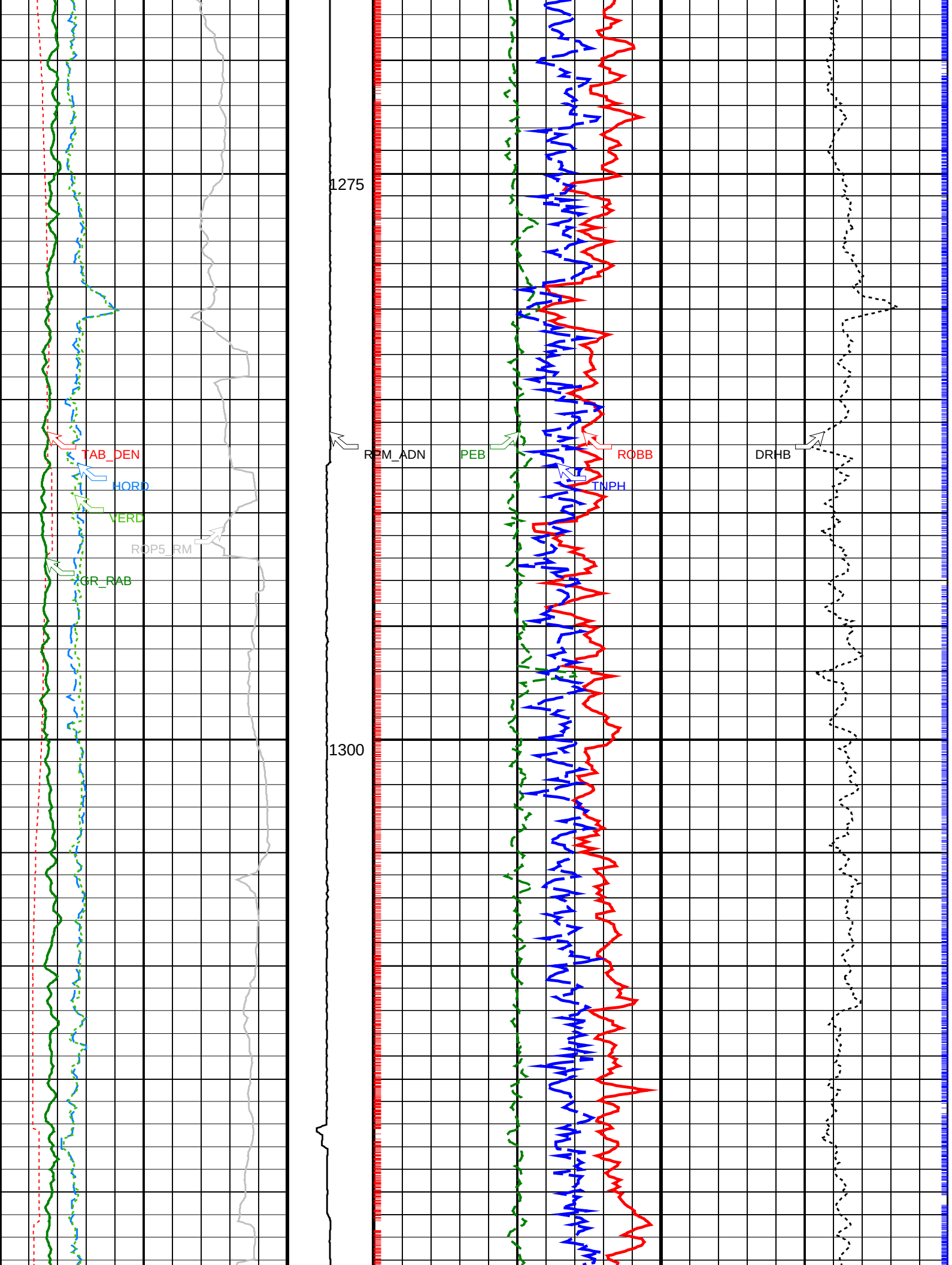
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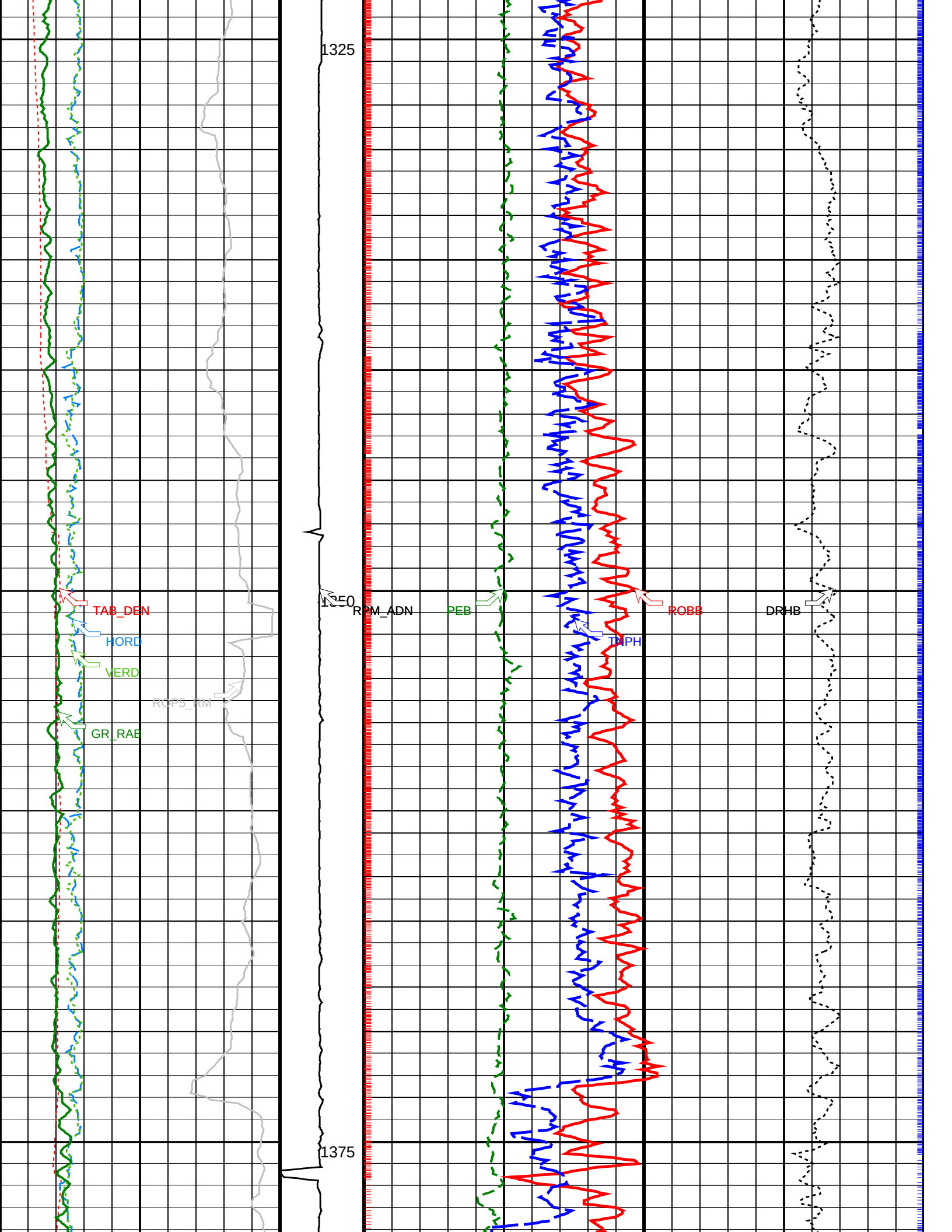
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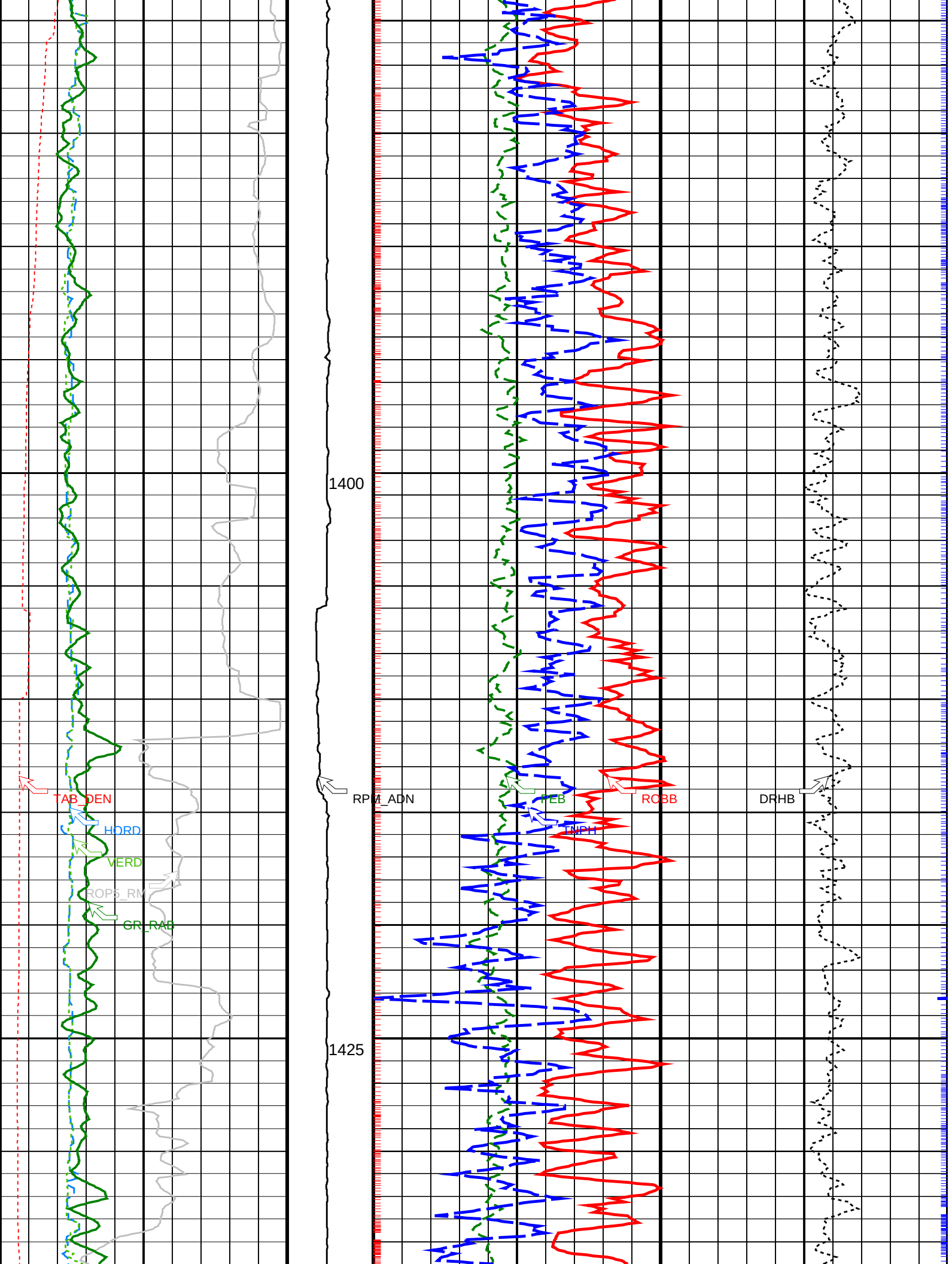
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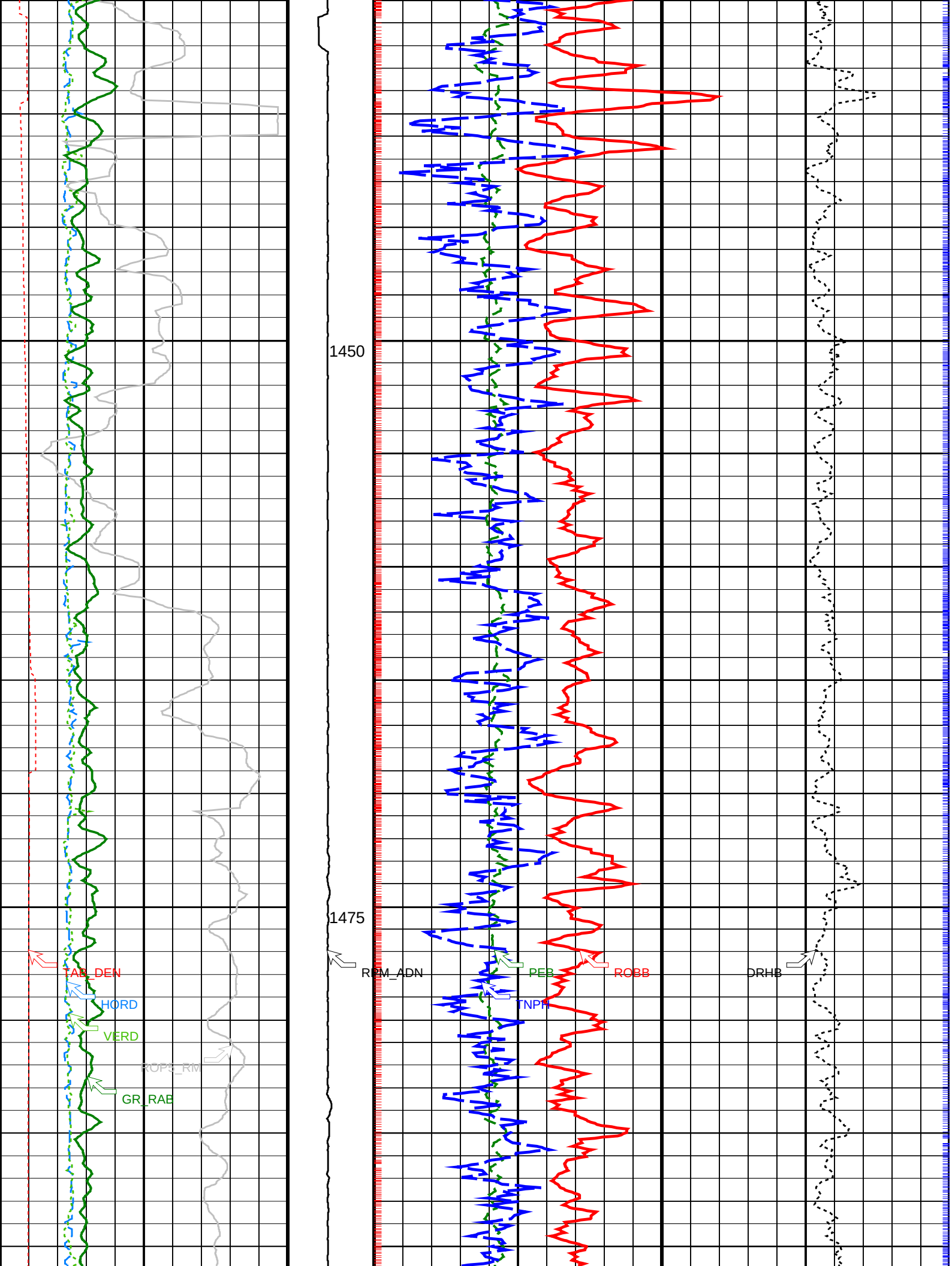
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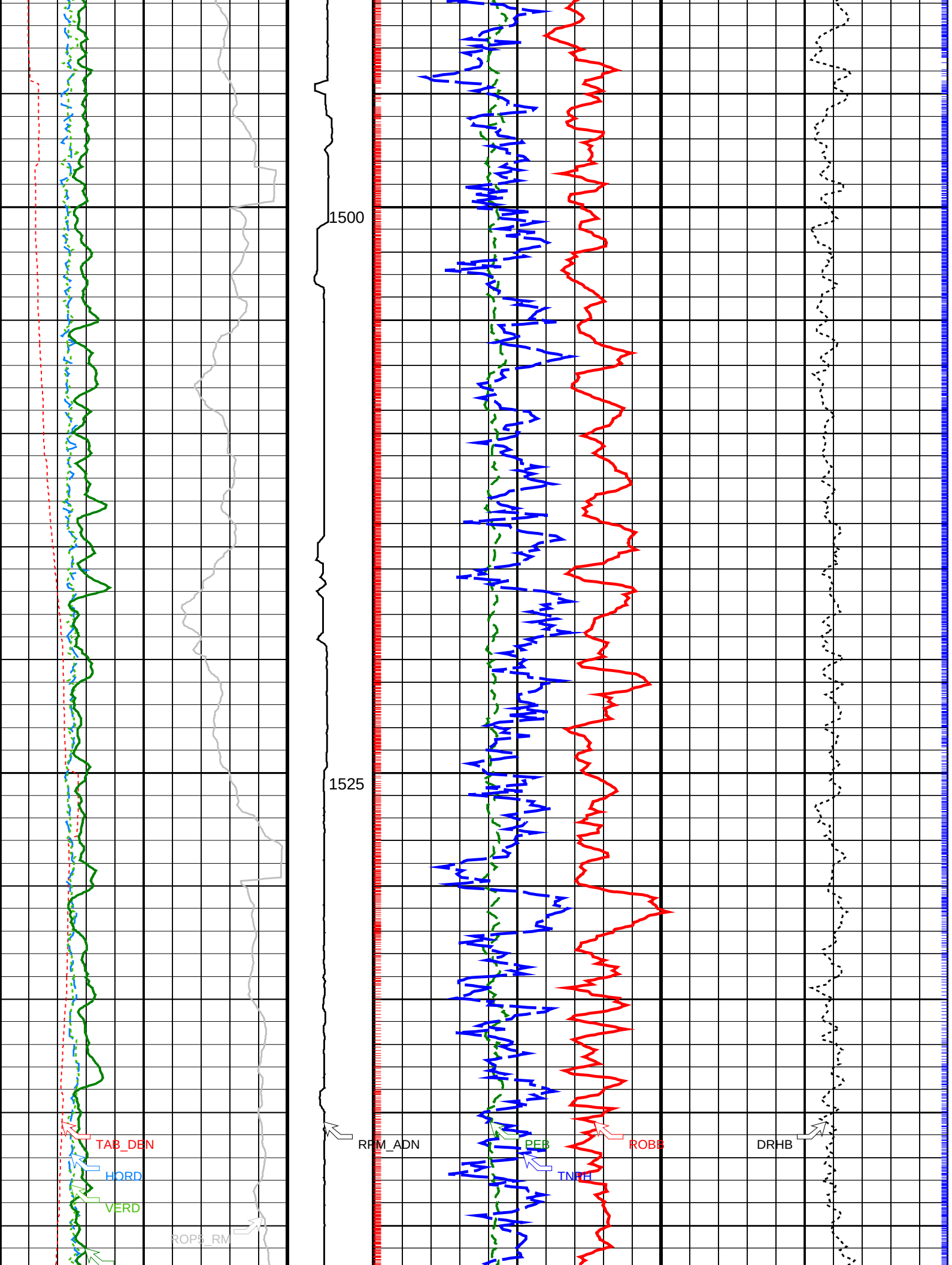
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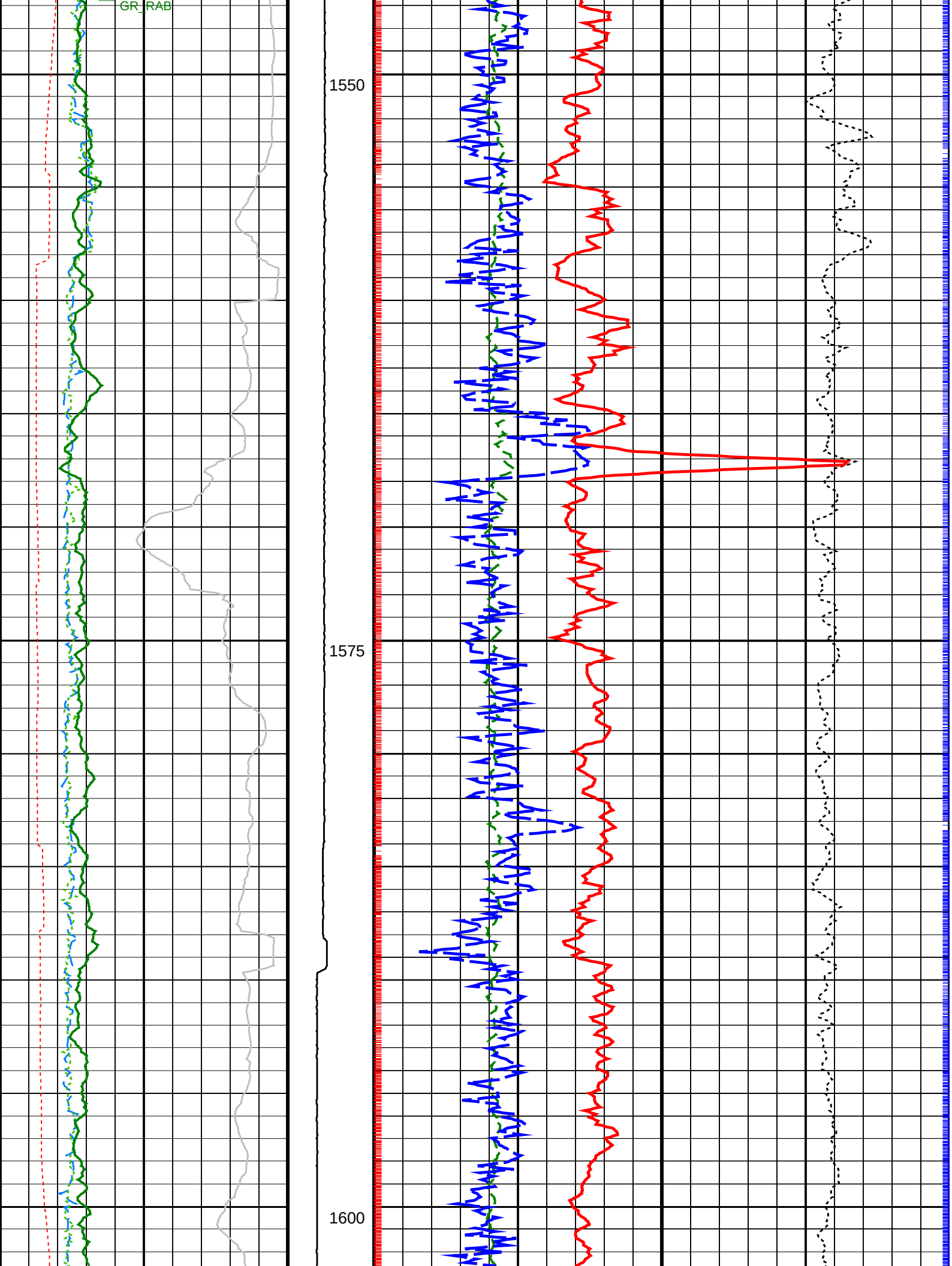
GR_RAB
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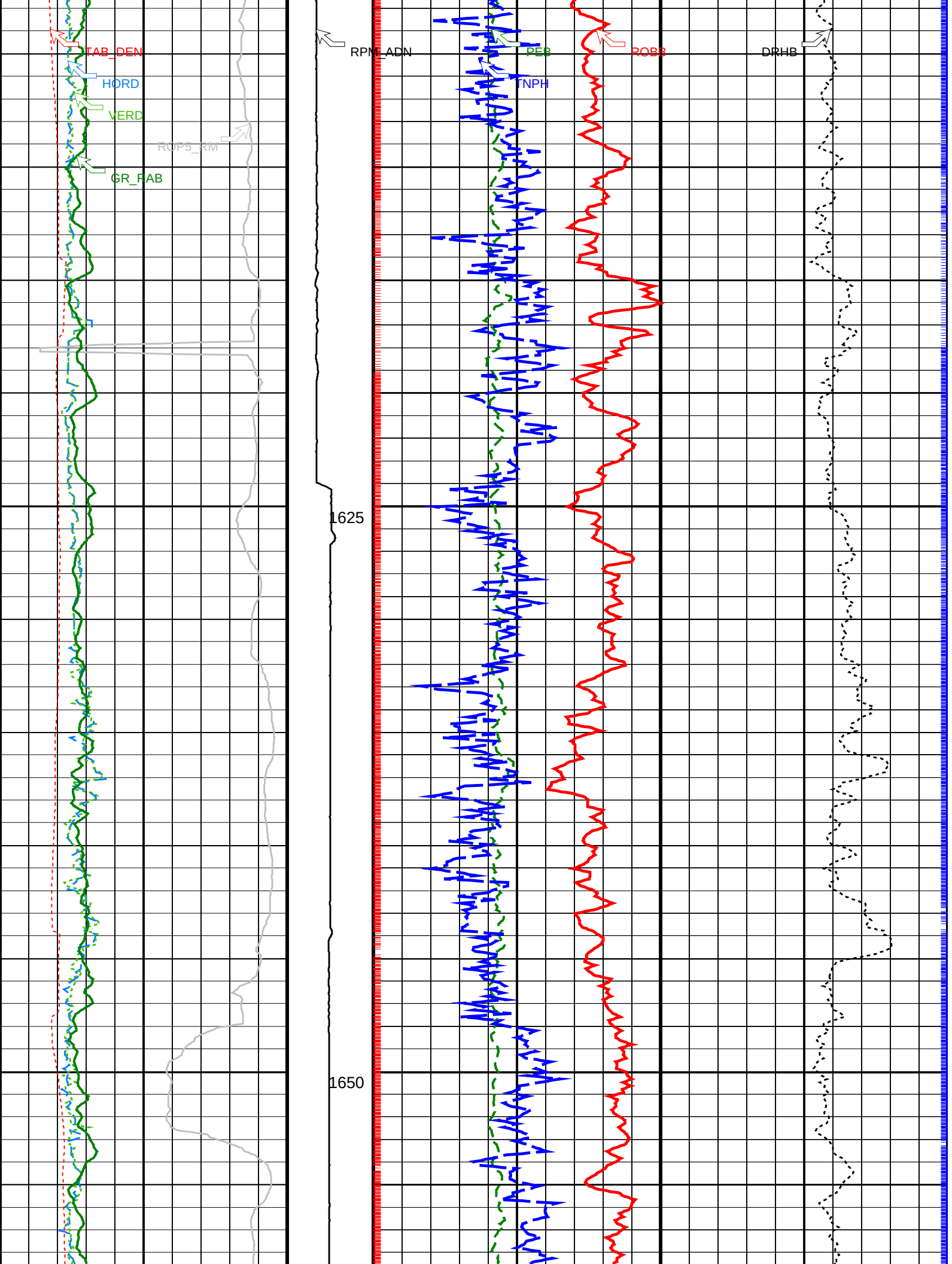
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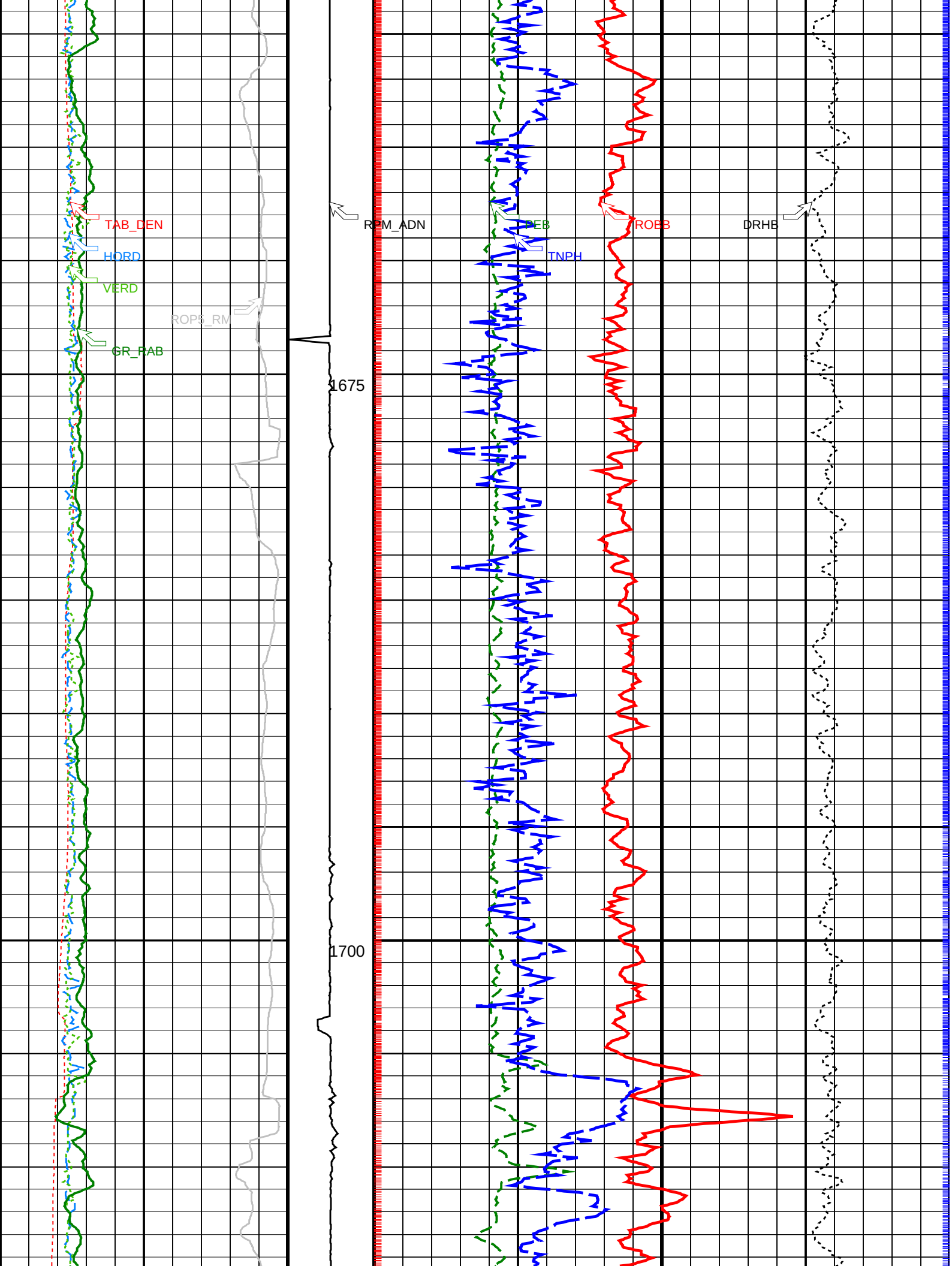
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DRHB
1675
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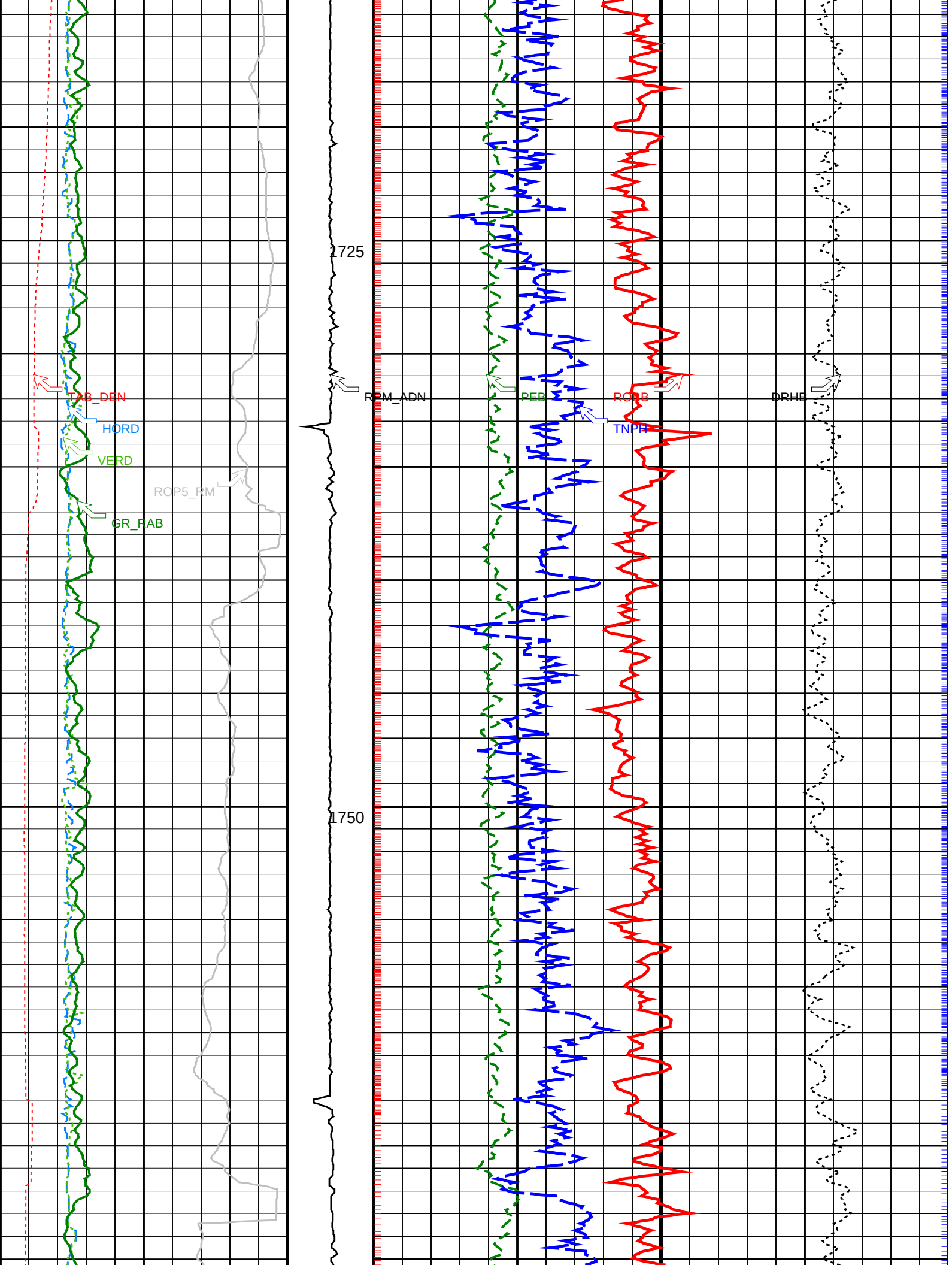
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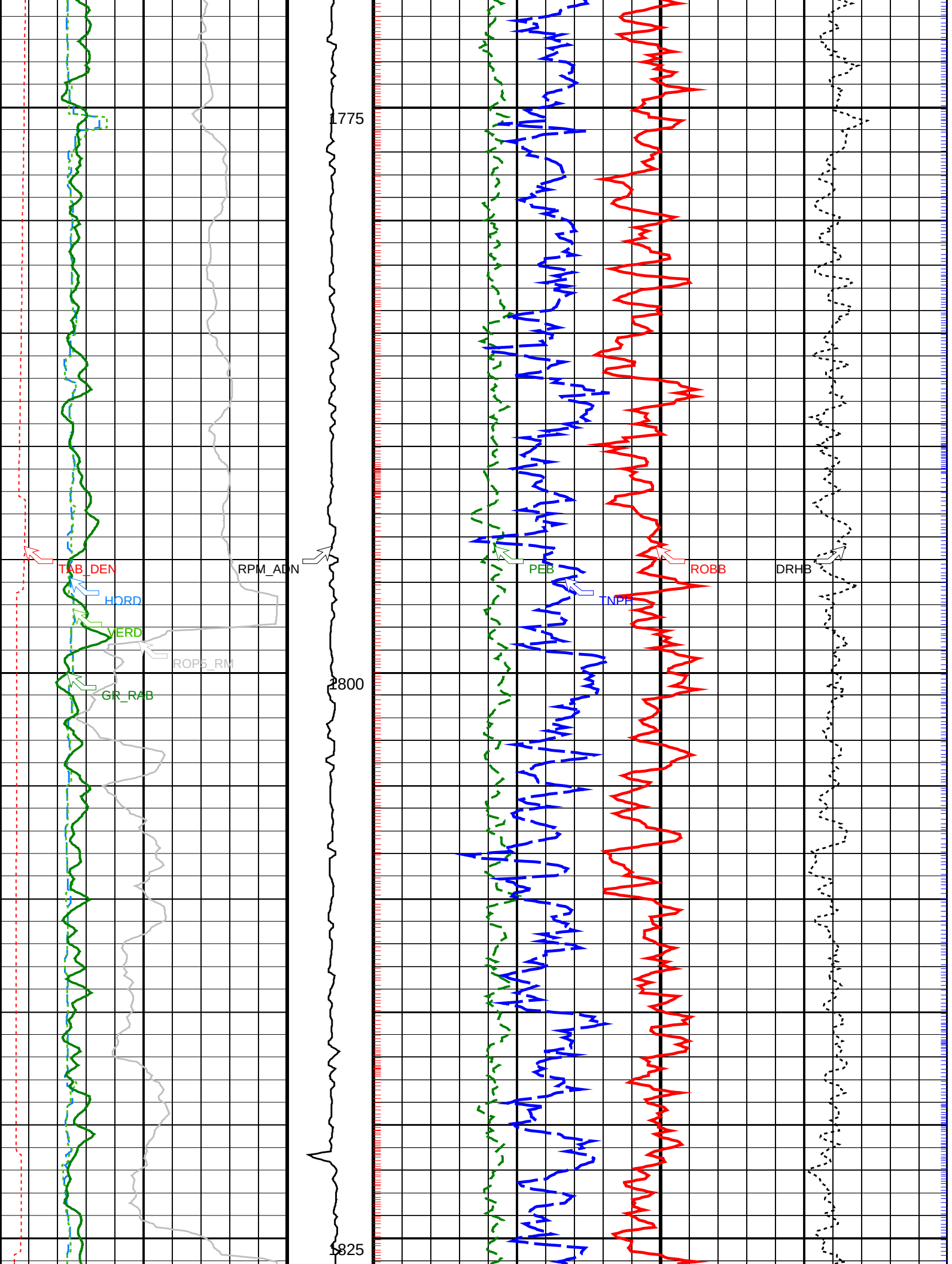
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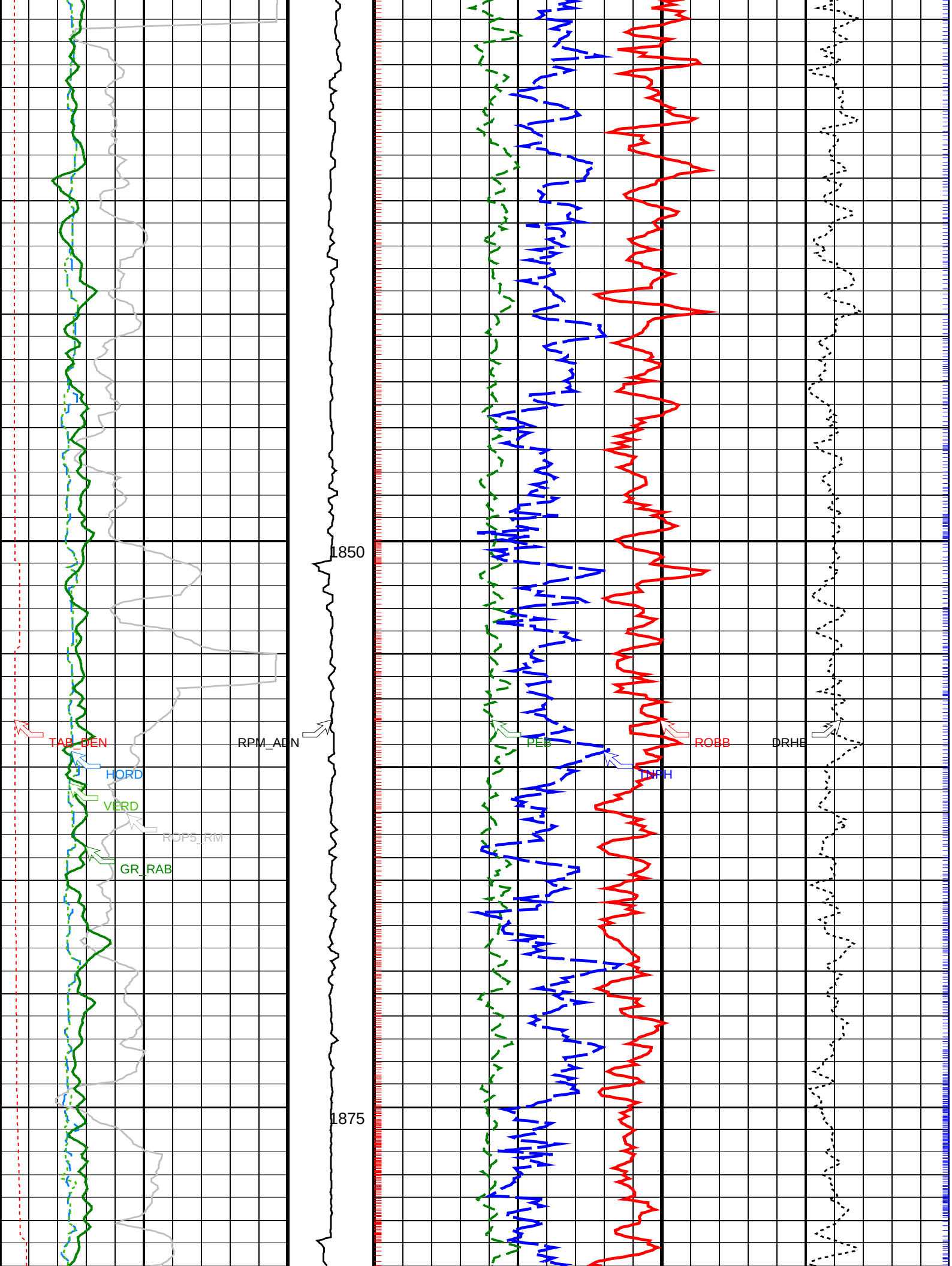
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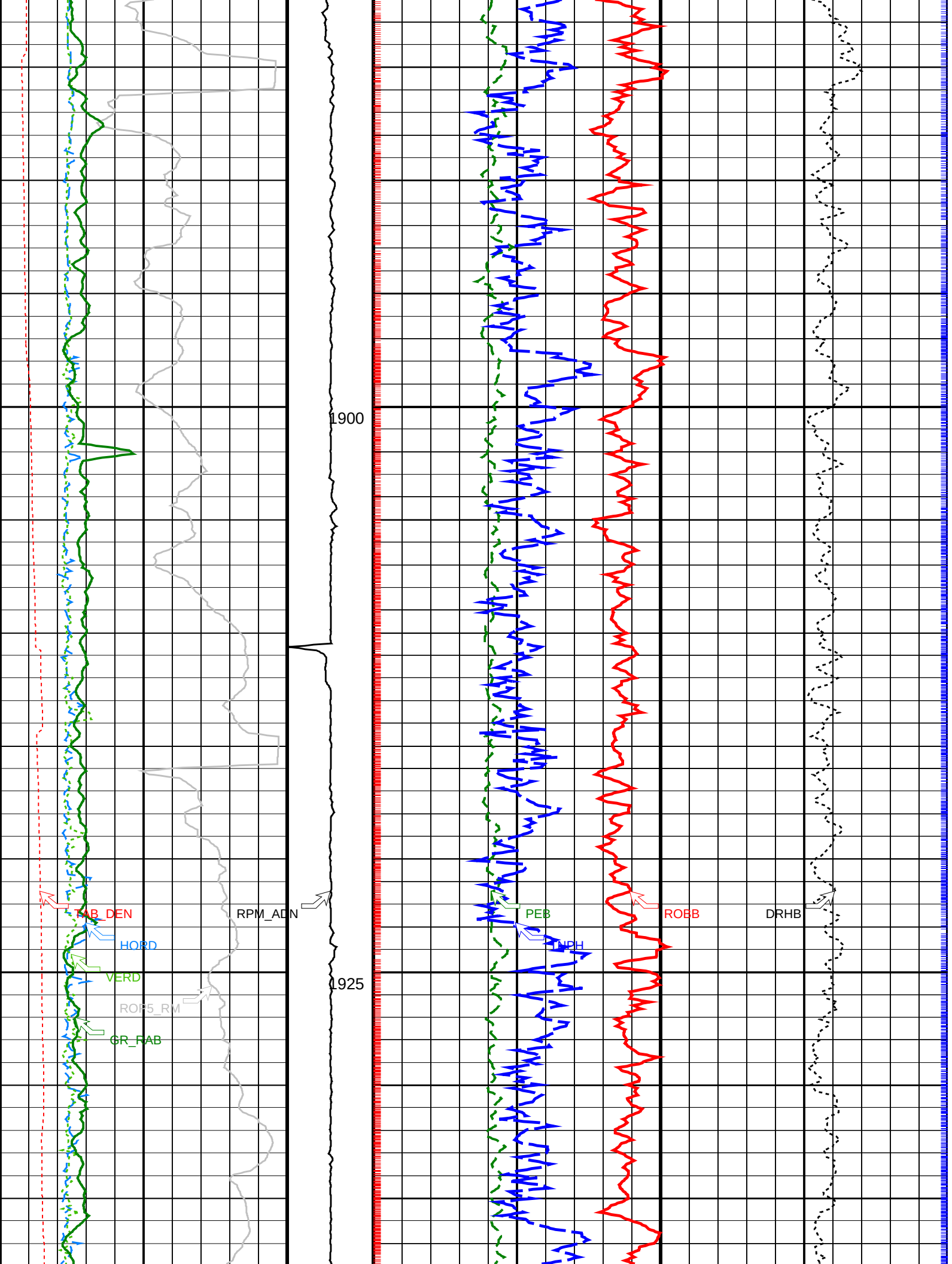
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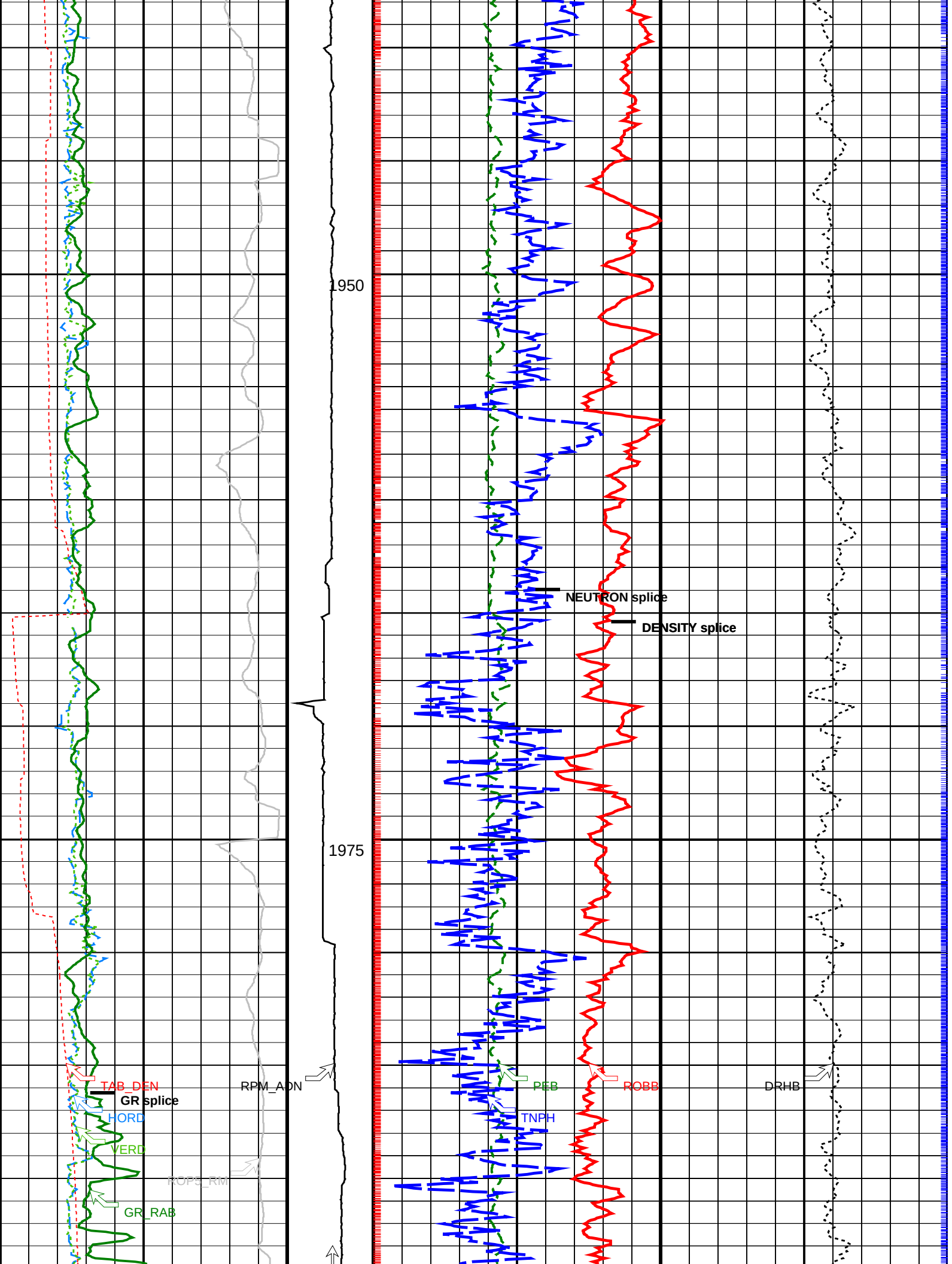
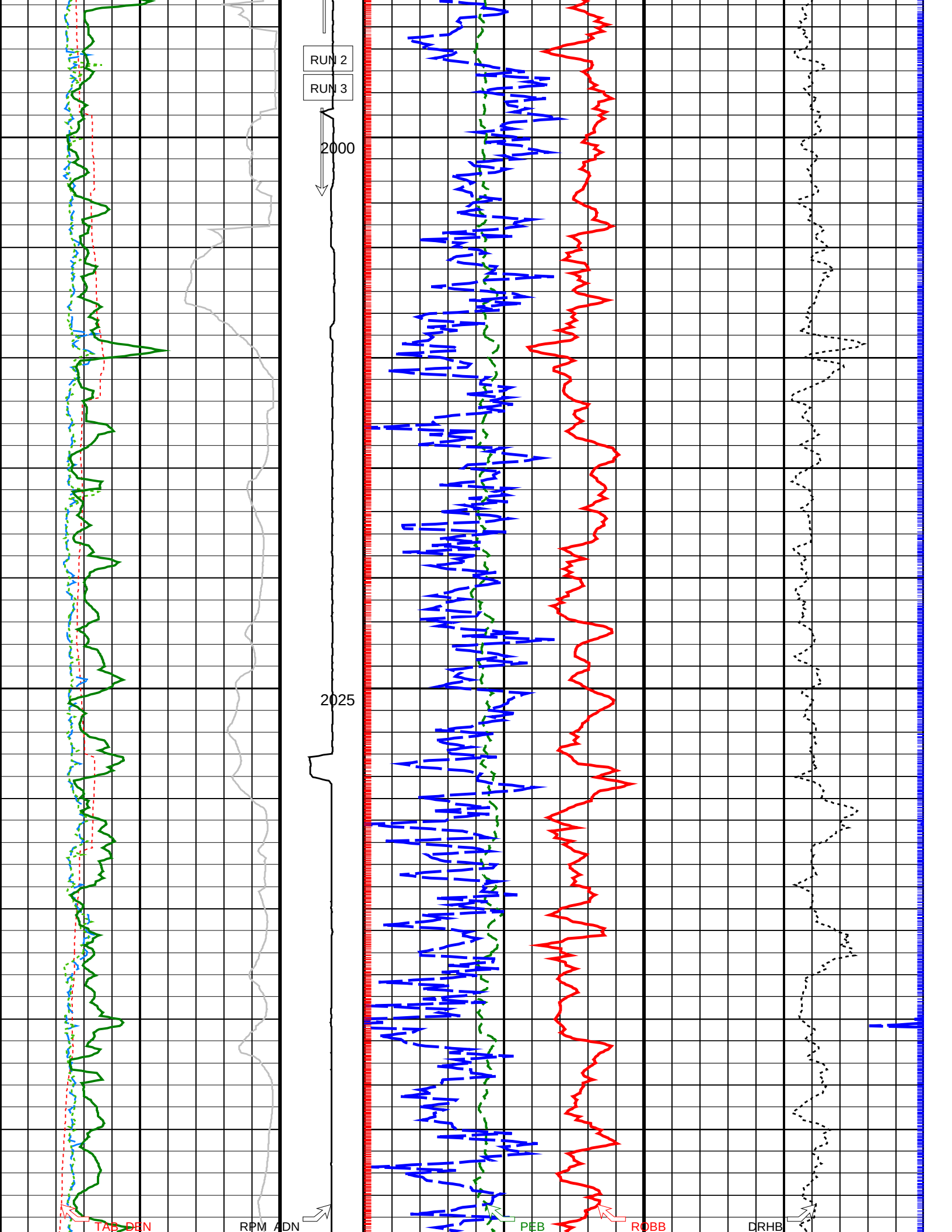
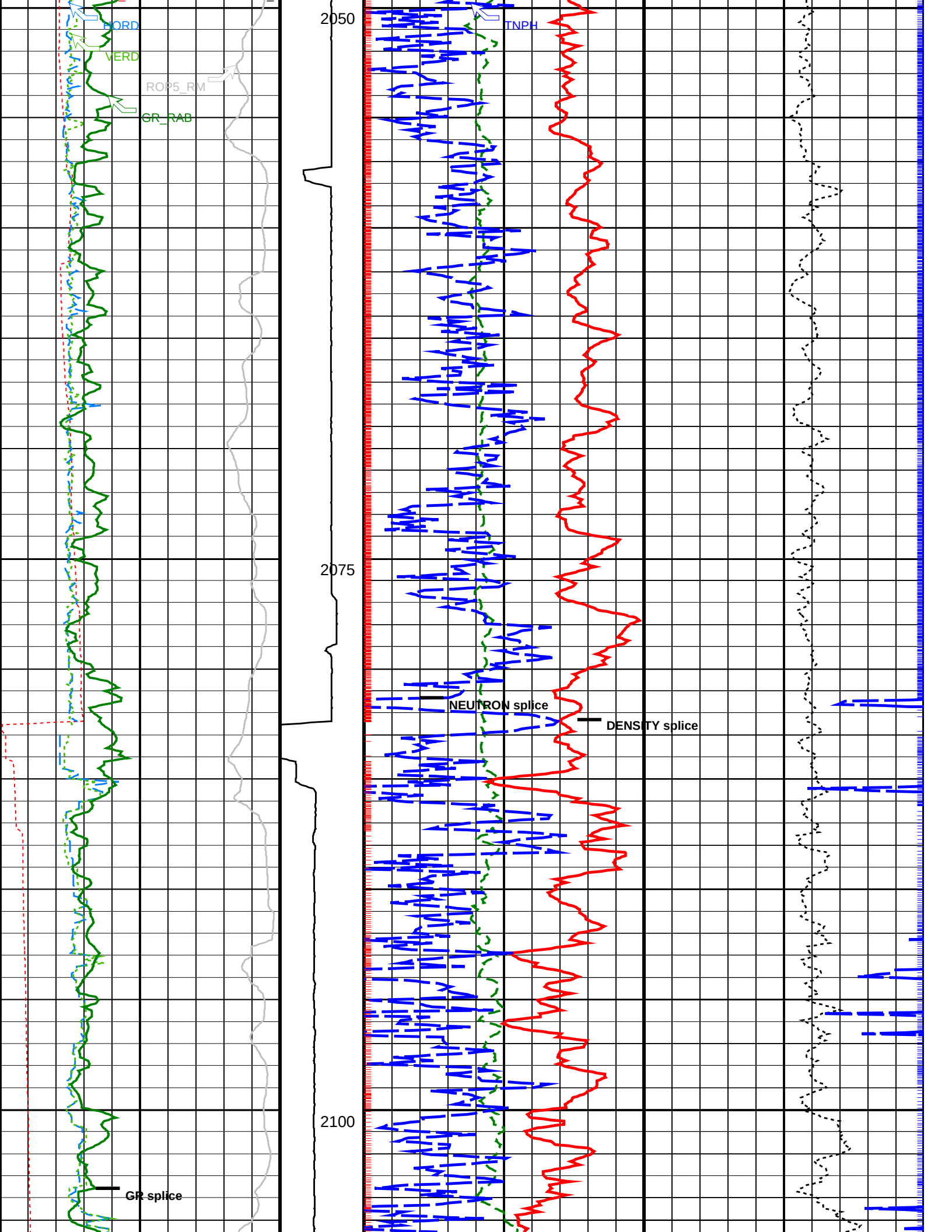
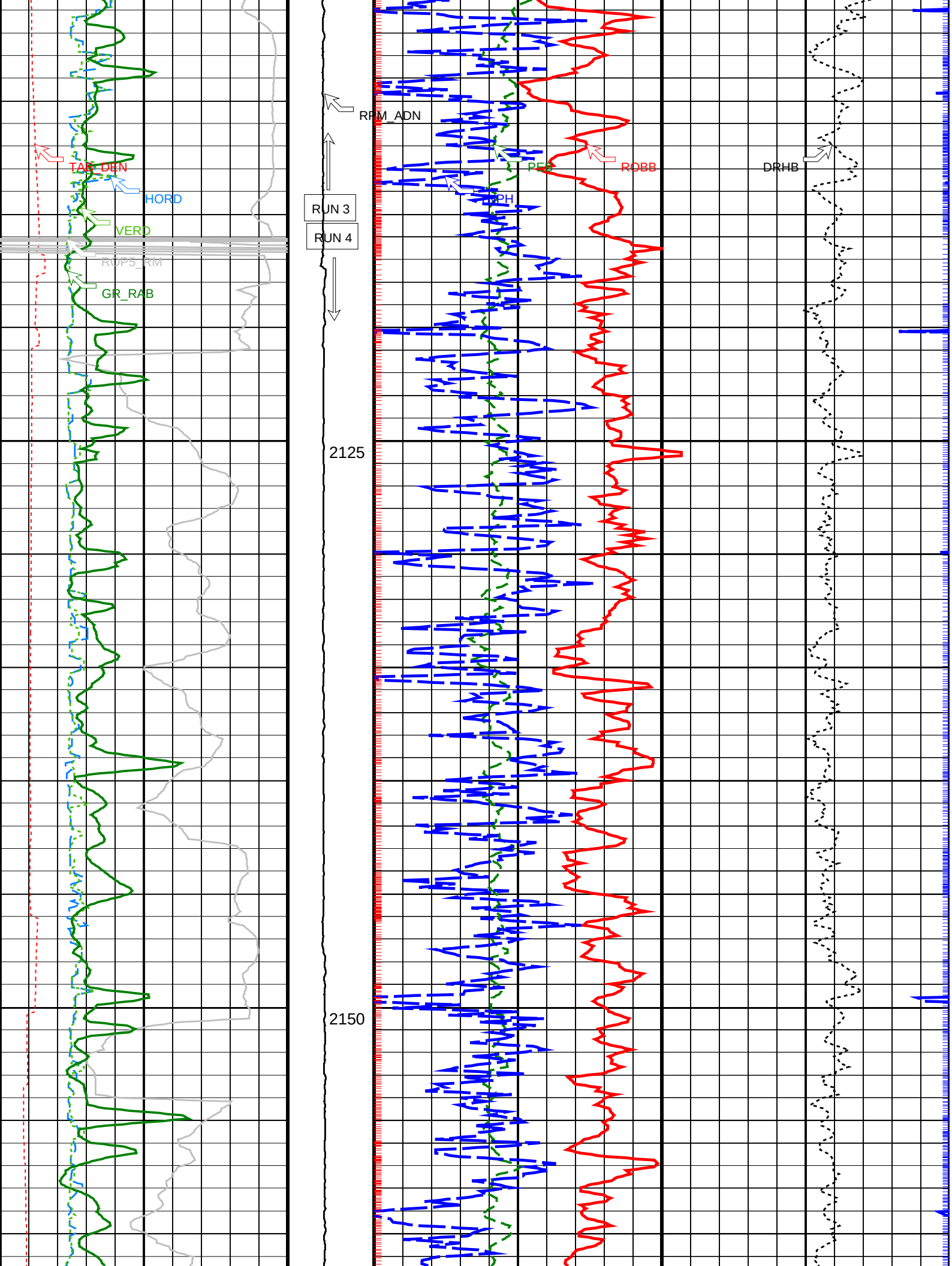
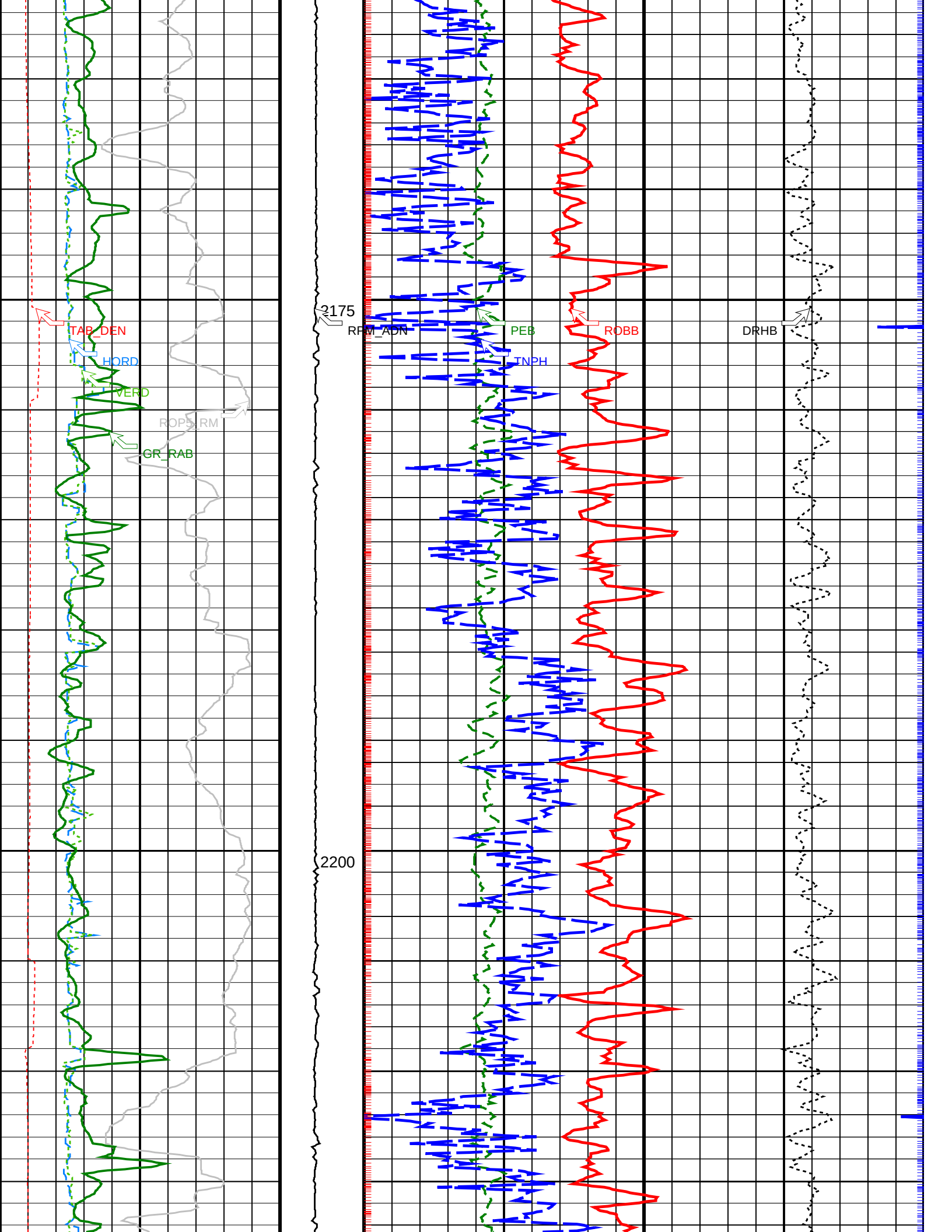
VERD
ROP5_RM
GR_RAB
RPM_ADN
PEB
TNPH
ROBB
DRHB


1950
1975
NEUTRON splice
DENSITY splice
TAB_DEN
GR splice
HORD
VERD
ROPS_RM
GR_RAB
RPM_ADN
PEB
ROBB
TNPH
DRHB


RUN 2
RUN 3
2000
2025
TAB_DEN
RPM_ADN
PEB
ROBB
DRHB


RORD
VERD
ROP5_RM
GR_RAB
TNPH
2050
2075
2100
NEUTRON splice
DENSITY splice
GR splice


RPM_ADN
TAB_DEN
HORD
VERD
ROP5_RM
GR_RAB
PEF
ROBB
DRHB
PH
RUN 3
RUN 4
2125
2150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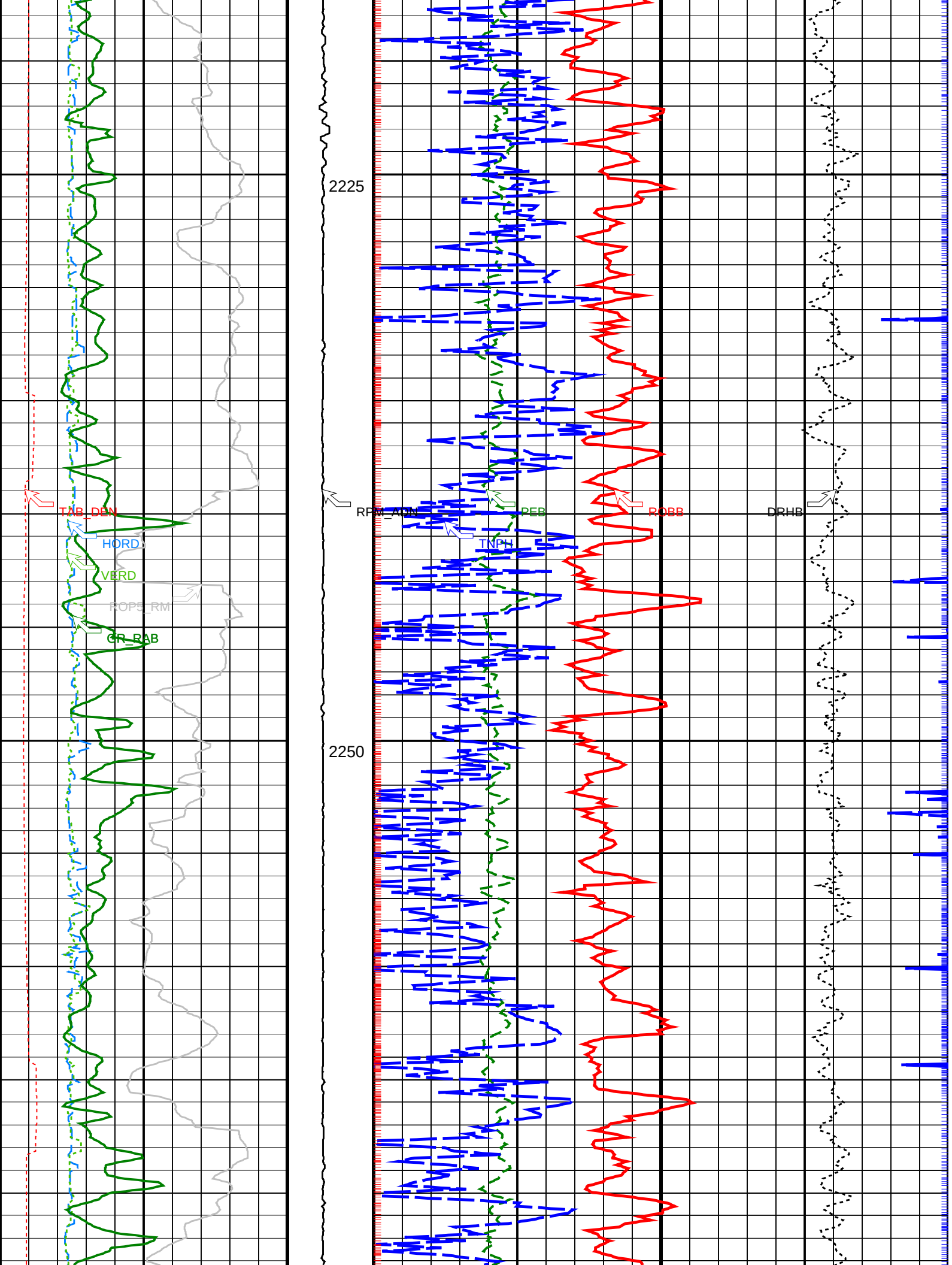
VERD
ROPS_RM
GR_RAB
2175
RPM_ADN
PEB
ROBB
TNPH
DRHB
2200


2225
2250
TAB_DEN
HORD
VERD
ROP5_RM
GR_RAB
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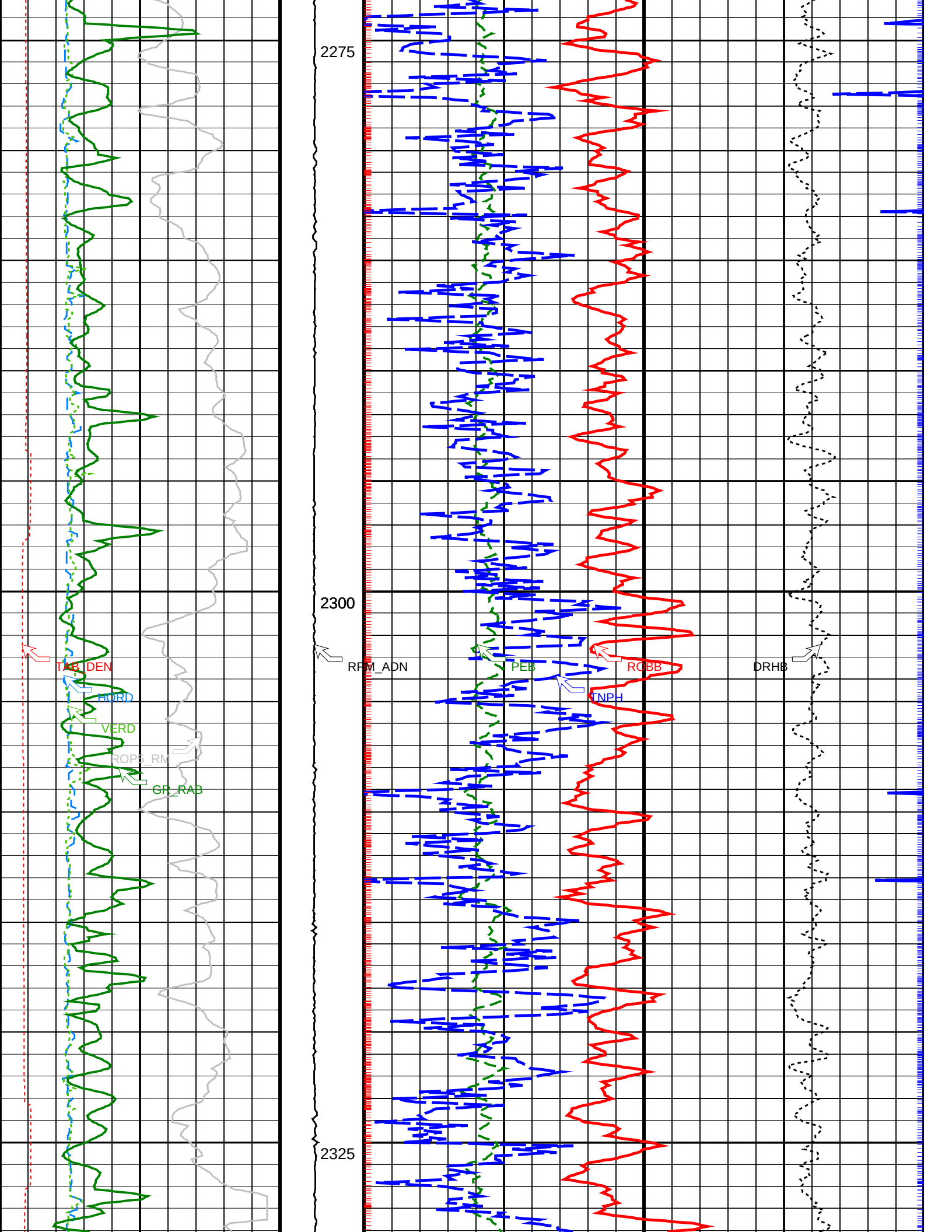
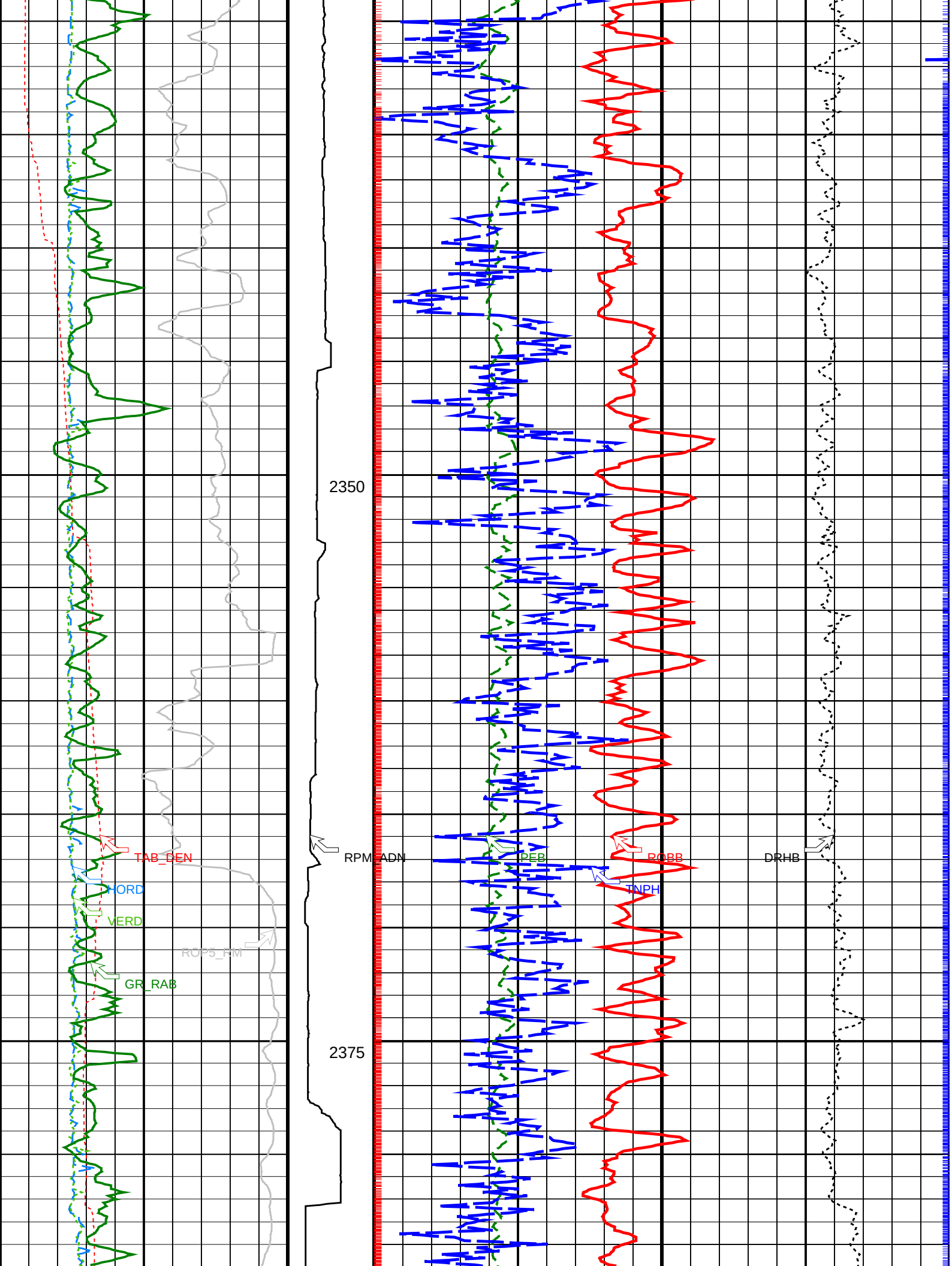
PEB
TNPH
ROBB
DRHB


2275
2300
2325
TAB_DEN
HORD
VERD
ROP3_RM
GR_RAB
RPM_ADN
PEB
ROBB
TNPH
DRHB


2350
2375
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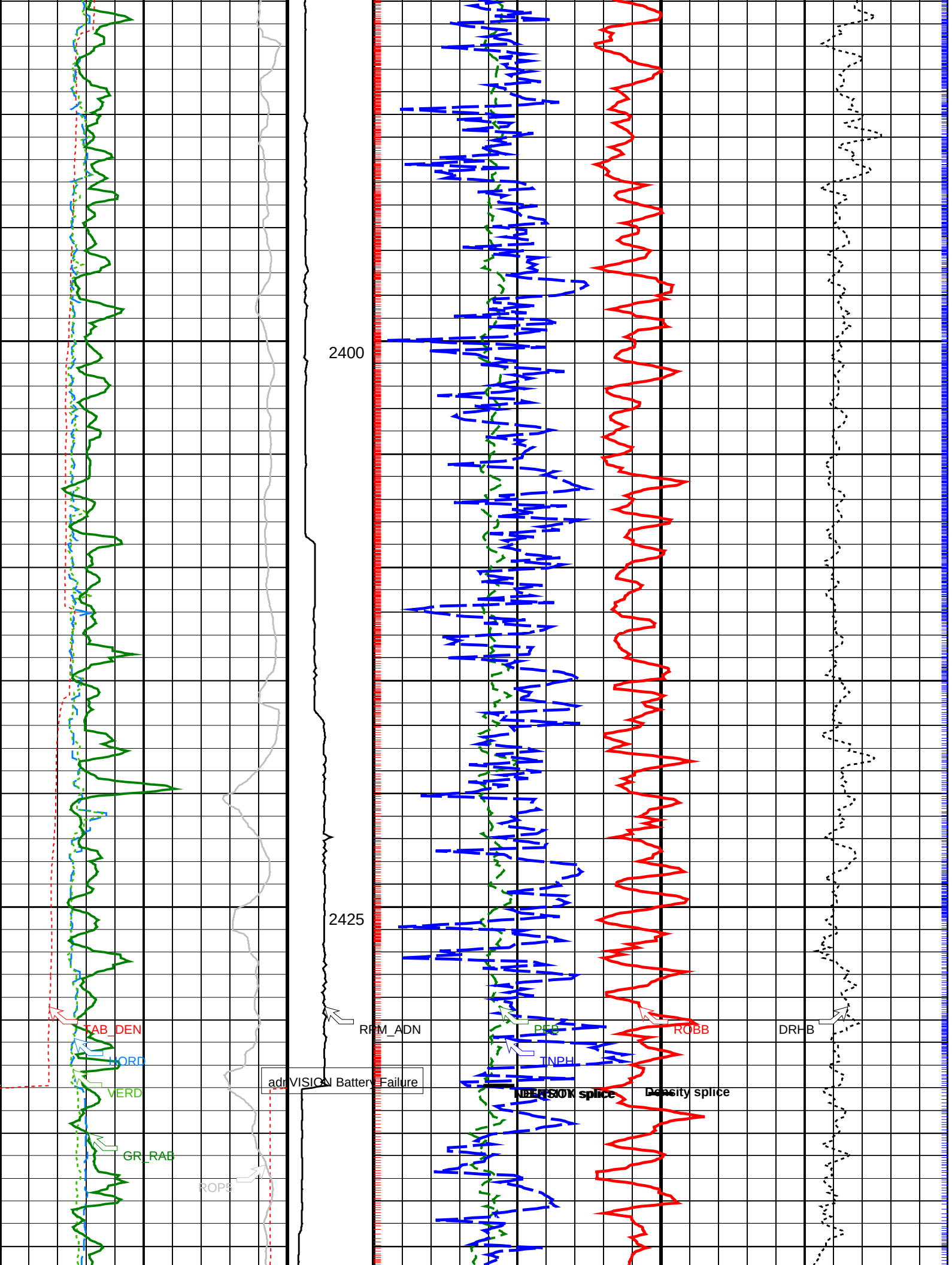
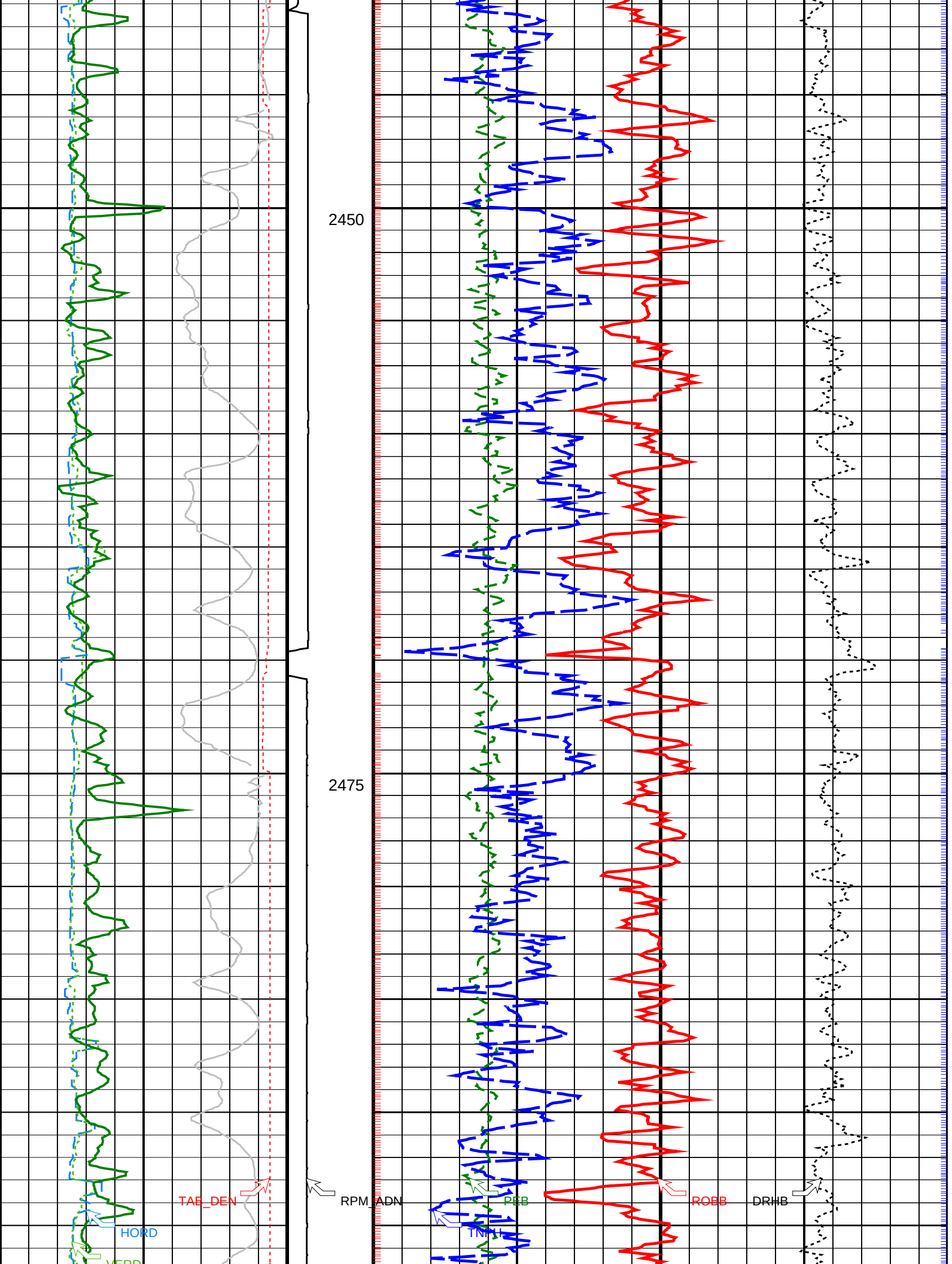
HORD
VERD
ROP5_RM
GR_RAB
RPM_ADN
PEB
ROBB
TNPH
DRHB


2400
2425
TAB_DEN
HORD
VERD
GR_RAB
ROPB
RPM_ADN
PEB
TNPH
ROBB
DRHB
adnVISION Battery Failure
Density splice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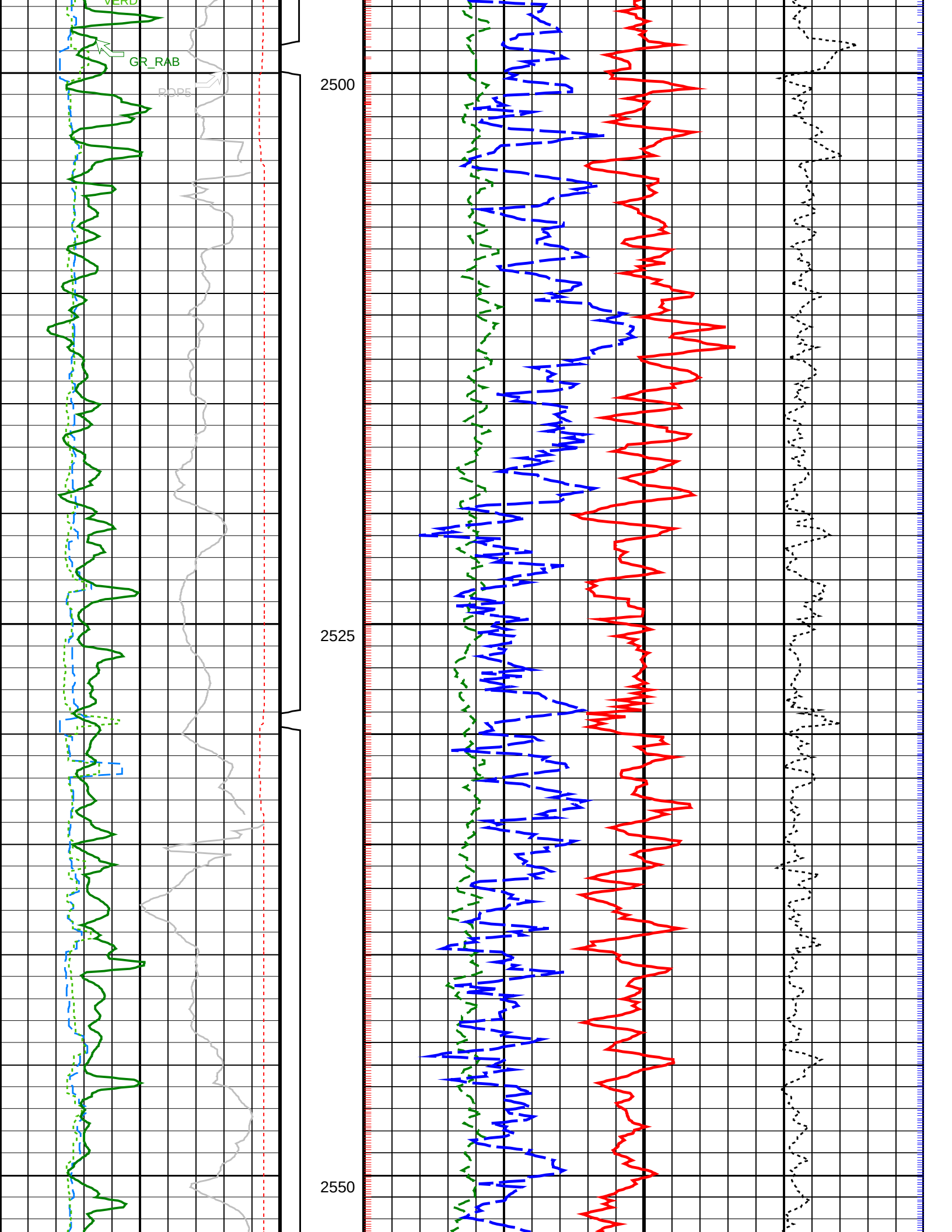
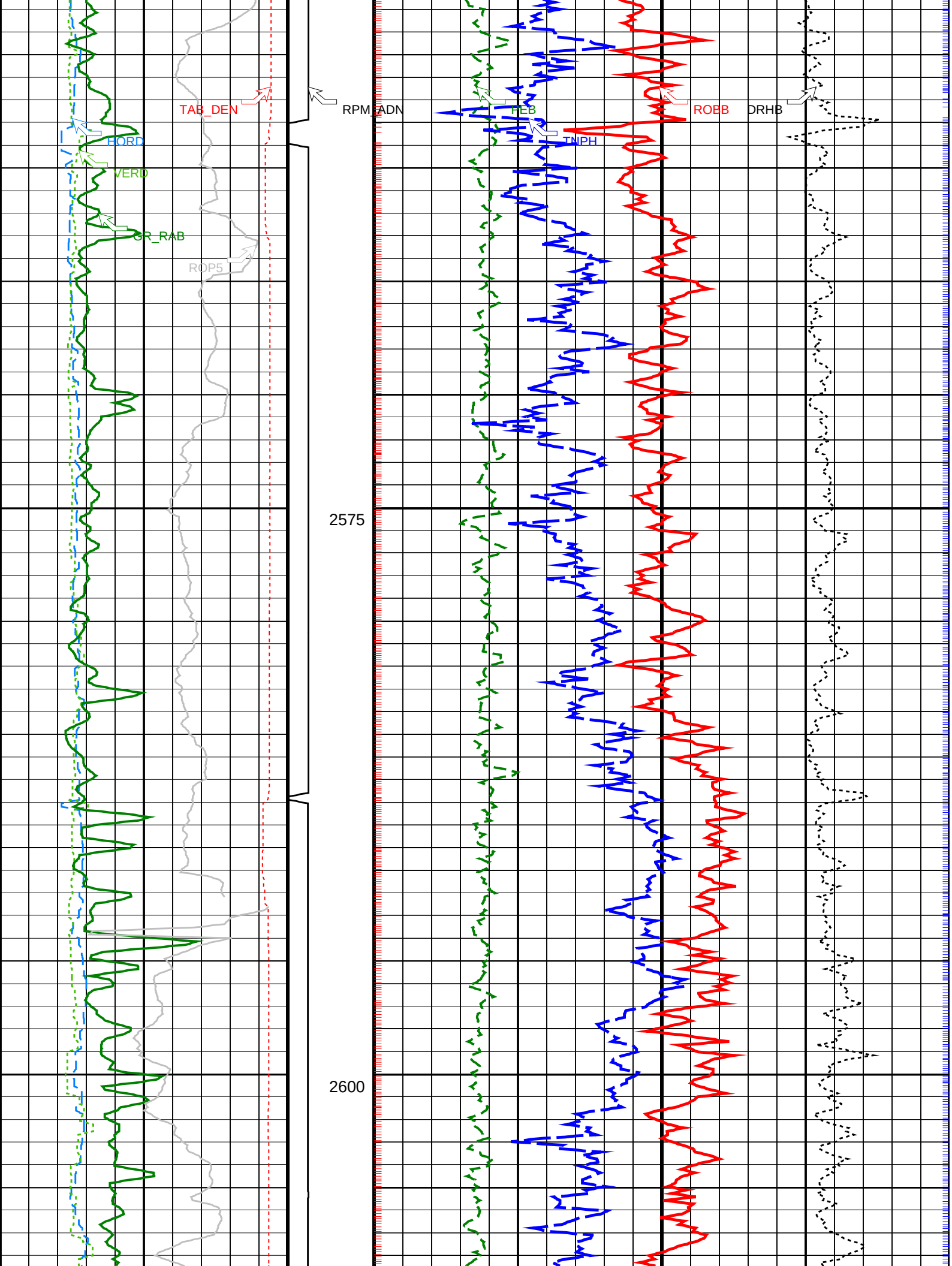
2475
TAB_DEN
RPM_ADN
PEB
ROBB
DRHB
HORD
TNPH


VERD
GR_RAB
ROP5
2500
2525
2550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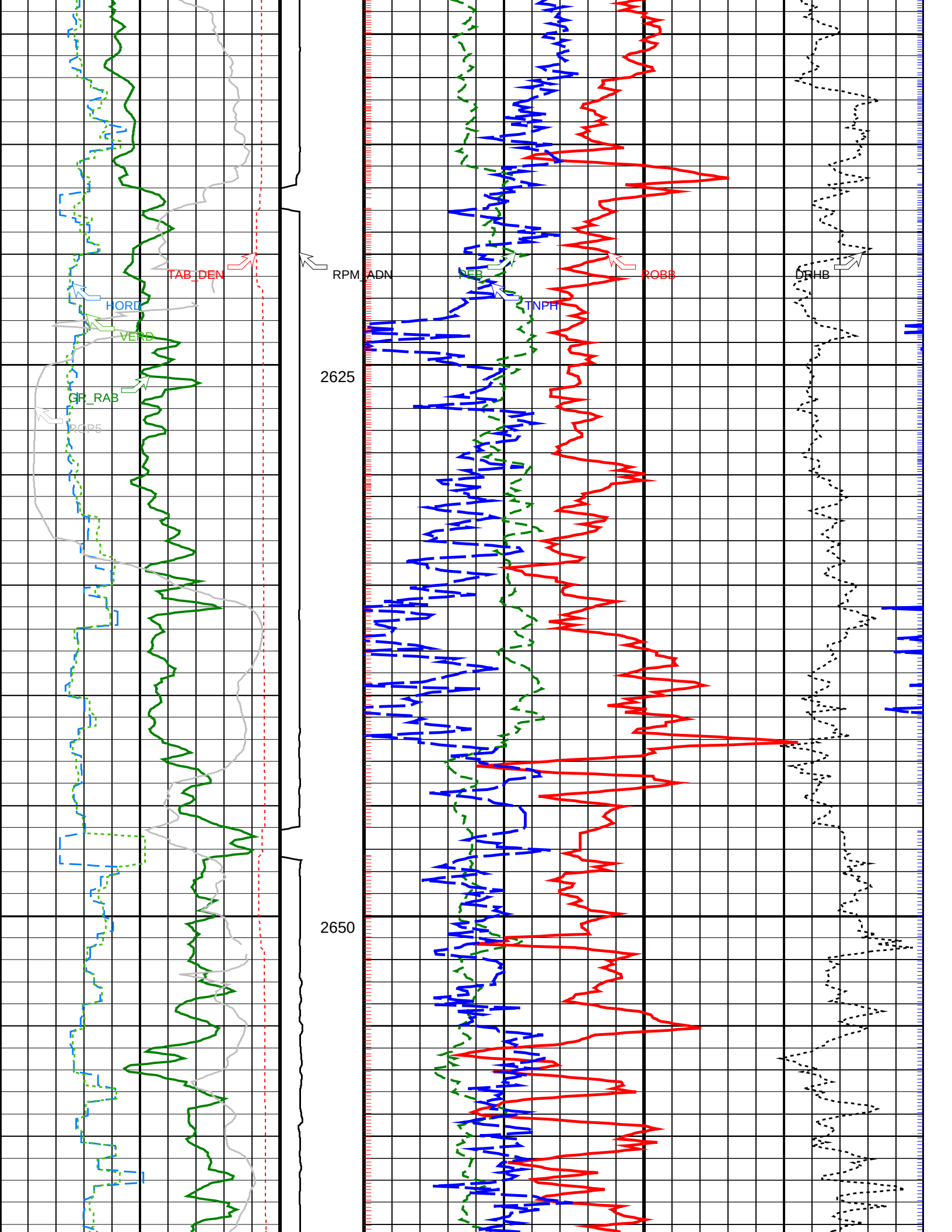
RPM_ADN
HORD
VERD
GR_RAB
ROP5
HEB
TNPH
ROBB
DRHB
2575
2600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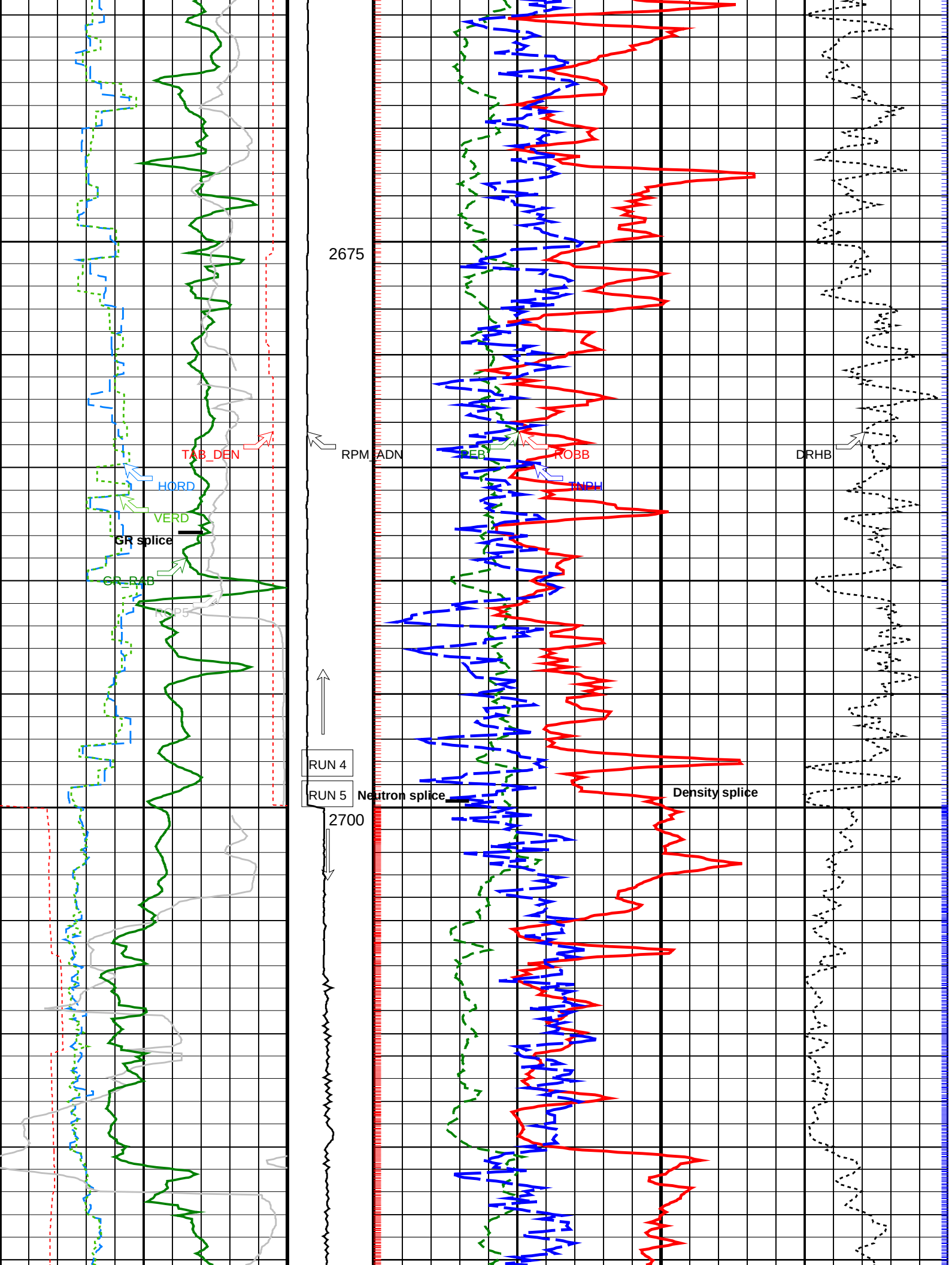
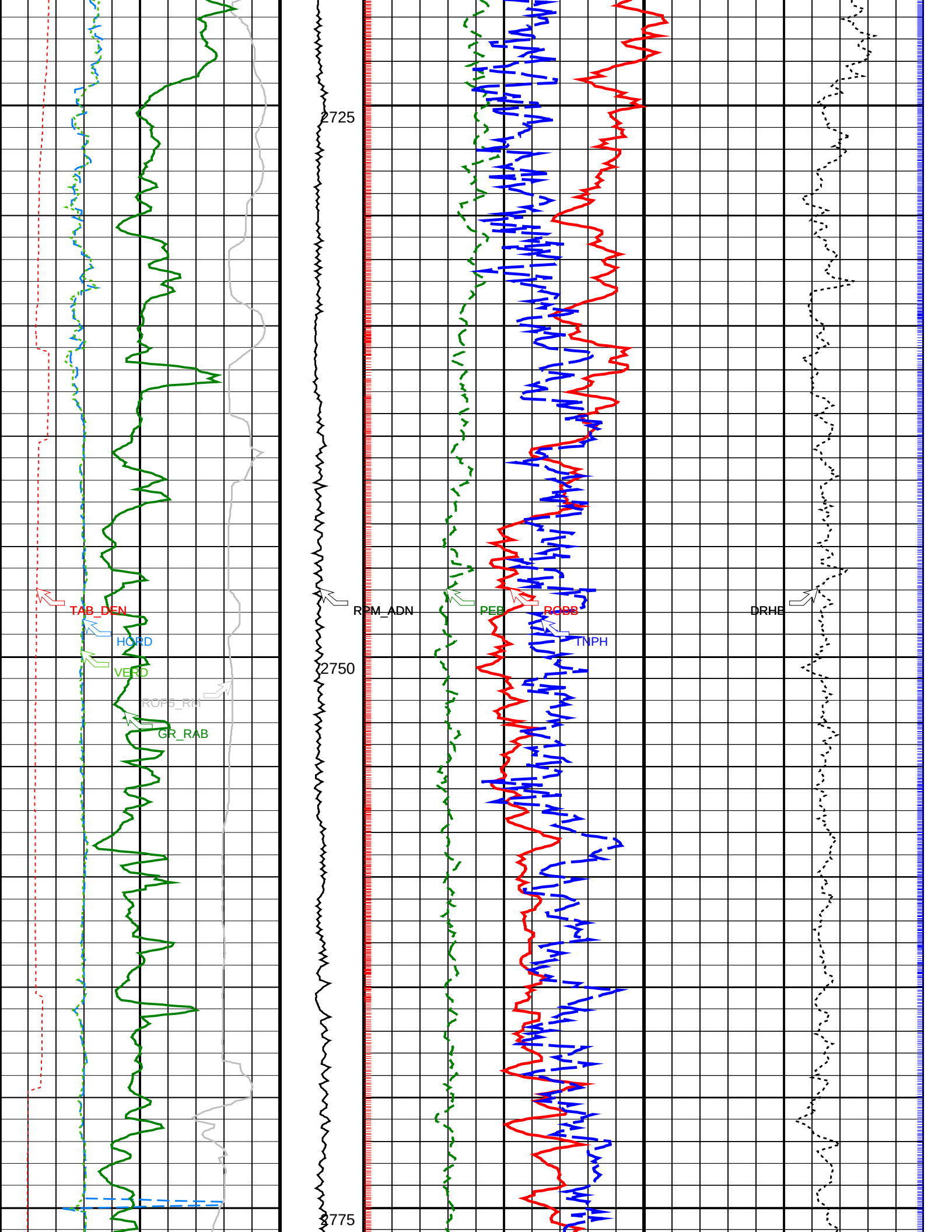
PEB
ROBB
DRHB
HORD
TNPH
VERD
2625
GR_RAB
POP5
2650


2675
TAB_DEN
RPM_ADN
PEB
ROBB
DRHB
HORD
TNPH
VERD
GR splice
GR_RAB
RSP5
RUN 4
RUN 5
Neutron splice
Density splice
2700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2750
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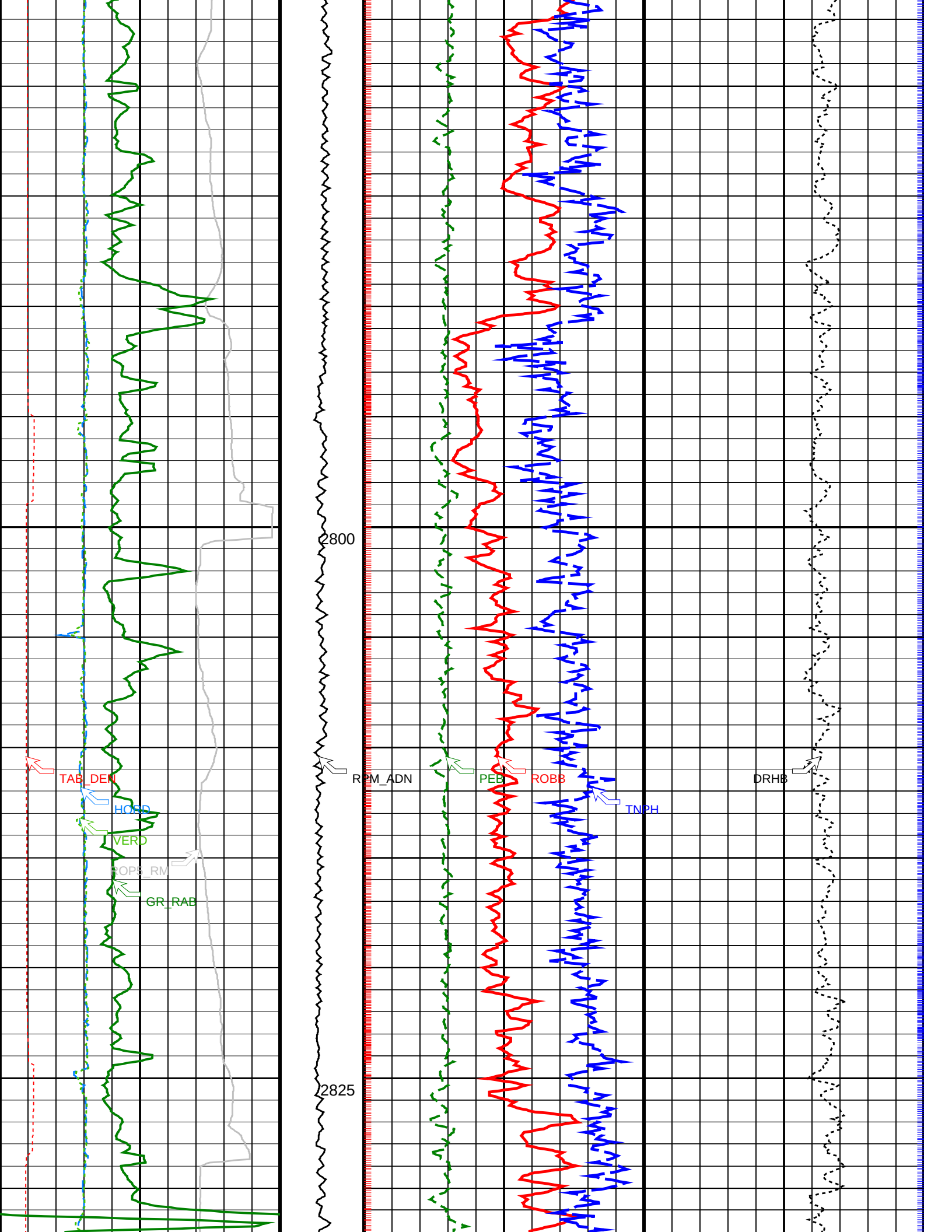
RODB
TNPH
DRHB


2800
2825
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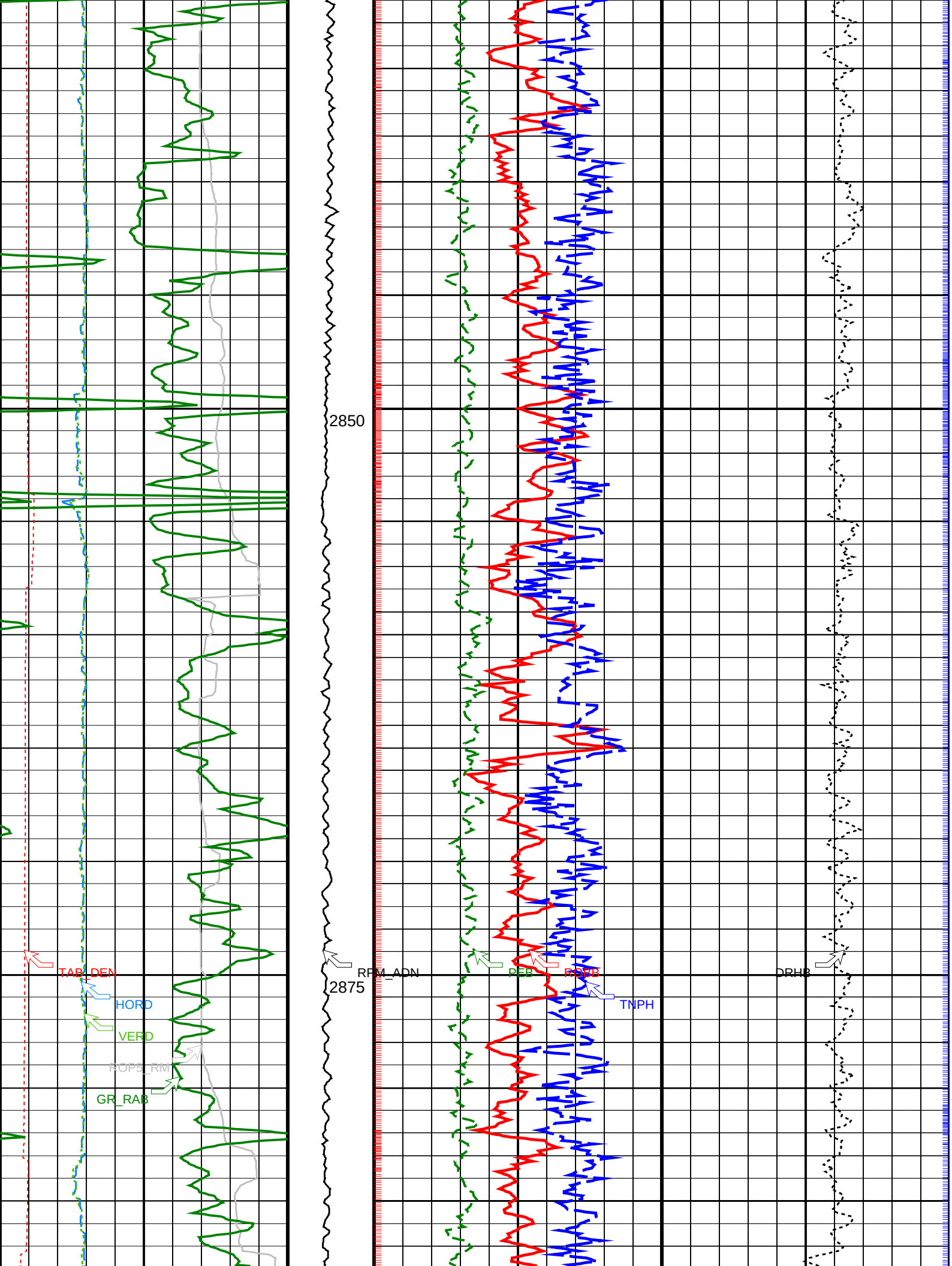
VERD
ROPS_RM
GR_RAB
RPM_ADN
PEB
ROBB
TNPH
DRHB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2875
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VERD
POP5_RM
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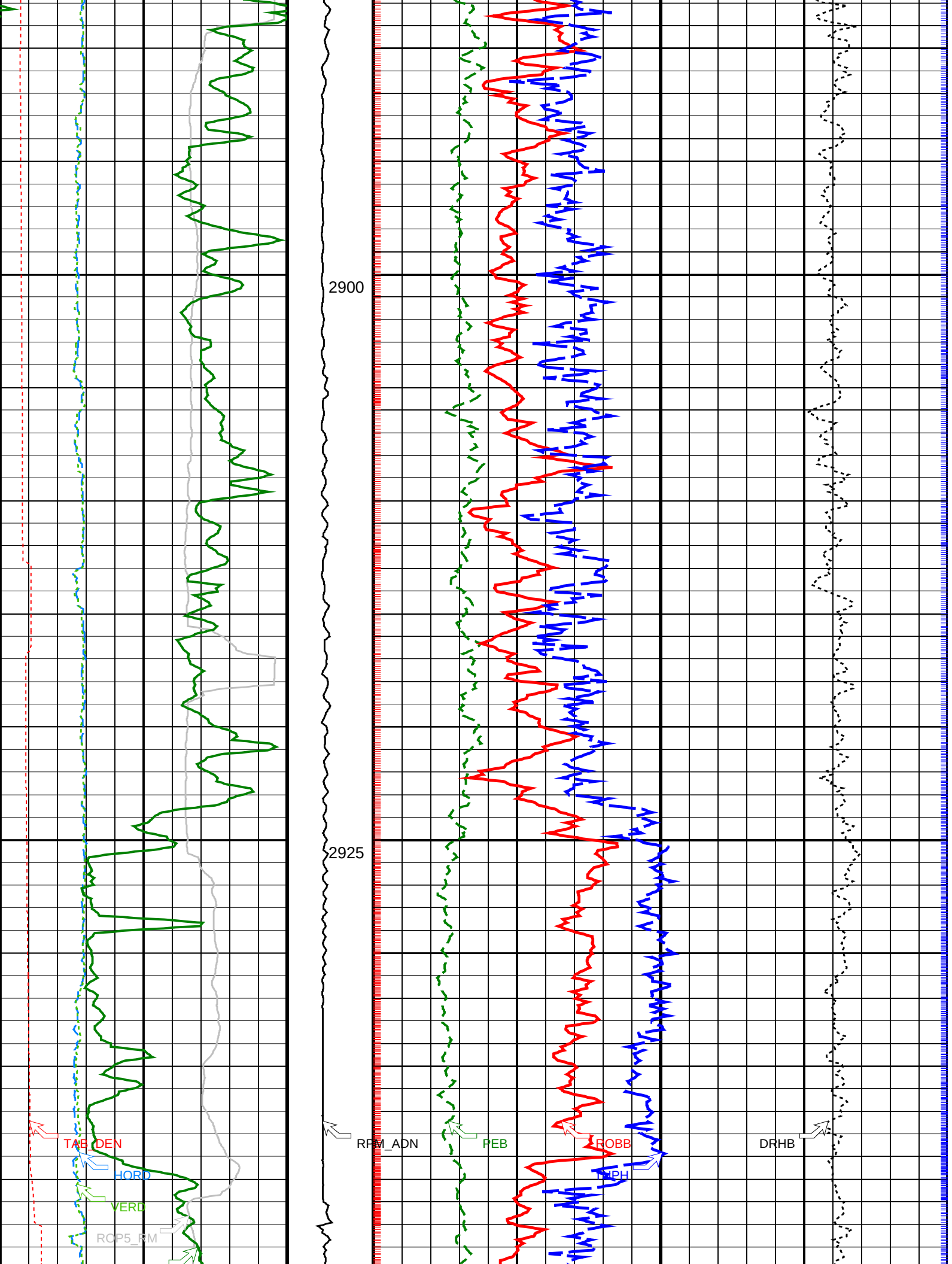
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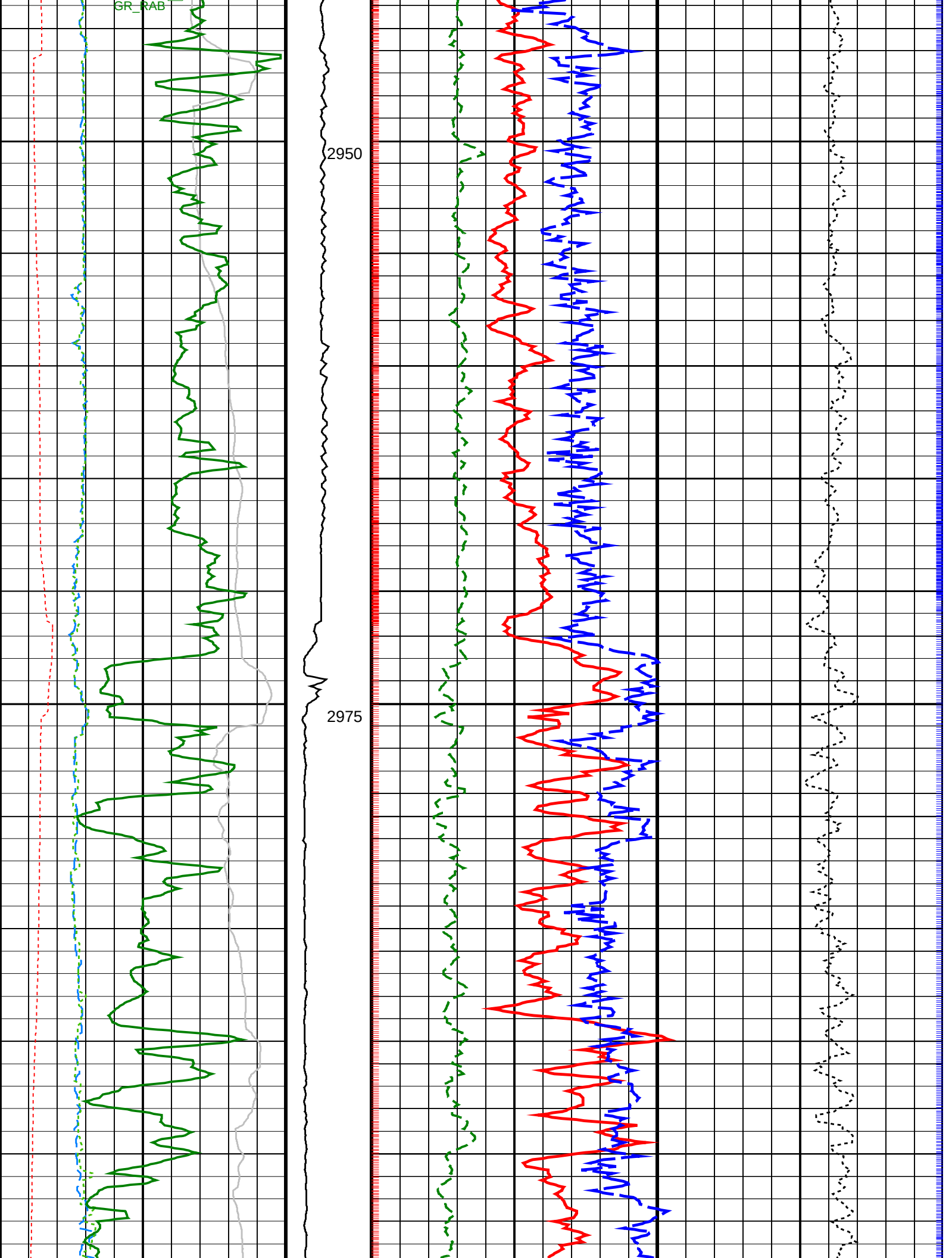
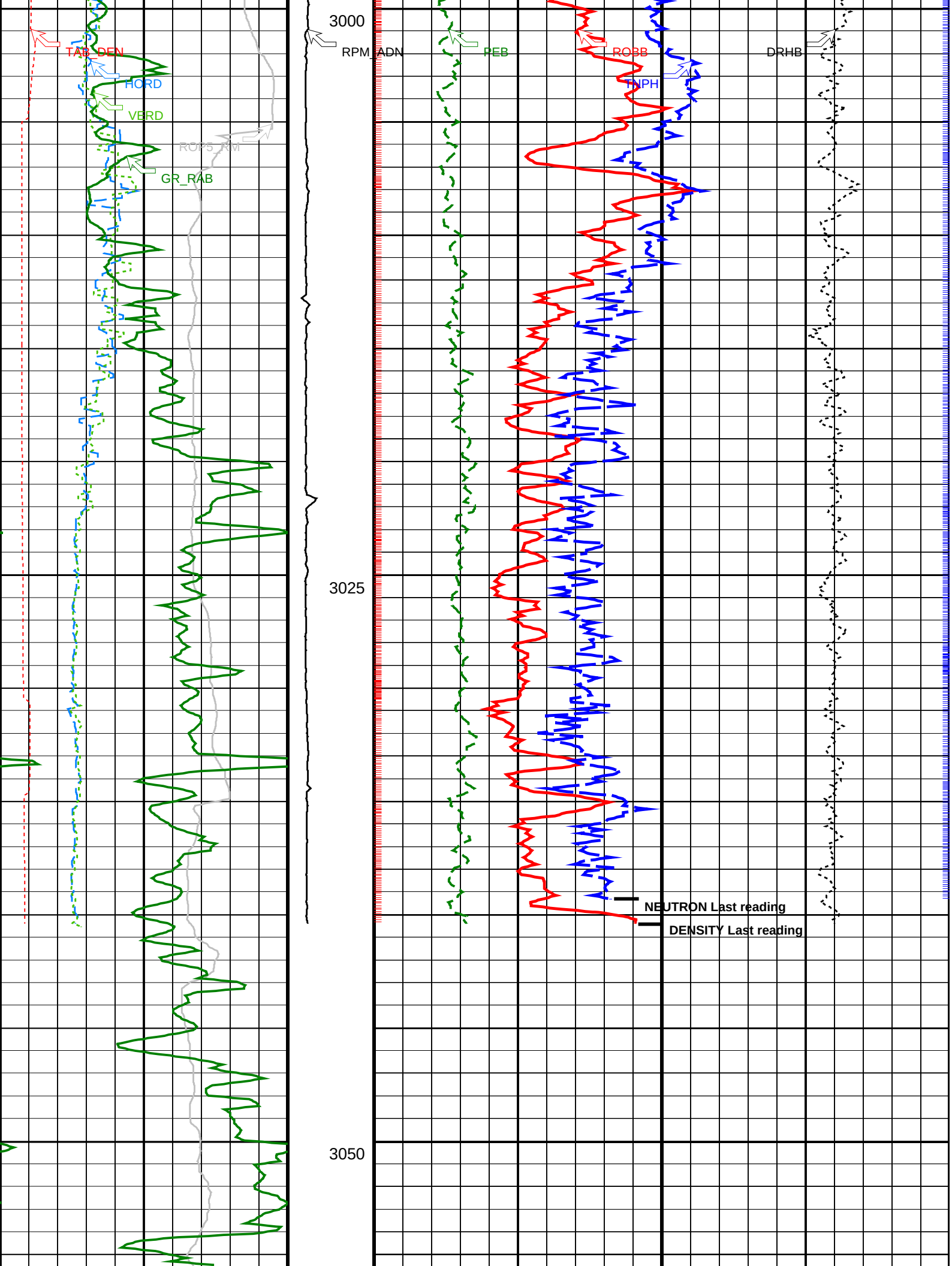
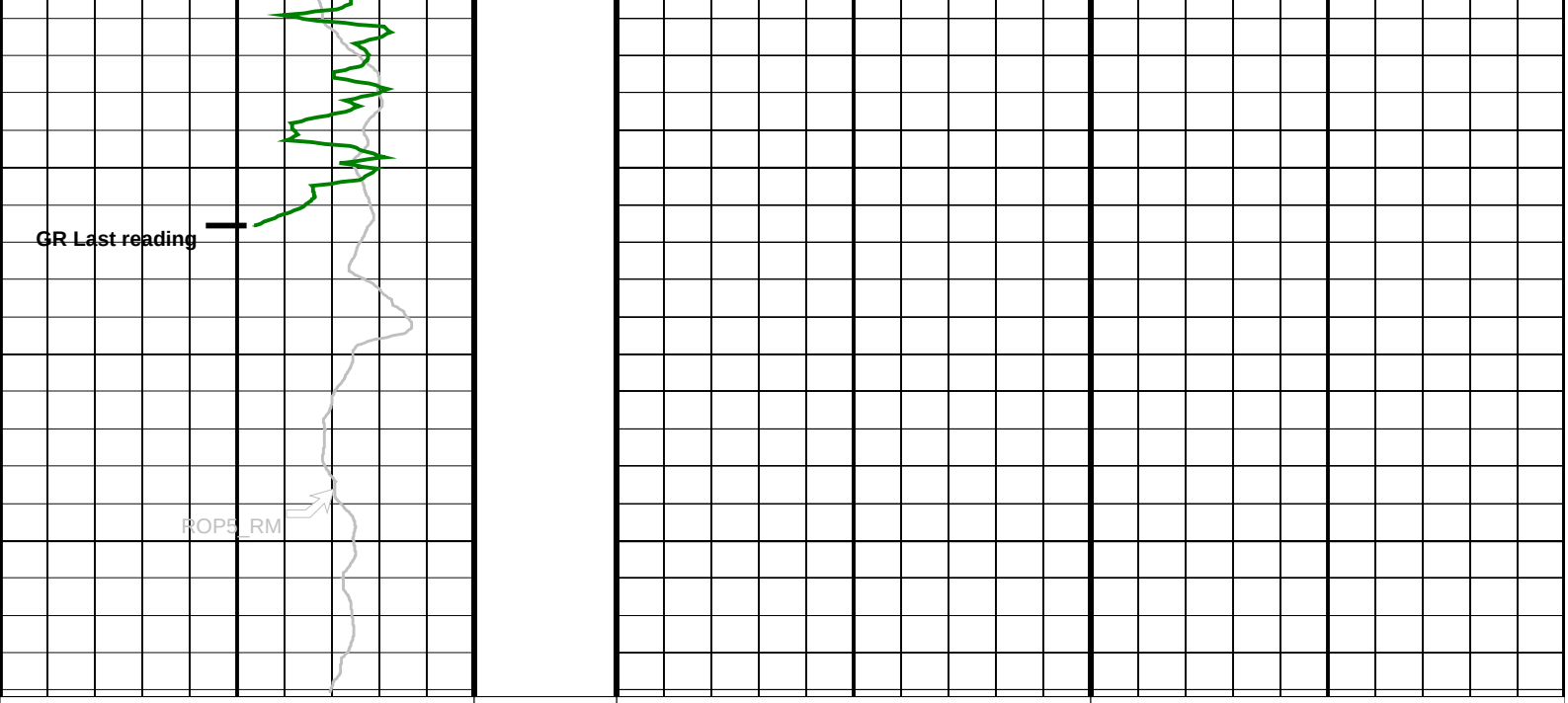
2925
TAB_DEN
HORD
VERD
ROP5_RM
RPM_ADN
PEB
ROBB
TNPH
DRHB


GR_RAB
2950
2975


3000
3025
3050
TAB_DEN
HORD
VERD
ROP5_RM
GR_RAB
RPM_ADN
PEB
ROBB
TNPH
DRHB
NEUTRON Last reading
DENSITY Last reading



Density Time After Bit (TAB_DEN) 0 (HR) 10	ADN Rotational Speed (RPM_ADN) (RPM) 0 250	Photoelectric Factor, Bottom (PEB) 0 (---- 10	Bulk Density Correction, Bottom (DRHB) −0.25 (G/C3) 0.25
Horizontal Hole Diameter (HORD) 6 (IN) 16		Bulk Density, Bottom (ROBB) 1.95 (G/C3) 2.95	
Vertical Hole Diameter (VERD) 6 (IN) 16		Thermal Neutron Porosity (TNPH) 45 (PU) −15	
ROP*5 (ROP5) 200 (M/HR) 0			
RAB Gamma Ray (GR_RAB) 0 (GAPI) 200			
Rate of Penetration, Averaged over Last 5ft (ROP5_RM) 200 (M/HR) 0			

PIP SUMMARY

Neutron Samples

Density Samples

IDEAL Version: ID13_0C_06

IDF

6.75−in. Resistivity At−the−Bit / Equipment Identification

Primary Equipment:

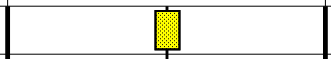
Tool Name and Serial Number	RAB6 − CA	214
Calibration Status	−	

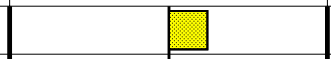
Master: 1−Mar−2008 16:23

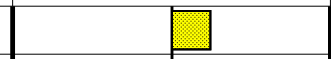
6.75−in. Resistivity At−the−Bit Calibration

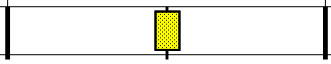
Resistivity: Fixture

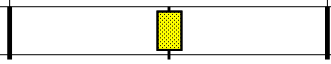
Phase	Ring/T1 factor ----	Value	Phase	Ring/T2 factor ----	Value	Phase	M0/T1 factor ----	Value
Master		0.9982	Master		0.9999	Master		1.003
	0.9750 1.000 1.025			0.9750 1.000 1.025			0.9750 1.000 1.025	

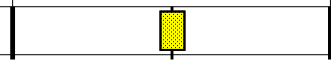
Phase	M0/T2 factor -----	Value
Master		1.003
	0.9750 (Minimum) 1.000 (Nominal) 1.025 (Maximum)	

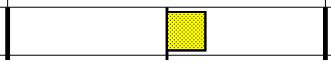
Phase	M2/T1 factor -----	Value
Master		1.009
	0.9750 (Minimum) 1.000 (Nominal) 1.025 (Maximum)	

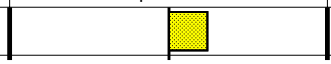
Phase	M2/T2 factor -----	Value
Master		1.010
	0.9750 (Minimum) 1.000 (Nominal) 1.025 (Maximum)	

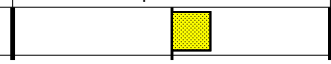
Phase	BTN shallow/T1 factor -----	Value
Master		1.005
	0.9750 (Minimum) 1.000 (Nominal) 1.025 (Maximum)	

Phase	BTN shallow/T2 factor -----	Value
Master		1.006
	0.9750 (Minimum) 1.000 (Nominal) 1.025 (Maximum)	

Phase	BTN medium/T1 factor -----	Value
Master		1.006
	0.9750 (Minimum) 1.000 (Nominal) 1.025 (Maximum)	

Phase	BTN medium/T2 factor -----	Value
Master		1.006
	0.9750 (Minimum) 1.000 (Nominal) 1.025 (Maximum)	

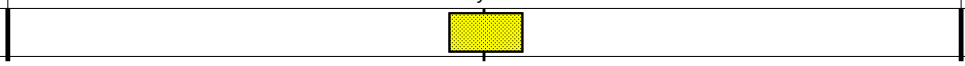
Phase	BTN deep/T1 factor -----	Value
Master		1.008
	0.9750 (Minimum) 1.000 (Nominal) 1.025 (Maximum)	

Phase	BTN deep/T2 factor -----	Value
Master		1.009
	0.9750 (Minimum) 1.000 (Nominal) 1.025 (Maximum)	

Master: Calibration date not found

6.75−in. Resistivity At−the−Bit Calibration

Gamma Ray: Blanket

Phase	Gamma ray factor -----	Value
Master		0.9954
	0.7500 (Minimum) 1.000 (Nominal) 1.250 (Maximum)	

6.75−in. Azimuthal Density Neutron / Equipment Identification

Primary Equipment:		
Tool Name and Serial Number	ADN6 − CA	373
Collar Type and Serial Number	ADDC − AA	40778
Chassis Type and Serial Number	ADSE − EA	373
Stabilizer Type and Serial Number	−	1
Neutron Logging Source	NSR − M	202
Density Logging Source	GSR − J/Z	1994
Stabilizer Size	8.13 − in.	
Calibration Status	EDIT −	

Master: 8−Mar−2008 12:43

6.75−in. Azimuthal Density Neutron Calibration

Density: Magnesium Block

Phase	LS window 3 − Mg CPS	Value	Phase	SS window 1 − Mg CPS	Value	Phase	SS window 3 − Mg CPS	Value
Master		1017	Master		2608	Master		6263
	250.0 (Minimum) 4125 (Nominal) 8000 (Maximum)			700.0 (Minimum) 9350 (Nominal) 18000 (Maximum)			2500 (Minimum) 23750 (Nominal) 45000 (Maximum)	

Master: 8−Mar−2008 12:43

6.75−in. Azimuthal Density Neutron Calibration

Density: Aluminum Block

Phase	LS window 3 − Al CPS	Value	Phase	SS window 1 − Al CPS	Value	Phase	SS window 3 − Al CPS	Value
Master		149.8	Master		1309	Master		3902
	50.00 (Minimum) 725.0 (Nominal) 1400 (Maximum)			500.0 (Minimum) 4250 (Nominal) 8000 (Maximum)			1500 (Minimum) 15750 (Nominal) 30000 (Maximum)	

Master: 8−Mar−2008 12:43

6.75−in. Azimuthal Density Neutron Calibration

Density: Background

Phase	LS window 3 − Background CPS	Value	Phase	SS window 1 − Background CPS	Value	Phase	SS window 3 − Background CPS	Value
Master		49.97	Master		116.2	Master		511.0
	15.00 (Minimum) 82.50 (Nominal) 150.0 (Maximum)			40.00 (Minimum) 220.0 (Nominal) 400.0 (Maximum)			150.0 (Minimum) 825.0 (Nominal) 1500 (Maximum)	

Master: 8−Mar−2008 12:43

6.75−in. Azimuthal Density Neutron Calibration

Density: Water Block Check

Phase	Long spacing water density G/C3	Value	Phase	Short spacing water density G/C3	Value
Master		1.040	Master		1.142
	1.027 (Minimum) 1.042 (Nominal) 1.057 (Maximum)			1.098 (Minimum) 1.128 (Nominal) 1.158 (Maximum)	

Master: 8−Mar−2008 12:43

6.75−in. Azimuthal Density Neutron Calibration

Neutron: 3−Point Calibration

Phase	Far 1 tube 1 Air Point Measure CPS	Value	Phase	Far 1 tube 1 Rod Point Measure CPS	Value	Phase	Far 1 tube 1 H2O Point Measure CPS	Value
Master		17.17	Master		4.120	Master		2.063
	13.30 (Minimum) 19.05 (Nominal) 24.70 (Maximum)			3.400 (Minimum) 4.857 (Nominal) 6.200 (Maximum)			1.600 (Minimum) 2.363 (Nominal) 3.100 (Maximum)	
Phase	Far 1 tube 2 Air Point Measure CPS	Value	Phase	Far 1 tube 2 Rod Point Measure CPS	Value	Phase	Far 1 tube 2 H2O Point Measure CPS	Value
Master		18.01	Master		4.305	Master		2.103
	13.30 (Minimum) 19.05 (Nominal) 24.70 (Maximum)			3.400 (Minimum) 4.857 (Nominal) 6.200 (Maximum)			1.600 (Minimum) 2.363 (Nominal) 3.100 (Maximum)	
Phase	Far 1 tube 3 Air Point Measure CPS	Value	Phase	Far 1 tube 3 Rod Point Measure CPS	Value	Phase	Far 1 tube 3 H2O Point Measure CPS	Value
Master		16.46	Master		4.034	Master		1.941
	13.30 (Minimum) 19.05 (Nominal) 24.70 (Maximum)			3.400 (Minimum) 4.857 (Nominal) 6.200 (Maximum)			1.600 (Minimum) 2.363 (Nominal) 3.100 (Maximum)	
Phase	Far 2 tube 1 Air Point Measure CPS	Value	Phase	Far 2 tube 1 Rod Point Measure CPS	Value	Phase	Far 2 tube 1 H2O Point Measure CPS	Value
Master		16.36	Master		4.278	Master		2.126
	13.30 (Minimum) 19.05 (Nominal) 24.70 (Maximum)			3.400 (Minimum) 4.857 (Nominal) 6.200 (Maximum)			1.600 (Minimum) 2.363 (Nominal) 3.100 (Maximum)	

Phase	Far 2 tube 2 Air Point Measure CPS	Value
Master		17.81
	13.30 (Minimum) 19.05 (Nominal) 24.70 (Maximum)	

Phase	Far 2 tube 2 Rod Point Measure CPS	Value
Master		4.387
	3.400 (Minimum) 4.857 (Nominal) 6.200 (Maximum)	

Phase	Far 2 tube 2 H2O Point Measure CPS	Value
Master		2.169
	1.600 (Minimum) 2.363 (Nominal) 3.100 (Maximum)	

Phase	Far 2 tube 3 Air Point Measure CPS	Value
Master		17.30
	13.30 (Minimum) 19.05 (Nominal) 24.70 (Maximum)	

Phase	Far 2 tube 3 Rod Point Measure CPS	Value
Master		4.245
	3.400 (Minimum) 4.857 (Nominal) 6.200 (Maximum)	

Phase	Far 2 tube 3 H2O Point Measure CPS	Value
Master		2.034
	1.600 (Minimum) 2.363 (Nominal) 3.100 (Maximum)	

Phase	Near 1 tube 1 Air Point Measure CPS	Value
Master		453.6
	345.0 (Minimum) 487.5 (Nominal) 595.0 (Maximum)	

Phase	Near 1 tube 1 Rod Point Measure CPS	Value
Master		732.3
	535.0 (Minimum) 768.8 (Nominal) 925.0 (Maximum)	

Phase	Near 1 tube 1 H2O Point Measure CPS	Value
Master		326.0
	230.0 (Minimum) 343.7 (Nominal) 430.0 (Maximum)	

Phase	Near 2 tube 1 Air Point Measure CPS	Value
Master		459.9
	345.0 (Minimum) 487.5 (Nominal) 595.0 (Maximum)	

Phase	Near 2 tube 1 Rod Point Measure CPS	Value
Master		723.1
	535.0 (Minimum) 768.8 (Nominal) 925.0 (Maximum)	

Phase	Near 2 tube 1 H2O Point Measure CPS	Value
Master		326.0
	230.0 (Minimum) 343.7 (Nominal) 430.0 (Maximum)	

Master: 8−Mar−2008 12:43

6.75−in. Azimuthal Density Neutron Calibration

Neutron: Water Block Check

Phase	Far Neutron water porosity PU	Value
Master		93.53
	90.00 (Minimum) 100.0 (Nominal) 125.0 (Maximum)	

6.75−in. Azimuthal Density Neutron / Equipment Identification

Primary Equipment:		
Tool Name and Serial Number	ADN6 − CA	47
Collar Type and Serial Number	ADDC − AA	373
Chassis Type and Serial Number	ADSE − EA	47
Stabilizer Type and Serial Number	−	1
Neutron Logging Source	NSR − M	202
Density Logging Source	GSR − J/Z	1994
Stabilizer Size	8.13 − in.	
Calibration Status	EDIT −	

Master: 16−Jan−2008 22:40

6.75−in. Azimuthal Density Neutron Calibration

Density: Magnesium Block

Phase	LS window 3 − Mg CPS	Value
Master		1045
	250.0 (Minimum) 4125 (Nominal) 8000 (Maximum)	

Phase	SS window 1 − Mg CPS	Value
Master		2550
	700.0 (Minimum) 9350 (Nominal) 18000 (Maximum)	

Phase	SS window 3 − Mg CPS	Value
Master		5954
	2500 (Minimum) 23750 (Nominal) 45000 (Maximum)	

Master: 16−Jan−2008 22:40

6.75−in. Azimuthal Density Neutron Calibration

Density: Aluminum Block

Phase	LS window 3 − Al CPS	Value
Master		153.6
	50.00 (Minimum) 725.0 (Nominal) 1400 (Maximum)	

Phase	SS window 1 − Al CPS	Value
Master		1270
	500.0 (Minimum) 4250 (Nominal) 8000 (Maximum)	

Phase	SS window 3 − Al CPS	Value
Master		3694
	1500 (Minimum) 15750 (Nominal) 30000 (Maximum)	

Master: 16−Jan−2008 22:40

6.75−in. Azimuthal Density Neutron Calibration

Density: Background

Phase	LS window 3 − Background CPS	Value
Master		43.77
	15.00 (Minimum) 82.50 (Nominal) 150.0 (Maximum)	

Phase	SS window 1 − Background CPS	Value
Master		98.92
	40.00 (Minimum) 220.0 (Nominal) 400.0 (Maximum)	

Phase	SS window 3 − Background CPS	Value
Master		427.4
	150.0 (Minimum) 825.0 (Nominal) 1500 (Maximum)	

Master: 16−Jan−2008 22:40

6.75−in. Azimuthal Density Neutron Calibration

Density: Water Block Check

Phase	Long spacing water density G/C3	Value	Phase	Short spacing water density G/C3	Value
Master		1.035	Master		1.130
	0.9000 (Minimum) 1.000 (Nominal) 1.100 (Maximum)			1.000 (Minimum) 1.100 (Nominal) 1.200 (Maximum)	

1.027 (Minimum)	1.042 (Nominal)	1.057 (Maximum)	1.098 (Minimum)	1.128 (Nominal)	1.158 (Maximum)

Master: 16−Jan−2008 22:40

6.75−in. Azimuthal Density Neutron Calibration

Neutron: 3−Point Calibration

Phase	Far 1 tube 1 Air Point Measure CPS	Value	Phase	Far 1 tube 1 Rod Point Measure CPS	Value	Phase	Far 1 tube 1 H2O Point Measure CPS	Value
Master		16.56	Master		4.201	Master		2.020
	13.30 (Minimum) 19.05 (Nominal) 24.70 (Maximum)			3.400 (Minimum) 4.857 (Nominal) 6.200 (Maximum)			1.600 (Minimum) 2.363 (Nominal) 3.100 (Maximum)	
Phase	Far 1 tube 2 Air Point Measure CPS	Value	Phase	Far 1 tube 2 Rod Point Measure CPS	Value	Phase	Far 1 tube 2 H2O Point Measure CPS	Value
Master		17.08	Master		4.091	Master		2.098
	13.30 (Minimum) 19.05 (Nominal) 24.70 (Maximum)			3.400 (Minimum) 4.857 (Nominal) 6.200 (Maximum)			1.600 (Minimum) 2.363 (Nominal) 3.100 (Maximum)	
Phase	Far 1 tube 3 Air Point Measure CPS	Value	Phase	Far 1 tube 3 Rod Point Measure CPS	Value	Phase	Far 1 tube 3 H2O Point Measure CPS	Value
Master		16.24	Master		3.965	Master		1.960
	13.30 (Minimum) 19.05 (Nominal) 24.70 (Maximum)			3.400 (Minimum) 4.857 (Nominal) 6.200 (Maximum)			1.600 (Minimum) 2.363 (Nominal) 3.100 (Maximum)	
Phase	Far 2 tube 1 Air Point Measure CPS	Value	Phase	Far 2 tube 1 Rod Point Measure CPS	Value	Phase	Far 2 tube 1 H2O Point Measure CPS	Value
Master		16.66	Master		4.271	Master		2.114
	13.30 (Minimum) 19.05 (Nominal) 24.70 (Maximum)			3.400 (Minimum) 4.857 (Nominal) 6.200 (Maximum)			1.600 (Minimum) 2.363 (Nominal) 3.100 (Maximum)	
Phase	Far 2 tube 2 Air Point Measure CPS	Value	Phase	Far 2 tube 2 Rod Point Measure CPS	Value	Phase	Far 2 tube 2 H2O Point Measure CPS	Value
Master		17.46	Master		4.183	Master		2.089
	13.30 (Minimum) 19.05 (Nominal) 24.70 (Maximum)			3.400 (Minimum) 4.857 (Nominal) 6.200 (Maximum)			1.600 (Minimum) 2.363 (Nominal) 3.100 (Maximum)	
Phase	Far 2 tube 3 Air Point Measure CPS	Value	Phase	Far 2 tube 3 Rod Point Measure CPS	Value	Phase	Far 2 tube 3 H2O Point Measure CPS	Value
Master		16.77	Master		4.207	Master		2.126
	13.30 (Minimum) 19.05 (Nominal) 24.70 (Maximum)			3.400 (Minimum) 4.857 (Nominal) 6.200 (Maximum)			1.600 (Minimum) 2.363 (Nominal) 3.100 (Maximum)	
Phase	Near 1 tube 1 Air Point Measure CPS	Value	Phase	Near 1 tube 1 Rod Point Measure CPS	Value	Phase	Near 1 tube 1 H2O Point Measure CPS	Value
Master		472.7	Master		776.8	Master		353.9
	345.0 (Minimum) 487.5 (Nominal) 595.0 (Maximum)			535.0 (Minimum) 768.8 (Nominal) 925.0 (Maximum)			230.0 (Minimum) 343.7 (Nominal) 430.0 (Maximum)	
Phase	Near 2 tube 1 Air Point Measure CPS	Value	Phase	Near 2 tube 1 Rod Point Measure CPS	Value	Phase	Near 2 tube 1 H2O Point Measure CPS	Value
Master		477.0	Master		740.7	Master		342.5
	345.0 (Minimum) 487.5 (Nominal) 595.0 (Maximum)			535.0 (Minimum) 768.8 (Nominal) 925.0 (Maximum)			230.0 (Minimum) 343.7 (Nominal) 430.0 (Maximum)	

Master: 16−Jan−2008 22:40

6.75−in. Azimuthal Density Neutron Calibration

Neutron: Water Block Check

Phase	Far Neutron water porosity PU	Value
Master		92.60
	90.00 (Minimum) 100.0 (Nominal) 125.0 (Maximum)	

SCHLUMBERGER

Survey report 27-Mar-2008 20:17:17 Page 1 of 3

Client.....: Apache
Field.....: Vic/P-45

Well.....: Coelacanth-1
API number.....: n/a
Engineer.....: A. Kohli, C. Hibberson, B. Low

COUNTY:.....: n/a
STATE:.....: Victoria

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

----- Depth reference -----------------
Permanent datum.....: Mean Sea LEVEL
Depth reference.....: Driller's Depth
GL above permanent.....:-90.00 m
KB above permanent.....: 38.00 m
DF above permanent.....: 38.00 m

Spud date.....: 10-Mar-2008
Last survey date.....: 22-Mar-08
Total accepted surveys...: 34
MD of first survey.....: 0.00 m
MD of last survey.....: 2956.53 m

----- Geomagnetic data ----------------
Magnetic model.....: BGGM version 2007
Magnetic date.....: 15-Mar-2008
Magnetic field strength..: 1202.04 HCNT
Magnetic dec (+E/W-).....: 13.34 degrees
Magnetic dip.....: -69.11 degrees

----- MWD survey Reference Criteria ---------
Reference G.....: 1000.07 mGal
Reference H.....: 1202.04 HCNT

```
----- Vertical section origin----------------
Latitude (+N/S-).........: N 0.000 m
Departure (+E/W-).........: E 0.000 m

----- Platform reference point---------------
Latitude (+N/S-).........: N 5714176.613 m
Departure (+E/W-).........: E 613192.770 m

Azimuth from Vsect Origin to target:    0.00 degrees
```

```
Reference Dip............:     -69.11 degrees
Tolerance of G...........: (+/-) 2.50 mGal
Tolerance of H...........: (+/-) 6.00 HCNT
Tolerance of Dip.........: (+/-) 0.45 degrees

----- Corrections ----------------------------
Magnetic dec (+E/W-).....:      13.34 degrees
Grid convergence (+E/W-).:      -0.81 degrees
Total az corr (+E/W-)....:      14.15 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
```


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/ 100f)	Srvy tool type	Tool Corr (deg)
1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	TIP	None
2	263.67	0.15	47.87	263.67	263.67	0.23	0.23	0.26	0.35	47.87	0.02	MWD_M	None
3	294.41	0.06	172.52	30.74	294.41	0.24	0.24	0.29	0.38	49.89	0.19	MWD_M	None
4	323.58	0.12	91.82	29.17	323.58	0.23	0.23	0.32	0.39	54.75	0.13	MWD_M	None
5	411.41	0.24	137.04	87.83	411.41	0.09	0.09	0.54	0.55	80.61	0.06	MWD_M	None
6	442.19	0.21	124.90	30.78	442.19	0.01	0.01	0.63	0.63	89.14	0.06	PUP	None
7	502.26	0.32	90.25	60.07	502.26	-0.05	-0.05	0.89	0.89	93.50	0.10	PUP	None
8	530.50	0.41	92.03	28.24	530.50	-0.06	-0.06	1.07	1.07	93.12	0.10	PUP	None
9	620.59	0.22	141.24	90.09	620.59	-0.20	-0.20	1.50	1.51	97.78	0.11	PUP	None
10	708.29	0.06	46.00	87.70	708.29	-0.30	-0.30	1.63	1.66	100.53	0.08	PUP	None
11	738.63	0.03	73.16	30.34	738.63	-0.29	-0.29	1.65	1.68	99.96	0.04	PUP	None
12	768.37	0.06	56.39	29.74	768.37	-0.28	-0.28	1.67	1.70	99.48	0.03	PUP	None
13	855.79	0.11	357.54	87.42	855.79	-0.17	-0.17	1.71	1.72	95.70	0.03	PUP	None
14	887.36	0.25	215.41	31.57	887.36	-0.20	-0.20	1.67	1.68	96.72	0.33	PUP	None
15	1006.93	0.37	205.42	119.57	1006.92	-0.76	-0.76	1.35	1.55	119.29	0.03	PUP	None
16	1125.19	0.38	223.01	118.26	1125.18	-1.39	-1.39	0.92	1.67	146.51	0.03	PUP	None
17	1243.13	0.37	76.40	117.94	1243.12	-1.59	-1.59	1.02	1.89	147.19	0.19	PUP	None
18	1420.57	0.99	275.48	177.44	1420.55	-1.30	-1.30	0.05	1.31	177.66	0.23	PUP	None
19	1550.04	0.99	280.13	129.47	1550.00	-1.00	-1.00	-2.16	2.38	245.14	0.02	PUP	None
20	1687.41	0.88	299.49	137.37	1687.36	-0.27	-0.27	-4.25	4.26	266.32	0.07	PUP	None
21	1806.49	0.99	326.29	119.08	1806.42	1.03	1.03	-5.61	5.71	280.42	0.11	PUP	None
22	1895.34	0.85	336.21	88.85	1895.26	2.27	2.27	-6.31	6.70	289.83	0.07	PUP	None
23	**1983.37**	**0.73**	**333.68**	**88.03**	**1983.28**	**3.37**	**3.37**	**-6.82**	**7.61**	**296.33**	**0.04**	**PUP**	**None**
24	**2071.31**	**0.57**	**332.49**	**87.94**	**2071.22**	**4.26**	**4.26**	**-7.27**	**8.43**	**300.40**	**0.06**	**PUP**	**None**
25	2101.07	0.26	259.44	29.76	2100.97	4.38	4.38	-7.40	8.60	300.63	0.57	PUP	None
26	2189.40	0.38	9.46	88.33	2189.30	4.64	4.64	-7.55	8.86	301.54	0.18	PUP	None
27	2219.45	0.35	26.58	30.05	2219.35	4.82	4.82	-7.49	8.91	302.72	0.11	PUP	None
28	2307.17	0.23	13.64	87.72	2307.07	5.23	5.23	-7.33	9.01	305.48	0.05	PUP	None
29	2396.09	0.42	29.80	88.92	2395.99	5.68	5.68	-7.13	9.12	308.56	0.07	PUP	None
30	2484.75	0.56	53.27	88.66	2484.65	6.22	6.22	-6.62	9.09	313.23	0.08	PUP	None

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/ 100f)	Srvy tool type	Tool Corr (deg)
31	2573.28	0.49	40.74	88.53	2573.17	6.77	6.77	-6.03	9.06	318.32	0.05	PUP	None
32	2750.62	0.57	139.67	177.34	2750.51	6.67	6.67	-4.96	8.31	323.37	0.14	PUP	None
33	2867.93	0.68	143.30	117.31	2867.81	5.67	5.67	-4.17	7.04	323.68	0.03	PUP	None
34	2956.53	0.67	150.71	88.60	2956.41	4.80	4.80	-3.60	6.00	323.11	0.03	PUP	None

Company: **Apache Energy Ltd.**

Schlumberger

Well: **Coelacanth−1**

Field: **Vic/P−45**

Rig: **West Triton**

State: **Victoria**

GeoVISION Service
1:200 Measured Depth
Recorded Mode Data, Composite Log

Recorded Mode Data, Composite Log

Schlumberger

Company: **Apache Energy Ltd.**

Well: **Coelacanth−1**
Field: **Vic/P−45**
Rig: **West Triton** State: **Victoria**

Rig: West Triton
Field: Vic/P−45
Location: Bass Strait
Well: Coelacanth−1
Company: Apache Energy Ltd.

GeoVISION Service
1:200 True Vertical Depth
Recorded Mode Data, Composite Log

Location

		Elevation		
Total depth:	3074.00 m		K.B.	Top Drive m
Spud date:	10−Mar−2008		G.L.	−90.00 m
Runs:	1 To 5		D.F.	38.00 m

Permanent datum:	AHD	Elev.:	0 m m
Log measured from:	Rotary Table	38.00 m	above Perm. datum
Depth reference:	Driller's Depth		

API serial no.	N 5 714 176.613 m	Longitude	Latitude
07ASQ0029	E 613 192.770 m	E 148° 18′ 07.0098″	S 38° 42′ 49.7296″

Depth logged:	275.70 m To 3039.40 m	Mag decl: 13.34 deg.	Other services:
Date logged:	12−Mar−2008 To 22−Mar−2008	Mag dip: −69.11 deg.	See Remarks

Bore hole record

Hole size	from	to
660 mm	127.5 m	279.0 m
311 mm	279.0 m	907.0 m
216 mm	907.0 m	3074.0 m

Casing record

Size	Density	from	to
508 mm	193 kg/m	Wellhead	275.7 m
244 mm	101 kg/m	Wellhead	902.6 m

Mud record

Type	from	to
WBM	275.70 m	3074.00 m

Borehole deviation record

Min	Max	from	to
0.03 deg.	0.41 deg.	275.70 m	902.00 m
0.23 deg.	0.99 deg.	902.00 m	3074.00 m

Surface equipment

Unit	OLU−KC−0702
Depth system	DWE & CLT

Software record

IDEAL Wis	ID13_0C_06
SPM	hspm13_0c_03
LWD	See Remarks
MWD	See Remarks

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 RUN1
Directional Surveys

OTHER SERVICES FOR RUN2
Directional Surveys

OTHER SERVICES FOR RUN3
Directional Surveys

REMARKS: RUN NUMBER 1
Depth is referenced to Driller's Depth.

Gamma ray is corrected for mud weght, tool size, bit depth and potassium percentage.

Resistivty is borehole compensated and environmentally corrected.

POOH due to reaching TD of 12.25 in. section of Coelacanth−1.

REMARKS: RUN NUMBER 2
Depth is referenced to Driller's Depth.

Gamma ray is corrected for mud weght, tool size, bit depth and potassium percentage.

Resistivty is borehole compensated and environmentally corrected.

Neutron porosity is corrected for the effects of borehole size (bit size), temperature, mud salinity, and mud hydrogen index (a factor of mud weight, mud temperature and pressure).

Neutron porosity is calculated using a limstone matrix density of 2.71 g/cm3.

REMARKS: RUN NUMBER 3
Depth is referenced to Driller's Depth.

Gamma ray is corrected for mud weght, tool size, bit depth and potassium percentage.

Resistivty is borehole compensated and environmentally corrected.

Neutron porosity is corrected for the effects of borehole size (bit size), temperature, mud salinity, and mud hydrogen index (a factor of mud weight, mud temperature and pressure).

Neutron porosity is calculated using a limstone matrix density of 2.71 g/cm3.

POOH due to Bit Balling.

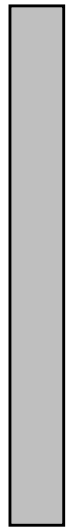
POOH due to Bit Balling.

EQUIPMENT DESCRIPTION

RUN1

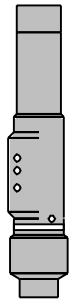
DOWNHOLE E

8−1/4" PowerPulse* 22.72
MDC: FB−46
MEA: 754
MDI: 2421
MGR: 104



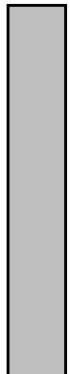
SS 15.15

8−1/4" GeoVISION* 14.68
DHS: V5.0B14
S/N: 41032



FS 10.44
S/N: S58834−4

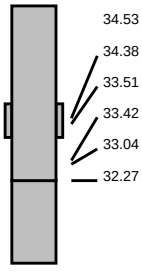
9" PowerPak* Motor 9.60
S/N: 3389



RUN2

DOWNHOLE E

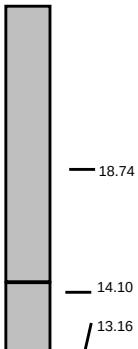
6−3/4 adnVISION* 36.51
DHS: V8.3
S/N: 40778
BladeOD: 8−1/4"



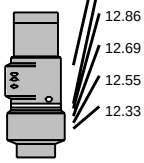
XO 30.26

6−3/4" Bat Sonic 29.90
S/N: PA9016462

6−3/4" PowerPulse* 23.10
MDC: VL09
MEA: 433
MDI: 1562
MGD: 346



6−3/4 GeoVISION* 14.64
DHS: V6.2B01
S/N: 41022



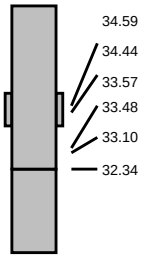
FS 11.13
S/N: S58834

7" PowerPak* Motor 10.30
S/N: N7413

RUN3

DOWNHOLE E

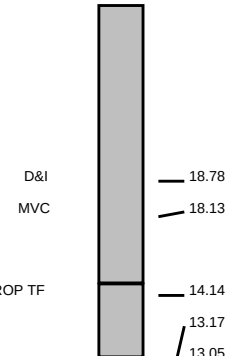
6−3/4 adnVISION* 36.27
DHS: V8.3
S/N: 373
BladeOD: 8−1/4"



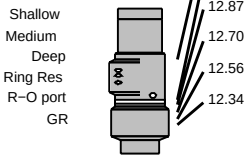
XO 30.31

6−3/4" Bat Sonic 29.94
S/N: PA9016462

6−3/4" PowerPulse* 23.14
MDC: VG67
MEA: 373
MDI: 1841
MVC: 114

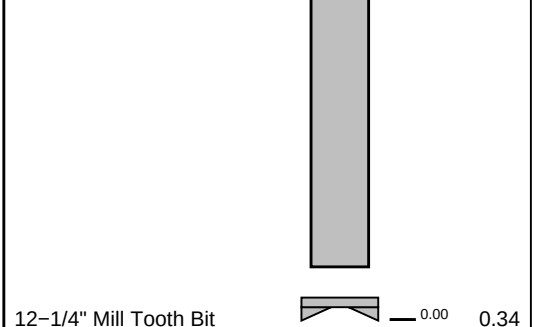


6−3/4 GeoVISION* 14.65
DHS: V6.2B01
S/N: 41373



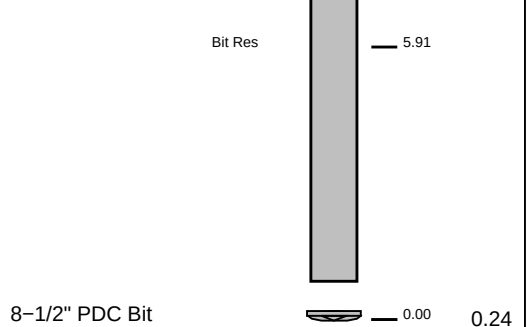
FS 11.14
S/N: S58834

7" PowerPak* Motor 10.31
S/N: 0738



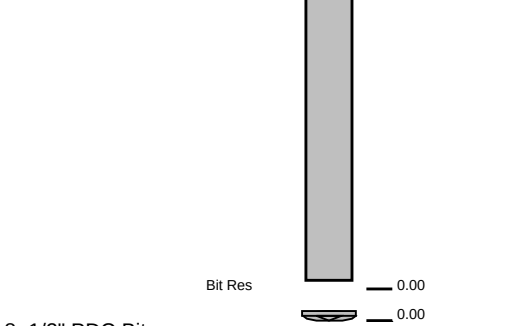
12−1/4" Mill Tooth Bit 0.34
S/N: PF6839

Maximum string dian
All lengths ir



8−1/2" PDC Bit 0.24
S/N: 216126

Maximum string dia
All lengths ir



8−1/2" PDC Bit 0.24
S/N: 216126

Maximum string dia
All lengths ir

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 RUN4
Directional Surveys

OTHER SERVICES FOR RUN5
Directional Surveys

OTHER SERVICES FOR RUN

REMARKS: RUN NUMBER 4
Depth is referenced to Driller's Depth.

Gamma ray is corrected for mud weght, tool size, bit depth and potassium percentage.

Resistivty is borehole compensated and environmentally corrected.

Neutron porosity is corrected for the effects of borehole size (bit size), temperature, mud salinity, and mud hydrogen index (a factor of mud weight, mud temperature and pressure).

Neutron porosity is calculated using a limstone matrix density of 2.71 g/cm3.

POOH due to Bit Balling.

adnVISION battery ran out of life at 2433m MD

REMARKS: RUN NUMBER 5
Depth is referenced to Driller's Depth.

Gamma ray is corrected for mud weght, tool size, bit depth and potassium percentage.

Resistivty is borehole compensated and environmentally corrected.

Neutron porosity is corrected for the effects of borehole size (bit size), temperature, mud salinity, and mud hydrogen index (a factor of mud weight, mud temperature and pressure).

Neutron porosity is calculated using a limstone matrix density of 2.71 g/cm3.

POOH due to reaching TD of 8.50 in. section of Coelacanth−1.

Relogged on trip out from 2433MD to 2700MD

REMARKS: RUN NUMBER

EQUIPMENT DESCRIPTION

RUN4 RUN5 RUN

DOWNHOLE E

DOWNHOLE E

6−3/4" adnVISION*
DHS: V8.3
S/N: 373
BladeOD: 8−1/4"
Neutron F
Neutron N
Density S
Density L
UltraSonic
R−O Port
34.59
34.44
33.57
33.48
33.10
32.34
36.27
XO
30.31
6−3/4" Bat Sonic
S/N: PA9016462
29.94
6−3/4" PowerPulse*
MDC: VG67
MEA: 373
MDI: 1841
MVC: 114
23.14
D&I
MVC
ROP TF
18.78
18.13
14.14
6−3/4" GeoVISION*
DHS: V6.2B01
S/N: 41373
Shallow
Medium
Deep
Ring Res
R−O port
GR
13.17
13.05
12.87
12.70
12.56
12.34
14.65
FS
S/N: S58834
11.14
7" PowerPak* Motor
S/N: 0738
10.31
Bit Res
0.00
0.00
8−1/2" PDC Bit
S/N: 41373
0.24
Maximum string dia
All lengths ir
6−3/4" adnVISION*
DHS: V8.3
S/N: 40778
BladeOD: 8−1/4"
Neutron F
Neutron N
Density S
Density L
UltraSonic
R−O Port
34.68
34.53
33.66
33.57
33.19
32.43
36.65
XO
30.40
6−3/4" Bat Sonic
S/N: PA9016462
30.03
6−3/4" PowerPulse*
MDC: VG67
MEA: 373
MDI: 1841
MVC: 114
23.23
D&I
MVC
ROP TF
18.87
18.22
14.23
6−3/4" GeoVISION*
DHS: V6.2B01
S/N: 41373
Shallow
Medium
Deep
Ring Res
R−O port
GR
13.26
13.14
12.96
12.79
12.65
12.43
14.74
FS
S/N: S58834
11.23
7" PowerPak* Motor
S/N: 0738
10.40
Bit Res
0.04
0.00
8−1/2" PDC Bit
S/N: 216813
0.33
Maximum string dia
All lengths ir

Bit Run Summary

Run number		1	2	3	4	5
Bit size	mm.	311	216	216	216	216
Bit start depth	m	279.00	907.00	1998.00	2116.00	2700.00
Bit end depth	m	907.00	1998.00	2116.00	2700.00	3074.00
Top interval logged	m	275.70	902.60	1963.47	2081.40	2666.00
Bottom interval logged	m	894.73	1963.47	2081.40	2666.00	3039.40
Begin log: time		22:00	18:30	17:23	11:30	07:00
Begin log: date		12−Mar−08	15−Mar−08	18−Mar−08	19−Mar−08	21−Mar−08
End log: time		15:15	08:00	10:15	06:00	23:00
End log: date		13−Mar−08	18−Mar−08	19−Mar−08	21−Mar−08	22−Mar−08
Mud data						
Depth	m	902.00	1994.00	2243.00	2700.00	3074.00
Type		WBM	WBM	WBM	WBM	WBM
Mud weight	SG	1.06	1.18	1.17	1.16	1.19
Solids	%	4.70	5.10	4.70	5.50	4.80
Chlorides	mg/l	47000	49000	47000	44000	46000
Rm	ohm.m@°C	0.0139@21	0.089@21.5	0.0962@20.8	0.0975@21.8	0.1043@20
Rmf	ohm.m@°C	0.0123@20.7	0.075@22.1	0.0832@20.5	0.084@21.2	0.0859@20.6
Rmc	ohm.m@°C	0.0152@21.1	0.118@22.3	0.1498@21.2	0.128@21.4	0.1384@21.4
Potassium	%	3.80	3.80	4.00	4.10	4.20
Environmental data						
GR						
Mud weight	SG	1.06	1.18	1.17	1.16	1.19
Bit size	mm.	311	216	216	216	216
Resistivity						
Neutron porosity						
Hole Size	mm.	311	216	216	216	216
Mud weight	SG	1.06	1.18	1.17	1.16	1.19
Temperature	°C	32.2	49.41	48.63	58.82	61.96
Mud salinity	ppk	N/A	71.30	75.88	71.15	74.30
Formation salinity						
Recording rate 1	SEC	10 (GVR)	5 (GVR)	5 (GVR)	5 (GVR)	5 (GVR)
Recording rate 2	SEC	n/a	5 (ADN)	5 (ADN)	5 (ADN)	5 (ADN)
Filtering GR		3 pts	3 pts	3 pts	3 pts	3 pts
Filtering density		N/A	3 pts	3 pts	3 pts	3 pts
Filtering Neutron		N/A	3 pts	3 pts	3 pts	3 pts
Company representative		Mark Pinson	Rocco Russo	Peter Sheenan		
Schlumberger D&M Personnel		A. Kohli	C. Hibberson	B. Low		

Variable Name	Variable Description	Run Name & Value			
	Run Number		1	2	3
	General Information				
BHT_RM	Bottom Hole Temperature (RM)	DEGC	51.000	58.000	58.000
BSAL_RM	Mud Salinity (RM)	PPK	0.000	72.50	74.301
BS_RM	Bit Size (RM)	IN	12.250	8.500	8.500
COEF_M	User Defined FEXP in Clean Sand	----	1.650	1.650	1.650
C_WS	Overpressure correction to Sw and M	----	1.000	1.000	1.000
FEXP	Formation Factor Exponent(RM)	----	2.000	2.000	2.000
FNUM	Formation Factor Enumerator(RM)	----	1.000	1.000	1.000
FPHI_RM	Formation Factor Porosity Source (RM)	----	XPLOT	XPLOT	XPLOT
MST_RM	Mud Sample temperature (RM)	DEGC	23.889	22.100	20.800
MW_RM	Mud Weight (RM)	LB/G	8.860	9.830	9.750
OBMF_RM	Oil Based Mud (RM)	----	NO	NO	NO
RHOF_RM	Mud Filtrate Density (RM)	G/C3	1.000	1.000	1.000
RHOM_RM	Matrix density (RM)	G/C3	2.710	2.710	2.710
RMS_RM	Resistivity of Mud Sample (RM)	OHMM	0.138	0.089	0.096
RWA_COMP_M	Rwa computation model				
RWA_DEN_AD	Rwa Density Input ADN				
RWA_DEN_CD	Rwa Density Input CDN				
RWA_DEN_IN	Rwa Density Input				
RWA_FORM_M	Rwa computation formation model				
RWA_RES_IN	Rwa computation resistivity input				

RWA_RES_IN	Rwa computation resistivity input				
RWS_RM	Resistivity of Connate Water (RM)	OHMM	1.000	1.000	1.000
SHT_RM	Ground Level Temperature (Mud−Line When Offshore)	DEGC	10.000	10.000	10.000
TD_RM	Total Measured Depth (RM)	M	907.000	3048.000	2116.000
TWS_RM	Temperature of Connate Water (RM)	DEGC	23.889	23.889	23.889
VF_ILLI	Fraction of illite in shales	----	0.500	0.500	0.500
VF_KAOL	Fraction of kaolinite in shales	----	0.500	0.500	0.500
VF_MONT	Fraction of montmorillonite in shales	----	0.000	0.000	0.000
XPDM_RM	Cross plot density porosity multiplier	----	0.675	0.675	0.675
XPNM_RM	Cross plot neutron porosity multiplier	----	0.325	0.325	0.325

RAB

RAB/BTN_SLV_SIZE/PARAMETE	IN -- RAB: Button Sleeve Diameter	IN	11.875	8.125	8.125
RAB/STAB_SIZE/PARAMETER	RAB: Stabilizer Diameter	IN	12−12.25	8.25−8.5	8.25−8.5
BDBHCA	RAB: Button Deep Borehole A Factor	----	−0.035	0.004	0.004
BDBHCB	RAB: Button Deep Borehole B Factor	----	−0.019	0.000	0.000
BHA_COEF_VER	RAB: BHA Coef Generator Version	----	2.000	62011.000	2.000
BITBHCA	RAB: Bit A Borehole Factor	----	0.099	0.058	0.058
BITBHCB	RAB: Bit B Borehole Factor	----	−0.074	0.000	0.000
BIT_K_FACTOR	RAB: Bit K Factor	----	15.212	15.168	15.227
BMBHCA	RAB: Button Medium Borehole A Factor	----	0.006	0.023	0.023
BMBHCB	RAB: Button Medium Borehole B Factor	----	−0.020	0.000	0.000
BSBHCA	RAB: Button Shallow Borehole A Factor	----	−0.009	0.022	0.023
BSBHCB	RAB: Button Shallow Borehole B Factor	----	−0.036	0.000	0.000
BUT_KIMP_A	RAB: Button Impedance Coeff A	----	0.002	0.000	0.000
BUT_KIMP_B	RAB: Button Impedance Coeff B	----	0.000	0.000	0.000
DBUTTON_K_FACTO	RAB: Button Deep K factor	----	0.003	0.005	0.005
DHS_VERSION	RAB: DownHole Software Version	----	−999.250	6.200	−999.250
GR_BHC_TOOLSIZE	RAB: Gamma−Ray Borehole Coeff 1	----	8.250	6.750	6.750
HI_CSDEPTH_OUT	RAB: Allow Hi−Resolution CS_DEPTH Image Data Output	----	NO	NO	NO
HI_DLIS_OUT	RAB: Allow Hi−Resolution DLIS Image Data Output	----	NO	NO	NO
HI_RIVER_OUT	RAB: Allow Hi−Resolution River for Image Data Output	----	NO	NO	NO
IMAGE_MAX_GR	RAB: GR Image Maximum Scale Value	GAPI	120.000	120.000	120.000
IMAGE_MAX_RES	RAB: Image Maximum Resistivity Value	OHMM	100.000	100.000	100.000
IMAGE_MIN_GR	RAB: GR Image Minimum Scale Value	GAPI	20.000	20.000	20.000
IMAGE_MIN_RES	RAB: Image Minimum Resistivity Value	OHMM	1.000	1.000	1.000
JSD_RAB	RAB Acquisition start date	OHMM	1.000	1.000	1.000
KPER	Potassium Concentration (RM)	----	4.800	3.800	4.100
MAG_DECL_RAB	RAB: Magnetic Declination	DEG	13.340	13.340	13.340
MAG_INCL_RAB	RAB: Magnetic Dip	DEG	−69.110	−69.110	−69.110
MBUTTON_K_FACTO	RAB: Button Medium K Factor	----	0.004	0.005	0.005
OBM	RAB: Oil base Mud	----	NO	NO	NO
ORIENTATION_RM	Rab Image Orientation	----	TOH	TOH	TOH
RABBDA0	RAB: Button Deep A0 Coeff	----	−0.121	−0.052	−0.052
RABBDA1	RAB: Button Deep A1 Coeff	----	0.112	0.021	0.021
RABBDA2	RAB: Button Deep A2 Coeff	----	−0.049	−0.005	−0.005
RABBDA3	RAB: Button Deep A3 Coeff	----	0.010	0.000	0.000
RABBDA4	RAB: Button Deep A4 Coeff	----	−0.001	−0.000	−0.000
RABBDA5	**RAB: Button Deep A5 Coeff**	**----**	**0.000**	**0.000**	**0.000**
RABBDMIN	RAB: Button Deep Minimum Value	----	0.038	0.051	0.051
RABBITA0	RAB: Bit A0 Coeff	----	4.394	4.095	4.118
RABBITA1	RAB: Bit A1 Coeff	----	−13.106	−3.547	−3.483
RABBITA2	RAB: Bit A2 Coeff	----	36.626	12.345	12.438
RABBITA3	RAB: Bit A3 Coeff	----	−43.327	−15.241	−15.565
RABBITA4	RAB: Bit A4 Coeff	----	24.302	6.786	6.978
RABBITA5	RAB: Bit A5 Coeff	----	−5.275	0.000	0.000
RABBITMIN	RAB: Bit Minimum Value	----	22.433	21.118	21.119
RABBMA0	RAB: Button Medium A0 Coeff	----	−0.120	−0.062	−0.062
RABBMA1	RAB: Button Medium A1 Coeff	----	0.104	0.027	0.027
RABBMA2	RAB: Button Medium A2 Coeff	----	−0.044	−0.006	−0.006
RABBMA3	RAB: Button Medium A3 Coeff	----	0.009	0.001	0.001
RABBMA4	RAB: Button Medium A4 Coeff	----	−0.001	−0.000	−0.000
RABBMA5	RAB: Button Medium A5 Coeff	----	0.000	0.000	0.000
RABBMMIN	RAB: Button Medium Minimum Value	----	0.041	0.060	0.060
RABBSA0	RAB: Button Shallow A0 Coeff	----	−0.127	−0.074	−0.074
RABBSA1	RAB: Button Shallow A1 Coeff	----	0.103	0.031	0.032
RABBSA2	RAB: Button Shallow A2 Coeff	----	−0.042	−0.007	−0.007
RABBSA3	RAB: Button Shallow A3 Coeff	----	0.008	0.001	0.001
RABBSA4	RAB: Button Shallow A4 Coeff	----	−0.001	−0.000	−0.000
RABBSA5	RAB: Button Shallow A5 Coeff	----	0.000	0.000	0.000
RABBSMIN	RAB: Button Shallow Minimum Value	----	0.055	0.086	0.086
RABDHS	RAB Down Hole Software	----	4.000	4.000	4.000
RABEC	RAB: Resistivity Env−Cor	----	YES	YES	YES
RABRNGA0	RAB: RING A0 Coeff	----	−0.118	−0.048	−0.048
RABRNGA1	RAB: RING A1 Coeff	----	0.113	0.019	0.019
RABRNGA2	RAB: RING A2 Coeff	----	−0.049	−0.004	−0.004
RABRNGA3	RAB: RING A3 Coeff	----	0.010	0.000	0.000
RABRNGA4	RAB: RING A4 Coeff	----	−0.001	−0.000	−0.000
RABRNGA5	RAB: RING A5 Coeff	----	0.000	0.000	0.000
RABRNGMIN	RAB: Ring Minimum Value	----	1.150	1.697	1.697
RAB_BIT_ECAL	Bit Resistivity for ECAL_RAB?	----	YES	YES	YES
RAB_BIT_INVERSI	Input Bit Resistivity for Inversion? (Recommended at the bit)		YES	YES	NO
RAB_CALIPER_CAL	Compute ECAL_RAB?	----	NO	NO	NO
RAB_DATA_FIX	RAB: Create A Corrected RAB Time Data File	----	NO	NO	NO
RAB_DATA_LTB	RAB: Create An RAB LTB Data File	----	NO	NO	NO
RAB_DEEPBTN_ECA	Deep Button Resistivity for ECAL_RAB?	----	YES	YES	YES
RAB_DEEPBTN_INV	Input Deep Button Resistivity for Inversion?	----	YES	YES	YES
RAB_INVERSION	Perform Rt Inversion?	----	NO	NO	NO
RAB_INVERSION_B	RAB Bit Sensor Weight for Inversion[0,1]	----	1.000	1.000	0.000
RAB_INVERSION_B	Ending Depth for GR Cutoff in Zone1 (default whole well)	M	30480.000	30480.000	30480.000
RAB_INVERSION_B	Ending Depth of Zone10	M	−304.571	−304.571	−304.571
RAB_INVERSION_B	Ending Depth of Zone2	M	−304.571	−304.571	−304.571
RAB_INVERSION_B	Ending Depth of Zone3	M	−304.571	−304.571	−304.571
RAB_INVERSION_B	Ending Depth of Zone4	M	−304.571	−304.571	−304.571
RAB_INVERSION_B	Ending Depth of Zone5	M	−304.571	−304.571	−304.571
RAB_INVERSION_B	Ending Depth of Zone6	M	−304.571	−304.571	−304.571

RAB_INVERSION_B	Ending Depth of Zone7	M	−304.571	−304.571	−304.571
RAB_INVERSION_B	Ending Depth of Zone8	M	−304.571	−304.571	−304.571
RAB_INVERSION_B	Ending Depth of Zone9	M	−304.571	−304.571	−304.571
RAB_INVERSION_C	Continuity Multiplier[0,1]	----	0.500	0.500	0.500
RAB_INVERSION_D	RAB Deep Button Sensor Weight for Inversion[0,1]	----	1.000	1.000	1.000
RAB_INVERSION_D	RAB inversion for Dh?	----	YES	YES	YES
RAB_INVERSION_D	RAB inversion for Di?	----	YES	YES	YES
RAB_INVERSION_G	GR Cutoff for Shale Formation	----	75.000	75.000	75.000
RAB_INVERSION_G	GR Cutoff for Shale Formation in Zone1(default whole well)	GAPI	75.000	75.000	75.000
RAB_INVERSION_G	GR Cutoff in Zone10	GAPI	75.000	75.000	75.000
RAB_INVERSION_G	GR Cutoff in Zone2	GAPI	75.000	75.000	75.000
RAB_INVERSION_G	GR Cutoff in Zone3	GAPI	75.000	75.000	75.000
RAB_INVERSION_G	GR Cutoff in Zone4	GAPI	75.000	75.000	75.000
RAB_INVERSION_G	GR Cutoff in Zone5	GAPI	75.000	75.000	75.000
RAB_INVERSION_G	GR Cutoff in Zone6	GAPI	75.000	75.000	75.000
RAB_INVERSION_G	GR Cutoff in Zone7	GAPI	75.000	75.000	75.000
RAB_INVERSION_G	GR Cutoff in Zone8	GAPI	75.000	75.000	75.000
RAB_INVERSION_G	GR Cutoff in Zone9	GAPI	75.000	75.000	75.000
RAB_INVERSION_M	RAB Medium Button Sensor Weight for Inversion[0,1]	----	1.000	1.000	1.000
RAB_INVERSION_R	Resistivity Cutoff for Shale Formation	OHMM	2.000	2.000	2.000
RAB_INVERSION_R	Resistive Invasion Allowed	----	NO	NO	NO
RAB_INVERSION_R	RAB Ring Sensor Weight for Inversion[0,1]	----	1.000	1.000	1.000
RAB_INVERSION_R	RAB inversion for Rmud?	----	NO	NO	NO
RAB_INVERSION_R	RAB inversion for Rt?	----	YES	YES	YES
RAB_INVERSION_R	Rt to R−deepest separation penalty multiplier[0,1]	----	0.500	0.500	0.500
RAB_INVERSION_R	RAB inversion for Rxo?	----	YES	YES	YES
RAB_INVERSION_S	GR of Clean Sand Formation	----	−999.250	−999.250	−999.250
RAB_INVERSION_S	GR of Shale Formation	----	−999.250	−999.250	−999.250
RAB_INVERSION_S	RAB Shallow Button Sensor Weight for Inversion[0,1]	----	1.000	1.000	1.000
RAB_INVERSION_T	Inversion Threshold[0, 0.3]	----	0.010	0.010	0.010
RAB_INVERSION_W	Formation Water Resistivity	OHMM	0.100	0.100	0.100
RAB_INVERSION_W	Formation Water Temperature	----	150.000	150.000	150.000
RAB_MEDIUMBTN_E	Medium Button Resistivity for ECAL_RAB?	----	YES	YES	YES
RAB_MEDIUMBTN_I	Input Medium Button Resistivity for Inversion?	----	YES	YES	YES
RAB_QUAD	RAB: Process Quadrant data ?	----	YES	YES	YES
RAB_RIGMODE_ECA	Bit on Bottom?	----	YES	YES	YES
RAB_RING_ECAL	Ring Resistivity for ECAL_RAB?	----	YES	YES	YES
RAB_RING_INVERS	Imput RING Resistivity for Inversion?	----	YES	YES	YES
RAB_SHALLOWBTN_	Shallow Button Resistivity for ECAL_RAB?	----	YES	YES	YES
RAB_SHALLOWBTN_	Input Shallow Button Resistivity for Inversion?	----	YES	YES	YES
RAB_TAB	RAB: Compute TAB ?	----	YES	YES	YES
RAB_TECHLOG	RAB: Generate Techlog ?	----	YES	YES	YES
RAB_TEMP_SELECT	RAB Temperature Selection	----	MEASURED	MEASURED	MEASURED
RAB_TICKS	RAB: Generate Ticks ?	----	YES	YES	YES
READOUT_PORT_MP	RAB: ROP to Bit Face Distance	M	11.600	12.550	12.560
RINGBHCA	RAB: Ring Borehole A Factor	----	0.298	0.159	0.160
RINGBHCB	RAB: Ring Borehole B Factor	----	−0.112	0.000	0.000
RING_KIMP_A	RAB: Ring Impedance Coeff A	----	0.000	0.000	0.000
RING_KIMP_B	RAB: Ring Impedance Coeff B	----	0.000	0.000	0.000
RING_K_FACTOR	RAB: Ring K Factor	----	0.101	0.153	0.153
RSD	LWD run start date dd−mmm−yy	OHMM	0.138	0.089	0.096
RWA_COMP_MOD	Rwa computation model	----	BASIC	BASIC	BASIC
RWA_DEN_ADN	Rwa Density Input	----	RHOB	RHOB	RHOB
RWA_DEN_CDN	Rwa Density Input	----	RHOB	RHOB	RHOB
RWA_DEN_INPUT	Rwa Density Input	----	RHOB	RHOB	RHOB
RWA_FORM_MOD	Rwa computation formation model	----	CLASTIC	CLASTIC	CLASTIC
RWA_RES_INPUT	Rwa computation resistivity input	----	RT	RT	RT
SBUTTON_K_FACTO	RAB: Button Shallow K Factor	----	0.005	0.007	0.007
SCALE_IMAGES	RAB: Process Image Data	----	YES	YES	YES
STAB	RAB: Run with Stabilizer	----	YES	YES	YES
TFF_OFFSET_RAB	RAB Time−Frame File Time Offset	S	0.000	0.000	0.000
TIMEFRAME_FILE_	RAB: Time Frame File Name	S	0.000	0.000	0.000
TOOLTYPE	RAB: Azimuthal Tool	----	YES	YES	YES
TS_VERSION	RAB: ToolScope Software Version	----	−999.250	0.000	−999.250
VRAB6	Rab Tool type (ENP/PILOT)	----	RAB8_ENP	RAB6_C_SERIES	RAB6_C_SERIES
WIN_SIZE_DYN_IM	RAB: Window Size for Scaling Dynamic Image	M	0.914	0.914	0.914
WRK	to Report Potassium Concentration (RM)	----	K_by_Wgt_%	K_by_Wgt_%	K_by_Wgt_%

	ADN				
ADN_CHASSIS_STR	ADN Chassis Type String	----	----	ADN	ADN
ADN_COLLAR_STR	ADN Collar Type String	----	----	ADN	ADN
ADN_DATA_FIX	ADN: Create A Corrected ADN Time Data File	----	----	NO	NO
ADN_DATA_LTB	ADN: Create An ADN LTB Data File	----	----	NO	NO
ADN_STAB_STR	ADN Stabilizer Type String	----	----	NO	NO
ALPHA_COMPUTE_D	Perform Density Enhanced Vertical Resolution process ?	----	----	NO	NO
ALPHA_COMPUTE_N	Perform Neutron Enhanced Vertical Resolution process ?	----	----	NO	NO
AVE_ADN	ADN/Array Channels: perform averaging(RM) :	----	----	YES	YES
A_DHS	ADN Down Hole Software Version String	----	----	YES	YES
CHI_RM	Caliper High limit from BS (RM)	IN	----	3.000	3.000
CLO_RM	Caliper Low limit from BS (RM)	IN	----	0.000	0.000
DEVI	Well Section Deviation	DEG	----	0.004	0.004
DTIK_SEL	ADN: Density Tick Channel Name	----	----	LSAZ	LSAZ
DTMUD	Delta−T for Mud	US/F	----	168.000	168.000
DYN_IMG_COMPUTE	Generate Dynamic Normalized Image?	----	----	NO	NO
ECC_CORR_ADN	Perform Eccentering Correction for TNPH?	----	----	YES	YES
ENVCOR	Neutron Processing: Environmental Correction?	----	----	YES	YES
EVRL	EVR Process averaging number of samples (RM)	----	----	49	49
FCD	Future Casing (Outer) Diameter	IN	----	0.000	0.000
GCSE	Generalized Caliper Selection	----	----	BS	BS
HPS	ADSE−EB (High Pressure Inconel Chassis)?	----	----	NO	NO
IBS	Intergal Blade Stabilizer Collar?	----	----	YES	NO
IDQT	Image Derived Quality Threshold	----	----	1.000	1.000
IHVS	Integrated Hole Volume Start Value(RM)	F3	----	0.000	0.000
IMAGE_MAX_SOA	Image SOA (Quadrant) Right Scale	IN	----	2.500	2.500
IMAGE_MAX_SPEF	Image PEF(Segment) Right Scale	----	----	6.000	6.000
IMAGE_MAX_SRHOB	Image RHOB(Segment) Right Scale	G/C3	----	2.650	2.650

IMAGE_MIN_SOA	Image SOA (Quadrant) Left Scale	IN	----	0.000	0.000	
IMAGE_MIN_SPEF	Image PEF(Segment) Left Scale	----	----	2.000	2.000	
IMAGE_MIN_SRHOB	Image RHOB(Segment) Left Scale	G/C3	----	2.050	2.050	
JSD_ADN	ADN Acquisition start date	G/C3	----	2.050	2.050	
LITHO_TYPE_ADN	Lithology (RM)	----	----	LIME	LIME	
N1FTU_6_RM	ADN: Neutron Bank 1 Far Tubes used :	----	----	1-2-3	1-2-3	
N2FTU_6_RM	ADN: Neutron Bank 2 Far Tubes used :	----	----	1-2-3	1-2-3	
NNTU_RM	ADN Neutron Near Banks Used	----	----	1-2	1-2	
NTIK_SEL	ADN: Neutron Tick Channel Name	----	----	FR11	FR11	
SOCNL	Standoff Distance of the CNL Tool	----	----	1.000	1.000	
SSIZ_ADN	ADN Stabilizer Size	IN	----	8.125	8.125	
STOH	ADN Density Top of Hole Sector (Left Boundary):	----	----	SECTOR_0	SECTOR_0	
TRPM_RM	Average Tool Rotational Speed	RPM	----	20.000	20.000	
USMIN_RM	ADN:Minimum Ultrasonic standoff (RM)	IN	----	0.180	0.180	
USWF_RM	ADN:Process Ultrasonic Waveform?	----	----	YES	YES	
VERS_ADN	ADN Downhole Software Version	----	----	8.300	8.300	
WSDI	Window Size of Dynamic Normalization Image	M	M	4.572	4.572	
RAB/BTN_SLV_SIZE/PARAMETE	IN --- RAB: Button Sleeve Diameter	IN	11.875	8.125	8.125	

Run Number		4	5
General Information			
BHT_RM	Bottom Hole Temperature (RM)	DEGC	62.000	62.000
BSAL_RM	Mud Salinity (RM)	PPK	74.301	74.301
BS_RM	Bit Size (RM)	IN	8.500	8.500
COEF_M	User Defined FEXP in Clean Sand	----	1.650	1.650
C_WS	Overpressure correction to Sw and M	----	1.000	1.000
FEXP	Formation Factor Exponent(RM)	----	2.000	2.000
FNUM	Formation Factor Enumerator(RM)	----	1.000	1.000
FPHI_RM	Formation Factor Porosity Source (RM)	----	XPLOT	XPLOT
MST_RM	Mud Sample temperature (RM)	DEGC	21.800	20.100
MW_RM	Mud Weight (RM)	LB/G	9.750	9.920
OBMF_RM	Oil Based Mud (RM)	----	NO	NO
RHOF_RM	Mud Filtrate Density (RM)	G/C3	1.000	1.000
RHOM_RM	Matrix density (RM)	G/C3	2.710	2.710
RMS_RM	Resistivity of Mud Sample (RM)	OHMM	0.097	0.104
RWA_COMP_M	Rwa computation model			
RWA_DEN_AD	Rwa Density Input ADN			
RWA_DEN_CD	Rwa Density Input CDN			
RWA_DEN_IN	Rwa Density Input			
RWA_FORM_M	Rwa computation formation model			
RWA_RES_IN	Rwa computation resistivity input			
RWS_RM	Resistivity of Connate Water (RM)	OHMM	1.000	1.000
SHT_RM	Ground Level Temperature (Mud-Line When Offshore) (RM)	DEGC	10.000	10.000
TD_RM	Total Measured Depth (RM)	M	2700.000	3074.000
TWS_RM	Temperature of Connate Water (RM)	DEGC	23.889	23.889
VF_ILLI	Fraction of illite in shales	----	0.500	0.500
VF_KAOL	Fraction of kaolinite in shales	----	0.500	0.500
VF_MONT	Fraction of montmorillonite in shales	----	0.000	0.000
XPDM_RM	Cross plot density porosity multiplier	----	0.675	0.675
XPNM_RM	Cross plot neutron porosity multiplier	----	0.325	0.325
ADN				
ADN_CHASSIS_STR	ADN Chassis Type String	ADN	ADN	
ADN_COLLAR_STR	ADN Collar Type String	ADN	ADN	
ADN_DATA_FIX	ADN: Create A Corrected ADN Time Data File	----	NO	NO
ADN_DATA_LTB	ADN: Create An ADN LTB Data File	----	NO	NO
ADN_STAB_STR	ADN Stabilizer Type String	----	NO	NO
ALPHA_COMPUTE_D	Perform Density Enhanced Vertical Resolution process ?	----	NO	NO
ALPHA_COMPUTE_N	Perform Neutron Enhanced Vertical Resolution process ?	----	NO	NO
AVE_ADN	ADN/Array Channels: perform averaging(RM) :	----	YES	YES
A_DHS	ADN Down Hole Software Version String	----	YES	YES
CHI_RM	Caliper High limit from BS (RM)	IN	3.000	3.000
CLO_RM	Caliper Low limit from BS (RM)	IN	0.000	0.000
DEVI	Well Section Deviation	DEG	0.004	0.014
DTIK_SEL	ADN: Density Tick Channel Name	----	LSAZ	LSAZ
DTMUD	Delta-T for Mud	US/F	168.000	144.890
DYN_IMG_COMPUTE	Generate Dynamic Normalized Image?	----	NO	NO
ECC_CORR_ADN	Perform Eccentering Correction for TNPH?	----	YES	YES
ENVCOR	Neutron Processing: Environmental Correction?	----	YES	YES
EVRL	EVR Process averaging number of samples (RM)	----	49	49
FCD	Future Casing (Outer) Diameter	IN	0.000	0.000
GCSE	Generalized Caliper Selection	----	BS	BS
HPS	ADSE-EB (High Pressure Inconel Chassis)?	----	NO	NO
IBS	Intergal Blade Stabilizer Collar?	----	NO	NO
IDQT	Image Derived Quality Threshold	----	1.000	1.000
IHVS	Integrated Hole Volume Start Value(RM)	F3	0.000	0.000
IMAGE_MAX_SOA	Image SOA (Quadrant) Right Scale	IN	2.500	2.500
IMAGE_MAX_SPEF	Image PEF(Segment) Right Scale	----	6.000	6.000
IMAGE_MAX_SRHOB	Image RHOB(Segment) Right Scale	G/C3	2.650	2.650
IMAGE_MIN_SOA	Image SOA (Quadrant) Left Scale	IN	0.000	0.000
IMAGE_MIN_SPEF	Image PEF(Segment) Left Scale	----	2.000	2.000
IMAGE_MIN_SRHOB	Image RHOB(Segment) Left Scale	G/C3	2.050	2.050
JSD_ADN	ADN Acquisition start date	G/C3	2.050	2.050
LITHO_TYPE_ADN	Lithology (RM)	----	LIME	LIME
N1FTU_6_RM	ADN: Neutron Bank 1 Far Tubes used :	----	1-2-3	1-2-3
N2FTU_6_RM	ADN: Neutron Bank 2 Far Tubes used :	----	1-2-3	1-2-3
NNTU_RM	ADN Neutron Near Banks Used	----	1-2	1-2
NTIK_SEL	ADN: Neutron Tick Channel Name	----	FR11	FR11
RSD	LWD run start date dd-mmm-yy	OHMM	0.097	0.104
RWA_COMP_MOD	Rwa computation model	----	BASIC	BASIC
RWA_DEN_ADN	Rwa Density Input	----	RHOB	RHOB
RWA_DEN_CDN	Rwa Density Input	----	RHOB	RHOB
RWA_DEN_INPUT	Rwa Density Input	----	RHOB	RHOB

RWA_DEN_INPUT	Rwa Density Input	----	RHOB	RHOB
RWA_FORM_MOD	Rwa computation formation model	----	CLASTIC	CLASTIC
RWA_RES_INPUT	Rwa computation resistivity input	----	RT	RT
SOCNL	Standoff Distance of the CNL Tool	----	1.000	1.000
SSIZ_ADN	ADN Stabilizer Size	IN	8.125	8.125
STOH	ADN Density Top of Hole Sector (Left Boundary):	----	SECTOR_0	SECTOR_0
TRPM_RM	Average Tool Rotational Speed	RPM	20.000	20.000
USMIN_RM	ADN:Minimum Ultrasonic standoff (RM)	IN	0.180	0.180
USWF_RM	ADN:Process Ultrasonic Waveform?	----	YES	YES
VERS_ADN	ADN Downhole Software Version	----	8.300	8.300
WSDI	Window Size of Dynamic Normalization Image	M	4.572	4.572

RAB

RAB/BTN_SLV_SIZE/PARAMETE	IN --- RAB: Button Sleeve Diameter	IN	8.125	8.125
RAB/STAB_SIZE/PARAMETER	RAB: Stabilizer Diameter	IN	8.25-8.5	8.25-8.5
BDBHCA	RAB: Button Deep Borehole A Factor	----	0.004	0.004
BDBHCB	RAB: Button Deep Borehole B Factor	----	0.000	0.000
BHA_COEF_VER	RAB: BHA Coef Generator Version	----	2.000	2.000
BITBHCA	RAB: Bit A Borehole Factor	----	0.058	0.058
BITBHCB	RAB: Bit B Borehole Factor	----	0.000	0.000
BIT_K_FACTOR	RAB: Bit K Factor	----	15.227	15.311
BMBHCA	RAB: Button Medium Borehole A Factor	----	0.023	0.023
BMBHCB	RAB: Button Medium Borehole B Factor	----	0.000	0.000
BSBHCA	RAB: Button Shallow Borehole A Factor	----	0.023	0.023
BSBHCB	RAB: Button Shallow Borehole B Factor	----	0.000	0.000
BUT_KIMP_A	RAB: Button Impedance Coeff A	----	0.000	0.000
BUT_KIMP_B	RAB: Button Impedance Coeff B	----	0.000	0.000
DBUTTON_K_FACTO	RAB: Button Deep K factor	----	0.005	0.005
DHS_VERSION	RAB: DownHole Software Version	----	-999.250	-999.250
GR_BHC_TOOLSIZE	RAB: Gamma-Ray Borehole Coeff 1	----	6.750	6.750
HI_CSDEPTH_OUT	RAB: Allow Hi-Resolution CS_DEPTH Image Data Output	----	NO	NO
HI_DLIS_OUT	RAB: Allow Hi-Resolution DLIS Image Data Output	----	NO	NO
HI_RIVER_OUT	RAB: Allow Hi-Resolution River for Image Data Output	----	NO	NO
IMAGE_MAX_GR	RAB: GR Image Maximum Scale Value	GAPI	120.000	120.000
IMAGE_MAX_RES	RAB: Image Maximum Resistivity Value	OHMM	100.000	100.000
IMAGE_MIN_GR	RAB: GR Image Minimum Scale Value	GAPI	20.000	20.000
IMAGE_MIN_RES	RAB: Image Minimum Resistivity Value	OHMM	1.000	1.000
JSD_RAB	RAB Acquisition start date	OHMM	1.000	1.000
KPER	Potassium Concentration (RM)	----	3.800	4.100
MAG_DECL_RAB	RAB: Magnetic Declination	DEG	13.340	13.340
MAG_INCL_RAB	RAB: Magnetic Dip	DEG	-69.110	-69.110
MBUTTON_K_FACTO	RAB: Button Medium K Factor	----	0.005	0.005
OBM	RAB: Oil base Mud	----	NO	NO
ORIENTATION_RM	Rab Image Orientation	----	TOH	TOH
RABBDA0	RAB: Button Deep A0 Coeff	----	-0.052	-0.052
RABBDA1	RAB: Button Deep A1 Coeff	----	0.021	0.021
RABBDA2	RAB: Button Deep A2 Coeff	----	-0.005	-0.005
RABBDA3	RAB: Button Deep A3 Coeff	----	0.000	0.000
RABBDA4	**RAB: Button Deep A4 Coeff**	**----**	**-0.000**	**-0.000**
RABBDA5	RAB: Button Deep A5 Coeff	----	0.000	0.000
RABBDMIN	RAB: Button Deep Minimum Value	----	0.051	0.051
RABBITA0	RAB: Bit A0 Coeff	----	4.118	4.151
RABBITA1	RAB: Bit A1 Coeff	----	-3.483	-3.391
RABBITA2	RAB: Bit A2 Coeff	----	12.438	12.570
RABBITA3	RAB: Bit A3 Coeff	----	-15.565	-16.026
RABBITA4	RAB: Bit A4 Coeff	----	6.978	7.250
RABBITA5	RAB: Bit A5 Coeff	----	0.000	0.000
RABBITMIN	RAB: Bit Minimum Value	----	21.119	21.119
RABBMA0	RAB: Button Medium A0 Coeff	----	-0.062	-0.062
RABBMA1	RAB: Button Medium A1 Coeff	----	0.027	0.027
RABBMA2	RAB: Button Medium A2 Coeff	----	-0.006	-0.006
RABBMA3	RAB: Button Medium A3 Coeff	----	0.001	0.001
RABBMA4	RAB: Button Medium A4 Coeff	----	-0.000	-0.000
RABBMA5	RAB: Button Medium A5 Coeff	----	0.000	0.000
RABBMMIN	RAB: Button Medium Minimum Value	----	0.060	0.060
RABBSA0	RAB: Button Shallow A0 Coeff	----	-0.074	-0.074
RABBSA1	RAB: Button Shallow A1 Coeff	----	0.032	0.032
RABBSA2	RAB: Button Shallow A2 Coeff	----	-0.007	-0.007
RABBSA3	RAB: Button Shallow A3 Coeff	----	0.001	0.001
RABBSA4	RAB: Button Shallow A4 Coeff	----	-0.000	-0.000
RABBSA5	RAB: Button Shallow A5 Coeff	----	0.000	0.000
RABBSMIN	RAB: Button Shallow Minimum Value	----	0.086	0.086
RABDHS	RAB Down Hole Software	----	4.000	4.000
RABEC	RAB: Resistivity Env-Cor	----	YES	YES
RABRNGA0	RAB: RING A0 Coeff	----	-0.048	-0.048
RABRNGA1	RAB: RING A1 Coeff	----	0.019	0.020
RABRNGA2	RAB: RING A2 Coeff	----	-0.004	-0.004
RABRNGA3	RAB: RING A3 Coeff	----	0.000	0.000
RABRNGA4	RAB: RING A4 Coeff	----	-0.000	-0.000
RABRNGA5	RAB: RING A5 Coeff	----	0.000	0.000
RABRNGMIN	RAB: Ring Minimum Value	----	1.697	1.697
RAB_BIT_ECAL	Bit Resistivity for ECAL_RAB?	----	YES	YES
RAB_BIT_INVERSI	Input Bit Resistivity for Inversion? (Recommended at the bit)	----	NO	YES
RAB_CALIPER_CAL	Compute ECAL_RAB?	----	NO	NO
RAB_DATA_FIX	RAB: Create A Corrected RAB Time Data File	----	NO	NO
RAB_DATA_LTB	RAB: Create An RAB LTB Data File	----	NO	NO
RAB_DEEPBTN_ECA	Deep Button Resistivity for ECAL_RAB?	----	YES	YES
RAB_DEEPBTN_INV	Input Deep Button Resistivity for Inversion?	----	YES	YES
RAB_INVERSION	Perform Rt Inversion?	----	NO	NO
RAB_INVERSION_B	RAB Bit Sensor Weight for Inversion[0,1]	----	0.000	1.000
RAB_INVERSION_B	Ending Depth for GR Cutoff in Zone1 (default whole well)	M	30480.000	30480.000
RAB_INVERSION_B	Ending Depth of Zone10	M	-304.571	-304.571
RAB_INVERSION_B	Ending Depth of Zone2	M	-304.571	-304.571
RAB_INVERSION_B	Ending Depth of Zone3	M	-304.571	-304.571
RAB_INVERSION_B	Ending Depth of Zone4	M	-304.571	-304.571
RAB_INVERSION_B	Ending Depth of Zone5	M	-304.571	-304.571

RAB_INVERSION_B	Ending Depth of Zone6	M	−304.571	−304.571
RAB_INVERSION_B	Ending Depth of Zone7	M	−304.571	−304.571
RAB_INVERSION_B	Ending Depth of Zone8	M	−304.571	−304.571
RAB_INVERSION_B	Ending Depth of Zone9	M	−304.571	−304.571
RAB_INVERSION_C	Continuity Multiplier[0,1]	----	0.500	0.500
RAB_INVERSION_D	RAB Deep Button Sensor Weight for Inversion[0,1]	----	1.000	1.000
RAB_INVERSION_D	RAB inversion for Dh?	----	YES	YES
RAB_INVERSION_D	RAB inversion for Di?	----	YES	YES
RAB_INVERSION_G	GR Cutoff for Shale Formation	----	75.000	75.000
RAB_INVERSION_G	GR Cutoff for Shale Formation in Zone1(default whole well)	GAPI	75.000	75.000
RAB_INVERSION_G	GR Cutoff in Zone10	GAPI	75.000	75.000
RAB_INVERSION_G	GR Cutoff in Zone2	GAPI	75.000	75.000
RAB_INVERSION_G	GR Cutoff in Zone3	GAPI	75.000	75.000
RAB_INVERSION_G	GR Cutoff in Zone4	GAPI	75.000	75.000
RAB_INVERSION_G	GR Cutoff in Zone5	GAPI	75.000	75.000
RAB_INVERSION_G	GR Cutoff in Zone6	GAPI	75.000	75.000
RAB_INVERSION_G	GR Cutoff in Zone7	GAPI	75.000	75.000
RAB_INVERSION_G	GR Cutoff in Zone8	GAPI	75.000	75.000
RAB_INVERSION_G	GR Cutoff in Zone9	GAPI	75.000	75.000
RAB_INVERSION_M	RAB Medium Button Sensor Weight for Inversion[0,1]	----	1.000	1.000
RAB_INVERSION_R	Resistivity Cutoff for Shale Formation	OHMM	2.000	2.000
RAB_INVERSION_R	Resistive Invasion Allowed	----	NO	NO
RAB_INVERSION_R	RAB Ring Sensor Weight for Inversion[0,1]	----	1.000	1.000
RAB_INVERSION_R	RAB inversion for Rmud?	----	NO	NO
RAB_INVERSION_R	RAB inversion for Rt?	----	YES	YES
RAB_INVERSION_R	Rt to R−deepest separation penalty multiplier[0,1]	----	0.500	0.500
RAB_INVERSION_R	RAB inversion for Rxo?	----	YES	YES
RAB_INVERSION_S	GR of Clean Sand Formation	----	−999.250	−999.250
RAB_INVERSION_S	GR of Shale Formation	----	−999.250	−999.250
RAB_INVERSION_S	RAB Shallow Button Sensor Weight for Inversion[0,1]	----	1.000	1.000
RAB_INVERSION_T	Inversion Threshold[0, 0.3]	----	0.010	0.010
RAB_INVERSION_W	Formation Water Resistivity	OHMM	0.100	0.100
RAB_INVERSION_W	Formation Water Temperature	----	150.000	150.000
RAB_MEDIUMBTN_E	Medium Button Resistivity for ECAL_RAB?	----	YES	YES
RAB_MEDIUMBTN_I	Input Medium Button Resistivity for Inversion?	----	YES	YES
RAB_QUAD	RAB: Process Quadrant data ?	----	YES	YES
RAB_RIGMODE_ECA	Bit on Bottom?	----	YES	YES
RAB_RING_ECAL	Ring Resistivity for ECAL_RAB?	----	YES	YES
RAB_RING_INVERS	Imput RING Resistivity for Inversion?	----	YES	YES
RAB_SHALLOWBTN_	Shallow Button Resistivity for ECAL_RAB?	----	YES	YES
RAB_SHALLOWBTN_	Input Shallow Button Resistivity for Inversion?	----	YES	YES
RAB_TAB	RAB: Compute TAB ?	----	YES	YES
RAB_TECHLOG	RAB: Generate Techlog ?	----	YES	YES
RAB_TEMP_SELECT	RAB Temperature Selection	----	MEASURED	MEASURED
RAB_TICKS	RAB: Generate Ticks ?	----	YES	YES
READOUT_PORT_MP	RAB: ROP to Bit Face Distance	M	12.560	12.650
RINGBHCA	RAB: Ring Borehole A Factor	----	0.160	0.160
RINGBHCB	RAB: Ring Borehole B Factor	----	0.000	0.000
RING_KIMP_A	RAB: Ring Impedance Coeff A	----	0.000	0.000
RING_KIMP_B	RAB: Ring Impedance Coeff B	----	0.000	0.000
RING_K_FACTOR	RAB: Ring K Factor	----	0.153	0.153
SBUTTON_K_FACTO	RAB: Button Shallow K Factor	----	0.007	0.007
SCALE_IMAGES	RAB: Process Image Data	----	YES	YES
STAB	RAB: Run with Stabilizer	----	YES	YES
TFF_OFFSET_RAB	RAB Time−Frame File Time Offset	S	0.000	0.000
TIMEFRAME_FILE_	RAB: Time Frame File Name	S	0.000	0.000
TOOLTYPE	RAB: Azimuthal Tool	----	YES	YES
TS_VERSION	RAB: ToolScope Software Version	----	−999.250	−999.250
VRAB6	Rab Tool type (ENP/PILOT)	----	RAB6_C_SERIES	RAB6_C_SERIES
WIN_SIZE_DYN_IM	RAB: Window Size for Scaling Dynamic Image	M	0.914	0.914
WRK	to Report Potassium Concentration (RM)	----	K_by_Wgt_%	K_by_Wgt_%

Schlumberger Drilling & Measurements ID13 Parameter Insert Header Software version 3.0c

IDEAL Version: ID13_0C_06

IDF

Format: GeoVISION Density Neutron Log **Vertical Scale: 1:200** **Graphics File Created: 27−Mar−2008 15:17**

PIP SUMMARY

Neutron Samples

Density Samples

Rate of Penetration, Averaged over Last 5ft (ROP5_RM)

200 (M/HR) 0

RAB Gamma Ray (GR_RAB)

0 (GAPI) 200

ROP*5 (ROP5)

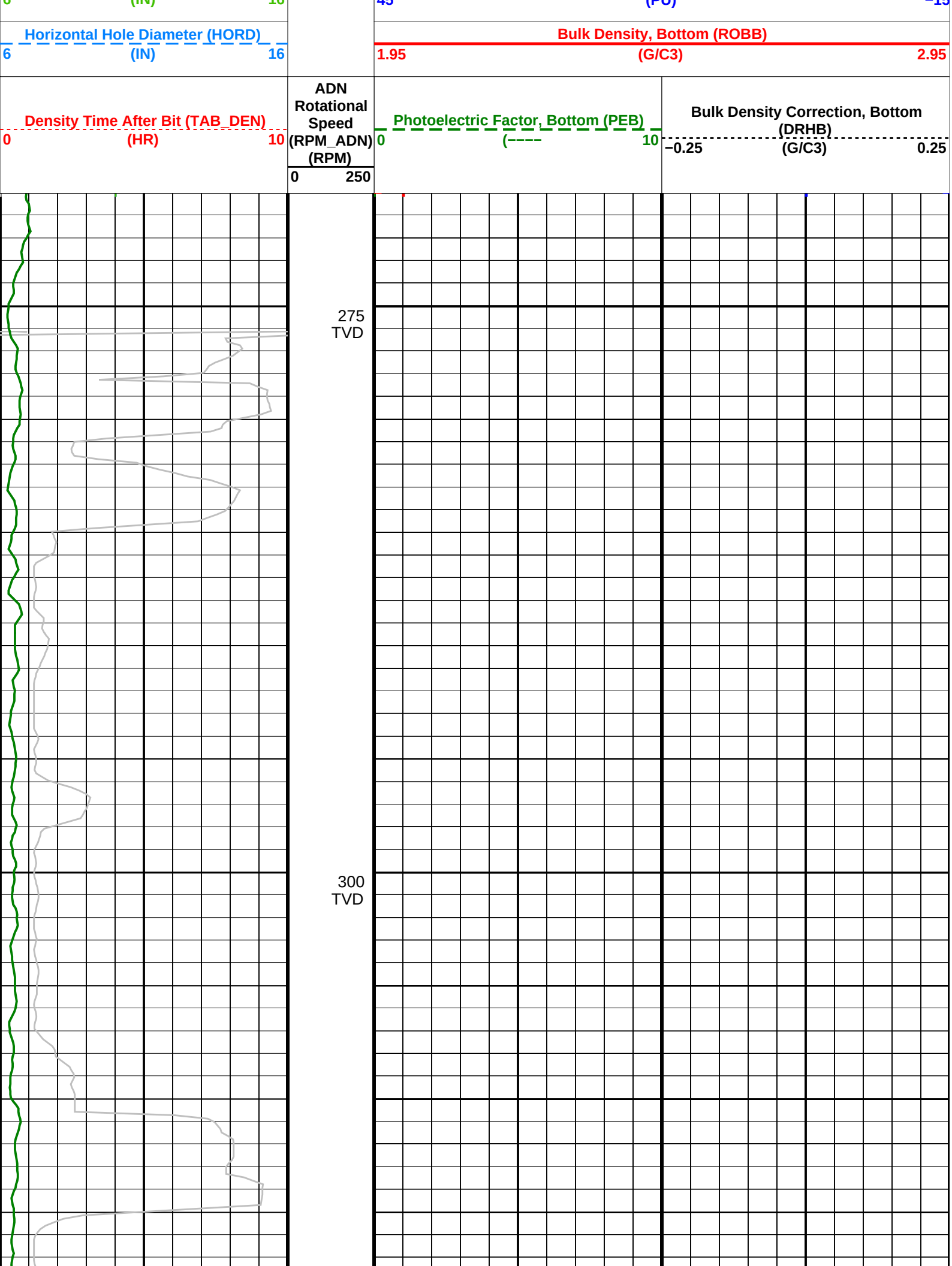
200 (M/HR) 0

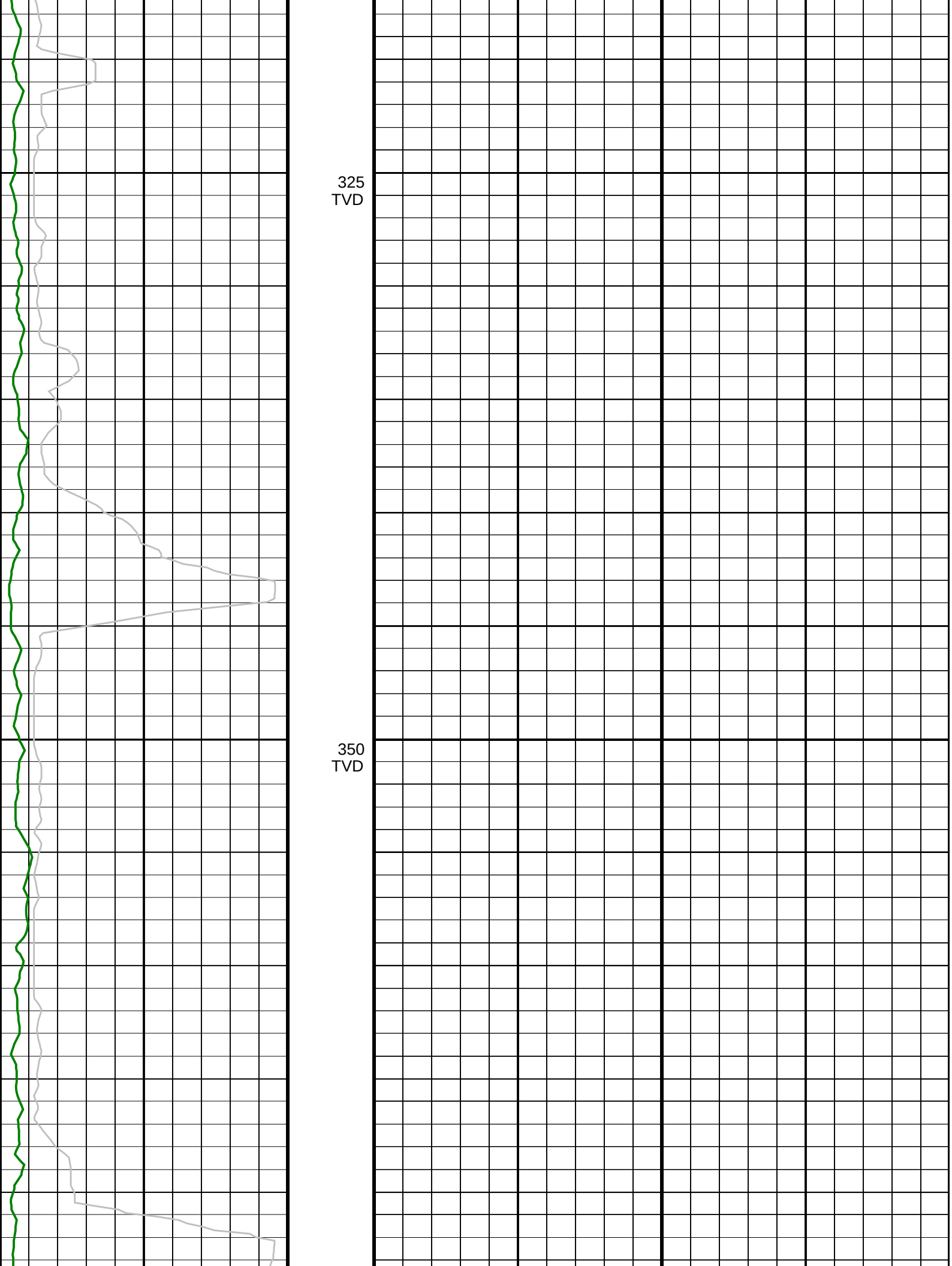
Vertical Hole Diameter (VERD)

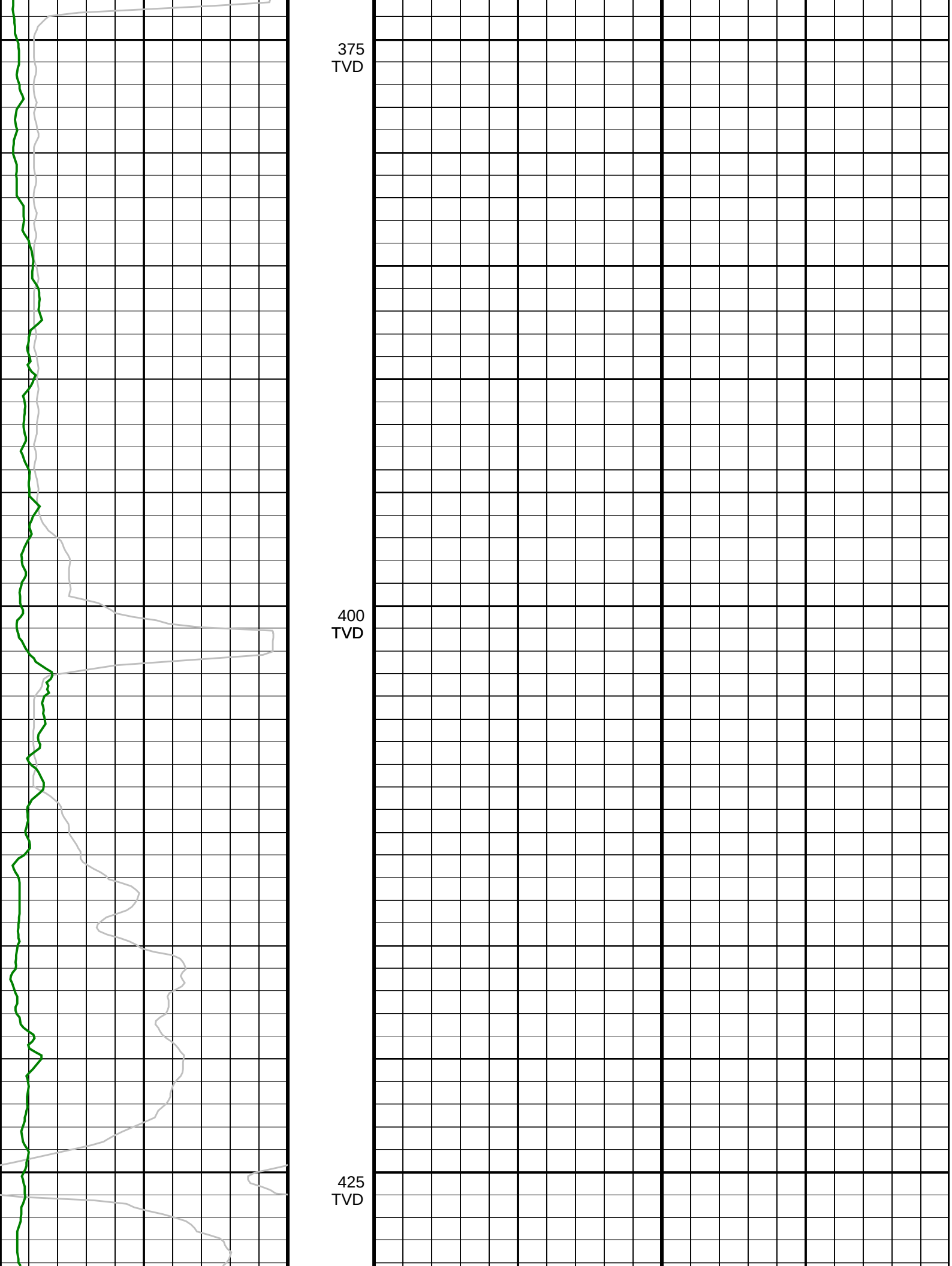
6 (IN) 16

Thermal Neutron Porosity (TNPH)

45 (PU) −15


6 (IN) 16
45 (PU) −15
Horizontal Hole Diameter (HORD)
6 (IN) 16
Bulk Density, Bottom (ROBB)
1.95 (G/C3) 2.95
Density Time After Bit (TAB_DEN)
0 (HR) 10
ADN Rotational Speed (RPM_ADN) (RPM)
0 250
Photoelectric Factor, Bottom (PEB)
0 (–––– 10
Bulk Density Correction, Bottom (DRHB)
−0.25 (G/C3) 0.25
275 TVD
300 TVD


325
TVD
350
TVD


375
TVD
400
TVD
425
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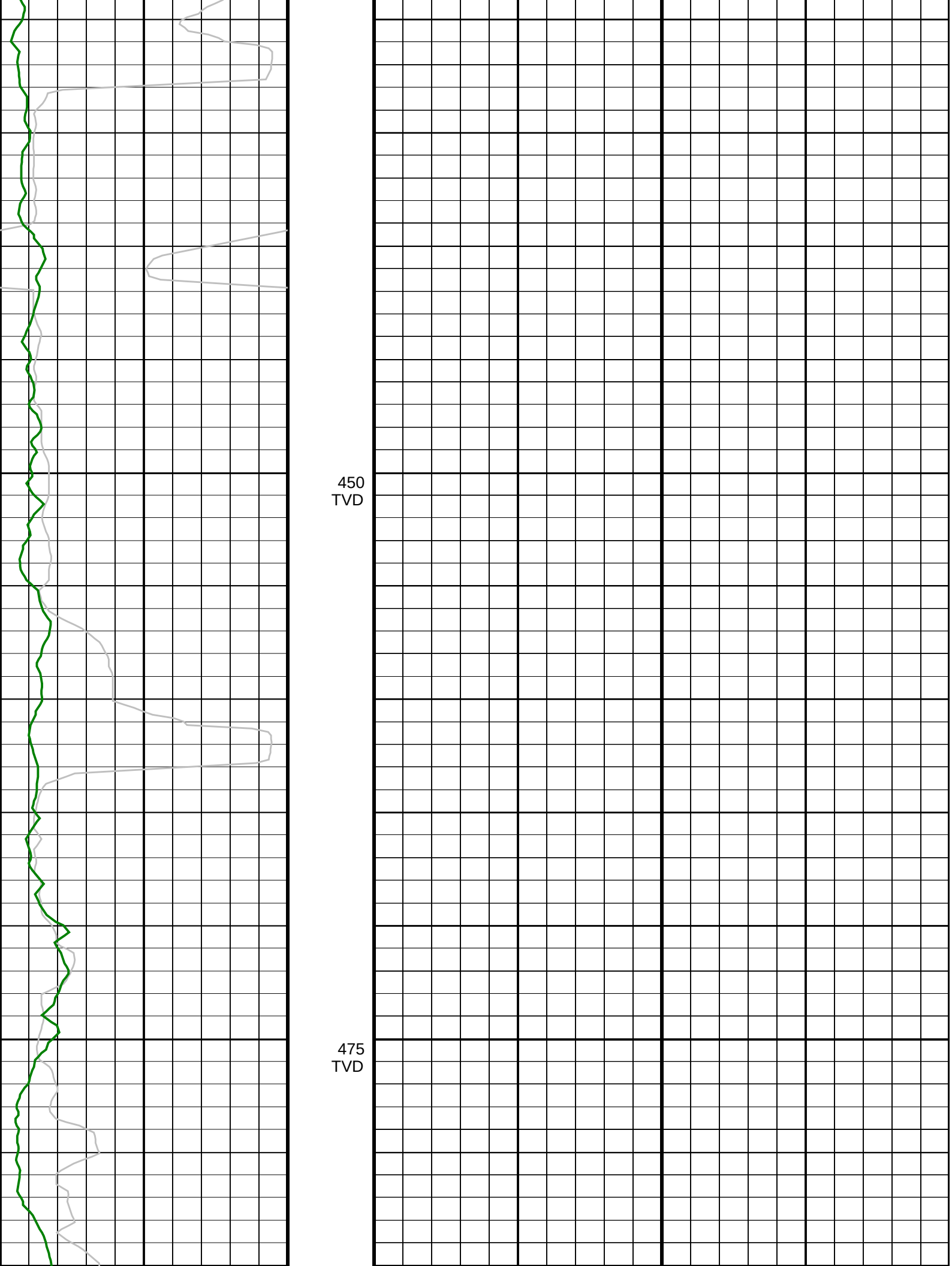
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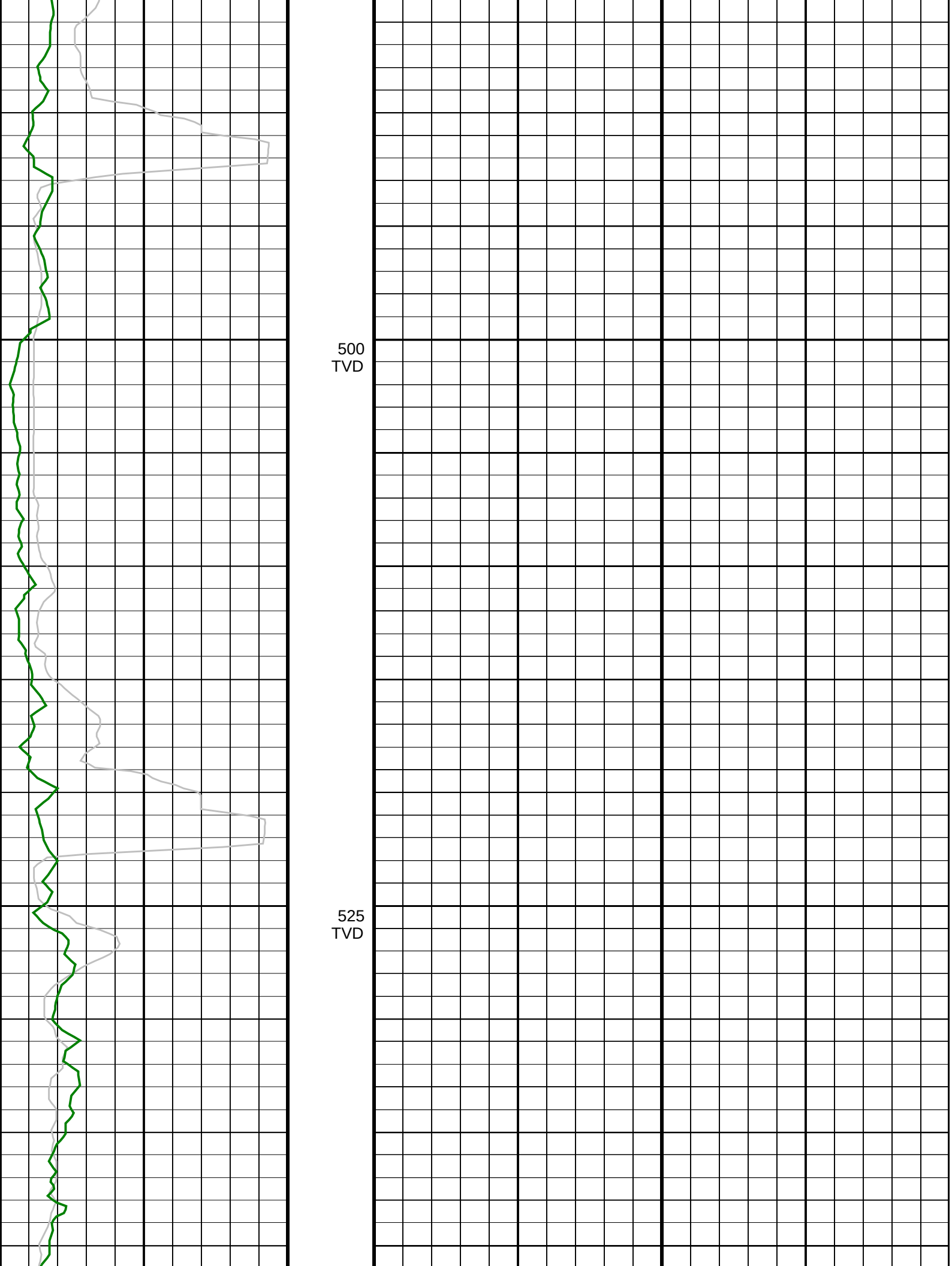
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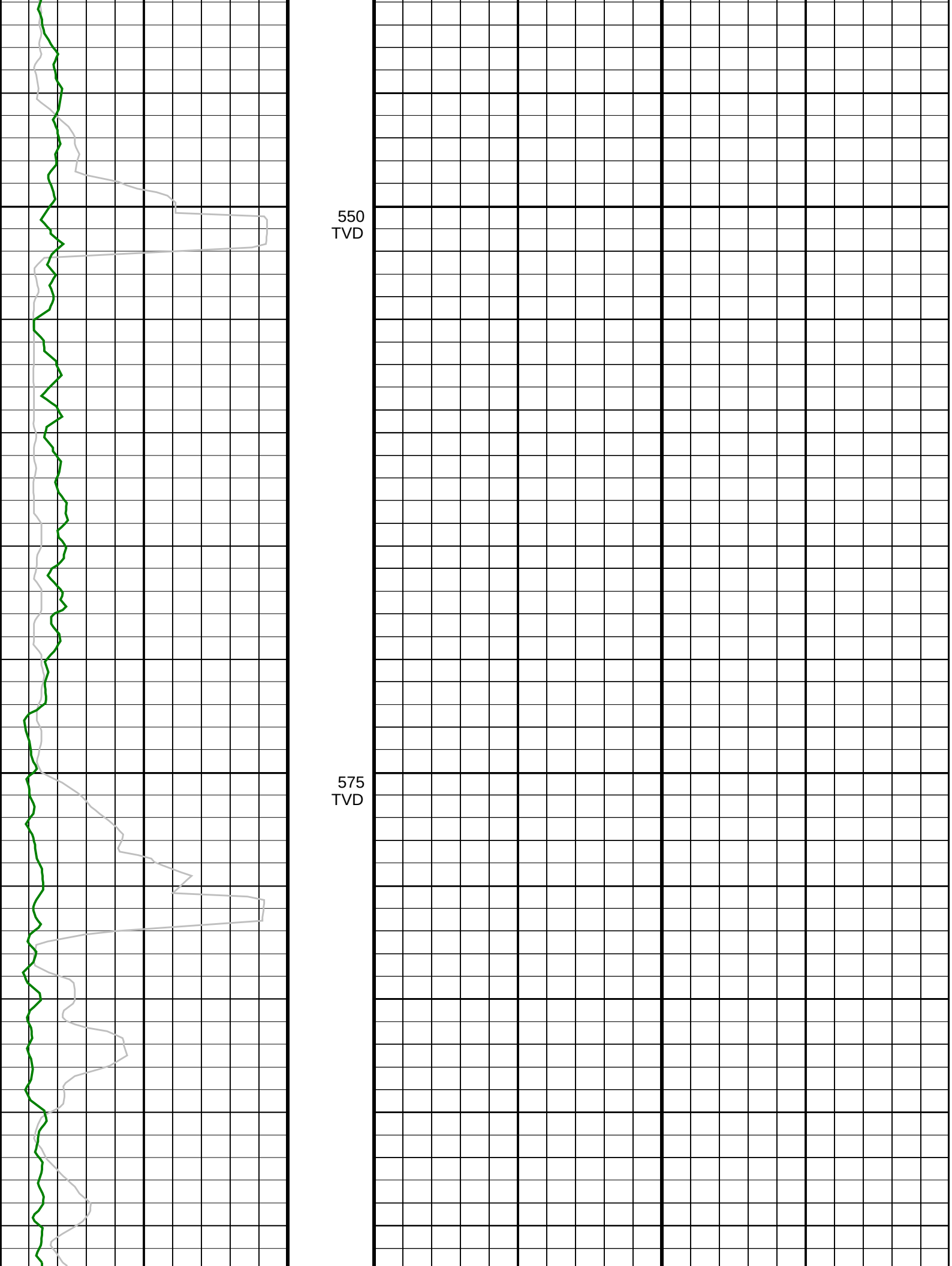
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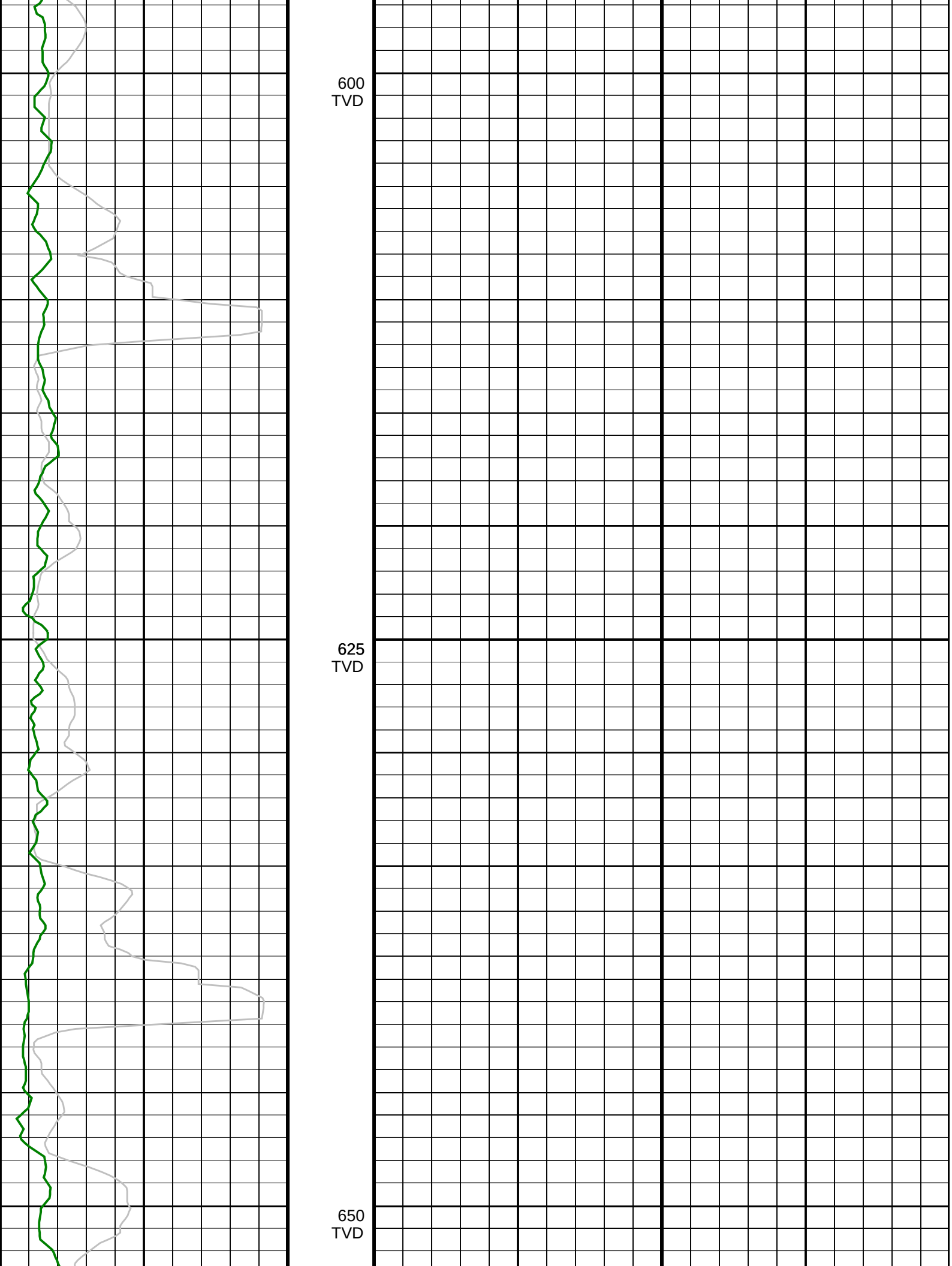
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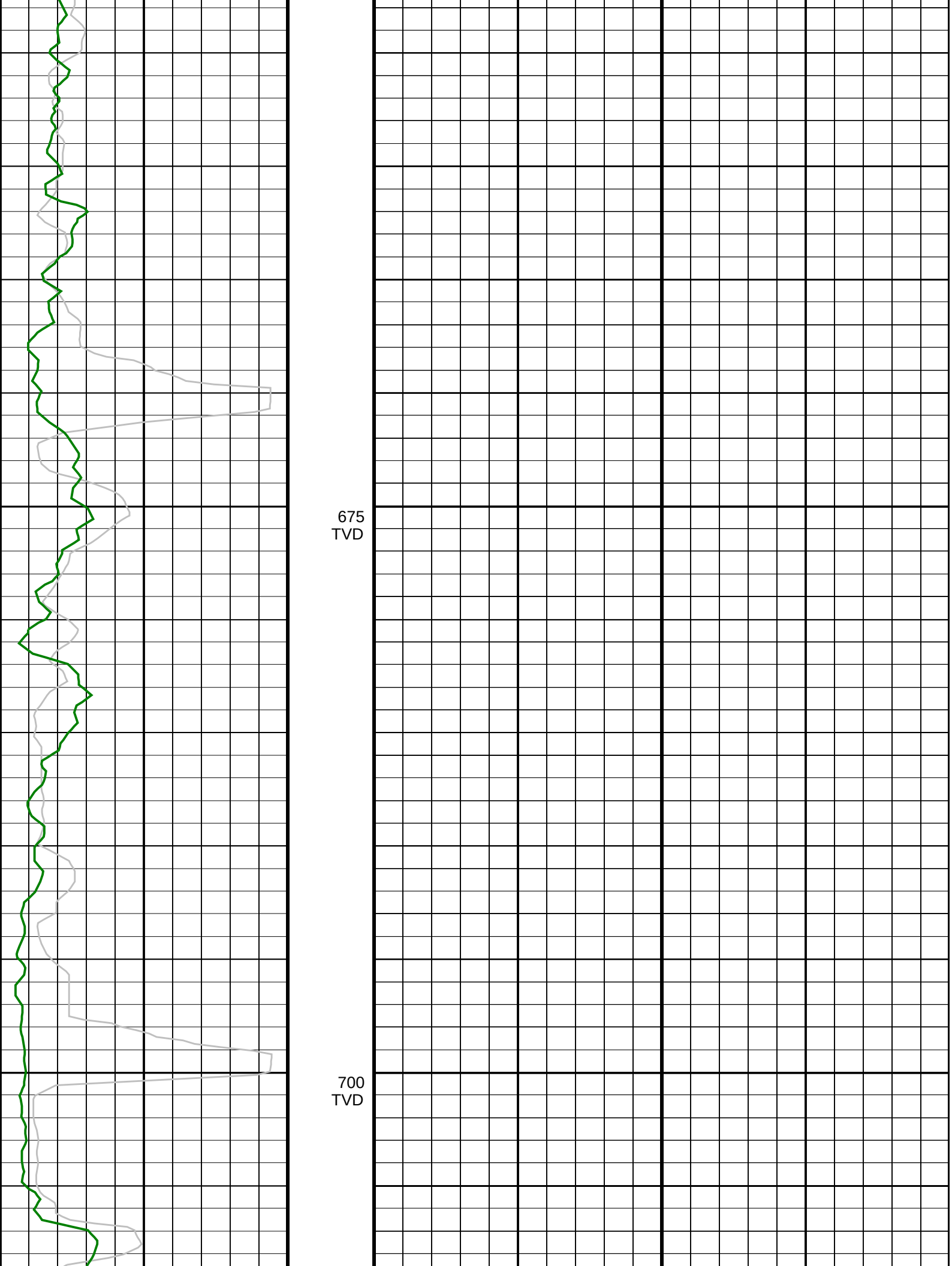
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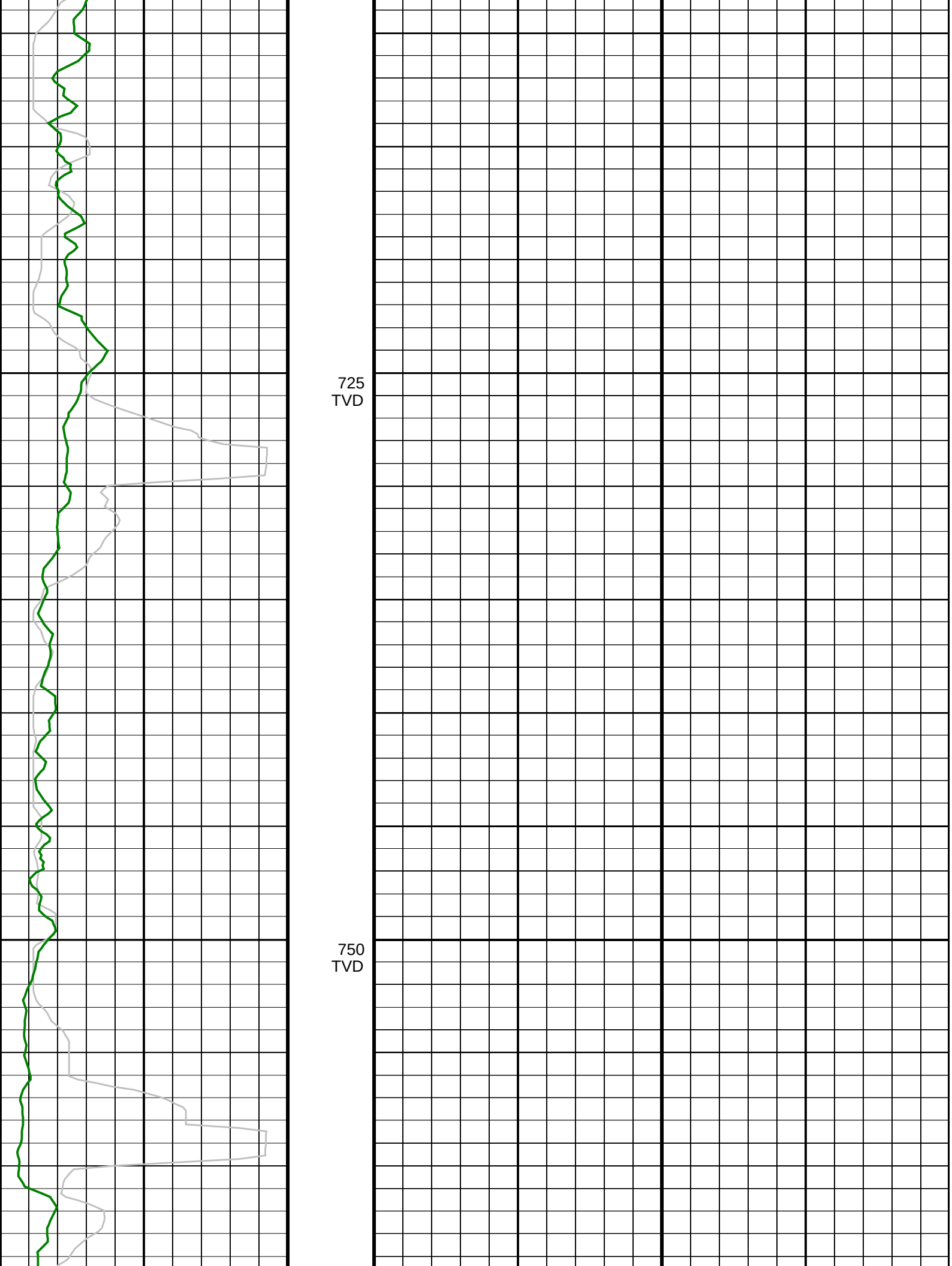
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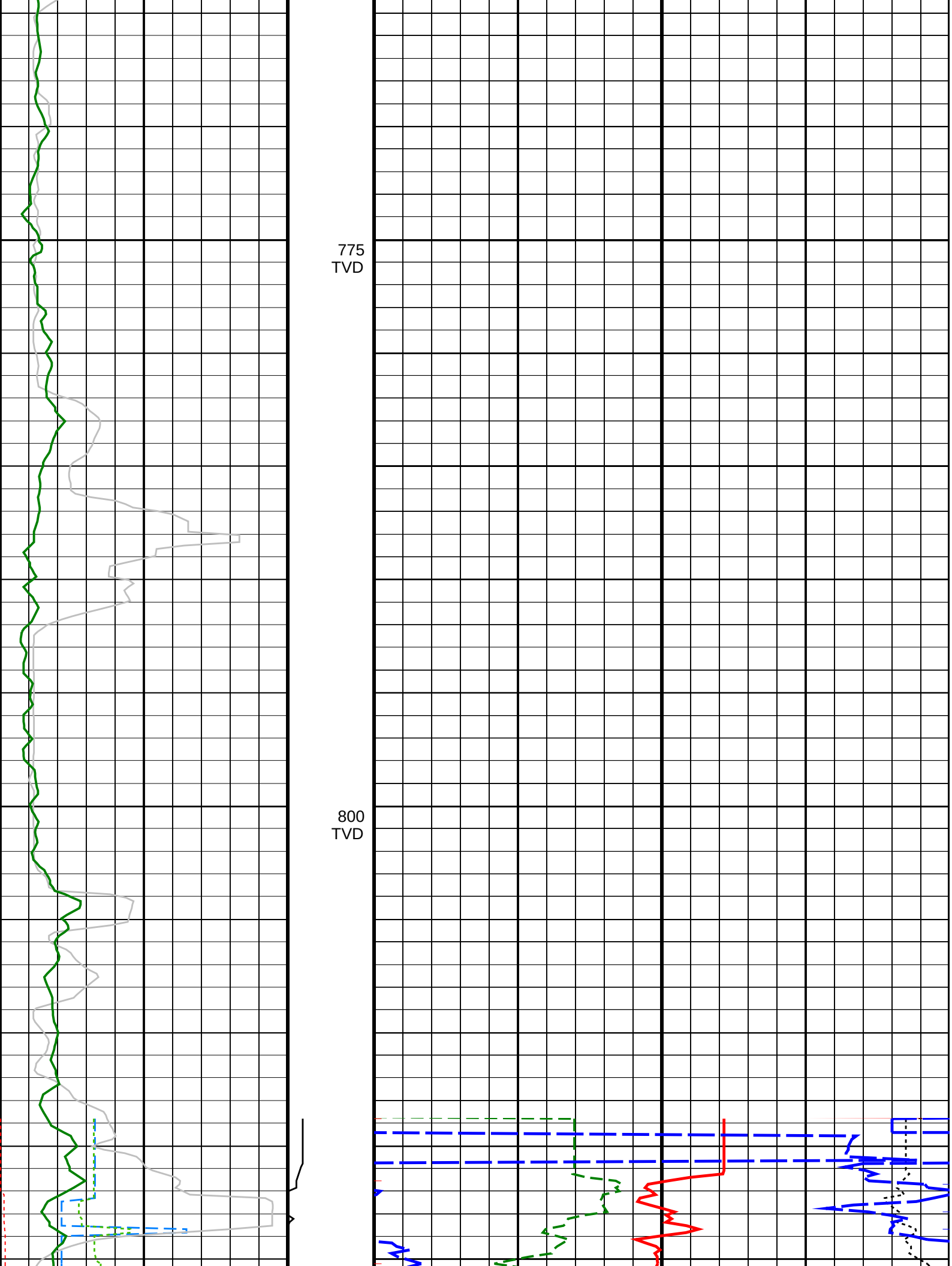
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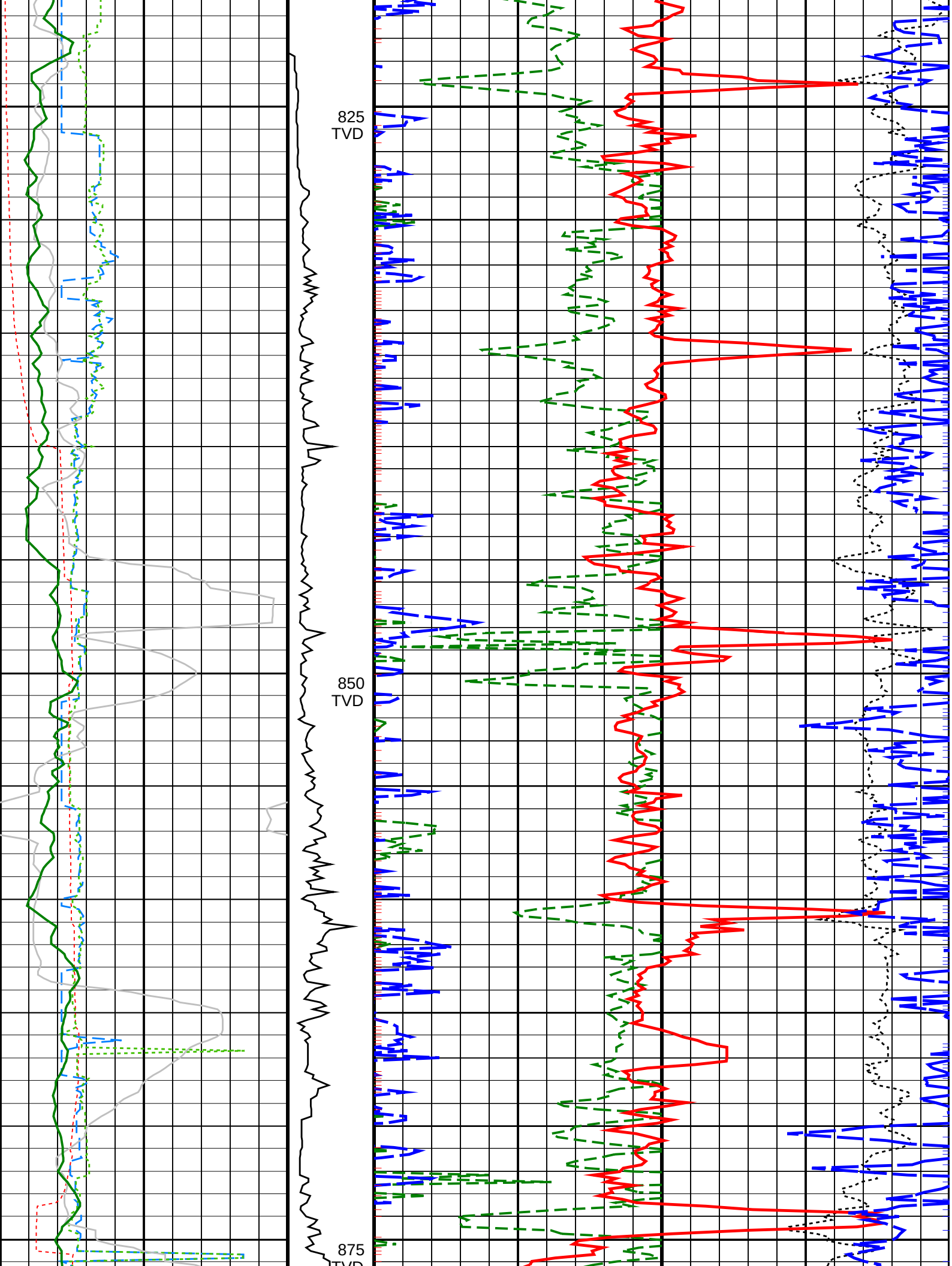
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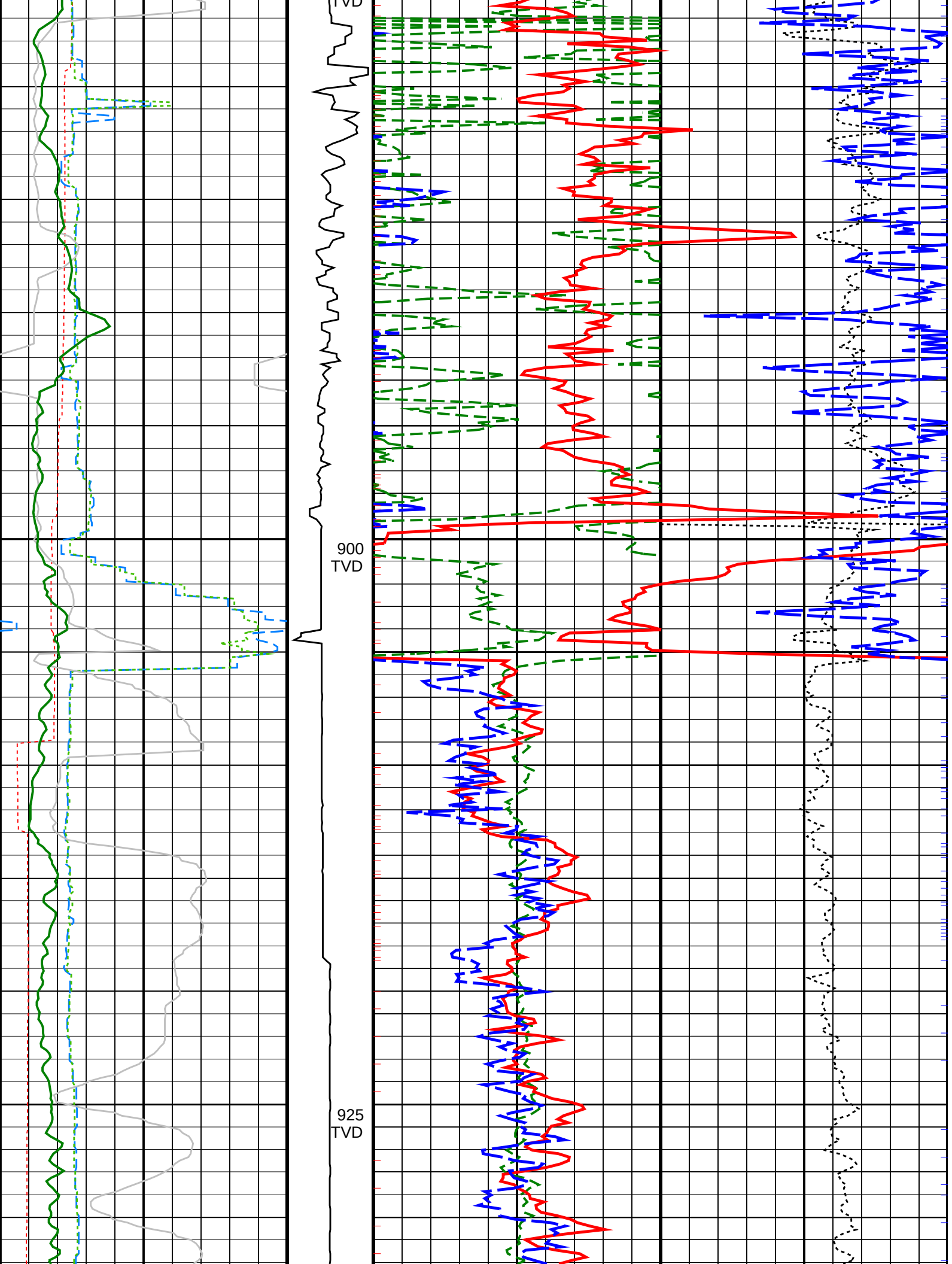
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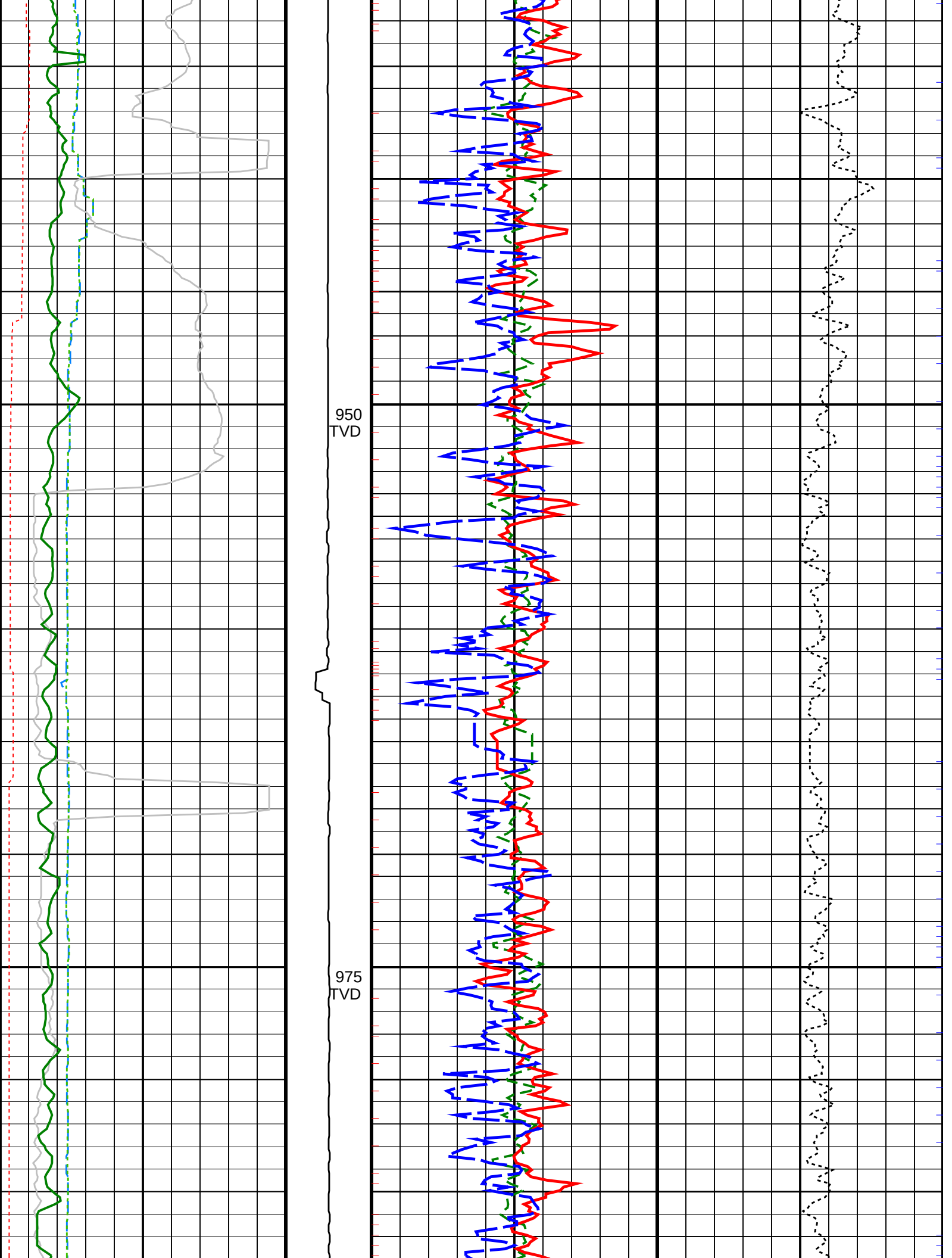
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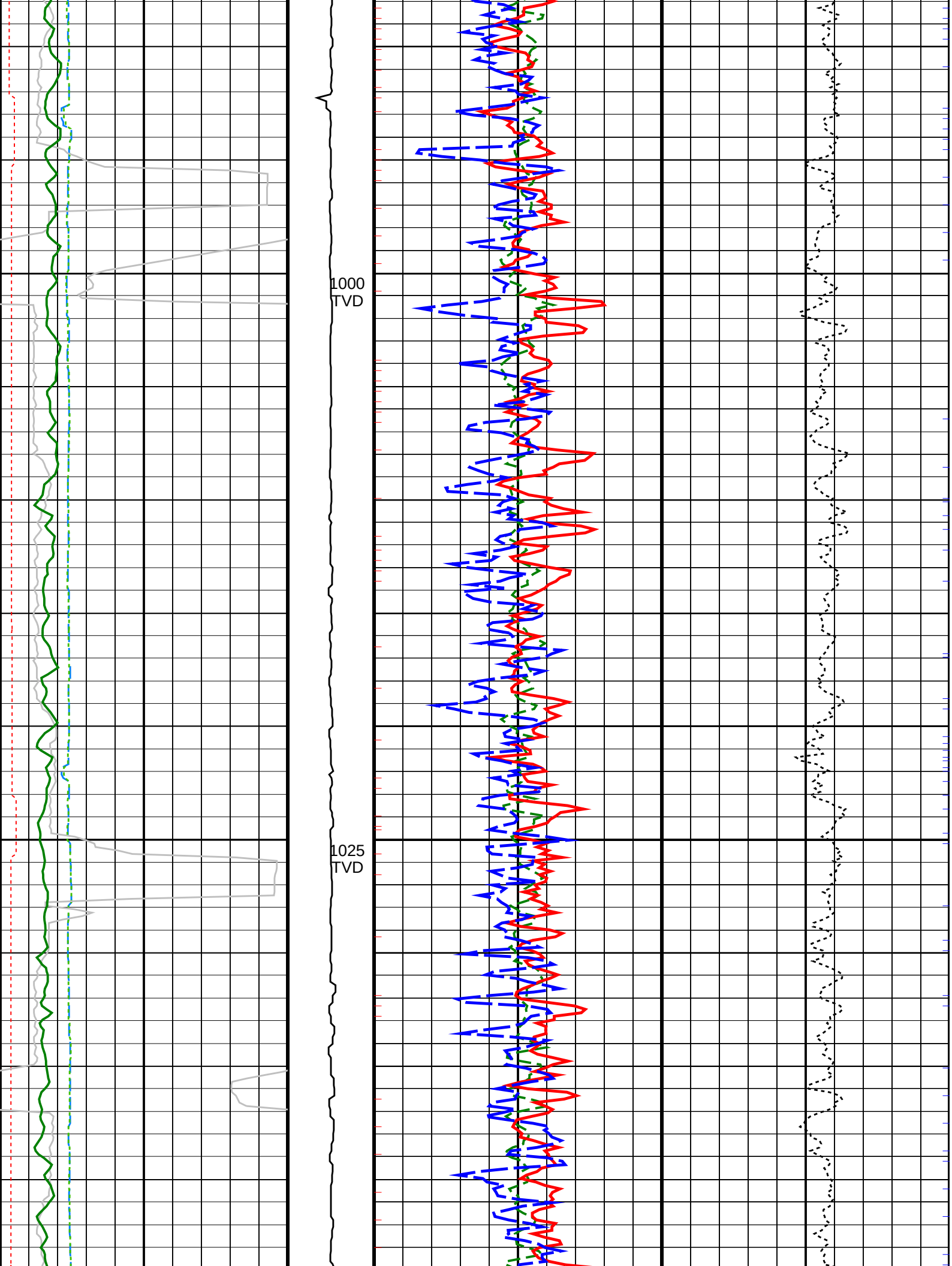
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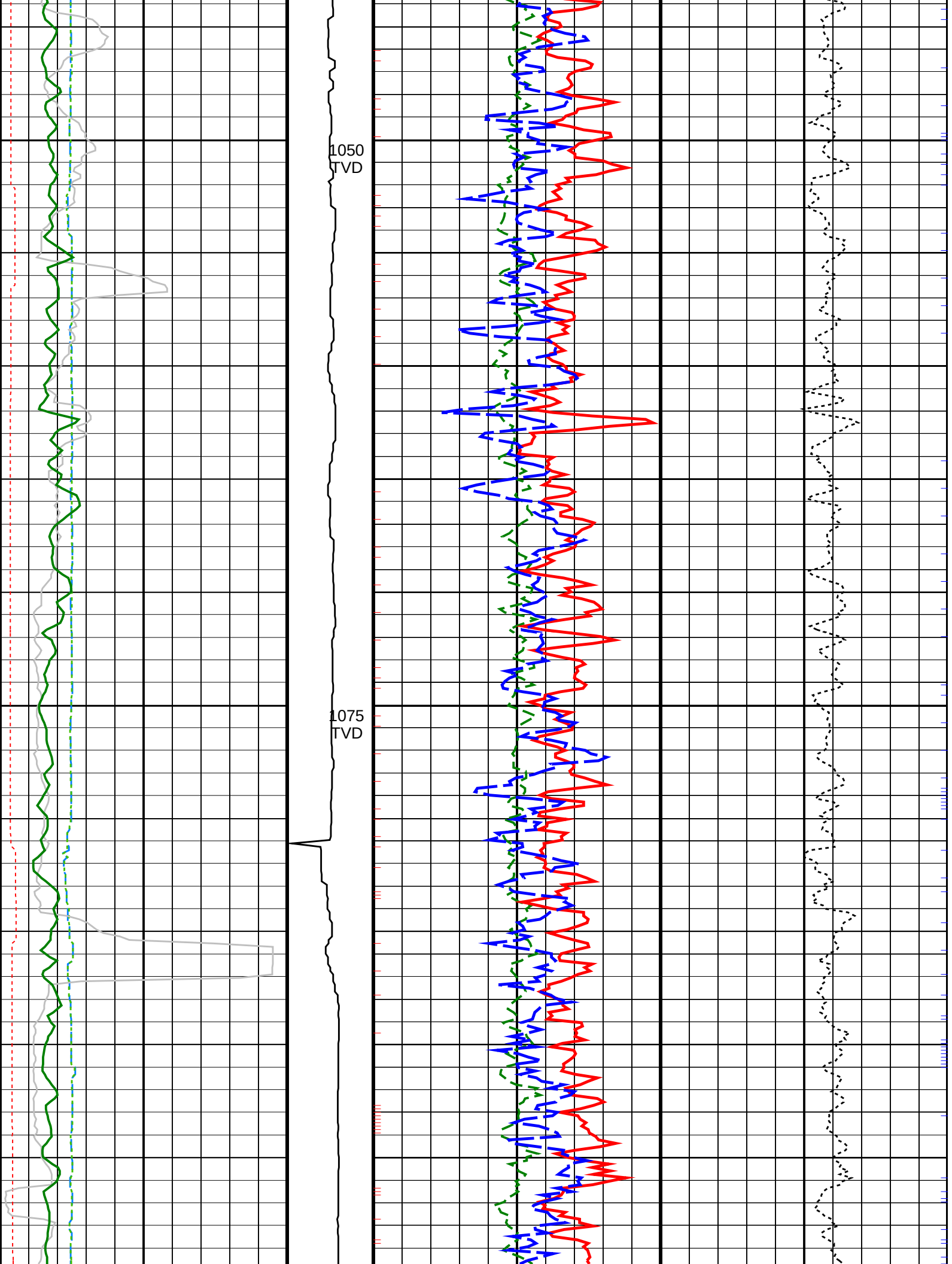
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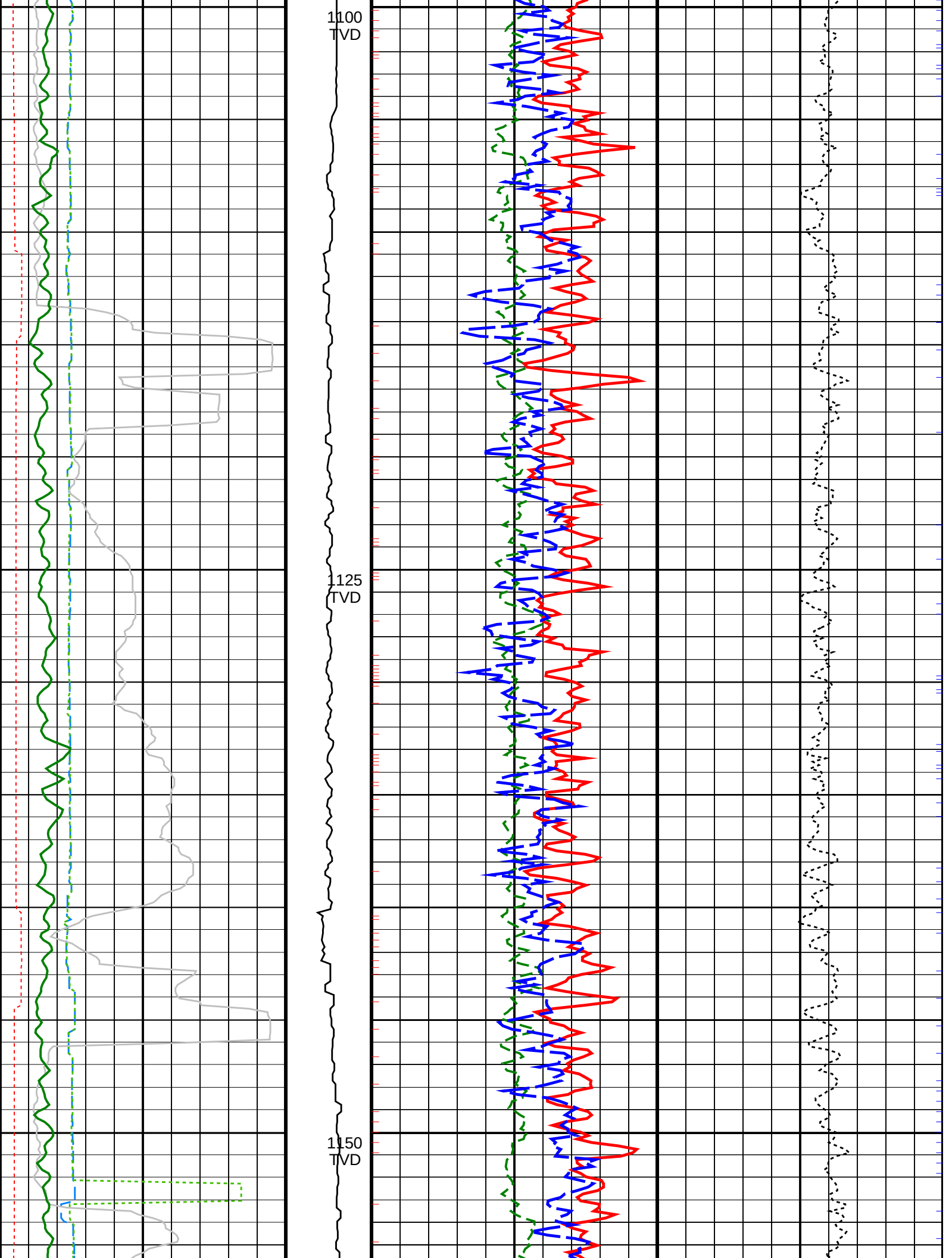
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1125
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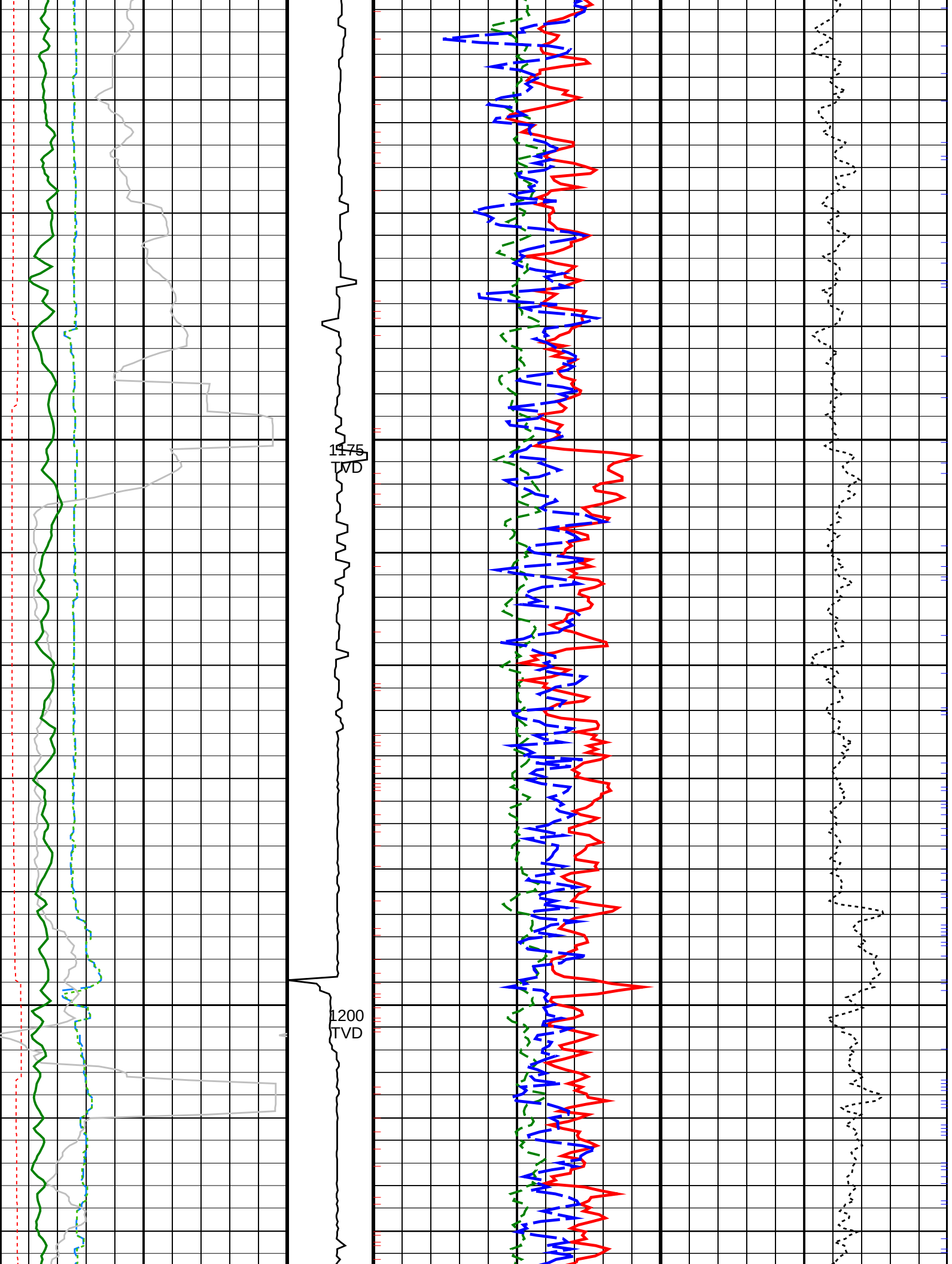
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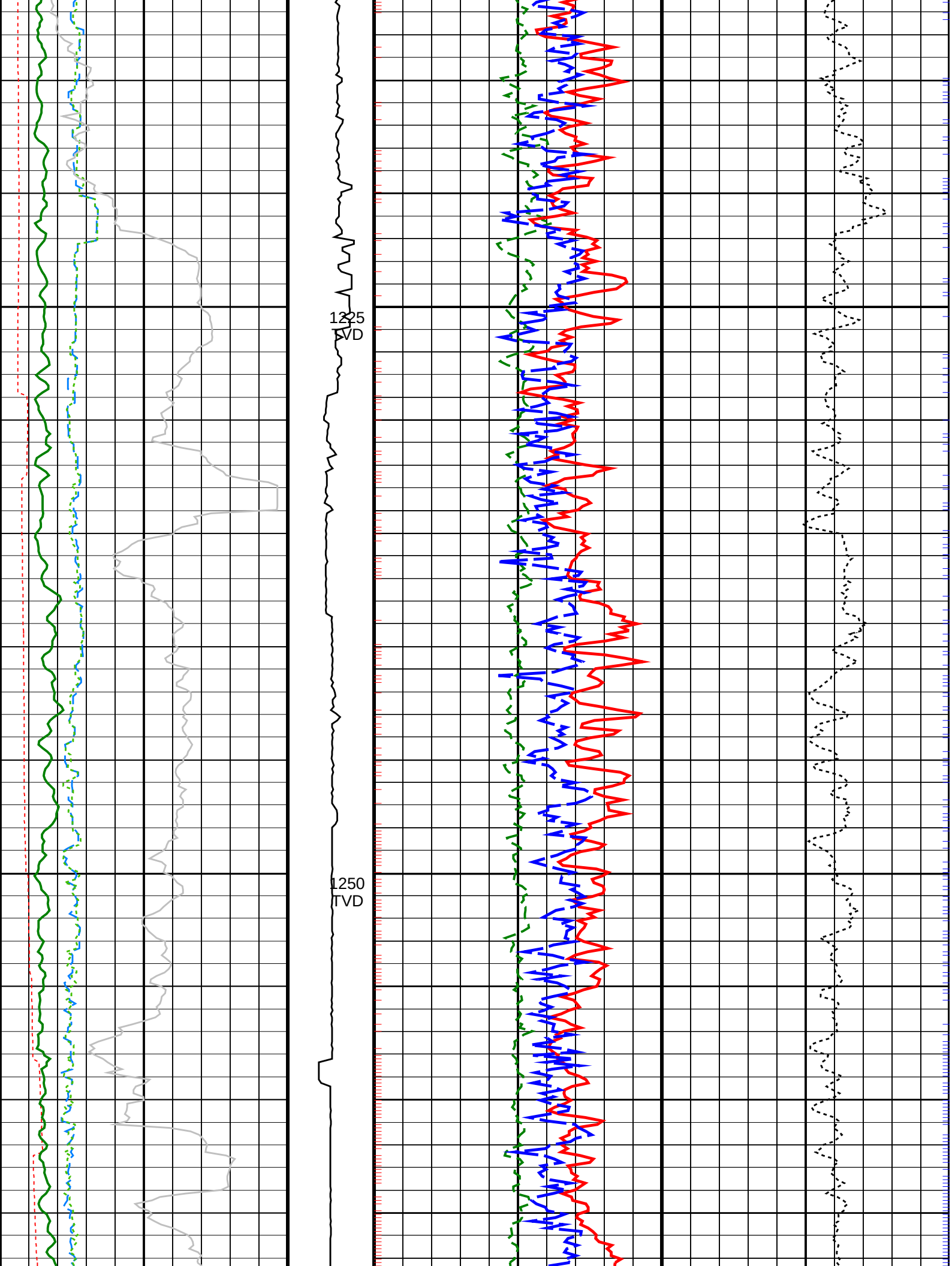
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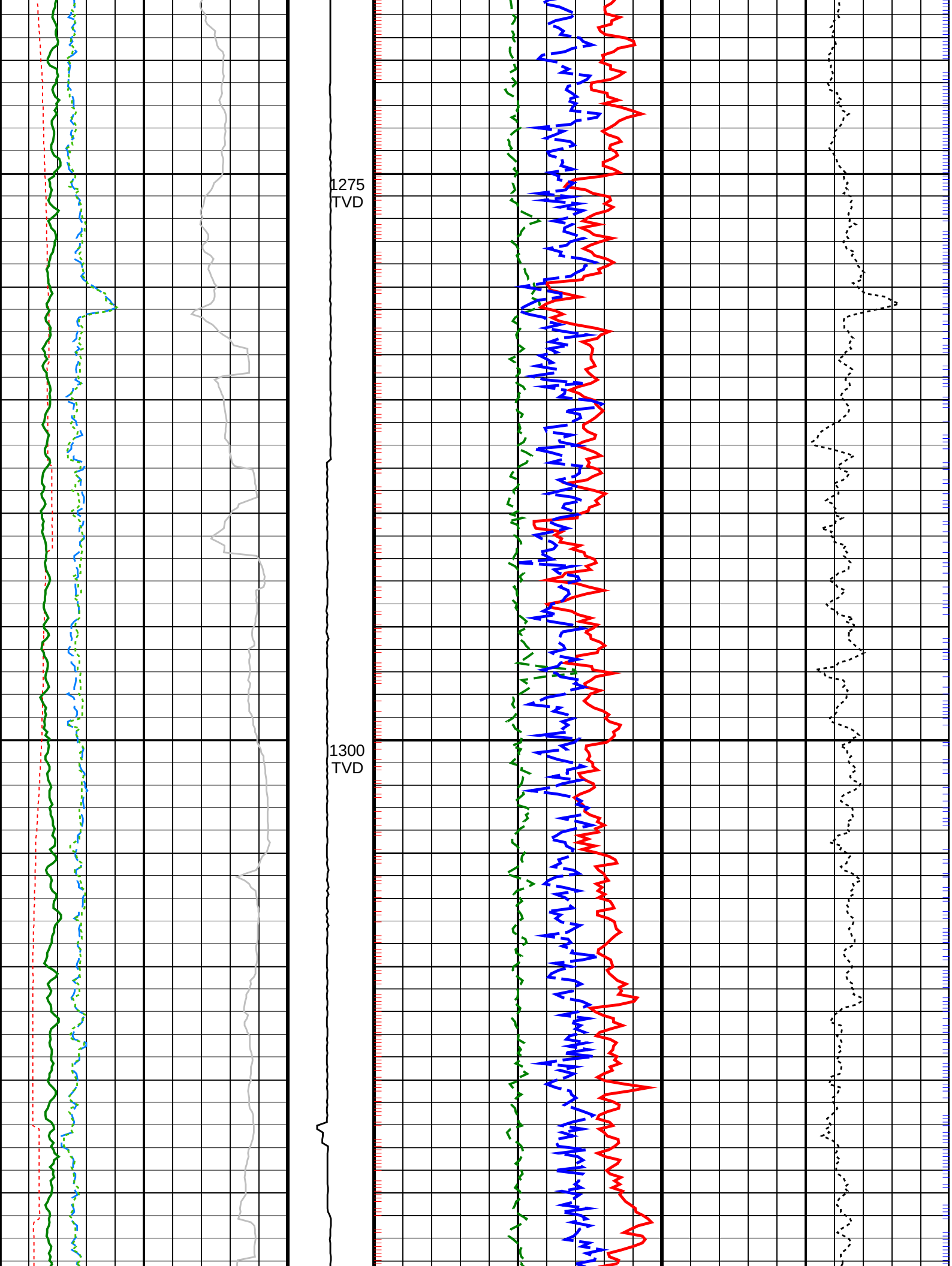
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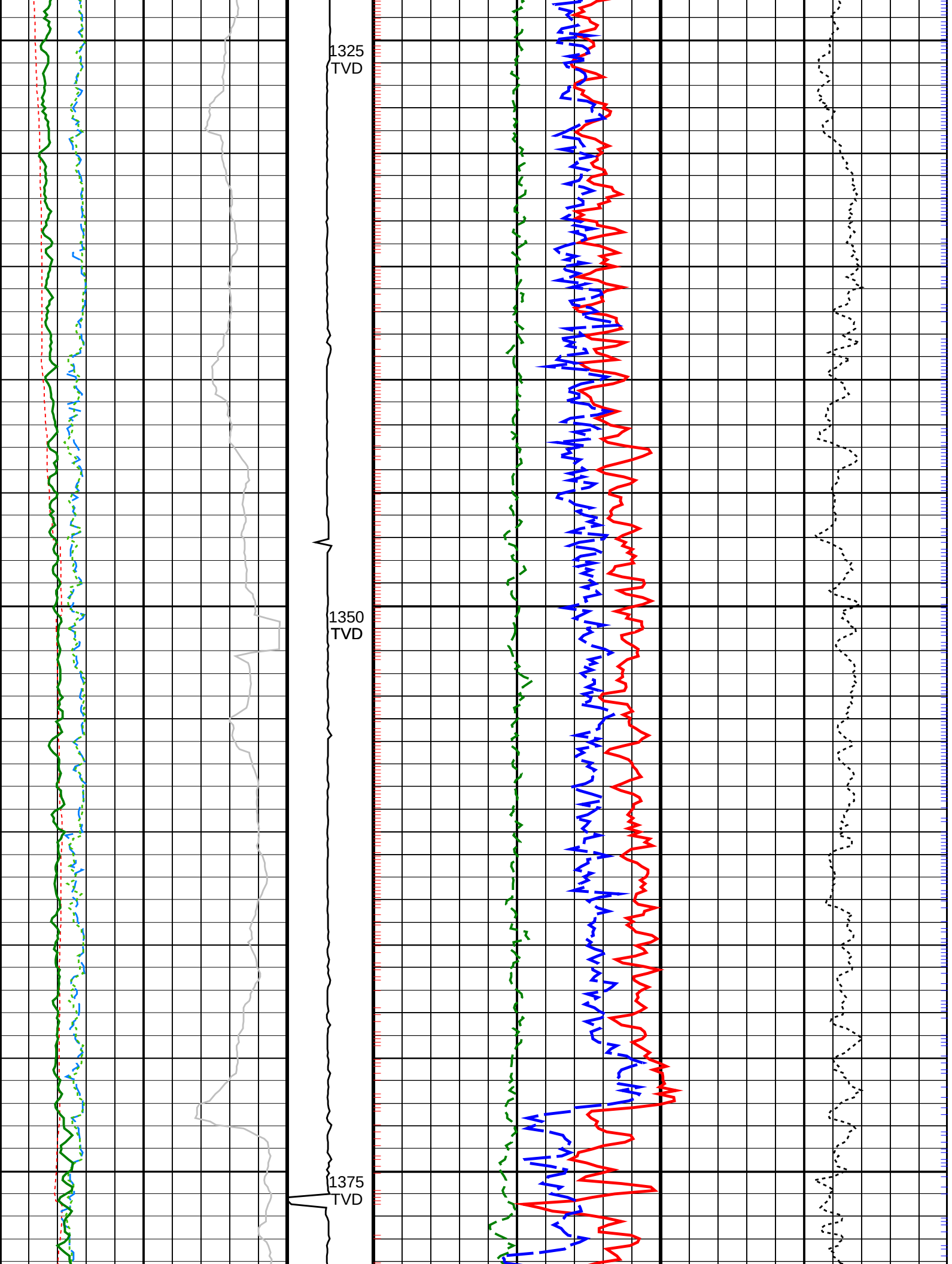
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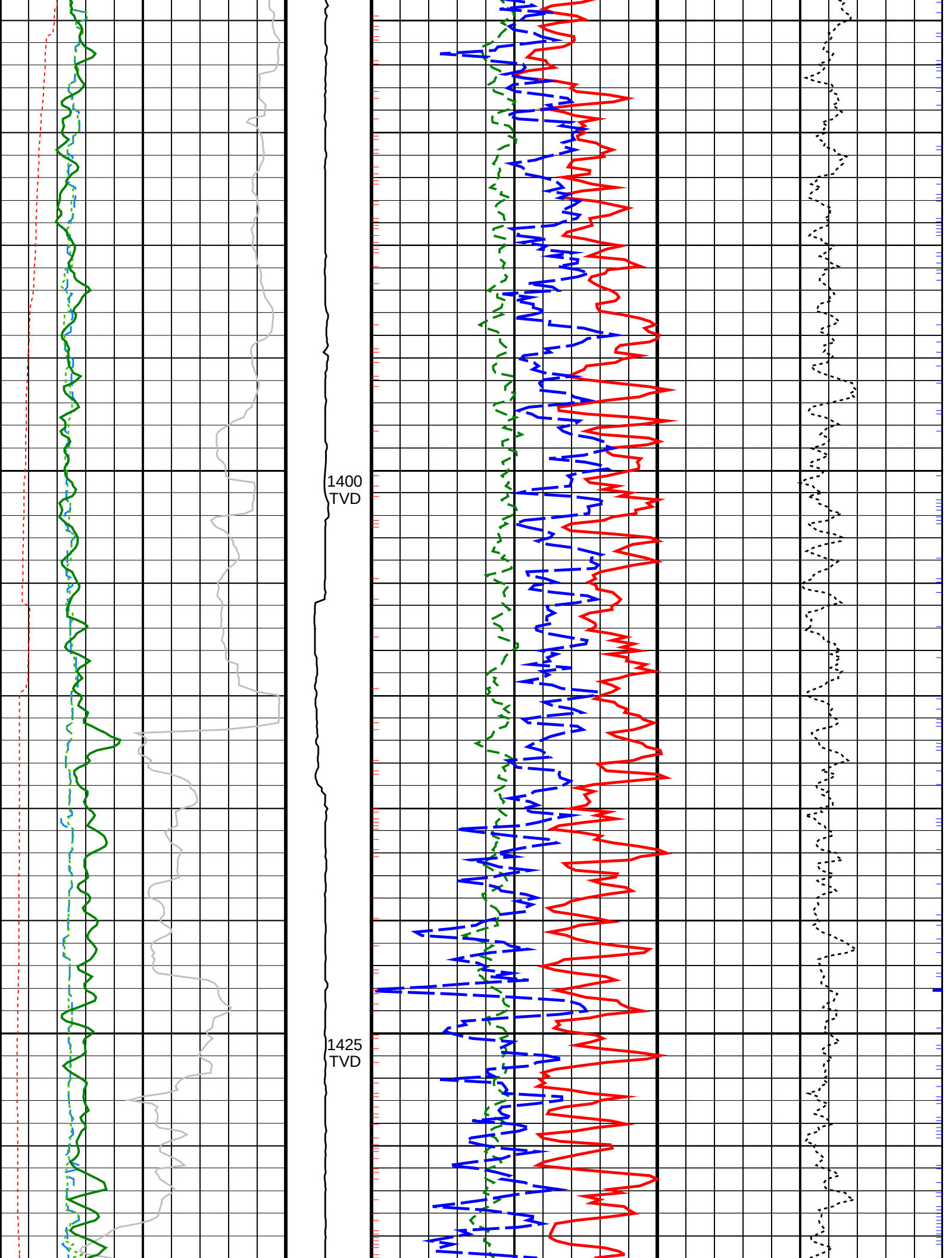
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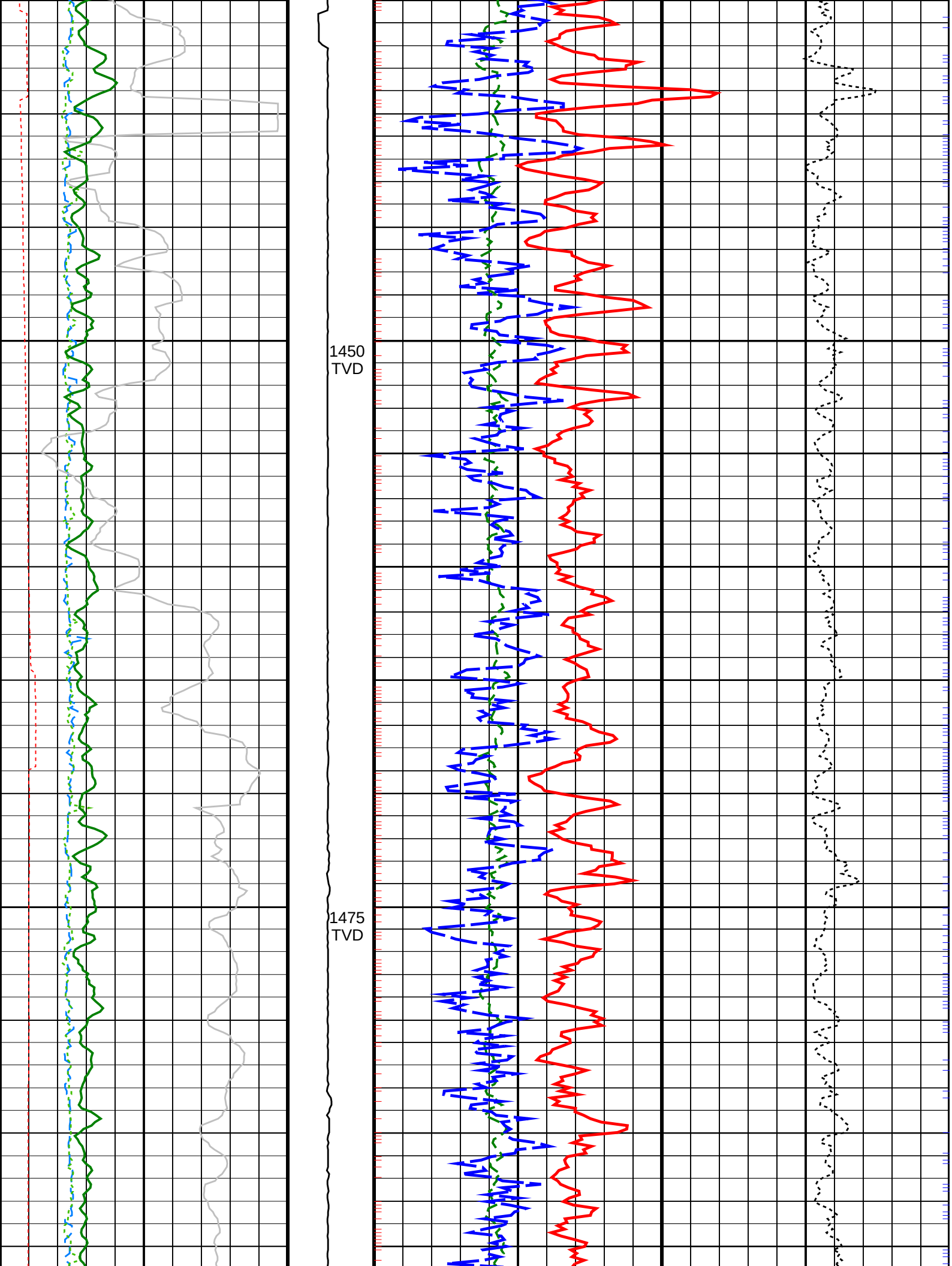
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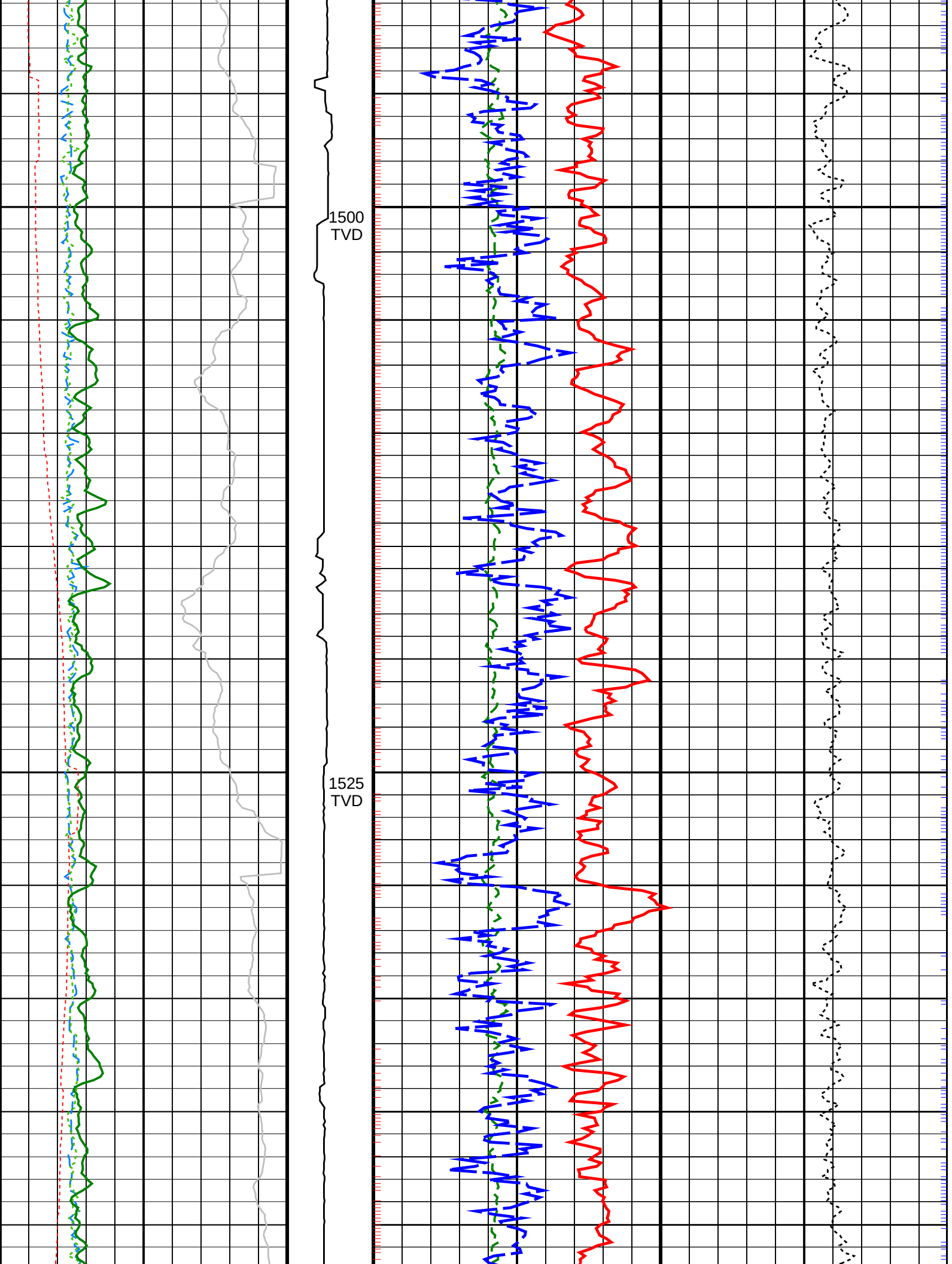
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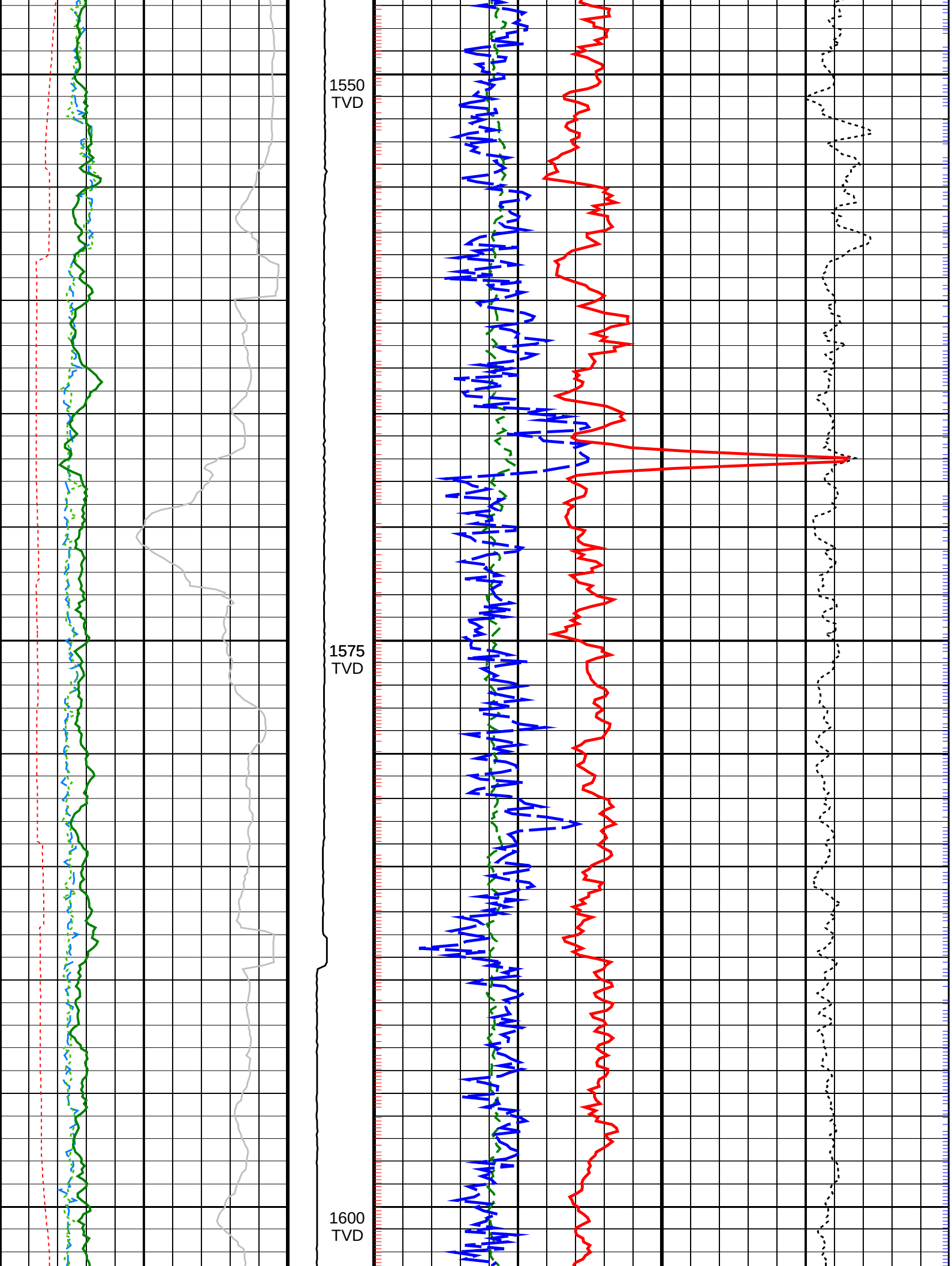
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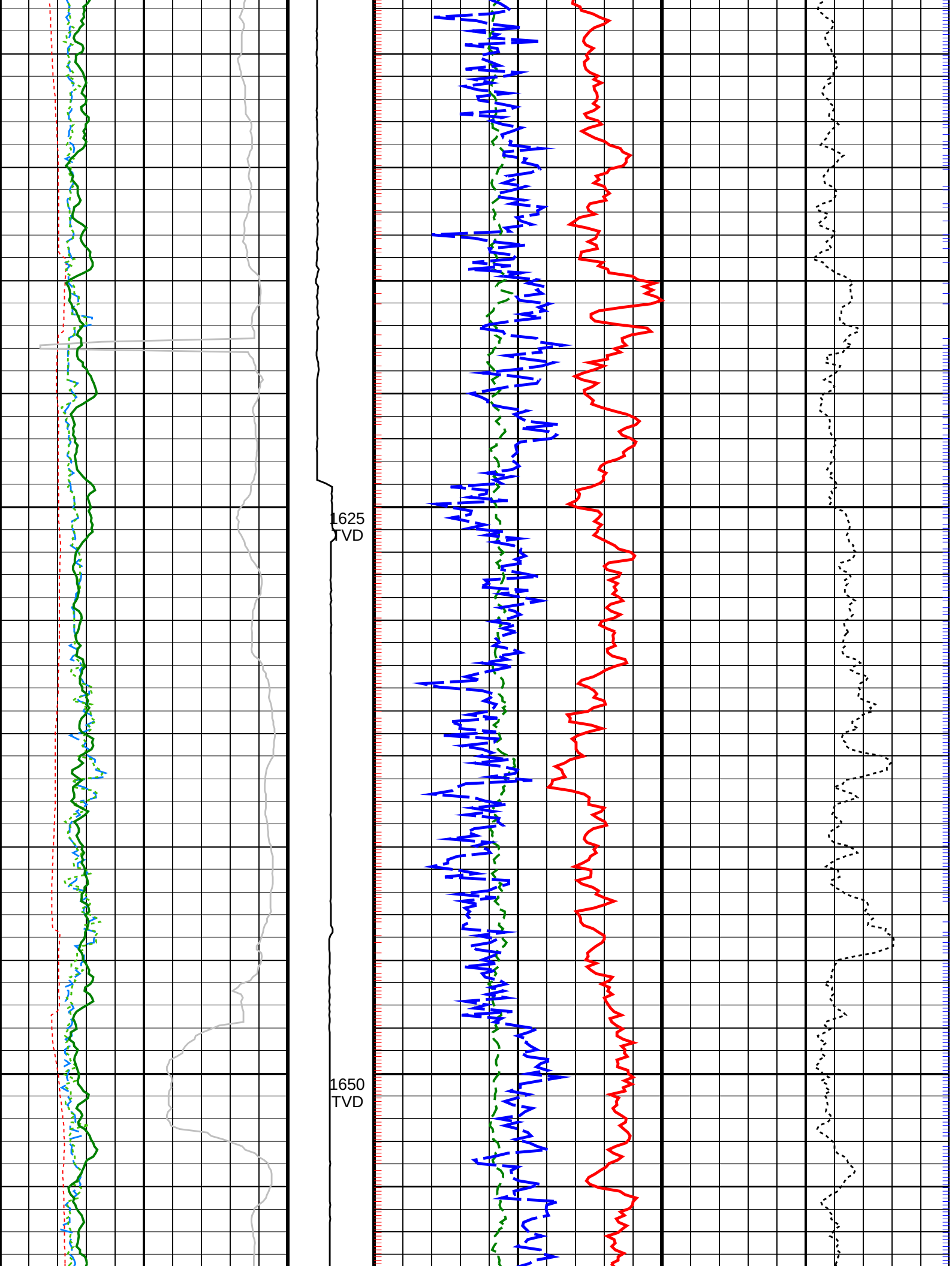
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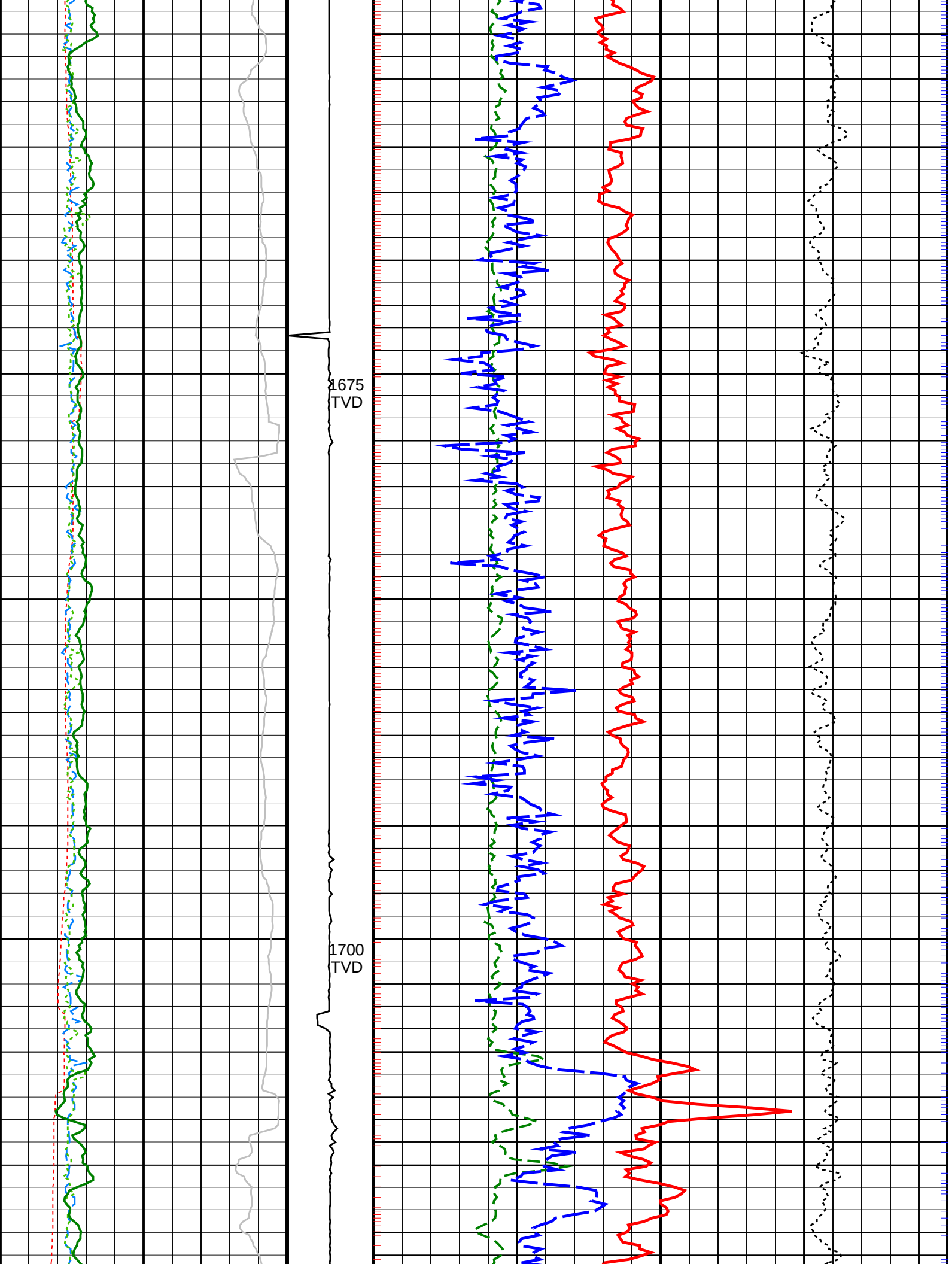
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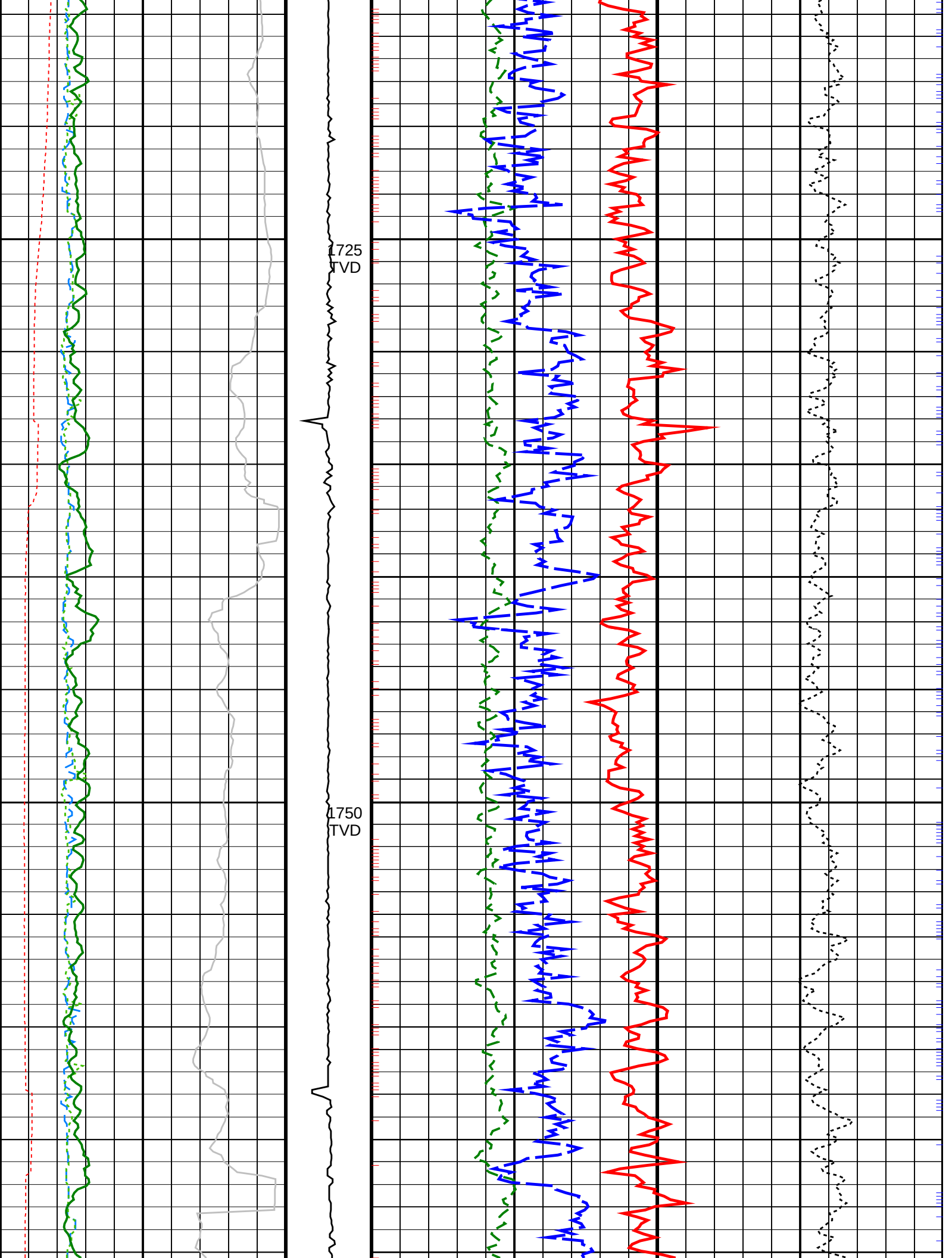
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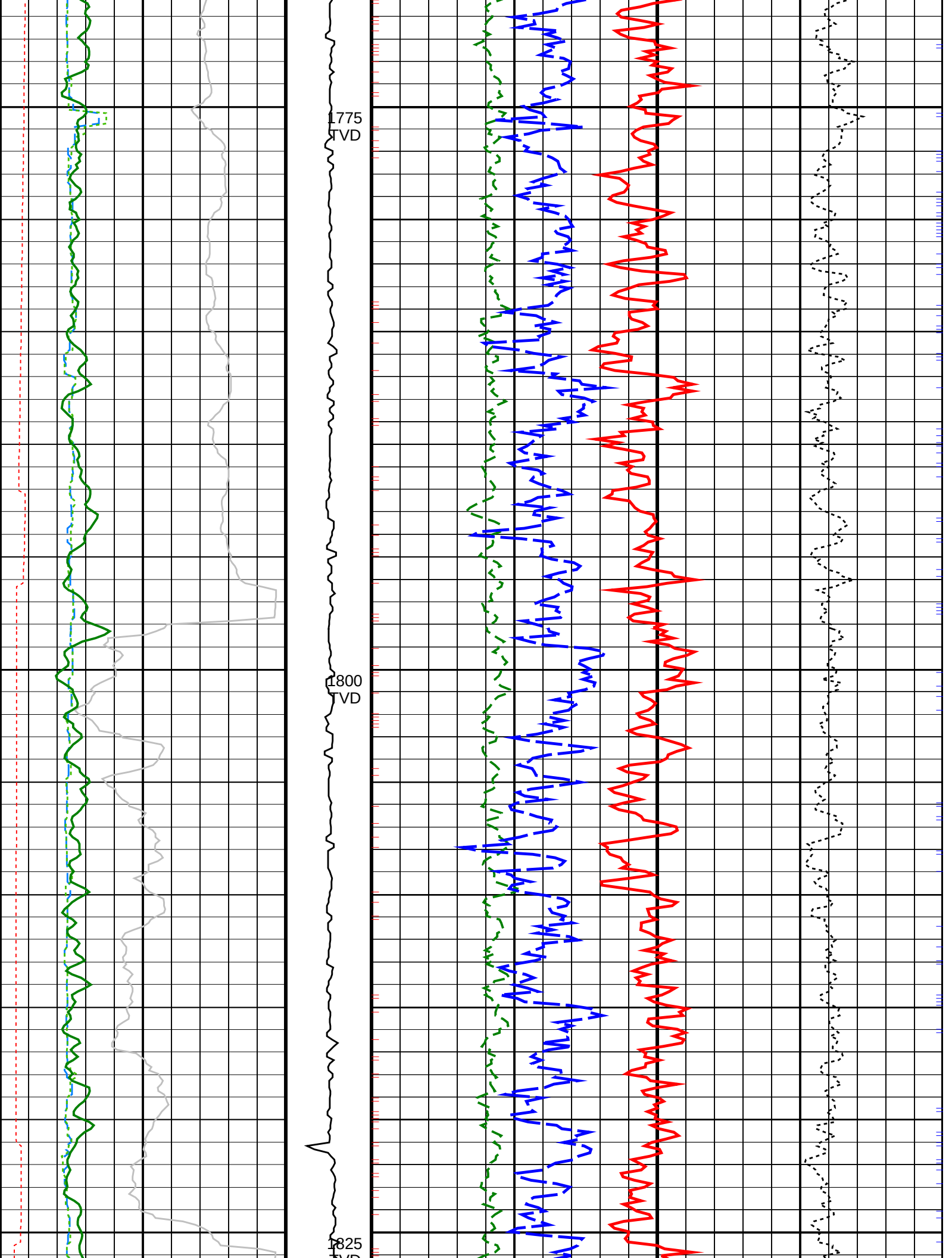
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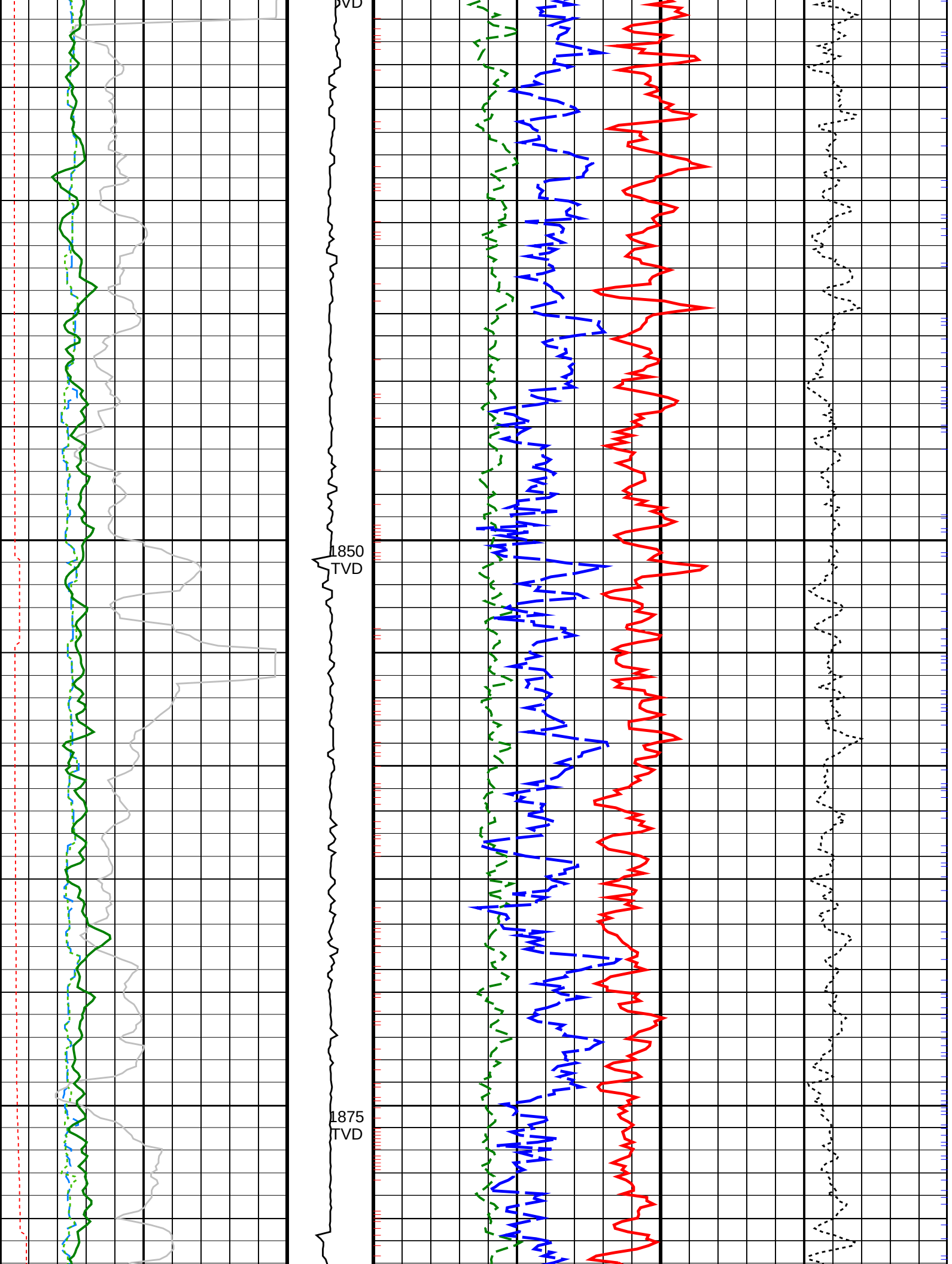
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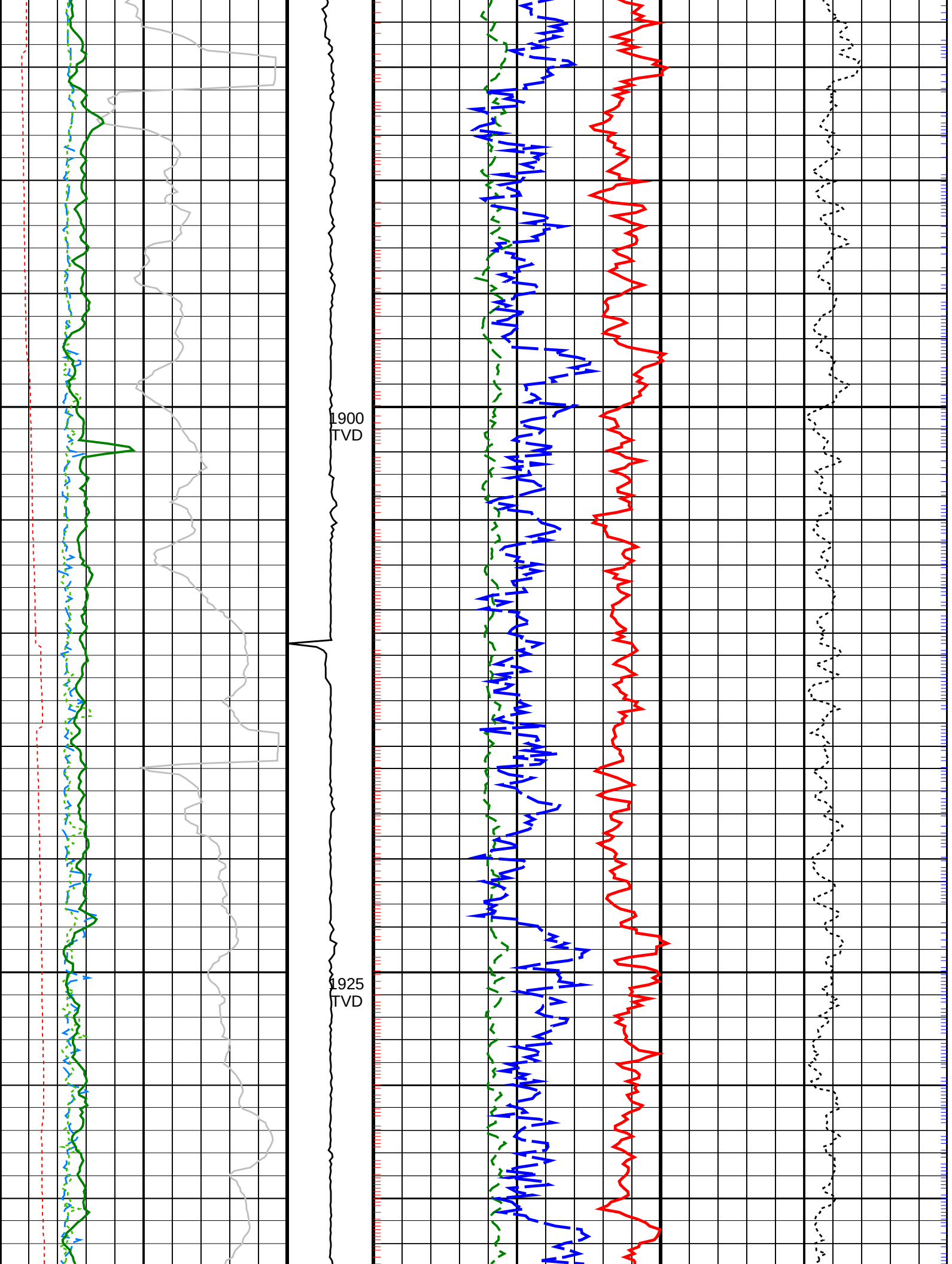
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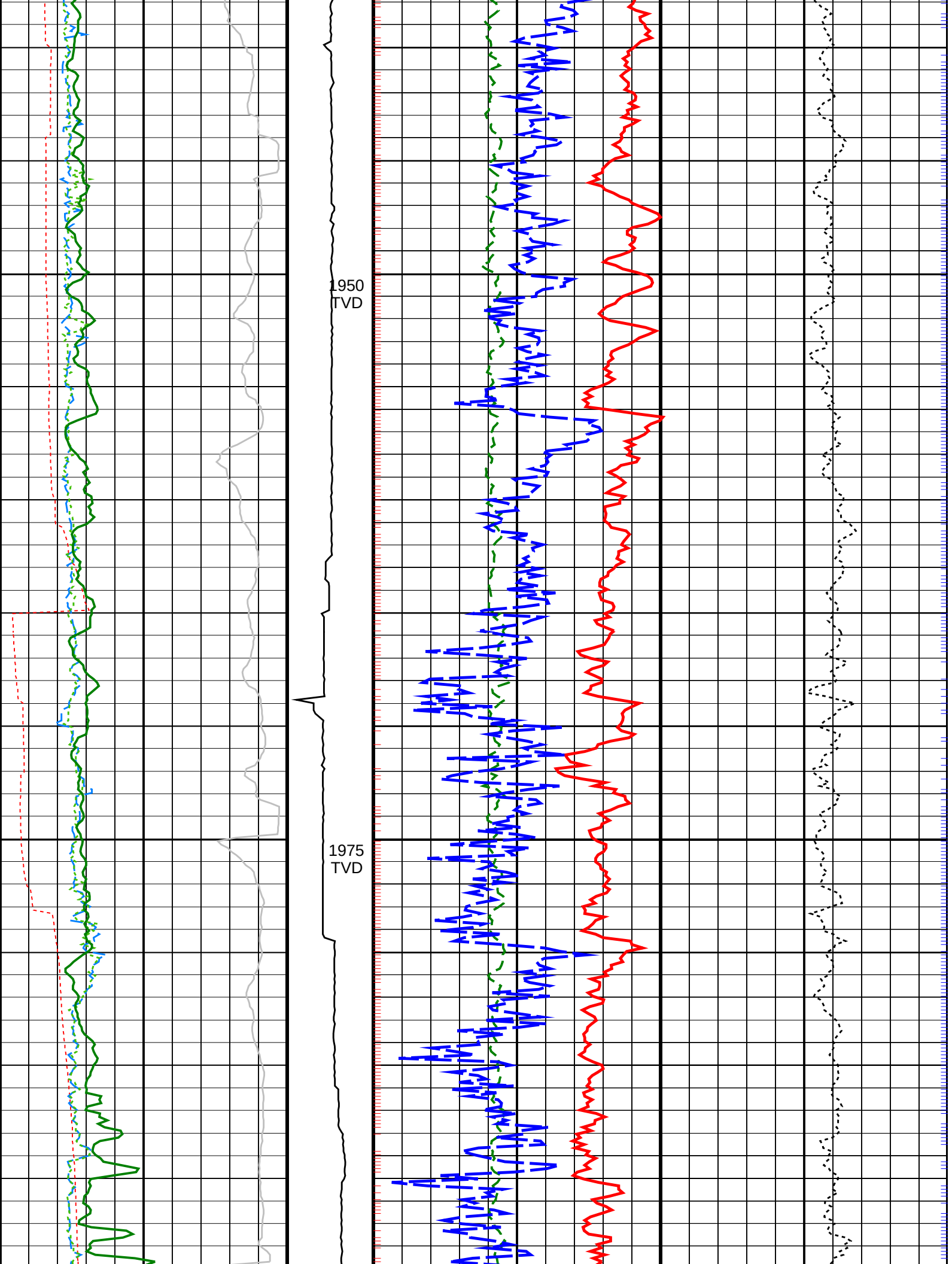
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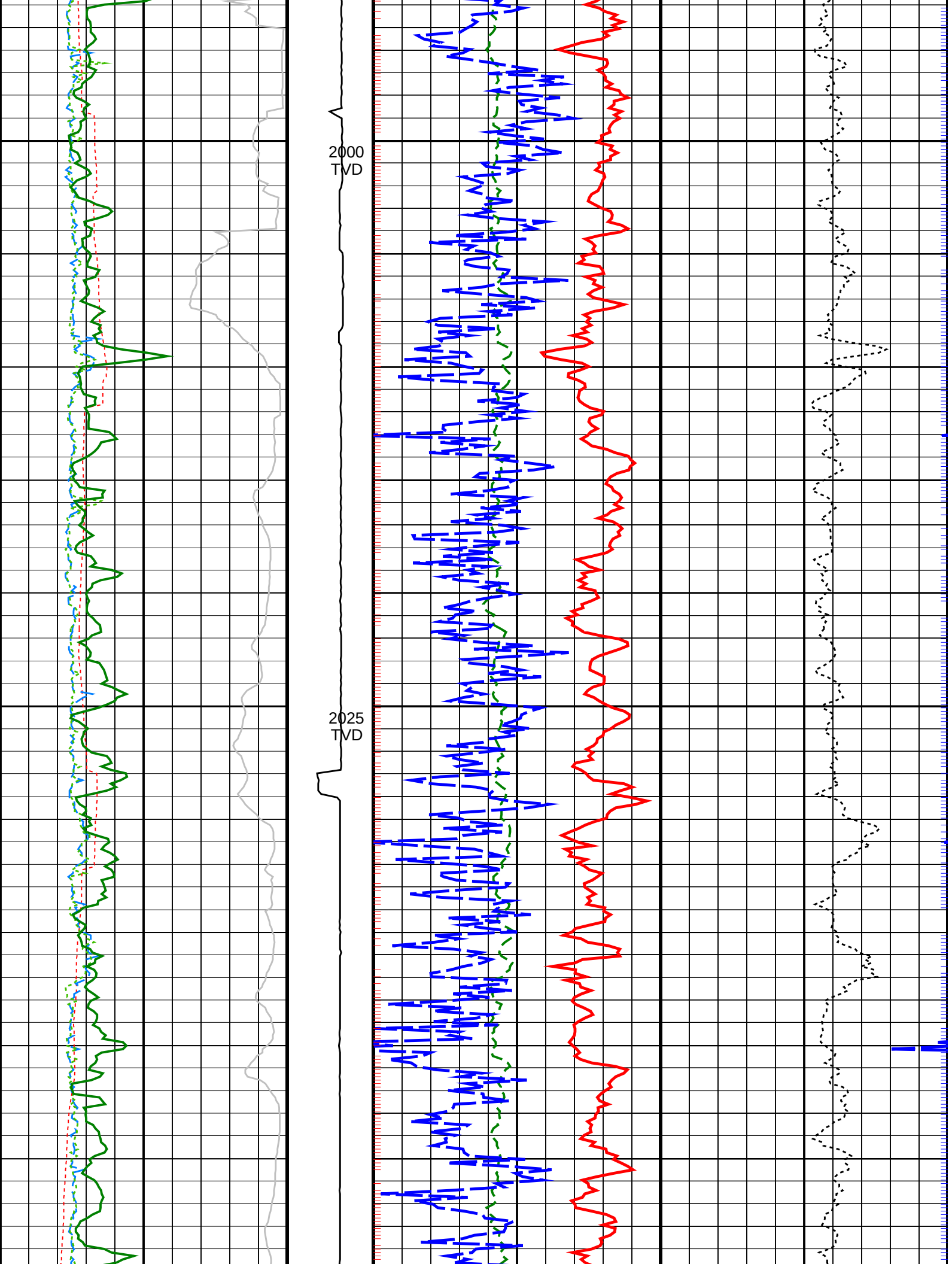
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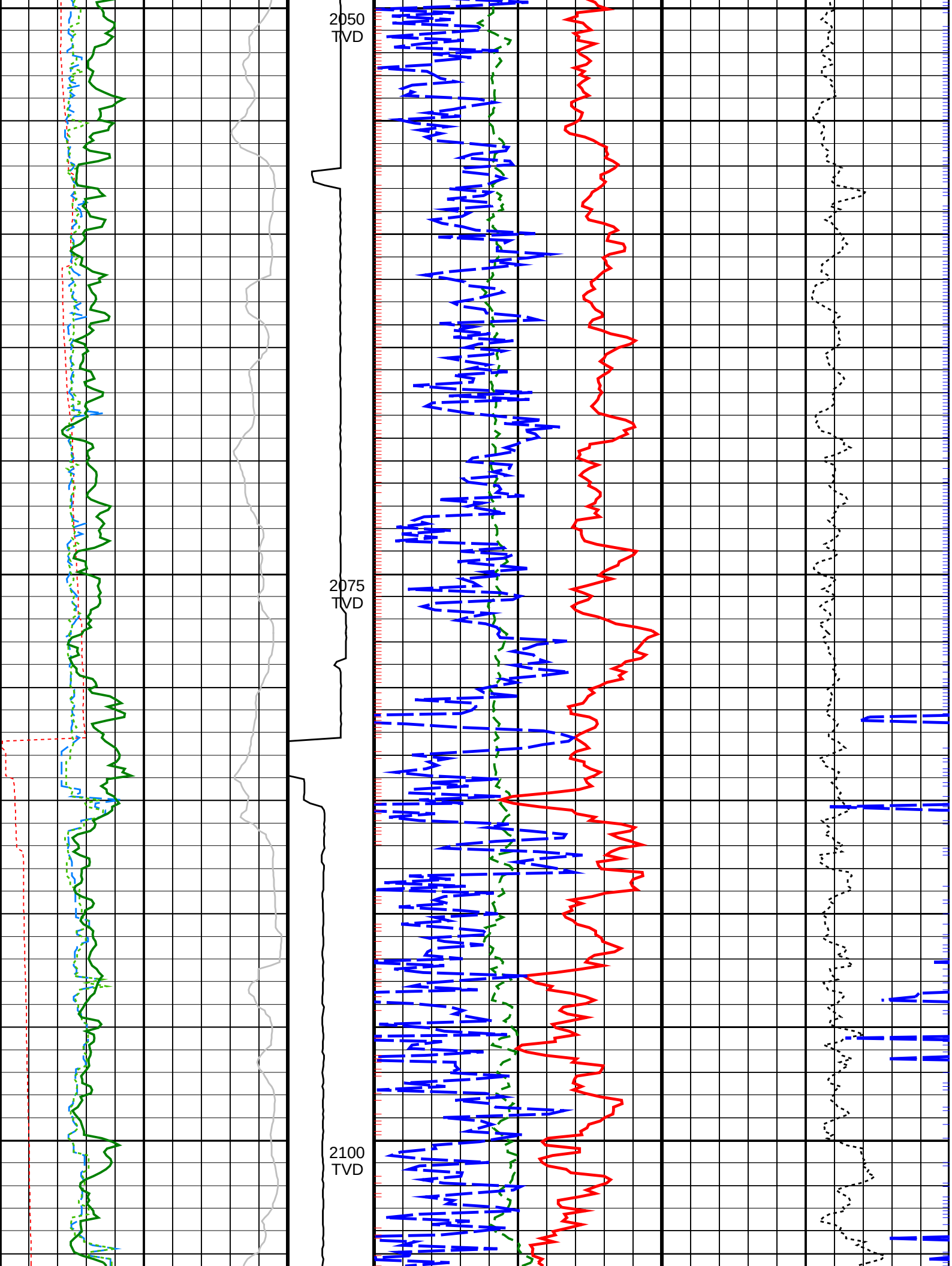
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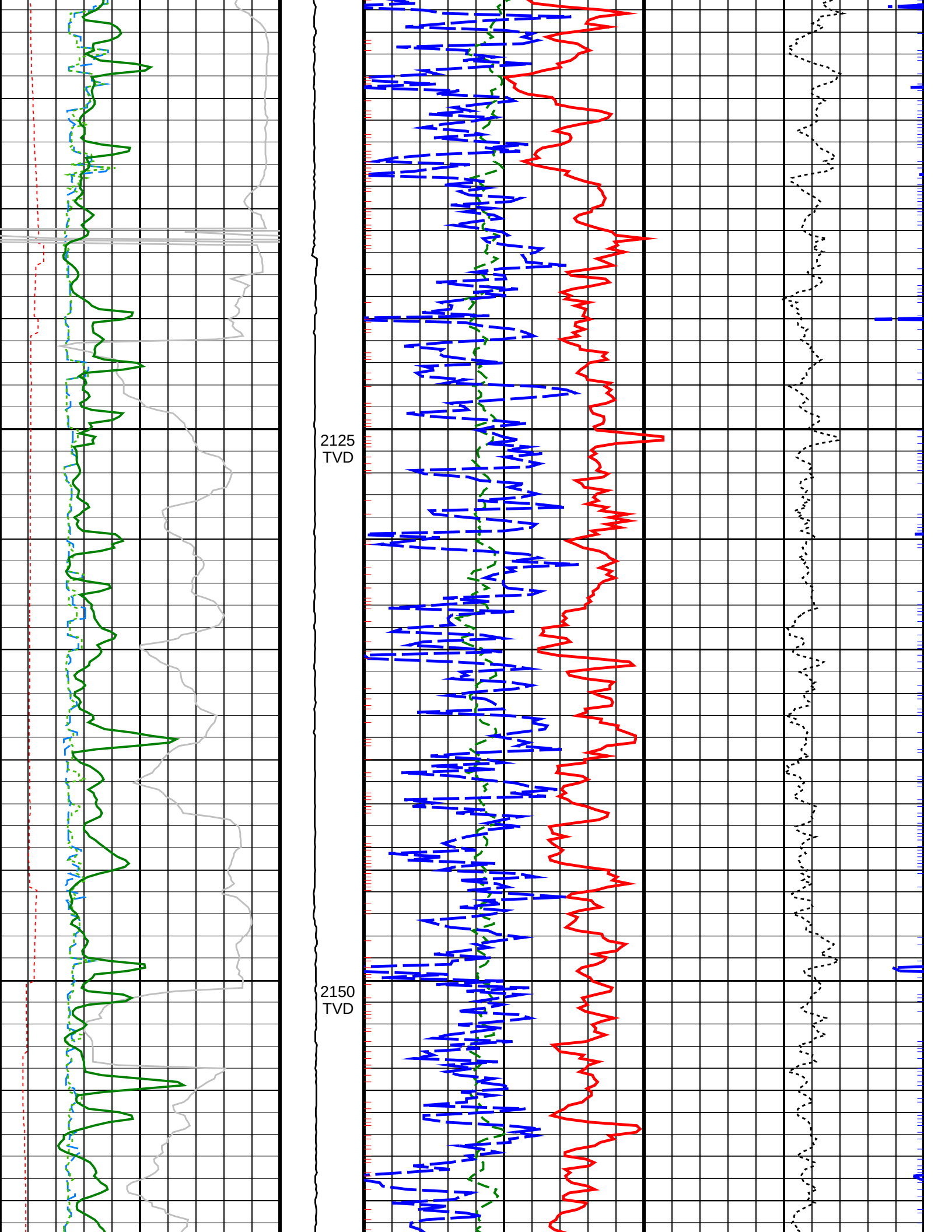
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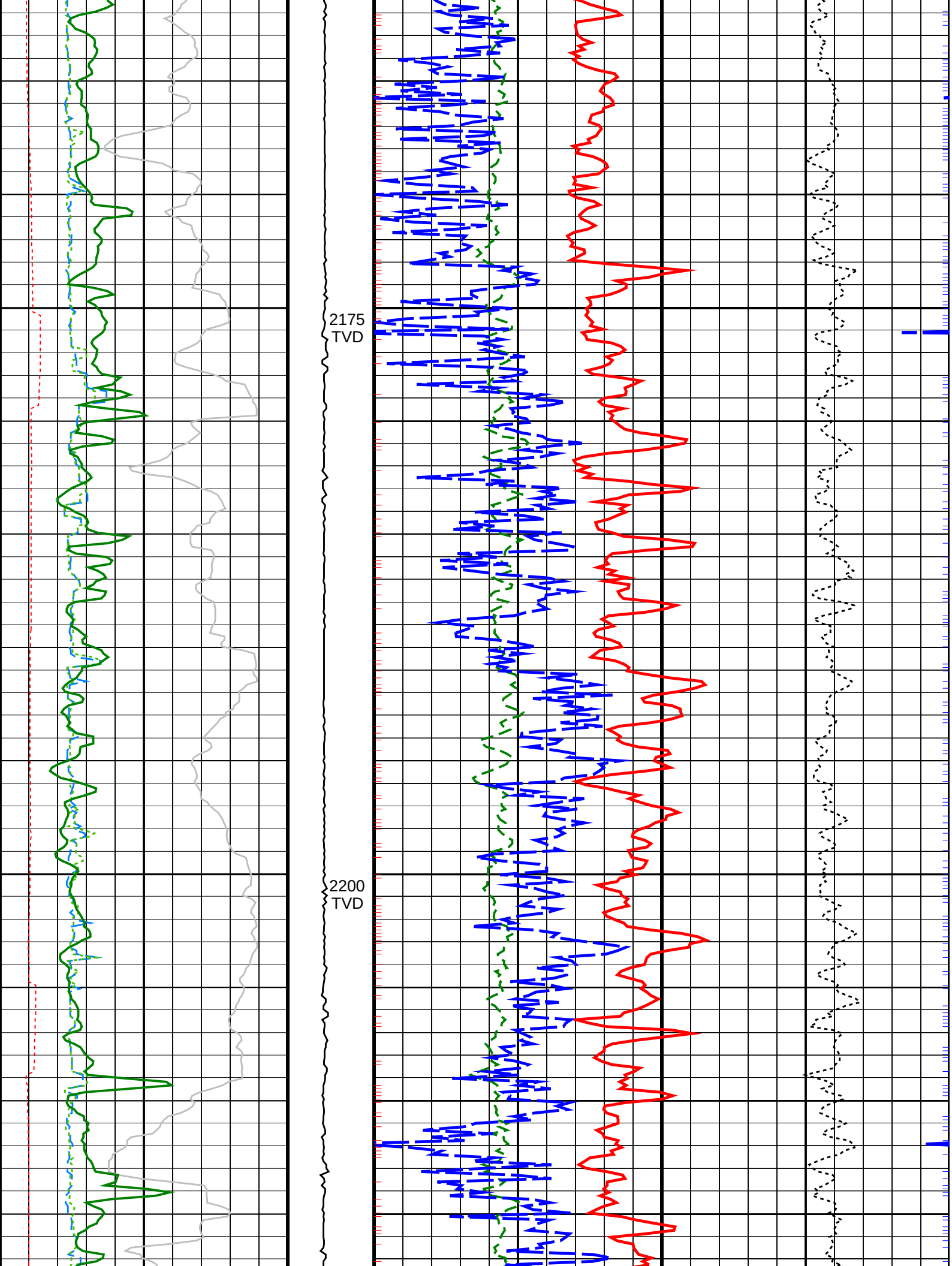
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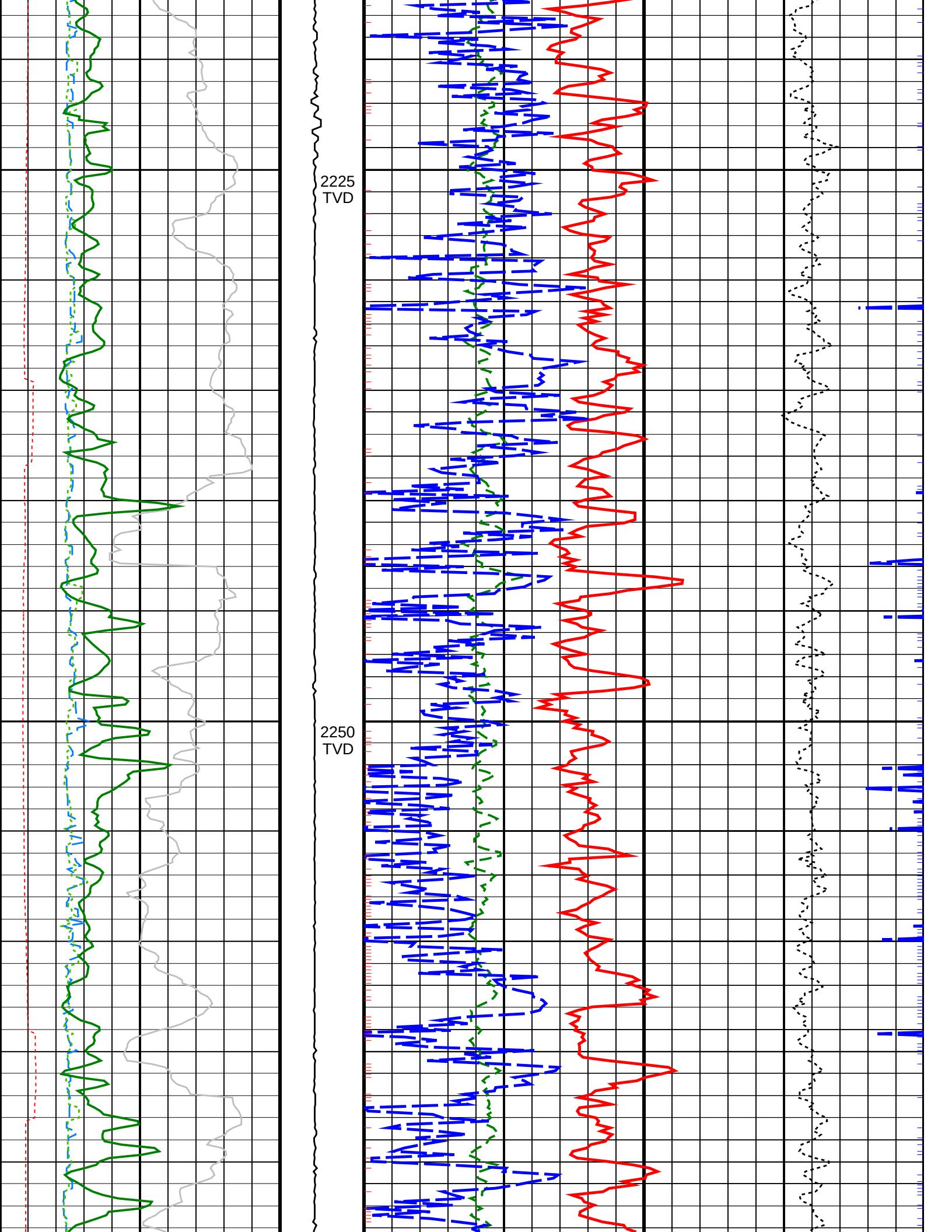
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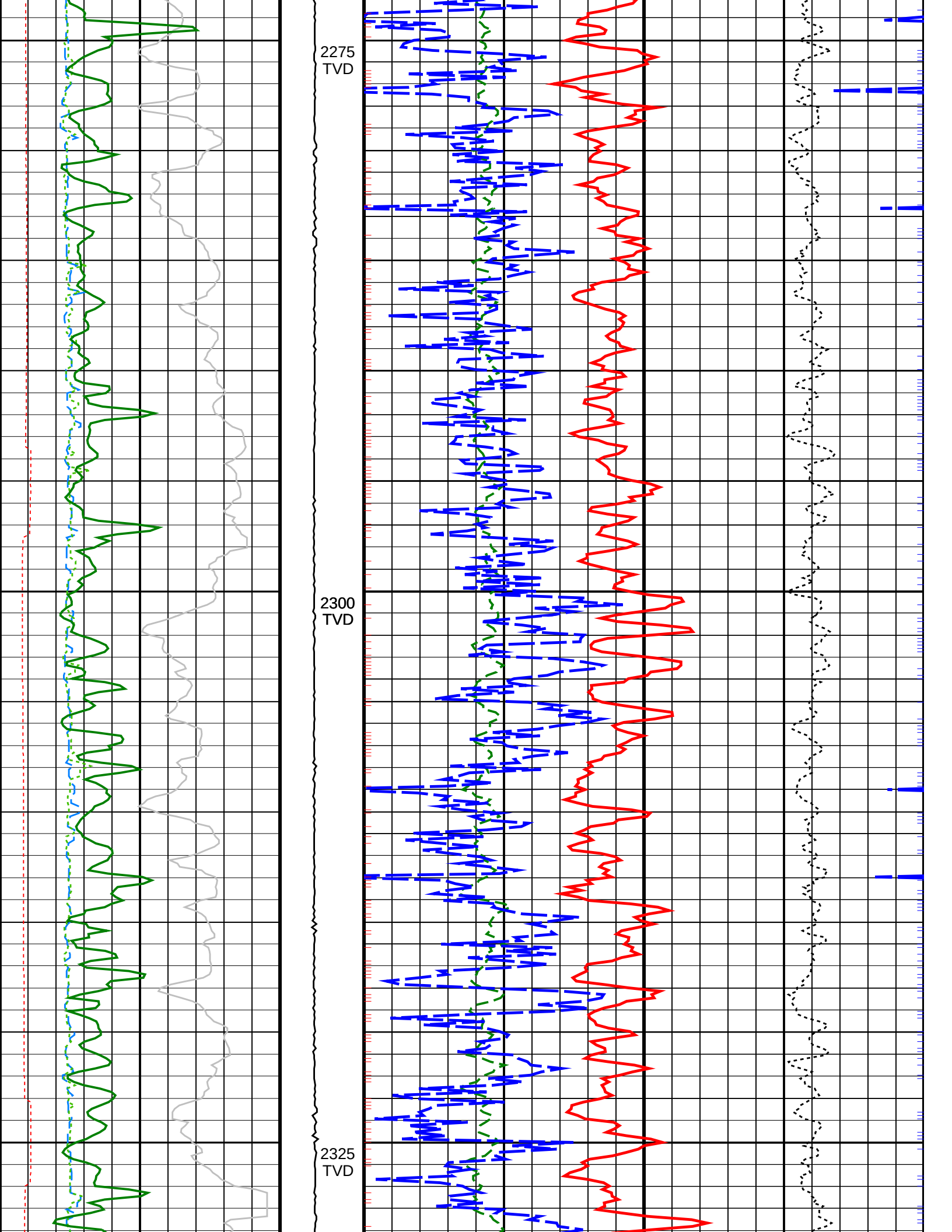
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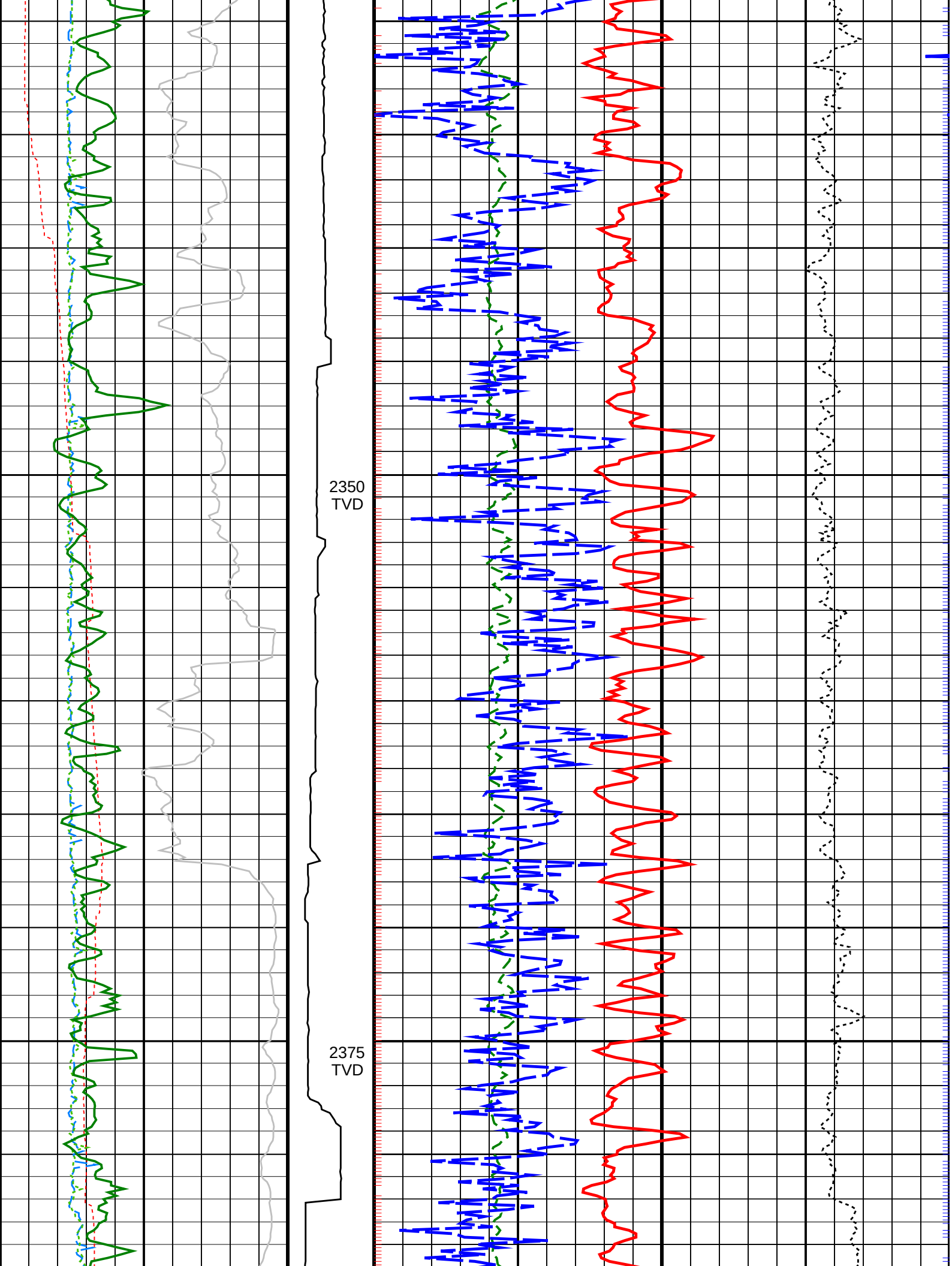
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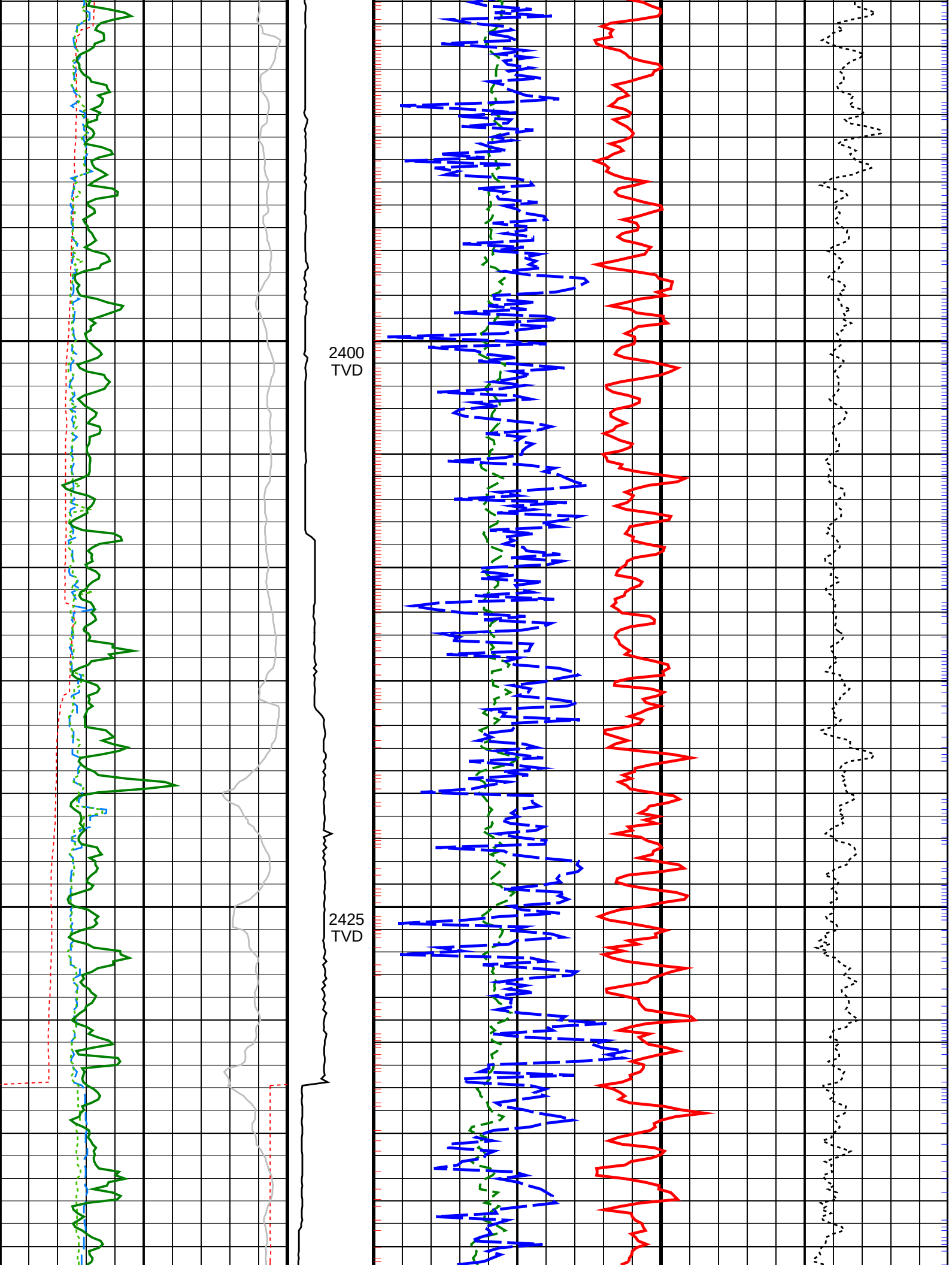
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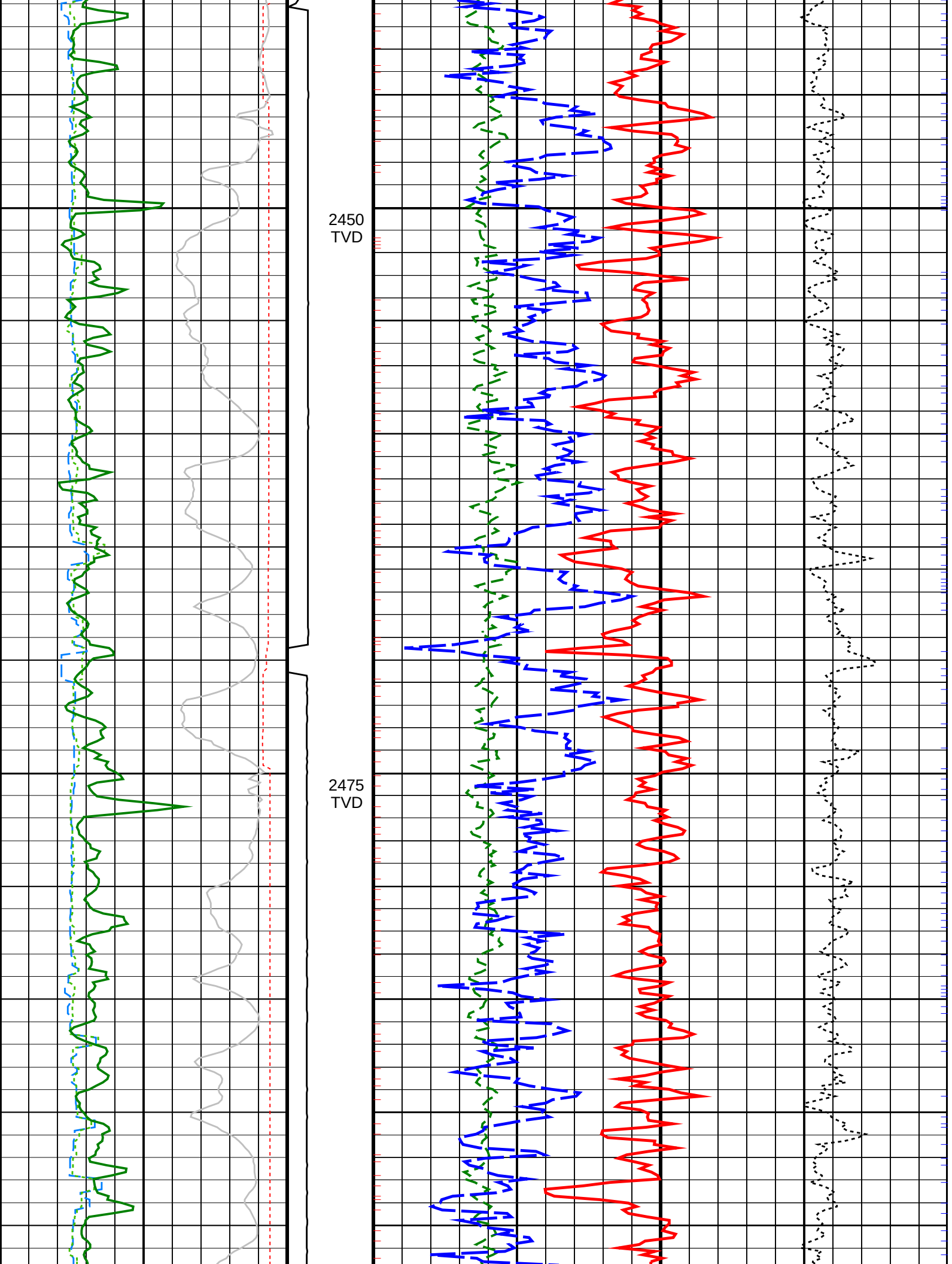
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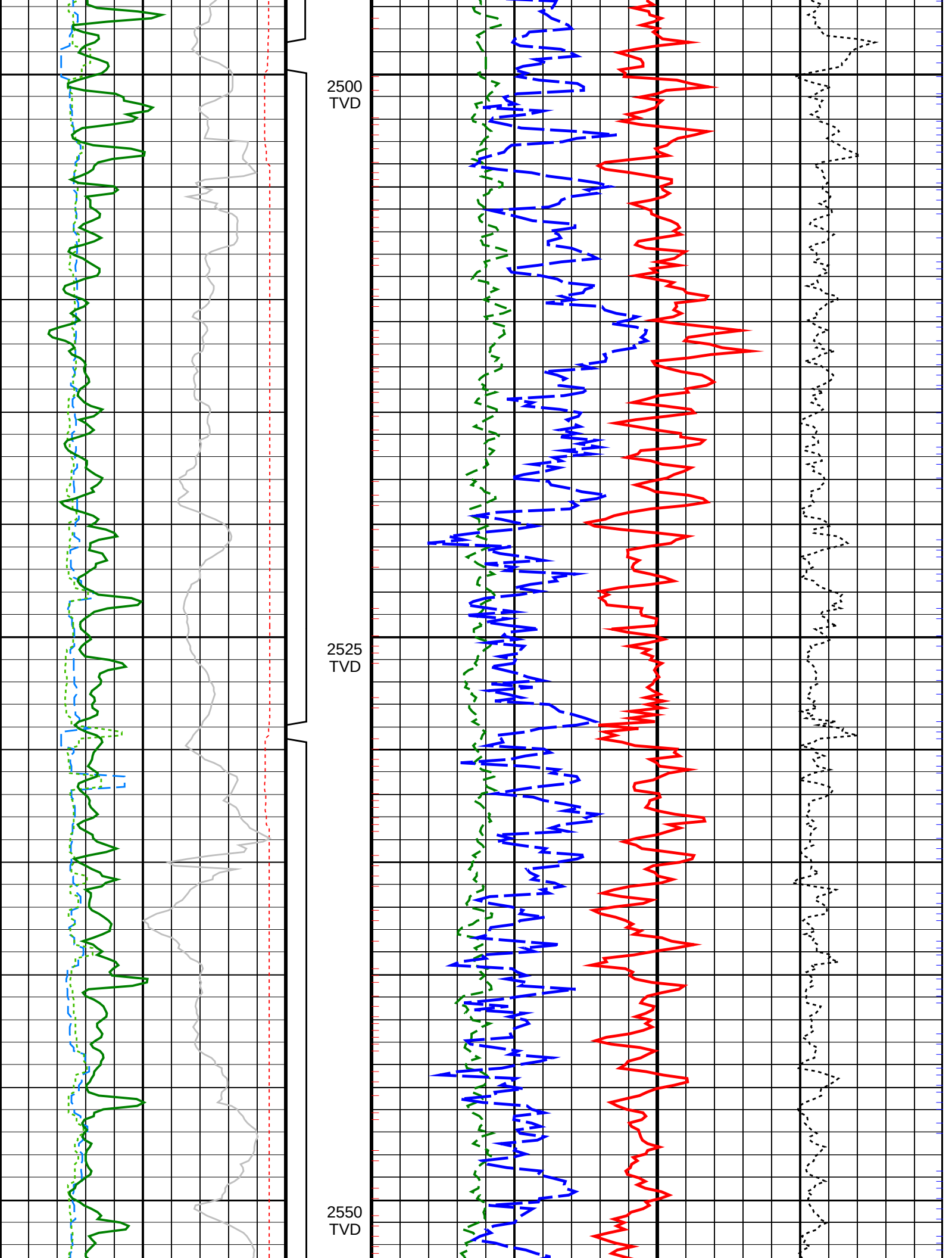
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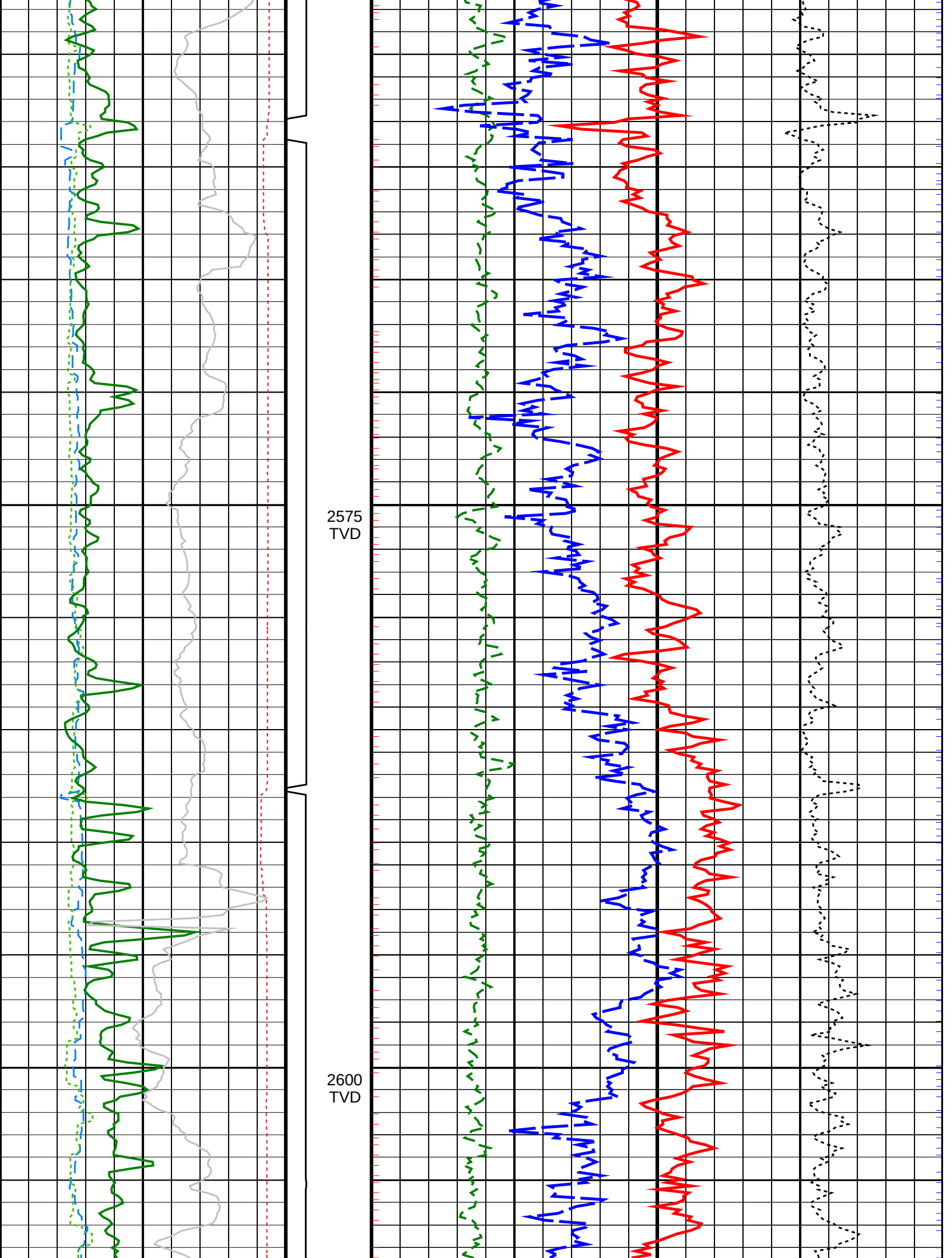
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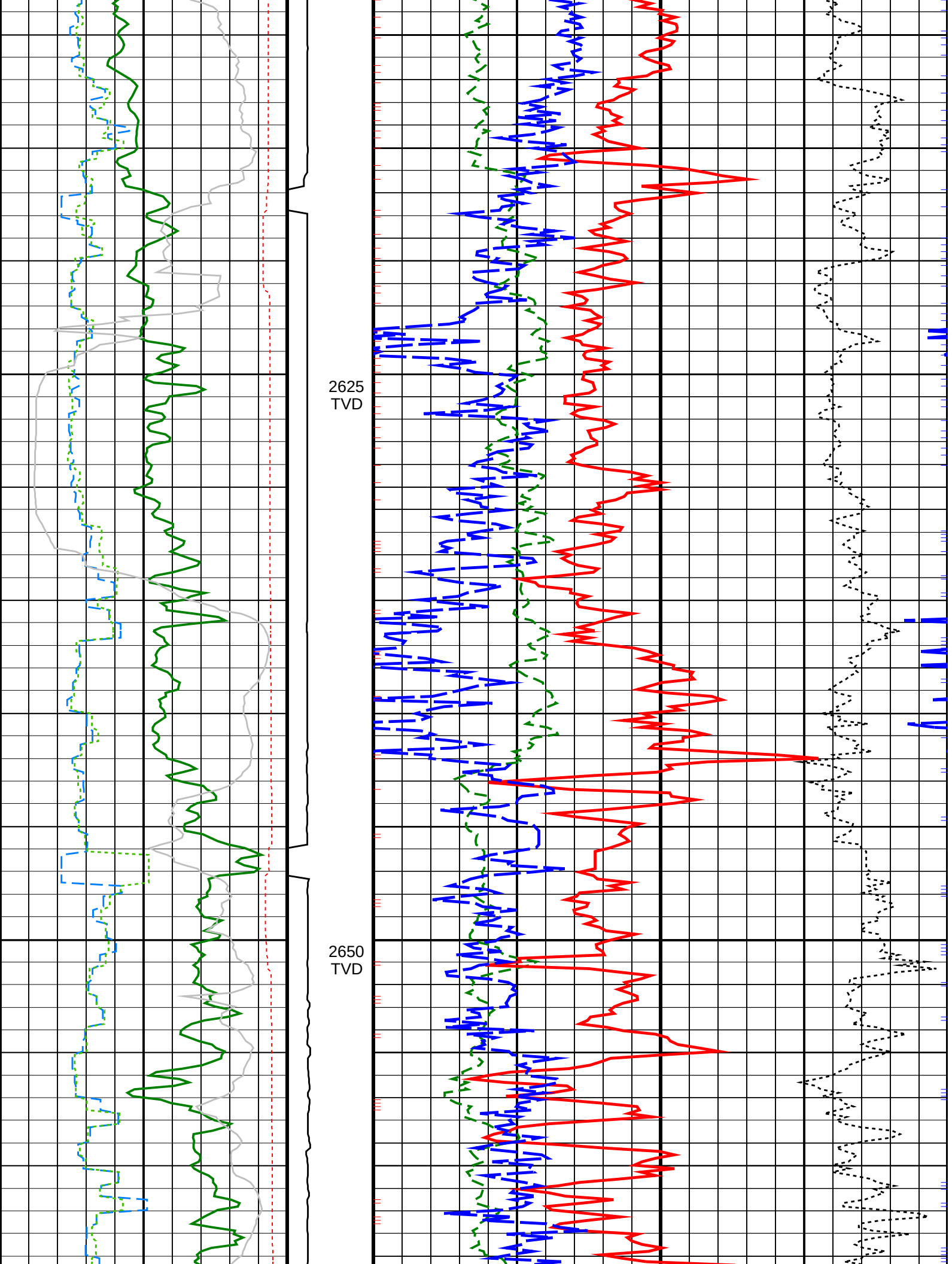
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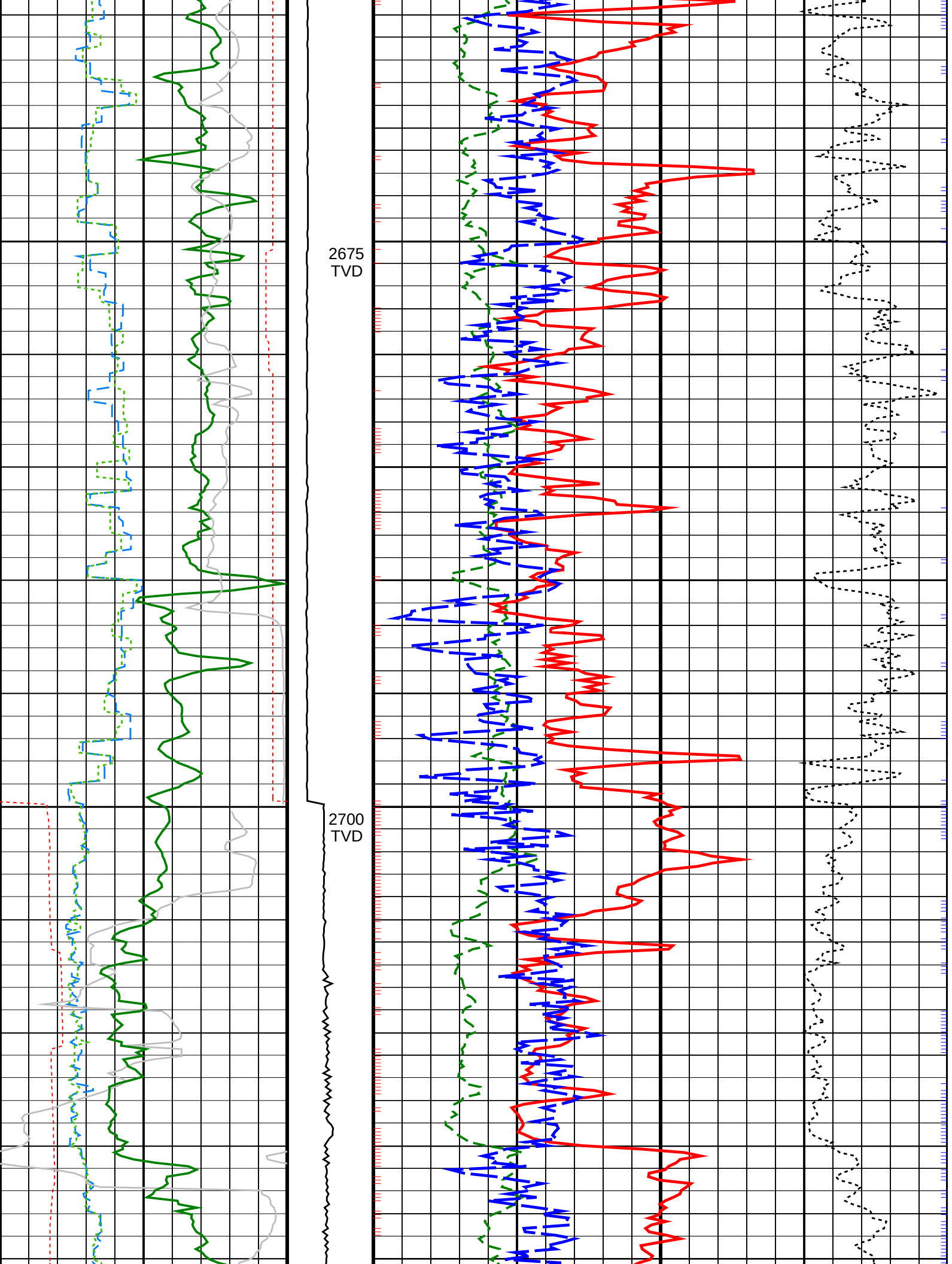
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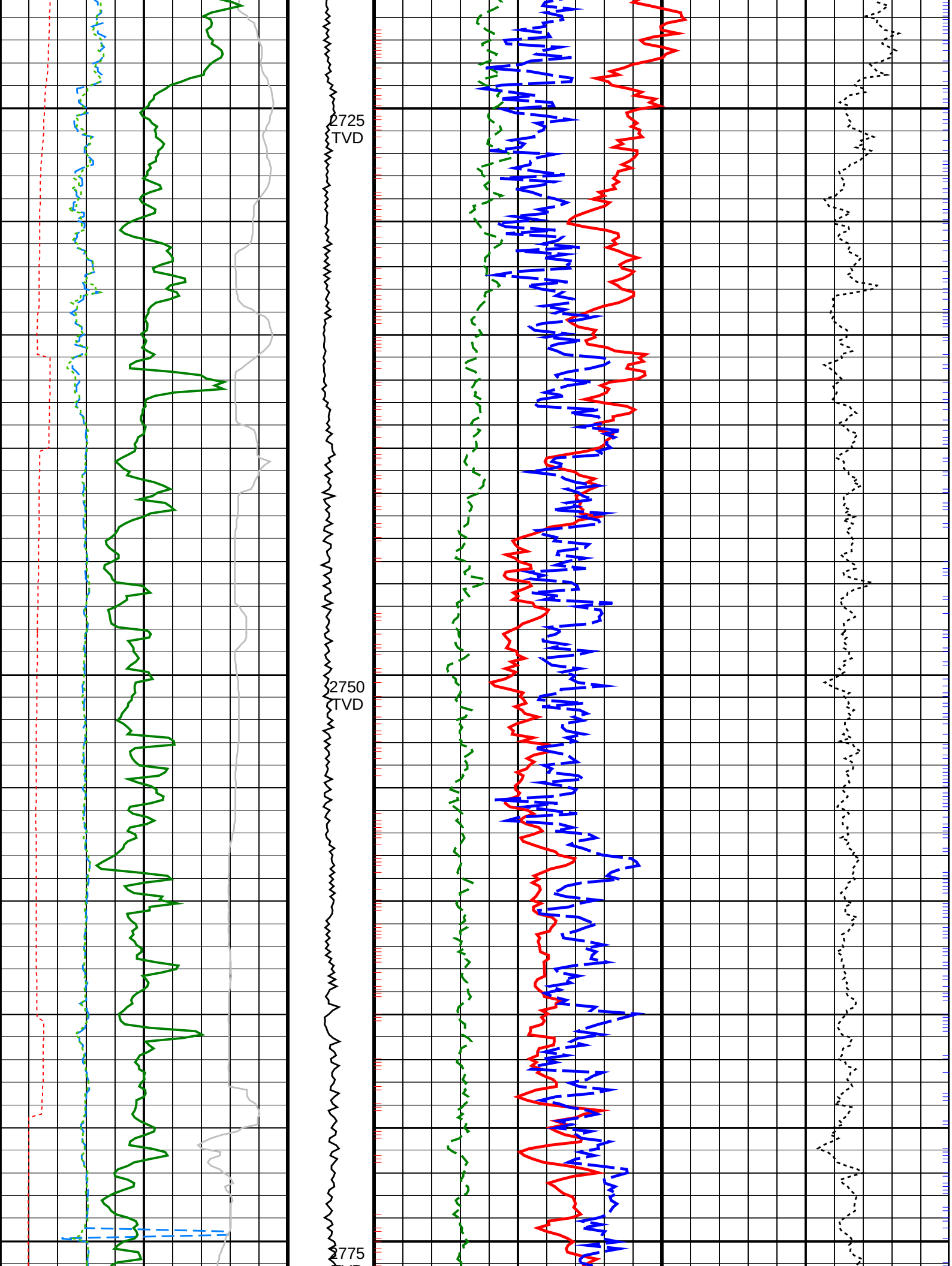
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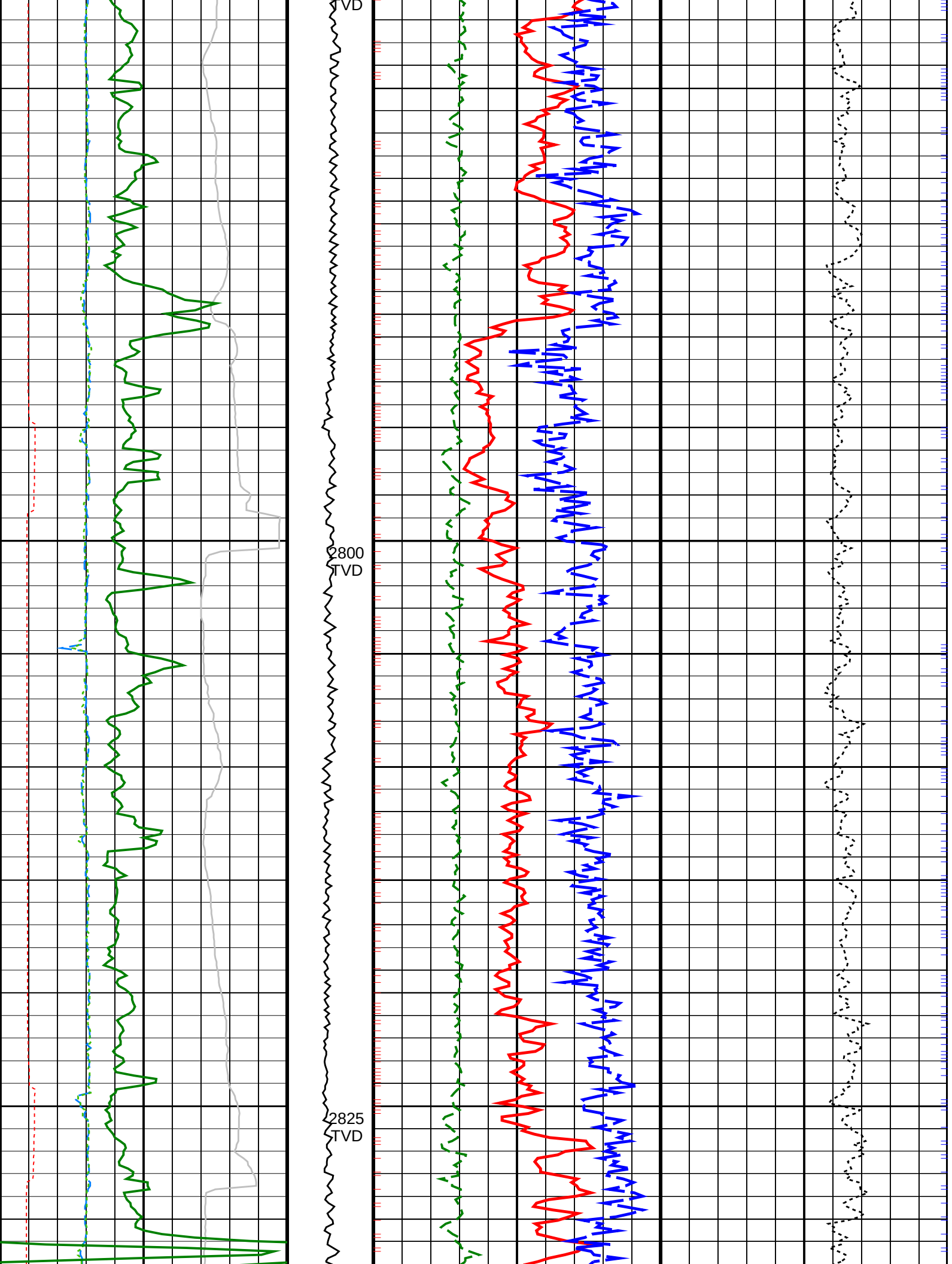
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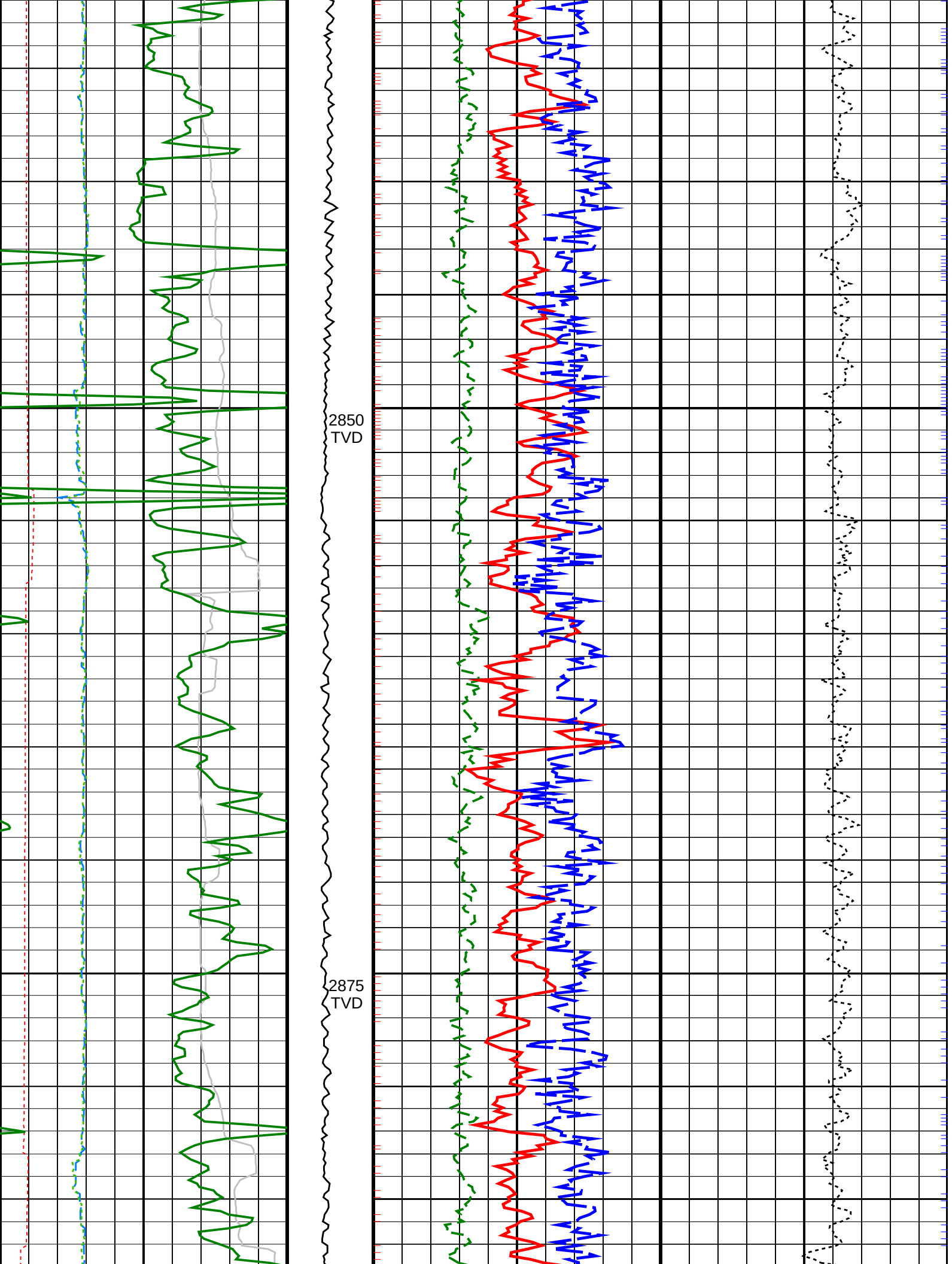
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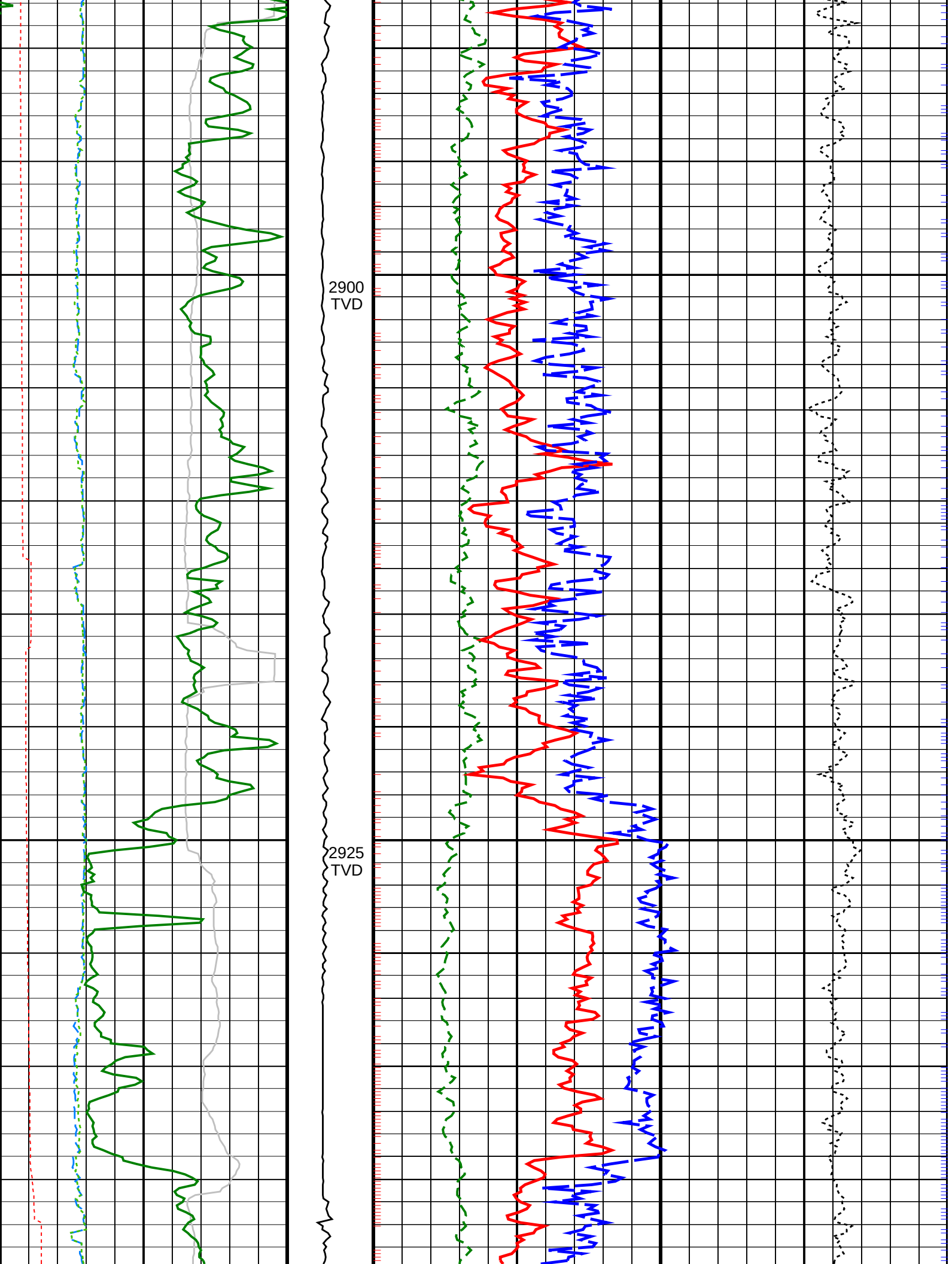
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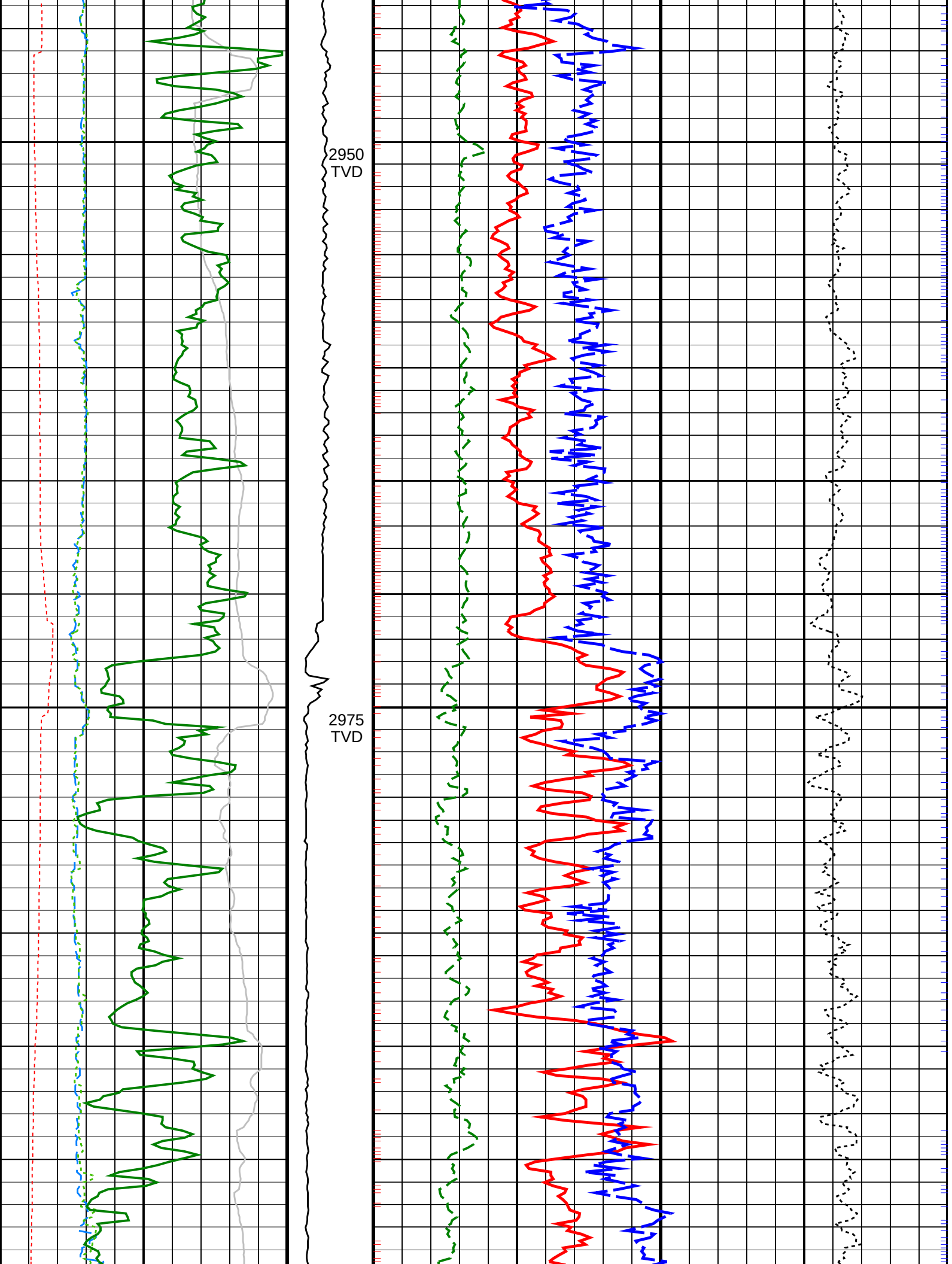
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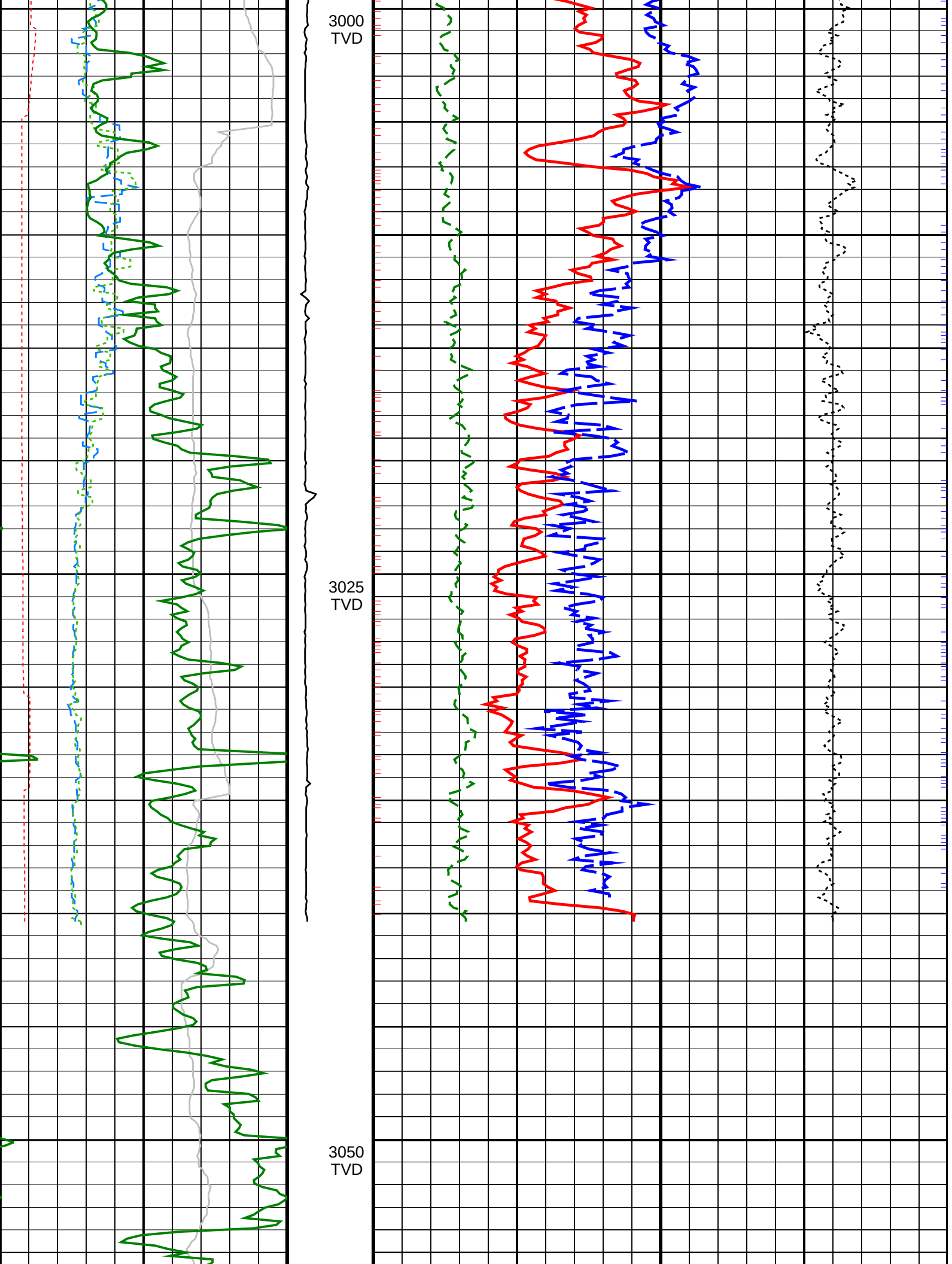
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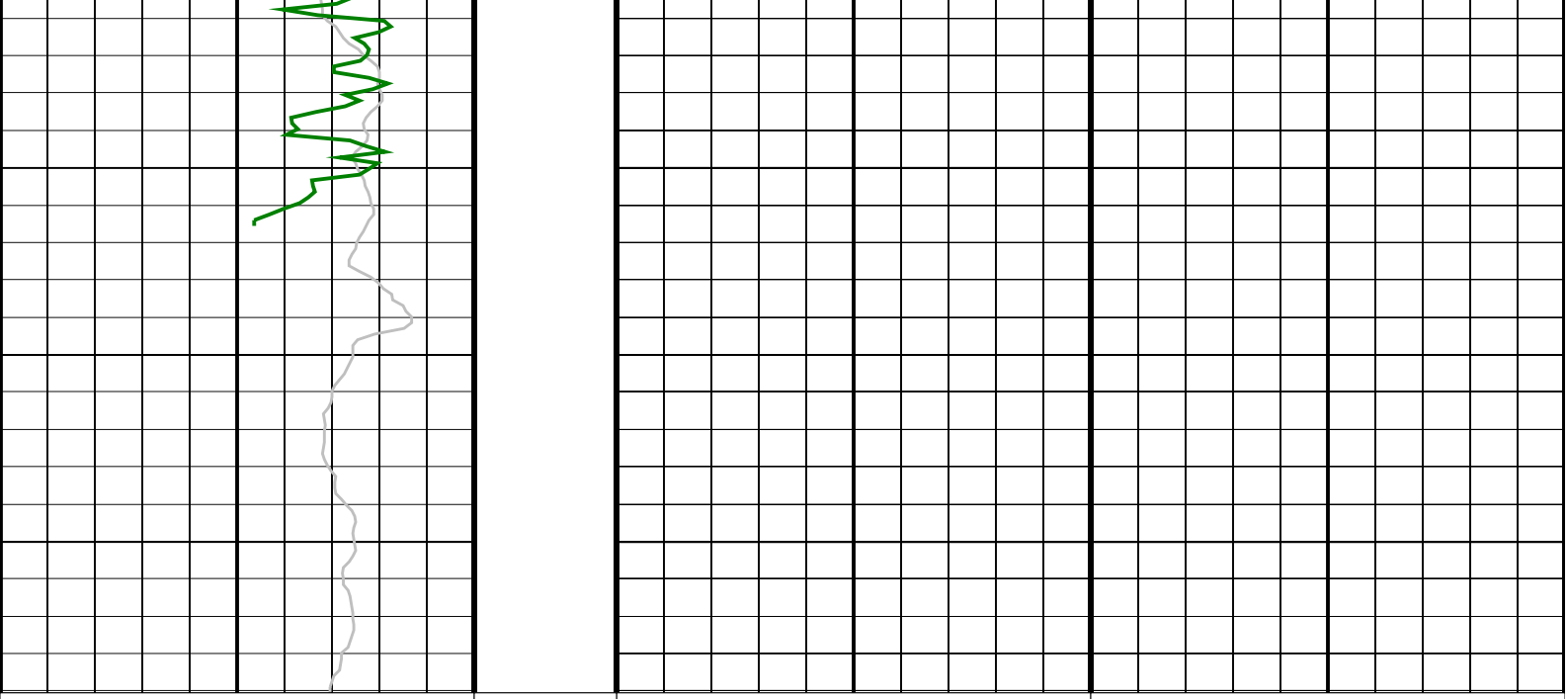


Density Time After Bit (TAB_DEN) 0 (HR) 10	ADN Rotational Speed (RPM_ADN) (RPM) 0 250	Photoelectric Factor, Bottom (PEB) 0 (–––– 10	Bulk Density Correction, Bottom (DRHB) –0.25 (G/C3) 0.25
Horizontal Hole Diameter (HORD) 6 (IN) 16		Bulk Density, Bottom (ROBB) 1.95 (G/C3) 2.95	
Vertical Hole Diameter (VERD) 6 (IN) 16		Thermal Neutron Porosity (TNPH) 45 (PU) –15	
ROP*5 (ROP5) 200 (M/HR) 0			
RAB Gamma Ray (GR_RAB) 0 (GAPI) 200			
Rate of Penetration, Averaged over Last 5ft (ROP5_RM) 200 (M/HR) 0			

PIP SUMMARY

Neutron Samples

Density Samples

IDEAL Version: ID13_0C_06

IDF

6.75–in. Resistivity At–the–Bit / Equipment Identification

Primary Equipment:

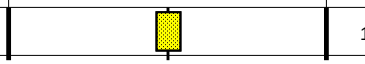
Tool Name and Serial Number	RAB6 – CA	214
Calibration Status	–	

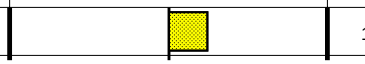
Master: 1–Mar–2008 16:23

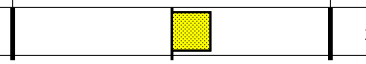
6.75–in. Resistivity At–the–Bit Calibration

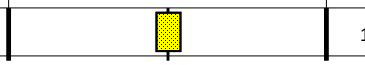
Resistivity: Fixture

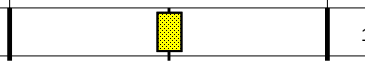
Phase	Ring/T1 factor ----	Value	Phase	Ring/T2 factor ----	Value	Phase	M0/T1 factor ----	Value
Master		0.9982	Master		0.9999	Master		1.003
0.9750	1.000 1.025		0.9750	1.000 1.025		0.9750	1.000 1.025	

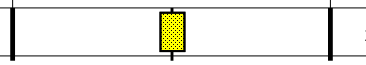
Phase	M0/T2 factor -----	Value
Master		1.003
	0.9750 (Minimum) 1.000 (Nominal) 1.025 (Maximum)	

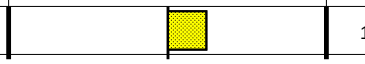
Phase	M2/T1 factor -----	Value
Master		1.009
	0.9750 (Minimum) 1.000 (Nominal) 1.025 (Maximum)	

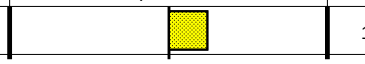
Phase	M2/T2 factor -----	Value
Master		1.010
	0.9750 (Minimum) 1.000 (Nominal) 1.025 (Maximum)	

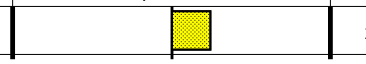
Phase	BTN shallow/T1 factor ----	Value
Master		1.005
	0.9750 (Minimum) 1.000 (Nominal) 1.025 (Maximum)	

Phase	BTN shallow/T2 factor ----	Value
Master		1.006
	0.9750 (Minimum) 1.000 (Nominal) 1.025 (Maximum)	

Phase	BTN medium/T1 factor ----	Value
Master		1.006
	0.9750 (Minimum) 1.000 (Nominal) 1.025 (Maximum)	

Phase	BTN medium/T2 factor ----	Value
Master		1.006
	0.9750 (Minimum) 1.000 (Nominal) 1.025 (Maximum)	

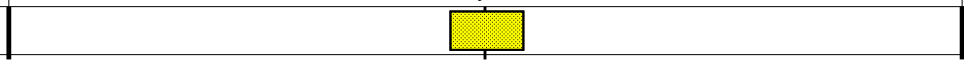
Phase	BTN deep/T1 factor ----	Value
Master		1.008
	0.9750 (Minimum) 1.000 (Nominal) 1.025 (Maximum)	

Phase	BTN deep/T2 factor ----	Value
Master		1.009
	0.9750 (Minimum) 1.000 (Nominal) 1.025 (Maximum)	

Master: Calibration date not found

6.75−in. Resistivity At−the−Bit Calibration

Gamma Ray: Blanket

Phase	Gamma ray factor ----	Value
Master		0.9954
	0.7500 (Minimum) 1.000 (Nominal) 1.250 (Maximum)	

6.75−in. Azimuthal Density Neutron / Equipment Identification

Primary Equipment:		
Tool Name and Serial Number	ADN6 − CA	373
Collar Type and Serial Number	ADDC − AA	40778
Chassis Type and Serial Number	ADSE − EA	373
Stabilizer Type and Serial Number	−	1
Neutron Logging Source	NSR − M	202
Density Logging Source	GSR − J/Z	1994
Stabilizer Size	8.13 − in.	
Calibration Status	EDIT −	

Master: 8−Mar−2008 12:43

6.75−in. Azimuthal Density Neutron Calibration

Density: Magnesium Block

Phase	LS window 3 − Mg CPS	Value	Phase	SS window 1 − Mg CPS	Value	Phase	SS window 3 − Mg CPS	Value
Master		1017	Master		2608	Master		6263
	250.0 (Minimum) 4125 (Nominal) 8000 (Maximum)			700.0 (Minimum) 9350 (Nominal) 18000 (Maximum)			2500 (Minimum) 23750 (Nominal) 45000 (Maximum)	

Master: 8−Mar−2008 12:43

6.75−in. Azimuthal Density Neutron Calibration

Density: Aluminum Block

Phase	LS window 3 − Al CPS	Value	Phase	SS window 1 − Al CPS	Value	Phase	SS window 3 − Al CPS	Value
Master		149.8	Master		1309	Master		3902
	50.00 (Minimum) 725.0 (Nominal) 1400 (Maximum)			500.0 (Minimum) 4250 (Nominal) 8000 (Maximum)			1500 (Minimum) 15750 (Nominal) 30000 (Maximum)	

Master: 8−Mar−2008 12:43

6.75−in. Azimuthal Density Neutron Calibration

Density: Background

Phase	LS window 3 − Background CPS	Value	Phase	SS window 1 − Background CPS	Value	Phase	SS window 3 − Background CPS	Value
Master		49.97	Master		116.2	Master		511.0
	15.00 (Minimum) 82.50 (Nominal) 150.0 (Maximum)			40.00 (Minimum) 220.0 (Nominal) 400.0 (Maximum)			150.0 (Minimum) 825.0 (Nominal) 1500 (Maximum)	

Master: 8−Mar−2008 12:43

6.75−in. Azimuthal Density Neutron Calibration

Density: Water Block Check

Phase	Long spacing water density G/C3	Value	Phase	Short spacing water density G/C3	Value
Master		1.040	Master		1.142
	1.027 (Minimum) 1.042 (Nominal) 1.057 (Maximum)			1.098 (Minimum) 1.128 (Nominal) 1.158 (Maximum)	

Master: 8−Mar−2008 12:43

6.75−in. Azimuthal Density Neutron Calibration

Neutron: 3−Point Calibration

Phase	Far 1 tube 1 Air Point Measure CPS	Value	Phase	Far 1 tube 1 Rod Point Measure CPS	Value	Phase	Far 1 tube 1 H2O Point Measure CPS	Value
Master		17.17	Master		4.120	Master		2.063
	13.30 (Minimum) 19.05 (Nominal) 24.70 (Maximum)			3.400 (Minimum) 4.857 (Nominal) 6.200 (Maximum)			1.600 (Minimum) 2.363 (Nominal) 3.100 (Maximum)	
Phase	Far 1 tube 2 Air Point Measure CPS	Value	Phase	Far 1 tube 2 Rod Point Measure CPS	Value	Phase	Far 1 tube 2 H2O Point Measure CPS	Value
Master		18.01	Master		4.305	Master		2.103
	13.30 (Minimum) 19.05 (Nominal) 24.70 (Maximum)			3.400 (Minimum) 4.857 (Nominal) 6.200 (Maximum)			1.600 (Minimum) 2.363 (Nominal) 3.100 (Maximum)	
Phase	Far 1 tube 3 Air Point Measure CPS	Value	Phase	Far 1 tube 3 Rod Point Measure CPS	Value	Phase	Far 1 tube 3 H2O Point Measure CPS	Value
Master		16.46	Master		4.034	Master		1.941
	13.30 (Minimum) 19.05 (Nominal) 24.70 (Maximum)			3.400 (Minimum) 4.857 (Nominal) 6.200 (Maximum)			1.600 (Minimum) 2.363 (Nominal) 3.100 (Maximum)	
Phase	Far 2 tube 1 Air Point Measure CPS	Value	Phase	Far 2 tube 1 Rod Point Measure CPS	Value	Phase	Far 2 tube 1 H2O Point Measure CPS	Value
Master		16.36	Master		4.278	Master		2.126
	13.30 (Minimum) 19.05 (Nominal) 24.70 (Maximum)			3.400 (Minimum) 4.857 (Nominal) 6.200 (Maximum)			1.600 (Minimum) 2.363 (Nominal) 3.100 (Maximum)	

Phase	Far 2 tube 2 Air Point Measure CPS	Value
Master		17.81
	13.30 (Minimum) 19.05 (Nominal) 24.70 (Maximum)	

Phase	Far 2 tube 2 Rod Point Measure CPS	Value
Master		4.387
	3.400 (Minimum) 4.857 (Nominal) 6.200 (Maximum)	

Phase	Far 2 tube 2 H2O Point Measure CPS	Value
Master		2.169
	1.600 (Minimum) 2.363 (Nominal) 3.100 (Maximum)	

Phase	Far 2 tube 3 Air Point Measure CPS	Value
Master		17.30
	13.30 (Minimum) 19.05 (Nominal) 24.70 (Maximum)	

Phase	Far 2 tube 3 Rod Point Measure CPS	Value
Master		4.245
	3.400 (Minimum) 4.857 (Nominal) 6.200 (Maximum)	

Phase	Far 2 tube 3 H2O Point Measure CPS	Value
Master		2.034
	1.600 (Minimum) 2.363 (Nominal) 3.100 (Maximum)	

Phase	Near 1 tube 1 Air Point Measure CPS	Value
Master		453.6
	345.0 (Minimum) 487.5 (Nominal) 595.0 (Maximum)	

Phase	Near 1 tube 1 Rod Point Measure CPS	Value
Master		732.3
	535.0 (Minimum) 768.8 (Nominal) 925.0 (Maximum)	

Phase	Near 1 tube 1 H2O Point Measure CPS	Value
Master		326.0
	230.0 (Minimum) 343.7 (Nominal) 430.0 (Maximum)	

Phase	Near 2 tube 1 Air Point Measure CPS	Value
Master		459.9
	345.0 (Minimum) 487.5 (Nominal) 595.0 (Maximum)	

Phase	Near 2 tube 1 Rod Point Measure CPS	Value
Master		723.1
	535.0 (Minimum) 768.8 (Nominal) 925.0 (Maximum)	

Phase	Near 2 tube 1 H2O Point Measure CPS	Value
Master		326.0
	230.0 (Minimum) 343.7 (Nominal) 430.0 (Maximum)	

Master: 8−Mar−2008 12:43

6.75−in. Azimuthal Density Neutron Calibration

Neutron: Water Block Check

Phase	Far Neutron water porosity PU	Value
Master		93.53
	90.00 (Minimum) 100.0 (Nominal) 125.0 (Maximum)	

6.75−in. Azimuthal Density Neutron / Equipment Identification

Primary Equipment:		
Tool Name and Serial Number	ADN6 − CA	47
Collar Type and Serial Number	ADDC − AA	373
Chassis Type and Serial Number	ADSE − EA	47
Stabilizer Type and Serial Number	−	1
Neutron Logging Source	NSR − M	202
Density Logging Source	GSR − J/Z	1994
Stabilizer Size	8.13 − in.	
Calibration Status	EDIT −	

Master: 16−Jan−2008 22:40

6.75−in. Azimuthal Density Neutron Calibration

Density: Magnesium Block

Phase	LS window 3 − Mg CPS	Value
Master		1045
	250.0 (Minimum) 4125 (Nominal) 8000 (Maximum)	

Phase	SS window 1 − Mg CPS	Value
Master		2550
	700.0 (Minimum) 9350 (Nominal) 18000 (Maximum)	

Phase	SS window 3 − Mg CPS	Value
Master		5954
	2500 (Minimum) 23750 (Nominal) 45000 (Maximum)	

Master: 16−Jan−2008 22:40

6.75−in. Azimuthal Density Neutron Calibration

Density: Aluminum Block

Phase	LS window 3 − Al CPS	Value
Master		153.6
	50.00 (Minimum) 725.0 (Nominal) 1400 (Maximum)	

Phase	SS window 1 − Al CPS	Value
Master		1270
	500.0 (Minimum) 4250 (Nominal) 8000 (Maximum)	

Phase	SS window 3 − Al CPS	Value
Master		3694
	1500 (Minimum) 15750 (Nominal) 30000 (Maximum)	

Master: 16−Jan−2008 22:40

6.75−in. Azimuthal Density Neutron Calibration

Density: Background

Phase	LS window 3 − Background CPS	Value
Master		43.77
	15.00 (Minimum) 82.50 (Nominal) 150.0 (Maximum)	

Phase	SS window 1 − Background CPS	Value
Master		98.92
	40.00 (Minimum) 220.0 (Nominal) 400.0 (Maximum)	

Phase	SS window 3 − Background CPS	Value
Master		427.4
	150.0 (Minimum) 825.0 (Nominal) 1500 (Maximum)	

Master: 16−Jan−2008 22:40

6.75−in. Azimuthal Density Neutron Calibration

Density: Water Block Check

Phase	Long spacing water density G/C3	Value	Phase	Short spacing water density G/C3	Value
Master		1.035	Master		1.130

1.027 (Minimum)	1.042 (Nominal)	1.057 (Maximum)	1.098 (Minimum)	1.128 (Nominal)	1.158 (Maximum)

Master: 16−Jan−2008 22:40

6.75−in. Azimuthal Density Neutron Calibration

Neutron: 3−Point Calibration

Phase	Far 1 tube 1 Air Point Measure CPS	Value	Phase	Far 1 tube 1 Rod Point Measure CPS	Value	Phase	Far 1 tube 1 H2O Point Measure CPS	Value
Master		16.56	Master		4.201	Master		2.020
	13.30 (Minimum) 19.05 (Nominal) 24.70 (Maximum)			3.400 (Minimum) 4.857 (Nominal) 6.200 (Maximum)			1.600 (Minimum) 2.363 (Nominal) 3.100 (Maximum)	
Phase	Far 1 tube 2 Air Point Measure CPS	Value	Phase	Far 1 tube 2 Rod Point Measure CPS	Value	Phase	Far 1 tube 2 H2O Point Measure CPS	Value
Master		17.08	Master		4.091	Master		2.098
	13.30 (Minimum) 19.05 (Nominal) 24.70 (Maximum)			3.400 (Minimum) 4.857 (Nominal) 6.200 (Maximum)			1.600 (Minimum) 2.363 (Nominal) 3.100 (Maximum)	
Phase	Far 1 tube 3 Air Point Measure CPS	Value	Phase	Far 1 tube 3 Rod Point Measure CPS	Value	Phase	Far 1 tube 3 H2O Point Measure CPS	Value
Master		16.24	Master		3.965	Master		1.960
	13.30 (Minimum) 19.05 (Nominal) 24.70 (Maximum)			3.400 (Minimum) 4.857 (Nominal) 6.200 (Maximum)			1.600 (Minimum) 2.363 (Nominal) 3.100 (Maximum)	
Phase	Far 2 tube 1 Air Point Measure CPS	Value	Phase	Far 2 tube 1 Rod Point Measure CPS	Value	Phase	Far 2 tube 1 H2O Point Measure CPS	Value
Master		16.66	Master		4.271	Master		2.114
	13.30 (Minimum) 19.05 (Nominal) 24.70 (Maximum)			3.400 (Minimum) 4.857 (Nominal) 6.200 (Maximum)			1.600 (Minimum) 2.363 (Nominal) 3.100 (Maximum)	
Phase	Far 2 tube 2 Air Point Measure CPS	Value	Phase	Far 2 tube 2 Rod Point Measure CPS	Value	Phase	Far 2 tube 2 H2O Point Measure CPS	Value
Master		17.46	Master		4.183	Master		2.089
	13.30 (Minimum) 19.05 (Nominal) 24.70 (Maximum)			3.400 (Minimum) 4.857 (Nominal) 6.200 (Maximum)			1.600 (Minimum) 2.363 (Nominal) 3.100 (Maximum)	
Phase	Far 2 tube 3 Air Point Measure CPS	Value	Phase	Far 2 tube 3 Rod Point Measure CPS	Value	Phase	Far 2 tube 3 H2O Point Measure CPS	Value
Master		16.77	Master		4.207	Master		2.126
	13.30 (Minimum) 19.05 (Nominal) 24.70 (Maximum)			3.400 (Minimum) 4.857 (Nominal) 6.200 (Maximum)			1.600 (Minimum) 2.363 (Nominal) 3.100 (Maximum)	
Phase	Near 1 tube 1 Air Point Measure CPS	Value	Phase	Near 1 tube 1 Rod Point Measure CPS	Value	Phase	Near 1 tube 1 H2O Point Measure CPS	Value
Master		472.7	Master		776.8	Master		353.9
	345.0 (Minimum) 487.5 (Nominal) 595.0 (Maximum)			535.0 (Minimum) 768.8 (Nominal) 925.0 (Maximum)			230.0 (Minimum) 343.7 (Nominal) 430.0 (Maximum)	
Phase	Near 2 tube 1 Air Point Measure CPS	Value	Phase	Near 2 tube 1 Rod Point Measure CPS	Value	Phase	Near 2 tube 1 H2O Point Measure CPS	Value
Master		477.0	Master		740.7	Master		342.5
	345.0 (Minimum) 487.5 (Nominal) 595.0 (Maximum)			535.0 (Minimum) 768.8 (Nominal) 925.0 (Maximum)			230.0 (Minimum) 343.7 (Nominal) 430.0 (Maximum)	

Master: 16−Jan−2008 22:40

6.75−in. Azimuthal Density Neutron Calibration

Neutron: Water Block Check

Phase	Far Neutron water porosity PU	Value
Master		92.60
	90.00 (Minimum) 100.0 (Nominal) 125.0 (Maximum)	

SCHLUMBERGER

Survey report 27-Mar-2008 20:17:17 Page 1 of 3

Client.....: Apache
Field.....: Vic/P-45

Well.....: Coelacanth-1
API number.....: n/a
Engineer.....: A. Kohli, C. Hibberson, B. Low

COUNTY:.....: n/a
STATE:.....: Victoria

Spud date.....: 10-Mar-2008
Last survey date.....: 22-Mar-08
Total accepted surveys...: 34
MD of first survey.....: 0.00 m
MD of last survey.....: 2956.53 m

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

----- Depth reference ----------
Permanent datum.....: Mean Sea LEVEL
Depth reference.....: Driller's Depth
GL above permanent.....:-90.00 m
KB above permanent.....: 38.00 m
DF above permanent.....: 38.00 m

----- Geomagnetic data ----------
Magnetic model.....: BGGM version 2007
Magnetic date.....: 15-Mar-2008
Magnetic field strength..: 1202.04 HCNT
Magnetic dec (+E/W-).....: 13.34 degrees
Magnetic dip.....: -69.11 degrees

----- MWD survey Reference Criteria ---------
Reference G.....: 1000.07 mGal
Reference H.....: 1202.04 HCNT

```
----- Vertical section origin----------------
Latitude (+N/S-).........: N 0.000 m
Departure (+E/W-).........: E 0.000 m

----- Platform reference point---------------
Latitude (+N/S-).........: N 5714176.613 m
Departure (+E/W-).........: E 613192.770 m

Azimuth from Vsect Origin to target:    0.00 degrees
```

```
Reference Dip.............:      -69.11 degrees
Tolerance of G............: (+/-) 2.50 mGal
Tolerance of H............: (+/-) 6.00 HCNT
Tolerance of Dip..........: (+/-) 0.45 degrees

----- Corrections ---------------------------
Magnetic dec (+E/W-).....:      13.34 degrees
Grid convergence (+E/W-).:      -0.81 degrees
Total az corr (+E/W-)....:      14.15 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
```


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/ 100f)	Srvy tool type	Tool Corr (deg)
1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	TIP	None
2	263.67	0.15	47.87	263.67	263.67	0.23	0.23	0.26	0.35	47.87	0.02	MWD_M	None
3	294.41	0.06	172.52	30.74	294.41	0.24	0.24	0.29	0.38	49.89	0.19	MWD_M	None
4	323.58	0.12	91.82	29.17	323.58	0.23	0.23	0.32	0.39	54.75	0.13	MWD_M	None
5	411.41	0.24	137.04	87.83	411.41	0.09	0.09	0.54	0.55	80.61	0.06	MWD_M	None
6	442.19	0.21	124.90	30.78	442.19	0.01	0.01	0.63	0.63	89.14	0.06	PUP	None
7	502.26	0.32	90.25	60.07	502.26	-0.05	-0.05	0.89	0.89	93.50	0.10	PUP	None
8	530.50	0.41	92.03	28.24	530.50	-0.06	-0.06	1.07	1.07	93.12	0.10	PUP	None
9	620.59	0.22	141.24	90.09	620.59	-0.20	-0.20	1.50	1.51	97.78	0.11	PUP	None
10	708.29	0.06	46.00	87.70	708.29	-0.30	-0.30	1.63	1.66	100.53	0.08	PUP	None
11	738.63	0.03	73.16	30.34	738.63	-0.29	-0.29	1.65	1.68	99.96	0.04	PUP	None
12	768.37	0.06	56.39	29.74	768.37	-0.28	-0.28	1.67	1.70	99.48	0.03	PUP	None
13	855.79	0.11	357.54	87.42	855.79	-0.17	-0.17	1.71	1.72	95.70	0.03	PUP	None
14	887.36	0.25	215.41	31.57	887.36	-0.20	-0.20	1.67	1.68	96.72	0.33	PUP	None
15	1006.93	0.37	205.42	119.57	1006.92	-0.76	-0.76	1.35	1.55	119.29	0.03	PUP	None
16	1125.19	0.38	223.01	118.26	1125.18	-1.39	-1.39	0.92	1.67	146.51	0.03	PUP	None
17	1243.13	0.37	76.40	117.94	1243.12	-1.59	-1.59	1.02	1.89	147.19	0.19	PUP	None
18	1420.57	0.99	275.48	177.44	1420.55	-1.30	-1.30	0.05	1.31	177.66	0.23	PUP	None
19	1550.04	0.99	280.13	129.47	1550.00	-1.00	-1.00	-2.16	2.38	245.14	0.02	PUP	None
20	1687.41	0.88	299.49	137.37	1687.36	-0.27	-0.27	-4.25	4.26	266.32	0.07	PUP	None
21	1806.49	0.99	326.29	119.08	1806.42	1.03	1.03	-5.61	5.71	280.42	0.11	PUP	None
22	1895.34	0.85	336.21	88.85	1895.26	2.27	2.27	-6.31	6.70	289.83	0.07	PUP	None
23	1983.37	0.73	333.68	88.03	1983.28	3.37	3.37	-6.82	7.61	296.33	0.04	PUP	None
24	**2071.31**	**0.57**	**332.49**	**87.94**	**2071.22**	**4.26**	**4.26**	**-7.27**	**8.43**	**300.40**	**0.06**	**PUP**	**None**
25	**2101.07**	**0.26**	**259.44**	**29.76**	**2100.97**	**4.38**	**4.38**	**-7.40**	**8.60**	**300.63**	**0.57**	**PUP**	**None**
26	2189.40	0.38	9.46	88.33	2189.30	4.64	4.64	-7.55	8.86	301.54	0.18	PUP	None
27	2219.45	0.35	26.58	30.05	2219.35	4.82	4.82	-7.49	8.91	302.72	0.11	PUP	None
28	2307.17	0.23	13.64	87.72	2307.07	5.23	5.23	-7.33	9.01	305.48	0.05	PUP	None
29	2396.09	0.42	29.80	88.92	2395.99	5.68	5.68	-7.13	9.12	308.56	0.07	PUP	None
30	2484.75	0.56	53.27	88.66	2484.65	6.22	6.22	-6.62	9.09	313.23	0.08	PUP	None

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/ 100f)	Srvy tool type	Tool Corr (deg)
31	2573.28	0.49	40.74	88.53	2573.17	6.77	6.77	-6.03	9.06	318.32	0.05	PUP	None
32	2750.62	0.57	139.67	177.34	2750.51	6.67	6.67	-4.96	8.31	323.37	0.14	PUP	None
33	2867.93	0.68	143.30	117.31	2867.81	5.67	5.67	-4.17	7.04	323.68	0.03	PUP	None
34	2956.53	0.67	150.71	88.60	2956.41	4.80	4.80	-3.60	6.00	323.11	0.03	PUP	None

Company: **Apache Energy Ltd.**

Schlumberger

Well: **Coelacanth−1**

Field: **Vic/P−45**

Rig: **West Triton**

State: **Victoria**

GeoVISION Service
1:200 True Vertical Depth
Recorded Mode Data, Composite Log

Recorded Mode Data, Composite Log

Schlumberger

Company: **Apache Energy Ltd.**

Well: **Coelacanth−1**
Field: **Vic/P−45**
Rig: **West Triton** State: **Victoria**

Rig: West Triton
Field: Vic/P−45
Location: Bass Strait
Well: Coelacanth−1
Company: Apache Energy Ltd.

GeoVISION Service
1:500 Measured Depth
Recorded Mode Data, Composite Log

Location

		Elevation		
Total depth:	3074.00 m		K.B.	Top Drive m
Spud date:	10−Mar−2008		G.L.	−90.00 m
Runs:	1 To 5		D.F.	38.00 m

Permanent datum:	AHD	Elev.:	0 m m
Log measured from:	Rotary Table	38.00 m	above Perm. datum
Depth reference:	Driller's Depth		

API serial no.	N 5 714 176.613 m	Longitude	Latitude
07ASQ0029	E 613 192.770 m	E 148° 18´ 07.0098´´	S 38° 42´ 49.7296´´

Depth logged:	275.70 m To 3039.40 m	Mag decl: 13.34 deg.	Other services:
Date logged:	12−Mar−2008 To 22−Mar−2008	Mag dip: −69.11 deg.	See Remarks

Bore hole record

Hole size	from	to
660 mm	127.5 m	279.0 m
311 mm	279.0 m	907.0 m
216 mm	907.0 m	3074.0 m

Casing record

Size	Density	from	to
508 mm	193 kg/m	Wellhead	275.7 m
244 mm	101 kg/m	Wellhead	902.6 m

Mud record

Type	from	to
WBM	275.70 m	3074.00 m

Borehole deviation record

Min	Max	from	to
0.03 deg.	0.41 deg.	275.70 m	902.00 m
0.23 deg.	0.99 deg.	902.00 m	3074.00 m

Surface equipment

Unit	OLU−KC−0702
Depth system	DWE & CLT

Software record

IDEAL Wis	ID13_0C_06		
SPM	hspm13_0c_03		
LWD	See Remarks		
MWD	See Remarks		

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OTHER SERVICES FOR RUN1
Directional Surveys

REMARKS: RUN NUMBER 1
Depth is referenced to Driller's Depth.

Gamma ray is corrected for mud weght, tool size, bit depth and potassium percentage.

Resistivty is borehole compensated and environmentally corrected.

POOH due to reaching TD of 12.25 in. section of Coelacanth−1.

OTHER SERVICES FOR RUN2
Directional Surveys

REMARKS: RUN NUMBER 2
Depth is referenced to Driller's Depth.

Gamma ray is corrected for mud weght, tool size, bit depth and potassium percentage.

Resistivty is borehole compensated and environmentally corrected.

Neutron porosity is corrected for the effects of borehole size (bit size), temperature, mud salinity, and mud hydrogen index (a factor of mud weight, mud temperature and pressure).

OTHER SERVICES FOR RUN3
Directional Surveys

REMARKS: RUN NUMBER 3
Depth is referenced to Driller's Depth.

Gamma ray is corrected for mud weght, tool size, bit depth and potassium percentage.

Resistivty is borehole compensated and environmentally corrected.

Neutron porosity is corrected for the effects of borehole size (bit size), temperature, mud salinity, and mud hydrogen index (a factor of mud weight, mud temperature and pressure).

Neutron porosity is calculated using a limstone matrix density of 2.71 g/cm3.

POOH due to Bit Balling.

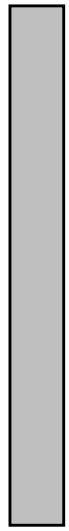
POOH due to Bit Balling.

EQUIPMENT DESCRIPTION

RUN1

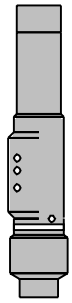
DOWNHOLE E

8−1/4" PowerPulse* 22.72
MDC: FB−46
MEA: 754
MDI: 2421
MGR: 104



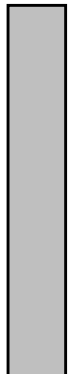
SS 15.15

8−1/4" GeoVISION* 14.68
DHS: V5.0B14
S/N: 41032



FS 10.44
S/N: S58834−4

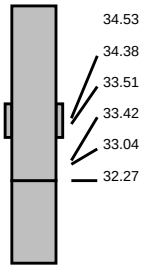
9" PowerPak* Motor 9.60
S/N: 3389



RUN2

DOWNHOLE E

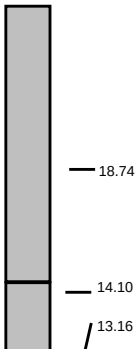
6−3/4 adnVISION* 36.51
DHS: V8.3
S/N: 40778
BladeOD: 8−1/4"



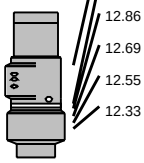
XO 30.26

6−3/4" Bat Sonic 29.90
S/N: PA9016462

6−3/4" PowerPulse* 23.10
MDC: VL09
MEA: 433
MDI: 1562
MGD: 346



6−3/4 GeoVISION* 14.64
DHS: V6.2B01
S/N: 41022



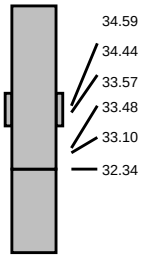
FS 11.13
S/N: S58834

7" PowerPak* Motor 10.30
S/N: N7413

RUN3

DOWNHOLE E

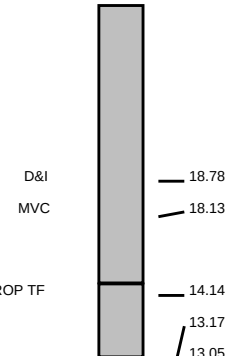
6−3/4 adnVISION* 36.27
DHS: V8.3
S/N: 373
BladeOD: 8−1/4"



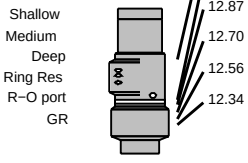
XO 30.31

6−3/4" Bat Sonic 29.94
S/N: PA9016462

6−3/4" PowerPulse* 23.14
MDC: VG67
MEA: 373
MDI: 1841
MVC: 114

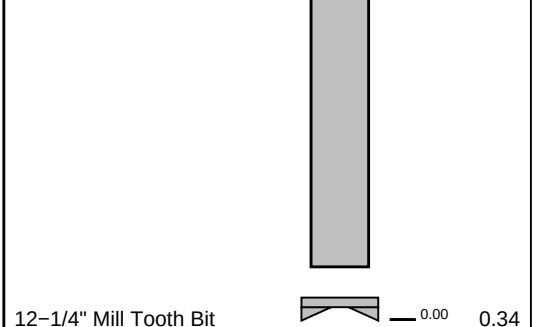


6−3/4 GeoVISION* 14.65
DHS: V6.2B01
S/N: 41373



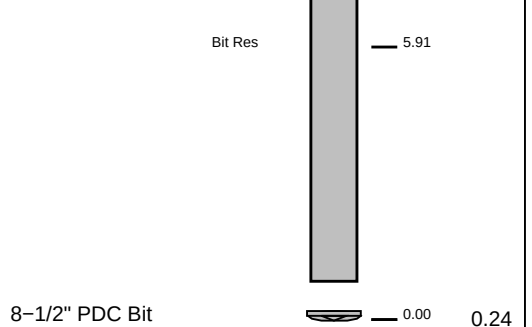
FS 11.14
S/N: S58834

7" PowerPak* Motor 10.31
S/N: 0738



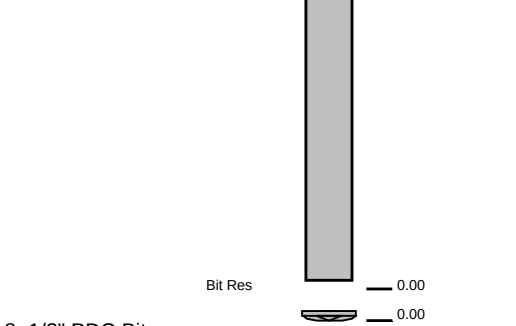
12−1/4" Mill Tooth Bit 0.34
S/N: PF6839

Maximum string dian
All lengths ir



8−1/2" PDC Bit 0.24
S/N: 216126

Maximum string dia
All lengths ir



8−1/2" PDC Bit 0.24
S/N: 216126

Maximum string dia
All lengths ir

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OTHER SERVICES FOR RUN4
Directional Surveys

OTHER SERVICES FOR RUN5
Directional Surveys

OTHER SERVICES FOR RUN

REMARKS: RUN NUMBER 4
Depth is referenced to Driller's Depth.

Gamma ray is corrected for mud weght, tool size, bit depth and potassium percentage.

Resistivty is borehole compensated and environmentally corrected.

Neutron porosity is corrected for the effects of borehole size (bit size), temperature, mud salinity, and mud hydrogen index (a factor of mud weight, mud temperature and pressure).

Neutron porosity is calculated using a limstone matrix density of 2.71 g/cm3.

POOH due to Bit Balling.

adnVISION battery ran out of life at 2433m MD

REMARKS: RUN NUMBER 5
Depth is referenced to Driller's Depth.

Gamma ray is corrected for mud weght, tool size, bit depth and potassium percentage.

Resistivty is borehole compensated and environmentally corrected.

Neutron porosity is corrected for the effects of borehole size (bit size), temperature, mud salinity, and mud hydrogen index (a factor of mud weight, mud temperature and pressure).

Neutron porosity is calculated using a limstone matrix density of 2.71 g/cm3.

POOH due to reaching TD of 8.50 in. section of Coelacanth−1.

Relogged on trip out from 2433MD to 2700MD

REMARKS: RUN NUMBER

EQUIPMENT DESCRIPTION

RUN4 RUN5 RUN

DOWNHOLE E

DOWNHOLE E

6−3/4" adnVISION*
DHS: V8.3
S/N: 373
BladeOD: 8−1/4"
Neutron F
Neutron N
Density S
Density L
UltraSonic
R−O Port
34.59
34.44
33.57
33.48
33.10
32.34
36.27
XO
30.31
6−3/4" Bat Sonic
S/N: PA9016462
29.94
6−3/4" PowerPulse*
MDC: VG67
MEA: 373
MDI: 1841
MVC: 114
23.14
D&I
MVC
ROP TF
18.78
18.13
14.14
6−3/4" GeoVISION*
DHS: V6.2B01
S/N: 41373
Shallow
Medium
Deep
Ring Res
R−O port
GR
13.17
13.05
12.87
12.70
12.56
12.34
14.65
FS
S/N: S58834
11.14
7" PowerPak* Motor
S/N: 0738
10.31
Bit Res
0.00
0.00
8−1/2" PDC Bit
S/N: 41373
0.24
Maximum string dia
All lengths ir
6−3/4" adnVISION*
DHS: V8.3
S/N: 40778
BladeOD: 8−1/4"
Neutron F
Neutron N
Density S
Density L
UltraSonic
R−O Port
34.68
34.53
33.66
33.57
33.19
32.43
36.65
XO
30.40
6−3/4" Bat Sonic
S/N: PA9016462
30.03
6−3/4" PowerPulse*
MDC: VG67
MEA: 373
MDI: 1841
MVC: 114
23.23
D&I
MVC
ROP TF
18.87
18.22
14.23
6−3/4" GeoVISION*
DHS: V6.2B01
S/N: 41373
Shallow
Medium
Deep
Ring Res
R−O port
GR
13.26
13.14
12.96
12.79
12.65
12.43
14.74
FS
S/N: S58834
11.23
7" PowerPak* Motor
S/N: 0738
10.40
Bit Res
0.04
0.00
8−1/2" PDC Bit
S/N: 216813
0.33
Maximum string dia
All lengths ir

Bit Run Summary

Run number		1	2	3	4	5
Bit size	mm.	311	216	216	216	216
Bit start depth	m	279.00	907.00	1998.00	2116.00	2700.00
Bit end depth	m	907.00	1998.00	2116.00	2700.00	3074.00
Top interval logged	m	275.70	902.60	1963.47	2081.40	2666.00
Bottom interval logged	m	894.73	1963.47	2081.40	2666.00	3039.40
Begin log: time		22:00	18:30	17:23	11:30	07:00
Begin log: date		12−Mar−08	15−Mar−08	18−Mar−08	19−Mar−08	21−Mar−08
End log: time		15:15	08:00	10:15	06:00	23:00
End log: date		13−Mar−08	18−Mar−08	19−Mar−08	21−Mar−08	22−Mar−08
Mud data						
Depth	m	902.00	1994.00	2243.00	2700.00	3074.00
Type		WBM	WBM	WBM	WBM	WBM
Mud weight	SG	1.06	1.18	1.17	1.16	1.19
Solids	%	4.70	5.10	4.70	5.50	4.80
Chlorides	mg/l	47000	49000	47000	44000	46000
Rm	ohm.m@°C	0.0139@21	0.089@21.5	0.0962@20.8	0.0975@21.8	0.1043@20
Rmf	ohm.m@°C	0.0123@20.7	0.075@22.1	0.0832@20.5	0.084@21.2	0.0859@20.6
Rmc	ohm.m@°C	0.0152@21.1	0.118@22.3	0.1498@21.2	0.128@21.4	0.1384@21.4
Potassium	%	3.80	3.80	4.00	4.10	4.20
Environmental data						
GR						
Mud weight	SG	1.06	1.18	1.17	1.16	1.19
Bit size	mm.	311	216	216	216	216
Resistivity						
Neutron porosity						
Hole Size	mm.	311	216	216	216	216
Mud weight	SG	1.06	1.18	1.17	1.16	1.19
Temperature	°C	32.2	49.41	48.63	58.82	61.96
Mud salinity	ppk	N/A	71.30	75.88	71.15	74.30
Formation salinity						
Recording rate 1	SEC	10 (GVR)	5 (GVR)	5 (GVR)	5 (GVR)	5 (GVR)
Recording rate 2	SEC	n/a	5 (ADN)	5 (ADN)	5 (ADN)	5 (ADN)
Filtering GR		3 pts	3 pts	3 pts	3 pts	3 pts
Filtering density		N/A	3 pts	3 pts	3 pts	3 pts
Filtering Neutron		N/A	3 pts	3 pts	3 pts	3 pts
Company representative		Mark Pinson	Rocco Russo	Peter Sheenan		
Schlumberger D&M Personnel		A. Kohli	C. Hibberson	B. Low		

Variable Name	Variable Description	Run Name & Value			
	Run Number		1	2	3
	General Information				
BHT_RM	Bottom Hole Temperature (RM)	DEGC	51.000	58.000	58.000
BSAL_RM	Mud Salinity (RM)	PPK	0.000	72.50	74.301
BS_RM	Bit Size (RM)	IN	12.250	8.500	8.500
COEF_M	User Defined FEXP in Clean Sand	----	1.650	1.650	1.650
C_WS	Overpressure correction to Sw and M	----	1.000	1.000	1.000
FEXP	Formation Factor Exponent(RM)	----	2.000	2.000	2.000
FNUM	Formation Factor Enumerator(RM)	----	1.000	1.000	1.000
FPHI_RM	Formation Factor Porosity Source (RM)	----	XPLOT	XPLOT	XPLOT
MST_RM	Mud Sample temperature (RM)	DEGC	23.889	22.100	20.800
MW_RM	Mud Weight (RM)	LB/G	8.860	9.830	9.750
OBMF_RM	Oil Based Mud (RM)	----	NO	NO	NO
RHOF_RM	Mud Filtrate Density (RM)	G/C3	1.000	1.000	1.000
RHOM_RM	Matrix density (RM)	G/C3	2.710	2.710	2.710
RMS_RM	Resistivity of Mud Sample (RM)	OHMM	0.138	0.089	0.096
RWA_COMP_M	Rwa computation model				
RWA_DEN_AD	Rwa Density Input ADN				
RWA_DEN_CD	Rwa Density Input CDN				
RWA_DEN_IN	Rwa Density Input				
RWA_FORM_M	Rwa computation formation model				
RWA_RES_IN	Rwa computation resistivity input				

RWA_RES_IN	Rwa computation resistivity input				
RWS_RM	Resistivity of Connate Water (RM)	OHMM	1.000	1.000	1.000
SHT_RM	Ground Level Temperature (Mud−Line When Offshore)	DEGC	10.000	10.000	10.000
TD_RM	Total Measured Depth (RM)	M	907.000	3048.000	2116.000
TWS_RM	Temperature of Connate Water (RM)	DEGC	23.889	23.889	23.889
VF_ILLI	Fraction of illite in shales	----	0.500	0.500	0.500
VF_KAOL	Fraction of kaolinite in shales	----	0.500	0.500	0.500
VF_MONT	Fraction of montmorillonite in shales	----	0.000	0.000	0.000
XPDM_RM	Cross plot density porosity multiplier	----	0.675	0.675	0.675
XPNM_RM	Cross plot neutron porosity multiplier	----	0.325	0.325	0.325

RAB

RAB/BTN_SLV_SIZE/PARAMETE	IN -- RAB: Button Sleeve Diameter	IN	11.875	8.125	8.125
RAB/STAB_SIZE/PARAMETER	RAB: Stabilizer Diameter	IN	12−12.25	8.25−8.5	8.25−8.5
BDBHCA	RAB: Button Deep Borehole A Factor	----	−0.035	0.004	0.004
BDBHCB	RAB: Button Deep Borehole B Factor	----	−0.019	0.000	0.000
BHA_COEF_VER	RAB: BHA Coef Generator Version	----	2.000	62011.000	2.000
BITBHCA	RAB: Bit A Borehole Factor	----	0.099	0.058	0.058
BITBHCB	RAB: Bit B Borehole Factor	----	−0.074	0.000	0.000
BIT_K_FACTOR	RAB: Bit K Factor	----	15.212	15.168	15.227
BMBHCA	RAB: Button Medium Borehole A Factor	----	0.006	0.023	0.023
BMBHCB	RAB: Button Medium Borehole B Factor	----	−0.020	0.000	0.000
BSBHCA	RAB: Button Shallow Borehole A Factor	----	−0.009	0.022	0.023
BSBHCB	RAB: Button Shallow Borehole B Factor	----	−0.036	0.000	0.000
BUT_KIMP_A	RAB: Button Impedance Coeff A	----	0.002	0.000	0.000
BUT_KIMP_B	RAB: Button Impedance Coeff B	----	0.000	0.000	0.000
DBUTTON_K_FACTO	RAB: Button Deep K factor	----	0.003	0.005	0.005
DHS_VERSION	RAB: DownHole Software Version	----	−999.250	6.200	−999.250
GR_BHC_TOOLSIZE	RAB: Gamma−Ray Borehole Coeff 1	----	8.250	6.750	6.750
HI_CSDEPTH_OUT	RAB: Allow Hi−Resolution CS_DEPTH Image Data Output	----	NO	NO	NO
HI_DLIS_OUT	RAB: Allow Hi−Resolution DLIS Image Data Output	----	NO	NO	NO
HI_RIVER_OUT	RAB: Allow Hi−Resolution River for Image Data Output	----	NO	NO	NO
IMAGE_MAX_GR	RAB: GR Image Maximum Scale Value	GAPI	120.000	120.000	120.000
IMAGE_MAX_RES	RAB: Image Maximum Resistivity Value	OHMM	100.000	100.000	100.000
IMAGE_MIN_GR	RAB: GR Image Minimum Scale Value	GAPI	20.000	20.000	20.000
IMAGE_MIN_RES	RAB: Image Minimum Resistivity Value	OHMM	1.000	1.000	1.000
JSD_RAB	RAB Acquisition start date	OHMM	1.000	1.000	1.000
KPER	Potassium Concentration (RM)	----	4.800	3.800	4.100
MAG_DECL_RAB	RAB: Magnetic Declination	DEG	13.340	13.340	13.340
MAG_INCL_RAB	RAB: Magnetic Dip	DEG	−69.110	−69.110	−69.110
MBUTTON_K_FACTO	RAB: Button Medium K Factor	----	0.004	0.005	0.005
OBM	RAB: Oil base Mud	----	NO	NO	NO
ORIENTATION_RM	Rab Image Orientation	----	TOH	TOH	TOH
RABBDA0	RAB: Button Deep A0 Coeff	----	−0.121	−0.052	−0.052
RABBDA1	RAB: Button Deep A1 Coeff	----	0.112	0.021	0.021
RABBDA2	RAB: Button Deep A2 Coeff	----	−0.049	−0.005	−0.005
RABBDA3	RAB: Button Deep A3 Coeff	----	0.010	0.000	0.000
RABBDA4	RAB: Button Deep A4 Coeff	----	−0.001	−0.000	−0.000
RABBDA5	**RAB: Button Deep A5 Coeff**	**----**	**0.000**	**0.000**	**0.000**
RABBDMIN	RAB: Button Deep Minimum Value	----	0.038	0.051	0.051
RABBITA0	RAB: Bit A0 Coeff	----	4.394	4.095	4.118
RABBITA1	RAB: Bit A1 Coeff	----	−13.106	−3.547	−3.483
RABBITA2	RAB: Bit A2 Coeff	----	36.626	12.345	12.438
RABBITA3	RAB: Bit A3 Coeff	----	−43.327	−15.241	−15.565
RABBITA4	RAB: Bit A4 Coeff	----	24.302	6.786	6.978
RABBITA5	RAB: Bit A5 Coeff	----	−5.275	0.000	0.000
RABBITMIN	RAB: Bit Minimum Value	----	22.433	21.118	21.119
RABBMA0	RAB: Button Medium A0 Coeff	----	−0.120	−0.062	−0.062
RABBMA1	RAB: Button Medium A1 Coeff	----	0.104	0.027	0.027
RABBMA2	RAB: Button Medium A2 Coeff	----	−0.044	−0.006	−0.006
RABBMA3	RAB: Button Medium A3 Coeff	----	0.009	0.001	0.001
RABBMA4	RAB: Button Medium A4 Coeff	----	−0.001	−0.000	−0.000
RABBMA5	RAB: Button Medium A5 Coeff	----	0.000	0.000	0.000
RABBMMIN	RAB: Button Medium Minimum Value	----	0.041	0.060	0.060
RABBSA0	RAB: Button Shallow A0 Coeff	----	−0.127	−0.074	−0.074
RABBSA1	RAB: Button Shallow A1 Coeff	----	0.103	0.031	0.032
RABBSA2	RAB: Button Shallow A2 Coeff	----	−0.042	−0.007	−0.007
RABBSA3	RAB: Button Shallow A3 Coeff	----	0.008	0.001	0.001
RABBSA4	RAB: Button Shallow A4 Coeff	----	−0.001	−0.000	−0.000
RABBSA5	RAB: Button Shallow A5 Coeff	----	0.000	0.000	0.000
RABBSMIN	RAB: Button Shallow Minimum Value	----	0.055	0.086	0.086
RABDHS	RAB Down Hole Software	----	4.000	4.000	4.000
RABEC	RAB: Resistivity Env−Cor	----	YES	YES	YES
RABRNGA0	RAB: RING A0 Coeff	----	−0.118	−0.048	−0.048
RABRNGA1	RAB: RING A1 Coeff	----	0.113	0.019	0.019
RABRNGA2	RAB: RING A2 Coeff	----	−0.049	−0.004	−0.004
RABRNGA3	RAB: RING A3 Coeff	----	0.010	0.000	0.000
RABRNGA4	RAB: RING A4 Coeff	----	−0.001	−0.000	−0.000
RABRNGA5	RAB: RING A5 Coeff	----	0.000	0.000	0.000
RABRNGMIN	RAB: Ring Minimum Value	----	1.150	1.697	1.697
RAB_BIT_ECAL	Bit Resistivity for ECAL_RAB?	----	YES	YES	YES
RAB_BIT_INVERSI	Input Bit Resistivity for Inversion? (Recommended at the bit)		YES	YES	NO
RAB_CALIPER_CAL	Compute ECAL_RAB?	----	NO	NO	NO
RAB_DATA_FIX	RAB: Create A Corrected RAB Time Data File	----	NO	NO	NO
RAB_DATA_LTB	RAB: Create An RAB LTB Data File	----	NO	NO	NO
RAB_DEEPBTN_ECA	Deep Button Resistivity for ECAL_RAB?	----	YES	YES	YES
RAB_DEEPBTN_INV	Input Deep Button Resistivity for Inversion?	----	YES	YES	YES
RAB_INVERSION	Perform Rt Inversion?	----	NO	NO	NO
RAB_INVERSION_B	RAB Bit Sensor Weight for Inversion[0,1]	----	1.000	1.000	0.000
RAB_INVERSION_B	Ending Depth for GR Cutoff in Zone1 (default whole well)	M	30480.000	30480.000	30480.000
RAB_INVERSION_B	Ending Depth of Zone10	M	−304.571	−304.571	−304.571
RAB_INVERSION_B	Ending Depth of Zone2	M	−304.571	−304.571	−304.571
RAB_INVERSION_B	Ending Depth of Zone3	M	−304.571	−304.571	−304.571
RAB_INVERSION_B	Ending Depth of Zone4	M	−304.571	−304.571	−304.571
RAB_INVERSION_B	Ending Depth of Zone5	M	−304.571	−304.571	−304.571
RAB_INVERSION_B	Ending Depth of Zone6	M	−304.571	−304.571	−304.571

RAB_INVERSION_B	Ending Depth of Zone7	M	−304.571	−304.571	−304.571
RAB_INVERSION_B	Ending Depth of Zone8	M	−304.571	−304.571	−304.571
RAB_INVERSION_B	Ending Depth of Zone9	M	−304.571	−304.571	−304.571
RAB_INVERSION_C	Continuity Multiplier[0,1]	----	0.500	0.500	0.500
RAB_INVERSION_D	RAB Deep Button Sensor Weight for Inversion[0,1]	----	1.000	1.000	1.000
RAB_INVERSION_D	RAB inversion for Dh?	----	YES	YES	YES
RAB_INVERSION_D	RAB inversion for Di?	----	YES	YES	YES
RAB_INVERSION_G	GR Cutoff for Shale Formation	----	75.000	75.000	75.000
RAB_INVERSION_G	GR Cutoff for Shale Formation in Zone1(default whole well)	GAPI	75.000	75.000	75.000
RAB_INVERSION_G	GR Cutoff in Zone10	GAPI	75.000	75.000	75.000
RAB_INVERSION_G	GR Cutoff in Zone2	GAPI	75.000	75.000	75.000
RAB_INVERSION_G	GR Cutoff in Zone3	GAPI	75.000	75.000	75.000
RAB_INVERSION_G	GR Cutoff in Zone4	GAPI	75.000	75.000	75.000
RAB_INVERSION_G	GR Cutoff in Zone5	GAPI	75.000	75.000	75.000
RAB_INVERSION_G	GR Cutoff in Zone6	GAPI	75.000	75.000	75.000
RAB_INVERSION_G	GR Cutoff in Zone7	GAPI	75.000	75.000	75.000
RAB_INVERSION_G	GR Cutoff in Zone8	GAPI	75.000	75.000	75.000
RAB_INVERSION_G	GR Cutoff in Zone9	GAPI	75.000	75.000	75.000
RAB_INVERSION_M	RAB Medium Button Sensor Weight for Inversion[0,1]	----	1.000	1.000	1.000
RAB_INVERSION_R	Resistivity Cutoff for Shale Formation	OHMM	2.000	2.000	2.000
RAB_INVERSION_R	Resistive Invasion Allowed	----	NO	NO	NO
RAB_INVERSION_R	RAB Ring Sensor Weight for Inversion[0,1]	----	1.000	1.000	1.000
RAB_INVERSION_R	RAB inversion for Rmud?	----	NO	NO	NO
RAB_INVERSION_R	RAB inversion for Rt?	----	YES	YES	YES
RAB_INVERSION_R	Rt to R−deepest separation penalty multiplier[0,1]	----	0.500	0.500	0.500
RAB_INVERSION_R	RAB inversion for Rxo?	----	YES	YES	YES
RAB_INVERSION_S	GR of Clean Sand Formation	----	−999.250	−999.250	−999.250
RAB_INVERSION_S	GR of Shale Formation	----	−999.250	−999.250	−999.250
RAB_INVERSION_S	RAB Shallow Button Sensor Weight for Inversion[0,1]	----	1.000	1.000	1.000
RAB_INVERSION_T	Inversion Threshold[0, 0.3]	----	0.010	0.010	0.010
RAB_INVERSION_W	Formation Water Resistivity	OHMM	0.100	0.100	0.100
RAB_INVERSION_W	Formation Water Temperature	----	150.000	150.000	150.000
RAB_MEDIUMBTN_E	Medium Button Resistivity for ECAL_RAB?	----	YES	YES	YES
RAB_MEDIUMBTN_I	Input Medium Button Resistivity for Inversion?	----	YES	YES	YES
RAB_QUAD	RAB: Process Quadrant data ?	----	YES	YES	YES
RAB_RIGMODE_ECA	Bit on Bottom?	----	YES	YES	YES
RAB_RING_ECAL	Ring Resistivity for ECAL_RAB?	----	YES	YES	YES
RAB_RING_INVERS	Imput RING Resistivity for Inversion?	----	YES	YES	YES
RAB_SHALLOWBTN_	Shallow Button Resistivity for ECAL_RAB?	----	YES	YES	YES
RAB_SHALLOWBTN_	Input Shallow Button Resistivity for Inversion?	----	YES	YES	YES
RAB_TAB	RAB: Compute TAB ?	----	YES	YES	YES
RAB_TECHLOG	RAB: Generate Techlog ?	----	YES	YES	YES
RAB_TEMP_SELECT	RAB Temperature Selection	----	MEASURED	MEASURED	MEASURED
RAB_TICKS	RAB: Generate Ticks ?	----	YES	YES	YES
READOUT_PORT_MP	RAB: ROP to Bit Face Distance	M	11.600	12.550	12.560
RINGBHCA	RAB: Ring Borehole A Factor	----	0.298	0.159	0.160
RINGBHCB	RAB: Ring Borehole B Factor	----	−0.112	0.000	0.000
RING_KIMP_A	RAB: Ring Impedance Coeff A	----	0.000	0.000	0.000
RING_KIMP_B	RAB: Ring Impedance Coeff B	----	0.000	0.000	0.000
RING_K_FACTOR	RAB: Ring K Factor	----	0.101	0.153	0.153
RSD	LWD run start date dd−mmm−yy	OHMM	0.138	0.089	0.096
RWA_COMP_MOD	Rwa computation model	----	BASIC	BASIC	BASIC
RWA_DEN_ADN	Rwa Density Input	----	RHOB	RHOB	RHOB
RWA_DEN_CDN	Rwa Density Input	----	RHOB	RHOB	RHOB
RWA_DEN_INPUT	Rwa Density Input	----	RHOB	RHOB	RHOB
RWA_FORM_MOD	Rwa computation formation model	----	CLASTIC	CLASTIC	CLASTIC
RWA_RES_INPUT	Rwa computation resistivity input	----	RT	RT	RT
SBUTTON_K_FACTO	RAB: Button Shallow K Factor	----	0.005	0.007	0.007
SCALE_IMAGES	RAB: Process Image Data	----	YES	YES	YES
STAB	RAB: Run with Stabilizer	----	YES	YES	YES
TFF_OFFSET_RAB	RAB Time−Frame File Time Offset	S	0.000	0.000	0.000
TIMEFRAME_FILE_	RAB: Time Frame File Name	S	0.000	0.000	0.000
TOOLTYPE	RAB: Azimuthal Tool	----	YES	YES	YES
TS_VERSION	RAB: ToolScope Software Version	----	−999.250	0.000	−999.250
VRAB6	Rab Tool type (ENP/PILOT)	----	RAB8_ENP	RAB6_C_SERIES	RAB6_C_SERIES
WIN_SIZE_DYN_IM	RAB: Window Size for Scaling Dynamic Image	M	0.914	0.914	0.914
WRK	to Report Potassium Concentration (RM)	----	K_by_Wgt_%	K_by_Wgt_%	K_by_Wgt_%

	ADN				
ADN_CHASSIS_STR	ADN Chassis Type String	----	----	ADN	ADN
ADN_COLLAR_STR	ADN Collar Type String	----	----	ADN	ADN
ADN_DATA_FIX	ADN: Create A Corrected ADN Time Data File	----	----	NO	NO
ADN_DATA_LTB	ADN: Create An ADN LTB Data File	----	----	NO	NO
ADN_STAB_STR	ADN Stabilizer Type String	----	----	NO	NO
ALPHA_COMPUTE_D	Perform Density Enhanced Vertical Resolution process ?	----	----	NO	NO
ALPHA_COMPUTE_N	Perform Neutron Enhanced Vertical Resolution process ?	----	----	NO	NO
AVE_ADN	ADN/Array Channels: perform averaging(RM) :	----	----	YES	YES
A_DHS	ADN Down Hole Software Version String	----	----	YES	YES
CHI_RM	Caliper High limit from BS (RM)	IN	----	3.000	3.000
CLO_RM	Caliper Low limit from BS (RM)	IN	----	0.000	0.000
DEVI	Well Section Deviation	DEG	----	0.004	0.004
DTIK_SEL	ADN: Density Tick Channel Name	----	----	LSAZ	LSAZ
DTMUD	Delta−T for Mud	US/F	----	168.000	168.000
DYN_IMG_COMPUTE	Generate Dynamic Normalized Image?	----	----	NO	NO
ECC_CORR_ADN	Perform Eccentering Correction for TNPH?	----	----	YES	YES
ENVCOR	Neutron Processing: Environmental Correction?	----	----	YES	YES
EVRL	EVR Process averaging number of samples (RM)	----	----	49	49
FCD	Future Casing (Outer) Diameter	IN	----	0.000	0.000
GCSE	Generalized Caliper Selection	----	----	BS	BS
HPS	ADSE−EB (High Pressure Inconel Chassis)?	----	----	NO	NO
IBS	Intergal Blade Stabilizer Collar?	----	----	YES	NO
IDQT	Image Derived Quality Threshold	----	----	1.000	1.000
IHVS	Integrated Hole Volume Start Value(RM)	F3	----	0.000	0.000
IMAGE_MAX_SOA	Image SOA (Quadrant) Right Scale	IN	----	2.500	2.500
IMAGE_MAX_SPEF	Image PEF(Segment) Right Scale	----	----	6.000	6.000
IMAGE_MAX_SRHOB	Image RHOB(Segment) Right Scale	G/C3	----	2.650	2.650

IMAGE_MIN_SOA	Image SOA (Quadrant) Left Scale	IN	----	0.000	0.000	
IMAGE_MIN_SPEF	Image PEF(Segment) Left Scale	----	----	2.000	2.000	
IMAGE_MIN_SRHOB	Image RHOB(Segment) Left Scale	G/C3	----	2.050	2.050	
JSD_ADN	ADN Acquisition start date	G/C3	----	2.050	2.050	
LITHO_TYPE_ADN	Lithology (RM)	----	----	LIME	LIME	
N1FTU_6_RM	ADN: Neutron Bank 1 Far Tubes used :	----	----	1-2-3	1-2-3	
N2FTU_6_RM	ADN: Neutron Bank 2 Far Tubes used :	----	----	1-2-3	1-2-3	
NNTU_RM	ADN Neutron Near Banks Used	----	----	1-2	1-2	
NTIK_SEL	ADN: Neutron Tick Channel Name	----	----	FR11	FR11	
SOCNL	Standoff Distance of the CNL Tool	----	----	1.000	1.000	
SSIZ_ADN	ADN Stabilizer Size	IN	----	8.125	8.125	
STOH	ADN Density Top of Hole Sector (Left Boundary):	----	----	SECTOR_0	SECTOR_0	
TRPM_RM	Average Tool Rotational Speed	RPM	----	20.000	20.000	
USMIN_RM	ADN:Minimum Ultrasonic standoff (RM)	IN	----	0.180	0.180	
USWF_RM	ADN:Process Ultrasonic Waveform?	----	----	YES	YES	
VERS_ADN	ADN Downhole Software Version	----	----	8.300	8.300	
WSDI	Window Size of Dynamic Normalization Image	M	M	4.572	4.572	
RAB/BTN_SLV_SIZE/PARAMETE	IN --- RAB: Button Sleeve Diameter	IN	11.875	8.125	8.125	

Run Number		4	5
General Information			
BHT_RM	Bottom Hole Temperature (RM)	DEGC	62.000	62.000
BSAL_RM	Mud Salinity (RM)	PPK	74.301	74.301
BS_RM	Bit Size (RM)	IN	8.500	8.500
COEF_M	User Defined FEXP in Clean Sand	----	1.650	1.650
C_WS	Overpressure correction to Sw and M	----	1.000	1.000
FEXP	Formation Factor Exponent(RM)	----	2.000	2.000
FNUM	Formation Factor Enumerator(RM)	----	1.000	1.000
FPHI_RM	Formation Factor Porosity Source (RM)	----	XPLOT	XPLOT
MST_RM	Mud Sample temperature (RM)	DEGC	21.800	20.100
MW_RM	Mud Weight (RM)	LB/G	9.750	9.920
OBMF_RM	Oil Based Mud (RM)	----	NO	NO
RHOF_RM	Mud Filtrate Density (RM)	G/C3	1.000	1.000
RHOM_RM	Matrix density (RM)	G/C3	2.710	2.710
RMS_RM	Resistivity of Mud Sample (RM)	OHMM	0.097	0.104
RWA_COMP_M	Rwa computation model			
RWA_DEN_AD	Rwa Density Input ADN			
RWA_DEN_CD	Rwa Density Input CDN			
RWA_DEN_IN	Rwa Density Input			
RWA_FORM_M	Rwa computation formation model			
RWA_RES_IN	Rwa computation resistivity input			
RWS_RM	Resistivity of Connate Water (RM)	OHMM	1.000	1.000
SHT_RM	Ground Level Temperature (Mud-Line When Offshore) (RM)	DEGC	10.000	10.000
TD_RM	Total Measured Depth (RM)	M	2700.000	3074.000
TWS_RM	Temperature of Connate Water (RM)	DEGC	23.889	23.889
VF_ILLI	Fraction of illite in shales	----	0.500	0.500
VF_KAOL	Fraction of kaolinite in shales	----	0.500	0.500
VF_MONT	Fraction of montmorillonite in shales	----	0.000	0.000
XPDM_RM	Cross plot density porosity multiplier	----	0.675	0.675
XPNM_RM	Cross plot neutron porosity multiplier	----	0.325	0.325
ADN				
ADN_CHASSIS_STR	ADN Chassis Type String	ADN	ADN	
ADN_COLLAR_STR	ADN Collar Type String	ADN	ADN	
ADN_DATA_FIX	ADN: Create A Corrected ADN Time Data File	----	NO	NO
ADN_DATA_LTB	ADN: Create An ADN LTB Data File	----	NO	NO
ADN_STAB_STR	ADN Stabilizer Type String	----	NO	NO
ALPHA_COMPUTE_D	Perform Density Enhanced Vertical Resolution process ?	----	NO	NO
ALPHA_COMPUTE_N	Perform Neutron Enhanced Vertical Resolution process ?	----	NO	NO
AVE_ADN	ADN/Array Channels: perform averaging(RM) :	----	YES	YES
A_DHS	ADN Down Hole Software Version String	----	YES	YES
CHI_RM	Caliper High limit from BS (RM)	IN	3.000	3.000
CLO_RM	Caliper Low limit from BS (RM)	IN	0.000	0.000
DEVI	Well Section Deviation	DEG	0.004	0.014
DTIK_SEL	ADN: Density Tick Channel Name	----	LSAZ	LSAZ
DTMUD	Delta-T for Mud	US/F	168.000	144.890
DYN_IMG_COMPUTE	Generate Dynamic Normalized Image?	----	NO	NO
ECC_CORR_ADN	Perform Eccentering Correction for TNPH?	----	YES	YES
ENVCOR	Neutron Processing: Environmental Correction?	----	YES	YES
EVRL	EVR Process averaging number of samples (RM)	----	49	49
FCD	Future Casing (Outer) Diameter	IN	0.000	0.000
GCSE	Generalized Caliper Selection	----	BS	BS
HPS	ADSE-EB (High Pressure Inconel Chassis)?	----	NO	NO
IBS	Intergal Blade Stabilizer Collar?	----	NO	NO
IDQT	Image Derived Quality Threshold	----	1.000	1.000
IHVS	Integrated Hole Volume Start Value(RM)	F3	0.000	0.000
IMAGE_MAX_SOA	Image SOA (Quadrant) Right Scale	IN	2.500	2.500
IMAGE_MAX_SPEF	Image PEF(Segment) Right Scale	----	6.000	6.000
IMAGE_MAX_SRHOB	Image RHOB(Segment) Right Scale	G/C3	2.650	2.650
IMAGE_MIN_SOA	Image SOA (Quadrant) Left Scale	IN	0.000	0.000
IMAGE_MIN_SPEF	Image PEF(Segment) Left Scale	----	2.000	2.000
IMAGE_MIN_SRHOB	Image RHOB(Segment) Left Scale	G/C3	2.050	2.050
JSD_ADN	ADN Acquisition start date	G/C3	2.050	2.050
LITHO_TYPE_ADN	Lithology (RM)	----	LIME	LIME
N1FTU_6_RM	ADN: Neutron Bank 1 Far Tubes used :	----	1-2-3	1-2-3
N2FTU_6_RM	ADN: Neutron Bank 2 Far Tubes used :	----	1-2-3	1-2-3
NNTU_RM	ADN Neutron Near Banks Used	----	1-2	1-2
NTIK_SEL	ADN: Neutron Tick Channel Name	----	FR11	FR11
RSD	LWD run start date dd-mmm-yy	OHMM	0.097	0.104
RWA_COMP_MOD	Rwa computation model	----	BASIC	BASIC
RWA_DEN_ADN	Rwa Density Input	----	RHOB	RHOB
RWA_DEN_CDN	Rwa Density Input	----	RHOB	RHOB
RWA_DEN_INPUT	Rwa Density Input	----	RHOB	RHOB

RWA_DEN_INPUT	Rwa Density Input	----	RHOB	RHOB
RWA_FORM_MOD	Rwa computation formation model	----	CLASTIC	CLASTIC
RWA_RES_INPUT	Rwa computation resistivity input	----	RT	RT
SOCNL	Standoff Distance of the CNL Tool	----	1.000	1.000
SSIZ_ADN	ADN Stabilizer Size	IN	8.125	8.125
STOH	ADN Density Top of Hole Sector (Left Boundary):	----	SECTOR_0	SECTOR_0
TRPM_RM	Average Tool Rotational Speed	RPM	20.000	20.000
USMIN_RM	ADN:Minimum Ultrasonic standoff (RM)	IN	0.180	0.180
USWF_RM	ADN:Process Ultrasonic Waveform?	----	YES	YES
VERS_ADN	ADN Downhole Software Version	----	8.300	8.300
WSDI	Window Size of Dynamic Normalization Image	M	4.572	4.572

RAB

RAB/BTN_SLV_SIZE/PARAMETE	IN --- RAB: Button Sleeve Diameter	IN	8.125	8.125
RAB/STAB_SIZE/PARAMETER	RAB: Stabilizer Diameter	IN	8.25-8.5	8.25-8.5
BDBHCA	RAB: Button Deep Borehole A Factor	----	0.004	0.004
BDBHCB	RAB: Button Deep Borehole B Factor	----	0.000	0.000
BHA_COEF_VER	RAB: BHA Coef Generator Version	----	2.000	2.000
BITBHCA	RAB: Bit A Borehole Factor	----	0.058	0.058
BITBHCB	RAB: Bit B Borehole Factor	----	0.000	0.000
BIT_K_FACTOR	RAB: Bit K Factor	----	15.227	15.311
BMBHCA	RAB: Button Medium Borehole A Factor	----	0.023	0.023
BMBHCB	RAB: Button Medium Borehole B Factor	----	0.000	0.000
BSBHCA	RAB: Button Shallow Borehole A Factor	----	0.023	0.023
BSBHCB	RAB: Button Shallow Borehole B Factor	----	0.000	0.000
BUT_KIMP_A	RAB: Button Impedance Coeff A	----	0.000	0.000
BUT_KIMP_B	RAB: Button Impedance Coeff B	----	0.000	0.000
DBUTTON_K_FACTO	RAB: Button Deep K factor	----	0.005	0.005
DHS_VERSION	RAB: DownHole Software Version	----	-999.250	-999.250
GR_BHC_TOOLSIZE	RAB: Gamma-Ray Borehole Coeff 1	----	6.750	6.750
HI_CSDEPTH_OUT	RAB: Allow Hi-Resolution CS_DEPTH Image Data Output	----	NO	NO
HI_DLIS_OUT	RAB: Allow Hi-Resolution DLIS Image Data Output	----	NO	NO
HI_RIVER_OUT	RAB: Allow Hi-Resolution River for Image Data Output	----	NO	NO
IMAGE_MAX_GR	RAB: GR Image Maximum Scale Value	GAPI	120.000	120.000
IMAGE_MAX_RES	RAB: Image Maximum Resistivity Value	OHMM	100.000	100.000
IMAGE_MIN_GR	RAB: GR Image Minimum Scale Value	GAPI	20.000	20.000
IMAGE_MIN_RES	RAB: Image Minimum Resistivity Value	OHMM	1.000	1.000
JSD_RAB	RAB Acquisition start date	OHMM	1.000	1.000
KPER	Potassium Concentration (RM)	----	3.800	4.100
MAG_DECL_RAB	RAB: Magnetic Declination	DEG	13.340	13.340
MAG_INCL_RAB	RAB: Magnetic Dip	DEG	-69.110	-69.110
MBUTTON_K_FACTO	RAB: Button Medium K Factor	----	0.005	0.005
OBM	RAB: Oil base Mud	----	NO	NO
ORIENTATION_RM	Rab Image Orientation	----	TOH	TOH
RABBDA0	RAB: Button Deep A0 Coeff	----	-0.052	-0.052
RABBDA1	RAB: Button Deep A1 Coeff	----	0.021	0.021
RABBDA2	RAB: Button Deep A2 Coeff	----	-0.005	-0.005
RABBDA3	RAB: Button Deep A3 Coeff	----	0.000	0.000
RABBDA4	**RAB: Button Deep A4 Coeff**	**----**	**-0.000**	**-0.000**
RABBDA5	RAB: Button Deep A5 Coeff	----	0.000	0.000
RABBDMIN	RAB: Button Deep Minimum Value	----	0.051	0.051
RABBITA0	RAB: Bit A0 Coeff	----	4.118	4.151
RABBITA1	RAB: Bit A1 Coeff	----	-3.483	-3.391
RABBITA2	RAB: Bit A2 Coeff	----	12.438	12.570
RABBITA3	RAB: Bit A3 Coeff	----	-15.565	-16.026
RABBITA4	RAB: Bit A4 Coeff	----	6.978	7.250
RABBITA5	RAB: Bit A5 Coeff	----	0.000	0.000
RABBITMIN	RAB: Bit Minimum Value	----	21.119	21.119
RABBMA0	RAB: Button Medium A0 Coeff	----	-0.062	-0.062
RABBMA1	RAB: Button Medium A1 Coeff	----	0.027	0.027
RABBMA2	RAB: Button Medium A2 Coeff	----	-0.006	-0.006
RABBMA3	RAB: Button Medium A3 Coeff	----	0.001	0.001
RABBMA4	RAB: Button Medium A4 Coeff	----	-0.000	-0.000
RABBMA5	RAB: Button Medium A5 Coeff	----	0.000	0.000
RABBMMIN	RAB: Button Medium Minimum Value	----	0.060	0.060
RABBSA0	RAB: Button Shallow A0 Coeff	----	-0.074	-0.074
RABBSA1	RAB: Button Shallow A1 Coeff	----	0.032	0.032
RABBSA2	RAB: Button Shallow A2 Coeff	----	-0.007	-0.007
RABBSA3	RAB: Button Shallow A3 Coeff	----	0.001	0.001
RABBSA4	RAB: Button Shallow A4 Coeff	----	-0.000	-0.000
RABBSA5	RAB: Button Shallow A5 Coeff	----	0.000	0.000
RABBSMIN	RAB: Button Shallow Minimum Value	----	0.086	0.086
RABDHS	RAB Down Hole Software	----	4.000	4.000
RABEC	RAB: Resistivity Env-Cor	----	YES	YES
RABRNGA0	RAB: RING A0 Coeff	----	-0.048	-0.048
RABRNGA1	RAB: RING A1 Coeff	----	0.019	0.020
RABRNGA2	RAB: RING A2 Coeff	----	-0.004	-0.004
RABRNGA3	RAB: RING A3 Coeff	----	0.000	0.000
RABRNGA4	RAB: RING A4 Coeff	----	-0.000	-0.000
RABRNGA5	RAB: RING A5 Coeff	----	0.000	0.000
RABRNGMIN	RAB: Ring Minimum Value	----	1.697	1.697
RAB_BIT_ECAL	Bit Resistivity for ECAL_RAB?	----	YES	YES
RAB_BIT_INVERSI	Input Bit Resistivity for Inversion? (Recommended at the bit)	----	NO	YES
RAB_CALIPER_CAL	Compute ECAL_RAB?	----	NO	NO
RAB_DATA_FIX	RAB: Create A Corrected RAB Time Data File	----	NO	NO
RAB_DATA_LTB	RAB: Create An RAB LTB Data File	----	NO	NO
RAB_DEEPBTN_ECA	Deep Button Resistivity for ECAL_RAB?	----	YES	YES
RAB_DEEPBTN_INV	Input Deep Button Resistivity for Inversion?	----	YES	YES
RAB_INVERSION	Perform Rt Inversion?	----	NO	NO
RAB_INVERSION_B	RAB Bit Sensor Weight for Inversion[0,1]	----	0.000	1.000
RAB_INVERSION_B	Ending Depth for GR Cutoff in Zone1 (default whole well)	M	30480.000	30480.000
RAB_INVERSION_B	Ending Depth of Zone10	M	-304.571	-304.571
RAB_INVERSION_B	Ending Depth of Zone2	M	-304.571	-304.571
RAB_INVERSION_B	Ending Depth of Zone3	M	-304.571	-304.571
RAB_INVERSION_B	Ending Depth of Zone4	M	-304.571	-304.571
RAB_INVERSION_B	Ending Depth of Zone5	M	-304.571	-304.571

RAB_INVERSION_B	Ending Depth of Zone6	M	−304.571	−304.571
RAB_INVERSION_B	Ending Depth of Zone7	M	−304.571	−304.571
RAB_INVERSION_B	Ending Depth of Zone8	M	−304.571	−304.571
RAB_INVERSION_B	Ending Depth of Zone9	M	−304.571	−304.571
RAB_INVERSION_C	Continuity Multiplier[0,1]	----	0.500	0.500
RAB_INVERSION_D	RAB Deep Button Sensor Weight for Inversion[0,1]	----	1.000	1.000
RAB_INVERSION_D	RAB inversion for Dh?	----	YES	YES
RAB_INVERSION_D	RAB inversion for Di?	----	YES	YES
RAB_INVERSION_G	GR Cutoff for Shale Formation	----	75.000	75.000
RAB_INVERSION_G	GR Cutoff for Shale Formation in Zone1(default whole well)	GAPI	75.000	75.000
RAB_INVERSION_G	GR Cutoff in Zone10	GAPI	75.000	75.000
RAB_INVERSION_G	GR Cutoff in Zone2	GAPI	75.000	75.000
RAB_INVERSION_G	GR Cutoff in Zone3	GAPI	75.000	75.000
RAB_INVERSION_G	GR Cutoff in Zone4	GAPI	75.000	75.000
RAB_INVERSION_G	GR Cutoff in Zone5	GAPI	75.000	75.000
RAB_INVERSION_G	GR Cutoff in Zone6	GAPI	75.000	75.000
RAB_INVERSION_G	GR Cutoff in Zone7	GAPI	75.000	75.000
RAB_INVERSION_G	GR Cutoff in Zone8	GAPI	75.000	75.000
RAB_INVERSION_G	GR Cutoff in Zone9	GAPI	75.000	75.000
RAB_INVERSION_M	RAB Medium Button Sensor Weight for Inversion[0,1]	----	1.000	1.000
RAB_INVERSION_R	Resistivity Cutoff for Shale Formation	OHMM	2.000	2.000
RAB_INVERSION_R	Resistive Invasion Allowed	----	NO	NO
RAB_INVERSION_R	RAB Ring Sensor Weight for Inversion[0,1]	----	1.000	1.000
RAB_INVERSION_R	RAB inversion for Rmud?	----	NO	NO
RAB_INVERSION_R	RAB inversion for Rt?	----	YES	YES
RAB_INVERSION_R	Rt to R−deepest separation penalty multiplier[0,1]	----	0.500	0.500
RAB_INVERSION_R	RAB inversion for Rxo?	----	YES	YES
RAB_INVERSION_S	GR of Clean Sand Formation	----	−999.250	−999.250
RAB_INVERSION_S	GR of Shale Formation	----	−999.250	−999.250
RAB_INVERSION_S	RAB Shallow Button Sensor Weight for Inversion[0,1]	----	1.000	1.000
RAB_INVERSION_T	Inversion Threshold[0, 0.3]	----	0.010	0.010
RAB_INVERSION_W	Formation Water Resistivity	OHMM	0.100	0.100
RAB_INVERSION_W	Formation Water Temperature	----	150.000	150.000
RAB_MEDIUMBTN_E	Medium Button Resistivity for ECAL_RAB?	----	YES	YES
RAB_MEDIUMBTN_I	Input Medium Button Resistivity for Inversion?	----	YES	YES
RAB_QUAD	RAB: Process Quadrant data ?	----	YES	YES
RAB_RIGMODE_ECA	Bit on Bottom?	----	YES	YES
RAB_RING_ECAL	Ring Resistivity for ECAL_RAB?	----	YES	YES
RAB_RING_INVERS	Imput RING Resistivity for Inversion?	----	YES	YES
RAB_SHALLOWBTN_	Shallow Button Resistivity for ECAL_RAB?	----	YES	YES
RAB_SHALLOWBTN_	Input Shallow Button Resistivity for Inversion?	----	YES	YES
RAB_TAB	RAB: Compute TAB ?	----	YES	YES
RAB_TECHLOG	RAB: Generate Techlog ?	----	YES	YES
RAB_TEMP_SELECT	RAB Temperature Selection	----	MEASURED	MEASURED
RAB_TICKS	RAB: Generate Ticks ?	----	YES	YES
READOUT_PORT_MP	RAB: ROP to Bit Face Distance	M	12.560	12.650
RINGBHCA	RAB: Ring Borehole A Factor	----	0.160	0.160
RINGBHCB	RAB: Ring Borehole B Factor	----	0.000	0.000
RING_KIMP_A	RAB: Ring Impedance Coeff A	----	0.000	0.000
RING_KIMP_B	RAB: Ring Impedance Coeff B	----	0.000	0.000
RING_K_FACTOR	RAB: Ring K Factor	----	0.153	0.153
SBUTTON_K_FACTO	RAB: Button Shallow K Factor	----	0.007	0.007
SCALE_IMAGES	RAB: Process Image Data	----	YES	YES
STAB	RAB: Run with Stabilizer	----	YES	YES
TFF_OFFSET_RAB	RAB Time−Frame File Time Offset	S	0.000	0.000
TIMEFRAME_FILE_	RAB: Time Frame File Name	S	0.000	0.000
TOOLTYPE	RAB: Azimuthal Tool	----	YES	YES
TS_VERSION	RAB: ToolScope Software Version	----	−999.250	−999.250
VRAB6	Rab Tool type (ENP/PILOT)	----	RAB6_C_SERIES	RAB6_C_SERIES
WIN_SIZE_DYN_IM	RAB: Window Size for Scaling Dynamic Image	M	0.914	0.914
WRK	to Report Potassium Concentration (RM)	----	K_by_Wgt_%	K_by_Wgt_%

Schlumberger Drilling & Measurements ID13 Parameter Insert Header Software version 3.0c

Coelacanth−1 GeoVISION Density Neutron RM 500MD

Format: GeoVISION Density Neutron Log **Vertical Scale: 1:500** **Graphics File Created: 26−Mar−2008 16:25**

PIP SUMMARY

Neutron Samples

Density Samples

Rate of Penetration, Averaged over Last 5ft (ROP5_RM)

200 (M/HR) 0

RAB Gamma Ray (GR_RAB)

0 (GAPI) 200

ROP*5 (ROP5)

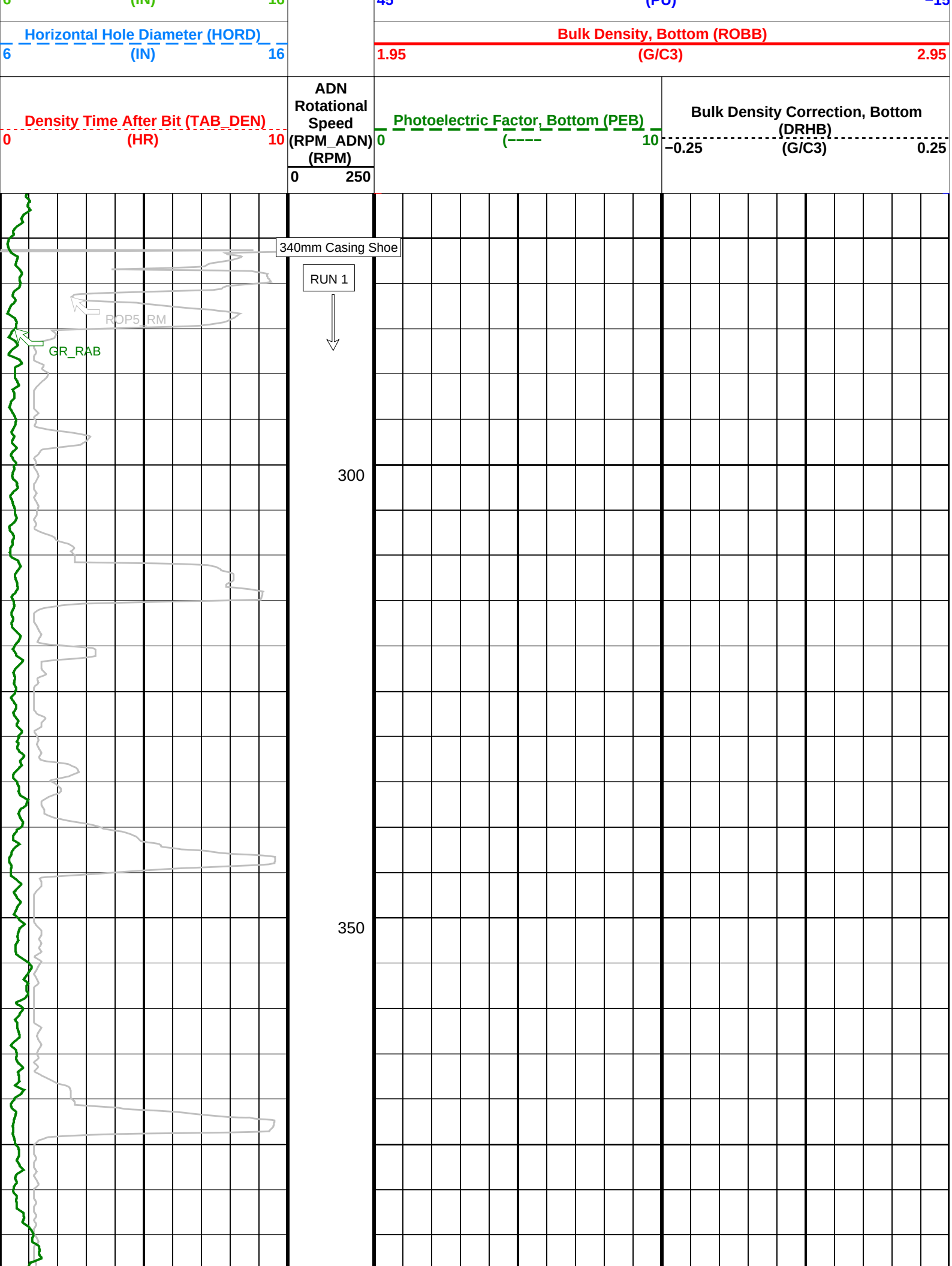
200 (M/HR) 0

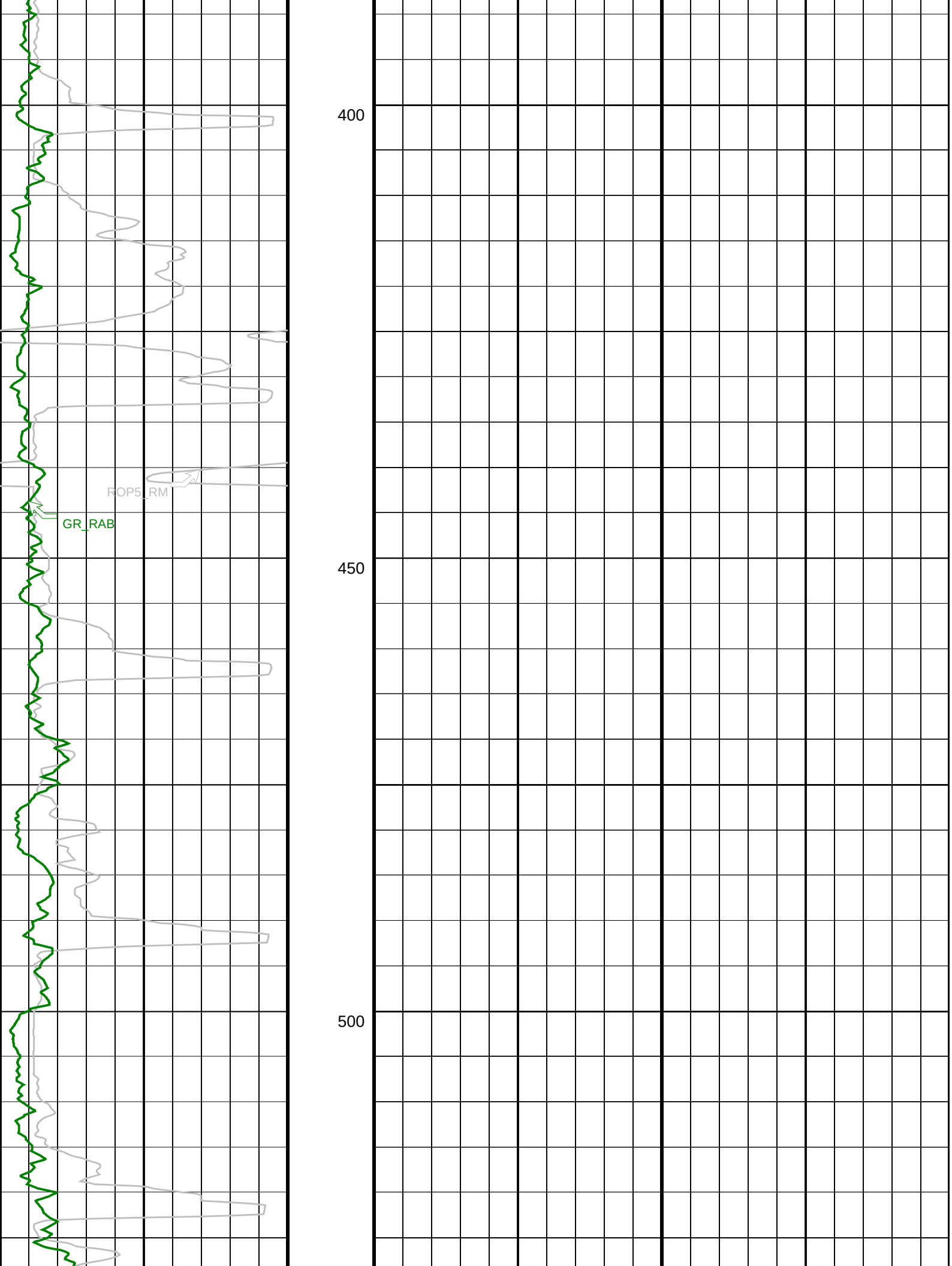
Vertical Hole Diameter (VERD)

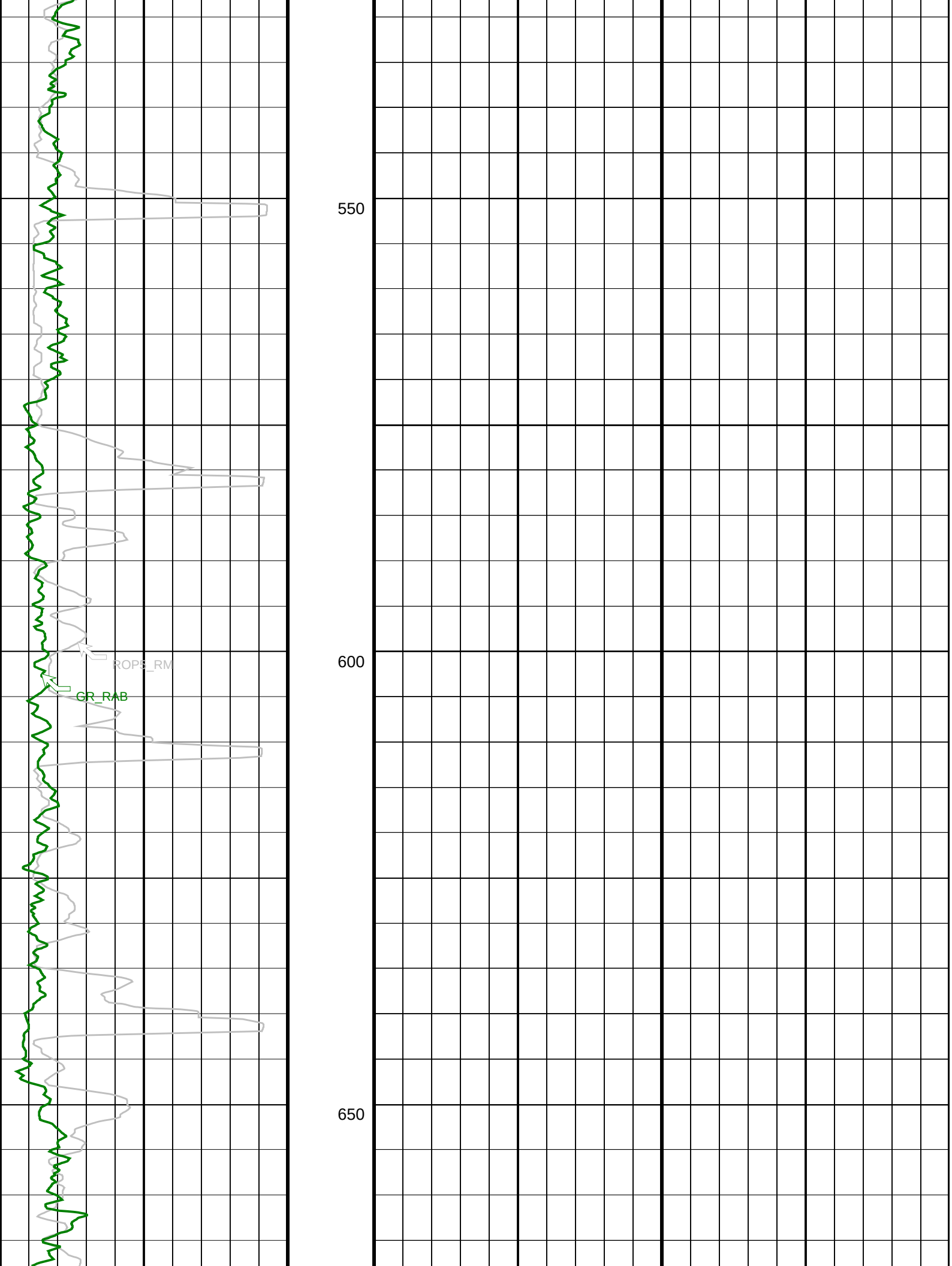
6 (IN) 16

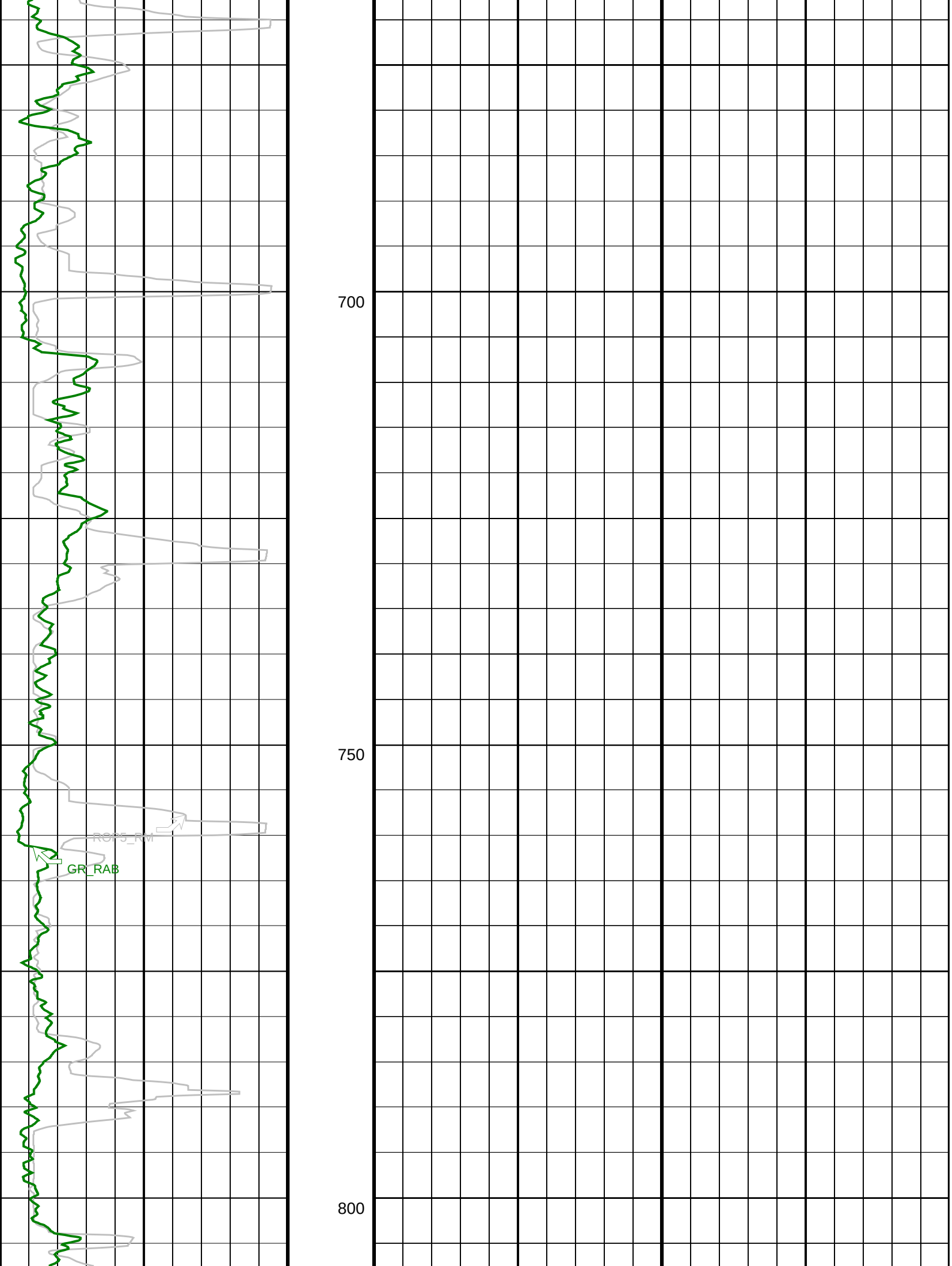
Thermal Neutron Porosity (TNPH)

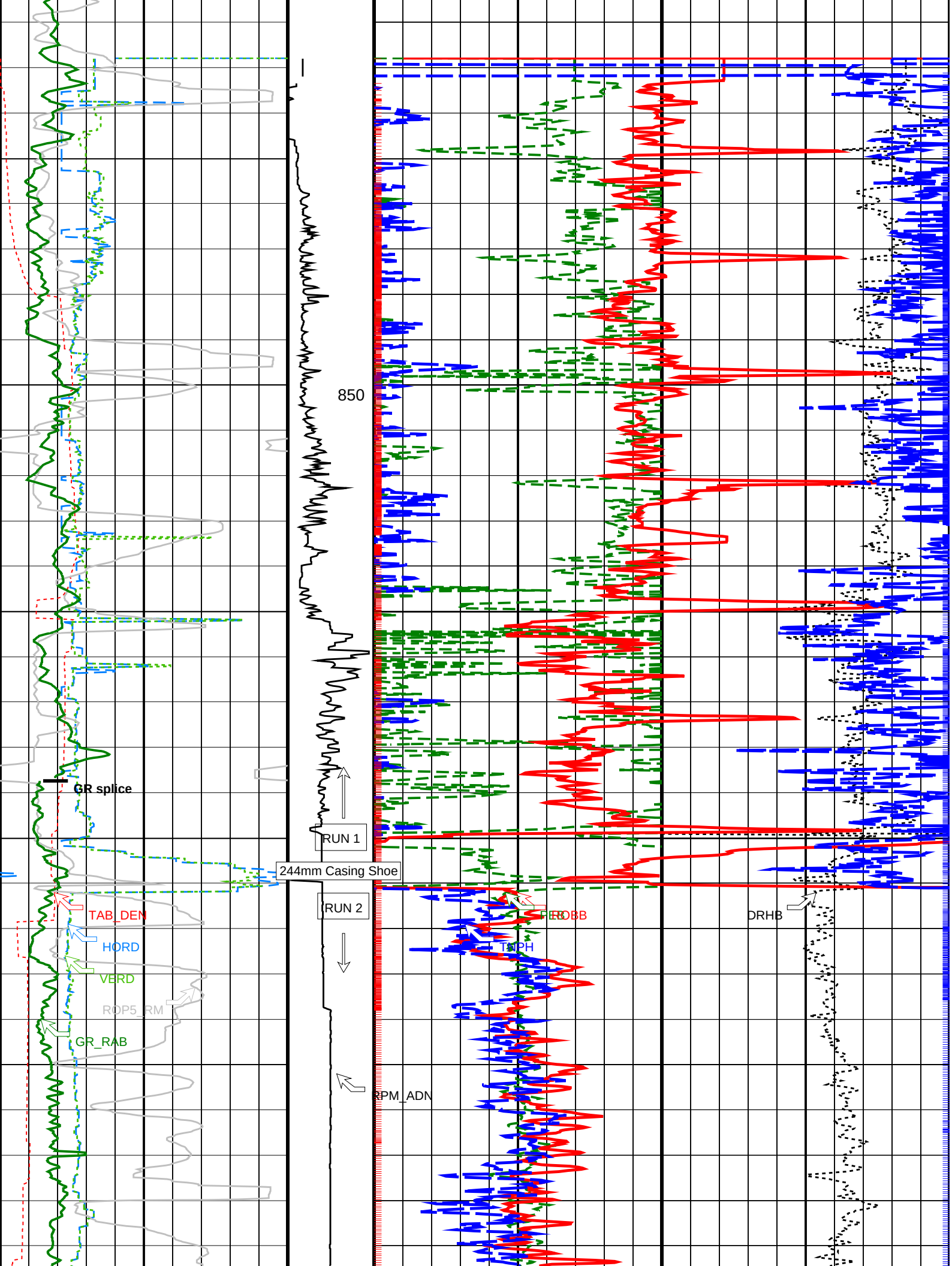
45 (PU) −15

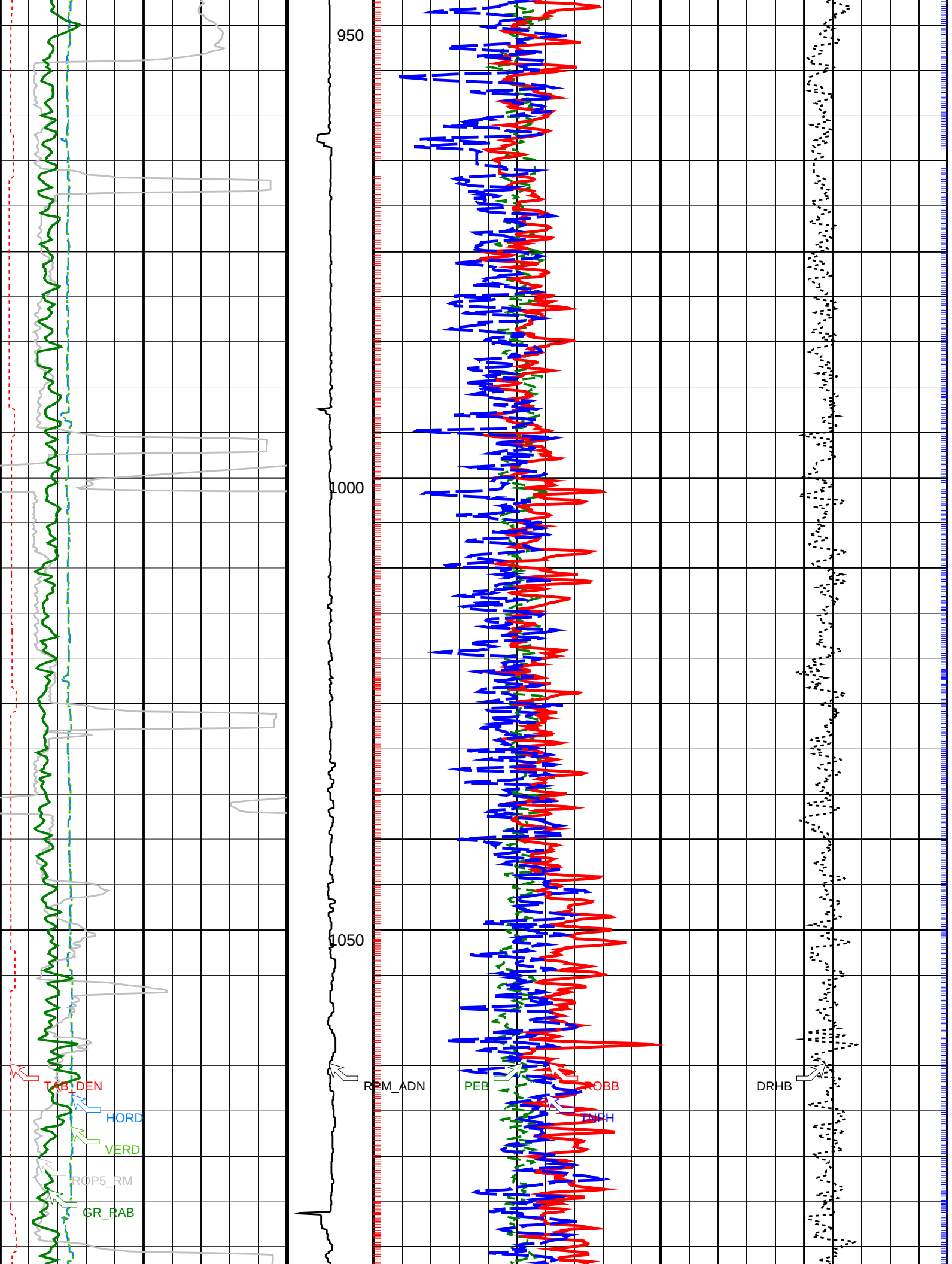

6 (IN) 16
45 (PU) −15
Horizontal Hole Diameter (HORD)
6 (IN) 16
Bulk Density, Bottom (ROBB)
1.95 (G/C3) 2.95
Density Time After Bit (TAB_DEN)
0 (HR) 10
ADN Rotational Speed (RPM_ADN) (RPM)
0 250
Photoelectric Factor, Bottom (PEB)
0 (−−−− 10
Bulk Density Correction, Bottom (DRHB)
−0.25 (G/C3) 0.25
340mm Casing Shoe
RUN 1
ROP5_RM
GR_RAB
300
350

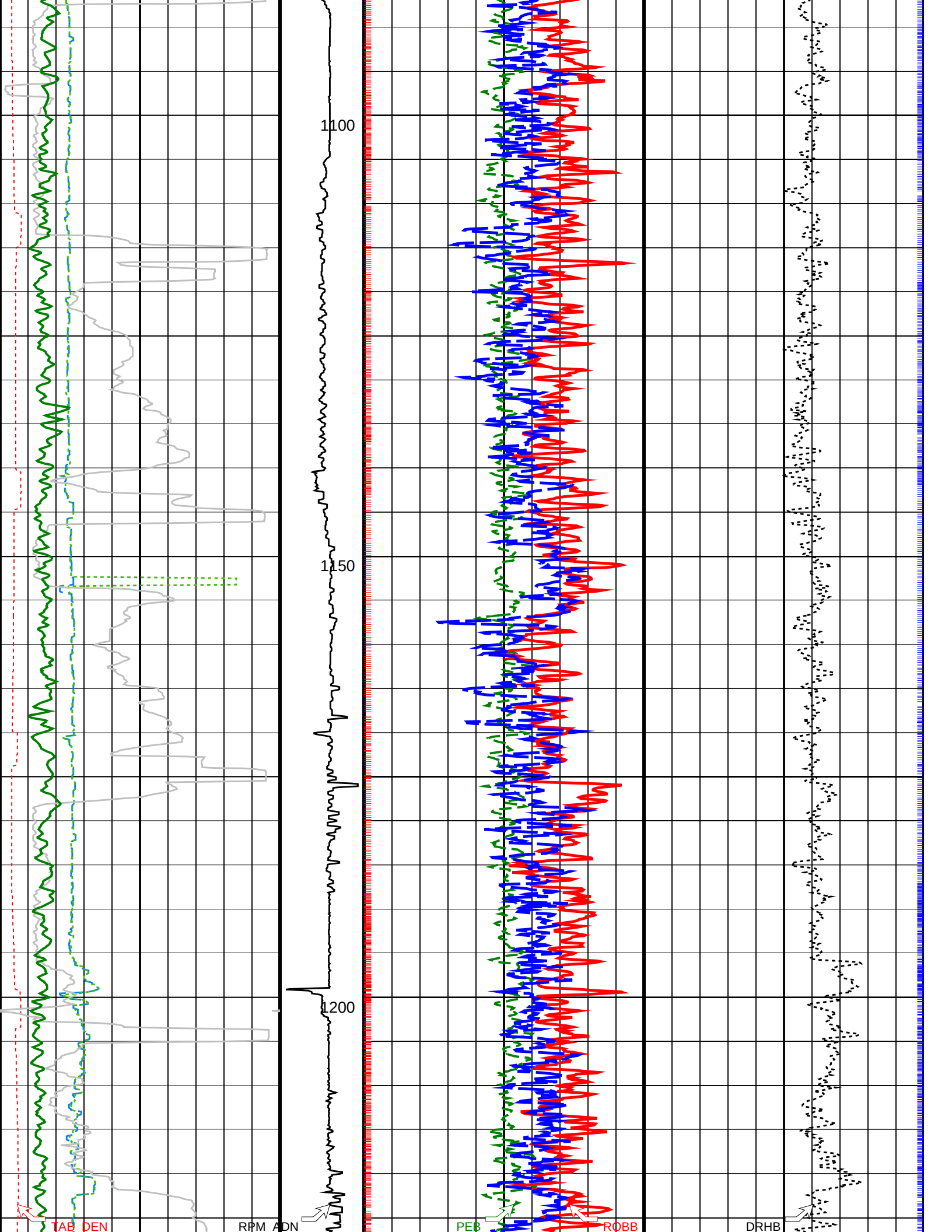

400
450
500
ROP5_RM
GR_RAB

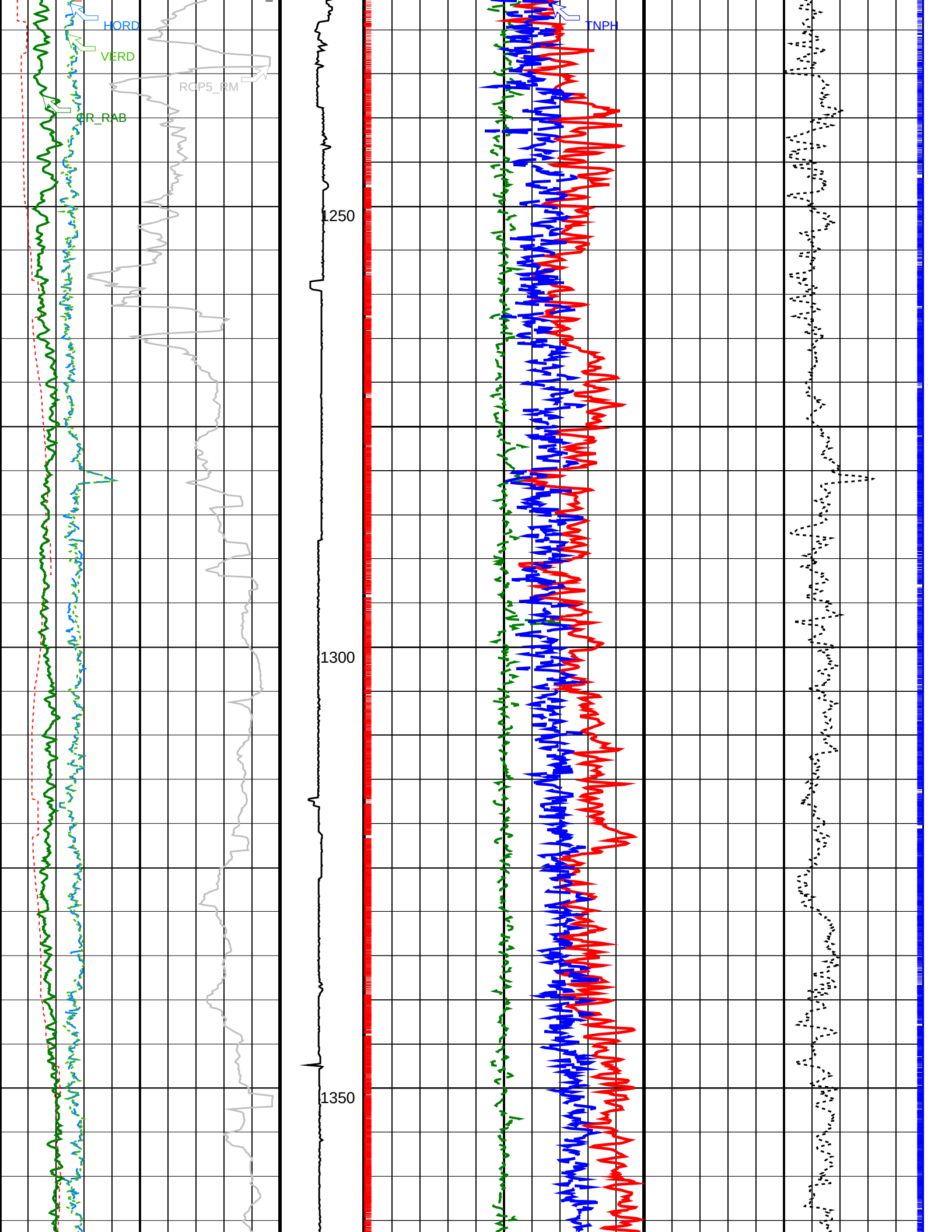

550
600
650
ROP5_RM
GR_RAB

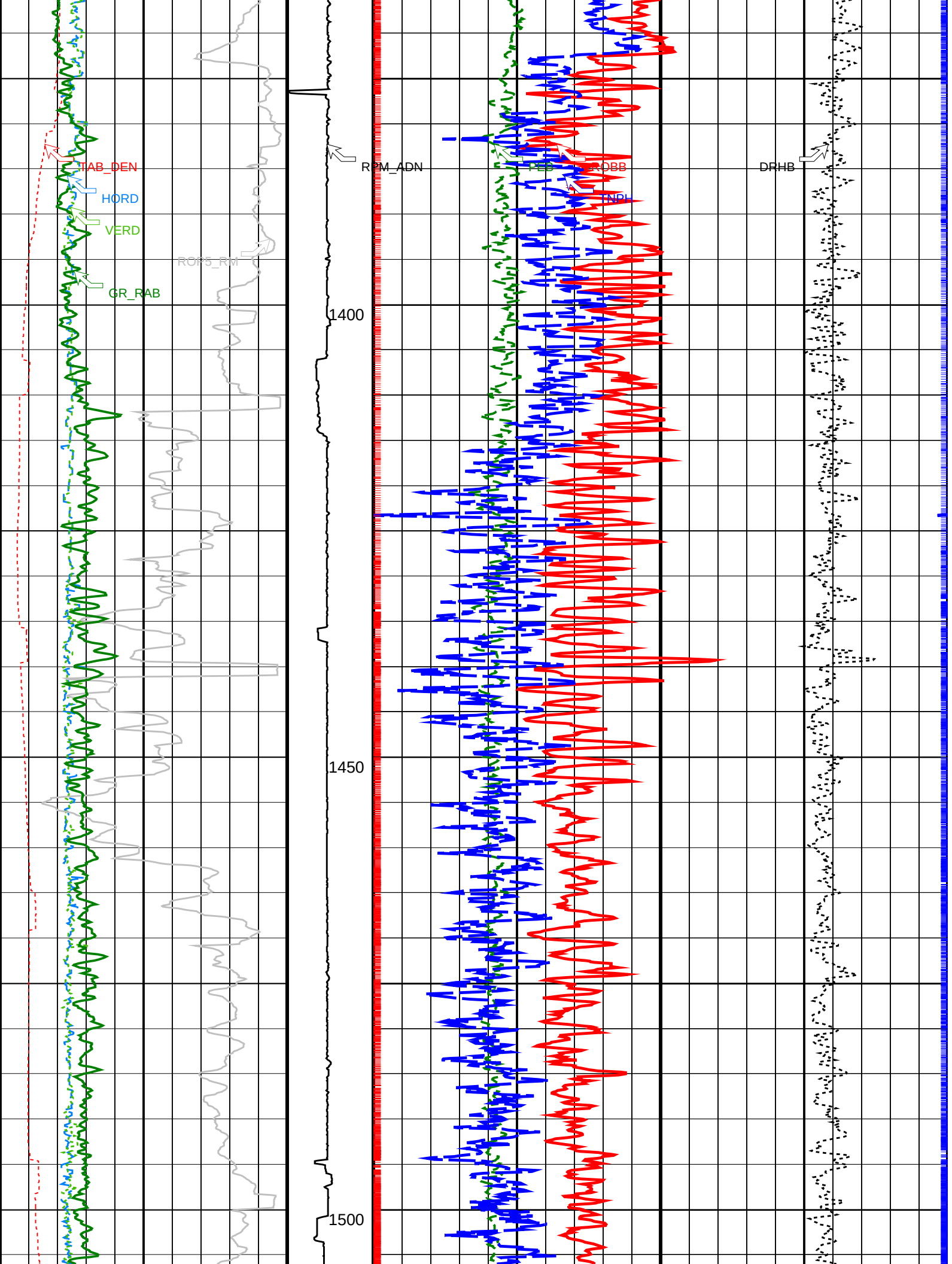

700
750
800
GR_RAB

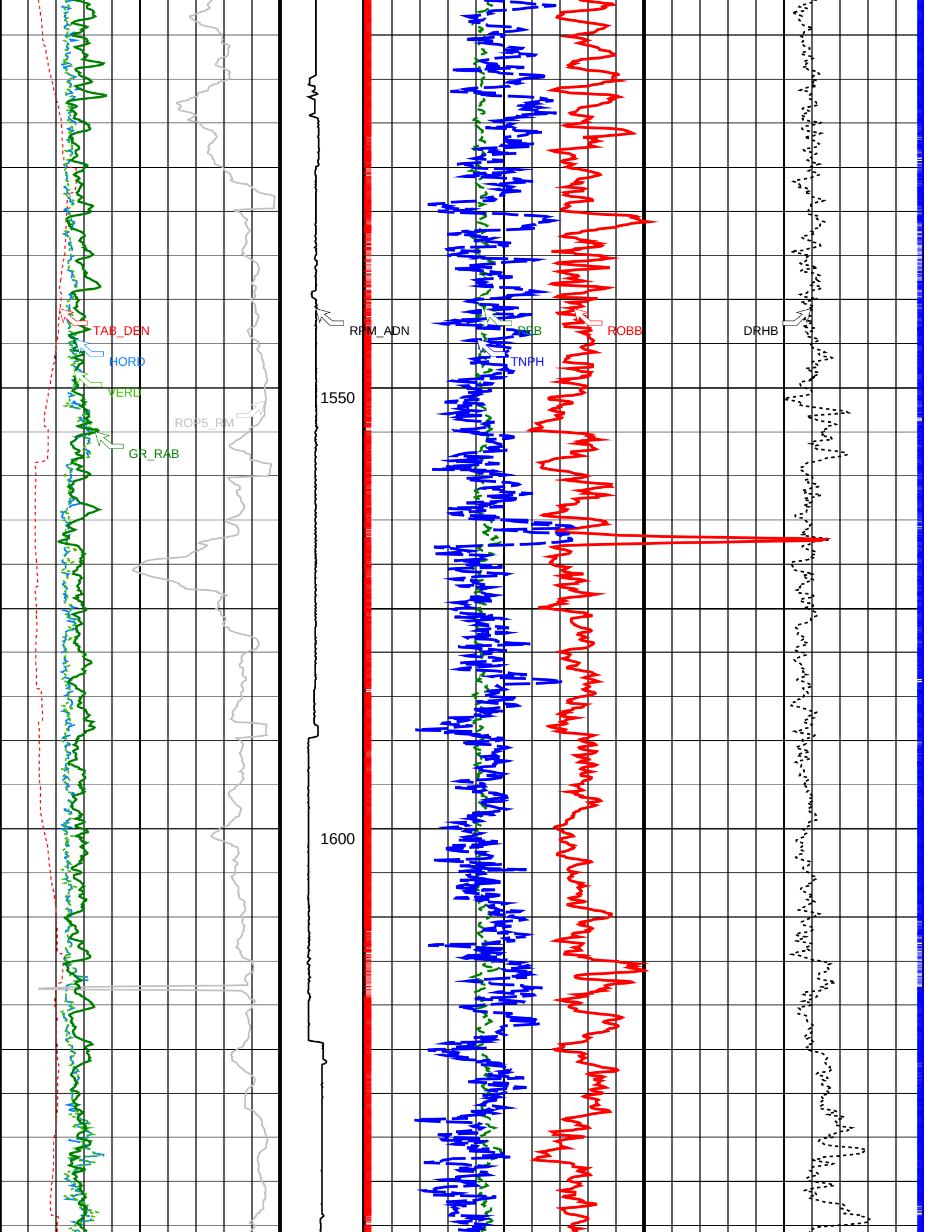

850
GR splice
RUN 1
244mm Casing Shoe
RUN 2
TAB_DEN
HORD
VERD
ROP5_RM
GR_RAB
RPM_ADN
TNPH
DRHB

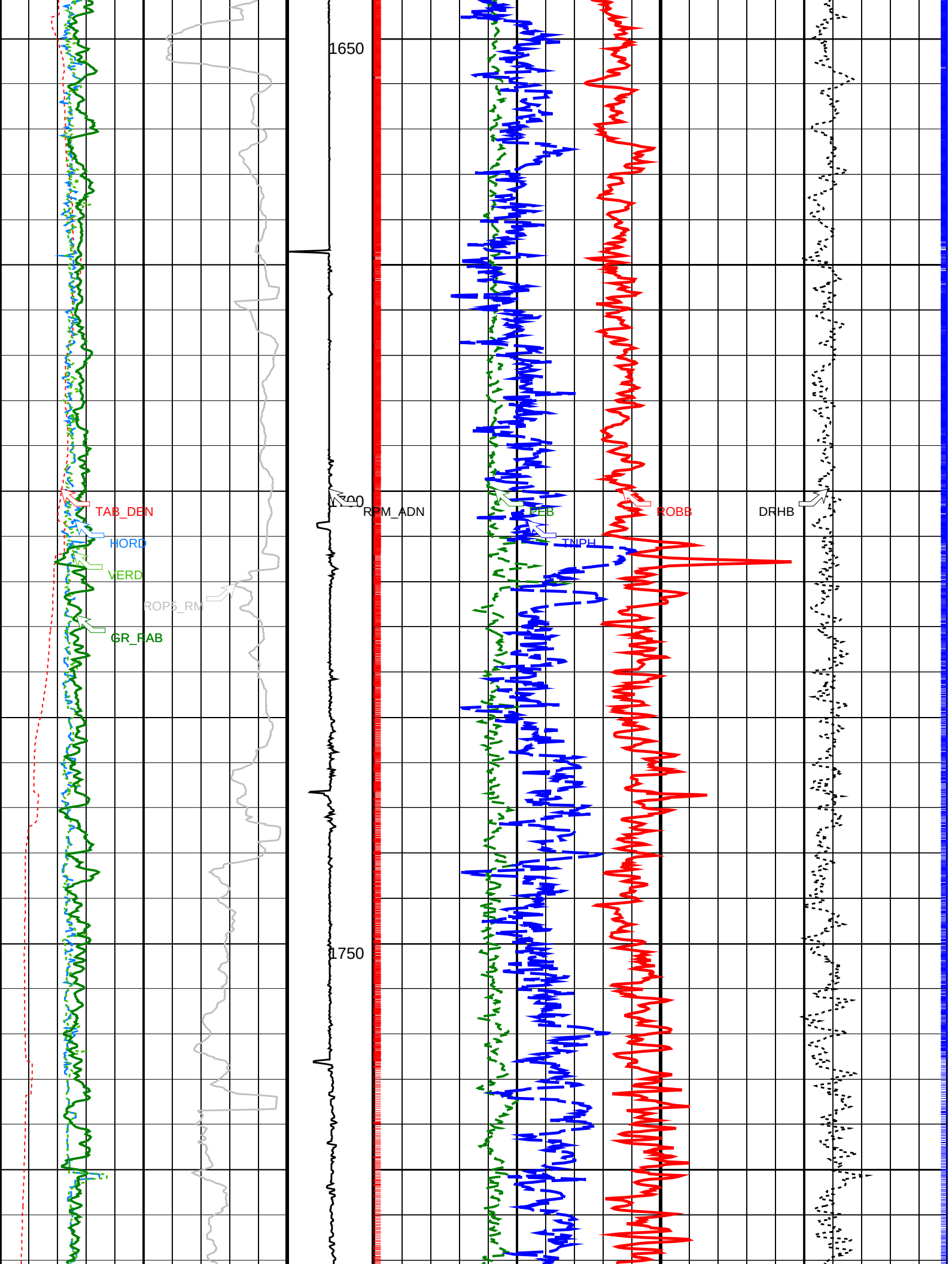

950
1000
1050
TAB_DEN
HORD
VERD
ROP5_RM
GR_RAB
RPM_ADN
PEB
ROBB
TNPH
DRHB

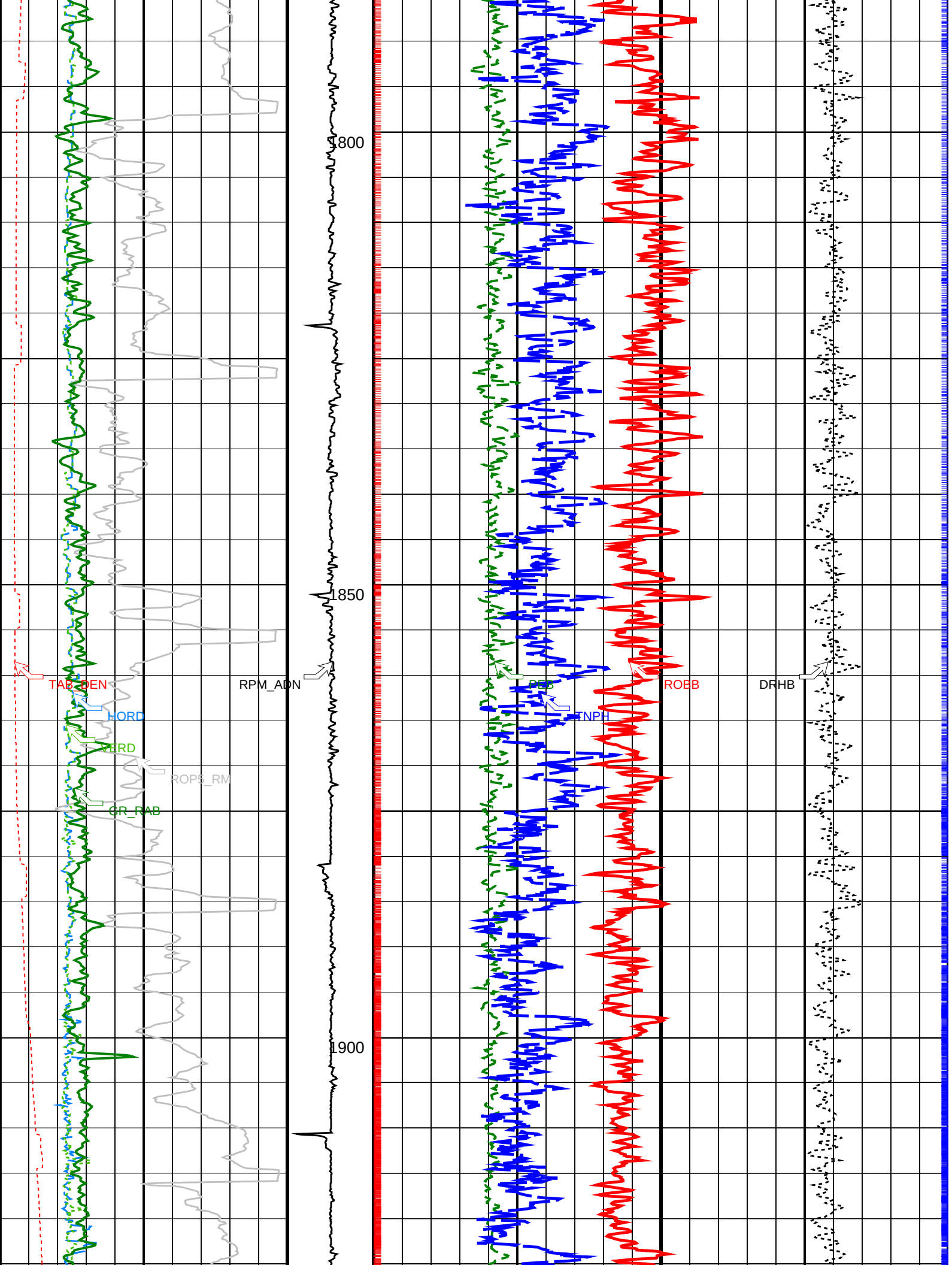

1100
1150
1200
TAB_DEN
RPM_ADN
PEB
ROBB
DRHB

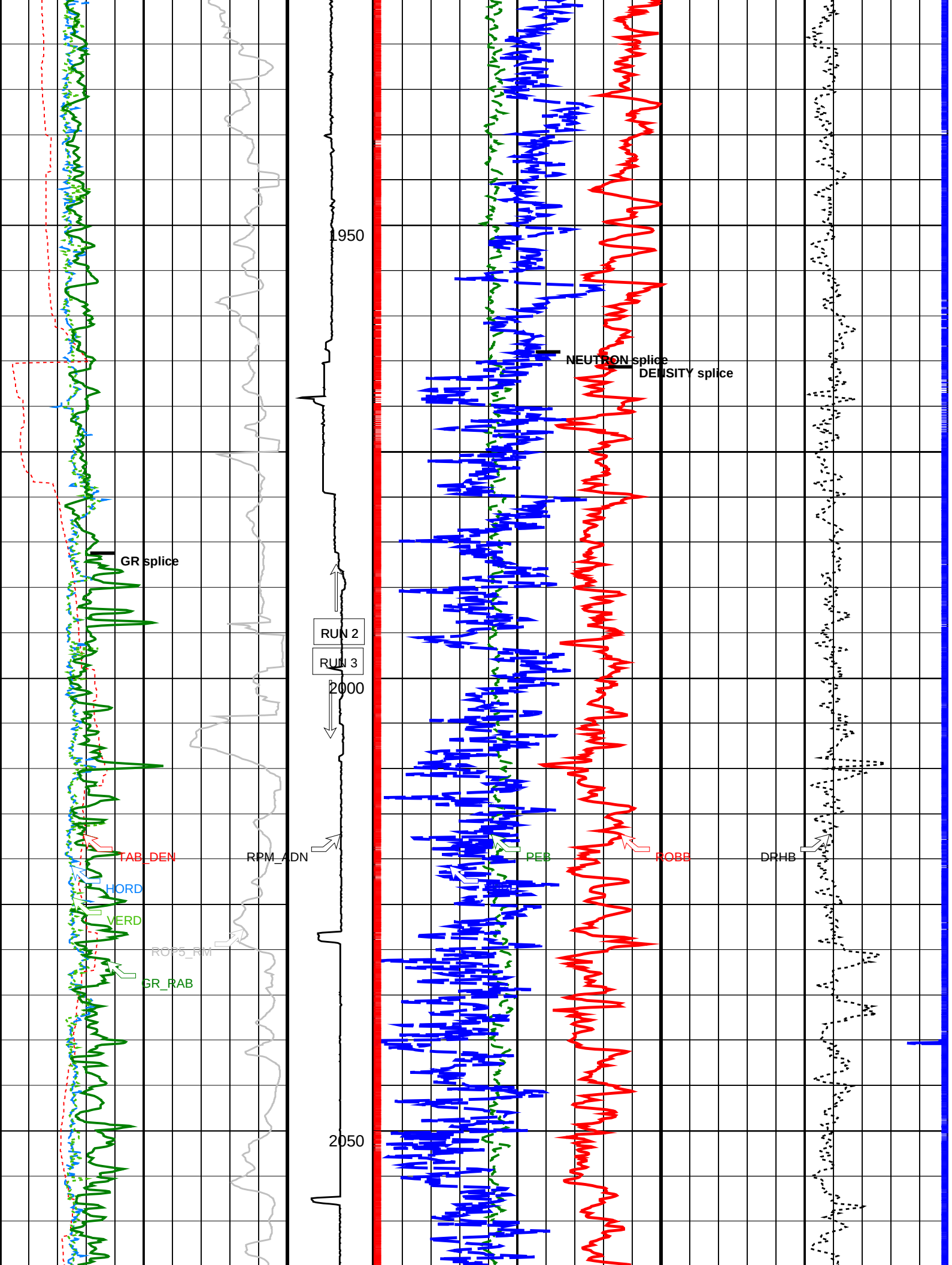

HORD
VERD
RCP5_RM
GR_RAB
TNPH
1250
1300
1350

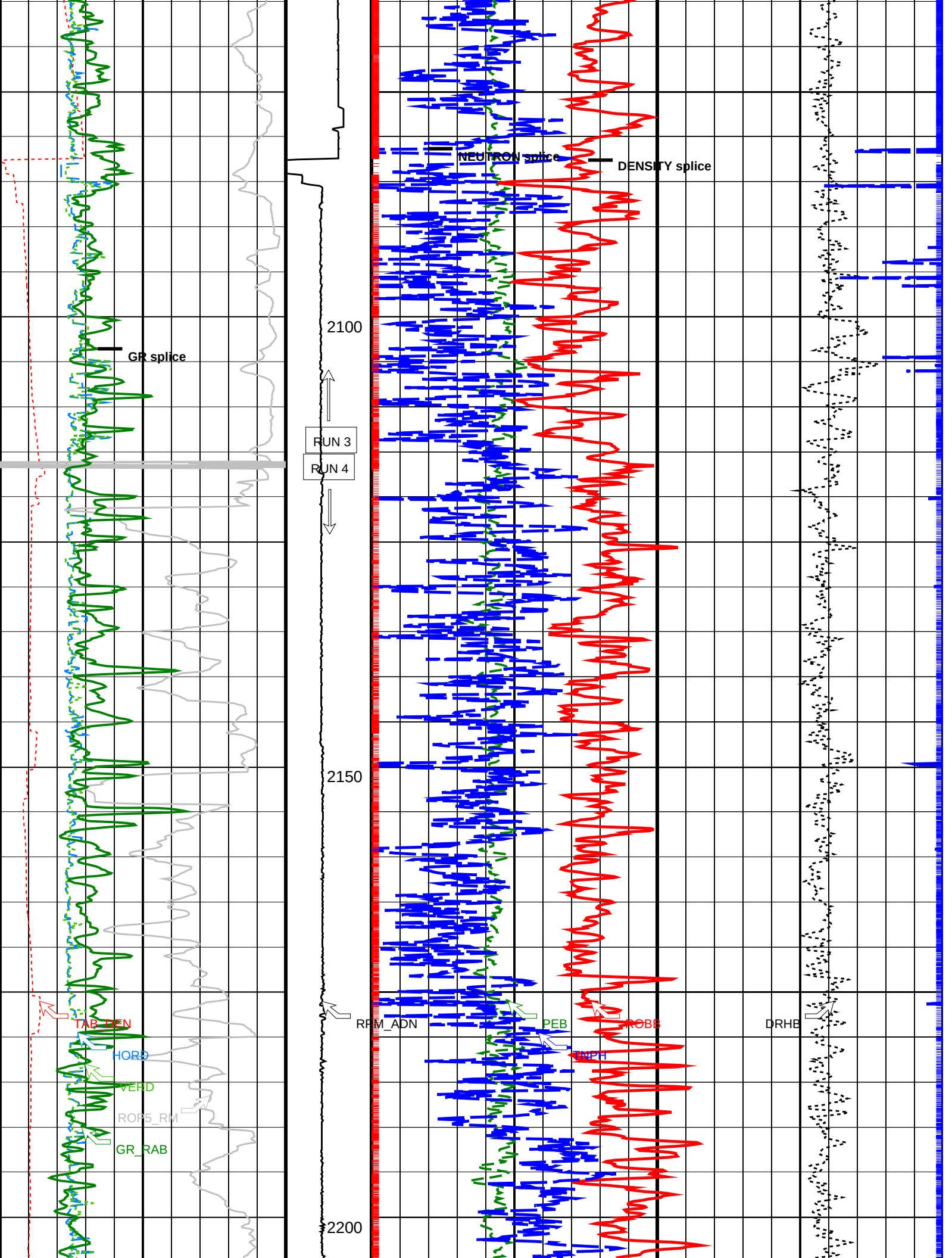

TAB_DEN
HORD
VERD
ROP5_RM
GR_RAB
RPM_ADN
PEB
ROBB
TNPH
DRHB
1400
1450
1500

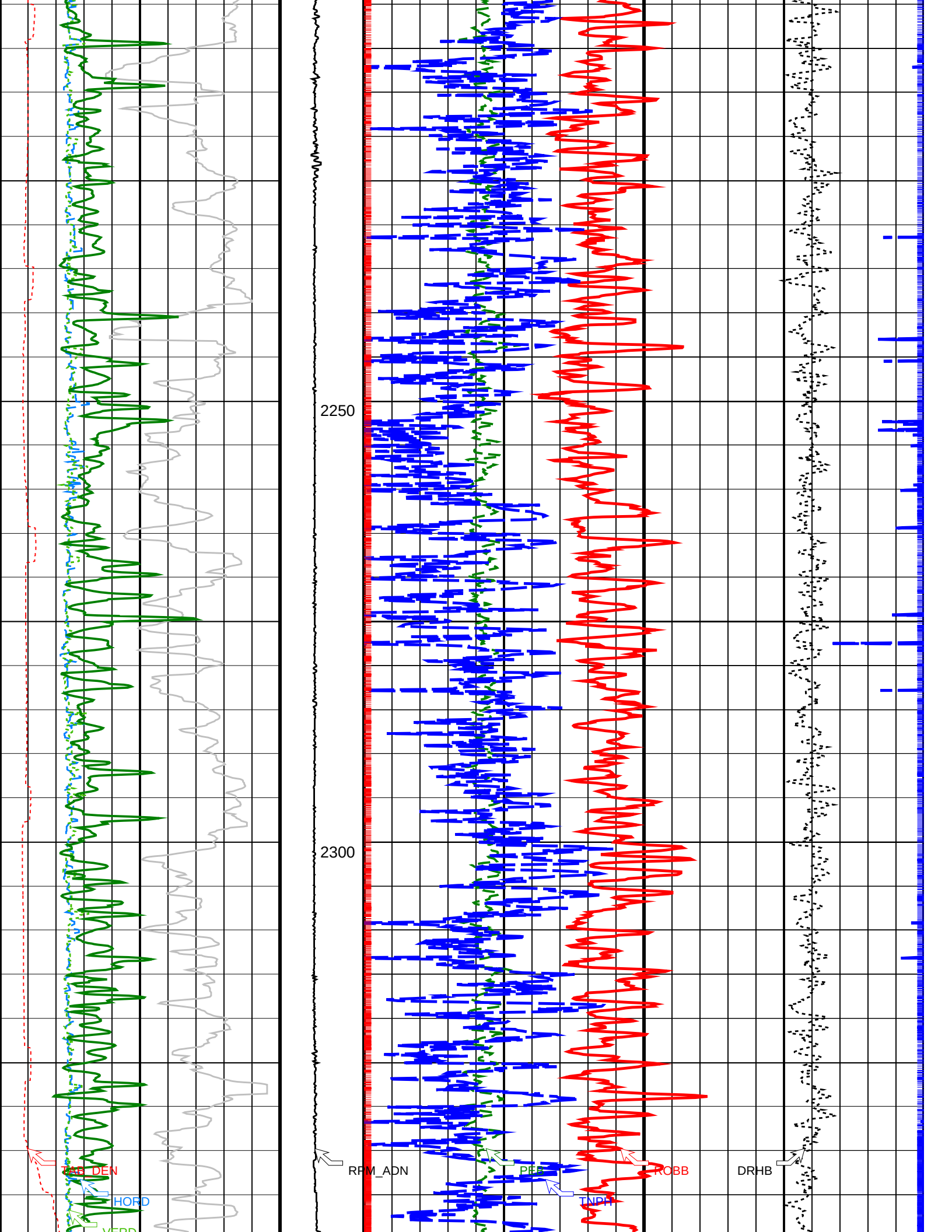

TAB_DEN
HORD
VERD
GR_RAB
ROP5_RM
RPM_ADN
PEB
ROBB
TNPH
DRHB
1550
1600

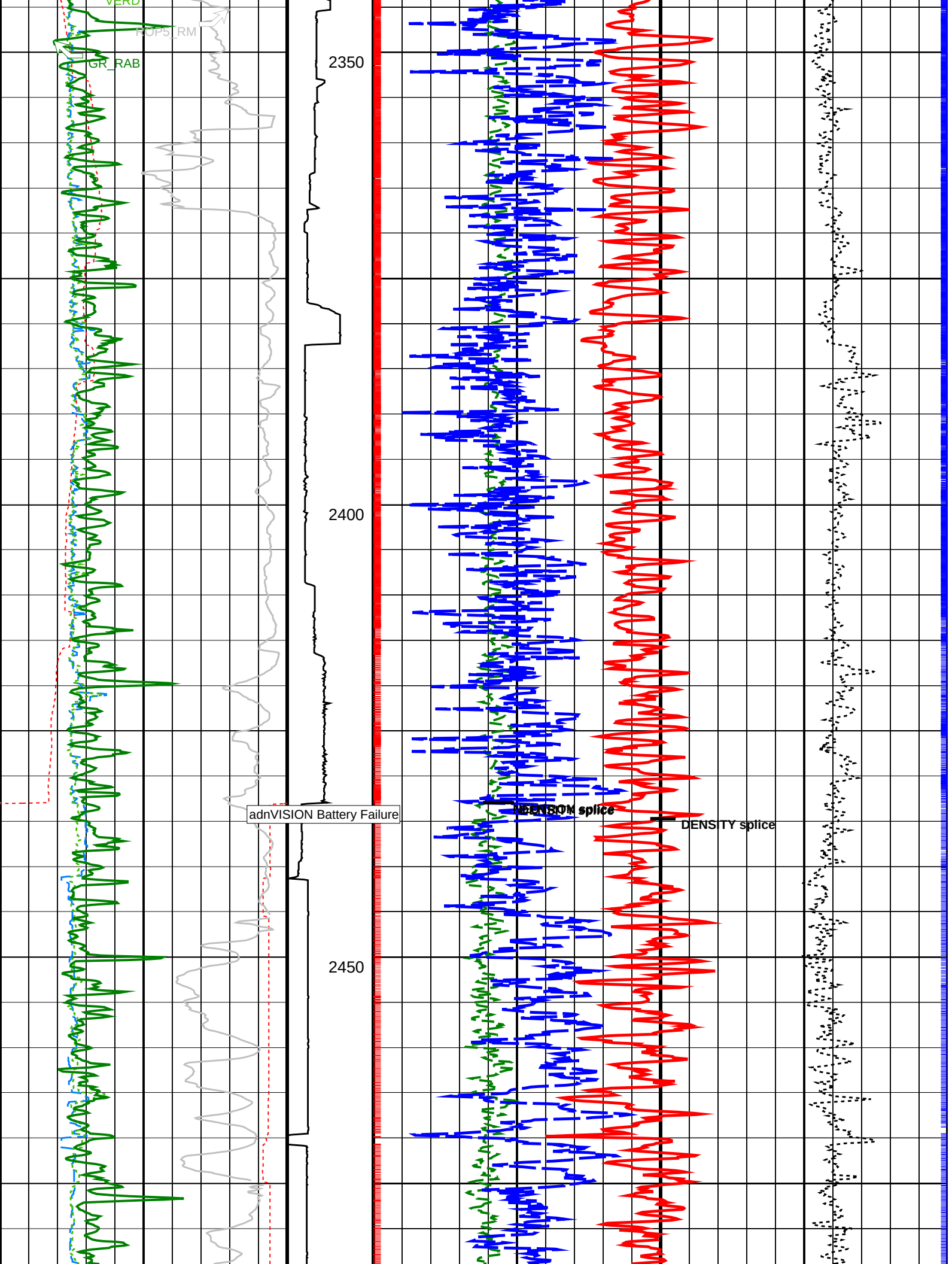

1650
1700
1750
TAB_DEN
HORD
VERD
ROPS_RM
GR_RAB
RPM_ADN
TNPH
ROBB
DRHB

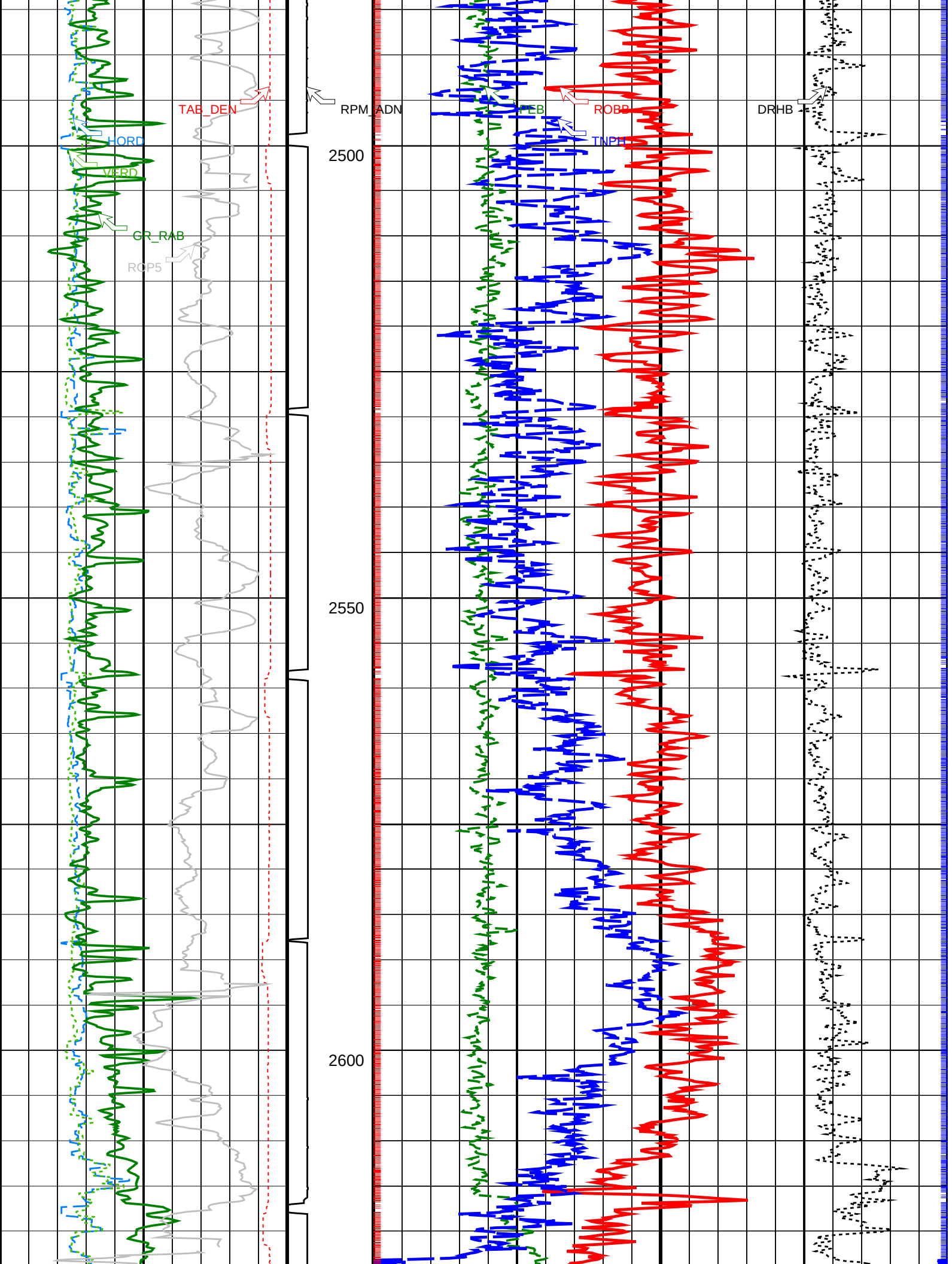

1800
1850
1900
TAB_DEN
HORD
VERD
ROP8_RM
GR_RAB
RPM_ADN
PEB
ROEB
TNPH
DRHB

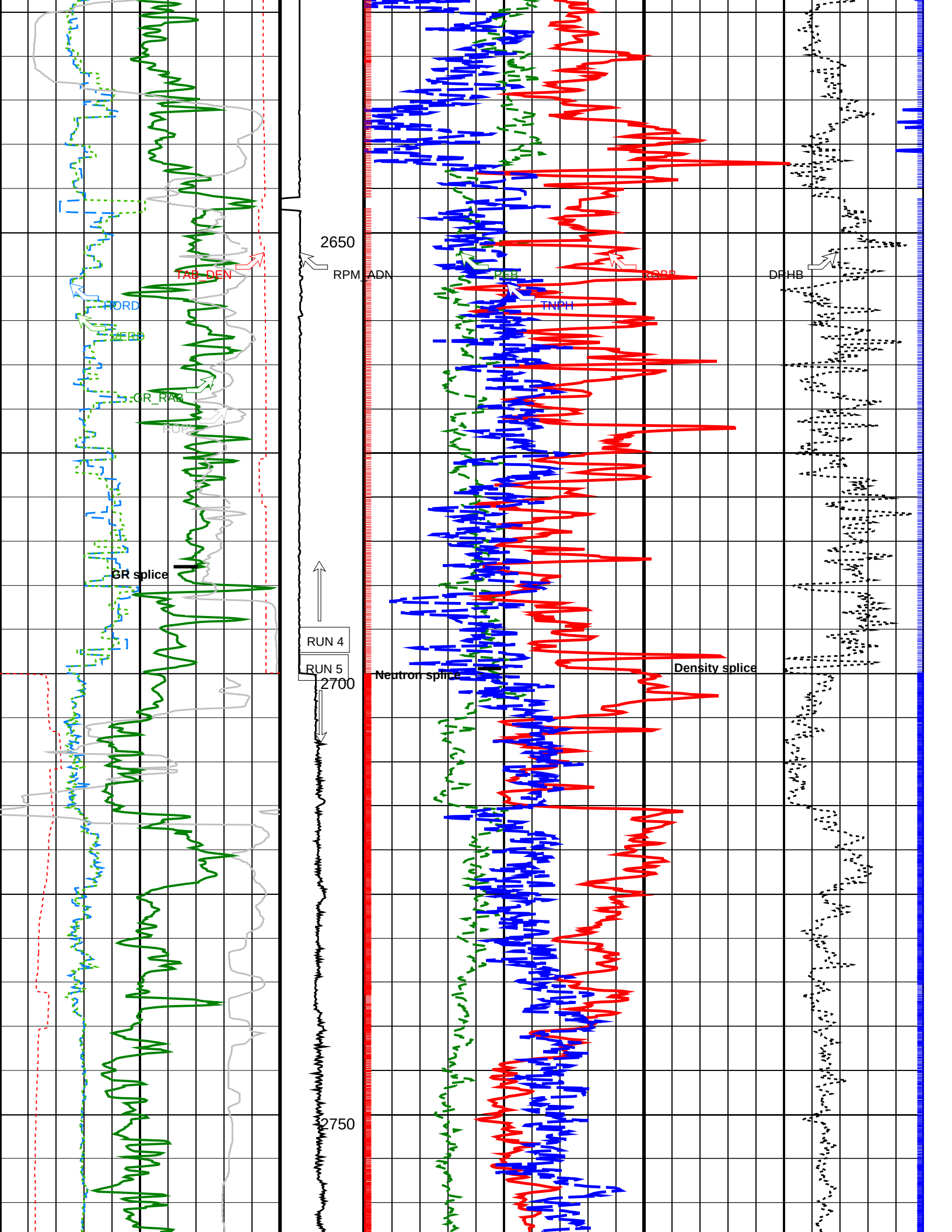

1950
2000
2050
GR splice
NEUTRON splice
DENSITY splice
RUN 2
RUN 3
TAB_DEN
HORD
VERD
RO*S_RM
GR_RAB
RPM_ADN
PEB
ROBB
DRHB

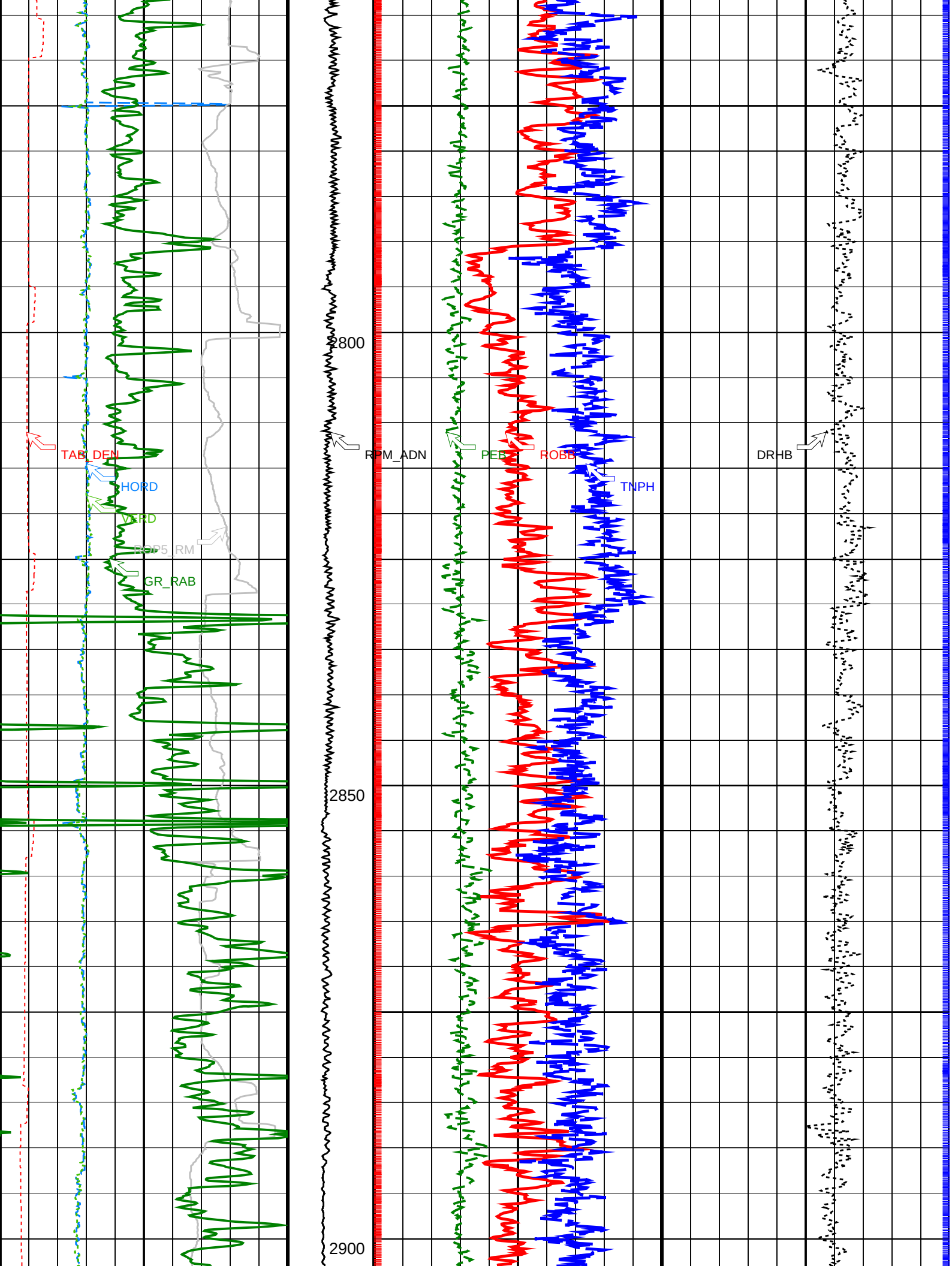

GR splice
NEUTRON splice
DENSITY splice
2100
RUN 3
RUN 4
2150
2200
TAB_DEN
HORD
VERD
ROP5_RM
GR_RAB
RHM_ADN
PEB
ROBB
TNPH
DRHB


2250
2300
RFM_ADN
PEF
ROBB
DRHB
TNPH


VERD
ROP5_RM
GR_RAB
2350
2400
2450
adnVISION Battery Failure
DENSITY splice
DENSITY splice


TAB_DEN
RPM_ADN
PEB
ROBB
DRHB
HORD
TNPH
VERD
GR_RAB
ROP5
2500
2550
2600


2650
RPM_ADN
TAB_DEN
HORD
VERB
GR_RAB
PORB
PEB
TNPH
CORB
DRHB
GR splice
Neutron splice
Density splice
RUN 4
RUN 5
2700
2750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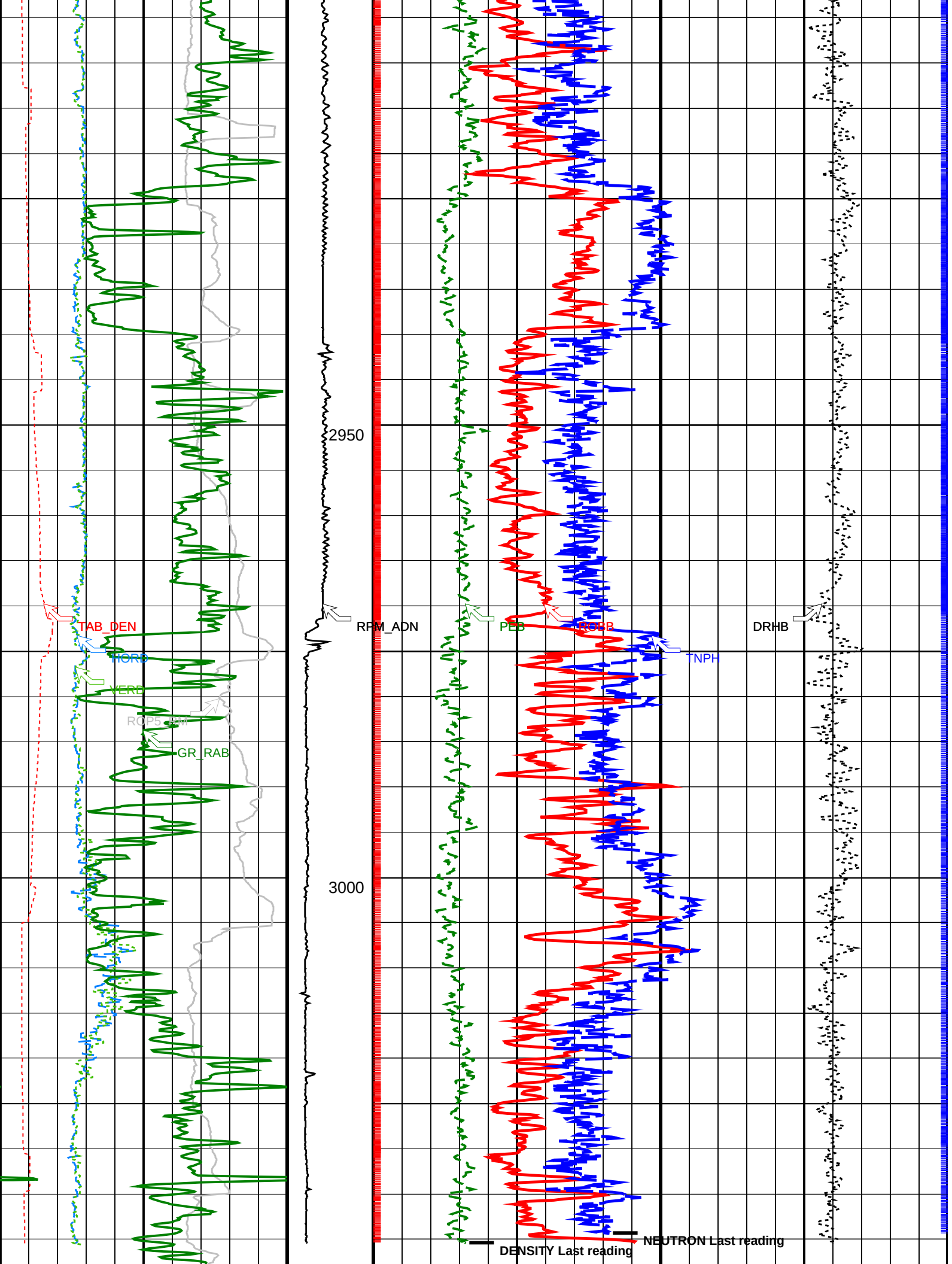
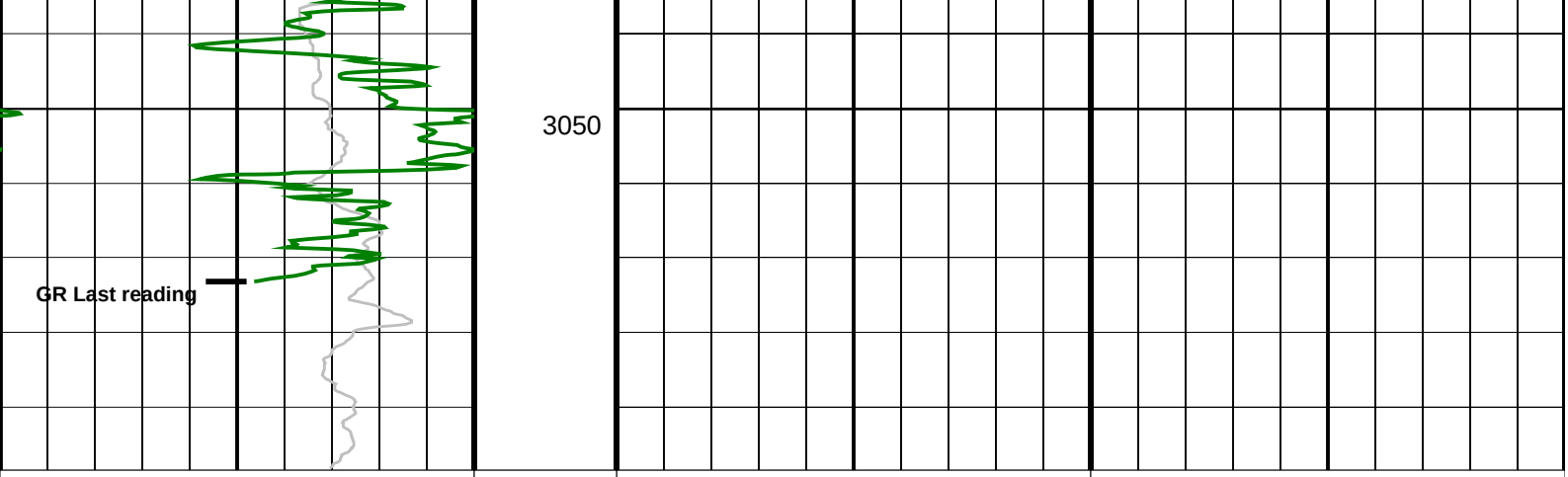
HORD
VERD
ROP5_RM
GR_RAB
2800
RPM_ADN
PEB
ROBB
TNPH
DRHB
2850
2900


2950
3000
TAB_DEN
HORD
VERD
ROP5_RAB
GR_RAB
RPM_ADN
PEB
TNPH
DRHB
DENSITY Last reading
NEUTRON Last reading



Density Time After Bit (TAB_DEN)
0 (HR) 10

ADN Rotational Speed (RPM_ADN) (RPM)
0 250

Photoelectric Factor, Bottom (PEB)
0 (–––– 10

Bulk Density Correction, Bottom (DRHB)
–0.25 (G/C3) 0.25

Horizontal Hole Diameter (HORD)
6 (IN) 16

Bulk Density, Bottom (ROBB)
1.95 (G/C3) 2.95

Vertical Hole Diameter (VERD)
6 (IN) 16

Thermal Neutron Porosity (TNPH)
45 (PU) –15

ROP*5 (ROP5)
200 (M/HR) 0

RAB Gamma Ray (GR_RAB)
0 (GAPI) 200

Rate of Penetration, Averaged over Last 5ft (ROP5_RM)
200 (M/HR) 0

PIP SUMMARY

Neutron Samples

Density Samples

IDEAL Version: ID13_0C_06

IDF

6.75–in. Resistivity At–the–Bit / Equipment Identification

Primary Equipment:

Tool Name and Serial Number	RAB6 – CA	214
Calibration Status	–	

Master: 1–Mar–2008 16:23

6.75–in. Resistivity At–the–Bit Calibration

Resistivity: Fixture

Phase	Ring/T1 factor ––––	Value
Master		0.9982
0.9750 (Minimum)	1.000 (Nominal)	1.025 (Maximum)

Phase	Ring/T2 factor ––––	Value
Master		0.9999
0.9750 (Minimum)	1.000 (Nominal)	1.025 (Maximum)

Phase	M0/T1 factor ––––	Value
Master		1.003
0.9750 (Minimum)	1.000 (Nominal)	1.025 (Maximum)

Phase	M0/T2 factor ––––	Value
Master		1.003
0.9750 (Minimum)	1.000 (Nominal)	1.025 (Maximum)

Phase	M2/T1 factor ––––	Value
Master		1.009
0.9750 (Minimum)	1.000 (Nominal)	1.025 (Maximum)

Phase	M2/T2 factor ––––	Value
Master		1.010
0.9750 (Minimum)	1.000 (Nominal)	1.025 (Maximum)

Phase	BTN shallow/T1 factor ––––	Value
Master		1.005

Phase	BTN shallow/T2 factor ––––	Value
Master		1.006

Phase	BTN medium/T1 factor ––––	Value
Master		1.006

Phase	BTN medium/T2 factor ----	Value
Master		1.006
	0.9750 (Minimum) 1.000 (Nominal) 1.025 (Maximum)	

Phase	BTN deep/T1 factor ----	Value
Master		1.008
	0.9750 (Minimum) 1.000 (Nominal) 1.025 (Maximum)	

Phase	BTN deep/T2 factor ----	Value
Master		1.009
	0.9750 (Minimum) 1.000 (Nominal) 1.025 (Maximum)	

Master: Calibration date not found

6.75−in. Resistivity At−the−Bit Calibration

Gamma Ray: Blanket

Phase	Gamma ray factor ----	Value
Master		0.9954
	0.7500 (Minimum) 1.000 (Nominal) 1.250 (Maximum)	

6.75−in. Azimuthal Density Neutron / Equipment Identification

Primary Equipment:		
Tool Name and Serial Number	ADN6 − CA	373
Collar Type and Serial Number	ADDC − AA	40778
Chassis Type and Serial Number	ADSE − EA	373
Stabilizer Type and Serial Number	−	1
Neutron Logging Source	NSR − M	202
Density Logging Source	GSR − J/Z	1994
Stabilizer Size	8.13 − in.	
Calibration Status	EDIT −	

Master: 8−Mar−2008 12:43

6.75−in. Azimuthal Density Neutron Calibration

Density: Magnesium Block

Phase	LS window 3 − Mg CPS	Value
Master		1017
	250.0 (Minimum) 4125 (Nominal) 8000 (Maximum)	

Phase	SS window 1 − Mg CPS	Value
Master		2608
	700.0 (Minimum) 9350 (Nominal) 18000 (Maximum)	

Phase	SS window 3 − Mg CPS	Value
Master		6263
	2500 (Minimum) 23750 (Nominal) 45000 (Maximum)	

Master: 8−Mar−2008 12:43

6.75−in. Azimuthal Density Neutron Calibration

Density: Aluminum Block

Phase	LS window 3 − Al CPS	Value
Master		149.8
	50.00 (Minimum) 725.0 (Nominal) 1400 (Maximum)	

Phase	SS window 1 − Al CPS	Value
Master		1309
	500.0 (Minimum) 4250 (Nominal) 8000 (Maximum)	

Phase	SS window 3 − Al CPS	Value
Master		3902
	1500 (Minimum) 15750 (Nominal) 30000 (Maximum)	

Master: 8−Mar−2008 12:43

6.75−in. Azimuthal Density Neutron Calibration

Density: Background

Phase	LS window 3 − Background CPS	Value
Master		49.97
	15.00 (Minimum) 82.50 (Nominal) 150.0 (Maximum)	

Phase	SS window 1 − Background CPS	Value
Master		116.2
	40.00 (Minimum) 220.0 (Nominal) 400.0 (Maximum)	

Phase	SS window 3 − Background CPS	Value
Master		511.0
	150.0 (Minimum) 825.0 (Nominal) 1500 (Maximum)	

Master: 8−Mar−2008 12:43

6.75−in. Azimuthal Density Neutron Calibration

Density: Water Block Check

Phase	Long spacing water density G/C3	Value
Master		1.040
	1.027 (Minimum) 1.042 (Nominal) 1.057 (Maximum)	

Phase	Short spacing water density G/C3	Value
Master		1.142
	1.098 (Minimum) 1.128 (Nominal) 1.158 (Maximum)	

Master: 8−Mar−2008 12:43

6.75−in. Azimuthal Density Neutron Calibration

Neutron: 3−Point Calibration

Phase	Far 1 tube 1 Air Point Measure CPS	Value
Master		17.17
	13.30 (Minimum) 19.05 (Nominal) 24.70 (Maximum)	

Phase	Far 1 tube 1 Rod Point Measure CPS	Value
Master		4.120
	3.400 (Minimum) 4.857 (Nominal) 6.200 (Maximum)	

Phase	Far 1 tube 1 H2O Point Measure CPS	Value
Master		2.063
	1.600 (Minimum) 2.363 (Nominal) 3.100 (Maximum)	

Phase	Far 1 tube 2 Air Point Measure CPS	Value
Master		18.01
	13.30 (Minimum) 19.05 (Nominal) 24.70 (Maximum)	

Phase	Far 1 tube 2 Rod Point Measure CPS	Value
Master		4.305
	3.400 (Minimum) 4.857 (Nominal) 6.200 (Maximum)	

Phase	Far 1 tube 2 H2O Point Measure CPS	Value
Master		2.103
	1.600 (Minimum) 2.363 (Nominal) 3.100 (Maximum)	

Phase	Far 1 tube 3 Air Point Measure CPS	Value
Master		16.46
	13.30 (Minimum) 19.05 (Nominal) 24.70 (Maximum)	

Phase	Far 1 tube 3 Rod Point Measure CPS	Value
Master		4.034
	3.400 (Minimum) 4.857 (Nominal) 6.200 (Maximum)	

Phase	Far 1 tube 3 H2O Point Measure CPS	Value
Master		1.941
	1.600 (Minimum) 2.363 (Nominal) 3.100 (Maximum)	

Phase	Far 2 tube 1 Air Point Measure CPS	Value
Master		16.36
	13.30 (Minimum) 19.05 (Nominal) 24.70 (Maximum)	

Phase	Far 2 tube 1 Rod Point Measure CPS	Value
Master		4.278
	3.400 (Minimum) 4.857 (Nominal) 6.200 (Maximum)	

Phase	Far 2 tube 1 H2O Point Measure CPS	Value
Master		2.126
	1.600 (Minimum) 2.363 (Nominal) 3.100 (Maximum)	

Phase	Far 2 tube 2 Air Point Measure CPS	Value
Master		17.81
	13.30 (Minimum) 19.05 (Nominal) 24.70 (Maximum)	

Phase	Far 2 tube 2 Rod Point Measure CPS	Value
Master		4.387
	3.400 (Minimum) 4.857 (Nominal) 6.200 (Maximum)	

Phase	Far 2 tube 2 H2O Point Measure CPS	Value
Master		2.169
	1.600 (Minimum) 2.363 (Nominal) 3.100 (Maximum)	

Phase	Far 2 tube 3 Air Point Measure CPS	Value
Master		17.30

Phase	Far 2 tube 3 Rod Point Measure CPS	Value
Master		4.245

Phase	Far 2 tube 3 H2O Point Measure CPS	Value
Master		2.034

13.30 (Minimum)	19.05 (Nominal)	24.70 (Maximum)		3.400 (Minimum)	4.857 (Nominal)	6.200 (Maximum)		1.600 (Minimum)	2.363 (Nominal)	3.100 (Maximum)	

Phase	Near 1 tube 1 Air Point Measure CPS	Value
Master		453.6

345.0 (Minimum) 487.5 (Nominal) 595.0 (Maximum)

Phase	Near 1 tube 1 Rod Point Measure CPS	Value
Master		732.3

535.0 (Minimum) 768.8 (Nominal) 925.0 (Maximum)

Phase	Near 1 tube 1 H2O Point Measure CPS	Value
Master		326.0

230.0 (Minimum) 343.7 (Nominal) 430.0 (Maximum)

Phase	Near 2 tube 1 Air Point Measure CPS	Value
Master		459.9

345.0 (Minimum) 487.5 (Nominal) 595.0 (Maximum)

Phase	Near 2 tube 1 Rod Point Measure CPS	Value
Master		723.1

535.0 (Minimum) 768.8 (Nominal) 925.0 (Maximum)

Phase	Near 2 tube 1 H2O Point Measure CPS	Value
Master		326.0

230.0 (Minimum) 343.7 (Nominal) 430.0 (Maximum)

Master: 8−Mar−2008 12:43

6.75−in. Azimuthal Density Neutron Calibration

Neutron: Water Block Check

Phase	Far Neutron water porosity PU	Value
Master		93.53

90.00 (Minimum) 100.0 (Nominal) 125.0 (Maximum)

6.75−in. Azimuthal Density Neutron / Equipment Identification

Primary Equipment:

Tool Name and Serial Number	ADN6 − CA 47
Collar Type and Serial Number	ADDC − AA 373
Chassis Type and Serial Number	ADSE − EA 47
Stabilizer Type and Serial Number	− 1
Neutron Logging Source	NSR − M 202
Density Logging Source	GSR − J/Z 1994
Stabilizer Size	8.13 − in.
Calibration Status	EDIT −

Master: 16−Jan−2008 22:40

6.75−in. Azimuthal Density Neutron Calibration

Density: Magnesium Block

Phase	LS window 3 − Mg CPS	Value
Master		1045

250.0 (Minimum) 4125 (Nominal) 8000 (Maximum)

Phase	SS window 1 − Mg CPS	Value
Master		2550

700.0 (Minimum) 9350 (Nominal) 18000 (Maximum)

Phase	SS window 3 − Mg CPS	Value
Master		5954

2500 (Minimum) 23750 (Nominal) 45000 (Maximum)

Master: 16−Jan−2008 22:40

6.75−in. Azimuthal Density Neutron Calibration

Density: Aluminum Block

Phase	LS window 3 − Al CPS	Value
Master		153.6

50.00 (Minimum) 725.0 (Nominal) 1400 (Maximum)

Phase	SS window 1 − Al CPS	Value
Master		1270

500.0 (Minimum) 4250 (Nominal) 8000 (Maximum)

Phase	SS window 3 − Al CPS	Value
Master		3694

1500 (Minimum) 15750 (Nominal) 30000 (Maximum)

Master: 16−Jan−2008 22:40

6.75−in. Azimuthal Density Neutron Calibration

Density: Background

Phase	LS window 3 − Background CPS	Value
Master		43.77

15.00 (Minimum) 82.50 (Nominal) 150.0 (Maximum)

Phase	SS window 1 − Background CPS	Value
Master		98.92

40.00 (Minimum) 220.0 (Nominal) 400.0 (Maximum)

Phase	SS window 3 − Background CPS	Value
Master		427.4

150.0 (Minimum) 825.0 (Nominal) 1500 (Maximum)

Master: 16−Jan−2008 22:40

6.75−in. Azimuthal Density Neutron Calibration

Density: Water Block Check

Phase	Long spacing water density G/C3	Value
Master		1.035

1.027 (Minimum) 1.042 (Nominal) 1.057 (Maximum)

Phase	Short spacing water density G/C3	Value
Master		1.130

1.098 (Minimum) 1.128 (Nominal) 1.158 (Maximum)

Master: 16−Jan−2008 22:40

6.75−in. Azimuthal Density Neutron Calibration

Neutron: 3−Point Calibration

Phase	Far 1 tube 1 Air Point Measure CPS	Value

Phase	Far 1 tube 1 Rod Point Measure CPS	Value

Phase	Far 1 tube 1 H2O Point Measure CPS	Value

Phase	Far 1 tube 2 Air Point Measure CPS	Value	Phase	Far 1 tube 2 Rod Point Measure CPS	Value	Phase	Far 1 tube 2 H2O Point Measure CPS	Value
Master		16.56	Master		4.201	Master		2.020
	13.30 (Minimum) 19.05 (Nominal) 24.70 (Maximum)			3.400 (Minimum) 4.857 (Nominal) 6.200 (Maximum)			1.600 (Minimum) 2.363 (Nominal) 3.100 (Maximum)	
Phase	Far 1 tube 2 Air Point Measure CPS	Value	Phase	Far 1 tube 2 Rod Point Measure CPS	Value	Phase	Far 1 tube 2 H2O Point Measure CPS	Value
Master		17.08	Master		4.091	Master		2.098
	13.30 (Minimum) 19.05 (Nominal) 24.70 (Maximum)			3.400 (Minimum) 4.857 (Nominal) 6.200 (Maximum)			1.600 (Minimum) 2.363 (Nominal) 3.100 (Maximum)	
Phase	Far 1 tube 3 Air Point Measure CPS	Value	Phase	Far 1 tube 3 Rod Point Measure CPS	Value	Phase	Far 1 tube 3 H2O Point Measure CPS	Value
Master		16.24	Master		3.965	Master		1.960
	13.30 (Minimum) 19.05 (Nominal) 24.70 (Maximum)			3.400 (Minimum) 4.857 (Nominal) 6.200 (Maximum)			1.600 (Minimum) 2.363 (Nominal) 3.100 (Maximum)	
Phase	Far 2 tube 1 Air Point Measure CPS	Value	Phase	Far 2 tube 1 Rod Point Measure CPS	Value	Phase	Far 2 tube 1 H2O Point Measure CPS	Value
Master		16.66	Master		4.271	Master		2.114
	13.30 (Minimum) 19.05 (Nominal) 24.70 (Maximum)			3.400 (Minimum) 4.857 (Nominal) 6.200 (Maximum)			1.600 (Minimum) 2.363 (Nominal) 3.100 (Maximum)	
Phase	Far 2 tube 2 Air Point Measure CPS	Value	Phase	Far 2 tube 2 Rod Point Measure CPS	Value	Phase	Far 2 tube 2 H2O Point Measure CPS	Value
Master		17.46	Master		4.183	Master		2.089
	13.30 (Minimum) 19.05 (Nominal) 24.70 (Maximum)			3.400 (Minimum) 4.857 (Nominal) 6.200 (Maximum)			1.600 (Minimum) 2.363 (Nominal) 3.100 (Maximum)	
Phase	Far 2 tube 3 Air Point Measure CPS	Value	Phase	Far 2 tube 3 Rod Point Measure CPS	Value	Phase	Far 2 tube 3 H2O Point Measure CPS	Value
Master		16.77	Master		4.207	Master		2.126
	13.30 (Minimum) 19.05 (Nominal) 24.70 (Maximum)			3.400 (Minimum) 4.857 (Nominal) 6.200 (Maximum)			1.600 (Minimum) 2.363 (Nominal) 3.100 (Maximum)	
Phase	Near 1 tube 1 Air Point Measure CPS	Value	Phase	Near 1 tube 1 Rod Point Measure CPS	Value	Phase	Near 1 tube 1 H2O Point Measure CPS	Value
Master		472.7	Master		776.8	Master		353.9
	345.0 (Minimum) 487.5 (Nominal) 595.0 (Maximum)			535.0 (Minimum) 768.8 (Nominal) 925.0 (Maximum)			230.0 (Minimum) 343.7 (Nominal) 430.0 (Maximum)	
Phase	Near 2 tube 1 Air Point Measure CPS	Value	Phase	Near 2 tube 1 Rod Point Measure CPS	Value	Phase	Near 2 tube 1 H2O Point Measure CPS	Value
Master		477.0	Master		740.7	Master		342.5
	345.0 (Minimum) 487.5 (Nominal) 595.0 (Maximum)			535.0 (Minimum) 768.8 (Nominal) 925.0 (Maximum)			230.0 (Minimum) 343.7 (Nominal) 430.0 (Maximum)	

Master: 16–Jan–2008 22:40

6.75–in. Azimuthal Density Neutron Calibration

Neutron: Water Block Check

Phase	Far Neutron water porosity PU	Value
Master		92.60
	90.00 (Minimum) 100.0 (Nominal) 125.0 (Maximum)	

SCHLUMBERGER

Survey report 27–Mar–2008 20:17:17 Page 1 of 3

Client.....: Apache
Field.....: Vic/P-45

Well.....: Coelacanth-1
API number.....: n/a
Engineer.....: A. Kohli, C. Hibberson, B. Low

COUNTY:.....: n/a
STATE:.....: Victoria

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

----- Depth reference -----
Permanent datum.....: Mean Sea LEVEL
Depth reference.....: Driller's Depth
GL above permanent.....:-90.00 m
KB above permanent.....: 38.00 m
DF above permanent.....: 38.00 m

----- Vertical section origin-----
Latitude (+N/S-).....: N 0.000 m
Departure (+E/W-).....: E 0.000 m

----- Platform reference point-----
Latitude (+N/S-).....: N 5714176.613 m
Departure (+E/W-).....: E 613192.770 m

Azimuth from Vsect Origin to target: 0.00 degrees

Spud date.....: 10-Mar-2008
Last survey date.....: 22-Mar-08
Total accepted surveys...: 34
MD of first survey.....: 0.00 m
MD of last survey.....: 2956.53 m

----- Geomagnetic data -----
Magnetic model.....: BGGM version 2007
Magnetic date.....: 15-Mar-2008
Magnetic field strength..: 1202.04 HCNT
Magnetic dec (+E/W-).....: 13.34 degrees
Magnetic dip.....: -69.11 degrees

----- MWD survey Reference Criteria -----
Reference G.....: 1000.07 mGal
Reference H.....: 1202.04 HCNT
Reference Dip.....: -69.11 degrees
Tolerance of G.....: (+/-) 2.50 mGal
Tolerance of H.....: (+/-) 6.00 HCNT
Tolerance of Dip.....: (+/-) 0.45 degrees

----- Corrections -----
Magnetic dec (+E/W-).....: 13.34 degrees
Grid convergence (+E/W-).: -0.81 degrees
Total az corr (+E/W-)....: 14.15 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

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/ 100f)	Srvy tool type	Tool Corr (deg)
1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	TIP	None
2	263.67	0.15	47.87	263.67	263.67	0.23	0.23	0.26	0.35	47.87	0.02	MWD_M	None
3	294.41	0.06	172.52	30.74	294.41	0.24	0.24	0.29	0.38	49.89	0.19	MWD_M	None
4	323.58	0.12	91.82	29.17	323.58	0.23	0.23	0.32	0.39	54.75	0.13	MWD_M	None
5	411.41	0.24	137.04	87.83	411.41	0.09	0.09	0.54	0.55	80.61	0.06	MWD_M	None
6	442.19	0.21	124.90	30.78	442.19	0.01	0.01	0.63	0.63	89.14	0.06	PUP	None
7	502.26	0.32	90.25	60.07	502.26	-0.05	-0.05	0.89	0.89	93.50	0.10	PUP	None
8	530.50	0.41	92.03	28.24	530.50	-0.06	-0.06	1.07	1.07	93.12	0.10	PUP	None
9	620.59	0.22	141.24	90.09	620.59	-0.20	-0.20	1.50	1.51	97.78	0.11	PUP	None
10	708.29	0.06	46.00	87.70	708.29	-0.30	-0.30	1.63	1.66	100.53	0.08	PUP	None
11	738.63	0.03	73.16	30.34	738.63	-0.29	-0.29	1.65	1.68	99.96	0.04	PUP	None
12	768.37	0.06	56.39	29.74	768.37	-0.28	-0.28	1.67	1.70	99.48	0.03	PUP	None
13	855.79	0.11	357.54	87.42	855.79	-0.17	-0.17	1.71	1.72	95.70	0.03	PUP	None
14	887.36	0.25	215.41	31.57	887.36	-0.20	-0.20	1.67	1.68	96.72	0.33	PUP	None
15	1006.93	0.37	205.42	119.57	1006.92	-0.76	-0.76	1.35	1.55	119.29	0.03	PUP	None
16	1125.19	0.38	223.01	118.26	1125.18	-1.39	-1.39	0.92	1.67	146.51	0.03	PUP	None
17	1243.13	0.37	76.40	117.94	1243.12	-1.59	-1.59	1.02	1.89	147.19	0.19	PUP	None
18	1420.57	0.99	275.48	177.44	1420.55	-1.30	-1.30	0.05	1.31	177.66	0.23	PUP	None
19	1550.04	0.99	280.13	129.47	1550.00	-1.00	-1.00	-2.16	2.38	245.14	0.02	PUP	None
20	1687.41	0.88	299.49	137.37	1687.36	-0.27	-0.27	-4.25	4.26	266.32	0.07	PUP	None
21	1806.49	0.99	326.29	119.08	1806.42	1.03	1.03	-5.61	5.71	280.42	0.11	PUP	None
22	1895.34	0.85	336.21	88.85	1895.26	2.27	2.27	-6.31	6.70	289.83	0.07	PUP	None
23	1983.37	0.73	333.68	88.03	1983.28	3.37	3.37	-6.82	7.61	296.33	0.04	PUP	None
24	2071.31	0.57	332.49	87.94	2071.22	4.26	4.26	-7.27	8.43	300.40	0.06	PUP	None
25	2101.07	0.26	259.44	29.76	2100.97	4.38	4.38	-7.40	8.60	300.63	0.57	PUP	None
26	2189.40	0.38	9.46	88.33	2189.30	4.64	4.64	-7.55	8.86	301.54	0.18	PUP	None
27	2219.45	0.35	26.58	30.05	2219.35	4.82	4.82	-7.49	8.91	302.72	0.11	PUP	None
28	2307.17	0.23	13.64	87.72	2307.07	5.23	5.23	-7.33	9.01	305.48	0.05	PUP	None
29	2396.09	0.42	29.80	88.92	2395.99	5.68	5.68	-7.13	9.12	308.56	0.07	PUP	None
30	2484.75	0.56	53.27	88.66	2484.65	6.22	6.22	-6.62	9.09	313.23	0.08	PUP	None

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/ 100f)	Srvy tool type	Tool Corr (deg)
31	2573.28	0.49	40.74	88.53	2573.17	6.77	6.77	-6.03	9.06	318.32	0.05	PUP	None
32	2750.62	0.57	139.67	177.34	2750.51	6.67	6.67	-4.96	8.31	323.37	0.14	PUP	None
33	2867.93	0.68	143.30	117.31	2867.81	5.67	5.67	-4.17	7.04	323.68	0.03	PUP	None
34	2956.53	0.67	150.71	88.60	2956.41	4.80	4.80	-3.60	6.00	323.11	0.03	PUP	None

Company: **Apache Energy Ltd.**

Schlumberger

Well: **Coelacanth−1**

Field: **Vic/P−45**

Rig: **West Triton**

State: **Victoria**

GeoVISION Service
1:500 Measured Depth
Recorded Mode Data, Composite Log

Schlumberger

Company: **Apache Energy Ltd.**

Well: **Coelacanth−1**
Field: **Vic/P−45**
Rig: **West Triton** State: **Victoria**

Rig: West Triton
Field: Vic/P−45
Location: Bass Strait
Well: Coelacanth−1
Company: Apache Energy Ltd.

GeoVISION Service
1:500 True Vertical Depth
Recorded Mode Data, Composite Log

Location

		Elevation		
Total depth:	3074.00 m		K.B.	Top Drive m
Spud date:	10−Mar−2008		G.L.	−90.00 m
Runs:	1 To 5		D.F.	38.00 m

Permanent datum:	AHD	Elev.:	0 m m
Log measured from:	Rotary Table	38.00 m	above Perm. datum
Depth reference:	Driller's Depth		

API serial no.	N 5 714 176.613 m	Longitude	Latitude
07ASQ0029	E 613 192.770 m	E 148° 18´ 07.0098´´	S 38° 42´ 49.7296´´

Depth logged:	275.70 m To 3039.40 m	Mag decl: 13.34 deg.	Other services:
Date logged:	12−Mar−2008 To 22−Mar−2008	Mag dip: −69.11 deg.	See Remarks

Bore hole record

Hole size	from	to
660 mm	127.5 m	279.0 m
311 mm	279.0 m	907.0 m
216 mm	907.0 m	3074.0 m

Casing record

Size	Density	from	to
508 mm	193 kg/m	Wellhead	275.7 m
244 mm	101 kg/m	Wellhead	902.6 m

Mud record

Type	from	to
WBM	275.70 m	3074.00 m

Borehole deviation record

Min	Max	from	to
0.03 deg.	0.41 deg.	275.70 m	902.00 m
0.23 deg.	0.99 deg.	902.00 m	3074.00 m

Surface equipment

Unit	OLU−KC−0702
Depth system	DWE & CLT

Software record

IDEAL Wis	ID13_0C_06		
SPM	hspm13_0c_03		
LWD	See Remarks		
MWD	See Remarks		

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 RUN1
Directional Surveys

REMARKS: RUN NUMBER 1
Depth is referenced to Driller's Depth.

Gamma ray is corrected for mud weght, tool size, bit depth and potassium percentage.

Resistivty is borehole compensated and environmentally corrected.

POOH due to reaching TD of 12.25 in. section of Coelacanth−1.

OTHER SERVICES FOR RUN2
Directional Surveys

REMARKS: RUN NUMBER 2
Depth is referenced to Driller's Depth.

Gamma ray is corrected for mud weght, tool size, bit depth and potassium percentage.

Resistivty is borehole compensated and environmentally corrected.

Neutron porosity is corrected for the effects of borehole size (bit size), temperature, mud salinity, and mud hydrogen index (a factor of mud weight, mud temperature and pressure).

OTHER SERVICES FOR RUN3
Directional Surveys

REMARKS: RUN NUMBER 3
Depth is referenced to Driller's Depth.

Gamma ray is corrected for mud weght, tool size, bit depth and potassium percentage.

Resistivty is borehole compensated and environmentally corrected.

Neutron porosity is corrected for the effects of borehole size (bit size), temperature, mud salinity, and mud hydrogen index (a factor of mud weight, mud temperature and pressure).

Neutron porosity is calculated using a limstone matrix density of 2.71 g/cm3.

POOH due to Bit Balling.

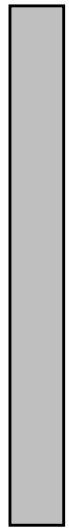
POOH due to Bit Balling.

EQUIPMENT DESCRIPTION

RUN1

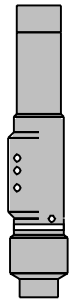
DOWNHOLE E

8−1/4" PowerPulse* 22.72
MDC: FB−46
MEA: 754
MDI: 2421
MGR: 104



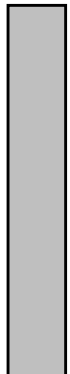
SS 15.15

8−1/4" GeoVISION* 14.68
DHS: V5.0B14
S/N: 41032



FS 10.44
S/N: S58834−4

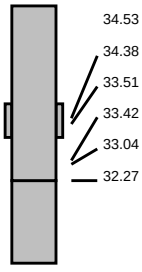
9" PowerPak* Motor 9.60
S/N: 3389



RUN2

DOWNHOLE E

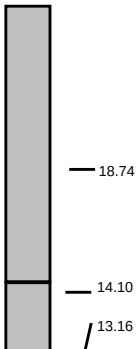
6−3/4 adnVISION* 36.51
DHS: V8.3
S/N: 40778
BladeOD: 8−1/4"



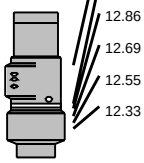
XO 30.26

6−3/4" Bat Sonic 29.90
S/N: PA9016462

6−3/4" PowerPulse* 23.10
MDC: VL09
MEA: 433
MDI: 1562
MGD: 346



6−3/4 GeoVISION* 14.64
DHS: V6.2B01
S/N: 41022



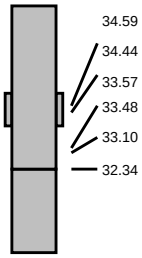
FS 11.13
S/N: S58834

7" PowerPak* Motor 10.30
S/N: N7413

RUN3

DOWNHOLE E

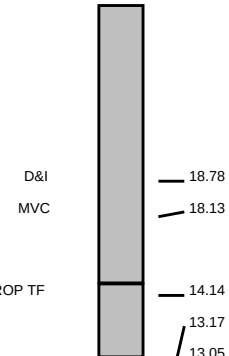
6−3/4 adnVISION* 36.27
DHS: V8.3
S/N: 373
BladeOD: 8−1/4"



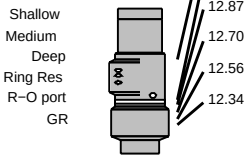
XO 30.31

6−3/4" Bat Sonic 29.94
S/N: PA9016462

6−3/4" PowerPulse* 23.14
MDC: VG67
MEA: 373
MDI: 1841
MVC: 114

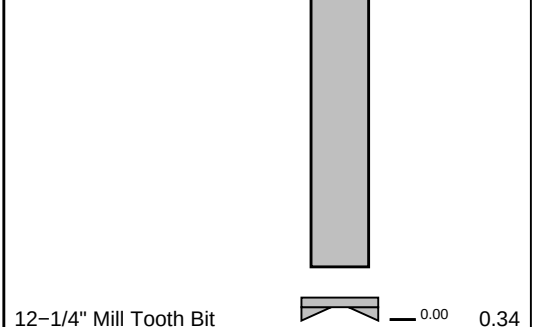


6−3/4 GeoVISION* 14.65
DHS: V6.2B01
S/N: 41373



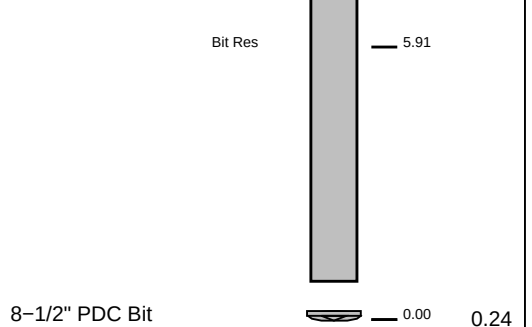
FS 11.14
S/N: S58834

7" PowerPak* Motor 10.31
S/N: 0738



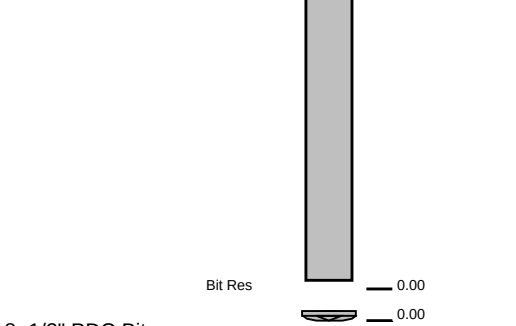
12−1/4" Mill Tooth Bit 0.34
S/N: PF6839

Maximum string dian
All lengths ir



8−1/2" PDC Bit 0.24
S/N: 216126

Maximum string dia
All lengths ir



8−1/2" PDC Bit 0.24
S/N: 216126

Maximum string dia
All lengths ir

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 RUN4
Directional Surveys

OTHER SERVICES FOR RUN5
Directional Surveys

OTHER SERVICES FOR RUN

REMARKS: RUN NUMBER 4
Depth is referenced to Driller's Depth.

Gamma ray is corrected for mud weght, tool size, bit depth and potassium percentage.

Resistivty is borehole compensated and environmentally corrected.

Neutron porosity is corrected for the effects of borehole size (bit size), temperature, mud salinity, and mud hydrogen index (a factor of mud weight, mud temperature and pressure).

Neutron porosity is calculated using a limstone matrix density of 2.71 g/cm3.

POOH due to Bit Balling.

adnVISION battery ran out of life at 2433m MD

REMARKS: RUN NUMBER 5
Depth is referenced to Driller's Depth.

Gamma ray is corrected for mud weght, tool size, bit depth and potassium percentage.

Resistivty is borehole compensated and environmentally corrected.

Neutron porosity is corrected for the effects of borehole size (bit size), temperature, mud salinity, and mud hydrogen index (a factor of mud weight, mud temperature and pressure).

Neutron porosity is calculated using a limstone matrix density of 2.71 g/cm3.

POOH due to reaching TD of 8.50 in. section of Coelacanth−1.

Relogged on trip out from 2433MD to 2700MD

REMARKS: RUN NUMBER

EQUIPMENT DESCRIPTION

RUN4 RUN5 RUN

DOWNHOLE E

DOWNHOLE E

6−3/4" adnVISION*
DHS: V8.3
S/N: 373
BladeOD: 8−1/4"
Neutron F
Neutron N
Density S
Density L
UltraSonic
R−O Port
34.59
34.44
33.57
33.48
33.10
32.34
36.27
XO
30.31
6−3/4" Bat Sonic
S/N: PA9016462
29.94
6−3/4" PowerPulse*
MDC: VG67
MEA: 373
MDI: 1841
MVC: 114
23.14
D&I
MVC
ROP TF
18.78
18.13
14.14
6−3/4" GeoVISION*
DHS: V6.2B01
S/N: 41373
Shallow
Medium
Deep
Ring Res
R−O port
GR
13.17
13.05
12.87
12.70
12.56
12.34
14.65
FS
S/N: S58834
11.14
7" PowerPak* Motor
S/N: 0738
10.31
Bit Res
0.00
0.00
8−1/2" PDC Bit
S/N: 41373
0.24
Maximum string dia
All lengths ir
6−3/4" adnVISION*
DHS: V8.3
S/N: 40778
BladeOD: 8−1/4"
Neutron F
Neutron N
Density S
Density L
UltraSonic
R−O Port
34.68
34.53
33.66
33.57
33.19
32.43
36.65
XO
30.40
6−3/4" Bat Sonic
S/N: PA9016462
30.03
6−3/4" PowerPulse*
MDC: VG67
MEA: 373
MDI: 1841
MVC: 114
23.23
D&I
MVC
ROP TF
18.87
18.22
14.23
6−3/4" GeoVISION*
DHS: V6.2B01
S/N: 41373
Shallow
Medium
Deep
Ring Res
R−O port
GR
13.26
13.14
12.96
12.79
12.65
12.43
14.74
FS
S/N: S58834
11.23
7" PowerPak* Motor
S/N: 0738
10.40
Bit Res
0.04
0.00
8−1/2" PDC Bit
S/N: 216813
0.33
Maximum string dia
All lengths ir

Bit Run Summary

Run number		1	2	3	4	5
Bit size	mm.	311	216	216	216	216
Bit start depth	m	279.00	907.00	1998.00	2116.00	2700.00
Bit end depth	m	907.00	1998.00	2116.00	2700.00	3074.00
Top interval logged	m	275.70	902.60	1963.47	2081.40	2666.00
Bottom interval logged	m	894.73	1963.47	2081.40	2666.00	3039.40
Begin log: time		22:00	18:30	17:23	11:30	07:00
Begin log: date		12−Mar−08	15−Mar−08	18−Mar−08	19−Mar−08	21−Mar−08
End log: time		15:15	08:00	10:15	06:00	23:00
End log: date		13−Mar−08	18−Mar−08	19−Mar−08	21−Mar−08	22−Mar−08
Mud data						
Depth	m	902.00	1994.00	2243.00	2700.00	3074.00
Type		WBM	WBM	WBM	WBM	WBM
Mud weight	SG	1.06	1.18	1.17	1.16	1.19
Solids	%	4.70	5.10	4.70	5.50	4.80
Chlorides	mg/l	47000	49000	47000	44000	46000
Rm	ohm.m@°C	0.0139@21	0.089@21.5	0.0962@20.8	0.0975@21.8	0.1043@20
Rmf	ohm.m@°C	0.0123@20.7	0.075@22.1	0.0832@20.5	0.084@21.2	0.0859@20.6
Rmc	ohm.m@°C	0.0152@21.1	0.118@22.3	0.1498@21.2	0.128@21.4	0.1384@21.4
Potassium	%	3.80	3.80	4.00	4.10	4.20
Environmental data						
GR						
Mud weight	SG	1.06	1.18	1.17	1.16	1.19
Bit size	mm.	311	216	216	216	216
Resistivity						
Neutron porosity						
Hole Size	mm.	311	216	216	216	216
Mud weight	SG	1.06	1.18	1.17	1.16	1.19
Temperature	°C	32.2	49.41	48.63	58.82	61.96
Mud salinity	ppk	N/A	71.30	75.88	71.15	74.30
Formation salinity						
Recording rate 1	SEC	10 (GVR)	5 (GVR)	5 (GVR)	5 (GVR)	5 (GVR)
Recording rate 2	SEC	n/a	5 (ADN)	5 (ADN)	5 (ADN)	5 (ADN)
Filtering GR		3 pts	3 pts	3 pts	3 pts	3 pts
Filtering density		N/A	3 pts	3 pts	3 pts	3 pts
Filtering Neutron		N/A	3 pts	3 pts	3 pts	3 pts
Company representative		Mark Pinson	Rocco Russo	Peter Sheenan		
Schlumberger D&M Personnel		A. Kohli	C. Hibberson	B. Low		

Variable Name	Variable Description	Run Name & Value			
	Run Number		1	2	3
	General Information				
BHT_RM	Bottom Hole Temperature (RM)	DEGC	51.000	58.000	58.000
BSAL_RM	Mud Salinity (RM)	PPK	0.000	72.50	74.301
BS_RM	Bit Size (RM)	IN	12.250	8.500	8.500
COEF_M	User Defined FEXP in Clean Sand	----	1.650	1.650	1.650
C_WS	Overpressure correction to Sw and M	----	1.000	1.000	1.000
FEXP	Formation Factor Exponent(RM)	----	2.000	2.000	2.000
FNUM	Formation Factor Enumerator(RM)	----	1.000	1.000	1.000
FPHI_RM	Formation Factor Porosity Source (RM)	----	XPLOT	XPLOT	XPLOT
MST_RM	Mud Sample temperature (RM)	DEGC	23.889	22.100	20.800
MW_RM	Mud Weight (RM)	LB/G	8.860	9.830	9.750
OBMF_RM	Oil Based Mud (RM)	----	NO	NO	NO
RHOF_RM	Mud Filtrate Density (RM)	G/C3	1.000	1.000	1.000
RHOM_RM	Matrix density (RM)	G/C3	2.710	2.710	2.710
RMS_RM	Resistivity of Mud Sample (RM)	OHMM	0.138	0.089	0.096
RWA_COMP_M	Rwa computation model				
RWA_DEN_AD	Rwa Density Input ADN				
RWA_DEN_CD	Rwa Density Input CDN				
RWA_DEN_IN	Rwa Density Input				
RWA_FORM_M	Rwa computation formation model				
RWA_RES_IN	Rwa computation resistivity input				

RWA_RES_IN	Rwa computation resistivity input				
RWS_RM	Resistivity of Connate Water (RM)	OHMM	1.000	1.000	1.000
SHT_RM	Ground Level Temperature (Mud−Line When Offshore)	DEGC	10.000	10.000	10.000
TD_RM	Total Measured Depth (RM)	M	907.000	3048.000	2116.000
TWS_RM	Temperature of Connate Water (RM)	DEGC	23.889	23.889	23.889
VF_ILLI	Fraction of illite in shales	----	0.500	0.500	0.500
VF_KAOL	Fraction of kaolinite in shales	----	0.500	0.500	0.500
VF_MONT	Fraction of montmorillonite in shales	----	0.000	0.000	0.000
XPDM_RM	Cross plot density porosity multiplier	----	0.675	0.675	0.675
XPNM_RM	Cross plot neutron porosity multiplier	----	0.325	0.325	0.325

RAB

RAB/BTN_SLV_SIZE/PARAMETE	IN -- RAB: Button Sleeve Diameter	IN	11.875	8.125	8.125
RAB/STAB_SIZE/PARAMETER	RAB: Stabilizer Diameter	IN	12−12.25	8.25−8.5	8.25−8.5
BDBHCA	RAB: Button Deep Borehole A Factor	----	−0.035	0.004	0.004
BDBHCB	RAB: Button Deep Borehole B Factor	----	−0.019	0.000	0.000
BHA_COEF_VER	RAB: BHA Coef Generator Version	----	2.000	62011.000	2.000
BITBHCA	RAB: Bit A Borehole Factor	----	0.099	0.058	0.058
BITBHCB	RAB: Bit B Borehole Factor	----	−0.074	0.000	0.000
BIT_K_FACTOR	RAB: Bit K Factor	----	15.212	15.168	15.227
BMBHCA	RAB: Button Medium Borehole A Factor	----	0.006	0.023	0.023
BMBHCB	RAB: Button Medium Borehole B Factor	----	−0.020	0.000	0.000
BSBHCA	RAB: Button Shallow Borehole A Factor	----	−0.009	0.022	0.023
BSBHCB	RAB: Button Shallow Borehole B Factor	----	−0.036	0.000	0.000
BUT_KIMP_A	RAB: Button Impedance Coeff A	----	0.002	0.000	0.000
BUT_KIMP_B	RAB: Button Impedance Coeff B	----	0.000	0.000	0.000
DBUTTON_K_FACTO	RAB: Button Deep K factor	----	0.003	0.005	0.005
DHS_VERSION	RAB: DownHole Software Version	----	−999.250	6.200	−999.250
GR_BHC_TOOLSIZE	RAB: Gamma−Ray Borehole Coeff 1	----	8.250	6.750	6.750
HI_CSDEPTH_OUT	RAB: Allow Hi−Resolution CS_DEPTH Image Data Output	----	NO	NO	NO
HI_DLIS_OUT	RAB: Allow Hi−Resolution DLIS Image Data Output	----	NO	NO	NO
HI_RIVER_OUT	RAB: Allow Hi−Resolution River for Image Data Output	----	NO	NO	NO
IMAGE_MAX_GR	RAB: GR Image Maximum Scale Value	GAPI	120.000	120.000	120.000
IMAGE_MAX_RES	RAB: Image Maximum Resistivity Value	OHMM	100.000	100.000	100.000
IMAGE_MIN_GR	RAB: GR Image Minimum Scale Value	GAPI	20.000	20.000	20.000
IMAGE_MIN_RES	RAB: Image Minimum Resistivity Value	OHMM	1.000	1.000	1.000
JSD_RAB	RAB Acquisition start date	OHMM	1.000	1.000	1.000
KPER	Potassium Concentration (RM)	----	4.800	3.800	4.100
MAG_DECL_RAB	RAB: Magnetic Declination	DEG	13.340	13.340	13.340
MAG_INCL_RAB	RAB: Magnetic Dip	DEG	−69.110	−69.110	−69.110
MBUTTON_K_FACTO	RAB: Button Medium K Factor	----	0.004	0.005	0.005
OBM	RAB: Oil base Mud	----	NO	NO	NO
ORIENTATION_RM	Rab Image Orientation	----	TOH	TOH	TOH
RABBDA0	RAB: Button Deep A0 Coeff	----	−0.121	−0.052	−0.052
RABBDA1	RAB: Button Deep A1 Coeff	----	0.112	0.021	0.021
RABBDA2	RAB: Button Deep A2 Coeff	----	−0.049	−0.005	−0.005
RABBDA3	RAB: Button Deep A3 Coeff	----	0.010	0.000	0.000
RABBDA4	RAB: Button Deep A4 Coeff	----	−0.001	−0.000	−0.000
RABBDA5	**RAB: Button Deep A5 Coeff**	**----**	**0.000**	**0.000**	**0.000**
RABBDMIN	RAB: Button Deep Minimum Value	----	0.038	0.051	0.051
RABBITA0	RAB: Bit A0 Coeff	----	4.394	4.095	4.118
RABBITA1	RAB: Bit A1 Coeff	----	−13.106	−3.547	−3.483
RABBITA2	RAB: Bit A2 Coeff	----	36.626	12.345	12.438
RABBITA3	RAB: Bit A3 Coeff	----	−43.327	−15.241	−15.565
RABBITA4	RAB: Bit A4 Coeff	----	24.302	6.786	6.978
RABBITA5	RAB: Bit A5 Coeff	----	−5.275	0.000	0.000
RABBITMIN	RAB: Bit Minimum Value	----	22.433	21.118	21.119
RABBMA0	RAB: Button Medium A0 Coeff	----	−0.120	−0.062	−0.062
RABBMA1	RAB: Button Medium A1 Coeff	----	0.104	0.027	0.027
RABBMA2	RAB: Button Medium A2 Coeff	----	−0.044	−0.006	−0.006
RABBMA3	RAB: Button Medium A3 Coeff	----	0.009	0.001	0.001
RABBMA4	RAB: Button Medium A4 Coeff	----	−0.001	−0.000	−0.000
RABBMA5	RAB: Button Medium A5 Coeff	----	0.000	0.000	0.000
RABBMMIN	RAB: Button Medium Minimum Value	----	0.041	0.060	0.060
RABBSA0	RAB: Button Shallow A0 Coeff	----	−0.127	−0.074	−0.074
RABBSA1	RAB: Button Shallow A1 Coeff	----	0.103	0.031	0.032
RABBSA2	RAB: Button Shallow A2 Coeff	----	−0.042	−0.007	−0.007
RABBSA3	RAB: Button Shallow A3 Coeff	----	0.008	0.001	0.001
RABBSA4	RAB: Button Shallow A4 Coeff	----	−0.001	−0.000	−0.000
RABBSA5	RAB: Button Shallow A5 Coeff	----	0.000	0.000	0.000
RABBSMIN	RAB: Button Shallow Minimum Value	----	0.055	0.086	0.086
RABDHS	RAB Down Hole Software	----	4.000	4.000	4.000
RABEC	RAB: Resistivity Env−Cor	----	YES	YES	YES
RABRNGA0	RAB: RING A0 Coeff	----	−0.118	−0.048	−0.048
RABRNGA1	RAB: RING A1 Coeff	----	0.113	0.019	0.019
RABRNGA2	RAB: RING A2 Coeff	----	−0.049	−0.004	−0.004
RABRNGA3	RAB: RING A3 Coeff	----	0.010	0.000	0.000
RABRNGA4	RAB: RING A4 Coeff	----	−0.001	−0.000	−0.000
RABRNGA5	RAB: RING A5 Coeff	----	0.000	0.000	0.000
RABRNGMIN	RAB: Ring Minimum Value	----	1.150	1.697	1.697
RAB_BIT_ECAL	Bit Resistivity for ECAL_RAB?	----	YES	YES	YES
RAB_BIT_INVERSI	Input Bit Resistivity for Inversion? (Recommended at the bit)		YES	YES	NO
RAB_CALIPER_CAL	Compute ECAL_RAB?	----	NO	NO	NO
RAB_DATA_FIX	RAB: Create A Corrected RAB Time Data File	----	NO	NO	NO
RAB_DATA_LTB	RAB: Create An RAB LTB Data File	----	NO	NO	NO
RAB_DEEPBTN_ECA	Deep Button Resistivity for ECAL_RAB?	----	YES	YES	YES
RAB_DEEPBTN_INV	Input Deep Button Resistivity for Inversion?	----	YES	YES	YES
RAB_INVERSION	Perform Rt Inversion?	----	NO	NO	NO
RAB_INVERSION_B	RAB Bit Sensor Weight for Inversion[0,1]	----	1.000	1.000	0.000
RAB_INVERSION_B	Ending Depth for GR Cutoff in Zone1 (default whole well)	M	30480.000	30480.000	30480.000
RAB_INVERSION_B	Ending Depth of Zone10	M	−304.571	−304.571	−304.571
RAB_INVERSION_B	Ending Depth of Zone2	M	−304.571	−304.571	−304.571
RAB_INVERSION_B	Ending Depth of Zone3	M	−304.571	−304.571	−304.571
RAB_INVERSION_B	Ending Depth of Zone4	M	−304.571	−304.571	−304.571
RAB_INVERSION_B	Ending Depth of Zone5	M	−304.571	−304.571	−304.571
RAB_INVERSION_B	Ending Depth of Zone6	M	−304.571	−304.571	−304.571

RAB_INVERSION_B	Ending Depth of Zone7	M	−304.571	−304.571	−304.571
RAB_INVERSION_B	Ending Depth of Zone8	M	−304.571	−304.571	−304.571
RAB_INVERSION_B	Ending Depth of Zone9	M	−304.571	−304.571	−304.571
RAB_INVERSION_C	Continuity Multiplier[0,1]	----	0.500	0.500	0.500
RAB_INVERSION_D	RAB Deep Button Sensor Weight for Inversion[0,1]	----	1.000	1.000	1.000
RAB_INVERSION_D	RAB inversion for Dh?	----	YES	YES	YES
RAB_INVERSION_D	RAB inversion for Di?	----	YES	YES	YES
RAB_INVERSION_G	GR Cutoff for Shale Formation	----	75.000	75.000	75.000
RAB_INVERSION_G	GR Cutoff for Shale Formation in Zone1(default whole well)	GAPI	75.000	75.000	75.000
RAB_INVERSION_G	GR Cutoff in Zone10	GAPI	75.000	75.000	75.000
RAB_INVERSION_G	GR Cutoff in Zone2	GAPI	75.000	75.000	75.000
RAB_INVERSION_G	GR Cutoff in Zone3	GAPI	75.000	75.000	75.000
RAB_INVERSION_G	GR Cutoff in Zone4	GAPI	75.000	75.000	75.000
RAB_INVERSION_G	GR Cutoff in Zone5	GAPI	75.000	75.000	75.000
RAB_INVERSION_G	GR Cutoff in Zone6	GAPI	75.000	75.000	75.000
RAB_INVERSION_G	GR Cutoff in Zone7	GAPI	75.000	75.000	75.000
RAB_INVERSION_G	GR Cutoff in Zone8	GAPI	75.000	75.000	75.000
RAB_INVERSION_G	GR Cutoff in Zone9	GAPI	75.000	75.000	75.000
RAB_INVERSION_M	RAB Medium Button Sensor Weight for Inversion[0,1]	----	1.000	1.000	1.000
RAB_INVERSION_R	Resistivity Cutoff for Shale Formation	OHMM	2.000	2.000	2.000
RAB_INVERSION_R	Resistive Invasion Allowed	----	NO	NO	NO
RAB_INVERSION_R	RAB Ring Sensor Weight for Inversion[0,1]	----	1.000	1.000	1.000
RAB_INVERSION_R	RAB inversion for Rmud?	----	NO	NO	NO
RAB_INVERSION_R	RAB inversion for Rt?	----	YES	YES	YES
RAB_INVERSION_R	Rt to R−deepest separation penalty multiplier[0,1]	----	0.500	0.500	0.500
RAB_INVERSION_R	RAB inversion for Rxo?	----	YES	YES	YES
RAB_INVERSION_S	GR of Clean Sand Formation	----	−999.250	−999.250	−999.250
RAB_INVERSION_S	GR of Shale Formation	----	−999.250	−999.250	−999.250
RAB_INVERSION_S	RAB Shallow Button Sensor Weight for Inversion[0,1]	----	1.000	1.000	1.000
RAB_INVERSION_T	Inversion Threshold[0, 0.3]	----	0.010	0.010	0.010
RAB_INVERSION_W	Formation Water Resistivity	OHMM	0.100	0.100	0.100
RAB_INVERSION_W	Formation Water Temperature	----	150.000	150.000	150.000
RAB_MEDIUMBTN_E	Medium Button Resistivity for ECAL_RAB?	----	YES	YES	YES
RAB_MEDIUMBTN_I	Input Medium Button Resistivity for Inversion?	----	YES	YES	YES
RAB_QUAD	RAB: Process Quadrant data ?	----	YES	YES	YES
RAB_RIGMODE_ECA	Bit on Bottom?	----	YES	YES	YES
RAB_RING_ECAL	Ring Resistivity for ECAL_RAB?	----	YES	YES	YES
RAB_RING_INVERS	Imput RING Resistivity for Inversion?	----	YES	YES	YES
RAB_SHALLOWBTN_	Shallow Button Resistivity for ECAL_RAB?	----	YES	YES	YES
RAB_SHALLOWBTN_	Input Shallow Button Resistivity for Inversion?	----	YES	YES	YES
RAB_TAB	RAB: Compute TAB ?	----	YES	YES	YES
RAB_TECHLOG	RAB: Generate Techlog ?	----	YES	YES	YES
RAB_TEMP_SELECT	RAB Temperature Selection	----	MEASURED	MEASURED	MEASURED
RAB_TICKS	RAB: Generate Ticks ?	----	YES	YES	YES
READOUT_PORT_MP	RAB: ROP to Bit Face Distance	M	11.600	12.550	12.560
RINGBHCA	RAB: Ring Borehole A Factor	----	0.298	0.159	0.160
RINGBHCB	RAB: Ring Borehole B Factor	----	−0.112	0.000	0.000
RING_KIMP_A	RAB: Ring Impedance Coeff A	----	0.000	0.000	0.000
RING_KIMP_B	RAB: Ring Impedance Coeff B	----	0.000	0.000	0.000
RING_K_FACTOR	RAB: Ring K Factor	----	0.101	0.153	0.153
RSD	LWD run start date dd−mmm−yy	OHMM	0.138	0.089	0.096
RWA_COMP_MOD	Rwa computation model	----	BASIC	BASIC	BASIC
RWA_DEN_ADN	Rwa Density Input	----	RHOB	RHOB	RHOB
RWA_DEN_CDN	Rwa Density Input	----	RHOB	RHOB	RHOB
RWA_DEN_INPUT	Rwa Density Input	----	RHOB	RHOB	RHOB
RWA_FORM_MOD	Rwa computation formation model	----	CLASTIC	CLASTIC	CLASTIC
RWA_RES_INPUT	Rwa computation resistivity input	----	RT	RT	RT
SBUTTON_K_FACTO	RAB: Button Shallow K Factor	----	0.005	0.007	0.007
SCALE_IMAGES	RAB: Process Image Data	----	YES	YES	YES
STAB	RAB: Run with Stabilizer	----	YES	YES	YES
TFF_OFFSET_RAB	RAB Time−Frame File Time Offset	S	0.000	0.000	0.000
TIMEFRAME_FILE_	RAB: Time Frame File Name	S	0.000	0.000	0.000
TOOLTYPE	RAB: Azimuthal Tool	----	YES	YES	YES
TS_VERSION	RAB: ToolScope Software Version	----	−999.250	0.000	−999.250
VRAB6	Rab Tool type (ENP/PILOT)	----	RAB8_ENP	RAB6_C_SERIES	RAB6_C_SERIES
WIN_SIZE_DYN_IM	RAB: Window Size for Scaling Dynamic Image	M	0.914	0.914	0.914
WRK	to Report Potassium Concentration (RM)	----	K_by_Wgt_%	K_by_Wgt_%	K_by_Wgt_%

	ADN				
ADN_CHASSIS_STR	ADN Chassis Type String	----	----	ADN	ADN
ADN_COLLAR_STR	ADN Collar Type String	----	----	ADN	ADN
ADN_DATA_FIX	ADN: Create A Corrected ADN Time Data File	----	----	NO	NO
ADN_DATA_LTB	ADN: Create An ADN LTB Data File	----	----	NO	NO
ADN_STAB_STR	ADN Stabilizer Type String	----	----	NO	NO
ALPHA_COMPUTE_D	Perform Density Enhanced Vertical Resolution process ?	----	----	NO	NO
ALPHA_COMPUTE_N	Perform Neutron Enhanced Vertical Resolution process ?	----	----	NO	NO
AVE_ADN	ADN/Array Channels: perform averaging(RM) :	----	----	YES	YES
A_DHS	ADN Down Hole Software Version String	----	----	YES	YES
CHI_RM	Caliper High limit from BS (RM)	IN	----	3.000	3.000
CLO_RM	Caliper Low limit from BS (RM)	IN	----	0.000	0.000
DEVI	Well Section Deviation	DEG	----	0.004	0.004
DTIK_SEL	ADN: Density Tick Channel Name	----	----	LSAZ	LSAZ
DTMUD	Delta−T for Mud	US/F	----	168.000	168.000
DYN_IMG_COMPUTE	Generate Dynamic Normalized Image?	----	----	NO	NO
ECC_CORR_ADN	Perform Eccentering Correction for TNPH?	----	----	YES	YES
ENVCOR	Neutron Processing: Environmental Correction?	----	----	YES	YES
EVRL	EVR Process averaging number of samples (RM)	----	----	49	49
FCD	Future Casing (Outer) Diameter	IN	----	0.000	0.000
GCSE	Generalized Caliper Selection	----	----	BS	BS
HPS	ADSE−EB (High Pressure Inconel Chassis)?	----	----	NO	NO
IBS	Intergal Blade Stabilizer Collar?	----	----	YES	NO
IDQT	Image Derived Quality Threshold	----	----	1.000	1.000
IHVS	Integrated Hole Volume Start Value(RM)	F3	----	0.000	0.000
IMAGE_MAX_SOA	Image SOA (Quadrant) Right Scale	IN	----	2.500	2.500
IMAGE_MAX_SPEF	Image PEF(Segment) Right Scale	----	----	6.000	6.000
IMAGE_MAX_SRHOB	Image RHOB(Segment) Right Scale	G/C3	----	2.650	2.650

IMAGE_MIN_SOA	Image SOA (Quadrant) Left Scale	IN	----	0.000	0.000	
IMAGE_MIN_SPEF	Image PEF(Segment) Left Scale	----	----	2.000	2.000	
IMAGE_MIN_SRHOB	Image RHOB(Segment) Left Scale	G/C3	----	2.050	2.050	
JSD_ADN	ADN Acquisition start date	G/C3	----	2.050	2.050	
LITHO_TYPE_ADN	Lithology (RM)	----	----	LIME	LIME	
N1FTU_6_RM	ADN: Neutron Bank 1 Far Tubes used :	----	----	1-2-3	1-2-3	
N2FTU_6_RM	ADN: Neutron Bank 2 Far Tubes used :	----	----	1-2-3	1-2-3	
NNTU_RM	ADN Neutron Near Banks Used	----	----	1-2	1-2	
NTIK_SEL	ADN: Neutron Tick Channel Name	----	----	FR11	FR11	
SOCNL	Standoff Distance of the CNL Tool	----	----	1.000	1.000	
SSIZ_ADN	ADN Stabilizer Size	IN	----	8.125	8.125	
STOH	ADN Density Top of Hole Sector (Left Boundary):	----	----	SECTOR_0	SECTOR_0	
TRPM_RM	Average Tool Rotational Speed	RPM	----	20.000	20.000	
USMIN_RM	ADN:Minimum Ultrasonic standoff (RM)	IN	----	0.180	0.180	
USWF_RM	ADN:Process Ultrasonic Waveform?	----	----	YES	YES	
VERS_ADN	ADN Downhole Software Version	----	----	8.300	8.300	
WSDI	Window Size of Dynamic Normalization Image	M	M	4.572	4.572	
RAB/BTN_SLV_SIZE/PARAMETE	IN --- RAB: Button Sleeve Diameter	IN	11.875	8.125	8.125	

Run Number		4	5
General Information			
BHT_RM	Bottom Hole Temperature (RM)	DEGC	62.000	62.000
BSAL_RM	Mud Salinity (RM)	PPK	74.301	74.301
BS_RM	Bit Size (RM)	IN	8.500	8.500
COEF_M	User Defined FEXP in Clean Sand	----	1.650	1.650
C_WS	Overpressure correction to Sw and M	----	1.000	1.000
FEXP	Formation Factor Exponent(RM)	----	2.000	2.000
FNUM	Formation Factor Enumerator(RM)	----	1.000	1.000
FPHI_RM	Formation Factor Porosity Source (RM)	----	XPLOT	XPLOT
MST_RM	Mud Sample temperature (RM)	DEGC	21.800	20.100
MW_RM	Mud Weight (RM)	LB/G	9.750	9.920
OBMF_RM	Oil Based Mud (RM)	----	NO	NO
RHOF_RM	Mud Filtrate Density (RM)	G/C3	1.000	1.000
RHOM_RM	Matrix density (RM)	G/C3	2.710	2.710
RMS_RM	Resistivity of Mud Sample (RM)	OHMM	0.097	0.104
RWA_COMP_M	Rwa computation model			
RWA_DEN_AD	Rwa Density Input ADN			
RWA_DEN_CD	Rwa Density Input CDN			
RWA_DEN_IN	Rwa Density Input			
RWA_FORM_M	Rwa computation formation model			
RWA_RES_IN	Rwa computation resistivity input			
RWS_RM	Resistivity of Connate Water (RM)	OHMM	1.000	1.000
SHT_RM	Ground Level Temperature (Mud-Line When Offshore) (RM)	DEGC	10.000	10.000
TD_RM	Total Measured Depth (RM)	M	2700.000	3074.000
TWS_RM	Temperature of Connate Water (RM)	DEGC	23.889	23.889
VF_ILLI	Fraction of illite in shales	----	0.500	0.500
VF_KAOL	Fraction of kaolinite in shales	----	0.500	0.500
VF_MONT	Fraction of montmorillonite in shales	----	0.000	0.000
XPDM_RM	Cross plot density porosity multiplier	----	0.675	0.675
XPNM_RM	Cross plot neutron porosity multiplier	----	0.325	0.325
ADN				
ADN_CHASSIS_STR	ADN Chassis Type String	ADN	ADN	
ADN_COLLAR_STR	ADN Collar Type String	ADN	ADN	
ADN_DATA_FIX	ADN: Create A Corrected ADN Time Data File	----	NO	NO
ADN_DATA_LTB	ADN: Create An ADN LTB Data File	----	NO	NO
ADN_STAB_STR	ADN Stabilizer Type String	----	NO	NO
ALPHA_COMPUTE_D	Perform Density Enhanced Vertical Resolution process ?	----	NO	NO
ALPHA_COMPUTE_N	Perform Neutron Enhanced Vertical Resolution process ?	----	NO	NO
AVE_ADN	ADN/Array Channels: perform averaging(RM) :	----	YES	YES
A_DHS	ADN Down Hole Software Version String	----	YES	YES
CHI_RM	Caliper High limit from BS (RM)	IN	3.000	3.000
CLO_RM	Caliper Low limit from BS (RM)	IN	0.000	0.000
DEVI	Well Section Deviation	DEG	0.004	0.014
DTIK_SEL	ADN: Density Tick Channel Name	----	LSAZ	LSAZ
DTMUD	Delta-T for Mud	US/F	168.000	144.890
DYN_IMG_COMPUTE	Generate Dynamic Normalized Image?	----	NO	NO
ECC_CORR_ADN	Perform Eccentering Correction for TNPH?	----	YES	YES
ENVCOR	Neutron Processing: Environmental Correction?	----	YES	YES
EVRL	EVR Process averaging number of samples (RM)	----	49	49
FCD	Future Casing (Outer) Diameter	IN	0.000	0.000
GCSE	Generalized Caliper Selection	----	BS	BS
HPS	ADSE-EB (High Pressure Inconel Chassis)?	----	NO	NO
IBS	Intergal Blade Stabilizer Collar?	----	NO	NO
IDQT	Image Derived Quality Threshold	----	1.000	1.000
IHVS	Integrated Hole Volume Start Value(RM)	F3	0.000	0.000
IMAGE_MAX_SOA	Image SOA (Quadrant) Right Scale	IN	2.500	2.500
IMAGE_MAX_SPEF	Image PEF(Segment) Right Scale	----	6.000	6.000
IMAGE_MAX_SRHOB	Image RHOB(Segment) Right Scale	G/C3	2.650	2.650
IMAGE_MIN_SOA	Image SOA (Quadrant) Left Scale	IN	0.000	0.000
IMAGE_MIN_SPEF	Image PEF(Segment) Left Scale	----	2.000	2.000
IMAGE_MIN_SRHOB	Image RHOB(Segment) Left Scale	G/C3	2.050	2.050
JSD_ADN	ADN Acquisition start date	G/C3	2.050	2.050
LITHO_TYPE_ADN	Lithology (RM)	----	LIME	LIME
N1FTU_6_RM	ADN: Neutron Bank 1 Far Tubes used :	----	1-2-3	1-2-3
N2FTU_6_RM	ADN: Neutron Bank 2 Far Tubes used :	----	1-2-3	1-2-3
NNTU_RM	ADN Neutron Near Banks Used	----	1-2	1-2
NTIK_SEL	ADN: Neutron Tick Channel Name	----	FR11	FR11
RSD	LWD run start date dd-mmm-yy	OHMM	0.097	0.104
RWA_COMP_MOD	Rwa computation model	----	BASIC	BASIC
RWA_DEN_ADN	Rwa Density Input	----	RHOB	RHOB
RWA_DEN_CDN	Rwa Density Input	----	RHOB	RHOB
RWA_DEN_INPUT	Rwa Density Input	----	RHOB	RHOB

RWA_DEN_INPUT	Rwa Density Input	----	RHOB	RHOB
RWA_FORM_MOD	Rwa computation formation model	----	CLASTIC	CLASTIC
RWA_RES_INPUT	Rwa computation resistivity input	----	RT	RT
SOCNL	Standoff Distance of the CNL Tool	----	1.000	1.000
SSIZ_ADN	ADN Stabilizer Size	IN	8.125	8.125
STOH	ADN Density Top of Hole Sector (Left Boundary):	----	SECTOR_0	SECTOR_0
TRPM_RM	Average Tool Rotational Speed	RPM	20.000	20.000
USMIN_RM	ADN:Minimum Ultrasonic standoff (RM)	IN	0.180	0.180
USWF_RM	ADN:Process Ultrasonic Waveform?	----	YES	YES
VERS_ADN	ADN Downhole Software Version	----	8.300	8.300
WSDI	Window Size of Dynamic Normalization Image	M	4.572	4.572

RAB

RAB/BTN_SLV_SIZE/PARAMETE	IN --- RAB: Button Sleeve Diameter	IN	8.125	8.125
RAB/STAB_SIZE/PARAMETER	RAB: Stabilizer Diameter	IN	8.25-8.5	8.25-8.5
BDBHCA	RAB: Button Deep Borehole A Factor	----	0.004	0.004
BDBHCB	RAB: Button Deep Borehole B Factor	----	0.000	0.000
BHA_COEF_VER	RAB: BHA Coef Generator Version	----	2.000	2.000
BITBHCA	RAB: Bit A Borehole Factor	----	0.058	0.058
BITBHCB	RAB: Bit B Borehole Factor	----	0.000	0.000
BIT_K_FACTOR	RAB: Bit K Factor	----	15.227	15.311
BMBHCA	RAB: Button Medium Borehole A Factor	----	0.023	0.023
BMBHCB	RAB: Button Medium Borehole B Factor	----	0.000	0.000
BSBHCA	RAB: Button Shallow Borehole A Factor	----	0.023	0.023
BSBHCB	RAB: Button Shallow Borehole B Factor	----	0.000	0.000
BUT_KIMP_A	RAB: Button Impedance Coeff A	----	0.000	0.000
BUT_KIMP_B	RAB: Button Impedance Coeff B	----	0.000	0.000
DBUTTON_K_FACTO	RAB: Button Deep K factor	----	0.005	0.005
DHS_VERSION	RAB: DownHole Software Version	----	-999.250	-999.250
GR_BHC_TOOLSIZE	RAB: Gamma-Ray Borehole Coeff 1	----	6.750	6.750
HI_CSDEPTH_OUT	RAB: Allow Hi-Resolution CS_DEPTH Image Data Output	----	NO	NO
HI_DLIS_OUT	RAB: Allow Hi-Resolution DLIS Image Data Output	----	NO	NO
HI_RIVER_OUT	RAB: Allow Hi-Resolution River for Image Data Output	----	NO	NO
IMAGE_MAX_GR	RAB: GR Image Maximum Scale Value	GAPI	120.000	120.000
IMAGE_MAX_RES	RAB: Image Maximum Resistivity Value	OHMM	100.000	100.000
IMAGE_MIN_GR	RAB: GR Image Minimum Scale Value	GAPI	20.000	20.000
IMAGE_MIN_RES	RAB: Image Minimum Resistivity Value	OHMM	1.000	1.000
JSD_RAB	RAB Acquisition start date	OHMM	1.000	1.000
KPER	Potassium Concentration (RM)	----	3.800	4.100
MAG_DECL_RAB	RAB: Magnetic Declination	DEG	13.340	13.340
MAG_INCL_RAB	RAB: Magnetic Dip	DEG	-69.110	-69.110
MBUTTON_K_FACTO	RAB: Button Medium K Factor	----	0.005	0.005
OBM	RAB: Oil base Mud	----	NO	NO
ORIENTATION_RM	Rab Image Orientation	----	TOH	TOH
RABBDA0	RAB: Button Deep A0 Coeff	----	-0.052	-0.052
RABBDA1	RAB: Button Deep A1 Coeff	----	0.021	0.021
RABBDA2	RAB: Button Deep A2 Coeff	----	-0.005	-0.005
RABBDA3	RAB: Button Deep A3 Coeff	----	0.000	0.000
RABBDA4	**RAB: Button Deep A4 Coeff**	**----**	**-0.000**	**-0.000**
RABBDA5	RAB: Button Deep A5 Coeff	----	0.000	0.000
RABBDMIN	RAB: Button Deep Minimum Value	----	0.051	0.051
RABBITA0	RAB: Bit A0 Coeff	----	4.118	4.151
RABBITA1	RAB: Bit A1 Coeff	----	-3.483	-3.391
RABBITA2	RAB: Bit A2 Coeff	----	12.438	12.570
RABBITA3	RAB: Bit A3 Coeff	----	-15.565	-16.026
RABBITA4	RAB: Bit A4 Coeff	----	6.978	7.250
RABBITA5	RAB: Bit A5 Coeff	----	0.000	0.000
RABBITMIN	RAB: Bit Minimum Value	----	21.119	21.119
RABBMA0	RAB: Button Medium A0 Coeff	----	-0.062	-0.062
RABBMA1	RAB: Button Medium A1 Coeff	----	0.027	0.027
RABBMA2	RAB: Button Medium A2 Coeff	----	-0.006	-0.006
RABBMA3	RAB: Button Medium A3 Coeff	----	0.001	0.001
RABBMA4	RAB: Button Medium A4 Coeff	----	-0.000	-0.000
RABBMA5	RAB: Button Medium A5 Coeff	----	0.000	0.000
RABBMMIN	RAB: Button Medium Minimum Value	----	0.060	0.060
RABBSA0	RAB: Button Shallow A0 Coeff	----	-0.074	-0.074
RABBSA1	RAB: Button Shallow A1 Coeff	----	0.032	0.032
RABBSA2	RAB: Button Shallow A2 Coeff	----	-0.007	-0.007
RABBSA3	RAB: Button Shallow A3 Coeff	----	0.001	0.001
RABBSA4	RAB: Button Shallow A4 Coeff	----	-0.000	-0.000
RABBSA5	RAB: Button Shallow A5 Coeff	----	0.000	0.000
RABBSMIN	RAB: Button Shallow Minimum Value	----	0.086	0.086
RABDHS	RAB Down Hole Software	----	4.000	4.000
RABEC	RAB: Resistivity Env-Cor	----	YES	YES
RABRNGA0	RAB: RING A0 Coeff	----	-0.048	-0.048
RABRNGA1	RAB: RING A1 Coeff	----	0.019	0.020
RABRNGA2	RAB: RING A2 Coeff	----	-0.004	-0.004
RABRNGA3	RAB: RING A3 Coeff	----	0.000	0.000
RABRNGA4	RAB: RING A4 Coeff	----	-0.000	-0.000
RABRNGA5	RAB: RING A5 Coeff	----	0.000	0.000
RABRNGMIN	RAB: Ring Minimum Value	----	1.697	1.697
RAB_BIT_ECAL	Bit Resistivity for ECAL_RAB?	----	YES	YES
RAB_BIT_INVERSI	Input Bit Resistivity for Inversion? (Recommended at the bit)	----	NO	YES
RAB_CALIPER_CAL	Compute ECAL_RAB?	----	NO	NO
RAB_DATA_FIX	RAB: Create A Corrected RAB Time Data File	----	NO	NO
RAB_DATA_LTB	RAB: Create An RAB LTB Data File	----	NO	NO
RAB_DEEPBTN_ECA	Deep Button Resistivity for ECAL_RAB?	----	YES	YES
RAB_DEEPBTN_INV	Input Deep Button Resistivity for Inversion?	----	YES	YES
RAB_INVERSION	Perform Rt Inversion?	----	NO	NO
RAB_INVERSION_B	RAB Bit Sensor Weight for Inversion[0,1]	----	0.000	1.000
RAB_INVERSION_B	Ending Depth for GR Cutoff in Zone1 (default whole well)	M	30480.000	30480.000
RAB_INVERSION_B	Ending Depth of Zone10	M	-304.571	-304.571
RAB_INVERSION_B	Ending Depth of Zone2	M	-304.571	-304.571
RAB_INVERSION_B	Ending Depth of Zone3	M	-304.571	-304.571
RAB_INVERSION_B	Ending Depth of Zone4	M	-304.571	-304.571
RAB_INVERSION_B	Ending Depth of Zone5	M	-304.571	-304.571

RAB_INVERSION_B	Ending Depth of Zone6	M	−304.571	−304.571
RAB_INVERSION_B	Ending Depth of Zone7	M	−304.571	−304.571
RAB_INVERSION_B	Ending Depth of Zone8	M	−304.571	−304.571
RAB_INVERSION_B	Ending Depth of Zone9	M	−304.571	−304.571
RAB_INVERSION_C	Continuity Multiplier[0,1]	----	0.500	0.500
RAB_INVERSION_D	RAB Deep Button Sensor Weight for Inversion[0,1]	----	1.000	1.000
RAB_INVERSION_D	RAB inversion for Dh?	----	YES	YES
RAB_INVERSION_D	RAB inversion for Di?	----	YES	YES
RAB_INVERSION_G	GR Cutoff for Shale Formation	----	75.000	75.000
RAB_INVERSION_G	GR Cutoff for Shale Formation in Zone1(default whole well)	GAPI	75.000	75.000
RAB_INVERSION_G	GR Cutoff in Zone10	GAPI	75.000	75.000
RAB_INVERSION_G	GR Cutoff in Zone2	GAPI	75.000	75.000
RAB_INVERSION_G	GR Cutoff in Zone3	GAPI	75.000	75.000
RAB_INVERSION_G	GR Cutoff in Zone4	GAPI	75.000	75.000
RAB_INVERSION_G	GR Cutoff in Zone5	GAPI	75.000	75.000
RAB_INVERSION_G	GR Cutoff in Zone6	GAPI	75.000	75.000
RAB_INVERSION_G	GR Cutoff in Zone7	GAPI	75.000	75.000
RAB_INVERSION_G	GR Cutoff in Zone8	GAPI	75.000	75.000
RAB_INVERSION_G	GR Cutoff in Zone9	GAPI	75.000	75.000
RAB_INVERSION_M	RAB Medium Button Sensor Weight for Inversion[0,1]	----	1.000	1.000
RAB_INVERSION_R	Resistivity Cutoff for Shale Formation	OHMM	2.000	2.000
RAB_INVERSION_R	Resistive Invasion Allowed	----	NO	NO
RAB_INVERSION_R	RAB Ring Sensor Weight for Inversion[0,1]	----	1.000	1.000
RAB_INVERSION_R	RAB inversion for Rmud?	----	NO	NO
RAB_INVERSION_R	RAB inversion for Rt?	----	YES	YES
RAB_INVERSION_R	Rt to R−deepest separation penalty multiplier[0,1]	----	0.500	0.500
RAB_INVERSION_R	RAB inversion for Rxo?	----	YES	YES
RAB_INVERSION_S	GR of Clean Sand Formation	----	−999.250	−999.250
RAB_INVERSION_S	GR of Shale Formation	----	−999.250	−999.250
RAB_INVERSION_S	RAB Shallow Button Sensor Weight for Inversion[0,1]	----	1.000	1.000
RAB_INVERSION_T	Inversion Threshold[0, 0.3]	----	0.010	0.010
RAB_INVERSION_W	Formation Water Resistivity	OHMM	0.100	0.100
RAB_INVERSION_W	Formation Water Temperature	----	150.000	150.000
RAB_MEDIUMBTN_E	Medium Button Resistivity for ECAL_RAB?	----	YES	YES
RAB_MEDIUMBTN_I	Input Medium Button Resistivity for Inversion?	----	YES	YES
RAB_QUAD	RAB: Process Quadrant data ?	----	YES	YES
RAB_RIGMODE_ECA	Bit on Bottom?	----	YES	YES
RAB_RING_ECAL	Ring Resistivity for ECAL_RAB?	----	YES	YES
RAB_RING_INVERS	Imput RING Resistivity for Inversion?	----	YES	YES
RAB_SHALLOWBTN_	Shallow Button Resistivity for ECAL_RAB?	----	YES	YES
RAB_SHALLOWBTN_	Input Shallow Button Resistivity for Inversion?	----	YES	YES
RAB_TAB	RAB: Compute TAB ?	----	YES	YES
RAB_TECHLOG	RAB: Generate Techlog ?	----	YES	YES
RAB_TEMP_SELECT	RAB Temperature Selection	----	MEASURED	MEASURED
RAB_TICKS	RAB: Generate Ticks ?	----	YES	YES
READOUT_PORT_MP	RAB: ROP to Bit Face Distance	M	12.560	12.650
RINGBHCA	RAB: Ring Borehole A Factor	----	0.160	0.160
RINGBHCB	RAB: Ring Borehole B Factor	----	0.000	0.000
RING_KIMP_A	RAB: Ring Impedance Coeff A	----	0.000	0.000
RING_KIMP_B	RAB: Ring Impedance Coeff B	----	0.000	0.000
RING_K_FACTOR	RAB: Ring K Factor	----	0.153	0.153
SBUTTON_K_FACTO	RAB: Button Shallow K Factor	----	0.007	0.007
SCALE_IMAGES	RAB: Process Image Data	----	YES	YES
STAB	RAB: Run with Stabilizer	----	YES	YES
TFF_OFFSET_RAB	RAB Time−Frame File Time Offset	S	0.000	0.000
TIMEFRAME_FILE_	RAB: Time Frame File Name	S	0.000	0.000
TOOLTYPE	RAB: Azimuthal Tool	----	YES	YES
TS_VERSION	RAB: ToolScope Software Version	----	−999.250	−999.250
VRAB6	Rab Tool type (ENP/PILOT)	----	RAB6_C_SERIES	RAB6_C_SERIES
WIN_SIZE_DYN_IM	RAB: Window Size for Scaling Dynamic Image	M	0.914	0.914
WRK	to Report Potassium Concentration (RM)	----	K_by_Wgt_%	K_by_Wgt_%

Schlumberger Drilling & Measurements ID13 Parameter Insert Header Software version 3.0c

IDEAL Version: ID13_0C_06

IDF

Format: GeoVISION Density Neutron Log **Vertical Scale: 1:500** **Graphics File Created: 27−Mar−2008 15:18**

PIP SUMMARY

Neutron Samples

Density Samples

Rate of Penetration, Averaged over Last 5ft (ROP5_RM)

200 (M/HR) 0

RAB Gamma Ray (GR_RAB)

0 (GAPI) 200

ROP*5 (ROP5)

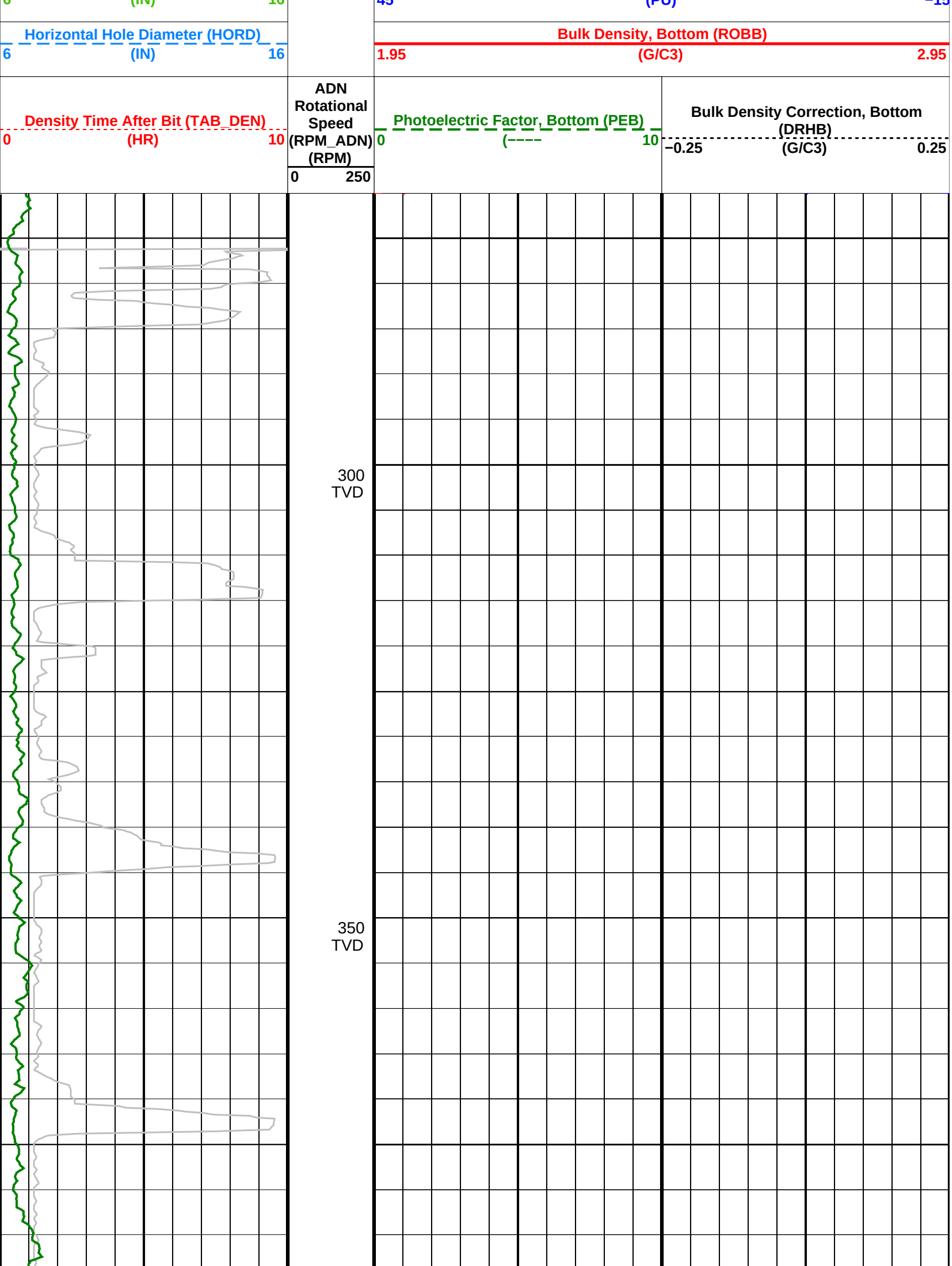
200 (M/HR) 0

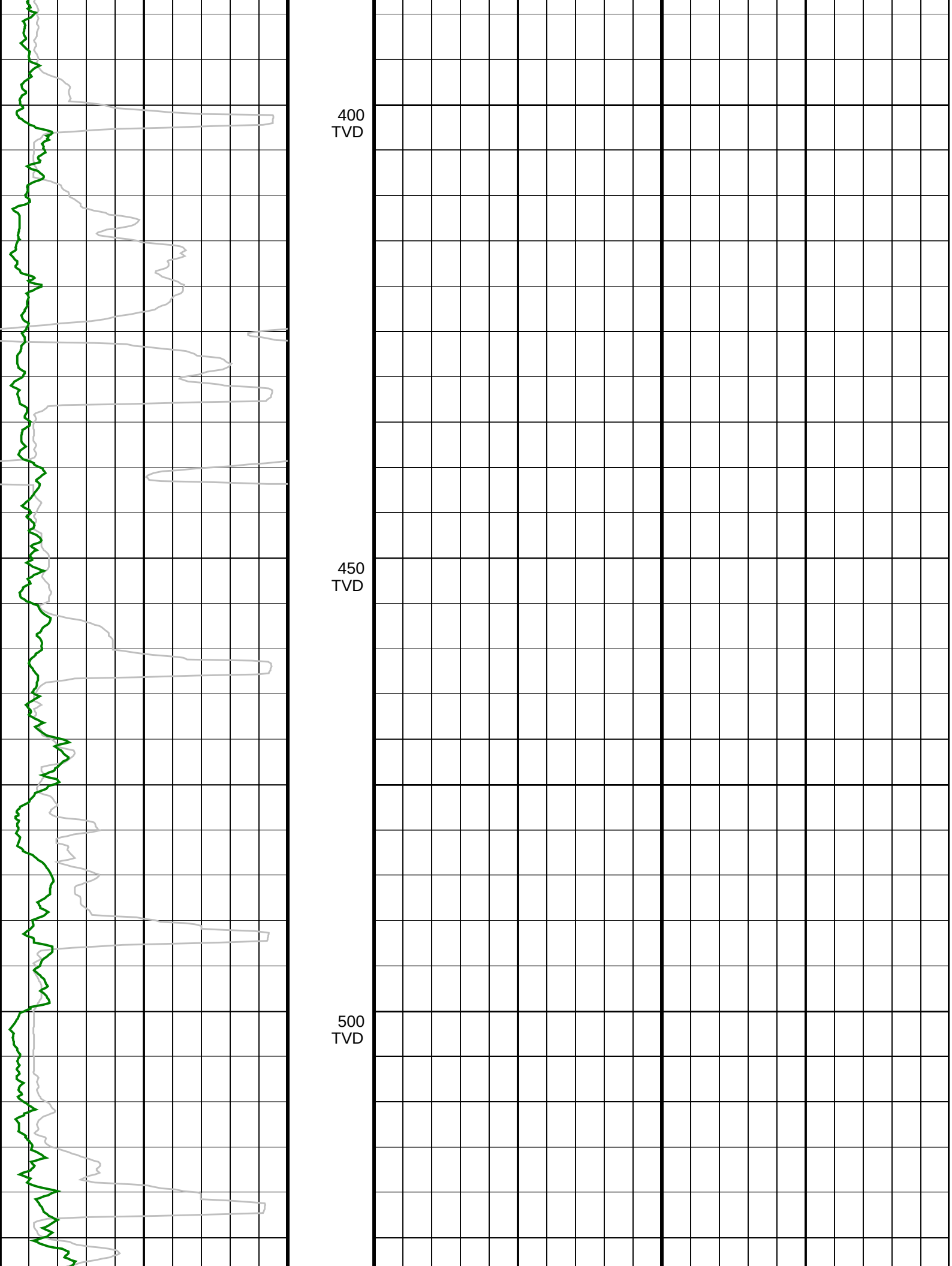
Vertical Hole Diameter (VERD)

6 (IN) 16

Thermal Neutron Porosity (TNPH)

45 (PU) −15


6 (IN) 16
45 (PU) −15
Horizontal Hole Diameter (HORD)
6 (IN) 16
Bulk Density, Bottom (ROBB)
1.95 (G/C3) 2.95
Density Time After Bit (TAB_DEN)
0 (HR) 10
ADN Rotational Speed (RPM_ADN) (RPM)
0 250
Photoelectric Factor, Bottom (PEB)
0 (−−−− 10
Bulk Density Correction, Bottom (DRHB)
−0.25 (G/C3) 0.25
300 TVD
350 TVD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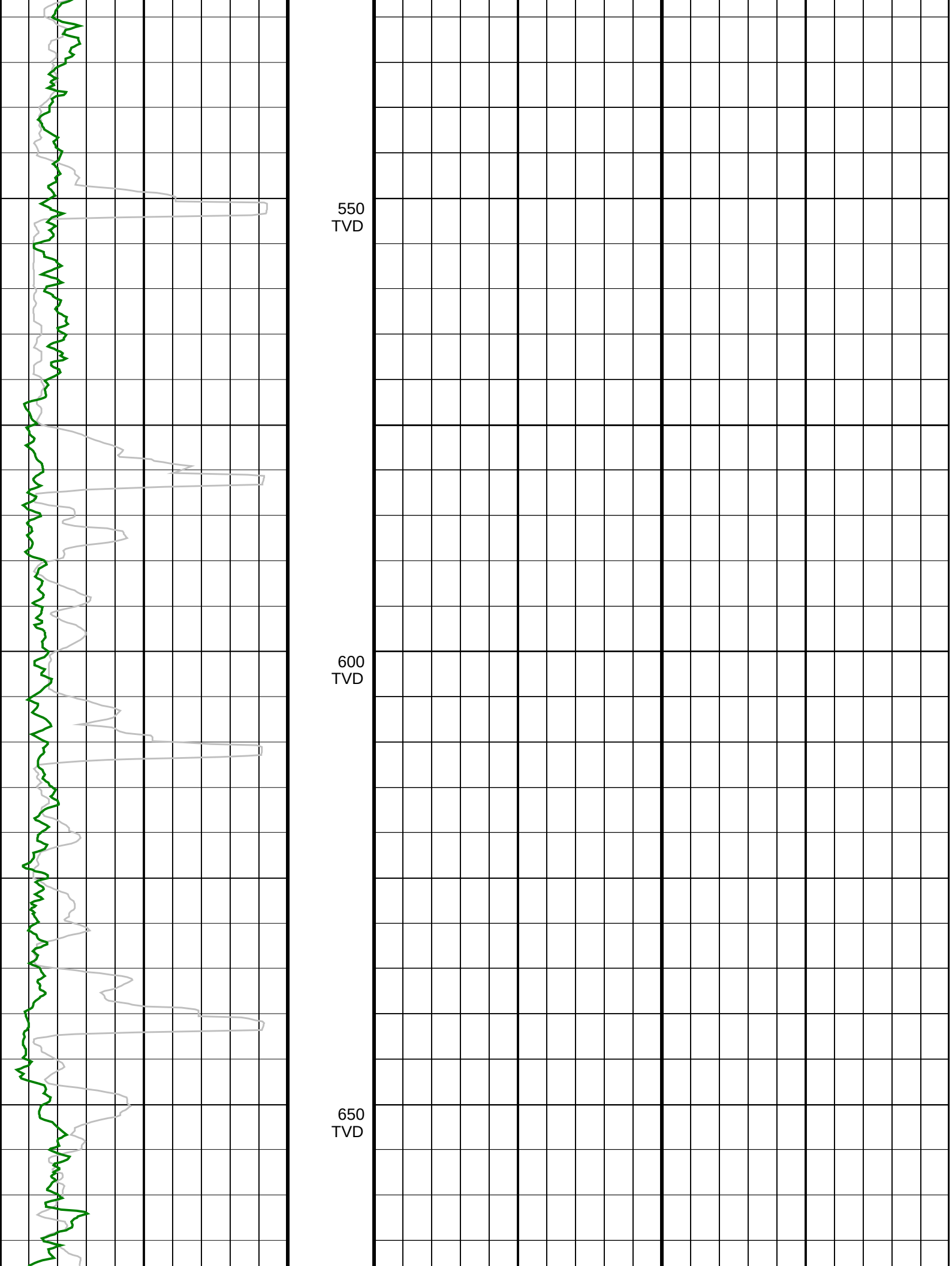
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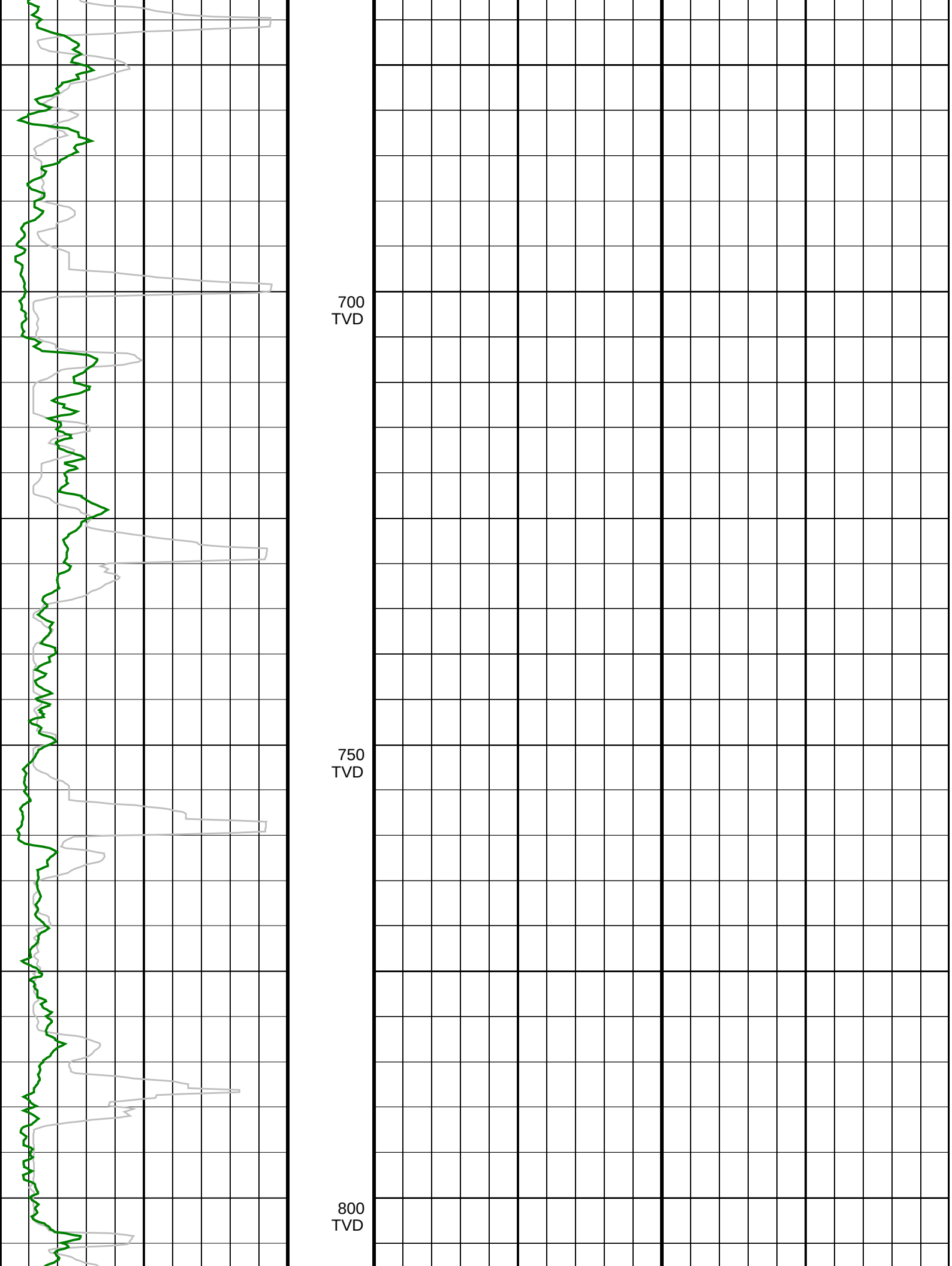
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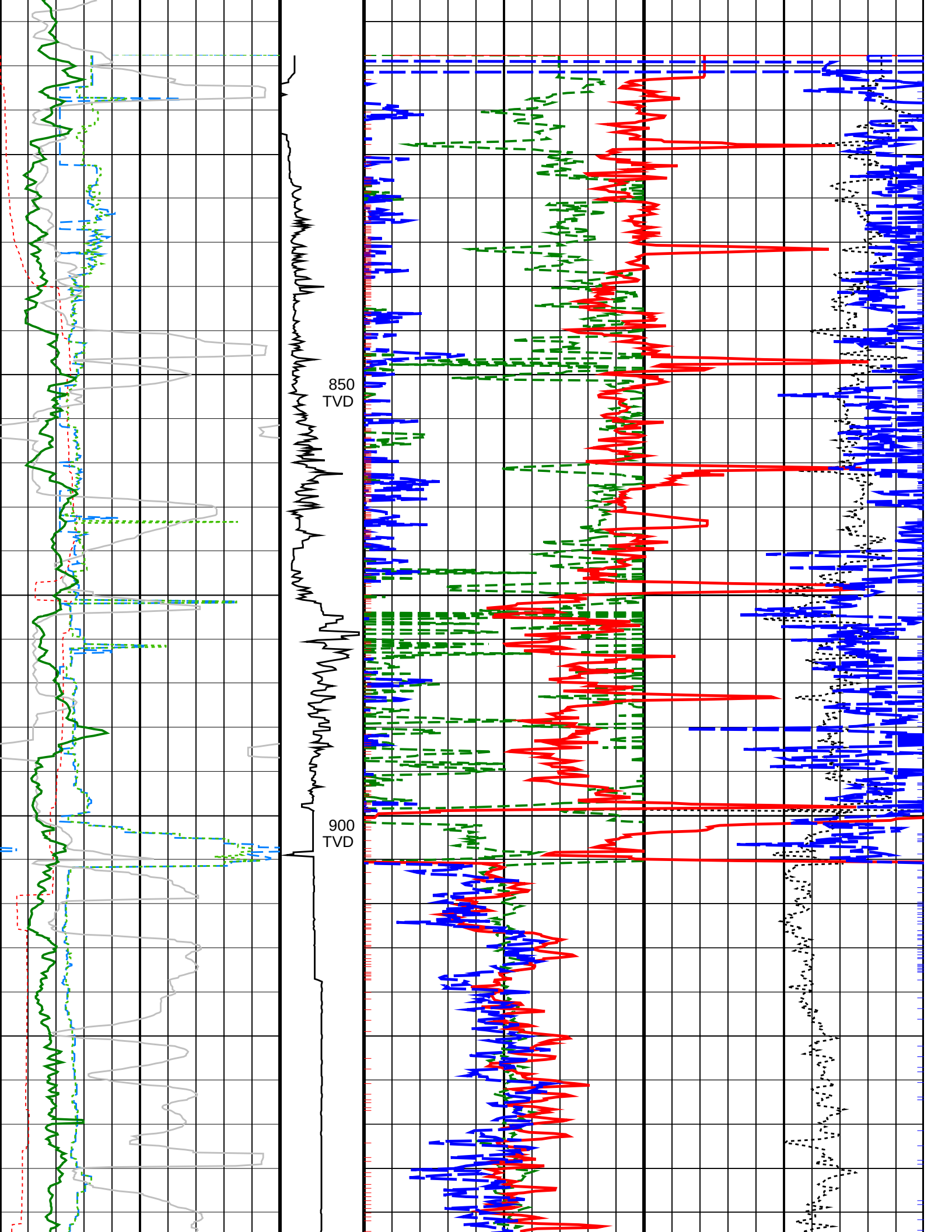
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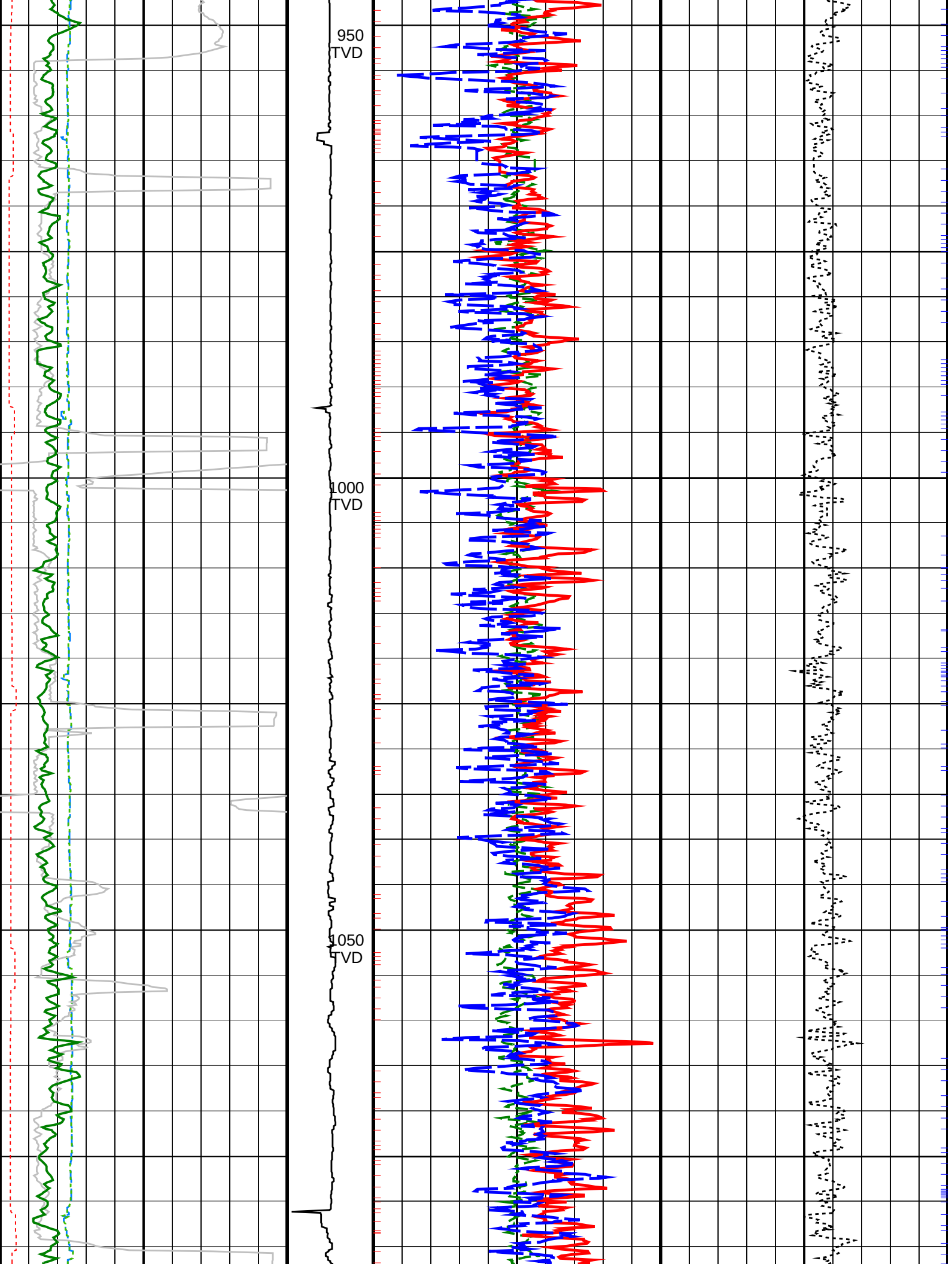
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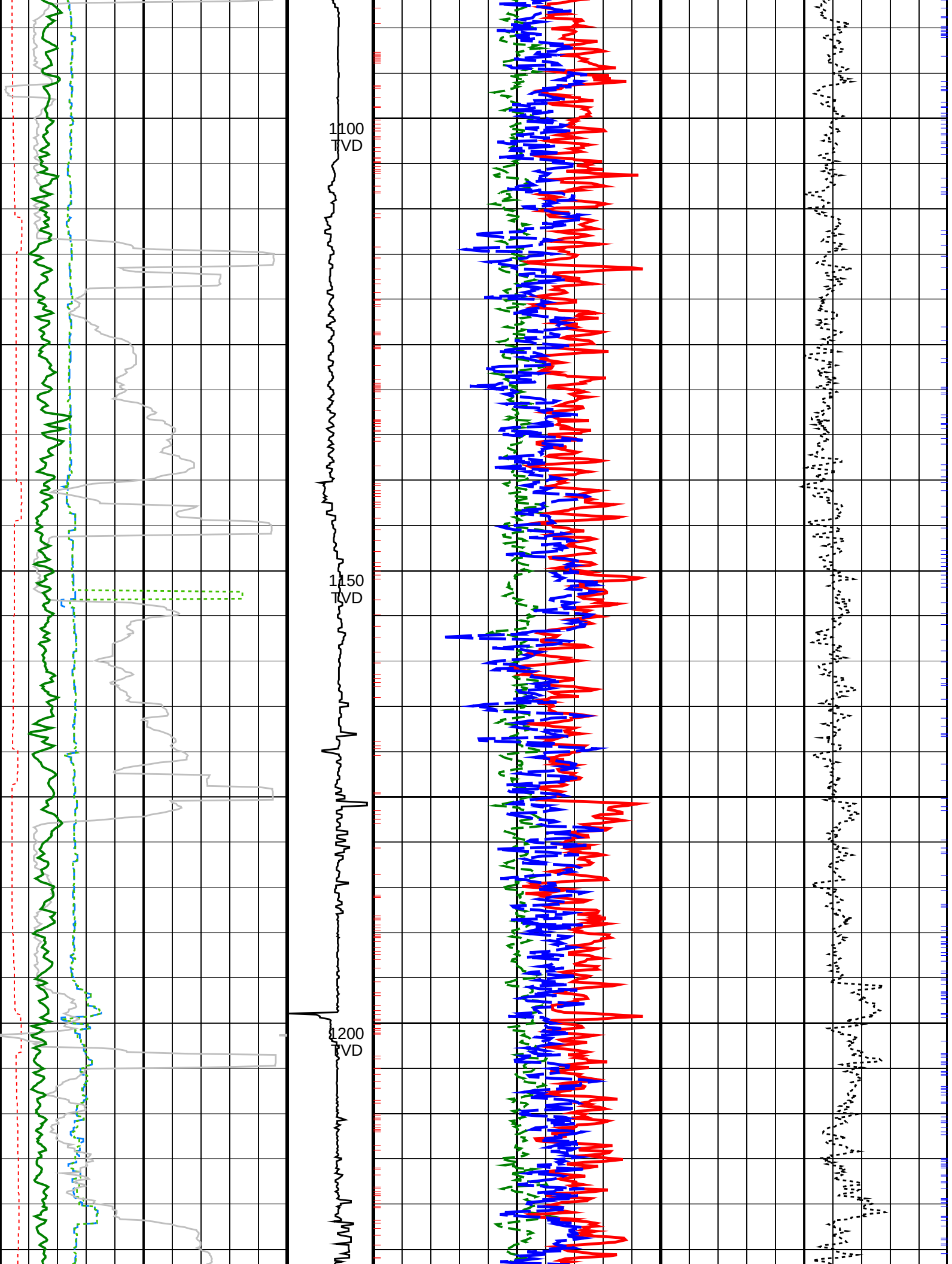
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1200
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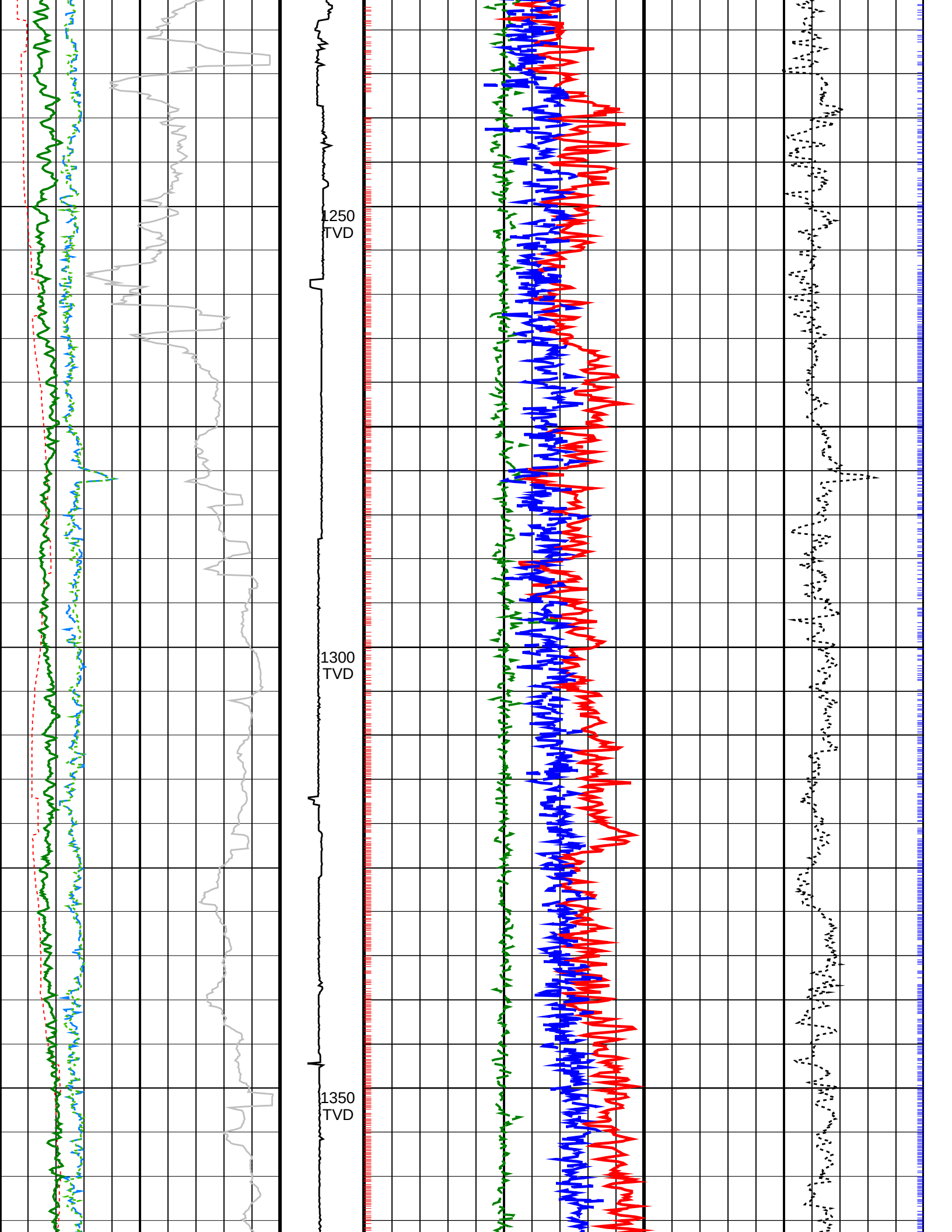
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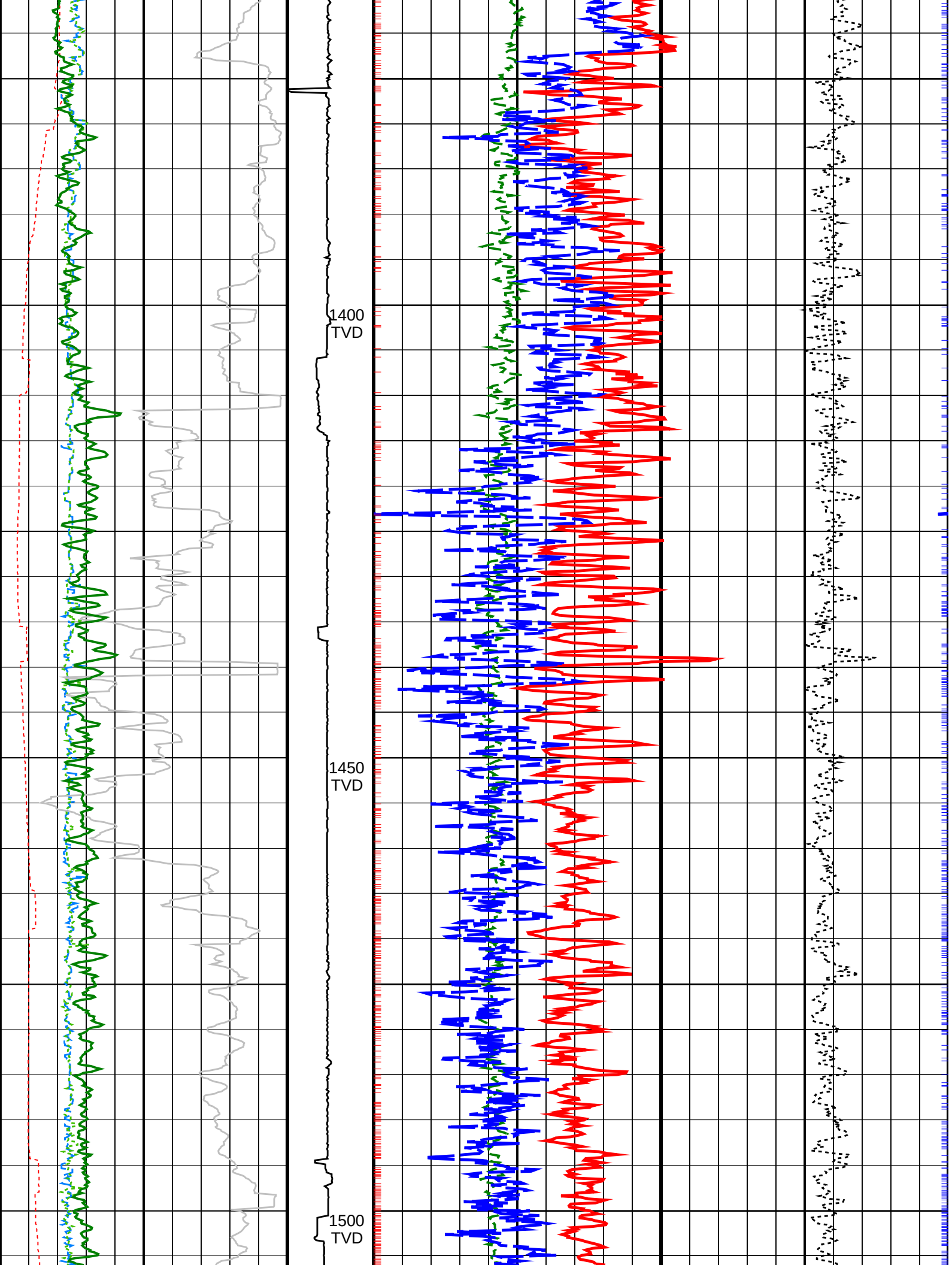
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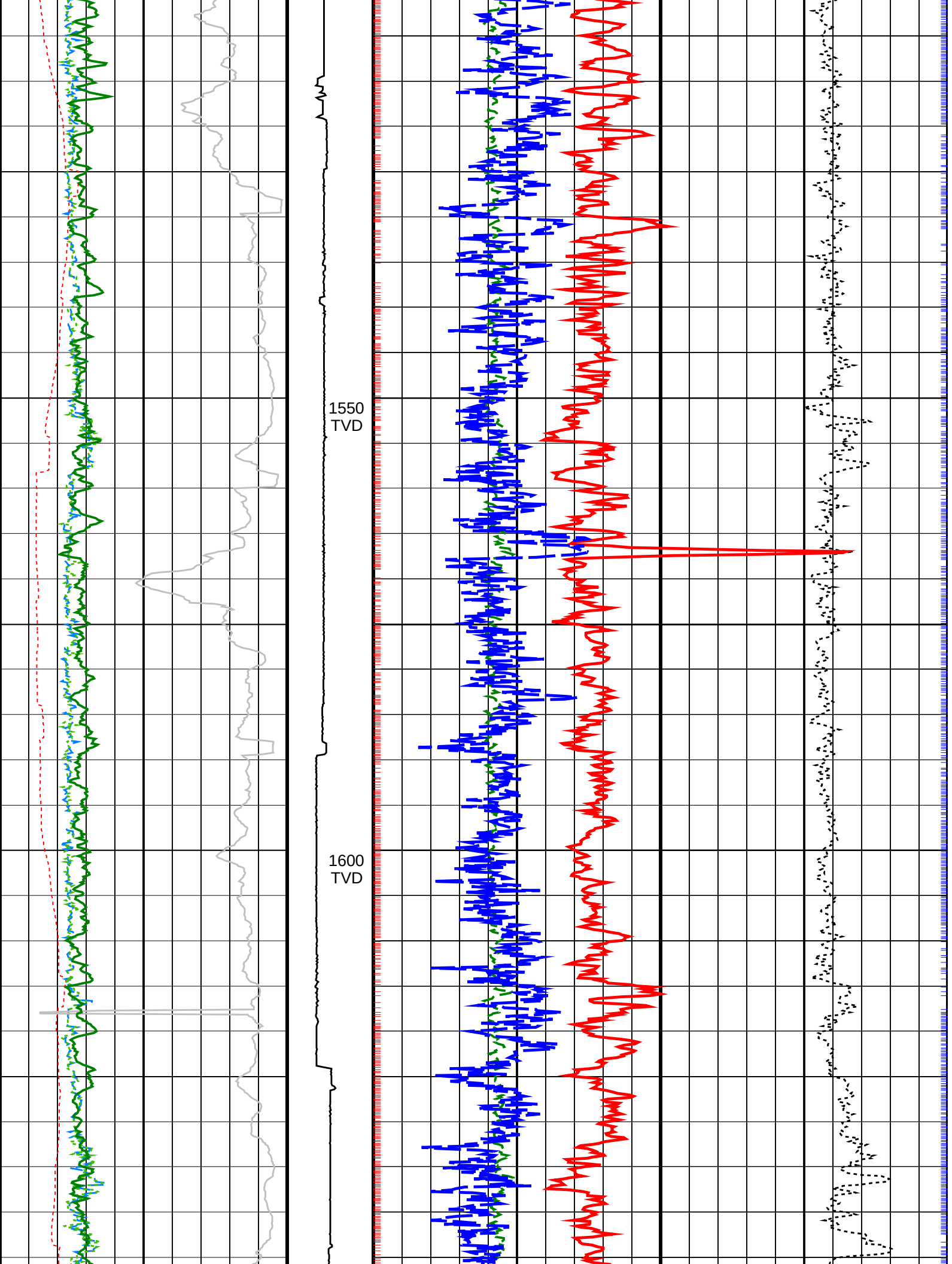
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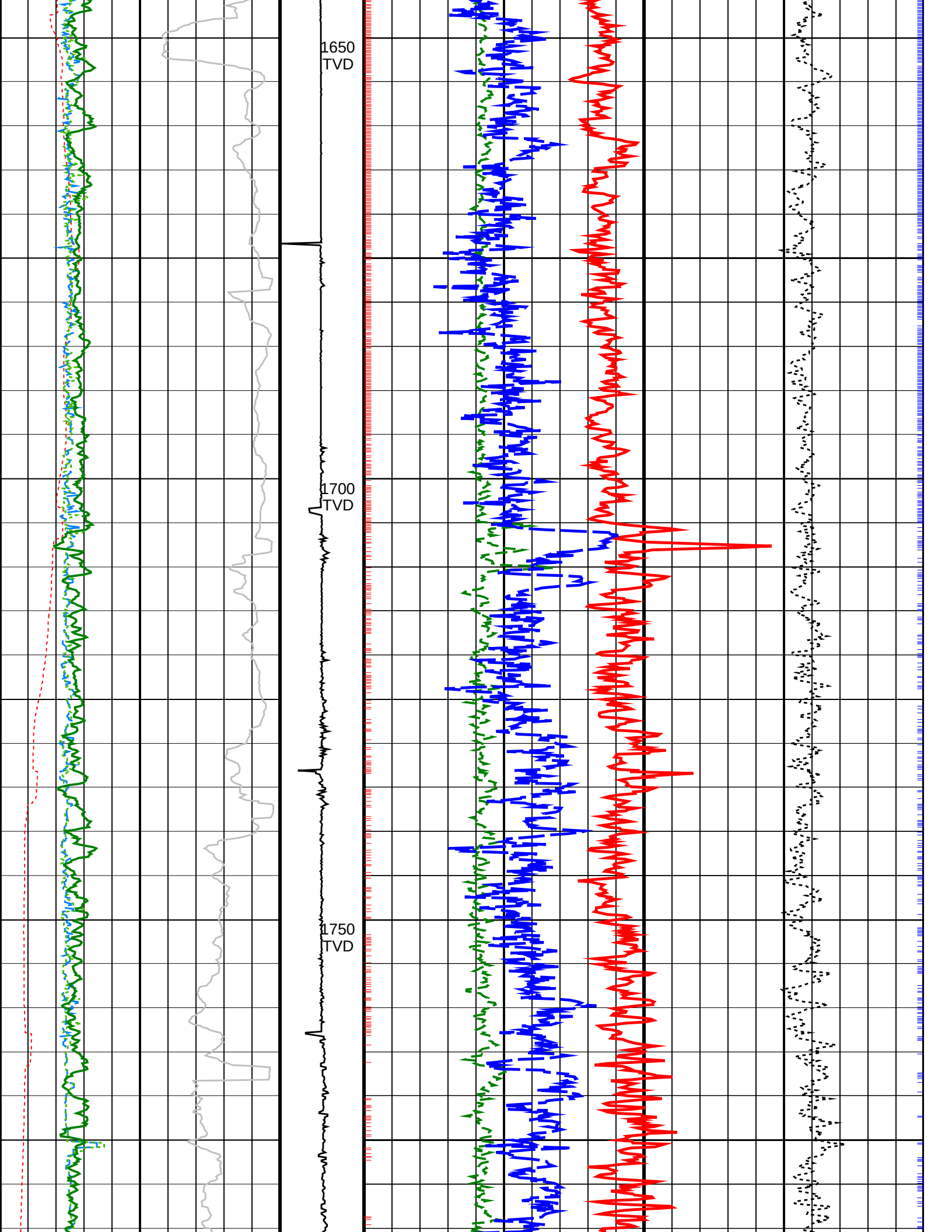
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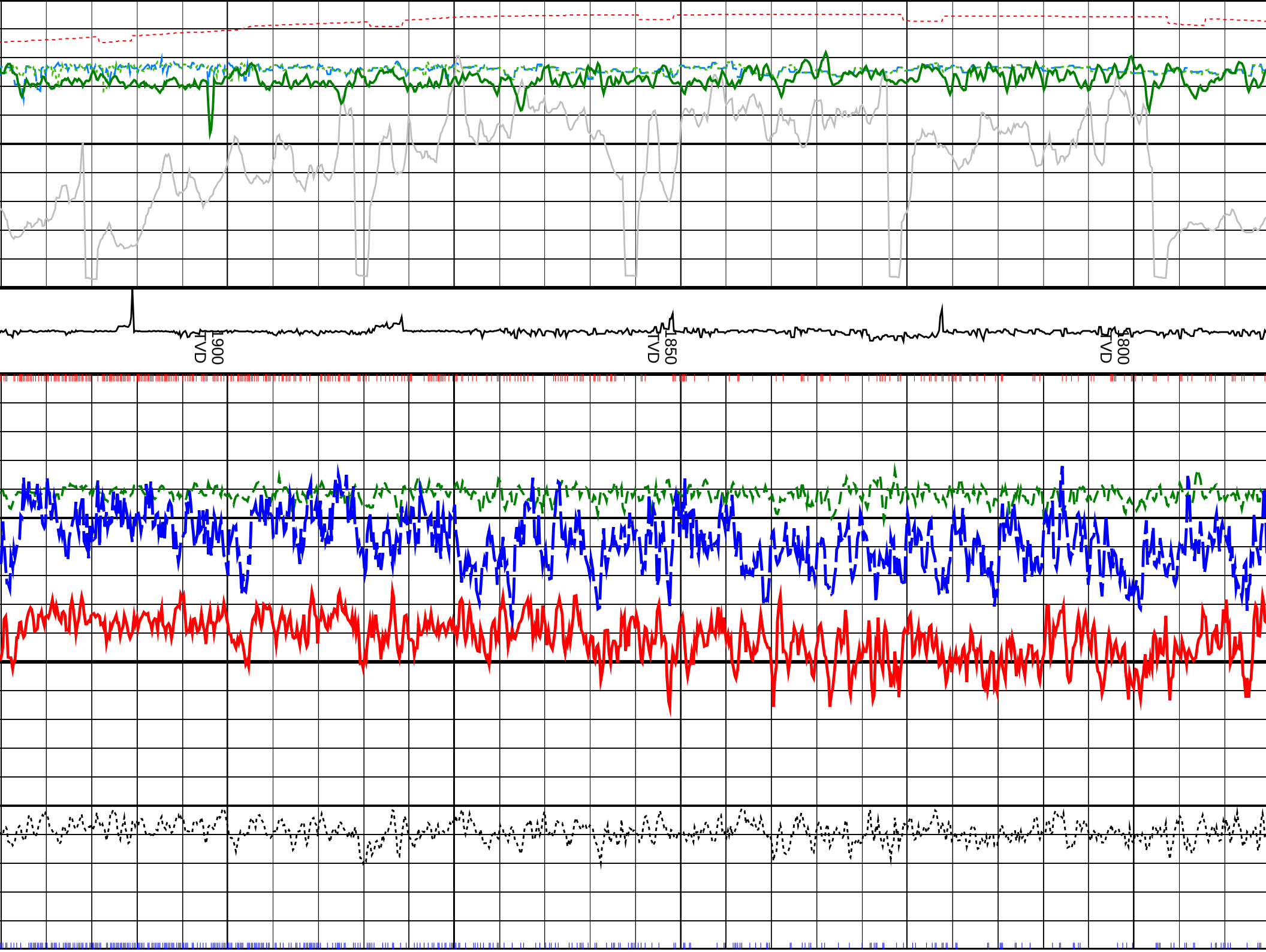
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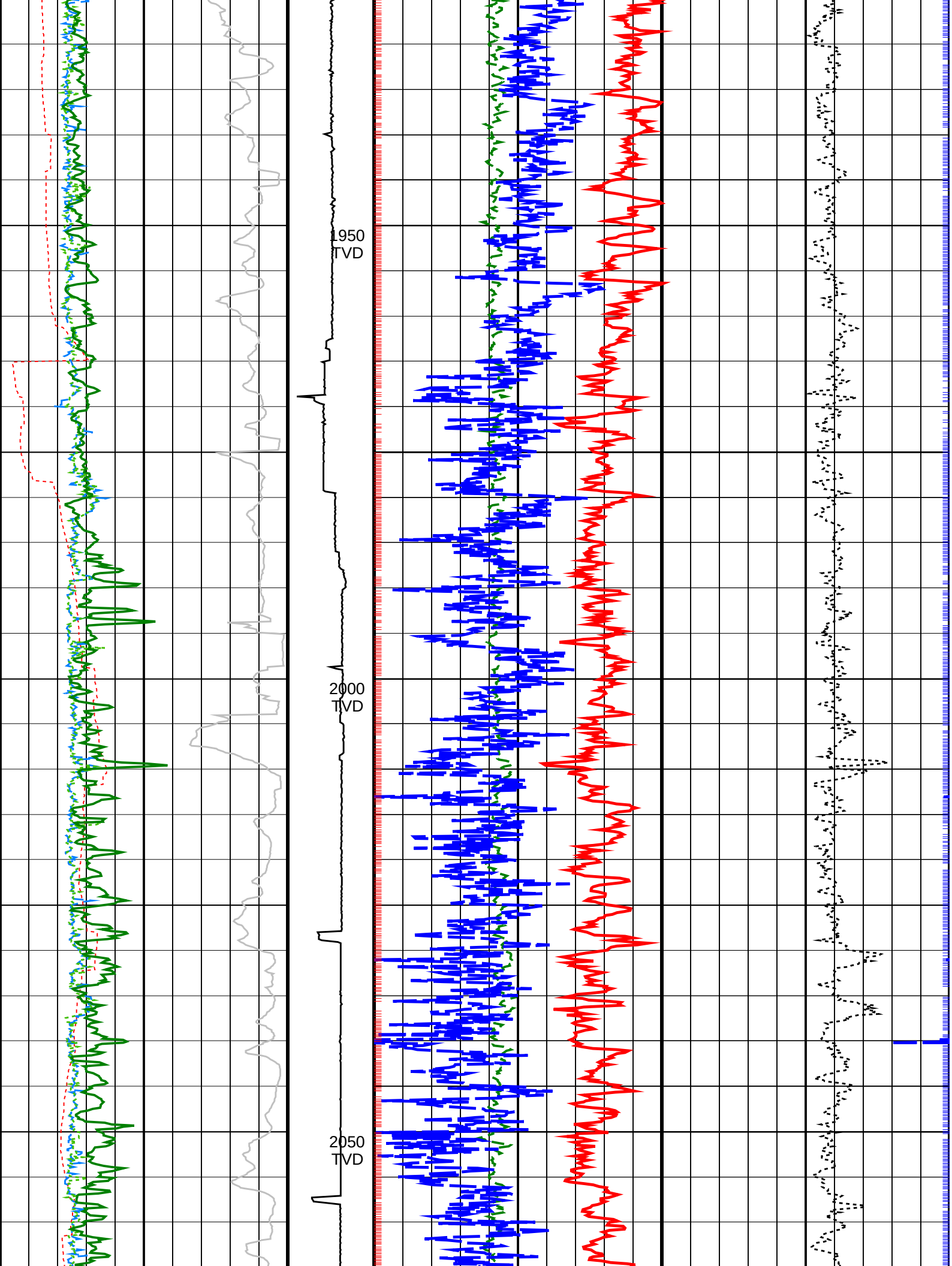
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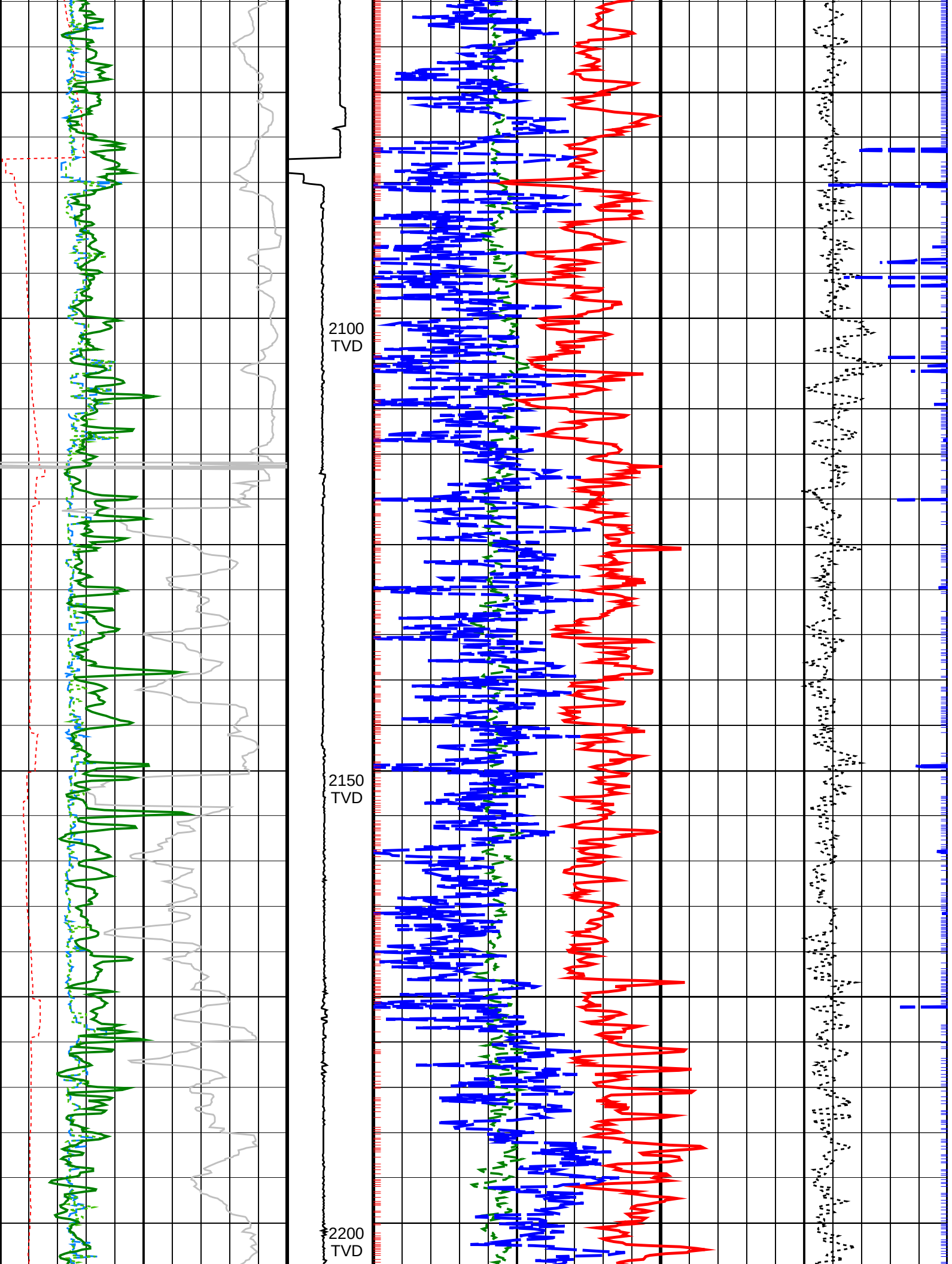
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TVD
2200
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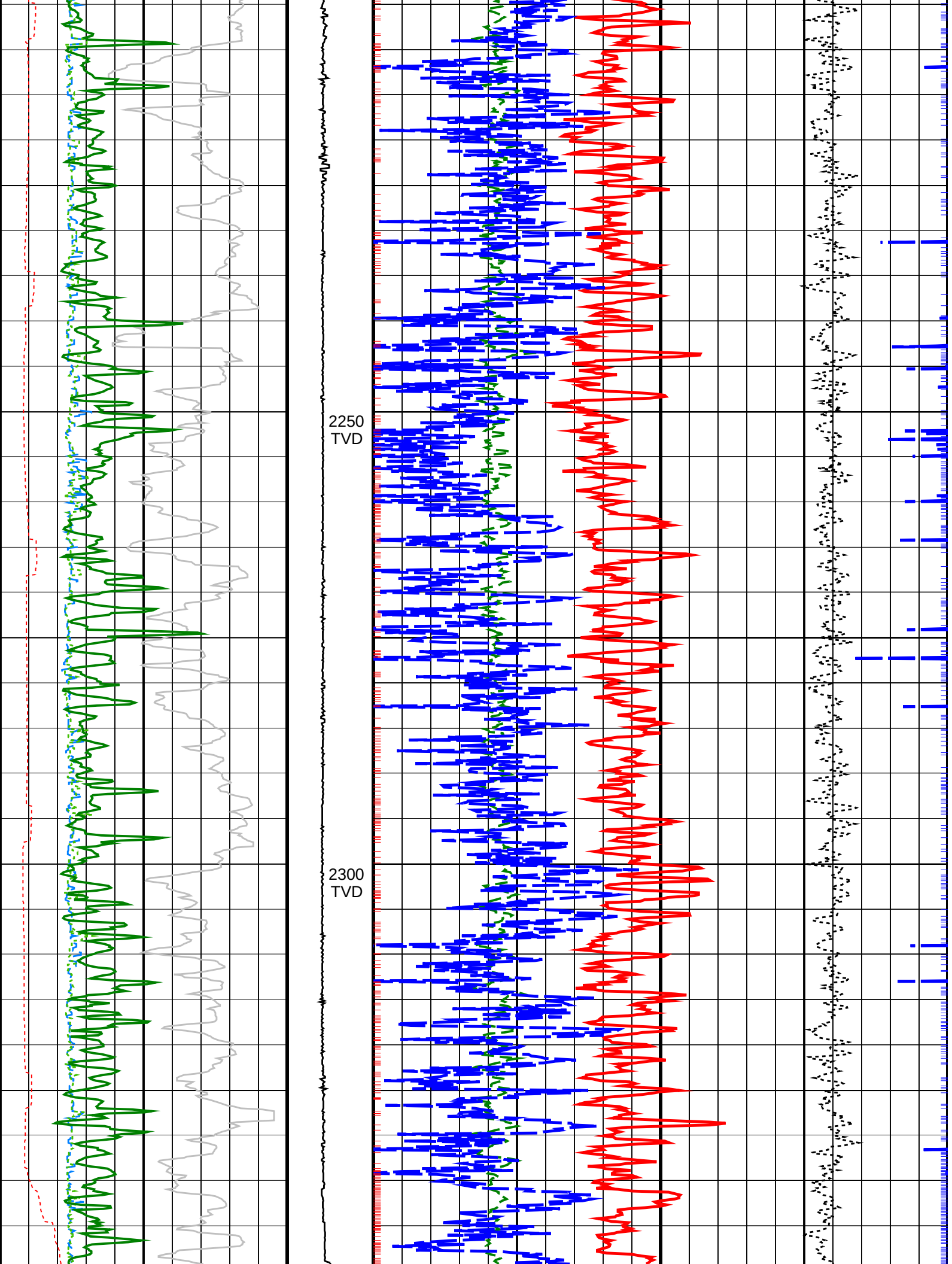
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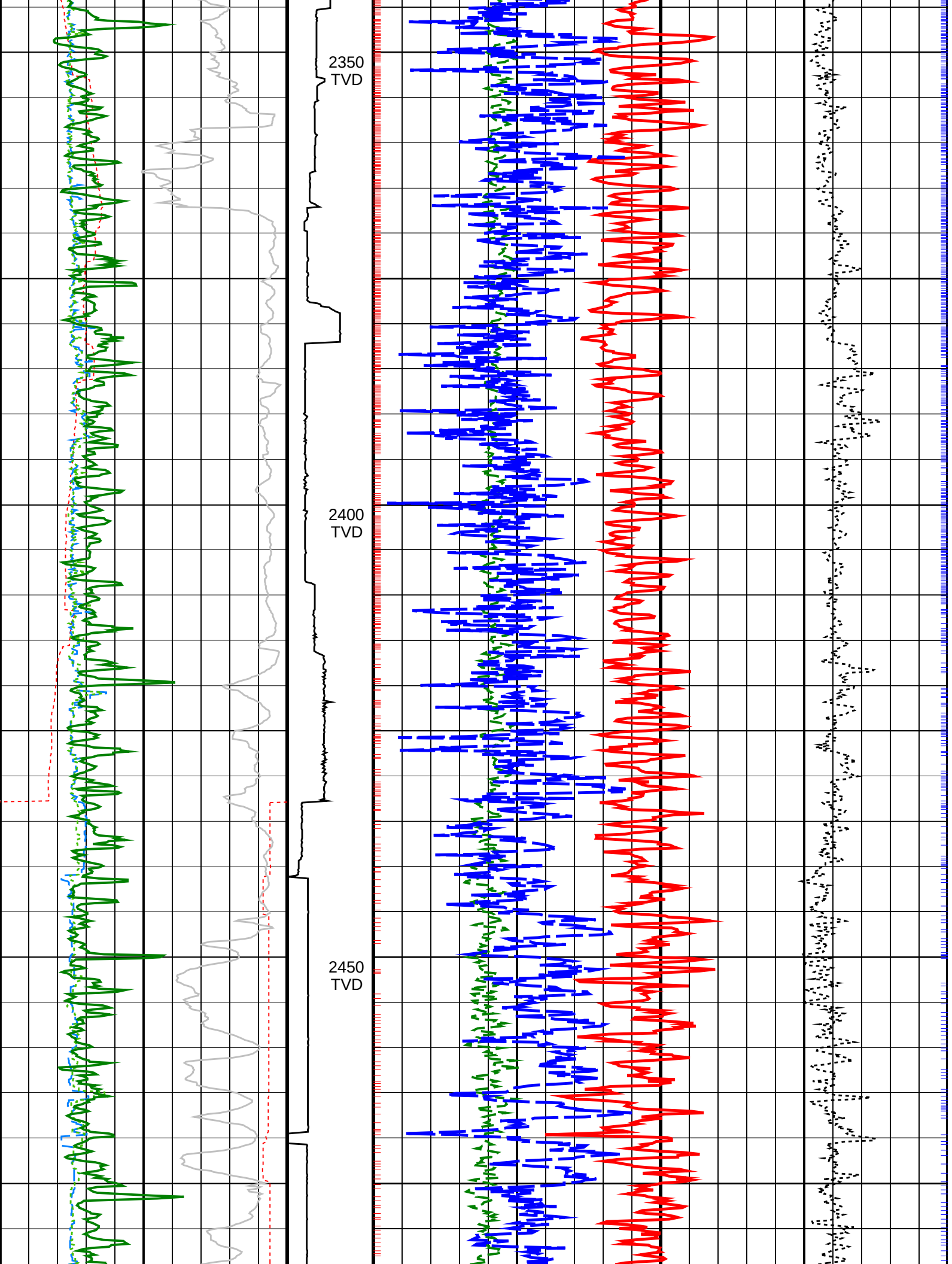
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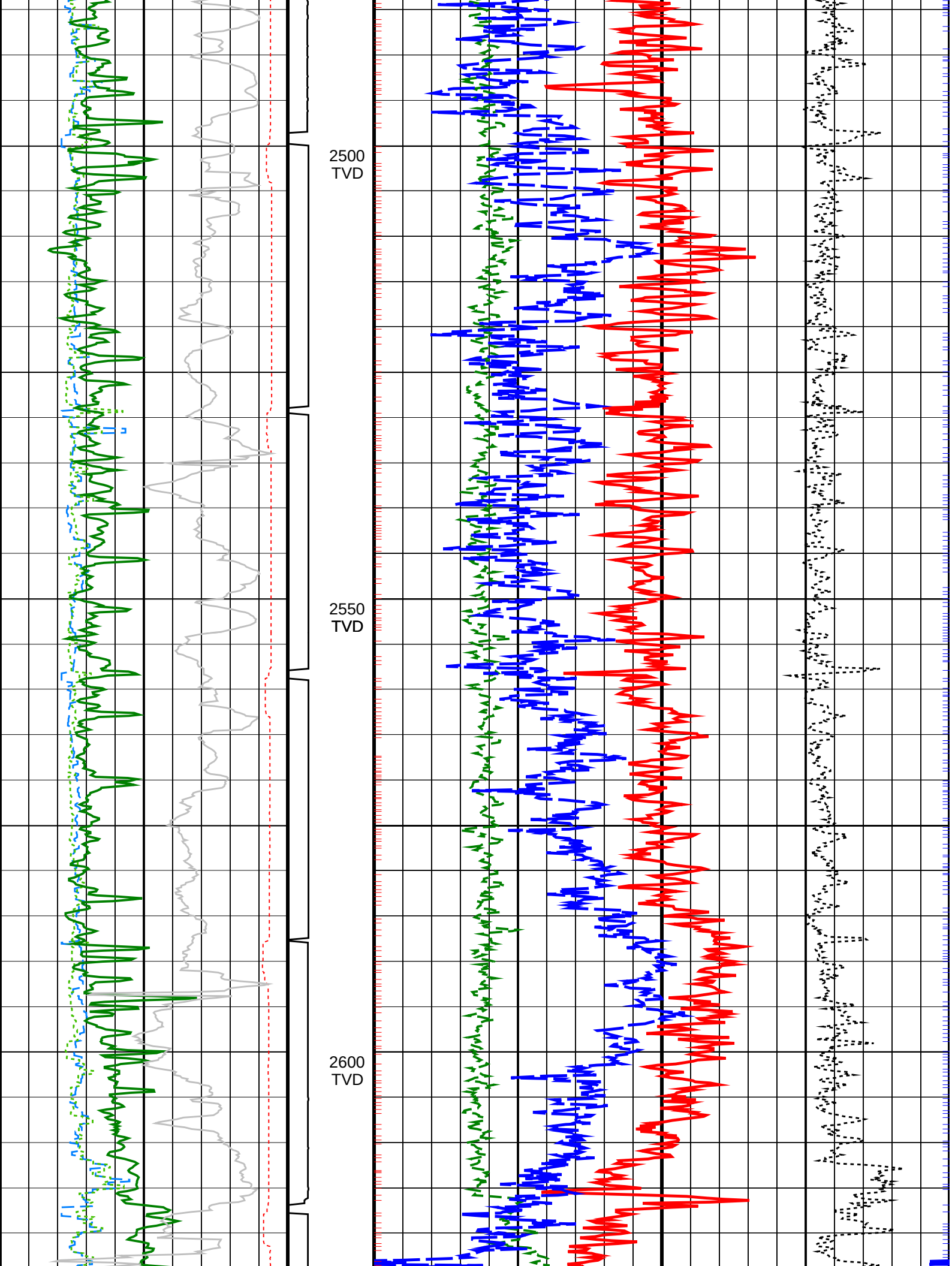
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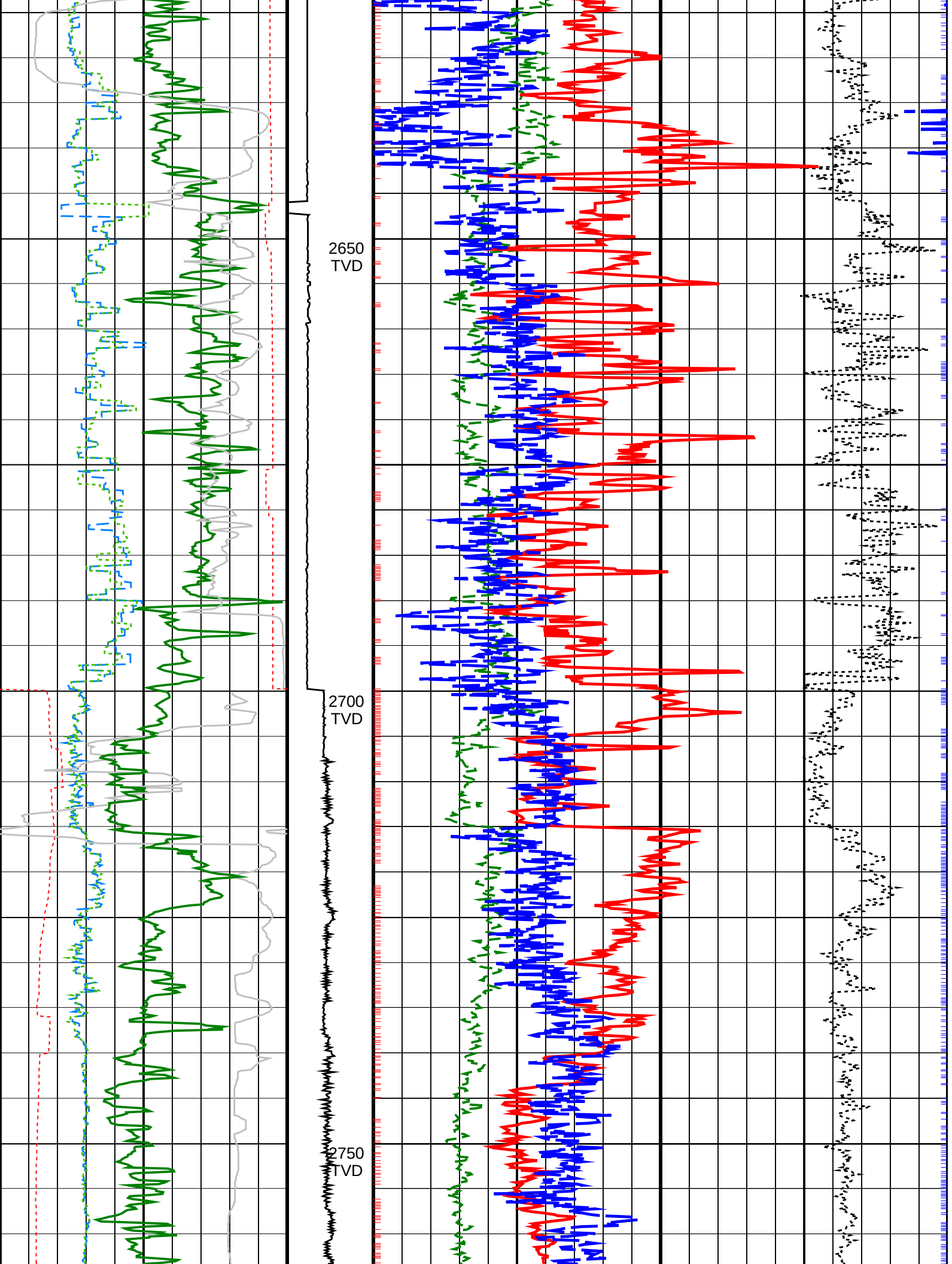
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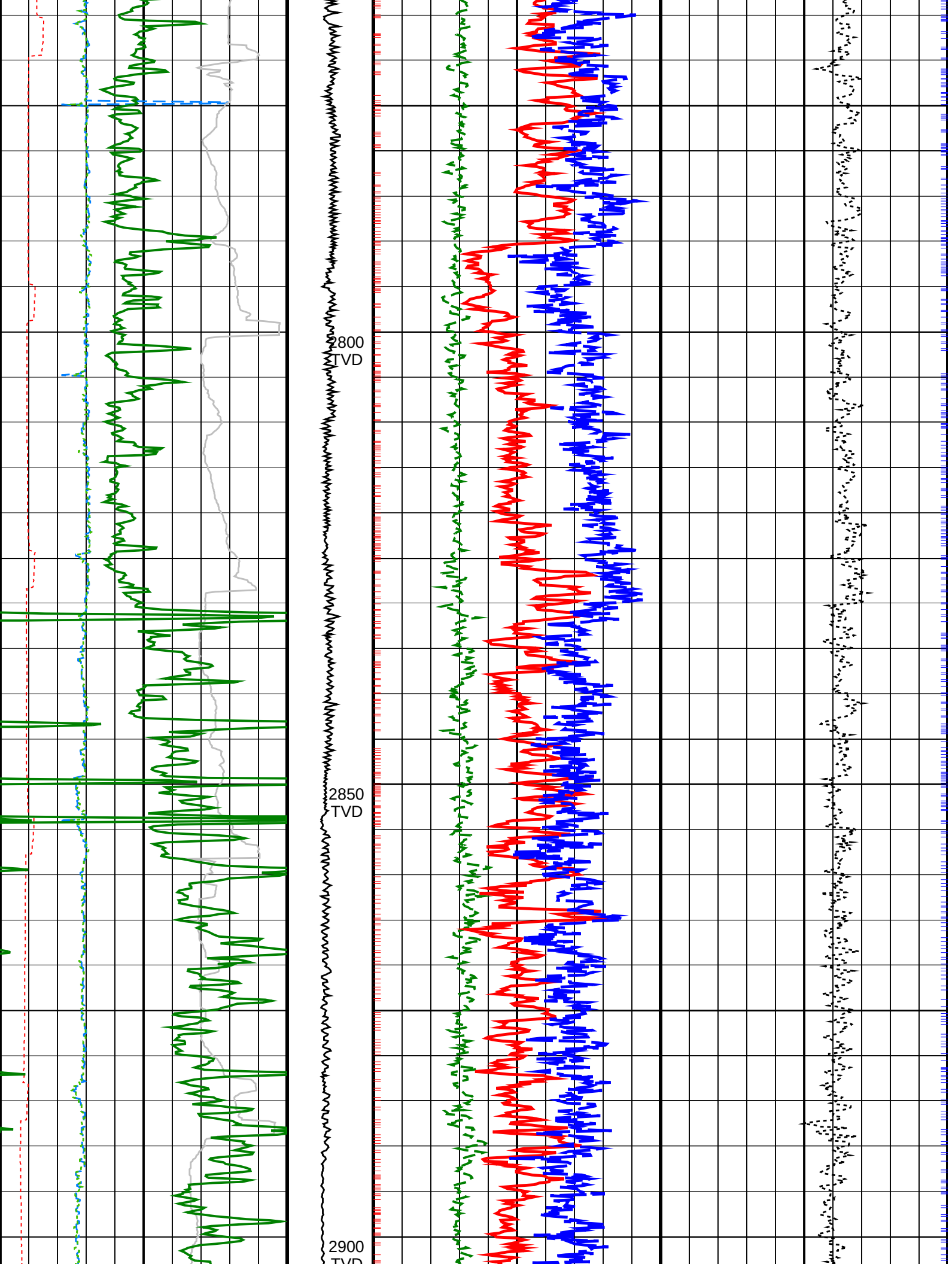
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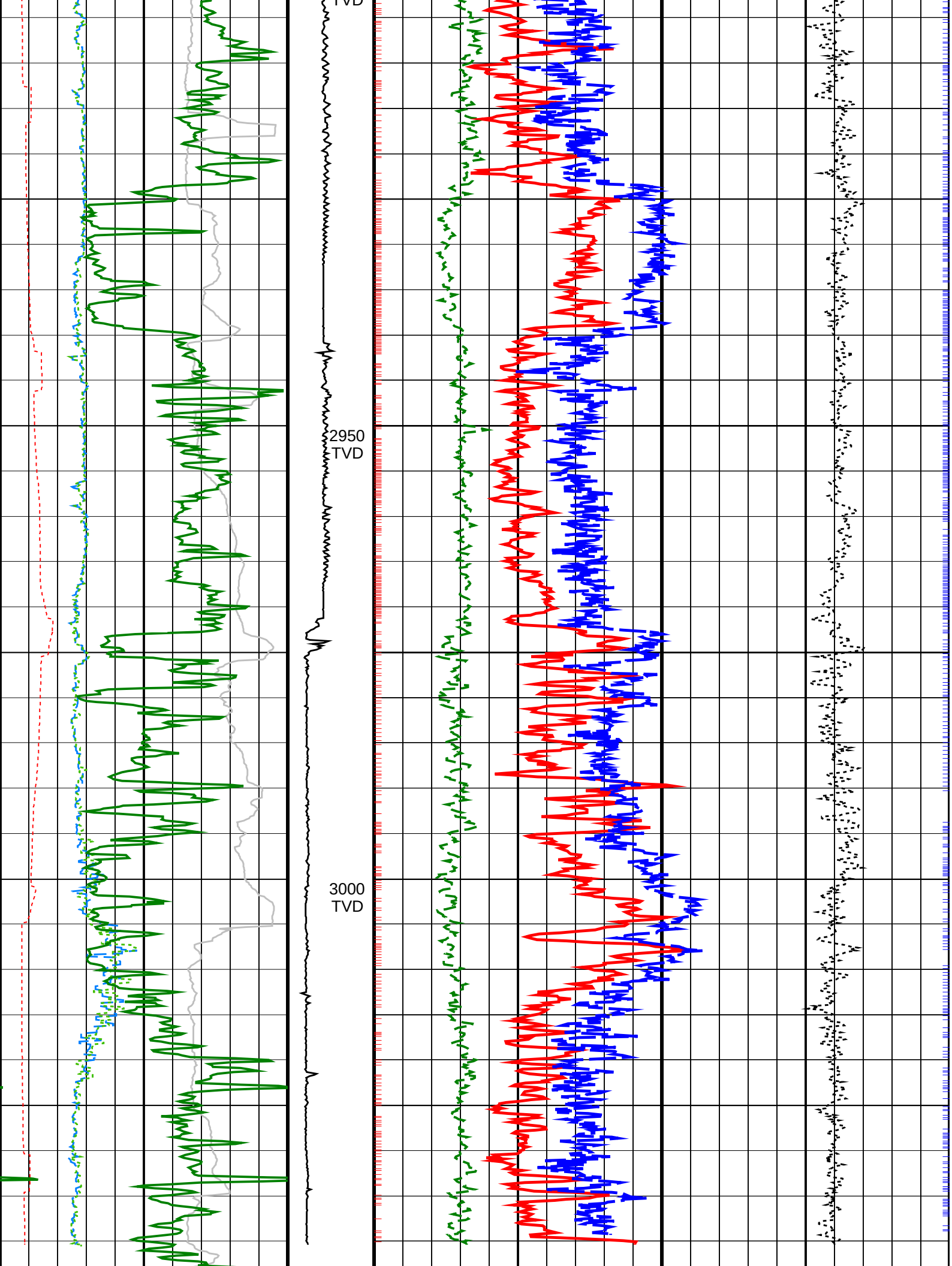
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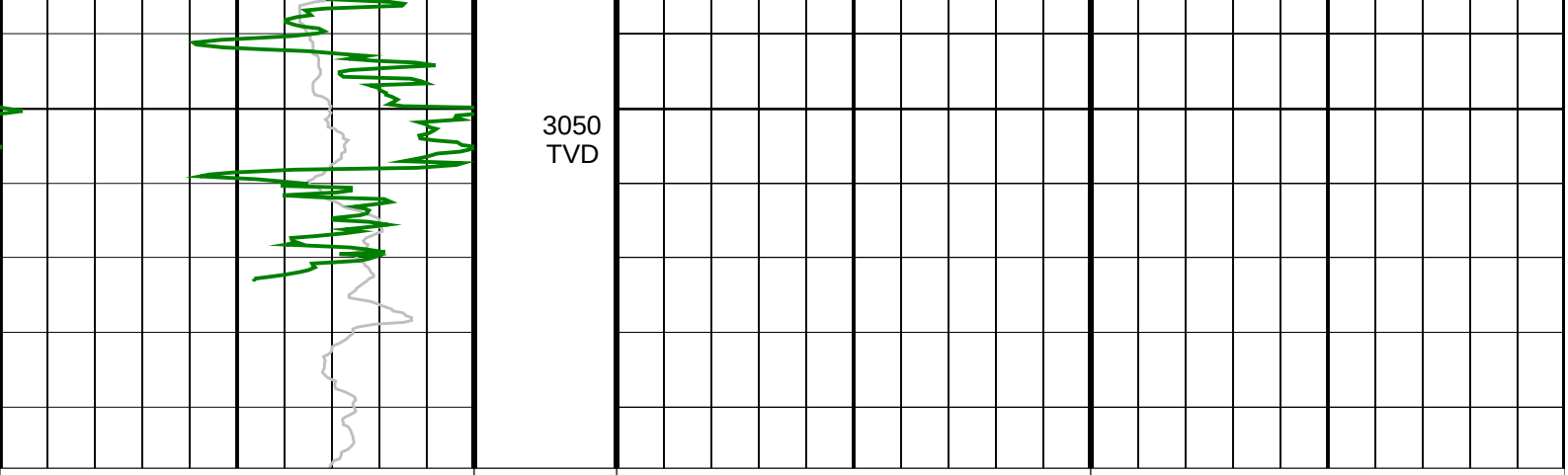


Density Time After Bit (TAB_DEN) 0 (HR) 10	ADN Rotational Speed (RPM_ADN) (RPM) 0 250	Photoelectric Factor, Bottom (PEB) 0 (----- 10
Bulk Density Correction, Bottom (DRHB) −0.25 (G/C3) 0.25		
Horizontal Hole Diameter (HORD) 6 (IN) 16		Bulk Density, Bottom (ROBB) 1.95 (G/C3) 2.95
Vertical Hole Diameter (VERD) 6 (IN) 16		Thermal Neutron Porosity (TNPH) 45 (PU) −15
ROP*5 (ROP5) 200 (M/HR) 0		
RAB Gamma Ray (GR_RAB) 0 (GAPI) 200		
Rate of Penetration, Averaged over Last 5ft (ROP5_RM) 200 (M/HR) 0		

PIP SUMMARY

Neutron Samples

Density Samples

IDEAL Version: ID13_0C_06

IDF

6.75−in. Resistivity At−the−Bit / Equipment Identification

Primary Equipment:

Tool Name and Serial Number	RAB6 − CA	214
Calibration Status	−	

Master: 1−Mar−2008 16:23

6.75−in. Resistivity At−the−Bit Calibration

Resistivity: Fixture

Phase	Ring/T1 factor ----	Value
Master		0.9982
0.9750 (Minimum)	1.000 (Nominal)	1.025 (Maximum)

Phase	Ring/T2 factor ----	Value
Master		0.9999
0.9750 (Minimum)	1.000 (Nominal)	1.025 (Maximum)

Phase	M0/T1 factor ----	Value
Master		1.003
0.9750 (Minimum)	1.000 (Nominal)	1.025 (Maximum)

Phase	M0/T2 factor ----	Value
Master		1.003
0.9750 (Minimum)	1.000 (Nominal)	1.025 (Maximum)

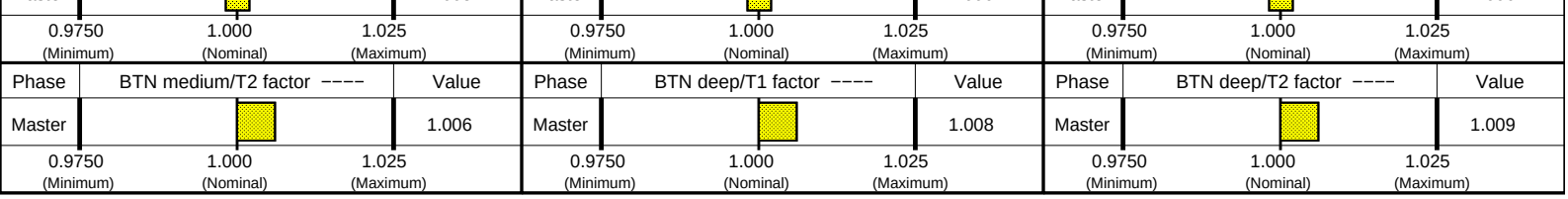
Phase	M2/T1 factor ----	Value
Master		1.009
0.9750 (Minimum)	1.000 (Nominal)	1.025 (Maximum)

Phase	M2/T2 factor ----	Value
Master		1.010
0.9750 (Minimum)	1.000 (Nominal)	1.025 (Maximum)

Phase	BTN shallow/T1 factor ----	Value
Master		1.005

Phase	BTN shallow/T2 factor ----	Value
Master		1.006

Phase	BTN medium/T1 factor ----	Value
Master		1.006



Phase	BTN medium/T2 factor ----	Value
Master		1.006

Phase	BTN deep/T1 factor ----	Value
Master		1.008

Phase	BTN deep/T2 factor ----	Value
Master		1.009

Master: Calibration date not found

6.75−in. Resistivity At−the−Bit Calibration

Gamma Ray: Blanket

Phase	Gamma ray factor ----	Value
Master		0.9954

0.7500 (Minimum) 1.000 (Nominal) 1.250 (Maximum)

6.75−in. Azimuthal Density Neutron / Equipment Identification

Primary Equipment:		
Tool Name and Serial Number	ADN6 − CA	373
Collar Type and Serial Number	ADDC − AA	40778
Chassis Type and Serial Number	ADSE − EA	373
Stabilizer Type and Serial Number	−	1
Neutron Logging Source	NSR − M	202
Density Logging Source	GSR − J/Z	1994
Stabilizer Size	8.13 − in.	
Calibration Status	EDIT −	

Master: 8−Mar−2008 12:43

6.75−in. Azimuthal Density Neutron Calibration

Density: Magnesium Block

Phase	LS window 3 − Mg CPS	Value	Phase	SS window 1 − Mg CPS	Value	Phase	SS window 3 − Mg CPS	Value
Master		1017	Master		2608	Master		6263
	250.0 (Minimum) 4125 (Nominal) 8000 (Maximum)			700.0 (Minimum) 9350 (Nominal) 18000 (Maximum)			2500 (Minimum) 23750 (Nominal) 45000 (Maximum)	

Master: 8−Mar−2008 12:43

6.75−in. Azimuthal Density Neutron Calibration

Density: Aluminum Block

Phase	LS window 3 − Al CPS	Value	Phase	SS window 1 − Al CPS	Value	Phase	SS window 3 − Al CPS	Value
Master		149.8	Master		1309	Master		3902
	50.00 (Minimum) 725.0 (Nominal) 1400 (Maximum)			500.0 (Minimum) 4250 (Nominal) 8000 (Maximum)			1500 (Minimum) 15750 (Nominal) 30000 (Maximum)	

Master: 8−Mar−2008 12:43

6.75−in. Azimuthal Density Neutron Calibration

Density: Background

Phase	LS window 3 − Background CPS	Value	Phase	SS window 1 − Background CPS	Value	Phase	SS window 3 − Background CPS	Value
Master		49.97	Master		116.2	Master		511.0
	15.00 (Minimum) 82.50 (Nominal) 150.0 (Maximum)			40.00 (Minimum) 220.0 (Nominal) 400.0 (Maximum)			150.0 (Minimum) 825.0 (Nominal) 1500 (Maximum)	

Master: 8−Mar−2008 12:43

6.75−in. Azimuthal Density Neutron Calibration

Density: Water Block Check

Phase	Long spacing water density G/C3	Value	Phase	Short spacing water density G/C3	Value
Master		1.040	Master		1.142
	1.027 (Minimum) 1.042 (Nominal) 1.057 (Maximum)			1.098 (Minimum) 1.128 (Nominal) 1.158 (Maximum)	

Master: 8−Mar−2008 12:43

6.75−in. Azimuthal Density Neutron Calibration

Neutron: 3−Point Calibration

Phase	Far 1 tube 1 Air Point Measure CPS	Value	Phase	Far 1 tube 1 Rod Point Measure CPS	Value	Phase	Far 1 tube 1 H2O Point Measure CPS	Value
Master		17.17	Master		4.120	Master		2.063
	13.30 (Minimum) 19.05 (Nominal) 24.70 (Maximum)			3.400 (Minimum) 4.857 (Nominal) 6.200 (Maximum)			1.600 (Minimum) 2.363 (Nominal) 3.100 (Maximum)	
Phase	Far 1 tube 2 Air Point Measure CPS	Value	Phase	Far 1 tube 2 Rod Point Measure CPS	Value	Phase	Far 1 tube 2 H2O Point Measure CPS	Value
Master		18.01	Master		4.305	Master		2.103
	13.30 (Minimum) 19.05 (Nominal) 24.70 (Maximum)			3.400 (Minimum) 4.857 (Nominal) 6.200 (Maximum)			1.600 (Minimum) 2.363 (Nominal) 3.100 (Maximum)	
Phase	Far 1 tube 3 Air Point Measure CPS	Value	Phase	Far 1 tube 3 Rod Point Measure CPS	Value	Phase	Far 1 tube 3 H2O Point Measure CPS	Value
Master		16.46	Master		4.034	Master		1.941
	13.30 (Minimum) 19.05 (Nominal) 24.70 (Maximum)			3.400 (Minimum) 4.857 (Nominal) 6.200 (Maximum)			1.600 (Minimum) 2.363 (Nominal) 3.100 (Maximum)	
Phase	Far 2 tube 1 Air Point Measure CPS	Value	Phase	Far 2 tube 1 Rod Point Measure CPS	Value	Phase	Far 2 tube 1 H2O Point Measure CPS	Value
Master		16.36	Master		4.278	Master		2.126
	13.30 (Minimum) 19.05 (Nominal) 24.70 (Maximum)			3.400 (Minimum) 4.857 (Nominal) 6.200 (Maximum)			1.600 (Minimum) 2.363 (Nominal) 3.100 (Maximum)	
Phase	Far 2 tube 2 Air Point Measure CPS	Value	Phase	Far 2 tube 2 Rod Point Measure CPS	Value	Phase	Far 2 tube 2 H2O Point Measure CPS	Value
Master		17.81	Master		4.387	Master		2.169
	13.30 (Minimum) 19.05 (Nominal) 24.70 (Maximum)			3.400 (Minimum) 4.857 (Nominal) 6.200 (Maximum)			1.600 (Minimum) 2.363 (Nominal) 3.100 (Maximum)	
Phase	Far 2 tube 3 Air Point Measure CPS	Value	Phase	Far 2 tube 3 Rod Point Measure CPS	Value	Phase	Far 2 tube 3 H2O Point Measure CPS	Value
Master		17.30	Master		4.245	Master		2.034

13.30		19.05		24.70		3.400		4.857		6.200		1.600		2.363		3.100			
(Minimum)		(Nominal)		(Maximum)		(Minimum)		(Nominal)		(Maximum)		(Minimum)		(Nominal)		(Maximum)			

Phase	Near 1 tube 1 Air Point Measure CPS	Value
Master		453.6
345.0 (Minimum)	487.5 (Nominal)	595.0 (Maximum)

Phase	Near 1 tube 1 Rod Point Measure CPS	Value
Master		732.3
535.0 (Minimum)	768.8 (Nominal)	925.0 (Maximum)

Phase	Near 1 tube 1 H2O Point Measure CPS	Value
Master		326.0
230.0 (Minimum)	343.7 (Nominal)	430.0 (Maximum)

Phase	Near 2 tube 1 Air Point Measure CPS	Value
Master		459.9
345.0 (Minimum)	487.5 (Nominal)	595.0 (Maximum)

Phase	Near 2 tube 1 Rod Point Measure CPS	Value
Master		723.1
535.0 (Minimum)	768.8 (Nominal)	925.0 (Maximum)

Phase	Near 2 tube 1 H2O Point Measure CPS	Value
Master		326.0
230.0 (Minimum)	343.7 (Nominal)	430.0 (Maximum)

Master: 8−Mar−2008 12:43

6.75−in. Azimuthal Density Neutron Calibration

Neutron: Water Block Check

Phase	Far Neutron water porosity PU	Value
Master		93.53
90.00 (Minimum)	100.0 (Nominal)	125.0 (Maximum)

6.75−in. Azimuthal Density Neutron / Equipment Identification

Primary Equipment:		
Tool Name and Serial Number	ADN6 − CA	47
Collar Type and Serial Number	ADDC − AA	373
Chassis Type and Serial Number	ADSE − EA	47
Stabilizer Type and Serial Number	−	1
Neutron Logging Source	NSR − M	202
Density Logging Source	GSR − J/Z	1994
Stabilizer Size	8.13 − in.	
Calibration Status	EDIT −	

Master: 16−Jan−2008 22:40

6.75−in. Azimuthal Density Neutron Calibration

Density: Magnesium Block

Phase	LS window 3 − Mg CPS	Value
Master		1045
250.0 (Minimum)	4125 (Nominal)	8000 (Maximum)

Phase	SS window 1 − Mg CPS	Value
Master		2550
700.0 (Minimum)	9350 (Nominal)	18000 (Maximum)

Phase	SS window 3 − Mg CPS	Value
Master		5954
2500 (Minimum)	23750 (Nominal)	45000 (Maximum)

Master: 16−Jan−2008 22:40

6.75−in. Azimuthal Density Neutron Calibration

Density: Aluminum Block

Phase	LS window 3 − Al CPS	Value
Master		153.6
50.00 (Minimum)	725.0 (Nominal)	1400 (Maximum)

Phase	SS window 1 − Al CPS	Value
Master		1270
500.0 (Minimum)	4250 (Nominal)	8000 (Maximum)

Phase	SS window 3 − Al CPS	Value
Master		3694
1500 (Minimum)	15750 (Nominal)	30000 (Maximum)

Master: 16−Jan−2008 22:40

6.75−in. Azimuthal Density Neutron Calibration

Density: Background

Phase	LS window 3 − Background CPS	Value
Master		43.77
15.00 (Minimum)	82.50 (Nominal)	150.0 (Maximum)

Phase	SS window 1 − Background CPS	Value
Master		98.92
40.00 (Minimum)	220.0 (Nominal)	400.0 (Maximum)

Phase	SS window 3 − Background CPS	Value
Master		427.4
150.0 (Minimum)	825.0 (Nominal)	1500 (Maximum)

Master: 16−Jan−2008 22:40

6.75−in. Azimuthal Density Neutron Calibration

Density: Water Block Check

Phase	Long spacing water density G/C3	Value
Master		1.035
1.027 (Minimum)	1.042 (Nominal)	1.057 (Maximum)

Phase	Short spacing water density G/C3	Value
Master		1.130
1.098 (Minimum)	1.128 (Nominal)	1.158 (Maximum)

Master: 16−Jan−2008 22:40

6.75−in. Azimuthal Density Neutron Calibration

Neutron: 3−Point Calibration

Phase	Far 1 tube 1 Air Point Measure CPS	Value

Phase	Far 1 tube 1 Rod Point Measure CPS	Value

Phase	Far 1 tube 1 H2O Point Measure CPS	Value

Phase	Far 1 tube 2 Air Point Measure CPS	Value	Far 1 tube 2 Rod Point Measure CPS	Value	Far 1 tube 2 H2O Point Measure CPS	Value
Master		16.56		4.201		2.020
	13.30 (Minimum) 19.05 (Nominal) 24.70 (Maximum)		3.400 (Minimum) 4.857 (Nominal) 6.200 (Maximum)		1.600 (Minimum) 2.363 (Nominal) 3.100 (Maximum)	
Master		17.08		4.091		2.098
	13.30 (Minimum) 19.05 (Nominal) 24.70 (Maximum)		3.400 (Minimum) 4.857 (Nominal) 6.200 (Maximum)		1.600 (Minimum) 2.363 (Nominal) 3.100 (Maximum)	
Master		16.24		3.965		1.960
	13.30 (Minimum) 19.05 (Nominal) 24.70 (Maximum)		3.400 (Minimum) 4.857 (Nominal) 6.200 (Maximum)		1.600 (Minimum) 2.363 (Nominal) 3.100 (Maximum)	
Master		16.66		4.271		2.114
	13.30 (Minimum) 19.05 (Nominal) 24.70 (Maximum)		3.400 (Minimum) 4.857 (Nominal) 6.200 (Maximum)		1.600 (Minimum) 2.363 (Nominal) 3.100 (Maximum)	
Master		17.46		4.183		2.089
	13.30 (Minimum) 19.05 (Nominal) 24.70 (Maximum)		3.400 (Minimum) 4.857 (Nominal) 6.200 (Maximum)		1.600 (Minimum) 2.363 (Nominal) 3.100 (Maximum)	
Master		16.77		4.207		2.126
	13.30 (Minimum) 19.05 (Nominal) 24.70 (Maximum)		3.400 (Minimum) 4.857 (Nominal) 6.200 (Maximum)		1.600 (Minimum) 2.363 (Nominal) 3.100 (Maximum)	
Master		472.7		776.8		353.9
	345.0 (Minimum) 487.5 (Nominal) 595.0 (Maximum)		535.0 (Minimum) 768.8 (Nominal) 925.0 (Maximum)		230.0 (Minimum) 343.7 (Nominal) 430.0 (Maximum)	
Master		477.0		740.7		342.5
	345.0 (Minimum) 487.5 (Nominal) 595.0 (Maximum)		535.0 (Minimum) 768.8 (Nominal) 925.0 (Maximum)		230.0 (Minimum) 343.7 (Nominal) 430.0 (Maximum)	

Master: 16–Jan–2008 22:40

6.75–in. Azimuthal Density Neutron Calibration

Neutron: Water Block Check

Phase	Far Neutron water porosity PU	Value
Master		92.60
	90.00 (Minimum) 100.0 (Nominal) 125.0 (Maximum)	

SCHLUMBERGER

Survey report 27–Mar–2008 20:17:17 Page 1 of 3

Client.....: Apache
Field.....: Vic/P–45

Well.....: Coelacanth–1
API number.....: n/a
Engineer.....: A. Kohli, C. Hibberson, B. Low

COUNTY:.....: n/a
STATE:.....: Victoria

Spud date.....: 10–Mar–2008
Last survey date.....: 22–Mar–08
Total accepted surveys...: 34
MD of first survey.....: 0.00 m
MD of last survey.....: 2956.53 m

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

----- Depth reference ----------
Permanent datum.....: Mean Sea LEVEL
Depth reference.....: Driller's Depth
GL above permanent.....:-90.00 m
KB above permanent.....: 38.00 m
DF above permanent.....: 38.00 m

----- Vertical section origin----------
Latitude (+N/S–).....: N 0.000 m
Departure (+E/W–).....: E 0.000 m

----- Platform reference point----------
Latitude (+N/S–).....: N 5714176.613 m
Departure (+E/W–).....: E 613192.770 m

Azimuth from Vsect Origin to target: 0.00 degrees

----- Geomagnetic data ----------
Magnetic model.....: BGGM version 2007
Magnetic date.....: 15–Mar–2008
Magnetic field strength..: 1202.04 HCNT
Magnetic dec (+E/W–).....: 13.34 degrees
Magnetic dip.....: –69.11 degrees

----- MWD survey Reference Criteria ---------
Reference G.....: 1000.07 mGal
Reference H.....: 1202.04 HCNT
Reference Dip.....: –69.11 degrees
Tolerance of G.....: (+/–) 2.50 mGal
Tolerance of H.....: (+/–) 6.00 HCNT
Tolerance of Dip.....: (+/–) 0.45 degrees

----- Corrections ----------
Magnetic dec (+E/W–).....: 13.34 degrees
Grid convergence (+E/W–).: –0.81 degrees
Total az corr (+E/W–).....: 14.15 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

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/ 100f)	Srvy tool type	Tool Corr (deg)
1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	TIP	None
2	263.67	0.15	47.87	263.67	263.67	0.23	0.23	0.26	0.35	47.87	0.02	MWD_M	None
3	294.41	0.06	172.52	30.74	294.41	0.24	0.24	0.29	0.38	49.89	0.19	MWD_M	None
4	323.58	0.12	91.82	29.17	323.58	0.23	0.23	0.32	0.39	54.75	0.13	MWD_M	None
5	411.41	0.24	137.04	87.83	411.41	0.09	0.09	0.54	0.55	80.61	0.06	MWD_M	None
6	442.19	0.21	124.90	30.78	442.19	0.01	0.01	0.63	0.63	89.14	0.06	PUP	None
7	502.26	0.32	90.25	60.07	502.26	-0.05	-0.05	0.89	0.89	93.50	0.10	PUP	None
8	530.50	0.41	92.03	28.24	530.50	-0.06	-0.06	1.07	1.07	93.12	0.10	PUP	None
9	620.59	0.22	141.24	90.09	620.59	-0.20	-0.20	1.50	1.51	97.78	0.11	PUP	None
10	708.29	0.06	46.00	87.70	708.29	-0.30	-0.30	1.63	1.66	100.53	0.08	PUP	None
11	738.63	0.03	73.16	30.34	738.63	-0.29	-0.29	1.65	1.68	99.96	0.04	PUP	None
12	768.37	0.06	56.39	29.74	768.37	-0.28	-0.28	1.67	1.70	99.48	0.03	PUP	None
13	855.79	0.11	357.54	87.42	855.79	-0.17	-0.17	1.71	1.72	95.70	0.03	PUP	None
14	887.36	0.25	215.41	31.57	887.36	-0.20	-0.20	1.67	1.68	96.72	0.33	PUP	None
15	1006.93	0.37	205.42	119.57	1006.92	-0.76	-0.76	1.35	1.55	119.29	0.03	PUP	None
16	1125.19	0.38	223.01	118.26	1125.18	-1.39	-1.39	0.92	1.67	146.51	0.03	PUP	None
17	1243.13	0.37	76.40	117.94	1243.12	-1.59	-1.59	1.02	1.89	147.19	0.19	PUP	None
18	1420.57	0.99	275.48	177.44	1420.55	-1.30	-1.30	0.05	1.31	177.66	0.23	PUP	None
19	1550.04	0.99	280.13	129.47	1550.00	-1.00	-1.00	-2.16	2.38	245.14	0.02	PUP	None
20	1687.41	0.88	299.49	137.37	1687.36	-0.27	-0.27	-4.25	4.26	266.32	0.07	PUP	None
21	1806.49	0.99	326.29	119.08	1806.42	1.03	1.03	-5.61	5.71	280.42	0.11	PUP	None
22	1895.34	0.85	336.21	88.85	1895.26	2.27	2.27	-6.31	6.70	289.83	0.07	PUP	None
23	1983.37	0.73	333.68	88.03	1983.28	3.37	3.37	-6.82	7.61	296.33	0.04	PUP	None
24	2071.31	0.57	332.49	87.94	2071.22	4.26	4.26	-7.27	8.43	300.40	0.06	PUP	None
25	2101.07	0.26	259.44	29.76	2100.97	4.38	4.38	-7.40	8.60	300.63	0.57	PUP	None
26	2189.40	0.38	9.46	88.33	2189.30	4.64	4.64	-7.55	8.86	301.54	0.18	PUP	None
27	2219.45	0.35	26.58	30.05	2219.35	4.82	4.82	-7.49	8.91	302.72	0.11	PUP	None
28	2307.17	0.23	13.64	87.72	2307.07	5.23	5.23	-7.33	9.01	305.48	0.05	PUP	None
29	2396.09	0.42	29.80	88.92	2395.99	5.68	5.68	-7.13	9.12	308.56	0.07	PUP	None
30	2484.75	0.56	53.27	88.66	2484.65	6.22	6.22	-6.62	9.09	313.23	0.08	PUP	None

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/ 100f)	Srvy tool type	Tool Corr (deg)
31	2573.28	0.49	40.74	88.53	2573.17	6.77	6.77	-6.03	9.06	318.32	0.05	PUP	None
32	2750.62	0.57	139.67	177.34	2750.51	6.67	6.67	-4.96	8.31	323.37	0.14	PUP	None
33	2867.93	0.68	143.30	117.31	2867.81	5.67	5.67	-4.17	7.04	323.68	0.03	PUP	None
34	2956.53	0.67	150.71	88.60	2956.41	4.80	4.80	-3.60	6.00	323.11	0.03	PUP	None

Company: **Apache Energy Ltd.**

Schlumberger

Well: **Coelacanth−1**

Field: **Vic/P−45**

Rig: **West Triton**

State: **Victoria**

GeoVISION Service
1:500 True Vertical Depth
Recorded Mode Data, Composite Log

Schlumberger

Company: **Apache Energy Ltd.**

Well: **Coelacanth−1**

Field: **Vic/P−45**

Rig: **West Triton** State: **Victoria**

Rig: West Triton
Field: Vic/P−45
Location: Bass Strait
Well: Coelacanth−1
Company: Apache Energy Ltd.

Drilling Mechanics Time Based Log
2in/hour
Real Time Log

Location

		Elevation		
Total depth:	3074.00 m		K.B.	Top Drive m
Spud date:	10−Mar−2008		G.L.	−90.00 m
Runs:	1 To 5		D.F.	38.00 m

Permanent datum:	AHD	Elev.:	0 m m
Log measured from:	Rotary Table	38.00 m	above Perm. datum
Depth reference:	Driller's Depth		

API serial no.	N 5 714 176.613 m	Longitude	Latitude
07ASQ0029	E 613 192.770 m	E 148° 18´ 07.0098´´	S 38° 42´ 49.7296´´

Depth logged:	275.70 m To 3039.40 m	Mag decl: 13.34 deg.	Other services:
Date logged:	12−Mar−2008 To 22−Mar−2008	Mag dip: −69.11 deg.	See Remarks

Bore hole record

Hole size	from	to
660 mm	127.5 m	279.0 m
311 mm	279.0 m	907.0 m
216 mm	907.0 m	3074.0 m

Casing record

Size	Density	from	to
508 mm	193 kg/m	Wellhead	275.7 m
244 mm	101 kg/m	Wellhead	902.6 m

Mud record

Type	from	to
WBM	275.70 m	3074.00 m

Borehole deviation record

Min	Max	from	to
0.03 deg.	0.41 deg.	275.70 m	902.00 m
0.23 deg.	0.99 deg.	902.00 m	3074.00 m

Surface equipment

Unit	OLU−KC−0702
Depth system	DWE & CLT

Software record

IDEAL Wis	ID13_0C_06		
SPM	hspm13_0c_03		
LWD	See Remarks		
MWD	See Remarks		

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OTHER SERVICES FOR RUN1
Directional Surveys

OTHER SERVICES FOR RUN2
Directional Surveys

OTHER SERVICES FOR RUN3
Directional Surveys

REMARKS: RUN NUMBER 1
Depth is referenced to Driller's Depth.

Gamma ray is corrected for mud weght, tool size, bit depth and potassium percentage.

Resistivty is borehole compensated and environmentally corrected.

POOH due to reaching TD of 12.25 in. section of Coelacanth−1.

REMARKS: RUN NUMBER 2
Depth is referenced to Driller's Depth.

Gamma ray is corrected for mud weght, tool size, bit depth and potassium percentage.

Resistivty is borehole compensated and environmentally corrected.

Neutron porosity is corrected for the effects of borehole size (bit size), temperature, mud salinity, and mud hydrogen index (a factor of mud weight, mud temperature and pressure).

Neutron porosity is calculated using a limstone matrix density of 2.71 g/cm3.

REMARKS: RUN NUMBER 3
Depth is referenced to Driller's Depth.

Gamma ray is corrected for mud weght, tool size, bit depth and potassium percentage.

Resistivty is borehole compensated and environmentally corrected.

Neutron porosity is corrected for the effects of borehole size (bit size), temperature, mud salinity, and mud hydrogen index (a factor of mud weight, mud temperature and pressure).

Neutron porosity is calculated using a limstone matrix density of 2.71 g/cm3.

POOH due to Bit Balling.

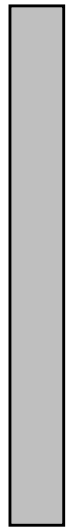
POOH due to Bit Balling.

EQUIPMENT DESCRIPTION

RUN1

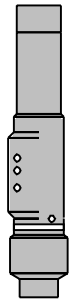
DOWNHOLE E

8−1/4" PowerPulse* 22.72
MDC: FB−46
MEA: 754
MDI: 2421
MGR: 104



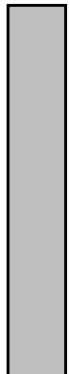
SS 15.15

8−1/4" GeoVISION* 14.68
DHS: V5.0B14
S/N: 41032



FS 10.44
S/N: S58834−4

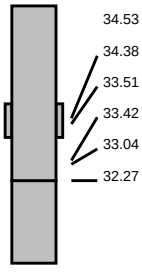
9" PowerPak* Motor 9.60
S/N: 3389



RUN2

DOWNHOLE E

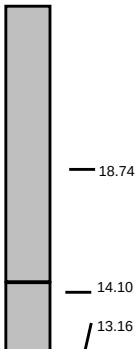
6−3/4 adnVISION* 36.51
DHS: V8.3
S/N: 40778
BladeOD: 8−1/4"



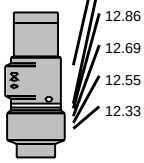
XO 30.26

6−3/4" Bat Sonic 29.90
S/N: PA9016462

6−3/4" PowerPulse* 23.10
MDC: VL09
MEA: 433
MDI: 1562
MGD: 346



6−3/4 GeoVISION* 14.64
DHS: V6.2B01
S/N: 41022



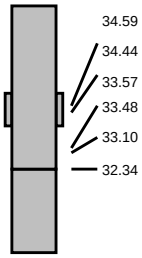
FS 11.13
S/N: S58834

7" PowerPak* Motor 10.30
S/N: N7413

RUN3

DOWNHOLE E

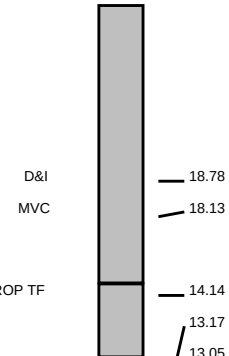
6−3/4 adnVISION* 36.27
DHS: V8.3
S/N: 373
BladeOD: 8−1/4"



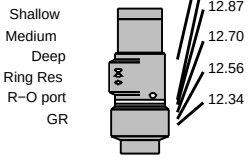
XO 30.31

6−3/4" Bat Sonic 29.94
S/N: PA9016462

6−3/4" PowerPulse* 23.14
MDC: VG67
MEA: 373
MDI: 1841
MVC: 114

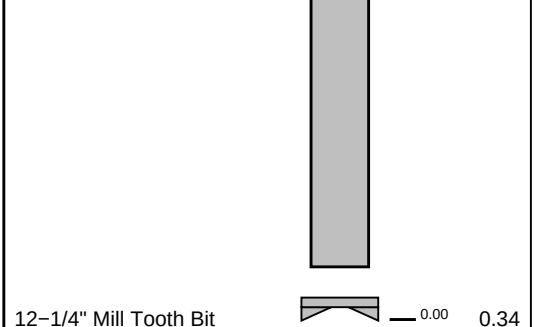


6−3/4 GeoVISION* 14.65
DHS: V6.2B01
S/N: 41373



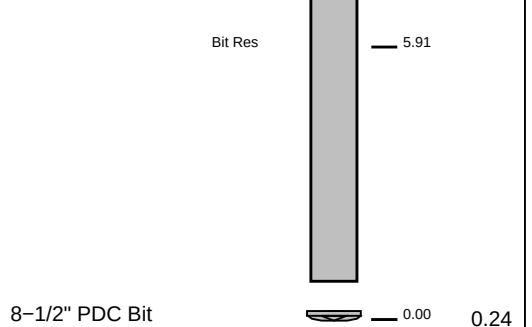
FS 11.14
S/N: S58834

7" PowerPak* Motor 10.31
S/N: 0738



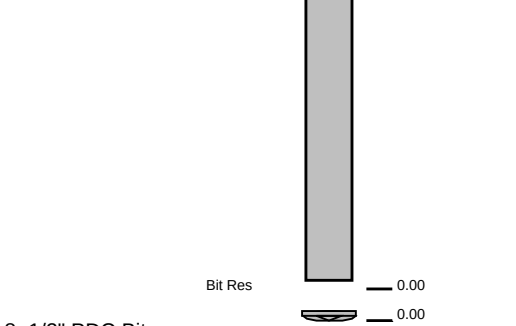
12−1/4" Mill Tooth Bit 0.34
S/N: PF6839

Maximum string dian
All lengths ir



8−1/2" PDC Bit 0.24
S/N: 216126

Maximum string dia
All lengths ir



8−1/2" PDC Bit 0.24
S/N: 216126

Maximum string dia
All lengths ir

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OTHER SERVICES FOR RUN4
Directional Surveys

OTHER SERVICES FOR RUN5
Directional Surveys

OTHER SERVICES FOR RUN

REMARKS: RUN NUMBER 4
Depth is referenced to Driller's Depth.

Gamma ray is corrected for mud weght, tool size, bit depth and potassium percentage.

Resistivty is borehole compensated and environmentally corrected.

Neutron porosity is corrected for the effects of borehole size (bit size), temperature, mud salinity, and mud hydrogen index (a factor of mud weight, mud temperature and pressure).

Neutron porosity is calculated using a limstone matrix density of 2.71 g/cm3.

POOH due to Bit Balling.

adnVISION battery ran out of life at 2433m MD

REMARKS: RUN NUMBER 5
Depth is referenced to Driller's Depth.

Gamma ray is corrected for mud weght, tool size, bit depth and potassium percentage.

Resistivty is borehole compensated and environmentally corrected.

Neutron porosity is corrected for the effects of borehole size (bit size), temperature, mud salinity, and mud hydrogen index (a factor of mud weight, mud temperature and pressure).

Neutron porosity is calculated using a limstone matrix density of 2.71 g/cm3.

POOH due to reaching TD of 8.50 in. section of Coelacanth−1.

Relogged on trip out from 2433MD to 2700MD

REMARKS: RUN NUMBER

EQUIPMENT DESCRIPTION

RUN4 RUN5 RUN

DOWNHOLE E

DOWNHOLE E

6−3/4" adnVISION*
DHS: V8.3
S/N: 373
BladeOD: 8−1/4"
Neutron F
Neutron N
Density S
Density L
UltraSonic
R−O Port
34.59
34.44
33.57
33.48
33.10
32.34
36.27
XO
30.31
6−3/4" Bat Sonic
S/N: PA9016462
29.94
6−3/4" PowerPulse*
MDC: VG67
MEA: 373
MDI: 1841
MVC: 114
23.14
D&I
MVC
ROP TF
18.78
18.13
14.14
6−3/4" GeoVISION*
DHS: V6.2B01
S/N: 41373
Shallow
Medium
Deep
Ring Res
R−O port
GR
13.17
13.05
12.87
12.70
12.56
12.34
14.65
FS
S/N: S58834
11.14
7" PowerPak* Motor
S/N: 0738
10.31
Bit Res
0.00
0.00
8−1/2" PDC Bit
S/N: 41373
0.24
Maximum string dia
All lengths ir
6−3/4" adnVISION*
DHS: V8.3
S/N: 40778
BladeOD: 8−1/4"
Neutron F
Neutron N
Density S
Density L
UltraSonic
R−O Port
34.68
34.53
33.66
33.57
33.19
32.43
36.65
XO
30.40
6−3/4" Bat Sonic
S/N: PA9016462
30.03
6−3/4" PowerPulse*
MDC: VG67
MEA: 373
MDI: 1841
MVC: 114
23.23
D&I
MVC
ROP TF
18.87
18.22
14.23
6−3/4" GeoVISION*
DHS: V6.2B01
S/N: 41373
Shallow
Medium
Deep
Ring Res
R−O port
GR
13.26
13.14
12.96
12.79
12.65
12.43
14.74
FS
S/N: S58834
11.23
7" PowerPak* Motor
S/N: 0738
10.40
Bit Res
0.04
0.00
8−1/2" PDC Bit
S/N: 216813
0.33
Maximum string dia
All lengths ir

Bit Run Summary

Run number		1	2	3	4	5
Bit size	mm.	311	216	216	216	216
Bit start depth	m	279.00	907.00	1998.00	2116.00	2700.00
Bit end depth	m	907.00	1998.00	2116.00	2700.00	3074.00
Top interval logged	m	275.70	902.60	1963.47	2081.40	2666.00
Bottom interval logged	m	894.73	1963.47	2081.40	2666.00	3039.40
Begin log: time		22:00	18:30	17:23	11:30	07:00
Begin log: date		12−Mar−08	15−Mar−08	18−Mar−08	19−Mar−08	21−Mar−08
End log: time		15:15	08:00	10:15	06:00	23:00
End log: date		13−Mar−08	18−Mar−08	19−Mar−08	21−Mar−08	22−Mar−08
Mud data						
Depth	m	902.00	1994.00	2243.00	2700.00	3074.00
Type		WBM	WBM	WBM	WBM	WBM
Mud weight	SG	1.06	1.18	1.17	1.16	1.19
Solids	%	4.70	5.10	4.70	5.50	4.80
Chlorides	mg/l	47000	49000	47000	44000	46000
Rm	ohm.m@°C	0.0139@21	0.089@21.5	0.0962@20.8	0.0975@21.8	0.1043@20
Rmf	ohm.m@°C	0.0123@20.7	0.075@22.1	0.0832@20.5	0.084@21.2	0.0859@20.6
Rmc	ohm.m@°C	0.0152@21.1	0.118@22.3	0.1498@21.2	0.128@21.4	0.1384@21.4
Potassium	%	3.80	3.80	4.00	4.10	4.20
Environmental data						
GR						
Mud weight	SG	1.06	1.18	1.17	1.16	1.19
Bit size	mm.	311	216	216	216	216
Resistivity						
Neutron porosity						
Hole Size	mm.	311	216	216	216	216
Mud weight	SG	1.06	1.18	1.17	1.16	1.19
Temperature	°C	32.2	49.41	48.63	58.82	61.96
Mud salinity	ppk	N/A	71.30	75.88	71.15	74.30
Formation salinity						
Recording rate 1	SEC	10 (GVR)	5 (GVR)	5 (GVR)	5 (GVR)	5 (GVR)
Recording rate 2	SEC	n/a	5 (ADN)	5 (ADN)	5 (ADN)	5 (ADN)
Filtering GR		3 pts	3 pts	3 pts	3 pts	3 pts
Filtering density		N/A	3 pts	3 pts	3 pts	3 pts
Filtering Neutron		N/A	3 pts	3 pts	3 pts	3 pts
Company representative		Mark Pinson	Rocco Russo	Peter Sheenan		
Schlumberger D&M Personnel		A. Kohli	C. Hibberson	B. Low		

Variable Name	Variable Description	Run Name & Value			
	Run Number		1	2	3
	General Information				
BHT_RM	Bottom Hole Temperature (RM)	DEGC	51.000	58.000	58.000
BSAL_RM	Mud Salinity (RM)	PPK	0.000	72.50	74.301
BS_RM	Bit Size (RM)	IN	12.250	8.500	8.500
COEF_M	User Defined FEXP in Clean Sand	----	1.650	1.650	1.650
C_WS	Overpressure correction to Sw and M	----	1.000	1.000	1.000
FEXP	Formation Factor Exponent(RM)	----	2.000	2.000	2.000
FNUM	Formation Factor Enumerator(RM)	----	1.000	1.000	1.000
FPHI_RM	Formation Factor Porosity Source (RM)	----	XPLOT	XPLOT	XPLOT
MST_RM	Mud Sample temperature (RM)	DEGC	23.889	22.100	20.800
MW_RM	Mud Weight (RM)	LB/G	8.860	9.830	9.750
OBMF_RM	Oil Based Mud (RM)	----	NO	NO	NO
RHOF_RM	Mud Filtrate Density (RM)	G/C3	1.000	1.000	1.000
RHOM_RM	Matrix density (RM)	G/C3	2.710	2.710	2.710
RMS_RM	Resistivity of Mud Sample (RM)	OHMM	0.138	0.089	0.096
RWA_COMP_M	Rwa computation model				
RWA_DEN_AD	Rwa Density Input ADN				
RWA_DEN_CD	Rwa Density Input CDN				
RWA_DEN_IN	Rwa Density Input				
RWA_FORM_M	Rwa computation formation model				
RWA_RES_IN	Rwa computation resistivity input				

RWA_RES_IN	Rwa computation resistivity input				
RWS_RM	Resistivity of Connate Water (RM)	OHMM	1.000	1.000	1.000
SHT_RM	Ground Level Temperature (Mud−Line When Offshore)	DEGC	10.000	10.000	10.000
TD_RM	Total Measured Depth (RM)	M	907.000	3048.000	2116.000
TWS_RM	Temperature of Connate Water (RM)	DEGC	23.889	23.889	23.889
VF_ILLI	Fraction of illite in shales	----	0.500	0.500	0.500
VF_KAOL	Fraction of kaolinite in shales	----	0.500	0.500	0.500
VF_MONT	Fraction of montmorillonite in shales	----	0.000	0.000	0.000
XPDM_RM	Cross plot density porosity multiplier	----	0.675	0.675	0.675
XPNM_RM	Cross plot neutron porosity multiplier	----	0.325	0.325	0.325

RAB

RAB/BTN_SLV_SIZE/PARAMETE	IN -- RAB: Button Sleeve Diameter	IN	11.875	8.125	8.125
RAB/STAB_SIZE/PARAMETER	RAB: Stabilizer Diameter	IN	12−12.25	8.25−8.5	8.25−8.5
BDBHCA	RAB: Button Deep Borehole A Factor	----	−0.035	0.004	0.004
BDBHCB	RAB: Button Deep Borehole B Factor	----	−0.019	0.000	0.000
BHA_COEF_VER	RAB: BHA Coef Generator Version	----	2.000	62011.000	2.000
BITBHCA	RAB: Bit A Borehole Factor	----	0.099	0.058	0.058
BITBHCB	RAB: Bit B Borehole Factor	----	−0.074	0.000	0.000
BIT_K_FACTOR	RAB: Bit K Factor	----	15.212	15.168	15.227
BMBHCA	RAB: Button Medium Borehole A Factor	----	0.006	0.023	0.023
BMBHCB	RAB: Button Medium Borehole B Factor	----	−0.020	0.000	0.000
BSBHCA	RAB: Button Shallow Borehole A Factor	----	−0.009	0.022	0.023
BSBHCB	RAB: Button Shallow Borehole B Factor	----	−0.036	0.000	0.000
BUT_KIMP_A	RAB: Button Impedance Coeff A	----	0.002	0.000	0.000
BUT_KIMP_B	RAB: Button Impedance Coeff B	----	0.000	0.000	0.000
DBUTTON_K_FACTO	RAB: Button Deep K factor	----	0.003	0.005	0.005
DHS_VERSION	RAB: DownHole Software Version	----	−999.250	6.200	−999.250
GR_BHC_TOOLSIZE	RAB: Gamma−Ray Borehole Coeff 1	----	8.250	6.750	6.750
HI_CSDEPTH_OUT	RAB: Allow Hi−Resolution CS_DEPTH Image Data Output	----	NO	NO	NO
HI_DLIS_OUT	RAB: Allow Hi−Resolution DLIS Image Data Output	----	NO	NO	NO
HI_RIVER_OUT	RAB: Allow Hi−Resolution River for Image Data Output	----	NO	NO	NO
IMAGE_MAX_GR	RAB: GR Image Maximum Scale Value	GAPI	120.000	120.000	120.000
IMAGE_MAX_RES	RAB: Image Maximum Resistivity Value	OHMM	100.000	100.000	100.000
IMAGE_MIN_GR	RAB: GR Image Minimum Scale Value	GAPI	20.000	20.000	20.000
IMAGE_MIN_RES	RAB: Image Minimum Resistivity Value	OHMM	1.000	1.000	1.000
JSD_RAB	RAB Acquisition start date	OHMM	1.000	1.000	1.000
KPER	Potassium Concentration (RM)	----	4.800	3.800	4.100
MAG_DECL_RAB	RAB: Magnetic Declination	DEG	13.340	13.340	13.340
MAG_INCL_RAB	RAB: Magnetic Dip	DEG	−69.110	−69.110	−69.110
MBUTTON_K_FACTO	RAB: Button Medium K Factor	----	0.004	0.005	0.005
OBM	RAB: Oil base Mud	----	NO	NO	NO
ORIENTATION_RM	Rab Image Orientation	----	TOH	TOH	TOH
RABBDA0	RAB: Button Deep A0 Coeff	----	−0.121	−0.052	−0.052
RABBDA1	RAB: Button Deep A1 Coeff	----	0.112	0.021	0.021
RABBDA2	RAB: Button Deep A2 Coeff	----	−0.049	−0.005	−0.005
RABBDA3	RAB: Button Deep A3 Coeff	----	0.010	0.000	0.000
RABBDA4	RAB: Button Deep A4 Coeff	----	−0.001	−0.000	−0.000
RABBDA5	**RAB: Button Deep A5 Coeff**	**----**	**0.000**	**0.000**	**0.000**
RABBDMIN	RAB: Button Deep Minimum Value	----	0.038	0.051	0.051
RABBITA0	RAB: Bit A0 Coeff	----	4.394	4.095	4.118
RABBITA1	RAB: Bit A1 Coeff	----	−13.106	−3.547	−3.483
RABBITA2	RAB: Bit A2 Coeff	----	36.626	12.345	12.438
RABBITA3	RAB: Bit A3 Coeff	----	−43.327	−15.241	−15.565
RABBITA4	RAB: Bit A4 Coeff	----	24.302	6.786	6.978
RABBITA5	RAB: Bit A5 Coeff	----	−5.275	0.000	0.000
RABBITMIN	RAB: Bit Minimum Value	----	22.433	21.118	21.119
RABBMA0	RAB: Button Medium A0 Coeff	----	−0.120	−0.062	−0.062
RABBMA1	RAB: Button Medium A1 Coeff	----	0.104	0.027	0.027
RABBMA2	RAB: Button Medium A2 Coeff	----	−0.044	−0.006	−0.006
RABBMA3	RAB: Button Medium A3 Coeff	----	0.009	0.001	0.001
RABBMA4	RAB: Button Medium A4 Coeff	----	−0.001	−0.000	−0.000
RABBMA5	RAB: Button Medium A5 Coeff	----	0.000	0.000	0.000
RABBMMIN	RAB: Button Medium Minimum Value	----	0.041	0.060	0.060
RABBSA0	RAB: Button Shallow A0 Coeff	----	−0.127	−0.074	−0.074
RABBSA1	RAB: Button Shallow A1 Coeff	----	0.103	0.031	0.032
RABBSA2	RAB: Button Shallow A2 Coeff	----	−0.042	−0.007	−0.007
RABBSA3	RAB: Button Shallow A3 Coeff	----	0.008	0.001	0.001
RABBSA4	RAB: Button Shallow A4 Coeff	----	−0.001	−0.000	−0.000
RABBSA5	RAB: Button Shallow A5 Coeff	----	0.000	0.000	0.000
RABBSMIN	RAB: Button Shallow Minimum Value	----	0.055	0.086	0.086
RABDHS	RAB Down Hole Software	----	4.000	4.000	4.000
RABEC	RAB: Resistivity Env−Cor	----	YES	YES	YES
RABRNGA0	RAB: RING A0 Coeff	----	−0.118	−0.048	−0.048
RABRNGA1	RAB: RING A1 Coeff	----	0.113	0.019	0.019
RABRNGA2	RAB: RING A2 Coeff	----	−0.049	−0.004	−0.004
RABRNGA3	RAB: RING A3 Coeff	----	0.010	0.000	0.000
RABRNGA4	RAB: RING A4 Coeff	----	−0.001	−0.000	−0.000
RABRNGA5	RAB: RING A5 Coeff	----	0.000	0.000	0.000
RABRNGMIN	RAB: Ring Minimum Value	----	1.150	1.697	1.697
RAB_BIT_ECAL	Bit Resistivity for ECAL_RAB?	----	YES	YES	YES
RAB_BIT_INVERSI	Input Bit Resistivity for Inversion? (Recommended at the bit)		YES	YES	NO
RAB_CALIPER_CAL	Compute ECAL_RAB?	----	NO	NO	NO
RAB_DATA_FIX	RAB: Create A Corrected RAB Time Data File	----	NO	NO	NO
RAB_DATA_LTB	RAB: Create An RAB LTB Data File	----	NO	NO	NO
RAB_DEEPBTN_ECA	Deep Button Resistivity for ECAL_RAB?	----	YES	YES	YES
RAB_DEEPBTN_INV	Input Deep Button Resistivity for Inversion?	----	YES	YES	YES
RAB_INVERSION	Perform Rt Inversion?	----	NO	NO	NO
RAB_INVERSION_B	RAB Bit Sensor Weight for Inversion[0,1]	----	1.000	1.000	0.000
RAB_INVERSION_B	Ending Depth for GR Cutoff in Zone1 (default whole well)	M	30480.000	30480.000	30480.000
RAB_INVERSION_B	Ending Depth of Zone10	M	−304.571	−304.571	−304.571
RAB_INVERSION_B	Ending Depth of Zone2	M	−304.571	−304.571	−304.571
RAB_INVERSION_B	Ending Depth of Zone3	M	−304.571	−304.571	−304.571
RAB_INVERSION_B	Ending Depth of Zone4	M	−304.571	−304.571	−304.571
RAB_INVERSION_B	Ending Depth of Zone5	M	−304.571	−304.571	−304.571
RAB_INVERSION_B	Ending Depth of Zone6	M	−304.571	−304.571	−304.571

RAB_INVERSION_B	Ending Depth of Zone7	M	−304.571	−304.571	−304.571
RAB_INVERSION_B	Ending Depth of Zone8	M	−304.571	−304.571	−304.571
RAB_INVERSION_B	Ending Depth of Zone9	M	−304.571	−304.571	−304.571
RAB_INVERSION_C	Continuity Multiplier[0,1]	----	0.500	0.500	0.500
RAB_INVERSION_D	RAB Deep Button Sensor Weight for Inversion[0,1]	----	1.000	1.000	1.000
RAB_INVERSION_D	RAB inversion for Dh?	----	YES	YES	YES
RAB_INVERSION_D	RAB inversion for Di?	----	YES	YES	YES
RAB_INVERSION_G	GR Cutoff for Shale Formation	----	75.000	75.000	75.000
RAB_INVERSION_G	GR Cutoff for Shale Formation in Zone1(default whole well)	GAPI	75.000	75.000	75.000
RAB_INVERSION_G	GR Cutoff in Zone10	GAPI	75.000	75.000	75.000
RAB_INVERSION_G	GR Cutoff in Zone2	GAPI	75.000	75.000	75.000
RAB_INVERSION_G	GR Cutoff in Zone3	GAPI	75.000	75.000	75.000
RAB_INVERSION_G	GR Cutoff in Zone4	GAPI	75.000	75.000	75.000
RAB_INVERSION_G	GR Cutoff in Zone5	GAPI	75.000	75.000	75.000
RAB_INVERSION_G	GR Cutoff in Zone6	GAPI	75.000	75.000	75.000
RAB_INVERSION_G	GR Cutoff in Zone7	GAPI	75.000	75.000	75.000
RAB_INVERSION_G	GR Cutoff in Zone8	GAPI	75.000	75.000	75.000
RAB_INVERSION_G	GR Cutoff in Zone9	GAPI	75.000	75.000	75.000
RAB_INVERSION_M	RAB Medium Button Sensor Weight for Inversion[0,1]	----	1.000	1.000	1.000
RAB_INVERSION_R	Resistivity Cutoff for Shale Formation	OHMM	2.000	2.000	2.000
RAB_INVERSION_R	Resistive Invasion Allowed	----	NO	NO	NO
RAB_INVERSION_R	RAB Ring Sensor Weight for Inversion[0,1]	----	1.000	1.000	1.000
RAB_INVERSION_R	RAB inversion for Rmud?	----	NO	NO	NO
RAB_INVERSION_R	RAB inversion for Rt?	----	YES	YES	YES
RAB_INVERSION_R	Rt to R−deepest separation penalty multiplier[0,1]	----	0.500	0.500	0.500
RAB_INVERSION_R	RAB inversion for Rxo?	----	YES	YES	YES
RAB_INVERSION_S	GR of Clean Sand Formation	----	−999.250	−999.250	−999.250
RAB_INVERSION_S	GR of Shale Formation	----	−999.250	−999.250	−999.250
RAB_INVERSION_S	RAB Shallow Button Sensor Weight for Inversion[0,1]	----	1.000	1.000	1.000
RAB_INVERSION_T	Inversion Threshold[0, 0.3]	----	0.010	0.010	0.010
RAB_INVERSION_W	Formation Water Resistivity	OHMM	0.100	0.100	0.100
RAB_INVERSION_W	Formation Water Temperature	----	150.000	150.000	150.000
RAB_MEDIUMBTN_E	Medium Button Resistivity for ECAL_RAB?	----	YES	YES	YES
RAB_MEDIUMBTN_I	Input Medium Button Resistivity for Inversion?	----	YES	YES	YES
RAB_QUAD	RAB: Process Quadrant data ?	----	YES	YES	YES
RAB_RIGMODE_ECA	Bit on Bottom?	----	YES	YES	YES
RAB_RING_ECAL	Ring Resistivity for ECAL_RAB?	----	YES	YES	YES
RAB_RING_INVERS	Imput RING Resistivity for Inversion?	----	YES	YES	YES
RAB_SHALLOWBTN_	Shallow Button Resistivity for ECAL_RAB?	----	YES	YES	YES
RAB_SHALLOWBTN_	Input Shallow Button Resistivity for Inversion?	----	YES	YES	YES
RAB_TAB	RAB: Compute TAB ?	----	YES	YES	YES
RAB_TECHLOG	RAB: Generate Techlog ?	----	YES	YES	YES
RAB_TEMP_SELECT	RAB Temperature Selection	----	MEASURED	MEASURED	MEASURED
RAB_TICKS	RAB: Generate Ticks ?	----	YES	YES	YES
READOUT_PORT_MP	RAB: ROP to Bit Face Distance	M	11.600	12.550	12.560
RINGBHCA	RAB: Ring Borehole A Factor	----	0.298	0.159	0.160
RINGBHCB	RAB: Ring Borehole B Factor	----	−0.112	0.000	0.000
RING_KIMP_A	RAB: Ring Impedance Coeff A	----	0.000	0.000	0.000
RING_KIMP_B	RAB: Ring Impedance Coeff B	----	0.000	0.000	0.000
RING_K_FACTOR	RAB: Ring K Factor	----	0.101	0.153	0.153
RSD	LWD run start date dd−mmm−yy	OHMM	0.138	0.089	0.096
RWA_COMP_MOD	Rwa computation model	----	BASIC	BASIC	BASIC
RWA_DEN_ADN	Rwa Density Input	----	RHOB	RHOB	RHOB
RWA_DEN_CDN	Rwa Density Input	----	RHOB	RHOB	RHOB
RWA_DEN_INPUT	Rwa Density Input	----	RHOB	RHOB	RHOB
RWA_FORM_MOD	Rwa computation formation model	----	CLASTIC	CLASTIC	CLASTIC
RWA_RES_INPUT	Rwa computation resistivity input	----	RT	RT	RT
SBUTTON_K_FACTO	RAB: Button Shallow K Factor	----	0.005	0.007	0.007
SCALE_IMAGES	RAB: Process Image Data	----	YES	YES	YES
STAB	RAB: Run with Stabilizer	----	YES	YES	YES
TFF_OFFSET_RAB	RAB Time−Frame File Time Offset	S	0.000	0.000	0.000
TIMEFRAME_FILE_	RAB: Time Frame File Name	S	0.000	0.000	0.000
TOOLTYPE	RAB: Azimuthal Tool	----	YES	YES	YES
TS_VERSION	RAB: ToolScope Software Version	----	−999.250	0.000	−999.250
VRAB6	Rab Tool type (ENP/PILOT)	----	RAB8_ENP	RAB6_C_SERIES	RAB6_C_SERIES
WIN_SIZE_DYN_IM	RAB: Window Size for Scaling Dynamic Image	M	0.914	0.914	0.914
WRK	to Report Potassium Concentration (RM)	----	K_by_Wgt_%	K_by_Wgt_%	K_by_Wgt_%

	ADN				
ADN_CHASSIS_STR	ADN Chassis Type String	----	----	ADN	ADN
ADN_COLLAR_STR	ADN Collar Type String	----	----	ADN	ADN
ADN_DATA_FIX	ADN: Create A Corrected ADN Time Data File	----	----	NO	NO
ADN_DATA_LTB	ADN: Create An ADN LTB Data File	----	----	NO	NO
ADN_STAB_STR	ADN Stabilizer Type String	----	----	NO	NO
ALPHA_COMPUTE_D	Perform Density Enhanced Vertical Resolution process ?	----	----	NO	NO
ALPHA_COMPUTE_N	Perform Neutron Enhanced Vertical Resolution process ?	----	----	NO	NO
AVE_ADN	ADN/Array Channels: perform averaging(RM) :	----	----	YES	YES
A_DHS	ADN Down Hole Software Version String	----	----	YES	YES
CHI_RM	Caliper High limit from BS (RM)	IN	----	3.000	3.000
CLO_RM	Caliper Low limit from BS (RM)	IN	----	0.000	0.000
DEVI	Well Section Deviation	DEG	----	0.004	0.004
DTIK_SEL	ADN: Density Tick Channel Name	----	----	LSAZ	LSAZ
DTMUD	Delta−T for Mud	US/F	----	168.000	168.000
DYN_IMG_COMPUTE	Generate Dynamic Normalized Image?	----	----	NO	NO
ECC_CORR_ADN	Perform Eccentering Correction for TNPH?	----	----	YES	YES
ENVCOR	Neutron Processing: Environmental Correction?	----	----	YES	YES
EVRL	EVR Process averaging number of samples (RM)	----	----	49	49
FCD	Future Casing (Outer) Diameter	IN	----	0.000	0.000
GCSE	Generalized Caliper Selection	----	----	BS	BS
HPS	ADSE−EB (High Pressure Inconel Chassis)?	----	----	NO	NO
IBS	Intergal Blade Stabilizer Collar?	----	----	YES	NO
IDQT	Image Derived Quality Threshold	----	----	1.000	1.000
IHVS	Integrated Hole Volume Start Value(RM)	F3	----	0.000	0.000
IMAGE_MAX_SOA	Image SOA (Quadrant) Right Scale	IN	----	2.500	2.500
IMAGE_MAX_SPEF	Image PEF(Segment) Right Scale	----	----	6.000	6.000
IMAGE_MAX_SRHOB	Image RHOB(Segment) Right Scale	G/C3	----	2.650	2.650

IMAGE_MIN_SOA	Image SOA (Quadrant) Left Scale	IN	----	0.000	0.000	
IMAGE_MIN_SPEF	Image PEF(Segment) Left Scale	----	----	2.000	2.000	
IMAGE_MIN_SRHOB	Image RHOB(Segment) Left Scale	G/C3	----	2.050	2.050	
JSD_ADN	ADN Acquisition start date	G/C3	----	2.050	2.050	
LITHO_TYPE_ADN	Lithology (RM)	----	----	LIME	LIME	
N1FTU_6_RM	ADN: Neutron Bank 1 Far Tubes used :	----	----	1-2-3	1-2-3	
N2FTU_6_RM	ADN: Neutron Bank 2 Far Tubes used :	----	----	1-2-3	1-2-3	
NNTU_RM	ADN Neutron Near Banks Used	----	----	1-2	1-2	
NTIK_SEL	ADN: Neutron Tick Channel Name	----	----	FR11	FR11	
SOCNL	Standoff Distance of the CNL Tool	----	----	1.000	1.000	
SSIZ_ADN	ADN Stabilizer Size	IN	----	8.125	8.125	
STOH	ADN Density Top of Hole Sector (Left Boundary):	----	----	SECTOR_0	SECTOR_0	
TRPM_RM	Average Tool Rotational Speed	RPM	----	20.000	20.000	
USMIN_RM	ADN:Minimum Ultrasonic standoff (RM)	IN	----	0.180	0.180	
USWF_RM	ADN:Process Ultrasonic Waveform?	----	----	YES	YES	
VERS_ADN	ADN Downhole Software Version	----	----	8.300	8.300	
WSDI	Window Size of Dynamic Normalization Image	M	M	4.572	4.572	
RAB/BTN_SLV_SIZE/PARAMETE	IN --- RAB: Button Sleeve Diameter	IN	11.875	8.125	8.125	

Run Number		4	5
General Information			
BHT_RM	Bottom Hole Temperature (RM)	DEGC	62.000	62.000
BSAL_RM	Mud Salinity (RM)	PPK	74.301	74.301
BS_RM	Bit Size (RM)	IN	8.500	8.500
COEF_M	User Defined FEXP in Clean Sand	----	1.650	1.650
C_WS	Overpressure correction to Sw and M	----	1.000	1.000
FEXP	Formation Factor Exponent(RM)	----	2.000	2.000
FNUM	Formation Factor Enumerator(RM)	----	1.000	1.000
FPHI_RM	Formation Factor Porosity Source (RM)	----	XPLOT	XPLOT
MST_RM	Mud Sample temperature (RM)	DEGC	21.800	20.100
MW_RM	Mud Weight (RM)	LB/G	9.750	9.920
OBMF_RM	Oil Based Mud (RM)	----	NO	NO
RHOF_RM	Mud Filtrate Density (RM)	G/C3	1.000	1.000
RHOM_RM	Matrix density (RM)	G/C3	2.710	2.710
RMS_RM	Resistivity of Mud Sample (RM)	OHMM	0.097	0.104
RWA_COMP_M	Rwa computation model			
RWA_DEN_AD	Rwa Density Input ADN			
RWA_DEN_CD	Rwa Density Input CDN			
RWA_DEN_IN	Rwa Density Input			
RWA_FORM_M	Rwa computation formation model			
RWA_RES_IN	Rwa computation resistivity input			
RWS_RM	Resistivity of Connate Water (RM)	OHMM	1.000	1.000
SHT_RM	Ground Level Temperature (Mud-Line When Offshore) (RM)	DEGC	10.000	10.000
TD_RM	Total Measured Depth (RM)	M	2700.000	3074.000
TWS_RM	Temperature of Connate Water (RM)	DEGC	23.889	23.889
VF_ILLI	Fraction of illite in shales	----	0.500	0.500
VF_KAOL	Fraction of kaolinite in shales	----	0.500	0.500
VF_MONT	Fraction of montmorillonite in shales	----	0.000	0.000
XPDM_RM	Cross plot density porosity multiplier	----	0.675	0.675
XPNM_RM	Cross plot neutron porosity multiplier	----	0.325	0.325
ADN				
ADN_CHASSIS_STR	ADN Chassis Type String	ADN	ADN	
ADN_COLLAR_STR	ADN Collar Type String	ADN	ADN	
ADN_DATA_FIX	ADN: Create A Corrected ADN Time Data File	----	NO	NO
ADN_DATA_LTB	ADN: Create An ADN LTB Data File	----	NO	NO
ADN_STAB_STR	ADN Stabilizer Type String	----	NO	NO
ALPHA_COMPUTE_D	Perform Density Enhanced Vertical Resolution process ?	----	NO	NO
ALPHA_COMPUTE_N	Perform Neutron Enhanced Vertical Resolution process ?	----	NO	NO
AVE_ADN	ADN/Array Channels: perform averaging(RM) :	----	YES	YES
A_DHS	ADN Down Hole Software Version String	----	YES	YES
CHI_RM	Caliper High limit from BS (RM)	IN	3.000	3.000
CLO_RM	Caliper Low limit from BS (RM)	IN	0.000	0.000
DEVI	Well Section Deviation	DEG	0.004	0.014
DTIK_SEL	ADN: Density Tick Channel Name	----	LSAZ	LSAZ
DTMUD	Delta-T for Mud	US/F	168.000	144.890
DYN_IMG_COMPUTE	Generate Dynamic Normalized Image?	----	NO	NO
ECC_CORR_ADN	Perform Eccentering Correction for TNPH?	----	YES	YES
ENVCOR	Neutron Processing: Environmental Correction?	----	YES	YES
EVRL	EVR Process averaging number of samples (RM)	----	49	49
FCD	Future Casing (Outer) Diameter	IN	0.000	0.000
GCSE	Generalized Caliper Selection	----	BS	BS
HPS	ADSE-EB (High Pressure Inconel Chassis)?	----	NO	NO
IBS	Intergal Blade Stabilizer Collar?	----	NO	NO
IDQT	Image Derived Quality Threshold	----	1.000	1.000
IHVS	Integrated Hole Volume Start Value(RM)	F3	0.000	0.000
IMAGE_MAX_SOA	Image SOA (Quadrant) Right Scale	IN	2.500	2.500
IMAGE_MAX_SPEF	Image PEF(Segment) Right Scale	----	6.000	6.000
IMAGE_MAX_SRHOB	Image RHOB(Segment) Right Scale	G/C3	2.650	2.650
IMAGE_MIN_SOA	Image SOA (Quadrant) Left Scale	IN	0.000	0.000
IMAGE_MIN_SPEF	Image PEF(Segment) Left Scale	----	2.000	2.000
IMAGE_MIN_SRHOB	Image RHOB(Segment) Left Scale	G/C3	2.050	2.050
JSD_ADN	ADN Acquisition start date	G/C3	2.050	2.050
LITHO_TYPE_ADN	Lithology (RM)	----	LIME	LIME
N1FTU_6_RM	ADN: Neutron Bank 1 Far Tubes used :	----	1-2-3	1-2-3
N2FTU_6_RM	ADN: Neutron Bank 2 Far Tubes used :	----	1-2-3	1-2-3
NNTU_RM	ADN Neutron Near Banks Used	----	1-2	1-2
NTIK_SEL	ADN: Neutron Tick Channel Name	----	FR11	FR11
RSD	LWD run start date dd-mmm-yy	OHMM	0.097	0.104
RWA_COMP_MOD	Rwa computation model	----	BASIC	BASIC
RWA_DEN_ADN	Rwa Density Input	----	RHOB	RHOB
RWA_DEN_CDN	Rwa Density Input	----	RHOB	RHOB
RWA_DEN_INPUT	Rwa Density Input	----	RHOB	RHOB

RWA_DEN_INPUT	Rwa Density Input	----	RHOB	RHOB
RWA_FORM_MOD	Rwa computation formation model	----	CLASTIC	CLASTIC
RWA_RES_INPUT	Rwa computation resistivity input	----	RT	RT
SOCNL	Standoff Distance of the CNL Tool	----	1.000	1.000
SSIZ_ADN	ADN Stabilizer Size	IN	8.125	8.125
STOH	ADN Density Top of Hole Sector (Left Boundary):	----	SECTOR_0	SECTOR_0
TRPM_RM	Average Tool Rotational Speed	RPM	20.000	20.000
USMIN_RM	ADN:Minimum Ultrasonic standoff (RM)	IN	0.180	0.180
USWF_RM	ADN:Process Ultrasonic Waveform?	----	YES	YES
VERS_ADN	ADN Downhole Software Version	----	8.300	8.300
WSDI	Window Size of Dynamic Normalization Image	M	4.572	4.572

RAB

RAB/BTN_SLV_SIZE/PARAMETE	IN --- RAB: Button Sleeve Diameter	IN	8.125	8.125
RAB/STAB_SIZE/PARAMETER	RAB: Stabilizer Diameter	IN	8.25-8.5	8.25-8.5
BDBHCA	RAB: Button Deep Borehole A Factor	----	0.004	0.004
BDBHCB	RAB: Button Deep Borehole B Factor	----	0.000	0.000
BHA_COEF_VER	RAB: BHA Coef Generator Version	----	2.000	2.000
BITBHCA	RAB: Bit A Borehole Factor	----	0.058	0.058
BITBHCB	RAB: Bit B Borehole Factor	----	0.000	0.000
BIT_K_FACTOR	RAB: Bit K Factor	----	15.227	15.311
BMBHCA	RAB: Button Medium Borehole A Factor	----	0.023	0.023
BMBHCB	RAB: Button Medium Borehole B Factor	----	0.000	0.000
BSBHCA	RAB: Button Shallow Borehole A Factor	----	0.023	0.023
BSBHCB	RAB: Button Shallow Borehole B Factor	----	0.000	0.000
BUT_KIMP_A	RAB: Button Impedance Coeff A	----	0.000	0.000
BUT_KIMP_B	RAB: Button Impedance Coeff B	----	0.000	0.000
DBUTTON_K_FACTO	RAB: Button Deep K factor	----	0.005	0.005
DHS_VERSION	RAB: DownHole Software Version	----	-999.250	-999.250
GR_BHC_TOOLSIZE	RAB: Gamma-Ray Borehole Coeff 1	----	6.750	6.750
HI_CSDEPTH_OUT	RAB: Allow Hi-Resolution CS_DEPTH Image Data Output	----	NO	NO
HI_DLIS_OUT	RAB: Allow Hi-Resolution DLIS Image Data Output	----	NO	NO
HI_RIVER_OUT	RAB: Allow Hi-Resolution River for Image Data Output	----	NO	NO
IMAGE_MAX_GR	RAB: GR Image Maximum Scale Value	GAPI	120.000	120.000
IMAGE_MAX_RES	RAB: Image Maximum Resistivity Value	OHMM	100.000	100.000
IMAGE_MIN_GR	RAB: GR Image Minimum Scale Value	GAPI	20.000	20.000
IMAGE_MIN_RES	RAB: Image Minimum Resistivity Value	OHMM	1.000	1.000
JSD_RAB	RAB Acquisition start date	OHMM	1.000	1.000
KPER	Potassium Concentration (RM)	----	3.800	4.100
MAG_DECL_RAB	RAB: Magnetic Declination	DEG	13.340	13.340
MAG_INCL_RAB	RAB: Magnetic Dip	DEG	-69.110	-69.110
MBUTTON_K_FACTO	RAB: Button Medium K Factor	----	0.005	0.005
OBM	RAB: Oil base Mud	----	NO	NO
ORIENTATION_RM	Rab Image Orientation	----	TOH	TOH
RABBDA0	RAB: Button Deep A0 Coeff	----	-0.052	-0.052
RABBDA1	RAB: Button Deep A1 Coeff	----	0.021	0.021
RABBDA2	RAB: Button Deep A2 Coeff	----	-0.005	-0.005
RABBDA3	RAB: Button Deep A3 Coeff	----	0.000	0.000
RABBDA4	**RAB: Button Deep A4 Coeff**	**----**	**-0.000**	**-0.000**
RABBDA5	RAB: Button Deep A5 Coeff	----	0.000	0.000
RABBDMIN	RAB: Button Deep Minimum Value	----	0.051	0.051
RABBITA0	RAB: Bit A0 Coeff	----	4.118	4.151
RABBITA1	RAB: Bit A1 Coeff	----	-3.483	-3.391
RABBITA2	RAB: Bit A2 Coeff	----	12.438	12.570
RABBITA3	RAB: Bit A3 Coeff	----	-15.565	-16.026
RABBITA4	RAB: Bit A4 Coeff	----	6.978	7.250
RABBITA5	RAB: Bit A5 Coeff	----	0.000	0.000
RABBITMIN	RAB: Bit Minimum Value	----	21.119	21.119
RABBMA0	RAB: Button Medium A0 Coeff	----	-0.062	-0.062
RABBMA1	RAB: Button Medium A1 Coeff	----	0.027	0.027
RABBMA2	RAB: Button Medium A2 Coeff	----	-0.006	-0.006
RABBMA3	RAB: Button Medium A3 Coeff	----	0.001	0.001
RABBMA4	RAB: Button Medium A4 Coeff	----	-0.000	-0.000
RABBMA5	RAB: Button Medium A5 Coeff	----	0.000	0.000
RABBMMIN	RAB: Button Medium Minimum Value	----	0.060	0.060
RABBSA0	RAB: Button Shallow A0 Coeff	----	-0.074	-0.074
RABBSA1	RAB: Button Shallow A1 Coeff	----	0.032	0.032
RABBSA2	RAB: Button Shallow A2 Coeff	----	-0.007	-0.007
RABBSA3	RAB: Button Shallow A3 Coeff	----	0.001	0.001
RABBSA4	RAB: Button Shallow A4 Coeff	----	-0.000	-0.000
RABBSA5	RAB: Button Shallow A5 Coeff	----	0.000	0.000
RABBSMIN	RAB: Button Shallow Minimum Value	----	0.086	0.086
RABDHS	RAB Down Hole Software	----	4.000	4.000
RABEC	RAB: Resistivity Env-Cor	----	YES	YES
RABRNGA0	RAB: RING A0 Coeff	----	-0.048	-0.048
RABRNGA1	RAB: RING A1 Coeff	----	0.019	0.020
RABRNGA2	RAB: RING A2 Coeff	----	-0.004	-0.004
RABRNGA3	RAB: RING A3 Coeff	----	0.000	0.000
RABRNGA4	RAB: RING A4 Coeff	----	-0.000	-0.000
RABRNGA5	RAB: RING A5 Coeff	----	0.000	0.000
RABRNGMIN	RAB: Ring Minimum Value	----	1.697	1.697
RAB_BIT_ECAL	Bit Resistivity for ECAL_RAB?	----	YES	YES
RAB_BIT_INVERSI	Input Bit Resistivity for Inversion? (Recommended at the bit)	----	NO	YES
RAB_CALIPER_CAL	Compute ECAL_RAB?	----	NO	NO
RAB_DATA_FIX	RAB: Create A Corrected RAB Time Data File	----	NO	NO
RAB_DATA_LTB	RAB: Create An RAB LTB Data File	----	NO	NO
RAB_DEEPBTN_ECA	Deep Button Resistivity for ECAL_RAB?	----	YES	YES
RAB_DEEPBTN_INV	Input Deep Button Resistivity for Inversion?	----	YES	YES
RAB_INVERSION	Perform Rt Inversion?	----	NO	NO
RAB_INVERSION_B	RAB Bit Sensor Weight for Inversion[0,1]	----	0.000	1.000
RAB_INVERSION_B	Ending Depth for GR Cutoff in Zone1 (default whole well)	M	30480.000	30480.000
RAB_INVERSION_B	Ending Depth of Zone10	M	-304.571	-304.571
RAB_INVERSION_B	Ending Depth of Zone2	M	-304.571	-304.571
RAB_INVERSION_B	Ending Depth of Zone3	M	-304.571	-304.571
RAB_INVERSION_B	Ending Depth of Zone4	M	-304.571	-304.571
RAB_INVERSION_B	Ending Depth of Zone5	M	-304.571	-304.571

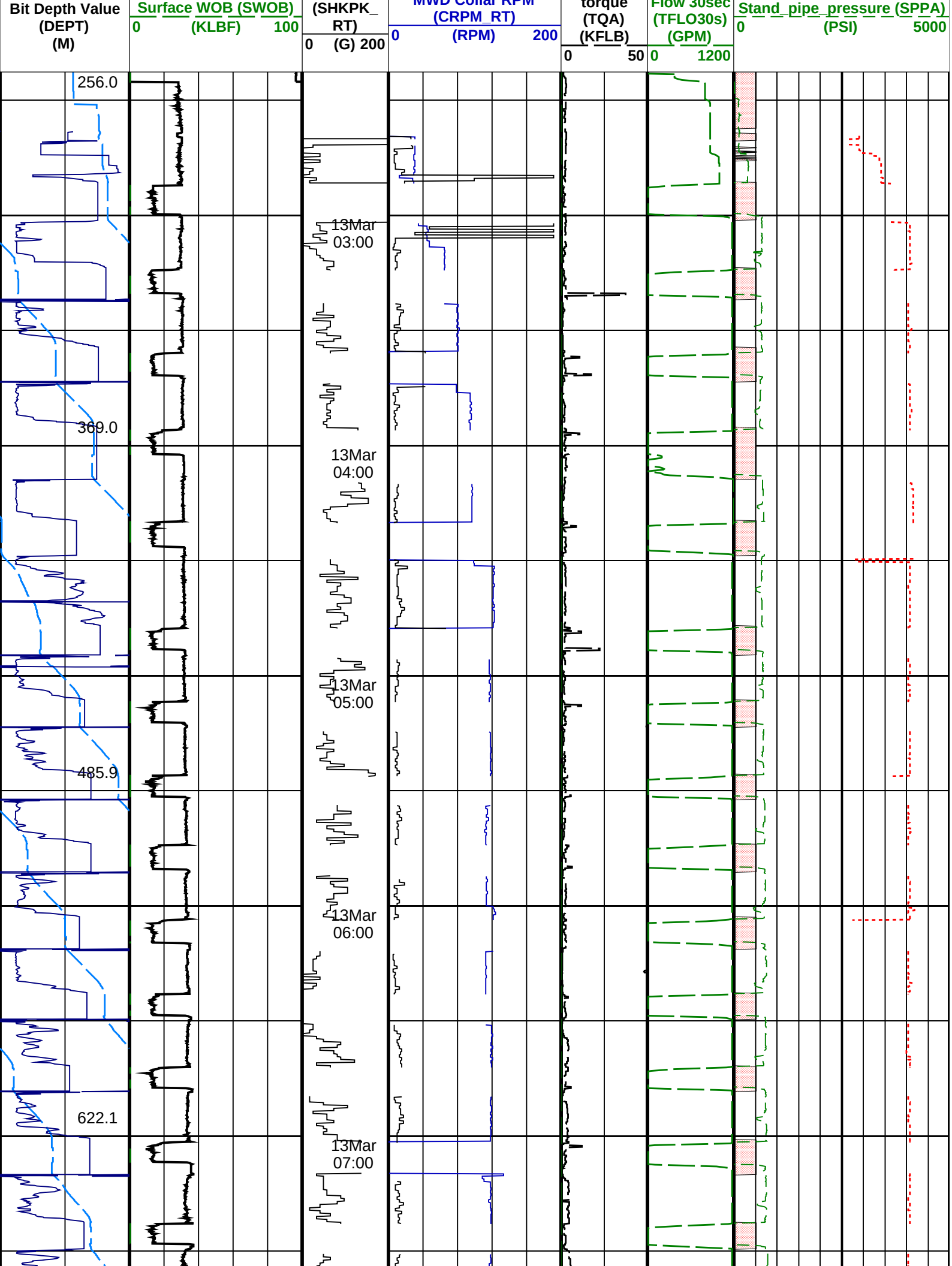
RAB_INVERSION_B	Ending Depth of Zone6	M	−304.571	−304.571	
RAB_INVERSION_B	Ending Depth of Zone7	M	−304.571	−304.571	
RAB_INVERSION_B	Ending Depth of Zone8	M	−304.571	−304.571	
RAB_INVERSION_B	Ending Depth of Zone9	M	−304.571	−304.571	
RAB_INVERSION_C	Continuity Multiplier[0,1]	----	0.500	0.500	
RAB_INVERSION_D	RAB Deep Button Sensor Weight for Inversion[0,1]	----	1.000	1.000	
RAB_INVERSION_D	RAB inversion for Dh?	----	YES	YES	
RAB_INVERSION_D	RAB inversion for Di?	----	YES	YES	
RAB_INVERSION_G	GR Cutoff for Shale Formation	----	75.000	75.000	
RAB_INVERSION_G	GR Cutoff for Shale Formation in Zone1(default whole well)	GAPI	75.000	75.000	
RAB_INVERSION_G	GR Cutoff in Zone10	GAPI	75.000	75.000	
RAB_INVERSION_G	GR Cutoff in Zone2	GAPI	75.000	75.000	
RAB_INVERSION_G	GR Cutoff in Zone3	GAPI	75.000	75.000	
RAB_INVERSION_G	GR Cutoff in Zone4	GAPI	75.000	75.000	
RAB_INVERSION_G	GR Cutoff in Zone5	GAPI	75.000	75.000	
RAB_INVERSION_G	GR Cutoff in Zone6	GAPI	75.000	75.000	
RAB_INVERSION_G	GR Cutoff in Zone7	GAPI	75.000	75.000	
RAB_INVERSION_G	GR Cutoff in Zone8	GAPI	75.000	75.000	
RAB_INVERSION_G	GR Cutoff in Zone9	GAPI	75.000	75.000	
RAB_INVERSION_M	RAB Medium Button Sensor Weight for Inversion[0,1]	----	1.000	1.000	
RAB_INVERSION_R	Resistivity Cutoff for Shale Formation	OHMM	2.000	2.000	
RAB_INVERSION_R	Resistive Invasion Allowed	----	NO	NO	
RAB_INVERSION_R	RAB Ring Sensor Weight for Inversion[0,1]	----	1.000	1.000	
RAB_INVERSION_R	RAB inversion for Rmud?	----	NO	NO	
RAB_INVERSION_R	RAB inversion for Rt?	----	YES	YES	
RAB_INVERSION_R	Rt to R−deepest separation penalty multiplier[0,1]	----	0.500	0.500	
RAB_INVERSION_R	RAB inversion for Rxo?	----	YES	YES	
RAB_INVERSION_S	GR of Clean Sand Formation	----	−999.250	−999.250	
RAB_INVERSION_S	GR of Shale Formation	----	−999.250	−999.250	
RAB_INVERSION_S	RAB Shallow Button Sensor Weight for Inversion[0,1]	----	1.000	1.000	
RAB_INVERSION_T	Inversion Threshold[0, 0.3]	----	0.010	0.010	
RAB_INVERSION_W	Formation Water Resistivity	OHMM	0.100	0.100	
RAB_INVERSION_W	Formation Water Temperature	----	150.000	150.000	
RAB_MEDIUMBTN_E	Medium Button Resistivity for ECAL_RAB?	----	YES	YES	
RAB_MEDIUMBTN_I	Input Medium Button Resistivity for Inversion?	----	YES	YES	
RAB_QUAD	RAB: Process Quadrant data ?	----	YES	YES	
RAB_RIGMODE_ECA	Bit on Bottom?	----	YES	YES	
RAB_RING_ECAL	Ring Resistivity for ECAL_RAB?	----	YES	YES	
RAB_RING_INVERS	Imput RING Resistivity for Inversion?	----	YES	YES	
RAB_SHALLOWBTN_	Shallow Button Resistivity for ECAL_RAB?	----	YES	YES	
RAB_SHALLOWBTN_	Input Shallow Button Resistivity for Inversion?	----	YES	YES	
RAB_TAB	RAB: Compute TAB ?	----	YES	YES	
RAB_TECHLOG	RAB: Generate Techlog ?	----	YES	YES	
RAB_TEMP_SELECT	RAB Temperature Selection	----	MEASURED	MEASURED	
RAB_TICKS	RAB: Generate Ticks ?	----	YES	YES	
READOUT_PORT_MP	RAB: ROP to Bit Face Distance	M	12.560	12.650	
RINGBHCA	RAB: Ring Borehole A Factor	----	0.160	0.160	
RINGBHCB	RAB: Ring Borehole B Factor	----	0.000	0.000	
RING_KIMP_A	RAB: Ring Impedance Coeff A	----	0.000	0.000	
RING_KIMP_B	RAB: Ring Impedance Coeff B	----	0.000	0.000	
RING_K_FACTOR	RAB: Ring K Factor	----	0.153	0.153	
SBUTTON_K_FACTO	RAB: Button Shallow K Factor	----	0.007	0.007	
SCALE_IMAGES	RAB: Process Image Data	----	YES	YES	
STAB	RAB: Run with Stabilizer	----	YES	YES	
TFF_OFFSET_RAB	RAB Time−Frame File Time Offset	S	0.000	0.000	
TIMEFRAME_FILE_	RAB: Time Frame File Name	S	0.000	0.000	
TOOLTYPE	RAB: Azimuthal Tool	----	YES	YES	
TS_VERSION	RAB: ToolScope Software Version	----	−999.250	−999.250	
VRAB6	Rab Tool type (ENP/PILOT)	----	RAB6_C_SERIES	RAB6_C_SERIES	
WIN_SIZE_DYN_IM	RAB: Window Size for Scaling Dynamic Image		M	0.914	0.914
WRK	to Report Potassium Concentration (RM)	----	K_by_Wgt_%	K_by_Wgt_%	

Schlumberger Drilling & Measurements ID13 Parameter Insert Header Software version 3.0c

Drilling Mechanics Time Run 1

IDEAL Version: ID13_0C_06 < > Vertical Scale: 2" per 3600S **Graphics File Created: 27−Mar−2008 15:39**

MD (DEPT) 0 (M) 100					Bit off Bottom From DMT7 to Bit_on_bottom/2hz/Curve
Rop*5 (ROP5) 200 (M/HR) 0	Hookload (HKLD) 0 (KLBF) 400		PKPK_RPM (Stick_RT) 0 (RPM) 400	Surface_rpm (RPM) (RPM) 0 200	Trpm (TRPM_RT) 0 (RPM) 5000
		Shock Peak	MWD Collar RPM	Surface_	Average


Bit Depth Value (DEPT) (M)
Surface WOB (SWOB)
0 (KLBF) 100
(SHKPK_ RT)
0 (G) 200
MWD Collar RPM (CRPM_RT)
0 (RPM) 200
torque (TQA) (KFLB)
0 50
Flow 30sec (TFLO30s) (GPM)
0 1200
Stand_pipe_pressure (SPPA)
0 (PSI) 5000
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485.9
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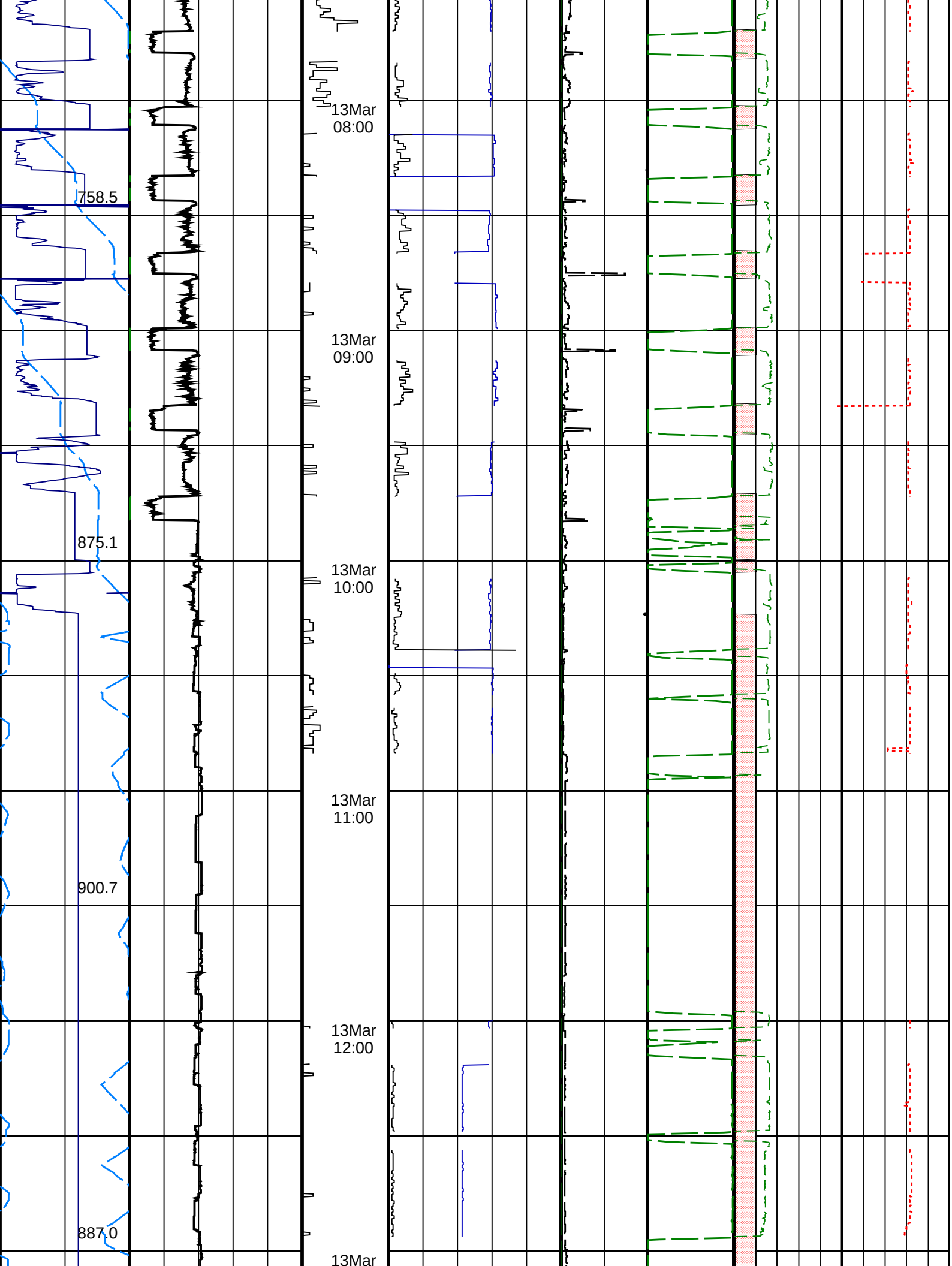
622.1
13Mar 07:00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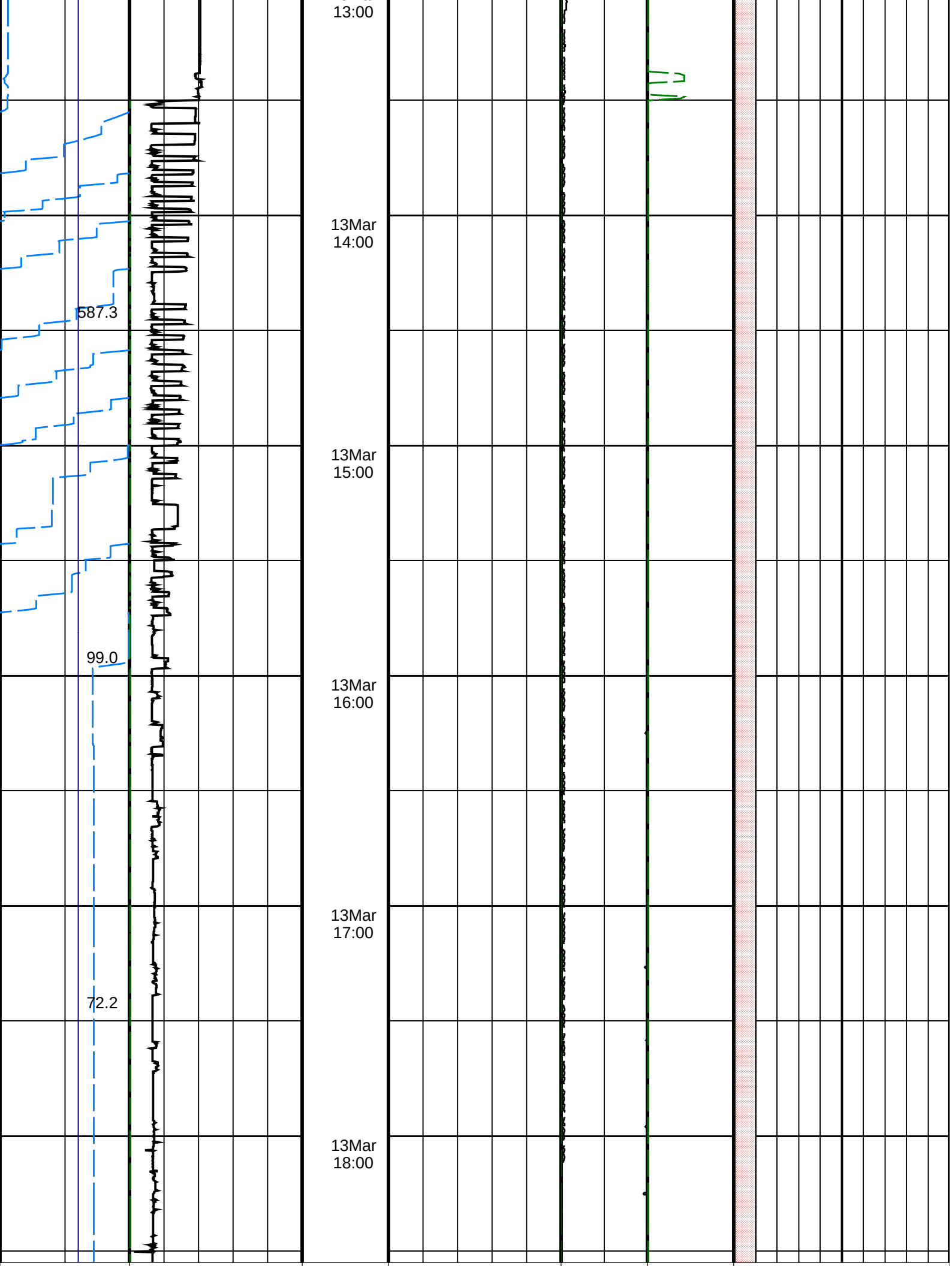
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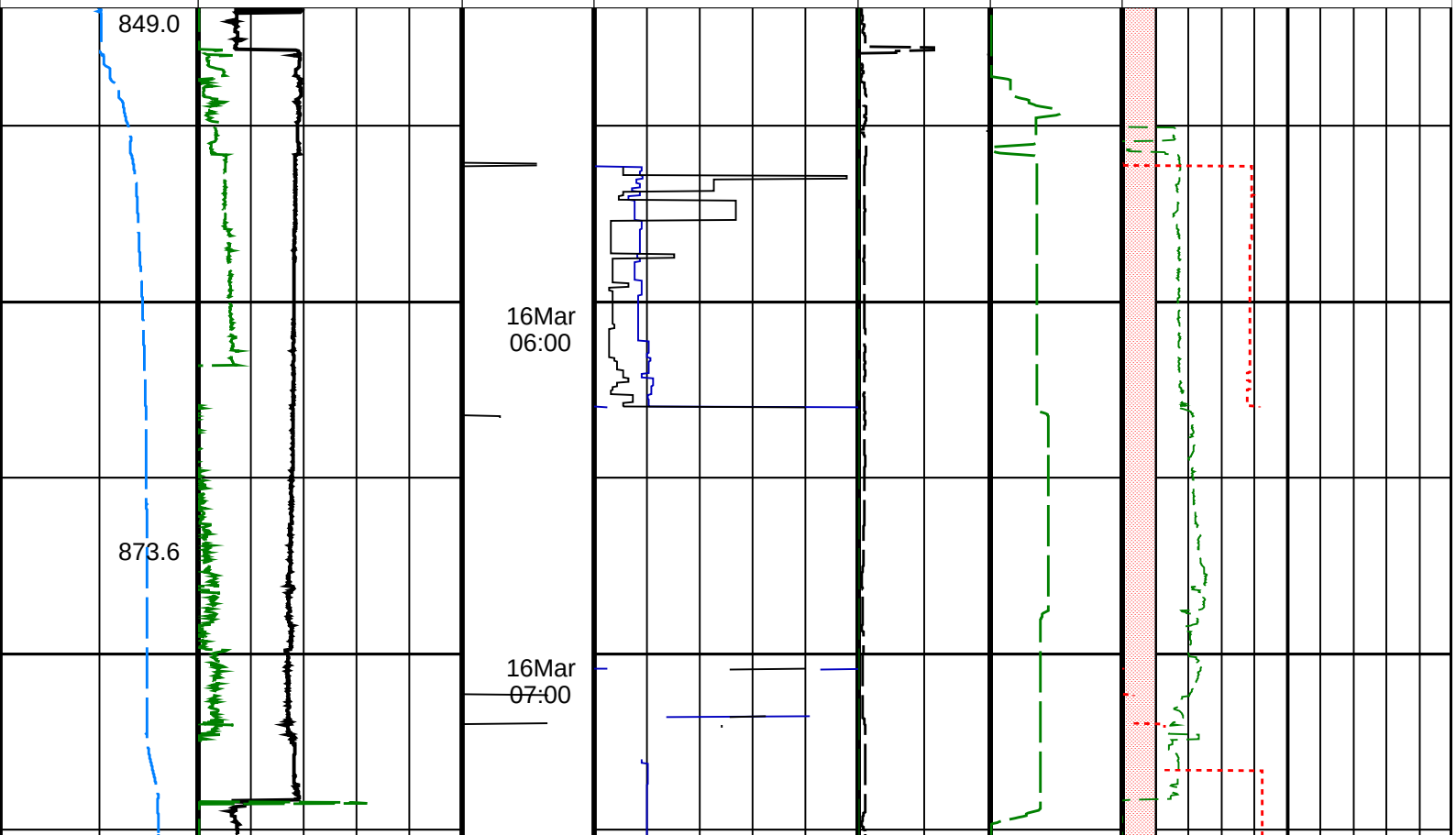
18:00

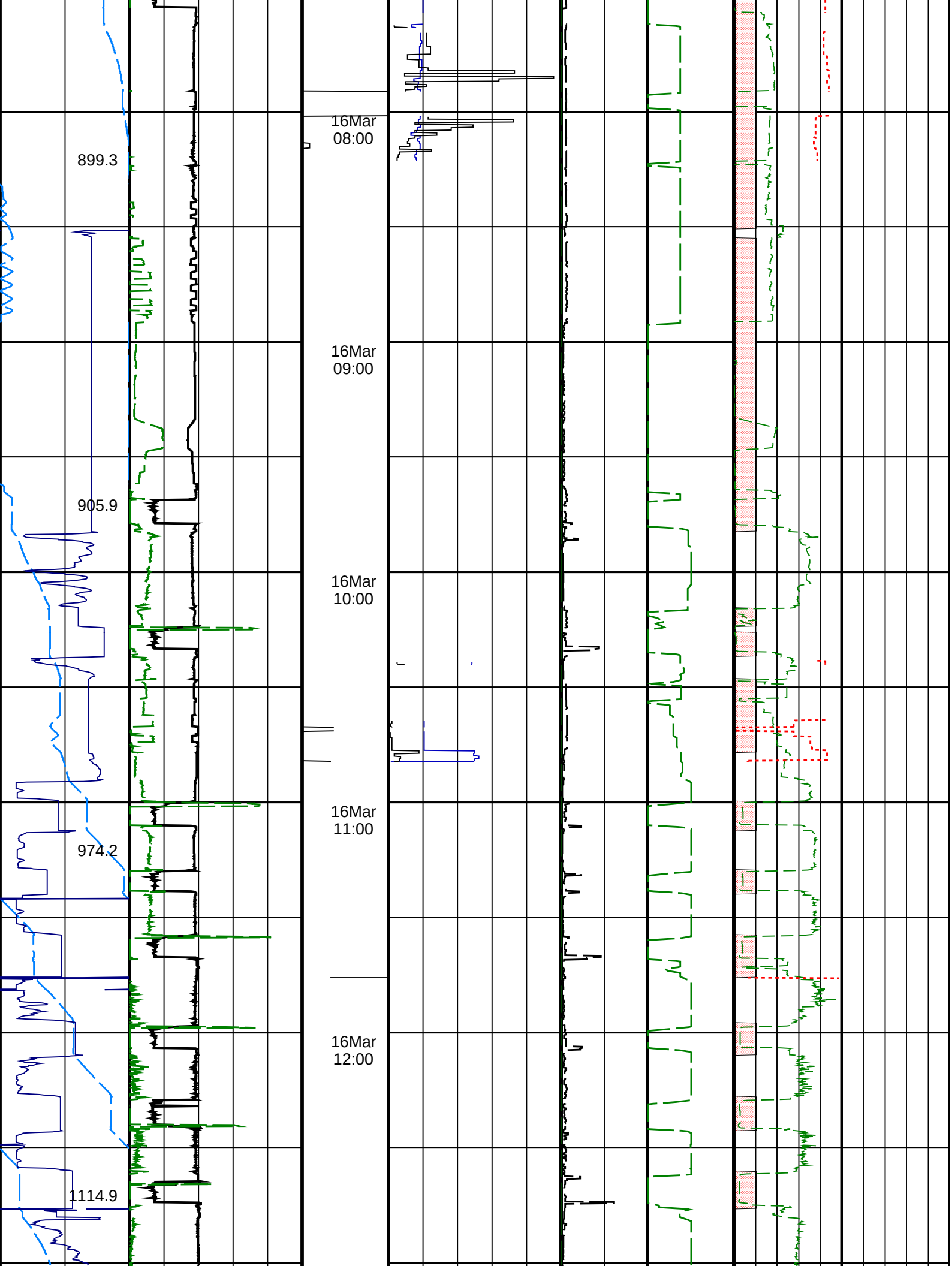
Bit Depth Value (DEPT) (M)	Surface WOB (SWOB) 0 (KLBF) 100	Shock Peak (SHKPK_RT) 0 (G) 200	MWD Collar RPM (CRPM_RT) 0 (RPM) 200	Surface_ torque (TQA) (KFLB) 0 50	Average Flow 30sec (TFLO30s) (GPM) 0 1200	Stand_pipe_pressure (SPPA) 0 (PSI) 5000
Rop*5 (ROP5) 200 (M/HR) 0	Hookload (HKLD) 0 (KLBF) 400		PKPK_RPM (Stick_RT) 0 (RPM) 400	Surface_ rpm (RPM) (RPM) 0 200		Trpm (TRPM_RT) 0 (RPM) 5000
MD (DEPT) 0 (M) 100						Bit off Bottom From DMT7 to Bit_on_ bottom/2hz/Curve

Drilling Mechanics Time Run 2

IDEAL Version: ID13_0C_06 < > Vertical Scale: 2" per 3600S Graphics File Created: 27−Mar−2008 15:42

MD (DEPT) 0 (M) 100						Bit off Bottom From DMT7 to Bit_on_ bottom/2hz/Curve
Rop*5 (ROP5) 200 (M/HR) 0	Hookload (HKLD) 0 (KLBF) 400		PKPK_RPM (Stick_RT) 0 (RPM) 400	Surface_ rpm (RPM) (RPM) 0 200		Trpm (TRPM_RT) 0 (RPM) 5000
Bit Depth Value (DEPT) (M)	Surface WOB (SWOB) 0 (KLBF) 100	Shock Peak (SHKPK_RT) 0 (G) 200	MWD Collar RPM (CRPM_RT) 0 (RPM) 200	Surface_ torque (TQA) (KFLB) 0 50	Average Flow 30sec (TFLO30s) (GPM) 0 1200	Stand_pipe_pressure (SPPA) 0 (PSI) 5000

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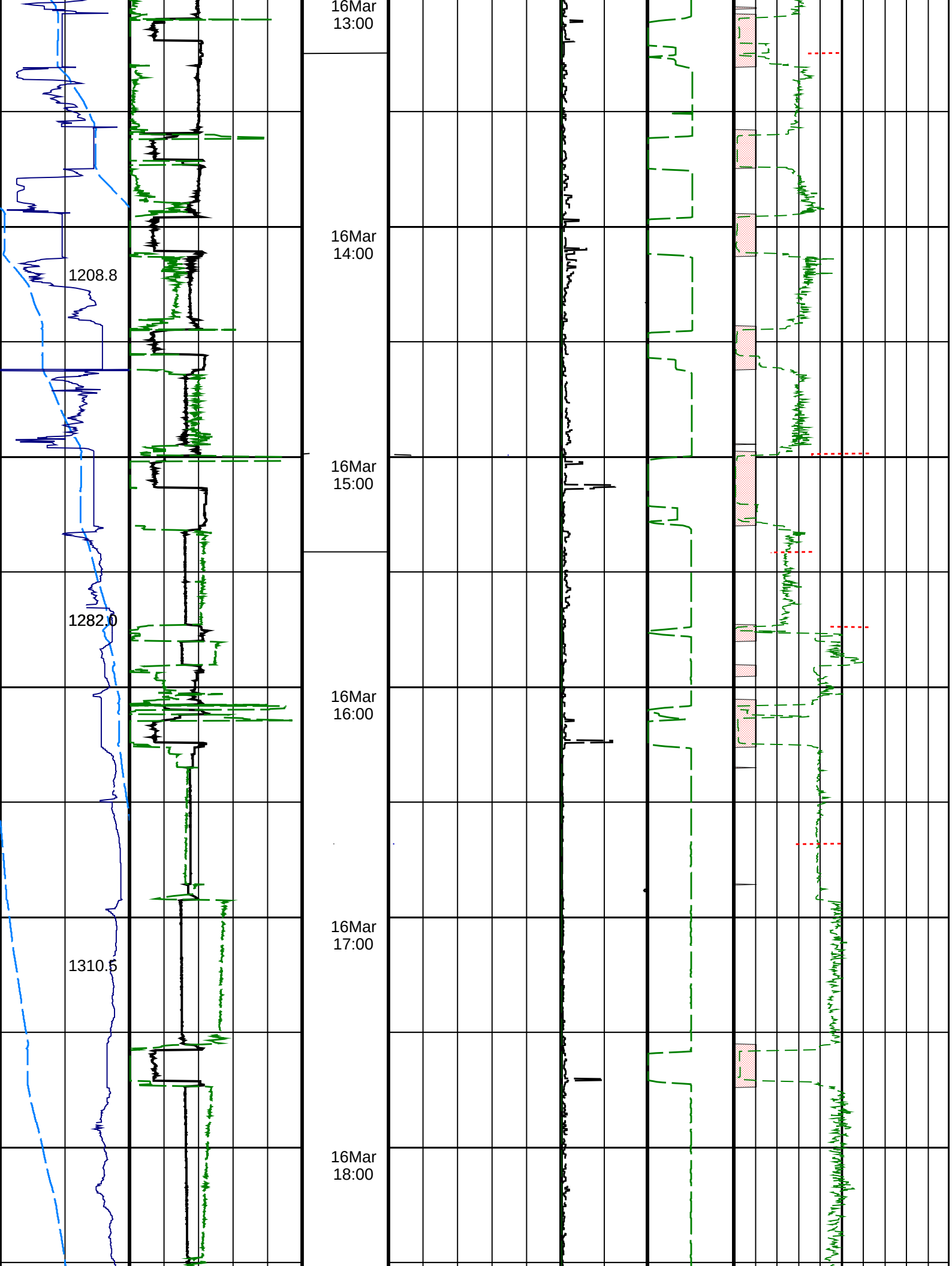
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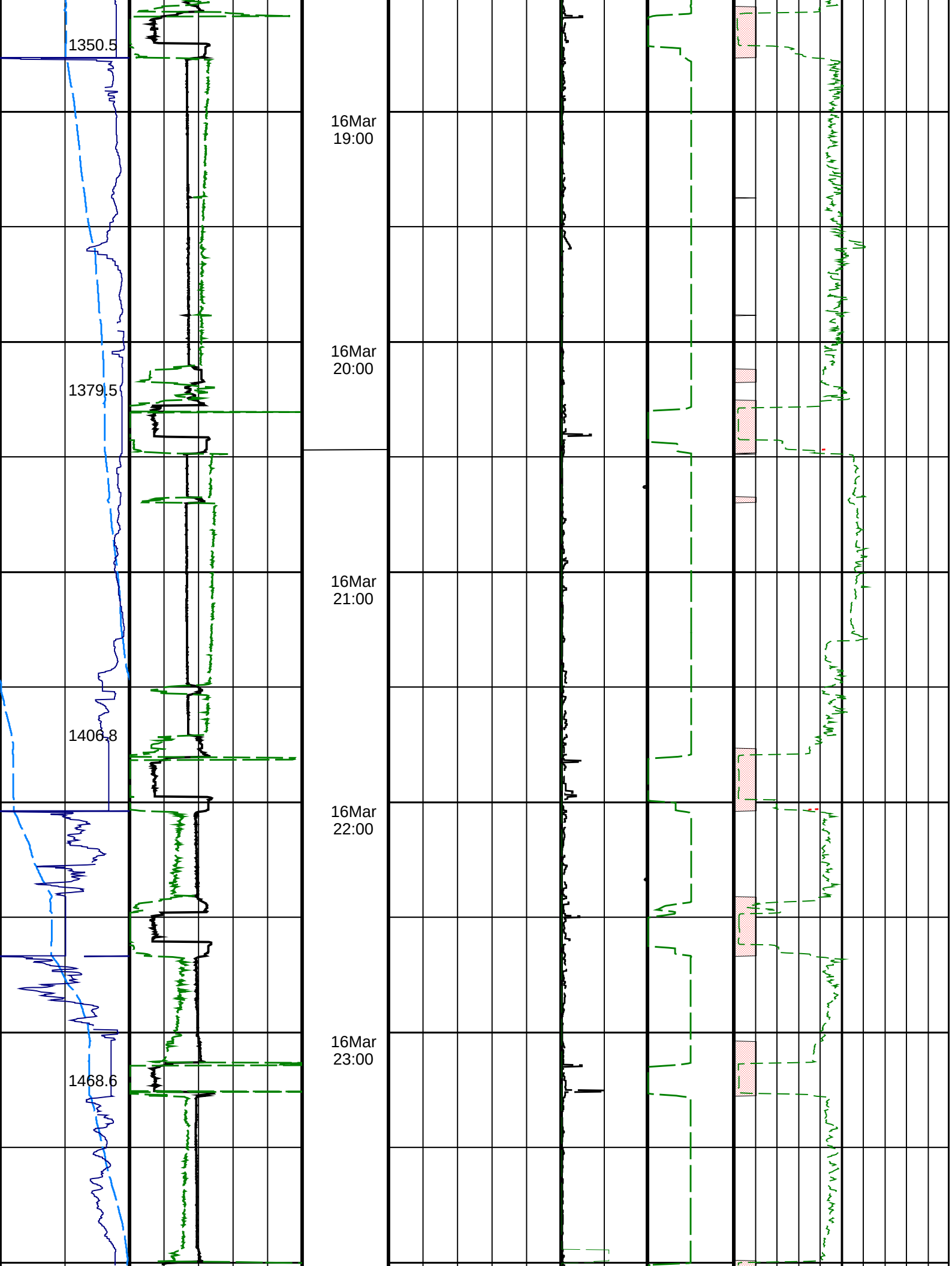
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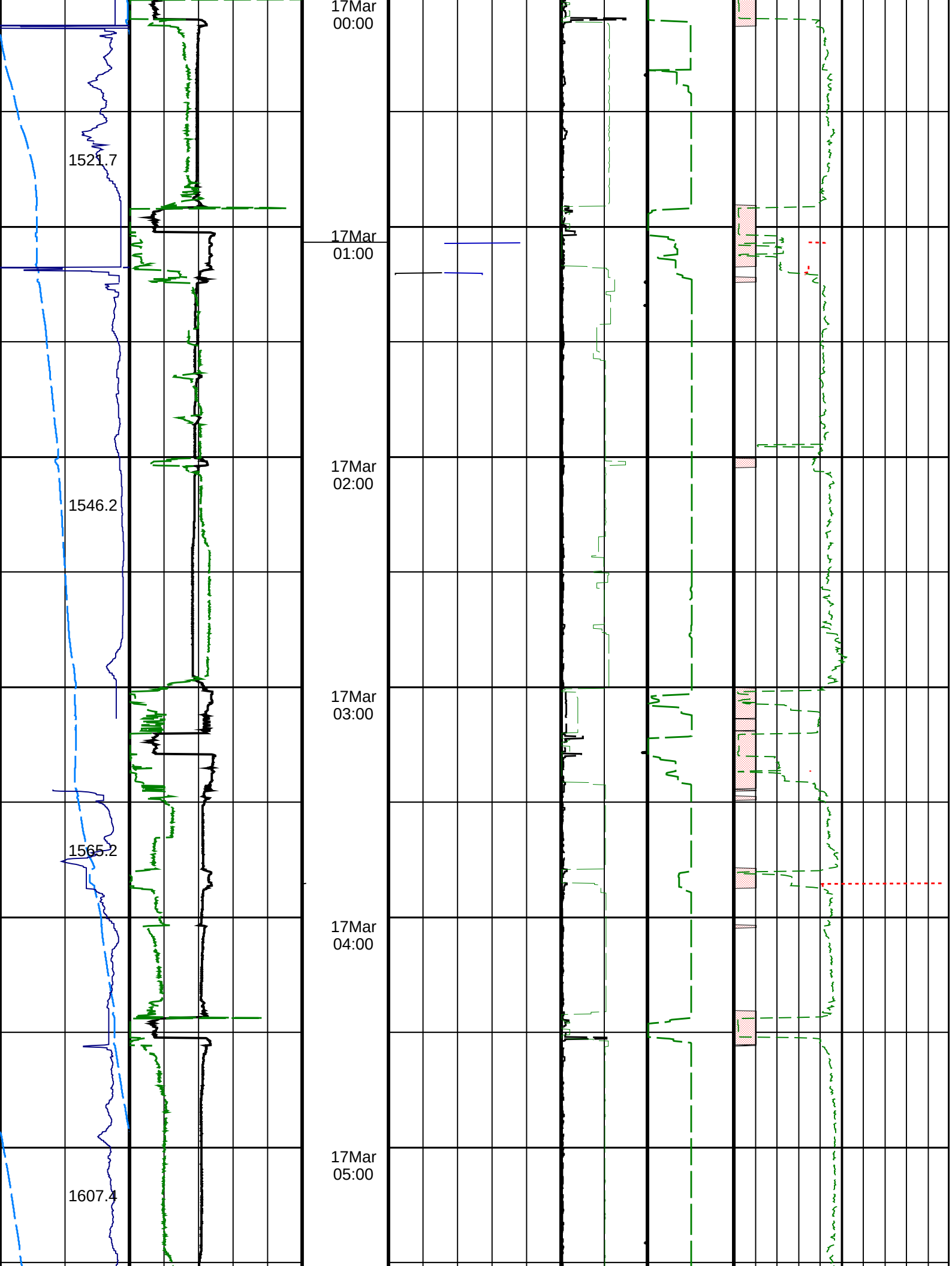
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02:00
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03:00
1565.2
17Mar
04:00
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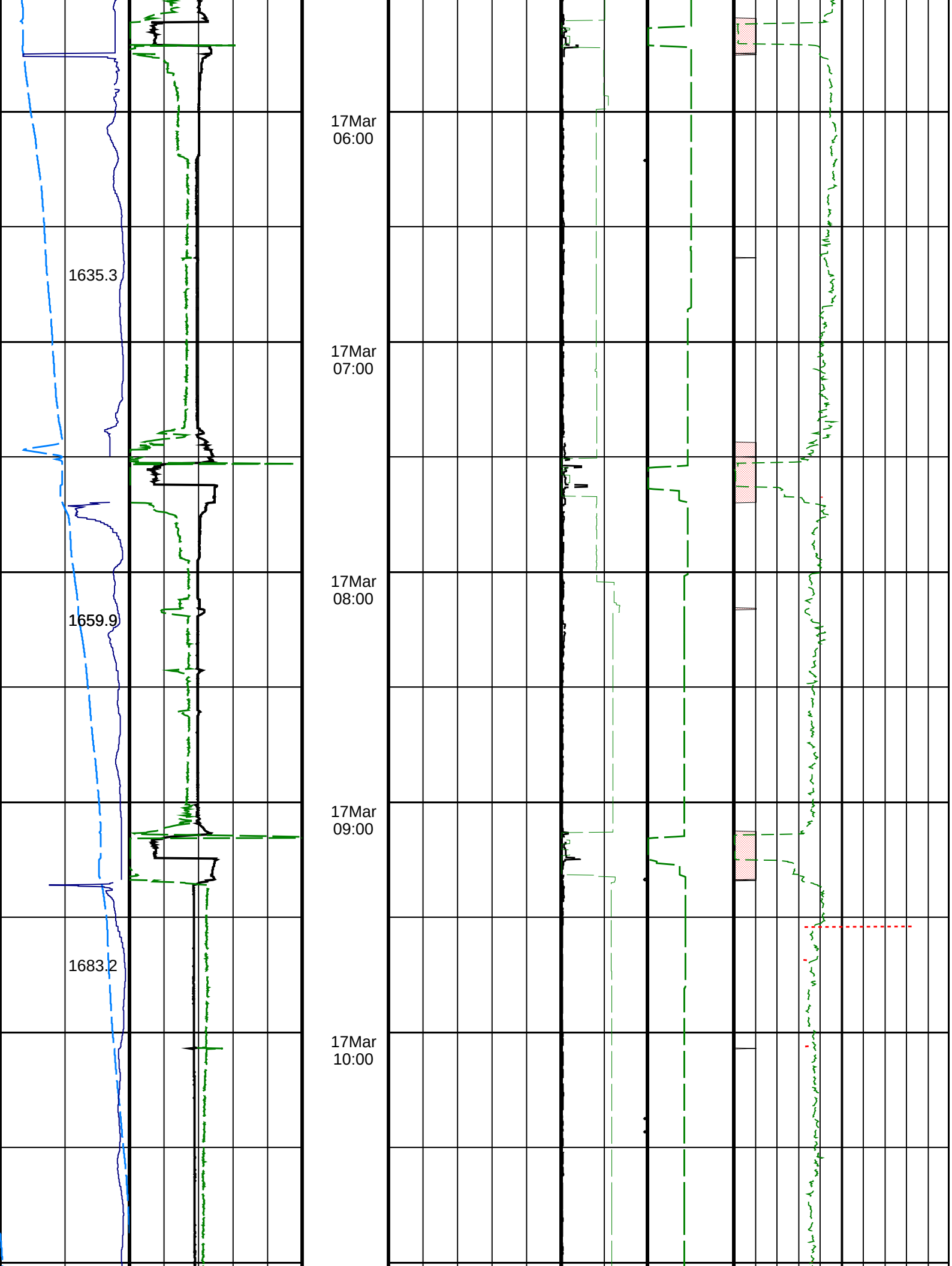
05:00
1607.4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17Mar
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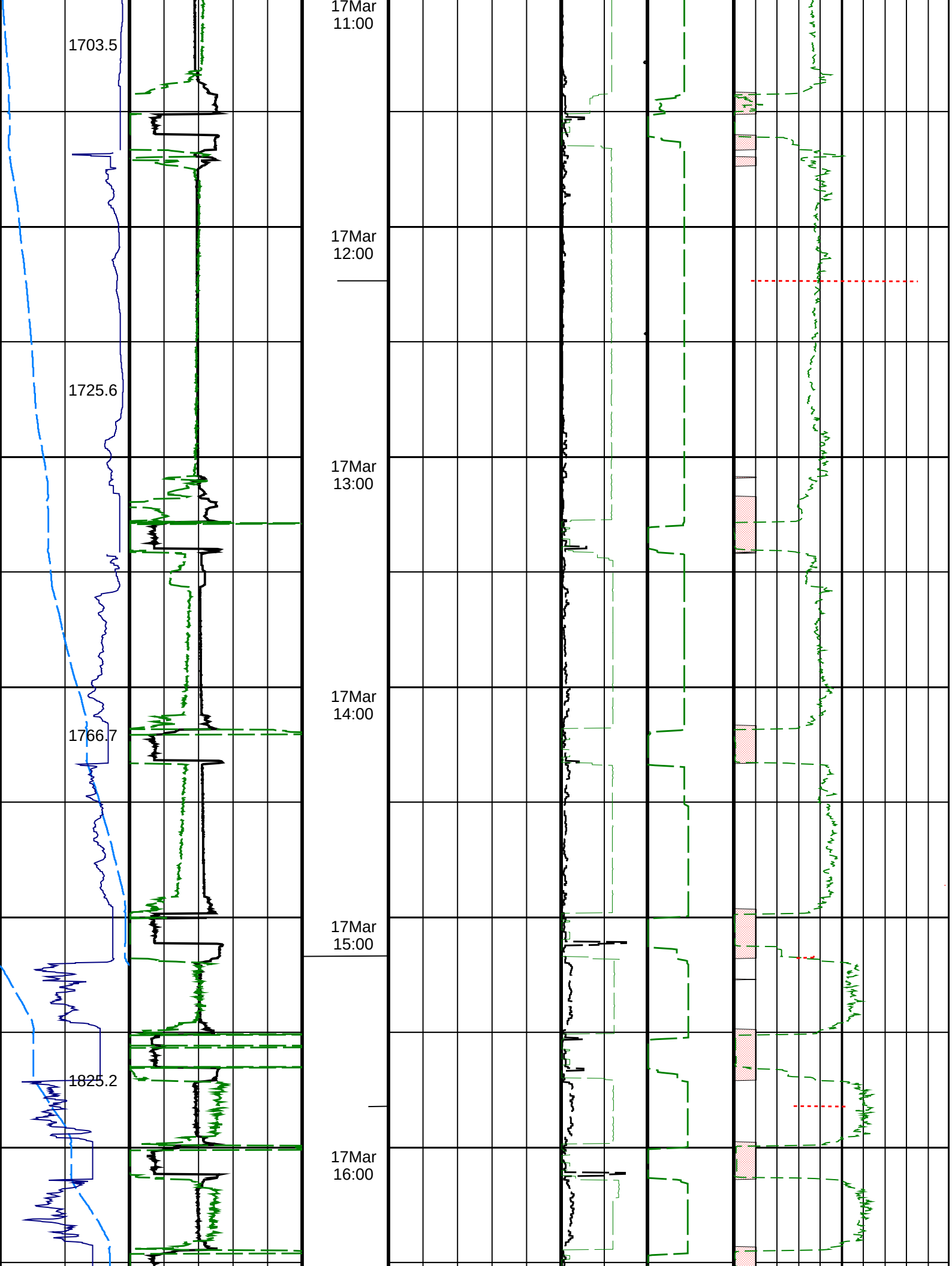
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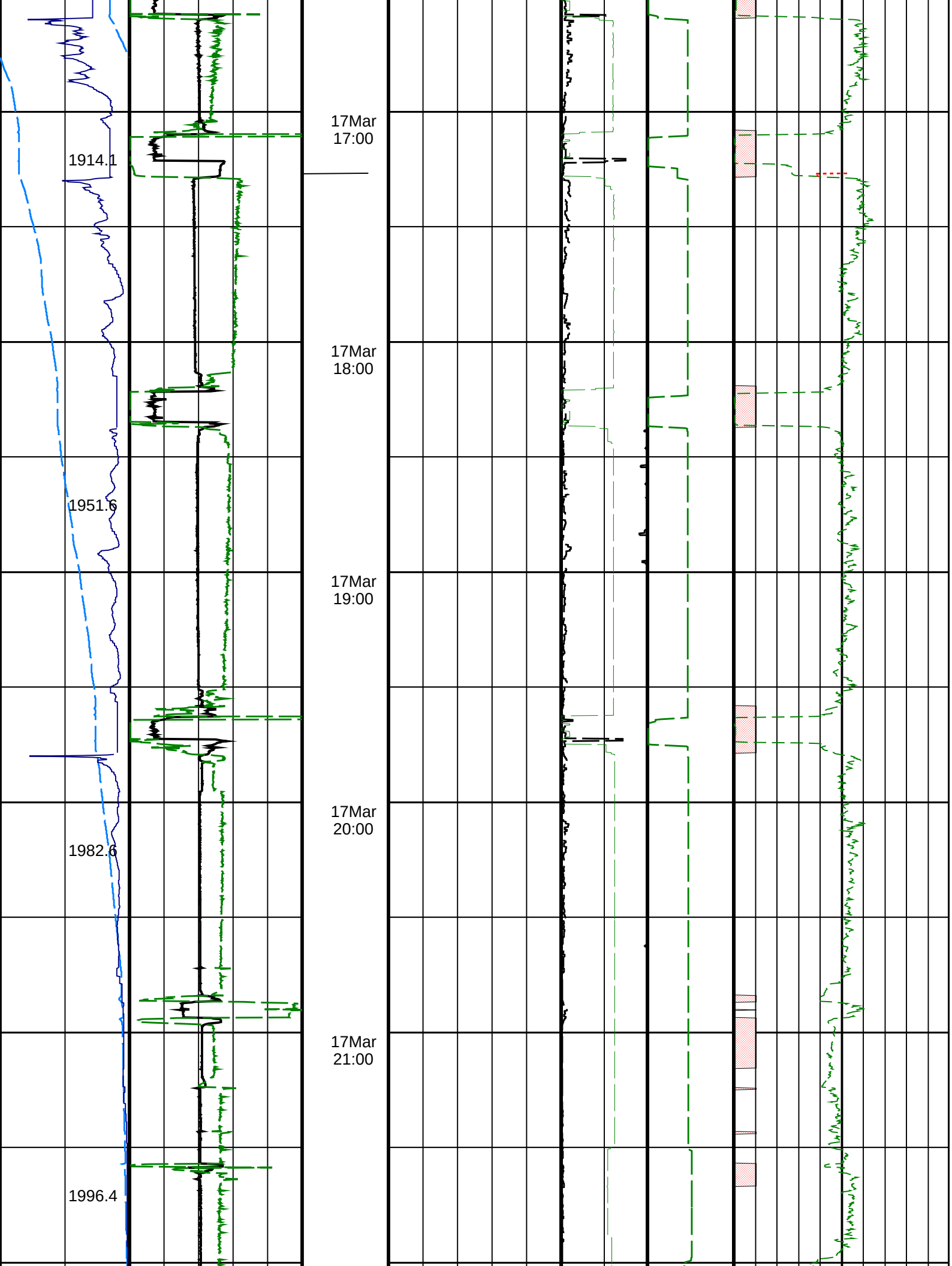
16:00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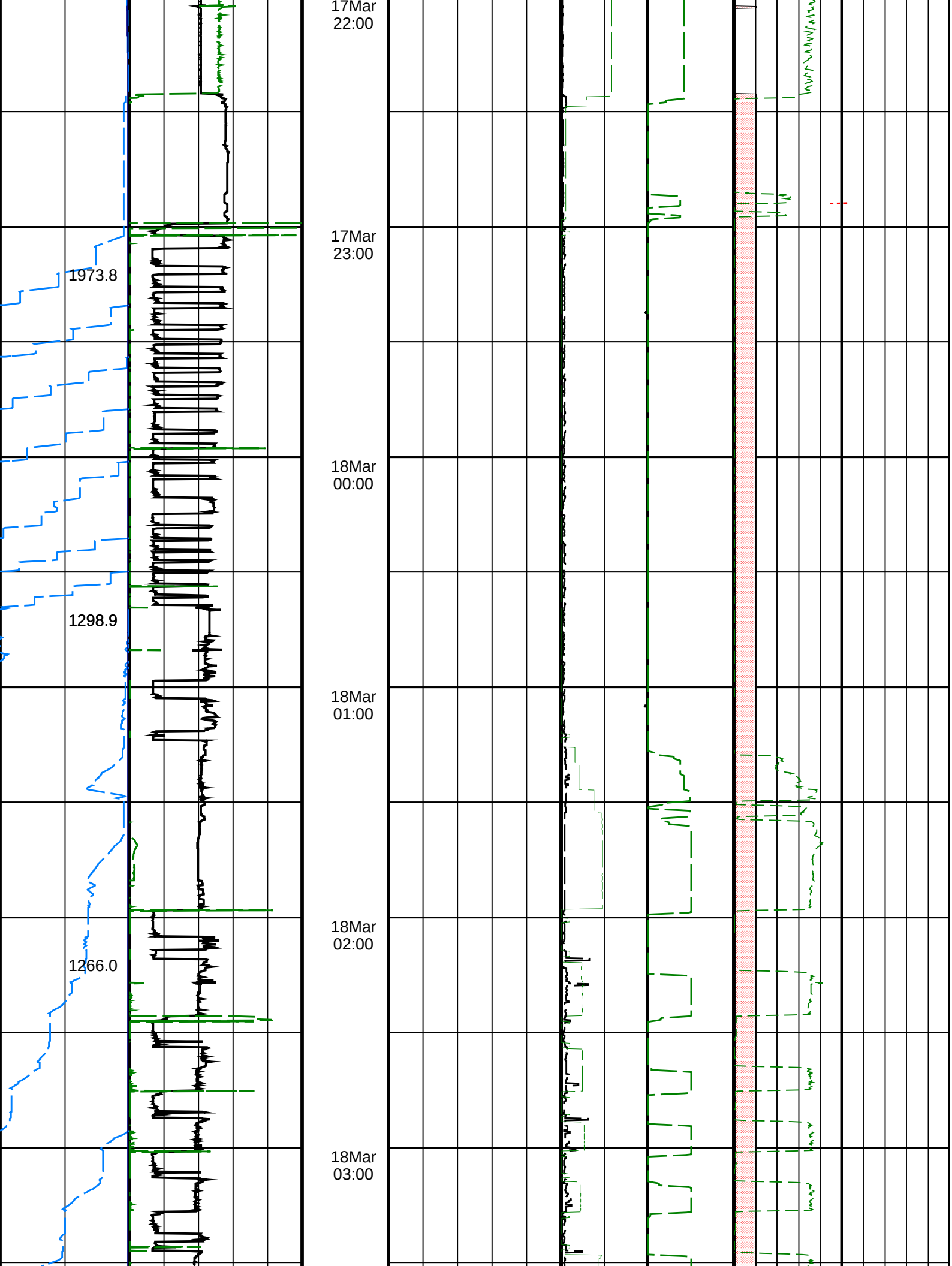
1996.4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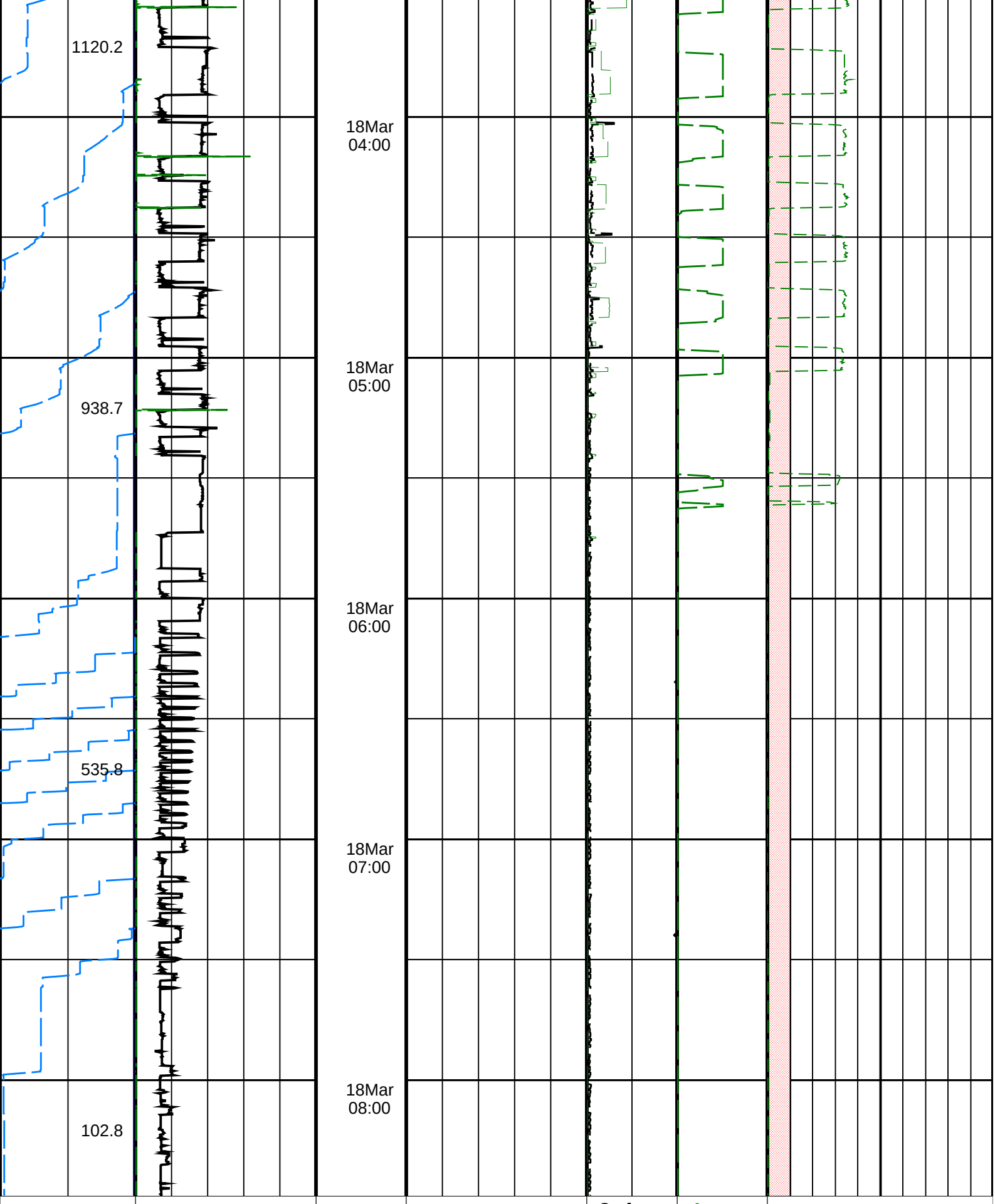


Bit Depth Value (DEPT) (M)	Surface WOB (SWOB) 0 (KLBF) 100	Shock Peak (SHKPK_RT) 0 (G) 200	MWD Collar RPM (CRPM_RT) 0 (RPM) 200	Surface_torque (TQA) (KFLB) 0 50	Average Flow 30sec (TFLO30s) (GPM) 0 1200	Stand_pipe_pressure (SPPA) 0 (PSI) 5000

Rop*5 (ROP5) 200 (M/HR) 0 | Hookload (HKLD) 0 (KLBF) 400 | PKPK_RPM (Stick_RT) 0 (RPM) 400 | rpm (RPM) (RPM) 0 200 | Trpm (TRPM_RT) 0 (RPM) 5000

MD (DEPT) 0 (M) 100

Bit off Bottom From DMT7 to Bit_on_bottom/2hz/Curve

Drilling Mechanics Time Run 3

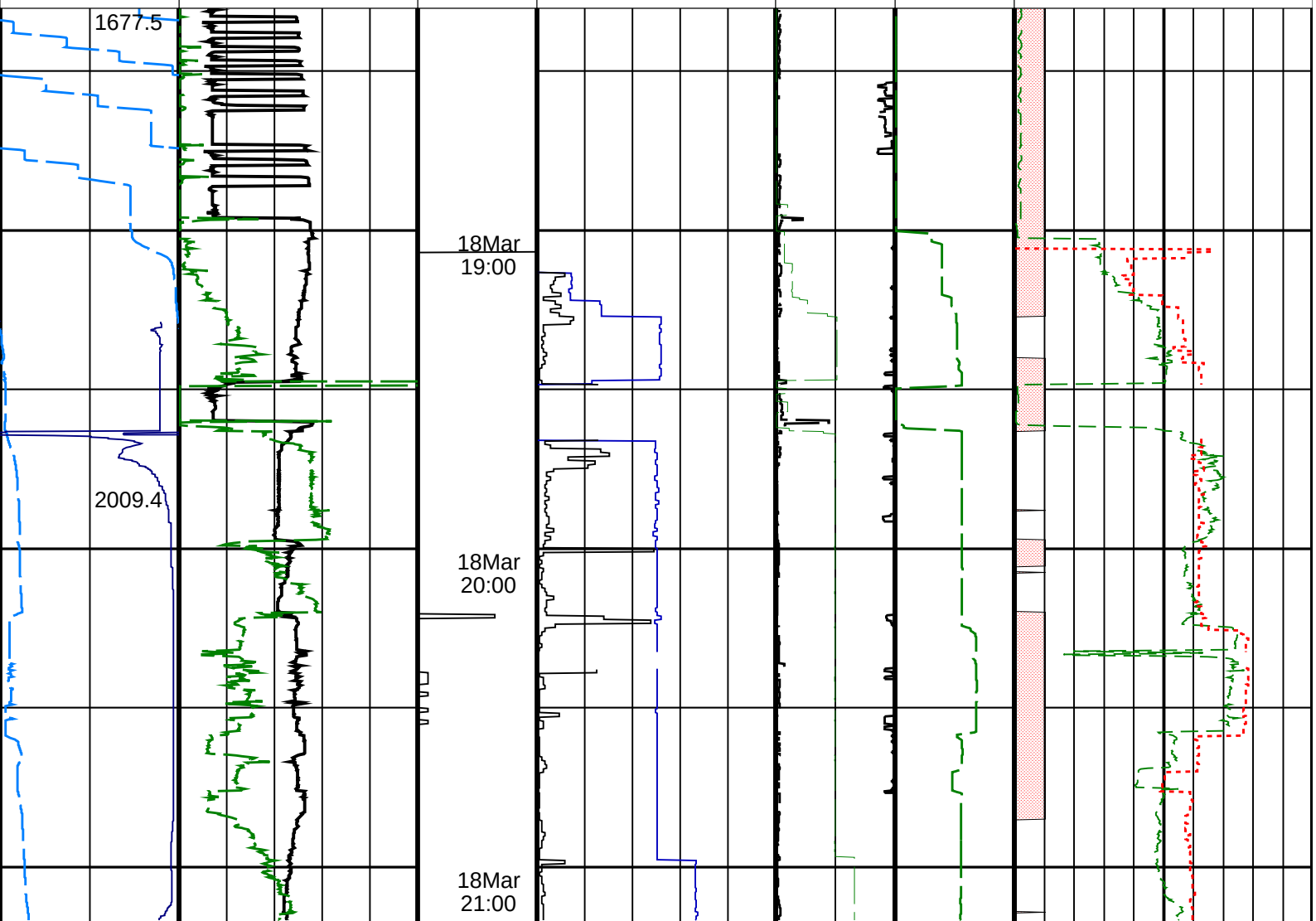
IDEAL Version: ID13_0C_06 < > Vertical Scale: 2" per 3600S Graphics File Created: 27−Mar−2008 16:03

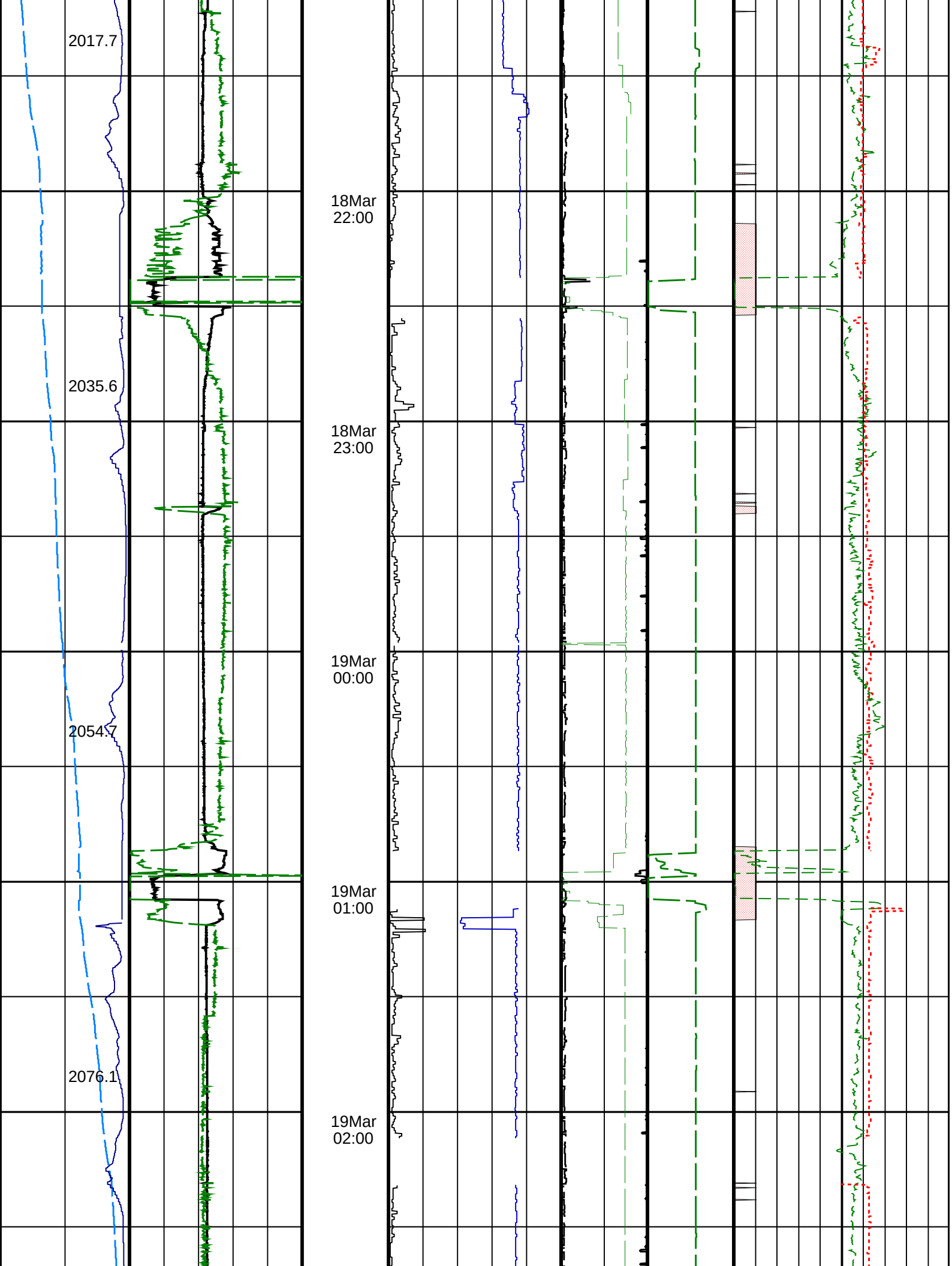
MD (DEPT) 0 (M) 100

Bit off Bottom From DMT7 to Bit_on_bottom/2hz/Curve

Rop*5 (ROP5) 200 (M/HR) 0 | Hookload (HKLD) 0 (KLBF) 400 | PKPK_RPM (Stick_RT) 0 (RPM) 400 | Surface_rpm (RPM) (RPM) 0 200 | Trpm (TRPM_RT) 0 (RPM) 5000

Bit Depth Value (DEPT) (M) | Surface WOB (SWOB) 0 (KLBF) 100 | Shock Peak (SHKPK_RT) 0 (G) 200 | MWD Collar RPM (CRPM_RT) 0 (RPM) 200 | Surface_torque (TQA) (KFLB) 0 50 | Average Flow 30sec (TFLO30s) (GPM) 0 1200 | Stand_pipe_pressure (SPPA) 0 (PSI) 5000

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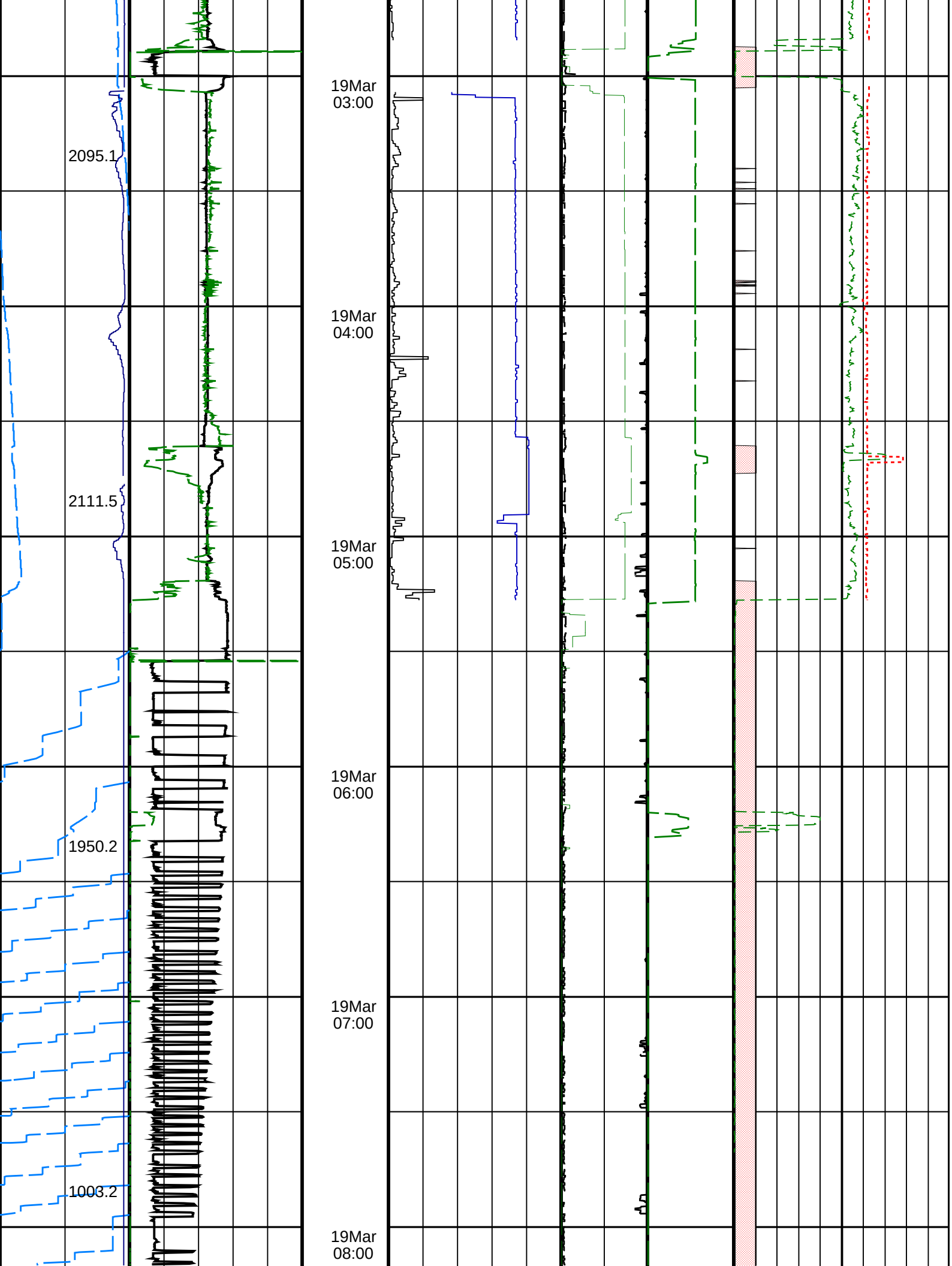
02:00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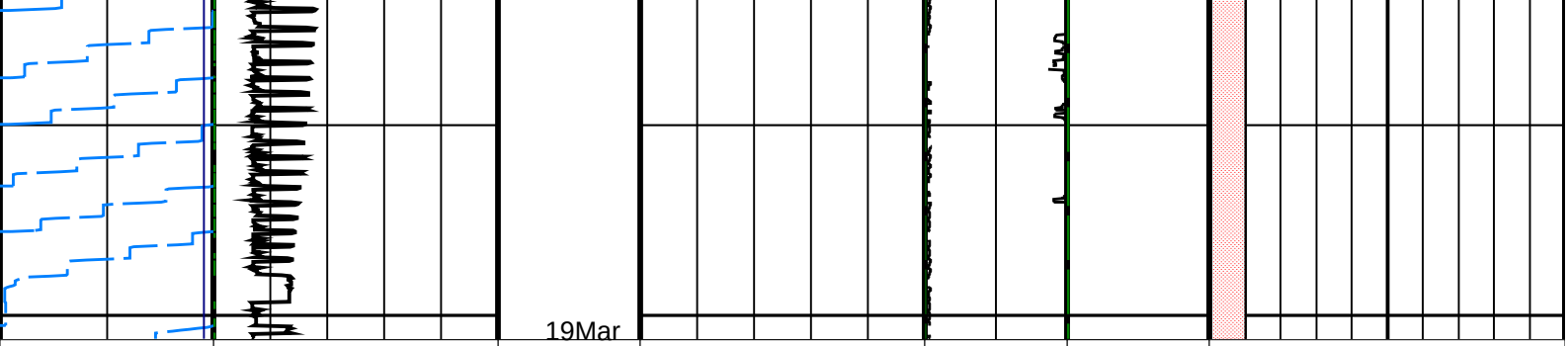
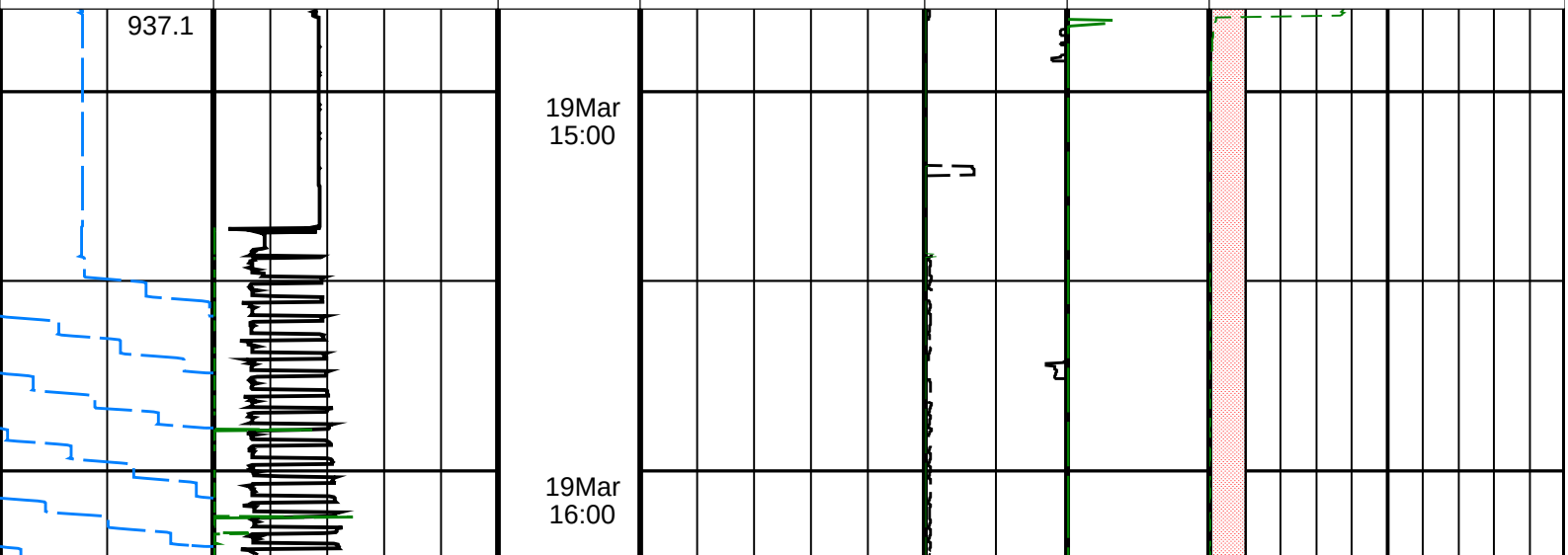


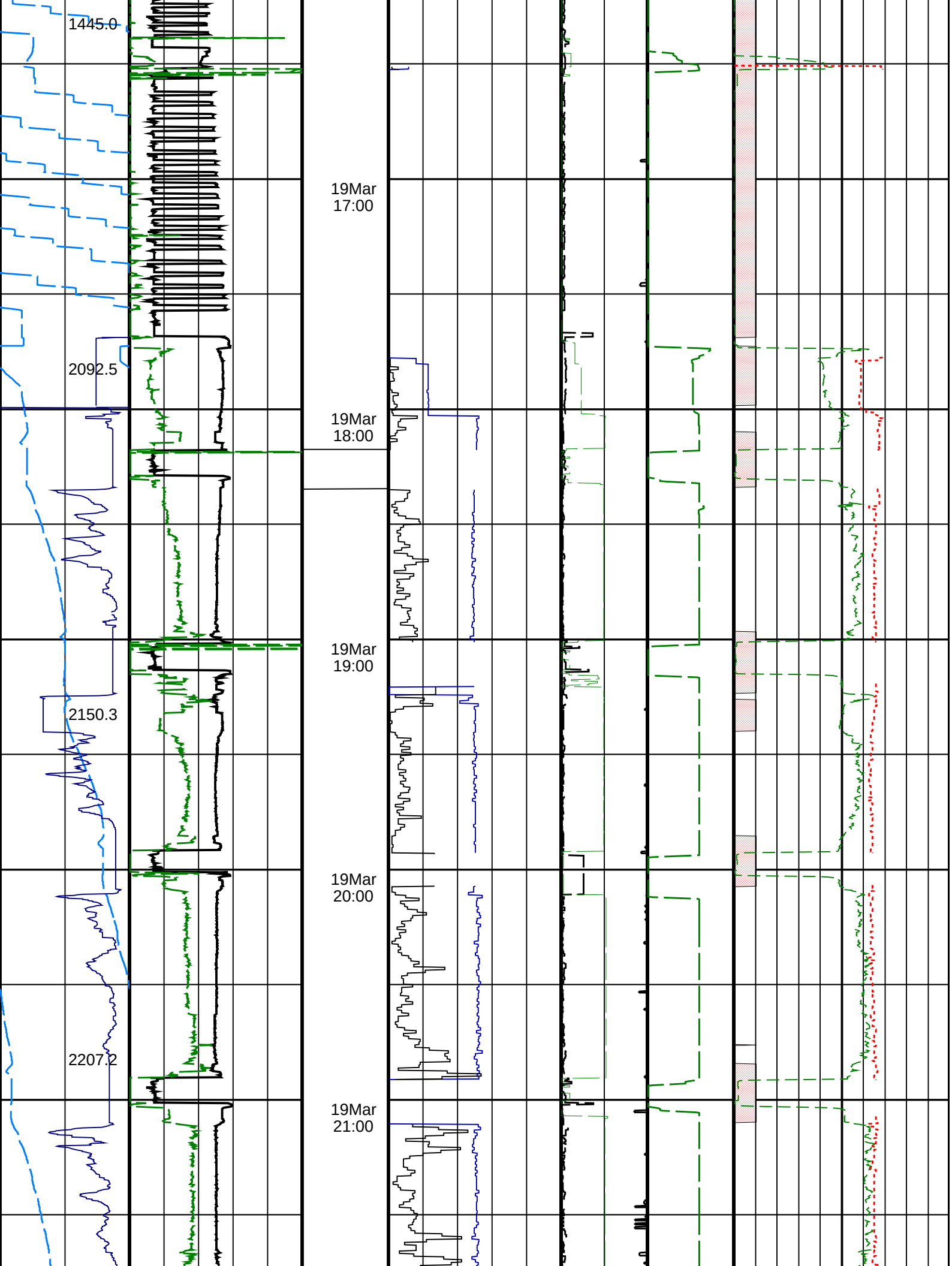
Bit Depth Value (DEPT) (M)	Surface WOB (SWOB) 0 (KLBF) 100	Shock Peak (SHKPK_RT) 0 (G) 200	MWD Collar RPM (CRPM_RT) 0 (RPM) 200	Surface_ torque (TQA) (KFLB) 0 50	Average Flow 30sec (TFLO30s) (GPM) 0 1200	Stand_pipe_pressure (SPPA) 0 (PSI) 5000
Rop*5 (ROP5) 200 (M/HR) 0	Hookload (HKLD) 0 (KLBF) 400		PKPK_RPM (Stick_RT) 0 (RPM) 400	Surface_ rpm (RPM) (RPM) 0 200		Trpm (TRPM_RT) 0 (RPM) 5000
MD (DEPT) 0 (M) 100						Bit off Bottom From DMT7 to Bit_on_ bottom/2hz/Curve

Drilling Mechanics Time Run 4

IDEAL Version: ID13_0C_06 < > Vertical Scale: 2" per 3600S Graphics File Created: 27−Mar−2008 16:06

MD (DEPT) 0 (M) 100						Bit off Bottom From DMT7 to Bit_on_ bottom/2hz/Curve
Rop*5 (ROP5) 200 (M/HR) 0	Hookload (HKLD) 0 (KLBF) 400		PKPK_RPM (Stick_RT) 0 (RPM) 400	Surface_ rpm (RPM) (RPM) 0 200		Trpm (TRPM_RT) 0 (RPM) 5000
Bit Depth Value (DEPT) (M)	Surface WOB (SWOB) 0 (KLBF) 100	Shock Peak (SHKPK_RT) 0 (G) 200	MWD Collar RPM (CRPM_RT) 0 (RPM) 200	Surface_ torque (TQA) (KFLB) 0 50	Average Flow 30sec (TFLO30s) (GPM) 0 1200	Stand_pipe_pressure (SPPA) 0 (PSI) 5000

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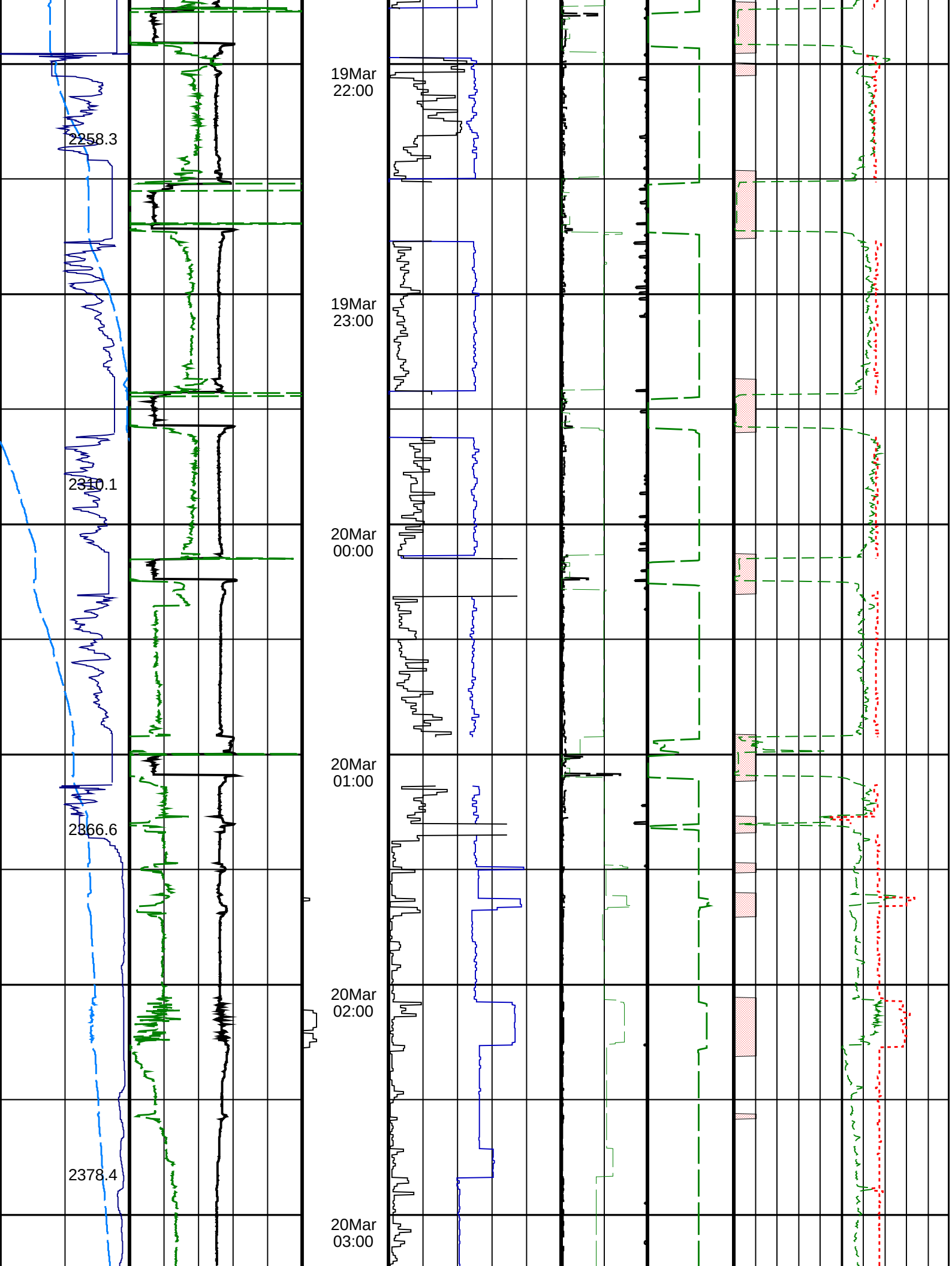
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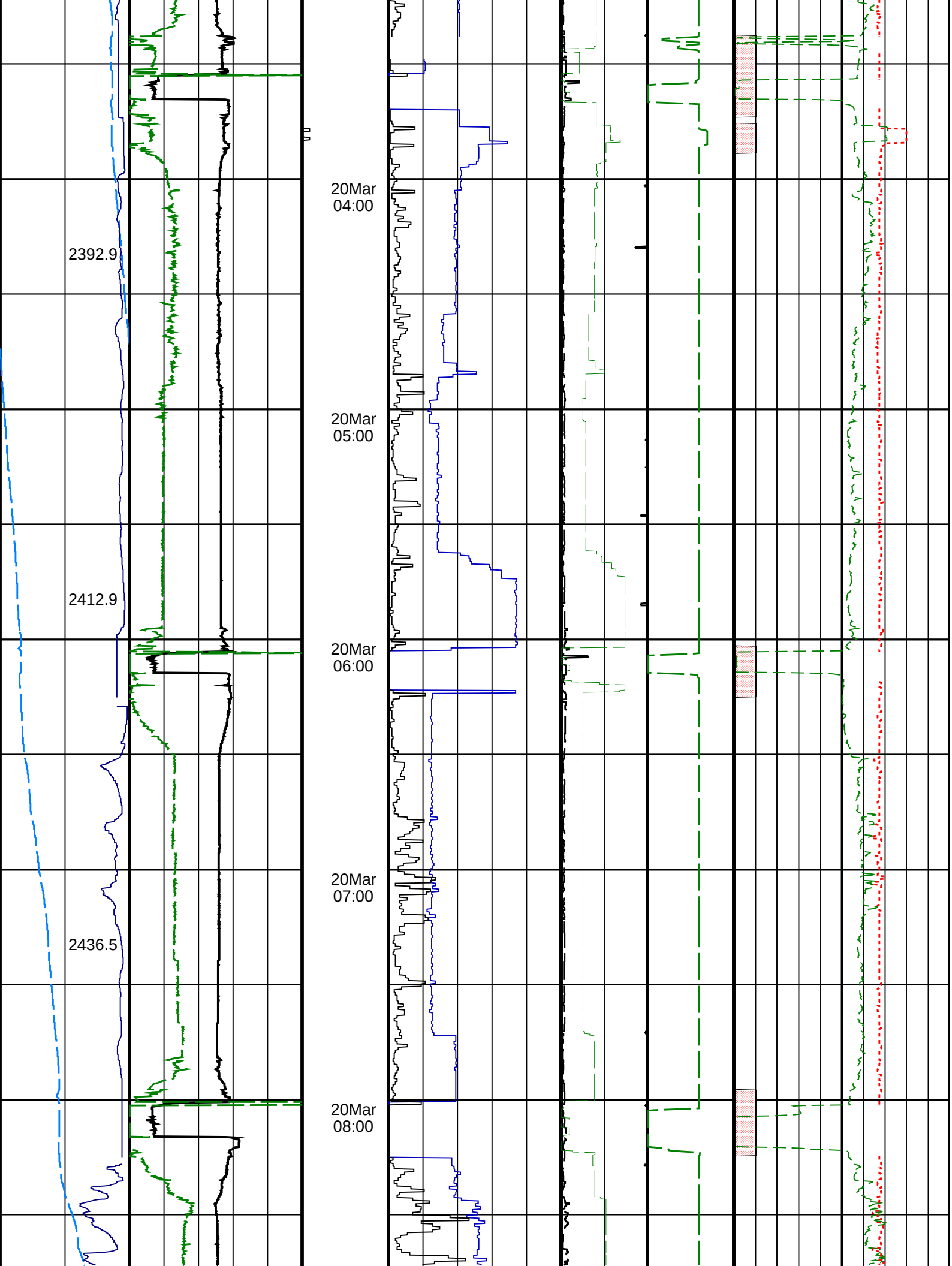
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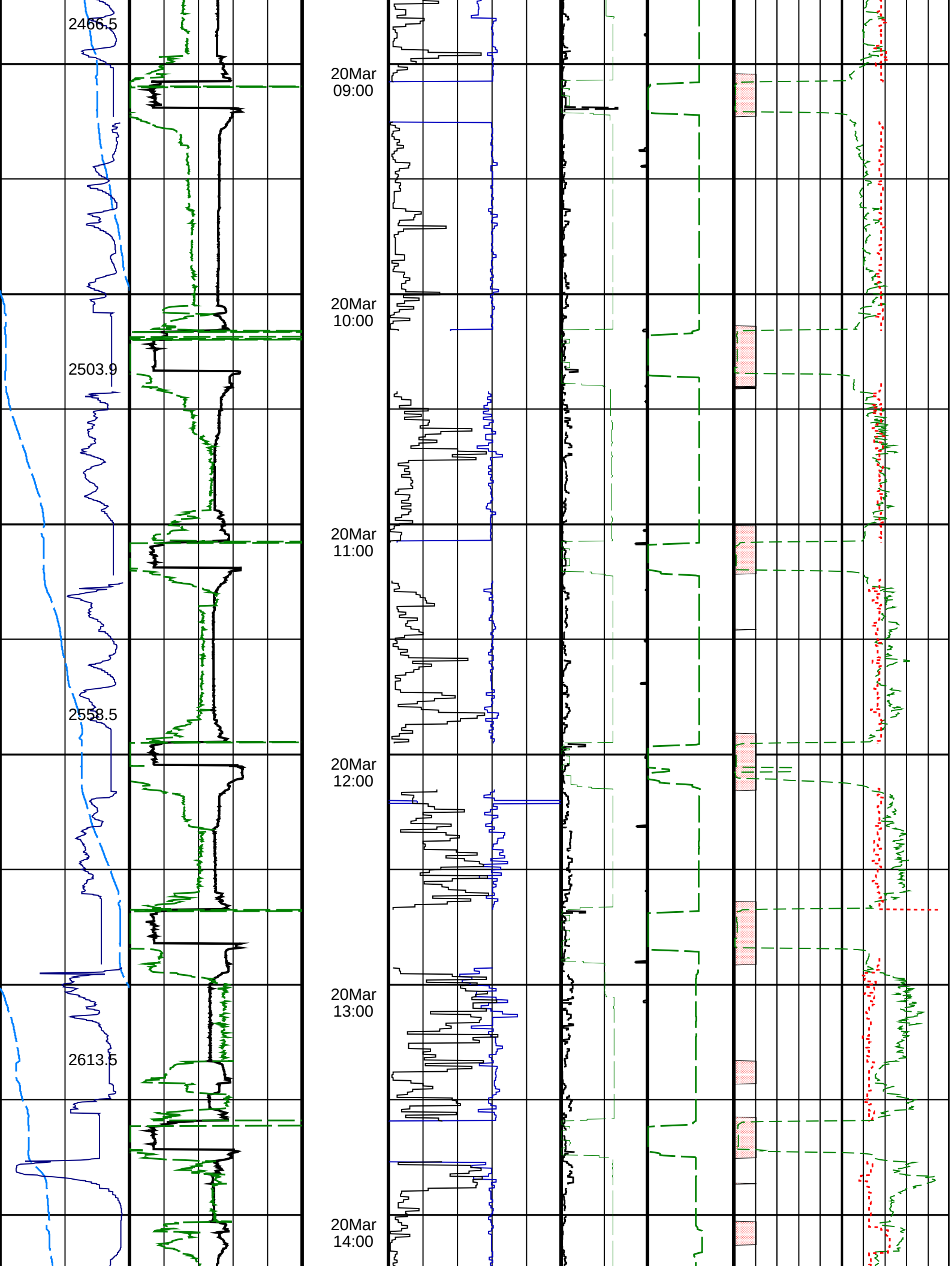
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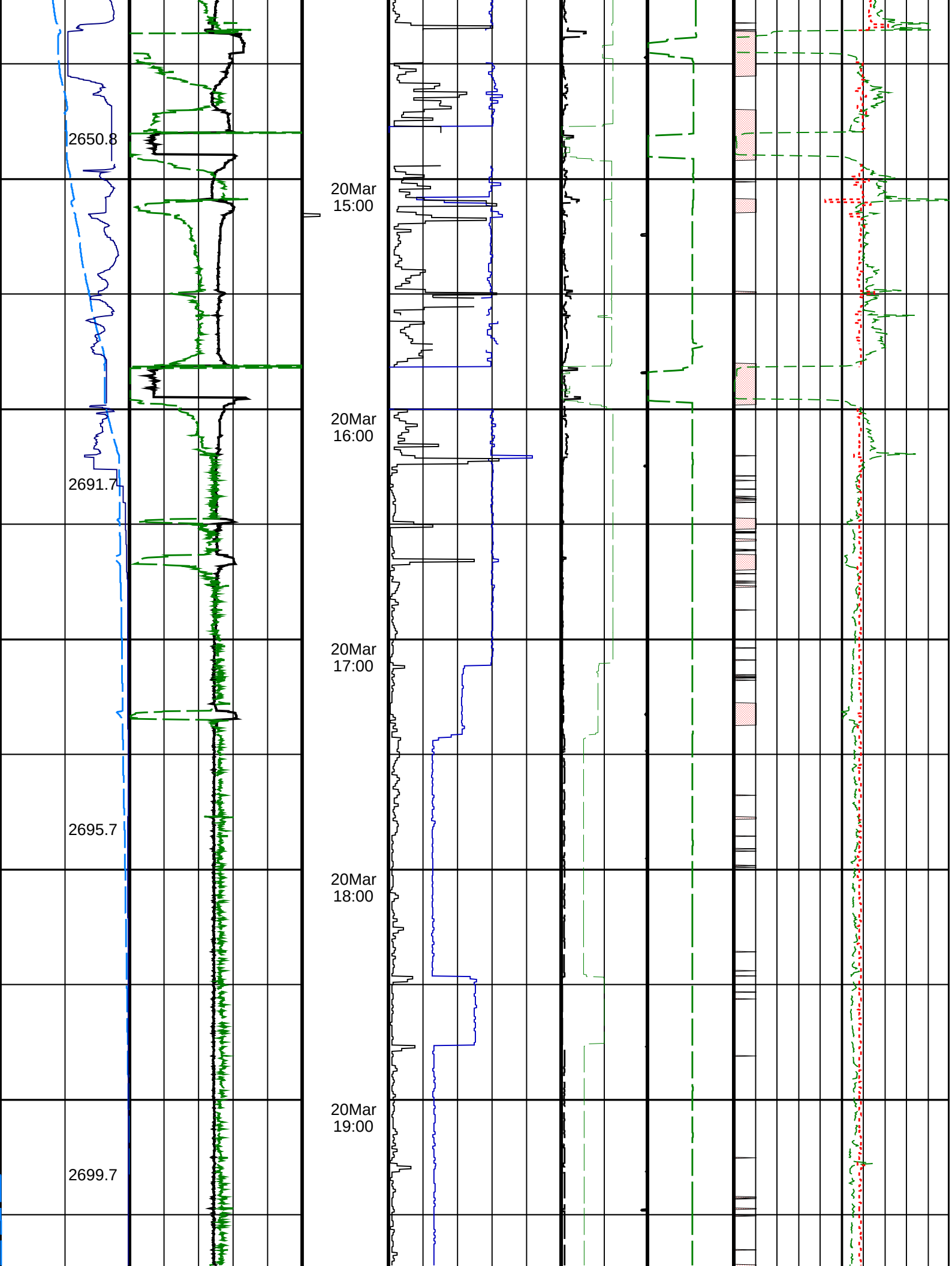
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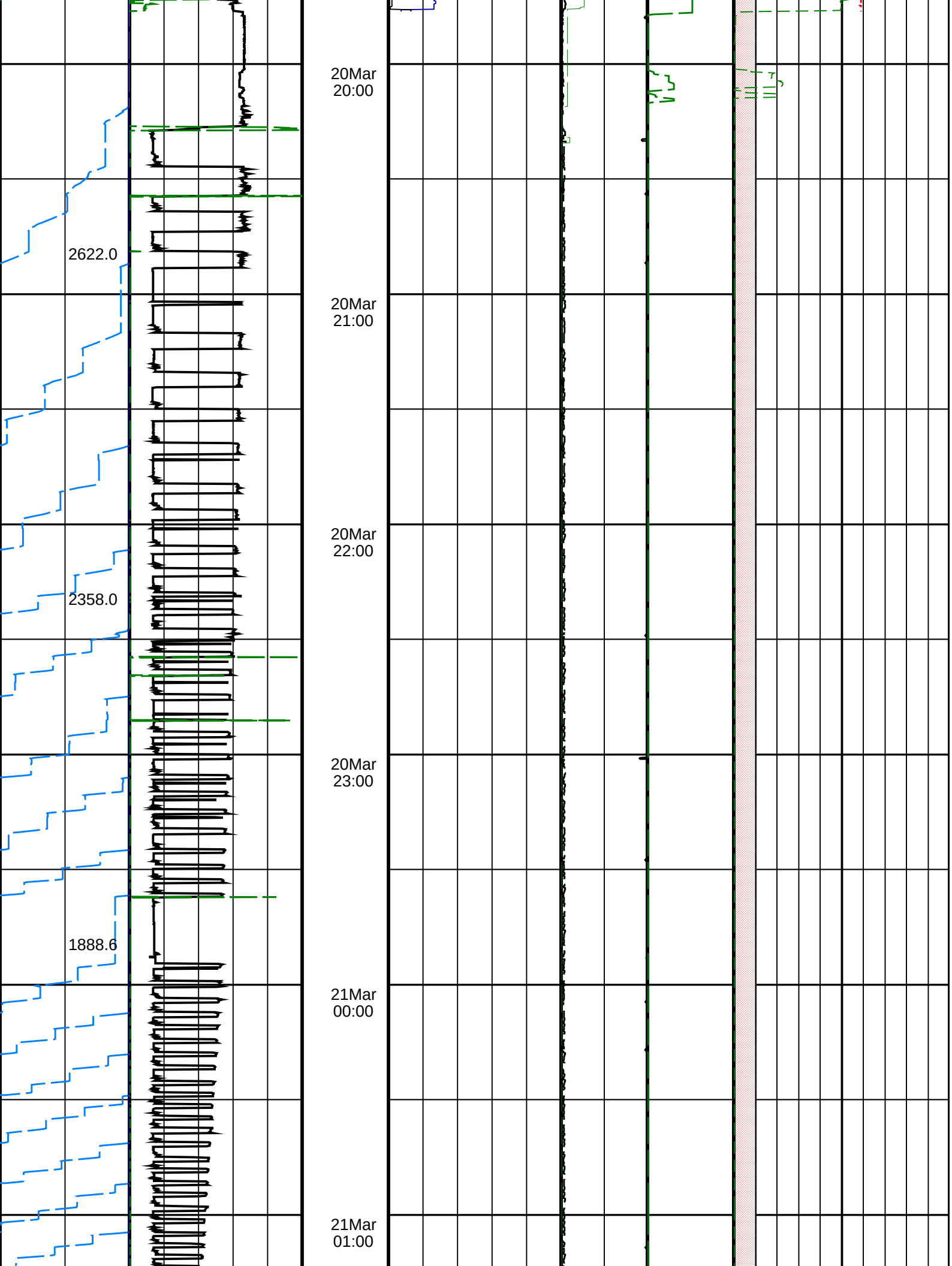
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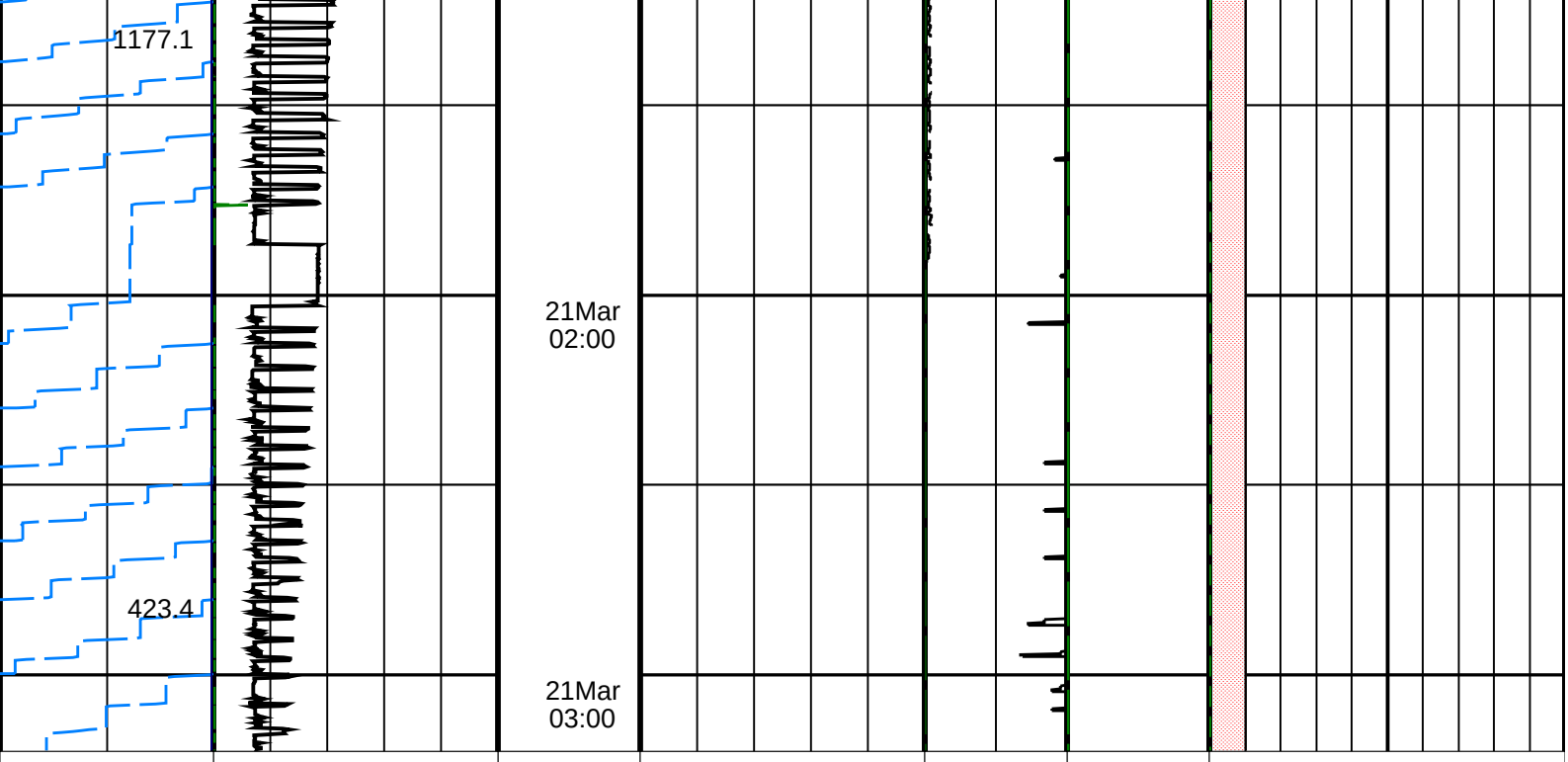
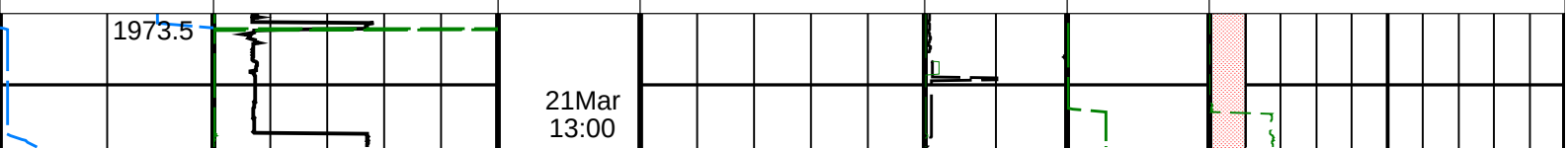


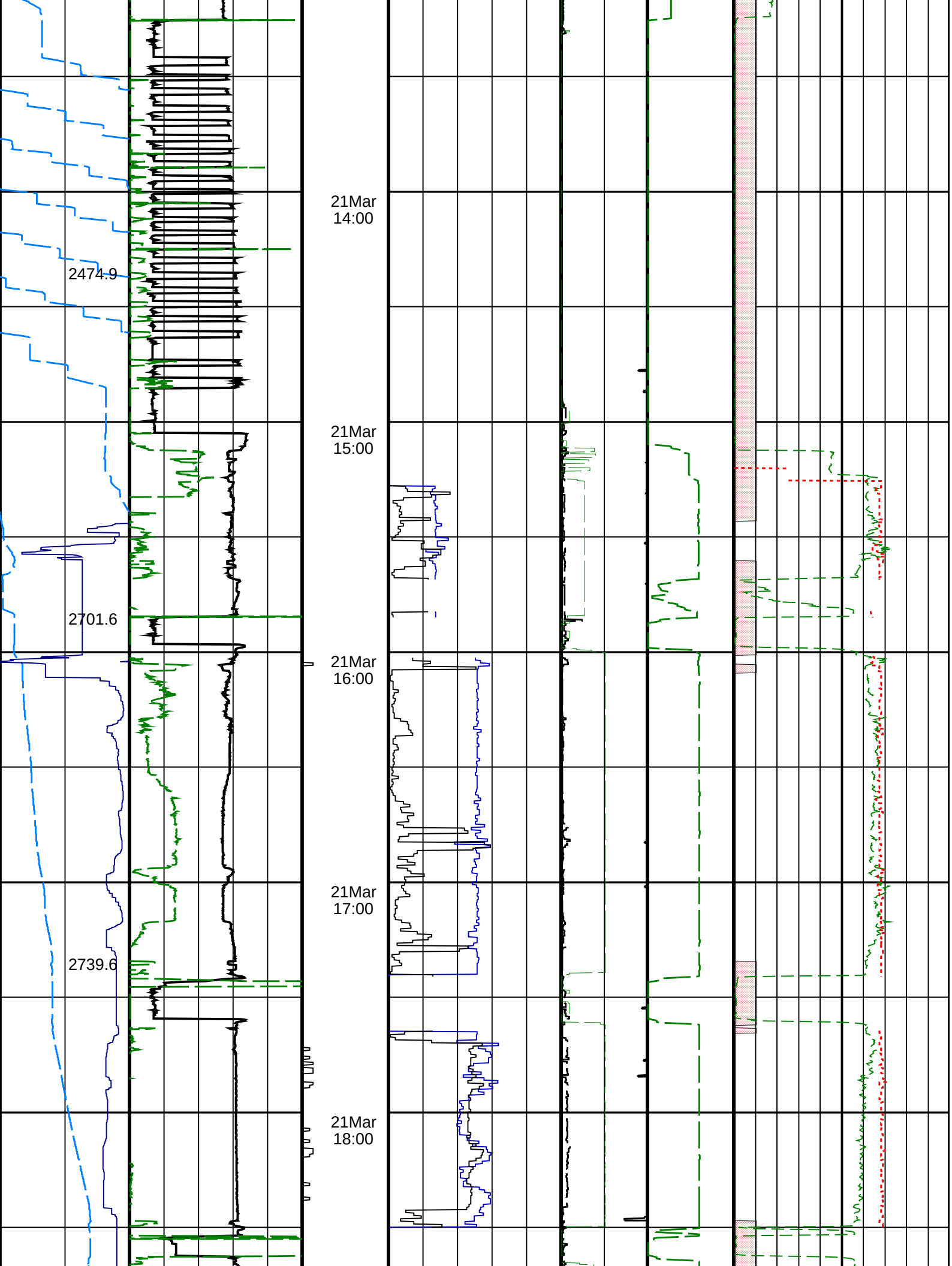
Bit Depth Value (DEPT) (M)	Surface WOB (SWOB) 0 (KLBF) 100	Shock Peak (SHKPK_RT) 0 (G) 200	MWD Collar RPM (CRPM_RT) 0 (RPM) 200	Surface_torque (TQA) (KFLB) 0 50	Average Flow 30sec (TFLO30s) (GPM) 0 1200	Stand_pipe_pressure (SPPA) 0 (PSI) 5000
Rop*5 (ROP5) 200 (M/HR) 0	Hookload (HKLD) 0 (KLBF) 400		PKPK_RPM (Stick_RT) 0 (RPM) 400	Surface_rpm (RPM) (RPM) 0 200		Trpm (TRPM_RT) 0 (RPM) 5000
MD (DEPT) 0 (M) 100						Bit off Bottom From DMT7 to Bit_on_bottom/2hz/Curve

Drilling Mechanics Time Run 5

IDEAL Version: ID13_0C_06 < > Vertical Scale: 2" per 3600S Graphics File Created: 27−Mar−2008 16:10

MD (DEPT) 0 (M) 100						Bit off Bottom From DMT7 to Bit_on_bottom/2hz/Curve
Rop*5 (ROP5) 200 (M/HR) 0	Hookload (HKLD) 0 (KLBF) 400		PKPK_RPM (Stick_RT) 0 (RPM) 400	Surface_rpm (RPM) (RPM) 0 200		Trpm (TRPM_RT) 0 (RPM) 5000
Bit Depth Value (DEPT) (M)	Surface WOB (SWOB) 0 (KLBF) 100	Shock Peak (SHKPK_RT) 0 (G) 200	MWD Collar RPM (CRPM_RT) 0 (RPM) 200	Surface_torque (TQA) (KFLB) 0 50	Average Flow 30sec (TFLO30s) (GPM) 0 1200	Stand_pipe_pressure (SPPA) 0 (PSI) 5000

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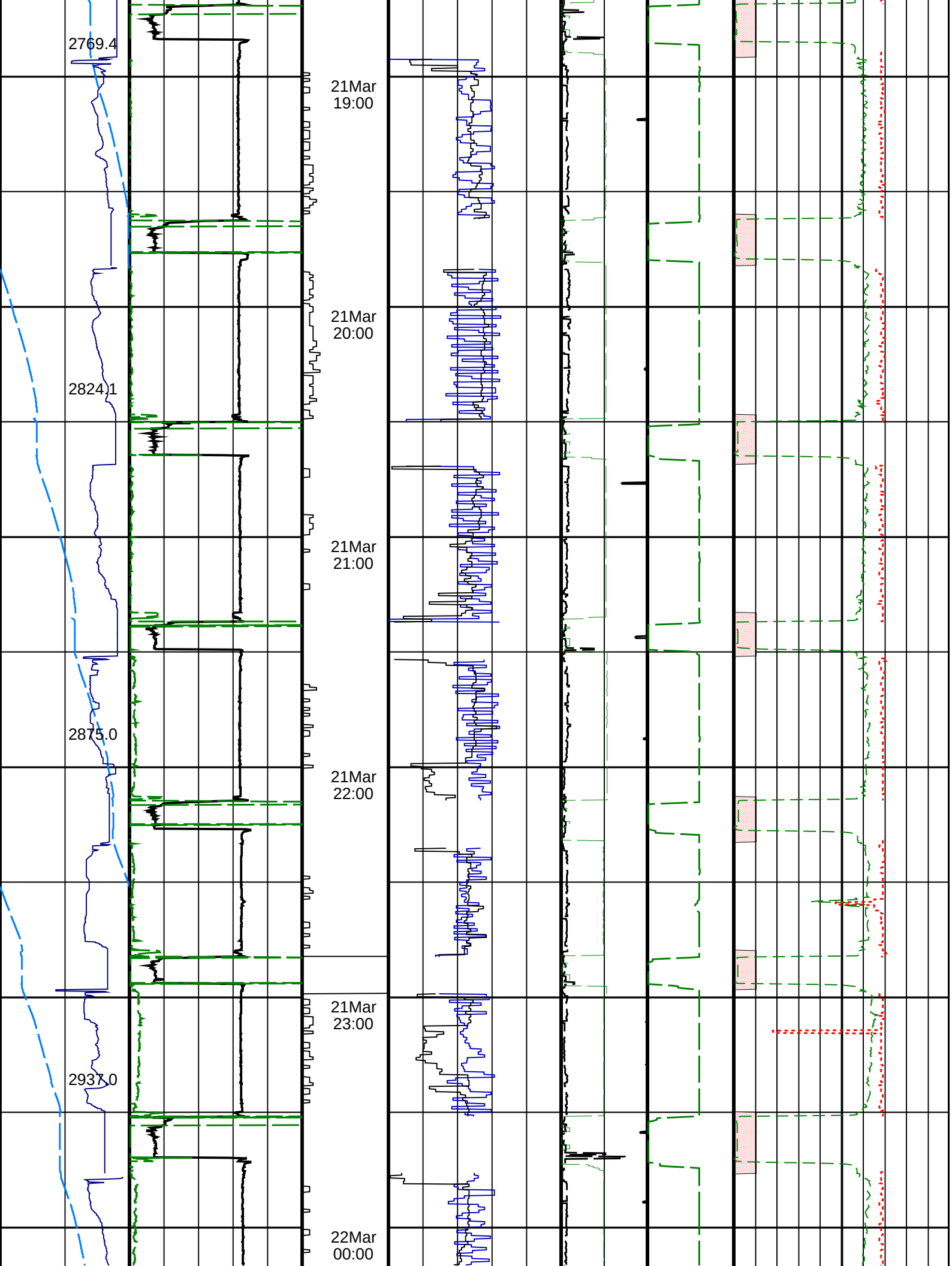
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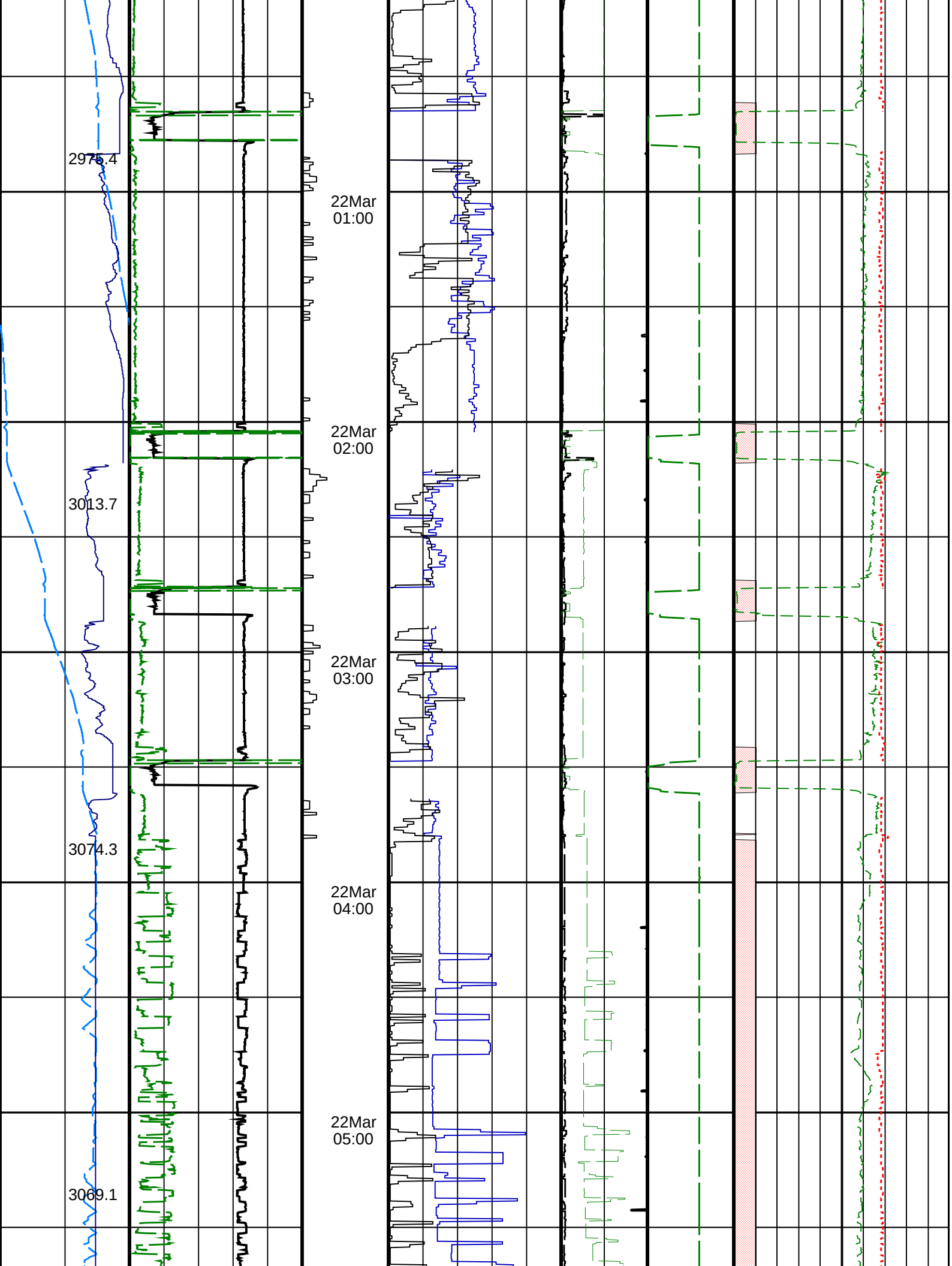
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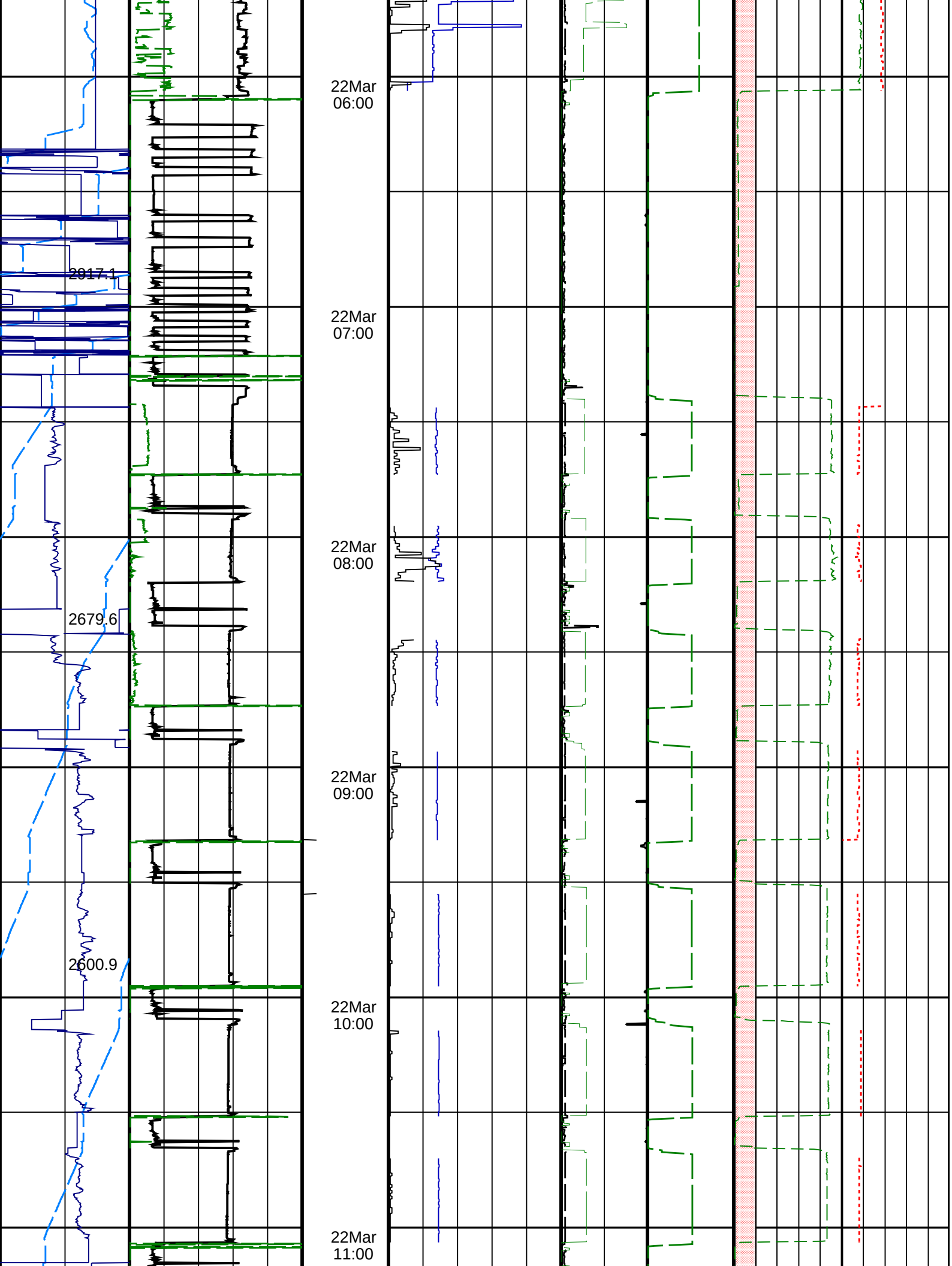
3069.1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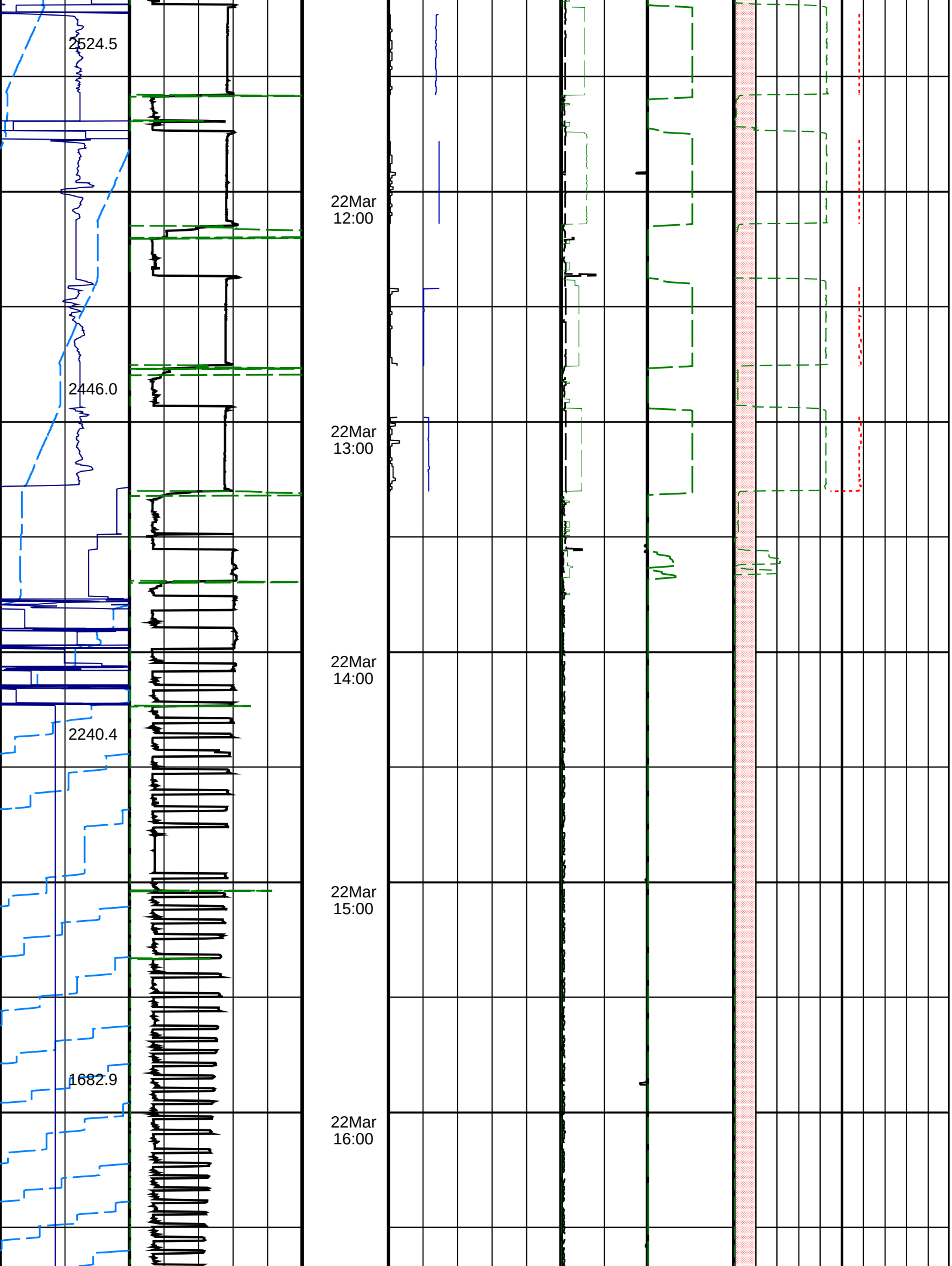
11:00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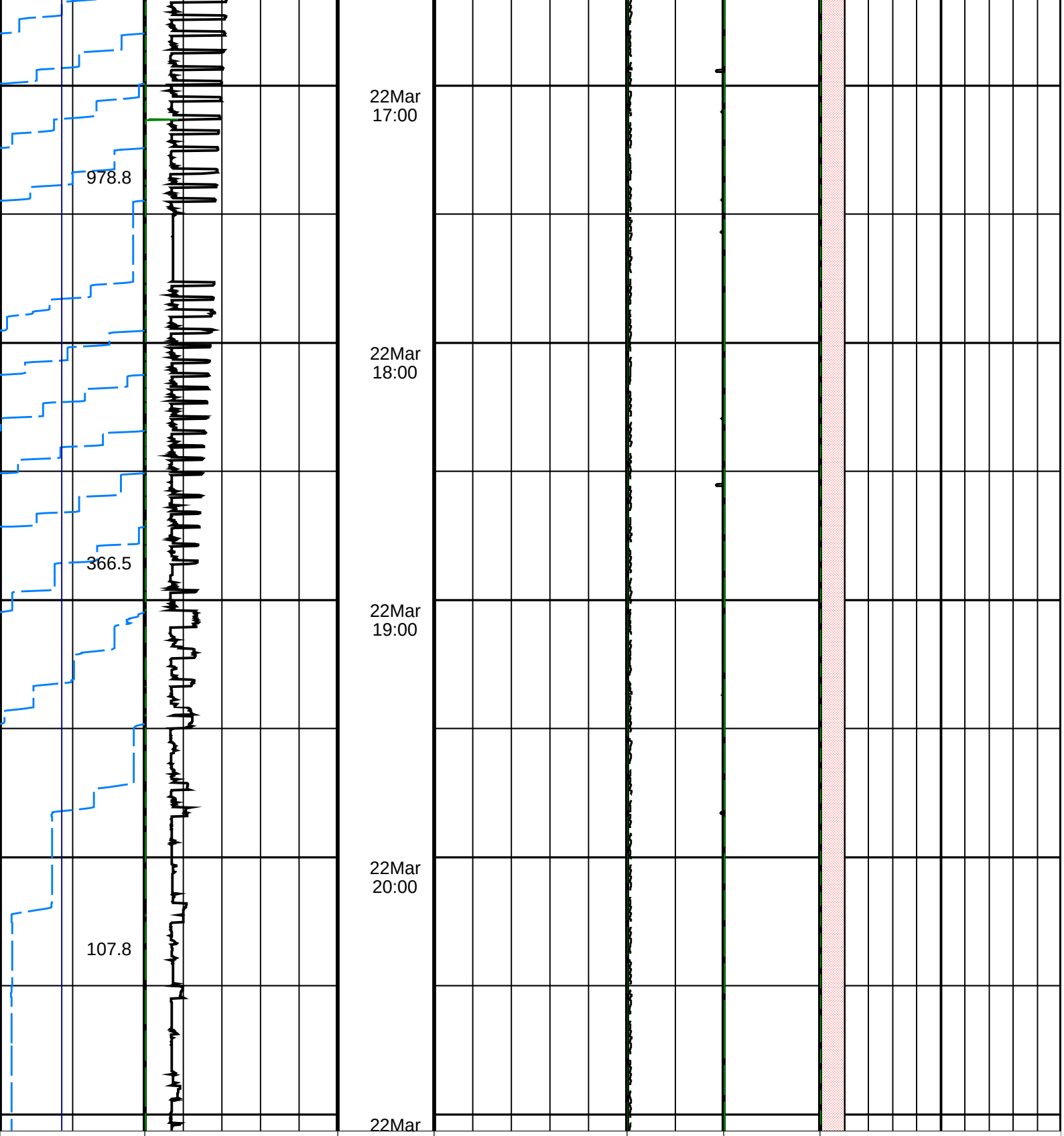


Bit Depth Value (DEPT) (M)	Surface WOB (SWOB) 0 (KLBF) 100	Shock Peak (SHKPK_RT) 0 (G) 200	MWD Collar RPM (CRPM_RT) 0 (RPM) 200	Surface_torque (TQA) (KFLB) 0 50	Average Flow 30sec (TFLO30s) (GPM) 0 1200	Stand_pipe_pressure (SPPA) 0 (PSI) 5000
Rop*5 (ROP5) 200 (M/HR) 0	Hookload (HKLD) 0 (KLBF) 400		PKPK_RPM (Stick_RT) 0 (RPM) 400	Surface_rpm (RPM) (RPM) 0 200		Trpm (TRPM_RT) 0 (RPM) 5000
MD (DEPT) 0 (M) 100						Bit off Bottom From DMT7 to Bit_on_bottom/2hz/Curve

6.75−in. Resistivity At−the−Bit / Equipment Identification

Primary Equipment:

Tool Name and Serial Number	RAB6 − CA	214
Calibration Status	−	

Master: 1−Mar−2008 16:23

6.75−in. Resistivity At−the−Bit Calibration

Resistivity: Fixture

Phase	Ring/T1 factor ----	Value
Master		0.9982
	0.9750 (Minimum) 1.000 (Nominal) 1.025 (Maximum)	

Phase	Ring/T2 factor ----	Value
Master		0.9999
	0.9750 (Minimum) 1.000 (Nominal) 1.025 (Maximum)	

Phase	M0/T1 factor ----	Value
Master		1.003
	0.9750 (Minimum) 1.000 (Nominal) 1.025 (Maximum)	

Phase	M0/T2 factor ----	Value
Master		1.003
	0.9750 (Minimum) 1.000 (Nominal) 1.025 (Maximum)	

Phase	M2/T1 factor ----	Value
Master		1.009
	0.9750 (Minimum) 1.000 (Nominal) 1.025 (Maximum)	

Phase	M2/T2 factor ----	Value
Master		1.010
	0.9750 (Minimum) 1.000 (Nominal) 1.025 (Maximum)	

Phase	BTN shallow/T1 factor ----	Value
Master		1.005
	0.9750 (Minimum) 1.000 (Nominal) 1.025 (Maximum)	

Phase	BTN shallow/T2 factor ----	Value
Master		1.006
	0.9750 (Minimum) 1.000 (Nominal) 1.025 (Maximum)	

Phase	BTN medium/T1 factor ----	Value
Master		1.006
	0.9750 (Minimum) 1.000 (Nominal) 1.025 (Maximum)	

Phase	BTN medium/T2 factor ----	Value
Master		1.006
	0.9750 (Minimum) 1.000 (Nominal) 1.025 (Maximum)	

Phase	BTN deep/T1 factor ----	Value
Master		1.008
	0.9750 (Minimum) 1.000 (Nominal) 1.025 (Maximum)	

Phase	BTN deep/T2 factor ----	Value
Master		1.009
	0.9750 (Minimum) 1.000 (Nominal) 1.025 (Maximum)	

Master: Calibration date not found

6.75−in. Resistivity At−the−Bit Calibration

Gamma Ray: Blanket

Phase	Gamma ray factor ----	Value
Master		0.9954
	0.7500 (Minimum) 1.000 (Nominal) 1.250 (Maximum)	

6.75−in. Azimuthal Density Neutron / Equipment Identification

Primary Equipment:		
Tool Name and Serial Number	ADN6 − CA	373
Collar Type and Serial Number	ADDC − AA	40778
Chassis Type and Serial Number	ADSE − EA	373
Stabilizer Type and Serial Number	−	1
Neutron Logging Source	NSR − M	202
Density Logging Source	GSR − J/Z	1994
Stabilizer Size	8.13 − in.	
Calibration Status	EDIT −	

Master: 8−Mar−2008 12:43

6.75−in. Azimuthal Density Neutron Calibration

Density: Magnesium Block

Phase	LS window 3 − Mg CPS	Value	Phase	SS window 1 − Mg CPS	Value	Phase	SS window 3 − Mg CPS	Value
Master		1017	Master		2608	Master		6263
	250.0 (Minimum) 4125 (Nominal) 8000 (Maximum)			700.0 (Minimum) 9350 (Nominal) 18000 (Maximum)			2500 (Minimum) 23750 (Nominal) 45000 (Maximum)	

Master: 8−Mar−2008 12:43

6.75−in. Azimuthal Density Neutron Calibration

Density: Aluminum Block

Phase	LS window 3 − Al CPS	Value	Phase	SS window 1 − Al CPS	Value	Phase	SS window 3 − Al CPS	Value
Master		149.8	Master		1309	Master		3902
	50.00 (Minimum) 725.0 (Nominal) 1400 (Maximum)			500.0 (Minimum) 4250 (Nominal) 8000 (Maximum)			1500 (Minimum) 15750 (Nominal) 30000 (Maximum)	

Master: 8−Mar−2008 12:43

6.75−in. Azimuthal Density Neutron Calibration

Density: Background

Phase	LS window 3 − Background CPS	Value	Phase	SS window 1 − Background CPS	Value	Phase	SS window 3 − Background CPS	Value
Master		49.97	Master		116.2	Master		511.0
	15.00 (Minimum) 82.50 (Nominal) 150.0 (Maximum)			40.00 (Minimum) 220.0 (Nominal) 400.0 (Maximum)			150.0 (Minimum) 825.0 (Nominal) 1500 (Maximum)	

Master: 8−Mar−2008 12:43

6.75−in. Azimuthal Density Neutron Calibration

Density: Water Block Check

Phase	Long spacing water density G/C3	Value	Phase	Short spacing water density G/C3	Value
Master		1.040	Master		1.142
	1.027 (Minimum) 1.042 (Nominal) 1.057 (Maximum)			1.098 (Minimum) 1.128 (Nominal) 1.158 (Maximum)	

Master: 8−Mar−2008 12:43

6.75−in. Azimuthal Density Neutron Calibration

Neutron: 3−Point Calibration

Neutron: 3−Point Calibration

Phase	Far 1 tube 1 Air Point Measure CPS	Value
Master		17.17
	13.30 (Minimum) 19.05 (Nominal) 24.70 (Maximum)	

Phase	Far 1 tube 1 Rod Point Measure CPS	Value
Master		4.120
	3.400 (Minimum) 4.857 (Nominal) 6.200 (Maximum)	

Phase	Far 1 tube 1 H2O Point Measure CPS	Value
Master		2.063
	1.600 (Minimum) 2.363 (Nominal) 3.100 (Maximum)	

Phase	Far 1 tube 2 Air Point Measure CPS	Value
Master		18.01
	13.30 (Minimum) 19.05 (Nominal) 24.70 (Maximum)	

Phase	Far 1 tube 2 Rod Point Measure CPS	Value
Master		4.305
	3.400 (Minimum) 4.857 (Nominal) 6.200 (Maximum)	

Phase	Far 1 tube 2 H2O Point Measure CPS	Value
Master		2.103
	1.600 (Minimum) 2.363 (Nominal) 3.100 (Maximum)	

Phase	Far 1 tube 3 Air Point Measure CPS	Value
Master		16.46
	13.30 (Minimum) 19.05 (Nominal) 24.70 (Maximum)	

Phase	Far 1 tube 3 Rod Point Measure CPS	Value
Master		4.034
	3.400 (Minimum) 4.857 (Nominal) 6.200 (Maximum)	

Phase	Far 1 tube 3 H2O Point Measure CPS	Value
Master		1.941
	1.600 (Minimum) 2.363 (Nominal) 3.100 (Maximum)	

Phase	Far 2 tube 1 Air Point Measure CPS	Value
Master		16.36
	13.30 (Minimum) 19.05 (Nominal) 24.70 (Maximum)	

Phase	Far 2 tube 1 Rod Point Measure CPS	Value
Master		4.278
	3.400 (Minimum) 4.857 (Nominal) 6.200 (Maximum)	

Phase	Far 2 tube 1 H2O Point Measure CPS	Value
Master		2.126
	1.600 (Minimum) 2.363 (Nominal) 3.100 (Maximum)	

Phase	Far 2 tube 2 Air Point Measure CPS	Value
Master		17.81
	13.30 (Minimum) 19.05 (Nominal) 24.70 (Maximum)	

Phase	Far 2 tube 2 Rod Point Measure CPS	Value
Master		4.387
	3.400 (Minimum) 4.857 (Nominal) 6.200 (Maximum)	

Phase	Far 2 tube 2 H2O Point Measure CPS	Value
Master		2.169
	1.600 (Minimum) 2.363 (Nominal) 3.100 (Maximum)	

Phase	Far 2 tube 3 Air Point Measure CPS	Value
Master		17.30
	13.30 (Minimum) 19.05 (Nominal) 24.70 (Maximum)	

Phase	Far 2 tube 3 Rod Point Measure CPS	Value
Master		4.245
	3.400 (Minimum) 4.857 (Nominal) 6.200 (Maximum)	

Phase	Far 2 tube 3 H2O Point Measure CPS	Value
Master		2.034
	1.600 (Minimum) 2.363 (Nominal) 3.100 (Maximum)	

Phase	Near 1 tube 1 Air Point Measure CPS	Value
Master		453.6
	345.0 (Minimum) 487.5 (Nominal) 595.0 (Maximum)	

Phase	Near 1 tube 1 Rod Point Measure CPS	Value
Master		732.3
	535.0 (Minimum) 768.8 (Nominal) 925.0 (Maximum)	

Phase	Near 1 tube 1 H2O Point Measure CPS	Value
Master		326.0
	230.0 (Minimum) 343.7 (Nominal) 430.0 (Maximum)	

Phase	Near 2 tube 1 Air Point Measure CPS	Value
Master		459.9
	345.0 (Minimum) 487.5 (Nominal) 595.0 (Maximum)	

Phase	Near 2 tube 1 Rod Point Measure CPS	Value
Master		723.1
	535.0 (Minimum) 768.8 (Nominal) 925.0 (Maximum)	

Phase	Near 2 tube 1 H2O Point Measure CPS	Value
Master		326.0
	230.0 (Minimum) 343.7 (Nominal) 430.0 (Maximum)	

Master: 8−Mar−2008 12:43

6.75−in. Azimuthal Density Neutron Calibration

Neutron: Water Block Check

Phase	Far Neutron water porosity PU	Value
Master		93.53
	90.00 (Minimum) 100.0 (Nominal) 125.0 (Maximum)	

6.75−in. Azimuthal Density Neutron / Equipment Identification

Primary Equipment:

Tool Name and Serial Number	ADN6 − CA	47
Collar Type and Serial Number	ADDC − AA	373
Chassis Type and Serial Number	ADSE − EA	47
Stabilizer Type and Serial Number	−	1
Neutron Logging Source	NSR − M	202
Density Logging Source	GSR − J/Z	1994
Stabilizer Size	8.13 − in.	
Calibration Status	EDIT −	

Master: 16−Jan−2008 22:40

6.75−in. Azimuthal Density Neutron Calibration

Density: Magnesium Block

Phase	LS window 3 − Mg CPS	Value
Master		1045
	250.0 (Minimum) 4125 (Nominal) 8000 (Maximum)	

Phase	SS window 1 − Mg CPS	Value
Master		2550
	700.0 (Minimum) 9350 (Nominal) 18000 (Maximum)	

Phase	SS window 3 − Mg CPS	Value
Master		5954
	2500 (Minimum) 23750 (Nominal) 45000 (Maximum)	

Master: 16−Jan−2008 22:40

6.75−in. Azimuthal Density Neutron Calibration

Density: Aluminum Block

Phase	LS window 3 − Al CPS	Value
Master		153.6

Phase	SS window 1 − Al CPS	Value
Master		1270

Phase	SS window 3 − Al CPS	Value
Master		3694

50.00 (Minimum)	725.0 (Nominal)	1400 (Maximum)	500.0 (Minimum)	4250 (Nominal)	8000 (Maximum)	1500 (Minimum)	15750 (Nominal)	30000 (Maximum)

Master: 16−Jan−2008 22:40

6.75−in. Azimuthal Density Neutron Calibration

Density: Background

Phase	LS window 3 − Background CPS	Value	Phase	SS window 1 − Background CPS	Value	Phase	SS window 3 − Background CPS	Value
Master	43.77		Master	98.92		Master	427.4	
15.00 (Minimum)	82.50 (Nominal)	150.0 (Maximum)	40.00 (Minimum)	220.0 (Nominal)	400.0 (Maximum)	150.0 (Minimum)	825.0 (Nominal)	1500 (Maximum)

Master: 16−Jan−2008 22:40

6.75−in. Azimuthal Density Neutron Calibration

Density: Water Block Check

Phase	Long spacing water density G/C3	Value	Phase	Short spacing water density G/C3	Value
Master	1.035		Master	1.130	
1.027 (Minimum)	1.042 (Nominal)	1.057 (Maximum)	1.098 (Minimum)	1.128 (Nominal)	1.158 (Maximum)

Master: 16−Jan−2008 22:40

6.75−in. Azimuthal Density Neutron Calibration

Neutron: 3−Point Calibration

Phase	Far 1 tube 1 Air Point Measure CPS	Value	Phase	Far 1 tube 1 Rod Point Measure CPS	Value	Phase	Far 1 tube 1 H2O Point Measure CPS	Value
Master	16.56		Master	4.201		Master	2.020	
13.30 (Minimum)	19.05 (Nominal)	24.70 (Maximum)	3.400 (Minimum)	4.857 (Nominal)	6.200 (Maximum)	1.600 (Minimum)	2.363 (Nominal)	3.100 (Maximum)
Phase	Far 1 tube 2 Air Point Measure CPS	Value	Phase	Far 1 tube 2 Rod Point Measure CPS	Value	Phase	Far 1 tube 2 H2O Point Measure CPS	Value
Master	17.08		Master	4.091		Master	2.098	
13.30 (Minimum)	19.05 (Nominal)	24.70 (Maximum)	3.400 (Minimum)	4.857 (Nominal)	6.200 (Maximum)	1.600 (Minimum)	2.363 (Nominal)	3.100 (Maximum)
Phase	Far 1 tube 3 Air Point Measure CPS	Value	Phase	Far 1 tube 3 Rod Point Measure CPS	Value	Phase	Far 1 tube 3 H2O Point Measure CPS	Value
Master	16.24		Master	3.965		Master	1.960	
13.30 (Minimum)	19.05 (Nominal)	24.70 (Maximum)	3.400 (Minimum)	4.857 (Nominal)	6.200 (Maximum)	1.600 (Minimum)	2.363 (Nominal)	3.100 (Maximum)
Phase	Far 2 tube 1 Air Point Measure CPS	Value	Phase	Far 2 tube 1 Rod Point Measure CPS	Value	Phase	Far 2 tube 1 H2O Point Measure CPS	Value
Master	16.66		Master	4.271		Master	2.114	
13.30 (Minimum)	19.05 (Nominal)	24.70 (Maximum)	3.400 (Minimum)	4.857 (Nominal)	6.200 (Maximum)	1.600 (Minimum)	2.363 (Nominal)	3.100 (Maximum)
Phase	Far 2 tube 2 Air Point Measure CPS	Value	Phase	Far 2 tube 2 Rod Point Measure CPS	Value	Phase	Far 2 tube 2 H2O Point Measure CPS	Value
Master	17.46		Master	4.183		Master	2.089	
13.30 (Minimum)	19.05 (Nominal)	24.70 (Maximum)	3.400 (Minimum)	4.857 (Nominal)	6.200 (Maximum)	1.600 (Minimum)	2.363 (Nominal)	3.100 (Maximum)
Phase	Far 2 tube 3 Air Point Measure CPS	Value	Phase	Far 2 tube 3 Rod Point Measure CPS	Value	Phase	Far 2 tube 3 H2O Point Measure CPS	Value
Master	16.77		Master	4.207		Master	2.126	
13.30 (Minimum)	19.05 (Nominal)	24.70 (Maximum)	3.400 (Minimum)	4.857 (Nominal)	6.200 (Maximum)	1.600 (Minimum)	2.363 (Nominal)	3.100 (Maximum)
Phase	Near 1 tube 1 Air Point Measure CPS	Value	Phase	Near 1 tube 1 Rod Point Measure CPS	Value	Phase	Near 1 tube 1 H2O Point Measure CPS	Value
Master	472.7		Master	776.8		Master	353.9	
345.0 (Minimum)	487.5 (Nominal)	595.0 (Maximum)	535.0 (Minimum)	768.8 (Nominal)	925.0 (Maximum)	230.0 (Minimum)	343.7 (Nominal)	430.0 (Maximum)
Phase	Near 2 tube 1 Air Point Measure CPS	Value	Phase	Near 2 tube 1 Rod Point Measure CPS	Value	Phase	Near 2 tube 1 H2O Point Measure CPS	Value
Master	477.0		Master	740.7		Master	342.5	
345.0 (Minimum)	487.5 (Nominal)	595.0 (Maximum)	535.0 (Minimum)	768.8 (Nominal)	925.0 (Maximum)	230.0 (Minimum)	343.7 (Nominal)	430.0 (Maximum)

Master: 16−Jan−2008 22:40

6.75−in. Azimuthal Density Neutron Calibration

Neutron: Water Block Check

Phase	Far Neutron water porosity PU	Value
Master	92.60	
90.00 (Minimum)	100.0 (Nominal)	125.0 (Maximum)

Client.....: Apache
Field.....: Vic/P-45

Well.....: Coelacanth-1
API number.....: n/a
Engineer.....: A. Kohli, C. Hibberson, B. Low

COUNTY:.....: n/a
STATE:.....: Victoria

Spud date.....: 10-Mar-2008
Last survey date.....: 22-Mar-08
Total accepted surveys...: 34
MD of first survey.....: 0.00 m
MD of last survey.....: 2956.53 m

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

----- Depth reference -----
Permanent datum.....: Mean Sea LEVEL
Depth reference.....: Driller's Depth
GL above permanent.....:-90.00 m
KB above permanent.....: 38.00 m
DF above permanent.....: 38.00 m

----- Vertical section origin-----
Latitude (+N/S-).....: N 0.000 m
Departure (+E/W-).....: E 0.000 m

----- Platform reference point-----
Latitude (+N/S-).....: N 5714176.613 m
Departure (+E/W-).....: E 613192.770 m

Azimuth from Vsect Origin to target: 0.00 degrees

----- Geomagnetic data -----
Magnetic model.....: BGGM version 2007
Magnetic date.....: 15-Mar-2008
Magnetic field strength..: 1202.04 HCNT
Magnetic dec (+E/W-).....: 13.34 degrees
Magnetic dip.....: -69.11 degrees

----- MWD survey Reference Criteria ---
Reference G.....: 1000.07 mGal
Reference H.....: 1202.04 HCNT
Reference Dip.....: -69.11 degrees
Tolerance of G.....: (+/-) 2.50 mGal
Tolerance of H.....: (+/-) 6.00 HCNT
Tolerance of Dip.....: (+/-) 0.45 degrees

----- Corrections -----
Magnetic dec (+E/W-).....: 13.34 degrees
Grid convergence (+E/W-).: -0.81 degrees
Total az corr (+E/W-)....: 14.15 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

[(c)2008 IDEAL ID12_0C_13]

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/ 100f)	Srvy tool type	Tool Corr (deg)
1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	TIP	None
2	263.67	0.15	47.87	263.67	263.67	0.23	0.23	0.26	0.35	47.87	0.02	MWD_M	None
3	294.41	0.06	172.52	30.74	294.41	0.24	0.24	0.29	0.38	49.89	0.19	MWD_M	None
4	323.58	0.12	91.82	29.17	323.58	0.23	0.23	0.32	0.39	54.75	0.13	MWD_M	None
5	411.41	0.24	137.04	87.83	411.41	0.09	0.09	0.54	0.55	80.61	0.06	MWD_M	None
6	442.19	0.21	124.90	30.78	442.19	0.01	0.01	0.63	0.63	89.14	0.06	PUP	None
7	502.26	0.32	90.25	60.07	502.26	-0.05	-0.05	0.89	0.89	93.50	0.10	PUP	None
8	530.50	0.41	92.03	28.24	530.50	-0.06	-0.06	1.07	1.07	93.12	0.10	PUP	None
9	620.59	0.22	141.24	90.09	620.59	-0.20	-0.20	1.50	1.51	97.78	0.11	PUP	None
10	708.29	0.06	46.00	87.70	708.29	-0.30	-0.30	1.63	1.66	100.53	0.08	PUP	None
11	738.63	0.03	73.16	30.34	738.63	-0.29	-0.29	1.65	1.68	99.96	0.04	PUP	None
12	768.37	0.06	56.39	29.74	768.37	-0.28	-0.28	1.67	1.70	99.48	0.03	PUP	None
13	855.79	0.11	357.54	87.42	855.79	-0.17	-0.17	1.71	1.72	95.70	0.03	PUP	None
14	887.36	0.25	215.41	31.57	887.36	-0.20	-0.20	1.67	1.68	96.72	0.33	PUP	None
15	1006.93	0.37	205.42	119.57	1006.92	-0.76	-0.76	1.35	1.55	119.29	0.03	PUP	None
16	1125.19	0.38	223.01	118.26	1125.18	-1.39	-1.39	0.92	1.67	146.51	0.03	PUP	None
17	1243.13	0.37	76.40	117.94	1243.12	-1.59	-1.59	1.02	1.89	147.19	0.19	PUP	None
18	1420.57	0.99	275.48	177.44	1420.55	-1.30	-1.30	0.05	1.31	177.66	0.23	PUP	None
19	1550.04	0.99	280.13	129.47	1550.00	-1.00	-1.00	-2.16	2.38	245.14	0.02	PUP	None
20	1687.41	0.88	299.49	137.37	1687.36	-0.27	-0.27	-4.25	4.26	266.32	0.07	PUP	None
21	1806.49	0.99	326.29	119.08	1806.42	1.03	1.03	-5.61	5.71	280.42	0.11	PUP	None
22	1895.34	0.85	336.21	88.85	1895.26	2.27	2.27	-6.31	6.70	289.83	0.07	PUP	None
23	1983.37	0.73	333.68	88.03	1983.28	3.37	3.37	-6.82	7.61	296.33	0.04	PUP	None
24	2071.31	0.57	332.49	87.94	2071.22	4.26	4.26	-7.27	8.43	300.40	0.06	PUP	None
25	2101.07	0.26	259.44	29.76	2100.97	4.38	4.38	-7.40	8.60	300.63	0.57	PUP	None
26	2189.40	0.38	9.46	88.33	2189.30	4.64	4.64	-7.55	8.86	301.54	0.18	PUP	None
27	2219.45	0.35	26.58	30.05	2219.35	4.82	4.82	-7.49	8.91	302.72	0.11	PUP	None
28	2307.17	0.23	13.64	87.72	2307.07	5.23	5.23	-7.33	9.01	305.48	0.05	PUP	None
29	2396.09	0.42	29.80	88.92	2395.99	5.68	5.68	-7.13	9.12	308.56	0.07	PUP	None
30	2484.75	0.56	53.27	88.66	2484.65	6.22	6.22	-6.62	9.09	313.23	0.08	PUP	None

[(c)2008 IDEAL ID12_0C_13]

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/ 100f)	Srvy tool type	Tool Corr (deg)
31	2573.28	0.49	40.74	88.53	2573.17	6.77	6.77	-6.03	9.06	318.32	0.05	PUP	None
32	2750.62	0.57	139.67	177.34	2750.51	6.67	6.67	-4.96	8.31	323.37	0.14	PUP	None
33	2867.93	0.68	143.30	117.31	2867.81	5.67	5.67	-4.17	7.04	323.68	0.03	PUP	None
34	2956.53	0.67	150.71	88.60	2956.41	4.80	4.80	-3.60	6.00	323.11	0.03	PUP	None

[(c)2008 IDEAL ID12_0C_13]

Company:	**Apache Energy Ltd.**
Well:	**Coelacanth−1**
Field:	**Vic/P−45**
Rig:	**West Triton**
State:	**Victoria**

Schlumberger

Drilling Mechanics Time Log
2in / hour
Real Time Log

HALLIBURTON

Sperry Drilling Services

LWD End of Well Report

For

Apache Energy Ltd

Coelacanth-1

Rig:	**West Triton**
Field:	**Exploration**
Job No:	**AU-FE-0005617883**
Country:	**Australia**
Date:	**23-March-2008**

HALLIBURTON

Table of Contents

1. General Information

2. Operational Overview

3. Summary of MWD Runs

4. Bitrun Summary

General Information

Company:	Apache Energy Ltd
Rig:	West Triton
Well:	Coelacanth-1
Field:	Exploration
Lease Name:	VIC/P-45
State:	Victoria
County:	
Country:	Australia
API Number:	
Sperry-Sun Job Number:	AU-FE-0005617883
Job start date:	15-Mar-08
Job end date:	22-Mar-08
North reference:	Grid
Declination:	13.336 deg
Dip angle:	-69.110 deg
Total magnetic field:	60104 nT
Date of magnetic data:	14 March, 2008
Wellhead coordinates N:	38 deg. 42 min 49.73 sec South GDA94
Wellhead coordinates E:	148 deg. 18 min 7.01 sec East GDA94
Vertical section direction:	0.00 deg
Unit Number:	
MWD Engineers:	J. Povey
Company Representatives:	M. Pinson
Company Geologist:	F. Fernandes, A. Cruickshank

Operational Overview

216mm Hole Section:

The 216mm hole section was drilled from 907.0 mMDRT to a section TD of 3074.0 mMDRTwith a recorded only LWD suite comprising of a Bimodal Acoustic Tool (BAT) only. This section was drilling in 4 bit runs due to poor Rate of Penetration. The first was from 907.0 mMDRT to 1998.0 mMDRT, then a trip was done due to Anadrill faulty tools and to attempt to increase ROP which was drilled to 1900.0 mMDRT, the third was a trip for a new bit and was drilled to 2700 mMDRT and then the final bit trip was done to take the well to final TD of 3074.0 MDRT. All data was recovered on surface from each bit run.

Summary of MWD runs

Run No.	Bit No.	Hole Size (mm)	MWD Service	Start Depth (m)	End Depth (m)	Drill/Wipe Distance (m)	Run Start Date Time	Run End Date Time	BRT Hrs.	Oper. Hrs.	Circ. Hrs.	Max Temp. (degF)	Serv. Int.	Trip for MWD	Failure Type
100	3	216.00	BAT Rec	907.000	1998.000	1091.000	15-Mar-08 15:31	18-Mar-08 09:45	66.23	63.530	37.700	131.00	No	No	
200	4	216.00	BAT Rec	1998.000	2116.000	118.000	18-Mar-08 12:10	19-Mar-08 11:00	22.83	23.730	9.900	131.00	No	No	
300	5	216.00	BAT Rec	2116.000	2700.000	584.000	19-Mar-08 11:25	21-Mar-08 05:44	42.32	42.760	23.400	143.60	No	No	
400	6	216.00	BAT Rec	2700.000	3074.000	374.000	21-Mar-08 06:11	22-Mar-08 22:40	40.48	40.720	17.300	165.20	No	No	

Bitrun Summary

RUN TIME DATA

MWD Run	: 100	**Run Start**	: 15-Mar-08 15:31	**BRT Hrs**	: 66.23 hr	**Circ. Hrs**	: 37.70 hr
Rig Bit No	: 3	**Run End**	: 18-Mar-08 09:45	**Hole Size**	: 216.00 mm	**Oper. Hrs**	: 63.53 hr

DRILLING DATA

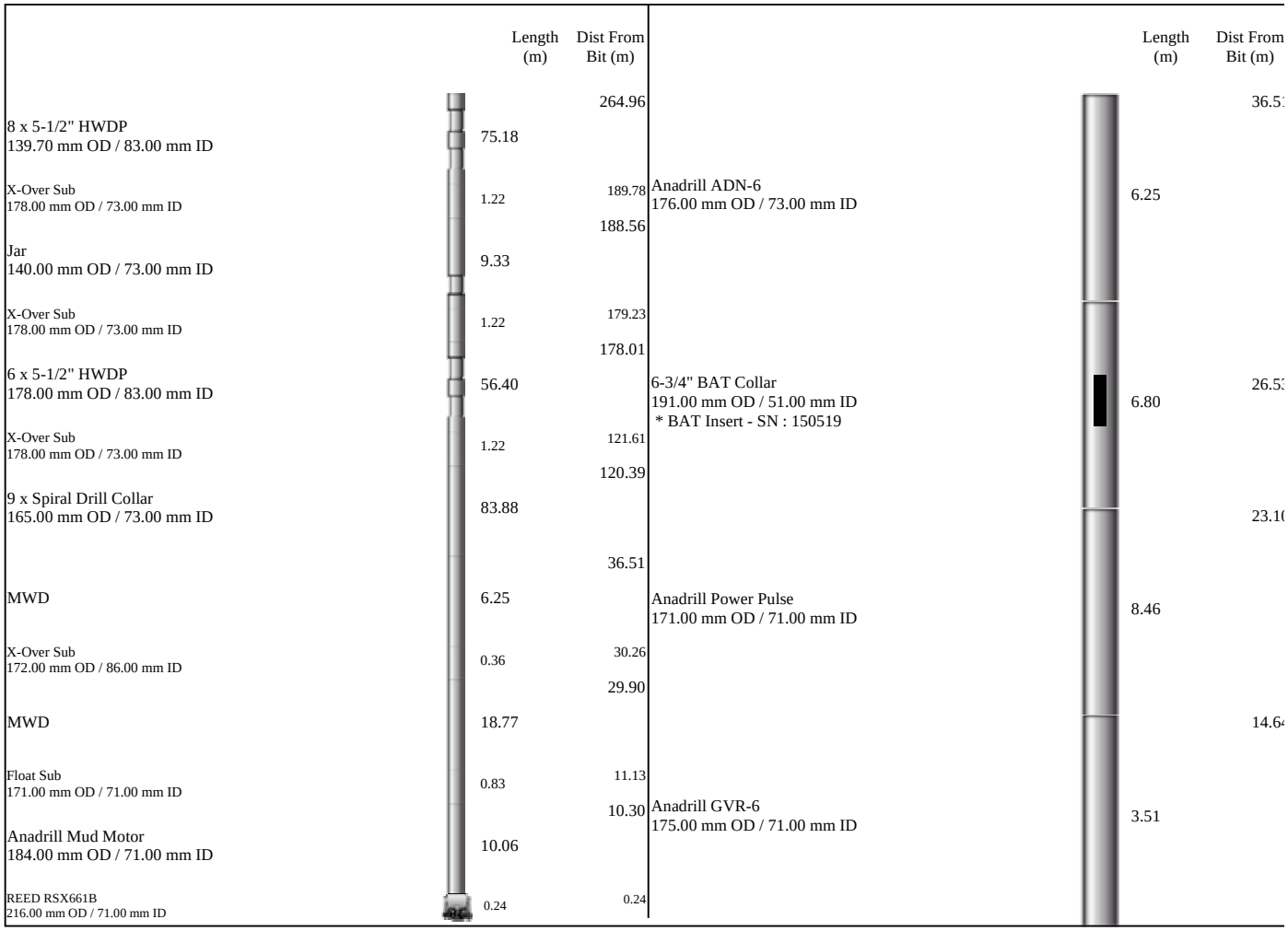
Start Depth	: 907.00 m	**Footage**	: 1091.00 m	**Avg RPM**	: 115 rpm	**Avg ROP**	: 39.00 m/hr
End Depth	: 1998.00 m	**Avg Flow Rate**	: 575 gpm	**Avg WOB**	: 32.0 klb	**Avg SPP**	: 2643 psig

MUD DATA

Mud Type	: KCl Polymer						
Weight	: 1.150 sg	**Viscosity**	: 43.00 spl	**PV**	: 8 cP	**YP**	: 9.58 pa
Chlorides	: 49000 ppm	**Max Temp.**	: 55 degC	**% Solids**	: 5.10 %	**% Sand**	: 0.50 %
pH	: 9.00 pH	**Fluid Loss**	: 6 cptm	**% Oil**	: N/A	**O:W**	: 0:91

MWD PERFORMANCE

Tool OD	: 171.45 mm	**Type**	: BAT Rec	**Min. Inc.**	: 0.37 deg	**Min. Inc. Depth**	: 1006.930 m
Final Az.	: 336.21 deg	**Max Op. Press.**	: 3550 psig	**Max Inc.**	: 0.99 deg	**Max Inc. Depth**	: 1420.570 m
	MWD Real-time % : 0 %			**MWD Recorded %**	: 100 %		



COMMENTS

RIH and drilled to 1998.0 mMDRT then POOH for bit change. All recorded data was recovered on surface.

Bitrun Summary

RUN TIME DATA

MWD Run	: 200	**Run Start**	: 18-Mar-08 12:10	**BRT Hrs**	: 22.83 hr	**Circ. Hrs**	: 9.90 hr
Rig Bit No	: 4	**Run End**	: 19-Mar-08 11:00	**Hole Size**	: 216.00 mm	**Oper. Hrs**	: 23.73 hr

DRILLING DATA

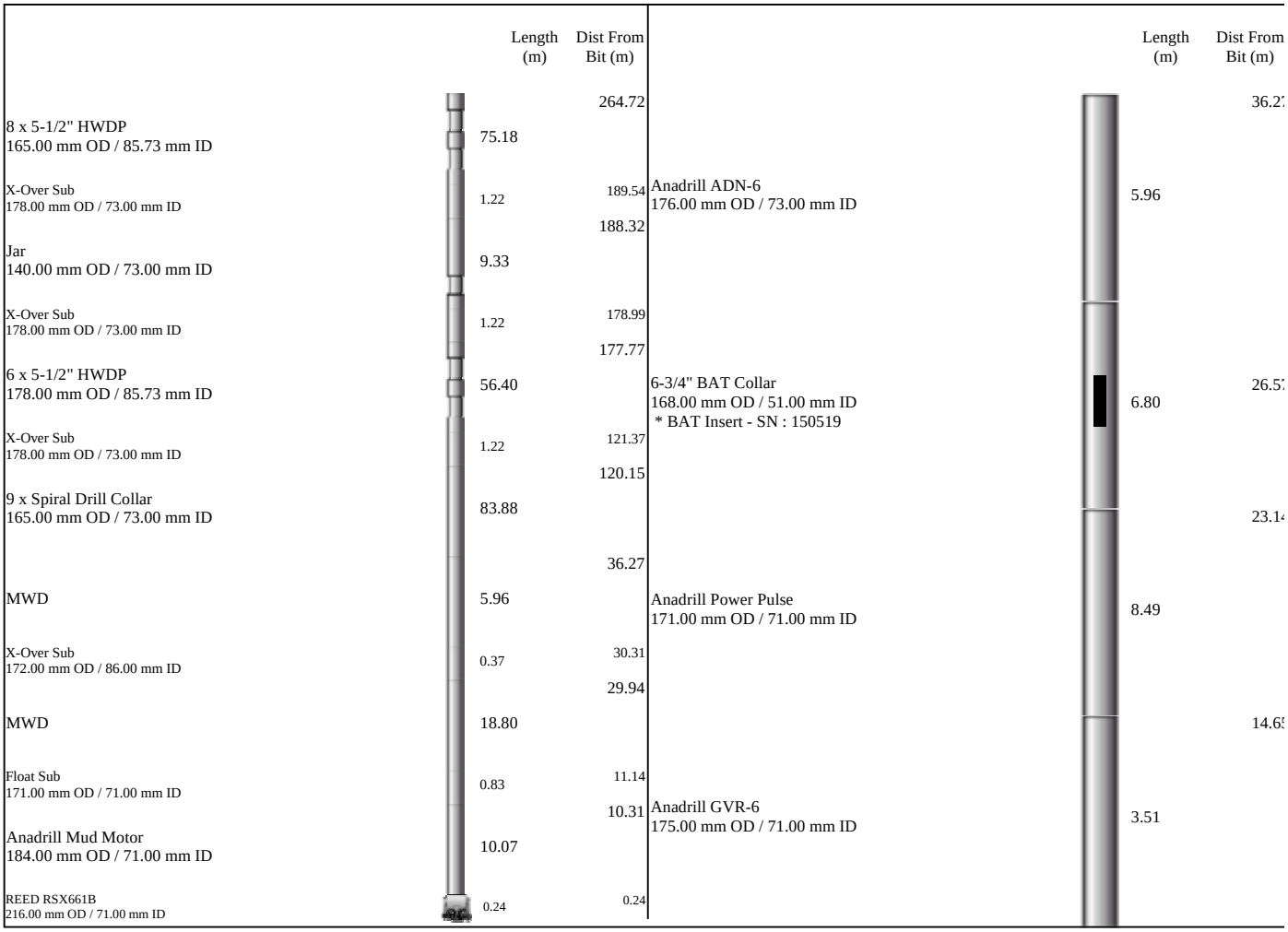
Start Depth	: 1998.00 m	**Footage**	: 118.00 m	**Avg RPM**	: 140 rpm	**Avg ROP**	: 20.00 m/hr
End Depth	: 2116.00 m	**Avg Flow Rate**	: 653 gpm	**Avg WOB**	: 36.0 klb	**Avg SPP**	: 3502 psig

MUD DATA

Mud Type	: KCl Polymer						
Weight	: 1.170 sg	**Viscosity**	: 58.00 spl	**PV**	: 17 cP	**YP**	: 12.45 pa
Chlorides	: 55000 ppm	**Max Temp.**	: 55 degC	**% Solids**	: 3.50 %	**% Sand**	: 0.50 %
pH	: 9.50 pH	**Fluid Loss**	: 5 cptm	**% Oil**	: N/A	**O:W**	: 0:92

MWD PERFORMANCE

Tool OD	: 171.45 mm	**Type**	: BAT Rec	**Min. Inc.**	: 0.26 deg	**Min. Inc. Depth**	: 2101.070 m
Final Az.	: 259.44 deg	**Max Op. Press.**	: 4400 psig	**Max Inc.**	: 0.73 deg	**Max Inc. Depth**	: 1983.370 m
	MWD Real-time % : 0 %			**MWD Recorded %**	: 100 %		



COMMENTS

RIH and drill to 2116.0 mMDRT. POOH for bit change. Tool not read at surface

Bitrun Summary

RUN TIME DATA

MWD Run	: 300	**Run Start**	: 19-Mar-08 11:25	**BRT Hrs**	: 42.32 hr	**Circ. Hrs**	: 23.40 hr
Rig Bit No	: 5	**Run End**	: 21-Mar-08 05:44	**Hole Size**	: 216.00 mm	**Oper. Hrs**	: 42.76 hr

DRILLING DATA

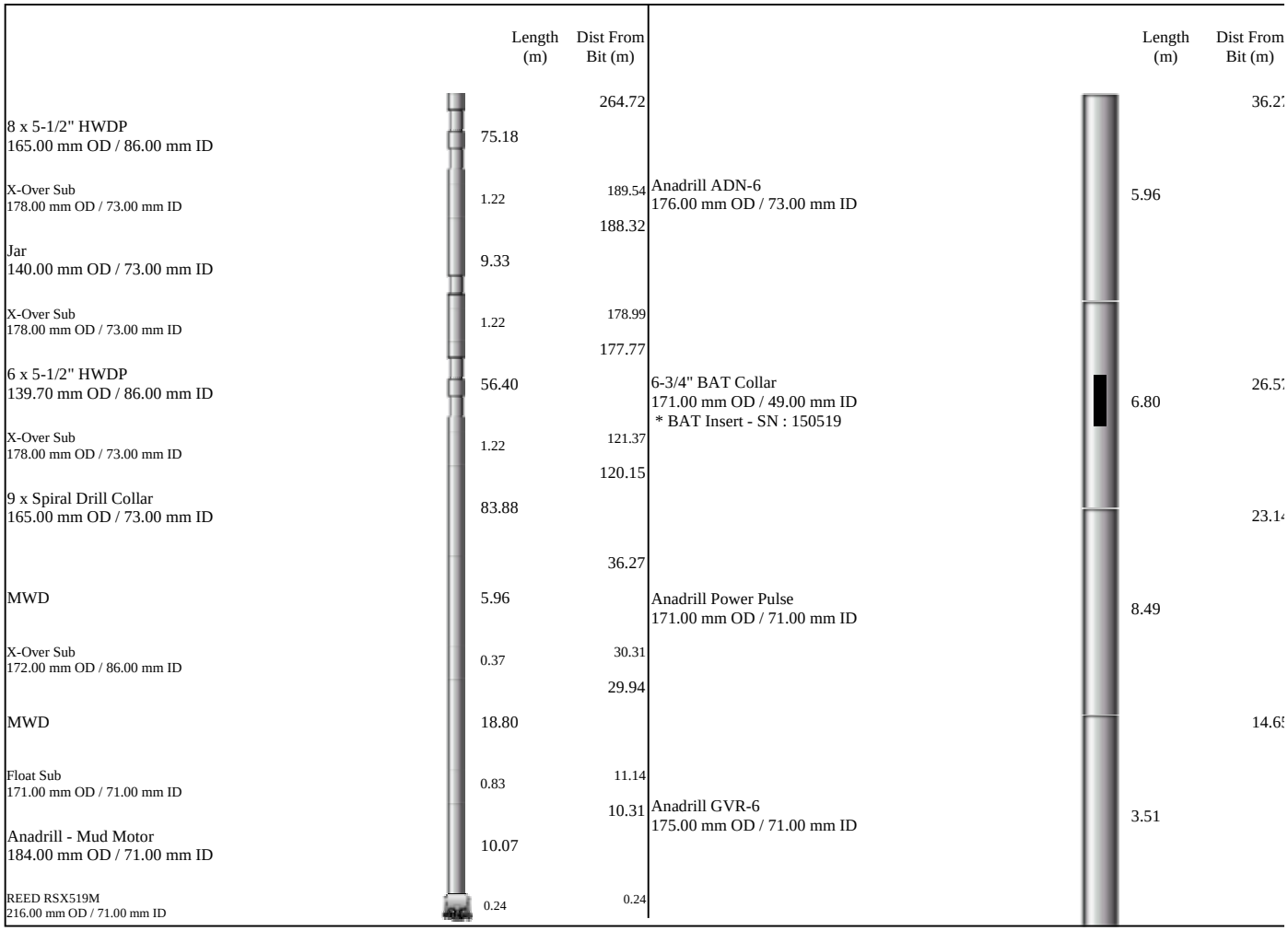
Start Depth	: 2116.00 m	**Footage**	: 584.00 m	**Avg RPM**	: 102 rpm	**Avg ROP**	: 15.00 m/hr
End Depth	: 2700.00 m	**Avg Flow Rate**	: 687 gpm	**Avg WOB**	: 24.8 klb	**Avg SPP**	: 3997 psig

MUD DATA

Mud Type	: KCl Polymer						
Weight	: 1.160 sg	**Viscosity**	: 60.00 spl	**PV**	: 23 cP	**YP**	: 16.28 pa
Chlorides	: 44000 ppm	**Max Temp.**	: 62 degC	**% Solids**	: 5.50 %	**% Sand**	: N/A
pH	: 9.00 pH	**Fluid Loss**	: 5 cptm	**% Oil**	: N/A	**O:W**	: 0:91

MWD PERFORMANCE

Tool OD	: 171.45 mm	**Type**	: BAT Rec	**Min. Inc.**	: 0.23 deg	**Min. Inc. Depth**	: 2307.170 m
Final Az.	: 40.74 deg	**Max Op. Press.**	: 4800 psig	**Max Inc.**	: 0.56 deg	**Max Inc. Depth**	: 2474.750 m
	MWD Real-time %	: 0 %		**MWD Recorded %**	: 100 %		



COMMENTS

Drill 8 1/2" section to well TD of 2700.0 mMDRT. All recorded data was recovered on surface.

Bitrun Summary

RUN TIME DATA

MWD Run	: 400	**Run Start**	: 21-Mar-08 06:11	**BRT Hrs**	: 40.48 hr	**Circ. Hrs**	: 17.30 hr
Rig Bit No	: 6	**Run End**	: 22-Mar-08 22:40	**Hole Size**	: 216.00 mm	**Oper. Hrs**	: 40.72 hr

DRILLING DATA

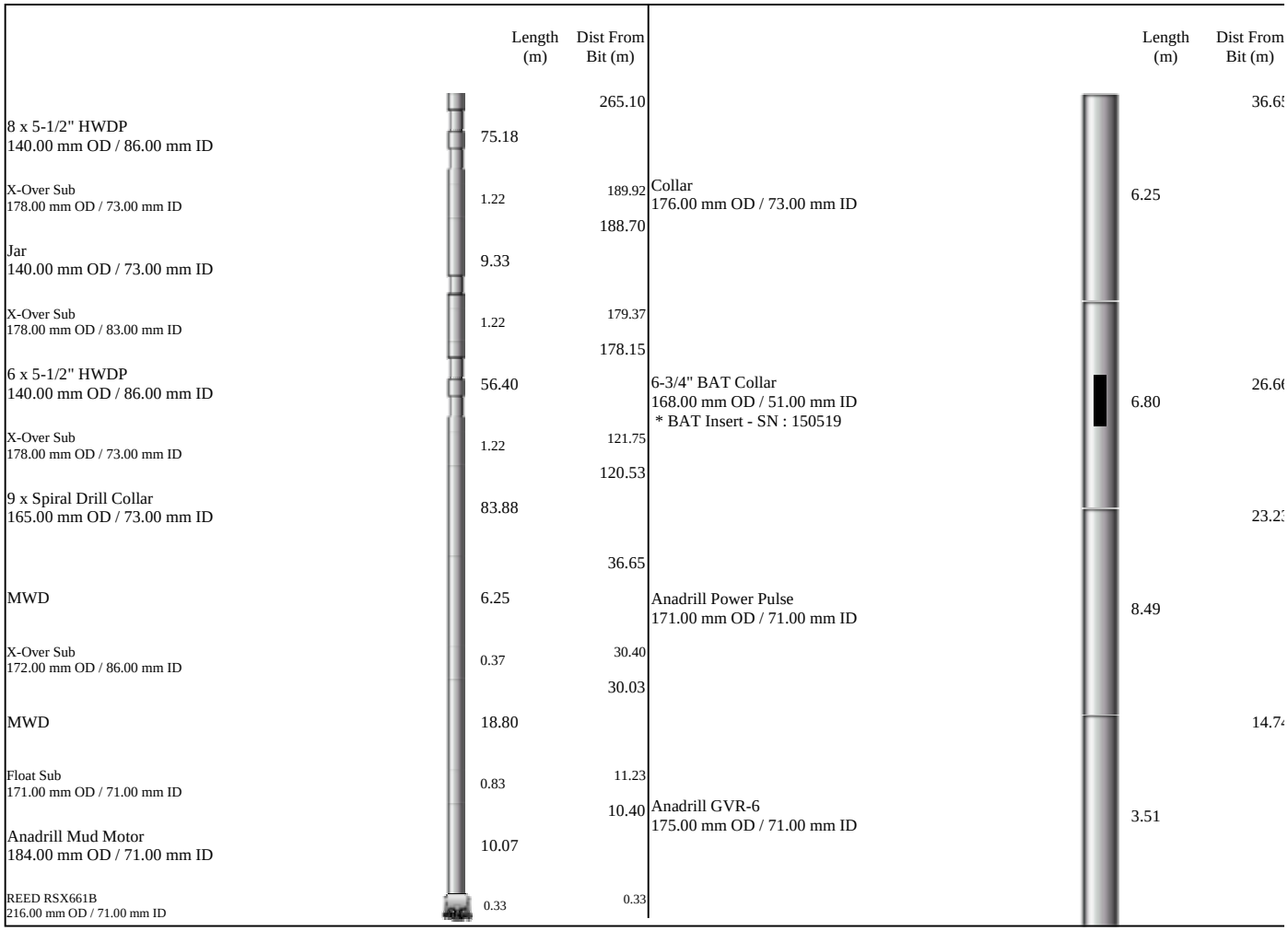
Start Depth	: 2700.00 m	**Footage**	: 374.00 m	**Avg RPM**	: 90 rpm	**Avg ROP**	: 41.10 m/hr
End Depth	: 3074.00 m	**Avg Flow Rate**	: 704 gpm	**Avg WOB**	: 9.5 klb	**Avg SPP**	: 4003 psig

MUD DATA

Mud Type	: KCl Polymer						
Weight	: 1.190 sg	**Viscosity**	: 59.00 spl	**PV**	: 8 cP	**YP**	: 19.15 pa
Chlorides	: 46000 ppm	**Max Temp.**	: 74 degC	**% Solids**	: 4.80 %	**% Sand**	: 0.02 %
pH	: 9.00 pH	**Fluid Loss**	: 5 cptm	**% Oil**	: N/A	**O:W**	: 0:92

MWD PERFORMANCE

Tool OD	: 171.45 mm	**Type**	: BAT Rec	**Min. Inc.**	: 0.57 deg	**Min. Inc. Depth**	: 2750.620 m
Final Az.	: 150.71 deg	**Max Op. Press.**	: 4970 psig	**Max Inc.**	: 0.68 deg	**Max Inc. Depth**	: 2867.930 m
	MWD Real-time % : 0 %			**MWD Recorded %**	: 100 %		



COMMENTS

Drilled to section TD of 3074.0 mMDRT. All data was recovered at surface.

HALLIBURTON

BAT Bi-Modal Acoustic

Sperry Drilling Services

1 : 200

Powered by INSITE

Company : Apache Energy Ltd
Rig : West Triton
Well : Coelacanth-1
Field : Exploration
Country : Australia
DOE Number :

Country : Australia
Field : Exploration
Location : Lat: 38° 42' 49.73" South GDA94
Long: 148° 18' 7.01" East GDA94
Well : Coelacanth-1
Company : Apache Energy Ltd
Rig : West Triton

LOCATION

Latitude : Lat: 38° 42' 49.73" South GDA94
Longitude : Long: 148° 18' 7.01" East GDA94
UTM Easting = 613,192.77 m
UTM Northing = 5,714,176.61 m

Other Services

Permanent Datum : Mean Sea Level Elevation : 0.00 m
Log Measured From : Drill Floor 38.00 m Above Permanent Datum
Drilling Measured From : Drill Floor

MD LOG

Elev. KB
DF 38.00 m
GL
WD 90.00 m

Depth Logged : 907.00 m To 3,074.00 m
Date Logged : 15-Mar-08 To 22-Mar-08
Total Depth MD : 3,074.00 m TVD : 3,074.00 m
Spud Date : 14-Mar-08

Unit No. : BHI Unit
Job No. :AU-FE-0005617883
Plot Type : Final
Plot Date : 08-Apr-08

Run No.	Borehole Record (MD) Size	From	To
100	216.000 mm	907.00 m	1998.00 m
200	216.000 mm	1998.00 m	2116.00 m
300	216.000 mm	2116.00 m	2700.00 m
400	216.000 mm	2700.00 m	3074.00 m

Run No.	Casing Record (MD) Size	Weight	From	To
	508.000 mm	198.00 kg/m	128.00 m	275.70 m
	244.000 mm	70.00 kg/m	128.00 m	902.60 m

Run No.	Borehole Record (MD) Size	From	To

WELL INFORMATION

MWD Run Number	100	200	300	400	
Date run completed	18-Mar-08	19-Mar-08	21-Mar-08	22-Mar-08	
Rig Bit Number	3	4	5	6	
Bit Size (mm)	216	216	216	216	
Tool Nominal OD (mm)	171	171	171	171	
Log Start Depth (MD, m)	907.00	1,998.00	2,116.00	2,700.00	
Log End Depth (MD, m)	1,998.00	2,116.00	2,700.00	3,074.00	
Drill or Wipe	Drilling	Drilling	Drilling	None	
Drill/Wipe Start Date and Time	15-Mar-08 08:20	18-Mar-08 19:16	19-Mar-08 17:33	21-Mar-08 15:25	
Drill/Wipe End Date and Time	17-Mar-08 22:23	19-Mar-08 05:11	20-Mar-08 19:41	22-Mar-08 03:48	
Min Inc (deg) @ Depth (MD, m)	0.37 @ 1,006.93	0.26 @ 2,101.07	0.23 @ 2,307.17	0.57 @ 2,750.62	
Max Inc (deg) @ Depth (MD, m)	0.99 @ 1,420.57	0.73 @ 1,983.37	0.56 @ 2,474.75	0.68 @ 2,867.93	
Bit TFA(in2) / Bit Type	0.92 / REED RSX661B	0.92 / REED RSX661B	0.92 / REED RSX519M	0.90 / REED RSX661B	
Flow Rate (gpm)	575	653	687	704.00	
Max AV (mpm) / CV (mpm) @ MWD	160.8 / 114.0	183.0 / 149.4	192.6 / 181.8	196.8 / 156.0	
Fluid Type	KCl Polymer	KCl Polymer	KCl Polymer	KCl Polymer	
Density (sg) / Viscosity (spl)	1.18 / 43.00	1.17 / 58.00	1.16 / 60.00	1.19 / 59.00	
Filtrate CL (ppm)	49,000	55,000	44,000	46,000	
pH / Fluid Loss (cptm)	9.00 / 6.0	9.50 / 5.0	9.00 / 5.0	9.00 / 5.0	
PV (cP) / YP (pa)	8 / 9.58	17 / 12.45	23 / 16.28	8 / 19.15	
% Solids / % Sand	5.1 / 0.5	3.5 / 0.5	5.5 /	4.8 / 0.02	
% Oil / Oil:Water Ratio	0 / 0:91	0 / 0:92	0 / 0:91	0 / 0:92	
Rm @ Measured Temp (degC)	0.09 @ 22	0.1 @ 21	0.1 @ 22	0.1 @ 20	
Rmf @ Measured Temp (degC)	0.08 @ 22	0.08 @ 21	0.08 @ 21	0.09 @ 21	
Rmc @ Measured Temp (degC)	0.12 @ 22	0.15 @ 21	0.13 @ 22	0.14 @ 21	
Max Tool Temp (degC) / Source	55 / BAT	55 / BAT	62. / BAT	74 / BAT	
Rm @ Max Tool Temp (degC)	0.05 @ 55	0.06 @ 55	0.05 @ 62	0.04 @ 74	
Lead MWD Engineer	J. Povey	J. Povey	J. Povey	J. Povey	
Customer Representative	M. Pinson	M. Pinson	M. Pinson	M. Pinson	

SENSOR INFORMATION

Sonic Sensor Information

Tool Type	BAT	BAT	BAT	BAT	
Distance From Bit (m)	26.53	26.57	26.57	26.66	
Recorded Sample Period (sec)	16	16	16	16	
Sub Serial Number	150519	150519	150519	150519	
Receiver Insert Serial Number	160902	160902	160902	160902	
Transmitter Insert Serial Number	176072	176072	176072	176072	
MIT File	R5Max_Run.mit	R5Max_Run.mit	R5Max_Run.mit	R5Max_Run.mit	
Config File	R5Max_Run.cfn	R5Max_Run.cfn	R5Max_Run.cfn	R5Max_Run.cfn	
Real-Time Window (uspf)	240 - 40	240 - 40	240 - 40	240 - 40	
Battery Serial Insert Number	157179	157179	157179	157179	
MCM Software Version	4.45	4.45	4.45	4.45	
DAQ1/DAQ2 Software Version	/	/	/	/	
DSM Software Version					

REMARKS

1. All depths are bit depthes and are referenced to the drillers tally unless otherwise noted as aquired from Anadrill.

2. AV/CV is calculated at the MWD collar using powers law for water based muds.

3. Curve Mnemonics used are:

   SROP: Smoothed Rate of Penetration (Anadrill), m/hr
   LIS_GR: Smoothed Gamma Ray (Anadrill),api
   DTCP: Smoothed BAT processed Compressional Slowness,usec/ft

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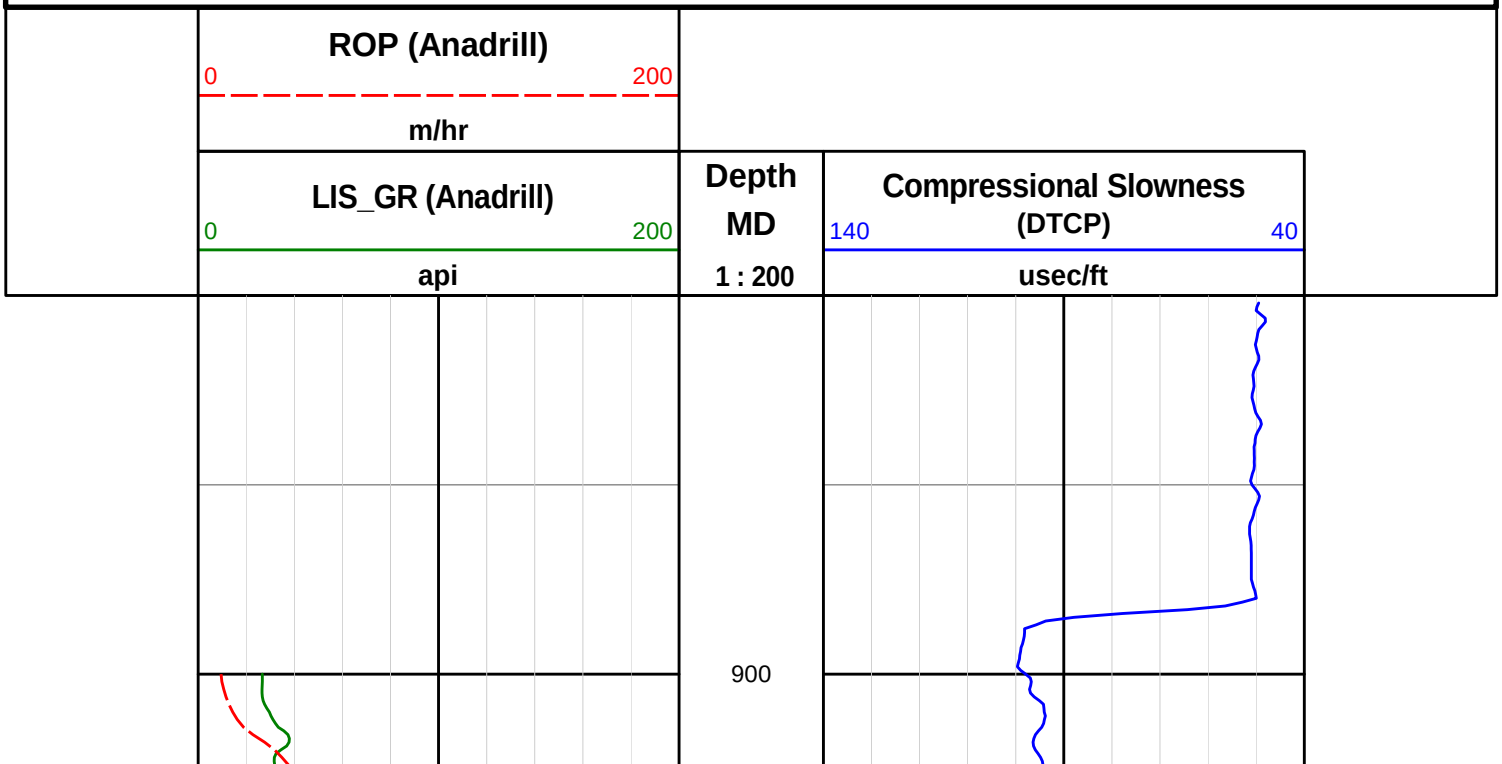

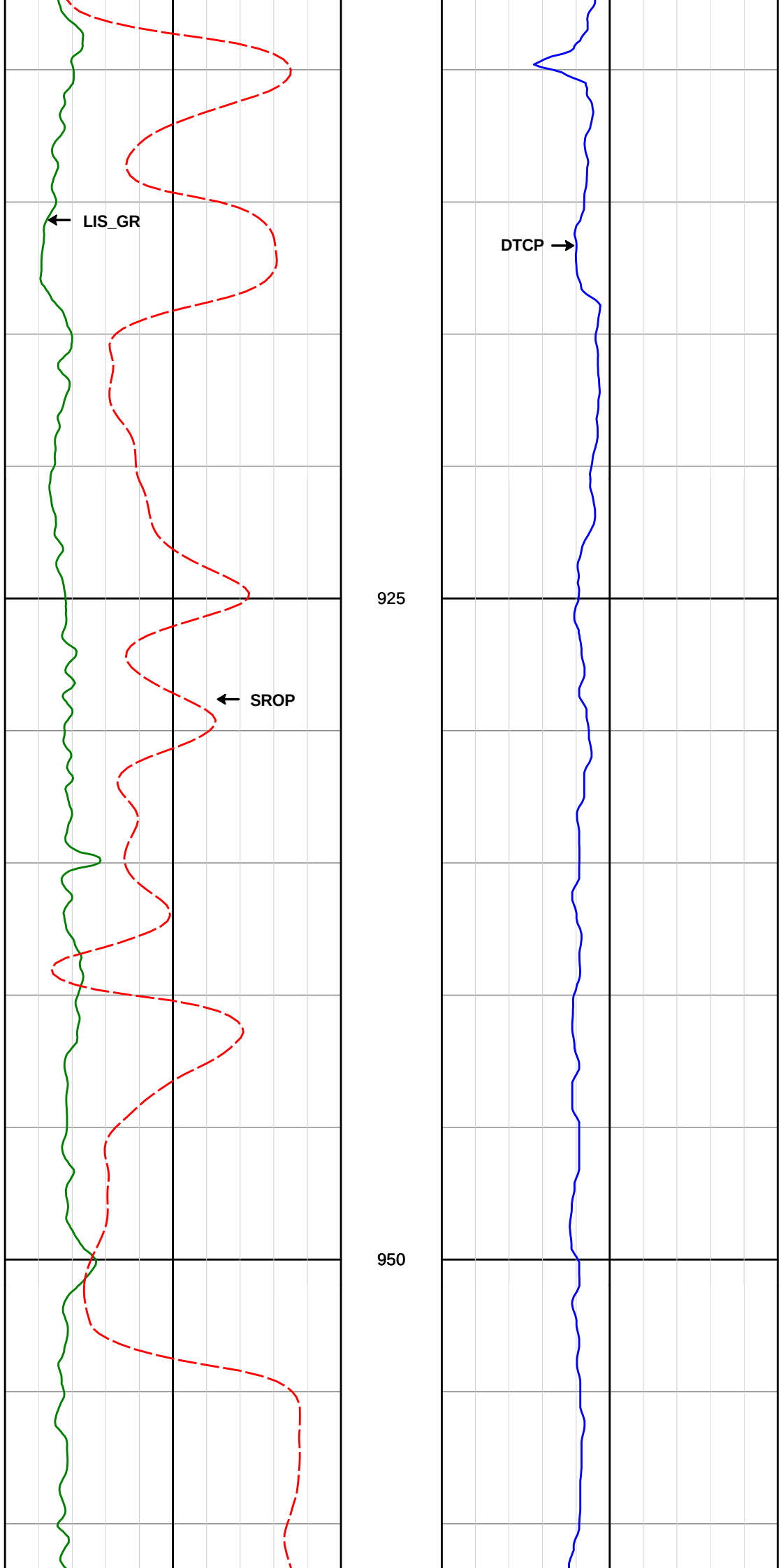
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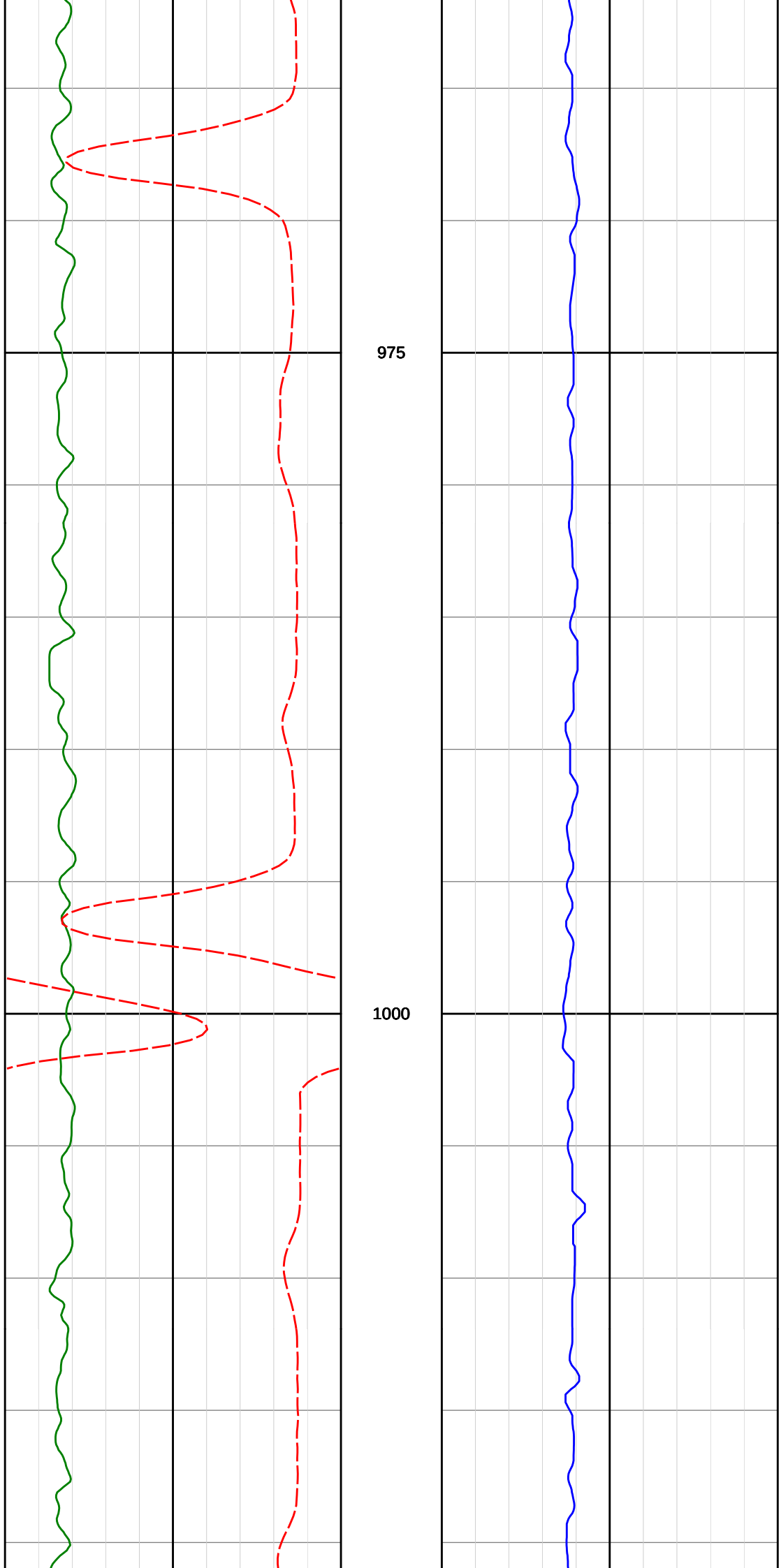
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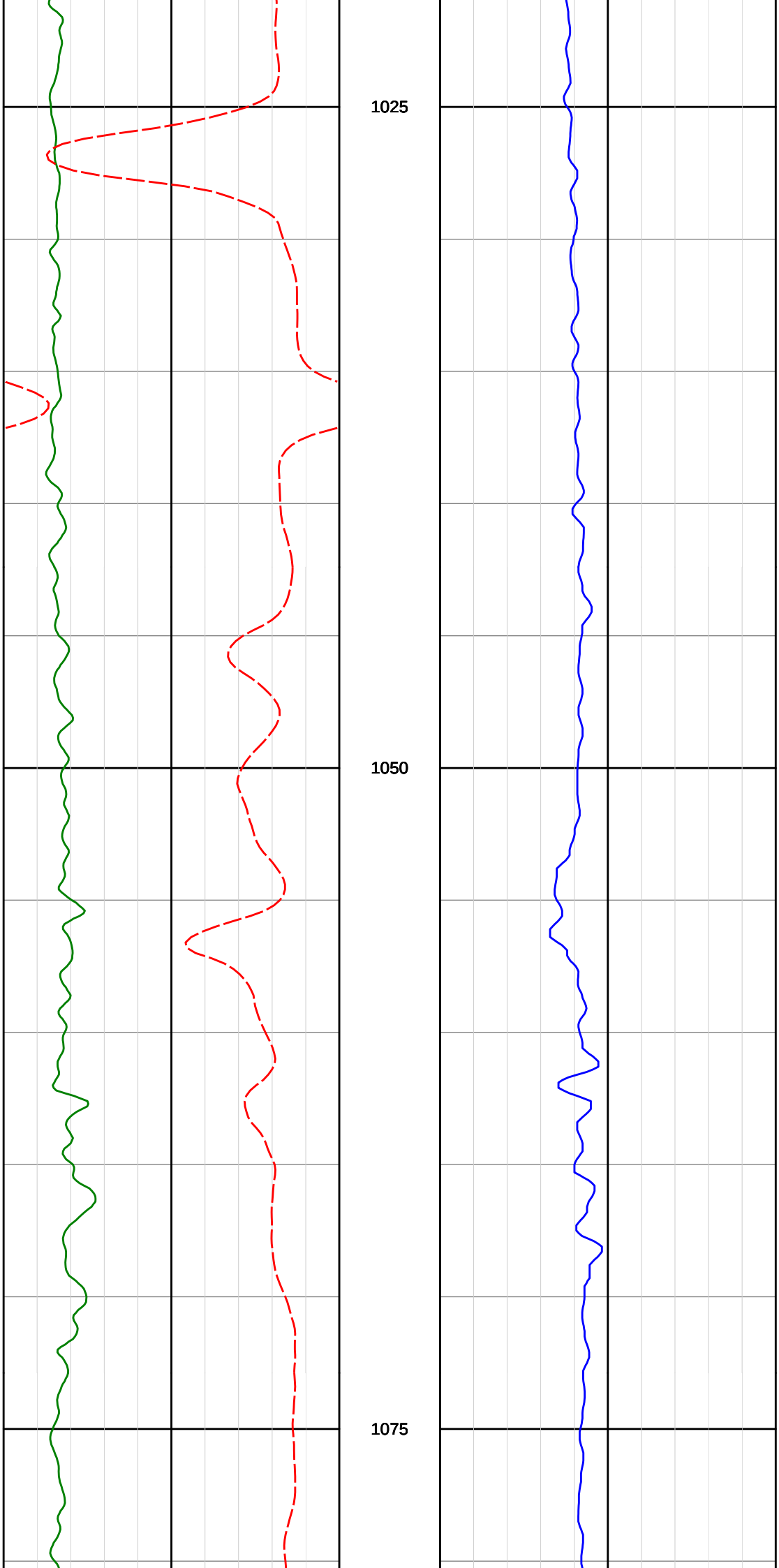
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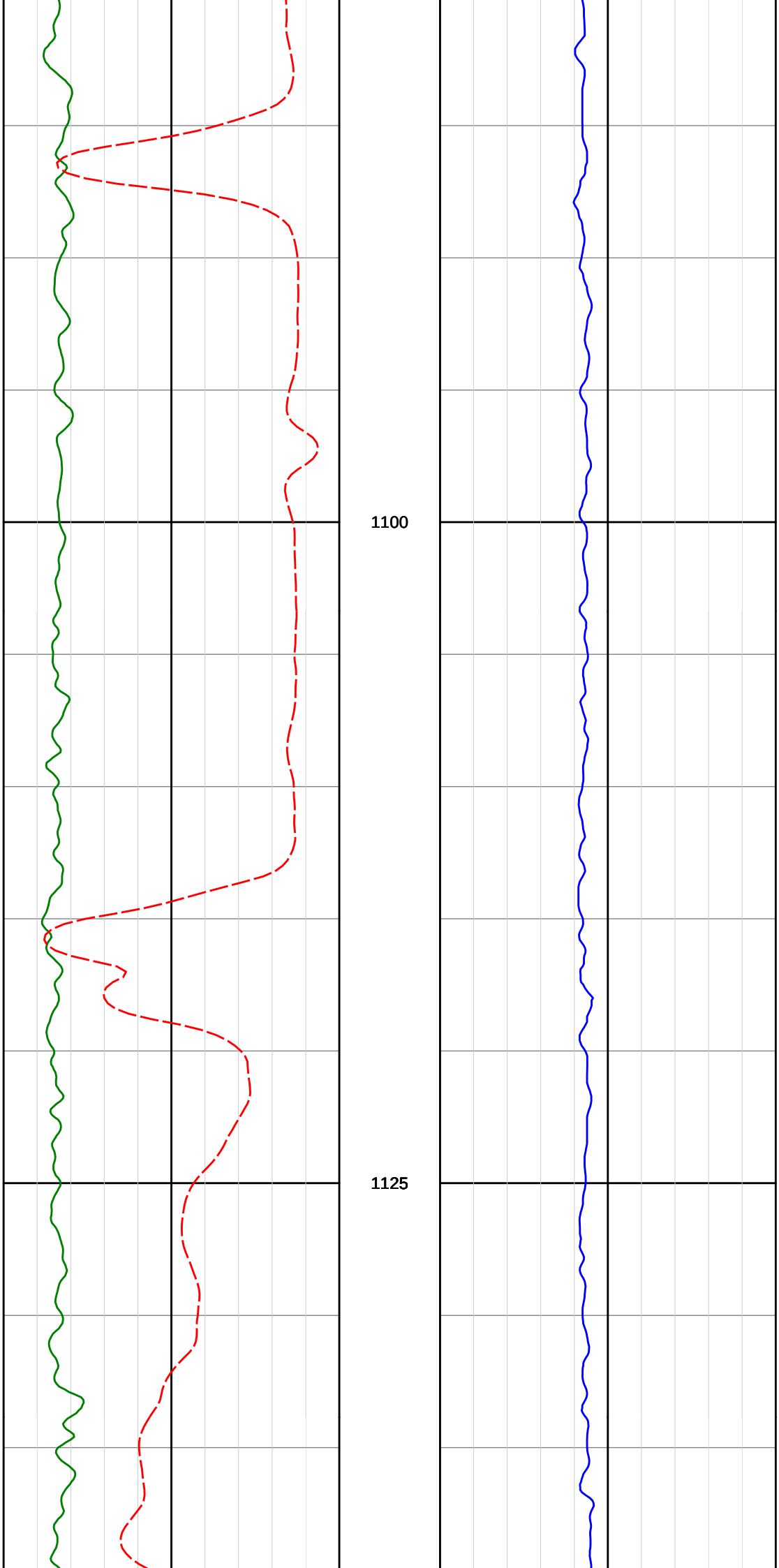
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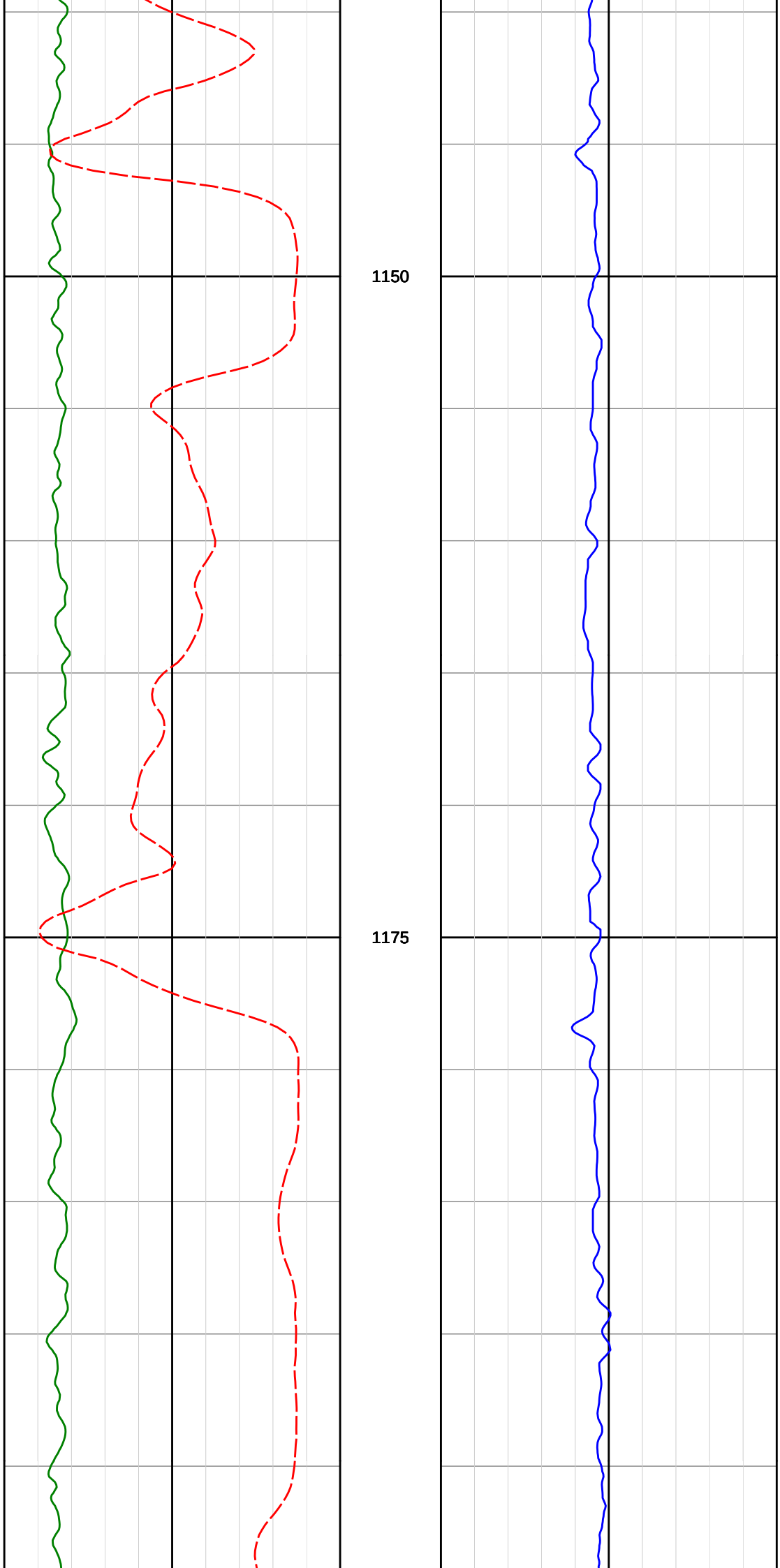
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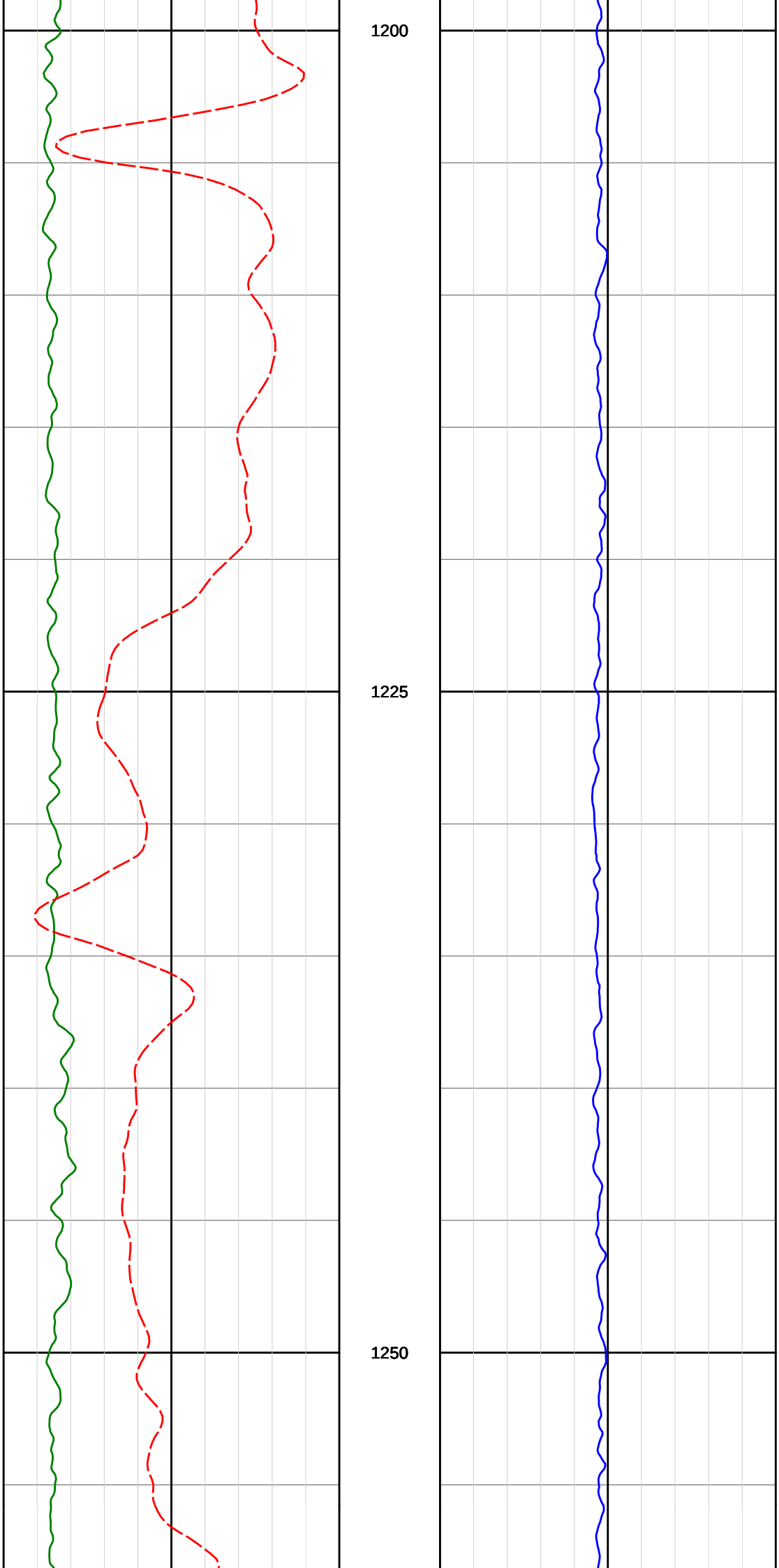
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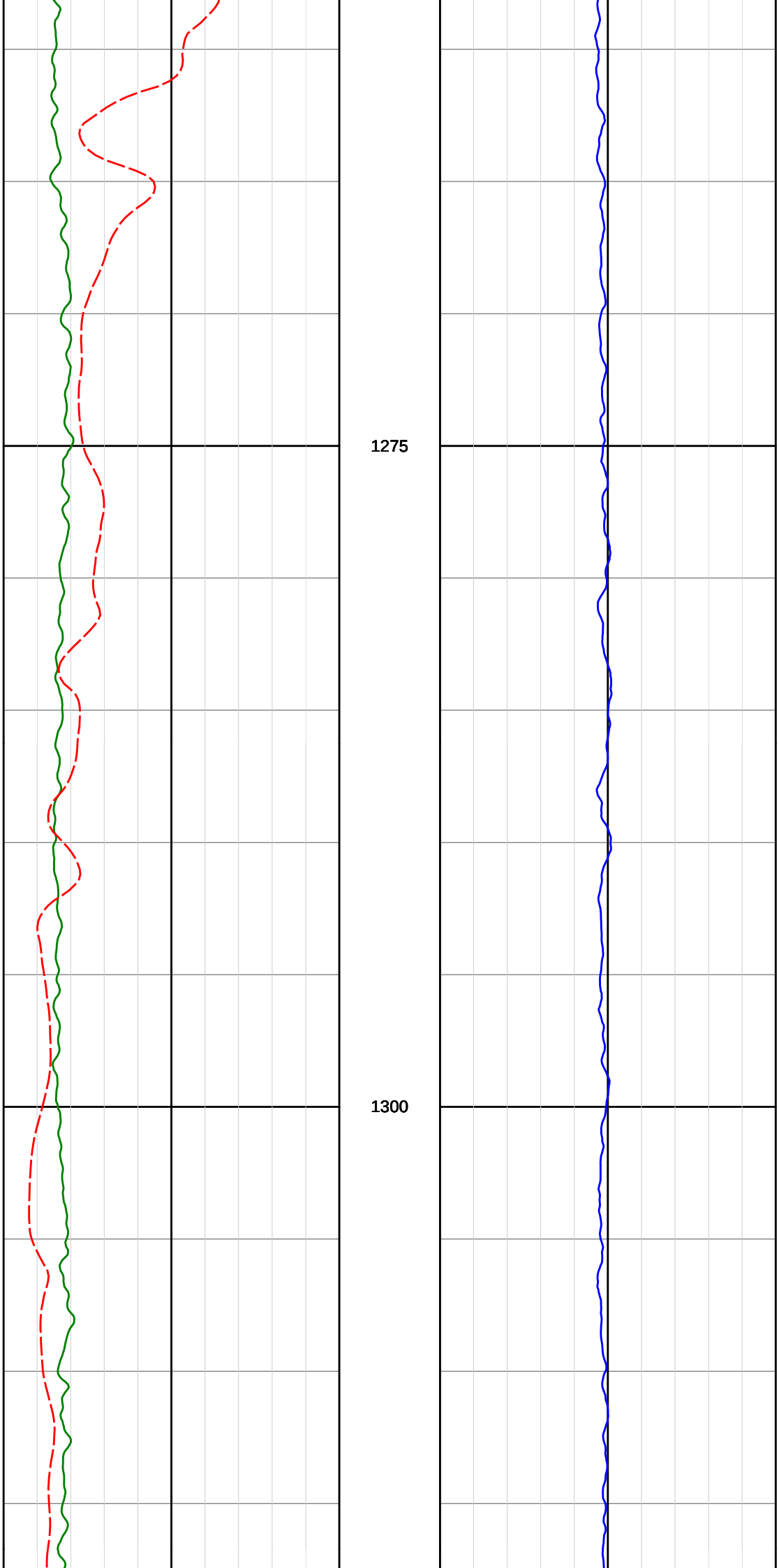
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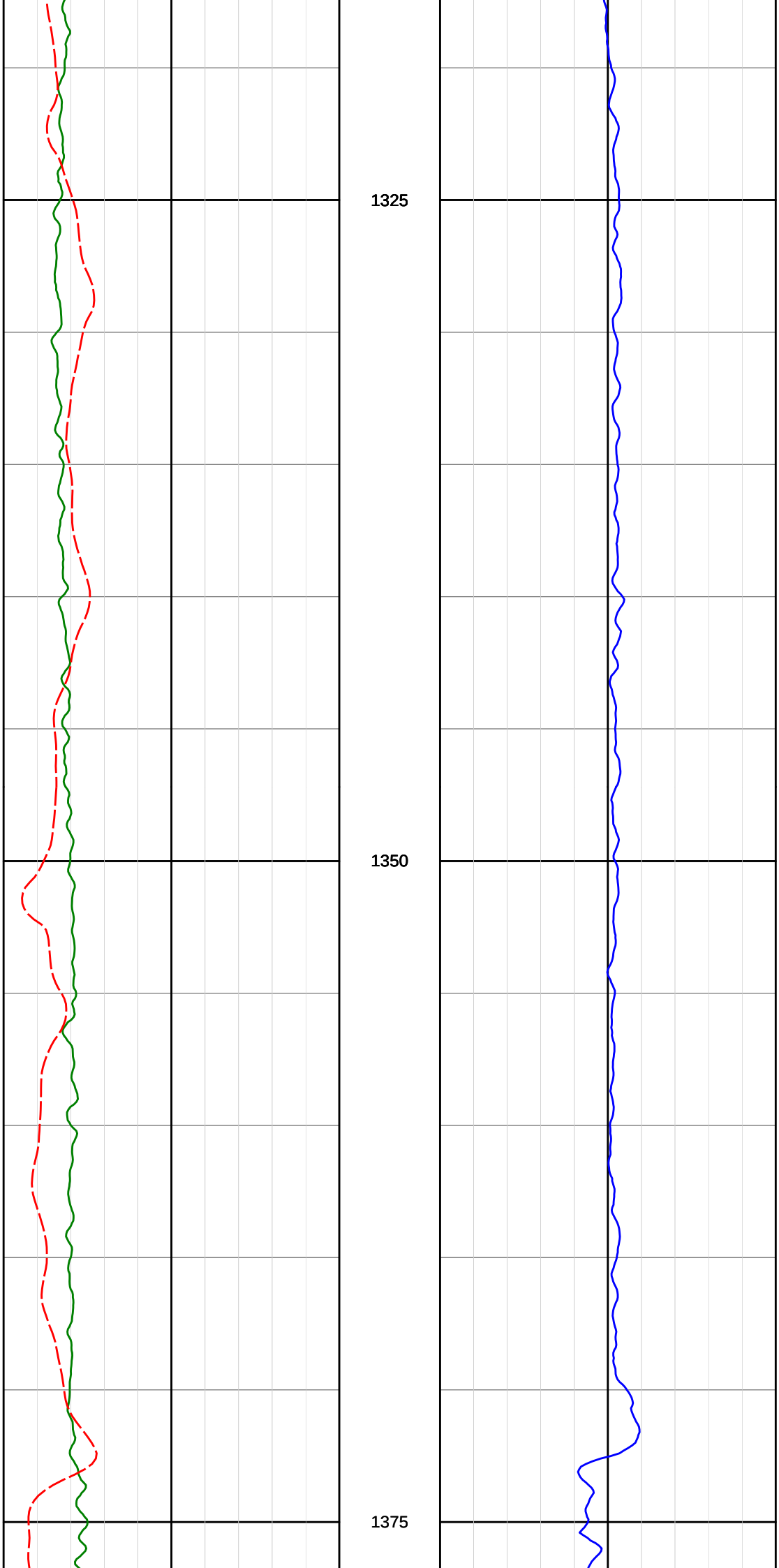
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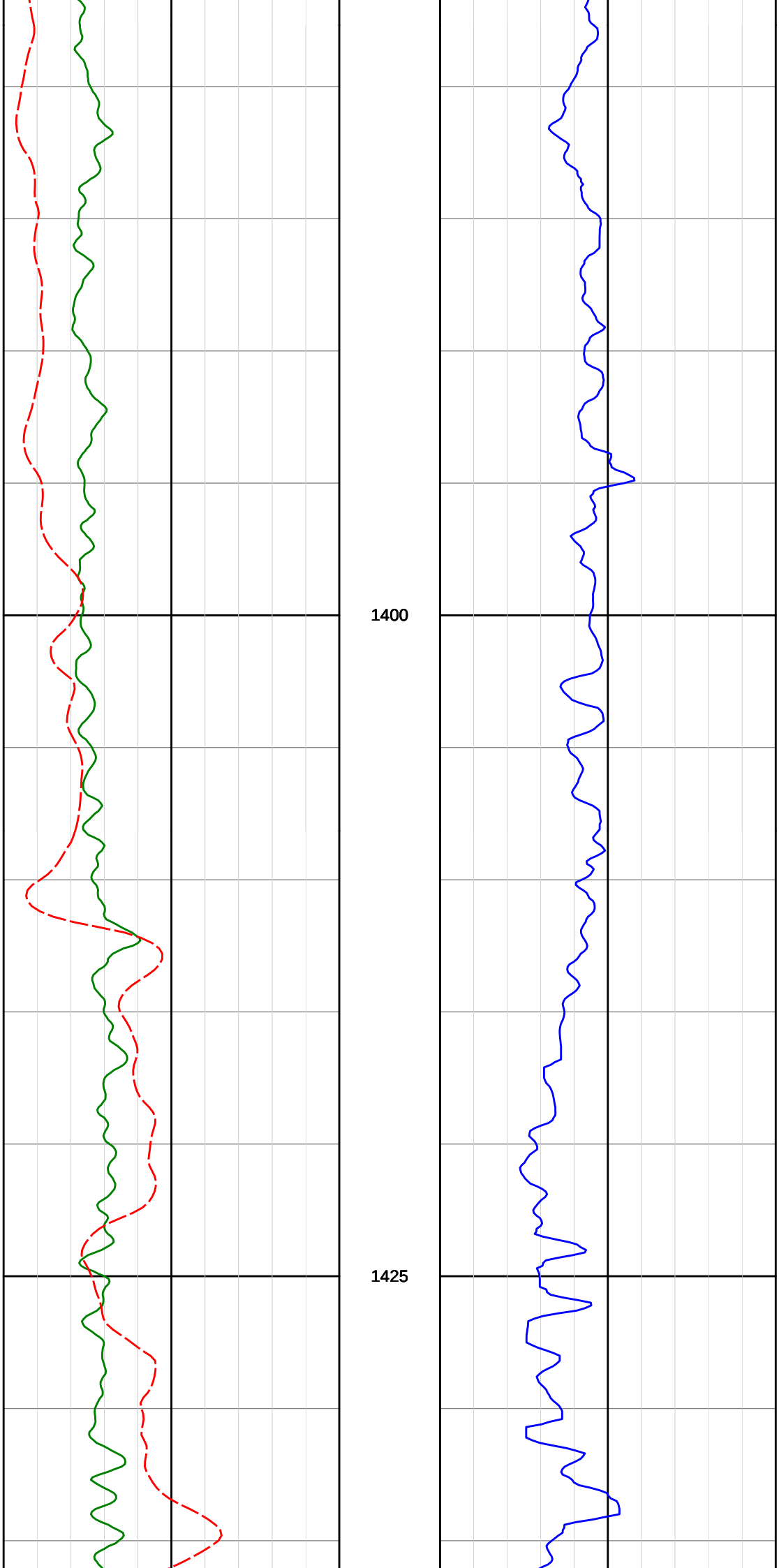
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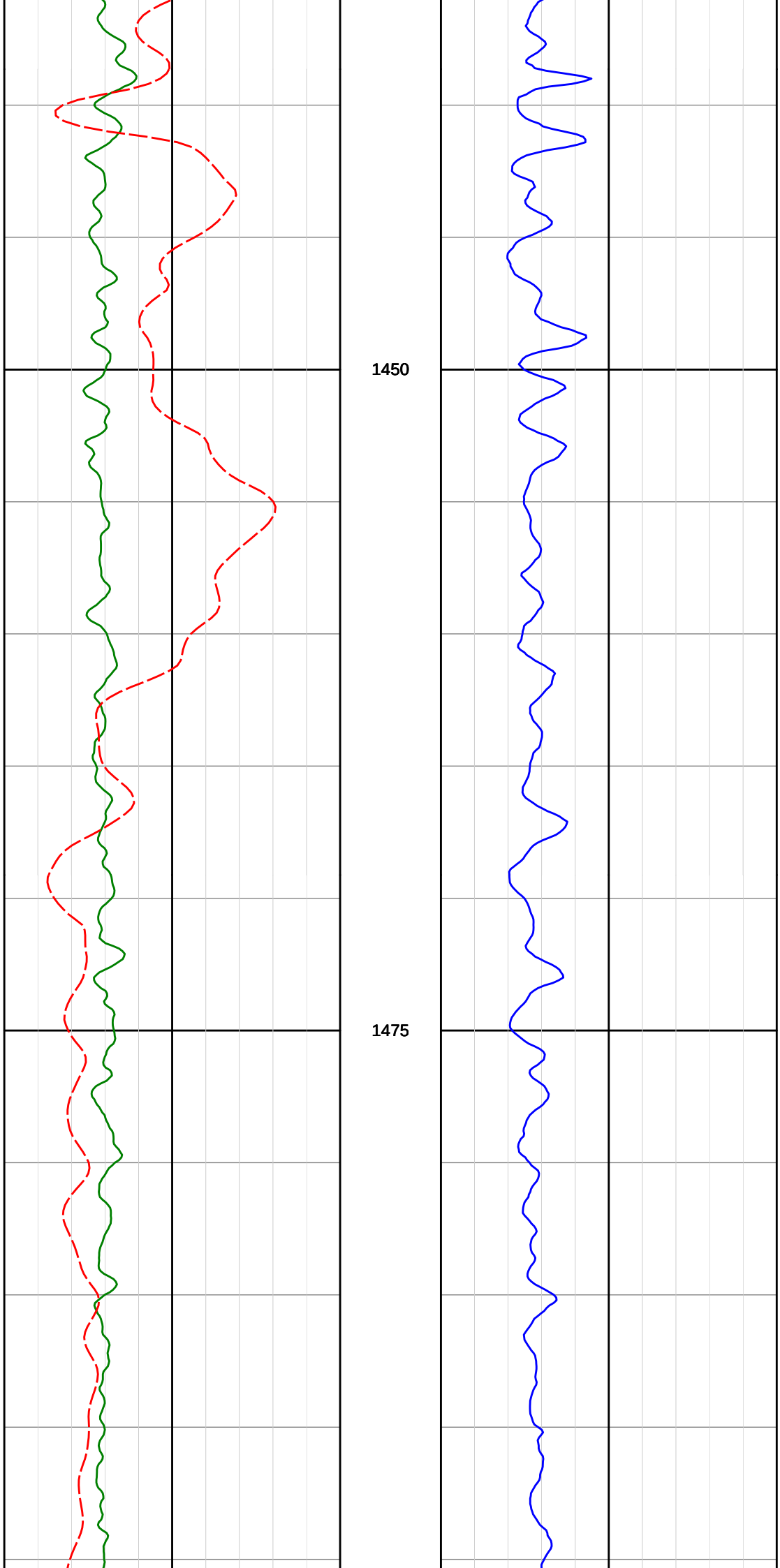
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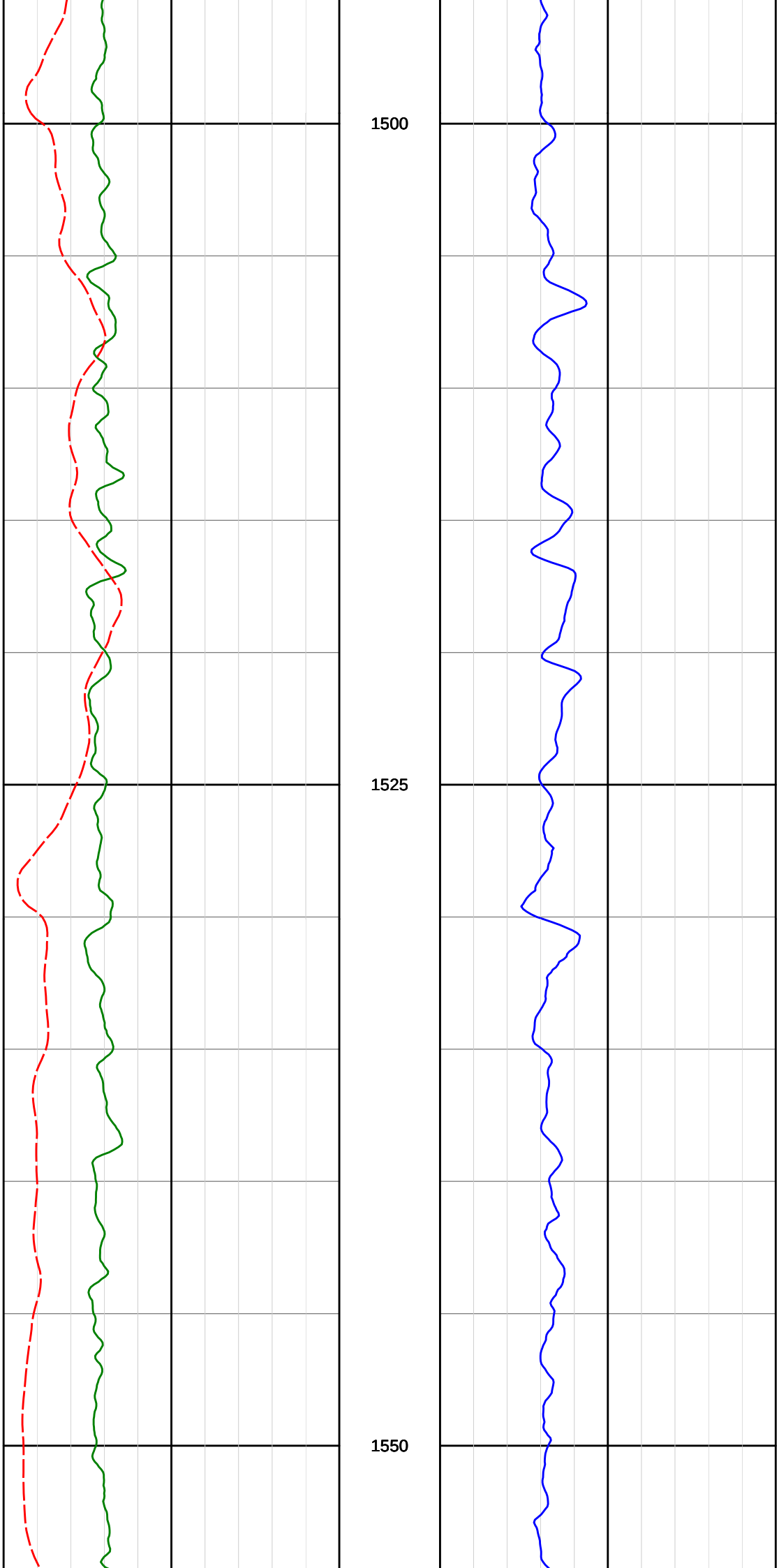
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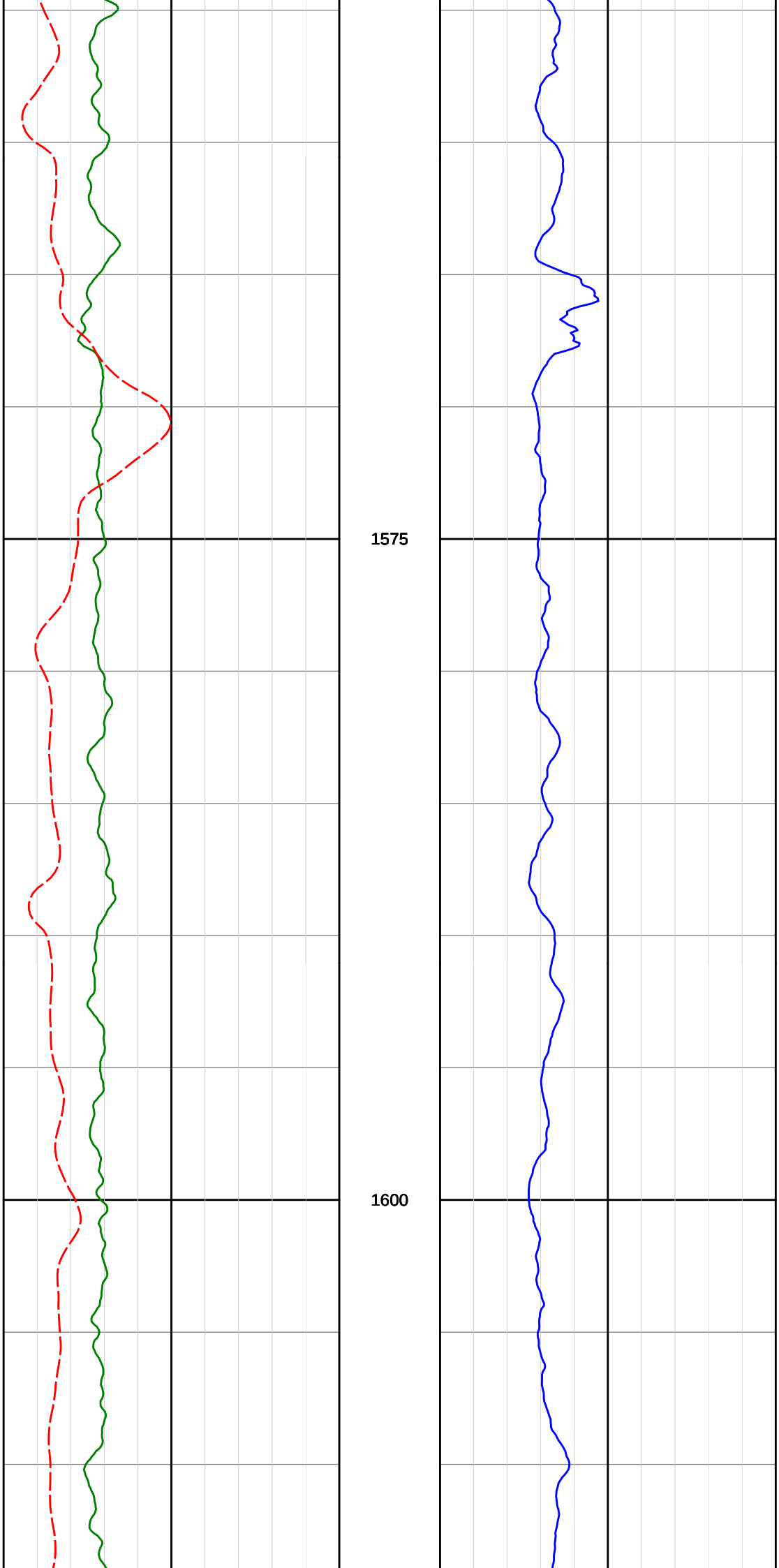
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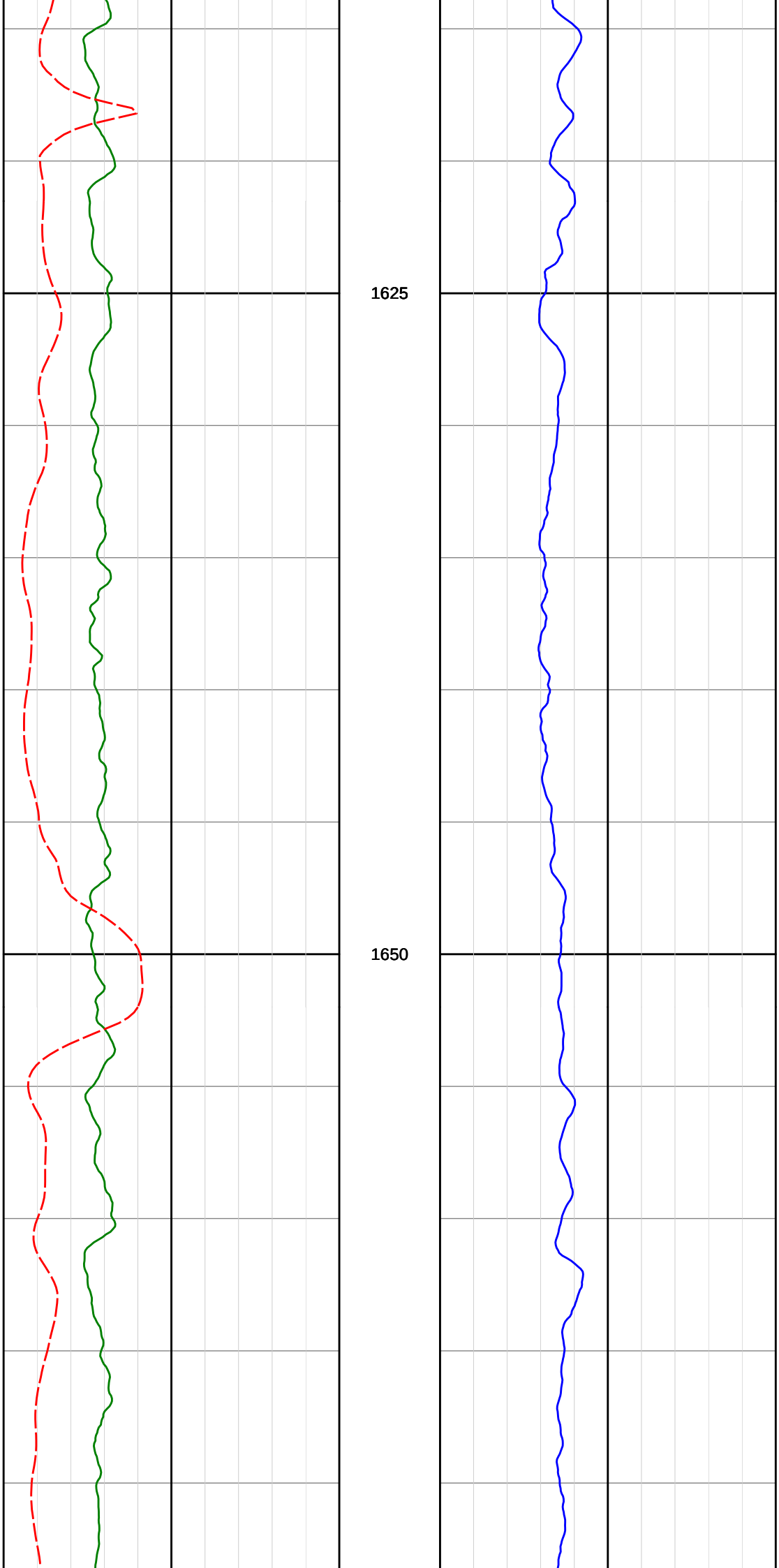
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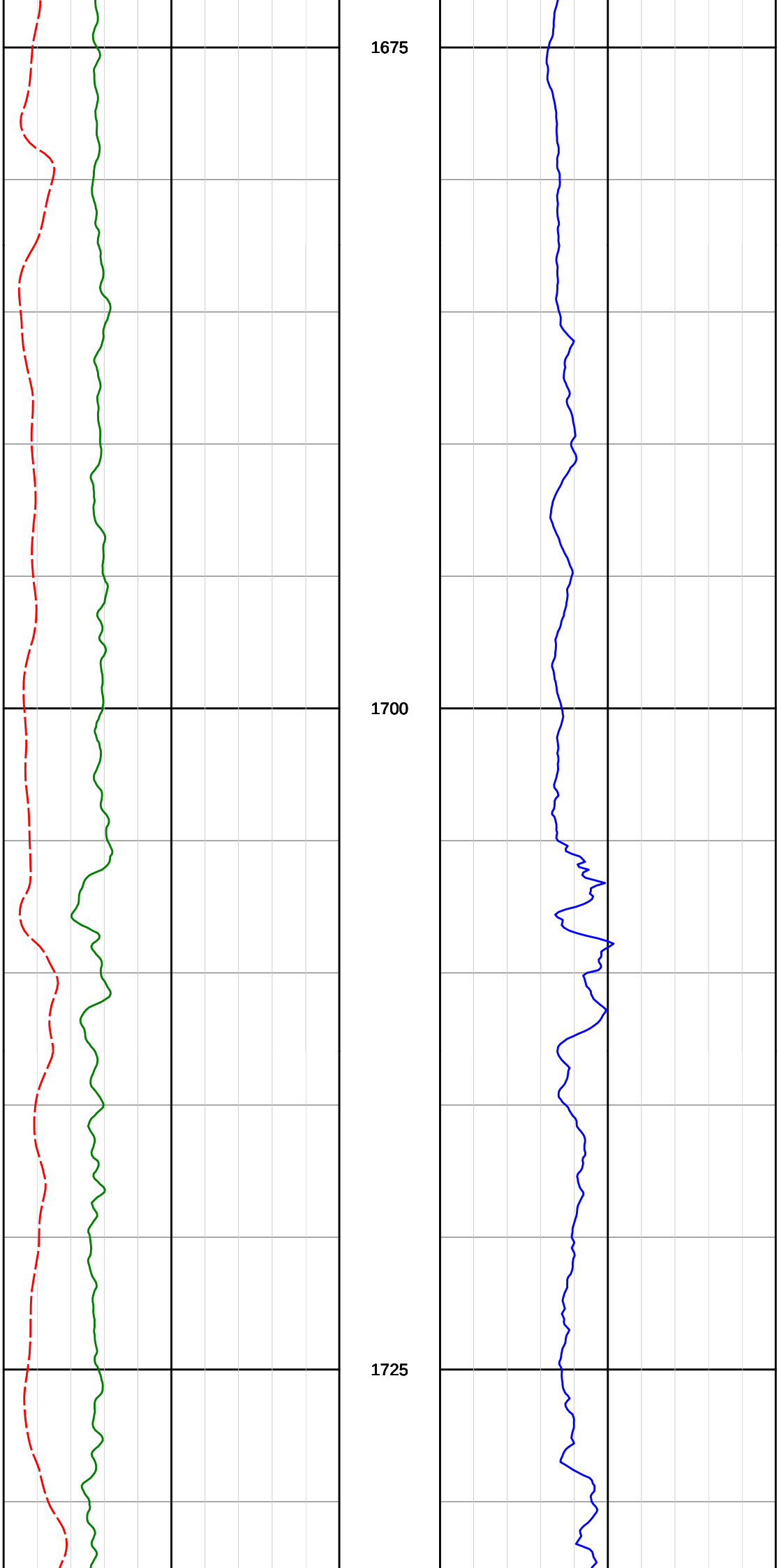
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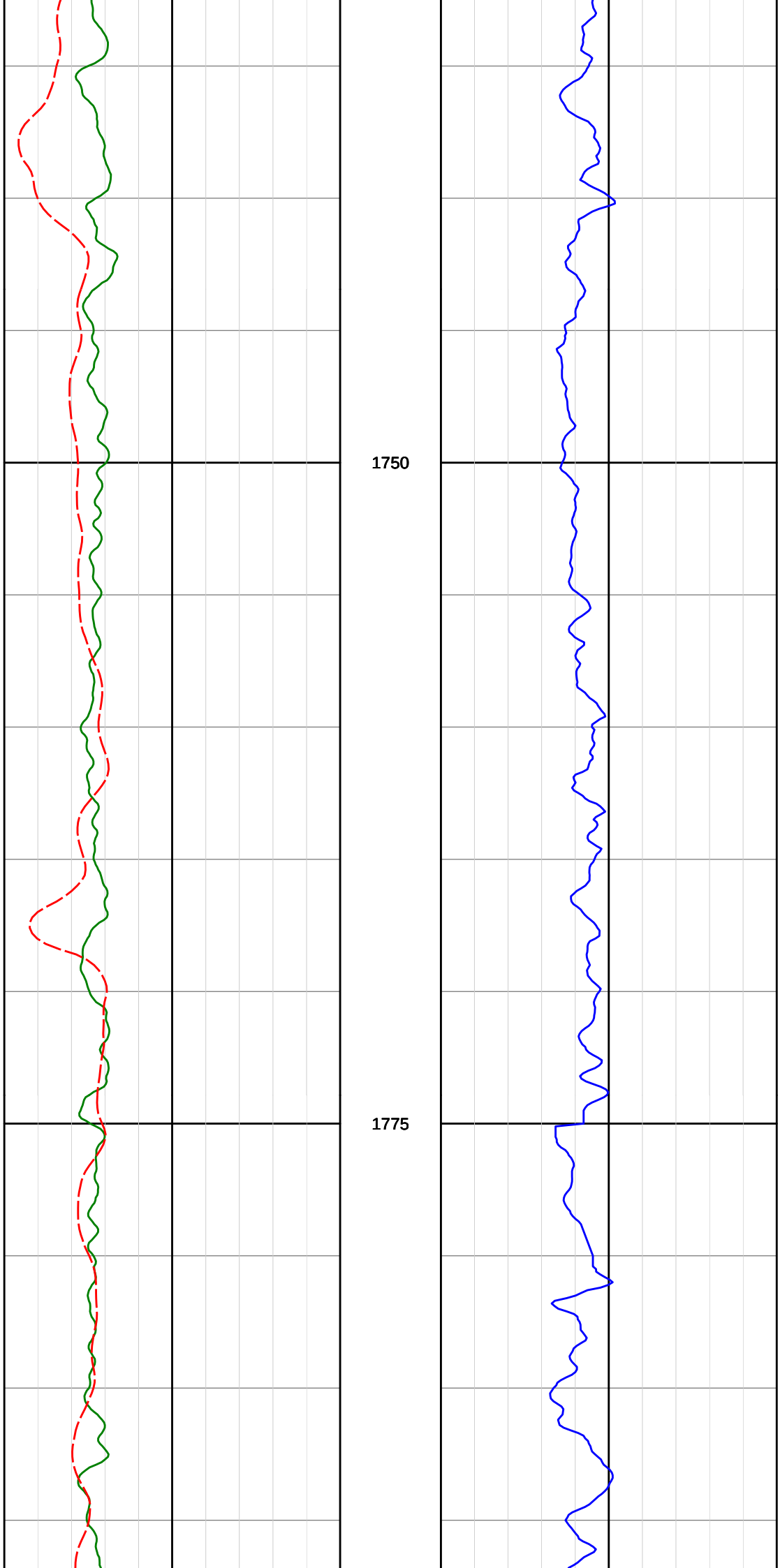
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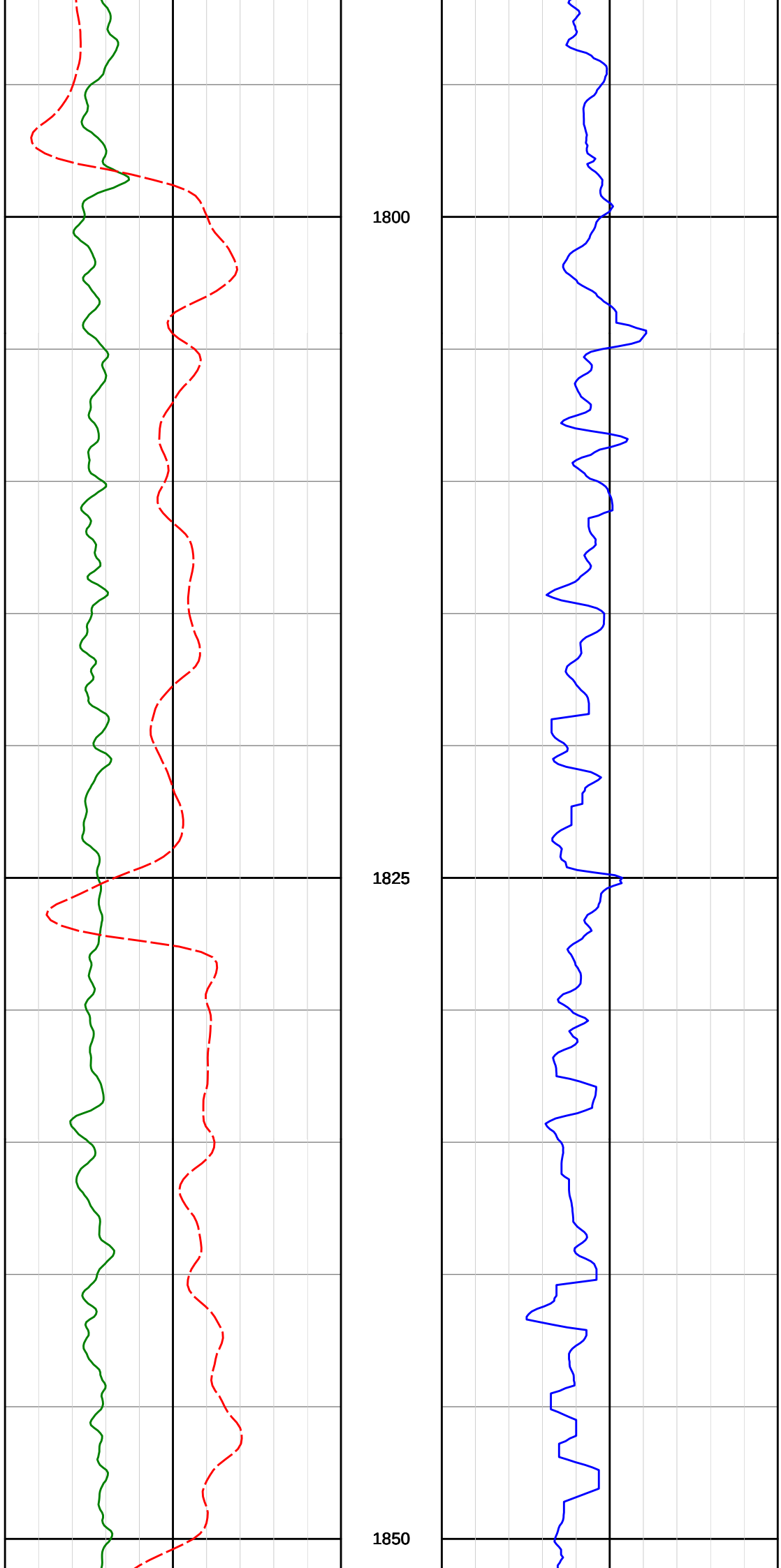
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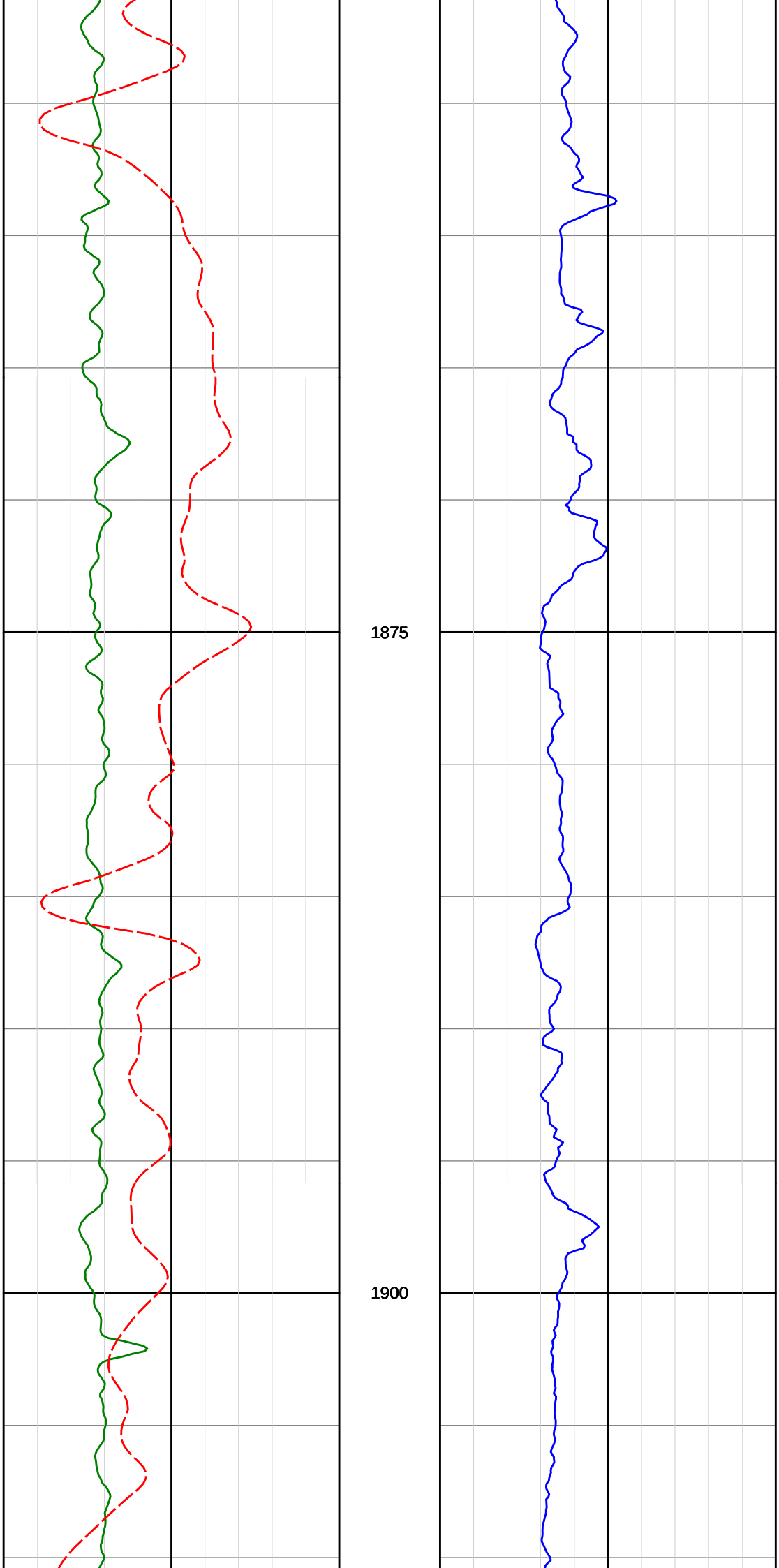
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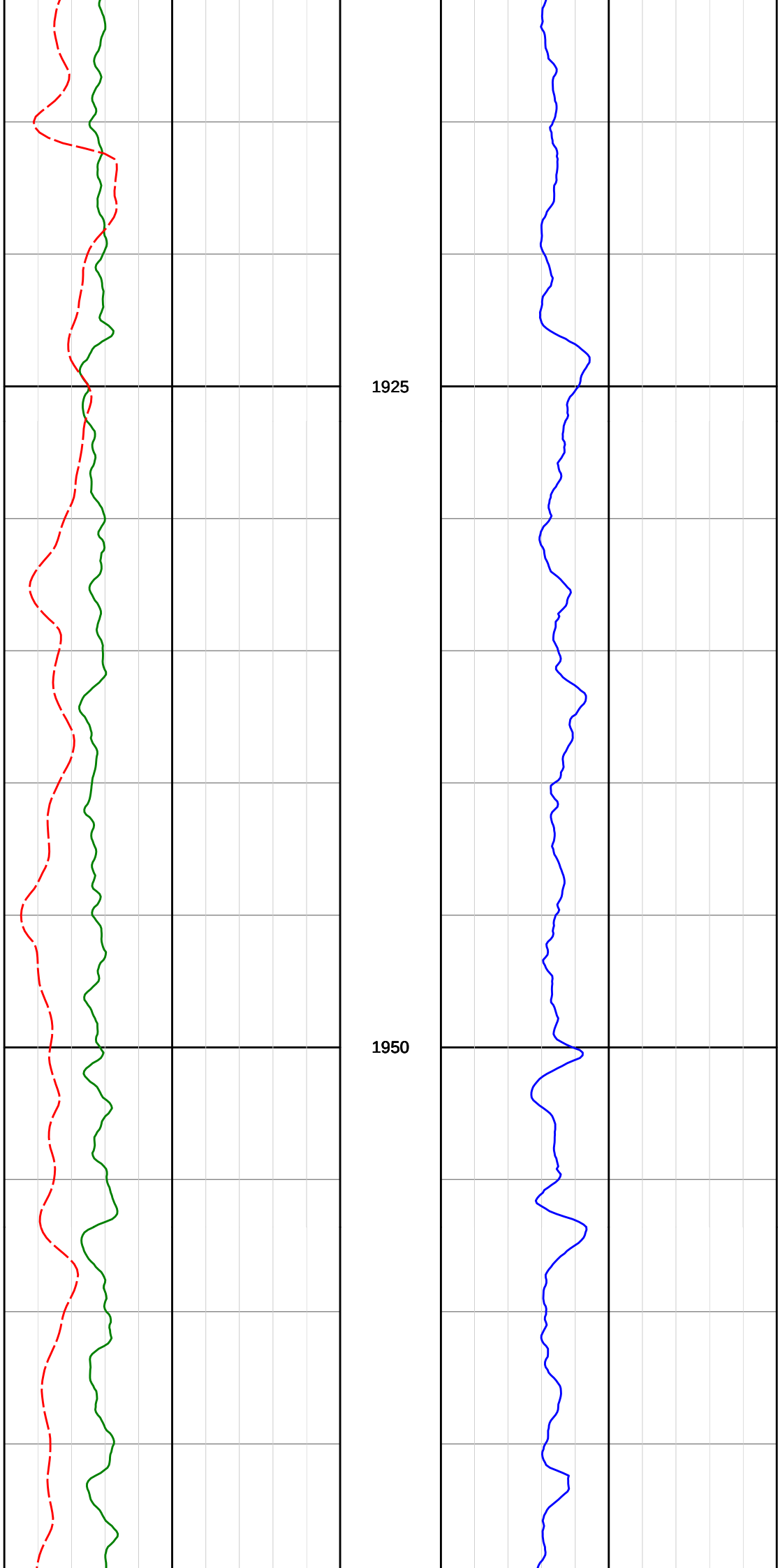
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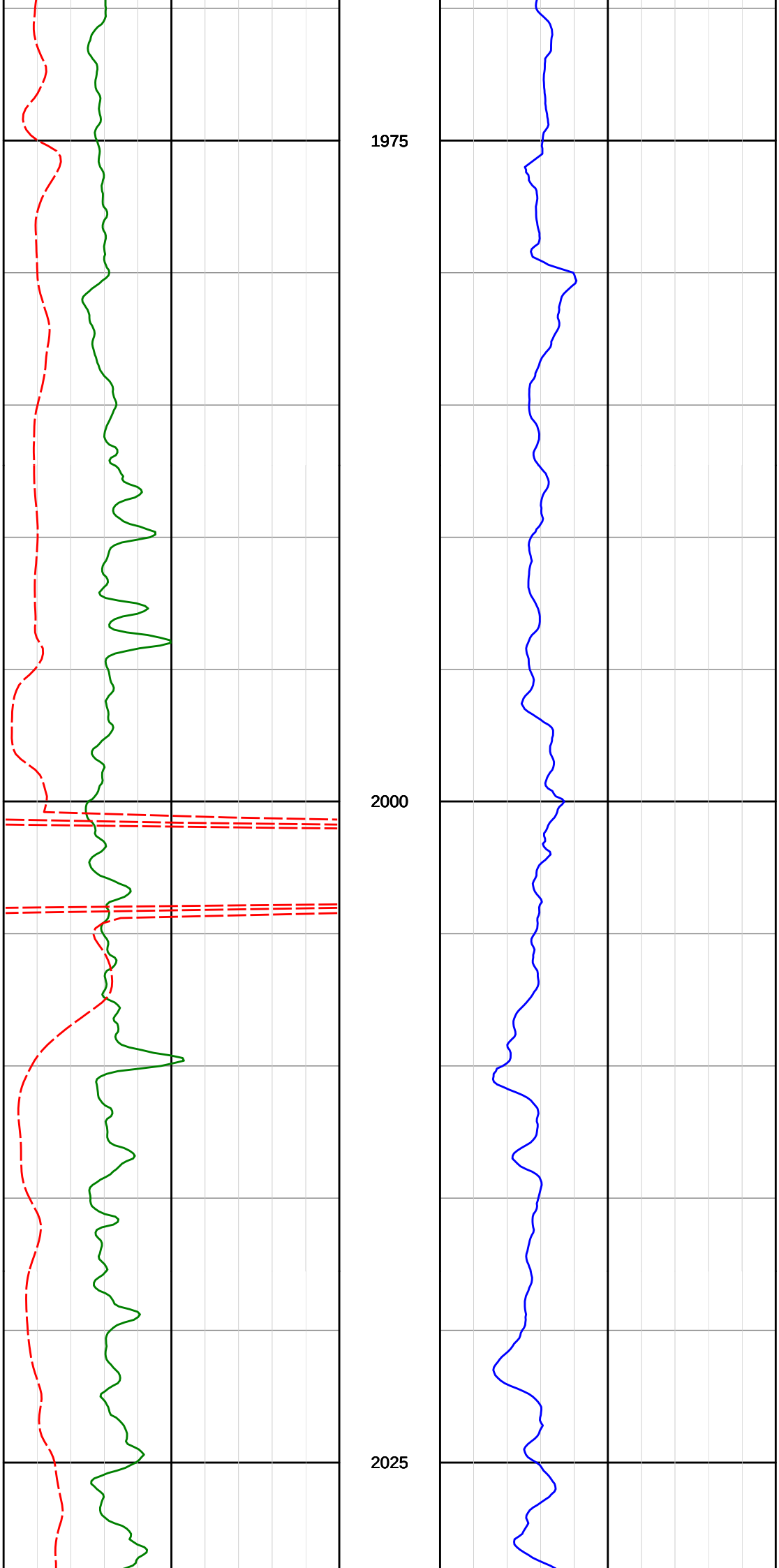
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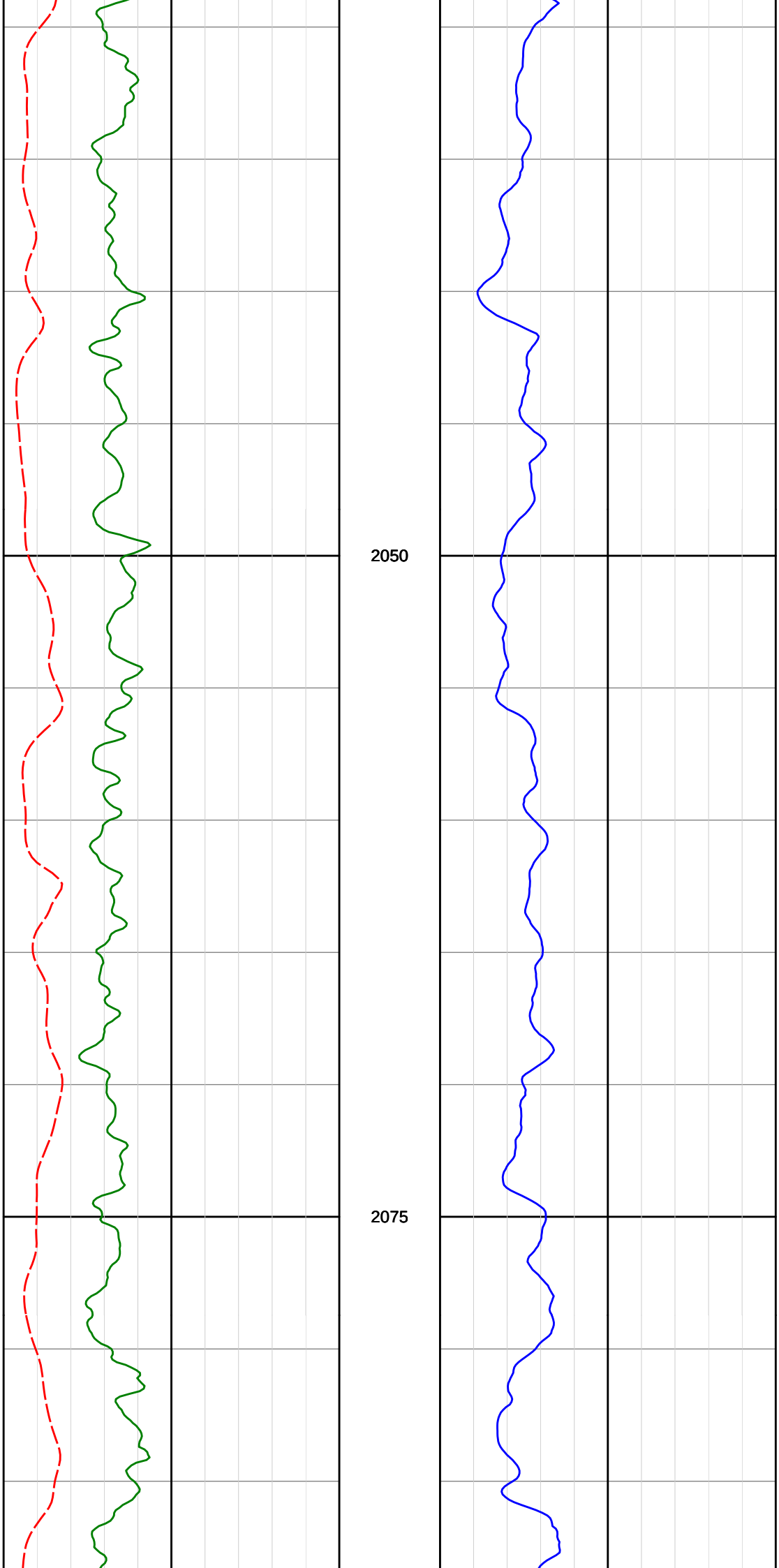
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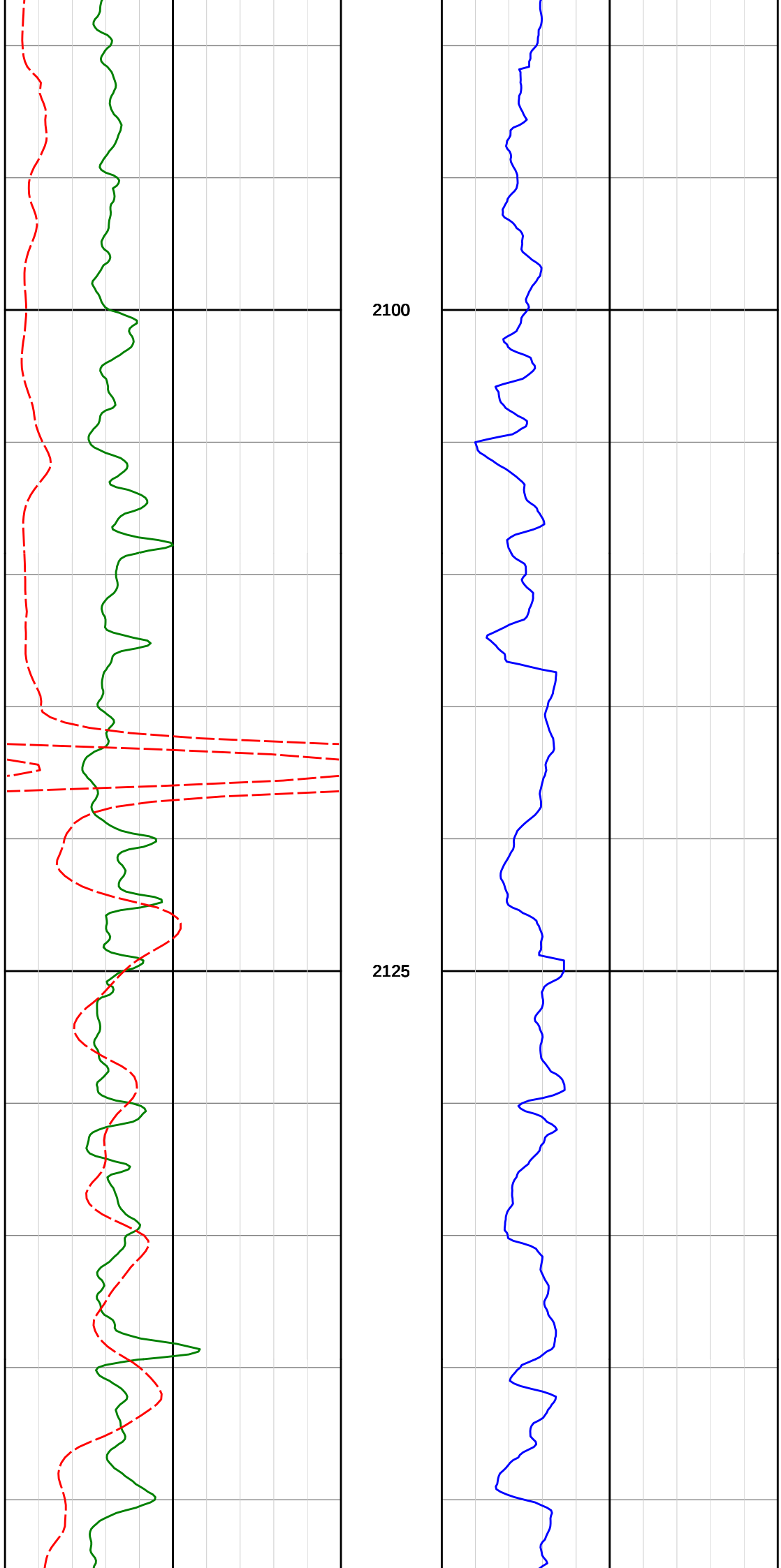
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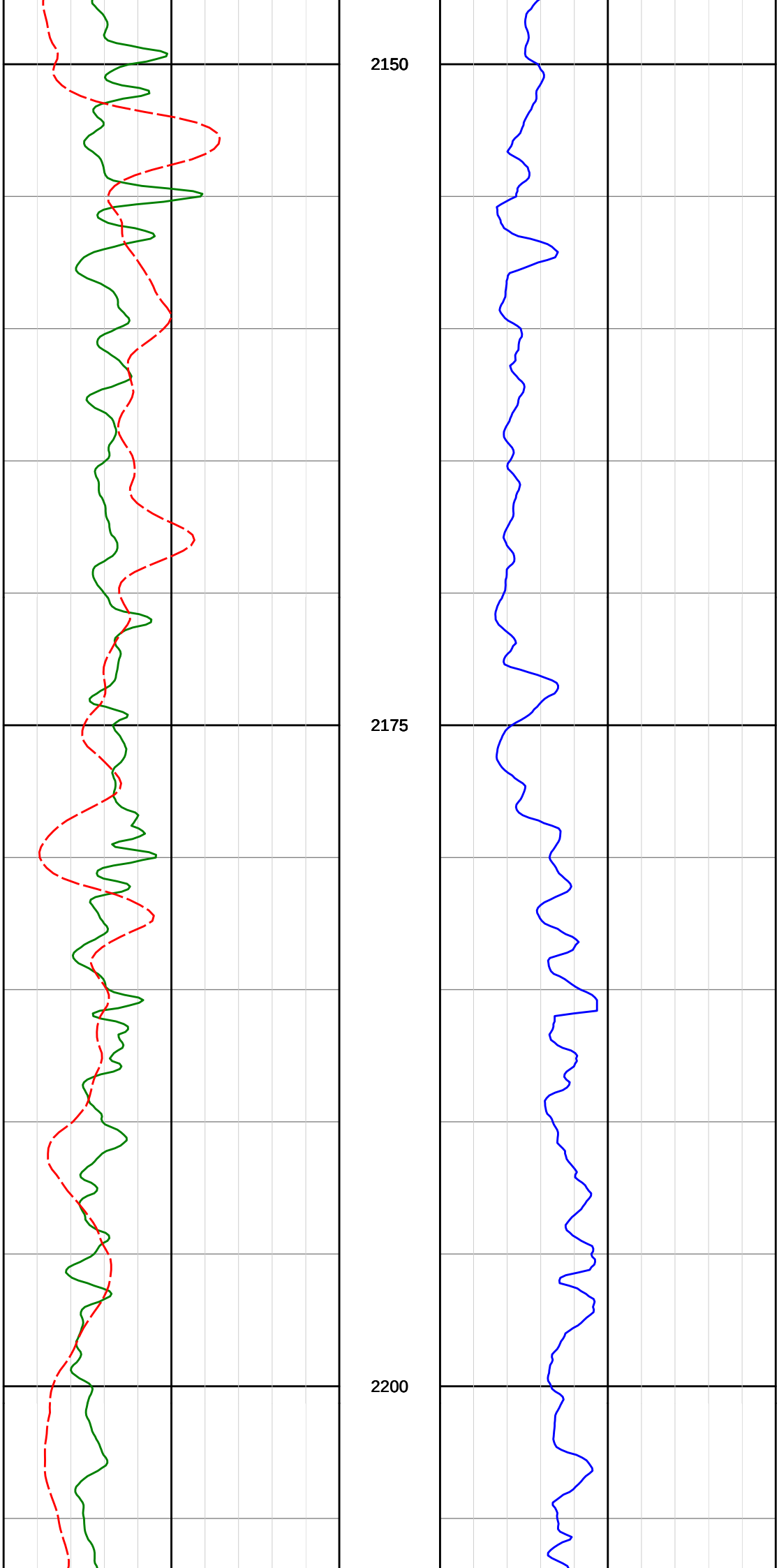
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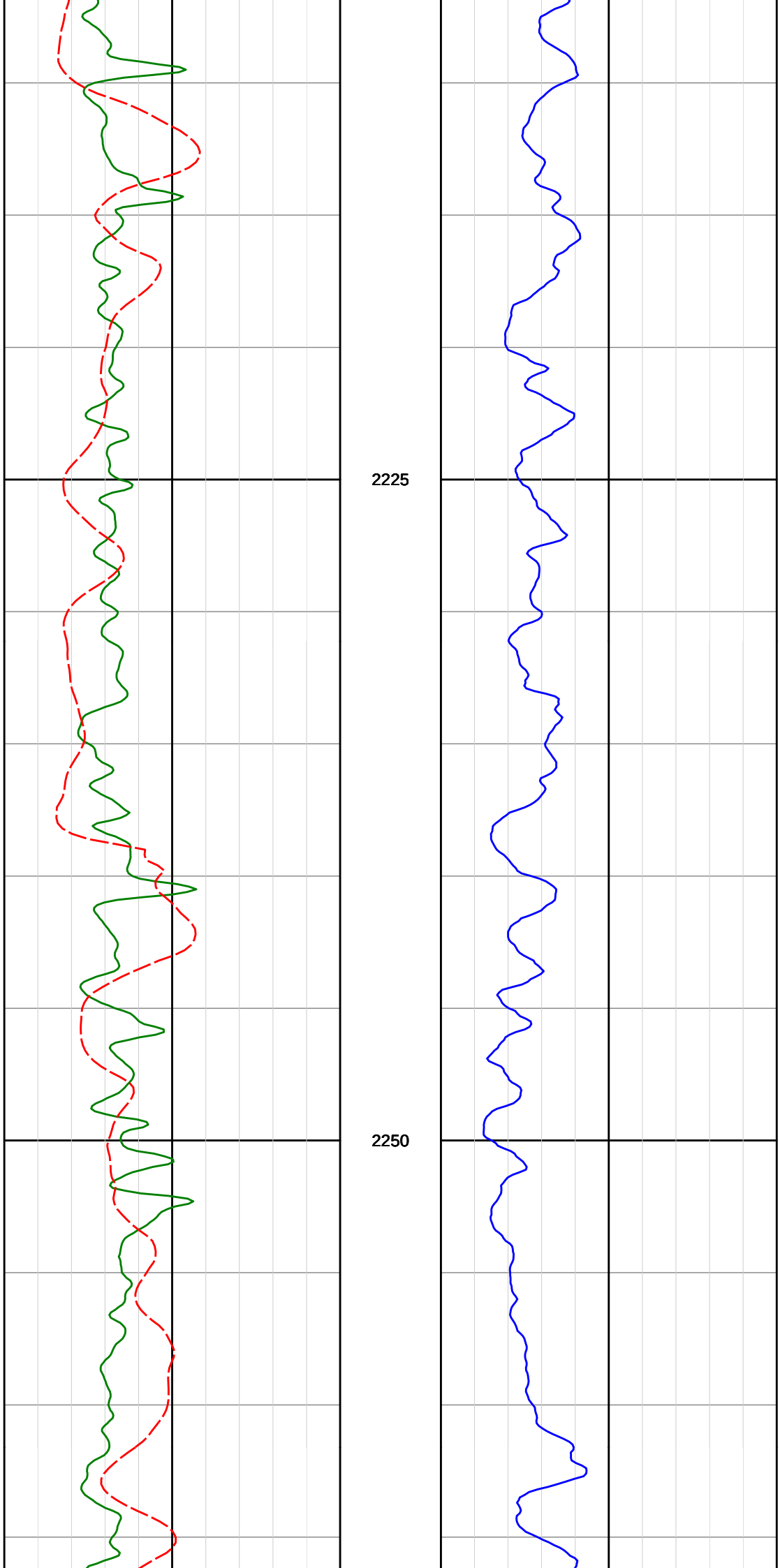
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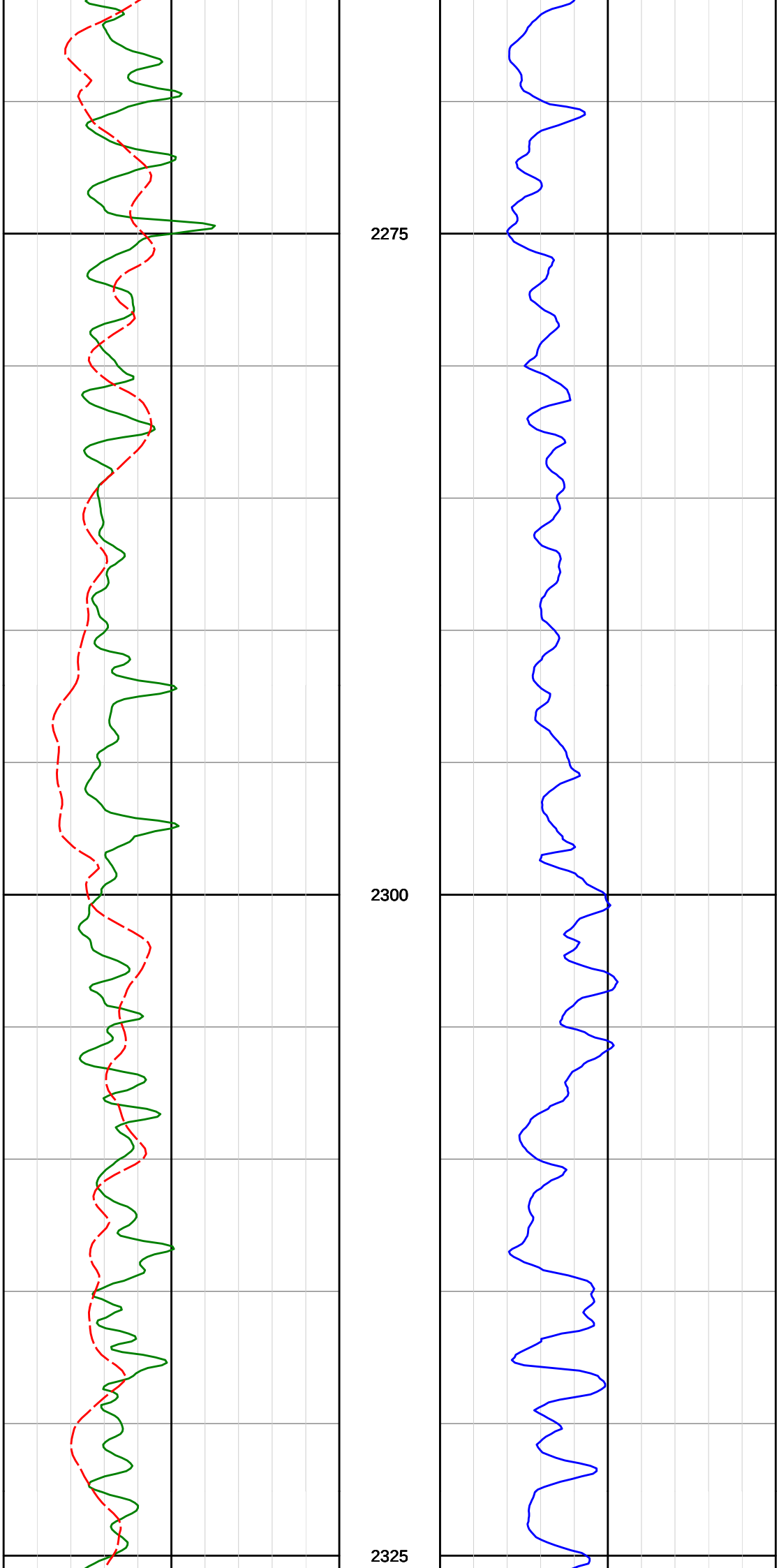
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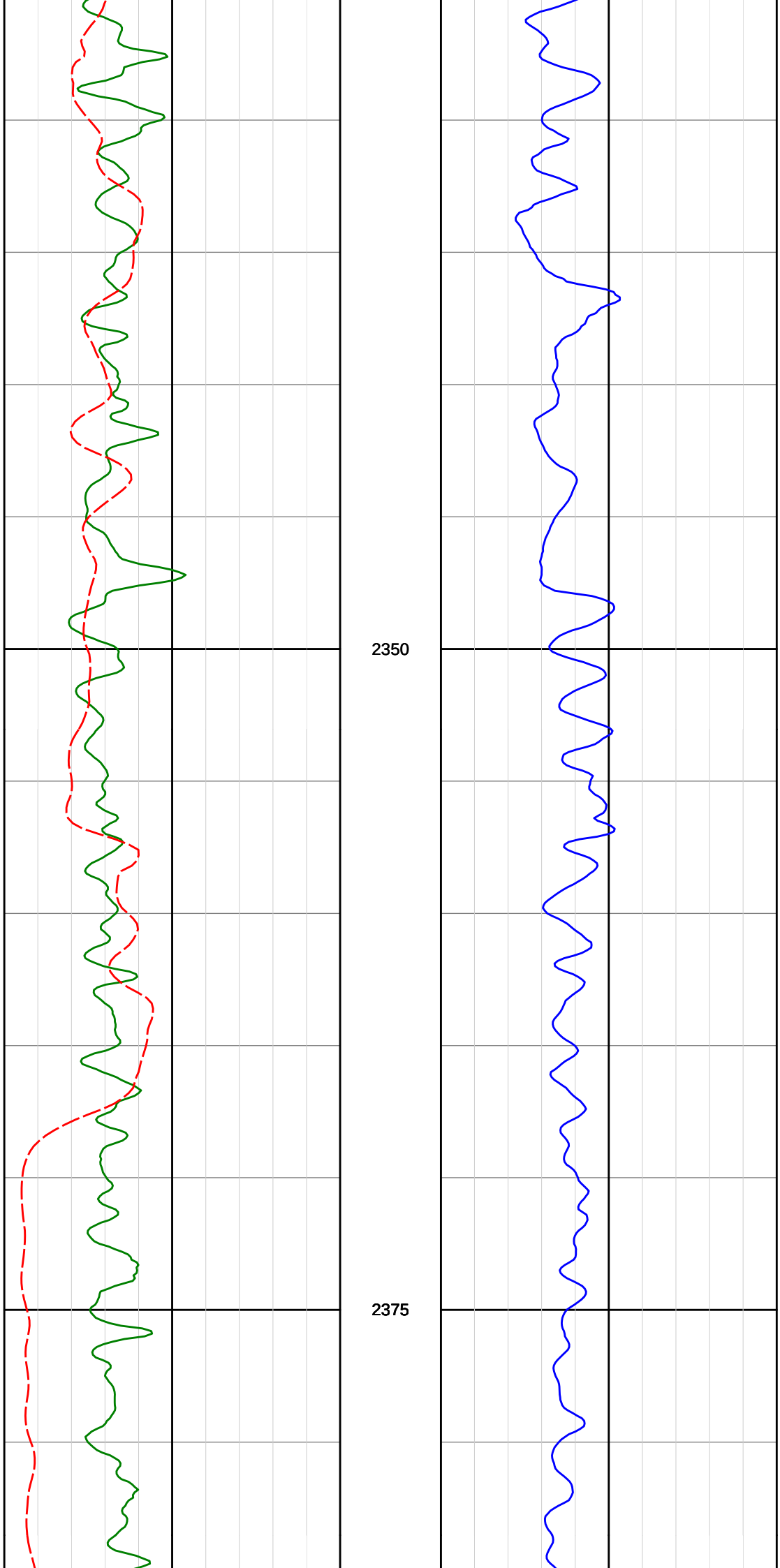
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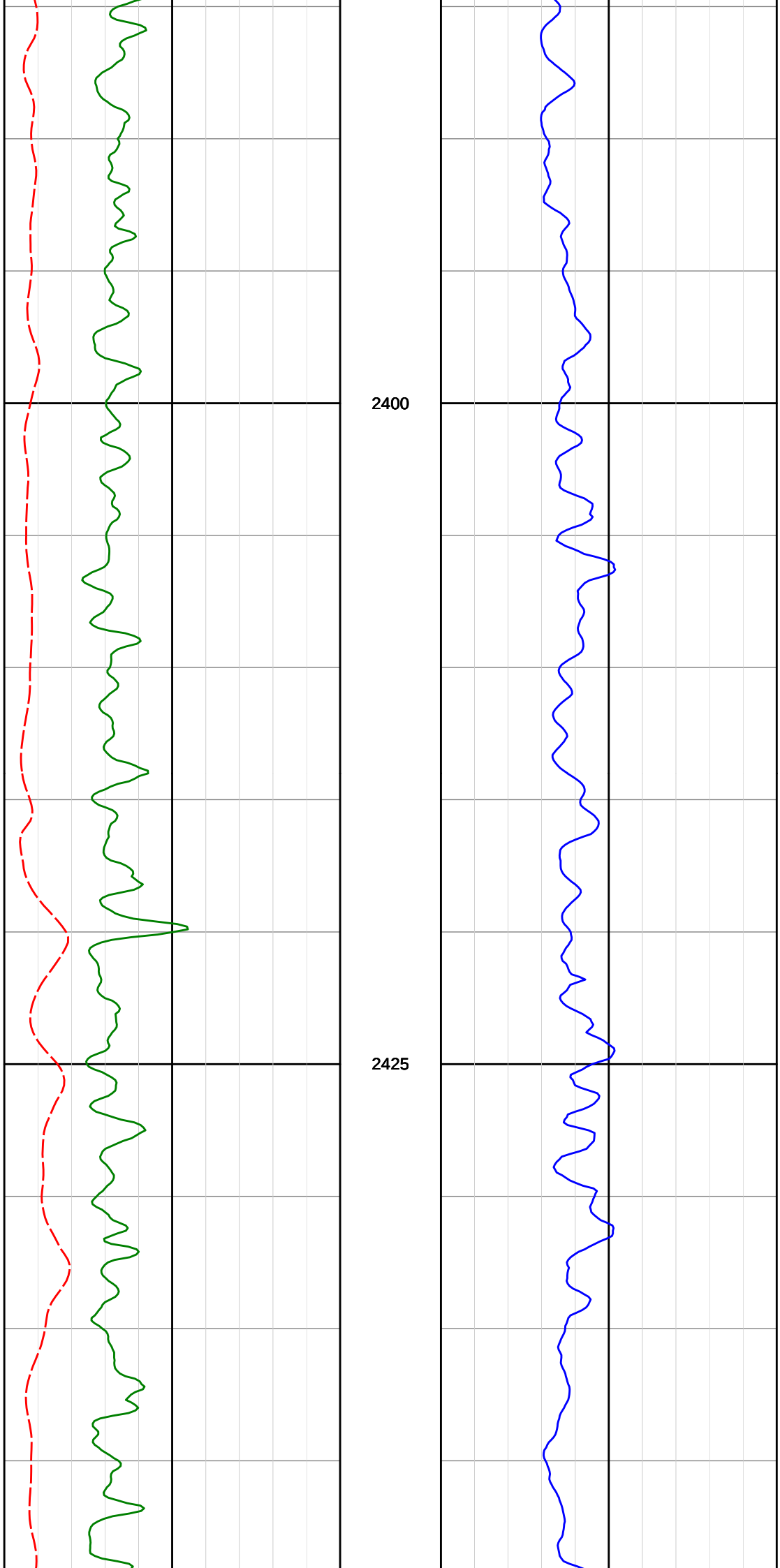
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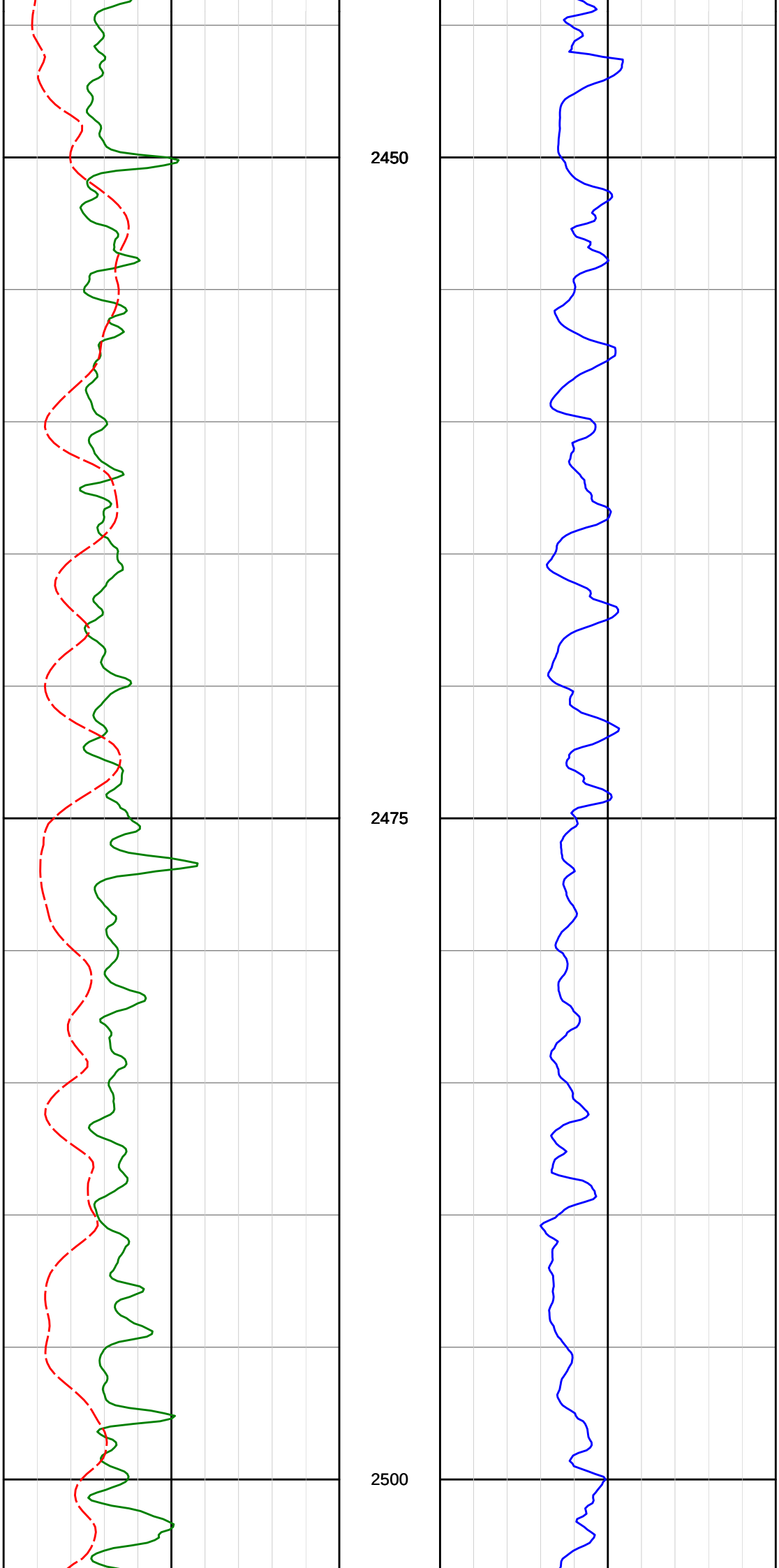
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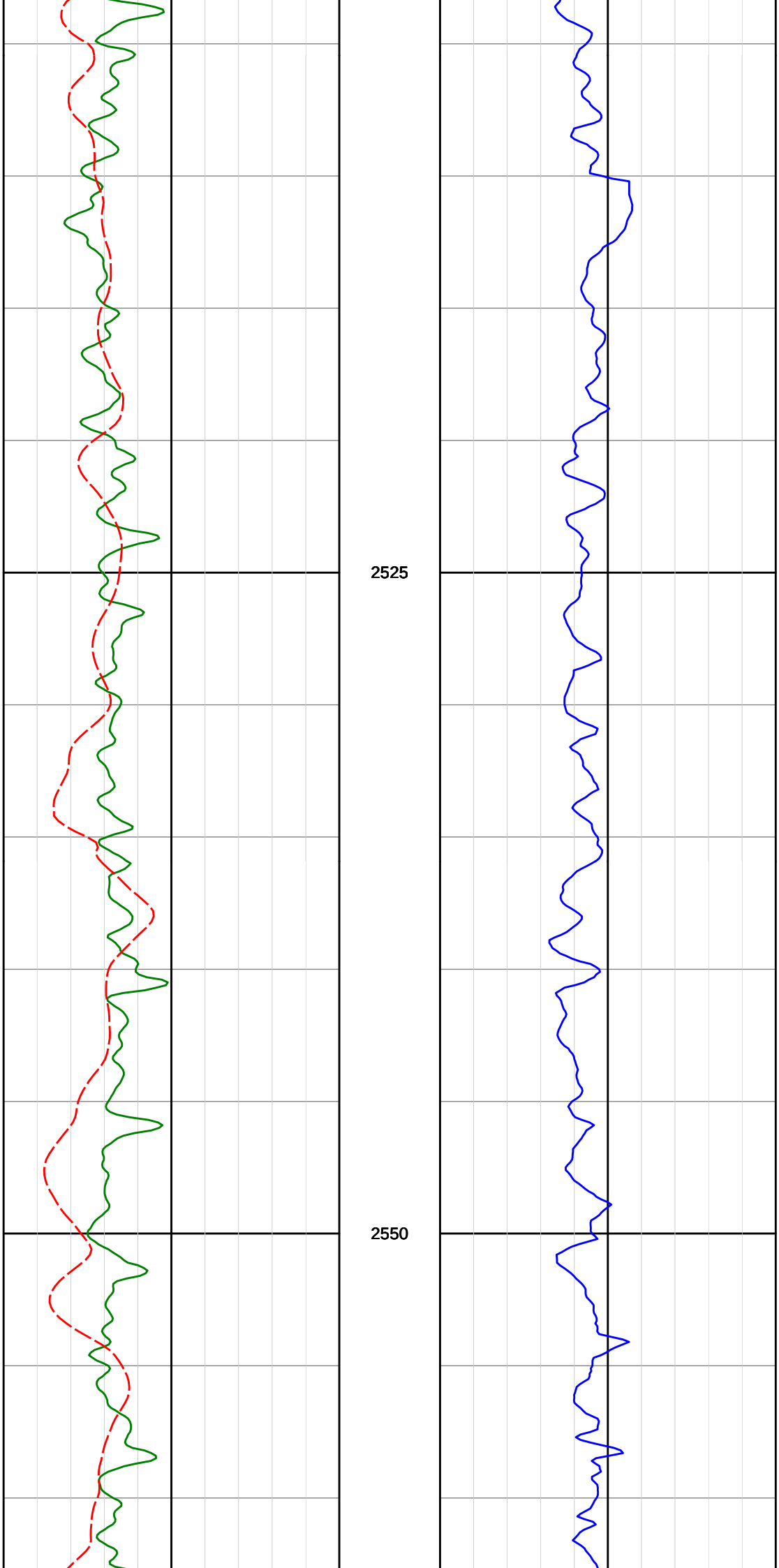
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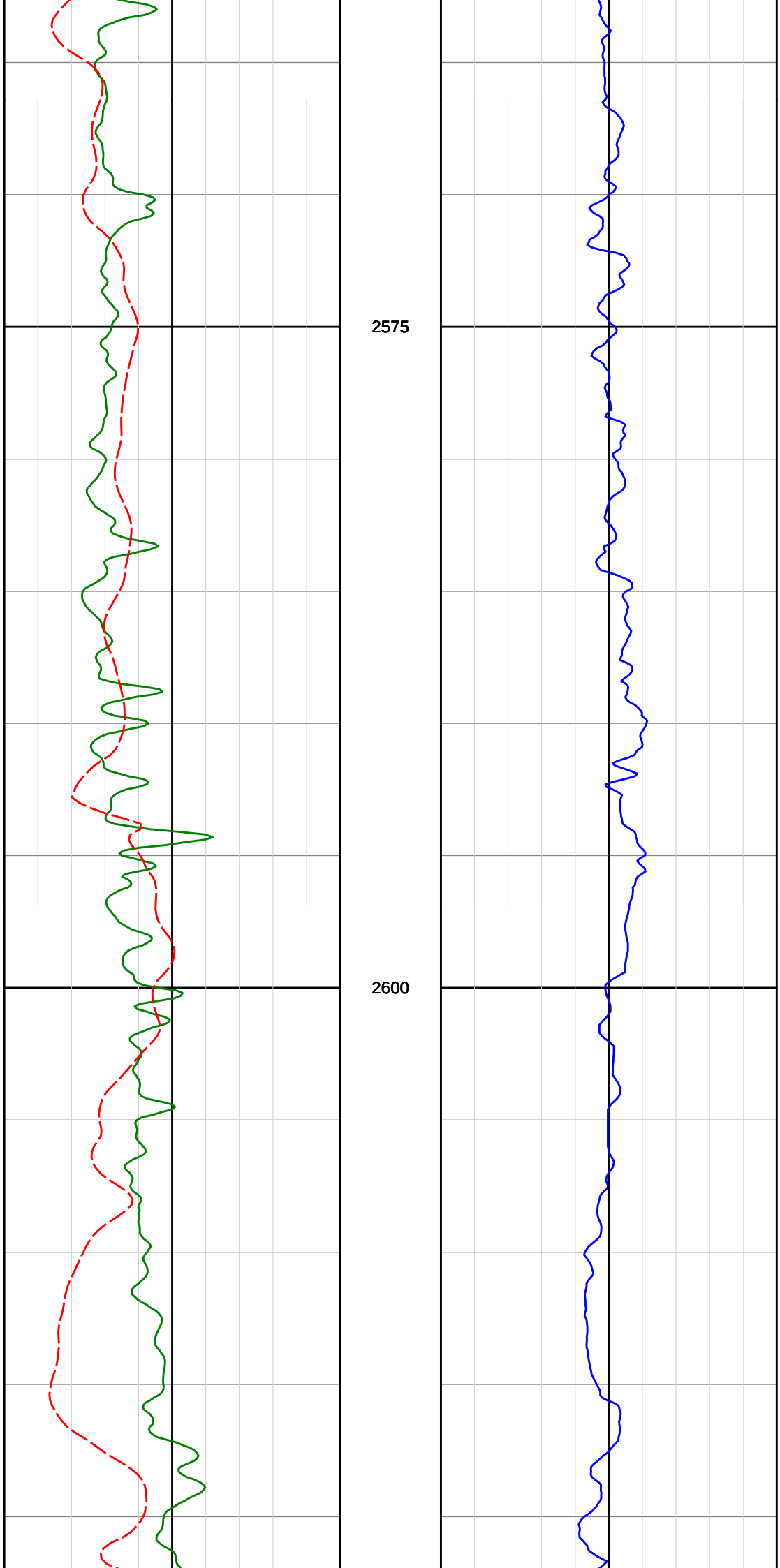
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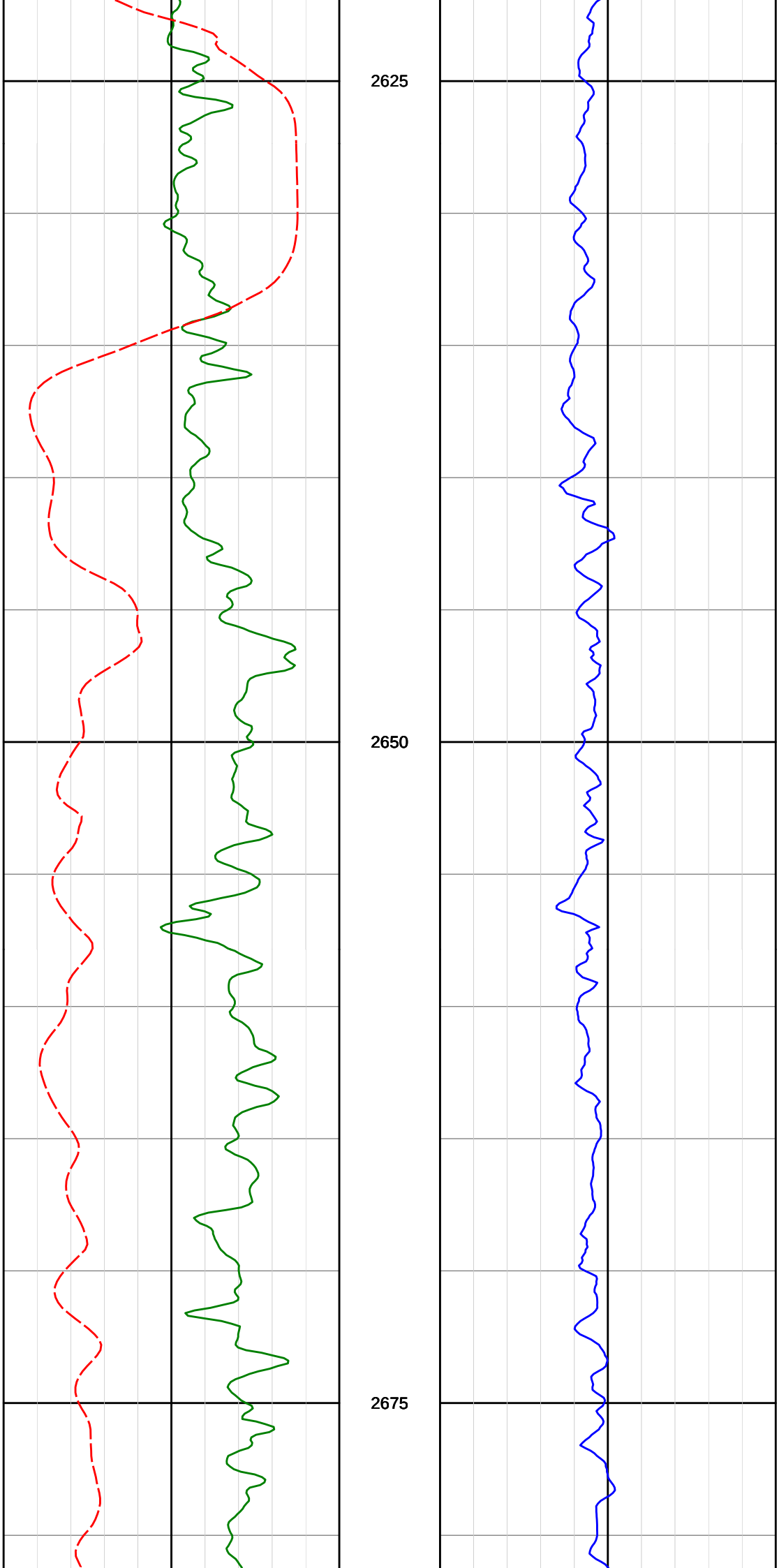
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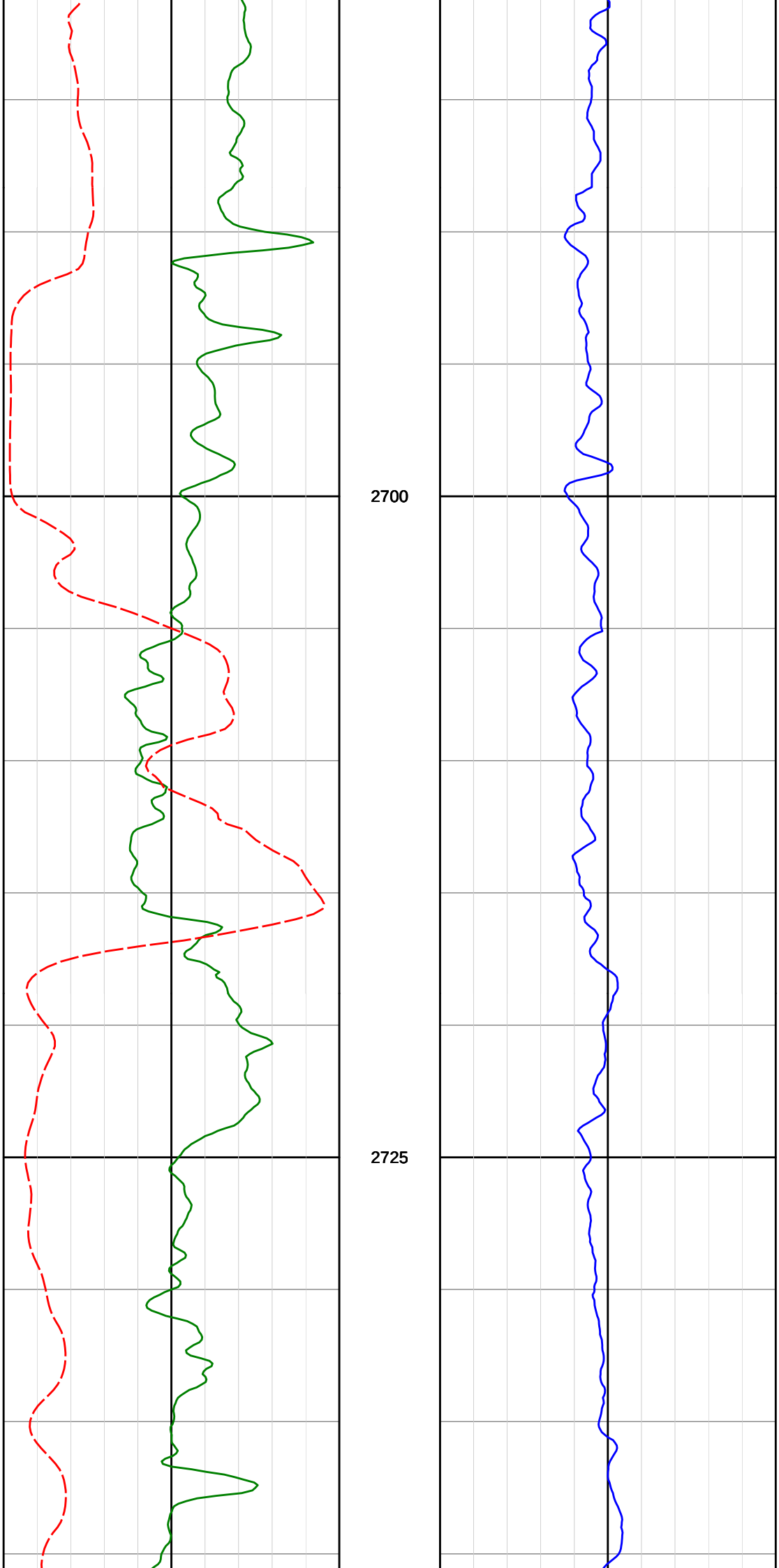
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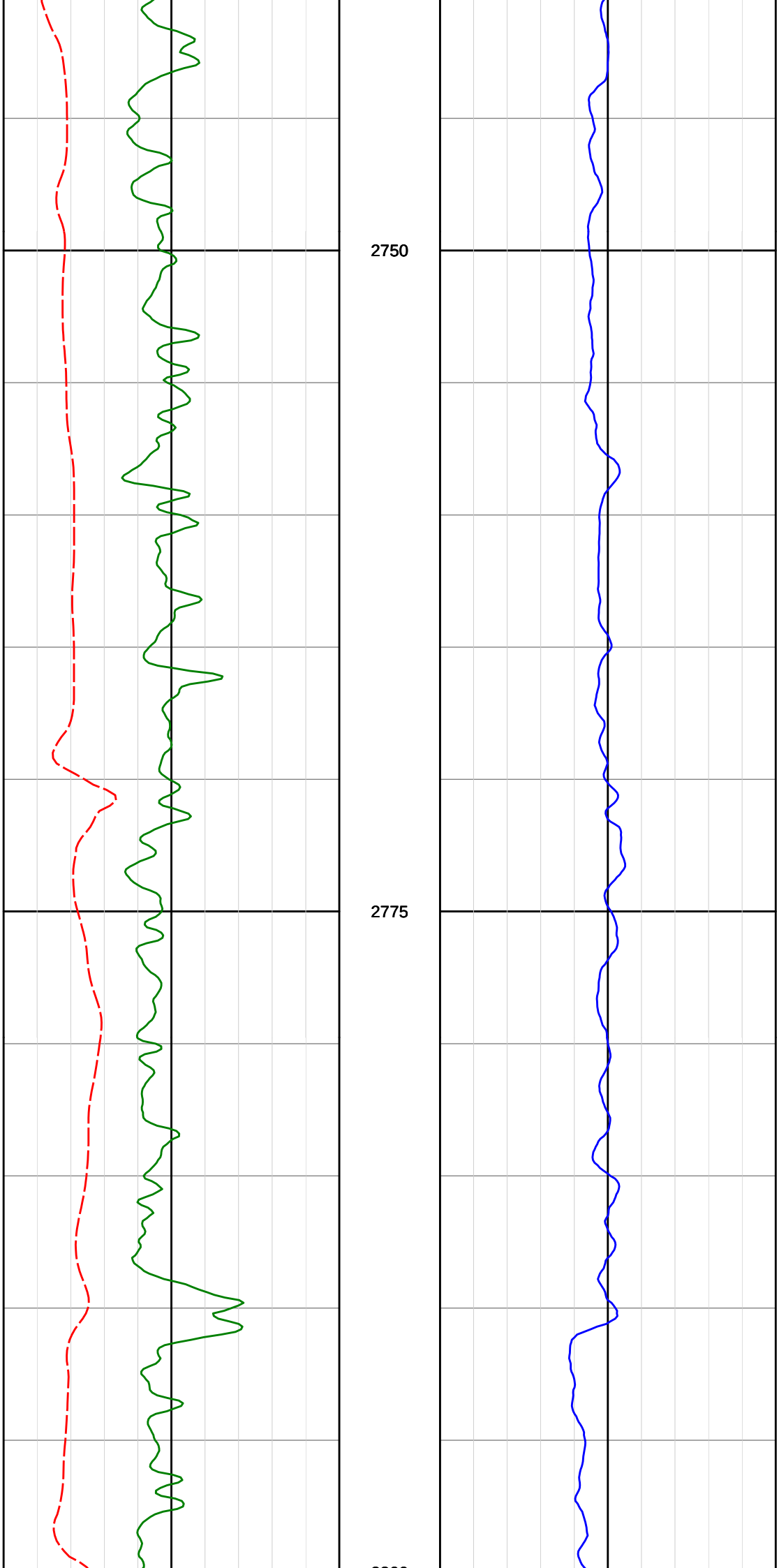
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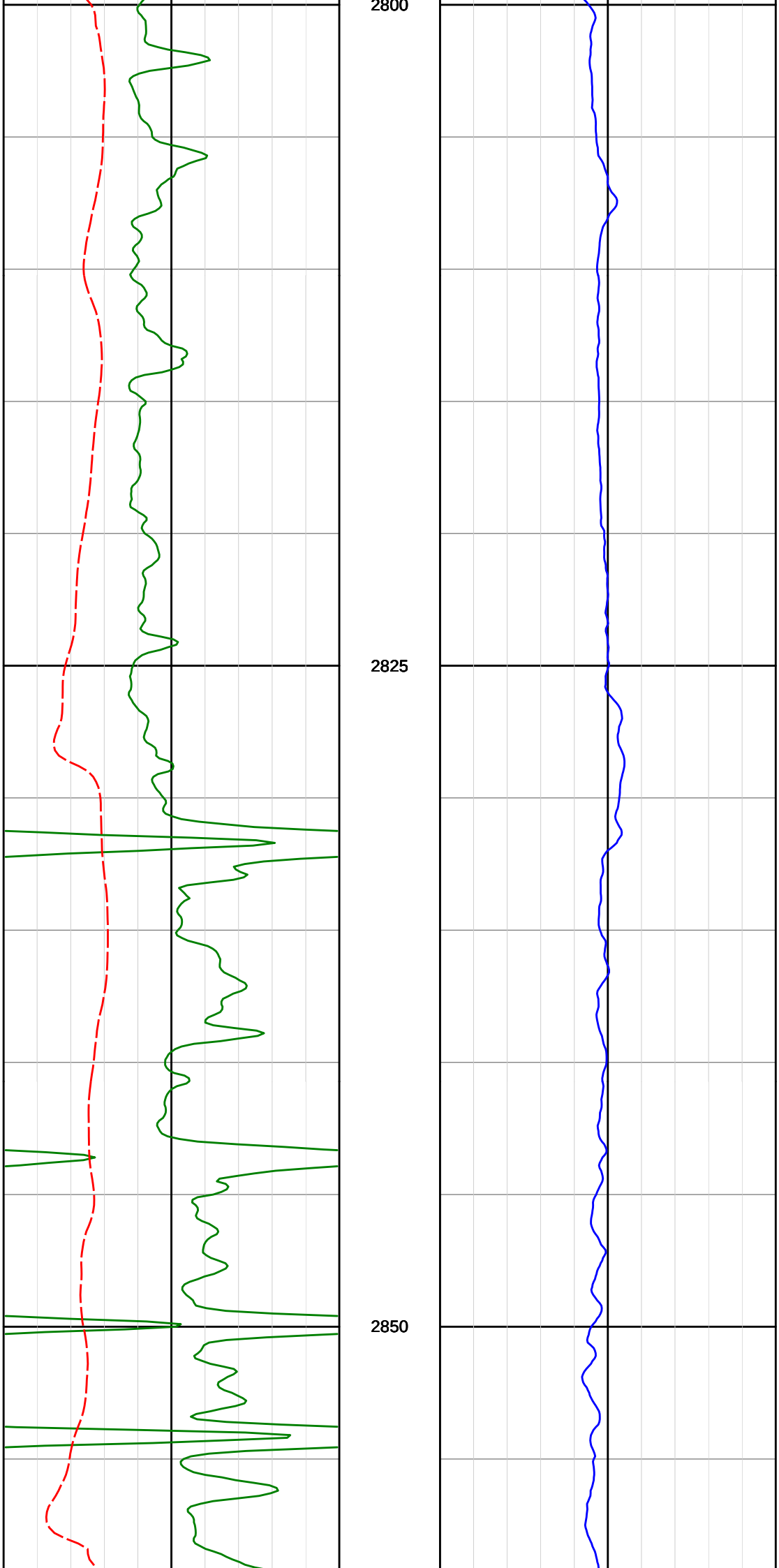
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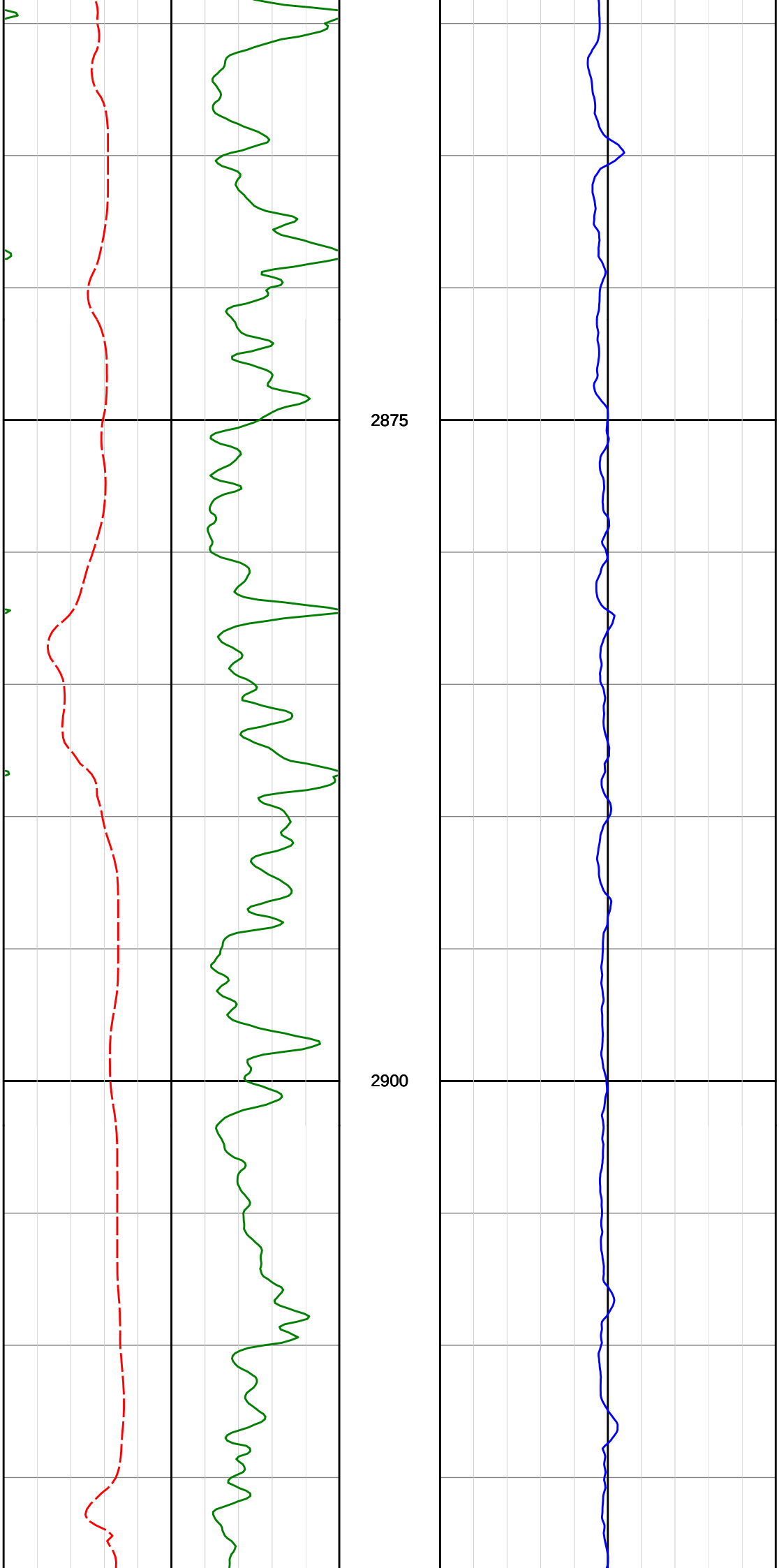
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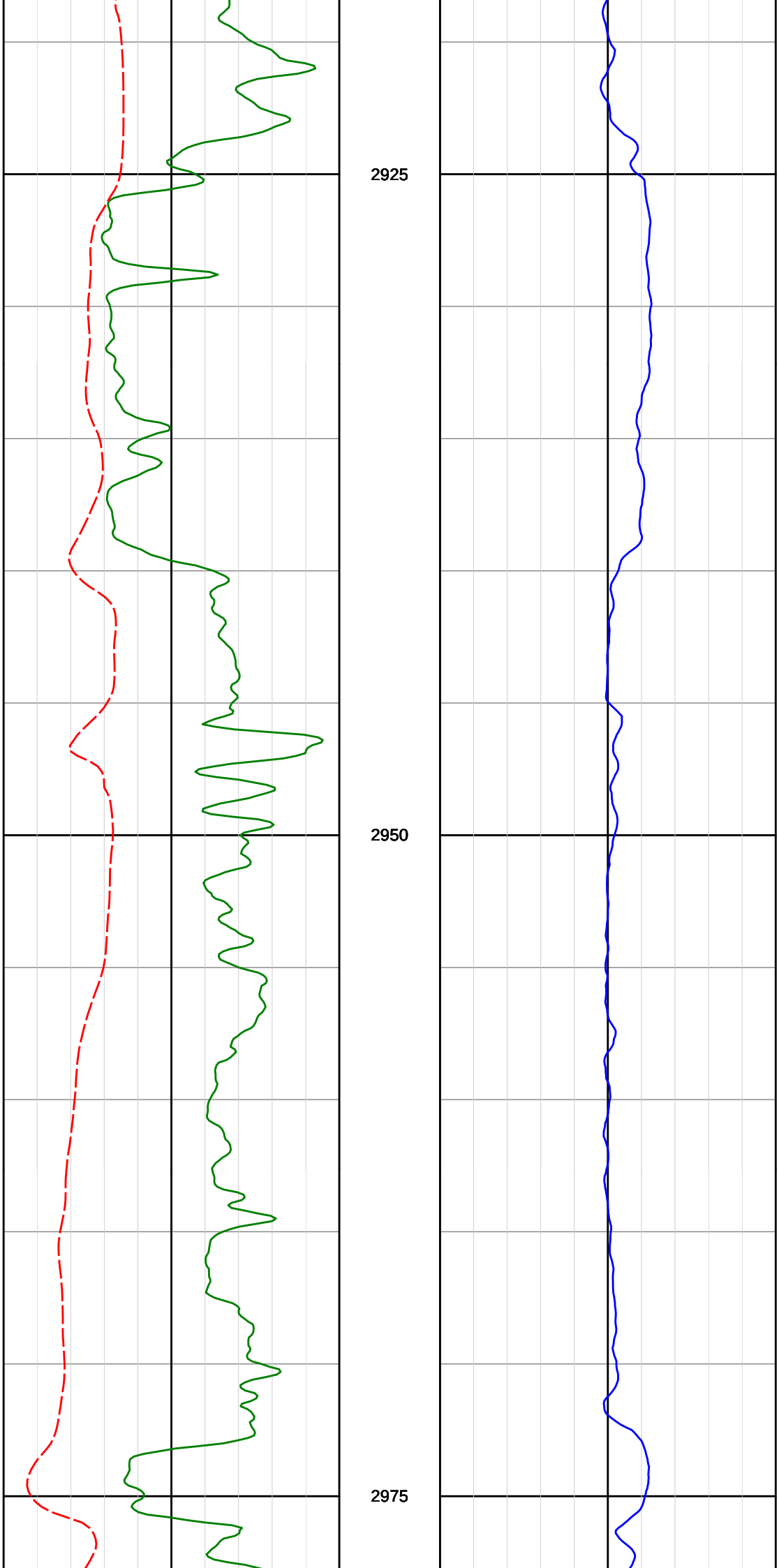
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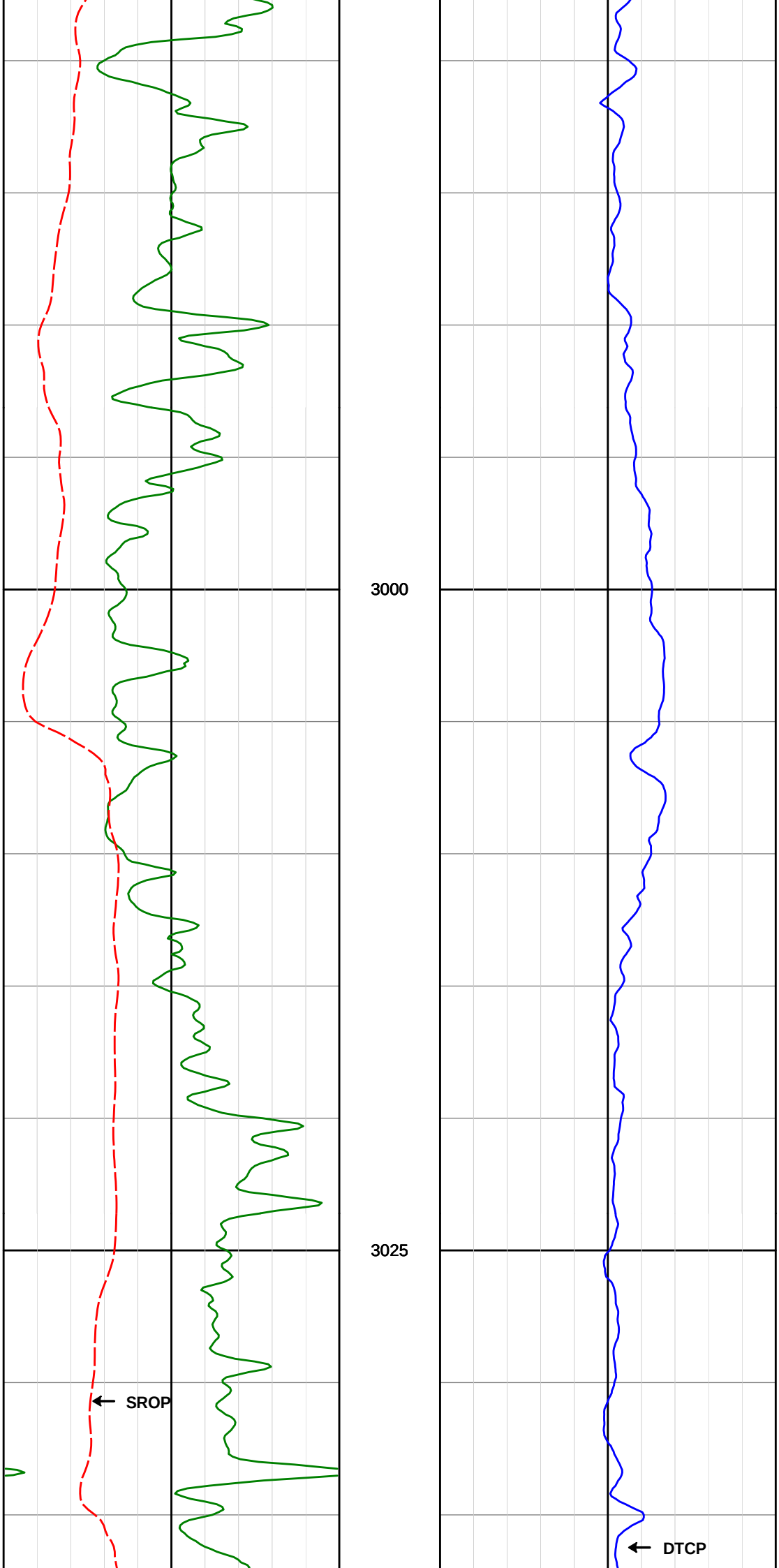
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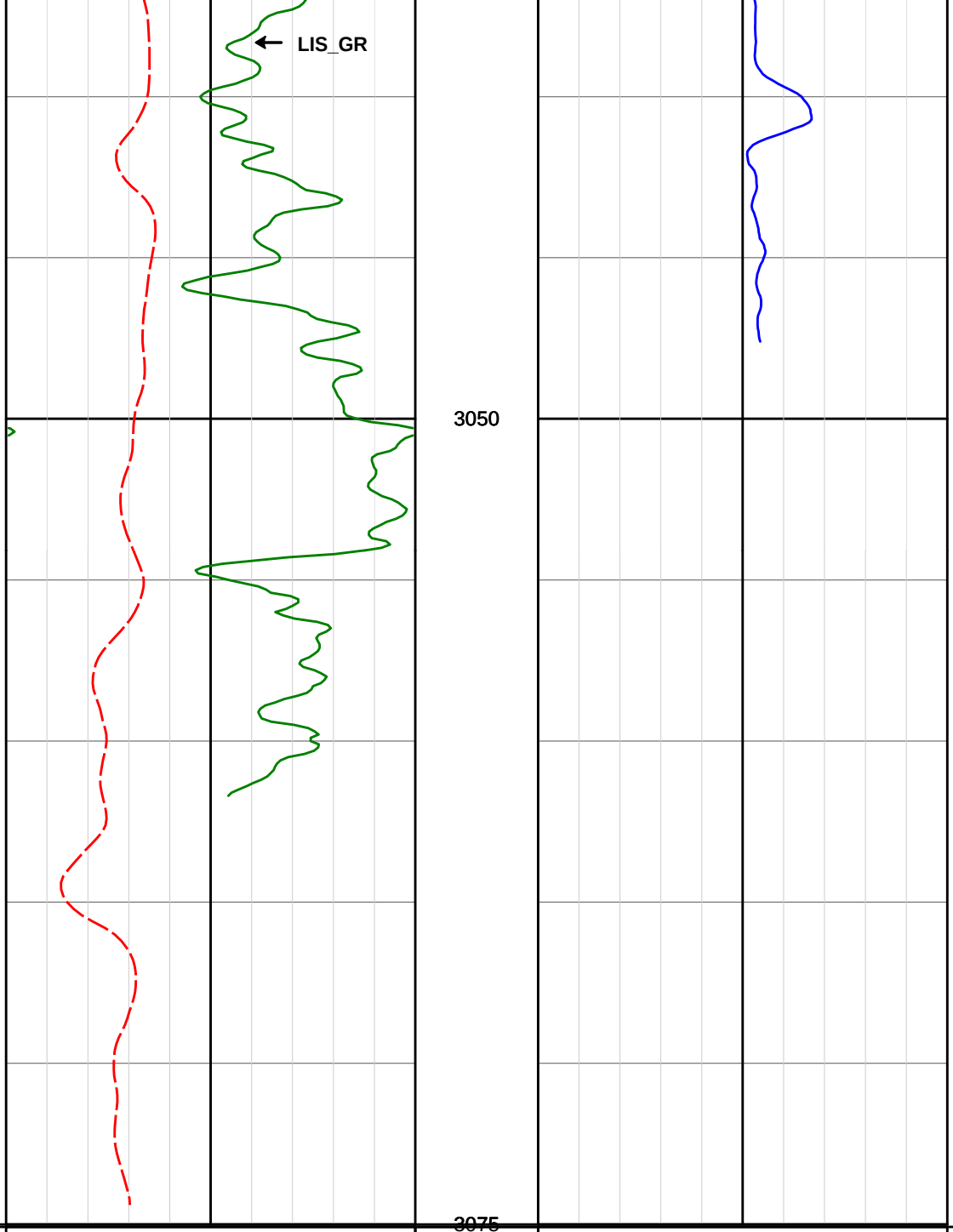
DTCP



LIS_GR (Anadrill)	Depth	Compressional Slowness
0 — 200	MD	140 (DTCP) 40
api	1 : 200	usec/ft

ROP (Anadrill)	
0 — 200	
m/hr	

MWD RUN 100 - BHA

MWD RUN 100 - MWD

	Component Length (m)	Cumulative Length (m)
		264.96
8 x 5-1/2" HWDP	75.180	
		189.78
X-Over Sub	1.220	
		188.56

Sensor Measure Point Distance To Bit (m)

	Component Length (m)	Cumulative Length (m)
Jar	9.330	
X-Over Sub	1.220	179.23
6 x 5-1/2" HWDP	56.400	178.01
X-Over Sub	1.220	121.61
9 x Spiral Drill Collar	83.880	120.39
MWD System	6.250	36.51
X-Over Sub	.360	30.26
MWD System	18.77	29.90
Float Sub	.830	11.13
Anadrill Mud Motor	10.060	10.30
REED RSX661B	.240	0.24

MWD RUN 200 - BHA

	Component Length (m)	Cumulative Length (m)
8 x 5-1/2" HWDP	75.180	264.72
X-Over Sub	1.220	189.54
		188.32

	Sensor Measure Point Distance To Bit (m)
MWD - Sonic BAT Insert	26.530

MWD RUN 200 - MWD

	Component Length (m)	Cumulative Length (m)
Jar	9.330	
X-Over Sub	1.220	178.99
6 x 5-1/2" HWDP	56.400	177.77
X-Over Sub	1.220	121.37
9 x Spiral Drill Collar	83.880	120.15
MWD System	5.960	36.27
X-Over Sub	.370	30.31
MWD System	18.80	29.94
Float Sub	.830	11.14
Anadrill Mud Motor	10.070	10.31
REED RSX661B	.240	0.24

MWD RUN 300 - BHA

	Sensor Measure Point Distance To Bit (m)
MWD - Sonic BAT Insert	26.570

MWD RUN 300 - MWD

	Component Length (m)	Cumulative Length (m)
8 x 5-1/2" HWDP	75.180	264.72
X-Over Sub	1.220	189.54
		188.32

	Component Length (m)	Cumulative Length (m)
Jar	9.330	
X-Over Sub	1.220	178.99
6 x 5-1/2" HWDP	56.400	177.77
X-Over Sub	1.220	121.37
9 x Spiral Drill Collar	83.880	120.15
MWD System	5.960	36.27
X-Over Sub	.370	30.31
MWD System	18.80	29.94
Float Sub	.830	11.14
Anadrill - Mud Motor	10.070	10.31
REED RSX519M	.240	0.24

MWD RUN 400 - BHA

	Sensor Measure Point Distance To Bit (m)
MWD - Sonic BAT Insert	26.570

MWD RUN 400 - MWD

	Component Length (m)	Cumulative Length (m)
8 x 5-1/2" HWDP	75.180	265.10
X-Over Sub	1.220	189.92
		188.70

Sensor Measure Point Distance To Bit (m)

Jar	9.330	
X-Over Sub	1.220	179.37
6 x 5-1/2" HWDP	56.400	178.15
X-Over Sub	1.220	121.75
9 x Spiral Drill Collar	83.880	120.53
MWD System	6.250	36.65
X-Over Sub	.370	30.40
MWD System	18.80	30.03
Float Sub	.830	11.23
Anadrill Mud Motor	10.070	10.40
REED RSX661B	.330	0.33

MWD - Sonic BAT Insert	26.660

HALLIBURTON

BAT Bi-Modal Acoustic

Powered by INSITE

1 : 500

Sperry Drilling Services

Company : Apache Energy Ltd
Rig : West Triton
Well : Coelacanth-1
Field : Exploration
Country : Australia
DOE Number :

Country : Australia
Field : Exploration
Location : Lat: 38° 42' 49.73" South GDA94
Long: 148° 18' 7.01" East GDA94
Well : Coelacanth-1
Company : Apache Energy Ltd
Rig : West Triton

LOCATION

Latitude : Lat: 38° 42' 49.73" South GDA94
Longitude : Long: 148° 18' 7.01" East GDA94
UTM Easting = 613,192.77 m
UTM Northing = 5,714,176.61 m

Other Services

Permanent Datum : Mean Sea Level Elevation : 0.00 m
Log Measured From : Drill Floor 38.00 m Above Permanent Datum
Drilling Measured From : Drill Floor

MD LOG

Elev. KB
DF 38.00 m
GL
WD 90.00 m

Depth Logged : 907.00 m To 3,074.00 m
Date Logged : 15-Mar-08 To 22-Mar-08
Total Depth MD : 3,074.00 m TVD : 3,074.00 m
Spud Date : 14-Mar-08

Unit No. : BHI Unit
Job No. :AU-FE-0005617883
Plot Type : Final
Plot Date : 08-Apr-08

Run No.	Borehole Record (MD) Size	From	To
100	216.000 mm	907.00 m	1998.00 m
200	216.000 mm	1998.00 m	2116.00 m
300	216.000 mm	2116.00 m	2700.00 m
400	216.000 mm	2700.00 m	3074.00 m

Run No.	Casing Record (MD) Size	Weight	From	To
	508.000 mm	198.00 kg/m	128.00 m	275.70 m
	244.000 mm	70.00 kg/m	128.00 m	902.60 m

Run No.	Borehole Record (MD) Size	From	To

WELL INFORMATION

MWD Run Number	100	200	300	400	
Date run completed	18-Mar-08	19-Mar-08	21-Mar-08	22-Mar-08	
Rig Bit Number	3	4	5	6	
Bit Size (mm)	216	216	216	216	
Tool Nominal OD (mm)	171	171	171	171	
Log Start Depth (MD, m)	907.00	1,998.00	2,116.00	2,700.00	
Log End Depth (MD, m)	1,998.00	2,116.00	2,700.00	3,074.00	
Drill or Wipe	Drilling	Drilling	Drilling	None	
Drill/Wipe Start Date and Time	15-Mar-08 08:20	18-Mar-08 19:16	19-Mar-08 17:33	21-Mar-08 15:25	
Drill/Wipe End Date and Time	17-Mar-08 22:23	19-Mar-08 05:11	20-Mar-08 19:41	22-Mar-08 03:48	
Min Inc (deg) @ Depth (MD, m)	0.37 @ 1,006.93	0.26 @ 2,101.07	0.23 @ 2,307.17	0.57 @ 2,750.62	
Max Inc (deg) @ Depth (MD, m)	0.99 @ 1,420.57	0.73 @ 1,983.37	0.56 @ 2,474.75	0.68 @ 2,867.93	
Bit TFA(in2) / Bit Type	0.92 / REED RSX661B	0.92 / REED RSX661B	0.92 / REED RSX519M	0.90 / REED RSX661B	
Flow Rate (gpm)	575	653	687	704.00	
Max AV (mpm) / CV (mpm) @ MWD	160.8 / 114.0	183.0 / 149.4	192.6 / 181.8	196.8 / 156.0	
Fluid Type	KCl Polymer	KCl Polymer	KCl Polymer	KCl Polymer	
Density (sg) / Viscosity (spl)	1.18 / 43.00	1.17 / 58.00	1.16 / 60.00	1.19 / 59.00	
Filtrate CL (ppm)	49,000	55,000	44,000	46,000	
pH / Fluid Loss (cptm)	9.00 / 6.0	9.50 / 5.0	9.00 / 5.0	9.00 / 5.0	
PV (cP) / YP (pa)	8 / 9.58	17 / 12.45	23 / 16.28	8 / 19.15	
% Solids / % Sand	5.1 / 0.5	3.5 / 0.5	5.5 /	4.8 / 0.02	
% Oil / Oil:Water Ratio	0 / 0:91	0 / 0:92	0 / 0:91	0 / 0:92	
Rm @ Measured Temp (degC)	0.09 @ 22	0.1 @ 21	0.1 @ 22	0.1 @ 20	
Rmf @ Measured Temp (degC)	0.08 @ 22	0.08 @ 21	0.08 @ 21	0.09 @ 21	
Rmc @ Measured Temp (degC)	0.12 @ 22	0.15 @ 21	0.13 @ 22	0.14 @ 21	
Max Tool Temp (degC) / Source	55 / BAT	55 / BAT	62. / BAT	74 / BAT	
Rm @ Max Tool Temp (degC)	0.05 @ 55	0.06 @ 55	0.05 @ 62	0.04 @ 74	
Lead MWD Engineer	J. Povey	J. Povey	J. Povey	J. Povey	
Customer Representative	M. Pinson	M. Pinson	M. Pinson	M. Pinson	

SENSOR INFORMATION

Sonic Sensor Information

Tool Type	BAT	BAT	BAT	BAT	
Distance From Bit (m)	26.53	26.57	26.57	26.66	
Recorded Sample Period (sec)	16	16	16	16	
Sub Serial Number	150519	150519	150519	150519	
Receiver Insert Serial Number	160902	160902	160902	160902	
Transmitter Insert Serial Number	176072	176072	176072	176072	
MIT File	R5Max_Run.mit	R5Max_Run.mit	R5Max_Run.mit	R5Max_Run.mit	
Config File	R5Max_Run.cfn	R5Max_Run.cfn	R5Max_Run.cfn	R5Max_Run.cfn	
Real-Time Window (uspf)	240 - 40	240 - 40	240 - 40	240 - 40	
Battery Serial Insert Number	157179	157179	157179	157179	
MCM Software Version	4.45	4.45	4.45	4.45	
DAQ1/DAQ2 Software Version	/	/	/	/	
DSM Software Version					

REMARKS

1. All depths are bit depthes and are referenced to the drillers tally unless otherwise noted as aquired from Anadrill.

2. AV/CV is calculated at the MWD collar using powers law for water based muds.

3. Curve Mnemonics used are:

   SROP: Smoothed Rate of Penetration (Anadrill), m/hr
   LIS_GR: Smoothed Gamma Ray (Anadrill),api
   DTCP: Smoothed BAT processed Compressional Slowness,usec/ft

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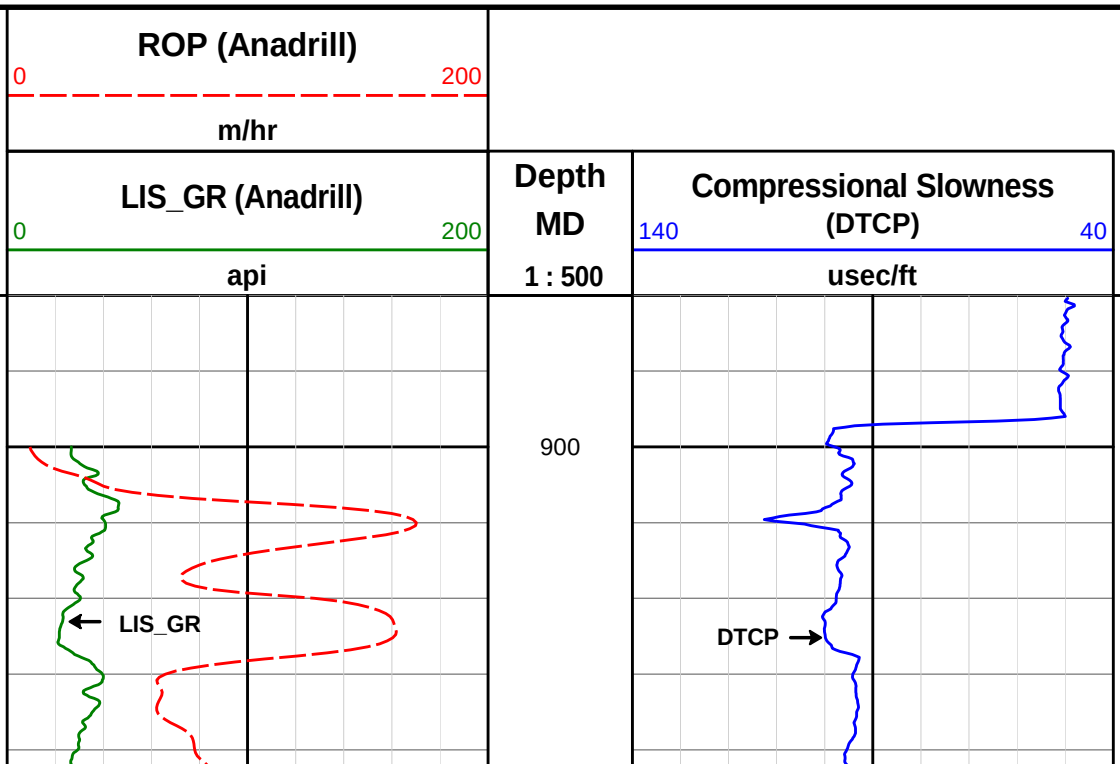

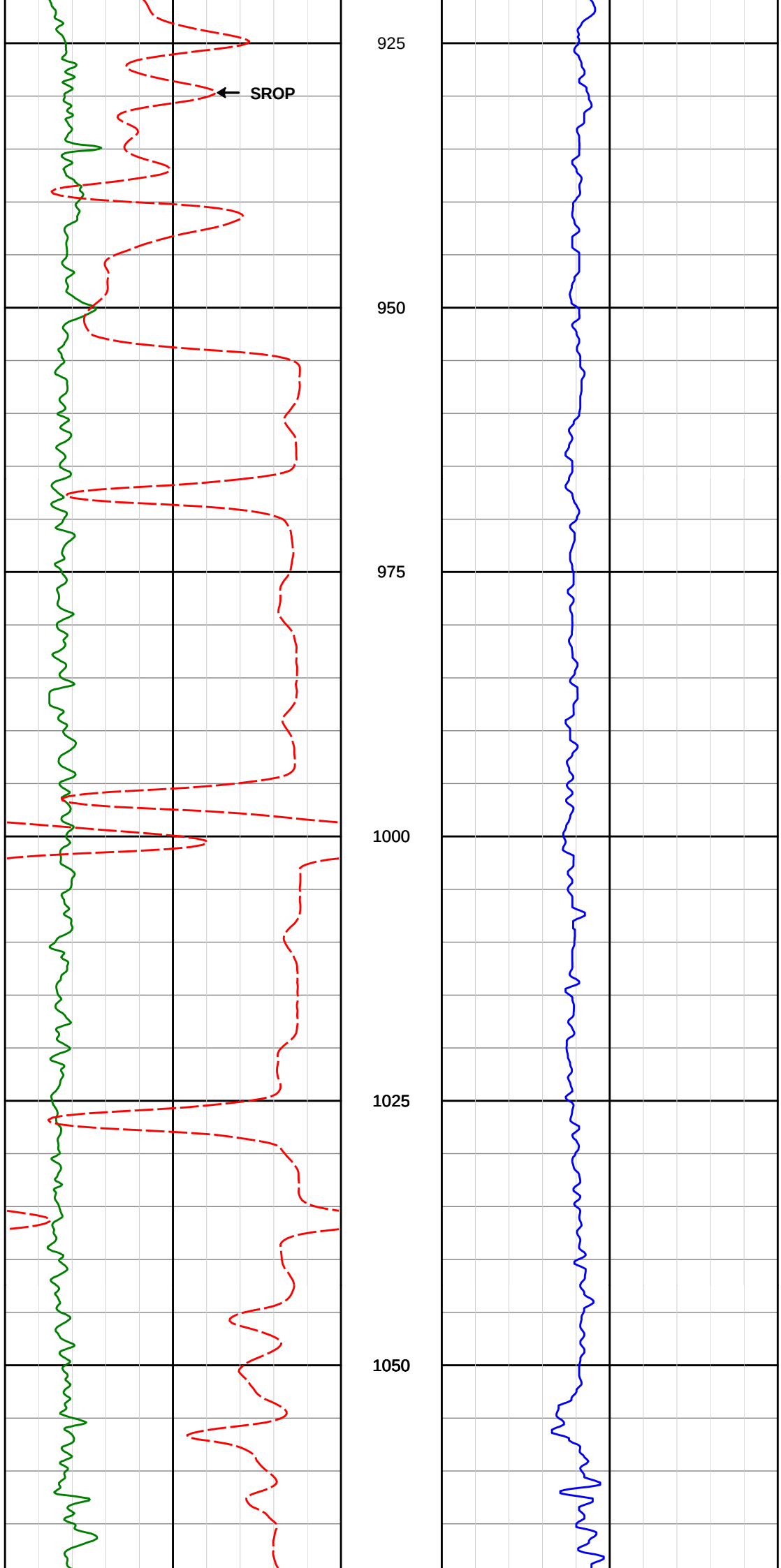
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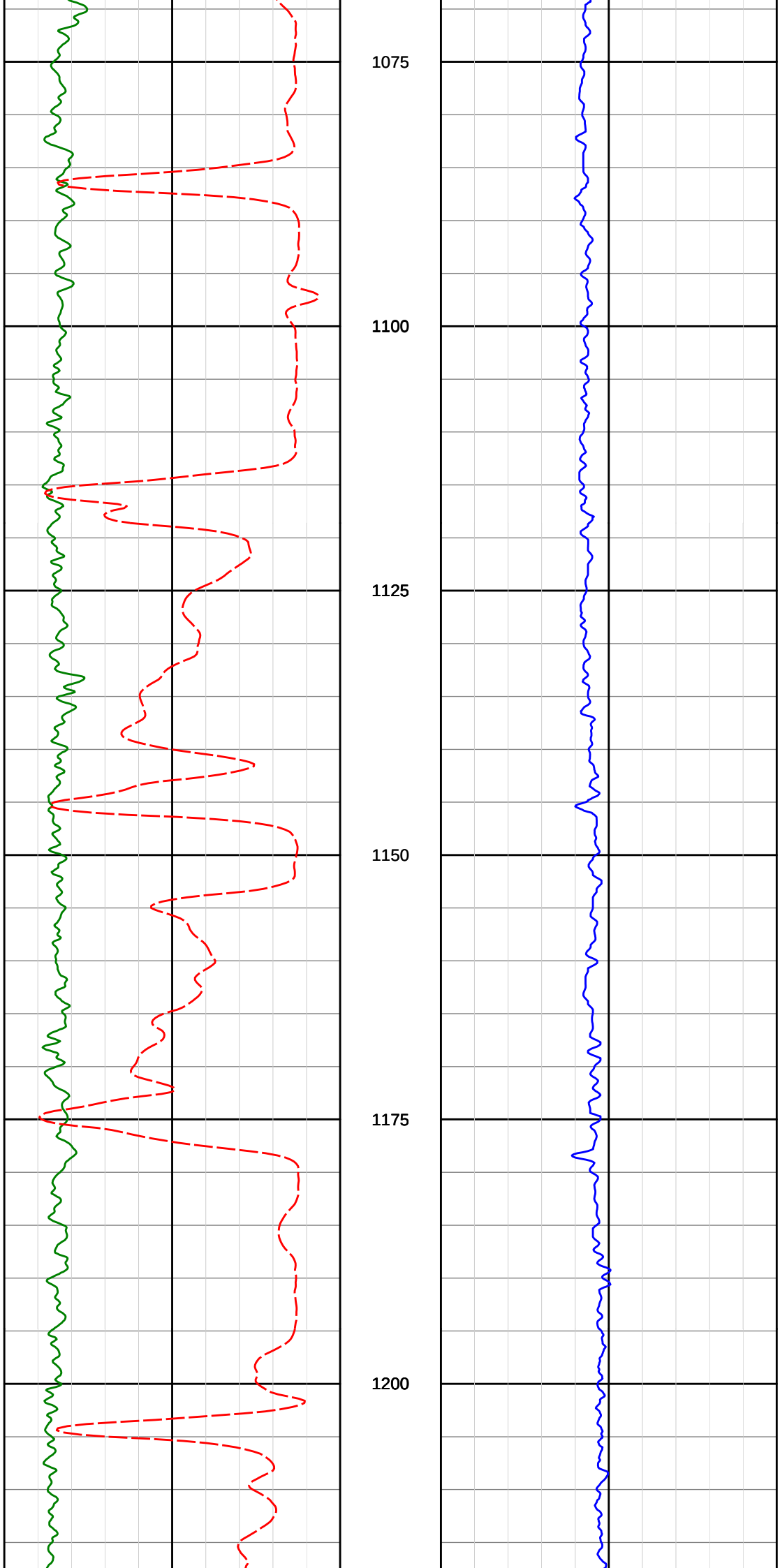
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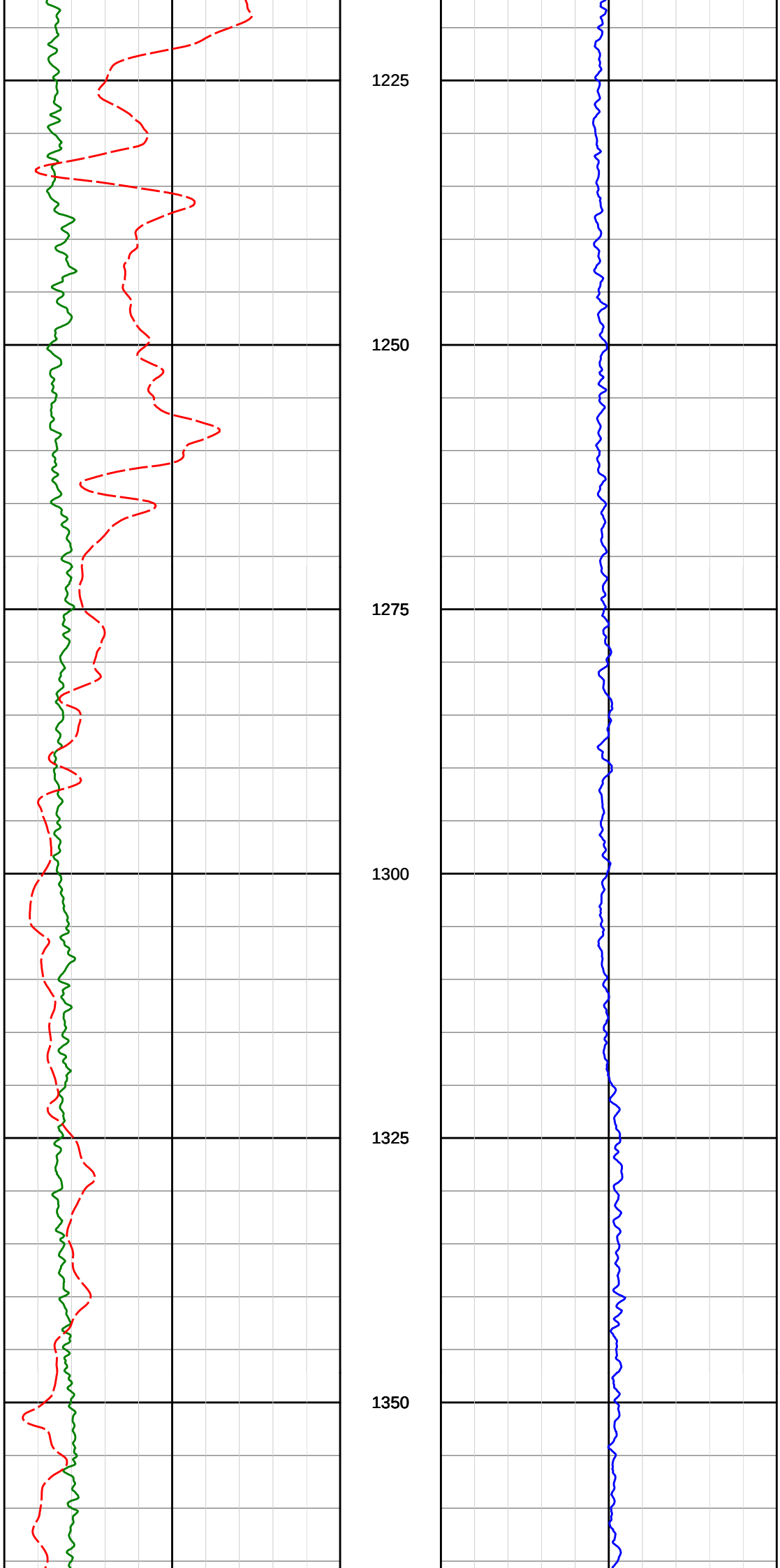
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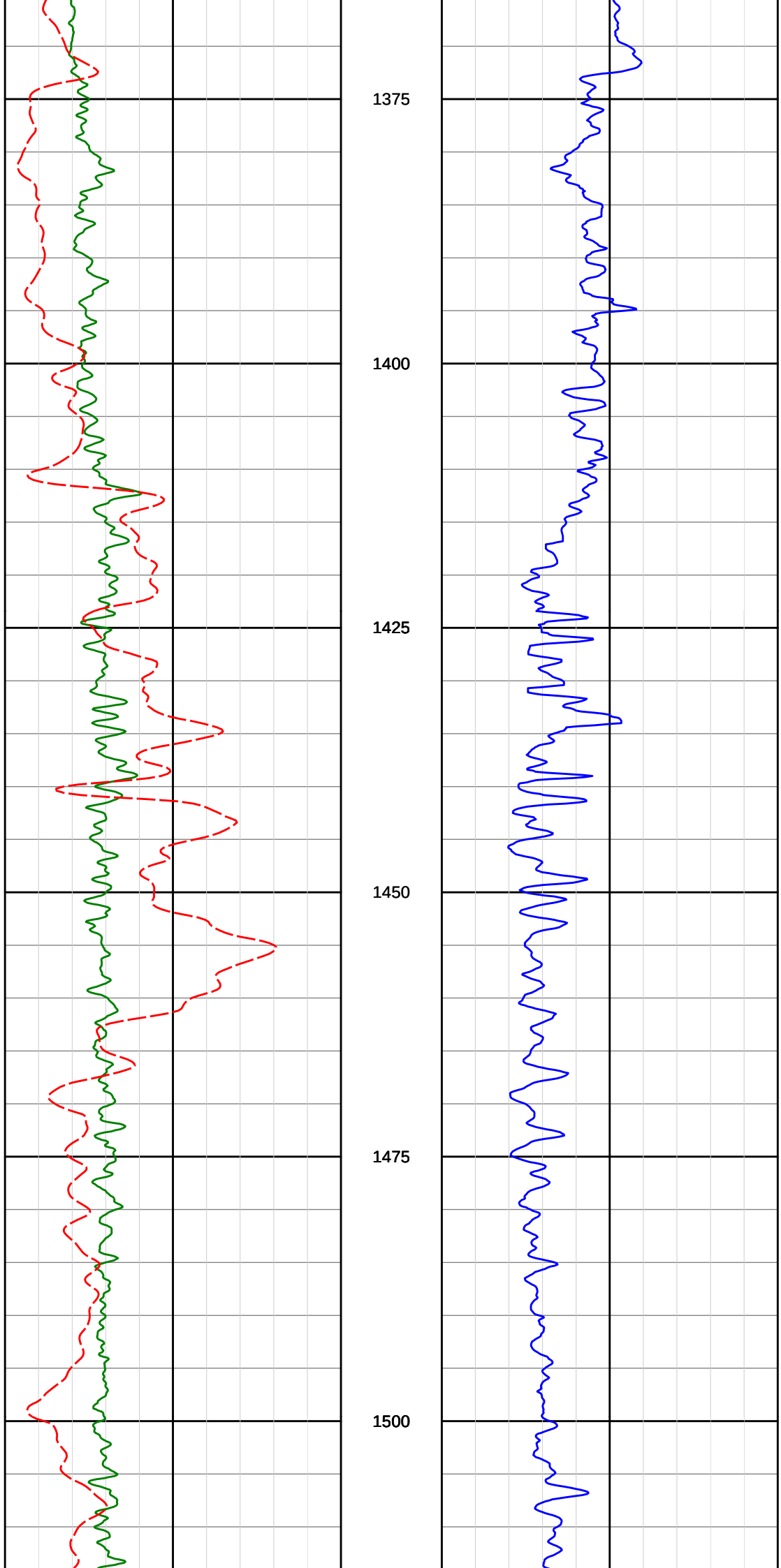
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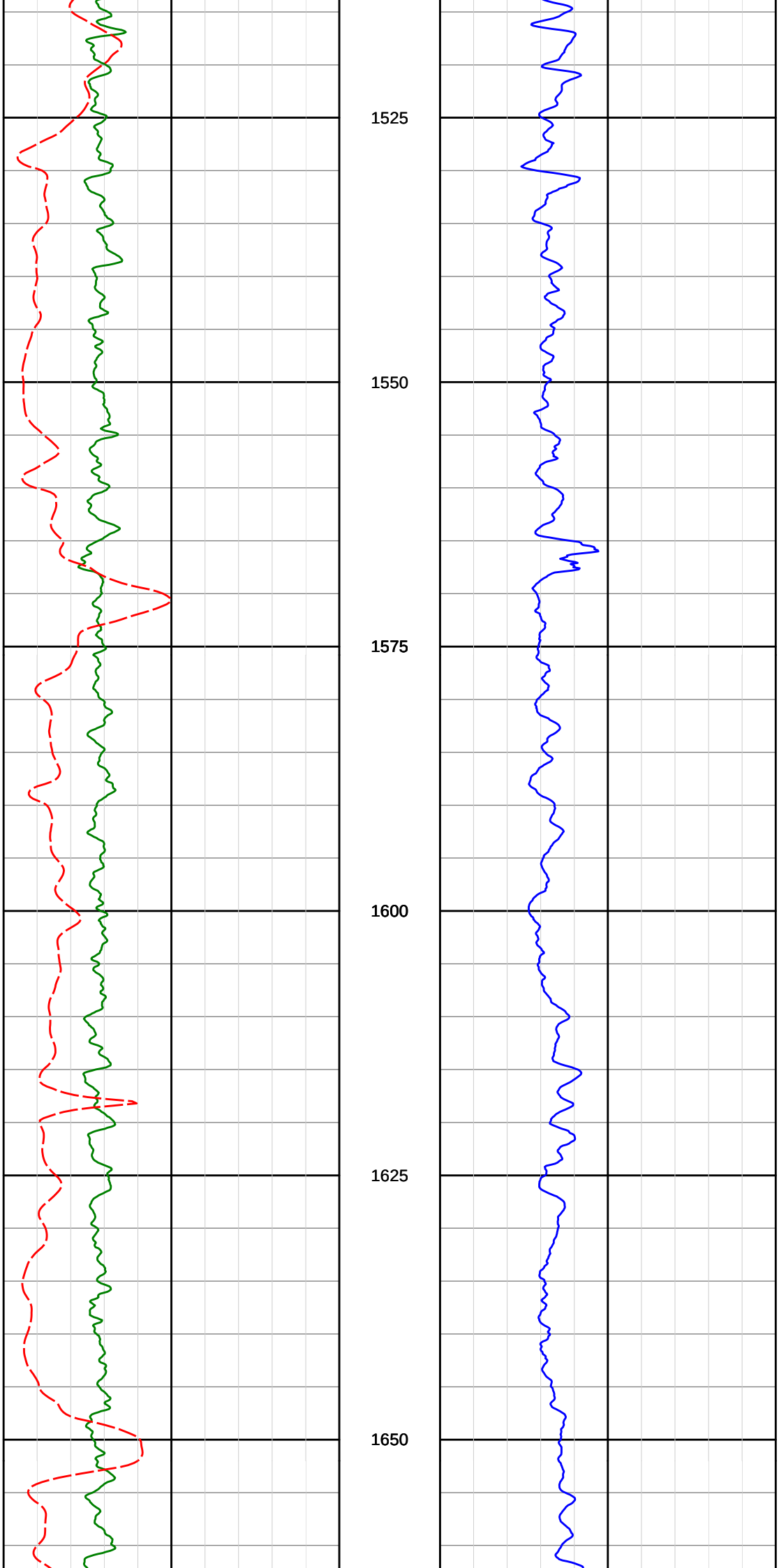
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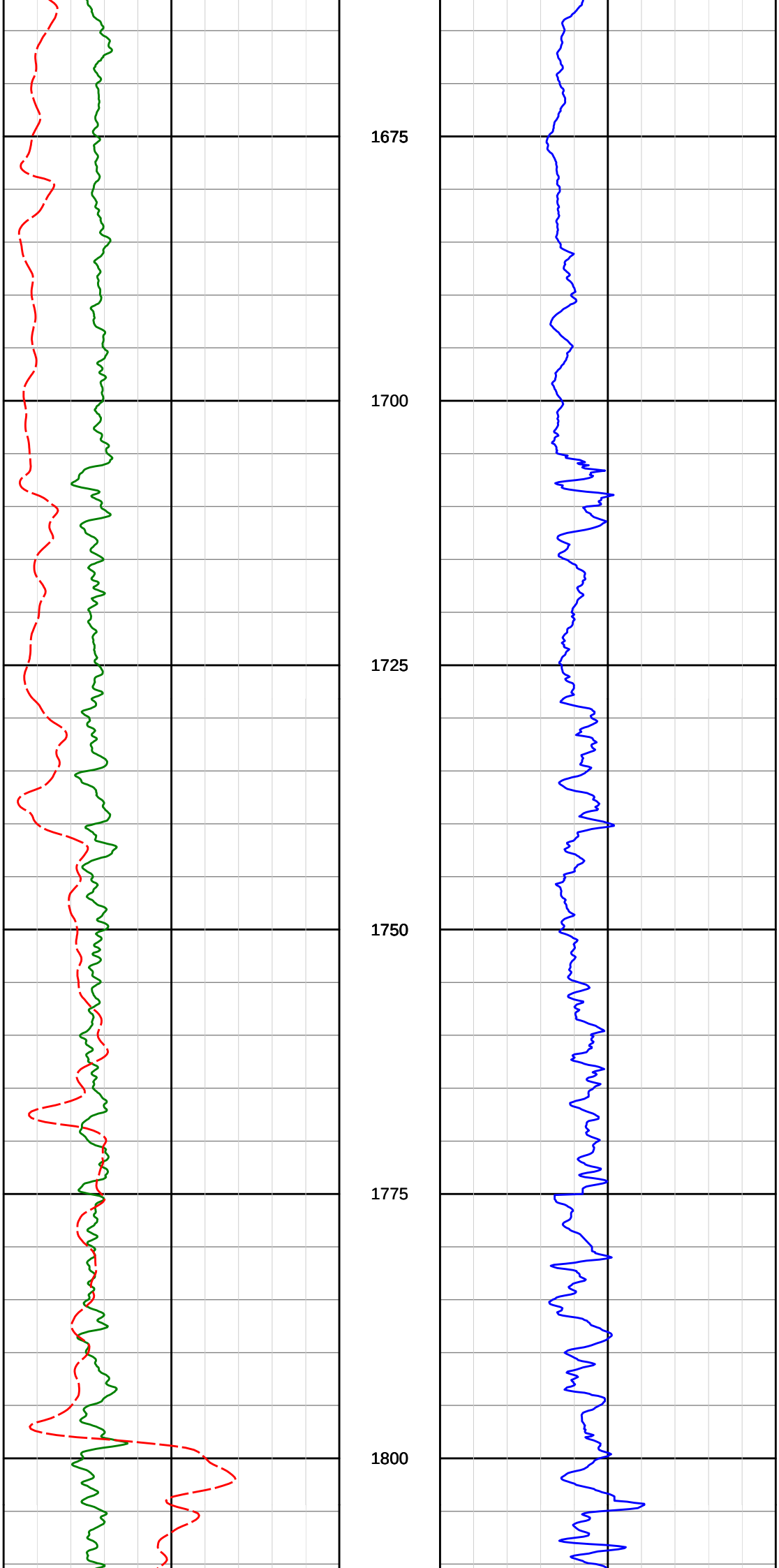
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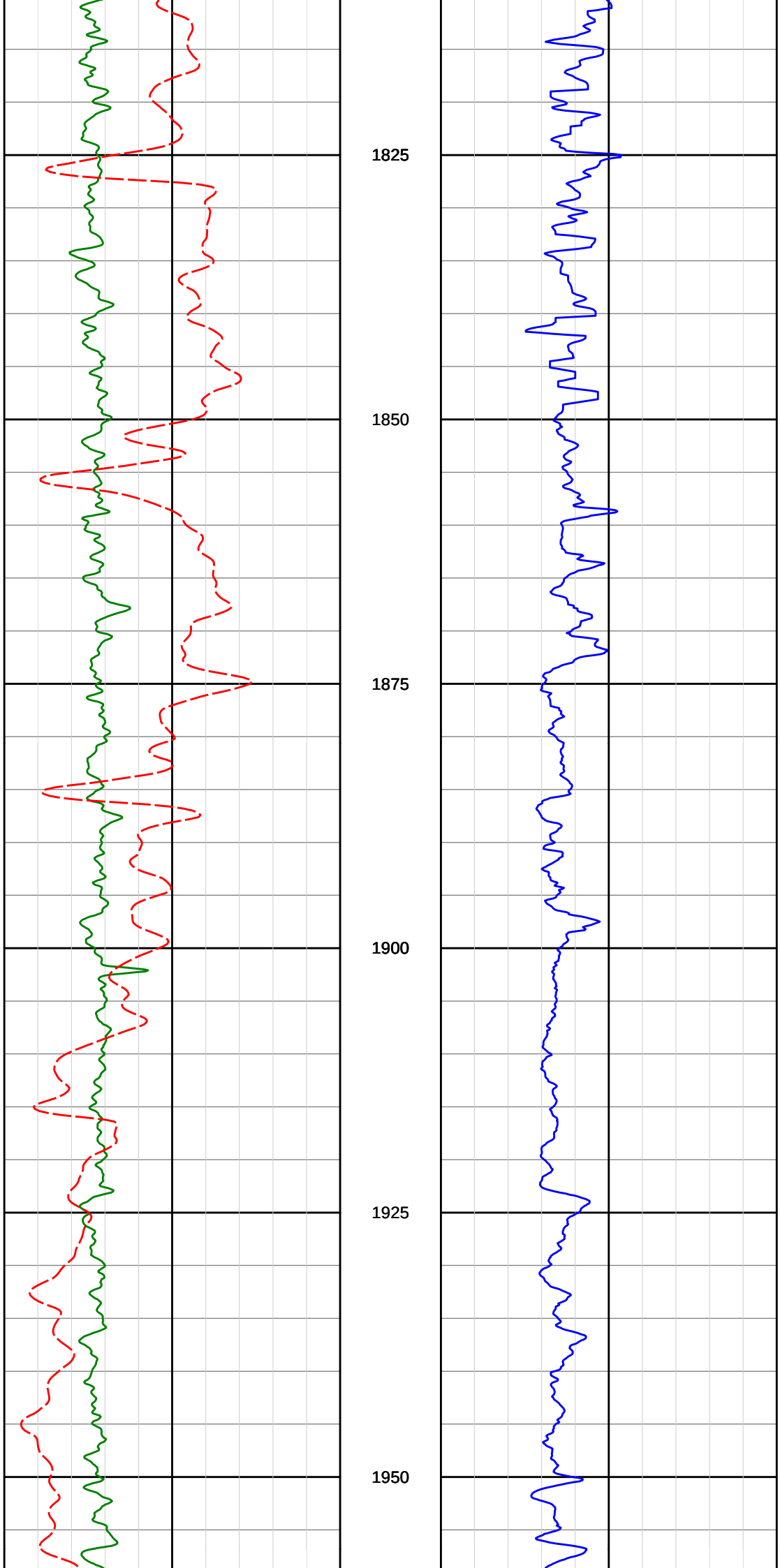
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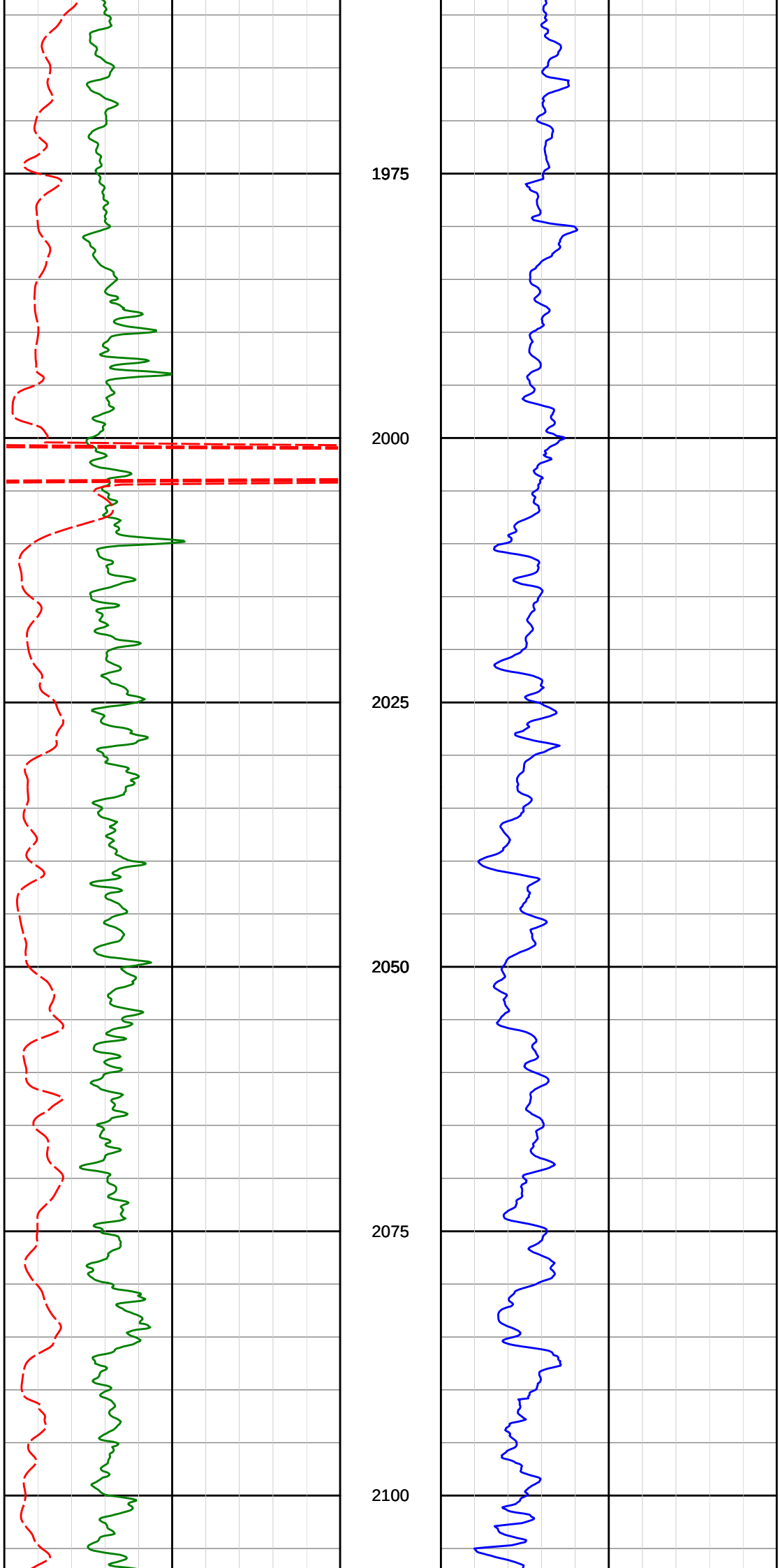
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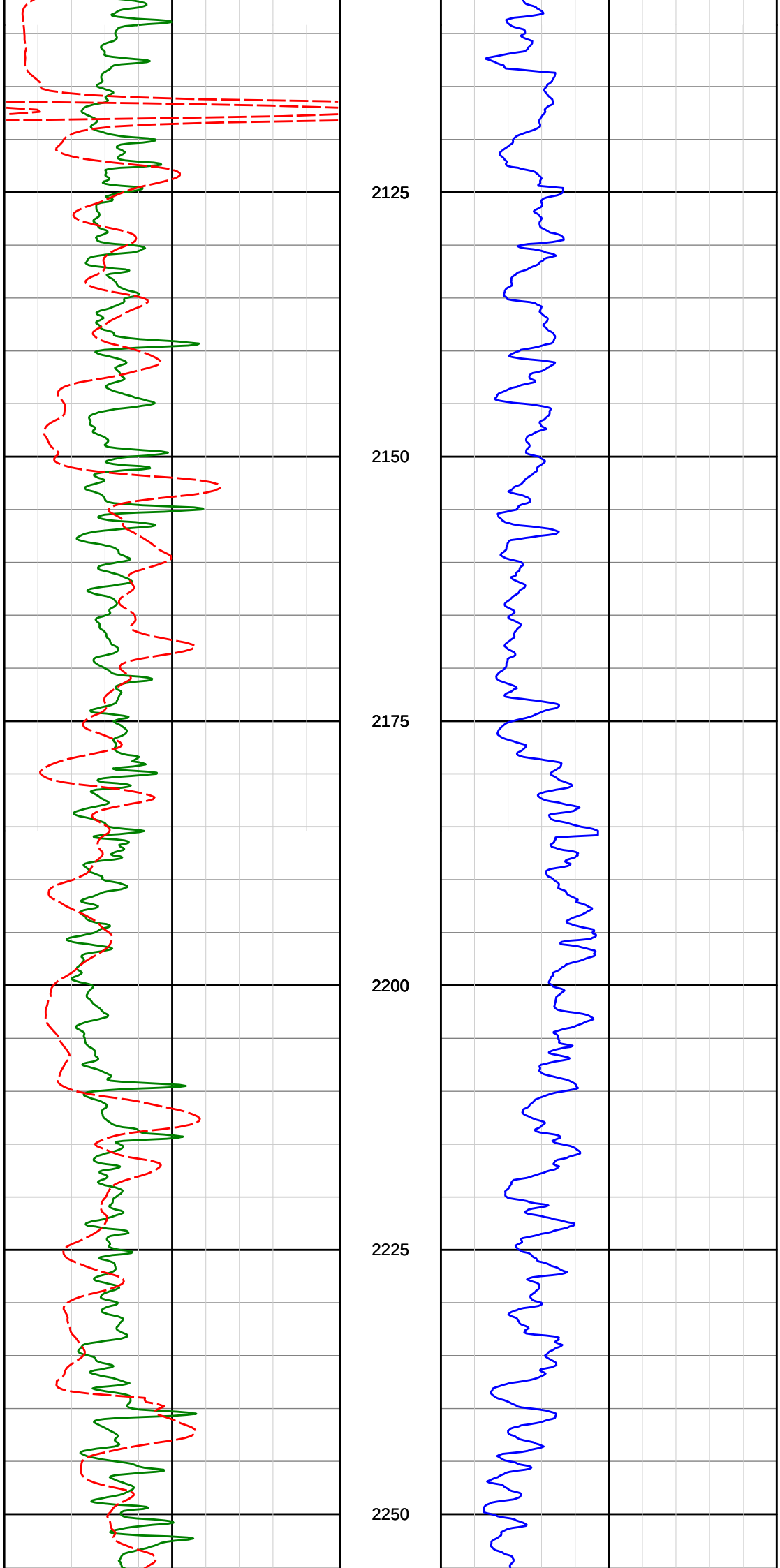
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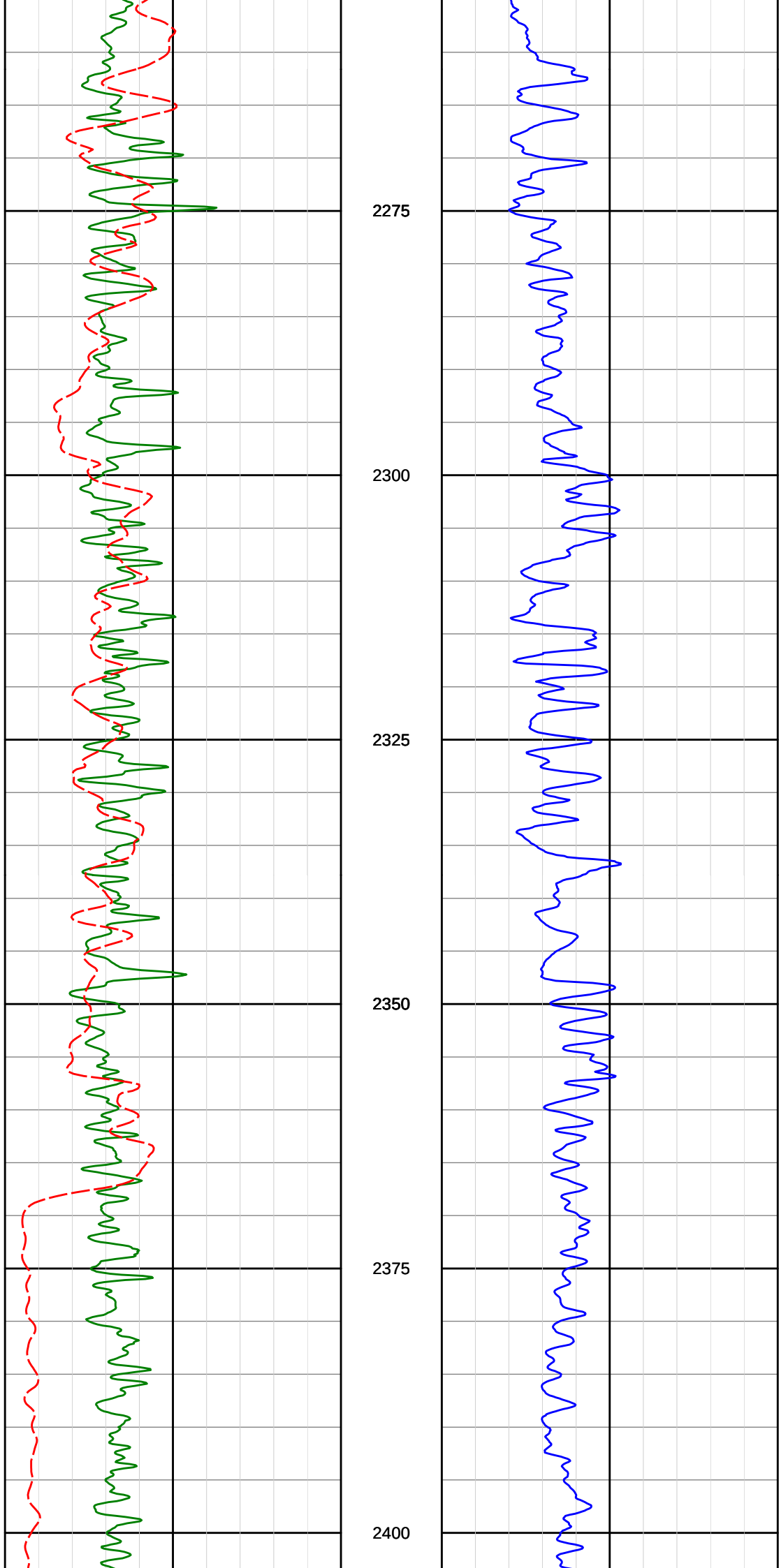
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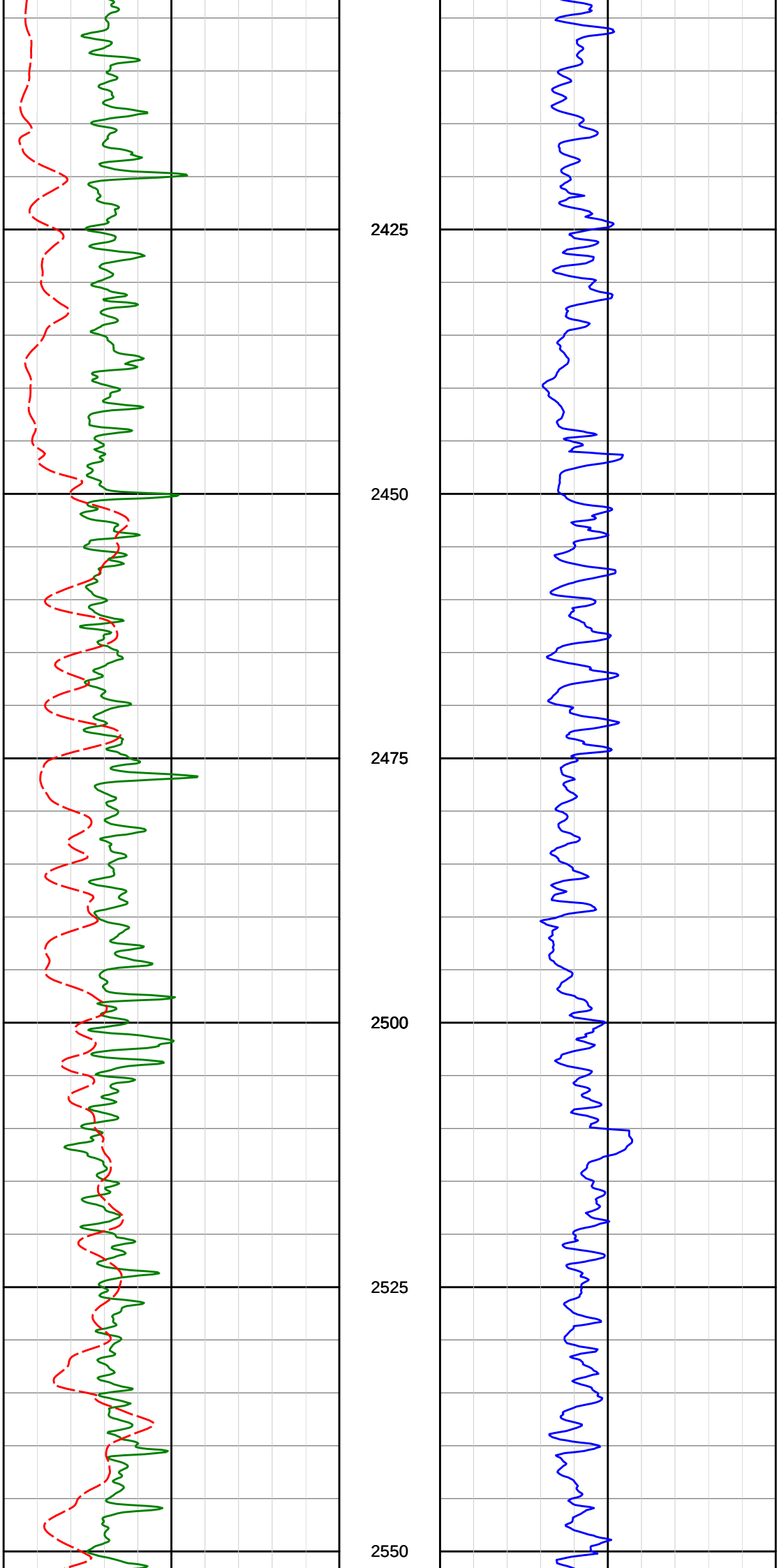
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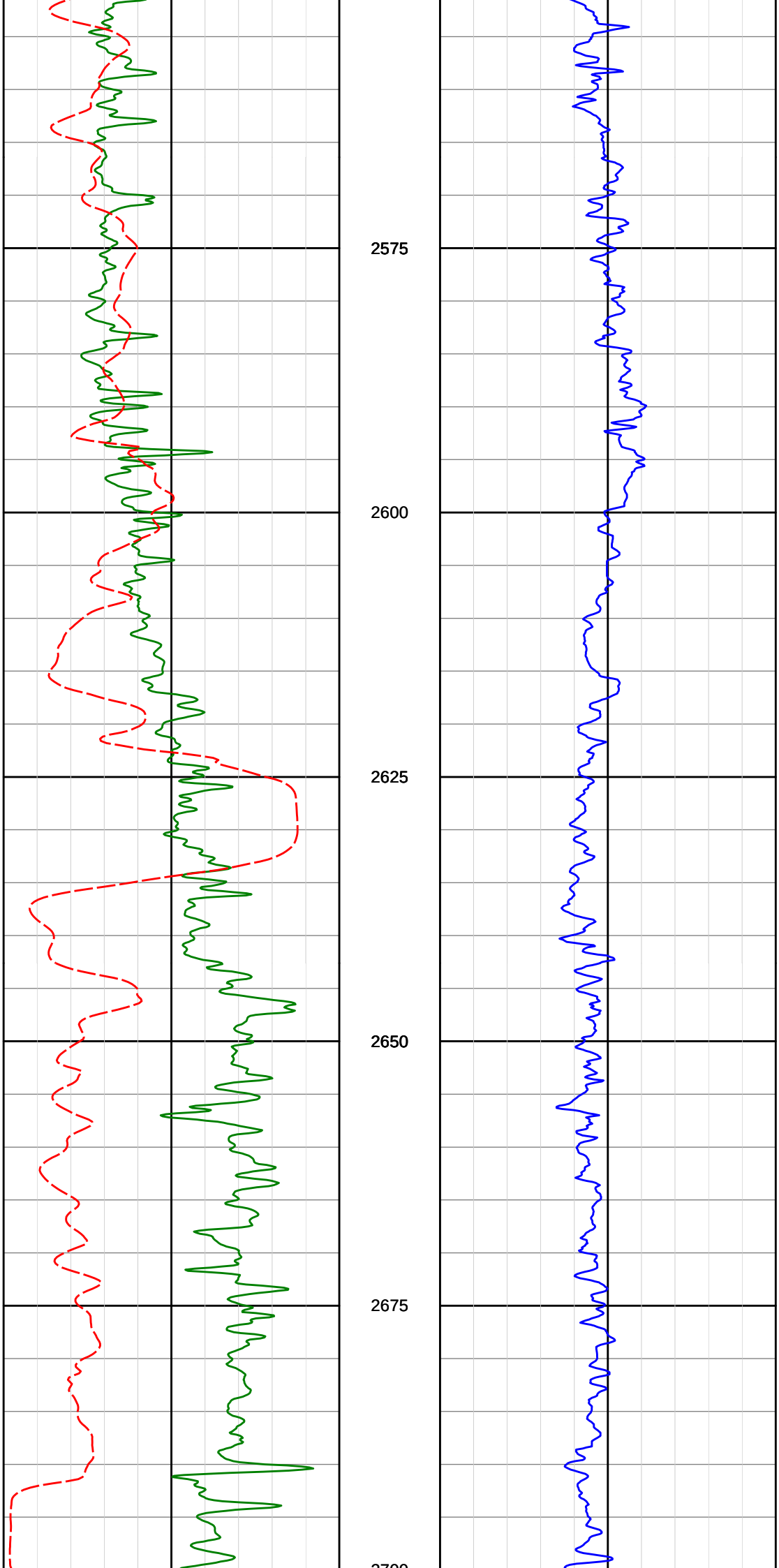
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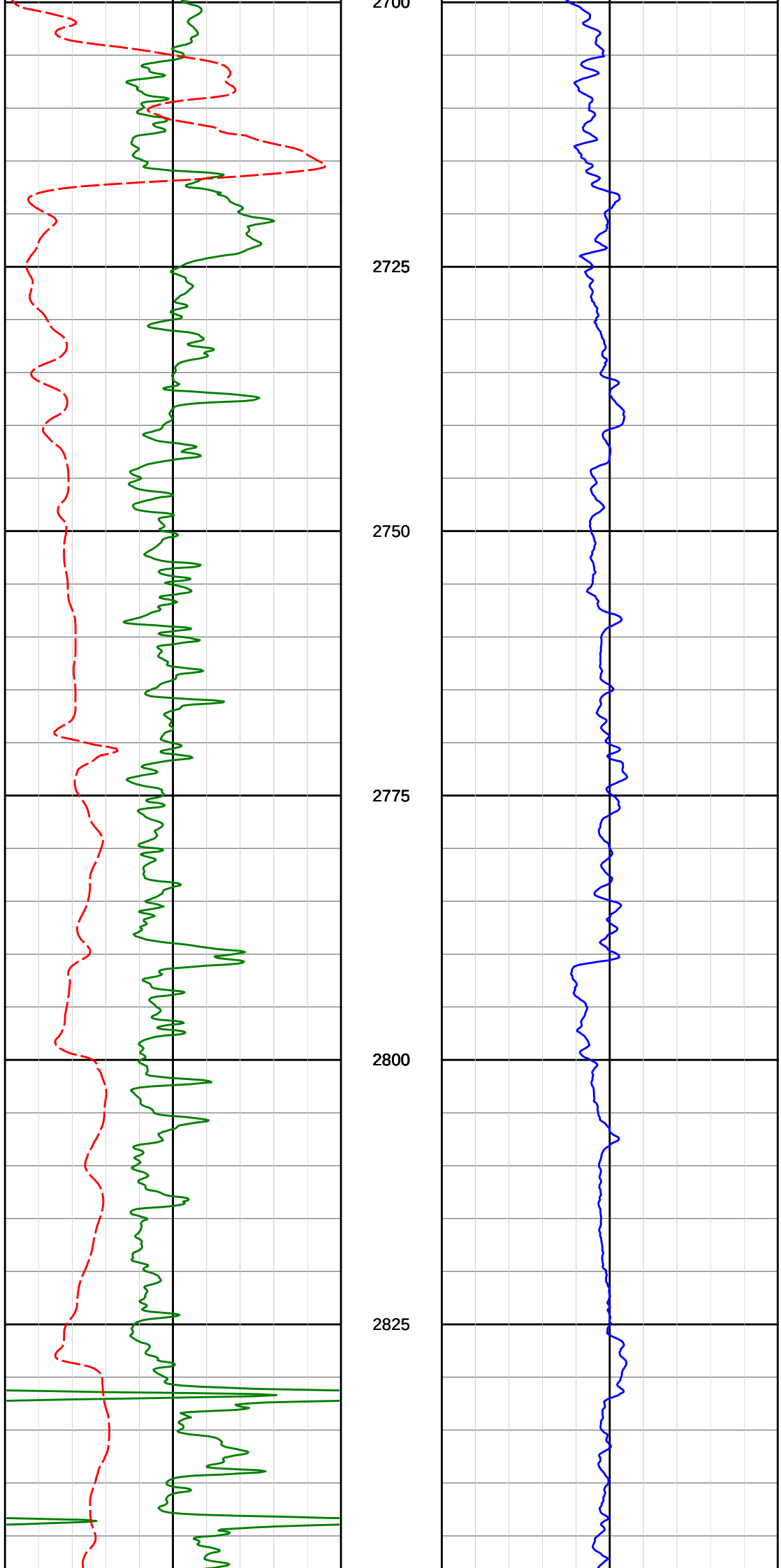
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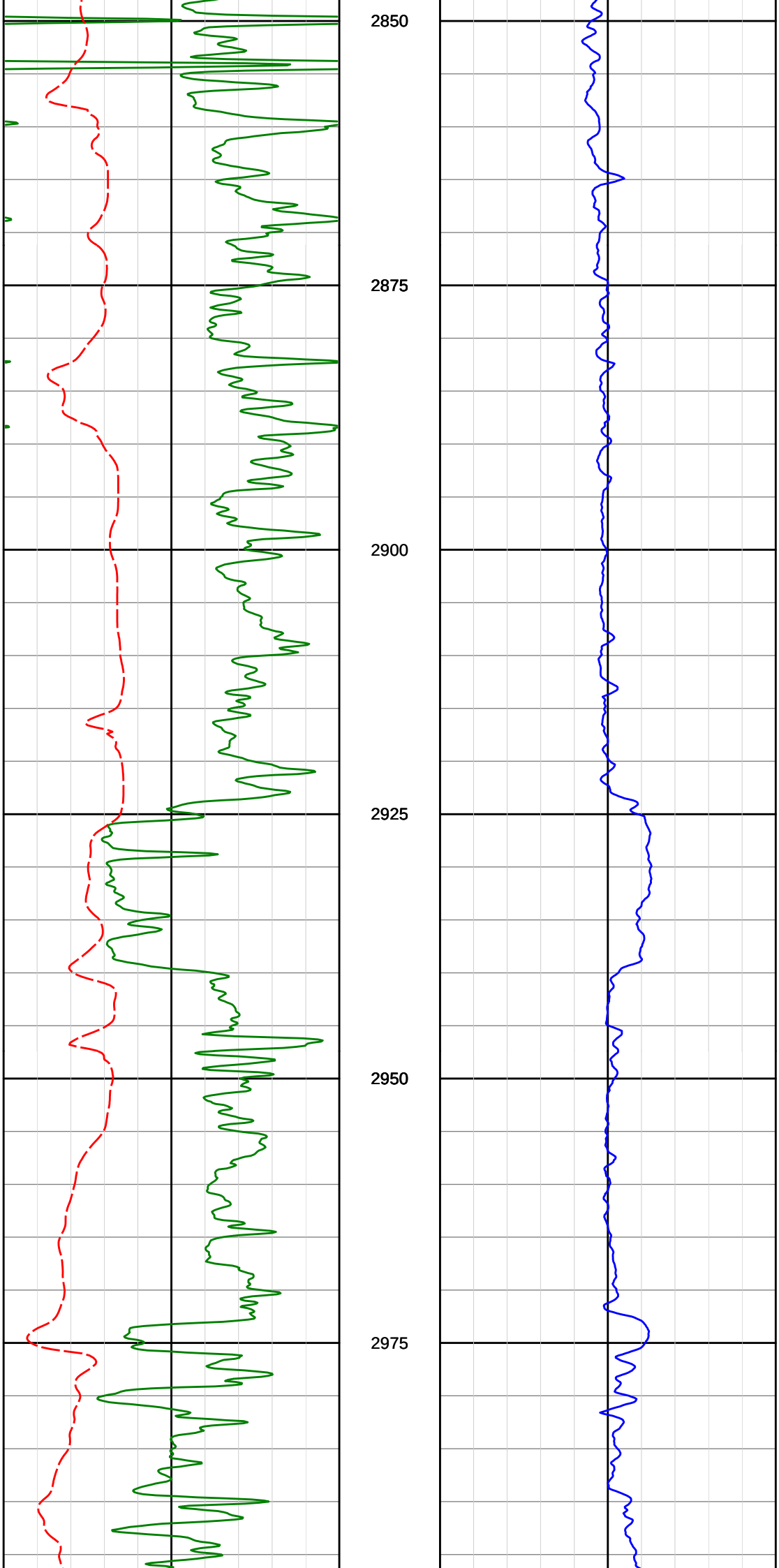
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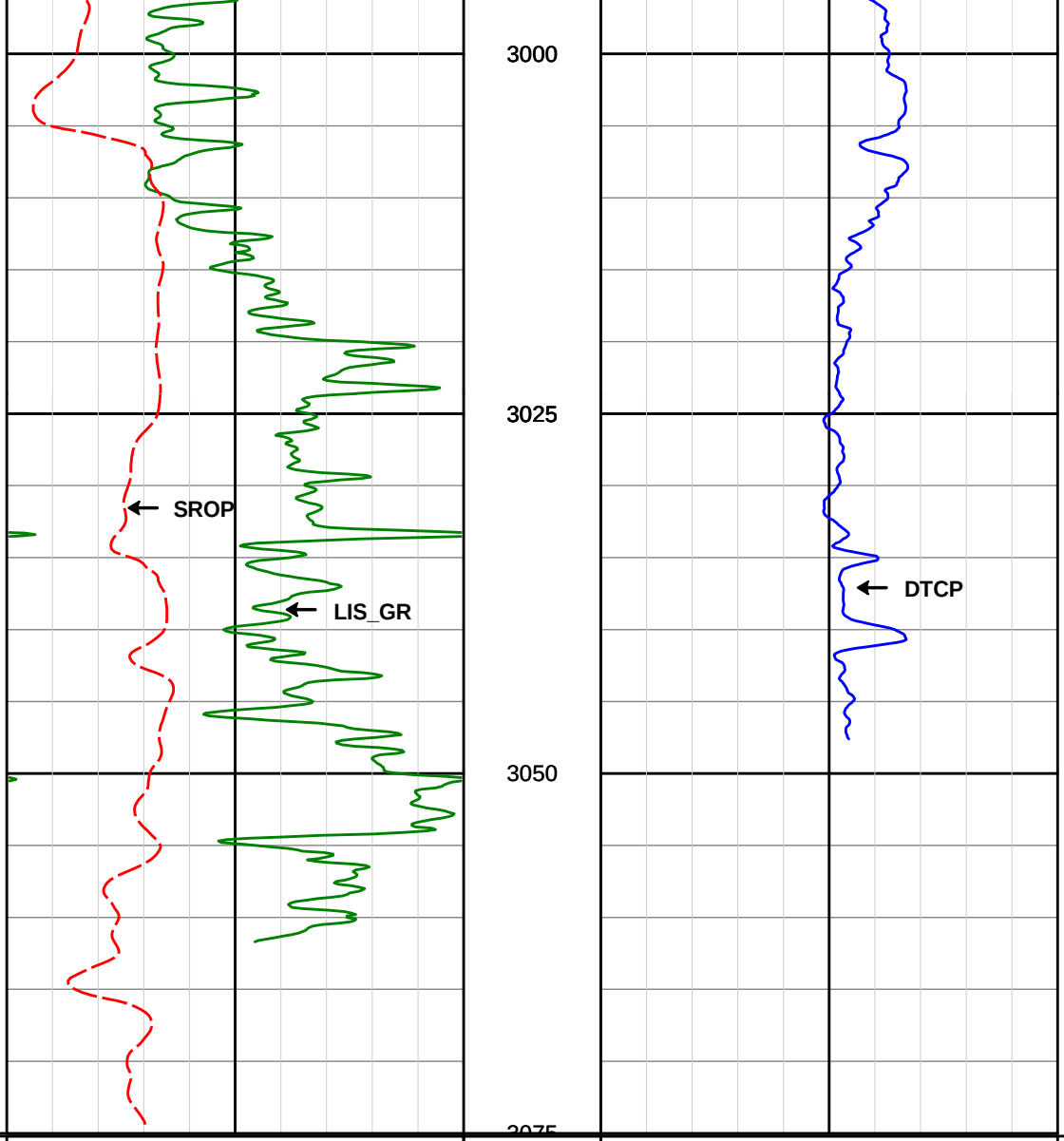


LIS_GR (Anadrill)	Depth	Compressional Slowness
0 — 200	MD	140 — (DTCP) — 40
api	1 : 500	usec/ft

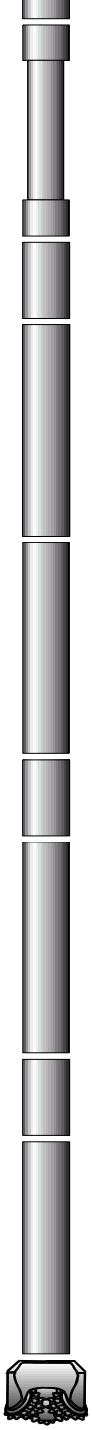
ROP (Anadrill)
0 — 200
m/hr

MWD RUN 100 - BHA

	Component Length (m)	Cumulative Length (m)
		264.96
8 x 5-1/2" HWDP	75.180	
		189.78
X-Over Sub	1.220	
		188.56
Jar	9.330	
		179.23
X-Over Sub	1.220	

MWD RUN 100 - MWD

Sensor Measure Point Distance To Bit (m)

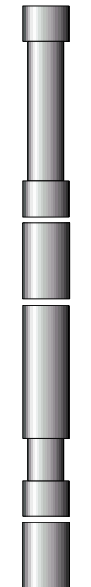


		178.01
6 x 5-1/2" HWDP	56.400	
X-Over Sub	1.220	121.61
9 x Spiral Drill Collar	83.880	120.39
MWD System	6.250	36.51
X-Over Sub	.360	30.26
MWD System	18.77	29.90
Float Sub	.830	11.13
Anadrill Mud Motor	10.060	10.30
REED RSX661B	.240	0.24

MWD - Sonic
BAT Insert — 26.530

MWD RUN 200 - BHA

MWD RUN 200 - MWD



	Component Length (m)	Cumulative Length (m)
		264.72
8 x 5-1/2" HWDP	75.180	
X-Over Sub	1.220	189.54
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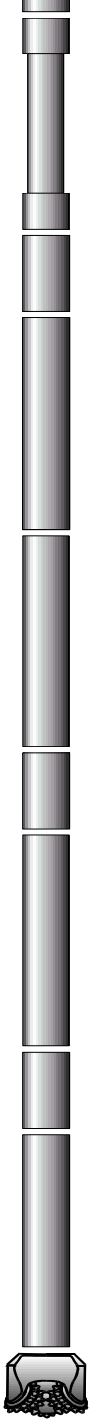
Sensor Measure Point Distance To Bit (m)



6 x 5-1/2" HWDP	56.400	177.77
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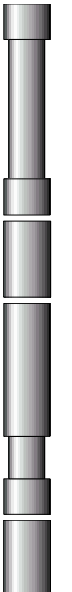
MWD - Sonic
BAT Insert — 26.570

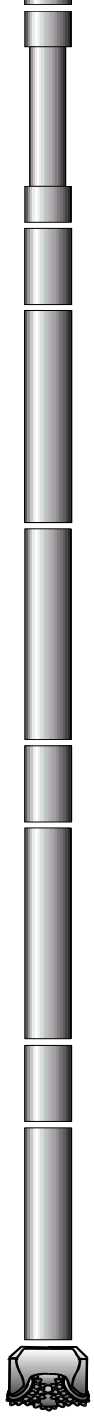
MWD RUN 300 - BHA

MWD RUN 300 - MWD



	Component Length (m)	Cumulative Length (m)
8 x 5-1/2" HWDP	75.180	264.72
X-Over Sub	1.220	189.54
Jar	9.330	188.32
X-Over Sub	1.220	178.99

Sensor Measure Point Distance To Bit (m)

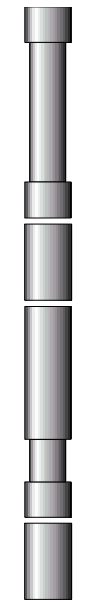


6 x 5-1/2" HWDP	56.400	177.77
X-Over Sub	1.220	121.37
9 x Spiral Drill Collar	83.880	120.15
MWD System	5.960	36.27
X-Over Sub	.370	30.31
MWD System	18.80	29.94
Float Sub	.830	11.14
Anadrill - Mud Motor	10.070	10.31
REED RSX519M	.240	0.24

MWD - Sonic BAT Insert	26.570

MWD RUN 400 - BHA

MWD RUN 400 - MWD



	Component Length (m)	Cumulative Length (m)
8 x 5-1/2" HWDP	75.180	265.10
X-Over Sub	1.220	189.92
Jar	9.330	188.70
X-Over Sub	1.220	179.37

Sensor Measure Point Distance To Bit (m)

		178.15
6 x 5-1/2" HWDP	56.400	
X-Over Sub	1.220	121.75
		120.53
9 x Spiral Drill Collar	83.880	
		36.65
MWD System	6.250	
X-Over Sub	.370	30.40
		30.03
MWD System	18.80	
Float Sub	.830	11.23
		10.40
Anadrill Mud Motor	10.070	
REED RSX661B	.330	0.33

MWD - Sonic BAT Insert	26.660

FINAL WELL REPORT

Apache Northwest Pty Ltd

Coelacanth-1

10 March – 27 March 2008

by

BAKER HUGHES INTEQ

The information, interpretations, recommendations, or opinions contained herein are advisory only and may be rejected. Consultant does not warrant their accuracy or correctness. Nothing contained herein shall be deemed to be inconsistent with, nor expand, modify or alter consultant's obligation of performance as provided for in a written agreement between the parties, or, if none, in consultant's most recent price list.

Coelacanth-1

Final Well Report

Section 1	Well Summary	
Section 2	Drilling & Engineering	
	2.1 Bit Run Summaries	
	2.2 Cementing Summary	
Section 3	Geology & Shows	
	3.1 Geology Summary and Shows	
	3.2 Sampling Summary and Record of Distribution	
Tables	Bit Run Summary	
	Bit Hydraulics Summary	
	Time Depth Curve	
Appendices		
	Formation Evaluation Log	1 : 500
	Drilling Data Plot	1 : 1000
	Gas Ratio Plot	1 : 500
	Pressure Log	1 : 1000

SECTION 1

WELL SUMMARY

1 Well Data Summary

Well Name	Coelacanth-1
Rig Name:	MODU West Triton
Rig Type:	Jack-Up
Drilling Contractor:	Seadrill
Drilling Datum:	Rotary Table
RT to AHD:	38.0 mMDRT
RT to Seabed:	128.0 mMDRT
Surface Coordinates:	Lat 38° 42’ 49.7296” S Long 148° 18’ 07.0098” E
Grid Coordinates: (DATUM GDA94)	E 613 192.77 m N 571 4176.613 m
Permit:	VIC/P-45
Well Type:	Exploration
Spud Date:	10 March 2008
Spud Depth:	128.0 mMDRT
Total Depth:	3074.0 mMDRT
TD Date:	22 March 2008
Well Status:	Plugged & Abandoned
Baker Hughes INTEQ Crew:	
Data Engineers:	Yeong Chen Wong, Aurelius Rayan
Logging Geologists:	Rebecca Houston, Rahul Richharia, Faye Walsh

1.1 Well Summary
Coelacanth-1

Baker Hughes INTEQ SLS provided formation evaluation, drill monitoring services for Coelacanth-1 from the spud depth at 128.0 mMDRT on 10 March 2008 to 3074.0 mMDRT on 22 March 2008. Data was processed and stored using **Advantage version 2.10U2** software. All depths are measured depth below Rotary Table (mMDRT) referenced to Australian Height Datum (AHD) unless otherwise stated.

Coelacanth-1 will be assessing the Gurnard, Volador and Intra Volador Formations and was programmed to reach total depth below the second Intra Volador Formation. The well was spudded on 10 March 2008, using a 660 mm Smith XR+C bit. The hole was drilled from the seabed at 128.0 to 279.0 mMDRT. The hole was drilled using seawater and hi-vis gel sweeps, with cuttings dumped to the seabed. The 508 mm x 340 mm casing was run and cemented with the 340 mm casing shoe set at 275.7 mMDRT.

The BOP's and marine riser were run after cementing 508 mm x 340 mm casing. The BOP's were pressure-tested and the diverter installed. The 311 mm hole section was drilled with one bit. A Smith XR+CPS bit (NB2) was made up to a directional drilling BHA with MWD tools. The hole was drilled using seawater and hi-vis gel sweeps. After tagging the cement high at 274.0 mMDRT, the bit drilled out the shoe track, 340 mm casing shoe at 275.7 mMDRT and 629.0 meters of new formation to 907.0 mMDRT. The bit was pulled out to make way for Wireline logging. Then 244 mm casing was run and cemented with the shoe set at 902.6 mMDRT.

The 216 mm hole section was drilled with 4 bit runs. A PDC bit, Reed RSX661B was made up to a drilling BHA with MWD tools. After tagging the cement high at 859.0 mMDRT, the bit drilled out the shoe track, 244 mm casing shoe at 902.6 mMDRT and three meters of new formation to 910.0 mMDRT. The hole was circulated to condition KCl-Polymer water-based mud system initially weighted to 1.15 sg. Pulling back into the shoe, a Formation Integrity Test (FIT) was performed with 1.14 sg mud yielding an Equivalent Mud Weight (EMW) of 1.81 sg. This first bit run was drilled at an average 39.1m/hr. At 1998.0 mMDRT, the bit was pulled to surface. The same Reed RSX661B PDC bit was made up to the previous drilling assembly with MWD tools and run in to drill 216 mm to 2116.0 mMDRT. The bit was pulled out and replaced due to decreasing ROP. A new PDC bit (NB5) was made up to the previous drilling assembly with MWD tools. Drilling of the 216 mm hole resumed from 2116.0 m to the 2700.0 mMDRT. The bit was pulled out and replaced because of a sudden decreased in ROP from 2691.0 to 2700.0 mMDRT. A new bit, Hughes HC506ZX was made up to the previous drilling assembly and run in to drill from 2700.0 mMDRT to well TD at 3074.0 mMDRT. The bit was pulled out to make way for wireline logging.

Two cement plugs were set on 24 March 2008 after the wireline logging was successfully be completed. The first cement plug was set at 2590.0 mMDRT to 2530.0 mMDRT while second cement plug was set across the 244 mm casing shoe from 940.0 mMDRT to 852.0 mMDRT. The 244 mm casing which was hanging at the BOP was cut before the last cement plug was set on 26 – 27 March 2008 at 243.0 mMDRT to 183.0 mMDRT.

The MODU West Triton was released on 05 April 2008.

SECTION 2

DRILLING & ENGINEERING

Coelacanth-1

2.1 Drilling & Engineering
660 mm (26”) Hole Section
10 March 2008

Bit Run No. 1 Summary

Bit No.	1RR
Bit Size, mm	660 mm
Bit Type	Smith XR+C
Serial Number	MZ1716
Jets	4x18
Depth In, mMDRT	128.0
Depth Out, mMDRT	279.0
Bit Grading	1-1-WT-A-E-I-NO-TD

Drilling Parameters

WOB, mt	0.3 – 11.6
RPM Surf	40 – 88
Pump Pressure, kPa	2647 – 19946
Flow In, lpm	1998 – 4606
Torque, kNm	0.20 – 4.14

Mud

Seawater 1.06 sg
High viscosity gel sweeps

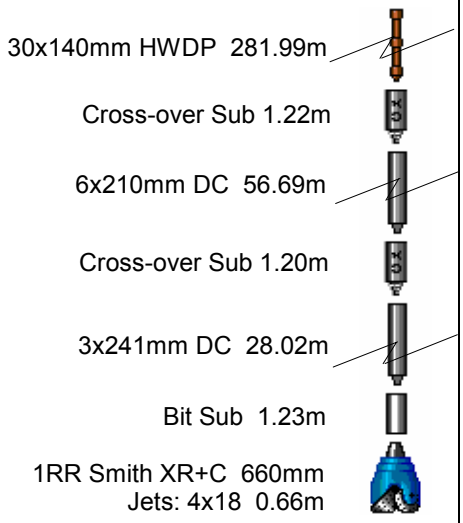
Lithology

Returns to seabed.

Drilling Summary

The spud assembly was made up, run in, tagging the seabed at 128.0 mMDRT. Coelacanth-1 was spudded at 1300hrs on 10 March 2008, drilling 660 mm hole from seabed to 279.0 mMDRT. At TD, a PHG mud pill was pumped around the hole before displacing the hole to PHG mud.

BHA No. 1 89.04m



311 mm (12.25”) Hole Section
12 - 13 March 2008

Bit Run No. 2 Summary

Bit No.	NB2
Bit Size	311 mm
Bit Type	Smith XR+CPS
Serial Number	PF5792
Jets	3x18, 1x20
Depth In, mMDRT	279.0
Depth Out, mMDRT	907.0
Bit Grading	0-0-NO-NO-E-I-NO-TD

Drilling Parameters

WOB, mt	0.2 – 24.5
RPM Surf	29 – 123
Pump Pressure, kPa	12128 – 27427
Flow In, lpm	3335 - 5114
Torque, kNm	0.17 – 7.25

Mud

Seawater 1.06 sg
High viscosity gel sweeps

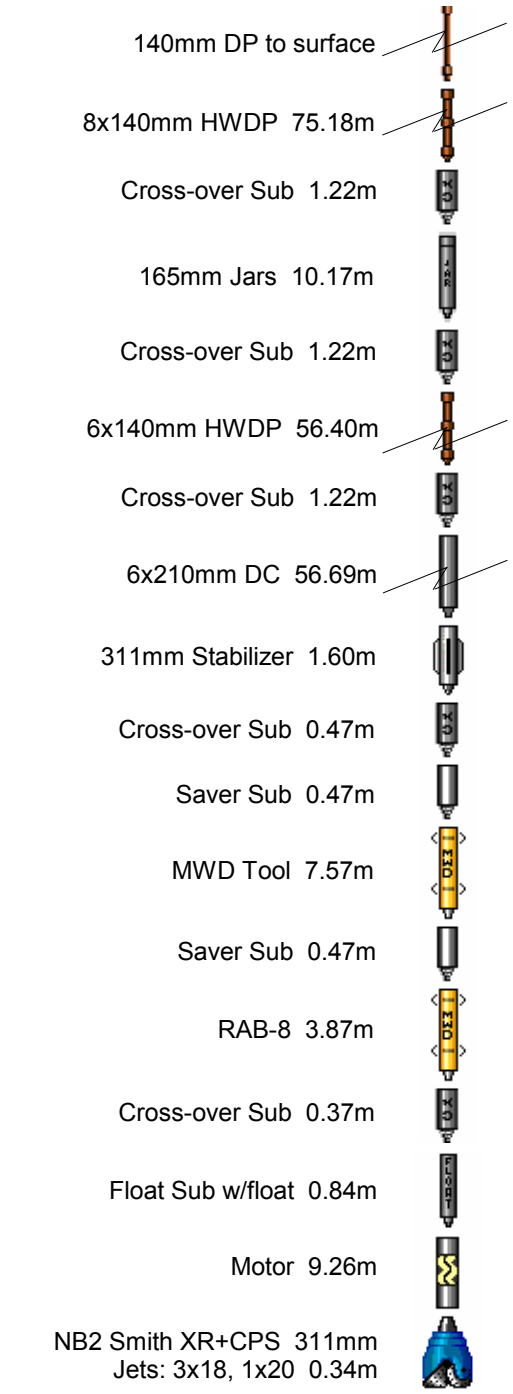
Lithology

Calcarenite, Calcisilite & Calcilutite

Drilling Summary

The 311 mm hole section was vertically drilled with a Smith XR+CPS bit, including a motor and a directional MWD tool. Seawater with hi-vis gel sweeps every stand drilled was used to clean the hole. The 311 mm hole was drilled to TD of 907.0 mMDRT. At TD, a PHG mud pill was pumped around the hole before displacing the hole to 1.15 sg PHG mud.

BHA No. 2 226.52m



216 mm (8.5”) Hole Section
15 - 18 March 2008

Bit Run No. 3 Summary

Bit No.	NB3
Bit Size	216 mm
Bit Type	Reed RSX661B
Serial Number	216126
Jets	5x14, 1x15
Depth In, MDRT	907.0
Depth Out, mMDRT	1998.0
Bit Grading	1-1-BU-A-X-I-CT-PR

Drilling Parameters

WOB mt	2.8 – 28.4
RPM Surf	37 – 144
Pump Pressure kPa	6343– 28020
Flow In lpm	1665 – 2324
Torque kNm	0.07 – 54.32

Mud

KCl-Polymer	1.15 – 1.17 sg

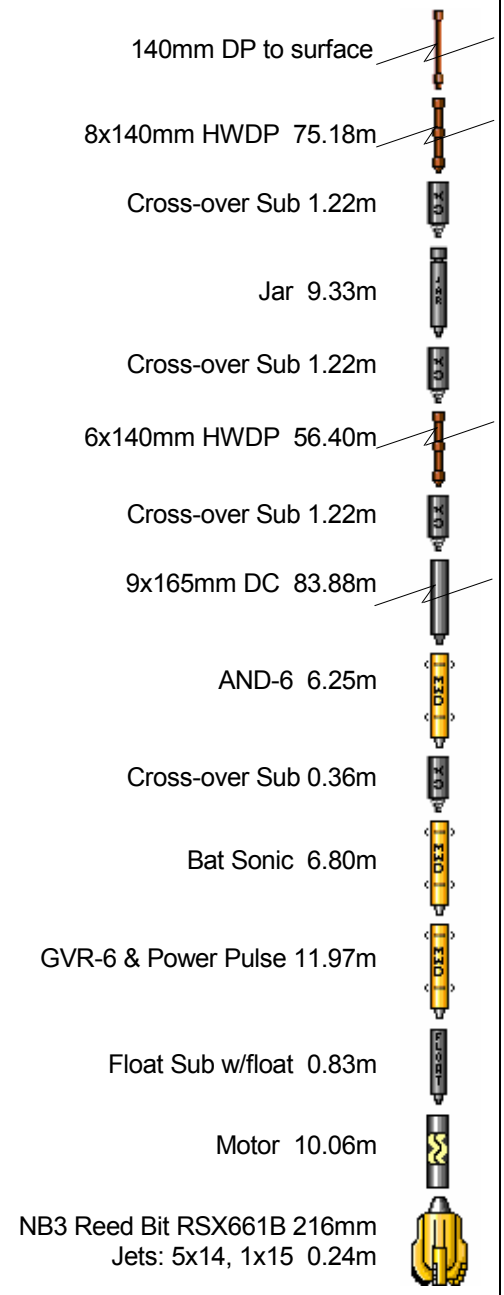
Lithology

Calcarenite, Marl, Calcilutite, Calcareous Claystone & Calcareous Siltstone

Drilling Summary

A Reed PDC bit was made up to a directional drilling BHA with MWD tools. After tagging the cement high at 859.0 mMDRT, the bit drilled out the shoe track, 244 mm casing shoe at 902.1 mMDRT and three meters of new formation to 910.0 mMDRT. The hole was circulated to condition KCl-Polymer water-based mud system initially weighted to 1.15 sg. Pulling back into the shoe, a Formation Integrity Test (FIT) was performed with 1.14 sg mud yielding an Equivalent Mud Weight (EMW) of 1.81 sg. This first bit run of 216 mm was drilled at an average 39.1 m/hr. At 1998.0 mMDRT, the bit was pulled to surface.

BHA No.3 264.96m



216 mm (8.5”) Hole Section
18 - 19 March 2008

Bit Run No. 4 Summary

Bit No.	4RR
Bit Size	216 mm
Bit Type	Reed RSX661B
Serial Number	216126
Jets	5x14, 1x15
Depth In, MDRT	1998.0
Depth Out, mMDRT	2116.0
Bit Grading	1-1-BU-A-X-I-CT-PR

Drilling Parameters

WOB mt	2.0 – 23.4
RPM Surf	47 -161
Pump Pressure kPa	17436 – 28000
Flow In lpm	2052 – 2676
Torque kNm	0.01 – 4.50

Mud

KCl-Polymer 1.17 sg

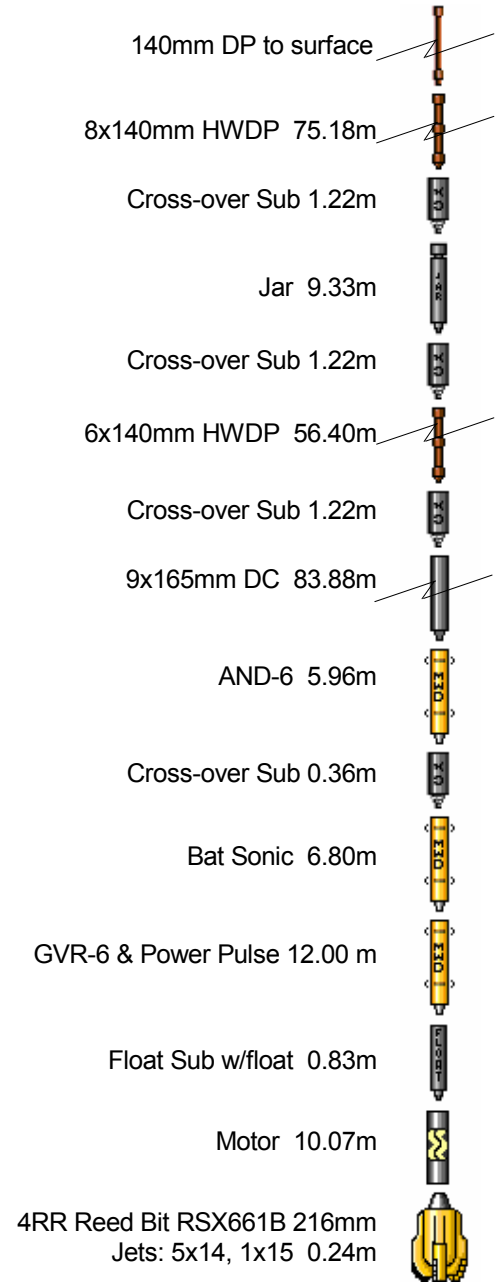
Lithology

Marl, Calcareous Siltstone & Calcareous Claystone

Drilling Summary

A rerun Reed RSX661B bit was made up to a directional drilling BHA with MWD tools to drill 216 mm to 2116.0 mMDRT. One seawater pill was pumped and soaked around bit for connection and 2 pill of 4 m^3 each of seawater with calcium carbonate to revive drilling rate. ROP increased significantly for about 5 minutes after calcium carbonate pills. The bit was pulled out and replaced due to decreasing ROP.

BHA No.4 264.72m



216 mm (8.5”) Hole Section
19 - 21 March 2008

Bit Run No. 5 Summary

Bit No.	NB5
Bit Size	216 mm
Bit Type	Reed RSX519MA6
Serial Number	216813
Jets	3x11, 5x14
Depth In, MDRT	2116.0
Depth Out, mMDRT	2700.0
Bit Grading	1-3-BU-A-X-I-WT-PR

Drilling Parameters

WOB mt	0.8 – 26.2
RPM Surf	42 – 146
Pump Pressure kPa	17795 – 34446
Flow In lpm	2218 – 7240
Torque kNm	0.01 – 10.52

Mud

KCl-Polymer	1.17 sg

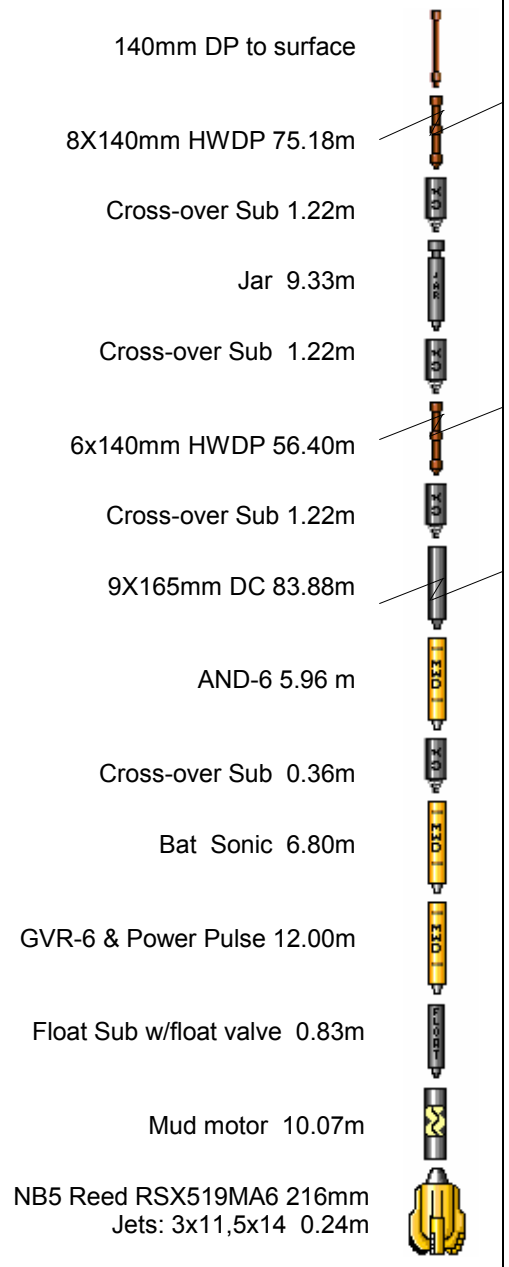
Lithology

Calcareous Siltstone, Calcareous Claystone, Sand stone & Siltstone

Drilling Summary

A new PDC bit was made up to the previous directional drilling assembly with MWD tools and run in to drill 216 mm to 2700.0 mMDRT. The bit was pulled out and replaced because of a sudden decreased in ROP from 2691.0 to 2700.0 mMDRT.

BHA No.5 264.72m



216 mm (8.5”) Hole Section
21- 22 March 2008

Bit Run No. 6 Summary

Bit No.	NB6
Bit Size	216 mm
Bit Type	Hughes HC506ZX
Serial Number	7211635
Jets	6x14
Depth In, mMDRT	2700.0
Depth Out, mMDRT	3074.0
Bit Grading	0-0-RR-0-X-I-RR-TD

Drilling Parameters

WOB mt	0.6 – 11.9
RPM Surf	49 – 105
Pump Pressure kPa	23766 – 30081
Flow In lpm	2324 – 2856
Torque kNm	0.09 – 7.12

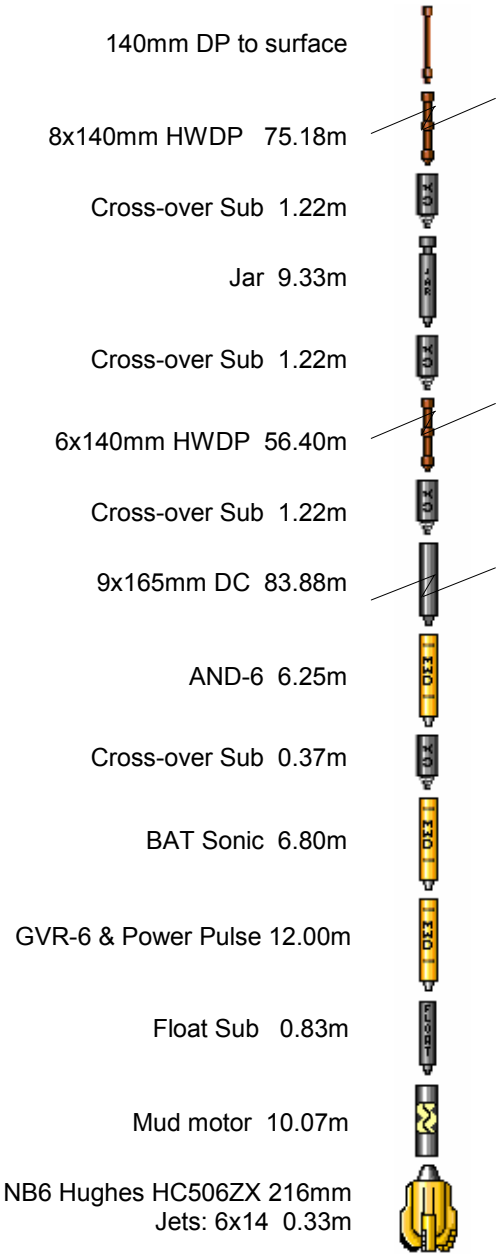
Mud

KCl-Polymer	1.17 sg

Lithology
Sandstone & Siltstone

Drilling Summary
A new PDC bit was made up to the previous directional drilling assembly with MWD tools. Directional drilling of the 216 mm hole was resumed from 2700.0 m to the well TD at 3074.0 mMDRT.

BHA No. 6 265.10m



2.2 Casing and Cementing

508 x 340 mm (20" x 13.375") Casing 10 - 11 March 2008

Hole Size: 660 mm (26")
Depth: 279.0 mMDRT

Casing Details

OD	508 mm (20")
Grade / Wt:	X56 192 kg/m
Joints:	18 x 508 mm joint
OD	340 mm (13.375")
Grade / Wt:	X56 192 kg/m
Joints:	1 x 340 mm shoe joint
	1 x 340 mm float collar
	1 x 340 mm joint
	1 x cross-over joint
Shoe:	275.7 mMDRT

Cement Details

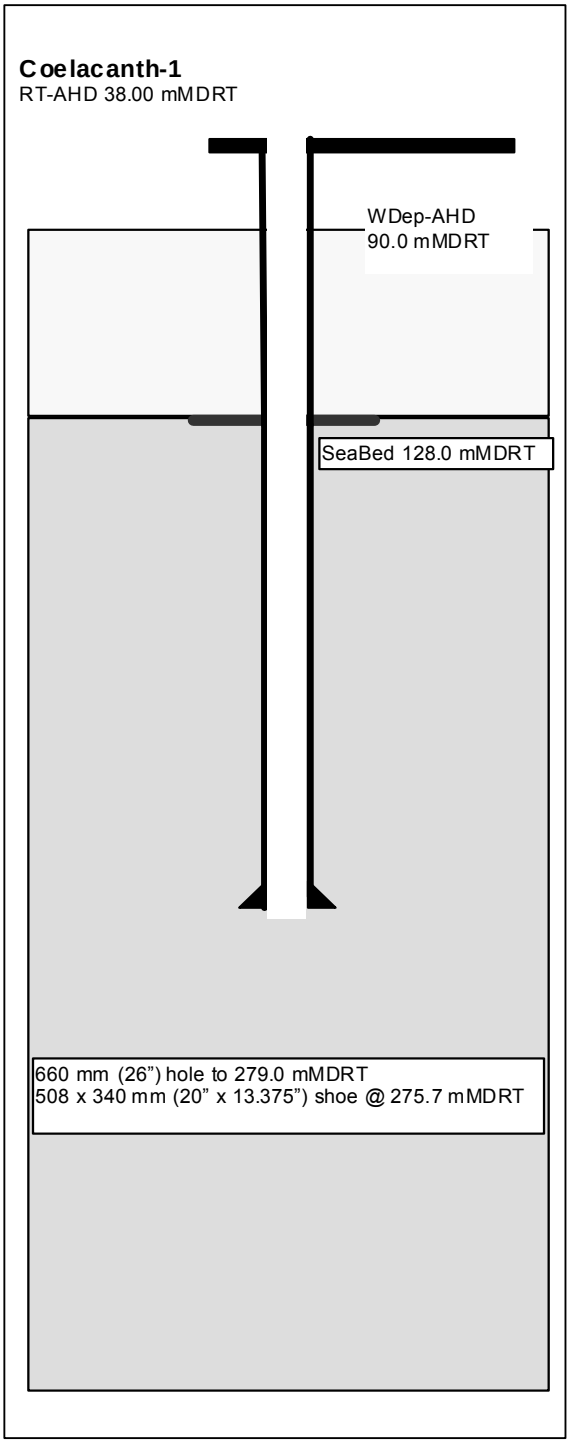
LEAD SLURRY:

Type:	Class G
Weight:	1.5 sg
Slurry Volume:	27.3 m^3

TAIL SLURRY:

Type:	Class G
Weight:	1.9 sg
Slurry Volume:	10.6 m^3

Summary
The 508 x 340 mm casing string was run on 10 March 2008. Each joint of casing was filled with sea water. Prior to cement job, the surface line was tested to 1000 psi. Then 15 bbl of seawater with dye was pumped. Cement job commenced with pumping of 27.3 m^3 1.5 sg lead slurry followed by 10.6 m^3 1.9 sg tail slurry. The cement was displaced with 3.5 m^3 of seawater. The 340 mm shoe was set and cemented at 275.7 mMDRT as per the cementing program. After the cement had set, the cement stinger and the 140 mm drill pipe were pulled to surface.



244 mm (9.625”) Casing
14 - 15 March 2008

Hole Size: 311 mm (12.25”)
Depth: 907.0 mMDRT

Casing Details

OD	244 mm (9.625”)
Grade / Wt:	L80: 70 kg/m
Joints:	1 Shoe
	1 Shoe joint
	1 Intermediate joint
	1 Float
	1 Float Collar joint
	1 Crossover joint
	1 Pup joint
	68 x Casing joints
Shoe:	902.6 m

Cement Details

LEAD SLURRY:

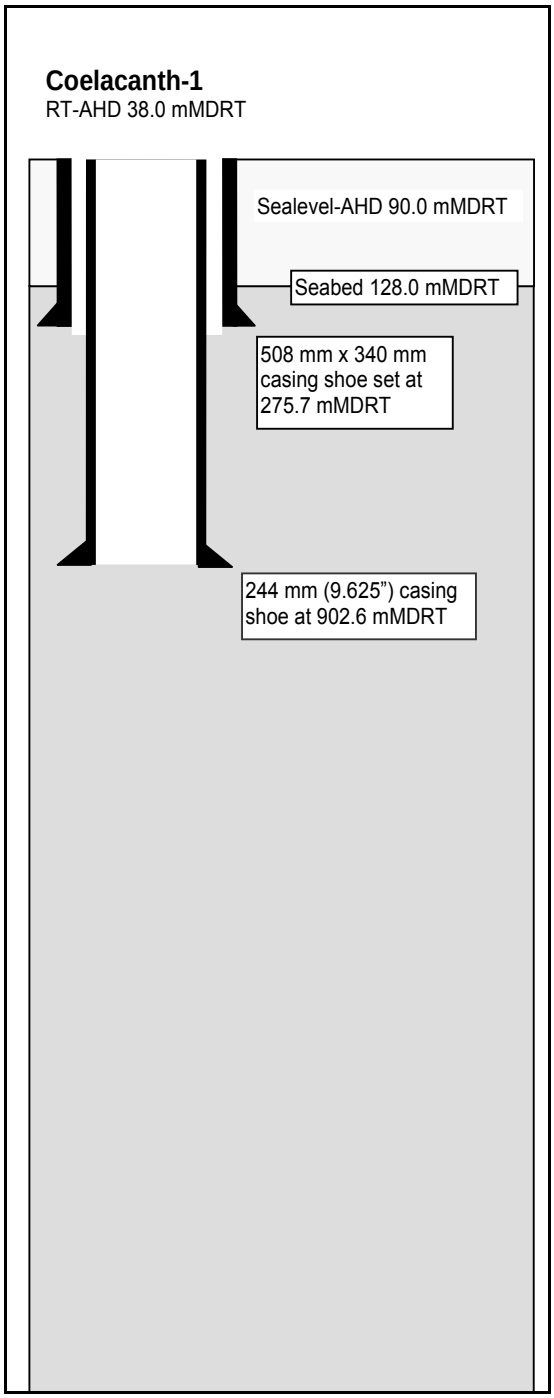
Type:	Class G
Weight:	1.50 sg
Slurry Volume:	55.2 m^3

TAIL SLURRY:

Type:	Class G
Weight:	1.90 sg
Slurry Volume:	5.4 m^3

Summary

The 244 mm casing was run in hole as per Apache’s casing program. Once landed at the BOP, the casing was circulated one casing volume. After pressure testing the cement lines to 3000 psi, the slurry volumes were pumped down the casing. The cement was displaced with the rig pumps, with the plug bumping after 34.6 m^3 of seawater had been pumped. The casing shoe was set at 902.6 mMDRT.



Cement Plug
24 & 26 - 27 March 2008

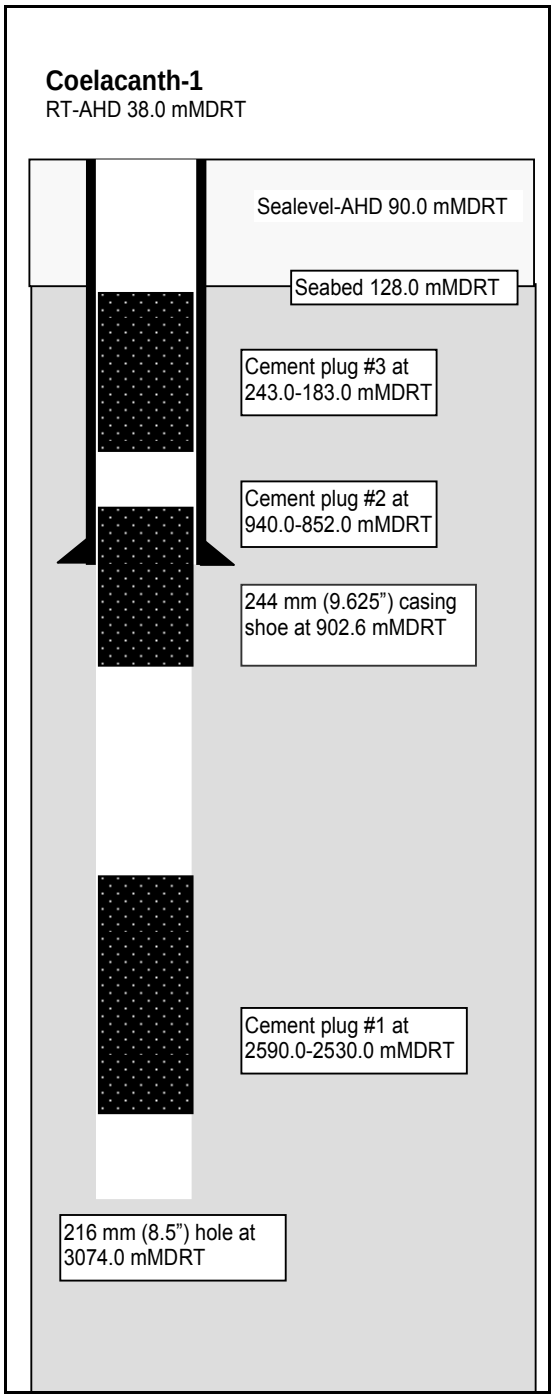
Hole Size: 216 mm (8.5")
Depth: 3074.0 mMDRT

Cement Plug Details

CEMENT PLUG #1:
- Type: Class G
- Weight: 1.90 sg
- Slurry Vol: 3.81 m^3

CEMENT PLUG #2:
- Type: Class G
- Weight: 1.89 sg
- Slurry Vol: 4.76 m^3

CEMENT PLUG #3:
- Type: Class G
- Weight: 1.89 sg
- Slurry Vol: 2.64 m^3



Summary

The cement stinger made up of 140 mm drill pipe was run in hole as per Apache's program. The line was tested prior to pumping all 3 cement plugs The first cement plug was set from 2590.0 mMDRT to 2530.0 mMDRT. The second cement plug was set across the 244 mm casing shoe from 940.0 mMDRT to 852.0 mMDRT while the final cement plug was set at 243.0 mMDRT to 183.0 mMDRT. Reverse circulations of 2 times 140 mm drill pipe volume were done after every cement plug.

SECTION 3

GEOLOGY & SHOWS

3.1 Geology and Shows

Coelacanth-1

Geological formation evaluation for Coelacanth-1 commenced from the start of the 311 mm hole section at 279.0 mMDRT to the well's Total Depth at 3074.0 mMDRT. All depths given are measured depths from the Rotary Table (mMDRT).

All gas monitoring equipment was calibrated before drilling each hole section and checked regularly. Calcimetry analysis on cuttings samples was performed at the request of the Wellsite Geologists.

The lithologies encountered at Coelacanth-1 are described below. For more detailed descriptions, see Appendix 1: Formation Evaluation Log. Please note that the lithological descriptions on the Formation Evaluation Log were provided by the Apache Wellsite Geologists, with input from the BHI mudloggers.

Sampling Intervals:

279 – 285 m	6 m interval
285 – 3070 m	5 m interval
3070 – 3074 m	4 m interval

Formation Description:

660 mm Section (128.0 – 279.0 mMDRT)

Returns to seabed. No samples.

311 mm Section (279.0 – 907.0 mMDRT)

GIPPSLAND FORMATION:

279.0 to 907.0 mMDRT.
Interbedded CALCISILTITE, CALCILUTITE, CALCARENITE and MARL

CALCILUTITE (10 to 90%): Very light grey to light grey, off white, light brown grey, light olive grey to medium grey, medium dark grey to dark olive grey and light yellow in parts. Firm, moderately hard to hard, sub-blocky to blocky. Common to abundant fossil fragments. Trace to rare fine to coarse quartz grains.

CALCISILTITE (20%): White to light grey, common light to medium grey, moderately hard to hard, sub-blocky to blocky, common fossils.

CALCARENITE (tr-90%): light to medium grey, light to medium blue grey, light olive grey and off white to light brown grey. Moderately hard to hard, firm. Sub-blocky to blocky, Trace carbonaceous specks, trace to common fossil fragments, trace very fine to fine quartz grains, trace very coarse quartz grains. From 1295m predominantly argillaceous, grading to arenaceous Marl, trace glauconite.

MARL (70-100%): From 980m, light grey to light green grey, light olive grey, off white and light brown grey to light olive grey. Soft to firm, moderately hard, dispersive and amorphous to Sub-blocky. Trace gluaconite grains, trace carbonaceous specks and micro-laminations, trace calcite grains. Trace very fine quartz grains, in part grading to a Calcarenite.

216 mm Section (907.0 – 3074.0 mMDRT)

GIPPSLAND FORMATION:

907.0 to 1412.0 mMDRT.
Interbedded CALCISILTITE, CALCILUTITE, CALCARENITE and MARL

CALCILUTITE (10 to 90%): Very light grey to light grey, off white, light brown grey, light olive grey to medium grey, medium dark grey to dark olive grey and light yellow in parts. Firm, moderately hard to hard. sub-blocky to blocky. Common to abundant fossil fragments. Trace to rare fine to coarse quartz grains.

CALCISILTITE (20%): White to light grey, common light to medium grey, moderately hard to hard, sub-blocky to blocky, common fossils.

CALCARENITE (tr-90%): light to medium grey, light to medium blue grey, light olive grey and off white to light brown grey. Moderately hard to hard, firm. Sub-blocky to blocky, Trace carbonaceous specks, trace to common fossil fragments, trace very fine to fine quartz grains, trace very coarse quartz grains. From 1295m predominantly argillaceous, grading to arenaceous Marl, trace glauconite.

MARL (70-100%): From 980m, light grey to light green grey, light olive grey, off white and light brown grey to light olive grey. Soft to firm, moderately hard, dispersive and amorphous to Sub-blocky. Trace gluaconite grains, trace carbonaceous specks and micro-laminations, trace calcite grains. Trace very fine quartz grains, in part grading to a Calcarenite.

LAKES ENTERANCE FORMATION:

1412.0 to 2575.0 mMDRT.

Interbedded CALCILUTITE, MARL, ARENACEOUS MARL, CALCARENITE, CALCAEOUS CLAYSTONE AND CALCAREOUS SILTSTONE

CALCILUTITE (10 to 80%): Off white to medium grey, light to medium brown, pale brown, white to very light grey. Moderately hard to very hard, dispersive to soft in parts. Sub-blocky to blocky and sub-fissile. Common carbonaceous laminations and specks, abundantly argillaceous, rare to common micro-fossils and spicules, minor spherical quartz grains and minor micro-crystalline.

CALCARENITE (10 to 20%): Light to medium grey, medium brown grey, off white to translucent in part. Light grey to light blue grey and trace orange in part. Moderately hard to hard and firm, sub-blocky to blocky. Abundant argillaceous material, common carbonaceous laminations and specks, occasional lithics, common fine to medium spherical quartz grains, common very fine quartz and calcite grains and common fossil fragments. From 1998m, abundantly argillaceous and grading to calcareous siltstone in parts. Common to abundant fine to medium angular to sub-angular calcite fragments, common to abundant nodular and disseminated pyrite and trace siderite.

MARL (10-100%): Pale to medium grey, pale to medium brown, medium brown grey, off white, light green grey to light olive grey, medium olive grey, dark grey in part. Soft to firm, moderately hard to hard and dispersive in part. Sub-blocky. Grading to calcareous claystone in parts. Trace glauconite, trace carbonaceous specks, trace disseminated pyrite, trace to rare fossil fragments and trace micro-fossils.

ARENACEOUS MARL (100%): Pale to medium grey, light brown grey, translucent in part. Firm to hard and sub-blocky. Common fine to coarse angular spherical quartz grains, common micro-fossils, abundant argillaceous material, minor to locally common carbonaceous laminations and specks and minor nodular pyrite.

CALCAREOUS CLAYSTONE (tr-90%): Light to light green grey, light to medium olive grey, light grey to light brown grey, off white to pale grey, light bluish grey and dark grey in parts. Grading to Marl in part. Dominantly soft

to firm, moderately hard, dispersive in part and sub-blocky. Abundant calcareous material, common micro-fossils and ooliths, silty in part and locally grading to calcareous SILTSTONE. Trace glauconite grains, disseminated pyrite, trace to common calcite grains, trace fossil fragments, trace carbonaceous specks and micro-laminations. Common to abundant calcite fragments, trace very fine quartz grains and trace micro-miaceous.

CALCAREOUS SILTSTONE (10-100%): Pale to dark grey, medium olive grey to medium brown grey, medium bluish grey, off white, light olive grey. Grading to argillaceous SILTSTONE in part and commonly argillaceous and grading to calcareous CLAYSTONE in part. Trace to minor nodular and disseminated pyrite, trace carbonaceous specks and micro laminae, trace to common micro-fossils, micro-micaceous and calcite material. Occasional fine to medium calcite fragments, translucent in part. Rare fossil fragments.

GURNARD FORMATION:

2575.0 to 2726.0 mMDRT.
Interbedded CALCAREOUS SILTSTONE, SILTSTONE and SANDSTONE

CALCAREOUS SILTSTONE (70 to 90%): Light to medium grey, medium grey to medium olive grey. Common very fine quartz grains, trace carbonaceous specks, trace micro-micaceous, firm to moderately hard, sub-blocky to blocky.

SANDSTONE (10 TO 80%): White to light grey, light brown grey, light green to light brown, medium brown and light blue grey. Clear to translucent and common opaque grains. Very fine to fine grains, common medium grains, rare very coarse grains. Very poorly to poorly sorted. Sub-angular to sub-rounded, minor angular grains. Moderately to strong calcareous cement, weak to strong siliceous cement, predominantly as quartz overgrowths. Common to abundant white to light green argillaceous to silty matrix, trace glauconite matrix in places. Common nodular pyrite, trace fossil fragments, trace to common gluaconite, trace carbonaceous specks, trace mica specks, trace iron stained quartz grains, trace to minor lithics. Friable to hard, common loose grains. Very poor to poor visible and inferred porosity. Trace dull yellow orange mineral fluorescence (2625m to 2670m).

SILTSTONE (20 to 70%): Medium to dark brown, brown grey to medium dark grey, light grey to light blue grey, light to medium yellow, light olive grey. Moderately hard to hard, sub-blocky to blocky and in part sub-fissile. Moderately calcareous, argillaceous, locally grading to very fine SANDSTONE, common very fine quartz grains. Trace to common carbonaceous specks and micro laminae, trace micro-micaceous, trace iron stained fossil fragments, trace glauconite and trace disseminated pyrite.

VOLADOR FORMATION:

2726.0 to 3074.0 mMDRT.
Interbedded SANDSTONE and SILTSTONE.

SANDSTONE (70 to 95%): Clear to translucent, light green, light greenish grey, off white to pale grey, frosted in part. Very fine to very coarse, dominantly medium and occasionally very coarse. Poor to moderately sorted. Angular to sub-rounded and rounded in part, generally angular where coarse. Minor weak siliceous and calcareous cement, trace to minor quartz overgrowths. Trace to minor off white to pale grey argillaceous matrix. Common to abundant glauconite specks, occasional to common lithics, minor nodular pyrite and occasional platy mica and carbonaceous material. Generally loose clean grains, common very hard aggregates in part. Fair to good inferred porosity. From 3013m, trace to 5% fluorescence, pale yellow spotted residual fluorescence, no cut or ring residue.

SILTSTONE (5-35%): Light grey to light olive grey, pale to dark brown in part, light greenish grey. Hard to very hard and sub-blocky to fissile. Siliceous, commonly arenaceous and common carbonaceous material where dark brown. Commonly micro-micaceous, Common carbonaceous material and fine gluaconite specks, minor nodular and disseminated pyrite, common off white lithics,

ROP and Gas Readings:

311 mm Section (279.0 – 907.0 mMDRT)

Interval (m)	ROP range (m/hr)	ROP average (m/hr)	Total Gas range (%)	Total Gas average (%)
279 – 907	28.7 – 263.0	143.0	0.0006 – 0.3695	0.0108

216 mm Section (907.0 – 3074.0 mMDRT)

Interval (m)	ROP range (m/hr)	ROP average (m/hr)	Total Gas range (%)	Total Gas average (%)
907 – 1412	10.1 – 198.0	60.1	0.0006 – 1.4516	0.4881
1412 – 2575	3.8 – 176.7	35.9	0.0035 – 0.6304	0.1301
2575 – 2726	2.6 – 200.5	22.2	0.0125 – 0.1400	0.0342
2726 – 3074	10.4 – 79.1	49.0	0.0110 – 0.0260	0.0162

Minimum – Maximum Chromatograph Readings:

311 mm Section (279.0 – 907.0 mMDRT)

Interval (m)	C1 (ppm)	C2 (ppm)	C3 (ppm)	iC4 (ppm)	nC4 (ppm)	iC5 (ppm)	nC5 (ppm)
279 – 907	2 – 3474	0 – 6	0 – 2	0	0	0	0

216 mm Section (907.0 – 3074.0 mMDRT)

Interval (m)	C1 (ppm)	C2 (ppm)	C3 (ppm)	iC4 (ppm)	nC4 (ppm)	iC5 (ppm)	nC5 (ppm)
907 – 1412	2 – 10868	0 – 23	0 – 3	0 – 1	0 – 1	0	0
1412 – 2575	14 – 4901	0 – 17	0 – 7	0 – 1	0	0	0
2575 – 2726	91 – 1069	0 – 2	0 – 1	0	0	0	0
2726 – 3074	64 – 190	0	0	0	0	0	0

Sampling Summary and Record of Distribution:

Coelacanth-1

Cuttings samples were collected at the intervals tabulated below as advised by the Well site Geologists.

279 – 285 m	6 m interval
285 – 3070 m	5 m interval
3070 – 3074 m	4 m interval

Samples were missed from the following depths:

Due to high ROP:
295m, 300m, 305m, 315m, 325m, 335m, 345m, 355m, 365m, 375m, 385m, 395m, 405m, 415m, 425m, 435m, 445m, 455m, 465m, 475m, 485m, 495m, 505m, 515m, 525m, 535m, 545m, 555m, 565m, 575m, 585m, 595m, 605m, 615m, 625m, 635m, 645m, 655m, 665m, 675m, 685m, 695m, 705m, 715m, 725m, 735m, 745m, 755m, 765m, 775m, 785m, 795m, 815m, 825m, 835m, 845m, 855m, 865m, 875m, 885m, 895m, 905m, 915m, 925m, 935m, 945m, 955m, 960m, 965m, 970m, 975m, 985m, 995m, 1005m, 1010m, 1015m, 1025m, 1035m, 1040m, 1045m, 1055m, 1060m, 1065m, 1075m, 1080m, 1085m, 1095m, 1100m, 1105m, 1115m, 1120m, 1125m, 1135m, 1140m, 1145m, 1155m, 1160m, 1165m, 1175m, 1180m, 1185m, 1195m, 1200m, 1205m, 1215m, 1220m, 1225m, 1235m, 1240m, 1245m, 1255m, 1260m, 1265m, 1275m, 1285m, 1340m, 1345m, 1350m, 1415m, 1425m, 1435m, 1445m, 1455m, 1465m, 1470m, 1475m, 1485m, 1495m, 1505m, 1515m, 1525m, 1535m, 1545m, 1555m, 1595m, 1605m, 1625m, 1680m, 1695m, 1735m, 1745m, 1755m, 1765m, 1775m, 1785m, 1805m, 1815m, 1825m, 1845m, 1865m, 1875m, 1880m, 1885m, 1895m, 1905m, 1915m, 1925m, 1940m, 1945m, 1950m, 1965m, 1975m, 2025m, 2140m, 2145m, 2155m, 2175m, 2185m, 2195m, 2205m, 2215m, 2225m, 2235m, 2245m, 2255m, 2265m, 2275m, 2285m, 2295m, 2305m, 2315m, 2325m, 2335m, 2345m, 2355m, 2365m, 2375m, 2385m, 2555m, 2565m, 2575m, 2585m, 2595m, 2605m, 2615m, 2625m, 2635m, 2645m, 2655m, 2665m, 2675m, 2685m, 2775m, 2785m, 2795m, 2815m, 2825m, 2835m, 2845m, 2855m, 2865m, 2875m, 2885m, 2895m, 2905m, 2925m, 2935m, 2945m, 2955m, 2965m, 2985m, 2995m, 3015m, 3025m, 3030m, 3035m, 3045m, 3055m, 3065m

Sample Destination:

Set A (200g Washed & Dried Drill Cuttings in polythene bags) to be forwarded to:

Apache Energy Ltd c/o Core Laboratories Pty Ltd
447-449 Belmont Avenue
KEWDALE, WA 6105 (Attn: Mr. Paul Stephenson)

Set B (200g Washed & Dried Drill Cuttings in polythene bags) to be forwarded to:

DPI c/o Core Laboratories Pty Ltd
447-449 Belmont Avenue
KEWDALE, WA 6105 (Attn: Mr. Paul Stephenson)

Set C (200g Washed & Dried Drill Cuttings in polythene bags) to be forwarded to:

GeoScience Australia c/o Core Laboratories Pty Ltd
447-449 Belmont Avenue
KEWDALE, WA 6105 (Attn: Mr. Paul Stephenson)

Mud Samples to be forwarded to:

Apache Energy Ltd c/o Core Laboratories Pty Ltd
447-449 Belmont Avenue
KEWDALE, WA 6105 (Attn: Mr. Paul Stephenson)

SAMPLE TYPE	Well	No. of Sets	INTERVAL			PACKING DETAILS
			Large Box No.	Small Box No.	Interval (m)	
DRILL CUTTINGS minimum 200g: Washed & Air Dried (polythene bags) Sets **A, B** & **C** from **279 – 3074 m**	Coelacanth-1	**3**	**1**	1	279 – 1640	Max. 8 small boxes per large box. 16 Large boxes marked as Set A, B, C
				2	1640 – 1740	
				3	1740 – 1850	
				4	1850 – 1960	
				5	1960 – 2070	
				6	2070 – 2180	
				7	2180 – 2290	
				8	2290 – 2400	
			2	9	2400 – 2510	
				10	2510 - 2620	
				11	2620 – 2730	
				12	2730 - 2840	
				13	2840 - 2940	
				14	2940 - 3060	
				15	3060 - 3170	
				16	3170 – 3230	
			3	17	279 – 1640	
				18	1640 – 1740	
				19	1740 – 1850	
				20	1850 – 1960	
				21	1960 – 2070	
				22	2070 – 2180	
				23	2180 – 2290	
				24	2290 – 2400	
			4	25	2400 – 2510	
				26	2510 - 2620	
				27	2620 – 2730	
				28	2730 - 2840	
				29	2840 - 2940	
				30	2940 - 3060	
				30	3060 - 3170	
				32	3170 – 3230	
SAMPLEX TRAYS: Set **D**	Coelacanth-1	**1**	**2**	-	279 – 2830 2830 – 3074	Packed in two wooden box marked as Set D
MUD SAMPLES: Set **E**	Coelacanth-1	**1**	**1**	2 (500ml)	2540, 2810	Packed in one box marked as Set E

TABLES

OPERATOR	WELL NAME	LOCATION	CONTRACTOR	RIG
Apache Northwest Pty Ltd	Coelacanth-1	VIC/P-45	Seadrill	(MODU) West Triton

Mud Pump Data
Pumps 1, 2, and 3
165 mm 6.5" Liners
355 mm 14" Stroke
97% Efficiency, 16.03 litre/stk
(0.1394 bbl/stk)

BIT DULL CHARACTERISTICS

BC - Broken Cone	CI - Cone Interference	JD - Junk Damage	PB - Pinched Bit	SS - Self-Sharpening
BT - Broken Teeth	CR - Cored	LC - Lost Cone	PN - Plugged Nozzle	TR - Tracking
BU - Balled Up	CT - Chipped Teeth	LN - Lost Nozzle	RG - Rounded Gauge	WO - Washed-Out Bit
CC - Cracked Cone	FC - Flat Crested Wear	LT - Lost Teeth	RO - Ring Out	WT - Worn Teeth
CD - Cone Dragged	HC - Heat Checking	OC - Off-Center Wear	SD - Shirttail Damage	NO - No Dull Characs.

REASONS PULLED

BHA - Bottomhole Assembly	LOG - Run Logs	FM - Formation Change	TD - Total / Csg depth
DMF - Downhole Motor failure	RIG - Rig repair	HP - Hole Problems	TQ - Torque
DSF - Drill String failure	CM - Condition Mud	HR - Hours	TW - Twist-Off
DST - Drill Stem Test	CP - Core Point	PP - Pump Pressure	WC - Weather Conditions
DTF - Downhole Tool Failure	DP - Drill Plug	PR - Penetration rate	WO - Washout - Drill String

BHA #	BIT No.	MAKE	TYPE	TFA sq.in.	JETS	SERIAL No.	DEPTH IN m	METRES ON BIT	HRS ON BOTTOM	AV ROP m/hr	CIRC HRS	WOB tonne	RPM Surf/Motor	TBR krev	SPP kPa	FLOW lpm	TQ kNm	GRADE I	O	D	L	B	G	O	R	MW SG	REMARKS
Coelacanth-1																											
660 mm (26") Hole Section 128.0 - 279.0 mMDRT																											
1	1RR	Smith	XR+C	0.9940	4x18	MZ1716	128	151	1.9	79.5	3.6	4.1	40-88	8.1	2647-19946	1998-4606	0.20-4.14	1	1	WT	A	E	I	NO	TD	SW (1.06)	Spud
311 mm (12.25") Hole Section 279.0 - 907.0 mMDRT																											
2	NB2	Smith	XR+CPS	1.0523	3x18, 1x20	PF5792	279	629	4.4	143.0	7.3	8.9	29-123/126-249	71.1	12128-27427	3335-5114	0.17-7.25	0	0	NO	NO	E	I	NO	TD	SW (1.06)	9.625" Casing point
216 mm (8.5") Hole Section 907.0 - 3074.0 mMDRT TD																											
3	NB3	Reed	RSX661B	0.9249	5x14, 1x15	216126	907	1091	27.9	39.1	37.7	14.5	37-144/162-333	453.4	6343-28020	1665-2324	0.07-54.32	1	1	BU	A	X	I	CT	PR	1.15 - 1.17	
4	4RR	Reed	RSX661B	0.9249	5x14, 1x15	216126	1998	118	9.7	12.2	9.8	16.2	47-161/199-344	154.4	17436-28000	2052-2676	0.01-4.50	1	1	BU	A	X	I	CT	PR	1.17	POOH Bit Change
5	NB5	Reed	RSX519MA6	1.0301	3x11, 5x14	216813	2116	584	18.9	30.9	23.5	11.3	42-146/206-342	322.5	17795-34446	2218-2740	0.01-10.52	1	3	BU	A	X	I	WT	PR	1.17	POOH Bit Change
6	NB6	Hughes	HC506ZX	0.9020	6x14	7211635	2700	374	9.1	41.1	17.3	4.3	49-105/235-310	159.5	23766-30081	2324-2865	0.09-7.12	0	0	RR	0	X	I	RR	TD	1.17	TD

RT-AHD (m)	38.00	m
RT - Seabed	128.0	mMDRT
Total Depth (m)	3074.0	mMDRT

BAKER HUGHES INTEQ

Bit Hydraulics Summary

Apache ENERGY

Operator	Well Name	Location	Drilling Contractor	Rig
Apache Northwest Pty Ltd	**Coelacanth-1**	**VIC/P-45**	**Seadrill**	**MODU West Triton**

Drillstring Abbreviations

N Normal
M MWD
P Positive Displacement Motor
A Adjustable Gauge Stabilizer
S Powerdrive
T TRACS Tool
C Core

Hydraulics Models

Power Law Model used for drilling with Mud
Bingham Model used for coring and drilling with seawater

Bit No.	Depth AHD (m)	Hole Size in	Jets x 1/32"	Drill String Type	Mud Type	Mud Density sg	PV mPas	YP Pa	Flow Rate lpm	Jet Vel m/sec	Impact Force lbf / in^2	Hydraulic Power hhp	Power/ Area hp/sq in	Bit Loss KPa	Bit Loss %	Pipe* Loss Kpa	ECD sg	Annular Velocities DP OH m/sec	Annular Velocities DC OH m/sec	Annular Velocities DP Max Dia m/sec
Coelacanth-1																				
660 mm (26") Hole Section 128.0 - 279.0 mMDRT																				
1RR	279	26"	4x18	N	SW	1.06	-	-	4524	47.4	1630.6	1770	353.00	2820	16.2	14623	1.060	0.23	0.26	-
311 mm (12.25") Hole Section 279.0 - 907.0 mMDRT																				
NB2	907	12.25"	3 x18, 1x20	N, M, P	SW	1.06	-	-	4429	153.5	22.9	2598	10.00	11997	45.7	14258	1.072	1.21	1.78	0.29
216 mm (8.5") Hole Section 907.0 - 3074.0 mMDRT																				
NB3	1998	8.5"	5x14, 1x15	N, M, P	KCl-Polymer	1.17	8	9.6	2082	58.2	9.4	927	2.00	1923	9.6	18016	1.230	0.95	1.15	0.14
4RR	2116	8.5"	5x14, 1x15	N, M, P	KCl-Polymer	1.17	8	9.6	2460	68.8	13.1	1308	3.00	2661	11.2	21146	1.240	1.12	1.35	0.16
NB5	2700	8.5"	3x11, 5x14	N, M, P	KCl-Polymer	1.17	18	13.9	2309	57.9	10.3	1319	2.00	1882	7.4	23690	1.239	1.06	1.27	0.15
NB6	3074	8.5"	6x14	N, M, P	KCl-Polymer	1.17	25	14	2650	75.9	15.5	1671	3.00	3240	11.5	25000	1.248	1.21	1.45	0.17

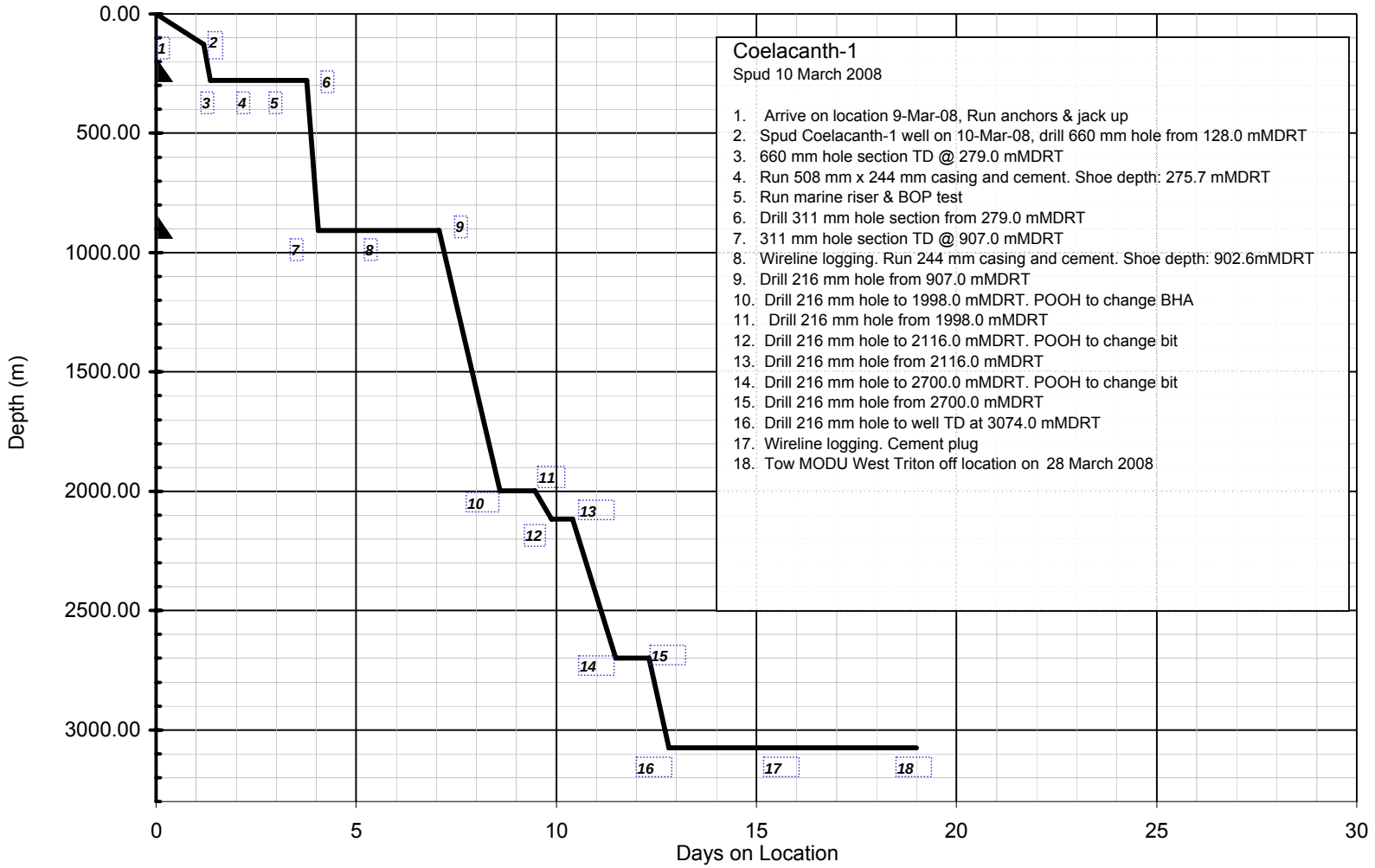
* Note: Pipe Loss includes DP,HWDP, DC, MWD, Motor,Additional tools, surf equipment

Table: 3 Time and Depth Curve

BAKER HUGHES INTEQ

Apache Northwest Pty Ltd
Coelacanth-1
Time vs. Depth

Apache ENERGY



Coelacanth-1
Spud 10 March 2008

1. Arrive on location 9-Mar-08, Run anchors & jack up
2. Spud Coelacanth-1 well on 10-Mar-08, drill 660 mm hole from 128.0 mMDRT
3. 660 mm hole section TD @ 279.0 mMDRT
4. Run 508 mm x 244 mm casing and cement. Shoe depth: 275.7 mMDRT
5. Run marine riser & BOP test
6. Drill 311 mm hole section from 279.0 mMDRT
7. 311 mm hole section TD @ 907.0 mMDRT
8. Wireline logging. Run 244 mm casing and cement. Shoe depth: 902.6mMDRT
9. Drill 216 mm hole from 907.0 mMDRT
10. Drill 216 mm hole to 1998.0 mMDRT. POOH to change BHA
11. Drill 216 mm hole from 1998.0 mMDRT
12. Drill 216 mm hole to 2116.0 mMDRT. POOH to change bit
13. Drill 216 mm hole from 2116.0 mMDRT
14. Drill 216 mm hole to 2700.0 mMDRT. POOH to change bit
15. Drill 216 mm hole from 2700.0 mMDRT
16. Drill 216 mm hole to well TD at 3074.0 mMDRT
17. Wireline logging. Cement plug
18. Tow MODU West Triton off location on 28 March 2008

FORMATION EVALUATION LOG

1:500

BAKER HUGHES INTEQ

Apache ENERGY

Company	**Apache Northwest Pty Ltd**
Well	**Coelacanth-1**
Permit	**VIC/P-45**
Region	**Gippsland Basin**
Designation	**Exploration**
Coordinates	**Lat 38° 42' 49.7296"** **Long 148° 18' 07.0098"**
Ref Elevation	**RT 38.0 mMDRT (AHD)**
Total Depth	**3074.0 mMDRT**
Contractor	**Seadrill**
Rig	**MODU West Triton**
Type	**Jack-Up**

LOG INTERVAL

Depth	**128.0 - 3074.0 mMDRT**
Date	**10 -22 March 2008**
Scale	**1 : 500**
Data Engineers	**Y.C. Wong, A. Rayan**
Logging Geologists	**R. Houston, R. Richharia, F. Walsh**

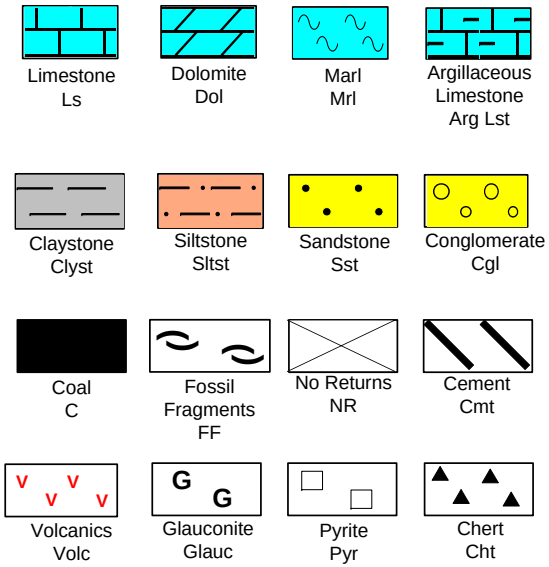
INTEQ LOG SUITE

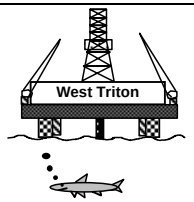
Formation Evaluation Log
Drilling Data Plot
Gas Ratio Plot
Pressure Log

ABBREVIATIONS

NB	New Bit	MD	Measured Depth
RB	Rerun Bit	GPM	Gallons per Min
CB	Core Bit	PP	Pump Pressure
WOB	Weight on Bit	MW	Mud Weight sg
RPM	Revs per Minute	FV	Funnel Viscosity
FLC	Flow Check	F	Filtrate - API
FCG	Flow Check Gas	FC	Filter Cake
PR	Poor Returns	PV	Plastic Viscosity
NR	No Returns	YP	Yield Point
BG	Background Gas	Sol	Solids %
WTG	Wiper Trip Gas	Sd	Sand %
TG	Trip Gas	Cl	Chlorides
POG	Pumps Off Gas	RM	Mud Resistivity
CG	Connection Gas	RMF	Filtrate Resistivty
SWG	Swab Gas	TVD	True Vertical Depth

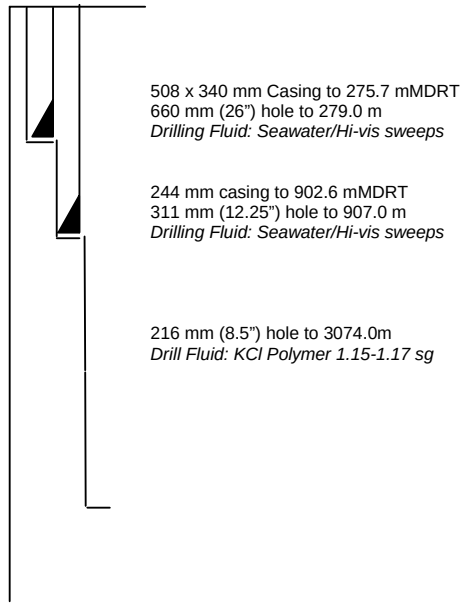
LITHOLOGY SYMBOLS

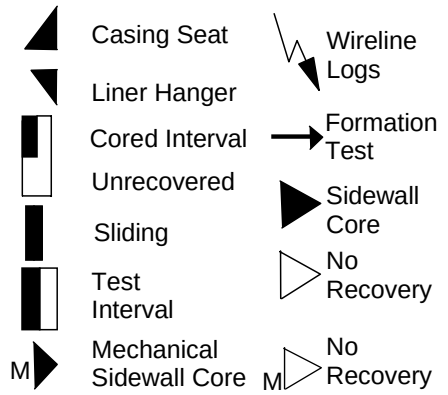




RT- AHD 38.0 mMDRT

W Dep – AHD 90.0 mMDRT





BAKER HUGHES INTEQ

Company : Apache
Well : Coelacanth-1
Interval : 119.00 - 3086.61 meters
Created : 24/Mar/2008 6:31:29 AM

Apache ENERGY

FORMATION EVALUATION LOG

Drilling Rate
ROP (m/hr) 200 180 160 140 120 100 80 60 40 20
ROP (m/hr) 400 380 360 340 320 300 280 260 240 220
Gamma Ray 0 200
GAPI

MD meters 1:500

Cuttings Lithology

Visual Inferred Porosity P F G

Oil Show P F G

Gas Data
Gas Hydrocarbon Avg %
0.01 0.1 1 10
Resistivity Shall 0.001 10
OHMM
Resistivity Deep 0.001 10
OHMM

Chromatograph Data
Methane ppm 1 100000
Ethane ppm 1 100000
Propane ppm 1 100000
iso-Butane ppm 1 100000
n-Butane ppm 1 100000
iso-Pentane ppm 1 100000
n-Pentane ppm 1 100000

Calcimetry
CaCO3 % 20 40 60 80 100
MgCO3 % 100 80 60 40 20

Interpreted Lithology

Lithology Description

120 130 140 150 160 170 180 190 200 210

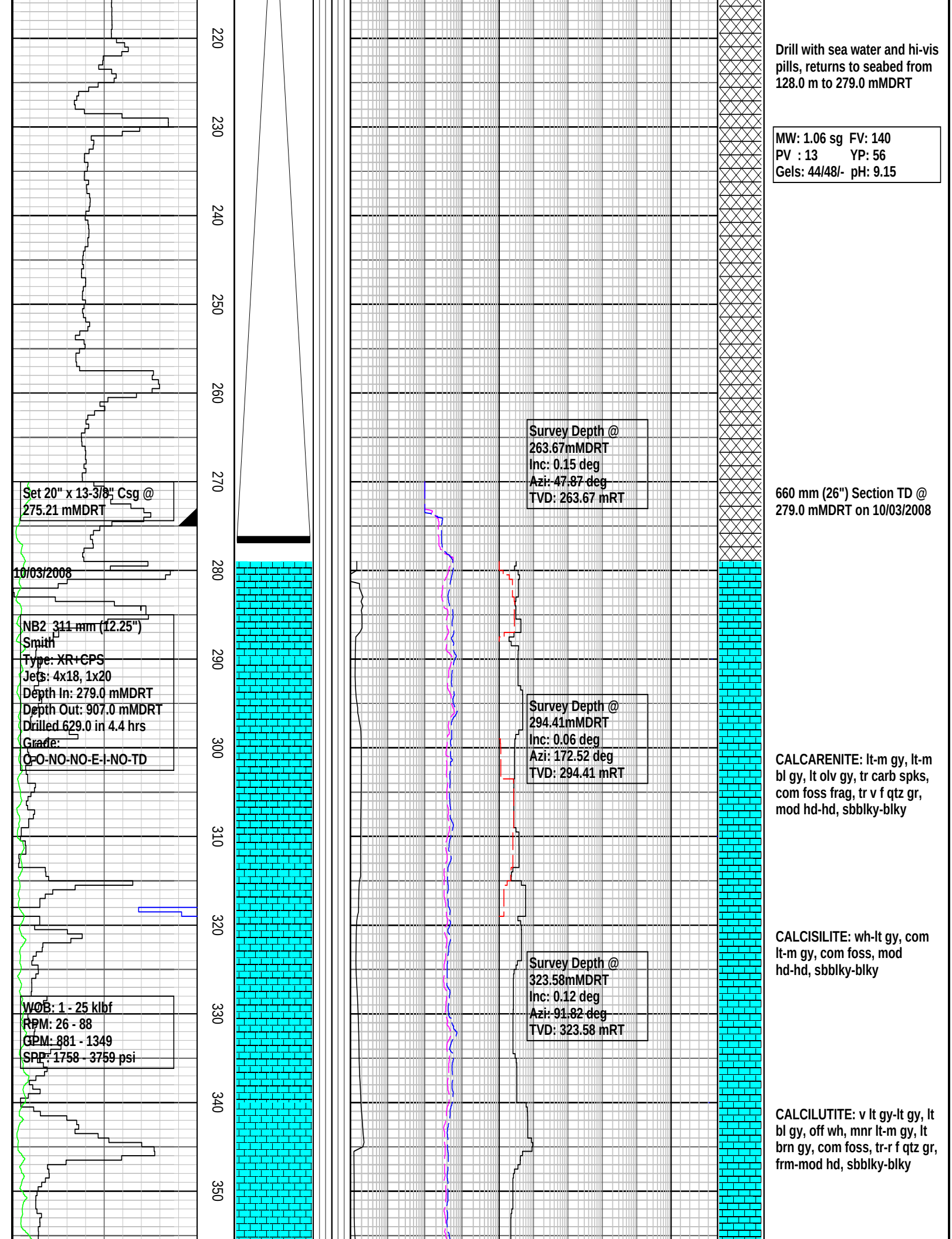
1RR 660 mm (26")
Smith
Type: XR+C
Jets: 4x18
Depth In: 127.5 mMDRT
Depth Out: 279.0 mMDRT
Drilled 151.0 m in 1.9 hrs
Grade:
1-1-WT-A-E-I-NO-TD

Survey Depth @
128.00mMDRT
Inc: 0.00 deg
Azi: 0.00 deg
TVD: 128.00 mRT

RT - AHD: 38.0 mMDRT
Water Depth: 90.0 mMDRT
RT - Seabed: 128.0 mMDRT

Spud Coelacanth-1 at 1300hrs on 10/03/2008

Drill with sea water and hi-vis pills, returns to seabed from 128.0 m to 279.0 mMDRT



Drill with sea water and hi-vis pills, returns to seabed from 128.0 m to 279.0 mMDRT

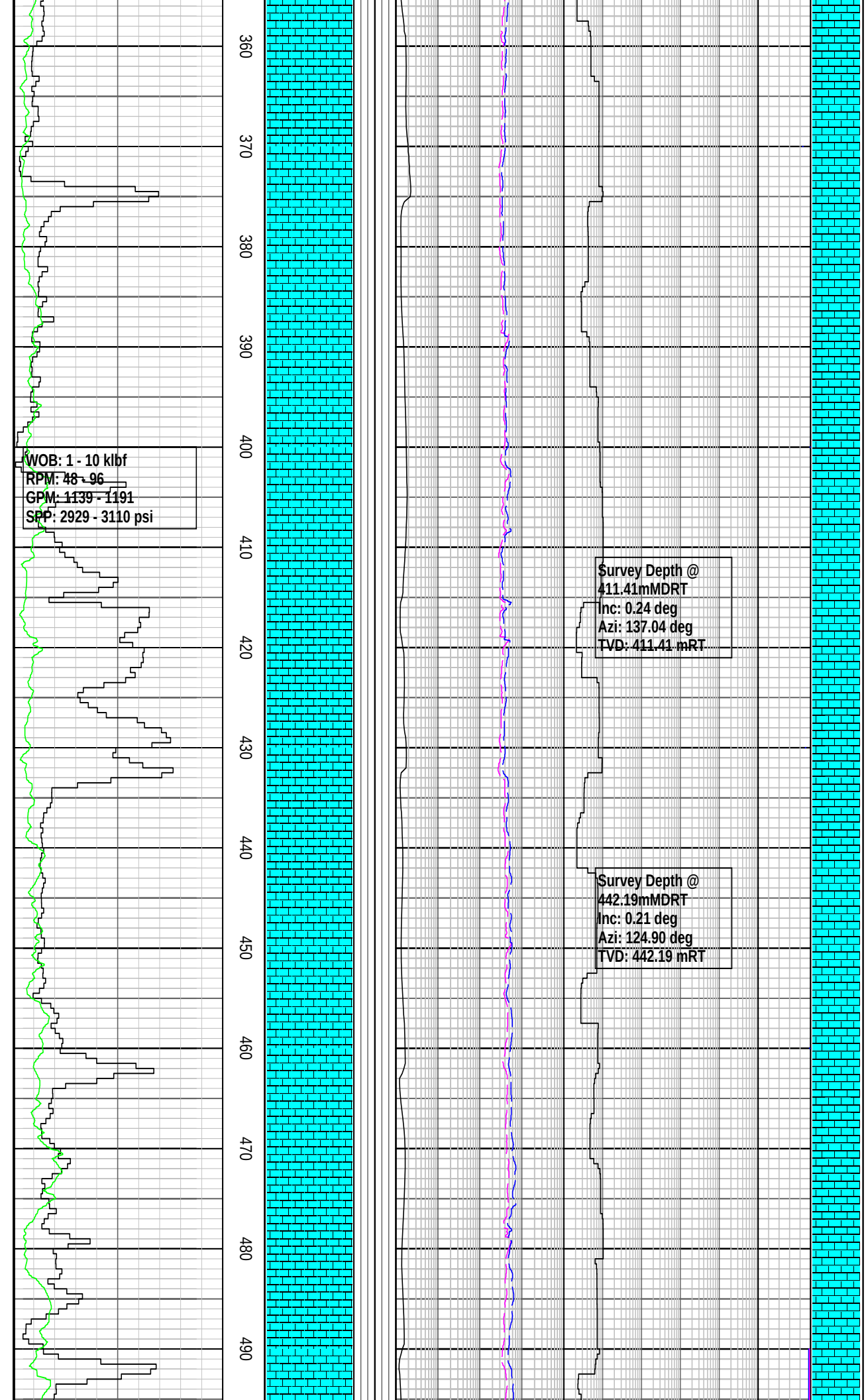
MW: 1.06 sg FV: 140
PV : 13 YP: 56
Gels: 44/48/- pH: 9.15

660 mm (26") Section TD @ 279.0 mMDRT on 10/03/2008

CALCARENITE: lt-m gy, lt-m bl gy, lt olv gy, tr carb spks, com foss frag, tr v f qtz gr, mod hd-hd, sbblky-blky

CALCISILITE: wh-lt gy, com lt-m gy, com foss, mod hd-hd, sbblky-blky

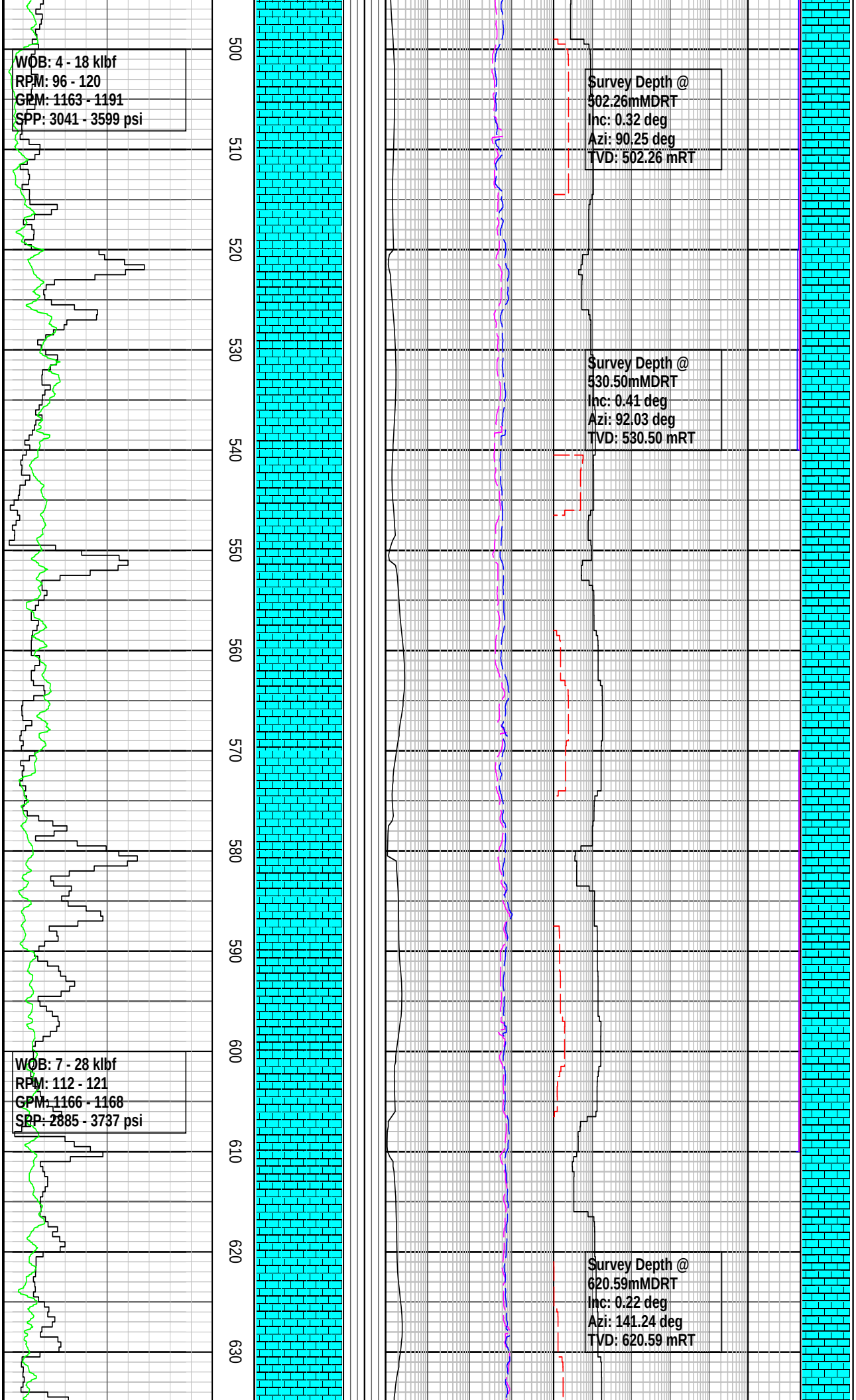
CALCILUTITE: v lt gy-lt gy, lt bl gy, off wh, mnr lt-m gy, lt brn gy, com foss, tr-r f qtz gr, frm-mod hd, sbblky-blky



CALCARENITE: lt-m gy, lt olv gy, mnr m gy, com foss frag, mod hd-hd, sbblky-blky

CALCILUTITE: v lt gy-lt gy, lt bl gy, off wh, mnr lt-m gy, lt brn gy, com foss, tr-r f qtz gr, frm-mod hd, sbblky-blky

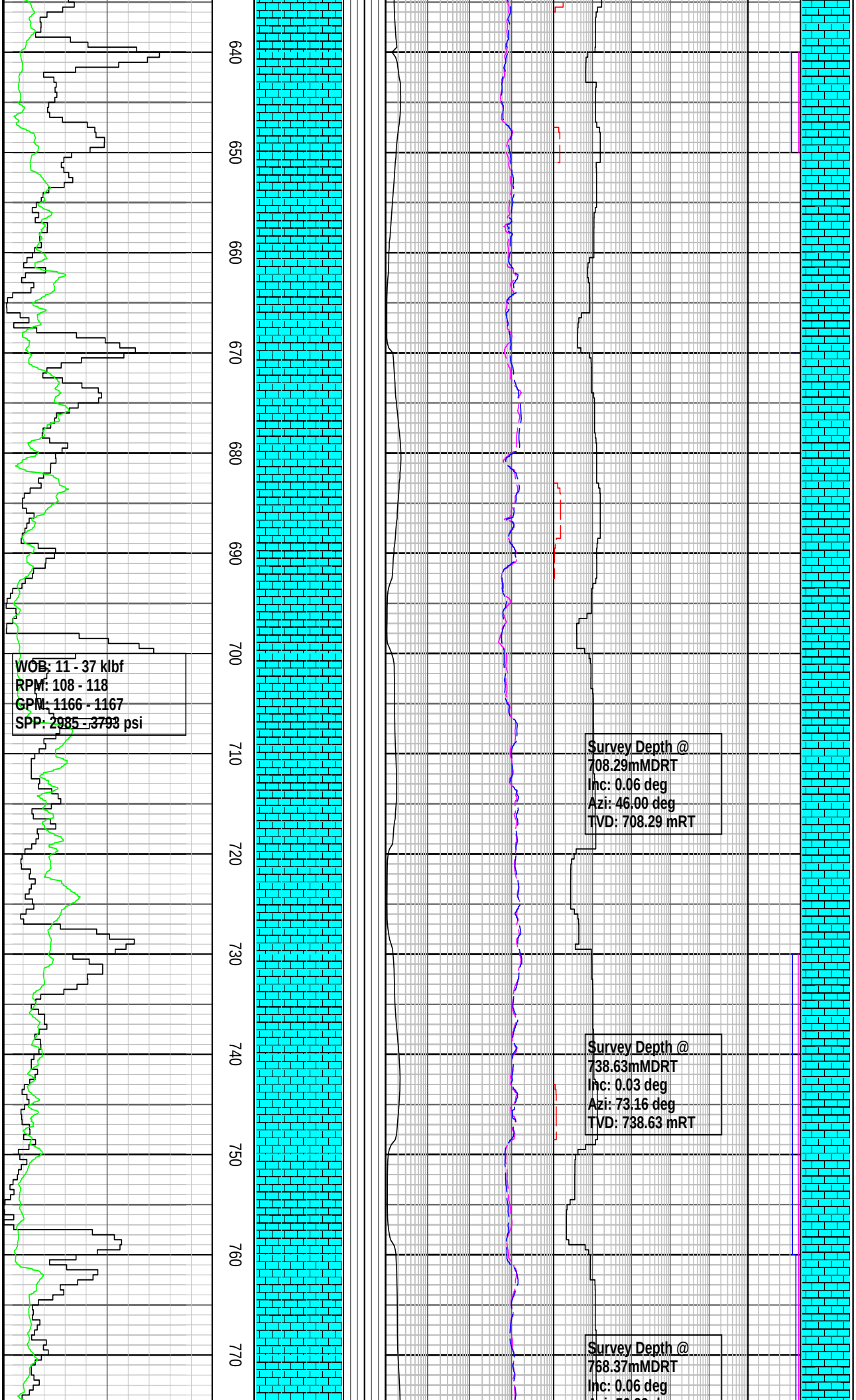
CALCARENITE: lt-m gy, lt olv gy, mnr m gy, com foss frag, mod hd-hd, sbblky-blky



CALCARENITE: lt-m gy, lt olv gy, mnr m gy, com foss frag, mod hd-hd, sbblky-blky

CALCARENITE: lt-m gy, lt olv gy, mnr m gy, com foss frag, mod hd-hd, sbblky-blky

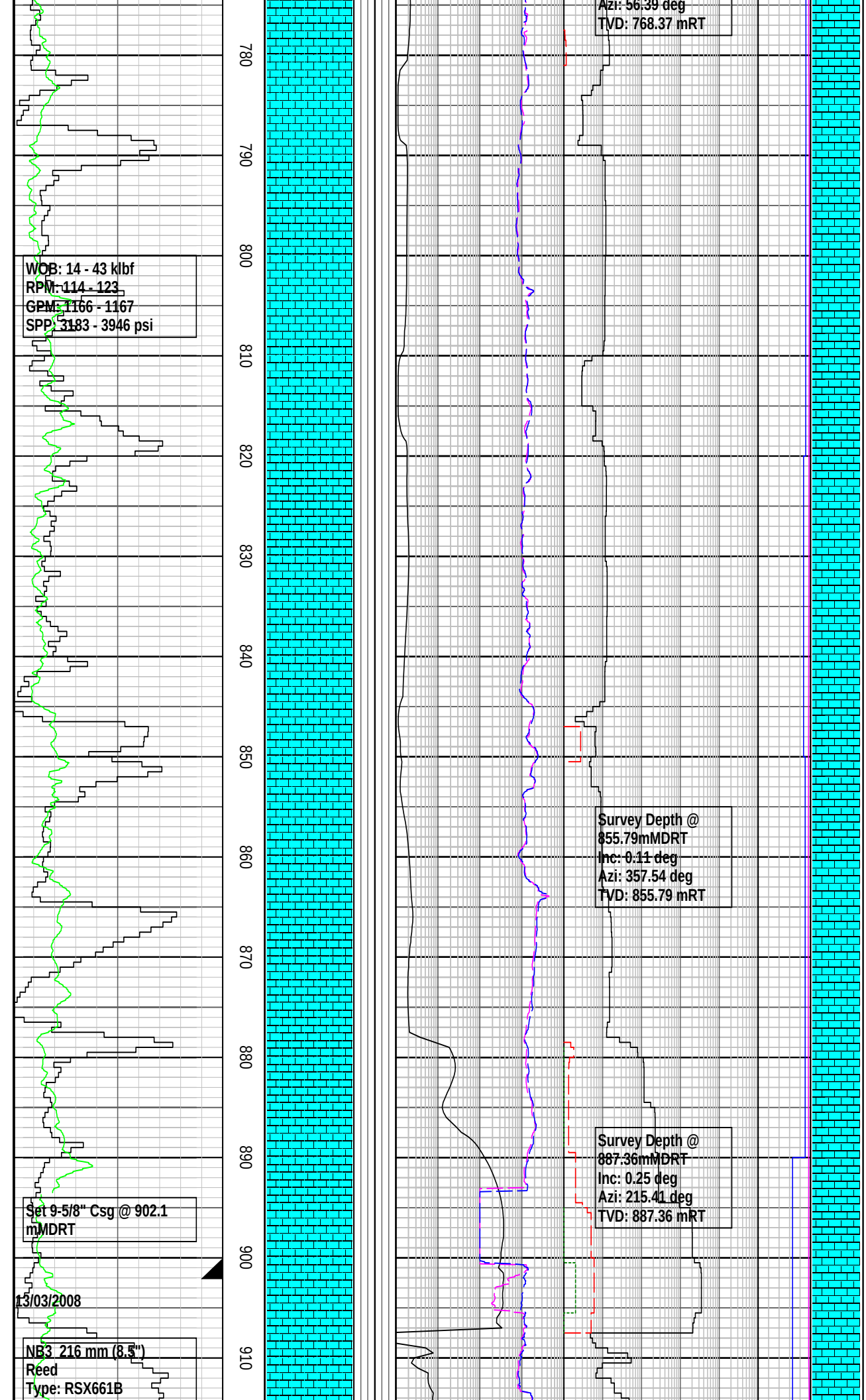
CALCARENITE: lt-m gy, lt-m olv gy, lt brn gy, tr com foss frag, com f-m qtz gr, mod hd, sbblky-blky



CALCARENITE: lt-m gy, lt-m olv, lt brn gy, tr com foss frag, com f-m qtz gr, mod hd, sbblky-blky

CALCARENITE : lt-m gy, lt bl gy, mnr m dk gy, com v f-f qtz gr, com foss frag, mod hd-hd, sbblky-blky

CALCARENITE : lt-m gy, pred m gy, lt bl gy, mnr m dk gy, com v f-f qtz gr, com foss frag, mod hd-hd, sbblky-blky



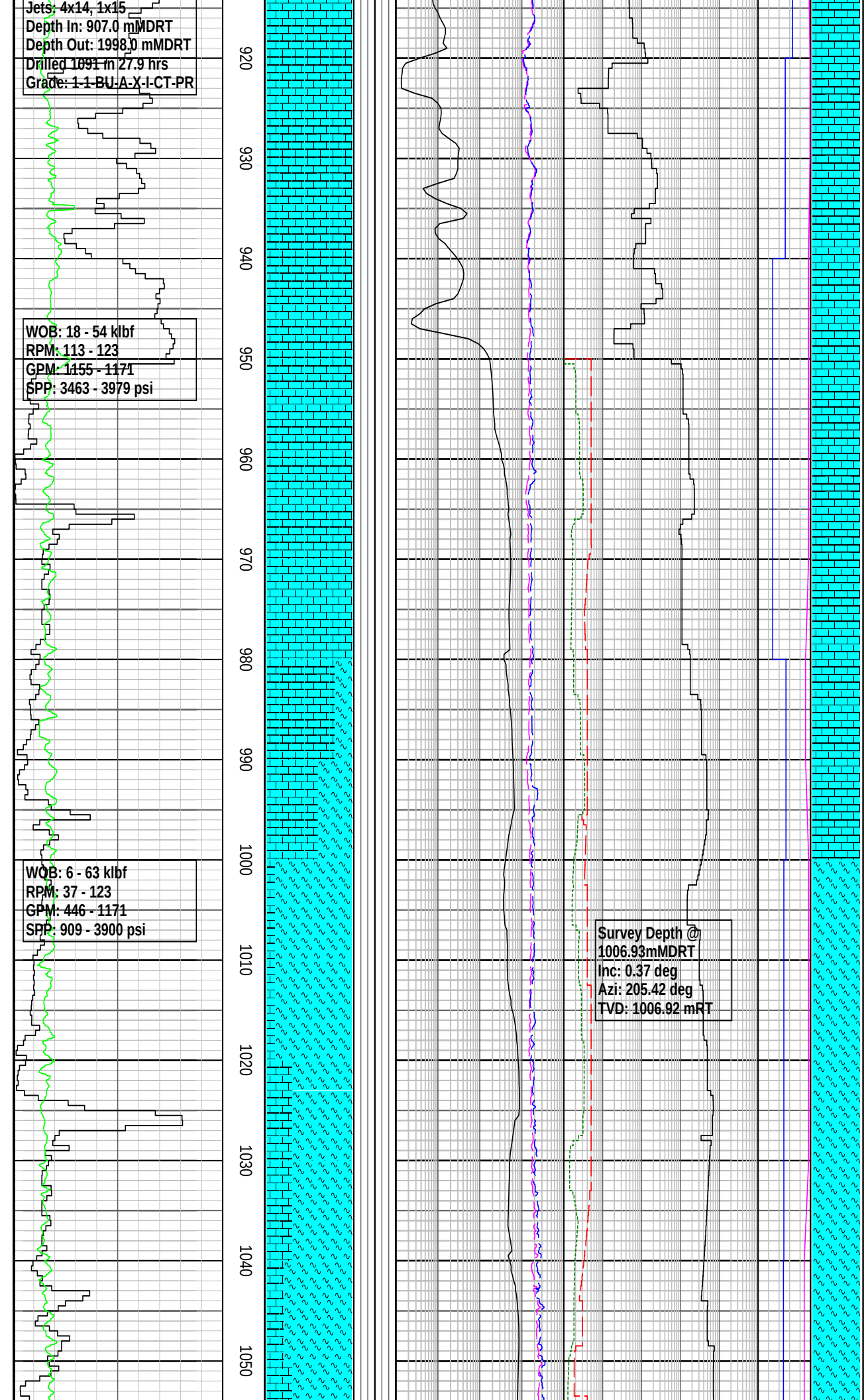
CALCARENITE : lt-m gy, pred m gy, lt bl gy, mnr m dk gy, com v f-f qtz gr, com foss frag, mod hd-hd, sbblky-blky

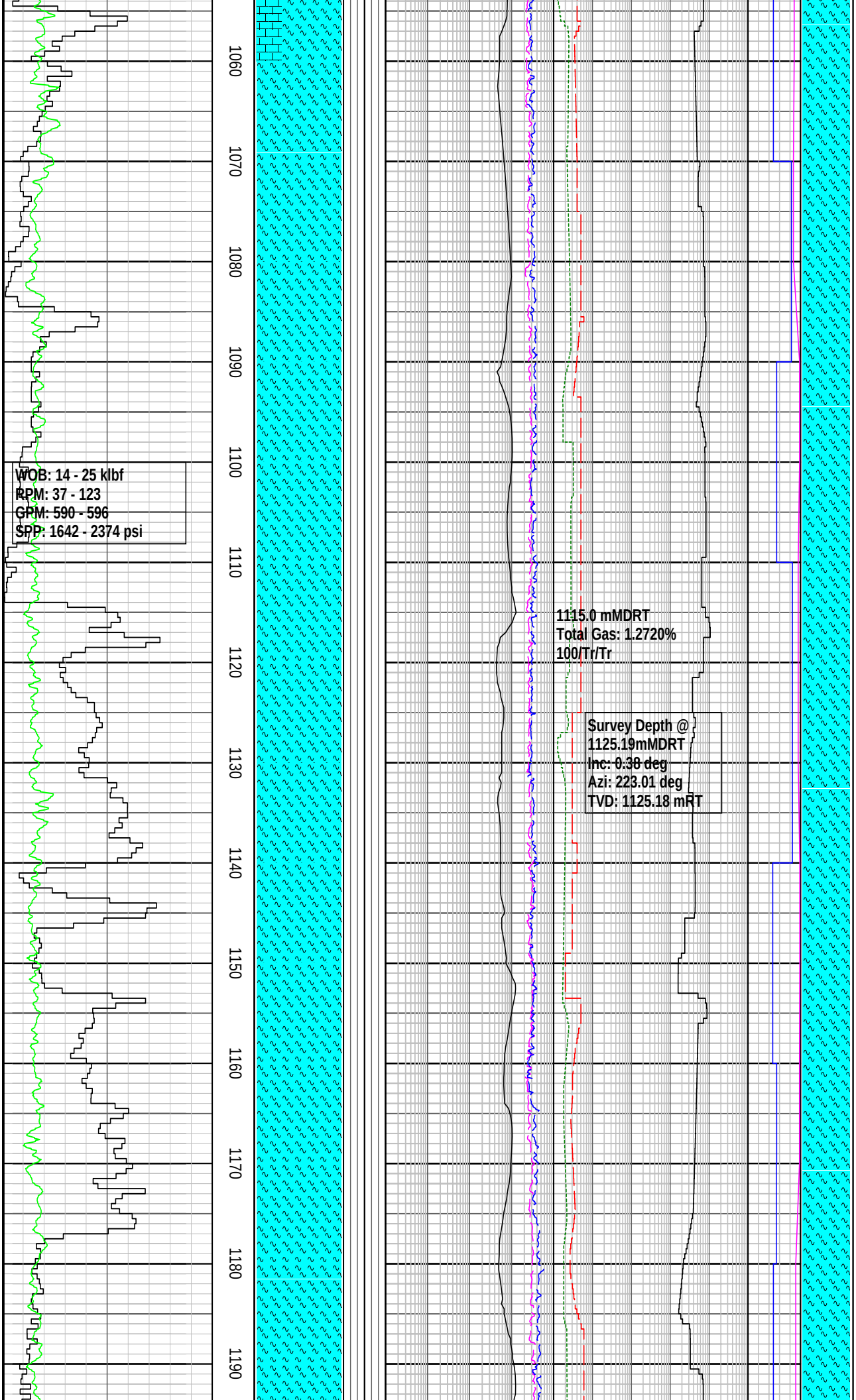
MW: 1.15 sg FV: 43
PV : 9 YP: 11
Gels: 4/9/- pH: 8.00

CALCARENITE : lt-m gy, pred m gy, lt bl gy, mnr m dk gy, com v f-f qtz gr, com foss frag, mod hd-hd, sbblky-blky

CALCARENITE : lt-m gy, pred m gy, lt bl gy, mnr m dk gy, com v f-f qtz gr, com foss frag, mod hd-hd, sbblky-blky

311 mm (12.25") Section TD @ 907.0 mMDRT on 13/03/2008

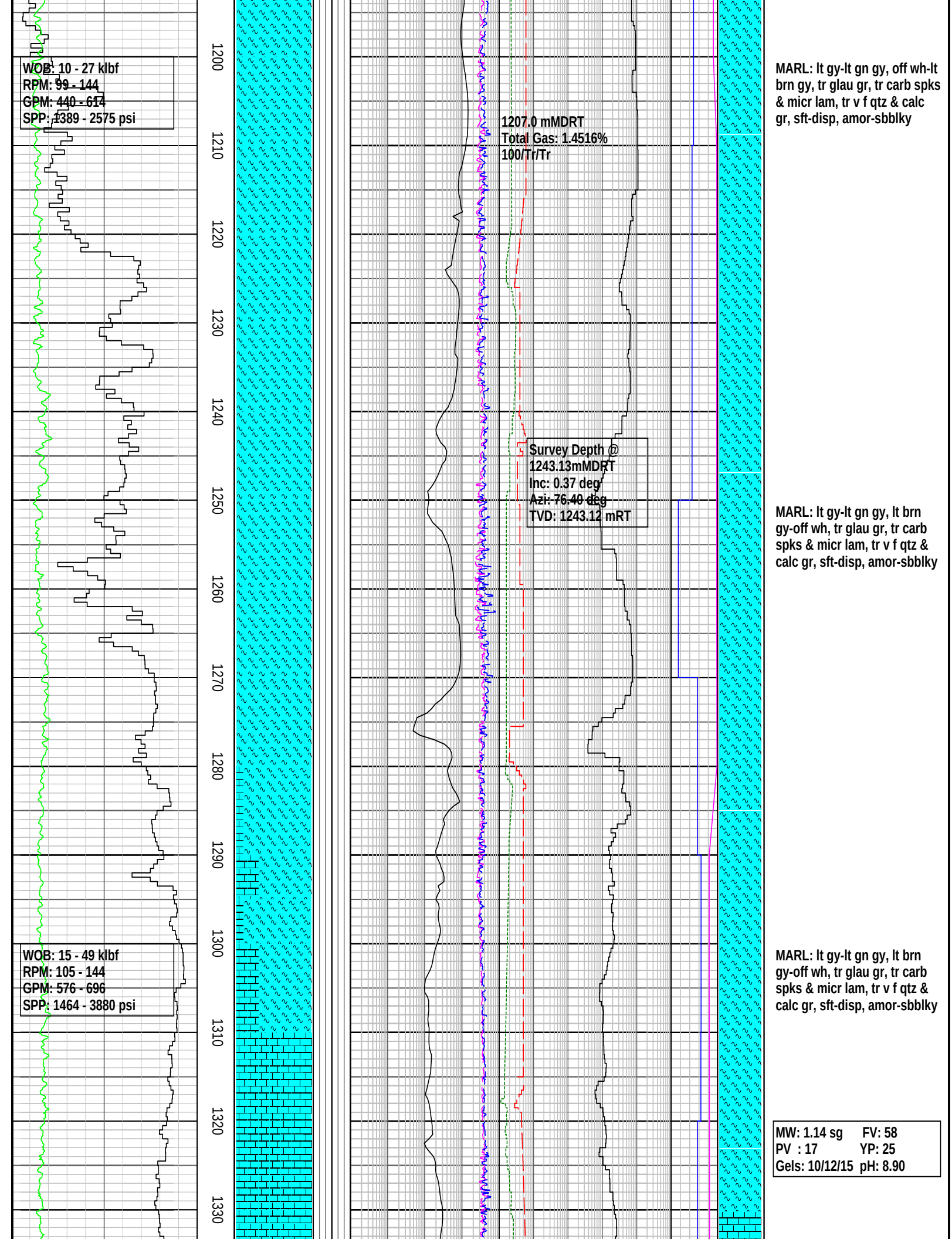

Jets: 4x14, 1x15
Depth In: 907.0 mMDRT
Depth Out: 1998.0 mMDRT
Drilled 1091 in 27.9 hrs
Grade: 1-1-BU-A-X-I-CT-PR
WOB: 18 - 54 klbf
RPM: 113 - 123
GPM: 1155 - 1171
SPP: 3463 - 3979 psi
WOB: 6 - 63 klbf
RPM: 37 - 123
GPM: 446 - 1171
SPP: 909 - 3900 psi
Survey Depth @
1006.93mMDRT
Inc: 0.37 deg
Azi: 205.42 deg
TVD: 1006.92 mRT
920
930
940
950
960
970
980
990
1000
1010
1020
1030
1040
1050
CALCARENITE : lt-m gy, pred m gy, lt bl gy, mnr m dk gy, com v f-f qtz gr, com foss frag, mod hd-hd, sbblky-blky
MARL: lt gy-lt gn gy, off wh-lt brn gy, tr glau gr, tr carb spks & micr lam, tr v f qtz & calc gr, sft-disp, amor-sbblky
CALCARENITE : lt-m gy, pred m gy, lt bl gy, mnr m dk gy, com v f-f qtz gr, com foss frag, mod hd-hd, sbblky-blky

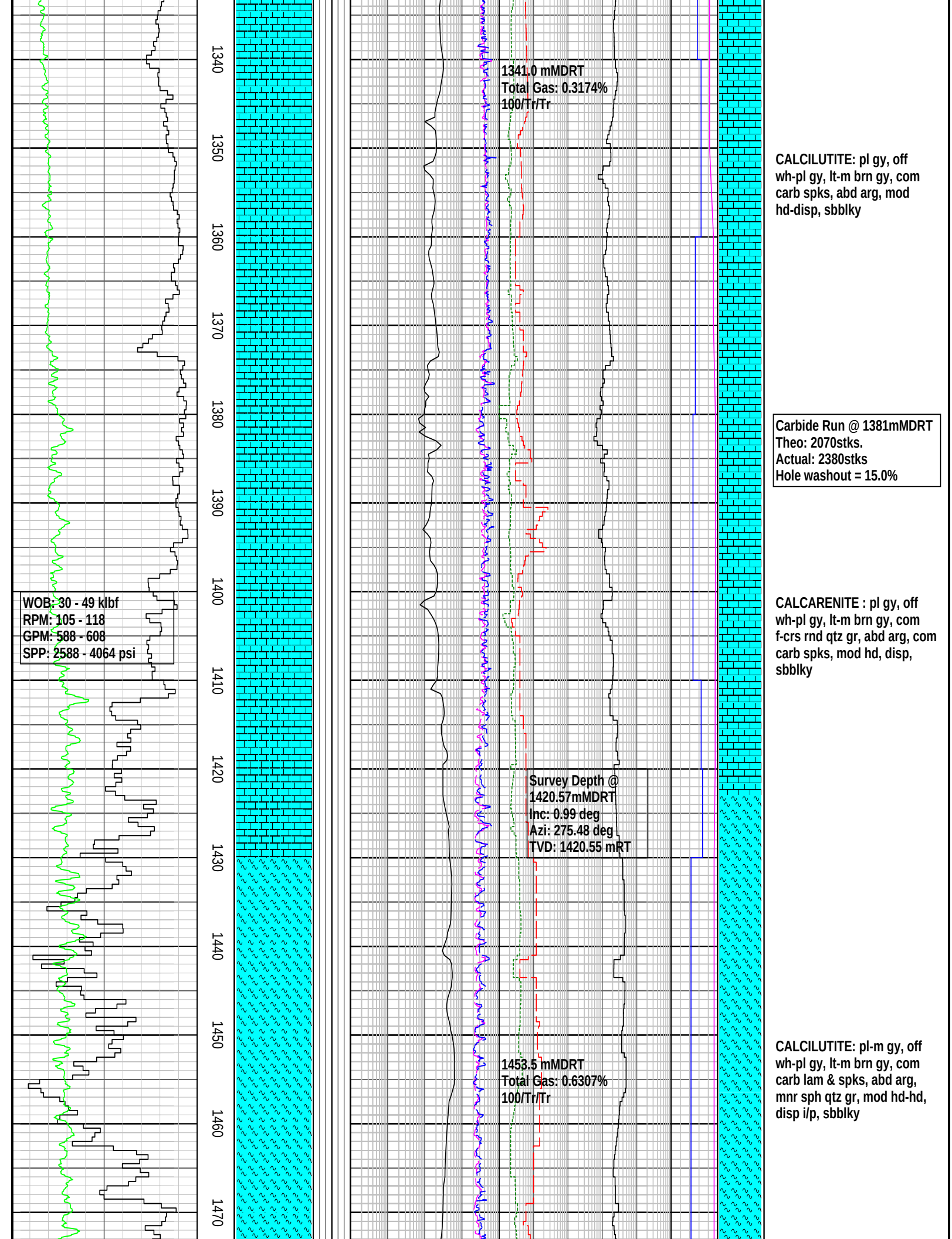


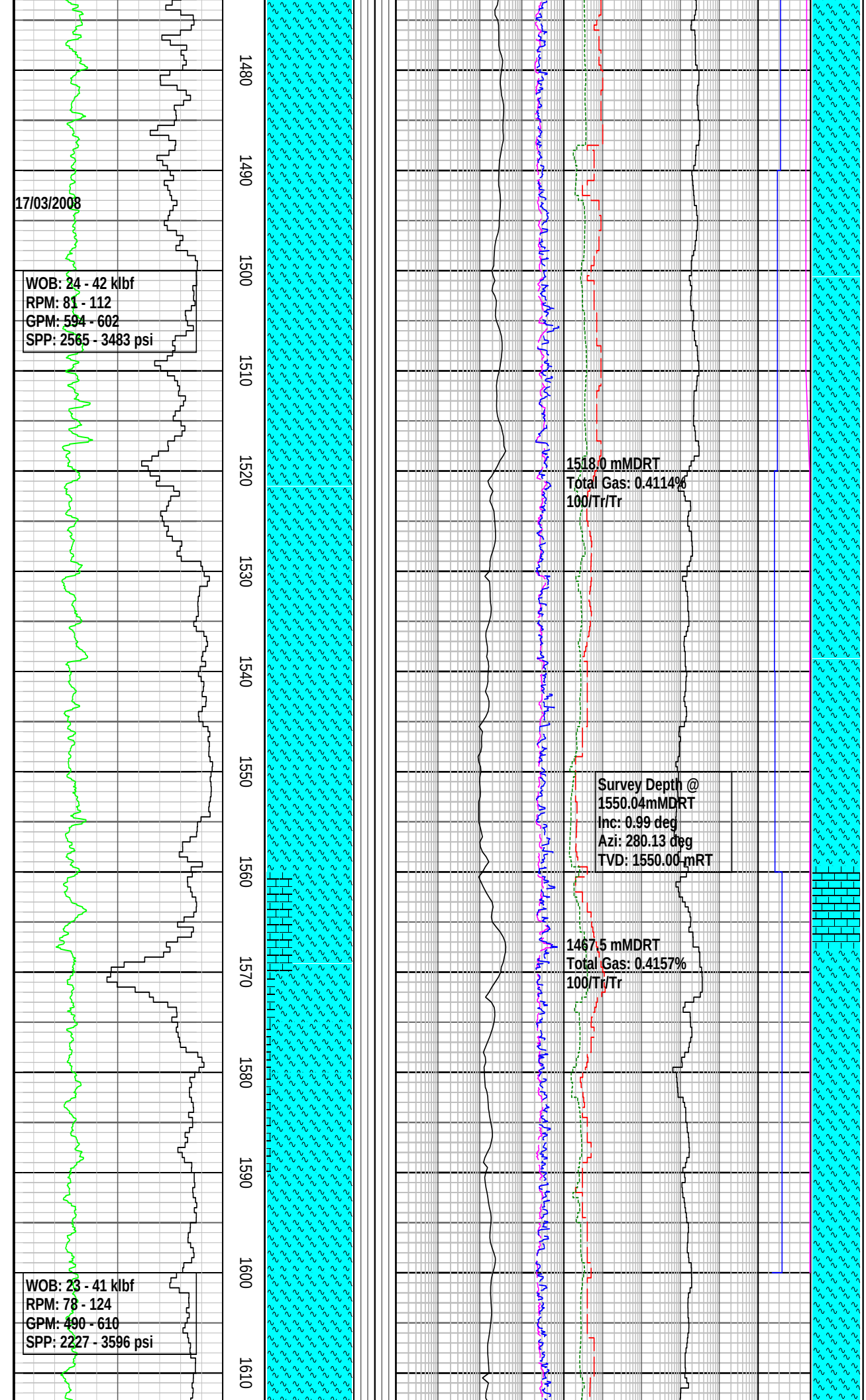
MARL: lt gy-lt gn gy, off wh-lt brn gy, tr glau gr, tr carb spks & micr lam, tr v f qtz & calc gr, sft-disp, amor-sbblky

MARL: lt gy-lt gn gy, off wh-lt brn gy, tr glau gr, tr carb spks & micr lam, tr v f qtz & calc gr, sft-disp, amor-sbblky

MARL: lt gy-lt gn gy, off wh-lt brn gy, tr glau gr, tr carb spks & micr lam, tr v f qtz & calc gr, sft-disp, amor-sbblky


WOB: 10 - 27 klbf
RPM: 99 - 144
GPM: 440 - 614
SPP: 1389 - 2575 psi
1207.0 mMDRT
Total Gas: 1.4516%
100/Tr/Tr
Survey Depth @
1243.13mMDRT
Inc: 0.37 deg
Azi: 76.40 deg
TVD: 1243.12 mRT
WOB: 15 - 49 klbf
RPM: 105 - 144
GPM: 576 - 696
SPP: 1464 - 3880 psi
1200
1210
1220
1230
1240
1250
1260
1270
1280
1290
1300
1310
1320
1330
MARL: lt gy-lt gn gy, off wh-lt brn gy, tr glau gr, tr carb spks & micr lam, tr v f qtz & calc gr, sft-disp, amor-sbblky
MARL: lt gy-lt gn gy, lt brn gy-off wh, tr glau gr, tr carb spks & micr lam, tr v f qtz & calc gr, sft-disp, amor-sbblky
MARL: lt gy-lt gn gy, lt brn gy-off wh, tr glau gr, tr carb spks & micr lam, tr v f qtz & calc gr, sft-disp, amor-sbblky
MW: 1.14 sg FV: 58
PV : 17 YP: 25
Gels: 10/12/15 pH: 8.90

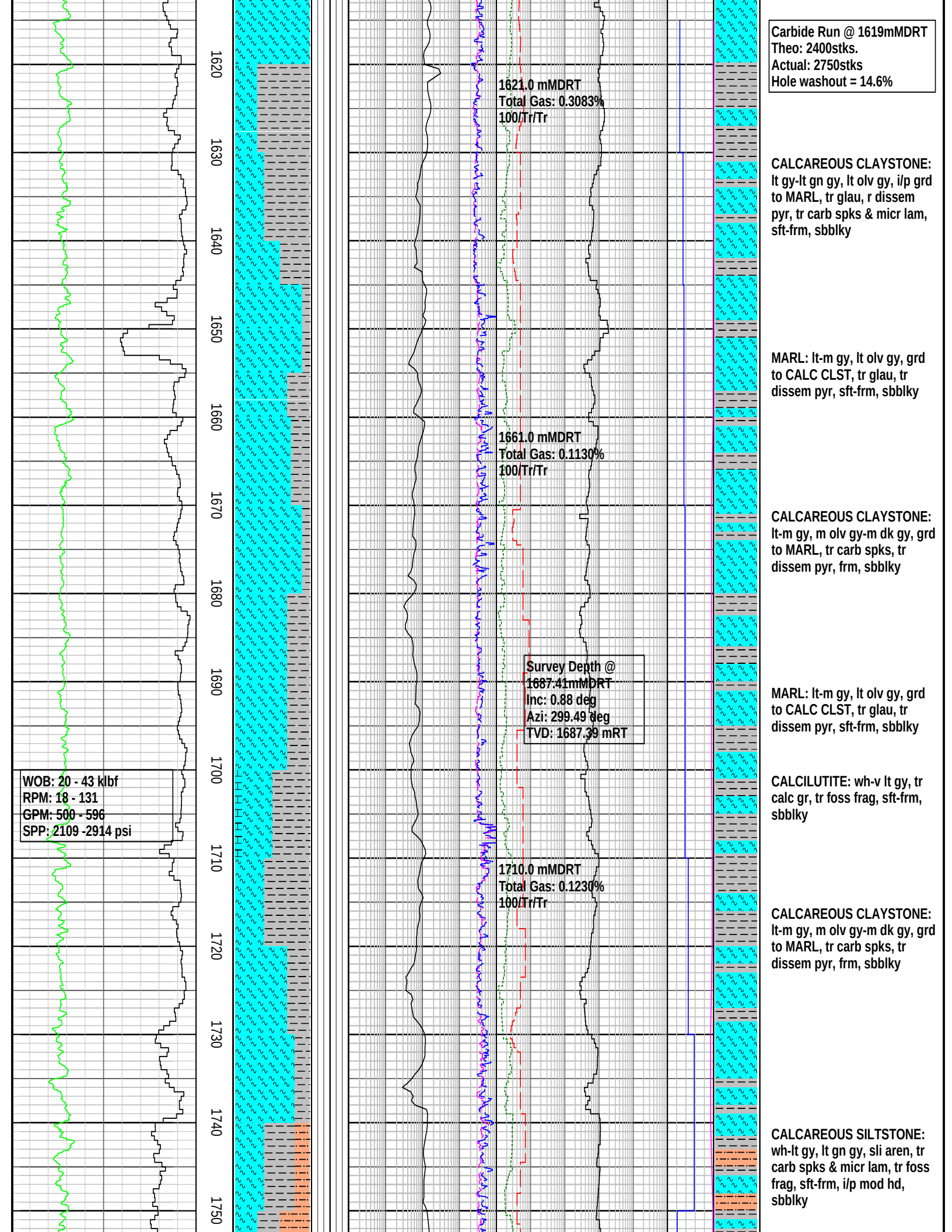

1340
1350
1360
1370
1380
1390
1400
1410
1420
1430
1440
1450
1460
1470
WOB: 30 - 49 klbf
RPM: 105 - 118
GPM: 588 - 608
SPP: 2588 - 4064 psi
1341.0 mMDRT
Total Gas: 0.3174%
100/Tr/Tr
CALCILUTITE: pl gy, off wh-pl gy, lt-m brn gy, com carb spks, abd arg, mod hd-disp, sbblky
Carbide Run @ 1381mMDRT
Theo: 2070stks.
Actual: 2380stks
Hole washout = 15.0%
CALCARENITE : pl gy, off wh-pl gy, lt-m brn gy, com f-crs rnd qtz gr, abd arg, com carb spks, mod hd, disp, sbblky
Survey Depth @
1420.57mMDRT
Inc: 0.99 deg
Azi: 275.48 deg
TVD: 1420.55 mRT
1453.5 mMDRT
Total Gas: 0.6307%
100/Tr/Tr
CALCILUTITE: pl-m gy, off wh-pl gy, lt-m brn gy, com carb lam & spks, abd arg, mnr sph qtz gr, mod hd-hd, disp i/p, sbblky

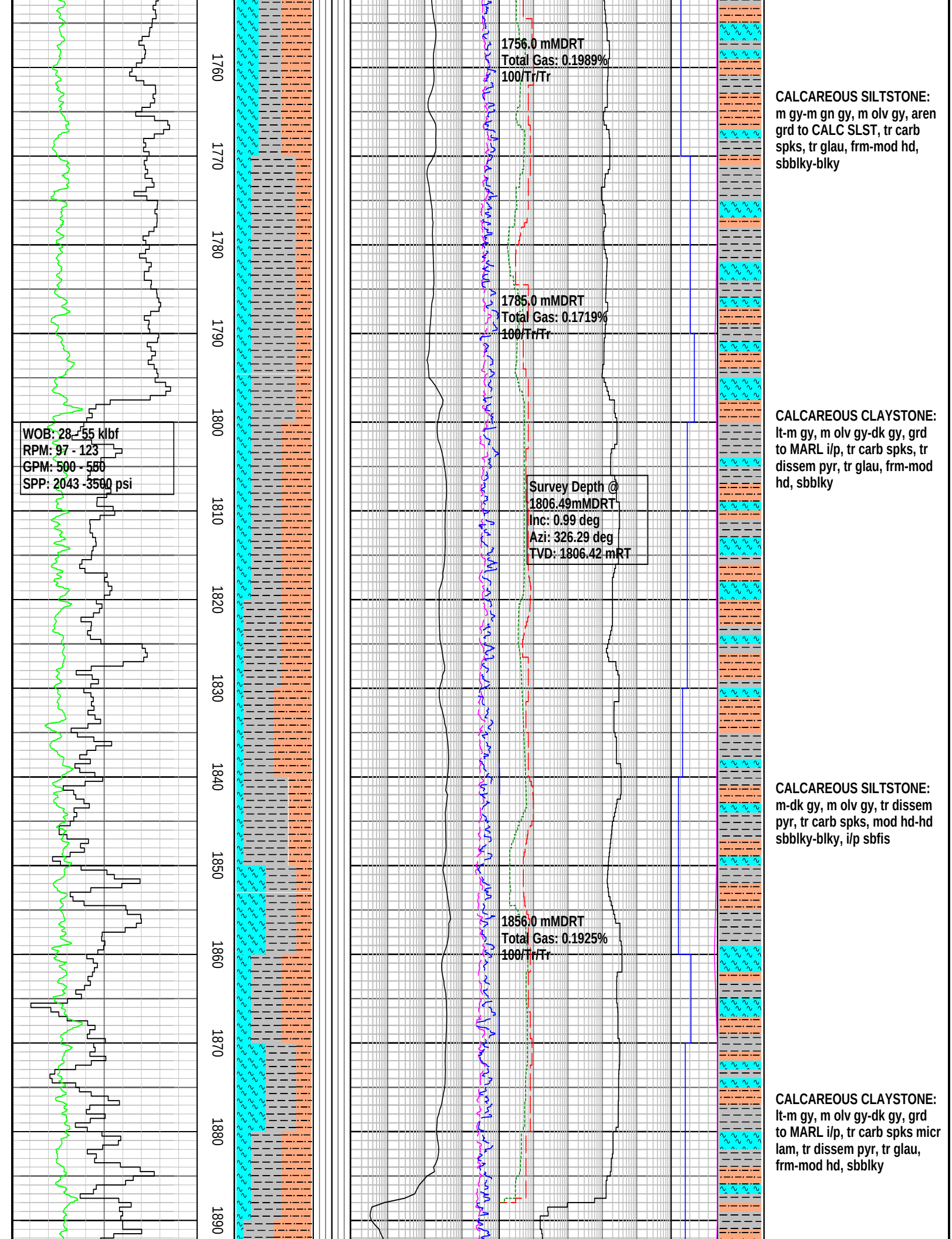


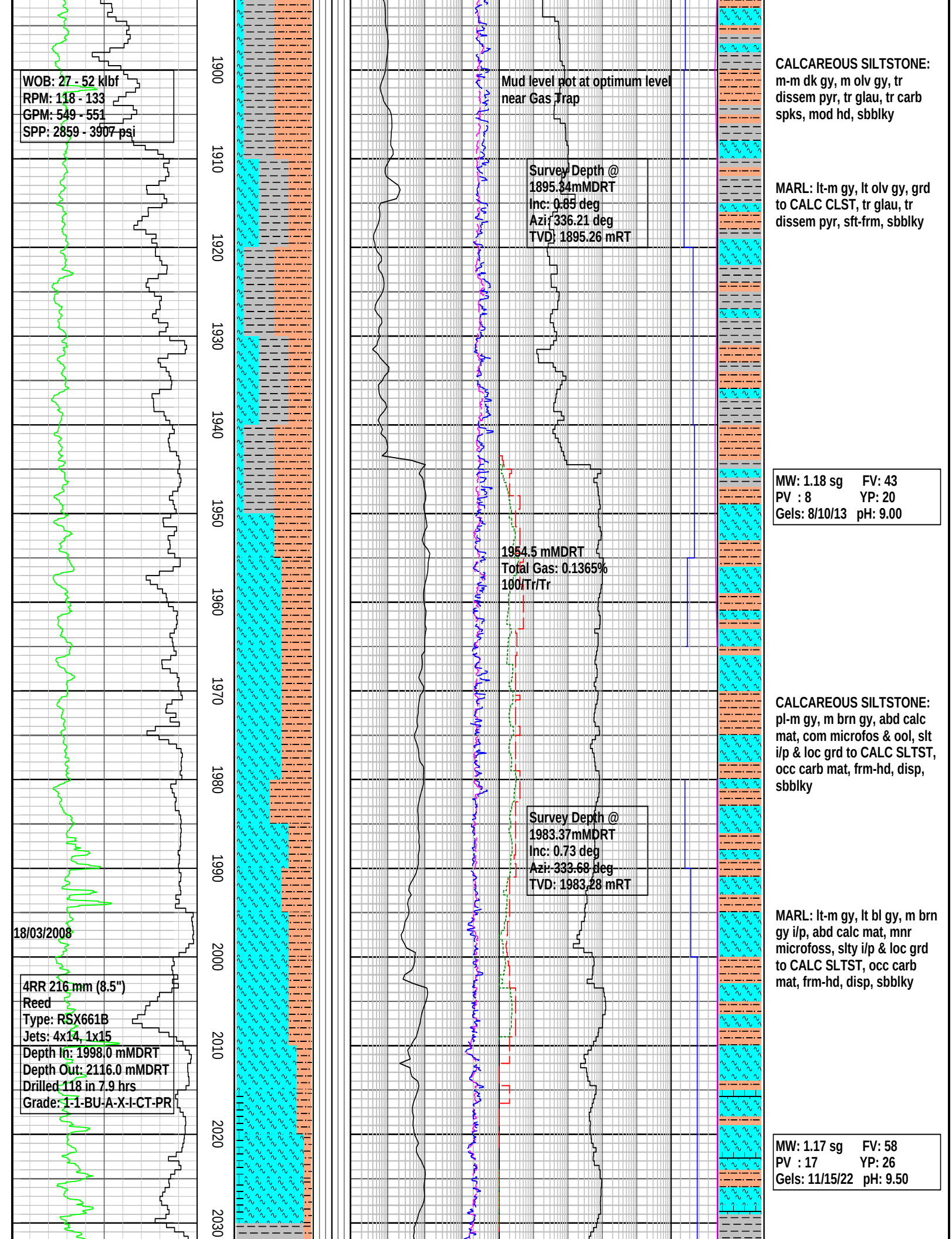
MARL: lt-m gy, m brn gy, off wh, abd arg mat, com carb lam & spks, occ lit, mnr f-m sph qtz gr, loc slt lam & grd to CALCISILTITE, mod hd-hd, sbblky-blky, disp i/p

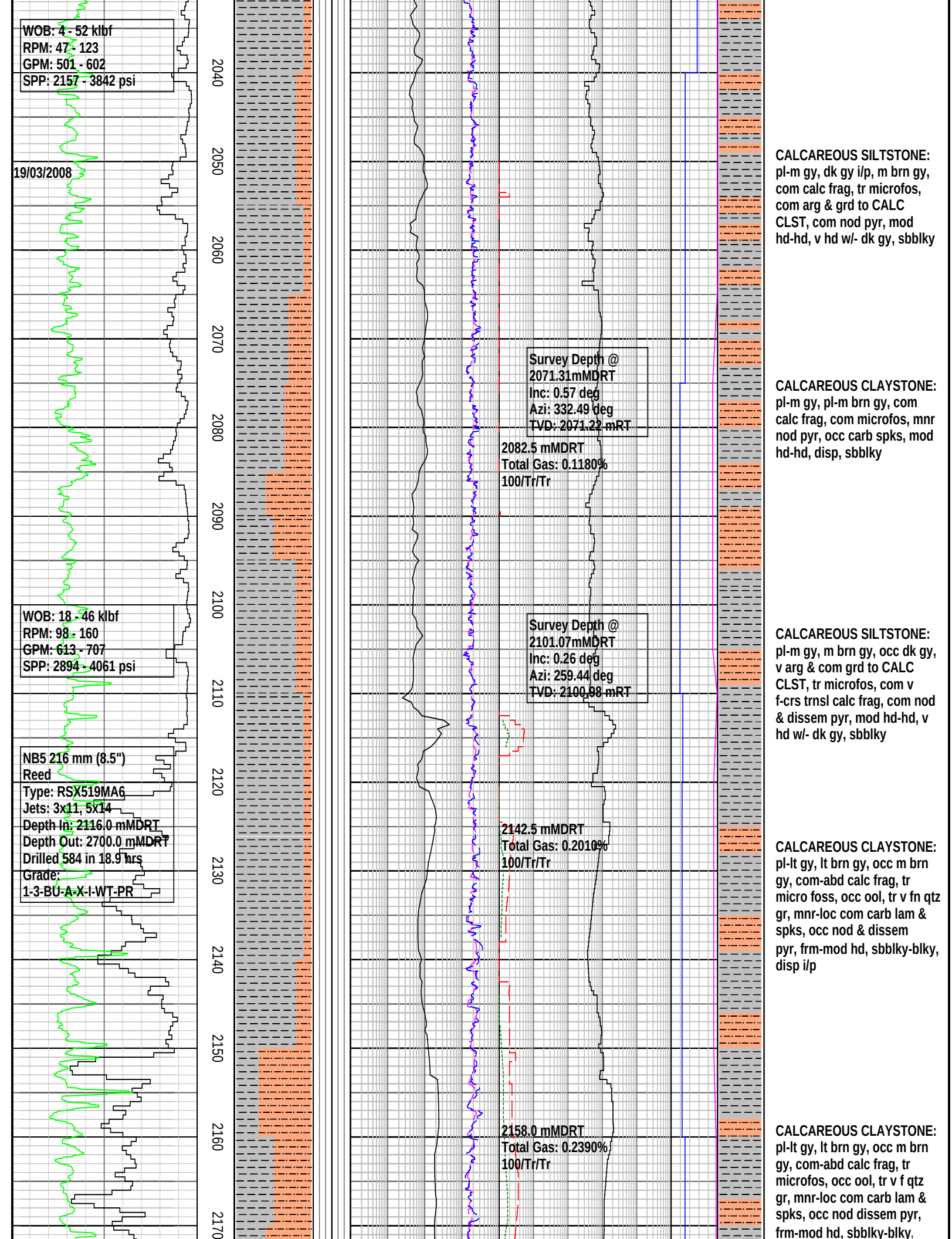
MARL: pl-m gy, lt brn gy, trnsl i/p, com f-crs ang-sph qtz gr, com microfos, abd arg mat, mnr-loc com carb lam & spks, mnr nod pyr, frm-hd, sbblky

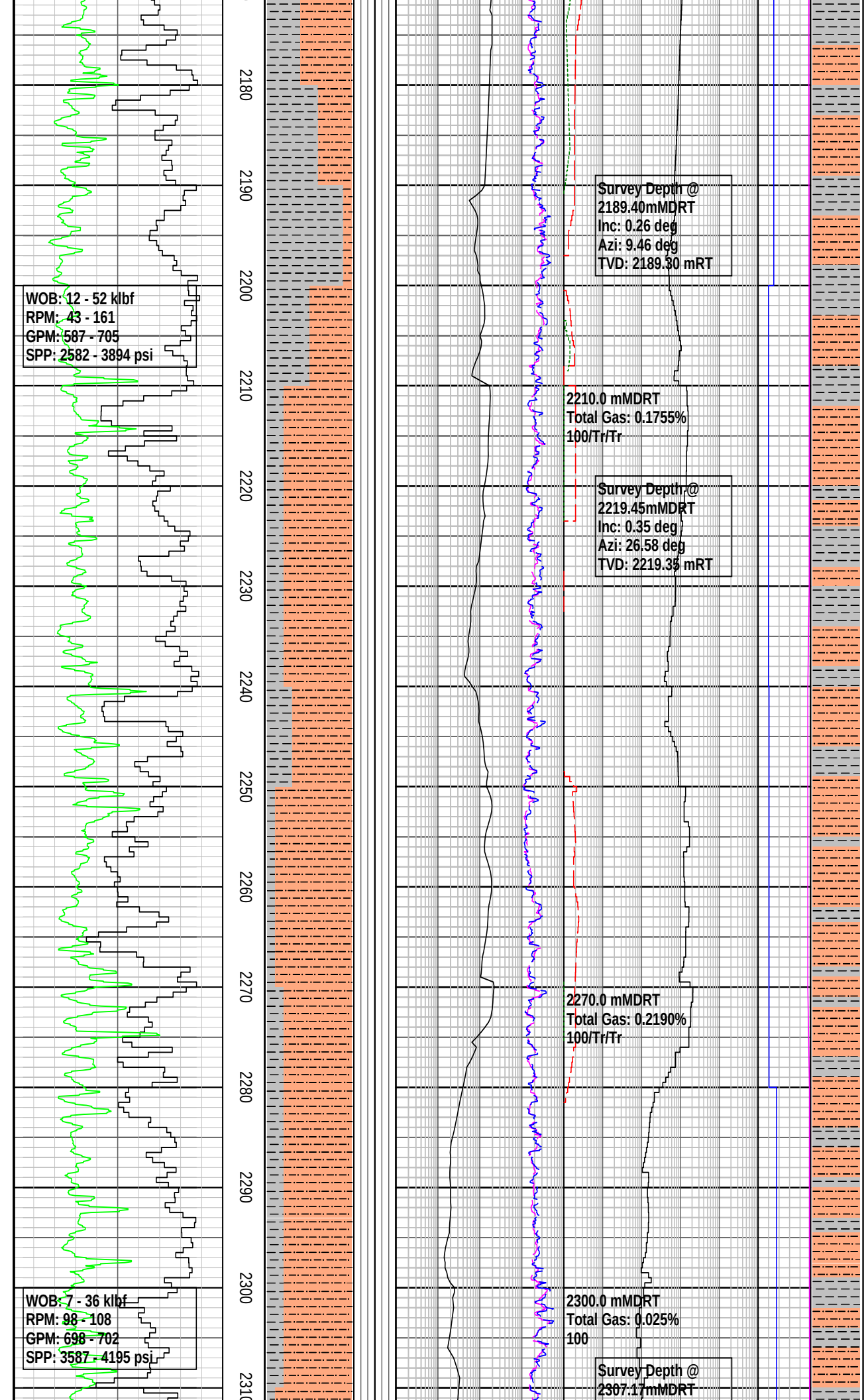
MARL: pl-m gy, m brn gy, com ool, com microfos, mnr carb spks, occ nod & dissem pyr, frm-mod hd, sbblky

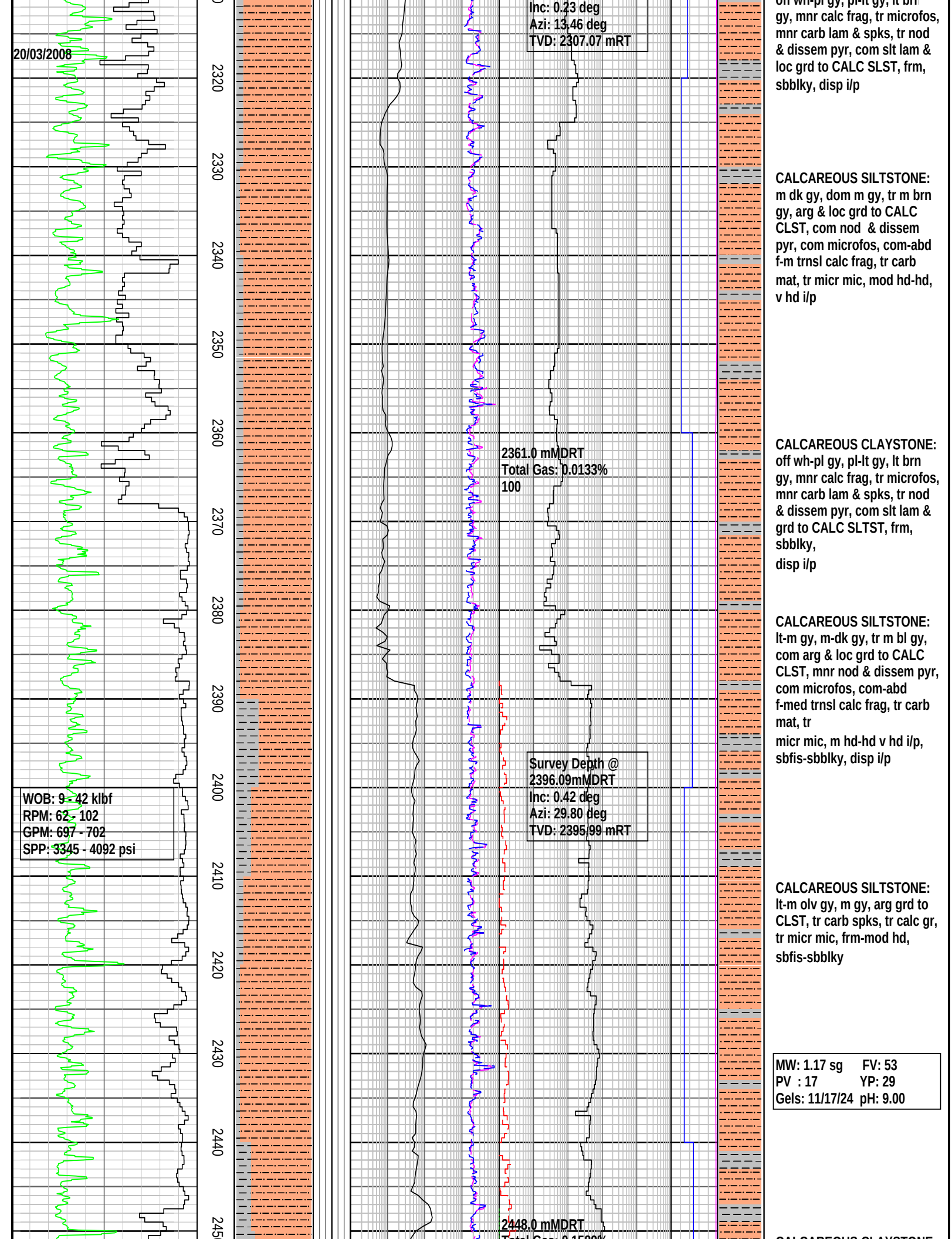

1620
1630
1640
1650
1660
1670
1680
1690
1700
1710
1720
1730
1740
1750
WOB: 20 - 43 klbf
RPM: 18 - 131
GPM: 500 - 596
SPP: 2109 -2914 psi
1621.0 mMDRT
Total Gas: 0.3083%
100/Tr/Tr
1661.0 mMDRT
Total Gas: 0.1130%
100/Tr/Tr
Survey Depth @
1687.41mMDRT
Inc: 0.88 deg
Azi: 299.49 deg
TVD: 1687.39 mRT
1710.0 mMDRT
Total Gas: 0.1230%
100/Tr/Tr
Carbide Run @ 1619mMDRT
Theo: 2400stks.
Actual: 2750stks
Hole washout = 14.6%
CALCAREOUS CLAYSTONE: lt gy-lt gn gy, lt olv gy, i/p grd to MARL, tr glau, r dissem pyr, tr carb spks & micr lam, sft-frm, sbblky
MARL: lt-m gy, lt olv gy, grd to CALC CLST, tr glau, tr dissem pyr, sft-frm, sbblky
CALCAREOUS CLAYSTONE: lt-m gy, m olv gy-m dk gy, grd to MARL, tr carb spks, tr dissem pyr, frm, sbblky
MARL: lt-m gy, lt olv gy, grd to CALC CLST, tr glau, tr dissem pyr, sft-frm, sbblky
CALCILUTITE: wh-v lt gy, tr calc gr, tr foss frag, sft-frm, sbblky
CALCAREOUS CLAYSTONE: lt-m gy, m olv gy-m dk gy, grd to MARL, tr carb spks, tr dissem pyr, frm, sbblky
CALCAREOUS SILTSTONE: wh-lt gy, lt gn gy, sli aren, tr carb spks & micr lam, tr foss frag, sft-frm, i/p mod hd, sbblky

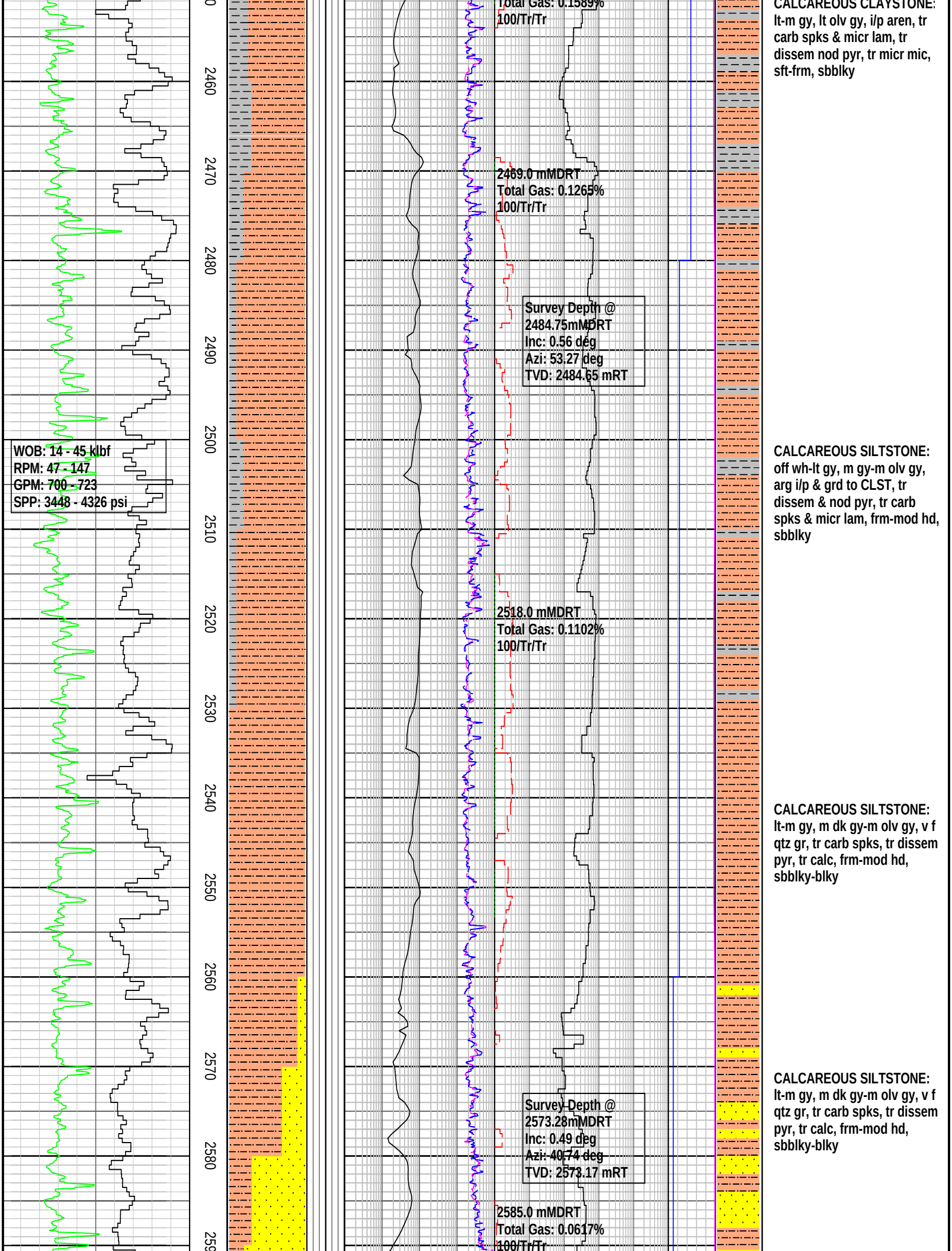

1760
1770
1780
1790
1800
1810
1820
1830
1840
1850
1860
1870
1880
1890
WOB: 28 - 55 klbf
RPM: 97 - 123
GPM: 500 - 550
SPP: 2043 -3500 psi
1756.0 mMDRT
Total Gas: 0.1989%
100/Tr/Tr
1785.0 mMDRT
Total Gas: 0.1719%
100/Tr/Tr
Survey Depth @
1806.49mMDRT
Inc: 0.99 deg
Azi: 326.29 deg
TVD: 1806.42 mRT
1856.0 mMDRT
Total Gas: 0.1925%
100/Tr/Tr
CALCAREOUS SILTSTONE: m gy-m gn gy, m olv gy, aren grd to CALC SLST, tr carb spks, tr glau, frm-mod hd, sbblky-blky
CALCAREOUS CLAYSTONE: lt-m gy, m olv gy-dk gy, grd to MARL i/p, tr carb spks, tr dissem pyr, tr glau, frm-mod hd, sbblky
CALCAREOUS SILTSTONE: m-dk gy, m olv gy, tr dissem pyr, tr carb spks, mod hd-hd sbblky-blky, i/p sbfis
CALCAREOUS CLAYSTONE: lt-m gy, m olv gy-dk gy, grd to MARL i/p, tr carb spks micr lam, tr dissem pyr, tr glau, frm-mod hd, sbblky

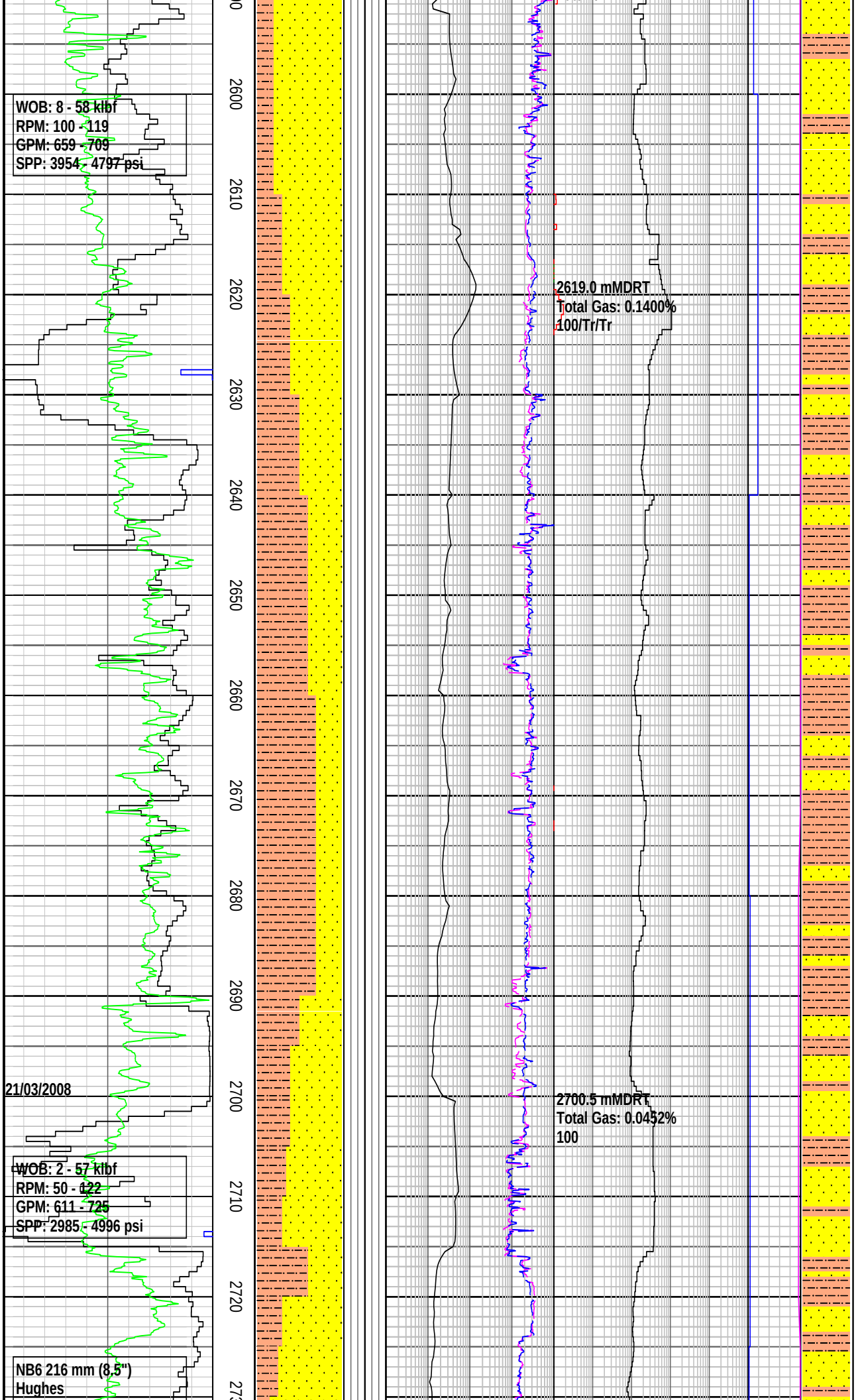

WOB: 27 - 52 klbf
RPM: 118 - 133
GPM: 549 - 551
SPP: 2859 - 3907 psi
1900
1910
1920
1930
1940
1950
1960
1970
1980
1990
2000
2010
2020
2030
18/03/2008
4RR 216 mm (8.5")
Reed
Type: RSX661B
Jets: 4x14, 1x15
Depth In: 1998.0 mMDRT
Depth Out: 2116.0 mMDRT
Drilled 118 in 7.9 hrs
Grade: 1-1-BU-A-X-I-CT-PR
Mud level pot at optimum level near Gas Trap
Survey Depth @ 1895.34mMDRT
Inc: 0.85 deg
Azi: 336.21 deg
TVD: 1895.26 mRT
1954.5 mMDRT
Total Gas: 0.1365%
100/Tr/Tr
Survey Depth @ 1983.37mMDRT
Inc: 0.73 deg
Azi: 333.68 deg
TVD: 1983.28 mRT
CALCAREOUS SILTSTONE: m-m dk gy, m olv gy, tr dissem pyr, tr glau, tr carb spks, mod hd, sbblky
MARL: lt-m gy, lt olv gy, grd to CALC CLST, tr glau, tr dissem pyr, sft-frm, sbblky
MW: 1.18 sg FV: 43
PV : 8 YP: 20
Gels: 8/10/13 pH: 9.00
CALCAREOUS SILTSTONE: pl-m gy, m brn gy, abd calc mat, com microfos & ool, slt i/p & loc grd to CALC SLTST, occ carb mat, frm-hd, disp, sbblky
MARL: lt-m gy, lt bl gy, m brn gy i/p, abd calc mat, mnr microfoss, slty i/p & loc grd to CALC SLTST, occ carb mat, frm-hd, disp, sbblky
MW: 1.17 sg FV: 58
PV : 17 YP: 26
Gels: 11/15/22 pH: 9.50


WOB: 4 - 52 klbf
RPM: 47 - 123
GPM: 501 - 602
SPP: 2157 - 3842 psi
19/03/2008
WOB: 18 - 46 klbf
RPM: 98 - 160
GPM: 613 - 707
SPP: 2894 - 4061 psi
NB5 216 mm (8.5")
Reed
Type: RSX519MA6
Jets: 3x11, 5x14
Depth In: 2116.0 mMDRT
Depth Out: 2700.0 mMDRT
Drilled 584 in 18.9 hrs
Grade:
1-3-BU-A-X-I-WT-PR
2040
2050
2060
2070
2080
2090
2100
2110
2120
2130
2140
2150
2160
2170
Survey Depth @
2071.31mMDRT
Inc: 0.57 deg
Azi: 332.49 deg
TVD: 2071.22 mRT
2082.5 mMDRT
Total Gas: 0.1180%
100/Tr/Tr
Survey Depth @
2101.07mMDRT
Inc: 0.26 deg
Azi: 259.44 deg
TVD: 2100.98 mRT
2142.5 mMDRT
Total Gas: 0.2010%
100/Tr/Tr
2158.0 mMDRT
Total Gas: 0.2390%
100/Tr/Tr
CALCAREOUS SILTSTONE: pl-m gy, dk gy i/p, m brn gy, com calc frag, tr microfos, com arg & grd to CALC CLST, com nod pyr, mod hd-hd, v hd w/- dk gy, sbblky
CALCAREOUS CLAYSTONE: pl-m gy, pl-m brn gy, com calc frag, com microfos, mnr nod pyr, occ carb spks, mod hd-hd, disp, sbblky
CALCAREOUS SILTSTONE: pl-m gy, m brn gy, occ dk gy, v arg & com grd to CALC CLST, tr microfos, com v f-crs trnsl calc frag, com nod & dissem pyr, mod hd-hd, v hd w/- dk gy, sbblky
CALCAREOUS CLAYSTONE: pl-lt gy, lt brn gy, occ m brn gy, com-abd calc frag, tr micro foss, occ ool, tr v fn qtz gr, mnr-loc com carb lam & spks, occ nod & dissem pyr, frm-mod hd, sbblky-blky, disp i/p
CALCAREOUS CLAYSTONE: pl-lt gy, lt brn gy, occ m brn gy, com-abd calc frag, tr microfos, occ ool, tr v f qtz gr, mnr-loc com carb lam & spks, occ nod dissem pyr, frm-mod hd, sbblky-blky,


2180
2190
2200
2210
2220
2230
2240
2250
2260
2270
2280
2290
2300
2310
WOB: 12 - 52 klbf
RPM: 43 - 161
GPM: 587 - 705
SPP: 2582 - 3894 psi
WOB: 7 - 36 klbf
RPM: 98 - 108
GPM: 698 - 702
SPP: 3587 - 4195 psi
Survey Depth @
2189.40mMDRT
Inc: 0.26 deg
Azi: 9.46 deg
TVD: 2189.30 mRT
2210.0 mMDRT
Total Gas: 0.1755%
100/Tr/Tr
Survey Depth @
2219.45mMDRT
Inc: 0.35 deg
Azi: 26.58 deg
TVD: 2219.35 mRT
2270.0 mMDRT
Total Gas: 0.2190%
100/Tr/Tr
2300.0 mMDRT
Total Gas: 0.025%
100
Survey Depth @
2307.17mMDRT
disp i/p
CALCAREOUS SILTSTONE: m-dk gy, lt brn gy, arg & loc grd to CALC CLST, com nod & dissem pyr, com microfos & ool, com f-m calc frag, occ carb mat, mod hd-hd, v hd i/p, sbfiss-sbblky
CALCAREOUS CLAYSTONE: pl-lt gy, lt brn gy, occ m brn gy, com-abd calc frag, tr microfos, occ ool, tr v f qtz gr, mnr-loc com carb lam & spks, occ nod dissem pyr, frm-mod hd, sbblky-blky i/p
CALCAREOUS SILTSTONE: m-dk gy, lt brn gy, arg & loc grd to CALC CLST, com nod & dissem pyr, com microfos & ool, com f-m calc frag, occ carb mat, mod hd-hd, v hd i/p, sbfiss-sbblky
CALCAREOUS CLAYSTONE: off wh-pl gy, pl-lt gy, lt brn gy, mnr calc frag, tr microfos, mnr carb lam & spks, tr nod & dissem pyr, com slt lam & loc grd to CALC SLTST, frm, sbblky, disp i/p
CALCAREOUS SILTSTONE: m-dk gy, dom m gy, tr m bl gy, arg & loc grd to CALC CLST, com nod pyr, tr microfos, occ f-m calc frag, tr carb mat, tr
micr mic, mod hd-hd, v hd i/p, fis-sbfis, sbblky
Carbide Run @ 2298mMDRT
Theo: 3330stks.
Actual: 3770stks
Hole washout = 13.2%
CALCAREOUS CLAYSTONE:


20/03/2008
2320
2330
2340
2350
2360
2370
2380
2390
2400
2410
2420
2430
2440
2450
WOB: 9 - 42 klbf
RPM: 62 - 102
GPM: 697 - 702
SPP: 3345 - 4092 psi
Inc: 0.23 deg
Azi: 13.46 deg
TVD: 2307.07 mRT
2361.0 mMDRT
Total Gas: 0.0133%
100
Survey Depth @
2396.09mMDRT
Inc: 0.42 deg
Azi: 29.80 deg
TVD: 2395.99 mRT
2448.0 mMDRT
off wh-pl gy, pl-lt gy, lt brn gy, mnr calc frag, tr microfos, mnr carb lam & spks, tr nod & dissem pyr, com slt lam & loc grd to CALC SLST, frm, sbblky, disp i/p
CALCAREOUS SILTSTONE: m dk gy, dom m gy, tr m brn gy, arg & loc grd to CALC CLST, com nod & dissem pyr, com microfos, com-abd f-m trnsl calc frag, tr carb mat, tr micr mic, mod hd-hd, v hd i/p
CALCAREOUS CLAYSTONE: off wh-pl gy, pl-lt gy, lt brn gy, mnr calc frag, tr microfos, mnr carb lam & spks, tr nod & dissem pyr, com slt lam & grd to CALC SLTST, frm, sbblky, disp i/p
CALCAREOUS SILTSTONE: lt-m gy, m-dk gy, tr m bl gy, com arg & loc grd to CALC CLST, mnr nod & dissem pyr, com microfos, com-abd f-med trnsl calc frag, tr carb mat, tr micr mic, m hd-hd v hd i/p, sbfis-sbblky, disp i/p
CALCAREOUS SILTSTONE: lt-m olv gy, m gy, arg grd to CLST, tr carb spks, tr calc gr, tr micr mic, frm-mod hd, sbfis-sbblky
MW: 1.17 sg FV: 53
PV : 17 YP: 29
Gels: 11/17/24 pH: 9.00


2460
2470
2480
2490
2500
2510
2520
2530
2540
2550
2560
2570
2580
2590
WOB: 14 - 45 klbf
RPM: 47 - 147
GPM: 700 - 723
SPP: 3448 - 4326 psi
Total Gas: 0.1589%
100/Tr/Tr
2469.0 mMDRT
Total Gas: 0.1265%
100/Tr/Tr
Survey Depth @
2484.75mMDRT
Inc: 0.56 deg
Azi: 53.27 deg
TVD: 2484.65 mRT
2518.0 mMDRT
Total Gas: 0.1102%
100/Tr/Tr
Survey Depth @
2573.28mMDRT
Inc: 0.49 deg
Azi: 40.74 deg
TVD: 2573.17 mRT
2585.0 mMDRT
Total Gas: 0.0617%
100/Tr/Tr
CALCAREOUS CLAYSTONE:
lt-m gy, lt olv gy, i/p aren, tr
carb spks & micr lam, tr
dissem nod pyr, tr micr mic,
sft-frm, sbblky
CALCAREOUS SILTSTONE:
off wh-lt gy, m gy-m olv gy,
arg i/p & grd to CLST, tr
dissem & nod pyr, tr carb
spks & micr lam, frm-mod hd,
sbblky
CALCAREOUS SILTSTONE:
lt-m gy, m dk gy-m olv gy, v f
qtz gr, tr carb spks, tr dissem
pyr, tr calc, frm-mod hd,
sbblky-blky
CALCAREOUS SILTSTONE:
lt-m gy, m dk gy-m olv gy, v f
qtz gr, tr carb spks, tr dissem
pyr, tr calc, frm-mod hd,
sbblky-blky



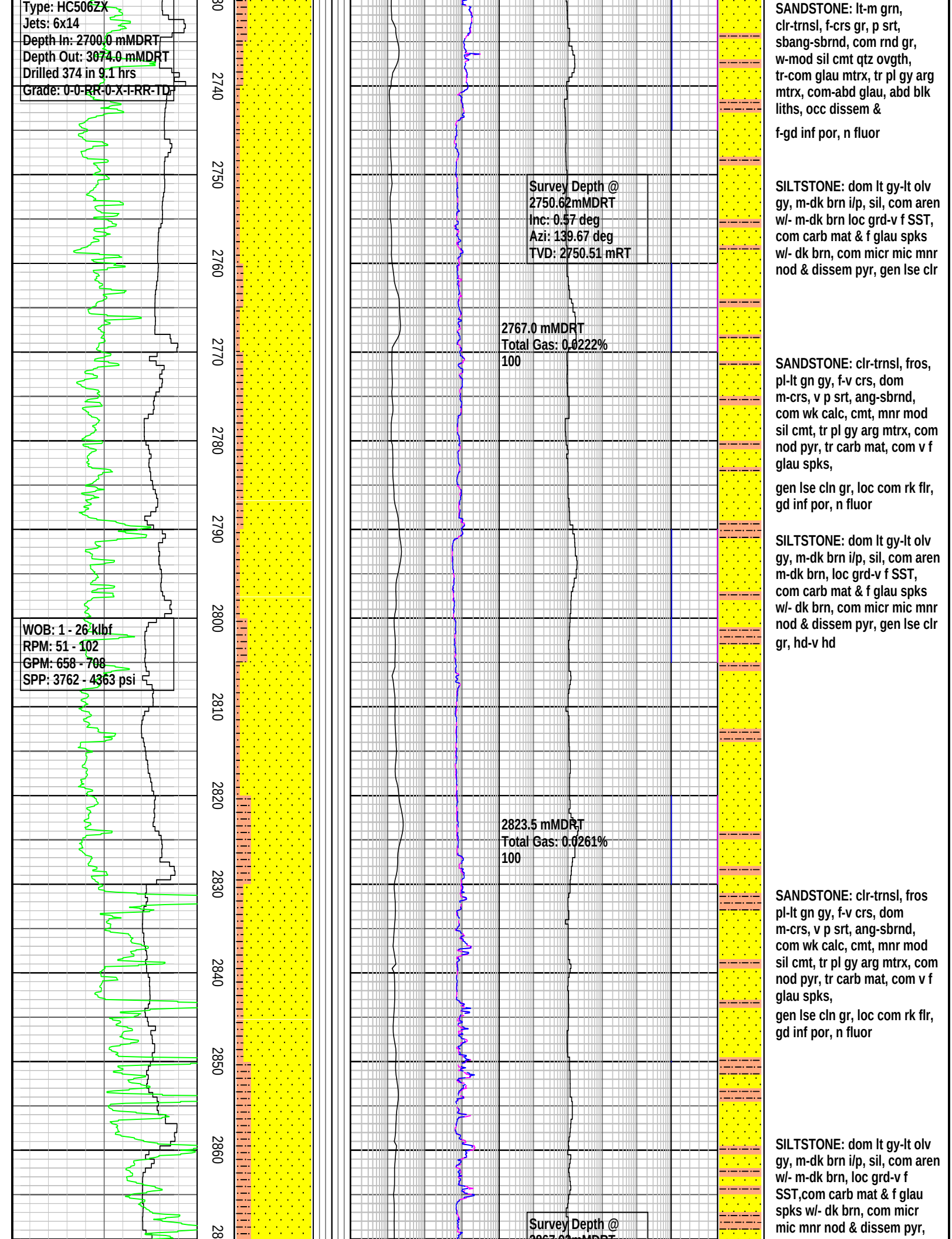
SANDSTONE: lt gn-lt brn, m brn, clr-trnsl, com op grs, vf-f gr, com m gr, r v crs gr, p srt, sbang-sbrnd, mod calc cmt, com wh arg mtrx, tr glau mtrx,

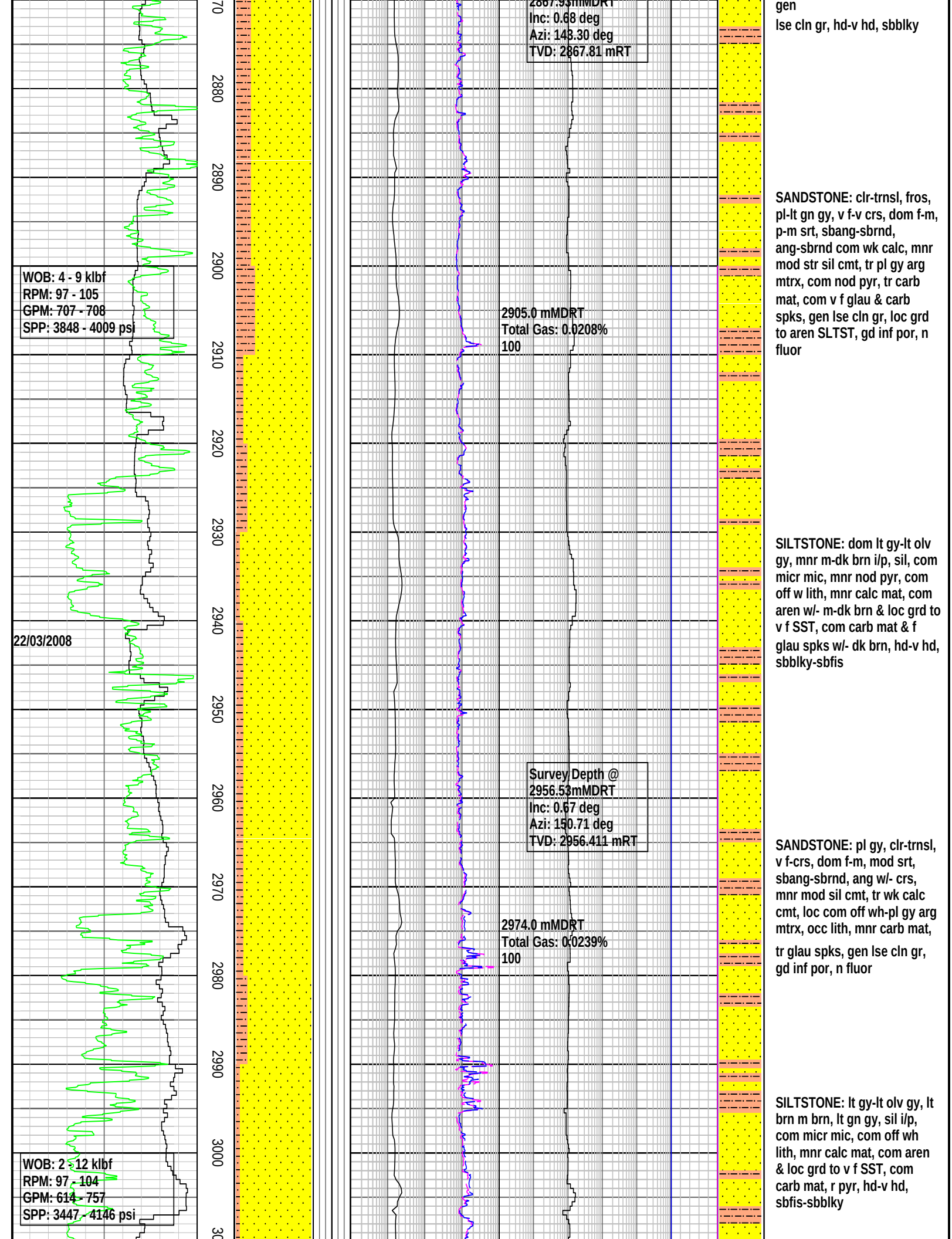
tr-com glau gr, tr carb spks, tr mic spks, tr Fe stn qtz gr, mod hd agg, com lse gr, p-v p vis & inf por, n fluor

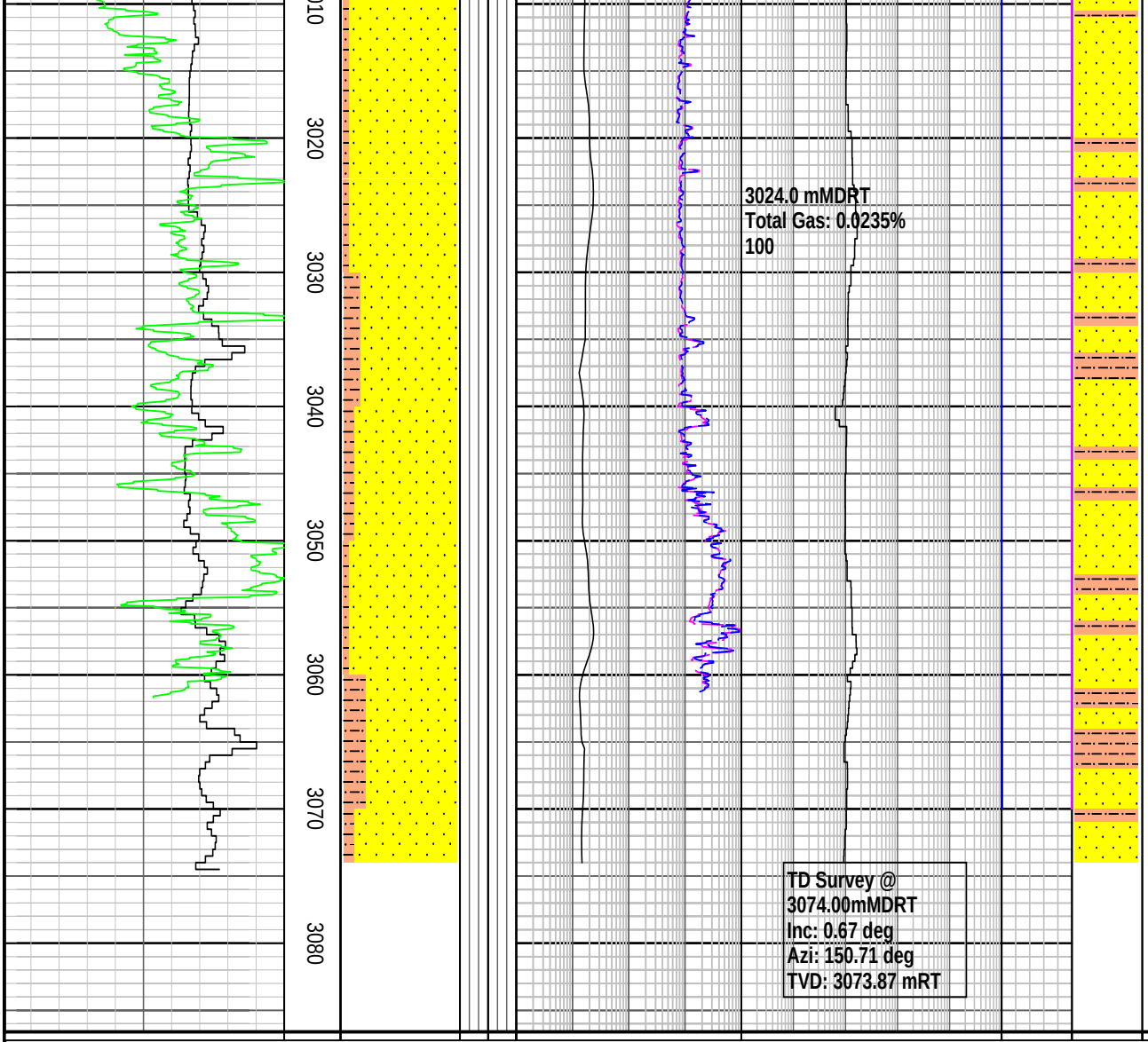
SILTSTONE: m brn gy-lt brn, lt gy-lt bl gy, lt-m yel, loc arg & grd aren CLST, tr carb spks, tr micr mic, tr Fe stn foss frag, tr glau, mod hd-hd, sbblky-blky

MW: 1.16 sg FV: 60
PV : 23 YP: 34
Gels: 13/22/31 pH: 9.00

SANDSTONE: lt gy-lt gn gy, clr-trnsl, com op, f-v crs gr, v pr srt, sbang-sbrnd, mnr ang gr, mod-strg sil cmt, pred qtz ovgth, tr-com lt gn gy-wh arg mtrx, com abd glau, tr-com pyr, fri-mod hd, p inf por, n fluor


Type: HC506ZX
Jets: 6x14
Depth In: 2700.0 mMDRT
Depth Out: 3074.0 mMDRT
Drilled 374 in 9.1 hrs
Grade: 0-0-RR-0-X-I-RR-TD
2730
2740
2750
2760
2770
2780
2790
2800
2810
2820
2830
2840
2850
2860
WOB: 1 - 26 klbf
RPM: 51 - 102
GPM: 658 - 708
SPP: 3762 - 4363 psi
Survey Depth @
2750.62mMDRT
Inc: 0.57 deg
Azi: 139.67 deg
TVD: 2750.51 mRT
2767.0 mMDRT
Total Gas: 0.0222%
100
2823.5 mMDRT
Total Gas: 0.0261%
100
Survey Depth @
SANDSTONE: lt-m grn, clr-trnsl, f-crs gr, p srt, sbang-sbrnd, com rnd gr, w-mod sil cmt qtz ovgth, tr-com glau mtrx, tr pl gy arg mtrx, com-abd glau, abd blk liths, occ dissem &
f-gd inf por, n fluor
SILTSTONE: dom lt gy-lt olv gy, m-dk brn i/p, sil, com aren w/- m-dk brn loc grd-v f SST, com carb mat & f glau spks w/- dk brn, com micr mic mnr nod & dissem pyr, gen lse clr
SANDSTONE: clr-trnsl, fros, pl-lt gn gy, f-v crs, dom m-crs, v p srt, ang-sbrnd, com wk calc, cmt, mnr mod sil cmt, tr pl gy arg mtrx, com nod pyr, tr carb mat, com v f glau spks,
gen lse cln gr, loc com rk flr, gd inf por, n fluor
SILTSTONE: dom lt gy-lt olv gy, m-dk brn i/p, sil, com aren m-dk brn, loc grd-v f SST, com carb mat & f glau spks w/- dk brn, com micr mic mnr nod & dissem pyr, gen lse clr gr, hd-v hd
SANDSTONE: clr-trnsl, fros pl-lt gn gy, f-v crs, dom m-crs, v p srt, ang-sbrnd, com wk calc, cmt, mnr mod sil cmt, tr pl gy arg mtrx, com nod pyr, tr carb mat, com v f glau spks,
gen lse cln gr, loc com rk flr, gd inf por, n fluor
SILTSTONE: dom lt gy-lt olv gy, m-dk brn i/p, sil, com aren w/- m-dk brn, loc grd-v f SST,com carb mat & f glau spks w/- dk brn, com micr mic mnr nod & dissem pyr,


2867.93mMDRT
Inc: 0.68 deg
Azi: 143.30 deg
TVD: 2867.81 mRT
WOB: 4 - 9 klbf
RPM: 97 - 105
GPM: 707 - 708
SPP: 3848 - 4009 psi
2905.0 mMDRT
Total Gas: 0.0208%
100
22/03/2008
Survey Depth @
2956.53mMDRT
Inc: 0.67 deg
Azi: 150.71 deg
TVD: 2956.411 mRT
2974.0 mMDRT
Total Gas: 0.0239%
100
WOB: 2 - 12 klbf
RPM: 97 - 104
GPM: 614 - 757
SPP: 3447 - 4146 psi
2870
2880
2890
2900
2910
2920
2930
2940
2950
2960
2970
2980
2990
3000
gen
lse cln gr, hd-v hd, sbblky
SANDSTONE: clr-trnsl, fros, pl-lt gn gy, v f-v crs, dom f-m, p-m srt, sbang-sbrnd, ang-sbrnd com wk calc, mnr mod str sil cmt, tr pl gy arg mtrx, com nod pyr, tr carb mat, com v f glau & carb spks, gen lse cln gr, loc grd to aren SLTST, gd inf por, n fluor
SILTSTONE: dom lt gy-lt olv gy, mnr m-dk brn i/p, sil, com micr mic, mnr nod pyr, com off w lith, mnr calc mat, com aren w/- m-dk brn & loc grd to v f SST, com carb mat & f glau spks w/- dk brn, hd-v hd, sbblky-sbfis
SANDSTONE: pl gy, clr-trnsl, v f-crs, dom f-m, mod srt, sbang-sbrnd, ang w/- crs, mnr mod sil cmt, tr wk calc cmt, loc com off wh-pl gy arg mtrx, occ lith, mnr carb mat, tr glau spks, gen lse cln gr, gd inf por, n fluor
SILTSTONE: lt gy-lt olv gy, lt brn m brn, lt gn gy, sil i/p, com micr mic, com off wh lith, mnr calc mat, com aren & loc grd to v f SST, com carb mat, r pyr, hd-v hd, sbfis-sbblky



SANDSTONE: clr-trnsl, off wh-pl gy, v f-m mnr crs-v crs fros gr, sbang-sbrnd, ang w/- crs, mod srt, com strg sil cmt & qtz ovgth, tr off wh arg mtrx, occ lith & carb spks, gen lse, occ v hd agg, pr vis por, fr inf por, fluor

FLUORESENCE (3020-3035m): (5%) pl yel sptd res fluor, no cut or ring res

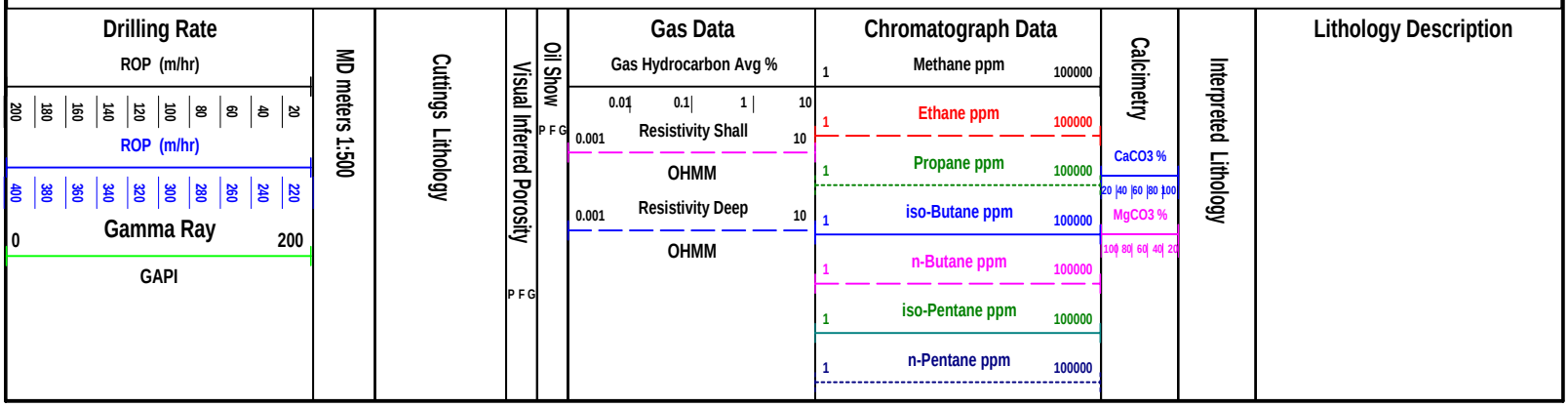
SILTSTONE: lt gy-lt olv gy, lt brn-m brn, dk brn i/p, com aren & grd to v f SST, com micr mic, com off wh lith, mnr calc mat, com carb mat, r nod pyr, hd-v hd, sbfis-sbblky

SANDSTONE: clr-trnsl, off wh-pl gy, v f-crs fros gr, p srt sbang-sbrnd, ang w/- crs, com strg sil cmt & qtz ovgth, mnr off wh-pl gy arg mtrx, occ

lith & carb spks, com lse, com v hd agg, p vis por, fr inf por, n fluor

Coelacanth-1 reached TD depth of 3074.0 mMDRT at 0400hrs on 22/03/2008

FORMATION EVALUATION LOG



DRILLING DATA PLOT

1:1000

BAKER HUGHES INTEQ

Apache ENERGY

Company	**Apache Northwest Pty Ltd**
Well	**Coelacanth-1**
Permit	**VIC/P-45**
Region	**Gippsland Basin**
Designation	**Exploration**
Coordinates	**Lat 38° 42' 49.7296"** **Long 148° 18' 07.0098"**
Ref Elevation	**RT 38.0 mMDRT (AHD)**
Total Depth	**3074.0 mMDRT**
Contractor	**Seadrill**
Rig	**MODU West Triton**
Type	**Jack-Up**

LOG INTERVAL

Depth	**128.0 - 3074.0 mMDRT**
Date	**10 -22 March 2008**
Scale	**1 : 500**
Data Engineers	**Y.C. Wong, A. Rayan**
Logging Geologists	**R. Houston, R. Richharia, F. Walsh**

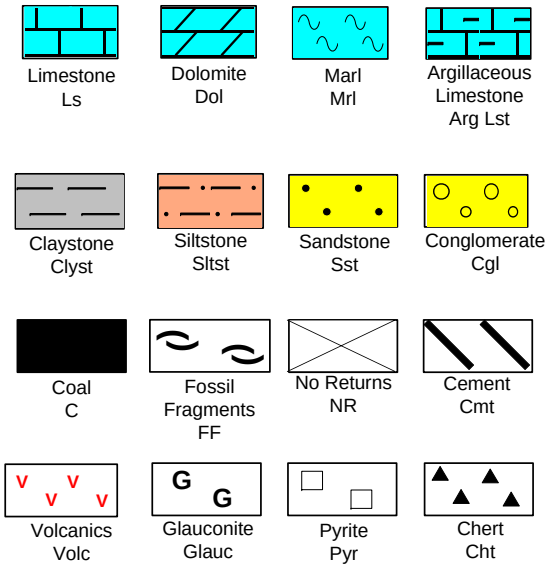
INTEQ LOG SUITE

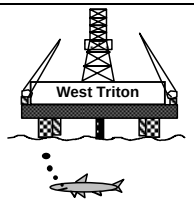
Formation Evaluation Log
Drilling Data Plot
Gas Ratio Plot
Pressure Log

ABBREVIATIONS

NB	New Bit	MD	Measured Depth
RB	Rerun Bit	GPM	Gallons per Min
CB	Core Bit	PP	Pump Pressure
WOB	Weight on Bit	MW	Mud Weight sg
RPM	Revs per Minute	FV	Funnel Viscosity
FLC	Flow Check	F	Filtrate - API
FCG	Flow Check Gas	FC	Filter Cake
PR	Poor Returns	PV	Plastic Viscosity
NR	No Returns	YP	Yield Point
BG	Background Gas	Sol	Solids %
WTG	Wiper Trip Gas	Sd	Sand %
TG	Trip Gas	Cl	Chlorides
POG	Pumps Off Gas	RM	Mud Resistivity
CG	Connection Gas	RMF	Filtrate Resistivty
SWG	Swab Gas	TVD	True Vertical Depth

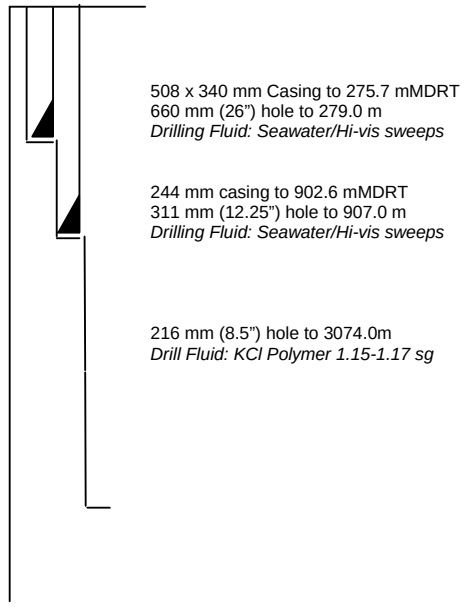
LITHOLOGY SYMBOLS

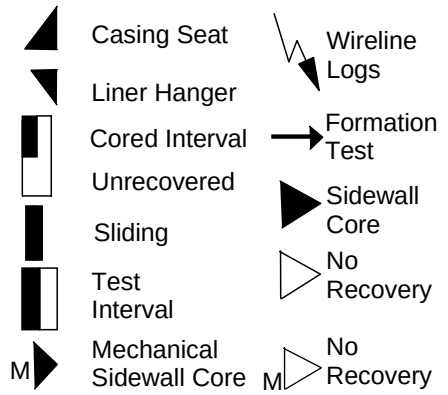




RT- AHD 38.0 mMDRT

W Dep – AHD 90.0 mMDRT





BAKER HUGHES INTEQ

Company : Apache
Well : Coelacanth-1
Interval : 119.00 - 3086.61 meters
Created : 24/Mar/2008 6:31:29 AM

Apache ENERGY

DRILLING DATA PLOT

ROP (m/hr) 200 175 150 125 100 75 50 25

MD meters 1:1000

FLOW IN (gpm) 300 600 900 1200 1500
STANDPIPE (psi) 1000 2000 3000 4000 5000

RPM Avg 70 140 210 280 350
WOB Avg (klbs) 16 32 48 64 80

TORQUE Max (kft-lb) 5 10 15 20 25
TORQUE Avg (kft-lb) 5 10 15 20 25

DXC 0.1 100

INTERPRETED LITHOLOGY

1RR 660 mm (26")
Smith
Type: XR+C
Jets: 4x18
Depth In: 127.5 mMDRT
Depth Out: 279.0 mMDRT
Drilled 151.0 m in 1.9 hrs
Grade:
1-1-WT-A-E-I-NO-TD

Set 20" x 13-3/8" Csg @ 275.21 mMDRT
10/03/2008

NB2 311 mm (12.25")
Smith
Type: XR+CPS
Jets: 4x18, 1x20
Depth In: 279.0 mMDRT
Depth Out: 907.0 mMDRT
Drilled 629.0 in 4.4 hrs
Grade:
O-O-NO-NO-E-I-NO-TD

WOB: 1 - 25 klbf
RPM: 26 - 88
GPM: 881 - 1349
SPP: 1758 - 3759 psi

WOB: 1 - 10 klbf
RPM: 48 - 96
GPM: 1139 - 1191
SPP: 2929 - 3110 psi

WOB: 4 - 18 klbf
RPM: 96 - 120
GPM: 1163 - 1191
SPP: 3041 - 3599 psi

WOB: 7 - 28 klbf
RPM: 112 - 121
GPM: 1166 - 1168
SPP: 2885 - 3737 psi

WOB: 11 - 37 klbf
RPM: 108 - 118
GPM: 1166 - 1167
SPP: 2985 - 3793 psi

WOB: 14 - 43 klbf
RPM: 114 - 123
GPM: 1166 - 1167
SPP: 3183 - 3946 psi

Set 9-5/8" Csg @ 902.1 mMDRT
13/03/2008

NB3 216 mm (8.5")
Reed
Type: RSX661B

500
520
540
560
580
600
620
640
660
680
700
720
740
760
780
800
820
840
860
880
900

Jets: 4x14, 1x15
Depth In: 907.0 mMDRT
Depth Out: 1998.0 mMDRT
Drilled 1091 in 27.9 hrs
Grade:
1-1-BU-A-X-I-CT-PR

WOB: 18 - 54 klbf
RPM: 113 - 123
GPM: 1155 - 1171
SPP: 3463 - 3979 psi

WOB: 6 - 63 klbf
RPM: 37 - 123
GPM: 446 - 1171
SPP: 909 - 3900 psi

WOB: 14 - 25 klbf
RPM: 37 - 123
GPM: 590 - 596
SPP: 1642 - 2374 psi

WOB: 10 - 27 klbf
RPM: 99 - 144
GPM: 440 - 614
SPP: 1389 - 2575 psi

WOB: 15 - 49 klbf
RPM: 105 - 144
GPM: 576 - 696
SPP: 1464 - 3880 psi

920
940
960
980
1000
1020
1040
1060
1080
1100
1120
1140
1160
1180
1200
1220
1240
1260
1280
1300
1320
1340

WOB: 30 - 49 klbf
RPM: 105 - 118
GPM: 588 - 608
SPP: 2588 - 4064 psi

17/03/2008

WOB: 24 - 42 klbf
RPM: 81 - 112
GPM: 594 - 602
SPP: 2565 - 3483 psi

WOB: 23 - 41 klbf
RPM: 78 - 124
GPM: 490 - 610
SPP: 2227 - 3596 psi

WOB: 20 - 43 klbf
RPM: 18 - 131
GPM: 500 - 596
SPP: 2109 -2914 psi

1360
1380
1400
1420
1440
1460
1480
1500
1520
1540
1560
1580
1600
1620
1640
1660
1680
1700
1720
1740
1760

WOB: 28 - 55 klbf
RPM: 97 - 123
GPM: 500 - 550
SPP: 2043 -3500 psi

WOB: 27 - 52 klbf
RPM: 118 - 133
GPM: 549 - 551
SPP: 2859 - 3907 psi

18/03/2008

4RR 216 mm (8.5")
Reed
Type: RSX661B
Jets: 4x14, 1x15
Depth In: 1998.0 mMDRT
Depth Out: 2116.0 mMDRT
Drilled 118 in 7.9 hrs
Grade:
1-1-BU-A-X-I-CT-PR

19/03/2008

WOB: 4 - 52 klbf
RPM: 47 - 123
GPM: 501 - 602
SPP: 2157 - 3842 psi

WOB: 18 - 46 klbf
RPM: 98 - 160
GPM: 613 - 707
SPP: 2894 - 4061 psi

NB5 216 mm (8.5")
Reed
Type: RSX519MA6
Jets: 3x11, 5x14
Depth In: 2116.0 mMDRT
Depth Out: 2700.0 mMDRT
Drilled 584 in 18.9 hrs
Grade:
1-3-BU-A-X-I-WT-PR

WOB: 12 - 52 klbf
RPM: 43 - 161
GPM: 587 - 705
SPP: 2582 - 3894 psi

1800 1820 1840 1860 1880 1900 1920 1940 1960 1980 2000 2020 2040 2060 2080 2100 2120 2140 2160 2180 2200

WOB: 7 - 36 klbf
RPM: 98 - 108
GPM: 698 - 702
SPP: 3587 - 4195 psi
20/03/2008

WOB: 9 - 42 klbf
RPM: 62 - 102
GPM: 697 - 702
SPP: 3345 - 4092 psi

WOB: 14 - 45 klbf
RPM: 47 - 147
GPM: 700 - 723
SPP: 3448 - 4326 psi

WOB: 8 - 58 klbf
RPM: 100 - 119
GPM: 659 - 709
SPP: 3954 - 4797 psi

2220
2240
2260
2280
2300
2320
2340
2360
2380
2400
2420
2440
2460
2480
2500
2520
2540
2560
2580
2600
2620
2640

21/03/2008

WOB: 2 - 57 klbf
RPM: 50 - 122
GPM: 611 - 725
SPP: 2985 - 4996 psi

NB6 216 mm (8.5")
Hughes
Type: HC506ZX
Jets: 6x14
Depth In: 2700.0 mMDRT
Depth Out: 3074.0 mMDRT
Drilled 374 in 9.1 hrs
Grade:
0-0-RR-0-X-I-RR-TD

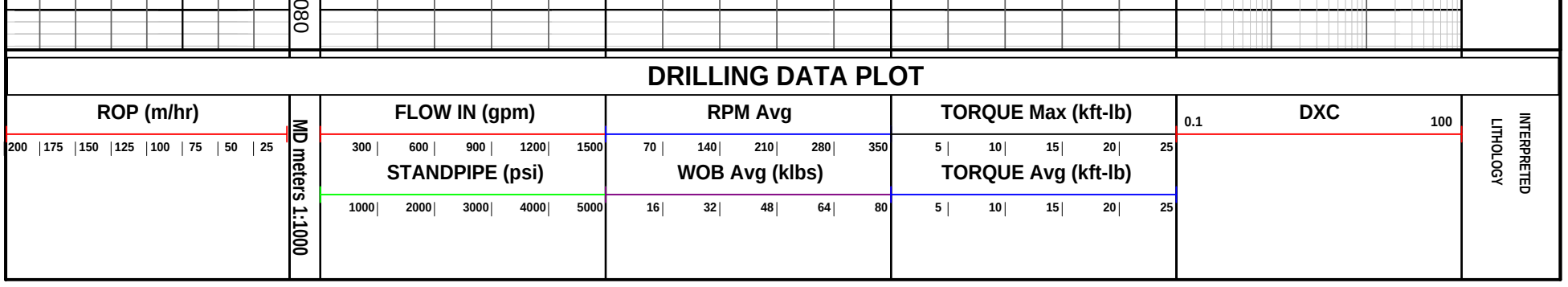
WOB: 1 - 26 klbf
RPM: 51 - 102
GPM: 658 - 708
SPP: 3762 - 4363 psi

WOB: 4 - 9 klbf
RPM: 97 - 105
GPM: 707 - 708
SPP: 3848 - 4009 psi

22/03/2008

WOB: 2 - 12 klbf
RPM: 97 - 104
GPM: 614 - 757
SPP: 3447 - 4146 psi

2660
2680
2700
2720
2740
2760
2780
2800
2820
2840
2860
2880
2900
2920
2940
2960
2980
3000
3020
3040
3060


DRILLING DATA PLOT
ROP (m/hr)
200 175 150 125 100 75 50 25
MD meters 1:1000
FLOW IN (gpm)
300 600 900 1200 1500
STANDPIPE (psi)
1000 2000 3000 4000 5000
RPM Avg
70 140 210 280 350
WOB Avg (klbs)
16 32 48 64 80
TORQUE Max (kft-lb)
5 10 15 20 25
TORQUE Avg (kft-lb)
5 10 15 20 25
DXC
0.1
100
INTERPRETED LITHOLOGY

PRESSURE EVALUATION PLOT

1:1000

BAKER HUGHES INTEQ

Apache ENERGY

Company	**Apache Northwest Pty Ltd**
Well	**Coelacanth-1**
Permit	**VIC/P-45**
Region	**Gippsland Basin**
Designation	**Exploration**
Coordinates	**Lat 38° 42' 49.7296"** **Long 148° 18' 07.0098"**
Ref Elevation	**RT 38.0 mMDRT (AHD)**
Total Depth	**3074.0 mMDRT**
Contractor	**Seadrill**
Rig	**MODU West Triton**
Type	**Jack-Up**

LOG INTERVAL

Depth	**128.0 - 3074.0 mMDRT**
Date	**10 -22 March 2008**
Scale	**1 : 500**
Data Engineers	**Y.C. Wong, A. Rayan**
Logging Geologists	**R. Houston, R. Richharia, F. Walsh**

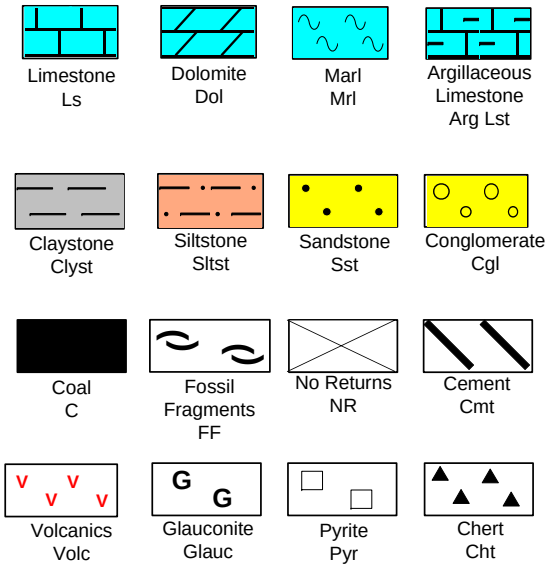
INTEQ LOG SUITE

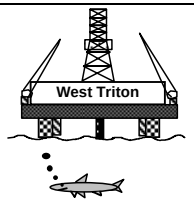
Formation Evaluation Log
Drilling Data Plot
Gas Ratio Plot
Pressure Log

ABBREVIATIONS

NB	New Bit	MD	Measured Depth
RB	Rerun Bit	GPM	Gallons per Min
CB	Core Bit	PP	Pump Pressure
WOB	Weight on Bit	MW	Mud Weight sg
RPM	Revs per Minute	FV	Funnel Viscosity
FLC	Flow Check	F	Filtrate - API
FCG	Flow Check Gas	FC	Filter Cake
PR	Poor Returns	PV	Plastic Viscosity
NR	No Returns	YP	Yield Point
BG	Background Gas	Sol	Solids %
WTG	Wiper Trip Gas	Sd	Sand %
TG	Trip Gas	Cl	Chlorides
POG	Pumps Off Gas	RM	Mud Resistivity
CG	Connection Gas	RMF	Filtrate Resistivty
SWG	Swab Gas	TVD	True Vertical Depth

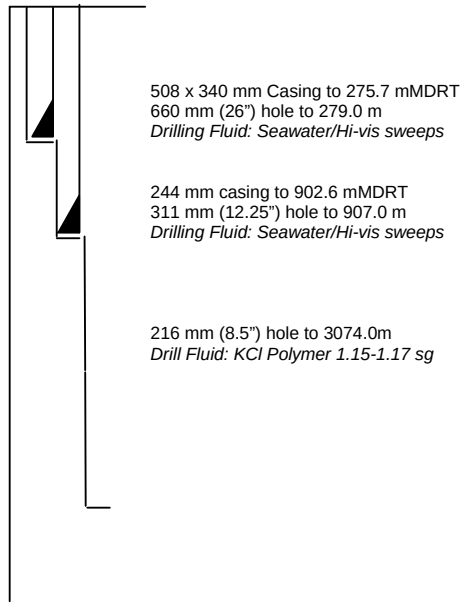
LITHOLOGY SYMBOLS

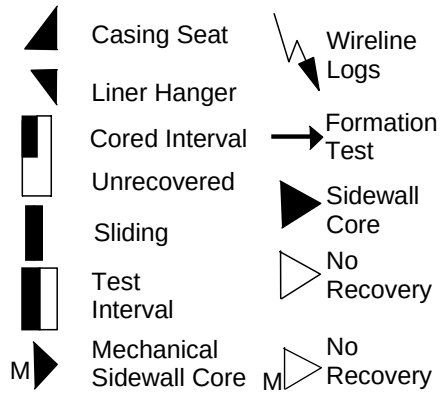




RT- AHD 38.0 mMDRT

W Dep – AHD 90.0 mMDRT



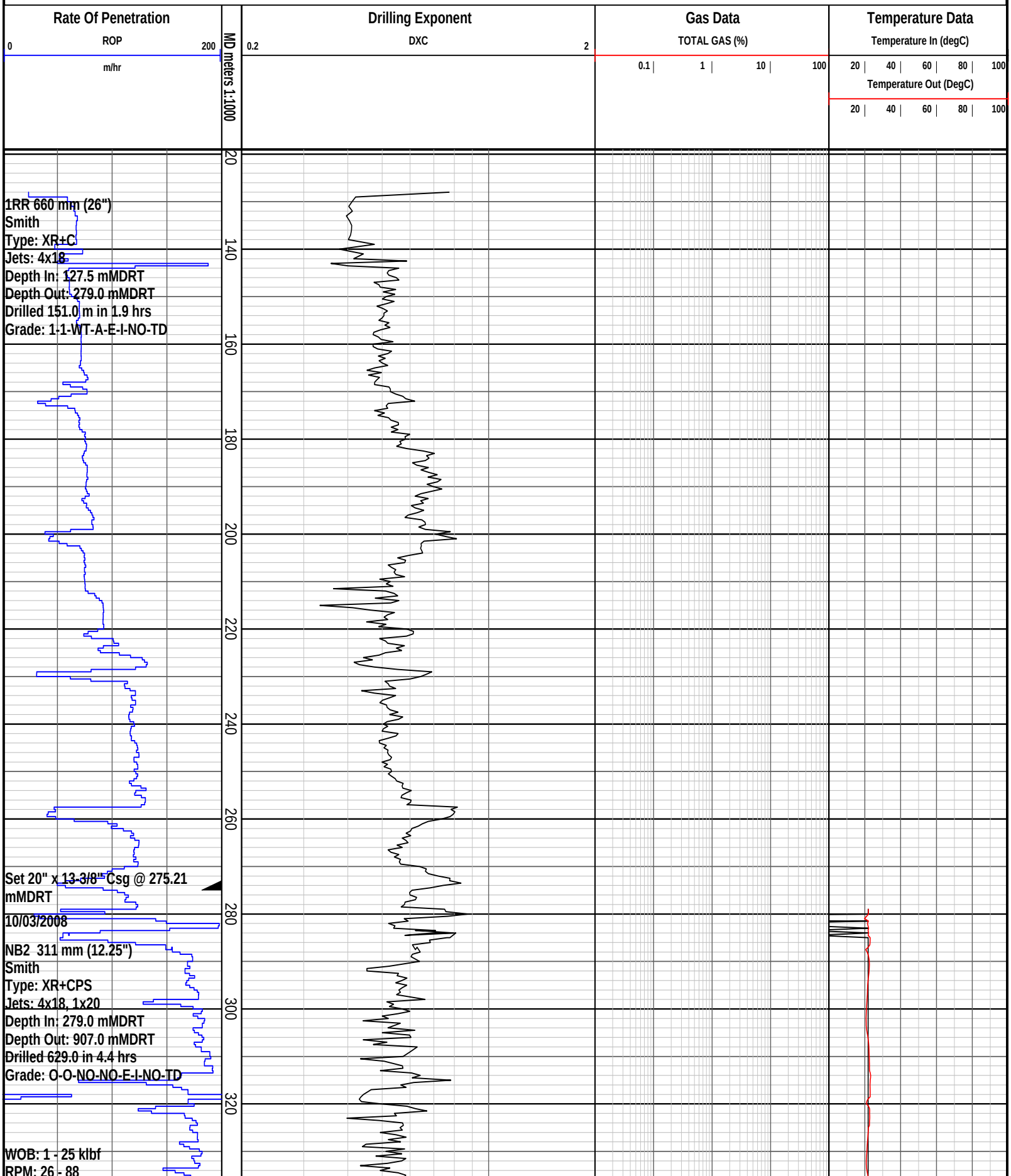


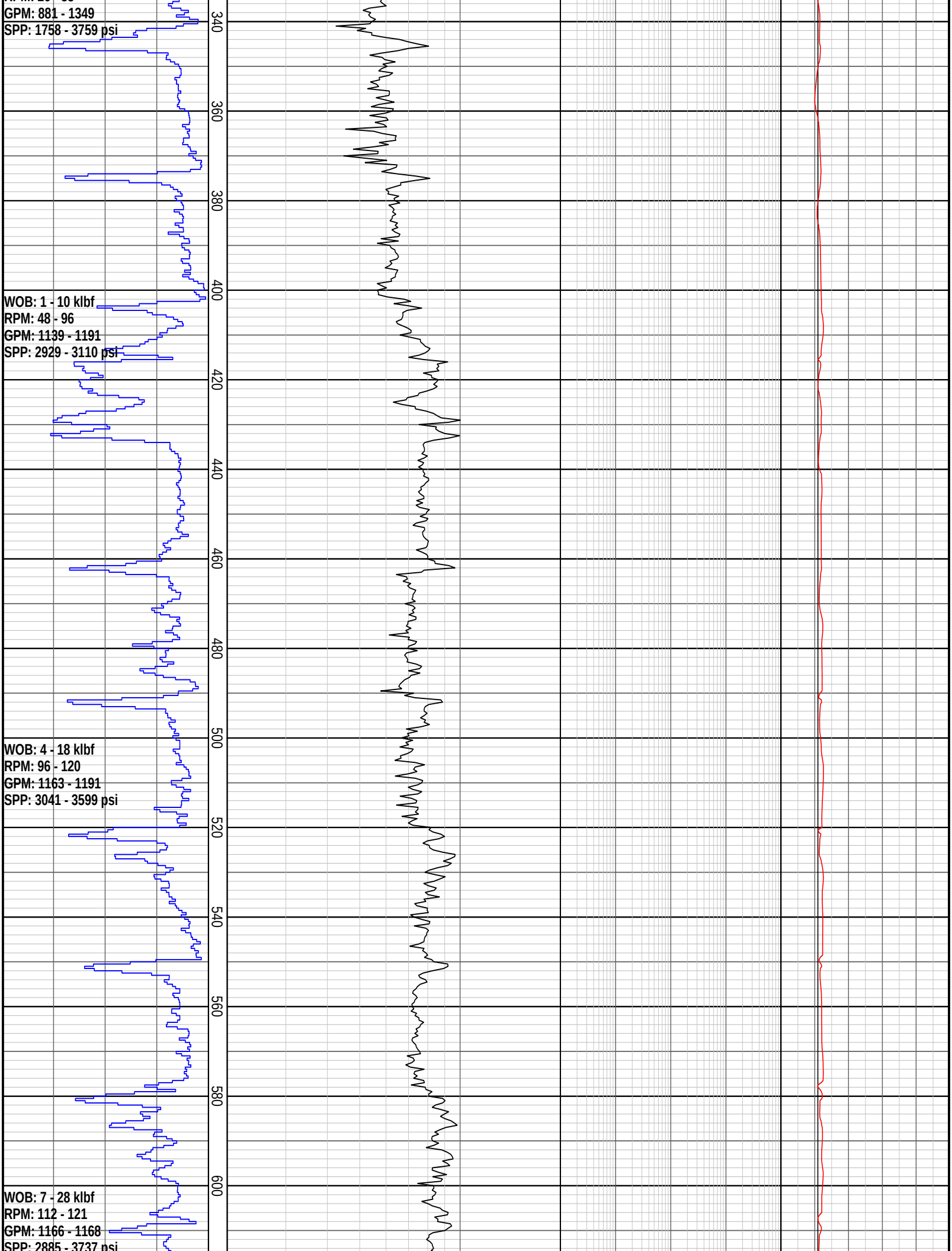
BAKER HUGHES
INTEQ

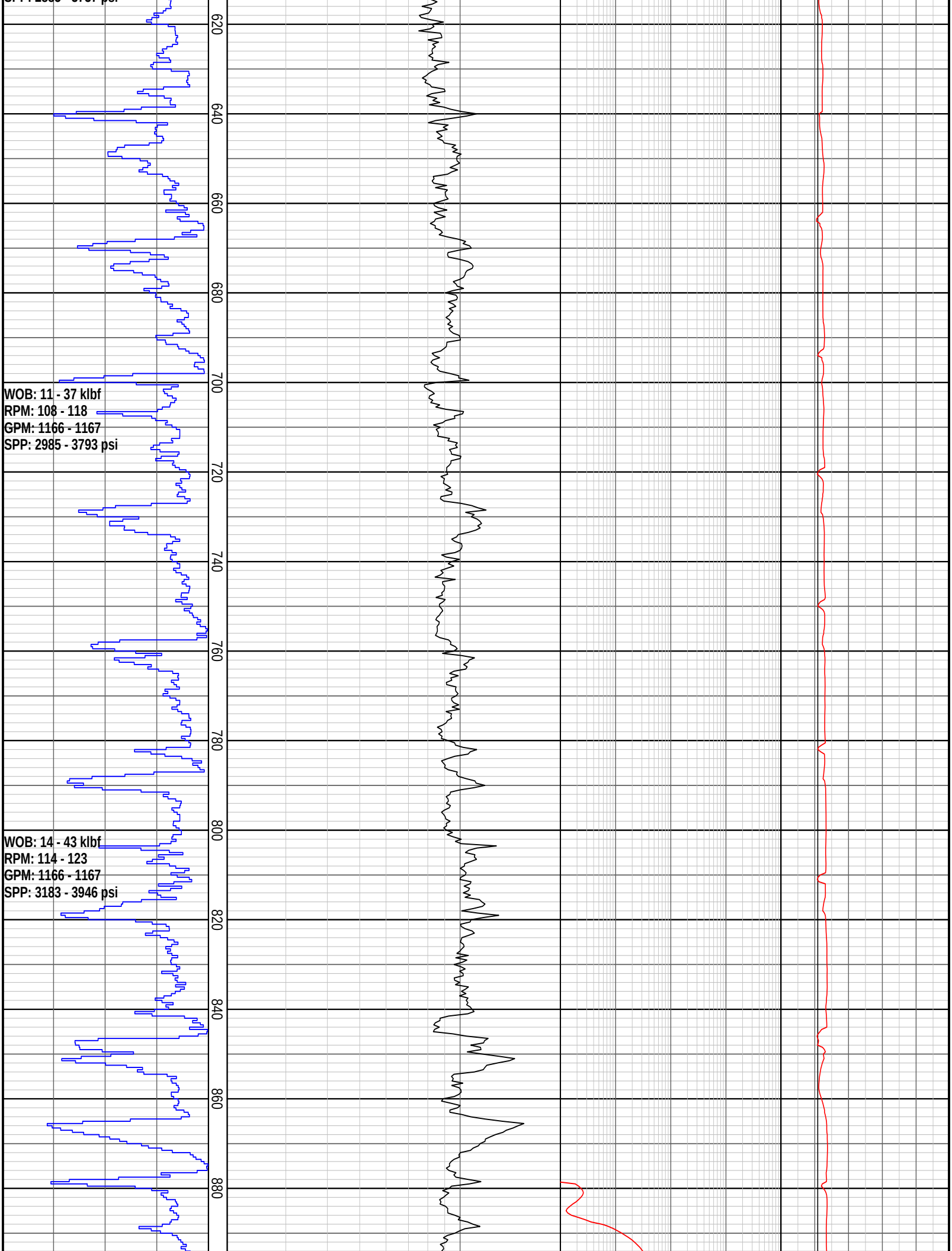
Company : Apache
Well : Coelacanth-1
Interval : 119.00 - 3086.61 meters
Created : 24/Mar/2008 6:31:29 AM

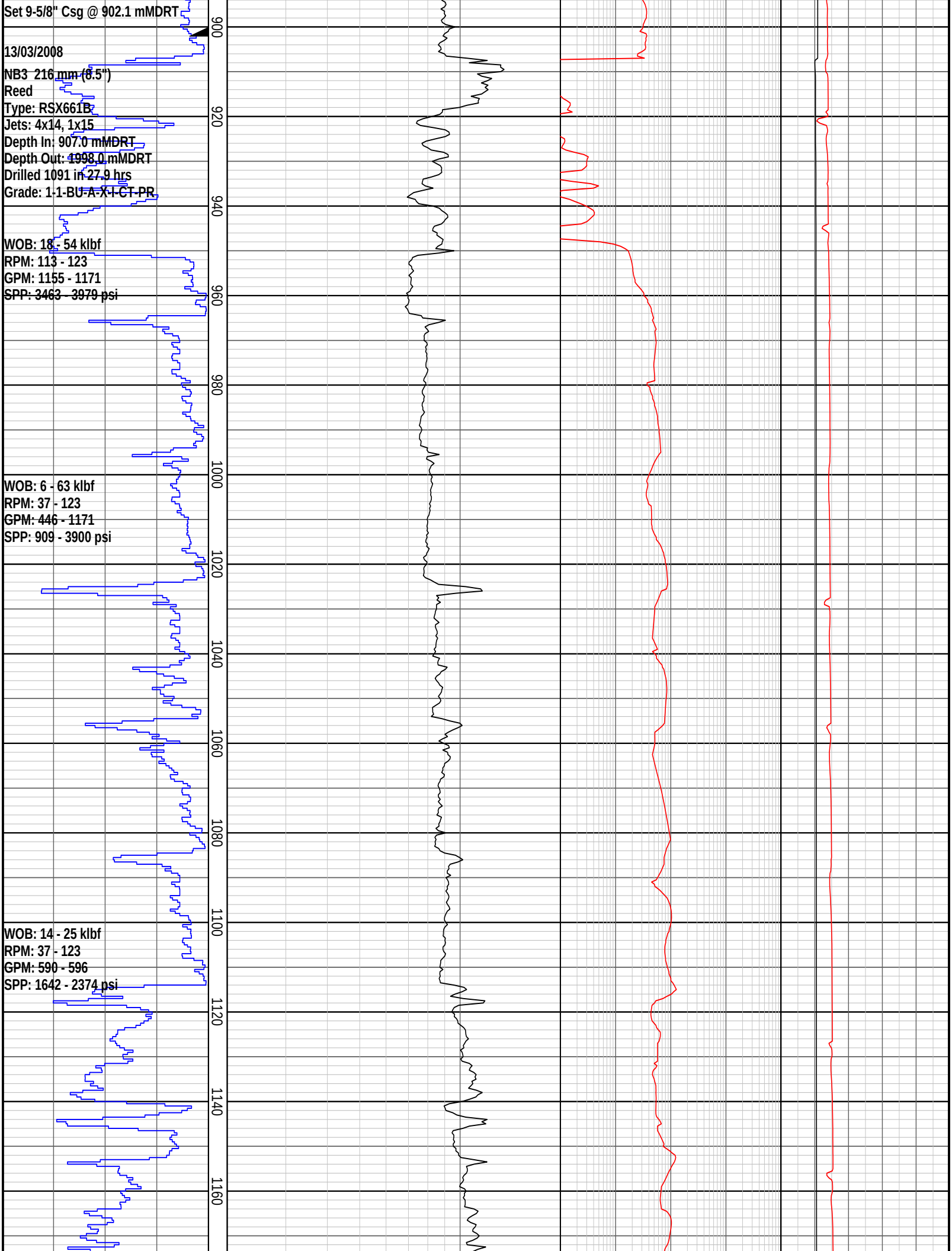
Apache ENERGY

PRESSURE DATA PLOT




GPM: 881 - 1349
SPP: 1758 - 3759 psi
340
360
380
400
WOB: 1 - 10 klbf
RPM: 48 - 96
GPM: 1139 - 1191
SPP: 2929 - 3110 psi
420
440
460
480
500
WOB: 4 - 18 klbf
RPM: 96 - 120
GPM: 1163 - 1191
SPP: 3041 - 3599 psi
520
540
560
580
600
WOB: 7 - 28 klbf
RPM: 112 - 121
GPM: 1166 - 1168
SPP: 2885 - 3737 psi


620
640
660
680
700
720
740
760
780
800
820
840
860
880
WOB: 11 - 37 klbf
RPM: 108 - 118
GPM: 1166 - 1167
SPP: 2985 - 3793 psi
WOB: 14 - 43 klbf
RPM: 114 - 123
GPM: 1166 - 1167
SPP: 3183 - 3946 psi


Set 9-5/8" Csg @ 902.1 mMDRT
13/03/2008
NB3 216 mm (8.5")
Reed
Type: RSX661B
Jets: 4x14, 1x15
Depth In: 907.0 mMDRT
Depth Out: 1998.0 mMDRT
Drilled 1091 in 27.9 hrs
Grade: 1-1-BU-A-X-I-CT-PR
WOB: 18 - 54 klbf
RPM: 113 - 123
GPM: 1155 - 1171
SPP: 3463 - 3979 psi
WOB: 6 - 63 klbf
RPM: 37 - 123
GPM: 446 - 1171
SPP: 909 - 3900 psi
WOB: 14 - 25 klbf
RPM: 37 - 123
GPM: 590 - 596
SPP: 1642 - 2374 psi
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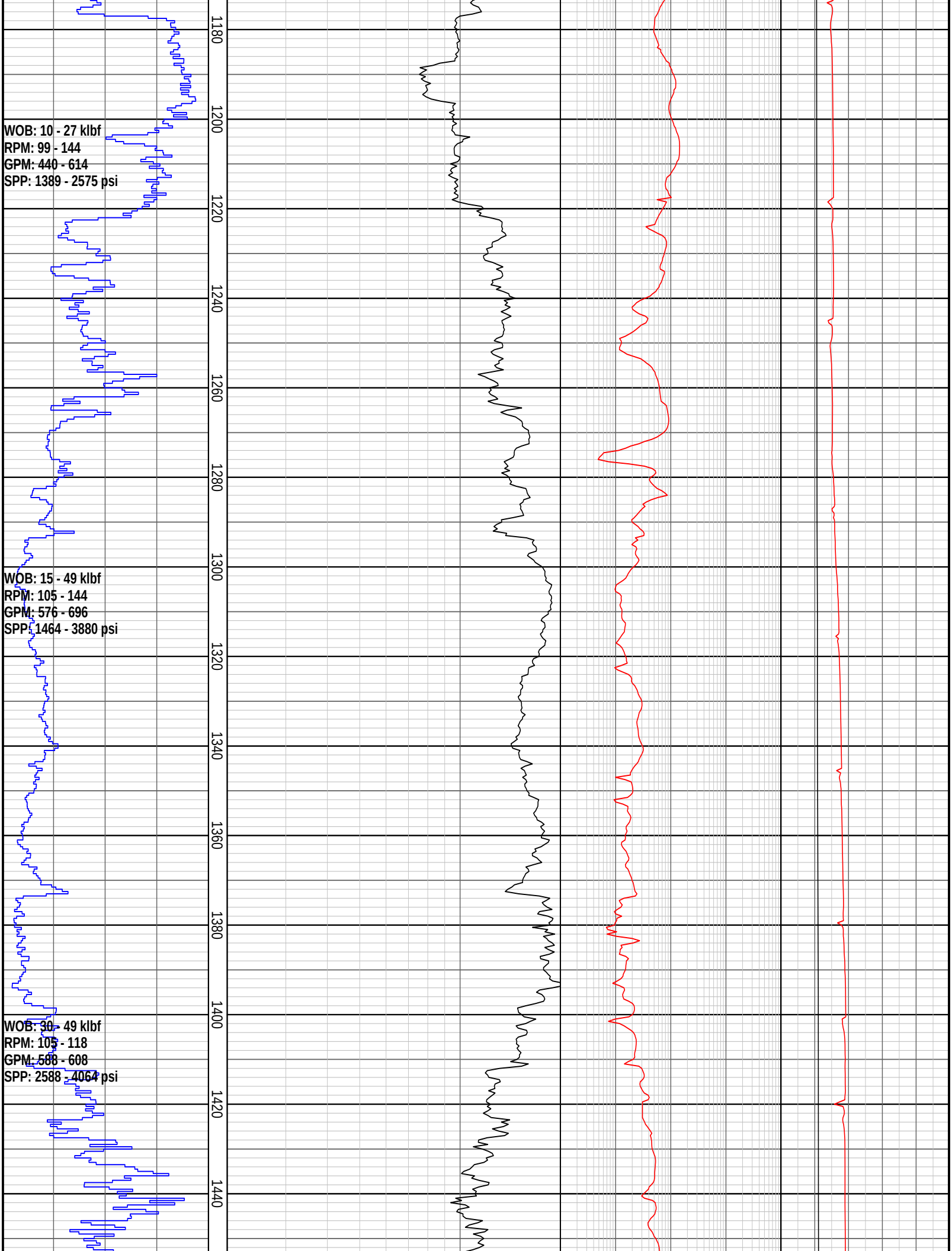
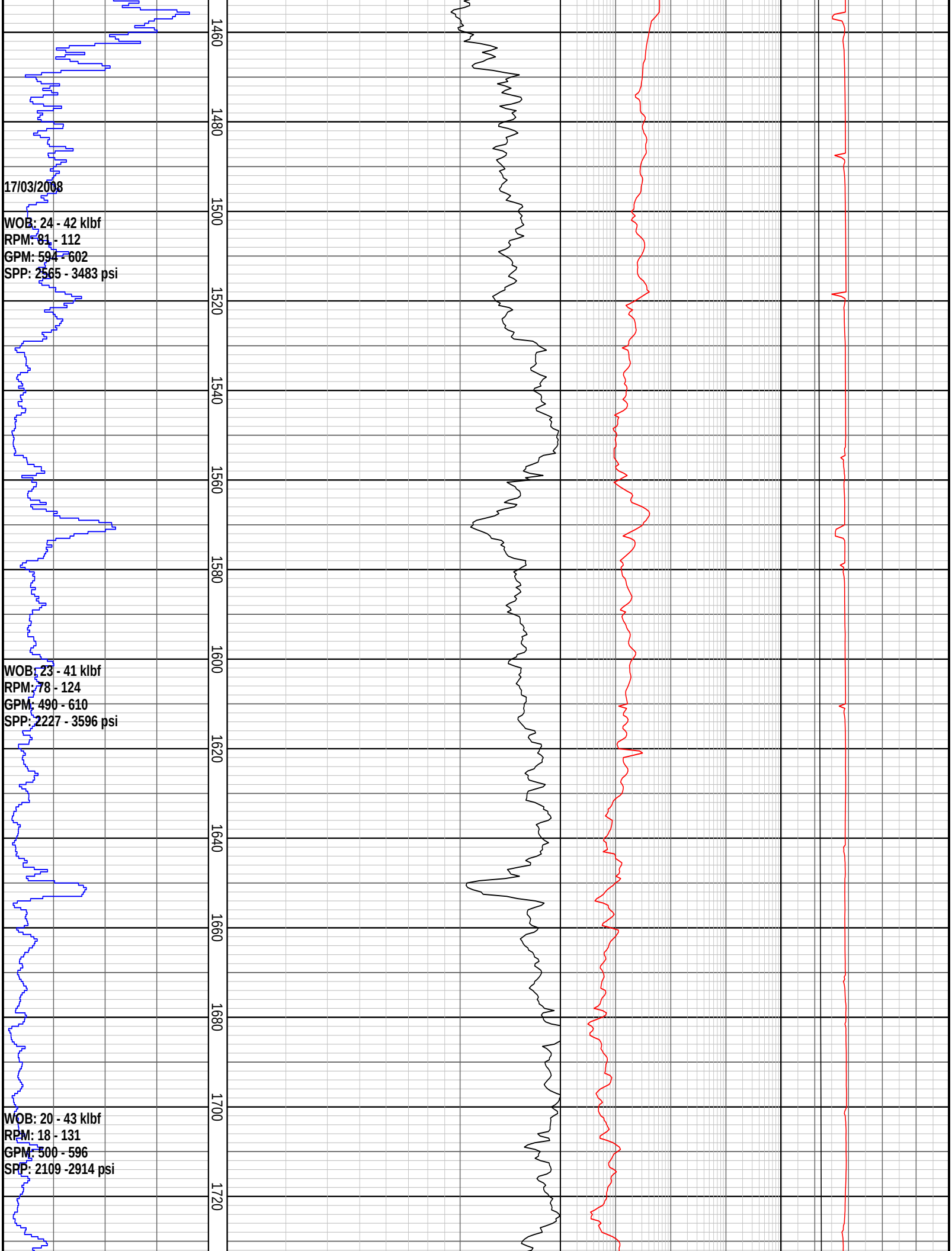
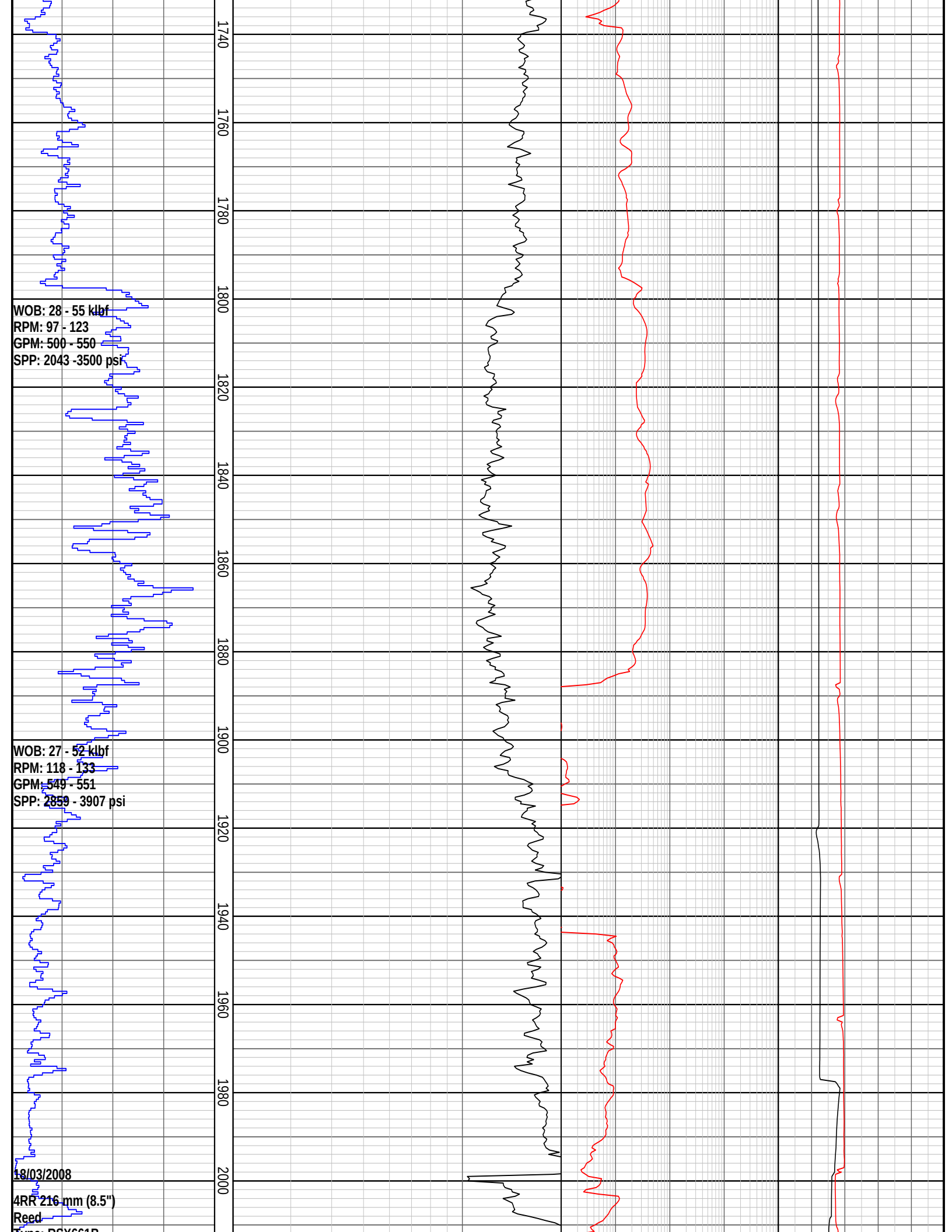
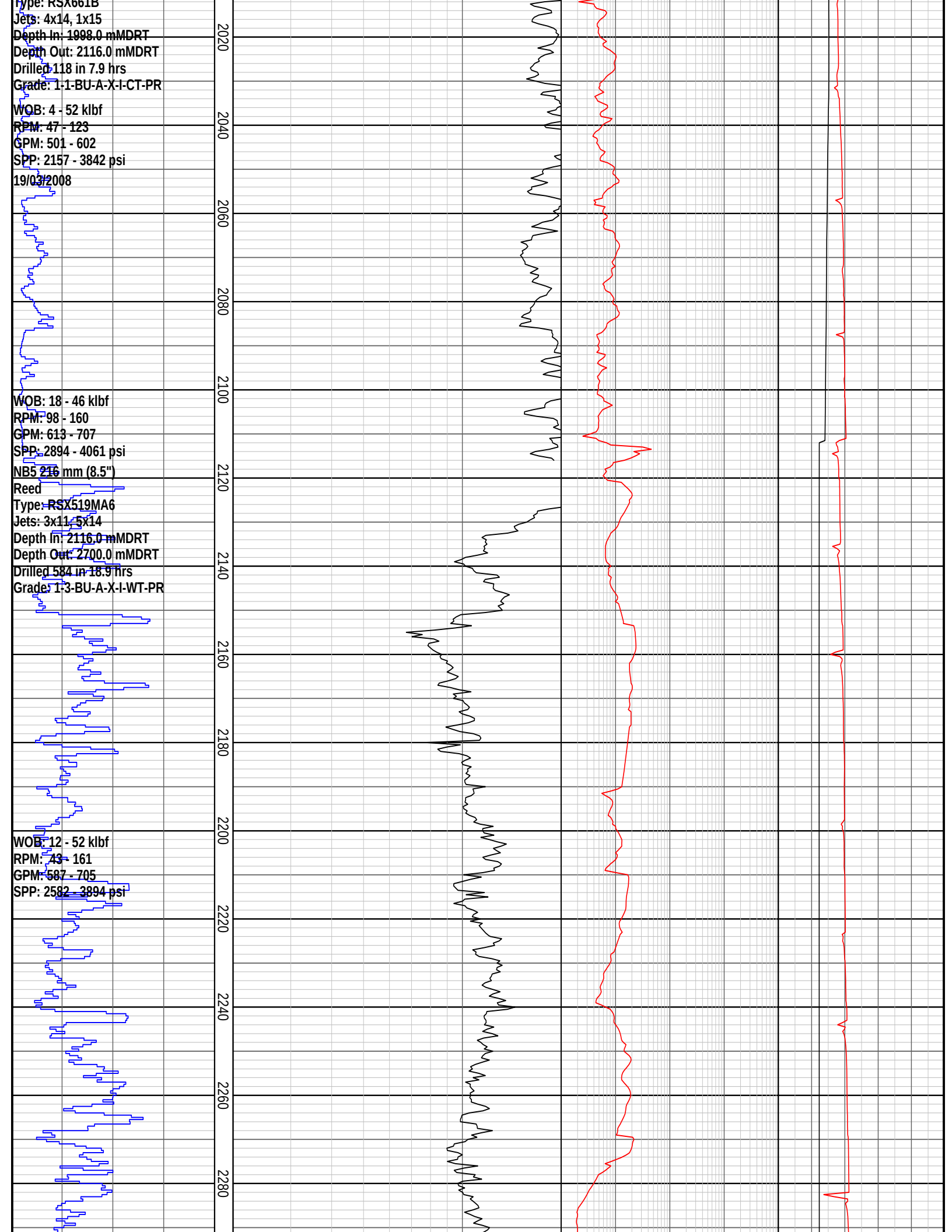
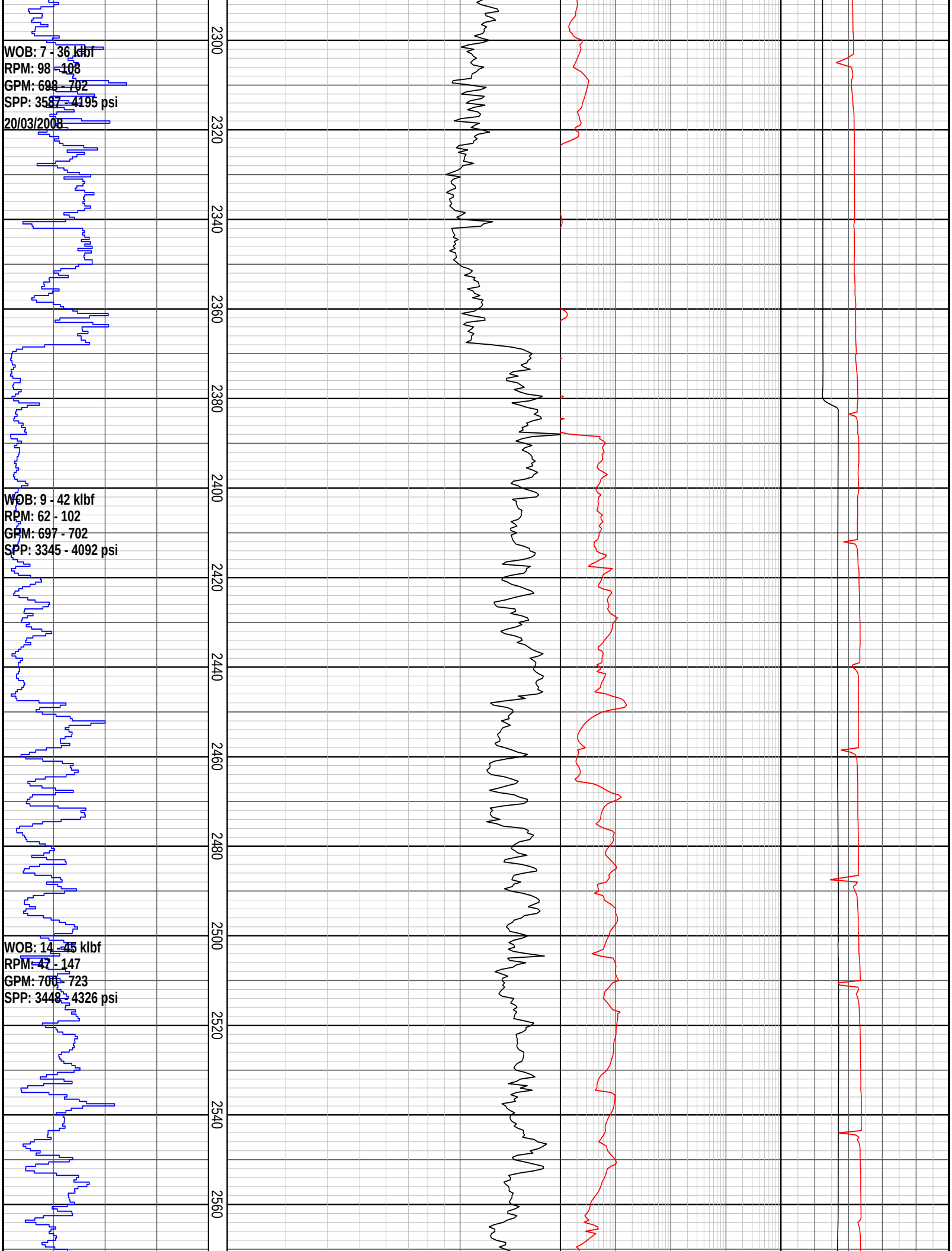
920
940
960
980
1000
1020
1040
1060
1080
1100
1120
1140
1160


WOB: 10 - 27 klbf
RPM: 99 - 144
GPM: 440 - 614
SPP: 1389 - 2575 psi
WOB: 15 - 49 klbf
RPM: 105 - 144
GPM: 576 - 696
SPP: 1464 - 3880 psi
WOB: 30 - 49 klbf
RPM: 105 - 118
GPM: 588 - 608
SPP: 2588 - 4064 psi
1180
1200
1220
1240
1260
1280
1300
1320
1340
1360
1380
1400
1420
1440


17/03/2008
WOB: 24 - 42 klbf
RPM: 81 - 112
GPM: 594 - 602
SPP: 2565 - 3483 psi
WOB: 23 - 41 klbf
RPM: 78 - 124
GPM: 490 - 610
SPP: 2227 - 3596 psi
WOB: 20 - 43 klbf
RPM: 18 - 131
GPM: 500 - 596
SPP: 2109 -2914 psi
1460
1480
1500
1520
1540
1560
1580
1600
1620
1640
1660
1680
1700
1720


1740
1760
1780
1800
1820
1840
1860
1880
1900
1920
1940
1960
1980
2000
WOB: 28 - 55 klbf
RPM: 97 - 123
GPM: 500 - 550
SPP: 2043 -3500 psi
WOB: 27 - 52 klbf
RPM: 118 - 133
GPM: 549 - 551
SPP: 2859 - 3907 psi
18/03/2008
4RR 216 mm (8.5")
Reed


Type: RSX661B
Jets: 4x14, 1x15
Depth In: 1998.0 mMDRT
Depth Out: 2116.0 mMDRT
Drilled 118 in 7.9 hrs
Grade: 1-1-BU-A-X-I-CT-PR
WOB: 4 - 52 klbf
RPM: 47 - 123
GPM: 501 - 602
SPP: 2157 - 3842 psi
19/03/2008
2020
2040
2060
2080
2100
WOB: 18 - 46 klbf
RPM: 98 - 160
GPM: 613 - 707
SPP: 2894 - 4061 psi
NB5 216 mm (8.5")
Reed
Type: RSX519MA6
Jets: 3x11, 5x14
Depth In: 2116.0 mMDRT
Depth Out: 2700.0 mMDRT
Drilled 584 in 18.9 hrs
Grade: 1-3-BU-A-X-I-WT-PR
2120
2140
2160
2180
2200
WOB: 12 - 52 klbf
RPM: 43 - 161
GPM: 587 - 705
SPP: 2582 - 3894 psi
2220
2240
2260
2280


WOB: 7 - 36 klbf
RPM: 98 - 108
GPM: 698 - 702
SPP: 3587 - 4195 psi
20/03/2008
WOB: 9 - 42 klbf
RPM: 62 - 102
GPM: 697 - 702
SPP: 3345 - 4092 psi
WOB: 14 - 45 klbf
RPM: 47 - 147
GPM: 700 - 723
SPP: 3448 - 4326 psi
2300
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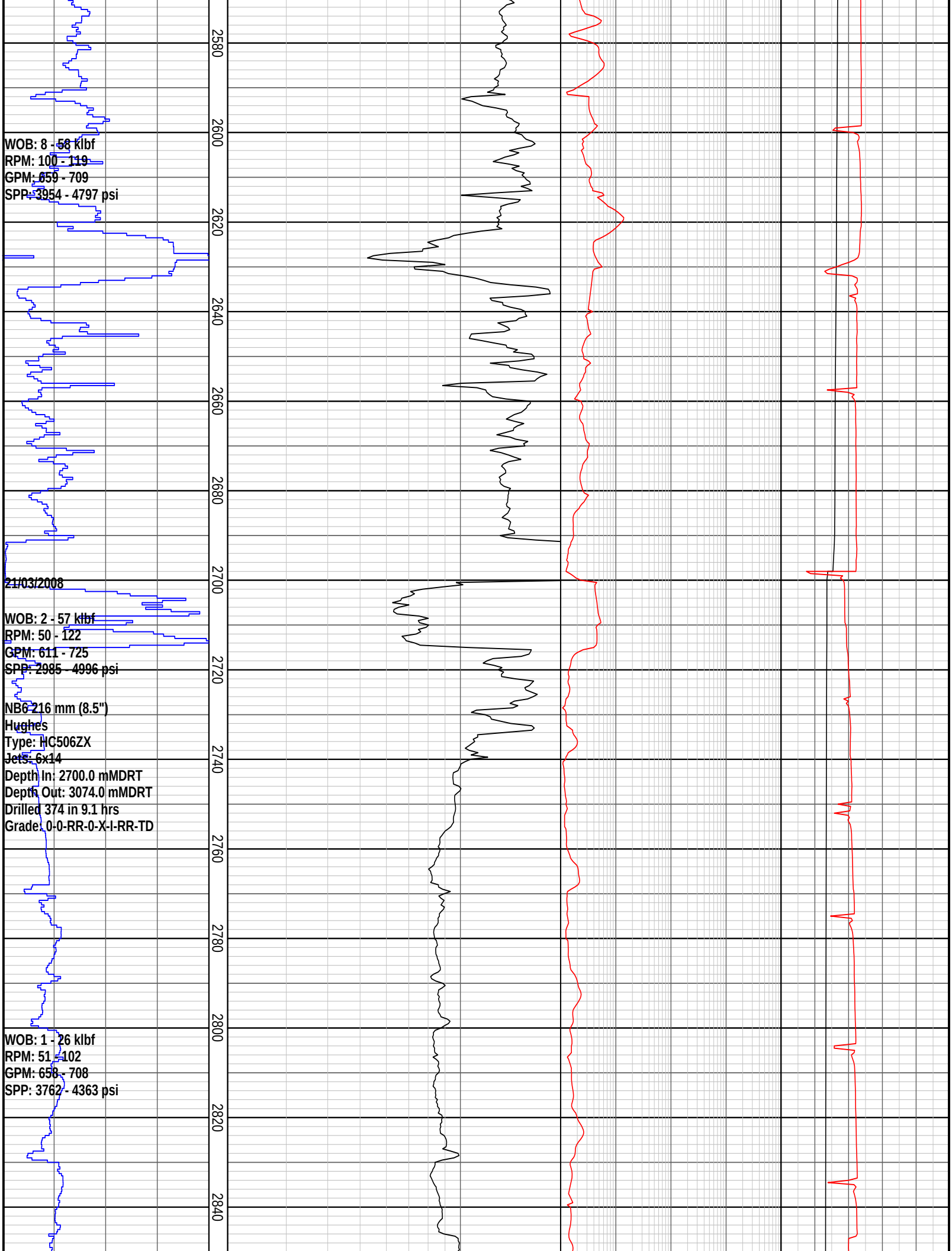
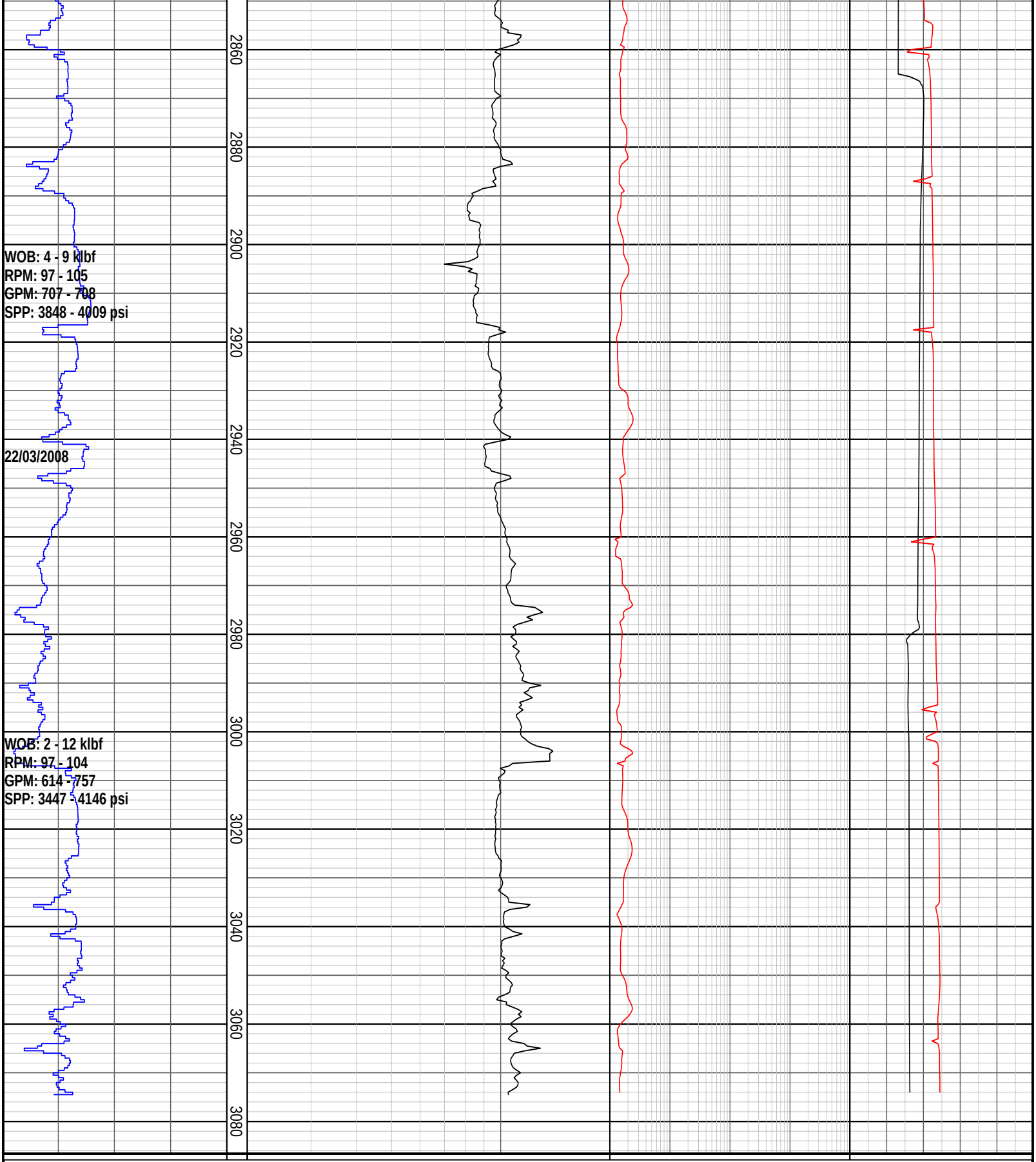
2340
2360
2380
2400
2420
2440
2460
2480
2500
2520
2540
2560


2580
2600
2620
2640
2660
2680
2700
2720
2740
2760
2780
2800
2820
2840
WOB: 8 - 58 klbf
RPM: 100 - 119
GPM: 659 - 709
SPP: 3954 - 4797 psi
21/03/2008
WOB: 2 - 57 klbf
RPM: 50 - 122
GPM: 611 - 725
SPP: 2985 - 4996 psi
NB6 216 mm (8.5")
Hughes
Type: HC506ZX
Jets: 6x14
Depth In: 2700.0 mMDRT
Depth Out: 3074.0 mMDRT
Drilled 374 in 9.1 hrs
Grade: 0-0-RR-0-X-I-RR-TD
WOB: 1 - 26 klbf
RPM: 51 - 102
GPM: 658 - 708
SPP: 3762 - 4363 psi



PRESSURE DATA PLOT

Rate Of Penetration	MD meters 1:1000	Drilling Exponent	Gas Data	Temperature Data
0 ROP 200		0.2 DXC 2	TOTAL GAS (%)	Temperature In (degC)
m/hr			0.1 | 1 | 10 | 100	20 | 40 | 60 | 80 | 100
				Temperature Out (DegC)
				20 | 40 | 60 | 80 | 100

GAS RATIO PLOT

1:500

BAKER HUGHES INTEQ

Apache ENERGY

Company	**Apache Northwest Pty Ltd**
Well	**Coelacanth-1**
Permit	**VIC/P-45**
Region	**Gippsland Basin**
Designation	**Exploration**
Coordinates	**Lat 38° 42' 49.7296"** **Long 148° 18' 07.0098"**
Ref Elevation	**RT 38.0 mMDRT (AHD)**
Total Depth	**3074.0 mMDRT**
Contractor	**Seadrill**
Rig	**MODU West Triton**
Type	**Jack-Up**

LOG INTERVAL

Depth	**128.0 - 3074.0 mMDRT**
Date	**10 -22 March 2008**
Scale	**1 : 500**
Data Engineers	**Y.C. Wong, A. Rayan**
Logging Geologists	**R. Houston, R. Richharia, F. Walsh**

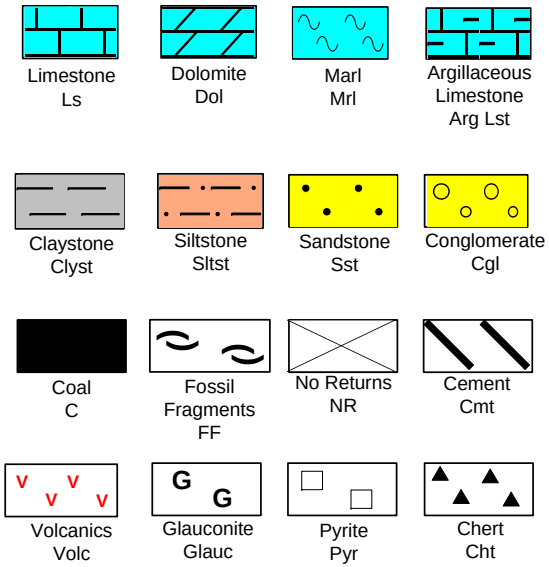
INTEQ LOG SUITE

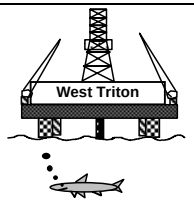
Formation Evaluation Log
Drilling Data Plot
Gas Ratio Plot
Pressure Log

ABBREVIATIONS

NB	New Bit	MD	Measured Depth
RB	Rerun Bit	GPM	Gallons per Min
CB	Core Bit	PP	Pump Pressure
WOB	Weight on Bit	MW	Mud Weight sg
RPM	Revs per Minute	FV	Funnel Viscosity
FLC	Flow Check	F	Filtrate - API
FCG	Flow Check Gas	FC	Filter Cake
PR	Poor Returns	PV	Plastic Viscosity
NR	No Returns	YP	Yield Point
BG	Background Gas	Sol	Solids %
WTG	Wiper Trip Gas	Sd	Sand %
TG	Trip Gas	Cl	Chlorides
POG	Pumps Off Gas	RM	Mud Resistivity
CG	Connection Gas	RMF	Filtrate Resistivty
SWG	Swab Gas	TVD	True Vertical Depth

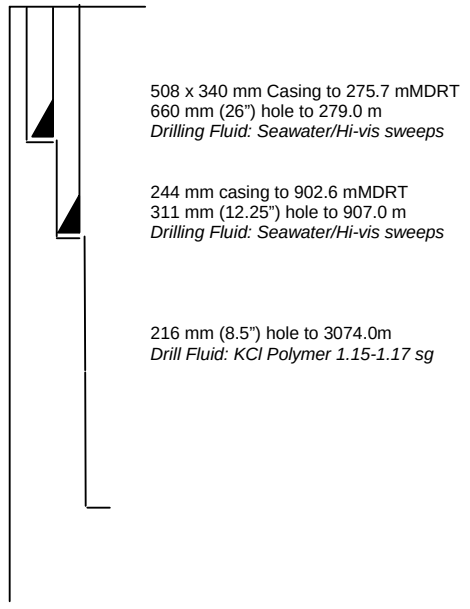
LITHOLOGY SYMBOLS

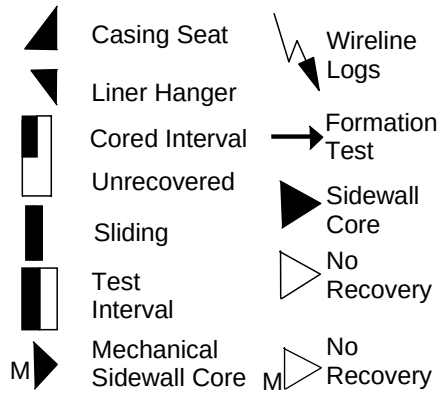




RT- AHD 38.0 mMDRT

W Dep – AHD 90.0 mMDRT





BAKER HUGHES INTEQ

Company : Apache
Well : Coelacanth-1
Interval : 277.00 - 3077.49 meters
Created : 24/Mar/2008 6:31:29 AM

Apache ENERGY

GAS RATIO PLOT

Total Gas
DITCH GAS
0.1 | 1 | 10 | 100
%

MD meters 1:500

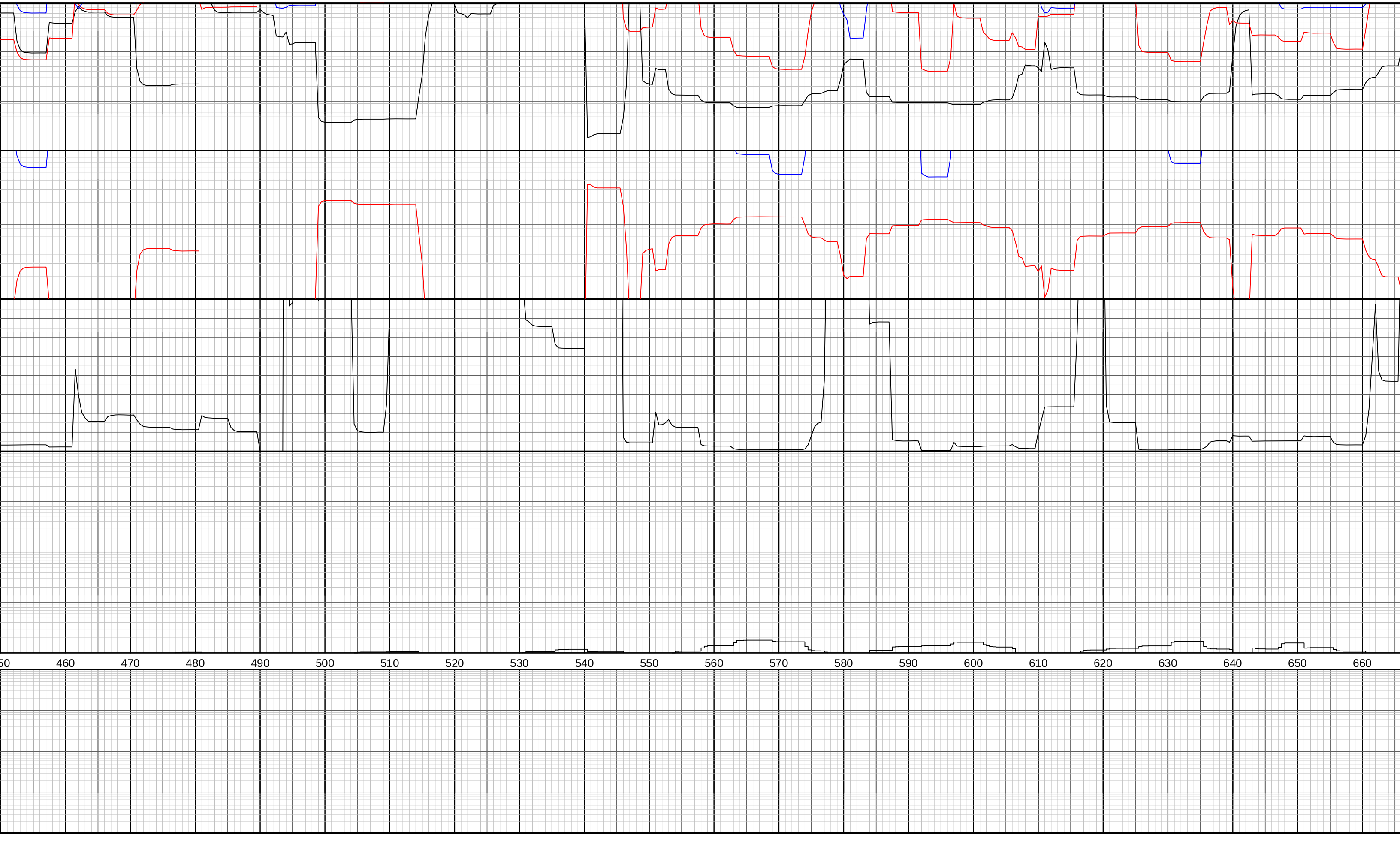
Chromatograph Data
C1 ppm 10 – 100000
C2 ppm 10 – 100000
C3 ppm 10 – 100000
iC4 ppm 10 – 100000
nC4 ppm 10 – 100000
iC5 ppm 10 – 100000
nC5 ppm 10 – 100000

OCQ
Unitless
0.5 | 1 | 1.5 | 2 | 2.5 | 3 | 3.5 | 4

Ratios
LHR 1 – 100
GWR 1 – 100

C1 Ratios
C1C2 1 – 1000
C1C3 1 – 1000
C1C4 1 – 1000
C1C5 1 – 1000

280 290 300 310 320 330 340 350 360 370 380 390 400 410 420 430 440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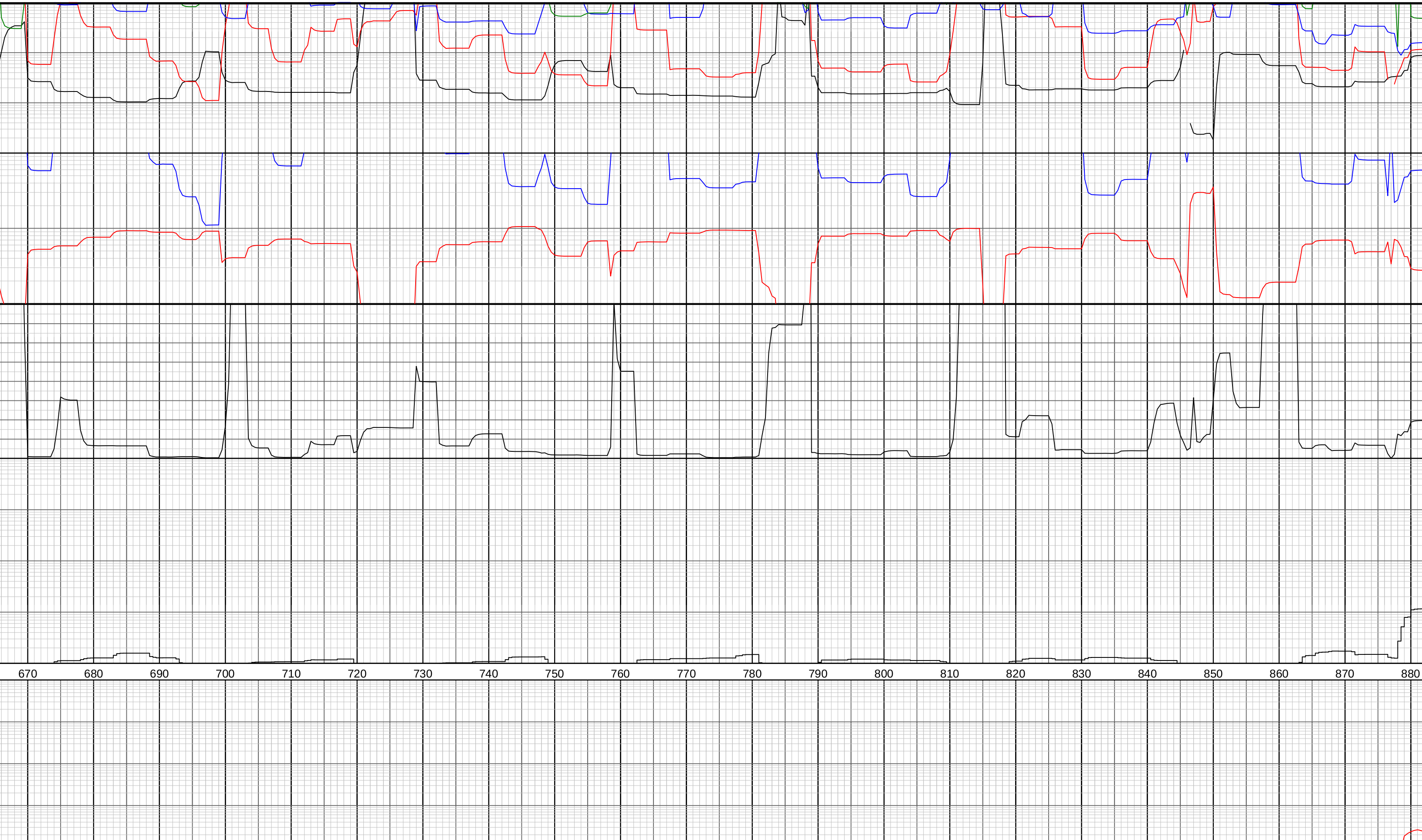
640
650
660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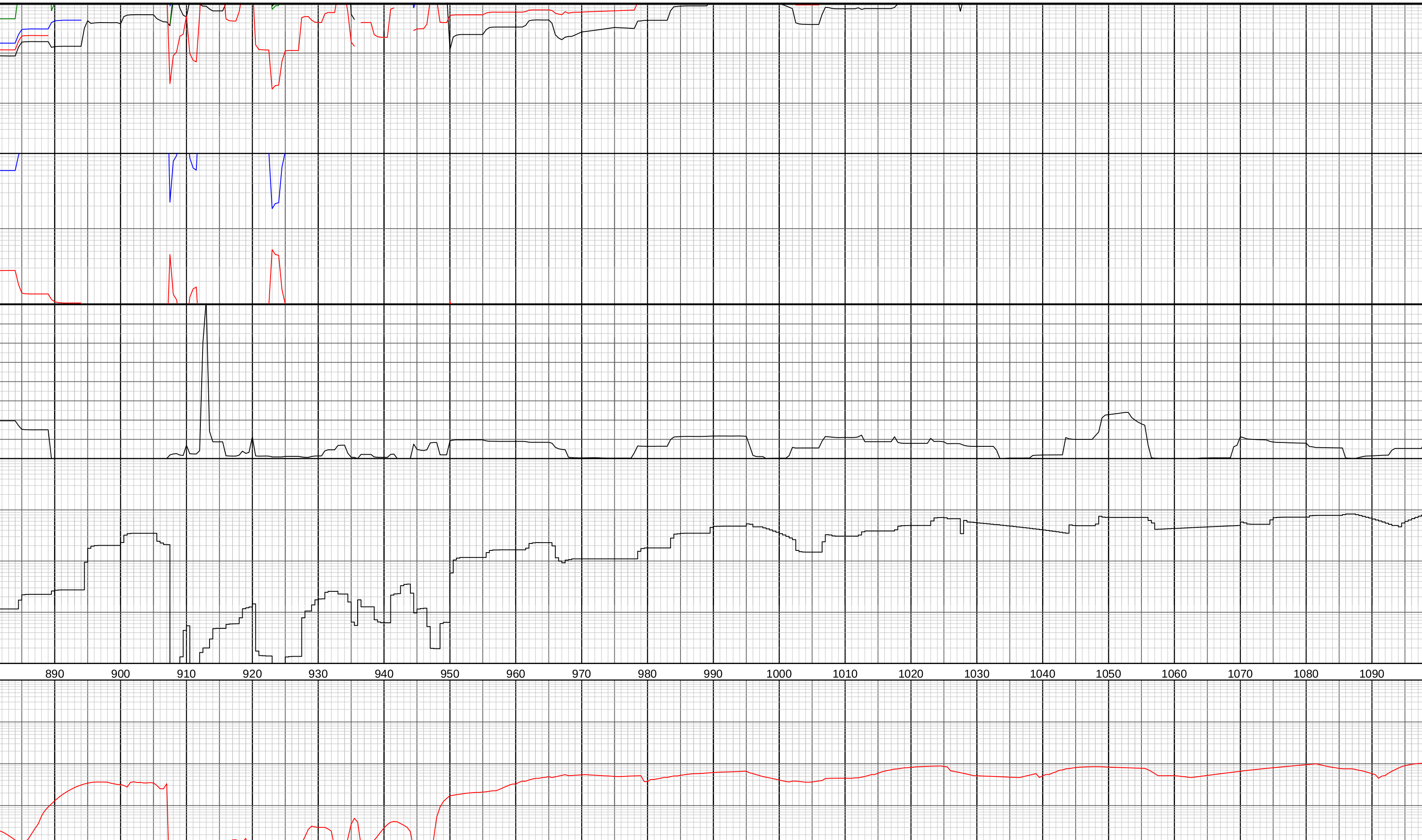
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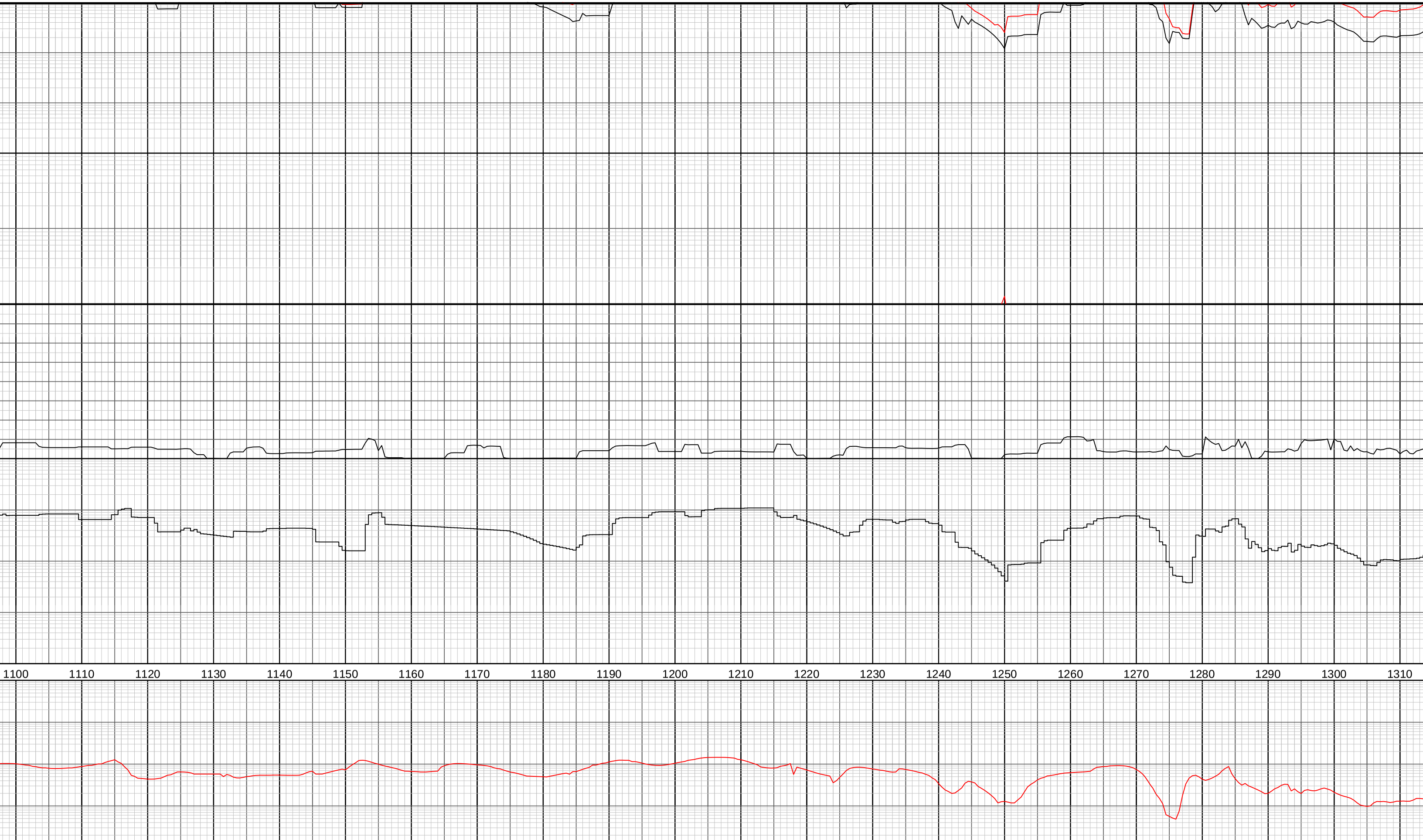
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1250
1260
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1310

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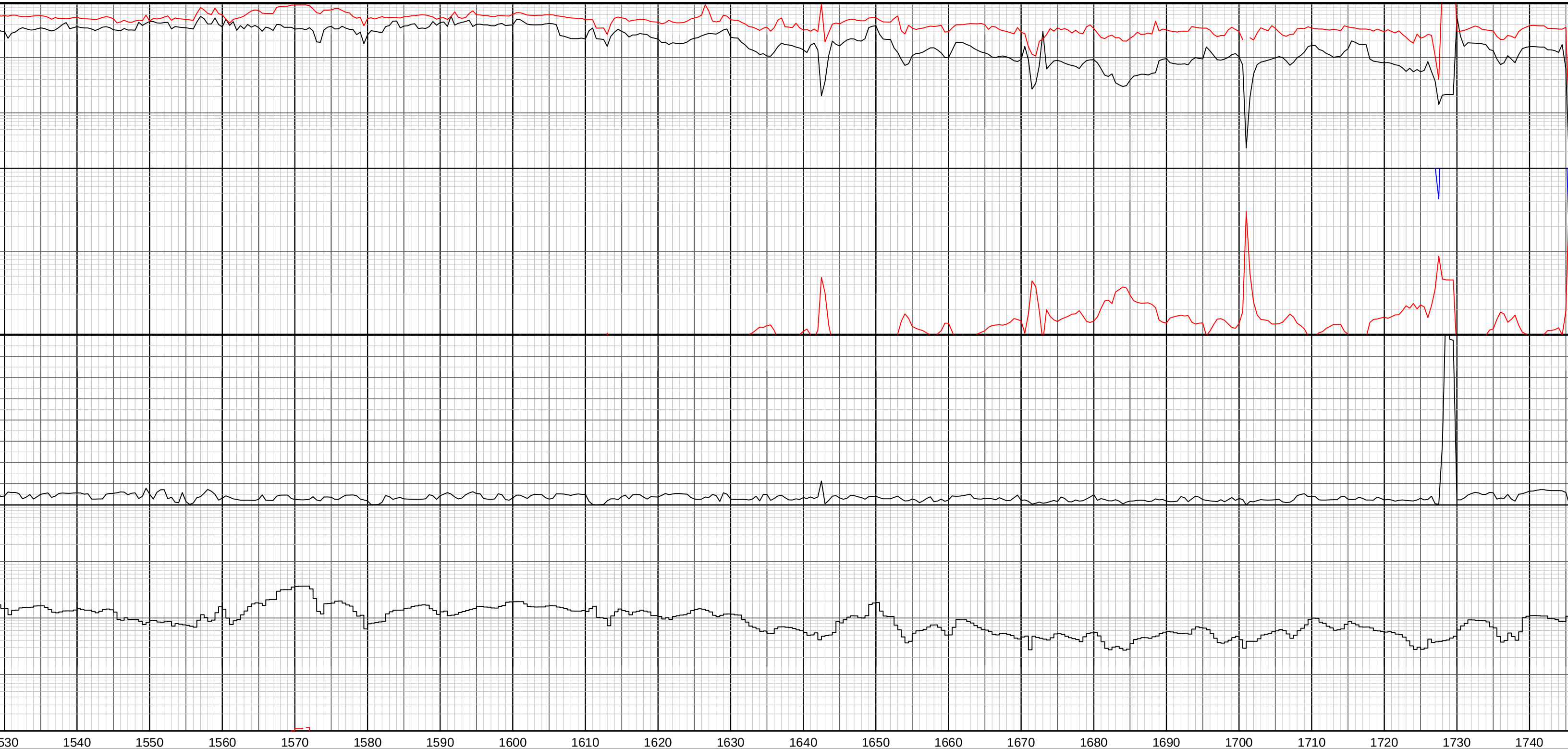
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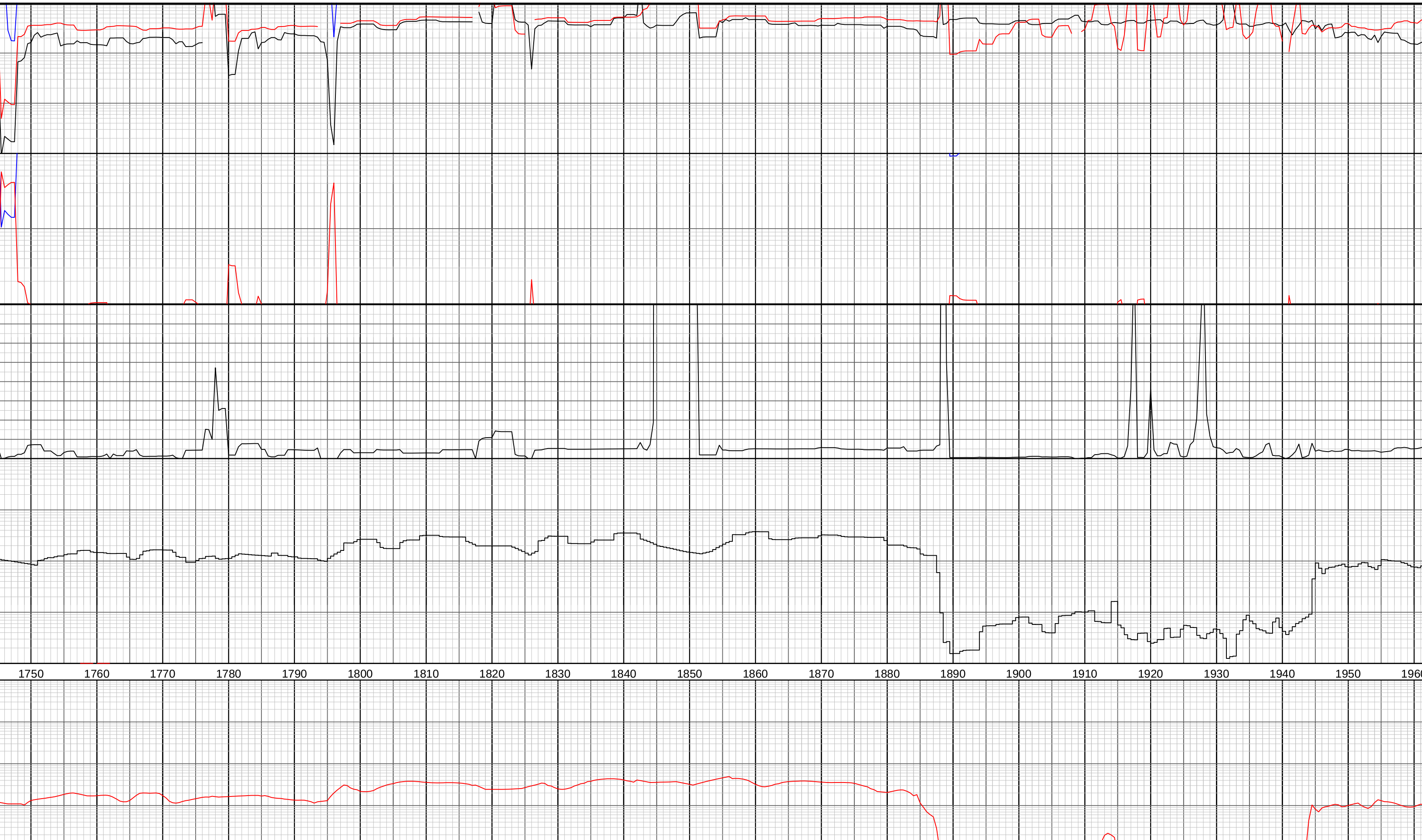
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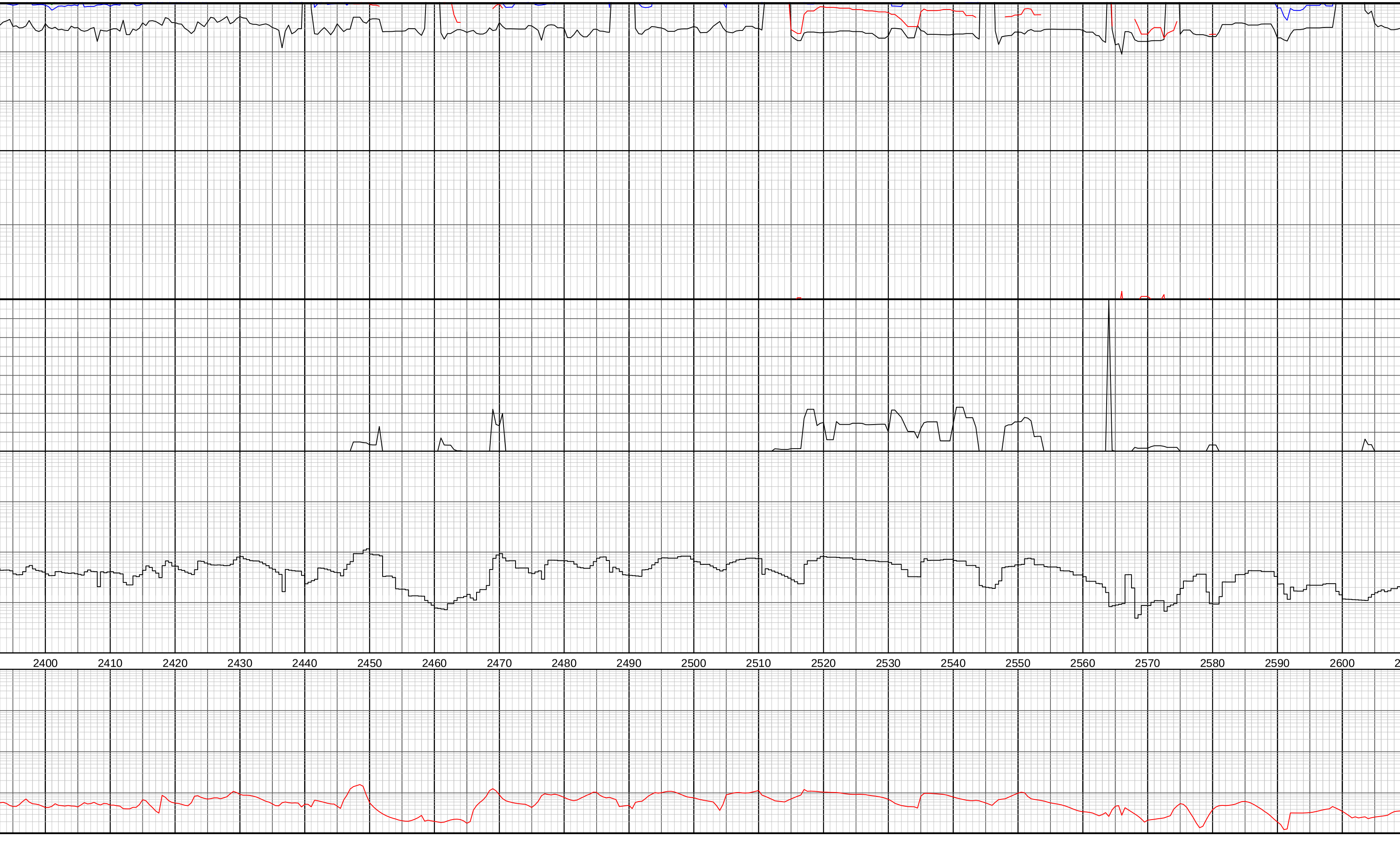
1910
1920
1930
1940
1950
1960

2170 2160 2150 2140 2130 2120 2110 2100 2090 2080 2070 2060 2050 2040 2030 2020 2010 2000 1990 1980 1970

2390 2380 2370 2360 2350 2340 2330 2320 2310 2300 2290 2280 2270 2260 2250 2240 2230 2220 2210 2200 2190 2180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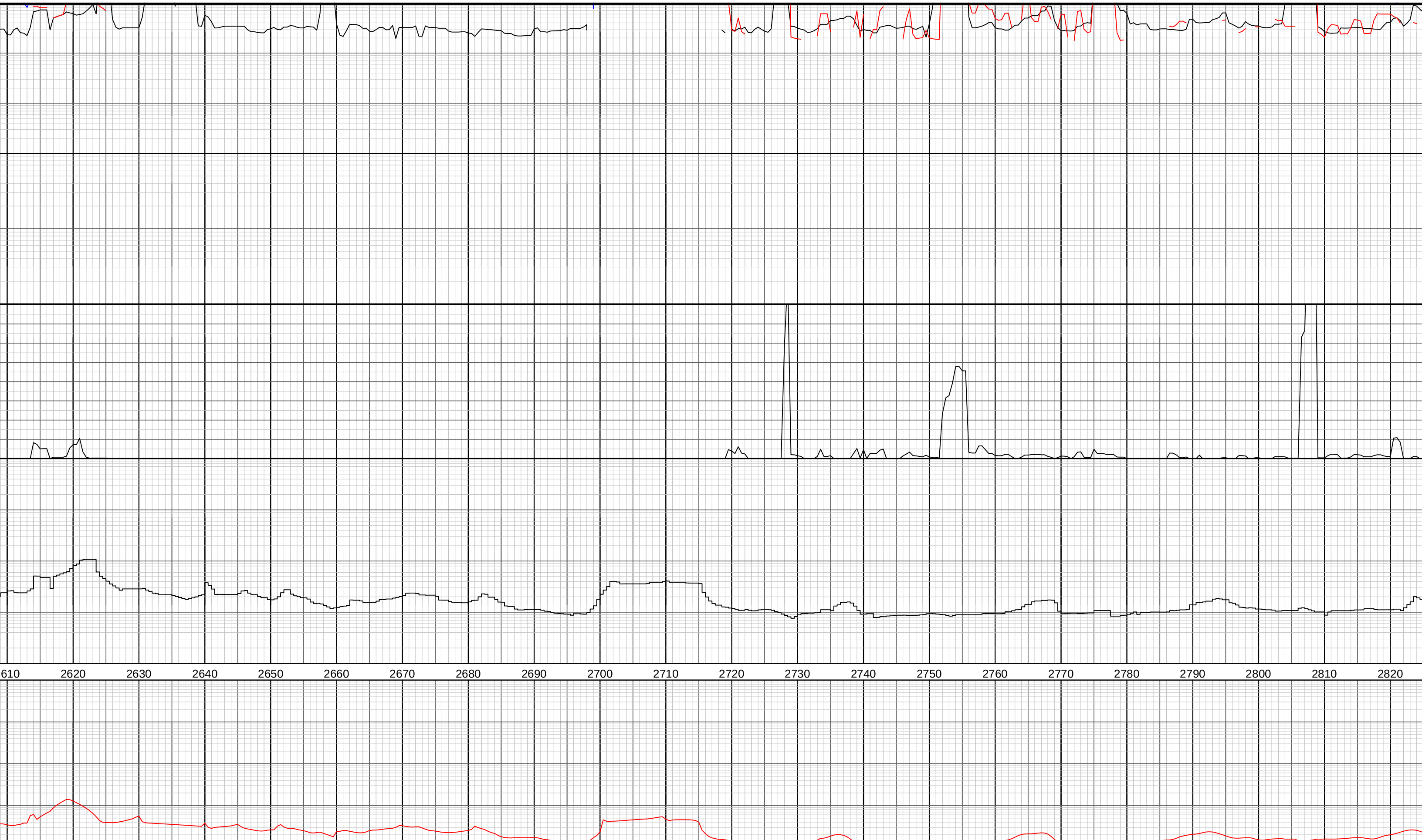
2600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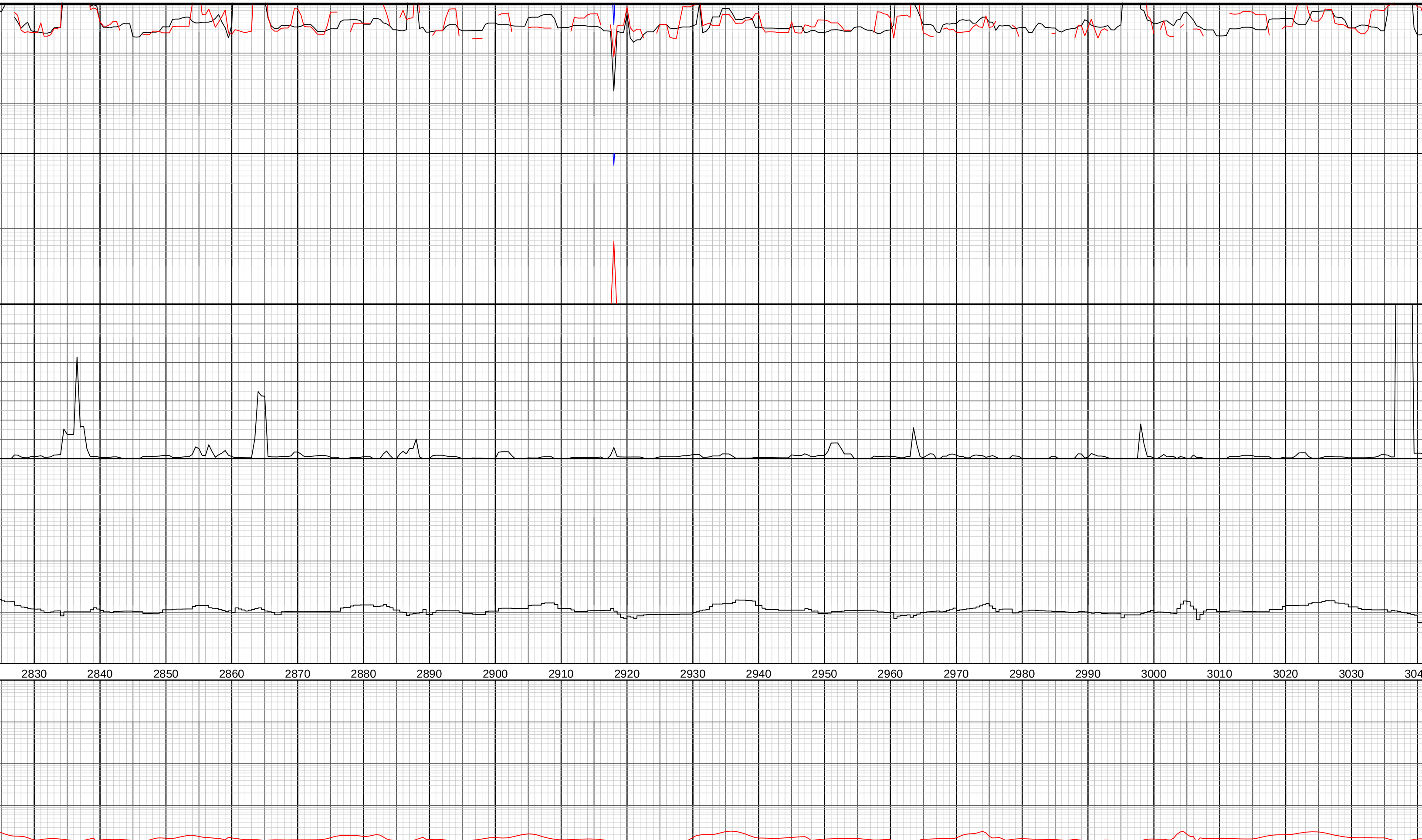
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2990
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3010
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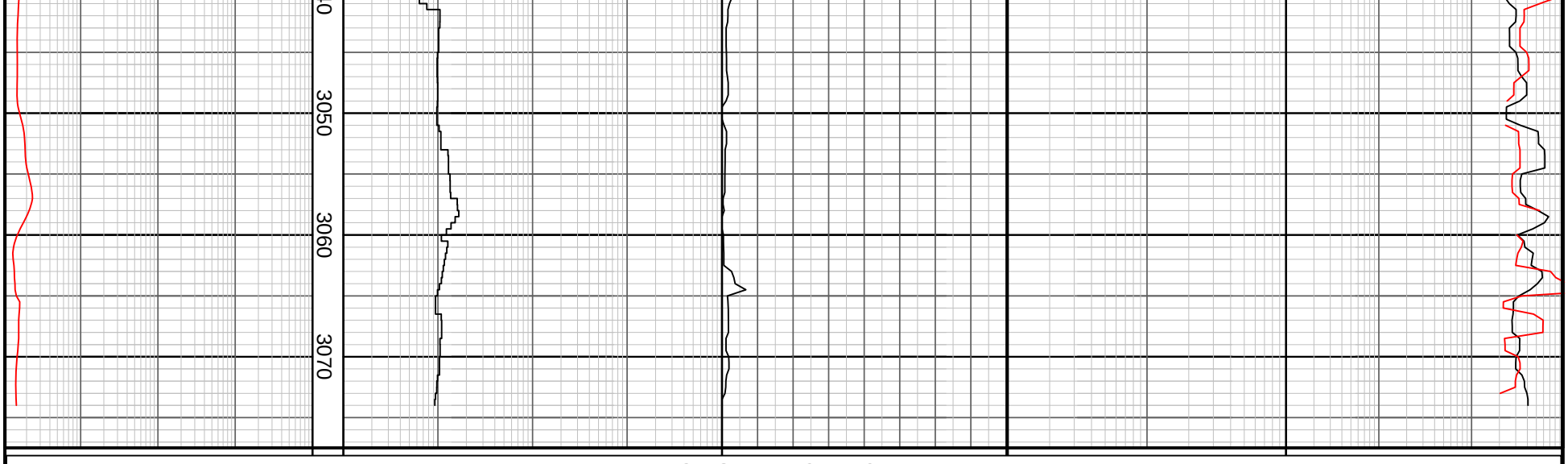
3030
304



GAS RATIO PLOT

Total Gas
DITCH GAS
0.1 | 1 | 10 | 100
%

MD meters 1:500

Chromatograph Data
C1 ppm 10 – 100000
C2 ppm 10 – 100000
C3 ppm 10 – 100000
iC4 ppm 10 – 100000
nC4 ppm 10 – 100000
iC5 ppm 10 – 100000
nC5 ppm 10 – 100000

OCQ
Unitless
0.5 | 1 | 1.5 | 2 | 2.5 | 3 | 3.5 | 4

Ratios
LHR 1 – 100
GWR 1 – 100

C1 Ratios
C1C2 1 – 1000
C1C3 1 – 1000
C1C4 1 – 1000
C1C5 1 – 1000

Apache Northwest Pty Lyd

WIRELINE LOGGING REPORT

GENERAL WELL DATA

Well Name :	Coelacanth-1	**Suite :**	1	**Rig :**	West Triton
Permit :	VIC/P-45	**Date 1st Log :**	13-Mar-2008	**GL Elevation :**	
Latitude :	038° 42' 49.720" North	**Date Last Log :**	14-Mar-2008	**Water Depth :**	90.0 (m)
Longitude :	148° 18' 07.040" East	**Depth Ref. :**	Recorded LWD	**Witnesses :**	F. Fernandes
Easting (m) :	613,193.500 E	**Depth Ref. Elev. :**	38.0 (m)		
Northing (m) :	5,714,176.900 N	**Service Comp. :**	Schlumberger	**Engineers :**	A. Dandi, M. Dawson
UTM Zone :	55				
Geo. Datum :	NAD83, GDA94				
Ellipsoid :	Geodetic Reference System 1980				

HOLE DATA

Hole Size :	311.000 (mm)	**Seabed Temp :**	25.1 (°C)	**Max Hole Dev :**	4.2 (°)
Driller's Depth :	907.0 (m)	**Surface Temp :**	23.6 (°C)	**Max Dev Depth :**	381.7 (m)
Logger's Depth :	907.0 (m)	**Max BHT :**	31.4 (°C)		
Survey Type :					

Hole Problems :

Comments :

CASING DATA

Casing String	Shoe Depth (mMDRT)	Shoe Depth (mTVDRT)	Casing OD (mm)	Casing ID (mm)	Weight (lbm/ft)	Hole Size (mm)
508mm Conductor	275.2	275.2	508	476	192.00	660

WATER BASE MUD DATA

Date Mud Check	Date Time Circ Stopped	Circ Time (h)	Mud Type	MW (sg)	KCl (%)	Cl (mg/L)	Barite (%)	Rmf (ohm.m)	Rm (ohm.m)	Rmc (ohm.m)
13-Mar-2008	3-Mar-2008 13:2	3.00	KCL Polymer	1.15	0.0	38000.0	2.50	0.130 @ 20.	0.138 @ 21.00 °	0.147 @ 21.10 °

WIRELINE RUN TEMPERATURE DATA

Date of Mud Check: 13-Mar-2008 **Date / Time Circ. Stopped:** 13-Mar-2008 13:20 **Circ. Time :** 3.00 (h)

Run #	Run Date	Tool String	Max BHT (°C)	Max BHT TVD Depth (m)	Date Time Logger on Bottom	Time Since Circ. Stopped (h)
1	13-Mar-2008	PEX-DSI	31.44	907.0	13-Mar-2008 23:32	10.20

WIRELINE RUN SUMMARY DATA

Run #	Tool String	Log From Depth (m)	Log To Depth (m)	Repeat From Depth (m)	Repeat To Depth (m)	Comments

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1	PEX-DSI	125.0	907.0	0.0	0.0	Commenced rigging up wireline tools @ 20:00 hrs on 13-Mar-2008 started running hole with tools @ 21:50 hrs. The logging tools tagged bottoms (907.0 mMDRT) at 23:30 hrs, no hang up points were encountered while running in hole. The main pass was logged at 1800 ft/hr (550 m/hr), logging was stopped at 550m due a power failure which affected the communications with the tool string, the computer system was rebooted along with surface power supply to the tools. A total of 30 minutes was lost due to the power failure. The tool string was run in to 590 mMDRT to allow a 40 m overlap of data before the power failure. Commenced recording main pass from 590 mMDRT @ 00:45 hrs on 14-Mar-2008. At 02:15 hrs while retrieving the tools the wireline unit generator tripped out. The tools were 30m below the rotary table when the generator stopped working. The rig electrician worked on the generator for two hours. A 'T' clamp was rigged up and the rig tuger line was used to retrieve the tools out of the hole.

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Schlumberger

Company: **Apache Northwest Pty Ltd**

Well: **Coelacanth−1**
Field: **Apache/VIC/P−45**
Rig: **West Triton** Country: **Australia**

Company: Apache Northwest Pty Ltd
Well: Coelacanth−1
Location: Bass Strait
Field: Apache/VIC/P−45
Rig: West Triton

PEX−GR−HRLA−MSIP−S
Compressional and Shear Slowness (CH)
Suite−1 Run−1 Scale 1:200

LOCATION

Bass Strait
Northing : 5,714,176.613 m
Easting : 613,192.770 m

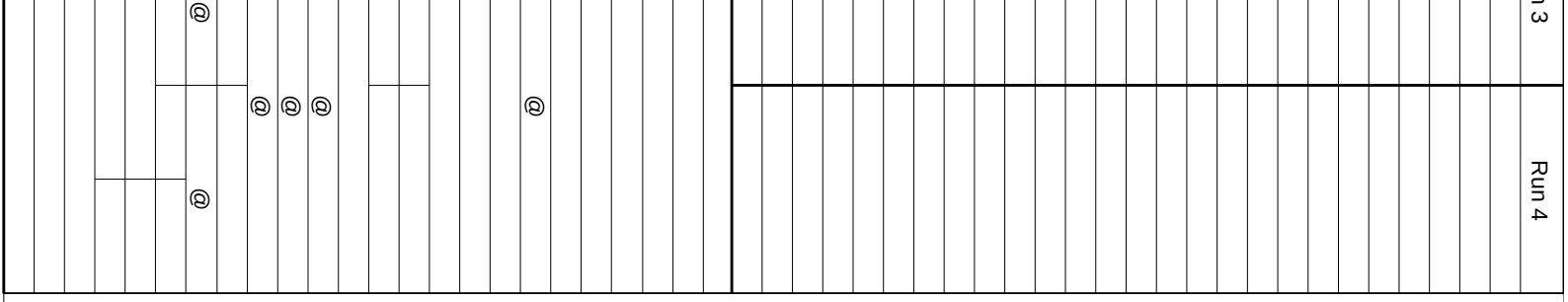
Elev.:
G.L. −90.00 m
D.F. 38.00 m

Permanent Datum: AHD — Elev.: 0.00 m
Log Measured From: DRILL FLOOR — 38.00 m above Perm. Datum
Drilling Measured From: DRILL FLOOR

State:	Max. Well Deviation	Longitude	Latitude
Victoria	0.41 deg	148 18' 07.0098" E	38 42' 49.7296" S

	Run 1	Run 2	Run 3
Logging Date	13−Mar−2008		
Run Number	1		
Depth Driller	907 m		
Schlumberger Depth	907 m		
Bottom Log Interval	905 m		
Top Log Interval	55.3 m		
Casing Driller Size @ Depth	13.375 in @ 275.7 m	@	@
Casing Schlumberger	274 m		
Bit Size	12.250 in		
Type Fluid In Hole	KCl/Polymer		
MUD Density / Viscosity	1.15 g/cm3 / 43 s		
MUD Fluid Loss / PH	9 cm3 / 8		
MUD Source Of Sample	Flowline		
RM @ Measured Temperature	0.138 ohm.m @ 21 degC	@	@
RMF @ Measured Temperature	0.130 ohm.m @ 21 degC	@	@
RMC @ Measured Temperature	0.147 ohm.m @ 21 degC	@	@
Source RMF / RMC	Press / Press		
RM @ MRT / RMF @ MRT	0.105 @ 34 / 0.098 @ 34	@ / @	@ / @
Maximum Recorded Temperatures	34 degC / 31		
Circulation Stopped / Time	13−Mar−2008 / 13:00		
Logger On Bottom / Time	14−Mar−2008 / 23:31		
Unit Number / Location	41 / AUSL		
Recorded By	A. Dandi/M.Dawson		
Witnessed By	F.Fernandes		

	Run 1	Run 2	Run 3
Logging Date			
Run Number			
Depth Driller			
Schlumberger Depth			
Bottom Log Interval			
Top Log Interval			
Casing Driller Size @ Depth	@		
Casing Schlumberger			
Bit Size			
Type Fluid In Hole			
MUD Density / Viscosity			
MUD Fluid Loss / PH			
MUD Source Of Sample			
RM @ Measured Temperature	@		
RMF @ Measured Temperature	@		
RMC @ Measured Temperature	@		
Source RMF / RMC			
RM @ MRT / RMF @ MRT	@ / @		
Maximum Recorded Temperatures			
Circulation Stopped / Time			
Logger On Bottom / Time			
Unit Number / Location			
Recorded By			
Witnessed By			



DEPTH SUMMARY LISTING

Date Created: 14−MAR−2008 1:45:57

Depth System Equipment

Depth Measuring Device		Tension Device		Logging Cable	
Type:	IDW−H	Type:	CMTD−B/A	Type:	7−46ZV−XS
Serial Number:	796	Serial Number:	1721	Serial Number:	77178
Calibration Date:	29−Jan−2008	Calibration Date:	27−FEB−2008	Length:	7699.86 M
Calibrator Serial Number:	1009	Calibrator Serial Number:	1051	Conveyance Method:	Wireline
Calibration Cable Type:	7−46ZV−XS	Calibration Gain:	0.81	Rig Type:	Offshore_Fixed
Wheel Correction 1:	−5	Calibration Offset:	−610.00		
Wheel Correction 2:	−5				

Depth Control Parameters

Log Sequence:	First Log In the Well
Rig Up Length At Surface:	74.36 M
Rig Up Length At Bottom:	74.10 M
Rig Up Length Correction:	0.26 M
Stretch Correction:	0.00 M
Tool Zero Check At Surface:	0.00 M

Depth Control Remarks

1. Schlumberger Depth Control Policy Followed
2. IDW used as primary depth reference
3. Z−Chart used as secondary depth reference
4.
5.
6.

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 SERVICES1	OTHER SERVICES2
OS1:	OS1:
OS2:	OS2:
OS3:	OS3:
OS4:	OS4:
OS5:	OS5:

REMARKS: RUN NUMBER 1	REMARKS: RUN NUMBER 2
First Run in Hole. Schlumberger depth control procedure followed.	
Log Objectives:Basic Formation Evaluation	
Toolstring run as per toolsketch by means of 2 LCMEs, 5 * 2.5 in Standoffs and HGNS eccentralized with a bowspring	
Maximum recoreded temperatures obtained from thermometers in logging head.	
Neutron Enviroment Corrections : Hole Size, Mud Salinity, Mud Weight, Mud Cake, Pressure & Temperature	
Density Environment Corrections : Hole Size, using BS, and Mud Weight	
Pex run in high resolution as per client request	

Pex run in high resolution as per client request
As per Mud Engineer's report
−Chlorides = 38000mg/l, Barite = 2.5 %
TDL tagged @ 907m , CS detected @ 274 m
Caliper Check in Casing reads 12.55in (Ref ID = 12.61 in)
BHT, STEM and SHT temperatures based on HGNS temperature sensor
Spike of resisitivity curves at 669.5m due to application of power for caliper centralisation

RUN 1		RUN 2	
SERVICE ORDER #:	AUSL08649881	SERVICE ORDER #:	
PROGRAM VERSION:	15C0−309	PROGRAM VERSION:	
FLUID LEVEL:	0 m	FLUID LEVEL:	

LOGGED INTERVAL	START	STOP	LOGGED INTERVAL	START	STOP

EQUIPMENT DESCRIPTION

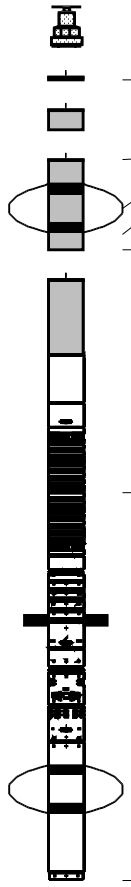
RUN 1 RUN 2

SURFACE EQUIPMENT

GSR−Y 6750
NCT−B
CNB−AB
NCS−VB

WITM (EDTS)−A

DOWNHOLE EQUIPMENT



LEH−QT
LEH−QT 2800
33.61

SP SPARC 32.32

BSP−AH−169
32.73

AH−369
32.32

Mud Tempe 31.88
CTEM 30.82
Gamma Ray 30.25
TelStatus
EDTCB Ele 29.90

EDTC−B
EDTH−B 8378
EDTC−B
EDTG−B 77305
31.88

MAPC−B
MAPC−BA 8198
ECH−SD 8198
MAMS−BA 8201
29.90

MAMS−PS 25.20

MAXS−B
MASS−BA 8157
MAXS−BA 8157
23.49
2.5 IN
Standoff

MAXS−PS 17.32

PPC1−B
PPC1−B 8291
PPC_CAL_STD
Calipers 16.97
17.32

PPC_Cartr 15.33

HRLT−B
HRUH−B 1741
HRUC−B 1730
15.33
2.5 IN
Standoff

HRLS−B 1745
HRLH−B 1745
HRLC−B 1745
AH−270 1792

High Res. — 11.75

2.5 IN Standoff

HILTB−FTB
AH−107 2910
AH−120 806
HGNSD−B 856
HMCA
HGNH 3915
NLS−KL
NSR−F 5224
HACCZ 379
HCNT
HGR
HRCC−B 868
HRMS−B 788
HRGD−B 1806
GLS−VJ 5334

HGNS HTEM — 7.96
HMCA — 6.74
HGNS Gamm — 6.51
HGNS Neut — 4.73
HGNS Neut — 4.58
HGNS sens — 3.87
HRCC cart — 2.65
MCFL — 1.00
HILT cali — 0.85
HRDD−LS
HRDD−SS
HRDD−BS — 0.73
DF ACCZ
HTEN HMAS HV
Accelerom
Tension — 0.00

BNS−CCS — 0.14

TOOL ZERO

MAXIMUM STRING DIAMETER 8.63 IN
MEASUREMENTS RELATIVE TO TOOL ZERO
ALL LENGTHS IN METERS

Client: Apache Northwest Pty Ltd
Well: Coelacanth−1
Field: VIC/P−45
State: Victoria
Country: Australia

Drawing Date: 3/13/2008
Rig Name: West Triton
Reference Datum: AHD
Elevation: 38.0 m

Production String	(in) OD	(in) ID	(m) MD	Well Schematic	(m) MD	(in) OD	(in) ID	Casing String
Derrick Floor Elevation			39.0					
Mean Sea Level			0.0					
					90.0	13.175	12.415	Casing String
					275.7	13.175	12.415	Casing Shoe
					275.7	12.250		Borehole Segment

All Depths are Drillers' Depths						907.0	12.250	Borehole Segment Bottom

Schlumberger

Monopole Compressional Slowness 1:200

MAXIS Field Log

Company: Apache Northwest Pty Ltd **Well: Coelacanth−1**

Input DLIS Files

DEFAULT	MERGE_003	FN:1	PRODUCER	27−Mar−2008 20:37	280.0 M	120.4 M

Output DLIS Files

DEFAULT	TLD_MCFL_CNL_HRLA_011PUP	FN:16	PRODUCER	27−Mar−2008 23:02	280.0 M	121.5 M
CUSTOMER	TLD_MCFL_CNL_HRLA_011PUC	FN:17	CUSTOMER	27−Mar−2008 23:02	280.0 M	121.5 M
CUST_RED	TLD_MCFL_CNL_HRLA_011PUC	FN:18	CUSTOMER	27−Mar−2008 23:02	280.0 M	121.5 M
REDUCED	TLD_MCFL_CNL_HRLA_011PUP	FN:19	PRODUCER	27−Mar−2008 23:03	280.0 M	121.5 M

OP System Version: 15C0−309

MCM

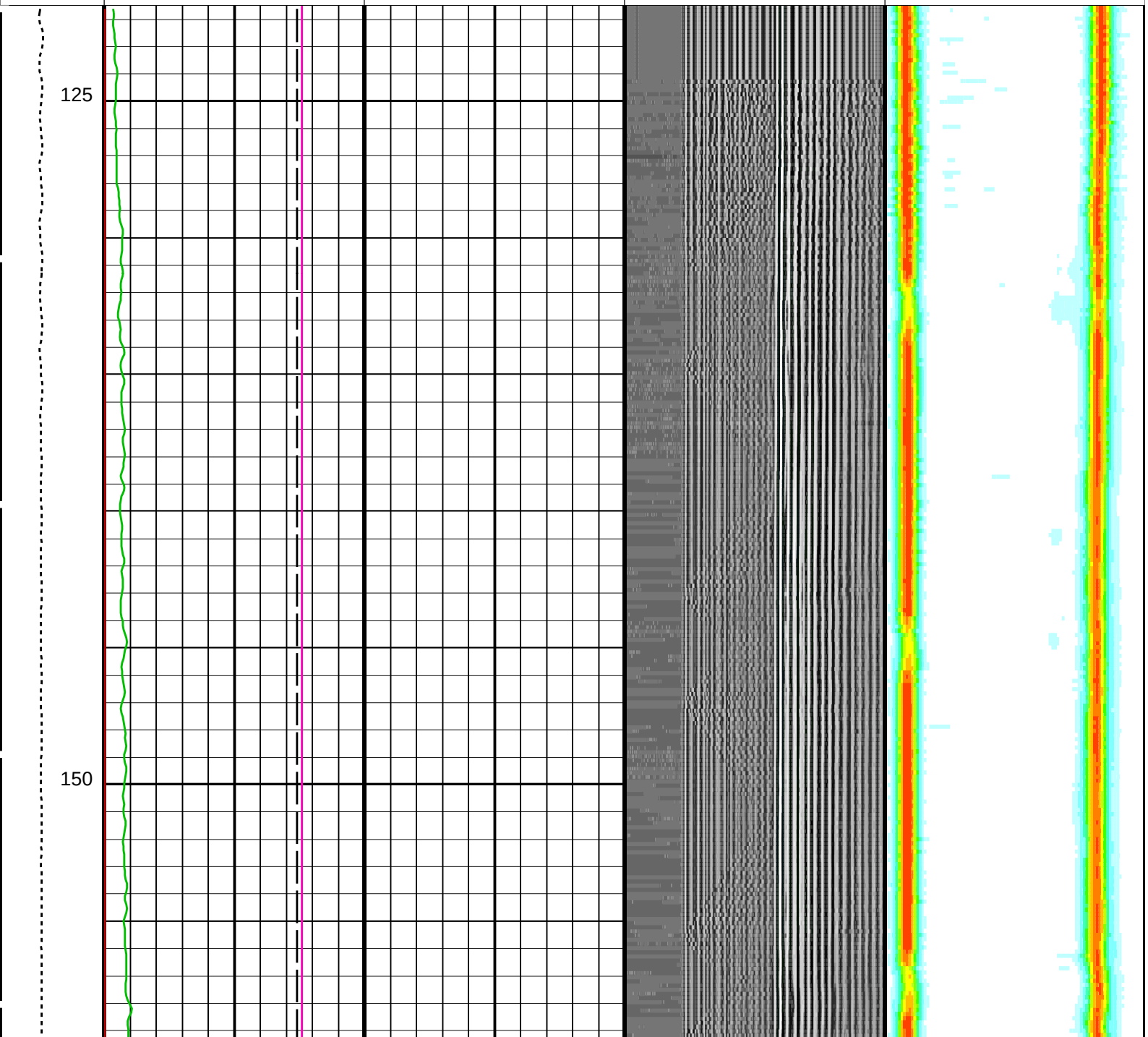
HILTB−FTB	SRPC−3546−Q1_2008_OP15_b	HRLT−B	SRPC−3546−Q1_2008_OP15_b

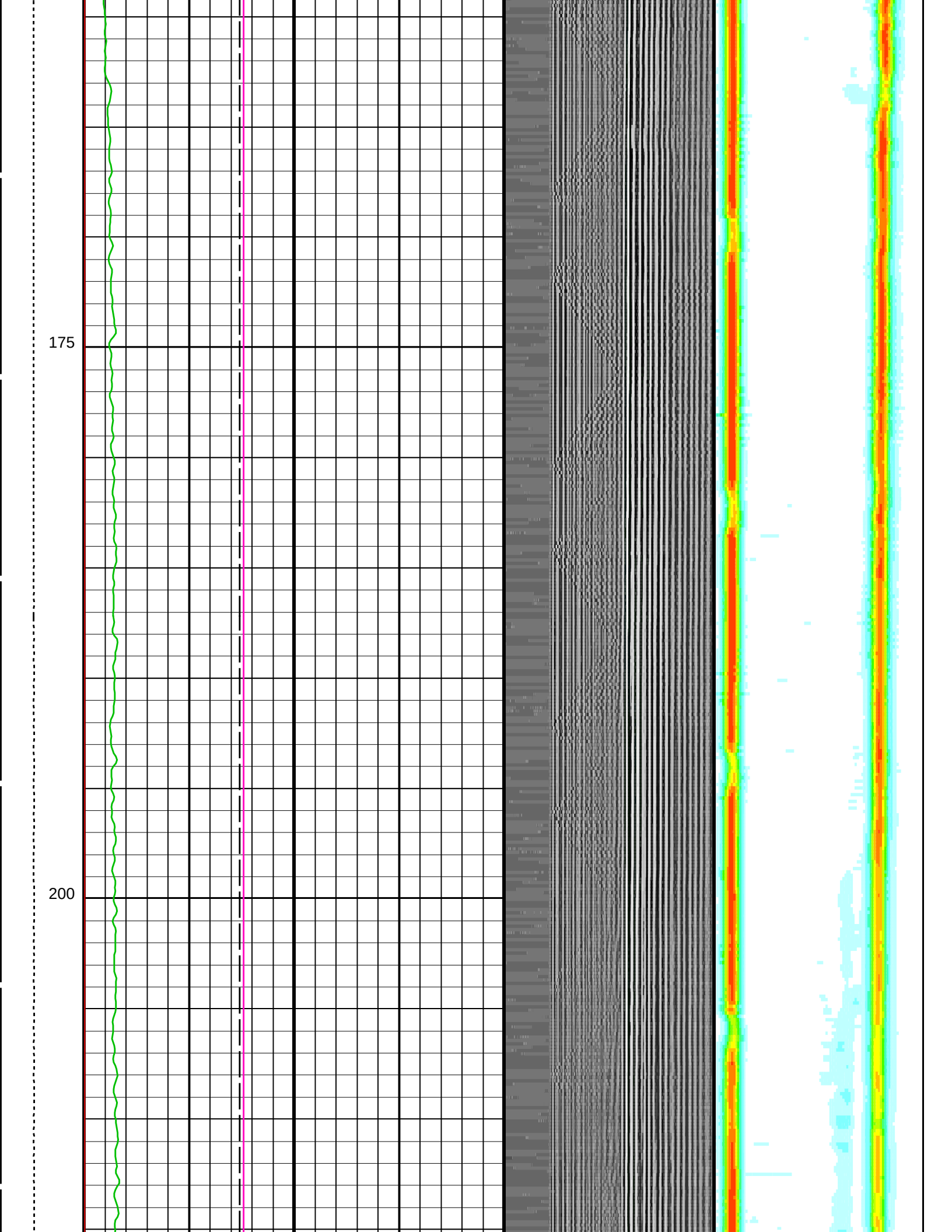
PPC1−B	SRPC−3546−Q1_2008_OP15_b	MAXS−B	SKK−3442−MAST_b
MAPC−B	SKK−3442−MAST_b	EDTC−B	SKK−3493−EDTCB_b
BSP−AH−169	SRPC−3546−Q1_2008_OP15_b		

PIP SUMMARY

Time Mark Every 60 S

	Data Copy Status Indicator 3 (DCSI3) 0 (−−−− 10			
	HILT Caliper (HCAL) 6 (IN) 16			Min Amplitude Max; Slowness Projection 3 (SPJ3) 40 (US/F) 240
	Gamma Ray (GR) 0 (GAPI) 200	Shear Slowness 3 (DTSH3) 40 (US/F) 240		Shear Slowness 3 (DTSH3) 40 (US/F) 240
Tension (TENS) (LBF) 0 5000	Bit Size (BS) 6 (IN) 16	Compressional Slowness 3 (DTCO3) 40 (US/F) 240	Min Amplitude Max; MAST MF VDL WF (DWF3_MONO) 0 (US) 5000	Compressional Slowness 3 (DTCO3) 40 (US/F) 240

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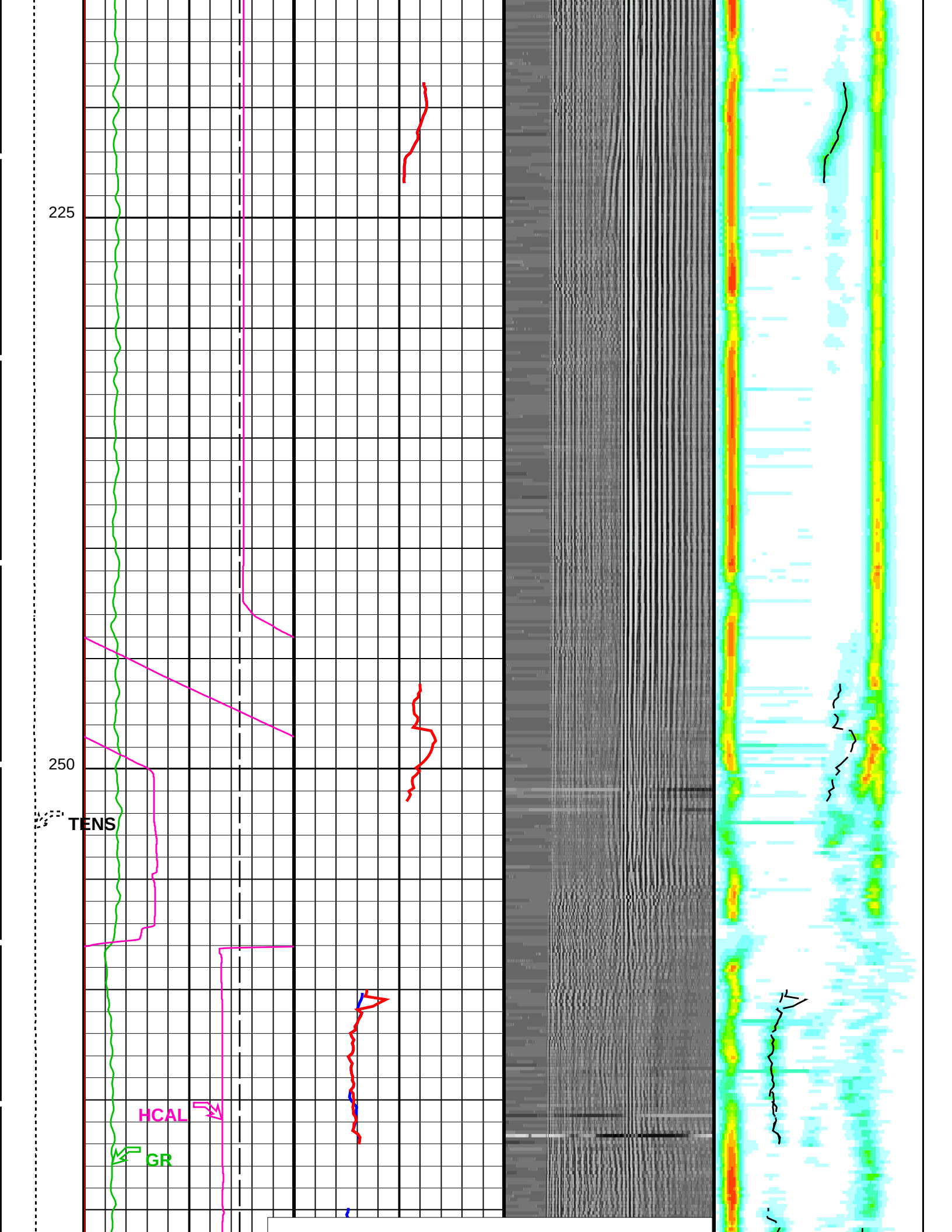
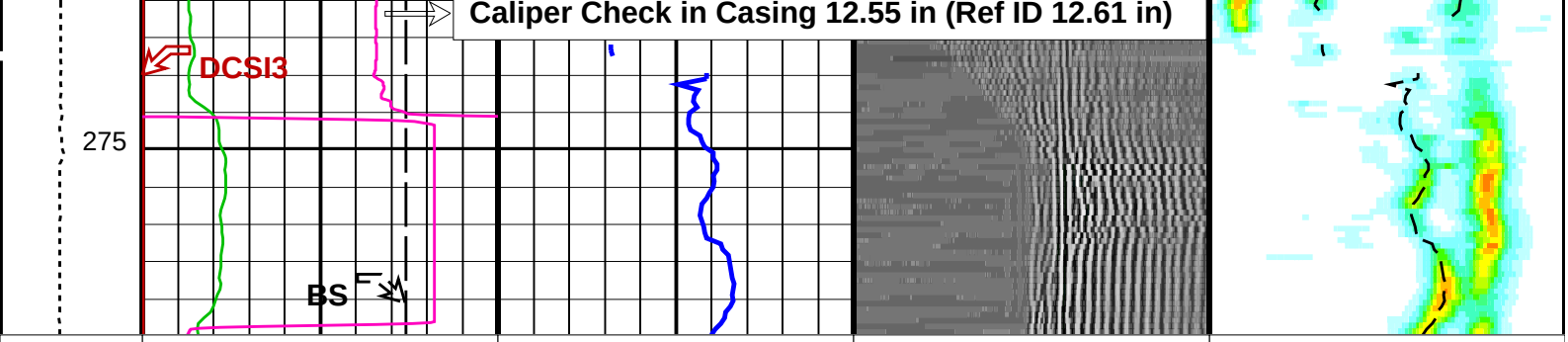

225
250
TENS
HCAL
GR



Tension (TENS) (LBF)	Bit Size (BS) (IN)	Compressional Slowness 3 (DTCO3) (US/F)	Min Amplitude Max MAST MF VDL WF (DWF3_MONO) (US)	Compressional Slowness 3 (DTCO3) (US/F)
0 5000	6 16	40 240	0 5000	40 240

Gamma Ray (GR) (GAPI)	Shear Slowness 3 (DTSH3) (US/F)	Shear Slowness 3 (DTSH3) (US/F)
0 200	40 240	40 240

HILT Caliper (HCAL) (IN)	Min Amplitude Max Slowness Projection 3 (SPJ3) (US/F)
6 16	40 240

Data Copy Status Indicator 3 (DCSI3)
0 (---- 10

PIP SUMMARY

Time Mark Every 60 S

Parameters

DLIS Name	Description	Value	
	HILTB−FTB: High resolution Integrated Logging Tool−DTS		
BHS	Borehole Status	OPEN	
	HRLT−B: High Resolution Laterolog Array − E		
BHS	Borehole Status	OPEN	
	MAPC−B: Multimode Array Sonic Power Cartridge		
BHS	Borehole Status	OPEN	
BS	Bit Size	12.250	IN
DLHS	Hole Diameter Source for SOBS Channel	AUTO	
DTF	Delta−T Fluid	204.5	US/F
	EDTC−B: Enhanced DTS Cartridge		
BHS	Borehole Status	OPEN	
	HOLEV: Integrated Hole/Cement Volume		
BHS	Borehole Status	OPEN	
	System and Miscellaneous		
DO	Depth Offset for Playback	0.0	M
PP	Playback Processing	OFF	

Format: MAST_STC_MF Vertical Scale: 1:200 Graphics File Created: 27−Mar−2008 23:02

OP System Version: 15C0−309

MCM

HILTB−FTB	SRPC−3546−Q1_2008_OP15_b	HRLT−B	SRPC−3546−Q1_2008_OP15_b
PPC1−B	SRPC−3546−Q1_2008_OP15_b	MAXS−B	SKK−3442−MAST_b
MAPC−B	SKK−3442−MAST_b	EDTC−B	SKK−3493−EDTCB_b
BSP−AH−169	SRPC−3546−Q1_2008_OP15_b		

Input DLIS Files

DEFAULT	MERGE_003	FN:1	PRODUCER	27−Mar−2008 20:37	280.0 M	120.4 M

Output DLIS Files

DEFAULT	TLD_MCFL_CNL_HRLA_011PUP	FN:16	PRODUCER	27−Mar−2008 23:02
CUSTOMER	TLD_MCFL_CNL_HRLA_011PUC	FN:17	CUSTOMER	27−Mar−2008 23:02
CUST_RED	TLD_MCFL_CNL_HRLA_011PUC	FN:18	CUSTOMER	27−Mar−2008 23:02
REDUCED	TLD_MCFL_CNL_HRLA_011PUP	FN:19	PRODUCER	27−Mar−2008 23:03

Schlumberger

Dipole Shear Slowness
1:200

MAXIS Field Log

Company: Apache Northwest Pty Ltd **Well: Coelacanth−1**

Input DLIS Files

DEFAULT	MERGE_003	FN:1	PRODUCER	27−Mar−2008 20:37	280.0 M	120.4 M

Output DLIS Files

DEFAULT	TLD_MCFL_CNL_HRLA_011PUP	FN:16	PRODUCER	27−Mar−2008 23:02	280.0 M	121.5 M
CUSTOMER	TLD_MCFL_CNL_HRLA_011PUC	FN:17	CUSTOMER	27−Mar−2008 23:02	280.0 M	121.5 M
CUST_RED	TLD_MCFL_CNL_HRLA_011PUC	FN:18	CUSTOMER	27−Mar−2008 23:02	280.0 M	121.5 M
REDUCED	TLD_MCFL_CNL_HRLA_011PUP	FN:19	PRODUCER	27−Mar−2008 23:03	280.0 M	121.5 M

OP System Version: 15C0−309

MCM

HILTB−FTB	SRPC−3546−Q1_2008_OP15_b	HRLT−B	SRPC−3546−Q1_2008_OP15_b
PPC1−B	SRPC−3546−Q1_2008_OP15_b	MAXS−B	SKK−3442−MAST_b
MAPC−B	SKK−3442−MAST_b	EDTC−B	SKK−3493−EDTCB_b
BSP−AH−169	SRPC−3546−Q1_2008_OP15_b		

PIP SUMMARY

Time Mark Every 60 S

Data Copy Status Indicator 6 (DCSI6)
0 (−−−− 10

Sonic Porosity (SPHI)
0.45 (V/V) −0.15

HILT Caliper (HCAL)
6 (IN) 14

Gamma Ray (GR)
0 (GAPI) 200

Min Amplitude Max
Slowness Projection 6 (SPJ6)
80 (US/F) 540

Tension (TENS)
(LBF)
0 5000

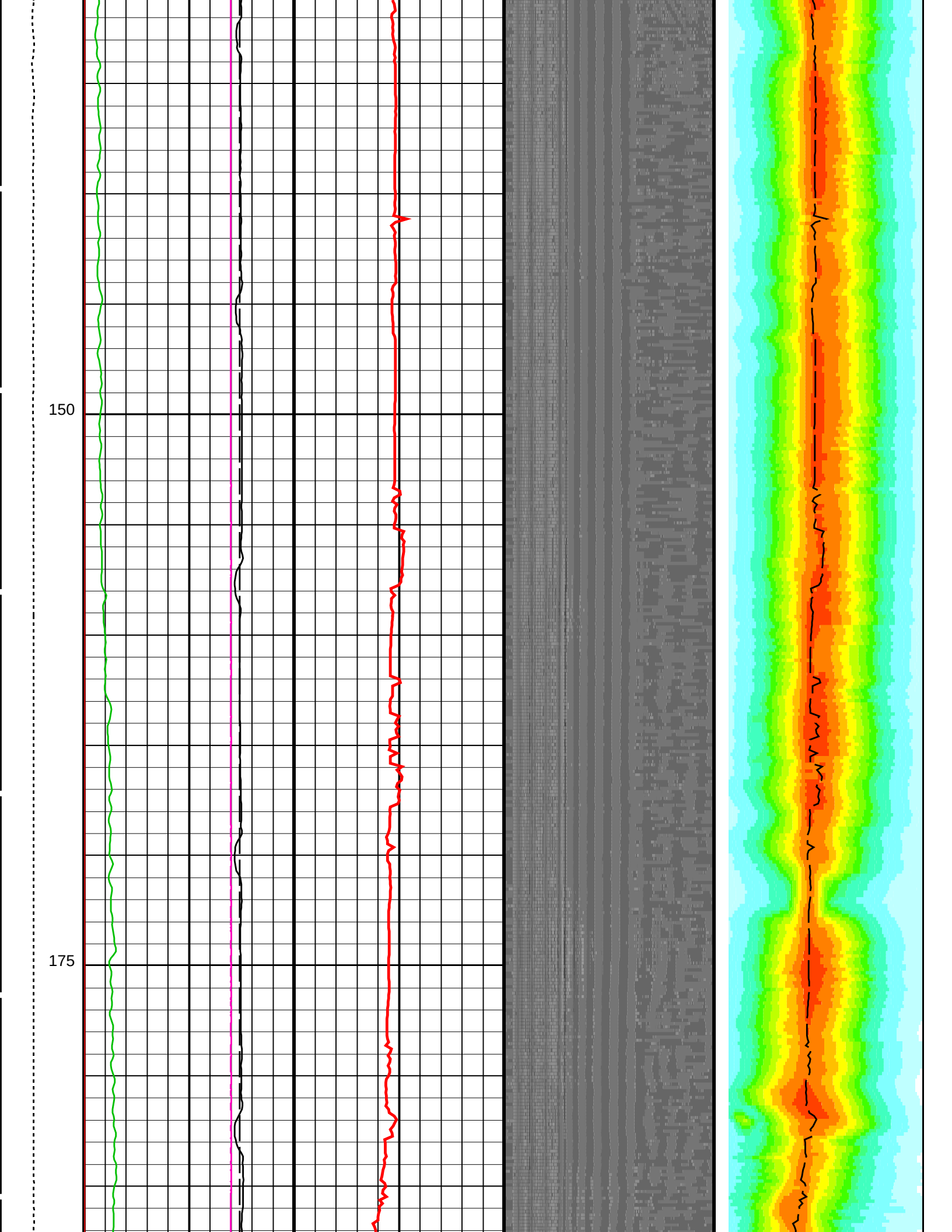
Bit Size (BS)
6 (IN) 16

Shear Slowness 6 (DTSH6)
80 (US/F) 540

Min Amplitude Max
MAST YDIPOLE VDL WF (DWF6_DIIN)
0 (US) 30000

Shear Slowness 6 (DTSH6)
80 (US/F) 540

125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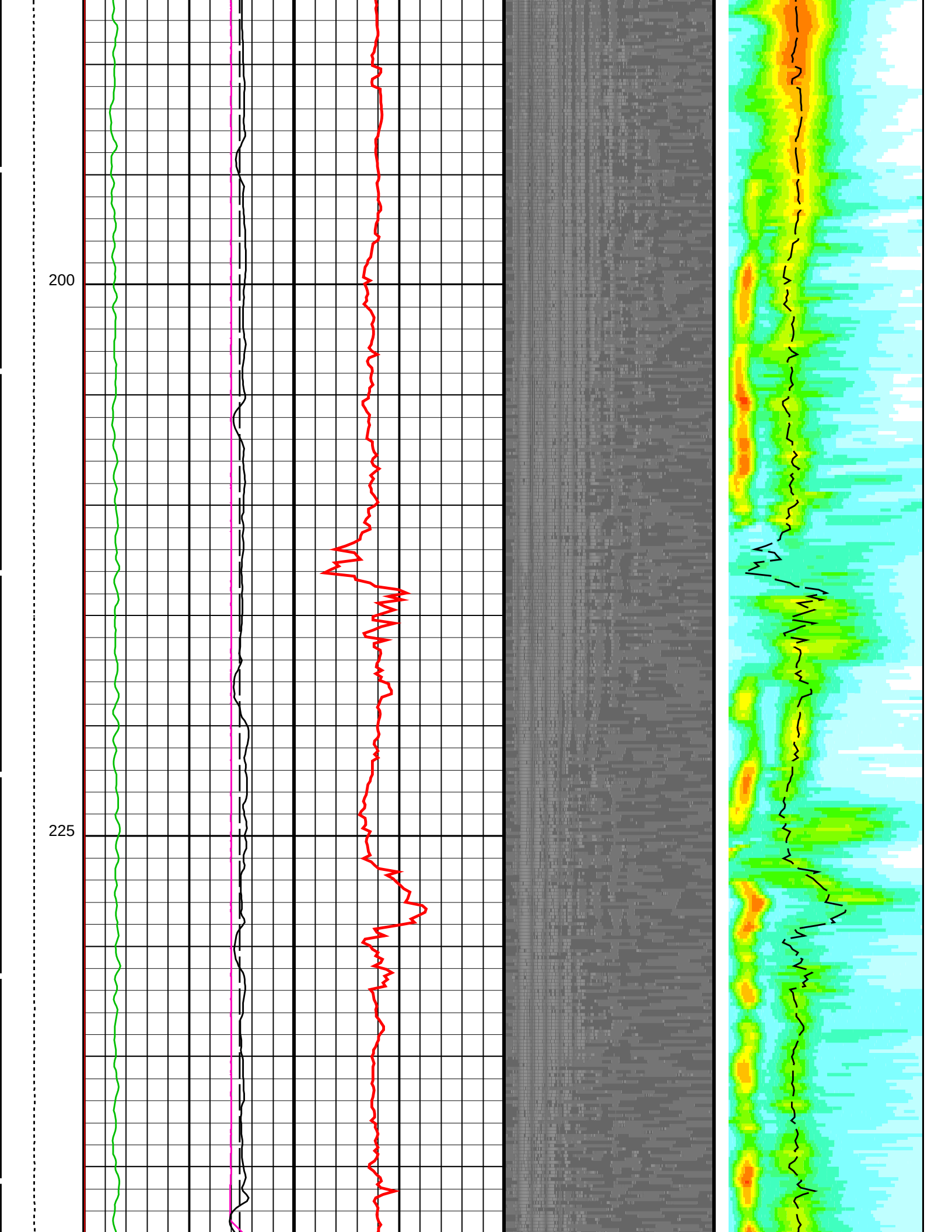
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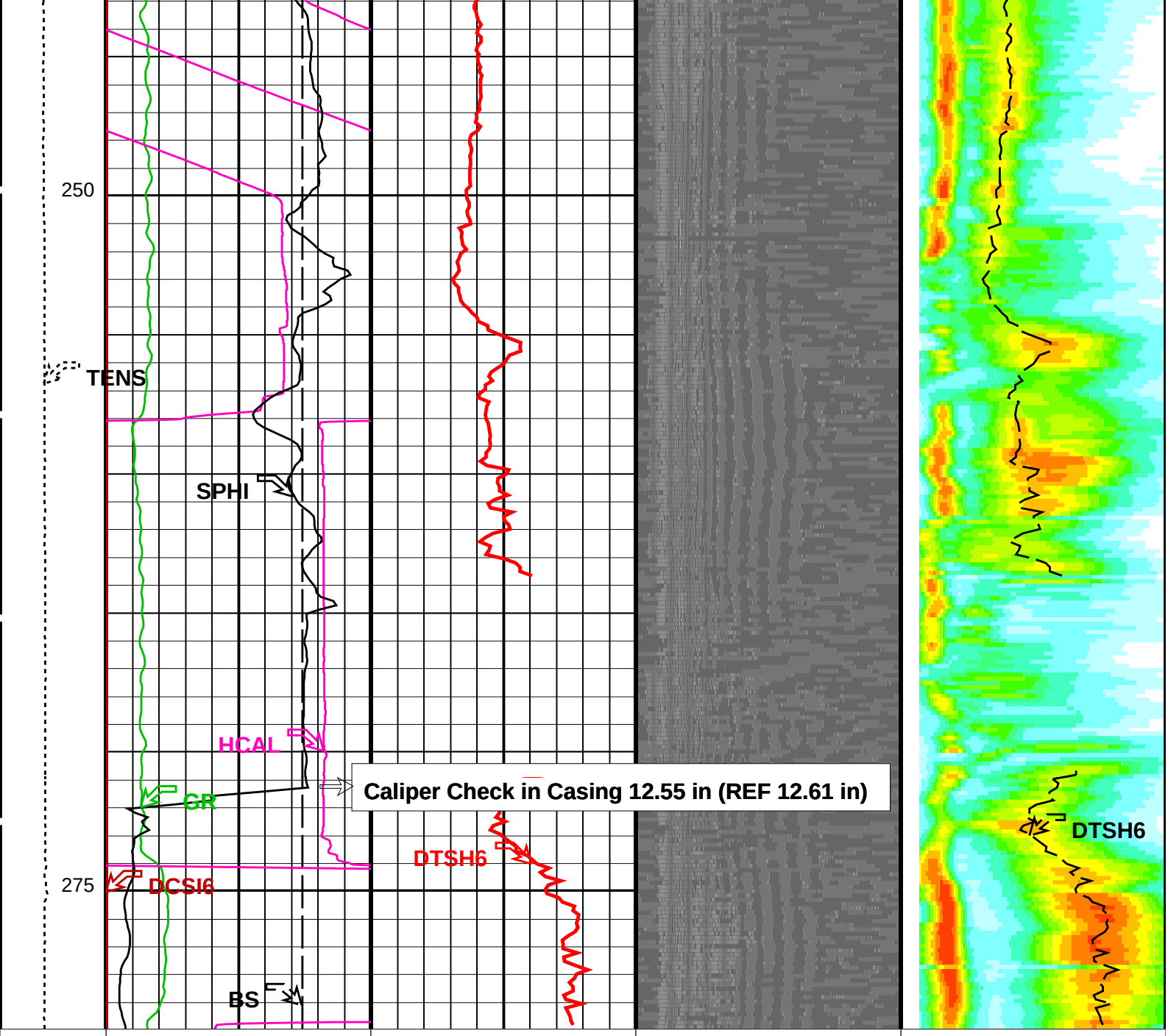


Tension (TENS) (LBF)	Bit Size (BS) (IN)	Shear Slowness 6 (DTSH6) (US/F)	MAST YDIPOLE VDL WF (DWF6_DIIN) Amplitude (US)	Shear Slowness 6 (DTSH6) (US/F)
0 5000	6 16	80 540	Min Max; 0 30000	80 540

Gamma Ray (GR) (GAPI)	HILT Caliper (HCAL) (IN)	Sonic Porosity (SPHI) (V/V)	Data Copy Status Indicator 6 (DCSI6)	Slowness Projection 6 (SPJ6) Amplitude (US/F)
0 200	6 14	0.45 −0.15	0 (−−−− 10	Min Max; 80 540

PIP SUMMARY

Time Mark Every 60 S

Parameters

DLIS Name	Description	Value	
	HILTB−FTB: High resolution Integrated Logging Tool−DTS		
BHS	Borehole Status	OPEN	
	HRLT−B: High Resolution Laterolog Array − E		
BHS	Borehole Status	OPEN	
	MAPC−B: Multimode Array Sonic Power Cartridge		
BHS	Borehole Status	OPEN	
BS	Bit Size	12.250	IN
CDTS	C−Delta−T Shale	100	US/F
DLHS	Hole Diameter Source for SOBS Channel	AUTO	
DTF	Delta−T Fluid	204.5	US/F
DTM	Delta−T Matrix	56	US/F
SPFS	Sonic Porosity Formula	RAYMER_HUNT	
SPSO	Sonic Porosity Source	DTCO	
	EDTC−B: Enhanced DTS Cartridge		
BHS	Borehole Status	OPEN	
	HOLEV: Integrated Hole/Cement Volume		
BHS	Borehole Status	OPEN	
	System and Miscellaneous		
DO	Depth Offset for Playback	0.0	M
PP	Playback Processing	OFF	

Format: MAST_DSTC_YD **Vertical Scale: 1:200** **Graphics File Created: 27−Mar−2008 23:02**

OP System Version: 15C0−309

MCM

HILTB−FTB	SRPC−3546−Q1_2008_OP15_b	HRLT−B	SRPC−3546−Q1_2008_OP15_b
PPC1−B	SRPC−3546−Q1_2008_OP15_b	MAXS−B	SKK−3442−MAST_b
MAPC−B	SKK−3442−MAST_b	EDTC−B	SKK−3493−EDTCB_b
BSP−AH−169	SRPC−3546−Q1_2008_OP15_b		

Input DLIS Files

DEFAULT	MERGE_003	FN:1	PRODUCER	27−Mar−2008 20:37	280.0 M	120.4 M

Output DLIS Files

DEFAULT	TLD_MCFL_CNL_HRLA_011PUP	FN:16	PRODUCER	27−Mar−2008 23:02
CUSTOMER	TLD_MCFL_CNL_HRLA_011PUC	FN:17	CUSTOMER	27−Mar−2008 23:02
CUST_RED	TLD_MCFL_CNL_HRLA_011PUC	FN:18	CUSTOMER	27−Mar−2008 23:02
REDUCED	TLD_MCFL_CNL_HRLA_011PUP	FN:19	PRODUCER	27−Mar−2008 23:03

Schlumberger

Calibrations

MAXIS Field Log

Calibration and Check Summary

Measurement	Nominal	Master	Before	After	Change	Limit	Units
High resolution Integrated Logging Tool−DTS Wellsite Calibration − Stab Measurement Summary							
Before: 13−Mar−2008 13:35							
BS Window Ratio	0.7624	N/A	0.7620	N/A	N/A	N/A	
BS Window Sum	10750	N/A	10540	N/A	N/A	N/A	CPS
SS Window Ratio	0.4883	N/A	0.4860	N/A	N/A	N/A	
SS Window Sum	10370	N/A	10380	N/A	N/A	N/A	CPS
LS Window Ratio	0.2968	N/A	0.2950	N/A	N/A	N/A	
LS Window Sum	1160	N/A	1159	N/A	N/A	N/A	CPS

High resolution Integrated Logging Tool−DTS Wellsite Calibration − Photo−multiplier High Voltages Calibrations
Before: 13−Mar−2008 13:35

BS PM High Voltage (Command)	1227	N/A	1261	N/A	N/A	N/A	V
SS PM High Voltage (Command)	1921	N/A	1888	N/A	N/A	N/A	V
LS PM High Voltage (Command)	1407	N/A	1415	N/A	N/A	N/A	V

High resolution Integrated Logging Tool−DTS Wellsite Calibration − Crystal Quality Resolutions Calibration
Before: 13−Mar−2008 13:35

BS Crystal Resolution	9.875	N/A	9.844	N/A	N/A	N/A	%
SS Crystal Resolution	10.56	N/A	10.21	N/A	N/A	N/A	%
LS Crystal Resolution	9.503	N/A	9.642	N/A	N/A	N/A	%

High resolution Integrated Logging Tool−DTS Wellsite Calibration − MCFL Calibration
Before: 13−Mar−2008 13:36

Raw B0 Resistivity	3875	N/A	3880	N/A	N/A	N/A	OHMM
Raw B1 Resistivity	3830	N/A	3830	N/A	N/A	N/A	OHMM
Raw B2 Resistivity	3830	N/A	3831	N/A	N/A	N/A	OHMM

High resolution Integrated Logging Tool−DTS Wellsite Calibration − HILT Caliper Calibration
Before: 13−Mar−2008 13:29

HILT Caliper Zero Measurement	8.000	N/A	8.092	N/A	N/A	N/A	IN
HILT Caliper Plus Measurement	12.00	N/A	12.28	N/A	N/A	N/A	IN

High resolution Integrated Logging Tool−DTS Wellsite Calibration − Detector Calibration
Before: 13−Mar−2008 14:02

Gamma Ray Background	30.00	N/A	7.162	N/A	N/A	N/A	GAPI
Gamma Ray (Jig − Bkg)	190.6	N/A	190.6	N/A	N/A	17.32	GAPI
Gamma Ray (Calibrated)	165.0	N/A	165.0	N/A	N/A	15.00	GAPI

High resolution Integrated Logging Tool−DTS Wellsite Calibration − Zero Measurement
Master: 20−Feb−2008 19:21 Before: 13−Mar−2008 13:32

CNTC Background	29.71	29.71	28.32	N/A	N/A	4.457	CPS
CFTC Background	33.75	33.75	29.47	N/A	N/A	5.063	CPS

High resolution Integrated Logging Tool−DTS Wellsite Calibration − Ratio Measurement
Master: 20−Feb−2008 19:21

Thermal Near Corr. (Tank)	5800	5605	N/A	N/A	N/A	N/A	CPS
Thermal Far Corr. (Tank)	2400	2340	N/A	N/A	N/A	N/A	CPS
CNTC/CFTC (Tank)	2.159	2.395	N/A	N/A	N/A	N/A	

High resolution Integrated Logging Tool−DTS Wellsite Calibration − Accelerometer Calibration
Before: 13−Mar−2008 21:57

Z−Axis Acceleration	9.810	N/A	9.798	N/A	N/A	N/A	M/S2

High resolution Integrated Logging Tool−DTS Master Calibration − Inversion results
Master: 20−Feb−2008 21:02

Rho Aluminum	2.596	2.602	−−	−−	−−	−−	G/C3
Rho Magnesium	1.686	1.685	−−	−−	−−	−−	G/C3
Pe Aluminum	2.570	2.571	−−	−−	−−	−−	
Pe Magnesium	2.650	2.634	−−	−−	−−	−−	

High resolution Integrated Logging Tool−DTS Master Calibration − Deviation Summary
Master: 20−Feb−2008 21:02

BS Average Deviation	0	0.5701	−−	−−	−−	−−	%
BS Max Deviation	0	1.350	−−	−−	−−	−−	%
SS Average Deviation	0	0.3068	−−	−−	−−	−−	%
SS Max Deviation	0	0.7734	−−	−−	−−	−−	%
LS Average Deviation	0	0.6760	−−	−−	−−	−−	%
LS Max Deviation	0	1.772	−−	−−	−−	−−	%

High Resolution Laterolog Array − B Wellsite Calibration − HRLT M01
Before: 13−Mar−2008 23:28

HRLT M0−M1 Voltage Plus − 0	0	N/A	−317.4	N/A	N/A	9.681	UV
HRLT M0−M1 Voltage Plus − 1	0	N/A	−349.1	N/A	N/A	9.681	UV
HRLT M0−M1 Voltage Plus − 2	0	N/A	−353.4	N/A	N/A	9.681	UV
HRLT M0−M1 Voltage Plus − 3	0	N/A	−338.9	N/A	N/A	9.681	UV
HRLT M0−M1 Voltage Plus − 4	0	N/A	−323.5	N/A	N/A	9.681	UV
HRLT M0−M1 Voltage Plus − 5	0	N/A	−328.7	N/A	N/A	9.681	UV
HRLT M0−M1 Voltage Plus − 6	0	N/A	305.4	N/A	N/A	9.681	UV
HRLT M0−M1 Voltage Plus − 7	0	N/A	−322.7	N/A	N/A	9.681	UV

High Resolution Laterolog Array − B Wellsite Calibration − HRLT M12
Before: 13−Mar−2008 23:28

HRLT M1−M2 Voltage Plus − 0	0	N/A	1745	N/A	N/A	53.42	UV
HRLT M1−M2 Voltage Plus − 1	0	N/A	1919	N/A	N/A	53.42	UV
HRLT M1−M2 Voltage Plus − 2	0	N/A	1936	N/A	N/A	53.42	UV
HRLT M1−M2 Voltage Plus − 3	0	N/A	1857	N/A	N/A	53.42	UV
HRLT M1−M2 Voltage Plus − 4	0	N/A	1773	N/A	N/A	53.42	UV
HRLT M1−M2 Voltage Plus − 5	0	N/A	1803	N/A	N/A	53.42	UV
HRLT M1−M2 Voltage Plus − 6	0	N/A	−1686	N/A	N/A	53.42	UV
HRLT M1−M2 Voltage Plus − 7	0	N/A	1781	N/A	N/A	53.42	UV

High Resolution Laterolog Array − B Wellsite Calibration − HRLT M23
Before: 13−Mar−2008 23:28

HRLT M2−M3 Voltage Plus − 0	0	N/A	1730	N/A	N/A	53.42	UV
HRLT M2−M3 Voltage Plus − 1	0	N/A	1907	N/A	N/A	53.42	UV
HRLT M2−M3 Voltage Plus − 2	0	N/A	1928	N/A	N/A	53.42	UV
HRLT M2−M3 Voltage Plus − 3	0	N/A	1854	N/A	N/A	53.42	UV
HRLT M2−M3 Voltage Plus − 4	0	N/A	1766	N/A	N/A	53.42	UV
HRLT M2−M3 Voltage Plus − 5	0	N/A	1798	N/A	N/A	53.42	UV
HRLT M2−M3 Voltage Plus − 6	0	N/A	−1665	N/A	N/A	53.42	UV
HRLT M2−M3 Voltage Plus − 7	0	N/A	1781	N/A	N/A	53.42	UV

High Resolution Laterolog Array − B Wellsite Calibration − HRLT V34
Before: 13−Mar−2008 23:28

HRLT A3−A4 Voltage Plus − 0	0	N/A	68400	N/A	N/A	2100	UV
HRLT A3−A4 Voltage Plus − 1	0	N/A	75680	N/A	N/A	2100	UV
HRLT A3−A4 Voltage Plus − 2	0	N/A	76720	N/A	N/A	2100	UV
HRLT A3−A4 Voltage Plus − 3	0	N/A	73940	N/A	N/A	2100	UV
HRLT A3−A4 Voltage Plus − 4	0	N/A	70260	N/A	N/A	2100	UV
HRLT A3−A4 Voltage Plus − 5	0	N/A	71450	N/A	N/A	2100	UV
HRLT A3−A4 Voltage Plus − 6	0	N/A	−65110	N/A	N/A	2100	UV
HRLT A3−A4 Voltage Plus − 7	0	N/A	70000	N/A	N/A	2100	UV

High Resolution Laterolog Array − B Wellsite Calibration − HRLT V45
Before: 13−Mar−2008 23:28

HRLT A4−A5 Voltage Plus − 0	0	N/A	68220	N/A	N/A	2100	UV
HRLT A4−A5 Voltage Plus − 1	0	N/A	75560	N/A	N/A	2100	UV
HRLT A4−A5 Voltage Plus − 2	0	N/A	76590	N/A	N/A	2100	UV
HRLT A4−A5 Voltage Plus − 3	0	N/A	73780	N/A	N/A	2100	UV
HRLT A4−A5 Voltage Plus − 4	0	N/A	70100	N/A	N/A	2100	UV
HRLT A4−A5 Voltage Plus − 5	0	N/A	71260	N/A	N/A	2100	UV
HRLT A4−A5 Voltage Plus − 6	0	N/A	−65000	N/A	N/A	2100	UV
HRLT A4−A5 Voltage Plus − 7	0	N/A	70000	N/A	N/A	2100	UV

High Resolution Laterolog Array − B Wellsite Calibration − HRLT V56
Before: 13−Mar−2008 23:28

HRLT A5−A6 Voltage Plus − 0	0	N/A	68360	N/A	N/A	2100	UV
HRLT A5−A6 Voltage Plus − 1	0	N/A	75840	N/A	N/A	2100	UV
HRLT A5−A6 Voltage Plus − 2	0	N/A	76840	N/A	N/A	2100	UV
HRLT A5−A6 Voltage Plus − 3	0	N/A	74000	N/A	N/A	2100	UV
HRLT A5−A6 Voltage Plus − 4	0	N/A	70230	N/A	N/A	2100	UV
HRLT A5−A6 Voltage Plus − 5	0	N/A	71390	N/A	N/A	2100	UV
HRLT A5−A6 Voltage Plus − 6	0	N/A	−65280	N/A	N/A	2100	UV
HRLT A5−A6 Voltage Plus − 7	0	N/A	70000	N/A	N/A	2100	UV

High Resolution Laterolog Array − B Wellsite Calibration − HRLT VTP
Before: 13−Mar−2008 23:28

HRLT Torpedo−M0 Voltage − 0	0	N/A	−67940	N/A	N/A	2100	UV
HRLT Torpedo−M0 Voltage − 1	0	N/A	−75570	N/A	N/A	2100	UV
HRLT Torpedo−M0 Voltage − 2	0	N/A	−76660	N/A	N/A	2100	UV
HRLT Torpedo−M0 Voltage − 3	0	N/A	−73920	N/A	N/A	2100	UV
HRLT Torpedo−M0 Voltage − 4	0	N/A	−70250	N/A	N/A	2100	UV
HRLT Torpedo−M0 Voltage − 5	0	N/A	−71420	N/A	N/A	2100	UV
HRLT Torpedo−M0 Voltage − 6	0	N/A	64990	N/A	N/A	2100	UV
HRLT Torpedo−M0 Voltage − 7	0	N/A	−70000	N/A	N/A	2100	UV

High Resolution Laterolog Array − B Wellsite Calibration − HRLT VBD
Before: 13−Mar−2008 23:28

HRLT Bridle#9−M0 Voltage − 0	0	N/A	−67880	N/A	N/A	2100	UV
HRLT Bridle#9−M0 Voltage − 1	0	N/A	−75350	N/A	N/A	2100	UV
HRLT Bridle#9−M0 Voltage − 2	0	N/A	−76430	N/A	N/A	2100	UV
HRLT Bridle#9−M0 Voltage − 3	0	N/A	−73740	N/A	N/A	2100	UV
HRLT Bridle#9−M0 Voltage − 4	0	N/A	−70140	N/A	N/A	2100	UV
HRLT Bridle#9−M0 Voltage − 5	0	N/A	−71340	N/A	N/A	2100	UV
HRLT Bridle#9−M0 Voltage − 6	0	N/A	64780	N/A	N/A	2100	UV
HRLT Bridle#9−M0 Voltage − 7	0	N/A	−70000	N/A	N/A	2100	UV

High Resolution Laterolog Array − B Wellsite Calibration − HRLT ISO
Before: 13−Mar−2008 23:28

HRLT Source Current Plus − 0	0	N/A	283.1	N/A	N/A	8.520	UA
HRLT Source Current Plus − 1	0	N/A	281.1	N/A	N/A	8.520	UA
HRLT Source Current Plus − 2	0	N/A	281.1	N/A	N/A	8.520	UA
HRLT Source Current Plus − 3	0	N/A	281.1	N/A	N/A	8.520	UA
HRLT Source Current Plus − 4	0	N/A	281.1	N/A	N/A	8.520	UA
HRLT Source Current Plus − 5	0	N/A	281.1	N/A	N/A	8.520	UA
HRLT Source Current Plus − 6	0	N/A	281.1	N/A	N/A	8.520	UA
HRLT Source Current Plus − 7	0	N/A	281.1	N/A	N/A	8.520	UA

High Resolution Laterolog Array − B Wellsite Calibration − HRLT MV
Before: 13−Mar−2008 23:28

HRLT Vertical Voltage Pl − 0	0	N/A	−319.4	N/A	N/A	9.681	UV
HRLT Vertical Voltage Pl − 1	0	N/A	−344.3	N/A	N/A	9.681	UV

HRLT Vertical Voltage Pl − 2	0	N/A	−346.9	N/A	N/A	9.681	UV
HRLT Vertical Voltage Pl − 3	0	N/A	−330.9	N/A	N/A	9.681	UV
HRLT Vertical Voltage Pl − 4	0	N/A	−312.5	N/A	N/A	9.681	UV
HRLT Vertical Voltage Pl − 5	0	N/A	−332.7	N/A	N/A	9.681	UV
HRLT Vertical Voltage Pl − 6	0	N/A	313.8	N/A	N/A	9.681	UV
HRLT Vertical Voltage Pl − 7	0	N/A	−322.7	N/A	N/A	9.681	UV
Enhanced DTS Cartridge Wellsite Calibration − EDTC Accelerometer Calibration							
Before: 13−Mar−2008 21:57							
EDTC Z−Axis Acceleration	9.810	N/A	9.803	N/A	N/A	N/A	M/S2
Enhanced DTS Cartridge Wellsite Calibration − Detector Calibration							
Before: 13−Mar−2008 13:29							
Gamma Ray (Jig − Bkg)	169.8	N/A	169.8	N/A	N/A	15.43	GAPI
Gamma Ray (Calibrated)	165.0	N/A	165.0	N/A	N/A	15.00	GAPI

The GLS−VJ source activity is acceptable.

The HGNS Neutron Master Calibration was done with the following parameters :

NCT−B Water Temperature 20.0 DEGC.
Thermal Housing Size 3.376 IN.
NSR−F serial number 5224

High resolution Integrated Logging Tool−DTS / Equipment Identification

Primary Equipment:		
HILT high−Resolution Mechanical Sonde	HRMS − B	788
HILT Rxo Gamma−ray Device	HRGD − B	1806
HILT Micro Cylindrically Focused Log Dev	MCFL −	
GR Logging Source	GLS − VJ	5334
HILT High Res. Control Cartridge	HRCC − B	868
HILT Gamma−Ray Neutron Sonde−DTS	HGNS − B	856
HGNS Gamma−Ray Device	HGR −	
HGNS Neutron Detector with Alpha Source	HCNT −	
Auxiliary Equipment:		
Neutron Calibration Tank	NCT − B	
Gamma Source Radioactive	GSR − Y	6750
HGNS Housing	HGNH −	3915

High resolution Integrated Logging Tool−DTS Wellsite Calibration

Stab Measurement Summary

Phase	BS Window Ratio	Value	Phase	SS Window Ratio	Value	Phase	LS Window Ratio	Value
Before		0.7620	Before		0.4860	Before		0.2950
	0.7243 (Minimum) 0.7624 (Nominal) 0.8005 (Maximum)			0.4639 (Minimum) 0.4883 (Nominal) 0.5127 (Maximum)			0.2820 (Minimum) 0.2968 (Nominal) 0.3117 (Maximum)	
Phase	BS Window Sum CPS	Value	Phase	SS Window Sum CPS	Value	Phase	LS Window Sum CPS	Value
Before		10540	Before		10380	Before		1159
	10210 (Minimum) 10750 (Nominal) 11290 (Maximum)			9854 (Minimum) 10370 (Nominal) 10890 (Maximum)			1102 (Minimum) 1160 (Nominal) 1218 (Maximum)	

Before: 13−Mar−2008 13:35

High resolution Integrated Logging Tool−DTS Wellsite Calibration

Photo−multiplier High Voltages Calibrations

Phase	BS PM High Voltage (Command) V	Value	Phase	SS PM High Voltage (Command) V	Value	Phase	LS PM High Voltage (Command) V	Value
Before		1261	Before		1888	Before		1415
	1127 (Minimum) 1227 (Nominal) 1327 (Maximum)			1821 (Minimum) 1921 (Nominal) 2021 (Maximum)			1307 (Minimum) 1407 (Nominal) 1507 (Maximum)	

Before: 13−Mar−2008 13:35

High resolution Integrated Logging Tool−DTS Wellsite Calibration

Crystal Quality Resolutions Calibration

Phase	BS Crystal Resolution %	Value	Phase	SS Crystal Resolution %	Value	Phase	LS Crystal Resolution %	Value
Before		9.844	Before		10.21	Before		9.642
	8.875 9.875 10.87			9.556 10.56 11.56			8.503 9.503 10.50	

(Minimum)	(Nominal)	(Maximum)	(Minimum)	(Nominal)	(Maximum)	(Minimum)	(Nominal)	(Maximum)

Before: 13−Mar−2008 13:35

High resolution Integrated Logging Tool−DTS Wellsite Calibration

MCFL Calibration

Phase	Raw B0 Resistivity OHMM	Value	Phase	Raw B1 Resistivity OHMM	Value	Phase	Raw B2 Resistivity OHMM	Value
Before		3880	Before		3830	Before		3831
3565 (Minimum)	3875 (Nominal)	4185 (Maximum)	3524 (Minimum)	3830 (Nominal)	4136 (Maximum)	3524 (Minimum)	3830 (Nominal)	4136 (Maximum)

Before: 13−Mar−2008 13:36

High resolution Integrated Logging Tool−DTS Wellsite Calibration

HILT Caliper Calibration

Phase	HILT Caliper Zero Measurement IN	Value	Phase	HILT Caliper Plus Measurement IN	Value
Before		8.092	Before		12.28
6.000 (Minimum)	8.000 (Nominal)	10.00 (Maximum)	9.000 (Minimum)	12.00 (Nominal)	15.00 (Maximum)

Before: 13−Mar−2008 13:29

High resolution Integrated Logging Tool−DTS Wellsite Calibration

Detector Calibration

Phase	Gamma Ray Background GAPI	Value	Phase	Gamma Ray (Jig − Bkg) GAPI	Value	Phase	Gamma Ray (Calibrated) GAPI	Value
Before		7.162	Before		190.6	Before		165.0
0 (Minimum)	30.00 (Nominal)	120.0 (Maximum)	173.2 (Minimum)	190.6 (Nominal)	207.9 (Maximum)	150.0 (Minimum)	165.0 (Nominal)	180.0 (Maximum)

Before: 13−Mar−2008 14:02

High resolution Integrated Logging Tool−DTS Wellsite Calibration

Zero Measurement

Phase	CNTC Background CPS	Value	Phase	CFTC Background CPS	Value
Master		29.71	Master		33.75
Before		28.32	Before		29.47
5.000 (Minimum)	29.71 (Nominal)	40.00 (Maximum)	5.000 (Minimum)	33.75 (Nominal)	40.00 (Maximum)

Master: 20−Feb−2008 19:21 Before: 13−Mar−2008 13:32

High resolution Integrated Logging Tool−DTS Wellsite Calibration

Ratio Measurement

Phase	Thermal Near Corr. (Tank) CPS	Value	Phase	Thermal Far Corr. (Tank) CPS	Value	Phase	CNTC/CFTC (Tank)	Value
Master		5605	Master		2340	Master		2.395
4700 (Minimum)	5800 (Nominal)	6900 (Maximum)	1900 (Minimum)	2400 (Nominal)	2900 (Maximum)	2.120 (Minimum)	2.159 (Nominal)	2.540 (Maximum)

Master: 20−Feb−2008 19:21

High resolution Integrated Logging Tool−DTS Wellsite Calibration

Accelerometer Calibration

Phase	Z−Axis Acceleration M/S2	Value
Before		9.798
9.610 (Minimum)	9.810 (Nominal)	10.01 (Maximum)

Before: 13−Mar−2008 21:57

High resolution Integrated Logging Tool−DTS Master Calibration

Inversion results

Phase	Rho Aluminum G/C3	Value	Phase	Rho Magnesium G/C3	Value
Master		2.602	Master		1.685
2.586 (Minimum)	2.596 (Nominal)	2.606 (Maximum)	1.676 (Minimum)	1.686 (Nominal)	1.696 (Maximum)
Phase	Pe Aluminum	Value	Phase	Pe Magnesium	Value
Master		2.571	Master		2.634
2.470 (Minimum)	2.570 (Nominal)	2.670 (Maximum)	2.550 (Minimum)	2.650 (Nominal)	2.750 (Maximum)

Master: 20−Feb−2008 21:02

High resolution Integrated Logging Tool−DTS Master Calibration

Deviation Summary

Phase	BS Average Deviation %	Value
Master		0.5701
	−0.6000 (Minimum) 0 (Nominal) 0.6000 (Maximum)	

Phase	SS Average Deviation %	Value
Master		0.3068
	−1.000 (Minimum) 0 (Nominal) 1.000 (Maximum)	

Phase	LS Average Deviation %	Value
Master		0.6760
	−1.500 (Minimum) 0 (Nominal) 1.500 (Maximum)	

Phase	BS Max Deviation %	Value
Master		1.350
	−1.600 (Minimum) 0 (Nominal) 1.600 (Maximum)	

Phase	SS Max Deviation %	Value
Master		0.7734
	−2.500 (Minimum) 0 (Nominal) 2.500 (Maximum)	

Phase	LS Max Deviation %	Value
Master		1.772
	−3.500 (Minimum) 0 (Nominal) 3.500 (Maximum)	

Master: 20−Feb−2008 21:02

High resolution Integrated Logging Tool−DTS Master Calibration

Zero Measurement

Phase	CNTC Background CPS	Value
Master		29.71
	5.000 (Minimum) 29.71 (Nominal) 40.00 (Maximum)	

Phase	CFTC Background CPS	Value
Master		33.75
	5.000 (Minimum) 33.75 (Nominal) 40.00 (Maximum)	

Master: 20−Feb−2008 19:21

High resolution Integrated Logging Tool−DTS Master Calibration

Tank Measurement

Phase	Thermal Near Corr. (Tank) CPS	Value
Master		5605
	4700 (Minimum) 5800 (Nominal) 6900 (Maximum)	

Phase	Thermal Far Corr. (Tank) CPS	Value
Master		2340
	1900 (Minimum) 2400 (Nominal) 2900 (Maximum)	

Phase	CNTC/CFTC (Tank)	Value
Master		2.395
	2.120 (Minimum) 2.159 (Nominal) 2.540 (Maximum)	

Master: 20−Feb−2008 19:21

High Resolution Laterolog Array − B / Equipment Identification

Primary Equipment:		
HRLT Sonde	HRLS − B	1745
Auxiliary Equipment:		
HRLT lower Housing	HRLH − B	1745
HRLT Lower Cartridge	HRLC − B	1745
HRLT upper Housing	HRUH − B	1741
HRLT Upper Cartridge	HRUC − B	1730

High Resolution Laterolog Array − B Wellsite Calibration

HRLT M01

Idx	Phase	HRLT M0−M1 Voltage Plus UV	Value	Nominal	Maximum	Minimum
0	Before		−317.4	−322.7	−280.7	−379.7
1	Before		−349.1	−322.7	−280.7	−379.7
2	Before		−353.4	−322.7	−280.7	−379.7
3	Before		−338.9	−322.7	−280.7	−379.7
4	Before		−323.5	−322.7	−280.7	−379.7
5	Before		−328.7	−322.7	−280.7	−379.7
6	Before		305.4	322.7	379.7	280.7
7	Before		−322.7	−322.7	−280.7	−379.7
		(Minimum) (Nominal) (Maximum)				

Before: 13−Mar−2008 23:28

High Resolution Laterolog Array − B Wellsite Calibration

HRLT M12

Idx	Phase	HRLT M1−M2 Voltage Plus UV	Value	Nominal	Maximum	Minimum
0	Before		1745	1781	2095	1549
1	Before		1919	1781	2095	1549
2	Before		1936	1781	2095	1549

3	Before		1857	1781	2095	1549
4	Before		1773	1781	2095	1549
5	Before		1803	1781	2095	1549
6	Before		−1686	−1781	−1549	−2095
7	Before		1781	1781	2095	1549
		(Minimum) (Nominal) (Maximum)				

Before: 13−Mar−2008 23:28

High Resolution Laterolog Array − B Wellsite Calibration

HRLT M23

Idx	Phase	HRLT M2−M3 Voltage Plus UV	Value	Nominal	Maximum	Minimum
0	Before		1730	1781	2095	1549
1	Before		1907	1781	2095	1549
2	Before		1928	1781	2095	1549
3	Before		1854	1781	2095	1549
4	Before		1766	1781	2095	1549
5	Before		1798	1781	2095	1549
6	Before		−1665	−1781	−1549	−2095
7	Before		1781	1781	2095	1549
		(Minimum) (Nominal) (Maximum)				

Before: 13−Mar−2008 23:28

High Resolution Laterolog Array − B Wellsite Calibration

HRLT V34

Idx	Phase	HRLT A3−A4 Voltage Plus UV	Value	Nominal	Maximum	Minimum
0	Before		68400	70000	82360	60900
1	Before		75680	70000	82360	60900
2	Before		76720	70000	82360	60900
3	Before		73940	70000	82360	60900
4	Before		70260	70000	82360	60900
5	Before		71450	70000	82360	60900
6	Before		−65110	−70000	−60900	−82360
7	Before		70000	70000	82360	60900
		(Minimum) (Nominal) (Maximum)				

Before: 13−Mar−2008 23:28

High Resolution Laterolog Array − B Wellsite Calibration

HRLT V45

Idx	Phase	HRLT A4−A5 Voltage Plus UV	Value	Nominal	Maximum	Minimum
0	Before		68220	70000	82360	60900
1	Before		75560	70000	82360	60900
2	Before		76590	70000	82360	60900
3	Before		73780	70000	82360	60900
4	Before		70100	70000	82360	60900
5	Before		71260	70000	82360	60900
6	Before		−65000	−70000	−60900	−82360
7	Before		70000	70000	82360	60900
		(Minimum) (Nominal) (Maximum)				

Before: 13−Mar−2008 23:28

High Resolution Laterolog Array − B Wellsite Calibration

HRLT V56

Idx	Phase	HRLT A5−A6 Voltage Plus UV	Value	Nominal	Maximum	Minimum
0	Before		68360	70000	82360	60900
1	Before		75840	70000	82360	60900
2	Before		76840	70000	82360	60900
3	Before		74000	70000	82360	60900
4	Before		70230	70000	82360	60900
5	Before		71390	70000	82360	60900
6	Before		−65280	−70000	−60900	−82360
7	Before		70000	70000	82360	60900
		(Minimum) (Nominal) (Maximum)				

Before: 13−Mar−2008 23:28

High Resolution Laterolog Array − B Wellsite Calibration

HRLT VTP

Idx	Phase	HRLT Torpedo−M0 Voltage Plus UV	Value	Nominal	Maximum	Minimum
0	Before		−67940	−70000	−60900	−82360
1	Before		−75570	−70000	−60900	−82360
2	Before		−76660	−70000	−60900	−82360
3	Before		−73920	−70000	−60900	−82360
4	Before		−70250	−70000	−60900	−82360
5	Before		−71420	−70000	−60900	−82360
6	Before		64990	70000	82360	60900
7	Before		−70000	−70000	−60900	−82360
		(Minimum) (Nominal) (Maximum)				

Before: 13−Mar−2008 23:28

High Resolution Laterolog Array − B Wellsite Calibration

HRLT VBD

Idx	Phase	HRLT Bridle#9−M0 Voltage Plus UV	Value	Nominal	Maximum	Minimum
0	Before		−67880	−70000	−60900	−82360
1	Before		−75350	−70000	−60900	−82360
2	Before		−76430	−70000	−60900	−82360
3	Before		−73740	−70000	−60900	−82360
4	Before		−70140	−70000	−60900	−82360
5	Before		−71340	−70000	−60900	−82360
6	Before		64780	70000	82360	60900
7	Before		−70000	−70000	−60900	−82360
		(Minimum) (Nominal) (Maximum)				

Before: 13−Mar−2008 23:28

High Resolution Laterolog Array − B Wellsite Calibration

HRLT ISO

Idx	Phase	HRLT Source Current Plus UA	Value	Nominal	Maximum	Minimum
0	Before		283.1	284.0	334.1	247.0
1	Before		281.1	281.1	330.7	244.4
2	Before		281.1	281.1	330.7	244.4
3	Before		281.1	281.1	330.7	244.4

4	Before		281.1	281.1	330.7	244.4
5	Before		281.1	281.1	330.7	244.4
6	Before		281.1	281.1	330.7	244.4
7	Before		281.1	281.1	330.7	244.4
		(Minimum) (Nominal) (Maximum)				

Before: 13−Mar−2008 23:28

High Resolution Laterolog Array − B Wellsite Calibration

HRLT MV

Idx	Phase	HRLT Vertical Voltage Plus UV	Value	Nominal	Maximum	Minimum
0	Before		−319.4	−322.7	−280.7	−379.7
1	Before		−344.3	−322.7	−280.7	−379.7
2	Before		−346.9	−322.7	−280.7	−379.7
3	Before		−330.9	−322.7	−280.7	−379.7
4	Before		−312.5	−322.7	−280.7	−379.7
5	Before		−332.7	−322.7	−280.7	−379.7
6	Before		313.8	322.7	379.7	280.7
7	Before		−322.7	−322.7	−280.7	−379.7
		(Minimum) (Nominal) (Maximum)				

Before: 13−Mar−2008 23:28

Multimode Array Sonic Power Cartridge / Equipment Identification

Primary Equipment:		
Multimode Array Sonic Minimum Service So	MAMS − BA	8201
Multimode Array Sonic Control Cartridge	MAPC − BA	8198
Auxiliary Equipment:		
Electronics Cartridge Housing	ECH − SD	8198

Enhanced DTS Cartridge / Equipment Identification

Primary Equipment:		
EDTC Gamma Ray Detector	EDTG − B	77305
Enhanced DTS Cartridge	EDTC − B	
Auxiliary Equipment:		
EDTC Housing	EDTH − B	8378

Enhanced DTS Cartridge Wellsite Calibration

EDTC Accelerometer Calibration

Phase	EDTC Z−Axis Acceleration M/S2	Value
Before		9.803
	9.610 (Minimum) 9.810 (Nominal) 10.01 (Maximum)	

Before: 13−Mar−2008 21:57

Enhanced DTS Cartridge Wellsite Calibration

Detector Calibration

Phase	Gamma Ray Background GAPI	Value	Phase	Gamma Ray (Jig − Bkg) GAPI	Value	Phase	Gamma Ray (Calibrated) GAPI	Value
Before		17.32	Before		169.8	Before		165.0
	0 (Minimum) 30.00 (Nominal) 120.0 (Maximum)			154.3 (Minimum) 169.8 (Nominal) 185.2 (Maximum)			150.0 (Minimum) 165.0 (Nominal) 180.0 (Maximum)	

Before: 13−Mar−2008 13:29

Company:	**Apache Northwest Pty Ltd**
Well:	**Coelacanth−1**
Field:	**Apache/VIC/P−45**
Rig:	**West Triton**
Country:	**Australia**

Schlumberger

PEX−GR−HRLA−MSIP−S
Compressional and Shear Slowness (CH)
Suite−1 Run−1 Scale 1:200

Schlumberger

Company: **Apache Northwest Pty Ltd**

Well: **Coelacanth−1**
Field: **Apache/VIC/P−45**
Rig: **West Triton** Country: **Australia**

PEX−GR−HRLA−MSIP−S
Compressional and Shear Slowness (OH)
Suite−1 Run−1 Scale 1:200

Rig: West Triton
Field: Apache/VIC/P−45
Location: Bass Strait
Well: Coelacanth−1
Company: Apache Northwest Pty Ltd

LOCATION

Bass Strait
Northing : 5,714,176.613 m
Easting : 613,192.770 m

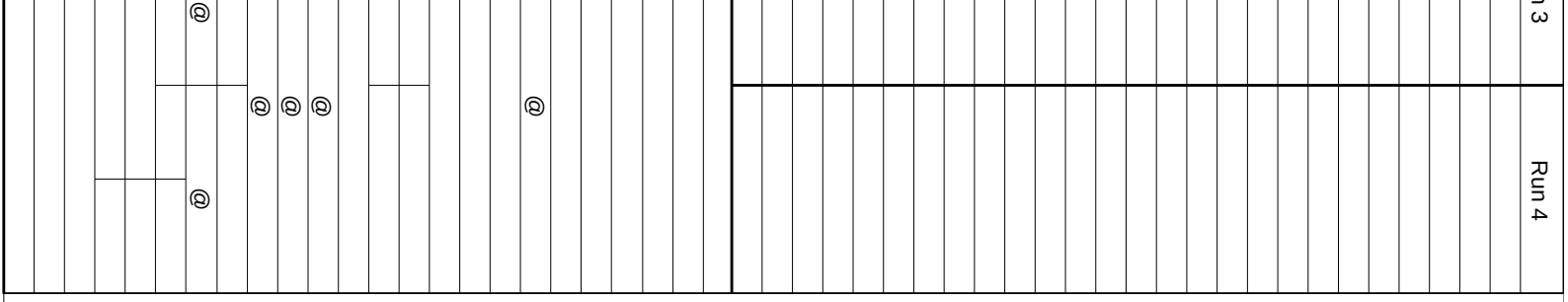
Elev.:
G.L. −90.00 m
D.F. 38.00 m

Permanent Datum: AHD — Elev.: 0.00 m
Log Measured From: DRILL FLOOR — 38.00 m above Perm. Datum
Drilling Measured From: DRILL FLOOR

State:	Max. Well Deviation	Longitude	Latitude
Victoria	0.41 deg	148 18' 07.0098" E	38 42' 49.7296" S

	Run 1	Run 2	Run 3
Logging Date	13−Mar−2008		
Run Number	1		
Depth Driller	907 m		
Schlumberger Depth	907 m		
Bottom Log Interval	905 m		
Top Log Interval	55.3 m		
Casing Driller Size @ Depth	13.375 in @ 275.7 m	@	@
Casing Schlumberger	274 m		
Bit Size	12.250 in		
Type Fluid In Hole	KCl/Polymer		
MUD Density / Viscosity	1.15 g/cm3 / 43 s		
MUD Fluid Loss / PH	9 cm3 / 8		
MUD Source Of Sample	Flowline		
RM @ Measured Temperature	0.138 ohm.m @ 21 degC	@	@
RMF @ Measured Temperature	0.130 ohm.m @ 21 degC	@	@
RMC @ Measured Temperature	0.147 ohm.m @ 21 degC	@	@
Source RMF / RMC	Press / Press		
RM @ MRT / RMF @ MRT	0.105 @ 34 / 0.098 @ 34	@ / @	@ / @
Maximum Recorded Temperatures	34 degC / 31		
Circulation Stopped / Time	13−Mar−2008 / 13:00		
Logger On Bottom / Time	14−Mar−2008 / 23:31		
Unit Number / Location	41 / AUSL		
Recorded By	A. Dandi/M.Dawson		
Witnessed By	F.Fernandes		

	Run 1	Run 2	Run 3
Logging Date			
Run Number			
Depth Driller			
Schlumberger Depth			
Bottom Log Interval			
Top Log Interval			
Casing Driller Size @ Depth	@		
Casing Schlumberger			
Bit Size			
Type Fluid In Hole			
MUD Density / Viscosity			
MUD Fluid Loss / PH			
MUD Source Of Sample			
RM @ Measured Temperature	@		
RMF @ Measured Temperature	@		
RMC @ Measured Temperature	@		
Source RMF / RMC			
RM @ MRT / RMF @ MRT	@ / @		
Maximum Recorded Temperatures			
Circulation Stopped / Time			
Logger On Bottom / Time			
Unit Number / Location			
Recorded By			
Witnessed By			



DEPTH SUMMARY LISTING

Date Created: 14−MAR−2008 1:45:57

Depth System Equipment

Depth Measuring Device		Tension Device		Logging Cable	
Type:	IDW−H	Type:	CMTD−B/A	Type:	7−46ZV−XS
Serial Number:	796	Serial Number:	1721	Serial Number:	77178
Calibration Date:	29−Jan−2008	Calibration Date:	27−FEB−2008	Length:	7699.86 M
Calibrator Serial Number:	1009	Calibrator Serial Number:	1051		
Calibration Cable Type:	7−46ZV−XS	Calibration Gain:	0.81	Conveyance Method:	Wireline
Wheel Correction 1:	−5	Calibration Offset:	−610.00	Rig Type:	Offshore_Fixed
Wheel Correction 2:	−5				

Depth Control Parameters

Log Sequence:	First Log In the Well
Rig Up Length At Surface:	74.36 M
Rig Up Length At Bottom:	74.10 M
Rig Up Length Correction:	0.26 M
Stretch Correction:	0.00 M
Tool Zero Check At Surface:	0.00 M

Depth Control Remarks

1. Schlumberger Depth Control Policy Followed
2. IDW used as primary depth reference
3. Z−Chart used as secondary depth reference
4.
5.
6.

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 SERVICES1	OTHER SERVICES2
OS1:	OS1:
OS2:	OS2:
OS3:	OS3:
OS4:	OS4:
OS5:	OS5:

REMARKS: RUN NUMBER 1	REMARKS: RUN NUMBER 2
First Run in Hole. Schlumberger depth control procedure followed.	
Log Objectives:Basic Formation Evaluation	
Toolstring run as per toolsketch by means of 2 LCMEs, 5 * 2.5 in Standoffs and HGNS eccentralized with a bowspring	
Maximum recoreded temperatures obtained from thermometers in logging head	
Neutron Enviroment Corrections : Hole Size, Mud Salinity, Mud Weight, Mud Cake, Pressure & Temperature	
Density Environment Corrections : Hole Size, using BS, and Mud Weight	
Pex run in high resolution as per client request	

Pex run in high resolution as per client request
As per Mud Engineer's report
−Chlorides = 38000mg/l, Barite = 2.5 %
TDL tagged @ 907m , CS detected @ 274 m
Caliper Check in Casing reads 12.55in (Ref ID = 12.61 in)
BHT, STEM and SHT temperatures based on HGNS temperature sensor
Spike of resisitivity curves at 669.5m due to application of power for caliper centralisation

RUN 1		RUN 2	
SERVICE ORDER #:	AUSL08649881	SERVICE ORDER #:	
PROGRAM VERSION:	15C0−309	PROGRAM VERSION:	
FLUID LEVEL:	0 m	FLUID LEVEL:	

LOGGED INTERVAL	START	STOP	LOGGED INTERVAL	START	STOP

EQUIPMENT DESCRIPTION

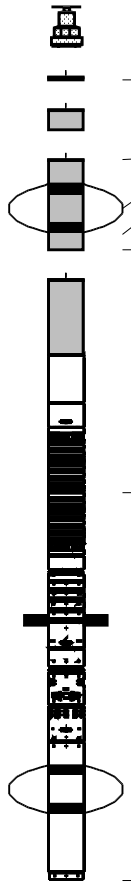
RUN 1 RUN 2

SURFACE EQUIPMENT

GSR−Y 6750
NCT−B
CNB−AB
NCS−VB

WITM (EDTS)−A

DOWNHOLE EQUIPMENT



LEH−QT
LEH−QT 2800
33.61

SP SPARC 32.32

BSP−AH−169
32.73

AH−369
32.32

Mud Tempe 31.88
CTEM 30.82
Gamma Ray 30.25
TelStatus
EDTCB Ele 29.90

EDTC−B
EDTH−B 8378
EDTC−B
EDTG−B 77305
31.88

MAPC−B
MAPC−BA 8198
ECH−SD 8198
MAMS−BA 8201
29.90

MAMS−PS 25.20

MAXS−B
MASS−BA 8157
MAXS−BA 8157
23.49
2.5 IN
Standoff

MAXS−PS 17.32

PPC1−B
PPC1−B 8291
PPC_CAL_STD
Calipers 16.97
17.32

PPC_Cartr 15.33

HRLT−B
HRUH−B 1741
HRUC−B 1730
15.33
2.5 IN
Standoff

HRLS−B 1745
HRLH−B 1745
HRLC−B 1745
AH−270 1792

High Res. — 11.75

2.5 IN Standoff

HILTB−FTB
AH−107 2910
AH−120 806
HGNSD−B 856
HMCA
HGNH 3915
NLS−KL
NSR−F 5224
HACCZ 379
HCNT
HGR
HRCC−B 868
HRMS−B 788
HRGD−B 1806
GLS−VJ 5334

HGNS HTEM — 7.96
HMCA — 6.74
HGNS Gamm — 6.51
HGNS Neut — 4.73
HGNS Neut — 4.58
HGNS sens — 3.87
HRCC cart — 2.65
MCFL — 1.00
HILT cali — 0.85
HRDD−LS
HRDD−SS
HRDD−BS — 0.73
DF ACCZ
HTEN HMAS HV
Accelerom
Tension — 0.00

BNS−CCS — 0.14

TOOL ZERO

MAXIMUM STRING DIAMETER 8.63 IN
MEASUREMENTS RELATIVE TO TOOL ZERO
ALL LENGTHS IN METERS

Client: Apache Northwest Pty Ltd
Well: Coelacanth−1
Field: VIC/P−45
State: Victoria
Country: Australia

Drawing Date: 3/13/2008
Rig Name: West Triton
Reference Datum: AHD
Elevation: 38.0 m

Production String	(in) OD	(in) ID	(m) MD	Well Schematic	(m) MD	(in) OD	(in) ID	Casing String
Derrick Floor Elevation			39.0					
Mean Sea Level			0.0					
					90.0	13.175	12.415	Casing String
					275.7	13.175	12.415	Casing Shoe
					275.7	12.250		Borehole Segment

All Depths are Drillers' Depths						907.0	12.250	Borehole Segment Bottom

Schlumberger

Monopole Compressional Slowness 1:200

MAXIS Field Log

Company: Apache Northwest Pty Ltd **Well: Coelacanth−1**

Input DLIS Files

DEFAULT	**MERGE_Ap002led**	**FN:1**	**PRODUCER**	**27−Mar−2008 20:15**	**907.4 M**	**271.0 M**

Output DLIS Files

DEFAULT	**TLD_MCFL_CNL_HRLA_007PUP**	**FN:9**	**PRODUCER**	**27−Mar−2008 21:32**	**907.4 M**	**272.0 M**
CUSTOMER	**TLD_MCFL_CNL_HRLA_007PUC**	**FN:10**	**CUSTOMER**	**27−Mar−2008 21:32**	**907.4 M**	**272.0 M**
CUST_RED	**TLD_MCFL_CNL_HRLA_007PUC**	**FN:11**	**CUSTOMER**	**27−Mar−2008 21:32**	**907.4 M**	**272.0 M**
REDUCED	**TLD_MCFL_CNL_HRLA_007PUP**	**FN:12**	**PRODUCER**	**27−Mar−2008 21:32**	**907.4 M**	**272.0 M**

OP System Version: 15C0−309

MCM

HILTB−FTB	**SRPC−3546−Q1_2008_OP15_b**	**HRLT−B**	**SRPC−3546−Q1_2008_OP15_b**

PPC1−B	SRPC−3546−Q1_2008_OP15_b	MAXS−B	SKK−3442−MAST_b
MAPC−B	SKK−3442−MAST_b	EDTC−B	SKK−3493−EDTCB_b
BSP−AH−169	SRPC−3546−Q1_2008_OP15_b		

PIP SUMMARY

Time Mark Every 60 S

Data Copy Status Indicator 3 (DCSI3)
0 (−−−− 10

HILT Caliper (HCAL)
6 (IN) 16

Gamma Ray (GR)
0 (GAPI) 200

Shear Slowness 3 (DTSH3)
40 (US/F) 240

Min Amplitude Max
Slowness Projection 3 (SPJ3)
40 (US/F) 240

Shear Slowness 3 (DTSH3)
40 (US/F) 240

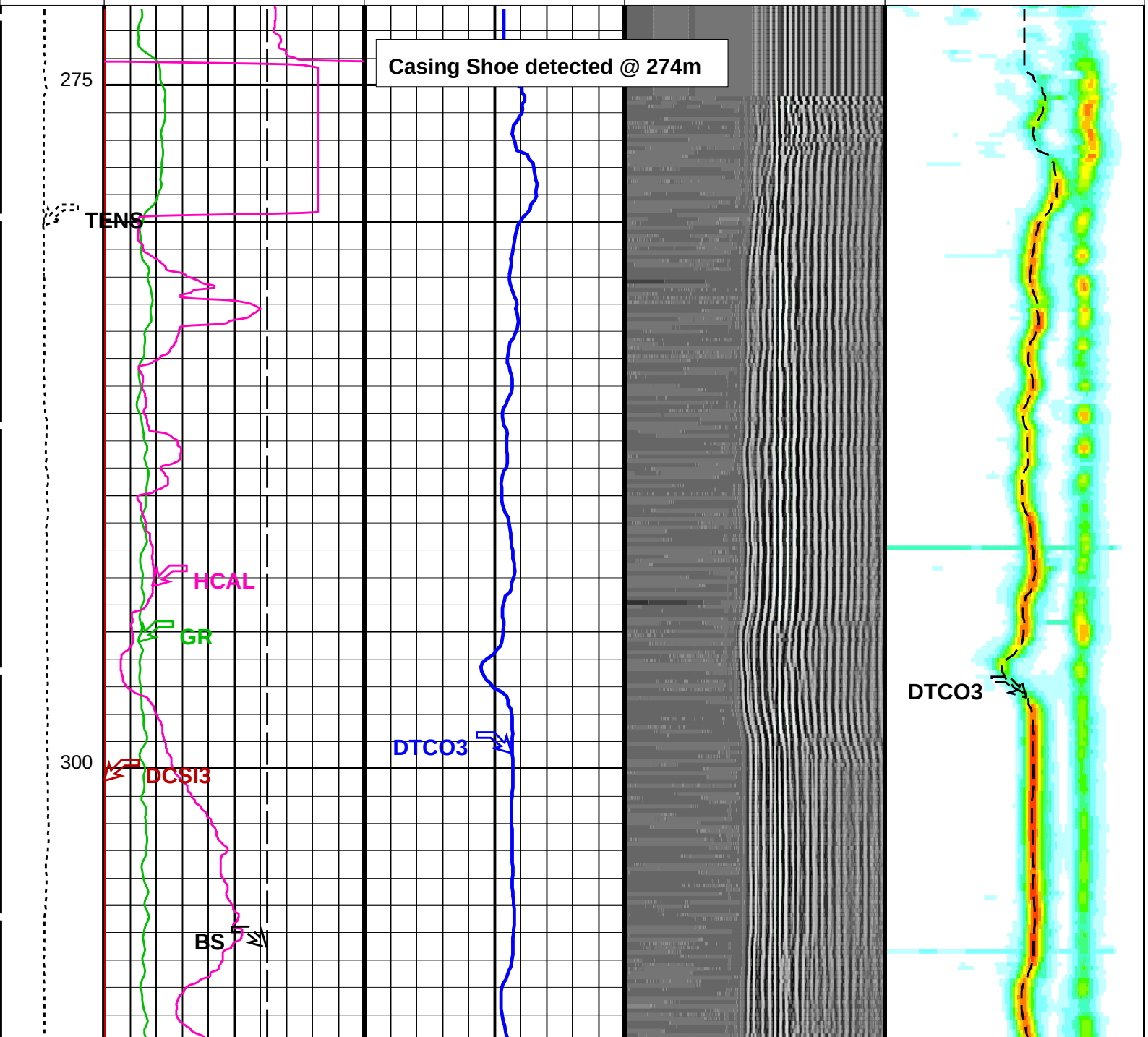
Tension (TENS) (LBF)
0 5000

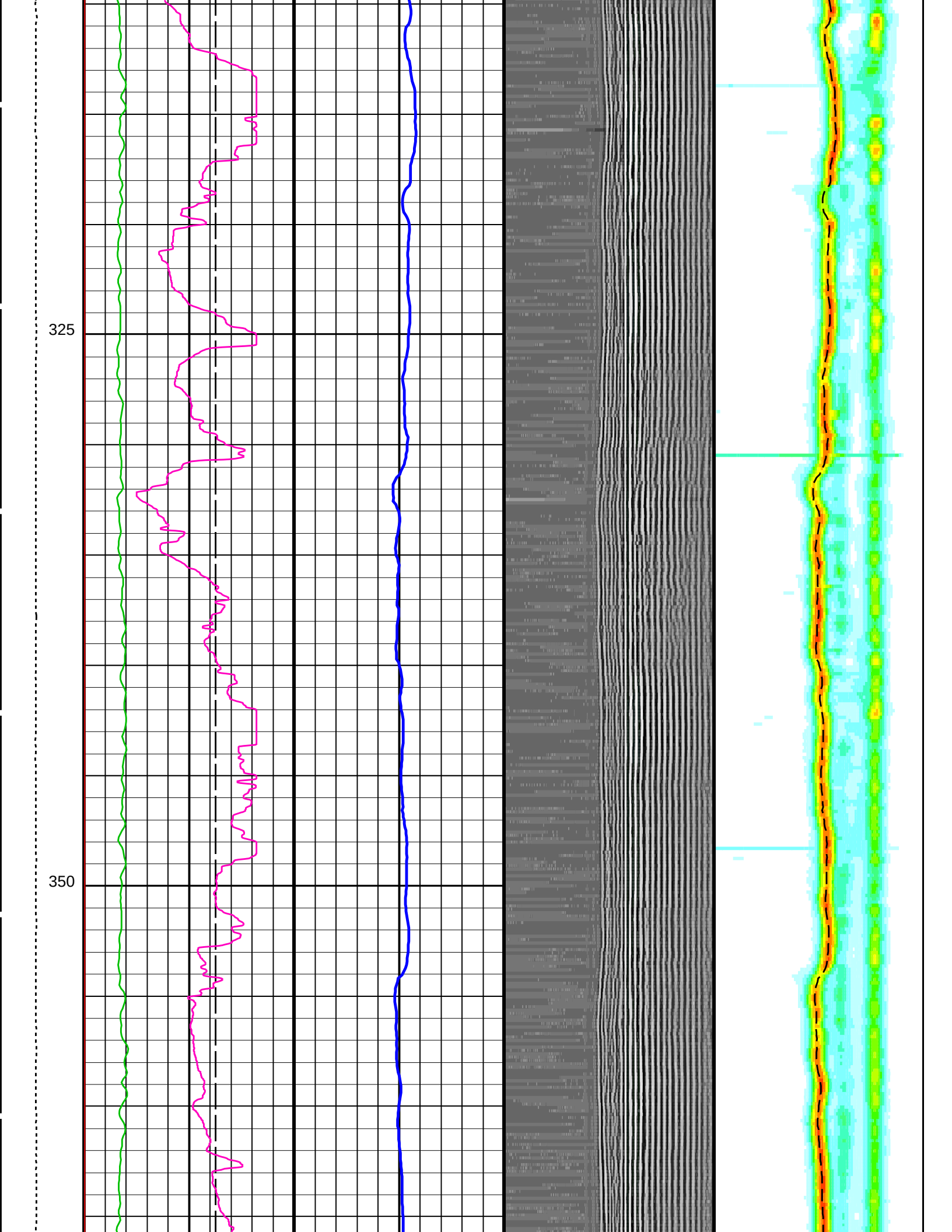
Bit Size (BS)
6 (IN) 16

Compressional Slowness 3 (DTCO3)
40 (US/F) 240

Min Amplitude Max
MAST MF VDL WF (DWF3_ MONO)
0 (US) 5000

Compressional Slowness 3 (DTCO3)
40 (US/F) 240

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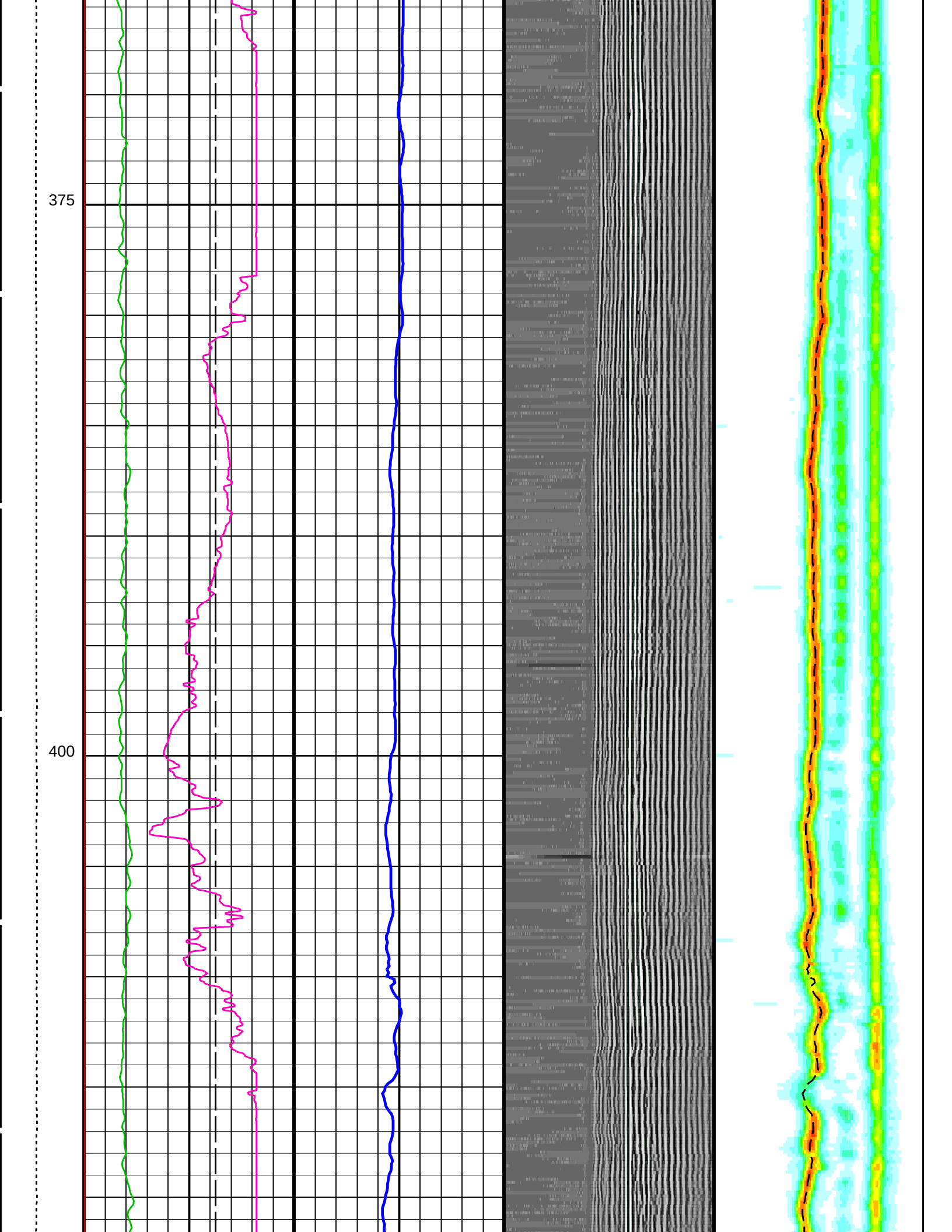
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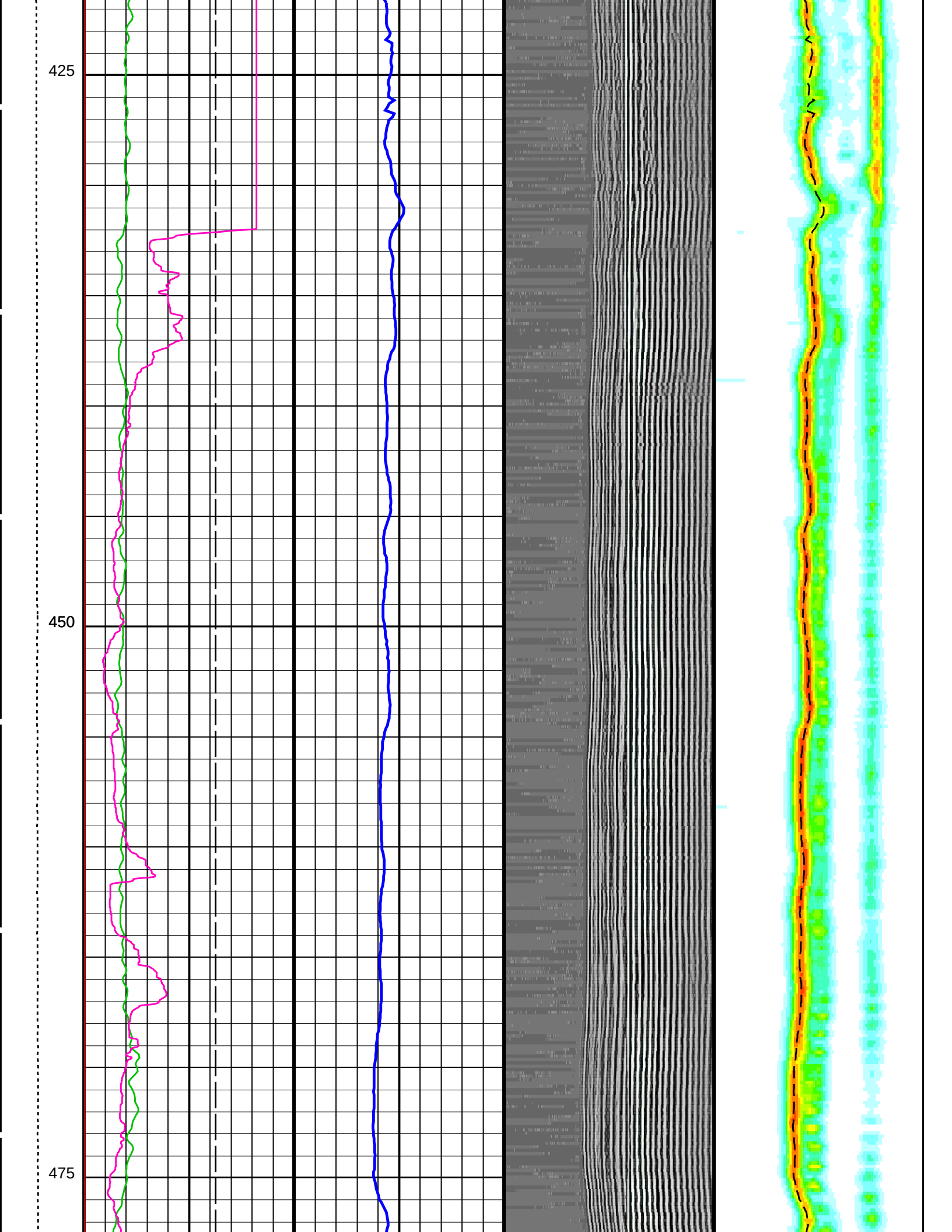
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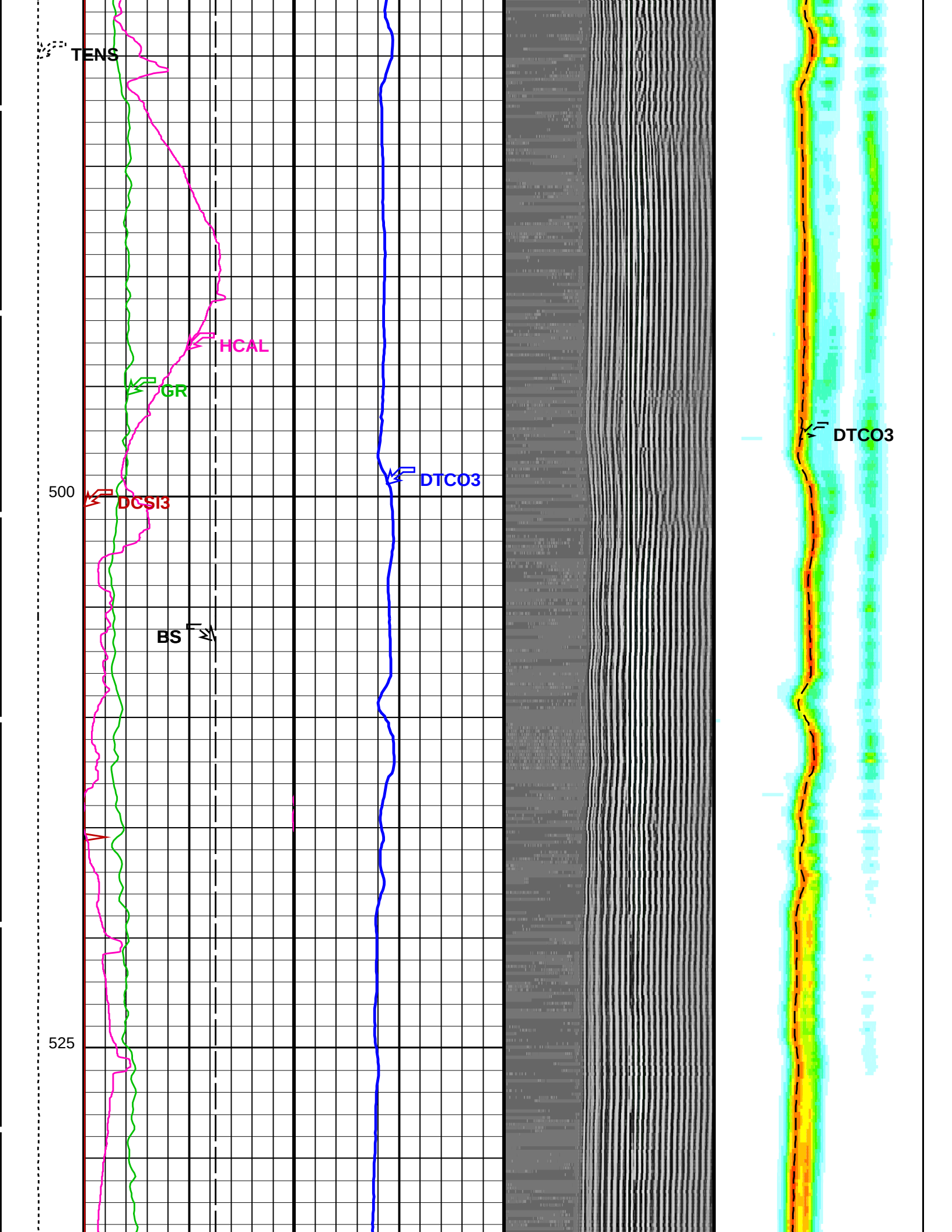
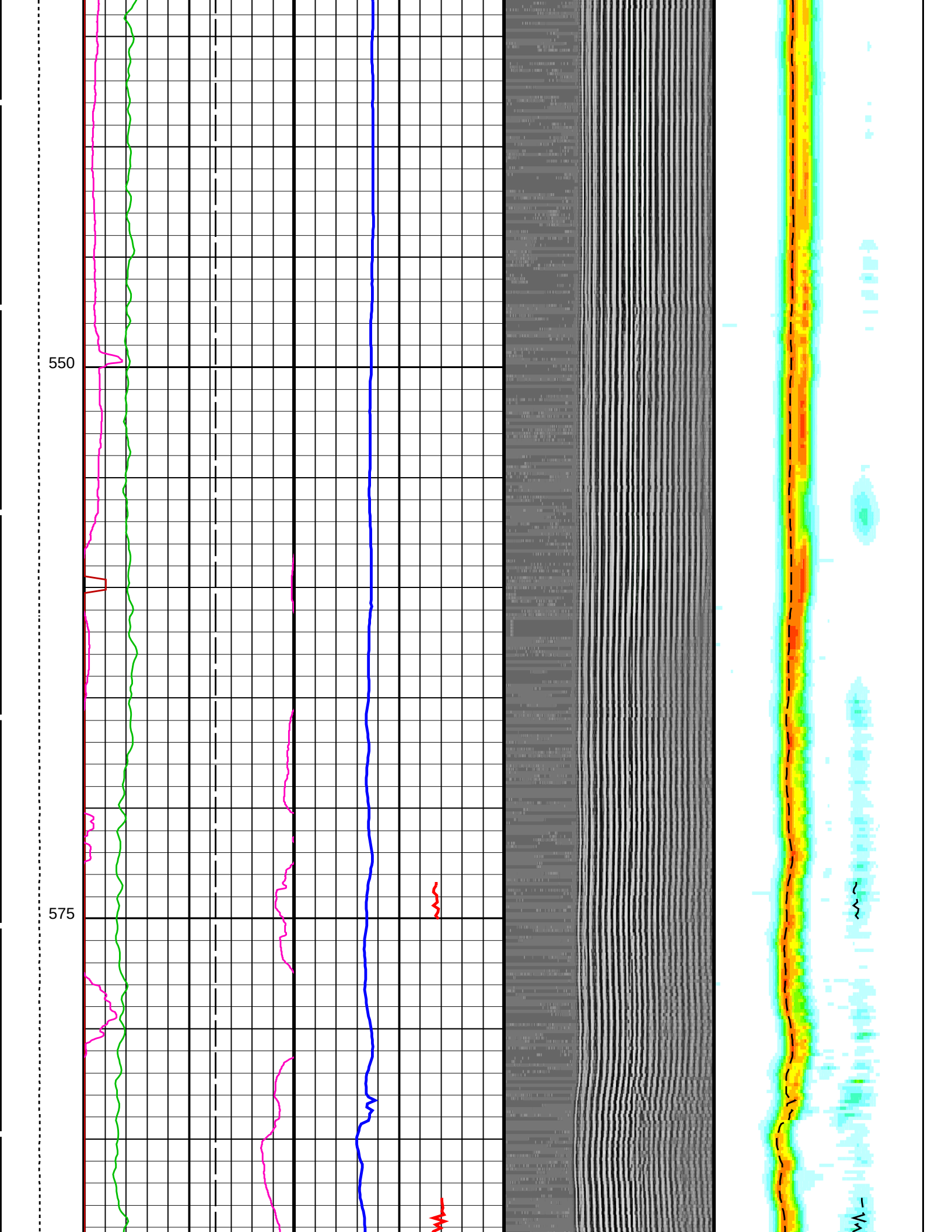

TENS
HCAL
GR
DTCO3
500
DCSI3
BS
525
DTCO3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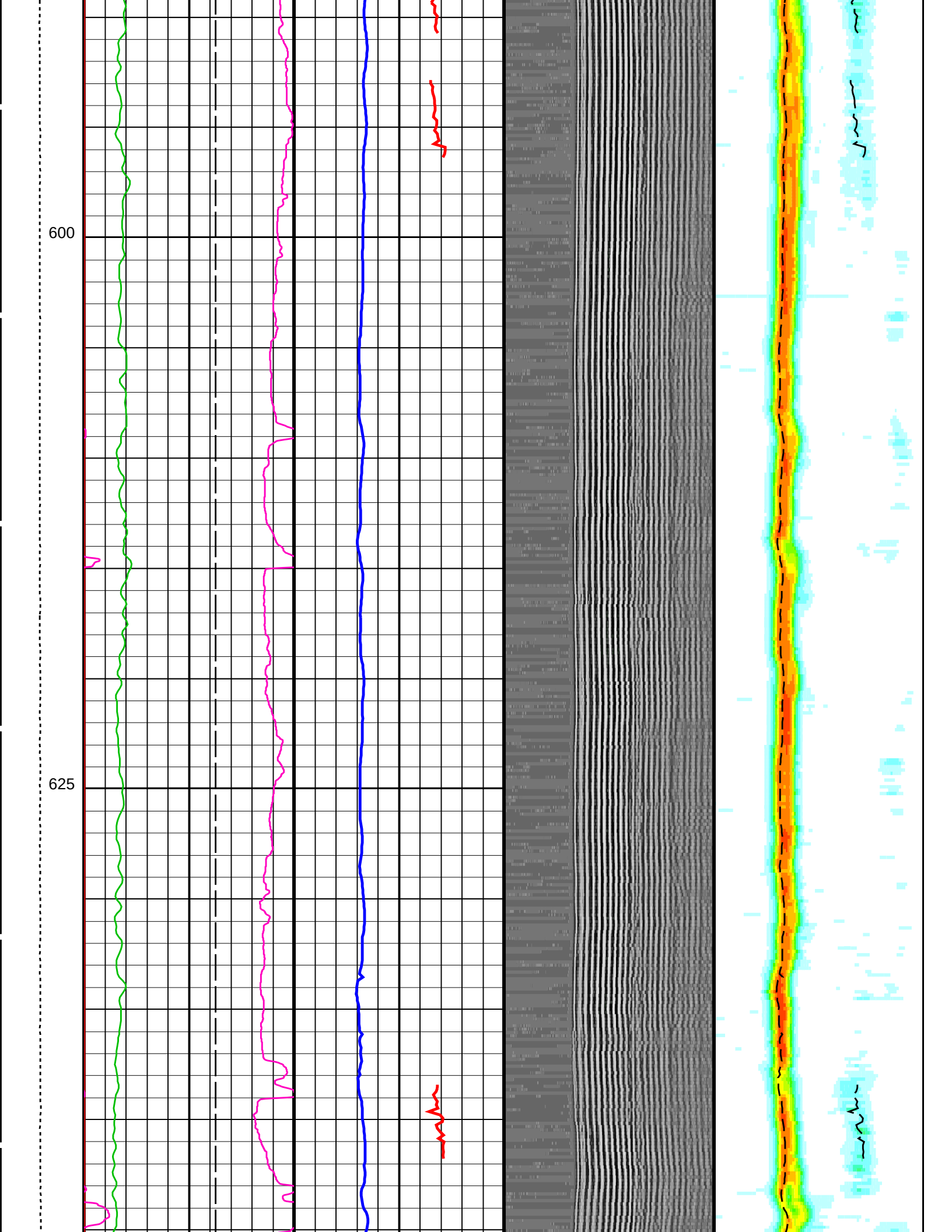
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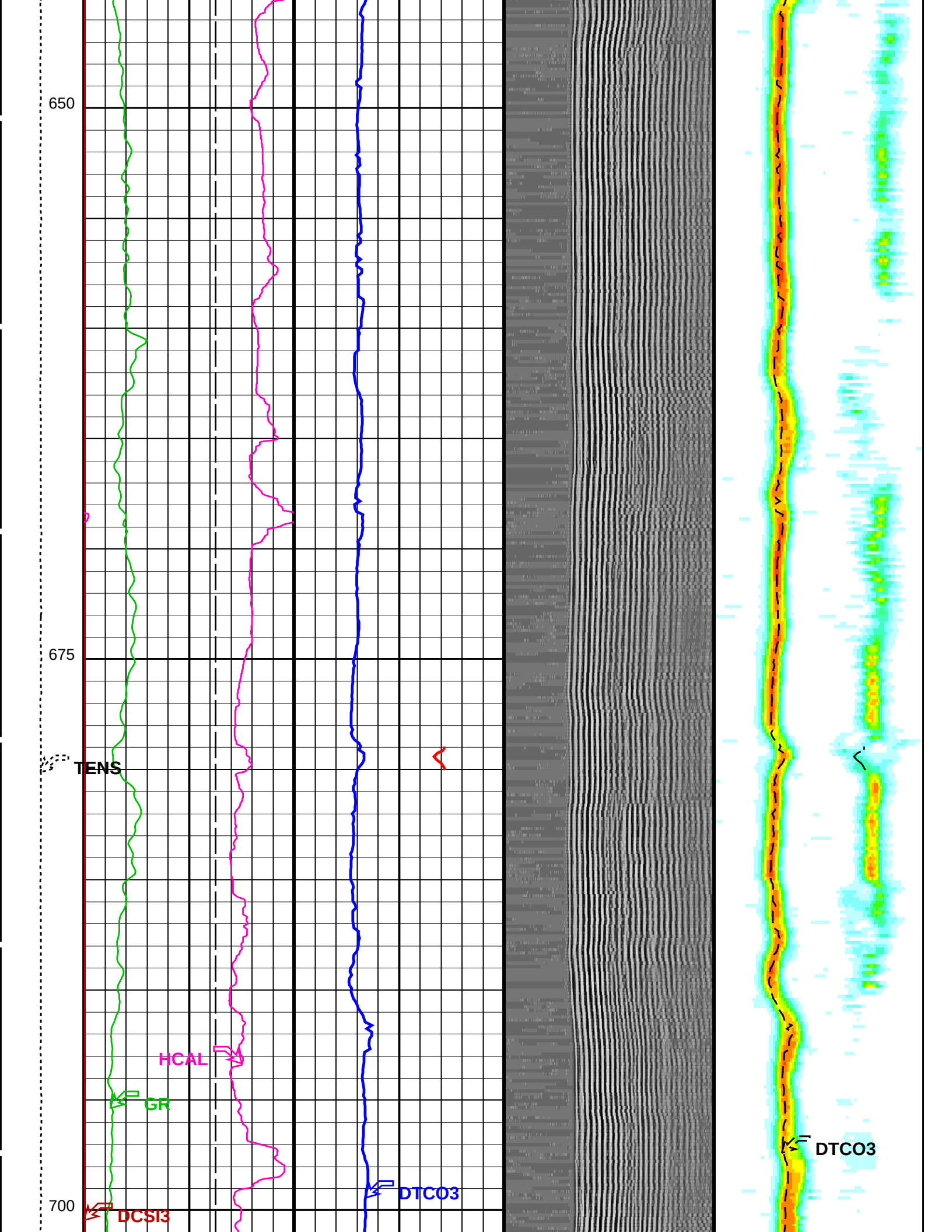
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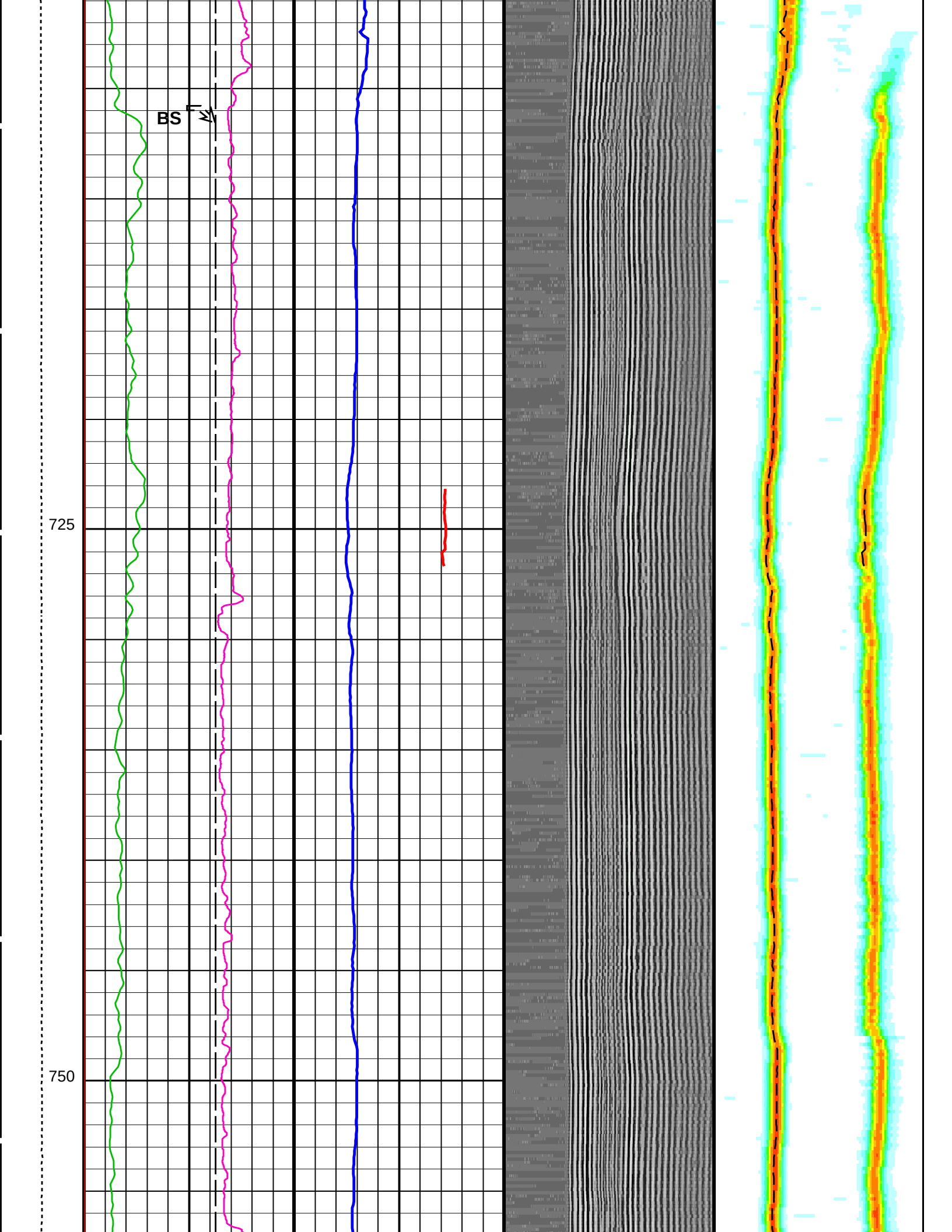
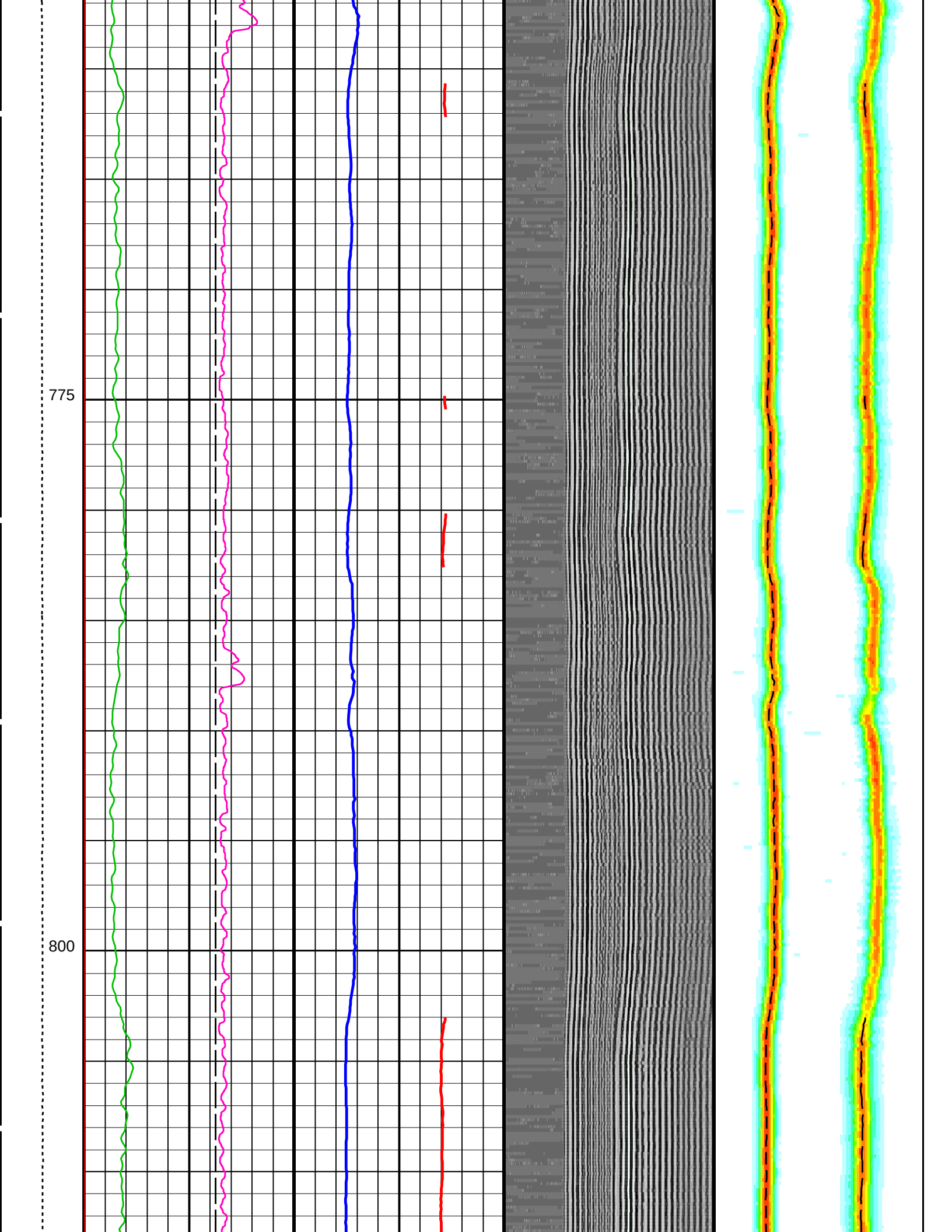
675
700
TENS
HCAL
GR
DCSI3
DTCO3
DTCO3


BS
725
750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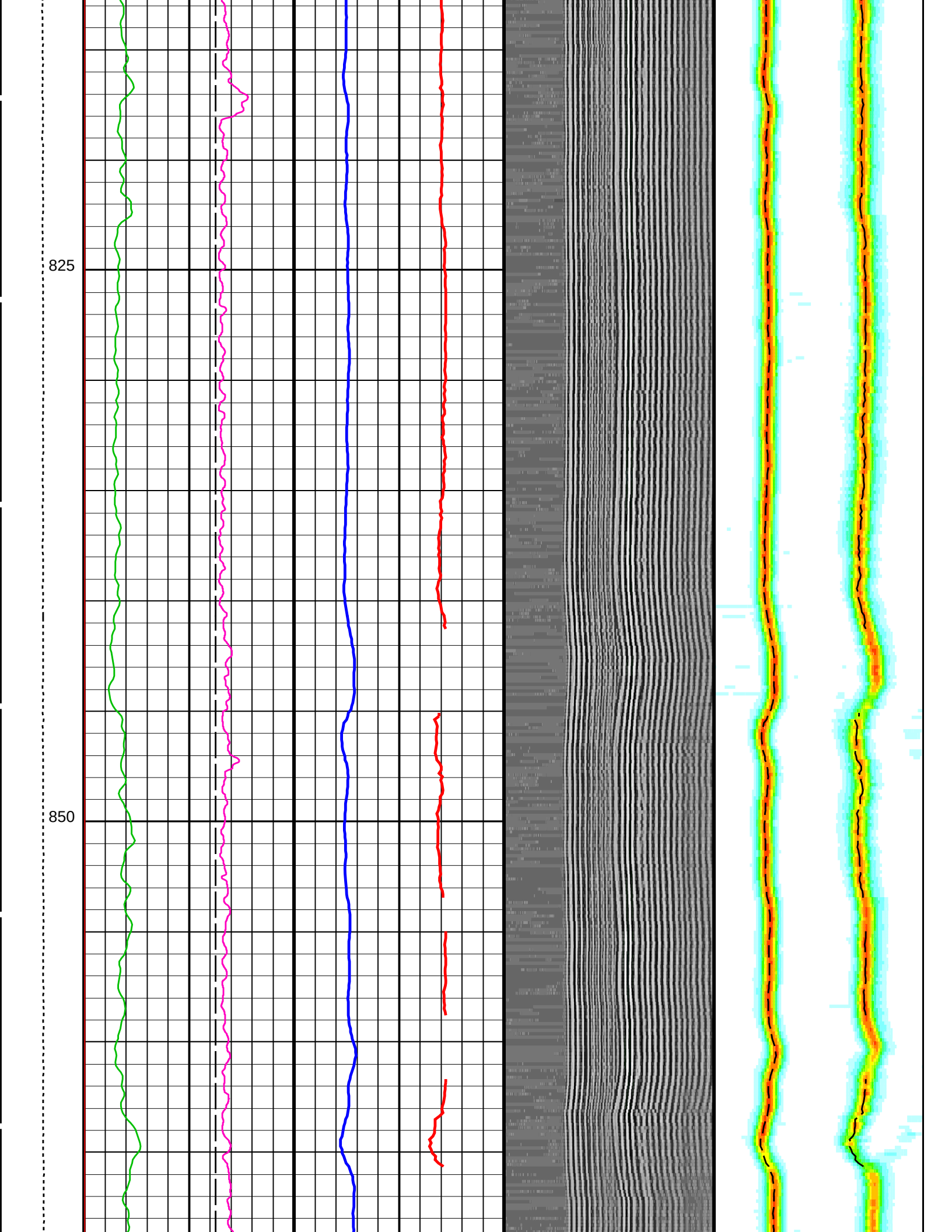
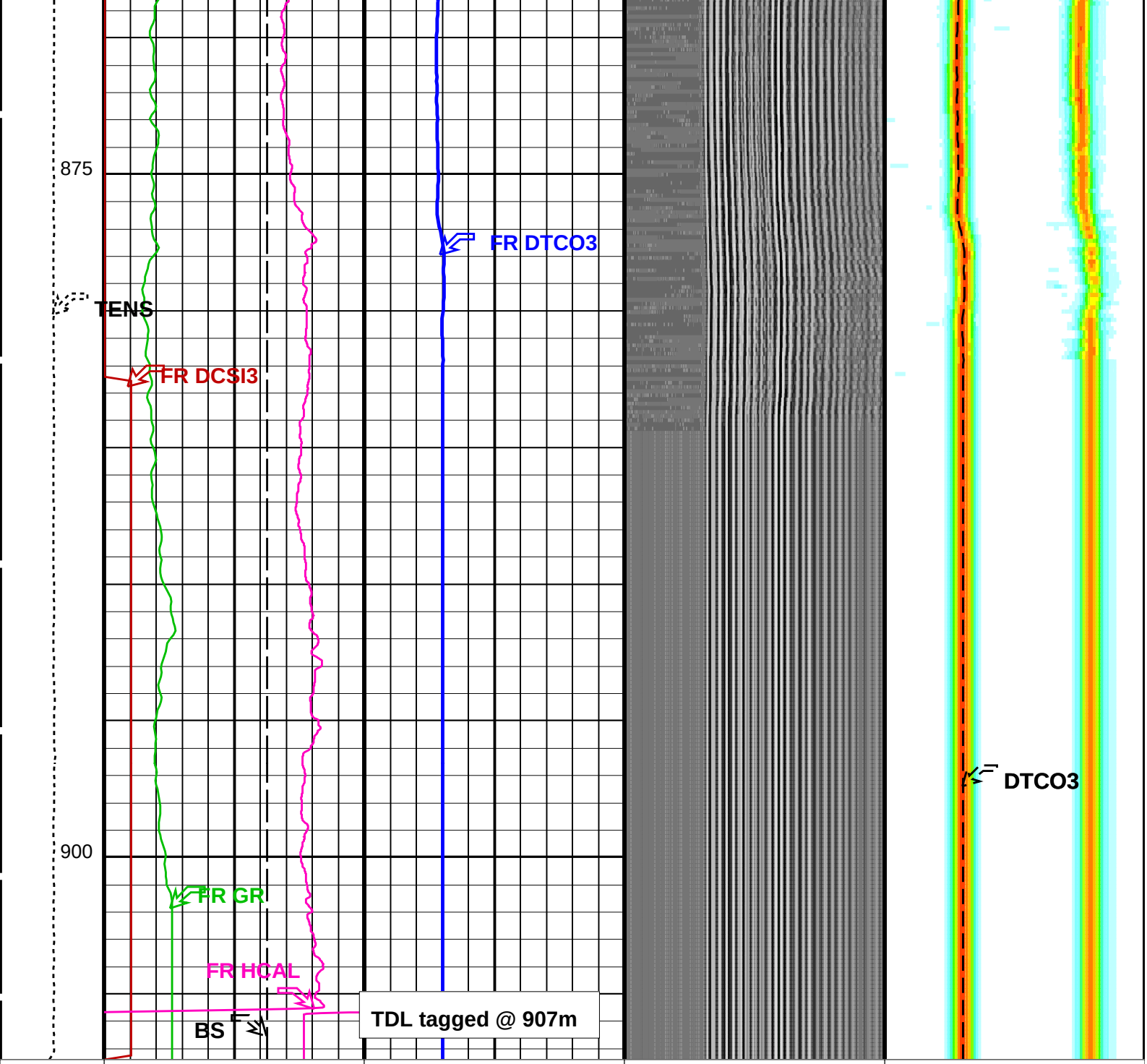

825
850



Tension (TENS) (LBF) 0 5000	Bit Size (BS) 6 (IN) 16	Compressional Slowness 3 (DTCO3) 40 (US/F) 240	Min Amplitude Max MAST MF VDL WF (DWF3_ MONO) 0 (US) 5000	Compressional Slowness 3 (DTCO3) 40 (US/F) 240
	Gamma Ray (GR) 0 (GAPI) 200	Shear Slowness 3 (DTSH3) 40 (US/F) 240		Shear Slowness 3 (DTSH3) 40 (US/F) 240
	HILT Caliper (HCAL) 6 (IN) 16			Min Amplitude Max Slowness Projection 3 (SPJ3) 40 (US/F) 240
	Data Copy Status Indicator 3 (DCSI3) 0 (---- 10			

PIP SUMMARY

Time Mark Every 60 S

Parameters

Parameters

DLIS Name	Description	Value	
	HILTB−FTB: High resolution Integrated Logging Tool−DTS		
BHS	Borehole Status	OPEN	
	HRLT−B: High Resolution Laterolog Array − E		
BHS	Borehole Status	OPEN	
	MAPC−B: Multimode Array Sonic Power Cartridge		
BHS	Borehole Status	OPEN	
BS	Bit Size	12.250	IN
DLHS	Hole Diameter Source for SOBS Channel	AUTO	
DTF	Delta−T Fluid	204.5	US/F
	EDTC−B: Enhanced DTS Cartridge		
BHS	Borehole Status	OPEN	
	HOLEV: Integrated Hole/Cement Volume		
BHS	Borehole Status	OPEN	
	System and Miscellaneous		
DO	Depth Offset for Playback	0.0	M
PP	Playback Processing	OFF	

Format: MAST_STC_MF Vertical Scale: 1:200 Graphics File Created: 27−Mar−2008 21:32

OP System Version: 15C0−309

MCM

HILTB−FTB	SRPC−3546−Q1_2008_OP15_b	HRLT−B	SRPC−3546−Q1_2008_OP15_b
PPC1−B	SRPC−3546−Q1_2008_OP15_b	MAXS−B	SKK−3442−MAST_b
MAPC−B	SKK−3442−MAST_b	EDTC−B	SKK−3493−EDTCB_b
BSP−AH−169	SRPC−3546−Q1_2008_OP15_b		

Input DLIS Files

DEFAULT	MERGE_Ap002led	FN:1	PRODUCER	27−Mar−2008 20:15	907.4 M	271.0 M

Output DLIS Files

DEFAULT	TLD_MCFL_CNL_HRLA_007PUP	FN:9	PRODUCER	27−Mar−2008 21:32		
CUSTOMER	TLD_MCFL_CNL_HRLA_007PUC	FN:10	CUSTOMER	27−Mar−2008 21:32		
CUST_RED	TLD_MCFL_CNL_HRLA_007PUC	FN:11	CUSTOMER	27−Mar−2008 21:32		
REDUCED	TLD_MCFL_CNL_HRLA_007PUP	FN:12	PRODUCER	27−Mar−2008 21:32		

Schlumberger

Dipole Shear Slowness
1:200

MAXIS Field Log

Company: Apache Northwest Pty Ltd Well: Coelacanth−1

Input DLIS Files

DEFAULT	MERGE_Ap002led	FN:1	PRODUCER	27−Mar−2008 20:15	907.4 M	271.0 M

Output DLIS Files

DEFAULT	TLD_MCFL_CNL_HRLA_007PUP	FN:9	PRODUCER	27−Mar−2008 21:32	907.4 M	272.0 M
CUSTOMER	TLD_MCFL_CNL_HRLA_007PUC	FN:10	CUSTOMER	27−Mar−2008 21:32	907.4 M	272.0 M
CUST_RED	TLD_MCFL_CNL_HRLA_007PUC	FN:11	CUSTOMER	27−Mar−2008 21:32	907.4 M	272.0 M
REDUCED	TLD_MCFL_CNL_HRLA_007PUP	FN:12	PRODUCER	27−Mar−2008 21:32	907.4 M	272.0 M

OP System Version: 15C0−309

MCM

HILTB−FTB	SRPC−3546−Q1_2008_OP15_b	HRLT−B	SRPC−3546−Q1_2008_OP15_b

PPC1−B	SRPC−3546−Q1_2008_OP15_b	MAXS−B	SKK−3442−MAST_b
MAPC−B	SKK−3442−MAST_b	EDTC−B	SKK−3493−EDTCB_b
BSP−AH−169	SRPC−3546−Q1_2008_OP15_b		

PIP SUMMARY

Time Mark Every 60 S

Data Copy Status Indicator 6 (DCSI6)
0 (−−−− 10

Sonic Porosity (SPHI)
0.45 (V/V) −0.15

HILT Caliper (HCAL)
6 (IN) 14

Gamma Ray (GR)
0 (GAPI) 200

Min Amplitude Max
Slowness Projection 6 (SPJ6)
80 (US/F) 540

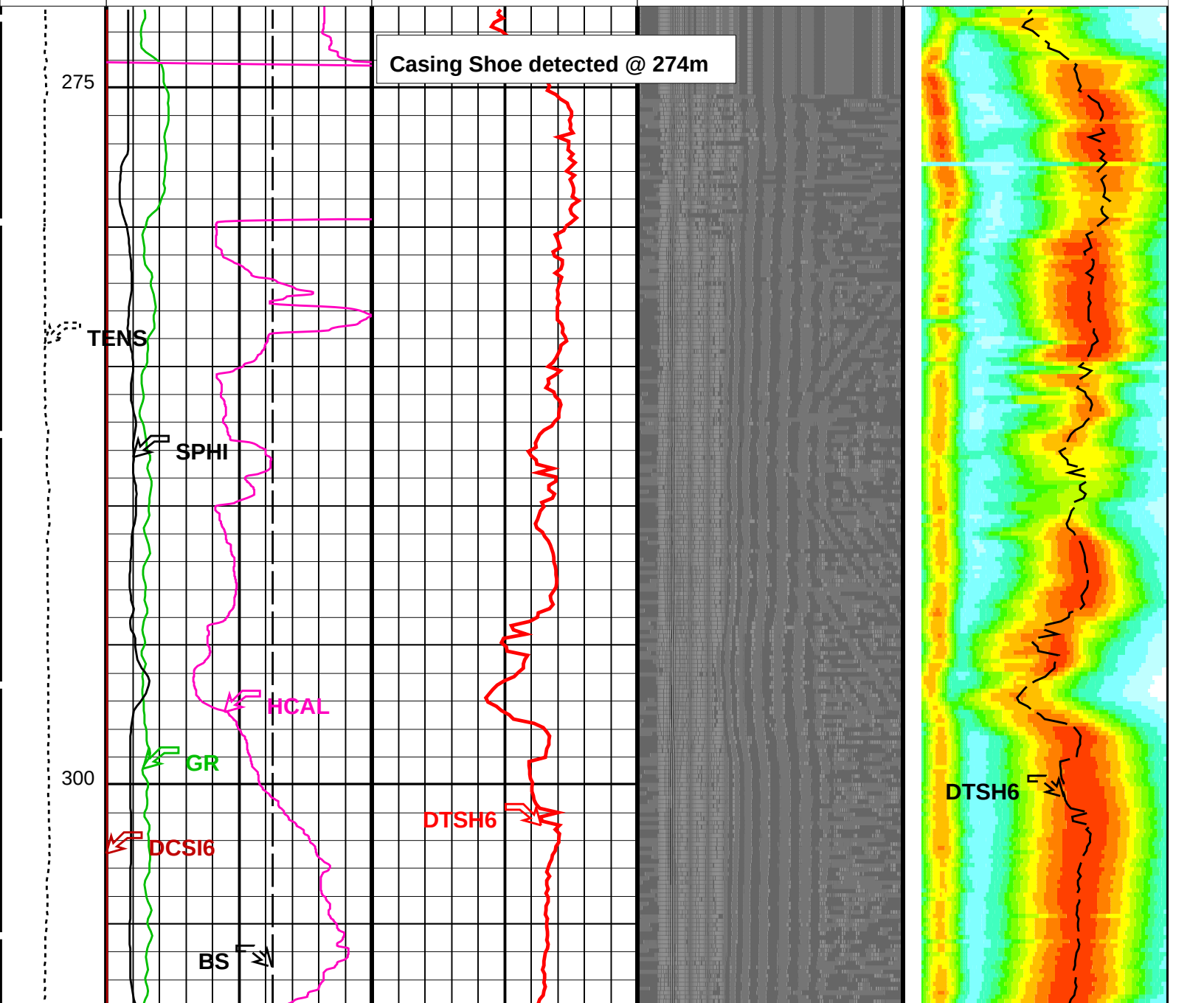
Tension (TENS) (LBF)
0 5000

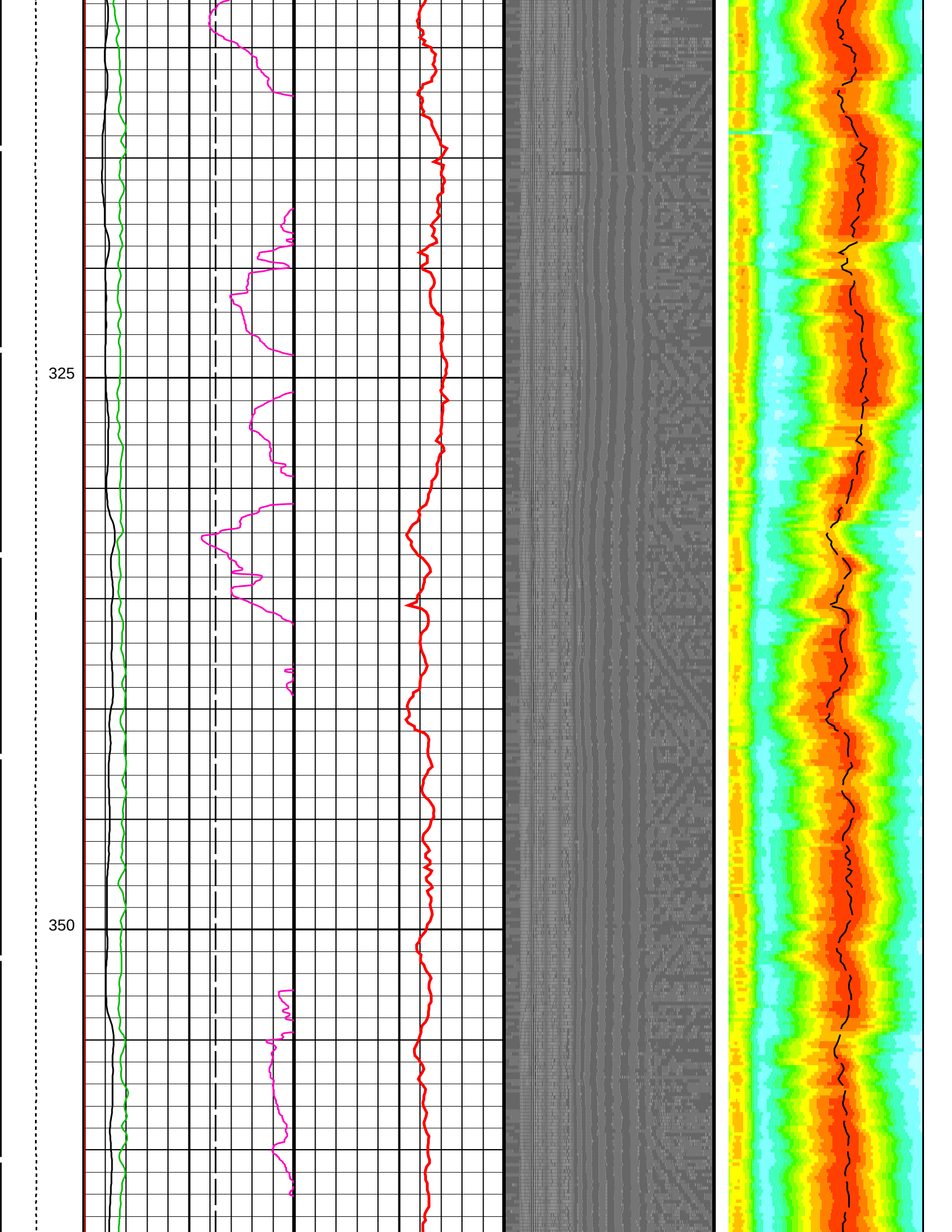
Bit Size (BS)
6 (IN) 16

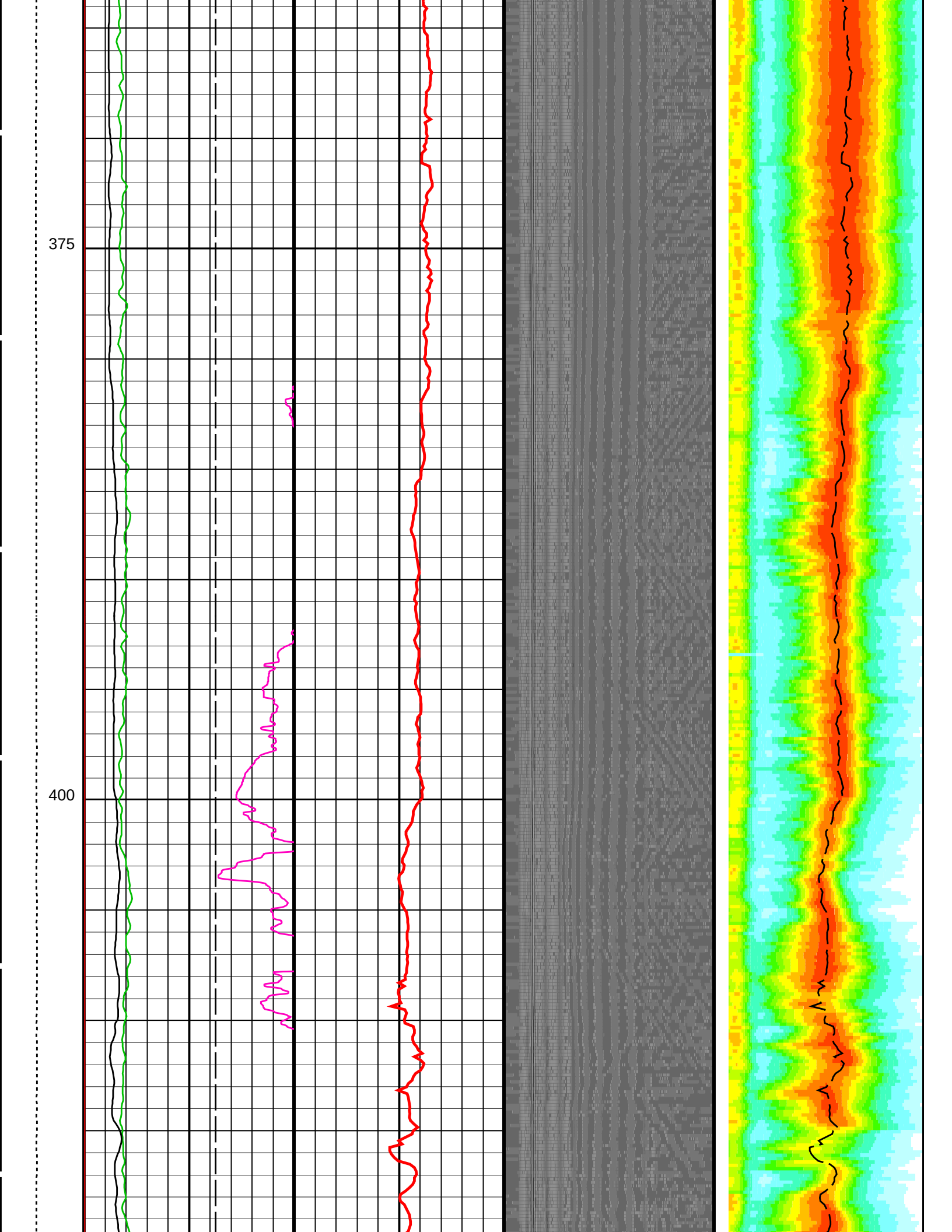
Shear Slowness 6 (DTSH6)
80 (US/F) 540

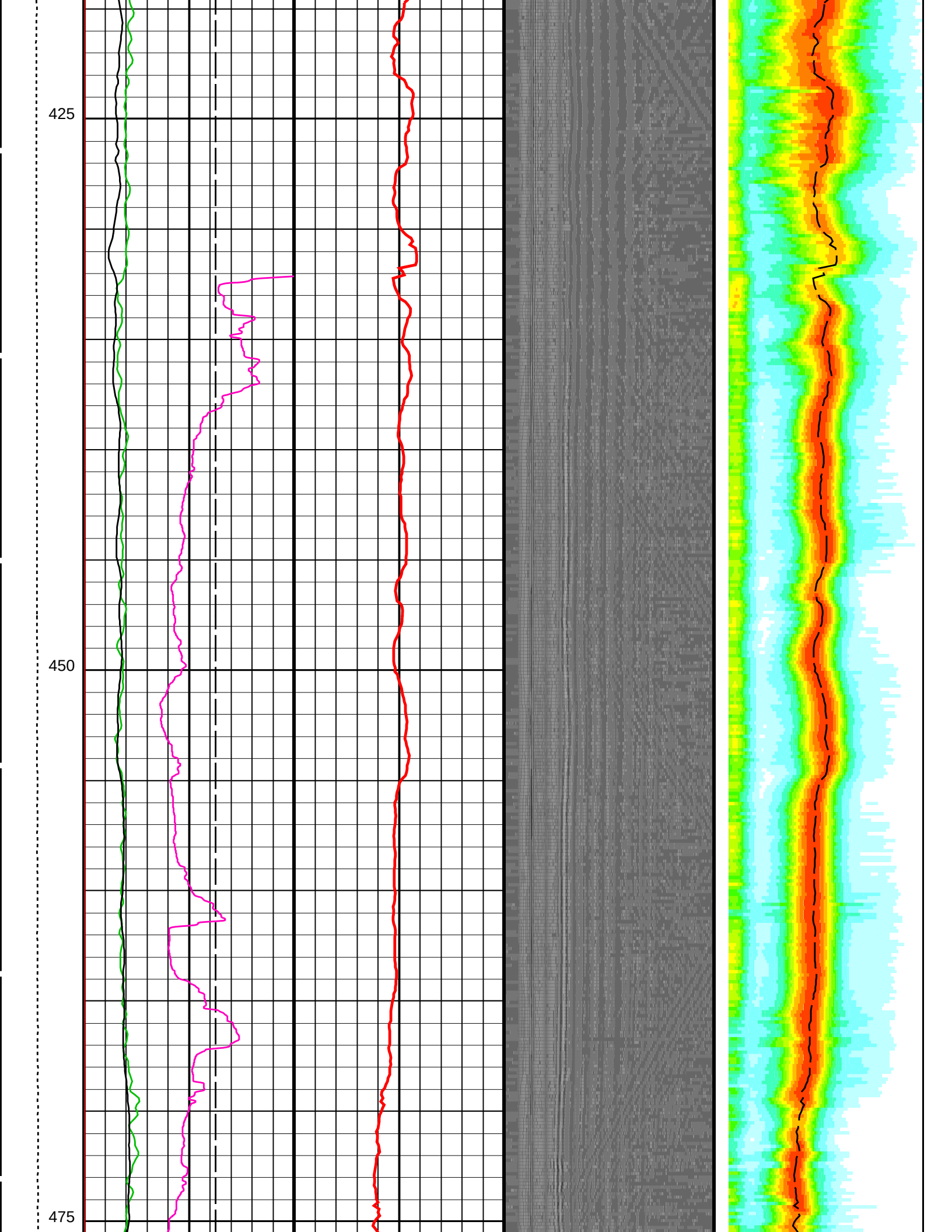
Min Amplitude Max
MAST YDIPOLE VDL WF (DWF6_DIIN)
0 (US) 30000

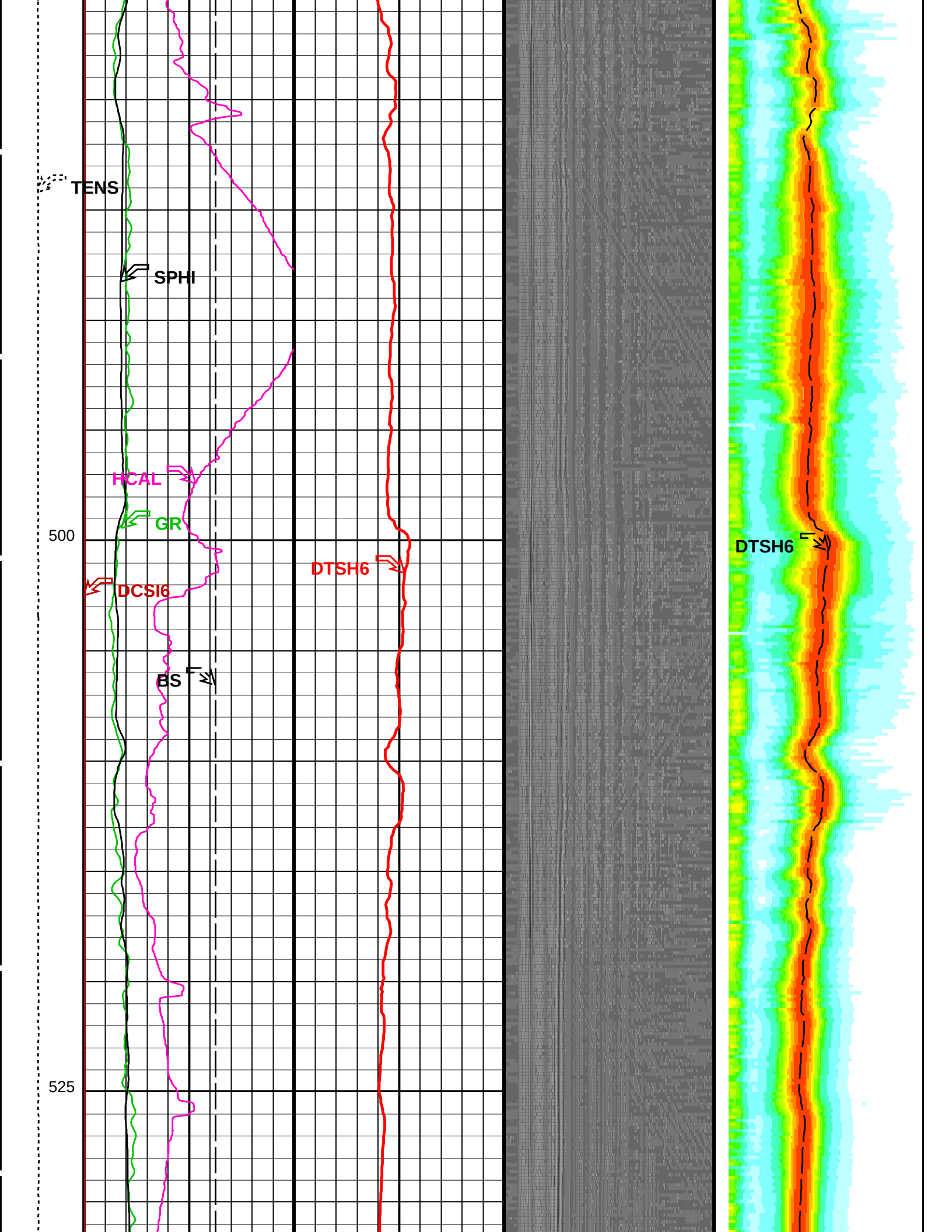
Shear Slowness 6 (DTSH6)
80 (US/F) 540

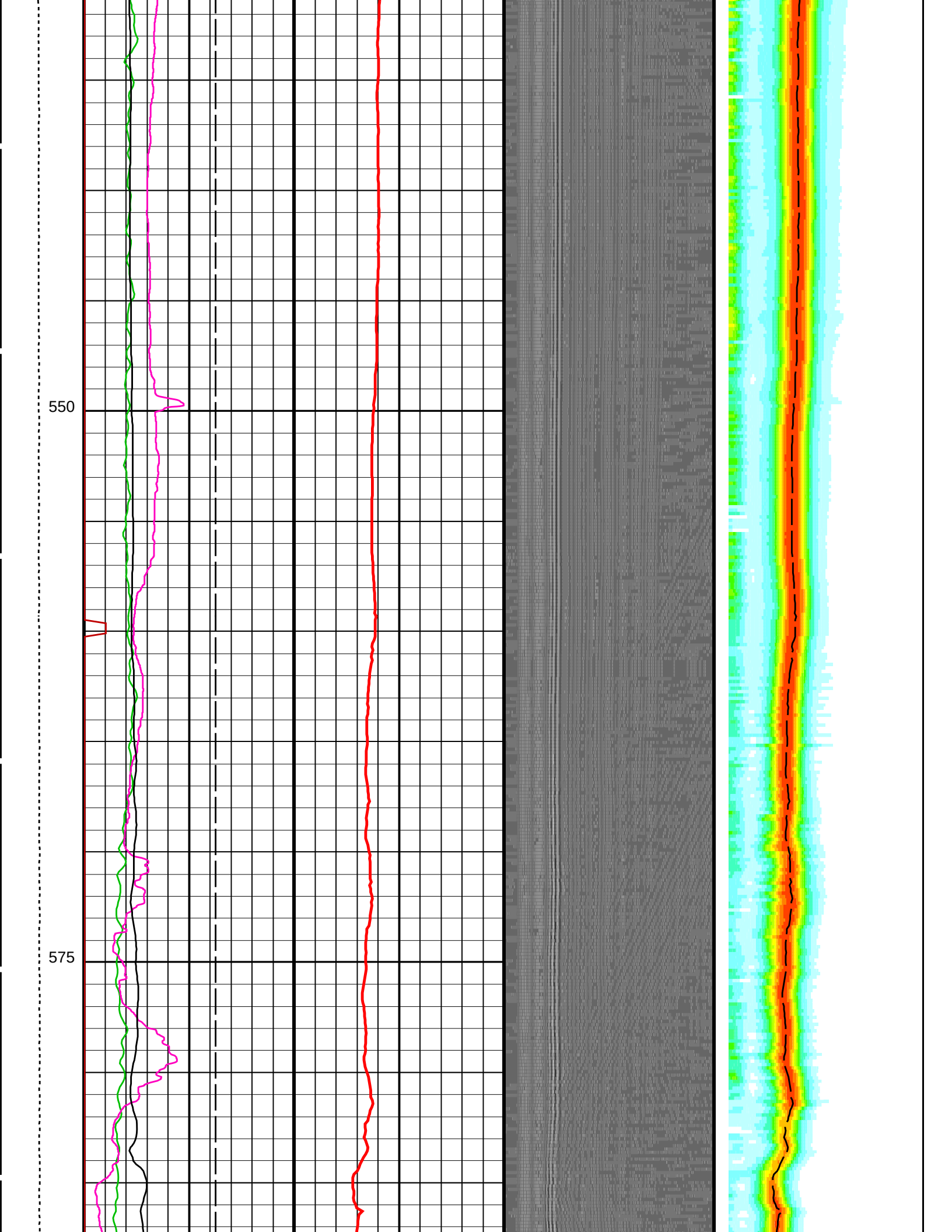


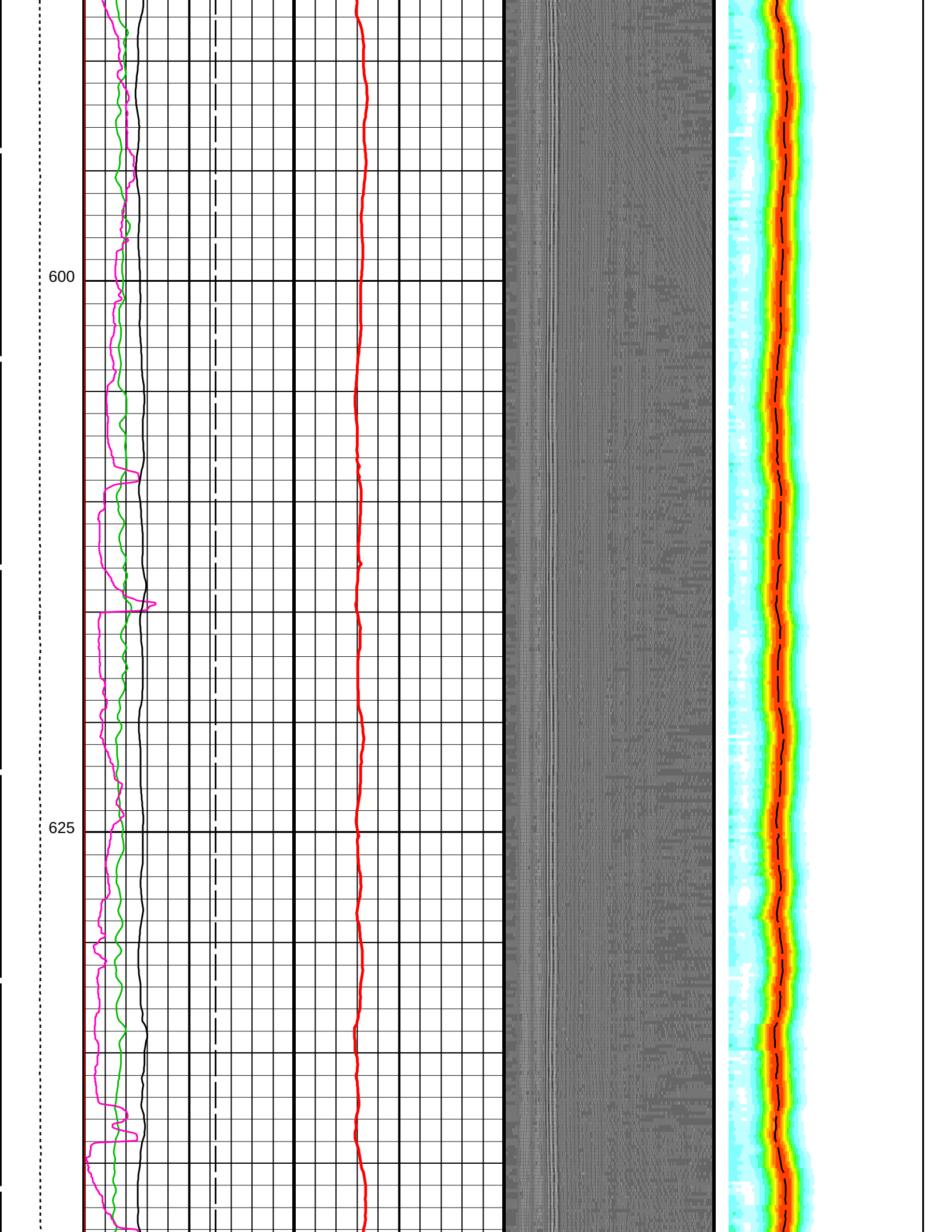

325
350

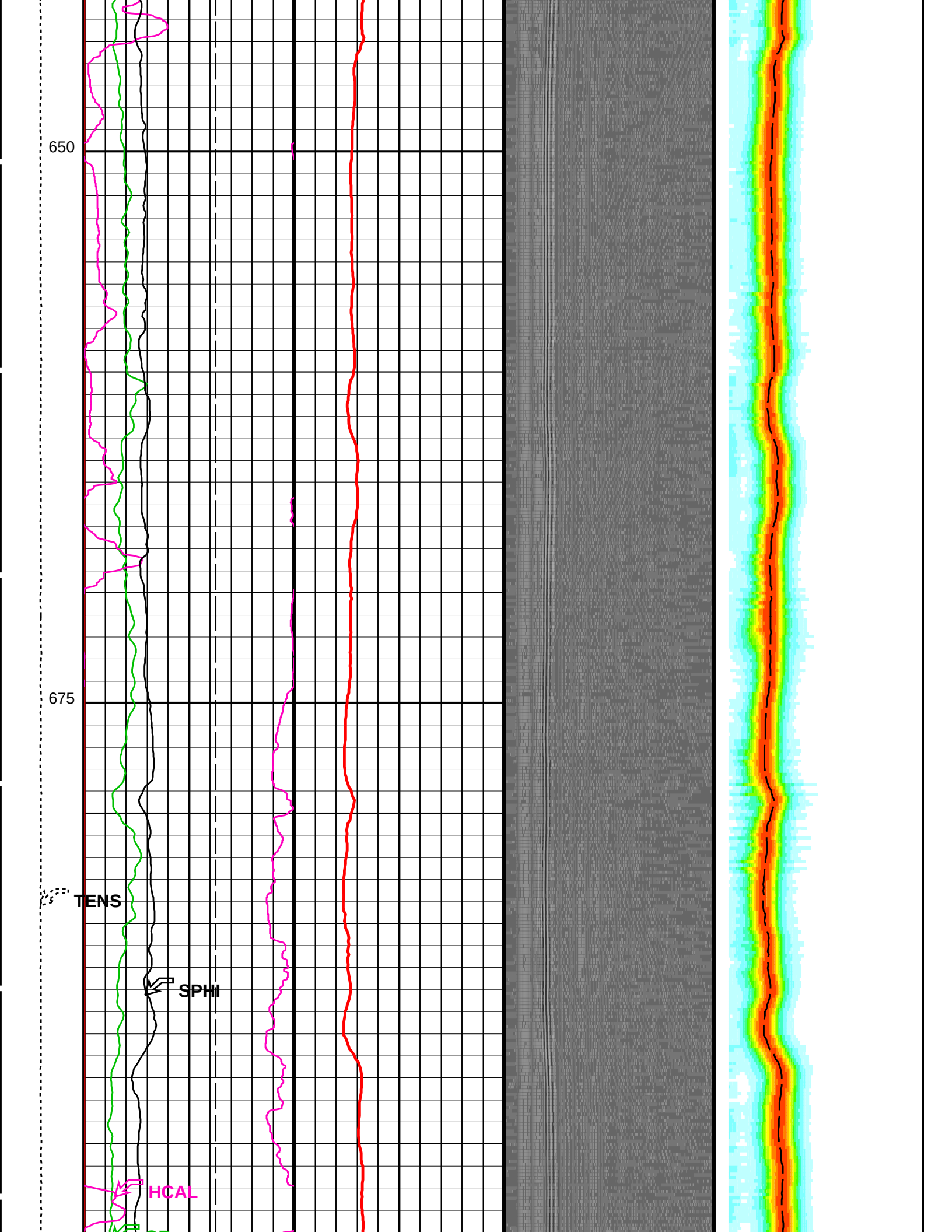

375
400

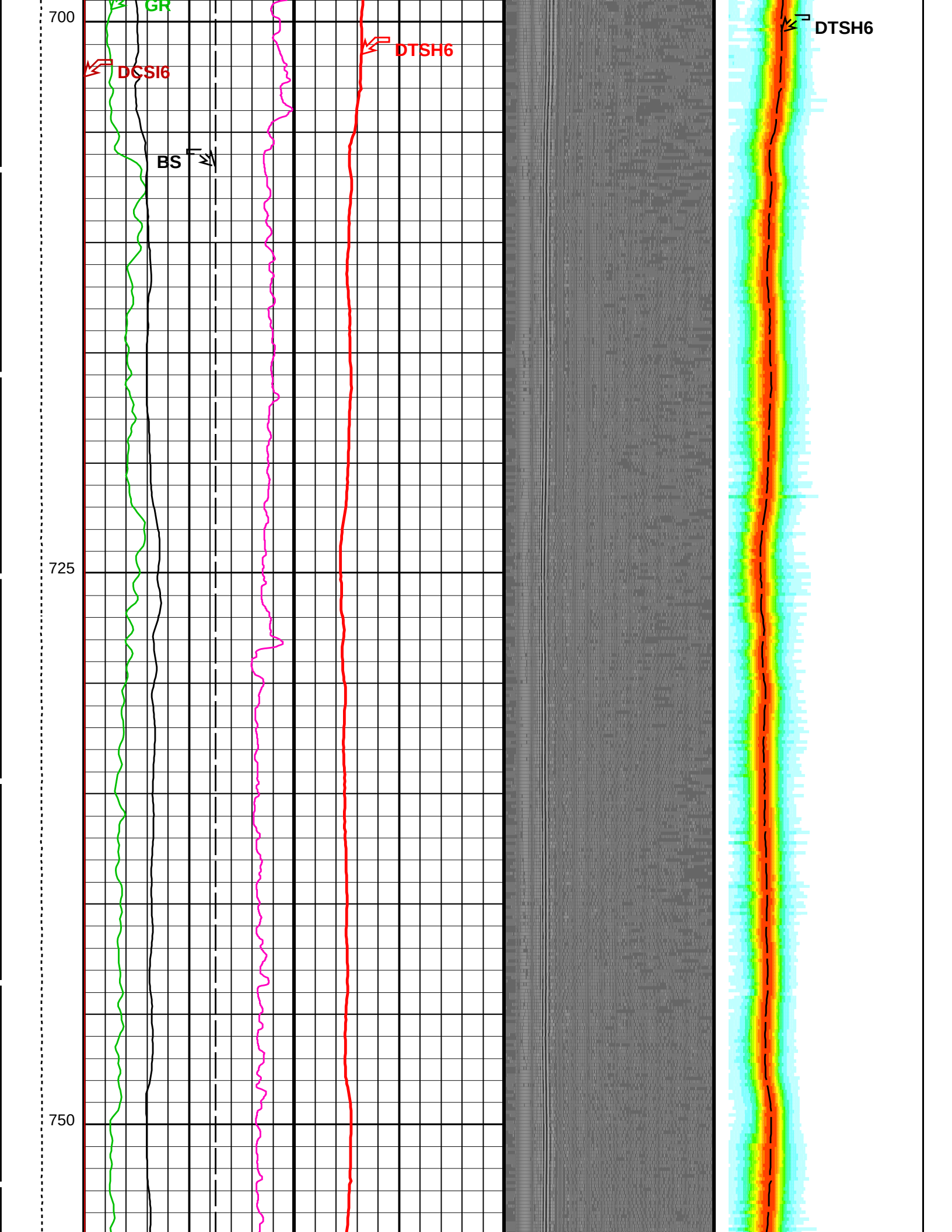

425
450
475

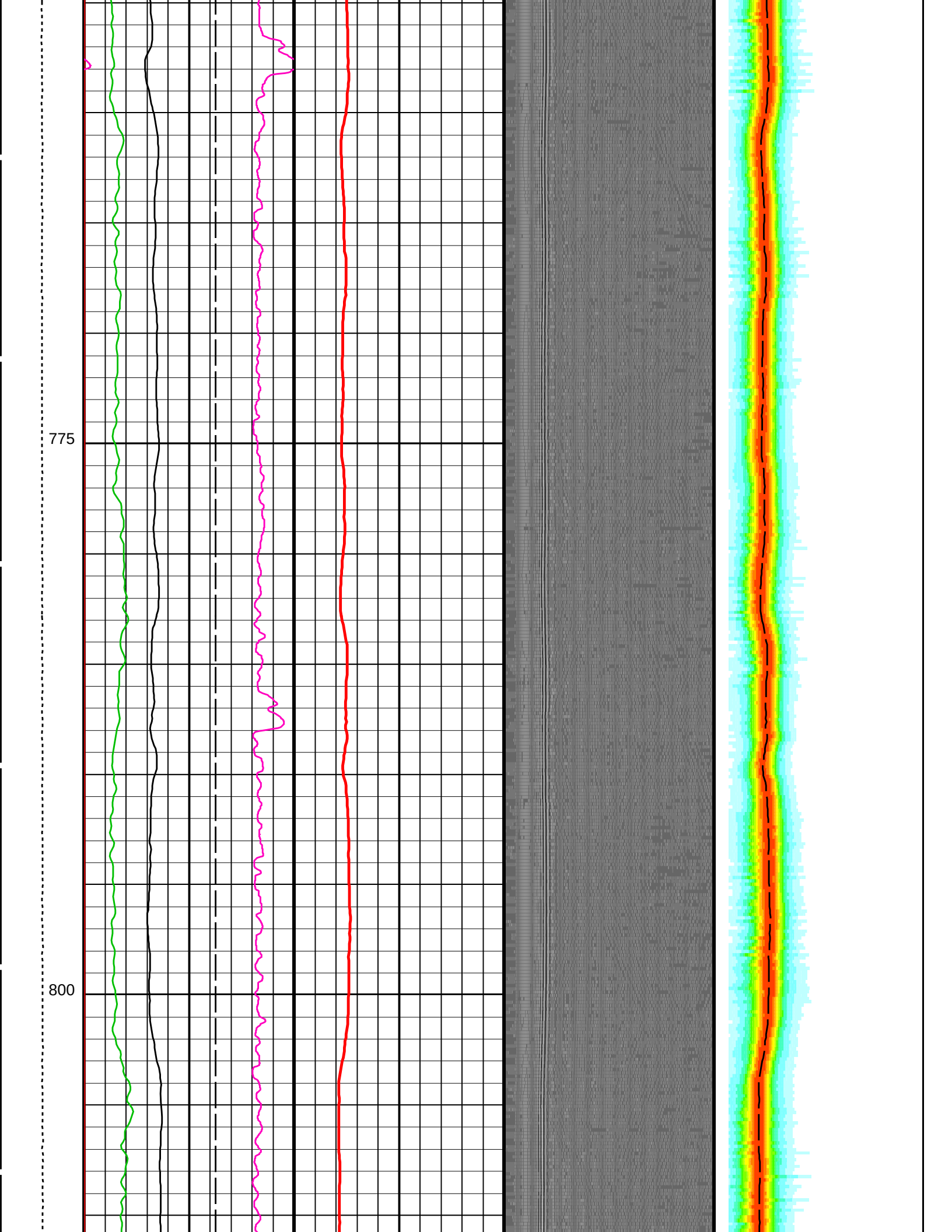

TENS
SPHI
HCAL
GR
DCSI6
BS
DTSH6
DTSH6
500
525

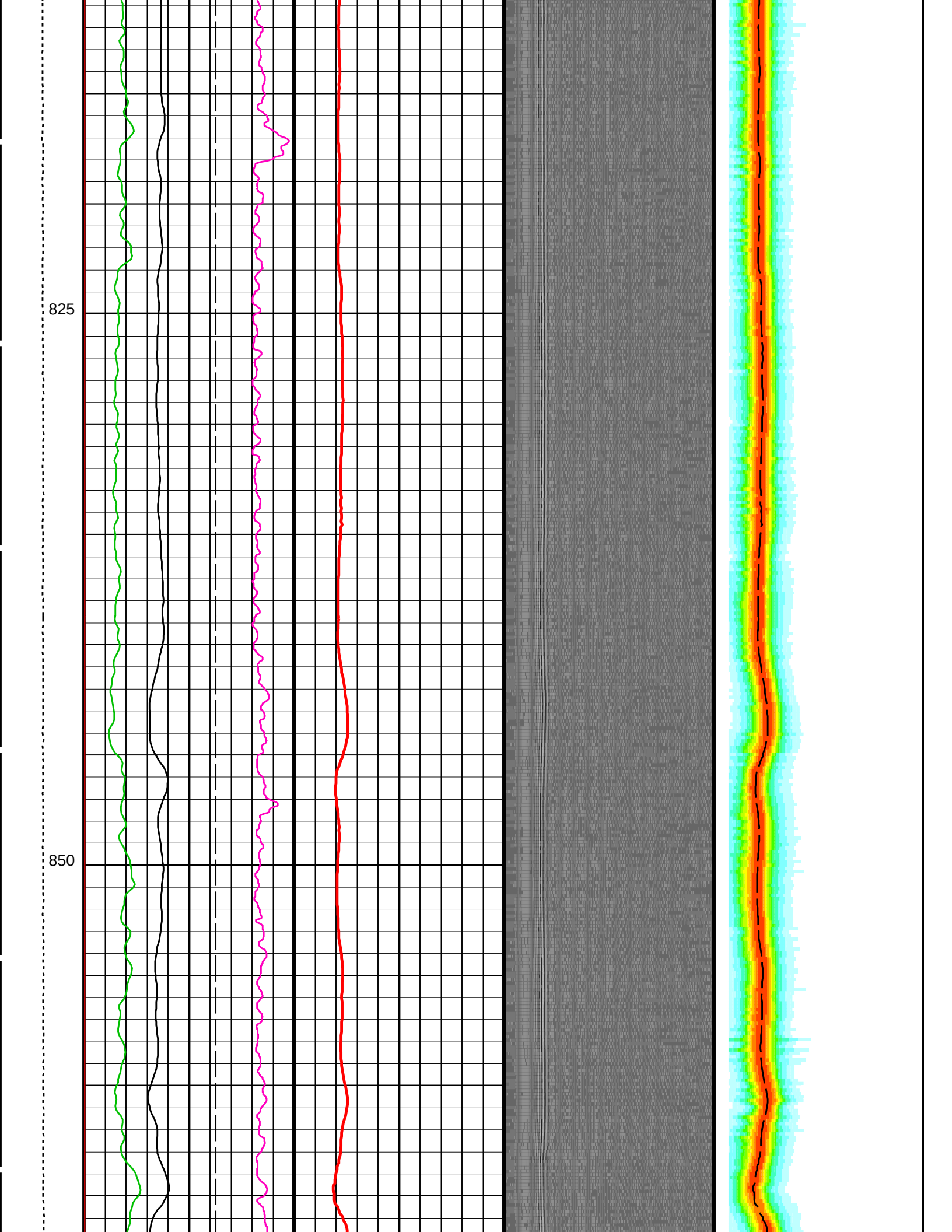

550
575

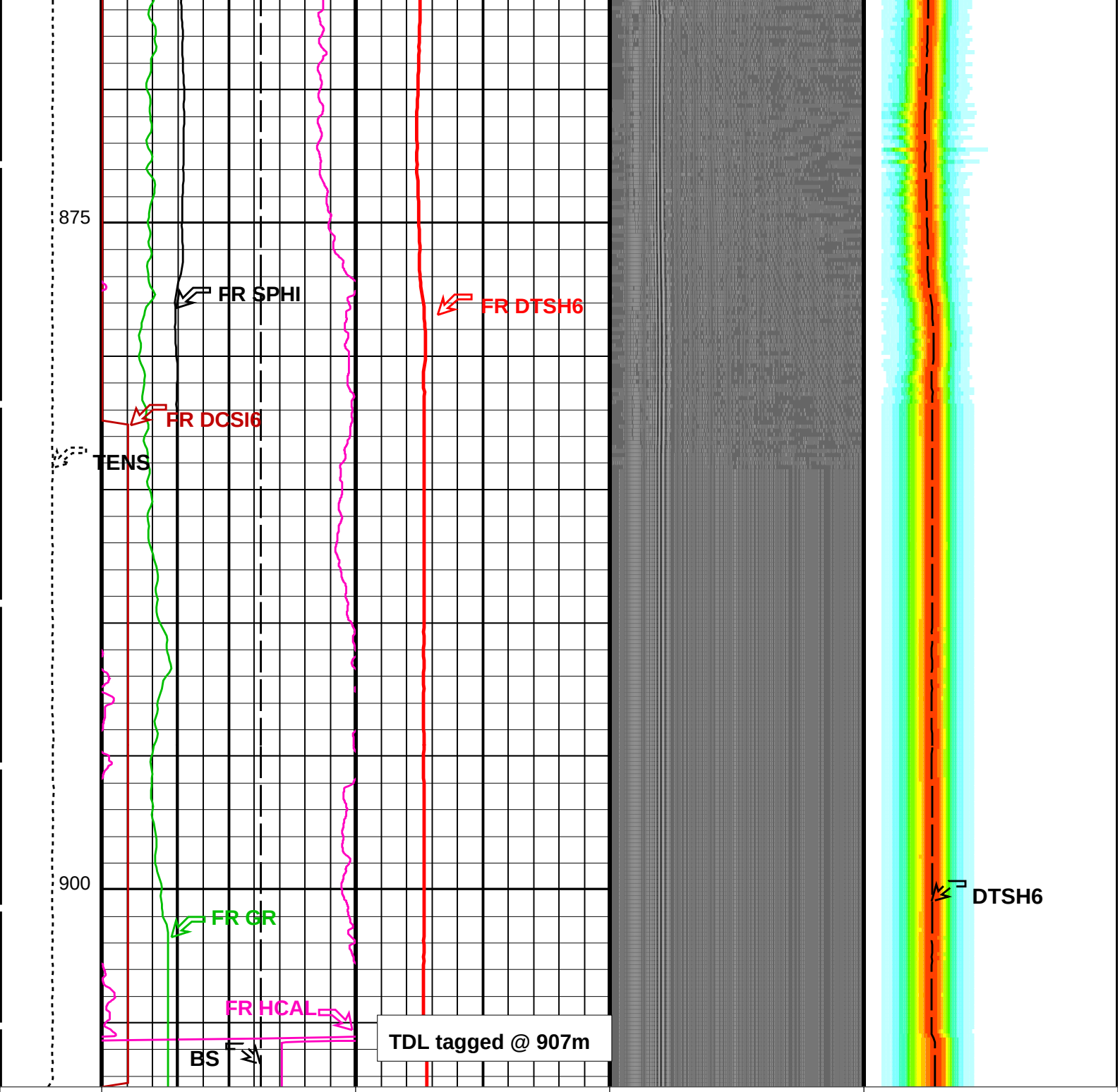

600
625


650
675
TENS
SPHI
HCAL


700
725
750
GR
DCSI6
BS
DTSH6
DTSH6


775
800


825
850



Tension (TENS) (LBF)	Bit Size (BS) (IN)	Shear Slowness 6 (DTSH6) (US/F)	MAST YDIPOLE VDL WF (DWF6_DIIN) (US)	Shear Slowness 6 (DTSH6) (US/F)
0 – 5000	6 – 16	80 – 540	Min – Amplitude – Max; 0 – 30000	80 – 540

Gamma Ray (GR) (GAPI)	HILT Caliper (HCAL) (IN)	Sonic Porosity (SPHI) (V/V)	Data Copy Status Indicator 6 (DCSI6)	Slowness Projection 6 (SPJ6) (US/F)
0 – 200	6 – 14	0.45 – −0.15	0 – 10	Min – Amplitude – Max; 80 – 540

PIP SUMMARY

Time Mark Every 60 S

Parameters

DLIS Name	Description	Value	
	HILTB−FTB: High resolution Integrated Logging Tool−DTS		
BHS	Borehole Status	OPEN	
	HRLT−B: High Resolution Laterolog Array − E		
BHS	Borehole Status	OPEN	
	MAPC−B: Multimode Array Sonic Power Cartridge		
BHS	Borehole Status	OPEN	
BS	Bit Size	12.250	IN
CDTS	C−Delta−T Shale	100	US/F
DLHS	Hole Diameter Source for SOBS Channel	AUTO	
DTF	Delta−T Fluid	204.5	US/F
DTM	Delta−T Matrix	56	US/F
SPFS	Sonic Porosity Formula	RAYMER_HUNT	
SPSO	Sonic Porosity Source	DTCO	
	EDTC−B: Enhanced DTS Cartridge		
BHS	Borehole Status	OPEN	
	HOLEV: Integrated Hole/Cement Volume		
BHS	Borehole Status	OPEN	
	System and Miscellaneous		
DO	Depth Offset for Playback	0.0	M
PP	Playback Processing	OFF	

Format: MAST_DSTC_YD **Vertical Scale: 1:200** **Graphics File Created: 27−Mar−2008 21:32**

OP System Version: 15C0−309

MCM

HILTB−FTB	SRPC−3546−Q1_2008_OP15_b	HRLT−B	SRPC−3546−Q1_2008_OP15_b
PPC1−B	SRPC−3546−Q1_2008_OP15_b	MAXS−B	SKK−3442−MAST_b
MAPC−B	SKK−3442−MAST_b	EDTC−B	SKK−3493−EDTCB_b
BSP−AH−169	SRPC−3546−Q1_2008_OP15_b		

Input DLIS Files

DEFAULT	MERGE_Ap002led	FN:1	PRODUCER	27−Mar−2008 20:15	907.4 M	271.0 M

Output DLIS Files

DEFAULT	TLD_MCFL_CNL_HRLA_007PUP	FN:9	PRODUCER	27−Mar−2008 21:32
CUSTOMER	TLD_MCFL_CNL_HRLA_007PUC	FN:10	CUSTOMER	27−Mar−2008 21:32
CUST_RED	TLD_MCFL_CNL_HRLA_007PUC	FN:11	CUSTOMER	27−Mar−2008 21:32
REDUCED	TLD_MCFL_CNL_HRLA_007PUP	FN:12	PRODUCER	27−Mar−2008 21:32

Schlumberger

Calibrations

MAXIS Field Log

Calibration and Check Summary

Measurement	Nominal	Master	Before	After	Change	Limit	Units
High resolution Integrated Logging Tool−DTS Wellsite Calibration − Stab Measurement Summary							
Before: 13−Mar−2008 13:35							
BS Window Ratio	0.7624	N/A	0.7620	N/A	N/A	N/A	
BS Window Sum	10750	N/A	10540	N/A	N/A	N/A	CPS

BS Window Sum	10750	N/A	10540	N/A	N/A	N/A	CPS
SS Window Ratio	0.4883	N/A	0.4860	N/A	N/A	N/A	
SS Window Sum	10370	N/A	10380	N/A	N/A	N/A	CPS
LS Window Ratio	0.2968	N/A	0.2950	N/A	N/A	N/A	
LS Window Sum	1160	N/A	1159	N/A	N/A	N/A	CPS

High resolution Integrated Logging Tool−DTS Wellsite Calibration − Photo−multiplier High Voltages Calibrations
Before: 13−Mar−2008 13:35

BS PM High Voltage (Command)	1227	N/A	1261	N/A	N/A	N/A	V
SS PM High Voltage (Command)	1921	N/A	1888	N/A	N/A	N/A	V
LS PM High Voltage (Command)	1407	N/A	1415	N/A	N/A	N/A	V

High resolution Integrated Logging Tool−DTS Wellsite Calibration − Crystal Quality Resolutions Calibration
Before: 13−Mar−2008 13:35

BS Crystal Resolution	9.875	N/A	9.844	N/A	N/A	N/A	%
SS Crystal Resolution	10.56	N/A	10.21	N/A	N/A	N/A	%
LS Crystal Resolution	9.503	N/A	9.642	N/A	N/A	N/A	%

High resolution Integrated Logging Tool−DTS Wellsite Calibration − MCFL Calibration
Before: 13−Mar−2008 13:36

Raw B0 Resistivity	3875	N/A	3880	N/A	N/A	N/A	OHMM
Raw B1 Resistivity	3830	N/A	3830	N/A	N/A	N/A	OHMM
Raw B2 Resistivity	3830	N/A	3831	N/A	N/A	N/A	OHMM

High resolution Integrated Logging Tool−DTS Wellsite Calibration − HILT Caliper Calibration
Before: 13−Mar−2008 13:29

HILT Caliper Zero Measurement	8.000	N/A	8.092	N/A	N/A	N/A	IN
HILT Caliper Plus Measurement	12.00	N/A	12.28	N/A	N/A	N/A	IN

High resolution Integrated Logging Tool−DTS Wellsite Calibration − Detector Calibration
Before: 13−Mar−2008 14:02

Gamma Ray Background	30.00	N/A	7.162	N/A	N/A	N/A	GAPI
Gamma Ray (Jig − Bkg)	190.6	N/A	190.6	N/A	N/A	17.32	GAPI
Gamma Ray (Calibrated)	165.0	N/A	165.0	N/A	N/A	15.00	GAPI

High resolution Integrated Logging Tool−DTS Wellsite Calibration − Zero Measurement
Master: 20−Feb−2008 19:21 Before: 13−Mar−2008 13:32

CNTC Background	29.71	29.71	28.32	N/A	N/A	4.457	CPS
CFTC Background	33.75	33.75	29.47	N/A	N/A	5.063	CPS

High resolution Integrated Logging Tool−DTS Wellsite Calibration − Ratio Measurement
Master: 20−Feb−2008 19:21

Thermal Near Corr. (Tank)	5800	5605	N/A	N/A	N/A	N/A	CPS
Thermal Far Corr. (Tank)	2400	2340	N/A	N/A	N/A	N/A	CPS
CNTC/CFTC (Tank)	2.159	2.395	N/A	N/A	N/A	N/A	

High resolution Integrated Logging Tool−DTS Wellsite Calibration − Accelerometer Calibration
Before: 13−Mar−2008 21:57

Z−Axis Acceleration	9.810	N/A	9.798	N/A	N/A	N/A	M/S2

High resolution Integrated Logging Tool−DTS Master Calibration − Inversion results
Master: 20−Feb−2008 21:02

Rho Aluminum	2.596	2.602	−−	−−	−−	−−	G/C3
Rho Magnesium	1.686	1.685	−−	−−	−−	−−	G/C3
Pe Aluminum	2.570	2.571	−−	−−	−−	−−	
Pe Magnesium	2.650	2.634	−−	−−	−−	−−	

High resolution Integrated Logging Tool−DTS Master Calibration − Deviation Summary
Master: 20−Feb−2008 21:02

BS Average Deviation	0	0.5701	−−	−−	−−	−−	%
BS Max Deviation	0	1.350	−−	−−	−−	−−	%
SS Average Deviation	0	0.3068	−−	−−	−−	−−	%
SS Max Deviation	0	0.7734	−−	−−	−−	−−	%
LS Average Deviation	0	0.6760	−−	−−	−−	−−	%
LS Max Deviation	0	1.772	−−	−−	−−	−−	%

High Resolution Laterolog Array − B Wellsite Calibration − HRLT M01
Before: 13−Mar−2008 23:28

HRLT M0−M1 Voltage Plus − 0	0	N/A	−317.4	N/A	N/A	9.681	UV
HRLT M0−M1 Voltage Plus − 1	0	N/A	−349.1	N/A	N/A	9.681	UV
HRLT M0−M1 Voltage Plus − 2	0	N/A	−353.4	N/A	N/A	9.681	UV
HRLT M0−M1 Voltage Plus − 3	0	N/A	−338.9	N/A	N/A	9.681	UV
HRLT M0−M1 Voltage Plus − 4	0	N/A	−323.5	N/A	N/A	9.681	UV
HRLT M0−M1 Voltage Plus − 5	0	N/A	−328.7	N/A	N/A	9.681	UV
HRLT M0−M1 Voltage Plus − 6	0	N/A	305.4	N/A	N/A	9.681	UV
HRLT M0−M1 Voltage Plus − 7	0	N/A	−322.7	N/A	N/A	9.681	UV

High Resolution Laterolog Array − B Wellsite Calibration − HRLT M12
Before: 13−Mar−2008 23:28

HRLT M1−M2 Voltage Plus − 0	0	N/A	1745	N/A	N/A	53.42	UV
HRLT M1−M2 Voltage Plus − 1	0	N/A	1919	N/A	N/A	53.42	UV
HRLT M1−M2 Voltage Plus − 2	0	N/A	1936	N/A	N/A	53.42	UV

HRLT M1−M2 Voltage Plus − 3	0	N/A	1857	N/A	N/A	53.42	UV
HRLT M1−M2 Voltage Plus − 4	0	N/A	1773	N/A	N/A	53.42	UV
HRLT M1−M2 Voltage Plus − 5	0	N/A	1803	N/A	N/A	53.42	UV
HRLT M1−M2 Voltage Plus − 6	0	N/A	−1686	N/A	N/A	53.42	UV
HRLT M1−M2 Voltage Plus − 7	0	N/A	1781	N/A	N/A	53.42	UV

High Resolution Laterolog Array − B Wellsite Calibration − HRLT M23
Before: 13−Mar−2008 23:28

HRLT M2−M3 Voltage Plus − 0	0	N/A	1730	N/A	N/A	53.42	UV
HRLT M2−M3 Voltage Plus − 1	0	N/A	1907	N/A	N/A	53.42	UV
HRLT M2−M3 Voltage Plus − 2	0	N/A	1928	N/A	N/A	53.42	UV
HRLT M2−M3 Voltage Plus − 3	0	N/A	1854	N/A	N/A	53.42	UV
HRLT M2−M3 Voltage Plus − 4	0	N/A	1766	N/A	N/A	53.42	UV
HRLT M2−M3 Voltage Plus − 5	0	N/A	1798	N/A	N/A	53.42	UV
HRLT M2−M3 Voltage Plus − 6	0	N/A	−1665	N/A	N/A	53.42	UV
HRLT M2−M3 Voltage Plus − 7	0	N/A	1781	N/A	N/A	53.42	UV

High Resolution Laterolog Array − B Wellsite Calibration − HRLT V34
Before: 13−Mar−2008 23:28

HRLT A3−A4 Voltage Plus − 0	0	N/A	68400	N/A	N/A	2100	UV
HRLT A3−A4 Voltage Plus − 1	0	N/A	75680	N/A	N/A	2100	UV
HRLT A3−A4 Voltage Plus − 2	0	N/A	76720	N/A	N/A	2100	UV
HRLT A3−A4 Voltage Plus − 3	0	N/A	73940	N/A	N/A	2100	UV
HRLT A3−A4 Voltage Plus − 4	0	N/A	70260	N/A	N/A	2100	UV
HRLT A3−A4 Voltage Plus − 5	0	N/A	71450	N/A	N/A	2100	UV
HRLT A3−A4 Voltage Plus − 6	0	N/A	−65110	N/A	N/A	2100	UV
HRLT A3−A4 Voltage Plus − 7	0	N/A	70000	N/A	N/A	2100	UV

High Resolution Laterolog Array − B Wellsite Calibration − HRLT V45
Before: 13−Mar−2008 23:28

HRLT A4−A5 Voltage Plus − 0	0	N/A	68220	N/A	N/A	2100	UV
HRLT A4−A5 Voltage Plus − 1	0	N/A	75560	N/A	N/A	2100	UV
HRLT A4−A5 Voltage Plus − 2	0	N/A	76590	N/A	N/A	2100	UV
HRLT A4−A5 Voltage Plus − 3	0	N/A	73780	N/A	N/A	2100	UV
HRLT A4−A5 Voltage Plus − 4	0	N/A	70100	N/A	N/A	2100	UV
HRLT A4−A5 Voltage Plus − 5	0	N/A	71260	N/A	N/A	2100	UV
HRLT A4−A5 Voltage Plus − 6	0	N/A	−65000	N/A	N/A	2100	UV
HRLT A4−A5 Voltage Plus − 7	0	N/A	70000	N/A	N/A	2100	UV

High Resolution Laterolog Array − B Wellsite Calibration − HRLT V56
Before: 13−Mar−2008 23:28

HRLT A5−A6 Voltage Plus − 0	0	N/A	68360	N/A	N/A	2100	UV
HRLT A5−A6 Voltage Plus − 1	0	N/A	75840	N/A	N/A	2100	UV
HRLT A5−A6 Voltage Plus − 2	0	N/A	76840	N/A	N/A	2100	UV
HRLT A5−A6 Voltage Plus − 3	0	N/A	74000	N/A	N/A	2100	UV
HRLT A5−A6 Voltage Plus − 4	0	N/A	70230	N/A	N/A	2100	UV
HRLT A5−A6 Voltage Plus − 5	0	N/A	71390	N/A	N/A	2100	UV
HRLT A5−A6 Voltage Plus − 6	0	N/A	−65280	N/A	N/A	2100	UV
HRLT A5−A6 Voltage Plus − 7	0	N/A	70000	N/A	N/A	2100	UV

High Resolution Laterolog Array − B Wellsite Calibration − HRLT VTP
Before: 13−Mar−2008 23:28

HRLT Torpedo−M0 Voltage − 0	0	N/A	−67940	N/A	N/A	2100	UV
HRLT Torpedo−M0 Voltage − 1	0	N/A	−75570	N/A	N/A	2100	UV
HRLT Torpedo−M0 Voltage − 2	0	N/A	−76660	N/A	N/A	2100	UV
HRLT Torpedo−M0 Voltage − 3	0	N/A	−73920	N/A	N/A	2100	UV
HRLT Torpedo−M0 Voltage − 4	0	N/A	−70250	N/A	N/A	2100	UV
HRLT Torpedo−M0 Voltage − 5	0	N/A	−71420	N/A	N/A	2100	UV
HRLT Torpedo−M0 Voltage − 6	0	N/A	64990	N/A	N/A	2100	UV
HRLT Torpedo−M0 Voltage − 7	0	N/A	−70000	N/A	N/A	2100	UV

High Resolution Laterolog Array − B Wellsite Calibration − HRLT VBD
Before: 13−Mar−2008 23:28

HRLT Bridle#9−M0 Voltage − 0	0	N/A	−67880	N/A	N/A	2100	UV
HRLT Bridle#9−M0 Voltage − 1	0	N/A	−75350	N/A	N/A	2100	UV
HRLT Bridle#9−M0 Voltage − 2	0	N/A	−76430	N/A	N/A	2100	UV
HRLT Bridle#9−M0 Voltage − 3	0	N/A	−73740	N/A	N/A	2100	UV
HRLT Bridle#9−M0 Voltage − 4	0	N/A	−70140	N/A	N/A	2100	UV
HRLT Bridle#9−M0 Voltage − 5	0	N/A	−71340	N/A	N/A	2100	UV
HRLT Bridle#9−M0 Voltage − 6	0	N/A	64780	N/A	N/A	2100	UV
HRLT Bridle#9−M0 Voltage − 7	0	N/A	−70000	N/A	N/A	2100	UV

High Resolution Laterolog Array − B Wellsite Calibration − HRLT ISO
Before: 13−Mar−2008 23:28

HRLT Source Current Plus − 0	0	N/A	283.1	N/A	N/A	8.520	UA
HRLT Source Current Plus − 1	0	N/A	281.1	N/A	N/A	8.520	UA
HRLT Source Current Plus − 2	0	N/A	281.1	N/A	N/A	8.520	UA
HRLT Source Current Plus − 3	0	N/A	281.1	N/A	N/A	8.520	UA
HRLT Source Current Plus − 4	0	N/A	281.1	N/A	N/A	8.520	UA
HRLT Source Current Plus − 5	0	N/A	281.1	N/A	N/A	8.520	UA
HRLT Source Current Plus − 6	0	N/A	281.1	N/A	N/A	8.520	UA

HRLT Source Current Plus − 7	0	N/A	281.1	N/A	N/A	8.520	UA

High Resolution Laterolog Array − B Wellsite Calibration − HRLT MV
Before: 13−Mar−2008 23:28

HRLT Vertical Voltage Pl − 0	0	N/A	−319.4	N/A	N/A	9.681	UV
HRLT Vertical Voltage Pl − 1	0	N/A	−344.3	N/A	N/A	9.681	UV
HRLT Vertical Voltage Pl − 2	0	N/A	−346.9	N/A	N/A	9.681	UV
HRLT Vertical Voltage Pl − 3	0	N/A	−330.9	N/A	N/A	9.681	UV
HRLT Vertical Voltage Pl − 4	0	N/A	−312.5	N/A	N/A	9.681	UV
HRLT Vertical Voltage Pl − 5	0	N/A	−332.7	N/A	N/A	9.681	UV
HRLT Vertical Voltage Pl − 6	0	N/A	313.8	N/A	N/A	9.681	UV
HRLT Vertical Voltage Pl − 7	0	N/A	−322.7	N/A	N/A	9.681	UV

Enhanced DTS Cartridge Wellsite Calibration − EDTC Accelerometer Calibration
Before: 13−Mar−2008 21:57

EDTC Z−Axis Acceleration	9.810	N/A	9.803	N/A	N/A	N/A	M/S2

Enhanced DTS Cartridge Wellsite Calibration − Detector Calibration
Before: 13−Mar−2008 13:29

Gamma Ray (Jig − Bkg)	169.8	N/A	169.8	N/A	N/A	15.43	GAPI
Gamma Ray (Calibrated)	165.0	N/A	165.0	N/A	N/A	15.00	GAPI

The GLS−VJ source activity is acceptable.

The HGNS Neutron Master Calibration was done with the following parameters :

NCT−B Water Temperature 20.0 DEGC.
Thermal Housing Size 3.376 IN.
NSR−F serial number 5224

High resolution Integrated Logging Tool−DTS / Equipment Identification

Primary Equipment:		
HILT high−Resolution Mechanical Sonde	HRMS − B	788
HILT Rxo Gamma−ray Device	HRGD − B	1806
HILT Micro Cylindrically Focused Log Dev	MCFL −	
GR Logging Source	GLS − VJ	5334
HILT High Res. Control Cartridge	HRCC − B	868
HILT Gamma−Ray Neutron Sonde−DTS	HGNS − B	856
HGNS Gamma−Ray Device	HGR −	
HGNS Neutron Detector with Alpha Source	HCNT −	
Auxiliary Equipment:		
Neutron Calibration Tank	NCT − B	
Gamma Source Radioactive	GSR − Y	6750
HGNS Housing	HGNH −	3915

High resolution Integrated Logging Tool−DTS Wellsite Calibration
Stab Measurement Summary

Phase	BS Window Ratio	Value	Phase	SS Window Ratio	Value	Phase	LS Window Ratio	Value
Before		0.7620	Before		0.4860	Before		0.2950
0.7243 (Minimum)	0.7624 (Nominal)	0.8005 (Maximum)	0.4639 (Minimum)	0.4883 (Nominal)	0.5127 (Maximum)	0.2820 (Minimum)	0.2968 (Nominal)	0.3117 (Maximum)
Phase	BS Window Sum CPS	Value	Phase	SS Window Sum CPS	Value	Phase	LS Window Sum CPS	Value
Before		10540	Before		10380	Before		1159
10210 (Minimum)	10750 (Nominal)	11290 (Maximum)	9854 (Minimum)	10370 (Nominal)	10890 (Maximum)	1102 (Minimum)	1160 (Nominal)	1218 (Maximum)

Before: 13−Mar−2008 13:35

High resolution Integrated Logging Tool−DTS Wellsite Calibration
Photo−multiplier High Voltages Calibrations

Phase	BS PM High Voltage (Command) V	Value	Phase	SS PM High Voltage (Command) V	Value	Phase	LS PM High Voltage (Command) V	Value
Before		1261	Before		1888	Before		1415
1127 (Minimum)	1227 (Nominal)	1327 (Maximum)	1821 (Minimum)	1921 (Nominal)	2021 (Maximum)	1307 (Minimum)	1407 (Nominal)	1507 (Maximum)

Before: 13−Mar−2008 13:35

High resolution Integrated Logging Tool−DTS Wellsite Calibration

High resolution Integrated Logging Tool−DTS Wellsite Calibration

Crystal Quality Resolutions Calibration

Phase	BS Crystal Resolution %	Value	Phase	SS Crystal Resolution %	Value	Phase	LS Crystal Resolution %	Value
Before		9.844	Before		10.21	Before		9.642
8.875 (Minimum)	9.875 (Nominal)	10.87 (Maximum)	9.556 (Minimum)	10.56 (Nominal)	11.56 (Maximum)	8.503 (Minimum)	9.503 (Nominal)	10.50 (Maximum)

Before: 13−Mar−2008 13:35

High resolution Integrated Logging Tool−DTS Wellsite Calibration

MCFL Calibration

Phase	Raw B0 Resistivity OHMM	Value	Phase	Raw B1 Resistivity OHMM	Value	Phase	Raw B2 Resistivity OHMM	Value
Before		3880	Before		3830	Before		3831
3565 (Minimum)	3875 (Nominal)	4185 (Maximum)	3524 (Minimum)	3830 (Nominal)	4136 (Maximum)	3524 (Minimum)	3830 (Nominal)	4136 (Maximum)

Before: 13−Mar−2008 13:36

High resolution Integrated Logging Tool−DTS Wellsite Calibration

HILT Caliper Calibration

Phase	HILT Caliper Zero Measurement IN	Value	Phase	HILT Caliper Plus Measurement IN	Value
Before		8.092	Before		12.28
6.000 (Minimum)	8.000 (Nominal)	10.00 (Maximum)	9.000 (Minimum)	12.00 (Nominal)	15.00 (Maximum)

Before: 13−Mar−2008 13:29

High resolution Integrated Logging Tool−DTS Wellsite Calibration

Detector Calibration

Phase	Gamma Ray Background GAPI	Value	Phase	Gamma Ray (Jig − Bkg) GAPI	Value	Phase	Gamma Ray (Calibrated) GAPI	Value
Before		7.162	Before		190.6	Before		165.0
0 (Minimum)	30.00 (Nominal)	120.0 (Maximum)	173.2 (Minimum)	190.6 (Nominal)	207.9 (Maximum)	150.0 (Minimum)	165.0 (Nominal)	180.0 (Maximum)

Before: 13−Mar−2008 14:02

High resolution Integrated Logging Tool−DTS Wellsite Calibration

Zero Measurement

Phase	CNTC Background CPS	Value	Phase	CFTC Background CPS	Value
Master		29.71	Master		33.75
Before		28.32	Before		29.47
5.000 (Minimum)	29.71 (Nominal)	40.00 (Maximum)	5.000 (Minimum)	33.75 (Nominal)	40.00 (Maximum)

Master: 20−Feb−2008 19:21 Before: 13−Mar−2008 13:32

High resolution Integrated Logging Tool−DTS Wellsite Calibration

Ratio Measurement

Phase	Thermal Near Corr. (Tank) CPS	Value	Phase	Thermal Far Corr. (Tank) CPS	Value	Phase	CNTC/CFTC (Tank)	Value
Master		5605	Master		2340	Master		2.395
4700 (Minimum)	5800 (Nominal)	6900 (Maximum)	1900 (Minimum)	2400 (Nominal)	2900 (Maximum)	2.120 (Minimum)	2.159 (Nominal)	2.540 (Maximum)

Master: 20−Feb−2008 19:21

High resolution Integrated Logging Tool−DTS Wellsite Calibration

Accelerometer Calibration

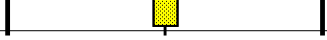
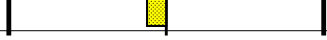
Phase	Z−Axis Acceleration M/S2	Value
Before		9.798
9.610 (Minimum)	9.810 (Nominal)	10.01 (Maximum)

Before: 13−Mar−2008 21:57

High resolution Integrated Logging Tool−DTS Master Calibration

Inversion results

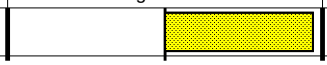
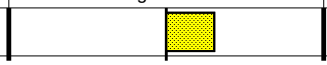
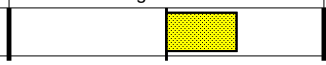
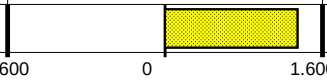
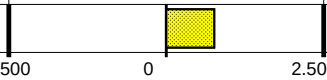
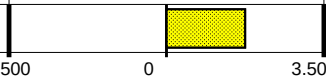
Phase	Rho Aluminum G/C3	Value	Phase	Rho Magnesium G/C3	Value
Master		2.602	Master		1.685
2.586 (Minimum)	2.596 (Nominal)	2.606 (Maximum)	1.676 (Minimum)	1.686 (Nominal)	1.696 (Maximum)
Phase	Pe Aluminum	Value	Phase	Pe Magnesium	Value

Phase		Value	Phase		Value
Master		2.571	Master		2.634
	2.470 (Minimum) 2.570 (Nominal) 2.670 (Maximum)			2.550 (Minimum) 2.650 (Nominal) 2.750 (Maximum)	

Master: 20−Feb−2008 21:02

High resolution Integrated Logging Tool−DTS Master Calibration

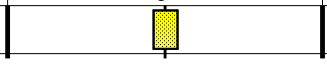
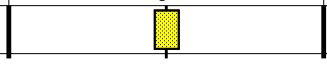
Deviation Summary

Phase	BS Average Deviation %	Value	Phase	SS Average Deviation %	Value	Phase	LS Average Deviation %	Value
Master		0.5701	Master		0.3068	Master		0.6760
	−0.6000 (Minimum) 0 (Nominal) 0.6000 (Maximum)			−1.000 (Minimum) 0 (Nominal) 1.000 (Maximum)			−1.500 (Minimum) 0 (Nominal) 1.500 (Maximum)	
Phase	BS Max Deviation %	Value	Phase	SS Max Deviation %	Value	Phase	LS Max Deviation %	Value
Master		1.350	Master		0.7734	Master		1.772
	−1.600 (Minimum) 0 (Nominal) 1.600 (Maximum)			−2.500 (Minimum) 0 (Nominal) 2.500 (Maximum)			−3.500 (Minimum) 0 (Nominal) 3.500 (Maximum)	

Master: 20−Feb−2008 21:02

High resolution Integrated Logging Tool−DTS Master Calibration

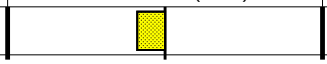
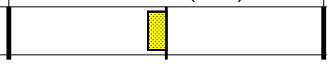
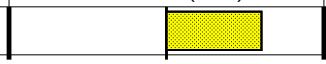
Zero Measurement

Phase	CNTC Background CPS	Value	Phase	CFTC Background CPS	Value
Master		29.71	Master		33.75
	5.000 (Minimum) 29.71 (Nominal) 40.00 (Maximum)			5.000 (Minimum) 33.75 (Nominal) 40.00 (Maximum)	

Master: 20−Feb−2008 19:21

High resolution Integrated Logging Tool−DTS Master Calibration

Tank Measurement

Phase	Thermal Near Corr. (Tank) CPS	Value	Phase	Thermal Far Corr. (Tank) CPS	Value	Phase	CNTC/CFTC (Tank)	Value
Master		5605	Master		2340	Master		2.395
	4700 (Minimum) 5800 (Nominal) 6900 (Maximum)			1900 (Minimum) 2400 (Nominal) 2900 (Maximum)			2.120 (Minimum) 2.159 (Nominal) 2.540 (Maximum)	

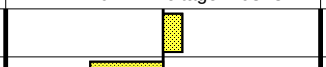
Master: 20−Feb−2008 19:21

High Resolution Laterolog Array − B / Equipment Identification

Primary Equipment:		
HRLT Sonde	HRLS − B	1745
Auxiliary Equipment:		
HRLT lower Housing	HRLH − B	1745
HRLT Lower Cartridge	HRLC − B	1745
HRLT upper Housing	HRUH − B	1741
HRLT Upper Cartridge	HRUC − B	1730

High Resolution Laterolog Array − B Wellsite Calibration

HRLT M01

Idx	Phase	HRLT M0−M1 Voltage Plus UV	Value	Nominal	Maximum	Minimum
0	Before		−317.4	−322.7	−280.7	−379.7
1	Before		−349.1	−322.7	−280.7	−379.7
2	Before		−353.4	−322.7	−280.7	−379.7
3	Before		−338.9	−322.7	−280.7	−379.7
4	Before		−323.5	−322.7	−280.7	−379.7
5	Before		−328.7	−322.7	−280.7	−379.7
6	Before		305.4	322.7	379.7	280.7
7	Before		−322.7	−322.7	−280.7	−379.7
		(Minimum) (Nominal) (Maximum)				

Before: 13−Mar−2008 23:28

High Resolution Laterolog Array − B Wellsite Calibration

HRLT M12

Idx	Phase	HRLT M1−M2 Voltage Plus UV	Value	Nominal	Maximum	Minimum

0	Before		1745	1781	2095	1549
1	Before		1919	1781	2095	1549
2	Before		1936	1781	2095	1549
3	Before		1857	1781	2095	1549
4	Before		1773	1781	2095	1549
5	Before		1803	1781	2095	1549
6	Before		−1686	−1781	−1549	−2095
7	Before		1781	1781	2095	1549
		(Minimum) (Nominal) (Maximum)				

Before: 13−Mar−2008 23:28

High Resolution Laterolog Array − B Wellsite Calibration

HRLT M23

Idx	Phase	HRLT M2−M3 Voltage Plus UV	Value	Nominal	Maximum	Minimum
0	Before		1730	1781	2095	1549
1	Before		1907	1781	2095	1549
2	Before		1928	1781	2095	1549
3	Before		1854	1781	2095	1549
4	Before		1766	1781	2095	1549
5	Before		1798	1781	2095	1549
6	Before		−1665	−1781	−1549	−2095
7	Before		1781	1781	2095	1549
		(Minimum) (Nominal) (Maximum)				

Before: 13−Mar−2008 23:28

High Resolution Laterolog Array − B Wellsite Calibration

HRLT V34

Idx	Phase	HRLT A3−A4 Voltage Plus UV	Value	Nominal	Maximum	Minimum
0	Before		68400	70000	82360	60900
1	Before		75680	70000	82360	60900
2	Before		76720	70000	82360	60900
3	Before		73940	70000	82360	60900
4	Before		70260	70000	82360	60900
5	Before		71450	70000	82360	60900
6	Before		−65110	−70000	−60900	−82360
7	Before		70000	70000	82360	60900
		(Minimum) (Nominal) (Maximum)				

Before: 13−Mar−2008 23:28

High Resolution Laterolog Array − B Wellsite Calibration

HRLT V45

Idx	Phase	HRLT A4−A5 Voltage Plus UV	Value	Nominal	Maximum	Minimum
0	Before		68220	70000	82360	60900
1	Before		75560	70000	82360	60900
2	Before		76590	70000	82360	60900
3	Before		73780	70000	82360	60900
4	Before		70100	70000	82360	60900
5	Before		71260	70000	82360	60900
6	Before		−65000	−70000	−60900	−82360

7	Before		70000	70000	82360	60900
		(Minimum) (Nominal) (Maximum)				

Before: 13−Mar−2008 23:28

High Resolution Laterolog Array − B Wellsite Calibration

HRLT V56

Idx	Phase	HRLT A5−A6 Voltage Plus UV	Value	Nominal	Maximum	Minimum
0	Before		68360	70000	82360	60900
1	Before		75840	70000	82360	60900
2	Before		76840	70000	82360	60900
3	Before		74000	70000	82360	60900
4	Before		70230	70000	82360	60900
5	Before		71390	70000	82360	60900
6	Before		−65280	−70000	−60900	−82360
7	Before		70000	70000	82360	60900
		(Minimum) (Nominal) (Maximum)				

Before: 13−Mar−2008 23:28

High Resolution Laterolog Array − B Wellsite Calibration

HRLT VTP

Idx	Phase	HRLT Torpedo−M0 Voltage Plus UV	Value	Nominal	Maximum	Minimum
0	Before		−67940	−70000	−60900	−82360
1	Before		−75570	−70000	−60900	−82360
2	Before		−76660	−70000	−60900	−82360
3	Before		−73920	−70000	−60900	−82360
4	Before		−70250	−70000	−60900	−82360
5	Before		−71420	−70000	−60900	−82360
6	Before		64990	70000	82360	60900
7	Before		−70000	−70000	−60900	−82360
		(Minimum) (Nominal) (Maximum)				

Before: 13−Mar−2008 23:28

High Resolution Laterolog Array − B Wellsite Calibration

HRLT VBD

Idx	Phase	HRLT Bridle#9−M0 Voltage Plus UV	Value	Nominal	Maximum	Minimum
0	Before		−67880	−70000	−60900	−82360
1	Before		−75350	−70000	−60900	−82360
2	Before		−76430	−70000	−60900	−82360
3	Before		−73740	−70000	−60900	−82360
4	Before		−70140	−70000	−60900	−82360
5	Before		−71340	−70000	−60900	−82360
6	Before		64780	70000	82360	60900
7	Before		−70000	−70000	−60900	−82360
		(Minimum) (Nominal) (Maximum)				

Before: 13−Mar−2008 23:28

High Resolution Laterolog Array − B Wellsite Calibration

HRLT ISO

Idx	Phase	HRLT Source Current Plus UA	Value	Nominal	Maximum	Minimum
0	Before		283.1	284.0	334.1	247.0

1	Before		281.1	281.1	330.7	244.4
2	Before		281.1	281.1	330.7	244.4
3	Before		281.1	281.1	330.7	244.4
4	Before		281.1	281.1	330.7	244.4
5	Before		281.1	281.1	330.7	244.4
6	Before		281.1	281.1	330.7	244.4
7	Before		281.1	281.1	330.7	244.4
		(Minimum) (Nominal) (Maximum)				

Before: 13−Mar−2008 23:28

High Resolution Laterolog Array − B Wellsite Calibration

HRLT MV

Idx	Phase	HRLT Vertical Voltage Plus UV	Value	Nominal	Maximum	Minimum
0	Before		−319.4	−322.7	−280.7	−379.7
1	Before		−344.3	−322.7	−280.7	−379.7
2	Before		−346.9	−322.7	−280.7	−379.7
3	Before		−330.9	−322.7	−280.7	−379.7
4	Before		−312.5	−322.7	−280.7	−379.7
5	Before		−332.7	−322.7	−280.7	−379.7
6	Before		313.8	322.7	379.7	280.7
7	Before		−322.7	−322.7	−280.7	−379.7
		(Minimum) (Nominal) (Maximum)				

Before: 13−Mar−2008 23:28

Multimode Array Sonic Power Cartridge / Equipment Identification

Primary Equipment:		
Multimode Array Sonic Minimum Service So	MAMS − BA	8201
Multimode Array Sonic Control Cartridge	MAPC − BA	8198
Auxiliary Equipment:		
Electronics Cartridge Housing	ECH − SD	8198

Enhanced DTS Cartridge / Equipment Identification

Primary Equipment:		
EDTC Gamma Ray Detector	EDTG − B	77305
Enhanced DTS Cartridge	EDTC − B	
Auxiliary Equipment:		
EDTC Housing	EDTH − B	8378

Enhanced DTS Cartridge Wellsite Calibration

EDTC Accelerometer Calibration

Phase	EDTC Z−Axis Acceleration M/S2	Value
Before		9.803
	9.610 (Minimum) 9.810 (Nominal) 10.01 (Maximum)	

Before: 13−Mar−2008 21:57

Enhanced DTS Cartridge Wellsite Calibration

Detector Calibration

Phase	Gamma Ray Background GAPI	Value	Phase	Gamma Ray (Jig − Bkg) GAPI	Value	Phase	Gamma Ray (Calibrated) GAPI	Value
Before		17.32	Before		169.8	Before		165.0
	0 (Minimum) 30.00 (Nominal) 120.0 (Maximum)			154.3 (Minimum) 169.8 (Nominal) 185.2 (Maximum)			150.0 (Minimum) 165.0 (Nominal) 180.0 (Maximum)	

Before: 13−Mar−2008 13:29

Company:	**Apache Northwest Pty Ltd**
Well:	**Coelacanth−1**
Field:	**Apache/VIC/P−45**
Rig:	**West Triton**
Country:	**Australia**

Schlumberger

PEX−GR−HRLA−MSIP−S
Compressional and Shear Slowness (OH)
Suite−1 Run−1 Scale 1:200

Schlumberger

Company: **Apache Northwest Pty Ltd**

Well: **Coelacanth−1**
Field: **Apache/VIC/P−45**
Rig: **West Triton** Country: **Australia**

PEX−GR−HRLA−MSIP−S
Density−Neutron−GR−Resistivity−S
Suite−1 Run−1 Scale 1:200

Rig: West Triton
Field: Apache/VIC/P−45
Location: Bass Strait
Well: Coelacanth−1
Company: Apache Northwest Pty Ltd

LOCATION

Bass Strait
Northing : 5,714,176.613 m
Easting : 613,192.770 m

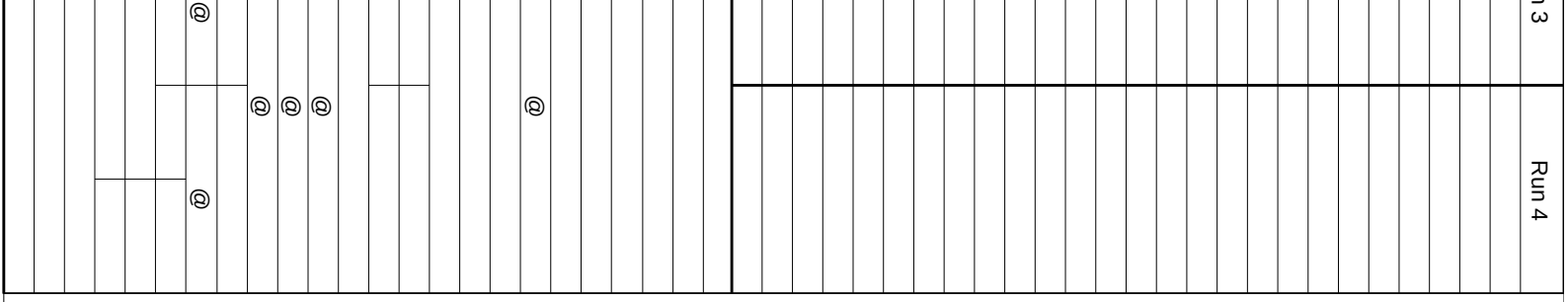
Elev.:
G.L. −90.00 m
D.F. 38.00 m

Permanent Datum: AHD — Elev.: 0.00 m
Log Measured From: DRILL FLOOR — 38.00 m above Perm. Datum
Drilling Measured From: DRILL FLOOR

State:	Max. Well Deviation	Longitude	Latitude
Victoria	0.41 deg	148 18' 07.0098" E	38 42' 49.7296" S

	Run 1	Run 2	Run 3
Logging Date	13−Mar−2008		
Run Number	1		
Depth Driller	907 m		
Schlumberger Depth	907 m		
Bottom Log Interval	905 m		
Top Log Interval	55.3 m		
Casing Driller Size @ Depth	13.375 in @ 275.7 m	@	@
Casing Schlumberger	274 m		
Bit Size	13.375 in		
Type Fluid In Hole	KCl/Polymer		
MUD Density / Viscosity	1.15 g/cm3 / 43 s		
MUD Fluid Loss / PH	9 cm3 / 8		
MUD Source Of Sample	Flowline		
RM @ Measured Temperature	0.138 ohm.m @ 21 degC	@	@
RMF @ Measured Temperature	0.130 ohm.m @ 21 degC	@	@
RMC @ Measured Temperature	0.147 ohm.m @ 21 degC	@	@
Source RMF / RMC	Press / Press		
RM @ MRT / RMF @ MRT	0.105 @ 34 / 0.098 @ 34	@ / @	@ / @
Maximum Recorded Temperatures	34 degC / 31		
Circulation Stopped / Time	13−Mar−2008 / 13:00		
Logger On Bottom / Time	14−Mar−2008 / 23:31		
Unit Number / Location	41 / AUSL		
Recorded By	A. Dandi/M.Dawson		
Witnessed By	F.Fernandes		

	Run 1	Run 2	Run 3
Logging Date			
Run Number			
Depth Driller			
Schlumberger Depth			
Bottom Log Interval			
Top Log Interval			
Casing Driller Size @ Depth	@		
Casing Schlumberger			
Bit Size			
Type Fluid In Hole			
MUD Density / Viscosity			
MUD Fluid Loss / PH			
MUD Source Of Sample			
RM @ Measured Temperature	@		
RMF @ Measured Temperature	@		
RMC @ Measured Temperature	@		
Source RMF / RMC			
RM @ MRT / RMF @ MRT	@ / @		
Maximum Recorded Temperatures			
Circulation Stopped / Time			
Logger On Bottom / Time			
Unit Number / Location			
Recorded By			
Witnessed By			



DEPTH SUMMARY LISTING

Date Created: 14−MAR−2008 1:45:57

Depth System Equipment

Depth Measuring Device		Tension Device		Logging Cable	
Type:	IDW−H	Type:	CMTD−B/A	Type:	7−46ZV−XS
Serial Number:	796	Serial Number:	1721	Serial Number:	77178
Calibration Date:	29−Jan−2008	Calibration Date:	27−FEB−2008	Length:	7699.86 M
Calibrator Serial Number:	1009	Calibrator Serial Number:	1051		
Calibration Cable Type:	7−46ZV−XS	Calibration Gain:	0.81	Conveyance Method:	Wireline
Wheel Correction 1:	−5	Calibration Offset:	−610.00	Rig Type:	Offshore_Fixed
Wheel Correction 2:	−5				

Depth Control Parameters

Log Sequence:	First Log In the Well
Rig Up Length At Surface:	74.36 M
Rig Up Length At Bottom:	74.10 M
Rig Up Length Correction:	0.26 M
Stretch Correction:	0.00 M
Tool Zero Check At Surface:	0.00 M

Depth Control Remarks

1. Schlumberger Depth Control Policy Followed
2. IDW used as primary depth reference
3. Z−Chart used as secondary depth reference
4.
5.
6.

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 SERVICES1	OTHER SERVICES2
OS1:	OS1:
OS2:	OS2:
OS3:	OS3:
OS4:	OS4:
OS5:	OS5:

REMARKS: RUN NUMBER 1	REMARKS: RUN NUMBER 2
First Run in Hole. Schlumberger depth control procedure followed.	
Log Objectives:Basic Formation Evaluation	
Toolstring run as per toolsketch by means of 2 LCMEs, 5 * 2.5 in Standoffs and HGNS eccentralized with a bowspring	
Maximum recoreded temperatures obtained from thermometers in logging head	
Neutron Enviroment Corrections : Hole Size, Mud Salinity, Mud Weight, Mud Cake, Pressure & Temperature	
Density Environment Corrections : Hole Size, using BS, and Mud Weight	
Pex run in high resolution as per client request	

Pex run in high resolution as per client request
As per Mud Engineer's report
−Chlorides = 38000mg/l, Barite = 2.5 %
TDL tagged @ 907m , CS detected @ 274 m
Caliper Check in Casing reads 12.55in (Ref ID = 12.61 in)
BHT, STEM and SHT temperatures based on HGNS temperature sensor
Spike of resisitivity curves at 669.5m due to application of power for caliper centralisation

RUN 1		RUN 2	
SERVICE ORDER #:	AUSL08649881	SERVICE ORDER #:	
PROGRAM VERSION:	15C0−309	PROGRAM VERSION:	
FLUID LEVEL:	0 m	FLUID LEVEL:	

LOGGED INTERVAL	START	STOP	LOGGED INTERVAL	START	STOP

EQUIPMENT DESCRIPTION

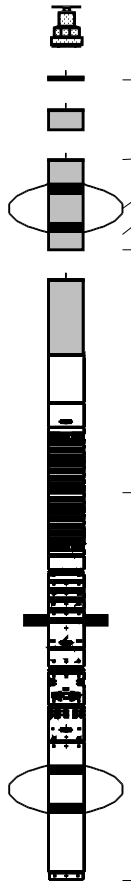
RUN 1 RUN 2

SURFACE EQUIPMENT

GSR−Y 6750
NCT−B
CNB−AB
NCS−VB

WITM (EDTS)−A

DOWNHOLE EQUIPMENT



LEH−QT
LEH−QT 2800
33.61

SP SPARC 32.32

BSP−AH−169
32.73

AH−369
32.32

Mud Tempe 31.88
CTEM 30.82
Gamma Ray 30.25
TelStatus
EDTCB Ele 29.90

EDTC−B
EDTH−B 8378
EDTC−B
EDTG−B 77305
31.88

MAPC−B
MAPC−BA 8198
ECH−SD 8198
MAMS−BA 8201
29.90

MAMS−PS 25.20

MAXS−B
MASS−BA 8157
MAXS−BA 8157
23.49
2.5 IN
Standoff

MAXS−PS 17.32

PPC1−B
PPC1−B 8291
PPC_CAL_STD
Calipers 16.97
17.32

PPC_Cartr 15.33

HRLT−B
HRUH−B 1741
HRUC−B 1730
15.33
2.5 IN
Standoff

HRLS−B 1745
HRLH−B 1745
HRLC−B 1745
AH−270 1792

High Res. — 11.75

2.5 IN Standoff

HILTB−FTB
AH−107 2910
AH−120 806
HGNSD−B 856
HMCA
HGNH 3915
NLS−KL
NSR−F 5224
HACCZ 379
HCNT
HGR
HRCC−B 868
HRMS−B 788
HRGD−B 1806
GLS−VJ 5334

HGNS HTEM — 7.96
HMCA — 6.74
HGNS Gamm — 6.51
HGNS Neut — 4.73
HGNS Neut — 4.58
HGNS sens — 3.87
HRCC cart — 2.65
MCFL — 1.00
HILT cali — 0.85
HRDD−LS
HRDD−SS
HRDD−BS — 0.73
DF ACCZ
HTEN HMAS HV
Accelerom
Tension — 0.00

BNS−CCS — 0.14

TOOL ZERO

MAXIMUM STRING DIAMETER 8.63 IN
MEASUREMENTS RELATIVE TO TOOL ZERO
ALL LENGTHS IN METERS

Client: Apache Northwest Pty Ltd
Well: Coelacanth−1
Field: VIC/P−45
State: Victoria
Country: Australia

Drawing Date: 3/13/2008
Rig Name: West Triton
Reference Datum: AHD
Elevation: 38.0 m

Production String	(in) OD	(in) ID	(m) MD	Well Schematic	(m) MD	(in) OD	(in) ID	Casing String
Derrick Floor Elevation			39.0					
Mean Sea Level			0.0					
					90.0	13.175	12.415	Casing String
					275.7	13.175	12.415	Casing Shoe
					275.7	12.250		Borehole Segment

All Depths are Drillers' Depths						907.0	12.250	Borehole Segment Bottom

Schlumberger

Standard Resolution Pass 1:200

MAXIS Field Log

Company: Apache Northwest Pty Ltd **Well: Coelacanth−1**

Input DLIS Files

14−Mar−2008 10:19

Output DLIS Files

DEFAULT	**TLD_MCFL_CNL_HRLA_049PUP**	**FN:73**	**PRODUCER**	**18−Mar−2008 21:58**	**907.4 M**	**271.1 M**
CLIENT	**TLD_MCFL_CNL_HRLA_049PUC**	**FN:74**	**CUSTOMER**	**18−Mar−2008 21:58**	**907.4 M**	**271.1 M**
REDUCED	**TLD_MCFL_CNL_HRLA_049PUP**	**FN:75**	**PRODUCER**	**18−Mar−2008 21:58**	**907.4 M**	**271.1 M**

Integrated Hole/Cement Volume Summary

Hole Volume = 92.11 M3

Cement Volume = 62.40 M3 (assuming 9.63 IN casing O.D.)

Computed from 906.9 M to 274.0 M using data channel(s) HCAL

OP System Version: 15C0−309

MCM

HILTB−FTB	SRPC−3546−Q1_2008_OP15	HRLT−B	SRPC−3546−Q1_2008_OP15
PPC1−B	SRPC−3546−Q1_2008_OP15	MAXS−B	SKK−3442−MAST
MAPC−B	SKK−3442−MAST	EDTC−B	SKK−3493−EDTCB
BSP−AH−169	SRPC−3546−Q1_2008_OP15		

PIP SUMMARY

- Integrated Hole Volume Minor Pip Every 1 M3
- Integrated Hole Volume Major Pip Every 10 M3
- Integrated Cement Volume Minor Pip Every 1 M3
- Integrated Cement Volume Major Pip Every 10 M3
- Time Mark Every 60 S

HRLT True Resistivity (RT_HRLT) 0.2 (OHMM) 2000

Std. Res. Invaded Zone Resistivity (RXOZ) 0.2 (OHMM) 2000

Area From HCAL to BS

HRLT Resistivity 5 (RLA5) 0.2 (OHMM) 2000

SP (SP) −80 (MV) 20

HRLT Resistivity 4 (RLA4) 0.2 (OHMM) 2000

Sand From RHOZ to TNPH

Gamma Ray (ECGR) 0 (GAPI) 200

HRLT Resistivity 3 (RLA3) 0.2 (OHMM) 2000

Env.Corr.Thermal Neutron Porosity (TNPH) 0.45 (V/V) −0.15

HILT Caliper (HCAL) 6 (IN) 16

HRLT Resistivity 2 (RLA2) 0.2 (OHMM) 2000

Std. Res. Formation Density (RHOZ) 1.95 (G/C3) 2.95

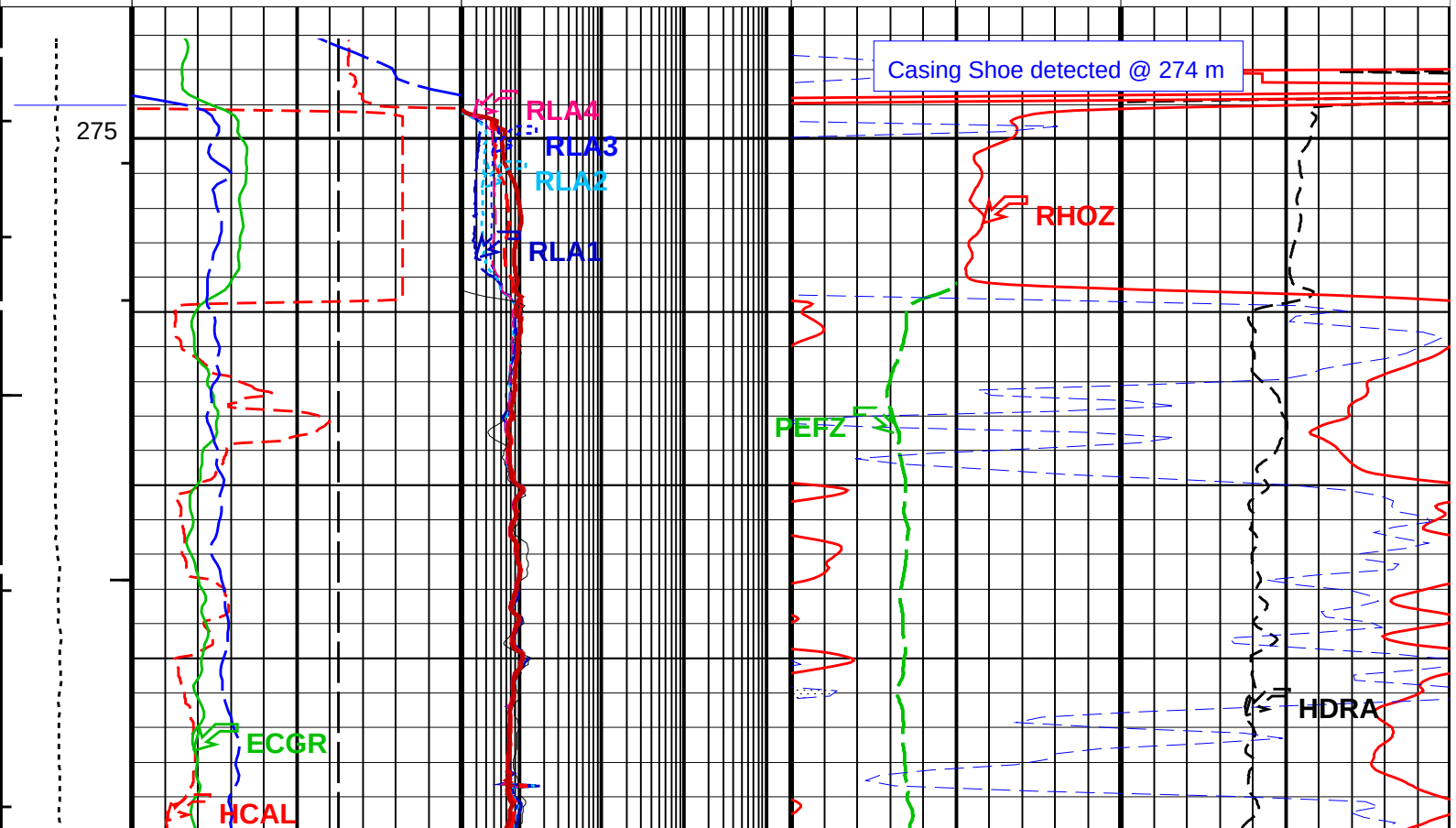
Tension (TENS) (LBF) 0 5000

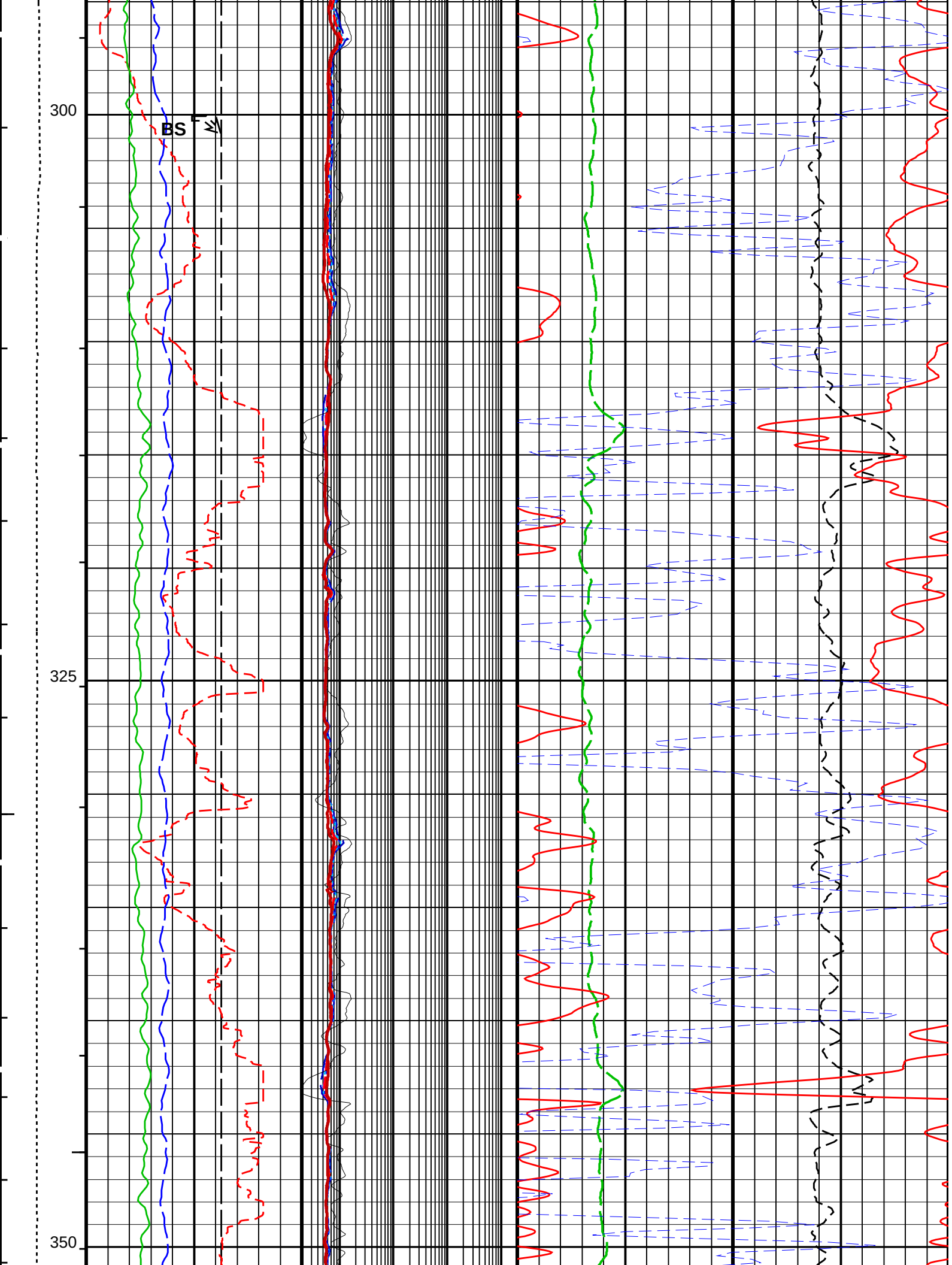
Bit Size (BS) 6 (IN) 16

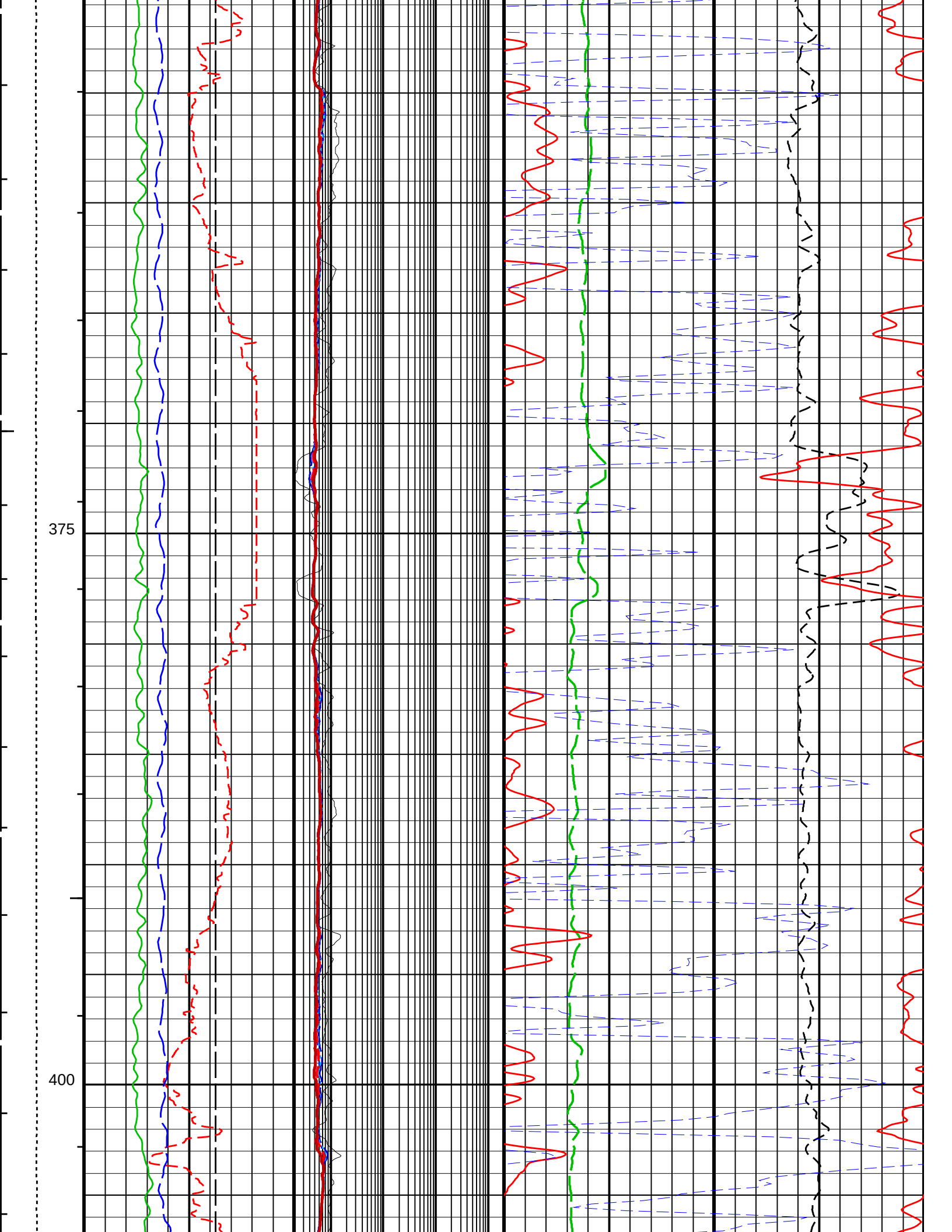
HRLT Resistivity 1 (RLA1) 0.2 (OHMM) 2000

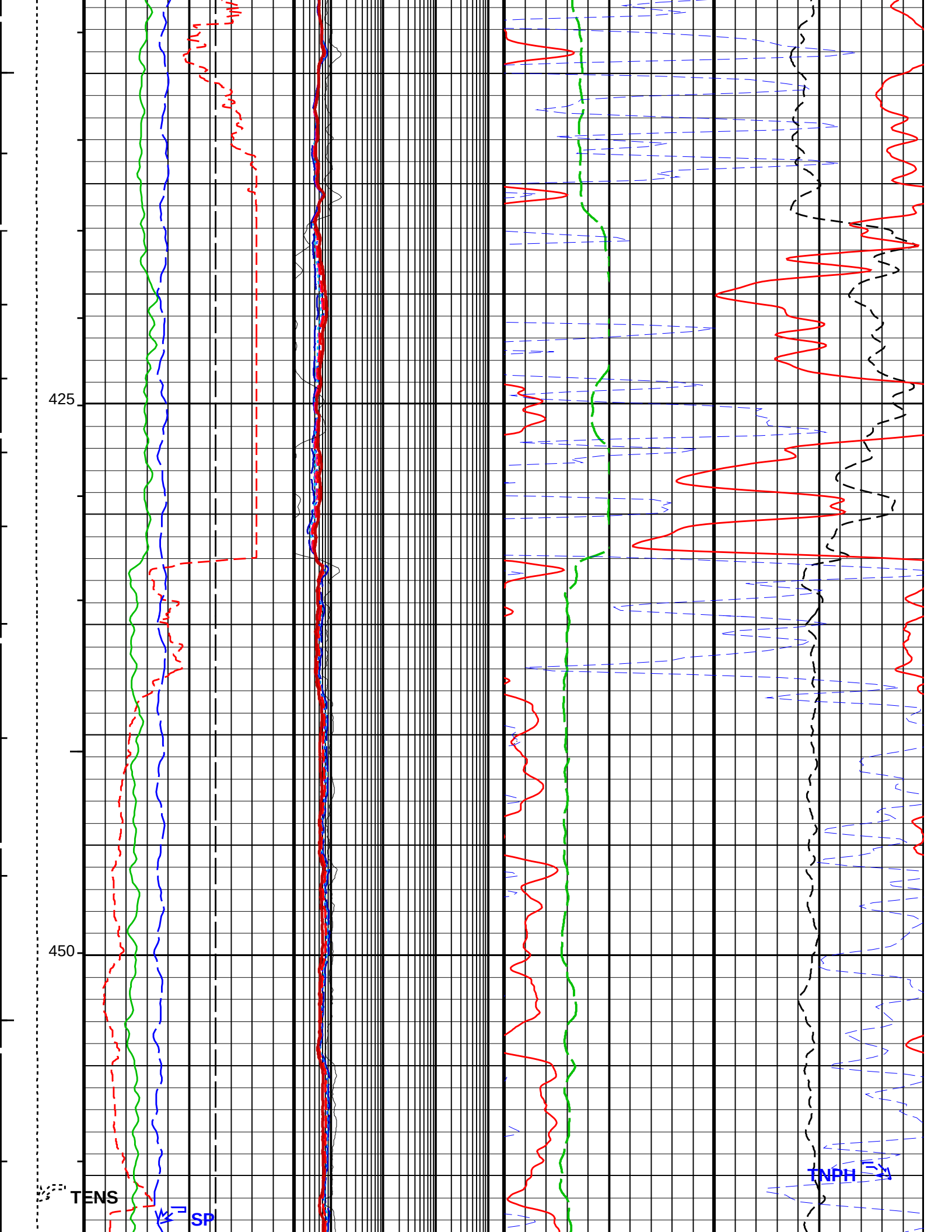
Std. Res. Formation Pe (PEFZ) 0 (---- 10

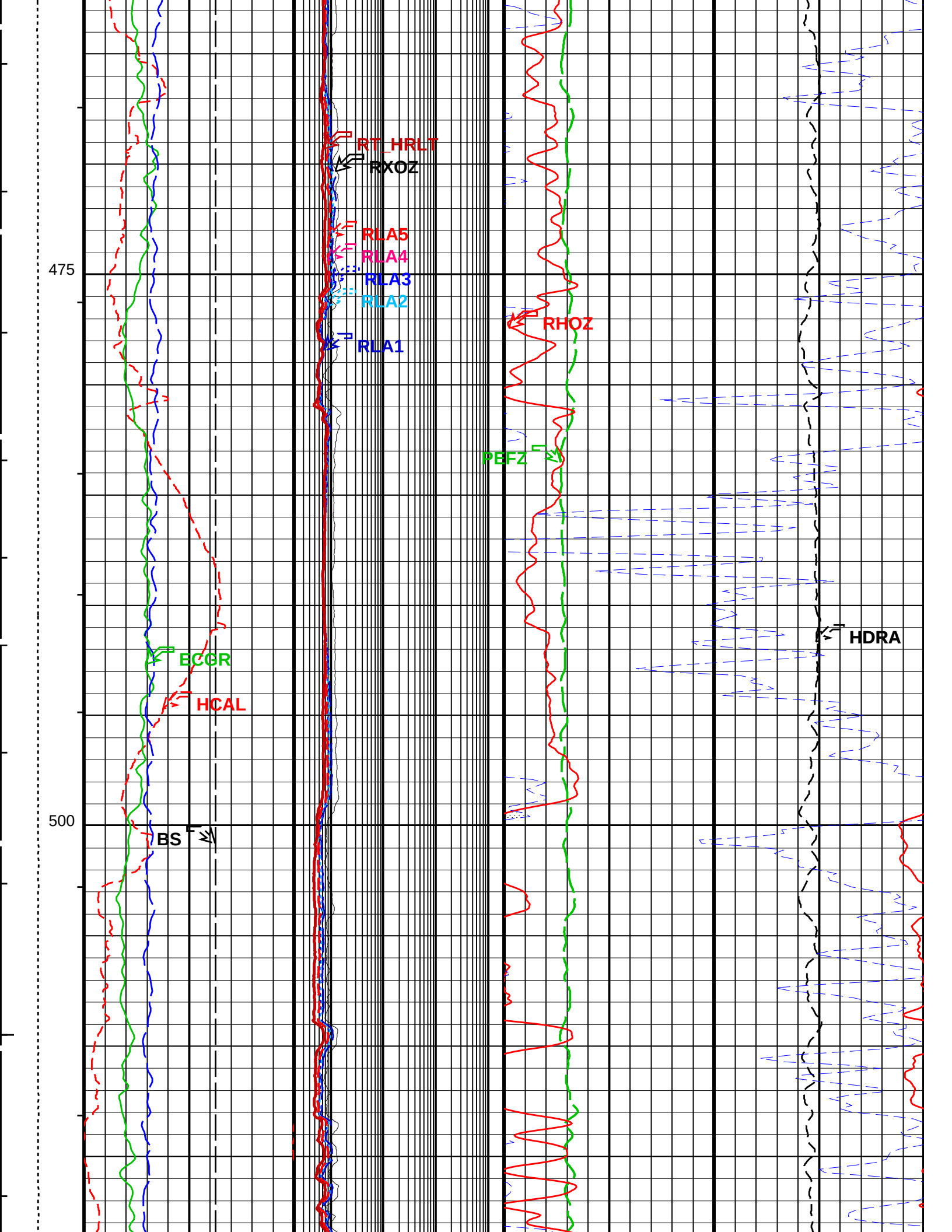
Density Correction (HDRA) −0.25 (G/C3) 0.25

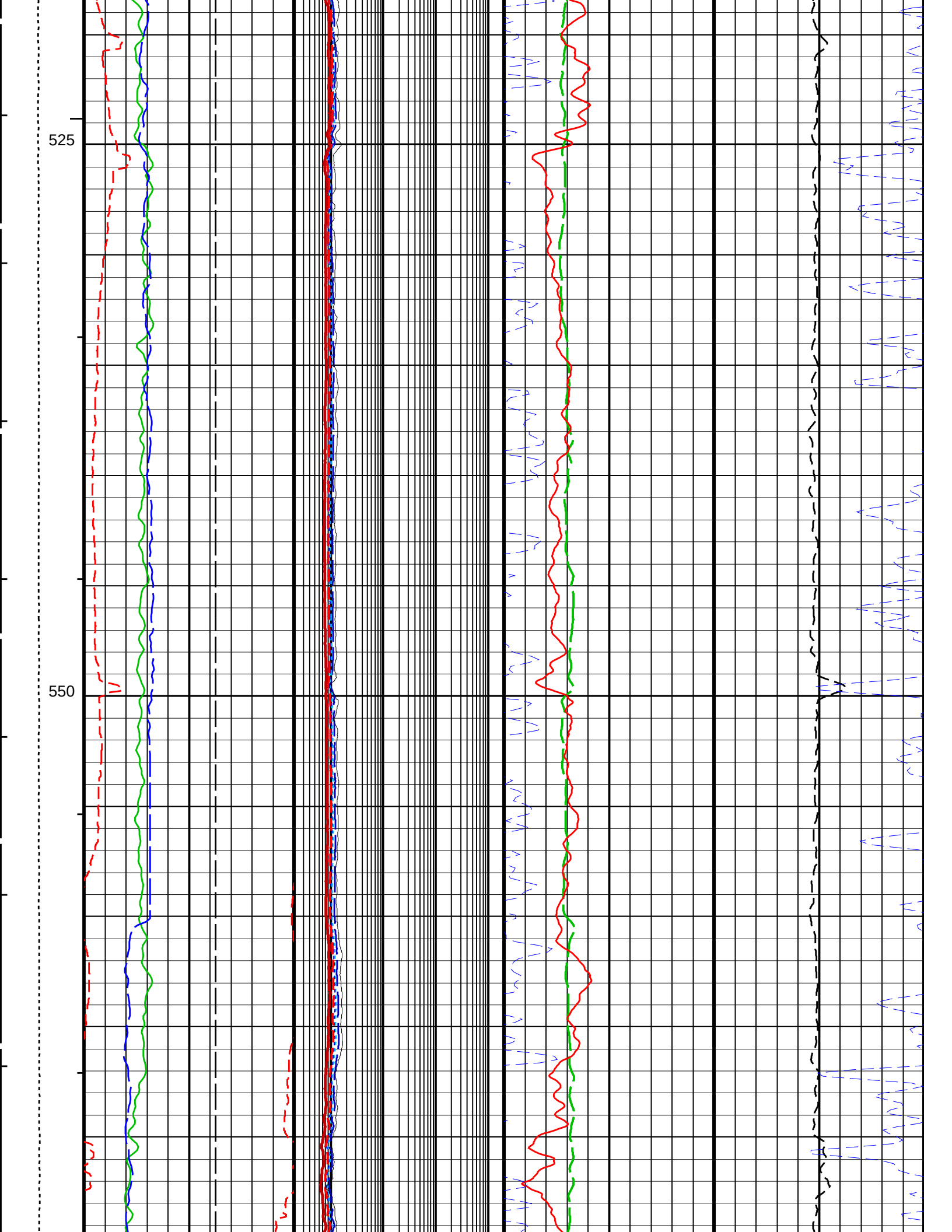


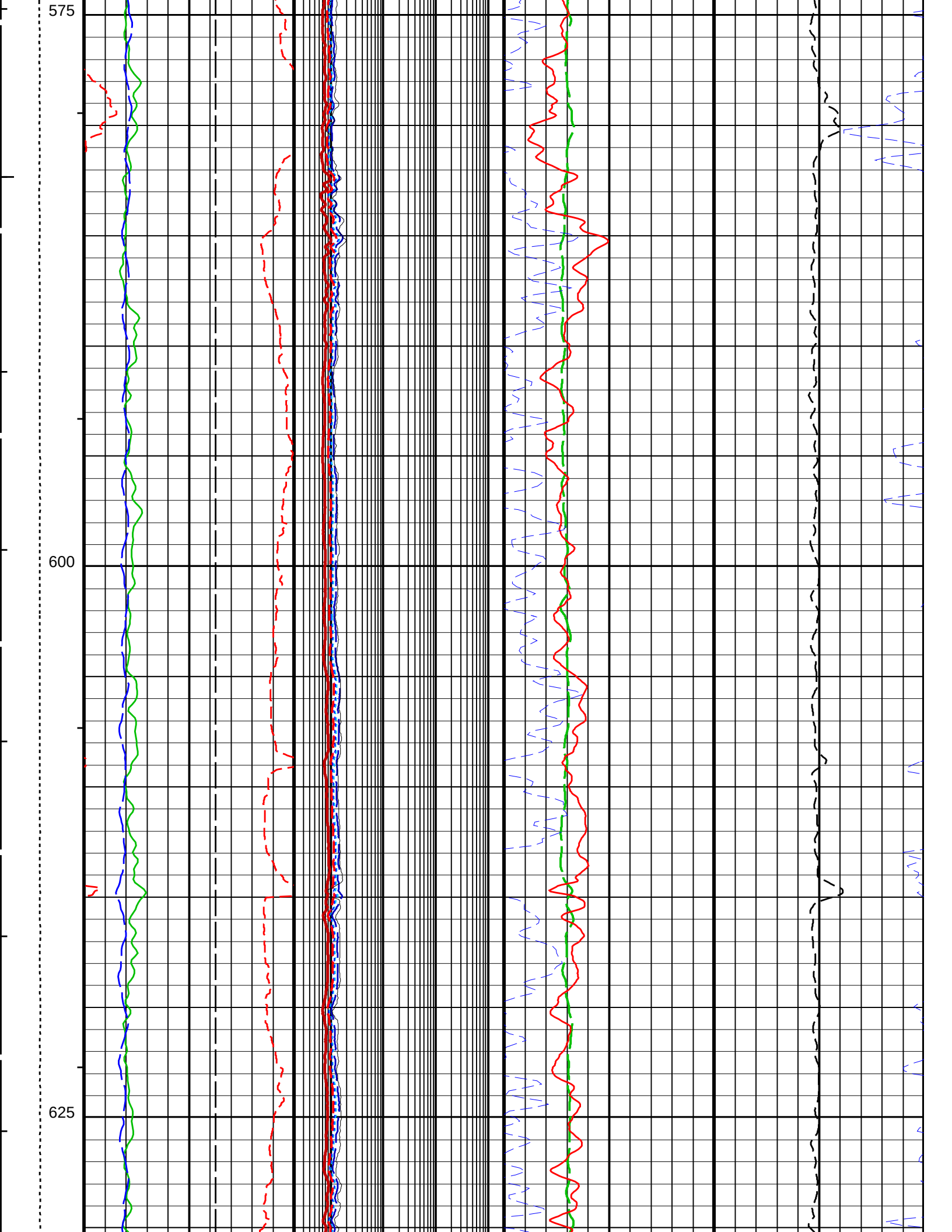

300
BS
325
350

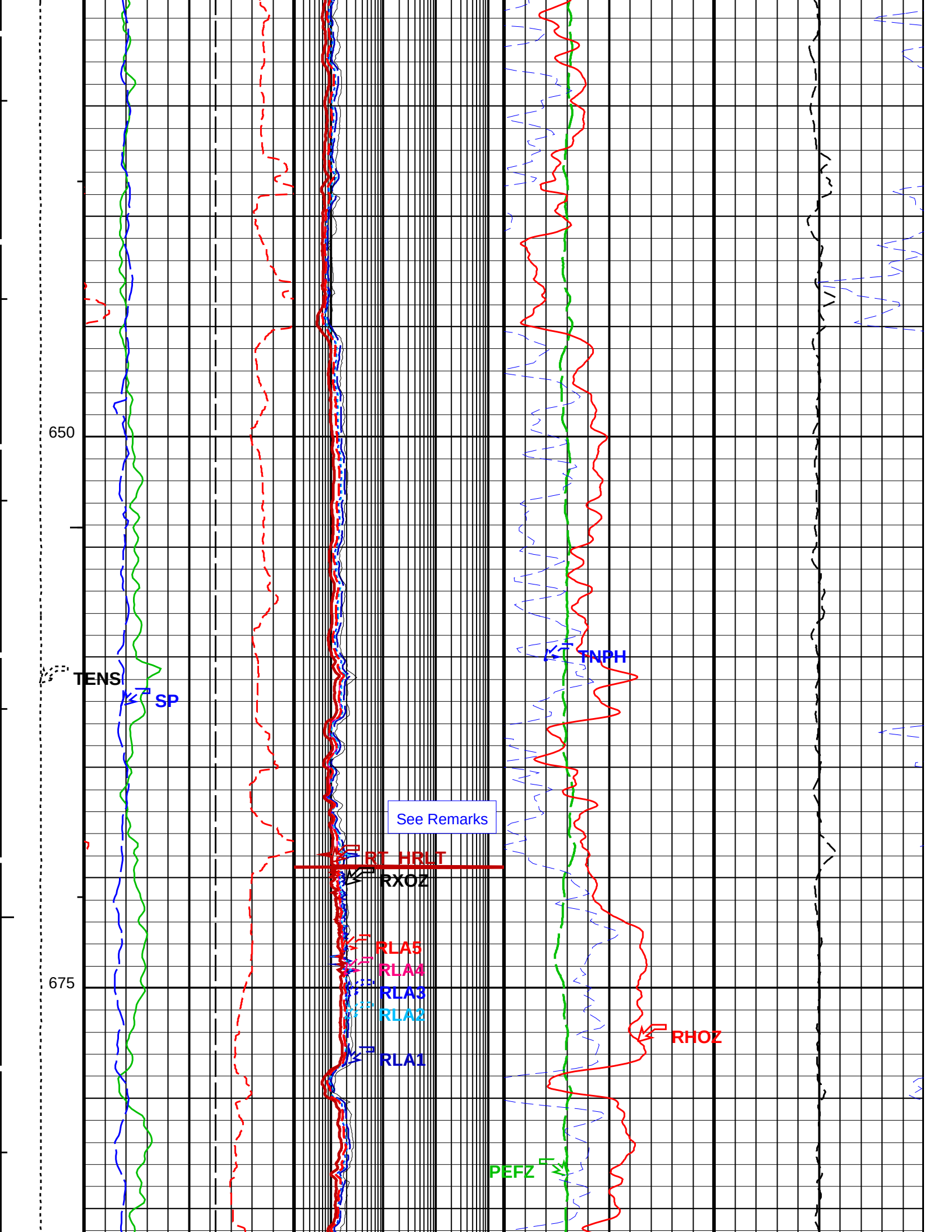

375
400

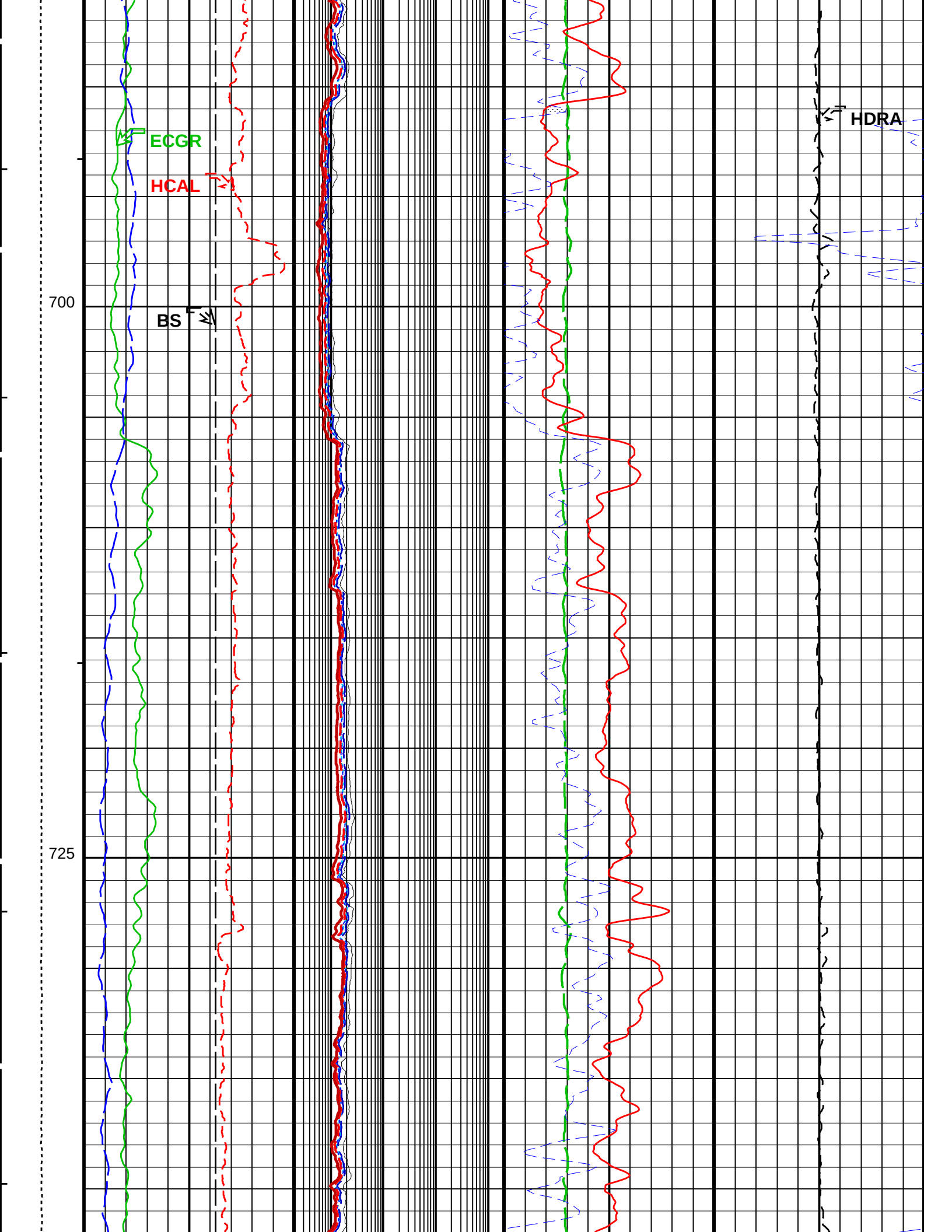

425
450
TENS
SP
TNPH

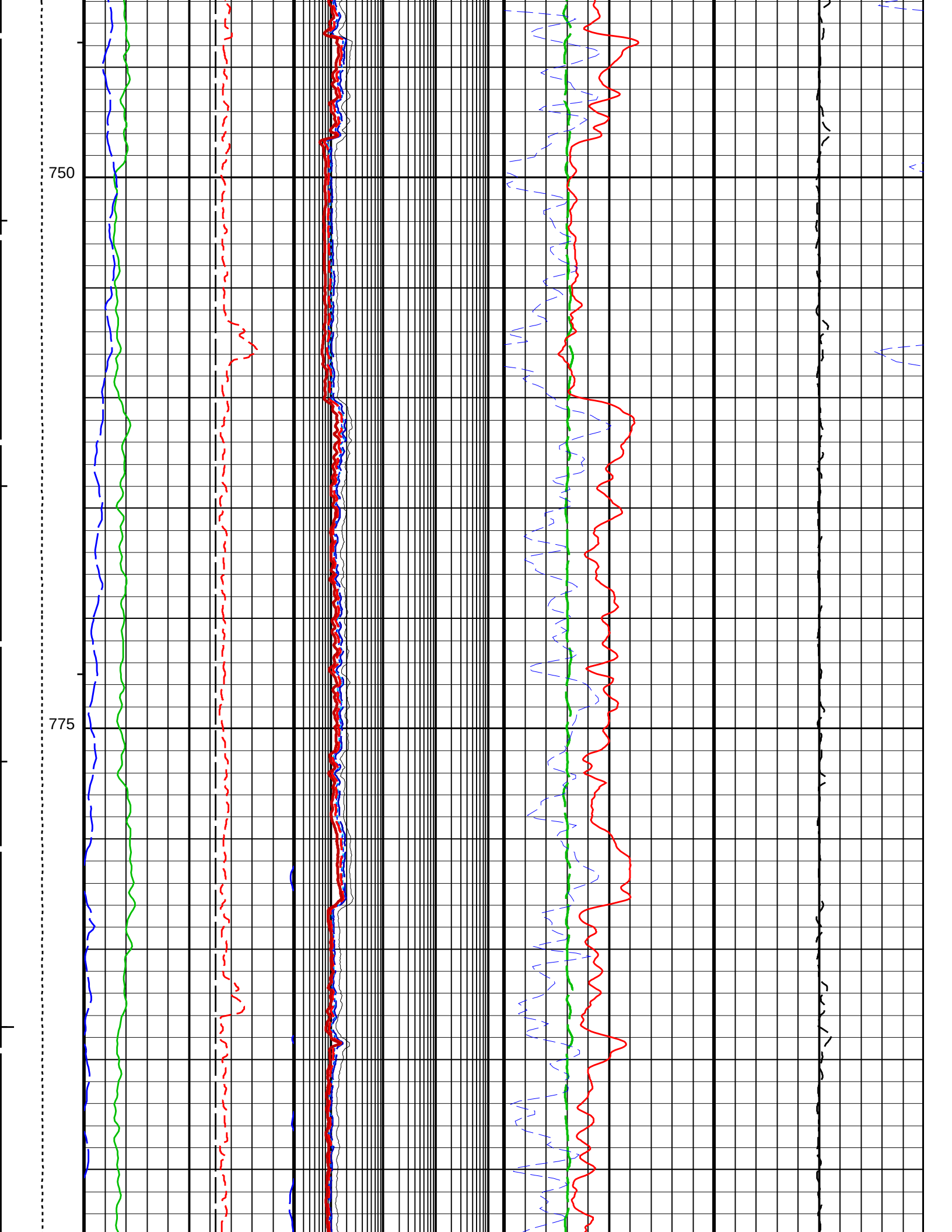

RT_HRLT
RXOZ
RLA5
RLA4
RLA3
RLA2
RLA1
RHOZ
PEFZ
HDRA
ECGR
HCAL
BS
475
500

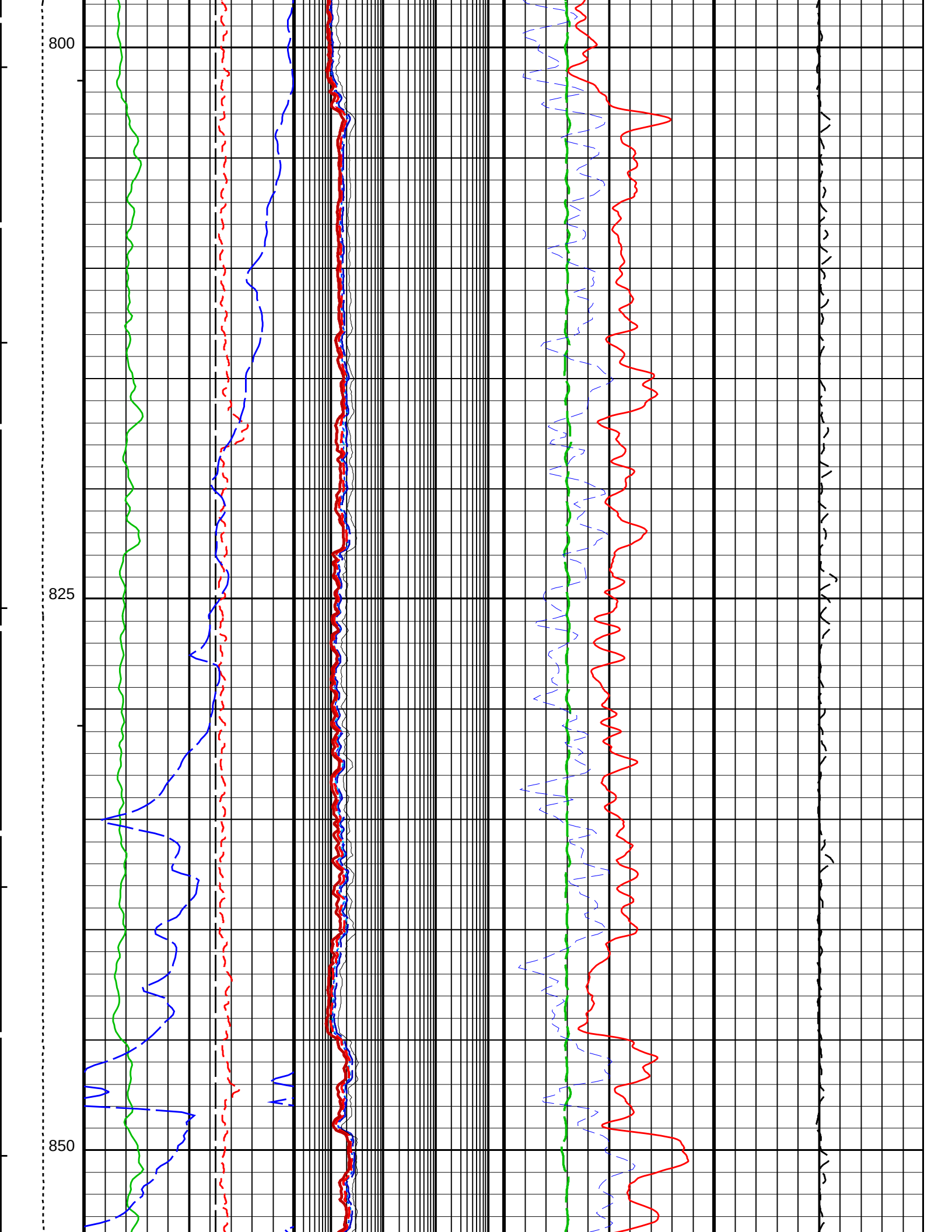

525
550

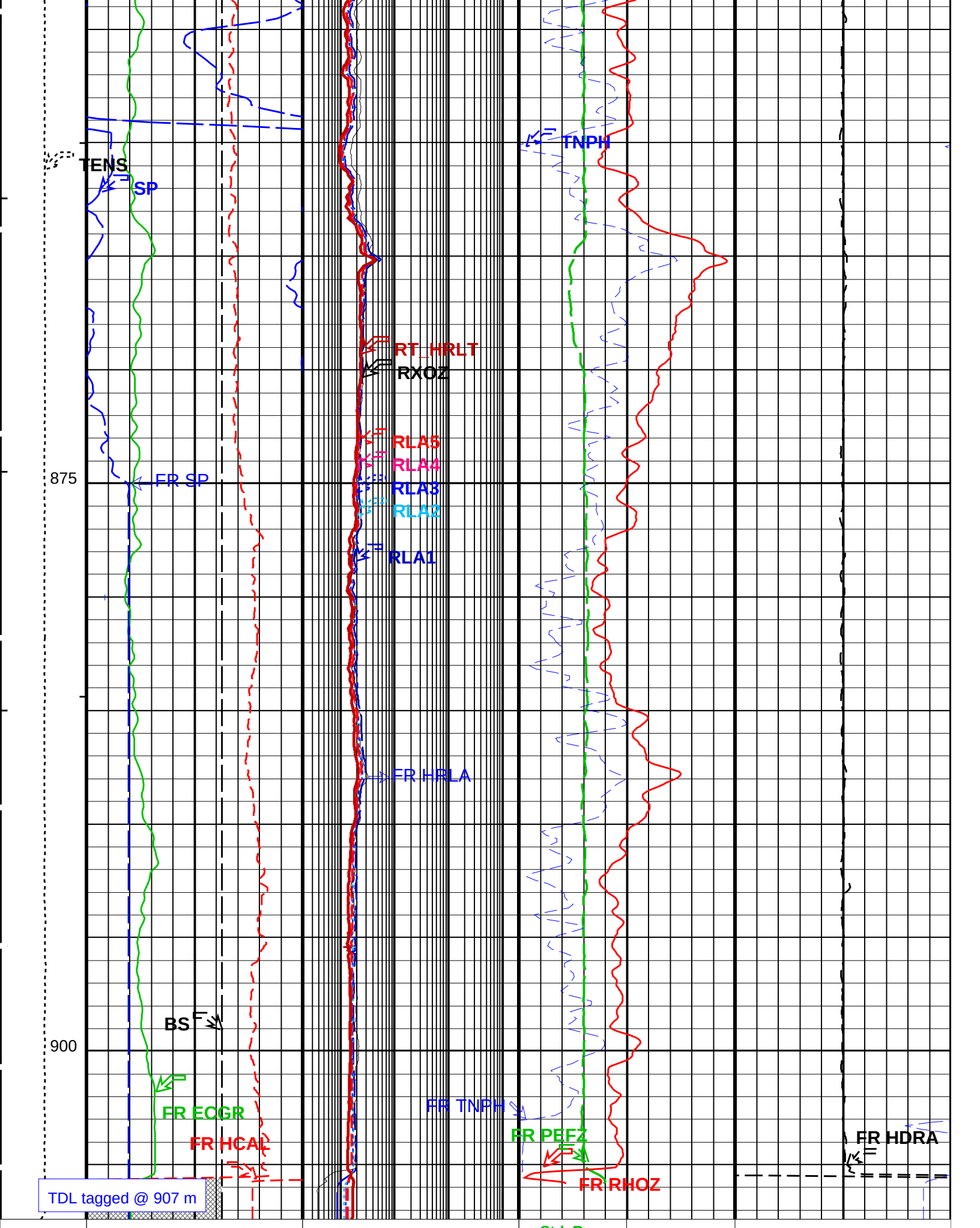

575
600
625


650
675
TENSI
SP
TNPH
See Remarks
RT_HRLT
RXOZ
RLA5
RLA4
RLA3
RLA2
RLA1
RHOZ
PEFZ

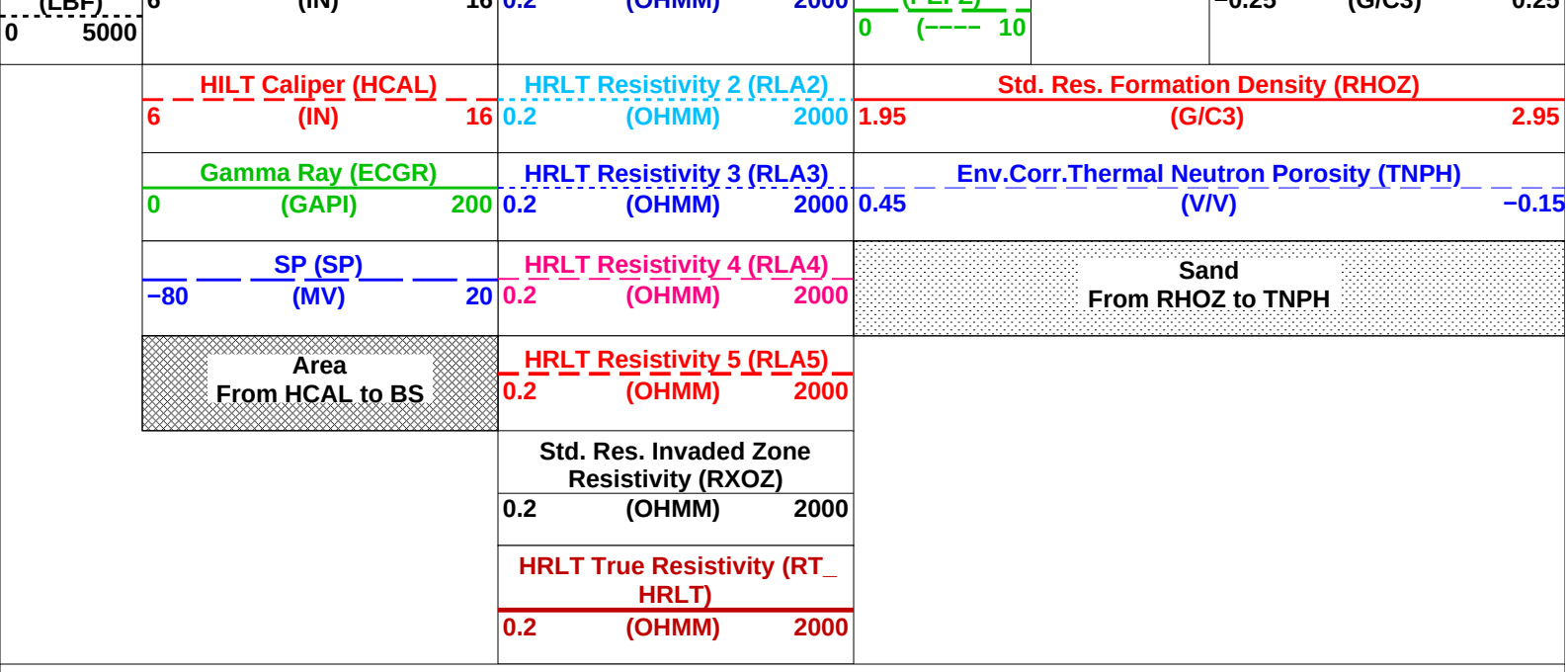

ECGR
HCAL
BS
HDRA
700
725


750
775


800
825
850



Tension (TENS) (LBF)	Bit Size (BS) (IN) 6 — 16	HRLT Resistivity 1 (RLA1) (OHMM) 0.2 — 2000	Std. Res. Formation Pe (PEFZ)	Density Correction (HDRA) (G/C3) −0.25 — 0.25



PIP SUMMARY

- Integrated Hole Volume Minor Pip Every 1 M3
- Integrated Hole Volume Major Pip Every 10 M3
- Integrated Cement Volume Minor Pip Every 1 M3
- Integrated Cement Volume Major Pip Every 10 M3
- Time Mark Every 60 S

Parameters

DLIS Name	Description	Value	
	HILTB−FTB: High resolution Integrated Logging Tool−DTS		
BHFL	Borehole Fluid Type	WATER	
BHFL_TLD	HILT Nuclear Mud Base	WATER	
BHS	Borehole Status	OPEN	
BHT	Bottom Hole Temperature (used in calculations)	31.446	DEGC
BSCO	Borehole Salinity Correction Option	YES	
CCCO	Casing & Cement Thickness Correction Option	NO	
DHC	Density Hole Correction	BS	
DPPM	Density Porosity Processing Mode	HIRS	
EXSICL	External Shale Indicator Clean Value	20	
EXSISH	External Shale Indicator Shale Value	150	
FD	Fluid Density	1	G/C3
FEXP	Form Factor Exponent	2	
FNUM	Form Factor Numerator	1	
FPHI	Form Factor Porosity Source	DPHZ	
FSAL	Formation Salinity	−50000	PPM
FSCO	Formation Salinity Correction Option	YES	
GCLF	Germany Coal−like Formation Option	NO	
GCSE	Generalized Caliper Selection	HCAL	
GDEV	Average Angular Deviation of Borehole from Normal	0	DEG
GGRD	Geothermal Gradient	0.018227	DC/M
GRSE	Generalized Mud Resistivity Selection	CHART_GEN_9	
GTSE	Generalized Temperature Selection	HSTS_HTEM	
HACPP	Accelerometer PROM Presence	PRESENT_FILE	
HART	Accelerometer Reference Temperature	20	DEGC
HDCOD	HILT Density Coal detection	2	G/C3
HDSAD	HILT Density Salt detection	2.1	G/C3
HILT_GAS_DENSITY	HILT Gas Downhole Density	0	G/C3
HILT_GAS_OPTION	HILT Gas Computation Option	OFF	
HNCOD	HILT Neutron Coal detection	45	PU
HNSAD	HILT Neutron Salt detection	5	PU
HPHIECUT	HILT effective Porosity Cutoff	5	PU
HSCO	Hole Size Correction Option	YES	
HSIS	HILT Shale Indicator Selection	GR	
HSSO	HRDD Nuclear Source Strength Option	NORMAL	
HSWCUT	HILT Water Saturation from AITH cutoff	50	%
ISSBAR	Barite Mud Switch	NOBARITE	
MATR	Rock Matrix for Neutron Porosity Corrections	LIMESTONE	
MCCO	Mud Cake Correction Option	YES	
MCOR	Mud Correction	NATU	
MDEN	Matrix Density	2.71	G/C3
MHC0	MCFL B0 Contrast Correction Coefficient	2.2e−005	OHMS
MHC1	MCFL B1 Contrast Correction Coefficient	3.2e−005	OHMS
MHCC	MCFL High Contrast Correction Switch	NO	

MPOF	MCFL Processing Operation Mode	ON	
MWCO	Mud Weight Correction Option	YES	
NAAC	HRDD APS Activation Correction	OFF	
NMT	HILT Nuclear Mud Type	NOBARITE	
NPRM	HRDD Processing Mode	HiRes	
NSAR	HRDD Depth Sampling Rate	1	IN
PEA_FILTER	PEA Filter	NO_FILTER	
PEFC_FILTER	PEFC Filter	NO_FILTER	
PHIMAX	HILT max porosity	35	PU
PTCO	Pressure/Temperature Correction Option	YES	
SDAT	Standoff Data Source	SOCN	
SEXP_HILT	HILT Saturation Exponent	2	
SHT	Surface Hole Temperature	23.661	DEGC
SOCN	Standoff Distance	0.125	IN
SOCO	Standoff Correction Option	NO	
HRLT−B: High Resolution Laterolog Array − E			
BHS	Borehole Status	OPEN	
BHT	Bottom Hole Temperature (used in calculations)	31.446	DEGC
CALSTAT	HRLTB Calibration Status	SHALLOW_DONE	
CALTEMP	HRLTB Calibration Temperature	38.0354	DEGC
FREQ0	HRLT Frequency Index for Mode 0	32	
FREQ1	HRLT Frequency Index for Mode 1	128	
FREQ2	HRLT Frequency Index for Mode 2	104	
FREQ3	HRLT Frequency Index for Mode 3	86	
FREQ4	HRLT Frequency Index for Mode 4	56	
FREQ5	HRLT Frequency Index for Mode 5	44	
FREQ6	HRLT Frequency Index for Mode 6	116	
GCSE	Generalized Caliper Selection	HCAL	
GDEV	Average Angular Deviation of Borehole from Normal	0	DEG
GGRD	Geothermal Gradient	0.018227	DC/M
GRSE	Generalized Mud Resistivity Selection	CHART_GEN_9	
GTSE	Generalized Temperature Selection	HSTS_HTEM	
ISSBAR	Barite Mud Switch	NOBARITE	
KFAC_HRLT	HRLT K Factor Option	SONDE	
LOOPCOEF_S	HRLT Loop Coefficient for Shallow Modes	LOW	
LOOPMOD0	HRLT Mode 0 Loop Mode	AUTO	
LOOPMOD1	HRLT Mode 1 Loop Mode	AUTO	
LOOPMOD2	HRLT Mode 2 Loop Mode	AUTO	
LOOPMOD3	HRLT Mode 3 Loop Mode	AUTO	
LOOPMOD4	HRLT Mode 4 Loop Mode	AUTO	
LOOPMOD5	HRLT Mode 5 Loop Mode	AUTO	
LOOPMOD6	HRLT Mode 6 Loop Mode	AUTO	
MATR	Rock Matrix for Neutron Porosity Corrections	LIMESTONE	
PROCINV	Inversion Selection	ON	
PROCMFL	Inversion Micro−Resistivity Selection	NO_EXTERNAL_RXO	
PROCMSO	Mechanical Standoff Fin Size	2.5	IN
PROCRM	Processing Mud Resistivity Select	HRLT_Compute	
PROCSPO	Sonde Position	Eccentered	
SHT	Surface Hole Temperature	23.661	DEGC
PPC1−B: Powered Positioning Deveice/Caliper 1			
	PPC1 Caliper Type	CAL_STD	
CLBD_PPC	PPC Calibration data selection	ROM	
PWEL_PPC	PPC Primary Tool for WellCAD	NONE	
SWEL_PPC	PPC Secondary Tool for WellCAD (45 Degrees Rotation PPC Tool)	NONE	
WRDR_PPC	PPC Rotation Direction for Secondary Tool	NONE	
MAXS−B: Multimode Array Sonic Xmitter Sonde			
FIRING_TABLE	MAST Firing Table	** V **	
TX_AMP	Transmitter Amplitude Factor	** V **	
U_CE_CBLG7	CBL Gate Width 7 for Cement Evaluation	80	US
U_CE_CBLG8	CBL Gate Width 8 for Cement Evaluation	80	US
U_CE_NMSG7	Near Minimum Sliding Gate 7 for Cement Evaluation	220	US
U_CE_NMSG8	Near Minimum Sliding Gate 8 for Cement Evaluation	220	US
U_CE_SGDT7	Sliding Gate Delta−T 7 for Cement Evaluation	57	US/F
U_CE_SGDT8	Sliding Gate Delta−T 8 for Cement Evaluation	57	US/F
MAPC−B: Multimode Array Sonic Power Cartridge			
AZIM_SELECT	Azimuth Selection	P1AZ	
BHS	Borehole Status	OPEN	
BHT	Bottom Hole Temperature (used in calculations)	31.446	DEGC
BS	Bit Size	12.250	IN
CDTS	C−Delta−T Shale	100	US/F
CE_DCBLSEL	DCBL Selection for Cement Evaluation	3_5FT	
CE_VDLGRA	VDL Manual Gain Rate Array for Cement Evaluation	** V **	
CE_VDLSEL	VDL Selection for Cement Evaluation	MU_5FT	
CE_VDL_MODE	DCBL/VDL Mode for Cement Evaluation	STANDARD	
CE_VFILSWA	VDL Filter Switch Array for Cement Evaluation	** V **	
CRVIN_MF	Alteration Detection Input Number for Monopole Far	DISALLOW	
CRVIN_ML	Alteration Detection Input Number for Monopole Lower	DISALLOW	
CRVIN_MU	Alteration Detection Input Number for Monopole Upper	DISALLOW	
DCRMVL	DC Offset Removal Option	DC_MULTIPLE	
DLHS	Hole Diameter Source for SOBS Channel	AUTO	
DTCO_SELECT	Delta−T Compressional Selection for DSTC	MF	
DTF	Delta−T Fluid	204.5	US/F
DTM	Delta−T Matrix	56	US/F
DTSH_SELECT	Delta−T Shear Selection for DSTC	XD	
DWF7_SPEC	Channel/Station/Azimuth for VDL (DWF7) of Measurement 7	WFA7/9/1	

DWF8_SPEC	Channel/Station/Azimuth for VDL (DWF8) of Measurement 8	WFA8/5/1	
FIRING_TABLE	MAST Firing Table	** V **	
GCSE	Generalized Caliper Selection	HCAL	
GDEV	Average Angular Deviation of Borehole from Normal	0	DEG
GGRD	Geothermal Gradient	0.018227	DC/M
GRSE	Generalized Mud Resistivity Selection	CHART_GEN_9	
GTSE	Generalized Temperature Selection	HSTS_HTEM	
IMG_DTCO_SEL_MAST	Imaging Input DT Compressional Selection	CONSTANT_DTCO	
IMG_EST_DTCO_MAST	Imaging Estimated DT Compressional	120	US/F
IMG_RBS	Imaging Relative Bearing Selection	RB1	
ISSBAR	Barite Mud Switch	NOBARITE	
ITTS	Integrated Transit Time Source	DTCO	
MATR	Rock Matrix for Neutron Porosity Corrections	LIMESTONE	
NRSA	Number of Receivers in Sub−Array	** V **	
RBC	Relative Bearing Correction Allow/Disallow	DISALLOW	
ROTIN_XD	Alford Rotation X Dipole Measurement Number	DISALLOW	
ROTIN_YD	Alford Rotation Y Dipole Measurement Number	DISALLOW	
ROTWINDOW_CTRL	Alford Rotation Window Control	ON	
ROT_AI	Dipole Waveform Rotation Averaging Depth Interval	0	M
ROT_FIL_LENG	Alford Rotation Filter Length	0	
ROT_TWD	Alford Rotation Window Time Width	0	US
ROT_TWO	Alford Rotation Window Time Offset	0	US
ROT_XFH	Alford Rotation Filter High Cutoff	0	HZ
ROT_XFL	Alford Rotation Filter Low Cutoff	0	HZ
SHT	Surface Hole Temperature	23.661	DEGC
SPFS	Sonic Porosity Formula	RAYMER_HUNT	
SPSO	Sonic Porosity Source	DTCO	
STCAL	STC Algorithm	** V **	
STCSEL1	Station Selection for STC for Measurement 1	** V **	
STCSEL2	Station Selection for STC for Measurement 2	** V **	
STCSEL3	Station Selection for STC for Measurement 3	** V **	
STCSEL4	Station Selection for STC for Measurement 4	** V **	
STCSEL5	Station Selection for STC for Measurement 5	** V **	
STCSEL6	Station Selection for STC for Measurement 6	** V **	
STCSEL_FAST	Station Selection for STC for DT_FAST	** V **	
STCSEL_SLOW	Station Selection for STC for DT_SLOW	** V **	
TRMIN	Alteration Detection Minimum Transmitter Receiver Spacing for Processing	3.0	FT
TX_AMP	Transmitter Amplitude Factor	** V **	
U_CE_CBLG7	CBL Gate Width 7 for Cement Evaluation	80	US
U_CE_CBLG8	CBL Gate Width 8 for Cement Evaluation	80	US
U_CE_NMSG7	Near Minimum Sliding Gate 7 for Cement Evaluation	220	US
U_CE_NMSG8	Near Minimum Sliding Gate 8 for Cement Evaluation	220	US
U_CE_SGDT7	Sliding Gate Delta−T 7 for Cement Evaluation	57	US/F
U_CE_SGDT8	Sliding Gate Delta−T 8 for Cement Evaluation	57	US/F
U_SLL1_MAST	MAST DSTC Slowness Lower Limit 1	40	US/F
U_SLL2_MAST	MAST DSTC Slowness Lower Limit 2	40	US/F
U_SLL3_MAST	MAST DSTC Slowness Lower Limit 3	40	US/F
U_SLL4_MAST	MAST DSTC Slowness Lower Limit 4	0	US/F
U_SLL5_MAST	MAST DSTC Slowness Lower Limit 5	112	US/F
U_SLL6_MAST	MAST DSTC Slowness Lower Limit 6	112	US/F
U_SLL_FAST_MAST	MAST DSTC Slowness Lower Limit Fast	0	US/F
U_SLL_SLOW_MAST	MAST DSTC Slowness Lower Limit Slow	0	US/F
U_SUL1_MAST	MAST DSTC Slowness Upper Limit 1	240	US/F
U_SUL2_MAST	MAST DSTC Slowness Upper Limit 2	240	US/F
U_SUL3_MAST	MAST DSTC Slowness Upper Limit 3	240	US/F
U_SUL4_MAST	MAST DSTC Slowness Upper Limit 4	0	US/F
U_SUL5_MAST	MAST DSTC Slowness Upper Limit 5	772	US/F
U_SUL6_MAST	MAST DSTC Slowness Upper Limit 6	772	US/F
U_SUL_FAST_MAST	MAST DSTC Slowness Upper Limit Fast	0	US/F
U_SUL_SLOW_MAST	MAST DSTC Slowness Upper Limit Slow	0	US/F
EDTC−B: Enhanced DTS Cartridge			
BHFL	Borehole Fluid Type	WATER	
BHS	Borehole Status	OPEN	
BHT	Bottom Hole Temperature (used in calculations)	31.446	DEGC
BSCO	Borehole Salinity Correction Option	YES	
CCCO	Casing & Cement Thickness Correction Option	NO	
DPPM	Density Porosity Processing Mode	HIRS	
FSCO	Formation Salinity Correction Option	YES	
GCSE	Generalized Caliper Selection	HCAL	
GDEV	Average Angular Deviation of Borehole from Normal	0	DEG
GGRD	Geothermal Gradient	0.018227	DC/M
GRSE	Generalized Mud Resistivity Selection	CHART_GEN_9	
GTSE	Generalized Temperature Selection	HSTS_HTEM	
HSCO	Hole Size Correction Option	YES	
ISSBAR	Barite Mud Switch	NOBARITE	
ISSBAR_EDTC	Nuclear Mud Type	NOBARITE	
MATR	Rock Matrix for Neutron Porosity Corrections	LIMESTONE	
MCCO	Mud Cake Correction Option	YES	
MCOR	Mud Correction	NATU	
MWCO	Mud Weight Correction Option	YES	
PTCO	Pressure/Temperature Correction Option	YES	
SDAT	Standoff Data Source	SOCN	
SHT	Surface Hole Temperature	23.661	DEGC
SOCN	Standoff Distance	0.125	IN

SOCN	Standoff Distance	0.125	IN
SOCO	Standoff Correction Option	NO	
TPOS_EDTC	EDTC Tool Centered/Eccentered	Eccentered	
BSP−AH−169: Bridle SP			
SPNV	SP Next Value	0	MV
HOLEV: Integrated Hole/Cement Volume			
BHS	Borehole Status	OPEN	
BHT	Bottom Hole Temperature (used in calculations)	31.446	DEGC
FCD	Future Casing (Outer) Diameter	9.625	IN
GCSE	Generalized Caliper Selection	HCAL	
GDEV	Average Angular Deviation of Borehole from Normal	0	DEG
GGRD	Geothermal Gradient	0.018227	DC/M
GRSE	Generalized Mud Resistivity Selection	CHART_GEN_9	
GTSE	Generalized Temperature Selection	HSTS_HTEM	
HVCS	Integrated Hole Volume Caliper Selection	HCAL	
ISSBAR	Barite Mud Switch	NOBARITE	
MATR	Rock Matrix for Neutron Porosity Corrections	LIMESTONE	
SHT	Surface Hole Temperature	23.661	DEGC
STI: Stuck Tool Indicator			
LBFR	Trigger for MAXIS First Reading Label	TDL	
STKT	STI Stuck Threshold	0.762	M
TDD	Total Depth − Driller	907.00	M
TDL	Total Depth − Logger	907.00	M
System and Miscellaneous			
ALTDPCHAN	Name of alternate depth channel	MeasuredDepth	
BSAL	Borehole Salinity	62700.00	PPM
CSIZ	Current Casing Size	13.375	IN
CWEI	Casing Weight	54.50	LB/F
DFD	Drilling Fluid Density	1.15	G/C3
DO	Depth Offset for Playback	0.3	M
FLEV	Fluid Level	0.00	M
MST	Mud Sample Temperature	21.00	DEGC
PBVSADP	Use alternate depth channel for playback	NO	
PP	Playback Processing	RECOMPUTE	
RMFS	Resistivity of Mud Filtrate Sample	0.1301	OHMM
RW	Resistivity of Connate Water	1.0000	OHMM
TD	Total Depth	907	M
TWS	Temperature of Connate Water Sample	37.78	DEGC

Format: APACHE_D200 **Vertical Scale: 1:200** **Graphics File Created: 18−Mar−2008 21:58**

OP System Version: 15C0−309

MCM

HILTB−FTB	SRPC−3546−Q1_2008_OP15	HRLT−B	SRPC−3546−Q1_2008_OP15
PPC1−B	SRPC−3546−Q1_2008_OP15	MAXS−B	SKK−3442−MAST
MAPC−B	SKK−3442−MAST	EDTC−B	SKK−3493−EDTCB
BSP−AH−169	SRPC−3546−Q1_2008_OP15		

Input DLIS Files

14−Mar−2008 10:19

Output DLIS Files

DEFAULT	TLD_MCFL_CNL_HRLA_049PUP	FN:73	PRODUCER	18−Mar−2008 21:58
CLIENT	TLD_MCFL_CNL_HRLA_049PUC	FN:74	CUSTOMER	18−Mar−2008 21:58
REDUCED	TLD_MCFL_CNL_HRLA_049PUP	FN:75	PRODUCER	18−Mar−2008 21:58

Schlumberger

High Resolution Pass
1:200

MAXIS Field Log

Company: Apache Northwest Pty Ltd **Well: Coelacanth−1**

Input DLIS Files

14−Mar−2008 10:19

Output DLIS Files

DEFAULT	TLD_MCFL_CNL_HRLA_049PUP	FN:73	PRODUCER	18−Mar−2008 21:58	907.4 M	271.1 M
CLIENT	TLD_MCFL_CNL_HRLA_049PUC	FN:74	CUSTOMER	18−Mar−2008 21:58	907.4 M	271.1 M
REDUCED	TLD_MCFL_CNL_HRLA_049PUP	FN:75	PRODUCER	18−Mar−2008 21:58	907.4 M	271.1 M

Integrated Hole/Cement Volume Summary

Hole Volume = 92.11 M3

Cement Volume = 62.40 M3 (assuming 9.63 IN casing O.D.)

Computed from 906.9 M to 274.0 M using data channel(s) HCAL

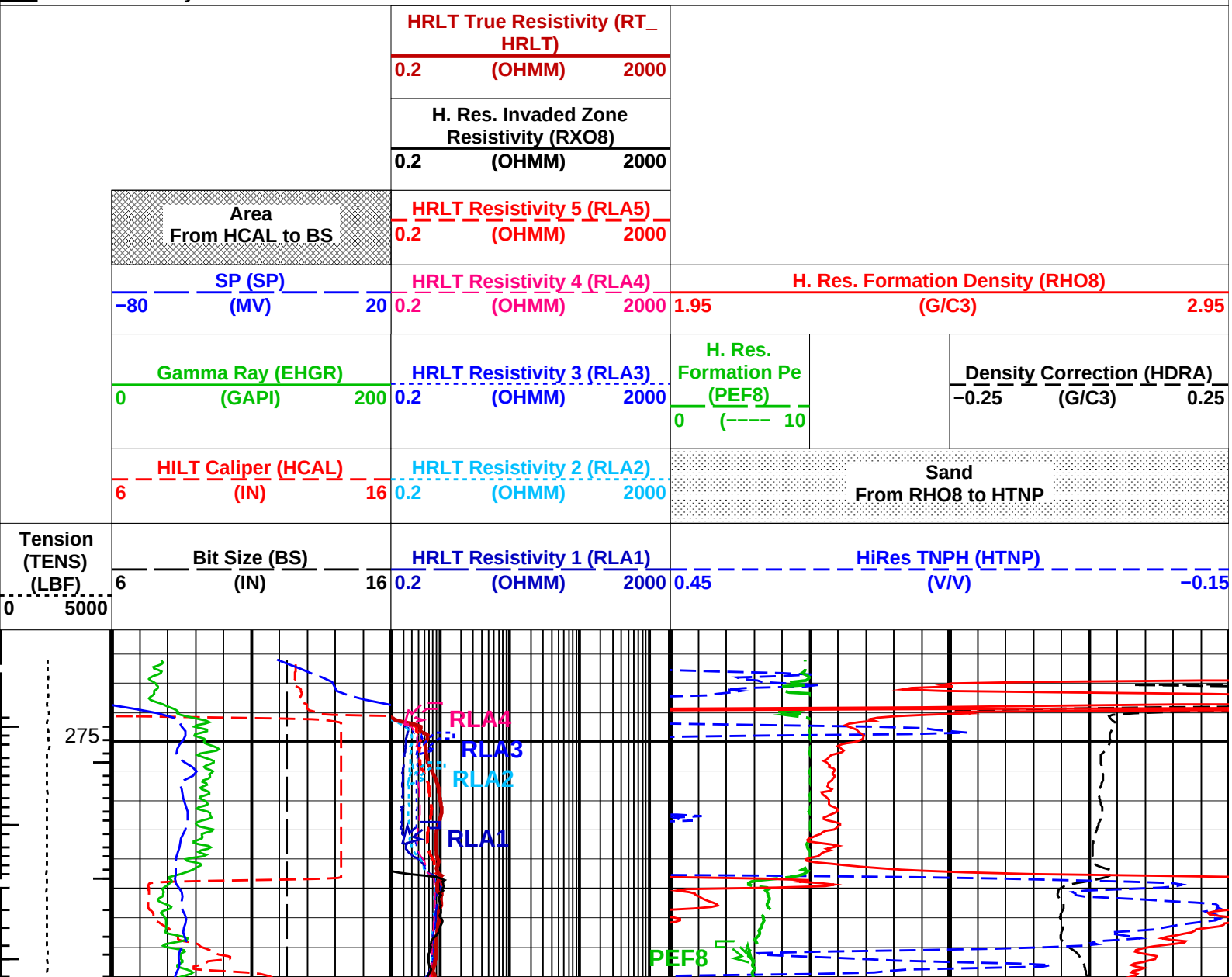
OP System Version: 15C0−309

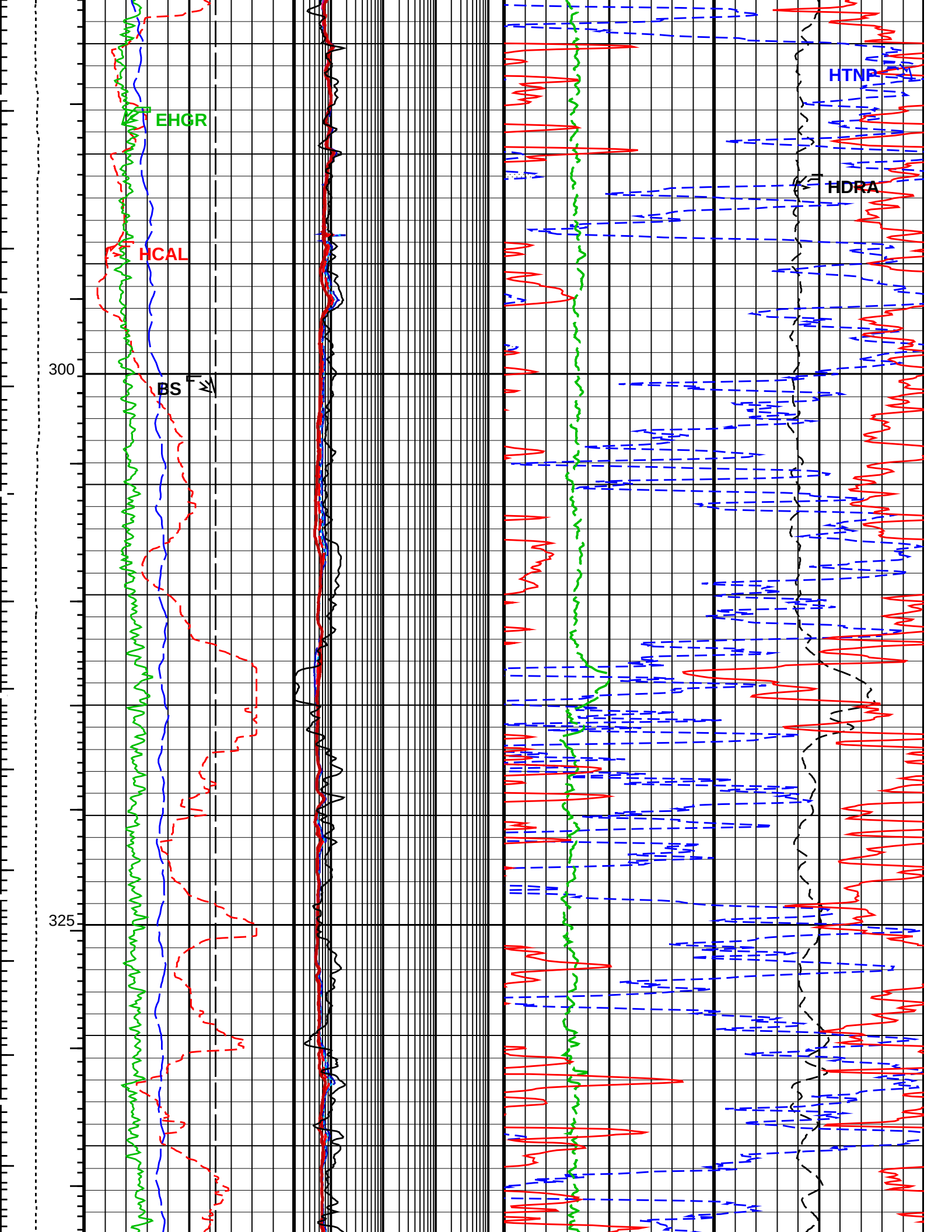
MCM

HILTB−FTB	SRPC−3546−Q1_2008_OP15	HRLT−B	SRPC−3546−Q1_2008_OP15
PPC1−B	SRPC−3546−Q1_2008_OP15	MAXS−B	SKK−3442−MAST
MAPC−B	SKK−3442−MAST	EDTC−B	SKK−3493−EDTCB
BSP−AH−169	SRPC−3546−Q1_2008_OP15		

PIP SUMMARY

- Integrated Hole Volume Minor Pip Every 0.1 M3
- Integrated Hole Volume Major Pip Every 1 M3
- Integrated Cement Volume Minor Pip Every 0.1 M3
- Integrated Cement Volume Major Pip Every 1 M3
- Time Mark Every 60 S

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HTNP
HDRA
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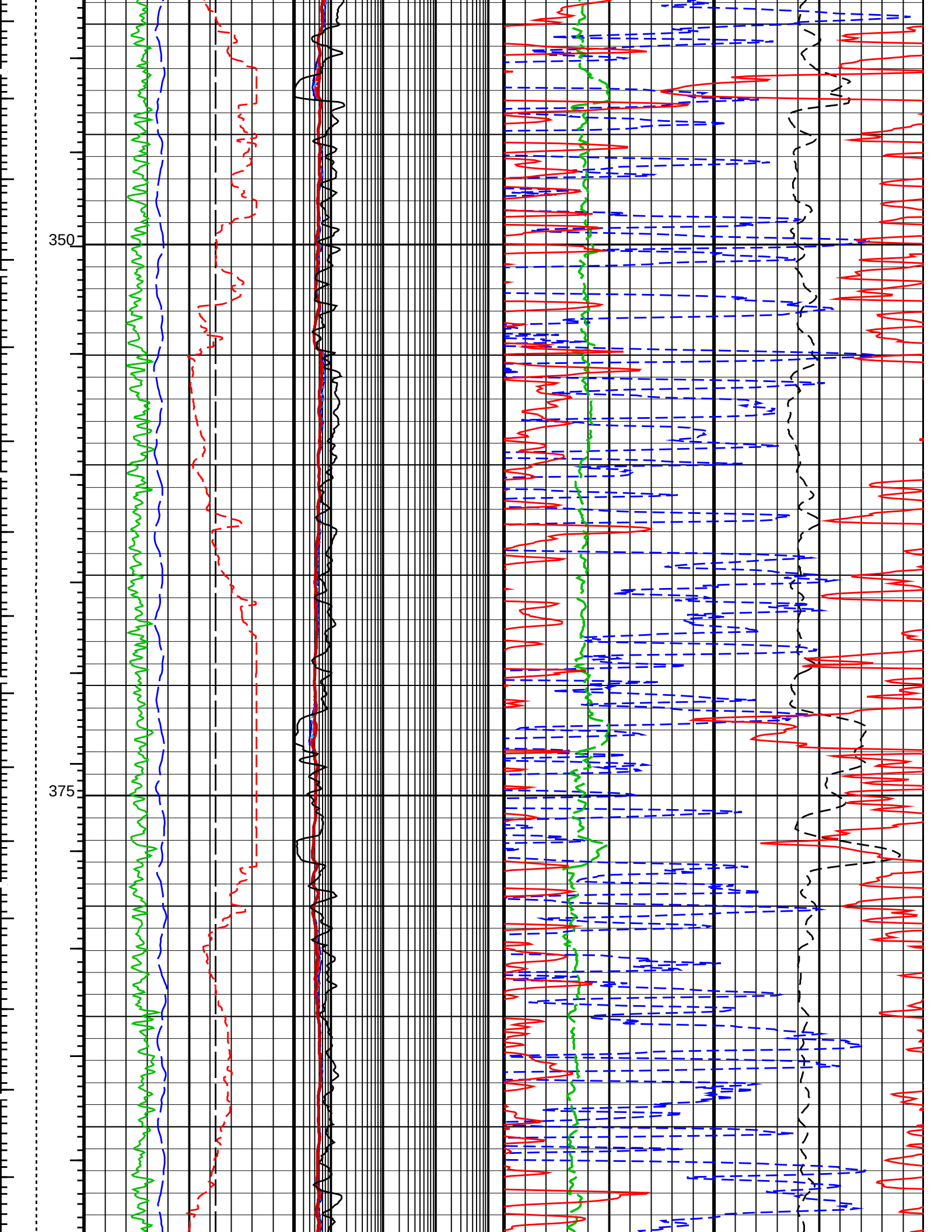
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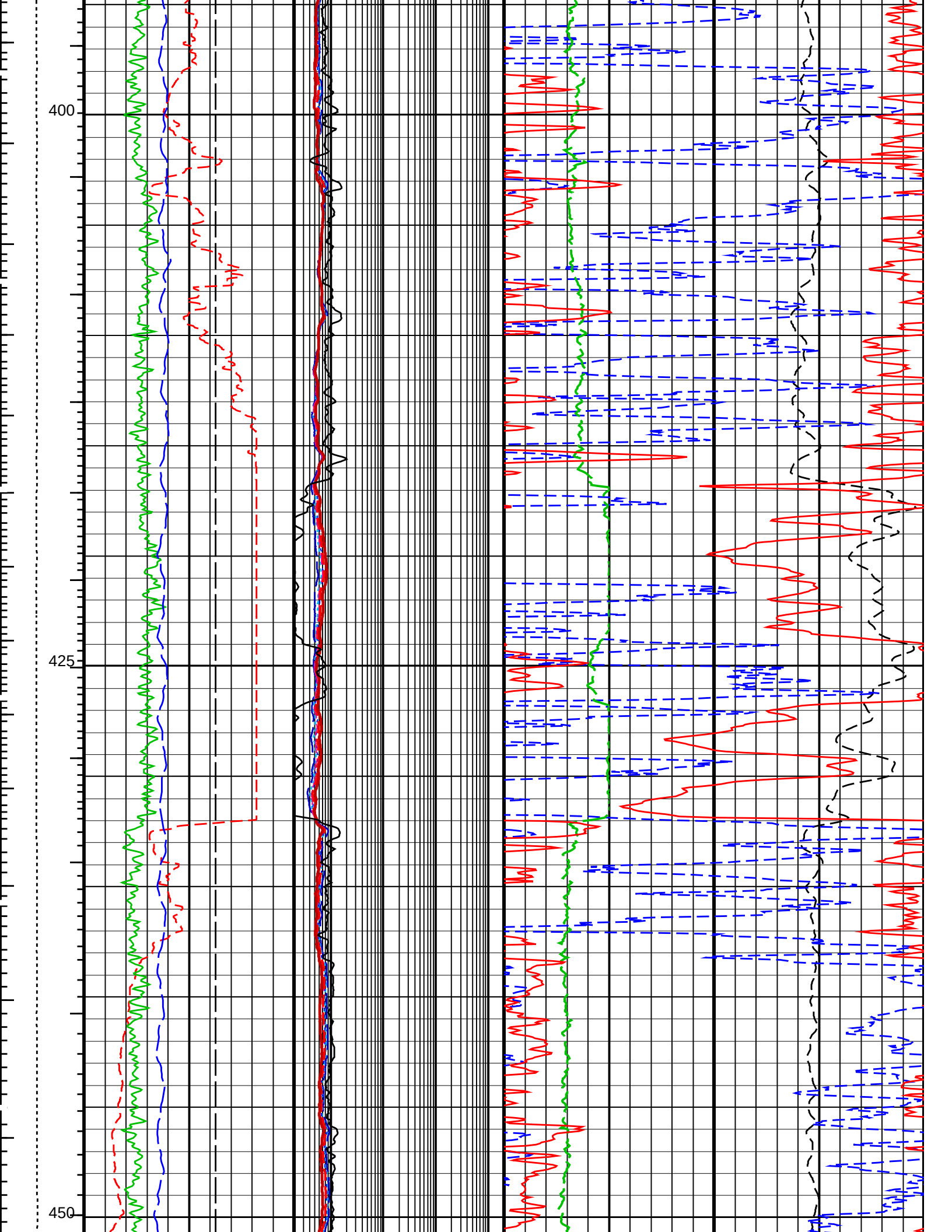
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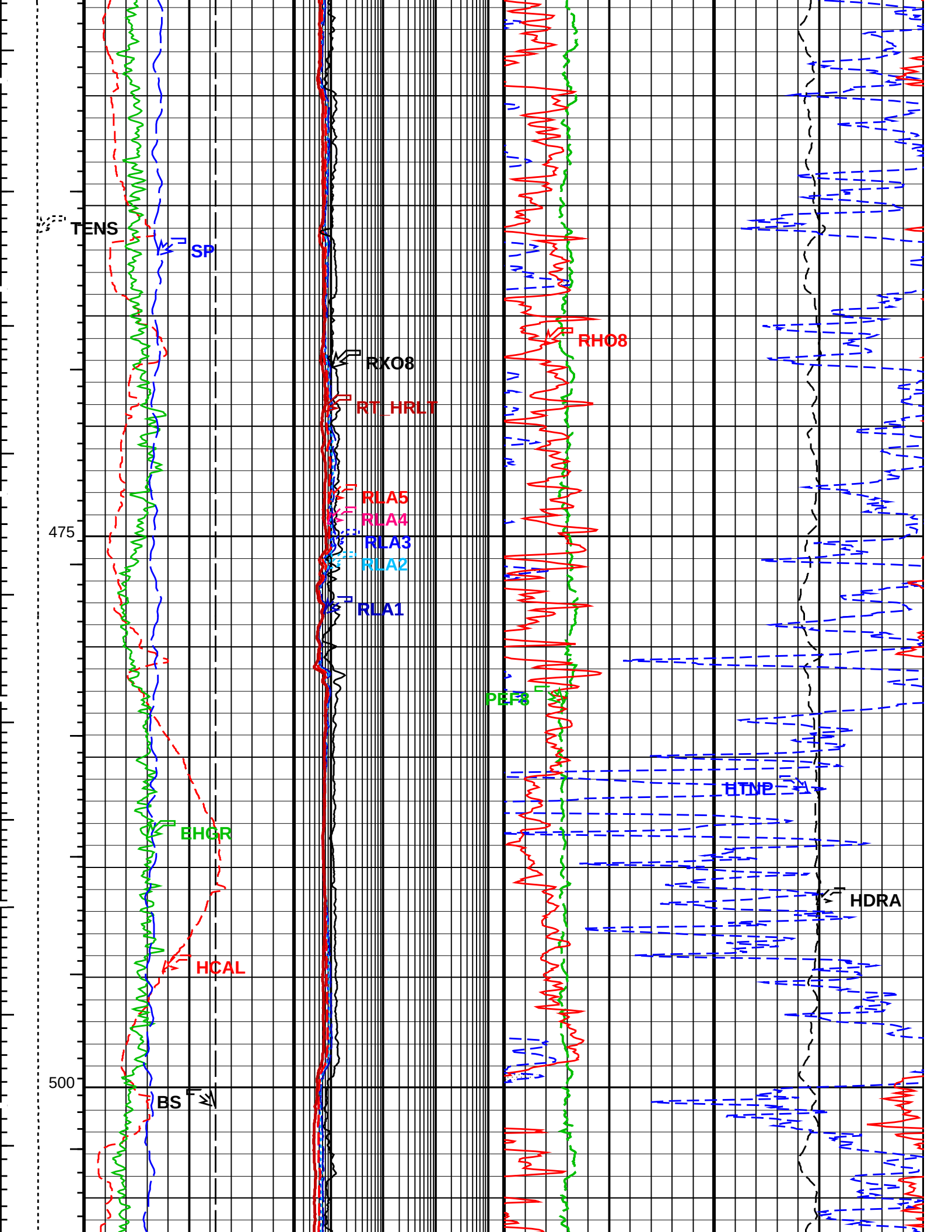
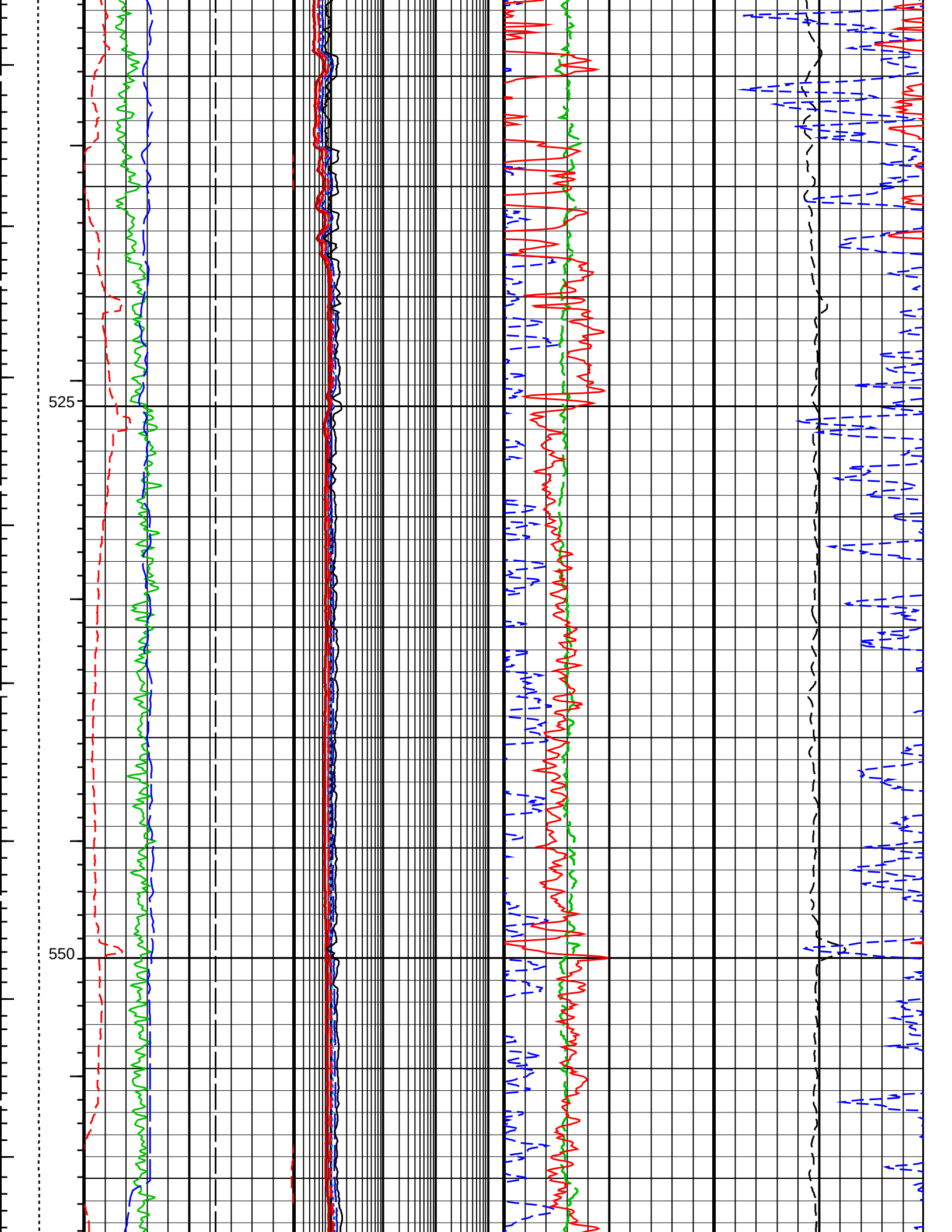

TENS
SP
RXO8
RT_HRLT
RLA5
RLA4
RLA3
RLA2
RLA1
475
RHO8
PEF8
HTNP
HDRA
EHGR
HCAL
500
BS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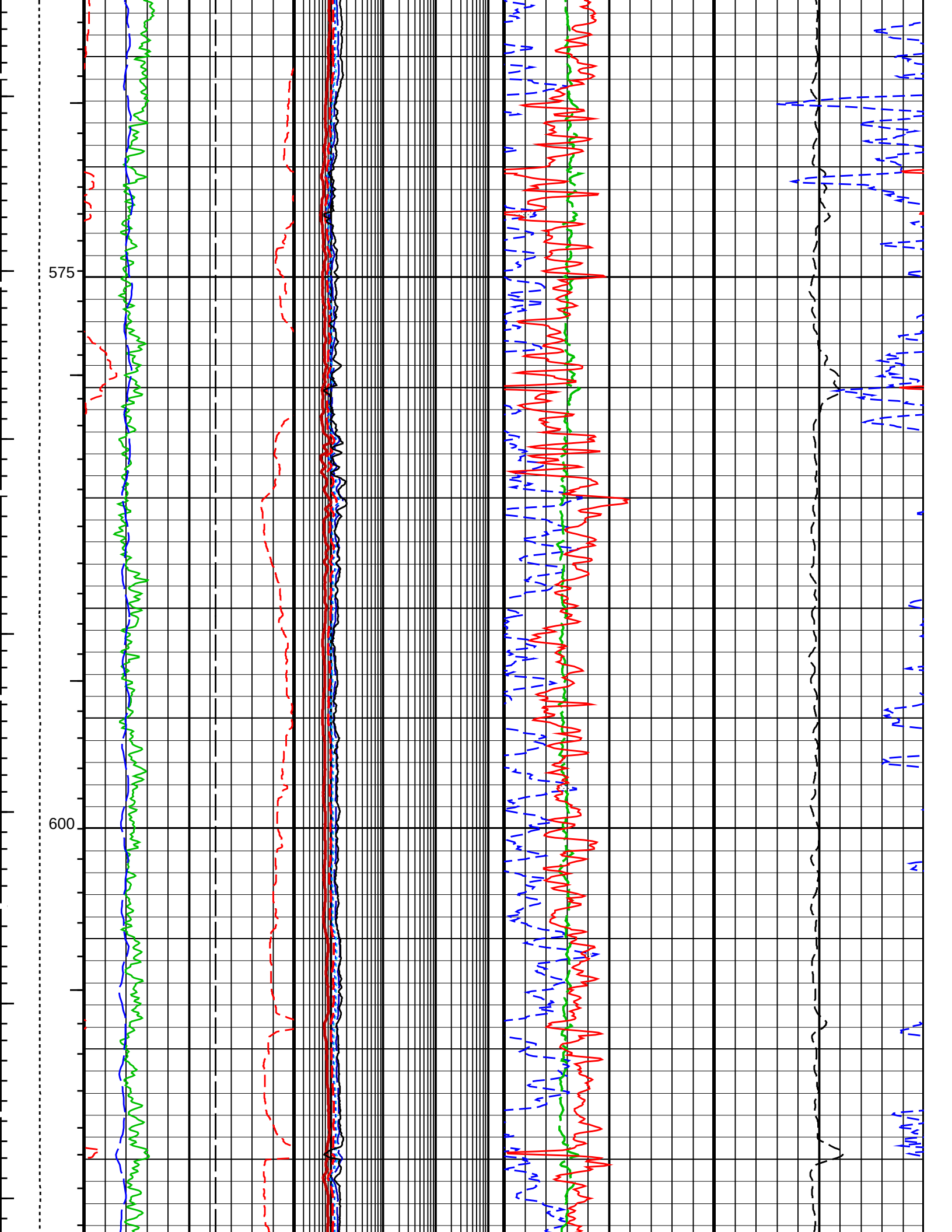
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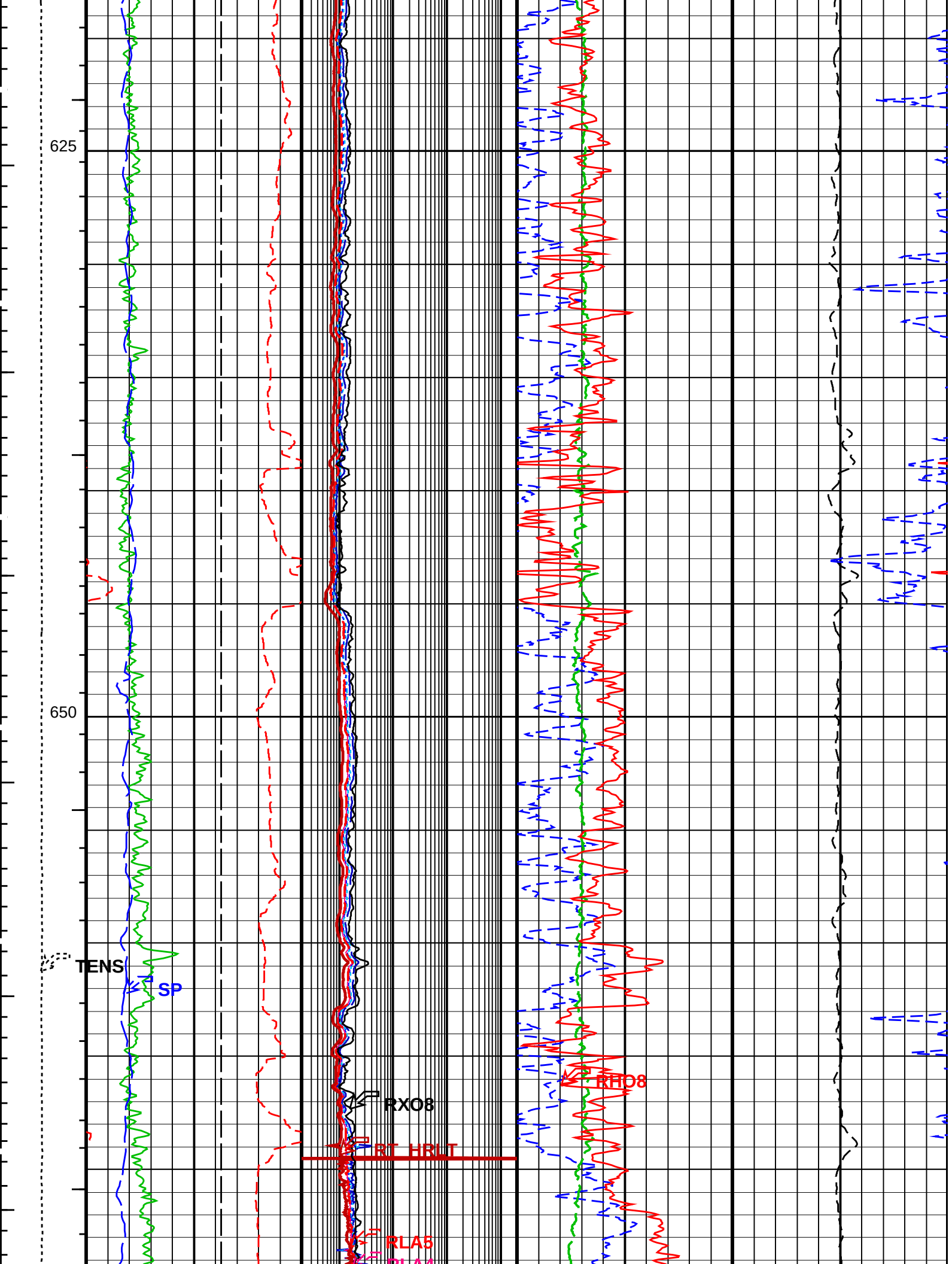
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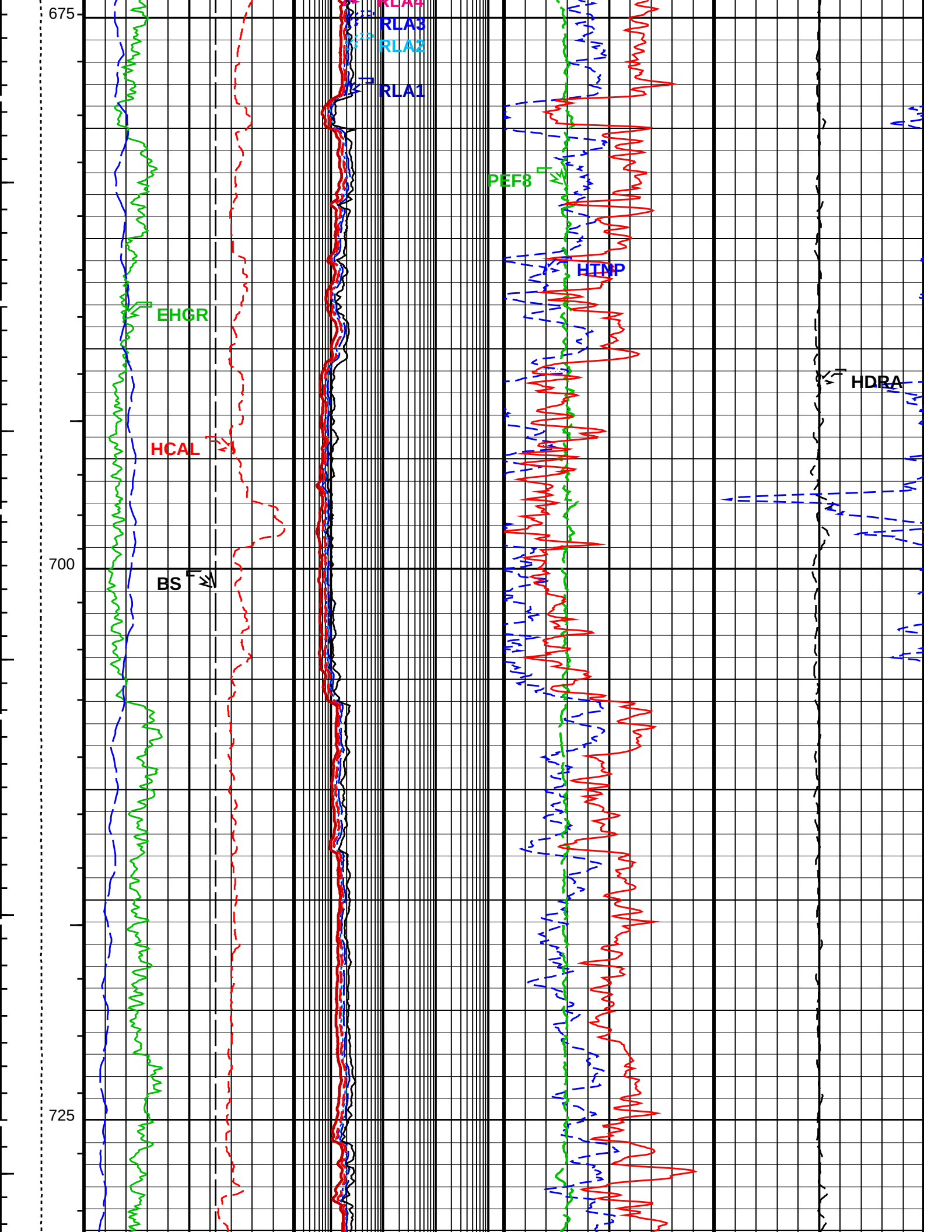
RT_HRLT
RHO8
RLA5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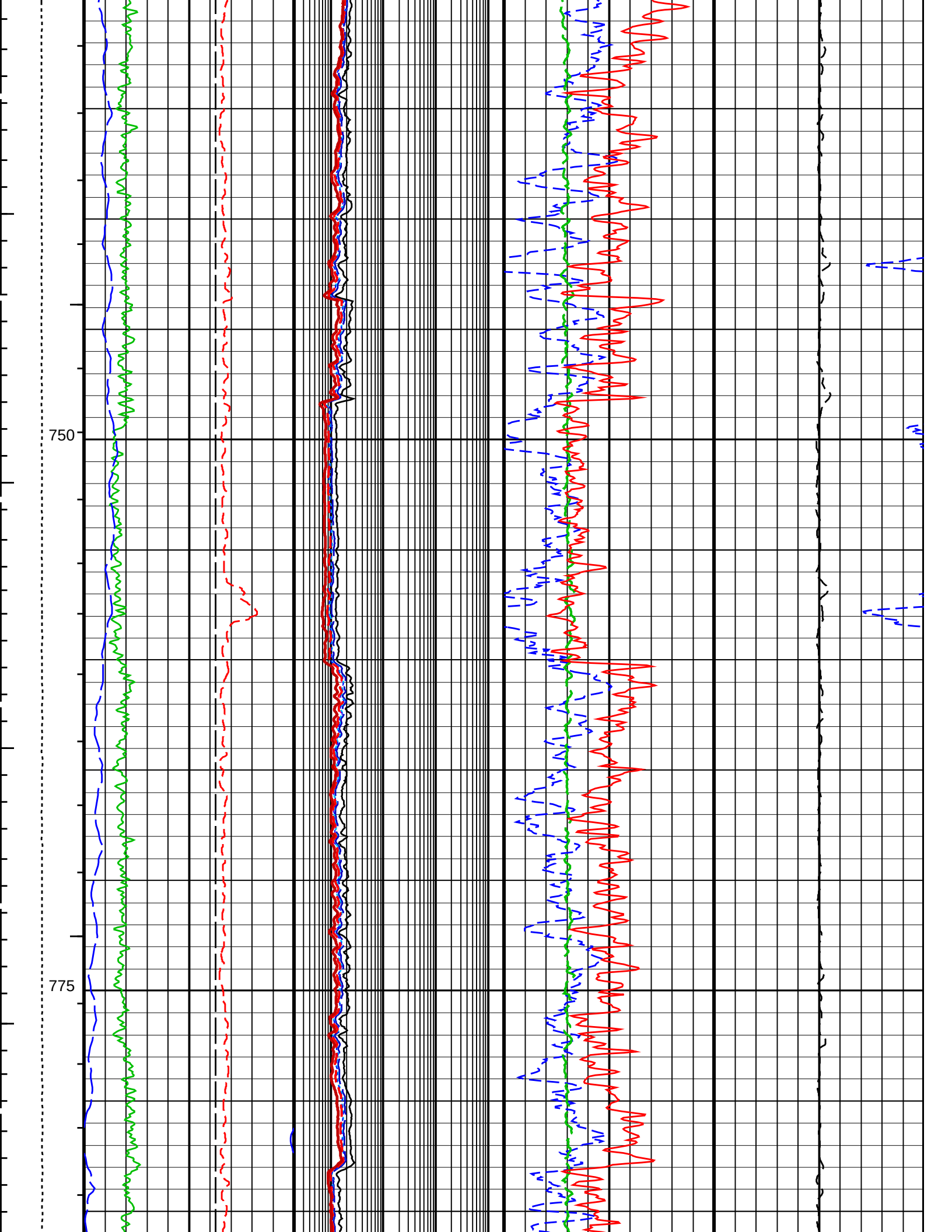
725
RLA4
RLA3
RLA2
RLA1
PEF8
HTNP
EHGR
HCAL
BS
HDRA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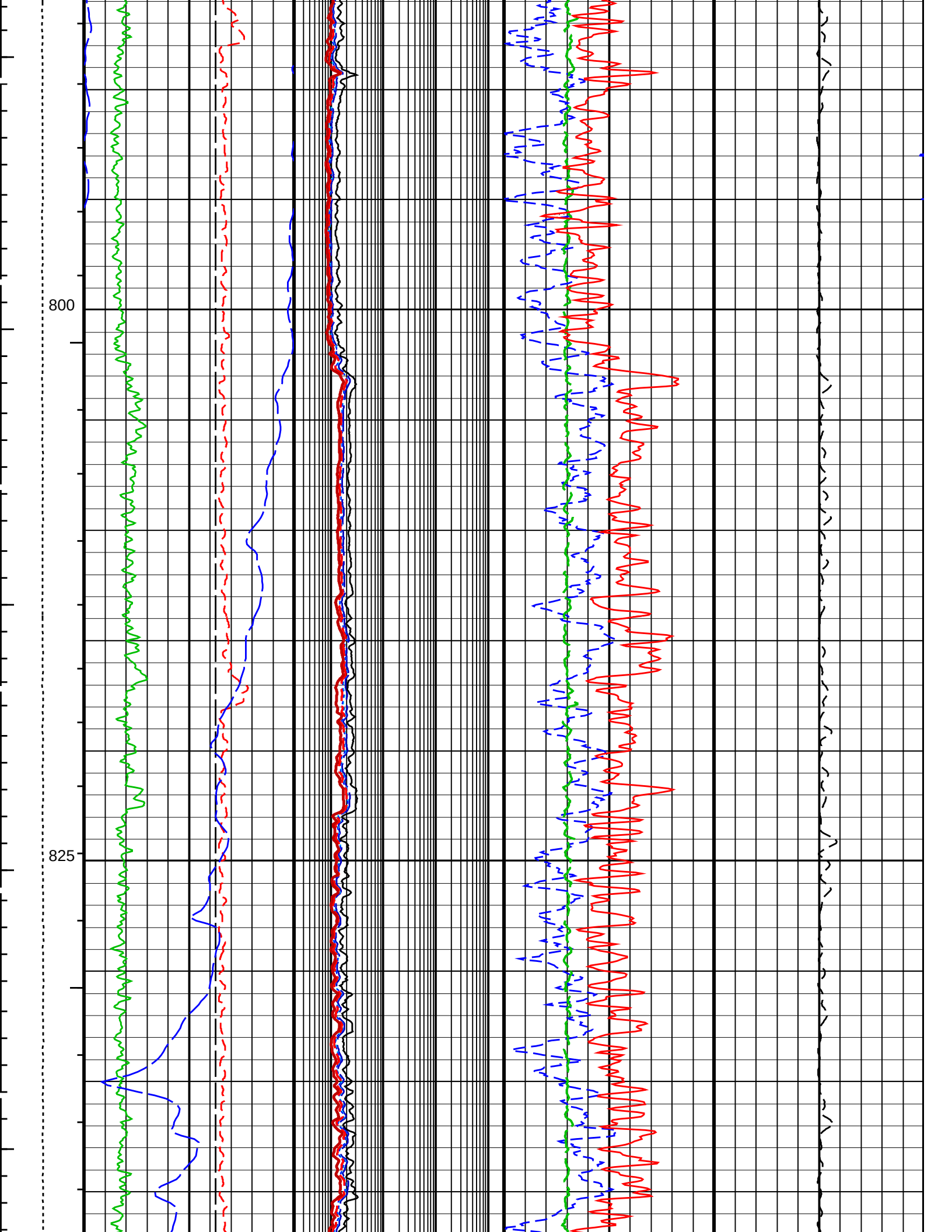
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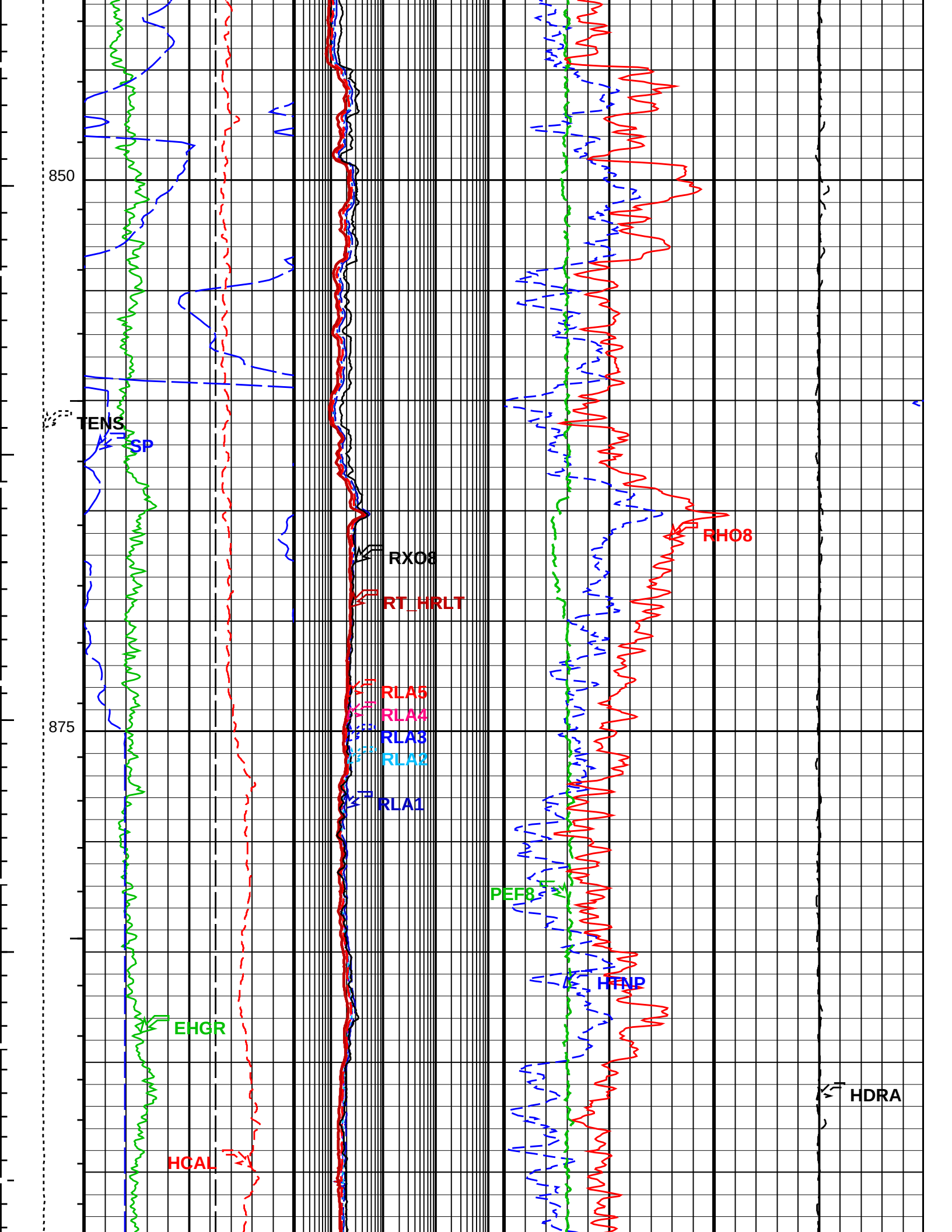
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RXO8
RT_HRLT
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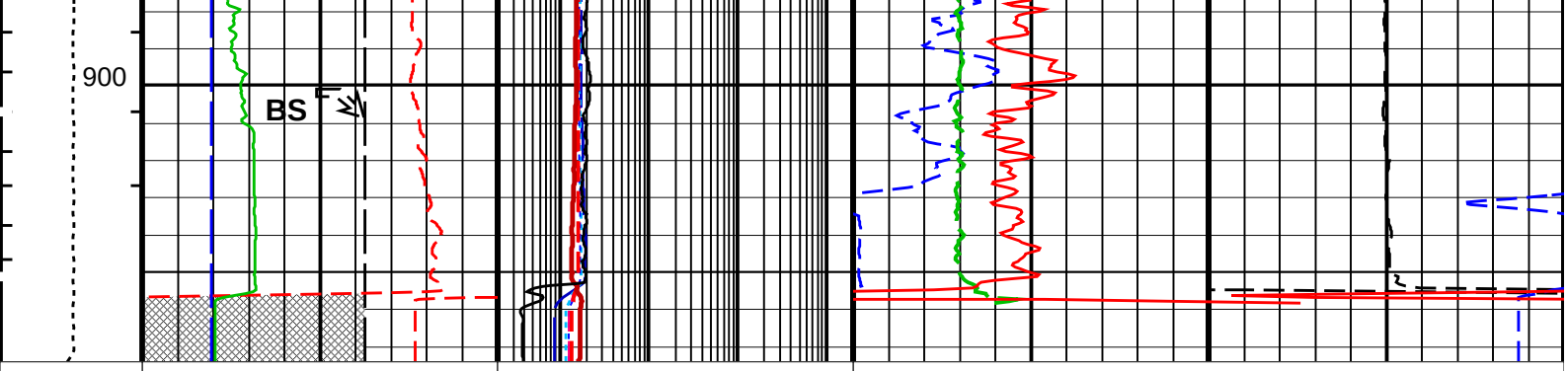


Tension (TENS) (LBF)	Bit Size (BS)	HRLT Resistivity 1 (RLA1)	HiRes TNPH (HTNP)
0 5000	6 (IN) 16	0.2 (OHMM) 2000	0.45 (V/V) −0.15
	HILT Caliper (HCAL)	HRLT Resistivity 2 (RLA2)	Sand From RHO8 to HTNP
	6 (IN) 16	0.2 (OHMM) 2000	
	Gamma Ray (EHGR)	HRLT Resistivity 3 (RLA3)	H. Res. Formation Pe (PEF8) / Density Correction (HDRA)
	0 (GAPI) 200	0.2 (OHMM) 2000	0 (----- 10 / −0.25 (G/C3) 0.25
	SP (SP)	HRLT Resistivity 4 (RLA4)	H. Res. Formation Density (RHO8)
	−80 (MV) 20	0.2 (OHMM) 2000	1.95 (G/C3) 2.95
	Area From HCAL to BS	HRLT Resistivity 5 (RLA5)	
		0.2 (OHMM) 2000	
		H. Res. Invaded Zone Resistivity (RXO8)	
		0.2 (OHMM) 2000	
		HRLT True Resistivity (RT_HRLT)	
		0.2 (OHMM) 2000	

PIP SUMMARY

- Integrated Hole Volume Minor Pip Every 0.1 M3
- Integrated Hole Volume Major Pip Every 1 M3
- Integrated Cement Volume Minor Pip Every 0.1 M3
- Integrated Cement Volume Major Pip Every 1 M3
- Time Mark Every 60 S

Parameters

DLIS Name	Description	Value	
	HILTB−FTB: High resolution Integrated Logging Tool−DTS		
BHFL	Borehole Fluid Type	WATER	
BHFL_TLD	HILT Nuclear Mud Base	WATER	
BHS	Borehole Status	OPEN	
BHT	Bottom Hole Temperature (used in calculations)	31.446	DEGC
BSCO	Borehole Salinity Correction Option	YES	
CCCO	Casing & Cement Thickness Correction Option	NO	
DHC	Density Hole Correction	BS	
DPPM	Density Porosity Processing Mode	HIRS	
EXSICL	External Shale Indicator Clean Value	20	
EXSISH	External Shale Indicator Shale Value	150	
FD	Fluid Density	1	G/C3
FEXP	Form Factor Exponent	2	
FNUM	Form Factor Numerator	1	
FPHI	Form Factor Porosity Source	DPHZ	
FSAL	Formation Salinity	−50000	PPM
FSCO	Formation Salinity Correction Option	YES	
GCLF	Germany Coal−like Formation Option	NO	
GCSE	Generalized Caliper Selection	HCAL	
GDEV	Average Angular Deviation of Borehole from Normal	0	DEG
GGRD	Geothermal Gradient	0.018227	DC/M
GRSE	Generalized Mud Resistivity Selection	CHART_GEN_9	
GTSE	Generalized Temperature Selection	HSTS_HTEM	
HACPP	Accelerometer PROM Presence	PRESENT_FILE	

HART	Accelerometer Reference Temperature	20	DEGC
HDCOD	HILT Density Coal detection	2	G/C3
HDSAD	HILT Density Salt detection	2.1	G/C3
HILT_GAS_DENSITY	HILT Gas Downhole Density	0	G/C3
HILT_GAS_OPTION	HILT Gas Computation Option	OFF	
HNCOD	HILT Neutron Coal detection	45	PU
HNSAD	HILT Neutron Salt detection	5	PU
HPHIECUT	HILT effective Porosity Cutoff	5	PU
HSCO	Hole Size Correction Option	YES	
HSIS	HILT Shale Indicator Selection	GR	
HSSO	HRDD Nuclear Source Strength Option	NORMAL	
HSWCUT	HILT Water Saturation from AITH cutoff	50	%
ISSBAR	Barite Mud Switch	NOBARITE	
MATR	Rock Matrix for Neutron Porosity Corrections	LIMESTONE	
MCCO	Mud Cake Correction Option	YES	
MCOR	Mud Correction	NATU	
MDEN	Matrix Density	2.71	G/C3
MHC0	MCFL B0 Contrast Correction Coefficient	2.2e−005	OHMS
MHC1	MCFL B1 Contrast Correction Coefficient	3.2e−005	OHMS
MHCC	MCFL High Contrast Correction Switch	NO	
MPOF	MCFL Processing Operation Mode	ON	
MWCO	Mud Weight Correction Option	YES	
NAAC	HRDD APS Activation Correction	OFF	
NMT	HILT Nuclear Mud Type	NOBARITE	
NPRM	HRDD Processing Mode	HiRes	
NSAR	HRDD Depth Sampling Rate	1	IN
PEA_FILTER	PEA Filter	NO_FILTER	
PEFC_FILTER	PEFC Filter	NO_FILTER	
PHIMAX	HILT max porosity	35	PU
PTCO	Pressure/Temperature Correction Option	YES	
SDAT	Standoff Data Source	SOCN	
SEXP_HILT	HILT Saturation Exponent	2	
SHT	Surface Hole Temperature	23.661	DEGC
SOCN	Standoff Distance	0.125	IN
SOCO	Standoff Correction Option	NO	
HRLT−B: High Resolution Laterolog Array − E			
BHS	Borehole Status	OPEN	
BHT	Bottom Hole Temperature (used in calculations)	31.446	DEGC
CALSTAT	HRLTB Calibration Status	SHALLOW_DONE	
CALTEMP	HRLTB Calibration Temperature	38.0354	DEGC
FREQ0	HRLT Frequency Index for Mode 0	32	
FREQ1	HRLT Frequency Index for Mode 1	128	
FREQ2	HRLT Frequency Index for Mode 2	104	
FREQ3	HRLT Frequency Index for Mode 3	86	
FREQ4	HRLT Frequency Index for Mode 4	56	
FREQ5	HRLT Frequency Index for Mode 5	44	
FREQ6	HRLT Frequency Index for Mode 6	116	
GCSE	Generalized Caliper Selection	HCAL	
GDEV	Average Angular Deviation of Borehole from Normal	0	DEG
GGRD	Geothermal Gradient	0.018227	DC/M
GRSE	Generalized Mud Resistivity Selection	CHART_GEN_9	
GTSE	Generalized Temperature Selection	HSTS_HTEM	
ISSBAR	Barite Mud Switch	NOBARITE	
KFAC_HRLT	HRLT K Factor Option	SONDE	
LOOPCOEF_S	HRLT Loop Coefficient for Shallow Modes	LOW	
LOOPMOD0	HRLT Mode 0 Loop Mode	AUTO	
LOOPMOD1	HRLT Mode 1 Loop Mode	AUTO	
LOOPMOD2	HRLT Mode 2 Loop Mode	AUTO	
LOOPMOD3	HRLT Mode 3 Loop Mode	AUTO	
LOOPMOD4	HRLT Mode 4 Loop Mode	AUTO	
LOOPMOD5	HRLT Mode 5 Loop Mode	AUTO	
LOOPMOD6	HRLT Mode 6 Loop Mode	AUTO	
MATR	Rock Matrix for Neutron Porosity Corrections	LIMESTONE	
PROCINV	Inversion Selection	ON	
PROCMFL	Inversion Micro−Resistivity Selection	NO_EXTERNAL_RXO	
PROCMSO	Mechanical Standoff Fin Size	2.5	IN
PROCRM	Processing Mud Resistivity Select	HRLT_Compute	
PROCSPO	Sonde Position	Eccentered	
SHT	Surface Hole Temperature	23.661	DEGC
PPC1−B: Powered Positioning Deveice/Caliper 1			
	PPC1 Caliper Type	CAL_STD	
CLBD_PPC	PPC Calibration data selection	ROM	
PWEL_PPC	PPC Primary Tool for WellCAD	NONE	
SWEL_PPC	PPC Secondary Tool for WellCAD (45 Degrees Rotation PPC Tool)	NONE	
WRDR_PPC	PPC Rotation Direction for Secondary Tool	NONE	
MAXS−B: Multimode Array Sonic Xmitter Sonde			
FIRING_TABLE	MAST Firing Table	** V **	
TX_AMP	Transmitter Amplitude Factor	** V **	
U_CE_CBLG7	CBL Gate Width 7 for Cement Evaluation	80	US
U_CE_CBLG8	CBL Gate Width 8 for Cement Evaluation	80	US
U_CE_NMSG7	Near Minimum Sliding Gate 7 for Cement Evaluation	220	US
U_CE_NMSG8	Near Minimum Sliding Gate 8 for Cement Evaluation	220	US
U_CE_SGDT7	Sliding Gate Delta−T 7 for Cement Evaluation	57	US/F
U_CE_SGDT8	Sliding Gate Delta−T 8 for Cement Evaluation	57	US/F
MAPC−B: Multimode Array Sonic Power Cartridge			

AZIM_SELECT	Azimuth Selection	P1AZ	
BHS	Borehole Status	OPEN	
BHT	Bottom Hole Temperature (used in calculations)	31.446	DEGC
BS	Bit Size	12.250	IN
CDTS	C−Delta−T Shale	100	US/F
CE_DCBLSEL	DCBL Selection for Cement Evaluation	3_5FT	
CE_VDLGRA	VDL Manual Gain Rate Array for Cement Evaluation	** V **	
CE_VDLSEL	VDL Selection for Cement Evaluation	MU_5FT	
CE_VDL_MODE	DCBL/VDL Mode for Cement Evaluation	STANDARD	
CE_VFILSWA	VDL Filter Switch Array for Cement Evaluation	** V **	
CRVIN_MF	Alteration Detection Input Number for Monopole Far	DISALLOW	
CRVIN_ML	Alteration Detection Input Number for Monopole Lower	DISALLOW	
CRVIN_MU	Alteration Detection Input Number for Monopole Upper	DISALLOW	
DCRMVL	DC Offset Removal Option	DC_MULTIPLE	
DLHS	Hole Diameter Source for SOBS Channel	AUTO	
DTCO_SELECT	Delta−T Compressional Selection for DSTC	MF	
DTF	Delta−T Fluid	204.5	US/F
DTM	Delta−T Matrix	56	US/F
DTSH_SELECT	Delta−T Shear Selection for DSTC	XD	
DWF7_SPEC	Channel/Station/Azimuth for VDL (DWF7) of Measurement 7	WFA7/9/1	
DWF8_SPEC	Channel/Station/Azimuth for VDL (DWF8) of Measurement 8	WFA8/5/1	
FIRING_TABLE	MAST Firing Table	** V **	
GCSE	Generalized Caliper Selection	HCAL	
GDEV	Average Angular Deviation of Borehole from Normal	0	DEG
GGRD	Geothermal Gradient	0.018227	DC/M
GRSE	Generalized Mud Resistivity Selection	CHART_GEN_9	
GTSE	Generalized Temperature Selection	HSTS_HTEM	
IMG_DTCO_SEL_MAST	Imaging Input DT Compressional Selection	CONSTANT_DTCO	
IMG_EST_DTCO_MAST	Imaging Estimated DT Compressional	120	US/F
IMG_RBS	Imaging Relative Bearing Selection	RB1	
ISSBAR	Barite Mud Switch	NOBARITE	
ITTS	Integrated Transit Time Source	DTCO	
MATR	Rock Matrix for Neutron Porosity Corrections	LIMESTONE	
NRSA	Number of Receivers in Sub−Array	** V **	
RBC	Relative Bearing Correction Allow/Disallow	DISALLOW	
ROTIN_XD	Alford Rotation X Dipole Measurement Number	DISALLOW	
ROTIN_YD	Alford Rotation Y Dipole Measurement Number	DISALLOW	
ROTWINDOW_CTRL	Alford Rotation Window Control	ON	
ROT_AI	Dipole Waveform Rotation Averaging Depth Interval	0	M
ROT_FIL_LENG	Alford Rotation Filter Length	0	
ROT_TWD	Alford Rotation Window Time Width	0	US
ROT_TWO	Alford Rotation Window Time Offset	0	US
ROT_XFH	Alford Rotation Filter High Cutoff	0	HZ
ROT_XFL	Alford Rotation Filter Low Cutoff	0	HZ
SHT	Surface Hole Temperature	23.661	DEGC
SPFS	Sonic Porosity Formula	RAYMER_HUNT	
SPSO	Sonic Porosity Source	DTCO	
STCAL	STC Algorithm	** V **	
STCSEL1	Station Selection for STC for Measurement 1	** V **	
STCSEL2	Station Selection for STC for Measurement 2	** V **	
STCSEL3	Station Selection for STC for Measurement 3	** V **	
STCSEL4	Station Selection for STC for Measurement 4	** V **	
STCSEL5	Station Selection for STC for Measurement 5	** V **	
STCSEL6	Station Selection for STC for Measurement 6	** V **	
STCSEL_FAST	Station Selection for STC for DT_FAST	** V **	
STCSEL_SLOW	Station Selection for STC for DT_SLOW	** V **	
TRMIN	Alteration Detection Minimum Transmitter Receiver Spacing for Processing	3.0	FT
TX_AMP	Transmitter Amplitude Factor	** V **	
U_CE_CBLG7	CBL Gate Width 7 for Cement Evaluation	80	US
U_CE_CBLG8	CBL Gate Width 8 for Cement Evaluation	80	US
U_CE_NMSG7	Near Minimum Sliding Gate 7 for Cement Evaluation	220	US
U_CE_NMSG8	Near Minimum Sliding Gate 8 for Cement Evaluation	220	US
U_CE_SGDT7	Sliding Gate Delta−T 7 for Cement Evaluation	57	US/F
U_CE_SGDT8	Sliding Gate Delta−T 8 for Cement Evaluation	57	US/F
U_SLL1_MAST	MAST DSTC Slowness Lower Limit 1	40	US/F
U_SLL2_MAST	MAST DSTC Slowness Lower Limit 2	40	US/F
U_SLL3_MAST	MAST DSTC Slowness Lower Limit 3	40	US/F
U_SLL4_MAST	MAST DSTC Slowness Lower Limit 4	0	US/F
U_SLL5_MAST	MAST DSTC Slowness Lower Limit 5	112	US/F
U_SLL6_MAST	MAST DSTC Slowness Lower Limit 6	112	US/F
U_SLL_FAST_MAST	MAST DSTC Slowness Lower Limit Fast	0	US/F
U_SLL_SLOW_MAST	MAST DSTC Slowness Lower Limit Slow	0	US/F
U_SUL1_MAST	MAST DSTC Slowness Upper Limit 1	240	US/F
U_SUL2_MAST	MAST DSTC Slowness Upper Limit 2	240	US/F
U_SUL3_MAST	MAST DSTC Slowness Upper Limit 3	240	US/F
U_SUL4_MAST	MAST DSTC Slowness Upper Limit 4	0	US/F
U_SUL5_MAST	MAST DSTC Slowness Upper Limit 5	772	US/F
U_SUL6_MAST	MAST DSTC Slowness Upper Limit 6	772	US/F
U_SUL_FAST_MAST	MAST DSTC Slowness Upper Limit Fast	0	US/F
U_SUL_SLOW_MAST	MAST DSTC Slowness Upper Limit Slow	0	US/F
EDTC−B: Enhanced DTS Cartridge			
BHFL	Borehole Fluid Type	WATER	
BHS	Borehole Status	OPEN	
BHT	Bottom Hole Temperature (used in calculations)	31.446	DEGC

BHT	Bottom Hole Temperature (used in calculations)	31.446	DEGC
BSCO	Borehole Salinity Correction Option	YES	
CCCO	Casing & Cement Thickness Correction Option	NO	
DPPM	Density Porosity Processing Mode	HIRS	
FSCO	Formation Salinity Correction Option	YES	
GCSE	Generalized Caliper Selection	HCAL	
GDEV	Average Angular Deviation of Borehole from Normal	0	DEG
GGRD	Geothermal Gradient	0.018227	DC/M
GRSE	Generalized Mud Resistivity Selection	CHART_GEN_9	
GTSE	Generalized Temperature Selection	HSTS_HTEM	
HSCO	Hole Size Correction Option	YES	
ISSBAR	Barite Mud Switch	NOBARITE	
ISSBAR_EDTC	Nuclear Mud Type	NOBARITE	
MATR	Rock Matrix for Neutron Porosity Corrections	LIMESTONE	
MCCO	Mud Cake Correction Option	YES	
MCOR	Mud Correction	NATU	
MWCO	Mud Weight Correction Option	YES	
PTCO	Pressure/Temperature Correction Option	YES	
SDAT	Standoff Data Source	SOCN	
SHT	Surface Hole Temperature	23.661	DEGC
SOCN	Standoff Distance	0.125	IN
SOCO	Standoff Correction Option	NO	
TPOS_EDTC	EDTC Tool Centered/Eccentered	Eccentered	
BSP−AH−169: Bridle SP			
SPNV	SP Next Value	0	MV
HOLEV: Integrated Hole/Cement Volume			
BHS	Borehole Status	OPEN	
BHT	Bottom Hole Temperature (used in calculations)	31.446	DEGC
FCD	Future Casing (Outer) Diameter	9.625	IN
GCSE	Generalized Caliper Selection	HCAL	
GDEV	Average Angular Deviation of Borehole from Normal	0	DEG
GGRD	Geothermal Gradient	0.018227	DC/M
GRSE	Generalized Mud Resistivity Selection	CHART_GEN_9	
GTSE	Generalized Temperature Selection	HSTS_HTEM	
HVCS	Integrated Hole Volume Caliper Selection	HCAL	
ISSBAR	Barite Mud Switch	NOBARITE	
MATR	Rock Matrix for Neutron Porosity Corrections	LIMESTONE	
SHT	Surface Hole Temperature	23.661	DEGC
STI: Stuck Tool Indicator			
LBFR	Trigger for MAXIS First Reading Label	TDL	
STKT	STI Stuck Threshold	0.762	M
TDD	Total Depth − Driller	907.00	M
TDL	Total Depth − Logger	907.00	M
System and Miscellaneous			
ALTDPCHAN	Name of alternate depth channel	MeasuredDepth	
BSAL	Borehole Salinity	62700.00	PPM
CSIZ	Current Casing Size	13.375	IN
CWEI	Casing Weight	54.50	LB/F
DFD	Drilling Fluid Density	1.15	G/C3
DO	Depth Offset for Playback	0.3	M
FLEV	Fluid Level	0.00	M
MST	Mud Sample Temperature	21.00	DEGC
PBVSADP	Use alternate depth channel for playback	NO	
PP	Playback Processing	RECOMPUTE	
RMFS	Resistivity of Mud Filtrate Sample	0.1301	OHMM
RW	Resistivity of Connate Water	1.0000	OHMM
TD	Total Depth	907	M
TWS	Temperature of Connate Water Sample	37.78	DEGC

Format: APACHE_HIGHRES_D200 **Vertical Scale: 1:200** **Graphics File Created: 18−Mar−2008 21:58**

OP System Version: 15C0−309

MCM

HILTB−FTB	SRPC−3546−Q1_2008_OP15	HRLT−B	SRPC−3546−Q1_2008_OP15
PPC1−B	SRPC−3546−Q1_2008_OP15	MAXS−B	SKK−3442−MAST
MAPC−B	SKK−3442−MAST	EDTC−B	SKK−3493−EDTCB
BSP−AH−169	SRPC−3546−Q1_2008_OP15		

Input DLIS Files

14−Mar−2008 10:19

Output DLIS Files

DEFAULT	TLD_MCFL_CNL_HRLA_049PUP	FN:73	PRODUCER	18−Mar−2008 21:58
CLIENT	TLD_MCFL_CNL_HRLA_049PUC	FN:74	CUSTOMER	18−Mar−2008 21:58
REDUCED	TLD_MCFL_CNL_HRLA_049PUP	FN:75	PRODUCER	18−Mar−2008 21:58

Schlumberger

Calibrations

MAXIS Field Log

Calibration and Check Summary

Measurement	Nominal	Master	Before	After	Change	Limit	Units
High resolution Integrated Logging Tool−DTS Wellsite Calibration − Stab Measurement Summary							
Before: 13−Mar−2008 13:35							
BS Window Ratio	0.7624	N/A	0.7620	N/A	N/A	N/A	
BS Window Sum	10750	N/A	10540	N/A	N/A	N/A	CPS
SS Window Ratio	0.4883	N/A	0.4860	N/A	N/A	N/A	
SS Window Sum	10370	N/A	10380	N/A	N/A	N/A	CPS
LS Window Ratio	0.2968	N/A	0.2950	N/A	N/A	N/A	
LS Window Sum	1160	N/A	1159	N/A	N/A	N/A	CPS
High resolution Integrated Logging Tool−DTS Wellsite Calibration − Photo−multiplier High Voltages Calibrations							
Before: 13−Mar−2008 13:35							
BS PM High Voltage (Command)	1227	N/A	1261	N/A	N/A	N/A	V
SS PM High Voltage (Command)	1921	N/A	1888	N/A	N/A	N/A	V
LS PM High Voltage (Command)	1407	N/A	1415	N/A	N/A	N/A	V
High resolution Integrated Logging Tool−DTS Wellsite Calibration − Crystal Quality Resolutions Calibration							
Before: 13−Mar−2008 13:35							
BS Crystal Resolution	9.875	N/A	9.844	N/A	N/A	N/A	%
SS Crystal Resolution	10.56	N/A	10.21	N/A	N/A	N/A	%
LS Crystal Resolution	9.503	N/A	9.642	N/A	N/A	N/A	%
High resolution Integrated Logging Tool−DTS Wellsite Calibration − MCFL Calibration							
Before: 13−Mar−2008 13:36							
Raw B0 Resistivity	3875	N/A	3880	N/A	N/A	N/A	OHMM
Raw B1 Resistivity	3830	N/A	3830	N/A	N/A	N/A	OHMM
Raw B2 Resistivity	3830	N/A	3831	N/A	N/A	N/A	OHMM
High resolution Integrated Logging Tool−DTS Wellsite Calibration − HILT Caliper Calibration							
Before: 13−Mar−2008 13:29							
HILT Caliper Zero Measurement	8.000	N/A	8.092	N/A	N/A	N/A	IN
HILT Caliper Plus Measurement	12.00	N/A	12.28	N/A	N/A	N/A	IN
High resolution Integrated Logging Tool−DTS Wellsite Calibration − Detector Calibration							
Before: 13−Mar−2008 14:02							
Gamma Ray Background	30.00	N/A	7.162	N/A	N/A	N/A	GAPI
Gamma Ray (Jig − Bkg)	190.6	N/A	190.6	N/A	N/A	17.32	GAPI
Gamma Ray (Calibrated)	165.0	N/A	165.0	N/A	N/A	15.00	GAPI
High resolution Integrated Logging Tool−DTS Wellsite Calibration − Zero Measurement							
Master: 20−Feb−2008 19:21 Before: 13−Mar−2008 13:32							
CNTC Background	29.71	29.71	28.32	N/A	N/A	4.457	CPS
CFTC Background	33.75	33.75	29.47	N/A	N/A	5.063	CPS
High resolution Integrated Logging Tool−DTS Wellsite Calibration − Ratio Measurement							
Master: 20−Feb−2008 19:21							
Thermal Near Corr. (Tank)	5800	5605	N/A	N/A	N/A	N/A	CPS
Thermal Far Corr. (Tank)	2400	2340	N/A	N/A	N/A	N/A	CPS
CNTC/CFTC (Tank)	2.159	2.395	N/A	N/A	N/A	N/A	
High resolution Integrated Logging Tool−DTS Wellsite Calibration − Accelerometer Calibration							
Before: 13−Mar−2008 21:57							
Z−Axis Acceleration	9.810	N/A	9.798	N/A	N/A	N/A	M/S2
High resolution Integrated Logging Tool−DTS Master Calibration − Inversion results							
Master: 20−Feb−2008 21:02							
Rho Aluminum	2.596	2.602	−−	−−	−−	−−	G/C3
Rho Magnesium	1.686	1.685	−−	−−	−−	−−	G/C3
Pe Aluminum	2.570	2.571	−−	−−	−−	−−	
Pe Magnesium	2.650	2.634	−−	−−	−−	−−	

High resolution Integrated Logging Tool−DTS Master Calibration − Deviation Summary
Master: 20−Feb−2008 21:02

BS Average Deviation	0	0.5701	−−	−−	−−	−−	%
BS Max Deviation	0	1.350	−−	−−	−−	−−	%
SS Average Deviation	0	0.3068	−−	−−	−−	−−	%
SS Max Deviation	0	0.7734	−−	−−	−−	−−	%
LS Average Deviation	0	0.6760	−−	−−	−−	−−	%
LS Max Deviation	0	1.772	−−	−−	−−	−−	%

High Resolution Laterolog Array − B Wellsite Calibration − HRLT M01
Before: 13−Mar−2008 23:28

HRLT M0−M1 Voltage Plus − 0	0	N/A	−317.4	N/A	N/A	9.681	UV
HRLT M0−M1 Voltage Plus − 1	0	N/A	−349.1	N/A	N/A	9.681	UV
HRLT M0−M1 Voltage Plus − 2	0	N/A	−353.4	N/A	N/A	9.681	UV
HRLT M0−M1 Voltage Plus − 3	0	N/A	−338.9	N/A	N/A	9.681	UV
HRLT M0−M1 Voltage Plus − 4	0	N/A	−323.5	N/A	N/A	9.681	UV
HRLT M0−M1 Voltage Plus − 5	0	N/A	−328.7	N/A	N/A	9.681	UV
HRLT M0−M1 Voltage Plus − 6	0	N/A	305.4	N/A	N/A	9.681	UV
HRLT M0−M1 Voltage Plus − 7	0	N/A	−322.7	N/A	N/A	9.681	UV

High Resolution Laterolog Array − B Wellsite Calibration − HRLT M12
Before: 13−Mar−2008 23:28

HRLT M1−M2 Voltage Plus − 0	0	N/A	1745	N/A	N/A	53.42	UV
HRLT M1−M2 Voltage Plus − 1	0	N/A	1919	N/A	N/A	53.42	UV
HRLT M1−M2 Voltage Plus − 2	0	N/A	1936	N/A	N/A	53.42	UV
HRLT M1−M2 Voltage Plus − 3	0	N/A	1857	N/A	N/A	53.42	UV
HRLT M1−M2 Voltage Plus − 4	0	N/A	1773	N/A	N/A	53.42	UV
HRLT M1−M2 Voltage Plus − 5	0	N/A	1803	N/A	N/A	53.42	UV
HRLT M1−M2 Voltage Plus − 6	0	N/A	−1686	N/A	N/A	53.42	UV
HRLT M1−M2 Voltage Plus − 7	0	N/A	1781	N/A	N/A	53.42	UV

High Resolution Laterolog Array − B Wellsite Calibration − HRLT M23
Before: 13−Mar−2008 23:28

HRLT M2−M3 Voltage Plus − 0	0	N/A	1730	N/A	N/A	53.42	UV
HRLT M2−M3 Voltage Plus − 1	0	N/A	1907	N/A	N/A	53.42	UV
HRLT M2−M3 Voltage Plus − 2	0	N/A	1928	N/A	N/A	53.42	UV
HRLT M2−M3 Voltage Plus − 3	0	N/A	1854	N/A	N/A	53.42	UV
HRLT M2−M3 Voltage Plus − 4	0	N/A	1766	N/A	N/A	53.42	UV
HRLT M2−M3 Voltage Plus − 5	0	N/A	1798	N/A	N/A	53.42	UV
HRLT M2−M3 Voltage Plus − 6	0	N/A	−1665	N/A	N/A	53.42	UV
HRLT M2−M3 Voltage Plus − 7	0	N/A	1781	N/A	N/A	53.42	UV

High Resolution Laterolog Array − B Wellsite Calibration − HRLT V34
Before: 13−Mar−2008 23:28

HRLT A3−A4 Voltage Plus − 0	0	N/A	68400	N/A	N/A	2100	UV
HRLT A3−A4 Voltage Plus − 1	0	N/A	75680	N/A	N/A	2100	UV
HRLT A3−A4 Voltage Plus − 2	0	N/A	76720	N/A	N/A	2100	UV
HRLT A3−A4 Voltage Plus − 3	0	N/A	73940	N/A	N/A	2100	UV
HRLT A3−A4 Voltage Plus − 4	0	N/A	70260	N/A	N/A	2100	UV
HRLT A3−A4 Voltage Plus − 5	0	N/A	71450	N/A	N/A	2100	UV
HRLT A3−A4 Voltage Plus − 6	0	N/A	−65110	N/A	N/A	2100	UV
HRLT A3−A4 Voltage Plus − 7	0	N/A	70000	N/A	N/A	2100	UV

High Resolution Laterolog Array − B Wellsite Calibration − HRLT V45
Before: 13−Mar−2008 23:28

HRLT A4−A5 Voltage Plus − 0	0	N/A	68220	N/A	N/A	2100	UV
HRLT A4−A5 Voltage Plus − 1	0	N/A	75560	N/A	N/A	2100	UV
HRLT A4−A5 Voltage Plus − 2	0	N/A	76590	N/A	N/A	2100	UV
HRLT A4−A5 Voltage Plus − 3	0	N/A	73780	N/A	N/A	2100	UV
HRLT A4−A5 Voltage Plus − 4	0	N/A	70100	N/A	N/A	2100	UV
HRLT A4−A5 Voltage Plus − 5	0	N/A	71260	N/A	N/A	2100	UV
HRLT A4−A5 Voltage Plus − 6	0	N/A	−65000	N/A	N/A	2100	UV
HRLT A4−A5 Voltage Plus − 7	0	N/A	70000	N/A	N/A	2100	UV

High Resolution Laterolog Array − B Wellsite Calibration − HRLT V56
Before: 13−Mar−2008 23:28

HRLT A5−A6 Voltage Plus − 0	0	N/A	68360	N/A	N/A	2100	UV
HRLT A5−A6 Voltage Plus − 1	0	N/A	75840	N/A	N/A	2100	UV
HRLT A5−A6 Voltage Plus − 2	0	N/A	76840	N/A	N/A	2100	UV
HRLT A5−A6 Voltage Plus − 3	0	N/A	74000	N/A	N/A	2100	UV
HRLT A5−A6 Voltage Plus − 4	0	N/A	70230	N/A	N/A	2100	UV
HRLT A5−A6 Voltage Plus − 5	0	N/A	71390	N/A	N/A	2100	UV
HRLT A5−A6 Voltage Plus − 6	0	N/A	−65280	N/A	N/A	2100	UV
HRLT A5−A6 Voltage Plus − 7	0	N/A	70000	N/A	N/A	2100	UV

High Resolution Laterolog Array − B Wellsite Calibration − HRLT VTP
Before: 13−Mar−2008 23:28

HRLT Torpedo−M0 Voltage − 0	0	N/A	−67940	N/A	N/A	2100	UV
HRLT Torpedo−M0 Voltage − 1	0	N/A	−75570	N/A	N/A	2100	UV
HRLT Torpedo−M0 Voltage − 2	0	N/A	−76660	N/A	N/A	2100	UV
HRLT Torpedo−M0 Voltage − 3	0	N/A	−73920	N/A	N/A	2100	UV

HRLT Torpedo−M0 Voltage − 4	0	N/A	−70250	N/A	N/A	2100	UV
HRLT Torpedo−M0 Voltage − 5	0	N/A	−71420	N/A	N/A	2100	UV
HRLT Torpedo−M0 Voltage − 6	0	N/A	64990	N/A	N/A	2100	UV
HRLT Torpedo−M0 Voltage − 7	0	N/A	−70000	N/A	N/A	2100	UV
High Resolution Laterolog Array − B Wellsite Calibration − HRLT VBD							
Before: 13−Mar−2008 23:28							
HRLT Bridle#9−M0 Voltage − 0	0	N/A	−67880	N/A	N/A	2100	UV
HRLT Bridle#9−M0 Voltage − 1	0	N/A	−75350	N/A	N/A	2100	UV
HRLT Bridle#9−M0 Voltage − 2	0	N/A	−76430	N/A	N/A	2100	UV
HRLT Bridle#9−M0 Voltage − 3	0	N/A	−73740	N/A	N/A	2100	UV
HRLT Bridle#9−M0 Voltage − 4	0	N/A	−70140	N/A	N/A	2100	UV
HRLT Bridle#9−M0 Voltage − 5	0	N/A	−71340	N/A	N/A	2100	UV
HRLT Bridle#9−M0 Voltage − 6	0	N/A	64780	N/A	N/A	2100	UV
HRLT Bridle#9−M0 Voltage − 7	0	N/A	−70000	N/A	N/A	2100	UV
High Resolution Laterolog Array − B Wellsite Calibration − HRLT ISO							
Before: 13−Mar−2008 23:28							
HRLT Source Current Plus − 0	0	N/A	283.1	N/A	N/A	8.520	UA
HRLT Source Current Plus − 1	0	N/A	281.1	N/A	N/A	8.520	UA
HRLT Source Current Plus − 2	0	N/A	281.1	N/A	N/A	8.520	UA
HRLT Source Current Plus − 3	0	N/A	281.1	N/A	N/A	8.520	UA
HRLT Source Current Plus − 4	0	N/A	281.1	N/A	N/A	8.520	UA
HRLT Source Current Plus − 5	0	N/A	281.1	N/A	N/A	8.520	UA
HRLT Source Current Plus − 6	0	N/A	281.1	N/A	N/A	8.520	UA
HRLT Source Current Plus − 7	0	N/A	281.1	N/A	N/A	8.520	UA
High Resolution Laterolog Array − B Wellsite Calibration − HRLT MV							
Before: 13−Mar−2008 23:28							
HRLT Vertical Voltage Pl − 0	0	N/A	−319.4	N/A	N/A	9.681	UV
HRLT Vertical Voltage Pl − 1	0	N/A	−344.3	N/A	N/A	9.681	UV
HRLT Vertical Voltage Pl − 2	0	N/A	−346.9	N/A	N/A	9.681	UV
HRLT Vertical Voltage Pl − 3	0	N/A	−330.9	N/A	N/A	9.681	UV
HRLT Vertical Voltage Pl − 4	0	N/A	−312.5	N/A	N/A	9.681	UV
HRLT Vertical Voltage Pl − 5	0	N/A	−332.7	N/A	N/A	9.681	UV
HRLT Vertical Voltage Pl − 6	0	N/A	313.8	N/A	N/A	9.681	UV
HRLT Vertical Voltage Pl − 7	0	N/A	−322.7	N/A	N/A	9.681	UV
Enhanced DTS Cartridge Wellsite Calibration − EDTC Accelerometer Calibration							
Before: 13−Mar−2008 21:57							
EDTC Z−Axis Acceleration	9.810	N/A	9.803	N/A	N/A	N/A	M/S2
Enhanced DTS Cartridge Wellsite Calibration − Detector Calibration							
Before: 13−Mar−2008 13:29							
Gamma Ray (Jig − Bkg)	169.8	N/A	169.8	N/A	N/A	15.43	GAPI
Gamma Ray (Calibrated)	165.0	N/A	165.0	N/A	N/A	15.00	GAPI

The GLS−VJ source activity is acceptable.

The HGNS Neutron Master Calibration was done with the following parameters :

NCT−B Water Temperature	20.0	DEGC.
Thermal Housing Size	3.376	IN.
NSR−F serial number	5224	

High resolution Integrated Logging Tool−DTS / Equipment Identification

Primary Equipment:		
HILT high−Resolution Mechanical Sonde	HRMS − B	788
HILT Rxo Gamma−ray Device	HRGD − B	1806
HILT Micro Cylindrically Focused Log Dev	MCFL −	
GR Logging Source	GLS − VJ	5334
HILT High Res. Control Cartridge	HRCC − B	868
HILT Gamma−Ray Neutron Sonde−DTS	HGNS − B	856
HGNS Gamma−Ray Device	HGR −	
HGNS Neutron Detector with Alpha Source	HCNT −	
Auxiliary Equipment:		
Neutron Calibration Tank	NCT − B	
Gamma Source Radioactive	GSR − Y	6750
HGNS Housing	HGNH −	3915

High resolution Integrated Logging Tool−DTS Wellsite Calibration

High resolution Integrated Logging Tool−DTS Wellsite Calibration

Stab Measurement Summary

Phase	BS Window Ratio	Value	Phase	SS Window Ratio	Value	Phase	LS Window Ratio	Value
Before		0.7620	Before		0.4860	Before		0.2950
	0.7243 (Minimum) 0.7624 (Nominal) 0.8005 (Maximum)			0.4639 (Minimum) 0.4883 (Nominal) 0.5127 (Maximum)			0.2820 (Minimum) 0.2968 (Nominal) 0.3117 (Maximum)	
Phase	BS Window Sum CPS	Value	Phase	SS Window Sum CPS	Value	Phase	LS Window Sum CPS	Value
Before		10540	Before		10380	Before		1159
	10210 (Minimum) 10750 (Nominal) 11290 (Maximum)			9854 (Minimum) 10370 (Nominal) 10890 (Maximum)			1102 (Minimum) 1160 (Nominal) 1218 (Maximum)	

Before: 13−Mar−2008 13:35

High resolution Integrated Logging Tool−DTS Wellsite Calibration

Photo−multiplier High Voltages Calibrations

Phase	BS PM High Voltage (Command) V	Value	Phase	SS PM High Voltage (Command) V	Value	Phase	LS PM High Voltage (Command) V	Value
Before		1261	Before		1888	Before		1415
	1127 (Minimum) 1227 (Nominal) 1327 (Maximum)			1821 (Minimum) 1921 (Nominal) 2021 (Maximum)			1307 (Minimum) 1407 (Nominal) 1507 (Maximum)	

Before: 13−Mar−2008 13:35

High resolution Integrated Logging Tool−DTS Wellsite Calibration

Crystal Quality Resolutions Calibration

Phase	BS Crystal Resolution %	Value	Phase	SS Crystal Resolution %	Value	Phase	LS Crystal Resolution %	Value
Before		9.844	Before		10.21	Before		9.642
	8.875 (Minimum) 9.875 (Nominal) 10.87 (Maximum)			9.556 (Minimum) 10.56 (Nominal) 11.56 (Maximum)			8.503 (Minimum) 9.503 (Nominal) 10.50 (Maximum)	

Before: 13−Mar−2008 13:35

High resolution Integrated Logging Tool−DTS Wellsite Calibration

MCFL Calibration

Phase	Raw B0 Resistivity OHMM	Value	Phase	Raw B1 Resistivity OHMM	Value	Phase	Raw B2 Resistivity OHMM	Value
Before		3880	Before		3830	Before		3831
	3565 (Minimum) 3875 (Nominal) 4185 (Maximum)			3524 (Minimum) 3830 (Nominal) 4136 (Maximum)			3524 (Minimum) 3830 (Nominal) 4136 (Maximum)	

Before: 13−Mar−2008 13:36

High resolution Integrated Logging Tool−DTS Wellsite Calibration

HILT Caliper Calibration

Phase	HILT Caliper Zero Measurement IN	Value	Phase	HILT Caliper Plus Measurement IN	Value
Before		8.092	Before		12.28
	6.000 (Minimum) 8.000 (Nominal) 10.00 (Maximum)			9.000 (Minimum) 12.00 (Nominal) 15.00 (Maximum)	

Before: 13−Mar−2008 13:29

High resolution Integrated Logging Tool−DTS Wellsite Calibration

Detector Calibration

Phase	Gamma Ray Background GAPI	Value	Phase	Gamma Ray (Jig − Bkg) GAPI	Value	Phase	Gamma Ray (Calibrated) GAPI	Value
Before		7.162	Before		190.6	Before		165.0
	0 (Minimum) 30.00 (Nominal) 120.0 (Maximum)			173.2 (Minimum) 190.6 (Nominal) 207.9 (Maximum)			150.0 (Minimum) 165.0 (Nominal) 180.0 (Maximum)	

Before: 13−Mar−2008 14:02

High resolution Integrated Logging Tool−DTS Wellsite Calibration

Zero Measurement

Phase	CNTC Background CPS	Value	Phase	CFTC Background CPS	Value
Master		29.71	Master		33.75
Before		28.32	Before		29.47
	5.000 (Minimum) 29.71 (Nominal) 40.00 (Maximum)			5.000 (Minimum) 33.75 (Nominal) 40.00 (Maximum)	

Master: 20−Feb−2008 19:21 Before: 13−Mar−2008 13:32

High resolution Integrated Logging Tool−DTS Wellsite Calibration

Ratio Measurement

Phase	Thermal Near Corr. (Tank) CPS	Value	Phase	Thermal Far Corr. (Tank) CPS	Value	Phase	CNTC/CFTC (Tank)	Value
Master		5605	Master		2340	Master		2.395

4700 (Minimum)	5800 (Nominal)	6900 (Maximum)	1900 (Minimum)	2400 (Nominal)	2900 (Maximum)	2.120 (Minimum)	2.159 (Nominal)	2.540 (Maximum)

Master: 20−Feb−2008 19:21

High resolution Integrated Logging Tool−DTS
Wellsite Calibration
Accelerometer Calibration

Phase	Z−Axis Acceleration M/S2			Value
Before				9.798
	9.610 (Minimum)	9.810 (Nominal)	10.01 (Maximum)	

Before: 13−Mar−2008 21:57

High resolution Integrated Logging Tool−DTS Master Calibration
Inversion results

Phase	Rho Aluminum G/C3			Value
Master				2.602
	2.586 (Minimum)	2.596 (Nominal)	2.606 (Maximum)	

Phase	Rho Magnesium G/C3			Value
Master				1.685
	1.676 (Minimum)	1.686 (Nominal)	1.696 (Maximum)	

Phase	Pe Aluminum			Value
Master				2.571
	2.470 (Minimum)	2.570 (Nominal)	2.670 (Maximum)	

Phase	Pe Magnesium			Value
Master				2.634
	2.550 (Minimum)	2.650 (Nominal)	2.750 (Maximum)	

Master: 20−Feb−2008 21:02

High resolution Integrated Logging Tool−DTS Master Calibration
Deviation Summary

Phase	BS Average Deviation %			Value
Master				0.5701
	−0.6000 (Minimum)	0 (Nominal)	0.6000 (Maximum)	

Phase	SS Average Deviation %			Value
Master				0.3068
	−1.000 (Minimum)	0 (Nominal)	1.000 (Maximum)	

Phase	LS Average Deviation %			Value
Master				0.6760
	−1.500 (Minimum)	0 (Nominal)	1.500 (Maximum)	

Phase	BS Max Deviation %			Value
Master				1.350
	−1.600 (Minimum)	0 (Nominal)	1.600 (Maximum)	

Phase	SS Max Deviation %			Value
Master				0.7734
	−2.500 (Minimum)	0 (Nominal)	2.500 (Maximum)	

Phase	LS Max Deviation %			Value
Master				1.772
	−3.500 (Minimum)	0 (Nominal)	3.500 (Maximum)	

Master: 20−Feb−2008 21:02

High resolution Integrated Logging Tool−DTS Master Calibration
Zero Measurement

Phase	CNTC Background CPS			Value
Master				29.71
	5.000 (Minimum)	29.71 (Nominal)	40.00 (Maximum)	

Phase	CFTC Background CPS			Value
Master				33.75
	5.000 (Minimum)	33.75 (Nominal)	40.00 (Maximum)	

Master: 20−Feb−2008 19:21

High resolution Integrated Logging Tool−DTS Master Calibration
Tank Measurement

Phase	Thermal Near Corr. (Tank) CPS			Value
Master				5605
	4700 (Minimum)	5800 (Nominal)	6900 (Maximum)	

Phase	Thermal Far Corr. (Tank) CPS			Value
Master				2340
	1900 (Minimum)	2400 (Nominal)	2900 (Maximum)	

Phase	CNTC/CFTC (Tank)			Value
Master				2.395
	2.120 (Minimum)	2.159 (Nominal)	2.540 (Maximum)	

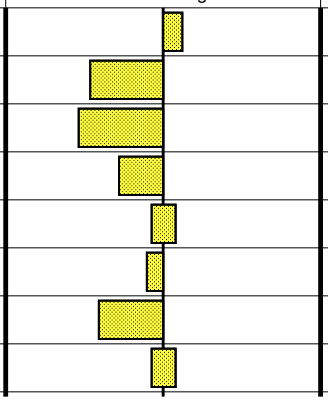
Master: 20−Feb−2008 19:21

High Resolution Laterolog Array − B / Equipment Identification

Primary Equipment:		
HRLT Sonde	HRLS − B	1745
Auxiliary Equipment:		
HRLT lower Housing	HRLH − B	1745
HRLT Lower Cartridge	HRLC − B	1745
HRLT upper Housing	HRUH − B	1741
HRLT Upper Cartridge	HRUC − B	1730

High Resolution Laterolog Array − B Wellsite Calibration

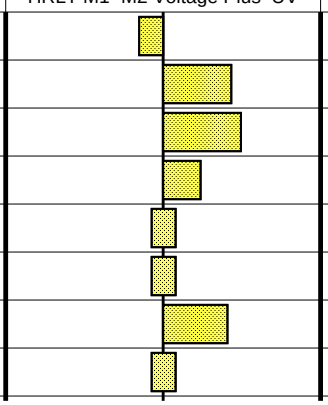
HRLT M01

Idx	Phase	HRLT M0−M1 Voltage Plus UV	Value	Nominal	Maximum	Minimum
0	Before		−317.4	−322.7	−280.7	−379.7
1	Before		−349.1	−322.7	−280.7	−379.7
2	Before		−353.4	−322.7	−280.7	−379.7
3	Before		−338.9	−322.7	−280.7	−379.7
4	Before		−323.5	−322.7	−280.7	−379.7
5	Before		−328.7	−322.7	−280.7	−379.7
6	Before		305.4	322.7	379.7	280.7
7	Before		−322.7	−322.7	−280.7	−379.7
		(Minimum) (Nominal) (Maximum)				

Before: 13−Mar−2008 23:28

High Resolution Laterolog Array − B Wellsite Calibration

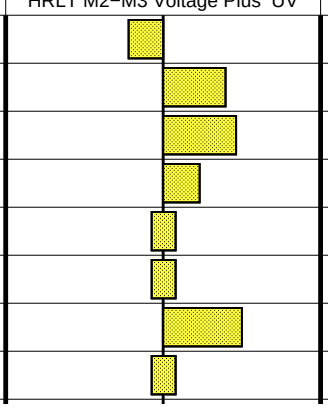
HRLT M12

Idx	Phase	HRLT M1−M2 Voltage Plus UV	Value	Nominal	Maximum	Minimum
0	Before		1745	1781	2095	1549
1	Before		1919	1781	2095	1549
2	Before		1936	1781	2095	1549
3	Before		1857	1781	2095	1549
4	Before		1773	1781	2095	1549
5	Before		1803	1781	2095	1549
6	Before		−1686	−1781	−1549	−2095
7	Before		1781	1781	2095	1549
		(Minimum) (Nominal) (Maximum)				

Before: 13−Mar−2008 23:28

High Resolution Laterolog Array − B Wellsite Calibration

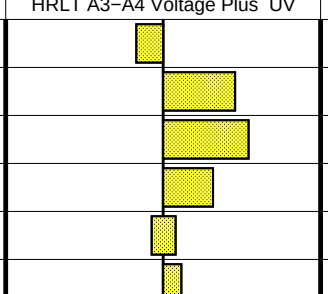
HRLT M23

Idx	Phase	HRLT M2−M3 Voltage Plus UV	Value	Nominal	Maximum	Minimum
0	Before		1730	1781	2095	1549
1	Before		1907	1781	2095	1549
2	Before		1928	1781	2095	1549
3	Before		1854	1781	2095	1549
4	Before		1766	1781	2095	1549
5	Before		1798	1781	2095	1549
6	Before		−1665	−1781	−1549	−2095
7	Before		1781	1781	2095	1549
		(Minimum) (Nominal) (Maximum)				

Before: 13−Mar−2008 23:28

High Resolution Laterolog Array − B Wellsite Calibration

HRLT V34

Idx	Phase	HRLT A3−A4 Voltage Plus UV	Value	Nominal	Maximum	Minimum
0	Before		68400	70000	82360	60900
1	Before		75680	70000	82360	60900
2	Before		76720	70000	82360	60900
3	Before		73940	70000	82360	60900
4	Before		70260	70000	82360	60900
5	Before		71450	70000	82360	60900

6	Before		−65110	−70000	−60900	−82360
7	Before		70000	70000	82360	60900
		(Minimum) (Nominal) (Maximum)				

Before: 13−Mar−2008 23:28

High Resolution Laterolog Array − B Wellsite Calibration

HRLT V45

Idx	Phase	HRLT A4−A5 Voltage Plus UV	Value	Nominal	Maximum	Minimum
0	Before		68220	70000	82360	60900
1	Before		75560	70000	82360	60900
2	Before		76590	70000	82360	60900
3	Before		73780	70000	82360	60900
4	Before		70100	70000	82360	60900
5	Before		71260	70000	82360	60900
6	Before		−65000	−70000	−60900	−82360
7	Before		70000	70000	82360	60900
		(Minimum) (Nominal) (Maximum)				

Before: 13−Mar−2008 23:28

High Resolution Laterolog Array − B Wellsite Calibration

HRLT V56

Idx	Phase	HRLT A5−A6 Voltage Plus UV	Value	Nominal	Maximum	Minimum
0	Before		68360	70000	82360	60900
1	Before		75840	70000	82360	60900
2	Before		76840	70000	82360	60900
3	Before		74000	70000	82360	60900
4	Before		70230	70000	82360	60900
5	Before		71390	70000	82360	60900
6	Before		−65280	−70000	−60900	−82360
7	Before		70000	70000	82360	60900
		(Minimum) (Nominal) (Maximum)				

Before: 13−Mar−2008 23:28

High Resolution Laterolog Array − B Wellsite Calibration

HRLT VTP

Idx	Phase	HRLT Torpedo−M0 Voltage Plus UV	Value	Nominal	Maximum	Minimum
0	Before		−67940	−70000	−60900	−82360
1	Before		−75570	−70000	−60900	−82360
2	Before		−76660	−70000	−60900	−82360
3	Before		−73920	−70000	−60900	−82360
4	Before		−70250	−70000	−60900	−82360
5	Before		−71420	−70000	−60900	−82360
6	Before		64990	70000	82360	60900
7	Before		−70000	−70000	−60900	−82360
		(Minimum) (Nominal) (Maximum)				

Before: 13−Mar−2008 23:28

High Resolution Laterolog Array − B Wellsite Calibration

HRLT VBD

Idx	Phase	HRLT Bridle#9−M0 Voltage Plus UV	Value	Nominal	Maximum	Minimum

0	Before		−67880	−70000	−60900	−82360
1	Before		−75350	−70000	−60900	−82360
2	Before		−76430	−70000	−60900	−82360
3	Before		−73740	−70000	−60900	−82360
4	Before		−70140	−70000	−60900	−82360
5	Before		−71340	−70000	−60900	−82360
6	Before		64780	70000	82360	60900
7	Before		−70000	−70000	−60900	−82360
		(Minimum) (Nominal) (Maximum)				

Before: 13−Mar−2008 23:28

High Resolution Laterolog Array − B Wellsite Calibration

HRLT ISO

Idx	Phase	HRLT Source Current Plus UA	Value	Nominal	Maximum	Minimum
0	Before		283.1	284.0	334.1	247.0
1	Before		281.1	281.1	330.7	244.4
2	Before		281.1	281.1	330.7	244.4
3	Before		281.1	281.1	330.7	244.4
4	Before		281.1	281.1	330.7	244.4
5	Before		281.1	281.1	330.7	244.4
6	Before		281.1	281.1	330.7	244.4
7	Before		281.1	281.1	330.7	244.4
		(Minimum) (Nominal) (Maximum)				

Before: 13−Mar−2008 23:28

High Resolution Laterolog Array − B Wellsite Calibration

HRLT MV

Idx	Phase	HRLT Vertical Voltage Plus UV	Value	Nominal	Maximum	Minimum
0	Before		−319.4	−322.7	−280.7	−379.7
1	Before		−344.3	−322.7	−280.7	−379.7
2	Before		−346.9	−322.7	−280.7	−379.7
3	Before		−330.9	−322.7	−280.7	−379.7
4	Before		−312.5	−322.7	−280.7	−379.7
5	Before		−332.7	−322.7	−280.7	−379.7
6	Before		313.8	322.7	379.7	280.7
7	Before		−322.7	−322.7	−280.7	−379.7
		(Minimum) (Nominal) (Maximum)				

Before: 13−Mar−2008 23:28

Multimode Array Sonic Power Cartridge / Equipment Identification

Primary Equipment:

Multimode Array Sonic Minimum Service So	MAMS − BA	8201
Multimode Array Sonic Control Cartridge	MAPC − BA	8198

Auxiliary Equipment:

Electronics Cartridge Housing	ECH − SD	8198

Enhanced DTS Cartridge / Equipment Identification

Primary Equipment:

Primary Equipment:		
EDTC Gamma Ray Detector	EDTG − B	77305
Enhanced DTS Cartridge	EDTC − B	
Auxiliary Equipment:		
EDTC Housing	EDTH − B	8378

Enhanced DTS Cartridge Wellsite Calibration

EDTC Accelerometer Calibration

Phase	EDTC Z−Axis Acceleration M/S2	Value
Before		9.803

9.610 (Minimum)	9.810 (Nominal)	10.01 (Maximum)

Before: 13−Mar−2008 21:57

Enhanced DTS Cartridge Wellsite Calibration

Detector Calibration

Phase	Gamma Ray Background GAPI	Value
Before		17.32

0 (Minimum)	30.00 (Nominal)	120.0 (Maximum)

Phase	Gamma Ray (Jig − Bkg) GAPI	Value
Before		169.8

154.3 (Minimum)	169.8 (Nominal)	185.2 (Maximum)

Phase	Gamma Ray (Calibrated) GAPI	Value
Before		165.0

150.0 (Minimum)	165.0 (Nominal)	180.0 (Maximum)

Before: 13−Mar−2008 13:29

Company: **Apache Northwest Pty Ltd**

Schlumberger

Well: **Coelacanth−1**
Field: **Apache/VIC/P−45**
Rig: **West Triton**
Country: **Australia**

PEX−GR−HRLA−MSIP−S
Density−Neutron−GR−Resistivity−S
Suite−1 Run−1 Scale 1:200

Schlumberger

Company: **Apache Northwest Pty Ltd**

Well: **Coelacanth−1**
Field: **Apache/VIC/P−45**
Rig: **West Triton** Country: **Australia**

PEX−GR−HRLA−MSIP−S
Density−Neutron−GR−Resistivity−S
Suite−1 Run−1 Scale 1:500

Rig: West Triton
Field: Apache/VIC/P−45
Location: Bass Strait
Well: Coelacanth−1
Company: Apache Northwest Pty Ltd

LOCATION

Bass Strait
Northing : 5,714,176.613 m
Easting : 613,192.770 m

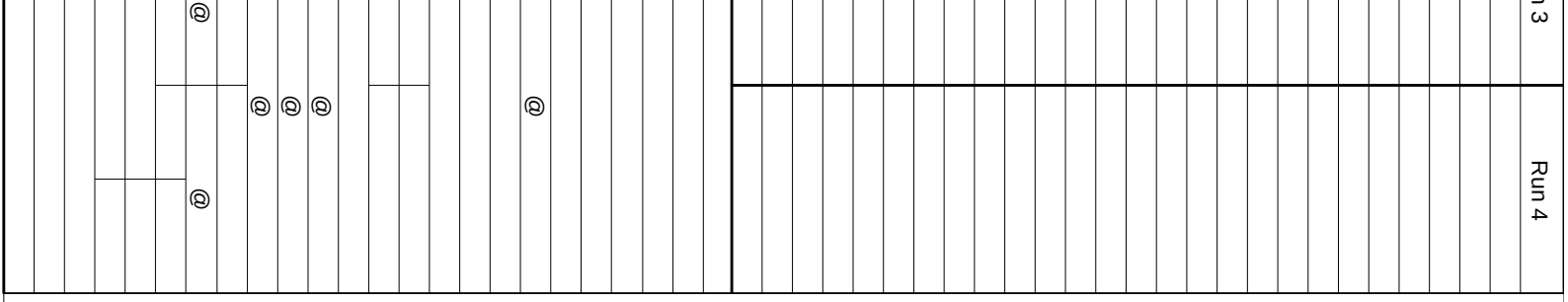
Elev.:
G.L. −90.00 m
D.F. 38.00 m

Permanent Datum: AHD — Elev.: 0.00 m
Log Measured From: DRILL FLOOR — 38.00 m above Perm. Datum
Drilling Measured From: DRILL FLOOR

State:	Max. Well Deviation	Longitude	Latitude
Victoria	0.41 deg	148 18' 07.0098" E	38 42' 49.7296" S

	Run 1	Run 2	Run 3
Logging Date	13−Mar−2008		
Run Number	1		
Depth Driller	907 m		
Schlumberger Depth	907 m		
Bottom Log Interval	905 m		
Top Log Interval	55.3 m		
Casing Driller Size @ Depth	13.375 in @ 275.7 m	@	@
Casing Schlumberger	274 m		
Bit Size	13.375 in		
Type Fluid In Hole	KCl/Polymer		
MUD Density / Viscosity	1.15 g/cm3 / 43 s		
MUD Fluid Loss / PH	9 cm3 / 8		
MUD Source Of Sample	Flowline		
RM @ Measured Temperature	0.138 ohm.m @ 21 degC	@	@
RMF @ Measured Temperature	0.130 ohm.m @ 21 degC	@	@
RMC @ Measured Temperature	0.147 ohm.m @ 21 degC	@	@
Source RMF / RMC	Press / Press		
RM @ MRT / RMF @ MRT	0.105 @ 34 / 0.098 @ 34	@ / @	@ / @
Maximum Recorded Temperatures	34 degC / 31		
Circulation Stopped / Time	13−Mar−2008 / 13:00		
Logger On Bottom / Time	14−Mar−2008 / 23:31		
Unit Number / Location	41 / AUSL		
Recorded By	A. Dandi/M.Dawson		
Witnessed By	F.Fernandes		

	Run 1	Run 2	Run 3
Logging Date			
Run Number			
Depth Driller			
Schlumberger Depth			
Bottom Log Interval			
Top Log Interval			
Casing Driller Size @ Depth	@		
Casing Schlumberger			
Bit Size			
Type Fluid In Hole			
MUD Density / Viscosity			
MUD Fluid Loss / PH			
MUD Source Of Sample			
RM @ Measured Temperature	@		
RMF @ Measured Temperature	@		
RMC @ Measured Temperature	@		
Source RMF / RMC			
RM @ MRT / RMF @ MRT	@ / @		
Maximum Recorded Temperatures			
Circulation Stopped / Time			
Logger On Bottom / Time			
Unit Number / Location			
Recorded By			
Witnessed By			



DEPTH SUMMARY LISTING

Date Created: 14−MAR−2008 1:45:57

Depth System Equipment

Depth Measuring Device		Tension Device		Logging Cable	
Type:	IDW−H	Type:	CMTD−B/A	Type:	7−46ZV−XS
Serial Number:	796	Serial Number:	1721	Serial Number:	77178
Calibration Date:	29−Jan−2008	Calibration Date:	27−FEB−2008	Length:	7699.86 M
Calibrator Serial Number:	1009	Calibrator Serial Number:	1051		
Calibration Cable Type:	7−46ZV−XS	Calibration Gain:	0.81	Conveyance Method:	Wireline
Wheel Correction 1:	−5	Calibration Offset:	−610.00	Rig Type:	Offshore_Fixed
Wheel Correction 2:	−5				

Depth Control Parameters

Log Sequence:	First Log In the Well
Rig Up Length At Surface:	74.36 M
Rig Up Length At Bottom:	74.10 M
Rig Up Length Correction:	0.26 M
Stretch Correction:	0.00 M
Tool Zero Check At Surface:	0.00 M

Depth Control Remarks

1. Schlumberger Depth Control Policy Followed
2. IDW used as primary depth reference
3. Z−Chart used as secondary depth reference
4.
5.
6.

DISCLAIMER

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OTHER SERVICES1	OTHER SERVICES2
OS1:	OS1:
OS2:	OS2:
OS3:	OS3:
OS4:	OS4:
OS5:	OS5:

REMARKS: RUN NUMBER 1	REMARKS: RUN NUMBER 2
First Run in Hole. Schlumberger depth control procedure followed.	
Log Objectives:Basic Formation Evaluation	
Toolstring run as per toolsketch by means of 2 LCMEs, 5 * 2.5 in Standoffs and HGNS eccentralized with a bowspring	
Maximum recoreded temperatures obtained from thermometers in logging head	
Neutron Enviroment Corrections : Hole Size, Mud Salinity, Mud Weight, Mud Cake, Pressure & Temperature	
Density Environment Corrections : Hole Size, using BS, and Mud Weight	
Pex run in high resolution as per client request	

Pex run in high resolution as per client request
As per Mud Engineer's report
−Chlorides = 38000mg/l, Barite = 2.5 %
TDL tagged @ 907m , CS detected @ 274 m
Caliper Check in Casing reads 12.55in (Ref ID = 12.61 in)
BHT, STEM and SHT temperatures based on HGNS temperature sensor
Spike of resisitivity curves at 669.5m due to application of power for caliper centralisation

RUN 1		RUN 2	
SERVICE ORDER #:	AUSL08649881	SERVICE ORDER #:	
PROGRAM VERSION:	15C0−309	PROGRAM VERSION:	
FLUID LEVEL:	0 m	FLUID LEVEL:	

LOGGED INTERVAL	START	STOP	LOGGED INTERVAL	START	STOP

EQUIPMENT DESCRIPTION

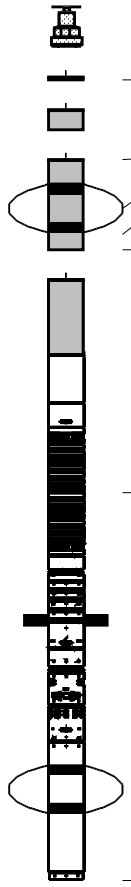
RUN 1 RUN 2

SURFACE EQUIPMENT

GSR−Y 6750
NCT−B
CNB−AB
NCS−VB

WITM (EDTS)−A

DOWNHOLE EQUIPMENT



LEH−QT
LEH−QT 2800
33.61

SP SPARC 32.32

BSP−AH−169
32.73

AH−369
32.32

Mud Tempe 31.88
CTEM 30.82
Gamma Ray 30.25
TelStatus
EDTCB Ele 29.90

EDTC−B
EDTH−B 8378
EDTC−B
EDTG−B 77305
31.88

MAPC−B
MAPC−BA 8198
ECH−SD 8198
MAMS−BA 8201
29.90

MAMS−PS 25.20

MAXS−B
MASS−BA 8157
MAXS−BA 8157
23.49
2.5 IN
Standoff

MAXS−PS 17.32

PPC1−B
PPC1−B 8291
PPC_CAL_STD
Calipers 16.97
17.32

PPC_Cartr 15.33

HRLT−B
HRUH−B 1741
HRUC−B 1730
15.33
2.5 IN
Standoff

HRLS−B 1745
HRLH−B 1745
HRLC−B 1745
AH−270 1792

High Res. — 11.75

2.5 IN Standoff

HILTB−FTB
AH−107 2910
AH−120 806
HGNSD−B 856
HMCA
HGNH 3915
NLS−KL
NSR−F 5224
HACCZ 379
HCNT
HGR
HRCC−B 868
HRMS−B 788
HRGD−B 1806
GLS−VJ 5334

HGNS HTEM — 7.96
HMCA — 6.74
HGNS Gamm — 6.51
HGNS Neut — 4.73
HGNS Neut — 4.58
HGNS sens — 3.87
HRCC cart — 2.65
MCFL — 1.00
HILT cali — 0.85
HRDD−LS
HRDD−SS
HRDD−BS — 0.73
DF ACCZ
HTEN HMAS HV
Accelerom
Tension — 0.00

BNS−CCS — 0.14

TOOL ZERO

MAXIMUM STRING DIAMETER 8.63 IN
MEASUREMENTS RELATIVE TO TOOL ZERO
ALL LENGTHS IN METERS

Client: Apache Northwest Pty Ltd
Well: Coelacanth−1
Field: VIC/P−45
State: Victoria
Country: Australia

Drawing Date: 3/13/2008
Rig Name: West Triton
Reference Datum: AHD
Elevation: 38.0 m

Production String	(in) OD	(in) ID	(m) MD	Well Schematic	(m) MD	(in) OD	(in) ID	Casing String
Derrick Floor Elevation			39.0					
Mean Sea Level			0.0					
					90.0	13.175	12.415	Casing String
					275.7	13.175	12.415	Casing Shoe
					275.7	12.250		Borehole Segment

All Depths are Drillers' Depths						907.0	12.250	Borehole Segment Bottom

Schlumberger

Standard Resolution Pass
1:500

MAXIS Field Log

Company: Apache Northwest Pty Ltd **Well: Coelacanth−1**

Input DLIS Files

14−Mar−2008 10:19

Output DLIS Files

DEFAULT	**TLD_MCFL_CNL_HRLA_049PUP**	**FN:73**	**PRODUCER**	**18−Mar−2008 21:58**	**907.4 M**	**271.1 M**
CLIENT	**TLD_MCFL_CNL_HRLA_049PUC**	**FN:74**	**CUSTOMER**	**18−Mar−2008 21:58**	**907.4 M**	**271.1 M**
REDUCED	**TLD_MCFL_CNL_HRLA_049PUP**	**FN:75**	**PRODUCER**	**18−Mar−2008 21:58**	**907.4 M**	**271.1 M**

Integrated Hole/Cement Volume Summary

Hole Volume = 92.11 M3

Cement Volume = 62.40 M3 (assuming 9.63 IN casing O.D.)

Computed from 906.9 M to 274.0 M using data channel(s) HCAL

OP System Version: 15C0−309

MCM

HILTB−FTB	SRPC−3546−Q1_2008_OP15	HRLT−B	SRPC−3546−Q1_2008_OP15
PPC1−B	SRPC−3546−Q1_2008_OP15	MAXS−B	SKK−3442−MAST
MAPC−B	SKK−3442−MAST	EDTC−B	SKK−3493−EDTCB
BSP−AH−169	SRPC−3546−Q1_2008_OP15		

PIP SUMMARY

- Integrated Hole Volume Minor Pip Every 1 M3
- Integrated Hole Volume Major Pip Every 10 M3
- Integrated Cement Volume Minor Pip Every 1 M3
- Integrated Cement Volume Major Pip Every 10 M3
- Time Mark Every 60 S

HRLT True Resistivity (RT_HRLT) 0.2 (OHMM) 2000

Std. Res. Invaded Zone Resistivity (RXOZ) 0.2 (OHMM) 2000

Area From HCAL to BS

HRLT Resistivity 5 (RLA5) 0.2 (OHMM) 2000

SP (SP) −80 (MV) 20

HRLT Resistivity 4 (RLA4) 0.2 (OHMM) 2000

Sand From RHOZ to TNPH

Gamma Ray (ECGR) 0 (GAPI) 200

HRLT Resistivity 3 (RLA3) 0.2 (OHMM) 2000

Env.Corr.Thermal Neutron Porosity (TNPH) 0.45 (V/V) −0.15

HILT Caliper (HCAL) 6 (IN) 16

HRLT Resistivity 2 (RLA2) 0.2 (OHMM) 2000

Std. Res. Formation Density (RHOZ) 1.95 (G/C3) 2.95

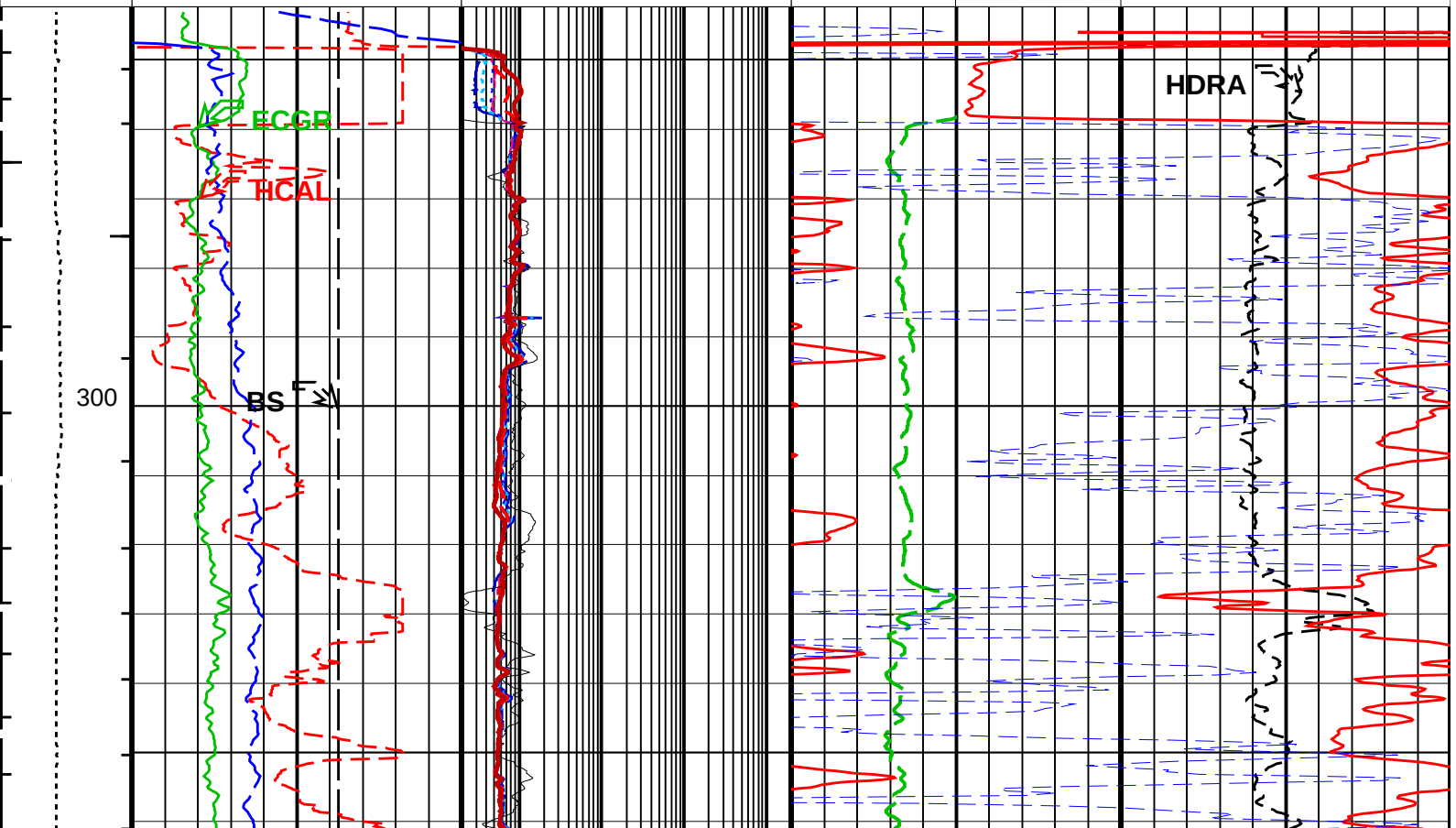
Tension (TENS) (LBF) 0 5000

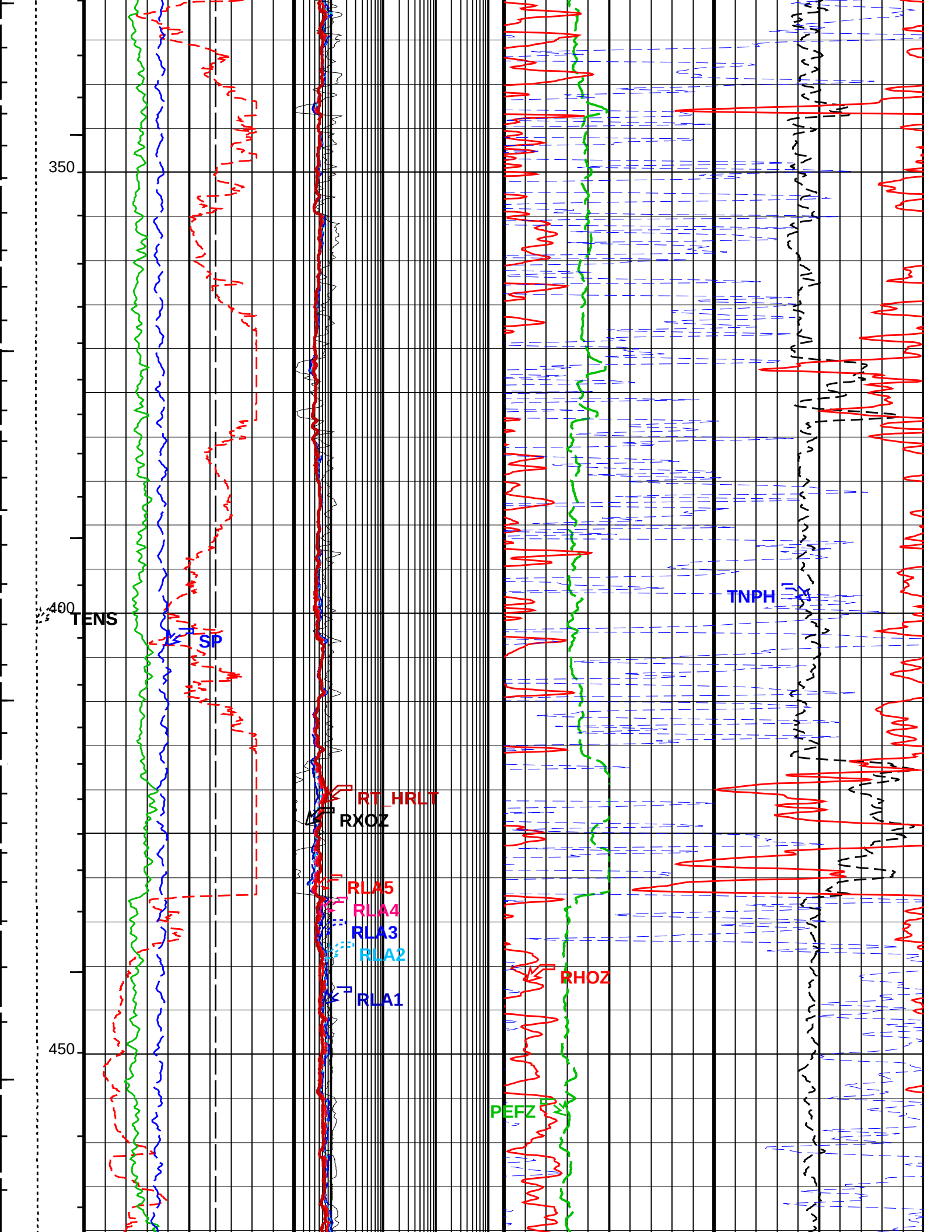
Bit Size (BS) 6 (IN) 16

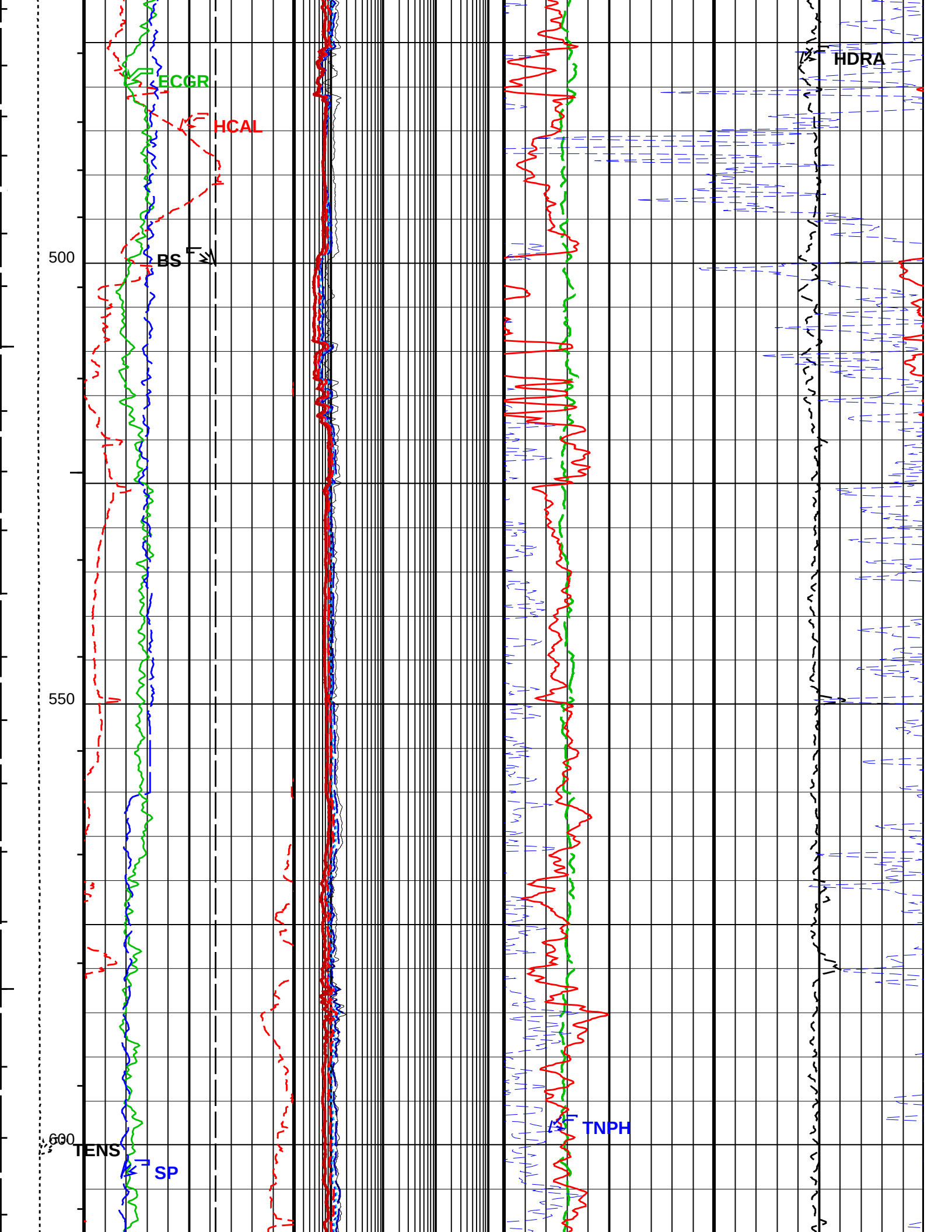
HRLT Resistivity 1 (RLA1) 0.2 (OHMM) 2000

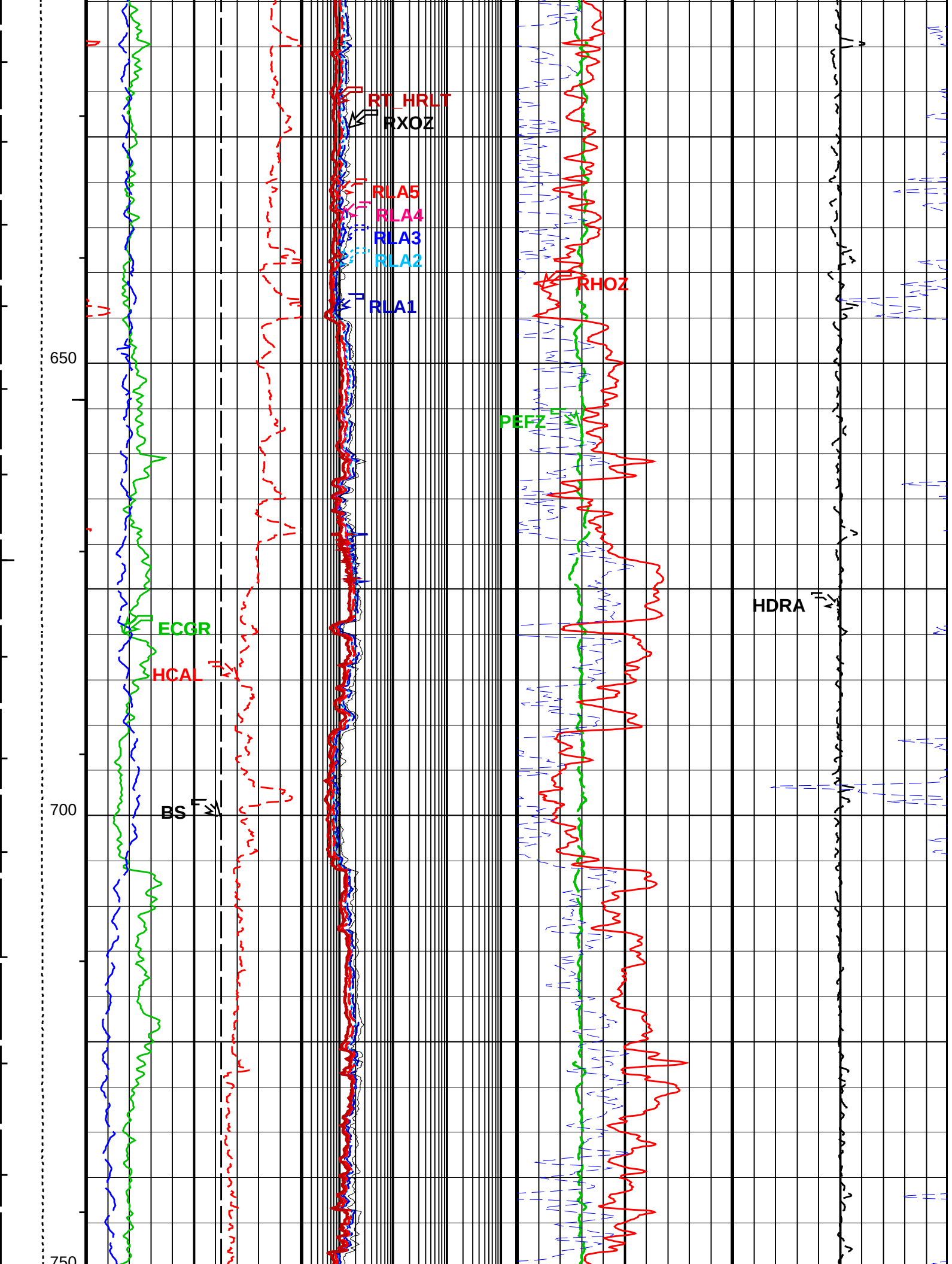
Std. Res. Formation Pe (PEFZ) 0 (---- 10

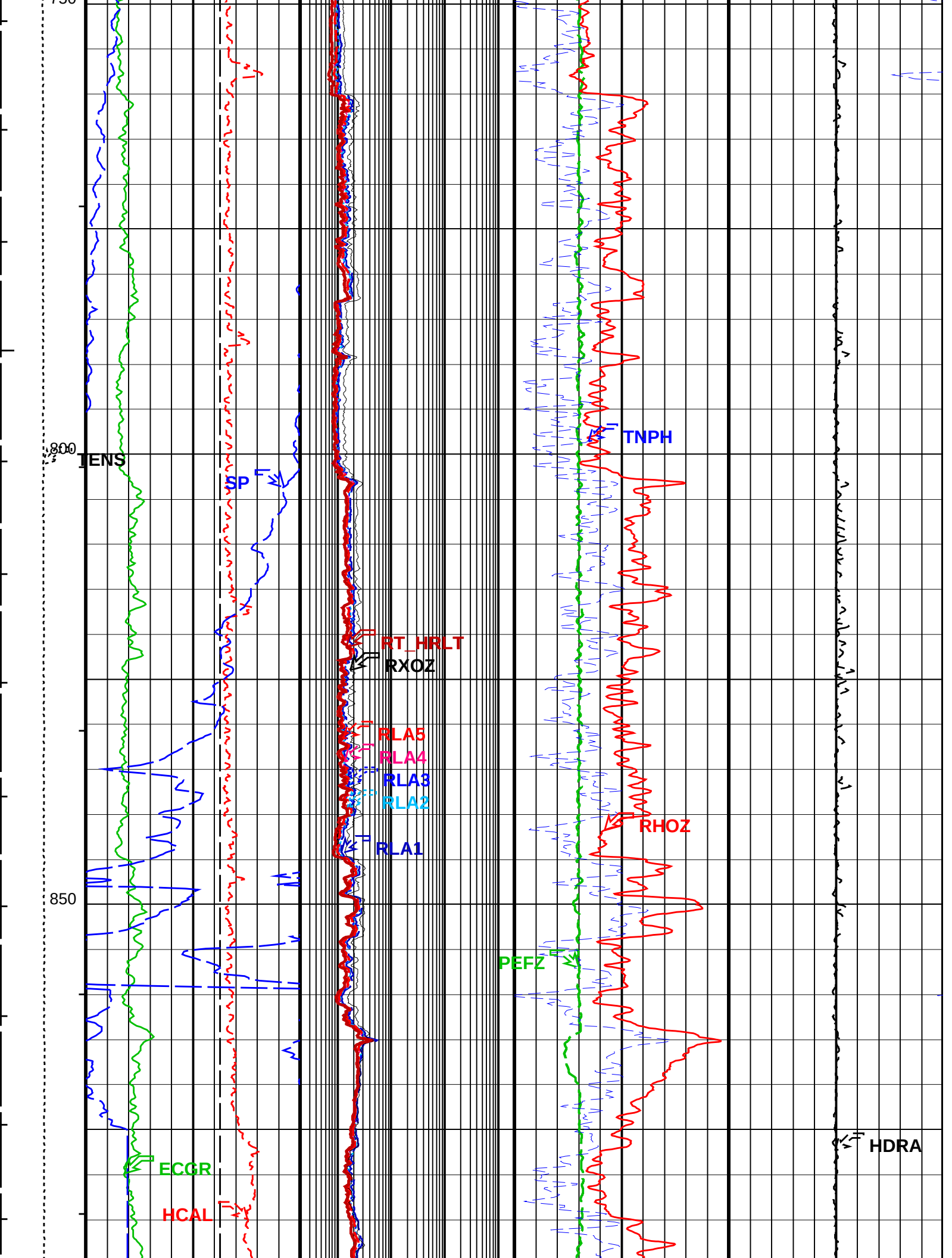
Density Correction (HDRA) −0.25 (G/C3) 0.25

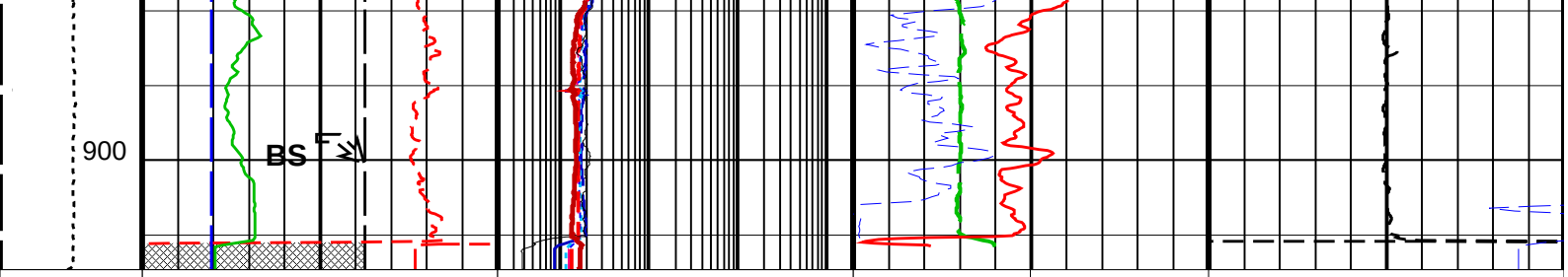



350
400
450
TENS
SP
TNPH
RT_HRLT
RXOZ
RLA5
RLA4
RLA3
RLA2
RLA1
RHOZ
PEFZ


ECGR
HCAL
BS
HDRA
500
550
600
TENS
SP
TNPH


RT_HRLT
RXOZ
RLA5
RLA4
RLA3
RLA2
RLA1
RHOZ
PEFZ
HDRA
ECGR
HCAL
BS
650
700
750


800
850
TENS
SP
TNPH
RT_HRLT
RXOZ
RLA5
RLA4
RLA3
RLA2
RLA1
RHOZ
PEFZ
ECGR
HCAL
HDRA



Tension (TENS) (LBF)	Bit Size (BS)	HRLT Resistivity 1 (RLA1)	Std. Res. Formation Pe (PEFZ)	Density Correction (HDRA)
0 5000	6 (IN) 16	0.2 (OHMM) 2000	0 (---- 10	−0.25 (G/C3) 0.25

HILT Caliper (HCAL)	HRLT Resistivity 2 (RLA2)	Std. Res. Formation Density (RHOZ)
6 (IN) 16	0.2 (OHMM) 2000	1.95 (G/C3) 2.95

Gamma Ray (ECGR)	HRLT Resistivity 3 (RLA3)	Env.Corr.Thermal Neutron Porosity (TNPH)
0 (GAPI) 200	0.2 (OHMM) 2000	0.45 (V/V) −0.15

SP (SP)	HRLT Resistivity 4 (RLA4)	Sand
−80 (MV) 20	0.2 (OHMM) 2000	From RHOZ to TNPH

Area	HRLT Resistivity 5 (RLA5)
From HCAL to BS	0.2 (OHMM) 2000

Std. Res. Invaded Zone Resistivity (RXOZ)
0.2 (OHMM) 2000

HRLT True Resistivity (RT_HRLT)
0.2 (OHMM) 2000

PIP SUMMARY

- Integrated Hole Volume Minor Pip Every 1 M3
- Integrated Hole Volume Major Pip Every 10 M3
- Integrated Cement Volume Minor Pip Every 1 M3
- Integrated Cement Volume Major Pip Every 10 M3
- Time Mark Every 60 S

Parameters

DLIS Name	Description	Value	
	HILTB−FTB: High resolution Integrated Logging Tool−DTS		
BHFL	Borehole Fluid Type	WATER	
BHFL_TLD	HILT Nuclear Mud Base	WATER	
BHS	Borehole Status	OPEN	
BHT	Bottom Hole Temperature (used in calculations)	31.446	DEGC
BSCO	Borehole Salinity Correction Option	YES	
CCCO	Casing & Cement Thickness Correction Option	NO	
DHC	Density Hole Correction	BS	
DPPM	Density Porosity Processing Mode	HIRS	
EXSICL	External Shale Indicator Clean Value	20	
EXSISH	External Shale Indicator Shale Value	150	
FD	Fluid Density	1	G/C3
FEXP	Form Factor Exponent	2	
FNUM	Form Factor Numerator	1	
FPHI	Form Factor Porosity Source	DPHZ	
FSAL	Formation Salinity	−50000	PPM
FSCO	Formation Salinity Correction Option	YES	
GCLF	Germany Coal−like Formation Option	NO	
GCSE	Generalized Caliper Selection	HCAL	
GDEV	Average Angular Deviation of Borehole from Normal	0	DEG
GGRD	Geothermal Gradient	0.018227	DC/M
GRSE	Generalized Mud Resistivity Selection	CHART_GEN_9	
GTSE	Generalized Temperature Selection	HSTS_HTEM	
HACPP	Accelerometer PROM Presence	PRESENT_FILE	
HART	Accelerometer Reference Temperature	20	DEGC
HDCOD	HILT Density Coal detection	2	G/C3
HDSAD	HILT Density Salt detection	2.1	G/C3
HILT_GAS_DENSITY	HILT Gas Downhole Density	0	G/C3
HILT_GAS_OPTION	HILT Gas Computation Option	OFF	
HNCOD	HILT Neutron Coal detection	45	PU

HNSAD	HILT Neutron Salt detection	5	PU
HPHIECUT	HILT effective Porosity Cutoff	5	PU
HSCO	Hole Size Correction Option	YES	
HSIS	HILT Shale Indicator Selection	GR	
HSSO	HRDD Nuclear Source Strength Option	NORMAL	
HSWCUT	HILT Water Saturation from AITH cutoff	50	%
ISSBAR	Barite Mud Switch	NOBARITE	
MATR	Rock Matrix for Neutron Porosity Corrections	LIMESTONE	
MCCO	Mud Cake Correction Option	YES	
MCOR	Mud Correction	NATU	
MDEN	Matrix Density	2.71	G/C3
MHC0	MCFL B0 Contrast Correction Coefficient	2.2e−005	OHMS
MHC1	MCFL B1 Contrast Correction Coefficient	3.2e−005	OHMS
MHCC	MCFL High Contrast Correction Switch	NO	
MPOF	MCFL Processing Operation Mode	ON	
MWCO	Mud Weight Correction Option	YES	
NAAC	HRDD APS Activation Correction	OFF	
NMT	HILT Nuclear Mud Type	NOBARITE	
NPRM	HRDD Processing Mode	HiRes	
NSAR	HRDD Depth Sampling Rate	1	IN
PEA_FILTER	PEA Filter	NO_FILTER	
PEFC_FILTER	PEFC Filter	NO_FILTER	
PHIMAX	HILT max porosity	35	PU
PTCO	Pressure/Temperature Correction Option	YES	
SDAT	Standoff Data Source	SOCN	
SEXP_HILT	HILT Saturation Exponent	2	
SHT	Surface Hole Temperature	23.661	DEGC
SOCN	Standoff Distance	0.125	IN
SOCO	Standoff Correction Option	NO	
HRLT−B: High Resolution Laterolog Array − E			
BHS	Borehole Status	OPEN	
BHT	Bottom Hole Temperature (used in calculations)	31.446	DEGC
CALSTAT	HRLTB Calibration Status	SHALLOW_DONE	
CALTEMP	HRLTB Calibration Temperature	38.0354	DEGC
FREQ0	HRLT Frequency Index for Mode 0	32	
FREQ1	HRLT Frequency Index for Mode 1	128	
FREQ2	HRLT Frequency Index for Mode 2	104	
FREQ3	HRLT Frequency Index for Mode 3	86	
FREQ4	HRLT Frequency Index for Mode 4	56	
FREQ5	HRLT Frequency Index for Mode 5	44	
FREQ6	HRLT Frequency Index for Mode 6	116	
GCSE	Generalized Caliper Selection	HCAL	
GDEV	Average Angular Deviation of Borehole from Normal	0	DEG
GGRD	Geothermal Gradient	0.018227	DC/M
GRSE	Generalized Mud Resistivity Selection	CHART_GEN_9	
GTSE	Generalized Temperature Selection	HSTS_HTEM	
ISSBAR	Barite Mud Switch	NOBARITE	
KFAC_HRLT	HRLT K Factor Option	SONDE	
LOOPCOEF_S	HRLT Loop Coefficient for Shallow Modes	LOW	
LOOPMOD0	HRLT Mode 0 Loop Mode	AUTO	
LOOPMOD1	HRLT Mode 1 Loop Mode	AUTO	
LOOPMOD2	HRLT Mode 2 Loop Mode	AUTO	
LOOPMOD3	HRLT Mode 3 Loop Mode	AUTO	
LOOPMOD4	HRLT Mode 4 Loop Mode	AUTO	
LOOPMOD5	HRLT Mode 5 Loop Mode	AUTO	
LOOPMOD6	HRLT Mode 6 Loop Mode	AUTO	
MATR	Rock Matrix for Neutron Porosity Corrections	LIMESTONE	
PROCINV	Inversion Selection	ON	
PROCMFL	Inversion Micro−Resistivity Selection	NO_EXTERNAL_RXO	
PROCMSO	Mechanical Standoff Fin Size	2.5	IN
PROCRM	Processing Mud Resistivity Select	HRLT_Compute	
PROCSPO	Sonde Position	Eccentered	
SHT	Surface Hole Temperature	23.661	DEGC
PPC1−B: Powered Positioning Deveice/Caliper 1			
	PPC1 Caliper Type	CAL_STD	
CLBD_PPC	PPC Calibration data selection	ROM	
PWEL_PPC	PPC Primary Tool for WellCAD	NONE	
SWEL_PPC	PPC Secondary Tool for WellCAD (45 Degrees Rotation PPC Tool)	NONE	
WRDR_PPC	PPC Rotation Direction for Secondary Tool	NONE	
MAXS−B: Multimode Array Sonic Xmitter Sonde			
FIRING_TABLE	MAST Firing Table	** V **	
TX_AMP	Transmitter Amplitude Factor	** V **	
U_CE_CBLG7	CBL Gate Width 7 for Cement Evaluation	80	US
U_CE_CBLG8	CBL Gate Width 8 for Cement Evaluation	80	US
U_CE_NMSG7	Near Minimum Sliding Gate 7 for Cement Evaluation	220	US
U_CE_NMSG8	Near Minimum Sliding Gate 8 for Cement Evaluation	220	US
U_CE_SGDT7	Sliding Gate Delta−T 7 for Cement Evaluation	57	US/F
U_CE_SGDT8	Sliding Gate Delta−T 8 for Cement Evaluation	57	US/F
MAPC−B: Multimode Array Sonic Power Cartridge			
AZIM_SELECT	Azimuth Selection	P1AZ	
BHS	Borehole Status	OPEN	
BHT	Bottom Hole Temperature (used in calculations)	31.446	DEGC
BS	Bit Size	12.250	IN
CDTS	C−Delta−T Shale	100	US/F
CE_DCBLSEL	DCBL Selection for Cement Evaluation	3_5FT	

CE_VDLGRA	VDL Manual Gain Rate Array for Cement Evaluation	** V **	
CE_VDLSEL	VDL Selection for Cement Evaluation	MU_5FT	
CE_VDL_MODE	DCBL/VDL Mode for Cement Evaluation	STANDARD	
CE_VFILSWA	VDL Filter Switch Array for Cement Evaluation	** V **	
CRVIN_MF	Alteration Detection Input Number for Monopole Far	DISALLOW	
CRVIN_ML	Alteration Detection Input Number for Monopole Lower	DISALLOW	
CRVIN_MU	Alteration Detection Input Number for Monopole Upper	DISALLOW	
DCRMVL	DC Offset Removal Option	DC_MULTIPLE	
DLHS	Hole Diameter Source for SOBS Channel	AUTO	
DTCO_SELECT	Delta−T Compressional Selection for DSTC	MF	
DTF	Delta−T Fluid	204.5	US/F
DTM	Delta−T Matrix	56	US/F
DTSH_SELECT	Delta−T Shear Selection for DSTC	XD	
DWF7_SPEC	Channel/Station/Azimuth for VDL (DWF7) of Measurement 7	WFA7/9/1	
DWF8_SPEC	Channel/Station/Azimuth for VDL (DWF8) of Measurement 8	WFA8/5/1	
FIRING_TABLE	MAST Firing Table	** V **	
GCSE	Generalized Caliper Selection	HCAL	
GDEV	Average Angular Deviation of Borehole from Normal	0	DEG
GGRD	Geothermal Gradient	0.018227	DC/M
GRSE	Generalized Mud Resistivity Selection	CHART_GEN_9	
GTSE	Generalized Temperature Selection	HSTS_HTEM	
IMG_DTCO_SEL_MAST	Imaging Input DT Compressional Selection	CONSTANT_DTCO	
IMG_EST_DTCO_MAST	Imaging Estimated DT Compressional	120	US/F
IMG_RBS	Imaging Relative Bearing Selection	RB1	
ISSBAR	Barite Mud Switch	NOBARITE	
ITTS	Integrated Transit Time Source	DTCO	
MATR	Rock Matrix for Neutron Porosity Corrections	LIMESTONE	
NRSA	Number of Receivers in Sub−Array	** V **	
RBC	Relative Bearing Correction Allow/Disallow	DISALLOW	
ROTIN_XD	Alford Rotation X Dipole Measurement Number	DISALLOW	
ROTIN_YD	Alford Rotation Y Dipole Measurement Number	DISALLOW	
ROTWINDOW_CTRL	Alford Rotation Window Control	ON	
ROT_AI	Dipole Waveform Rotation Averaging Depth Interval	0	M
ROT_FIL_LENG	Alford Rotation Filter Length	0	
ROT_TWD	Alford Rotation Window Time Width	0	US
ROT_TWO	Alford Rotation Window Time Offset	0	US
ROT_XFH	Alford Rotation Filter High Cutoff	0	HZ
ROT_XFL	Alford Rotation Filter Low Cutoff	0	HZ
SHT	Surface Hole Temperature	23.661	DEGC
SPFS	Sonic Porosity Formula	RAYMER_HUNT	
SPSO	Sonic Porosity Source	DTCO	
STCAL	STC Algorithm	** V **	
STCSEL1	Station Selection for STC for Measurement 1	** V **	
STCSEL2	Station Selection for STC for Measurement 2	** V **	
STCSEL3	Station Selection for STC for Measurement 3	** V **	
STCSEL4	Station Selection for STC for Measurement 4	** V **	
STCSEL5	Station Selection for STC for Measurement 5	** V **	
STCSEL6	Station Selection for STC for Measurement 6	** V **	
STCSEL_FAST	Station Selection for STC for DT_FAST	** V **	
STCSEL_SLOW	Station Selection for STC for DT_SLOW	** V **	
TRMIN	Alteration Detection Minimum Transmitter Receiver Spacing for Processing	3.0	FT
TX_AMP	Transmitter Amplitude Factor	** V **	
U_CE_CBLG7	CBL Gate Width 7 for Cement Evaluation	80	US
U_CE_CBLG8	CBL Gate Width 8 for Cement Evaluation	80	US
U_CE_NMSG7	Near Minimum Sliding Gate 7 for Cement Evaluation	220	US
U_CE_NMSG8	Near Minimum Sliding Gate 8 for Cement Evaluation	220	US
U_CE_SGDT7	Sliding Gate Delta−T 7 for Cement Evaluation	57	US/F
U_CE_SGDT8	Sliding Gate Delta−T 8 for Cement Evaluation	57	US/F
U_SLL1_MAST	MAST DSTC Slowness Lower Limit 1	40	US/F
U_SLL2_MAST	MAST DSTC Slowness Lower Limit 2	40	US/F
U_SLL3_MAST	MAST DSTC Slowness Lower Limit 3	40	US/F
U_SLL4_MAST	MAST DSTC Slowness Lower Limit 4	0	US/F
U_SLL5_MAST	MAST DSTC Slowness Lower Limit 5	112	US/F
U_SLL6_MAST	MAST DSTC Slowness Lower Limit 6	112	US/F
U_SLL_FAST_MAST	MAST DSTC Slowness Lower Limit Fast	0	US/F
U_SLL_SLOW_MAST	MAST DSTC Slowness Lower Limit Slow	0	US/F
U_SUL1_MAST	MAST DSTC Slowness Upper Limit 1	240	US/F
U_SUL2_MAST	MAST DSTC Slowness Upper Limit 2	240	US/F
U_SUL3_MAST	MAST DSTC Slowness Upper Limit 3	240	US/F
U_SUL4_MAST	MAST DSTC Slowness Upper Limit 4	0	US/F
U_SUL5_MAST	MAST DSTC Slowness Upper Limit 5	772	US/F
U_SUL6_MAST	MAST DSTC Slowness Upper Limit 6	772	US/F
U_SUL_FAST_MAST	MAST DSTC Slowness Upper Limit Fast	0	US/F
U_SUL_SLOW_MAST	MAST DSTC Slowness Upper Limit Slow	0	US/F
EDTC−B: Enhanced DTS Cartridge			
BHFL	Borehole Fluid Type	WATER	
BHS	Borehole Status	OPEN	
BHT	Bottom Hole Temperature (used in calculations)	31.446	DEGC
BSCO	Borehole Salinity Correction Option	YES	
CCCO	Casing & Cement Thickness Correction Option	NO	
DPPM	Density Porosity Processing Mode	HIRS	
FSCO	Formation Salinity Correction Option	YES	
GCSE	Generalized Caliper Selection	HCAL	

GDEV	Average Angular Deviation of Borehole from Normal	0	DEG
GGRD	Geothermal Gradient	0.018227	DC/M
GRSE	Generalized Mud Resistivity Selection	CHART_GEN_9	
GTSE	Generalized Temperature Selection	HSTS_HTEM	
HSCO	Hole Size Correction Option	YES	
ISSBAR	Barite Mud Switch	NOBARITE	
ISSBAR_EDTC	Nuclear Mud Type	NOBARITE	
MATR	Rock Matrix for Neutron Porosity Corrections	LIMESTONE	
MCCO	Mud Cake Correction Option	YES	
MCOR	Mud Correction	NATU	
MWCO	Mud Weight Correction Option	YES	
PTCO	Pressure/Temperature Correction Option	YES	
SDAT	Standoff Data Source	SOCN	
SHT	Surface Hole Temperature	23.661	DEGC
SOCN	Standoff Distance	0.125	IN
SOCO	Standoff Correction Option	NO	
TPOS_EDTC	EDTC Tool Centered/Eccentered	Eccentered	
BSP−AH−169: Bridle SP			
SPNV	SP Next Value	0	MV
HOLEV: Integrated Hole/Cement Volume			
BHS	Borehole Status	OPEN	
BHT	Bottom Hole Temperature (used in calculations)	31.446	DEGC
FCD	Future Casing (Outer) Diameter	9.625	IN
GCSE	Generalized Caliper Selection	HCAL	
GDEV	Average Angular Deviation of Borehole from Normal	0	DEG
GGRD	Geothermal Gradient	0.018227	DC/M
GRSE	Generalized Mud Resistivity Selection	CHART_GEN_9	
GTSE	Generalized Temperature Selection	HSTS_HTEM	
HVCS	Integrated Hole Volume Caliper Selection	HCAL	
ISSBAR	Barite Mud Switch	NOBARITE	
MATR	Rock Matrix for Neutron Porosity Corrections	LIMESTONE	
SHT	Surface Hole Temperature	23.661	DEGC
STI: Stuck Tool Indicator			
LBFR	Trigger for MAXIS First Reading Label	TDL	
STKT	STI Stuck Threshold	0.762	M
TDD	Total Depth − Driller	907.00	M
TDL	Total Depth − Logger	907.00	M
System and Miscellaneous			
ALTDPCHAN	Name of alternate depth channel	MeasuredDepth	
BSAL	Borehole Salinity	62700.00	PPM
CSIZ	Current Casing Size	13.375	IN
CWEI	Casing Weight	54.50	LB/F
DFD	Drilling Fluid Density	1.15	G/C3
DO	Depth Offset for Playback	0.3	M
FLEV	Fluid Level	0.00	M
MST	Mud Sample Temperature	21.00	DEGC
PBVSADP	Use alternate depth channel for playback	NO	
PP	Playback Processing	RECOMPUTE	
RMFS	Resistivity of Mud Filtrate Sample	0.1301	OHMM
RW	Resistivity of Connate Water	1.0000	OHMM
TD	Total Depth	907	M
TWS	Temperature of Connate Water Sample	37.78	DEGC

Format: APACHE_D500 Vertical Scale: 1:500 Graphics File Created: 18−Mar−2008 21:58

OP System Version: 15C0−309

MCM

HILTB−FTB	SRPC−3546−Q1_2008_OP15	HRLT−B	SRPC−3546−Q1_2008_OP15
PPC1−B	SRPC−3546−Q1_2008_OP15	MAXS−B	SKK−3442−MAST
MAPC−B	SKK−3442−MAST	EDTC−B	SKK−3493−EDTCB
BSP−AH−169	SRPC−3546−Q1_2008_OP15		

Input DLIS Files

14−Mar−2008 10:19

Output DLIS Files

DEFAULT	TLD_MCFL_CNL_HRLA_049PUP	FN:73	PRODUCER	18−Mar−2008 21:58
CLIENT	TLD_MCFL_CNL_HRLA_049PUC	FN:74	CUSTOMER	18−Mar−2008 21:58
REDUCED	TLD_MCFL_CNL_HRLA_049PUP	FN:75	PRODUCER	18−Mar−2008 21:58

Schlumberger

Calibrations

Calibration and Check Summary

Measurement	Nominal	Master	Before	After	Change	Limit	Units
High resolution Integrated Logging Tool−DTS Wellsite Calibration − Stab Measurement Summary							
Before: 13−Mar−2008 13:35							
BS Window Ratio	0.7624	N/A	0.7620	N/A	N/A	N/A	
BS Window Sum	10750	N/A	10540	N/A	N/A	N/A	CPS
SS Window Ratio	0.4883	N/A	0.4860	N/A	N/A	N/A	
SS Window Sum	10370	N/A	10380	N/A	N/A	N/A	CPS
LS Window Ratio	0.2968	N/A	0.2950	N/A	N/A	N/A	
LS Window Sum	1160	N/A	1159	N/A	N/A	N/A	CPS
High resolution Integrated Logging Tool−DTS Wellsite Calibration − Photo−multiplier High Voltages Calibrations							
Before: 13−Mar−2008 13:35							
BS PM High Voltage (Command)	1227	N/A	1261	N/A	N/A	N/A	V
SS PM High Voltage (Command)	1921	N/A	1888	N/A	N/A	N/A	V
LS PM High Voltage (Command)	1407	N/A	1415	N/A	N/A	N/A	V
High resolution Integrated Logging Tool−DTS Wellsite Calibration − Crystal Quality Resolutions Calibration							
Before: 13−Mar−2008 13:35							
BS Crystal Resolution	9.875	N/A	9.844	N/A	N/A	N/A	%
SS Crystal Resolution	10.56	N/A	10.21	N/A	N/A	N/A	%
LS Crystal Resolution	9.503	N/A	9.642	N/A	N/A	N/A	%
High resolution Integrated Logging Tool−DTS Wellsite Calibration − MCFL Calibration							
Before: 13−Mar−2008 13:36							
Raw B0 Resistivity	3875	N/A	3880	N/A	N/A	N/A	OHMM
Raw B1 Resistivity	3830	N/A	3830	N/A	N/A	N/A	OHMM
Raw B2 Resistivity	3830	N/A	3831	N/A	N/A	N/A	OHMM
High resolution Integrated Logging Tool−DTS Wellsite Calibration − HILT Caliper Calibration							
Before: 13−Mar−2008 13:29							
HILT Caliper Zero Measurement	8.000	N/A	8.092	N/A	N/A	N/A	IN
HILT Caliper Plus Measurement	12.00	N/A	12.28	N/A	N/A	N/A	IN
High resolution Integrated Logging Tool−DTS Wellsite Calibration − Detector Calibration							
Before: 13−Mar−2008 14:02							
Gamma Ray Background	30.00	N/A	7.162	N/A	N/A	N/A	GAPI
Gamma Ray (Jig − Bkg)	190.6	N/A	190.6	N/A	N/A	17.32	GAPI
Gamma Ray (Calibrated)	165.0	N/A	165.0	N/A	N/A	15.00	GAPI
High resolution Integrated Logging Tool−DTS Wellsite Calibration − Zero Measurement							
Master: 20−Feb−2008 19:21 Before: 13−Mar−2008 13:32							
CNTC Background	29.71	29.71	28.32	N/A	N/A	4.457	CPS
CFTC Background	33.75	33.75	29.47	N/A	N/A	5.063	CPS
High resolution Integrated Logging Tool−DTS Wellsite Calibration − Ratio Measurement							
Master: 20−Feb−2008 19:21							
Thermal Near Corr. (Tank)	5800	5605	N/A	N/A	N/A	N/A	CPS
Thermal Far Corr. (Tank)	2400	2340	N/A	N/A	N/A	N/A	CPS
CNTC/CFTC (Tank)	2.159	2.395	N/A	N/A	N/A	N/A	
High resolution Integrated Logging Tool−DTS Wellsite Calibration − Accelerometer Calibration							
Before: 13−Mar−2008 21:57							
Z−Axis Acceleration	9.810	N/A	9.798	N/A	N/A	N/A	M/S2
High resolution Integrated Logging Tool−DTS Master Calibration − Inversion results							
Master: 20−Feb−2008 21:02							
Rho Aluminum	2.596	2.602	−−	−−	−−	−−	G/C3
Rho Magnesium	1.686	1.685	−−	−−	−−	−−	G/C3
Pe Aluminum	2.570	2.571	−−	−−	−−	−−	
Pe Magnesium	2.650	2.634	−−	−−	−−	−−	
High resolution Integrated Logging Tool−DTS Master Calibration − Deviation Summary							
Master: 20−Feb−2008 21:02							
BS Average Deviation	0	0.5701	−−	−−	−−	−−	%
BS Max Deviation	0	1.350	−−	−−	−−	−−	%
SS Average Deviation	0	0.3068	−−	−−	−−	−−	%
SS Max Deviation	0	0.7734					%

SS Max Deviation	0	0.7734	−−	−−	−−	−−	%
LS Average Deviation	0	0.6760	−−	−−	−−	−−	%
LS Max Deviation	0	1.772	−−	−−	−−	−−	%

High Resolution Laterolog Array − B Wellsite Calibration − HRLT M01
Before: 13−Mar−2008 23:28

HRLT M0−M1 Voltage Plus − 0	0	N/A	−317.4	N/A	N/A	9.681	UV
HRLT M0−M1 Voltage Plus − 1	0	N/A	−349.1	N/A	N/A	9.681	UV
HRLT M0−M1 Voltage Plus − 2	0	N/A	−353.4	N/A	N/A	9.681	UV
HRLT M0−M1 Voltage Plus − 3	0	N/A	−338.9	N/A	N/A	9.681	UV
HRLT M0−M1 Voltage Plus − 4	0	N/A	−323.5	N/A	N/A	9.681	UV
HRLT M0−M1 Voltage Plus − 5	0	N/A	−328.7	N/A	N/A	9.681	UV
HRLT M0−M1 Voltage Plus − 6	0	N/A	305.4	N/A	N/A	9.681	UV
HRLT M0−M1 Voltage Plus − 7	0	N/A	−322.7	N/A	N/A	9.681	UV

High Resolution Laterolog Array − B Wellsite Calibration − HRLT M12
Before: 13−Mar−2008 23:28

HRLT M1−M2 Voltage Plus − 0	0	N/A	1745	N/A	N/A	53.42	UV
HRLT M1−M2 Voltage Plus − 1	0	N/A	1919	N/A	N/A	53.42	UV
HRLT M1−M2 Voltage Plus − 2	0	N/A	1936	N/A	N/A	53.42	UV
HRLT M1−M2 Voltage Plus − 3	0	N/A	1857	N/A	N/A	53.42	UV
HRLT M1−M2 Voltage Plus − 4	0	N/A	1773	N/A	N/A	53.42	UV
HRLT M1−M2 Voltage Plus − 5	0	N/A	1803	N/A	N/A	53.42	UV
HRLT M1−M2 Voltage Plus − 6	0	N/A	−1686	N/A	N/A	53.42	UV
HRLT M1−M2 Voltage Plus − 7	0	N/A	1781	N/A	N/A	53.42	UV

High Resolution Laterolog Array − B Wellsite Calibration − HRLT M23
Before: 13−Mar−2008 23:28

HRLT M2−M3 Voltage Plus − 0	0	N/A	1730	N/A	N/A	53.42	UV
HRLT M2−M3 Voltage Plus − 1	0	N/A	1907	N/A	N/A	53.42	UV
HRLT M2−M3 Voltage Plus − 2	0	N/A	1928	N/A	N/A	53.42	UV
HRLT M2−M3 Voltage Plus − 3	0	N/A	1854	N/A	N/A	53.42	UV
HRLT M2−M3 Voltage Plus − 4	0	N/A	1766	N/A	N/A	53.42	UV
HRLT M2−M3 Voltage Plus − 5	0	N/A	1798	N/A	N/A	53.42	UV
HRLT M2−M3 Voltage Plus − 6	0	N/A	−1665	N/A	N/A	53.42	UV
HRLT M2−M3 Voltage Plus − 7	0	N/A	1781	N/A	N/A	53.42	UV

High Resolution Laterolog Array − B Wellsite Calibration − HRLT V34
Before: 13−Mar−2008 23:28

HRLT A3−A4 Voltage Plus − 0	0	N/A	68400	N/A	N/A	2100	UV
HRLT A3−A4 Voltage Plus − 1	0	N/A	75680	N/A	N/A	2100	UV
HRLT A3−A4 Voltage Plus − 2	0	N/A	76720	N/A	N/A	2100	UV
HRLT A3−A4 Voltage Plus − 3	0	N/A	73940	N/A	N/A	2100	UV
HRLT A3−A4 Voltage Plus − 4	0	N/A	70260	N/A	N/A	2100	UV
HRLT A3−A4 Voltage Plus − 5	0	N/A	71450	N/A	N/A	2100	UV
HRLT A3−A4 Voltage Plus − 6	0	N/A	−65110	N/A	N/A	2100	UV
HRLT A3−A4 Voltage Plus − 7	0	N/A	70000	N/A	N/A	2100	UV

High Resolution Laterolog Array − B Wellsite Calibration − HRLT V45
Before: 13−Mar−2008 23:28

HRLT A4−A5 Voltage Plus − 0	0	N/A	68220	N/A	N/A	2100	UV
HRLT A4−A5 Voltage Plus − 1	0	N/A	75560	N/A	N/A	2100	UV
HRLT A4−A5 Voltage Plus − 2	0	N/A	76590	N/A	N/A	2100	UV
HRLT A4−A5 Voltage Plus − 3	0	N/A	73780	N/A	N/A	2100	UV
HRLT A4−A5 Voltage Plus − 4	0	N/A	70100	N/A	N/A	2100	UV
HRLT A4−A5 Voltage Plus − 5	0	N/A	71260	N/A	N/A	2100	UV
HRLT A4−A5 Voltage Plus − 6	0	N/A	−65000	N/A	N/A	2100	UV
HRLT A4−A5 Voltage Plus − 7	0	N/A	70000	N/A	N/A	2100	UV

High Resolution Laterolog Array − B Wellsite Calibration − HRLT V56
Before: 13−Mar−2008 23:28

HRLT A5−A6 Voltage Plus − 0	0	N/A	68360	N/A	N/A	2100	UV
HRLT A5−A6 Voltage Plus − 1	0	N/A	75840	N/A	N/A	2100	UV
HRLT A5−A6 Voltage Plus − 2	0	N/A	76840	N/A	N/A	2100	UV
HRLT A5−A6 Voltage Plus − 3	0	N/A	74000	N/A	N/A	2100	UV
HRLT A5−A6 Voltage Plus − 4	0	N/A	70230	N/A	N/A	2100	UV
HRLT A5−A6 Voltage Plus − 5	0	N/A	71390	N/A	N/A	2100	UV
HRLT A5−A6 Voltage Plus − 6	0	N/A	−65280	N/A	N/A	2100	UV
HRLT A5−A6 Voltage Plus − 7	0	N/A	70000	N/A	N/A	2100	UV

High Resolution Laterolog Array − B Wellsite Calibration − HRLT VTP
Before: 13−Mar−2008 23:28

HRLT Torpedo−M0 Voltage − 0	0	N/A	−67940	N/A	N/A	2100	UV
HRLT Torpedo−M0 Voltage − 1	0	N/A	−75570	N/A	N/A	2100	UV
HRLT Torpedo−M0 Voltage − 2	0	N/A	−76660	N/A	N/A	2100	UV
HRLT Torpedo−M0 Voltage − 3	0	N/A	−73920	N/A	N/A	2100	UV
HRLT Torpedo−M0 Voltage − 4	0	N/A	−70250	N/A	N/A	2100	UV
HRLT Torpedo−M0 Voltage − 5	0	N/A	−71420	N/A	N/A	2100	UV
HRLT Torpedo−M0 Voltage − 6	0	N/A	64990	N/A	N/A	2100	UV
HRLT Torpedo−M0 Voltage − 7	0	N/A	−70000	N/A	N/A	2100	UV

High Resolution Laterolog Array − B Wellsite Calibration − HRLT VBD

Before: 13−Mar−2008 23:28

HRLT Bridle#9−M0 Voltage − 0	0	N/A	−67880	N/A	N/A	2100	UV
HRLT Bridle#9−M0 Voltage − 1	0	N/A	−75350	N/A	N/A	2100	UV
HRLT Bridle#9−M0 Voltage − 2	0	N/A	−76430	N/A	N/A	2100	UV
HRLT Bridle#9−M0 Voltage − 3	0	N/A	−73740	N/A	N/A	2100	UV
HRLT Bridle#9−M0 Voltage − 4	0	N/A	−70140	N/A	N/A	2100	UV
HRLT Bridle#9−M0 Voltage − 5	0	N/A	−71340	N/A	N/A	2100	UV
HRLT Bridle#9−M0 Voltage − 6	0	N/A	64780	N/A	N/A	2100	UV
HRLT Bridle#9−M0 Voltage − 7	0	N/A	−70000	N/A	N/A	2100	UV

High Resolution Laterolog Array − B Wellsite Calibration − HRLT ISO
Before: 13−Mar−2008 23:28

HRLT Source Current Plus − 0	0	N/A	283.1	N/A	N/A	8.520	UA
HRLT Source Current Plus − 1	0	N/A	281.1	N/A	N/A	8.520	UA
HRLT Source Current Plus − 2	0	N/A	281.1	N/A	N/A	8.520	UA
HRLT Source Current Plus − 3	0	N/A	281.1	N/A	N/A	8.520	UA
HRLT Source Current Plus − 4	0	N/A	281.1	N/A	N/A	8.520	UA
HRLT Source Current Plus − 5	0	N/A	281.1	N/A	N/A	8.520	UA
HRLT Source Current Plus − 6	0	N/A	281.1	N/A	N/A	8.520	UA
HRLT Source Current Plus − 7	0	N/A	281.1	N/A	N/A	8.520	UA

High Resolution Laterolog Array − B Wellsite Calibration − HRLT MV
Before: 13−Mar−2008 23:28

HRLT Vertical Voltage Pl − 0	0	N/A	−319.4	N/A	N/A	9.681	UV
HRLT Vertical Voltage Pl − 1	0	N/A	−344.3	N/A	N/A	9.681	UV
HRLT Vertical Voltage Pl − 2	0	N/A	−346.9	N/A	N/A	9.681	UV
HRLT Vertical Voltage Pl − 3	0	N/A	−330.9	N/A	N/A	9.681	UV
HRLT Vertical Voltage Pl − 4	0	N/A	−312.5	N/A	N/A	9.681	UV
HRLT Vertical Voltage Pl − 5	0	N/A	−332.7	N/A	N/A	9.681	UV
HRLT Vertical Voltage Pl − 6	0	N/A	313.8	N/A	N/A	9.681	UV
HRLT Vertical Voltage Pl − 7	0	N/A	−322.7	N/A	N/A	9.681	UV

Enhanced DTS Cartridge Wellsite Calibration − EDTC Accelerometer Calibration
Before: 13−Mar−2008 21:57

EDTC Z−Axis Acceleration	9.810	N/A	9.803	N/A	N/A	N/A	M/S2

Enhanced DTS Cartridge Wellsite Calibration − Detector Calibration
Before: 13−Mar−2008 13:29

Gamma Ray (Jig − Bkg)	169.8	N/A	169.8	N/A	N/A	15.43	GAPI
Gamma Ray (Calibrated)	165.0	N/A	165.0	N/A	N/A	15.00	GAPI

The GLS−VJ source activity is acceptable.

The HGNS Neutron Master Calibration was done with the following parameters :

NCT−B Water Temperature	20.0	DEGC.
Thermal Housing Size	3.376	IN.
NSR−F serial number	5224	

High resolution Integrated Logging Tool−DTS / Equipment Identification

Primary Equipment:

HILT high−Resolution Mechanical Sonde	HRMS − B	788
HILT Rxo Gamma−ray Device	HRGD − B	1806
HILT Micro Cylindrically Focused Log Dev	MCFL −	
GR Logging Source	GLS − VJ	5334
HILT High Res. Control Cartridge	HRCC − B	868
HILT Gamma−Ray Neutron Sonde−DTS	HGNS − B	856
HGNS Gamma−Ray Device	HGR −	
HGNS Neutron Detector with Alpha Source	HCNT −	

Auxiliary Equipment:

Neutron Calibration Tank	NCT − B	
Gamma Source Radioactive	GSR − Y	6750
HGNS Housing	HGNH −	3915

High resolution Integrated Logging Tool−DTS Wellsite Calibration

Stab Measurement Summary

Phase	BS Window Ratio		Value	Phase	SS Window Ratio		Value	Phase	LS Window Ratio		Value
Before			0.7620	Before			0.4860	Before			0.2950
0.7243	0.7624	0.8005		0.4639	0.4883	0.5127		0.2820	0.2968	0.3117	

(Minimum)	(Nominal)	(Maximum)	(Minimum)	(Nominal)	(Maximum)	(Minimum)	(Nominal)	(Maximum)

Phase	BS Window Sum CPS	Value	Phase	SS Window Sum CPS	Value	Phase	LS Window Sum CPS	Value
Before		10540	Before		10380	Before		1159
10210 (Minimum)	10750 (Nominal)	11290 (Maximum)	9854 (Minimum)	10370 (Nominal)	10890 (Maximum)	1102 (Minimum)	1160 (Nominal)	1218 (Maximum)

Before: 13−Mar−2008 13:35

High resolution Integrated Logging Tool−DTS Wellsite Calibration

Photo−multiplier High Voltages Calibrations

Phase	BS PM High Voltage (Command) V	Value	Phase	SS PM High Voltage (Command) V	Value	Phase	LS PM High Voltage (Command) V	Value
Before		1261	Before		1888	Before		1415
1127 (Minimum)	1227 (Nominal)	1327 (Maximum)	1821 (Minimum)	1921 (Nominal)	2021 (Maximum)	1307 (Minimum)	1407 (Nominal)	1507 (Maximum)

Before: 13−Mar−2008 13:35

High resolution Integrated Logging Tool−DTS Wellsite Calibration

Crystal Quality Resolutions Calibration

Phase	BS Crystal Resolution %	Value	Phase	SS Crystal Resolution %	Value	Phase	LS Crystal Resolution %	Value
Before		9.844	Before		10.21	Before		9.642
8.875 (Minimum)	9.875 (Nominal)	10.87 (Maximum)	9.556 (Minimum)	10.56 (Nominal)	11.56 (Maximum)	8.503 (Minimum)	9.503 (Nominal)	10.50 (Maximum)

Before: 13−Mar−2008 13:35

High resolution Integrated Logging Tool−DTS Wellsite Calibration

MCFL Calibration

Phase	Raw B0 Resistivity OHMM	Value	Phase	Raw B1 Resistivity OHMM	Value	Phase	Raw B2 Resistivity OHMM	Value
Before		3880	Before		3830	Before		3831
3565 (Minimum)	3875 (Nominal)	4185 (Maximum)	3524 (Minimum)	3830 (Nominal)	4136 (Maximum)	3524 (Minimum)	3830 (Nominal)	4136 (Maximum)

Before: 13−Mar−2008 13:36

High resolution Integrated Logging Tool−DTS Wellsite Calibration

HILT Caliper Calibration

Phase	HILT Caliper Zero Measurement IN	Value	Phase	HILT Caliper Plus Measurement IN	Value
Before		8.092	Before		12.28
6.000 (Minimum)	8.000 (Nominal)	10.00 (Maximum)	9.000 (Minimum)	12.00 (Nominal)	15.00 (Maximum)

Before: 13−Mar−2008 13:29

High resolution Integrated Logging Tool−DTS Wellsite Calibration

Detector Calibration

Phase	Gamma Ray Background GAPI	Value	Phase	Gamma Ray (Jig − Bkg) GAPI	Value	Phase	Gamma Ray (Calibrated) GAPI	Value
Before		7.162	Before		190.6	Before		165.0
0 (Minimum)	30.00 (Nominal)	120.0 (Maximum)	173.2 (Minimum)	190.6 (Nominal)	207.9 (Maximum)	150.0 (Minimum)	165.0 (Nominal)	180.0 (Maximum)

Before: 13−Mar−2008 14:02

High resolution Integrated Logging Tool−DTS Wellsite Calibration

Zero Measurement

Phase	CNTC Background CPS	Value	Phase	CFTC Background CPS	Value
Master		29.71	Master		33.75
Before		28.32	Before		29.47
5.000 (Minimum)	29.71 (Nominal)	40.00 (Maximum)	5.000 (Minimum)	33.75 (Nominal)	40.00 (Maximum)

Master: 20−Feb−2008 19:21 Before: 13−Mar−2008 13:32

High resolution Integrated Logging Tool−DTS Wellsite Calibration

Ratio Measurement

Phase	Thermal Near Corr. (Tank) CPS	Value	Phase	Thermal Far Corr. (Tank) CPS	Value	Phase	CNTC/CFTC (Tank)	Value
Master		5605	Master		2340	Master		2.395
4700 (Minimum)	5800 (Nominal)	6900 (Maximum)	1900 (Minimum)	2400 (Nominal)	2900 (Maximum)	2.120 (Minimum)	2.159 (Nominal)	2.540 (Maximum)

Master: 20−Feb−2008 19:21

High resolution Integrated Logging Tool−DTS

Wellsite Calibration

Accelerometer Calibration

Phase	Z−Axis Acceleration M/S2			Value
Before				9.798
	9.610 (Minimum)	9.810 (Nominal)	10.01 (Maximum)	

Before: 13−Mar−2008 21:57

High resolution Integrated Logging Tool−DTS Master Calibration

Inversion results

Phase	Rho Aluminum G/C3			Value
Master				2.602
	2.586 (Minimum)	2.596 (Nominal)	2.606 (Maximum)	

Phase	Rho Magnesium G/C3			Value
Master				1.685
	1.676 (Minimum)	1.686 (Nominal)	1.696 (Maximum)	

Phase	Pe Aluminum			Value
Master				2.571
	2.470 (Minimum)	2.570 (Nominal)	2.670 (Maximum)	

Phase	Pe Magnesium			Value
Master				2.634
	2.550 (Minimum)	2.650 (Nominal)	2.750 (Maximum)	

Master: 20−Feb−2008 21:02

High resolution Integrated Logging Tool−DTS Master Calibration

Deviation Summary

Phase	BS Average Deviation %			Value
Master				0.5701
	−0.6000 (Minimum)	0 (Nominal)	0.6000 (Maximum)	

Phase	SS Average Deviation %			Value
Master				0.3068
	−1.000 (Minimum)	0 (Nominal)	1.000 (Maximum)	

Phase	LS Average Deviation %			Value
Master				0.6760
	−1.500 (Minimum)	0 (Nominal)	1.500 (Maximum)	

Phase	BS Max Deviation %			Value
Master				1.350
	−1.600 (Minimum)	0 (Nominal)	1.600 (Maximum)	

Phase	SS Max Deviation %			Value
Master				0.7734
	−2.500 (Minimum)	0 (Nominal)	2.500 (Maximum)	

Phase	LS Max Deviation %			Value
Master				1.772
	−3.500 (Minimum)	0 (Nominal)	3.500 (Maximum)	

Master: 20−Feb−2008 21:02

High resolution Integrated Logging Tool−DTS Master Calibration

Zero Measurement

Phase	CNTC Background CPS			Value
Master				29.71
	5.000 (Minimum)	29.71 (Nominal)	40.00 (Maximum)	

Phase	CFTC Background CPS			Value
Master				33.75
	5.000 (Minimum)	33.75 (Nominal)	40.00 (Maximum)	

Master: 20−Feb−2008 19:21

High resolution Integrated Logging Tool−DTS Master Calibration

Tank Measurement

Phase	Thermal Near Corr. (Tank) CPS			Value
Master				5605
	4700 (Minimum)	5800 (Nominal)	6900 (Maximum)	

Phase	Thermal Far Corr. (Tank) CPS			Value
Master				2340
	1900 (Minimum)	2400 (Nominal)	2900 (Maximum)	

Phase	CNTC/CFTC (Tank)			Value
Master				2.395
	2.120 (Minimum)	2.159 (Nominal)	2.540 (Maximum)	

Master: 20−Feb−2008 19:21

High Resolution Laterolog Array − B / Equipment Identification

Primary Equipment:

HRLT Sonde	HRLS − B	1745

Auxiliary Equipment:

HRLT lower Housing	HRLH − B	1745
HRLT Lower Cartridge	HRLC − B	1745
HRLT upper Housing	HRUH − B	1741
HRLT Upper Cartridge	HRUC − B	1730

High Resolution Laterolog Array − B Wellsite Calibration

HRLT M01

Idx	Phase	HRLT M0−M1 Voltage Plus UV	Value	Nominal	Maximum	Minimum
0	Before		−317.4	−322.7	−280.7	−379.7
1	Before		−349.1	−322.7	−280.7	−379.7

2	Before		−353.4	−322.7	−280.7	−379.7
3	Before		−338.9	−322.7	−280.7	−379.7
4	Before		−323.5	−322.7	−280.7	−379.7
5	Before		−328.7	−322.7	−280.7	−379.7
6	Before		305.4	322.7	379.7	280.7
7	Before		−322.7	−322.7	−280.7	−379.7
		(Minimum) (Nominal) (Maximum)				

Before: 13−Mar−2008 23:28

High Resolution Laterolog Array − B Wellsite Calibration

HRLT M12

Idx	Phase	HRLT M1−M2 Voltage Plus UV	Value	Nominal	Maximum	Minimum
0	Before		1745	1781	2095	1549
1	Before		1919	1781	2095	1549
2	Before		1936	1781	2095	1549
3	Before		1857	1781	2095	1549
4	Before		1773	1781	2095	1549
5	Before		1803	1781	2095	1549
6	Before		−1686	−1781	−1549	−2095
7	Before		1781	1781	2095	1549
		(Minimum) (Nominal) (Maximum)				

Before: 13−Mar−2008 23:28

High Resolution Laterolog Array − B Wellsite Calibration

HRLT M23

Idx	Phase	HRLT M2−M3 Voltage Plus UV	Value	Nominal	Maximum	Minimum
0	Before		1730	1781	2095	1549
1	Before		1907	1781	2095	1549
2	Before		1928	1781	2095	1549
3	Before		1854	1781	2095	1549
4	Before		1766	1781	2095	1549
5	Before		1798	1781	2095	1549
6	Before		−1665	−1781	−1549	−2095
7	Before		1781	1781	2095	1549
		(Minimum) (Nominal) (Maximum)				

Before: 13−Mar−2008 23:28

High Resolution Laterolog Array − B Wellsite Calibration

HRLT V34

Idx	Phase	HRLT A3−A4 Voltage Plus UV	Value	Nominal	Maximum	Minimum
0	Before		68400	70000	82360	60900
1	Before		75680	70000	82360	60900
2	Before		76720	70000	82360	60900
3	Before		73940	70000	82360	60900
4	Before		70260	70000	82360	60900
5	Before		71450	70000	82360	60900
6	Before		−65110	−70000	−60900	−82360
7	Before		70000	70000	82360	60900
		(Minimum) (Nominal) (Maximum)				

(Minimum) (Nominal) (Maximum)

Before: 13−Mar−2008 23:28

High Resolution Laterolog Array − B Wellsite Calibration

HRLT V45

Idx	Phase	HRLT A4−A5 Voltage Plus UV	Value	Nominal	Maximum	Minimum
0	Before		68220	70000	82360	60900
1	Before		75560	70000	82360	60900
2	Before		76590	70000	82360	60900
3	Before		73780	70000	82360	60900
4	Before		70100	70000	82360	60900
5	Before		71260	70000	82360	60900
6	Before		−65000	−70000	−60900	−82360
7	Before		70000	70000	82360	60900
		(Minimum) (Nominal) (Maximum)				

Before: 13−Mar−2008 23:28

High Resolution Laterolog Array − B Wellsite Calibration

HRLT V56

Idx	Phase	HRLT A5−A6 Voltage Plus UV	Value	Nominal	Maximum	Minimum
0	Before		68360	70000	82360	60900
1	Before		75840	70000	82360	60900
2	Before		76840	70000	82360	60900
3	Before		74000	70000	82360	60900
4	Before		70230	70000	82360	60900
5	Before		71390	70000	82360	60900
6	Before		−65280	−70000	−60900	−82360
7	Before		70000	70000	82360	60900
		(Minimum) (Nominal) (Maximum)				

Before: 13−Mar−2008 23:28

High Resolution Laterolog Array − B Wellsite Calibration

HRLT VTP

Idx	Phase	HRLT Torpedo−M0 Voltage Plus UV	Value	Nominal	Maximum	Minimum
0	Before		−67940	−70000	−60900	−82360
1	Before		−75570	−70000	−60900	−82360
2	Before		−76660	−70000	−60900	−82360
3	Before		−73920	−70000	−60900	−82360
4	Before		−70250	−70000	−60900	−82360
5	Before		−71420	−70000	−60900	−82360
6	Before		64990	70000	82360	60900
7	Before		−70000	−70000	−60900	−82360
		(Minimum) (Nominal) (Maximum)				

Before: 13−Mar−2008 23:28

High Resolution Laterolog Array − B Wellsite Calibration

HRLT VBD

Idx	Phase	HRLT Bridle#9−M0 Voltage Plus UV	Value	Nominal	Maximum	Minimum
0	Before		−67880	−70000	−60900	−82360
1	Before		−75350	−70000	−60900	−82360
2	Before		−76430	−70000	−60900	−82360

3	Before		−73740	−70000	−60900	−82360
4	Before		−70140	−70000	−60900	−82360
5	Before		−71340	−70000	−60900	−82360
6	Before		64780	70000	82360	60900
7	Before		−70000	−70000	−60900	−82360
		(Minimum) (Nominal) (Maximum)				

Before: 13−Mar−2008 23:28

High Resolution Laterolog Array − B Wellsite Calibration

HRLT ISO

Idx	Phase	HRLT Source Current Plus UA	Value	Nominal	Maximum	Minimum
0	Before		283.1	284.0	334.1	247.0
1	Before		281.1	281.1	330.7	244.4
2	Before		281.1	281.1	330.7	244.4
3	Before		281.1	281.1	330.7	244.4
4	Before		281.1	281.1	330.7	244.4
5	Before		281.1	281.1	330.7	244.4
6	Before		281.1	281.1	330.7	244.4
7	Before		281.1	281.1	330.7	244.4
		(Minimum) (Nominal) (Maximum)				

Before: 13−Mar−2008 23:28

High Resolution Laterolog Array − B Wellsite Calibration

HRLT MV

Idx	Phase	HRLT Vertical Voltage Plus UV	Value	Nominal	Maximum	Minimum
0	Before		−319.4	−322.7	−280.7	−379.7
1	Before		−344.3	−322.7	−280.7	−379.7
2	Before		−346.9	−322.7	−280.7	−379.7
3	Before		−330.9	−322.7	−280.7	−379.7
4	Before		−312.5	−322.7	−280.7	−379.7
5	Before		−332.7	−322.7	−280.7	−379.7
6	Before		313.8	322.7	379.7	280.7
7	Before		−322.7	−322.7	−280.7	−379.7
		(Minimum) (Nominal) (Maximum)				

Before: 13−Mar−2008 23:28

Multimode Array Sonic Power Cartridge / Equipment Identification

Primary Equipment:

Multimode Array Sonic Minimum Service So	MAMS − BA	8201
Multimode Array Sonic Control Cartridge	MAPC − BA	8198

Auxiliary Equipment:

Electronics Cartridge Housing	ECH − SD	8198

Enhanced DTS Cartridge / Equipment Identification

Primary Equipment:

EDTC Gamma Ray Detector	EDTG − B	77305
Enhanced DTS Cartridge	EDTC − B	

Auxiliary Equipment:

EDTC Housing	EDTH − B	8378

Enhanced DTS Cartridge Wellsite Calibration		
EDTC Accelerometer Calibration		
Phase	EDTC Z−Axis Acceleration M/S2	Value
Before		9.803
9.610 (Minimum)	9.810 (Nominal)	10.01 (Maximum)
Before: 13−Mar−2008 21:57		

Enhanced DTS Cartridge Wellsite Calibration								
Detector Calibration								
Phase	Gamma Ray Background GAPI	Value	Phase	Gamma Ray (Jig − Bkg) GAPI	Value	Phase	Gamma Ray (Calibrated) GAPI	Value
Before		17.32	Before		169.8	Before		165.0
0 (Minimum)	30.00 (Nominal)	120.0 (Maximum)	154.3 (Minimum)	169.8 (Nominal)	185.2 (Maximum)	150.0 (Minimum)	165.0 (Nominal)	180.0 (Maximum)
Before: 13−Mar−2008 13:29								

Company: **Apache Northwest Pty Ltd**

Schlumberger

Well: **Coelacanth−1**
Field: **Apache/VIC/P−45**
Rig: **West Triton**
Country: **Australia**

PEX−GR−HRLA−MSIP−S
Density−Neutron−GR−Resistivity−S
Suite−1 Run−1 Scale 1:500

Schlumberger

Company: **Apache Northwest Pty Ltd**

Well: **Coelacanth−1**
Field: **Apache/VIC/P−45**
Rig: **West Triton** Country: **Australia**

PEX−GR−HRLA−MSIP−S
PPC Caliper Log
Suite−1 Run−1 Scale 1:200

Rig: West Triton
Field: Apache/VIC/P−45
Location: Bass Strait
Well: Coelacanth−1
Company: Apache Northwest Pty Ltd

LOCATION

Bass Strait
Northing : 5,714,176.613 m
Easting : 613,192.770 m

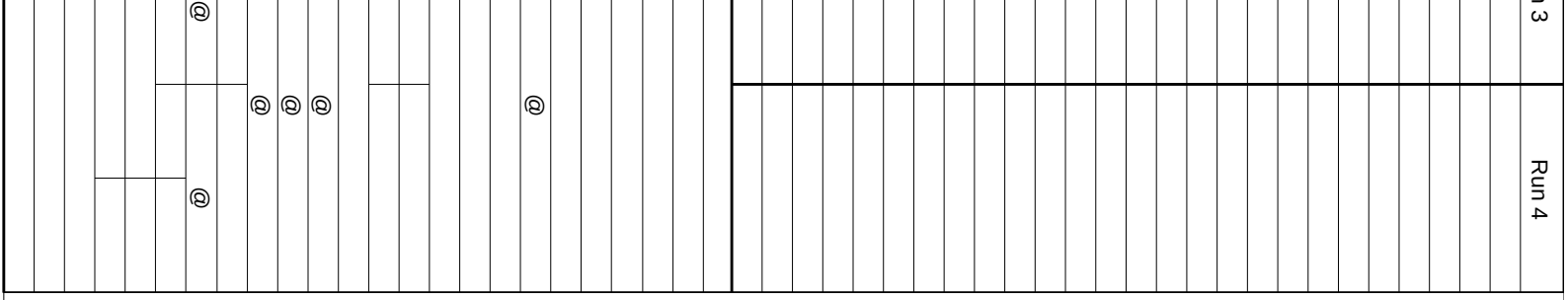
Elev.:
G.L. −90.00 m
D.F. 38.00 m

Permanent Datum: AHD — Elev.: 0.00 m
Log Measured From: DRILL FLOOR — 38.00 m above Perm. Datum
Drilling Measured From: DRILL FLOOR

State:	Max. Well Deviation	Longitude	Latitude
Victoria	0.41 deg	148 18' 07.0098" E	38 42' 49.7296" S

	Run 1	Run 2	Run 3
Logging Date	13−Mar−2008		
Run Number	1		
Depth Driller	907 m		
Schlumberger Depth	907 m		
Bottom Log Interval	905 m		
Top Log Interval	55.3 m		
Casing Driller Size @ Depth	13.375 in @ 275.7 m	@	@
Casing Schlumberger	274 m		
Bit Size	13.375 in		
Type Fluid In Hole	KCl/Polymer		
MUD Density / Viscosity	1.15 g/cm3 / 43 s		
MUD Fluid Loss / PH	9 cm3 / 8		
MUD Source Of Sample	Flowline		
RM @ Measured Temperature	0.138 ohm.m @ 21 degC	@	@
RMF @ Measured Temperature	0.130 ohm.m @ 21 degC	@	@
RMC @ Measured Temperature	0.147 ohm.m @ 21 degC	@	@
Source RMF / RMC	Press / Press		
RM @ MRT / RMF @ MRT	0.105 @ 34 / 0.098 @ 34	@ / @	@ / @
Maximum Recorded Temperatures	34 degC / 31		
Circulation Stopped / Time	13−Mar−2008 / 13:00		
Logger On Bottom / Time	14−Mar−2008 / 23:31		
Unit Number / Location	41 / AUSL		
Recorded By	A. Dandi/M.Dawson		
Witnessed By	F.Fernandes		

	Run 1	Run 2	Run 3
Logging Date			
Run Number			
Depth Driller			
Schlumberger Depth			
Bottom Log Interval			
Top Log Interval			
Casing Driller Size @ Depth	@		
Casing Schlumberger			
Bit Size			
Type Fluid In Hole			
MUD Density / Viscosity			
MUD Fluid Loss / PH			
MUD Source Of Sample			
RM @ Measured Temperature	@		
RMF @ Measured Temperature	@		
RMC @ Measured Temperature	@		
Source RMF / RMC			
RM @ MRT / RMF @ MRT	@ / @		
Maximum Recorded Temperatures			
Circulation Stopped / Time			
Logger On Bottom / Time			
Unit Number / Location			
Recorded By			
Witnessed By			



DEPTH SUMMARY LISTING

Date Created: 14−MAR−2008 1:45:57

Depth System Equipment

Depth Measuring Device		Tension Device		Logging Cable	
Type:	IDW−H	Type:	CMTD−B/A	Type:	7−46ZV−XS
Serial Number:	796	Serial Number:	1721	Serial Number:	77178
Calibration Date:	29−Jan−2008	Calibration Date:	27−FEB−2008	Length:	7699.86 M
Calibrator Serial Number:	1009	Calibrator Serial Number:	1051	Conveyance Method:	Wireline
Calibration Cable Type:	7−46ZV−XS	Calibration Gain:	0.81	Rig Type:	Offshore_Fixed
Wheel Correction 1:	−5	Calibration Offset:	−610.00		
Wheel Correction 2:	−5				

Depth Control Parameters

Log Sequence:	First Log In the Well
Rig Up Length At Surface:	74.36 M
Rig Up Length At Bottom:	74.10 M
Rig Up Length Correction:	0.26 M
Stretch Correction:	0.00 M
Tool Zero Check At Surface:	0.00 M

Depth Control Remarks

1. Schlumberger Depth Control Policy Followed
2. IDW used as primary depth reference
3. Z−Chart used as secondary depth reference
4.
5.
6.

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 SERVICES1	OTHER SERVICES2
OS1:	OS1:
OS2:	OS2:
OS3:	OS3:
OS4:	OS4:
OS5:	OS5:

REMARKS: RUN NUMBER 1	REMARKS: RUN NUMBER 2
First Run in Hole. Schlumberger depth control procedure followed.	
Log Objectives:Basic Formation Evaluation	
Toolstring run as per toolsketch by means of 2 LCMEs, 5 * 2.5 in Standoffs and HGNS eccentralized with a bowspring	
Maximum recoreded temperatures obtained from thermometers in logging head	
Neutron Enviroment Corrections : Hole Size, Mud Salinity, Mud Weight, Mud Cake, Pressure & Temperature	
Density Environment Corrections : Hole Size, using BS, and Mud Weight	
Pex run in high resolution as per client request	

Perf run in high resolution as per client request

As per Mud Engineer's report

−Chlorides = 38000mg/l, Barite = 2.5 %

TDL tagged @ 907m , CS detected @ 274 m

Caliper Check in Casing reads 12.55in (Ref ID = 12.61 in)

BHT, STEM and SHT temperatures based on HGNS temperature sensor

Spike of resisitivity curves at 669.5m due to application of power for caliper centralisation

RUN 1		RUN 2	
SERVICE ORDER #:	AUSL08649881	SERVICE ORDER #:	
PROGRAM VERSION:	15C0−309	PROGRAM VERSION:	
FLUID LEVEL:	0 m	FLUID LEVEL:	

LOGGED INTERVAL	START	STOP	LOGGED INTERVAL	START	STOP

EQUIPMENT DESCRIPTION

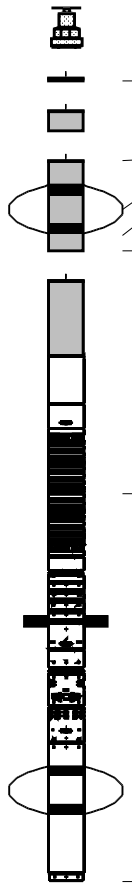
RUN 1 RUN 2

SURFACE EQUIPMENT

GSR−Y 6750
NCT−B
CNB−AB
NCS−VB

WITM (EDTS)−A

DOWNHOLE EQUIPMENT



LEH−QT
LEH−QT 2800
33.61

BSP−AH−169
32.32
32.73

AH−369
32.32

EDTC−B
EDTH−B 8378
EDTC−B
EDTG−B 77305
31.88
30.82
30.25
29.90
31.88

MAPC−B
MAPC−BA 8198
ECH−SD 8198
MAMS−BA 8201
29.90
25.20

MAXS−B
MASS−BA 8157
MAXS−BA 8157
23.49
2.5 IN
Standoff
17.32

PPC1−B
PPC1−B 8291
PPC_CAL_STD
16.97
15.33
17.32

HRLT−B
HRUH−B 1741
HRUC−B 1730
15.33
2.5 IN
Standoff

HRLS−B 1745
HRLH−B 1745
HRLC−B 1745
AH−270 1792

High Res. — 11.75

2.5 IN Standoff

HILTB−FTB
AH−107 2910
AH−120 806
HGNSD−B 856
HMCA
HGNH 3915
NLS−KL
NSR−F 5224
HACCZ 379
HCNT
HGR
HRCC−B 868
HRMS−B 788
HRGD−B 1806
GLS−VJ 5334

HGNS HTEM — 7.96
HMCA — 6.74
HGNS Gamm — 6.51
HGNS Neut — 4.73
HGNS Neut — 4.58
HGNS sens — 3.87
HRCC cart — 2.65
MCFL — 1.00
HILT cali — 0.85
HRDD−LS
HRDD−SS
HRDD−BS — 0.73
DF ACCZ
HTEN HMAS HV
Accelerom
Tension — 0.00

BNS−CCS — 0.14

TOOL ZERO

MAXIMUM STRING DIAMETER 8.63 IN
MEASUREMENTS RELATIVE TO TOOL ZERO
ALL LENGTHS IN METERS

Client: Apache Northwest Pty Ltd
Well: Coelacanth−1
Field: VIC/P−45
State: Victoria
Country: Australia

Drawing Date: 3/13/2008
Rig Name: West Triton
Reference Datum: AHD
Elevation: 38.0 m

Production String	(in) OD	(in) ID	(m) MD	Well Schematic	(m) MD	(in) OD	(in) ID	Casing String
Derrick Floor Elevation			39.0					
Mean Sea Level			0.0					
					90.0	13.175	12.415	Casing String
					275.7	13.175	12.415	Casing Shoe
					275.7	12.250		Borehole Segment

All Depths are Drillers' Depths						907.0	12.250		Borehole Segment Bottom

Schlumberger

Standard Resolution Pass 1:200

MAXIS Field Log

Company: Apache Northwest Pty Ltd **Well: Coelacanth−1**

Input DLIS Files

14−Mar−2008 10:19

Output DLIS Files

DEFAULT	**TLD_MCFL_CNL_HRLA_049PUP**	**FN:73**	**PRODUCER**	**18−Mar−2008 21:58**	**907.4 M**	**271.1 M**
CLIENT	**TLD_MCFL_CNL_HRLA_049PUC**	**FN:74**	**CUSTOMER**	**18−Mar−2008 21:58**	**907.4 M**	**271.1 M**
REDUCED	**TLD_MCFL_CNL_HRLA_049PUP**	**FN:75**	**PRODUCER**	**18−Mar−2008 21:58**	**907.4 M**	**271.1 M**

Integrated Hole/Cement Volume Summary

Hole Volume = 92.11 M3

Cement Volume = 62.40 M3 (assuming 9.63 IN casing O.D.)

Computed from 906.9 M to 274.0 M using data channel(s) HCAL

OP System Version: 15C0−309

MCM

HILTB−FTB	SRPC−3546−Q1_2008_OP15	HRLT−B	SRPC−3546−Q1_2008_OP15
PPC1−B	SRPC−3546−Q1_2008_OP15	MAXS−B	SKK−3442−MAST
MAPC−B	SKK−3442−MAST	EDTC−B	SKK−3493−EDTCB
BSP−AH−169	SRPC−3546−Q1_2008_OP15		

PIP SUMMARY

Integrated Hole Volume Minor Pip Every 1 M3

Integrated Hole Volume Major Pip Every 10 M3

Integrated Cement Volume Minor Pip Every 1 M3

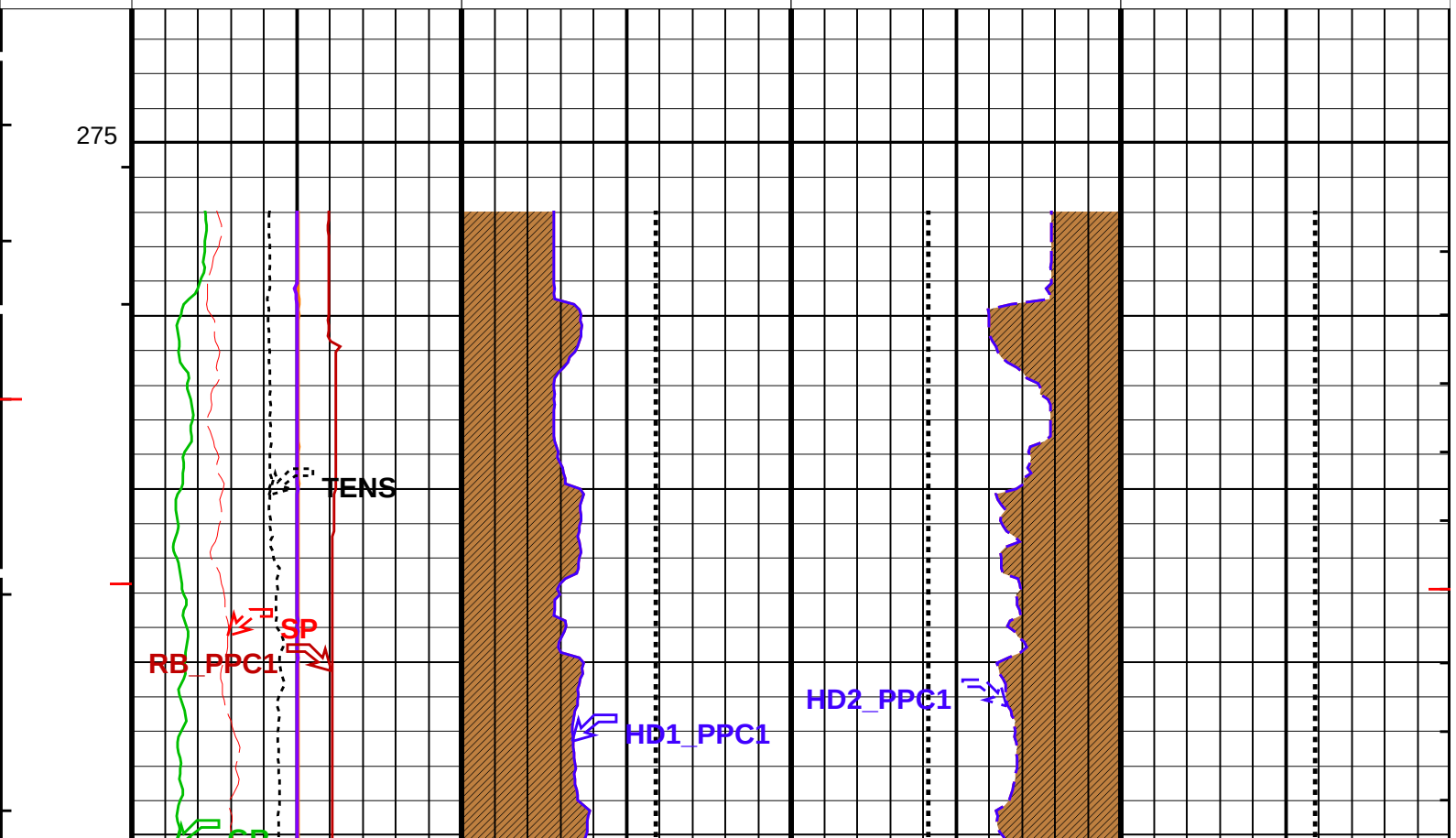
Integrated Cement Volume Major Pip Every 10 M3

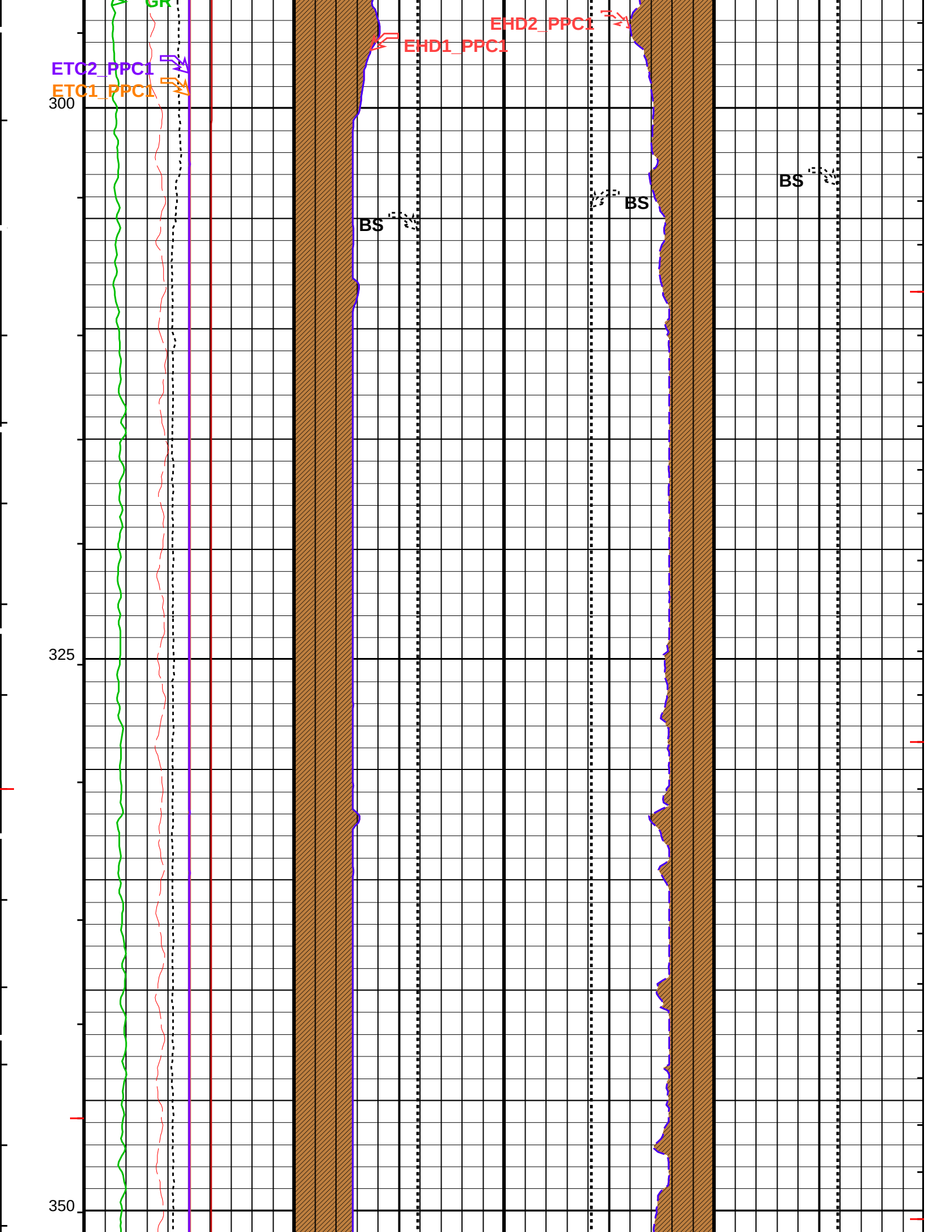
Integrated Transit Time Minor Pip Every 1 MS

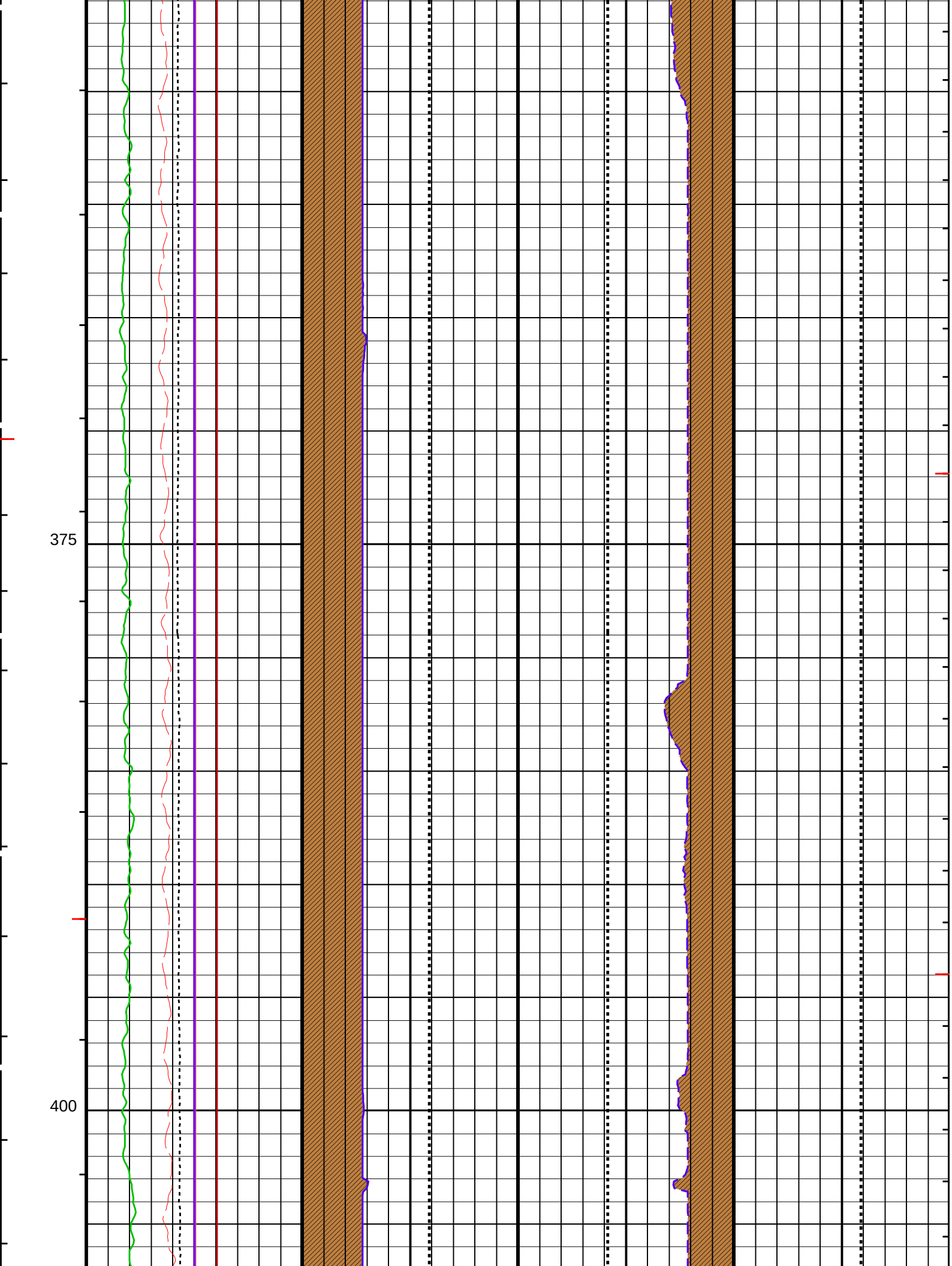
Integrated Transit Time Major Pip Every 10 MS

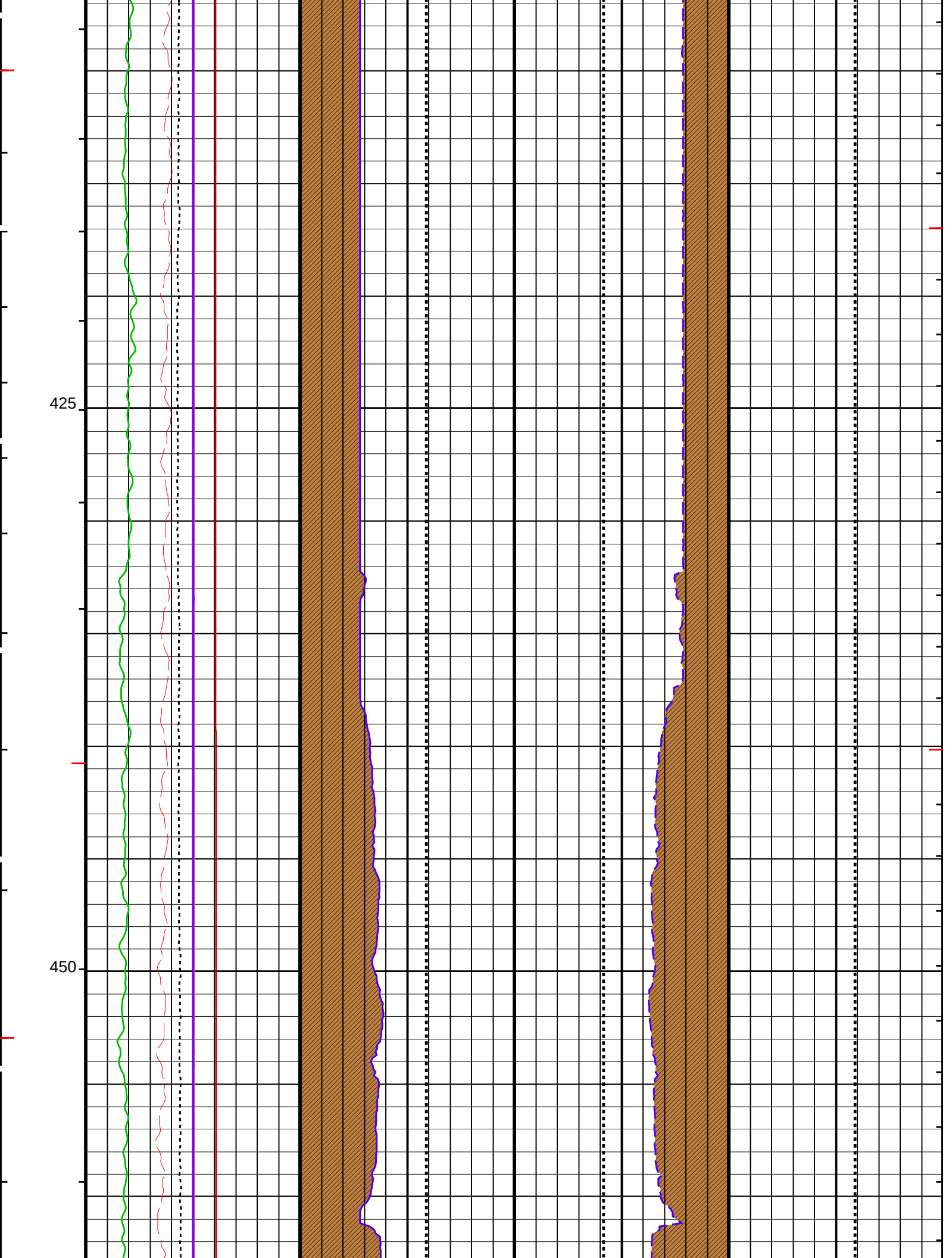
Time Mark Every 60 S

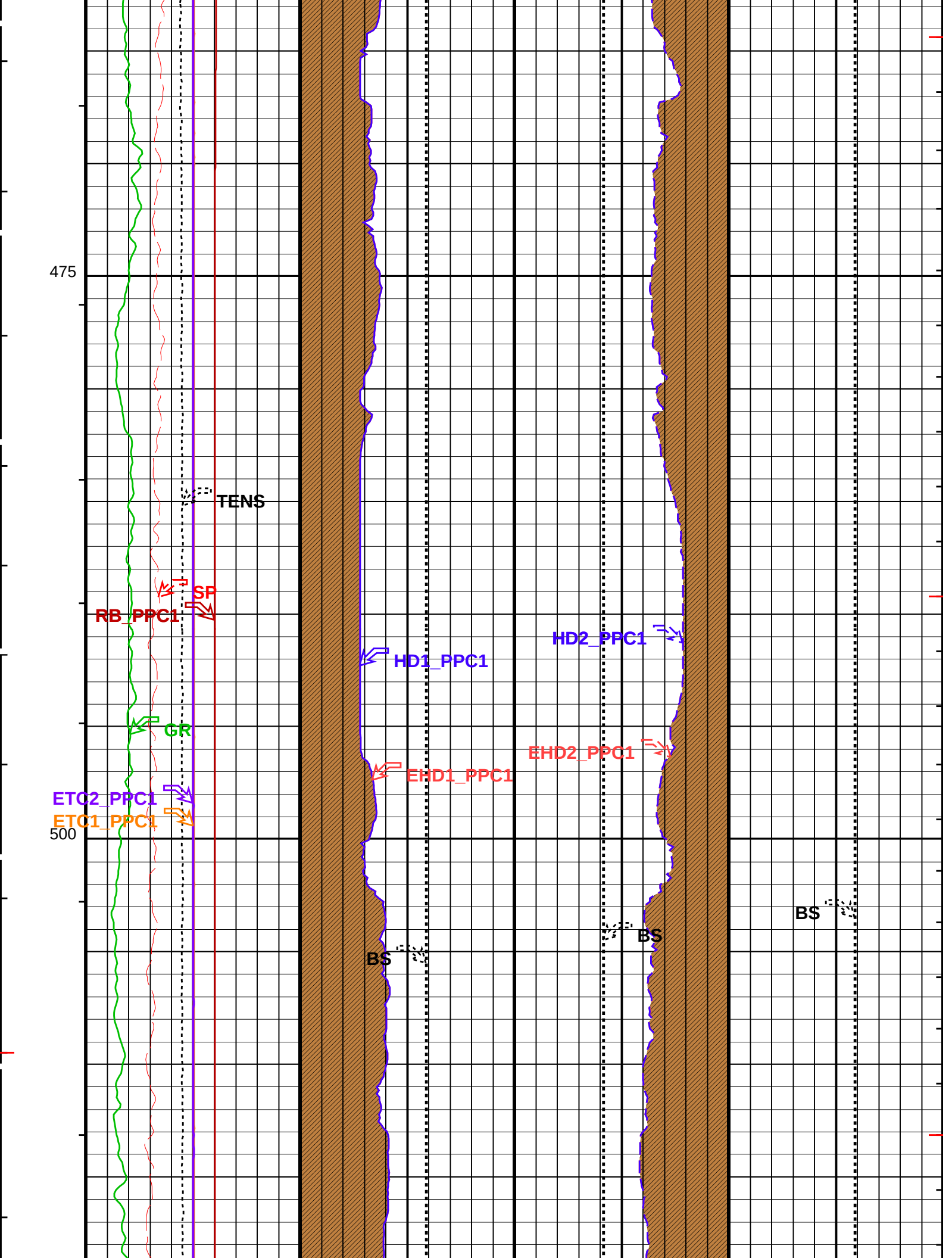
PPC1 Tool Center 2 (ETC2_PPC1) −10 (IN) 10		
PPC1 Tool Center 1 (ETC1_PPC1) −10 (IN) 10	HD difference From EHD1_PPC1 to HD1_PPC1	HD difference From HD2_PPC1 to EHD2_PPC1
PPC1 Relative Bearing (RB_PPC1) 0 (DEG) 360	PPC1 Hole Diameter 1 (HD1_PPC1) 24 (IN) 4	Formation From EHD2_PPC1 to F3
Tension (TENS) 0 (LBF) 5000	PPC1 Ellipse Hole Diameter 1 (EHD1_PPC1) 24 (IN) 4	PPC1 Hole Diameter 2 (HD2_PPC1) 4 (IN) 24
Gamma Ray (GR) 0 (GAPI) 200	Formation From F2 to EHD1_PPC1	PPC1 Ellipse Hole Diameter 2 (EHD2_PPC1) 4 (IN) 24
SP (SP) −80 (MV) 20	Bit Size (BS) 24 (IN) 4	Bit Size (BS) 4 (IN) 24
		Bit Size (BS) 24 (IN) 4

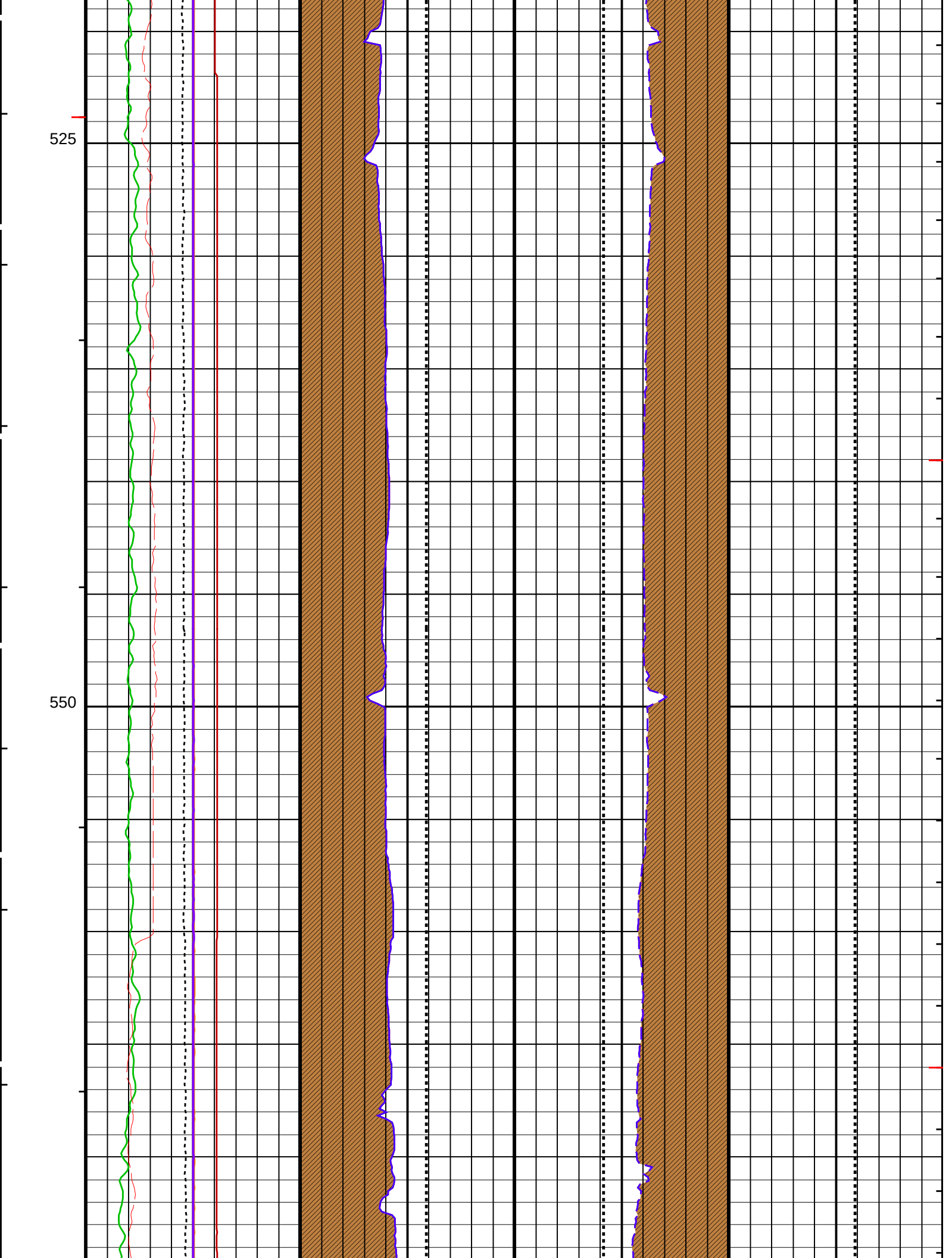


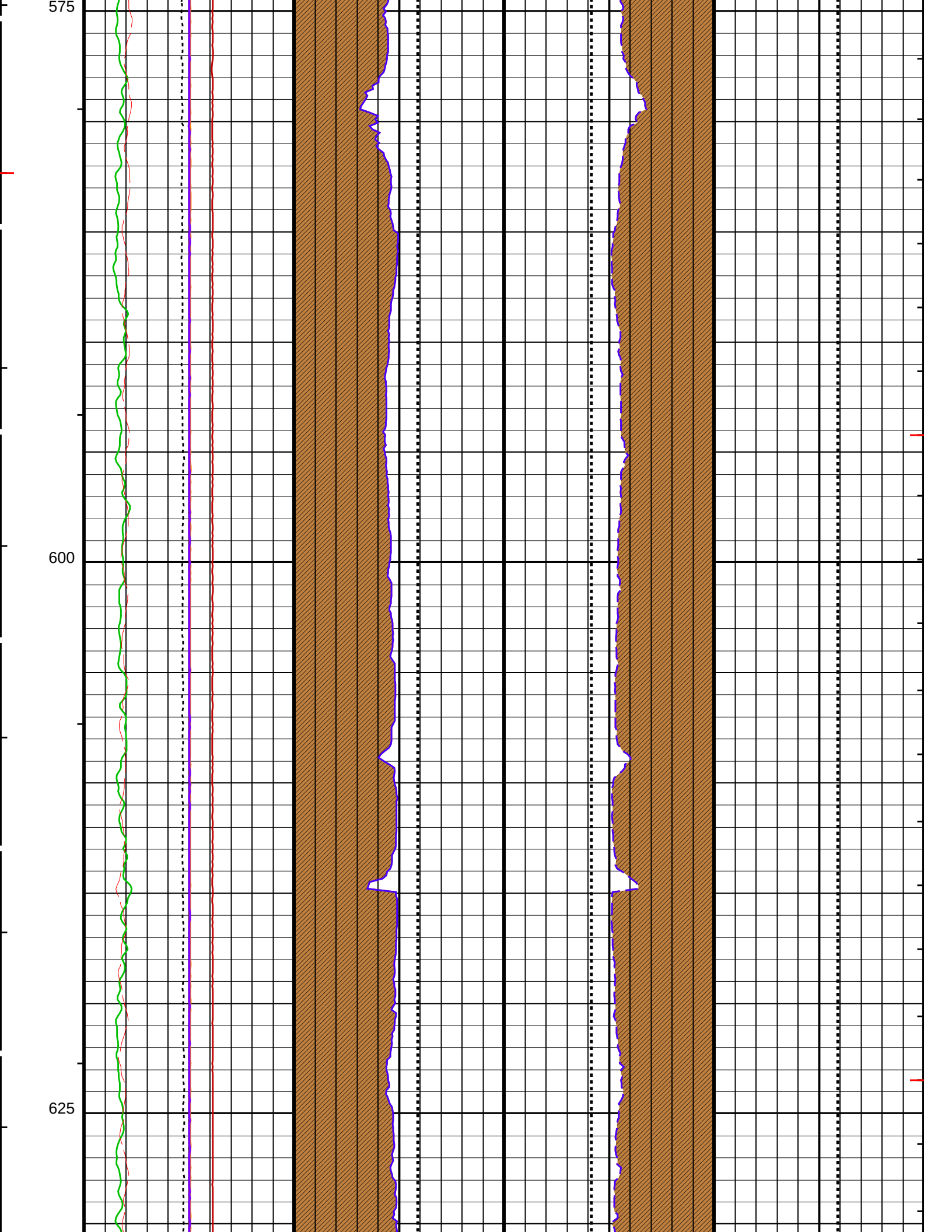

GR
ETC2_PPC1
ETC1_PPC1
EHD2_PPC1
EHD1_PPC1
BS
BS
BS
300
325
350

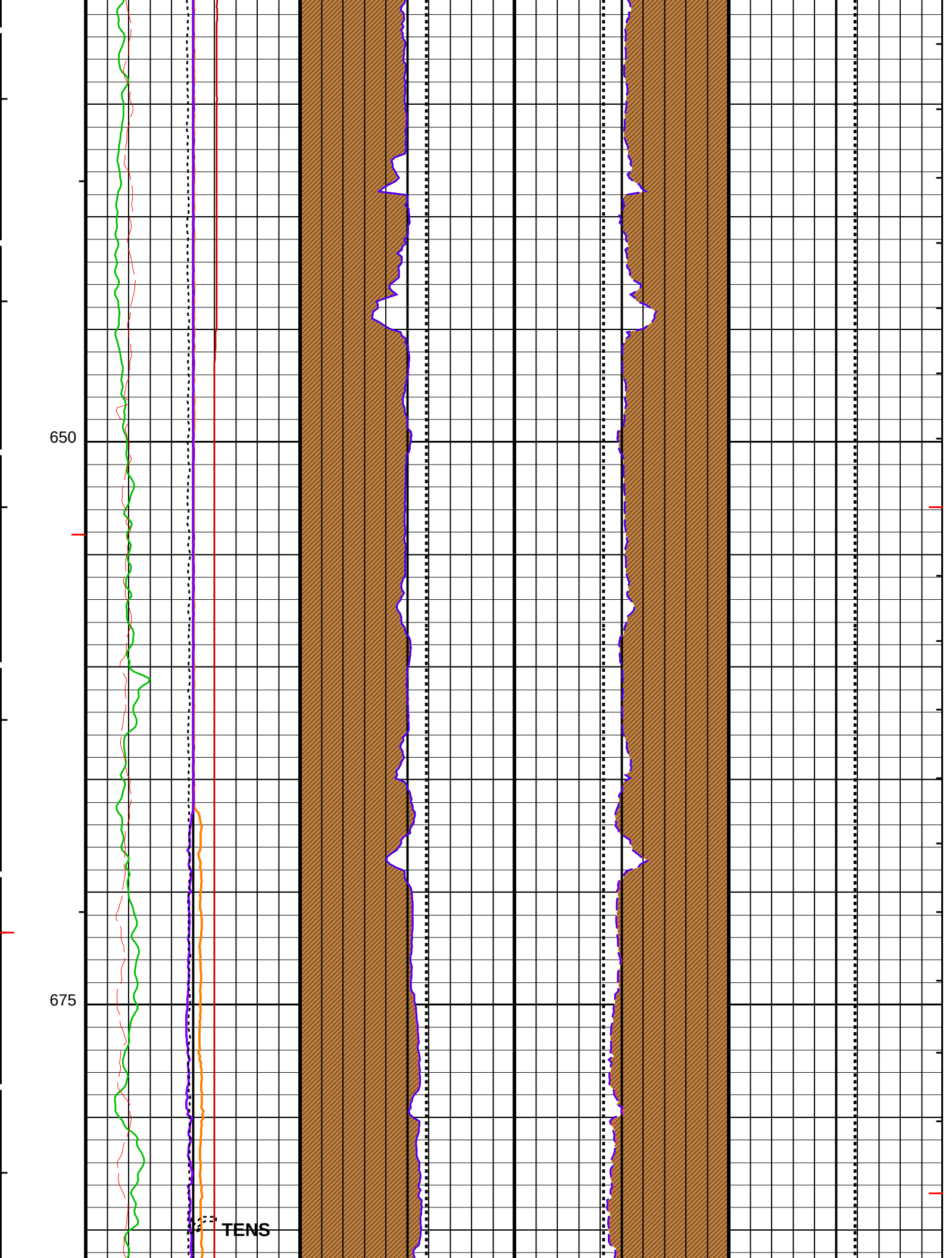

375
400

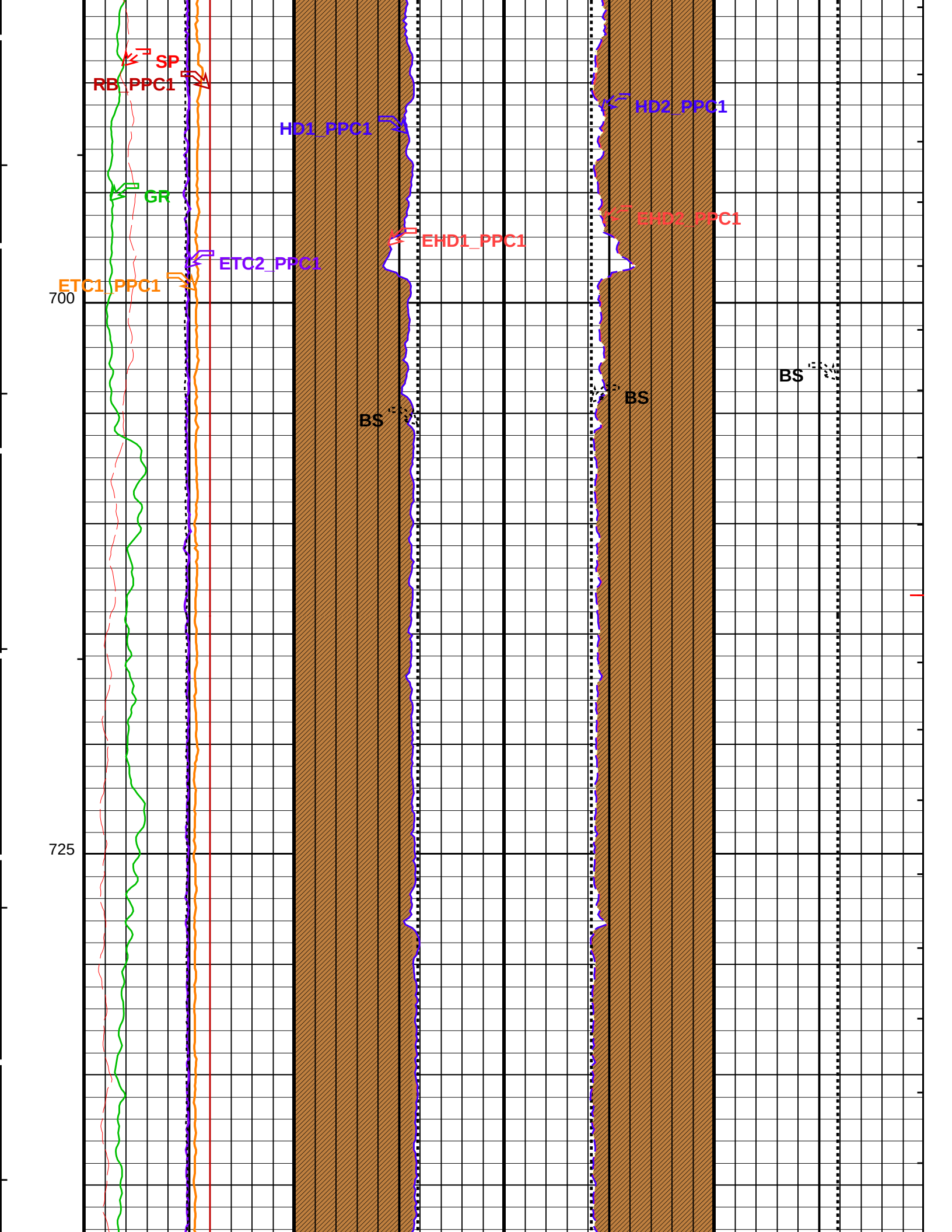

425
450


475
500
TENS
SP
RB_PPC1
HD1_PPC1
HD2_PPC1
GR
EHD1_PPC1
EHD2_PPC1
ETC2_PPC1
ETC1_PPC1
BS
BS
BS


525
550


575
600
625


650
675
TENS


SP
RB_PPC1
GR
ETC2_PPC1
ETC1_PPC1
HD1_PPC1
EHD1_PPC1
HD2_PPC1
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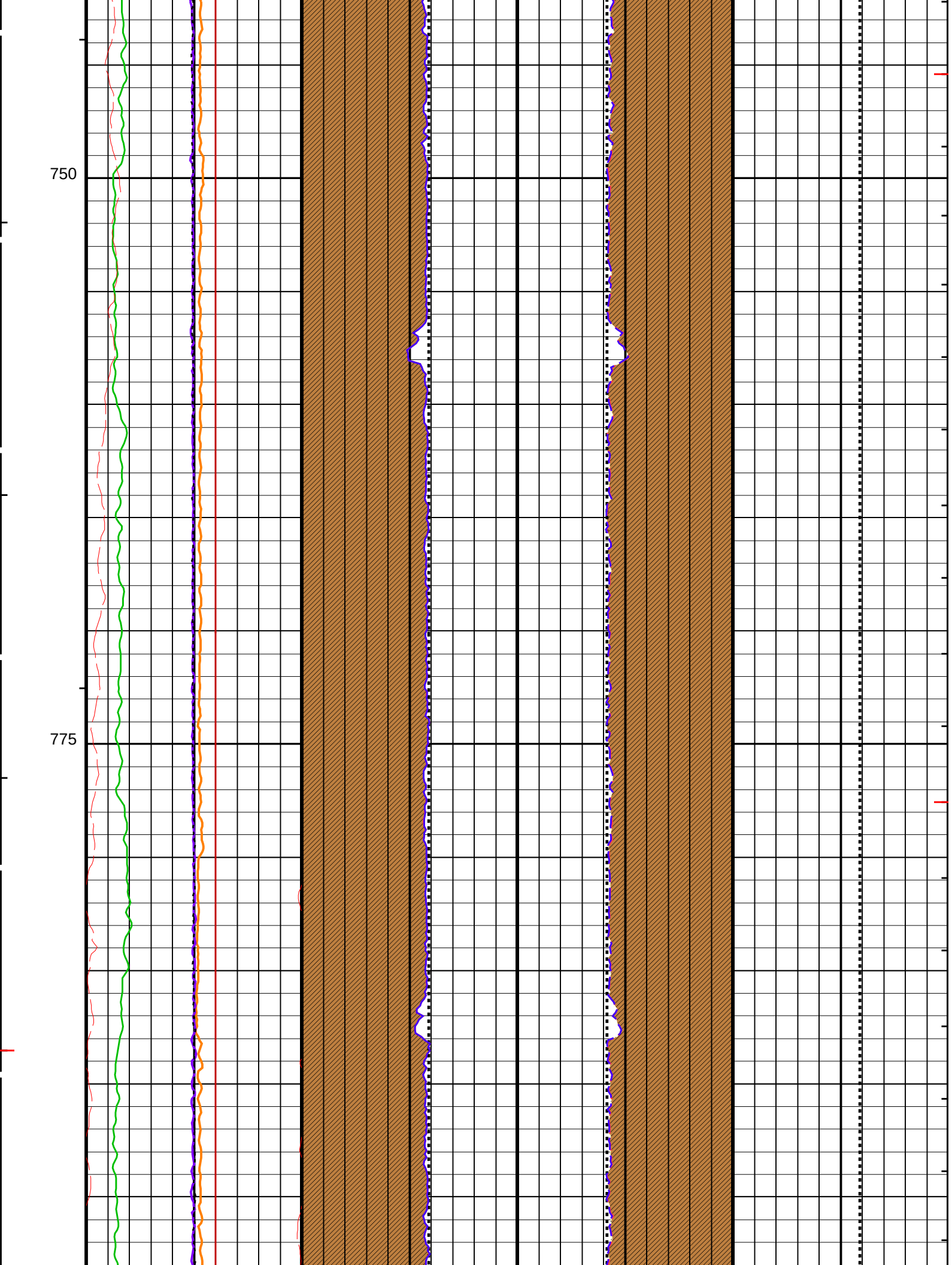
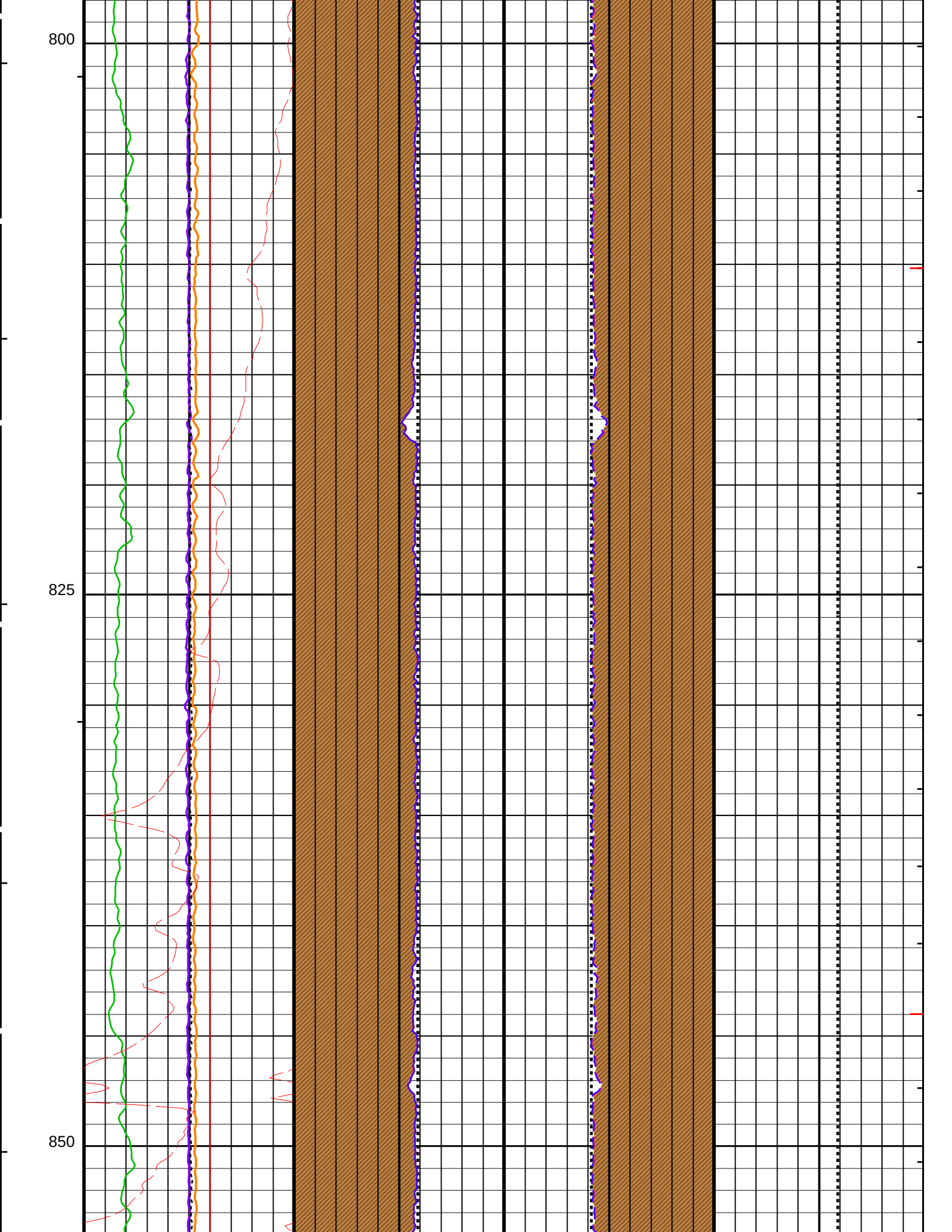
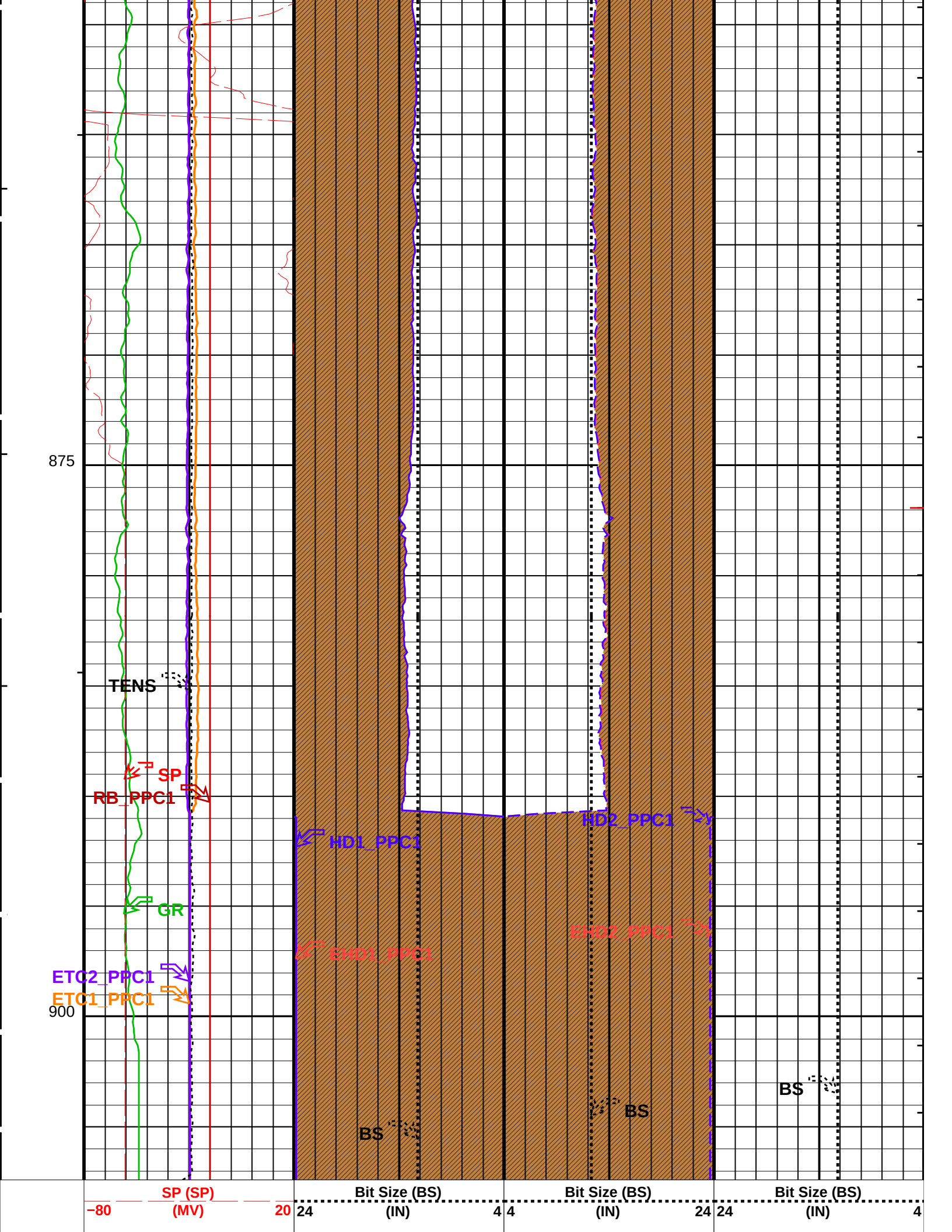
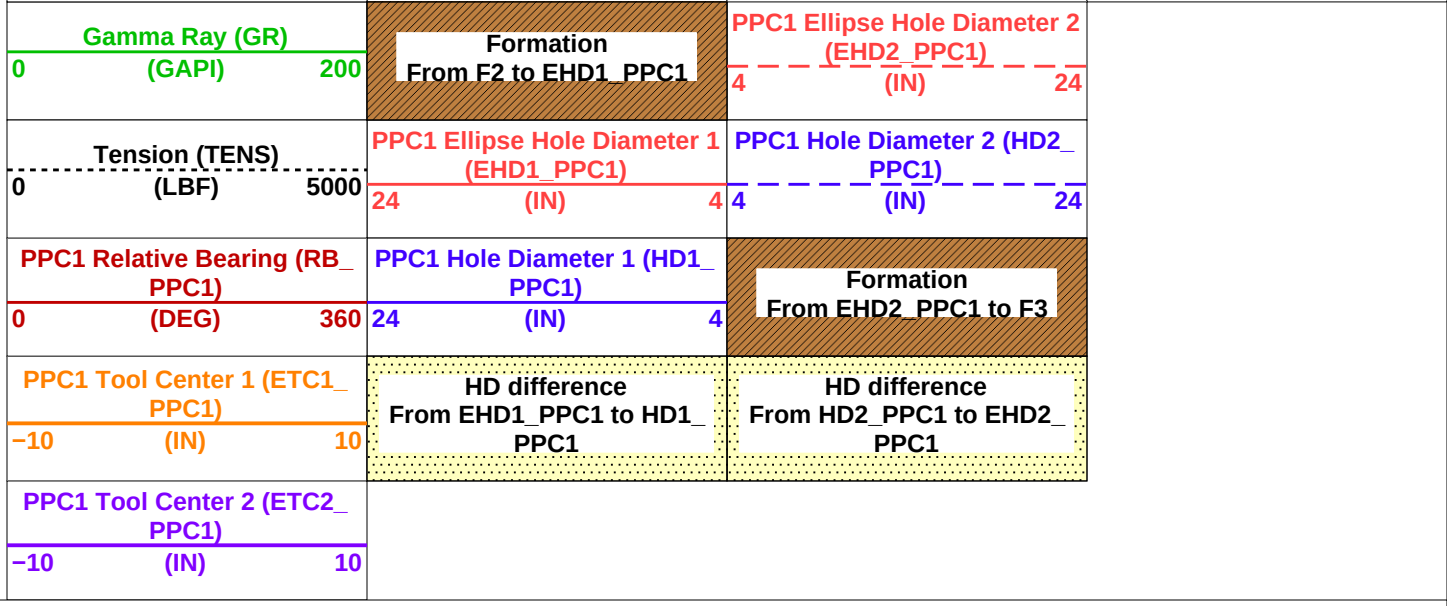
BS
BS
BS
700
725


750
775


800
825
850


875
900
TENS
SP
RB_PPC1
GR
ETC2_PPC1
ETC1_PPC1
HD1_PPC1
HD2_PPC1
EHD1_PPC1
EHD2_PPC1
BS
BS
BS
SP (SP)
(MV)
−80
20
Bit Size (BS)
(IN)
24
4
Bit Size (BS)
(IN)
4
24
Bit Size (BS)
(IN)
24
4



PIP SUMMARY

Integrated Hole Volume Minor Pip Every 1 M3
Integrated Hole Volume Major Pip Every 10 M3
Integrated Cement Volume Minor Pip Every 1 M3
Integrated Cement Volume Major Pip Every 10 M3
Integrated Transit Time Minor Pip Every 1 MS
Integrated Transit Time Major Pip Every 10 MS
Time Mark Every 60 S

Parameters

DLIS Name	Description	Value	
	PPC1−B: Powered Positioning Deveice/Caliper 1		
	PPC1 Caliper Type	CAL_STD	
CLBD_PPC	PPC Calibration data selection	ROM	
	MAPC−B: Multimode Array Sonic Power Cartridge		
BS	Bit Size	12.250	IN
ITTS	Integrated Transit Time Source	DTCO	
	BSP−AH−169: Bridle SP		
SPNV	SP Next Value	0	MV
	HOLEV: Integrated Hole/Cement Volume		
FCD	Future Casing (Outer) Diameter	9.625	IN
HVCS	Integrated Hole Volume Caliper Selection	HCAL	
	System and Miscellaneous		
DO	Depth Offset for Playback	0.3	M
PP	Playback Processing	RECOMPUTE	
TD	Total Depth	907	M

Format: PPC1_HoleDiameter Vertical Scale: 1:200 Graphics File Created: 18−Mar−2008 21:58

OP System Version: 15C0−309

MCM

HILTB−FTB	SRPC−3546−Q1_2008_OP15	HRLT−B	SRPC−3546−Q1_2008_OP15
PPC1−B	SRPC−3546−Q1_2008_OP15	MAXS−B	SKK−3442−MAST
MAPC−B	SKK−3442−MAST	EDTC−B	SKK−3493−EDTCB
BSP−AH−169	SRPC−3546−Q1_2008_OP15		

Input DLIS Files

14−Mar−2008 10:19

Output DLIS Files

DEFAULT	TLD_MCFL_CNL_HRLA_049PUP	FN:73	PRODUCER	18−Mar−2008 21:58
CLIENT	TLD_MCFL_CNL_HRLA_049PUC	FN:74	CUSTOMER	18−Mar−2008 21:58
REDUCED	TLD_MCFL_CNL_HRLA_049PUP	FN:75	PRODUCER	18−Mar−2008 21:58

Schlumberger

Calibrations

MAXIS Field Log

Calibration and Check Summary

Measurement	Nominal	Master	Before	After	Change	Limit	Units
High resolution Integrated Logging Tool−DTS Wellsite Calibration − Stab Measurement Summary							
Before: 13−Mar−2008 13:35							
BS Window Ratio	0.7624	N/A	0.7620	N/A	N/A	N/A	
BS Window Sum	10750	N/A	10540	N/A	N/A	N/A	CPS
SS Window Ratio	0.4883	N/A	0.4860	N/A	N/A	N/A	
SS Window Sum	10370	N/A	10380	N/A	N/A	N/A	CPS
LS Window Ratio	0.2968	N/A	0.2950	N/A	N/A	N/A	
LS Window Sum	1160	N/A	1159	N/A	N/A	N/A	CPS
High resolution Integrated Logging Tool−DTS Wellsite Calibration − Photo−multiplier High Voltages Calibrations							
Before: 13−Mar−2008 13:35							
BS PM High Voltage (Command)	1227	N/A	1261	N/A	N/A	N/A	V
SS PM High Voltage (Command)	1921	N/A	1888	N/A	N/A	N/A	V
LS PM High Voltage (Command)	1407	N/A	1415	N/A	N/A	N/A	V
High resolution Integrated Logging Tool−DTS Wellsite Calibration − Crystal Quality Resolutions Calibration							
Before: 13−Mar−2008 13:35							
BS Crystal Resolution	9.875	N/A	9.844	N/A	N/A	N/A	%
SS Crystal Resolution	10.56	N/A	10.21	N/A	N/A	N/A	%
LS Crystal Resolution	9.503	N/A	9.642	N/A	N/A	N/A	%
High resolution Integrated Logging Tool−DTS Wellsite Calibration − MCFL Calibration							
Before: 13−Mar−2008 13:36							
Raw B0 Resistivity	3875	N/A	3880	N/A	N/A	N/A	OHMM
Raw B1 Resistivity	3830	N/A	3830	N/A	N/A	N/A	OHMM
Raw B2 Resistivity	3830	N/A	3831	N/A	N/A	N/A	OHMM
High resolution Integrated Logging Tool−DTS Wellsite Calibration − HILT Caliper Calibration							
Before: 13−Mar−2008 13:29							
HILT Caliper Zero Measurement	8.000	N/A	8.092	N/A	N/A	N/A	IN
HILT Caliper Plus Measurement	12.00	N/A	12.28	N/A	N/A	N/A	IN
High resolution Integrated Logging Tool−DTS Wellsite Calibration − Detector Calibration							
Before: 13−Mar−2008 14:02							
Gamma Ray Background	30.00	N/A	7.162	N/A	N/A	N/A	GAPI
Gamma Ray (Jig − Bkg)	190.6	N/A	190.6	N/A	N/A	17.32	GAPI
Gamma Ray (Calibrated)	165.0	N/A	165.0	N/A	N/A	15.00	GAPI
High resolution Integrated Logging Tool−DTS Wellsite Calibration − Zero Measurement							
Master: 20−Feb−2008 19:21 Before: 13−Mar−2008 13:32							
CNTC Background	29.71	29.71	28.32	N/A	N/A	4.457	CPS
CFTC Background	33.75	33.75	29.47	N/A	N/A	5.063	CPS
High resolution Integrated Logging Tool−DTS Wellsite Calibration − Ratio Measurement							
Master: 20−Feb−2008 19:21							
Thermal Near Corr. (Tank)	5800	5605	N/A	N/A	N/A	N/A	CPS
Thermal Far Corr. (Tank)	2400	2340	N/A	N/A	N/A	N/A	CPS
CNTC/CFTC (Tank)	2.159	2.395	N/A	N/A	N/A	N/A	
High resolution Integrated Logging Tool−DTS Wellsite Calibration − Accelerometer Calibration							
Before: 13−Mar−2008 21:57							
Z−Axis Acceleration	9.810	N/A	9.798	N/A	N/A	N/A	M/S2
High resolution Integrated Logging Tool−DTS Master Calibration − Inversion results							
Master: 20−Feb−2008 21:02							
Rho Aluminum	2.596	2.602	−−	−−	−−	−−	G/C3
Rho Magnesium	1.686	1.685	−−	−−	−−	−−	G/C3
Pe Aluminum	2.570	2.571	−−	−−	−−	−−	
Pe Magnesium	2.650	2.634	−−	−−	−−	−−	
High resolution Integrated Logging Tool−DTS Master Calibration − Deviation Summary							
Master: 20−Feb−2008 21:02							
BS Average Deviation	0	0.5701	−−	−−	−−	−−	%

BS Average Deviation	0	0.5701	−−	−−	−−	−−	%
BS Max Deviation	0	1.350	−−	−−	−−	−−	%
SS Average Deviation	0	0.3068	−−	−−	−−	−−	%
SS Max Deviation	0	0.7734	−−	−−	−−	−−	%
LS Average Deviation	0	0.6760	−−	−−	−−	−−	%
LS Max Deviation	0	1.772	−−	−−	−−	−−	%

High Resolution Laterolog Array − B Wellsite Calibration − HRLT M01
Before: 13−Mar−2008 23:28

HRLT M0−M1 Voltage Plus − 0	0	N/A	−317.4	N/A	N/A	9.681	UV
HRLT M0−M1 Voltage Plus − 1	0	N/A	−349.1	N/A	N/A	9.681	UV
HRLT M0−M1 Voltage Plus − 2	0	N/A	−353.4	N/A	N/A	9.681	UV
HRLT M0−M1 Voltage Plus − 3	0	N/A	−338.9	N/A	N/A	9.681	UV
HRLT M0−M1 Voltage Plus − 4	0	N/A	−323.5	N/A	N/A	9.681	UV
HRLT M0−M1 Voltage Plus − 5	0	N/A	−328.7	N/A	N/A	9.681	UV
HRLT M0−M1 Voltage Plus − 6	0	N/A	305.4	N/A	N/A	9.681	UV
HRLT M0−M1 Voltage Plus − 7	0	N/A	−322.7	N/A	N/A	9.681	UV

High Resolution Laterolog Array − B Wellsite Calibration − HRLT M12
Before: 13−Mar−2008 23:28

HRLT M1−M2 Voltage Plus − 0	0	N/A	1745	N/A	N/A	53.42	UV
HRLT M1−M2 Voltage Plus − 1	0	N/A	1919	N/A	N/A	53.42	UV
HRLT M1−M2 Voltage Plus − 2	0	N/A	1936	N/A	N/A	53.42	UV
HRLT M1−M2 Voltage Plus − 3	0	N/A	1857	N/A	N/A	53.42	UV
HRLT M1−M2 Voltage Plus − 4	0	N/A	1773	N/A	N/A	53.42	UV
HRLT M1−M2 Voltage Plus − 5	0	N/A	1803	N/A	N/A	53.42	UV
HRLT M1−M2 Voltage Plus − 6	0	N/A	−1686	N/A	N/A	53.42	UV
HRLT M1−M2 Voltage Plus − 7	0	N/A	1781	N/A	N/A	53.42	UV

High Resolution Laterolog Array − B Wellsite Calibration − HRLT M23
Before: 13−Mar−2008 23:28

HRLT M2−M3 Voltage Plus − 0	0	N/A	1730	N/A	N/A	53.42	UV
HRLT M2−M3 Voltage Plus − 1	0	N/A	1907	N/A	N/A	53.42	UV
HRLT M2−M3 Voltage Plus − 2	0	N/A	1928	N/A	N/A	53.42	UV
HRLT M2−M3 Voltage Plus − 3	0	N/A	1854	N/A	N/A	53.42	UV
HRLT M2−M3 Voltage Plus − 4	0	N/A	1766	N/A	N/A	53.42	UV
HRLT M2−M3 Voltage Plus − 5	0	N/A	1798	N/A	N/A	53.42	UV
HRLT M2−M3 Voltage Plus − 6	0	N/A	−1665	N/A	N/A	53.42	UV
HRLT M2−M3 Voltage Plus − 7	0	N/A	1781	N/A	N/A	53.42	UV

High Resolution Laterolog Array − B Wellsite Calibration − HRLT V34
Before: 13−Mar−2008 23:28

HRLT A3−A4 Voltage Plus − 0	0	N/A	68400	N/A	N/A	2100	UV
HRLT A3−A4 Voltage Plus − 1	0	N/A	75680	N/A	N/A	2100	UV
HRLT A3−A4 Voltage Plus − 2	0	N/A	76720	N/A	N/A	2100	UV
HRLT A3−A4 Voltage Plus − 3	0	N/A	73940	N/A	N/A	2100	UV
HRLT A3−A4 Voltage Plus − 4	0	N/A	70260	N/A	N/A	2100	UV
HRLT A3−A4 Voltage Plus − 5	0	N/A	71450	N/A	N/A	2100	UV
HRLT A3−A4 Voltage Plus − 6	0	N/A	−65110	N/A	N/A	2100	UV
HRLT A3−A4 Voltage Plus − 7	0	N/A	70000	N/A	N/A	2100	UV

High Resolution Laterolog Array − B Wellsite Calibration − HRLT V45
Before: 13−Mar−2008 23:28

HRLT A4−A5 Voltage Plus − 0	0	N/A	68220	N/A	N/A	2100	UV
HRLT A4−A5 Voltage Plus − 1	0	N/A	75560	N/A	N/A	2100	UV
HRLT A4−A5 Voltage Plus − 2	0	N/A	76590	N/A	N/A	2100	UV
HRLT A4−A5 Voltage Plus − 3	0	N/A	73780	N/A	N/A	2100	UV
HRLT A4−A5 Voltage Plus − 4	0	N/A	70100	N/A	N/A	2100	UV
HRLT A4−A5 Voltage Plus − 5	0	N/A	71260	N/A	N/A	2100	UV
HRLT A4−A5 Voltage Plus − 6	0	N/A	−65000	N/A	N/A	2100	UV
HRLT A4−A5 Voltage Plus − 7	0	N/A	70000	N/A	N/A	2100	UV

High Resolution Laterolog Array − B Wellsite Calibration − HRLT V56
Before: 13−Mar−2008 23:28

HRLT A5−A6 Voltage Plus − 0	0	N/A	68360	N/A	N/A	2100	UV
HRLT A5−A6 Voltage Plus − 1	0	N/A	75840	N/A	N/A	2100	UV
HRLT A5−A6 Voltage Plus − 2	0	N/A	76840	N/A	N/A	2100	UV
HRLT A5−A6 Voltage Plus − 3	0	N/A	74000	N/A	N/A	2100	UV
HRLT A5−A6 Voltage Plus − 4	0	N/A	70230	N/A	N/A	2100	UV
HRLT A5−A6 Voltage Plus − 5	0	N/A	71390	N/A	N/A	2100	UV
HRLT A5−A6 Voltage Plus − 6	0	N/A	−65280	N/A	N/A	2100	UV
HRLT A5−A6 Voltage Plus − 7	0	N/A	70000	N/A	N/A	2100	UV

High Resolution Laterolog Array − B Wellsite Calibration − HRLT VTP
Before: 13−Mar−2008 23:28

HRLT Torpedo−M0 Voltage − 0	0	N/A	−67940	N/A	N/A	2100	UV
HRLT Torpedo−M0 Voltage − 1	0	N/A	−75570	N/A	N/A	2100	UV
HRLT Torpedo−M0 Voltage − 2	0	N/A	−76660	N/A	N/A	2100	UV
HRLT Torpedo−M0 Voltage − 3	0	N/A	−73920	N/A	N/A	2100	UV
HRLT Torpedo−M0 Voltage − 4	0	N/A	−70250	N/A	N/A	2100	UV
HRLT Torpedo−M0 Voltage − 5	0	N/A	−71420	N/A	N/A	2100	UV
HRLT Torpedo−M0 Voltage − 6	0	N/A	64990	N/A	N/A	2100	UV

HRLT Torpedo−M0 Voltage − 7	0	N/A	−70000	N/A	N/A	2100	UV

High Resolution Laterolog Array − B Wellsite Calibration − HRLT VBD
Before: 13−Mar−2008 23:28

HRLT Bridle#9−M0 Voltage − 0	0	N/A	−67880	N/A	N/A	2100	UV
HRLT Bridle#9−M0 Voltage − 1	0	N/A	−75350	N/A	N/A	2100	UV
HRLT Bridle#9−M0 Voltage − 2	0	N/A	−76430	N/A	N/A	2100	UV
HRLT Bridle#9−M0 Voltage − 3	0	N/A	−73740	N/A	N/A	2100	UV
HRLT Bridle#9−M0 Voltage − 4	0	N/A	−70140	N/A	N/A	2100	UV
HRLT Bridle#9−M0 Voltage − 5	0	N/A	−71340	N/A	N/A	2100	UV
HRLT Bridle#9−M0 Voltage − 6	0	N/A	64780	N/A	N/A	2100	UV
HRLT Bridle#9−M0 Voltage − 7	0	N/A	−70000	N/A	N/A	2100	UV

High Resolution Laterolog Array − B Wellsite Calibration − HRLT ISO
Before: 13−Mar−2008 23:28

HRLT Source Current Plus − 0	0	N/A	283.1	N/A	N/A	8.520	UA
HRLT Source Current Plus − 1	0	N/A	281.1	N/A	N/A	8.520	UA
HRLT Source Current Plus − 2	0	N/A	281.1	N/A	N/A	8.520	UA
HRLT Source Current Plus − 3	0	N/A	281.1	N/A	N/A	8.520	UA
HRLT Source Current Plus − 4	0	N/A	281.1	N/A	N/A	8.520	UA
HRLT Source Current Plus − 5	0	N/A	281.1	N/A	N/A	8.520	UA
HRLT Source Current Plus − 6	0	N/A	281.1	N/A	N/A	8.520	UA
HRLT Source Current Plus − 7	0	N/A	281.1	N/A	N/A	8.520	UA

High Resolution Laterolog Array − B Wellsite Calibration − HRLT MV
Before: 13−Mar−2008 23:28

HRLT Vertical Voltage Pl − 0	0	N/A	−319.4	N/A	N/A	9.681	UV
HRLT Vertical Voltage Pl − 1	0	N/A	−344.3	N/A	N/A	9.681	UV
HRLT Vertical Voltage Pl − 2	0	N/A	−346.9	N/A	N/A	9.681	UV
HRLT Vertical Voltage Pl − 3	0	N/A	−330.9	N/A	N/A	9.681	UV
HRLT Vertical Voltage Pl − 4	0	N/A	−312.5	N/A	N/A	9.681	UV
HRLT Vertical Voltage Pl − 5	0	N/A	−332.7	N/A	N/A	9.681	UV
HRLT Vertical Voltage Pl − 6	0	N/A	313.8	N/A	N/A	9.681	UV
HRLT Vertical Voltage Pl − 7	0	N/A	−322.7	N/A	N/A	9.681	UV

Enhanced DTS Cartridge Wellsite Calibration − EDTC Accelerometer Calibration
Before: 13−Mar−2008 21:57

EDTC Z−Axis Acceleration	9.810	N/A	9.803	N/A	N/A	N/A	M/S2

Enhanced DTS Cartridge Wellsite Calibration − Detector Calibration
Before: 13−Mar−2008 13:29

Gamma Ray (Jig − Bkg)	169.8	N/A	169.8	N/A	N/A	15.43	GAPI
Gamma Ray (Calibrated)	165.0	N/A	165.0	N/A	N/A	15.00	GAPI

The GLS−VJ source activity is acceptable.

The HGNS Neutron Master Calibration was done with the following parameters :

NCT−B Water Temperature	20.0	DEGC.
Thermal Housing Size	3.376	IN.
NSR−F serial number	5224	

High resolution Integrated Logging Tool−DTS / Equipment Identification

Primary Equipment:		
HILT high−Resolution Mechanical Sonde	HRMS − B	788
HILT Rxo Gamma−ray Device	HRGD − B	1806
HILT Micro Cylindrically Focused Log Dev	MCFL −	
GR Logging Source	GLS − VJ	5334
HILT High Res. Control Cartridge	HRCC − B	868
HILT Gamma−Ray Neutron Sonde−DTS	HGNS − B	856
HGNS Gamma−Ray Device	HGR −	
HGNS Neutron Detector with Alpha Source	HCNT −	
Auxiliary Equipment:		
Neutron Calibration Tank	NCT − B	
Gamma Source Radioactive	GSR − Y	6750
HGNS Housing	HGNH −	3915

High resolution Integrated Logging Tool−DTS Wellsite Calibration

Stab Measurement Summary

Phase	BS Window Ratio	Value	Phase	SS Window Ratio	Value	Phase	LS Window Ratio	Value

Phase		Value
Before		0.7620
0.7243 (Minimum)	0.7624 (Nominal)	0.8005 (Maximum)

Phase		Value
Before		0.4860
0.4639 (Minimum)	0.4883 (Nominal)	0.5127 (Maximum)

Phase		Value
Before		0.2950
0.2820 (Minimum)	0.2968 (Nominal)	0.3117 (Maximum)

Phase	BS Window Sum CPS	Value
Before		10540
10210 (Minimum)	10750 (Nominal)	11290 (Maximum)

Phase	SS Window Sum CPS	Value
Before		10380
9854 (Minimum)	10370 (Nominal)	10890 (Maximum)

Phase	LS Window Sum CPS	Value
Before		1159
1102 (Minimum)	1160 (Nominal)	1218 (Maximum)

Before: 13−Mar−2008 13:35

High resolution Integrated Logging Tool−DTS Wellsite Calibration

Photo−multiplier High Voltages Calibrations

Phase	BS PM High Voltage (Command) V	Value
Before		1261
1127 (Minimum)	1227 (Nominal)	1327 (Maximum)

Phase	SS PM High Voltage (Command) V	Value
Before		1888
1821 (Minimum)	1921 (Nominal)	2021 (Maximum)

Phase	LS PM High Voltage (Command) V	Value
Before		1415
1307 (Minimum)	1407 (Nominal)	1507 (Maximum)

Before: 13−Mar−2008 13:35

High resolution Integrated Logging Tool−DTS Wellsite Calibration

Crystal Quality Resolutions Calibration

Phase	BS Crystal Resolution %	Value
Before		9.844
8.875 (Minimum)	9.875 (Nominal)	10.87 (Maximum)

Phase	SS Crystal Resolution %	Value
Before		10.21
9.556 (Minimum)	10.56 (Nominal)	11.56 (Maximum)

Phase	LS Crystal Resolution %	Value
Before		9.642
8.503 (Minimum)	9.503 (Nominal)	10.50 (Maximum)

Before: 13−Mar−2008 13:35

High resolution Integrated Logging Tool−DTS Wellsite Calibration

MCFL Calibration

Phase	Raw B0 Resistivity OHMM	Value
Before		3880
3565 (Minimum)	3875 (Nominal)	4185 (Maximum)

Phase	Raw B1 Resistivity OHMM	Value
Before		3830
3524 (Minimum)	3830 (Nominal)	4136 (Maximum)

Phase	Raw B2 Resistivity OHMM	Value
Before		3831
3524 (Minimum)	3830 (Nominal)	4136 (Maximum)

Before: 13−Mar−2008 13:36

High resolution Integrated Logging Tool−DTS Wellsite Calibration

HILT Caliper Calibration

Phase	HILT Caliper Zero Measurement IN	Value
Before		8.092
6.000 (Minimum)	8.000 (Nominal)	10.00 (Maximum)

Phase	HILT Caliper Plus Measurement IN	Value
Before		12.28
9.000 (Minimum)	12.00 (Nominal)	15.00 (Maximum)

Before: 13−Mar−2008 13:29

High resolution Integrated Logging Tool−DTS Wellsite Calibration

Detector Calibration

Phase	Gamma Ray Background GAPI	Value
Before		7.162
0 (Minimum)	30.00 (Nominal)	120.0 (Maximum)

Phase	Gamma Ray (Jig − Bkg) GAPI	Value
Before		190.6
173.2 (Minimum)	190.6 (Nominal)	207.9 (Maximum)

Phase	Gamma Ray (Calibrated) GAPI	Value
Before		165.0
150.0 (Minimum)	165.0 (Nominal)	180.0 (Maximum)

Before: 13−Mar−2008 14:02

High resolution Integrated Logging Tool−DTS Wellsite Calibration

Zero Measurement

Phase	CNTC Background CPS	Value
Master		29.71
Before		28.32
5.000 (Minimum)	29.71 (Nominal)	40.00 (Maximum)

Phase	CFTC Background CPS	Value
Master		33.75
Before		29.47
5.000 (Minimum)	33.75 (Nominal)	40.00 (Maximum)

Master: 20−Feb−2008 19:21 Before: 13−Mar−2008 13:32

High resolution Integrated Logging Tool−DTS Wellsite Calibration

Ratio Measurement

Phase	Thermal Near Corr. (Tank) CPS	Value
Master		5605
4700 (Minimum)	5800 (Nominal)	6900 (Maximum)

Phase	Thermal Far Corr. (Tank) CPS	Value
Master		2340
1900 (Minimum)	2400 (Nominal)	2900 (Maximum)

Phase	CNTC/CFTC (Tank)	Value
Master		2.395
2.120 (Minimum)	2.159 (Nominal)	2.540 (Maximum)

Master: 20−Feb−2008 19:21

Master: 20−Feb−2008 19:21

High resolution Integrated Logging Tool−DTS Wellsite Calibration			
Accelerometer Calibration			
Phase	Z−Axis Acceleration M/S2		Value
Before			9.798
	9.610 (Minimum)	9.810 (Nominal)	10.01 (Maximum)
Before: 13−Mar−2008 21:57			

High resolution Integrated Logging Tool−DTS Master Calibration							
Inversion results							
Phase	Rho Aluminum G/C3		Value	Phase	Rho Magnesium G/C3		Value
Master			2.602	Master			1.685
	2.586 (Minimum)	2.596 (Nominal)	2.606 (Maximum)		1.676 (Minimum)	1.686 (Nominal)	1.696 (Maximum)
Phase	Pe Aluminum		Value	Phase	Pe Magnesium		Value
Master			2.571	Master			2.634
	2.470 (Minimum)	2.570 (Nominal)	2.670 (Maximum)		2.550 (Minimum)	2.650 (Nominal)	2.750 (Maximum)
Master: 20−Feb−2008 21:02							

High resolution Integrated Logging Tool−DTS Master Calibration									
Deviation Summary									
Phase	BS Average Deviation %		Value	Phase	SS Average Deviation %		Value	Phase	LS Average Deviation %		Value
Master			0.5701	Master			0.3068	Master			0.6760
	−0.6000 (Minimum)	0 (Nominal)	0.6000 (Maximum)		−1.000 (Minimum)	0 (Nominal)	1.000 (Maximum)		−1.500 (Minimum)	0 (Nominal)	1.500 (Maximum)
Phase	BS Max Deviation %		Value	Phase	SS Max Deviation %		Value	Phase	LS Max Deviation %		Value
Master			1.350	Master			0.7734	Master			1.772
	−1.600 (Minimum)	0 (Nominal)	1.600 (Maximum)		−2.500 (Minimum)	0 (Nominal)	2.500 (Maximum)		−3.500 (Minimum)	0 (Nominal)	3.500 (Maximum)
Master: 20−Feb−2008 21:02											

High resolution Integrated Logging Tool−DTS Master Calibration							
Zero Measurement							
Phase	CNTC Background CPS		Value	Phase	CFTC Background CPS		Value
Master			29.71	Master			33.75
	5.000 (Minimum)	29.71 (Nominal)	40.00 (Maximum)		5.000 (Minimum)	33.75 (Nominal)	40.00 (Maximum)
Master: 20−Feb−2008 19:21							

High resolution Integrated Logging Tool−DTS Master Calibration									
Tank Measurement									
Phase	Thermal Near Corr. (Tank) CPS		Value	Phase	Thermal Far Corr. (Tank) CPS		Value	Phase	CNTC/CFTC (Tank)		Value
Master			5605	Master			2340	Master			2.395
	4700 (Minimum)	5800 (Nominal)	6900 (Maximum)		1900 (Minimum)	2400 (Nominal)	2900 (Maximum)		2.120 (Minimum)	2.159 (Nominal)	2.540 (Maximum)
Master: 20−Feb−2008 19:21											

High Resolution Laterolog Array − B / Equipment Identification

Primary Equipment:		
HRLT Sonde	HRLS − B	1745
Auxiliary Equipment:		
HRLT lower Housing	HRLH − B	1745
HRLT Lower Cartridge	HRLC − B	1745
HRLT upper Housing	HRUH − B	1741
HRLT Upper Cartridge	HRUC − B	1730

High Resolution Laterolog Array − B Wellsite Calibration						
HRLT M01						
Idx	Phase	HRLT M0−M1 Voltage Plus UV	Value	Nominal	Maximum	Minimum

0	Before		−317.4	−322.7	−280.7	−379.7
1	Before		−349.1	−322.7	−280.7	−379.7
2	Before		−353.4	−322.7	−280.7	−379.7
3	Before		−338.9	−322.7	−280.7	−379.7
4	Before		−323.5	−322.7	−280.7	−379.7
5	Before		−328.7	−322.7	−280.7	−379.7
6	Before		305.4	322.7	379.7	280.7
7	Before		−322.7	−322.7	−280.7	−379.7
		(Minimum) (Nominal) (Maximum)				

Before: 13−Mar−2008 23:28

High Resolution Laterolog Array − B Wellsite Calibration

HRLT M12

Idx	Phase	HRLT M1−M2 Voltage Plus UV	Value	Nominal	Maximum	Minimum
0	Before		1745	1781	2095	1549
1	Before		1919	1781	2095	1549
2	Before		1936	1781	2095	1549
3	Before		1857	1781	2095	1549
4	Before		1773	1781	2095	1549
5	Before		1803	1781	2095	1549
6	Before		−1686	−1781	−1549	−2095
7	Before		1781	1781	2095	1549
		(Minimum) (Nominal) (Maximum)				

Before: 13−Mar−2008 23:28

High Resolution Laterolog Array − B Wellsite Calibration

HRLT M23

Idx	Phase	HRLT M2−M3 Voltage Plus UV	Value	Nominal	Maximum	Minimum
0	Before		1730	1781	2095	1549
1	Before		1907	1781	2095	1549
2	Before		1928	1781	2095	1549
3	Before		1854	1781	2095	1549
4	Before		1766	1781	2095	1549
5	Before		1798	1781	2095	1549
6	Before		−1665	−1781	−1549	−2095
7	Before		1781	1781	2095	1549
		(Minimum) (Nominal) (Maximum)				

Before: 13−Mar−2008 23:28

High Resolution Laterolog Array − B Wellsite Calibration

HRLT V34

Idx	Phase	HRLT A3−A4 Voltage Plus UV	Value	Nominal	Maximum	Minimum
0	Before		68400	70000	82360	60900
1	Before		75680	70000	82360	60900
2	Before		76720	70000	82360	60900
3	Before		73940	70000	82360	60900
4	Before		70260	70000	82360	60900
5	Before		71450	70000	82360	60900
6	Before		−65110	−70000	−60900	−82360

7	Before		70000	70000	82360	60900
		(Minimum) (Nominal) (Maximum)				

Before: 13−Mar−2008 23:28

High Resolution Laterolog Array − B Wellsite Calibration

HRLT V45

Idx	Phase	HRLT A4−A5 Voltage Plus UV	Value	Nominal	Maximum	Minimum
0	Before		68220	70000	82360	60900
1	Before		75560	70000	82360	60900
2	Before		76590	70000	82360	60900
3	Before		73780	70000	82360	60900
4	Before		70100	70000	82360	60900
5	Before		71260	70000	82360	60900
6	Before		−65000	−70000	−60900	−82360
7	Before		70000	70000	82360	60900
		(Minimum) (Nominal) (Maximum)				

Before: 13−Mar−2008 23:28

High Resolution Laterolog Array − B Wellsite Calibration

HRLT V56

Idx	Phase	HRLT A5−A6 Voltage Plus UV	Value	Nominal	Maximum	Minimum
0	Before		68360	70000	82360	60900
1	Before		75840	70000	82360	60900
2	Before		76840	70000	82360	60900
3	Before		74000	70000	82360	60900
4	Before		70230	70000	82360	60900
5	Before		71390	70000	82360	60900
6	Before		−65280	−70000	−60900	−82360
7	Before		70000	70000	82360	60900
		(Minimum) (Nominal) (Maximum)				

Before: 13−Mar−2008 23:28

High Resolution Laterolog Array − B Wellsite Calibration

HRLT VTP

Idx	Phase	HRLT Torpedo−M0 Voltage Plus UV	Value	Nominal	Maximum	Minimum
0	Before		−67940	−70000	−60900	−82360
1	Before		−75570	−70000	−60900	−82360
2	Before		−76660	−70000	−60900	−82360
3	Before		−73920	−70000	−60900	−82360
4	Before		−70250	−70000	−60900	−82360
5	Before		−71420	−70000	−60900	−82360
6	Before		64990	70000	82360	60900
7	Before		−70000	−70000	−60900	−82360
		(Minimum) (Nominal) (Maximum)				

Before: 13−Mar−2008 23:28

High Resolution Laterolog Array − B Wellsite Calibration

HRLT VBD

Idx	Phase	HRLT Bridle#9−M0 Voltage Plus UV	Value	Nominal	Maximum	Minimum
0	Before		−67880	−70000	−60900	−82360
1	Before		−75250	−70000	−60900	−82360

1	Before		−75350	−70000	−60900	−82360
2	Before		−76430	−70000	−60900	−82360
3	Before		−73740	−70000	−60900	−82360
4	Before		−70140	−70000	−60900	−82360
5	Before		−71340	−70000	−60900	−82360
6	Before		64780	70000	82360	60900
7	Before		−70000	−70000	−60900	−82360
		(Minimum) (Nominal) (Maximum)				

Before: 13−Mar−2008 23:28

High Resolution Laterolog Array − B Wellsite Calibration

HRLT ISO

Idx	Phase	HRLT Source Current Plus UA	Value	Nominal	Maximum	Minimum
0	Before		283.1	284.0	334.1	247.0
1	Before		281.1	281.1	330.7	244.4
2	Before		281.1	281.1	330.7	244.4
3	Before		281.1	281.1	330.7	244.4
4	Before		281.1	281.1	330.7	244.4
5	Before		281.1	281.1	330.7	244.4
6	Before		281.1	281.1	330.7	244.4
7	Before		281.1	281.1	330.7	244.4
		(Minimum) (Nominal) (Maximum)				

Before: 13−Mar−2008 23:28

High Resolution Laterolog Array − B Wellsite Calibration

HRLT MV

Idx	Phase	HRLT Vertical Voltage Plus UV	Value	Nominal	Maximum	Minimum
0	Before		−319.4	−322.7	−280.7	−379.7
1	Before		−344.3	−322.7	−280.7	−379.7
2	Before		−346.9	−322.7	−280.7	−379.7
3	Before		−330.9	−322.7	−280.7	−379.7
4	Before		−312.5	−322.7	−280.7	−379.7
5	Before		−332.7	−322.7	−280.7	−379.7
6	Before		313.8	322.7	379.7	280.7
7	Before		−322.7	−322.7	−280.7	−379.7
		(Minimum) (Nominal) (Maximum)				

Before: 13−Mar−2008 23:28

Multimode Array Sonic Power Cartridge / Equipment Identification

Primary Equipment:

Multimode Array Sonic Minimum Service So	MAMS − BA	8201
Multimode Array Sonic Control Cartridge	MAPC − BA	8198

Auxiliary Equipment:

Electronics Cartridge Housing	ECH − SD	8198

Enhanced DTS Cartridge / Equipment Identification

Primary Equipment:

EDTC Gamma Ray Detector	EDTG − B	77305
Enhanced DTS Cartridge	EDTC − B	

Auxiliary Equipment:			
EDTC Housing		EDTH − B	8378

Enhanced DTS Cartridge Wellsite Calibration		
EDTC Accelerometer Calibration		
Phase	EDTC Z−Axis Acceleration M/S2	Value
Before		9.803
9.610 (Minimum)	9.810 (Nominal)	10.01 (Maximum)
Before: 13−Mar−2008 21:57		

Enhanced DTS Cartridge Wellsite Calibration								
Detector Calibration								
Phase	Gamma Ray Background GAPI	Value	Phase	Gamma Ray (Jig − Bkg) GAPI	Value	Phase	Gamma Ray (Calibrated) GAPI	Value
Before		17.32	Before		169.8	Before		165.0
0 (Minimum)	30.00 (Nominal)	120.0 (Maximum)	154.3 (Minimum)	169.8 (Nominal)	185.2 (Maximum)	150.0 (Minimum)	165.0 (Nominal)	180.0 (Maximum)
Before: 13−Mar−2008 13:29								

Company: **Apache Northwest Pty Ltd**

Schlumberger

Well: **Coelacanth−1**
Field: **Apache/VIC/P−45**
Rig: **West Triton**
Country: **Australia**

PEX−GR−HRLA−MSIP−S
PPC Caliper Log
Suite−1 Run−1 Scale 1:200

Apache Northwest Pty Lyd

WIRELINE LOGGING
Observers Log / Time Summary

GENERAL WELL DATA

Well Name :	Coelacanth-1	**Suite :**	2	**Rig :**	West Triton
Permit :	VIC/P-45	**Date 1st Log :**	22-Mar-2008	**GL Elevation :**	
Latitude :	038° 42' 49.730" South	**Date Last Log :**		**Water Depth :**	90.0 (m)
Longitude :	148° 18' 07.010" East	**Depth Ref. :**	LWD run 5	**Witnesses :**	A. Cruickshank, F. Fernandez
Easting (m) :	613,192.770 E	**Depth Ref. Elev. :**	38.0 (m)	**Engineers :**	A. Daniels, M. Dawson, V. Torlov
Northing (m) :	5,714,176.613 S	**Service Comp. :**	Schlumberger		
UTM Zone :	55				
Geo. Datum :	NAD83, GDA94				
Ellipsoid :	Geodetic Reference System 1980				

HOLE DATA

Hole Size :	216.0 (mm)	**Seabed Temp :**	15.0 (°C)	**Max Hole Dev :**	1.0 (°)
Driller's Depth :	3,074.0 (m)	**Surface Temp :**	17.0 (°C)	**Max Dev Depth :**	1,806.5 (m)
Logger's Depth :		**Max BHT :**	80.0 (°C)		
Survey Type :					

Hole Problems : No tight hole problems

Date	Time From	Time To	Elapsed Time (h)	Cumm. Time (h)	Logging Code	Event Description
Run Number : 1 VSI-GR						
22 Mar 2008	06:10	06:10	0.00	0.00	Tripping	Circulated on bottom for 3.9 hours. Last circulation on bottom 06:07am 22/03/2008
	06:10	13:45	7.58	7.58	Tripping	Back reamed section from 2700m - 2433m for ADN data acquisition. Last circulation time xx.xx
	13:45	00:01	10.27	17.85	Tripping	POOH to surface - Lay out radio active source and LWD tools.
23 Mar 2008	00:01	00:25	0.40	18.25	Logging	Commence rigging up sheaves & remove sampson post.
	00:25	00:35	0.17	18.42	Logging	Hold JSA with rig crew
	00:35	01:14	0.65	19.07	Logging	Pick up & make up VSI tool.
	01:14	01:17	0.05	19.12	Logging	Power up tool and calibrate.
	01:17	01:19	0.03	19.15	Logging	Zero tool
	01:19	01:59	0.67	19.82	Logging	RIH to 449m.
	01:59	04:25	2.43	22.25	Lost Time	Wait on crane to deploy guns. Wait inside casing.
	04:25	04:40	0.25	22.50	Lost Time	Wait on crane crew to perform JSA. Perform correlation run from casing shoe whilst waiting.
	05:20	05:30	0.17	22.67	Logging	Run in hole after WOW
	05:30	05:40	0.17	22.83	Logging	QC test shot
	05:40	06:00	0.33	23.17	Logging	QC shot 2
	06:00	07:15	1.25	24.42	Logging	Run in hole to 2550 mMDRT
	07:15	07:40	0.42	24.83	Logging	QC shot at 2550m
	07:40	08:00	0.33	25.17	Logging	Correlation pass at 2550m
	08:00	08:18	0.30	25.47	Logging	Pull back to 2365m, open calipers log up to 2357m, test shots at 2357m
	08:18	08:55	0.62	26.08	Logging	Close calipers, Run in hole to td
	08:55	09:00	0.08	26.17	Logging	At first station: 3019.27m
	09:00	09:05	0.08	26.25	Logging	Move to station 2: 2973m
	09:05	09:12	0.12	26.37	Logging	At 2973.54m (station 2)
	09:12	09:15	0.05	26.42	Logging	Move to station 3
	09:15	09:30	0.25	26.67	Logging	Record surveys from 2973.54m to 2882.11m

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Date	Time From	Time To	Elapsed Time (h)	Cumm. Time (h)	Logging Code	Event Description
23 Mar 2008	09:30	10:00	0.50	27.17	Logging	Record surveys from 2836.39m to 2744.95m
	10:00	10:15	0.25	27.42	Logging	Record surveys from 2699.23 to 2653.29m
	10:15	11:00	0.75	28.17	Logging	Record surveys from 2653.29 to 2424.91m
	11:00	11:30	0.50	28.67	Logging	Record surveys from 2424.91 to2379.19m
	11:30	12:00	0.50	29.17	Logging	Record surveys from 2379.19 to 2104.87m.
	12:00	12:30	0.50	29.67	Logging	Record surveys from 2104.87 to 1876.27m.
	12:30	13:10	0.67	30.33	Logging	Record surveys from 1876.27 to 1647.6m.
	13:10	13:30	0.33	30.67	Logging	Record surveys from 1647.6 to 1556.23m.
	13:30	14:00	0.50	31.17	Logging	Record surveys from 1876.27 to 1373.3m.
	14:00	14:45	0.75	31.92	Logging	Record surveys from 1373.3 to 1190.41m.
	14:45	15:05	0.33	32.25	Logging	Record surveys from 1190.41 to 1053.27m.
	15:05	15:30	0.42	32.67	Logging	Record surveys from 1053.27 to 916.1m.
	15:30	16:20	0.83	33.50	Logging	Record surveys from 916.1 to 575m.
	16:20	17:00	0.67	34.17	Logging	Record surveys from 575 to 321.5m.
	17:00	17:15	0.25	34.42	Logging	Record surveys from 321.5 to 184.66m.
	17:15	17:30	0.25	34.67	Logging	Record surveys from 184.66 to 93.19m.
	17:30	17:45	0.25	34.92	Logging	Pooh to surface
	17:45	18:45	1.00	35.92	Logging	Commence rig down, rig down complete @ xxxhrs
						Cumulative Run Time (Hrs): 35.92
Run Number : 2 CST						
23 Mar 2008	18:00	19:35	1.58	1.58	Logging	This Ops Diarly continues from Suite 1 - Run 1 VSI. Set up CST - Obtain final permits.
	19:35	19:45	0.17	1.75	Logging	Held JSA with rig crew
	19:45	20:15	0.50	2.25	Logging	Put together CST and pre log checks
	20:15	21:20	1.08	3.33	Logging	RIH
	21:20	21:30	0.17	3.50	Logging	Primary correlation 3017m-2952m
	21:30	21:35	0.08	3.58	Logging	RIH to correlate on depth
	21:35	21:47	0.20	3.78	Logging	Correlate on depth 3050m-2987m
	21:47	21:50	0.05	3.83	Logging	Commence sidewall cores at point #1 3052.5m
	21:50	22:25	0.58	4.42	Logging	Core samples typically pulling 2000-3500 ft/lb Adjust depth +03m for Shot #5 - continue SWC.
	22:07	22:10	0.05	4.47	Logging	Correlation pass 2983-2960m Adjust +0.3
	22:10	22:27	0.28	4.75	Logging	Perform samples 5 - 7.
	22:27	22:42	0.25	5.00	Logging	Correlate 2967 - 2877m Adj +0.4m Recorrelate on depth
	22:42	22:46	0.07	5.07	Logging	RIH for points 8-14.
	22:46	23:15	0.48	5.55	Logging	Continue sidewall cores 8 - 14
	23:15	23:25	0.17	5.72	Logging	Correlation pass for points 15-25 2806m- 2770m
	23:25	23:27	0.03	5.75	Logging	RIH for points 15-25.
	23:27	23:56	0.48	6.23	Logging	Continue sidewall cores 15-25
	23:56	00:04	0.13	6.37	Logging	Correlate points 26-30. 2674m-2641m
24 Mar 2008	00:04	00:15	0.18	6.55	Logging	Continue sidewall cores 26-30.
	00:15	02:00	1.75	8.30	Logging	30 cores completed - POOH.
	02:00	03:10	1.17	9.47	Logging	Rig to Apache @ 03:10 hrs.
						Cumulative Run Time (Hrs): 45.38

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Q-Borehole Survey Report

Schlumberger

Survey type:	Zero-Offset VSP survey
Company:	Apache Northwest Pty Ltd
Well:	Coelacanth-1
Field:	Apache/VIC/P-45
Location:	Bass Strait
Country:	Australia
Run:	1
Date:	23-Mar-2008

Recorded by: V.Torlov/ A. Dandi/M.Dawson
QC & Reported by: S. Nakanishi / M. Dawson

Witnessed by: A.Cruickshank/ F.Fernandes

Report Contents

Section	Page Number
Introduction	3
Well Information	4
Well Sketch	5
Well Inclinometry List	6
Tool Sketch	7
Tool Configuration	8
Operating Time Summary	9
VSP Survey Information	10
Source Information	11
Well Profile	13
Geometry Information (X-Y)	14
Geometry Information (X-Z)	15
Geometry Information (Y-Z)	16
Time/Depth Plot	17
Velocity Plot	18
Stack Summary Listing	19
Field Processing Report	
Process flow and parameter	27
Process Parameter	27
Raw Stack (Z) plot	28
Raw Stack (X) plot	29
Raw Stack (Y) plot	30
Raw Stack (Z) Magnified plot	31
Raw Stack (TRY) plot	32
Raw Stack (HMX) plot	33
HMX angle plot	34
TRY angle plot	35
VSP Raw Stack (Z) FK	36
VSP Raw Stack (Z) FZ	37
VSP Downgoing plot	38
VSP Upgoing plot	39
VSP Waveshape Decon Downgoing plot	40
VSP Waveshape Decon Upgoing plot	41
VSP Waveshape Decon Upgoing FK plot	42
VSP Corridor Stack Input plot	43
VSP Corridor Stack Output plot	44
Source Signature QC Report	46
Amplitude QC Report	50
Shot and Observers Report	58
GR Correlation Log Report	73
Tidal Water Level Report	128
Tool Evaluation Test Report	130

Introduction

A borehole seismic survey was recorded in the vertical exploration well Coelacanth-1 Suite 2 Run 1 on 23 March 2008. This survey included rig source VSP measurements from 3064 m MD to 107.44 m MD The data were acquired using 3 shuttles VSIT-G (15.24 m spacing) downhole Tool.

Data Acquisition

A Parallel cluster air gun (2 x 150 cu. Inch G-Gun) was deployed at 32 m fixed offset from the well head with an azimuth of 8 deg. The guns were submerged from a buoy to 5.3 meters below water surface. 2 hydrophones (MP24) were deployed 5 meters below the center of the gun cluster. The detail of the source set-up is explained in the source information page.

The cluster gun was manually tuned using WSI-A gun controller before the survey.

QC shots were acquired at 2562, 824.71 and 596.1 m while RIH.
A minimum good 5 shots were recorded for each VSP level (3064 m MD to 241.5 m MD) and 3 shots were recorded for Check-Shot interval (226.4 m MD to 104.4 m MD).

GR log was recorded simultaneously during the survey. Depth offset +3.0 meters deeper is observed comparing with reference log LWD (GeoVISION) at near TD 2900m. This report applied depth correction (-3.0 m) from acquired data.

Data Quality

Data quality is considered to be good throughout the survey. Casing noise is seen above 211.15m MD. The noise is distractive to pick travel time. No time picking is possible even though examining horizontal channels (X and Y).

Transit Time Measurement

The measured transit time corresponds to a difference between the surface reference time and arrivals recorded by the downhole sensors. The surface reference time is the Hydrophone signal deployed with the air gun. First break picking algorithms were applied on the transformed geophone data using an inflection point tangent algorithm.

Transit Time Correction to Datum

The correction of the survey geometry and a static shift were applied to the stack data in order to obtain vertical travel time. The downhole receiver positions are corrected using well directional survey. A surface velocity of 1524 m/sec was used for static correction. Tide correction is not applied in this report.

Quick VSP Processing

Quick VSP processing using the vertical channel (Z) is provided in this report for QC purpose. Good result is obtained. Strong mode converted S-wave is observed in horizontal channels.

Well Information

Company	**Apache Northwest Pty Ltd**
Well	**Coelacanth-1**
Field	**Apache/VIC/P-45/Coelacanth-1**
Country	Australia
State	Victoria
Logging Date	23-Mar-08
Run Number	**1**
Service Order	AUSL08349211
Well Head (Latitude)	38 42' 49.7296" S
Well Head (Longitude)	148 18' 07.0098" E
Well Head (X Coordinate)	E 613,192.770 m
Well Head (Y Coordinate)	N 5,714,176.613 m
Total Depth - Driller	3074.0m
Total Depth - Logger	Not Tagged
Maximum Hole Deviation	0.99 deg
Azimuth of Maximum Deviation	326.29 deg
Program Version	15C0-309
Bit Size	8.5"
Recorded by	V. Torlov/A. Dandi/M. Dawson
Witnessed by	A. Cruickshank/ F.Fernandes

Elevation Information

Permanent Datum	AHD
Elevation Permanent Datum	0.0 m
Above Permanent Datum	38.0 m
Drilling Measured From	Drill Floor
Derrick Floor	38.0 m
Ground Level	-90.0 m
Kelly Bush	38
Log Measured From	Drill Floor
Elevation Log Zero	38.0 m

Depth Corrected Information

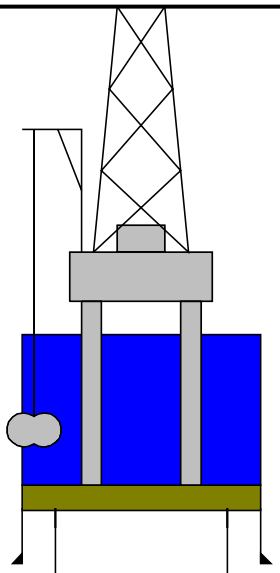
Water Velocity	1524.0 m/s
Seismic Reference Datum	0.0 m

Remarks

Log Correlated to MWD Log Dated 23.Mar.2008, Coelacanth-1 GEOVISION Resistivity RM 200.
Maximum Recorded Temperature was 80 degC taken from thermometers in Logging Head.
Additional mud properties taken from Mud Report dated 22.Mar.2008:
Chlorides = 46,000 mg/L.
KCL = 9 (% by Vol.)

Client: Apache Northwest Pty Ltd
Well: Coelacanth−1
Field: VIC/P−45
State: Victoria
Country: Australia

Drawing Date: 3/22/2008
Rig Name: West Triton
Reference Datum: AHD
Elevation: 38.0 m

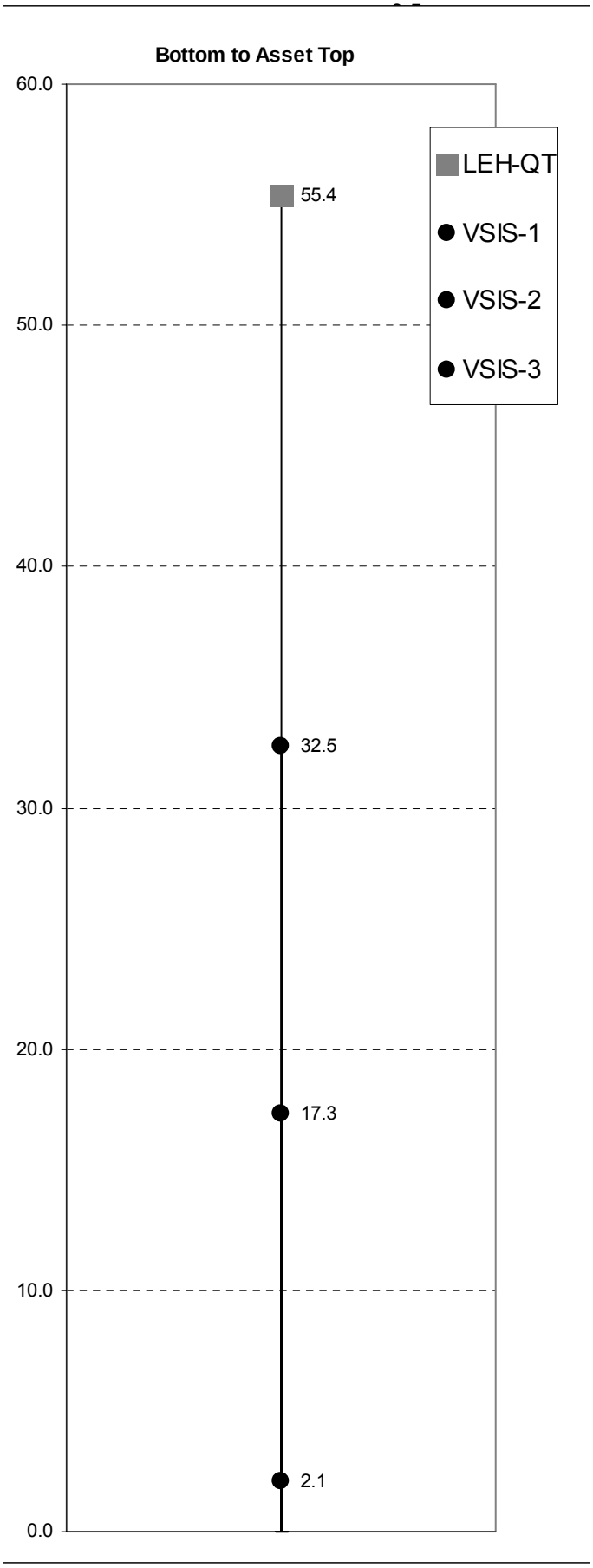
Production String	(in) OD	(in) ID	(m) MD	Well Schematic	(m) MD	(in) OD	(in) ID	Casing String
Derrick Floor Elevation			39.0					
Mean Sea Level			0.0					
Seismic Gun depth below MSL			5.3					
					90.0	13.375		Casing String
					90.0	9.625		Liner Hanger
					275.2	13.375		Casing Shoe
					902.0	9.625		Casing Shoe
					902.0	8.500		Borehole Segment
All Depths are Drillers' Depths					3074.3	8.500		Borehole Segment Bottom

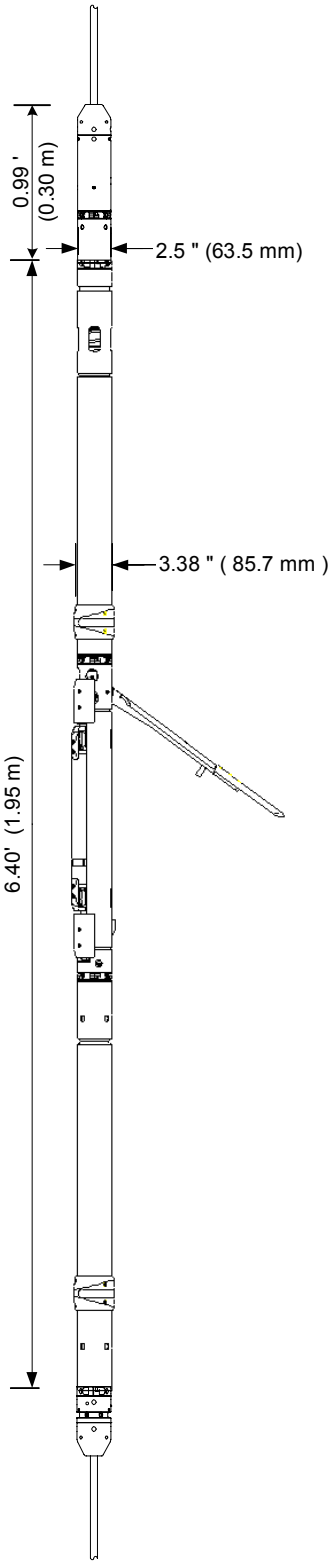
Well Inclinometry List

Meas. Tie Depth 0 m
True Vert. Tie Depth 0 m

Measured depth (m)	Deviation (deg)	Azimuth (deg)	True Vertical Depth (m)
0.00	0.00	0.00	0.00
263.67	0.15	47.87	263.67
294.41	0.06	172.52	294.41
323.58	0.12	91.82	323.58
411.41	0.24	137.04	411.41
442.19	0.21	124.90	442.19
502.26	0.32	90.25	502.26
530.50	0.41	92.03	530.50
620.59	0.22	141.24	620.59
708.29	0.06	46.00	708.29
738.63	0.03	73.16	738.63
768.37	0.06	56.39	768.37
855.79	0.11	357.54	855.79
887.36	0.25	215.41	887.36
1006.93	0.37	205.42	1006.92
1125.19	0.38	223.01	1125.18
1243.13	0.37	76.40	1243.12
1420.57	0.99	275.48	1420.55
1550.04	0.99	280.13	1550.00
1687.41	0.88	299.49	1687.36
1806.49	0.99	326.29	1806.42
1895.34	0.85	336.21	1895.26
1983.37	0.73	333.68	1983.28
2071.31	0.57	332.49	2071.22
2101.07	0.26	259.44	2100.97
2189.40	0.38	9.46	2189.30
2219.45	0.35	26.58	2219.35
2307.17	0.23	13.64	2307.07
2396.09	0.42	29.80	2395.99
2484.75	0.56	53.27	2484.65

	meter
LEH-QT	0.89
EDTC-B	1.98
AH199	0.31
VSPC-BA	3.22
VSCC-BB	3.18
VSII-1	13.29
VSIS-1	1.95
VSII-2	13.29
VSIS-2	1.95
VSII-3	13.29
VSIS-3	1.95
VSIA	0.10
TOTAL	**55.40**





Downhole Equipment Information

Tool Type	VSIT-G
Surface Equipment	WSAM-AB 912 , WSI
Combined Tool	EDTC-B, EDTH-B 8378
Number of Shuttles	3
Nominal Receiver Spacing	15.24 m
Gimbaled (Y/N)	No
Downhole Geophone Type	GAC-D 3-axis orthogonal
Sensitivity	0.5 V/G 3%
Natural Frequency	20 Hz
Damping Factor	N/A
DC Resistance	1500 Ohms 3% @25 degC
Measurement Specification	
Dynamic range	> 105 dB at 36 dB
Distortion	< -90 dB
Analog Low-Cut filter	0.3 Hz, -6 dB/Oct
Digital Low-Cut filter	None
DC Offset removal	Averaging by surface software
Digital High-Cut filter	Linear phase at down hole
Pass band ripple	+- 0.01 dB
Stop band attenuation	< -130 dB
Bandwidth	80% of Nyquist frequency
Test Signal harmonic distortion	< -110 dB
Tool SN	
VSPC-G	ENP 08
VSCC-G	ENP 19
VSII-G	ENP 19
Receiver #1 (VSIS-G)	ENP 97
VSII-G	ENP 95
Receiver #2 (VSIS-G)	ENP 94
VSII-G	ENP 99
Receiver #3 (VSIS-G)	ENP 99
VSIA	ENP 19

Operation Time Summary

TIME START	TIME END	Time taken	EVENT
23/3/2008 12:25 AM	3/23/08 12:35 AM	0:10	T BT
23/3/2008 12:35 AM	3/23/08 1:14 AM	0:38	Rig Up VSI
23/3/2008 1:14 AM	3/23/08 1:17 AM	0:02	Power up/ calibration
23/3/2008 1:17 AM	3/23/08 1:19 AM	0:01	Tool zero
23/3/2008 1:19 AM	3/23/08 1:40 AM	0:21	RIH
23/3/2008 1:40 AM	3/23/08 3:25 AM	1:44	Waiting on Strong winds
23/3/2008 3:25 AM	3/23/08 3:56 AM	0:30	C plate tool
23/3/2008 3:56 AM	3/23/08 4:36 AM	0:40	RIH to correlate
23/3/2008 4:36 AM	3/23/08 5:09 AM	0:33	Correlation Log up/ Gun deployment allowed
23/3/2008 5:09 AM	3/23/08 5:20 AM	0:10	RIH for QC1
23/3/2008 5:20 AM	3/23/08 5:32 AM	0:12	QC1 596.11m
23/3/2008 5:32 AM	3/23/08 5:40 AM	0:07	RIH for QC2
23/3/2008 5:40 AM	3/23/08 5:50 AM	0:10	QC 2 824.71m
23/3/2008 5:50 AM	3/23/08 6:00 AM	0:10	RIH for QC3
23/3/2008 6:00 AM	3/23/08 7:19 AM	1:18	QC 3 @ 2562.07m
23/3/2008 7:19 AM	3/23/08 7:33 AM	0:13	RIH for Correlation
23/3/2008 7:33 AM	3/23/08 7:40 AM	0:07	Correlation Log up
23/3/2008 7:40 AM	3/23/08 8:06 AM	0:25	Tool descending check (Suspect tool hang up) QC Shots @
23/3/2008 8:06 AM	3/23/08 8:54 AM	0:48	RIH for Main Survey
23/3/2008 8:54 AM	3/23/08 5:25 PM	8:31	Start Survey, Station#21 @ 11:50pm, station 41 @ 2:42pm, station 62 @ 5:04p.m.
23/3/2008 5:25 PM	3/23/08 6:00 PM	0:34	POOH
23/3/2008 6:00 PM	3/23/08 7:45 PM	1:44	set up CST, permits, JSA
	Hours Operating	**19 hr 8 mins**	

General Information

Survey Type	Zero Offset VSP
Surface Recording Length	1000.0 ms
Suface Sampling Rate	1.00 ms
Downhole Recording Length	5000.0 ms
Downhole Sampling Rate	1.0 ms
Top of Survey	104.4 m
Bottom of Survey	3066.9 m
Number of Shots	350
Number of Downhole Traces	1050
Number of Downhole Traces used for Processing	985

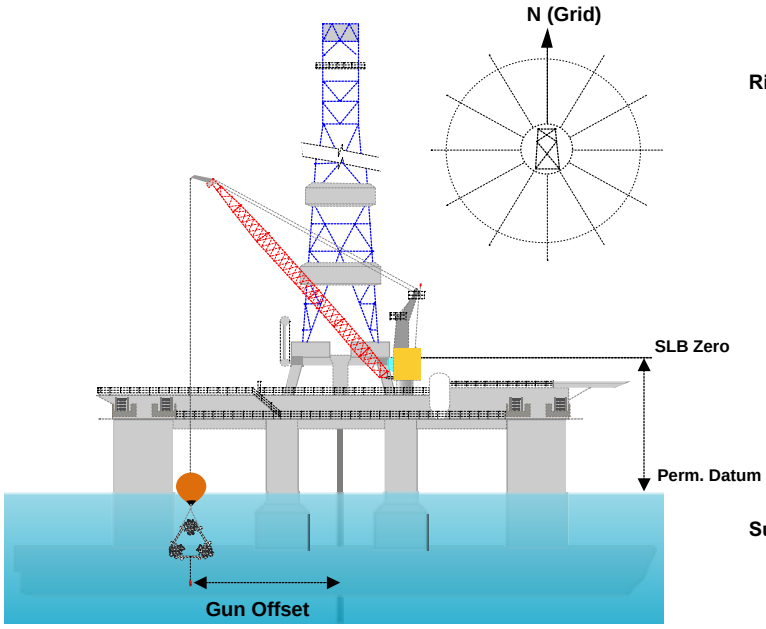
Borehole Seismic Source Information

Engineer: B.Taylor / V.Torlov / A.Dandi / M.Dawson
Well Name: Coelacanth-1 **Date:** 19-Mar-2008
Rig: West Triton

<Geometrical Coordinates> **Longitude:** 148 18' 07.040" E **Latitude:** 38 42' 49.720" S
<UTM Coordinates> **Easting:** 613,193.500 **Northing:** 5,714,176.900

Permanent Datum: MSL
Log Measured From: DF **Elev.** 38.0 **Unit :** m

SRD (Seismic Reference Datum): MSL **Elev.** 0.0 **from SLB zero:** 38.0 (SRDS)
Water Depth: 90.0



RIG Heading: 102.6 deg
Rig Crane used: ☑ Port side ☐ Starboard side
Rig Crane azimuth (from Rig Heading): 94.6 deg

Gun Azimuth (Grid North): 8.0 deg (GAZI)

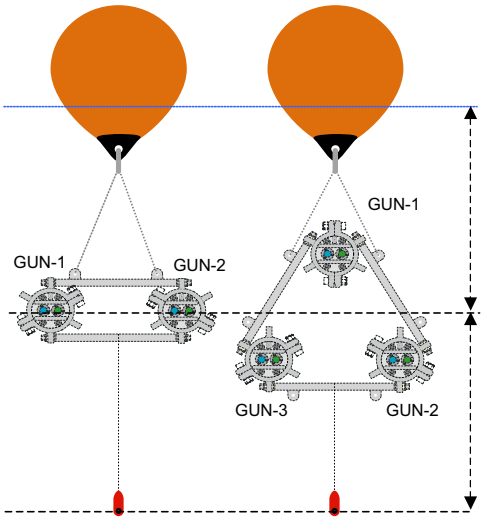
Hy1 Azimuth (Grid North): 8.0 deg
Hy2 Azimuth (Grid North): 8.0 deg
Hy3 Azimuth (Grid North): deg

Gun Offset: 32.0 (GOFF)

Hydrophone-1 Offset: 32.0
Hydrophone-2 Offset: 32.0
Hydrophone-3 Offset:

Surface Velocity: 1524 m/s (SVEL)

Cluster Gun Type:
☑ WSGC-P90 ☐ WSGC-T90



Gun Type:
☑ WSG-G150 (G-Gun 150cu.inch)
☐ WSG-G250 (G-Gun 250cu.inch)

GUN-1 sn: 54534
GUN-2 sn: 54540
GUN-3 sn: 000000

Gun Depth from Local Tide 5.3
Gun Depth from SLB 43.3 (GDSZ)

Hydrophone 1 Type: MP-24L3 (10Hz)
Hydrophone 2 Type: MP-24L3 (10Hz)
Hydrophone 3 Type: none

Hy 1 Depth from Gun	Hy 1 Depth from LT	Hy 1 Depth from SLB zero
5.0	10.3	48.3
Hy 2 Depth from Gun	**Hy 2 Depth from LT**	**Hy 2 Depth from SLB zero**
5.0	10.3	48.3
Hy 3 Depth from Gun	**Hy 3 Depth from LT**	**Hy 3 Depth from SLB zero**

Air Gun Firing Pressure: 1800 psi
Accumulator Pressure (Inlet pressure): 4000 psi
Source of Air supply: N2 Gas Bottle Racks
Air Controller (Regulator) Type: WAP-LCL **sn:** PD0777

Sea Condition

Sea Condition: Smooth
Wave Height: 0.5
Low Tide Level: 0.5 (LAT) **at** 15:41 23/Mar/08
High Tide Level: 1.3 (LAT) **at** 09:42 23/Mar/08
Tide Table available: ☑ Yes ☐ No

Main survey started at 07:54 23/Mar/08
ended at 04:25 23/Mar/08

HSE

Safe Distance: 6.3

Observation of Marine Mammals
Marine Mammals sighted in 30 minutes before the survey ☐ Yes ☑ No
Soft-Start implemented: ☑ Yes ☐ No

Borehole Seismic Gun Tuning Information

Surface Sensor Channels / Gun Controller

WSAM (WSI) sn: WSAM:912 / WSI:937

	Gun No	TB	Hy No	SSPS
S1 (WSI-SS2)		☐	1	☑
S2 (WSI-SS3)		☐	2	☐
S3 (WSI-SS4)	1	☑		☐
S4 (WSI-SS5)	2	☑		☐
S5 (WSI-SS6)		☐		☐
S6 (WSI-SS7)		☐		☐

TGS-8 sn: RL:000000 SL:000000

	Gun No	TB	Hy No
Ch1	1	☐	
Ch2	2	☐	
Ch3		☐	
Ch4		☐	
Ch5		☐	
Ch6		☐	
Sig			1
Aux1 Sig			
Aux2 Sig			

P1	☐ Depth S.	☐ Pres. S.
P2	☐ Depth S.	☐ Pres. S.
P3	☐ Depth S.	☐ Pres. S.
P4	☐ Depth S.	☐ Pres. S.

Cluster Gun Tuning / Quality Control

Tuning Sensor used
- ☑ Time Break Sensor
- ☐ Hydrophone

WSI	Gun No	Gun Delay(ms)
FS1	1	30.0
FS2	2	31.0
FS3		0.0

TGS-8	Gun No	Gun Delay(ms)	Threshold(v)
Ch1	1	0.0	0.5
Ch2	2	0.0	0.5
Ch3		0.0	0.5
Ch4		0.0	0.0
Ch5		0.0	0.0
Ch6		0.0	0.0

ClusterTuning (Break Time of Tuning Sensors)

	FS1 / Ch 3	FS2 / Ch 4	FS3 / Ch
Shot-1	40.6	39.9	0.0
Shot-2	40.6	41.0	0.0
Shot-3	40.6	39.9	0.0
Shot-4	40.6	40.0	0.0
Shot-5	40.6	40.0	0.0
Shot-6	40.6	39.9	0.0
Shot-7	40.6	40.0	0.0
Average	40.6	40.0	0.0

Quality Check Surface Signals / Filling Time (air Regulator)

	S1 Time Break / PP	S2 TT(ms) / PP	S3 TT(ms) / PP	S4 TT(ms) / PP	S5 TT(ms) / PP	S6 TT(ms) / PP	Filling Time (sec)
Shot-1	44.2 / 29032	44.1 / 29081	40.6 / 3164	41.0 / 4132	0.0 / 0	0.0 / 0	15
Shot-2	44.3 / 31655	44.0 / 30635	40.5 / 3175	41.0 / 4053	0.0 / 0	0.0 / 0	15
Shot-3	43.6 / 26660	43.6 / 26487	40.6 / 3067	42.2 / 4355	0.0 / 0	0.0 / 0	15
Shot-4	44.0 / 28984	44.0 / 29174	40.6 / 3149	41.0 / 3978	0.0 / 0	0.0 / 0	15
Shot-5	44.0 / 28368	44.1 / 28588	40.6 / 3199	41.0 / 4120	0.0 / 0	0.0 / 0	15

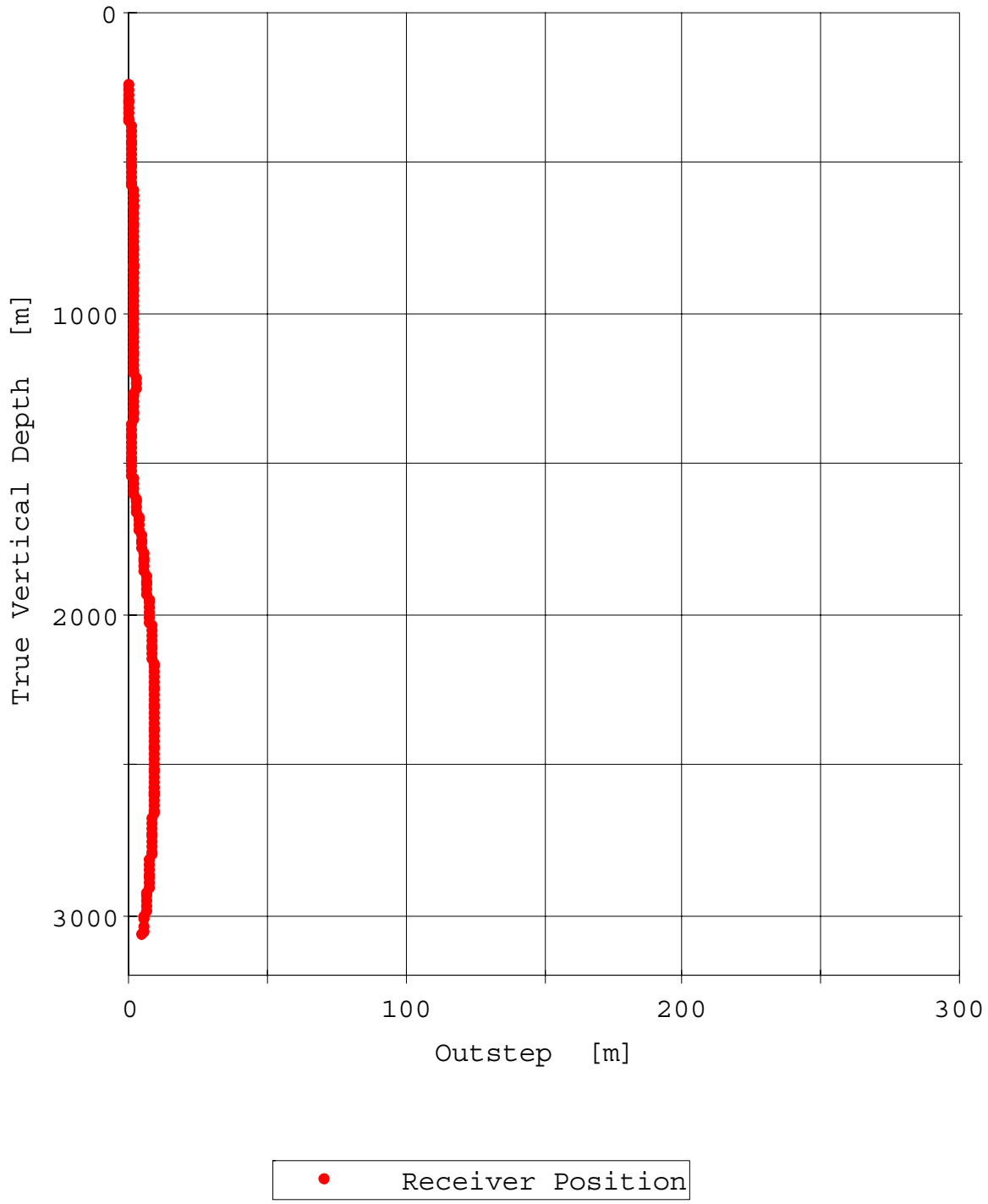
Other Logs Information

Sonic Log:	<GeoVision Resistivity	**Interval:**	**from**	270.0	**to**	3,061.8	**Date:** 23/Mar/08
Density Log:	<service name>	**Interval:**	**from**	0.0	**to**	0.0	**Date:** dd/mmm/yy

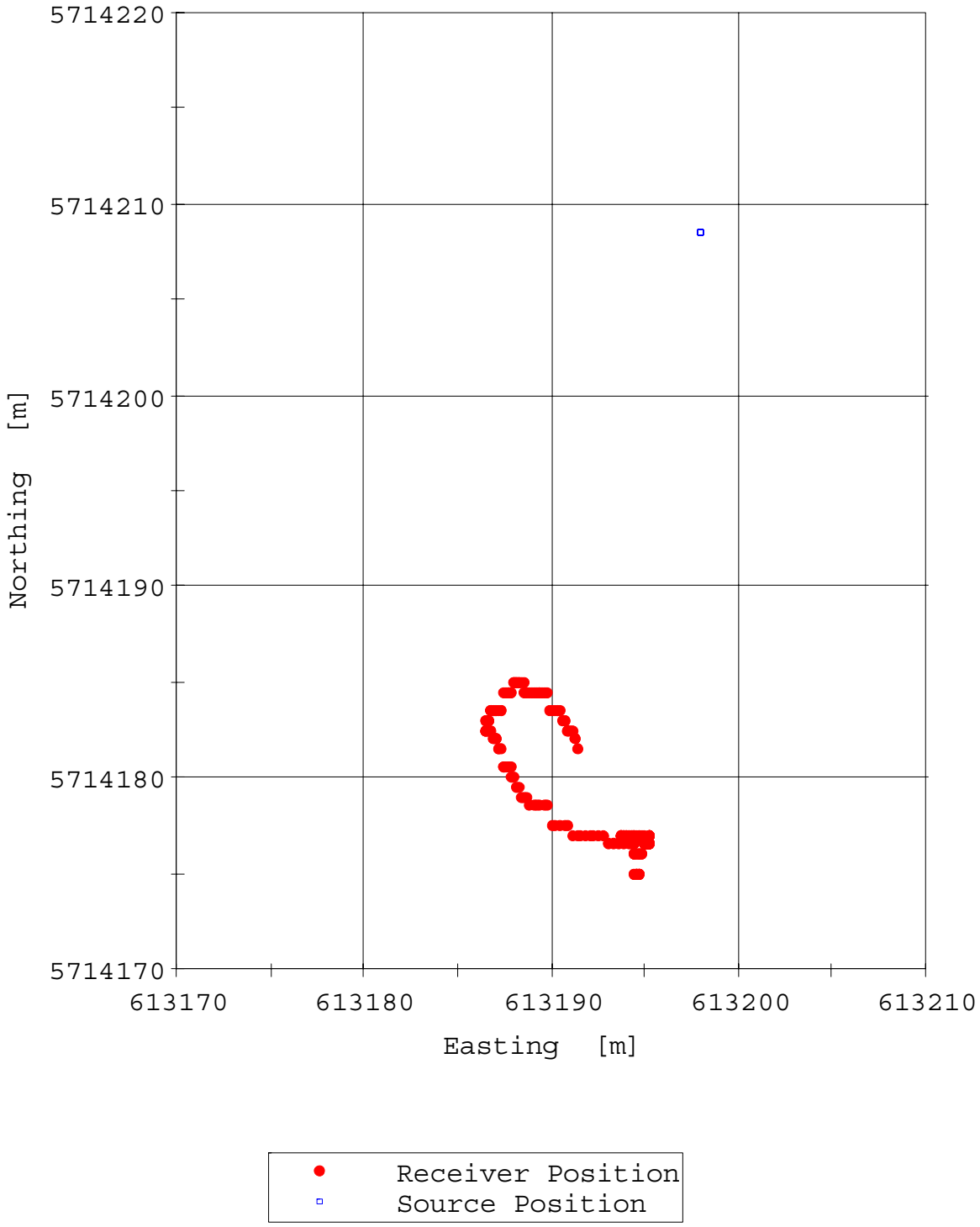
Remarks

3 Shuttles were run in the string with 15.24m spacing between sensors. Station spacing was 45.72m.
At level 45 changed gun delay for Gun2 from 31 to 30ms.

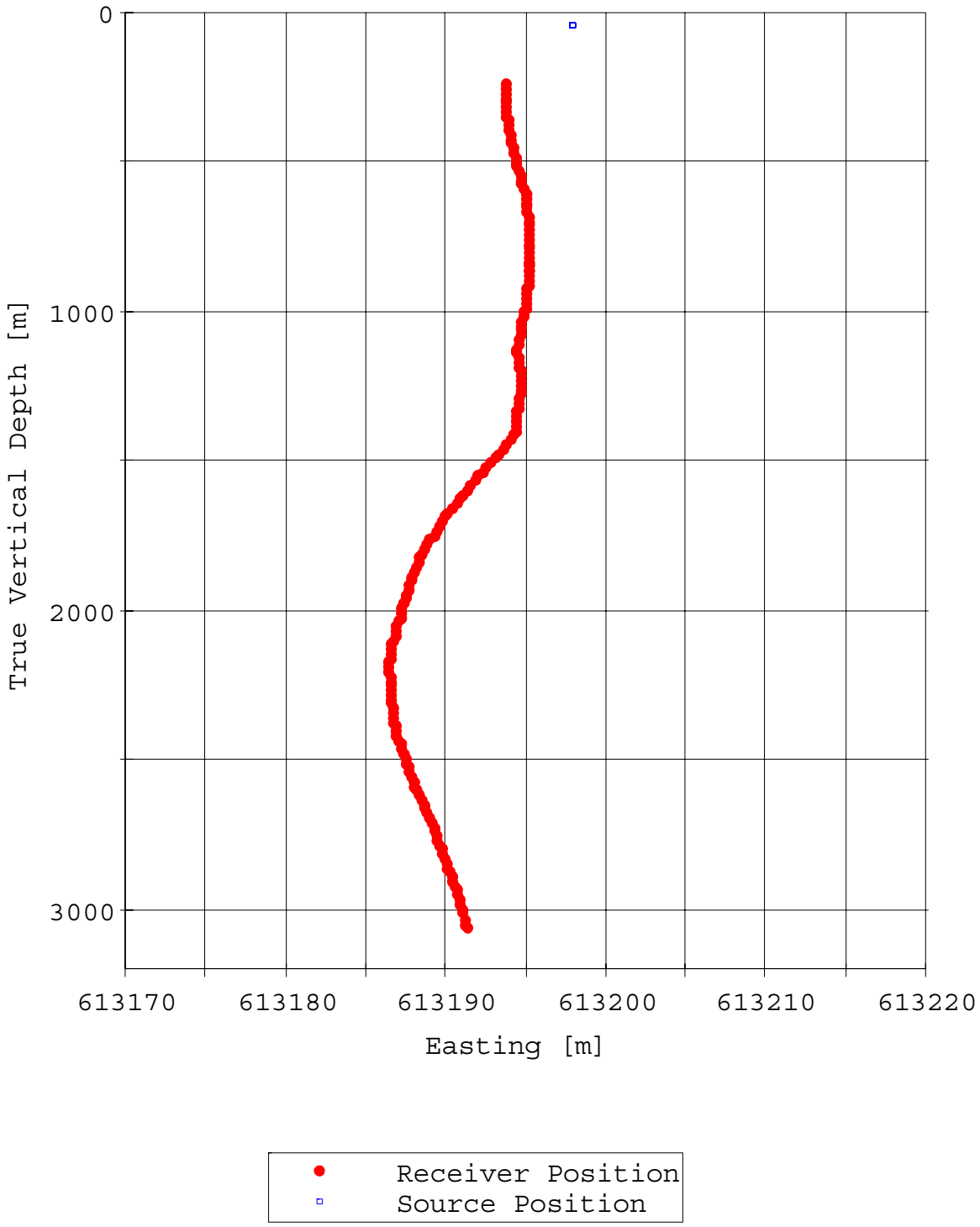
Well Profile



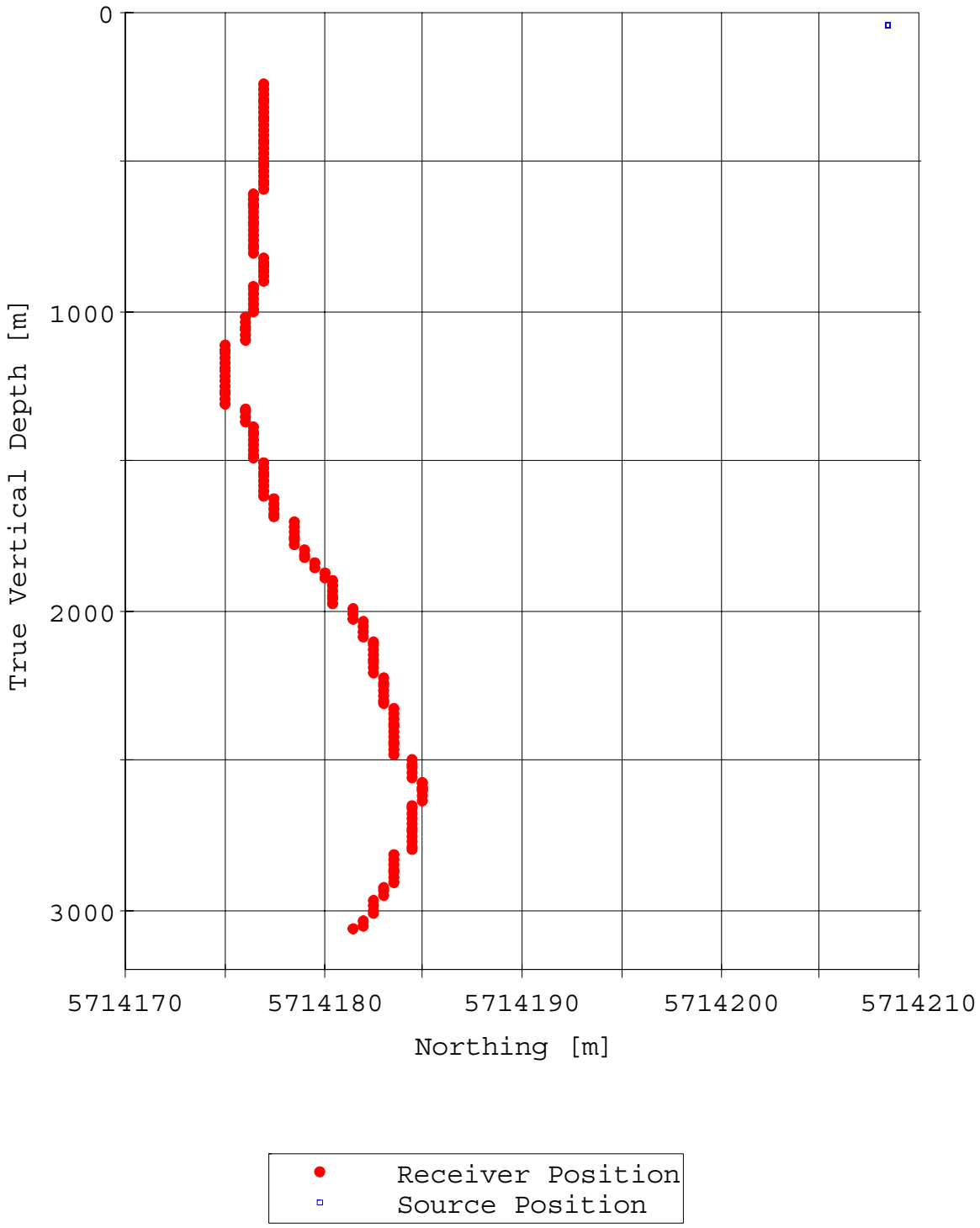
Geometry Infomation (X-Y)



Geometry Infomation (X-Z)



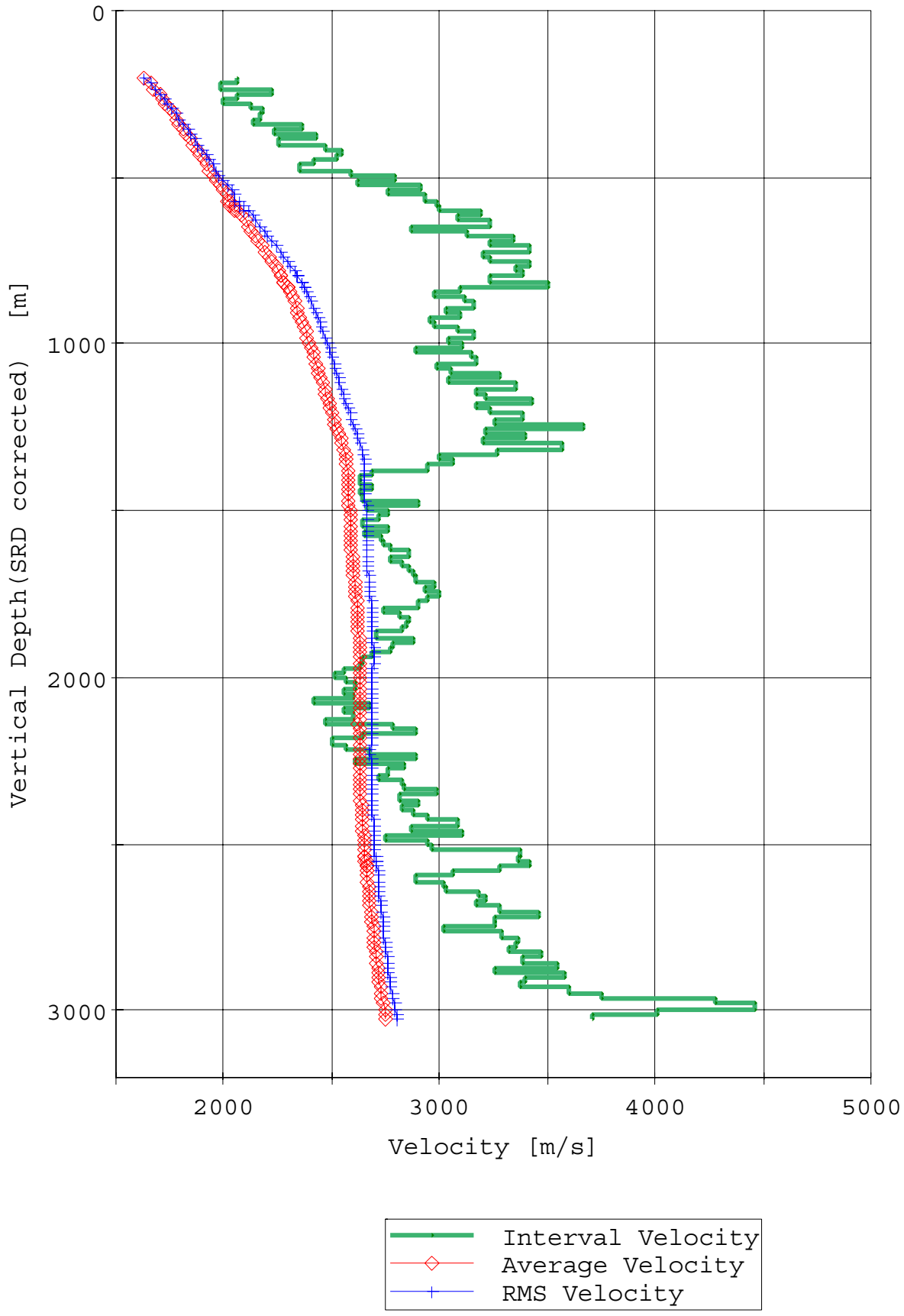
Geometry Infomation (Y-Z)



Time Depth Plot

Schlumberger

Velocity Plot Page



Stack Summary Listing (1/7) from VSI_001_A_geo_wavefield_z.ldf

Stack Number	Measured Depth [m]	True Vertical Depth [m]	Measured Time [s]	One-way Vertical Time [s]	Two-way Vertical Time [s]	Interval Velocity [m/s]	Average Velocity [m/s]	RMS Velocity [m/s]
	0	0	0	0	0			
						1603.0		
70	226.4	188.4	0.1125	0.1175	0.2350		1603.0	1603.0
						2136.8		
69	241.5	203.5	0.1194	0.1246	0.2492		1633.4	1638.1
						2058.7		
69	256.8	218.8	0.1267	0.1320	0.2640		1657.3	1664.5
						1983.4		
69	272.0	234.0	0.1343	0.1397	0.2794		1675.2	1683.6
						2222.7		
68	287.3	249.3	0.1410	0.1466	0.2931		1700.9	1712.7
						2056.1		
68	302.5	264.5	0.1483	0.1540	0.3080		1718.0	1730.7
						1991.6		
68	317.8	279.8	0.1559	0.1616	0.3233		1730.9	1744.0
						2128.1		
67	332.9	294.9	0.1630	0.1688	0.3375		1747.7	1761.9
						2182.3		
67	348.2	310.2	0.1699	0.1757	0.3515		1765.0	1780.5
						2164.6		
67	363.4	325.4	0.1769	0.1828	0.3656		1780.4	1796.8
						2138.0		
66	378.6	340.6	0.1840	0.1899	0.3798		1793.8	1810.8
						2357.0		
66	393.9	355.9	0.1904	0.1964	0.3927		1812.3	1831.4
						2233.2		
66	409.1	371.1	0.1972	0.2032	0.4064		1826.4	1846.3
						2422.4		
65	424.5	386.5	0.2035	0.2095	0.4190		1844.5	1866.3
						2257.0		
65	439.7	401.7	0.2102	0.2163	0.4326		1857.3	1879.7
						2469.3		
65	454.9	416.9	0.2163	0.2224	0.4449		1874.3	1898.5
						2539.7		
64	470.2	432.2	0.2223	0.2285	0.4569		1891.8	1918.2
						2523.5		
64	485.4	447.4	0.2283	0.2345	0.4690		1908.1	1936.1
						2411.2		
64	500.7	462.7	0.2346	0.2408	0.4816		1921.3	1950.1
						2345.5		
63	515.8	477.8	0.2411	0.2473	0.4945		1932.4	1961.4
						2588.8		
63	531.0	493.0	0.2469	0.2532	0.5063		1947.6	1978.2
						2791.0		
63	546.3	508.3	0.2524	0.2586	0.5172		1965.4	1998.8
						2624.0		
62	561.6	523.6	0.2582	0.2645	0.5289		1980.0	2014.7
						2911.6		
62	576.9	538.9	0.2634	0.2697	0.5394		1998.1	2035.9
						2760.7		
62	592.1	554.1	0.2689	0.2752	0.5504		2013.4	2053.0
						2929.4		
3	607.3	569.3	0.2728	0.2791	0.5581		2013.4	2053.0
						2929.4		
61	607.4	569.4	0.2741	0.2804	0.5609		2030.5	2072.7
						2988.5		
3	622.6	584.6	0.2778	0.2842	0.5683		2030.5	2072.7
						2988.5		
61	622.7	584.7	0.2792	0.2855	0.5711		2047.6	2092.6
						2998.2		
3	637.8	599.8	0.2829	0.2892	0.5784		2047.6	2092.6
						2998.2		
61	637.9	599.9	0.2843	0.2906	0.5813		2064.2	2111.8
						3191.6		

Stack Summary Listing (2/7) from VSI_001_A_geo_wavefield_z.ldf

Stack Number	Measured Depth [m]	True Vertical Depth [m]	Measured Time [s]	One-way Vertical Time [s]	Two-way Vertical Time [s]	Interval Velocity [m/s]	Average Velocity [m/s]	RMS Velocity [m/s]
60	653.0	615.0	0.2890	0.2954	0.5907		2082.2	2133.4
						3088.4		
60	668.2	630.2	0.2939	0.3003	0.6006		2098.8	2152.5
						3235.8		
60	683.5	645.5	0.2986	0.3050	0.6100		2116.3	2173.3
						2869.1		
59	698.7	660.7	0.3039	0.3103	0.6206		2129.2	2187.1
						3131.3		
59	714.0	676.0	0.3088	0.3152	0.6304		2144.7	2204.7
						3341.8		
59	729.2	691.2	0.3133	0.3197	0.6395		2161.8	2225.1
						3238.5		
58	744.4	706.4	0.3180	0.3244	0.6489		2177.4	2243.0
						3416.5		
58	759.7	721.7	0.3225	0.3289	0.6578		2194.2	2263.0
						3199.4		
58	774.9	736.9	0.3272	0.3337	0.6673		2208.5	2279.1
						3237.2		
57	790.2	752.2	0.3319	0.3384	0.6768		2222.9	2295.2
						3417.1		
57	805.4	767.4	0.3364	0.3428	0.6857		2238.4	2313.3
						3351.1		
57	820.7	782.7	0.3409	0.3474	0.6948		2253.0	2329.9
						3384.3		
56	835.9	797.9	0.3454	0.3519	0.7038		2267.4	2346.3
						3228.9		
4	835.9	797.9	0.3443	0.3508	0.7016		2267.4	2346.3
						3228.9		
56	851.1	813.1	0.3501	0.3566	0.7132		2280.1	2360.2
						3508.1		
4	851.1	813.1	0.3487	0.3552	0.7104		2280.1	2360.2
						3508.1		
56	866.4	828.4	0.3545	0.3610	0.7219		2294.9	2377.3
						3093.3		
4	866.4	828.4	0.3534	0.3599	0.7197		2294.9	2377.3
						3093.3		
55	881.6	843.6	0.3594	0.3659	0.7318		2305.7	2388.3
						2974.8		
55	896.8	858.8	0.3645	0.3710	0.7420		2314.9	2397.4
						3115.0		
55	912.1	874.1	0.3694	0.3759	0.7518		2325.3	2408.1
						3153.4		
54	927.3	889.3	0.3742	0.3807	0.7615		2335.9	2419.0
						3030.4		
54	942.6	904.6	0.3792	0.3858	0.7715		2344.9	2428.0
						3099.0		
54	957.8	919.8	0.3842	0.3907	0.7814		2354.4	2437.6
						2948.7		
53	973.0	935.0	0.3893	0.3958	0.7917		2362.1	2444.9
						2975.5		
53	988.3	950.3	0.3944	0.4010	0.8019		2370.0	2452.4
						3078.5		
53	1003.5	965.5	0.3994	0.4059	0.8118		2378.6	2461.0
						3163.5		
52	1018.9	980.9	0.4042	0.4108	0.8216		2387.9	2470.5
						3039.4		
52	1034.2	996.1	0.4093	0.4158	0.8316		2395.8	2478.2
						3109.0		
52	1049.4	1011.4	0.4142	0.4207	0.8414		2404.1	2486.4
						2888.2		
51	1064.5	1026.5	0.4194	0.4259	0.8519		2410.0	2491.8
						3147.4		
51	1079.8	1041.8	0.4242	0.4308	0.8615		2418.3	2500.1
						3173.7		

Stack Summary Listing (3/7) from VSI_001_A_geo_wavefield_z.ldf

Stack Number	Measured Depth [m]	True Vertical Depth [m]	Measured Time [s]	One-way Vertical Time [s]	Two-way Vertical Time [s]	Interval Velocity [m/s]	Average Velocity [m/s]	RMS Velocity [m/s]
51	1095.0	1057.0	0.4290	0.4356	0.8712		2426.7	2508.5
						2982.9		
50	1110.3	1072.3	0.4342	0.4407	0.8814		2433.1	2514.5
						3045.4		
50	1125.5	1087.5	0.4392	0.4457	0.8914		2440.0	2521.1
						3274.0		
50	1140.7	1102.7	0.4438	0.4504	0.9007		2448.6	2530.0
						3037.0		
49	1156.0	1118.0	0.4488	0.4554	0.9107		2455.1	2536.2
						3356.8		
49	1171.2	1133.2	0.4534	0.4599	0.9198		2464.0	2545.6
						3174.5		
49	1186.5	1148.5	0.4582	0.4647	0.9294		2471.3	2552.9
						3208.0		
48	1201.7	1163.6	0.4629	0.4694	0.9389		2478.8	2560.3
						3431.2		
48	1216.9	1178.9	0.4673	0.4739	0.9478		2487.7	2569.8
						3165.6		
48	1232.1	1194.1	0.4721	0.4787	0.9574		2494.5	2576.5
						3235.9		
47	1247.4	1209.4	0.4769	0.4834	0.9669		2501.8	2583.8
						3386.2		
47	1262.7	1224.7	0.4814	0.4879	0.9759		2509.9	2592.3
						3252.4		
47	1277.9	1239.9	0.4860	0.4926	0.9852		2517.0	2599.4
						3659.9		
46	1293.2	1255.1	0.4902	0.4968	0.9936		2526.6	2610.1
						3208.7		
46	1308.4	1270.4	0.4949	0.5015	1.0031		2533.0	2616.4
						3390.6		
46	1323.6	1285.6	0.4994	0.5060	1.0120		2540.6	2624.3
						3201.5		
45	1338.1	1300.1	0.5039	0.5105	1.0211		2546.5	2629.9
						3572.0		
45	1353.3	1315.3	0.5082	0.5148	1.0296		2555.0	2639.1
						3264.7		
45	1368.6	1330.5	0.5129	0.5195	1.0389		2561.4	2645.4
						2996.2		
44	1384.6	1346.6	0.5182	0.5248	1.0496		2565.8	2649.2
						3065.0		
44	1399.8	1361.8	0.5232	0.5298	1.0596		2570.5	2653.4
						2939.6		
44	1415.1	1377.0	0.5284	0.5350	1.0699		2574.0	2656.3
						2686.3		
43	1430.3	1392.2	0.5340	0.5406	1.0813		2575.2	2656.6
						2626.5		
43	1445.5	1407.5	0.5398	0.5464	1.0929		2575.8	2656.3
						2630.7		
43	1460.7	1422.7	0.5456	0.5522	1.1044		2576.3	2656.1
						2681.1		
42	1476.0	1438.0	0.5513	0.5579	1.1158		2577.4	2656.3
						2635.7		
42	1491.3	1453.2	0.5571	0.5637	1.1274		2578.0	2656.1
						2644.0		
42	1506.5	1468.5	0.5628	0.5695	1.1389		2578.7	2656.0
						2902.5		
41	1521.8	1483.7	0.5681	0.5747	1.1494		2581.6	2658.3
						2668.2		
41	1537.0	1498.9	0.5738	0.5804	1.1609		2582.5	2658.4
						2761.9		
41	1552.2	1514.2	0.5793	0.5859	1.1719		2584.2	2659.4
						2721.6		
40	1567.5	1529.4	0.5849	0.5915	1.1831		2585.5	2660.0
						2640.6		

Stack Summary Listing (4/7) from VSI_001_A_geo_wavefield_z.ldf

Stack Number	Measured Depth [m]	True Vertical Depth [m]	Measured Time [s]	One-way Vertical Time [s]	Two-way Vertical Time [s]	Interval Velocity [m/s]	Average Velocity [m/s]	RMS Velocity [m/s]
40	1582.7	1544.7	0.5907	0.5973	1.1946		2586.0	2659.8
						2759.9		
40	1598.0	1559.9	0.5962	0.6028	1.2057		2587.6	2660.8
						2652.4		
39	1613.2	1575.1	0.6019	0.6086	1.2172		2588.2	2660.7
						2725.4		
39	1628.4	1590.4	0.6075	0.6142	1.2283		2589.5	2661.3
						2737.6		
39	1643.7	1605.6	0.6131	0.6197	1.2395		2590.8	2662.0
						2774.6		
38	1658.9	1620.9	0.6186	0.6252	1.2505		2592.4	2663.0
						2851.6		
38	1674.1	1636.1	0.6239	0.6306	1.2611		2594.6	2664.6
						2769.9		
38	1689.4	1651.3	0.6294	0.6361	1.2721		2596.1	2665.6
						2828.4		
37	1704.6	1666.6	0.6348	0.6415	1.2829		2598.1	2667.0
						2852.4		
37	1719.9	1681.8	0.6402	0.6468	1.2936		2600.2	2668.6
						2873.1		
37	1735.1	1697.1	0.6455	0.6521	1.3042		2602.4	2670.3
						2892.8		
36	1750.3	1712.2	0.6507	0.6574	1.3147		2604.7	2672.1
						2978.6		
36	1765.5	1727.5	0.6558	0.6625	1.3250		2607.6	2674.6
						2937.2		
36	1780.8	1742.7	0.6610	0.6677	1.3353		2610.2	2676.8
						3000.6		
35	1796.1	1758.0	0.6661	0.6728	1.3455		2613.1	2679.4
						2944.9		
35	1811.3	1773.3	0.6713	0.6779	1.3559		2615.7	2681.5
						2901.1		
35	1826.6	1788.5	0.6765	0.6832	1.3664		2617.8	2683.3
						2735.1		
34	1841.8	1803.7	0.6821	0.6887	1.3775		2618.8	2683.7
						2812.9		
34	1857.0	1818.9	0.6875	0.6942	1.3883		2620.3	2684.7
						2858.7		
34	1872.2	1834.2	0.6928	0.6995	1.3990		2622.1	2686.1
						2850.6		
33	1887.5	1849.4	0.6982	0.7048	1.4097		2623.9	2687.4
						2821.0		
33	1902.8	1864.7	0.7036	0.7102	1.4205		2625.4	2688.4
						2710.7		
33	1918.0	1879.9	0.7092	0.7159	1.4317		2626.0	2688.6
						2881.7		
32	1933.2	1895.2	0.7145	0.7212	1.4423		2627.9	2690.1
						2780.9		
32	1948.5	1910.4	0.7200	0.7266	1.4533		2629.1	2690.8
						2765.7		
32	1963.7	1925.6	0.7255	0.7322	1.4643		2630.1	2691.3
						2689.2		
31	1978.9	1940.8	0.7311	0.7378	1.4756		2630.5	2691.3
						2637.3		
31	1994.2	1956.1	0.7369	0.7436	1.4872		2630.6	2690.9
						2628.3		
31	2009.4	1971.3	0.7427	0.7494	1.4988		2630.6	2690.4
						2557.8		
30	2024.7	1986.6	0.7487	0.7553	1.5107		2630.0	2689.4
						2513.9		
30	2039.9	2001.8	0.7547	0.7614	1.5228		2629.1	2688.0
						2565.0		
30	2055.1	2017.0	0.7607	0.7673	1.5347		2628.6	2687.1
						2608.1		

Stack Summary Listing (5/7) from VSI_001_A_geo_wavefield_z.ldf

Stack Number	Measured Depth [m]	True Vertical Depth [m]	Measured Time [s]	One-way Vertical Time [s]	Two-way Vertical Time [s]	Interval Velocity [m/s]	Average Velocity [m/s]	RMS Velocity [m/s]
29	2070.4	2032.2	0.7665	0.7732	1.5464		2628.4	2686.5
						2552.3		
29	2085.6	2047.5	0.7725	0.7792	1.5583		2627.8	2685.5
						2603.2		
29	2100.8	2062.7	0.7783	0.7850	1.5700		2627.7	2684.9
						2411.0		
28	2116.1	2078.0	0.7847	0.7914	1.5827		2625.9	2682.8
						2676.3		
28	2131.4	2093.3	0.7904	0.7970	1.5941		2626.3	2682.8
						2550.7		
28	2146.6	2108.5	0.7963	0.8030	1.6060		2625.7	2681.8
						2600.6		
27	2161.8	2123.7	0.8022	0.8089	1.6177		2625.5	2681.3
						2470.8		
27	2177.1	2138.9	0.8083	0.8150	1.6301		2624.4	2679.7
						2784.1		
27	2192.3	2154.2	0.8138	0.8205	1.6410		2625.4	2680.4
						2889.7		
26	2207.5	2169.4	0.8191	0.8258	1.6516		2627.1	2681.8
						2643.0		
26	2222.8	2184.7	0.8249	0.8315	1.6631		2627.2	2681.6
						2504.1		
26	2238.0	2199.9	0.8309	0.8376	1.6753		2626.3	2680.3
						2571.5		
25	2253.3	2215.2	0.8369	0.8436	1.6872		2626.0	2679.6
						2677.5		
25	2268.6	2230.4	0.8426	0.8493	1.6985		2626.3	2679.5
						2888.1		
25	2283.8	2245.7	0.8479	0.8546	1.7091		2627.9	2680.9
						2608.5		
24	2299.0	2260.9	0.8537	0.8604	1.7208		2627.8	2680.4
						2838.6		
24	2314.3	2276.1	0.8591	0.8658	1.7315		2629.1	2681.4
						2758.7		
24	2329.5	2291.4	0.8646	0.8713	1.7426		2629.9	2681.9
						2717.4		
23	2344.7	2306.6	0.8702	0.8769	1.7538		2630.5	2682.1
						2827.2		
23	2359.9	2321.8	0.8756	0.8823	1.7645		2631.7	2683.0
						2830.6		
23	2375.2	2337.1	0.8810	0.8877	1.7753		2632.9	2684.0
						2989.0		
22	2390.4	2352.3	0.8861	0.8928	1.7855		2634.9	2685.8
						2811.5		
22	2405.7	2367.6	0.8915	0.8982	1.7963		2636.0	2686.6
						2904.3		
22	2420.9	2382.8	0.8967	0.9034	1.8068		2637.5	2687.9
						2823.3		
21	2436.2	2398.0	0.9021	0.9088	1.8176		2638.6	2688.7
						2873.9		
21	2451.4	2413.3	0.9074	0.9141	1.8282		2640.0	2689.8
						2941.3		
21	2466.6	2428.5	0.9126	0.9193	1.8386		2641.7	2691.3
						3084.6		
20	2481.9	2443.8	0.9175	0.9242	1.8485		2644.1	2693.6
						2863.7		
20	2497.1	2459.0	0.9229	0.9296	1.8591		2645.3	2694.6
						3102.4		
20	2512.4	2474.2	0.9278	0.9345	1.8690		2647.7	2696.9
						2745.0		
19	2527.6	2489.5	0.9333	0.9400	1.8801		2648.3	2697.2
						2941.2		
19	2542.8	2504.7	0.9385	0.9452	1.8904		2649.9	2698.6
						2959.8		

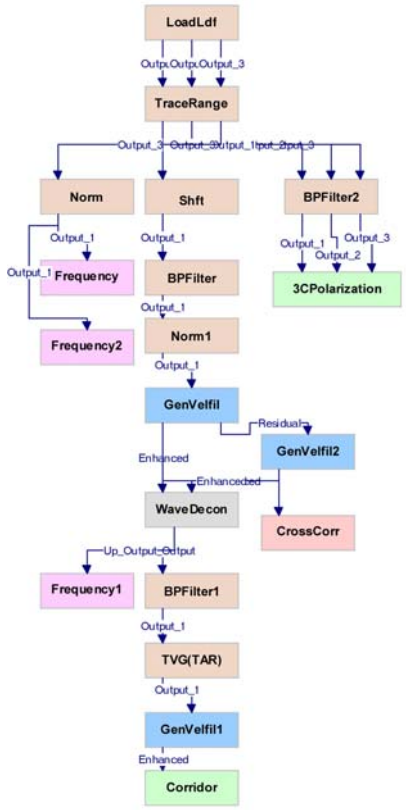
Stack Summary Listing (6/7) from VSI_001_A_geo_wavefield_z.ldf

Stack Number	Measured Depth [m]	True Vertical Depth [m]	Measured Time [s]	One-way Vertical Time [s]	Two-way Vertical Time [s]	Interval Velocity [m/s]	Average Velocity [m/s]	RMS Velocity [m/s]
19	2558.1	2520.0	0.9436	0.9504	1.9007		2651.6	2700.0
						3374.1		
5	2573.3	2535.1	0.9475	0.9542	1.9084		2651.6	2700.0
						3374.1		
18	2573.3	2535.2	0.9482	0.9549	1.9098		2655.0	2703.6
						3360.8		
5	2588.5	2550.4	0.9519	0.9586	1.9172		2655.0	2703.6
						3360.8		
18	2588.6	2550.4	0.9527	0.9594	1.9188		2658.3	2707.1
						3416.6		
5	2603.7	2565.6	0.9564	0.9631	1.9262		2658.3	2707.1
						3416.6		
18	2603.8	2565.7	0.9572	0.9639	1.9277		2661.9	2710.8
						3274.6		
17	2619.0	2580.9	0.9618	0.9685	1.9370		2664.8	2713.8
						3060.8		
17	2634.3	2596.2	0.9668	0.9735	1.9470		2666.8	2715.7
						2891.8		
17	2649.5	2611.4	0.9721	0.9788	1.9575		2668.0	2716.7
						3020.8		
16	2664.8	2626.6	0.9771	0.9838	1.9676		2669.8	2718.3
						3027.1		
16	2680.0	2641.9	0.9821	0.9889	1.9777		2671.7	2720.0
						3178.5		
16	2695.2	2657.1	0.9869	0.9936	1.9873		2674.1	2722.4
						3217.1		
15	2710.5	2672.3	0.9917	0.9984	1.9968		2676.7	2724.9
						3167.4		
15	2725.7	2687.6	0.9965	1.0032	2.0064		2679.0	2727.2
						3280.0		
15	2740.9	2702.8	1.0011	1.0078	2.0157		2681.8	2730.0
						3454.9		
14	2756.2	2718.1	1.0055	1.0123	2.0245		2685.2	2733.6
						3258.8		
14	2771.4	2733.3	1.0102	1.0169	2.0339		2687.8	2736.3
						3251.3		
14	2786.7	2748.5	1.0149	1.0216	2.0432		2690.4	2738.8
						3018.3		
13	2801.9	2763.8	1.0199	1.0267	2.0533		2692.0	2740.3
						3284.2		
13	2817.2	2779.0	1.0246	1.0313	2.0626		2694.7	2743.0
						3365.2		
13	2832.4	2794.3	1.0291	1.0358	2.0717		2697.6	2746.0
						3354.1		
12	2847.6	2809.5	1.0337	1.0404	2.0808		2700.5	2749.0
						3315.6		
12	2862.9	2824.7	1.0383	1.0450	2.0899		2703.2	2751.7
						3470.1		
12	2878.1	2840.0	1.0426	1.0494	2.0987		2706.4	2755.1
						3386.7		
11	2893.4	2855.2	1.0471	1.0539	2.1077		2709.3	2758.1
						3546.5		
11	2908.6	2870.5	1.0514	1.0582	2.1163		2712.7	2761.8
						3250.6		
11	2923.8	2885.7	1.0561	1.0628	2.1257		2715.1	2764.1
						3579.6		
10	2939.1	2900.9	1.0604	1.0671	2.1342		2718.5	2767.8
						3395.7		
10	2954.3	2916.2	1.0649	1.0716	2.1432		2721.3	2770.8
						3377.8		
10	2969.6	2931.4	1.0694	1.0761	2.1522		2724.1	2773.6
						3603.4		
9	2984.8	2946.6	1.0736	1.0803	2.1607		2727.5	2777.3
						3753.0		

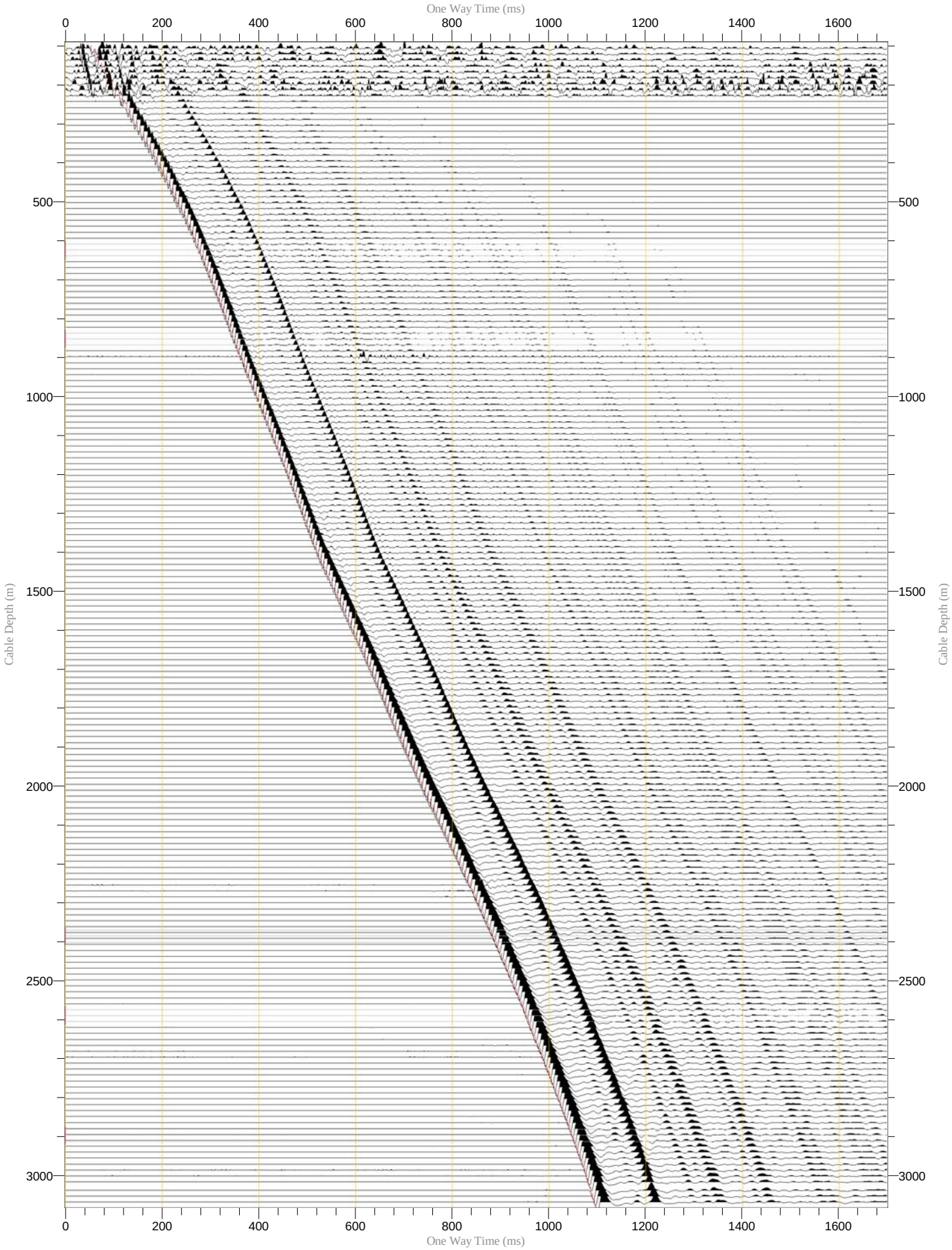
Stack Summary Listing (7/7) from VSI_001_A_geo_wavefield_z.ldf

Stack Number	Measured Depth [m]	True Vertical Depth [m]	Measured Time [s]	One-way Vertical Time [s]	Two-way Vertical Time [s]	Interval Velocity [m/s]	Average Velocity [m/s]	RMS Velocity [m/s]
9	3000.0	2961.9	1.0777	1.0844	2.1688		2731.4	2781.6
						4276.0		
9	3015.3	2977.1	1.0812	1.0880	2.1759		2736.4	2787.8
						4461.0		
8	3036.4	2998.2	1.0860	1.0927	2.1854		2743.9	2797.2
						4006.9		
8	3051.6	3013.5	1.0898	1.0965	2.1930		2748.3	2802.3
						3706.6		
8	3066.9	3028.7	1.0939	1.1006	2.2012		2751.9	2806.2

Field VSP Processing Report

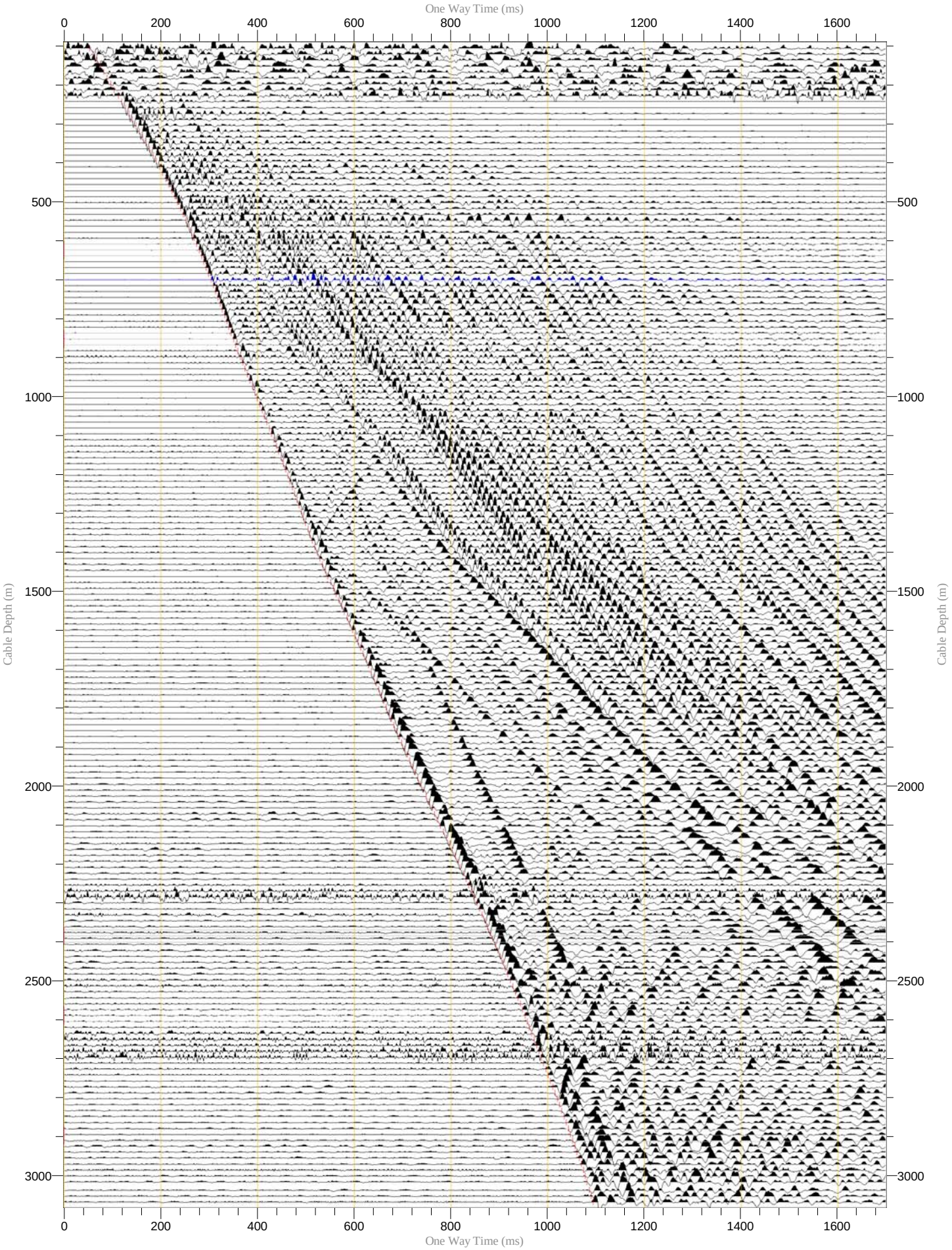
Process Flow	Parameter
	**[LoadLdf]** Input 1: VSI_001_A_raw_stack_VSP_geo_x.ldf Input 2: VSI_001_A_raw_stack_VSP_geo_y.ldf Input 3: VSI_001_A_raw_stack_VSP_geo_z.ldf **[Frequency2]** Apply FZ **[BPFilter]** Phase: Zero Band Width: 5.0 - 110.0Hz **[GenVelfil]** 11 Traces **[GenVelfil2]** Median Filter 3 Traces **[WaveDecon]** Waveshape Deconvolution Design Filter trace Input start at TRANSIT_TIME wavelet: 8.0 - 80.0 Hz zero-phase Polarity: Positive **[Frequency1]** Apply FK **[BPFilter2]** Phase: Zero Band Width: 5.0 - 110.0Hz **[BPFilter1]** Phase: Zero Band Width: 3.0 - 85.0Hz **[TVG(TAR)]** Travel time exponent = 1.50 **[GenVelfil1]** 7 Traces **[Corridor]** Window Start: TRANSIT_TIME - 0.000 (s) Window End: TRANSIT_TIME - -0.100 (s) (Deepest 7 traces remain) Mean Stack BPF 3.0 - 95.0Hz **[Frequency]** Apply FK

Raw Stack (Z)	Normalization Trace by Trace (200%) Polarity Normal One Way Time (ms) Scaling 9.7 cm/sec, 1/12730	



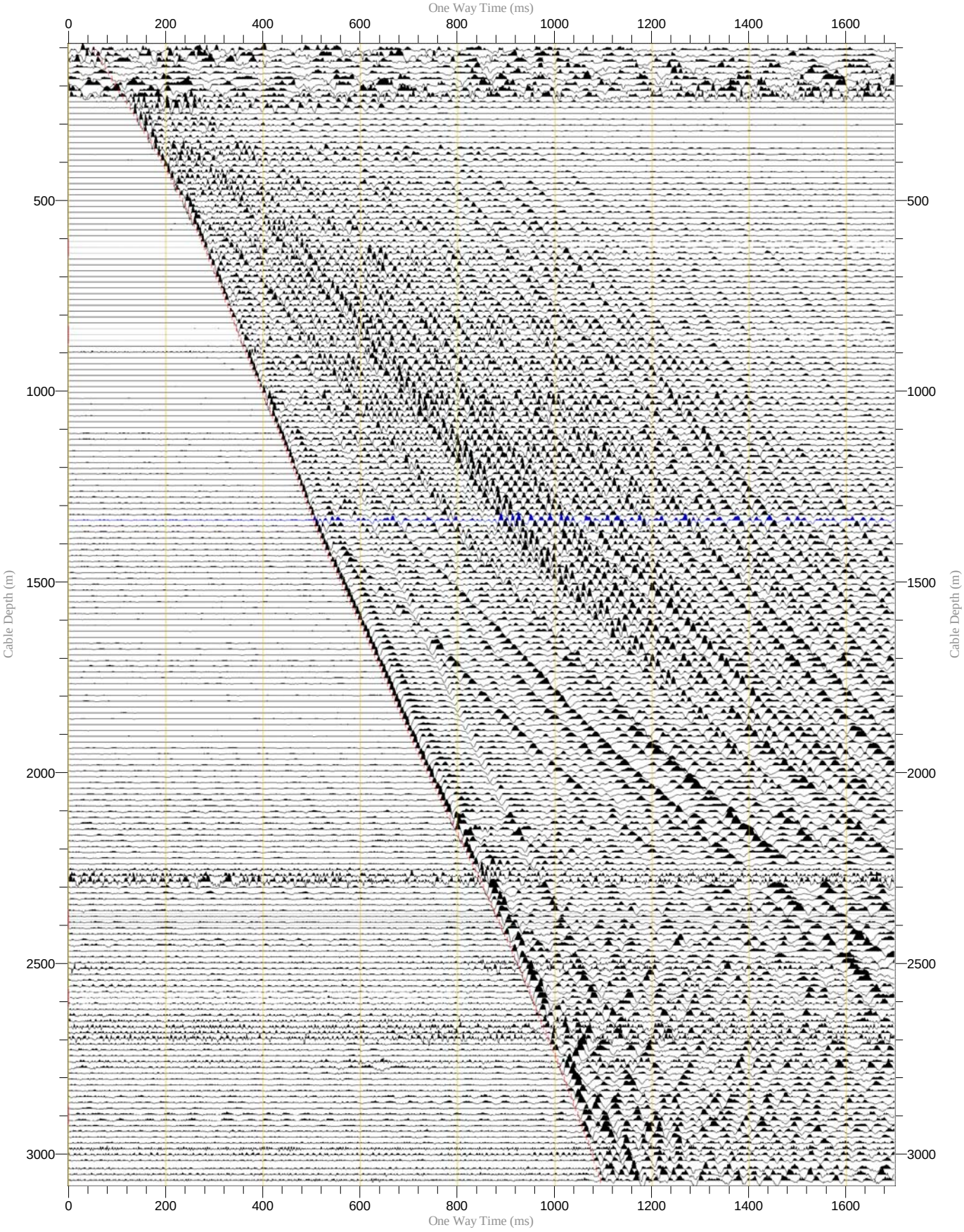
Schlumberger

Raw Stack (X)	Normalization Trace by Trace (150%) Polarity Normal One Way Time (ms) Scaling 9.7 cm/sec, 1/12730	

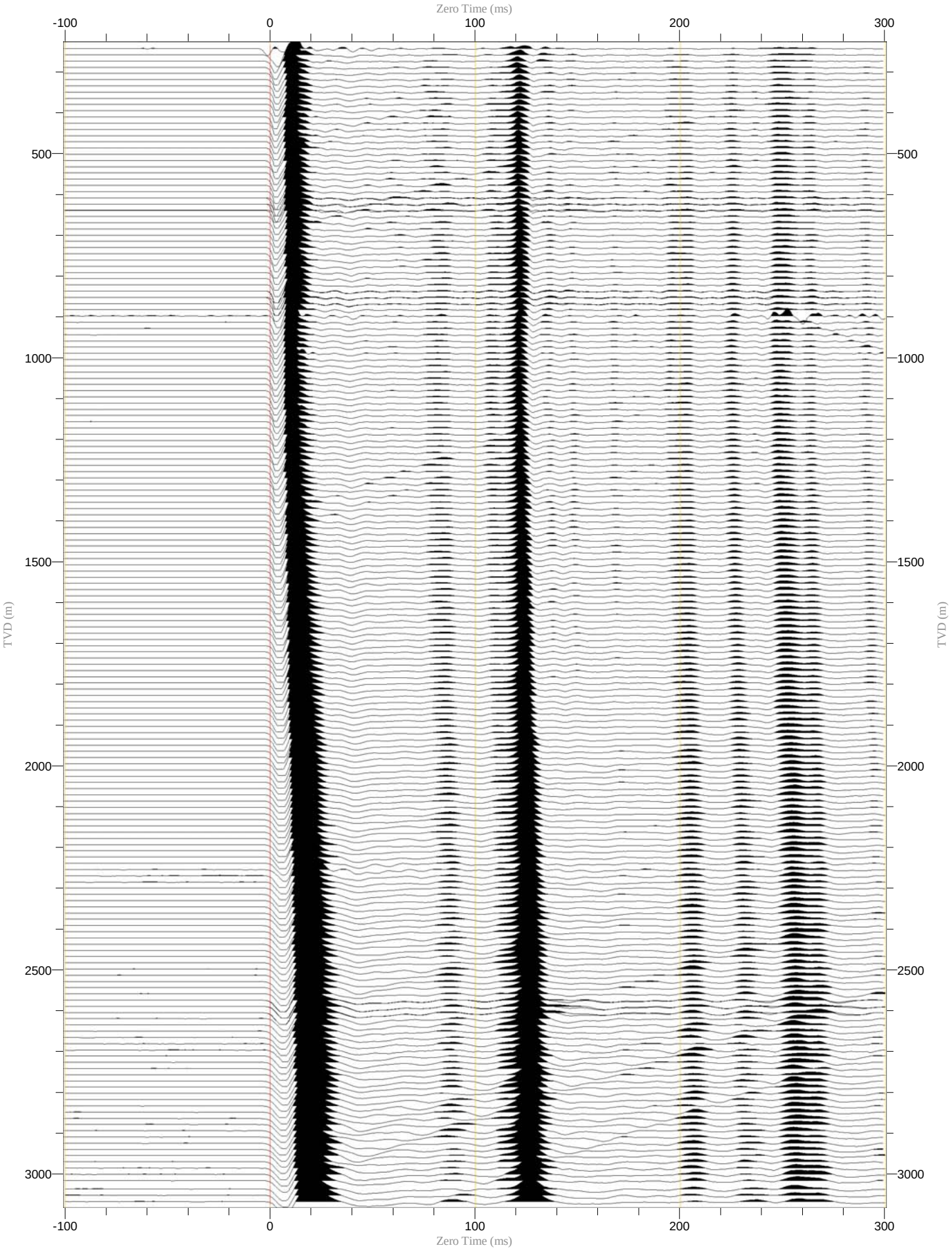


Schlumberger

Raw Stack (Y)	Normalization Trace by Trace (150%) Polarity Normal One Way Time (ms) Scaling 9.1 cm/sec, 1/13910	

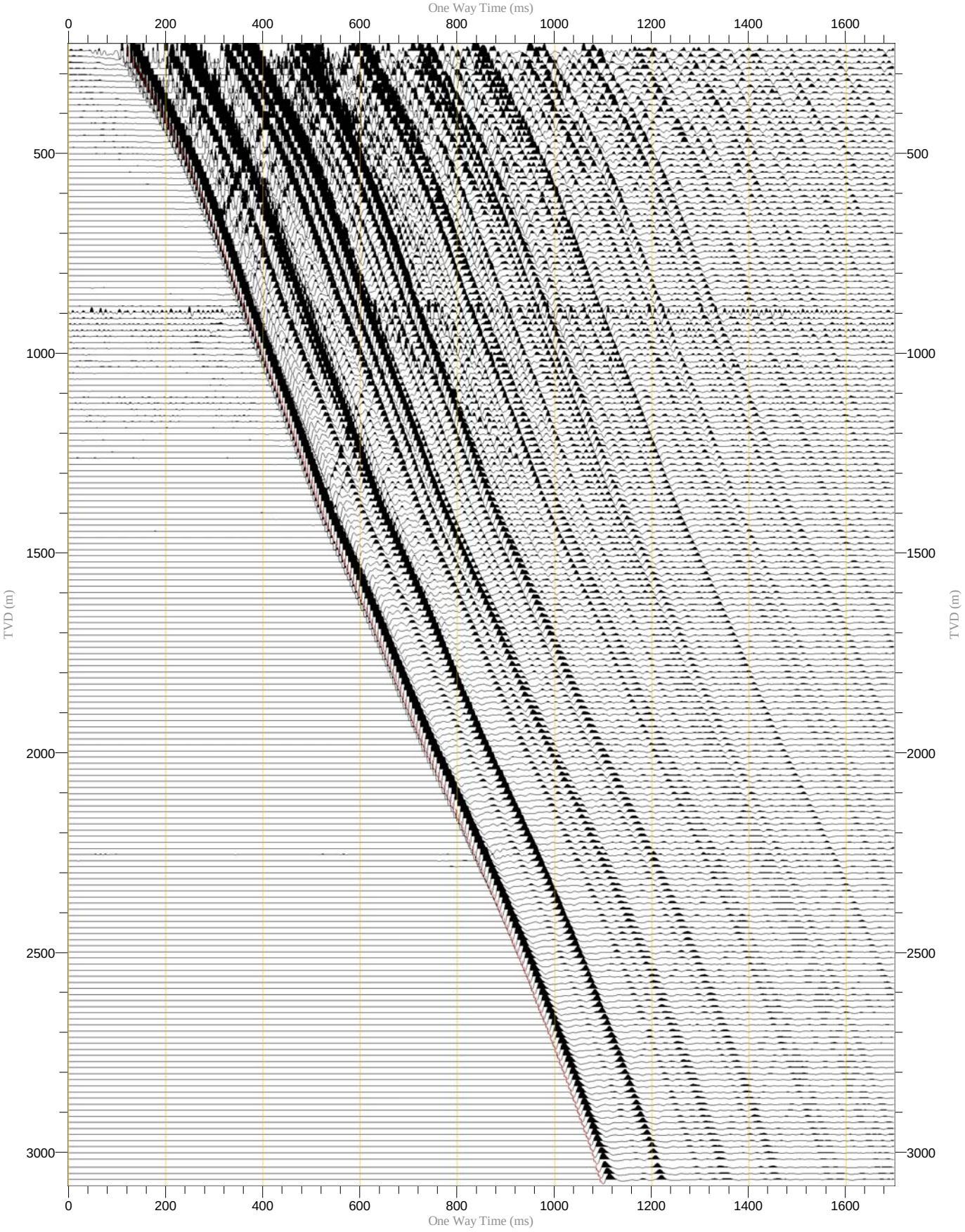


Raw Stack (Z) (Magnified)	Normalization Trace by Trace (250%) Polarity Normal Zero Time (ms) Scaling 41.3 cm/sec, 1/12150	

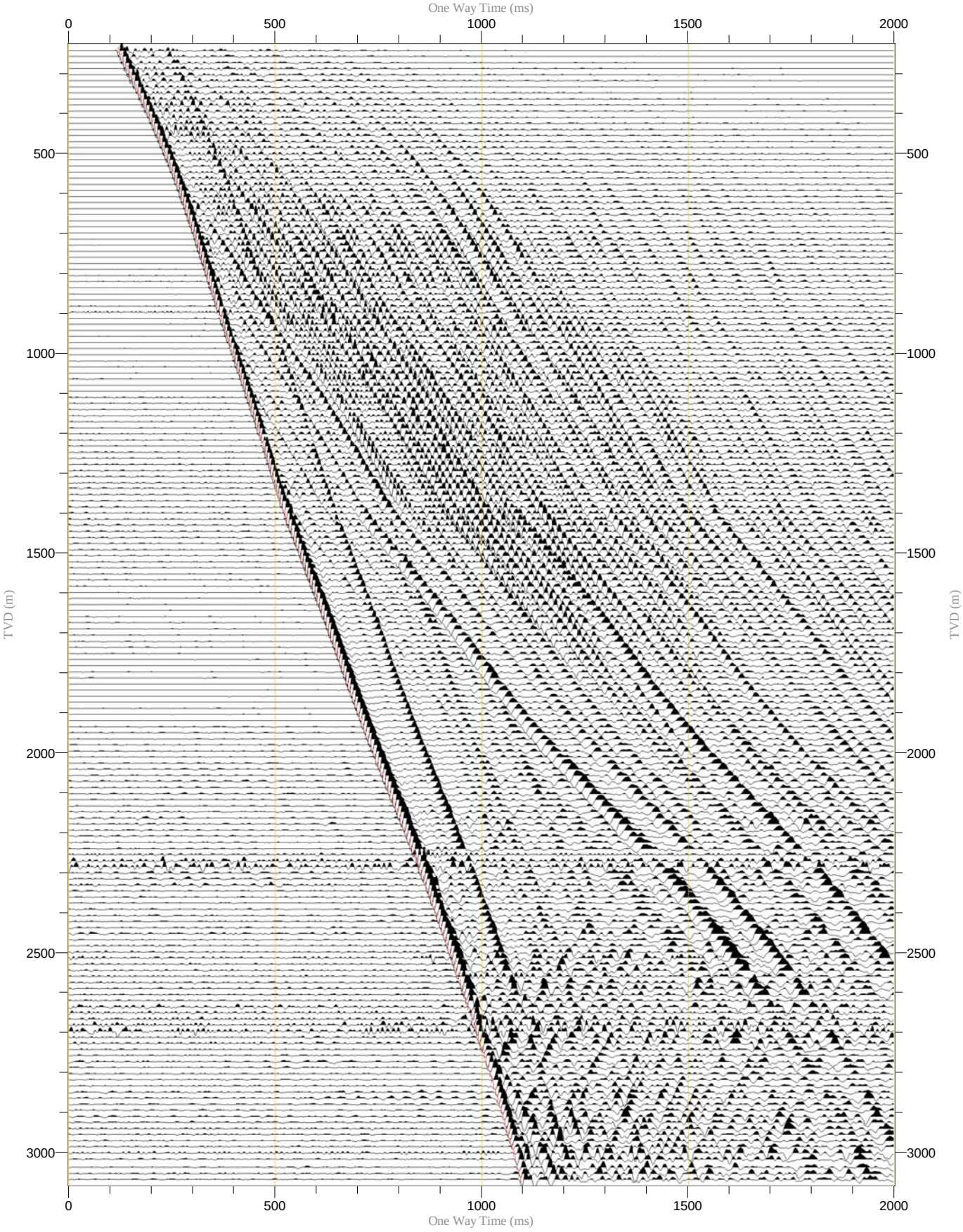


Schlumberger

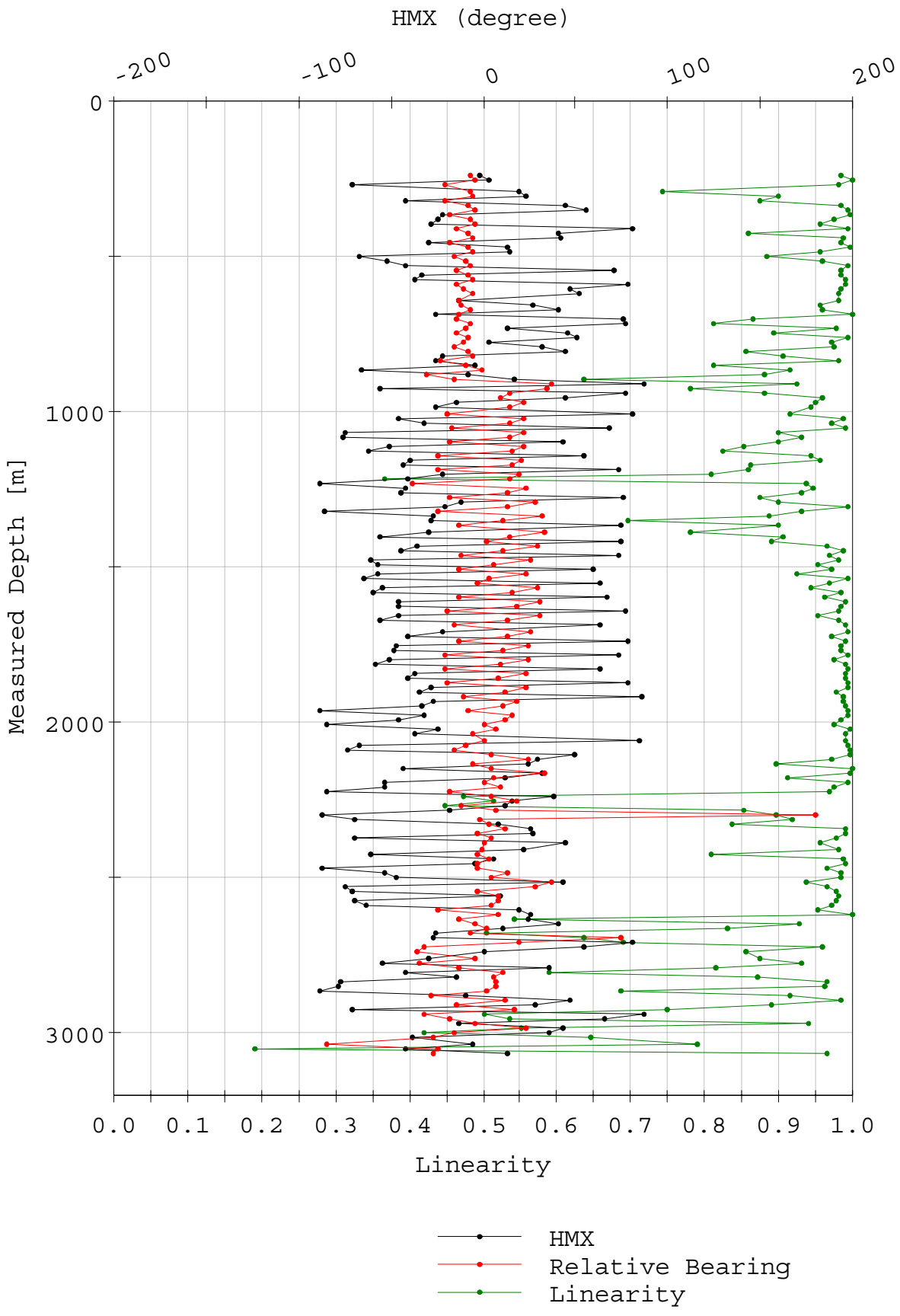
Raw Stack (TRY) BPF 5.0 - 110.0Hz	Normalization Largest Trace in Gather (141x) Polarity Normal One Way Time (ms) Scaling 9.1 cm/sec, 1/13280



Raw Stack (HMX) BPF 5.0 - 110.0Hz	Normalization Trace by Trace (150%) Polarity Normal One Way Time (ms) Scaling 7.8 cm/sec, 1/13280	

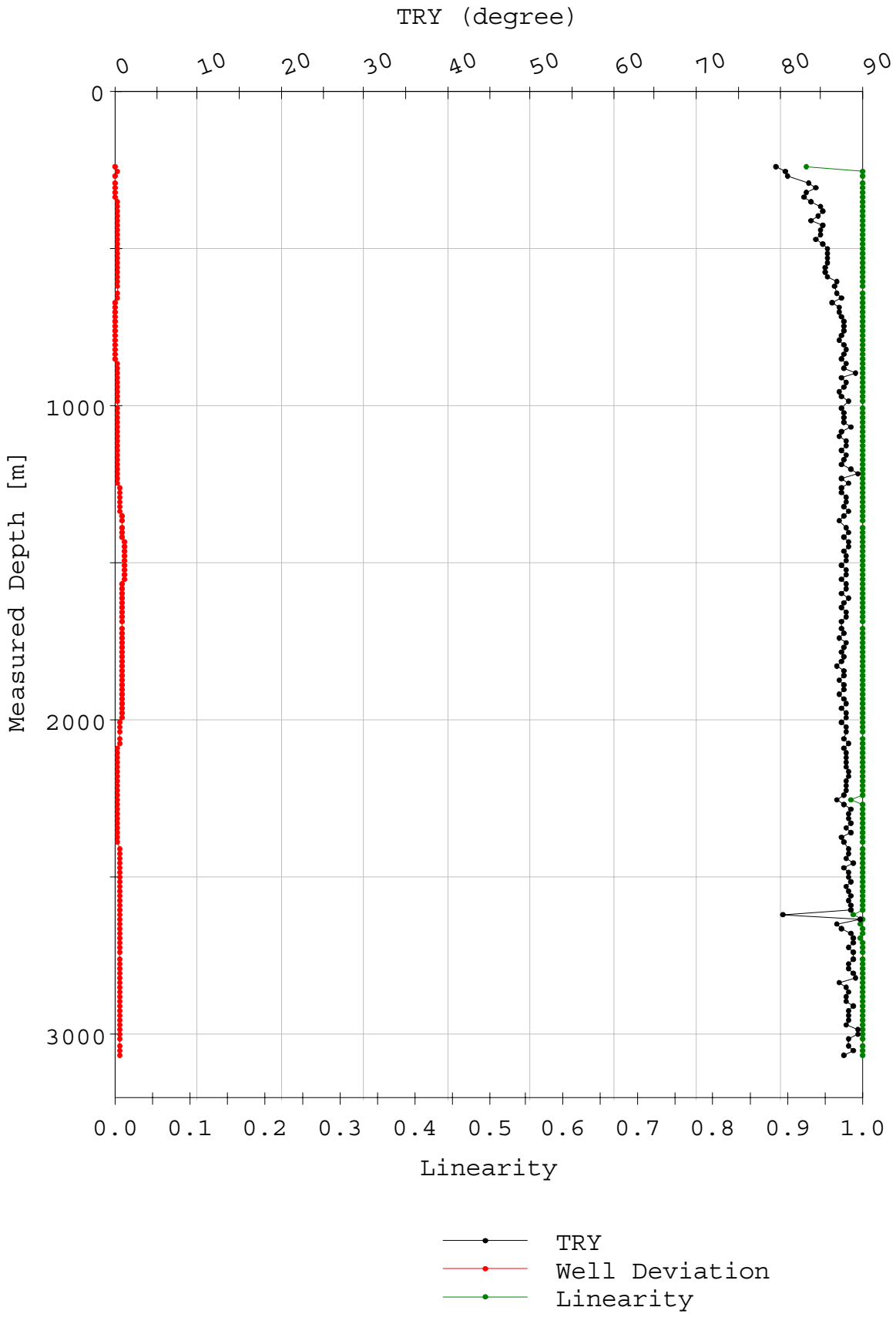


HMX Angle

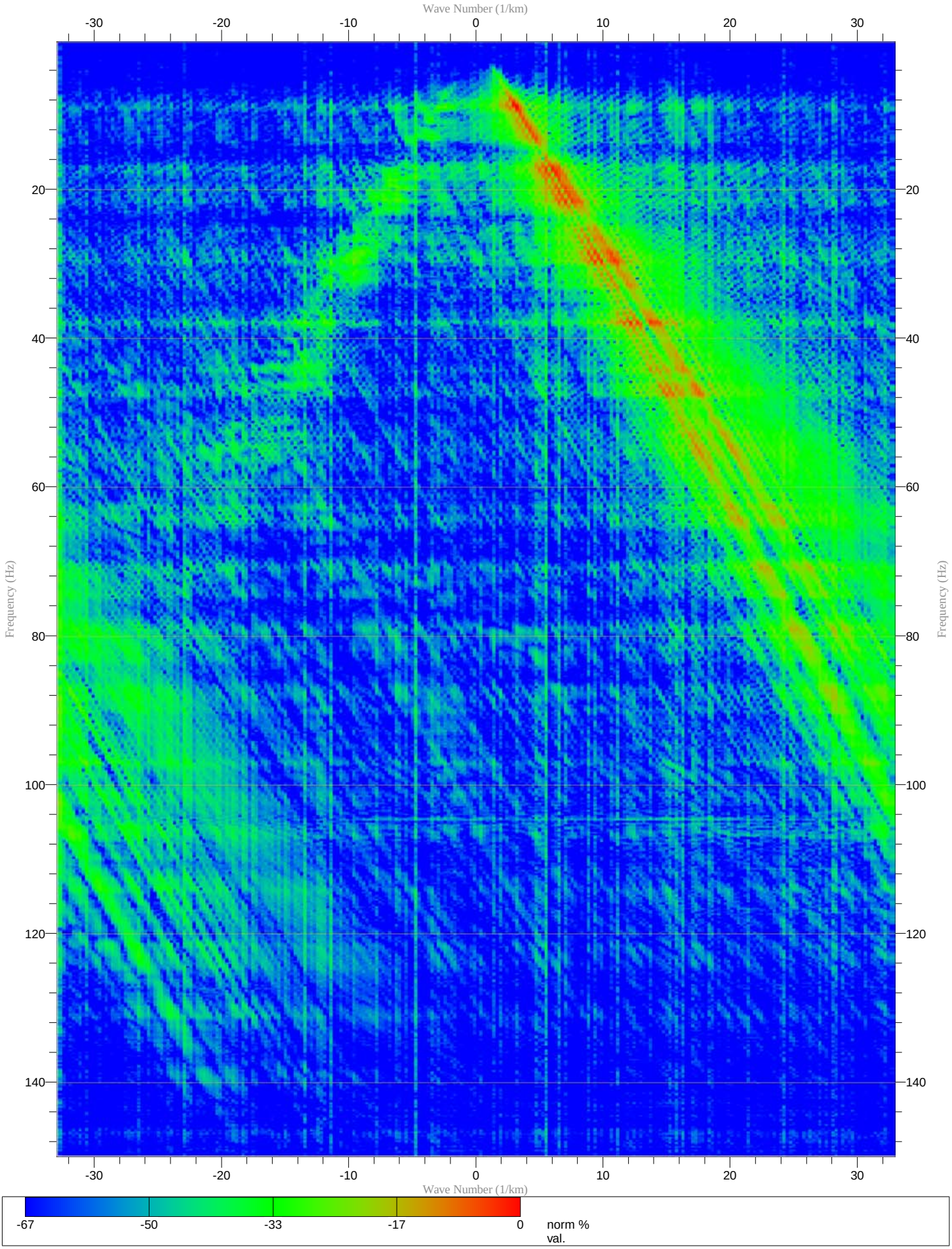


Schlumberger

TRY Angle

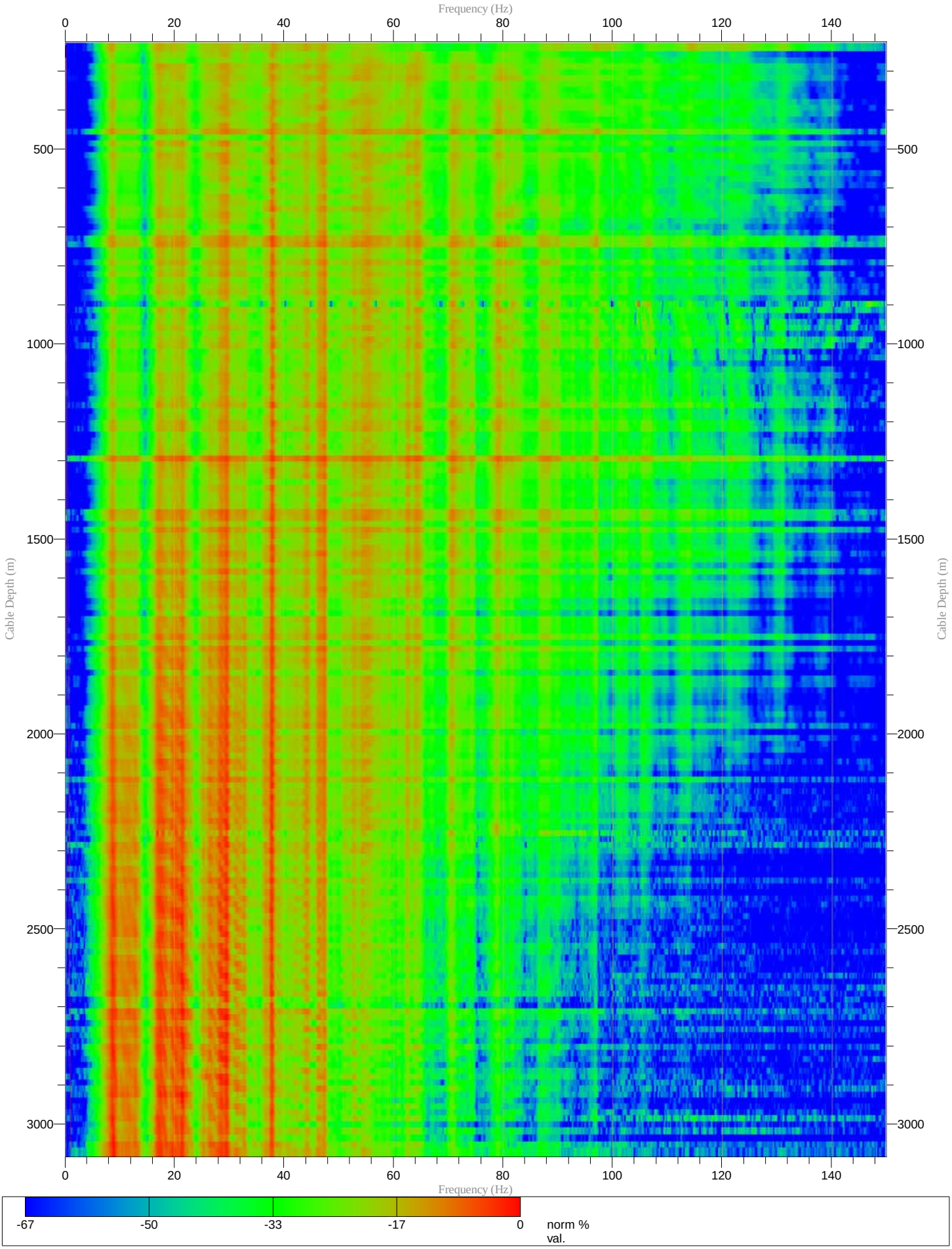

TRY (degree)
0
10
20
30
40
50
60
70
80
90
Measured Depth [m]
1000
2000
3000
0.0
0.1
0.2
0.3
0.4
0.5
0.6
0.7
0.8
0.9
1.0
Linearity
TRY
Well Deviation
Linearity

VSP Raw Stack (Z) FK Apply FK	Normalization Trace by Trace (100%) Polarity Normal Frequency (Hz) Scaling 0.16 cm/Hz, 3.89(1/km)/cm



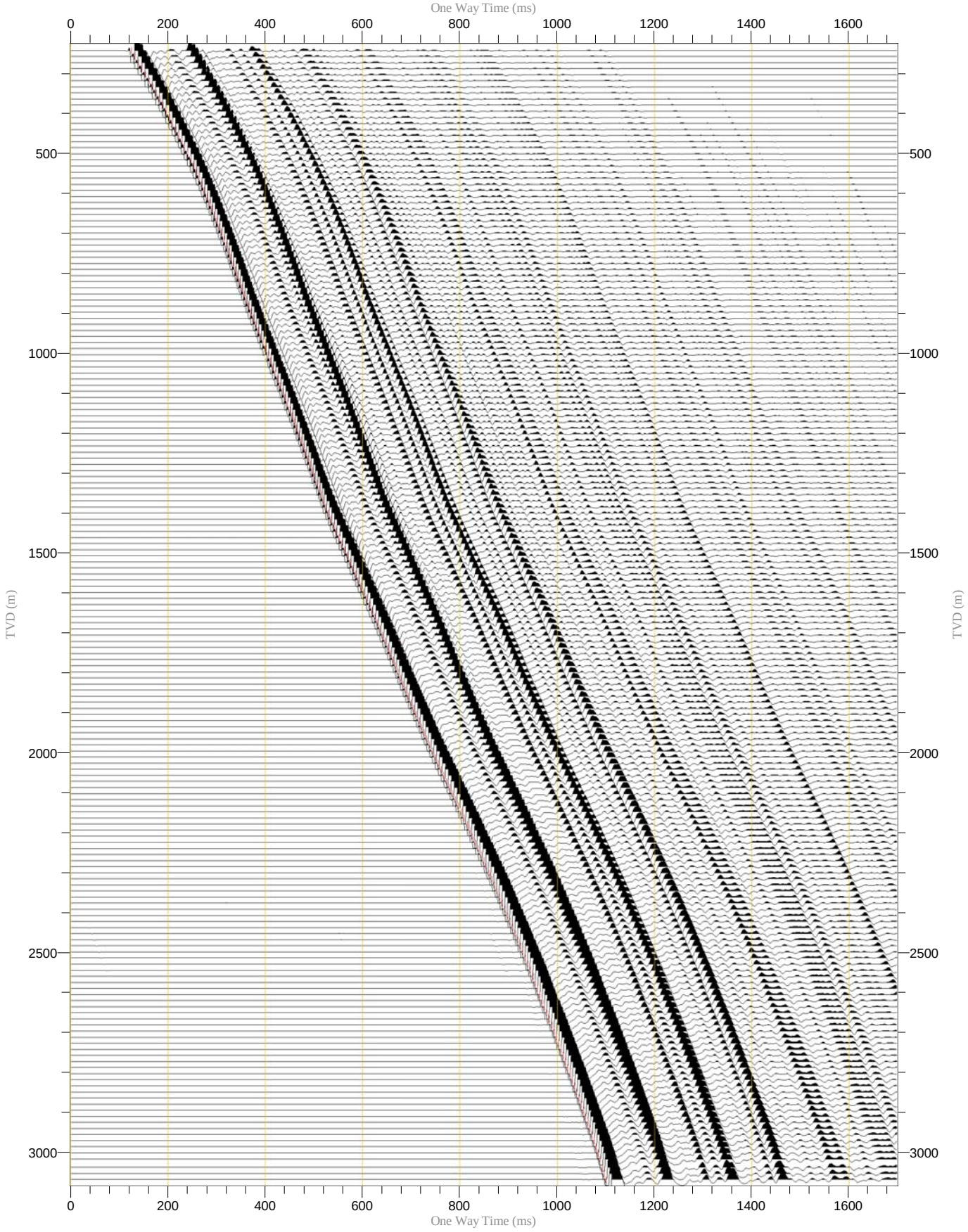
Schlumberger

VSP Raw Stack (Z) FZ Apply FZ	Normalization Trace by Trace (100%) Polarity Normal Frequency (Hz) Scaling 0.1 cm/Hz, 1/12190

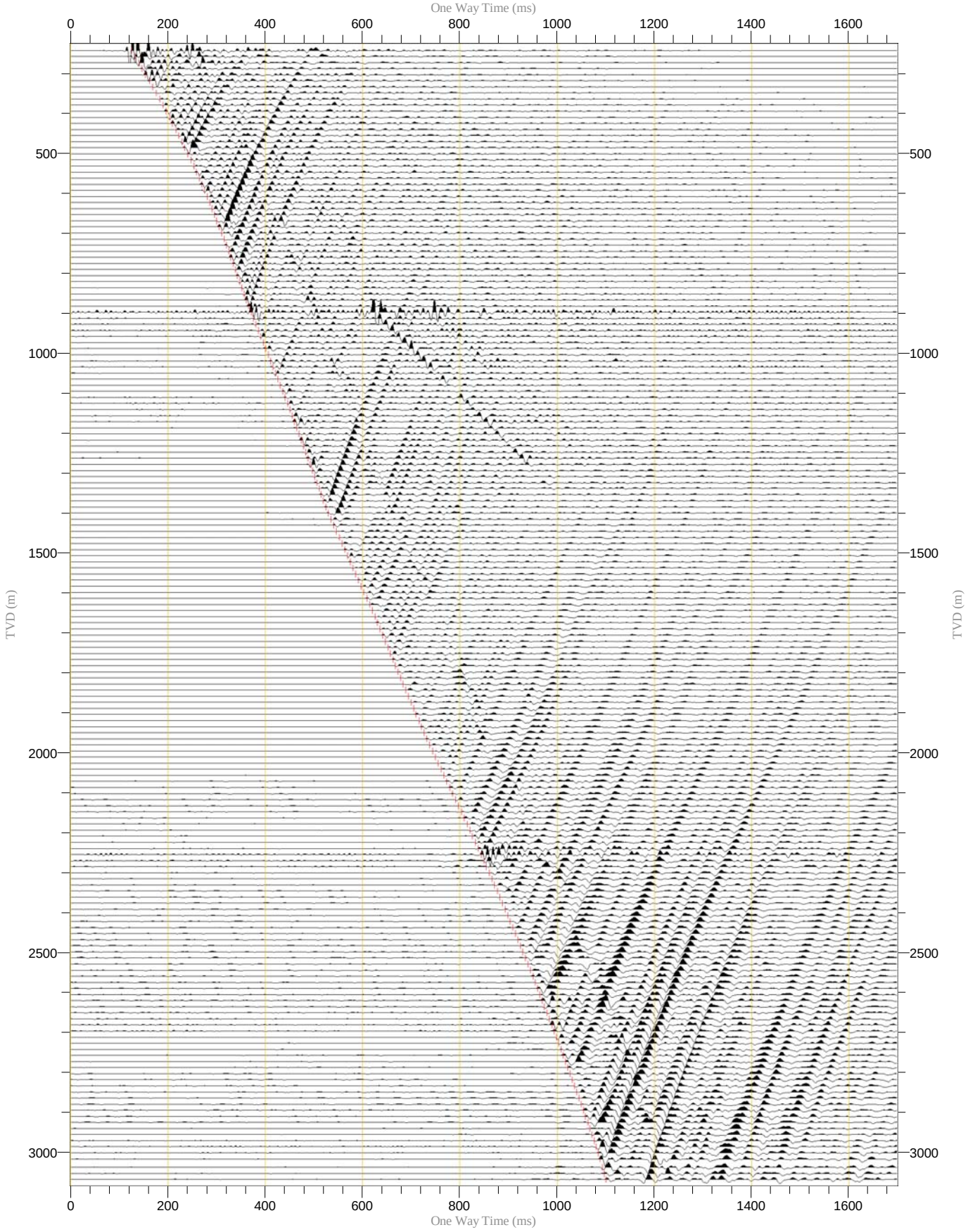


Schlumberger

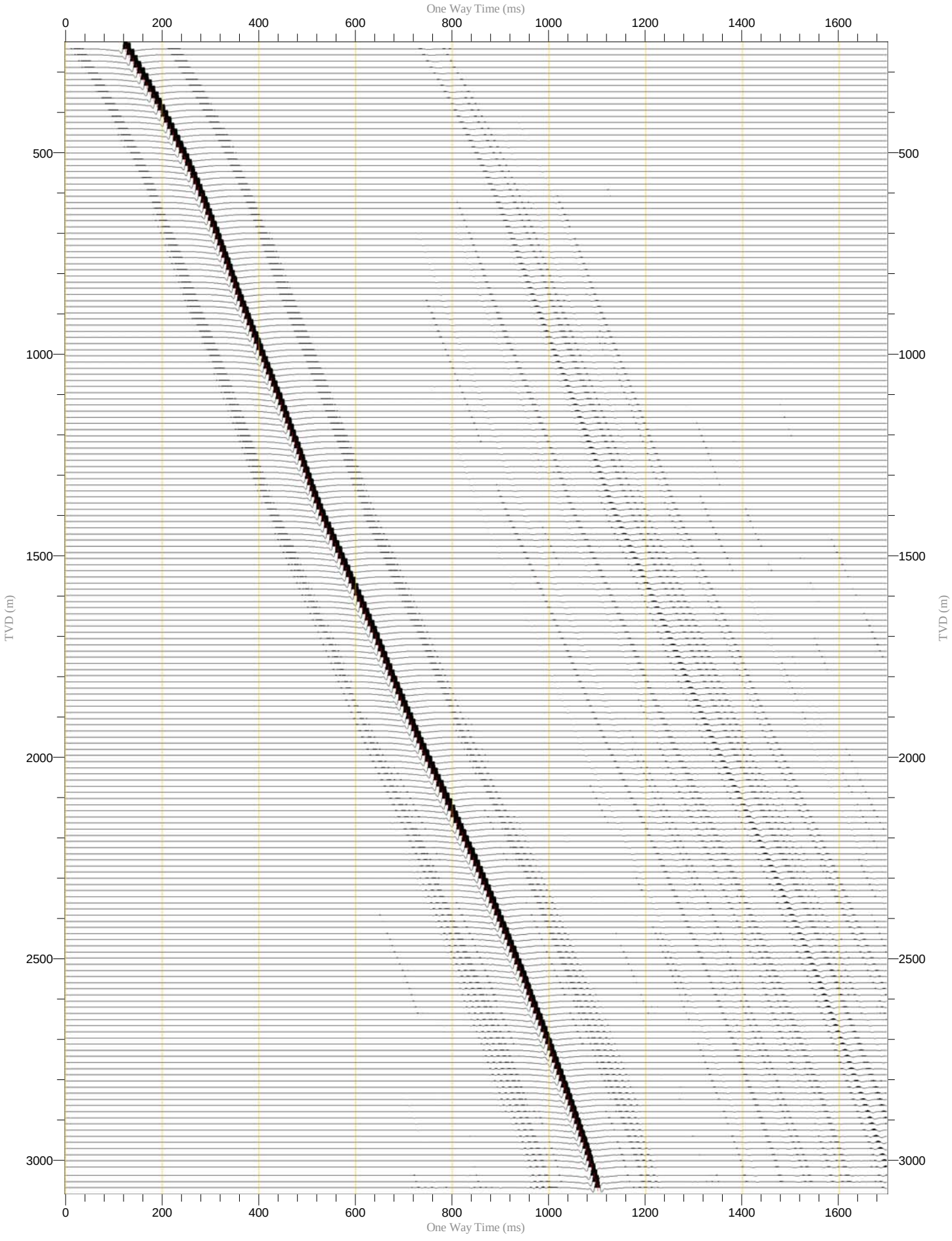
VSP Downgoing BPF 5.0 - 110.0Hz 11 Traces	Normalization Largest Trace in Gather (700%) Polarity Normal One Way Time (ms) Scaling 9.1 cm/sec, 1/13280	



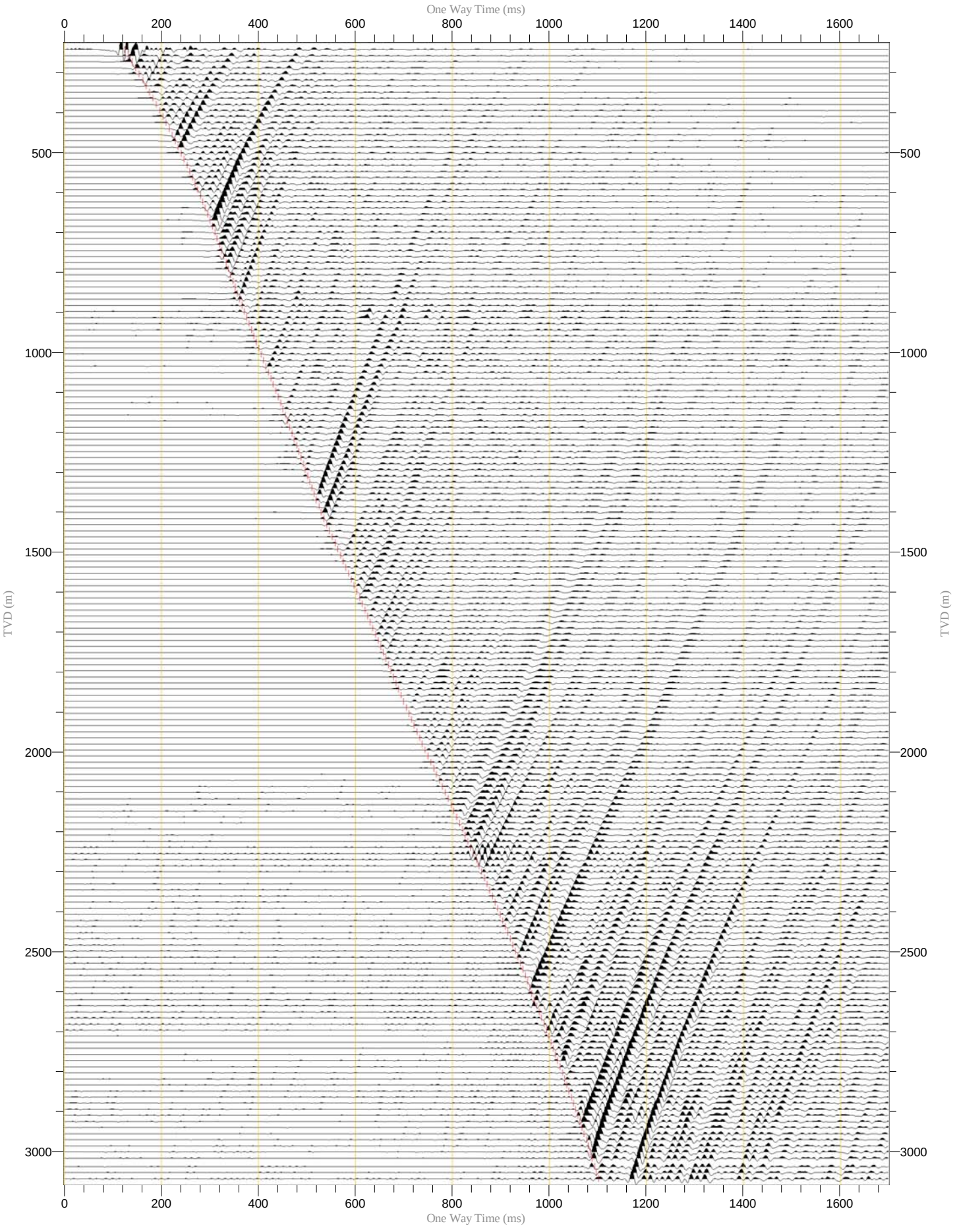
VSP Upgoing BPF 5.0 - 110.0Hz 11 Traces	Normalization Largest Trace in Gather (700%) Polarity Normal One Way Time (ms) Scaling 9.1 cm/sec, 1/13280



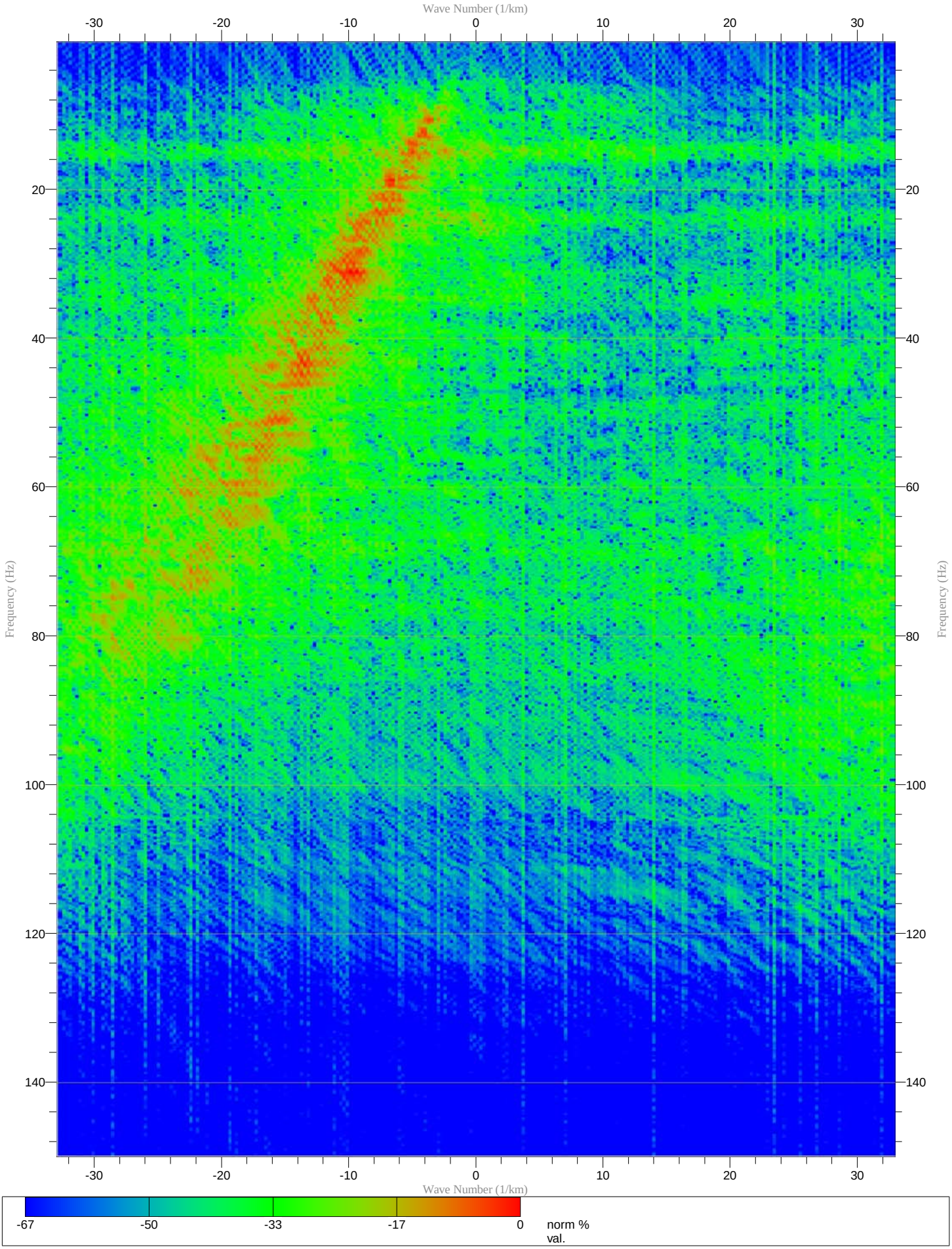
VSP Waveshape decon downgoing BPF 5.0 - 110.0Hz 11 Traces Waveshape Decon.(wavelet: 8.0 - 80.0 Hz zero-phase)	Normalization Largest Trace in Gather (300%) Polarity Normal One Way Time (ms) Scaling 9.7 cm/sec, 1/12300



VSP Waveshape decon upgoing BPF 5.0 - 110.0Hz 11 Traces Median Filter 3 Traces Waveshape Decon.(wavelet: 8.0 - 80.0 Hz zero-phase)	Normalization Largest Trace in Gather (300%) Polarity Normal One Way Time (ms) Scaling 9.7 cm/sec, 1/12450

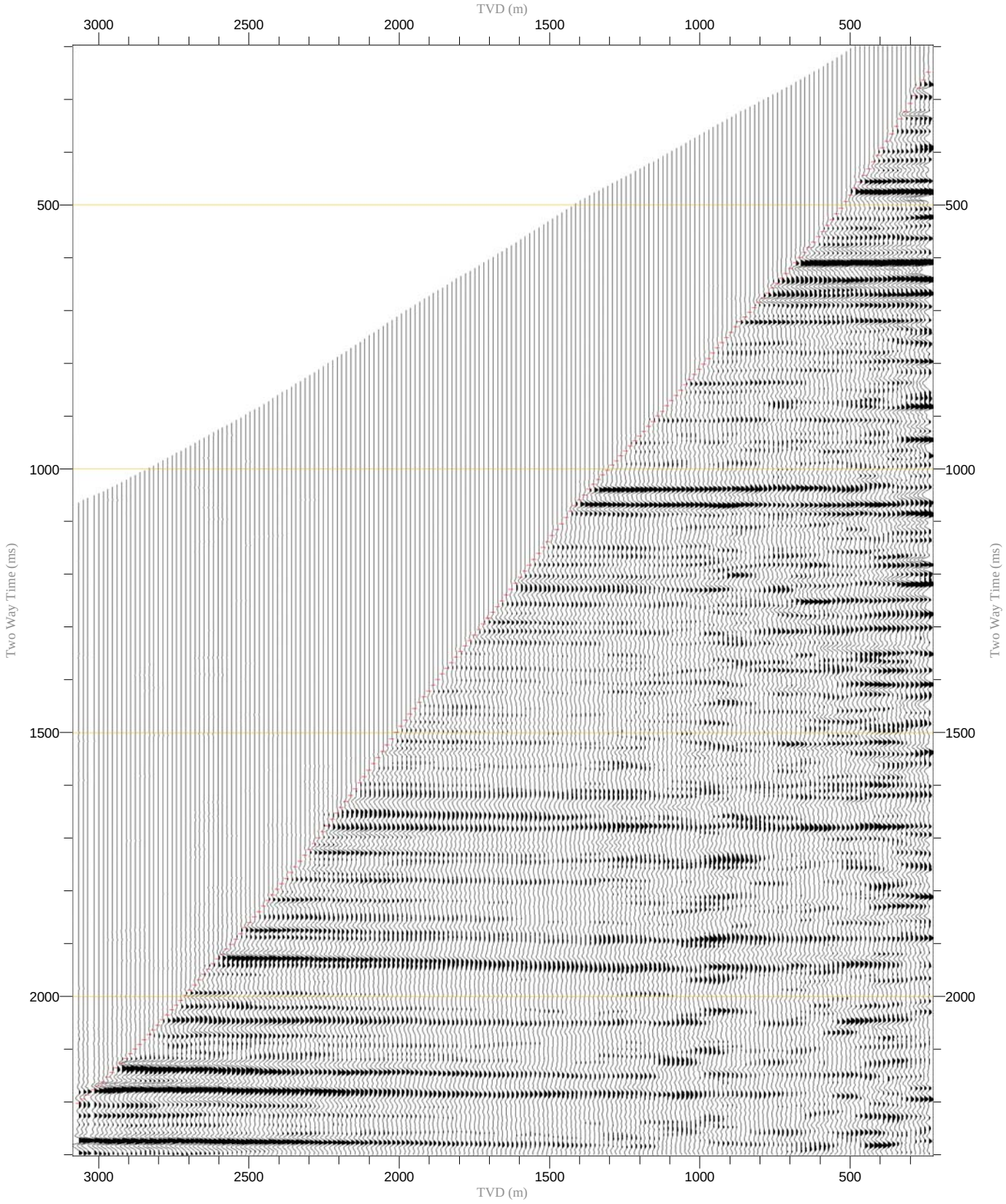


VSP Waveshape decon upgoing FK Apply FK	Normalization Trace by Trace (100%) Polarity Normal Frequency (Hz) Scaling 0.16 cm/Hz, 3.89(1/km)/cm

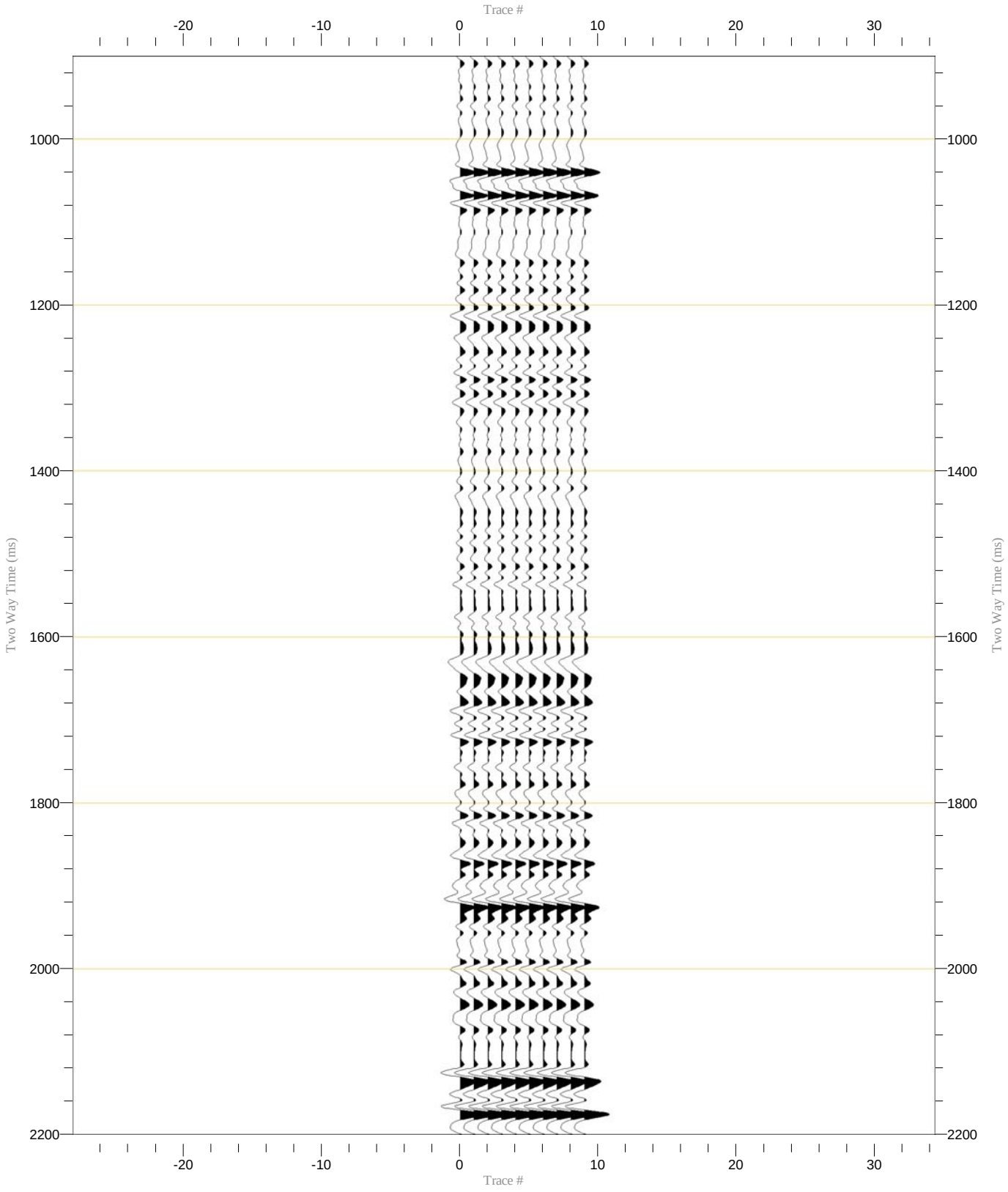


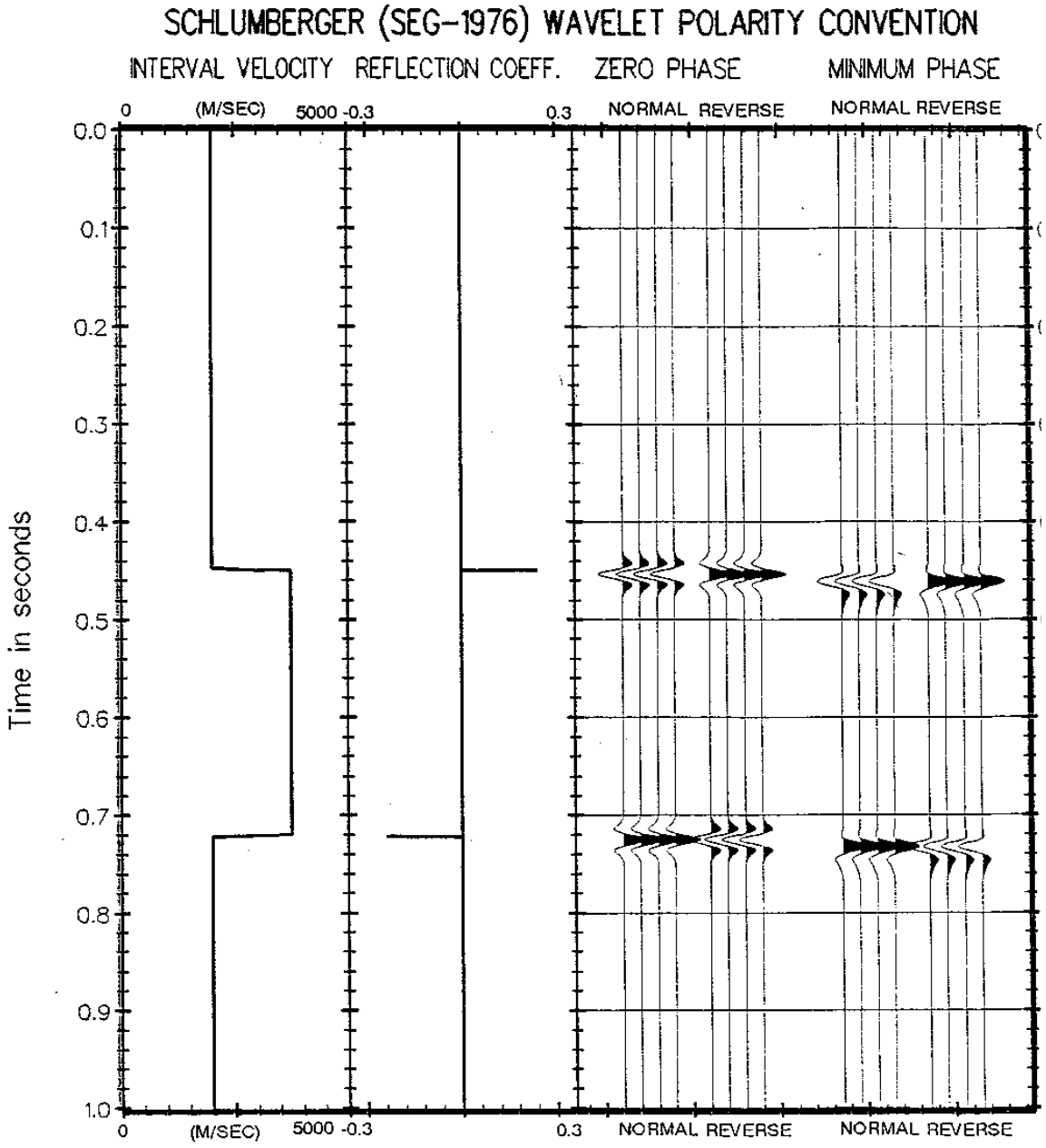
Schlumberger

VSP Corridor Stack (Input) BPF 5.0 - 110.0Hz 11 Traces Median Filter 3 Traces Waveshape Decon.(wavelet: 8.0 - 80.0 Hz zero-phase) BPF 3.0 - 85.0Hz Travel time exponent = 1.50 7 Traces	Normalization Largest Trace in Gather (300%) Polarity Normal Two Way Time (ms) Scaling 9.6 cm/sec, 1/18360	



VSP Corridor Stack (output) BPF 5.0 - 110.0Hz 11 Traces Median Filter 3 Traces Waveshape Decon.(wavelet: 8.0 - 80.0 Hz zero-phase) BPF 3.0 - 85.0Hz Travel time exponent = 1.50 7 Traces Corridor Stack (Mean): BPF 3.0 - 95.0Hz	Normalization Largest Trace in Gather (200%) Polarity Normal Two Way Time (ms) Scaling 15.00 cm/sec, 4.00/cm	

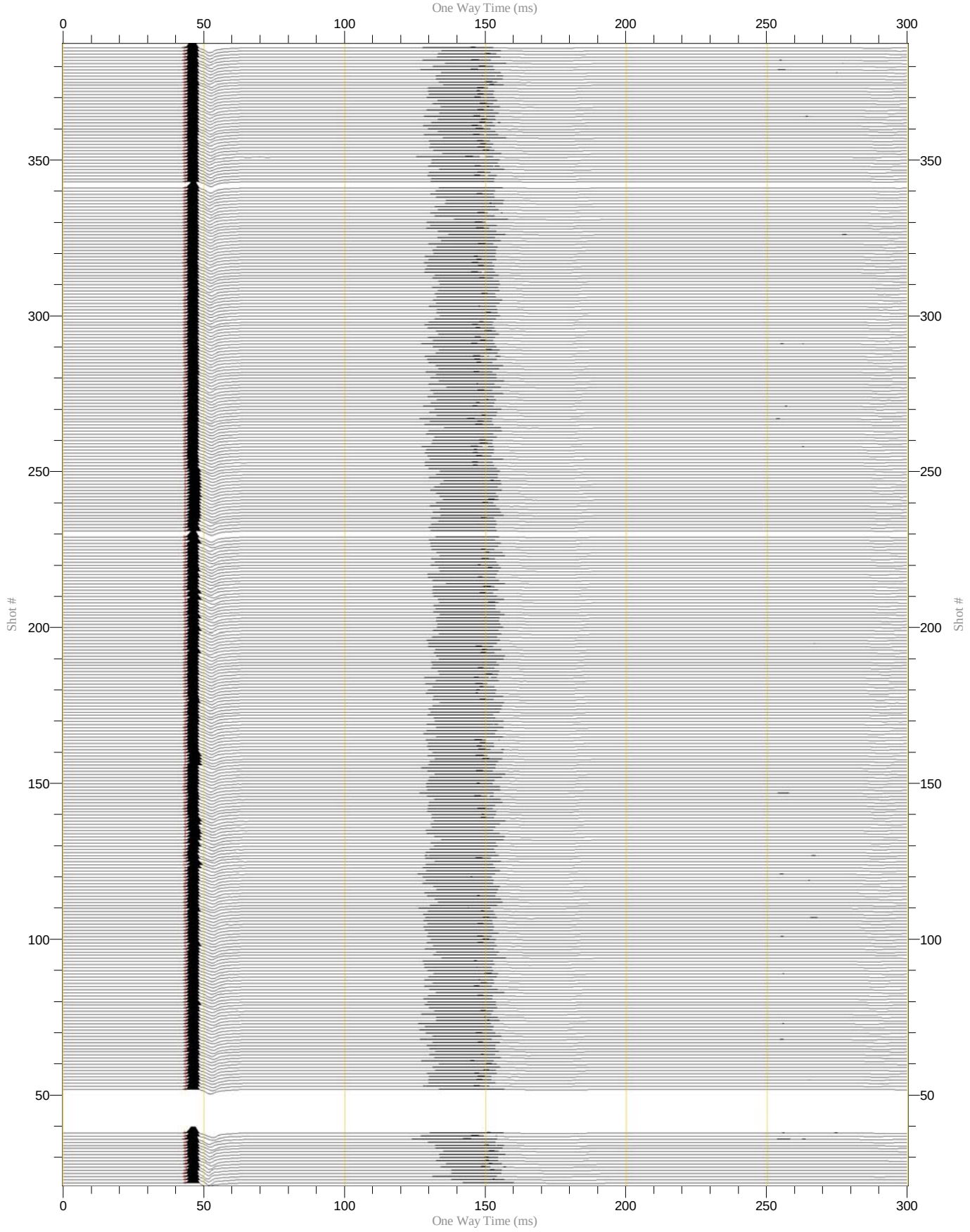




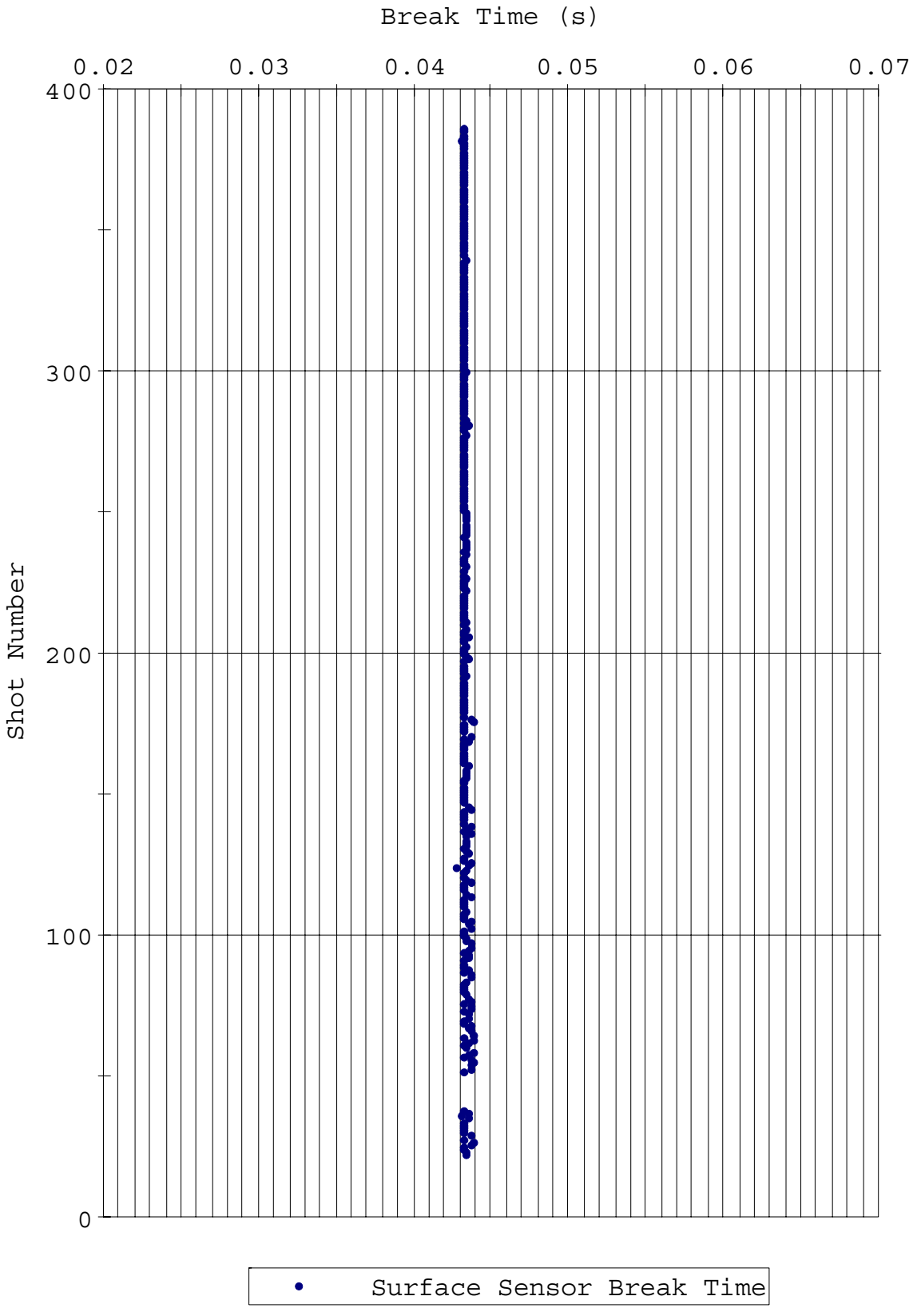
Schlumberger Wavelet Polarity Convention

Source Signature QC Report

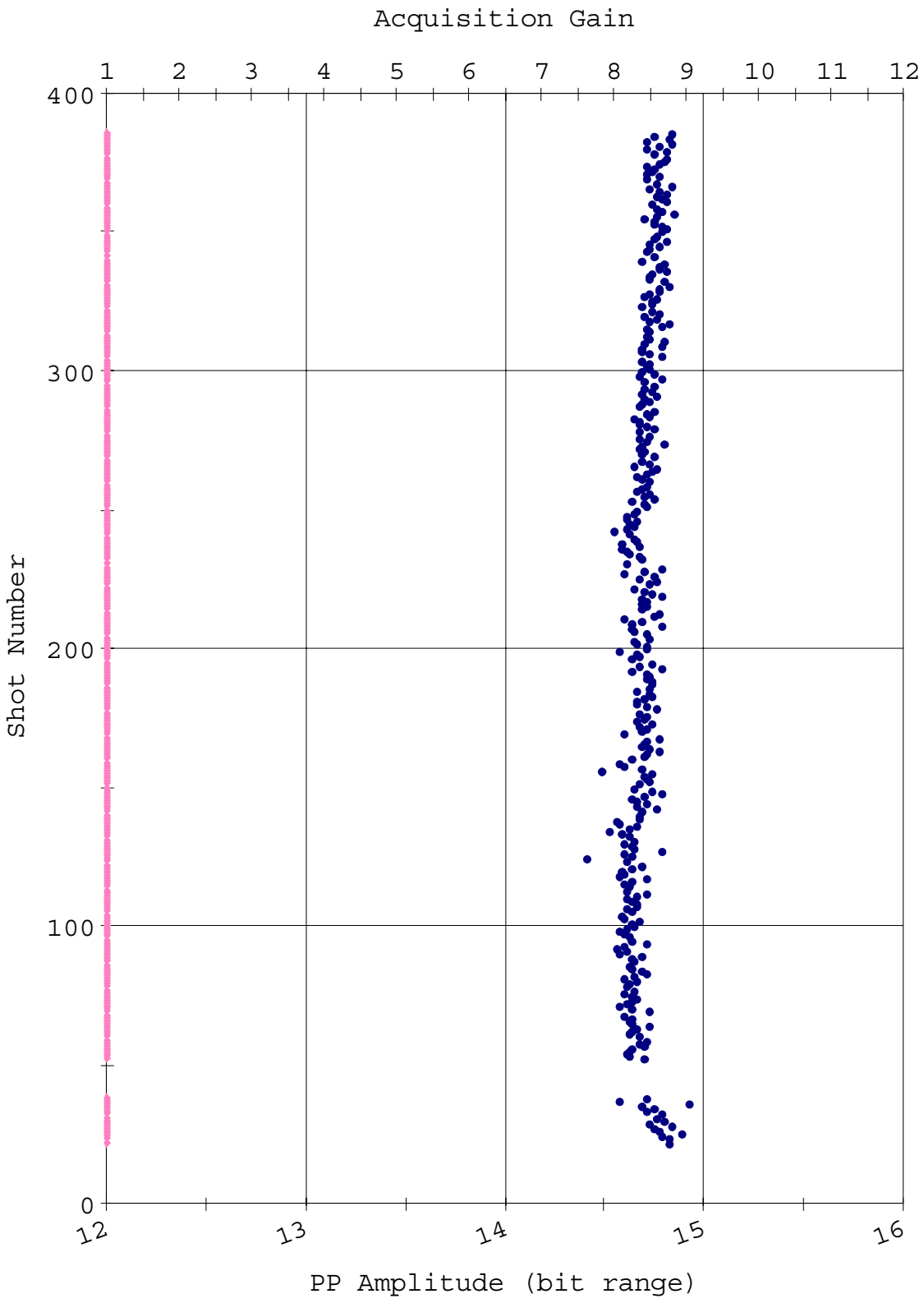
Source Sensor Signature	Normalization Largest Trace in Gather (300%) Polarity Normal One Way Time (ms) Scaling 52.97 cm/sec, 17.03/cm	



Surface Sensor QC Plot Page

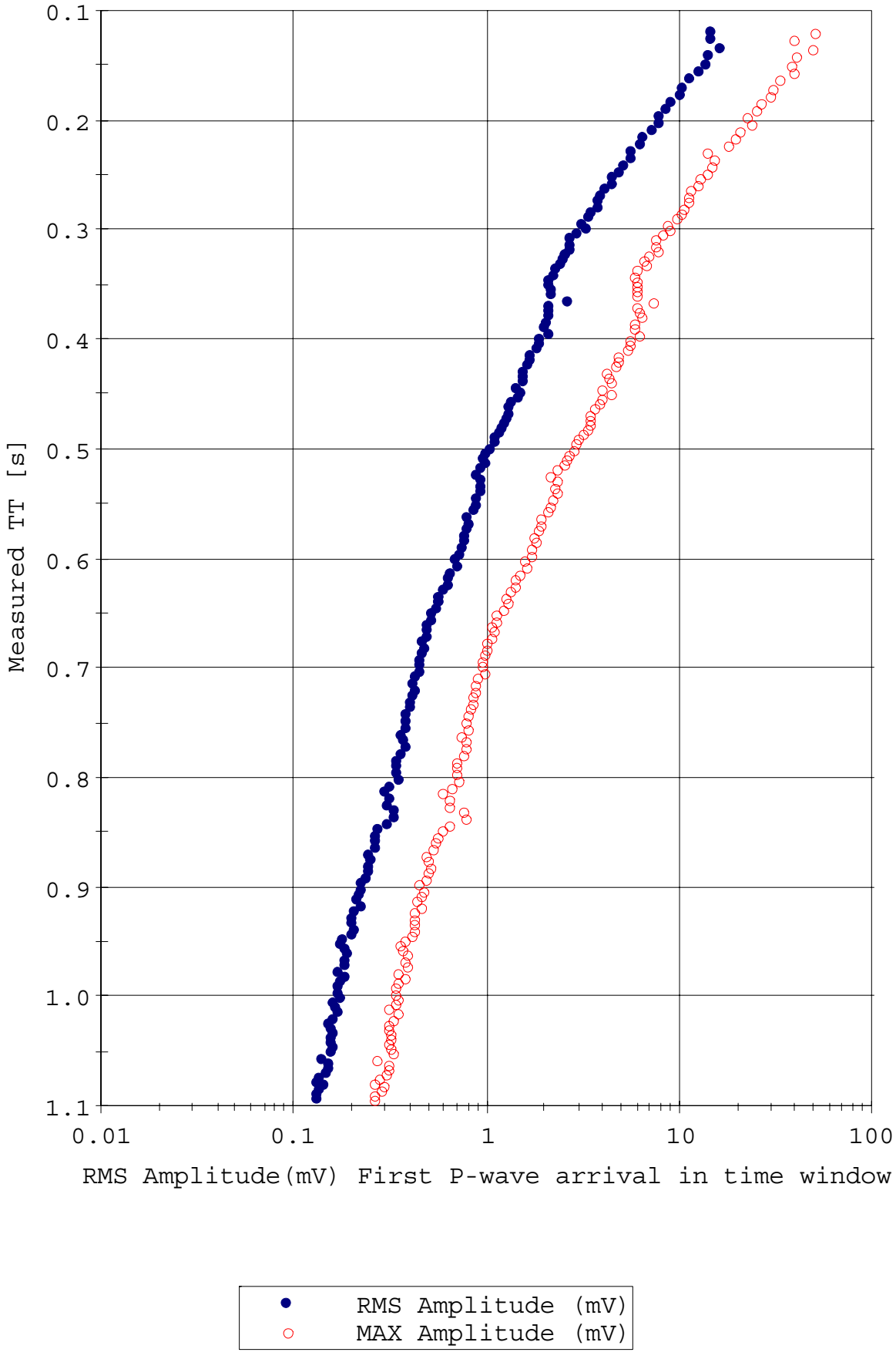


Amplitude QC Plot (Surface)

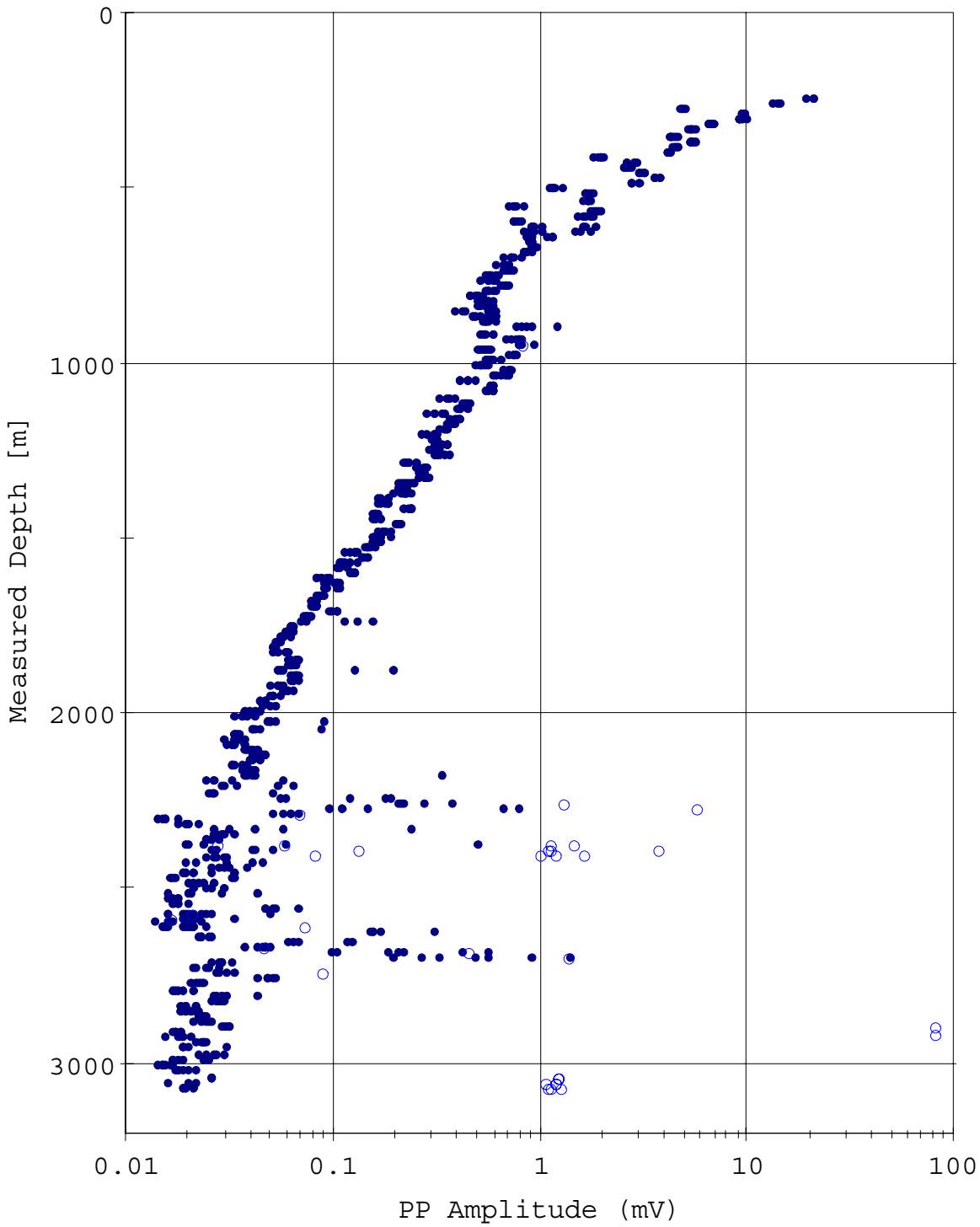


Amplitude QC Report

RMS amplitude Plot

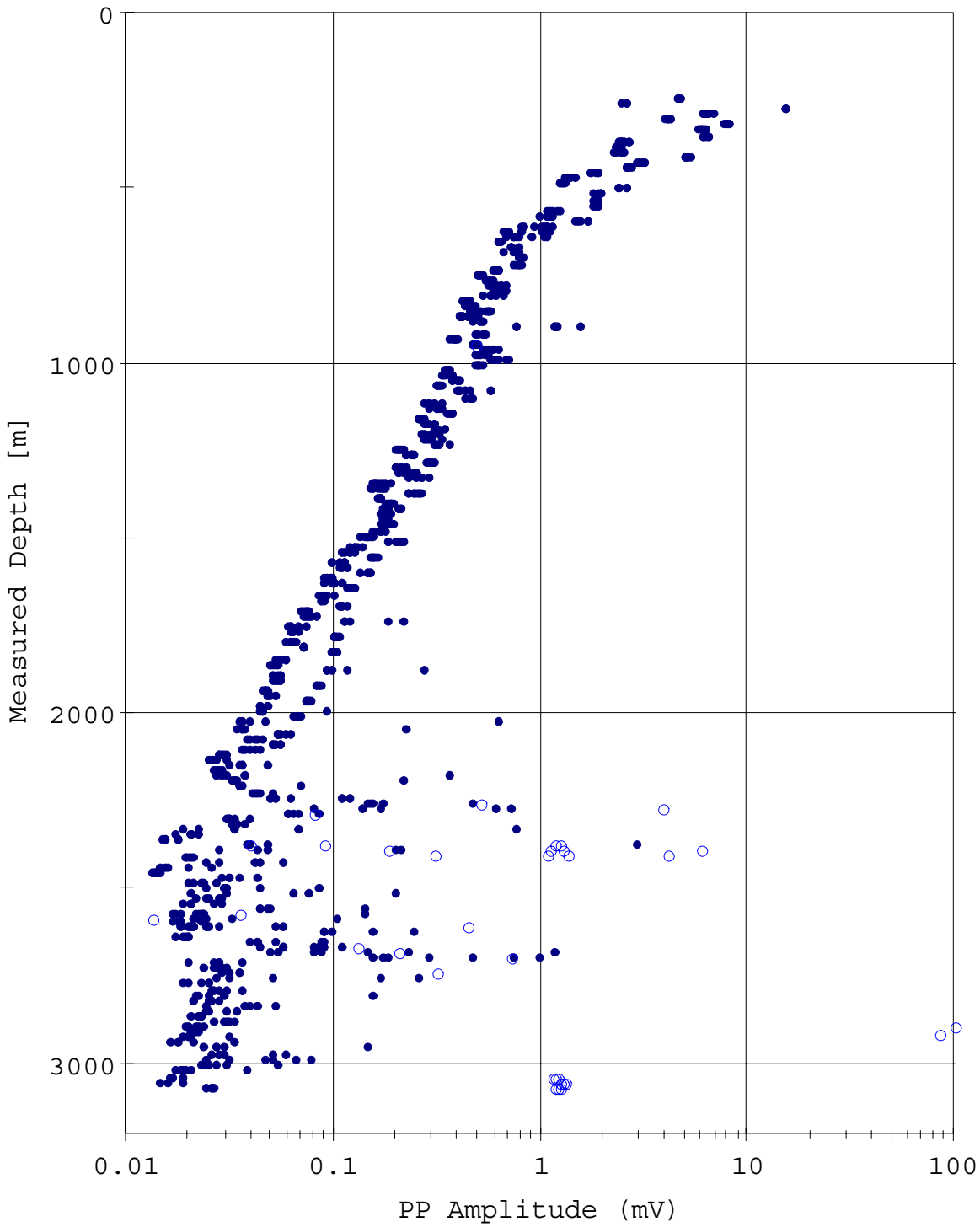


Peak To Peak Plot (X)

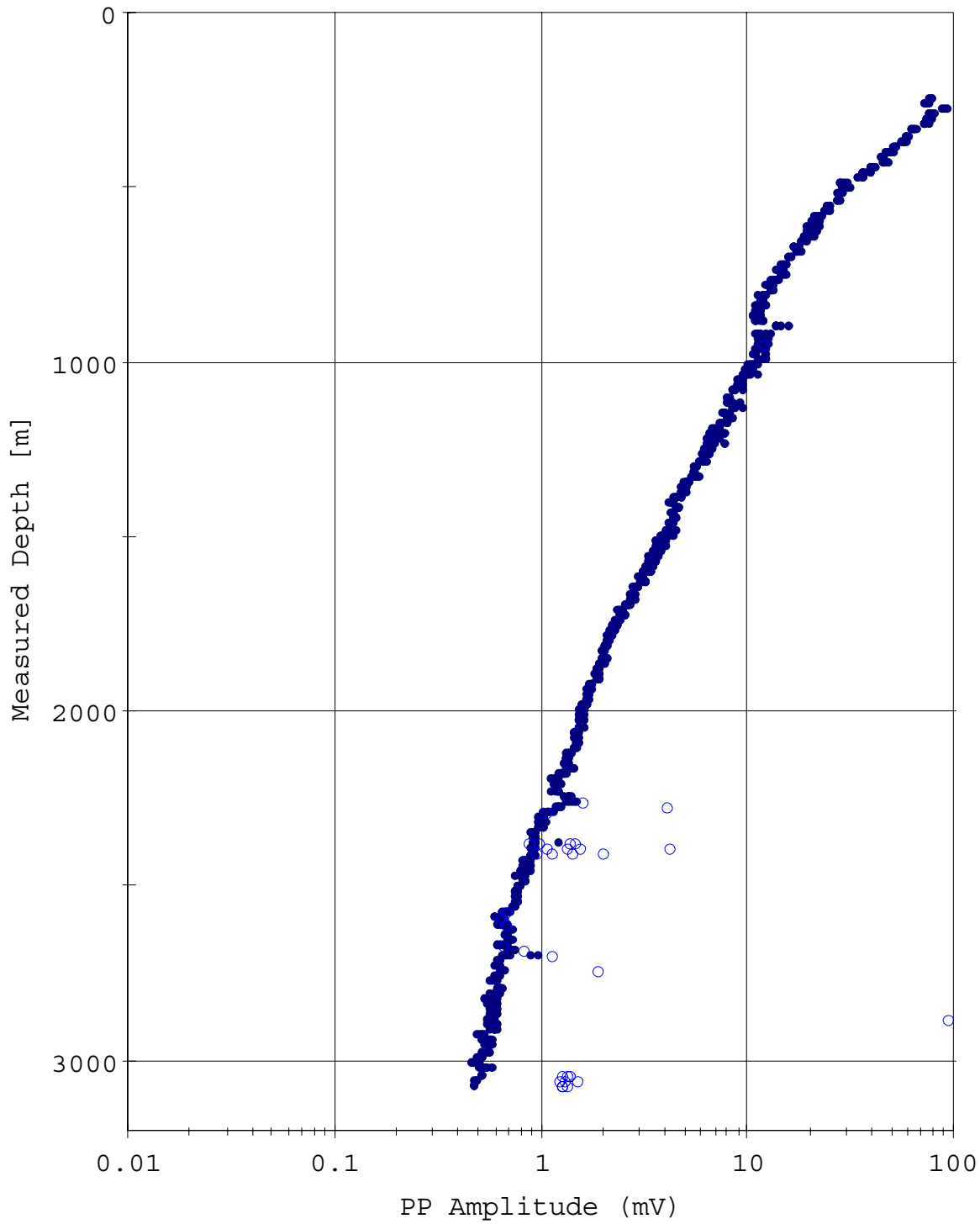


Schlumberger

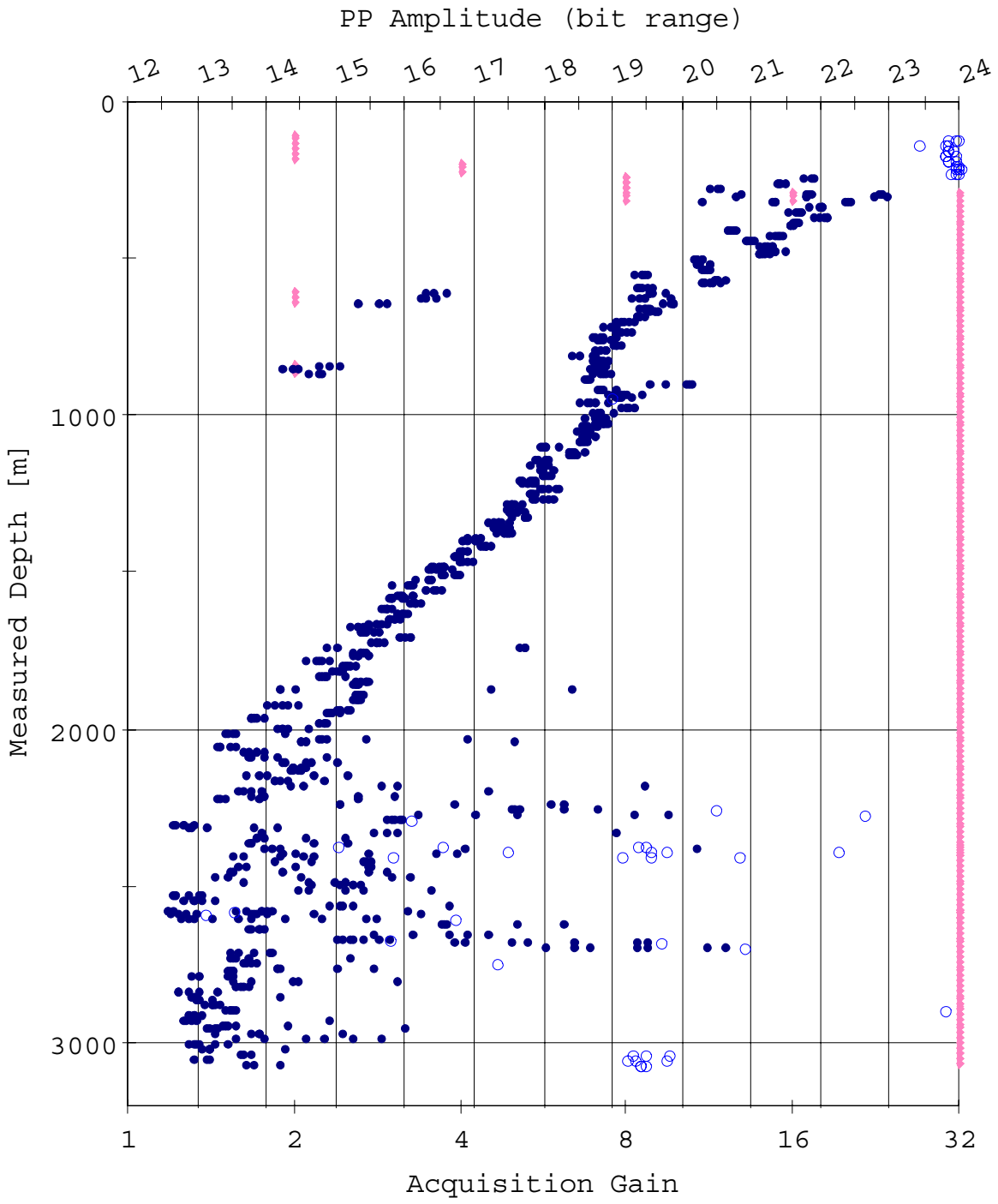
Peak To Peak Plot (Y)



Peak To Peak Plot (Z)

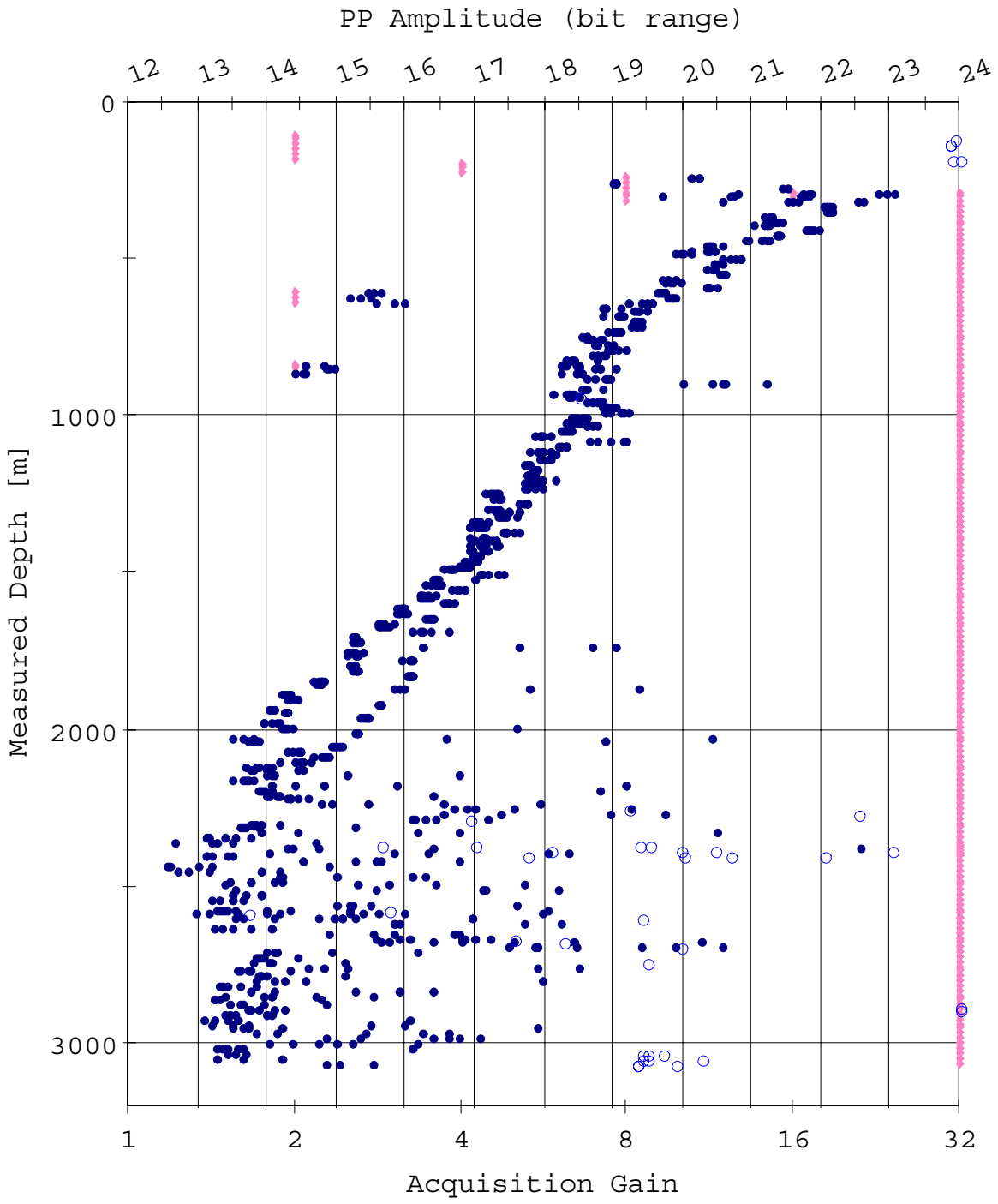


Amplitude QC Plot (X)



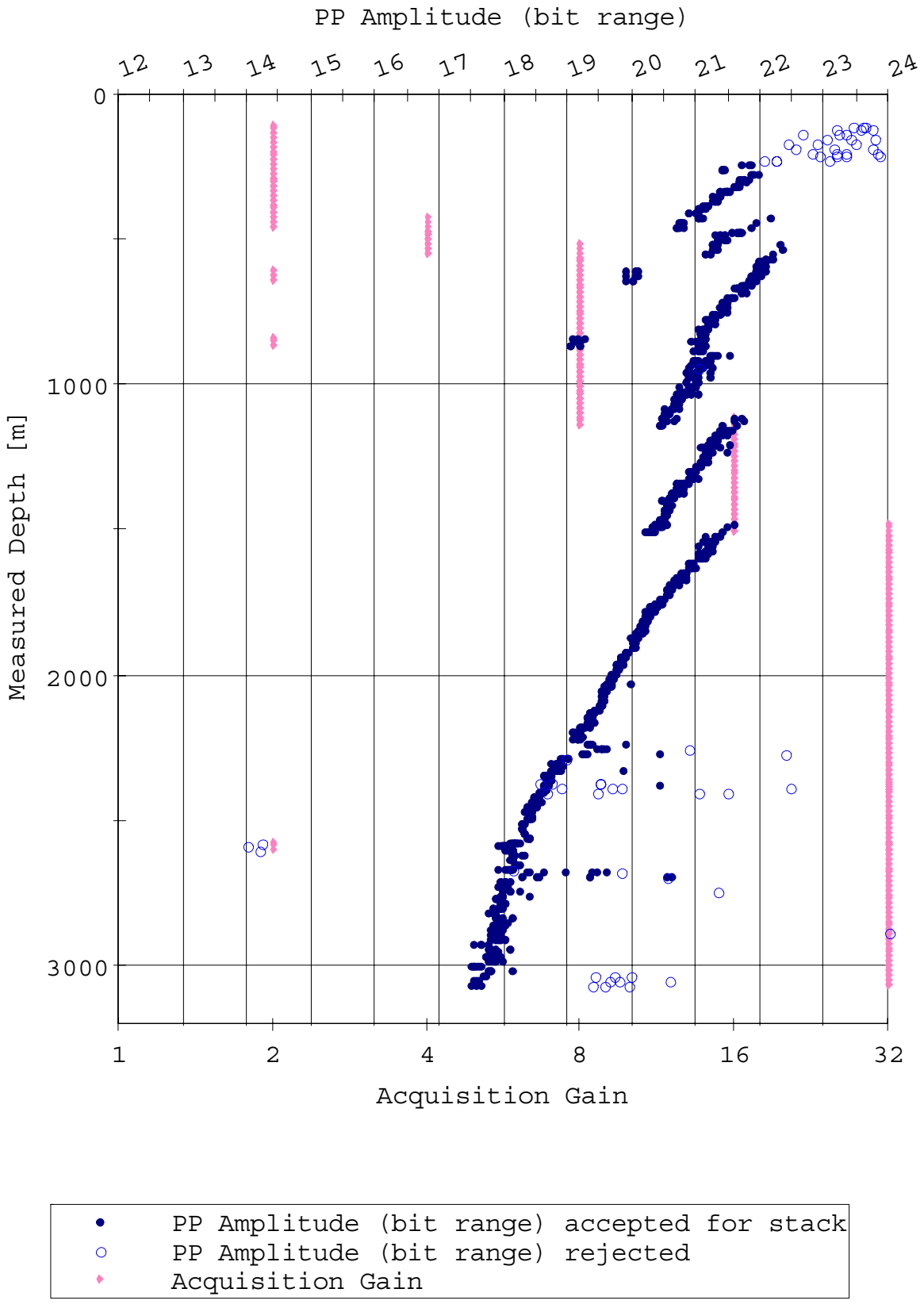
Schlumberger

Amplitude QC Plot (Y)



Schlumberger

Amplitude QC Plot (Z)



Shot and Observer Report

Shot Summary Listing (1/7)

Measured Depth [m]	Tool Number	Stack Number	Relative Bearing [deg]	Caliper [in]	Anchoring force [kg]	Shot number
241.5	1	69	-6.6	9.5	908.0	374, 375, 376
256.8	2	69	-4.8	9.6	890.7	374, 375, 376
272.0	3	69	-21.2	9.5	870.5	374, 375, 376
287.3	1	68	-7.3	9.4	920.1	367, 368, 369, 370, 371, 372, 373
302.5	2	68	-5.3	9.6	878.8	367, 368, 369, 370, 371, 372, 373
317.8	3	68	-20.7	9.5	867.8	367, 368, 369, 370, 371, 372, 373
332.9	1	67	-7.6	9.4	911.7	362, 363, 364, 365, 366
348.2	2	67	-4.3	9.6	870.3	362, 363, 364, 365, 366
363.4	3	67	-18.4	9.4	867.1	362, 363, 364, 365, 366
378.6	1	66	-7.2	9.5	907.0	357, 358, 359, 360, 361
393.9	2	66	-4.6	9.6	882.2	357, 358, 359, 360, 361
409.1	3	66	-14.6	9.5	859.1	357, 358, 359, 360, 361
424.5	1	65	-7.5	9.4	904.1	352, 353, 354, 355, 356
439.7	2	65	-5.0	9.6	888.6	352, 353, 354, 355, 356
454.9	3	65	-17.9	9.4	861.7	352, 353, 354, 355, 356
470.2	1	64	-8.6	9.5	886.9	347, 348, 349, 350, 351
485.4	2	64	-6.2	9.6	864.2	347, 348, 349, 350, 351
500.7	3	64	-15.2	9.5	854.3	347, 348, 349, 350, 351
515.8	1	63	-8.8	9.4	925.6	341, 343, 344, 345, 346
531.0	2	63	-6.3	9.6	883.8	341, 343, 344, 345, 346
546.3	3	63	-15.0	9.5	859.5	341, 343, 344, 345, 346
561.6	1	62	-8.5	9.4	910.4	336, 337, 338, 339, 340
576.9	2	62	-6.1	9.6	878.6	336, 337, 338, 339, 340
592.1	3	62	-14.6	9.5	860.9	336, 337, 338, 339, 340
607.3	1	3	-13.9	9.2	878.8	22, 23, 24, 331, 332, 333, 334, 335
607.4	1	61	-10.1	9.4	907.7	22, 23, 24, 331, 332, 333, 334, 335
622.6	2	3	-27.6	9.4	847.7	22, 23, 24, 331, 332, 333, 334, 335
622.7	2	61	-6.0	9.6	872.9	22, 23, 24, 331, 332, 333, 334, 335
637.8	3	3	-8.0	9.3	834.1	22, 23, 24, 331, 332, 333, 334, 335
637.9	3	61	-13.4	9.4	862.8	22, 23, 24, 331, 332, 333, 334, 335

Shot Summary Listing (2/7)

Measured Depth [m]	Tool Number	Stack Number	Relative Bearing [deg]	Caliper [in]	Anchoring force [kg]	Shot number
653.0	1	60	-11.5	9.5	891.3	326, 327, 328, 329, 330
668.2	2	60	-6.5	9.6	870.7	326, 327, 328, 329, 330
683.5	3	60	-12.8	9.5	849.7	326, 327, 328, 329, 330
698.7	1	59	-13.8	9.4	916.9	321, 322, 323, 324, 325
714.0	2	59	-6.8	9.6	887.8	321, 322, 323, 324, 325
729.2	3	59	-9.8	9.4	864.1	321, 322, 323, 324, 325
744.4	1	58	-14.0	9.4	910.6	316, 317, 318, 319, 320
759.7	2	58	-8.2	9.6	851.8	316, 317, 318, 319, 320
774.9	3	58	-10.3	9.4	854.2	316, 317, 318, 319, 320
790.2	1	57	-16.0	9.4	901.9	311, 312, 313, 314, 315
805.4	2	57	-8.6	9.6	873.7	311, 312, 313, 314, 315
820.7	3	57	-6.2	9.4	854.7	311, 312, 313, 314, 315
835.9	1	56	-23.7	9.4	894.4	25, 26, 27, 306, 307, 308, 309, 310
835.9	1	4	-3.3	9.2	877.6	25, 26, 27, 306, 307, 308, 309, 310
851.1	2	56	-9.4	9.6	863.1	25, 26, 27, 306, 307, 308, 309, 310
851.1	2	4	-25.5	9.4	844.4	25, 26, 27, 306, 307, 308, 309, 310
866.4	3	56	-0.3	9.4	835.2	25, 26, 27, 306, 307, 308, 309, 310
866.4	3	4	30.0	9.3	828.3	25, 26, 27, 306, 307, 308, 309, 310
881.6	1	55	-31.2	9.5	896.6	301, 302, 303, 304, 305
896.8	2	55	-15.7	9.7	818.4	301, 302, 303, 304, 305
912.1	3	55	37.4	9.2	831.9	301, 302, 303, 304, 305
927.3	1	54	34.3	9.3	874.8	295, 296, 297, 298, 299, 300
942.6	2	54	14.6	9.7	820.7	295, 296, 298, 299, 300
957.8	3	54	9.8	9.1	808.7	295, 296, 297, 298, 299, 300
973.0	1	53	22.2	9.2	871.3	289, 290, 291, 292, 293, 294
988.3	2	53	14.7	9.3	853.5	289, 290, 291, 292, 293, 294
1003.5	3	53	-19.0	9.2	834.5	289, 290, 291, 292, 293, 294
1018.9	1	52	22.1	9.2	867.8	284, 285, 286, 287, 288
1034.2	2	52	14.1	9.3	867.9	284, 285, 286, 287, 288
1049.4	3	52	-17.2	9.3	840.3	284, 285, 286, 287, 288

Shot Summary Listing (3/7)

Measured Depth [m]	Tool Number	Stack Number	Relative Bearing [deg]	Caliper [in]	Anchoring force [kg]	Shot number
1064.5	1	51	21.8	9.2	875.4	279, 280, 281, 282, 283
1079.8	2	51	14.3	9.4	853.4	279, 280, 281, 282, 283
1095.0	3	51	-17.6	9.2	819.5	279, 280, 281, 282, 283
1110.3	1	50	21.4	9.2	877.8	274, 275, 276, 277, 278
1125.5	2	50	15.5	9.3	845.1	274, 275, 276, 277, 278
1140.7	3	50	-24.6	9.3	839.3	274, 275, 276, 277, 278
1156.0	1	49	20.8	9.2	871.3	269, 270, 271, 272, 273
1171.2	2	49	15.4	9.3	848.5	269, 270, 271, 272, 273
1186.5	3	49	-24.6	9.2	828.7	269, 270, 271, 272, 273
1201.7	1	48	19.8	9.5	885.1	264, 265, 266, 267, 268
1216.9	2	48	14.4	9.6	839.0	264, 265, 266, 267, 268
1232.1	3	48	-38.4	9.1	811.9	264, 265, 266, 267, 268
1247.4	1	47	23.7	9.2	859.8	259, 260, 261, 262, 263
1262.7	2	47	13.8	9.5	841.2	259, 260, 261, 262, 263
1277.9	3	47	-18.2	10.0	809.2	259, 260, 261, 262, 263
1293.2	1	46	27.8	9.5	880.3	254, 255, 256, 257, 258
1308.4	2	46	13.4	9.6	853.6	254, 255, 256, 257, 258
1323.6	3	46	-24.6	9.2	814.7	254, 255, 256, 257, 258
1338.1	1	45	31.8	9.3	831.9	246, 247, 248, 249, 250, 251, 252, 253
1353.3	2	45	11.3	9.5	840.5	246, 247, 248, 249, 250, 251, 252, 253
1368.6	3	45	-13.0	9.4	823.0	246, 247, 248, 249, 250, 251, 252, 253
1384.6	1	44	33.6	9.3	870.5	241, 242, 243, 244, 245
1399.8	2	44	14.5	9.4	852.3	241, 242, 243, 244, 245
1415.1	3	44	1.4	9.2	810.5	241, 242, 243, 244, 245
1430.3	1	43	29.4	9.3	869.8	236, 237, 238, 239, 240
1445.5	2	43	11.3	9.4	829.6	236, 237, 238, 239, 240
1460.7	3	43	-12.5	9.3	806.5	236, 237, 238, 239, 240
1476.0	1	42	25.5	9.3	845.0	229, 231, 232, 233, 234, 235
1491.3	2	42	6.0	9.5	835.3	229, 231, 232, 233, 234, 235
1506.5	3	42	-12.6	9.2	812.9	229, 231, 232, 233, 234, 235

Shot Summary Listing (4/7)

Measured Depth [m]	Tool Number	Stack Number	Relative Bearing [deg]	Caliper [in]	Anchoring force [kg]	Shot number
1521.8	1	41	22.8	9.2	845.4	224, 225, 226, 227, 228
1537.0	2	41	3.0	9.4	840.0	224, 225, 226, 227, 228
1552.2	3	41	-3.2	9.9	783.7	224, 225, 226, 227, 228
1567.5	1	40	29.6	9.2	853.0	219, 220, 221, 222, 223
1582.7	2	40	16.3	9.5	845.6	219, 220, 221, 222, 223
1598.0	3	40	-13.6	9.2	815.1	219, 220, 221, 222, 223
1613.2	1	39	30.6	9.2	839.2	213, 214, 215, 216, 217, 218
1628.4	2	39	17.7	9.5	831.3	213, 214, 215, 216, 217, 218
1643.7	3	39	-18.8	9.3	800.0	213, 214, 215, 216, 217, 218
1658.9	1	38	30.3	9.2	865.8	208, 209, 210, 211, 212
1674.1	2	38	13.4	9.4	832.7	208, 209, 210, 211, 212
1689.4	3	38	-16.2	9.2	825.8	208, 209, 210, 211, 212
1704.6	1	37	26.3	9.3	851.6	203, 204, 205, 206, 207
1719.9	2	37	13.4	9.4	847.9	203, 204, 205, 206, 207
1735.1	3	37	-12.7	9.2	807.6	203, 204, 205, 206, 207
1750.3	1	36	24.9	9.2	847.7	198, 199, 200, 201, 202
1765.5	2	36	10.2	9.4	835.8	198, 199, 200, 201, 202
1780.8	3	36	-20.9	9.2	814.0	198, 199, 200, 201, 202
1796.1	1	35	24.6	9.2	849.4	193, 194, 195, 196, 197
1811.3	2	35	9.2	9.4	848.0	193, 194, 195, 196, 197
1826.6	3	35	-20.9	9.2	792.4	193, 194, 195, 196, 197
1841.8	1	34	23.1	9.2	852.0	188, 189, 190, 191, 192
1857.0	2	34	8.5	9.3	835.1	188, 189, 190, 191, 192
1872.2	3	34	-18.8	9.2	799.9	188, 189, 190, 191, 192
1887.5	1	33	22.7	9.2	835.6	183, 184, 185, 186, 187
1902.8	2	33	11.8	9.4	828.0	183, 184, 185, 186, 187
1918.0	3	33	-10.5	9.2	796.0	183, 184, 185, 186, 187
1933.2	1	32	18.8	9.2	827.7	178, 179, 180, 181, 182
1948.5	2	32	11.2	9.4	833.5	178, 179, 180, 181, 182
1963.7	3	32	-8.6	9.2	783.7	178, 179, 180, 181, 182

Shot Summary Listing (5/7)

Measured Depth [m]	Tool Number	Stack Number	Relative Bearing [deg]	Caliper [in]	Anchoring force [kg]	Shot number
1978.9	1	31	16.2	9.2	816.3	173, 174, 175, 176, 177
1994.2	2	31	11.4	9.6	822.6	173, 174, 175, 176, 177
2009.4	3	31	0.8	9.3	783.6	173, 174, 175, 176, 177
2024.7	1	30	6.8	9.3	811.3	168, 169, 170, 171, 172
2039.9	2	30	-5.6	9.4	828.3	168, 169, 170, 171, 172
2055.1	3	30	0.6	9.2	764.5	168, 169, 170, 171, 172
2070.4	1	29	-9.0	9.4	835.0	163, 164, 165, 166, 167
2085.6	2	29	-16.2	9.4	817.0	163, 164, 165, 166, 167
2100.8	3	29	4.2	9.3	783.0	163, 164, 165, 166, 167
2116.1	1	28	24.8	9.2	850.3	158, 159, 160, 161, 162
2131.4	2	28	-6.0	9.3	817.6	158, 159, 160, 161, 162
2146.6	3	28	3.9	9.5	780.6	158, 159, 160, 161, 162
2161.8	1	27	33.6	9.2	844.1	153, 154, 155, 156, 157
2177.1	2	27	5.4	9.3	810.0	153, 154, 155, 156, 157
2192.3	3	27	0.4	9.3	785.5	153, 154, 155, 156, 157
2207.5	1	26	9.1	9.3	822.4	148, 149, 150, 151, 152
2222.8	2	26	-18.5	9.3	825.2	148, 149, 150, 151, 152
2238.0	3	26	5.0	9.6	743.7	148, 149, 150, 151, 152
2253.3	1	25	18.8	11.6	783.1	142, 143, 145, 146, 147
2268.6	2	25	-12.3	10.3	716.9	142, 143, 145, 146, 147
2283.8	3	25	7.2	9.2	768.2	142, 143, 145, 146, 147
2299.0	1	24	179.6	9.2	824.2	137, 138, 139, 140, 141
2314.3	2	24	-1.5	9.3	821.8	137, 138, 139, 140, 141
2329.5	3	24	3.4	9.2	746.7	137, 138, 139, 140, 141
2344.7	1	23	11.4	9.2	798.9	132, 133, 134, 135, 136
2359.9	2	23	-3.0	9.3	816.0	132, 133, 134, 135, 136
2375.2	3	23	4.3	10.4	728.5	132, 133, 134, 135, 136
2390.4	1	22	0.5	9.5	811.5	127, 128, 129, 130, 131
2405.7	2	22	-1.1	9.4	803.7	127, 128, 129, 130, 131
2420.9	3	22	-3.5	9.3	772.0	127, 128, 129, 130, 131

Shot Summary Listing (6/7)

Measured Depth [m]	Tool Number	Stack Number	Relative Bearing [deg]	Caliper [in]	Anchoring force [kg]	Shot number
2436.2	1	21	2.7	9.2	818.4	122, 123, 124, 125, 126
2451.4	2	21	-3.6	9.4	797.6	122, 123, 124, 125, 126
2466.6	3	21	-2.9	9.3	765.6	122, 123, 124, 125, 126
2481.9	1	20	13.3	9.3	783.8	117, 118, 119, 120, 121
2497.1	2	20	4.5	9.4	796.5	117, 118, 119, 120, 121
2512.4	3	20	36.7	9.2	748.1	117, 118, 119, 120, 121
2527.6	1	19	27.8	9.3	791.8	112, 113, 114, 115, 116
2542.8	2	19	-3.5	9.5	786.9	112, 113, 114, 115, 116
2558.1	3	19	8.6	10.7	657.0	112, 113, 114, 115, 116
2573.3	1	5	-12.1	9.3	799.6	29, 30, 31, 32, 33, 107, 108, 109, 110, 111
2573.3	1	18	8.2	9.2	827.5	29, 30, 31, 32, 33, 107, 108, 109, 110, 111
2588.5	2	5	-11.8	9.4	807.0	29, 30, 31, 32, 33, 107, 108, 109, 110, 111
2588.6	2	18	4.4	9.5	778.9	29, 30, 31, 32, 33, 107, 108, 109, 110, 111
2603.7	3	5	-19.9	9.6	724.1	29, 30, 31, 32, 33, 107, 108, 109, 110, 111
2603.8	3	18	-24.2	9.5	741.0	29, 30, 31, 32, 33, 107, 108, 109, 110, 111
2619.0	1	17	8.0	9.1	788.0	102, 103, 104, 105, 106
2634.3	2	17	-13.8	10.5	729.1	102, 103, 104, 105, 106
2649.5	3	17	-4.9	9.7	719.7	102, 103, 104, 105, 106
2664.8	1	16	2.5	9.2	768.9	95, 96, 97, 98, 99, 100, 101
2680.0	2	16	-6.8	11.1	756.1	95, 96, 97, 98, 99, 100, 101
2695.2	3	16	75.2	9.2	728.9	95, 96, 97, 98, 99, 100, 101
2710.5	1	15	19.5	9.1	814.4	89, 90, 91, 92, 93
2725.7	2	15	-31.4	9.4	780.7	89, 90, 91, 92, 93
2740.9	3	15	-35.9	9.1	705.6	89, 90, 91, 93
2756.2	1	14	-4.1	9.0	778.7	84, 85, 86, 87, 88
2771.4	2	14	-34.1	9.3	767.8	84, 85, 86, 87, 88
2786.7	3	14	-13.3	9.2	708.0	84, 85, 86, 87, 88
2801.9	1	13	10.1	9.1	782.9	79, 80, 81, 82, 83
2817.2	2	13	5.1	9.4	757.4	79, 80, 81, 82, 83
2832.4	3	13	7.2	9.1	719.3	79, 80, 81, 82, 83

Shot Summary Listing (7/7)

Measured Depth [m]	Tool Number	Stack Number	Relative Bearing [deg]	Caliper [in]	Anchoring force [kg]	Shot number
2847.6	1	12	6.4	9.2	788.3	74, 75, 76, 77, 78
2862.9	2	12	2.2	9.3	748.1	74, 75, 76, 77, 78
2878.1	3	12	-28.7	9.1	709.1	74, 75, 76, 77, 78
2893.4	1	11	11.9	9.2	771.3	69, 70, 71, 72, 73
2908.6	2	11	-13.8	9.2	752.4	69, 70, 71, 72, 73
2923.8	3	11	17.4	9.2	700.3	69, 70, 71, 72, 73
2939.1	1	10	-31.8	9.2	773.5	64, 65, 66, 67, 68
2954.3	2	10	-18.5	9.3	746.3	64, 65, 66, 67, 68
2969.6	3	10	-4.2	9.0	714.4	64, 65, 66, 67, 68
2984.8	1	9	23.2	9.1	783.1	58, 59, 60, 61, 62, 63
3000.0	2	9	-15.2	9.2	737.2	58, 59, 60, 61, 62, 63
3015.3	3	9	-27.2	9.0	689.4	58, 59, 60, 61, 62, 63
3036.4	1	8	-84.9	9.2	770.0	55, 56, 57
3051.6	2	8	-25.0	9.2	748.0	55, 56, 57
3066.9	3	8	-26.8	9.1	692.7	55, 56, 57

Observer's Note (1/7)

Well depth [m]	Time	Shot Type	Shot#	Stack#	Source	Remarks
41.7	18:34:54	NOTO	1		A	
41.7	18:35:19	NOTO	2		A	
409.0	00:52:34	SHAK	3			
409.0	00:52:53	BKGD	4			
409.0	00:53:34	ENLO	5			
409.0	00:53:58	ENHI	6			
409.0	00:54:06	ETHD	7			
409.0	00:54:50	ENLO	8			
409.0	00:55:55	ENLO	9			
409.0	00:56:19	ENHI	10			
409.0	00:56:28	ETHD	11			
409.0	00:56:42	DRNG	12			
409.0	00:56:56	GA02	13			
409.0	00:57:06	GA04	14			
409.0	00:57:16	GA08	15			
409.0	00:57:26	GA16	16			
409.0	00:57:36	GA32	17			
409.0	00:57:51	XTLK	18			
409.0	00:58:10	XTLK	19			
409.0	00:58:28	XTLK	20			
409.0	00:58:46	EIMP	21			
637.8	03:23:03	SHOT	22	3	A	QC Shot at depth 596.11m
637.8	03:26:44	SHOT	23	3	A	QC shot at depth 596.11m
637.8	03:27:14	SHOT	24	3	A	QC Shot at depth 596.11m
866.4	03:41:41	SHOT	25	4	A	QC Shot 2, source bubble time affected, broke umbillical fixing rope
866.4	03:43:26	SHOT	26	4	A	QC shot 2
866.4	03:43:56	SHOT	27	4	A	QC shot 2
2603.7	05:20:54	SHOT	28	5	A	QC shot 3
2603.7	05:21:50	SHOT	29	5	A	QC shot 3
2603.7	05:24:19	SHOT	30	5	A	QC shot 3
2603.7	05:25:06	SHOT	31	5	A	
2603.7	05:28:29	SHOT	32	5	A	
2603.7	05:29:04	SHOT	33	5	A	
2399.4	06:10:59	SHOT	34	6	A	QC shot , suspected tool hang up
2399.4	06:11:31	SHOT	35	6	A	
2399.4	06:12:03	SHOT	36	6	A	
2399.4	06:12:35	SHOT	37	6	A	
2911.3	06:39:21	SHOT	38	7	A	Random Shot every 30min
3066.9	06:50:56	ENLO	39			
3066.9	06:51:20	ENHI	40			
3066.9	06:51:29	ETHD	41			
3066.9	06:51:44	DRNG	42			
3066.9	06:51:59	GA02	43			
3066.9	06:52:09	GA04	44			
3066.9	06:52:19	GA08	45			
3066.9	06:52:29	GA16	46			
3066.9	06:52:39	GA32	47			
3066.9	06:52:54	XTLK	48			
3066.9	06:53:14	XTLK	49			
3066.9	06:53:34	XTLK	50			
3066.9	06:53:53	EIMP	51			
3066.9	06:54:24	SHOT	52	8	A	1st station on the survey @ 3019.27m
3066.9	06:54:56	SHOT	53	8	A	
3066.9	06:55:29	SHOT	54	8	A	
3066.9	06:56:01	SHOT	55	8	A	
3066.9	06:56:59	SHOT	56	8	A	
3066.9	06:59:15	SHOT	57	8	A	
3015.3	07:05:22	SHOT	58	9	A	
3015.3	07:05:54	SHOT	59	9	A	
3015.3	07:07:08	SHOT	60	9	A	
3015.3	07:07:40	SHOT	61	9	A	
3015.3	07:08:22	SHOT	62	9	A	
3015.3	07:09:35	SHOT	63	9	A	

Observer's Note (2/7)

Well depth [m]	Time	Shot Type	Shot#	Stack#	Source	Remarks
2969.6	07:16:02	SHOT	64	10	A	
2969.6	07:16:34	SHOT	65	10	A	
2969.6	07:17:24	SHOT	66	10	A	
2969.6	07:17:56	SHOT	67	10	A	
2969.6	07:18:28	SHOT	68	10	A	
2923.8	07:24:12	SHOT	69	11	A	
2923.8	07:25:03	SHOT	70	11	A	
2923.8	07:25:35	SHOT	71	11	A	
2923.8	07:26:08	SHOT	72	11	A	
2923.8	07:26:40	SHOT	73	11	A	
2878.1	07:32:10	SHOT	74	12	A	
2878.1	07:32:42	SHOT	75	12	A	
2878.1	07:33:14	SHOT	76	12	A	
2878.1	07:33:46	SHOT	77	12	A	
2878.1	07:34:18	SHOT	78	12	A	
2832.4	07:40:23	SHOT	79	13	A	
2832.4	07:40:55	SHOT	80	13	A	
2832.4	07:41:27	SHOT	81	13	A	
2832.4	07:41:59	SHOT	82	13	A	
2832.4	07:42:31	SHOT	83	13	A	
2786.7	07:49:31	SHOT	84	14	A	
2786.7	07:50:03	SHOT	85	14	A	
2786.7	07:50:35	SHOT	86	14	A	
2786.7	07:51:07	SHOT	87	14	A	
2786.7	07:51:39	SHOT	88	14	A	
2740.9	08:00:51	SHOT	89	15	A	
2740.9	08:01:23	SHOT	90	15	A	
2740.9	08:01:55	SHOT	91	15	A	
2740.9	08:02:27	SHOT	92	15	A	
2740.9	08:02:59	SHOT	93	15	A	
2695.2	08:08:40	SHOT	94	16	A	
2695.2	08:09:12	SHOT	95	16	A	
2695.2	08:09:44	SHOT	96	16	A	
2695.2	08:10:16	SHOT	97	16	A	
2695.2	08:10:57	SHOT	98	16	A	
2695.2	08:11:52	SHOT	99	16	A	
2695.2	08:12:36	SHOT	100	16	A	
2695.2	08:13:09	SHOT	101	16	A	
2649.5	08:19:06	SHOT	102	17	A	
2649.5	08:19:52	SHOT	103	17	A	
2649.5	08:20:24	SHOT	104	17	A	
2649.5	08:20:56	SHOT	105	17	A	
2649.5	08:21:28	SHOT	106	17	A	
2603.8	08:28:32	SHOT	107	18	A	
2603.8	08:29:10	SHOT	108	18	A	
2603.8	08:29:42	SHOT	109	18	A	
2603.8	08:30:14	SHOT	110	18	A	
2603.8	08:30:46	SHOT	111	18	A	
2558.1	08:36:56	SHOT	112	19	A	
2558.1	08:37:28	SHOT	113	19	A	
2558.1	08:38:00	SHOT	114	19	A	
2558.1	08:38:32	SHOT	115	19	A	
2558.1	08:39:04	SHOT	116	19	A	
2512.4	08:44:38	SHOT	117	20	A	
2512.4	08:45:11	SHOT	118	20	A	
2512.4	08:45:43	SHOT	119	20	A	
2512.4	08:46:15	SHOT	120	20	A	
2512.4	08:46:47	SHOT	121	20	A	
2466.6	08:53:00	SHOT	122	21	A	
2466.6	08:53:32	SHOT	123	21	A	
2466.6	08:54:04	SHOT	124	21	A	
2466.6	08:54:36	SHOT	125	21	A	
2466.6	08:55:08	SHOT	126	21	A	

Observer's Note (3/7)

Well depth [m]	Time	Shot Type	Shot#	Stack#	Source	Remarks
2420.9	09:01:01	SHOT	127	22	A	
2420.9	09:01:33	SHOT	128	22	A	
2420.9	09:02:05	SHOT	129	22	A	
2420.9	09:02:37	SHOT	130	22	A	
2420.9	09:03:09	SHOT	131	22	A	
2375.2	09:10:00	SHOT	132	23	A	
2375.2	09:10:46	SHOT	133	23	A	
2375.2	09:11:19	SHOT	134	23	A	
2375.2	09:11:51	SHOT	135	23	A	
2375.2	09:12:23	SHOT	136	23	A	
2329.5	09:18:53	SHOT	137	24	A	
2329.5	09:19:25	SHOT	138	24	A	
2329.5	09:19:58	SHOT	139	24	A	
2329.5	09:20:30	SHOT	140	24	A	
2329.5	09:21:02	SHOT	141	24	A	
2283.8	09:26:20	SHOT	142	25	A	
2283.8	09:26:52	SHOT	143	25	A	
2283.8	09:27:24	SHOT	144	25	A	
2283.8	09:27:56	SHOT	145	25	A	
2283.8	09:28:28	SHOT	146	25	A	
2283.8	09:29:01	SHOT	147	25	A	
2238.0	09:34:35	SHOT	148	26	A	
2238.0	09:35:07	SHOT	149	26	A	
2238.0	09:35:39	SHOT	150	26	A	
2238.0	09:36:11	SHOT	151	26	A	
2238.0	09:36:43	SHOT	152	26	A	
2192.3	09:42:12	SHOT	153	27	A	
2192.3	09:42:44	SHOT	154	27	A	
2192.3	09:43:16	SHOT	155	27	A	
2192.3	09:43:48	SHOT	156	27	A	
2192.3	09:44:20	SHOT	157	27	A	
2146.6	09:50:13	SHOT	158	28	A	
2146.6	09:50:45	SHOT	159	28	A	
2146.6	09:51:17	SHOT	160	28	A	
2146.6	09:51:49	SHOT	161	28	A	
2146.6	09:52:21	SHOT	162	28	A	
2100.8	09:57:56	SHOT	163	29	A	
2100.8	09:58:28	SHOT	164	29	A	
2100.8	09:59:01	SHOT	165	29	A	
2100.8	09:59:33	SHOT	166	29	A	
2100.8	10:00:05	SHOT	167	29	A	
2055.1	10:05:29	SHOT	168	30	A	
2055.1	10:06:02	SHOT	169	30	A	
2055.1	10:06:34	SHOT	170	30	A	
2055.1	10:07:06	SHOT	171	30	A	
2055.1	10:07:38	SHOT	172	30	A	
2009.4	10:13:49	SHOT	173	31	A	
2009.4	10:14:22	SHOT	174	31	A	
2009.4	10:14:54	SHOT	175	31	A	
2009.4	10:15:26	SHOT	176	31	A	
2009.4	10:15:58	SHOT	177	31	A	
1963.7	10:21:26	SHOT	178	32	A	
1963.7	10:21:59	SHOT	179	32	A	
1963.7	10:22:31	SHOT	180	32	A	
1963.7	10:23:03	SHOT	181	32	A	
1963.7	10:23:35	SHOT	182	32	A	
1918.0	10:29:33	SHOT	183	33	A	
1918.0	10:30:05	SHOT	184	33	A	
1918.0	10:30:37	SHOT	185	33	A	
1918.0	10:31:09	SHOT	186	33	A	
1918.0	10:31:41	SHOT	187	33	A	
1872.2	10:36:36	SHOT	188	34	A	
1872.2	10:37:08	SHOT	189	34	A	

Observer's Note (4/7)

Well depth [m]	Time	Shot Type	Shot#	Stack#	Source	Remarks
1872.2	10:37:40	SHOT	190	34	A	
1872.2	10:38:12	SHOT	191	34	A	
1872.2	10:38:44	SHOT	192	34	A	
1826.6	10:44:26	SHOT	193	35	A	
1826.6	10:44:58	SHOT	194	35	A	
1826.6	10:45:30	SHOT	195	35	A	
1826.6	10:46:03	SHOT	196	35	A	
1826.6	10:46:35	SHOT	197	35	A	
1780.8	10:52:17	SHOT	198	36	A	
1780.8	10:52:49	SHOT	199	36	A	
1780.8	10:53:21	SHOT	200	36	A	
1780.8	10:53:53	SHOT	201	36	A	
1780.8	10:54:25	SHOT	202	36	A	
1735.1	10:59:51	SHOT	203	37	A	
1735.1	11:00:23	SHOT	204	37	A	
1735.1	11:00:55	SHOT	205	37	A	
1735.1	11:01:27	SHOT	206	37	A	
1735.1	11:01:59	SHOT	207	37	A	
1689.4	11:07:43	SHOT	208	38	A	
1689.4	11:08:18	SHOT	209	38	A	
1689.4	11:08:51	SHOT	210	38	A	
1689.4	11:09:23	SHOT	211	38	A	
1689.4	11:09:55	SHOT	212	38	A	
1643.7	11:15:29	SHOT	213	39	A	
1643.7	11:16:01	SHOT	214	39	A	
1643.7	11:16:36	SHOT	215	39	A	
1643.7	11:17:08	SHOT	216	39	A	
1643.7	11:17:40	SHOT	217	39	A	
1643.7	11:19:50	SHOT	218	39	A	
1598.0	11:25:08	SHOT	219	40	A	
1598.0	11:25:48	SHOT	220	40	A	
1598.0	11:26:20	SHOT	221	40	A	
1598.0	11:26:52	SHOT	222	40	A	
1598.0	11:27:24	SHOT	223	40	A	
1552.2	11:34:27	SHOT	224	41	A	
1552.2	11:34:59	SHOT	225	41	A	
1552.2	11:35:31	SHOT	226	41	A	
1552.2	11:36:03	SHOT	227	41	A	
1552.2	11:36:36	SHOT	228	41	A	
1506.5	11:42:22	SHOT	229	42	A	
1506.5	11:43:56	SHOT	231	42	A	
1506.5	11:44:28	SHOT	232	42	A	
1506.5	11:45:01	SHOT	233	42	A	
1506.5	11:45:33	SHOT	234	42	A	
1506.5	11:46:05	SHOT	235	42	A	
1460.7	11:51:47	SHOT	236	43	A	
1460.7	11:52:19	SHOT	237	43	A	
1460.7	11:52:51	SHOT	238	43	A	
1460.7	11:53:23	SHOT	239	43	A	
1460.7	11:53:55	SHOT	240	43	A	
1415.1	12:00:16	SHOT	241	44	A	
1415.1	12:00:49	SHOT	242	44	A	
1415.1	12:01:21	SHOT	243	44	A	
1415.1	12:01:53	SHOT	244	44	A	
1415.1	12:02:25	SHOT	245	44	A	
1368.6	12:12:02	SHOT	246	45	A	
1368.6	12:12:34	SHOT	247	45	A	
1368.6	12:13:06	SHOT	248	45	A	
1368.6	12:13:38	SHOT	249	45	A	
1368.6	12:14:10	SHOT	250	45	A	
1368.6	12:15:34	SHOT	251	45	A	Gun 2 delay changed from 31 to 30
1368.6	12:16:06	SHOT	252	45	A	
1368.6	12:16:29	SHOT	253	45	A	

Observer's Note (5/7)

Well depth [m]	Time	Shot Type	Shot#	Stack#	Source	Remarks
1323.6	12:21:48	SHOT	254	46	A	
1323.6	12:22:33	SHOT	255	46	A	
1323.6	12:23:05	SHOT	256	46	A	
1323.6	12:23:37	SHOT	257	46	A	
1323.6	12:24:09	SHOT	258	46	A	
1277.9	12:30:23	SHOT	259	47	A	
1277.9	12:30:55	SHOT	260	47	A	
1277.9	12:31:27	SHOT	261	47	A	
1277.9	12:31:59	SHOT	262	47	A	
1277.9	12:32:31	SHOT	263	47	A	
1232.1	12:38:27	SHOT	264	48	A	
1232.1	12:40:25	SHOT	265	48	A	
1232.1	12:40:58	SHOT	266	48	A	
1232.1	12:41:30	SHOT	267	48	A	
1232.1	12:42:02	SHOT	268	48	A	
1186.5	12:49:04	SHOT	269	49	A	
1186.5	12:49:37	SHOT	270	49	A	
1186.5	12:50:10	SHOT	271	49	A	
1186.5	12:50:40	SHOT	272	49	A	
1186.5	12:51:33	SHOT	273	49	A	
1140.7	12:57:51	SHOT	274	50	A	
1140.7	12:58:23	SHOT	275	50	A	
1140.7	12:59:02	SHOT	276	50	A	
1140.7	12:59:34	SHOT	277	50	A	
1140.7	13:00:06	SHOT	278	50	A	
1095.0	13:05:38	SHOT	279	51	A	
1095.0	13:06:11	SHOT	280	51	A	
1095.0	13:06:43	SHOT	281	51	A	
1095.0	13:07:15	SHOT	282	51	A	
1095.0	13:07:47	SHOT	283	51	A	
1049.4	13:13:20	SHOT	284	52	A	
1049.4	13:13:53	SHOT	285	52	A	
1049.4	13:14:25	SHOT	286	52	A	
1049.4	13:14:57	SHOT	287	52	A	
1049.4	13:15:29	SHOT	288	52	A	
1003.5	13:20:38	SHOT	289	53	A	
1003.5	13:21:10	SHOT	290	53	A	
1003.5	13:21:42	SHOT	291	53	A	
1003.5	13:22:14	SHOT	292	53	A	
1003.5	13:22:47	SHOT	293	53	A	
1003.5	13:23:19	SHOT	294	53	A	
957.8	13:30:07	SHOT	295	54	A	
957.8	13:30:39	SHOT	296	54	A	
957.8	13:31:11	SHOT	297	54	A	
957.8	13:31:43	SHOT	298	54	A	
957.8	13:32:15	SHOT	299	54	A	
957.8	13:32:48	SHOT	300	54	A	
912.1	13:38:05	SHOT	301	55	A	
912.1	13:38:37	SHOT	302	55	A	
912.1	13:39:09	SHOT	303	55	A	
912.1	13:39:37	SHOT	304	55	A	
912.1	13:40:09	SHOT	305	55	A	
866.4	13:44:25	SHOT	306	56	A	
866.4	13:44:57	SHOT	307	56	A	
866.4	13:45:30	SHOT	308	56	A	
866.4	13:46:02	SHOT	309	56	A	
866.4	13:46:34	SHOT	310	56	A	
820.7	13:52:02	SHOT	311	57	A	
820.7	13:52:34	SHOT	312	57	A	
820.7	13:53:07	SHOT	313	57	A	
820.7	13:53:39	SHOT	314	57	A	
820.7	13:54:11	SHOT	315	57	A	
774.9	13:58:19	SHOT	316	58	A	

Observer's Note (6/7)

Well depth[m]	Time	Shot Type	Shot#	Stack#	Source	Remarks
774.9	13:58:51	SHOT	317	58	A	
774.9	13:59:23	SHOT	318	58	A	
774.9	13:59:55	SHOT	319	58	A	
774.9	14:00:27	SHOT	320	58	A	
729.2	14:04:26	SHOT	321	59	A	
729.2	14:04:58	SHOT	322	59	A	
729.2	14:05:30	SHOT	323	59	A	
729.2	14:06:45	SHOT	324	59	A	
729.2	14:07:17	SHOT	325	59	A	
683.5	14:11:06	SHOT	326	60	A	
683.5	14:11:38	SHOT	327	60	A	
683.5	14:12:10	SHOT	328	60	A	
683.5	14:12:42	SHOT	329	60	A	
683.5	14:13:14	SHOT	330	60	A	
637.9	14:17:13	SHOT	331	61	A	
637.9	14:17:45	SHOT	332	61	A	
637.9	14:18:17	SHOT	333	61	A	
637.9	14:18:49	SHOT	334	61	A	
637.9	14:19:21	SHOT	335	61	A	
592.1	14:23:58	SHOT	336	62	A	
592.1	14:24:30	SHOT	337	62	A	
592.1	14:25:02	SHOT	338	62	A	
592.1	14:25:34	SHOT	339	62	A	
592.1	14:26:06	SHOT	340	62	A	
546.3	14:29:27	SHOT	341	63	A	
546.3	14:30:31	SHOT	343	63	A	
546.3	14:31:03	SHOT	344	63	A	
546.3	14:31:35	SHOT	345	63	A	
546.3	14:32:07	SHOT	346	63	A	
500.7	14:35:57	SHOT	347	64	A	
500.7	14:36:29	SHOT	348	64	A	r
500.7	14:37:01	SHOT	349	64	A	
500.7	14:37:33	SHOT	350	64	A	
500.7	14:37:50	SHOT	351	64	A	
454.9	14:41:28	SHOT	352	65	A	
454.9	14:42:37	SHOT	353	65	A	
454.9	14:43:09	SHOT	354	65	A	
454.9	14:43:41	SHOT	355	65	A	
454.9	14:44:13	SHOT	356	65	A	
409.1	14:48:31	SHOT	357	66	A	
409.1	14:49:03	SHOT	358	66	A	
409.1	14:49:35	SHOT	359	66	A	
409.1	14:50:07	SHOT	360	66	A	
409.1	14:50:39	SHOT	361	66	A	
363.4	14:54:10	SHOT	362	67	A	
363.4	14:54:42	SHOT	363	67	A	
363.4	14:55:14	SHOT	364	67	A	
363.4	14:55:47	SHOT	365	67	A	
363.4	14:56:19	SHOT	366	67	A	
317.8	14:59:55	SHOT	367	68	A	
317.8	15:00:27	SHOT	368	68	A	
317.8	15:01:00	SHOT	369	68	A	
317.8	15:01:32	SHOT	370	68	A	
317.8	15:02:04	SHOT	371	68	A	
317.8	15:02:36	SHOT	372	68	A	
317.8	15:03:24	SHOT	373	68	A	
272.0	15:07:17	SHOT	374	69	A	
272.0	15:09:23	SHOT	375	69	A	
272.0	15:09:55	SHOT	376	69	A	
226.4	15:13:28	SHOT	377	70	A	Noise
226.4	15:14:00	SHOT	378	70	A	
226.4	15:14:32	SHOT	379	70	A	
226.4	15:15:04	SHOT	380	70	A	

Observer's Note (7/7)

Well depth[m]	Time	Shot Type	Shot#	Stack#	Source	Remarks
180.6	15:18:54	SHOT	381	71	A	
180.6	15:19:26	SHOT	382	71	A	
180.6	15:19:59	SHOT	383	71	A	
134.9	15:24:05	SHOT	384	72	A	
134.9	15:24:37	SHOT	385	72	A	
134.9	15:25:09	SHOT	386	72	A	

GR Correlation Report

Company: Apache Northwest Pty Ltd Well: Coelacanth−1

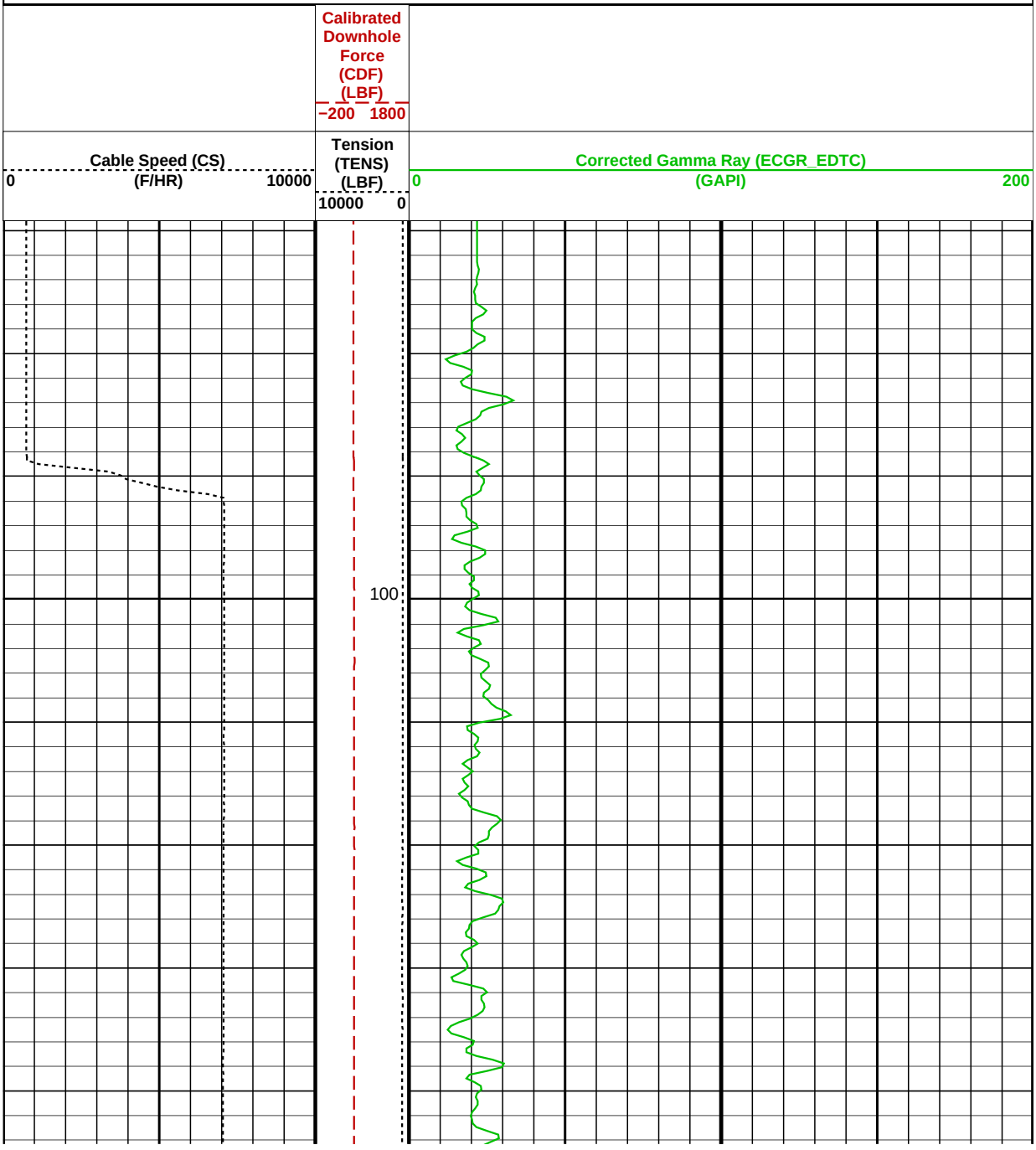
Output DLIS Files

DEFAULT VSIT_009LUP FN:8 PRODUCER 23−Mar−2008 08:45 3025.0 M 84.6 M

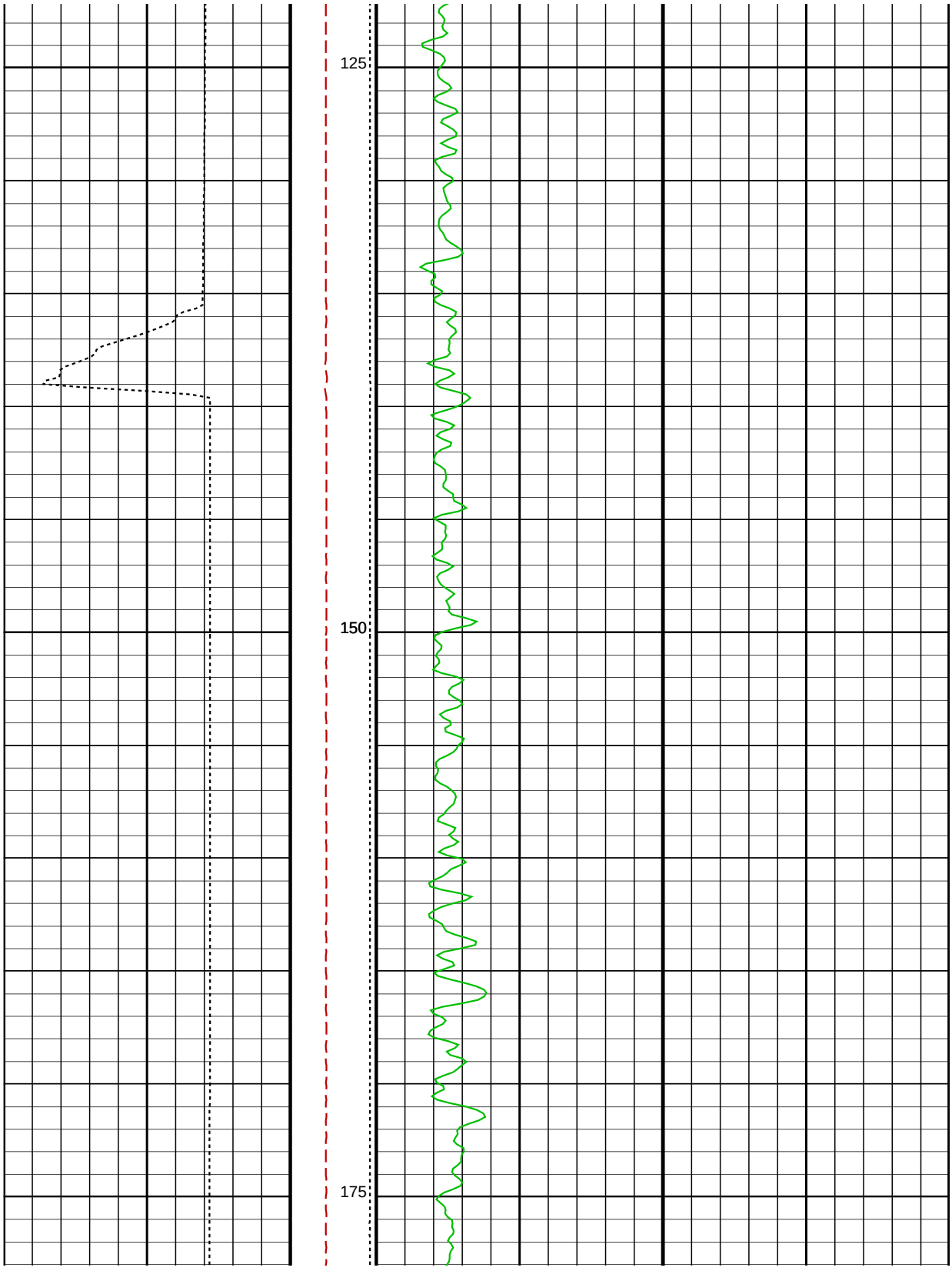
OP System Version: 15C0−309

MCM

VSIT−G SKK−3368−VSI−WB2_9_17_I EDTC−B SKK−3493−EDTCB_b



Schlumberger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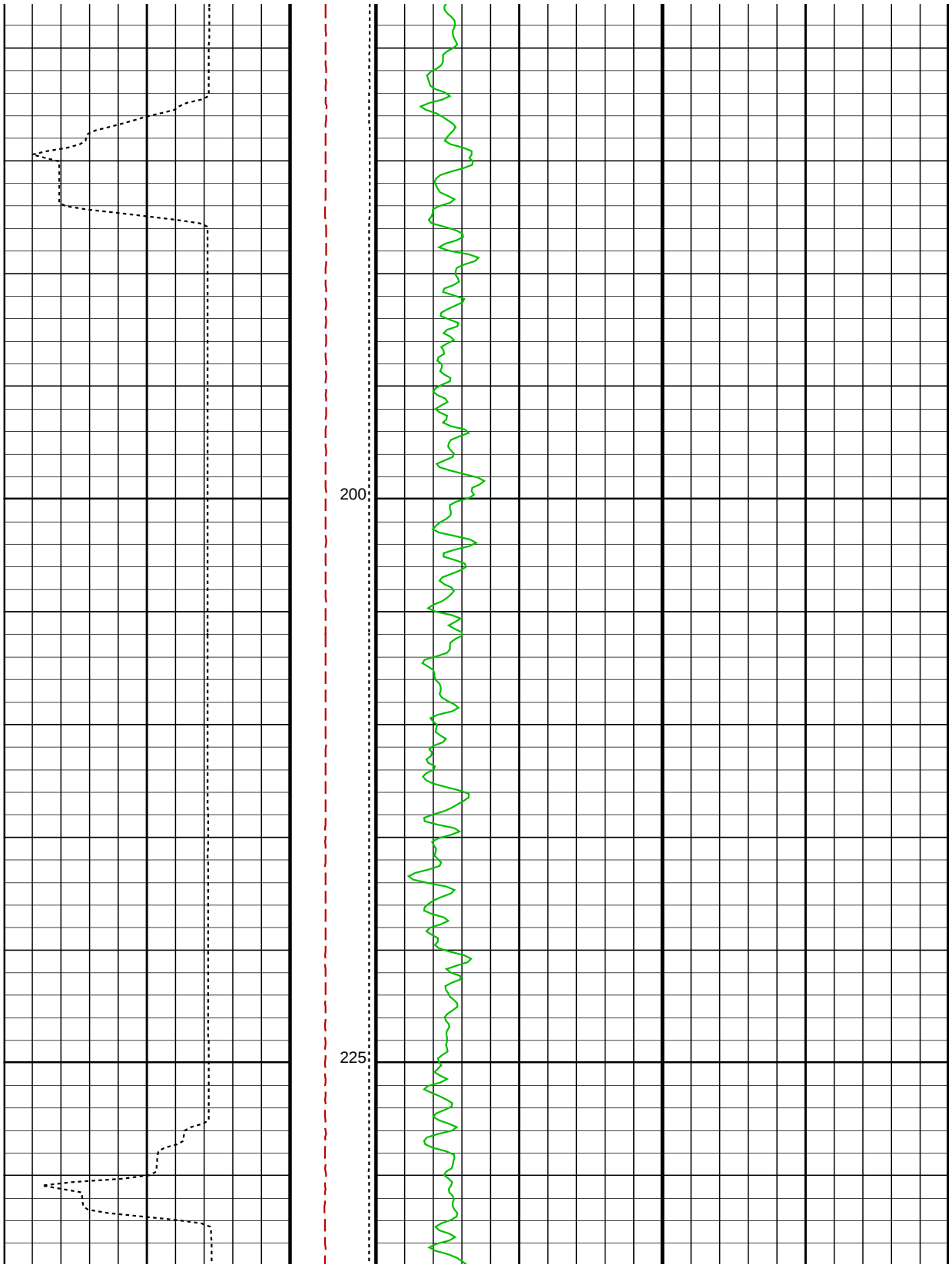
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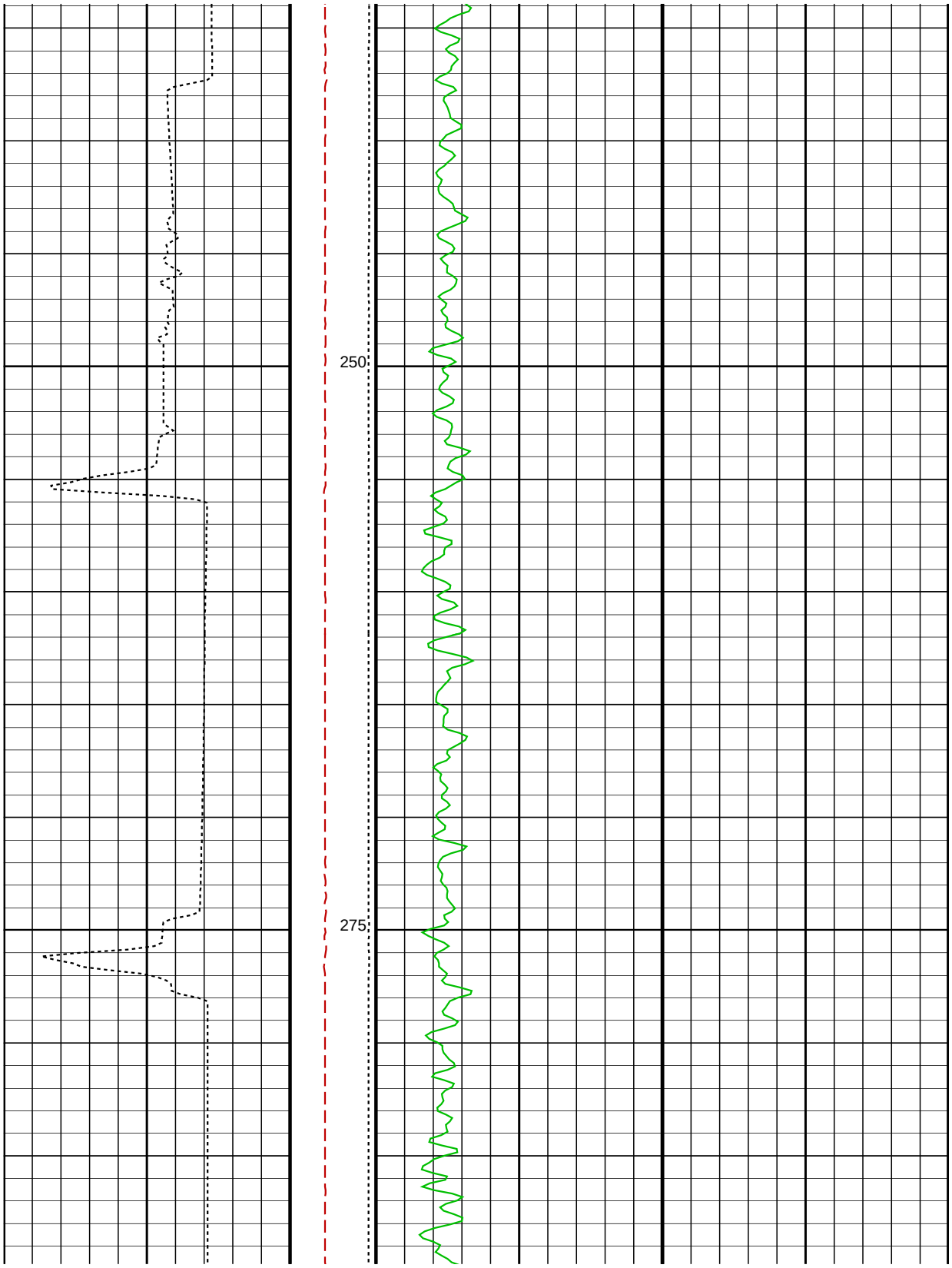
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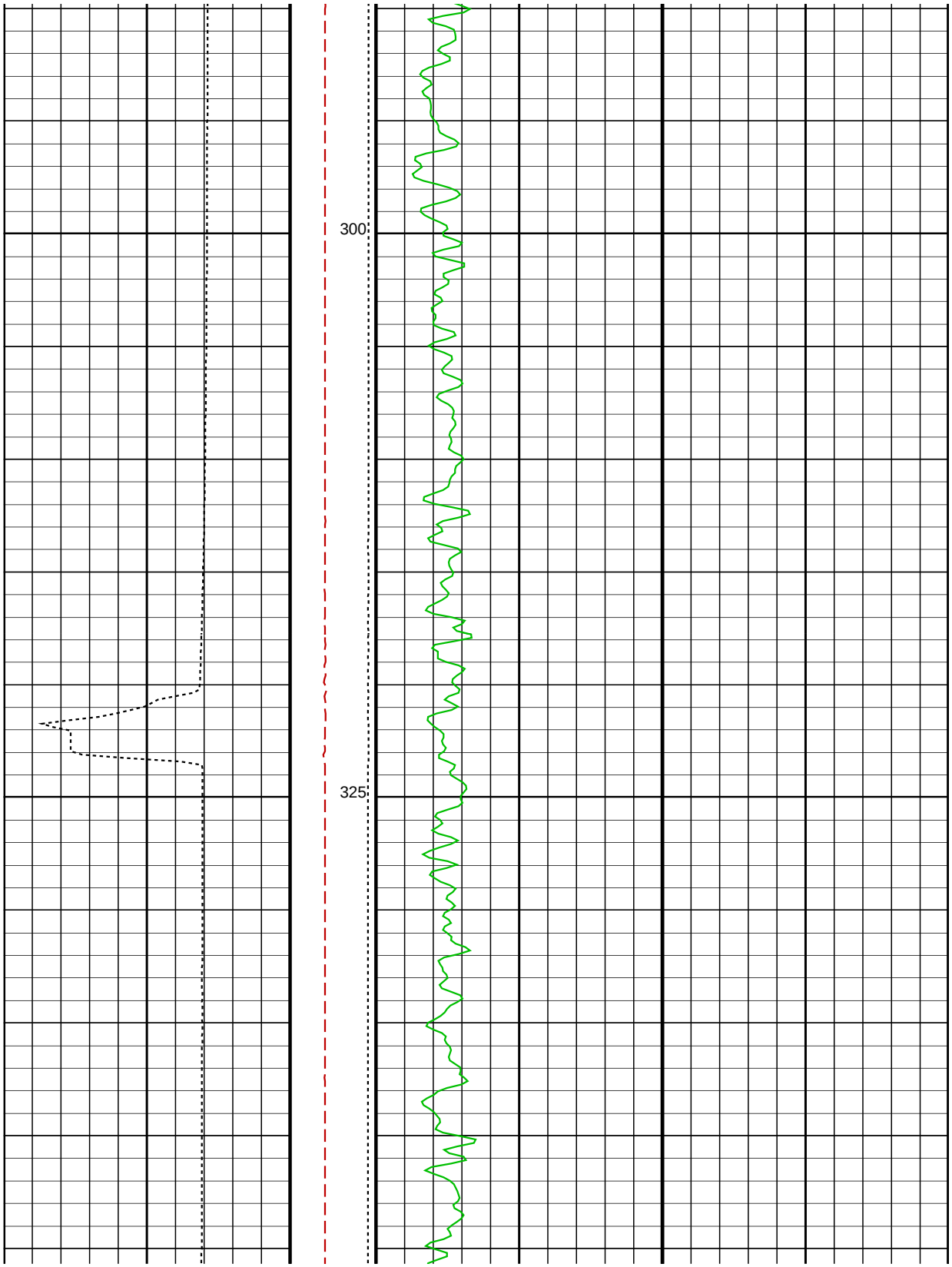
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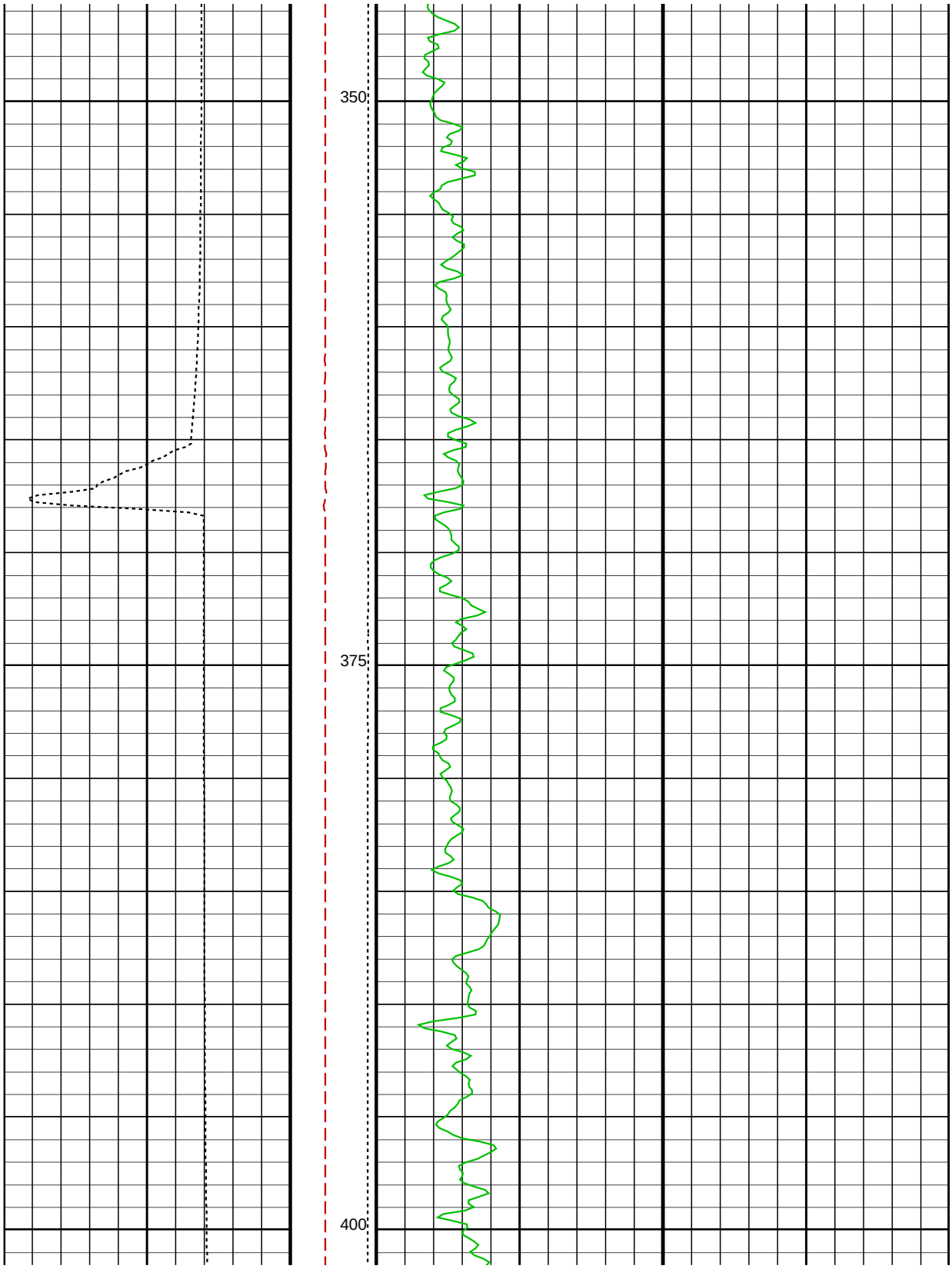
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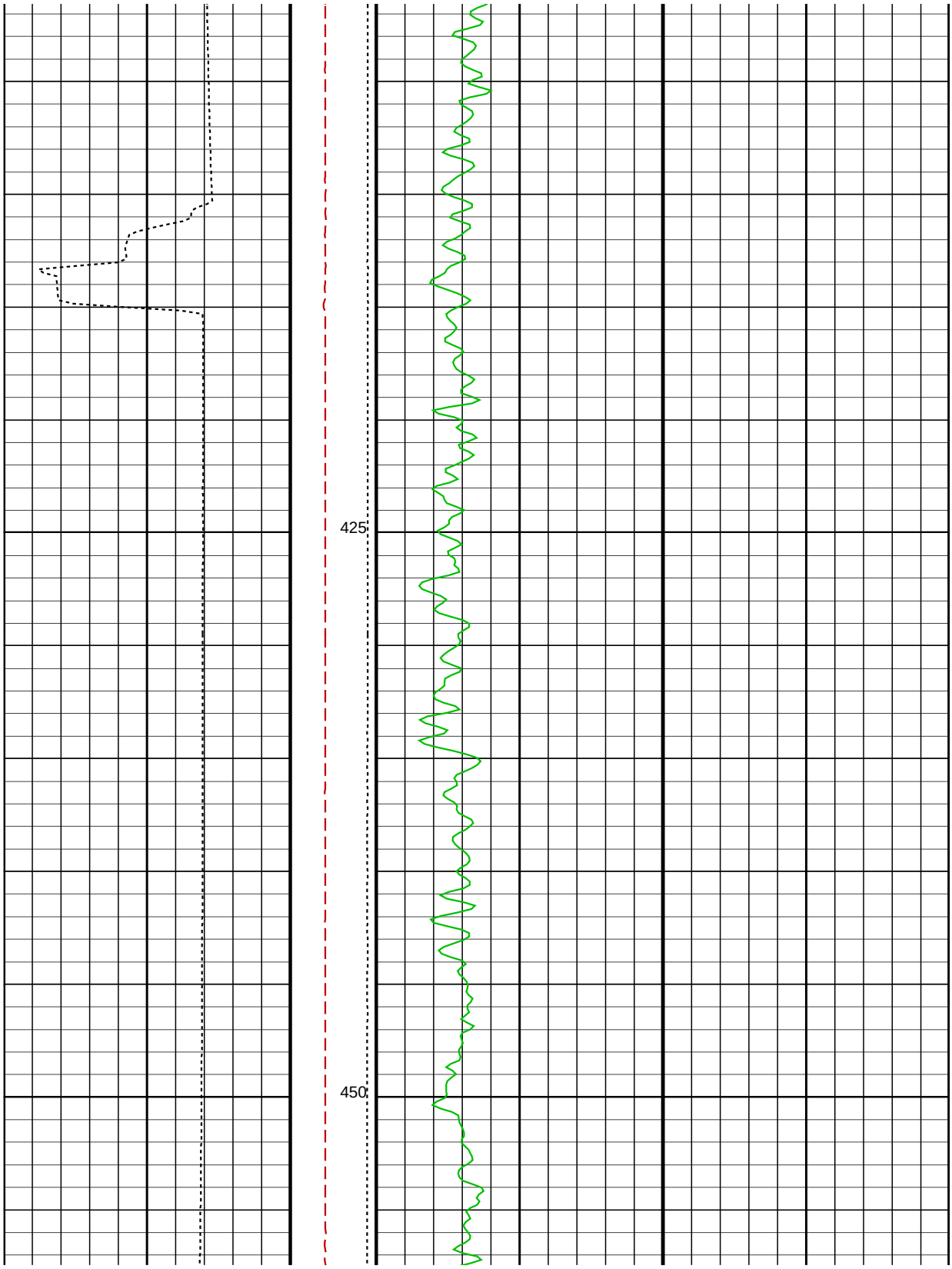
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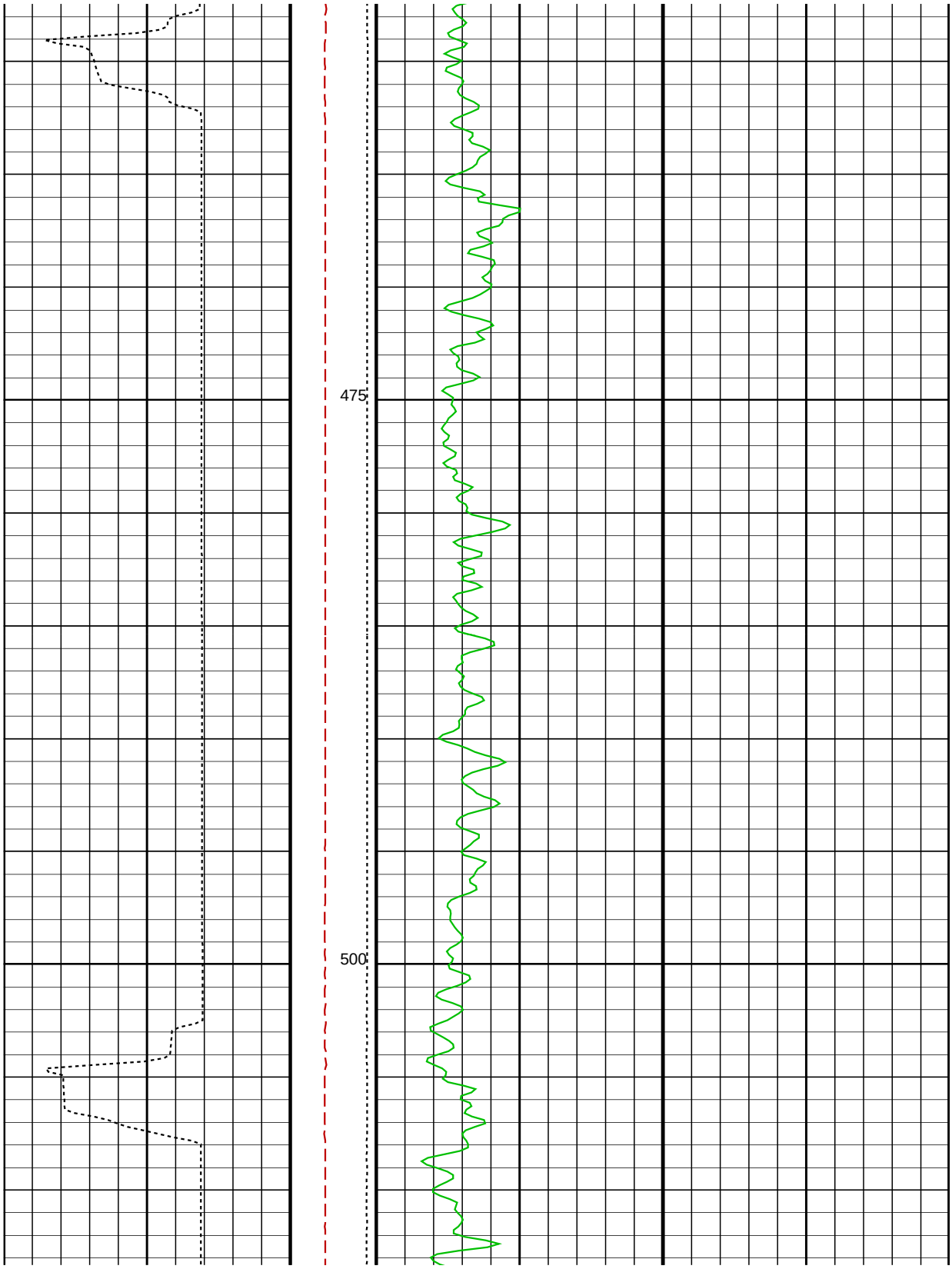
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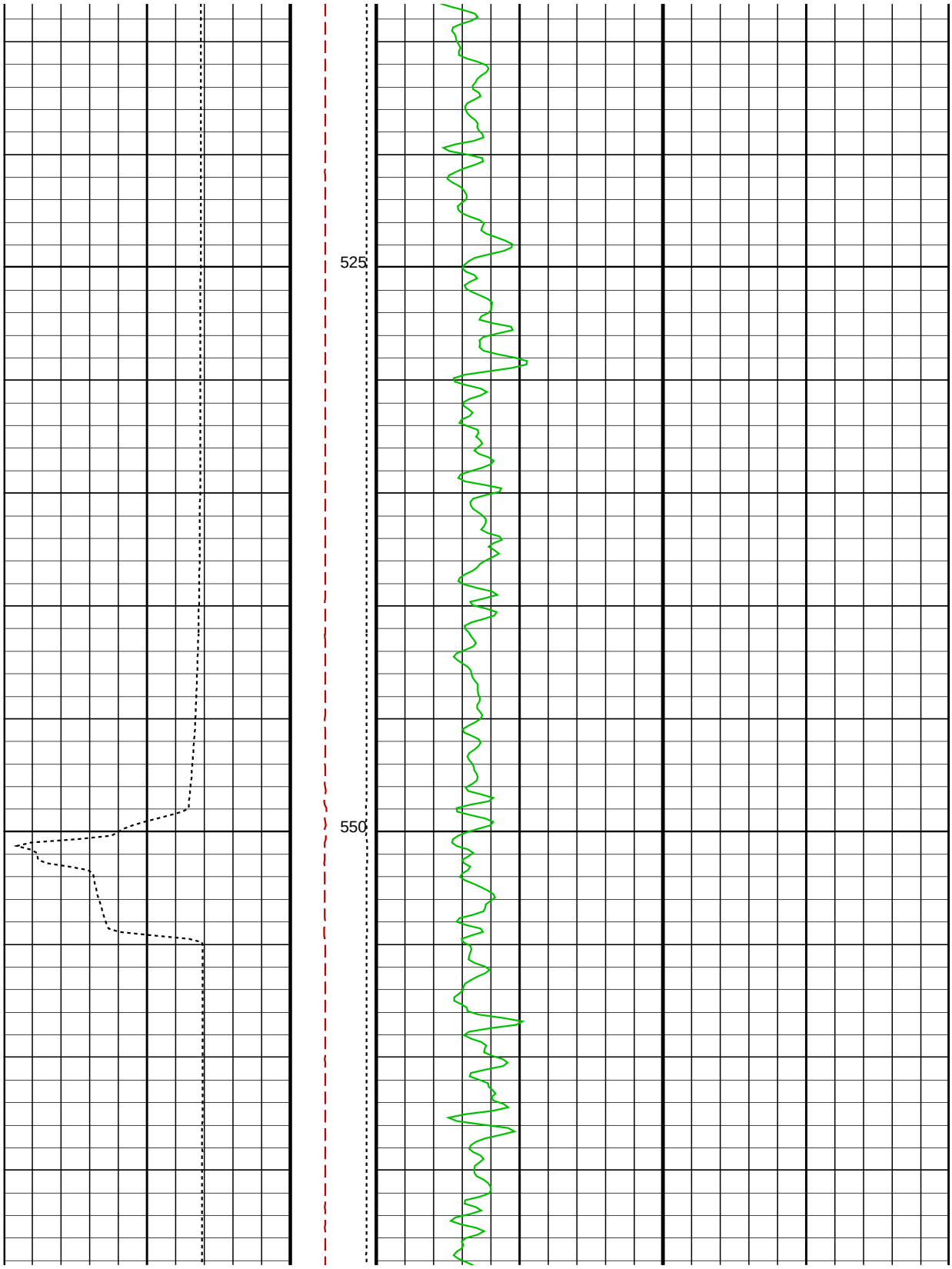
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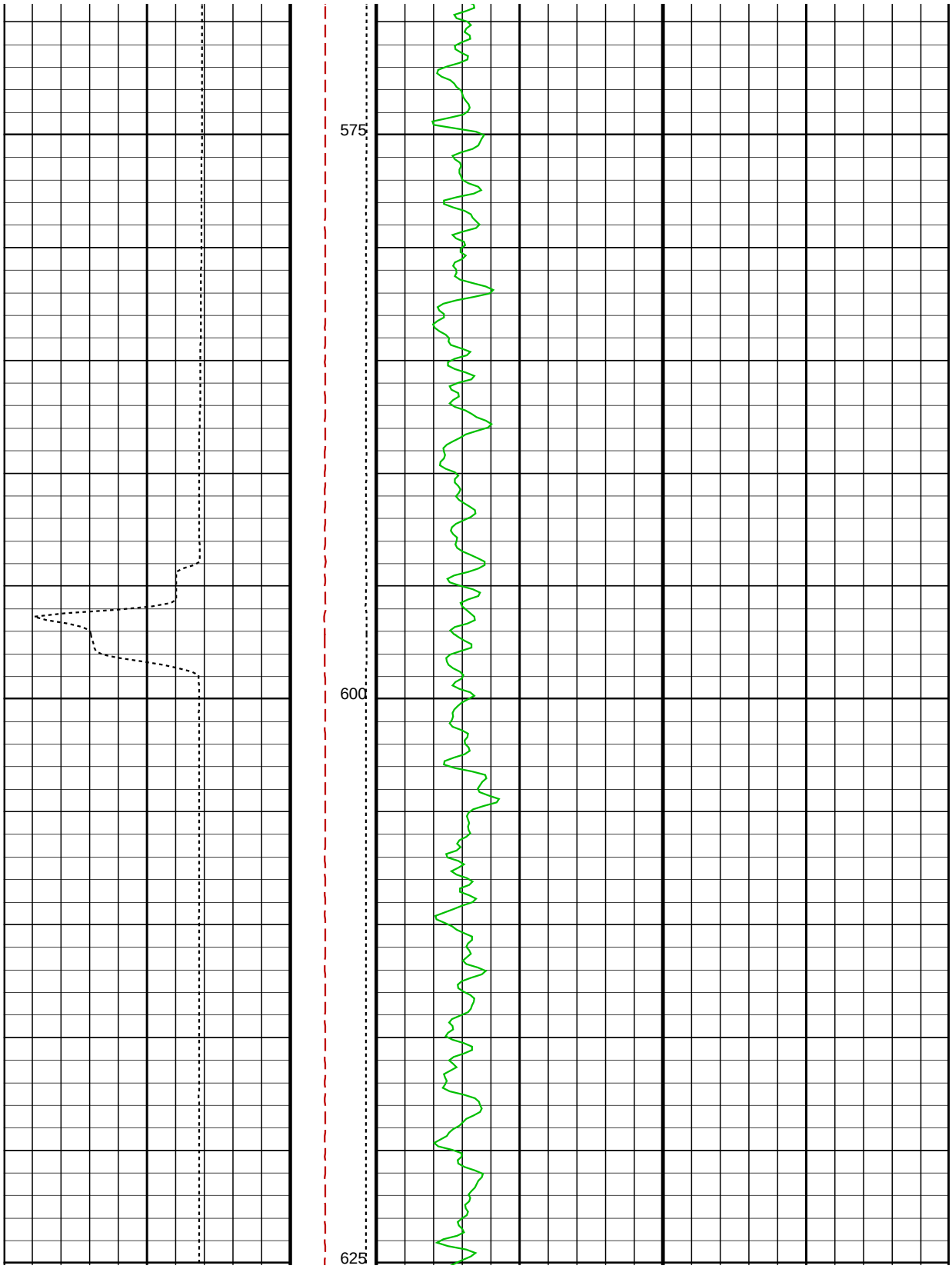
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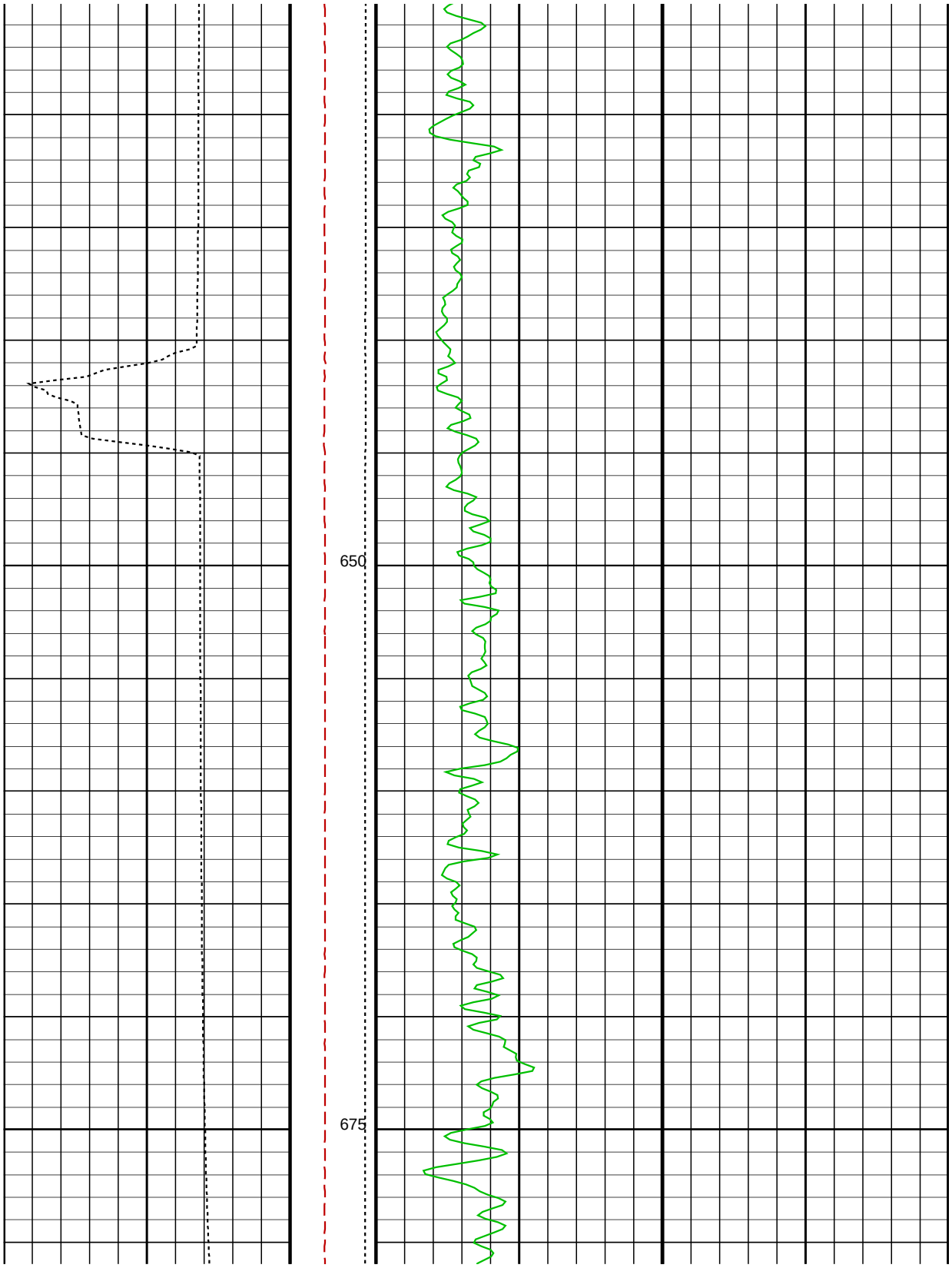
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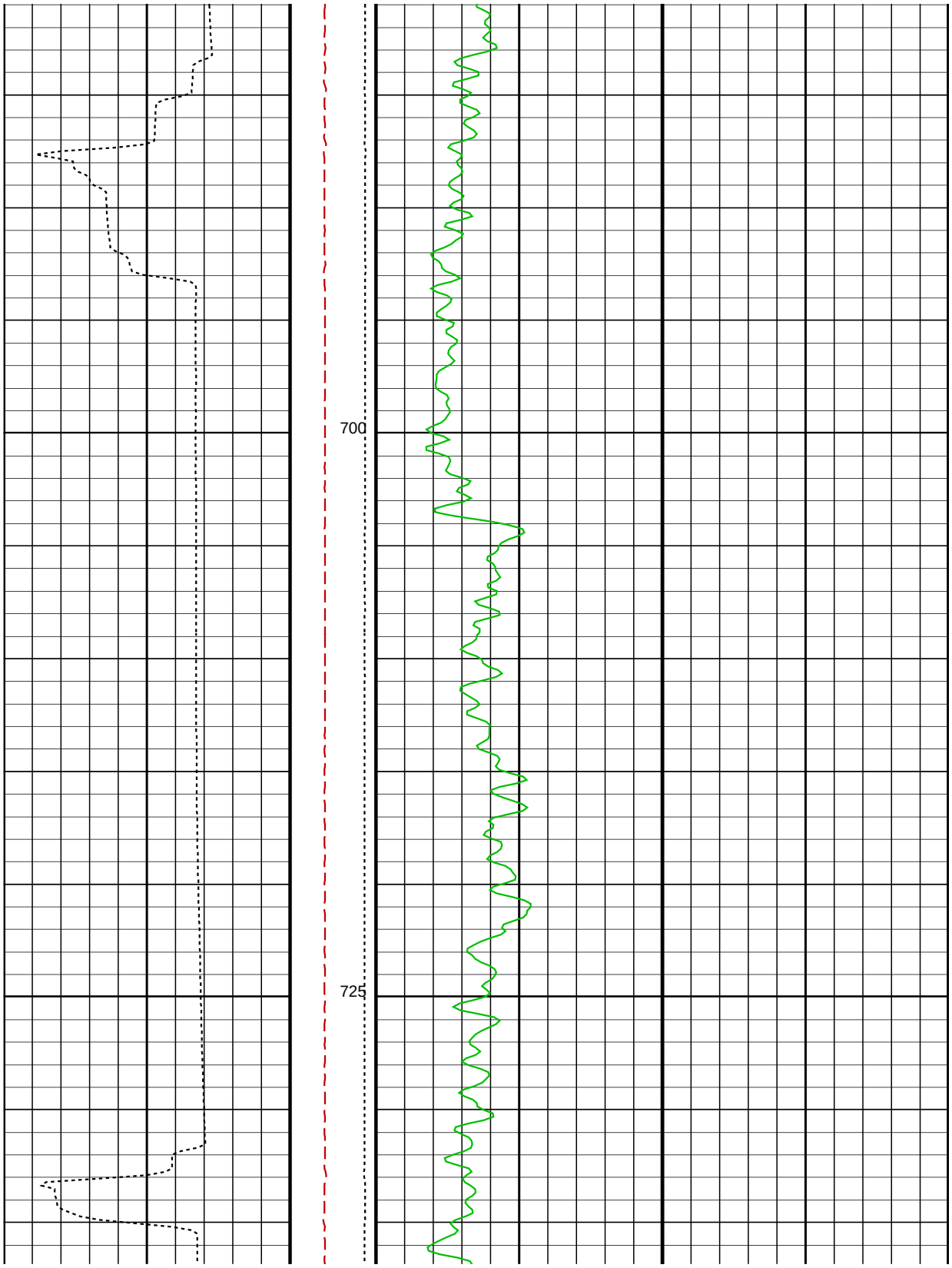
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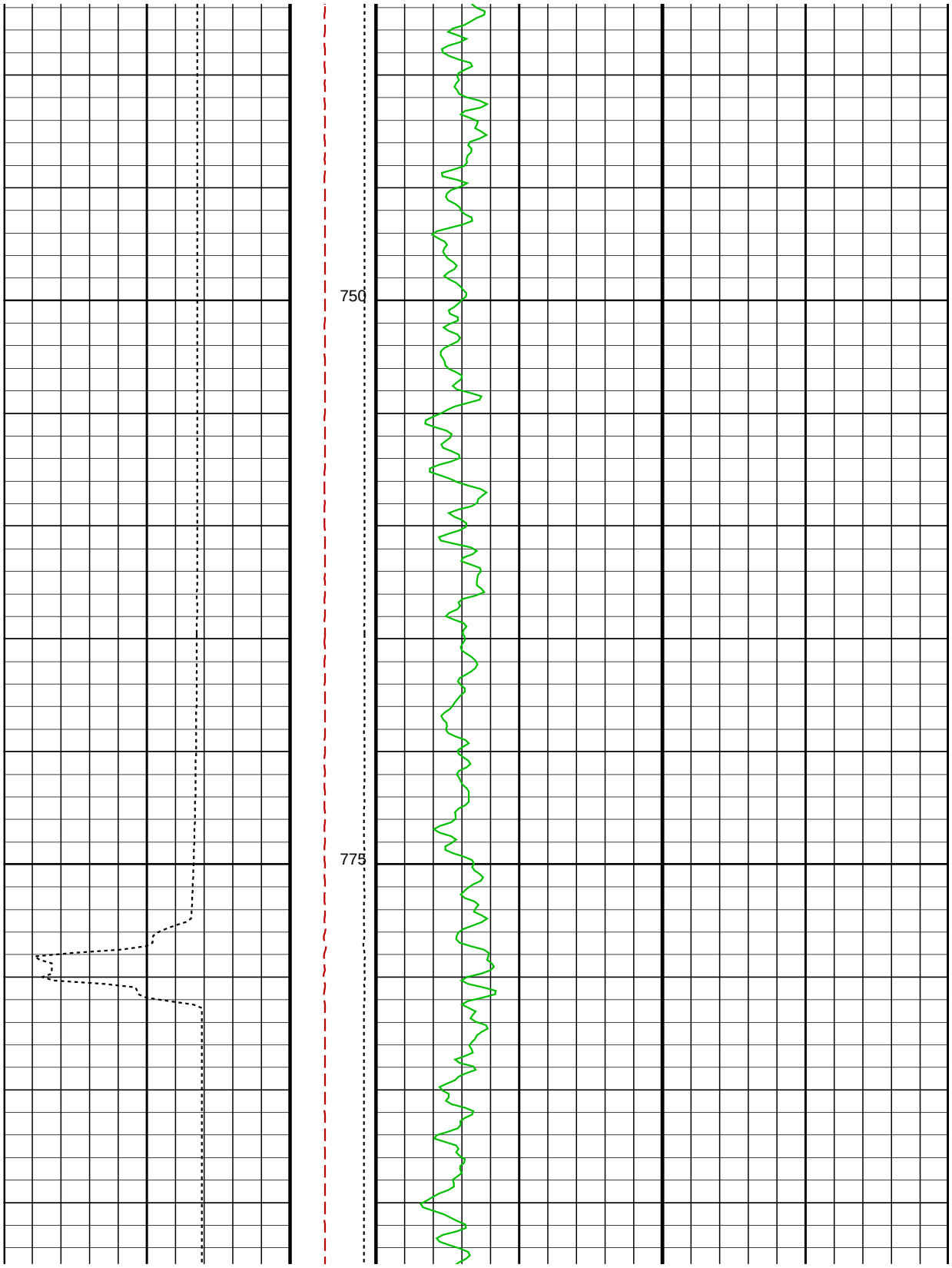
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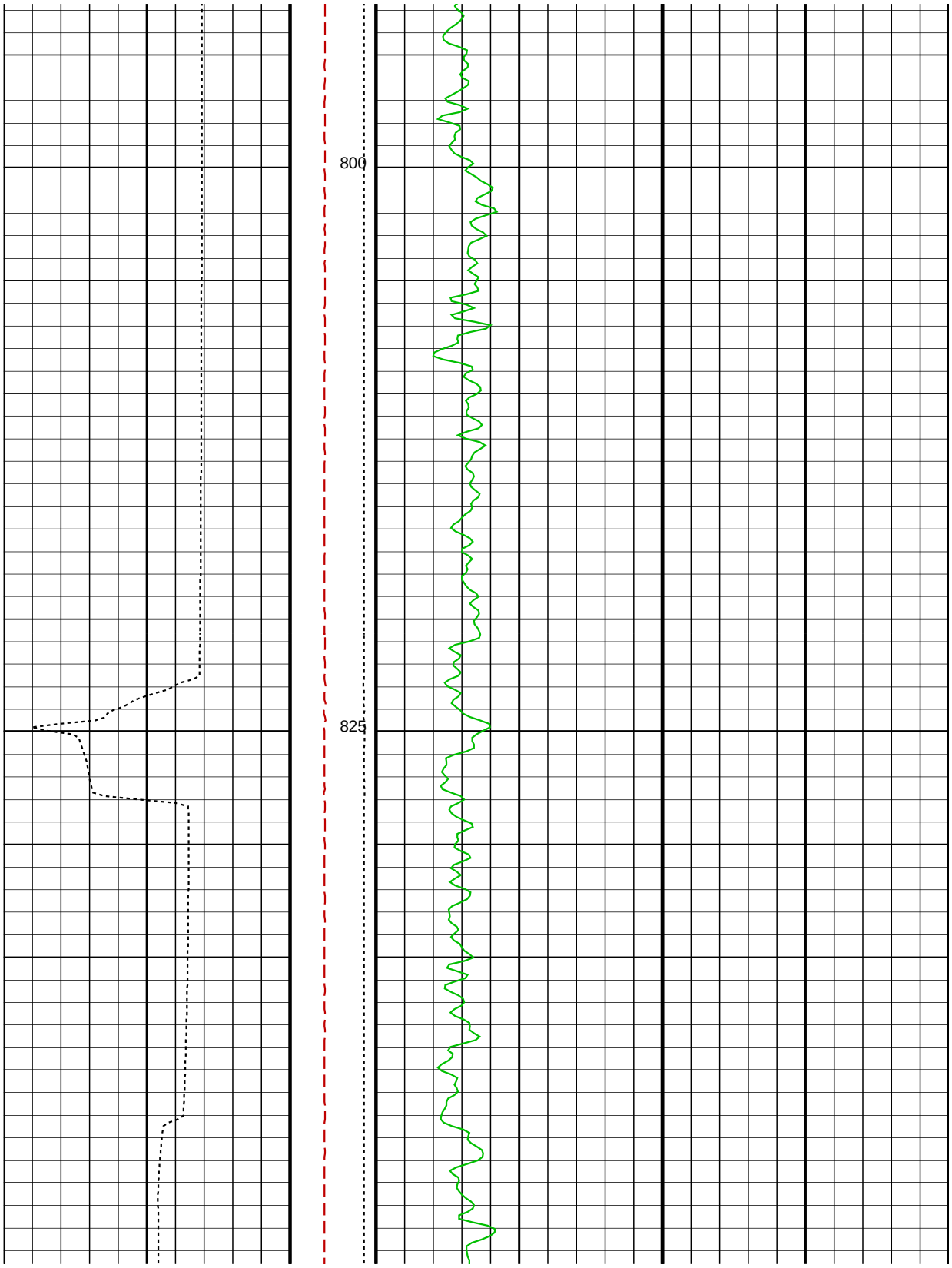
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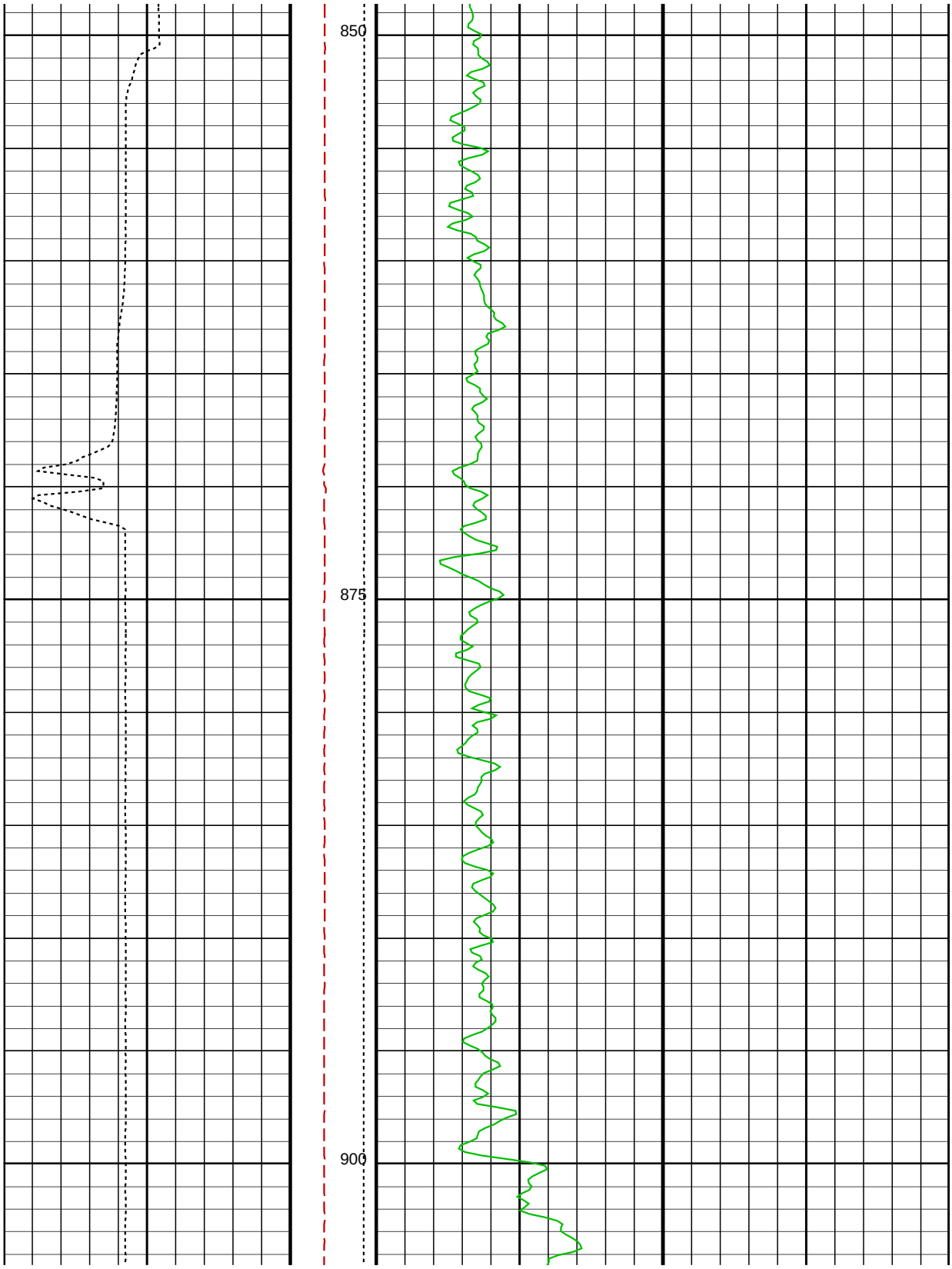
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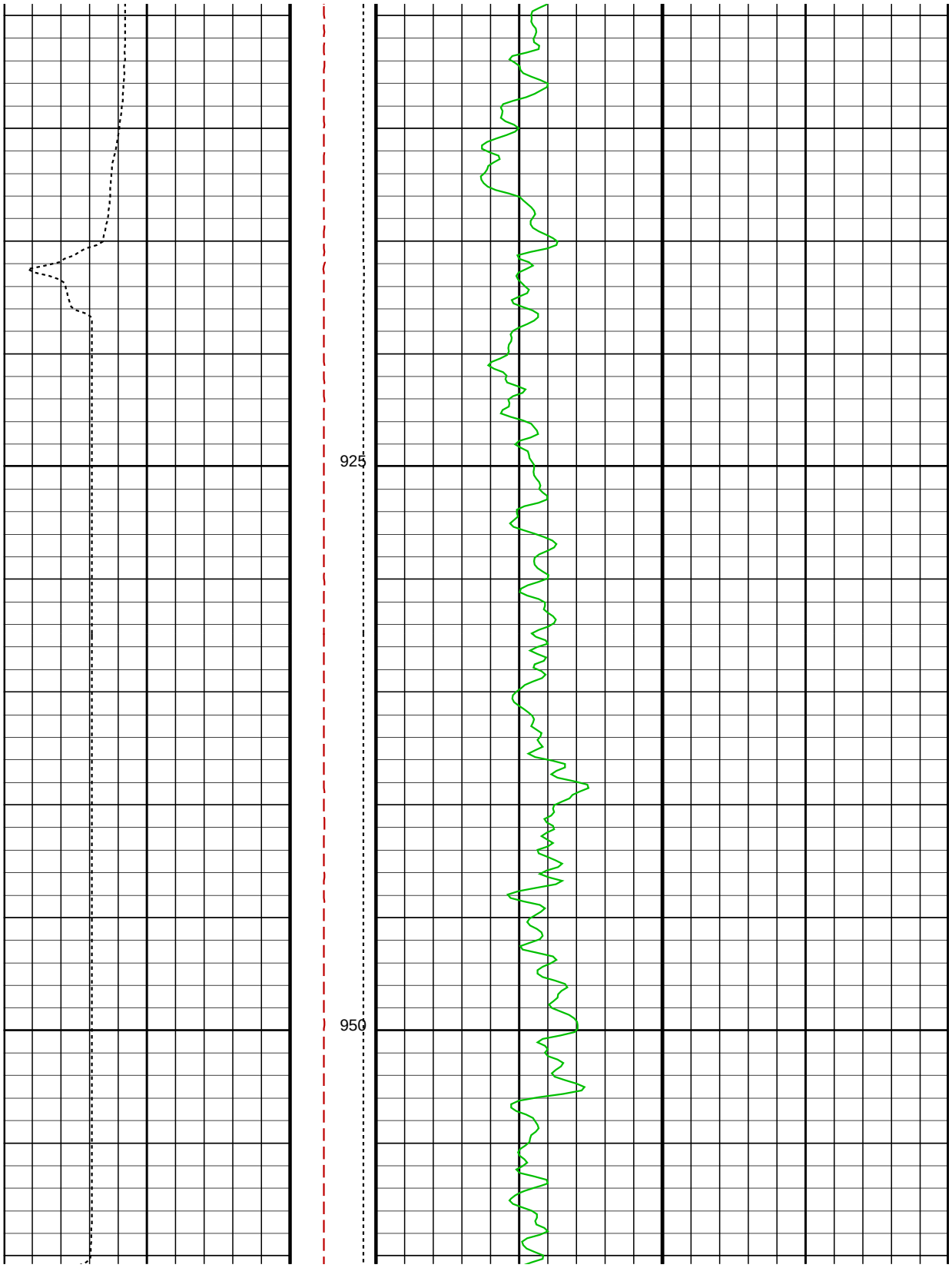
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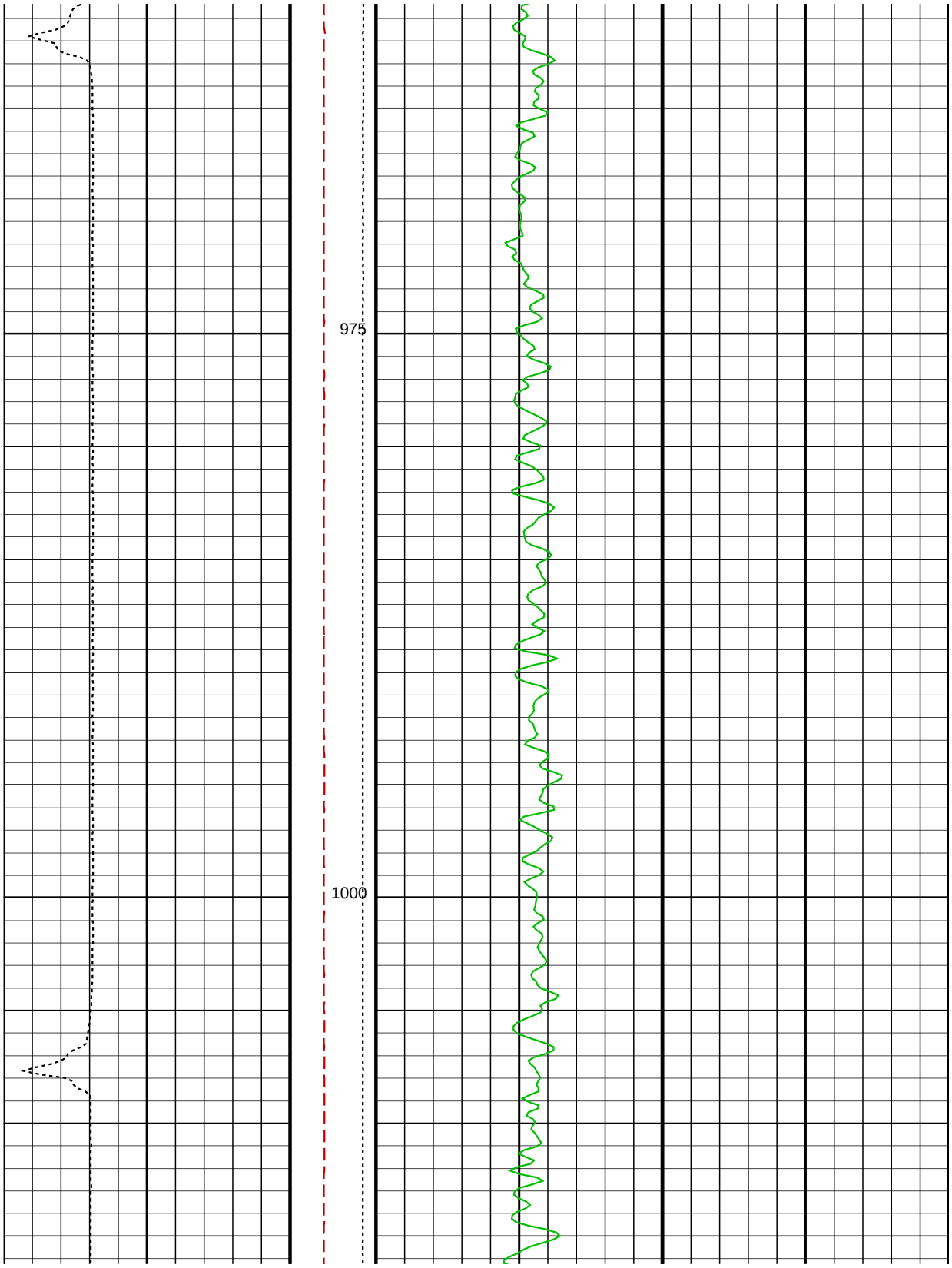
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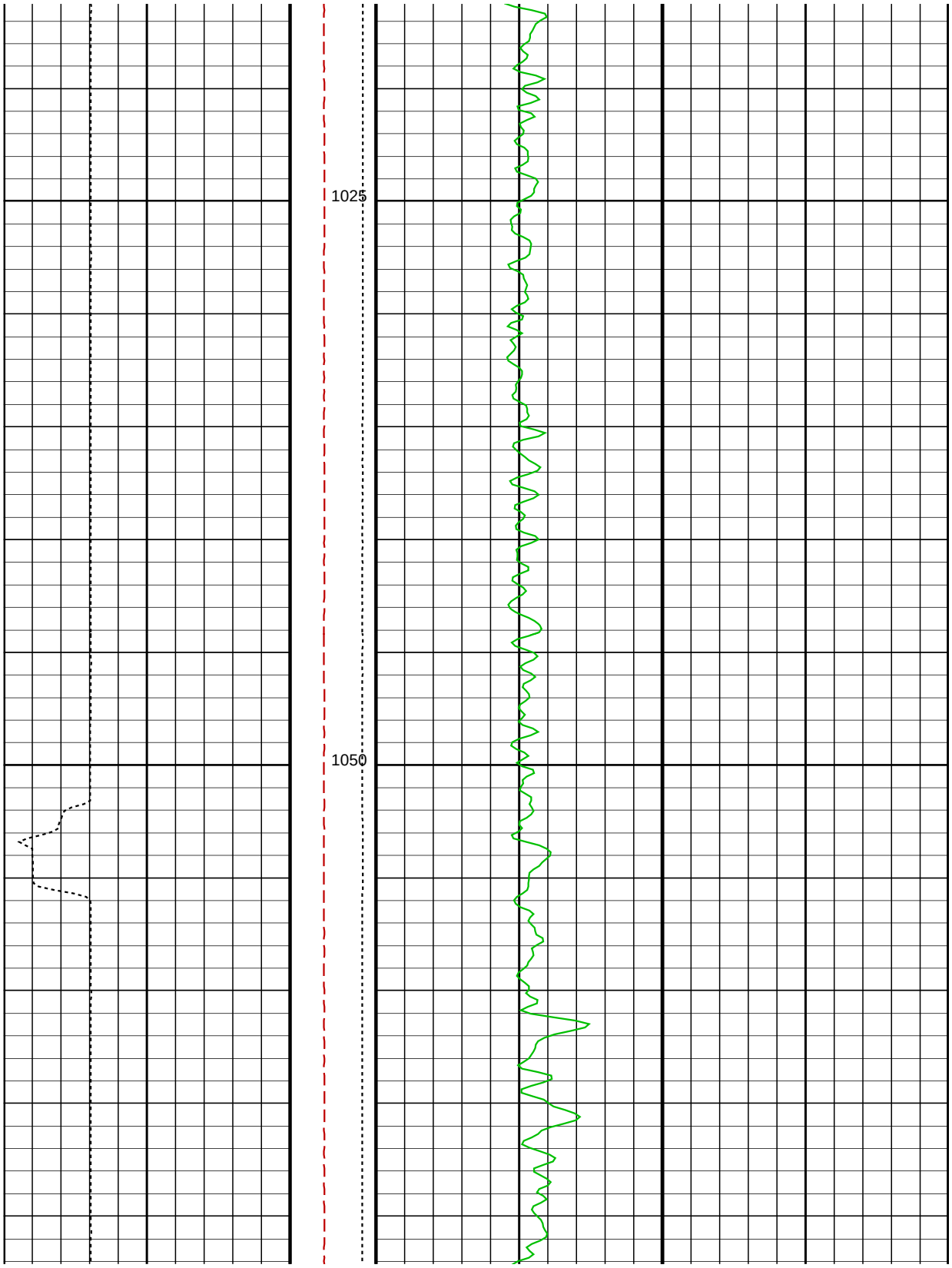
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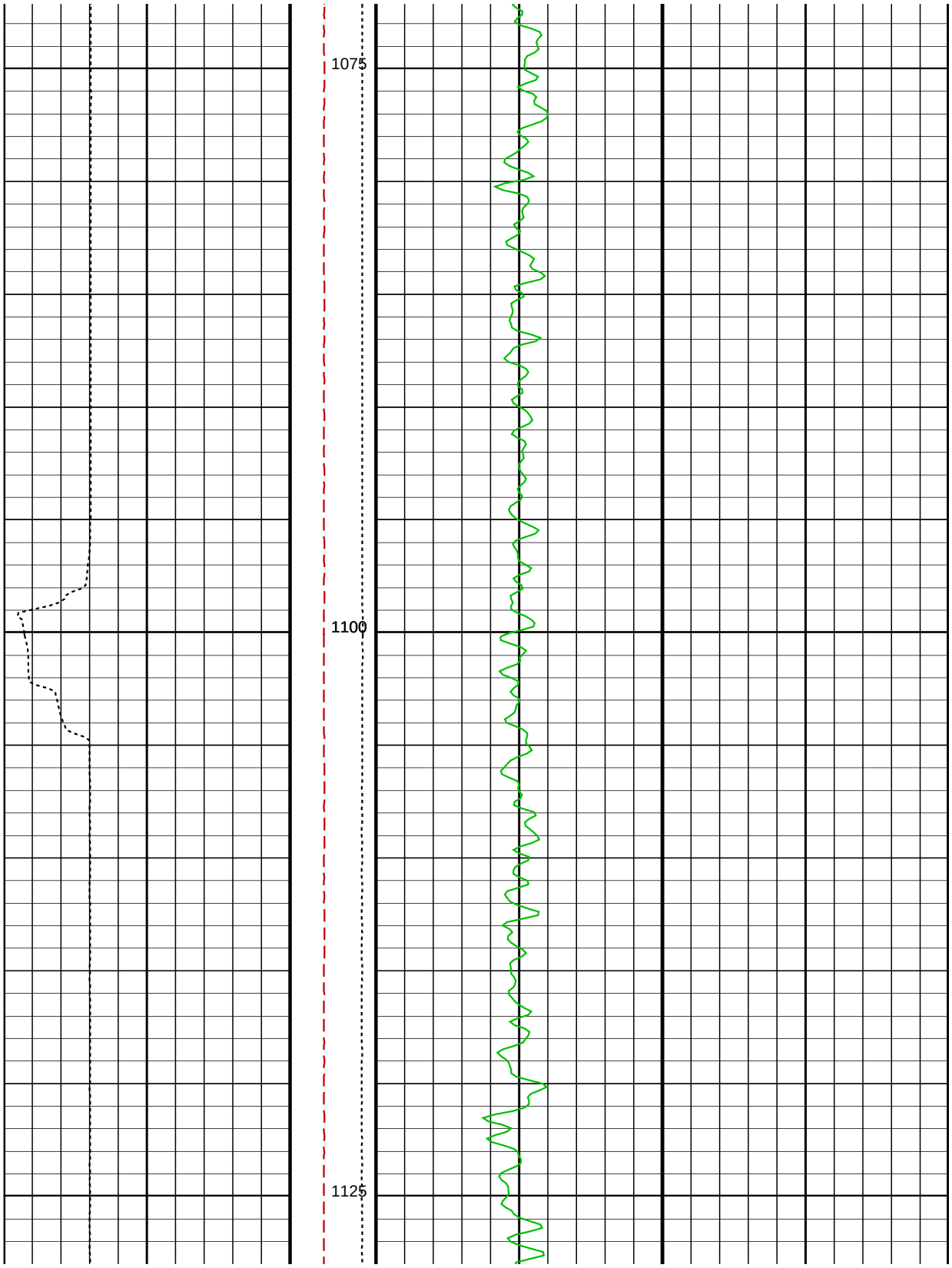
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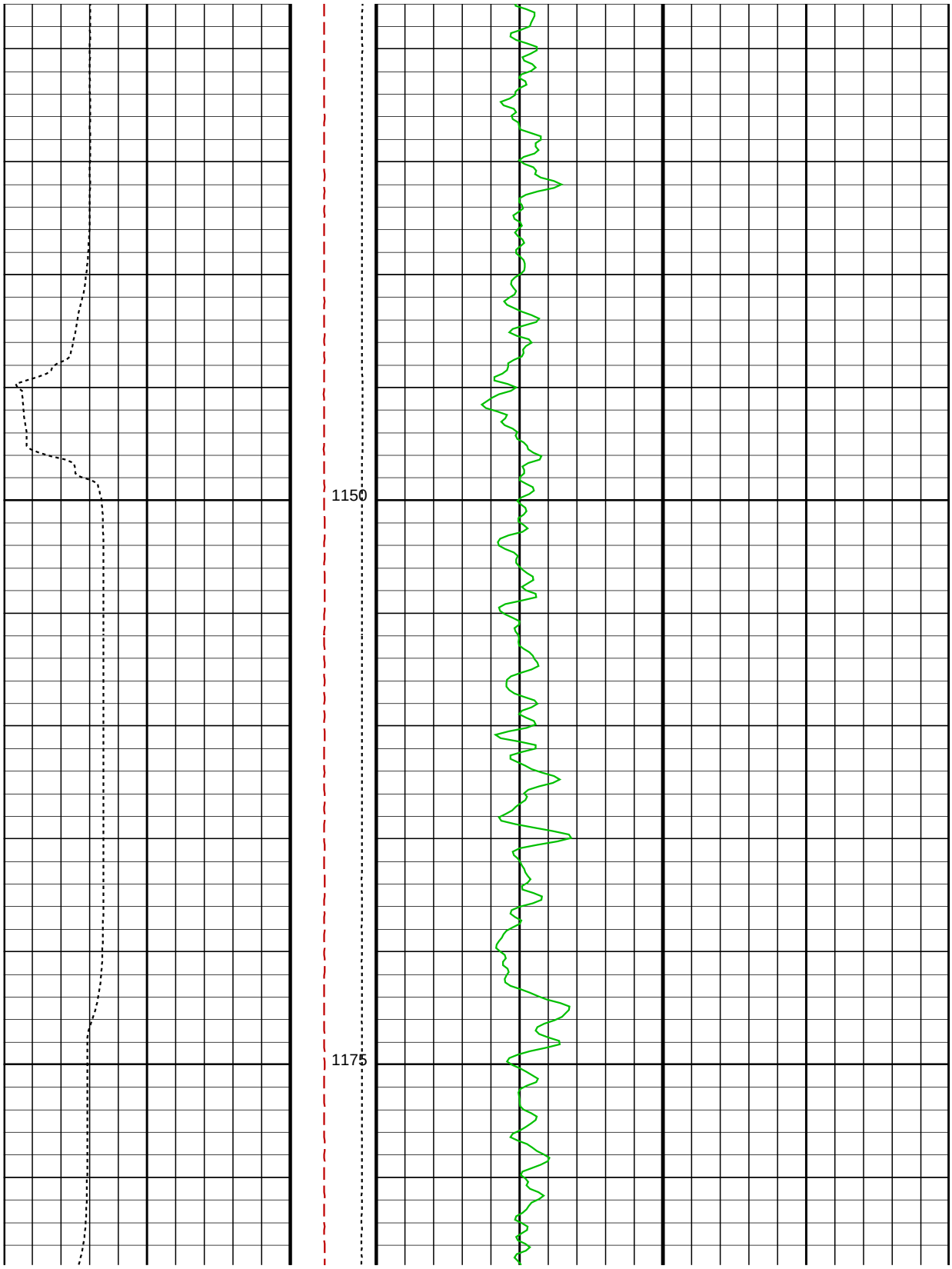
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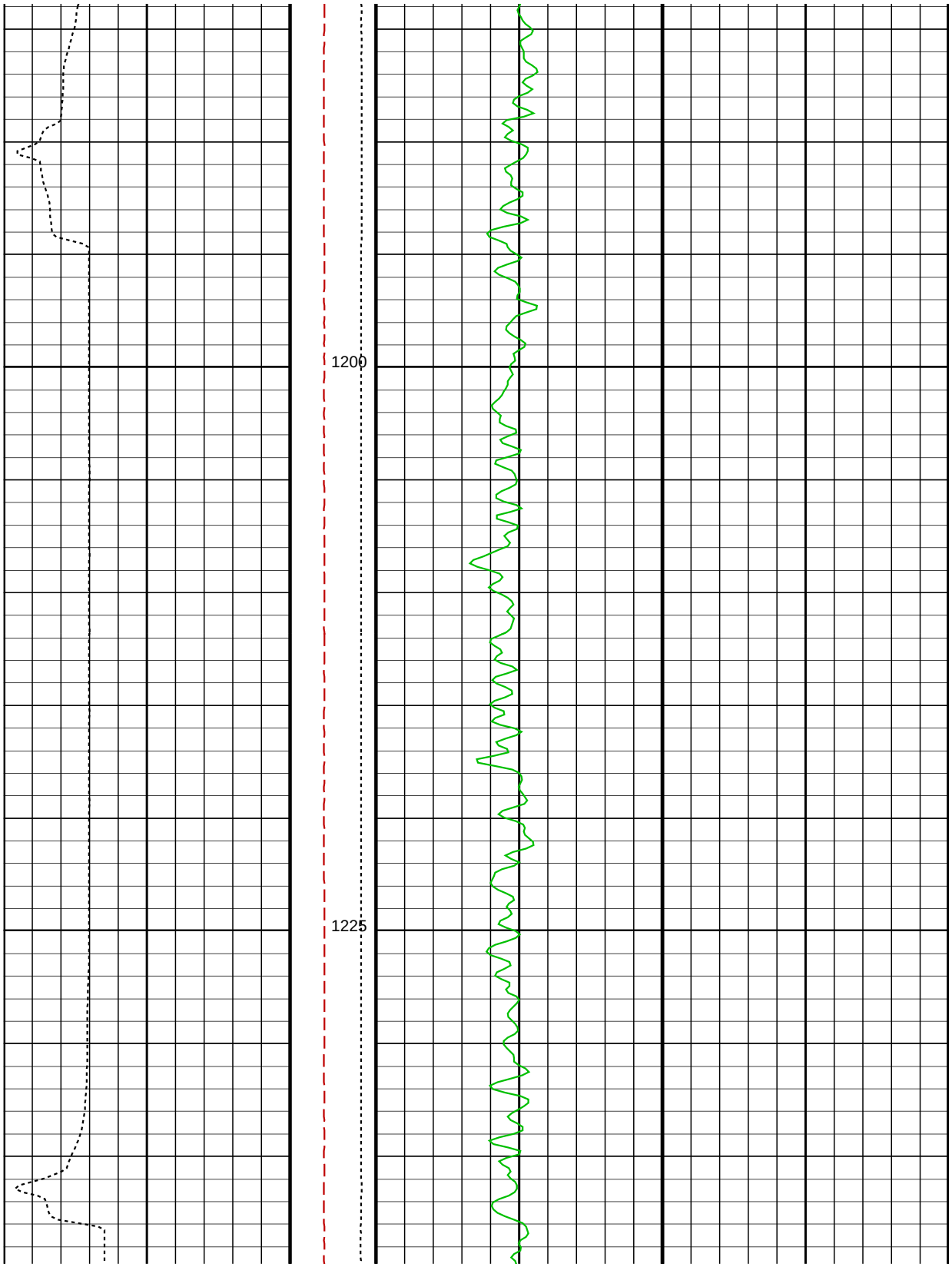
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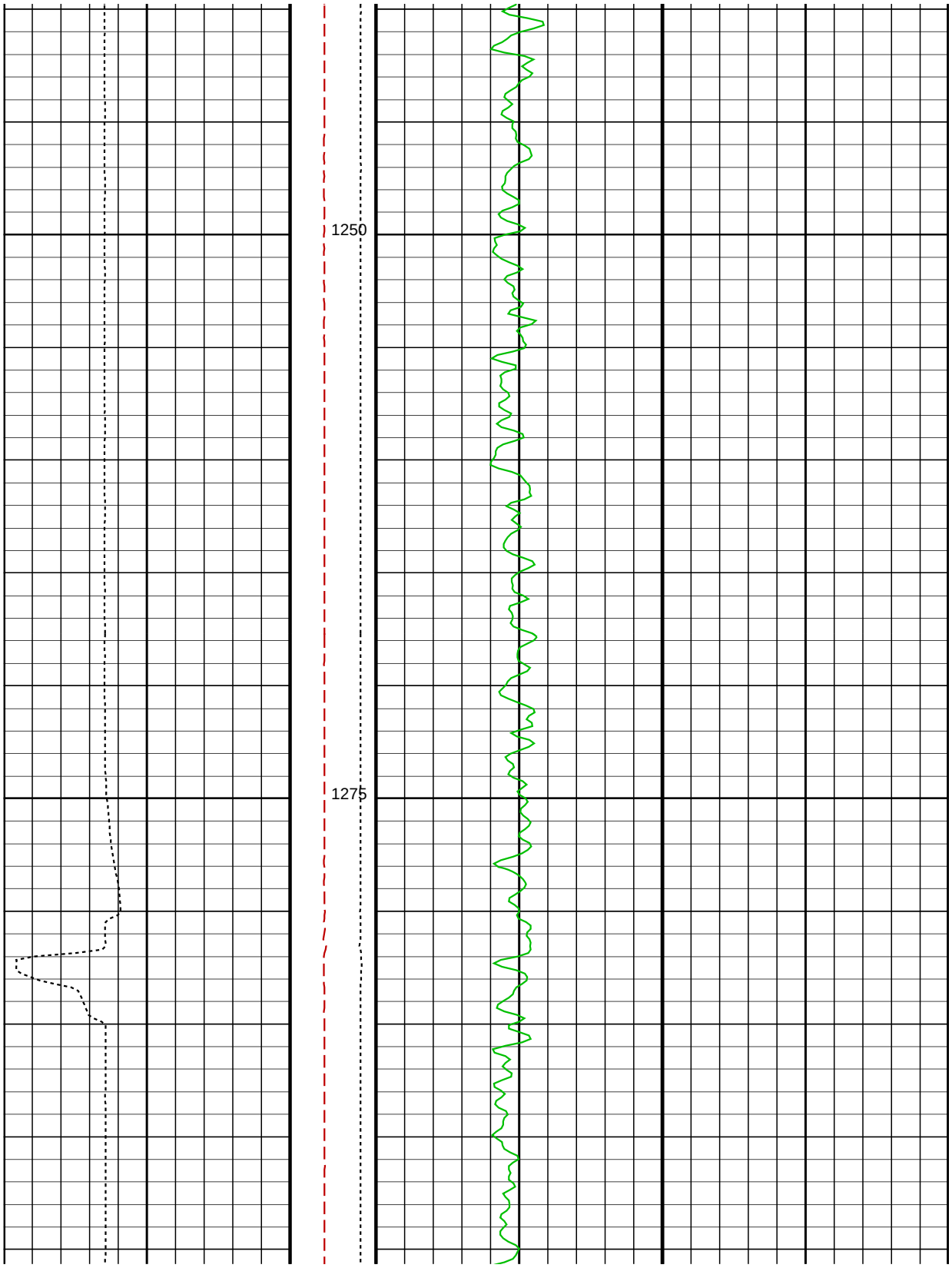
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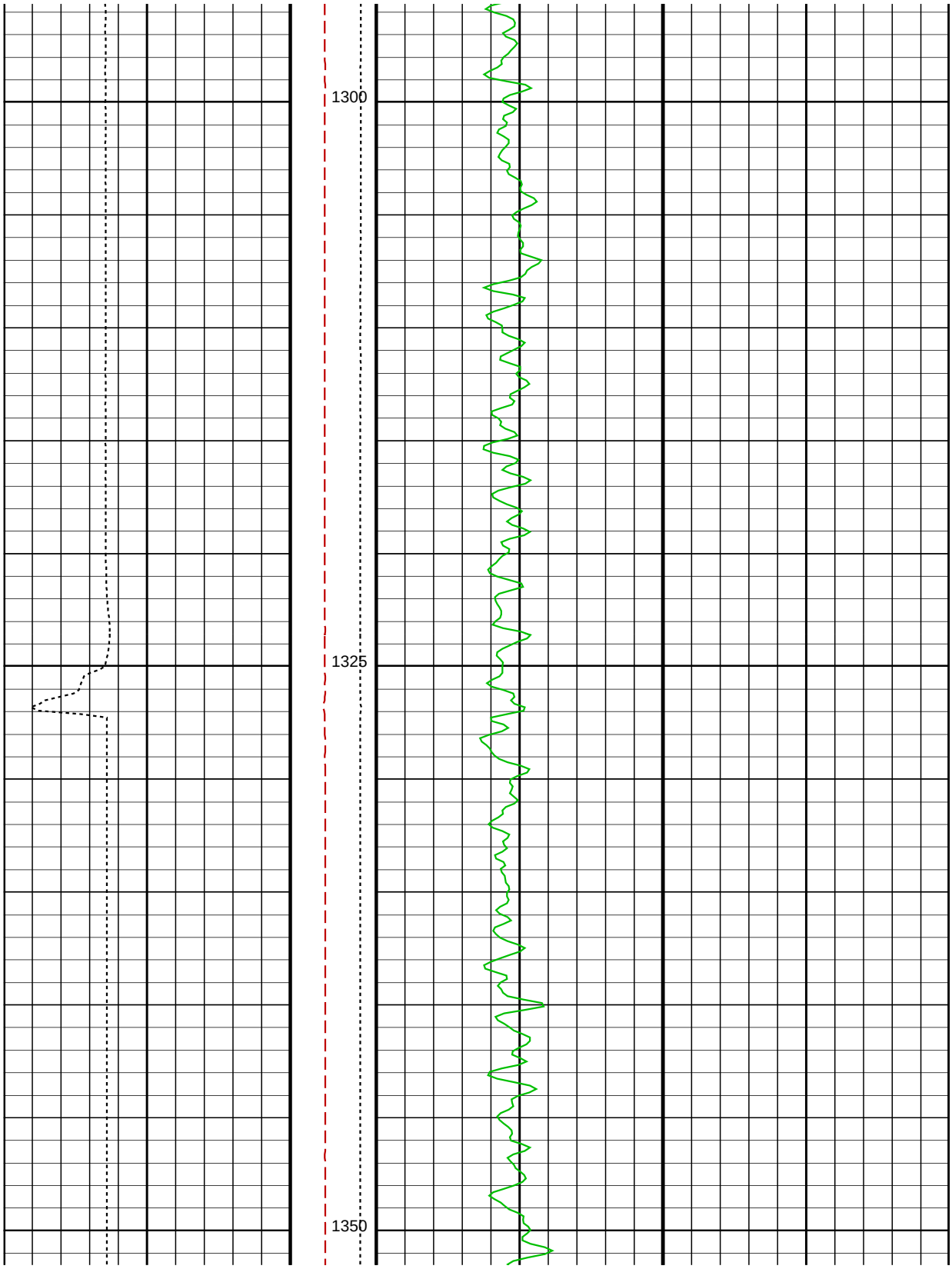
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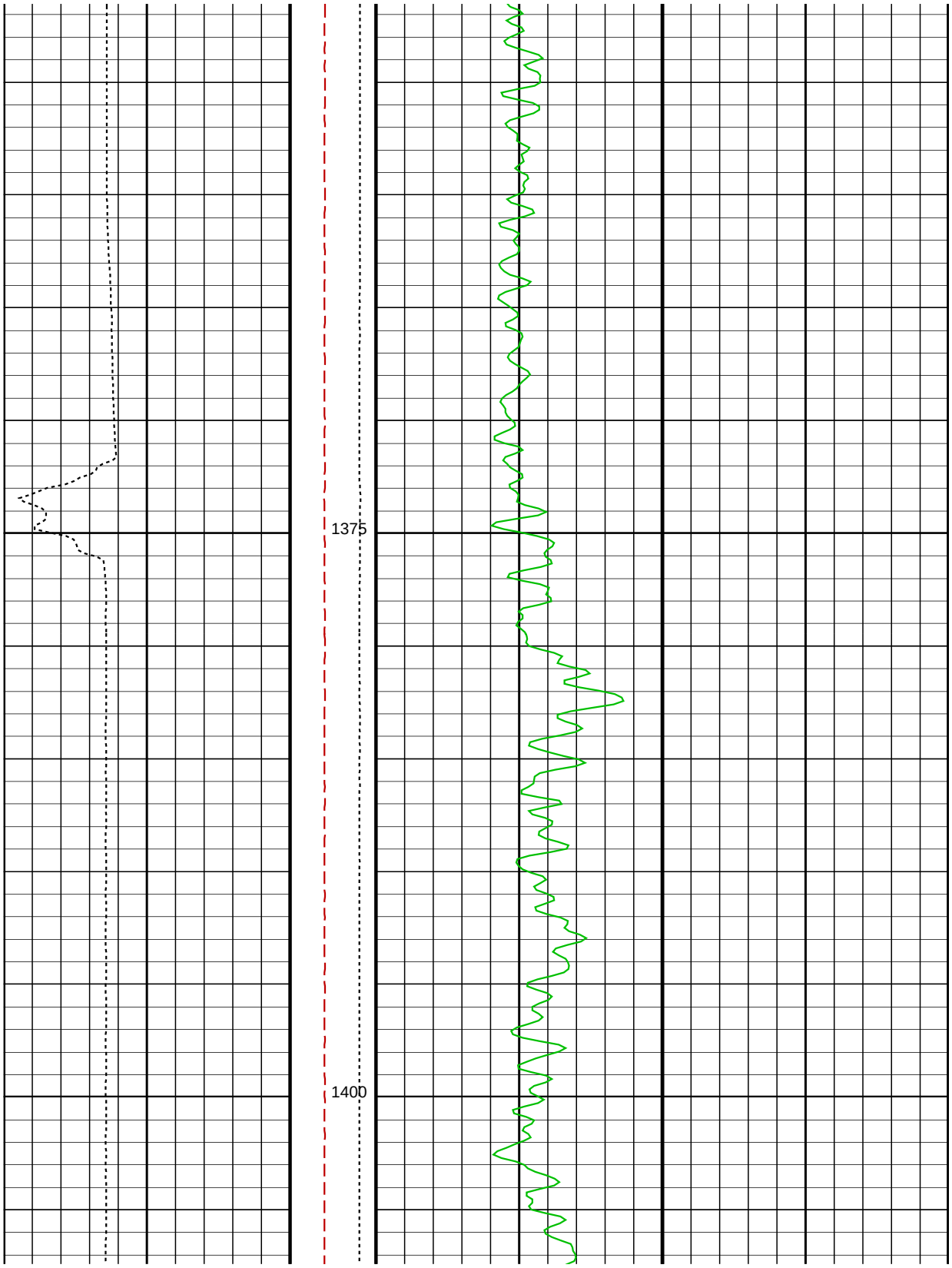
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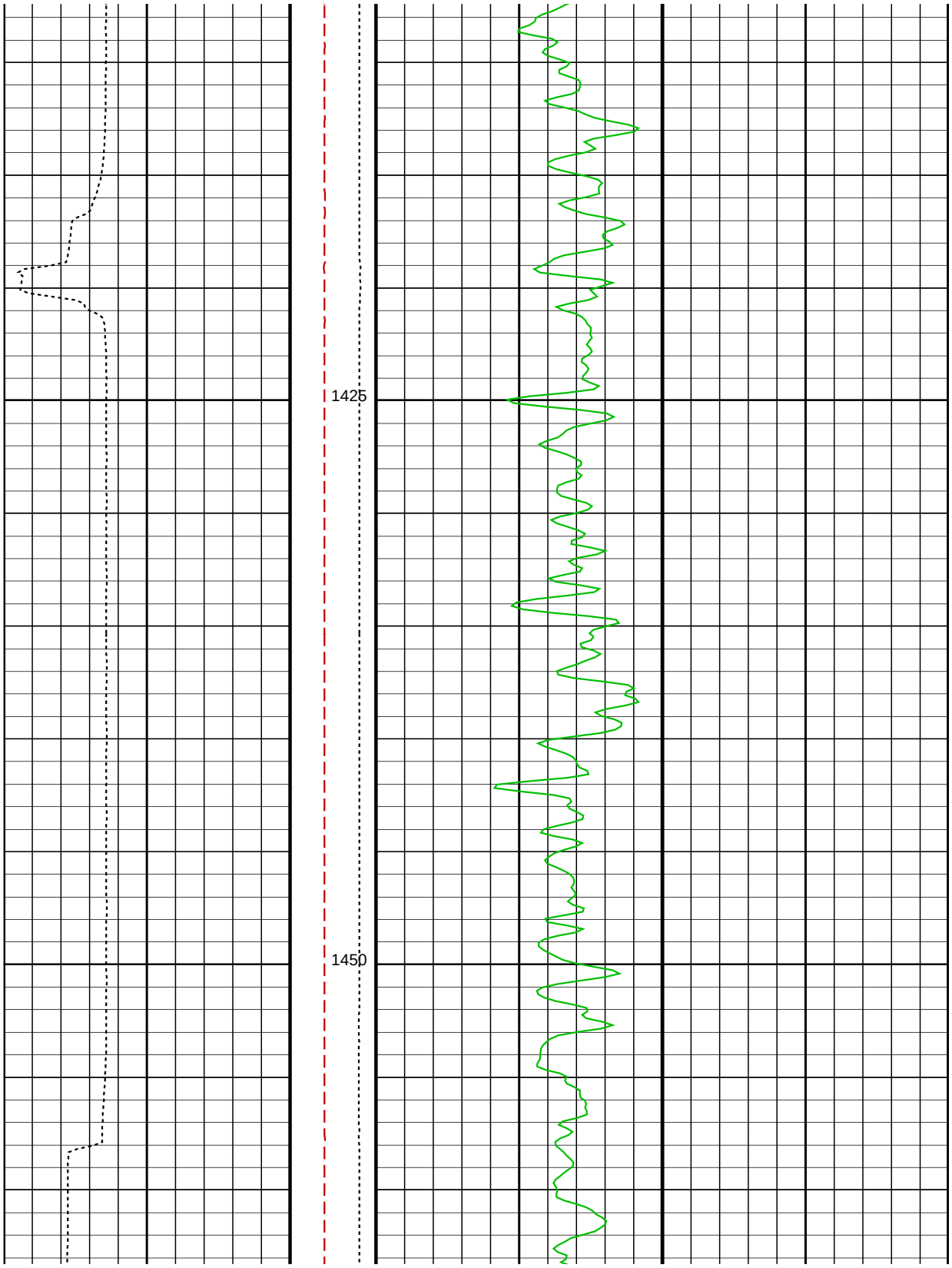
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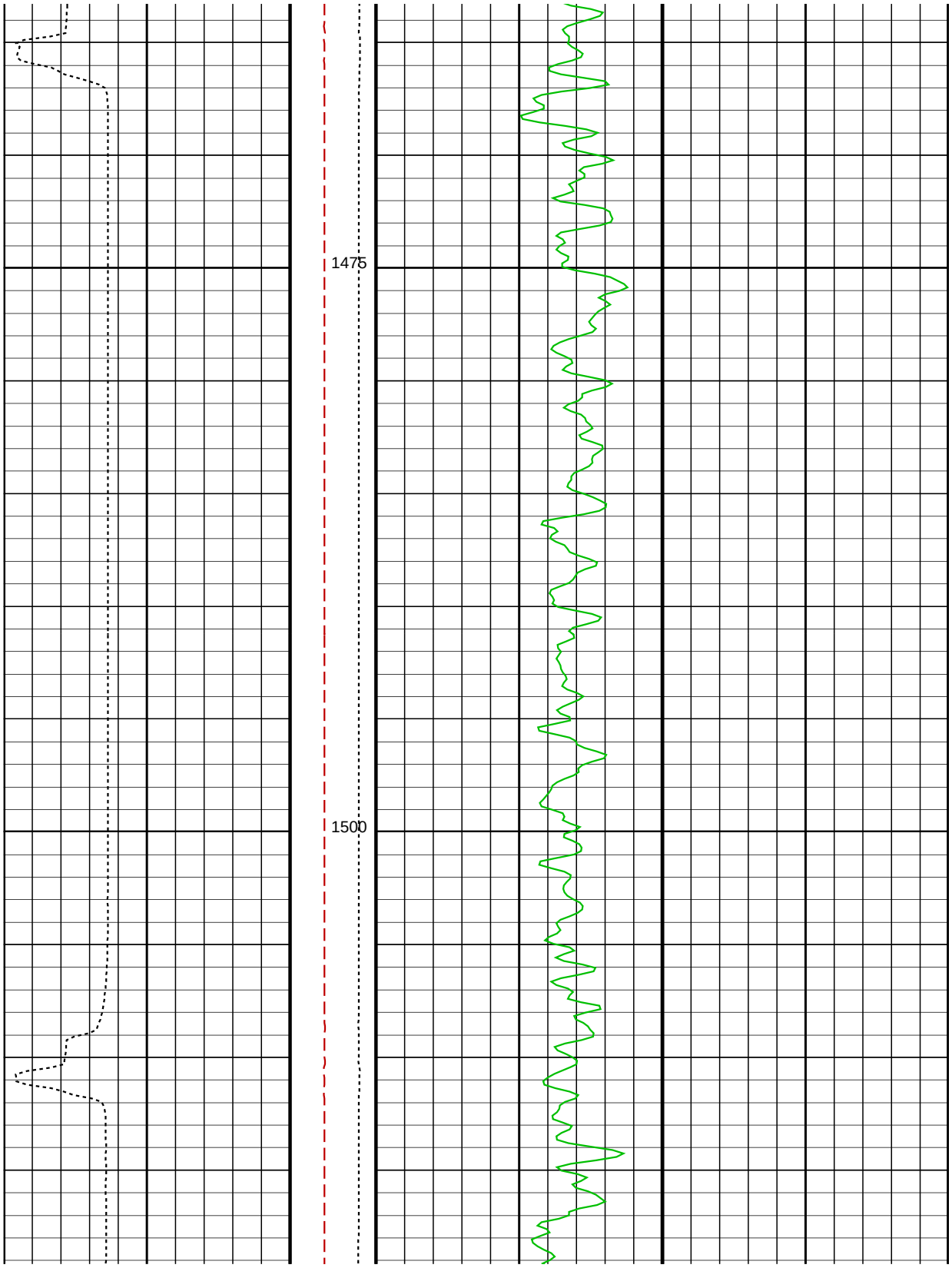
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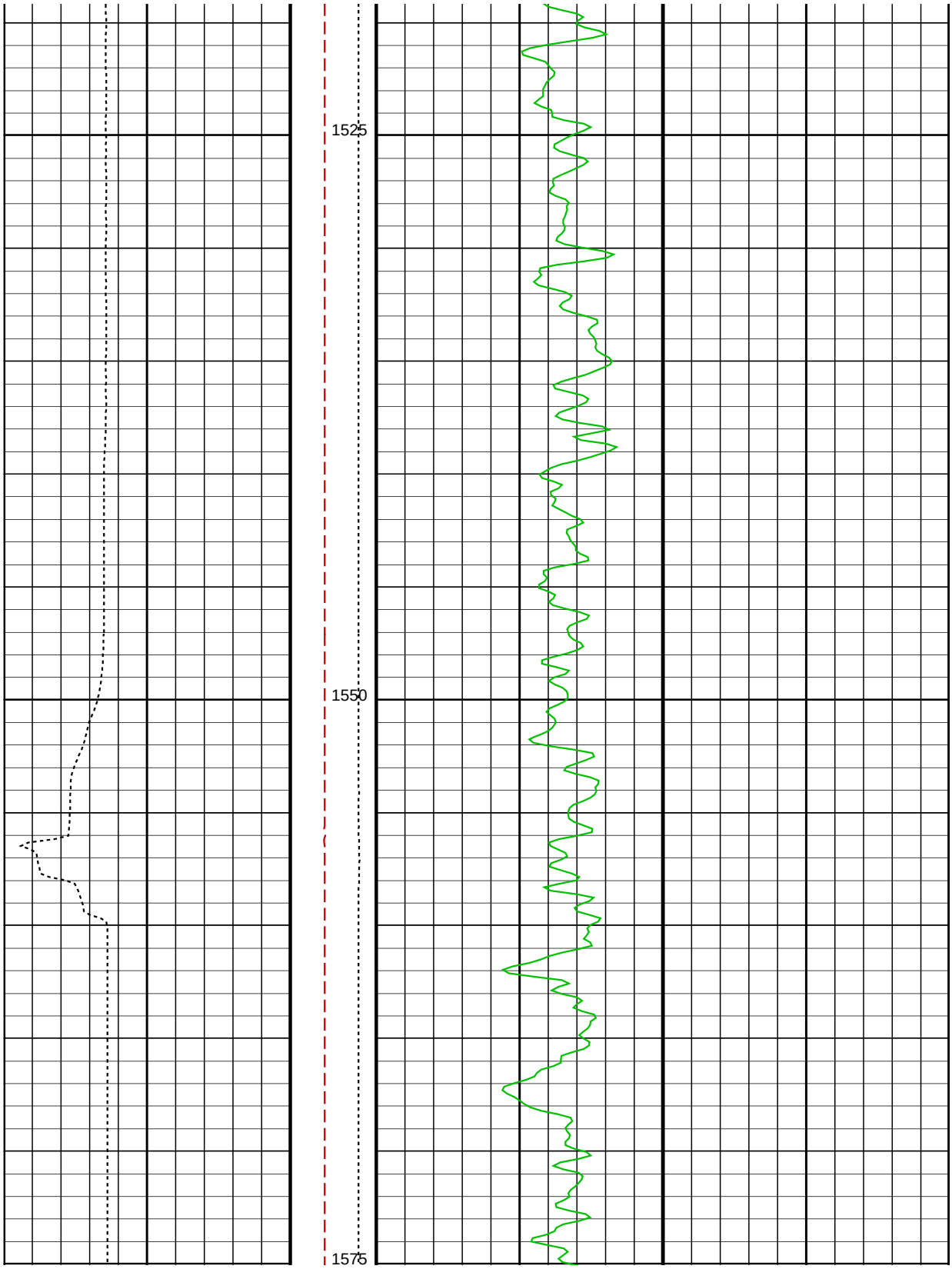
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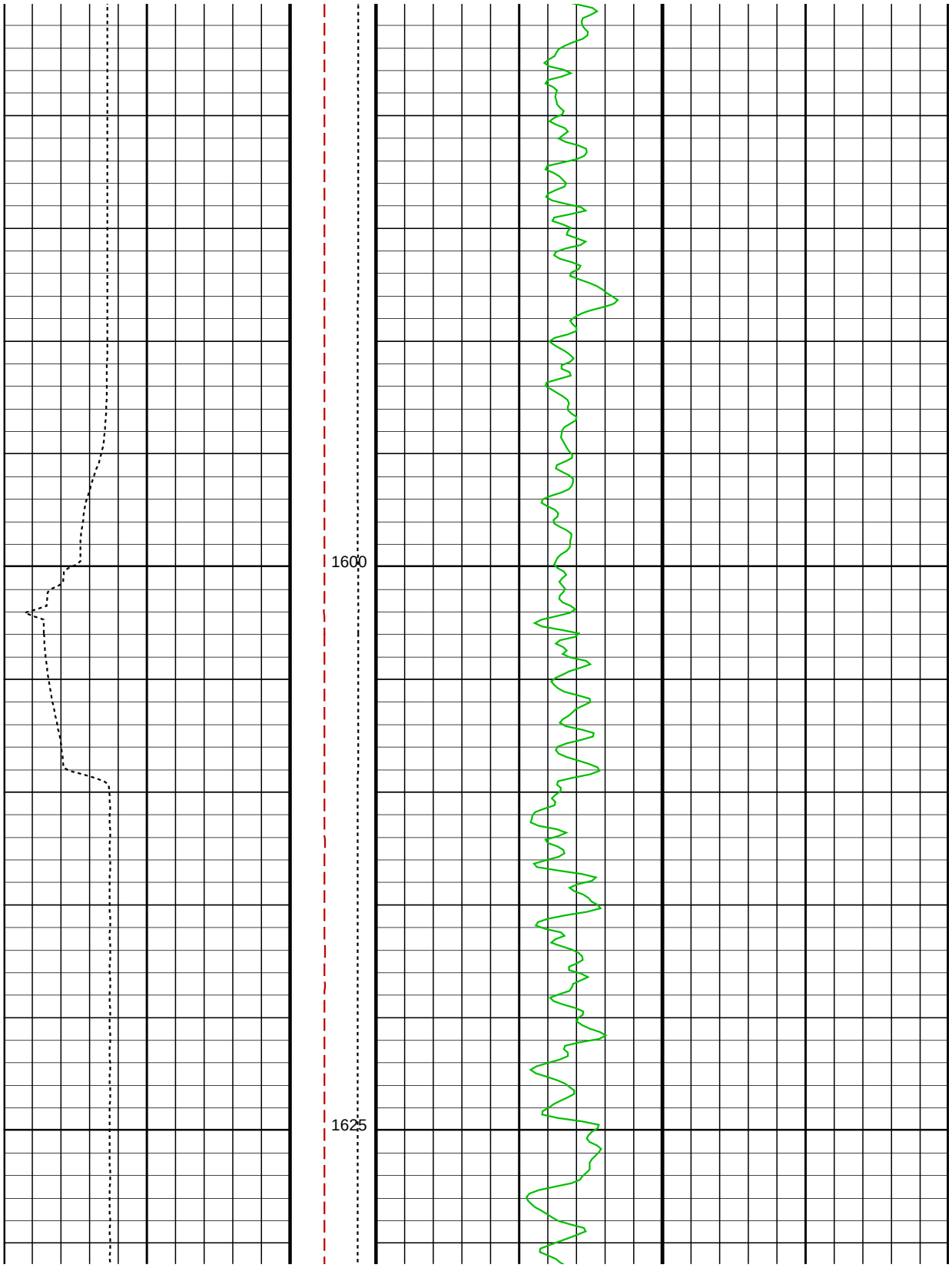
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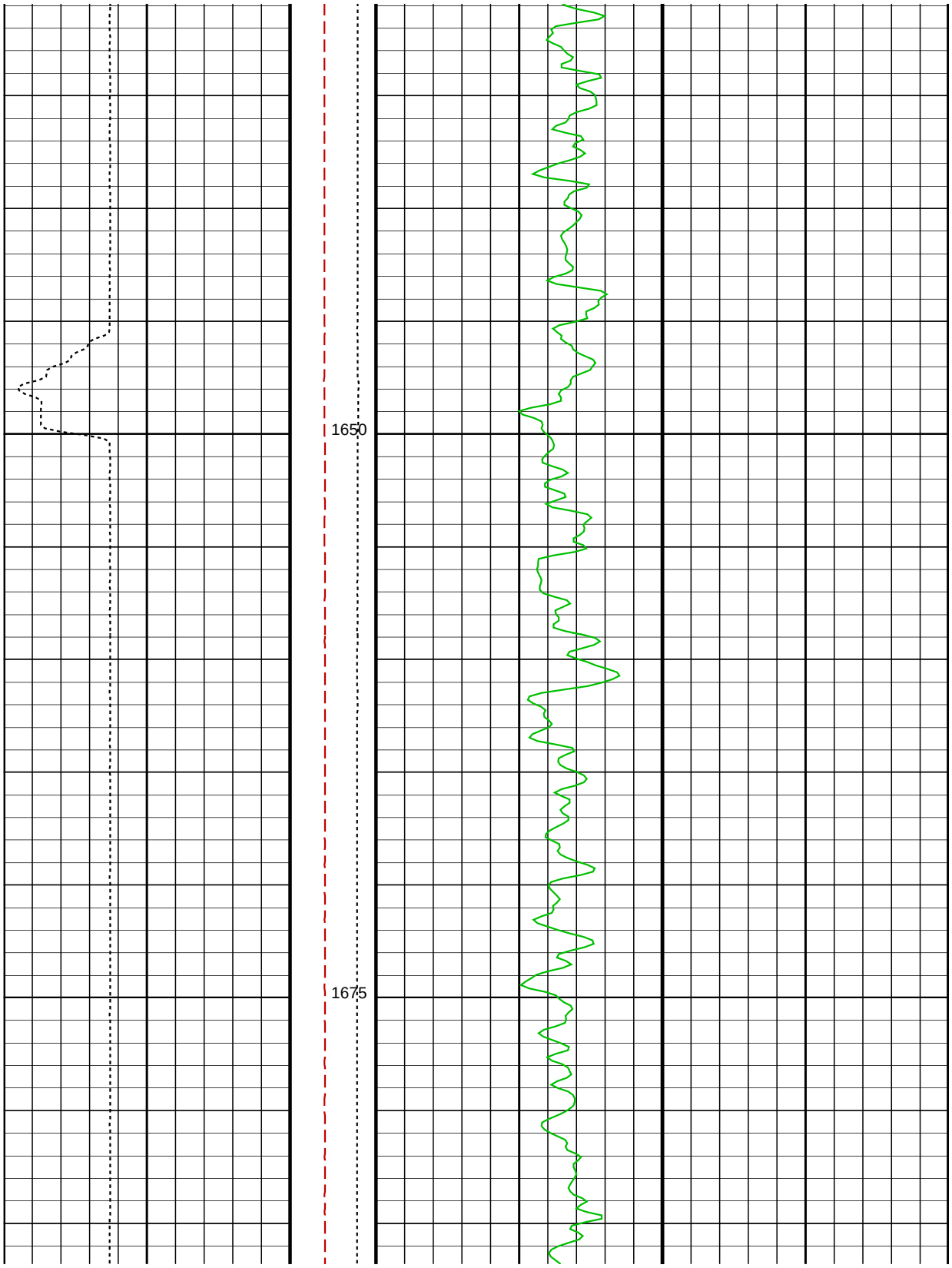
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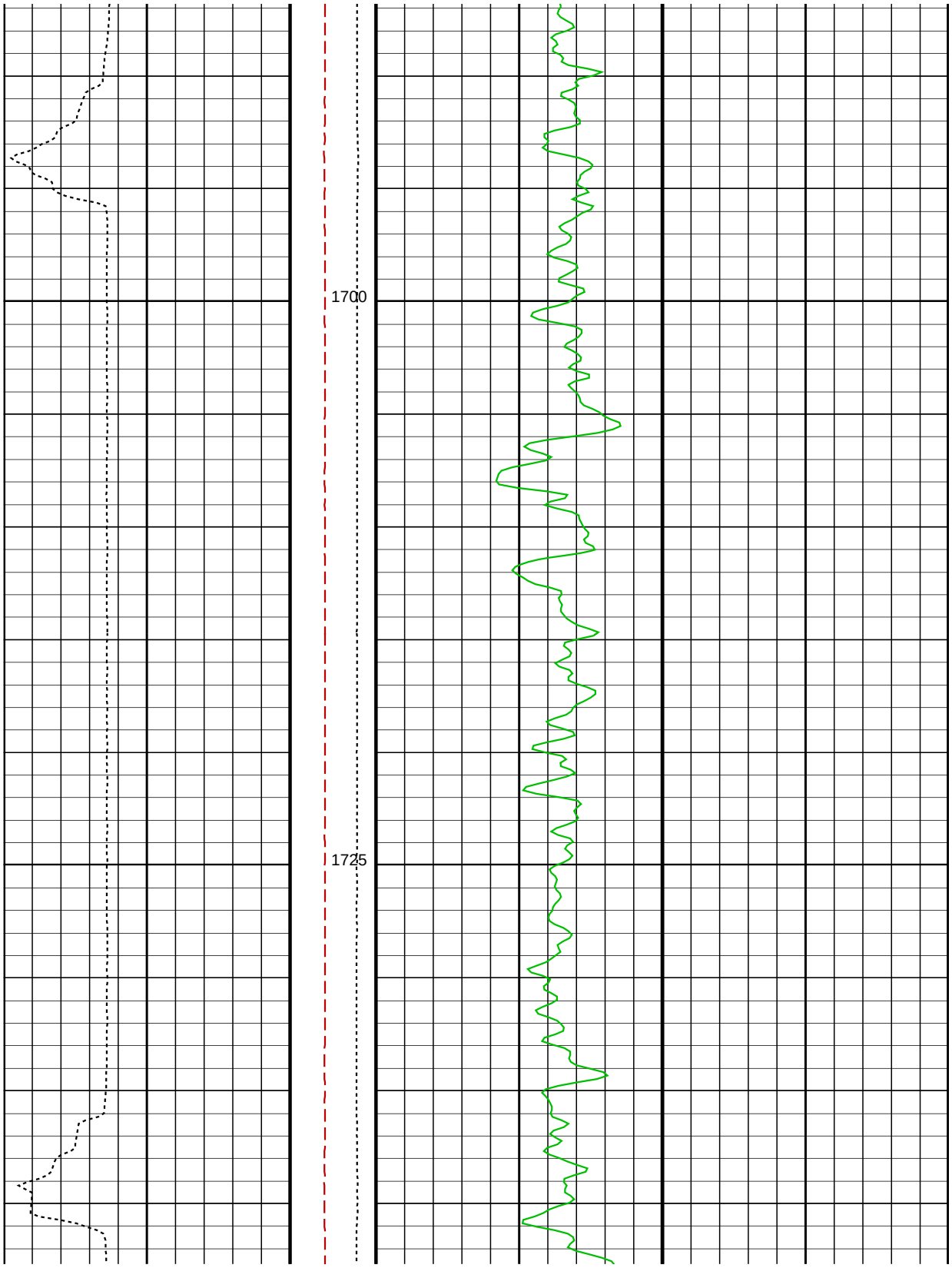
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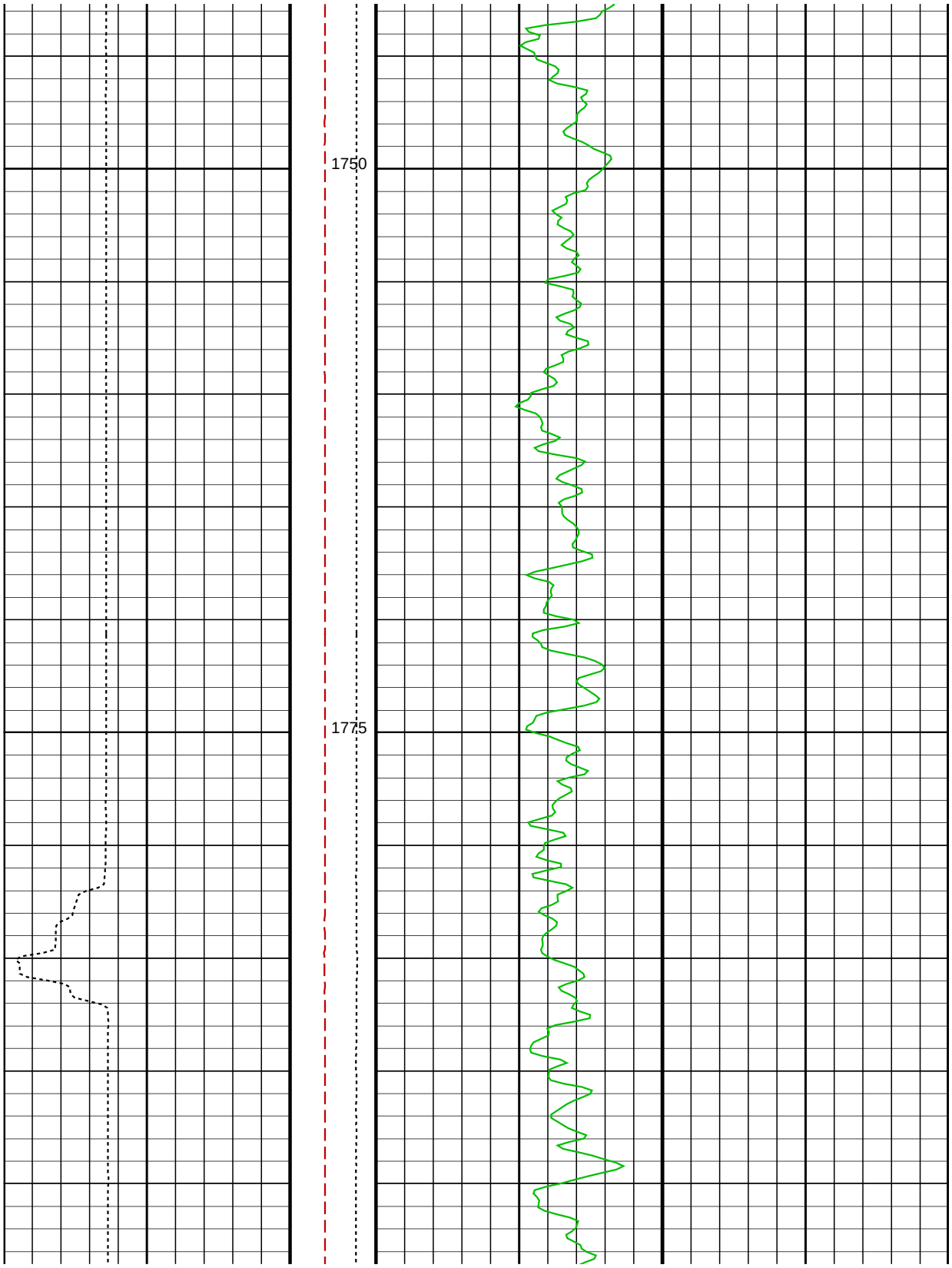
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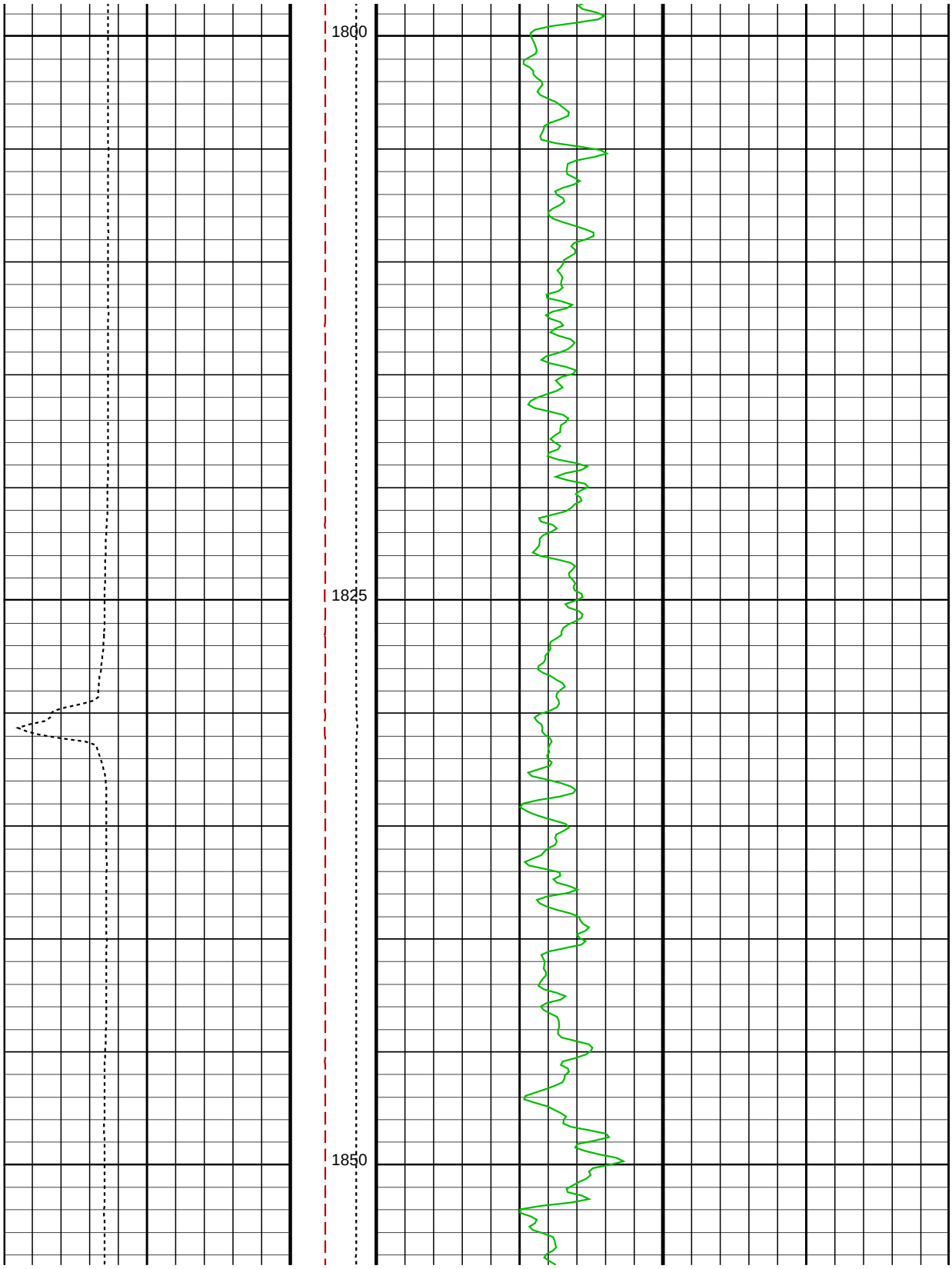
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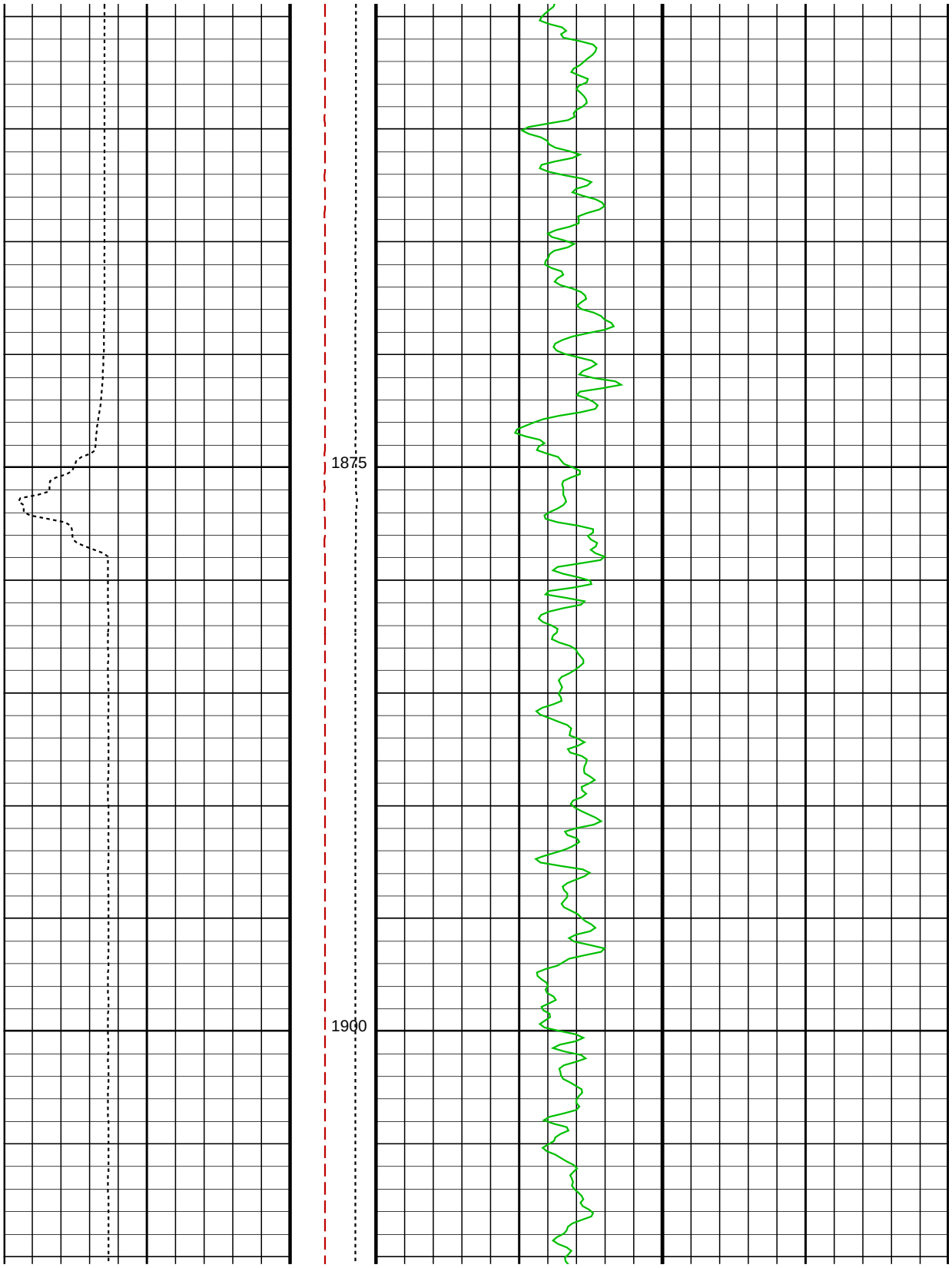
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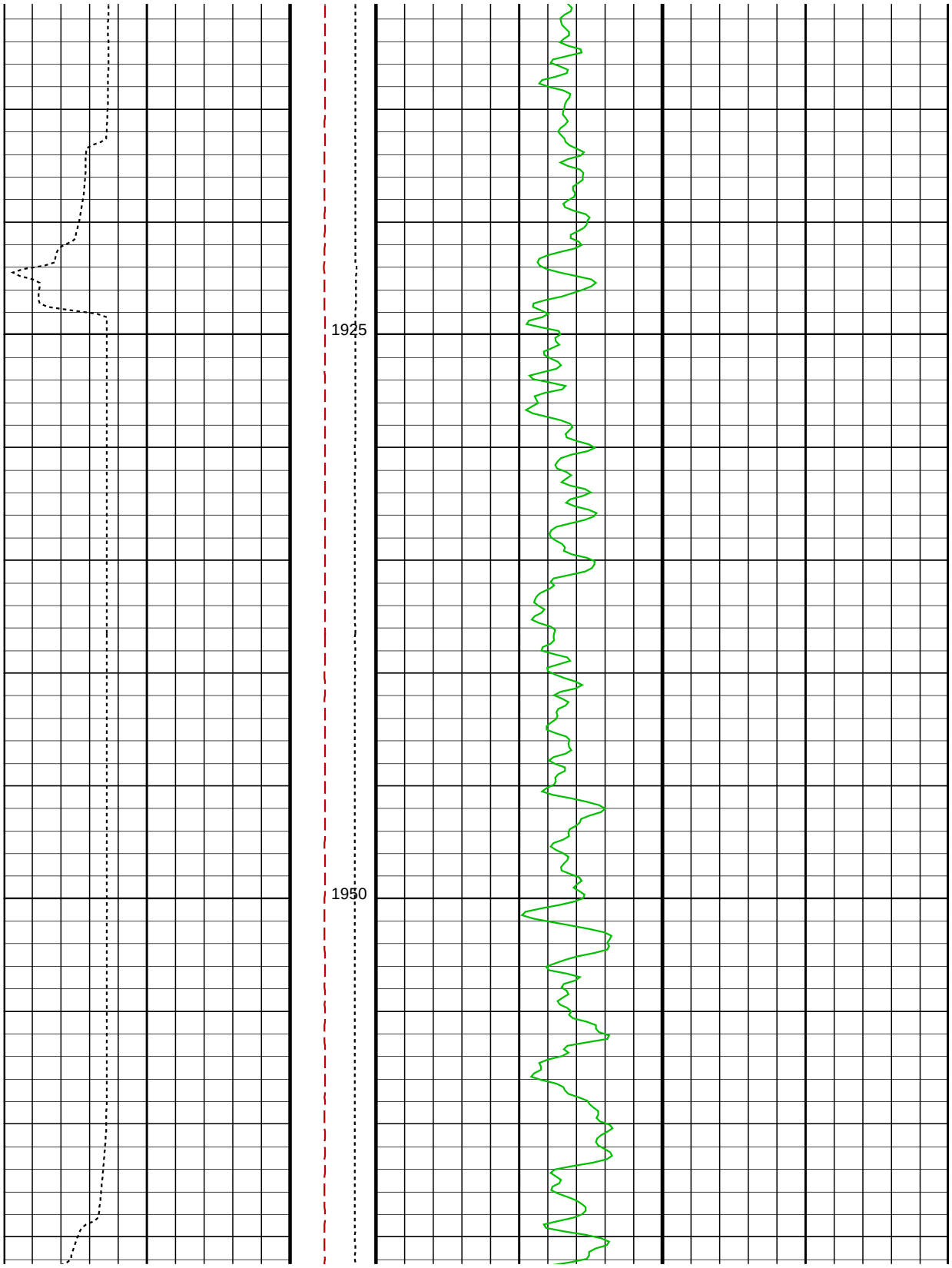
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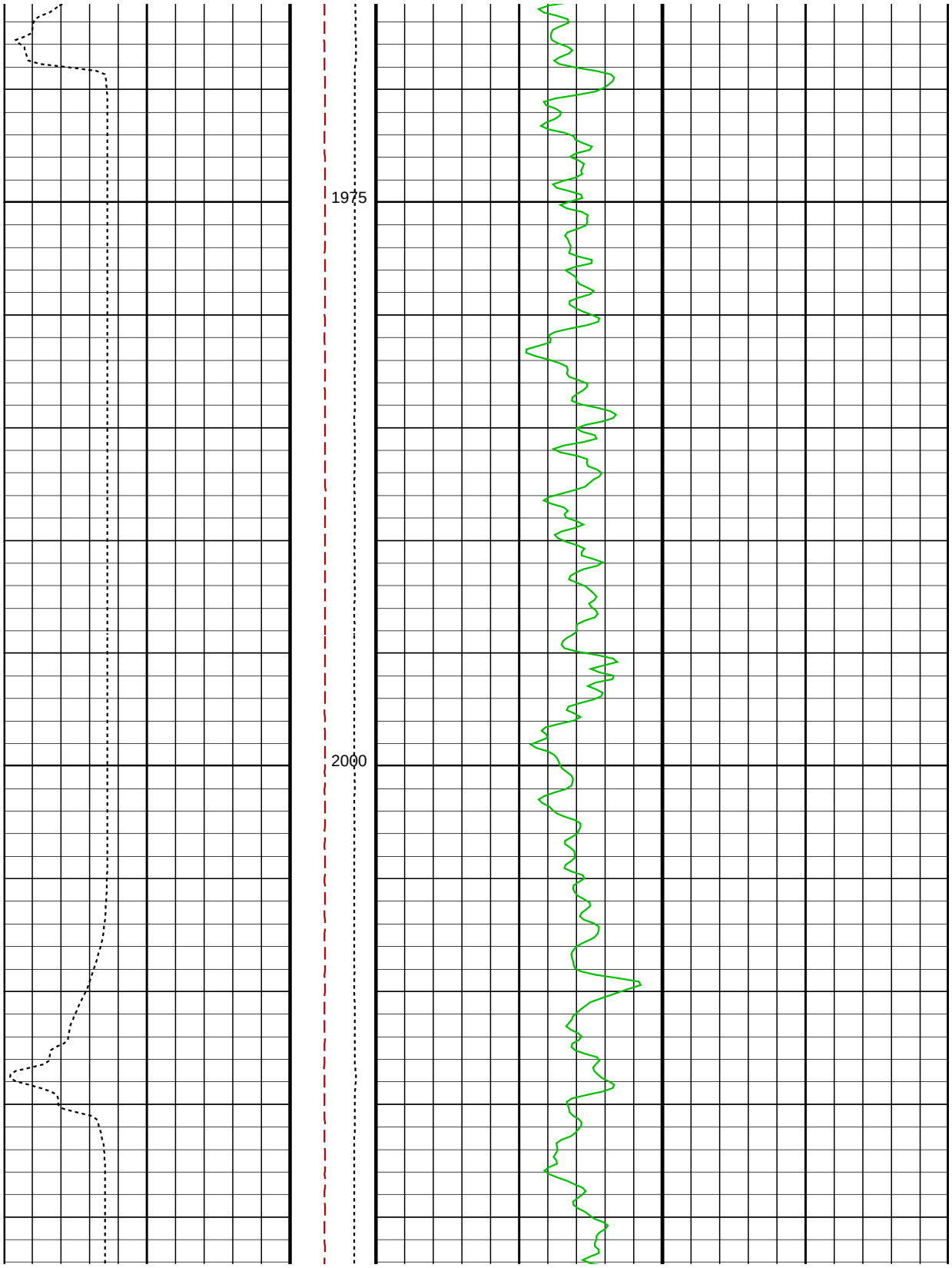
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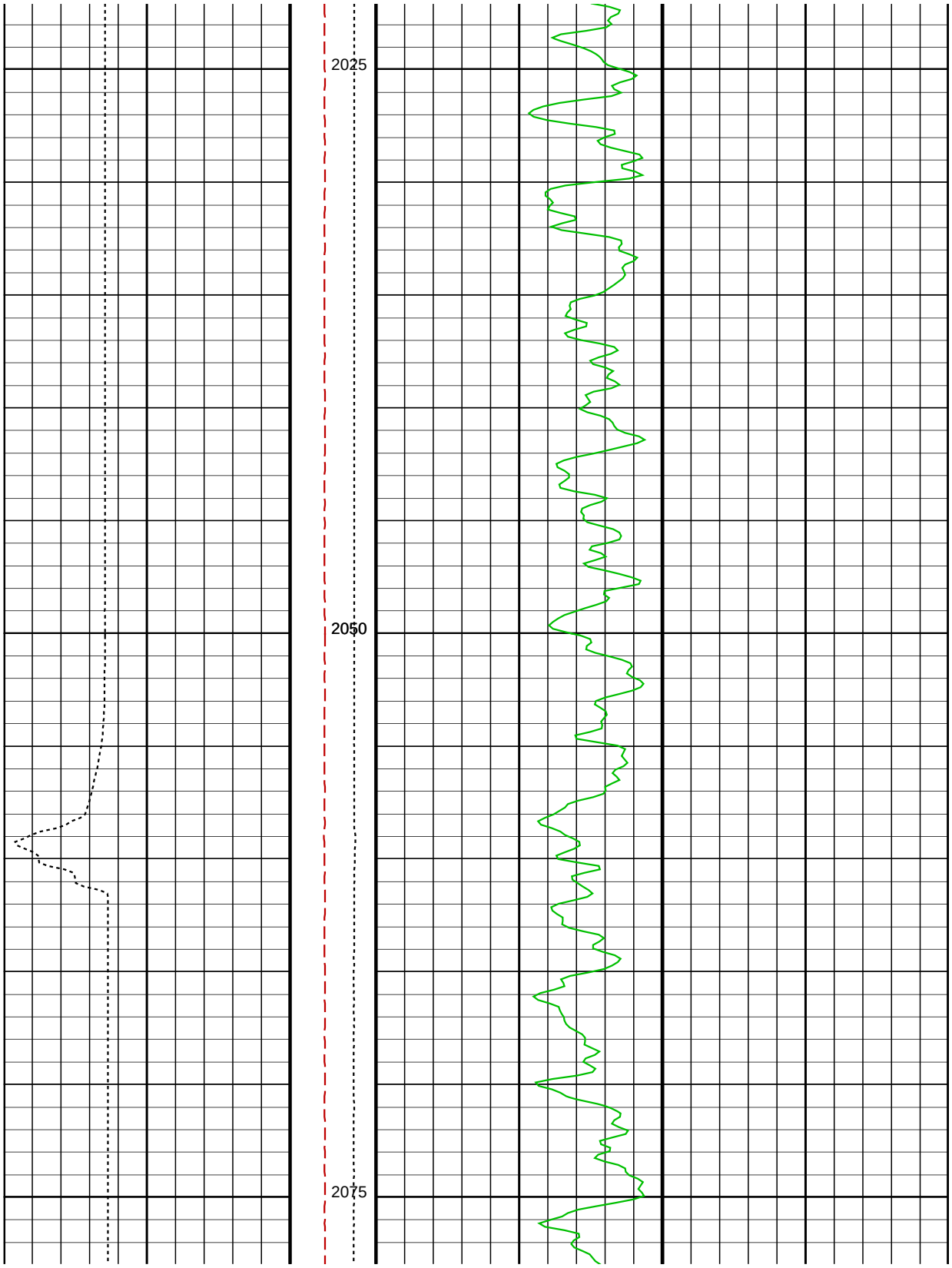
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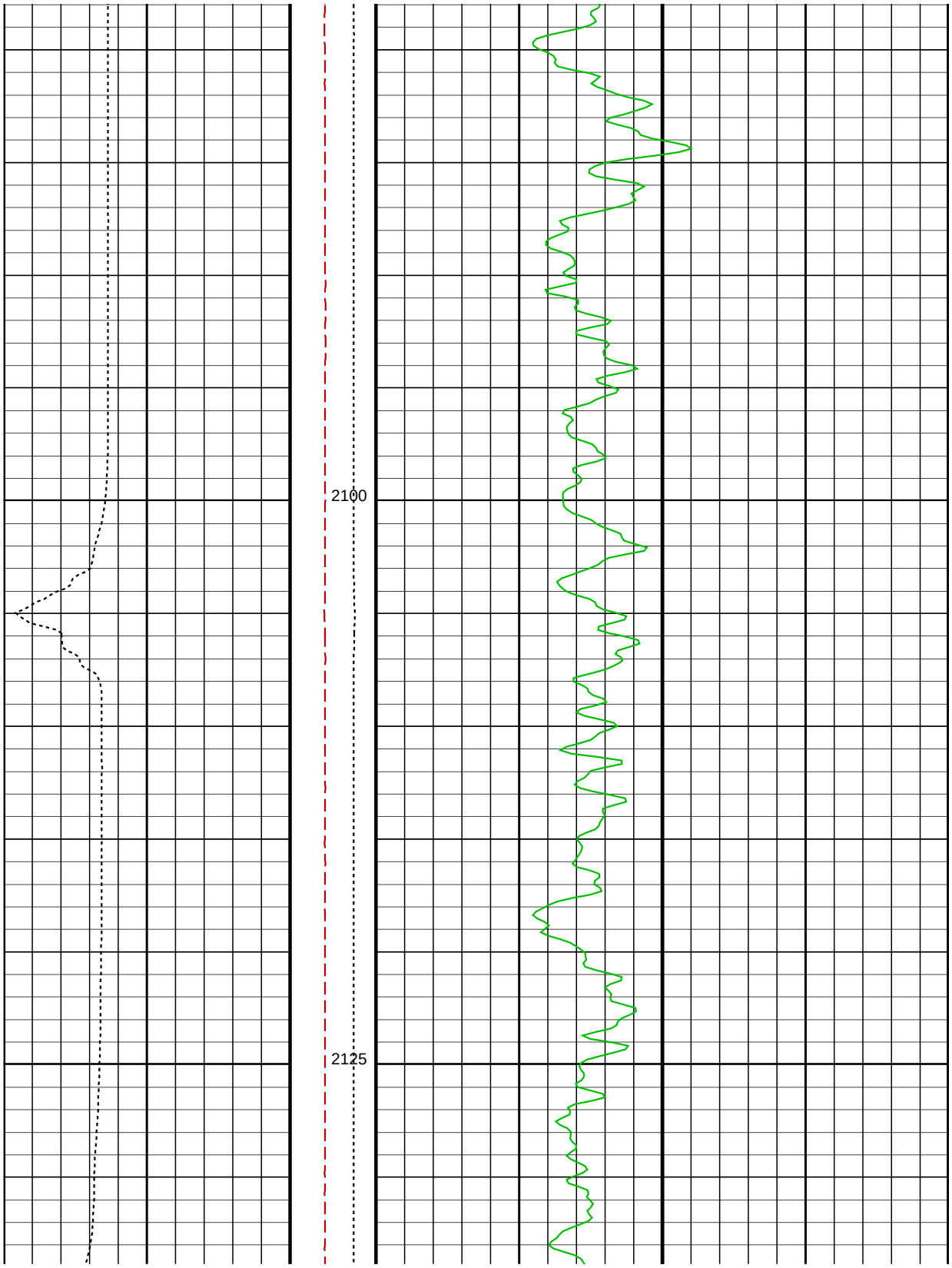
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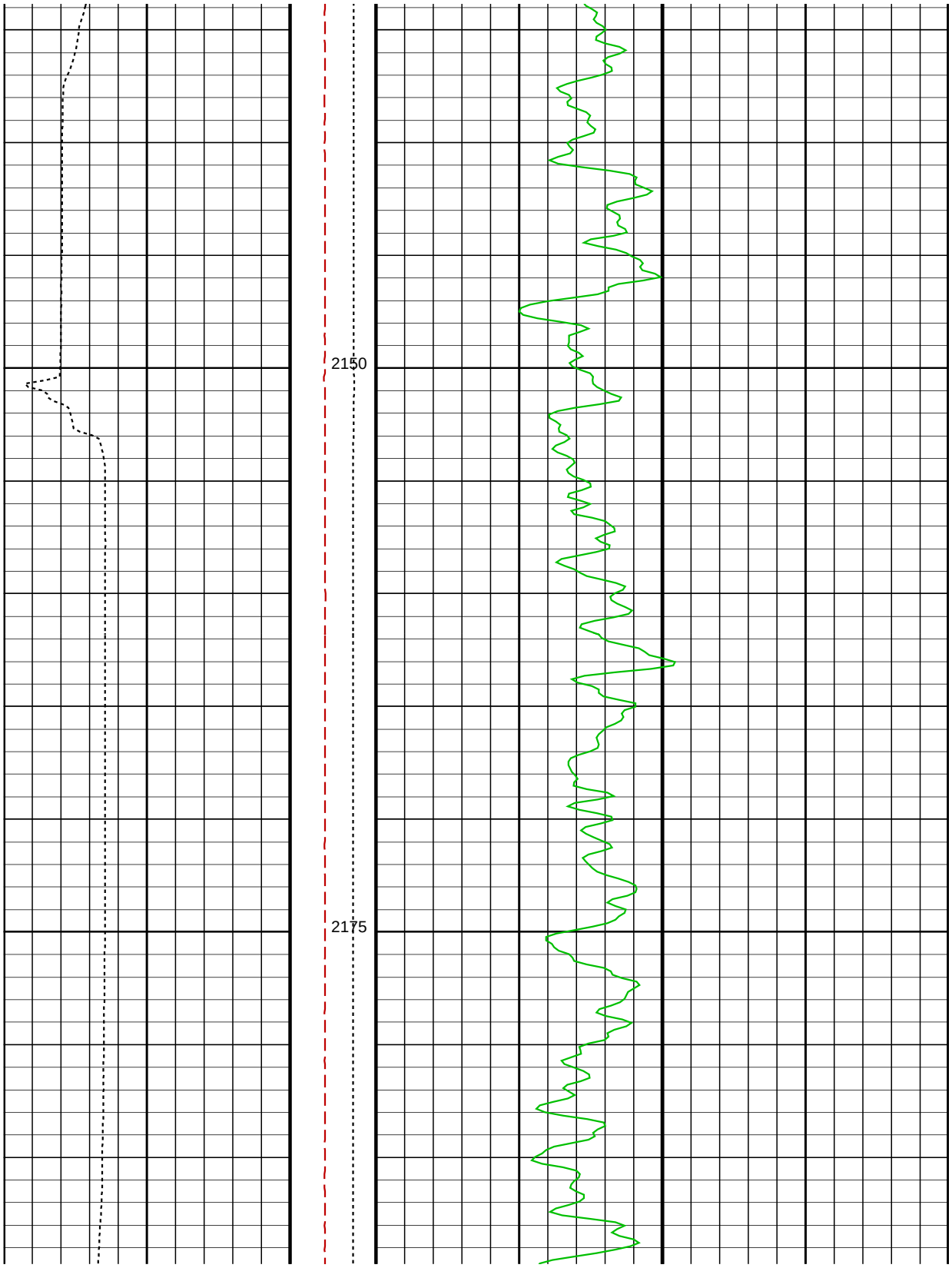
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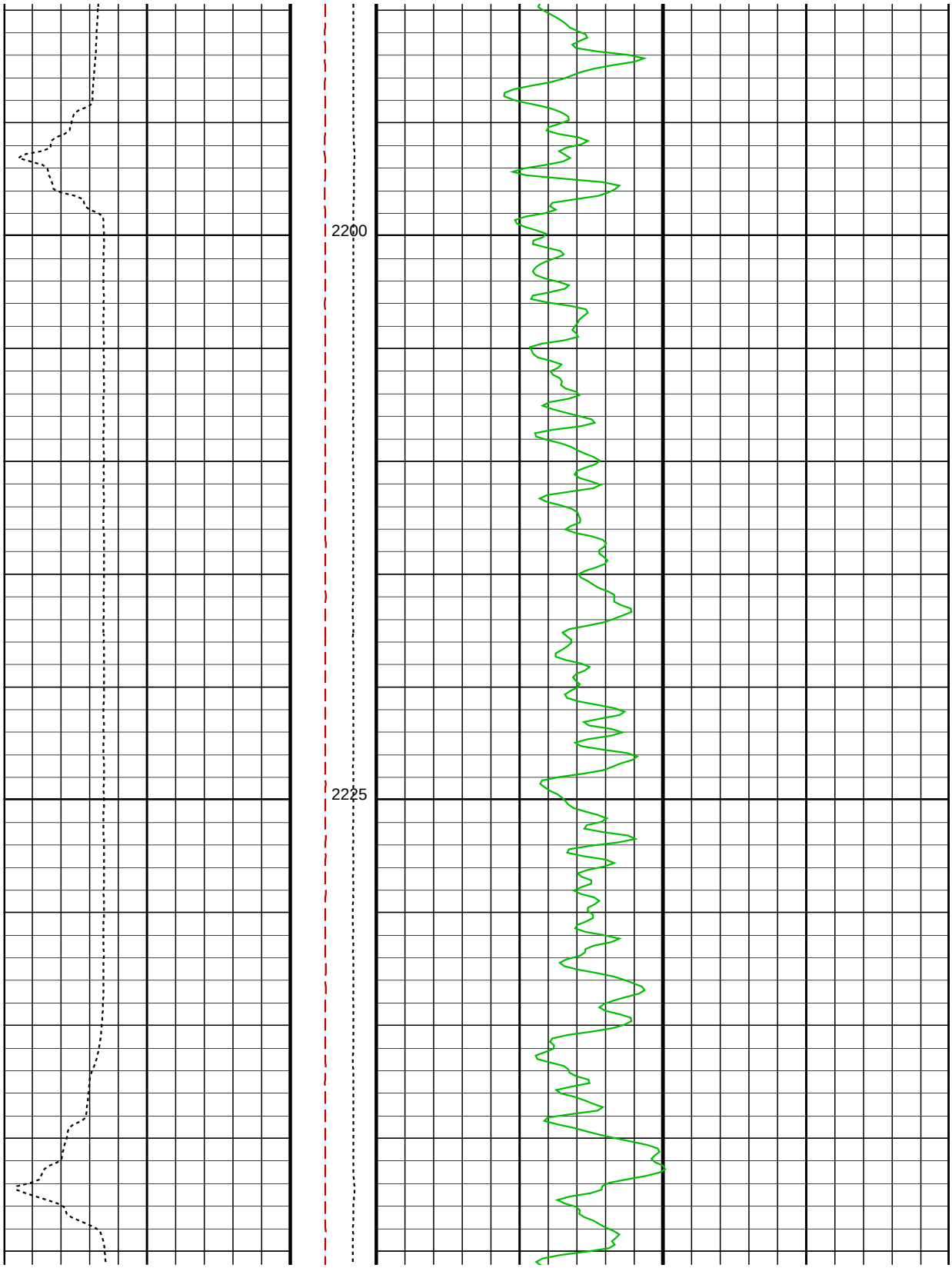
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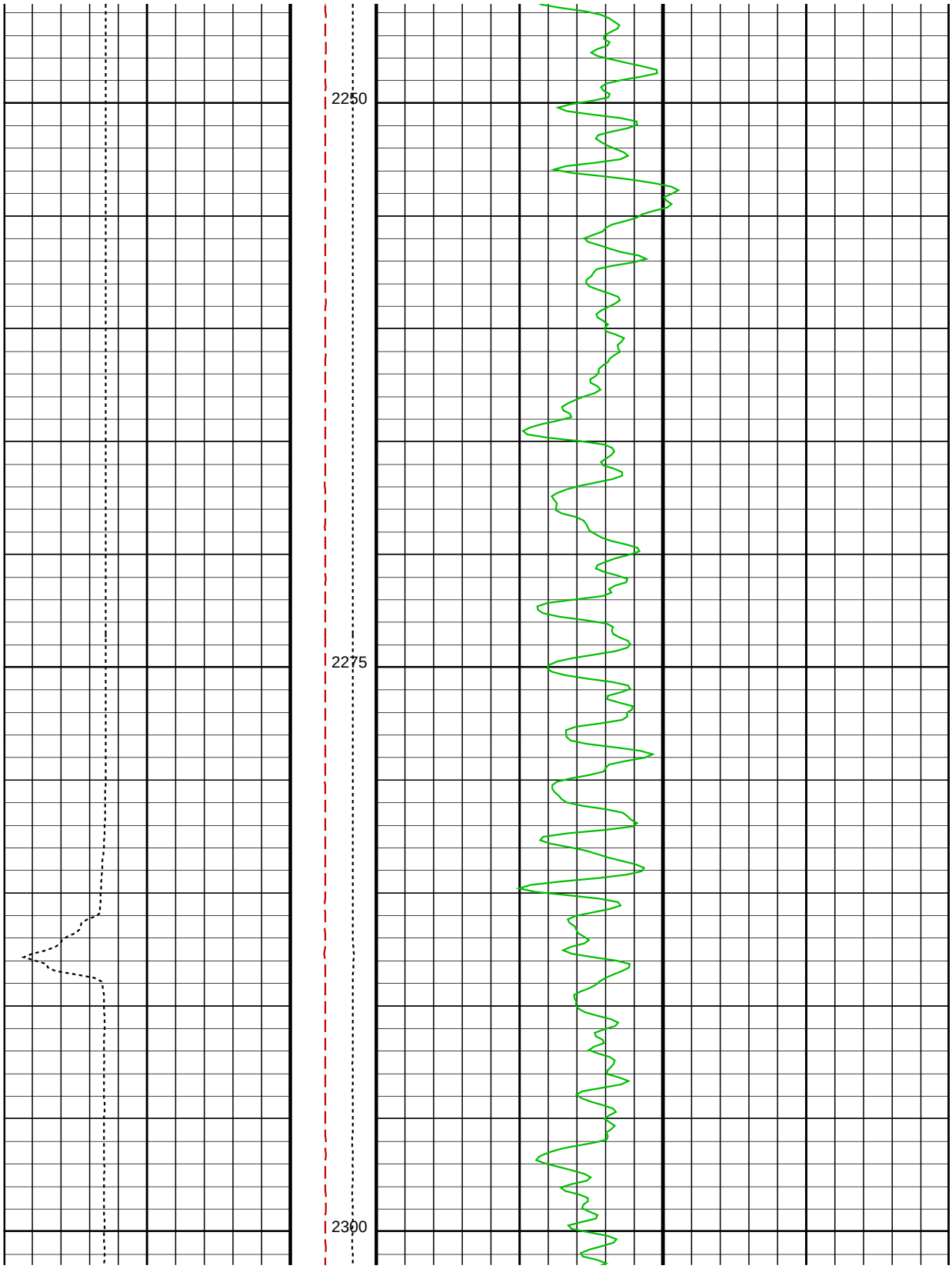
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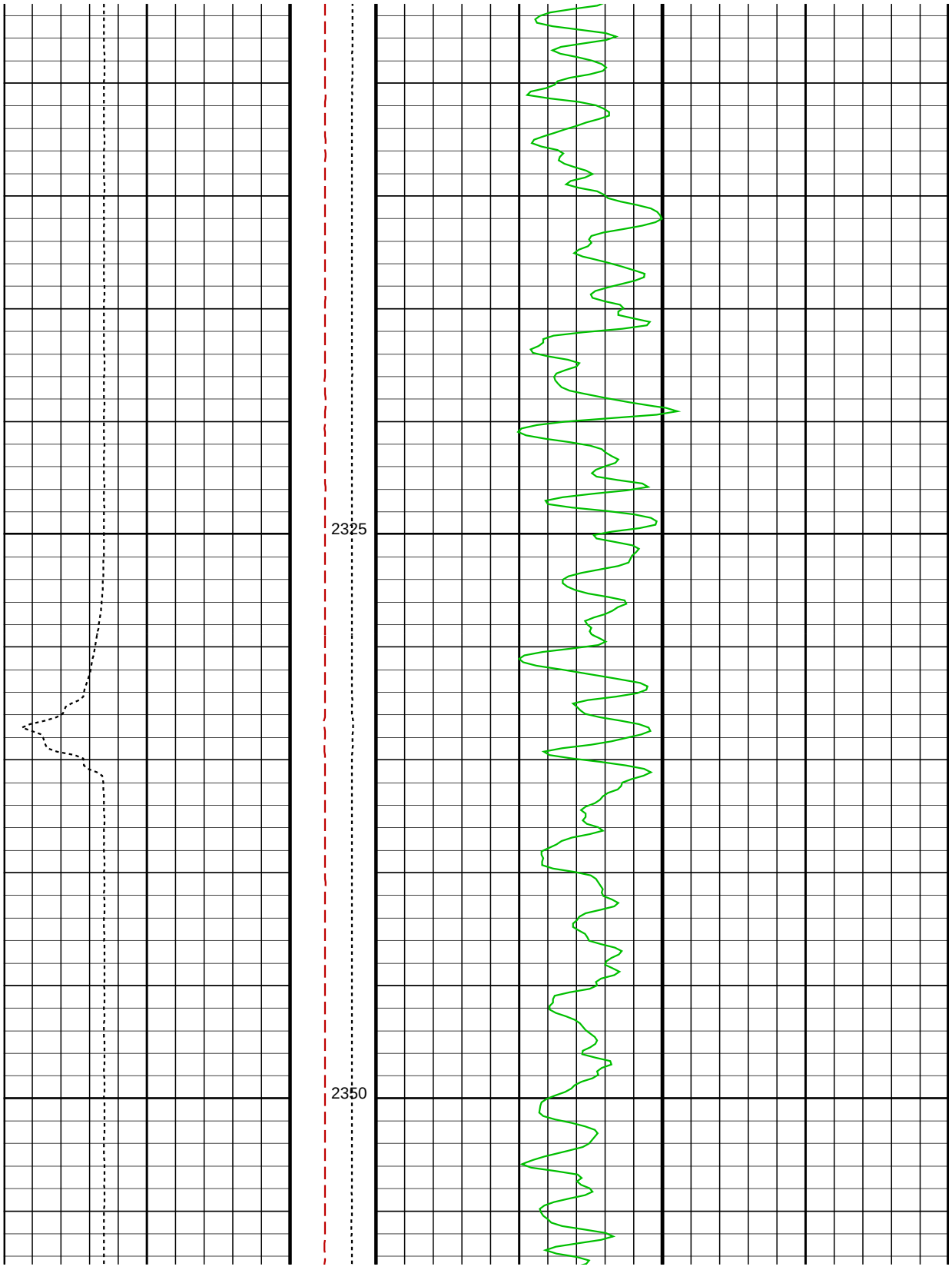
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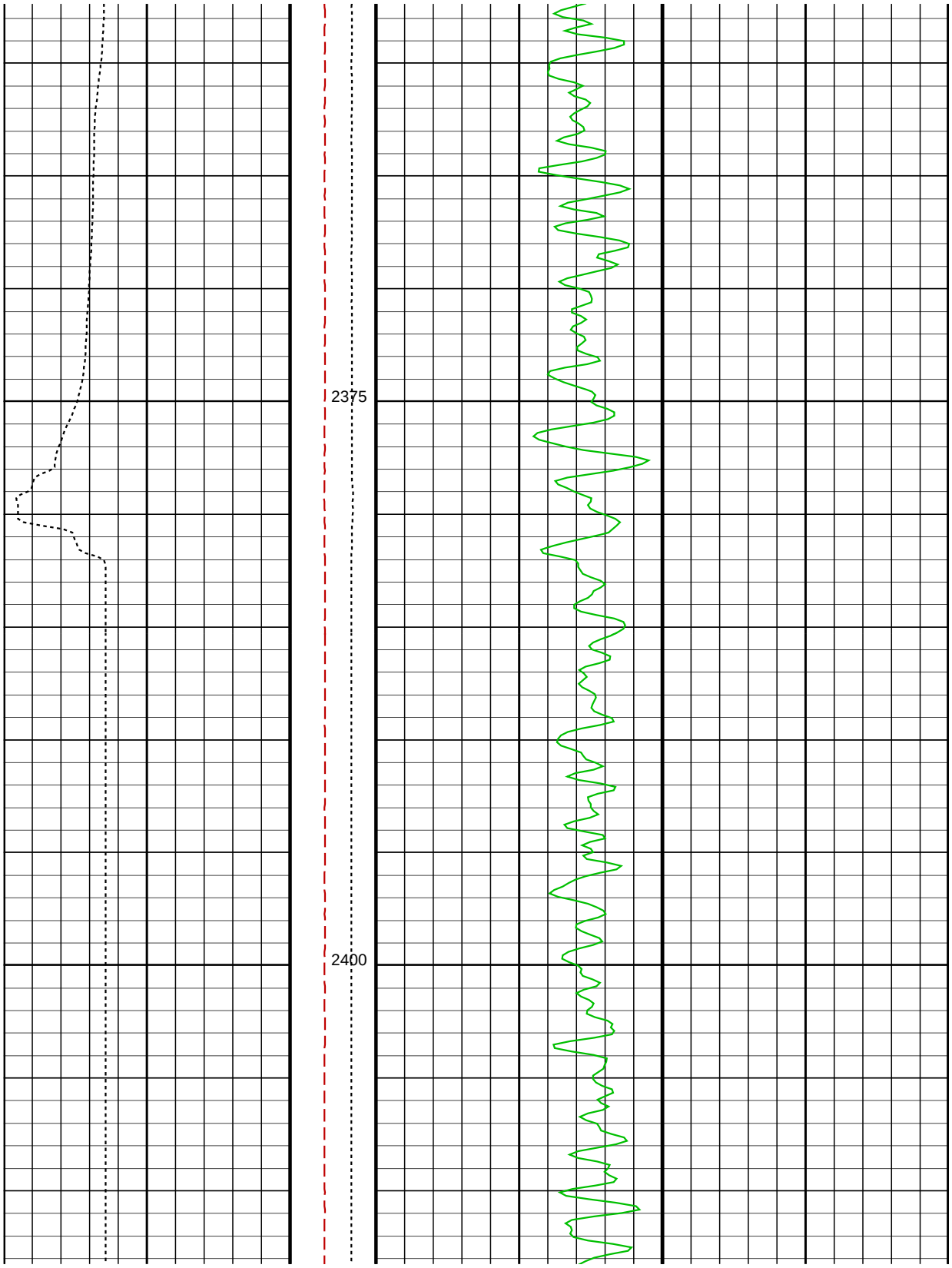
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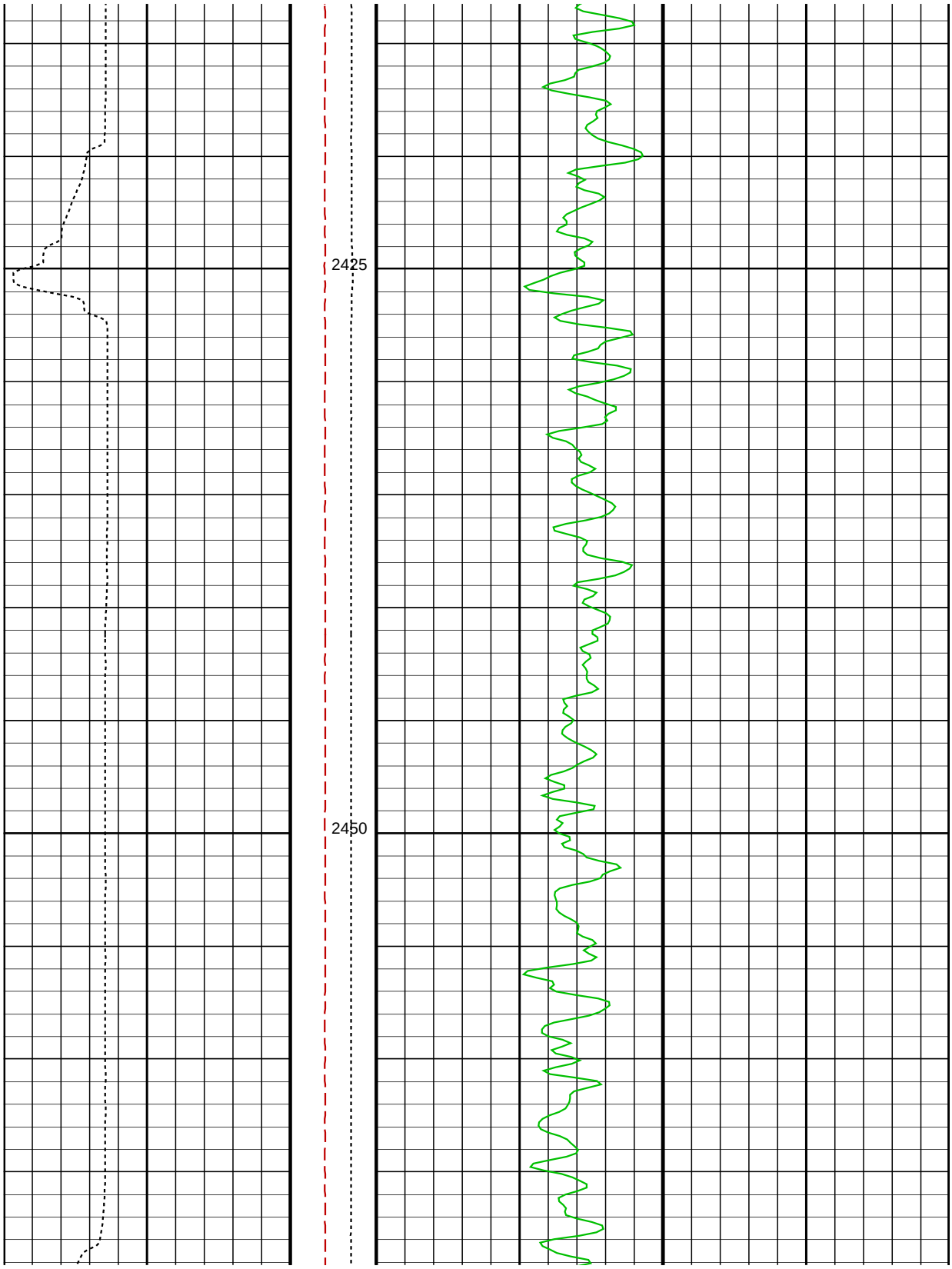
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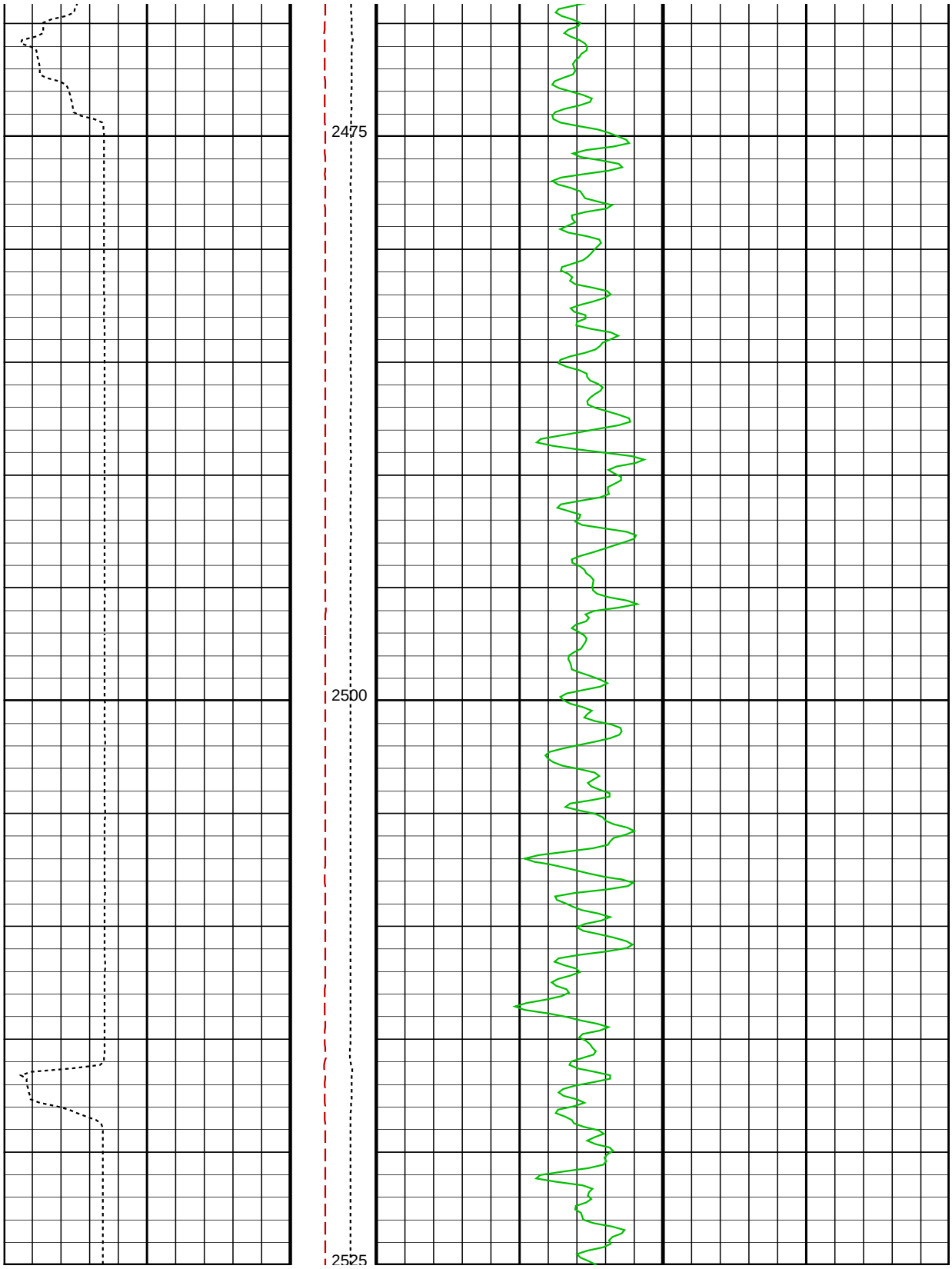
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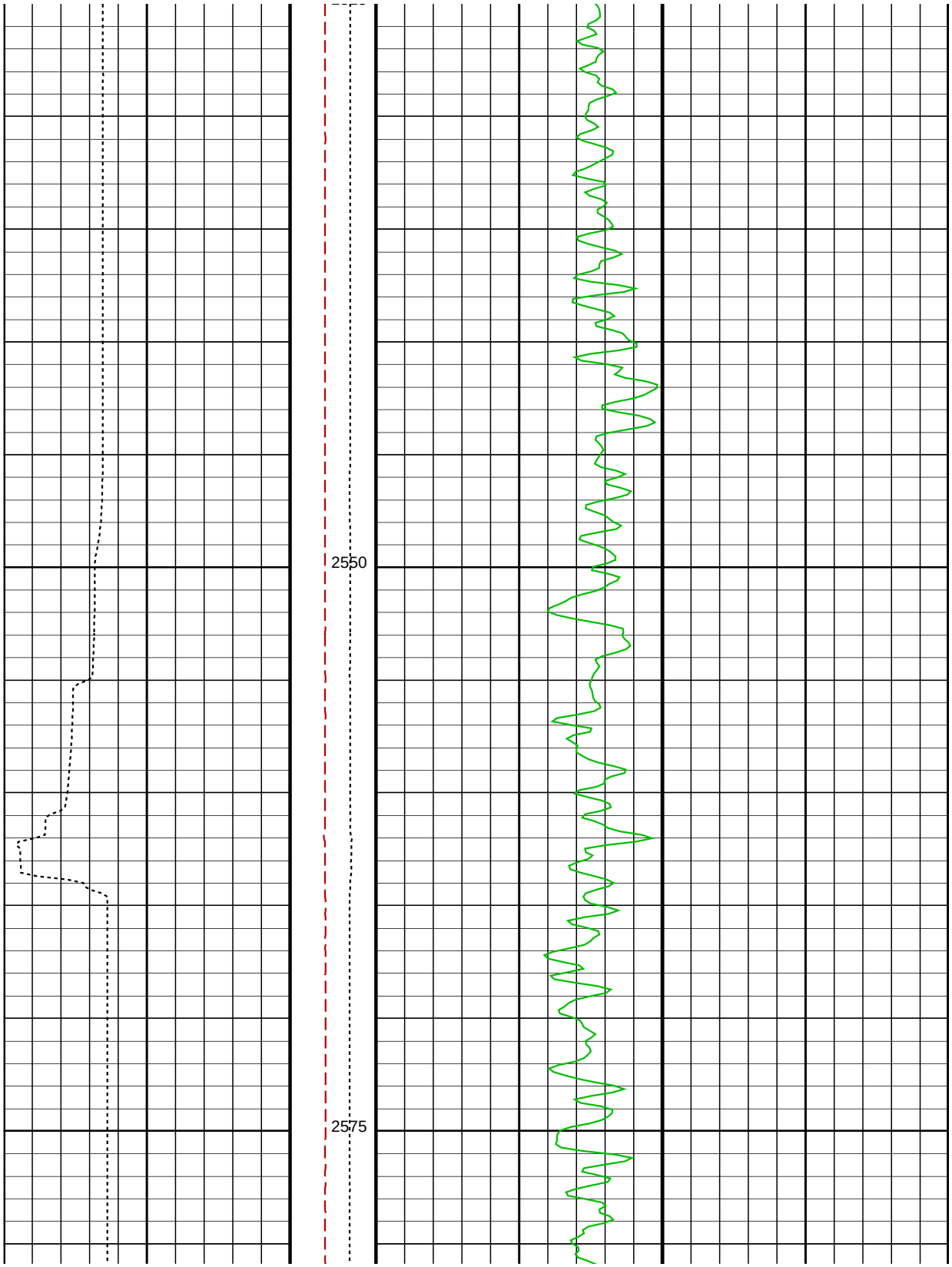
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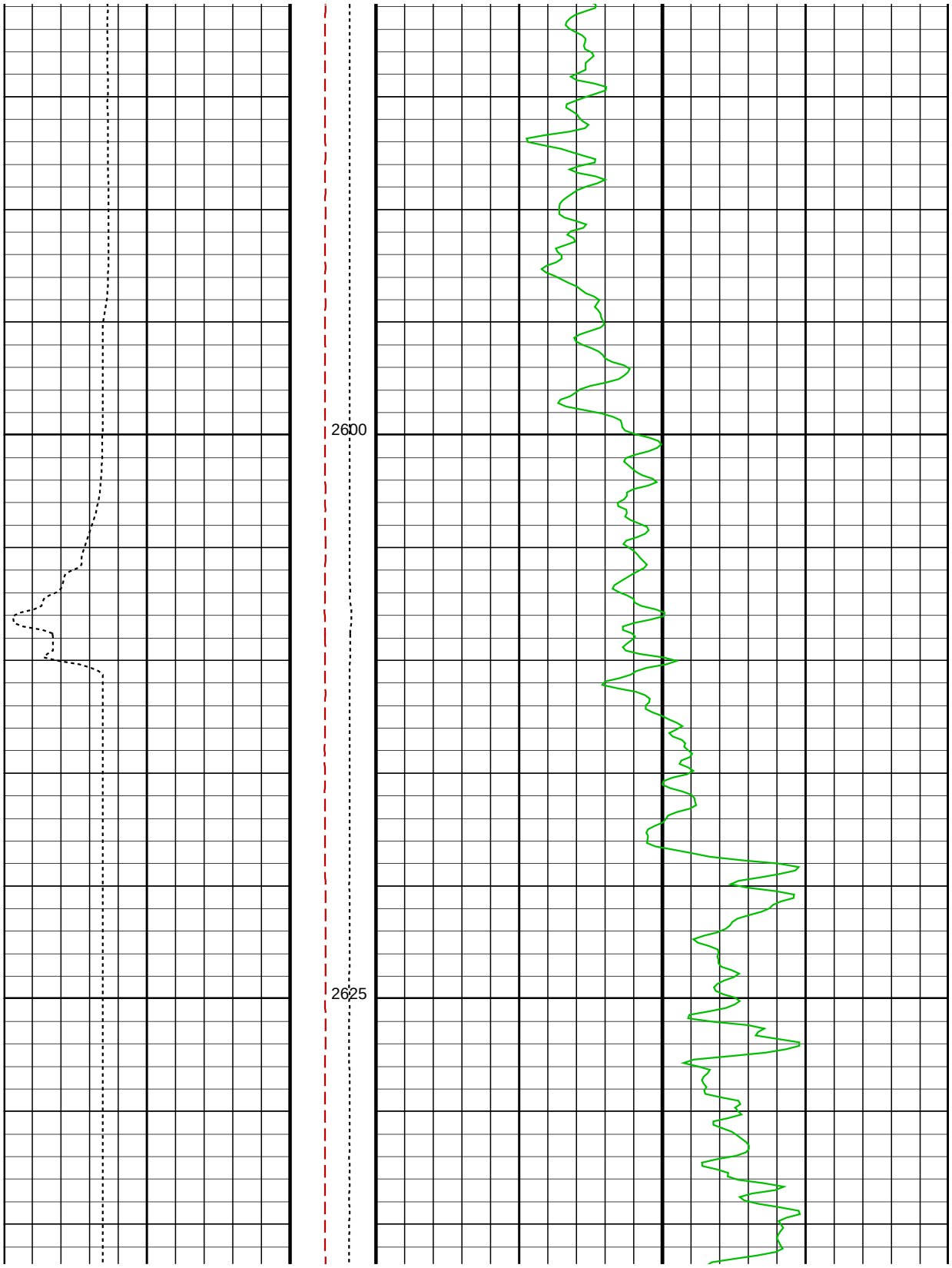
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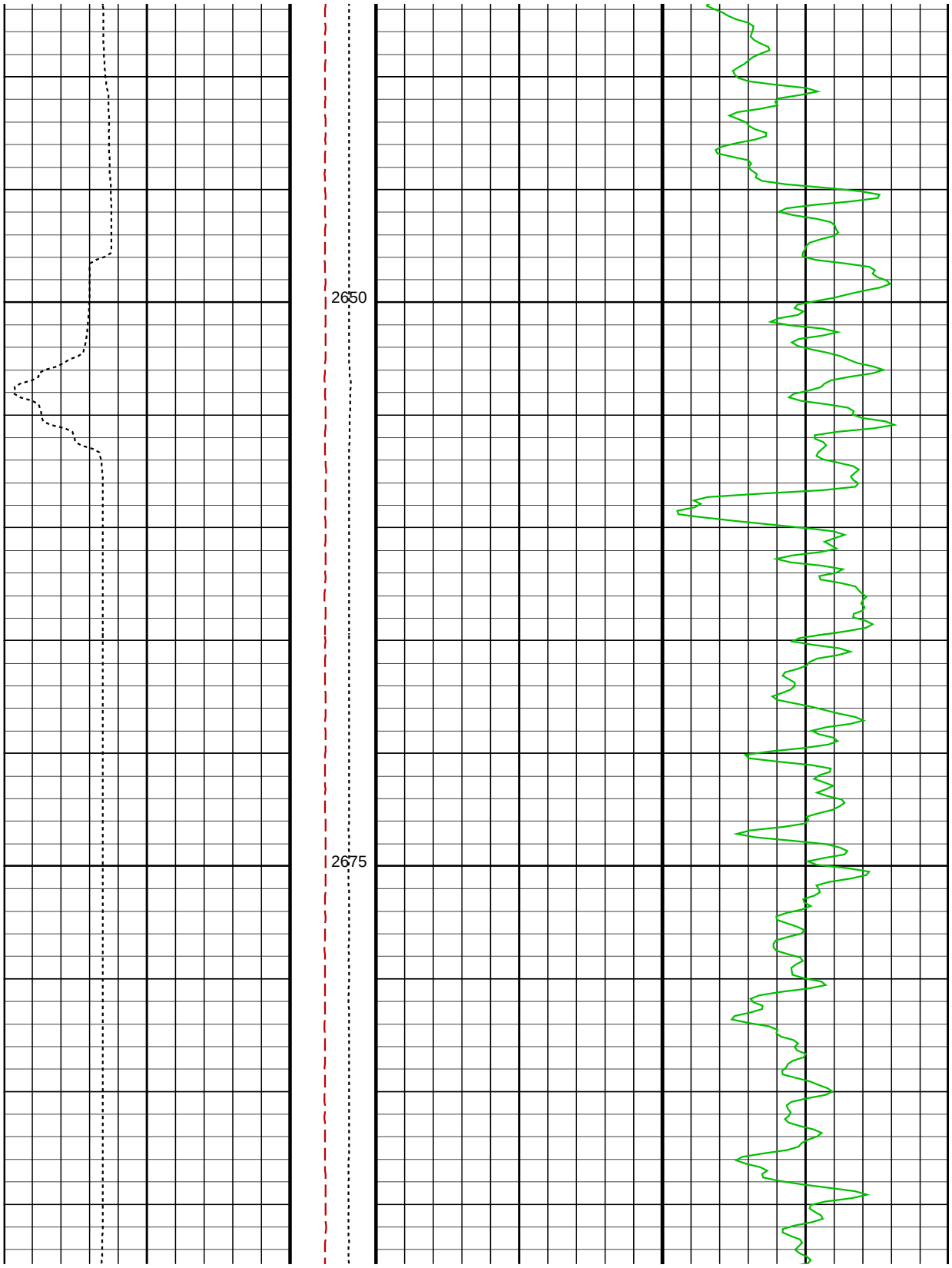
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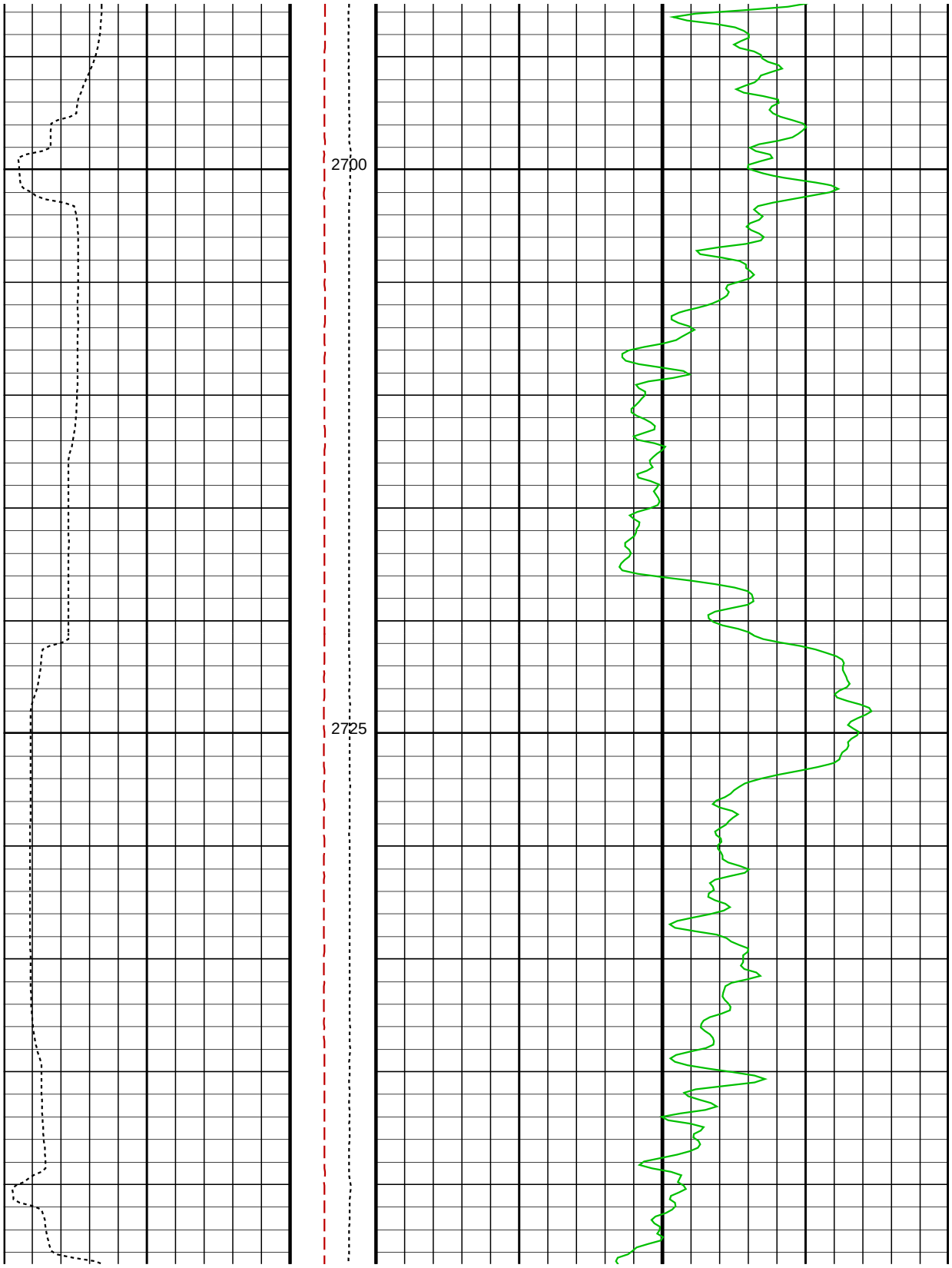
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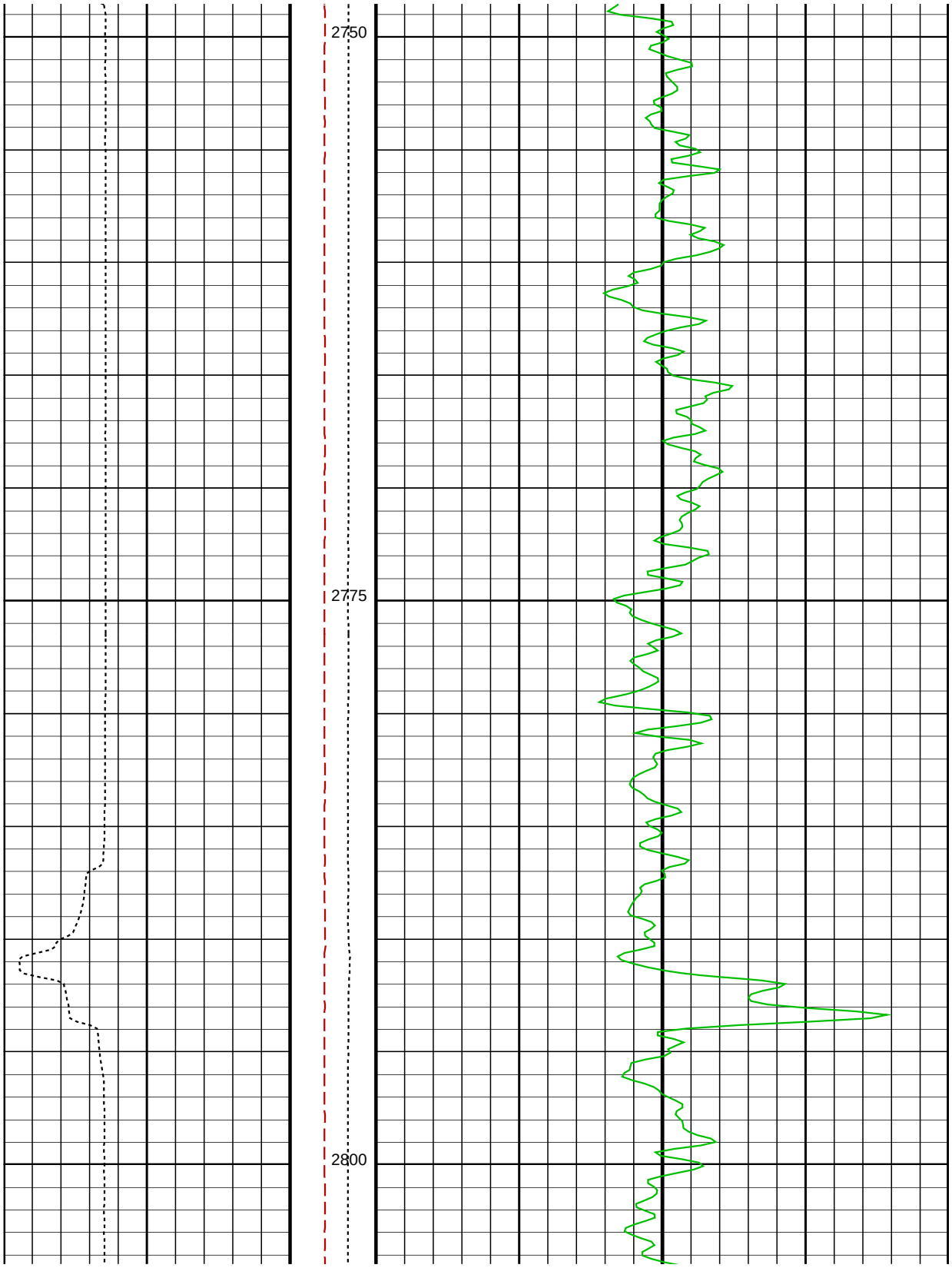
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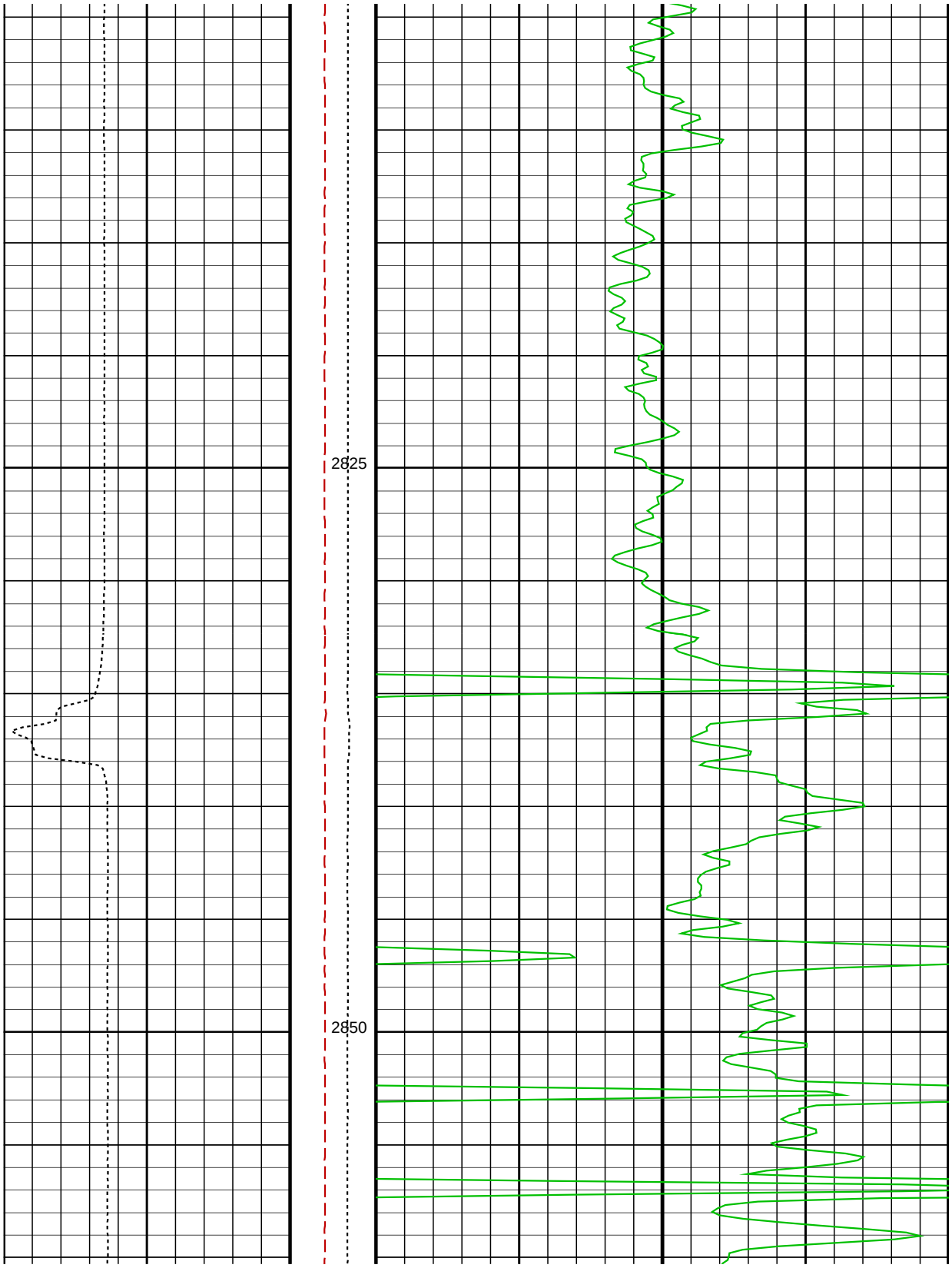
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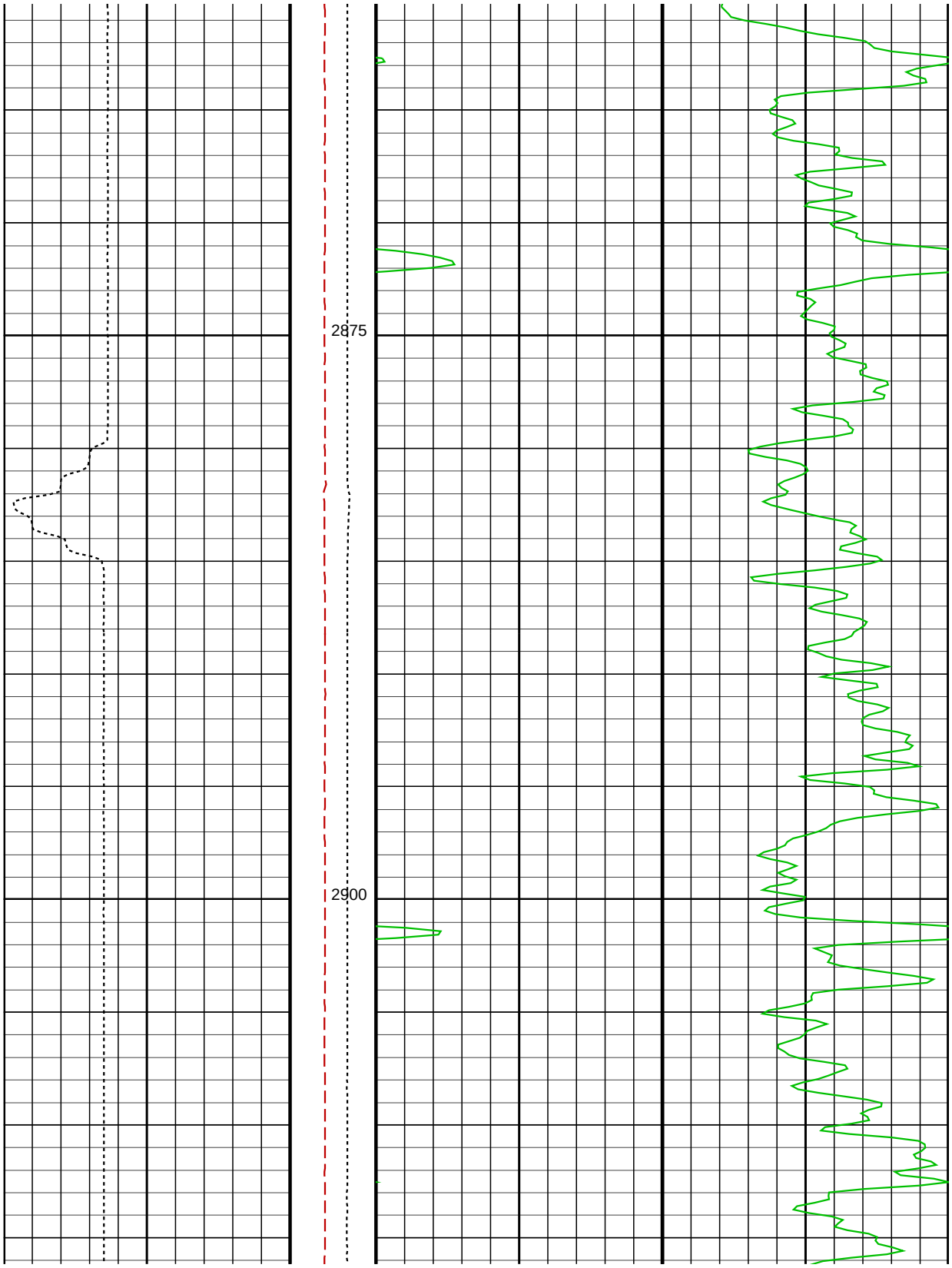
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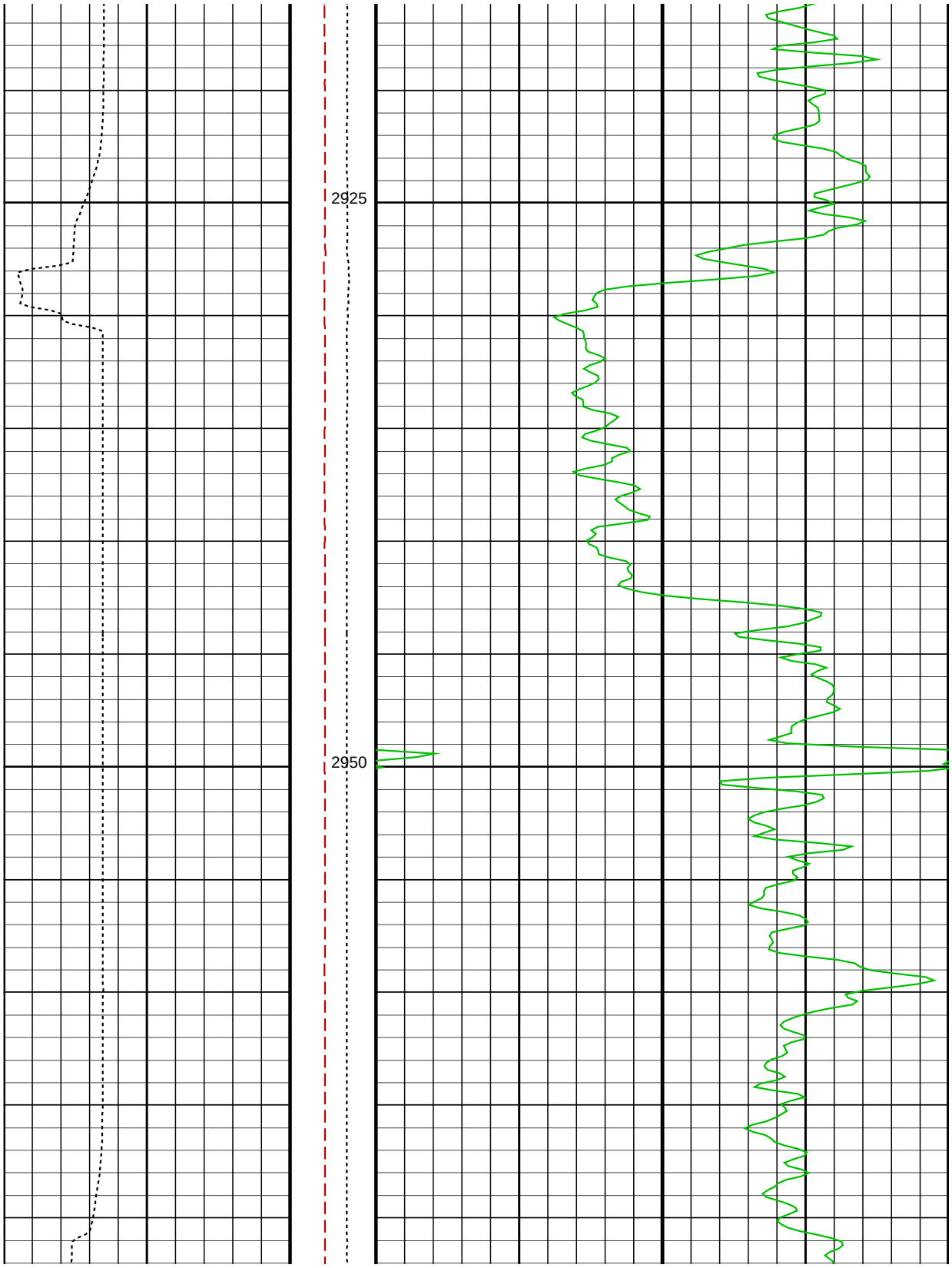
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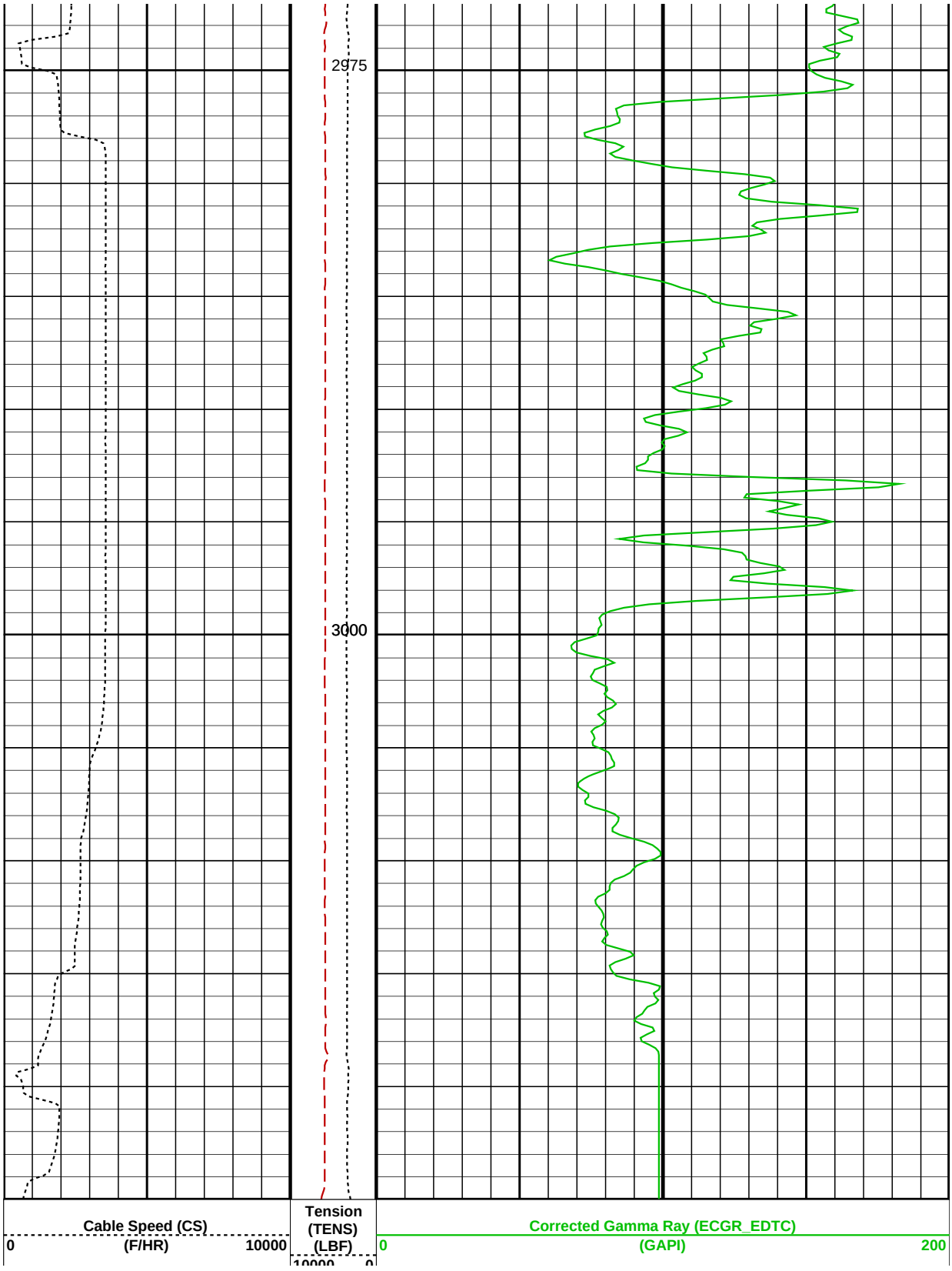
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(F/HR)
10000
Tension
(TENS)
(LBF)
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Corrected Gamma Ray (ECGR_EDTC)
0
(GAPI)
200

	10000 0	
	Calibrated Downhole Force (CDF) (LBF) −200 1800	

Parameters

DLIS Name	Description	Value	
	EDTC−B: Enhanced DTS Cartridge		
BHS	Borehole Status	OPEN	
ISSBAR_EDTC	Nuclear Mud Type	BARITE	
SOCN	Standoff Distance	0.5	IN
SOCO	Standoff Correction Option	NO	
TPOS_EDTC	EDTC Tool Centered/Eccentered	Eccentered	
	System and Miscellaneous		
CSIZ	Current Casing Size	9.625	IN
CWEI	Casing Weight	47.00	LB/F
DFD	Drilling Fluid Density	1.19	G/C3

Format: CORRELATION Vertical Scale: 1:200 Graphics File Created: 23−Mar−2008 08:45

OP System Version: 15C0−309

MCM

VSIT−G	SKK−3368−VSI−WB2_9_17_I	EDTC−B	SKK−3493−EDTCB_b

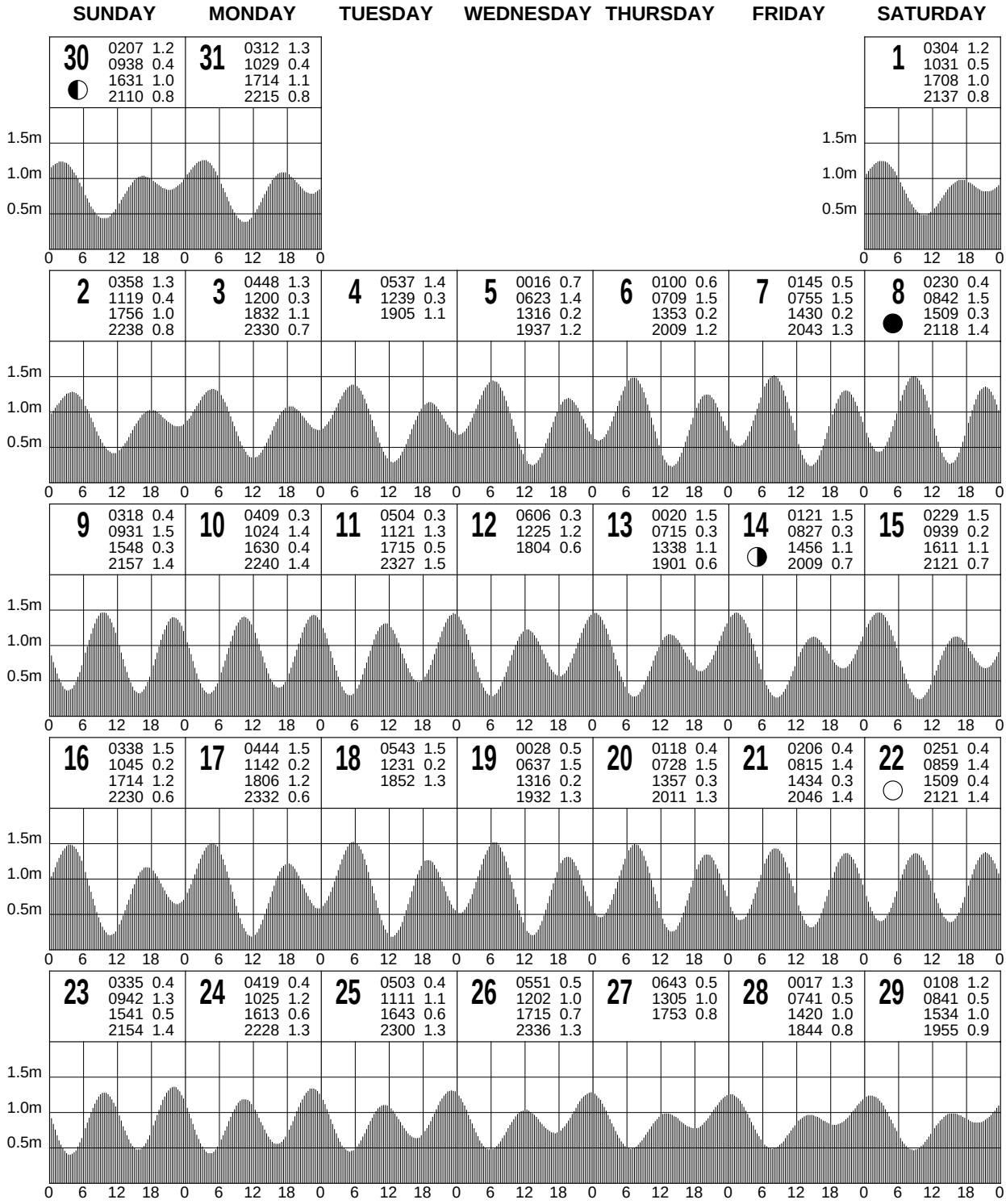
Output DLIS Files

DEFAULT	VSIT_009LUP	FN:8	PRODUCER	23−Mar−2008 08:45

Tidal Water Level Report

TIDE PREDICTIONS FOR COELACANTH 1 WELL 38° 42´ 49.72´´ S 148° 18´ 07.06´´ E

MARCH – 2008 EASTERN STANDARD TIME



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Disclaimer: These tide predictions have been produced from model derived tidal constituents and are supplied in good faith. No warranty is given in respect to errors, omissions, or suitability for any purpose.

VSI Tool Evaluation Test Report

VSI Seismic Evaluation Report

ELECTRICAL NOISE LOW TEST

2008/03/23 02:53:34

Shot No: 5 **Station Depth: 412.01 m**

Evaluation Item	Shuttle	Channel	Value	Unit	Lower Limit	Upper Limit	Result
DC Offset	1	X	-25.1827	milli V	-100.0000	100.0000	PASS
RMS Noise Level	1	X	0.1252	micro V	-	0.5000	PASS
Noise Peak	1	X	0.5268	micro V	-	2.0000	PASS
DC Offset	1	Y	-25.2119	milli V	-100.0000	100.0000	PASS
RMS Noise Level	1	Y	0.1236	micro V	-	0.5000	PASS
Noise Peak	1	Y	0.4197	micro V	-	2.0000	PASS
DC Offset	1	Z	-25.3229	milli V	-100.0000	100.0000	PASS
RMS Noise Level	1	Z	0.1218	micro V	-	0.5000	PASS
Noise Peak	1	Z	0.4429	micro V	-	2.0000	PASS
DC Offset	2	X	-25.2978	milli V	-100.0000	100.0000	PASS
RMS Noise Level	2	X	0.1273	micro V	-	0.5000	PASS
Noise Peak	2	X	0.4807	micro V	-	2.0000	PASS
DC Offset	2	Y	-25.1599	milli V	-100.0000	100.0000	PASS
RMS Noise Level	2	Y	0.1243	micro V	-	0.5000	PASS
Noise Peak	2	Y	0.4503	micro V	-	2.0000	PASS
DC Offset	2	Z	-25.1635	milli V	-100.0000	100.0000	PASS
RMS Noise Level	2	Z	0.1232	micro V	-	0.5000	PASS
Noise Peak	2	Z	0.4475	micro V	-	2.0000	PASS
DC Offset	3	X	-25.3678	milli V	-100.0000	100.0000	PASS
RMS Noise Level	3	X	0.1256	micro V	-	0.5000	PASS
Noise Peak	3	X	0.4941	micro V	-	2.0000	PASS
DC Offset	3	Y	-25.4262	milli V	-100.0000	100.0000	PASS
RMS Noise Level	3	Y	0.1248	micro V	-	0.5000	PASS
Noise Peak	3	Y	0.4434	micro V	-	2.0000	PASS
DC Offset	3	Z	-25.4146	milli V	-100.0000	100.0000	PASS
RMS Noise Level	3	Z	0.1232	micro V	-	0.5000	PASS
Noise Peak	3	Z	0.4342	micro V	-	2.0000	PASS

ELECTRICAL NOISE HIGH TEST

2008/03/23 02:53:58

Shot No: 6 **Station Depth: 412.01 m**

Evaluation Item	Shuttle	Channel	Value	Unit	Lower Limit	Upper Limit	Result
DC Offset	1	X	-25.0642	milli V	-100.0000	100.0000	PASS
RMS Noise Level	1	X	0.1263	micro V	-	0.5000	PASS
Noise Peak	1	X	0.5222	micro V	-	2.0000	PASS
DC Offset	1	Y	-25.1951	milli V	-100.0000	100.0000	PASS
RMS Noise Level	1	Y	0.1253	micro V	-	0.5000	PASS
Noise Peak	1	Y	0.5445	micro V	-	2.0000	PASS
DC Offset	1	Z	-25.1306	milli V	-100.0000	100.0000	PASS
RMS Noise Level	1	Z	0.1273	micro V	-	0.5000	PASS
Noise Peak	1	Z	0.5037	micro V	-	2.0000	PASS
DC Offset	2	X	-24.9531	milli V	-100.0000	100.0000	PASS
RMS Noise Level	2	X	0.1260	micro V	-	0.5000	PASS
Noise Peak	2	X	0.4326	micro V	-	2.0000	PASS
DC Offset	2	Y	-24.9605	milli V	-100.0000	100.0000	PASS
RMS Noise Level	2	Y	0.1241	micro V	-	0.5000	PASS
Noise Peak	2	Y	0.4782	micro V	-	2.0000	PASS
DC Offset	2	Z	-24.8775	milli V	-100.0000	100.0000	PASS
RMS Noise Level	2	Z	0.1285	micro V	-	0.5000	PASS
Noise Peak	2	Z	0.5007	micro V	-	2.0000	PASS

DC Offset	3	X	-24.9657	milli V	-100.0000	100.0000	PASS
RMS Noise Level	3	X	0.1239	micro V	-	0.5000	PASS
Noise Peak	3	X	0.4950	micro V	-	2.0000	PASS
DC Offset	3	Y	-25.3185	milli V	-100.0000	100.0000	PASS
RMS Noise Level	3	Y	0.1288	micro V	-	0.5000	PASS
Noise Peak	3	Y	0.4771	micro V	-	2.0000	PASS
DC Offset	3	Z	-25.3524	milli V	-100.0000	100.0000	PASS
RMS Noise Level	3	Z	0.1245	micro V	-	0.5000	PASS
Noise Peak	3	Z	0.4406	micro V	-	2.0000	PASS

ELECTRICAL DISTORTION TEST

2008/03/23 02:54:06

Shot No: 7 **Station Depth: 412.01 m**

Evaluation Item	Shuttle	Channel	Value	Unit	Lower Limit	Upper Limit	Result
Total Harmonic Distortion	1	X	-105.6712	dB	-	-90.0000	PASS
Total Harmonic Distortion	1	Y	-105.3744	dB	-	-90.0000	PASS
Total Harmonic Distortion	1	Z	-105.3202	dB	-	-90.0000	PASS
Total Harmonic Distortion	2	X	-103.9117	dB	-	-90.0000	PASS
Total Harmonic Distortion	2	Y	-105.1457	dB	-	-90.0000	PASS
Total Harmonic Distortion	2	Z	-100.4415	dB	-	-90.0000	PASS
Total Harmonic Distortion	3	X	-104.5657	dB	-	-90.0000	PASS
Total Harmonic Distortion	3	Y	-104.0715	dB	-	-90.0000	PASS
Total Harmonic Distortion	3	Z	-109.5936	dB	-	-90.0000	PASS

ELECTRICAL NOISE LOW TEST

2008/03/23 02:54:50

Shot No: 8 **Station Depth: 412.01 m**

Evaluation Item	Shuttle	Channel	Value	Unit	Lower Limit	Upper Limit	Result
DC Offset	1	X	-25.1809	milli V	-100.0000	100.0000	PASS
RMS Noise Level	1	X	0.1264	micro V	-	0.5000	PASS
Noise Peak	1	X	0.4115	micro V	-	2.0000	PASS
DC Offset	1	Y	-25.2098	milli V	-100.0000	100.0000	PASS
RMS Noise Level	1	Y	0.1282	micro V	-	0.5000	PASS
Noise Peak	1	Y	0.4610	micro V	-	2.0000	PASS
DC Offset	1	Z	-25.3212	milli V	-100.0000	100.0000	PASS
RMS Noise Level	1	Z	0.1260	micro V	-	0.5000	PASS
Noise Peak	1	Z	0.5470	micro V	-	2.0000	PASS
DC Offset	2	X	-25.2950	milli V	-100.0000	100.0000	PASS
RMS Noise Level	2	X	0.1268	micro V	-	0.5000	PASS
Noise Peak	2	X	0.4748	micro V	-	2.0000	PASS
DC Offset	2	Y	-25.1575	milli V	-100.0000	100.0000	PASS
RMS Noise Level	2	Y	0.1204	micro V	-	0.5000	PASS
Noise Peak	2	Y	0.4192	micro V	-	2.0000	PASS
DC Offset	2	Z	-25.1616	milli V	-100.0000	100.0000	PASS
RMS Noise Level	2	Z	0.1299	micro V	-	0.5000	PASS
Noise Peak	2	Z	0.5191	micro V	-	2.0000	PASS
DC Offset	3	X	-25.3651	milli V	-100.0000	100.0000	PASS
RMS Noise Level	3	X	0.1238	micro V	-	0.5000	PASS
Noise Peak	3	X	0.4617	micro V	-	2.0000	PASS
DC Offset	3	Y	-25.4240	milli V	-100.0000	100.0000	PASS
RMS Noise Level	3	Y	0.1278	micro V	-	0.5000	PASS
Noise Peak	3	Y	0.4498	micro V	-	2.0000	PASS
DC Offset	3	Z	-25.4130	milli V	-100.0000	100.0000	PASS
RMS Noise Level	3	Z	0.1249	micro V	-	0.5000	PASS
Noise Peak	3	Z	0.5308	micro V	-	2.0000	PASS

ELECTRICAL NOISE LOW TEST

VSI Seismic Evaluation Report

2008/03/23 02:55:55							
Shot No: 9			**Station Depth: 412.01 m**				
Evaluation Item	**Shuttle**	**Channel**	**Value**	**Unit**	**Lower Limit**	**Upper Limit**	**Result**
DC Offset	1	X	-25.1823	milli V	-100.0000	100.0000	PASS
RMS Noise Level	1	X	0.1226	micro V	-	0.5000	PASS
Noise Peak	1	X	0.4512	micro V	-	2.0000	PASS
DC Offset	1	Y	-25.2116	milli V	-100.0000	100.0000	PASS
RMS Noise Level	1	Y	0.1254	micro V	-	0.5000	PASS
Noise Peak	1	Y	0.4776	micro V	-	2.0000	PASS
DC Offset	1	Z	-25.3227	milli V	-100.0000	100.0000	PASS
RMS Noise Level	1	Z	0.1241	micro V	-	0.5000	PASS
Noise Peak	1	Z	0.4393	micro V	-	2.0000	PASS
DC Offset	2	X	-25.2970	milli V	-100.0000	100.0000	PASS
RMS Noise Level	2	X	0.1252	micro V	-	0.5000	PASS
Noise Peak	2	X	0.4659	micro V	-	2.0000	PASS
DC Offset	2	Y	-25.1592	milli V	-100.0000	100.0000	PASS
RMS Noise Level	2	Y	0.1258	micro V	-	0.5000	PASS
Noise Peak	2	Y	0.4483	micro V	-	2.0000	PASS
DC Offset	2	Z	-25.1633	milli V	-100.0000	100.0000	PASS
RMS Noise Level	2	Z	0.1259	micro V	-	0.5000	PASS
Noise Peak	2	Z	0.4503	micro V	-	2.0000	PASS
DC Offset	3	X	-25.3670	milli V	-100.0000	100.0000	PASS
RMS Noise Level	3	X	0.1258	micro V	-	0.5000	PASS
Noise Peak	3	X	0.4370	micro V	-	2.0000	PASS
DC Offset	3	Y	-25.4256	milli V	-100.0000	100.0000	PASS
RMS Noise Level	3	Y	0.1278	micro V	-	0.5000	PASS
Noise Peak	3	Y	0.4597	micro V	-	2.0000	PASS
DC Offset	3	Z	-25.4143	milli V	-100.0000	100.0000	PASS
RMS Noise Level	3	Z	0.1250	micro V	-	0.5000	PASS
Noise Peak	3	Z	0.4834	micro V	-	2.0000	PASS
ELECTRICAL NOISE HIGH TEST							
2008/03/23 02:56:19							
Shot No: 10			**Station Depth: 412.01 m**				
Evaluation Item	**Shuttle**	**Channel**	**Value**	**Unit**	**Lower Limit**	**Upper Limit**	**Result**
DC Offset	1	X	-25.0661	milli V	-100.0000	100.0000	PASS
RMS Noise Level	1	X	0.1249	micro V	-	0.5000	PASS
Noise Peak	1	X	0.4752	micro V	-	2.0000	PASS
DC Offset	1	Y	-25.1891	milli V	-100.0000	100.0000	PASS
RMS Noise Level	1	Y	0.1273	micro V	-	0.5000	PASS
Noise Peak	1	Y	0.4722	micro V	-	2.0000	PASS
DC Offset	1	Z	-25.1272	milli V	-100.0000	100.0000	PASS
RMS Noise Level	1	Z	0.1267	micro V	-	0.5000	PASS
Noise Peak	1	Z	0.4493	micro V	-	2.0000	PASS
DC Offset	2	X	-24.9422	milli V	-100.0000	100.0000	PASS
RMS Noise Level	2	X	0.1282	micro V	-	0.5000	PASS
Noise Peak	2	X	0.4850	micro V	-	2.0000	PASS
DC Offset	2	Y	-24.9631	milli V	-100.0000	100.0000	PASS
RMS Noise Level	2	Y	0.1248	micro V	-	0.5000	PASS
Noise Peak	2	Y	0.4540	micro V	-	2.0000	PASS
DC Offset	2	Z	-24.8711	milli V	-100.0000	100.0000	PASS
RMS Noise Level	2	Z	0.1255	micro V	-	0.5000	PASS
Noise Peak	2	Z	0.4530	micro V	-	2.0000	PASS
DC Offset	3	X	-24.9537	milli V	-100.0000	100.0000	PASS
RMS Noise Level	3	X	0.1251	micro V	-	0.5000	PASS

Noise Peak	3	X	0.4694	micro V	-	2.0000	PASS
DC Offset	3	Y	-25.3106	milli V	-100.0000	100.0000	PASS
RMS Noise Level	3	Y	0.1296	micro V	-	0.5000	PASS
Noise Peak	3	Y	0.4753	micro V	-	2.0000	PASS
DC Offset	3	Z	-25.3473	milli V	-100.0000	100.0000	PASS
RMS Noise Level	3	Z	0.1222	micro V	-	0.5000	PASS
Noise Peak	3	Z	0.4448	micro V	-	2.0000	PASS

ELECTRICAL DISTORTION TEST

2008/03/23 02:56:28

Shot No: 11 **Station Depth: 412.01 m**

Evaluation Item	Shuttle	Channel	Value	Unit	Lower Limit	Upper Limit	Result
Total Harmonic Distortion	1	X	-106.8502	dB	-	-90.0000	PASS
Total Harmonic Distortion	1	Y	-106.3802	dB	-	-90.0000	PASS
Total Harmonic Distortion	1	Z	-105.9031	dB	-	-90.0000	PASS
Total Harmonic Distortion	2	X	-103.9262	dB	-	-90.0000	PASS
Total Harmonic Distortion	2	Y	-105.4859	dB	-	-90.0000	PASS
Total Harmonic Distortion	2	Z	-100.3121	dB	-	-90.0000	PASS
Total Harmonic Distortion	3	X	-105.5141	dB	-	-90.0000	PASS
Total Harmonic Distortion	3	Y	-104.6049	dB	-	-90.0000	PASS
Total Harmonic Distortion	3	Z	-109.3091	dB	-	-90.0000	PASS

SYSTEM DYNAMIC RANGE TEST

2008/03/23 02:56:42

Shot No: 12 **Station Depth: 412.01 m**

Evaluation Item	Shuttle	Channel	Value	Unit	Lower Limit	Upper Limit	Result
System Dynamic Range	1	X	107.7192	dB	103.0000	-	PASS
System Dynamic Range	1	Y	107.7385	dB	103.0000	-	PASS
System Dynamic Range	1	Z	107.6053	dB	103.0000	-	PASS
System Dynamic Range	2	X	107.9063	dB	103.0000	-	PASS
System Dynamic Range	2	Y	107.9732	dB	103.0000	-	PASS
System Dynamic Range	2	Z	107.8653	dB	103.0000	-	PASS
System Dynamic Range	3	X	107.5481	dB	103.0000	-	PASS
System Dynamic Range	3	Y	107.3104	dB	103.0000	-	PASS
System Dynamic Range	3	Z	107.3137	dB	103.0000	-	PASS

AMPLIFIER GAIN 2 TEST

2008/03/23 02:56:56

Shot No: 13 **Station Depth: 412.01 m**

Evaluation Item	Shuttle	Channel	Value	Unit	Lower Limit	Upper Limit	Result
Gain Accuracy	1	X	0.1329	dB	-0.5000	0.5000	PASS
Gain Step Accuracy	1	X	0.0000	dB	-0.5000	0.5000	PASS
Gain Accuracy	1	Y	0.1360	dB	-0.5000	0.5000	PASS
Gain Step Accuracy	1	Y	0.0000	dB	-0.5000	0.5000	PASS
Gain Accuracy	1	Z	0.1477	dB	-0.5000	0.5000	PASS
Gain Step Accuracy	1	Z	0.0000	dB	-0.5000	0.5000	PASS
Gain Accuracy	2	X	0.1323	dB	-0.5000	0.5000	PASS
Gain Step Accuracy	2	X	0.0000	dB	-0.5000	0.5000	PASS
Gain Accuracy	2	Y	0.1244	dB	-0.5000	0.5000	PASS
Gain Step Accuracy	2	Y	0.0000	dB	-0.5000	0.5000	PASS
Gain Accuracy	2	Z	0.1284	dB	-0.5000	0.5000	PASS
Gain Step Accuracy	2	Z	0.0000	dB	-0.5000	0.5000	PASS
Gain Accuracy	3	X	0.1429	dB	-0.5000	0.5000	PASS
Gain Step Accuracy	3	X	0.0000	dB	-0.5000	0.5000	PASS
Gain Accuracy	3	Y	0.1411	dB	-0.5000	0.5000	PASS
Gain Step Accuracy	3	Y	0.0000	dB	-0.5000	0.5000	PASS
Gain Accuracy	3	Z	0.1409	dB	-0.5000	0.5000	PASS

Gain Step Accuracy	3	Z	0.0000	dB	-0.5000	0.5000	PASS

AMPLIFIER GAIN 4 TEST

2008/03/23 02:57:06

Shot No: 14 **Station Depth: 412.01 m**

Evaluation Item	Shuttle	Channel	Value	Unit	Lower Limit	Upper Limit	Result
Gain Accuracy	1	X	0.1349	dB	-0.5000	0.5000	PASS
Gain Step Accuracy	1	X	-0.0019	dB	-0.5000	0.5000	PASS
Gain Accuracy	1	Y	0.1336	dB	-0.5000	0.5000	PASS
Gain Step Accuracy	1	Y	0.0023	dB	-0.5000	0.5000	PASS
Gain Accuracy	1	Z	0.1489	dB	-0.5000	0.5000	PASS
Gain Step Accuracy	1	Z	-0.0012	dB	-0.5000	0.5000	PASS
Gain Accuracy	2	X	0.1306	dB	-0.5000	0.5000	PASS
Gain Step Accuracy	2	X	0.0017	dB	-0.5000	0.5000	PASS
Gain Accuracy	2	Y	0.1257	dB	-0.5000	0.5000	PASS
Gain Step Accuracy	2	Y	-0.0013	dB	-0.5000	0.5000	PASS
Gain Accuracy	2	Z	0.1256	dB	-0.5000	0.5000	PASS
Gain Step Accuracy	2	Z	0.0028	dB	-0.5000	0.5000	PASS
Gain Accuracy	3	X	0.1399	dB	-0.5000	0.5000	PASS
Gain Step Accuracy	3	X	0.0031	dB	-0.5000	0.5000	PASS
Gain Accuracy	3	Y	0.1408	dB	-0.5000	0.5000	PASS
Gain Step Accuracy	3	Y	0.0003	dB	-0.5000	0.5000	PASS
Gain Accuracy	3	Z	0.1369	dB	-0.5000	0.5000	PASS
Gain Step Accuracy	3	Z	0.0040	dB	-0.5000	0.5000	PASS

AMPLIFIER GAIN 8 TEST

2008/03/23 02:57:16

Shot No: 15 **Station Depth: 412.01 m**

Evaluation Item	Shuttle	Channel	Value	Unit	Lower Limit	Upper Limit	Result
Gain Accuracy	1	X	0.1361	dB	-0.5000	0.5000	PASS
Gain Step Accuracy	1	X	-0.0032	dB	-0.5000	0.5000	PASS
Gain Accuracy	1	Y	0.1326	dB	-0.5000	0.5000	PASS
Gain Step Accuracy	1	Y	0.0034	dB	-0.5000	0.5000	PASS
Gain Accuracy	1	Z	0.1507	dB	-0.5000	0.5000	PASS
Gain Step Accuracy	1	Z	-0.0031	dB	-0.5000	0.5000	PASS
Gain Accuracy	2	X	0.1288	dB	-0.5000	0.5000	PASS
Gain Step Accuracy	2	X	0.0035	dB	-0.5000	0.5000	PASS
Gain Accuracy	2	Y	0.1278	dB	-0.5000	0.5000	PASS
Gain Step Accuracy	2	Y	-0.0034	dB	-0.5000	0.5000	PASS
Gain Accuracy	2	Z	0.1254	dB	-0.5000	0.5000	PASS
Gain Step Accuracy	2	Z	0.0030	dB	-0.5000	0.5000	PASS
Gain Accuracy	3	X	0.1413	dB	-0.5000	0.5000	PASS
Gain Step Accuracy	3	X	0.0016	dB	-0.5000	0.5000	PASS
Gain Accuracy	3	Y	0.1409	dB	-0.5000	0.5000	PASS
Gain Step Accuracy	3	Y	0.0002	dB	-0.5000	0.5000	PASS
Gain Accuracy	3	Z	0.1365	dB	-0.5000	0.5000	PASS
Gain Step Accuracy	3	Z	0.0044	dB	-0.5000	0.5000	PASS

AMPLIFIER GAIN 16 TEST

2008/03/23 02:57:26

Shot No: 16 **Station Depth: 412.01 m**

Evaluation Item	Shuttle	Channel	Value	Unit	Lower Limit	Upper Limit	Result
Gain Accuracy	1	X	0.1352	dB	-0.5000	0.5000	PASS
Gain Step Accuracy	1	X	-0.0023	dB	-0.5000	0.5000	PASS
Gain Accuracy	1	Y	0.1297	dB	-0.5000	0.5000	PASS
Gain Step Accuracy	1	Y	0.0063	dB	-0.5000	0.5000	PASS
Gain Accuracy	1	Z	0.1475	dB	-0.5000	0.5000	PASS

Gain Step Accuracy	1	Z	0.0001	dB	-0.5000	0.5000	PASS
Gain Accuracy	2	X	0.1265	dB	-0.5000	0.5000	PASS
Gain Step Accuracy	2	X	0.0058	dB	-0.5000	0.5000	PASS
Gain Accuracy	2	Y	0.1238	dB	-0.5000	0.5000	PASS
Gain Step Accuracy	2	Y	0.0006	dB	-0.5000	0.5000	PASS
Gain Accuracy	2	Z	0.1231	dB	-0.5000	0.5000	PASS
Gain Step Accuracy	2	Z	0.0053	dB	-0.5000	0.5000	PASS
Gain Accuracy	3	X	0.1381	dB	-0.5000	0.5000	PASS
Gain Step Accuracy	3	X	0.0049	dB	-0.5000	0.5000	PASS
Gain Accuracy	3	Y	0.1381	dB	-0.5000	0.5000	PASS
Gain Step Accuracy	3	Y	0.0030	dB	-0.5000	0.5000	PASS
Gain Accuracy	3	Z	0.1325	dB	-0.5000	0.5000	PASS
Gain Step Accuracy	3	Z	0.0085	dB	-0.5000	0.5000	PASS

AMPLIFIER GAIN 32 TEST

2008/03/23 02:57:36

Shot No: 17 **Station Depth: 412.01 m**

Evaluation Item	Shuttle	Channel	Value	Unit	Lower Limit	Upper Limit	Result
Gain Accuracy	1	X	0.1402	dB	-0.5000	0.5000	PASS
Gain Step Accuracy	1	X	-0.0073	dB	-0.5000	0.5000	PASS
Gain Accuracy	1	Y	0.1335	dB	-0.5000	0.5000	PASS
Gain Step Accuracy	1	Y	0.0025	dB	-0.5000	0.5000	PASS
Gain Accuracy	1	Z	0.1523	dB	-0.5000	0.5000	PASS
Gain Step Accuracy	1	Z	-0.0046	dB	-0.5000	0.5000	PASS
Gain Accuracy	2	X	0.1286	dB	-0.5000	0.5000	PASS
Gain Step Accuracy	2	X	0.0037	dB	-0.5000	0.5000	PASS
Gain Accuracy	2	Y	0.1236	dB	-0.5000	0.5000	PASS
Gain Step Accuracy	2	Y	0.0008	dB	-0.5000	0.5000	PASS
Gain Accuracy	2	Z	0.1279	dB	-0.5000	0.5000	PASS
Gain Step Accuracy	2	Z	0.0005	dB	-0.5000	0.5000	PASS
Gain Accuracy	3	X	0.1391	dB	-0.5000	0.5000	PASS
Gain Step Accuracy	3	X	0.0039	dB	-0.5000	0.5000	PASS
Gain Accuracy	3	Y	0.1431	dB	-0.5000	0.5000	PASS
Gain Step Accuracy	3	Y	-0.0019	dB	-0.5000	0.5000	PASS
Gain Accuracy	3	Z	0.1358	dB	-0.5000	0.5000	PASS
Gain Step Accuracy	3	Z	0.0051	dB	-0.5000	0.5000	PASS

CROSS TALK X TEST

2008/03/23 02:57:51

Shot No: 18 **Station Depth: 412.01 m**

Evaluation Item	Shuttle	Channel	Value	Unit	Lower Limit	Upper Limit	Result
Cross Talk X-Y	1	-	-99.9819	dB	-	-90.0000	PASS
Cross Talk X-Z	1	-	-100.0006	dB	-	-90.0000	PASS
Cross Talk X-Y	2	-	-100.1365	dB	-	-90.0000	PASS
Cross Talk X-Z	2	-	-99.8114	dB	-	-90.0000	PASS
Cross Talk X-Y	3	-	-99.8732	dB	-	-90.0000	PASS
Cross Talk X-Z	3	-	-100.1675	dB	-	-90.0000	PASS

CROSS TALK Y TEST

2008/03/23 02:58:10

Shot No: 19 **Station Depth: 412.01 m**

Evaluation Item	Shuttle	Channel	Value	Unit	Lower Limit	Upper Limit	Result
Cross Talk Y-Z	1	-	-100.0261	dB	-	-90.0000	PASS
Cross Talk Y-X	1	-	-99.6732	dB	-	-90.0000	PASS
Cross Talk Y-Z	2	-	-99.7951	dB	-	-90.0000	PASS
Cross Talk Y-X	2	-	-99.8680	dB	-	-90.0000	PASS
Cross Talk Y-Z	3	-	-100.1730	dB	-	-90.0000	PASS

Cross Talk Y-X	3	-	-99.8241	dB	-	-90.0000	PASS
CROSS TALK Z TEST							
2008/03/23 02:58:28							
Shot No: 20			**Station Depth: 412.01 m**				
Evaluation Item	**Shuttle**	**Channel**	**Value**	**Unit**	**Lower Limit**	**Upper Limit**	**Result**
Cross Talk Z-X	1	-	-99.0333	dB	-	-90.0000	PASS
Cross Talk Z-Y	1	-	-99.5803	dB	-	-90.0000	PASS
Cross Talk Z-X	2	-	-98.9112	dB	-	-90.0000	PASS
Cross Talk Z-Y	2	-	-99.6993	dB	-	-90.0000	PASS
Cross Talk Z-X	3	-	-98.8046	dB	-	-90.0000	PASS
Cross Talk Z-Y	3	-	-99.5479	dB	-	-90.0000	PASS
IMPULSE RESPONSE TEST							
2008/03/23 02:58:46							
Shot No: 21			**Station Depth: 412.01 m**				
Evaluation Item	**Shuttle**	**Channel**	**Value**	**Unit**	**Lower Limit**	**Upper Limit**	**Result**
Amplitude (0.3Hz)	1	X	-1.6653	dB	-5.0000	-	PASS
Amplitude (400Hz)	1	X	-3.5757	dB	-5.0000	-	PASS
Impulse Amplitude	1	X	573.1045	milli V	-	-	-
Phase Diff. at 0.3Hz from X1	1	X	0.0000	degree	-	-	-
Amplitude (0.3Hz)	1	Y	-1.6218	dB	-5.0000	-	PASS
Amplitude (400Hz)	1	Y	-3.5750	dB	-5.0000	-	PASS
Impulse Amplitude	1	Y	573.1450	milli V	-	-	-
Phase Diff. at 0.3Hz from X1	1	Y	-0.4572	degree	-	-	-
Amplitude (0.3Hz)	1	Z	-1.6463	dB	-5.0000	-	PASS
Amplitude (400Hz)	1	Z	-3.5757	dB	-5.0000	-	PASS
Impulse Amplitude	1	Z	573.9755	milli V	-	-	-
Phase Diff. at 0.3Hz from X1	1	Z	-0.3909	degree	-	-	-
Amplitude (0.3Hz)	2	X	-1.5081	dB	-5.0000	-	PASS
Amplitude (400Hz)	2	X	-3.5750	dB	-5.0000	-	PASS
Impulse Amplitude	2	X	572.5668	milli V	-	-	-
Phase Diff. at 0.3Hz from X1	2	X	-1.3886	degree	-	-	-
Amplitude (0.3Hz)	2	Y	-1.4905	dB	-5.0000	-	PASS
Amplitude (400Hz)	2	Y	-3.5727	dB	-5.0000	-	PASS
Impulse Amplitude	2	Y	572.3568	milli V	-	-	-
Phase Diff. at 0.3Hz from X1	2	Y	-1.6122	degree	-	-	-
Amplitude (0.3Hz)	2	Z	-1.5111	dB	-5.0000	-	PASS
Amplitude (400Hz)	2	Z	-3.5718	dB	-5.0000	-	PASS
Impulse Amplitude	2	Z	572.5067	milli V	-	-	-
Phase Diff. at 0.3Hz from X1	2	Z	-1.5131	degree	-	-	-
Amplitude (0.3Hz)	3	X	-1.6404	dB	-5.0000	-	PASS
Amplitude (400Hz)	3	X	-3.5743	dB	-5.0000	-	PASS
Impulse Amplitude	3	X	573.8811	milli V	-	-	-
Phase Diff. at 0.3Hz from X1	3	X	-0.0290	degree	-	-	-
Amplitude (0.3Hz)	3	Y	-1.5323	dB	-5.0000	-	PASS
Amplitude (400Hz)	3	Y	-3.5745	dB	-5.0000	-	PASS
Impulse Amplitude	3	Y	573.7678	milli V	-	-	-
Phase Diff. at 0.3Hz from X1	3	Y	-0.9880	degree	-	-	-
Amplitude (0.3Hz)	3	Z	-1.6041	dB	-5.0000	-	PASS
Amplitude (400Hz)	3	Z	-3.5728	dB	-5.0000	-	PASS
Impulse Amplitude	3	Z	573.8008	milli V	-	-	-
Phase Diff. at 0.3Hz from X1	3	Z	-0.3774	degree	-	-	-
ELECTRICAL NOISE LOW TEST							
2008/03/23 08:50:56							
Shot No: 39			**Station Depth: 3069.86 m**				

VSI Seismic Evaluation Report

Evaluation Item	Shuttle	Channel	Value	Unit	Lower Limit	Upper Limit	Result
DC Offset	1	X	-25.1439	milli V	-100.0000	100.0000	PASS
RMS Noise Level	1	X	0.1377	micro V	-	0.5000	PASS
Noise Peak	1	X	0.6280	micro V	-	2.0000	PASS
DC Offset	1	Y	-25.1836	milli V	-100.0000	100.0000	PASS
RMS Noise Level	1	Y	0.1363	micro V	-	0.5000	PASS
Noise Peak	1	Y	0.4588	micro V	-	2.0000	PASS
DC Offset	1	Z	-25.2895	milli V	-100.0000	100.0000	PASS
RMS Noise Level	1	Z	0.1331	micro V	-	0.5000	PASS
Noise Peak	1	Z	0.4859	micro V	-	2.0000	PASS
DC Offset	2	X	-25.2727	milli V	-100.0000	100.0000	PASS
RMS Noise Level	2	X	0.1342	micro V	-	0.5000	PASS
Noise Peak	2	X	0.4261	micro V	-	2.0000	PASS
DC Offset	2	Y	-25.1293	milli V	-100.0000	100.0000	PASS
RMS Noise Level	2	Y	0.1334	micro V	-	0.5000	PASS
Noise Peak	2	Y	0.4506	micro V	-	2.0000	PASS
DC Offset	2	Z	-25.1332	milli V	-100.0000	100.0000	PASS
RMS Noise Level	2	Z	0.1370	micro V	-	0.5000	PASS
Noise Peak	2	Z	0.5922	micro V	-	2.0000	PASS
DC Offset	3	X	-25.3427	milli V	-100.0000	100.0000	PASS
RMS Noise Level	3	X	0.1323	micro V	-	0.5000	PASS
Noise Peak	3	X	0.4889	micro V	-	2.0000	PASS
DC Offset	3	Y	-25.3959	milli V	-100.0000	100.0000	PASS
RMS Noise Level	3	Y	0.1364	micro V	-	0.5000	PASS
Noise Peak	3	Y	0.4715	micro V	-	2.0000	PASS
DC Offset	3	Z	-25.3800	milli V	-100.0000	100.0000	PASS
RMS Noise Level	3	Z	0.1352	micro V	-	0.5000	PASS
Noise Peak	3	Z	0.4789	micro V	-	2.0000	PASS
ELECTRICAL NOISE HIGH TEST							
2008/03/23 08:51:20							
Shot No: 40			**Station Depth: 3069.86 m**				
Evaluation Item	**Shuttle**	**Channel**	**Value**	**Unit**	**Lower Limit**	**Upper Limit**	**Result**
DC Offset	1	X	-24.8483	milli V	-100.0000	100.0000	PASS
RMS Noise Level	1	X	0.1373	micro V	-	0.5000	PASS
Noise Peak	1	X	0.4976	micro V	-	2.0000	PASS
DC Offset	1	Y	-25.1552	milli V	-100.0000	100.0000	PASS
RMS Noise Level	1	Y	0.1380	micro V	-	0.5000	PASS
Noise Peak	1	Y	0.5524	micro V	-	2.0000	PASS
DC Offset	1	Z	-25.0472	milli V	-100.0000	100.0000	PASS
RMS Noise Level	1	Z	0.1290	micro V	-	0.5000	PASS
Noise Peak	1	Z	0.5177	micro V	-	2.0000	PASS
DC Offset	2	X	-24.9351	milli V	-100.0000	100.0000	PASS
RMS Noise Level	2	X	0.1343	micro V	-	0.5000	PASS
Noise Peak	2	X	0.4761	micro V	-	2.0000	PASS
DC Offset	2	Y	-24.9588	milli V	-100.0000	100.0000	PASS
RMS Noise Level	2	Y	0.1356	micro V	-	0.5000	PASS
Noise Peak	2	Y	0.5270	micro V	-	2.0000	PASS
DC Offset	2	Z	-24.8477	milli V	-100.0000	100.0000	PASS
RMS Noise Level	2	Z	0.1322	micro V	-	0.5000	PASS
Noise Peak	2	Z	0.5652	micro V	-	2.0000	PASS
DC Offset	3	X	-25.0136	milli V	-100.0000	100.0000	PASS
RMS Noise Level	3	X	0.1315	micro V	-	0.5000	PASS
Noise Peak	3	X	0.4968	micro V	-	2.0000	PASS
DC Offset	3	Y	-25.2890	milli V	-100.0000	100.0000	PASS

RMS Noise Level	3	Y	0.1364	micro V	-	0.5000	PASS
Noise Peak	3	Y	0.5078	micro V	-	2.0000	PASS
DC Offset	3	Z	-25.2644	milli V	-100.0000	100.0000	PASS
RMS Noise Level	3	Z	0.1317	micro V	-	0.5000	PASS
Noise Peak	3	Z	0.4761	micro V	-	2.0000	PASS

ELECTRICAL DISTORTION TEST

2008/03/23 08:51:29

Shot No: 41 **Station Depth: 3069.86 m**

Evaluation Item	Shuttle	Channel	Value	Unit	Lower Limit	Upper Limit	Result
Total Harmonic Distortion	1	X	-97.2158	dB	-	-90.0000	PASS
Total Harmonic Distortion	1	Y	-97.0465	dB	-	-90.0000	PASS
Total Harmonic Distortion	1	Z	-98.4650	dB	-	-90.0000	PASS
Total Harmonic Distortion	2	X	-96.4459	dB	-	-90.0000	PASS
Total Harmonic Distortion	2	Y	-96.0609	dB	-	-90.0000	PASS
Total Harmonic Distortion	2	Z	-95.3725	dB	-	-90.0000	PASS
Total Harmonic Distortion	3	X	-98.1365	dB	-	-90.0000	PASS
Total Harmonic Distortion	3	Y	-96.8875	dB	-	-90.0000	PASS
Total Harmonic Distortion	3	Z	-97.0613	dB	-	-90.0000	PASS

SYSTEM DYNAMIC RANGE TEST

2008/03/23 08:51:44

Shot No: 42 **Station Depth: 3069.86 m**

Evaluation Item	Shuttle	Channel	Value	Unit	Lower Limit	Upper Limit	Result
System Dynamic Range	1	X	108.2867	dB	103.0000	-	PASS
System Dynamic Range	1	Y	107.8676	dB	103.0000	-	PASS
System Dynamic Range	1	Z	108.0076	dB	103.0000	-	PASS
System Dynamic Range	2	X	107.2749	dB	103.0000	-	PASS
System Dynamic Range	2	Y	107.8281	dB	103.0000	-	PASS
System Dynamic Range	2	Z	107.1236	dB	103.0000	-	PASS
System Dynamic Range	3	X	106.8353	dB	103.0000	-	PASS
System Dynamic Range	3	Y	107.2103	dB	103.0000	-	PASS
System Dynamic Range	3	Z	107.2712	dB	103.0000	-	PASS

AMPLIFIER GAIN 2 TEST

2008/03/23 08:51:59

Shot No: 43 **Station Depth: 3069.86 m**

Evaluation Item	Shuttle	Channel	Value	Unit	Lower Limit	Upper Limit	Result
Gain Accuracy	1	X	0.1216	dB	-0.5000	0.5000	PASS
Gain Step Accuracy	1	X	0.0000	dB	-0.5000	0.5000	PASS
Gain Accuracy	1	Y	0.1238	dB	-0.5000	0.5000	PASS
Gain Step Accuracy	1	Y	0.0000	dB	-0.5000	0.5000	PASS
Gain Accuracy	1	Z	0.1347	dB	-0.5000	0.5000	PASS
Gain Step Accuracy	1	Z	0.0000	dB	-0.5000	0.5000	PASS
Gain Accuracy	2	X	0.1195	dB	-0.5000	0.5000	PASS
Gain Step Accuracy	2	X	0.0000	dB	-0.5000	0.5000	PASS
Gain Accuracy	2	Y	0.1118	dB	-0.5000	0.5000	PASS
Gain Step Accuracy	2	Y	0.0000	dB	-0.5000	0.5000	PASS
Gain Accuracy	2	Z	0.1172	dB	-0.5000	0.5000	PASS
Gain Step Accuracy	2	Z	0.0000	dB	-0.5000	0.5000	PASS
Gain Accuracy	3	X	0.1306	dB	-0.5000	0.5000	PASS
Gain Step Accuracy	3	X	0.0000	dB	-0.5000	0.5000	PASS
Gain Accuracy	3	Y	0.1285	dB	-0.5000	0.5000	PASS
Gain Step Accuracy	3	Y	0.0000	dB	-0.5000	0.5000	PASS
Gain Accuracy	3	Z	0.1286	dB	-0.5000	0.5000	PASS
Gain Step Accuracy	3	Z	0.0000	dB	-0.5000	0.5000	PASS

AMPLIFIER GAIN 4 TEST

VSI Seismic Evaluation Report

2008/03/23 08:52:09

Shot No: 44 **Station Depth: 3069.86 m**

Evaluation Item	Shuttle	Channel	Value	Unit	Lower Limit	Upper Limit	Result
Gain Accuracy	1	X	0.1236	dB	-0.5000	0.5000	PASS
Gain Step Accuracy	1	X	-0.0020	dB	-0.5000	0.5000	PASS
Gain Accuracy	1	Y	0.1216	dB	-0.5000	0.5000	PASS
Gain Step Accuracy	1	Y	0.0022	dB	-0.5000	0.5000	PASS
Gain Accuracy	1	Z	0.1360	dB	-0.5000	0.5000	PASS
Gain Step Accuracy	1	Z	-0.0013	dB	-0.5000	0.5000	PASS
Gain Accuracy	2	X	0.1179	dB	-0.5000	0.5000	PASS
Gain Step Accuracy	2	X	0.0016	dB	-0.5000	0.5000	PASS
Gain Accuracy	2	Y	0.1131	dB	-0.5000	0.5000	PASS
Gain Step Accuracy	2	Y	-0.0013	dB	-0.5000	0.5000	PASS
Gain Accuracy	2	Z	0.1147	dB	-0.5000	0.5000	PASS
Gain Step Accuracy	2	Z	0.0026	dB	-0.5000	0.5000	PASS
Gain Accuracy	3	X	0.1278	dB	-0.5000	0.5000	PASS
Gain Step Accuracy	3	X	0.0028	dB	-0.5000	0.5000	PASS
Gain Accuracy	3	Y	0.1283	dB	-0.5000	0.5000	PASS
Gain Step Accuracy	3	Y	0.0003	dB	-0.5000	0.5000	PASS
Gain Accuracy	3	Z	0.1249	dB	-0.5000	0.5000	PASS
Gain Step Accuracy	3	Z	0.0038	dB	-0.5000	0.5000	PASS

AMPLIFIER GAIN 8 TEST

2008/03/23 08:52:19

Shot No: 45 **Station Depth: 3069.86 m**

Evaluation Item	Shuttle	Channel	Value	Unit	Lower Limit	Upper Limit	Result
Gain Accuracy	1	X	0.1251	dB	-0.5000	0.5000	PASS
Gain Step Accuracy	1	X	-0.0035	dB	-0.5000	0.5000	PASS
Gain Accuracy	1	Y	0.1209	dB	-0.5000	0.5000	PASS
Gain Step Accuracy	1	Y	0.0030	dB	-0.5000	0.5000	PASS
Gain Accuracy	1	Z	0.1379	dB	-0.5000	0.5000	PASS
Gain Step Accuracy	1	Z	-0.0031	dB	-0.5000	0.5000	PASS
Gain Accuracy	2	X	0.1164	dB	-0.5000	0.5000	PASS
Gain Step Accuracy	2	X	0.0031	dB	-0.5000	0.5000	PASS
Gain Accuracy	2	Y	0.1153	dB	-0.5000	0.5000	PASS
Gain Step Accuracy	2	Y	-0.0034	dB	-0.5000	0.5000	PASS
Gain Accuracy	2	Z	0.1147	dB	-0.5000	0.5000	PASS
Gain Step Accuracy	2	Z	0.0025	dB	-0.5000	0.5000	PASS
Gain Accuracy	3	X	0.1293	dB	-0.5000	0.5000	PASS
Gain Step Accuracy	3	X	0.0013	dB	-0.5000	0.5000	PASS
Gain Accuracy	3	Y	0.1286	dB	-0.5000	0.5000	PASS
Gain Step Accuracy	3	Y	-0.0000	dB	-0.5000	0.5000	PASS
Gain Accuracy	3	Z	0.1246	dB	-0.5000	0.5000	PASS
Gain Step Accuracy	3	Z	0.0040	dB	-0.5000	0.5000	PASS

AMPLIFIER GAIN 16 TEST

2008/03/23 08:52:29

Shot No: 46 **Station Depth: 3069.86 m**

Evaluation Item	Shuttle	Channel	Value	Unit	Lower Limit	Upper Limit	Result
Gain Accuracy	1	X	0.1239	dB	-0.5000	0.5000	PASS
Gain Step Accuracy	1	X	-0.0023	dB	-0.5000	0.5000	PASS
Gain Accuracy	1	Y	0.1179	dB	-0.5000	0.5000	PASS
Gain Step Accuracy	1	Y	0.0059	dB	-0.5000	0.5000	PASS
Gain Accuracy	1	Z	0.1347	dB	-0.5000	0.5000	PASS
Gain Step Accuracy	1	Z	0.0001	dB	-0.5000	0.5000	PASS
Gain Accuracy	2	X	0.1141	dB	-0.5000	0.5000	PASS

VSI Seismic Evaluation Report

Gain Step Accuracy	2	X	0.0055	dB	-0.5000	0.5000	PASS
Gain Accuracy	2	Y	0.1113	dB	-0.5000	0.5000	PASS
Gain Step Accuracy	2	Y	0.0005	dB	-0.5000	0.5000	PASS
Gain Accuracy	2	Z	0.1122	dB	-0.5000	0.5000	PASS
Gain Step Accuracy	2	Z	0.0050	dB	-0.5000	0.5000	PASS
Gain Accuracy	3	X	0.1260	dB	-0.5000	0.5000	PASS
Gain Step Accuracy	3	X	0.0046	dB	-0.5000	0.5000	PASS
Gain Accuracy	3	Y	0.1257	dB	-0.5000	0.5000	PASS
Gain Step Accuracy	3	Y	0.0028	dB	-0.5000	0.5000	PASS
Gain Accuracy	3	Z	0.1207	dB	-0.5000	0.5000	PASS
Gain Step Accuracy	3	Z	0.0079	dB	-0.5000	0.5000	PASS

AMPLIFIER GAIN 32 TEST

2008/03/23 08:52:39

Shot No: 47 **Station Depth: 3069.86 m**

Evaluation Item	Shuttle	Channel	Value	Unit	Lower Limit	Upper Limit	Result
Gain Accuracy	1	X	0.1288	dB	-0.5000	0.5000	PASS
Gain Step Accuracy	1	X	-0.0072	dB	-0.5000	0.5000	PASS
Gain Accuracy	1	Y	0.1216	dB	-0.5000	0.5000	PASS
Gain Step Accuracy	1	Y	0.0022	dB	-0.5000	0.5000	PASS
Gain Accuracy	1	Z	0.1392	dB	-0.5000	0.5000	PASS
Gain Step Accuracy	1	Z	-0.0045	dB	-0.5000	0.5000	PASS
Gain Accuracy	2	X	0.1162	dB	-0.5000	0.5000	PASS
Gain Step Accuracy	2	X	0.0033	dB	-0.5000	0.5000	PASS
Gain Accuracy	2	Y	0.1113	dB	-0.5000	0.5000	PASS
Gain Step Accuracy	2	Y	0.0006	dB	-0.5000	0.5000	PASS
Gain Accuracy	2	Z	0.1171	dB	-0.5000	0.5000	PASS
Gain Step Accuracy	2	Z	0.0002	dB	-0.5000	0.5000	PASS
Gain Accuracy	3	X	0.1273	dB	-0.5000	0.5000	PASS
Gain Step Accuracy	3	X	0.0033	dB	-0.5000	0.5000	PASS
Gain Accuracy	3	Y	0.1304	dB	-0.5000	0.5000	PASS
Gain Step Accuracy	3	Y	-0.0019	dB	-0.5000	0.5000	PASS
Gain Accuracy	3	Z	0.1239	dB	-0.5000	0.5000	PASS
Gain Step Accuracy	3	Z	0.0047	dB	-0.5000	0.5000	PASS

CROSS TALK X TEST

2008/03/23 08:52:54

Shot No: 48 **Station Depth: 3069.86 m**

Evaluation Item	Shuttle	Channel	Value	Unit	Lower Limit	Upper Limit	Result
Cross Talk X-Y	1	-	-99.3263	dB	-	-90.0000	PASS
Cross Talk X-Z	1	-	-99.2194	dB	-	-90.0000	PASS
Cross Talk X-Y	2	-	-99.3462	dB	-	-90.0000	PASS
Cross Talk X-Z	2	-	-99.2318	dB	-	-90.0000	PASS
Cross Talk X-Y	3	-	-99.5765	dB	-	-90.0000	PASS
Cross Talk X-Z	3	-	-99.1357	dB	-	-90.0000	PASS

CROSS TALK Y TEST

2008/03/23 08:53:14

Shot No: 49 **Station Depth: 3069.86 m**

Evaluation Item	Shuttle	Channel	Value	Unit	Lower Limit	Upper Limit	Result
Cross Talk Y-Z	1	-	-99.2897	dB	-	-90.0000	PASS
Cross Talk Y-X	1	-	-98.8746	dB	-	-90.0000	PASS
Cross Talk Y-Z	2	-	-99.2652	dB	-	-90.0000	PASS
Cross Talk Y-X	2	-	-99.1703	dB	-	-90.0000	PASS
Cross Talk Y-Z	3	-	-99.3041	dB	-	-90.0000	PASS
Cross Talk Y-X	3	-	-99.1099	dB	-	-90.0000	PASS

CROSS TALK Z TEST

VSI Seismic Evaluation Report

2008/03/23 08:53:34							
Shot No: 50			**Station Depth: 3069.86 m**				
Evaluation Item	**Shuttle**	**Channel**	**Value**	**Unit**	**Lower Limit**	**Upper Limit**	**Result**
Cross Talk Z-X	1	-	-98.5138	dB	-	-90.0000	PASS
Cross Talk Z-Y	1	-	-99.0444	dB	-	-90.0000	PASS
Cross Talk Z-X	2	-	-98.5218	dB	-	-90.0000	PASS
Cross Talk Z-Y	2	-	-99.3001	dB	-	-90.0000	PASS
Cross Talk Z-X	3	-	-98.6433	dB	-	-90.0000	PASS
Cross Talk Z-Y	3	-	-99.1240	dB	-	-90.0000	PASS
IMPULSE RESPONSE TEST							
2008/03/23 08:53:53							
Shot No: 51			**Station Depth: 3069.86 m**				
Evaluation Item	**Shuttle**	**Channel**	**Value**	**Unit**	**Lower Limit**	**Upper Limit**	**Result**
Amplitude (0.3Hz)	1	X	-1.5713	dB	-5.0000	-	PASS
Amplitude (400Hz)	1	X	-3.5739	dB	-5.0000	-	PASS
Impulse Amplitude	1	X	572.5317	milli V	-	-	-
Phase Diff. at 0.3Hz from X1	1	X	0.0000	degree	-	-	-
Amplitude (0.3Hz)	1	Y	-1.5392	dB	-5.0000	-	PASS
Amplitude (400Hz)	1	Y	-3.5791	dB	-5.0000	-	PASS
Impulse Amplitude	1	Y	572.5223	milli V	-	-	-
Phase Diff. at 0.3Hz from X1	1	Y	-0.5085	degree	-	-	-
Amplitude (0.3Hz)	1	Z	-1.5541	dB	-5.0000	-	PASS
Amplitude (400Hz)	1	Z	-3.5767	dB	-5.0000	-	PASS
Impulse Amplitude	1	Z	573.2971	milli V	-	-	-
Phase Diff. at 0.3Hz from X1	1	Z	-0.4194	degree	-	-	-
Amplitude (0.3Hz)	2	X	-1.4986	dB	-5.0000	-	PASS
Amplitude (400Hz)	2	X	-3.5790	dB	-5.0000	-	PASS
Impulse Amplitude	2	X	571.8388	milli V	-	-	-
Phase Diff. at 0.3Hz from X1	2	X	-1.7850	degree	-	-	-
Amplitude (0.3Hz)	2	Y	-1.4869	dB	-5.0000	-	PASS
Amplitude (400Hz)	2	Y	-3.5801	dB	-5.0000	-	PASS
Impulse Amplitude	2	Y	571.6373	milli V	-	-	-
Phase Diff. at 0.3Hz from X1	2	Y	-2.0644	degree	-	-	-
Amplitude (0.3Hz)	2	Z	-1.5096	dB	-5.0000	-	PASS
Amplitude (400Hz)	2	Z	-3.5795	dB	-5.0000	-	PASS
Impulse Amplitude	2	Z	571.8871	milli V	-	-	-
Phase Diff. at 0.3Hz from X1	2	Z	-1.8833	degree	-	-	-
Amplitude (0.3Hz)	3	X	-1.6566	dB	-5.0000	-	PASS
Amplitude (400Hz)	3	X	-3.5798	dB	-5.0000	-	PASS
Impulse Amplitude	3	X	572.5993	milli V	-	-	-
Phase Diff. at 0.3Hz from X1	3	X	-0.0463	degree	-	-	-
Amplitude (0.3Hz)	3	Y	-1.5558	dB	-5.0000	-	PASS
Amplitude (400Hz)	3	Y	-3.5824	dB	-5.0000	-	PASS
Impulse Amplitude	3	Y	572.4649	milli V	-	-	-
Phase Diff. at 0.3Hz from X1	3	Y	-1.0011	degree	-	-	-
Amplitude (0.3Hz)	3	Z	-1.6273	dB	-5.0000	-	PASS
Amplitude (400Hz)	3	Z	-3.5822	dB	-5.0000	-	PASS
Impulse Amplitude	3	Z	572.5125	milli V	-	-	-
Phase Diff. at 0.3Hz from X1	3	Z	-0.3963	degree	-	-	-

Schlumberger

Company: **Apache Northwest Pty Ltd**

Well: **Coelacanth−1**
Field: **Apache/VIC/P−45**
Rig: **West Triton** Country: **Australia**

CST−GR
Side Wall Cores
Suite−2 Run−2 Scale 1:200

Rig: West Triton
Field: Apache/VIC/P−45
Location: Bass Strait
Well: Coelacanth−1
Company: Apache Northwest Pty Ltd

LOCATION

Bass Strait
Northing : 5,714,176.613 m
Easting : 613,192.770 m

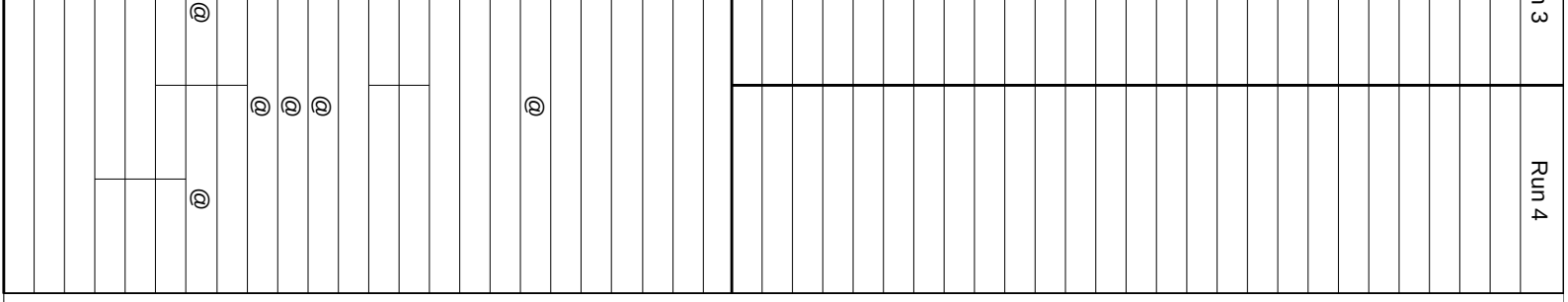
Elev.:
G.L. −90.00 m
D.F. 38.00 m

Permanent Datum: AHD — Elev.: 0.00 m
Log Measured From: DRILL FLOOR — 38.00 m above Perm. Datum
Drilling Measured From: DRILL FLOOR

State:	Max. Well Deviation	Longitude	Latitude
Victoria	0.99 deg	148 18' 07.0098" E	38 42' 49.7296" S

	Run 1	Run 2	Run 3
Logging Date			
Run Number			
Depth Driller			
Schlumberger Depth			
Bottom Log Interval			
Top Log Interval			
Casing Driller Size @ Depth	@	@	
Casing Schlumberger			
Bit Size			
Type Fluid In Hole			
MUD Density / Viscosity			
MUD Fluid Loss / PH			
MUD Source Of Sample			
RM @ Measured Temperature	@	@	
RMF @ Measured Temperature	@	@	
RMC @ Measured Temperature	@	@	
Source RMF / RMC			
RM @ MRT / RMF @ MRT	@ / @	@ / @	
Maximum Recorded Temperatures			
Circulation Stopped / Time			
Logger On Bottom / Time			
Unit Number / Location			
Recorded By			
Witnessed By			

	Run 1	Run 2	Run 3
Logging Date	23−Mar−2008		
Run Number	2		
Depth Driller	3074 m		
Schlumberger Depth	3074.3 m		
Bottom Log Interval	3052.5 m		
Top Log Interval	2626 m		
Casing Driller Size @ Depth	9.625 in @ 902.6 m	@	
Casing Schlumberger	902.1 m		
Bit Size	8.500 in		
Type Fluid In Hole	KCl/Polymer		
MUD Density / Viscosity	1.19 g/cm3 / 61 s		
MUD Fluid Loss / PH	4.4 cm3 / 9		
MUD Source Of Sample	Flowline		
RM @ Measured Temperature	0.103 ohm.m @ 23 degC	@	
RMF @ Measured Temperature	0.088 ohm.m @ 23 degC	@	
RMC @ Measured Temperature	0.108 ohm.m @ 24 degC	@	
Source RMF / RMC	Press / Press		
RM @ MRT / RMF @ MRT	0.045 @ 80 / 0.039 @ 80	@ / @	
Maximum Recorded Temperatures	80 degC / 80		
Circulation Stopped / Time	22−Mar−2008 13:21		
Logger On Bottom / Time	23−Mar−2008 21:47		
Unit Number / Location	41 AUSL		
Recorded By	A. Dandi/M.Dawson/V.Torlov		
Witnessed By	A.Cruickshank/F.Fernandes		



DEPTH SUMMARY LISTING

Date Created: 24−MAR−2008 0:53:11

Depth System Equipment

Depth Measuring Device		Tension Device		Logging Cable	
Type:	IDW−H	Type:	CMTD−B/A	Type:	7−46ZV−XS
Serial Number:	796	Serial Number:	1721	Serial Number:	77178
Calibration Date:	29−Jan−2008	Calibration Date:	27−FEB−2008	Length:	7584.95 M
Calibrator Serial Number:	1009	Calibrator Serial Number:	1051	Conveyance Method:	Wireline
Calibration Cable Type:	7−46ZV−XS	Calibration Gain:	0.81	Rig Type:	Offshore_Fixed
Wheel Correction 1:	−5	Calibration Offset:	−610.00		
Wheel Correction 2:	−5				

Depth Control Parameters

Log Sequence:	Subsequent Log In the Well
Reference Log Name:	Coelacanth−1 GeoVISION Resistivity RM 200MD
Reference Log Run Number:	1
Reference Log Date:	23−March−2008

Depth Control Remarks

1. Schlumberger Depth Control Policy Followed
2. IDW used as primary depth reference
3. Z−Chart used as secondary depth reference
4.
5.
6.

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 SERVICES1	OTHER SERVICES2
OS1: VSI−GR	OS1:
OS2:	OS2:
OS3:	OS3:
OS4:	OS4:
OS5:	OS5:

REMARKS: RUN NUMBER 1	REMARKS: RUN NUMBER 2
Tool Run as per tool sketch	
Log correlated to Schlumberger GeoVISION Resistivity Log dated 23−Mar−2008	
Maximum recoreded temperatures obtained from thermometers in logging head	
30 Cores attempted, 26 Bullets fired	
22 Cores Recovered, 1empty, 3 Lost and 4 Misfired	

Additinal mud properties taken from Mud Report dated 22−Mar−2008:

Chlorides = 46,000 mg/L

KCL = 9 (% by Vol)

RUN 1			RUN 2		
SERVICE ORDER #:	AUSL08349211		SERVICE ORDER #:		
PROGRAM VERSION:	16C0−147		PROGRAM VERSION:		
FLUID LEVEL:	0 m		FLUID LEVEL:		
LOGGED INTERVAL	START	STOP	LOGGED INTERVAL	START	STOP

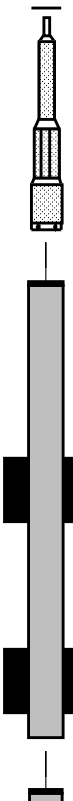
EQUIPMENT DESCRIPTION

RUN 1 RUN 2

SURFACE EQUIPMENT

WITM (SHM) 969

DOWNHOLE EQUIPMENT



LEH−QT 5.16
LEH−QT 2800

PGGT−D 4.27
PGGC−DB 229
PGGH−DA 229

Gamma Ray 3.98

2.5 IN Standoff

Casing Co 2.90

2.5 IN Standoff

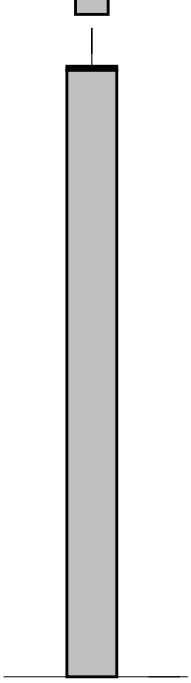
AH−62 2.49

AH−63
AH−63 7101

2.49

CST−C
CST−C 3936

2.39



Tension 0.00
TOOL ZERO

MAXIMUM STRING DIAMETER 8.63 IN
MEASUREMENTS RELATIVE TO TOOL ZERO
ALL LENGTHS IN METERS

Client: Apache Northwest Pty Ltd
Well: Coelacanth−1
Field: VIC/P−45
State: Victoria
Country: Australia

Drawing Date: 3/22/2008

Rig Name: West Triton
Reference Datum: AHD
Elevation: 38.0 m

Production String	(in) OD	(in) ID	(m) MD	Well Schematic	(m) MD	(in) OD	(in) ID	Casing String
Derrick Floor Elevation			39.0					
Mean Sea Level			0.0					
					90.0	13.375	12.415	Casing String
					275.7	13.375	12.415	Casing Shoe
					902.6	9.627	8.921	Casing Shoe
					902.6	8.500		Borehole Segment

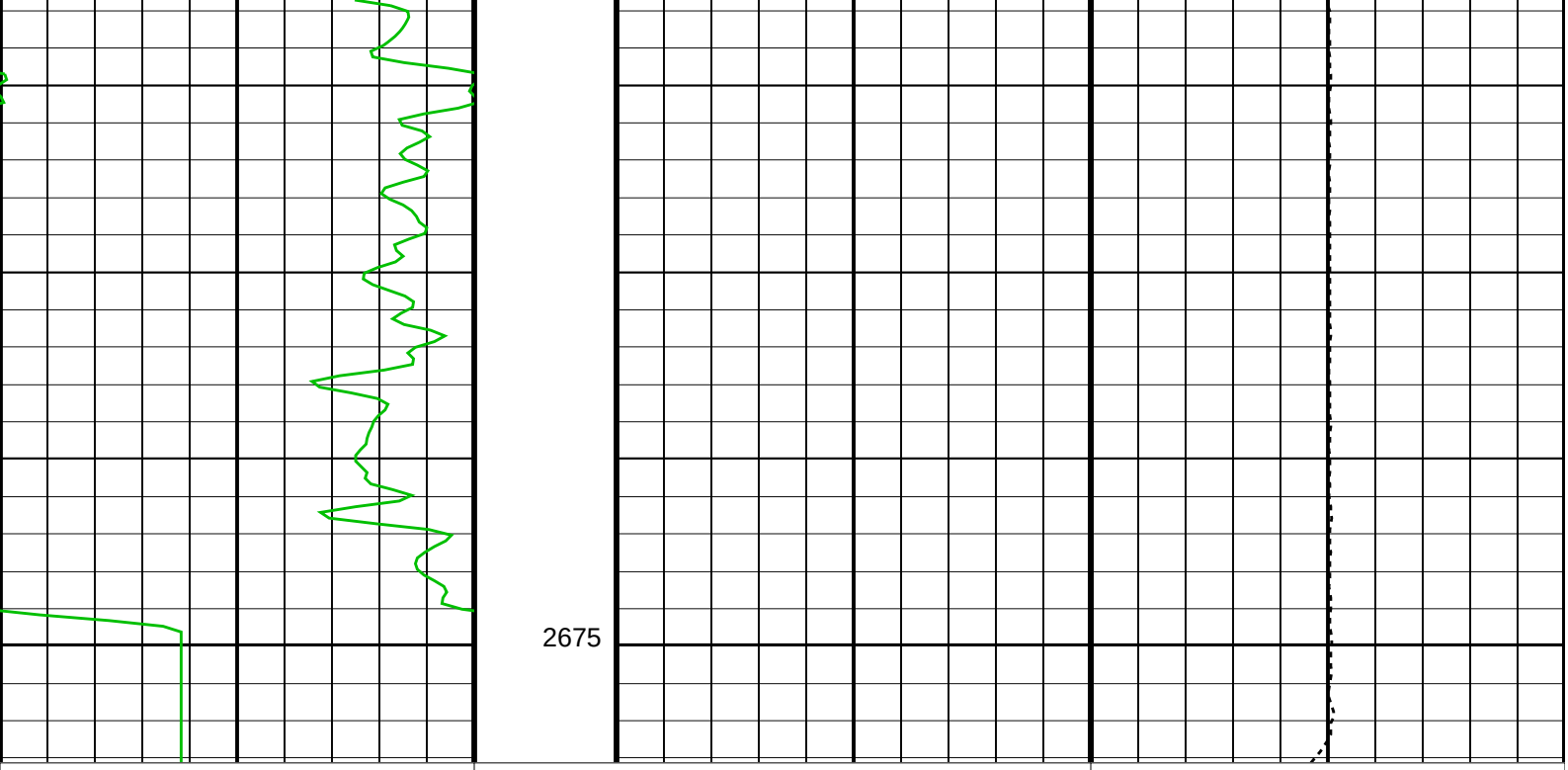
Sidewall Core Summary

Company	Field
Santos Ltd	

Well	Rig	Run
Coelacanth-1	West Triton	2

Number Misfired	Number Lost	Number Empty
4	3	

Bullet Type	Ring Type	Charge Type	Powder Load (G)	Fast Leng. (IN)
Combo	2.125	AHT	8.0	13.0
Combo	2.125	AHT	8.0	13.0
Combo	2.125	AHT	8.0	13.0



Gamma Ray (GR)			Tension (TENS)		
0	(GAPI)	150	0	(LBF)	6000

Format: CORRELATION **Vertical Scale: 1:200** **Graphics File Created: 23−Mar−2008 23:59**

OP System Version: 15C0−309

MCM

CST−C	15C0−309	PGGT−D	15C0−309

Output DLIS Files

DEFAULT	ST_028LUP	FN:38	PRODUCER	23−Mar−2008 23:59
RTB	ST_028LUP	FN:39	PRODUCER	23−Mar−2008 23:59

Schlumberger

Correlation Pass 4
1:200

MAXIS Field Log

Company: **Well:**

Output DLIS Files

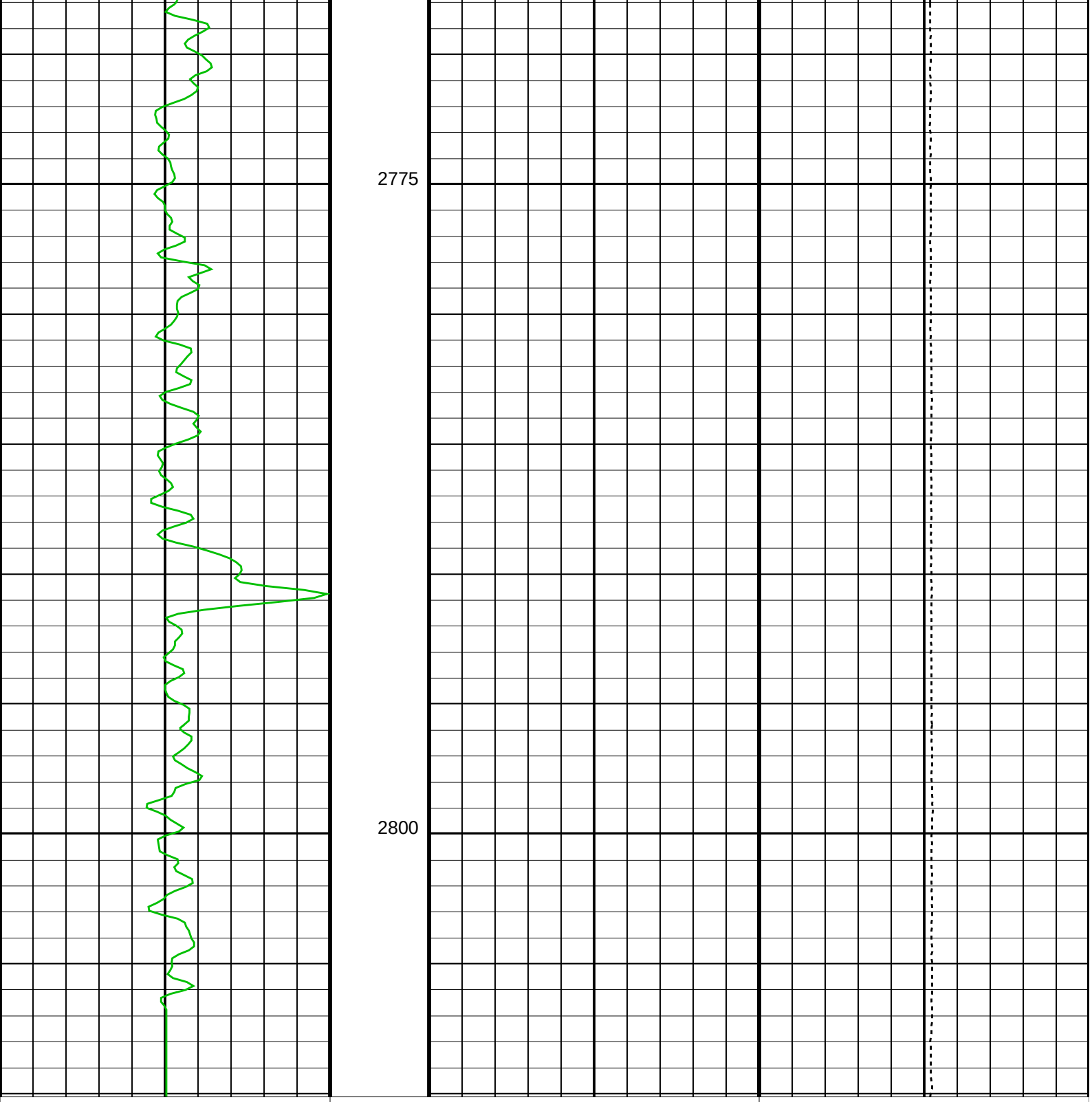
DEFAULT	ST_026LUP	FN:34	PRODUCER	23−Mar−2008 23:22	2810.1 M	2768.1 M
RTB	ST_026LUP	FN:35	PRODUCER	23−Mar−2008 23:22	2810.1 M	2768.1 M

OP System Version: 15C0−309

MCM

CST−C	15C0−309	PGGT−D	15C0−309

Gamma Ray (GR)			Tension (TENS)		
0	(GAPI)	150	0	(LBF)	6000



Gamma Ray (GR)			Tension (TENS)		
0	(GAPI)	150	0	(LBF)	6000

Format: CORRELATION **Vertical Scale: 1:200** **Graphics File Created: 23−Mar−2008 23:22**

OP System Version: 15C0−309

MCM

CST−C	**15C0−309**	**PGGT−D**	**15C0−309**

Output DLIS Files

DEFAULT	**ST_026LUP**	**FN:34**	**PRODUCER**	**23−Mar−2008 23:22**
RTB	**ST_026LUP**	**FN:35**	**PRODUCER**	**23−Mar−2008 23:22**

Schlumberger

Correlation Pass 3
1:200

MAXIS Field Log

Company: **Well:**

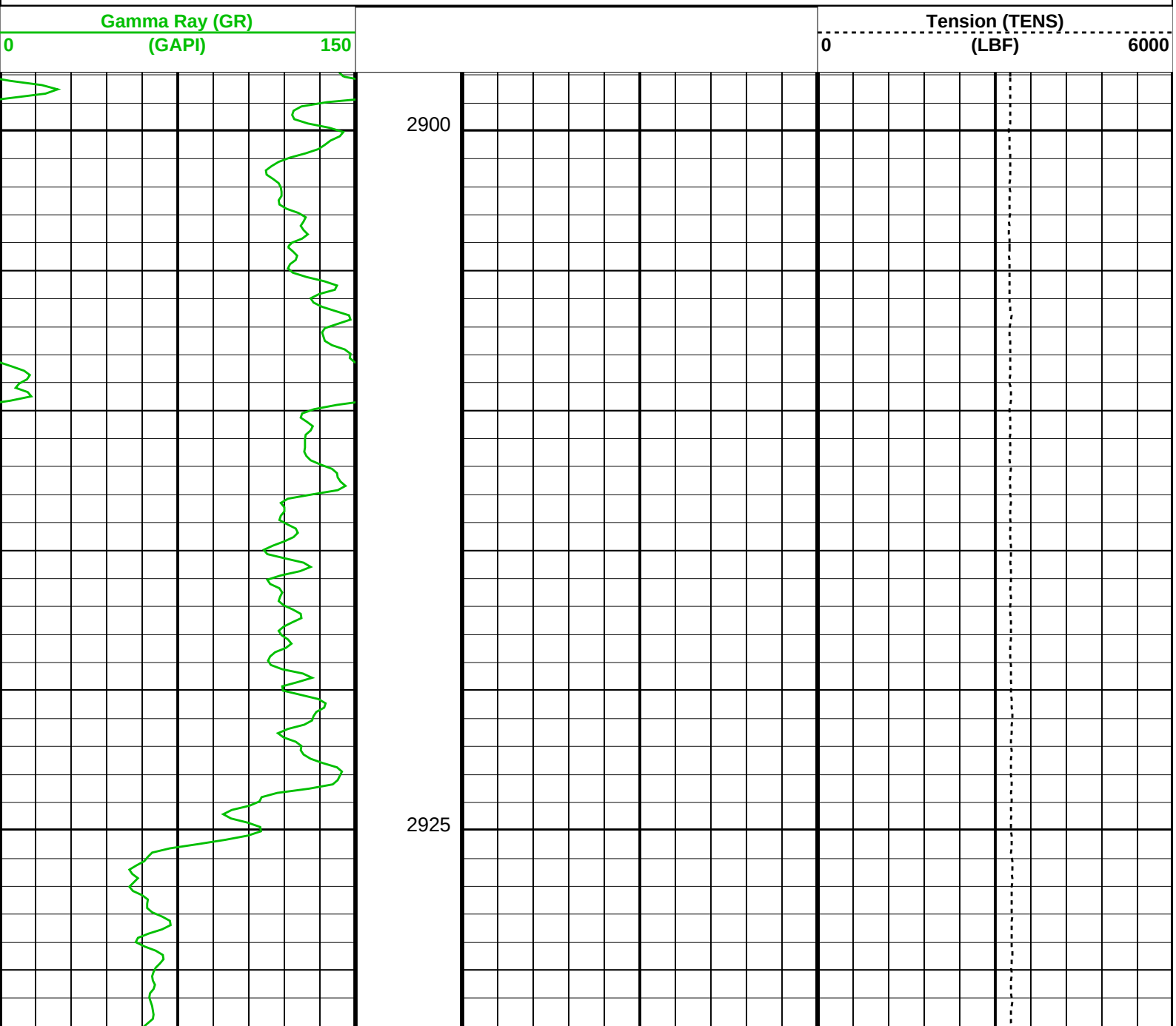
Output DLIS Files

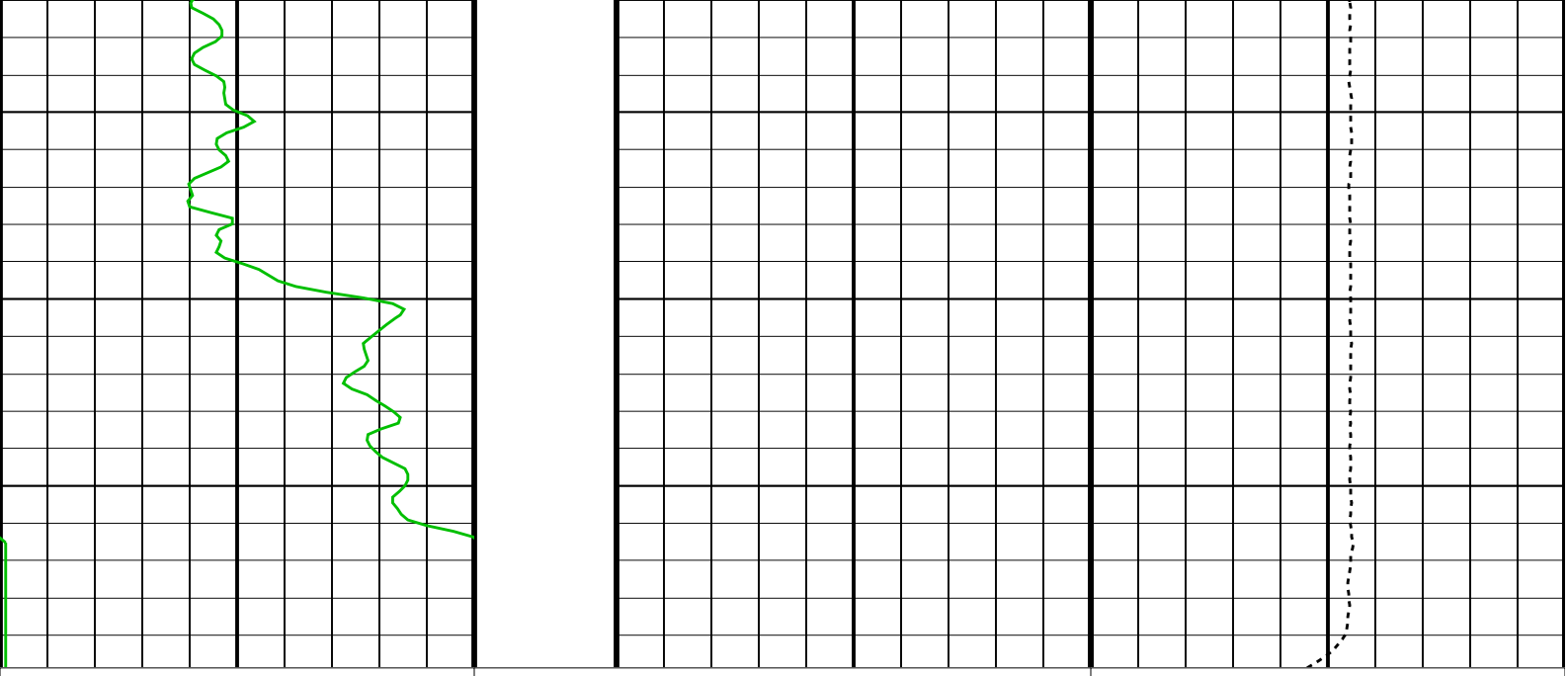
DEFAULT	ST_023LUP	FN:28	PRODUCER	23−Mar−2008 22:37
RTB	ST_023LUP	FN:29	PRODUCER	23−Mar−2008 22:38

OP System Version: 15C0−309

MCM

CST−C	15C0−309	PGGT−D	15C0−309





Format: CORRELATION Vertical Scale: 1:200 Graphics File Created: 23−Mar−2008 22:37

OP System Version: 15C0−309

MCM

CST−C	15C0−309	PGGT−D	15C0−309

Output DLIS Files

DEFAULT	ST_023LUP	FN:28	PRODUCER	23−Mar−2008 22:37
RTB	ST_023LUP	FN:29	PRODUCER	23−Mar−2008 22:38

Schlumberger

Correlation Pass 2
1:200

MAXIS Field Log

Company: Well:

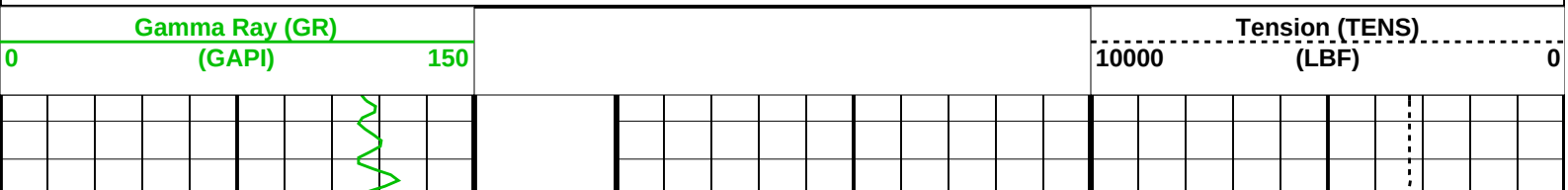
Output DLIS Files

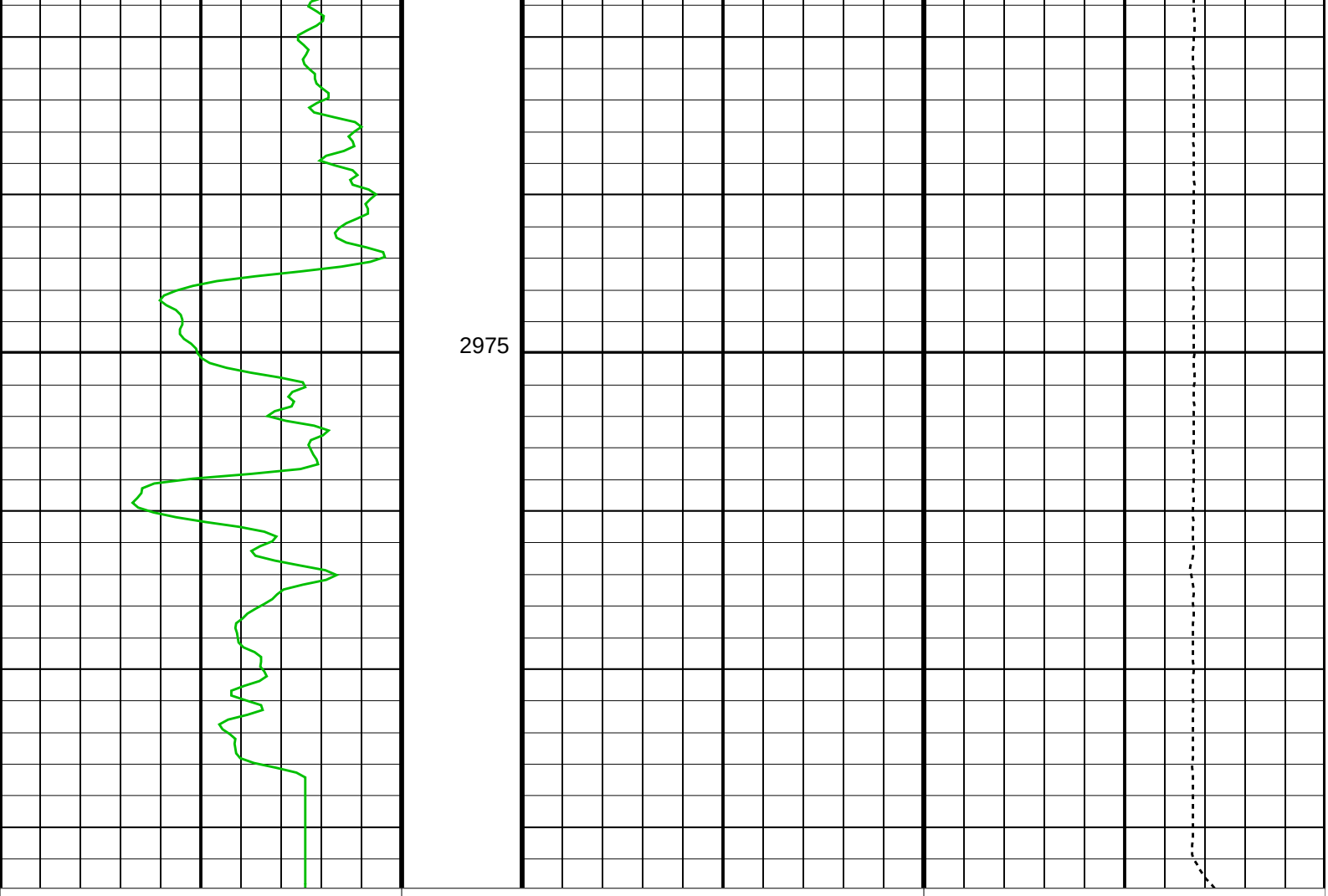
DEFAULT	ST_019LUP	FN:20	PRODUCER	23−Mar−2008 22:06
RTB	ST_019LUP	FN:21	PRODUCER	23−Mar−2008 22:07

OP System Version: 15C0−309

MCM

CST−C	15C0−309	PGGT−D	15C0−309





Format: CORRELATION **Vertical Scale: 1:200** **Graphics File Created: 23−Mar−2008 22:06**

OP System Version: 15C0−309

MCM

CST−C	**15C0−309**	**PGGT−D**	**15C0−309**

Output DLIS Files

DEFAULT	**ST_019LUP**	**FN:20**	**PRODUCER**	**23−Mar−2008 22:06**
RTB	**ST_019LUP**	**FN:21**	**PRODUCER**	**23−Mar−2008 22:07**

Schlumberger

Correlation Pass 1
1:200

MAXIS Field Log

Company: **Well:**

Output DLIS Files

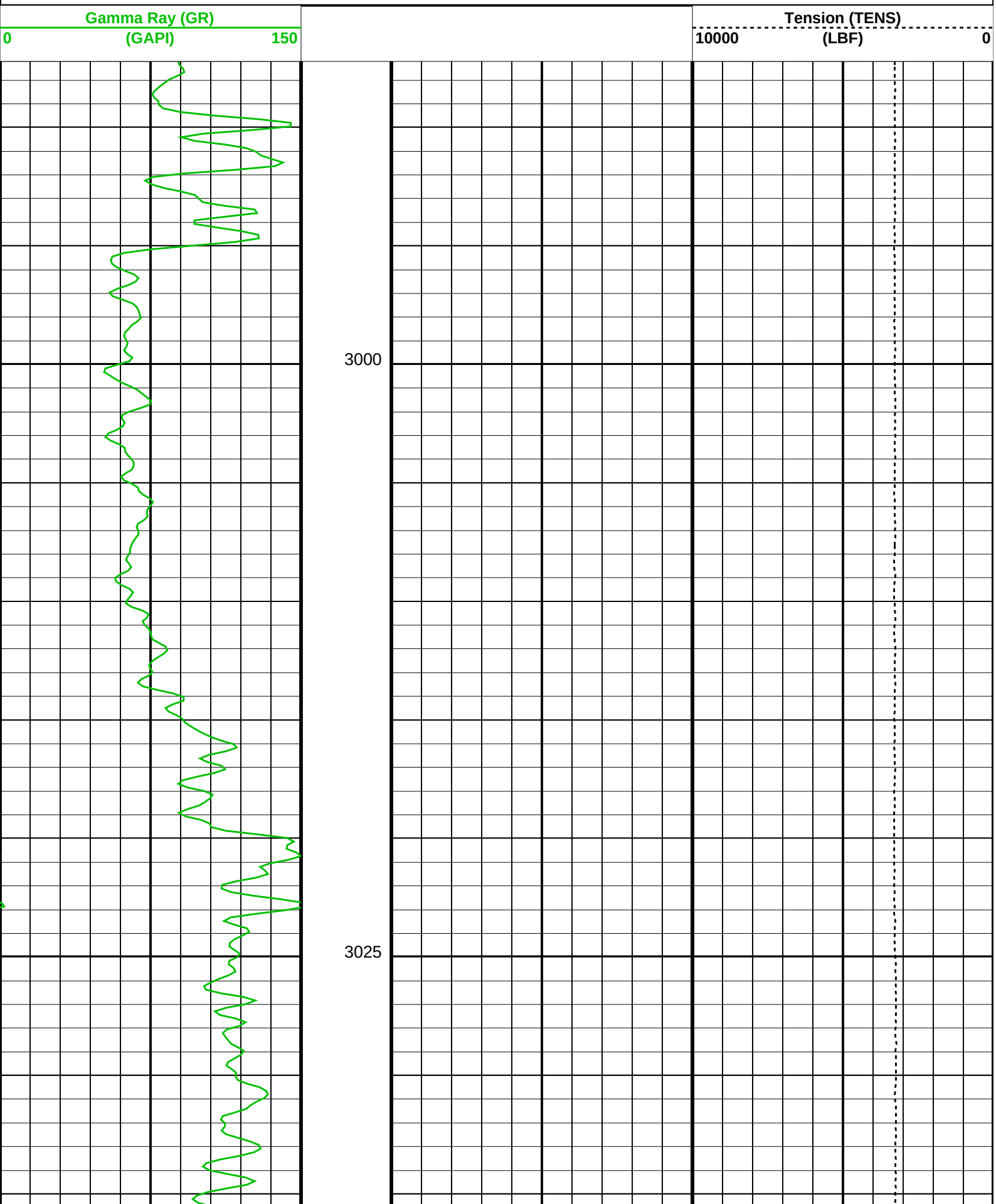
DEFAULT	**ST_018LUP**	**FN:18**	**PRODUCER**	**23−Mar−2008 21:35**	**3049.5 M**	**2987.2 M**

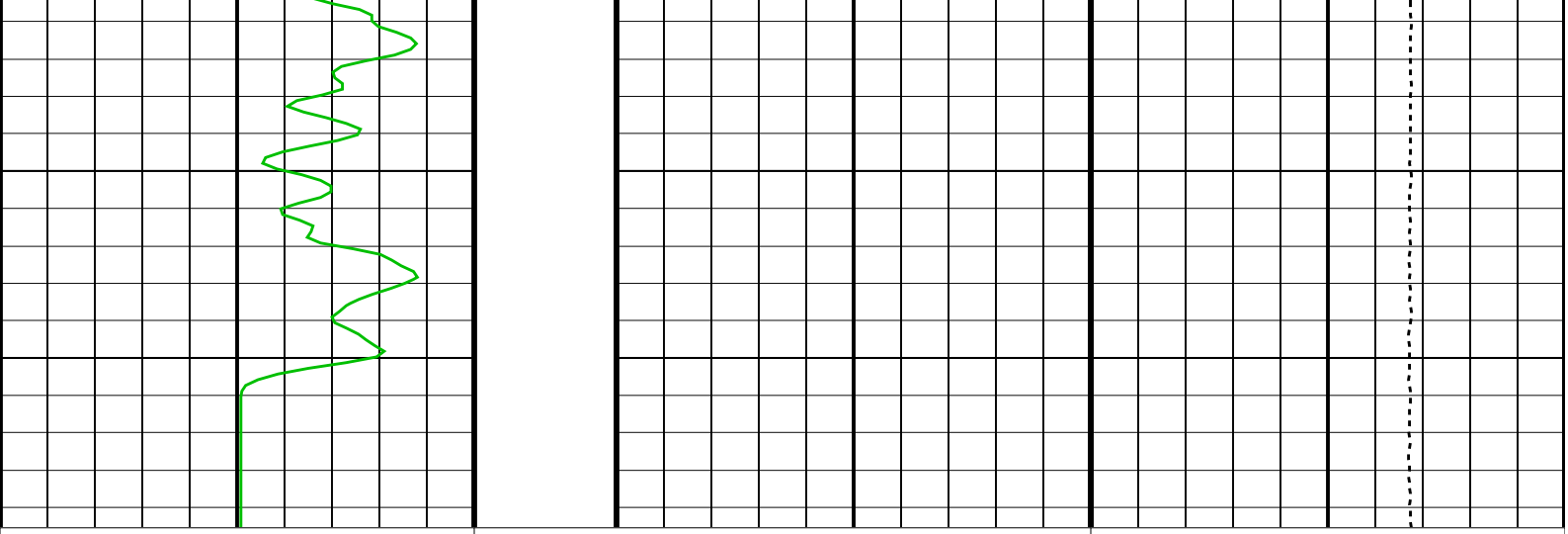
RTB ST_018LUP FN:19 PRODUCER 23−Mar−2008 21:35 3049.5 M 2987.2 M

OP System Version: 15C0−309

MCM

CST−C 15C0−309 PGGT−D 15C0−309





Format: CORRELATION **Vertical Scale: 1:200** **Graphics File Created: 23−Mar−2008 21:35**

OP System Version: 15C0−309

MCM

CST−C	**15C0−309**	**PGGT−D**	**15C0−309**

Output DLIS Files

DEFAULT	**ST_018LUP**	**FN:18**	**PRODUCER**	**23−Mar−2008 21:35**
RTB	**ST_018LUP**	**FN:19**	**PRODUCER**	**23−Mar−2008 21:35**

Company: **Apache Northwest Pty Ltd**

Schlumberger

Well: **Coelacanth−1**
Field: **Apache/VIC/P−45**
Rig: **West Triton**
Country: **Australia**

CST−GR
Side Wall Cores
Suite−2 Run−2 Scale 1:200

Well Name : COELACANTH-1

Operator : APACHE ENERGY

Interval : 2630m - 3072m **Palynological Data Chart : BASIC DATA**

Scale : 1:2000 **% Abundance histogram : Highest occurrence**

Chart date: 22 September 2008 **Roger Morgan**

COELACANTH-1

Morgan Palaeo Associates
Maitland, South Australia

Enclosure 1

Sampling
- Cutting
- Core
- Sidewall core

Text Keys
*1 % within discipline (40mm=100%)
*2 In-Situ occurrences
*3 ALBO

Depth | **Samples** (Samples in Discipline(s) : Paly)

Dinoflagellate Cysts — % within discipline (40mm=100%); In-Situ occurrences

Achomosphaera ramulifera
Apectodinium sumissima
Cordosphaeridium inodes
Deflandrea spp.
Heteraulacacysta paxilla
Homotryblium tasmaniense
Hystrichokolpoma eisenackii
Lingulodinium machaerophorum
Millioudodinium sp.
Muratodinium fimbriatum
Operculodinium rottnestii
Operculodinium spp.
Spiniferites ramosus
Areosphaeridium arcuatum
Glaphyrocysta divaricata
Systematophora placacantha
Adnatosphaeridium reticulense
Apectodinium homomorphum (short spines)
Apectodinium hyperacanthum
Cordosphaeridium multispinosum
Diphes colligerum
Impletosphaeridium sp. A
Turbiosphaera spp.
Apectodinium homomorphum (long spines)
Areoligera senonensis
Cerebrocysta sp.
Hystrichosphaeridium tubiferum
Impagidinium sp.
Manumiella conorata
Tectatodinium spp.
Isabelidinium pellucidum
Lejeunia sp.
Cribroperidinium cf. mayii
Exochosphaeridium spp.
Nematosphaeropsis balcombiana
Impagidinium victorianum

AC
*1 *2
Micrhystridium spp.

FT
*1 *2
Microforams .

SP
*1 *2
Botryococcus spp.

Spores And Pollen — % within discipline (40mm=100%); In-Situ occurrences

Beaupreaidites verrucosus
Cyathidites minor
Dilwynites granulatus
Falcisporites similis
Haloragacidites harrisii
Malvacipollis subtilis
Nothofagidites deminutus
Nothofagidites emarcidus
Nothofagidites falcatus
Phyllocladidites mawsonii
Proteacidites pachypolus
Proteacidites spp.
Araucariacites australis
Gleicheniidites circinidites
Laevigatosporites ovatus
Osmundacidites wellmanii
Podosporites microsaccatus
Proteacidites adenanthoides
Cyathidites australis
Dictyophyllidites spp.
Nothofagidites brachyspinulosus
Periporopollenites polyoratus
Vitreisporites pallidus
Callialasporites dampieri
Nothofagidites endurus
Nothofagidites flemingii
Stereisporites antiquasporites
Gambierina rudata
Kuylisporites waterbolkii
Lygistepollenites florinii
Proteacidites annularis
Proteacidites ornatus
Lygistepollenites balmei
Triletes tuberculiformis
Cyatheacidites annulatus
Peninsulapollis gillii
Proteacidites grandis
Tripunctisporis punctatus
Battenipollis sectilis
Ceratosporites equalis
Cicatricosisporites australiensis
Reitrietes austroclavatidites
Tetracolporites verrucosus

Samples (Samples in Discipline(s) : Paly)

Depth	Samples
2650m	2645.00-2650.00m CU
2700m	2685.00-2690.00m CU; 2693.00m SC; 2720.00m SC
2750m	
2800m	
2850m	2835.00-2840.00m CU; 2875.00-2880.00m CU
2900m	
2950m	2925.00-2930.00m CU; 2945.00-2950.00m CU; 2972.00m SC
3000m	3015.00-3020.00m CU
3050m	3052.50m SC

Total Count — In-Situ occurrences; Total count: Total Count

% Category — In-Situ occurrences; Category %: % Category

ALBO
FT
AC
SP
DC