LONGTOM-3 P,
LONGTOM-3 ST1,
and
LONGTOM-3 H

WELL COMPLETION REPORT
INTERPRETIVE DATA

VIC/P54
Gippsland Basin
Victoria

Nexus Energy Ltd

November 2009

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WELL INDEX SHEET LONGTOM-3 P

(Note: The name Longtom-3 used elsewhere in this report refers to Longtom-3 P)

LOCATION:	Survey:	Northern Fields 3D
	Inline:	3679
	Crossline:	9077
	Offset:	4.5m on a bearing of 13.3° (grid)

PERMIT:	VIC/P54
BASIN:	Gippsland
PARTICIPANTS:	Nexus Energy (Sole Risk Operator) 100%

SURFACE LOCATION:	Latitude:	38° 05' 34.63"S
	Longitude:	148° 18' 41.52E
	Easting:	615006.0mE
	Northing:	5 783 059.3mN
	Datum:	GDA94
	Spheroid:	GRS80
	Map Grid:	MGA
	Projection:	UTM Zone 55 (Central Meridian 147° E)

WELL DESIGNATION:	Development
STATUS:	Cased and Completed
STRUCTURE TYPE:	Low side, three-way dip closure
RIG NAME & TYPE:	Ocean Patriot, Semi-submersible MODU
RIG CONTRACTOR:	Diamond Offshore Drilling Inc

TOTAL DEPTH:	(mMDRT)	(mTVDSS)
Driller:	3485.0	-2585.2
Logger:	3486.0	
ELEVATION:	Datum:	LAT
	RT-ASL (LAT):	21.5m
	WD (LAT):	56.7m
	RT-ML:	78.2m
START DATE:	09:30hrs	10/07/2006
SPUD DATE:	15:00hrs	11/07/2006
REACHED TD:	01:00hrs	30/07/2006
COMPLETE PILOT HOLE PHASE:	22:00hrs	31/07/2006

HOLE SIZES:	Size	Interval (mMDRT)
	914mm (36")	78.2 – 111.8m
	559mm (22")	111.8 – 1005.0m
	375mm (14¾")	1005.0 – 1008.0m
	241mm (9½")	1008.0 – 3485.0m
CASING:	Size	Shoe (mMDRT)
	762mm (30")	110.8m
	406mm (16")	995.3m
PLUGS:	No. 1 (abandonment)	3485 – 1510m
	No. 2 (for ST1 kick off)	1180 – 1030m

LOGGIING WHILE DRILLING (LWD) LOGS

RUN No.	HOLE SIZE	TOOLS	INTERVAL (mMDRT)	COMMENTS
1	559mm (22")	MWD-GR	112 – 1005	POOH at casing point. RT GR only.
2	241mm (9½")	Telescope-Ecoscope-PowerDrive Xceed RST	1005 – 1020	POOH unable to downlink to Xceed.
3	241mm (9½")	Telescope-Ecoscope-PowerDrive Xceed RST	1020 – 1441	POOH unable to steer with Xceed.
4	241mm (9½")	Telescope D&I MWD-PowerPak Motor	1441 - 1546	POOH to pick up RST tool.
5	241mm (9½")	Telescope-Ecoscope-PowerDrive Xceed RST	1546 - 1931	POOH due to Telescope failure.
6	241mm (9½")	Telescope D&I MWD-PowerDrive Xceed RST	1931 - 3437	POOH to run EL.
7	241mm (9½")	Telescope-Ecoscope	3437 - 3485	Ream pass 2585 – 3446m. Drilled to TD

WIRELINE LOGS

LOG TYPE	SUITE/RUN	INTERVAL (mMDRT)	BHT/TIME	COMMENTS
PEX-CMR-XPT-GR	1/1	3434 – 85	118°C / 17:37hrs	RIH. Logged PEX from TD to 2500m. RIH. Recorded CMR from TD to 2950m. RIH for CMR repeat. Recorded XPT from 3387m to 2551m. Total pressure survey 50 points (17 valid, 0 no seal, 31 low perm, 2 other). Continued PEX from 2585m to 1750m. Recorded GR to surface.
DSI-AIT-GR	2/1	3483 - 545	118°C / 11:25hrs	RIH. Logged AIT-DSI (UD, P&S)-AIT from TD to 955m. Logged GR and P&S to 535m, data patchy. Stopped logging and POOH.

WELL INDEX SHEET LONGTOM-3 ST1

TOTAL DEPTH:	(mMDRT)	(mTVDSS)
Driller:	2563.0	-2277.9
Logger:	N/R	
ELEVATION:	Datum:	LAT
	RT-ASL (LAT):	21.5m
	WD (LAT):	56.7m
	RT-ML:	78.2m
START DATE:	22:00hrs	31/07/2006
REACHED TD:	08:30hrs	07/08/2006
COMPLETE SIDTRACK PHASE:	00:00hrs	12/08/2006

HOLE SIZES:	Size	Interval (mMDRT)
	343mm (13½")	1008 – 2563m
CASING:	Size	Shoe (mMDRT)
	762mm (30")	110.8m
	406mm (16")	995.3m
	273mm (10¾")	2374.3m
PLUGS:	No. 1 (abandonment & kick off)	2563 – 2384m

LOGGIING WHILE DRILLING (LWD) LOGS

RUN No.	HOLE SIZE	TOOLS	INTERVAL (mMDRT)	COMMENTS
8	343mm (13½")	ADN-PowerPulse-ARC-PowerDrive X5	1008 - 1728	POOH due to low ROP.
9	343mm (13½")	ADN-PowerPulse-ARC-PowerDrive X5	1728 - 2564	Drilled to TD.

WIRELINE LOGS

LOG TYPE	SUITE/RUN	INTERVAL (mMDRT)	BHT/TIME	COMMENTS
XPT-GR	1/1	2153 - 1831	104.2°C / 9:45hrs	Could not pass 2169m. Conducted pressure survey, 12 points (4 valid, 5 low perm, 2 lost seal and 1 supercharged). POOH to reconfigure tool. Could not pass 1058m. Run abandoned. POOH.

WELL INDEX SHEET LONGTOM-3 H

TOTAL DEPTH:	(mMDRT)	(mTVDSS)
Driller:	4674.0	-2469.1
Logger:	N/R	
ELEVATION:	Datum:	LAT
	RT-ASL (LAT):	21.5m
	WD (LAT):	56.7m
	RT-ML:	78.2m
SPUD DATE:	00:00hrs	12/08/2006
REACHED TD:	20:00hrs	27/08/2006
RIG RELEASED:	23:00hrs	23/09/2006

HOLE SIZES:	Size	Interval (mMDRT)
	241mm (9½")	2384 – 4674.0m
CASING:	Size	Shoe (mMDRT)
	762mm (30")	110.8m
	406mm (16")	995.3m
	273mm (10¾")	2374.3m
LINER:	178mm (7")	2351 - 4190m (cemented @ shoe)

LOGGIING WHILE DRILLING (LWD) LOGS

RUN No.	HOLE SIZE	TOOLS	INTERVAL (mMDRT)	COMMENTS
10	241mm (9½")	Telescope-Ecoscope-PowerDrive Xceed RST	2384 - 4080	POOH unable to steer with Xceed.
11	241mm (9½")	Telescope-Ecoscope-PowerDrive Xceed RST	4080 - 4090	POOH. Lost communication with tools.
12	241mm (9½")	Telescope-Ecoscope	4090 - 4164	POOH due to pick up Xceed RST.
13	241mm (9½")	Telescope-Ecoscope-PowerDrive Xceed RST	4164 - 4674	Drilled to TD.

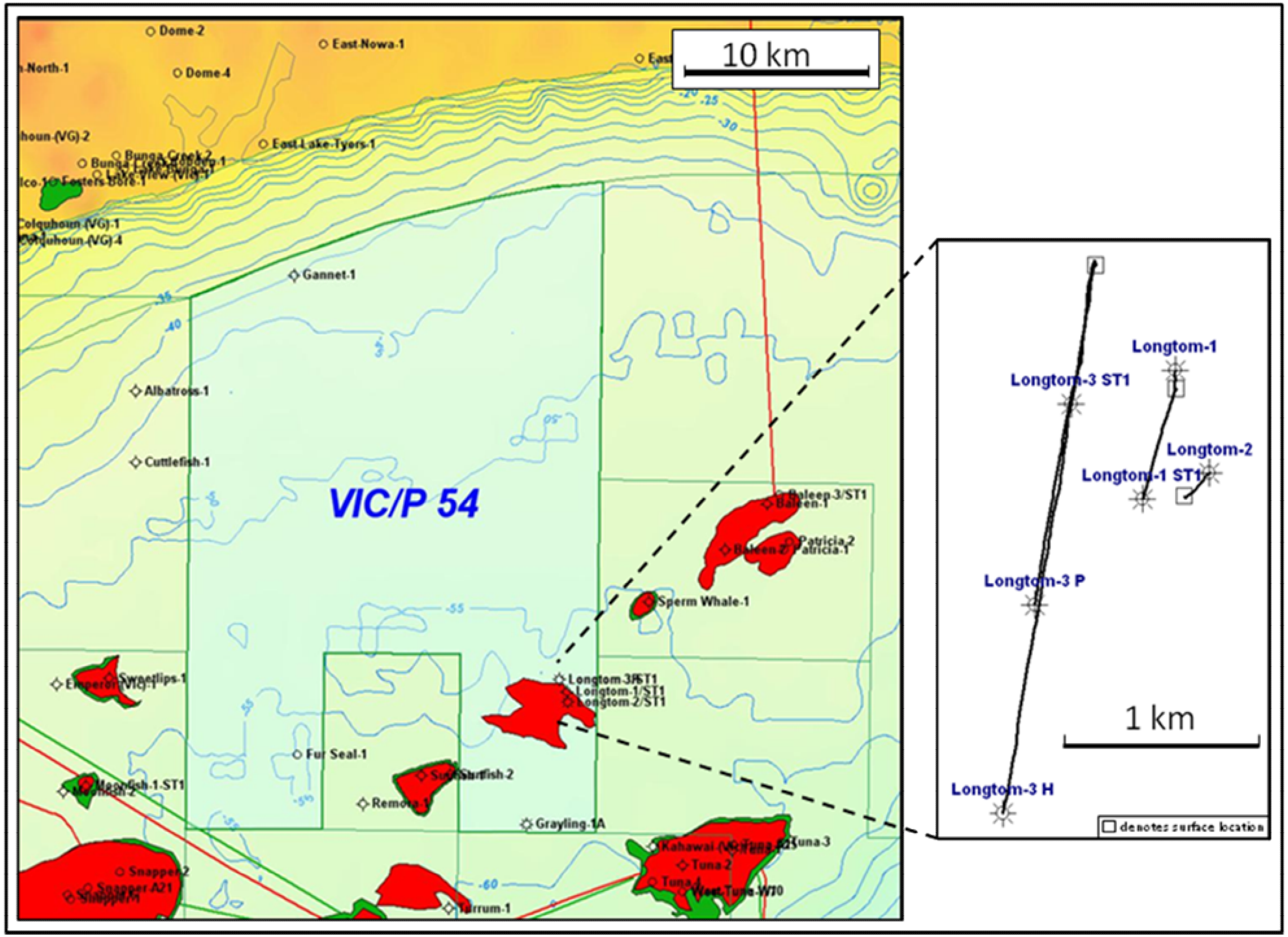

Figure 1: Longtom-3 Location Map

1. INTRODUCTION

The Longtom-3 P, ST1 and H wells were drilled to appraise and develop the Admiral Formation gas reservoirs in the southeast of the VIC/P54 exploration permit in the offshore Gippsland Basin (Figure 1), as follow up to the potential identified in Longtom-2/ST1. Longtom-3 drilling was discretionary, in that it was not done to satisfy any work program obligation. Although VIC/P54 is currently operated by Apache Energy Limited (who hold a 62.5% interest in the permit) the Longtom-3 programme was conducted by Nexus Energy (at 100% equity) under the 'sole risk' provisions of the Joint Venture agreement.

The seafloor surface location of the well head is approximately 31km offshore in water depth of 56m, about 12.5 km northwest of the Tuna Field, 16 km southwest of the Patricia-Baleen Field and 28 km east-northeast of the Snapper Field. Operations at Longtom-3 were conducted on the Diamond Offshore Ocean Patriot semi-submersible drilling rig, spudding at 1500hrs on 11 July, 2006. Over a 76-day period, and using the same top-hole section, a pilot hole (Longtom-3 P) a geological sidetrack (Longtom-3 ST1) and a production well (Longtom-3 H) were drilled - as well as the latter being cased, completed and tested - prior to the rig being released at 2300 hours on 23 September, 2006.

The primary objective of the Longtom-3 wells was to penetrate and prove up the producibility of a sufficient interval of lower Admiral Formation gas sands to justify the completion of Longtom-3 H as a future gas producer. Following the successful drilling and completion operations, Longtom-3 H has been suspended with a subsea tree in place, awaiting future connection to production facilities.

GEOLOGICAL ANALYSIS

1.1 Regional Geology and Stratigraphy

The Gippsland Basin is a Late Mesozoic to Cenozoic feature that developed in response to the break-up of Australia, Antarctica and (later) the Lord Howe Rise. Its tectonic evolution is well documented within recent literature (Smith, 1999; Norvick and Smith, 2001; Norvick et al., 2001; Power et al., 2001; Bernecker and Partridge, 2001, Sutherland et al., 2001; Power et al., 2003). The basin configuration is commonly divided into five structural elements: the Northern and Southern Platforms, the Northern and Southern Terraces and the Central Deep (Figure 2).

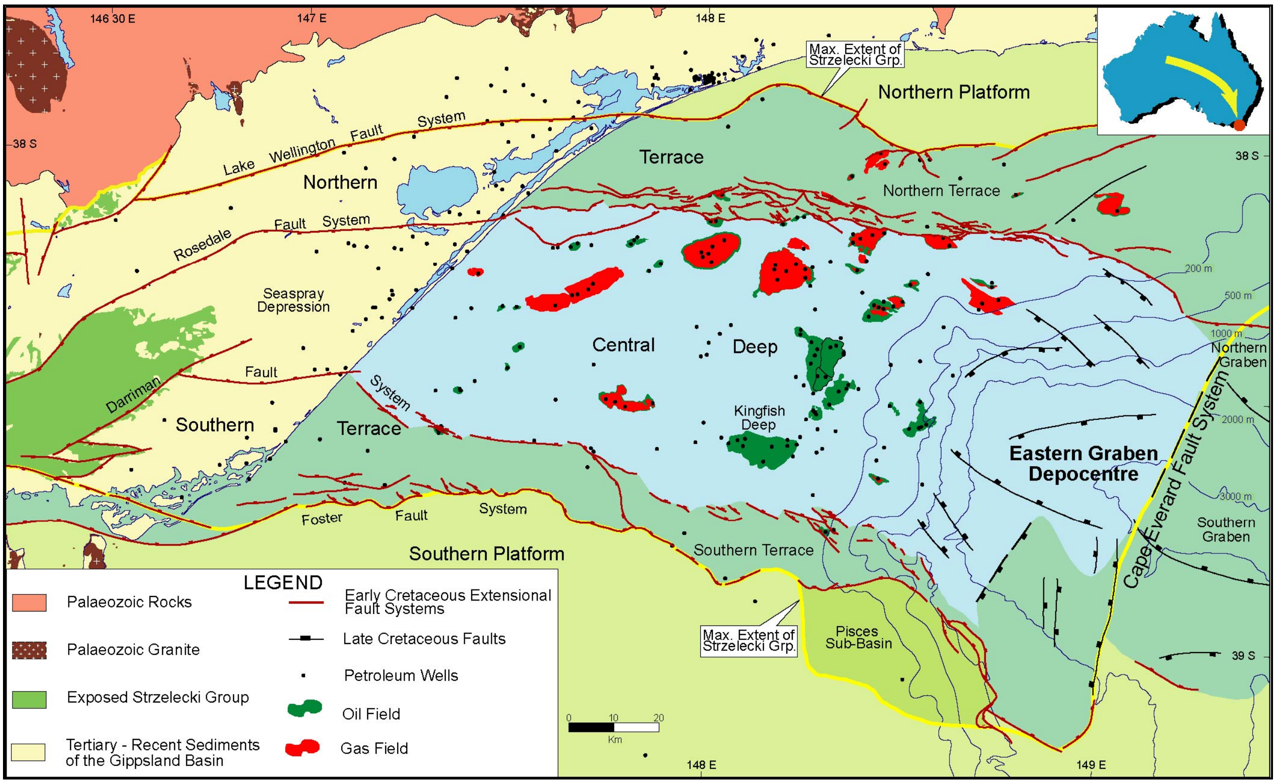

Figure 2 Gippsland Basin regional setting showing major tectonic elements.

Evolution of the basin can be summarised in terms of four major intervals.

The initial extensional phase, from the latest Jurassic to Early Cretaceous (Tithonian-Albian) resulted in a major rift system bounded by the Lake Wellington and Foster fault systems. This initial rift was filled with the dominantly fluvial, mostly immature litho-feldspathic and volcaniclastic sediments and minor coals of the Strzelecki Group. These strata outcrop across the onshore western end of the basin and are intersected in offshore wells along the Northern and Southern Terraces, where the overlying section is thin. Although not reached by drilling in the Central Deep, the Strzelecki Group is inferred to be present there as well, and although poorly constrained, it is thought to have a total thickness of more than 3km in places (Bernecker et al. 2002).

The second rift phase, in the Cenomanian to Campanian, was associated with the opening of the Tasman Sea and the formation of the Rosedale Fault System in the north and Darriman Fault System in the south. Tectonically controlled sedimentation resulted in the lacustrine-to-fluvial dominated Emperor and fluvial-to-paralic Golden Beach Subgroups of the Latrobe Group (Figure 3). These subgroups are separated by an unconformity of Turonian to Santonian age, most evident on the northern margin of the basin, which has been labelled the Longtom Unconformity (Partridge, 1999). An episode of volcanism during Campanian time was associated with major fault movement and basin subsidence. These volcanics have been variously referred to as the "Campanian Volcanics", "Golden Beach Volcanics" and "Unnamed Volcanics" - with the latter term being used in this report, following the Bernecker et al. 2002 usage pertaining to Longtom-1.

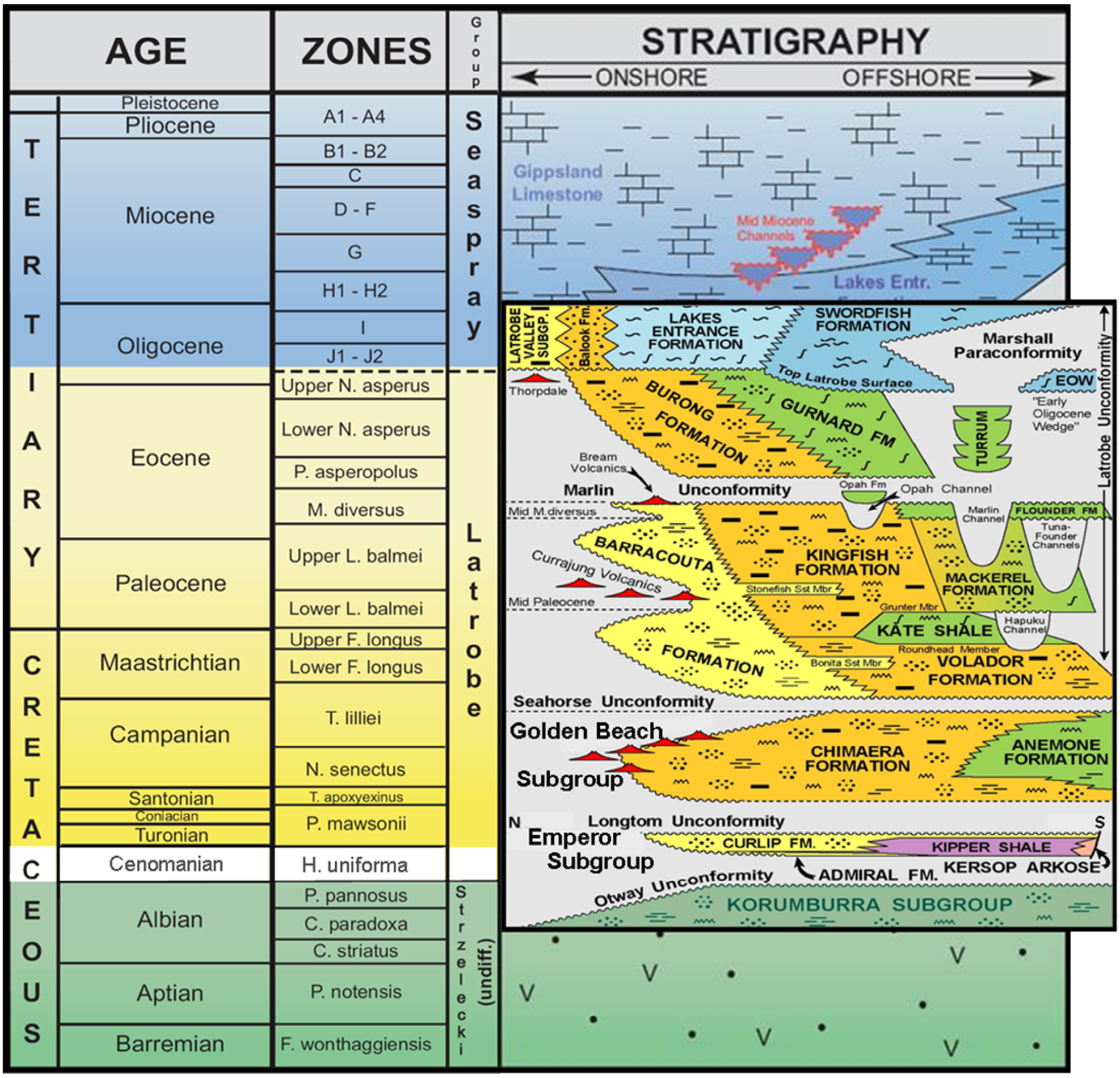

Figure 3: Gippsland Basin stratigraphy.

The post-rift phase, spanning Late Campanian to Middle Eocene time, was a period of declining subsidence, with sedimentation increasingly influenced by eustasy. Mature, sand-rich, Latrobe Group siliciclastic sediments dominated this interval, with depositional environments ranging from non-marine to intermittently marine, reflecting frequent marine incursions from the southeast. From late Maastrichtian time onwards the basin became increasingly less fault controlled and more influenced by thermal sag, and the influx of clastic sediment gradually decreased (e.g. Bernecker and Partridge, 2001, Figure 3).

A compressional phase of tectonism through Eocene to mid-Miocene time resulted in structural inversion and in the formation of major northeast to east-northeast trending anticlines within the basin. In conjunction with this inversion a series of sea level falls resulted in significant channelling of the Latrobe Group. Subsequently, the onset of fully marine conditions led to the deposition from early Oligocene time of the cool temperate carbonates and fine-grained clastics of the Seaspray Group. Minor tectonism and uplift has recurred episodically since the Miocene.

The published stratigraphy of the Gippsland Basin has undergone many variations over the past four decades, but there has long been wide acceptance of the broad three-fold subdivision—Strzelecki, Latrobe and Seaspray groups—shown in Figure 3. The lower part of the Latrobe Group (Cenomanian to Campanian) in particular has been subject to inconsistency in nomenclature, principally with regard to its designation as the Golden Beach Group (e.g. Featherstone et al., 1991; Moore et al., 1992; Johnstone et al., 2001), Subgroup (e.g. Megallaa et al., 1998; Bernecker and Partridge, 2001) or Formation (e.g. Haskell, 1972; Lowry, 1987)—or simply as an undifferentiated part of the Latrobe Group proper (e.g. Threlfall et al., 1976; Glenton, 1988).

In 1995, when the Longtom gas accumulation was discovered, the terminology used by the operator was Golden Beach Group, which was further subdivided into the Kipper Formation and underlying Judith Formation—of which only the latter was deemed by them to have been intersected (Locke, 1995).

A relatively new (and apparently widely accepted) change has been the designation of the earliest part of the Latrobe Group—corresponding to the lower part of the former Golden Beach Group—as the Emperor Subgroup (Partridge, 1999) which is further subdivided into four formations (Bernecker and Partridge, 2001) as shown in Figure 3. This terminology was subsequently applied to Longtom–1 by Bernecker et al. (2002), thereby providing the first published identification of the Kipper Shale and Admiral Formation in that well.

In terms of biostratigraphic nomenclature, the former Golden Beach Group (now Subgroup) is now taken to be no older than T. apoxyexinus, and the Emperor Subgroup occurs within the P. mawsonii Spore-Pollen Zone - which replaced the C. triplex Zone in the mid-1980s (Helby et al., 1987). In order to facilitate more detailed correlation within the P. mawsonii Zone in the Gippsland Basin, Morgan (2004) and Partridge (2006) have recently proposed a subzonation which, although still being tested, places the Admiral Formation—and consequently the Longtom gas reservoirs—within the lowermost H. trinalis Subzone.

1.2 Exploration History and Previous Work

Among the hundreds of wells drilled in the offshore Gippsland Basin only about two dozen have penetrated an interval which is now attributed to the Emperor Subgroup (P. mawsonii age) and most of these occur within or close to the southern part of the Northern Terrace (Bernecker and Partridge, 2001).

Of the wells drilled in the vicinity of Longtom Field, only Sunfish-1 (8km to the southwest) Longtom-1 and Longtom-2 penetrate what is now identified as Emperor Subgroup.

Sunfish-1 was drilled by Esso Australia Ltd in 1974 to a depth of 8,175 feet (2,492m) and was interpreted at the time (Criss and Brooks, 1974 - based on Stover, 1974) to have penetrated Strzelecki Group strata below 7,925 feet (2,415m). Gas kicks were encountered from sands within this largely shaly interval, but initial interest in these was diminished by a ‘tight’ Formation Interval Test and ‘indeterminate’ petrophysical evaluation (due to ‘rugose’ hole conditions). Subsequent re-examination of the palynological assemblages in the early 1980's reassigned the section to the C. triplex Zone (now the P. mawsonii Zone) and ultimately it was identified as a relatively young interval of Kipper Shale (Partridge, 2001).

The stratigraphic section now labelled as the Admiral Formation has only been penetrated in up to six offshore wells, all confined to an area from the Longtom wells up to 40km east (or only up to 30km east if the questionable Leatherjacket-1 intersection is discounted). Gas shows in sands from this stratigraphic interval were first encountered in Tuna-1 (1968) and then Judith-1 (1989).

The Longtom structure was first drilled in mid-1995 by BHP Petroleum to test a fault bounded trap within the Judith Formation of the former Golden Beach Group (now the Admiral Formation of the Emperor Subgroup).

Longtom–1 intersected a 124m Admiral Formation section of interbedded sandstones and shales before crossing the main bounding normal fault and intersecting Strzelecki Group in the footwall side of the fault (298m high to prognosis). Gas readings, wire line log interpretation and the results from a wire line formation tester tool indicated 22m of net gas pay was encountered within a gross interval of 42m just above the fault. Based on the pressure data a gross gas column of about 260m was inferred to extend down-dip (Locke, 1995). As well as determining a gas gradient in the Admiral Formation gas sands and a water gradient in the overlying sand, Longtom–1 provided a fluid sample indicating a dry gas composition (92.5% methane) with 0.73% CO_2 and no H_2S detected. Additional wire line logging runs acquired image/dip data and percussion sidewall cores across the open hole section.

To evaluate the reservoir quality down-dip and to investigate the possibility of an oil leg, Longtom–1 ST1 was drilled away from the fault and intersected additional gas-bearing sandstones interbedded with shaly siltstones, with no indications of either liquid hydrocarbons or a gas-water contact.

Difficulties were experienced while trying to run wire line logs in the sidetrack, so only logging-while-drilling (LWD) gamma and resistivity data were obtained over the lowermost 700m (which includes the Admiral Formation). Coupled with the mud gas readings, the data indicated the presence of about 40m true vertical thickness of gas-bearing sand. No coring or production testing was conducted in either the original borehole or the sidetrack. The discovery was deemed to be non-commercial on the basis of poor reservoir quality and the regional gas market situation, so Longtom–1/ST1 was plugged and abandoned in June 1995 and the acreage was subsequently relinquished.

The area containing Longtom was re-gazetted in 2002 and then subsequently released as Exploration Permit VIC/P54. In April 2003 Nexus Energy acquired 100% equity in VIC/P54 from Liberty Petroleum and in June 2004 Apache Energy farmed in as operator with a 62.5% interest. Due to the availability of the 2001 Northern Fields 3D seismic survey over the Longtom area, the joint venture was able to map the field and progress to drilling relatively quickly.

Longtom–2 was drilled in late 2004 as an exploration/appraisal well, with the main objectives being to:

1. investigate the reservoir and hydrocarbon potential of the Emperor Subgroup stratigraphy below that penetrated in Longtom–1/ST1; and,
2. evaluate the productivity of the gas-bearing reservoirs within the Longtom structure.

Situated about 500m south of the Longtom–1/ST1 surface location, the Longtom–2 well was drilled near-vertically to the top of the Latrobe Group, then gradually built angle (up-dip) to 12–14° through the Admiral Formation section.

All prognosed horizons were intersected shallower than expected but, as anticipated, the Admiral Formation in Longtom–2 was confirmed to have gas-bearing sand units below the stratigraphic level penetrated in Longtom–1/ST1. A gross vertical interval of 343m of Admiral Formation sediments was penetrated in Longtom–2, of which more than 200m can be correlated to Longtom–1/ST1. Thus, Longtom–2 intersected an additional ~130m vertical thickness of Admiral Formation sediments.

The Admiral Formation section was found to be underlain by ‘a succession of volcanoclastics, sandy siltstones and claystones’ (Apache Energy, 2005, section 3.4) 125mTVT (true vertical thickness) of which were penetrated down to the Total Depth (TD) of 2,422.5mMD (measured depth). Palynological data, albeit sparse (Morgan, 2005) places this previously unknown section in the same *P. mawsonii* Zone (and *H. trinalis* Subzone) as all of the overlying Emperor Subgroup penetrated in the well. Due to the thickness and slow penetration rate through this interval, Longtom–2 stopped short of the prognosed TD and did not reach the top of the Strzelecki Group.

For most of the drilling of Longtom–2 the mud gas detection system was not working correctly, so mud gas data were only recorded from 19m below the base of the Admiral Formation to TD. Thus, no usable gas data are available through the Admiral Formation sands in Longtom-2. However, a standard suite of LWD data was acquired and did clearly indicate multiple sands correlative to and below the gas sands in Longtom–1/ST1 to be gas bearing. Several attempts were made to obtain wire line pressure data, but the tool was not able to reach the Admiral Formation due to an obstruction down hole.

After running 7” liner, two cased-hole drill stem tests were conducted to evaluate the flow potential of the gas sands. DST #1 spanned two of the lower Admiral Formation sands and achieved a final (but unstabilised) flow rate of 19.1 MMscfd, with similar gas composition to Longtom–1. DST #2 spanned the upper Admiral Formation gas sands, but did not yield any detectable flow, which the operator attributed to ‘severe formation damage’ (Apache Energy, 2005, section 3.5).

To further investigate the productive potential of the thickest gas sand in the DST #2 interval, a sidetrack was drilled from which two consecutive 18-metre cores were cut and 35.6m of core was recovered. The core was subsequently plugged to obtain porosity and permeability data and these indicated the potential to flow gas at significant rates. Routine core analysis of 95 plugs throughout this core (at 1800psi ‘confining’ pressure) yielded an average porosity of 17.2% (range 7.1–26.1%) and average Klinkenberg permeability (Kinf) of 32mD (range 0.002–460mD).

Petrophysical analysis indicates that the gas-bearing Admiral Formation interval in Longtom–2 contains a total net pay of about 95mTVD in sands which are grouped into five main intervals, ranging in thickness from 8 to 35 m. One of the major questions left unanswered after Longtom–2/ST1 was the extent to which these sands are in communication with each other. The sole indication of formation pressure obtained in Longtom–2 was the final pressure measured in DST#1. This pressure is about 500 psi higher than the wire line pressures measured in the stratigraphically higher sands in Longtom–1, indicating that at least two separate gas accumulations exist within the Admiral Formation at Longtom.

In Longtom–2/ST1, from both biostratigraphic analysis of cuttings (Morgan, 2005) and sedimentological description of the core (Barr and Coshell, 2005) the depositional setting for the Admiral Formation section is interpreted to range from alluvial plain to lacustrine, with some suggestions of possible sporadic/marginal marine influences. The interpretation of a fluvio-lacustrine depositional setting is consistent with the prevailing broader interpretations of this interval (e.g. Bernecker and Partridge, 2001; Norvick et al, 2001, Sutherland et al, 2001) but the suggested possible marine influence would require a significant change to the palaeogeographic consensus.

Longtom–2/ST1 was plugged and abandoned as a gas discovery.

1.3 Stratigraphic Prognosis

From the Admiral Formation sections penetrated in the previous Longtom wells it was clear that field development would require further appraisal and the drilling of lateral intervals along these tight gas reservoirs.

Interpretation of Fluid Index seismic inversion data suggested it was possible to differentiate between water-bearing and gas-bearing sands and, in particular, to identify ‘sweet spots’ of the thickest and better quality gas reservoirs (Lanigan et al., 2007). The Longtom-3 appraisal and development drilling was largely guided by the goal of ending up with a production well which penetrated multiple intersections of these inferred better quality intervals.

In order to help optimally position the production borehole, as well as to obtain other information, a pilot hole reaching beyond the flank of the major anticlinal structure was drilled first (Longtom-3P). Because not all the desired information was obtained in this pilot hole, the intermediate section of the production well was deepened beyond the planned 273mm (10¾”) casing point, as an impromptu geological sidetrack. While, technically, the sidetrack only comprised the extra few hundred metres at the end, the entire 343mm (13½”) hole section was labelled Longtom-3ST1. After attempting wire line logging, Longtom-3ST1 was plugged back and cased, prior to drilling the ‘sinusoidal’ production well (Longtom-3H). Drilled in largely the same plane of section, the juxtaposition of the lower parts of these wells is shown on the Fluid Index seismic profile in Figure 4.

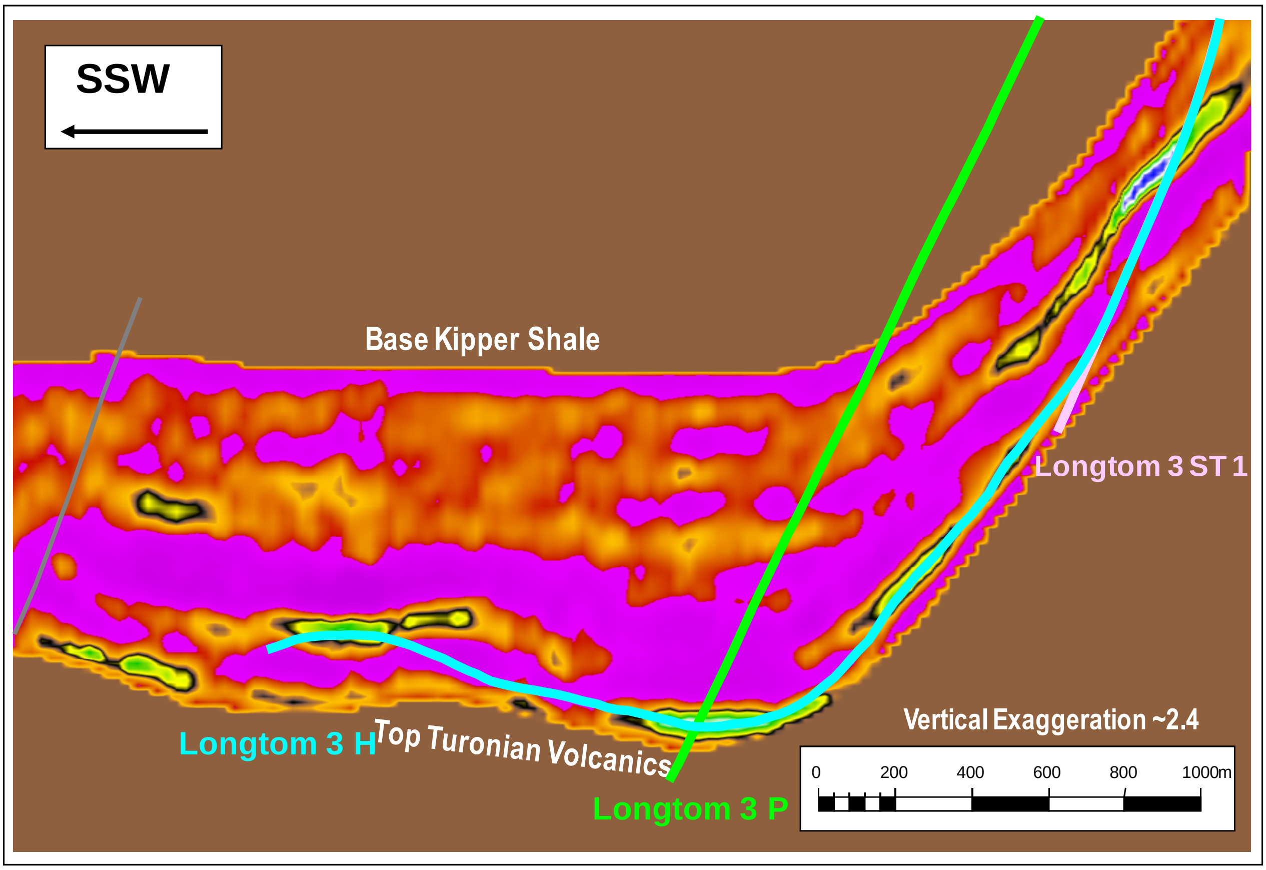

Figure 4: Fluid Index (FI) depth section along Longtom–3H plane of section, showing well paths and anomalies ascribed to the presence of thick gas-filled sands.

To uniquely identify and discriminate between each of the Admiral Formation gas bearing intervals, Nexus has informally labelled them from '100' (oldest) to '500' (youngest) in the Longtom-2 well as shown in Figure 5. Note; this differs from the informal nomenclature used by Apache in the Longtom-2 Well Completion Report.

Two other differences between Nexus and Apache in the application of stratigraphic terminology in the Longtom-2 well should also be noted;

- The top of the Admiral Formation in Longtom-2 is interpreted by Nexus to be the top of the thick sandy unit at 1941mMD - which is based on correlation to the Top Admiral pick in Longtom-1 defined and published by Bernecker et al. (2002). The Apache pick for Top Admiral is at 2019mMD (Apache Energy, 2006).
- The lowermost (and previously unpenetrated) stratigraphic unit in the well was informally named by Apache as the 'Longtom Volcanics Member' (Apache Energy, 2006). While Nexus similarly regards this unit as a new subdivision at the base of the Emperor Subgroup, it was felt inappropriate to use 'Longtom' in the name, since this could (incorrectly) be taken to imply an association with the previously defined Longtom Unconformity (Bernecker and Partridge, 2001) which occurs at the top of the Emperor Subgroup. Instead, Nexus has informally labelled this unit as the 'Turonian Volcanics' (Lanigan et al., 2007).

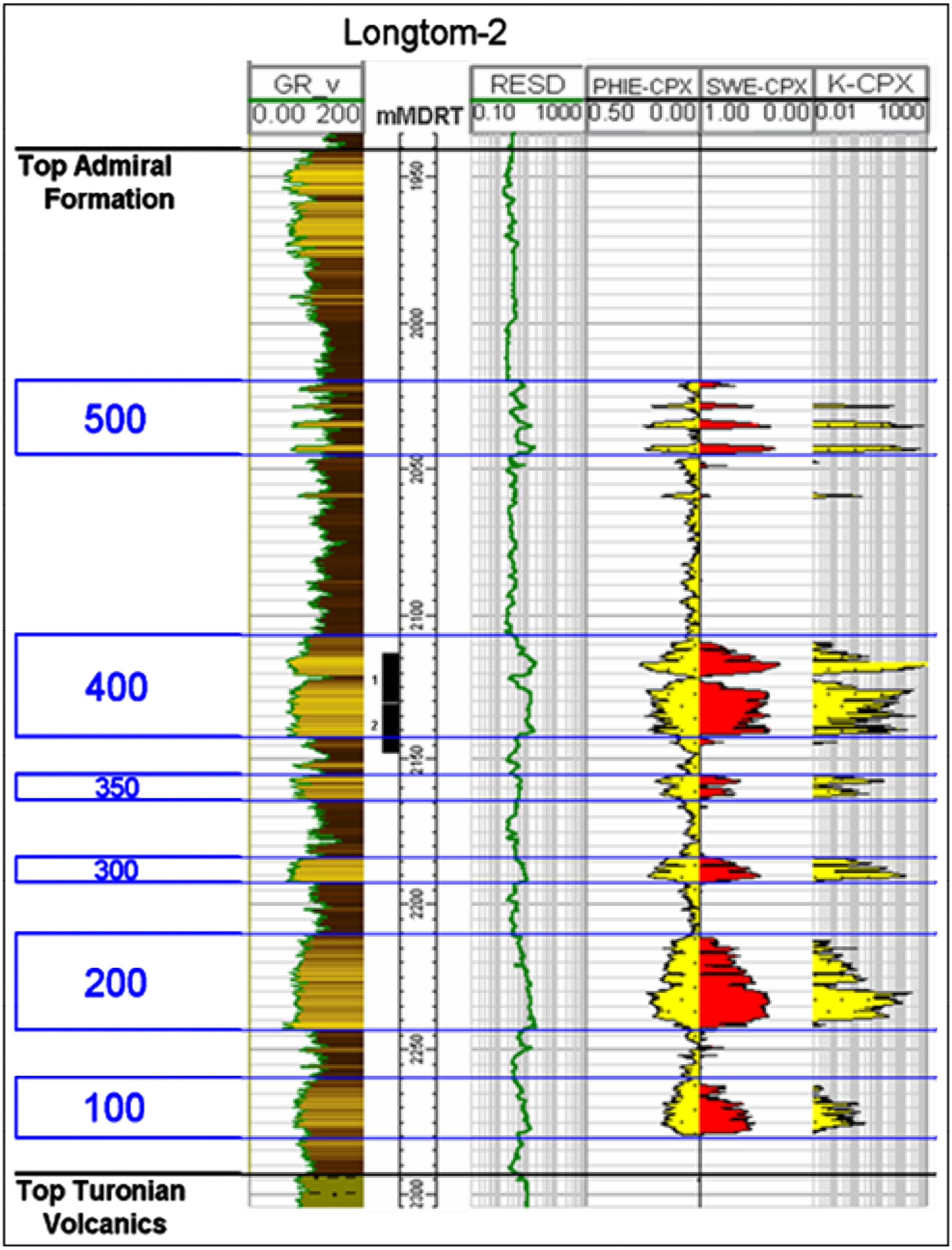

Figure 5: Nexus' Admiral Formation gas reservoir nomenclature in Longtom–2.

1.4 Stratigraphy

As shown in Table 1, the stratigraphic section penetrated in the Longtom-3P well was largely as anticipated with the exception of the Lakes Entrance Formation and Latrobe Group Tops, which were encountered low to prognosis by between 1.8% and 5%. Factors contributing to the observed depth discrepancies are discussed in the Geophysics section.

Table 1. Proposed and actual horizon tops for Longtom-3P

FORMATION / HORIZON TOP	PROGNOSED DEPTHS (m)		ACTUAL DEPTHS (m)			
	MDRT	TVDSS	MDRT	TVDSS	DIFFERENCE (m)	(high/low)
Sea Floor/ Gippsland Limestone	78	-56	78.2	-56.7	0.7	low
Lakes Entrance	1172	-1150	1151.5	-1129.0	21.0	high
Latrobe Group	1237	-1214	1221.0	-1197.8	16.2	high
'Un-named Volcanics'	1544	-1485	1564.0	-1511.4	26.4	low
Kipper Shale	1595	-1522	1647.0	-1564.2	42.2	low
Admiral Formation	2474	-2030	2591.0	-2079.6	49.6	low
500 Sand	2692	-2154	2808.0	-2201.0	47.0	low
400 Sand	2794	-2213	3025.0	-2324.5	111.5	low
300 Sand	3028	-2347	3196.0	-2420.5	73.5	low
200 Sand	3100	-2388	3255.0	-2454.0	66.0	low
100 Sand	3203	-2447	3359.0	-2515.0	68.0	low
Turonian Volcanics	3296	-2500	3412.0	-2545.0	45.0	low
TD	3327	-2518	3485.0	-2585.2	67.2	low

In general, depth discrepancies for the Longtom-3H (& ST1) horizons (Table 2) were significantly smaller (0.3-2.8%) probably due to the largely less deviated well path and shallower depth to each horizon.

Table 2 Proposed and actual horizon tops for Longtom-3H.

FORMATION / HORIZON TOP	PROGNOSED DEPTHS (m)		ACTUAL DEPTHS (m)				
	MDRT	TVDSS	*	MDRT	TVDSS	DIFFERENCE (m)	(high/low)
Lakes Entrance	1172	-1150	ST1	1153.0	-1131.0	19.0	high
Latrobe Group	1235	-1213	ST1	1220.0	-1197.5	15.5	high
'Un-named Volcanics'	1520	-1486	ST1	1545.0	-1513.3	27.3	low
Kipper Shale	1567	-1528	ST1	1598.0	-1561.4	33.4	low
Admiral Formation	1834	-1775	ST1	1830.0	-1766.6	8.4	high
500 Sand	1918	-1850	ST1	1930.0	-1856.0	6.0	low
400 Sand	2082	-1980	ST1	2134.0	-2013.9	33.9	low
300 Sand	2244	-2085	ST1	2300.0	-2117.6	32.6	low
200 Sand	2463	-2200	H	2416.0	-2187.7	12.3	high
100 Sand	3119	-2438	H	3265.0	-2506.7	68.7	low
Turonian Volcanics	N/A	N/A		N/A	N/A		
TD	5834	-2437	H	4674.0	-2469.0		

* The interval planned (pre-drill) as the intermediate hole section for Longtom-3H became most of what was ultimately labelled Longtom-3ST1.

Seaspray Group

Gippsland Limestone

Longtom-3P

Depth: -56.7 (Seafloor) to -1129.0 mTVDSS (78.2 - 1151.5 mMDRT)

Age: Mid Miocene to Recent

(No cuttings descriptions above 1008 mMD - returns were to the sea floor.)

Interbedded argillaceous calcilutite, marl and dolomite. Traces of very fine pyrite, micro-fossils (forams) and rare very fine carbonaceous specks.

No biostratigraphy was conducted on this interval, but from offset wells it is known to have been deposited in open marine conditions and ranges in age back to mid-Miocene.

Lakes Entrance Formation

Longtom-3P

Depth: -1129.0 to -1197.8 mTVDSS (1151.5 - 1221.0 mMDRT)

Longtom-3 ST1

Depth: -1131.0 to -1197.5 mTVDSS (1153.0 - 1220.0 mMDRT)

Age: Oligocene – Mid Miocene

Interbedded very fine to fine argillaceous sandstone, marl, calcareous claystone and calcilutite.

No biostratigraphy was conducted on this interval. Regionally, the Lakes Entrance Formation is interpreted to have been deposited in an offshore marine environment.

Latrobe Group

The Latrobe Group section penetrated in Longtom-3P and ST1 can be directly correlated to the Longtom-1/ST1 and Longtom-2 wells and, based on palynological analyses in those wells, is inferred to comprise a coastal plain section ranging in age from the Middle Eocene Gurnard Formation down to the Volador Formation at the base of Halibut Subgroup of the Latrobe Group, which is underlain by a thin volcanic and sandstone section of the Golden Beach Subgroup. The latter is unconformably underlain by a substantial thickness of the Emperor Subgroup which is divided between the Kipper Shale and Admiral Formation. At the bottom of the Pilot and Sidetrack holes there is a section containing volcanic material (similar to Longtom-2) which currently lacks a formal stratigraphic name and definitive age assignment. These strata are thought most likely to be of Turonian-age, constituting a new formation at the base of the Emperor Subgroup. Alternatively, they may be part of the older Strzelecki Group, or a separate unit between the Emperor Subgroup and the Strzelecki Group.

Halibut Subgroup – Volador Formation

Longtom-3P

Depth: -1197.8 to -1511.4 mTVDSS (1221.0 - 1564.0 mMDRT)

Longtom-3 ST1

Depth: -1197.5 to -1513.3 mTVDSS (1220.0 - 1545.0 mMDRT)

Age: Maastrichtian

The Latrobe Group sediments lie unconformably below the Lakes Entrance Formation. The lithology comprises interbedded sandstone, argillaceous sandstone, siltstone, silty claystone, claystone and occasional coal seams which are generally less than a metre thick.

Palynological analysis was only conducted in the lower sections of the Longtom-3P and ST1 wells, and the Volador Formation was only successfully dated in the Sidetrack hole where the Maastrichtian *Forcipites longus* Zone was identified. Although a deeper palynology sample has a default Lower *F. longus* Zone assignment, comparison with the age assignments in nearby wells suggest that the section more likely belongs to the Upper *F. longus* Zone .

<u>Golden Beach Subgroup</u>

The Golden Beach Subgroup comprises an upper volcanic unit which is 15 to 20 metres MD thick (thickness is expressed in Measured Depth and does not represent the true thickness) and a lower sandy section with silty claystone and claystone interbeds, which is 40 to 60 metres MD thick. While both of these are part of the Chimaera Formation,the combined section is referred to herein as the 'Un-named Volcanics'.

<u>'Unnamed Volcanics'</u>

Longtom-3P

Depth: -1511.4 to -1564.2 mTVDSS (1564.0 - 1647.0 mMDRT)

Longtom-3 ST1

Depth: -1513.3 to -1561.4 mTVDSS (1545.0 – 1598.0 mMDRT)

Age: Campanian?

The top of the the 'Un-named Volcanics' is thought likely to be an unconformity, but the lack of definitive palynological data leaves this unproven.

The lithology comprises interbedded weathered volcanics, sandstone, silty claystone and claystone.

The volcanics are off white, light greenish white, pale green, occasionally mottled, very light yellowish brown, common weathered feldspar and weathered green pyroxene, pyritic in part, trace chlorite, remnant crystalline structure in part, commonly weathered to claystone, common fine to rare medium to coarse quartz.

The sandstones have grains that are dominantly coarse, sub-rounded and poorly sorted. There are coaly fragments in part, rare carbonaceous laminae, trace lithics, minor argillaceous matrix, weak siliceous cement, and trace pyrite cement. Good inferred porosity but no hydrocarbon show.

Sampling of this interval for palynological analysis yielded largely very poor results in both Longtom-3P and 3ST1. Based on what was observed it is assigned a probable Campanian age.

Cuttings samples from this subgroup at 1590-1600mMD in the Longtom-3P and 1540-1550mMD in the Longtom-3ST1 gave assemblages characterised by unusual abundances of the spore *Densoisporites velatus*. Both assemblages are interpreted to be derived from sediments interbedded with the volcanics, as the underlying sandstone section referred to the Chimaera Formation is thought unlikely to yield palynomorphs. The environment of deposition represented by the spore-dominated assemblages is envisaged as a treeless basalt plain. The section now referred to the Golden Beach Subgroup was not sampled for palynology in either Longtom-1 or Longtom-2. Furthermore, in the palynological report on Longtom-1 by Partridge (1995) the interval was mis-identified, with the volcanics now picked from 1523 and 1533mMD being placed in the overlying undifferentiated Latrobe Group, while the sandstone from 1533 to 1561mMD was mistakenly referred to as the 'Un-named Volcanics'. The acme of the spore *Densoisporites velatus* is most likely equivalent to the *Tricolporites lilliei* Zone but could be as old as the *Nothofagidites senectus* Zone.

<u>Emperor Subgroup</u>

<u>Kipper Shale</u>

Longtom-3P

Depth: -1564.2 to -2079.6 mTVDSS (1647.0 - 2591.0 mMDRT)

Longtom-3 ST1

Depth: -1561.4 to -1766.6 mTVDSS (1598.0 – 1830.0 mMDRT)

Age: Turonian

The Kipper Shale lies unconformably below the 'Un-named Volcanics' and has been interpreted from LWD logs by a marked increase in gamma ray response and a bulk shift in resistivity.

The lithology comprises predominantly claystone, and silty claystone with occasional medium- to coarse-grained sandstone interbeds.

The claystone is light to dark grey, brownish grey, very soft to soft, dominantly blocky, with some medium to fine sand, carbonaceous specks, and non-calcareous. Silty claystones have carbonaceous laminae and are sub fissile in part.

Sandstones are described as white to light grey (dominantly loose), medium to coarse (dominantly coarse), sub rounded to sub angular (dominantly sub rounded), and moderately sorted. Argillaceous matrix and weak siliceous cement were noted. Inferred porosity is poor and no hydrocarbon shows were observed.

<u>Admiral Formation</u>

Longtom-3P

Depth: -2079.6 to -2545.0 mTVDSS (2591.0 - 3412.0 mMDRT)

Longtom-3 ST1

Depth: -1766.6 to -2275.9 mTVDSS (1830.0 – 2559.7 mMDRT)

Age: Turonian

Interbedded sandstone, siltstone and claystone. Within the Admiral Formation the reservoir sandstones have been subdivided and named as shown in Table 1 (Longtom-3P) and Table 2 (Longtom-3 ST1 and Longtom-3H).

A Schematic section showing correlation of Emperor Subgroup stratigraphy penetrated by Longtom-3 wells is shown in Figure 6. A correlation of Admiral Formation sands across the Longtom Gas Field is shown in Figure 7.

The sandstones all comprise clear to translucent, or yellowish or greenish stained, very fine to fine, moderately rounded (rare well rounded), moderate to well sorted grains with trace to common lithic grains and argillaceous matrix, and trace carbonaceous grains. Sands show varying proportions of loose and aggregate grains, although predominantly aggregated. Visual porosity is fair to good.

Siltstones are dark brownish grey or brownish black, very soft–sub firm, sub blocky, with common carbonaceous specks in part, rarely very carbonaceous, dominantly arenaceous to argillaceous in part.

Claystones are light grey or brownish grey or greenish grey, massive, firm, blocky to sub blocky, non-carbonaceous and non-calcareous.

Between ~950 and >3000 metres of Emperor Subgroup section is penetrated in the deviated holes, representing approximately 700 to 1000 metres True Vertical thickness for the subgroup. The entire section falls within the *Hoegisporis trinalis* Subzone of the *Phyllocladidites mawsonii* Zone and therefore the section encountered represents the oldest part of the Emperor Subgroup. The type section of the Kipper Shale in Kipper-1, and the section of Kipper Shale and Curlip Formation in Shark-1 are considered to be younger than the Emperor Subgroup section in all three Longtom wells. Consequent on this observation it is postulated that a minimum of 1600 metres of section has been eroded from the top of the Emperor Subgroup across the Longtom field.

The spore-pollen succession in Longtom-3 can be further subdivided into “upper” and “lower” portions of the *Hoegisporis trinalis* Subzone, which roughly corresponds to the lithological separation into Kipper Shale and Admiral Formation.

The environments of deposition of the Emperor Subgroup in all three Longtom wells are interpreted in terms of the lacustrine palaeogeographic model of Bernecker & Partridge (2001; p.397). Briefy, the Emperor Subgroup was deposited in an internal drainage

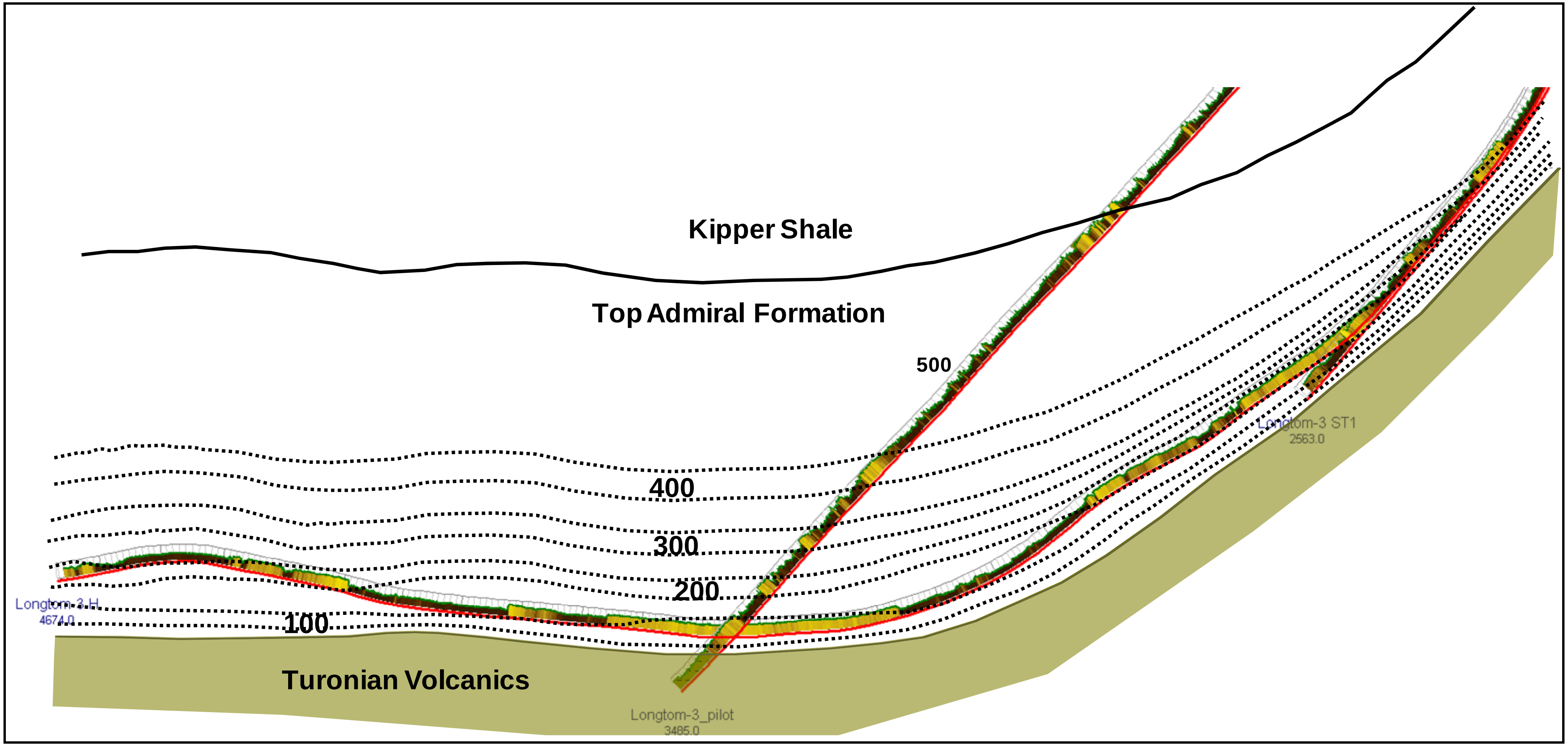

Figure 6: Schematic section showing correlation of Emperor Subgroup stratigraphy penetrated by Longtom-3 wells.

depocentre, characterised by large deep palaeolakes, or a succession of deep and shallow palaeolakes that occupied most of the Central Deep of the Gippsland Basin. A detailed discussion of the interpreted palaeoenvironments of deposition for the Emperor Subgroup sediments, can be found in APPENDIX 1.

Turonian Volcanics

Longtom-3P

Depth: -2545.0 to -2585.2 mTVDSS (3412.0 - 3485.0 mMDRT)

Longtom-3 ST1

Depth: -2275.9.0 to -2277.9 mTVDSS (2559.7 – 2563.0 mMDRT)

Age: Turonian?

Below the ‘100’ to ‘500’ Sandstones and intervening claystones and sandy siltstones is a succession of volcanoclastics, herein referred to as ‘Turonian Volcanics’.

This unit consists of weathered volcanics, sandstone and claystone.

The volcanics are green, mottled green, green speckled black, brown, off white, orange brown, commonly weathered to clay. Un-weathered samples are hard, microcrystalline or very fine to fine crystalline, and have common quartz, white feldspar commonly weathered to clay and trace very small black mafic minerals. Very rarely they display an indistinct flow structure. Secondary clay becomes more common with weathering and the mafic component disappears. Quartz shards and orange brown to brown chalcedony shards are present.

Sandstone grains are clear to translucent, light to pale green, dusky green in part, dominantly loose (60%), occasional aggregates (40%), fine to medium occasionally coarse, moderately sorted, rounded to sub rounded. Lithics are common and the variation in clays of the argillaceous matrix suggests a possible volcanic source. There is rare strong silica cement which is very hard. Inferred porosity is poor to good.

Claystones are orange or reddish brown to off white, usually very soft, occasionally hard and silicified, and occasionally grading to weathered volcanic.

The nature of the boundary between the volcanics and the overlying sandstones, siltstones and claystones is not clear. At Longtom-2 there is an obvious lithological change indicated by log character and this was interpreted to probably represent a short duration unconformity. However at Longtom-3P, the log character over the transition from Admiral Formation to volcaniclastics is gradual indicating a relatively continuous sequence rather than supporting the presence of an unconformity. At Longtom-3 ST1 only the very top of the volcanics was tagged at TD (sampled with cuttings but not logs) and therefore no further interpretation is possible. It is possible that a localised unconformable relationship exists in the region of Longtom-2 and this was not developed in the Longtom-3P and -3 ST1 area.

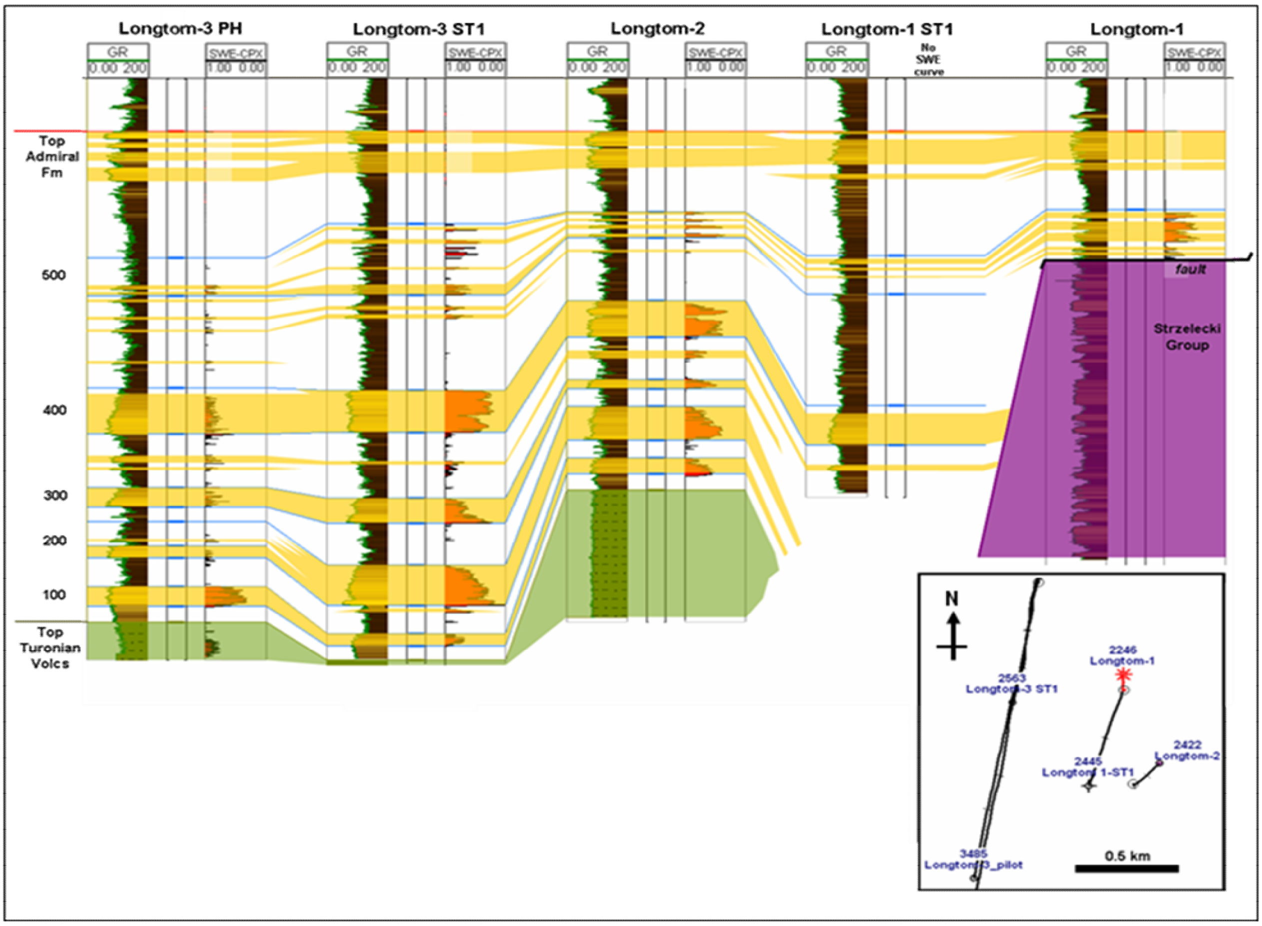

Figure 7: Correlation of Admiral Formation sands across the Longtom Gas Field

Unfortunately, the palynological assemblages recovered from associated cuttings for this interval are interpreted to be substantially, if not entirely, caved from the overlying Admiral Formation, and therefore do not provide a reliable age for the volcanics. In the absence of any contrary evidence the volcanics are tentatively assigned a Turonian age based on the principles of stratigraphic superposition.

2. SEISMIC DATA AND INTERPRETATION

The Northern Fields 3D survey provides good seismic coverage over the southern half of Permit VIC/P54 and all of the Longtom Field (Figure 8). This data is displayed using a quadrature phase wavelet. Data quality is relatively good but with limited resolution and some multiple interference through the reservoir interval. The dominant frequency at reservoir level is about 20 Hz which translates to a resolution limit for single layers of approximately 20 m (at interval velocities of 3200 m/s).

Several horizons have been interpreted through the Longtom reservoir interval. Some of the Longtom reservoir sands are too thin to produce top or base reflection events and therefore, have not been picked. Several significant shallow reflectors have been picked including the Top Latrobe and Top Kipper Shale. The shallow imaging quality of the Northern Fields 3D survey is too poor to allow picking of the sea floor (Figure 9).

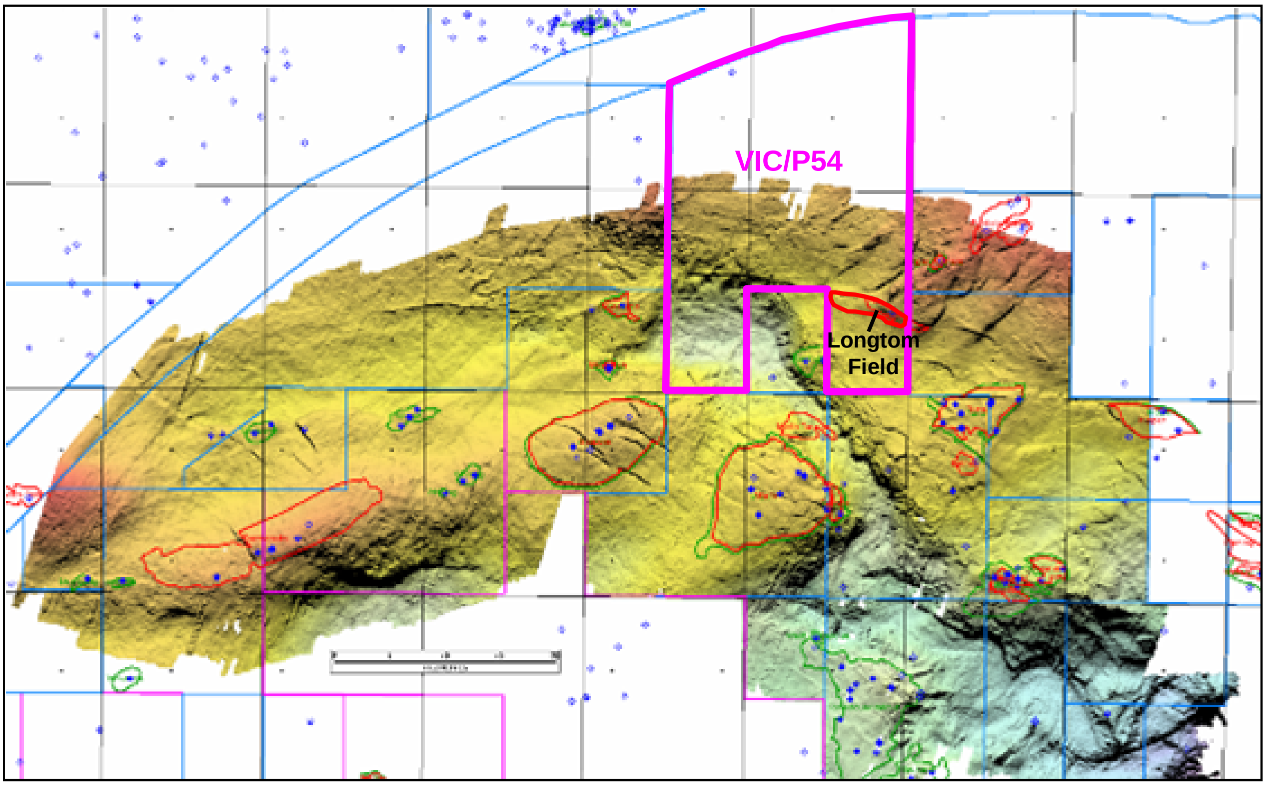

Figure 8: Top Latrobe Surface Mapped on the Northern Margin3D Survey

The horizons were interpreted on the full stack volume of the Northern Fields 3D. In 2005, a simultaneous inversion of near, mid and far stacks was produced by Fugro-Jason. The inversion generated P-Impedance (P_{imp}) and S-Impedance (S_{imp}) volumes for an area that covers most of the graticular block that contains the Longtom Gas Field. Volumes were calculated from the P_{imp} and S_{imp} volumes Vp/Vs as well as Lambda-Rho-Mu-Rho (LMR). Cross plotting Vp/Vs versus P_{imp} yields a good indication of pay (Figure 11) in thick sands. A cross plot function to separate pay and non-pay was used to generate a Fluid Index (FI) volume from Vp/Vs and P_{imp} volumes transforming the two parameter fluid discrimination into a single parameter fluid indicator. Positive FI values indicate pay and negative values non-pay (Note: The Fluid Index is defined to avoid false positives. However, negative FI values can also result from more poorly developed gas sands with a thickness less than the seismic resolution thickness, lower N/G, lower porosity or areas of poor data quality). Their magnitude is a measure of the distance from the separating function.

The results of the Longtom-3P well clearly demonstrate the predictive power of the FI volume with gas filled sand being present in the well where indicated by the FI volume (Figure 10).

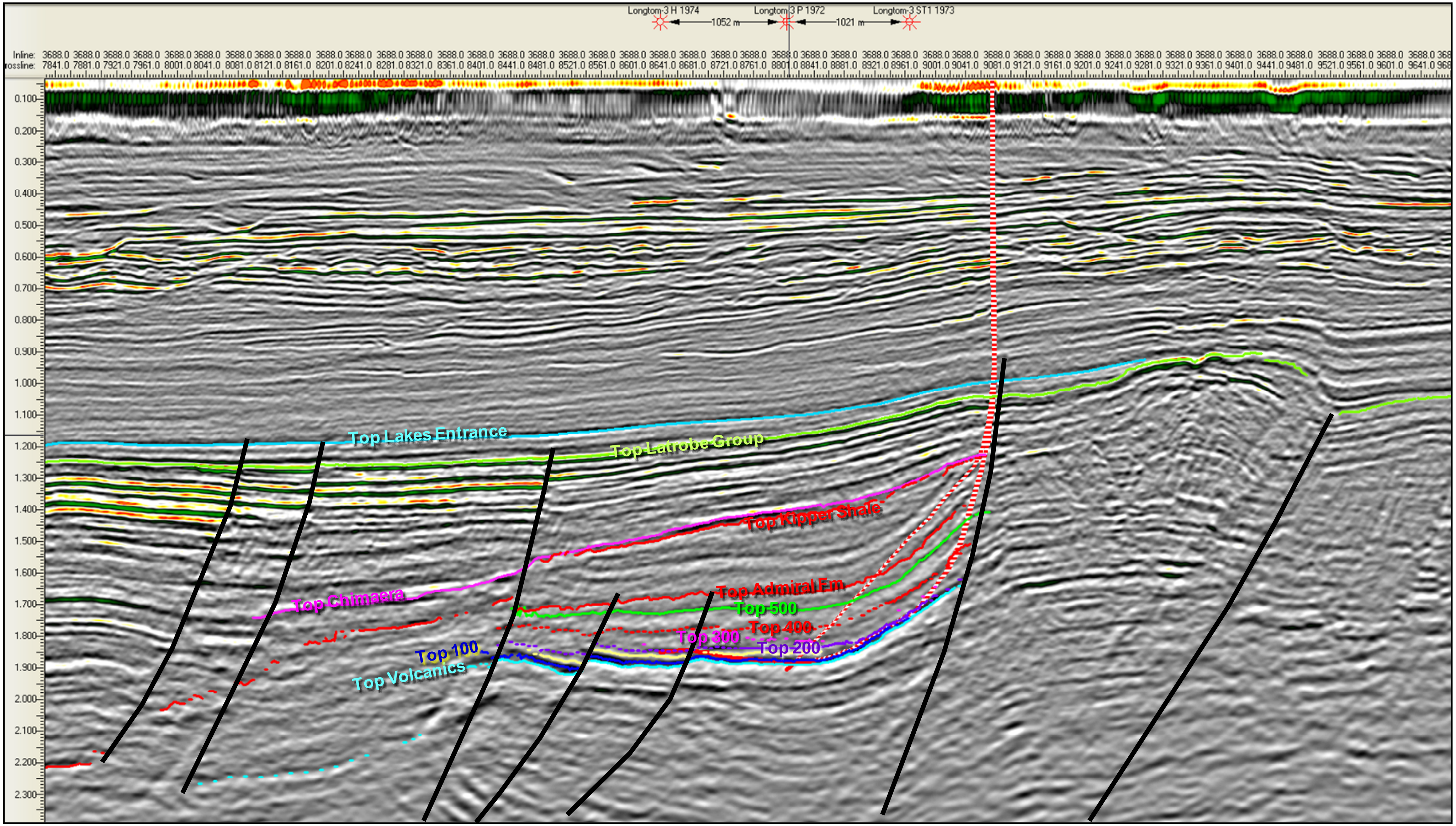

Figure 9: Northern Fields 3D seismic section across Longtom Gas Field showing selected mapped horizons and location of Longtom-3 wells.

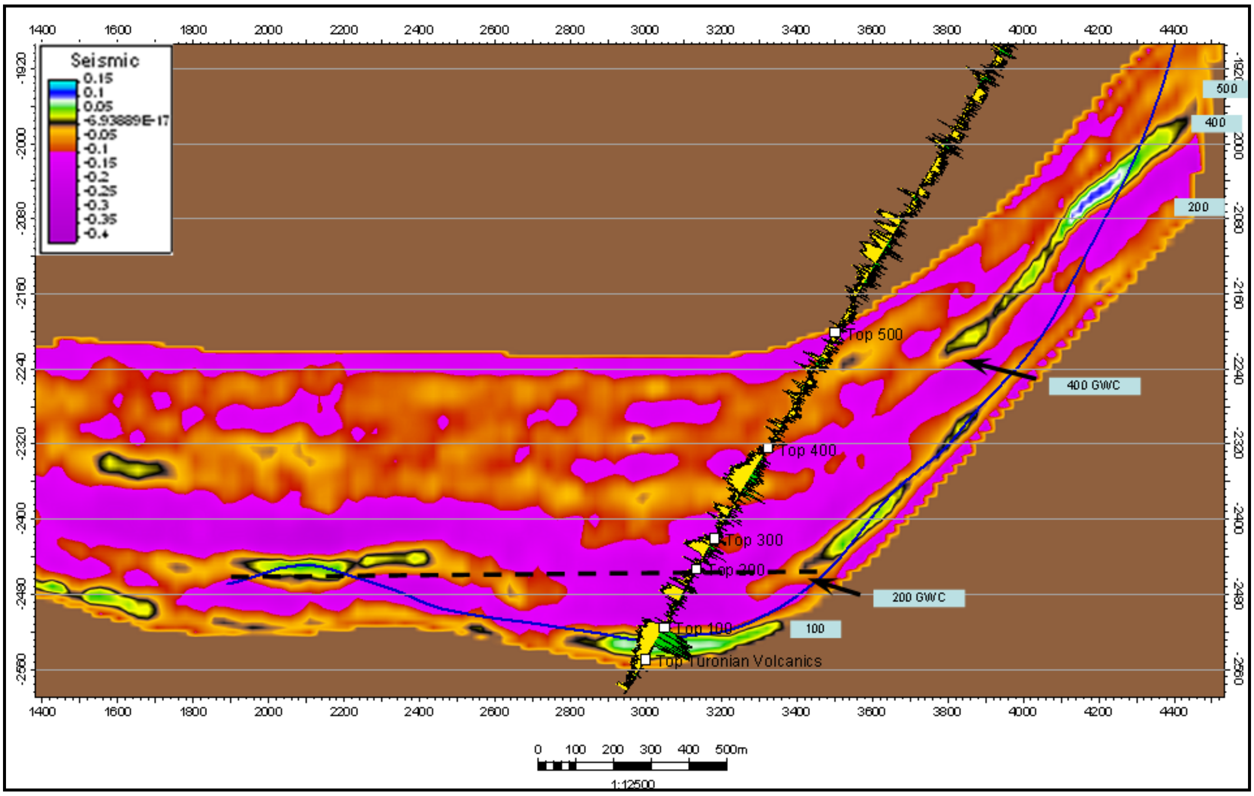

Figure 10: Longtom-3P Fluid Index (FI) Depth Section

The Longtom-3P log curves (V_{Clay} on the left and water saturation S_w on the right) are displayed versus the FI anomalies. The positive FI values are gas bearing (black to blue). Gas is only present in the Longtom-3P 100 sand as predicted by the FI volume. The FI volume also shows a distinct amplitude drop near the GWCs in the 400 and 200 sands. The Longtom-3H well path is displayed in blue.

However, lack of an FI response does not necessarily indicate an absence of gas sands as demonstrated by the presence of gas in the 300 sands and the 200 sands in the 13 ½" hole section of the well where there was no positive FI indication. In other cases thicker sands were present, but were water filled (e.g. the 200-500 sands in the Longtom-3 pilot hole and the water bearing 200 sand interval in the horizontal hole between 4190m and 4290mRT).

After acquiring the logs for Longtom-3 pilot hole (Longtom-3P), the inversion model was updated with the Longtom-3P sonic and density data. In addition to the FI volume, a Sand Index (SI) volume was generated. The SI volume is also based on the Vp/Vs versus P_{imp} cross plot. The SI discriminating function is roughly parallel to the volume of clay (V_{Clay}) contours at about 20% V_{Clay} (Figure 12). The V_{Clay} volume generated from the SI and V_{Clay} relationship (Figure 13) was used to define the Top 200, the Top 100 and the Top 150.

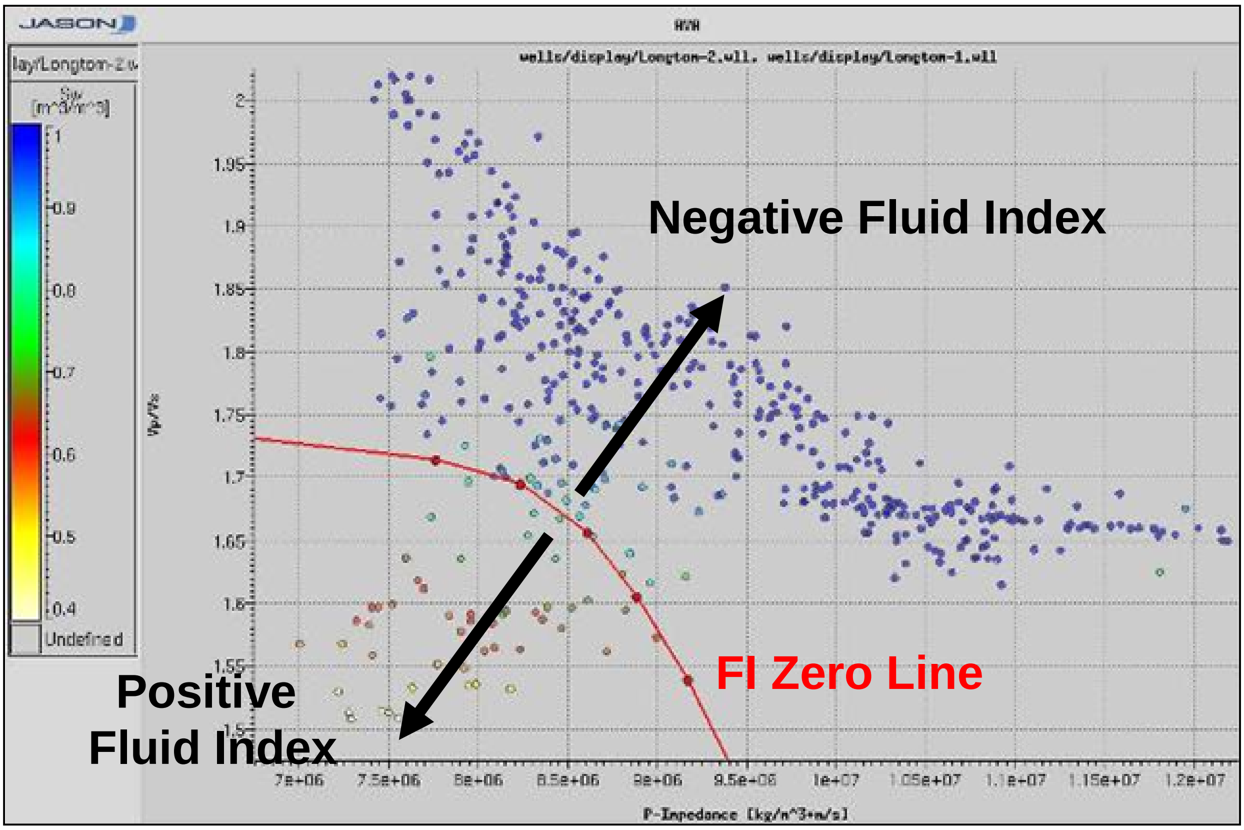

Figure 11: Fluid Index (FI): P-Impedance versus Vp/Vs (versus S_w)

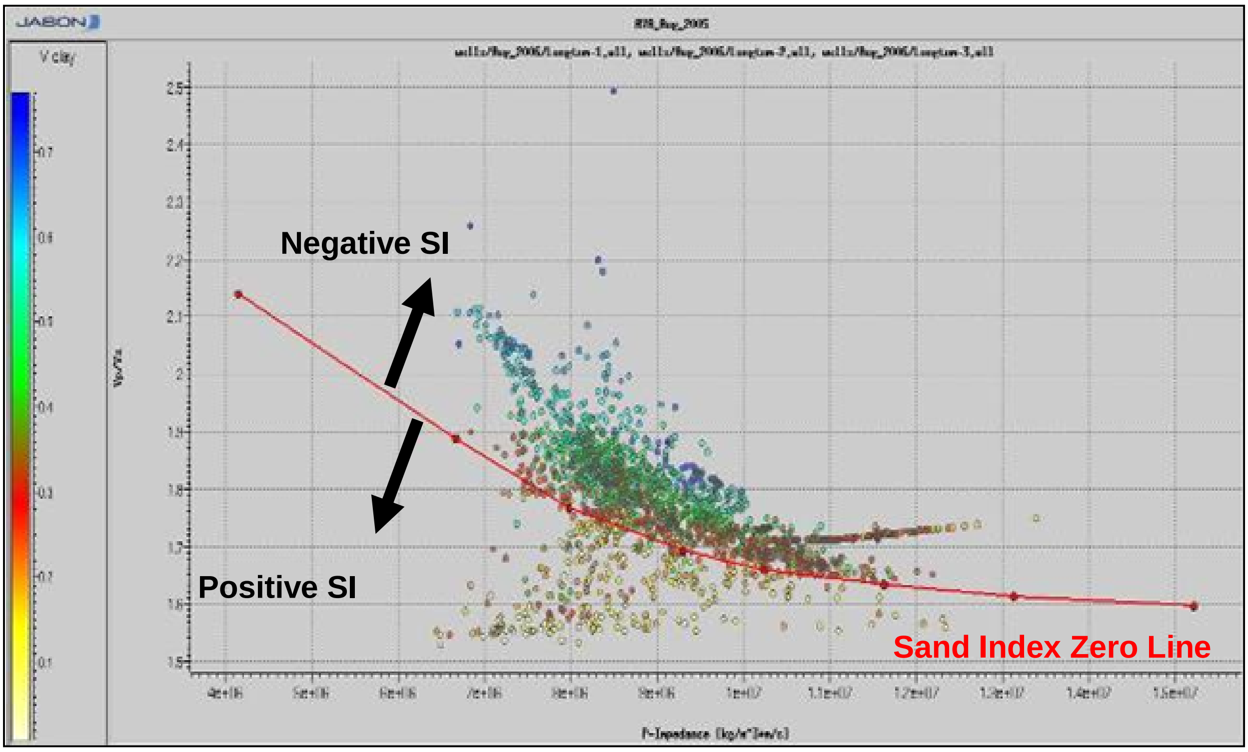

Figure 12: Sand Index (SI): P-Impedance versus Vp/Vs (versus V_{Clay})

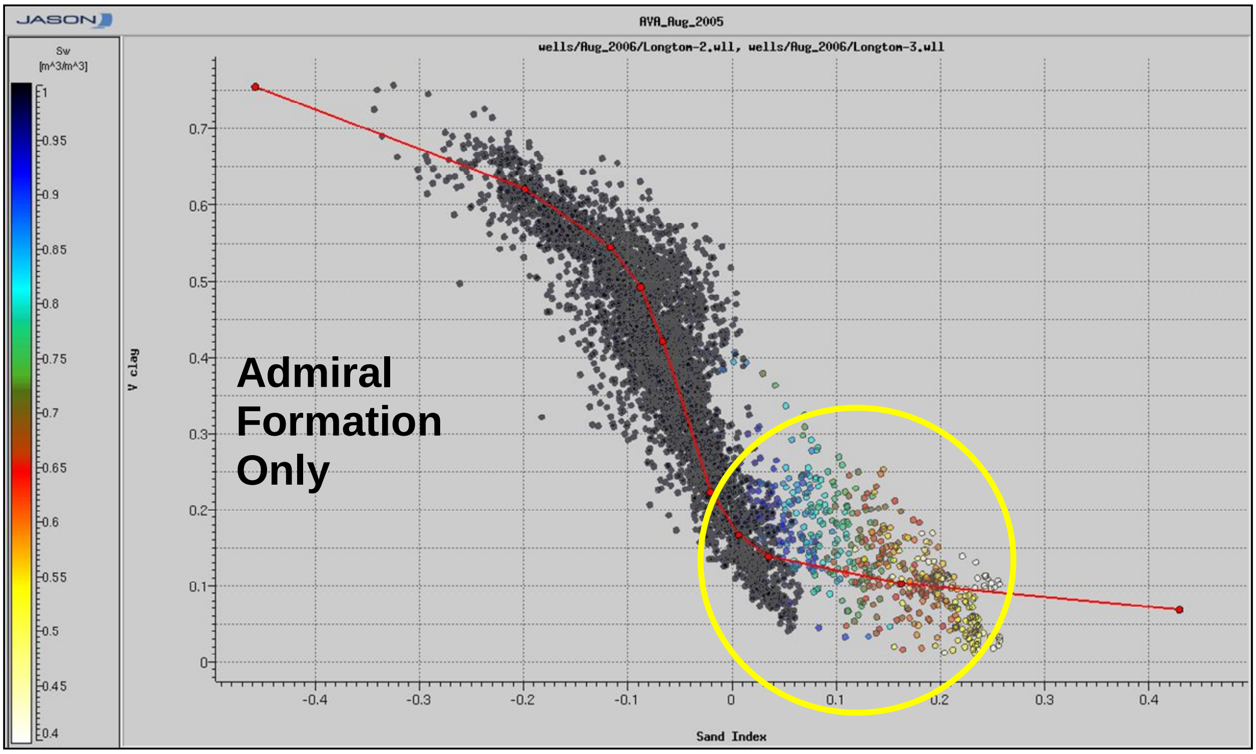

Figure 13: Volume of Clay (V_{Clay}): SI versus V_{Clay} (versus S_w)

The SI to V_{Clay} relationship (red line) removes the gas effect for high SI.

2.1 Structural Setting

The Longtom structure is a buttress closure within the Emperor Sub-group. The field lies within a WNW-ESE trending terrace with dip closure to the west and east (Figure 14). The reservoir sands are juxtaposed against the Strzelecki Group to the north across a very large WNW-ESE trending fault, which is part of the Rosedale Fault System. This fault has proven to provide an effective down-thrown fault seal. At the southern end of the terrace the sands are juxtaposed against the down-thrown Kipper Shale.

Late to Middle Miocene compressional tectonics produced structural closure to the west and east. The Barracouta, Snapper, Sunfish, Sperm Whale and Patricia structures were also formed during this phase of compression.

2.2 Longtom Field Reservoir Mapping

The isochron map that represents the reservoir interval between the Top 500 and the Top Turonian Volcanics shows that the deposition of the Admiral Formation does not appear to be governed by the major bounding faults that control the present day structure, as they do not impact significantly on sediment thickness (Figure 15).

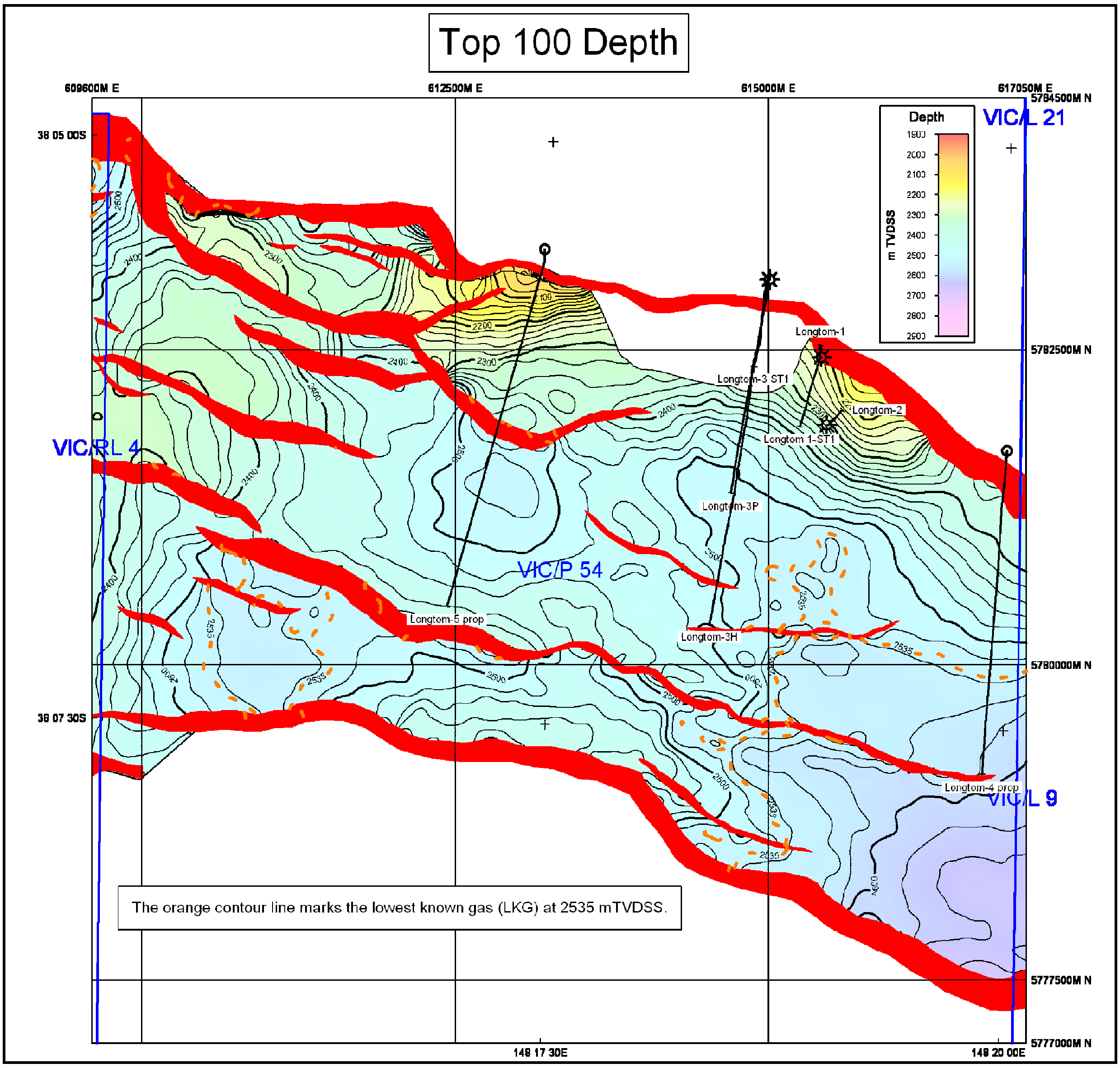

Figure 14: Top 100 Reservoir Depth Map (Most Likely)

The isochron map indicates broadly SSW-NNE trending thins, which are interpreted to represent palaeo-highs at the time of deposition. Figure 16 shows that the lower reservoir section between the Top 200 and the Top Turonian Volcanics is relatively thin across the western half of the terrace and probably pinching out towards the west. The Longtom-3 horizontal well was drilled along the edge of this thin platform and encountered sands in the lower part of the Admiral Formation.

Both the maps show the onset of significant thickening from WNW to ESE along the Longtom terrace around the location of Longtom-3H. This thickening is interpreted to be indicative of the basin architecture at this time and may have influenced overall direction of sediment transport and channel orientation.

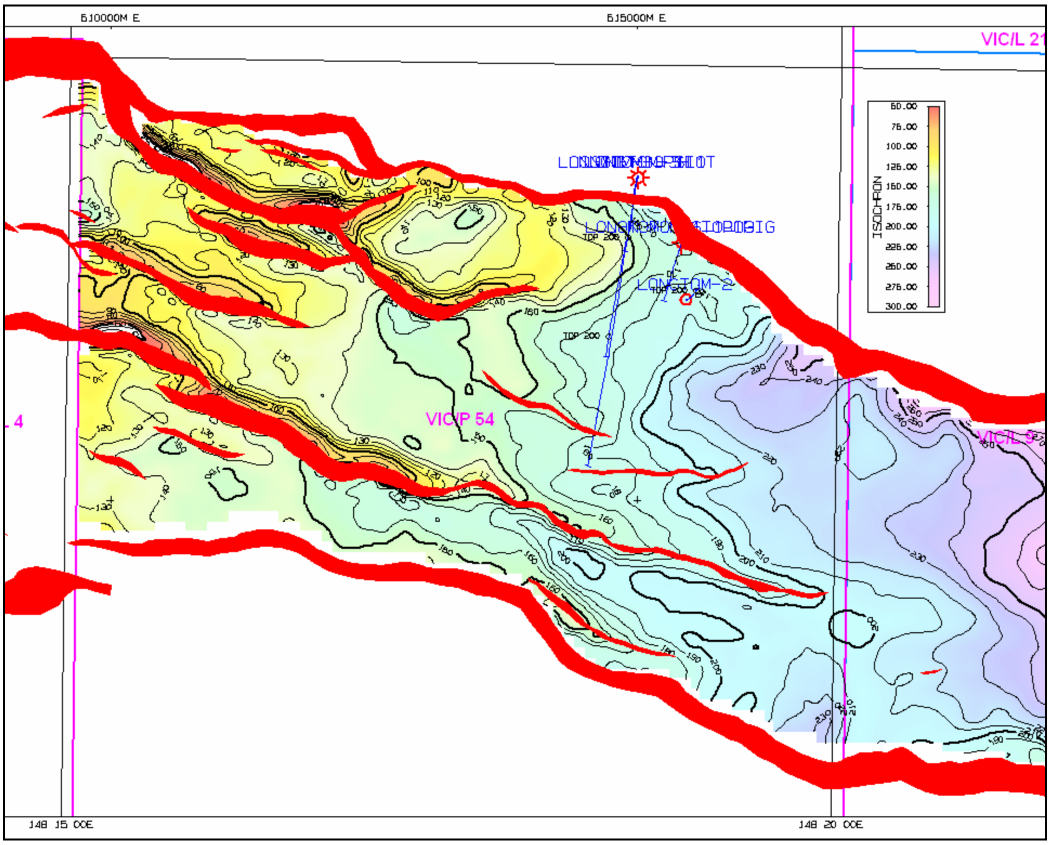

Figure 15: Top 500 – Top Turonian Volcanics Isochron

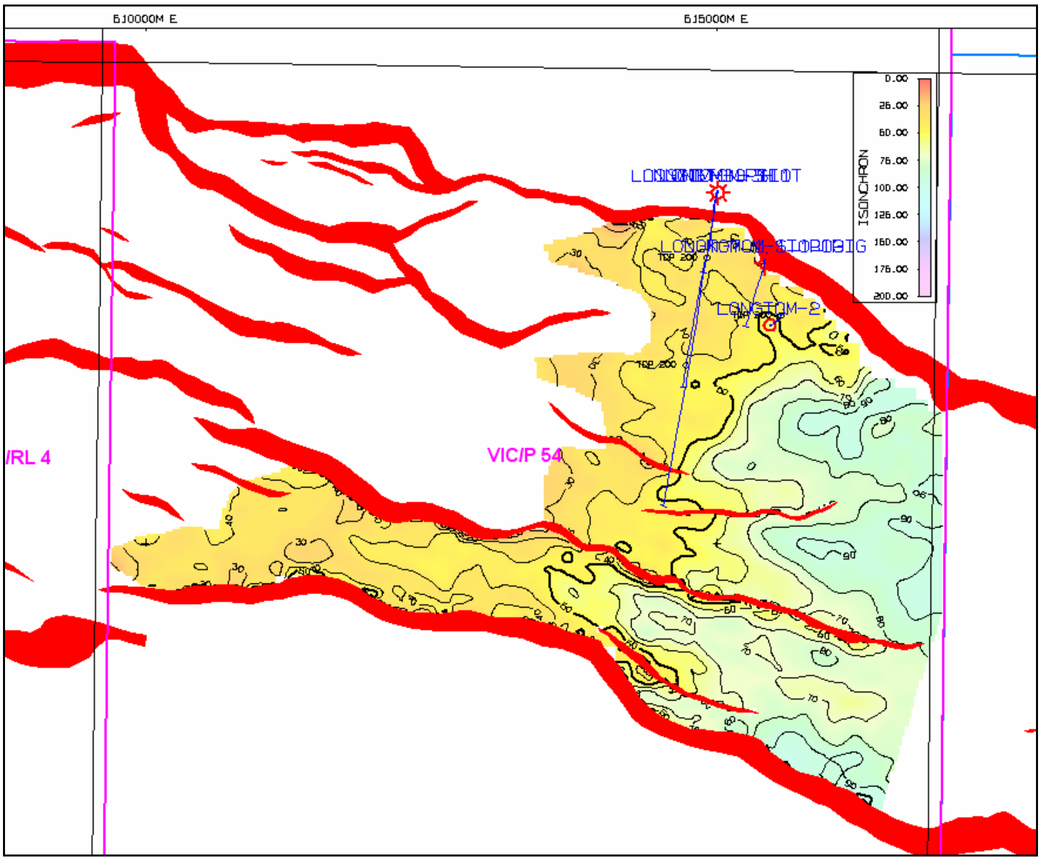

Figure 16: Top 200 – Top Turonian Volcanics Isochron

Note that the 200 sand is interpreted to pinch out while the 100 sand – which is situated in between the 200 sand and the Top Turonian Volcanics – extends across the entire permit.

2.3 Well Ties

The reservoir interval of the Longtom Field is tied to the Longtom-1, Longtom-1ST1, Longtom-2 and Longtom-3P wells. Longtom-1 intersected only the 500 reservoir interval before crossing the northern bounding fault into the Strzelecki Formation. The Longtom-1ST1 well was sidetracked to the SW away from the bounding fault and penetrated both the 500 and 400 reservoirs. Wireline logs and checkshots could not be run in this well so the seismic tie is less reliable. Longtom-2 intersected a complete reservoir section between the Top 500 Reservoir and the Turonian Volcanics.

The correlation of the Longtom-2 synthetic seismogram to the Northern Fields 3D seismic data indicates a variable "lag" between the checkshot and seismic travel times. The lag is 10ms at the Top Latrobe, 20ms at the Top 500 Reservoir and 30ms at the Top Volcanics. The seismic travel times are longer than the checkshot times. Similar lags at the Top Latrobe and Top 500 are seen at Longtom-1. Several factors may contribute to the lag including seismic migration errors, shallow lateral velocity variations, stacking effects and frequency dependent earth filtering effects.

The relatively high seismic "lag" adjustment affects the stratigraphic significance of picked seismic events. The seismic marker picked near the base of the reservoir section appears to relate to the Top Volcanics interface using the raw Longtom-2 checkshot data. However, the lag adjusted horizon times show that, in reality, this event lies within the 200 Reservoir interval.

The seismic markers and the Fluid Index (FI) inversion correlated with the Longtom-2 well are illustrated in Figure 17 and

Figure 18.

The noise in the seismic data and the potential velocity issues on the flank of the field prevent better correlations between synthetics and seismic. They also cause a larger uncertainty for the time-depth (T-D) ties of the well markers and horizons, respectively.

Moreover, Longtom-3P required a correction for anisotropy of the compressional and the shear sonic logs, respectively, in the Kipper Shales to obtain a good well tie because the logs were recorded sub-parallel to bedding in that section.

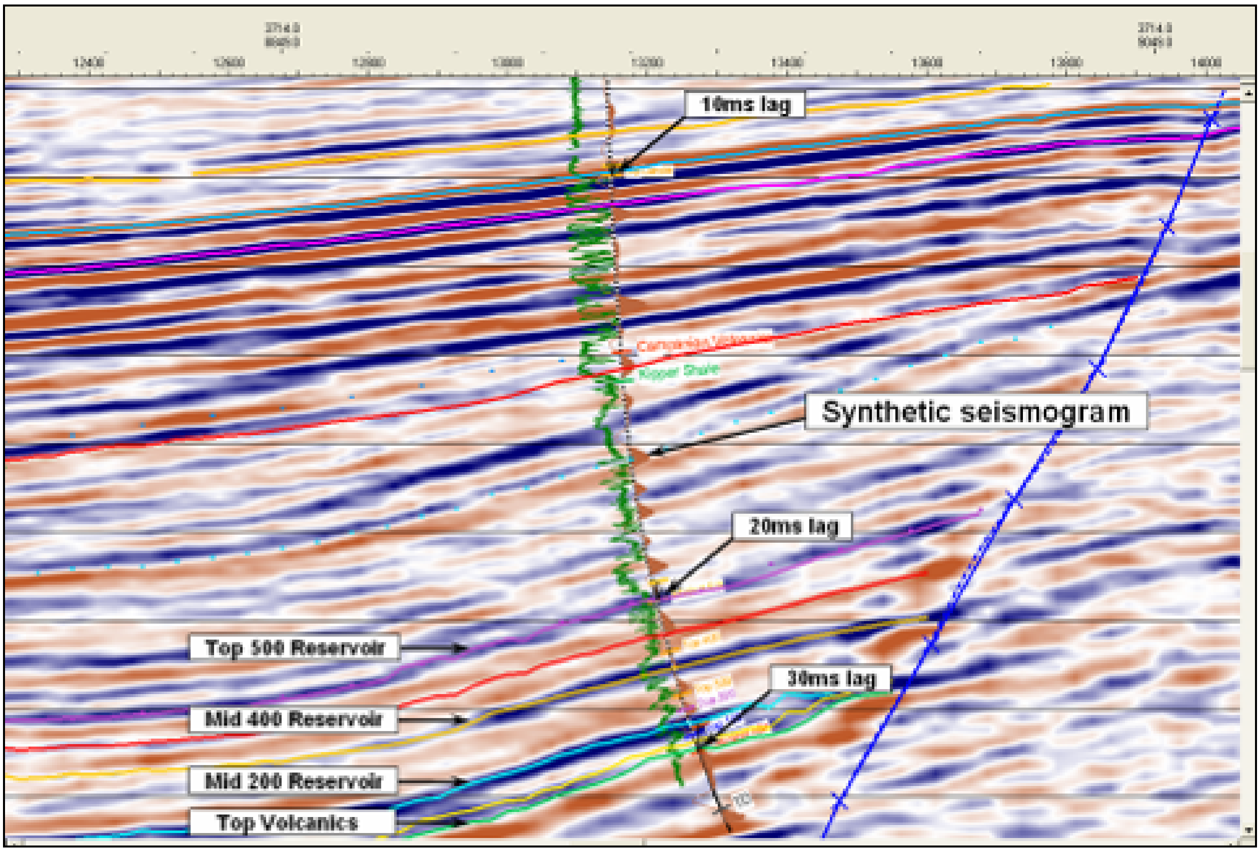

Figure 17: Seismic Dip Line Through Longtom-2 with Well Tie.

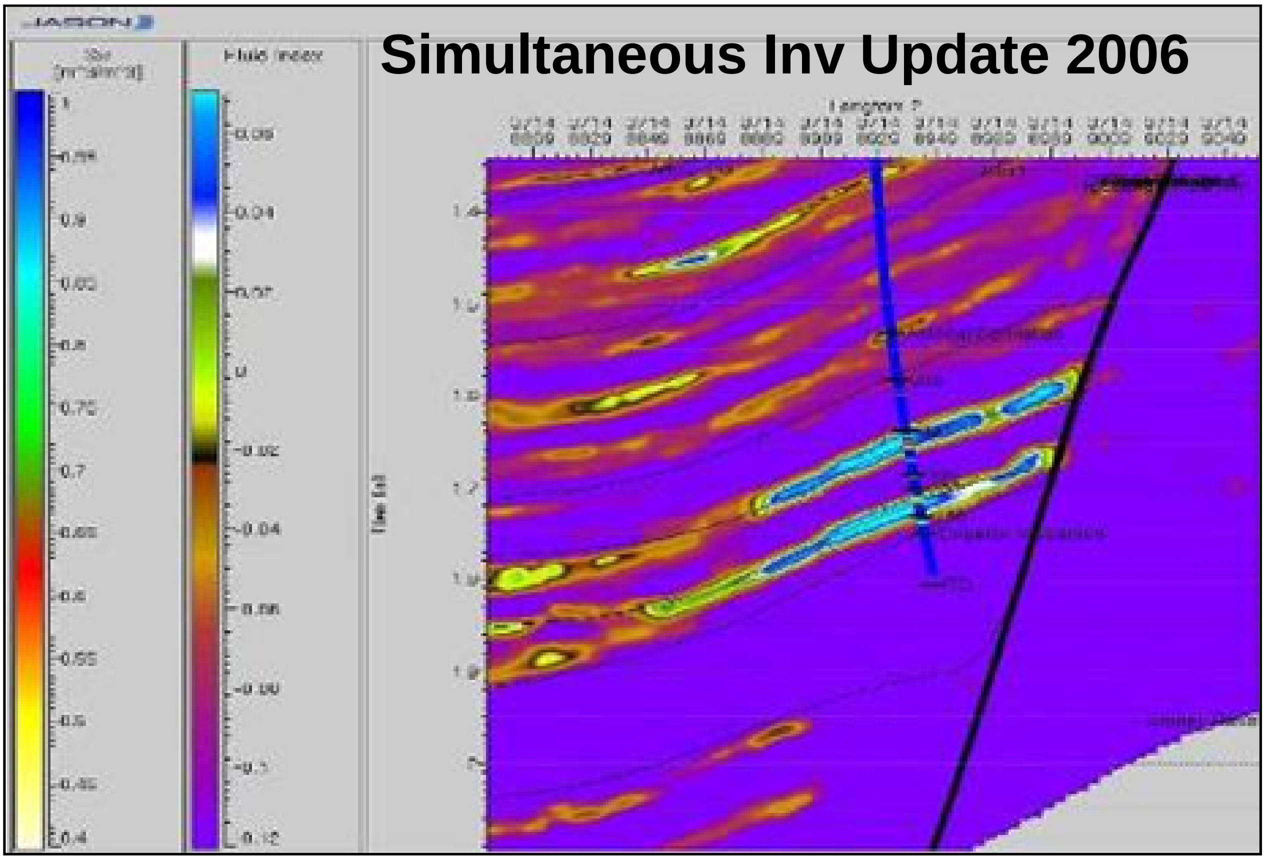

Figure 18: Tie of Longtom-2 to FI section.

The inserted log curve is colour coded by S_w

2.4 Horizons

The following key horizons have been picked over the Longtom Field:

- Top Latrobe
- Top Kipper Shale
- Top 500 (Reservoir)
- Mid 400 (Reservoir)
- Top 200 (Reservoir)
- Top150 (Reservoir)
- Top 100 (Reservoir)
- Top Turonian Volcanics
- Estimated Top Strzelecki

Complex channelling within the Gippsland Limestone produces many localised reflection surfaces that suggest a complex shallow velocity model. Because of channel cross-cutting, channel reflectors can only be picked over localised areas and could not be used for depth conversion.

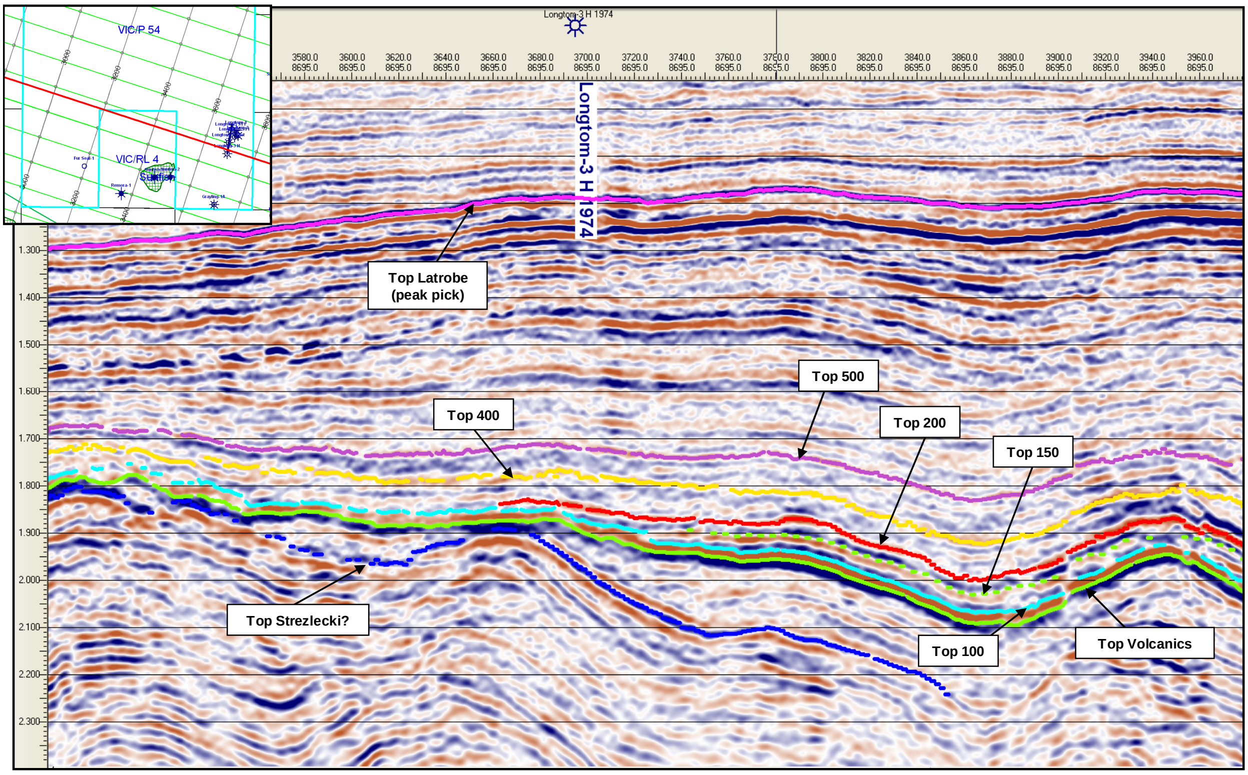

Figure 19: Longtom Terrace - Arbitrary Strike Line with Key Horizon Picks.

Top 100	*Top 150*	*Top 200*
Top 400	*Top 500*	*Top Volcanics*
Top Latrobe	*Top Strezlecki ?*	

Figure 19 illustrates the structural and depositional setting above and below the reservoir section as well as the conformable and onlap relationships between the reservoir horizons.

The Top Strzelecki is interpreted to be represented by the strong reflector ranging up to 200 ms below the Top Turonian Volcanics.

The Top Turonian Volcanics was picked at the zero crossing above the strong hard reflector (blue) at the base of the Admiral Formation.

The depositional model of a basal transgressive sand in the sequence above the Turonian Volcanics suggests the 100 sand extends across the entire Longtom Terrace. This is supported by the Interpretation of the inversion data, in particular the Sand Index (SI) and the VClay volumes. In this model the 100 interval is conformable with the Turonian Volcanics.

The 200 sand is interpreted to onlap onto the 100 sand (separated by sealing shales) in most of the Longtom Terrace. The interpretation extends as far as a separate reflector is present. The 200 sand might extend further in some areas but cannot be mapped due to limited seismic resolution. In the southern fault block the 200 sand drapes across the 100. The 200 sand covers about half the graticular block in the northern part but extends across the entire terrace in the southern fault block (Figure 20).

Wedged in between the 100 and the 200 intervals is a unit (150) that has not been mapped previously. It is clearly present in all seismic volumes (e.g. in Figure 19) and appears as a gas charged sand in the FI volume. It is only present in the thickened section to the East where it onlaps onto the 100 sand and covers about 6.7 km^2 (Figure 21 and Figure 22). It appears to vary in line with the 100-200 isopach.

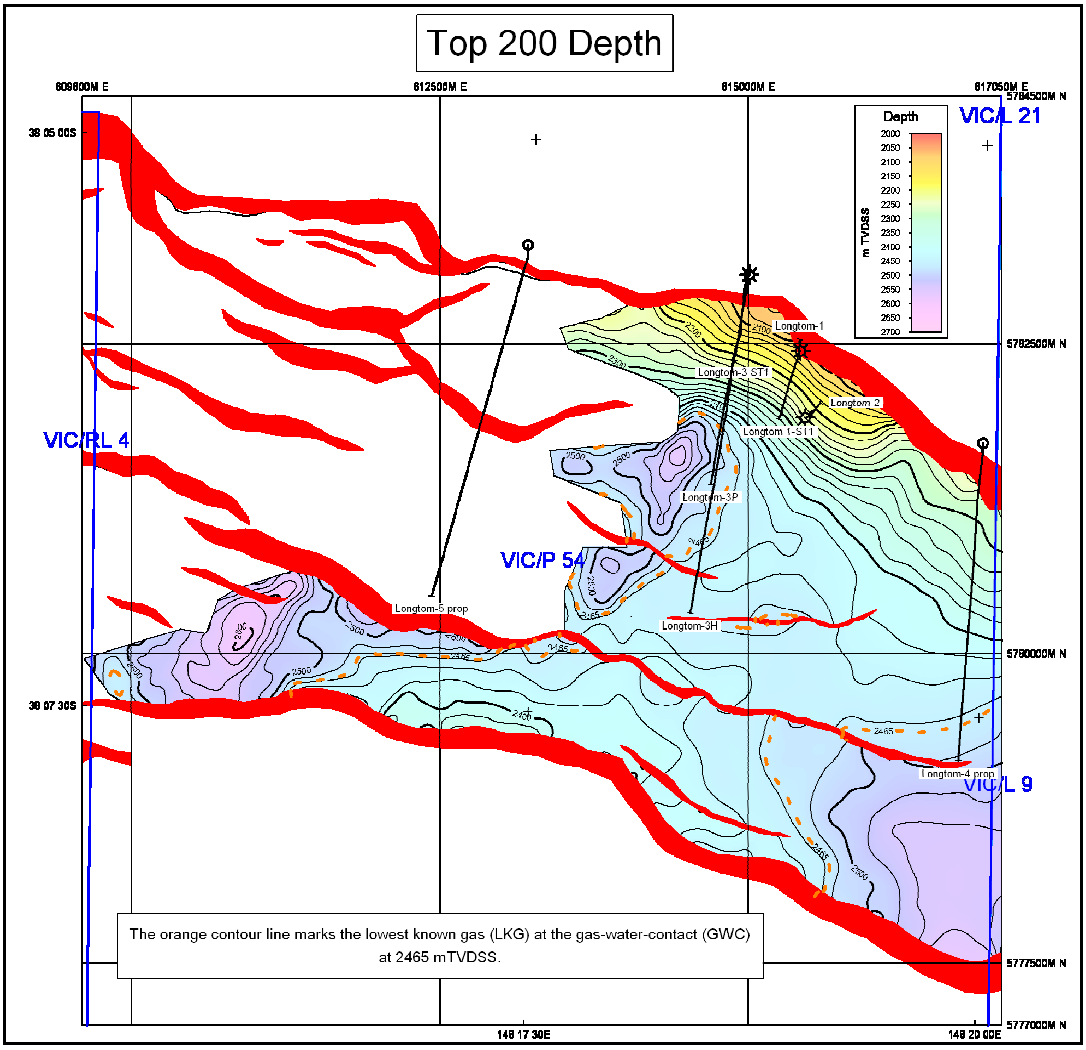

Figure 20: Top 200 Reservoir Depth Map (Most Likely)

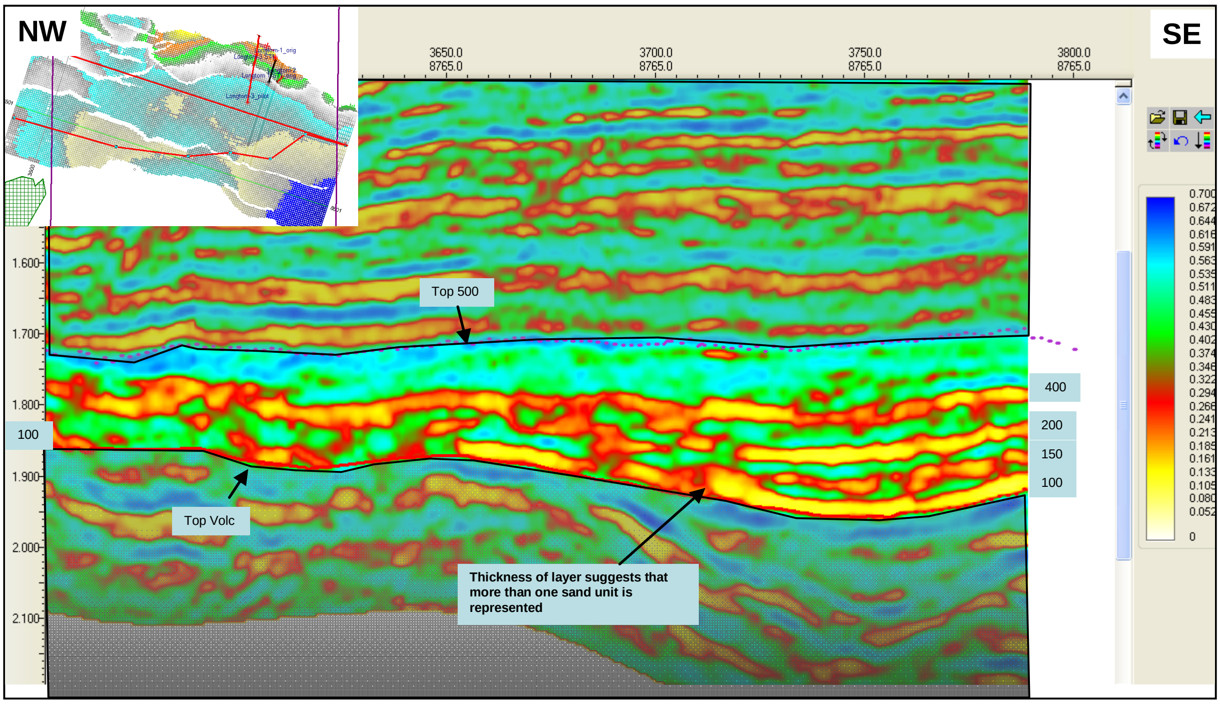

Figure 21: V_{Clay} Section with Interpreted 150 Sand

The 150 is wedged in between the 200 sand and the 100 (anomaly above greyed out section).

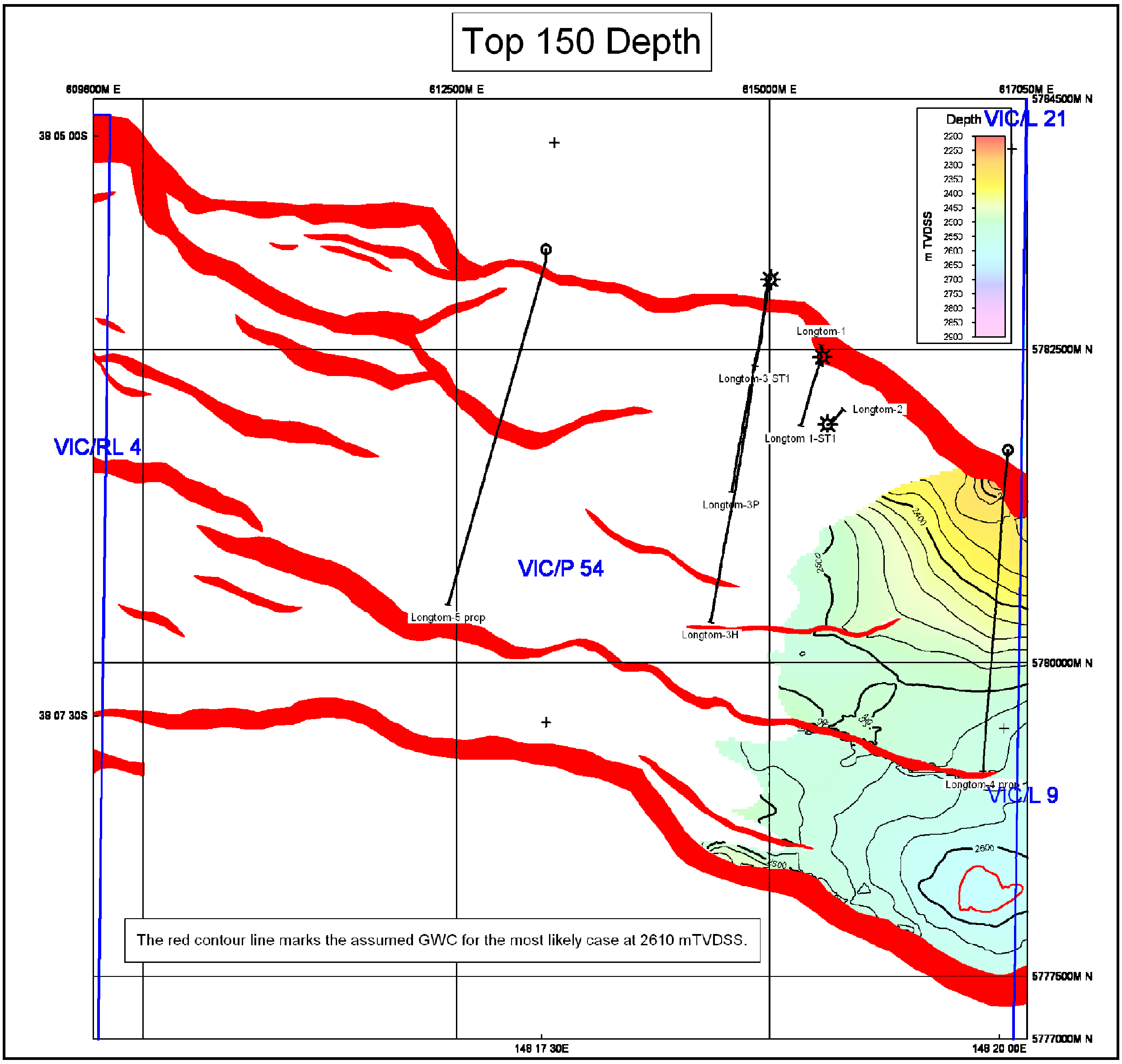

Figure 22: Top 150 Reservoir Depth Map (Most Likely)

The events interpreted on the SI volume, i.e. the 150 and the 200 sands, have been picked with reasonable confidence where the apparent Two-Way-Time thickness exceeds about 10 ms. The pick is guided by contrasts in P_{imp} in areas where the SI signature fades. Figure 23 shows an example of the correlation between the SI volume and the sands intersected by Longtom-3P.

Reflectors corresponding to Mid 400 and Top 500 Reservoirs can be picked over the whole of the Longtom Terrace. The Top 500 can be picked with good confidence while the Mid 400 is a weaker, less confident event over the terrace. Due to its lack of thickness, the 300 is not represented by an individual seismic event and is incorporated in the depth model by phantoming down the Top 400 horizon.

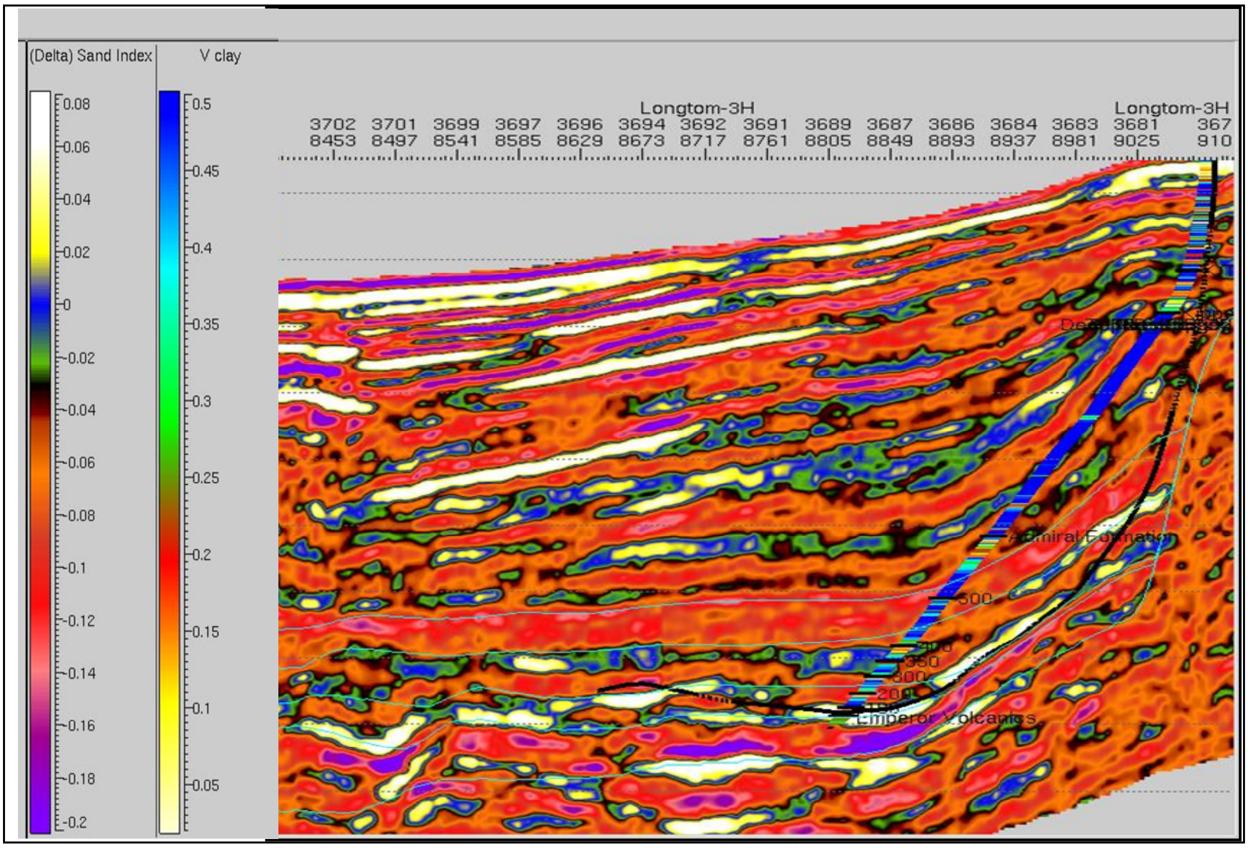

Figure 23: Longtom-3 Tie to SI Section

The inserted log is colour coded by V_{Clay}

2.5 Depth Conversion

Several reference horizons have been depth converted over the Longtom Field.

The following data has been used in the depth conversion:

1. High density velocity analysis (HDVA) of the Northern Fields 3D survey over the Longtom Field within Permit VIC/P54.
2. Top Latrobe Two-Way-Time (TWT) grid.
3. Near Top 500 Reservoir TWT grid.
4. Near Top Volcanics TWT grid.
5. Well tops from Longtom-1, Longtom-1ST1, Longtom-2, Longtom-3P, Longtom-3ST1 and Grayling-1A.

The following grids are output by the depth conversion process:

1. Top Latrobe depth grid, calibrated to the wells.
2. Near Top 500 Reservoir depth grid.
3. Near Top Volcanics depth grid.

The layer cake depth conversion process uses the Top Latrobe, Near Top 500 Reservoir and Near Top Volcanics horizons to define three layers. Stacking velocities are used to derive interval velocities for each layer. The interval velocities are smoothed and calibrated to the wells before multiplying with the isochron grids to produce isopach grids. The isopach grids are summed to produce the depth grids.

An iterative "complexity constraining" process is used to refine each depth grid. This process compares the depth surface complexity (or rate of change of dip) at each grid node with the time surface complexity. Where the depth surface has higher complexity than the time surface, it is reduced by smoothing.

Prior to drilling Longtom-3, grids for the Top 500 and Top Volcanics were generated from the Near Top 500 and Near Top Volcanics grids by shifting them to tie the wells.

All markers from the Top Admiral down to the Turonian Volcanics were intersected deep to prognosis in Longtom-3P using the above well tied depth surfaces. The un-tied depth surfaces provide far better predictions of tops at Longtom-3P which suggests issues with the velocity model on the flank of the structure where Longtom-1 and Longtom-2 were drilled.

The velocity model has been rebuilt by editing the HDVA derived average velocity grids (done in Petrosys) at the 500 and Turonian Volcanics to account for the changes of velocity on the flanks and thus make the associated depth surfaces tie the wells. These two average velocity grids form the top and base of a new average velocity cube, generated in Petrel, by interpolating between the grids. The 500 and the Turonian Volcanics depth surfaces are also generated with these grids.

All interpreted time surfaces in the reservoir section (i.e. the 400, the refined 200, the newly interpreted 150 and the 100), have been depth converted with the velocity cube. The 300 sand grid is a shifted 400 sand surface. The FI volume that guided the drilling of Longtom-3H has also been depth converted using this latest velocity cube.

3. RESERVOIR CHARACTERISATION

3.1 Reservoir Quality

Longtom-3ST1 and Longtom-3H (refer to APPENDIX 2).

Petrophysical evaluation has been carried out on Admiral Formation sands using LWD and wireline log data supported by sample cuttings, pressure and production tests, fluid samples and mud gas information.

<u>Longtom-3P</u>

The reservoir section comprises sands, silts and claystones deposited in a fluvio-lacustrine environment. The sands range in composition from litharenite to feldspathic litharenite. Framework grains are mainly quartz, though volcanic rock fragments are very common while feldspar, chert and clay replaced grains make up the remainder. Sands are described as fine- to medium-grained, moderately well sorted and cross-bedded with moderate reservoir potential. Main clay types are chlorite, kaolinite and illite. They are found in the reservoir sands in approximately equal proportions in structural and dispersed distribution styles. Calcite cement is locally abundant at the base of some sand bodies and is the main control on reservoir quality. Quartz overgrowth and pyrite cements are present in minor quantities.

The objectives of the Longtom-3P well were to:

1. provide depth control for the optimal placement of the 3H well,
2. obtain wireline pressure data in each significant Admiral Formation sand unit, and
3. enable calibration of the Ecoscope LWD porosity and permeability measurements.

Also, Longtom-3P would validate the inverted seismic technique used to map the gas resource by verifying the presence of gas in the deepest of the Admiral Formation sand reservoirs discovered at Longtom-2 and confirming that the shallower sands were wet.

As predicted by seismic, the 400, 300 and 200 sands are entirely water bearing and the 100 Sand is gas bearing. The well intersected 27m of net gas bearing 100 Sand over a 34m gross column with average porosity of 12.8%, permeability of 1mD and water saturation of 49%. (Note; the 500 Sand was only very poorly developed in Longtom-3P and so has not been assessed in this report).

No gas water contact was observed. Lowest Known Gas in the 100 Sand is 3393m (2534.3mTVDss).

Reservoir properties for Admiral Formation sands penetrated in Longtom-3P are summarised in Table 3.

Table 3: Longtom-3P Reservoir Summary

Sand	Depth Interval (m)	Fluid	Gross (m)	Net (m)	NTG (%)	PHIE (%)	Perm (mD)	Sw (%)
400	3025-3102	water	77	37.2	48	13.2	0.6	100
300	3196-3228	water	32	13.9	43	12.2	1	100
200	3280-3312	water	32	11.6	36	10.3	0.01	100
100	3359-3393	gas	34	27	79	12.8	1	49

<u>Longtom-3 ST1</u>

Longtom-3 ST1 was originally planned as just the 13½" hole section of the subsequent horizontal well, with the intention of drilling to just below the 400 Sand and casing it off from the anticipated underlying higher pressure 100 and 200 Sands. However, due to the limited success in obtaining wire line pressures in the pilot hole, it was decided to extend this hole section deeper to enable another attempt at wire line pressures in the lower Admiral Formation sands. The well was drilled deep enough to tag the top of the volcanics with the bit, but this horizon was not reached with the logging tools.

The well encountered a total of 114.4m of net gas bearing 400, 300 and 200 Sands over a 333m gross column with average porosity of 14.6%, permeability of 183mD and water saturation of 38%. Similar to Longtom-2, very thin gas sands were encountered around the 500 Sand level but, due to the small volumes these sands represent, they are not evaluated in this report. No permeable sand was developed over the expected 100 Sand interval.

No gas-water contacts were observed. Lowest Known Gas (LKG) contacts are shown in Table 4.

Table 4: Longtom-3ST1 Fluid Contacts

Sand	LKG (mMD)	LKG (mTVDss)
400	2197	-2055.3
300	2337.5	-2141.2
200	2468	-2221.1

Reservoir properties for Admiral Formation sands penetrated in Longtom-3 ST1 are summarised in Table 5.

Table 5: Longtom-3ST1 Reservoir Summary

Sand	Depth Interval (m)	Fluid	Gross (m)	Net (m)	NTG (%)	PHIE (%)	Perm (mD)	Sw (%)
400	2135-2197	gas	62	56.6	91	15	9	35
300	2300-2337.5	gas	37.5	13.4	36	13.2	8	51
200	2405-2468	gas	63	44.4	70	14.6	458	39
100	No reservoir	-	-	-	-	-	-	-
Total	**2135-2468**	**gas**	**333**	**114.4**	**34**	**14.6**	**183**	**38**

<u>Longtom-3H</u>

The Longtom-3H well targeted the Admiral Formation 100 and 200 gas sands discovered at Longtom-2 and appraised at Longtom-3P & 3ST1.

The well encountered a total of 811m of net gas bearing 200, 100 and 200R (re-entry) sands over a 2,225m gross column with average porosity of 14.3%, permeability of 7mD and water saturation of 47%.

A 200 Sand gas-water contact was encountered in the 200R interval at 2465mTVDss (Table 6).

Table 6: Longtom-3H Fluid Contacts

Sand	LKG (mMD)	LKG (mTVDss)	GWC (mMD)	GWC (mTVDss)
200	2933	-2395.3		
100	3922	-2507.4		
200R*			4307	-2465.5
200R*			4632	-2465.0

* R denotes a lateral re-entry into the 200 sand

Reservoir properties for Admiral Formation sands penetrated in Longtom-3H are summarised in Table 7.

Table 7: Longtom-3H Reservoir Summary

Sand	Depth Interval (m)	Fluid	Gross (m)	Net (m)	NTG (%)	PHIE (%)	Perm (mD)	Sw (%)
200	2407-2933	gas	526	321.9	61	13.7	7	48
100	3266-3922	gas	656	416.7	64	15	8	40
200R*	4307-4632	gas	325	72.4	22	13.2	0.6	66
Total	**2407-4632**	**gas**	**2225**	**811**	**48**	**14.3**	**7**	**47**

* R denotes a lateral re-entry into the 200 sand

4. HYDROCARBONS

4.1 ‘Reserval™’ Mud/Cuttings Gas Data Analysis: Longtom-3P, -3 ST1 and -3H Gas Composition Discussion.

Gas composition and total gas in mud were measured using the Geoservices Reserval™ (A combined total gas detector and chromatograph coupled with a GZG degasser). As a backup gas detection system a Geoservices FID Chromatograph Panel (FCP) and FID Gas Panel (FGP) was also operating, in tandem with a GZ11 degasser motor. Both gas systems use the FID technique of measuring ions released when hydrocarbons are burnt in a hydrogen flame.

Details describing the collection, measurement and interpretation of Geoservices ‘Reserval™’ mud/cuttings gas data and the advantages of using this system compared with the auxiliary/backup gas chromatograph FCP/FGP mud gas measurement system, are contained in Appendix 8 of Longtom-3 Well Completion Report Volume 1 (basic data).

Discussion of the peaks in mud gas abundance, gas composition and gas zone interpretation that were recorded during the drilling of each Longtom-3 well are also listed in Appendix 8. Briefly, the zones of peak mud gas were interpreted by Geoservices to represent “productive gas / light & dry gas”.

Composite log plots of ‘Reserval™’ mud gas hydrocarbon Wetness (W_h), Balance (B_h) Character (C_h) and C_1/C_2 Ratio curves, integrated with Petrolog complex mineralogy model log analysis results (Figure **24**, Figure 25 and

Figure 26), were analysed in order to determine whether there was any empirical variation in gas composition between individual reservoirs, given that the reservoir intervals are not in pressure communication and Production Test #2 comingled gas from the 100, 200 and 300 sands. The wetness ratio values for individual reservoir sand intervals were also plotted with reservoir depth (Figure 28, Figure 29 and Figure 30), and cross-plotted with corresponding V_{clay} values (Figure 31, Figure 32 and Figure 33), to assess impact of shaly/silty sands.

The values of C_h, W_h and C_1/C_2 ratios appropriately indicate producible gas reservoirs as confirmed by subsequent petrophysical analysis. Cross-over of B_h and W_h curves in the gas zones penetrated does not occur, indicating light & dry gas or no proximity to wetter gas or an oil leg. Only in the thin 100 Sands interval penetrated in Longtom-3 ST1 do the B_h and W_h curves show strong convergence, but no cross-over (Figure 25). These sands also have lower porosity, lower permeability and overall higher V_{clay} than the 200, 300 and 400 Sands. To ascertain whether these values were anomalous for some reason, the same gas ratios using the auxiliary backup mud gas data were also computed and plotted for comparison (Figure 27). The auxiliary B_h and W_h curves show much less convergence in the 100 Sands interval, although still more convergence than seen in the shallower reservoir intervals, therefore indicating the 100 Sands may contain wetter gas based on gas component ratios.

Longtom-3P

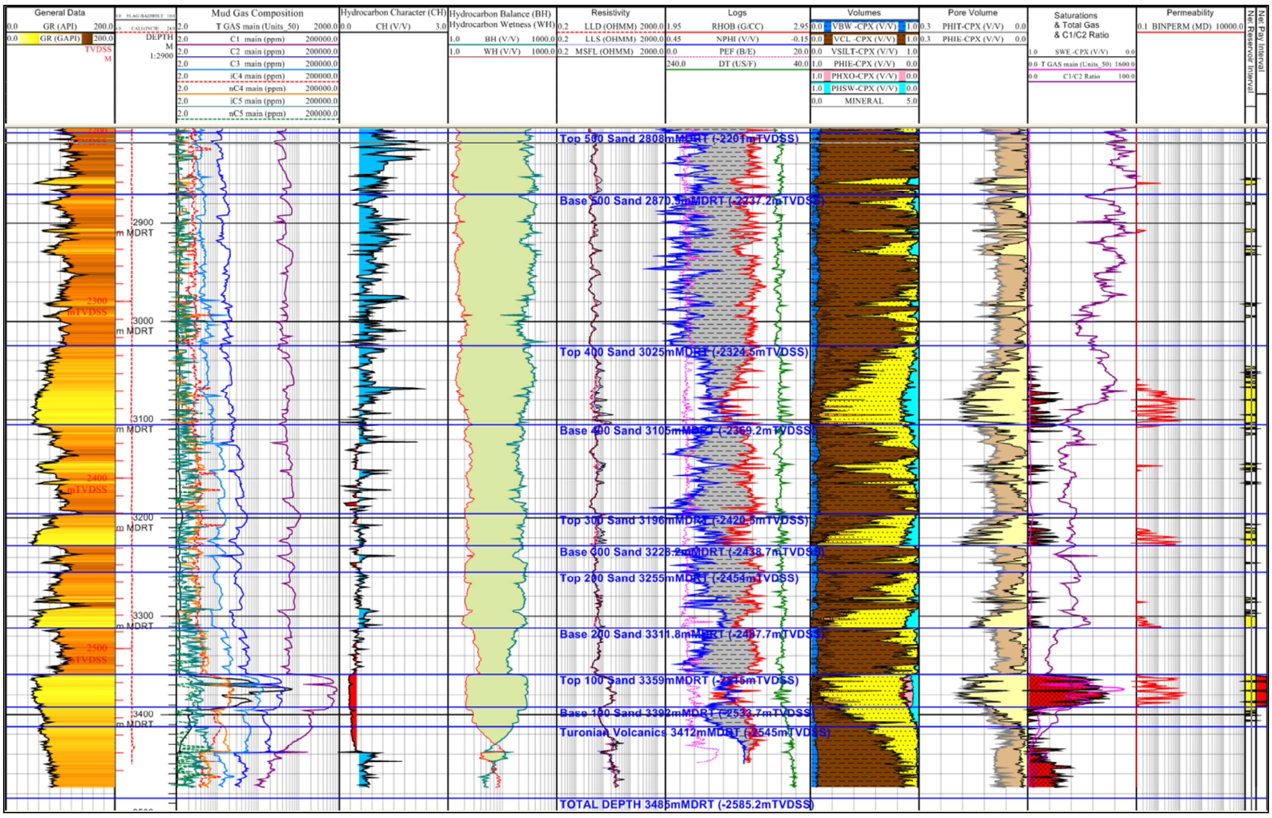

Figure 24: Longtom-3P 'ReservalTM' mud gas ratios (W_h, B_h, C_h and C_1/C_2 Ratio) composite log plot.

Longtom-3 ST1

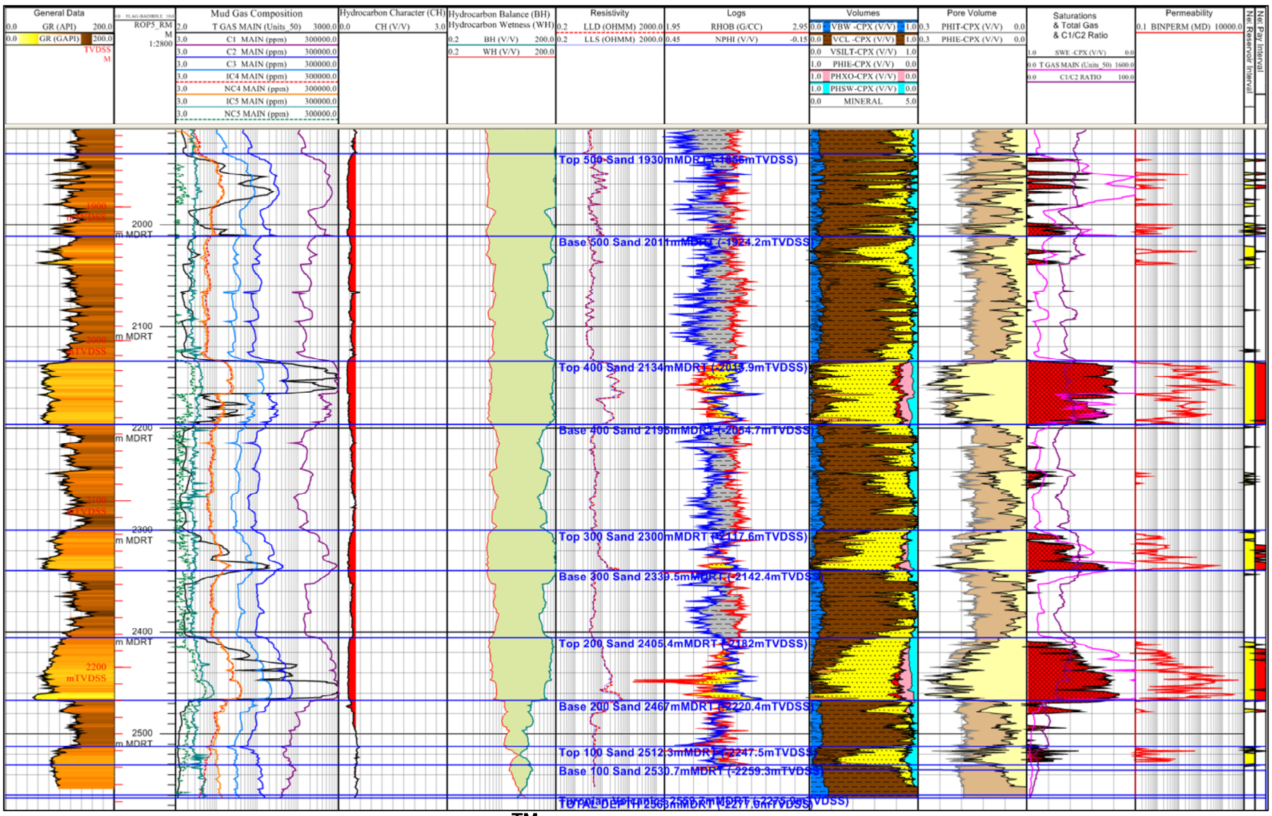

Figure 25: Longtom-3 ST1 'Reserval^{TM}' mud gas ratios (W_h, B_h, C_h and C_1/C_2 Ratio) composite log plot.

Longtom-3H

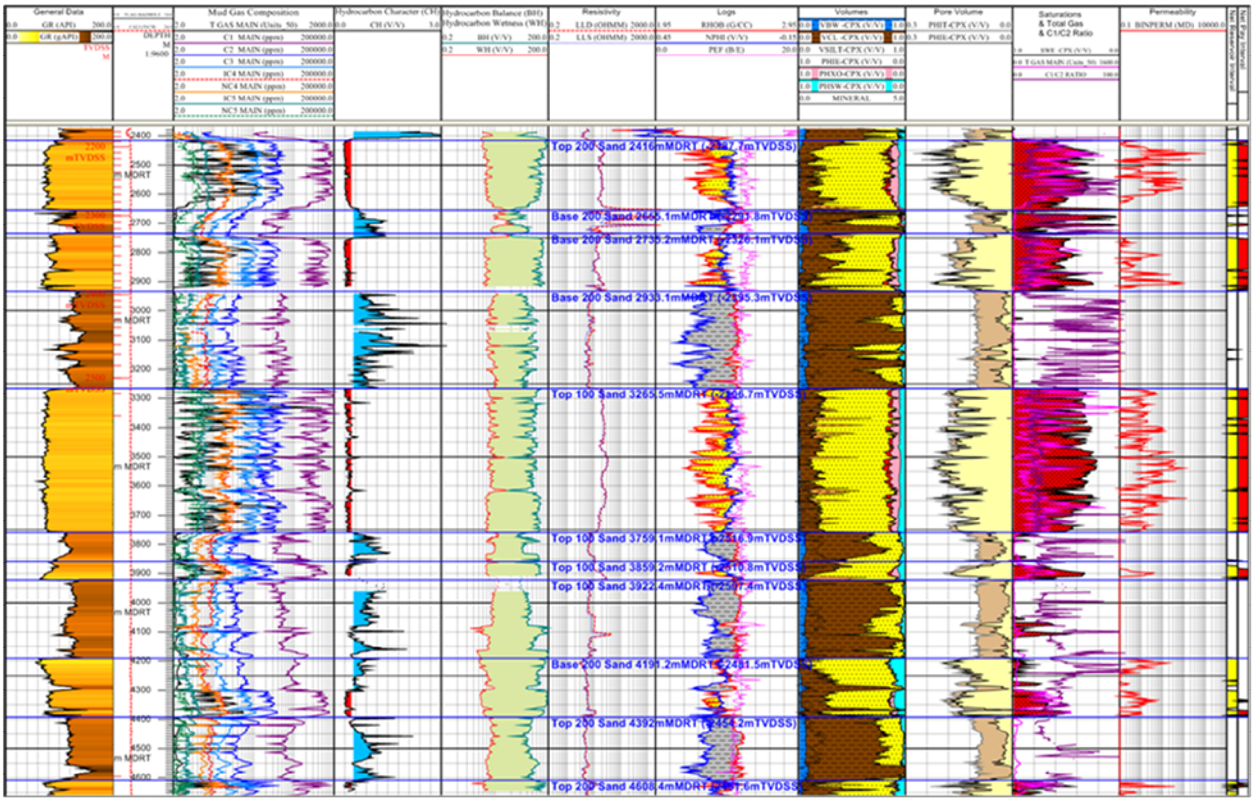

Figure 26: Longtom-3H 'ReservalTM' mud gas ratios (W_h, B_h, C_h and C_1/C_2 Ratio) composite log plot.

Longtom-3 ST1 (Auxiliary Mud Gases Also)

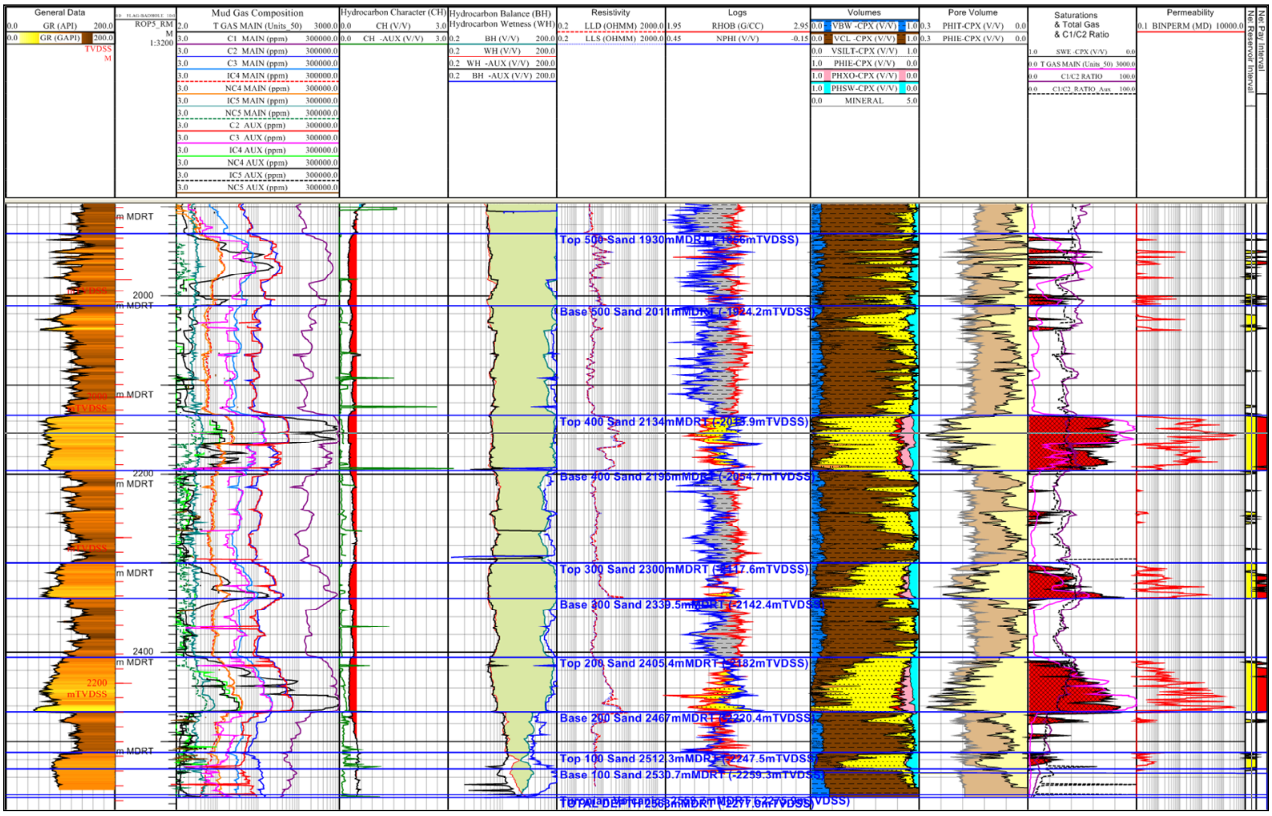

Figure 27: Longtom-3 ST1 'Reserval[TM]' and auxiliary/backup mud gas ratios (Wh W_h, B_h, C_h and C_1/C_2 Ratio) composite log plot.

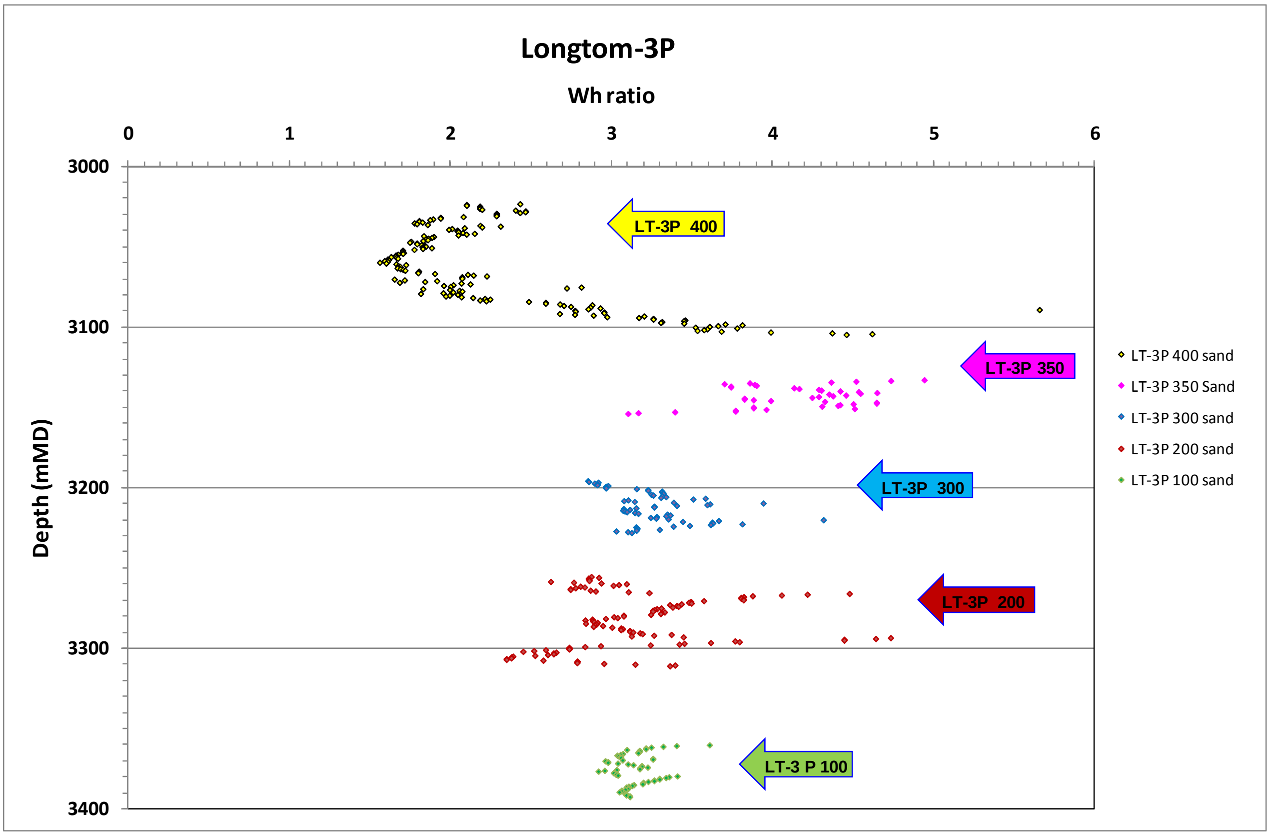

Figure 28: Geoservices 'Reserval™' mud gas wetness per reservoir for Longtom-3P.

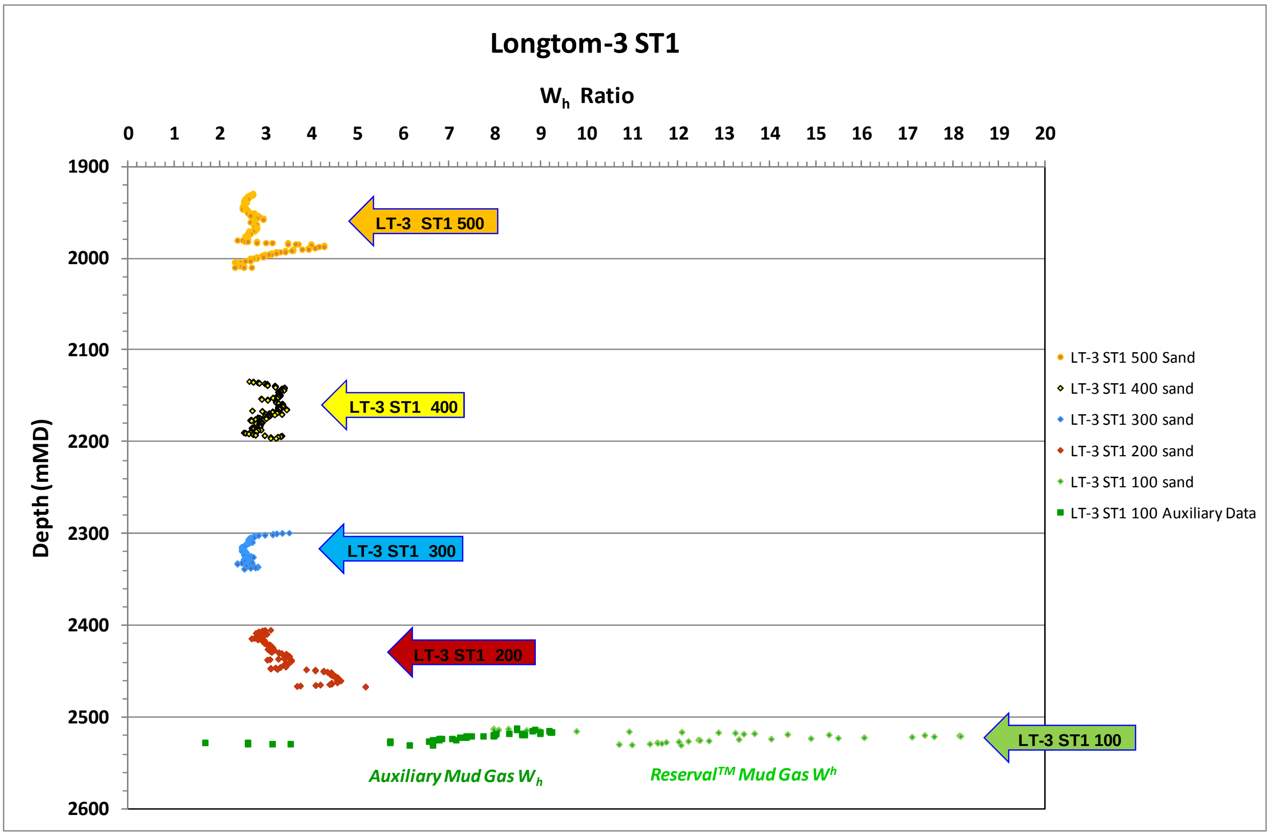

Figure 29: Geoservices 'ReservalTM' mud gas wetness per reservoir for Longtom-3 ST1.

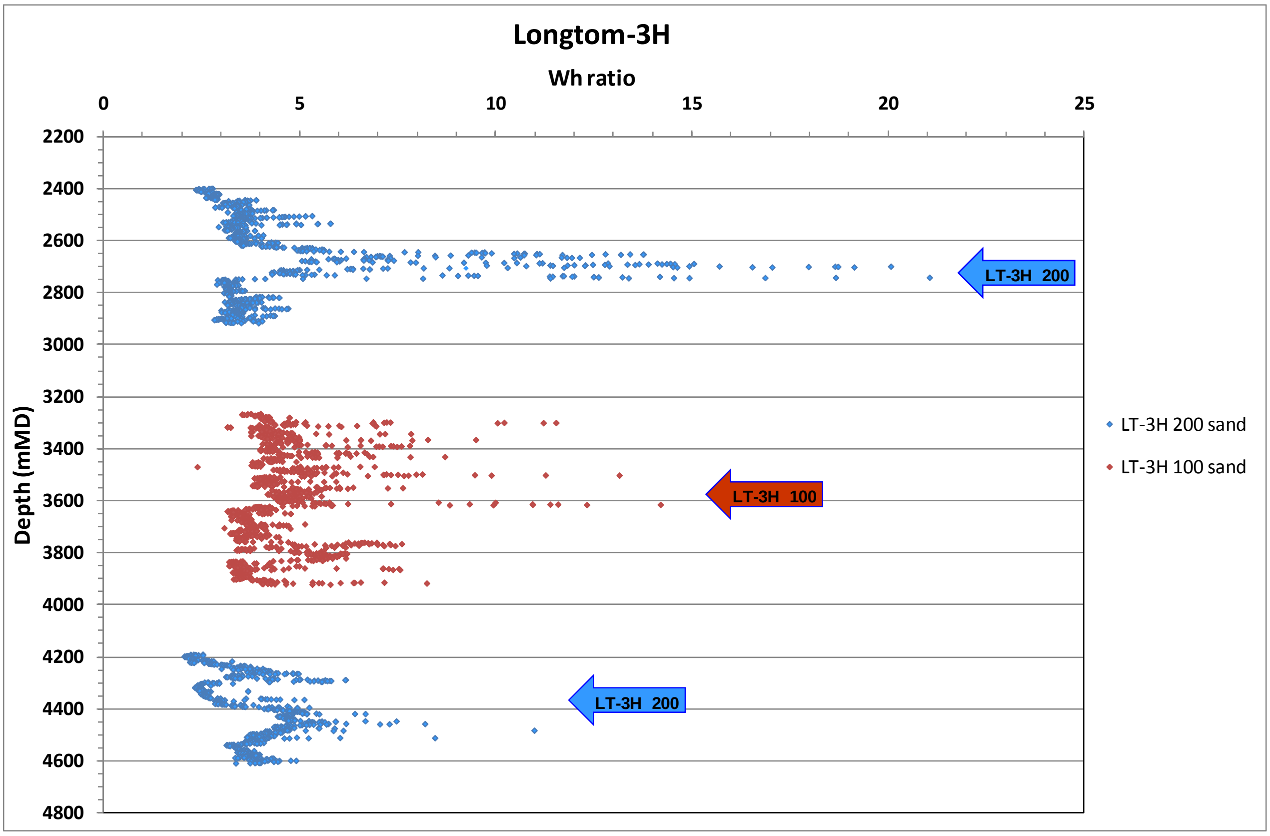

Figure 30: Geoservices 'Reserval™' mud gas wetness per reservoir for Longtom-3H.

This general increase in gas wetness from the 400 Sands to the deeper 300, 200 and 100 Sands, which is most evident in the Longtom-3 ST1 data (Figure 29), which is also the least vertically deviated and structurally highest elevated data. The same trend is evident to a lesser extent by the Longtom-3H data (Figure 30). Wetness values for the 300, 200 and 100 Sands in Longtom-3P are on average generally similar and wetter than the values in the 400 Sand.

There is a slight trend for increased wetness associated with increased V_{clay} content.

The wetness values from the 'Reserval™' mud gas data for the 100 Sands in Longtom-3 ST1 are significantly higher than those occurring in the 100 sands penetrated in Longtom-3P and Longtom-3H, and compared to the general wetness values in the other Longtom reservoir intervals. 'Reserval™' mud gas wetness values are mostly in the range of 1.5 to ~6, with a few outlier values of higher magnitude. The Longtom-3 ST1 100 Sands wetness values are in the range of 8 to 18 (Figure 29), although the auxiliary backup mud gas data wetness values are significantly less though still higher than the wetness values in the other sands.

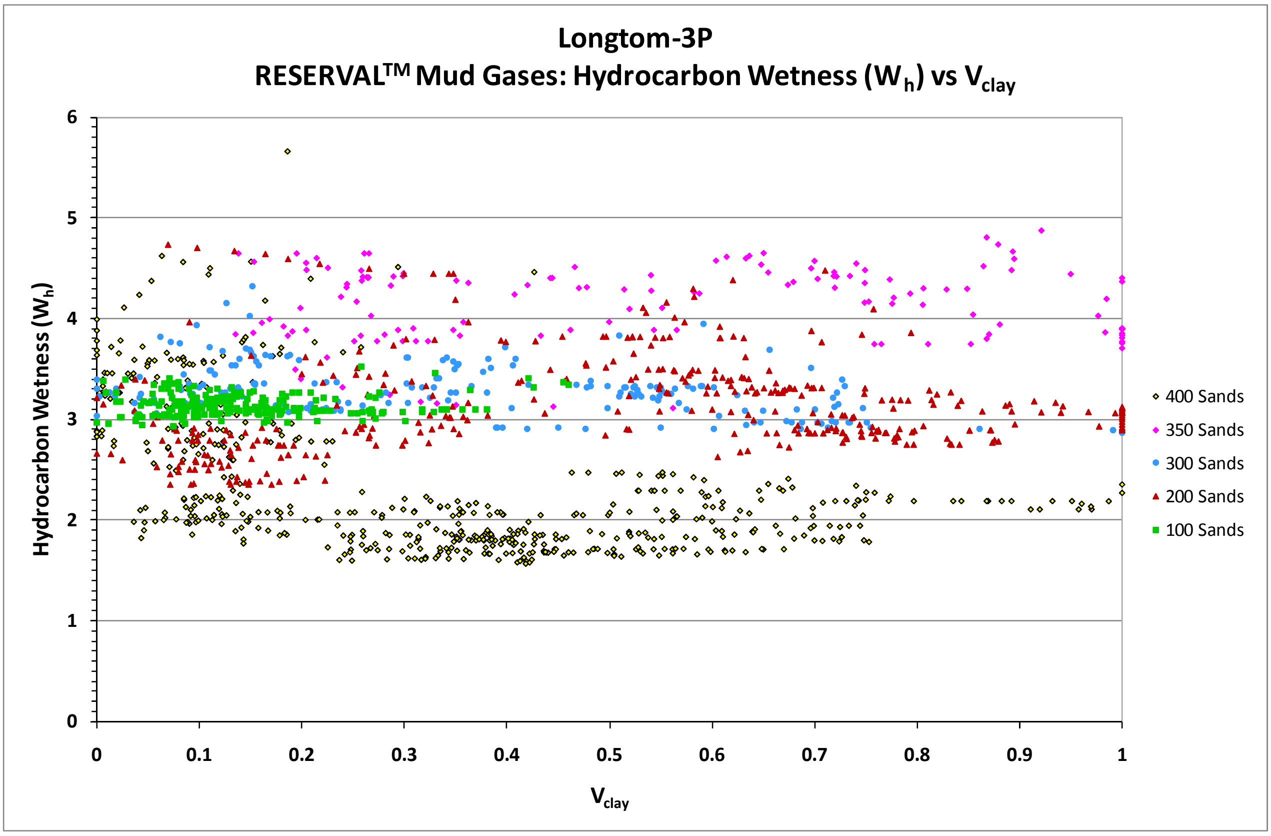

Figure 31: Cross-plot of Geoservices 'Reserval^{TM}' mud gas wetness (W_h) with V_{clay} per reservoir for Longtom-3P

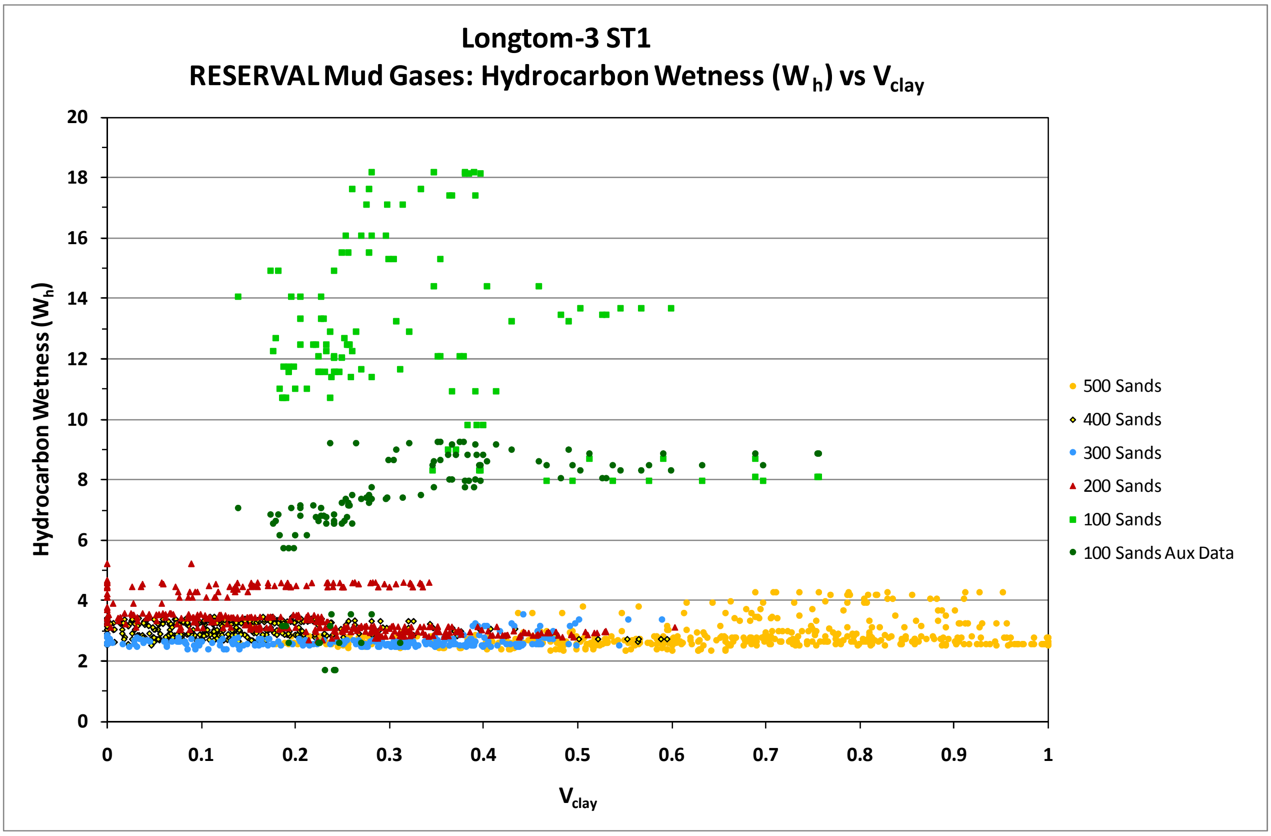

Figure 32: Cross-plot of Geoservices 'Reserval^{TM}' mud gas wetness (W_h) with V_{clay} per reservoir for Longtom-3 ST1 (Auxillary mud gas W_h for 100 sands plotted also).

Increased gas wetness in the deeper reservoirs may be due to gravity segregation processes, although this may be somewhat contentious given the defined increasing overpressure of the Longtom reservoir sands with depth of burial. The increasing gas wetness may also be a manifestation of gas charge history. Initial gas charge into the deeper reservoirs is commonly wetter than later charge that is forced to fill shallower reservoirs.

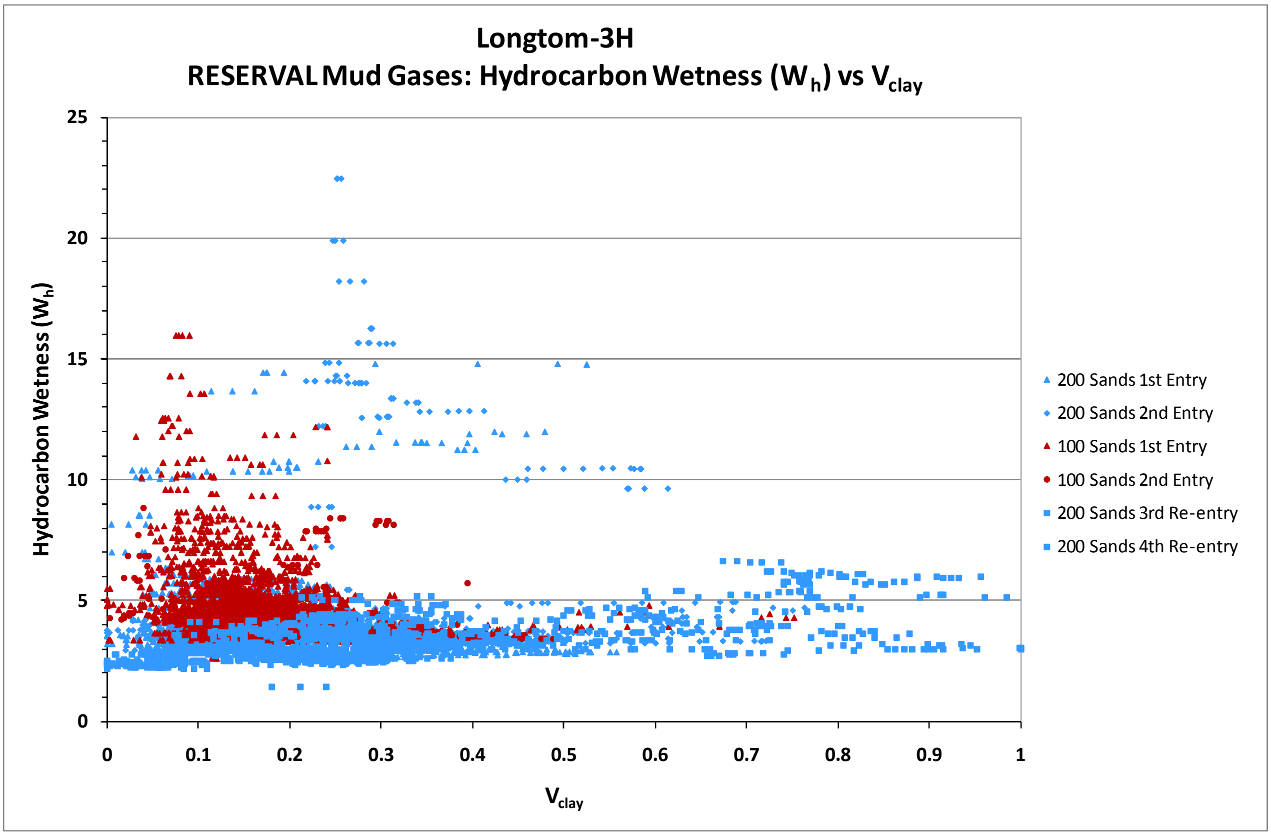

Figure 33: Cross-plot of Geoservices 'Reserval™' mud gas wetness (W_h) with V_{clay} per reservoir for Longtom-3H.

4.2 Gas Geochemistry

A gas sample from Production Test #2 which comingled the 100, 200 and 300 sands in the Longtom-3H well, was sent to Geoscience Australia's laboratory in Canberra for compound specific isotope analysis (CSIA).

Based on hydrocarbon composition and carbon isotopic values the Longtom-3H Production Test #2 gas is interpreted to be generated from a terrigenous (humic/coaly) source facies at high thermal maturity (equivalent vitrinite reflectance of approx. 1.9 – 2.0 %).

Refer APPENDIX 3 for the detailed Longtom-3H PT#2 Gas Geochemistry Report.

5. RESERVOIR PRESSURE AND FLUID CONTACTS

5.1 Fluid Distribution from Well Log Interpretation

An overview of the observed fluid depths from the LWD/wireline logs is given in Table 8.

Table 8: Wireline/LWD Log Fluid Depths

Sand	Contact	Depth mMD	Depth mTVDss	Sand	Contact	Depth mMD	Depth mTVDss
Longtom-1				**Longtom-3**			
500	LKG	1917.5	1892.5	400	HKW	3025	2324.7
Longtom-1st1				300	HKW	3196	2420.4
500	LKG	2180	2056	200	HKW	3280	2468.8
400	LKG	2375	2200	100	LKG	3393	2534.3
Longtom-2				**Longtom-3st1**			
500	LKG	2044.5	2017.2	400	LKG	2197	2055.3
400	LKG	2142	2112.2	300	LKG	2337.5	2141.2
300	LKG	2193	2161.9	200	LKG	2468	2221.1
200	LKG	2243.5	2211	**Longtom-3H**			
100	LKG	2279.5	2246	200	LKG	2933	2395.3
				100	LKG	3553.3	2528.3
				200R	GWC	4307/4632	2465

5.2 Formation Pressure and Fluid Contacts

An overview of the available pressure data per well is as follows:

- Wireline formation pressure data was acquired in Longtom-1
- No wireline formation pressure data was acquired in Longtom-2
- A build-up pressure was recorded from a DST over the combined 200 and 300 sands in Longtom-2
- Wireline formation pressure data was acquired in Longtom-3P and Longtom-3ST1
    - **(Note; the Longtom-3P wire line pressure data submitted with the Basic Data Well completion report had not been depth corrected , and so is 6m off depth. The corrected log is provided in this report as ENCLOSURE 4).**
- No wireline formation pressure data was acquired in Longtom-3H
- Build-up pressures were recorded during the two DSTs conducted in Longtom-3H.

The plot of pressure vs depth (Figure 34) illustrates the multiple gas columns and gas-water contacts in the Admiral Formation reservoirs of the Longtom gas field. The main reservoir sand intervals exist in separate gas systems with associated aquifers that show increasing overpressure with depth.

For clarity, each of the 500, 400, 300, 200 and 100 reservoir intervals is discussed separately, in that order (from top to bottom).

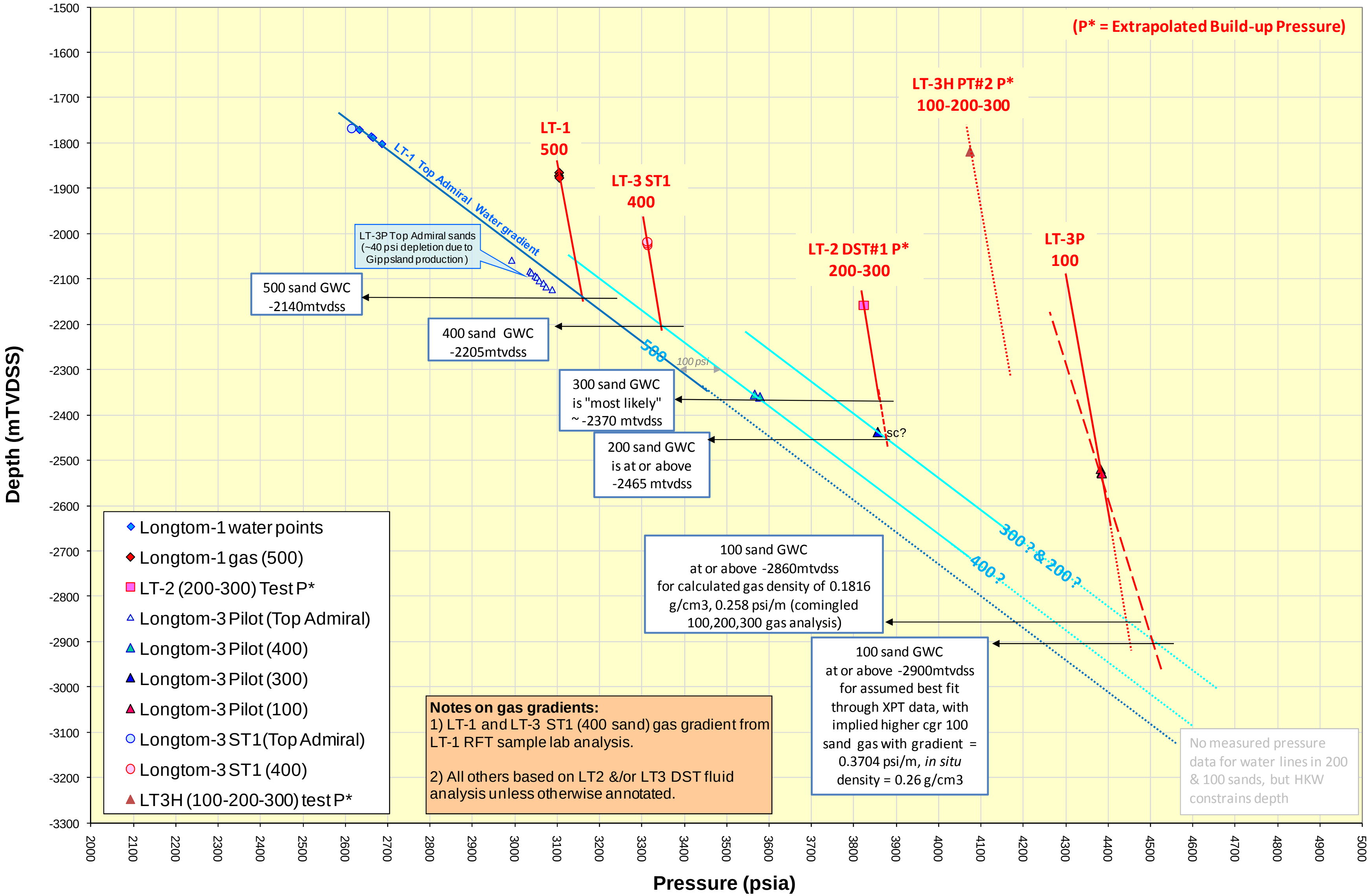

Figure 34: Longtom Gas Field Pressure vs Depth

Top Admiral Formation (Water)

Wire line water pressure measurements are available in this unit from the Longtom-1 and Longtom-3P wells. The measurements suggest that there has been approximately 40 psi depletion in the time between the drilling of the two wells, (approximately eleven years).

This is interpreted to be due to depletion of the greater Gippsland Basin aquifer due to production elsewhere in the basin, suggesting that this sand has some degree of pressure communication with that larger aquifer.

500 Sand (Gas)

The only pressure data from this interval was recorded with an MDT in Longtom-1. Gas pressures were recorded and a sample recovered from the 500 unit. By plotting the gradient of the laboratory derived in situ gas density from the sample and intersecting this with the upper Admiral Formation water gradient, an apparent GWC is seen at approximately 2140 mTVDSS. Alternatively, if the water gradient derived from the Longtom-3P 400 sand pressures is the correct one to use, then the GWC would be 2050 mTVDSS.

400 Sand (Gas and Water)

Pressure data for the 400 sand comes from the Express Pressure Tester (XPT) in Longtom-3P (water) and Longtom-3ST1 (gas) with an implied GWC at the intercept of the gradients at 2205 mTVDSS.

The water points in the 400 sand are approximately 100 psi over pressured with respect to the water pressure in the Top Admiral sands of Longtom-1.

300 Sand (Gas and Water)

The only direct pressure measurement in the 300 sand is a single XPT point in the Longtom-3P at 2433.5 mTVDSS. It is a measurement in the water column.

Petrophysical log analysis indicates that the entire sand is water-wet, so the Highest Known Water (HKW) is 2420 mTVDSS (assuming a porosity cut off of 8%).

An indirect indication of pressure is the extrapolated build-up pressure (P*) in the Longtom-2 DST#1, where the 200 and 300 units were co-mingled.

The Lowest Known Gas (LKG) from Longtom-2 is 2162 mTVDSS.

A water gradient can be drawn through the single water pressure point in Longtom-3P, paralleling the water gradient measured in other Admiral Formation sands.

A gas gradient drawn through the Longtom-2 DST#1 200/300 build-up point intersects this water gradient deeper than the measured water pressure point. Therefore, the DST#1 build-up pressure cannot be used to indicate a reliable gas-water contact for either sand.

Hence the deepest possible GWC in the 300 sand is at the top of the water-bearing sand in Longtom-3P, 2420 mTVDSS.

At present there is no way of knowing what the actual gas pressure and hence GWC are in the 300 sand, other than to set an upper limit at the LKG in Longtom-2 at 2162 mTVDSS and a deepest possible limit as the HKW in Longtom-3P, 2420 mTVDSS.

Assuming that the 300 gas sand pressure is likely to be closer to the measured pressure in Longtom-2 DST#1 and that the GWC is likely to be deeper than the 400 sand GWC (2205 mTVDSS), then a “most likely” GWC is assumed at 2370 mTVDSS.

200 Sand (Gas)

There are no direct formation pressure measurements in the 200 sand unit. The only pressure information is the extrapolated build-up pressure (P*) from Longtom-2 DST#1, where the 200 and 300 units were co-mingled.

From the 300 sand discussion, it is observed that this P* is greater than the highest possible 300 sand pressure, confirming that the 200 and 300 units are not in direct pressure equilibrium (i.e. not having a common gas water contact) although they may still be connected to a common aquifer.

If the 200 and 300 units share a common aquifer, albeit with separate contacts, then the deepest possible contact for the 200 unit would be where the 200 sand gas gradient intersects the 200/300 water gradient, around 2465 mTVDSS. This is in good agreement with two penetrations of the 200 GWC in Longtom-3H (Table 8).

Hence, (it is possible that):

- the 200 and 300 sands share a common aquifer; but that
- they have different GWCs, and that
- the apparent GWC in the 200 unit at 2465 mTVDSS based on the intersection described above is consistent with Longtom-3H log analysis.

100 Sand (Gas)

The pressure in the gas column in the 100 Sand has been directly measured with the XPT in Longtom-3P.

The apparent gas gradient (from three data points) is 0.3704 psi/m, implying a significantly denser fluid than in the shallower sands. While this is apparently supported by the higher Condensate-Gas Ratios (CGRs) observed in Longtom-3H DST#2, the calculated *in-situ* gradient based on laboratory analysis of the produced fluids is not that high, at 0.258 psi/m.

No water has been encountered in the 100 sands. The gas is observed to be down to the top of the volcanic section, so no definitive conclusion can be made for the GWC. However, it seems reasonable to interpret that the GWC is not deeper than the depth at which the calculated 100 sand gas gradient intersects the 300 sand water gradient, at approximately 2860 mTVDSS.

Nevertheless, there is a possibility that the 100 water sand will be further over-pressured with respect to the sands above, in which case the GWC will be shallower. The GWC is not likely to be close to the lowest known gas in the Longtom-3P intersection because the measured gas saturations in the well correspond to expected saturations in the sands >50m above the contact (based on Capillary pressure curves from Longtom-2 cores).

6. LONGTOM-3 PRODUCTION TESTS

Two production tests were undertaken in Longtom-3H (Figure 35). For details of these well tests, refer to the Expro Final Well Test Report – Appendix 11 of the Longtom-3 Basic Well Completion Report Volume.

The tests achieved the following objectives:

- determined gas deliverability of the 400 sand (PT#1)
- determined gas deliverability of a co-mingled 300, 200 and 100 sand grouping with a deviated completion in the 300 sands and horizontal completions through the 200 and 100 sands (PT#2)
- obtained valid pressure-volume-temperature (PVT) and trace element analysis
- found that there was little or no impairment of the near-wellbore reservoir permeability
- confirmed flowing wellhead pressures and temperatures for flow assurance purposes.

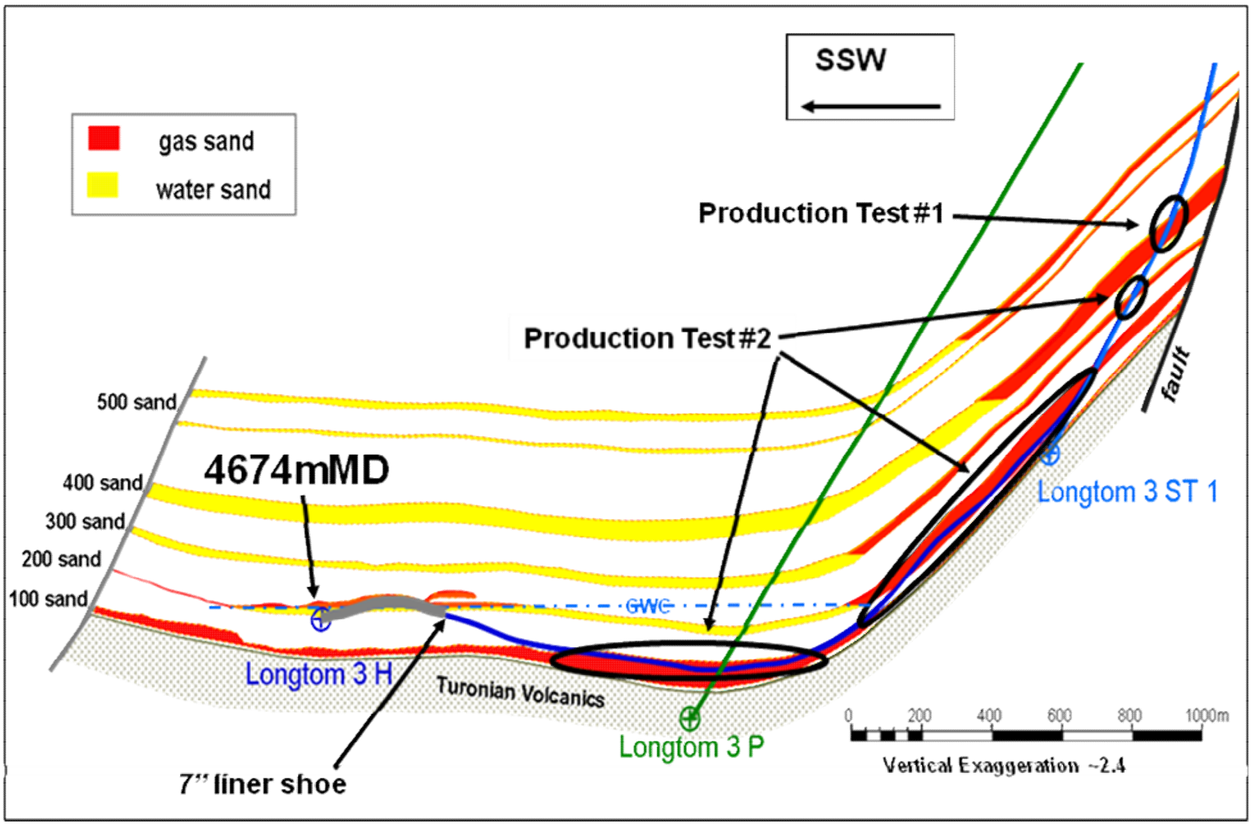

Figure 35: Schematic section showing reservoir sands tested by Longtom-3H Production Tests

6.1 Summary of Results of Longtom-3H Production Test #1 (Upper Group - i.e. 400 Sands)

The completed and tested intervals of the 400 sands were 2135.0 – 2170.0 mMDRT and 2180.0- 2195.0 mMDRT. The interval was completed with wireline guns in an overbalanced hydrostatic condition, using Schlumberger's "PURE" gun system in order to achieve a high degree of instantaneous underbalance at the moment of perforation.

The well cleaned up quickly, allowing a number of separator gas and condensate samples to be taken, wet chemistry for subsequent laboratory analysis, and Drager Tube tests for CO_2, H_2S and Hg. The flow rate data from the main flow period is summarised in Table 9.

Table 9: Production Rate Summary, Longtom-3 PT#1 (400 Sands)

Flow Period	Start Time	Choke (inches)	Average Gas Rate (MMscf/d)	Separator Pressure (psig)	WHP (psig)	Gas Specific Gravity
(combined clean-up and main flow period) 13 Sep 2006	19:40	64/64	23	440	1198	0.65

Drawdown

Analysis of the drawdown data indicates a late time average permeability of approximately 3mD and a negative skin. The negative skin is consistent with the use of underbalanced perforation techniques.

Diagnostic plots of drawdown data do not indicate any boundary effects, which is as expected given the geometric configuration of the completion and the distances to boundaries being much greater than would be detectable in a relatively short DST.

Buildup

The analysis of buildup data is problematic and cannot be reconciled with analysis of the drawdown. It is not clear what the data mean, as they do not fit any sensible analytical model (bounded or otherwise). Most likely, the inability to shut-in the well downhole while still monitoring pressure means that the buildup has been dominated by wellbore phenomena; specifically phase redistribution.

A plot of the buildup data suggests that at limit, the average late time permeability could be as low as ~0.8mD.

While it is clear from logs that there are streaks of higher permeability sand in the well, the pressure build up behaviour indicates that these streaks are probably not continuous away from the well bore and the reservoir behaves more like a homogenous low permeability sand rather than a layered reservoir as might be expected of the 200 sand from DST#1 in Longtom-2.

In summary, an absolute lower limit to permeability from PT#1 analysis is considered to be of the order of ~0.8 mD, while the average is ~ 3mD.

6.2 Summary of Results of Longtom-3H Production Test #2 (Lower Group - i.e. 100, 200 and 300 Sands)

The completed and tested intervals are as follows:

- 100 sand 3266m – 3922m
- 200 sand 2408m – 2933m
- 300 sand 2325m – 2340m

The entire “lower group” completion interval was perforated with Halliburton’s “Vanngun” tubing conveyed perforating system with “Surge Pro vents” designed to achieve a high degree of instantaneous underbalance at the moment of perforation.

The well required an extended clean up and main flow period at high rates for almost twenty hours. The well was flowed through the separator once the synthetic based mud was no longer being produced in significant volume. Subsequently, rates were varied over a period of approximately six more hours, allowing a number of separator gas and condensate samples to be taken, wet chemistry to be performed for subsequent laboratory analysis, and Drager Tube tests for CO_2, H_2S and Hg to be performed. The main flow period data is presented in Table 10 below.

The results of the Drager Tube tests are as follows:

CO_2 1.0%

H_2S less than 0.5 ppm

Hg not detectable (also not detectable with Jerome Hg meter). Analysis of gas captured in Tedlar bags for analysis by Santos’ laboratory in Moomba suggests that there may be very low levels of Hg present.

Average recorded gas specific gravity, was 0.66.

Table 10: Production Rate Summary, Longtom-3H PT#2(100, 200 and 300 sands)

Flow Period	Start Time	Choke (inches)	Average Gas Rate (MMscf/d)	Separator Pressure (psig)	WHP (psig)	Gas Specific Gravity
(combined clean-up and main flow period) 15 Sep 2006	17:00	60/64	59	1040	2947	0.66
(High rate flow period-rates estimated from choke data) 15 Sep 2006	08:30	72/64	77	N/A	2775	0.66

The results of the Drager Tube tests are as follows:

CO_2 1.0%

H_2S less than 0.5 ppm

Hg not detectable (also not detectable with Jerome Hg meter). Analysis of gas captured in Tedlar bags for analysis by Santos' laboratory in Moomba suggests that there may be very low levels of Hg present.

The test was conducted as a co-mingled flow from a number of sands with different reservoir pressures.

Drawdown

The draw down data indicates infinite-acting radial horizontal flow and a permeability to gas of ~17mD.

The diagnostic plot of drawdown data does not show any evidence of boundaries, or, multi-layering of the interval tested.

Buildup

The extrapolated build up pressure of 4075 psi lies in between the pressure of the 100 and 200/300 sands as measured from pressure data in other Longtom wells (Figure 34). This is expected, as cross flow will occur between the higher pressured 100 sands and the lower 200/300 pressured sands. Hence the measured pressure in the well bore during build-up is a function of the average pressures in the sands and their flow capacities.

Measured condensate rates during the test indicate a CGR (stb/MMscf of separator gas) of between 8 and 11. Choosing a value of 9.5stb/MMscf for laboratory analysis, the mathematical recombination of separator gas and liquid gives a CGR of ~17.9 stb/MMscf for the reservoir fluid.

Recombined compositions of the wellstream fluids recovered from the Longtom-3 Production Tests are given in Table 11.

Table 11: Longtom-3 Gas Compositions

	Longtom-3	
	PT#1 400 Sand	PT#2 100,200,300 sands
Component	Mol%	Mol%
Hydrogen	0.00	0.00
Hydrogen Sulfide	0.00	0.00
Carbon Dioxide	0.93	1.30
Nitrogen	0.77	1.28
Methane	92.83	88.62
Ethane	3.49	4.60
Propane	1.10	1.74
Iso-Butane	0.19	0.40
n-Butane	0.22	0.48
iso-Pentane	0.06	0.17
n-Pentane	0.05	0.15
Hexanes	0.08	0.25
Heptanes	0.14	0.34
Octanes	0.05	0.14
Nonanes	0.04	0.11
Decanes	0.01	0.11
Undecanes	0.01	0.10
Dodecanes plus	0.03	0.21
Totals	**100**	**100**
Gravity	**0.614**	**0.676**
GHV (Btu/ft3)	**1071**	**1149**

7. CONCLUSIONS AND CONTRIBUTIONS TO GEOLOGICAL KNOWLEDGE

Data obtained from the pilot hole Longtom-3P, and its sidetrack Longtom-3ST1, proved the interpreted seismic amplitude anomalies present across the field are indicative of gas filled sands. The horizontal well Longtom-3H (the first horizontal gas well in the Gippsland Basin), proved that the sand bodies are laterally extensive.

To uniquely identify and discriminate between each of the Admiral Formation gas bearing intervals, Nexus has informally labelled them from '100' (oldest) to '500' (youngest), based on the section penetrated in the Longtom-2 well.

The stratigraphic sections encountered by the Longtom-3 wells came in predominantly as prognosed (maximum difference was only 5%).

An integrated palynology report (APPENDIX 1) which includes review of data from Longtom-1 and Longtom-2, provides an updated discussion of the palaeoenvironment of deposition of the Admiral Formation

The nature of the boundary between the Turonian? volcanics and the overlying Admiral Formation sediments is not clear. At Longtom-3P, the log character over the transition from interbedded sands, silts and shales to volcaniclastics is gradual indicating a relatively continuous sequence rather than supporting the presence of an unconformity as was interpreted at Longtom-2. Only the top of the volcanics was tagged at TD in Longtom-3 ST1 and the unit was not reached with logging tools, allowing no further interpretation. Unfortunately, the palynological assemblages recovered from associated cuttings for the volcanics interval are interpreted to be substantially, if not entirely, caved from the overlying Admiral Formation, and therefore do not provide a reliable age for the volcanics. In the absence of any contrary evidence the volcanics are tentatively assigned a Turonian age based on the principles of stratigraphic superposition.

The Admiral Formation reservoir sections are comprised of sandstones, siltstones and claystones deposited in a fluvio-lacustrine environment. The sands range in composition from litharenite to feldspathic litharenite.

In Longtom-3P, the 400, 300 and 200 sands are entirely water bearing and the 100 Sand is gas bearing. The well intersected 27m of net gas bearing 100 Sand over a 34m gross column with average porosity of 12.8%, permeability of 1mD, and water saturation of 49%. No gas water contact was observed. Lowest Known Gas in the 100 Sand is 3393m (2534.3mTVDss).

Longtom-3 ST1 encountered a total of 114.4m of net gas bearing 400, 300 and 200 Sands over a 333m gross column with average porosity of 14.6%, permeability of 183mD, and water saturation of 38%. No gas-water contacts were observed

The Longtom-3H well targeted the Admiral Formation 100 and 200 gas sands. The well encountered a total of 811m of net gas bearing 200, 100 and 200R (re-entry) sands over a 2225m gross column with average porosity of 14.3%, permeability of 7mD, and water saturation of 47%.

A 200 Sand gas-water contact was encountered in the 200R interval at 2465mTVDss.

'Reserval^{TM}' mud gas data indicates a general increase in gas wetness from the 400 Sands to the deeper 300, 200 and 100 Sands. This trend is most evident in Longtom-3 ST1.

Based on formation pressure data, there are multiple gas columns and gas-water contacts in the Admiral Formation reservoirs of the Longtom gas field. The main reservoir sand intervals exist in separate gas systems with associated aquifers that show increasing overpressure with depth.

Two production tests were undertaken in Longtom-3H. These tests confirmed the gas deliverability of the 400 sand (PT#1), and the gas deliverability of a co-mingled 300, 200 and 100 sand grouping, with a deviated completion in the 300 sands and horizontal completions through the 200 and 100 sands (PT#2). PT#2 was the first "big flow" gas production test for the Longtom gas field.

Geochemical analysis of the gas from Production Test #2 indicates generation from a terrigenous (humic/coaly) source facies at high thermal maturity.

An economic volume of gas with an initial well deliverability in excess of 80 MMscf/d has been proved up based on assessment of gas reservoir mapping aided by the Fluid Index inverted seismic data, and the results of Longtom-3H and its production tests.

Longtom-3H was completed and suspended as a production well, as planned.

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APPENDIX 1: INTERPRETIVE PALYNOLOGY REPORT

INTERPRETATIVE DATA.
Palynological analysis of cuttings samples from Longtom-3 Pilot, Sidetrack and Horizontal holes, offshore Gippsland Basin.

by

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Summary

Palynological analysis has been conducted on fifty-six samples distributed across three deviated holes in Longtom-3. The principal spore-pollen zones identified in the three separate holes and their relationship to the stratigraphy and geologic time scale are summarised in the following figure:

STAGE	STRATIGRAPHY OF LATROBE GROUP		Longtom-3 Pilot Hole	Longtom-3 Sidetrack Hole	Longtom-3 Horizontal Hole
MAAST-RICHTIAN	HALIBUT SUBGROUP	Volador Formation	Indeterminate 1440 to 1560m	*Forcipites longus* Zone 1510-1540m	NOT SAMPLED
			1563mMD	1545mMD	
CAMPANIAN	GOLDEN BEACH SUBGROUP	Campanian Volcanics	NOT SAMPLED	*Densoisporites velatus* Acme 1540-1550m	
			1583.4mMD	1561mMD	
		Chimaera Formation	CAVED? *Densoisporites velatus* Acme 1590-1600m	Indeterminate 1560-1570m	
			1646.1mMD	1598mMD	
TURONIAN	EMPEROR SUBGROUP	Kipper Shale	upper *Hoegisporis trinalis* Subzone 1670 to 2382m	upper *Hoegisporis trinalis* Subzone 1710 to 1780m	
			2591.1mMD	1830mMD	
		Admiral Formation	lower *Hoegisporis trinalis* Subzone 2766 to 3348m	lower *Hoegisporis trinalis* Subzone 2295 to 2500m	lower *Hoegisporis trinalis* Subzone 3255 to 4640m
			3420mMD	2554mMD	T.D. 4674mMD
TURONIAN or older	Not assigned	Turonian? Volcanics	CAVED? *Hoegisporis trinalis* Subzone 3435 to 3462m	CAVED? *Hoegisporis trinalis* Subzone 2555-2560m	NOT PENETRATED
			T.D. 3485mMD	T.D. 2563mMD	

Figure-1. Summary of stratigraphy and spore-pollen zones identified in the Longtom-3 holes.

The samples are distributed through the lower part of the Latrobe Group, covering in descending order the Volador Formation at the base of the Halibut Subgroup, a thin section of the Golden Beach Subgroup, and a thick section of the oldest part of the Emperor Subgroup. The latter can be divided between the Kipper Shale and Admiral formations and at the bottom of the Pilot and Sidetrack holes is penetrated a section of volcanics which is provisionally interpreted to unconformably underlie the Emperor Subgroup.

Maastrichtian, Campanian and Turonian ages are assigned to the palynological assemblages. The Maastrichtian age assemblages belong to the *Forcipites longus* Zone (probably Upper subzone), and were recovered from the Volador Formation. The Campanian ages assemblages are interpreted to come from sediments interbedded with the Campanian volcanics as they contain a facies microflora which can be characterised by the common occurrence or Acme of the spore *Densoisporites velatus*. These assemblages are most likely equivalent to the *Tricolporites lilliei* Zone but could be as old as the *Nothofagidites senectus* Zone.

The most extensively sampled unit is the Emperor Subgroup and all the recovered assemblages can be assigned to the *Phyllocladidites mawsonii* spore-pollen Zone. This broad zone can be further subdivided in the upper *Hoegisporis trinalis* Subzone and associated *Tricolporites variverrucatus* Range Zone found in the Kipper Shale, and the lower *Hoegisporis trinalis* Subzone and associated *Appendicisporites* Acme found in the Admiral Formation. Non-marine microplankton in low diversity and low abundance are distributed throughout the Emperor Subgroup and these can be assigned to the new *Rimosicysta robustus* Zone of the *Rimosicysta* Superzone.

Assemblages recovered from the unassigned volcanics at the bottom of the Pilot and Sidetrack holes contain no additional palynomorphs to those found in the overlying Admiral Formation, and consequently they are best interpreted as caved. As they do not provide a reliable age, the volcanics are only tentatively assigned to the Turonian based on principals of stratigraphic superposition.

Introduction

Fifty-six cuttings samples have been analysed from the Longtom-3 well drilled by Nexus Energy in permit VIC/P54 in the offshore Gippsland Basin. The samples are spread between three deviated holes which are individually designated as:

- **Longtom-3 P** — for **Pilot** hole with 27 samples between 1440 and 3462mMD,
- **Longtom-3 ST1** — for **Sidetrack** hole with 17 samples between 1510 and 2560mMD,
- **Longtom-3 H** — for **Horizontal** hole with 12 samples between 2405 and 4640mMD.

The interpretative palynological analyses for the individual samples are provided in Tables 1 to 3. These tables list the spore-pollen and microplankton zone assignments, zone Confidence Ratings and provide comments on key species identified. Species diversity and microplankton abundances in the assemblages and the extrapolated palaeoenvironmental interpretation for the individual samples are provided in Tables 4 to 6. Finally, descriptions of the cuttings lithologies, the number of palynological slides prepared, visual organic-yield and palynomorph concentration and preservation on the slides are summarised in Tables 7 to 9.

Overall the residue yields are mostly moderate to high with only four samples very low. However, the concentration of the palynomorphs on the slides is more variable with nearly half of the samples (24) containing either low to very low numbers of palynomorphs. Preservation overall is poor to fair with some samples clearly over-oxidised. Across all samples the diversity of spores and pollen was moderate ranging from 1 to 45 species per sample (average 28+ species), while in contrast the diversity of microplankton was always low ranging from zero to six species (average 2+ species).

Palynological Processing Variability: The majority of samples (53) were processed at the laboratory of Morgan Palaeo Associates and are represented by both kerogen and oxidised slides. The remaining three samples from the bottom of the Pilot hole were processed by Core Laboratories Australia Pty Ltd and are represented only by oxidised slides. For both laboratories the use of oil based drilling mud in the well has necessitated additional steps in the laboratory preparations and this is expressed by an observed bias in the recorded palynological assemblages relative to other wells which penetrate equivalent age stratigraphic successions in the Gippsland Basin.

The observed difference in the assemblages can be expressed as a dearth of very small or delicate palynomorphs, and a compensating increased representation of the more robust and largest palynomorphs. Examples of these differences are tabulated in Figure-2 which compares the number of occurrences (and percentage) of selected species in samples between the three wells drilled on the Longtom field. Only samples from the Emperor Subgroup are considered in the analysis, and all the palynomorphs types listed are known to range throughout that portion of the subgroup penetrated in the three Longtom wells and therefore could normally be expected to be found in all samples.

Selected Palynomorph Categories	**Longtom-1**	**Longtom-2**	**Longtom-2 Sidetrack**	**Longtom-3** (all holes)
Sigmopollis spp. and/or *Leiosphaeridia* spp. — small thin-walled spheres typically <20µm	3/10 30%	14/29 48%	9/11 82%	0/48 zero %
Luxadinium spp. and/or *Subtilisphaera* spp. — thin-walled and small dinocysts <50µm	4/10 40%	18/29 62%	4/11 36%	4/48 8%
Appendicisporites spp. — large and robust spores, typically >50µm	4/10 40%	13/29 45%	2/11 18%	38/48 79%
Balmeisporites spp. — small to medium size megaspores >100µm	1/10 10%	7/29 24%	0/11 zero %	26/48 54%
Sample types:	SWCs only	Cuttings	Cores	Cuttings

Figure-2. Comparison of recoveries of selected palynomorph types from the three Longtom wells.

The small thin-walled algal cysts referred to *Sigmopollis* and *Leiosphaeridia* and the small thin-walled dinocysts referred to *Luxadinium* and *Subtilisphaera* clearly have a higher frequency of occurrence in the Longtom-1 and 2 wells and the Longtom-2 ST hole irrespective of the sample type. In contrast, the larger and more robust miospores of *Appendicisporites* and the megaspores of *Balmeisporites* have a far higher frequency in the cuttings samples from the Longtom-3 holes. These differences in the frequency of occurrence of particular sizes of palynomorphs are interpreted to be the result of the following two processes: (1) the removal of the finer clay from the cuttings either at the well-site or during the laboratory washing to remove the oil-based drilling mud from the cuttings, (2) more severe oxidation applied to the cuttings in Longtom-3.

Recognition that there has been bias introduced by the laboratory processing into the palynological assemblages recovered from Longtom-3 has ramifications for the choice of index species, and their reliable application in the never-ending search for further subdivision of the current palynological zonation. Fortunately, most of the key spore-pollen index species identified from the Emperor Subgroup fall into the medium size range and appear to be equally rare or abundant in all three Longtom wells (eg. *Phyllocladidites mawsonii*, *Hoegisporis trinalis* ms and *Laevigatosporites musa* ms). In contrast, species with a small size range are believed to be under-represented in Longtom-3 assemblages, as is the case with the small angiosperm pollen *Tricolporites variverrucatus* ms, which is unfortunate, as this is a key marker species for the upper *Hoegisporis trinalis* Subzone.

With respect to the associated microplankton it was very obvious during the microscope analysis of Longtom-3 samples that all microplankton were both less abundant and less diverse than recorded in Longtom-1 and 2 from the equivalent age section. Most noticeable were the near total absence of the very small algal cysts referred to either *Sigmopollis* or *Leiosphaeridia* and the rarity and very poor preservation of small thin-walled dinocysts referred mainly to *Luxadinium*. Morgan (2005) in his discussion of equivalent assemblages from Longtom-2 suggests that species of both these categories would have potential for providing further subdivision of the Emperor Subgroup. Results from Longtom-3 have shown this not to be the case unless there is first consistency in sample type, sample quality and laboratory processing. The second noticeable aspect about the microplankton was that the unusual algal cysts originally described by Marshall (1989), that are diagnostic of the *Rimosicysta* Superzone, were very poorly preserved and probably over-oxidised during the laboratory preparation. Diversity and abundance is significantly lower than recorded in Longtom-2 and at least part of this can be attributed to the bias introduced into the Longtom-3 assemblages.

Microscope Procedures: The microscope analysis for Longtom-3 consisted of an initial count of at least 150 palynomorphs per sample to determine the proportion of spores and pollen to all types of organic-walled microplankton, as well as the relative proportions of spores, gymnosperm pollen and angiosperm pollen, within this count. Once these initial proportions were established and separately recorded, the slides were further scanned to record rare species and to also clarify the relative proportions of the principal index species. These secondary counts were added to the overall count, but represent less than 10% of the total count. Adding these extra specimens to the total count is not considered detrimental as the assemblages have a much larger bias introduced by the problems caused by the use of an oil-based drilling mud and the subsequent deviation this has necessitated from the standardised laboratory processing procedures.

Evaluation of Cavings: As all three holes analysed in Longtom-3 were deviated, and as only cuttings were available for analysis, it was thought that down-hole cavings from higher stratigraphic levels would cause a problem and create significant uncertainty in the palynological results. This has not proved to be the case. There is very little down-hole contamination of palynomorphs from the Seaspray Group and the Eocene to Paleocene portion of the Latrobe Group into the Cretaceous age section which was analysed, and little evidence of down-hole leakage of the Maastrichtian and Campanian palynomorphs below the uppermost part of the Emperor Subgroup.

Evaluating the extent of cavings within the Emperor Subgroup where the holes are the most highly deviated is much harder to quantify as the majority of species recorded range throughout the portion of the subgroup that has been penetrated. All that can be said is that there is no obvious situations where species or assemblages can be flagged as caved compared to the species ranges recorded in the Longtom-1 and 2 wells. It is suspected however that some mixing has occurred leading to a general “fuzziness” in the separation of species abundance acmes. The strongest evidence for suspected cavings comes from the bottom two samples in Longtom-3 H and the bottom sample from Longtom-3 ST which are from the basal volcanic unit. As these assemblages show no change in either species composition or abundance of the species compared to the assemblages recovered from the overlying Admiral Formation they most likely entirely caved.

Description of Range Chart

The palynomorphs identified in the samples are documented on the accompanying StrataBugs™ range charts which display the recorded palynomorph species in the cuttings proportional to their measured depths in the three deviated holes, and in terms of their absolute or relative abundance (the latter expressed as a percentage). The various "panels" or columns displayed on the charts are briefly described in order from left to right:

Depth Panel: Provides a scale for charts expressed in metres.

Stratigraphy Panel: The two column provides a summary of the stratigraphic and reservoir units identified in the three holes.

Cuttings Lithologies Panel: In place of the standard graphical lithological panel provided by the StrataBugs™ program, the percentages of "sand", "shale", "coal" and "volcanics" derived from the detailed cuttings descriptions have been prepared as a ".txt" file, and this data is added to charts using the same procedures for adding the Electric Log Panels. There are however some constraints on this procedure as only four curves (ie. lithologies) can be used and the colours available for display are restricted. Notwithstanding these limitations the resultant panels display approximate sand**:**shale ratios in the three holes, which are far more informative than what can be achieved by using the standard graphical procedure. Note also that on these lithological profiles the "shale" category represents the sum of all the fine-grained mudstone, claystone and siltstone lithologies in the cuttings descriptions.

Zone Panels: The Spore-Pollen zones, subzones, and acmes, and the Microplankton superzone and zone columns are derived from data entered into tables in the IGD menu. The picks for the zone boundary are wherever possible the actual samples analysed, but alternatively arbitrary log depths may need to be added between samples so that there is enough room in the columns for the zone names to be printed on the charts.

Samples Panel: This column displays the samples analysed for palynology in the three holes.

Biostratigraphic Panels: The remaining panels display the distribution of the palynomorphs identified in the three holes split into different groups. The first panel on the charts is for the categories of SP (Spore-Pollen) and provides the percentage abundance angiosperm-pollen, gymnosperm-pollen, and spores in the initial count. The next three panels labelled Spores, Gymnosperms and Angiosperms display the percentage abundance in the final counts of the individual species within these three categories. The next panel labelled Neves Effect represents the sum of the counts of all *Dilwynites* species plus *Araucariacites australis* expressed as a percentage of the initial count. The following panel for categories of MP (Microplankton) display percentage abundance in the initial count of selected groups of organic-walled microplankton. The absolute abundance of individual microplankton species are then displayed in panel labelled Microplankton. The final two panels are for all Other Palynomorphs in the assemblages and for Reworked (or RW) Permian, Triassic and Jurassic species recorded in the assemblages. The following codes or abbreviations apply to the individual species occurrences and abundances on the range charts:

Numbers	=	Percentage or Absolute abundances
+	=	Species outside of count
C	=	Caved species
R	=	Reworked species
?	=	Questionable identification of species.

Author citations for most of the recorded spore-pollen species can be sourced from the papers by Dettmann (1963, 1986), Helby *et al.* (1987), and Stover & Partridge (1973) while the author citations for the microplankton species can be sourced from the indexes for dinocysts and other organic-walled microplankton prepared by Fensome *et al.* (1990) and Williams *et al.* (1998). Manuscript species names and combinations are indicated by “sp. nov.” or “comb. nov.” on the range charts and “ms” in the text.

Geological Discussion

Stratigraphic nomenclature used in this report for the Latrobe Group (Figure-1), is after Partridge (1999) and Bernecker & Partridge (2001). The palynological samples from the Longtom-3 Pilot and Sidetrack holes cover equivalent stratigraphic successions, while the samples from the Horizontal hole are all from the Admiral Formation. The overall section sampled in descending stratigraphic order commences with the Volador Formation at base of Halibut Subgroup, which is underlain by a thin volcanic and sandstone section referred to the Golden Beach Subgroup. The latter is unconformably underlain by a substantial thickness of the Emperor Subgroup which can be divided between the Kipper Shale and Admiral Formation. At the bottom on the Pilot and Sidetrack holes are encountered the top of a volcanic section which currently lacks a formal stratigraphic name and assignment. These possible Turonian age volcanics may constitute a new formation at the base of the Emperor Subgroup or may represent a separate unconformity-bound unit between the Emperor Subgroup and older Strzelecki Group.

The Volador Formation was only successfully dated in the Sidetrack hole where the Maastrichtian age *Forcipites longus* Zone was identified. Although the deeper sample has a default Lower *F. longus* Zone assignment comparison with the age assignments in nearby wells suggest that the section more likely belongs to the Upper *F. longus* Zone.

The Golden Beach Subgroup can be divided between a upper Campanian Volcanic unit which is 15 to 20 metresMD[1] thick and a lower sandy section referred to the Chimaera Formation, which is 40 to 60 metresMD thick. Cuttings samples from this subgroup at 1590-1600mMD in the Pilot hole and 1540-1550mMD in the Sidetrack hole gave assemblages characterised by unusual abundances of the spore *Densoisporites velatus*. Both assemblages are interpreted to be derived from sediments interbedded with the volcanics, as the underlying sandstone section referred to the Chimaera Formation is though unlikely to yield palynomorphs. The environment of deposition represented by the spore-dominated assemblages is envisaged as a treeless basalt plain. The section now referred to the Golden Beach Subgroup was not sampled for palynology in either Longtom-1 or 2. Further, in the palynological report on Longtom-1 by Partridge (1995) the interval was mis-identified, with the volcanics now picked from 1523 and 1533m being placed in the overlying undifferentiated Latrobe Group, while the sandstone from 1533 to 1561m was mistakenly referred to as the “Unnamed Volcanics”. The acme of the spore *Densoisporites velatus* is most likely equivalent to the *Tricolporites lilliei* Zone but could be as old as the *Nothofagidites senectus* Zone.

Between ~950 and >3000 metres of Emperor Subgroup section is penetrated in the deviated holes, representing approximately 700 to 1000 metres True Vertical thickness for the subgroup. The entire section falls within the *Hoegisporis trinalis* Subzone of the *Phyllocladidites mawsonii* Zone and therefore the section encountered represents the oldest part of the Emperor Subgroup. The type section of the Kipper Shale in Kipper-1, and the section of Kipper Shale and Curlip Formation in Shark-1 are considered to be younger than the Emperor Subgroup section in all three Longtom wells. Consequent on this observation it is postulated that a minimum of 1600 metres of section has been eroded from the top of the Emperor Subgroup across the Longtom field.

[1] Thickness is expressed in Measured Depth and does not represent the true thickness.

The spore-pollen succession in Longtom-3 can be further subdivided into "upper" and "lower" portions of the *Hoegisporis trinalis* Subzone, which roughly corresponds to the lithological separation into Kipper Shale and Admiral Formation. Within these new subdivisions additional acme zones are postulated, but the practicality of these refinements needs to be further verified by integration with the electric logs. That additional work was not a part of this palynological study.

The non-marine microplankton recovered from the Emperor Subgroup in Longtom-3 all belong to the broad *Rimosicysta* Superzone, with many of the samples more precisely assigned to the *Rimosicysta robustus* Zone. The latter is the oldest zone within the Superzone and it is also recognised in Longtom-1, but not as yet in Longtom-2. The succeeding *Rimosicysta kipperii* Zone is documented from Kipper-1, while the youngest zone so far recognised, the *Rimosicysta cucullata* Zone, is found in the Kipper Shale penetrated in Shark-1.

At the bottom of the Pilot and Sidetrack holes is penetrated a section of weathered basic volcanics. Unfortunately, the palynological assemblages recovered from associated cuttings are interpreted to be substantially, if not entirely, caved from the overlying Admiral Formation and they do not provide a reliable age for the volcanics. In the absence of any contrary evidence the volcanics are tentatively assigned a Turonian age based on the principals of stratigraphic superposition.

Palaeoenvironments

The environments of deposition of the Emperor Subgroup in all three Longtom wells are interpreted in terms of the lacustrine palaeogeographic model of Bernecker & Partridge (2001; p.397) which was described as follows:

> "The Emperor Subgroup was deposited in an internal drainage depocentre, characterised by large deep palaeolakes, or a succession of deep and shallow palaeolakes that occupied most of the Central Deep. The large lakes were presumably filled to spill-point, because the high palaeolatitude at the time (Veevers *et al*. 1991, fig. 6) would have caused a surfeit of precipitation over evaporation (Johnson 1984, p.182). The overflow outlets from the lakes were most likely located towards the east, because the Gippsland Basin contains populations of endemic microplankton described by Marshall (1989) that are not found in equivalent age sediments in the Otway Basin to the west. All formations of the Emperor Subgroup are deposited within a single spore-pollen zone (the *Phyllocladidites mawsonii* Zone), and based on the estimated volume of sediment, the subgroup has the highest sediment accumulation rate in the Latrobe Group. Spore-pollen assemblages within many of the lacustrine shales display a pronounced *Neves effect* (Partridge 1996) which is indicative of distal, deep-water environments, indicating that subsidence was too rapid for the available sediment supply to fill the created accommodation. Deposition of the Emperor Subgroup was ended by uplift at the Longtom Unconformity that developed in response to compressional tectonism during the time interval latest Turonian to Early Santonian."

Using the above model both "deep-water" and "shallow-water" lacustrine facies can be expected to occur within the central part of the Gippsland Basin during deposition of the Emperor Subgroup. Surrounding these palaeolake environments will be a zone of "shoreline" and "deltaic" facies which form a fringing lacustrine coastal plain, and further landward and remote from the lake edge would be "fluvial" and "alluvial fan" facies. The main Palaeolake Kipper, would at its maximum extend rank amongst the top 20 of the modern "large" or "great" lakes of tectonic origin in terms of either surface area or water volume (see Herdendorf, 1982). The largest modern lakes can also be characterised by their own unique flora and fauna, with the number of endemic forms being roughly proportional to the distance of the lakes from the nearest ocean and the length of geological time the modern lakes have been separate from the world's ocean.

The above lengthy preamble discussing the author's preferred model for the palaeoenvironment of deposition of the entire Emperor Subgroup is necessary because there currently exists a severe contradiction in the palynological reports for the three Longtom wells as to the environments of deposition assigned to the palynological samples. In the original Longtom-1 palynological report by Partridge (1995), and in this report, all the palynological samples analysed are interpreted as entirely and exclusively **non-marine**, but characteristic of a wide-range of depositional facies from fluvial, to deltaic, to shoreline and shallow-water lacustrine, and ultimately deep-water lacustrine.

In marked contrast, in the palynological report on Longtom-2 by Morgan (2005) approximately 54% or 20 out of the 37 productive palynological samples from the Emperor Subgroup are assigned to either "**marginal marine**" or "**brackish marine**" environments. The identification of these environments appears to be based solely on the recorded presence of dinoflagellate cysts (dinocysts) and spiny acritarchs (eg. *Micrhystridium* spp.) amongst the organic-walled microplankton, most of which are acknowledged as non-marine types. The reliance placed on such broad criteria is considered to be far too simplistic as there is an extensive literature on both modern and fossil non-marine dinocysts dating back to the early Australian papers by Harland (1971) and Harris (1974), while identical "spiny acritarchs" have been recorded extensively within both the older Otway and Strzelecki groups without either of those units seriously being considered as "substantially" marine (eg. Haskell, 1972).

A more compelling argument against any marine influence on the deposition of the Emperor Subgroup is the **absence** of any of the common marine dinocysts found in the equivalent age stratigraphic succession in the Otway Basin. Based exclusively on terrestrially derived spore-pollen, which have recorded in both the Otway and Gippsland basins, the broad Emperor Subgroup can be **confidently** correlated with the Waarre, Flaxman and basal Belfast Mudstone formations in the Otway Basin. These three formations contain a variety of fossils of undoubted marine origin including shelly macrofossils, agglutinated and calcareous foraminifera, chitinous scolecodonts, in addition to their moderately diverse suites of indisputable cosmopolitan marine dinocysts. However, missing from these same formations are the unusual but distinctive algal cysts belonging to the genera *Rimosicysta*, *Wuroia* and *Limbicysta* which were described from the Kipper Shale by Marshall (1989).

Notwithstanding the significant variety of marine fossils recorded from the equivalent stratigraphic succession in the Otway Basin the environments of deposition there are still not fully open-marine as the marine diversity is much lower in the Upper Cretaceous than recorded from either the Bight Basin further along the Southern Margin, or from the Perth and Carnarvon basins on the Western Margin. Instead, the oldest marine sediments in the Otway Basin, which were deposited when the basin was located at the far eastern end of the Southern Margin rift, are much better characterised as part of a mega-estuarine system similar to the model applied by Haig (2004) to Australian Permian and Early Cretaceous interior seas. The deposition of the equivalent Emperor Subgroup in the then "land-locked" Gippsland Basin was one step further removed from any marine influence and is consequently much better visualised as part of a large palaeolake system. As a modern analogue it could be equated to the Caspian Sea as that lake relates to the Black Sea and the Mediterranean Sea.

Particularly problematic with respect to the author's favoured palaeolake model is the designation of palynological assemblages from Emperor Subgroup by Morgan (2005) as "marginal marine" as this term carries a secondary and misleading connotation. Although "marginal marine" is most often used to refer to a body of marine water that has intermittent connection to the open-ocean the adjective "marginal" also carries the implication that the water depth is probably shallow. As a consequent on this implied meaning the intercalation of closely spaced samples in Longtom-2 assigned respectively to "non-marine" and "marginal marine" environments gives the impression that the entire Emperor Subgroup was deposited in a proximal or shallow-water setting. This however is inconsistent with the thick shaly sections through the Kipper Shale which contain palynological assemblages displaying strong *Neves effects* that imply the depositional environment was distal and potentially deep-water. *Neves effects* can be described as the tendency for certain more buoyant spores or pollen to have greater relative abundance in sediments deposited in more distal marine or lacustrine environments and is based on empirical observation of spore-pollen abundances in modern sedimentary environments.

The latter interpretation is more consistent with the observed distribution of microplankton through the Kipper Shale where they observed to "come and go" in terms of both abundance and diversity. But is inconsistent with the observed distribution of microplankton through thick marine shale sections where there is much more regularity in the abundance and diversity of microplankton. The reason for the difference is that all lacustrine settings are much more unstable or variable than marine environments. The shorelines and water-depths of large lakes fluctuate more frequently and more extremely than the ocean or lesser seas connected to the ocean. Also, both the sediment supply to large lakes and organic productivity within large lakes is much more variable or volatile. Non-marine microplankton will therefore display irregular variability through thick lacustrine shales and many samples may not even contain any microplankton even though the sediments may have been deposited in a deep water environment. Such is the case with palynological samples from the Kipper Shale which display strong *Neves effects* but lack any associated microplankton. These sample are herein still interpreted as distal and deep-water. In contrast, equivalent samples in Longtom-2 are incorrectly interpreted by Morgan (2005) as terrestrial and shallow-water.

Biostratigraphy

In Longtom-3 the samples analysed are classified according to the standard spore-pollen zonation schemes of Stover & Partridge (1973) and Helby *et al.* (1987), which have been updated for the Gippsland Basin by Partridge (1999). The most recently published summary of these zonation schemes is to be found in the contribution by Partridge & Dettmann (2003) to the latest 2003 edition of the *Geology of Victoria*. The current correlation of the palynological zones to the latest International Geologic Time Scale can be found on the charts prepared by Partridge (2006) and distributed by Geoscience Australia.

***Forcipites longus* spore-pollen Zone**
Longtom-3 ST1 hole cuttings between 1510 and 1540 metresMD
Age: Late Maastrichtian

The two shallowest samples analysed from the Sidetrack hole can be confidently assigned to the *F. longus* Zone. In contrast, the three shallowest and stratigraphically equivalent samples from the Pilot hole between 1440 and 1560mMD gave very low yields which contained indeterminate and mostly caved assemblages. The shallower sample at 1510-20mMD in the Sidetrack hole can be confidently assigned to the Upper *F. longus* subzone based on the occurrence of *Proteacidites* (*Propylipollis*) *crotonoides* and *Camarozonosporites horrendus* ms which range no younger than this subzone, and the spore *Tripunctisporis maastrichtiensis* which ranges no older than this subzone. The deeper sample at 1530-40mMD contains more index species and is no older than the Lower *F. longus* subzone based on the joint occurrence of the eponymous species *Forcipites longus*, associated with *Grapnelispora evansii*, *Quadraplanus brossus* and *Tetracolporites verrucosus* all of which do not range any older than this subzone. Based on the zone definitions this deeper assemblage defaults to the Lower subzone, but based on age dating of nearby wells it more likely belongs to the younger Subzone.

Both assemblages are dominated by spores (average 67% of spore-pollen count) with secondary gymnosperm pollen (21%) and only minor angiosperm pollen (12%). *Proteacidites* are much less common than usual in this zone at only 7% of count. The spore *Stereisporites antiquasporites* is however conspicuous in the deeper sample at 16% of the count. *In situ* microplankton are rare and represented only be the non-marine forms *Amosopollis cruciformis* and *Circulisporites parvus* which have no zone significance.

***Densoisporites velatus* spore Acme Facies Assemblage**
Longtom-3 P hole cuttings at 1590 to 1600mMD, and
Longtom-3 ST1 hole cuttings at 1540 to 1550mMD
Age: Campanian

The two samples containing mixed lithologies from within and immediately below the volcanic section at the top of the Golden Beach Subgroup gave assemblages with conspicuous abundances of the spore *Densoisporites velatus*. In the Pilot hole this spore represents 17% of the spore-pollen count, and is the second most abundant species in the count after large *Cyathidites* spores at ~20% (most of the latter belonging to *Cyathidites splendens*). In the Sidetrack hole *Densoisporites velatus* is 6% with large *Cyathidites* spores again abundant at 22%.

Comparable abundances of *Densoisporites velatus* have previously been recorded in Kipper-2 from the SWCs at 2235.6m and 2242.1m from the sedimentary section lying between the two Campanian volcanic intervals in that well. However, the abundance of the spore species is lower ranging from 2.7 to 5% of the spore-pollen count. Although these various occurrences may not be exactly time-equivalent, there does appear to be an association between volcanics and elevated abundances of *Densoisporites velatus*.

The remainder of the species from the assemblages in both the Pilot and Sidetrack holes are not particularly diagnostic. The sample at 1590-1600mMD, in the Pilot hole may not be older than the *Tricolporites lilliei* Zone based on the presence of the eponymous species, but this and all the other species in both samples could easily be caved from the overlying *Forcipites longus* Zone intervals. In contrast, notably absence from both samples are the elevated numbers seen in Kipper-2 of *Nothofagidites senectus* (average 7% of SP count) and *Forcipites sabulosus* (average 2%), which are diagnostic of the *N. senectus* Zone. In the author's opinion the samples in Longtom-3 are likely to be slightly younger that the two assemblages in Kipper-2

Related to the uncertainty around the precise age of the *Densoisporites velatus* Acme is the 40 to 60 metres thick (Measured Depth) sand section underlying the volcanics which is referred to the Chimaera Formation. The samples from this sand at 1620-30mMD in the Pilot hole and at 1560-70mMD in the Sidetrack hole contain what are interpreted as mixed assemblages of caved and reworked palynomorphs. Both samples were initially assigned to the *Phyllocladidites mawsonii* Zone in the Provisional Reports, based on the rare occurrence of species diagnostic of that older zone. However, once the samples were placed in their proper geological context a more reasonable interpretation is that the older marker species are probably reworked.

***Phyllocladidites mawsonii* spore-pollen Zone, and**
***Hoegisporis trinalis* spore-pollen Subzone**
Longtom-3 P hole cuttings between 1670 and 3408mMD,
Longtom-3 ST1 hole cuttings between 1600 and 2500mMD, and
Longtom-3 H hole cuttings between 2405 and 4640mMD
Age: Early to mid Turonian

The remaining cuttings samples analysed all belong to the broad *P. mawsonii* Zone and its oldest subdivision the *Hoegisporis trinalis* Subzone, which was first recognised and established in the Otway Basin (Partridge, 1999, 2001).

The assemblages are about equally dominated by spores and gymnosperm pollen while angiosperm pollen are consistently rare. The assemblages are no older than the *P. mawsonii* Zone based on the presence of the eponymous species in 48% of the samples, together with *Dilwynites* spp. and *Gleicheniidites circinidites* in 98% of the samples. The alternative index species *Clavifera triplex* was not recorded, but its absence is considered typical of the zone in the Gippsland Basin.

The identification of the *H. trinalis* Subzone is based on the occurrence of the eponymous species *Hoegisporis trinalis* ms and *Appendicisporites distocarinatus* in 86 % of the samples, together with *Verrucosisporites admirabilis* ms in 82% of the samples, and *Laevigatosporites musa* ms in 45% of the samples. Supporting index species which are less common in the samples include *Coptospora pileolus* ms (41% of samples), *Senectotetradites fistulosus* and *S. varireticulatus* (39% of samples), *Cyatheacidites tectifera* (34% of samples) and *Crybelosporites brennerii* (30% of samples).

Informal “upper” and “lower” subdivisions of the *H. trinalis* Subzone are identified in the three holes based on the higher abundances of *Hoegisporis trinalis* in the “lower” and greater frequencies of *Laevigatosporites musa* in the “upper” subdivision. Within the “lower” subdivision is the *Appendicisporites* Acme at approximately the “200 Sand” level in all three holes, which is characterised by spikes in the abundance of the spore *Appendicisporites distocarinatus* of up to 26%. At the base of the “upper” division in the Pilot and Sidetrack holes the *Tricolporites variverrucatus* Range Zone is identified by the total range of the eponymous species. This latter zone is also identified in Longtom-1 between 1615 and 1778m based on the range charts prepared by Partridge (1995), but the key species was not recorded in Longtom-2 by Morgan (2005). The reliability of these informal subdivisions for correlation across the Longtom field clearly requires further testing.

***Rimosicysta* microplankton Superzone, and**
***Rimosicysta robustus* microplankton Zone**
Longtom-3 P hole cuttings between 1670 and 3348mMD (and probably caved to 3462),
Longtom-3 ST1 hole cuttings between 1640 and 2390mMD, and
Longtom-3 H hole cuttings at 2725 to 2730mMD
Age: Early to mid Turonian

The low diversity microplankton assemblages recorded from the Emperor Subgroup all belong to the broad *Rimosicysta* Superzone which is based on the suite of algal cysts described from the Kipper Shale by Marshall (1989). In the latest review of the palynological zones in the Gippsland Basin, as summarised on the chart prepared by Partridge (2006), only two zones were recognised within the Superzone. These were the *Rimosicysta kipperii* Zone which is typical of microplankton assemblages from the type section of the Kipper Shale in Kipper-1, and the younger *Rimosicysta cucullata* Zone which is typical of the Kipper Shale in Shark-1 and Sunfish-1.

The *Rimosicysta robustus* Zone recognised in this report is an additional zone which is older than either of the other two zones. The zone is defined as the interval from the oldest occurrence of all *Rimosicysta* species to the youngest occurrence of *R. robustus*. The latter species has previously been recorded in Longtom-1 and Judith-1 but has not been found in Kipper-1. It has similarly not been recorded from Longtom-2, but is suspected to be present, albeit misidentified.

Overall the diversity and abundance of microplankton recorded in Longtom-3 is somewhat lower than recorded in either Longtom-1 or 2, and the reason for this probably due to problems associated with cleaning the oil based drilling mud off the cuttings and harsher oxidation of the samples.

Probable Caved Assemblages
Longtom-3 P hole cuttings between 3435 and 3462mMD, and
Longtom-3 ST hole cuttings at 2555 to 2560mMD

The bottom two cuttings samples in the Pilot hole and the bottom sample in the Sidetrack hole are from the interval identified on the cuttings descriptions as weathered volcanics. Although the yields from and palynomorph concentrations in these samples varies from low to high there is nothing new in the assemblage that has not also been recorded in the immediately overlying Admiral Formation. This allows two possible interpretations, either (1) the age of the volcanics interval based on palynology cannot be distinguished from the age of the Admiral Formation, or (2) the assemblages recorded are mostly if not entirely caved from the Admiral Formation and thus do not allow the true age of the volcanic interval to be determined. The author's opinion is that the latter is more likely, and consequently all that can be said about the volcanic interval is that it is Turonian or older.

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Table 1. Interpretative Palynological Data for Longtom-3 Pilot Hole

No.	Sample Type	Depth Top mMD	Depth Base mMD	Depth Top mTVD	Depth Base mTVD	Spore-Pollen Zone or Subzone	Spore-Pollen Acme Zones	CR	Microplankton Superzone or Zone	CR	Key Species and Comments
1	Cuttings	1440	1450	1407	1416	Indeterminate			Indeterminate		Very low yield — mainly caved dinocysts & drilling mud contaminants.
2	Cuttings	1500	1510	1460	1469	Effectively BARREN			Effectively BARREN		Very low yield — no diagnostic palynomorphs.
3	Cuttings	1550	1560	1501	1508	Indeterminate			Indeterminate		Very low yield — only long ranging and caved palynomorphs.
4	Cuttings	1590	1600	1530	1536	Probable T. lilliei Zone	Densoisporites velatus Acme Zone	D3			Spore Densoisporites velatus (17%) diagnostic of sediments interbedded with volcanics.
5	Cuttings	1620	1630	1549	1555	REWORKED P. mawsonii Zone		D5	Indeterminate		LADs of spores Laevigatosporites musa and Appendicisporites distocarinatus in REWOKED assemblage.
6	Cuttings	1670	1680	1577	1582	upper H. trinalis Subzone		D2	Rimosicysta Superzone	D4	LAD of Hoegisporis trinalis (<1%) with spore L. musa (>1%)
7	Cuttings	1730	1740	1609	1614	undiff. P. mawsonii Zone		D4			Assemblage lacks index species diagnostic of subzones.
8	Cuttings	1800	1810	1646	1651	upper H. trinalis Subzone		D2			Assemblage with common Triporoletes reticulatus (8%)
9	Cuttings	1930	1940	1716	1721	upper H. trinalis Subzone	T. variverrucatus Range Zone	D1	Rimosicysta robustus Zone	D3	LAD of Rimosicysta robustus with pollen Tricolporites variverrucatus.
10	Cuttings	2000	2010	1756	1762	upper H. trinalis Subzone	T. variverrucatus Range Zone	D1	Rimosicysta robustus Zone	D3	Good assemblage with Laevigatosporites musa frequent (>1%).
11	Cuttings	2140	2150	1831	1836	upper H. trinalis Subzone	T. variverrucatus Range Zone	D1	Rimosicysta Superzone	D4	Spore Cicatricosisporites hughesii common at 17%.
12	Cuttings	2240	2250	1881	1886	undiff. P. mawsonii Zone		D4	Rimosicysta robustus Zone	D3	Laevigatosporites musa (>1%) and Cicatricosisporites hughesii
13	Cuttings	2380	2382	1959	1960	upper H. trinalis Subzone	T. variverrucatus Range Zone	D1	Rimosicysta Superzone	D4	FAD of index species Tricolporites variverrucatus.
14	Cuttings	2460	2466	2005	2008	H. trinalis Subzone		D3	Rimosicysta Superzone	D4	FAD of spore Cicatricosisporites hughesii.
15	Cuttings	2574	2580	2070	2073	lower H. trinalis Subzone		D2	Rimosicysta robustus Zone	D3	FAD Rimosicysta robustus with frequent Hoegisporis trinalis (3%)
16	Cuttings	2694	2700	2137	2141	undiff. P. mawsonii Zone		D4			Very low concentration of palynomorphs — few index species.
17	Cuttings	2766	2772	2177	2181	lower H. trinalis Subzone		D2	Rimosicysta robustus Zone	D3	Frequent Hoegisporis trinalis (4%)
18	Cuttings	2874	2880	2239	2243	H. trinalis Subzone		D3	Rimosicysta Superzone	D4	Poor assemblage with few index species.
19	Cuttings	2940	2946	2278	2281	lower H. trinalis Subzone		D2	Rimosicysta Superzone	D4	Hoegisporis trinalis rather rare (~1%)
20	Cuttings	3006	3012	2314	2318	lower H. trinalis Subzone		D1	Rimosicysta Superzone	D4	Frequent Hoegisporis trinalis (3%)
21	Cuttings	3174	3180	2408	2411	H. trinalis Subzone		D3			Frequent Cyatheacidites tectifera (4%)
22	Cuttings	3264	3270	2459	2463	lower H. trinalis Subzone	Appendicisporites Acme Zone	D1			Frequent Hoegisporis trinalis (3%) in association with youngest Appendicisporites tricornatus.
23	Cuttings	3342	3348	2505	2509	lower H. trinalis Subzone		D2	Rimosicysta robustus Zone	D3	FAD of Hoegisporis trinalis
24	Cuttings†	3390	3396	2533	2536	H. trinalis Subzone		D3			Very low yield assemblage which is interpreted as CAVED.
25	Cuttings	3402	3408	2539	2543	H. trinalis Subzone		D3			Very low yield assemblage which is interpreted as CAVED.
26	Cuttings†	3435	3438	2558	2560	Caved H. trinalis Subzone		D5	Rimosicysta Superzone	D5	Rich assemblage but probably CAVED.
27	Cuttings†	3459	3462	2471	2573	Caved H. trinalis Subzone		D5	Rimosicysta Superzone	D5	FAD of Hoegisporis trinalis in probable CAVED assemblage

† Cuttings processed by Core Labs Australia Pty Ltd

LAD = Last Appearance Datum
FAD = First Appearance Datum

Table 2. Interpretative Palynological Data for Longtom-3 Sidetrack Hole

No.	Sample Type	Depth Top mMD	Depth Base mMD	Depth Top mTVD	Depth Base mTVD	Spore-Pollen Zone or Subzone	Spore-Pollen Acme Zones	CR	Microplankton Superzone or Zone	CR	Key Species and Comments
1	Cuttings	1510	1520	1480	1489	Upper F. longus Zone		D1			LADs of Camarozonosporites apiculata and C. horrendus, associated with FAD of Tripunctisporis maastrichtiensis
2	Cuttings	1530	1540	1499	1508	Lower F. longus Zone		D2			FADs of Forcipites longus and Tetracolporites verrucosus, but lack of younger index species defaults to Lower subzone.
3	Cuttings	1540	1550	1508	1518	Indeterminate	Densoisporites velatus Acme Zone	D4			Common Densoisporites velatus (6%) diagnostic of sediments interbedded with volcanics.
4	Cuttings	1560	1570	1527	1536	Indeterminate					Low yielding mixed CAVED and REWORKED assemblage containing LAD of Coptospora pileolus
5	Cuttings	1600	1610	1563	1572	undiff. P. mawsonii Zone		D5			LAD of Appendicisporites distocarinatus in low yielding assemblage with significant caved component
6	Cuttings	1640	1650	1599	1608	undiff. H. trinalis Subzone		D2	Rimosicysta Superzone	D4	LADs of Hoegisporis trinalis and Rimosicysta kipperii
7	Cuttings	1710	1720	1660	1669	upper H. trinalis Subzone	T. variverrucatus Range Zone	D1	Rimosicysta robustus Zone	D3	LADs of Tricolporites variverrucatus and Rimosicysta robustus.
8	Cuttings	1770	1780	1713	1722	upper H. trinalis Subzone	T. variverrucatus Range Zone	D1	Rimosicysta Superzone	D4	FAD of pollen Tricolporites variverrucatus sp. nov.
9	Cuttings	1820	1830	1758	1767	undiff. H. trinalis Subzone		D2	Rimosicysta robustus Zone	D3	Multiple specimens of Rimosicysta robustus sp. nov.
10	Cuttings	1835	1840	1771	1776	undiff. H. trinalis Subzone		D2	Rimosicysta robustus Zone	D3	Multiple specimens of Rimosicysta robustus sp. nov.
11	Cuttings	1920	1930	1847	1856	undiff. H. trinalis Subzone		D2	Rimosicysta Superzone	D4	Assemblage dominated by Dilwynites pollen >35% of SP count.
12	Cuttings	2120	2130	2004	2011	undiff. H. trinalis Subzone		D2	Rimosicysta Superzone	D4	Rare occurrence of fresh-water colonial algae Pediastrum sp.
13	Cuttings	2235	2240	2078	2081	undiff. H. trinalis Subzone		D2	Rimosicysta Superzone	D4	FAD of spore Cicatricosisporites hughesii with rare to frequent Hoegisporis trinalis (<3%).
14	Cuttings	2295	2300	2115	2118	lower H. trinalis Subzone		D2	Rimosicysta Superzone	D4	Frequent Hoegisporis trinalis (>3%) with FAD of Phyllocladidites mawsonii in Sidetrack hole
15	Cuttings	2385	2390	2170	2173	lower H. trinalis Subzone	Appendicisporites Acme Zone	D1	Rimosicysta robustus Zone	D3	FAD of algal cyst Rimosicysta robustus associated with abundant Appendicisporites distocarinatus (26%)
16	Cuttings	2495	2500	2237	2240	lower H. trinalis Subzone	Appendicisporites Acme Zone	D1			Common Hoegisporis trinalis (6%) and abundant Appendicisporites distocarinatus (10%).
17	Cuttings	2555	2560	2273	2276	undiff. H. trinalis Subzone		D2			FAD of index species Hoegisporis trinalis sp. nov. in Sidetrack hole

Table 3. Interpretative Palynological Data for Longtom-3 Horizontal Hole

No.	Sample Type	Depth Top mMD	Depth Base mMD	Depth Top mTVD	Depth Base mTVD	Spore-Pollen Zone or Subzone	Spore-Pollen Acme Zones	CR	Microplankton Superzone or Zone	CR	Key Species and Comments
1	Cuttings	2405	2410	2182	2184	undiff. P. mawsonii Zone		D5			Very low yield with <30 palynomorph specimens recorded, but including diagnostic angiosperm Senectotetradites fistulosus.
2	Cuttings	2725	2730	2322	2324	undiff. H. trinalis Subzone		D3	Rimosicysta robustus Zone	D3	Low concentration of palynomorphs on slides, but including rare Hoegisporis trinalis and Rimosicysta robustus.
3	Cuttings	2945	2950	2401	2403	undiff. H. trinalis Subzone		D3			Low concentration of palynomorphs on slides, but including rare Hoegisporis trinalis (<1%) and Phyllocladidites mawsonii.
4	Cuttings	3075	3080	2457	2459	undiff. H. trinalis Subzone		D3			Moderate concentration of palynomorphs with rare Hoegisporis trinalis (<1%) and frequent Amosopollis cruciformis (3%)
5	Cuttings	3255	3260	2505	2506	lower H. trinalis Subzone		D3			Palynomorph concentration low on slides, but Hoegisporis trinalis is frequent at ~4%.
6	Cuttings	3825	3830	2513	2513	undiff. H. trinalis Subzone		D3			Very low concentration of palynomorphs on slides with rare Hoegisporis trinalis (<1%).
7	Cuttings	3945	3950	2506	2506	undiff. H. trinalis Subzone		D3			Moderate to low concentration of palynomorphs on slides with rar Hoegisporis trinalis (<1%).
8	Cuttings	4155	4160	2488	2487	undiff. P. mawsonii Zone		D4			Low concentration of palynomorphs on slides with spore Cyatheacidites tectifera most significant index species recorded.
9	Cuttings	4290	4295	2467	2467	lower H. trinalis Subzone	Appendicisporites Acme Zone	D1			Abundant Appendicisporites distocarinatus (23%) with frequent Hoegisporis trinalis (2%) and rare Laevigatosporites musa (<1%)
10	Cuttings	4450	4460	2449	2449	lower H. trinalis Subzone	Appendicisporites Acme Zone	D1			Common Appendicisporites distocarinatus at 6% favours "lower" subdivision even in absence of Hoegisporis trinalis.
11	Cuttings	4575	4580	2457	2458	undiff. H. trinalis Subzone		D3			Moderate concentration of palynomorphs with only rare Hoegisporis trinalis (<1%).
12	Cuttings	4635	4640	2465	2465	lower H. trinalis Subzone	Appendicisporites Acme Zone	D1			Common Appendicisporites distocarinatus (13%) associated with frequent Hoegisporis trinalis (2%).

CONFIDENCE RATINGS (CR)

Alpha Code Linked to Sampl
A = Core
B = Sidewall core
C = Coal cuttings
D = Ditch cuttings
J = Junk basket

Numeric Code Linked to Palynomorph Assemblag
1 = Excellent confidence: High diversity assemblage plus key zone species.
2 = Good confidence: Moderately diverse assemblage plus key zone species.
3 = Fair confidence: Low diversity assemblage plus key zone species.
4 = Poor confidence: Moderate to high diversity minus key zone species.
5 = Very low confidence: Low diversity assemblage minus key zone species.

Table 4. Species and Palaeoenvironmental Data for Longtom-3 Pilot Hole.

No.	Sample Type	Depth Top mMD	Depth Base mMD	No. SP Species	No. MP Species	Total MP%	NonM MP%	NonM CP%	Colonial AC%	Neves Effect	Environment from Palynology	Comments on Palaeoenvironmental Interpretation
1	Cuttings	1440	1450	7+ (1+)	(4+)	(50%)				9%	Indeterminate	Marine dinocyst all caved, interpreted as non-marine.
2	Cuttings	1500	1510	(1+)	NR						Indeterminate	BARREN sample interpreted as non-marine
3	Cuttings	1550	1560	8+	(2+)	(24%)				8%	Non-marine	Marine dinocyst all caved, interpreted as non-marine.
4	Cuttings	1590	1600	32+	(1+)	(<1%)				<3%	Non-marine	Unusual spore assemblage suggest treeless basalt plain.
5	Cuttings	1620	1630	30+ (3+)	1+ (1+)	1.3%			<1%	3%	Deltaic to Lacustrine	Low abundance/diversity of non-marine algal cysts.
6	Cuttings	1670	1680	32+	3+	4%	1%		3%	5%	Deltaic to Lacustrine	Low abundance/diversity of non-marine algal cysts.
7	Cuttings	1730	1740	30+	1+	2%		2%		2%	Deltaic to Lacustrine	Microplankton restricted to Circulosporites parvus
8	Cuttings	1800	1810	38+ (1+)	1+	8%			8%	23%	Distal Lacustrine	Moderate Neves effect with deltaic or proximal algal types.
9	Cuttings	1930	1940	35+	4+ (1+)	12%	2%		10%	22%	Distal Lacustrine	Moderate Neves effect with deltaic or proximal algal types.
10	Cuttings	2000	2010	35+ (1+)	4+	10%	4%		6%	18%	Distal Lacustrine	Moderate Neves effect with deltaic or proximal algal types.
11	Cuttings	2140	2150	32+ (1+)	2+	3%		<2%	<2%	9%	Proximal Lacustrine	Low abundance/diversity of non-marine algal cysts.
12	Cuttings	2240	2250	23+ (2+)	3+	<2%	<1%	<1%		2%	Proximal Lacustrine	Low abundance/diversity of non-marine algal cysts.
13	Cuttings	2380	2385	38+	5+	11%	3%	3%	5%	36%	Distal Lacustrine	Moderate Neves effect with deltaic or proximal algal types.
14	Cuttings	2460	2466	33+	4+	5%	1%	1%	3%	11%	Proximal Lacustrine	Low abundance/diversity of non-marine algal cysts.
15	Cuttings	2574	2580	29+	3+	3%	2%	1%		18%	Distal Lacustrine	Moderate Neves effect with deltaic and proximal algal types.
16	Cuttings	2694	2700	19+ (1+)	1+	1%	1%			11%	Deltaic to Lacustrine	Negligible abundance/diversity of non-marine algal cysts.
17	Cuttings	2766	2772	31+ (1+)	5+	3%	1%		2%	36%	Distal Lacustrine	Strong Neves effect associate with low diversity microplankton.
18	Cuttings	2874	2880	35+ (5+)	4+	1%	<1%	<1%		15%	Deltaic to Lacustrine	Low abundance/diversity of non-marine algal cysts.
19	Cuttings	2940	2946	33+ (4+)	3+	1%	0.5%	0.5%		27%	Deltaic to Lacustrine	Moderate Neves effect with deltaic or proximal algal types.
20	Cuttings	3006	3012	35+ (1+)	4+	2%	0.5%	0.5%	1%	21%	Deltaic to Lacustrine	Moderate Neves effect with deltaic or proximal algal types.
21	Cuttings	3174	3180	24+	NR					11%	Non-marine	No microplankton recorded.
22	Cuttings	3264	3270	33+	3+	5%	1%	1%	3%	15%	Deltaic to Lacustrine	Weak Neves effect with deltaic or proximal algal types.
23	Cuttings	3342	3348	32+ (2+)	4+	4%	2%		2%	27%	Deltaic to Lacustrine	Strong Neves effect associate with low diversity microplankton.
24	Cuttings†	3390	3396	22+	2+	3%	1%		2%	40%	Distal Lacustrine	Assemblage skewed by low count — interpreted as caved.
25	Cuttings	3402	3408	12+	NR					42%	Distal Lacustrine	Assemblage skewed by low count — interpreted as caved.
26	Cuttings†	3435	3438	29+ (1+)	5+	5%	2%	0.5%	<3%	26%	Middle Lacustrine	Caved assemblage — probably non-marine.
27	Cuttings†	3459	3462	15+	3+	11%	11%			46%	Indeterminate	Assemblage skewed by low count — interpreted as caved.
			Averages:	**27.7**	**2.7**							

† Cuttings processed by Core Labs Australia Pty Ltd

For explanation of this Table and Abbreviations refer to Tables 5 and 6

Table 5. Species and Palaeoenvironmental Data for Longtom-3 Sidetrack Hole.

No.	Sample Type	Depth Top mMD	Depth Base mMD	No. SP Species†	No. MP Species†	Total MP%	NonM MP%	NonM CP%	Colonial AC%	Neves Effect	Environment from Palynology	Comments on Palaeoenvironmental Interpretation
1	Cuttings	1510	1520	27+ (1+)	1+	0.6%		0.6%		2%	Non-marine	Microplankton found in fluvial-deltaic environments
2	Cuttings	1530	1540	27+	1+	1%			1%		Non-marine	Microplankton found in fluvial-deltaic environments
3	Cuttings	1540	1550	27+ (1+)	NR					6%	Non-marine	Unusual spore assemblage suggest treeless basalt plain.
4	Cuttings	1560	1570	16+ (5+)	1+	1.5%			1.5%	6%	Non-marine	Microplankton found in fluvial-deltaic environments
5	Cuttings	1600	1610	12+ (7+)	NR					3%	Indeterminate	Mixed CAVED and REWORKED assemblage
6	Cuttings	1640	1650	32+ (2+)	3+	3%	1.5%		1.5%	6%	Proximal Lacustrine	Moderate diversity lacustrine microplankton.
7	Cuttings	1710	1720	38+ (2+)	4+	4%	2%	1%	1%	24%	Distal Lacustrine	Strong Neves effect with moderate diversity microplankton.
8	Cuttings	1770	1780	31+	3+	4%	1%	1%	2%	17%	Proximal Lacustrine	Moderate Neves effect with low diversity microplankton.
9	Cuttings	1820	1830	37+	5+	7%	5%	2%		22%	Distal Lacustrine	Strong Neves effect with moderate diversity microplankton.
10	Cuttings	1835	1840	38+	4+	5%	4%		1%	17%	Deltaic to Lacustrine	Moderate Neves effect with moderate diversity microplankton.
11	Cuttings	1920	1930	32+ (2+)	4+	4%	1%	2%	1%	41%	Distal Lacustrine	Strong Neves effect with moderate diversity microplankton.
12	Cuttings	2120	2130	43+ (2+)	6+	4%	3%		1%	20%	Distal Lacustrine	Strong Neves effect with moderate diversity microplankton.
13	Cuttings	2235	2240	37+ (4+)	4+	2%	0.6%	0.6%	0.6%	10%	Deltaic to Lacustrine	Coastal plain to proximal lacustrine
14	Cuttings	2295	2300	36+	2+	1%	1%			25%	Deltaic to Lacustrine	Strong Neves effect associate with low diversity microplankton.
15	Cuttings	2385	2390	31+	2+	2%	1%	1%		14%	Deltaic to Lacustrine	Coastal plain to proximal lacustrine
16	Cuttings	2495	2500	38+	2+	2.5%		2%	0.5%	20%	Deltaic to Lacustrine	Moderate Neves effect with low diversity microplankton.
17	Cuttings	2555	2560	39+	1+	2%			2%	30%	Deltaic to Lacustrine	Strong Neves effect but very low diversity microplankton.
		Averages:		**33.4**	**2.5**							

† Numbers shown in brackets in SP and MP Species columns refer to reworked or caved species

Table 6. Species and Palaeoenvironmental Data for Longtom-3 Horizontal Hole.

No.	Sample Type	Depth Top	Depth Base	No. SP Species	No. MP Species	Total MP%	NonM MP%	NonM CP%	Colonial AC%	Neves Effect	Environment from Palynology	Comments on Palaeoenvironmental Interpretation
1	Cuttings	2405	2410	13+	NR					23%	Deltaic to Lacustrine	Strong Neves effect but lacking microplankton.
2	Cuttings	2725	2730	26+ (2+)	2+	0.7%	0.7%			11%	Deltaic to Lacustrine	Low Neves effect with low diversity microplankton.
3	Cuttings	2945	2950	30+	NR					6%	Non-marine Deltaic	No Neves effect and no microplankton.
4	Cuttings	3075	3080	25+ (1+)	1+	3%			3%	32%	Distal(?) Lacustrine	Strong Neves effect associate with low diversity microplankton.
5	Cuttings	3255	3260	20+	2+	1.2%		0.6%	0.6%	13%	Deltaic to Lacustrine	Low Neves effect with low diversity microplankton.
6	Cuttings	3825	3830	22+ (3+)	NR					12%	Non-marine Deltaic	No Neves effect and no microplankton.
7	Cuttings	3945	3950	24+ (4+)	NR					9%	Non-marine Deltaic	No Neves effect and no microplankton.
8	Cuttings	4155	4160	28+ (5+)	NR					4%	Non-marine Deltaic	No Neves effect and no microplankton.
9	Cuttings	4290	4295	29+	1+					6%	Non-marine Deltaic	Rare microplankton interpreted as caved
10	Cuttings	4450	4460	32+ (2+)	2+	1.2%	0.6%		1.2%	7%	Deltaic to Lacustrine	Low microplankton diversity
11	Cuttings	4575	4580	24+	3+	4%	0.6%	0.6%	2.5%	13%	Deltaic to Lacustrine	Low Neves effect with low diversity microplankton.
12	Cuttings	4635	4640	28+ (1+)	1+	0.6%			0.6%	14%	Deltaic to Lacustrine	Low Neves effect with low diversity microplankton
			Averages:	**26.4**	**1.0**							

ABBREVIATIONS

SP = All terrestrial Spores and Pollen

MP = All organic-walled microplankton

Total MP% = Abundance of ALL microplankton as percentage of SP + MP count.

NonM MP% = Non-marine MP as percentage of SP + MP count.

NonM CP% = Non-marine algae Circulosporites parvus as percentage of SP + MP count.

Colonial AC% = Abundance of colonial algae Amosopollis cruciformis as percentage of SP + MP count.

Neves Effect = Abundance of all pollen of Araucariacites and Dilwynites as percentage of SP count.

Table 7. Basic Sample and Assemblage Data for Longtom-3 Pilot Hole.

No.	Sample Type	Depth Top mMD	Depth Base mMD	Lithology (from cuttings descriptions)	K Slide	Ox Slides	Visual Yield	Palynomorph Concentration	Palynomorph Preservation
1	Cuttings	1440	1450	70% CLAYSTONE dark grey, carbonaceous; 30% SANDSTONE doninantly fine, rare yellow-stained grains.	½	1	Low	Very Low	Poor
2	Cuttings	1500	1510	80% SILTY CLAYSTONE med-dk brownish grey, carbonaceous; 18% SANDSTONE fine to coarse; 2% COAL	½	1	Very Low	Barren	N/A
3	Cuttings	1550	1560	70% Silty CLAYSTONE brownish-grey, carbonaceous flecks; 30% Argillaceous SANDSTONE off-white.	½	½	Very Low	Very Low	Poor
4	Cuttings	1590	1600	50% VOLCANIC off-white to pale green, weathered; 30% SANDSTONE med to v. crs; 20% SILTY CLAYSTONE brownish	1	3	High	Low	Poor
5	Cuttings	1620	1630	45% SANDSTONE med to crs, rare carb.lam; 45% Silty CLAYSTONE white to bown-grey, carb; 10% Weathered volcanics.	1	3	High	Low	Poor-fair
6	Cuttings	1670	1680	95% CLAYSTONE white to brownish-grey, carbonaceous laminae & specks, silty in part; 5% SANDSTONE med to v. crs	1	3	High	Moderate	Poor
7	Cuttings	1730	1740	95% Silty CLAYSTONE dom lt grey to white, rare yellow-brownish grey, carb flecks; 5% SANDSTONE white to lt grey, med to dom	1	3	High	Moderate	Fair
8	Cuttings	1800	1810	95% Silty CLAYSTONE med-dk grey, rare brownish-grey, common carb flecks; 5% SANDSTONE white to lt grey, med to dom coarse.	1	3	High	High	Poor-fair
9	Cuttings	1930	1940	100% Silty CLAYSTONE dk grey, homogeneous.	1	3	High	High	Poor-fair
10	Cuttings	2000	2010	100% CLAYSTONE dk grey, firm, blocky, grading to Silty	1	3	High	High	Poor (over oxid.)
11	Cuttings	2140	2150	98% CLAYSTONE brownish to olive grey, blocky, sticky, massive uniform; 2% COAL	1	3	High	High	Poor (over oxid.)
12	Cuttings	2240	2250	85% CLAYSTONE brownish-grey, solft, massive, uniform; 15% SANDSTONE lt olive grey, v.fine grained.	1	3	High	Moderate	Poor
13	Cuttings	2380	2382	100% CLAYSTONE to Silty Claystone: light to brownish grey; solft to firm, blocky, common carbonaceous flecks.	1	3	High	High	Poor
14	Cuttings	2460	2466	100% CLAYSTONE lt grey to brownish grey, common carbonaceous flecks & laminae, fine sand laminae.	1	3	High	Low	Poor
15	Cuttings	2574	2580	95% SILTSTONE lt-dk grey, homogeneous; 5% SANDSTONE white to lt grey, med-coarse.	1	3	High	Very Low	Poor
16	Cuttings	2694	2700	90% SILTSTONE dk brownish grey, common carbonaceous; 10% SANDSTONE clear-translucent, fine to med.	1	3	High	Very Low	Very Poor

Table 7. Basic Sample and Assemblage Data for Longtom-3 Pilot Hole.

No.	Sample Type	Depth Top mMD	Depth Base mMD	Lithology (from cuttings descriptions)	K Slide	Ox Slides	Visual Yield	Palynomorph Concentration	Palynomorph Preservation
17	Cuttings	2766	2772	100% SILTSTONE dk brown-grey, homogeneous	½	3	High	High	Poor (over oxid.)
18	Cuttings	2874	2880	80% SILTSTONE brownish to blk grey, common carbonaceous; 20% SANDSTONE clear-translucent, fine to med, dom loose.	1	3	High	Moderate	Poor
19	Cuttings	2940	2946	50% CLAYSTONE lt-dk olive grey, firm; 45% SILTSTONE dk-grey, carb flecks; 5% SANDSTONE lt grey, fine to med, dom loose.	1	3	High	High	Very Poor
20	Cuttings	3006	3012	70% SILTSTONE lt-dk grey, common carbonaceous; 30% CLAYSTONE lt-grey, massive, blocky.	1	3	High	Moderate	Poor (over oxid.)
21	Cuttings	3174	3180	100% SILTSTONE dk brown-grey, homogeneous, argillaceous, common carbonaceous flecks.	1	3	High	Moderate	Poor
22	Cuttings	3264	3270	75% CLAYSTONE med-dk brown-grey, splintery; 20% SILTSTONE brown-grey, carb flecks; 5% SANDSTONE v.fine to fine.	1	3	High	Moderate	Very Poor
23	Cuttings	3342	3348	70% CLAYSTONE brownish-grey, homogeneous; 30% SILTSTONE brownish-grey.	1	3	High	High	Poor
24	Cuttings	3390	3396	80% LITHIC SANDSTONE, orange/brn to pale green; 10% CLAYSTONE lt green to off-white; 10% SILTSTONE brown-grey,		2	Low	Very Low	Poor
25	Cuttings	3402	3408	70% SANDSTONE cream to orange-brown, argillaceous; 30% CLAYSTONE pale green to reddish brown.	½	½	Low	Very Low	Poor
26	Cuttings	3435	3438	40-100% VOLCANICS, mottled green to blk-brn, partly weathered; <35% LITHIC SANDSTONE, pale green, f. to med; <10% CLAYSTONE, off-white to green to dark-brn, rare silicified.		3	Moderate	Low	Poor
27	Cuttings	3459	3462	90% VOLCANICS, green-grey to dark brown, weathered to hard clay; 10% VOLCANIC SAND, clear quartz to black pyroxene, moderately well sorted, angular to rounded.		1	Very Low	Very Low	Poor
				Total Slides:	**24**	**64**			

Table 8. Basic Sample and Assemblage Data for Longtom-3 Sidetrack Hole.

No.	Sample Type	Depth Top mMD	Depth Base mMD	Lithology (from cuttings descriptions)	K Slide	Ox Slides	Visual Yield	Palynomorph Concentration	Palynomorph Preservation
1	Cuttings	1510	1520	58% SANDSTONE med-crs, off-white, common coaly frags; 40% Silty CLAYSTONE med-dk brownish-grey, carbonaceous; 2% COAL	1	3	High	Very Low	Poor (over oxid.)
2	Cuttings	1530	1540	55% Argillaceous SANDSTONE translucent to off-white, med-crs; 43% Silty CLAYSTONE med-dk brownish-grey, carb; 2% COAL	1	3	High	Moderate	Poor (over oxid.)
3	Cuttings	1540	1550	45% Silty CLAYSTONE brn-grey, common carb flecks; 40% Argillaceous SANDSTONE off-white, v.fine to coarse, common carb flecks; 15% Weathered VOLCANICS lt greenish white.	1	3	High	Very Low	Poor (over oxid.)
4	Cuttings	1560	1570	35% Weathered VOLCANICS lt greenish-grey; 35% SANDSTONE med-crs, clear to translucent; 30% CLAYSTONE brn-grey, common	1	3	High	Very Low	Poor (over oxid.)
5	Cuttings	1600	1610	50% SANDSTONE dom.crs, off-white; 40% Silty CLAYSTONE brn-grey, carb; 5% CLAYSTONE off-white; 5% Weathered VOLCANICS.	1	3	High	Very Low	Poor (over oxid.)
6	Cuttings	1640	1650	75% CLAYSTONE lt-grey to med-brown, common carb laminae, grading to silty; 25% SANDSTONE clear to translucent, med-crs.	1	3	High	Very Low	Poor (over oxid.)
7	Cuttings	1710	1720	85% CLAYSTONE brownish grey, very carbonaceous; 15% SANDSTONE clear to off-white, fine-med, dom loose.	1	3	High	Moderate	Poor-Fair
8	Cuttings	1770	1780	90% Silty CLAYSTONE brownish grey-black, 10% Argillaceous SANDSTONE mostly fine	1	3	High	Moderate	Poor
9	Cuttings	1820	1830	80% Silty CLAYSTONE lt-dk grey, rare yellowish brown; 15% CLAYSTONE dk gre, blocky; 5% SANDSTONE off-white, v.f to fine.	1	3	High	Moderate	Poor-Fair
10	Cuttings	1835	1840	55% SANDSTONE clear to grey-white, dom loose, fine to med; 45% SILTSTONE lt-dk grey, rare yellowish-brown.	1	3	High	Moderate	Poor-Fair
11	Cuttings	1920	1930	95% CLAYSTONE brownish grey-black, 5% SILTSTONE dk brownish-grey, gradational to claystone.	1	3	High	Moderate	Poor-Fair
12	Cuttings	2120	2130	50% CLAYSTONE med-grey, soft, homogeneous; 50% SILTSTONE brwnish grey, firm, carb flecks.	1	3	High	Moderate	Poor-Fair

Table 8. Basic Sample and Assemblage Data for Longtom-3 Sidetrack Hole.

No.	Sample Type	Depth Top mMD	Depth Base mMD	Lithology (from cuttings descriptions)	K Slide	Ox Slides	Visual Yield	Palynomorph Concentration	Palynomorph Preservation
13	Cuttings	2235	2240	95% Silty CLAYSTONE brownish grey, soft; 5% SANDSTONE loose, clear, dom medium.	1	3	High	High	Poor-Fair
14	Cuttings	2295	2300	80% Silty CLAYSTONE lt-dk brownish grey, soft-firm; 20% SANDSTONE clear to translucent, loose, v.fine to medium.	1	3	High	Moderate	Poor
15	Cuttings	2385	2390	80% CLAYSTONE grading to SILTY Claystone, dk brownish grey, carb flecks; 20% SANDSTONE clear-translucent, dom loose, fine to crs.	1	3	High	High	Poor-Fair
16	Cuttings	2495	2500	100% Silty CLAYSTONE dk brownish grey-black.	1	3	High	High	Poor-Fair
17	Cuttings	2555	2560	70% CLAYSTONE (weathered volcanics) greenish grey to off-white, rare reddish brown; 30% Silty CLAYSTONE dk gry to blk,	½	3	High	Moderate	Very Poor
				Total Slides:	**17**	**51**			

Table 9. Basic Sample and Assemblage Data for Longtom-3 Horizontal Hole.

No.	Sample Type	Depth Top mMD	Depth Base mMD	Lithology (from cuttings descriptions)	K Slide	Ox Slides	Visual Yield	Palynomorph Concentration	Palynomorph Preservation
1	Cuttings	2405	2410	40% CEMENT; 30% CLAYSTONE dk brn-grey, carb; 25% SILTSTONE med-dk brn-grey, common carb flecks; 5%	½	½	Very Low	Very Low	Fair
2	Cuttings	2725	2730	75 to 95% SILTSTONE brn-grey, common carb flecks; 10 to 20% CLAYSTONE brn-grey, splintery; tr to 5% SANDSTONE possible cavings (composite of 2 cuttings).	1	3	High	Very Low	Poor
3	Cuttings	2945	2950	70 to 100% Silty CLAYSTONE med-dk grey; 0 to 30% Argillaceous SANDSTONE lt yellowish brown (composite of 2 cuttings)	1	3	High	Moderate	Poor
4	Cuttings	3075	3080	100% Silty CLAYSTONE med-dk grey (composite of 2 cuttings)	1	3	High	High	Very Poor
5	Cuttings	3255	3260	90% CLAYSTONE dk brn-grey; 5% Argillaceous SANDSTONE lt brn-grey, fine-v.fine; 5% SANDSTONE translucent to white, med-crs.	1	3	High	Low	Poor-Fair
6	Cuttings	3825	3830	100% SILTSTONE med-lt grey, very arenaceous (composite of 2 cuttings)	1	3	Moderate	Very Low	Poor
7	Cuttings	3945	3950	100% Silty CLAYSTONE med-dk browish grey to olive grey, grading to SILTSTONE (composite of 2 cuttings)	1	3	High	Very Low	Poor
8	Cuttings	4155	4160	70 to 100% Silty CLAYSTONE med-dk grey; 0 to 30% Argillaceous SANDSTONE lt yellowish brown (composite of 2 cuttings)	1	3	Moderate	Low	Poor
9	Cuttings	4290	4295	95 to 100% Silty CLAYSTONE med-dk grey to olive grey; tr to 5% SANDSTONE clear to translucent (composite of 2 cuttings)	1	3	High	High	Poor-Fair
10	Cuttings	4450	4460	80% CLAYSTONE pale green to olive grey, homogeneous; 20% SILTSTONE med-dk grey	½	3	Moderate	Low	Poor
11	Cuttings	4575	4580	95% CLAYSTONE med-dk brownish grey, blocky; 5% Argillaceous SANDSTONE lt yellowish, v.fine-fine, matrix supported.	1	3	High	Moderate	Poor
12	Cuttings	4635	4640	60% SANDSTONE translucent, dom fine, & loose; 20% SILTSTONE med-lt grey to greenish grey; 20% CLAYSTONE med-dk grey to	1	2	Moderate	Moderate	Very Poor
				Total Slides:	**12**	**33**			

Well Name : Longtom-3 P

Operator : Nexus Energy — Spudded : 11 July 2006
Well Code : LONGTOM-3P — Completed : 31 July 2006
Lat/Long : 38° 5' 34.63"S 148°18' 41.52"E
Interval : 1400m - 3500m — INTERPRETATIVE Range Chart for Longtom-3 Pilot hole
Scale : 1:5000 — Sample Interval 1440 to 3462mMD
Chart date: 07 September 2007 — Microscope Analysis by Alan D. Partridge

Longtom-3 P

Biostrata Pty Ltd
AUSTRALIA

Attachment to Biostrata Report 2007/09A

Well Name : Longtom-3 ST1

Operator : Nexus Energy | Spudded : 31 July 2006

Well Code : LONGTOM-3ST1 | Completed : 12 August 2006

Lat/Long : 38° 5' 34.63"S 148°18' 41.52"E

Interval : 1450m - 2600m | INTERPRETATIVE Range Chart for Longtom-3 Sidetrack hole

Scale : 1:5000 | Sample Interval 1510 to 2560mMD

Chart date: 07 September 2007 | Microscope Analysis by Alan D. Partridge

Longtom-3 ST1

Biostrata Pty Ltd
AUSTRALIA

Attachment to Biostrata Report 2007/09A

Well Name : Longtom-3 H

Operator : Nexus Energy
Well Code : LONGTOM-3H
Lat/Long : 38° 5' 34.63"S 148°18' 41.52"E
Interval : 2390m - 4700m
Scale : 1:10000
Chart date: 07 September 2007

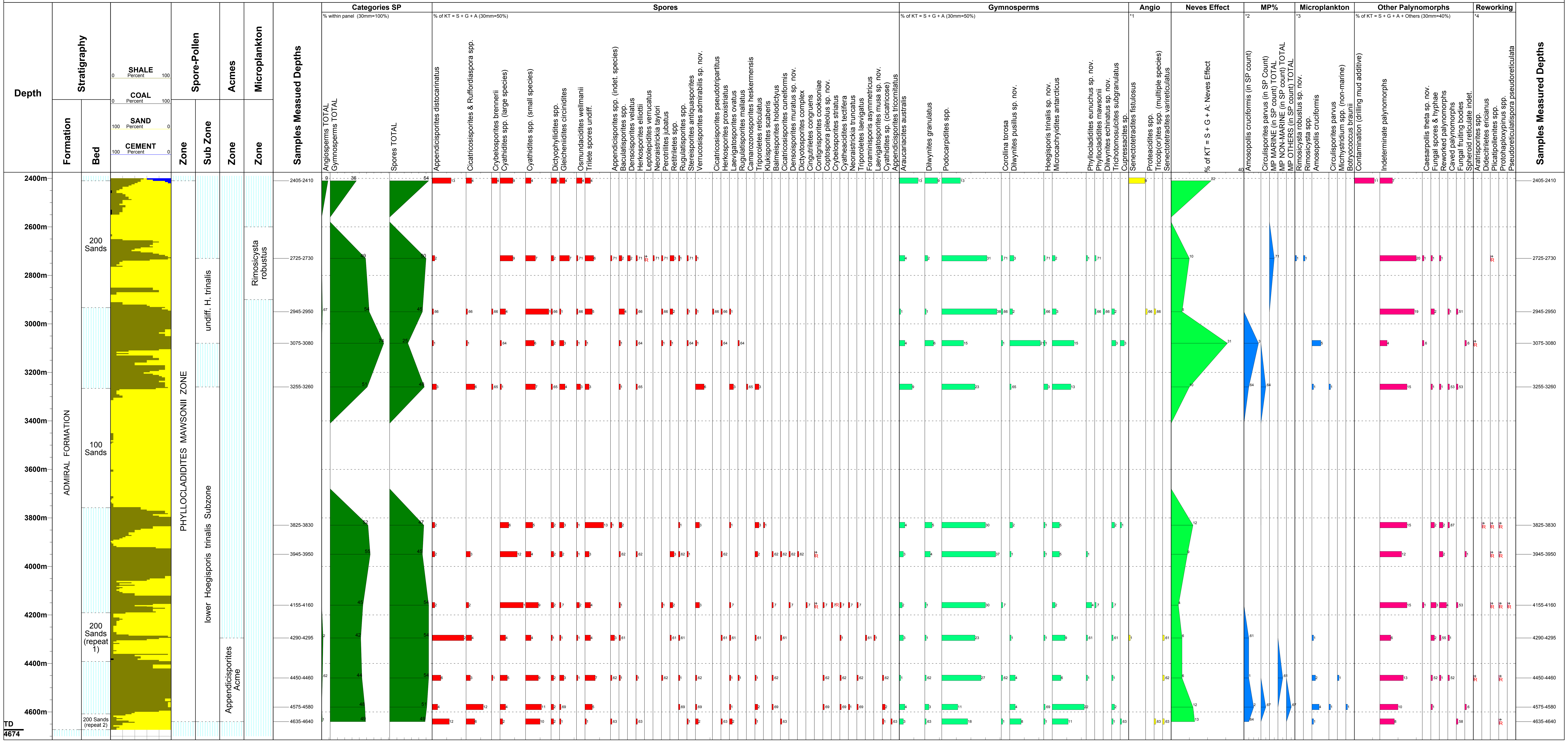
Spudded : 12 August 2006
Completed : 23 September 2006

INTERPRETATIVE Range Chart for Longtom-3 Horizontal hole
Sample Interval 2405 to 4640mMD
Microscope Analysis by Alan D. Partridge

Longtom-3 H

Biostrata Pty Ltd
AUSTRALIA

Attachment to Biostrata Report 2007/09A



APPENDIX 2: PETROPHYSICAL ANALYSIS REPORTS

Longtom-3P

PETROPHYSICAL INTERPRETATION REPORT

PREPARED BY: Glenn Wormald
Sr Geoscientist

DATE: January, 2007

SUMMARY

Longtom-3P is located in exploration permit VIC/P54, approximately 0.75km WNW of Longtom-1 and 1.2km NW of Longtom-2. The well was drilled as a high-angle deviated well in July 2006 and reached total depth of 3486m. Its objectives as a pilot well to the subsequent Longtom-3H development well were to;

1. provide depth control for the optimal placement of the 3H well,
2. obtain wireline pressure data in each significant Admiral Formation sand unit, and
3. enable calibration of the Ecoscope LWD porosity and permeability measurements.

Also, Longtom-3P would validate the inverted seismic technique used to map the gas resource by verifying the presence of gas in the deepest of the Admiral Formation sand reservoirs discovered at Longtom-2 and confirming that the shallower sands were wet..

As predicted by seismic, the 400, 300 and 200 sands are entirely water bearing and the 100 Sand is gas bearing. The well intersected 27m of net gas bearing 100 Sand over a 34m gross column with average porosity of 12.8%, permeability of 1mD and water saturation of 49%. (Note; the 500 Sand was only very poorly developed in Longtom-3P and so has not been assessed in this report).

No gas water contact was observed. Lowest Known Gas in the 100 Sand is 3393m (2534.3mTVDss).

Reservoir properties are summarised below.

Sand	Depth Interval (m)	Fluid	Gross (m)	Net (m)	NTG (%)	PHIE (%)	Perm (mD)	Sw (%)
400	3025-3102	water	77	37.2	48	13.2	0.6	100
300	3196-3228	water	32	13.9	43	12.2	1	100
200	3280-3312	water	32	11.6	36	10.3	0.01	100
100	3359-3393	gas	34	27	79	12.8	1	49

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LIST OF ENCLOSURES

1. INTRODUCTION

This report documents a detailed petrophysical analysis of logs recorded at Longtom-3P. (Note; in some earlier documentation this well may be referred to as just Longtom-3). Two suites of wireline logs were run. Logs were evaluated over the interval 3000-3486m (TD). Ecoscope LWD was also recorded over the reservoir interval however analysis of these data is not included in this report.

Longtom-3P is located in exploration permit VIC/P54, approximately 0.75km WNW of Longtom-1 and 1.2km NW of Longtom-2. The well was drilled as a high angle deviated well in July 2006 and reached a total depth of 3486m. Its objectives as a pilot well to the subsequent Longtom-3ST1/3H development well were to;

1. provide depth control for the optimal placement of the 3H well,
2. obtain wireline pressure data in each significant Admiral Formation sand unit, and
3. enable calibration of the Ecoscope LWD porosity and permeability measurements.

Also, Longtom-3P would validate the inverted seismic technique used to map the gas resource by verifying the presence of gas in the deepest of the Admiral Formation sand reservoirs discovered at Longtom-2 and confirming that the shallower sands were wet.

All depths used in this report, unless specified otherwise, are measured depths referenced to the rotary table (RT) which is 21.5m above the well datum, lowest astronomical tide (LAT).

2. HOLE CONDITIONS

2.1 Hole Size

The target section was drilled with a 9½" bit in synthetic based mud from the 16" casing shoe at 995.3m to TD at 3486m. Average hole deviation through the reservoir section is 55^{o}. Maximum hole deviation is 61^{o} at 2165m.

Hole conditions are good overall with filtercake present over the best reservoirs, the 100 and 400 Sands, while up to ¼" hole enlargement exists over the poorer reservoirs, the 200 and 300 Sands. Despite this, the pad tools (density and caliper) are unaffected and give reliable readings throughout.

2.2 Borehole Fluids

Mud type and weight during wireline logging are summarized in Table 1.

Table 1: Longtom-3P Borehole Fluids

Suite Number	1	2
Mud Type	SBM Petrofree	SBM Petrofree
Mud Weight	1.45sg	1.45sg

2.3 Temperature

Formation temperature is estimated at 130°C at 3486m (2585.5mTVDss). It is estimated using an empirically derived approach which multiplies the max recorded temperature of 118^{o}C by 110%. Assuming a surface temperature of 18^{o}C, the current geothermal gradient is 4.3^{o}C/100m.

3. AVAILABLE DATA

3.1 Wireline Logs

Two logging suites were acquired as shown in Table 2.

Table 2: Longtom-3P Wireline Logs

Suite No.	Date & Time	TD (m)	Max Rec Temp °C	Tool String	Interval
1	27/7/06	3434	118	CMR-PEX-XPT	PEX 3434-1700m, GR 3434-85m, CMR 3424-2539m
2	30/7/06	3486	118	GR-DSI-AIT	GR 3486-545m, DSI 3486-535m, AIT 3486-955m

3.2 Data Processing

The CMR responses were post well processed with the PEX density response to produce a gas corrected TCMR, or DMRP, equivalent to a density tool derived PHIT.

Ecoscope LWD responses were processed in "Ecoview" software to produce a number of real-time deliverables which include K-Lambda permeability. K-Lambda derived permeability was compared to CMR derived permeability (KTIM) to provide added confidence in this product, given its intended use in real-time during drilling of the subsequent Longtom-3H horizontal development well.

3.3 Operational Notes

The well was initially TD'd at 3434m and Suite1 logs recorded. However, in order to tie seismic and enable better seismic modelling of the Turonian Volcanics, an additional 52m of hole was drilled to allow the sonic and density tools enough rathole to obtain data well below the formation top. Suite 2 logs were recorded at the final TD of 3486m.

3.4 MWD/LWD Data

Schlumberger MWD gamma directional service was provided over the 22" hole interval 112-1005m. Schlumberger 6¾" Ecoscope LWD service comprising density, neutron, resistivity, gamma, sigma, spectroscopy and caliper data was provided intermittently over the 9 ½" hole interval 1008- 3486m. (Due to tripping problems being attributed to the Ecoscope collar, the LWD tool was removed from the drillstring until a smaller-collared set of tools could be obtained and run. This was not until after the first wire line run, so the Admiral Formation sands were only logged with Ecoscope while reaming into the hole for the drilling of the Turonian Volcanics interval. Also, because of the final collar size being so much smaller than the hole size, some Ecoscope data readings were not valid).

3.5 Conventional Cores

Nil

3.6 Rotary Sidewall Cores

Nil

3.7 Sidewall Cores

Nil

3.8 Wireline Formation Testing

With the goal of attempting to obtain pressure data in all significant Admiral Formation sands, a total of 50 pretests were attempted over the interval 3387-2551m. No sampling was attempted. (To enable the best chance of obtaining valid pressures in the anticipated very tight sand intervals the XPT tool was run, which does not have the capability to obtain samples). See the Wireline Formation Testing report for details.

3.9 Drillstem Tests

Nil

4. INTERPRETATION PROCEDURE

4.1 Data Preparation

As all log traces used in the quantitative analysis were from the Suite 1 logging run, no depth matching was necessary. No additional environmental corrections were made to those performed at wellsite.

4.2 Interpretation Model

The interval 3000-3486m was evaluated using Petrolog, a log storage, manipulation, interpretation and presentation software package developed by Crocker Data Processing P/L of Perth, Australia.

The reservoir section comprises sands, silts and claystones deposited in a fluvio-lacustrine environment. The sands range in composition from litharenite to feldspathic litharenite. Framework grains are mainly quartz, though volcanic rock fragments are very common while feldspar, chert and clay replaced grains make up the remainder. Sands are described as fine- to medium-grained, moderately well sorted and cross bedded with moderate reservoir potential. Main clay types are chlorite, kaolinite and illite. They are found in the reservoir sands in approximately equal proportions in structural and dispersed distribution styles. Calcite cement is locally abundant at the base of some sand bodies and is the main control on reservoir quality. Quartz overgrowth and pyrite cements are present in minor quantities.

The Petrolog "SSS" (Sand, Shale, Silt) log interpretation routine was selected to compute effective porosity, permeability and water saturation. This routine requires a fixed matrix density to be input by the user. In this case, matrix density was set at the default quartz sandstone value of 2.65g/cc.

A simple model comprising the input curves gamma ray, density and deep resistivity had previously been constructed at Longtom-2 and calibrated to overburden corrected core porosity and permeability from conventional core cut across the 400 Sand. This model has been applied to the logs at Longtom-3.

Effective porosity was calculated using the density log, computed Vclay from gamma ray and estimated clay, matrix and fluid densities in the formula:

PHIE = PHID*(1.0-Vclay)
Where PHID = (RHOB-RHOMA)/(RHOF-RHOMA) and
PHIT = PHIE + Vclay*PHIclay
Where PHIclay = (RHOBwetclay-RHOBdryclay)/(RHOF-RHOBdryclay)

The default dry clay RHOB of 2.70g/cc was used.

Water saturation was calculated using the medium resistivity response (AHT60) and the Indonesia equation. The medium resistivity was used to allow comparison of this interpretation with Schlumberger's computed Sw from Ecoview which also uses the AHT60 response. This should have no significant effect on accuracy given the AHT60 and AHT90 match very closely in both water and gas zones.

Permeability was estimated using the overburden corrected core porosity versus log10 permeability transform from Longtom-2 400 Sand. The equation is:

Perm = (32.6 * Effective Porosity) – 5.2

4.3 Log Interpretation Parameters

A summary of input parameters is shown in Table 3.

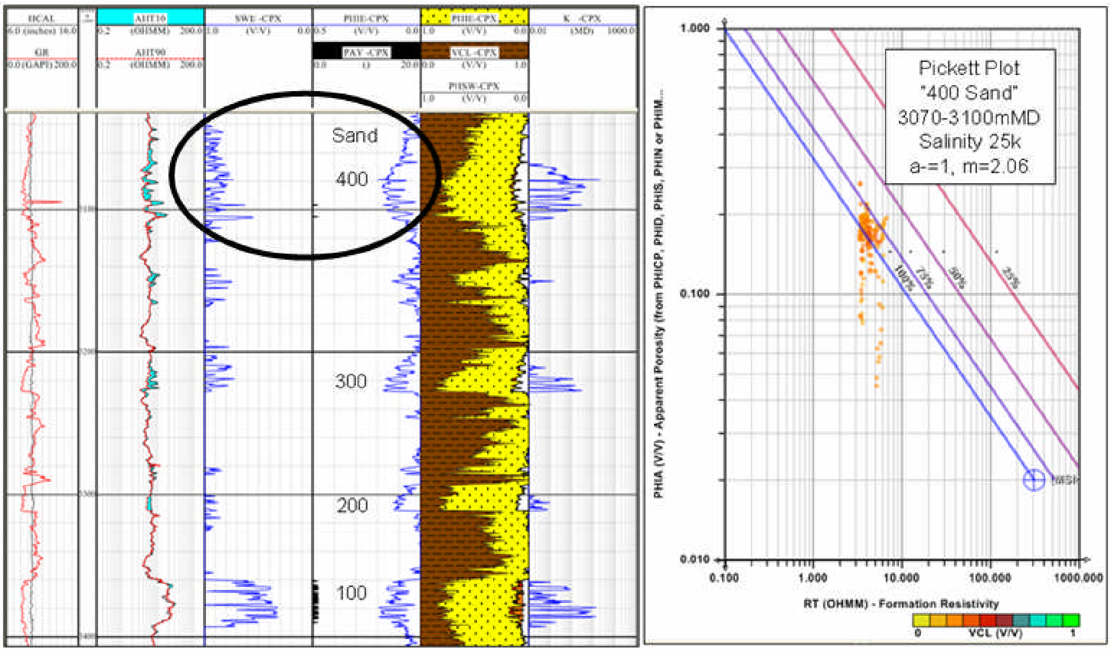
Table 3: Longtom-3P Input Parameters

Sand	Depth Interval (m)	Rclay ohmm	GRmin	GRmax	Rhocl g/cc	Rhofl g/cc	Rhoma g/cc
400	3025-3101	5	30	120	2.49	1.01	2.65
300	3196-3228	5	30	120	2.49	1.01	2.65
200	3280-3312	5	30	120	2.49	1.01	2.65
100	3359-3393	5	30	120	2.49	1.01	2.65

4.4 Water Salinity

An Rw of 0.25 @ 25°C (25,000ppm NaCleq) was used. This value was estimated using a Pickett Plot over the 400 Sand (Figure 1). The cloud of water bearing points is bisected by the line which has, as its y-intercept, Rw at formation temperature, and as its slope, the value of cementation exponent 'm'. The cementation exponent used is 2.06, from special core analysis (SCA) of Longtom-2 conventional core plugs taken from the 400 Sand (Apache Energy, 2006).

Figure 1: Longtom-3P Pickett Plot Rw



4.5 Formation Electrical Properties

Formation electrical properties are derived from Longtom-2 SCA of plugs from conventional core cut across the 400 Sand. Average cementation exponent ‘m’ is 2.06 and average saturation exponent ‘n’ is 2.12.

5. INTERPRETATION RESULTS

Results are illustrated in plot format (Enclosure 1).

5.1 Net Sand Definition

A net reservoir porosity cutoff of 8% was used. Based on Longtom-2 core data, this equates to a permeability of approximately 0.005mD. No permeability, Vclay or water saturation cutoffs were applied.

5.2 Fluid Contacts

No gas-water contact was observed. Lowest Known Gas (LKG) in the 100 Sand is 3393m (2534.3mTVDss).

5.3 Results

As predicted by seismic, the 400, 300 and 200 Sands are entirely water bearing and the 100 Sand is gas bearing. The well intersected 27m of net gas bearing 100 Sand over a 34m gross column with average porosity of 12.8%, permeability of 1mD and water saturation of 49%.

Results are shown in Table 4.

Table 4: Longtom-3P Reservoir Summary

Sand	Depth Interval (m)	Fluid	Gross (m)	Net (m)	NTG (%)	PHIE (%)	Perm (mD)	Sw (%)
400	3025-3102	water	77	37.2	48	13.2	0.6	100
300	3196-3228	water	32	13.9	43	12.2	1	100
200	3280-3312	water	32	11.6	36	10.3	0.01	100
100	3359-3393	gas	34	27	79	12.8	1	49

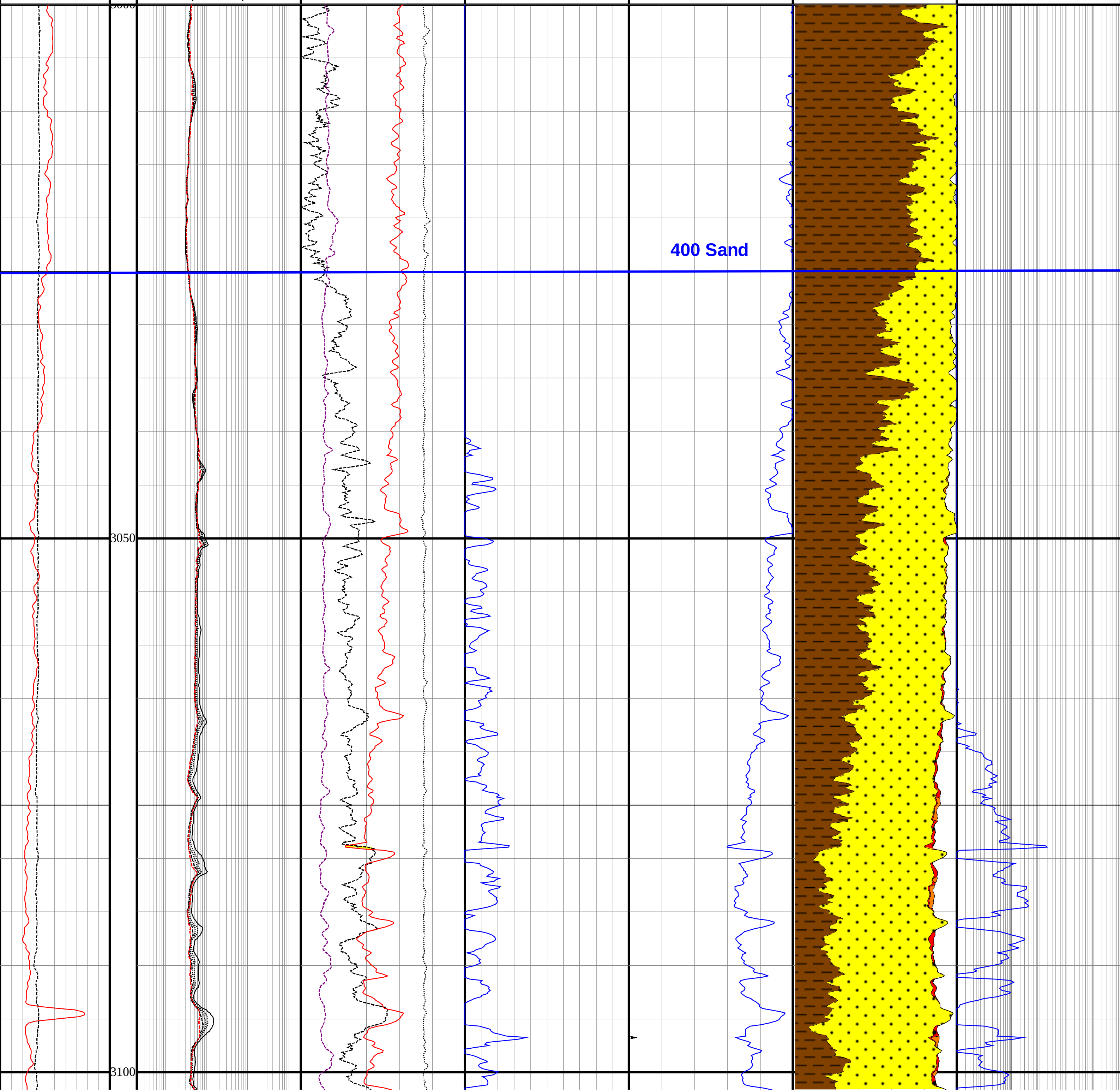
6. REFERENCES

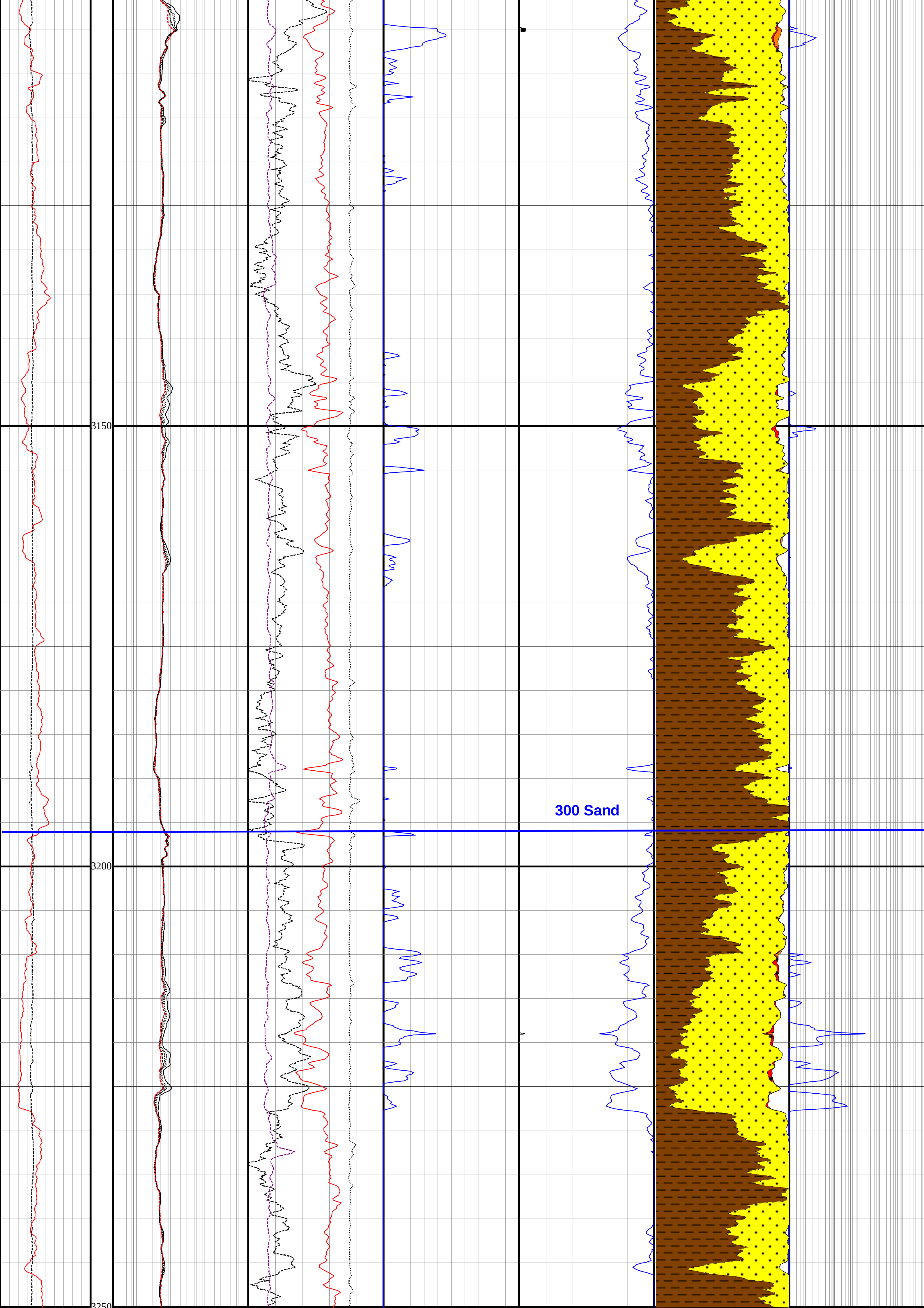
1. BHP Petroleum P/L, 1995: Longtom-1 & 1ST1 Well Completion Report, Interpretative Data, December 1995.
2. BHP Petroleum P/L, 1996: Longtom-1 & 1ST 1 Well Completion Report, Basic Data, January 1996
3. Apache Energy, 2005: Longtom-2 & 2ST 1 Well Completion Report, Basic Data, July 2005
4. Apache Energy, 2006: Longtom-2 & 2ST 1 Well Completion Report, Interpretative Data, February 2006
5. Nexus Energy Ltd, 2006: Longtom Field Development Plan, November 2006

NEXUS ENERGY

Longtom-3P

HCAL	DEPTH M 1:500	AHT20	TNPH	SWE -CPX	PHIE-CPX	PHIE-CPX	K -CPX
6.0 (inches) 16.0		0.2 (ohm.m) 2000.0	0.45 (V/V) -0.15	1.0 (V/V) 0.0	0.5 (V/V) 0.0	1.0 (V/V) 0.0	0.01 (MD) 10000.0
GR		AHT30	RHOZ		PAY -CPX	VCL -CPX	
0.0 (GAPI) 200.0		0.2 (ohm.m) 2000.0	1.95 (g/cm3) 2.95		0.0 () 20.0	0.0 (V/V) 1.0	
		AHT60	HDRA			PHSW-CPX	
		0.2 (ohm.m) 2000.0	-0.75 (g/cm3) 0.25			1.0 (V/V) 0.0	
		AHT10	PEFZ			PHXO-CPX	
		0.2 (OHMM) 2000.0	0.0 (b/elec) 20.0			1.0 (V/V) 0.0	
		AHT90					
		0.2 (OHMM) 2000.0					

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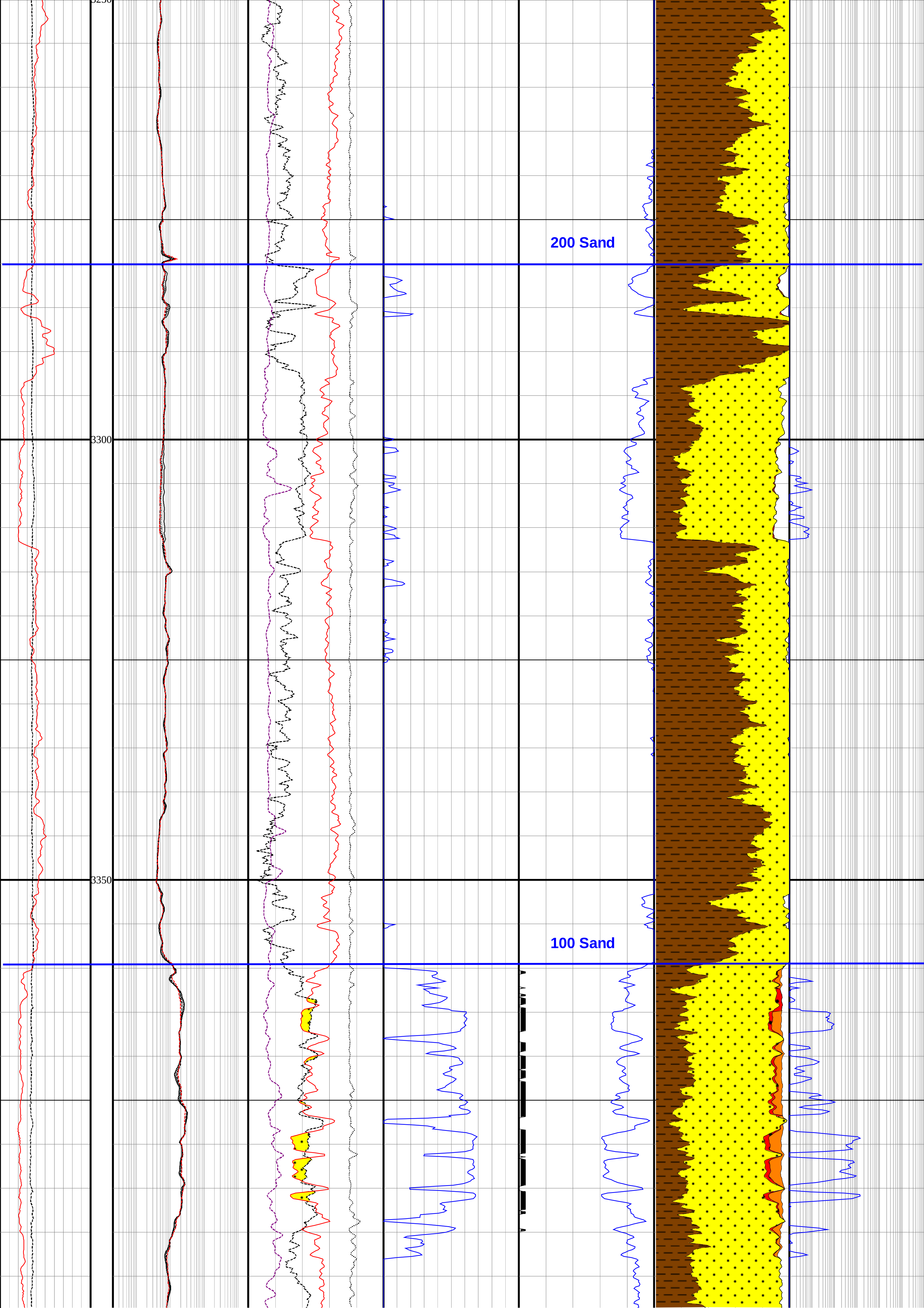
3200
3250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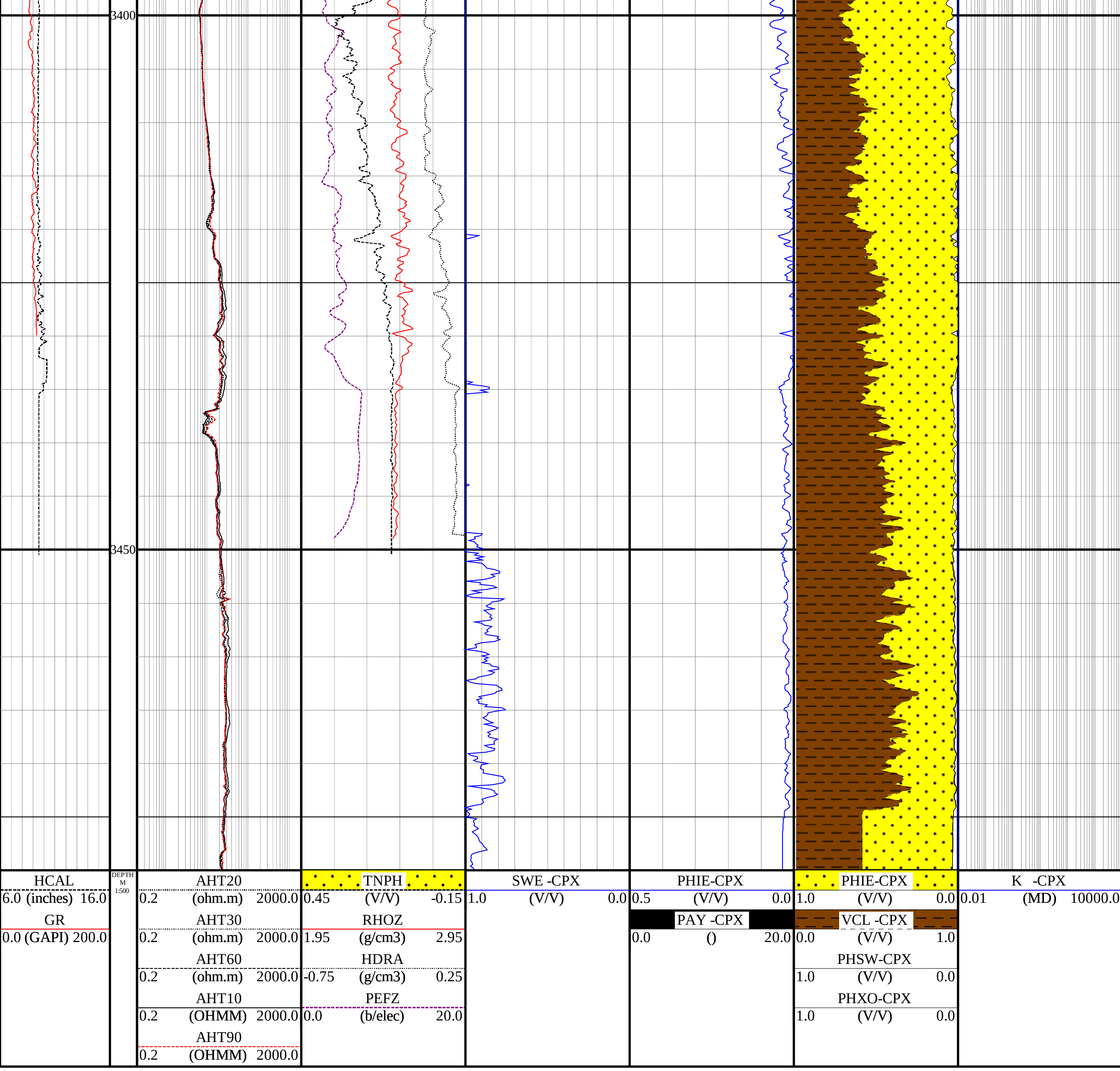
3300
3350
200 Sand
100 Sand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3450
HCAL
6.0 (inches) 16.0
GR
0.0 (GAPI) 200.0
DEPTH
M
1:500
AHT20
0.2 (ohm.m) 2000.0
AHT30
0.2 (ohm.m) 2000.0
AHT60
0.2 (ohm.m) 2000.0
AHT10
0.2 (OHMM) 2000.0
AHT90
0.2 (OHMM) 2000.0
TNPH
0.45 (V/V) -0.15
RHOZ
1.95 (g/cm3) 2.95
HDRA
-0.75 (g/cm3) 0.25
PEFZ
0.0 (b/elec) 20.0
SWE -CPX
1.0 (V/V) 0.0
PHIE-CPX
0.5 (V/V) 0.0
PAY -CPX
0.0 () 20.0
PHIE-CPX
1.0 (V/V) 0.0
VCL -CPX
0.0 (V/V) 1.0
PHSW-CPX
1.0 (V/V) 0.0
PHXO-CPX
1.0 (V/V) 0.0
K -CPX
0.01 (MD) 10000.0

Longtom-3ST1

PETROPHYSICAL INTERPRETATION REPORT

PREPARED BY: Glenn Wormald
Sr Geoscientist

DATE: January 2007

SUMMARY

Longtom-3ST1 is located in exploration permit VIC/P54, approximately 0.75km WNW of Longtom-1 and 1.2km NW of Longtom-2. The well was drilled after Longtom-3P as a high-angle deviated well in August 2006 and reached a total depth of 2563m. It was originally planned as just the 13½" hole section of the subsequent horizontal well, with the intention of drilling to just below the 400 Sand and casing it off from the anticipated underlying higher pressure 100 and 200 Sands. However, due to the limited success in obtaining wireline pressures in the pilot hole, it was decided to extend this hole section deeper to enable another attempt at wireline pressures in the lower Admiral Formation sands. The well was drilled deep enough to tag the top of the volcanics with the bit, but this horizon was not reached with the logging tools.

The well encountered a total of 114.4m of net gas bearing 400, 300 and 200 Sands over a 333m gross column with average porosity of 14.6%, permeability of 183mD and water saturation of 38%. Similar to Longtom-2, very thin gas sands were encountered around the 500 Sand level but, due to the small volumes these sands represent, they are not evaluated in this report. No permeable sand was developed over the expected 100 Sand interval.

No gas water contacts were observed.

Reservoir properties are summarised below.

Sand	Depth Interval (m)	Fluid	Gross (m)	Net (m)	NTG (%)	PHIE (%)	Perm (mD)	Sw (%)
400	2135-2197	gas	62	56.6	91	15	9	35
300	2300-2337.5	gas	37.5	13.4	36	13.2	8	51
200	2405-2468	gas	63	44.4	70	14.6	458	39
100	No reservoir	-	-	-	-	-	-	-
Total	**2135-2468**	**gas**	**333**	**114.4**	**34**	**14.6**	**183**	**38**

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1. INTRODUCTION

This report documents a detailed petrophysical analysis of LWD logs recorded at Longtom-3ST1. A pressure survey was the only logging carried out on wireline. LWD logs were evaluated over the interval 2100-2563m (TD).

Longtom-3ST1 is located in exploration permit VIC/P54, approximately 0.75km WNW of Longtom-1 and 1.2km NW of Longtom-2. The well was drilled as a high angle deviated well in August 2006 and reached a total depth of 2563m. It was originally planned as just the 13½" hole section of the subsequent horizontal well, with the intention of drilling to just below the 400 Sand and casing it off from the anticipated underlying higher pressure 100 and 200 Sands. However, due to the limited success in obtaining wireline pressures in the pilot hole, it was decided to extend this hole section deeper to enable another attempt at wireline pressures in the lower Admiral Formation sands. The well was drilled deep enough to tag the top of the volcanics with the bit, but this horizon was not reached with the logging tools.

All depths used in this report, unless specified otherwise, are measured depths referenced to the rotary table (RT) which is 21.5m above the well datum, lowest astronomical tide (LAT).

2. HOLE CONDITIONS

2.1 Hole Size

The well was drilled with a 13½" bit in synthetic based mud from the 16" casing shoe at 995.3m to TD at 2563m. Average hole deviation through the reservoir section is 52°. Maximum hole deviation is 53° at 2563m.

Hole conditions cannot be assessed as no caliper response is available (the LWD ultrasonic caliper was not useable). However, close examination of all log responses suggests hole condition has not adversely affected them.

2.2 Borehole Fluids

Mud type and weight during LWD logging over the reservoir interval and Suite 1 logging operations are summarized in Table 1.

Table 1: Longtom-3ST1 Borehole Fluids

Suite Number	1
Mud Type	SBM Petrofree
Mud Weight	1.44sg

2.3 Temperature

Formation temperature is estimated at 114°C at 2153m (~2050mTVDss). It is estimated using an empirically derived approach which multiplies the max recorded temperature of 104°C by 110%. Assuming a surface temperature of 18°C, the current geothermal gradient is 4.7°C/100m.

3. AVAILABLE DATA

3.1 LWD Logs

Schlumberger 8¼” LWD ARC-ADN service was run from the 16” casing shoe at 995.3m to TD. (Because of the larger hole size this well could not be logged with the Ecoscope LWD tools, as used in the pilot and horizontal wells). Logging sensors and their distance to the bit are as follows: Resistivity 11.78m; GR 11.83m; ultrasonic Caliper 26.9m; Density 26.9m; Neutron 27.95m. All log responses appear to be good quality, except the ultrasonic caliper which could not be used. Resistivity polarization horns are present near sand/shale interfaces, but do not affect the interpretation and therefore have not been edited.

3.2 Wireline Logs

One logging suite was acquired as shown in Table 2.

Table 2: Longtom-3ST1 Wireline Logs

Suite No.	Date & Time	Max Rec Temp °C	Tool String	Interval (m)
1	8/8/06	104	XPT-GR	2153-1831

3.3 Data Processing

Nil

3.4 Operational Notes

Nil

3.5 Conventional Cores

Nil

3.6 Rotary Sidewall Cores

Nil

3.7 Sidewall Cores

Nil

3.8 Wireline Formation Testing

A total of 12 XPT pressure tests were conducted of which 4 were valid, 5 had low permeability, 2 no seal and 1 was supercharged. Refer to the Wireline Formation Testing report for details. The major reason for extending this hole beyond the original casing point was to obtain wireline pressure data in the Admiral Formation sands below the 400 Sand. However, due to the inability to get the tool below the 400 Sand (despite repeated attempts) this objective was not realized.

3.9 Drillstem Tests

Following the casing and plugging back of this well and the drilling and completion of the Longtom-3H (horizontal) development well, two drill stem tests were conducted. The 400 Sand interval drilled in Longtom-3ST1 was tested on its own. The 300 sand interval drilled in Longtom-3ST1 was tested in conjunction with 100 and 200 Sand intervals intersected in Longtom-3H. Refer to the Drill Stem Testing report for details.

4. INTERPRETATION PROCEDURE

4.1 Data Preparation

As all log traces used in the quantitative analysis are LWD, no depth matching was necessary. No additional environmental corrections were made to those performed at the wellsite.

4.2 Interpretation Model

The interval 2100-2563m was evaluated using Petrolog, a log storage, manipulation, interpretation and presentation software package developed by Crocker Data Processing P/L of Perth, Australia.

The reservoir section comprises sands, silts and claystones deposited in a fluvio-lacustrine environment. The sands range in composition from litharenite to feldspathic litharenite. Framework grains are mainly quartz though volcanic rock fragments are very common while feldspar, chert and clay replaced grains make up the remainder. Sands are described as fine- to medium-grained, moderately well sorted and cross bedded with moderate reservoir potential. Main clay types are chlorite, kaolinite and illite. They are found in the reservoir sands in approximately equal proportions in structural and dispersed distribution styles. Calcite cement is locally abundant at the base of some sand bodies and is the main control on reservoir quality. Quartz overgrowth and pyrite cements are present in minor quantities.

The Petrolog “SSS” (Sand, Shale, Silt) log interpretation routine was selected to compute effective porosity, permeability and water saturation. This routine requires a fixed matrix density to be input by the user. In this case, matrix density was set at the default quartz sandstone value of 2.65g/cc.

A simple model comprising the input curves gamma ray, density and deep resistivity had previously been constructed at Longtom-2 and calibrated to overburden corrected core porosity and permeability from conventional core cut across the 400 Sand. This model has been applied to the logs at Longtom-3st1.

Effective porosity was calculated using the density log (ROBB), computed Vclay from gamma ray (GR_ARC) and estimated clay, matrix and fluid densities in the formula:

PHIE = PHID*(1.0-Vclay)
Where PHID = (RHOB-RHOMA)/(RHOF-RHOMA) and
PHIT = PHIE + Vclay*PHIclay
Where PHIclay = (RHOBwetclay-RHOBdryclay)/(RHOF-RHOBdryclay)

The default dry clay RHOB of 2.70g/cc was used.

Water saturation was calculated using the deep resistivity response (P40H) and the Indonesia equation.

Permeability was estimated using the overburden corrected core porosity versus log10 permeability transform from Longtom-2 400 Sand. The equation is:

Perm = (32.6 * Effective Porosity) – 5.2

4.3 Log Interpretation Parameters

A summary of input parameters is shown in Table 3.

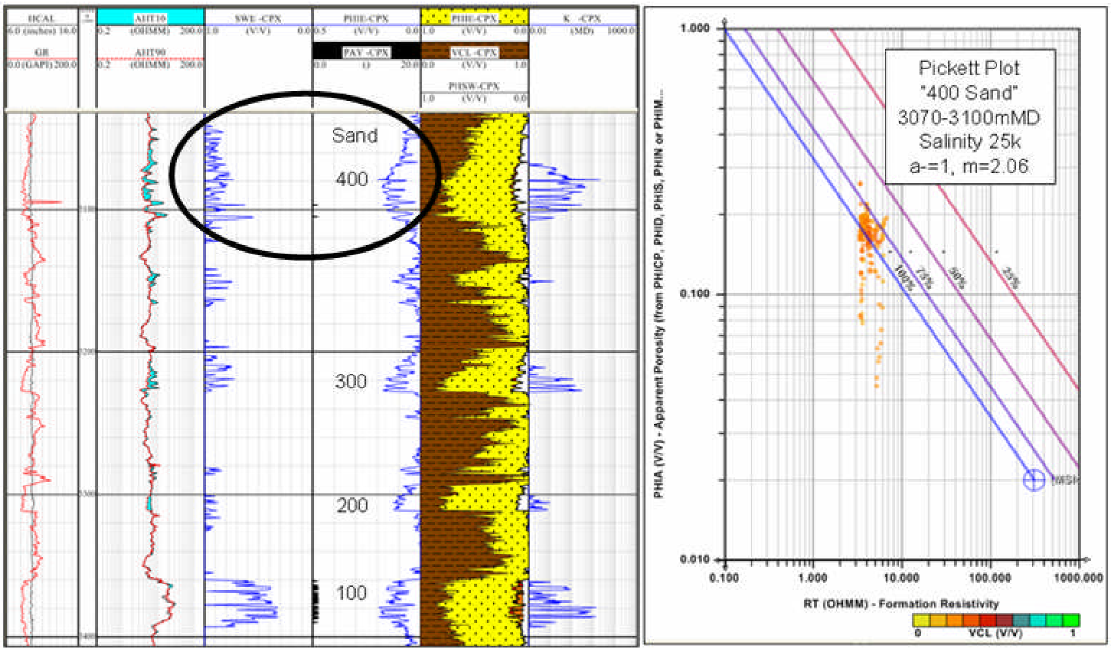
Table 3: Longtom-3ST1 Input Parameters

Sand	Depth Interval (m)	Rclay ohmm	GRmin	GRmax	Rhocl g/cc	Rhofl g/cc	Rhoma g/cc
400	2135-2197	5	40	120	2.49	1.01	2.65
300	2300-2337.5	5	40	120	2.49	1.01	2.65
200	2405-2468	5	40	120	2.49	1.01	2.65

4.4 Water Salinity

An Rw of 0.25 @ 25°C (25,000ppm NaCleq) was used. This value was estimated using a Pickett Plot over the 400 Sand in Longtom-3P (Figure 1). The cloud of water bearing points is bisected by the line which has as its y-intercept, Rw at formation temperature, and as its slope, the value of cementation exponent 'm'. The cementation exponent used is 2.06, from special core analysis (SCA) of Longtom-2 conventional core plugs taken from the 400 Sand (Apache Energy, 2006).

Figure 1: Longtom-3P Pickett Plot Rw



4.5 Formation Electrical Properties

Formation electrical properties are derived from Longtom-2 SCA of plugs from conventional core cut across the 400 Sand. Average cementation exponent 'm' is 2.06 and average saturation exponent 'n' is 2.12.

5. INTERPRETATION RESULTS

Results are illustrated in plot format (Enclosure 1).

5.1 Net Sand Definition

A net reservoir porosity cutoff of 8% was used. Based on Longtom-2 core data, this equates to a permeability of approximately 0.005mD. No permeability, Vclay or water saturation cutoffs were applied.

5.2 Fluid Contacts

No gas-water contacts were observed. Lowest Known Gas (LKG) contacts are shown in Table 4.

Table 4: Longtom-3ST1 Fluid Contacts

Sand	LKG (m)	LKG (mTVDss)
400	2197	2055.3
300	2337.5	2141.2
200	2468	2221.1

5.3 Results

The well encountered a total of 114.4m of net gas bearing 400, 300 and 200 sands over a 333m gross column with average porosity of 14.6%, permeability of 183mD and water saturation of 38%. No permeable sand was developed over the expected 100 Sand interval. Reservoir properties are summarized in Table 5.

Table 5: Longtom-3ST1 Reservoir Summary

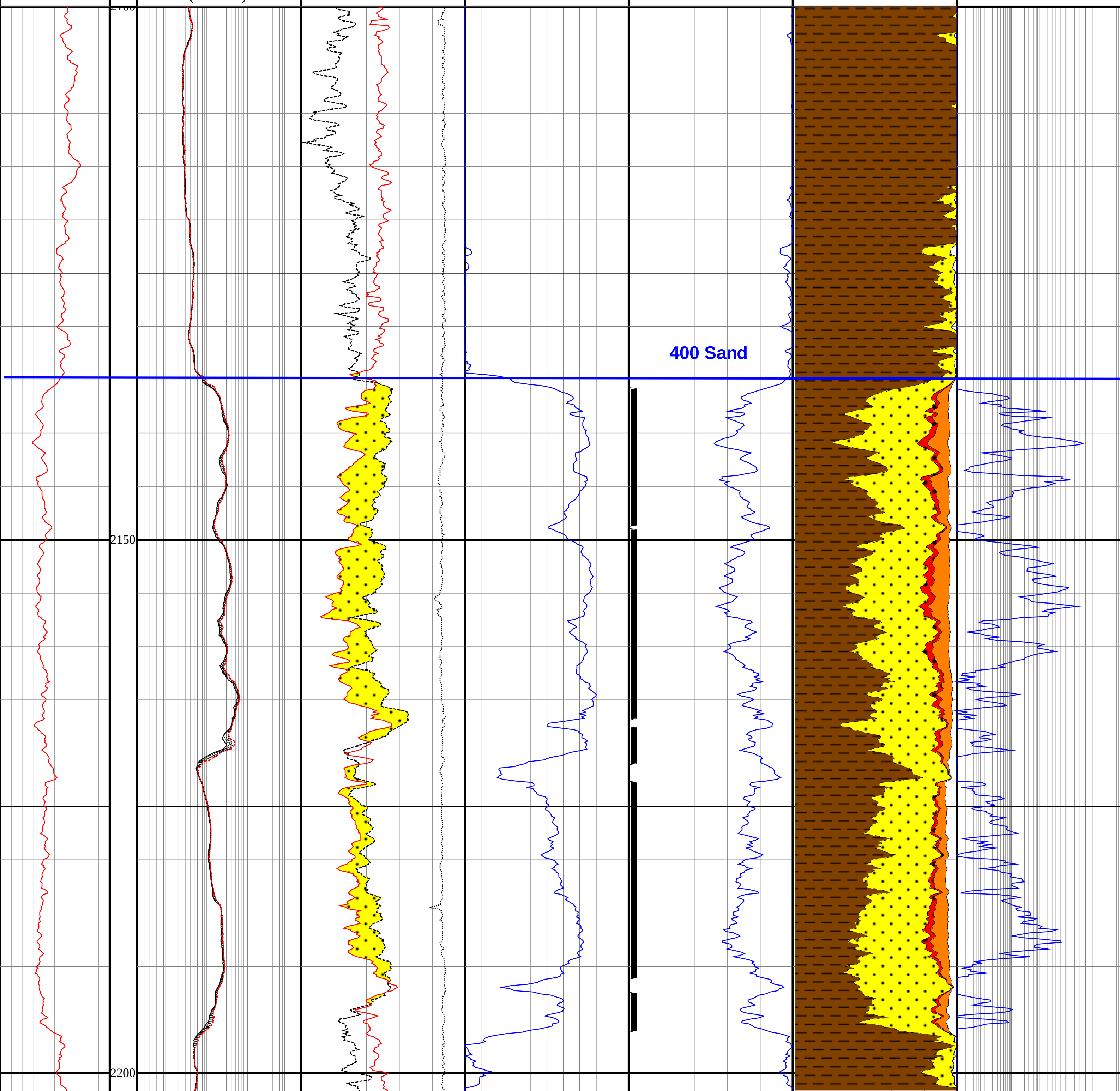
Sand	Depth Interval (m)	Fluid	Gross (m)	Net (m)	NTG (%)	PHIE (%)	Perm (mD)	Sw (%)
400	2135-2197	gas	62	56.6	91	15	9	35
300	2300-2337.5	gas	37.5	13.4	36	13.2	8	51
200	2405-2468	gas	63	44.4	70	14.6	458	39
100	Not present	-	-	-	-	-	-	-
Total	**2135-2468**	**Gas**	**333**	**114.4**	**34**	**14.6**	**183**	**38**

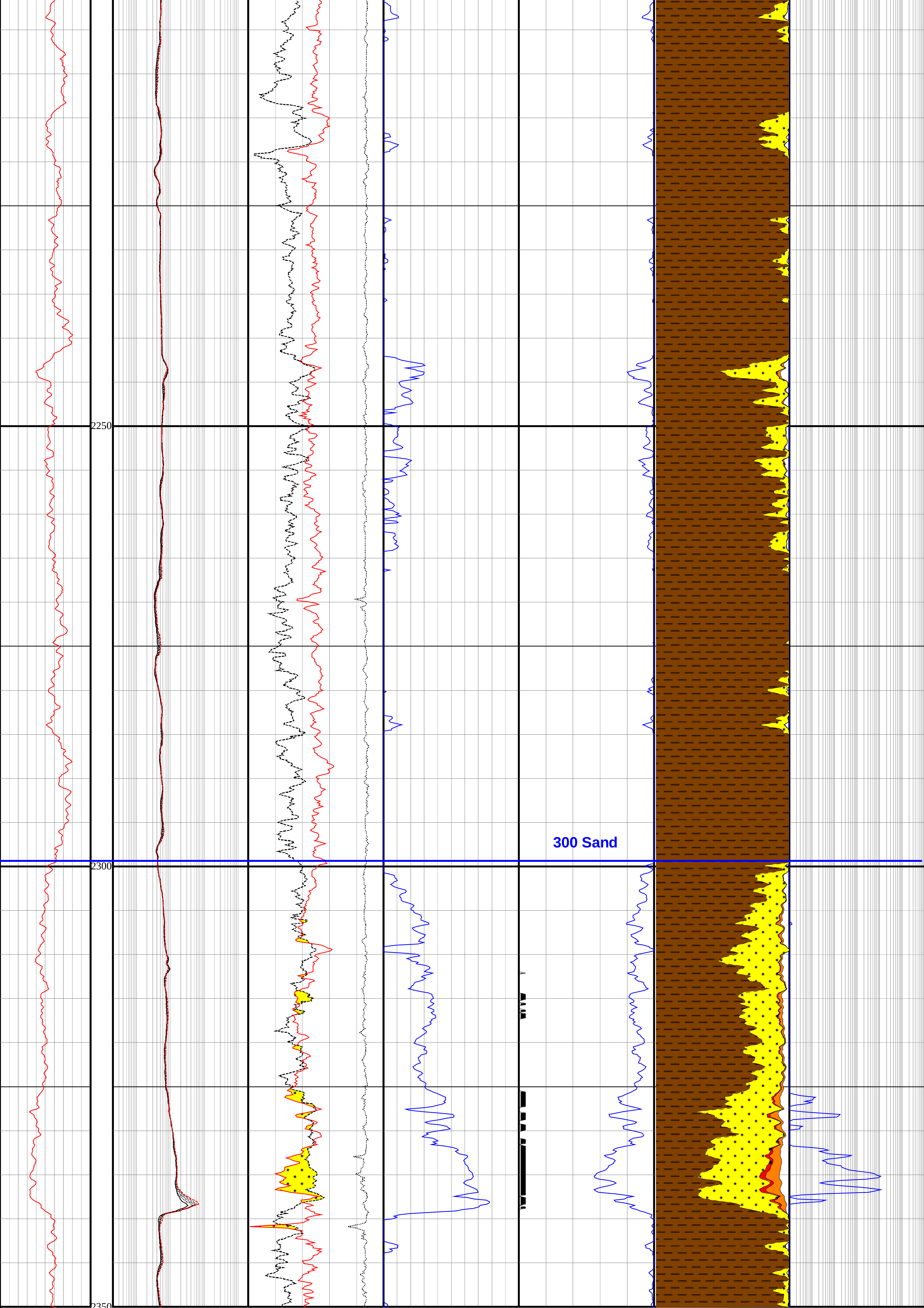
6. REFERENCES

1. BHP Petroleum P/L, 1995: Longtom-1 &1st1 Well Completion Report, Interpretative Data, December 1995.
2. BHP Petroleum P/L, 1996: Longtom-1 & 1ST1 Well Completion Report, Basic Data, January 1996
3. Apache Energy, 2005: Longtom-2 & 2ST 1 Well Completion Report, Basic Data, July 2005
4. Apache Energy, 2006: Longtom-2 & 2ST 1 Well Completion Report, Interpretative Data, February 2006
5. Nexus Energy Ltd, 2006: Longtom Field Development Plan, November 2006

Longtom-3st1

GR_ARC	DEPTH M 1500	P22H / P28H / P34H / P16H / P40H	TNPH / ROBB / DRHB	SWE -CPX	PHIE-CPX / PAY -CPX	PHIE-CPX / VCL -CPX / PHSW-CPX / PHXO-CPX	K -CPX
0.0 (API) 200.0		P22H 0.2 (ohm.m) 2000.0	TNPH 45.0 (V/V) -15.0	1.0 (V/V) 0.0	PHIE-CPX 0.5 (V/V) 0.0	PHIE-CPX 1.0 (V/V) 0.0	0.01 (MD) 10000.0
		P28H 0.2 (ohm.m) 2000.0	ROBB 1.95 (g/cm3) 2.95		PAY -CPX 0.0 () 20.0	VCL -CPX 0.0 (V/V) 1.0	
		P34H 0.2 (ohm.m) 2000.0	DRHB -1.0 (g/cm3) 0.25			PHSW-CPX 1.0 (V/V) 0.0	
		P16H 0.2 (OHMM) 2000.0				PHXO-CPX 1.0 (V/V) 0.0	
		P40H 0.2 (OHMM) 2000.0					

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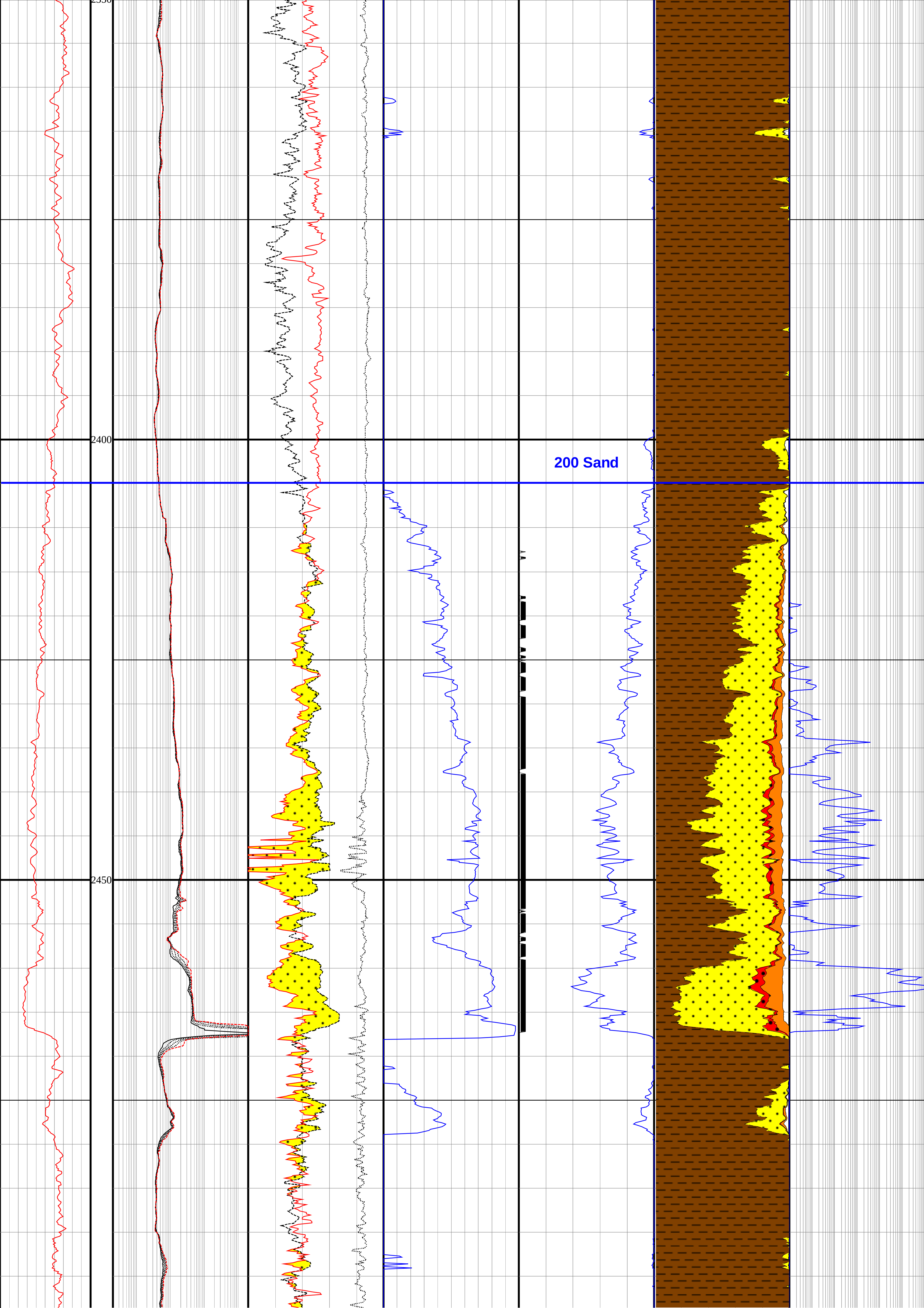
2350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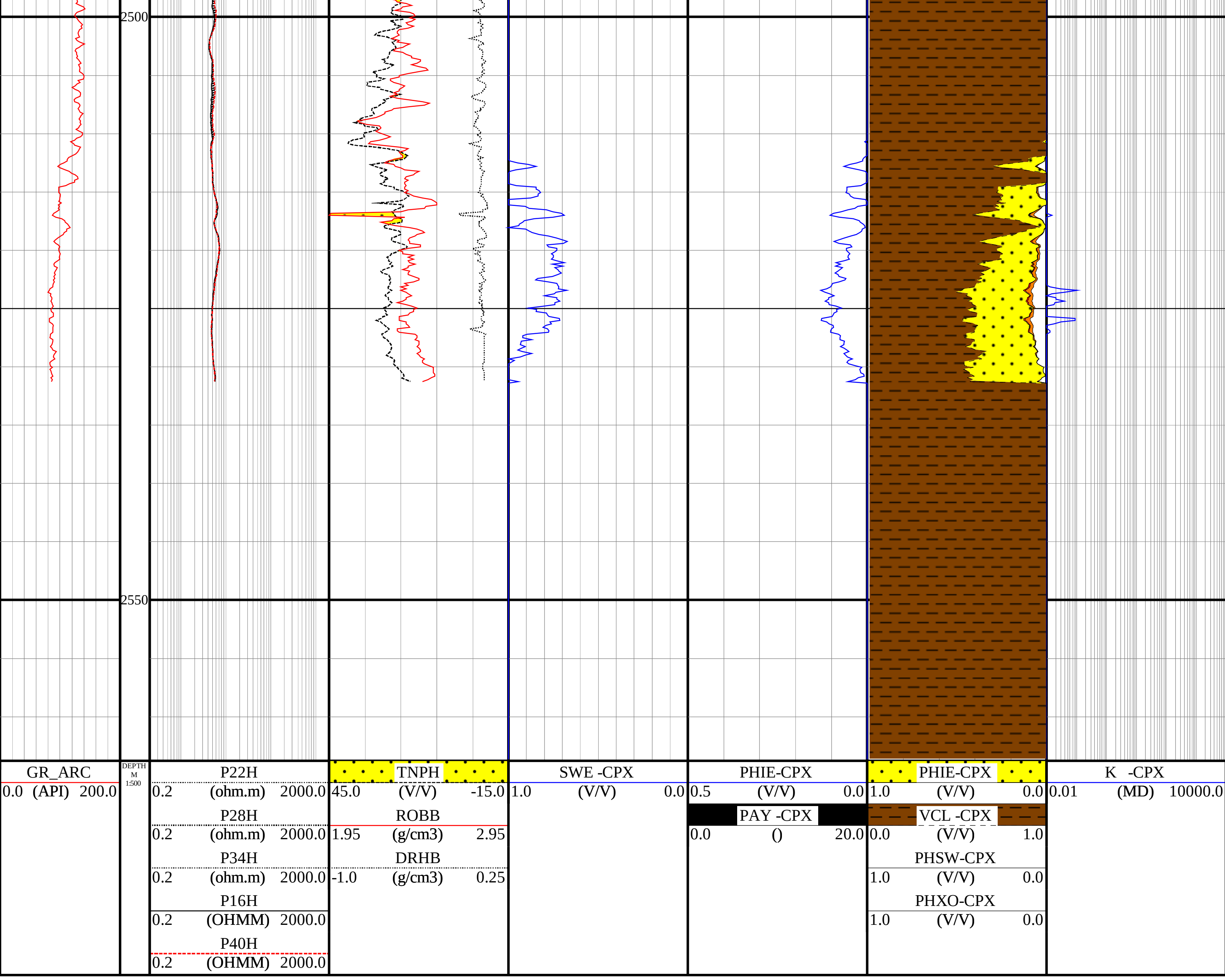
200 Sand
2450



2500
2550
GR_ARC
0.0 (API) 200.0
DEPTH M 1:500
P22H
0.2 (ohm.m) 2000.0
P28H
0.2 (ohm.m) 2000.0
P34H
0.2 (ohm.m) 2000.0
P16H
0.2 (OHMM) 2000.0
P40H
0.2 (OHMM) 2000.0
TNPH
45.0 (V/V) -15.0
ROBB
1.95 (g/cm3) 2.95
DRHB
-1.0 (g/cm3) 0.25
SWE -CPX
1.0 (V/V) 0.0
PHIE-CPX
0.5 (V/V) 0.0
PAY -CPX
0.0 () 20.0
PHIE-CPX
1.0 (V/V) 0.0
VCL -CPX
0.0 (V/V) 1.0
PHSW-CPX
1.0 (V/V) 0.0
PHXO-CPX
1.0 (V/V) 0.0
K -CPX
0.01 (MD) 10000.0

Longtom-3H

PETROPHYSICAL INTERPRETATION REPORT

PREPARED BY: Glenn Wormald
Sr Geoscientist

DATE: January 2007

SUMMARY

Longtom-3H (horizontal) is located in exploration permit VIC/P54, approximately 0.75km WNW of Longtom-1 and 1.2km NW of Longtom-2. It was drilled as a horizontal development well following the Longtom-3P & 3ST1 wells in August 2006 and reached a total depth of 4674m. The targets were the Admiral Formation 100 and 200 gas sands discovered at Longtom-2 and appraised at Longtom-3P & 3ST1.

The well encountered a total of 811m of net gas bearing 200, 100 and 200R (repeat) sands over a 2,225m gross column with average porosity of 14.3%, permeability of 7mD and water saturation of 47%.

A 200 Sand gas-water contact was encountered in the 200R interval at 2465mTVDss.

Reservoir properties are summarised below.

Sand	Depth Interval (m)	Fluid	Gross (m)	Net (m)	NTG (%)	PHIE (%)	Perm (mD)	Sw (%)
200	2407-2933	gas	526	321.9	61	13.7	7	48
100	3266-3922	gas	656	416.7	64	15	8	40
200R*	4307-4632	gas	325	72.4	22	13.2	0.6	66
Total	**2407-4632**	**gas**	**2225**	**811**	**48**	**14.3**	**7**	**47**

* R denotes a lateral re-entry into the 200 sand

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1. INTRODUCTION

This report documents a detailed petrophysical analysis of Schlumberger LWD Ecoscope logs recorded at Longtom-3H. Logs were evaluated over the interval 2407-4674m (TD). No wireline logging was conducted.

Longtom-3H is located in exploration permit VIC/P54, approximately 0.75km WNW of Longtom-1 and 1.2km NW of Longtom-2. It was drilled as a horizontal development well following the Longtom-3P & 3ST1 wells in August 2006 and reached a total depth of 4674m. The targets were the Admiral Formation 100 and 200 gas sands discovered at Longtom-2 and appraised at Longtom-3P & 3ST1..

All depths used in this report, unless specified otherwise, are measured depths referenced to the rotary table (RT) which is 21.5m above the well datum, lowest astronomical tide (LAT).

2. HOLE CONDITIONS

2.1 Hole Size

The well was drilled with a 9½” bit in synthetic based mud from the 10¾” casing shoe at 2374.3m to TD at 4674m. Maximum well inclination is 100.7º.

Hole conditions are good with hole size not exceeding ~10”. All log responses are consequently good quality.

2.2 Borehole Fluids

Mud type and weight present during LWD logging over the reservoir interval are summarized in Table 1.

Table 1: Longtom-3H Borehole Fluids

Suite Number	1
Mud Type	SBM Petrofree
Mud Weight	1.45sg

2.3 Temperature

No temperature information is available.

3. AVAILABLE DATA

3.1 LWD Logs

Schlumberger 6¾” LWD Ecoscope service was run from the 10¾” casing shoe at 2374.3m to 4674m (TD). Logging sensors and their distance to the bit are as follows: Xceed D&I 4.2m; GR 9.8m; Density 11m; ultrasonic Caliper 11.4m; Resistivity 12.84; Neutron 13.09m and TeleScope D&I 20.16m. All log responses appear to be of good quality. Resistivity polarization horns are present near sand/shale interfaces but do not affect the interpretation and therefore have not been edited.

3.2 Wireline Logs

Nil

3.3 Data Processing

Nil

3.4 Operational Notes

Nil

3.5 Conventional Cores

Nil

3.6 Rotary Sidewall Cores

Nil

3.7 Sidewall Cores

Nil

3.8 Wireline Formation Testing

Nil

3.9 Drillstem Tests

Following the drilling and completion of the Longtom-3H development well, two drill stem tests were conducted. The 400 Sand interval drilled in Longtom-3ST1 was tested on its own. The 300 sand interval drilled in Longtom-3ST1 was tested in conjunction with 100 and 200 Sand intervals intersected in Longtom-3H. Refer to the Drill Stem Testing report for details.

4. INTERPRETATION PROCEDURE

4.1 Data Preparation

As all log traces used in the quantitative analysis are LWD, no depth matching was necessary. No additional environmental corrections were made to those performed at the wellsite.

4.2 Interpretation Model

The interval 2407-4661m was evaluated using Petrolog, a log storage, manipulation, interpretation and presentation software package developed by Crocker Data Processing P/L of Perth, Australia.

The reservoir section comprises sands, silts and claystones deposited in a fluvio-lacustrine environment. The sands range in composition from litharenite to feldspathic litharenite. Framework grains are mainly quartz though volcanic rock fragments are very common while feldspar, chert and clay replaced grains make up the remainder. Sands are described as fine- to medium-grained, moderately well sorted and cross bedded with moderate reservoir potential. Main clay types are chlorite, kaolinite and illite. They are found in the reservoir sands in approximately equal proportions in structural and dispersed distribution styles. Calcite cement is locally abundant at the base of some sand bodies and is the main control on reservoir quality. Quartz overgrowth and pyrite cements are present in minor quantities.

The Petrolog “SSS” (Sand, Shale, Silt) log interpretation routine was selected to compute effective porosity, permeability and water saturation. This routine requires a fixed matrix density to be input by the user. In this case, matrix density was set at the default quartz sandstone value of 2.65g/cc.

A simple model comprising the input curves gamma ray, density and deep resistivity had previously been constructed at Longtom-2 and calibrated to overburden corrected core porosity and permeability from conventional core cut across the 400 Sand. This model has been applied to the logs at Longtom-3H.

Effective porosity was calculated using the Ecoscope density response (DENS), computed Vclay from gamma ray (GRMA) and estimated clay, matrix and fluid densities in the formula:

PHIE = PHID*(1.0-Vclay)
Where PHID = (RHOB-RHOMA)/(RHOF-RHOMA) and
PHIT = PHIE + Vclay*PHIclay
Where PHIclay = (RHOBwetclay-RHOBdryclay)/(RHOF-RHOBdryclay)

The default dry clay RHOB of 2.70g/cc was used.

Water saturation was calculated using the Ecoscope computed true resistivity response (RT) and the Indonesia equation.

Permeability was estimated using the overburden corrected core porosity vs log10 permeability transform from Longtom-2 400 Sand. The equation is:

Perm = (32.6 * Effective Porosity) – 5.2

4.3 Log Interpretation Parameters

A summary of input parameters is shown below.

Table 3: Longtom-3H Input Parameters

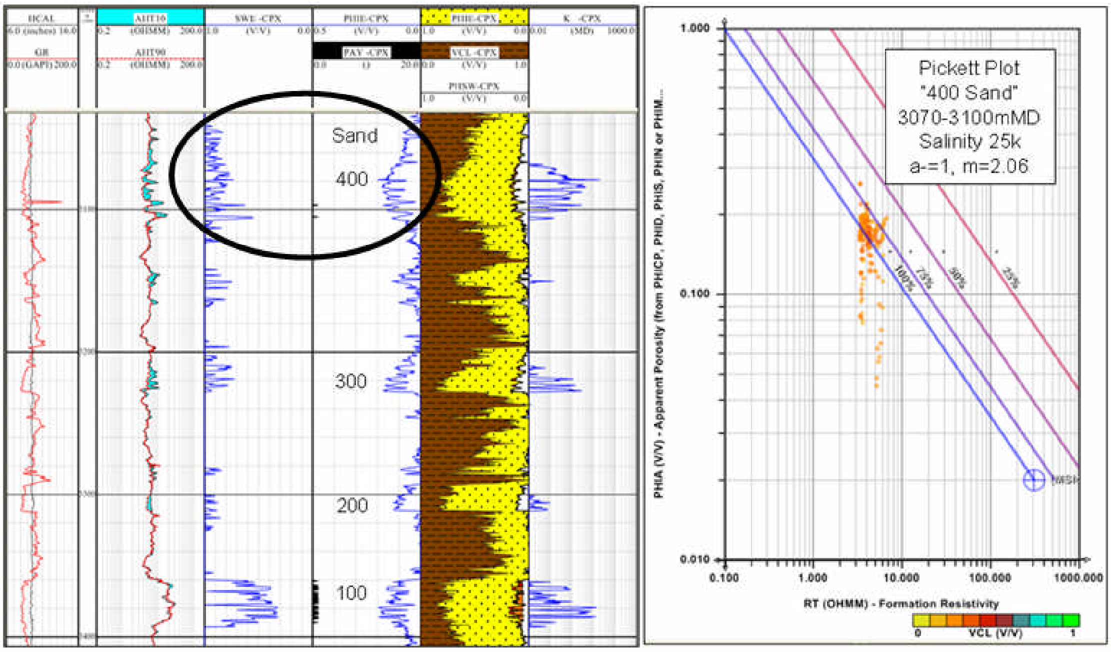
Sand	Depth Interval (m)	Rclay ohmm	GRmin	GRmax	Rhocl g/cc	Rhofl g/cc	Rhoma g/cc
200	2407-2933	5	35	155	2.49	1.01	2.65
100	3266-3922	5	35	155	2.49	1.01	2.65
200R*	4307-4632	5	35	155	2.49	1.01	2.65

* R denotes a lateral re-entry into the 200 sand

4.4 Water Salinity

An Rw of 0.25 @ 25°C (25,000ppm NaCleq) was used. This value was estimated using a Pickett Plot over the 400 Sand in Longtom-3P (Figure 1). The cloud of water bearing points is bisected by the line which has as its y-intercept, Rw at formation temperature, and as its slope, the value of cementation exponent ‘m’. The cementation exponent used is 2.06, from special core analysis (SCA) of Longtom-2 conventional core plugs taken from the 400 Sand (Apache Energy, 2006).

Figure 1: Longtom-3P Pickett Plot Rw



4.5 Formation Electrical Properties

Formation electrical properties are derived from Longtom-2 SCA of plugs from conventional core cut across the 400 Sand. Average cementation exponent 'm' is 2.06 and average saturation exponent 'n' is 2.12.

5. INTERPRETATION RESULTS

Results are illustrated in plot format (Enclosure 1).

5.1 Net Sand Definition

A net reservoir porosity cutoff of 8% was used. Based on Longtom-2 core data, this equates to a permeability of approximately 0.005mD. No permeability, Vclay or water saturation cutoffs were applied.

5.2 Fluid Contacts

Fluid contacts are shown below.

Table 4: Longtom-3H Fluid Contacts

Sand	LKG (m)	LKG (mTVDss)	GWC (m)	GWC (mTVDss)
200	2933	2395.3		
100	3922	2507.4		
200R*			4307	2465.5
200R*			4632	2465.0

* R denotes a lateral re-entry into the 200 sand

5.3 Results

The well encountered a total of 811m of net gas bearing 200, 100 and 200R (repeat) sands over a 2,225m gross column with average porosity of 14.3%, permeability of 7mD and water saturation of 47%. Reservoir properties are summarized below.

Table 5: Longtom-3H Reservoir Summary

Sand	Depth Interval (m)	Fluid	Gross (m)	Net (m)	NTG (%)	PHIE (%)	Perm (mD)	Sw (%)
200	2407-2933	gas	526	321.9	61	13.7	7	48
100	3266-3922	gas	656	416.7	64	15	8	40
200R*	4307-4632	gas	325	72.4	22	13.2	0.6	66
Total	**2407-4632**	**gas**	**2225**	**811**	**48**	**14.3**	**7**	**47**

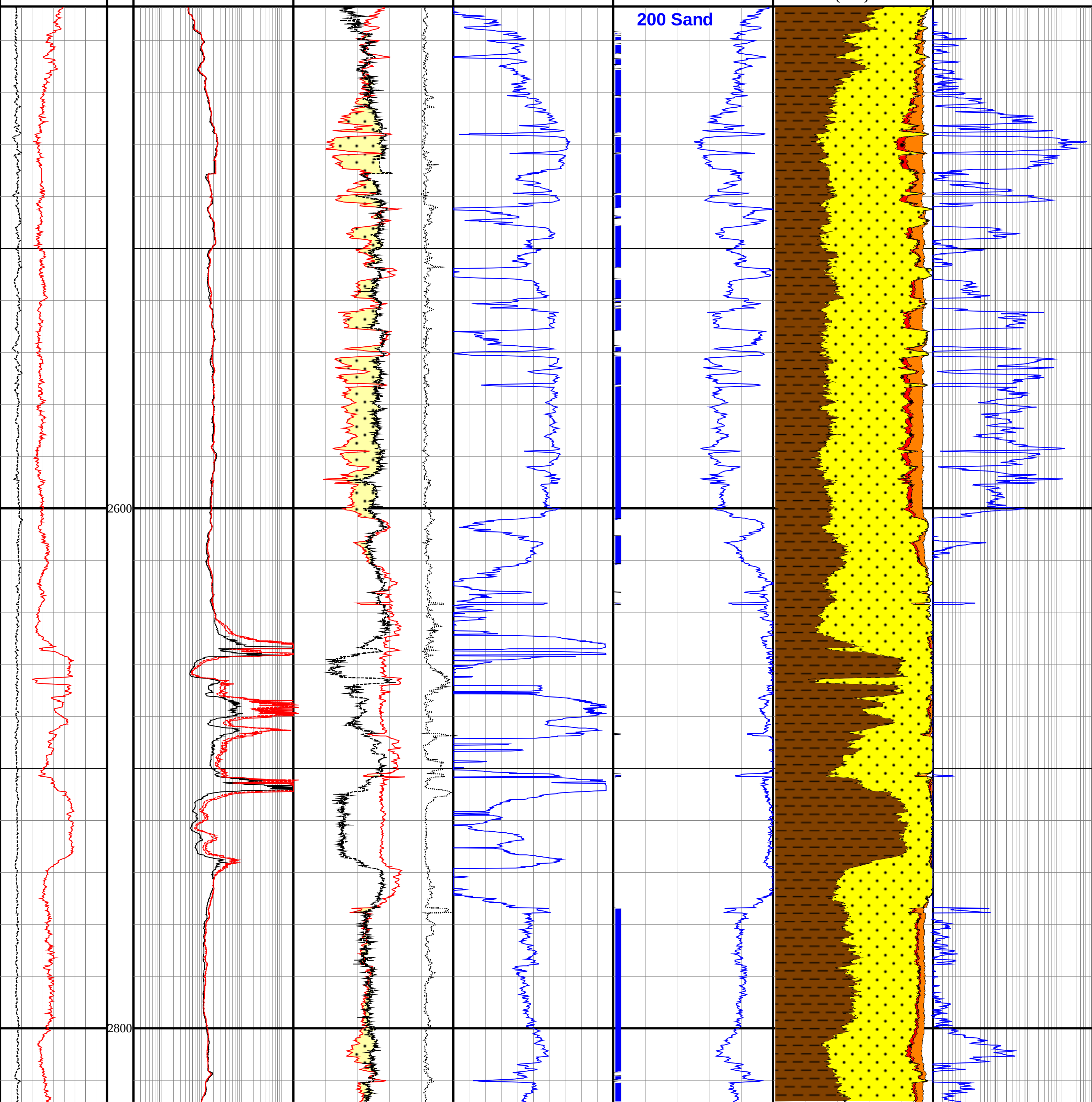
* R denotes a lateral re-entry into the 200 sand

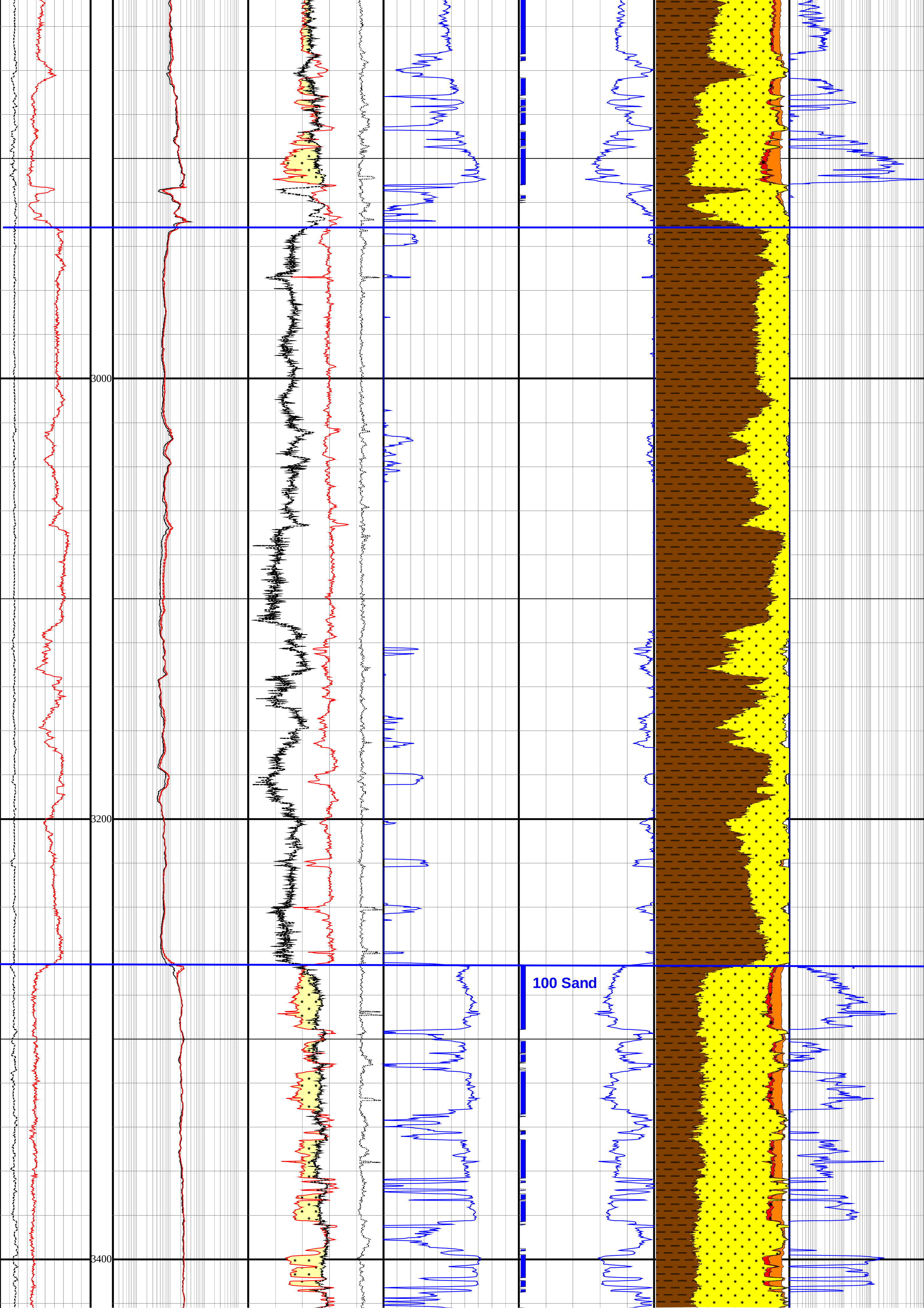
6. REFERENCES

1. BHP Petroleum P/L, 1995: Longtom-1 & 1ST1 Well Completion Report, Interpretative Data, December 1995.
2. BHP Petroleum P/L, 1996: Longtom-1 & 1ST 1 Well Completion Report, Basic Data, January 1996
3. Apache Energy, 2005: Longtom-2 & 2ST 1 Well Completion Report, Basic Data, July 2005
4. Apache Energy, 2006: Longtom-2 & 2ST 1 Well Completion Report, Interpretative Data, February 2006
5. Nexus Energy Ltd, 2006: Longtom Field Development Plan, November 2006

Longtom-3 H

GRMA	DEPTH M 1:2000	RT	DENS	SWE -CPX	PAY -CPX	PHIE-CPX	K -CPX
0.0 (API) 200.0		0.2 (OHMM) 2000.0	1.95 (G/C3) 2.95	1.0 (V/V) 0.0	0.0 () 20.0	1.0 (V/V) 0.0	0.01 (MD) 1000.0
HDIA		P16H	DRHB		PHIE-CPX	VCL -CPX	
8.0 (inches) 18.0		0.2 (OHMM) 2000.0	-1.0 (g/cm3) 0.25		0.5 (V/V) 0.0	0.0 (V/V) 1.0	
		P40H	TNPH			PHSW-CPX	
		0.2 (OHMM) 2000.0	45.0 (V/V) -15.0			1.0 (V/V) 0.0	
						PHXO-CPX	
						1.0 (V/V) 0.0	

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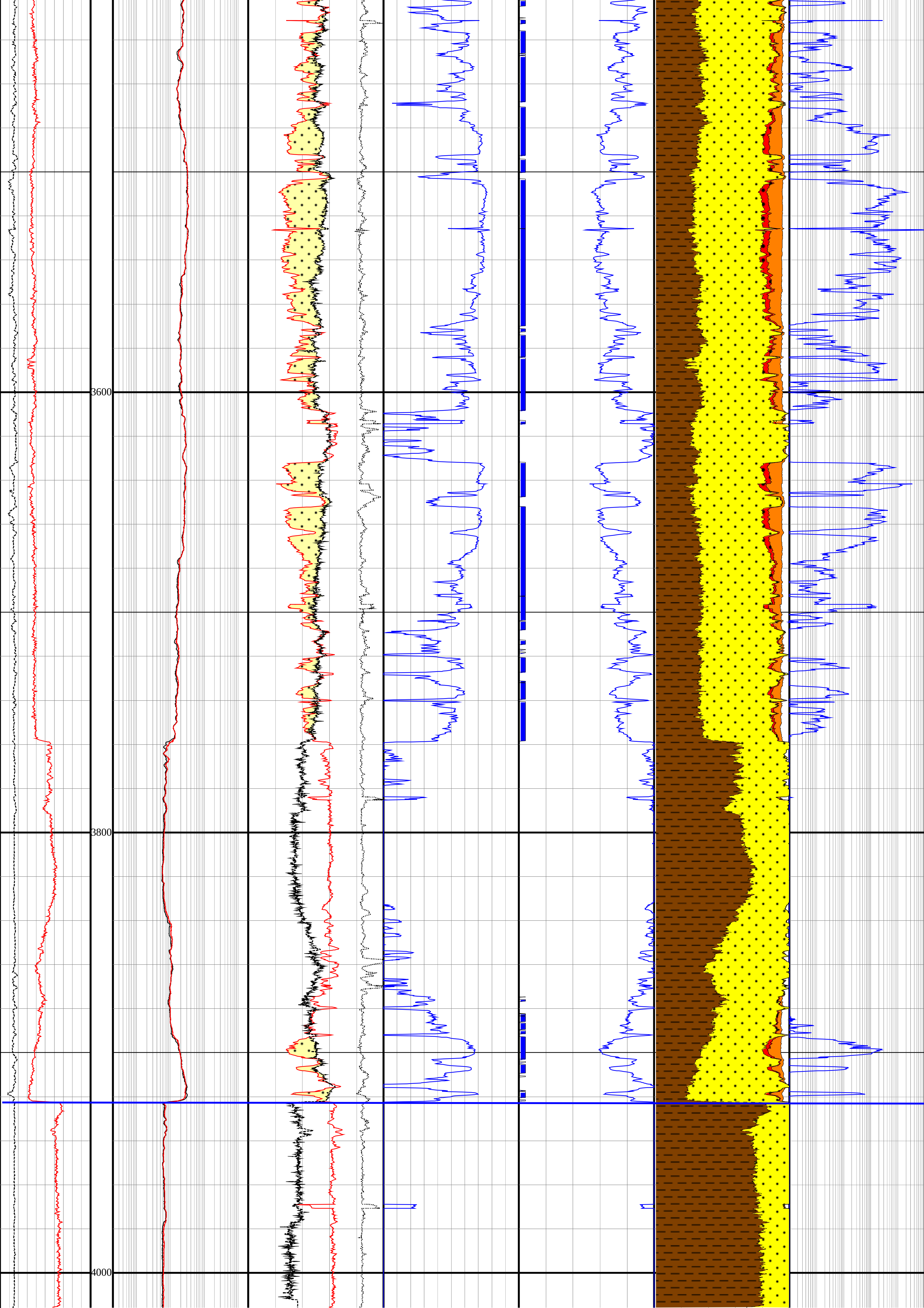
3200
3400
100 Sand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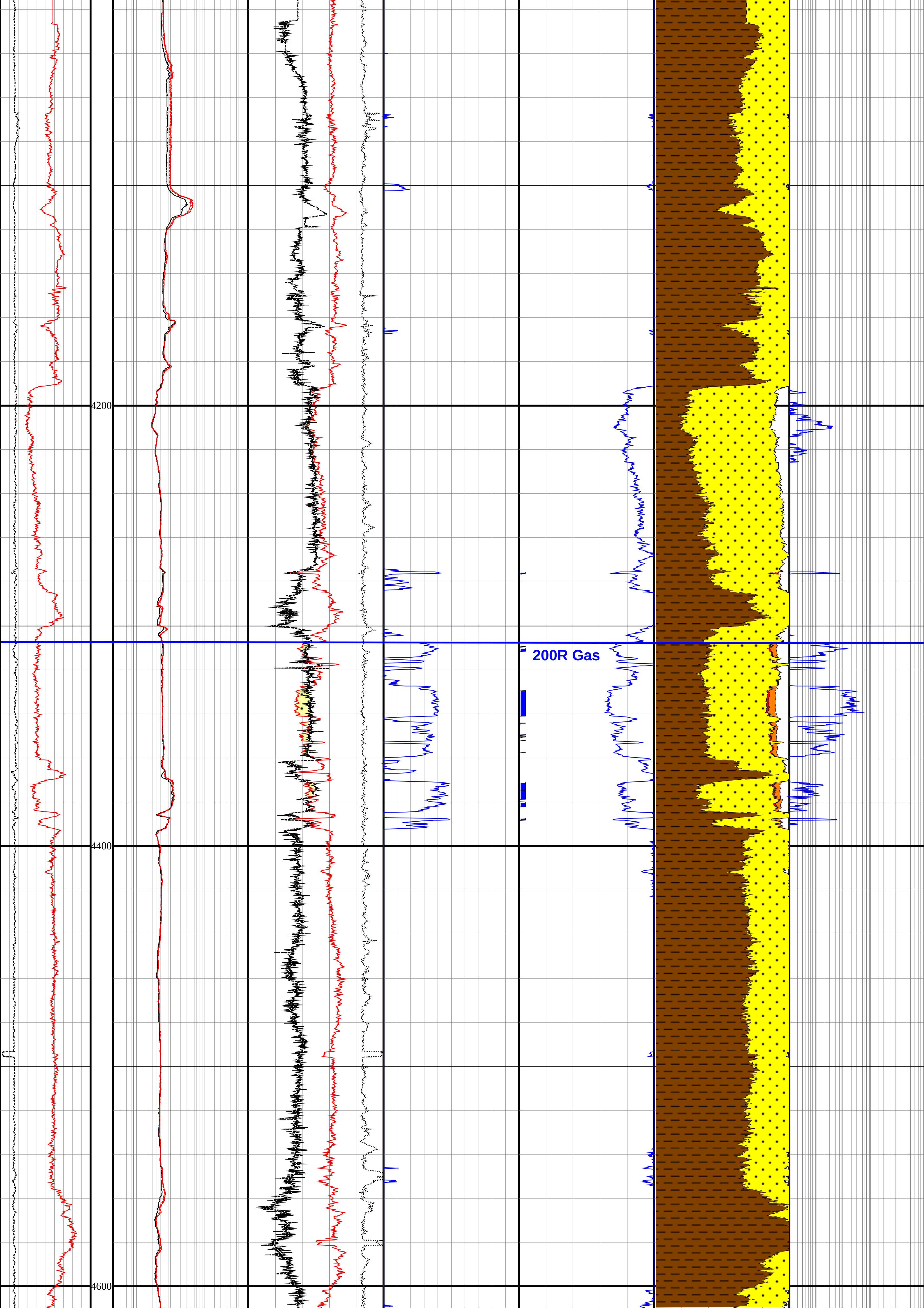
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200R Gas
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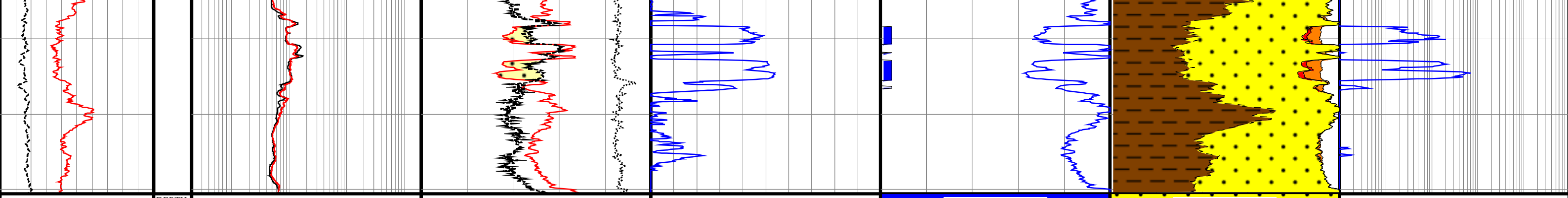
4600



GRMA	DEPTH	RT	DENS	SWE -CPX	PAY -CPX	PHIE-CPX	K -CPX
0.0 (API) 200.0	M	0.2 (OHMM) 2000.0	1.95 (G/C3) 2.95	1.0 (V/V) 0.0	0.0 () 20.0	1.0 (V/V) 0.0	0.01 (MD) 1000.0
HDIA	1:2000	P16H	DRHB		PHIE-CPX	VCL -CPX	
8.0 (inches) 18.0		0.2 (OHMM) 2000.0	-1.0 (g/cm3) 0.25		0.5 (V/V) 0.0	0.0 (V/V) 1.0	
		P40H	TNPH			PHSW-CPX	
		0.2 (OHMM) 2000.0	45.0 (V/V) -15.0			1.0 (V/V) 0.0	
						PHXO-CPX	
						1.0 (V/V) 0.0	

APPENDIX 3: GAS GEOCHEMISTRY REPORT

GEOCHEMISTRY REPORT

LONGTOM-3 GAS GEOCHEMICAL ANALYSIS

VIC/P54
Gippsland Basin
Victoria, Australia

By

John K. Emmett

Nexus Energy Ltd

May 2008

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Introduction

A gas sample from Production Test #2 which co-mingled the 100, 200 and 300 sands in the Longtom-3H (Horizontal) well, was sent to Geoscience Australia's laboratory in Canberra for compound specific isotope analysis (CSIA).

Results and Discussion

Table 1 lists the specific sands and corresponding depth intervals perforated in the Longtom-3H well that were sampled by Production Test #2.

Reservoir	Perforated intervals (m MDRT)
Upper Group (400 sands)	2135 - 2170 ; 2180 - 2195
Lower Group (300 sands)	2322 - 2343
Lower Group (200 sands)	2405 - 2648 ; 2675 - 2689 ; 2703 - 2710 ; 2752 - 2939
Lower Group (100 sands)	3269 - 3744 ; 3834 - 3931

Table 1: Depths of perforated sands in Longtom-3H Well.

The recorded reservoir temperature for the Longtom-3H Production Test #2 reservoir interval is 248 deg F / 120 deg C.

The gas composition analysis and compound specific isotope analysis (CSIA) data obtained by Geoscience Australia are shown in Figure 1.

Figure 2 shows the normalised hydrocarbon compositions of Longtom Field gases, as well as selected gas samples from Kipper-1 and Grayling-1.

Chemical composition and isotopic data are commonly used for interpretation of gas-source correlation and level of thermal maturity at which the gas was generated (James, 1983; Schoell, 1983; Whiticar, 1994. All the hydrocarbon components of the Longtom-3H gas sample, and the wet gas (C2+) components in particular are relatively isotopically heavy. This gas is interpreted to be generated from a high thermal maturity (Figure 3 and Figure 4), terrigenous (humic/coaly) source facies (Figure 5).

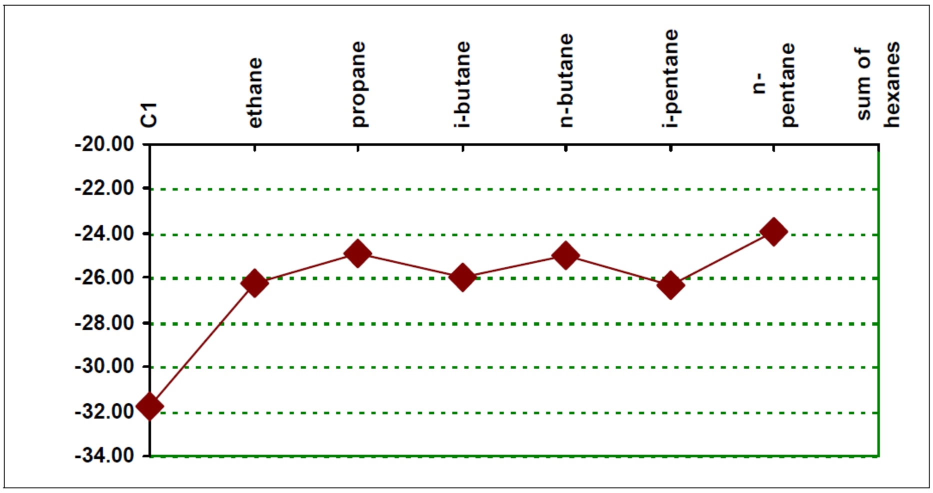
However, as noted by James (1983), there are many cases where gases derived from coals and sediments containing terrestrial organic matter can have isotopic values that indicate a source maturity about one LOM unit too high. As the Longtom gas is believed to be derived from terrestrial organic matter, then allowance for this sort of variation for the gas source maturity should be considered. This interpretation is consistent with that for the origin other Gippsland Basin gases (Burns *et al* 1984). However, even with this adjustment, the Longtom gas is one of the most mature gases in the Gippsland Basin.

GA Gas Report

Gas Composition and Isotope Summary Sheet

AGSO No:	20069073	*Oils of Oz No:*			
Basin:	Gippsland	*Age:*		*Latitude:*	
Well :	Longtom 3H	*Depth (m) :*	-	*Longitude:*	
Test :	*DST #2*	*Formation :*			

Comments : 654.20g empty (no nut) 656.61g full



Gas composition analysis:

	mole %	δ 13C (permil;PDB)
Methane	*89.58*	*-31.79* ± *0.12*
Ethane	*4.43*	*-26.21* ± *0.21*
Propane	*1.79*	*-24.92* ± *0.19*
i-Butane	*0.38*	*-25.99* ± *0.17*
n-Butane	*0.42*	*-25.00* ± *0.40*
i-Pentane	*0.16*	*-26.34* ± *0.43*
n-Pentane	*0.13*	*-23.92* ± *0.54*
Hexanes		±
C7+		
Nitrogen	*1.45*	
CO2	*1.29*	*-11.61* ± *0.17*
Helium	*0.00*	
Hydrogen	*0.00*	

Figure 1: Geoscience Australia Gas Report for analysis of a gas sample from Longtom-3H Production Test #2.

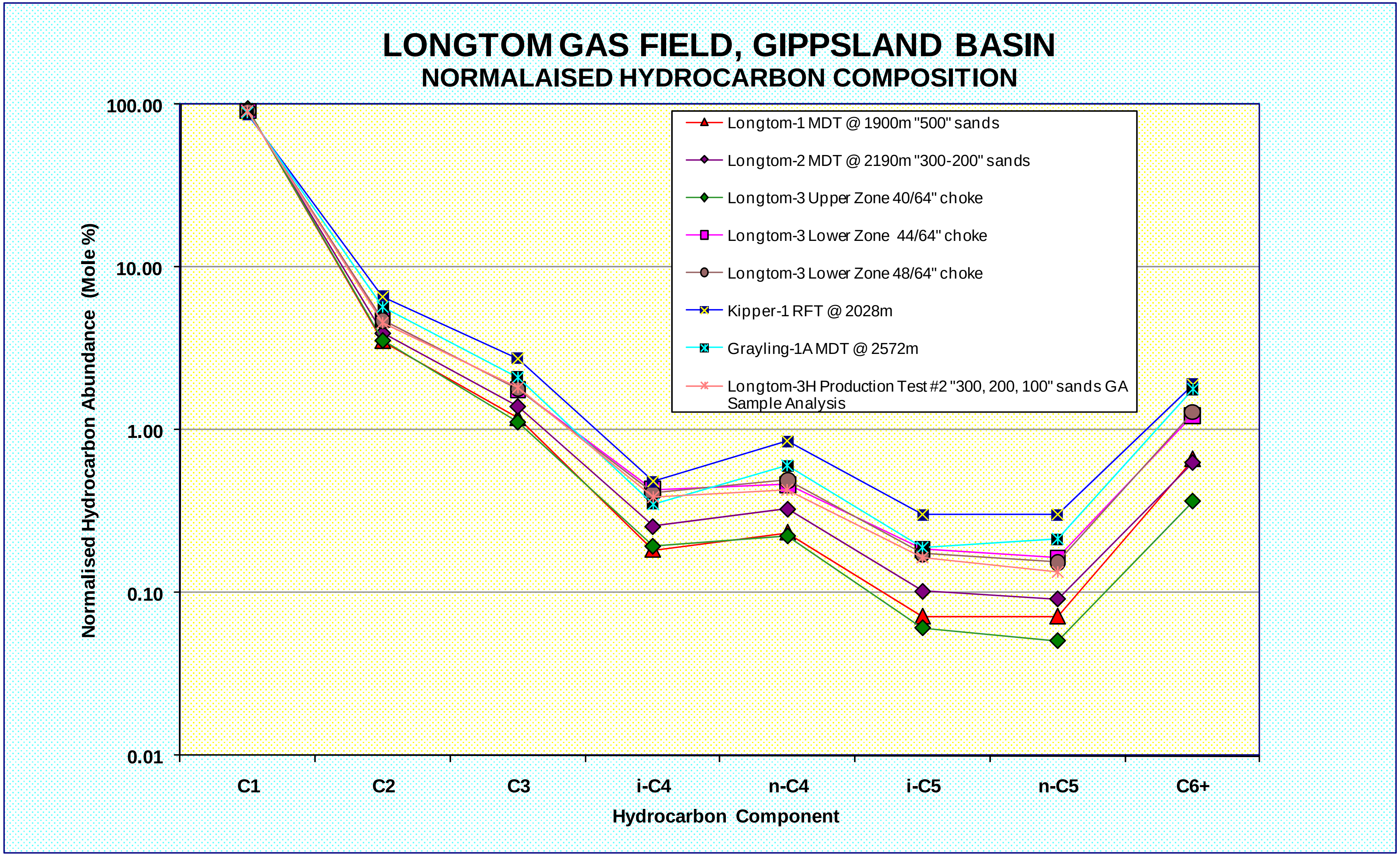


Figure 2: Normalised hydrocarbon composition of Longtom Gases.

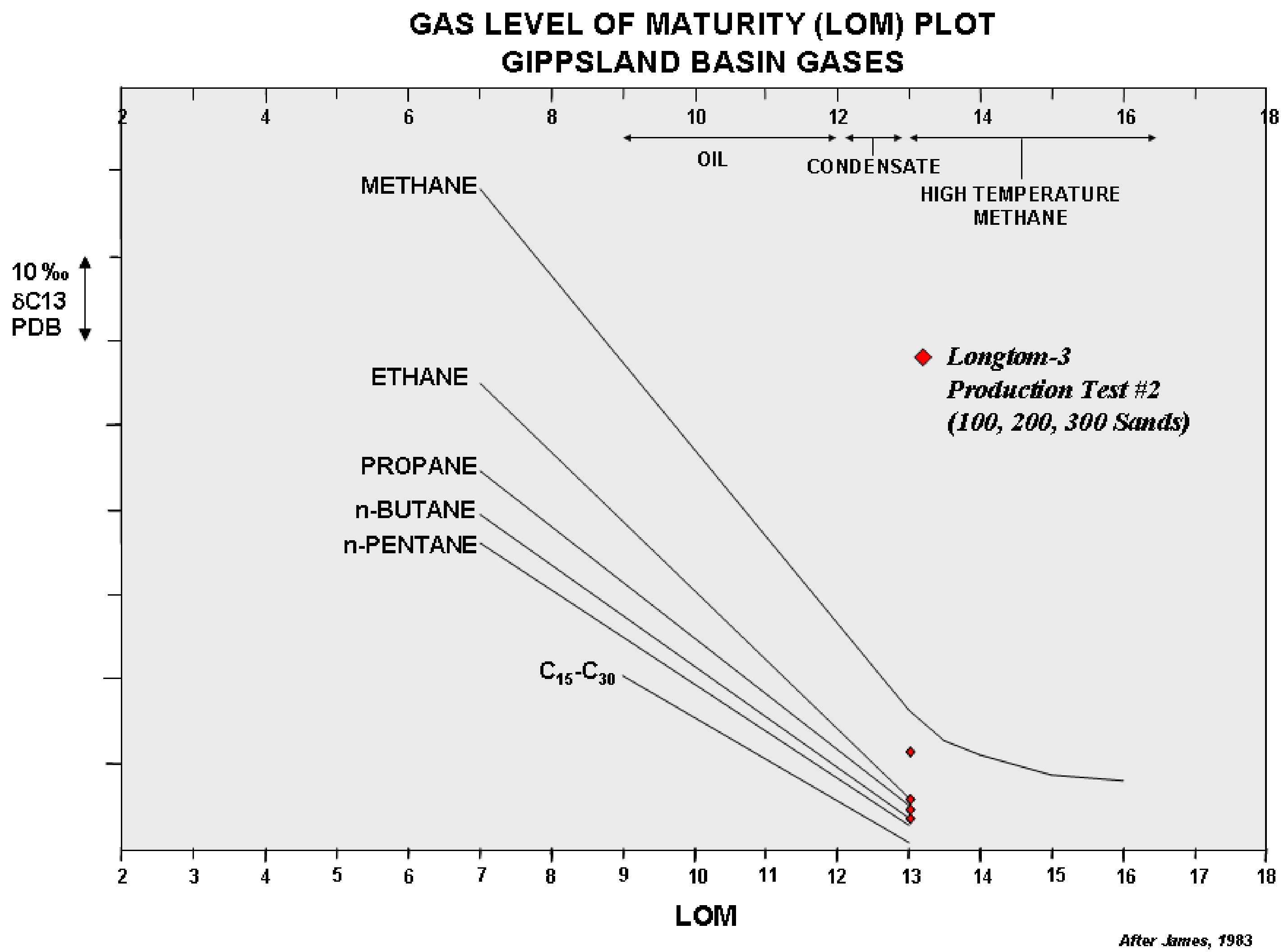


Figure 3: Interpretation of gas source rock thermal maturity level (LOM scale, (Hood *et al*, 1975)) for Longtom-3H Production Test #2 Gas based on distribution of hydrocarbon carbon isotopic values (After James, 1983). LOM 13 is equivalent to vitrinite reflectance of 1.85%.

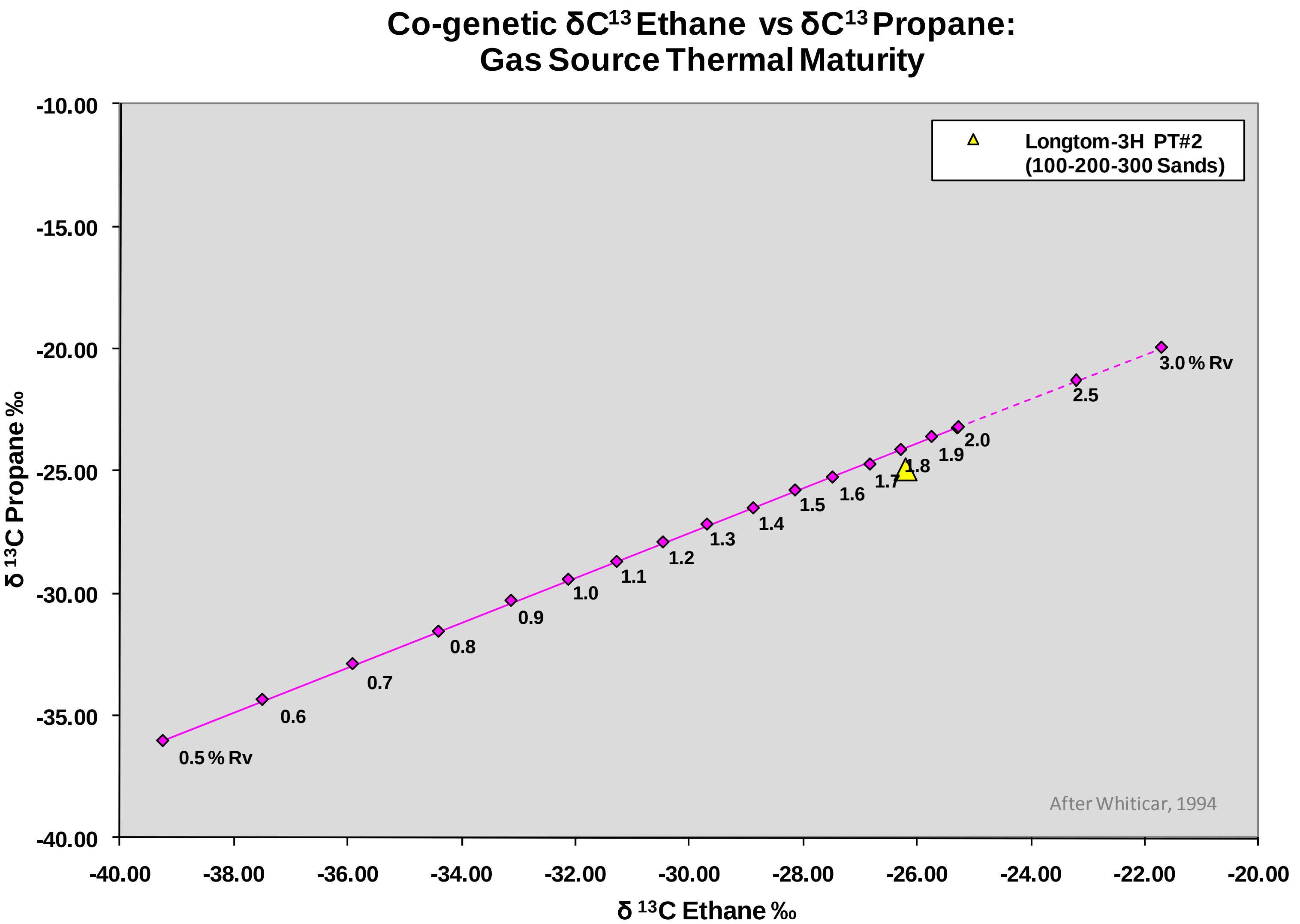


Figure 4: Interpretation of gas source rock thermal maturity level (equivalent vitrinite reflectance) for Longtom-3H Production Test #2 Gas based on cross-plot of Ethane vs Propane carbon isotopic values (After Whiticar, 1994).

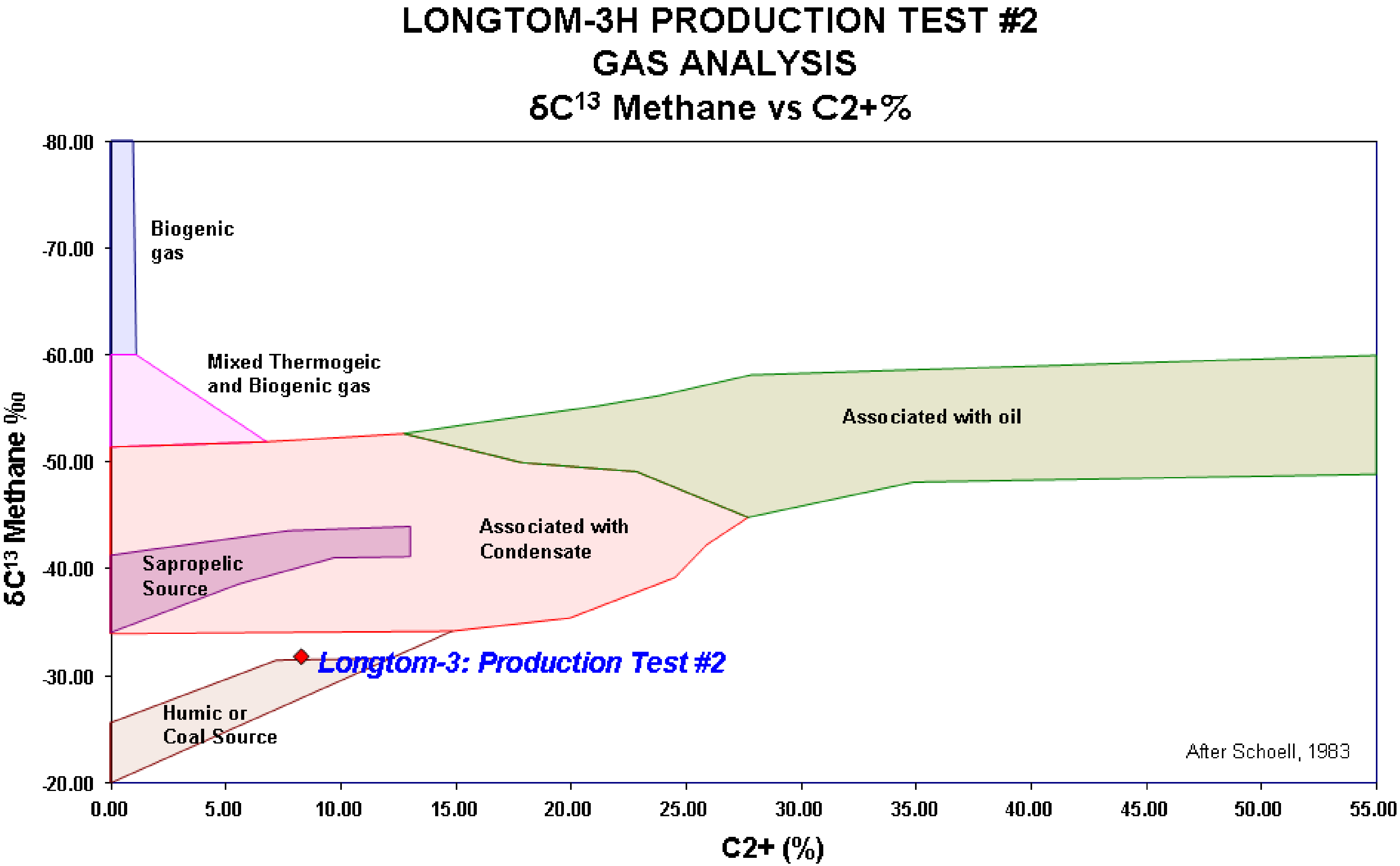


Figure 5: Interpretation of source rock organic facies for Longtom-3H Production Test #2 gas sample based on C2+% vs Methane carbon isotopic value (after Schoell, 1983).

Summary Conclusions

Based on hydrocarbon composition and carbon isotopic values the Longtom-3H Production Test #2 (comingled 100-200-300 Sands) gas is interpreted to be generated from a terrigenous (humic/coaly) source facies at high thermal maturity (equivalent vitrinite reflectance of approx. 1.9 – 2.0 %).

References

Burns, B. J., James, A. T., and Emmett, J. K., 1984, The use of gas isotopes in determining the source of some Gippsland Basin oils, APEA Jour 1984, p 217-221.

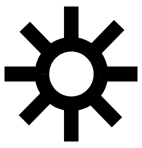
Hood, A., Gutjahr, C. C. M., and Heacock, R. L., 1975, Organic Metamorphism and the Generation of Petroleum, AAPG Bulletin., v.59, p 986-996.

James, A. T., 1983, Correlation of natural gas by use of carbon isotopic distribution between hydrocarbon components: AAPG Bulletin, v. 67, p. 1176– 1191.

Schoell, M., 1983, Genetic characterization of natural gases: AAPG Bulletin, v. 67, p. 2225–2238.

Whiticar, J. M., 1994, Correlation of natural gases with their sources, in L. B. Magoon and W. G. Dow, eds., The petroleum system - From source to trap: AAPG Memoir 60, p. 261– 283.

ENCLOSURE 1: LONGTOM-3P COMPOSITE LOG (Scale 1 : 240)

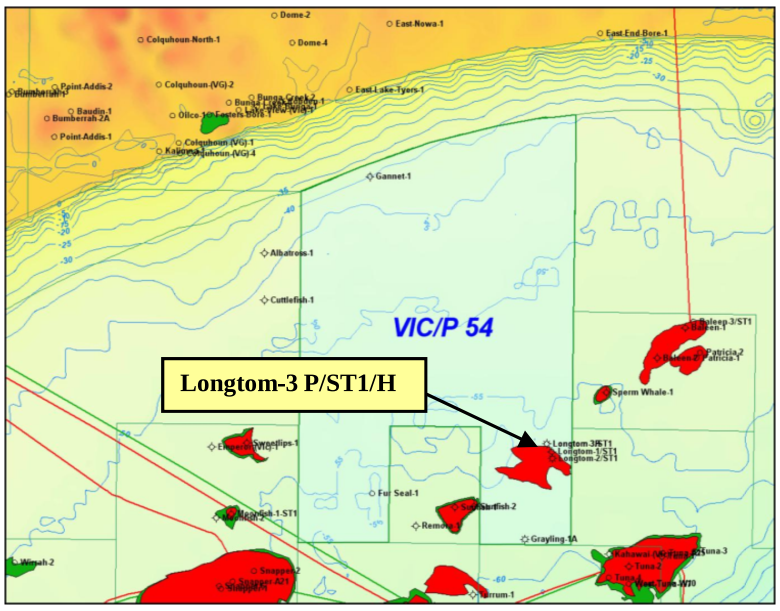


NEXUS ENERGY

LONGTOM-3P

VIC/P54
GIPPSLAND BASIN, VICTORIA

WELL COMPOSITE LOG



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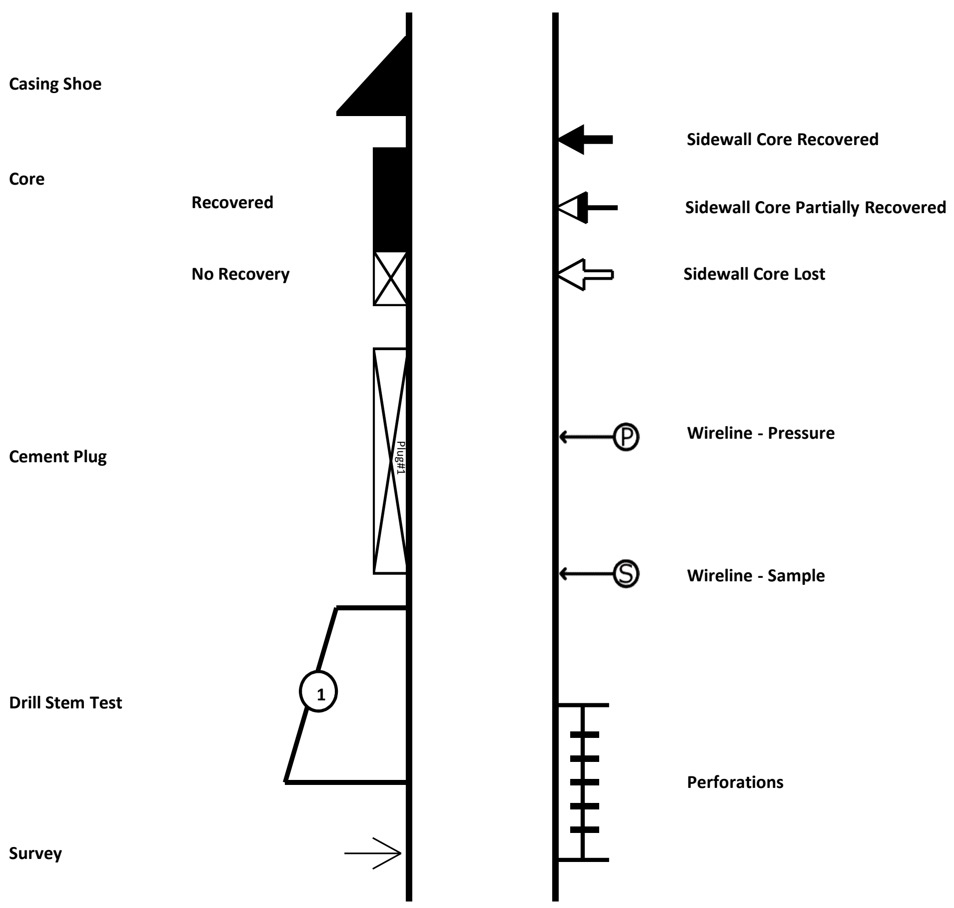
	Line:	299
	Trace:	883
	Offset:	11.4m
SURFACE LOCATION:	Latitude:	38 05' 34.63"S
	Longitude:	148 18' 41.52E
	Easting:	615 006.0mE
	Northing:	5 783 059.3mN
	Datum:	GDA94
	Spheroid:	GRS80
	Map Grid:	MGA
	Projection:	UTM Zone 55
	Central Meridian:	147°E
HOLE SIZES:	914mm (36")	78.2 – 111.8mMDRT
Longtom-3P	559mm (22")	111.8 – 1005mMDRT
	375mm (14¾")	1005 – 1008mMDRT
	241mm (9½")	1008 – 3485mMDRT

PERMIT:	VIC/P54	
BASIN:	GIPPSLAND	
PARTICIPANTS:	Nexus Energy (Op) 100%	
WELL DESIGNATION:	Development	
STATUS:	Cased and Completed	
STRUCTURE TYPE:	Low side, three-way dip closure	
RIG NAME AND TYPE:	Ocean Patriot, Semi Submersible MODU	
RIG CONTRACTOR:	Diamond Offshore Drilling Inc.	
CASING:	Size	Shoe
	762mm (30")	110.8m
	406mm (16")	995.3m

ELEVATION:	Datum:	LAT
	RT-ASL (LAT):	21.5m
	WD (LAT):	56.7m
	RT-ML:	78.2m
SPUD DATE	15:00hrs	11/07/2006
REACHED TD	01:00hrs	30/07/2006
COMPLETED PILOT HOLE PHASE	22:00hrs	31/07/2006
TOTAL DEPTH:	Driller:	3485mMDRT
		-2585.2mTVDSS
	Logger:	3486mMDRT
PLUGS:	No.1 (Abandonment)	3485m-1510m
	No.2 (Kickoff)	1180m-1030m

Engineering Symbols



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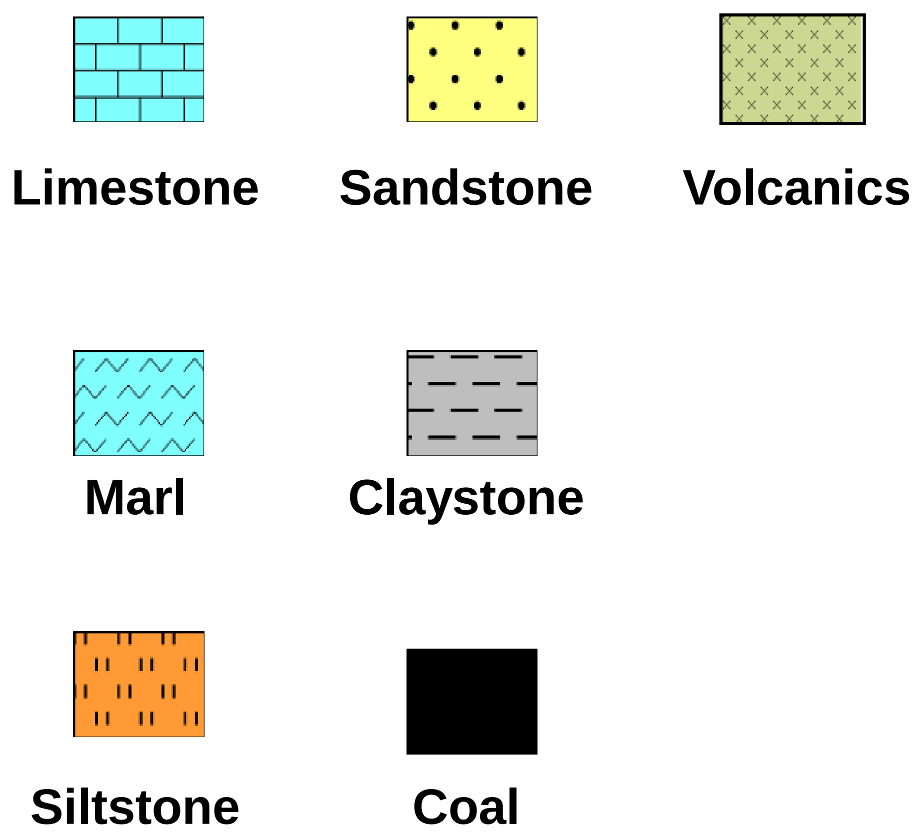
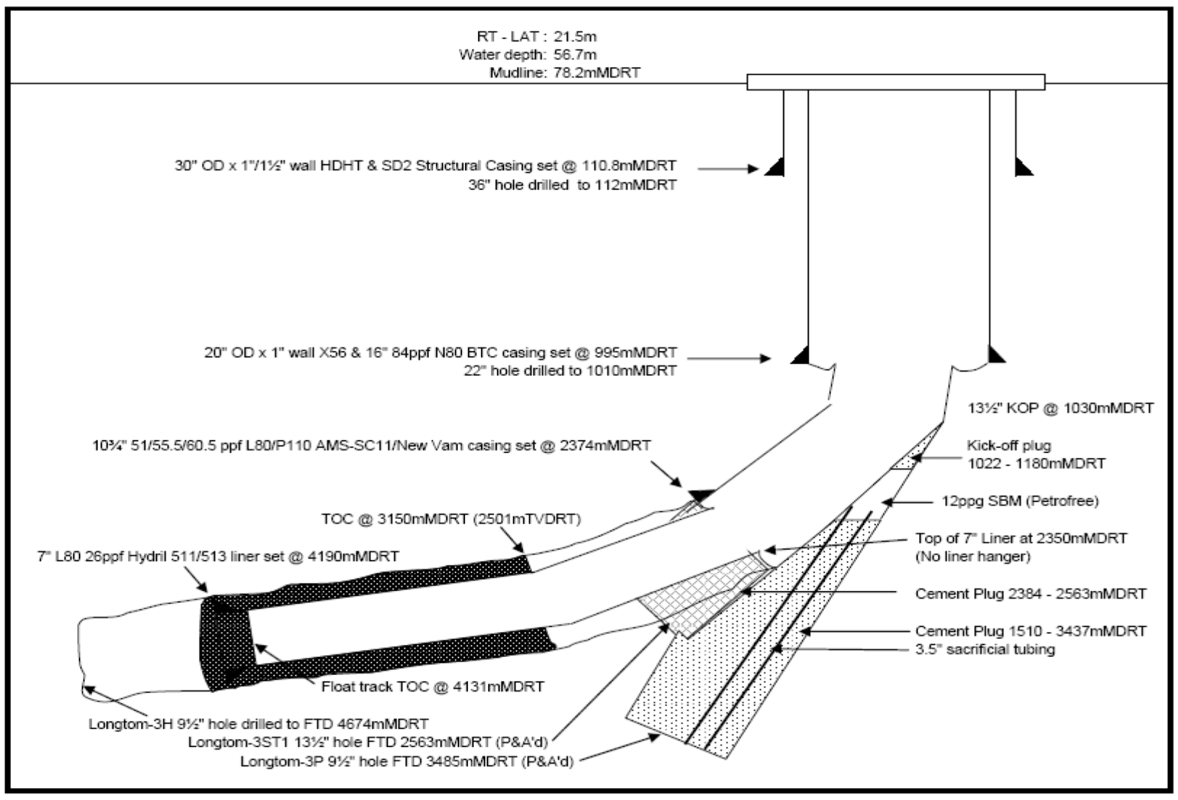


LONGTOM-3P/ST1/3H WELL SCHEMATIC AT START OF COMPLETION PHASE



LOGGIING WHILE DRILLING (LWD) LOGS				
RUN No.	HOLE SIZE	TOOLS	INTERVAL (mMDRT)	COMMENTS
1	559mm (22")	MWD-GR	112 – 1005	POOH at casing point. RT GR only.
2	241mm (9½")	Telescope-Ecoscope-PowerDrive Xceed RST	1005 – 1020	POOH unable to downlink to Xceed.
3	241mm (9½")	Telescope-Ecoscope-PowerDrive Xceed RST	1020 – 1441	POOH unable to steer with Xceed.
4	241mm (9½")	Telescope D&I MWD-PowerPak Motor	1441 - 1546	POOH to pick up RST tool.
5	241mm (9½")	Telescope-Ecoscope-PowerDrive Xceed RST	1546 - 1931	POOH due to Telescope failure.
6	241mm (9½")	Telescope D&I MWD-PowerDrive Xceed RST	1931 - 3437	POOH to run EL.
7	241mm (9½")	Telescope-Ecoscope	3437 - 3485	Ream pass 2585 – 3446m. Drilled to TD

Log Description

GR 2 Gamma-Ray
CALI 7 HRCC Cal. Caliper
BS 2 Bit Size
MSFL 12 Array Induction One Foot Rxo
LLS 11 Array Induction One Foot Resistivity A20
LLD 10 Array Induction One Foot Resistivity A90
RHOB 4 HRDD Standard Resolution Formation Density
PEF 5 HRDD Standard Resolution Formation Photoelectric Factor
NPHI 14 Thermal Neutron Porosity
DT 9 Delta-T Compressional
ROP 3 Mudlog Data
WOB 4 Mudlog Data
T GAS MAIN 5 Mudlog Data
C1 MAIN 6 Mudlog Data
C2 MAIN 7 Mudlog Data
C3 MAIN 8 Mudlog Data
IC4 MAIN 9 Mudlog Data
NC4 MAIN 10 Mudlog Data
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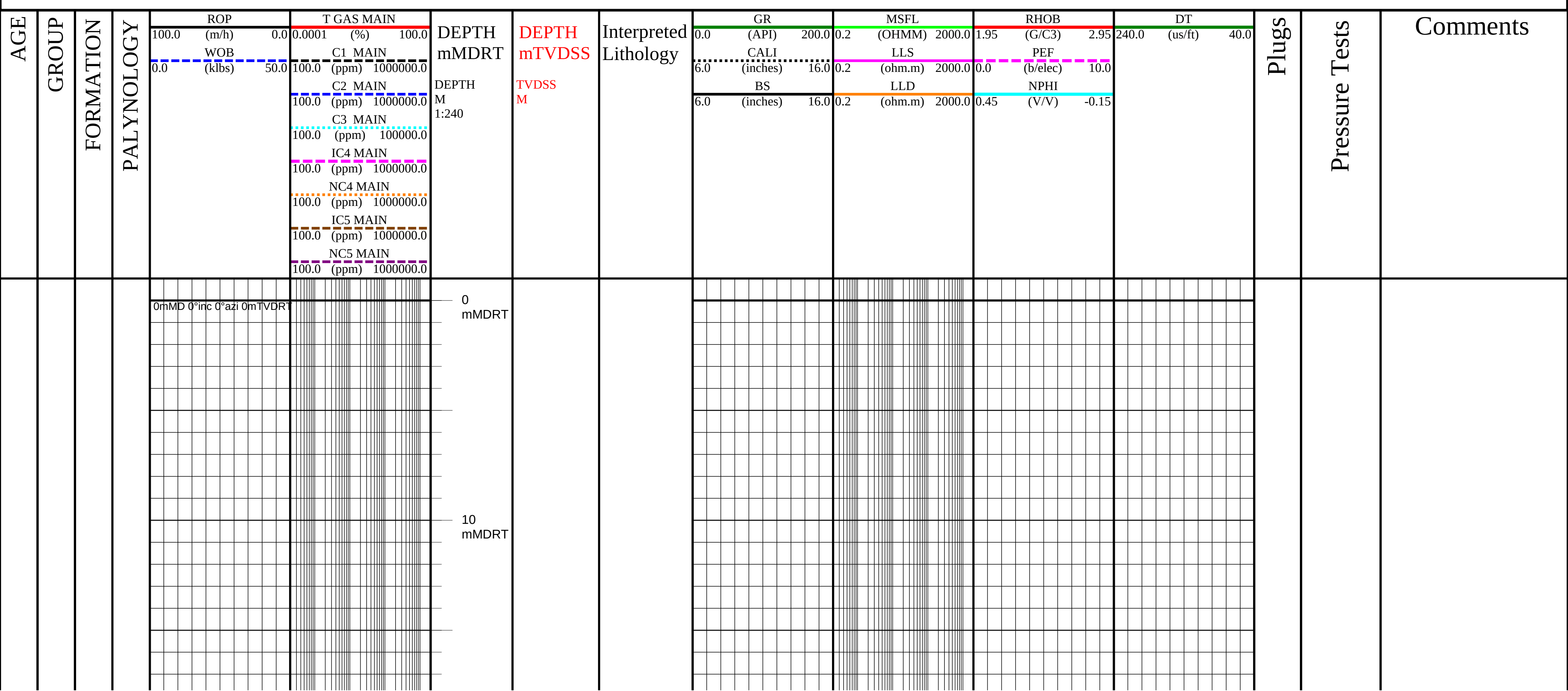
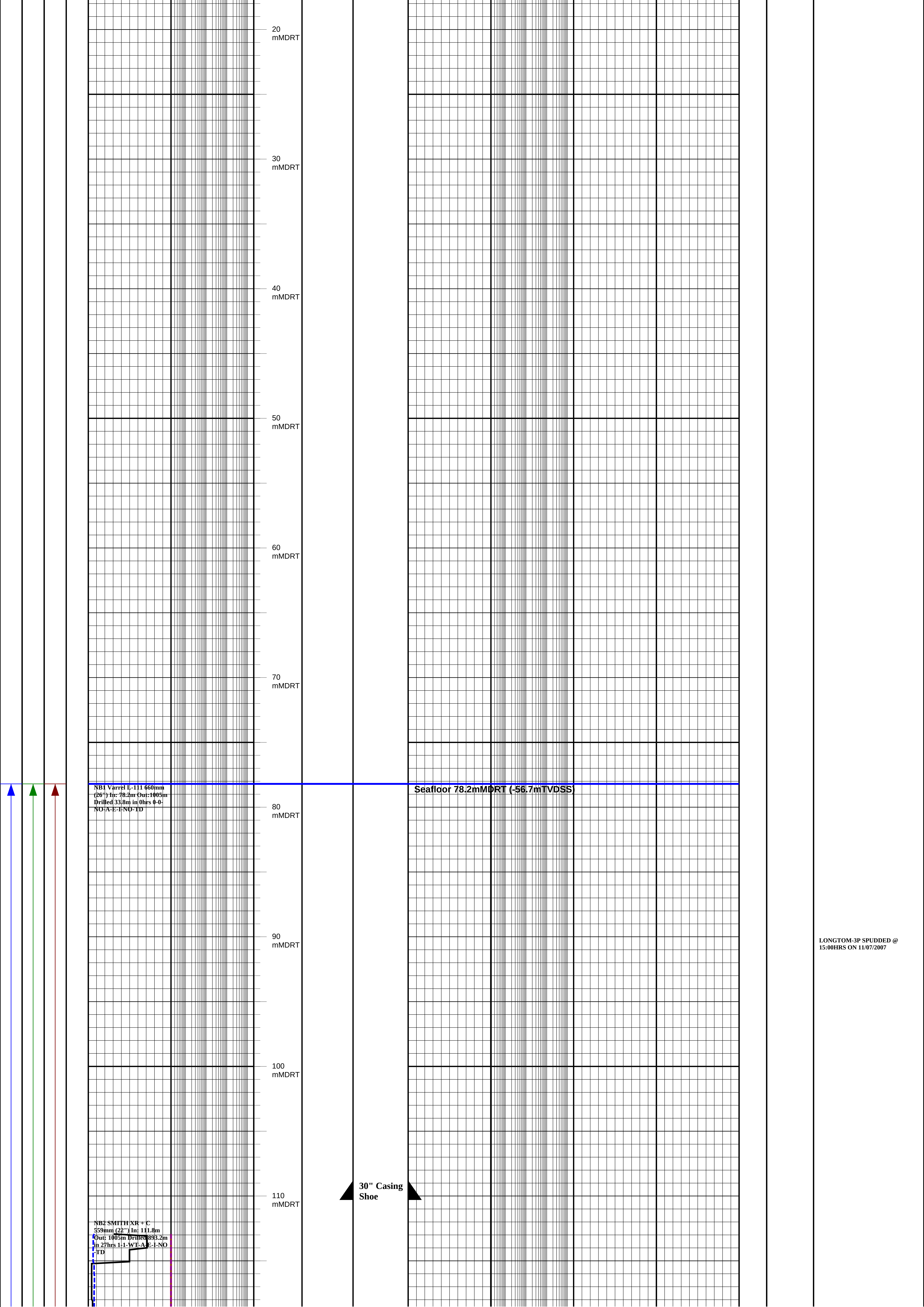
NC5 MAIN 12 Mudlog Data

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Seafloor 78.2mMDRT (-56.7mTVDSS)
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80 mMDRT
90 mMDRT
LONGTOM-3P SPUDDED @ 15:00HRS ON 11/07/2007
100 mMDRT
110 mMDRT
30" Casing Shoe
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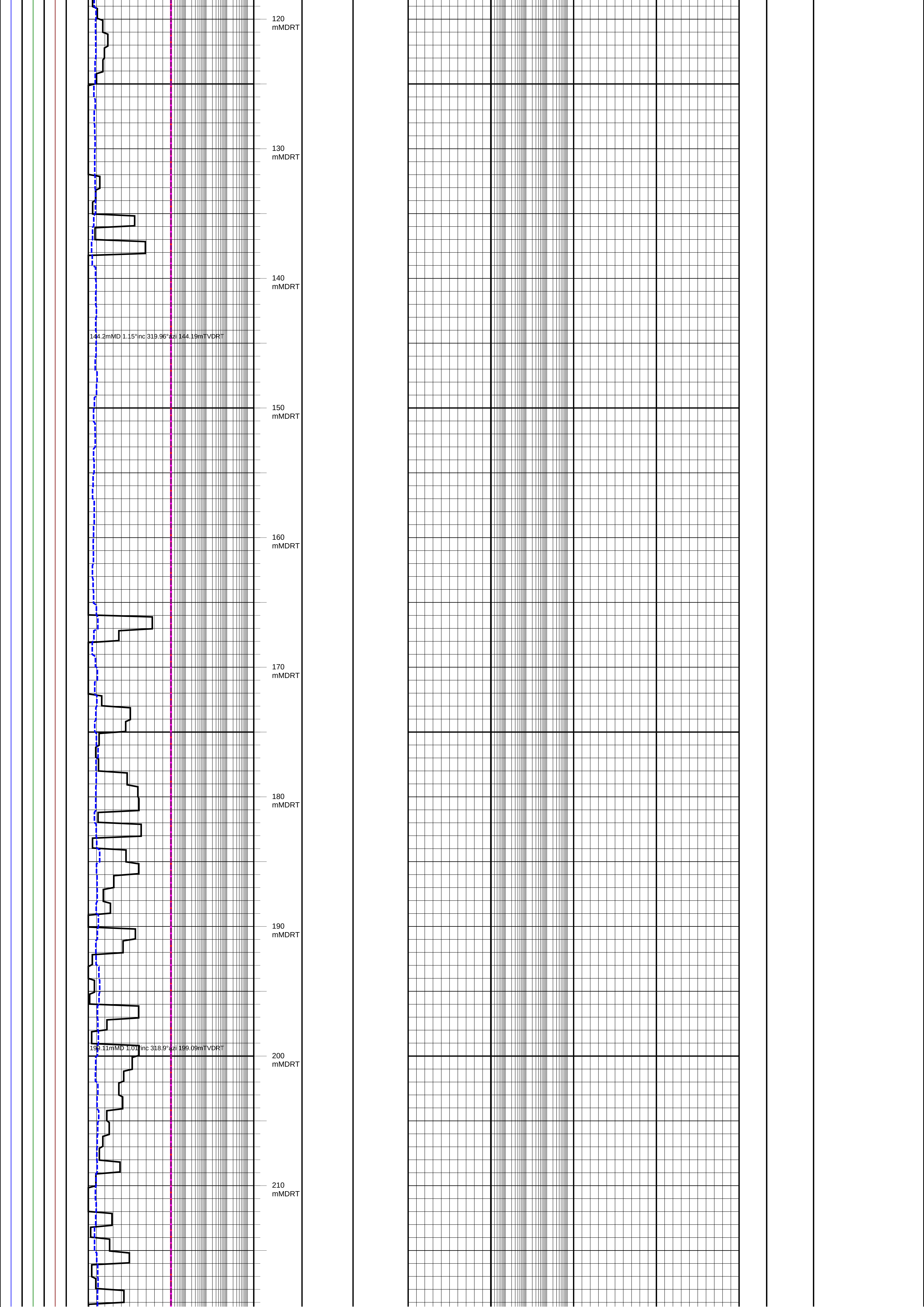
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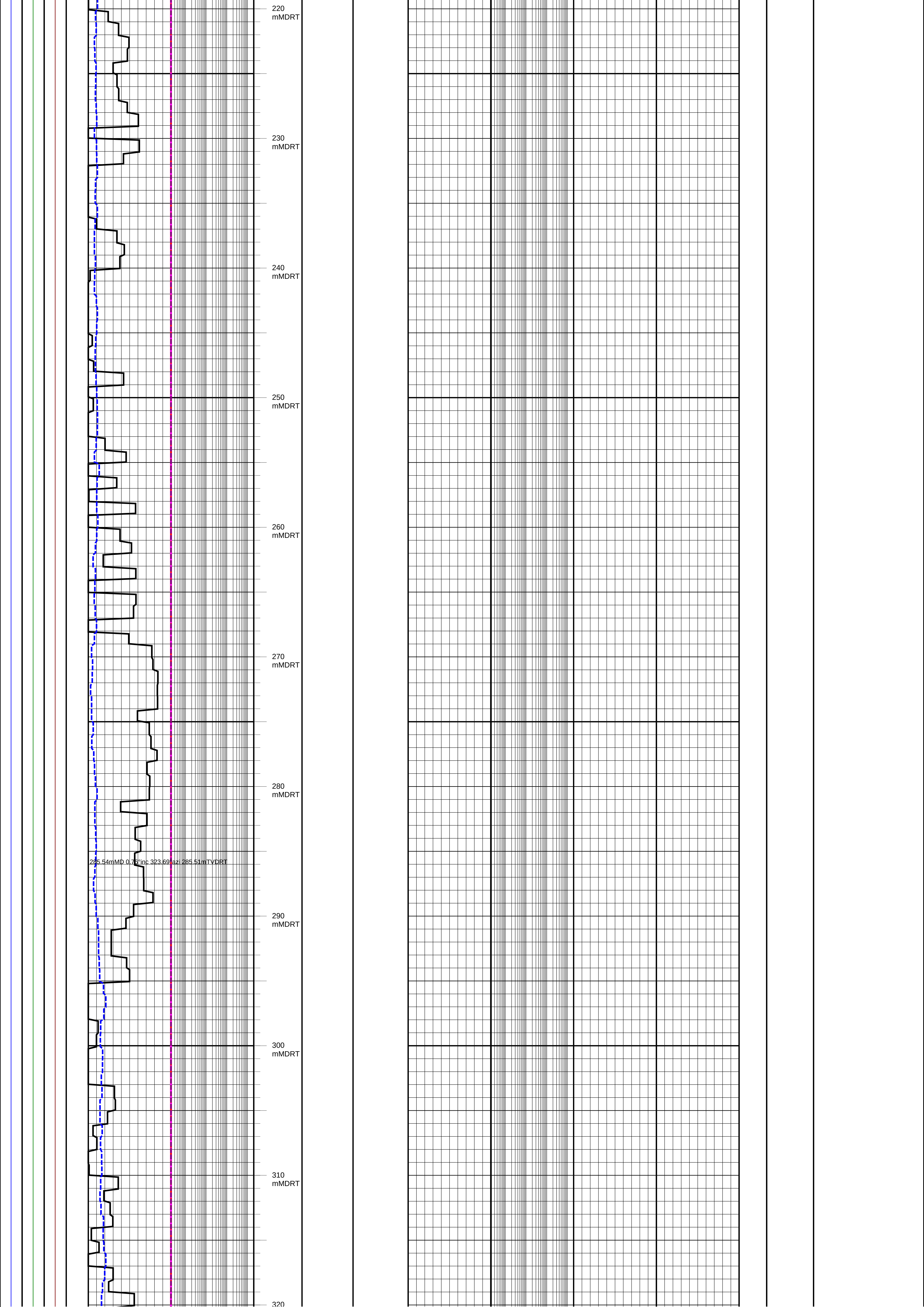
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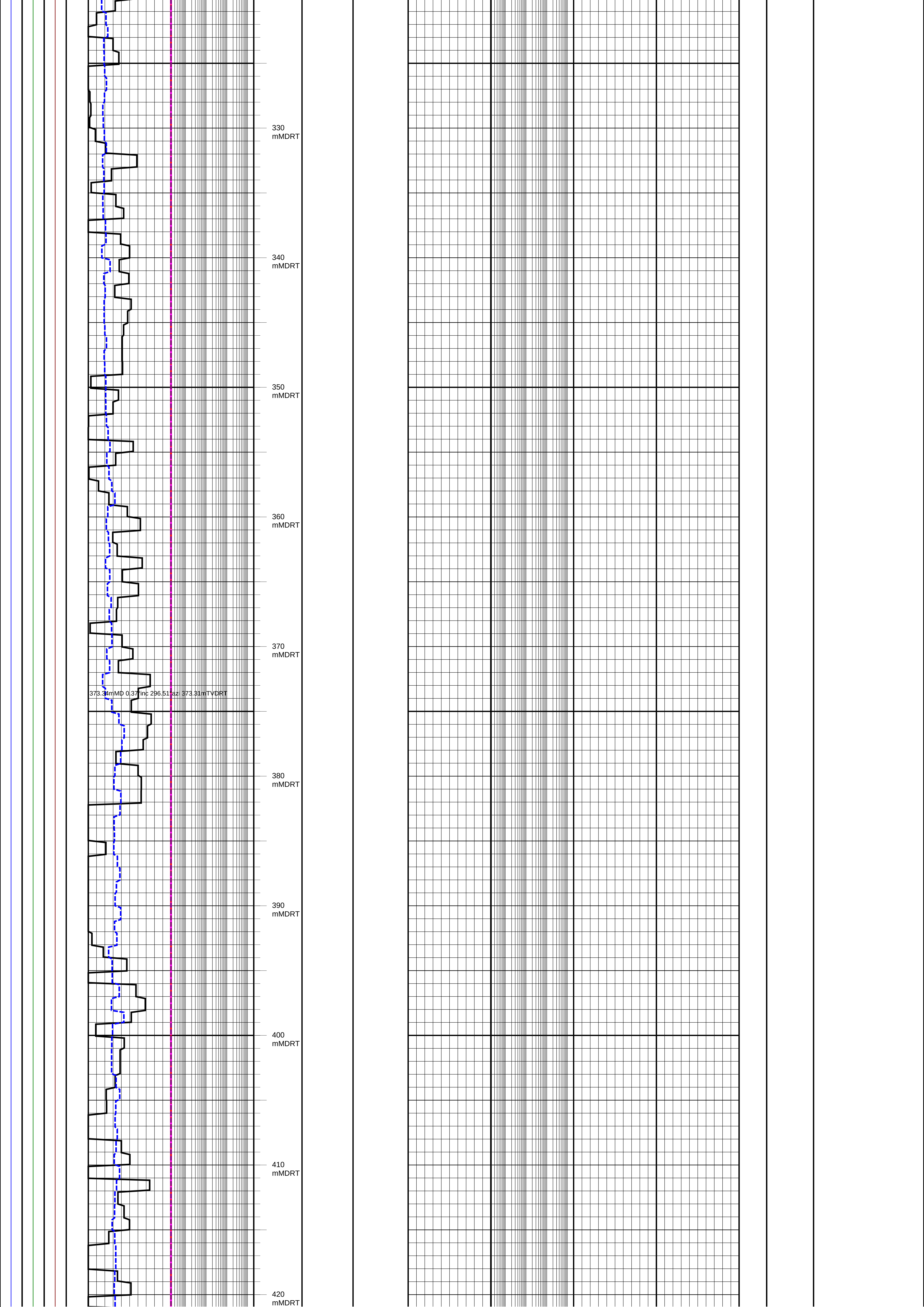
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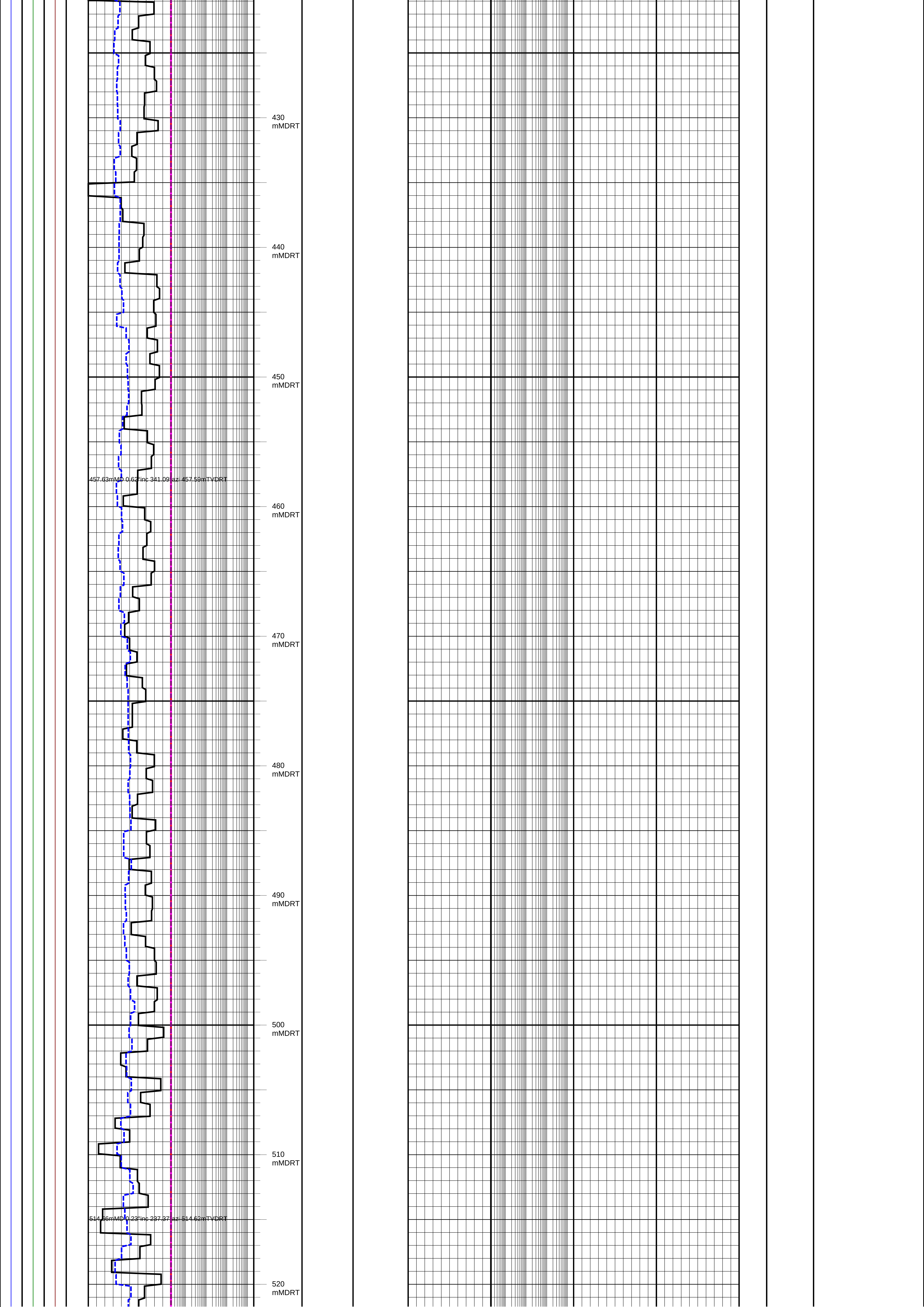
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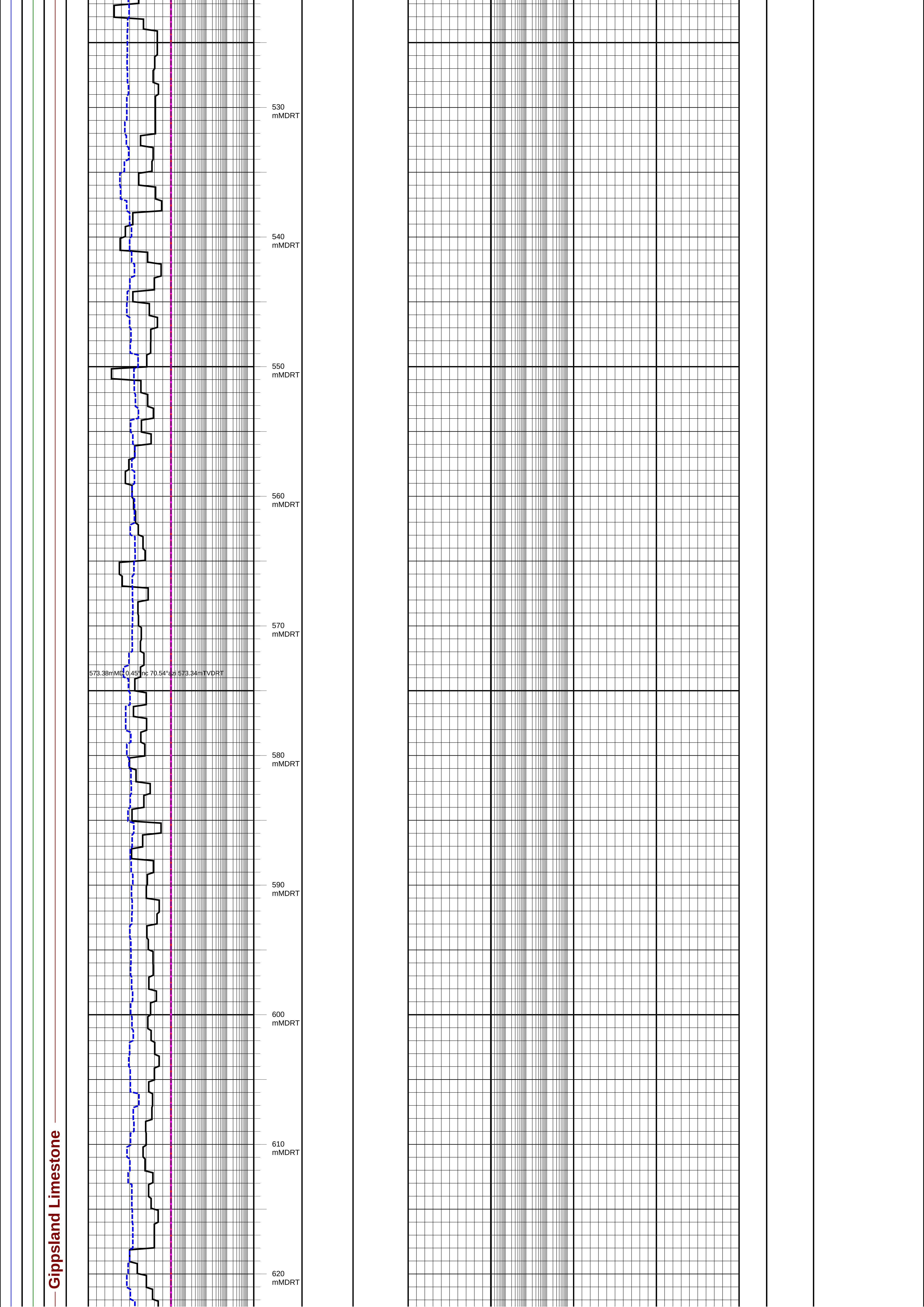

Gippsland Limestone
530 mMDRT
540 mMDRT
550 mMDRT
560 mMDRT
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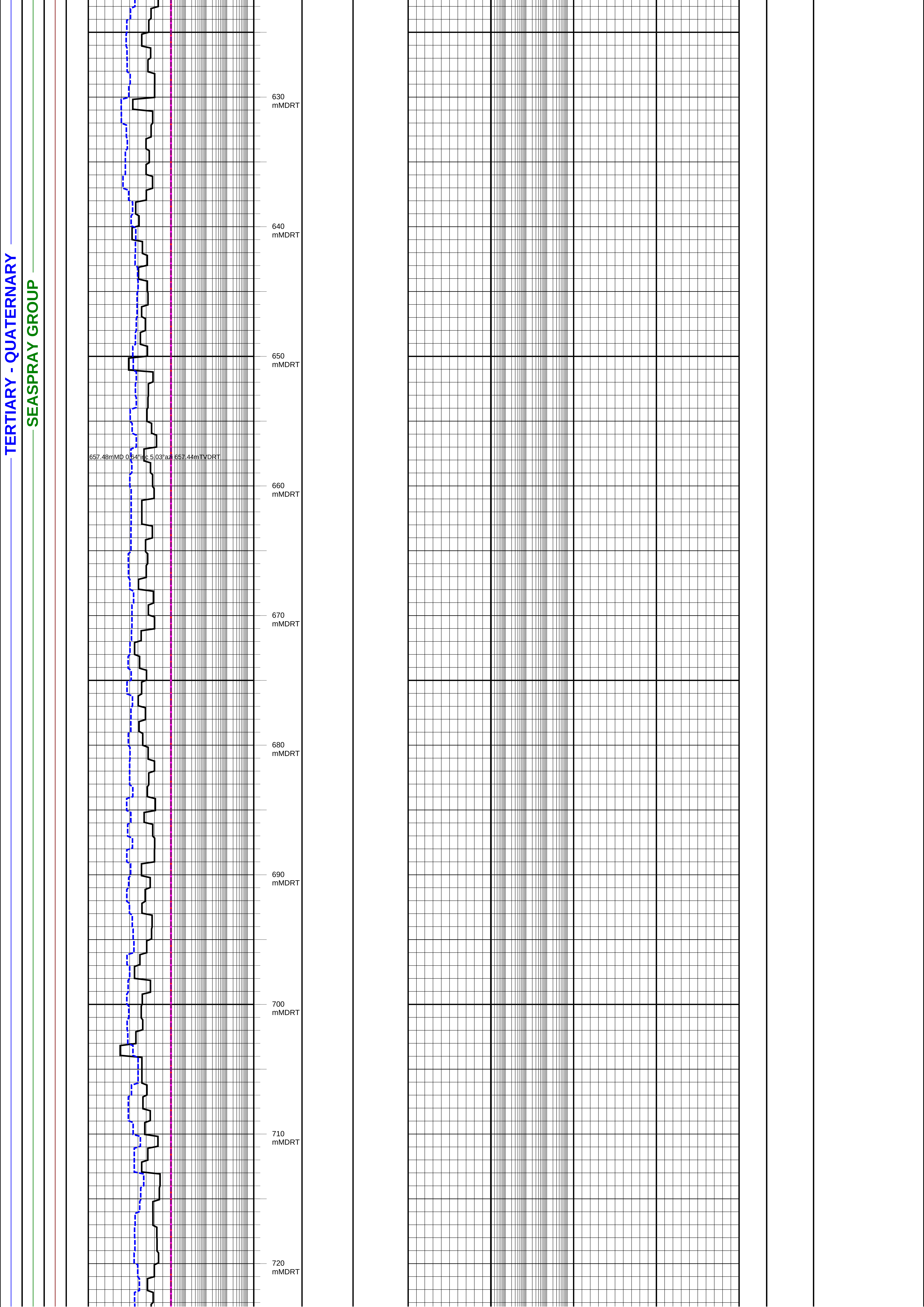
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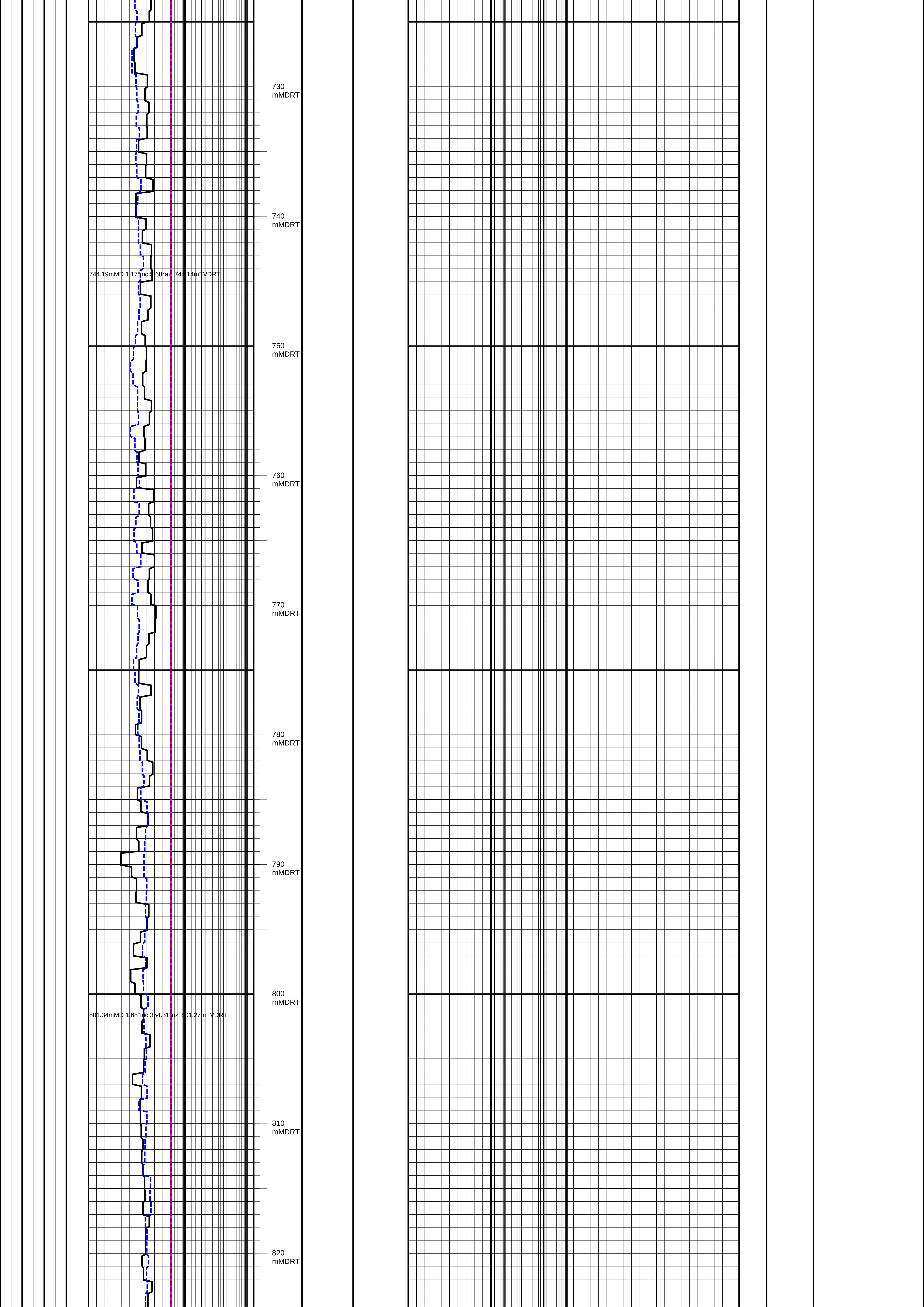
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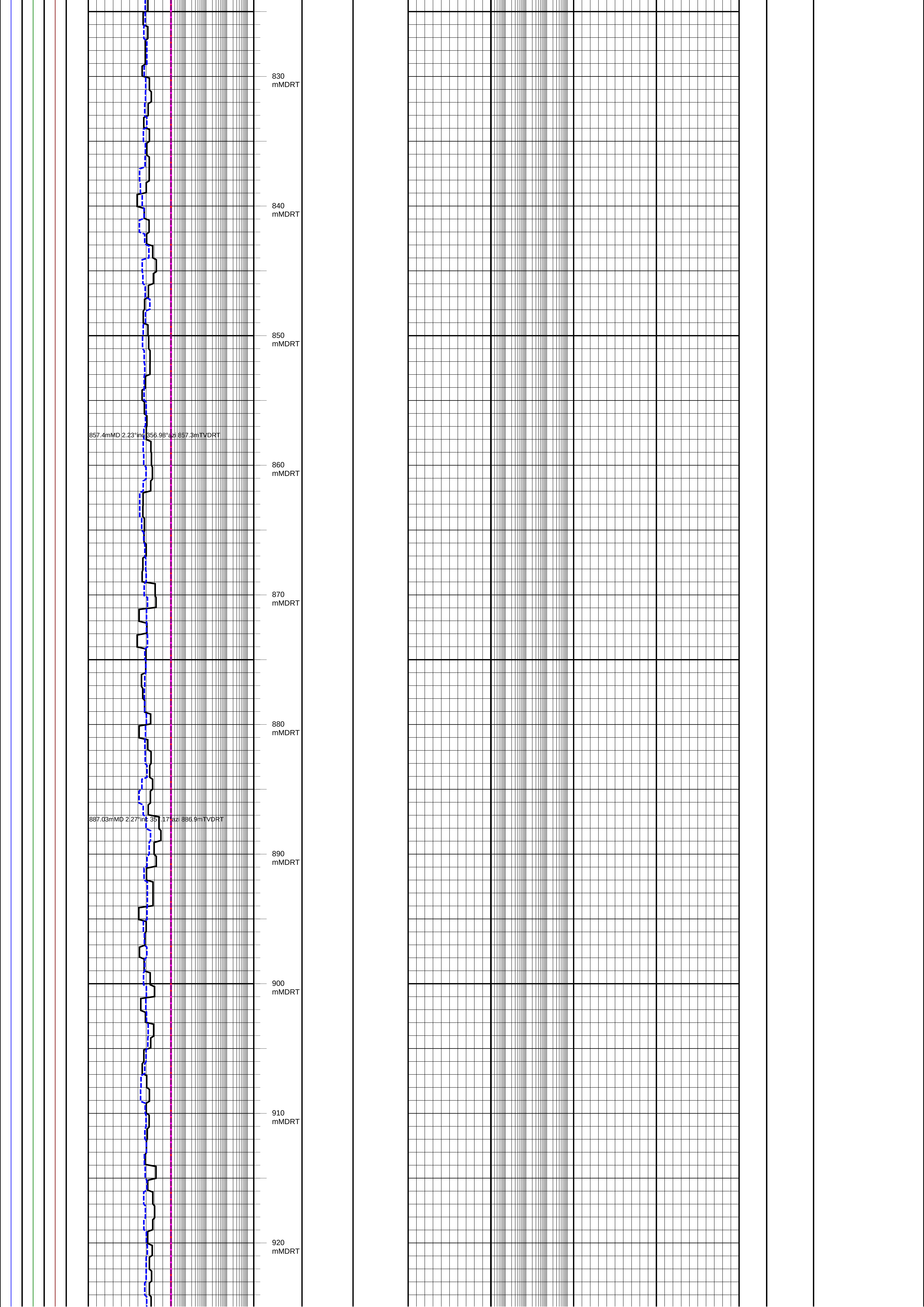

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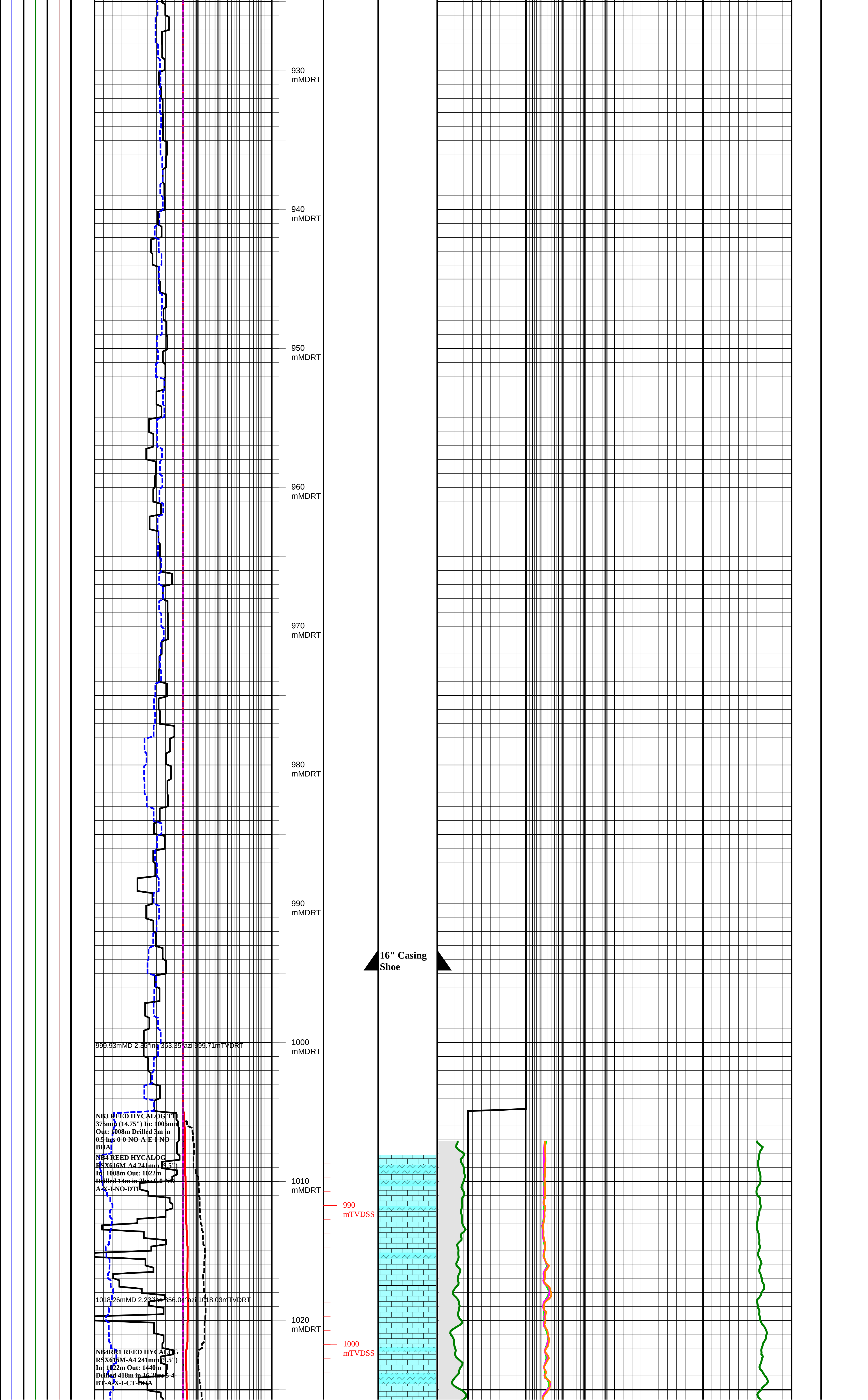
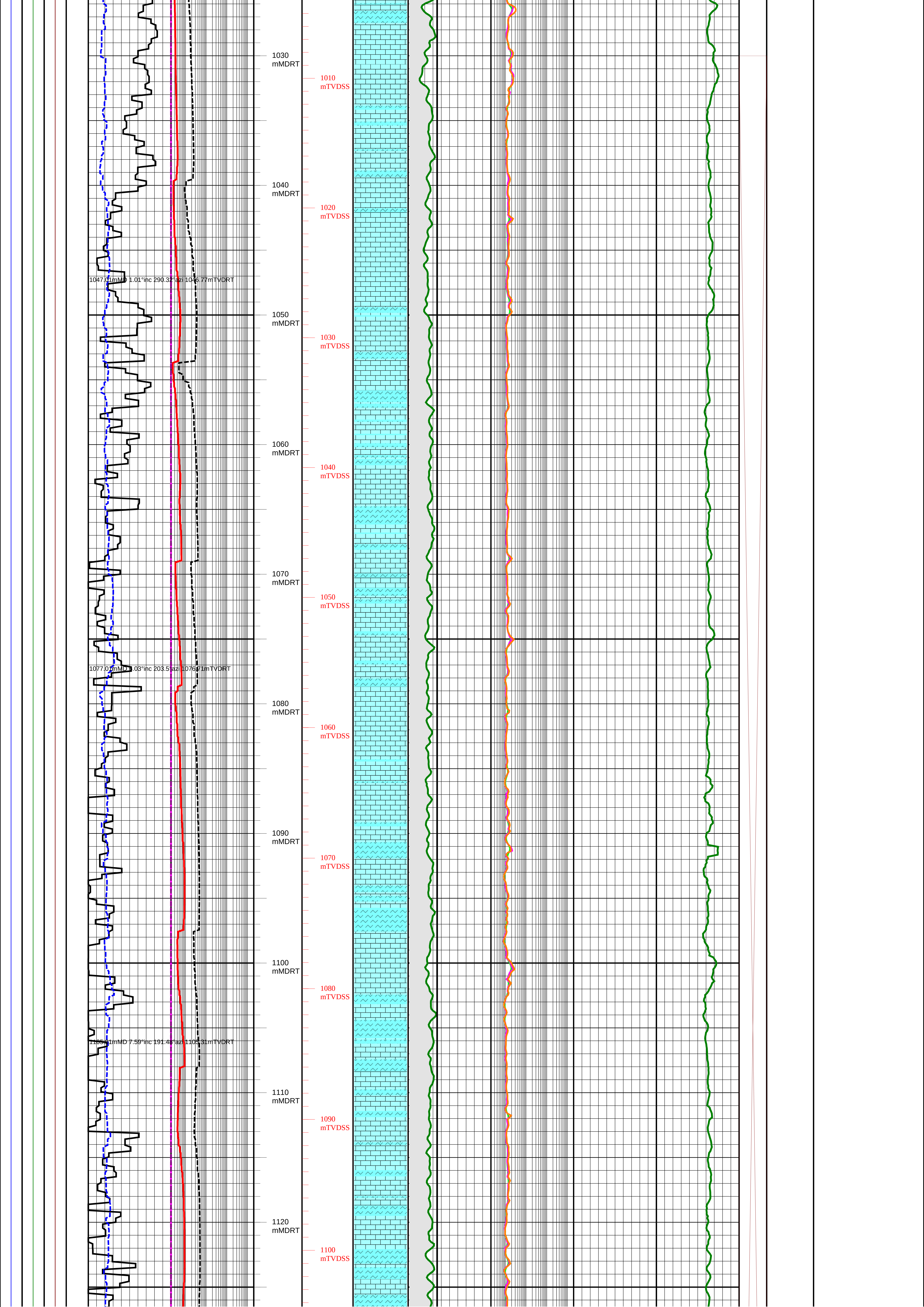


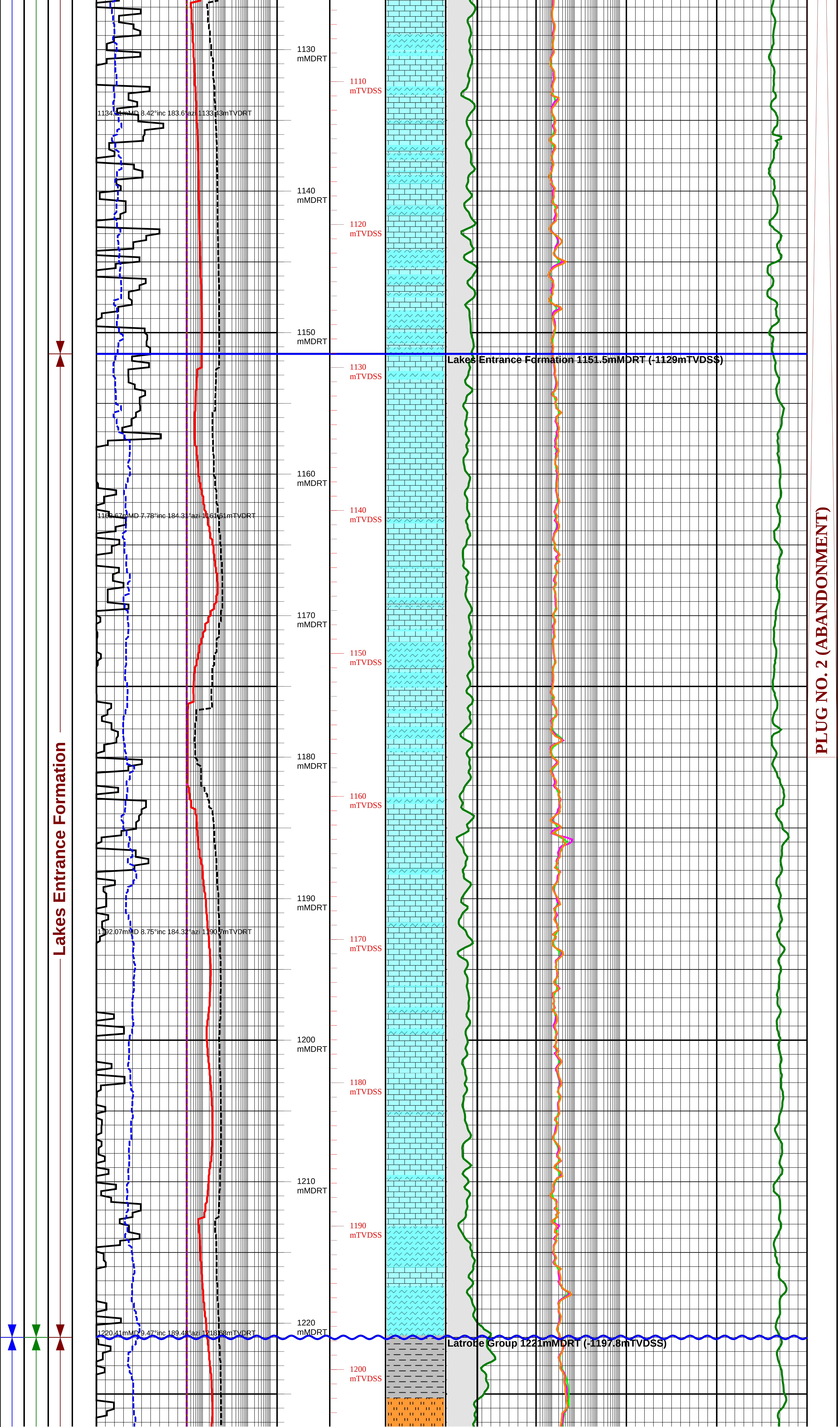
Hole Drilled Riserless with Seawater and sweeps to 1008m (NO RETURNS ABOVE THIS DEPTH)

ARGILLACEOUS CALCILUTITE: predominantly light to medium brownish grey, occasionally light olive grey, rare light greenish grey, soft to firm, amorphous to sub-blocky, commonly arenaceous grains, occasionally very argillaceous, rare fossil fragments, trace disseminated pyrite, trace black carbonaceous specks.

DOLOMITE (Trace): light brown to yellowish-brown, hard to very hard, conchoidal fracture, reacts weakly to acid when crushed.

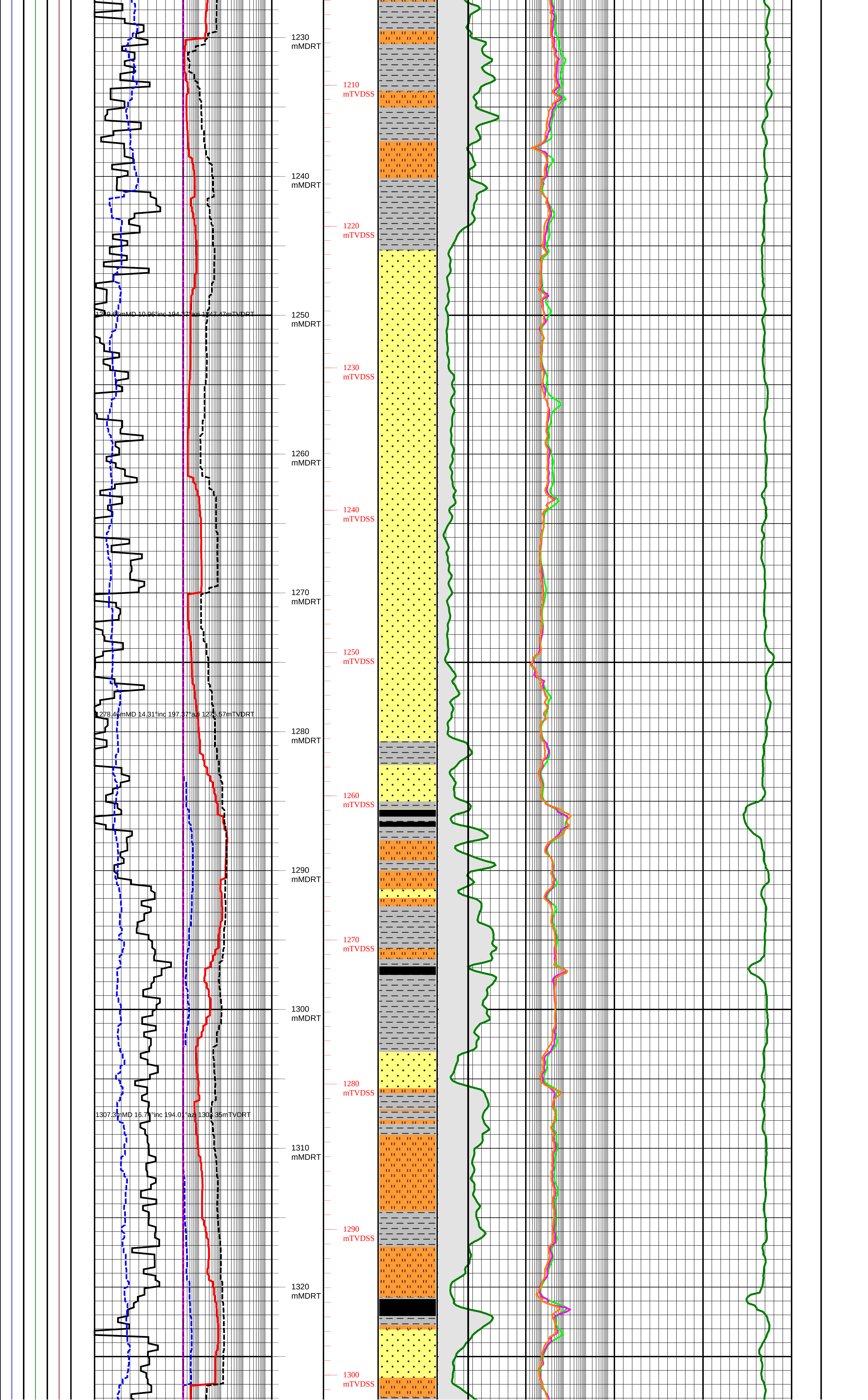


1030 mMDRT
1010 mTVDSS
1040 mMDRT
1020 mTVDSS
1047.01mMD 1.01°inc 290.32°azi 1046.77mTVDRT
1050 mMDRT
1030 mTVDSS
1060 mMDRT
1040 mTVDSS
1070 mMDRT
1050 mTVDSS
1077.01mMD 6.03°inc 203.5°azi 1076.71mTVDRT
1080 mMDRT
1060 mTVDSS
1090 mMDRT
1070 mTVDSS
1100 mMDRT
1080 mTVDSS
1105.81mMD 7.59°inc 191.48°azi 1105.31mTVDRT
1110 mMDRT
1090 mTVDSS
1120 mMDRT
1100 mTVDSS



MARL: light to medium grey, occasionally light olive grey, occasionally slightly greenish grey, very soft to soft, sticky in part, gradational to ARGILLACEOUS CALCILUTITE in part, trace very fine pyrite, trace micro-fossils (forams) rare very fine carbonaceous specks.

ARGILLACEOUS SANDSTONE: brownish black, dusky brown, dark grey in part, rare pale yellow, medium to coarse, dominantly medium, friable to firm, sub-rounded to sub-angular, dominantly sub-rounded, moderately sorted, disseminated pyrite and carbonaceous specks, rare grey to white lithics, argillaceous matrix, weak calcareous cement, moderate visual



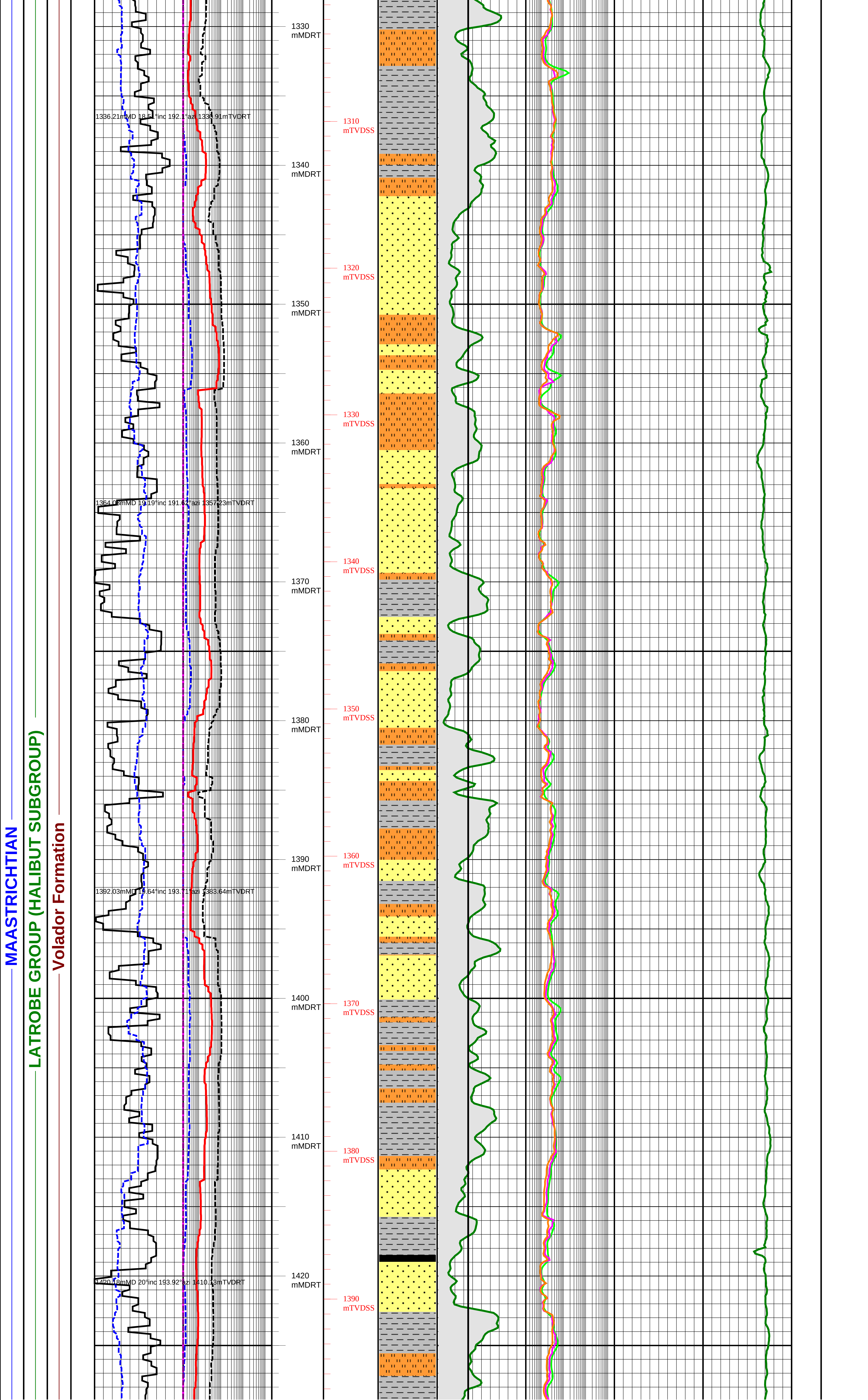
porosity, no shows.

SANDSTONE: light grey, very coarse to coarse, dominantly coarse, rare medium, dominantly loose, rare friable aggregate, sub-rounded to sub-angular, dominantly sub-rounded, moderately sorted, quartz grains dominantly transparent - translucent, rarely pyrite nodule, argillaceous matrix, very weak silicious cement, good inferred porosity, no shows.

COAL: dark grey to black, firm, sub blocky to blocky, sub-vitreous to vitreous, subconchoidal fracture, argillaceous in parts, minor sub-fissile, locally minor pyrite bands.

SILTY CLAYSTONE: light to medium grey, brown, rarely yellowish brown, moderately hard, blocky, conspicuous micromica, carbonaceous specks in places, rare arenaceous in parts, grading to SILTSTONE.

SANDSTONE: light grey, coarse to medium, dominantly medium, well rounded to sub-angular, dominantly rounded, moderately sorted, dominantly loose, rarely friable aggregate, quartz grains transparent to translucent, rare pyrite nodules, argillaceous matrix, very weak silicious cement, good inferred porosity, no shows.



SILTY CLAYSTONE: light to medium grey, brown, rarely yellowish brown, moderately hard, blocky, conspicuously micromiceous, carbonaceous specks in places, rare arenaceous in parts.

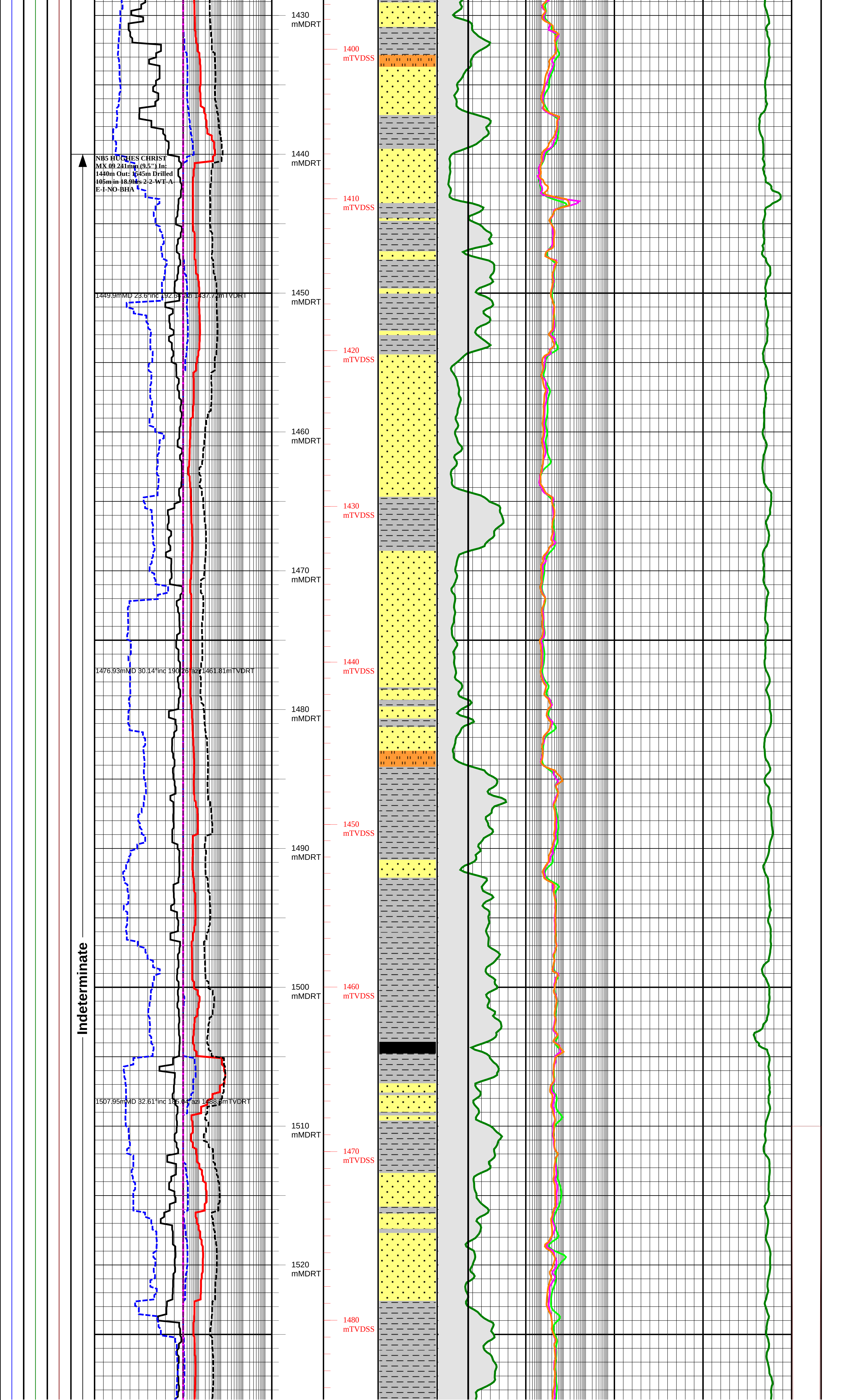
SANDSTONE: light grey, coarse to medium, dominantly medium, friable, well-rounded to sub-angular, dominantly rounded, moderately sorted, dominantly loose, rarely aggregate, quartz grains transparent to translucent, trace mica, argillaceous matrix, very weak silicious cement, good infered porosity, no shows.

SILTSTONE: medium grey to dark grey, firm to moderately hard, trace micromica, sometimes with increased fine sand content.

SILTSTONE: medium grey to dark grey, firm to moderately hard, traces of micromica, sometimes with increased fine sand content.

SANDSTONE: light grey, coarse to medium, dominantly medium, friable, well-rounded to sub-angular, dominantly sub-rounded, moderately sorted, dominantly loose, rarely aggregate, quartz grains transparent to translucent, argillaceous matrix, very weak siliceous cement, good inferred porosity, no shows.

SILTY CLAYSTONE: very light to medium grey, brown grey, firm to moderately hard, occasionally soft, blocky to sub-blocky, micromaceous, rare carbonaceous specks, occasionally silty in parts.



ARGILLACEOUS SANDSTONE: clear - translucent, white, rare yellowish brown, loose to dominantly soft aggregates, medium to coarse, occasionally fine, sub angular - sub rounded, moderate sphericity, 5 - 80% white argillaceous matrix, trace carbonaceous detritus and carbonaceous grains, trace lithics, trace very fine grained pyrite patches, dominantly poor to fair porosity, no shows.

CLAYSTONE: dark grey, brownish grey, greyish black, very soft, sticky, sub blocky, very silty in part, trace to common carbonaceous specks, occasional very fine pyrite.

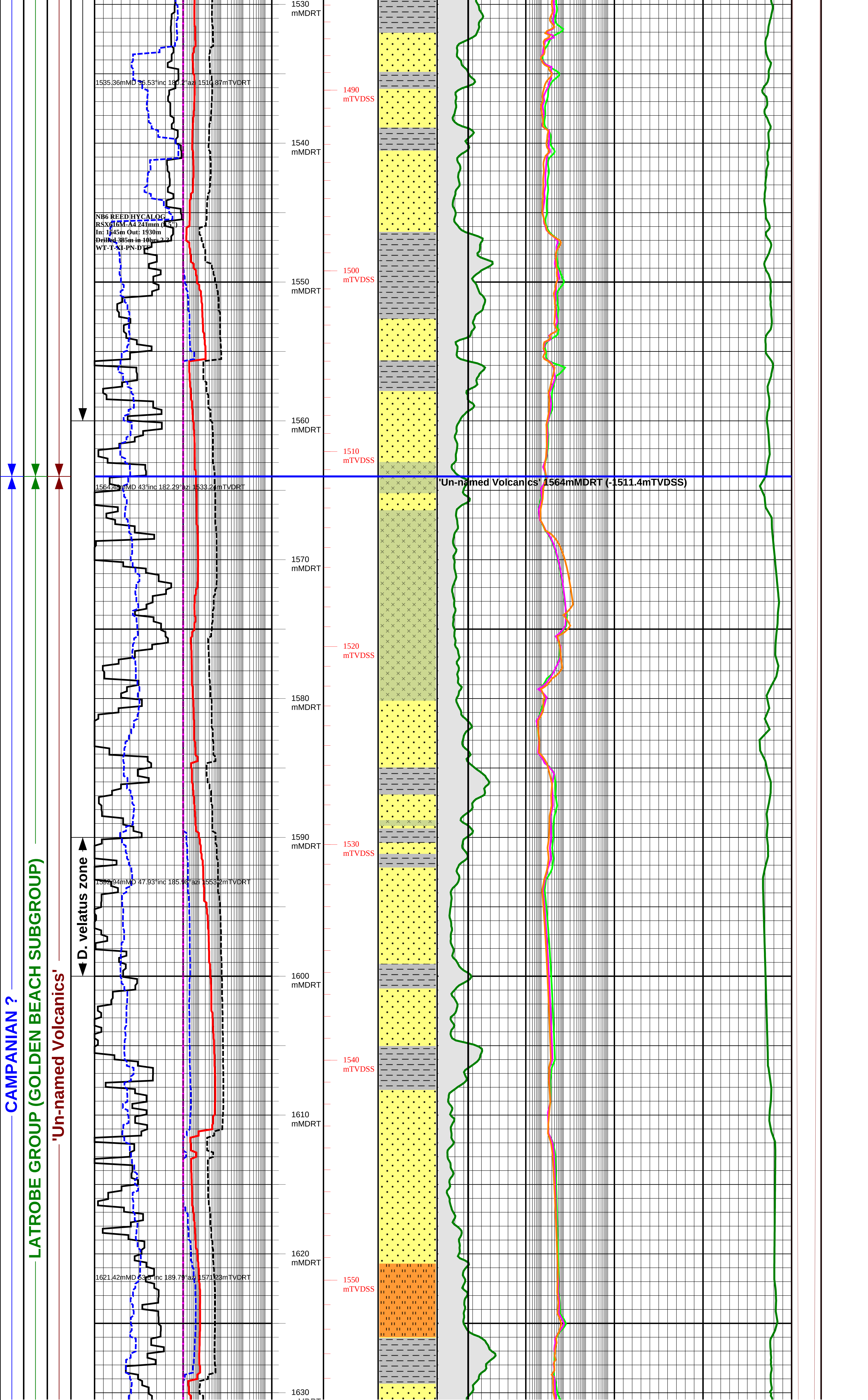
SANDSTONE: clear - translucent, white, loose to soft aggregates, medium to coarse, occasionally fine in aggregates, sub angular - rounded, moderate to high sphericity, 5 - 80% white argillaceous matrix, gradational to ARGILLACEOUS SANDSTONE, fair to good porosity, no shows.

CLAYSTONE: dark grey, brownish grey, very soft, sub blocky, very silty in part and gradational with depth to SILTY CLAYSTONE, trace carbonaceous specks, trace disseminated pyrite.

COAL (trace): black, sub vitreous to dull, brittle, hackly fracture, silty and argillaceous in part.

SANDSTONE: clear, translucent, white, rare light grey, loose to soft aggregates, fine to coarse, sub angular to rounded, poorly sorted, trace lithics and coaly fragments, trace very fine pyrite, fair to good inferred porosity, no shows.

ARGILLACEOUS SANDSTONE: clear, translucent, white, light grey, soft to medium aggregates, rare loose, fine to medium, occasional coarse, sub angular to rounded, dominant sub rounded, moderate sorted, coaly fragments, rare carbonaceous laminae, trace lithics and very fine pyrite, 5-70% white to very light grey argillaceous matrix, poor inferred porosity, no shows.



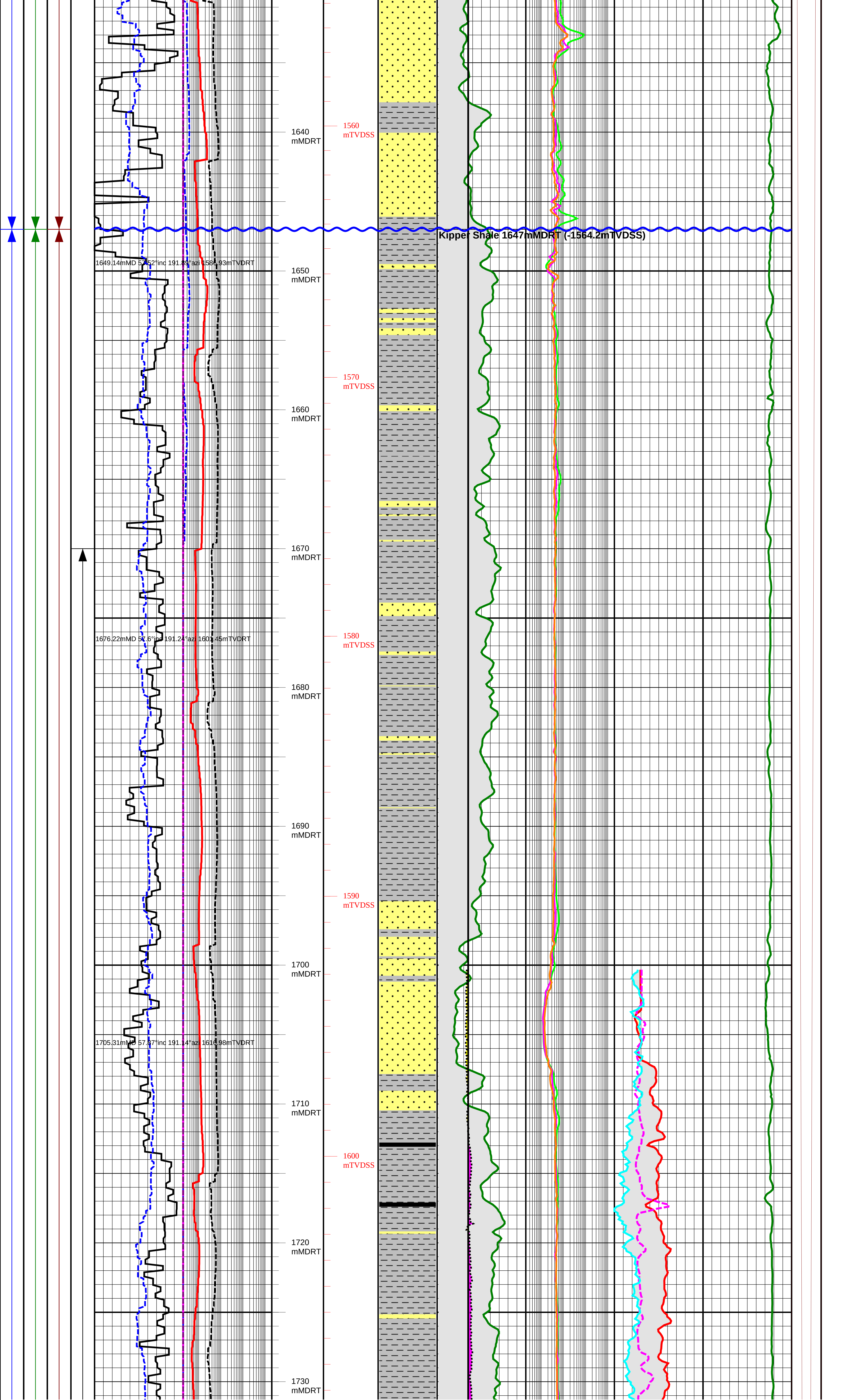
SILTY CLAYSTONE: medium to dark brownish grey, dark grey, sub firm to firm, rare soft, carbonaceous, occasional carbonaceous laminae, micromica, rare very fine disseminated pyrite.

SILTY CLAYSTONE: brownish grey, very soft - soft, arenaceous to argillaceous, common carbonaceous specks and laminae, trace very fine pyrite, gradational to SILTSTONE.

VOLCANICS: off white, light greenish white, occasionally mottled, very light yellowish brown / off white / light green, commonly weathered to Claystone, common fine to rare medium quartz, trace weathered feldspar and weathered green pyroxene, pyritic in part, trace chlorite, vague remnant crystalline structure in part.

SANDSTONE: clear - translucent, loose, medium to very coarse, sub rounded to very angular, poorly sorted, poor inferred porosity.

SILTY CLAYSTONE: brownish grey, very soft - soft, arenaceous to argillaceous, common carbonaceous specks and laminae, trace very fine pyrite, gradational to SILTSTONE.

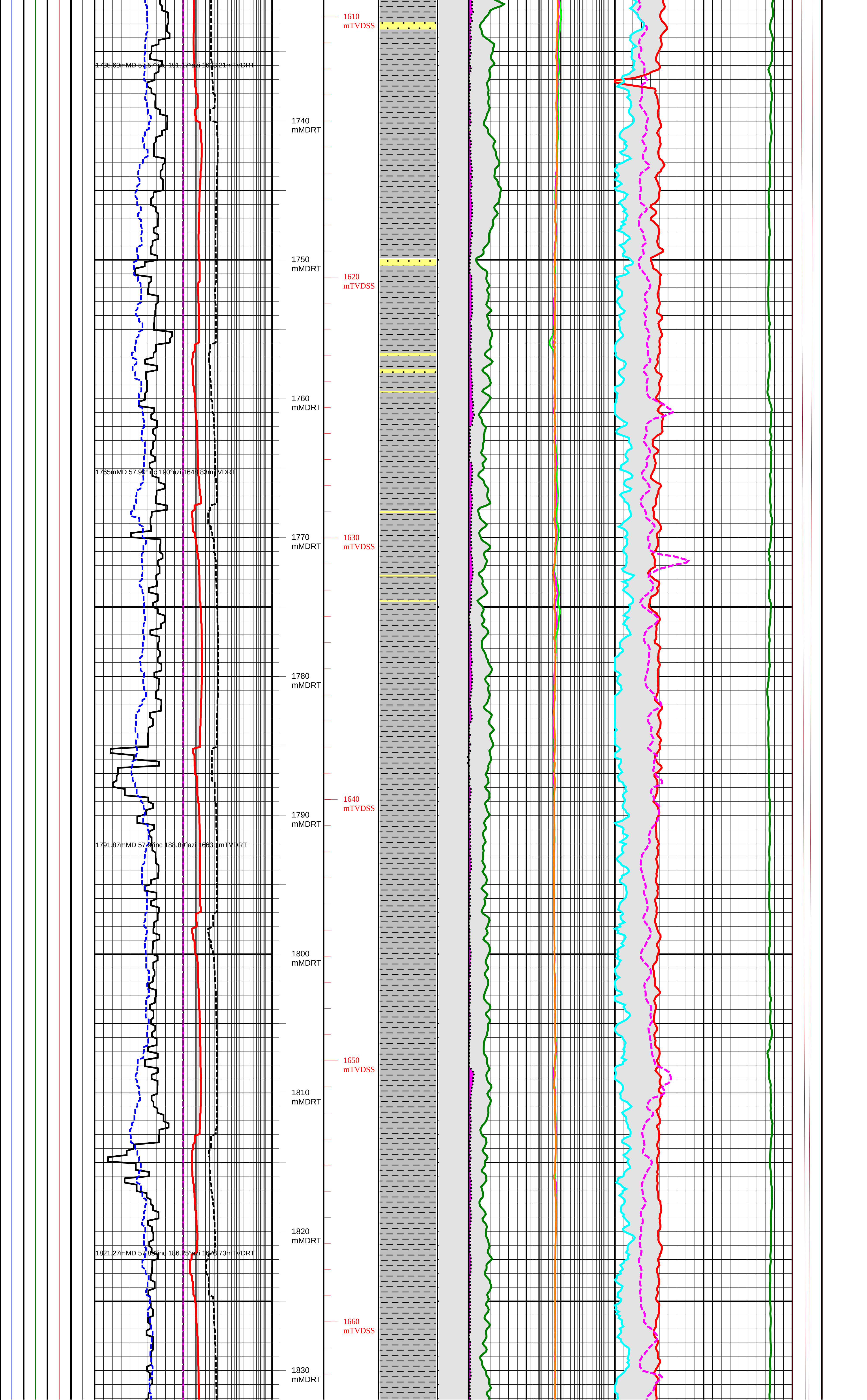


SILTY CLAYSTONE: dark brownish grey, firm, blocky, arenaceous, rare lithics, carbonaceous specks and laminae, rare very fine pyrite.

SANDSTONE: clear - translucent, aggregate, rare loose, white to light grey, medium to coarse, dominantly coarse, rare very coarse, sub rounded, dominantly sub rounded, poor sorted, argillaceous matrix, weak siliceous cement, trace pyrite cement, fair inferred porosity, no show.

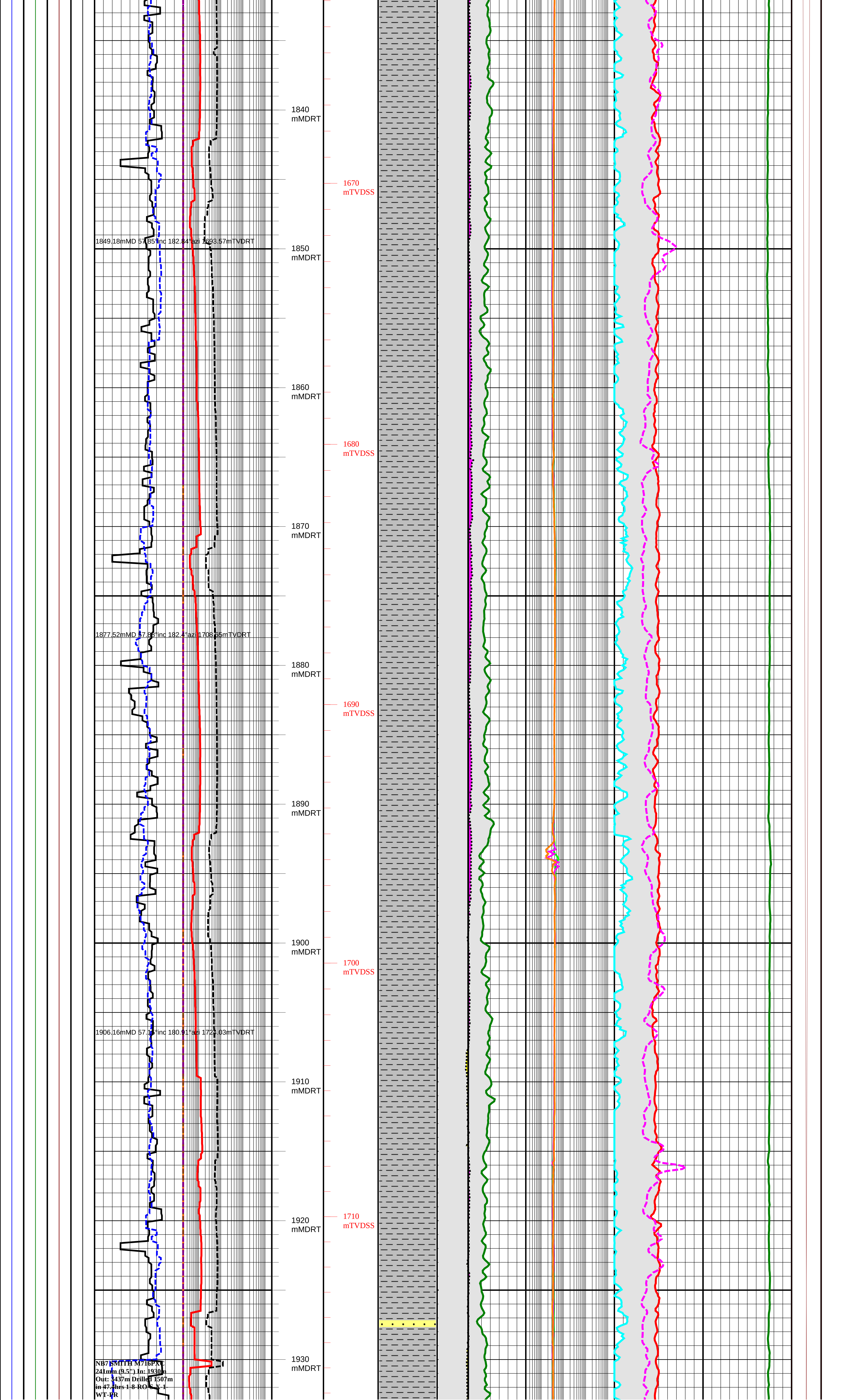
CLAYSTONE: light grey to light brown, occasionally white to light grey, firm, blocky, lithics, rare carbonaceous laminae, common micromica, rare pyrite, rare fine quartz in part.

SILTY CLAYSTONE: very dark grey to medium grey, rare brownish grey, firm, blocky, arenaceous, common carbonaceous specks, lithics, trace very fine pyrite, gradational to SILTSTONE.

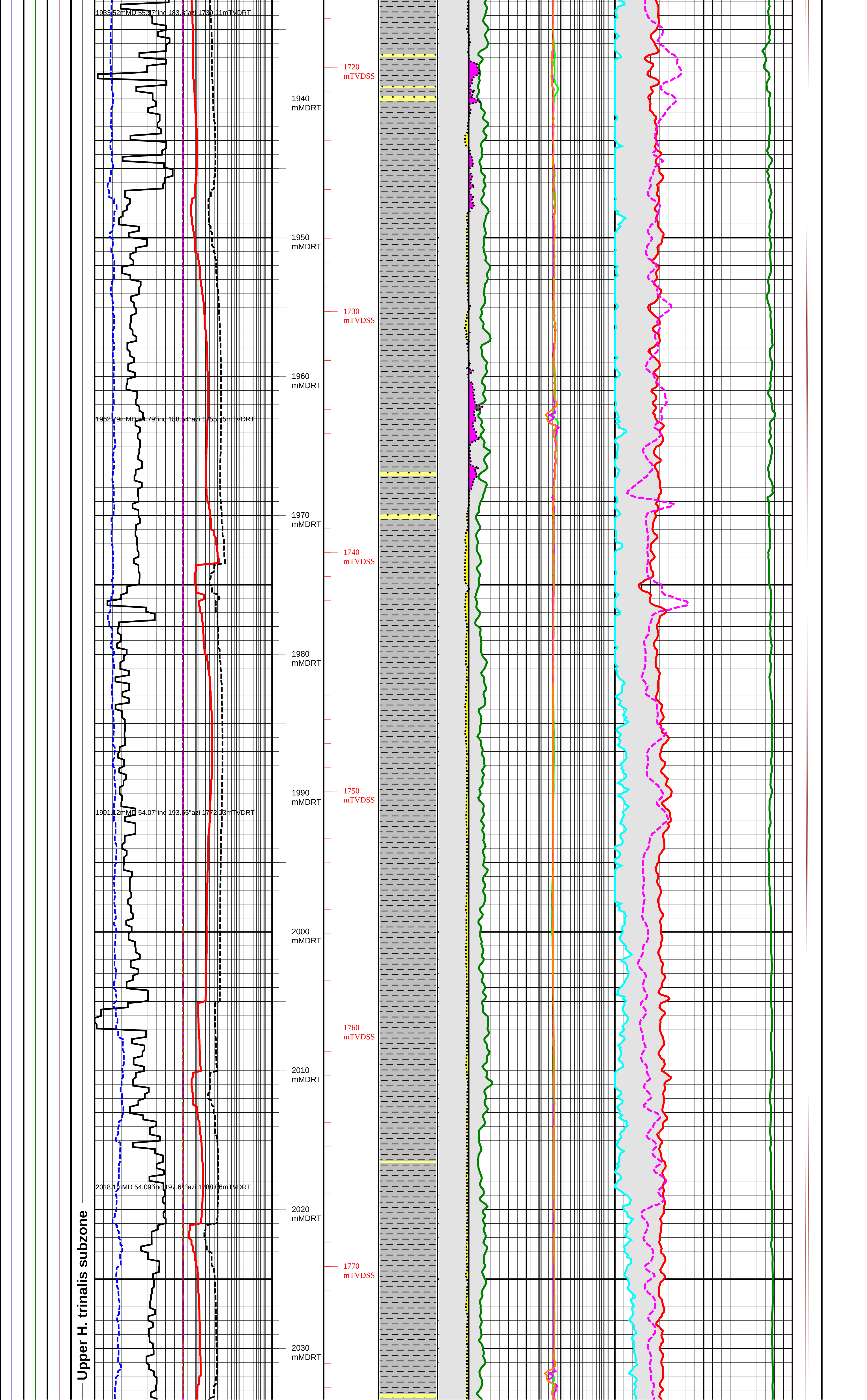


CLAYSTONE: dark grey, brownish grey, dominantly brownish grey, blocky, firm, rare carbonaceous specks, silty in part.

SANDSTONE (trace): white to light grey, dominantly loose, white to light grey, very fine to fine, trace coarse, well rounded to sub angular, dominantly sub rounded, moderate sorted to well sorted, argillaceous matrix, weak siliceous cement, poor inferred porosity, no show.



CLAYSTONE: dark grey, soft to firm, sub blocky to dominantly blocky, massive and uniform, trace very fine carbonaceous specks, trace micromica, trace very fine pyrite, gradational to SILTY CLAYSTONE.

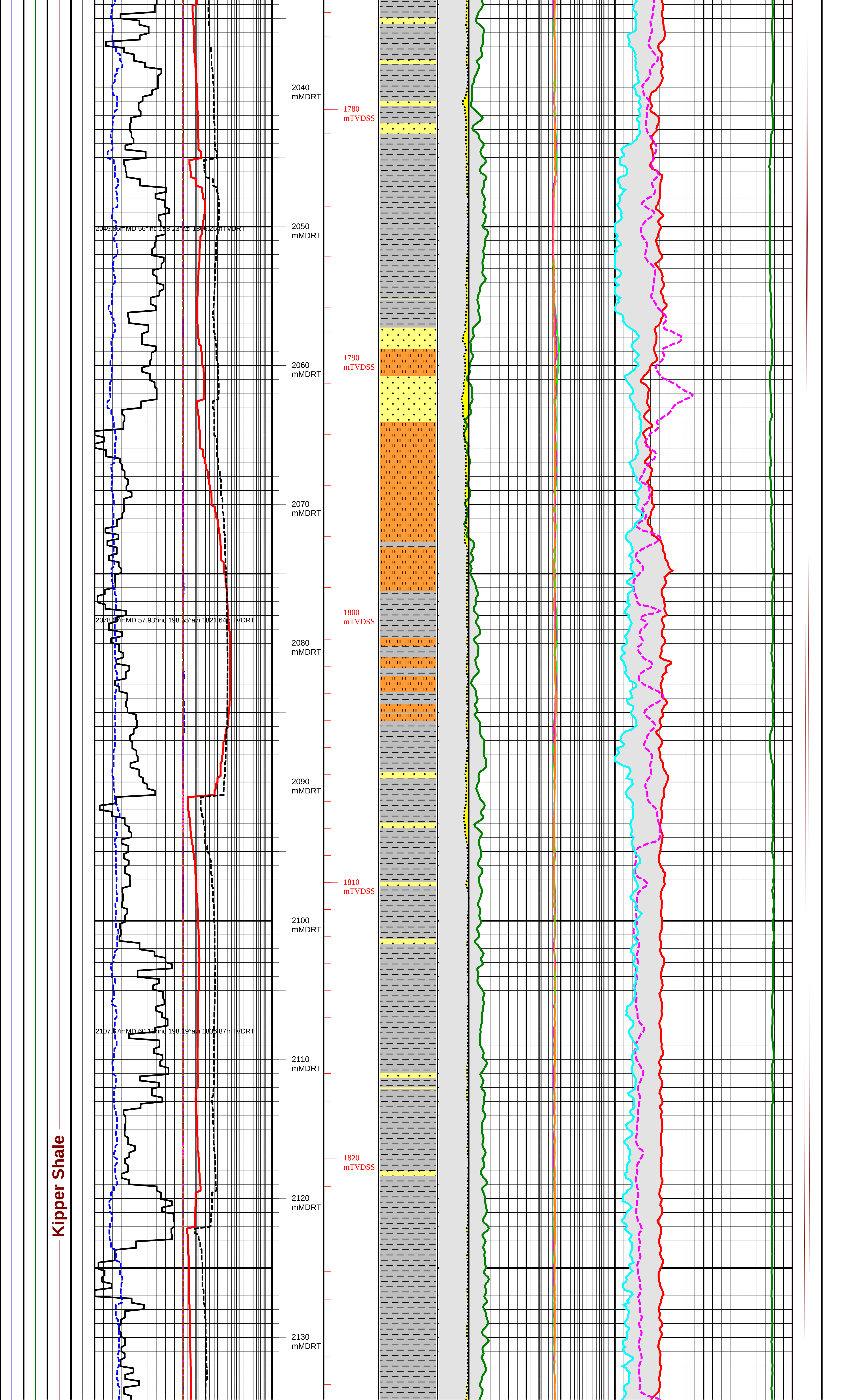


SANDSTONE: (trace) light brownish grey, soft aggregates, very fine, rounded, well sorted, 10-40% argillaceous matrix, poor - fair visual porosity, no shows. Often occurring as very thin intercalation within the Claystone.

CLAYSTONE: dark grey, dark brownish grey, medium brownish grey, firm, blocky, rare carbonaceous specks, rare pyrite, silty in part and gradational to SILTY CLAYSTONE.

SANDSTONE: (trace) light olive grey, friable aggregates, very fine grained, well sorted, rounded, carbonaceous grains, poor - fair visual porosity.

CLAYSTONE: brownish grey, firm, blocky, trace very fine carbonaceous grains, silty in part and gradational to SILTY CLAYSTONE.

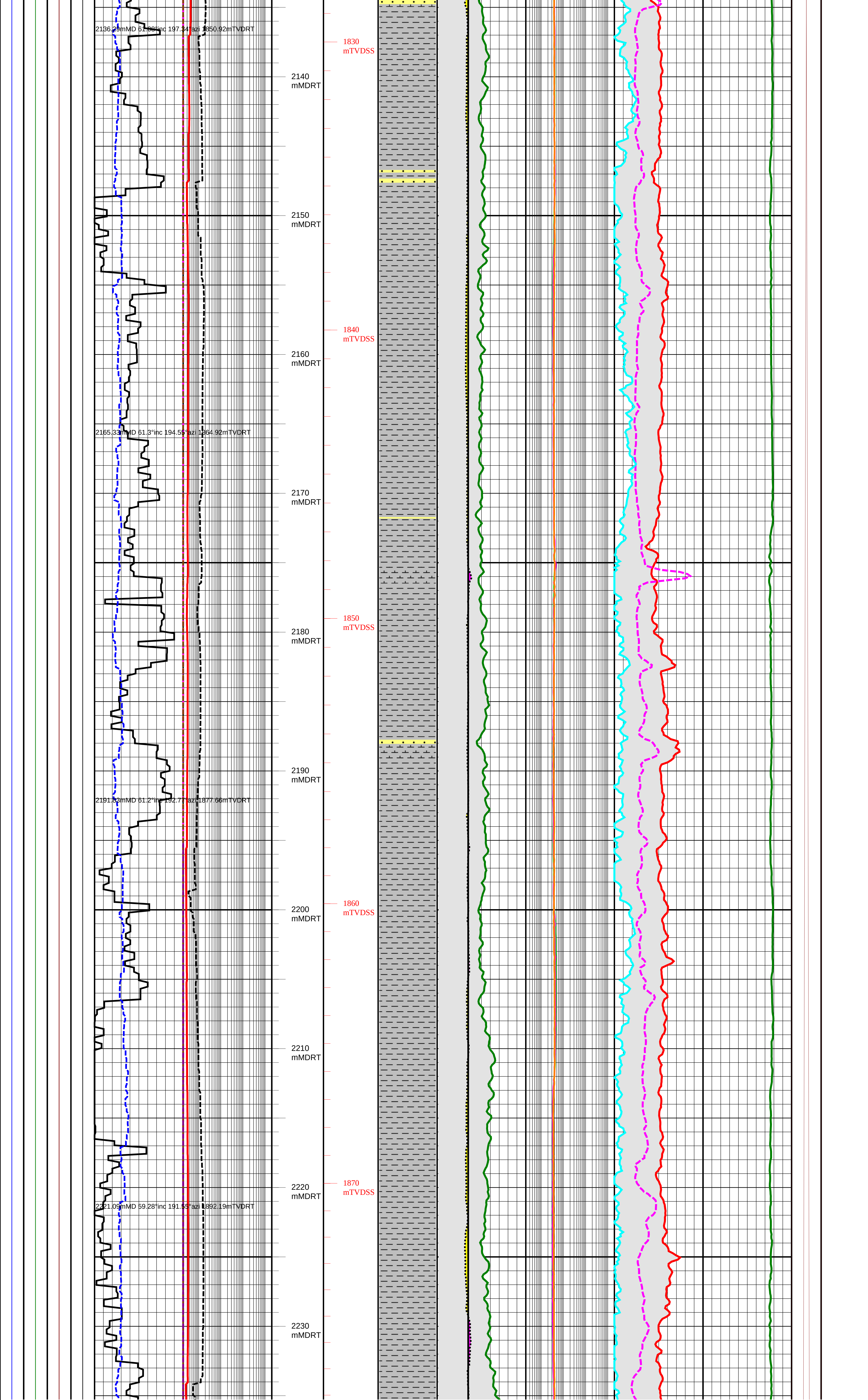


SANDSTONE: clear - translucent, light olive grey, yellowish grey, loose to soft aggregates, very fine to medium, moderately well sorted, sub angular to well rounded, 10 - 40% silty and argillacous matrix, common carbonaceous grains and laminae, poor to good porosity.

SILTSTONE: light greyish brown, soft to firm, crumbly, very argillaceous to arenaceous, common carbonaceous specks and poorly developed carbonaceous laminae, common fine sand.

SANDSTONE: (trace) yellowish grey, light brownish grey, friable aggregates to occasionally loose, very fine to fine grained, sub angular to rounded, moderately well sorted, common carbonaceous grains and laminae, 10 - 30% argillaceous matrix, poor to fair inferred porosity.

CLAYSTONE: brownish grey, soft to firm, sub blocky to blocky, sticky in part, occasionally silty, trace carbonaceous grains, rare carbonaceous laminae, massive uniform.

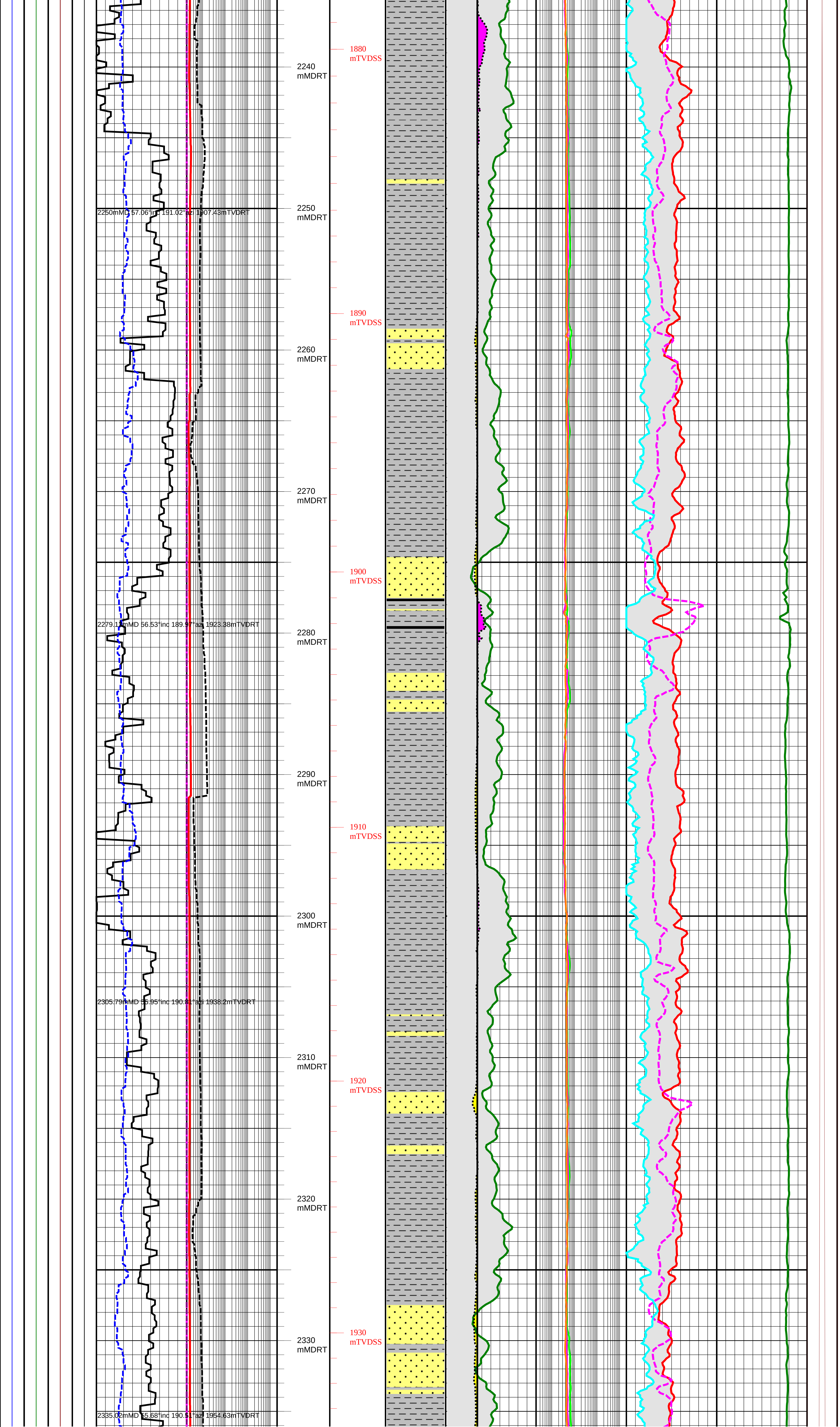


CLAYSTONE: brownish grey, olive grey, soft to firm, sub blocky to blocky, sticky in part, trace carbonaceous grains, rare carbonaceous laminae, massive uniform.

SANDSTONE: yellowish grey, light brownish grey, friable aggregates to occasionally loose, very fine to fine grained, sub angular to rounded, moderately well sorted, common carbonaceous grains and laminae, 10 - 30% argillaceous matrix, fair - good inferred porosity.

CLAYSTONE: dark brownish grey, brownish grey, very soft to sub firm, sub blocky to blocky, occasionally very argillaceous and sticky, occasionally very silty, trace carbonaceous grains, rare carbonaceous laminae, massive uniform.

SANDSTONE: (trace) light grey, very soft aggregates, very fine grained grading to silt, well sorted, rounded, abundant argillaceous matrix, poor visual porosity.

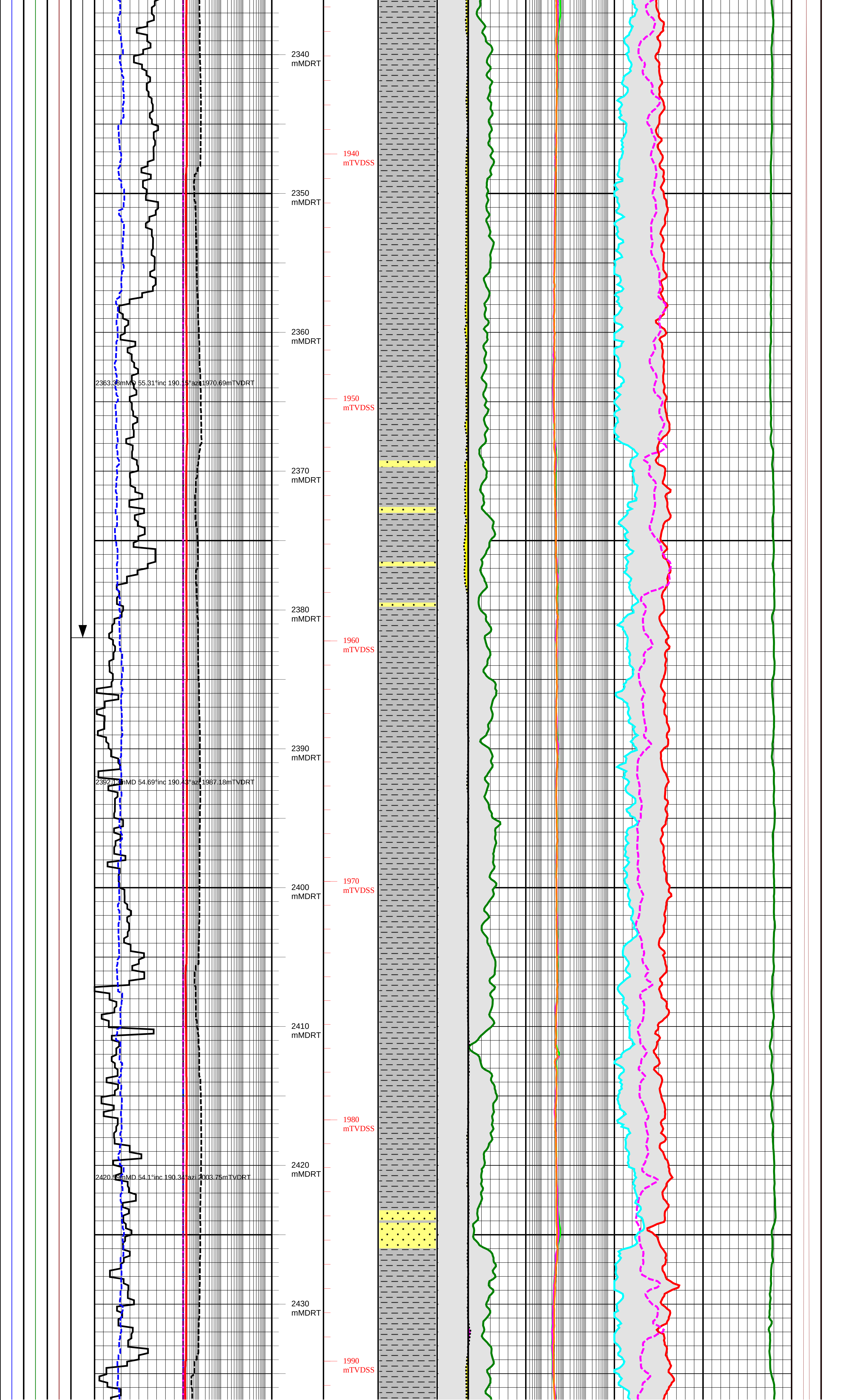


SILTY CLAYSTONE: light grey to light brownish grey, brownish grey, very soft to sub firm, sub blocky to blocky, dominantly blocky, very silty, carbonaceous grains and laminae, massive uniform, non calcareous, gradational to SILTSTONE.

COAL (trace): black, sub vitreous to dull, brittle, hackly fracture, silty and argillaceous in part.

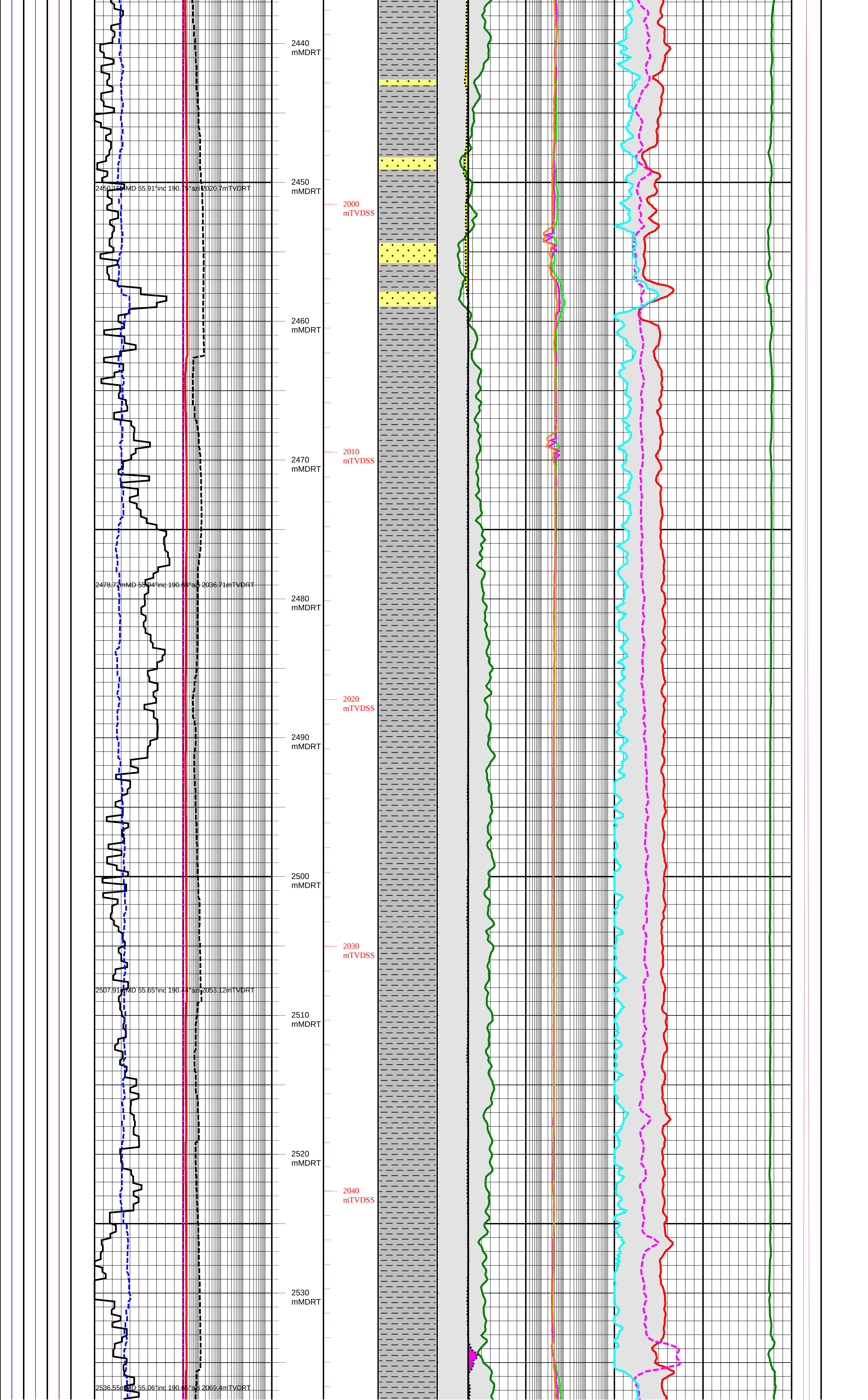
SILTY CLAYSTONE: light grey, common brownish grey to light brownish grey, rare dark grey, very soft to sub firm, sub blocky to blocky, dominantly blocky, arenaceous, rare carbonaceous specks, rare carbonaceous laminae, non calcareous, gradational to CLAYSTONE in places .

SANDSTONE: light grey, light olive grey, very soft aggregates to loose, very fine to fine, rare medium, dominantly fine grained, sub rounded, moderate sorted, common fine carbonaceous grains and rare laminae, rare lithic, very argillaceous and gradational to CLAYSTONE, weak siliceous cement, poor visual porosity, no show.



SANDSTONE: light grey to while, rare yellowish grey, very soft aggregates, trace loose, fine, sub rounded, moderate sorted, trace pyrite, argillaceous, weak siliceous cement, poor visual porosity, no show.

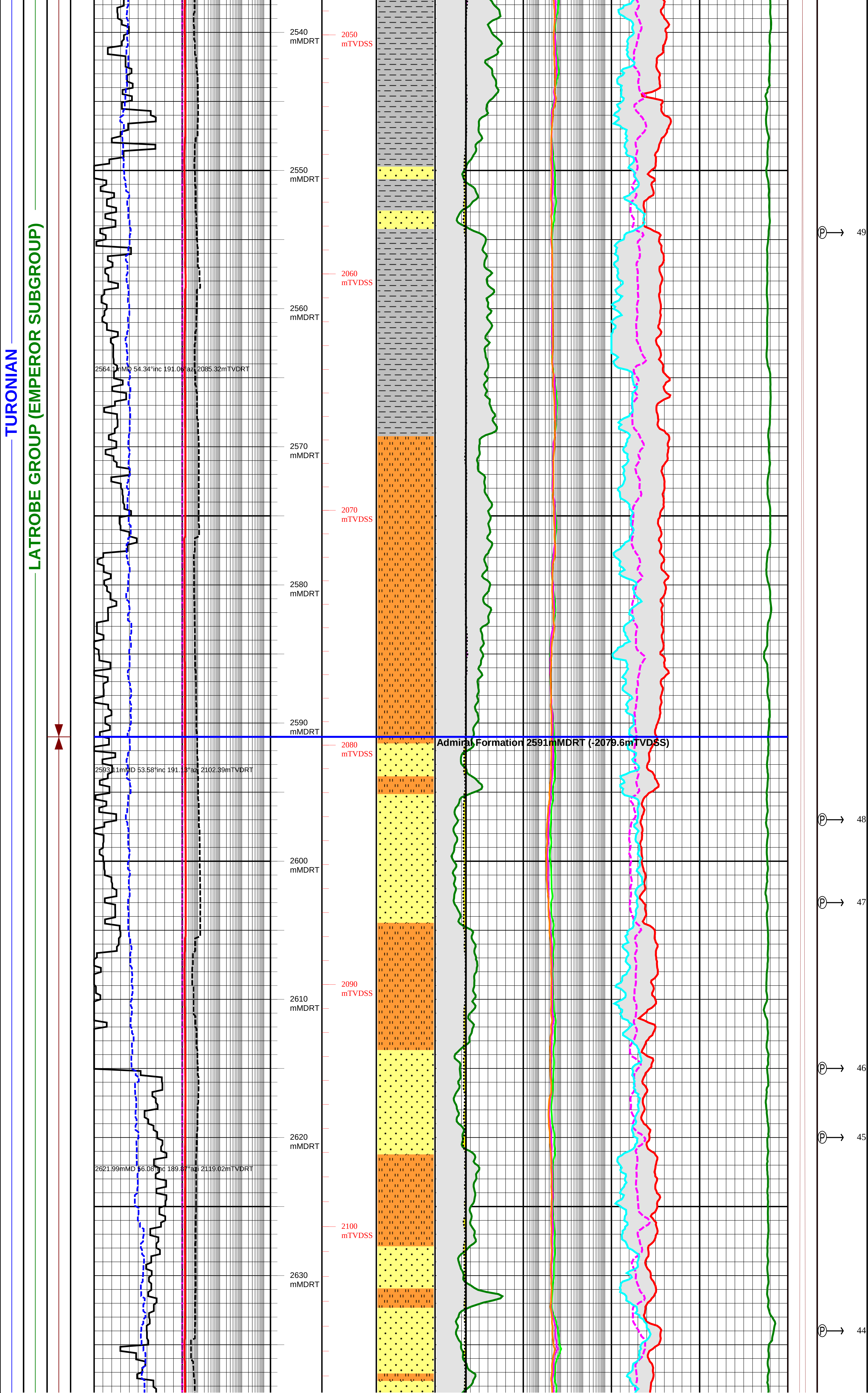
SILTY CLAYSTONE: light grey, common brownish grey to light brownish grey, rare dark grey, very soft to sub firm, sub blocky to blocky, dominantly blocky, arenaceous, common carbonaceous specks, rare carbonaceous laminae, non calcareous, gradational to SILTSTONE in part.



SILTY CLAYSTONE (minor): light grey, moderate hard to hard, sub blocky to blocky, dominantly blocky, silty, rare carbonaceous specks and carbonaceous laminae.

CLAYSTONE: dark grey, medium to hard, sub blocky to blocky, dominantly blocky, common fine sand, rare carbonaceous specks, non calcareous.

SILTY CLAYSTONE: light grey to white, occasional light greenish grey, soft, sub blocky to blocky, dominantly sub blocky, arenaceous, occasional carbonaceous specks, non calcareous.



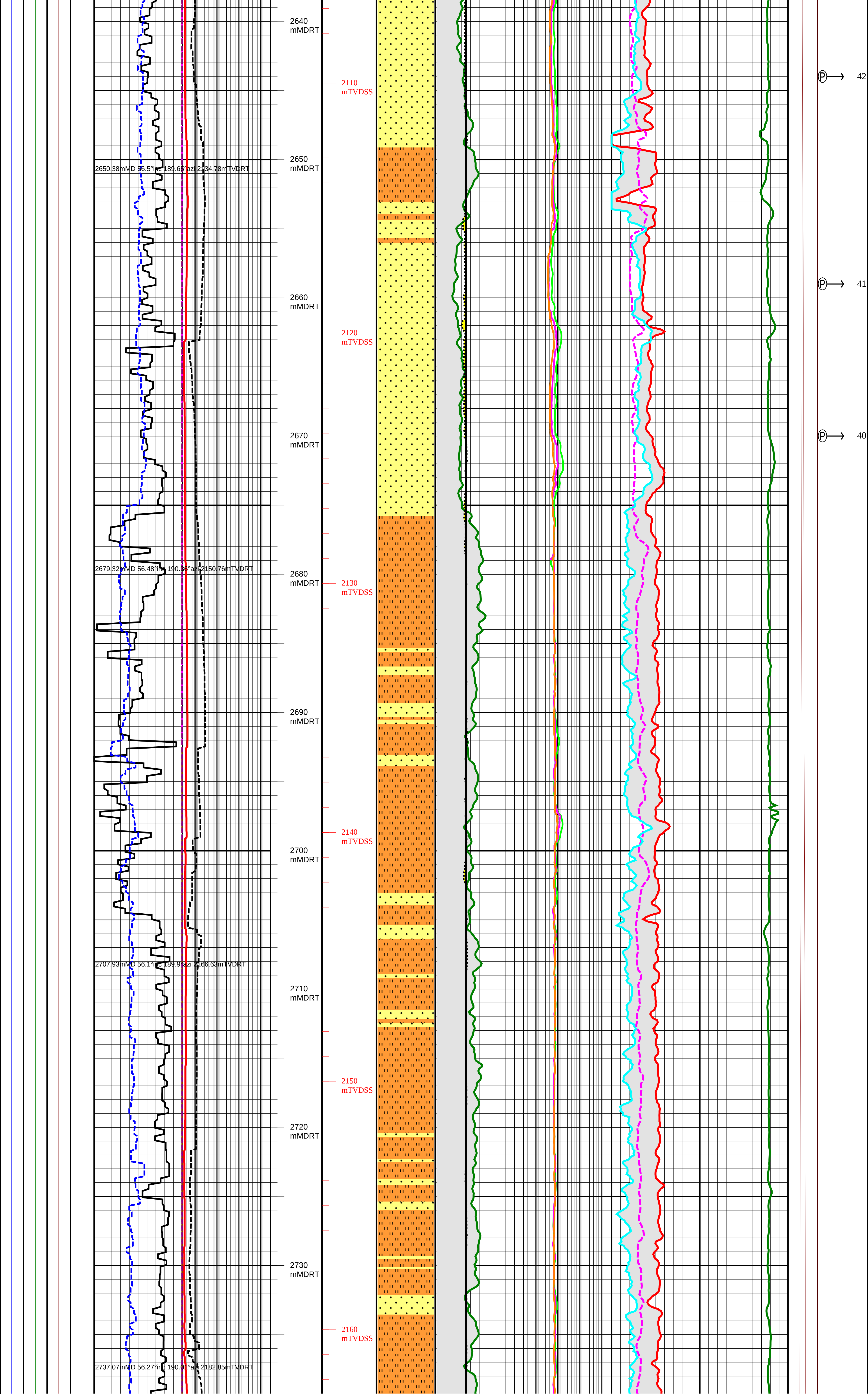
CLAYSTONE: dark grey, occasional light grey, medium to hard, blocky, massive, carbonaceous specks, non calcareous.

SANDSTONE: light grey to while, yellowish grey, soft aggregates to loose, fine, occasionally medium, sub rounded, moderate sorted, common carbonaceous specks and carbonaceous laminae, argillaceous, weak siliceous cement, poor visual porosity, no show.

SILTSTONE: brownish grey, medium grey, soft, blocky - sub blocky, friable, carbonaceous specks and laminae, very argillaceous in part, occasionally inter laminated with very fine sand.

SANDSTONE: clear to translucent, light grey to while, yellowish grey in aggregates, dominantly loose to occasional soft aggregates, very fine to dominantly medium, sub rounded, moderate sorted, carbonaceous specks, argillaceous, weak siliceous cement, poor visual porosity in aggregates, good inferred porosity in loose fraction, no hydrocarbon shows.

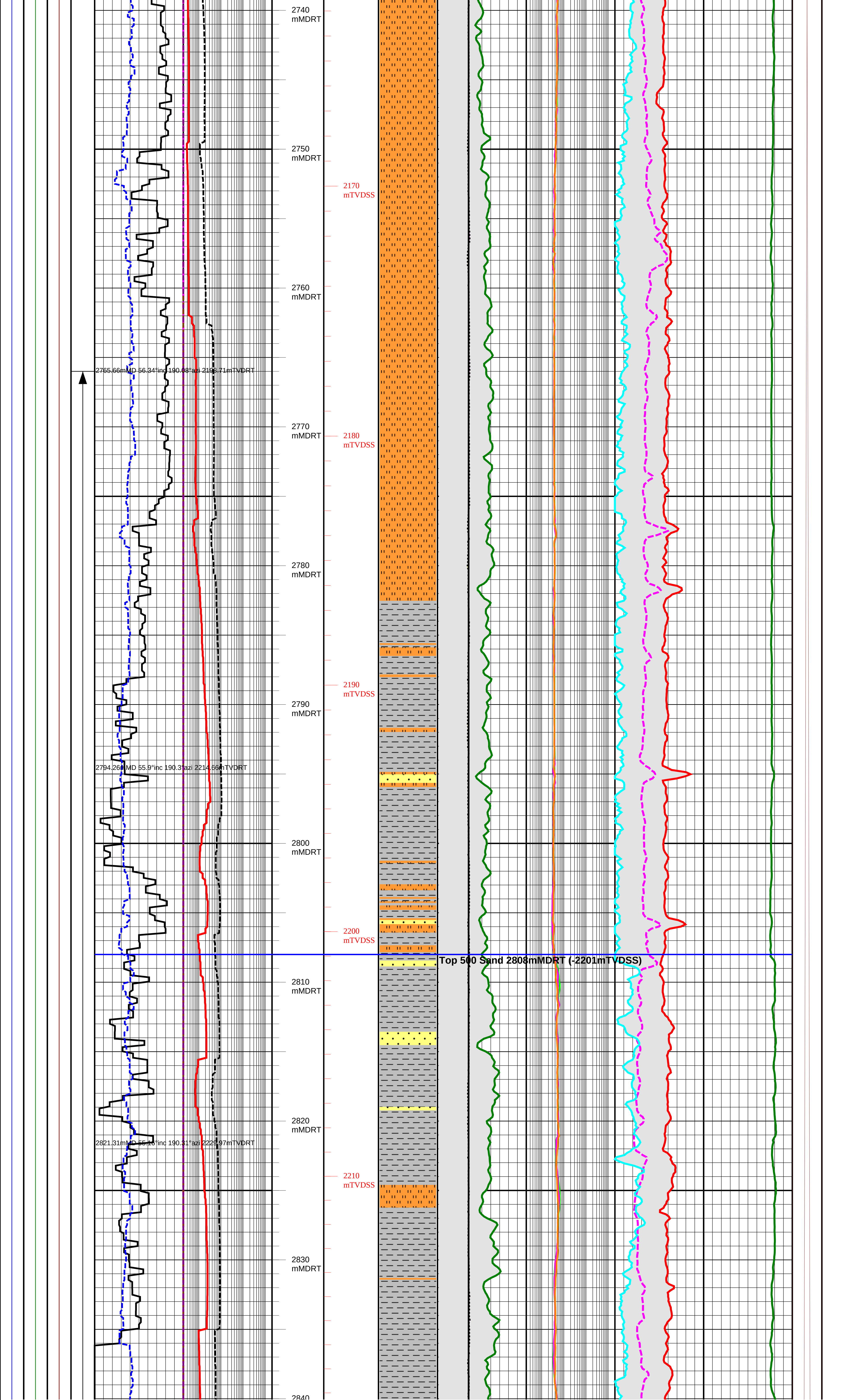
SANDSTONE: off white, light yellowish grey, 80% soft aggregate, 20% loose, very fine to medium, moderately well sorted, sub angular to rounded, 40 - 90% argillaceous matrix, common lithic and carbonaceous grains, feldspathic grains occasional inter laminations of silt, poor visual porosity, no hydrocarbon shows.



SILTSTONE: brownish grey, brownish black, very soft to sub firm, sub blocky to blocky, sub fissile in part, carbonaceous specks, occasionally very carbonaceous and gradational to Carbonaceous Siltstone, inter-laminated with very fine sand in part.

SILTSTONE: dark brownish grey, very soft to soft, sub blocky - blocky, common carbonaceous specks, occasionally very carbonaceous, argillaceous in part.

SANDSTONE: (minor) off white, light grey, light brownish grey, very fine to fine, soft aggregates, to loose grains, sub angular to rounded, well sorted, poor - fair visual porosity, no shows.



SILTSTONE: dark brownish grey, brownish grey, soft, sub blocky to blocky, trace carbonaceous specks, occasional carbonaceous laminae, massive uniform, gradational to SILTY CLAYSTONE.

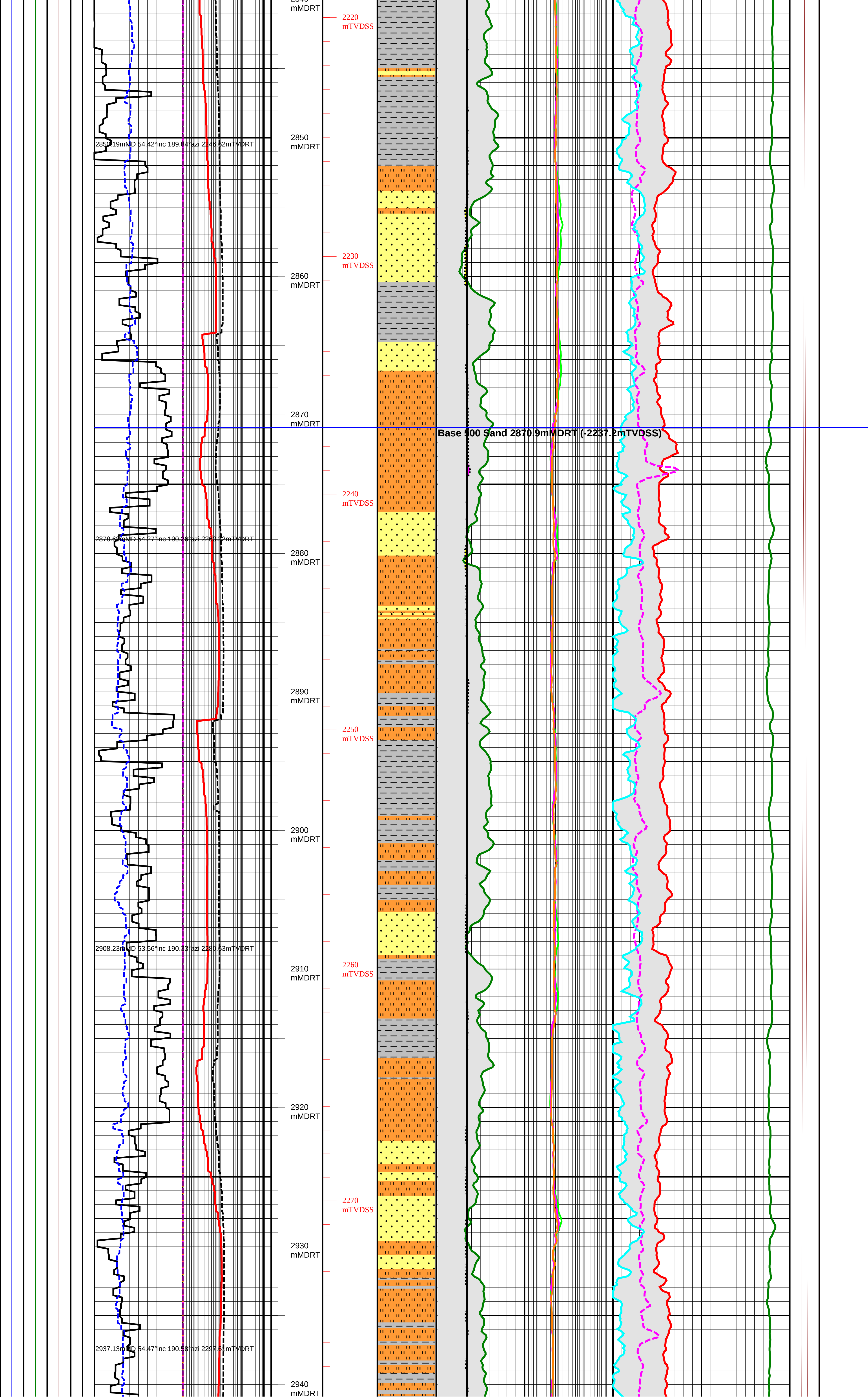
SANDSTONE: (trace) clear - translucent, occasionally yellow stained grains, yellowish brown, off white, aggregates to loose sand, very fine to fine grained sub rounded to rounded, well sorted, weak siliceous cement, fair to good inferred porosity.

CLAYSTONE: dark brownish grey, brownish black, soft - sub firm, sub blocky, occasionally splintery, very rare carbonaceous specks, uniform and homogenous.

SANDSTONE: clear - translucent, occasional orange grains, light grey, dominantly loose, very fine to fine, sub rounded - rounded, well sorted, good inferred porosity.

SILTSTONE: brownish grey, very soft to soft, sub blocky, common carbonaceous specks, occasionally arenaceous and gradational to very fine SANDSTONE.

CLAYSTONE: olive grey, brownish grey, soft - sub firm, sub blocky, occasionally splintery, very rare carbonaceous specks, uniform and homogenous.



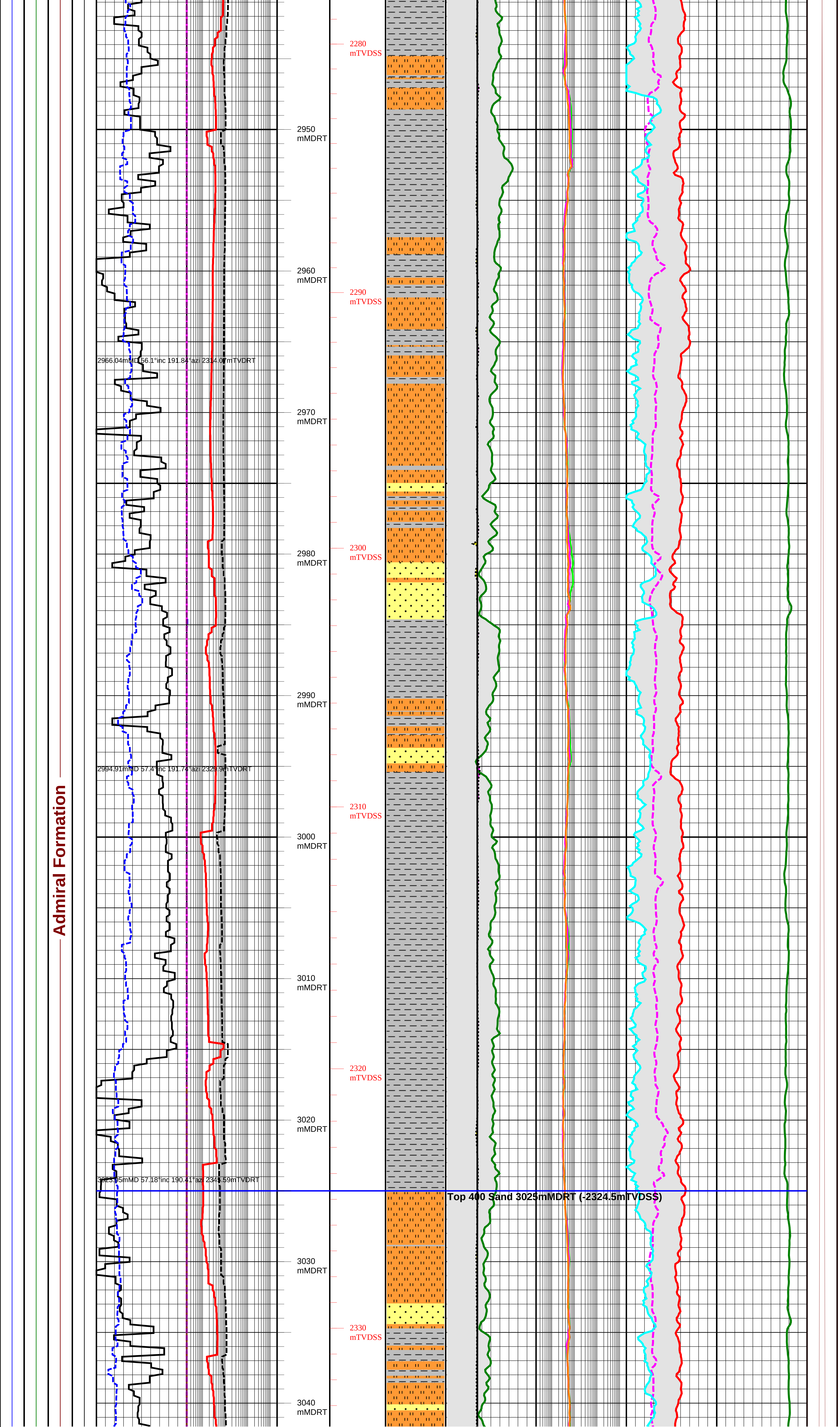
SANDSTONE: clear - translucent, occasionally yellow stained, light yellowish brown, very fine to fine, 20% loose, 80% very soft aggregates, carbonaceous grains, 20-30% argillaceous matrix, fair to good visual porosity.

SILTSTONE: brownish grey, brownish black, very soft, sub blocky, arenaceous to very argillaceous, occasionally grading to CLAYSTONE, common carbonaceous specks.

SANDSTONE: clear - translucent, loose to off white, light brown, yellowish white very soft aggregates, commonly loose, very fine to fine, occasional medium, rounded, well sorted, commonly carbonaceous grains, argillaceous matrix, good inferred porosity, no show.

SILTSTONE: brownish grey, brownish black, very soft, sub blocky, arenaceous to very argillaceous, common carbonaceous specks.

CLAYSTONE: olive grey, light - dark



brownish grey, soft - sub firm, sub blocky to blocky, occasionally splintery, homogenous.

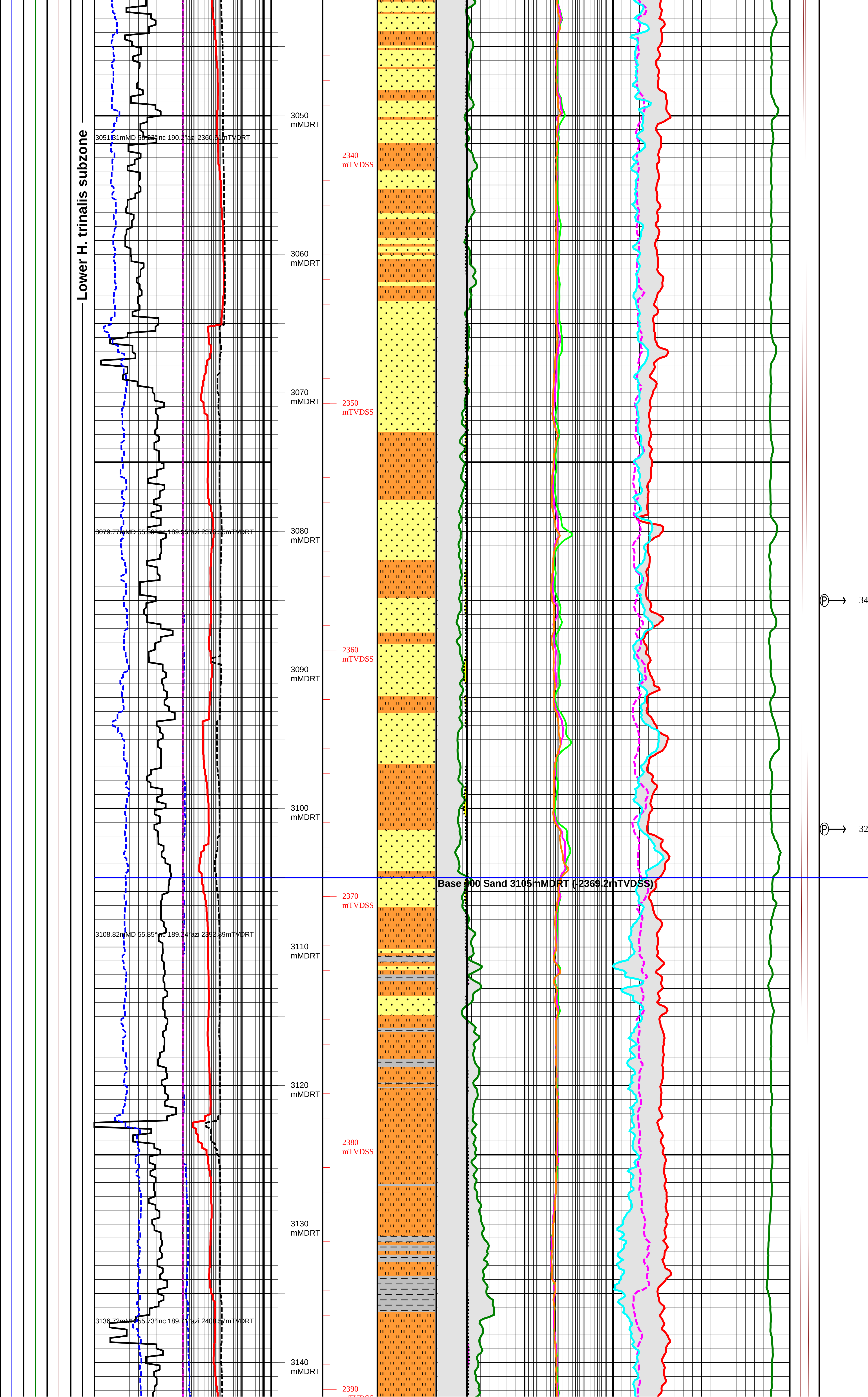
SANDSTONE: light grey - white, dominantly aggregate (70%), transparent loose (30%), fine - medium grained, dominantly fine, moderate well sorted, sub rounded to well rounded, argillaceous (20-30%), fair to good visual porosity.

CLAYSTONE: light grey, massive, firm, blocky - sub blocky, non carbonaceous, homogenous.

SANDSTONE: light grey - white, dominantly aggregate, transparent loose, fine - medium grained, dominantly fine, moderate sorted, moderate rounded, rare well rounded, argillaceous, fair to good visual porosity, no shows.

CLAYSTONE: light grey, massive, firm, blocky - sub blocky, non carbonaceous, non calcareous.

SILTSTONE: dark - medium grey, very soft, blocky, argillaceous, arenaceous in part, carbonaceous



specks.

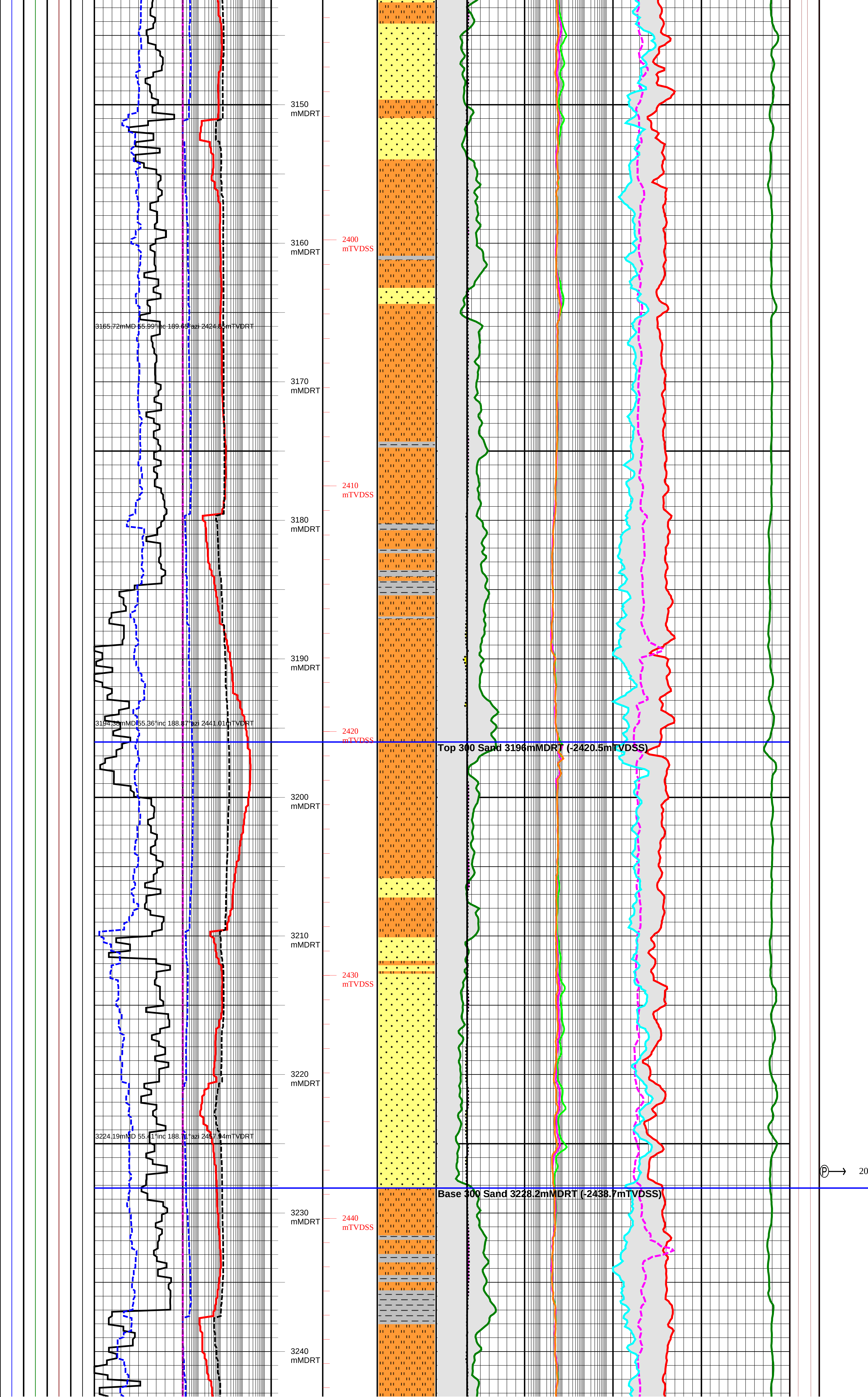
SILTSTONE: medium grey, very soft, blocky, argillaceous, arenaceous in part, carbonaceous specks.

CLAYSTONE: light grey, common brownish grey, olive grey, splintery, firm, blocky - sub blocky, non calcareous

SANDSTONE: light olive grey, mottled light greenish grey / olive grey, dominantly very soft aggregate, very fine - fine, occasional medium grained, well sorted, sub rounded to well rounded, 40-70% argillaceous matrix, trace carbonaceous grains, feldspar grains, trace chlorite stained matrix, poor - fair visual porosity.

SILTSTONE: dark brownish grey, brownish grey, soft to firm, common carbonaceous specks, very argillaceous.

COAL: (trace) dull black, blocky, firm, hackly fracture, argillaceous in part.



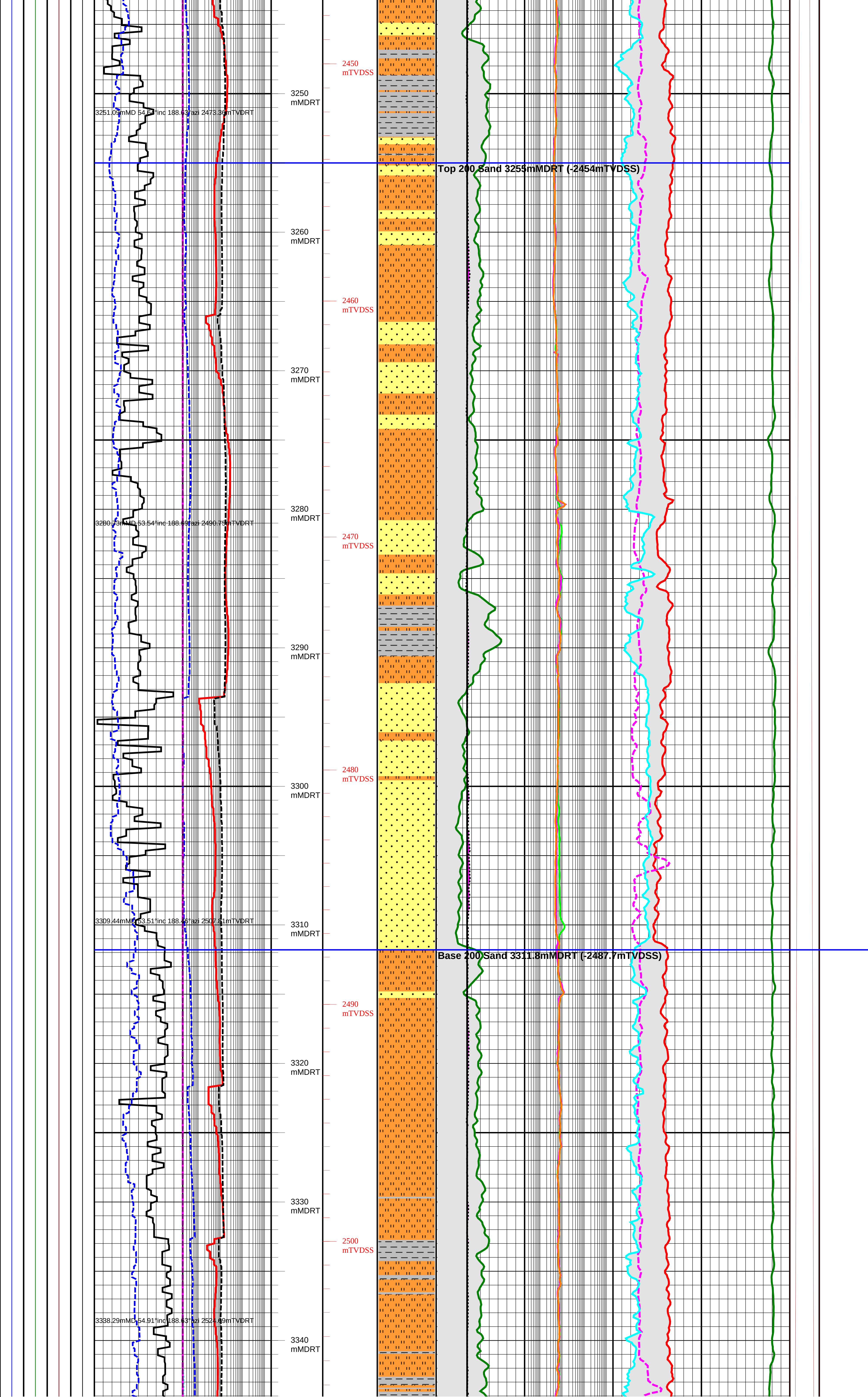
SANDSTONE: transparent, loose, fine - medium, dominantly fine, moderate sorted, rounded, argillaceous, good visual porosity, no shows.

SILTSTONE: brownish grey, brownish black, very soft to soft, sub blocky, trace to common carbonaceous specks, arenaceous to very argillaceous and gradational to CLAYSTONE.

SANDSTONE: 70% clear to translucent, 30% light greyish yellow, very soft aggregates, very fine to fine, trace carbonaceous grains, lithic grains, 20-30% argillaceous matrix, fair - good inferred porosity.

SILTSTONE: brownish grey, soft, sub blocky to blocky, common carbonaceous specks in part, very arenaceous in part and gradational to very fine sandstone interlaminations.

CLAYSTONE: brownish grey, greenish grey, firm, blocky, splintery in part, rare carbonaceous specks in parts.



SANDSTONE (minor): clear to translucent, light brownish grey, dominantly loose to soft aggregates, very fine to fine, well rounded, well sorted, 10-40% argillaceous matrix in aggregates, fair - good inferred porosity.

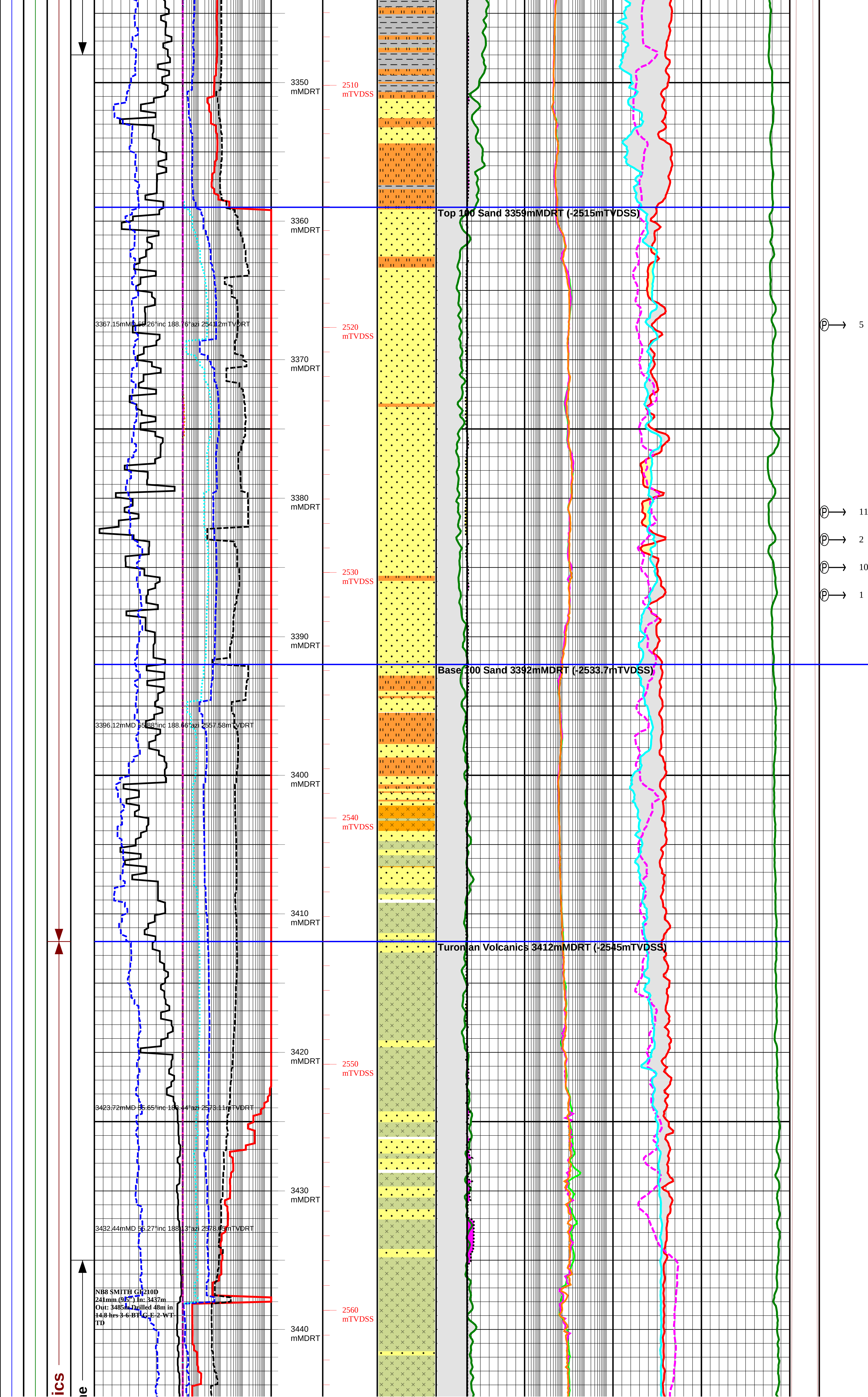
SILTSTONE: brownish grey, brownish black, very soft, sub blocky to blocky, crumbly, trace carbonaceous specks, very arenaceous.

CLAYSTONE: brownish grey, soft - firm, brittle in part, blocky to splintery, rare slightly silty, common homogenous and massive.

SANDSTONE: off white, light greenish / off white, yellow brown, clear to translucent, 20% loose, 80% soft and friable aggregates, commonly very fine to fine, grading to silt, rounded, well sorted, common carbonaceous grains common to occasional lithic grains, 10-40% argillaceous matrix, fair inferred porosity.

SILTSTONE: brownish grey, soft - firm, blocky, arenaceous, carbonaceous specks.

CLAYSTONE: brownish grey, very soft - soft, blocky elongate, splintery in part, massive and uniform.



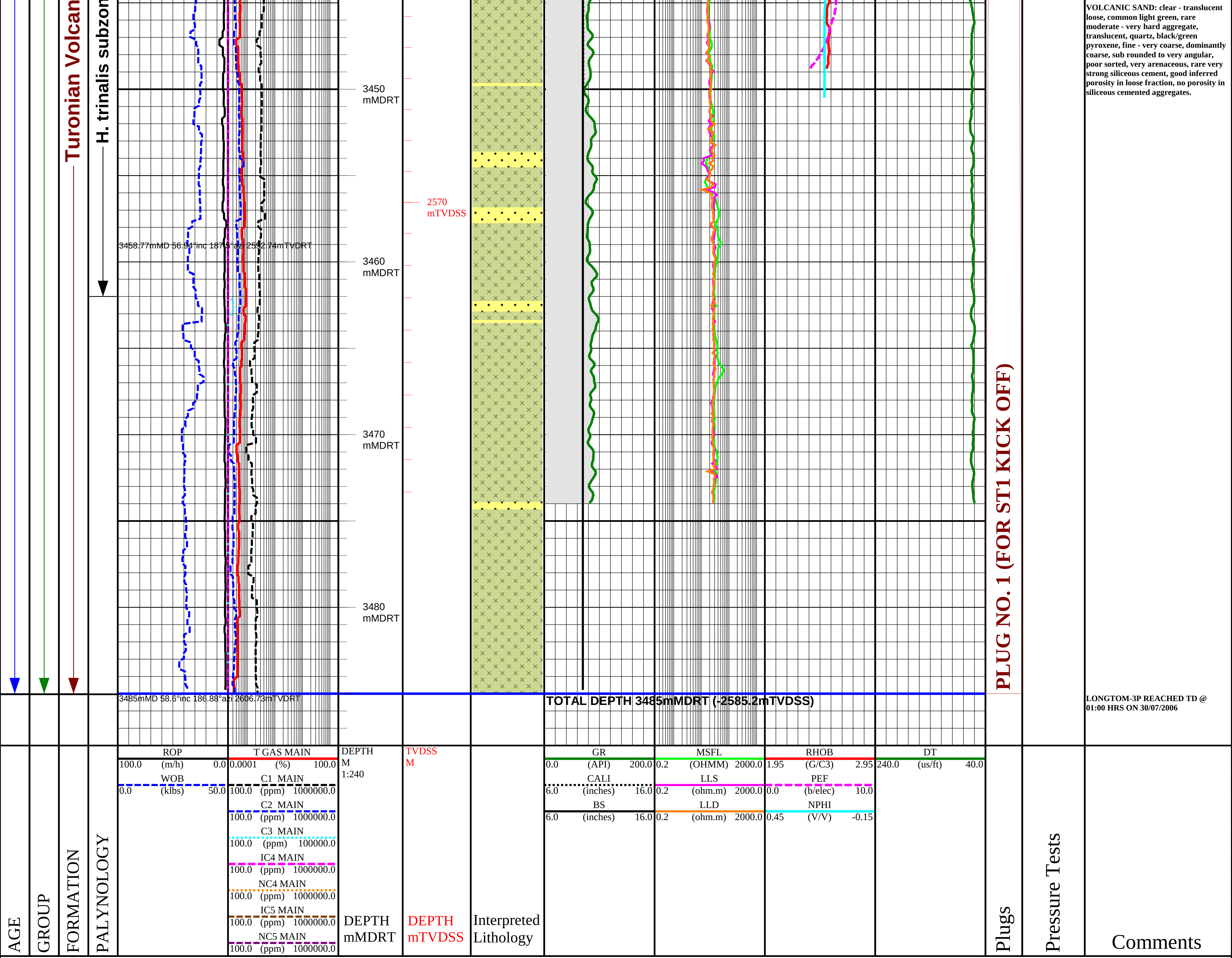
SANDSTONE: clear, translucent light green and loose, off white, light brown / green, greenish grey, very soft aggregates, very fine to medium, moderately well sorted, rounded, 10-20% argillaceous matrix, chloritic in part, trace carbonaceous grains, good inferred porosity. GasPeak @ 3375.5 mMD 28.38%

SILTSTONE: brownish grey, soft - firm, blocky, arenaceous, carbonaceous specks.

CLAYSTONE: greenish white, white, common dark brown, black, very soft, occasionally hard and silicified, commonly derived from weathered volcanic.

SANDSTONE: clear - translucent, light - pale green, dusky green in part, dominantly loose, occasional aggregates, fine to medium occasionally coarse, moderately sorted, rounded to sub rounded, common lithics, argillaceous matrix, variation in clays suggest a possible volcanic source, rare hard strong silica cement aggregates, poor to good inferred porosity.

VOLCANIC: greenish grey, reddish brown, orange brown, light brown, purple, microcrystalline to fine holocrystalline and equigranular, quartz rich, with green pyroxene, and light occasionally off white feldspar, trace very fine tabular black ilmenite?. Occasionally black and basaltic. The volcanic is occasionally weathered to greenish grey, brownish grey, off white clay, with weathered components often reconstituted together with very strong siliceous cement. Trace mineral filled fractures, very rare amygdales with pyrite fill. Common orange brown, brown/black, angular conchoidal fractured chalcedony, trace banded agate quartz. Common clear, yellow/ orange, rose quartz shards.



WIRELINE PRESSURE SURVEY RESULTS

WELL:	Longtom -3
FIELD:	Longtom
RUN DATE:	27-Jul-06
RIG:	Ocean Partiot
RT (m):	21.5m All depths are LAT
CONTRACTOR:	Schlumberger

PROBE TYPE:	XPT standard
GAUGE:	CQG
GAUGE RESOLUTION (psi):	0.1

ALL DEPTHS ON THIS SHEET ARE REFERENCED TO THE ON DEPTH PEX LOG

SUITE #	RUN #	PRETEST #	MEASURED DEPTH mRT	TVD mSS	BEFORE HSP psia	FORMATION PRESSURE psia	AFTER HSP psia	MOBILITY md/cp	TEMP deg C	VOLUME cc	TIME sec	TIME min	VALID	NO SEAL	LOW PERM	OTHER	COMMENTS
1	1	1	3387.0	2530.9	5,296.2	4,386.80	5,271.40	0.7	117.60	1.1 x 5	1,080	18.00	X				pressure still building up very slowly, possibly supercharged
		2	3383.0	2528.7	5,257.9	4,384.80	5,258.10	6.2	118.40	5 x 5	618	10.30	X				
		5	3367.5	2519.9	5,231.7	4,382.56	5,236.39	15.5	118.90	5 x 5	378	6.30	X				
		10	3385.0	2529.8	5,266.4	4,385.26	5,262.29	29.0	119.00	5 x 5	360	6.00	X				
		11	3381.0	2527.5	5,251.1	4,384.58	5,251.07	121.0	119.15	5 x 5	312	5.20	X				
		20	3227.0	2438.1	5,068.9	3,856.16	5,069.21	0.4	117.90	2.5	780	13.00	X				Pressure not completely stabilzed
		32	3101.5	2367.3	4,923.5	3,578.95	4,923.20	4.7	114.80	5.2	325	5.40	X				smart test
		34	3085.0	2358.0	4,900.1	3,566.49	4,901.10	5.6	114.60	6.8	360	6.00	X				smart test
		40	2670.0	2124.1	4,448.9	3,087.93	4,448.70	1.1	109.40	2.5	660	11.00	X				smart test
		41	2659.0	2118.0	4,416.5	3,074.60	4,416.40	7.0	108.00	10.2x0.5x1.0	690	11.50	X				smart test
		42	2644.0	2109.7	4,397.7	3,067.61	4,404.45	6.4	107.50	9.1	558	9.30	X				smart test
		44	2634.0	2104.2	4,389.5	3,057.71	4,391.40	5.4	107.10	8.4	282	4.70	X				smart test
		45	2620.0	2096.4	4,372.7	3,052.44	4,377.81	4.7	106.20	7.9	324	5.40	X				smart test
		46	2615.0	2093.5	4,368.2	3,048.35	4,367.90	11.7	105.90	12.3x10	672	11.20	X				smart test

		47	2603.0	2086.6	4,353.3	3,039.61	4,355.10	0.7	105.60	2.3 x 1.3	660	11.00	X				smart test
		48	2597.0	2083.1	4,345.8	3,036.16	4,348.20	0.5	105.30	2.5x1.3	672	11.20	X				smart test
		49	2554.5	2058.3	4,297.3	2,993.65	4,398.60	21.7	105.00	10x10	420	7.00	X				smart test

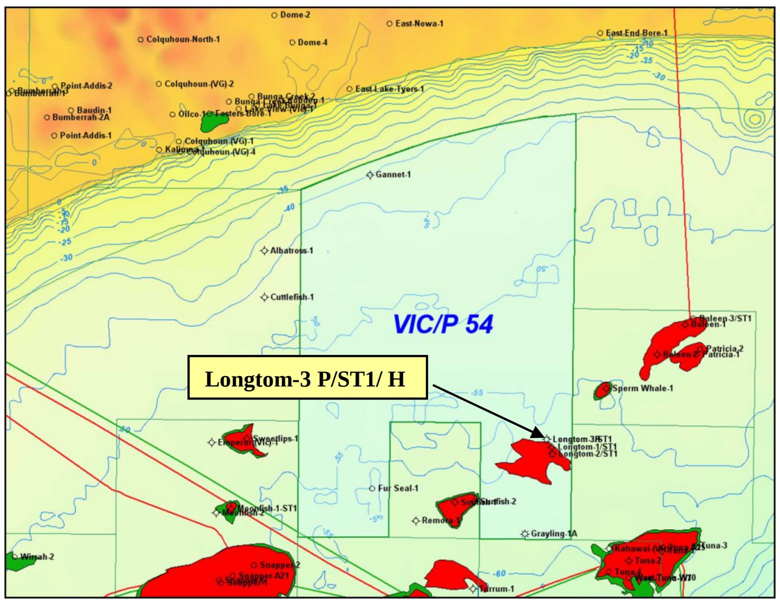
ENCLOSURE 2: LONGTOM-3 ST1 COMPOSITE LOG (Scale 1 : 240)

NEXUS ENERGY

LONGTOM-3ST1

VIC/P54
GIPPSLAND BASIN, VICTORIA

WELL COMPOSITE LOG

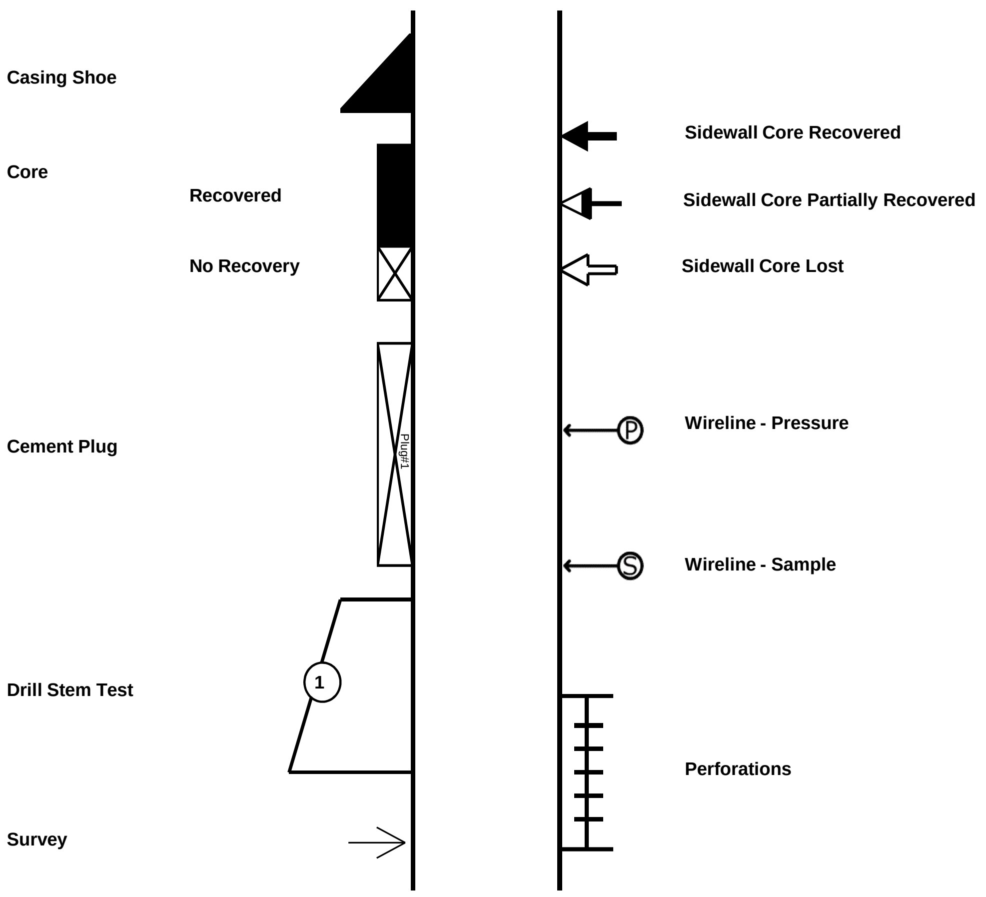


LOCATION:	Survey:	Northern Fields 3D
	Line:	299
	Trace:	883
	Offset:	11.4m
SURFACE LOCATION:	Latitude:	38° 05' 34.63"S
	Longitude:	148° 18' 41.52E
	Easting	615 006.0mE
	Northing:	5 783 059.3mN
	Datum:	GDA94
	Spheroid:	GRS80
	Map Grid:	MGA
	Projection:	UTM Zone 55
	Central Meridian:	147°E
HOLE SIZES:	343mm (13½")	1008m – 2563mMDRT

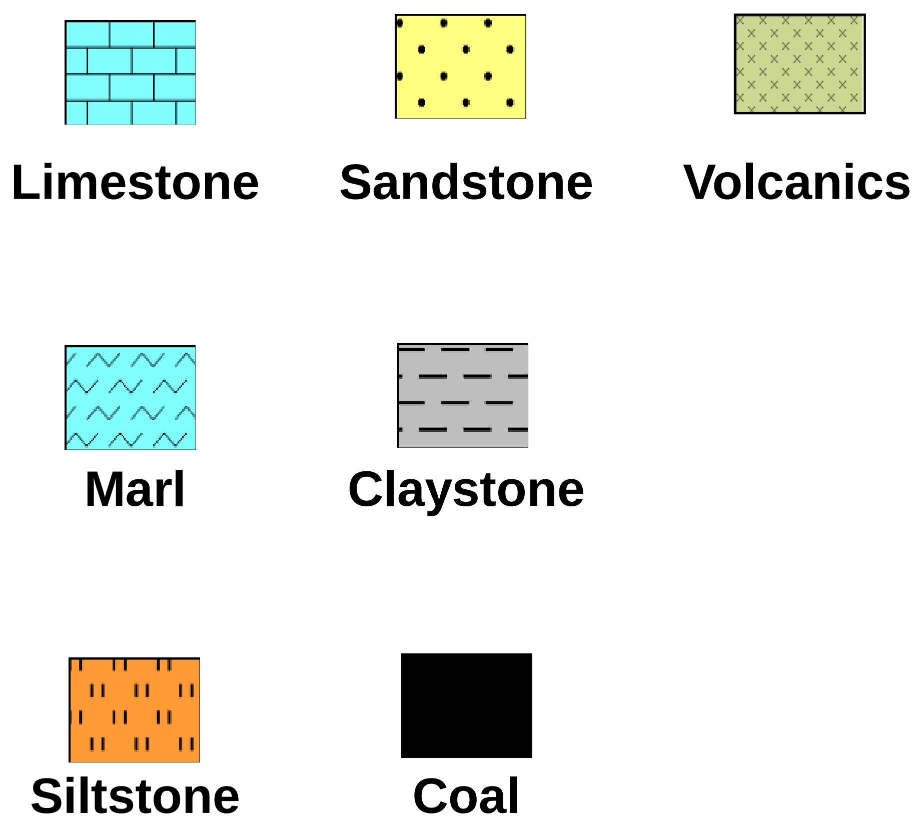
PERMIT:	VIC/P54	
BASIN:	GIPPSLAND	
PARTICIPANTS:	Nexus Energy (Op) 100%	
WELL DESIGNATION:	Development	
STATUS:	Cased and Completed	
STRUCTURE TYPE:	Low side, three-way dip closure	
RIG NAME AND TYPE:	Ocean Patriot, Semi Submersible MODU	
RIG CONTRACTOR:	Diamond Offshore Drilling Inc.	
CASING:	Size	Shoe
LT-3P	762mm (30")	110.8mMDRT
LT-3P	406mm (16")	995.3mMDRT
LT-3ST1	273mm (10¾")	2374.3mMDRT

ELEVATION:	Datum:	LAT
	RT-ASL (LAT):	21.5m
	WD (LAT):	56.7m
	RT-ML:	78.2m
KICKED OFF:	22:00hrs	31/07/2006
REACHED TD:	08:30hrs	07/08/2006
COMPLETED SIDETRACK HOLE PHASE:	00:00hrs	12/08/2006
TOTAL DEPTH:	Driller:	2563mMDRT
		-2277.9mTVDSS
PLUGS:	No.1 (Abandonment & Kick off)	2563m – 2384mMDRT

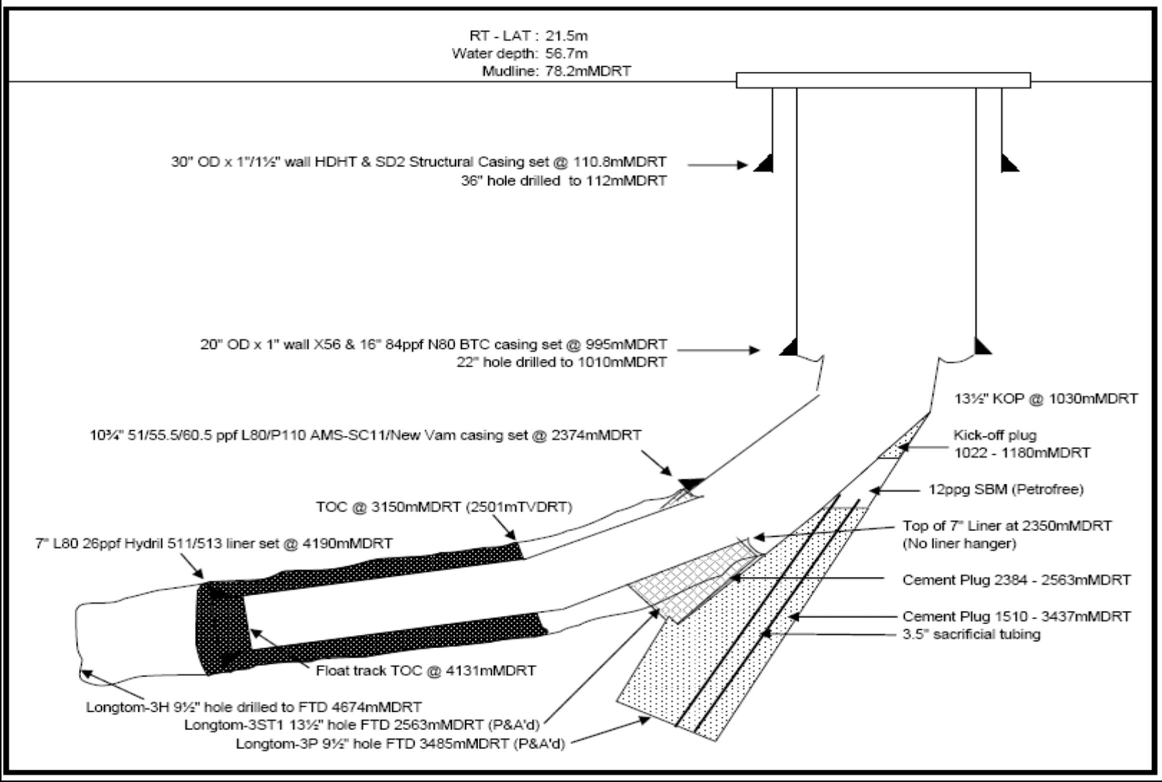
Engineering Symbols



Lithology Symbols



LONGTOM-3P/ST1/3H WELL SCHEMATIC
AT START OF COMPLETION PHASE



LOGGIING WHILE DRILLING (LWD) LOGS

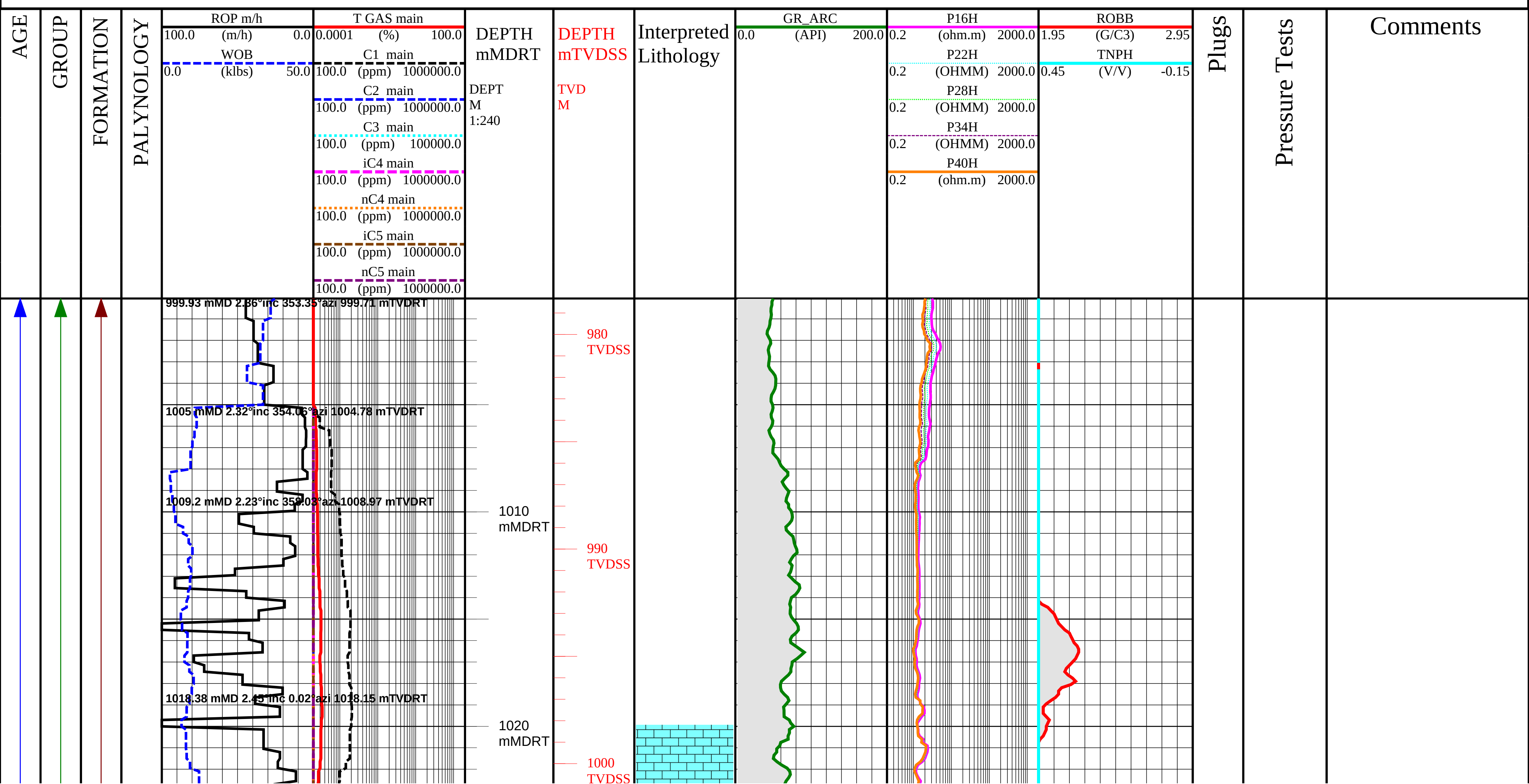
RUN No.	HOLE SIZE	TOOLS	INTERVAL (mMDRT)	COMMENTS
8	343mm (13½")	ADN-PowerPulse-ARC-PowerDrive X5	1008 - 1728	POOH due to low ROP.
9	343mm (13½")	ADN-PowerPulse-ARC-PowerDrive X5	1728 - 2564	Drilled to TD.

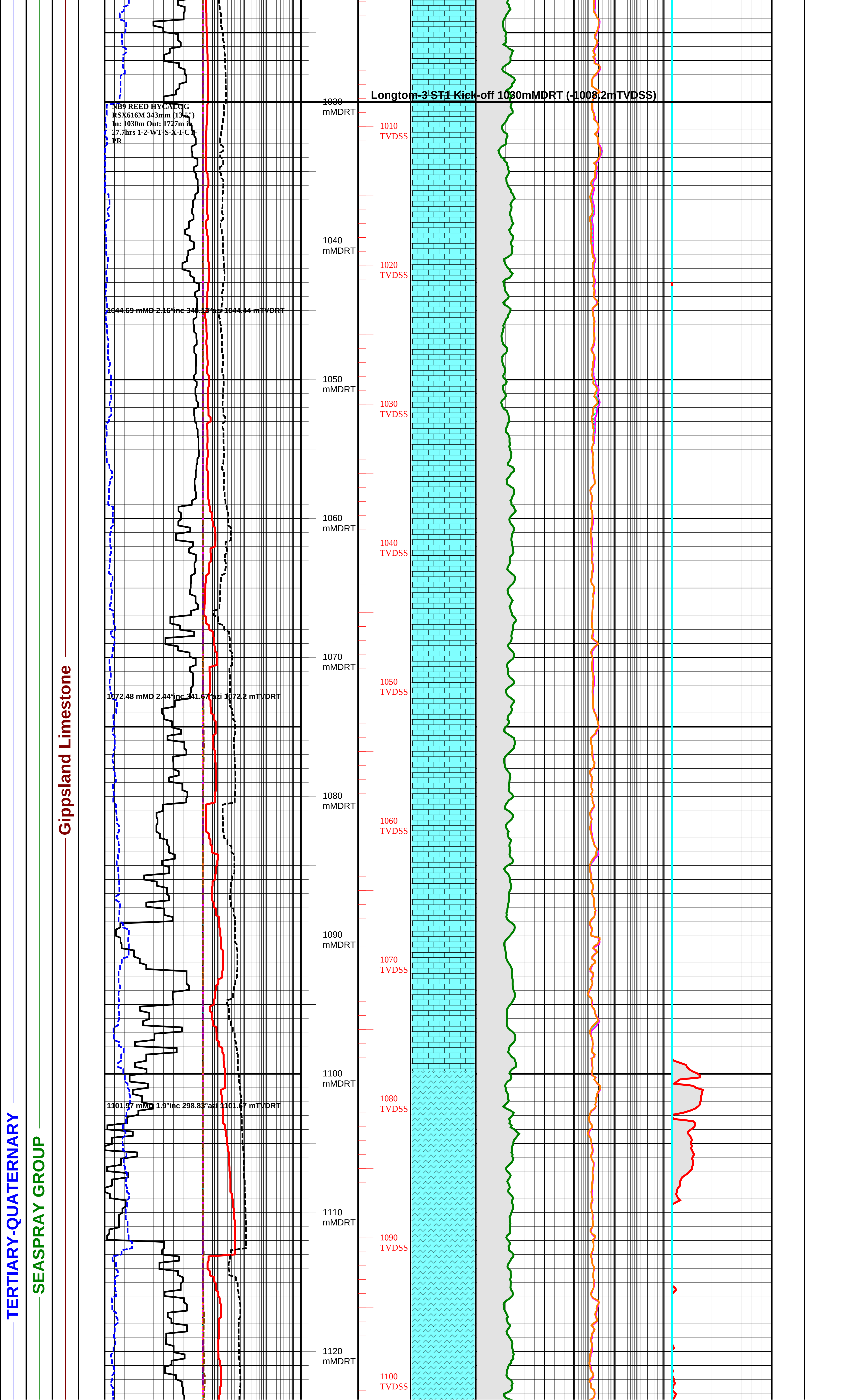
Wireline Logging Runs

Run #	Logging Tools	Main Pass From	Main Pass To	Repeat From	Repeat To	Time Since Last Circ	Temp (°F)	Temp (°F)	Temp (°F)
1	XPT-GR	2153.0	1831.0	n/a		9:45	104.21	102.9	100.25
	12 pressure tests conducted, 4 valid, 5 low permeability, 2 no seal, 1 supercharged.								

Log Description

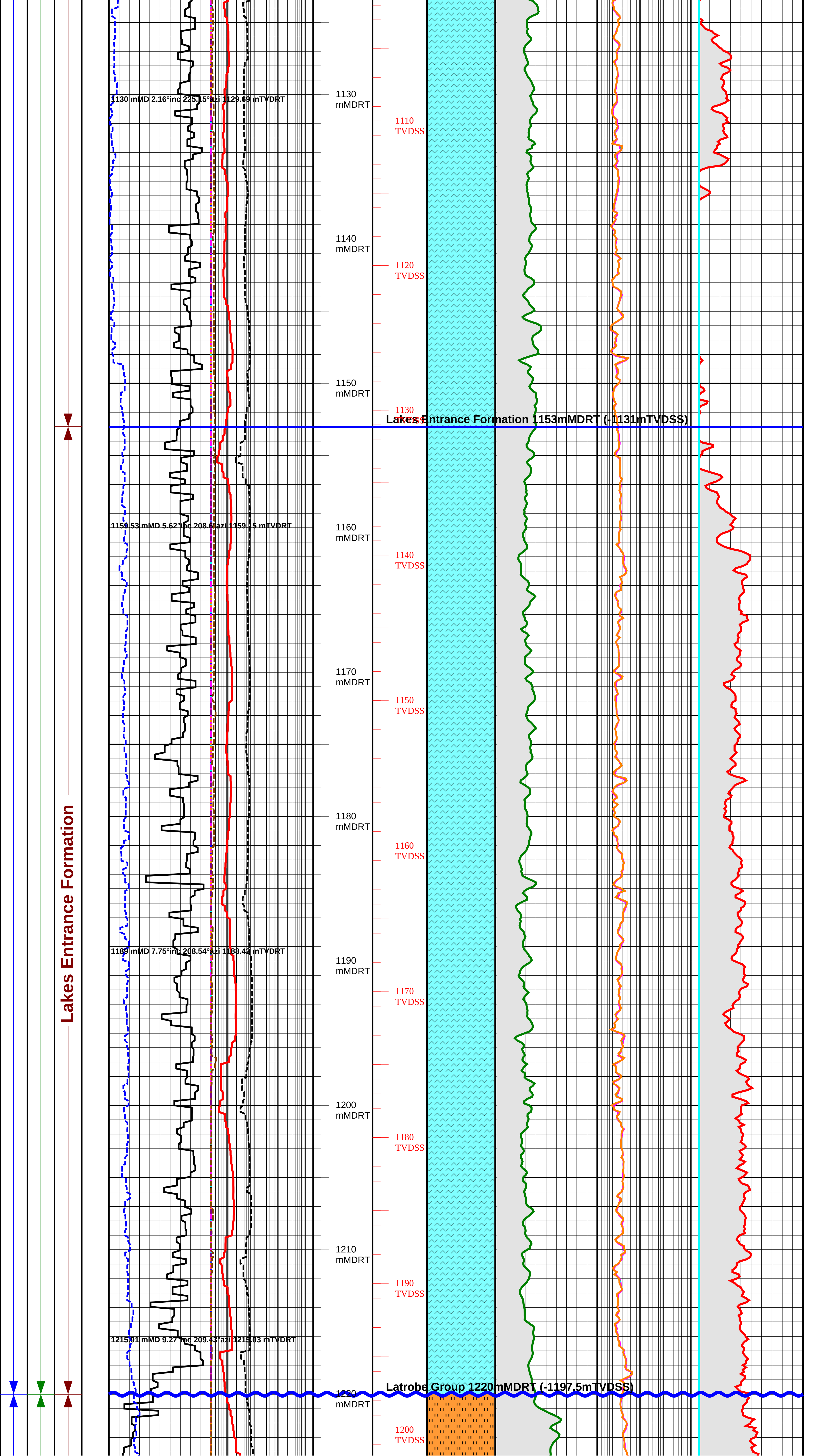
GR_ARC — ARC Gamma Ray
P16H — ARC Phase-Shift Resistivity 16-in. at 2 MHz
P22H — ARC Phase-Shift Resistivity 22-in. at 2 MHz
P28H — ARC Phase-Shift Resistivity 28-in. at 2 MHz
P34H — ARC Phase-Shift Resistivity 34-in. at 2 MHz
P40H — ARC Phase-Shift Resistivity 40-in. at 2 MHz
ROBB — Bulk Density, Bottom
TNPH — Thermal Neutron Porosity (Ratio Method) in Selected Lithology
ROP m/h — 0.5m average
WOB — 0.5m average
T GAS main — Geoservices RESERVAL 0.5m Peak
C1 main — Geoservices RESERVAL 0.5m Peak
C2 main — Geoservices RESERVAL 0.5m Peak
C3 main — Geoservices RESERVAL 0.5m Peak
iC4 main — Geoservices RESERVAL 0.5m Peak
nC4 main — Geoservices RESERVAL 0.5m Peak
iC5 main — Geoservices RESERVAL 0.5m Peak
nC5 main — Geoservices RESERVAL 0.5m Peak





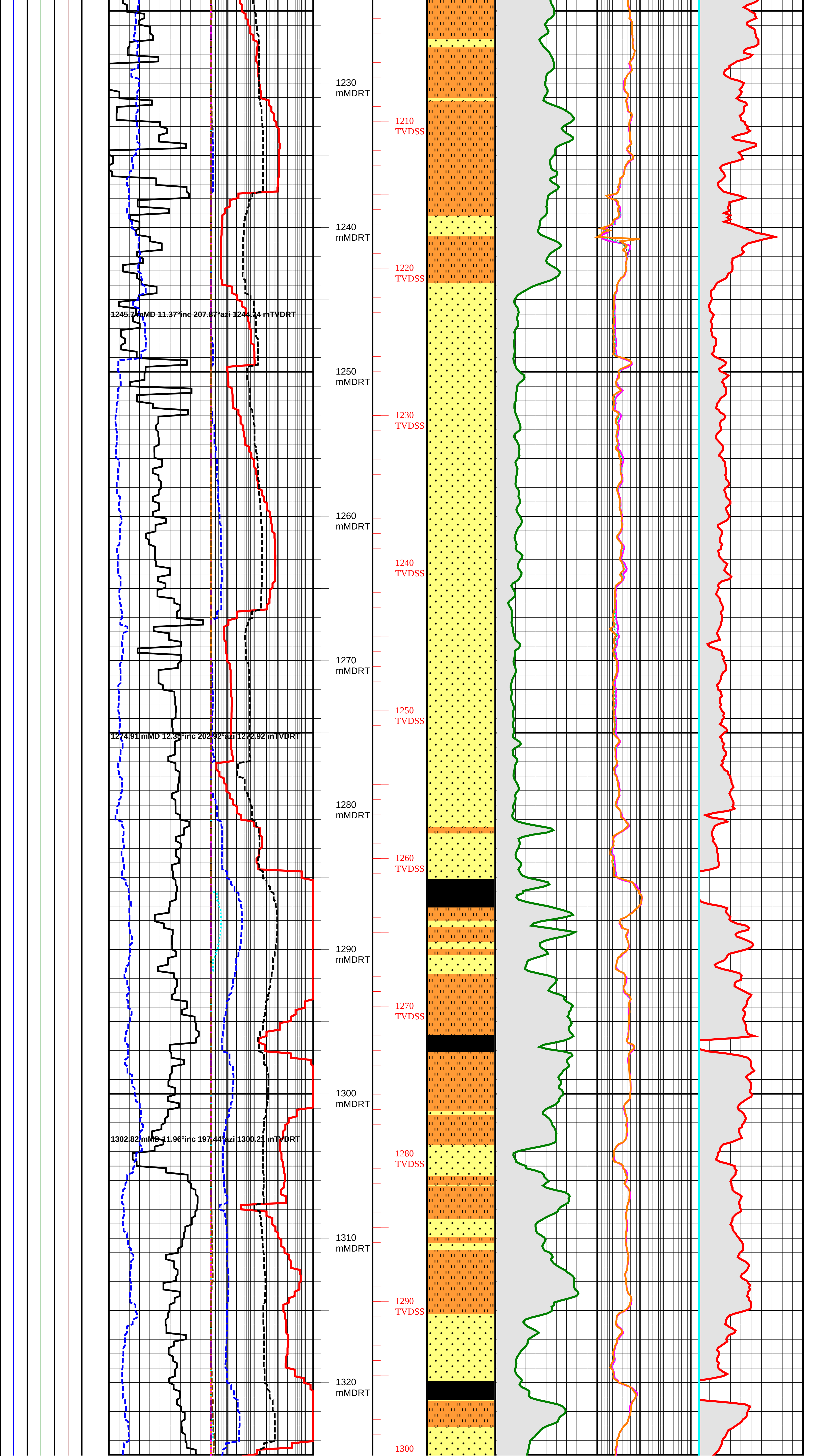
ARGILLACEOUS CALCILUTITE: light grey to medium light grey, rare slightly greenish grey, very soft to soft, sub blocky to amorphous, very argillaceous in part and gradational to MARL, trace very fine glauconite, trace very fine pyrite.

MARL: olive grey, light to medium grey, rare greenish grey, soft to firm, rare moderately hard, sticky in part, gradational to ARGILLACEOUS CALCILUTITE in part, trace very fine pyrite, trace very fine glauconite, trace crystalline calcite, trace forams, rare very fine carbonaceous specks.



MARL: olive grey, light grey, very soft to firm, sub blocky to amorphous, sticky in part, gradational to ARGILLACEOUS CALCILUTITE in part, trace very fine glauconite, trace forams, rare very fine carbonaceous specks.

SILTSTONE: brownish grey, very soft – sub firm, sub blocky, glauconitic in part, carbonaceous grains, commonly very sandy and gradational to SILTY SANDSTONE.



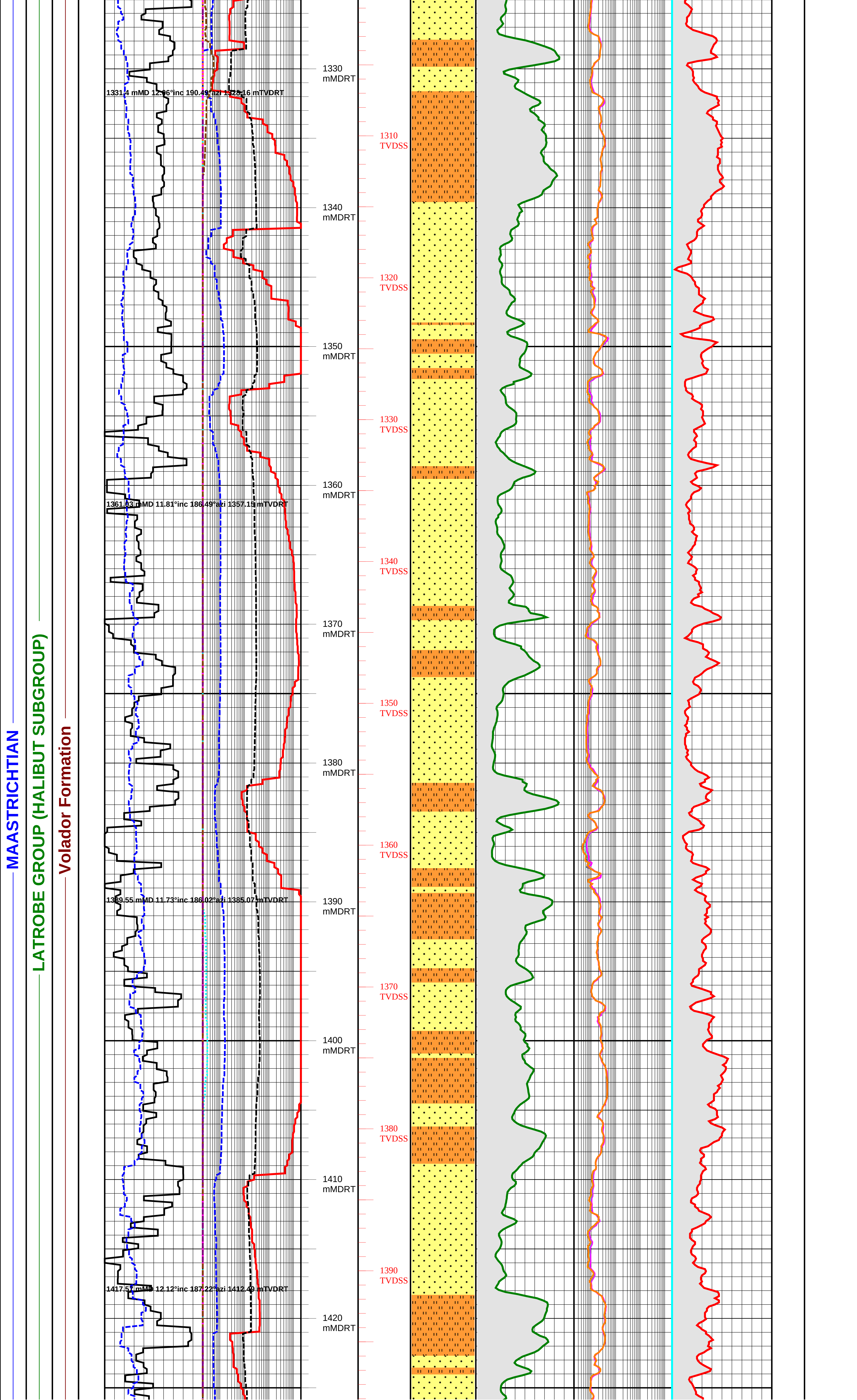
SANDSTONE: clear - translucent, light brown, loose to friable aggregates, very fine to medium, dominantly fine, trace loose coarse grains, argillaceous and silty matrix to 40%, trace carbonaceous grains, trace glauconite, trace lithics, fair inferred porosity, no shows.

SANDSTONE: clear – translucent, orange brown staining on grains, loose, medium to very coarse, dominantly very coarse, angular, moderately well sorted, common pyrite nodules, common carbonaceous smearing, good inferred porosity, no shows.

SANDSTONE: clear – translucent, orange brown staining on grains, loose, medium to very coarse, dominantly very coarse, angular, moderately well sorted, common pyrite nodules, occasional light brown to off white argillaceous matrix, good inferred porosity, no shows.

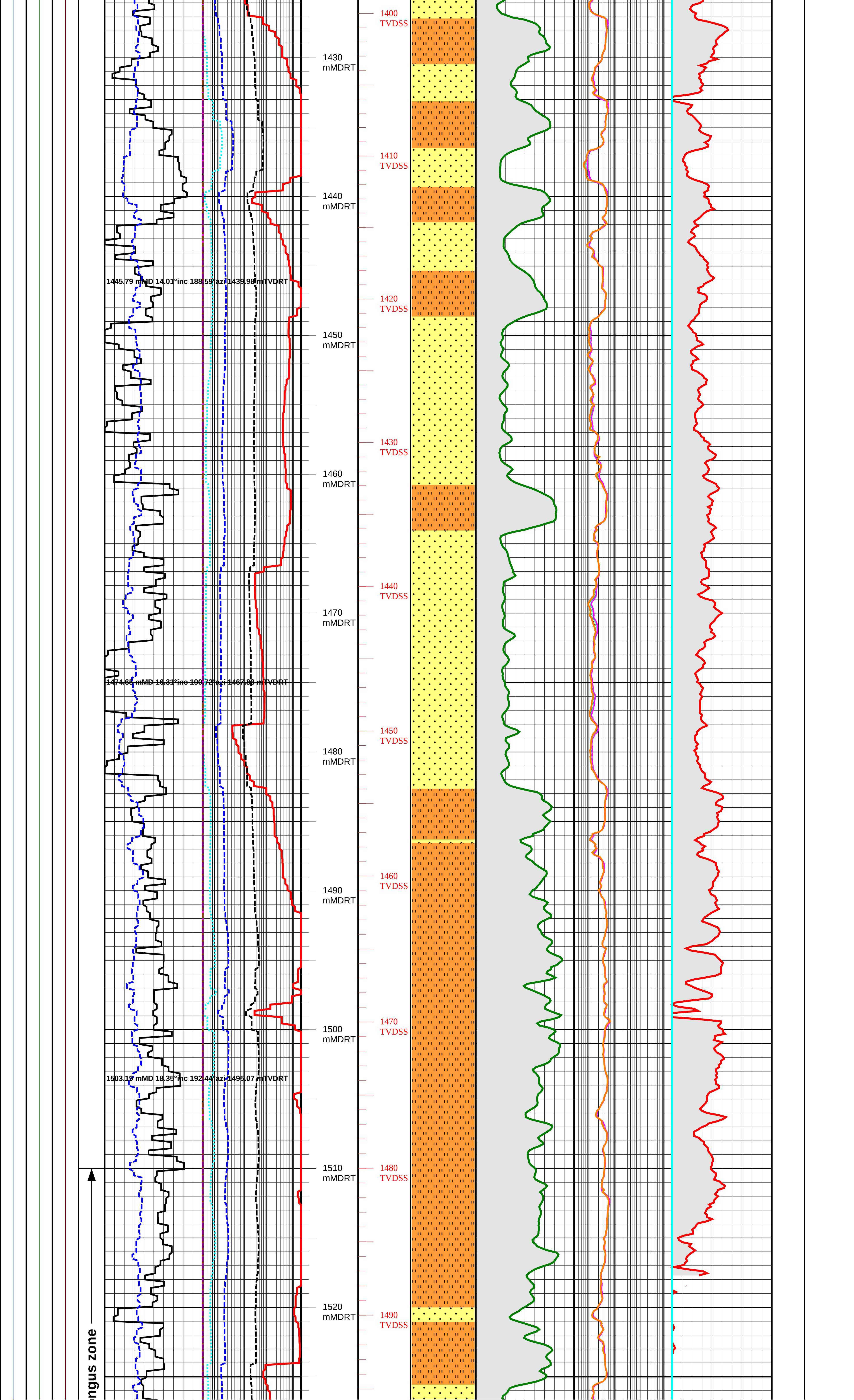
COAL: (trace) black, dull black, soft – firm, blocky, uneven fracture, very silty in part.

SILTSTONE: brownish grey, brownish black, very soft – soft, very carbonaceous, carbonaceous laminae, commonly gradational to CARBONACEOUS SILTSTONE



CARBONACEOUS SILTSTONE: (minor) dull black, brownish black, soft to firm, blocky, rare sub fissile.

SANDSTONE: clear - translucent, loose, fine - very coarse, poorly sorted, sub rounded to angular, trace pyrite, good inferred porosity, no shows.



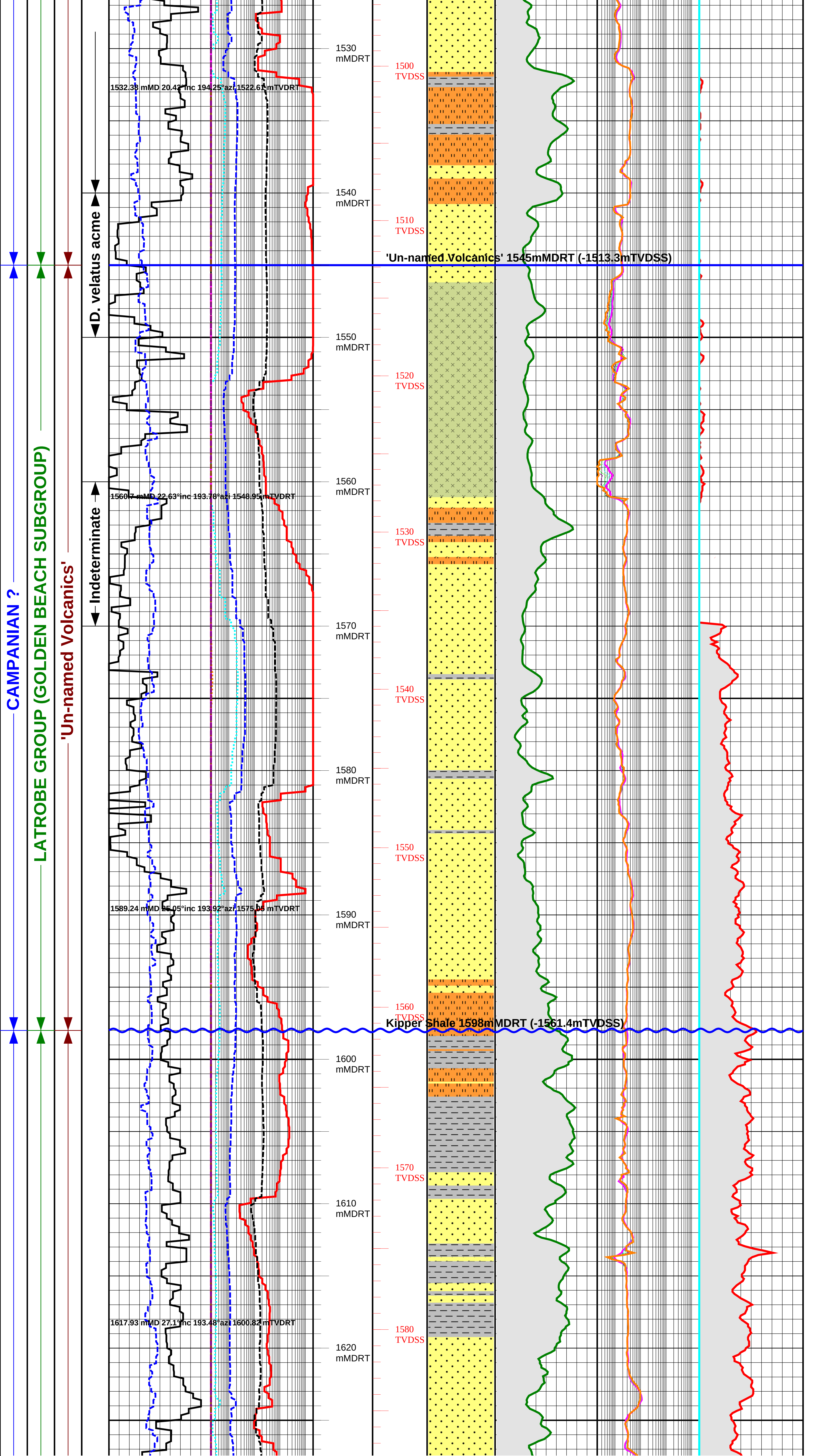
SILTSTONE: light to medium brownish grey, soft, friable, sub blocky to blocky, arenaceous, common carbonaceous grains and carbonaceous laminae, sandy in part.

SILTY CLAYSTONE: medium to dark brownish grey, dark grey, sub firm to firm, rare soft, carbonaceous, micromica, rare very fine disseminated pyrite. gradational to SILTSTONE in part.

SILTSTONE: brownish grey, rare black brown, soft, arenaceous, very carbonaceous in part, common carbonaceous laminae.

COAL (Trace): black, sub vitreous to dull, brittle, hackly fracture, silty and argillaceous in part.

SANDSTONE: clear, translucent, white, light grey, loose to soft aggregates, medium to coarse, dominantly coarse, rare very coarse, sub angular to rounded, dominantly



sub rounded, moderately well sorted, common coaly fragments and lithics, trace pyrite nodules, fair to good inferred porosity, no shows.

VOLCANIC: off white, light greenish white, occasionally mottled, very light yellowish brown / off white / light green, commonly weathered to claystone, common fine to rare medium quartz, trace weathered feldspar and weathered green pyroxene, pyritic in part, trace chlorite, trace remnant crystalline structure in part.

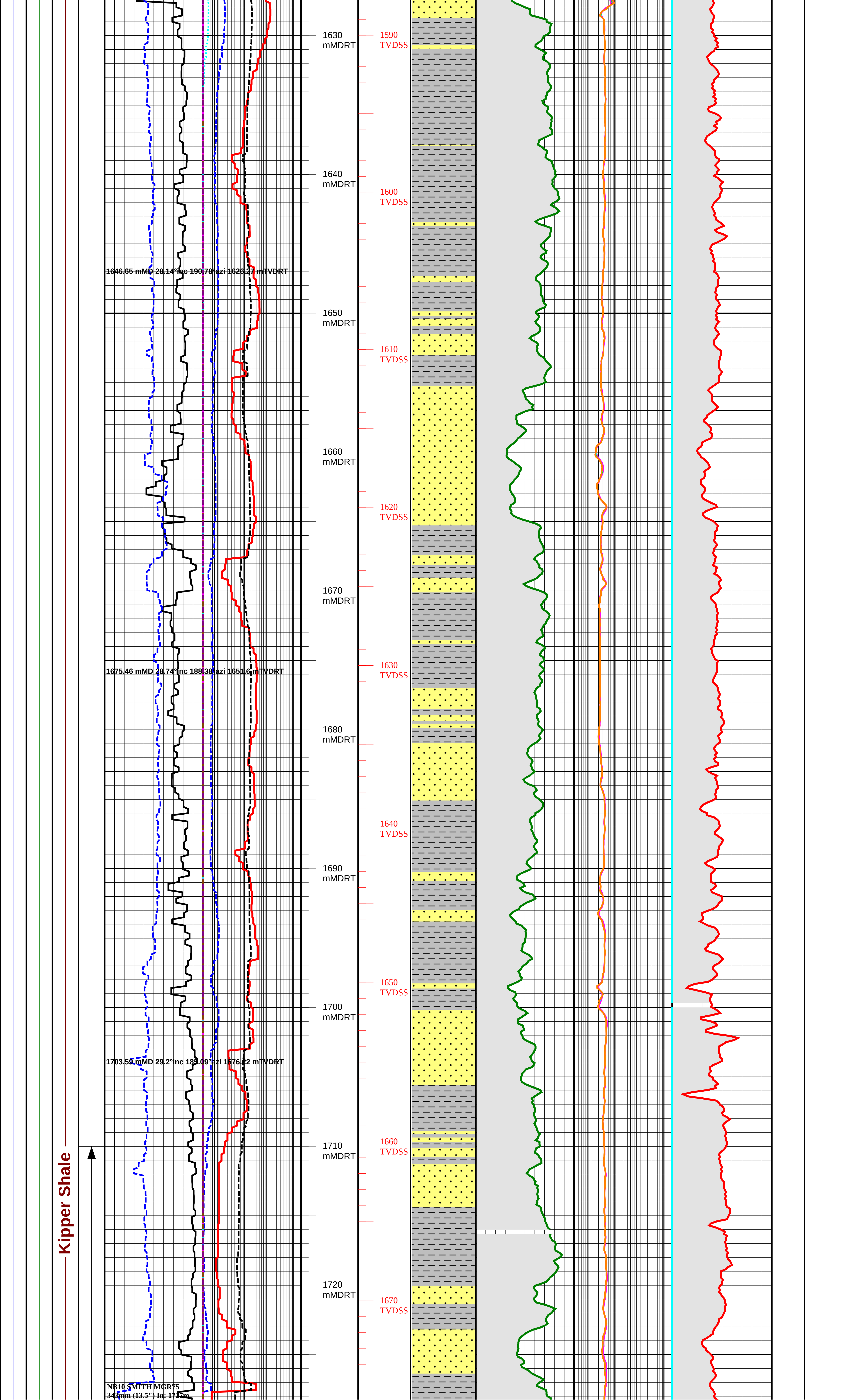
SANDSTONE: clear – translucent, loose, medium to very coarse, sub rounded to very angular, poorly sorted, trace pyrite cement, trace pyrite nodules, good inferred porosity.

SILTY CLAYSTONE: brownish grey, very soft – soft, arenaceous to argillaceous, common carbonaceous specks and laminae, trace very fine pyrite, gradational to SILTSTONE.

CLAYSTONE (10-70%): light to dark grey, dominantly light grey, light brownish grey in part, firm, blocky, arenaceous, very common carbonaceous specks, rare carbonaceous laminae, trace very fine pyrite, gradational to SILTY CLAYSTONE in part.

COAL (trace): brownish black, sub vitreous to dull, brittle, moderately hard, hackly fracture, silty and argillaceous in part.

SANDSTONE: clear - translucent, rare light grey, weak aggregates, rare loose



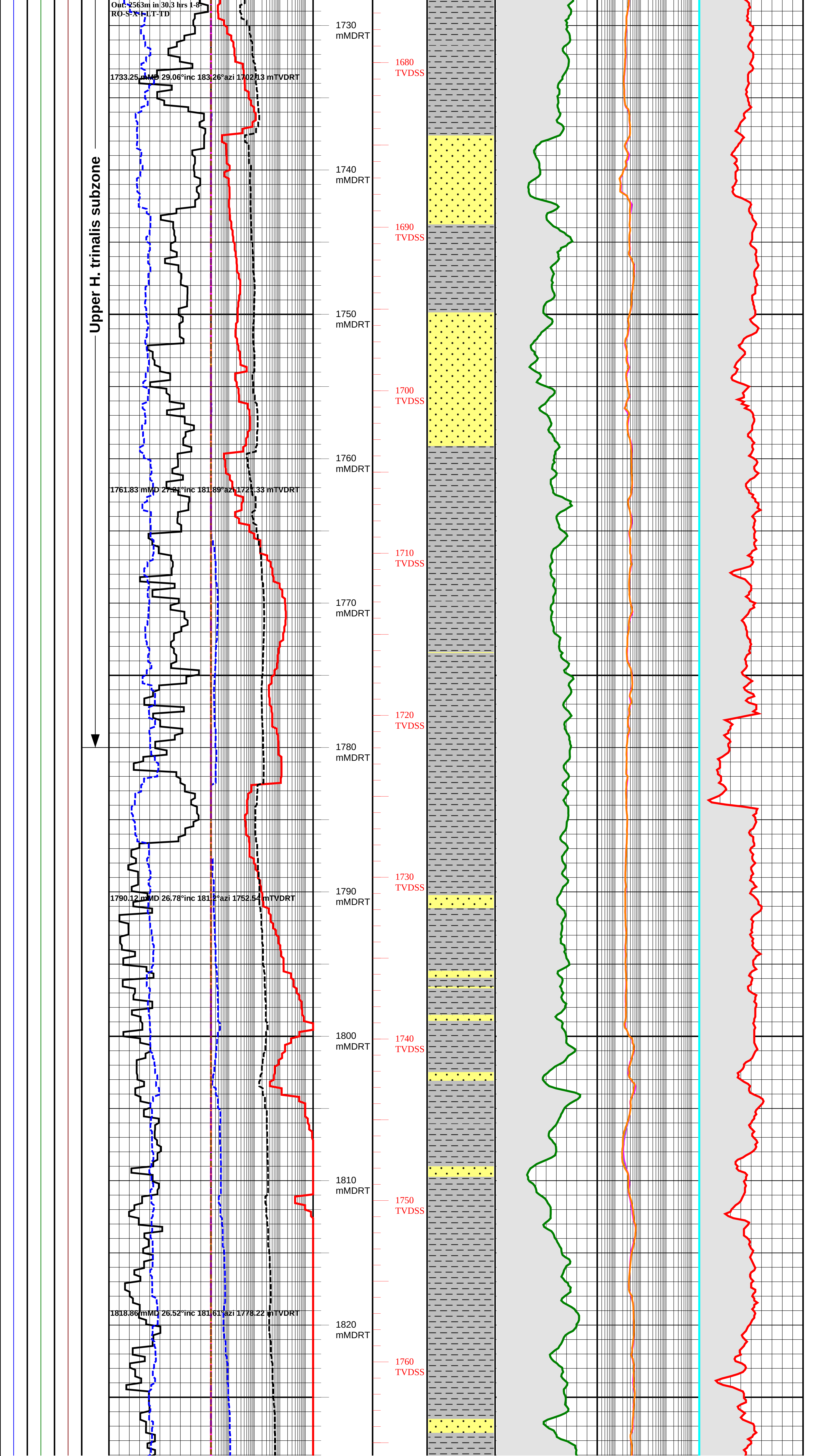
light grey, weak aggregates, rare loose, medium to very coarse, dominantly coarse, sub rounded to very angular, dominantly sub rounded, moderately sorted, trace white argillaceous matrix, weak siliceous cement, trace pyrite cement, trace pyrite nodules, fair inferred porosity, no show.

SILTY CLAYSTONE: brownish grey, soft to firm, sub blocky to blocky, arenaceous to argillaceous, common carbonaceous specks and laminae, trace lithics, very fine pyrite, gradational to SILTSTONE in part.

CLAYSTONE: medium – dark grey, brownish grey, rare medium to light grey, soft – firm, sub blocky, carbonaceous in part, silty in part.

COAL: (trace) brownish black to black, sub vitreous to dull, brittle, hackly fracture, silty and argillaceous in part

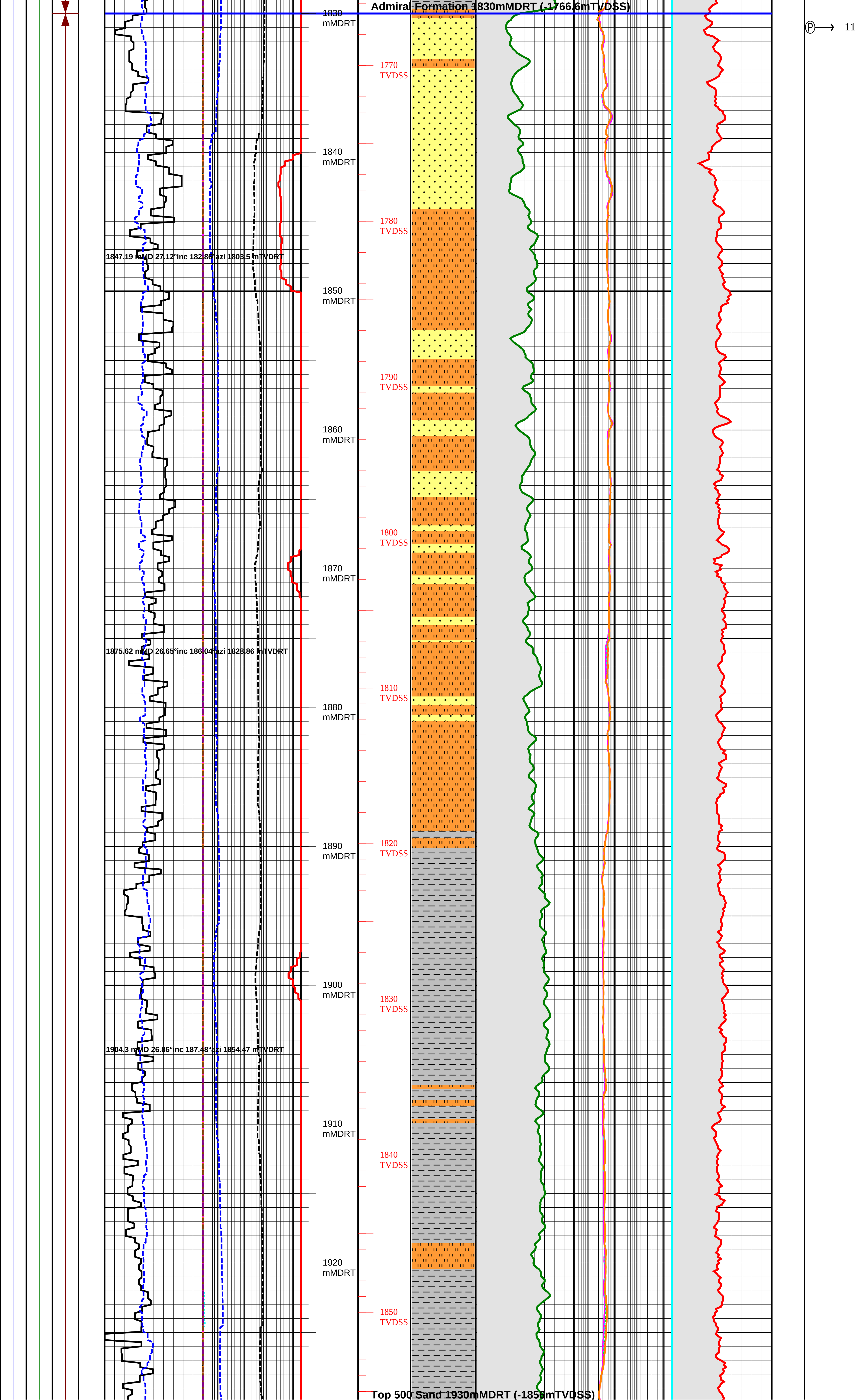
SANDSTONE: clear – translucent to off white, fine to medium, rare coarse to very coarse grains, dominantly loose to occasionally soft aggregates, sub angular to rounded, moderately sorted, aggregates have up to 20% argillaceous matrix, trace pyrite cement, fair to good inferred porosity.



SILTY CLAYSTONE: light grey to dark medium grey, rare moderate yellowish brown, soft, amorphous to sub blocky, occasionally very arenaceous with disseminated fine sand, minor carbonaceous specks, non calcareous.

SANDSTONE (minor): light grey to white, translucent, soft aggregates to loose, very fine to fine grading to arenaceous SILTSTONE in parts, occasionally medium, sub rounded, moderately sorted, trace light grey argillaceous matrix, weak siliceous cement, poor visual porosity, no show.

CLAYSTONE: dark grey, occasional light grey, moderately hard, blocky, massive, carbonaceous specks, non calcareous.

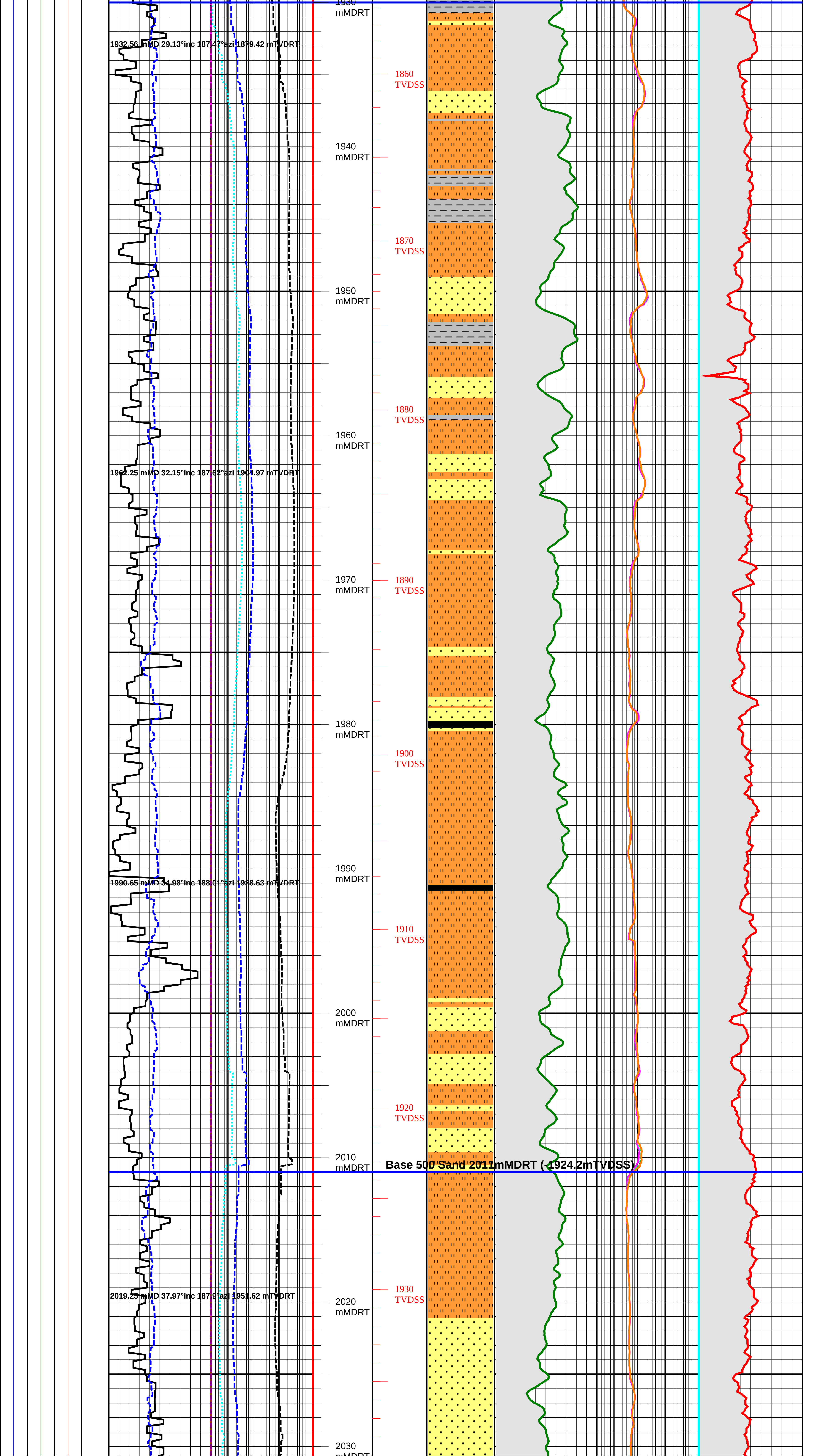


SANDSTONE: translucent, light yellowish grey to white, dominantly soft aggregates to occasionally loose, fine to medium, sub rounded - sub angular, moderately well sorted, 50% light grey argillaceous matrix supported, weak siliceous cement, poor visual porosity in aggregates, fair to good inferred porosity in loose fraction.

SILTSTONE: light grey to dark medium grey, soft to firm, sub blocky to occasionally sub fissile, trace disseminated fine sand, minor carbonaceous specks and laminae, non calcareous.

CLAYSTONE: dark brownish grey, brownish black, soft to firm, sub blocky, occasionally splintery, very rare carbonaceous specks, uniform.

SILTSTONE: dark brownish grey, brownish grey, soft, sub blocky to blocky, trace carbonaceous specks, occasional carbonaceous laminae, massive, uniform, gradational to SILTY CLAYSTONE.

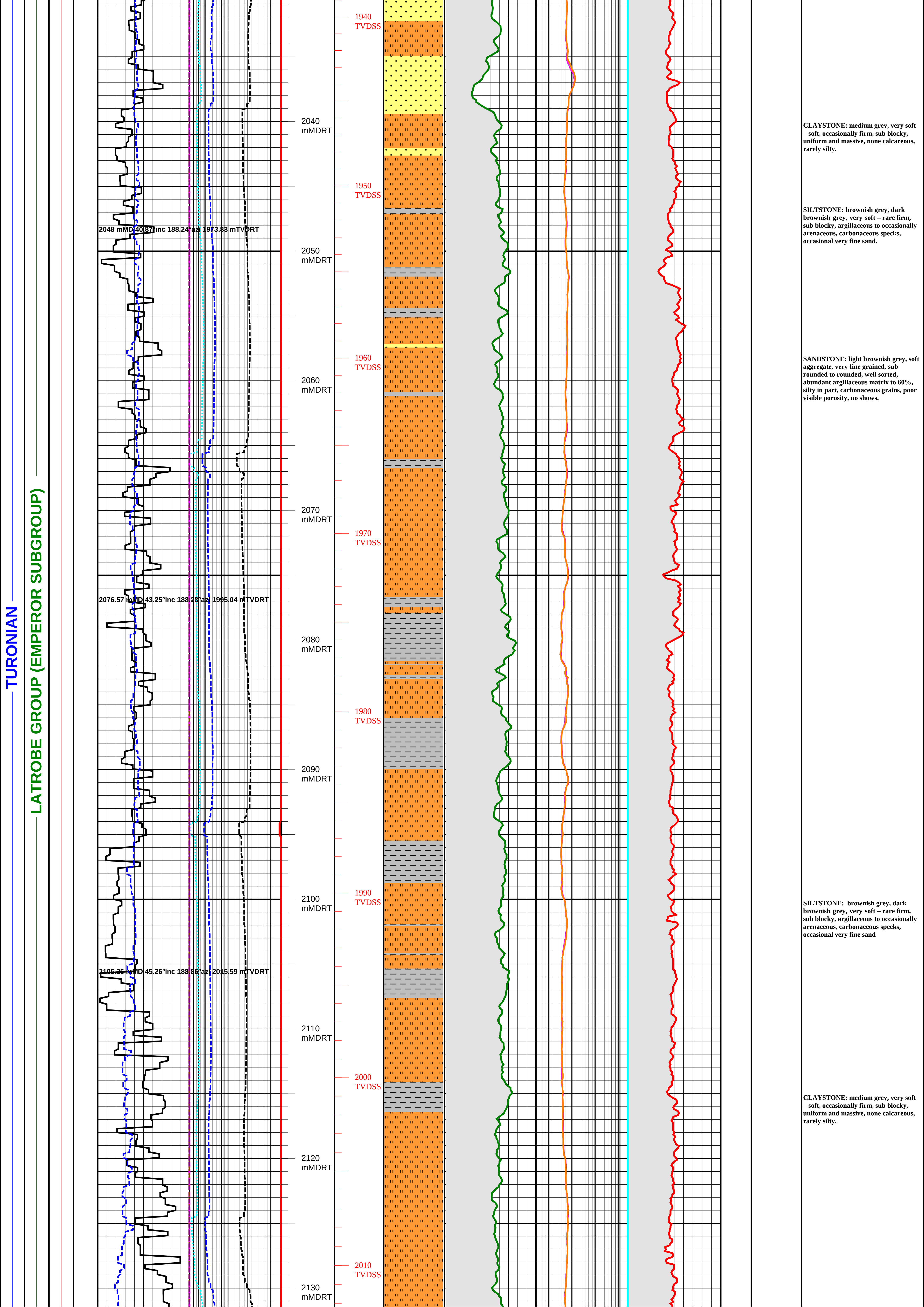


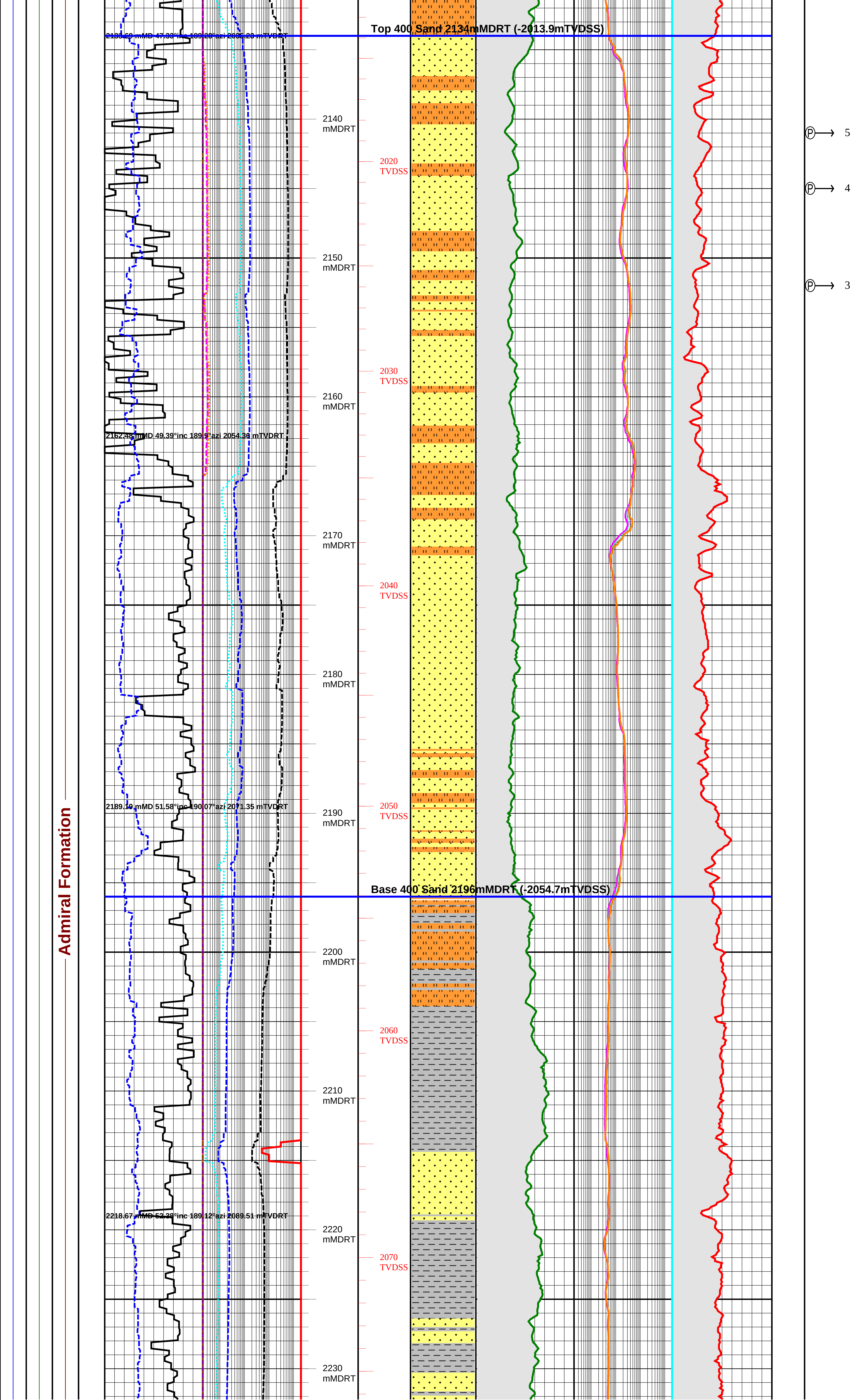
SANDSTONE: yellowish brown, off white, dominantly soft aggregates, very fine to fine, sub rounded, well sorted, 20% argillaceous matrix, gradational in part to silt, trace carbonaceous specks. Occasionally loose, clear to translucent, white to light grey, fine to rare coarse, dominantly medium, moderately well sorted, sub angular to dominantly sub rounded, trace glauconite, fair to good inferred porosity,

SILTSTONE: medium dark grey to brownish grey, soft to firm, sub blocky to sub fissile, common disseminated fine sand grading to very fine Sandstone, minor carbonaceous specks and laminae, non calcareous.

CLAYSTONE: dark brownish grey, brownish black, brownish grey, soft to firm, sub blocky, very rare carbonaceous specks, uniform.

COAL: brownish black to black, sub vitreous to dull, brittle, hackly fracture, silty and argillaceous in part with quartz inclusions.


TURONIAN
LATROBE GROUP (EMPEROR SUBGROUP)
1940 TVDSS
2040 mMDRT
1950 TVDSS
2048 mMD 40.87°inc 188.24°azi 1973.83 mTVDRT
2050 mMDRT
1960 TVDSS
2060 mMDRT
2070 mMDRT
1970 TVDSS
2076.57 mMD 43.25°inc 188.28°azi 1995.04 mTVDRT
2080 mMDRT
1980 TVDSS
2090 mMDRT
1990 TVDSS
2100 mMDRT
2105.36 mMD 45.26°inc 188.86°azi 2015.59 mTVDRT
2110 mMDRT
2000 TVDSS
2120 mMDRT
2010 TVDSS
2130 mMDRT
CLAYSTONE: medium grey, very soft – soft, occasionally firm, sub blocky, uniform and massive, none calcareous, rarely silty.
SILTSTONE: brownish grey, dark brownish grey, very soft – rare firm, sub blocky, argillaceous to occasionally arenaceous, carbonaceous specks, occasional very fine sand.
SANDSTONE: light brownish grey, soft aggregate, very fine grained, sub rounded to rounded, well sorted, abundant argillaceous matrix to 60%, silty in part, carbonaceous grains, poor visible porosity, no shows.
SILTSTONE: brownish grey, dark brownish grey, very soft – rare firm, sub blocky, argillaceous to occasionally arenaceous, carbonaceous specks, occasional very fine sand
CLAYSTONE: medium grey, very soft – soft, occasionally firm, sub blocky, uniform and massive, none calcareous, rarely silty.



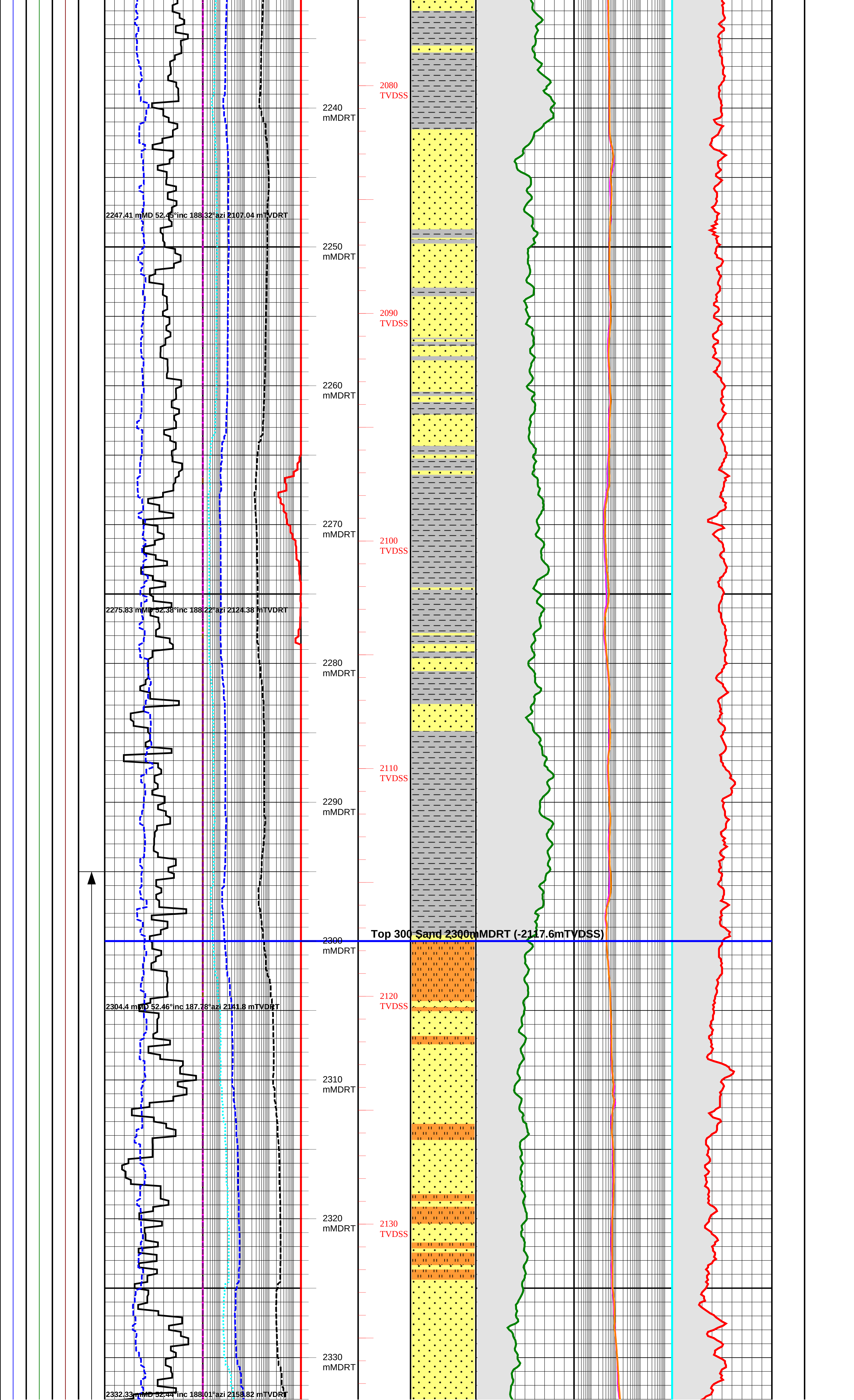
SANDSTONE: loose, clear to translucent, fine – medium, occasionally medium to very coarse, poorly to moderately sorted, sub angular to angular, trace argillaceous matrix, good inferred porosity, Also soft, very light grey, yellowish grey aggregates, very fine to fine, rare medium, sub rounded to rounded, argillaceous matrix to 60%, carbonaceous grains and lithics, fair to poor visual porosity, gas shows.

CLAYSTONE: dark grey, greyish black, rare brownish grey, soft – firm, sub blocky, occasionally carbonaceous and containing coaly fragments, gradational to Silty Claystone.

COAL: black, dull to sub vitreous, firm, blocky, brittle, gradational to Carbonaceous Siltstone.

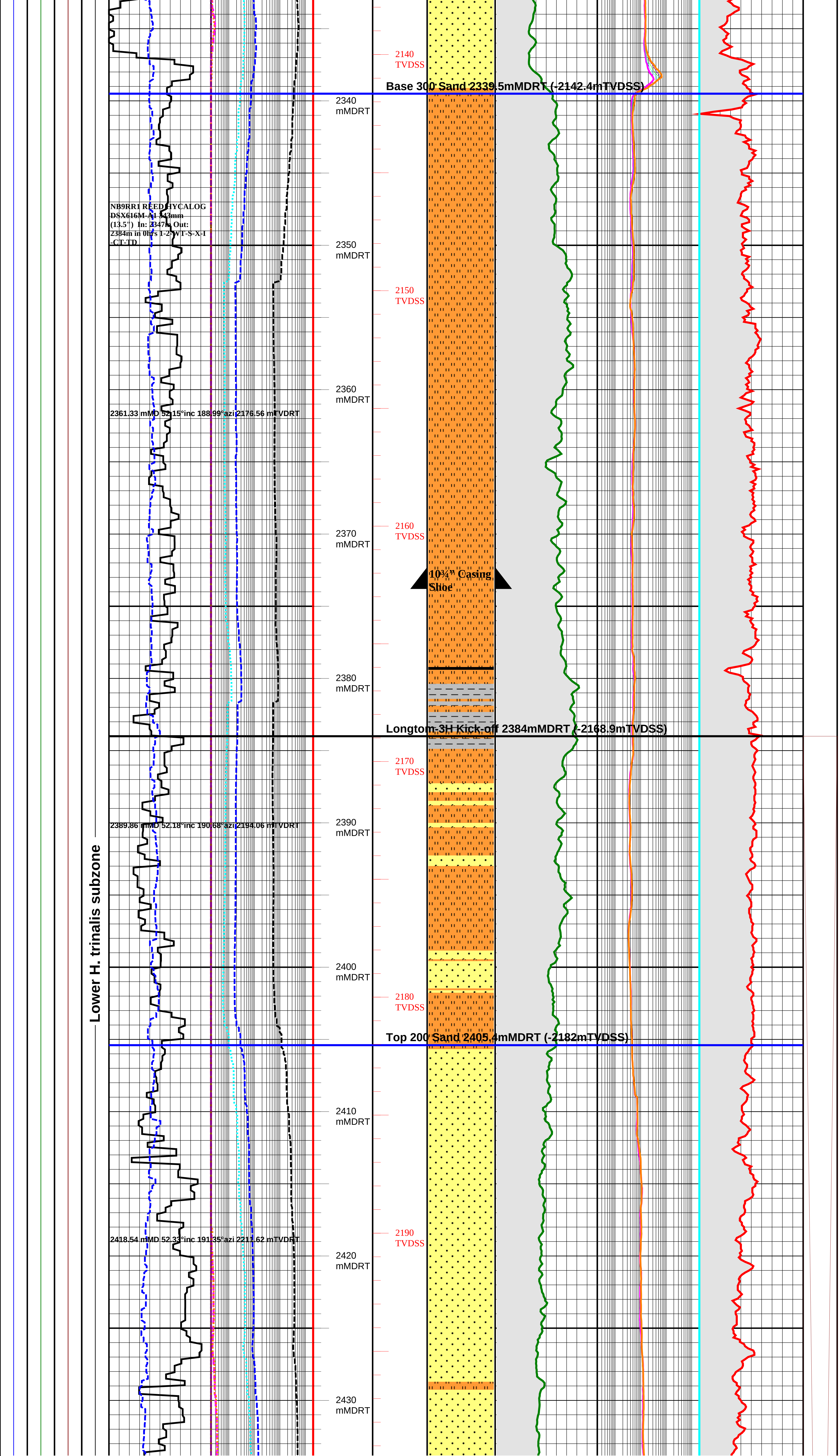
CLAYSTONE: dark grey to brownish grey, firm to rare moderately hard, slightly silty, carbonaceous in parts, sub blocky to blocky.

SANDSTONE: loose, clear to translucent, dominantly very fine to medium, sub rounded to angular, moderately sorted, trace argillaceous matrix, 80% light greenish grey soft aggregates, dominantly very fine to fine, 30% argillaceous matrix, poor inferred porosity, no show.



SILTY CLAYSTONE: light brownish grey – brownish grey, very soft to sub firm, sub blocky, carbonaceous specks in part, very silty in part and gradational to Argillaceous Siltstone.

SANDSTONE: 40% loose clear to translucent grains, dominantly fine to rare coarse, poorly sorted, 60% light yellowish grey, light greenish grey, very soft aggregates, very fine to fine, well sorted, sub rounded – well rounded, argillaceous matrix to 70%, commonly matrix supported, trace carbonaceous grains, poor to fair visual porosity.



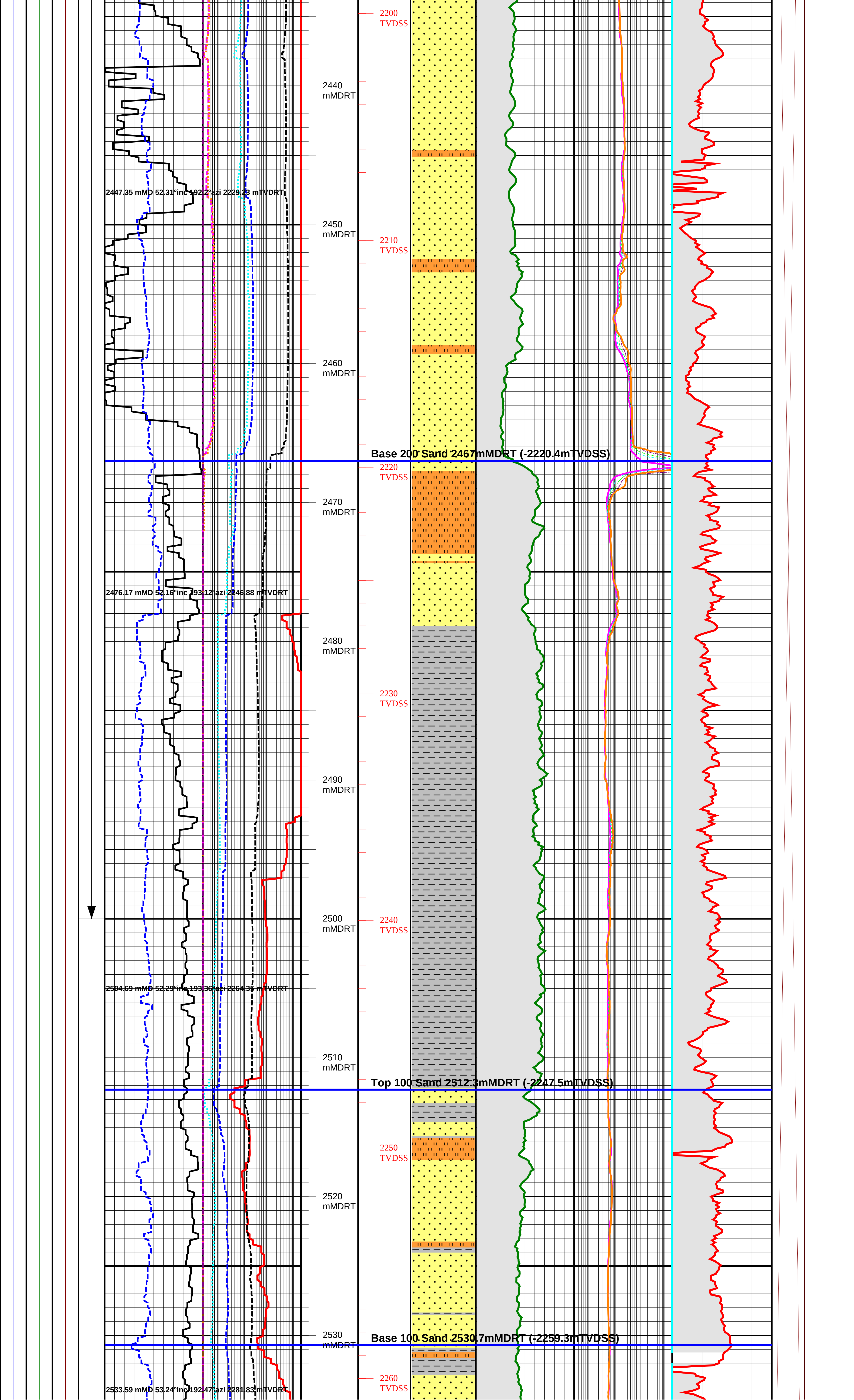
SILTSTONE: dark brownish grey, brownish black, soft to firm, sub blocky to sub fissile, common carbonaceous specks in part, dominantly arenaceous to argillaceous in part grading to SILTY CLAYSTONE.

COAL: black, dull to sub vitreous, firm, blocky, silty in part gradational to Carbonaceous Siltstone.

CLAYSTONE: dark grey to brownish grey, firm to rare moderately hard, slightly silty, carbonaceous specks and laminae, sub blocky to blocky.

SANDSTONE: 70% loose clear to translucent grains, dominantly fine to rare coarse, moderately well sorted, 30% light yellowish grey, light greenish grey, very soft aggregates, very fine to fine, well sorted, sub rounded – well rounded, argillaceous matrix to 60%, commonly matrix supported, trace carbonaceous grains, poor to fair visual porosity.

SANDSTONE: 80% loose clear to translucent, trace pinkish grey to light greenish grey grains, dominantly fine to rare medium, moderately well sorted, 20% light yellowish grey, light greenish grey, very soft aggregates, very fine to fine, well sorted, sub rounded - well rounded, abundant white to light greenish grey argillaceous matrix to 80%, commonly matrix supported, fair to good visual porosity.



SILTSTONE: dark brownish grey, brownish black, soft to firm, sub blocky to sub fissile, common carbonaceous specks in part, dominantly arenaceous to argillaceous in part grading to SILTY CLAYSTONE

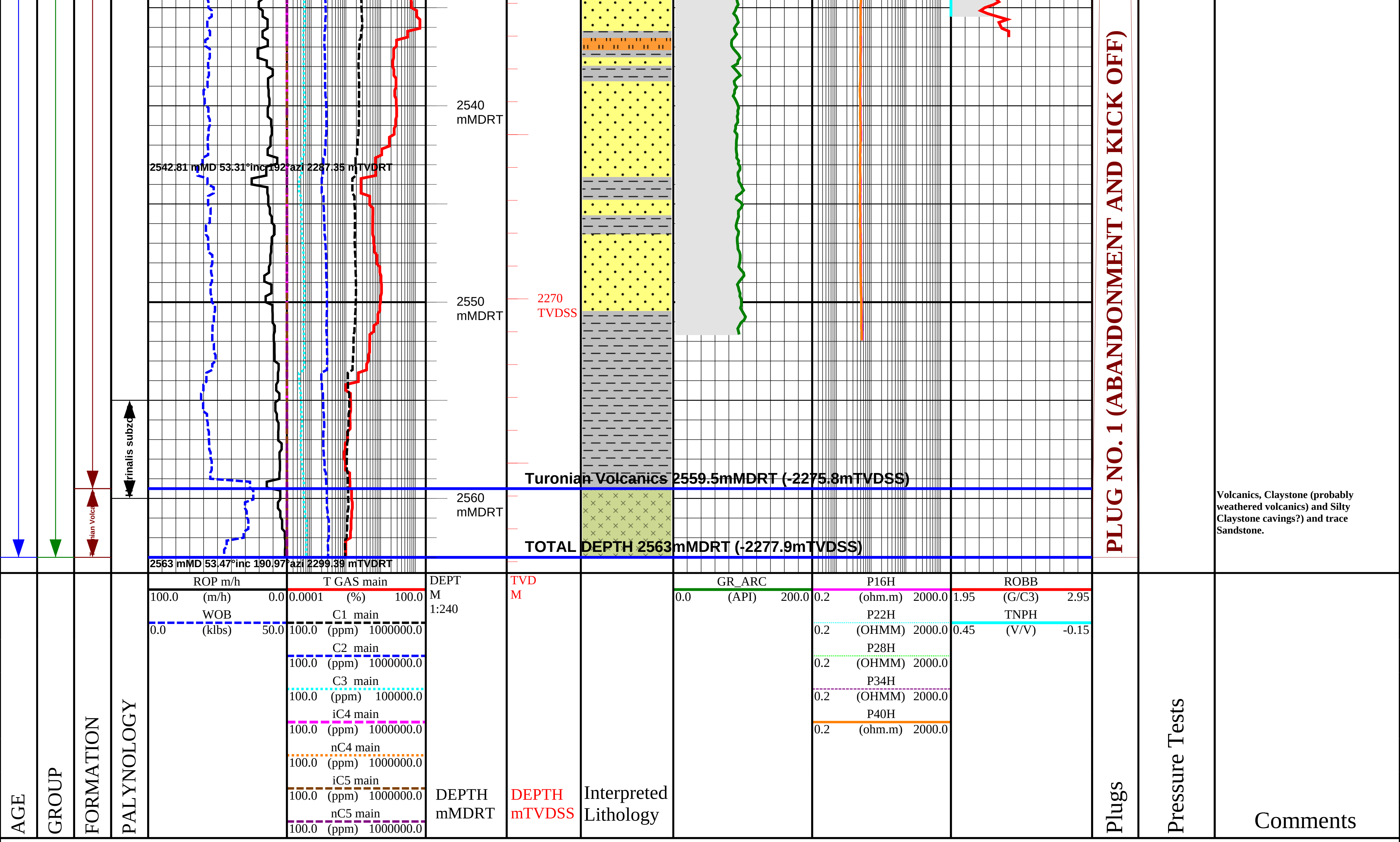
SANDSTONE: clear to translucent, dominantly medium to coarse, well sorted, sub rounded to rounded, trace pinkish grey to light greenish grey grains, clean, loose, good to very good visible porosity, no show. Also light yellowish grey, light greenish grey, very soft aggregates, very fine to fine, well sorted, sub rounded – well rounded, abundant white to light greenish grey argillaceous matrix to 80%, commonly matrix supported.

SILTSTONE: dark brownish grey, brownish black, occasionally medium dark grey, soft to firm, sub blocky to sub fissile, common carbonaceous specks in part, dominantly arenaceous to argillaceous in part grading to SILTY CLAYSTONE.

SILTY CLAYSTONE: medium dark grey – dark grey, rare medium light grey, very soft to soft, sub blocky – blocky, very rare carbonaceous specks, massive and homogenous.

SILTY CLAYSTONE: medium to dark grey – dark grey, light olive grey to olive grey, very soft to soft, sub blocky, trace carbonaceous specks, trace very fine sand in light olive fraction, trace coaly fragments.

CLAYSTONE: greenish grey, rare reddish brown, very soft, sub blocky, homogenous, very rare soft with vague remnant volcanic crystalline texture, these clays are probably volcanically sourced.



WIRELINE PRESSURE SURVEY RESULTS

WELL:	Longtom -3ST1
FIELD:	Longtom
RUN DATE:	8-Aug-06
RIG:	Ocean Patriot
RT (m):	21.5m All depths are LAT
CONTRACTOR:	Schlumberger

PROBE TYPE:	XPT standard
GAUGE:	QCP
GAUGE RESOLUTION (psi):	0.01

ALL DEPTHS ON THIS SHEET ARE REFERENCED TO THE LWD LOG

SUITE #	RUN #	PRETEST #	MEASURED DEPTH mRT	TVD mSS	BEFORE HSP psia	FORMATION PRESSURE psia	AFTER HSP psia	MOBILITY md/cp	TEMP deg C	VOLUME cc	TIME sec	TIME min	VALID	NO SEAL	LOW PERM	OTHER	COMMENTS
1	1																
		1	2152.5	2026.24	4,205.7		4,198.08		104.04	5 x 5		8.40		X			No-seal.
		2	2153.0	2026.57	4,200.0		4,200.78		104.06	5 x 10		5.00		X			Re-try, no-seal.
		3	2152.0	2025.9	4,197.6	3,313.70	4,196.71	19.4	104.08	5 x 5		5.30	X				Re-try
		4	2145.0	2021.25	4,187.3	3,312.80	4,187.70	70.0	104.16	5 x 5		4.10	X				
		5	2141.0	2018.59	4,182.7	3,312.39	4,182.74	16.5	104.21	5 x 5		4.50	X				
		6	2009.0	1921.89	3,986.4		3,986.20		104.16	5		5.00			X		
		7	1963.0	1884.1	3,986.3		3,986.60		103.30	5		5.10			X		
		8	1950.0	1872.93	3,884.3		3,884.45		102.89	0.5		4.50			X		Gamma correlate correction +1.0 m
		9	1936.0	1860.89	3,860.4		3,860.59		102.40	0.5		4.40			X		
		10	1835.0	1771.13	3,677.7		3,678.53		101.51	0.5		5.10			X		Gamma correlation on depth
		11	1831.0	1767.56	3,669.7	2,614.46	3,670.27		100.25	0.5x0.16		13.00	X				
		12	1834.5	1770.69	3,677.1		3,676.49		99.69	0.73		6.00				X	Additional test for gradient/Supercharged

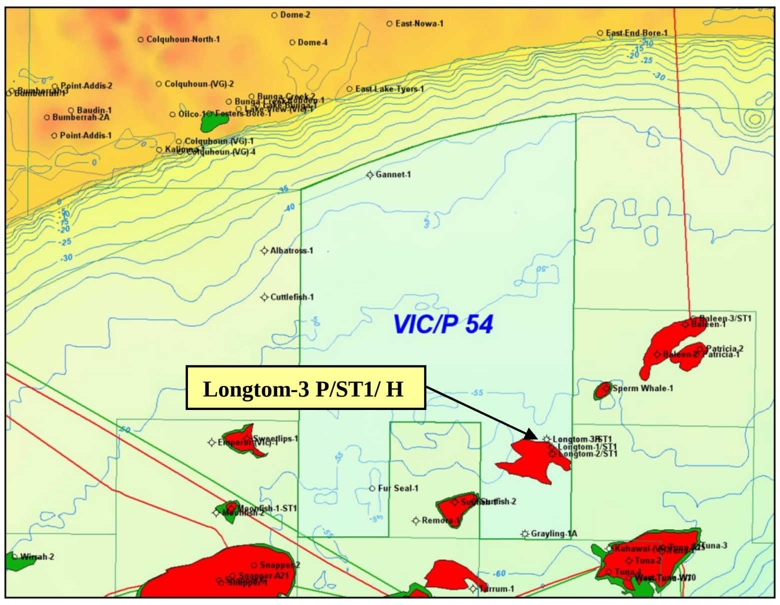
ENCLOSURE 3: LONGTOM-3H COMPOSITE LOG (Scale 1 : 240)

NEXUS ENERGY

LONGTOM-3H

VIC/P54
GIPPSLAND BASIN, VICTORIA

WELL COMPOSITE LOG

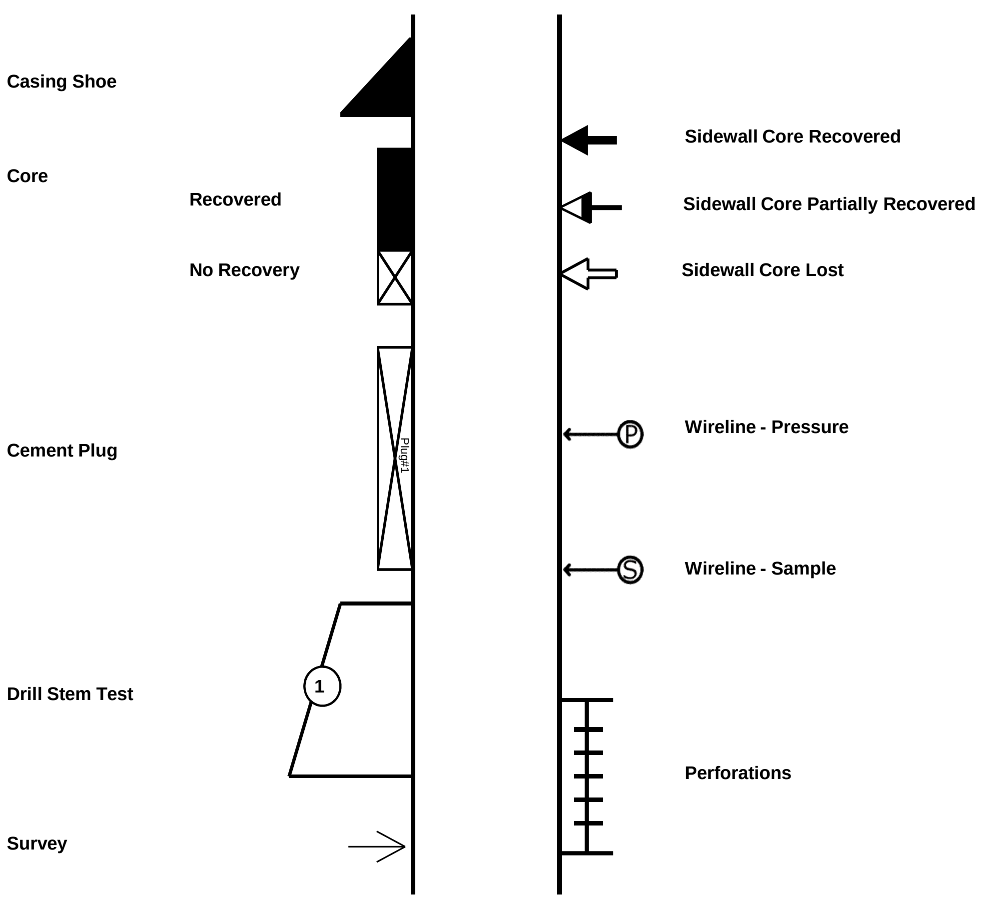


LOCATION:	Survey:	Northern Fields 3D
	Line:	299
	Trace:	883
	Offset:	11.4m
SURFACE LOCATION:	Latitude:	38° 05' 34.63"S
	Longitude:	148° 18' 41.52"E
	Easting:	615 006mE
	Northing:	5 783 059.3mN
	Datum:	GDA94
	Spheroid:	GRS80
	Map Grid:	MGA
	Projection:	UTM Zone 55
	Central Meridian:	147° E
HOLE SIZES:	241mm (9½")	2384 – 4674mMDRT

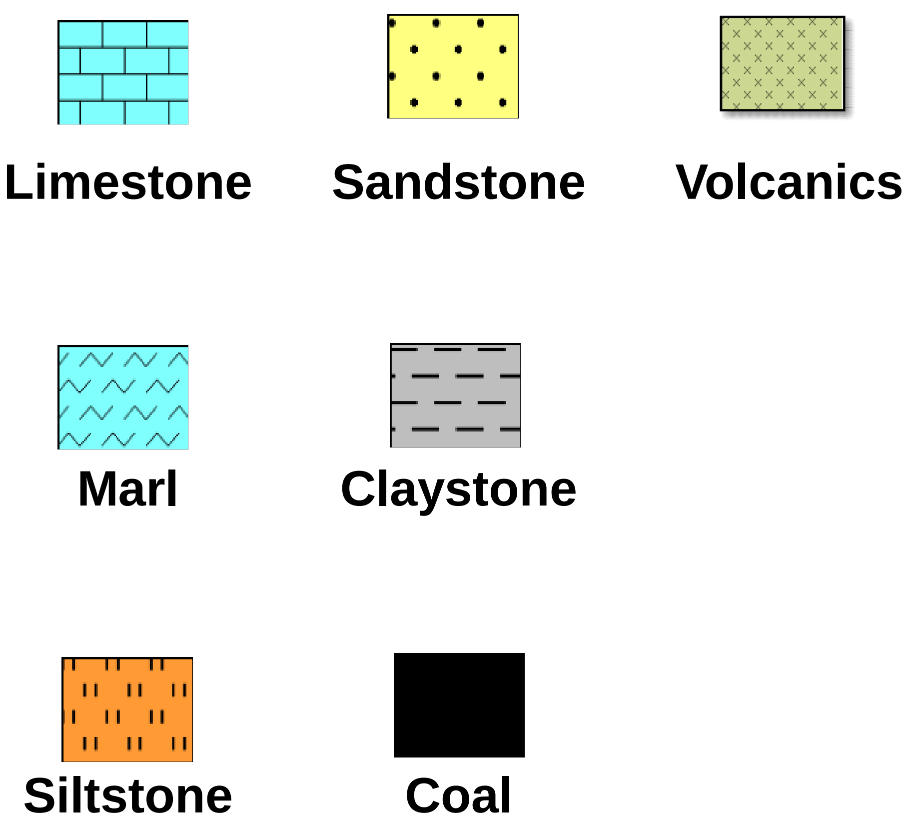
PERMIT:	VIC/P54	
BASIN:	GIPPSLAND	
PARTICIPANTS:	Nexus Energy (Op) 100%	
WELL DESIGNATION:	Development	
STATUS:	Cased and Completed	
STRUCTURE TYPE:	Low side, three-way dip closure	
RIG NAME AND TYPE:	Ocean Patriot, Semi-submersible MODU	
RIG CONTRACTOR:	Diamond Offshore Drilling Inc.	
CASING:	Size	Shoe
LT-3P	762mm (30")	110.8mMDRT
LT-3P	406mm (16")	995.3mMDRT
LT-3ST1	273mm (10¾")	2374.3mMDRT
LINER:		
LT-3H	178mm (7")	2351 – 4190mMDRT

ELEVATION:	Datum:	LAT
	RT-ASL (LAT):	21.5m
	WD (LAT):	56.7m
	RT-ML:	78.2m
SPUD DATE:	00:00hrs	12/08/2006
REACHED TD	20:00hrs	27/08/2006
RIG RELEASED	23:00hrs	23/09/2006
TOTAL DEPTH:	Driller:	4674mMDRT
		-2469.1mTVDSS

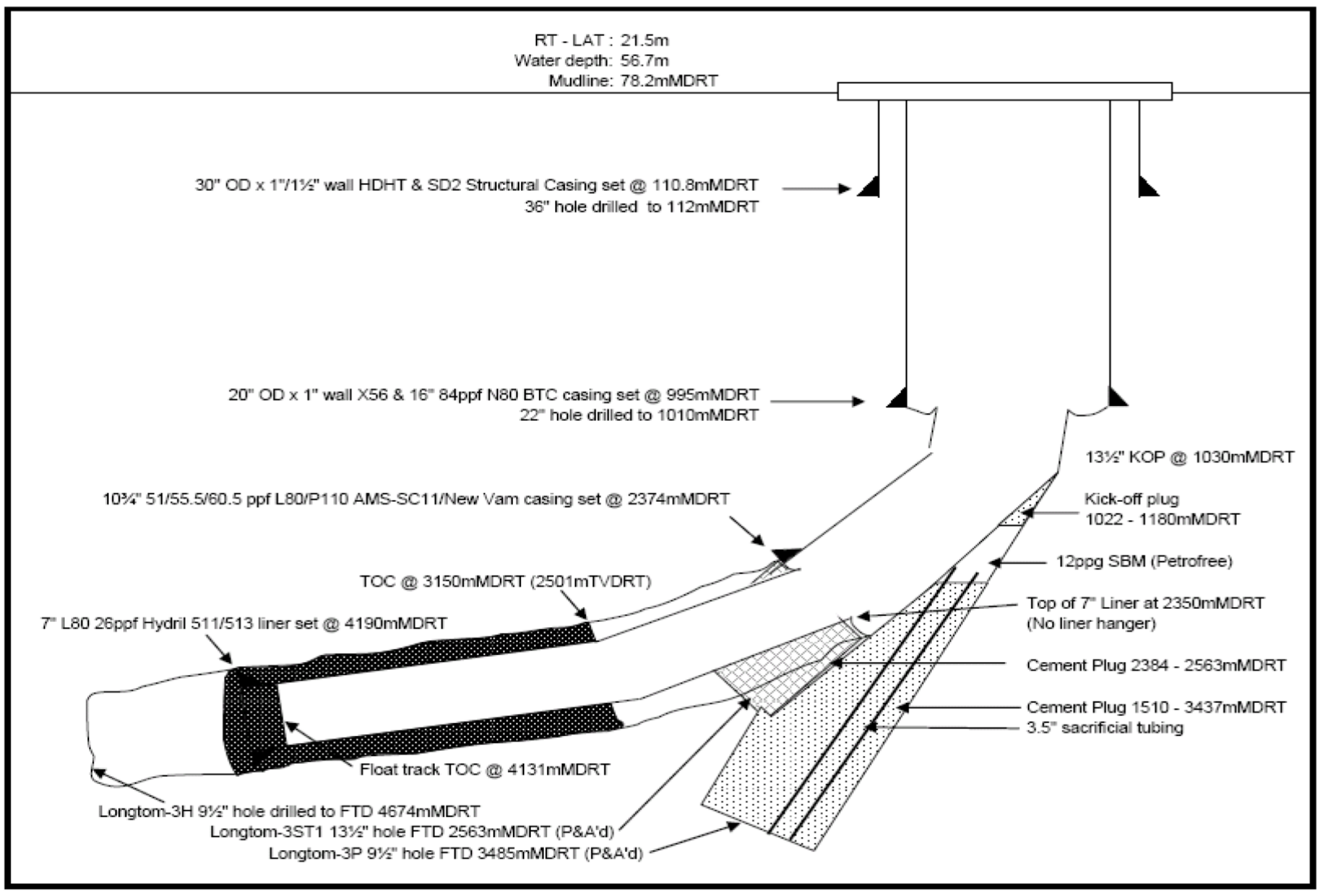
Engineering Symbols



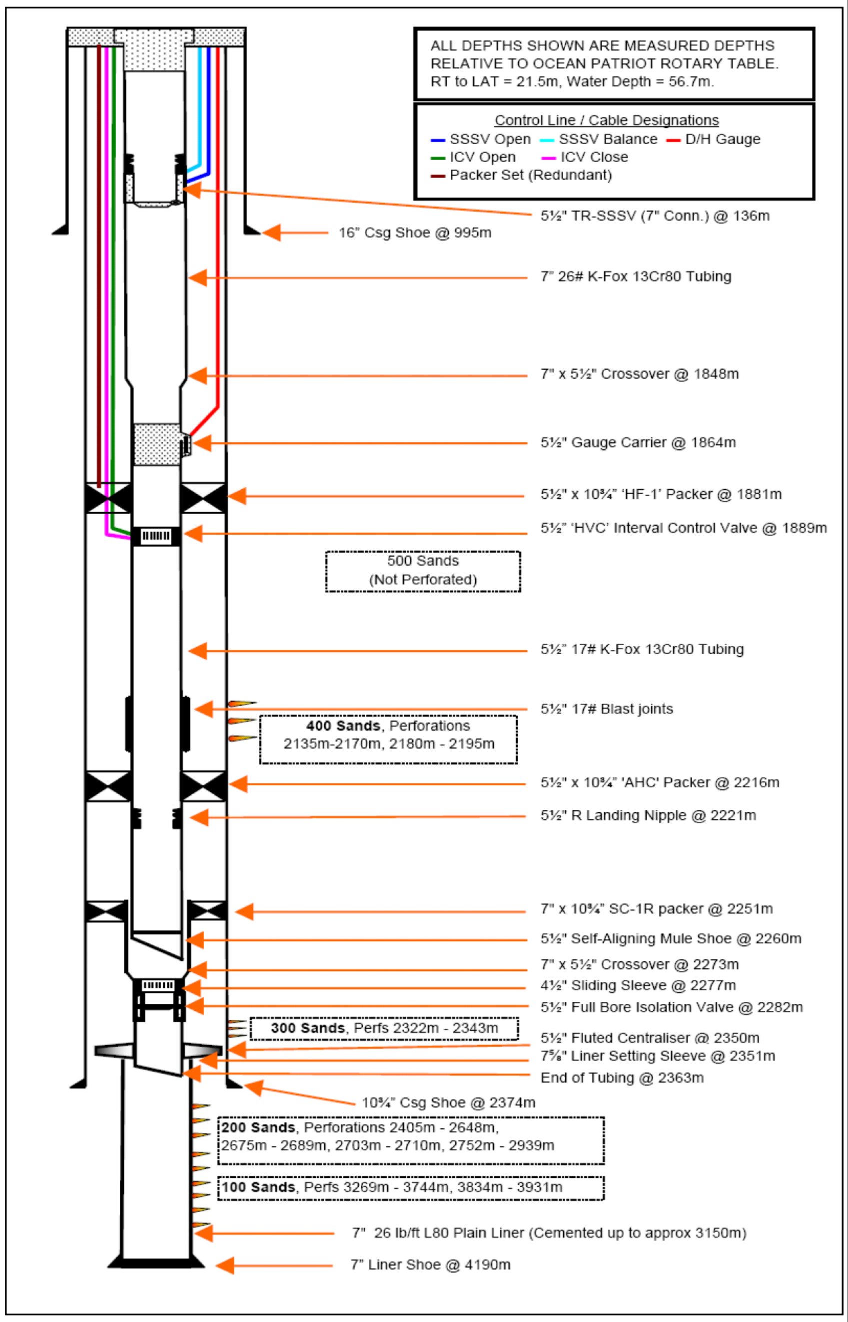
Lithology Symbols



LONGTOM-3P/ST1/3H WELL SCHEMATIC



COMPLETION SCHEMATIC

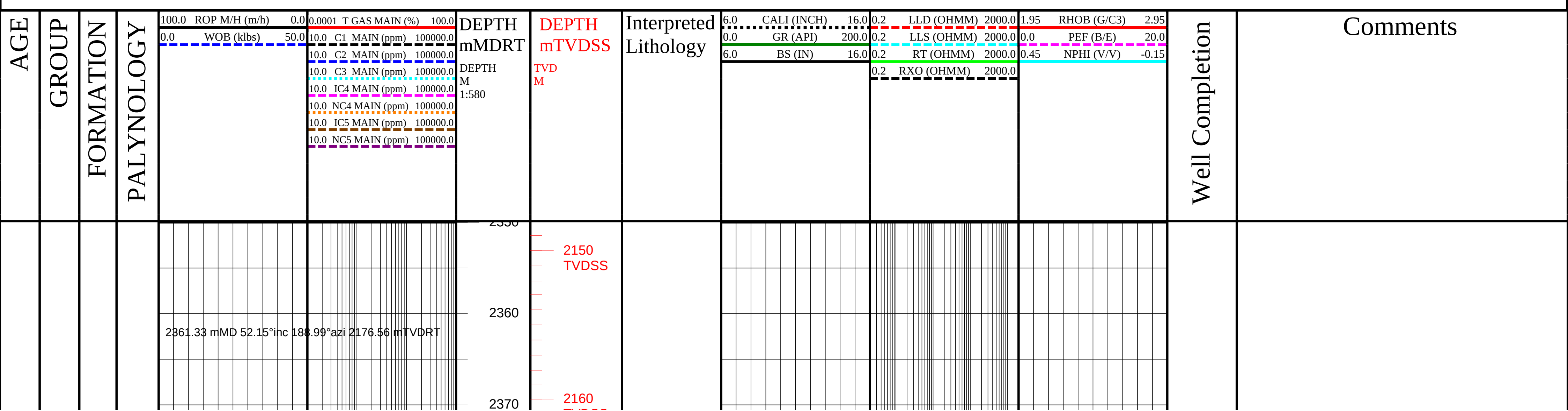


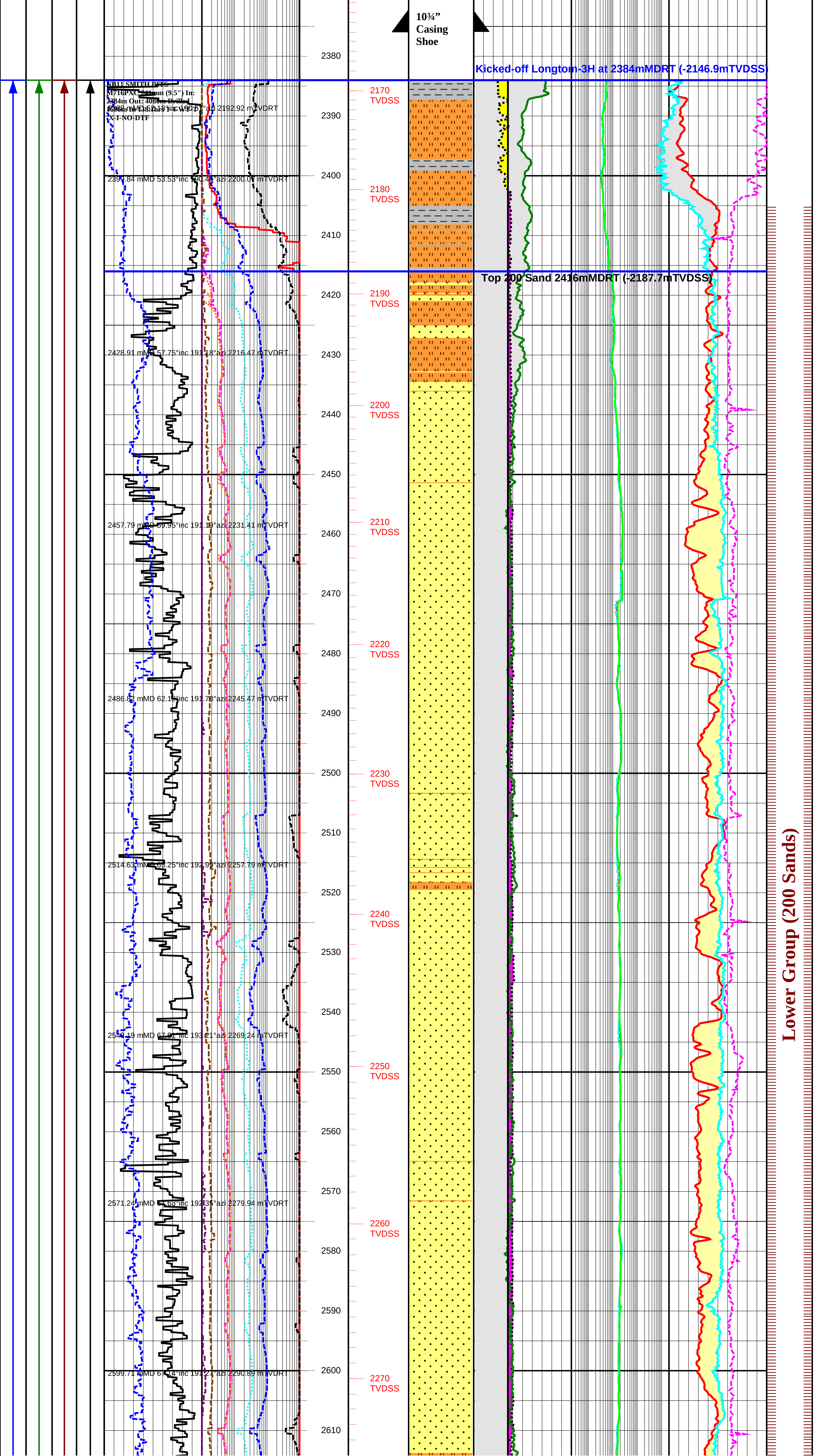
LOGGING WHILE DRILLING (LWD) LOGS

RUN No.	HOLE SIZE	TOOLS	INTERVAL (mMDRT)	COMMENTS
10	241mm (9½")	Telescope-Ecoscope-PowerDrive Xceed RST	2384 - 4080	POOH unable to steer with Xceed.
11	241mm (9½")	Telescope-Ecoscope-PowerDrive Xceed RST	4080 - 4090	POOH. Lost communication with tools.
12	241mm (9½")	Telescope-Ecoscope	4090 - 4164	POOH due to pick up Xceed RST.
13	241mm (9½")	Telescope-Ecoscope-PowerDrive Xceed RST	4164 - 4674	Drilled to TD.

Log Description

CALI	8 Ultrasonic Caliper Average Diameter
GR	2 Gamma Ray, Average
BS	2 Bit Size
LLD	5 ARC Phase-Shift Resistivity 40-in. at 2 MHz
LLS	4 ARC Phase-Shift Resistivity 16-in. at 2 MHz
RHOB	3 Bulk Density
PEF	7 Photoelectric Factor
NPHI	12 Thermal Neutron Porosity (Ratio Method) in Selected Lithology
RT	21 Formation Resistivity
RXO	22 Flushed Zone Resistivity
ROP M/H	10 0.5m average
WOB	11 0.5m average
T GAS MAIN	2 Geoservices RESERVAL 0.5m Peak
C1 MAIN	3 Geoservices RESERVAL 0.5m Peak
C2 MAIN	4 Geoservices RESERVAL 0.5m Peak
C3 MAIN	5 Geoservices RESERVAL 0.5m Peak
IC4 MAIN	6 Geoservices RESERVAL 0.5m Peak
NC4 MAIN	7 Geoservices RESERVAL 0.5m Peak
IC5 MAIN	8 Geoservices RESERVAL 0.5m Peak
NC5 MAIN	9 Geoservices RESERVAL 0.5m Peak





KICKED OFF LONGTOM-3H FROM 2384mMDRT

CLAYSTONE: dark grey to brownish grey, firm to rare moderately hard, slightly silty, carbonaceous specks and laminae, sub blocky to blocky.

SILTSTONE: medium dark grey, dark brownish grey, firm to moderately hard, sub blocky to sub fissile, common carbonaceous specks in part, dominantly argillaceous in part grading to SILTY CLAYSTONE.

COAL (Trace): black to dull brownish black, sub vitreous, firm, blocky, hackly, silty.

SANDSTONE: clear to translucent grains, medium to dominantly coarse, moderately well sorted, sub angular to sub rounded, trace carbonaceous specks, fair visual porosity, no show.

SILTSTONE: brownish grey, medium grey, rare olive grey, firm, sub blocky to sub fissile, common carbonaceous specks in part, dominantly arenaceous to argillaceous in part grading to SILTY CLAYSTONE.

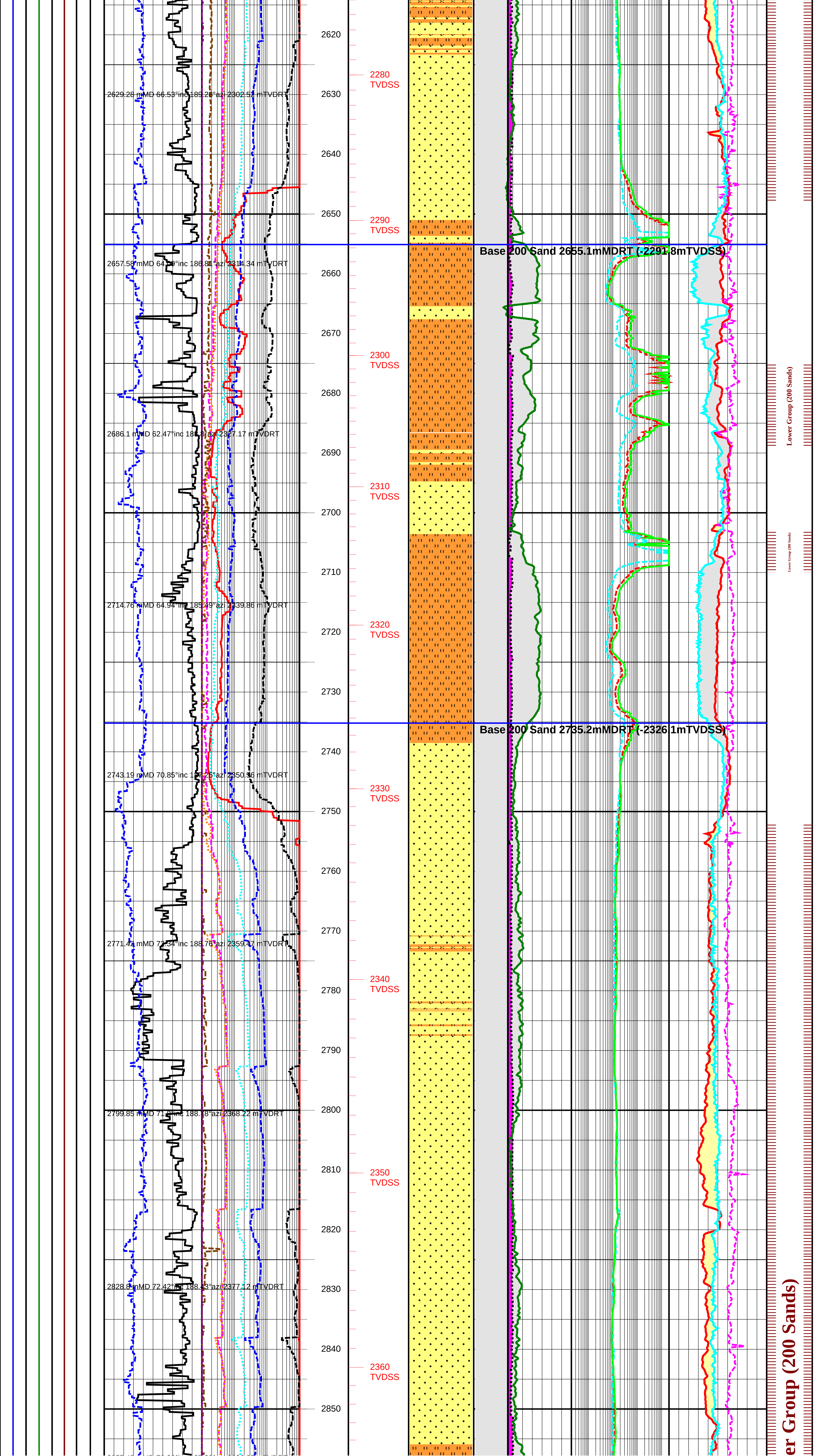
CLAYSTONE (Trace): dark grey to brownish grey, firm to rare moderately hard, slightly silty, carbonaceous specks and laminae, sub blocky to blocky.

SANDSTONE: 70% loose, clear to translucent, trace pinkish grey to light greenish grey grains, dominantly fine to medium grains, sub angular to sub rounded, moderately well sorted, trace pyrite nodules, 30% light yellowish grey, light greenish grey, very soft aggregates, very fine to fine, well sorted, sub rounded to well rounded, abundant white to light greenish grey argillaceous matrix to 80%, commonly matrix supported, common lithics and carbonaceous grains, poor to fair visual porosity, no show.

PERFORATION

SANDSTONE: 60 - 80% loose, clear to translucent, occasionally green grains, fine - medium, sub angular to rounded, well sorted, good inferred porosity. 20 - 40% soft aggregates, off white, light grey, greenish / white, matrix to 50%, lithics, carbonaceous grains, trace calcareous grains, poor visual porosity. Gas shows see table below.

COAL, black, brownish black, dul to sub vitreous, blocky, very silty in part and gradational to CARBONACEOUS SILTSTONE.



SANDSTONE: off white to light grey, grains clear to translucent, rare green, fine to medium, sub angular to rounded, well sorted, loose 50%, soft aggregates 50%, off white argillaceous matrix to 40%, occasional hard calcareous cement, calcareous clay matrix in part, kaolinite, carbonaceous grains, lithic grains, poor to fair visible porosity.

SILTSTONE: medium grey - medium dark grey, firm to moderately hard, blocky, dominantly arenaceous to argillaceous in part, common carbonaceous specks, slightly laminated in part.

SANDSTONE: clear to translucent, occasionally light yellow grey, dominantly fine to medium, sub rounded to sub angular, moderately well sorted, 40% loose, 60% soft aggregates, off white calcareous matrix in part, poor to fair inferred porosity, no show.

PERFORATION

SILTSTONE: medium grey - medium dark grey, firm to moderately hard, blocky, dominantly arenaceous to argillaceous in part, common carbonaceous specks, slightly laminated in part.

SANDSTONE: clear to translucent, occasionally light yellow grey, light greenish grey, dominantly fine to medium, rare very coarse, sub rounded to sub angular, moderately well sorted, 40% loose, 60% soft aggregates, off white calcareous matrix in part, fair inferred porosity, no show.

PERFORATION

SANDSTONE: off white, light yellowish grey, fine to medium, sub angular to rounded, moderately well sorted. 20-80% loose, 80-20% soft aggregate with matrix to 40-60%, calcareous, good inferred porosity, no show.

SILTSTONE: medium grey - medium dark grey, firm, blocky, arenaceous, argillaceous in part, common carbonaceous specks, slightly laminated in part.

SANDSTONE: 30% loose, off white to translucent, occasionally light grey, rare light green, dominantly fine to medium, sub rounded to sub angular, moderately well sorted, trace pale orange lithics, 70% soft aggregates, common off white calcareous matrix, trace carbonaceous grains, poor to fair inferred porosity, no fluorescence.

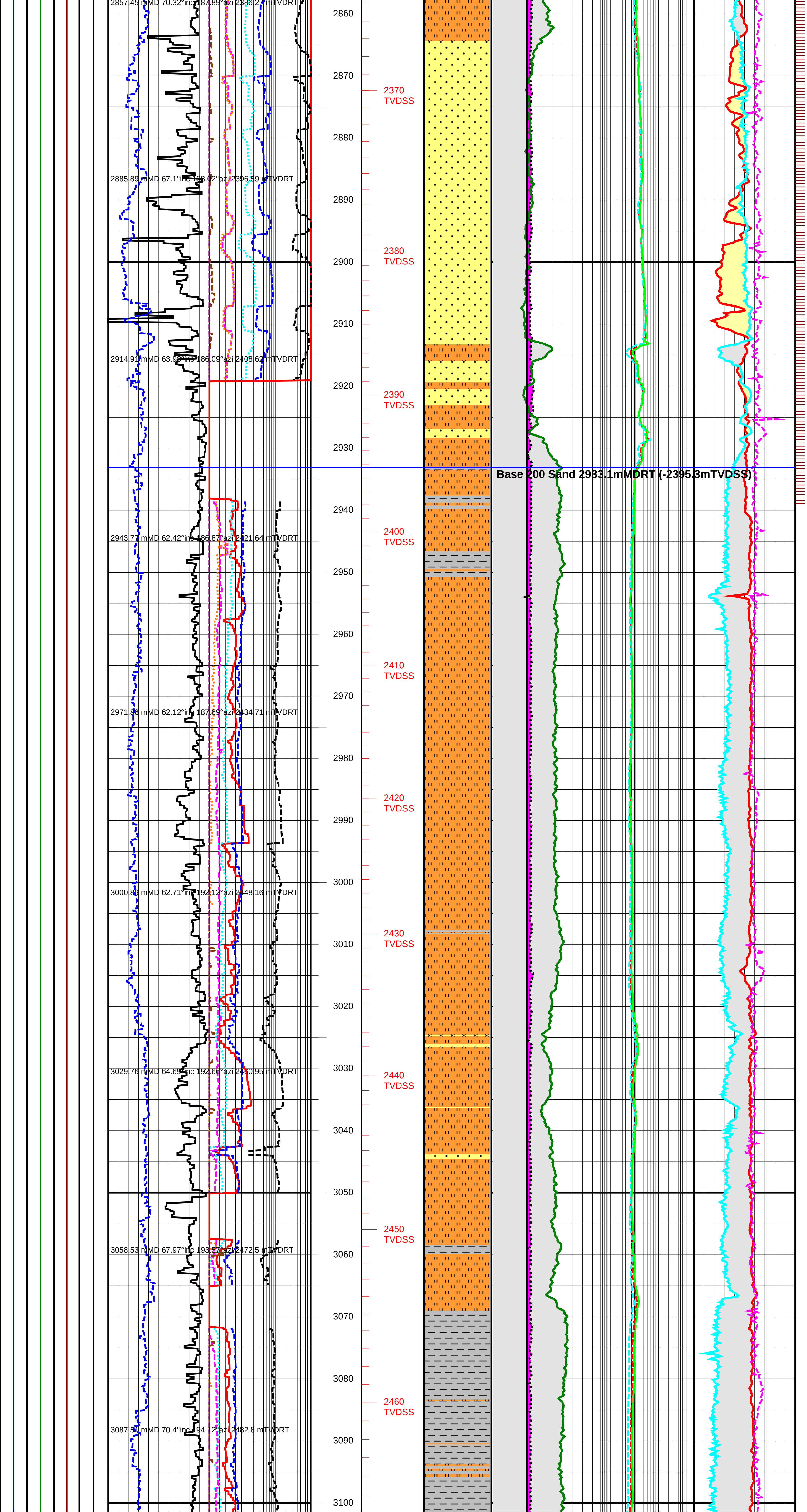
SANDSTONE: off white, light grey, light yellowish grey, grains clear to translucent occ pale grey, 30- 60% soft aggregates, 70 - 40% loose grains, very fine to fine, occasionally fine to medium, sub angular to rounded, well sorted, argillaceous matrix to 30-80%, very common carbonaceous grains and fragments, lithics, poor to fair porosity. Gas shows see table below.

COAL: (trace) black to brownish black, dull to sub vitreous, firm, blocky, silty, gradational to Carbonaceous Siltstone in part.

SANDSTONE: 70% loose, clear translucent, rare pale green and orange/brown grains, fine to dominantly medium, well sorted, sub angular to rounded, good inferred porosity, 30% soft aggregates, off white to very light grey, fine to occasionally medium, well sorted, argillaceous matrix to 10 - 40%, common carbonaceous grains and fragments, lithics, poor to fair porosity, no show.

PERFORATION

SANDSTONE: 60% loose, clear translucent, rare pale green and orange/brown grains, fine to medium rare coarse, well sorted, sub angular to rounded, good inferred porosity, 40% soft aggregates,



off white to very light grey, olive grey, fine to occasionally medium, well sorted, argillaceous matrix to 30 - 70%, common carbonaceous grains and fragments, lithics, poor to fair porosity, no show.

SILTSTONE: medium grey, very soft to soft, sub blocky to occasionally blocky, arenaceous to dominantly argillaceous, carbonaceous specks, occasionally sandy.

SANDSTONE: 80% loose, clear translucent, rare pale green and orange/brown grains, fine to medium, well sorted, sub angular to rounded, good inferred porosity, 20% soft aggregates, off white to very light grey, olive grey, fine to occasionally medium, well sorted, argillaceous matrix to 30 - 70%, common carbonaceous grains and fragments, lithics, poor to fair porosity, no show.

SANDSTONE: 85% loose, clear translucent, rare pale green and orange/brown grains, fine to dominantly medium, well sorted, sub angular to rounded, good inferred porosity, 15% soft aggregates, off white to very light grey, olive grey, fine to occasionally medium, well sorted, argillaceous matrix to 30 - 70%, common carbonaceous grains and fragments, lithics, poor to fair porosity, no show.

SILTSTONE: brownish grey, soft to firm, sub blocky, common carbonaceous specks, argillaceous.

SANDSTONE: 40% loose, clear translucent, rare pale green and orange/brown grains, fine to medium, well sorted, sub angular to rounded, good inferred porosity, 60% soft aggregates, off white to very light grey, olive grey, fine to occasionally medium, well sorted, argillaceous matrix to 40%, occasional firm calcareous cement, common carbonaceous grains and fragments, lithics, poor to fair porosity, no show.

SILTSTONE: brownish grey, soft to firm, sub blocky, common carbonaceous specks, argillaceous.

CLAYSTONE: brownish grey, dark greenish grey, soft to firm, blocky, elongate, splintery in part, massive and uniform.

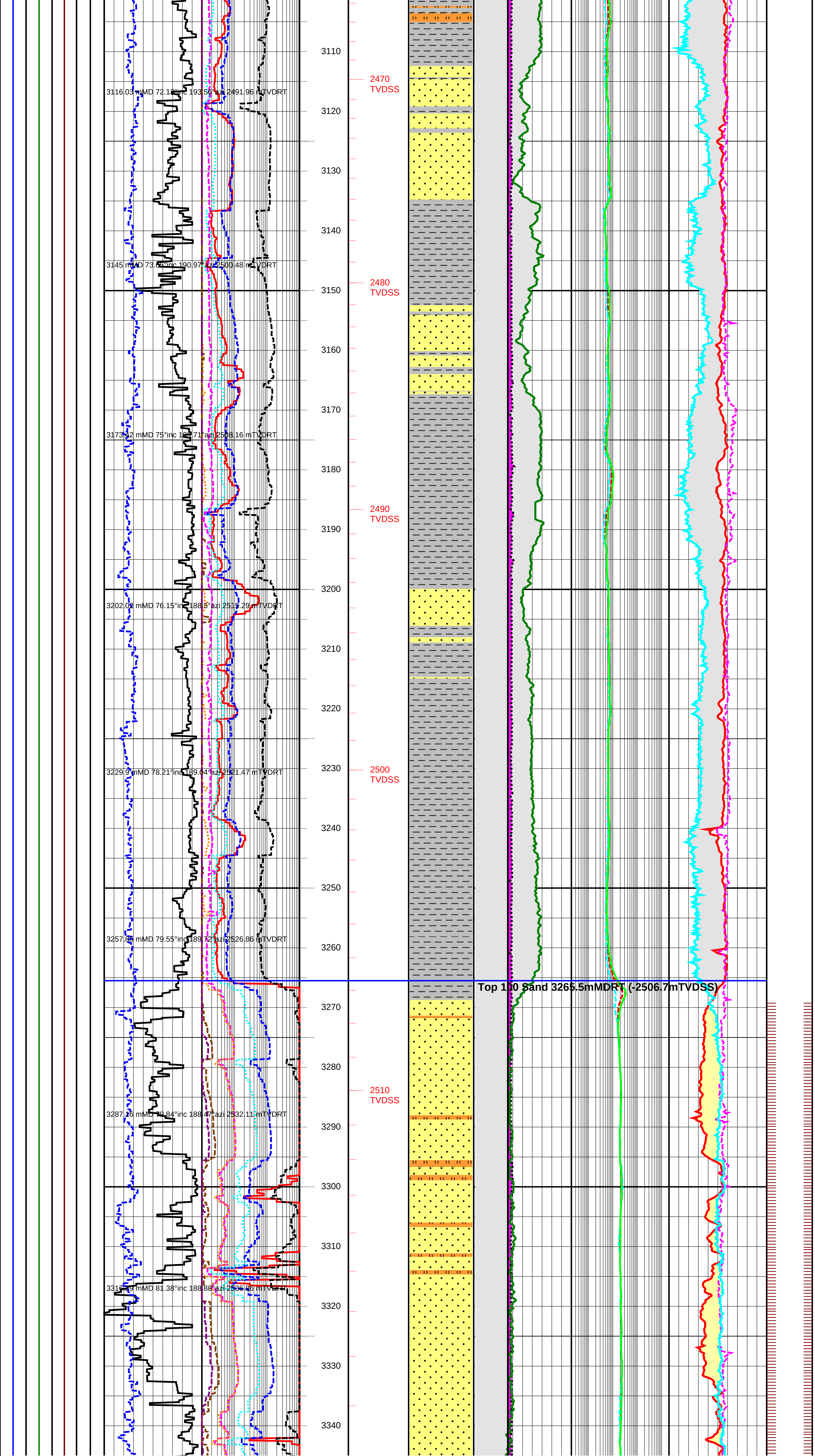
CLAYSTONE: brownish grey to dark greenish grey, trace to common light brown dolomite, firm to moderately hard, blocky, elongate, splintery in part, massive and uniform.

SILTSTONE: brownish grey, soft to firm, sub blocky, common carbonaceous specks, argillaceous.

SANDSTONE: off white, light greenish grey, very soft aggregates, very fine to fine, grading to silt, rounded to well sorted, moderate light brown dolomite cement, 60% argillaceous matrix, poor inferred porosity, no show.

SILTY CLAYSTONE: medium grey, medium dark grey, very soft to soft, sub blocky, commonly deformed by the bit, very rare carbonaceous specks, rare very fine sand, uniform.

CLAYSTONE: brownish grey, olive grey, very soft - soft, sub blocky to commonly deformed by the bit, very rarely slightly silty, uniform.



SILTY CLAYSTONE: medium dark grey, rare olive grey, sub blocky, soft to firm, carbonaceous specks in part, rare carbonaceous laminae.

CLAYSTONE: dark brownish grey, trace carbonaceous specks, rare carbonaceous laminae, very soft - soft, blocky, massive and uniform.

SANDSTONE: clear to translucent to occasionally white, dominantly medium to coarse, well sorted, sub angular to dominantly sub rounded, loose, fair to good inferred porosity, no show.

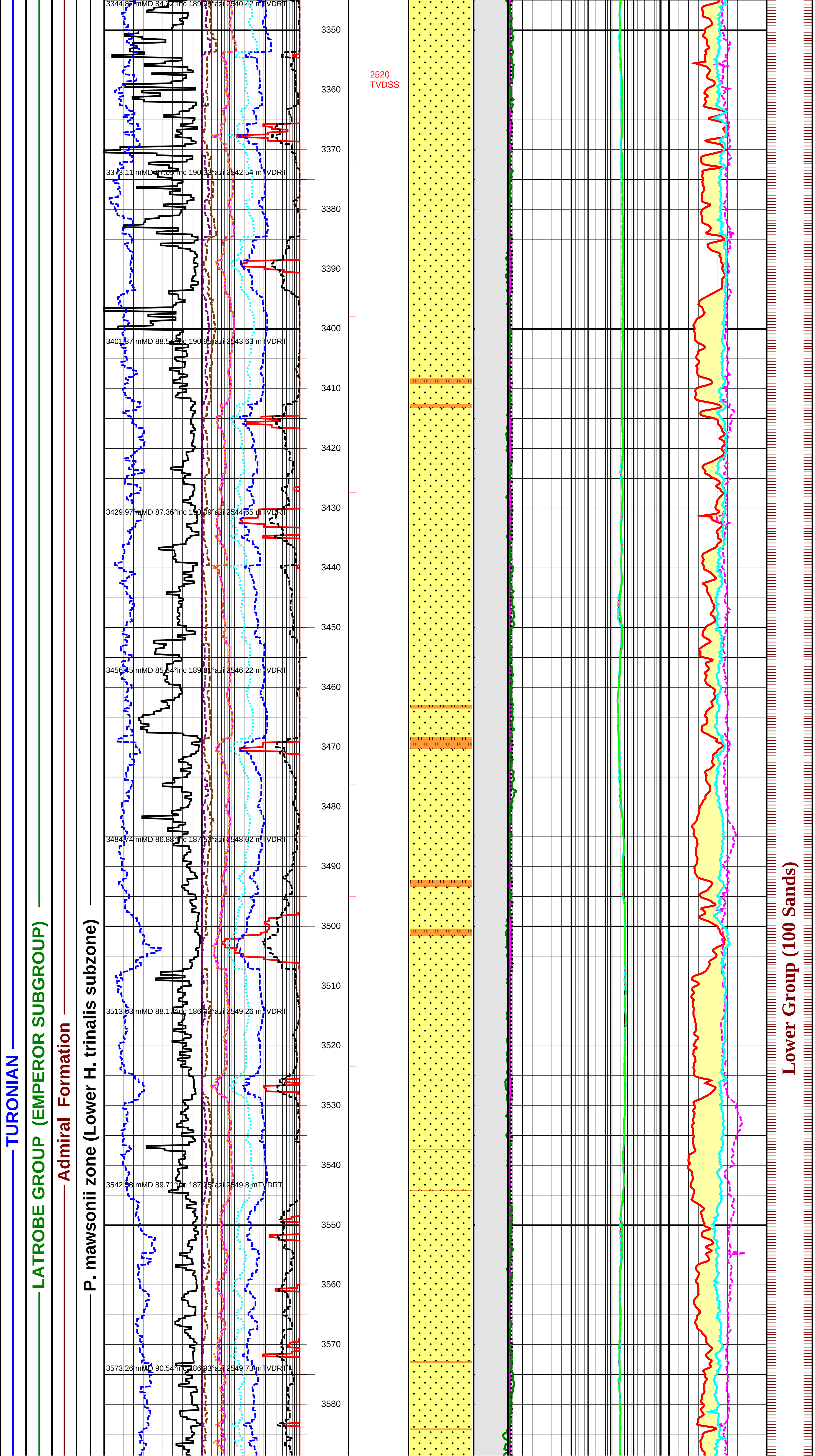
ARGILLACEOUS SANDSTONE: light brownish grey, rare light grey, very soft amorphous aggregates, very fine to fine, sub angular to rounded, well sorted, abundant argillaceous matrix 60 - 70% gradational to Claystone.

SANDSTONE: clear, translucent, very pale green, light yellowish grey, 70-90% loose, 10-30% friable aggregates, dominantly fine to medium, sub angular to dominantly sub rounded, moderately well sorted, 10 - 30% light greenish grey argillaceous matrix, trace pale orange lithic grains, good inferred porosity, gas show.

SILTSTONE: medium grey to olive grey, firm to occasionally moderately hard, blocky, arenaceous, carbonaceous specks.

SILTSTONE: olive grey, moderately hard to hard, blocky, arenaceous.

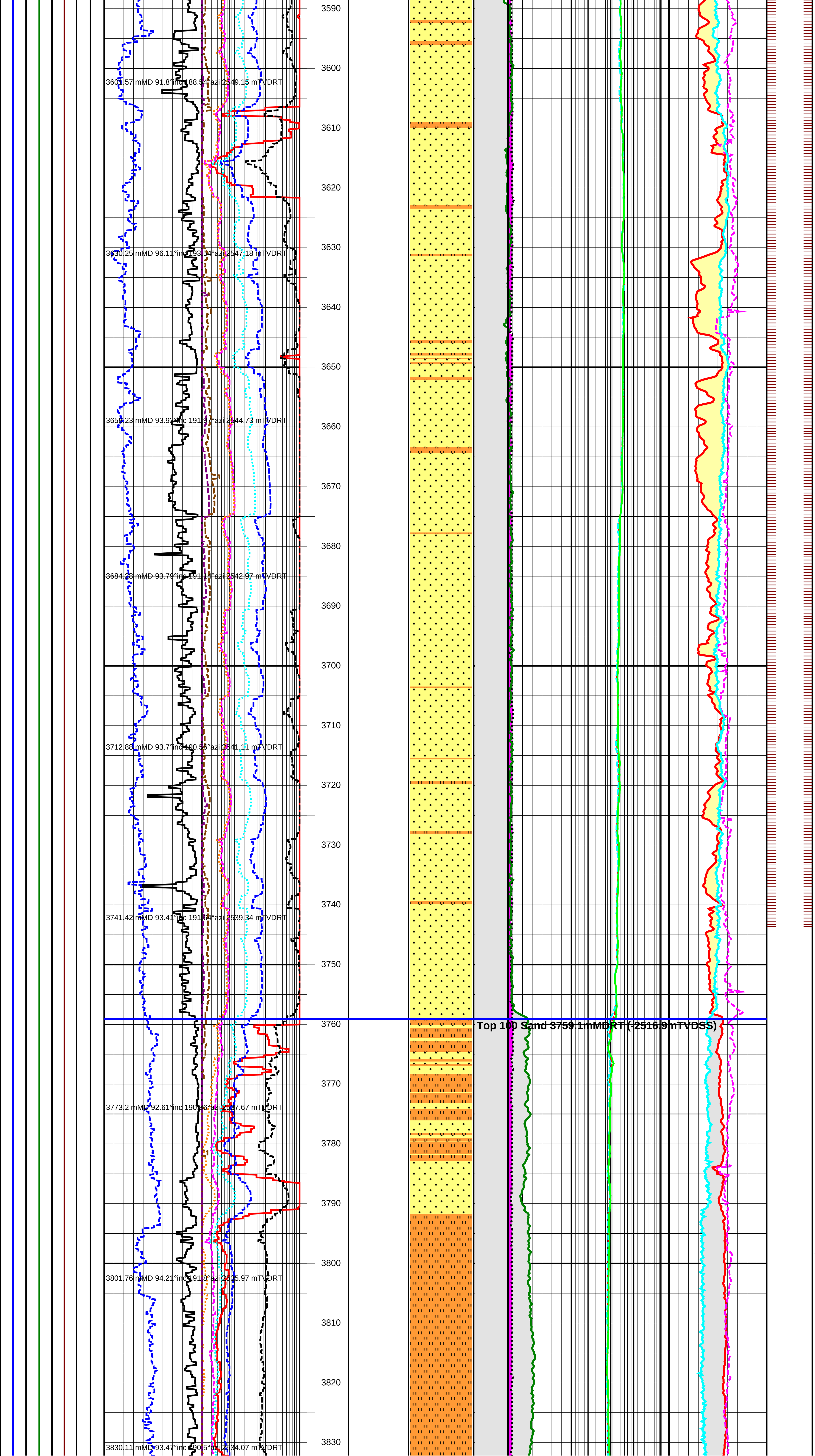
SANDSTONE: light grey, light yellowish grey, occasionally mottled pale green/light grey, grains; clear to translucent, minor black, pale green, orange brown, fine to dominantly medium, well sorted, sub rounded to sub angular, 95% loose, 5% very soft aggregate with 10-20% argillaceous matrix, white kaolinitic matrix in part, good inferred porosity.



SANDSTONE: light grey, olive grey, light yellowish grey, occasionally mottled pale green/light grey, grains; clear to translucent, occasional pale green, orange brown and black and carbonaceous, fine to medium, moderately well sorted, sub rounded to sub angular, trace calcareous grains, 50% loose, 50% very soft aggregate with 50-90% argillaceous matrix, white kaolinitic matrix in part, slightly calcareous, occasionally carbonaceous with carbonaceous grains and laminae, fair inferred porosity.

PERFORATION

SANDSTONE: light olive grey, greenish olive/grey, light yellowish grey, occasionally mottled pale green/light grey, grains; clear to translucent, occasional pale green, orange brown and black and carbonaceous, fine to medium, well sorted, sub rounded to sub angular, trace calcareous grains, 60-95% loose, 5 -40% very soft aggregate with 5-30% argillaceous matrix, white kaolinitic matrix in part, slightly calcareous, carbonaceous grains with occasional large carbonaceous fragments, fair - good inferred porosity.



SILTSTONE: brownish grey, firm to occasionally hard, blocky, carbonaceous specks, occasional carbonaceous laminae.

SANDSTONE: light olive grey, greenish olive/grey, light yellowish grey, occasionally mottled pale green/light grey, grains; clear to translucent, occasional pale green, orange brown and black and carbonaceous, dominantly fine to medium, well sorted, sub rounded to sub angular, trace calcareous grains, 70-90% loose, 10-30% very soft aggregate with 10-20% argillaceous matrix, white kaolinitic matrix in part, slightly calcareous, trace carbonaceous grains, fair - good inferred porosity.

SANDSTONE: light olive grey, greenish olive/grey, light yellowish grey, clear to translucent, occasional pale green, trace orange brown and black and carbonaceous, dominantly fine to rare medium, well sorted, sub rounded to sub angular, 30-50% loose, 50 -70% very soft aggregate with 50-60% argillaceous matrix, white kaolinitic matrix in part, trace carbonaceous grains, poor to fair inferred porosity.

SILTSTONE (Trace): brownish grey to olive grey, firm to moderately hard, blocky, carbonaceous specks, occasional carbonaceous laminae.

SANDSTONE: clear, translucent, light olive grey, very pale green, rare black and carbonaceous, 90% loose, 10% friable aggregates, fine to coarse, dominantly medium, sub angular to dominantly sub rounded, moderately well sorted, 10% argillaceous matrix, trace orange brown lithic grains, fair to good inferred porosity.

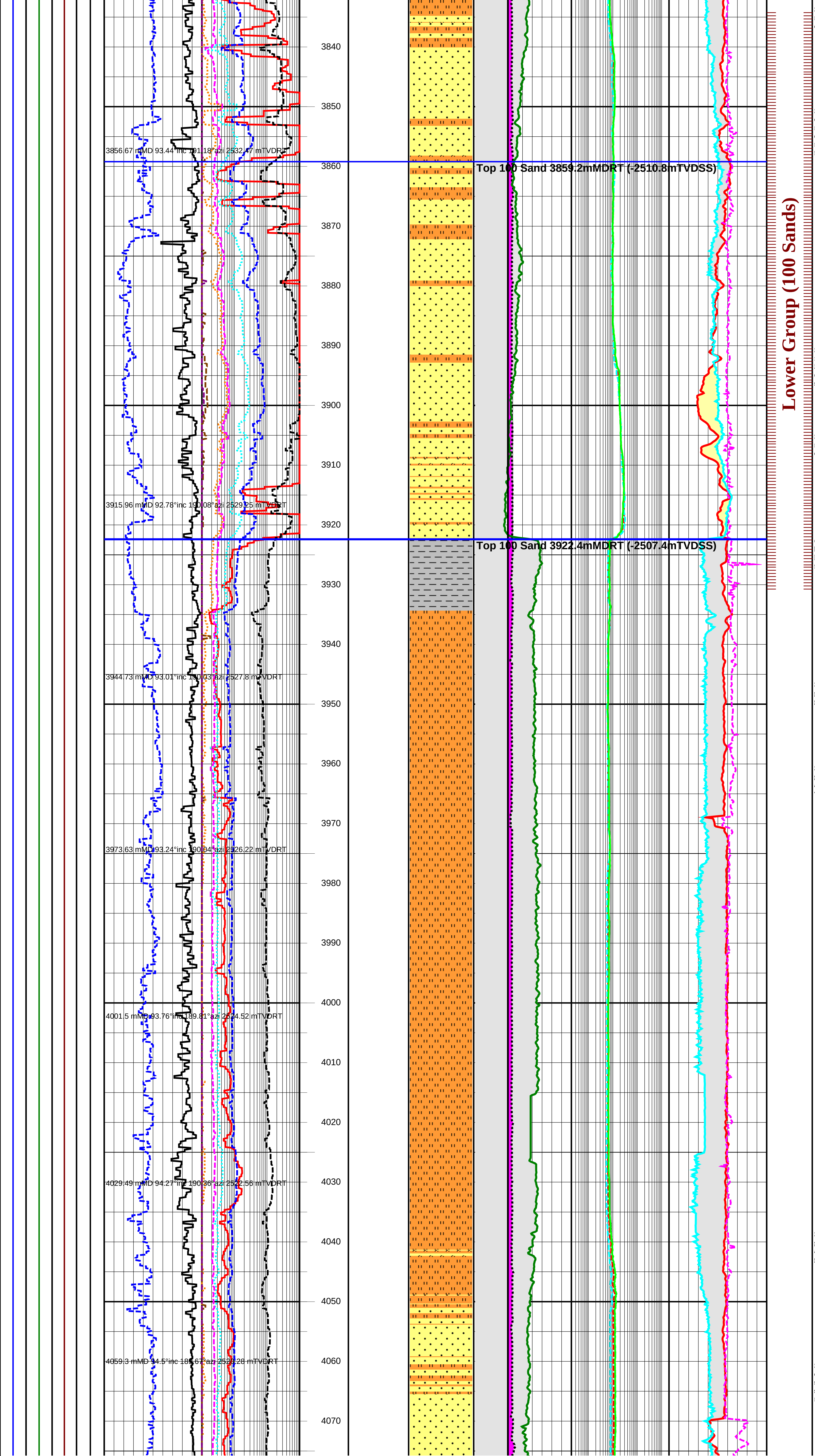
SILTSTONE: brownish grey to olive grey, firm to moderately hard, blocky, carbonaceous specks, occasional carbonaceous laminae.

SILTSTONE: medium grey to olive grey, occasionally brownish grey, sub firm, friable, sub blocky, arenaceous, carbonaceous specks, rare indistinctly laminated.

SILTSTONE: medium to medium dark grey, soft, friable, sub blocky, arenaceous, carbonaceous specks, indistinctly laminated in part.

SANDSTONE: light grey, aggregates, friable, very fine to fine, sub angular to rounded, well sorted grains, clear to translucent, pale green, black and carbonaceous, 5-20% silty matrix, siltstone lithics, poor porosity.

SILTSTONE: medium dark grey, soft to firm, friable, sub blocky, arenaceous, carbonaceous specks in part, uniform, occasionally very fine sand.



SILTSTONE: medium grey, brownish grey to olive grey, firm to moderately hard, blocky, carbonaceous specks, occasional carbonaceous laminae.

SANDSTONE: light yellowish grey, occasionally light grey, grains, clear to translucent, trace pale green, very fine to fine rare medium, moderately well sorted, sub rounded to sub angular, trace calcareous grains, very soft aggregates with 30-70% argillaceous matrix, slightly calcareous, white kaolinitic matrix in part, poor to fair inferred porosity.

PERFORATION

SANDSTONE: clear, translucent, light olive grey, very pale green, rare black and carbonaceous, trace calcareous grains, 95% loose, 5% very soft aggregates with 10% argillaceous matrix, medium to dominantly coarse, sub angular to dominantly sub rounded, well sorted, trace orange brown lithic grains, good inferred porosity.

SILTSTONE: medium grey, brownish grey to olive grey, firm to moderately hard, blocky, carbonaceous specks, occasional carbonaceous laminae.

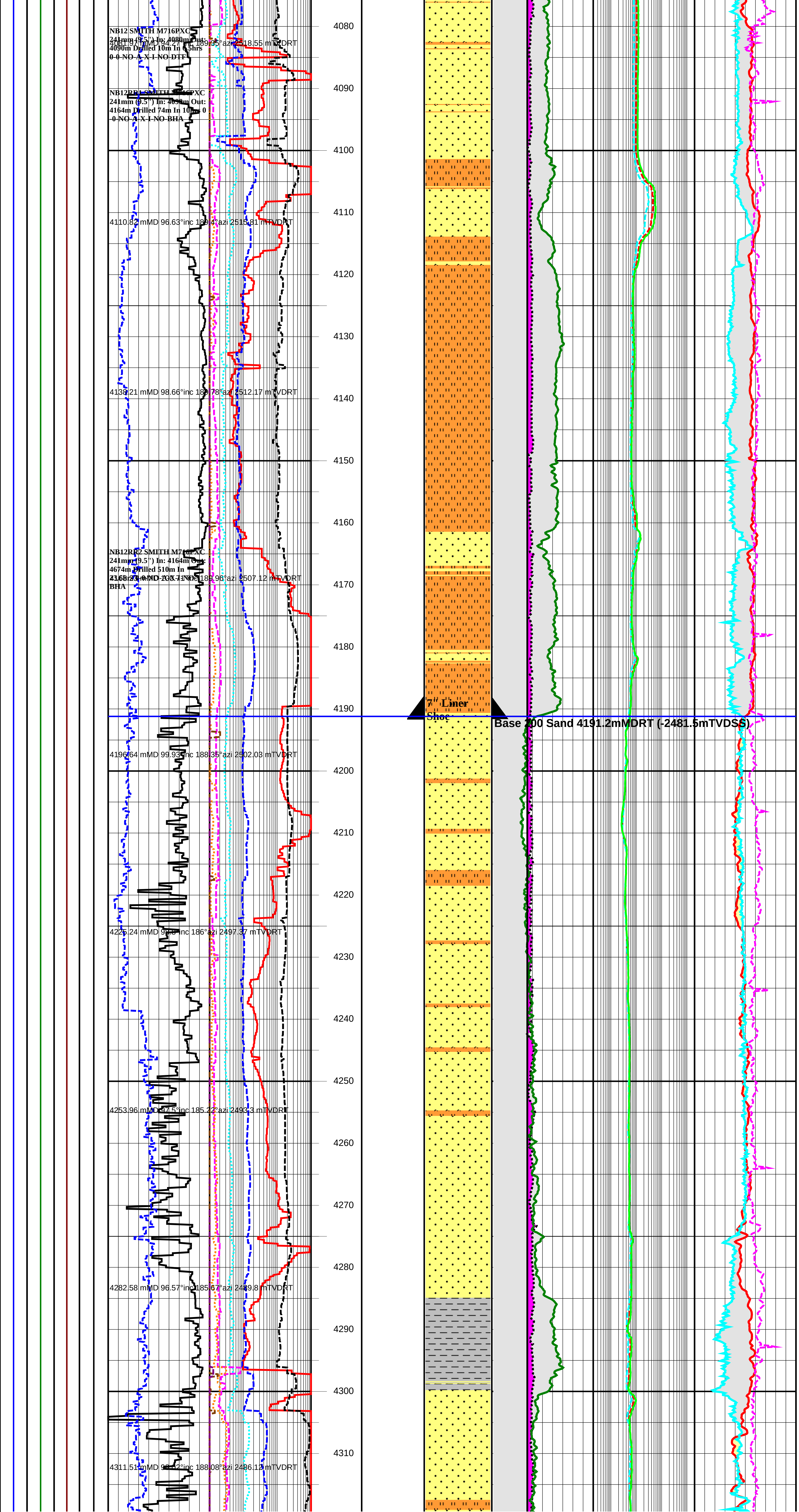
CLAYSTONE: dark brownish grey, medium dark grey, rare light brownish grey, trace carbonaceous specks, rare carbonaceous laminae, silty in part grading to SILTY CLAYSTONE, soft to firm, blocky, massive.

SILTY CLAYSTONE: medium dark brownish grey, rare olive grey, soft, friable, sub blocky, trace carbonaceous specks, gradational to SILTSTONE.

SILTSTONE: medium to dark brownish grey, rare light brownish grey, sub blocky to blocky, soft and friable, arenaceous to argillaceous, carbonaceous specks, occasionally very arenaceous with trace very fine sand grains.

SILTSTONE: medium to dark brownish grey, rare light brownish grey, sub blocky to blocky, soft and friable, arenaceous to argillaceous, carbonaceous specks, occasional trace very fine sand grains.

SANDSTONE: light yellowish grey, occasionally light grey grains, clear to translucent, very fine to fine rare medium, moderately well sorted, sub rounded to sub angular, trace calcareous grains, very soft aggregates with 60-70% argillaceous matrix, white kaolinitic matrix in part, poor to fair inferred porosity.



SANDSTONE: light yellowish grey, occasionally light grey grains, clear to translucent, very fine to fine, moderately well sorted, sub rounded to sub angular, trace to common calcareous grains, very soft aggregates with 60-70% argillaceous matrix, white kaolinitic matrix in part, poor to fair inferred porosity.

SILTSTONE: medium to dark brownish grey, rare light medium grey, sub blocky to blocky, soft and friable, arenaceous to argillaceous, carbonaceous specks, occasional trace very fine sand grains.

SANDSTONE: light yellowish grey, occasionally light grey grains, clear to translucent, very fine to fine, moderately well sorted, sub rounded to sub angular, common calcareous grains, soft to hard aggregates with 60-70% argillaceous matrix, white kaolinitic matrix in part, moderate calcareous cement, poor inferred porosity.

SILTSTONE: medium to dark brownish grey, rare light medium grey, sub blocky to blocky, soft and friable, arenaceous to argillaceous, carbonaceous specks, occasional trace very fine sand grains.

SILTSTONE: medium to dark brownish grey, light medium grey, sub blocky to blocky, soft and friable, arenaceous to argillaceous grading to SILTY CLAYSTONE, carbonaceous specks, trace very fine sand grains.

SILTY CLAYSTONE: medium grey to medium dark grey, very soft to soft, rare firm, sub blocky to commonly bit deformed, trace carbonaceous specks.

SILTY CLAYSTONE: medium grey to medium dark grey, very soft to soft, rare firm, sub blocky to commonly bit deformed, trace carbonaceous specks, occasionally very carbonaceous, gradational to SILTSTONE.

ARGILLACEOUS SANDSTONE: light yellowish grey, rare off white, soft to friable aggregates, very fine to fine, clear to translucent grains, moderately well sorted, sub angular to angular, trace to common calcareous grains, 20 - 60% argillaceous matrix, weak calcareous cement, trace carbonaceous grains and lithics, poor visible porosity.

SANDSTONE: 70% loose clear to translucent grains, dominantly fine to medium, moderately well sorted, sub angular to dominantly sub rounded, 30% light yellowish grey, light greenish grey, very soft aggregates, very fine to fine, well sorted, sub rounded to well rounded, abundant white to light greenish grey argillaceous matrix to 60%, commonly matrix supported, poor to fair visual porosity.

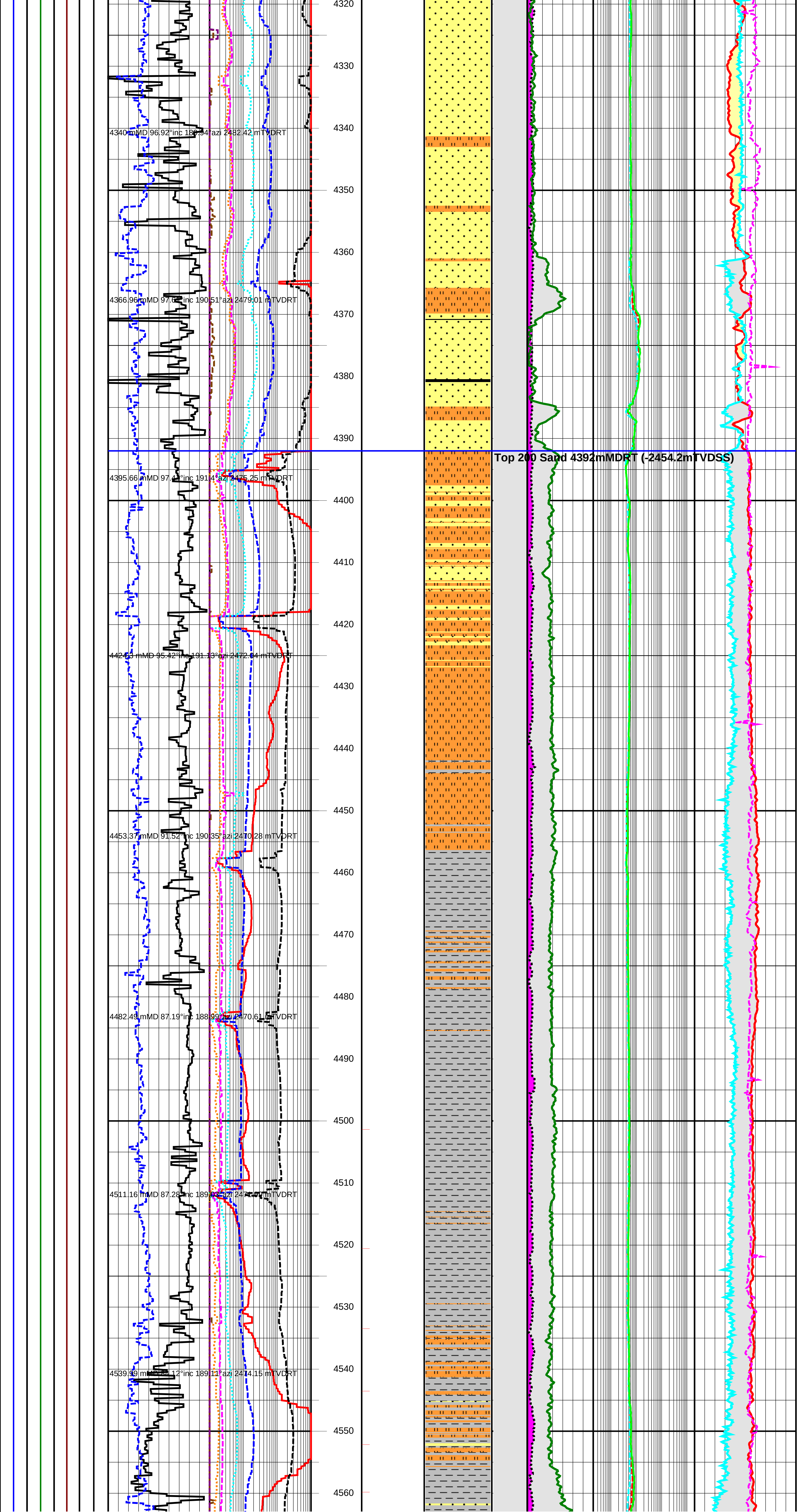
SILTSTONE: medium grey to medium dark grey, olive grey, very soft to soft, rare firm, sub blocky to sub fissile, trace carbonaceous specks, arenaceous with trace very fine sand.

SANDSTONE: clear to translucent, trace black carbonaceous grains, very fine to dominantly fine, moderately well sorted, sub angular to sub rounded, loose, poor to fair visual porosity.

SILTY CLAYSTONE: dark medium grey to olive grey, dark greenish grey, soft to firm, sub blocky to blocky, trace carbonaceous specks, silty in part gradational to SILTSTONE.

SILTSTONE: dark medium grey to olive grey, soft to firm, sub blocky to sub fissile, trace carbonaceous specks, arenaceous in part with trace very fine sand.

SANDSTONE: clear translucent, light yellowish brown, light greenish grey, 60% loose, 40% soft aggregates, very fine to fine, rare medium, dominantly sub rounded, moderately well sorted, 10-40% argillaceous matrix, trace black carbonaceous grains, trace pale orange and moderate red lithic grains, poor to fair inferred porosity.



SILTSTONE: medium dark grey, occasionally slightly brownish grey, soft to firm, sub blocky, arenaceous, trace to occasionally very carbonaceous, trace carbonaceous laminae.

SANDSTONE: clear translucent, light yellowish brown, rare greenish grey, 40% loose, 60% soft aggregates, very fine to medium, sub angular to rounded, moderately well sorted, 20-60% argillaceous matrix, occasionally very carbonaceous, trace pale orange and moderate red lithic grains, poor to fair inferred porosity.

COAL: black, sub vitreous to dull, firm, brittle, hackly fracture, very silty.

SANDSTONE: clear translucent, light yellowish brown, rare greenish grey, 40% loose, 60% soft aggregates, very fine to medium, sub angular to rounded, moderately well sorted, 20-60% argillaceous matrix, occasionally very carbonaceous, trace pale orange and moderate red lithic grains, poor to fair inferred porosity.

SILTSTONE: medium dark grey, occasionally slightly brownish grey, soft to firm, sub blocky, arenaceous, trace to occasionally very carbonaceous, trace carbonaceous laminae.

ARGILLACEOUS SANDSTONE: light medium grey, soft aggregates, very fine to fine, well sorted, argillaceous and silty matrix to 90%, trace carbonaceous grains, poor visible porosity.

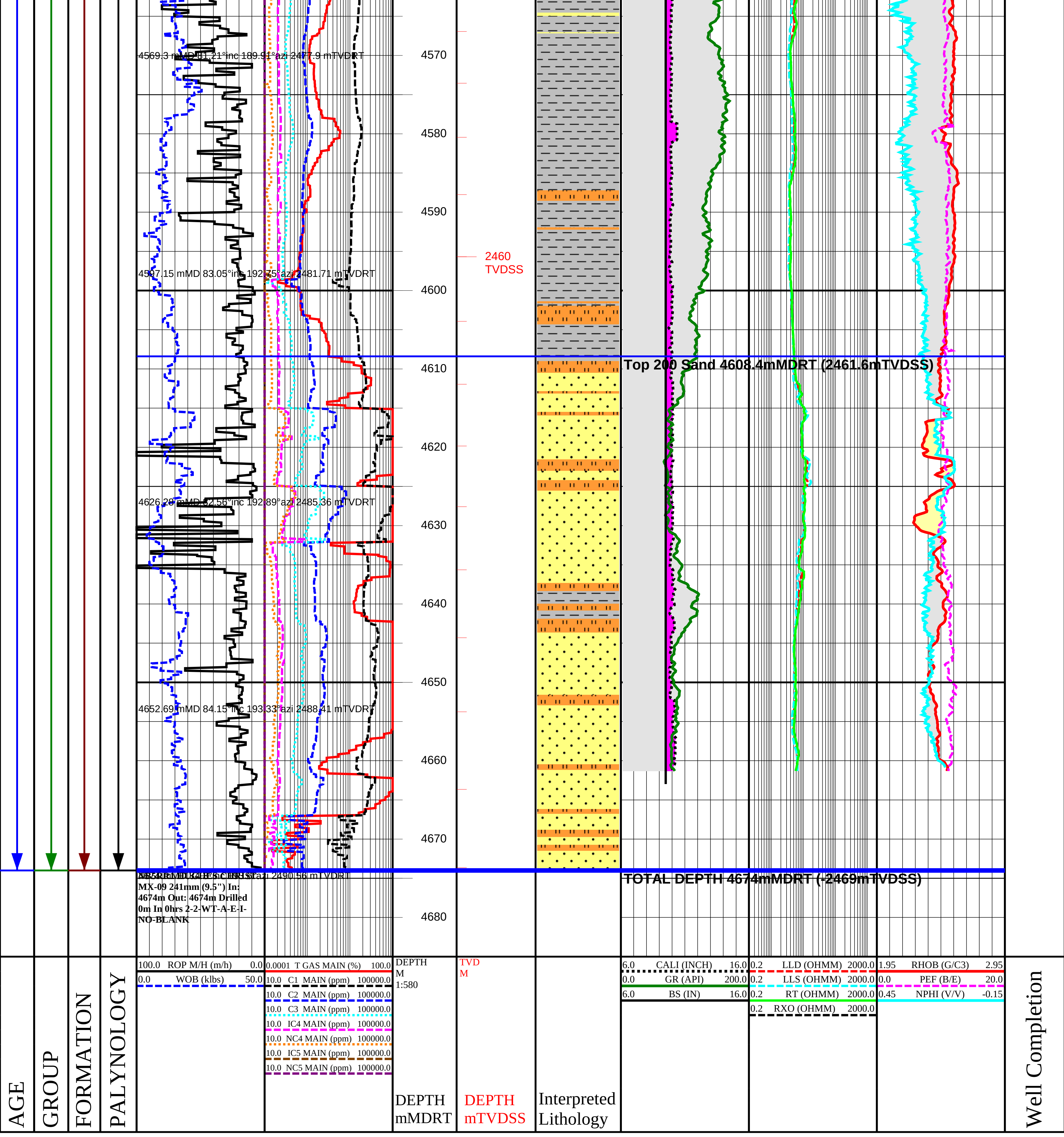
SILTSTONE: medium dark grey, brownish grey, soft to occasionally firm, sub blocky to blocky, arenaceous to occasionally argillaceous, trace carbonaceous specks.

SILTSTONE: medium dark grey, brownish grey, soft to occasionally firm, sub blocky to blocky, arenaceous to occasionally argillaceous, trace carbonaceous specks.

CLAYSTONE: pale greenish grey, olive grey with depth changing to olive grey to brownish grey, soft to firm, sub blocky, arenaceous and silty in part, occasionally gradational to SILTY CLAYSTONE, trace carbonaceous specks.

CLAYSTONE: medium dark grey to dark brownish grey, firm to moderately hard, sub blocky to blocky, silty in part occasionally gradational to SILTY CLAYSTONE, trace carbonaceous specks.

ARGILLACEOUS SANDSTONE: translucent, light yellowish grey, light greenish grey, trace black carbonaceous grains, very fine to fine, well sorted, sub rounded, dominantly very soft aggregates, 90% argillaceous matrix supported, poor visible porosity.



CLAYSTONE: medium dark grey to dark brownish grey, trace light brownish grey, firm to moderately hard, sub blocky to blocky, silty in part occasionally gradational to SILTY CLAYSTONE, trace carbonaceous specks.

SILTSTONE: medium light grey to greenish grey, soft to firm, sub blocky to sub fissile, very arenaceous grading to very fine sandstone.

SANDSTONE: clear to translucent, light yellowish brown, light greenish grey, trace black carbonaceous grains, 20% loose, 80% soft aggregates, dominantly very fine to fine, sub rounded, moderately well sorted, 80% argillaceous matrix, poor inferred porosity.

SILTSTONE: medium dark grey, light olive grey, soft to rare firm, sub blocky to sub fissile, trace carbonaceous specks, arenaceous with trace very fine sand.

SANDSTONE: 80% loose clear to translucent, trace green and black carbonaceous grains, trace pale orange lithic grains, trace calcareous grains, dominantly fine to medium, moderately well sorted, sub angular to sub rounded, 20% light yellowish grey, light greenish grey, very soft aggregates, very fine to fine, well sorted, sub rounded, abundant light yellowish grey to light greenish grey argillaceous matrix to 40%, commonly matrix supported, weak calcareous cement, fair visual porosity.

SILTSTONE: medium light grey to greenish grey, light olive grey, soft to firm, sub blocky to sub fissile, very arenaceous grading to very fine sandstone.

CLAYSTONE: medium dark grey to dark brownish grey, trace light brownish grey, firm to moderately hard, sub blocky to blocky, silty in part occasionally gradational to SILTY CLAYSTONE, trace carbonaceous specks.

TD LONGTOM-3H @ 4674mMDRT @ 20:00HRS ON 27/08/2006

Comments

ENCLOSURE 4: LONGTOM-3P PRESSURE EXPRESS (XPT) LOG

Schlumberger

Company: **Nexus Energy**

Well: **Longtom−3**
Field: **Longtom**
Rig: **Ocean Patriot** Country: **Australia**

Rig: Ocean Patriot
Field: Longtom
Location: Gippsland Basin, VIC/P54
Well: Longtom−3
Company: Nexus Energy

PEX−XPT−CMF
Pressure Express Log
Suite 1 Run 1

LOCATION			
Gippsland Basin, VIC/P54	Elev.:	K.B.	21.5 m
GDA94/MGA94 Zone 55		G.L.	−56 m
N 5783059.3 M, E 615006 M		D.F.	21.5 m

Permanent Datum:	LAT	Elev.:	0 m
Log Measured From:	DF	21.5 m	above Perm. Datum
Drilling Measured From:	DF		

State:	Max. Well Deviation	Longitude	Latitude
Victoria	61.3 deg	148 18' 41.52'' E	038 05' 34.63'' S

		Run 1	Run 2

Logging Date		27−Jul−2006			
Run Number		1			
Depth Driller		3437 m			
Schlumberger Depth		3434 m			
Bottom Log Interval		3379 m			
Top Log Interval		2543 m			
Casing Driller Size @ Depth		16.000 in @ 995.3 m		@	
Casing Schlumberger		995.3 m			
Bit Size		9.500 in			
Type Fluid In Hole		SBM Petrofree			
MUD Density	Viscosity	1.44989 g/cm3	76 s		
MUD Fluid Loss	PH	2.8 cm3			
MUD Source Of Sample		Not Taken			
RM @ Measured Temperature		@		@	
RMF @ Measured Temperature		@		@	
RMC @ Measured Temperature		@		@	
Source RMF	RMC	Not Taken	Not Taken		
RM @ MRT	RMF @ MRT	@ 118	@ 118	@	@
Maximum Recorded Temperatures		121 degC	121	121	
Circulation Stopped	Time	27−Jul−2006	2:00		
Logger On Bottom	Time	27−Jul−2006	11:06		
Unit Number	Location	1909	AUSL		
Recorded By		D.Molokhov/K.Sintoovongse			
Witnessed By		M.Woodmansee/A.Basu			

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 3
@ @ @ @	
@	Run 4

DEPTH SUMMARY LISTING

Date Created: 29−JUL−2006 13:01:37

Depth System Equipment

Depth Measuring Device		Tension Device		Logging Cable	
Type:	IDW−JA	Type:	CMTD−B/A	Type:	7−46ZV−XS
Serial Number:	2822	Serial Number:	1133	Serial Number:	75007
Calibration Date:	22−Jan−2006	Calibration Date:	25−Jul−2006	Length:	6800.09 M
Calibrator Serial Number:	1009	Calibrator Serial Number:	1172	Conveyance Method:	Wireline
Calibration Cable Type:	7−46P	Calibration Gain:	1.03	Rig Type:	Offshore_Floater_with_WMC
Wheel Correction 1:	−5	Calibration Offset:	635.00		
Wheel Correction 2:	−5				

Depth Control Parameters

Log Sequence:	First Log In the Well
Rig Up Length At Surface:	81.10 M
Rig Up Length At Bottom:	81.10 M
Rig Up Length Correction:	0.00 M
Stretch Correction:	8.00 M
Tool Zero Check At Surface:	0.00 M

Depth Control Remarks

1. All Schlumberger depth control procedure followed.
2. IDW used as a primary depth measurement
3. Tide correction −1m above LAT
4.
5.
6.

OTHER SERVICES1	OTHER SERVICES2
OS1: None	OS1:
OS2:	OS2:
OS3:	OS3:
OS4:	OS4:
OS5:	OS5:

REMARKS: RUN NUMBER 1
Tool string run as per tool sketch.
XPT Pressure points were selected based on PEX realtime NOT ON DEPTH log
XPT Pressure points were 8m high to the on depth PEX−XPT−CMR Density&Porosity 1:200 Log (corrected on 15−Aug−09: NOW ON DEPTH)
Pressure points were recorded on the way up. Entire run correlated to down log, correlation interval from casing shoe to 1400m.
50 Pressure points attempted, 19 were normal test, 29 were tight test, and 2 were unrecognizable test.

RUN 1			RUN 2		
SERVICE ORDER #:			SERVICE ORDER #:		
PROGRAM VERSION:		14C0−302	PROGRAM VERSION:		
FLUID LEVEL:		0 m	FLUID LEVEL:		
LOGGED INTERVAL	START	STOP	LOGGED INTERVAL	START	STOP

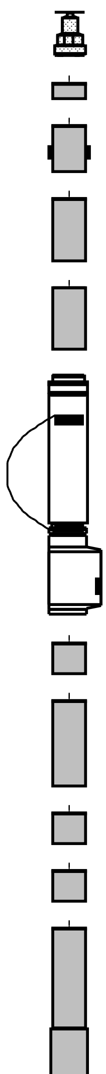
EQUIPMENT DESCRIPTION

RUN 1 | RUN 2

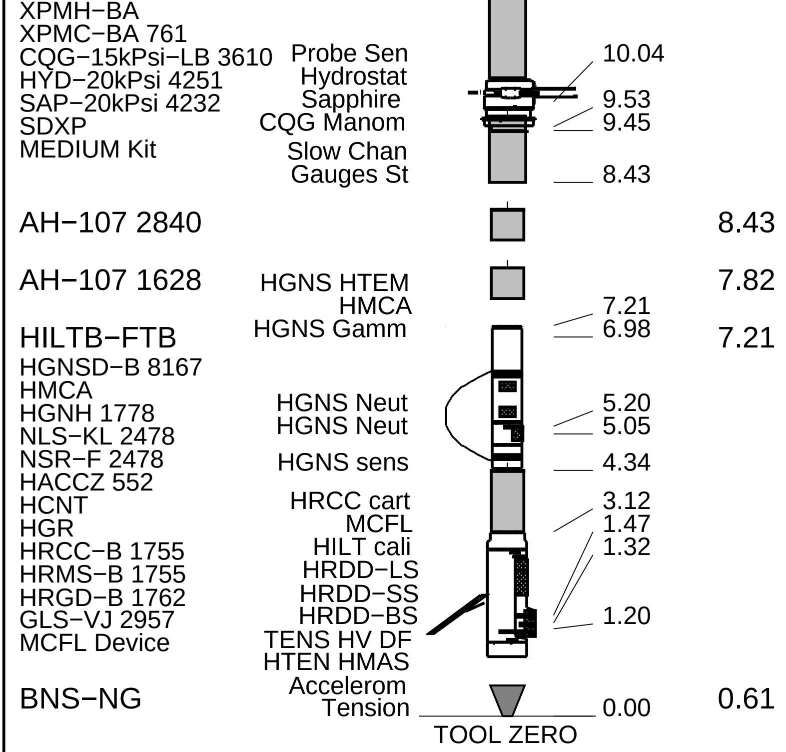
SURFACE EQUIPMENT

GSR−Y 6003	MRPP−AA 100
NCT−B 80	WITM (DTS)−A
CNB−AB	
NCS−YC 5025	

DOWNHOLE EQUIPMENT



Tool	Sensors	Sensor depth	Tool top
LEH−QT LEH−QT 1117			27.73
AH−215 86			26.84
DTC−H ECH−KC 10247	CTEM TelStatus ToolStatu	26.25 25.62	26.53 0.5 IN Standoff
DTA−A ECH−KE 8351 DTA−A 8351			25.62
ACTS−B1 ACTM−C 831 ACTE−C 831			24.40
CMRT−B CMRC−BB 175 CMRS−BA 149 EME−F	CMR−B Raw CMR−B Sen CMR−B Dia	19.02 18.43	23.18
AH−107 979			18.43
SGT−N SGH−K 2755 SGC−TB 9901 SGD−TAB 21422	Gamma Ray	17.54	17.82
WXT−A			16.14
AH−107 854			15.53
XPT−BA ECH−MKA 3886 XPCC−AA 762 XPS−BA 799 XPAMS−BA 839 XPAM−BA	Motors Se	13.66	14.93

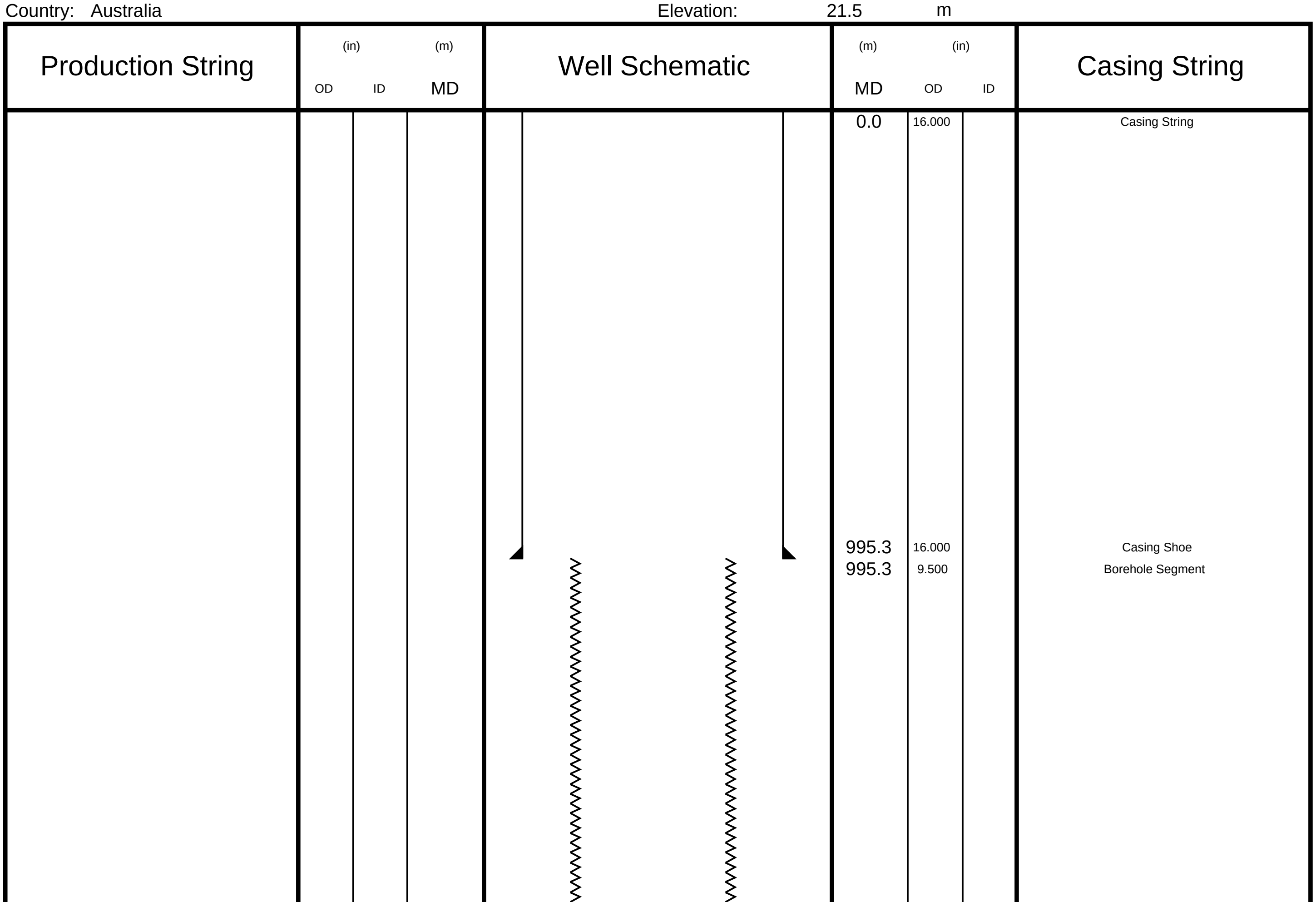


MAXIMUM STRING DIAMETER 6.60 IN
MEASUREMENTS RELATIVE TO TOOL ZERO
ALL LENGTHS IN METERS

Client: Nexus Energy
Well: Longtom−3
Field: Longtom
State: Victoria
Country: Australia

Rig Name: Ocean Patriot
Reference Datum: Least Astronomic Tide
Elevation: 21.5 m

Drawing Date: 7/28/2006
API #:



3437.0 9.500 Borehole Segment Bottom

Schlumberger

General Pretest Summary

MAXIS Field Log

Client:	**Nexus Energy**	**Tool:**	**XPT−BA**
Field:	**Longtom**	**Probe Type:**	**Conventional probe**
Well:	**Longtom−3**	**Gauge:**	**QCP**
Run date:	**27−Jul−2006**	**Gauge Resolution:**	**0.010 psi**

Test	File	Depth M	TVD M	Drawdown Mobility MD/CP	Mud Pressure Before PSIA	Mud Pressure After PSIA	Last read build−up Pres PSIA	Formation Pressure PSIA	Test Type
2	45	3386.97	2552.38	0.66	5293.97	5271.60	4386.80	4386.80	Volumetric Limited draw−down
4	46	3382.96	2550.10	6.24	5257.74	5253.65	4384.80	4384.80	Volumetric Limited draw−down
10	49	3367.47	2541.28	15.50	5232.59	5235.11	4382.56	4382.56	Volumetric Limited draw−down
17	54	3384.96	2551.24	29.03	5266.45	5262.45	4385.27	4385.27	Volumetric Limited draw−down
19	55	3380.95	2548.96	121.28	5251.11	5251.11	4384.59	4384.59	Volumetric Limited draw−down

19	55	3380.95	2548.96	121.28	5251.11	5251.11	4384.59	4384.59	Volumetric Limited draw-down
30	65	3226.98	2459.44	0.38	5069.07	5069.16	3856.17	3856.17	Smart Pretest
43	77	3101.45	2388.71	4.74	4923.50	4925.22	3578.94	3578.94	Smart Pretest
45	79	3084.97	2379.43	5.62	4901.18	4904.31	3566.49	3566.49	Smart Pretest
46	80	3078.94	2376.04	0.15	4896.16	4898.15	3567.28	3567.28	Smart Pretest
47	81	3088.96	2381.68	0.06	4916.18	4910.09	3568.45	3568.45	Smart Pretest
52	85	2669.97	2145.53	1.14	4429.14	4433.34	3087.94	3087.94	Smart Pretest
55	86	2658.99	2139.47	6.96	4416.62	4420.01	3073.62	3073.62	Volumetric Limited draw-down
57	87	2643.98	2131.16	6.44	4398.57	4402.64	3067.62	3067.62	Volumetric Limited draw-down
59	89	2633.96	2125.59	5.36	4389.97	4391.79	3057.72	3057.72	Smart Pretest
60	90	2619.97	2117.77	4.72	4373.32	4375.93	3052.43	3052.43	Smart Pretest
62	91	2614.96	2114.89	11.75	4368.24	4370.58	3048.36	3048.36	Volumetric Limited draw-down
64	92	2602.98	2108.13	0.70	4353.90	4356.49	3039.62	3039.62	Volumetric Limited draw-down
66	93	2596.98	2104.57	0.53	4346.50	4348.80	3036.17	3036.17	Volumetric Limited draw-down
68	94	2554.50	2079.70	21.70	4296.93	4299.70	2993.66	2993.66	Volumetric Limited draw-down

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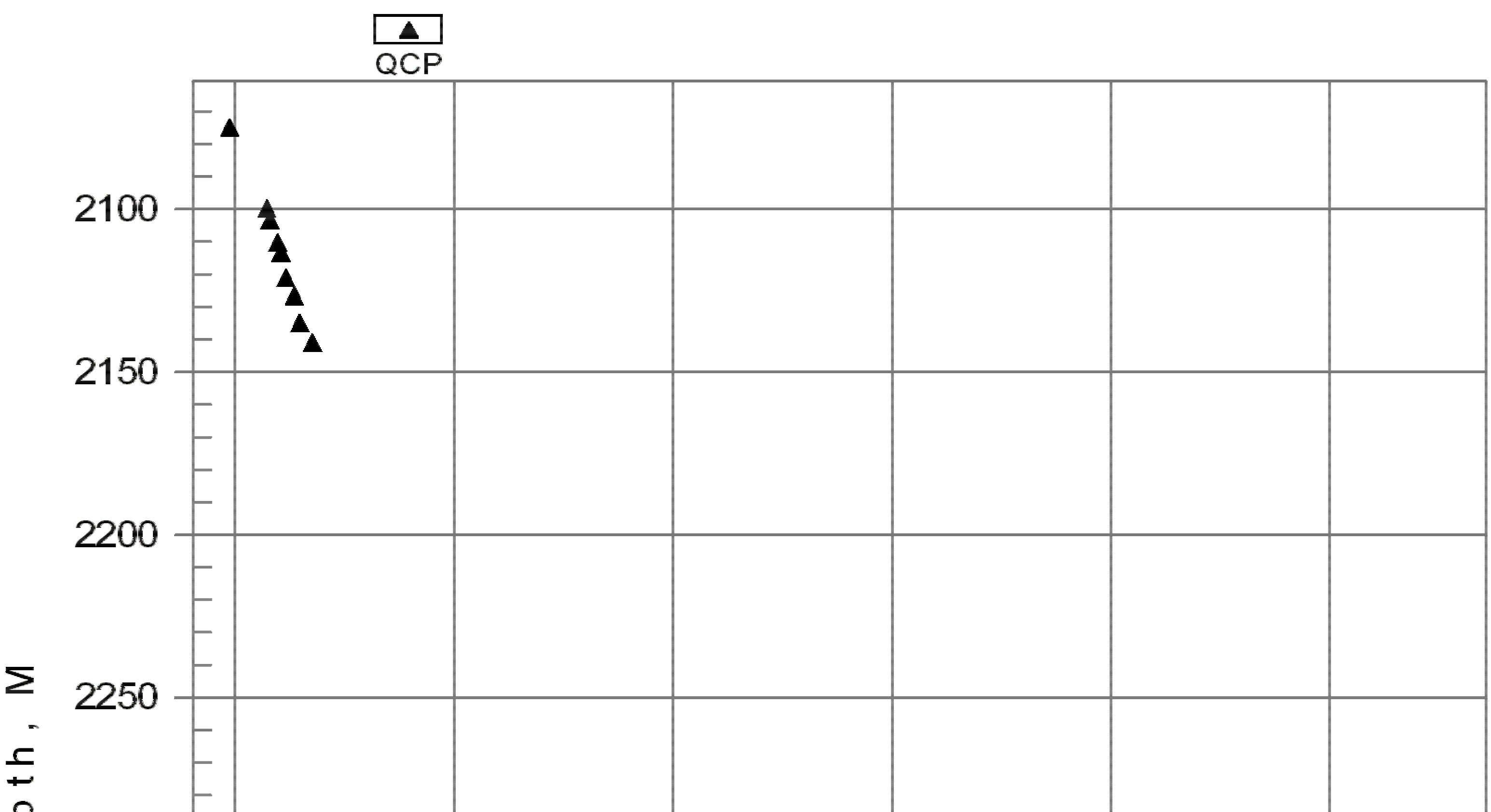
Formation Pressure Plot

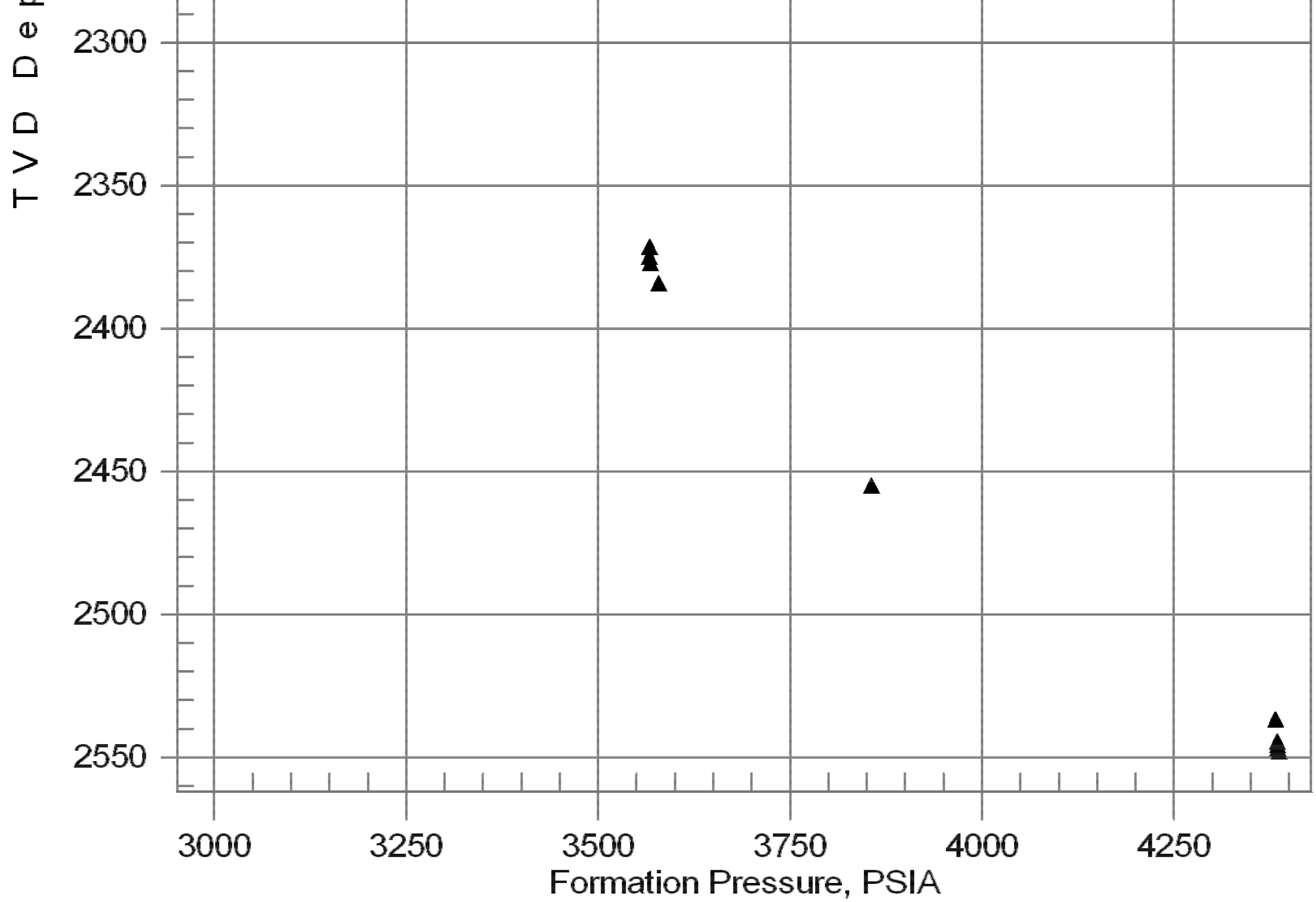
MAXIS Field Log

Depth vs. Formation Pressure

27-Jul-2006

Nexus Energy
Longtom
Longtom-3





Schlumberger

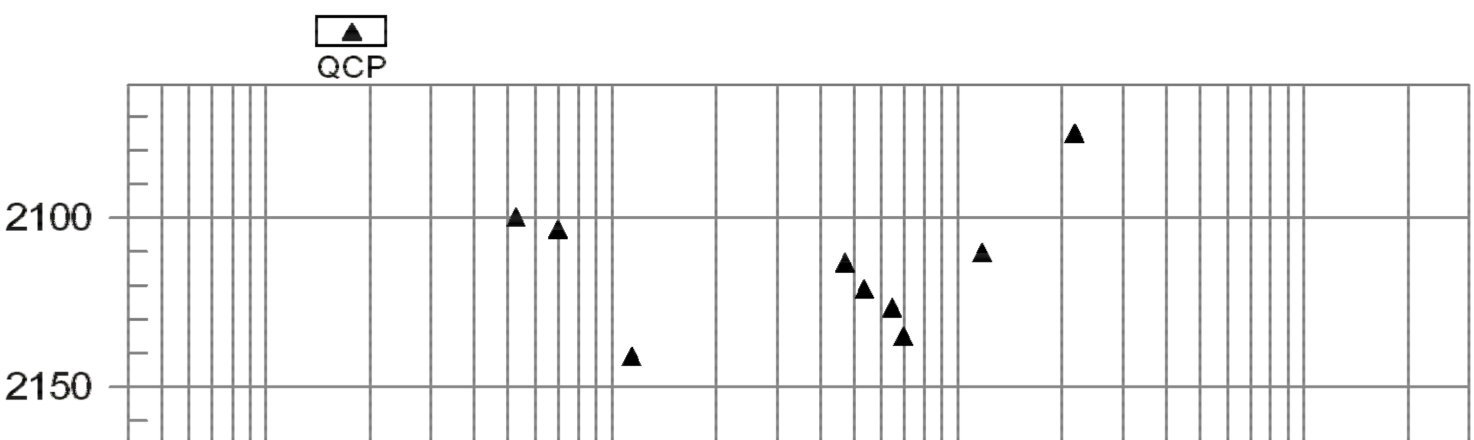
Formation Mobility Plot

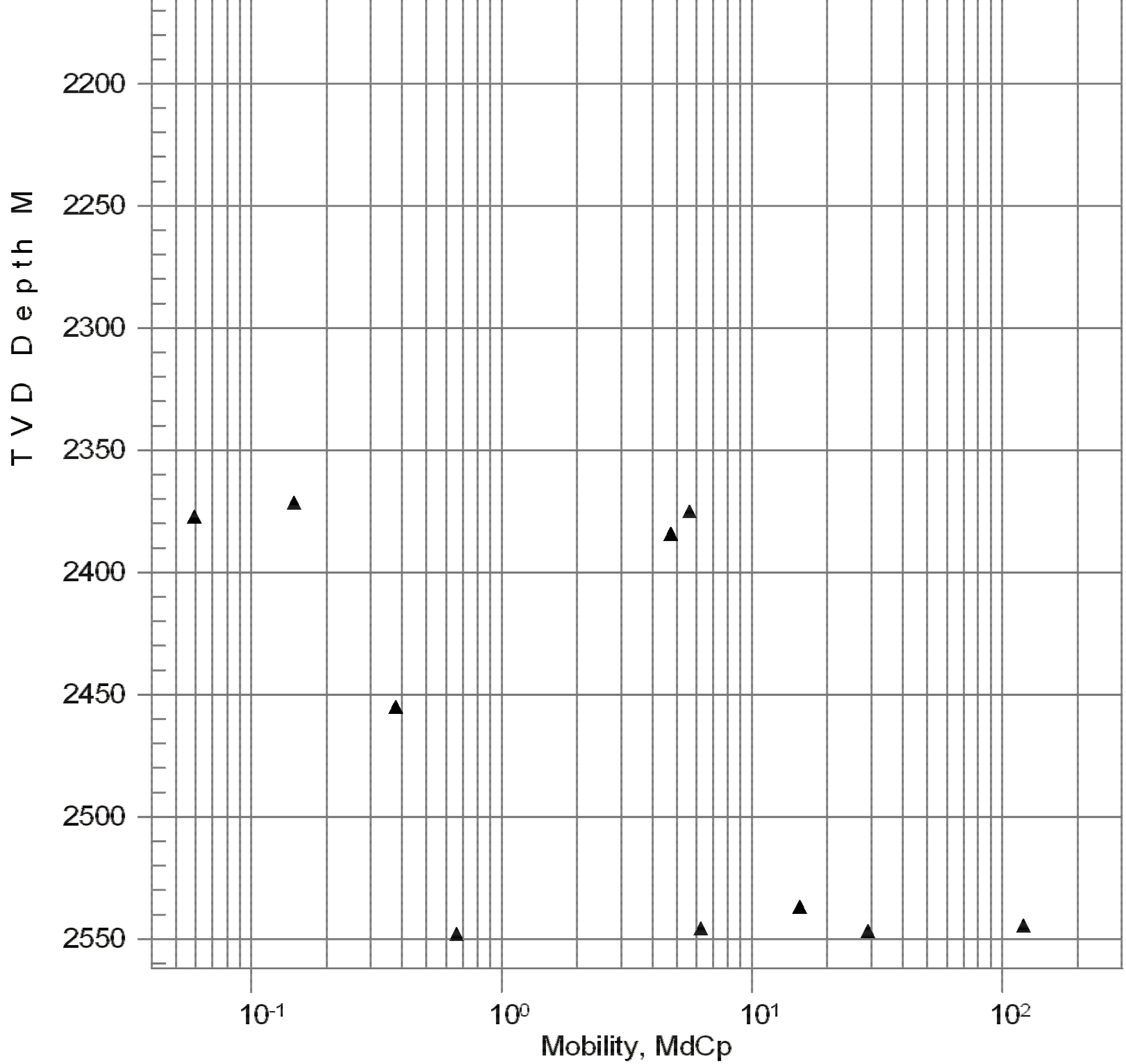
MAXIS Field Log

Depth vs. Mobility

27-Jul-2006

Nexus Energy
Longtom
Longtom-3





Schlumberger

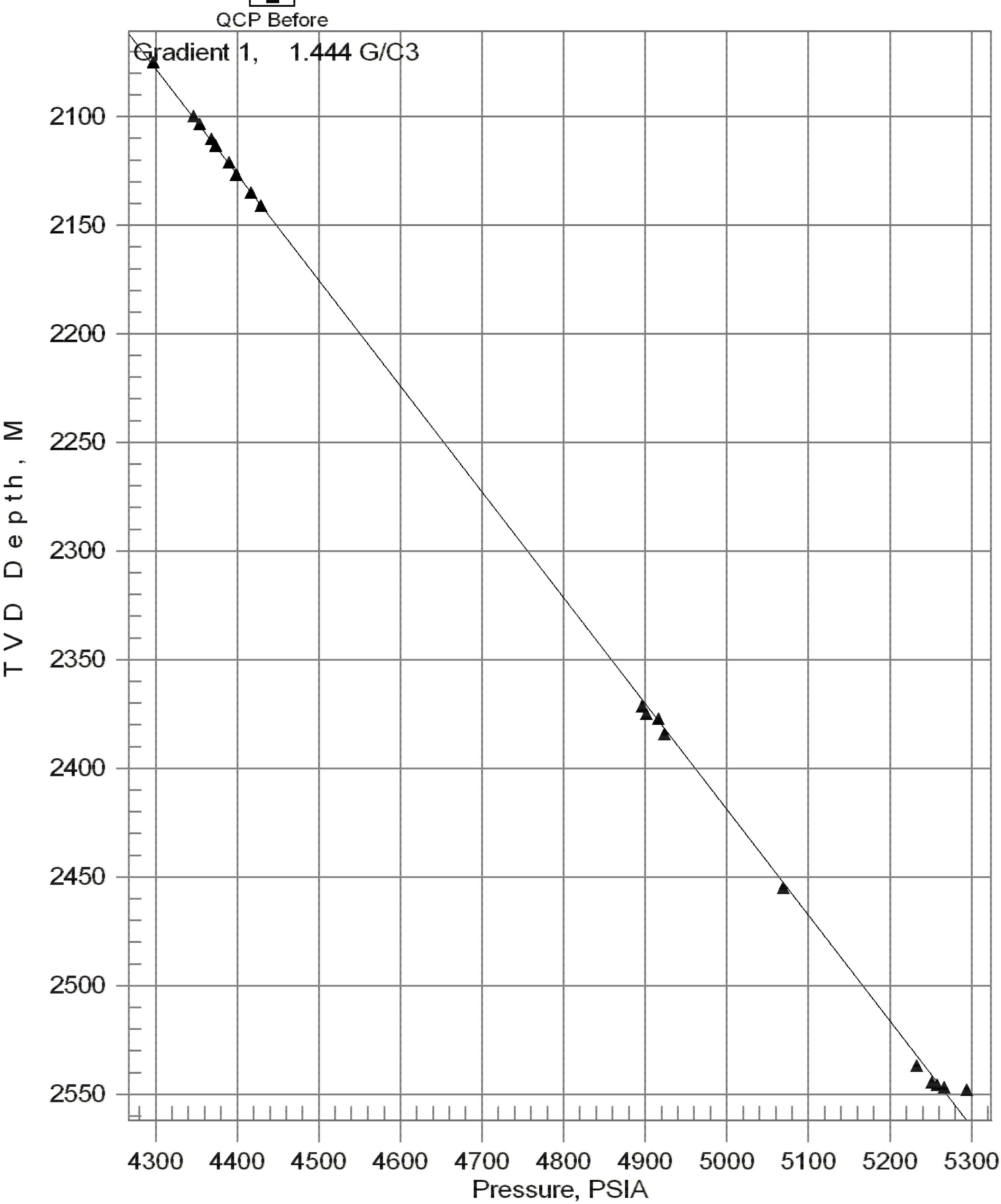
Mud Pressure Plot

MAXIS Field Log

Depth vs. Mud Pressure

27-Jul-2006

Nexus Energy
Longtom
Longtom-3



Schlumberger

Station Depth (MD)
2551.0 m

MAXIS Field Log

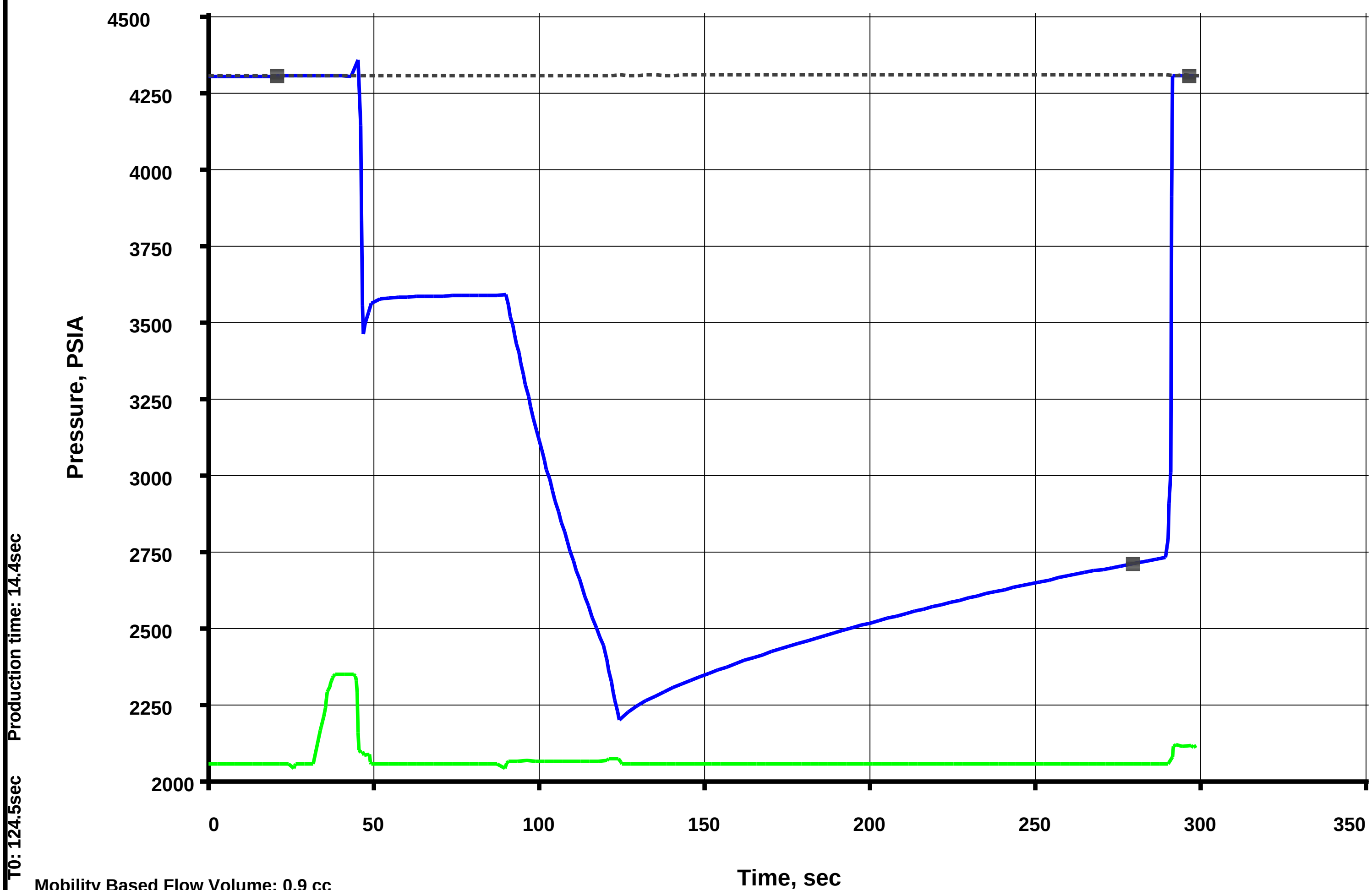
File 95 | Depth, M: 2550.98 | Dry Test − Conventional probe

27−Jul−2006 | Nexus Energy

Longtom

Longtom−3

Mud Pressure before test, PSIA:	4294.36
Mud Pressure after test, PSIA:	4296.37
Last build−up pressure, PSIA:	2710.97



Mobility Based Flow Volume: 0.9 cc

Total Pretest Volume: 1.8 cc − XPT−BA QCP Resolution: 0.010psi

Output DLIS Files

DEFAULT	TLD_MCFL_CNL_XPT_095LTP	FN:153	PRODUCER	28−Jul−2006 07:11	2553.0 M	0.8 M
RT	TLD_MCFL_CNL_XPT_095LTP	FN:154	PRODUCER	28−Jul−2006 07:13	2553.0 M	0.8 M

Changed Parameter Summary

DLIS Name	New Value	Previous Value	Depth & Time
PTM_XPT	SMART	MANUAL	2553.0 07:13:05

XPT Oil Pressure Curve (HOILP)		
0	(PSIA)	4000
Hydrostatic Pressure (CP_HYD)		
0	(PSIA)	10000
Sapphire Manometer Temperature (MTEP_SAP)		
0	(DEGC)	150

PRETEST_VOLUME From XPT_7 to XPT_PTV_CURVE

Sapphire Pressure (CP_SAP)
0 (PSIA) 10000

XPT Pretest Volume Curve (PTV_XPT)
0 (C3) 50

XPT Motor Speed Curve (MSPE_XPT) (RPM)
0 5000

CQG Pressure (QCP)
0 (PSIA) 10000

Sapphire Zoomed Pressure (CP_SAP)
0 (PSIA) 1000

Sapphire Zoomed Pressure (CP_SAP)
0 (PSIA) 100

Sapphire Zoomed Pressure (CP_SAP)
0 (PSIA) 10

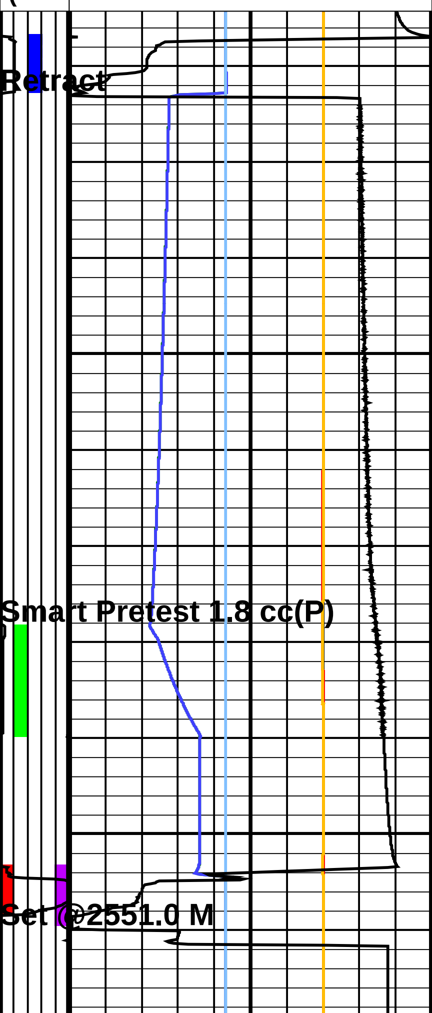
XPT Actions Image (AIMG) (----

CQG Temperature (MTEP_QG)
0 (DEGC) 150

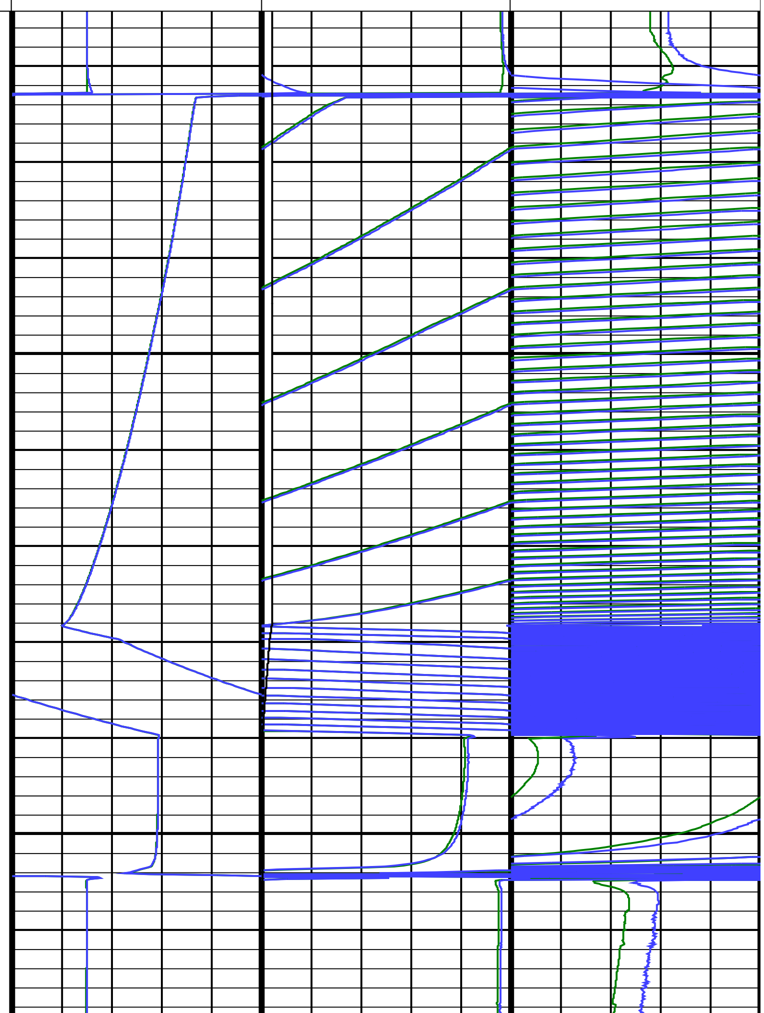
CQG Zoomed Pressure (QCP)
0 (PSIA) 1000

CQG Zoomed Pressure (QCP)
0 (PSIA) 100

CQG Zoomed Pressure (QCP)
0 (PSIA) 10



XPT Time Log (ETIM_XPT) (S)	CQG Pressure (QCP) (PSIA)	Sapphire Pressure (CP_SAP) (PSIA)
00:05:10	4295.56	4296.27
00:05:00	4296.37	4297.32
00:04:50	2903.81	2907.25
00:04:40	2711.63	2713.23
00:04:30	2691.96	2693.54
00:04:20	2670.70	2672.35
00:04:10	2648.64	2650.34
00:04:00	2625.18	2626.86
00:03:50	2599.83	2601.50
00:03:40	2572.85	2574.66
00:03:30	2546.10	2547.97
00:03:20	2517.29	2519.17
00:03:10	2488.13	2490.03
00:03:00	2457.00	2458.95
00:02:50	2422.89	2424.90
00:02:40	2387.78	2389.81
00:02:30	2348.86	2350.93
00:02:20	2304.65	2306.80
00:02:10	2251.52	2253.71
00:02:00	2417.40	2417.94
00:01:50	2729.10	2729.25
00:01:40	3109.01	3108.48
00:01:30	3581.37	3582.96
00:01:20	3580.97	3582.43
00:01:10	3579.82	3581.31
00:01:00	3577.07	3578.64
00:00:50	3563.27	3561.57
00:00:40	4294.64	4295.84
00:00:30	4294.51	4295.71
00:00:20	4294.29	4295.46
00:00:10	4294.10	4295.27
00:00:00	4294.03	4295.06



XPT Actions Image (AIMG) (----

CQG Temperature (MTEP_QG)
0 (DEGC) 150

XPT Time Log (ETIM_XPT) (S)

CQG Pressure (QCP) (PSIA)

Sapphire Pressure (CP_SAP) (PSIA)

CQG Zoomed Pressure (QCP)
0 (PSIA) 1000

CQG Zoomed Pressure (QCP)
0 (PSIA) 100

CQG Zoomed Pressure (QCP)
0 (PSIA) 10

XPT Moto

Moto r Speed Curve (MSPE_XPT) (RPM) 0 5000	CQG Pressure (QCP) 0 (PSIA) 10000		Sapphire Zoomed Pressure (CP_SAP) 0 (PSIA) 1000	Sapphire Zoomed Pressure (CP_SAP) 0 (PSIA) 100	Sapphire Zoomed Pressure (CP_SAP) 0 (PSIA) 10
	Sapphire Pressure (CP_SAP) 0 (PSIA) 10000			XPT Pretest Volume Curve (PTV_XPT) 0 (C3) 50	
	Sapphire Manometer Temperature (MTEP_SAP) 0 (DEGC) 150			PRETEST_ VOLUME From XPT_7 to XPT_PTV_CURVE	
	Hydrostatic Pressure (CP_HYD) 0 (PSIA) 10000				
	XPT Oil Pressure Curve (HOILP) 0 (PSIA) 4000				

XPT Actions Image

WHITE: No Action / COLORED: Action in progress
Left to right:

1. Set (Red)
2. Pretest (Green)
3. Retract (Blue)
4. Init Pretest (Orange)
5. ACom Calibration (Purple)

XPT Dynamic Compensation Status

Quartz Gauge Pressure compensated and corrected
Sapphire Gauge Pressure compensated and corrected
Hydrostatic Sapphire Gauge Pressure compensated and corrected

Parameters

DLIS Name	Description	Value	
	XPT−BA: Xpress Pressure Tool − BA		
BTA_HYD	Hydrostatic Gauge Board Temperature A Coefficient	1.00419	
BTA_SAP	Sapphire Board Temperature A Coefficient	1.0208	
BTB_HYD	Hydrostatic Gauge Board Temperature B Coefficient	0	
BTB_SAP	Sapphire Board Temperature B Coefficient	0	
BTCT_HYD	Hydrostatic Gauge Board Temperature Coefficients Read From Data Channels	YES	
BTCT_SAP	Sapphire Board Temperature Coefficients Read Fram Data Channels	YES	
DDPL_XPT	Pretest Drawdown Limit	2200	PSIA
DEVI_FL_CORR_XPT	Tool Deviation Angle	0	DEG
FLD_XPT	Flowline Density	1	G/C3
GDSV	Gauges Downhole Software Version	2.1	
GDYCO	Sapphire Dynamic Compensation Applied	YES	
PAC_SAP	Sapphire Gauge Pressure A Coefficient	0.999426	
PA_HYD	Hydrostatic Gauge Pressure A Coefficient	1.00828	
PBC_SAP	Sapphire Gauge Pressure B Coefficient	0	
PB_HYD	Hydrostatic Gauge Pressure B Coefficient	0	
PCT_HYD	Hydrostatic Gauge Pressure Coefficients Read From Data Channels	YES	
PCT_SAP	Sapphire Pressure Coefficients Read From Data Channels	YES	
PGSR	Pressure Gauges Sampling Rate	300	ms
PRSP	Pretest Rate	1	C3/S
PTM_XPT	Pretest Type	MANUAL	
PTVO_XPT	Pretest Volume	10	C3
QDYCO	CQG Dynamic Compensation Applied	YES	
TAC_SAP	Sapphire Gauge Temperature A Coefficient	1.0227	

TA_HYD	Hydrostatic Gauge Temperature A Coefficient	0.999144
TBC_SAP	Sapphire Gauge Temperature B Coefficient	0
TB_HYD	Hydrostatic Gauge Temperature B Coefficient	0
TCT_HYD	Hydrostatic Gauge Temperature Coefficients Read >From Data Channels	YES
TCT_SAP	Sapphire Temperature Coefficients Read From Data Channels	YES

Output DLIS Files

DEFAULT	TLD_MCFL_CNL_XPT_095LTP	FN:153	PRODUCER	28−Jul−2006 07:11
RT	TLD_MCFL_CNL_XPT_095LTP	FN:154	PRODUCER	28−Jul−2006 07:13

Schlumberger

Station Depth (MD) 2554.5 m

MAXIS Field Log

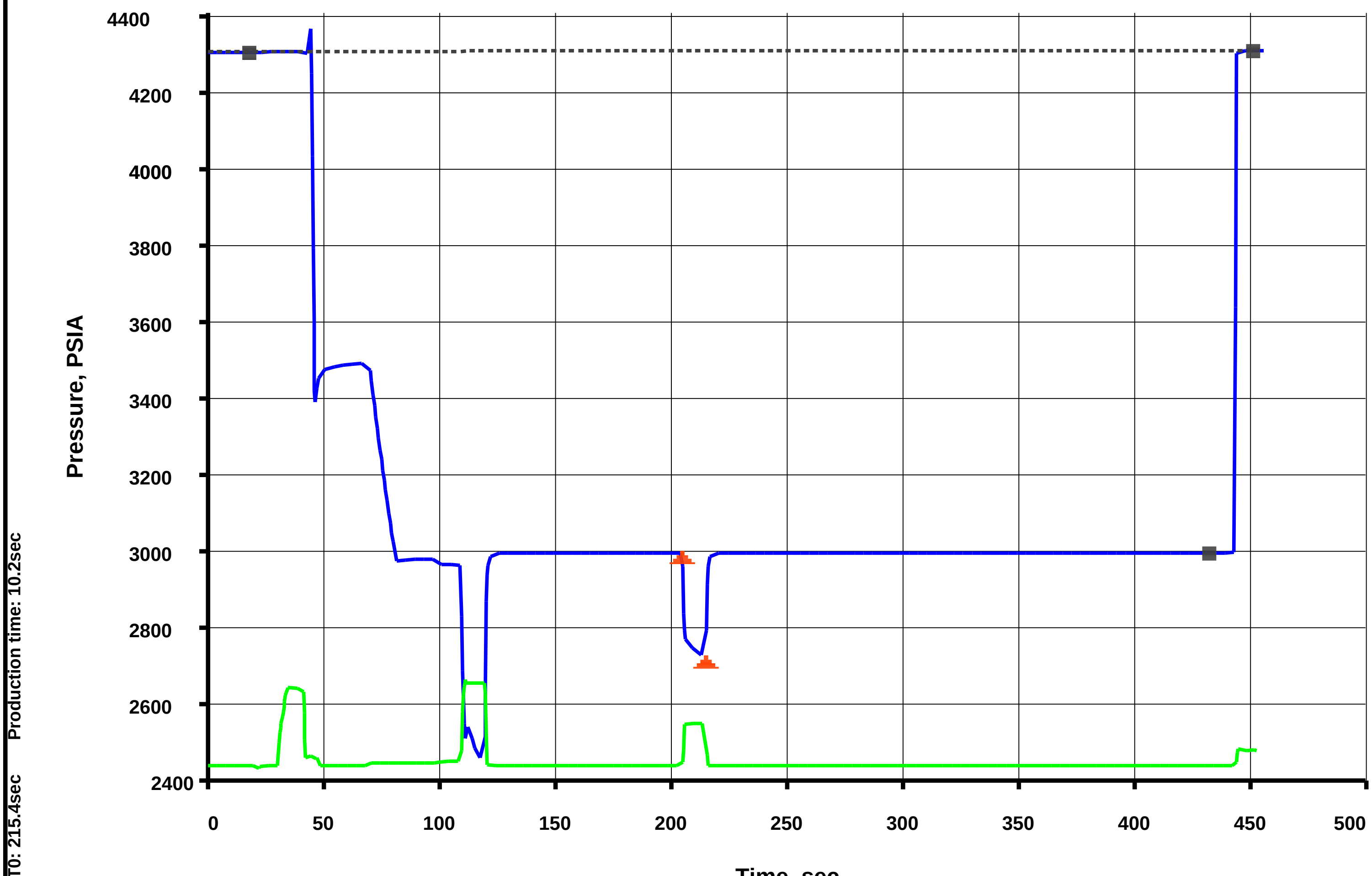
File 94 | Depth, M: 2554.50 | Volumetric Limited draw−down − Conventional probe

27−Jul−2006 | Nexus Energy

Longtom

Longtom−3

Mud Pressure before test, PSIA:	4296.93
Mud Pressure after test, PSIA:	4299.7
Last build−up pressure, PSIA:	2993.66
Draw−down mobility, md/cp:	21.7



Mobility Based Flow Volume: 10.0cc

Total Pretest Volume: 10.0cc − XPT−BA QCP Resolution: 0.010psi

Output DLIS Files

DEFAULT	TLD_MCFL_CNL_XPT_094LTP	FN:151	PRODUCER	28−Jul−2006 06:58	2556.5 M	1.2 M
RT	TLD_MCFL_CNL_XPT_094LTP	FN:152	PRODUCER	28−Jul−2006 07:00	2556.5 M	1.2 M

Changed Parameter Summary

DLIS Name	New Value	Previous Value	Depth & Time
PTM_XPT	SMART	MANUAL	2556.5 06:59:45
	MANUAL	SMART	2556.5 07:01:59
PTVO_XPT	10 C3	5 C3	2556.5 07:02:03

XPT Oil Pressure Curve (HOILP)
0 (PSIA) 4000

Hydrostatic Pressure (CP_HYD)
0 (PSIA) 10000

Sapphire Manometer Temperature (MTEP_SAP)
0 (DEGC) 150

Sapphire Pressure (CP_SAP)
0 (PSIA) 10000

PRETEST_VOLUME From XPT_7 to XPT_PTV_CURVE

XPT Pretest Volume Curve (PTV_XPT)
0 (C3) 50

XPT Motor Speed Curve (MSPE_XPT) (RPM)
0 5000

CQG Pressure (QCP)
0 (PSIA) 10000

Sapphire Zoomed Pressure (CP_SAP)
0 (PSIA) 1000

Sapphire Zoomed Pressure (CP_SAP)
0 (PSIA) 100

Sapphire Zoomed Pressure (CP_SAP)
0 (PSIA) 10

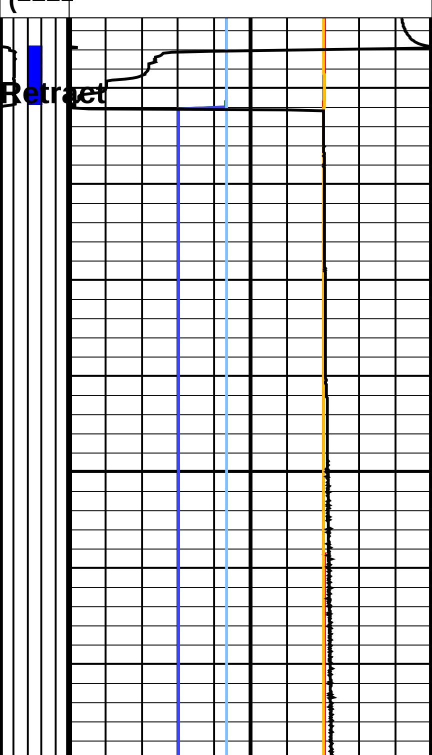
XPT Actions Image (AIMG) (----

CQG Temperature (MTEP_QG)
0 (DEGC) 150

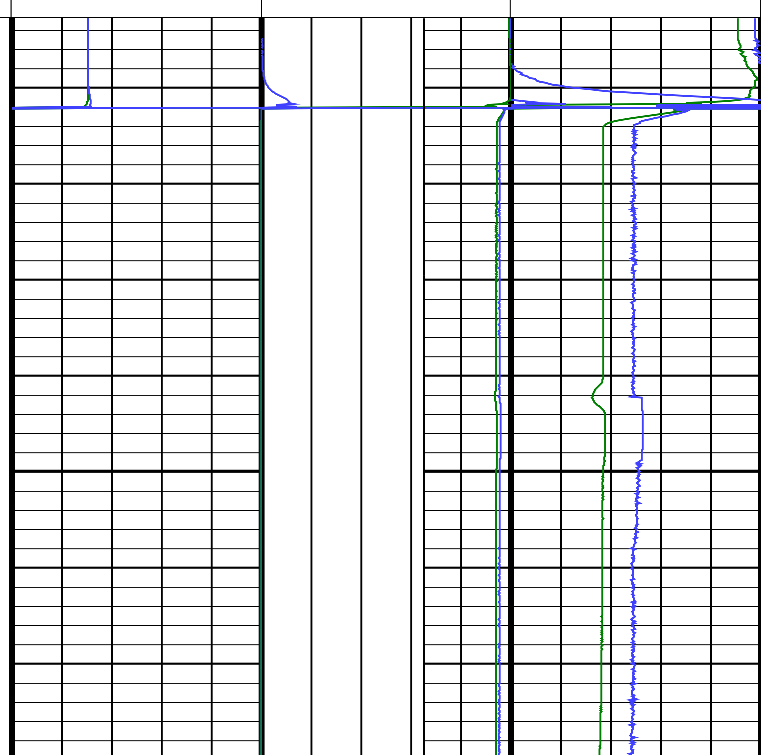
CQG Zoomed Pressure (QCP)
0 (PSIA) 1000

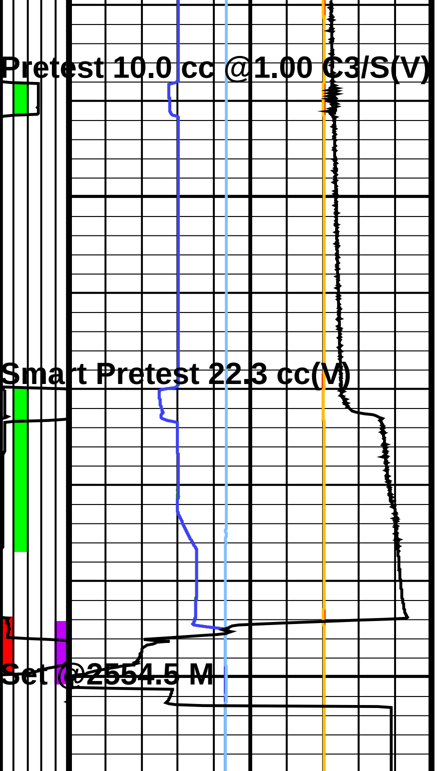
CQG Zoomed Pressure (QCP)
0 (PSIA) 100

CQG Zoomed Pressure (QCP)
0 (PSIA) 10

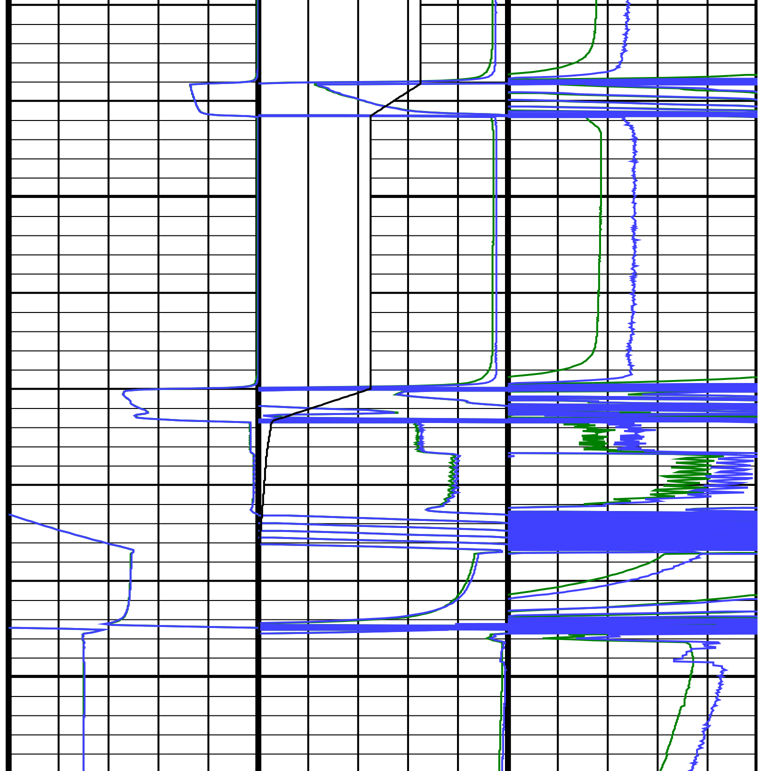


XPT Time Log (ETIM_XPT) (S)	CQG Pressure (QCP) (PSIA)	Sapphire Pressure (CP_SAP) (PSIA)
00:07:50	4299.05	4299.71
00:07:40	4299.33	4299.94
00:07:30	4299.60	4302.80
00:07:20	2994.30	2995.35
00:07:10	2993.66	2994.95
00:07:00	2993.66	2994.87
00:06:50	2993.65	2994.87
00:06:40	2993.65	2994.90
00:06:30	2993.65	2994.87
00:06:20	2993.65	2994.90
00:06:10	2993.64	2994.87
00:06:00	2993.64	2994.89
00:05:50	2993.57	2995.21
00:05:40	2993.74	2995.22
00:05:30	2993.64	2995.04
00:05:20	2993.63	2994.97
00:05:10	2993.62	2994.97
00:05:00	2993.62	2994.78
00:04:50	2993.60	2994.87
00:04:40	2993.60	2994.85
00:04:30	2993.58	2994.91
00:04:20	2993.57	2994.82
00:04:10	2993.54	2994.83
00:04:00	2993.51	2994.74





XPT Time Log (ETIM_XPT) (S)	CQG Pressure (QCP) (PSIA)	Sapphire Pressure (CP_SAP) (PSIA)
00:04:00	2993.51	2994.74
00:03:50	2993.42	2994.72
00:03:40	2991.68	2994.26
00:03:30	2742.72	2742.98
00:03:20	2993.68	2995.05
00:03:10	2993.69	2995.04
00:03:00	2993.67	2995.02
00:02:50	2993.68	2994.96
00:02:40	2993.64	2995.00
00:02:30	2993.60	2994.90
00:02:20	2993.55	2994.93
00:02:10	2993.23	2994.80
00:02:00	2514.36	2516.51
00:01:50	2829.47	2828.20
00:01:40	2970.31	2971.72
00:01:30	2976.21	2977.80
00:01:20	3034.52	3034.05
00:01:10	3482.44	3483.78
00:01:00	3483.21	3484.81
00:00:50	3466.94	3464.99
00:00:40	4297.25	4297.84
00:00:30	4297.27	4298.57
00:00:20	4296.88	4298.15
00:00:10	4296.49	4297.70
00:00:00	4296.04	4297.13



XPT Actions Image (AIMG) (----

CQG Temperature (MTEP_QG) 0 (DEGC) 150

XPT Time Log (ETIM_XPT) (S)

CQG Pressure (QCP) (PSIA)

Sapphire Pressure (CP_SAP) (PSIA)

CQG Zoomed Pressure (QCP) 0 (PSIA) 1000

CQG Zoomed Pressure (QCP) 0 (PSIA) 100

CQG Zoomed Pressure (QCP) 0 (PSIA) 10

XPT Motor Speed Curve (MSPE_XPT) (RPM) 0 5000

CQG Pressure (QCP) 0 (PSIA) 10000

Sapphire Zoomed Pressure (CP_SAP) 0 (PSIA) 1000

Sapphire Zoomed Pressure (CP_SAP) 0 (PSIA) 100

Sapphire Zoomed Pressure (CP_SAP) 0 (PSIA) 10

Sapphire Pressure (CP_SAP) 0 (PSIA) 10000

XPT Pretest Volume Curve (PTV_XPT) 0 (C3) 50

Sapphire Manometer Temperature (MTEP_SAP) 0 (DEGC) 150

PRETEST_VOLUME From XPT_7 to XPT_PTV_CURVE

Hydrostatic Pressure (CP_HYD) 0 (PSIA) 10000

XPT Oil Pressure Curve (HOILP) 0 (PSIA) 4000

XPT Actions Image

WHITE: No Action / COLORED: Action in progress
Left to right:

1. Set (Red)

2. Pretest (Green)
3. Retract (Blue)
4. Init Pretest (Orange)
5. ACom Calibration (Purple)

XPT Dynamic Compensation Status

Quartz Gauge Pressure compensated and corrected
Sapphire Gauge Pressure compensated and corrected
Hydrostatic Sapphire Gauge Pressure compensated and corrected

Parameters

DLIS Name	Description	Value	
	XPT−BA: Xpress Pressure Tool − BA		
BTA_HYD	Hydrostatic Gauge Board Temperature A Coefficient	1.00419	
BTA_SAP	Sapphire Board Temperature A Coefficient	1.0208	
BTB_HYD	Hydrostatic Gauge Board Temperature B Coefficient	0	
BTB_SAP	Sapphire Board Temperature B Coefficient	0	
BTCT_HYD	Hydrostatic Gauge Board Temperature Coefficients Read From Data Channels	YES	
BTCT_SAP	Sapphire Board Temperature Coefficients Read Fram Data Channels	YES	
DDPL_XPT	Pretest Drawdown Limit	2200	PSIA
DEVI_FL_CORR_XPT	Tool Deviation Angle	0	DEG
FLD_XPT	Flowline Density	1	G/C3
GDSV	Gauges Downhole Software Version	2.1	
GDYCO	Sapphire Dynamic Compensation Applied	YES	
PAC_SAP	Sapphire Gauge Pressure A Coefficient	0.999422	
PA_HYD	Hydrostatic Gauge Pressure A Coefficient	1.00828	
PBC_SAP	Sapphire Gauge Pressure B Coefficient	0	
PB_HYD	Hydrostatic Gauge Pressure B Coefficient	0	
PCT_HYD	Hydrostatic Gauge Pressure Coefficients Read From Data Channels	YES	
PCT_SAP	Sapphire Pressure Coefficients Read From Data Channels	YES	
PGSR	Pressure Gauges Sampling Rate	300	ms
PRSP	Pretest Rate	1	C3/S
PTM_XPT	Pretest Type	MANUAL	
PTVO_XPT	Pretest Volume	5	C3
QDYCO	CQG Dynamic Compensation Applied	YES	
TAC_SAP	Sapphire Gauge Temperature A Coefficient	1.0227	
TA_HYD	Hydrostatic Gauge Temperature A Coefficient	0.999145	
TBC_SAP	Sapphire Gauge Temperature B Coefficient	0	
TB_HYD	Hydrostatic Gauge Temperature B Coefficient	0	
TCT_HYD	Hydrostatic Gauge Temperature Coefficients Read >From Data Channels	YES	
TCT_SAP	Sapphire Temperature Coefficients Read From Data Channels	YES	

Output DLIS Files

DEFAULT	TLD_MCFL_CNL_XPT_094LTP	FN:151	PRODUCER	28−Jul−2006 06:58
RT	TLD_MCFL_CNL_XPT_094LTP	FN:152	PRODUCER	28−Jul−2006 07:00

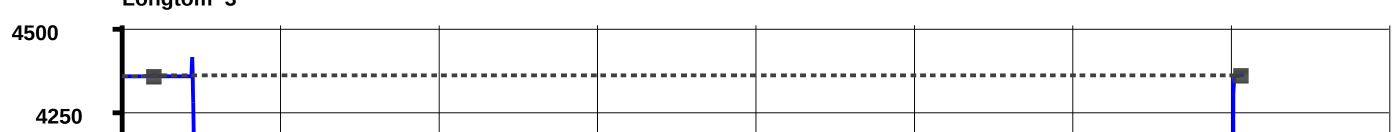
Schlumberger

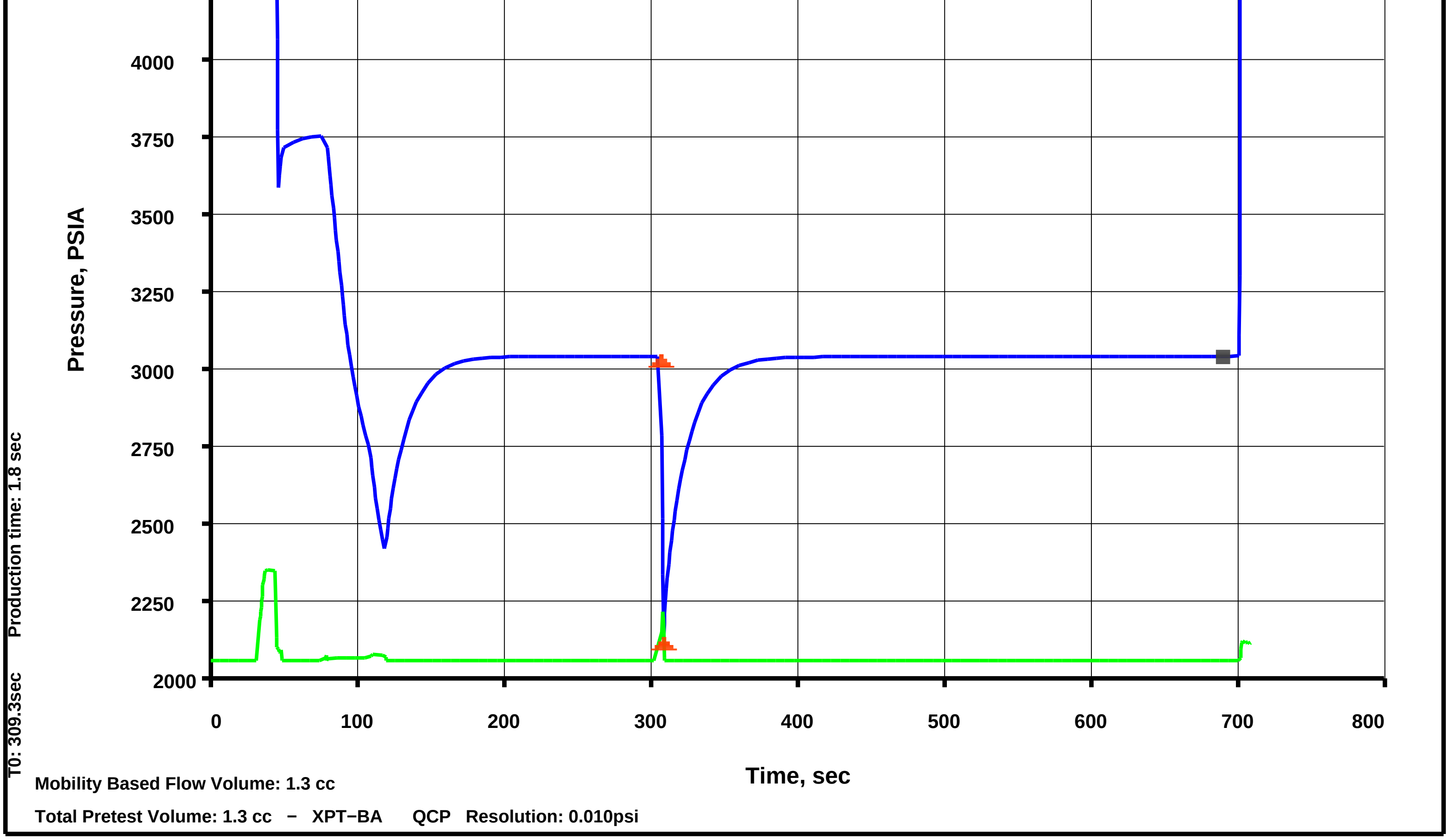
Station Depth (MD)
2597.0 m

MAXIS Field Log

File 93 | Depth, M: 2596.98 | Volumetric Limited draw−down − Conventional probe
27−Jul−2006 | Nexus Energy
Longtom
Longtom−3

Mud Pressure before test, PSIA:	4346.5
Mud Pressure after test, PSIA:	4348.8
Last build−up pressure, PSIA:	3036.17
Draw−down mobility, md/cp:	0.5





Output DLIS Files

DEFAULT	TLD_MCFL_CNL_XPT_093LTP	FN:149	PRODUCER	28−Jul−2006 06:41	2599.0 M	1.8 M
RT	TLD_MCFL_CNL_XPT_093LTP	FN:150	PRODUCER	28−Jul−2006 06:43	2599.0 M	1.8 M

Changed Parameter Summary

DLIS Name	New Value	Previous Value	Depth & Time
DDPL_XPT	2400 PSIA	2200 PSIA	2599.0 06:42:24
	2200 PSIA	2400 PSIA	2599.0 06:42:39
PTM_XPT	SMART	MANUAL	2599.0 06:42:19
	MANUAL	SMART	2599.0 06:46:24
PTVO_XPT	5 C3	10 C3	2599.0 06:46:32

XPT Oil Pressure Curve (HOILP)
0 (PSIA) 4000

Hydrostatic Pressure (CP_HYD)
0 (PSIA) 10000

Sapphire Manometer Temperature (MTEP_SAP)
0 (DEGC) 150

Sapphire Pressure (CP_SAP)
0 (PSIA) 10000

PRETEST_VOLUME From XPT_7 to XPT_PTV_CURVE

XPT Pretest Volume Curve (PTV_XPT)
0 (C3) 50

XPT Motor Speed Curve (MSP

CQG Pressure (QCP)
0 (PSIA) 10000

Sapphire Zoomed Pressure (CP_SAP)
0 (PSIA) 1000

Sapphire Zoomed Pressure (CP_SAP)
0 (PSIA) 100

Sapphire Zoomed Pressure (CP_SAP)
0 (PSIA) 10

E_ XPT) (RPM)
0 5000

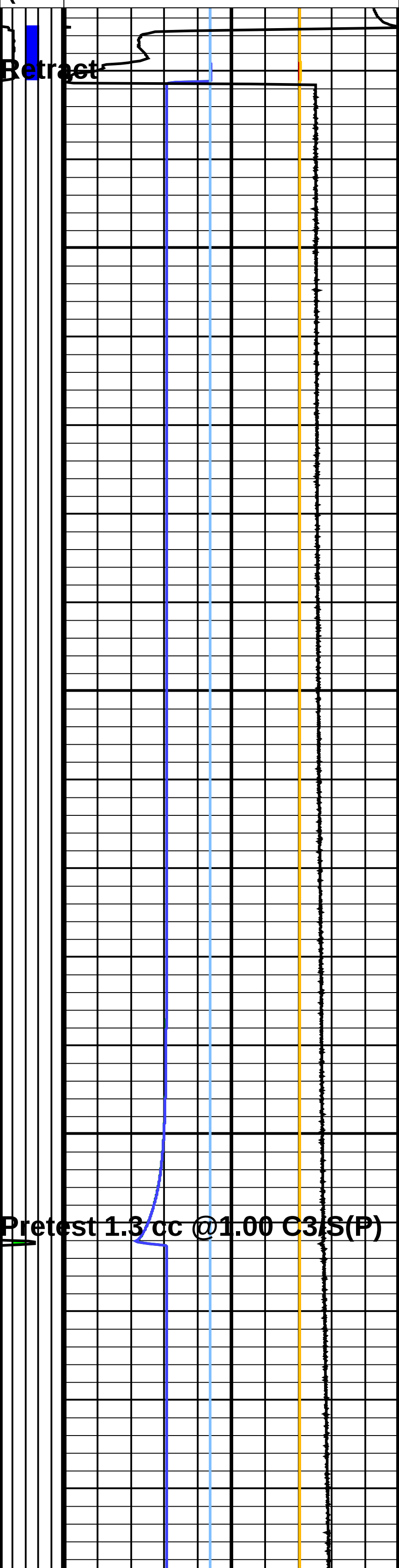
XPT Actions Image (AIMG) (----

CQG Temperature (MTEP_QG)
0 (DEGC) 150

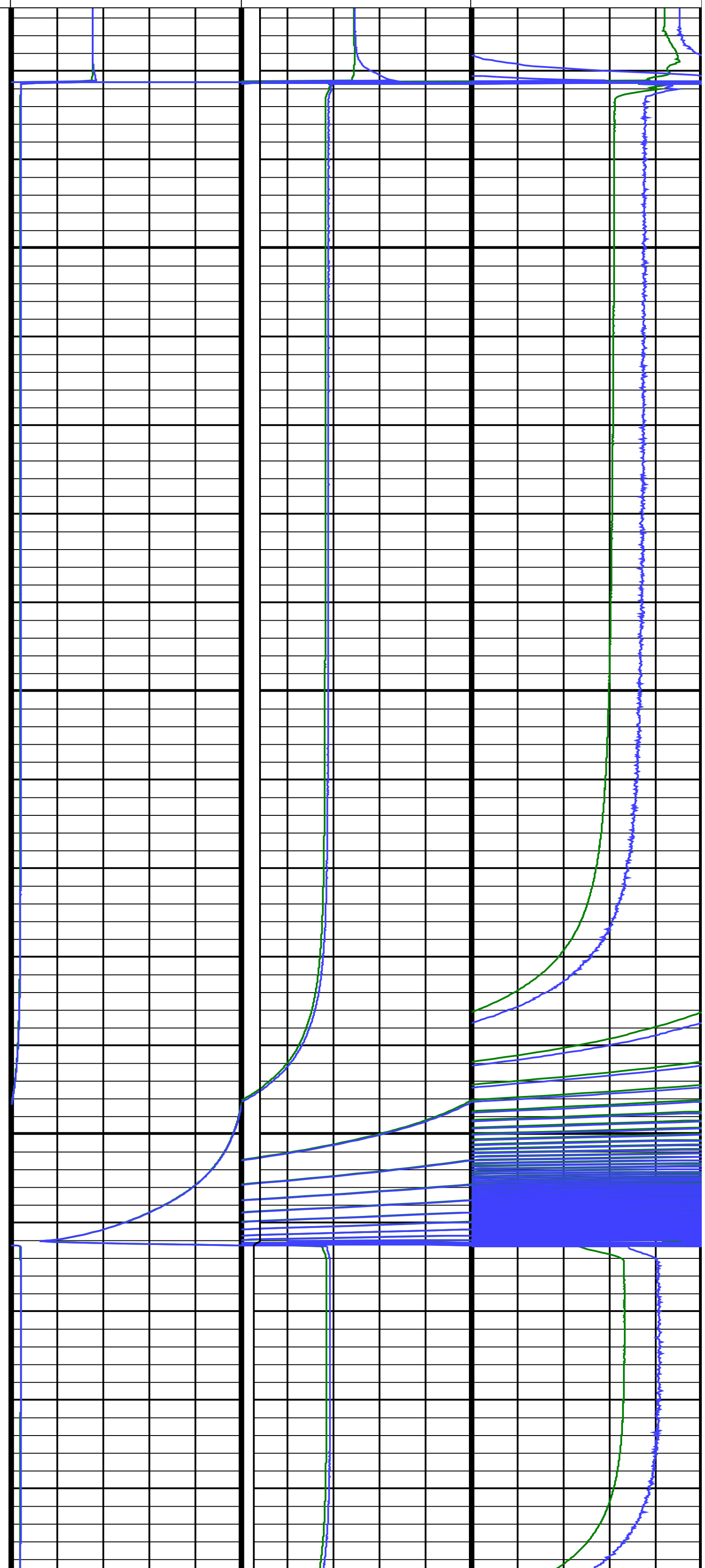
CQG Zoomed Pressure (QCP) 0 (PSIA) 1000

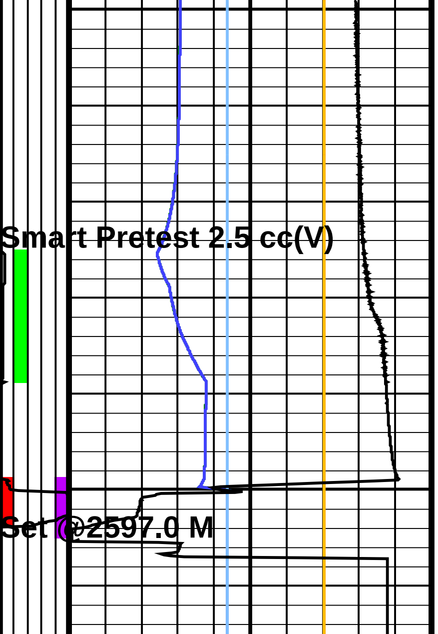
CQG Zoomed Pressure (QCP) 0 (PSIA) 100

CQG Zoomed Pressure (QCP) 0 (PSIA) 10

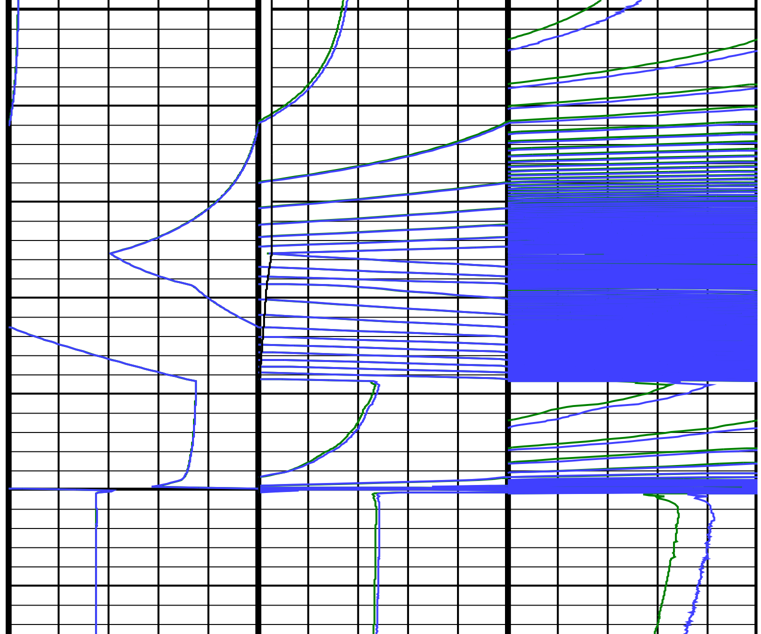


XPT Time Log (ETIM_XPT) (S)	CQG Pressure (QCP) (PSIA)	Sapphire Pressure (CP_SAP) (PSIA)
00:12:00	4348.30	4349.04
00:11:50	4348.94	4350.26
00:11:40	3037.74	3038.44
00:11:30	3036.17	3037.44
00:11:20	3036.16	3037.45
00:11:10	3036.16	3037.52
00:11:00	3036.16	3037.46
00:10:50	3036.15	3037.43
00:10:40	3036.15	3037.40
00:10:30	3036.14	3037.40
00:10:20	3036.13	3037.43
00:10:10	3036.13	3037.48
00:10:00	3036.12	3037.46
00:09:50	3036.10	3037.41
00:09:40	3036.10	3037.46
00:09:30	3036.08	3037.41
00:09:20	3036.08	3037.47
00:09:10	3036.06	3037.46
00:09:00	3036.04	3037.45
00:08:50	3036.02	3037.39
00:08:40	3035.99	3037.31
00:08:30	3035.97	3037.36
00:08:20	3035.95	3037.29
00:08:10	3035.91	3037.33
00:08:00	3035.86	3037.21
00:07:50	3035.81	3037.20
00:07:40	3035.73	3037.06
00:07:30	3035.63	3037.01
00:07:20	3035.48	3036.85
00:07:10	3035.23	3036.56
00:07:00	3034.83	3036.23
00:06:50	3034.18	3035.54
00:06:40	3033.04	3034.38
00:06:30	3030.93	3032.31
00:06:20	3027.11	3028.46
00:06:10	3020.10	3021.46
00:06:00	3006.14	3007.57
00:05:50	2979.24	2980.81
00:05:40	2927.30	2929.13
00:05:30	2825.28	2827.60
00:05:20	2623.84	2627.29
00:05:10	2232.16	2226.33
00:05:00	3036.59	3038.05
00:04:50	3036.60	3038.08
00:04:40	3036.60	3038.09
00:04:30	3036.59	3038.10
00:04:20	3036.58	3038.12
00:04:10	3036.53	3037.98
00:04:00	3036.44	3038.00
00:03:50	3036.26	3037.81
00:03:40	3035.93	3037.47
00:03:30	3035.27	3036.80
00:03:20	3033.99	3035.57





XPT Time Log (ETIM_XPT) (S)	CQG Pressure (QCP) (PSIA)	Sapphire Pressure (CP_SAP) (PSIA)
00:03:10	3031.52	3033.07
00:03:00	3026.86	3028.54
00:02:50	3017.20	3018.82
00:02:40	2998.26	3000.02
00:02:30	2960.97	2962.98
00:02:20	2883.39	2885.69
00:02:10	2736.70	2739.83
00:02:00	2442.93	2444.72
00:01:50	2695.56	2696.32
00:01:40	2902.97	2903.49
00:01:30	3230.07	3229.69
00:01:20	3693.76	3694.55
00:01:10	3741.59	3743.20
00:01:00	3732.56	3734.33
00:00:50	3706.18	3705.46
00:00:40	4346.75	4348.07
00:00:30	4346.70	4348.04
00:00:20	4346.41	4347.70
00:00:10	4346.14	4347.37
00:00:00	4345.83	4347.01



XPT Actions Image (AIMG) (----

CQG Temperature (MTEP_QG) 0 (DEGC) 150

CQG Zoomed Pressure (QCP) 0 (PSIA) 1000

CQG Zoomed Pressure (QCP) 0 (PSIA) 100

CQG Zoomed Pressure (QCP) 0 (PSIA) 10

XPT Motor Speed Curve (MSPE_XPT) (RPM) 0 5000

CQG Pressure (QCP) 0 (PSIA) 10000

Sapphire Zoomed Pressure (CP_SAP) 0 (PSIA) 1000

Sapphire Zoomed Pressure (CP_SAP) 0 (PSIA) 100

Sapphire Zoomed Pressure (CP_SAP) 0 (PSIA) 10

Sapphire Pressure (CP_SAP) 0 (PSIA) 10000

XPT Pretest Volume Curve (PTV_XPT) 0 (C3) 50

Sapphire Manometer Temperature (MTEP_SAP) 0 (DEGC) 150

PRETEST_VOLUME From XPT_7 to XPT_PTV_CURVE

Hydrostatic Pressure (CP_HYD) 0 (PSIA) 10000

XPT Oil Pressure Curve (HOILP) 0 (PSIA) 4000

XPT Actions Image

WHITE: No Action / COLORED: Action in progress
Left to right:

1. Set (Red)
2. Pretest (Green)
3. Retract (Blue)
4. Init Pretest (Orange)
5. ACom Calibration (Purple)

XPT Dynamic Compensation Status

Quartz Gauge Pressure compensated and corrected
Sapphire Gauge Pressure compensated and corrected
Hydrostatic Sapphire Gauge Pressure compensated and corrected

Parameters

DLIS Name	Description	Value	
XPT−BA: Xpress Pressure Tool − BA			
BTA_HYD	Hydrostatic Gauge Board Temperature A Coefficient	1.0042	
BTA_SAP	Sapphire Board Temperature A Coefficient	1.0208	
BTB_HYD	Hydrostatic Gauge Board Temperature B Coefficient	0	
BTB_SAP	Sapphire Board Temperature B Coefficient	0	
BTCT_HYD	Hydrostatic Gauge Board Temperature Coefficients Read From Data Channels	YES	
BTCT_SAP	Sapphire Board Temperature Coefficients Read Fram Data Channels	YES	
DDPL_XPT	Pretest Drawdown Limit	2200	PSIA
DEVI_FL_CORR_XPT	Tool Deviation Angle	0	DEG
FLD_XPT	Flowline Density	1	G/C3
GDSV	Gauges Downhole Software Version	2.1	
GDYCO	Sapphire Dynamic Compensation Applied	YES	
PAC_SAP	Sapphire Gauge Pressure A Coefficient	0.999419	
PA_HYD	Hydrostatic Gauge Pressure A Coefficient	1.00829	
PBC_SAP	Sapphire Gauge Pressure B Coefficient	0	
PB_HYD	Hydrostatic Gauge Pressure B Coefficient	0	
PCT_HYD	Hydrostatic Gauge Pressure Coefficients Read From Data Channels	YES	
PCT_SAP	Sapphire Pressure Coefficients Read From Data Channels	YES	
PGSR	Pressure Gauges Sampling Rate	300	ms
PRSP	Pretest Rate	1	C3/S
PTM_XPT	Pretest Type	MANUAL	
PTVO_XPT	Pretest Volume	10	C3
QDYCO	CQG Dynamic Compensation Applied	YES	
TAC_SAP	Sapphire Gauge Temperature A Coefficient	1.0227	
TA_HYD	Hydrostatic Gauge Temperature A Coefficient	0.99915	
TBC_SAP	Sapphire Gauge Temperature B Coefficient	0	
TB_HYD	Hydrostatic Gauge Temperature B Coefficient	0	
TCT_HYD	Hydrostatic Gauge Temperature Coefficients Read >From Data Channels	YES	
TCT_SAP	Sapphire Temperature Coefficients Read From Data Channels	YES	

Output DLIS Files

DEFAULT	TLD_MCFL_CNL_XPT_093LTP	FN:149	PRODUCER	28−Jul−2006 06:41
RT	TLD_MCFL_CNL_XPT_093LTP	FN:150	PRODUCER	28−Jul−2006 06:43

Schlumberger

Station Depth (MD)
2603.0 m

MAXIS Field Log

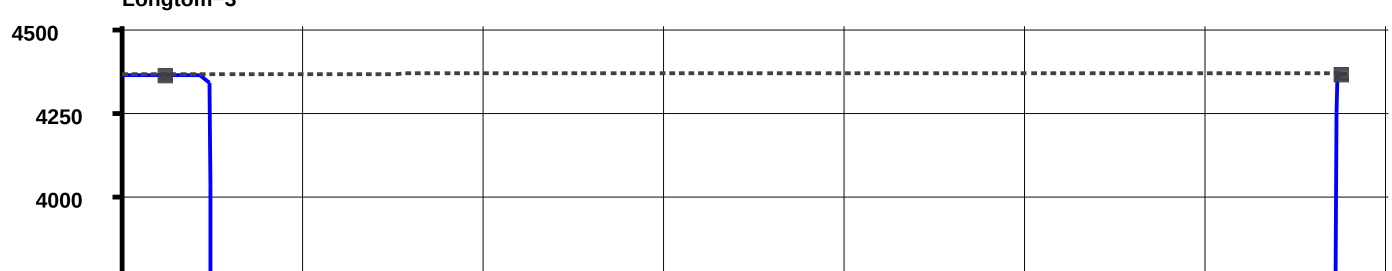
File 92 | Depth, M: 2602.98 | Volumetric Limited draw−down − Conventional probe

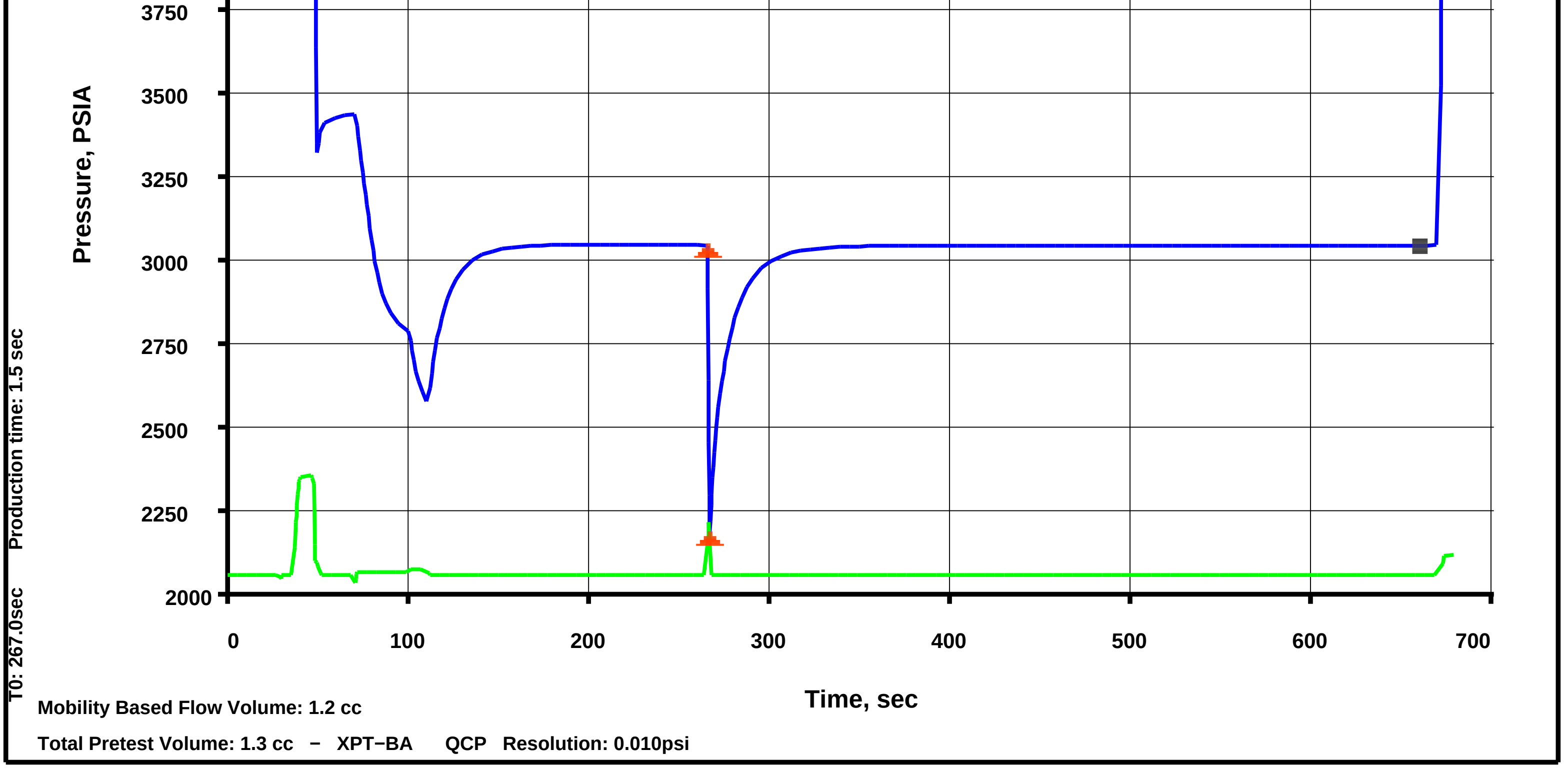
27−Jul−2006 | Nexus Energy

Longtom

Longtom−3

Mud Pressure before test, PSIA:	4353.9
Mud Pressure after test, PSIA:	4356.49
Last build−up pressure, PSIA:	3039.62
Draw−down mobility, md/cp:	0.7





Output DLIS Files

DEFAULT	TLD_MCFL_CNL_XPT_092LTP	FN:147	PRODUCER	28–Jul–2006 06:23	2605.0 M	1.8 M
RT	TLD_MCFL_CNL_XPT_092LTP	FN:148	PRODUCER	28–Jul–2006 06:24	2605.0 M	1.8 M

Changed Parameter Summary

DLIS Name	New Value	Previous Value	Depth & Time
PTM_XPT	SMART MANUAL	MANUAL SMART	2605.0 06:24:06 2605.0 06:27:22

XPT Oil Pressure Curve (HOILP)
0 (PSIA) 4000

Hydrostatic Pressure (CP_HYD)
0 (PSIA) 10000

Sapphire Manometer Temperature (MTEP_SAP)
0 (DEGC) 150

Sapphire Pressure (CP_SAP)
0 (PSIA) 10000

PRETEST_VOLUME From XPT_7 to XPT_PTV_CURVE

XPT Pretest Volume Curve (PTV_XPT)
0 (C3) 50

XPT Motor Speed Curve (MSPE_XPT) (RPM)
0 5000

CQG Pressure (QCP)
0 (PSIA) 10000

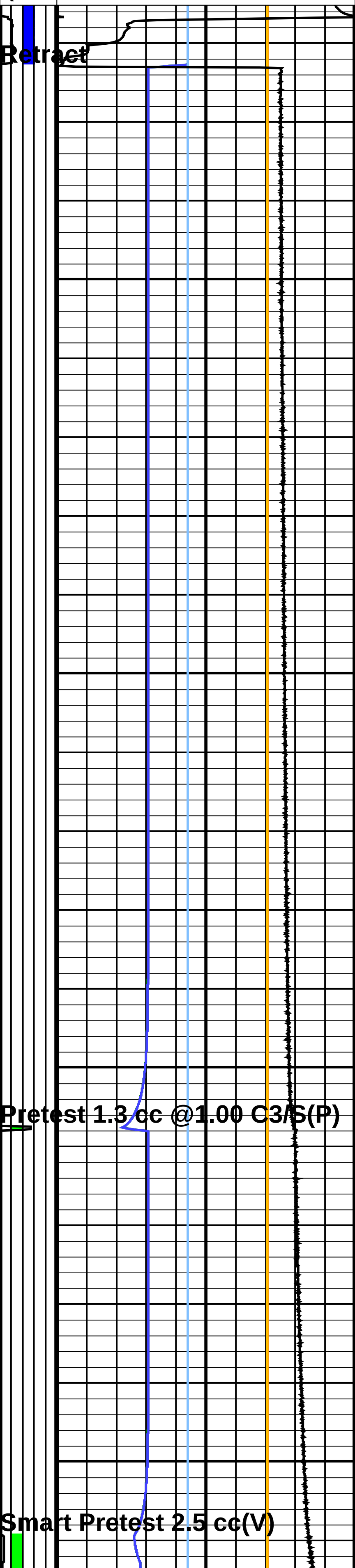
Sapphire Zoomed Pressure (CP_SAP)
0 (PSIA) 1000

Sapphire Zoomed Pressure (CP_SAP)
0 (PSIA) 100

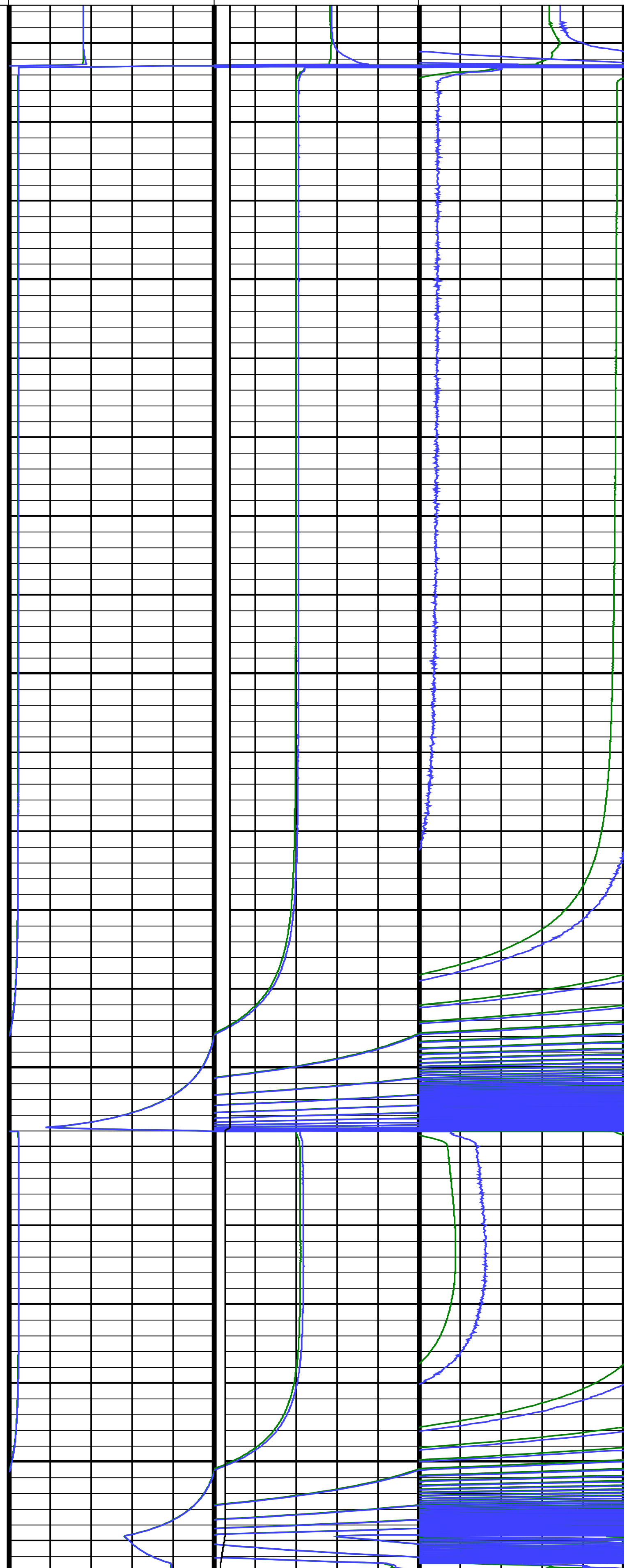
Sapphire Zoomed Pressure (CP_SAP)
0 (PSIA) 10

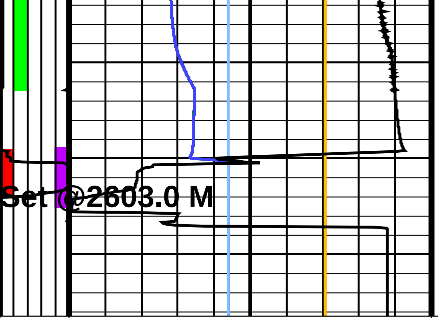
XPT

Actions Image (AIMG) (----	CQG Temperature (MTEP_QG) 0 (DEGC) 150	XPT Time Log (ETIM_XPT) (S)	CQG Pressure (QCP) (PSIA)	Sapphire Pressure (CP_SAP) (PSIA)	CQG Zoomed Pressure (QCP) 0 (PSIA) 1000	CQG Zoomed Pressure (QCP) 0 (PSIA) 100	CQG Zoomed Pressure (QCP) 0 (PSIA) 10

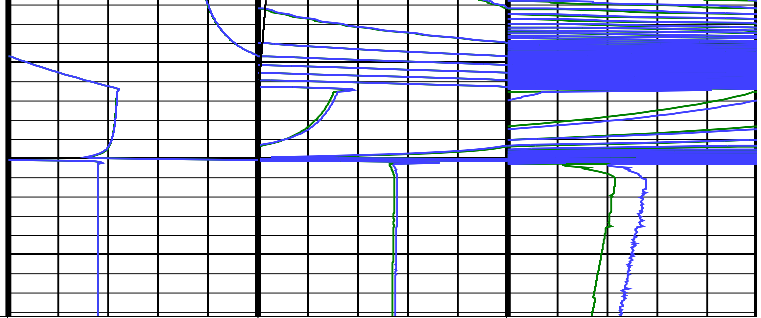


XPT Time Log (ETIM_XPT) (S)	CQG Pressure (QCP) (PSIA)	Sapphire Pressure (CP_SAP) (PSIA)
00:11:30	4356.29	4356.83
00:11:20	4356.85	4358.00
00:11:10	3043.58	3043.99
00:11:00	3039.62	3040.90
00:10:50	3039.61	3040.83
00:10:40	3039.61	3040.80
00:10:30	3039.61	3040.90
00:10:20	3039.60	3040.85
00:10:10	3039.59	3040.80
00:10:00	3039.58	3040.87
00:09:50	3039.58	3040.87
00:09:40	3039.57	3040.80
00:09:30	3039.57	3040.90
00:09:20	3039.57	3040.84
00:09:10	3039.55	3040.83
00:09:00	3039.55	3040.87
00:08:50	3039.54	3040.78
00:08:40	3039.53	3040.71
00:08:30	3039.52	3040.71
00:08:20	3039.51	3040.75
00:08:10	3039.50	3040.74
00:08:00	3039.48	3040.81
00:07:50	3039.47	3040.78
00:07:40	3039.45	3040.78
00:07:30	3039.42	3040.77
00:07:20	3039.40	3040.65
00:07:10	3039.37	3040.65
00:07:00	3039.32	3040.68
00:06:50	3039.27	3040.64
00:06:40	3039.18	3040.59
00:06:30	3039.06	3040.39
00:06:20	3038.88	3040.20
00:06:10	3038.55	3039.91
00:06:00	3038.03	3039.35
00:05:50	3037.13	3038.45
00:05:40	3035.44	3036.76
00:05:30	3032.38	3033.64
00:05:20	3026.61	3027.87
00:05:10	3015.31	3016.74
00:05:00	2990.58	2992.13
00:04:50	2937.93	2939.68
00:04:40	2813.30	2816.26
00:04:30	2459.14	2458.96
00:04:20	3041.34	3042.71
00:04:10	3041.46	3042.83
00:04:00	3041.60	3043.09
00:03:50	3041.70	3043.13
00:03:40	3041.74	3043.18
00:03:30	3041.70	3043.10
00:03:20	3041.52	3043.06
00:03:10	3041.14	3042.62
00:03:00	3040.34	3041.91
00:02:50	3038.66	3040.20
00:02:40	3035.04	3036.54
00:02:30	3026.98	3028.52
00:02:20	3008.99	3010.65
00:02:10	2965.58	2967.60
00:02:00	2847.35	2850.22
00:01:50	2576.13	2577.14
00:01:40	2786.34	2788.13





XPT Time Log (ETIM_XPT) (S)	CQG Pressure (QCP) (PSIA)	Sapphire Pressure (CP_SAP) (PSIA)
00:01:30	2847.06	2848.08
00:01:20	3056.04	3055.80
00:01:10	3429.70	3431.26
00:01:00	3420.82	3422.39
00:00:50	3315.51	3305.13
00:00:40	4354.24	4355.49
00:00:30	4354.05	4355.37
00:00:20	4353.73	4354.91
00:00:10	4353.49	4354.68
00:00:00	4353.33	4354.47



XPT Actions Image (AIMG) (----

XPT Motor Speed Curve (MSPE_XPT) (RPM) 0 5000

CQG Temperature (MTEP_QG) 0 (DEGC) 150

CQG Pressure (QCP) 0 (PSIA) 10000

Sapphire Pressure (CP_SAP) 0 (PSIA) 10000

Sapphire Manometer Temperature (MTEP_SAP) 0 (DEGC) 150

Hydrostatic Pressure (CP_HYD) 0 (PSIA) 10000

XPT Oil Pressure Curve (HOILP) 0 (PSIA) 4000

XPT Time Log (ETIM_XPT) (S)

CQG Pressure (QCP) (PSIA)

Sapphire Pressure (CP_SAP) (PSIA)

CQG Zoomed Pressure (QCP) 0 (PSIA) 1000

Sapphire Zoomed Pressure (CP_SAP) 0 (PSIA) 1000

CQG Zoomed Pressure (QCP) 0 (PSIA) 100

Sapphire Zoomed Pressure (CP_SAP) 0 (PSIA) 100

XPT Pretest Volume Curve (PTV_XPT) 0 (C3) 50

PRETEST_VOLUME From XPT_7 to XPT_PTV_CURVE

CQG Zoomed Pressure (QCP) 0 (PSIA) 10

Sapphire Zoomed Pressure (CP_SAP) 0 (PSIA) 10

XPT Actions Image

WHITE: No Action / COLORED: Action in progress
Left to right:

1. Set (Red)
2. Pretest (Green)
3. Retract (Blue)
4. Init Pretest (Orange)
5. ACom Calibration (Purple)

XPT Dynamic Compensation Status

Quartz Gauge Pressure compensated and corrected
Sapphire Gauge Pressure compensated and corrected
Hydrostatic Sapphire Gauge Pressure compensated and corrected

Parameters

DLIS Name	Description	Value

XPT–BA: Xpress Pressure Tool – BA

BTA_HYD	Hydrostatic Gauge Board Temperature A Coefficient	1.0042	
BTA_SAP	Sapphire Board Temperature A Coefficient	1.0208	
BTB_HYD	Hydrostatic Gauge Board Temperature B Coefficient	0	
BTB_SAP	Sapphire Board Temperature B Coefficient	0	
BTCT_HYD	Hydrostatic Gauge Board Temperature Coefficients Read From Data Channels	YES	
BTCT_SAP	Sapphire Board Temperature Coefficients Read Fram Data Channels	YES	
DDPL_XPT	Pretest Drawdown Limit	2200	PSIA
DEVI_FL_CORR_XPT	Tool Deviation Angle	0	DEG
FLD_XPT	Flowline Density	1	G/C3
GDSV	Gauges Downhole Software Version	2.1	
GDYCO	Sapphire Dynamic Compensation Applied	YES	
PAC_SAP	Sapphire Gauge Pressure A Coefficient	0.99942	
PA_HYD	Hydrostatic Gauge Pressure A Coefficient	1.00829	
PBC_SAP	Sapphire Gauge Pressure B Coefficient	0	
PB_HYD	Hydrostatic Gauge Pressure B Coefficient	0	
PCT_HYD	Hydrostatic Gauge Pressure Coefficients Read From Data Channels	YES	
PCT_SAP	Sapphire Pressure Coefficients Read From Data Channels	YES	
PGSR	Pressure Gauges Sampling Rate	300	ms
PRSP	Pretest Rate	1	C3/S
PTM_XPT	Pretest Type	MANUAL	
PTVO_XPT	Pretest Volume	10	C3
QDYCO	CQG Dynamic Compensation Applied	YES	
TAC_SAP	Sapphire Gauge Temperature A Coefficient	1.0227	
TA_HYD	Hydrostatic Gauge Temperature A Coefficient	0.999151	
TBC_SAP	Sapphire Gauge Temperature B Coefficient	0	
TB_HYD	Hydrostatic Gauge Temperature B Coefficient	0	
TCT_HYD	Hydrostatic Gauge Temperature Coefficients Read >From Data Channels	YES	
TCT_SAP	Sapphire Temperature Coefficients Read From Data Channels	YES	

Output DLIS Files

DEFAULT	TLD_MCFL_CNL_XPT_092LTP	FN:147	PRODUCER	28–Jul–2006 06:23
RT	TLD_MCFL_CNL_XPT_092LTP	FN:148	PRODUCER	28–Jul–2006 06:24

Schlumberger

Station Depth (MD) 2615.0 m

MAXIS Field Log

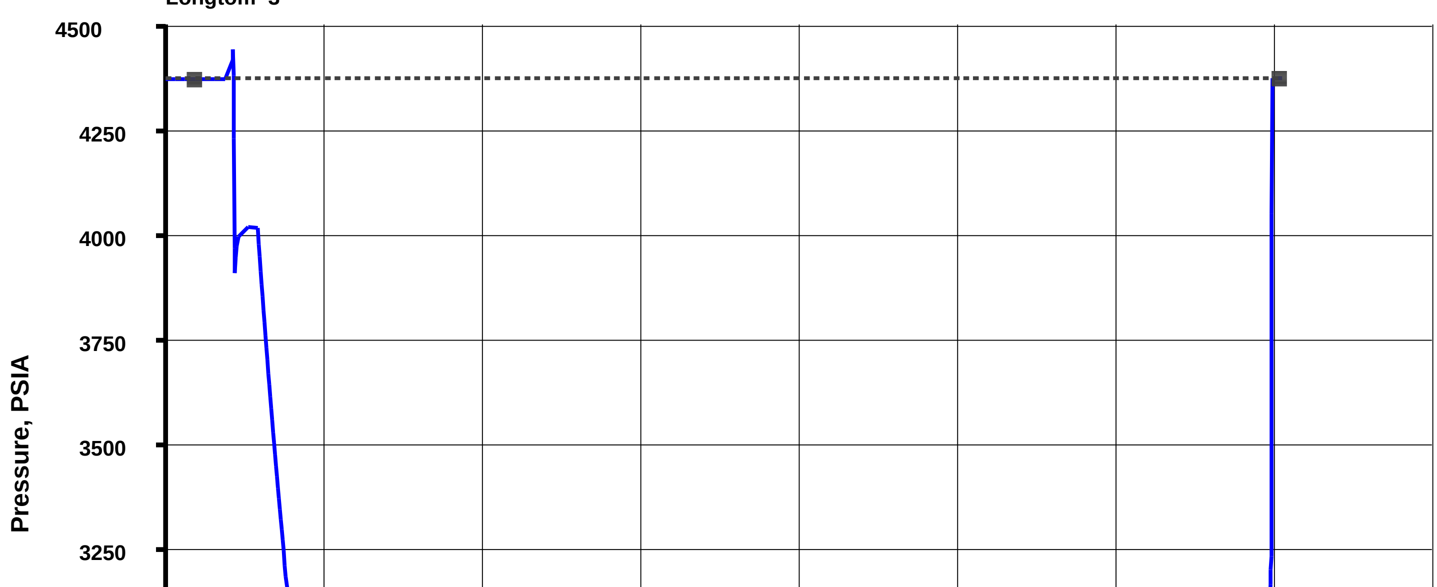
File 91 Depth, M: 2614.96 Volumetric Limited draw–down – Conventional probe

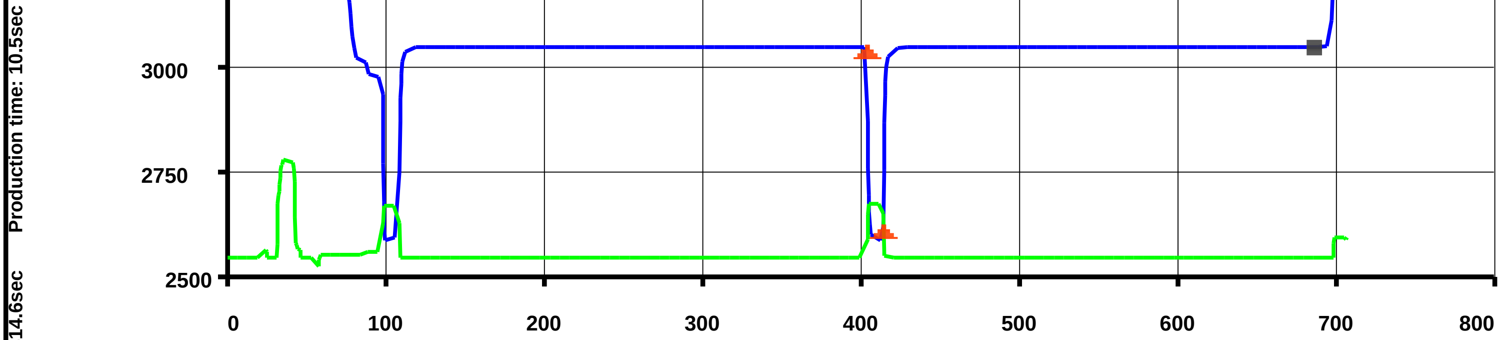
27–Jul–2006 Nexus Energy

Longtom

Longtom–3

Mud Pressure before test, PSIA: 4368.24
Mud Pressure after test, PSIA: 4370.58
Last build–up pressure, PSIA: 3048.36
Draw–down mobility, md/cp: 11.7





Mobility Based Flow Volume: 10.0cc

Total Pretest Volume: 10.0cc − XPT−BA QCP Resolution: 0.010psi

Output DLIS Files

DEFAULT	TLD_MCFL_CNL_XPT_091LTP	FN:145	PRODUCER	28−Jul−2006 06:07	2617.0 M	1.8 M
RT	TLD_MCFL_CNL_XPT_091LTP	FN:146	PRODUCER	28−Jul−2006 06:09	2617.0 M	1.8 M

Changed Parameter Summary

DLIS Name	New Value	Previous Value	Depth & Time
PTM_XPT	MANUAL	SMART	2617.0 06:14:02

XPT Oil Pressure Curve (HOILP) 0 (PSIA) 4000

Hydrostatic Pressure (CP_HYD) 0 (PSIA) 10000

Sapphire Manometer Temperature (MTEP_SAP) 0 (DEGC) 150

Sapphire Pressure (CP_SAP) 0 (PSIA) 10000

PRETEST_VOLUME From XPT_7 to XPT_PTV_CURVE

XPT Pretest Volume Curve (PTV_XPT) 0 (C3) 50

XPT Motor Speed Curve (MSPE_XPT) (RPM) 0 5000

CQG Pressure (QCP) 0 (PSIA) 10000

Sapphire Zoomed Pressure (CP_SAP) 0 (PSIA) 1000

Sapphire Zoomed Pressure (CP_SAP) 0 (PSIA) 100

Sapphire Zoomed Pressure (CP_SAP) 0 (PSIA) 10

XPT Actions Image (AIMG) (−−−−

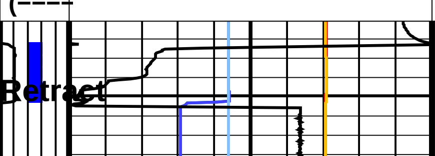
CQG Temperature (MTEP_QG) 0 (DEGC) 150

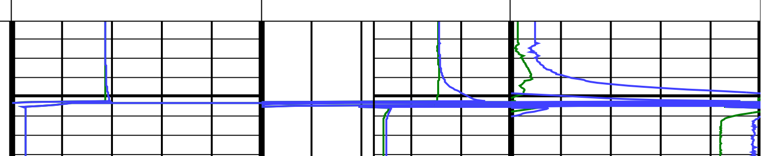
CQG Zoomed Pressure (QCP) 0 (PSIA) 1000

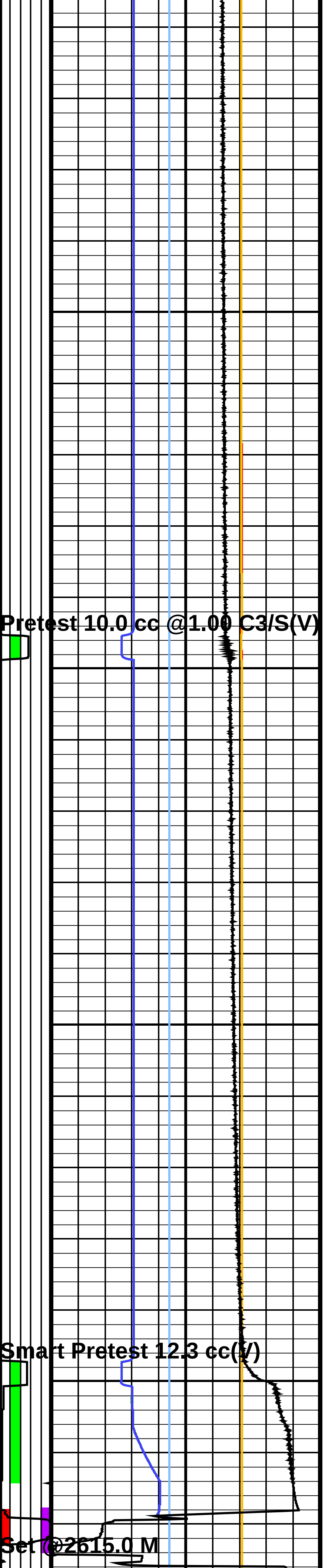
CQG Zoomed Pressure (QCP) 0 (PSIA) 100

CQG Zoomed Pressure (QCP) 0 (PSIA) 10

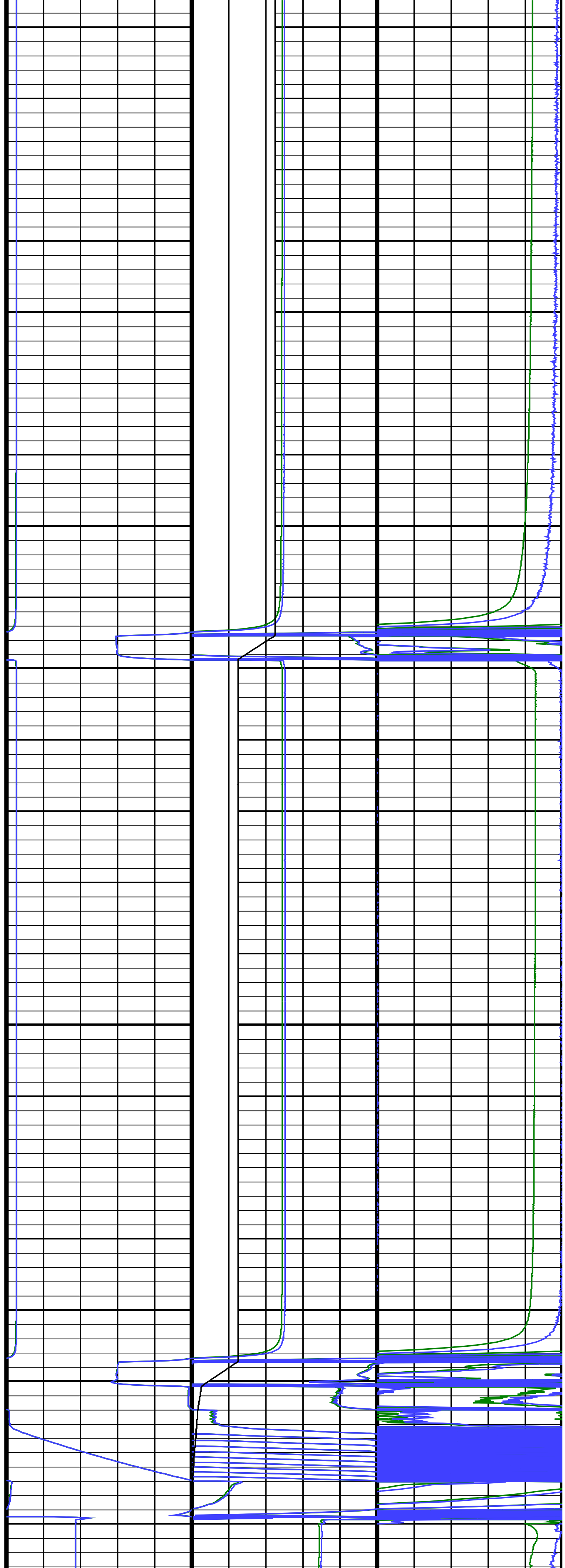
XPT Time Log (ETIM_XPT) (S)	CQG Pressure (QCP) (PSIA)	Sapphire Pressure (CP_SAP) (PSIA)
00:12:00	4370.24	4370.91
00:11:50	4370.59	4371.26
00:11:40	4369.86	4384.74
00:11:30	3048.37	3049.69
00:11:20	3048.36	3049.63







00:11:20	3048.36	3049.65
00:11:10	3048.35	3049.64
00:11:00	3048.35	3049.69
00:10:50	3048.35	3049.68
00:10:40	3048.34	3049.69
00:10:30	3048.33	3049.68
00:10:20	3048.32	3049.62
00:10:10	3048.32	3049.62
00:10:00	3048.31	3049.65
00:09:50	3048.30	3049.57
00:09:40	3048.29	3049.63
00:09:30	3048.28	3049.62
00:09:20	3048.26	3049.59
00:09:10	3048.25	3049.53
00:09:00	3048.24	3049.54
00:08:50	3048.23	3049.43
00:08:40	3048.20	3049.56
00:08:30	3048.17	3049.59
00:08:20	3048.14	3049.45
00:08:10	3048.10	3049.41
00:08:00	3048.06	3049.44
00:07:50	3048.01	3049.42
00:07:40	3047.93	3049.26
00:07:30	3047.81	3049.14
00:07:20	3047.63	3049.03
00:07:10	3047.21	3048.46
00:07:00	3041.73	3044.87
00:06:50	2592.13	2592.21
00:06:40	3048.43	3049.87
00:06:30	3048.52	3049.95
00:06:20	3048.52	3049.91
00:06:10	3048.52	3049.82
00:06:00	3048.51	3049.90
00:05:50	3048.51	3049.88
00:05:40	3048.51	3049.95
00:05:30	3048.50	3049.92
00:05:20	3048.50	3049.79
00:05:10	3048.50	3049.92
00:05:00	3048.49	3050.00
00:04:50	3048.48	3049.91
00:04:40	3048.49	3049.93
00:04:30	3048.48	3049.92
00:04:20	3048.47	3049.94
00:04:10	3048.47	3049.99
00:04:00	3048.46	3049.94
00:03:50	3048.45	3049.91
00:03:40	3048.45	3049.97
00:03:30	3048.44	3049.98
00:03:20	3048.43	3050.01
00:03:10	3048.43	3049.94
00:03:00	3048.42	3049.96
00:02:50	3048.40	3049.96
00:02:40	3048.38	3050.00
00:02:30	3048.35	3049.97
00:02:20	3048.29	3049.92
00:02:10	3048.18	3049.85
00:02:00	3047.54	3049.30
00:01:50	2961.35	2968.04
00:01:40	2571.79	2569.00
00:01:30	2978.65	2979.99
00:01:20	3056.31	3056.24
00:01:10	3448.31	3447.76
00:01:00	3931.42	3931.80
00:00:50	4013.15	4014.22
00:00:40	4368.17	4369.63
00:00:30	4368.37	4369.59
00:00:20	4368.26	4369.47



00:00:20	4368.26	4369.47
00:00:10	4368.38	4369.52
00:00:00	4368.23	4369.36

XPT Actions Image (AIMG) (-----

CQG Temperature (MTEP_QG) 0 (DEGC) 150

XPT Time Log (ETIM_XPT) (S)

CQG Pressure (QCP) (PSIA)

Sapphire Pressure (CP_SAP) (PSIA)

CQG Zoomed Pressure (QCP) 0 (PSIA) 1000

CQG Zoomed Pressure (QCP) 0 (PSIA) 100

CQG Zoomed Pressure (QCP) 0 (PSIA) 10

XPT Motor Speed Curve (MSPE_XPT) (RPM) 0 5000

CQG Pressure (QCP) 0 (PSIA) 10000

Sapphire Zoomed Pressure (CP_SAP) 0 (PSIA) 1000

Sapphire Zoomed Pressure (CP_SAP) 0 (PSIA) 100

Sapphire Zoomed Pressure (CP_SAP) 0 (PSIA) 10

Sapphire Pressure (CP_SAP) 0 (PSIA) 10000

XPT Pretest Volume Curve (PTV_XPT) 0 (C3) 50

Sapphire Manometer Temperature (MTEP_SAP) 0 (DEGC) 150

PRETEST_VOLUME From XPT_7 to XPT_PTV_CURVE

Hydrostatic Pressure (CP_HYD) 0 (PSIA) 10000

XPT Oil Pressure Curve (HOILP) 0 (PSIA) 4000

XPT Actions Image

WHITE: No Action / COLORED: Action in progress
Left to right:

1. Set (Red)
2. Pretest (Green)
3. Retract (Blue)
4. Init Pretest (Orange)
5. ACom Calibration (Purple)

XPT Dynamic Compensation Status

Quartz Gauge Pressure compensated and corrected
Sapphire Gauge Pressure compensated and corrected
Hydrostatic Sapphire Gauge Pressure compensated and corrected

Parameters

DLIS Name	Description	Value	
	XPT−BA: Xpress Pressure Tool − BA		
BTA_HYD	Hydrostatic Gauge Board Temperature A Coefficient	1.0042	
BTA_SAP	Sapphire Board Temperature A Coefficient	1.02081	
BTB_HYD	Hydrostatic Gauge Board Temperature B Coefficient	0	
BTB_SAP	Sapphire Board Temperature B Coefficient	0	
BTCT_HYD	Hydrostatic Gauge Board Temperature Coefficients Read From Data Channels	YES	
BTCT_SAP	Sapphire Board Temperature Coefficients Read Fram Data Channels	YES	
DDPL_XPT	Pretest Drawdown Limit	2200	PSIA

DEVI_FL_CORR_XPT	Tool Deviation Angle	0	DEG
FLD_XPT	Flowline Density	1	G/C3
GDSV	Gauges Downhole Software Version	2.1	
GDYCO	Sapphire Dynamic Compensation Applied	YES	
PAC_SAP	Sapphire Gauge Pressure A Coefficient	0.99942	
PA_HYD	Hydrostatic Gauge Pressure A Coefficient	1.00829	
PBC_SAP	Sapphire Gauge Pressure B Coefficient	0	
PB_HYD	Hydrostatic Gauge Pressure B Coefficient	0	
PCT_HYD	Hydrostatic Gauge Pressure Coefficients Read From Data Channels	YES	
PCT_SAP	Sapphire Pressure Coefficients Read From Data Channels	YES	
PGSR	Pressure Gauges Sampling Rate	300	ms
PRSP	Pretest Rate	1	C3/S
PTM_XPT	Pretest Type	SMART	
PTVO_XPT	Pretest Volume	10	C3
QDYCO	CQG Dynamic Compensation Applied	YES	
TAC_SAP	Sapphire Gauge Temperature A Coefficient	1.0227	
TA_HYD	Hydrostatic Gauge Temperature A Coefficient	0.999149	
TBC_SAP	Sapphire Gauge Temperature B Coefficient	0	
TB_HYD	Hydrostatic Gauge Temperature B Coefficient	0	
TCT_HYD	Hydrostatic Gauge Temperature Coefficients Read >From Data Channels	YES	
TCT_SAP	Sapphire Temperature Coefficients Read From Data Channels	YES	

Output DLIS Files

DEFAULT	TLD_MCFL_CNL_XPT_091LTP	FN:145	PRODUCER	28−Jul−2006 06:07
RT	TLD_MCFL_CNL_XPT_091LTP	FN:146	PRODUCER	28−Jul−2006 06:09

Schlumberger

Station Depth (MD)
2620.0 m

MAXIS Field Log

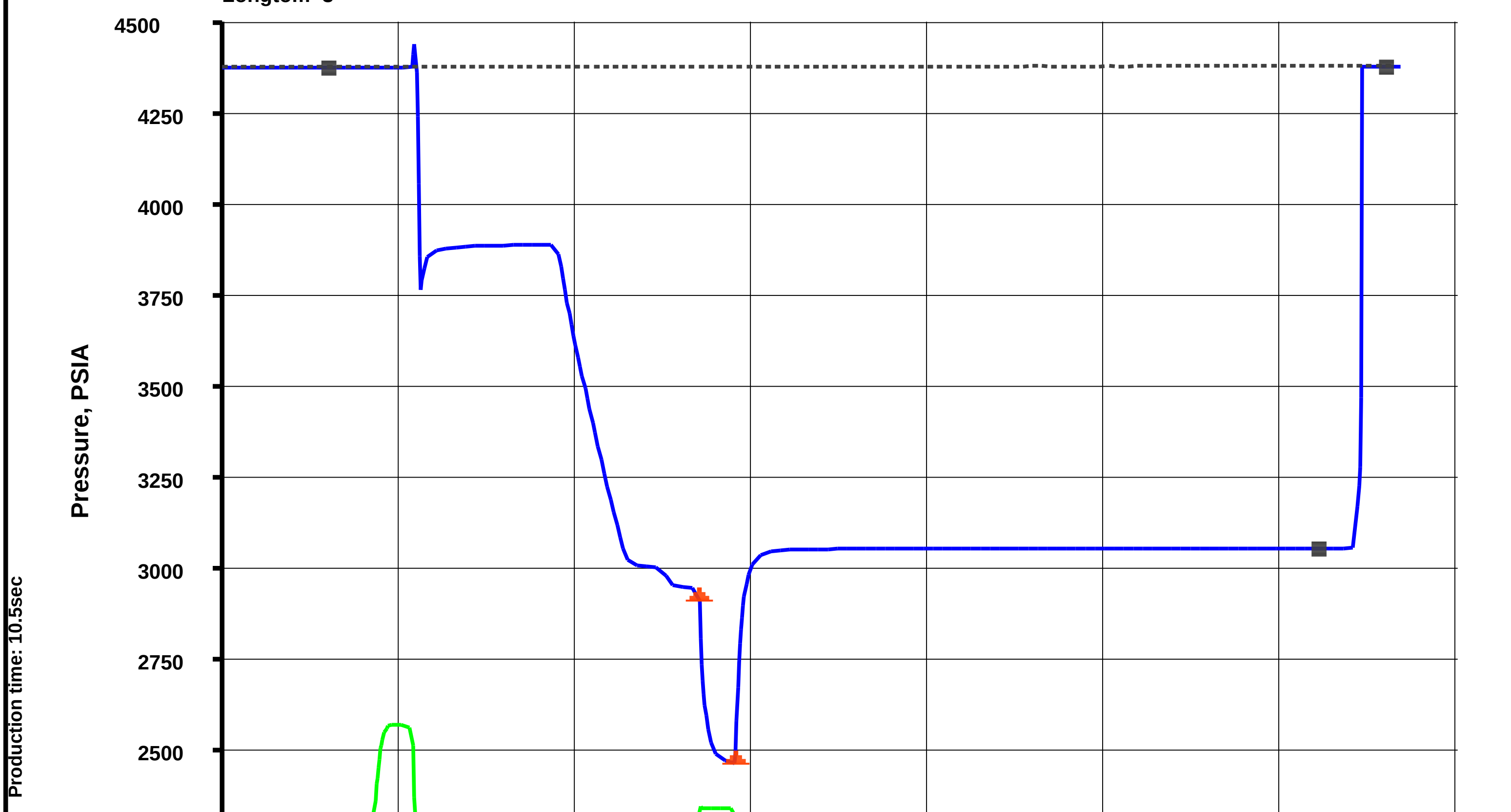
File 90 | Depth, M: 2619.97 | Smart Pretest − Conventional probe

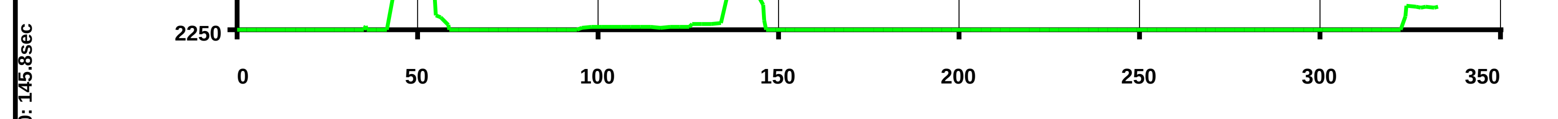
27−Jul−2006 | Nexus Energy

Longtom

Longtom−3

Mud Pressure before test, PSIA:	4373.32
Mud Pressure after test, PSIA:	4375.93
Last build−up pressure, PSIA:	3052.43
Draw−down mobility, md/cp:	4.7





Mobility Based Flow Volume: 5.3 cc

Total Pretest Volume: 7.9 cc – XPT–BA QCP Resolution: 0.010psi

Output DLIS Files

DEFAULT	TLD_MCFL_CNL_XPT_090LTP	FN:143	PRODUCER	28–Jul–2006 05:57	2622.0 M	0.9 M
RT	TLD_MCFL_CNL_XPT_090LTP	FN:144	PRODUCER	28–Jul–2006 05:59	2622.0 M	0.9 M

XPT Oil Pressure Curve (HOILP) 0 (PSIA) 4000

Hydrostatic Pressure (CP_HYD) 0 (PSIA) 10000

Sapphire Manometer Temperature (MTEP_SAP) 0 (DEGC) 150

Sapphire Pressure (CP_SAP) 0 (PSIA) 10000

PRETEST_VOLUME From XPT_7 to XPT_PTV_CURVE

XPT Pretest Volume Curve (PTV_XPT) 0 (C3) 50

XPT Motor Speed Curve (MSPE_XPT) (RPM) 0 5000

CQG Pressure (QCP) 0 (PSIA) 10000

Sapphire Zoomed Pressure (CP_SAP) 0 (PSIA) 1000

Sapphire Zoomed Pressure (CP_SAP) 0 (PSIA) 100

Sapphire Zoomed Pressure (CP_SAP) 0 (PSIA) 10

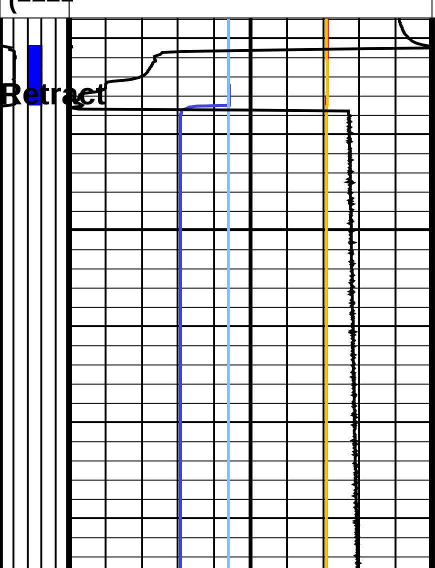
XPT Actions Image (AIMG) (––––

CQG Temperature (MTEP_QG) 0 (DEGC) 150

CQG Zoomed Pressure (QCP) 0 (PSIA) 1000

CQG Zoomed Pressure (QCP) 0 (PSIA) 100

CQG Zoomed Pressure (QCP) 0 (PSIA) 10



XPT Time Log (ETIM_XPT) (S)	CQG Pressure (QCP) (PSIA)	Sapphire Pressure (CP_SAP) (PSIA)
00:05:40	4375.42	4376.15
00:05:30	4375.88	4377.81
00:05:20	3054.25	3055.23
00:05:10	3052.43	3053.78
00:05:00	3052.43	3053.83
00:04:50	3052.44	3053.85
00:04:40	3052.44	3053.79
00:04:30	3052.44	3053.79
00:04:20	3052.45	3053.85
00:04:10	3052.45	3053.85
00:04:00	3052.46	3053.86
00:03:50	3052.46	3053.87
00:03:40	3052.49	3053.94
00:03:30	3052.49	3053.96
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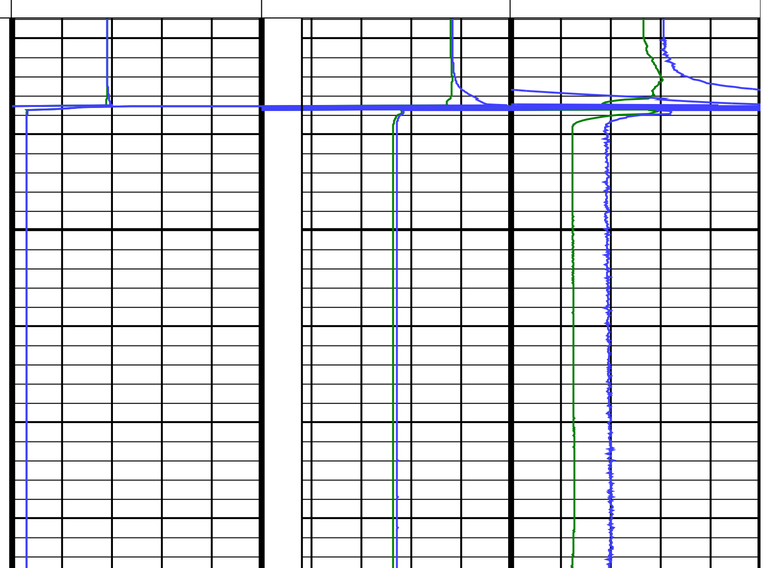
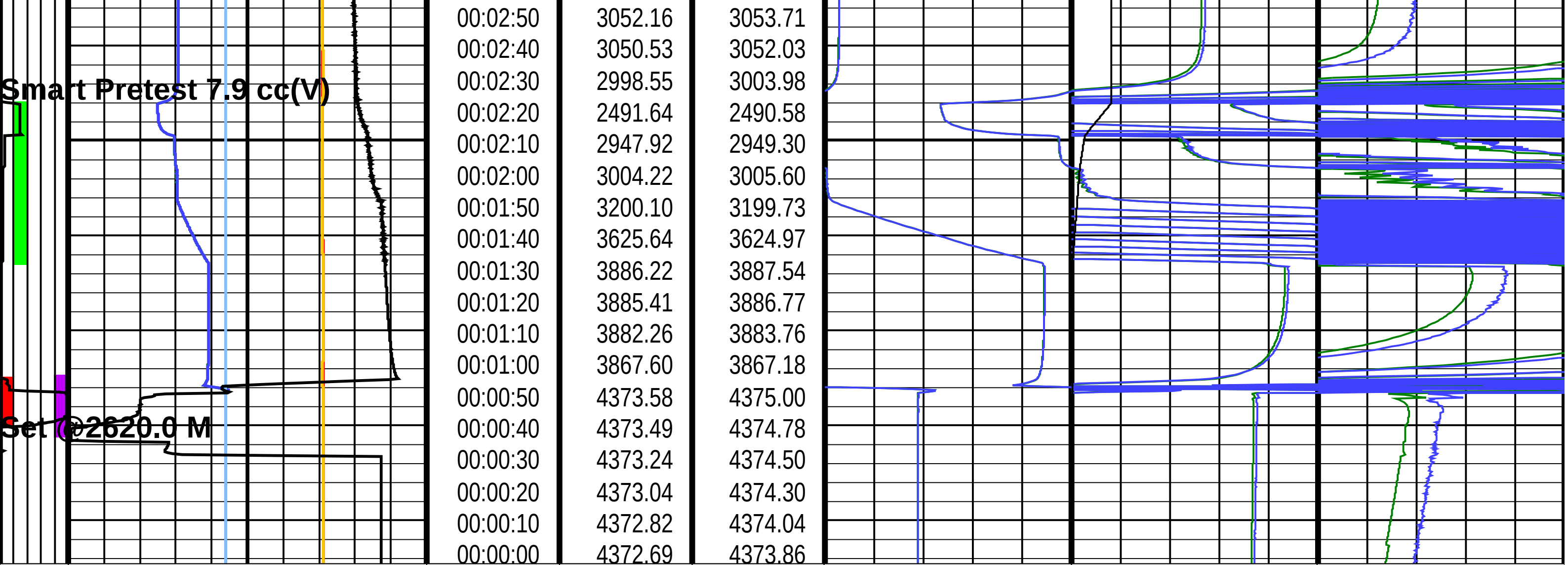
00:03:10	3052.48	3053.99
00:03:00	3052.42	3053.94





XPT Time Log (ETIM_XPT) (S)	CQG Pressure (QCP) (PSIA)	Sapphire Pressure (CP_SAP) (PSIA)
00:02:50	3052.16	3053.71
00:02:40	3050.53	3052.03
00:02:30	2998.55	3003.98
00:02:20	2491.64	2490.58
00:02:10	2947.92	2949.30
00:02:00	3004.22	3005.60
00:01:50	3200.10	3199.73
00:01:40	3625.64	3624.97
00:01:30	3886.22	3887.54
00:01:20	3885.41	3886.77
00:01:10	3882.26	3883.76
00:01:00	3867.60	3867.18
00:00:50	4373.58	4375.00
00:00:40	4373.49	4374.78
00:00:30	4373.24	4374.50
00:00:20	4373.04	4374.30
00:00:10	4372.82	4374.04
00:00:00	4372.69	4373.86

XPT Actions Image (AIMG) (-----

XPT Motor Speed Curve (MSPE_XPT) (RPM) 0 5000

CQG Temperature (MTEP_QG) 0 (DEGC) 150

CQG Pressure (QCP) 0 (PSIA) 10000

Sapphire Pressure (CP_SAP) 0 (PSIA) 10000

Sapphire Manometer Temperature (MTEP_SAP) 0 (DEGC) 150

Hydrostatic Pressure (CP_HYD) 0 (PSIA) 10000

XPT Oil Pressure Curve (HOILP) 0 (PSIA) 4000

XPT Time Log (ETIM_XPT) (S)

CQG Pressure (QCP) (PSIA)

Sapphire Pressure (CP_SAP) (PSIA)

CQG Zoomed Pressure (QCP) 0 (PSIA) 1000

Sapphire Zoomed Pressure (CP_SAP) 0 (PSIA) 1000

CQG Zoomed Pressure (QCP) 0 (PSIA) 100

Sapphire Zoomed Pressure (CP_SAP) 0 (PSIA) 100

XPT Pretest Volume Curve (PTV_XPT) 0 (C3) 50

PRETEST_VOLUME From XPT_7 to XPT_PTV_CURVE

CQG Zoomed Pressure (QCP) 0 (PSIA) 10

Sapphire Zoomed Pressure (CP_SAP) 0 (PSIA) 10

XPT Actions Image

WHITE: No Action / COLORED: Action in progress
Left to right:

1. Set (Red)
2. Pretest (Green)
3. Retract (Blue)
4. Init Pretest (Orange)
5. ACom Calibration (Purple)

XPT Dynamic Compensation Status

Quartz Gauge Pressure compensated and corrected
Sapphire Gauge Pressure compensated and corrected
Hydrostatic Sapphire Gauge Pressure compensated and corrected

Parameters

DLIS Name	Description	Value	
	XPT−BA: Xpress Pressure Tool − BA		
BTA_HYD	Hydrostatic Gauge Board Temperature A Coefficient	1.0042	
BTA_SAP	Sapphire Board Temperature A Coefficient	1.0208	
BTB_HYD	Hydrostatic Gauge Board Temperature B Coefficient	0	
BTB_SAP	Sapphire Board Temperature B Coefficient	0	
BTCT_HYD	Hydrostatic Gauge Board Temperature Coefficients Read From Data Channels	YES	
BTCT_SAP	Sapphire Board Temperature Coefficients Read Fram Data Channels	YES	
DDPL_XPT	Pretest Drawdown Limit	2200	PSIA
DEVI_FL_CORR_XPT	Tool Deviation Angle	0	DEG
FLD_XPT	Flowline Density	1	G/C3
GDSV	Gauges Downhole Software Version	2.1	
GDYCO	Sapphire Dynamic Compensation Applied	YES	
PAC_SAP	Sapphire Gauge Pressure A Coefficient	0.999413	
PA_HYD	Hydrostatic Gauge Pressure A Coefficient	1.0083	
PBC_SAP	Sapphire Gauge Pressure B Coefficient	0	
PB_HYD	Hydrostatic Gauge Pressure B Coefficient	0	
PCT_HYD	Hydrostatic Gauge Pressure Coefficients Read From Data Channels	YES	
PCT_SAP	Sapphire Pressure Coefficients Read From Data Channels	YES	
PGSR	Pressure Gauges Sampling Rate	300	ms
PRSP	Pretest Rate	1	C3/S
PTM_XPT	Pretest Type	SMART	
PTVO_XPT	Pretest Volume	10	C3
QDYCO	CQG Dynamic Compensation Applied	YES	
TAC_SAP	Sapphire Gauge Temperature A Coefficient	1.02269	
TA_HYD	Hydrostatic Gauge Temperature A Coefficient	0.999152	
TBC_SAP	Sapphire Gauge Temperature B Coefficient	0	
TB_HYD	Hydrostatic Gauge Temperature B Coefficient	0	
TCT_HYD	Hydrostatic Gauge Temperature Coefficients Read >From Data Channels	YES	
TCT_SAP	Sapphire Temperature Coefficients Read From Data Channels	YES	

Output DLIS Files

DEFAULT	TLD_MCFL_CNL_XPT_090LTP	FN:143	PRODUCER	28−Jul−2006 05:57
RT	TLD_MCFL_CNL_XPT_090LTP	FN:144	PRODUCER	28−Jul−2006 05:59

Schlumberger

Station Depth (MD)
2634.0 m

MAXIS Field Log

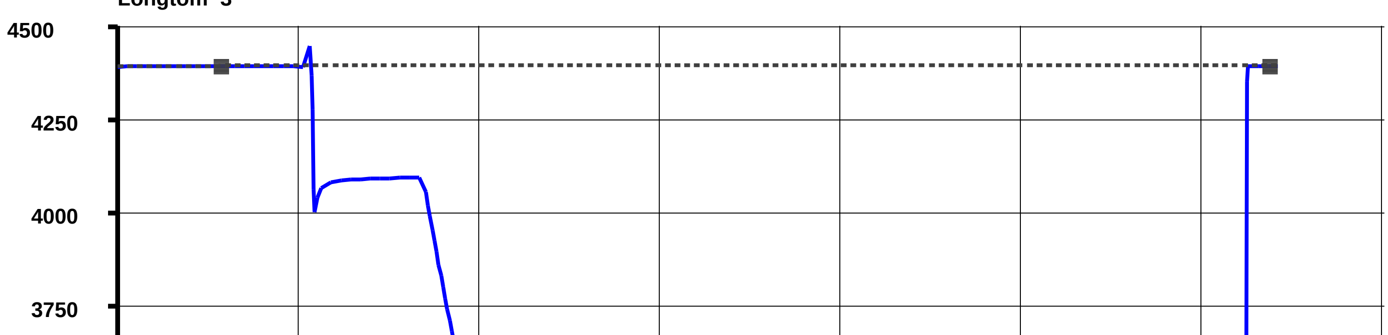
File 89 | Depth, M: 2633.96 | Smart Pretest − Conventional probe

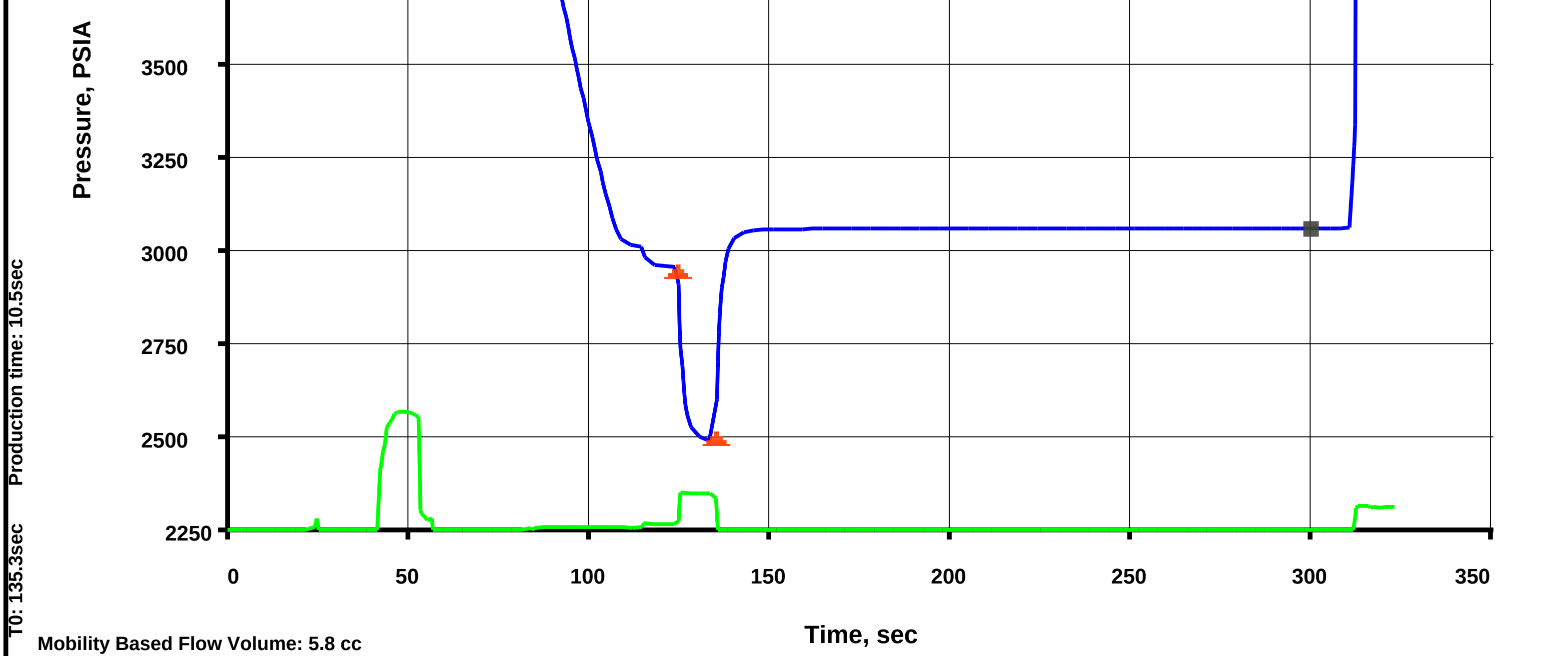
27−Jul−2006 | Nexus Energy

Longtom

Longtom−3

Mud Pressure before test, PSIA:	4389.97
Mud Pressure after test, PSIA:	4391.79
Last build−up pressure, PSIA:	3057.72
Draw−down mobility, md/cp:	5.4





Mobility Based Flow Volume: 5.8 cc

Total Pretest Volume: 8.4 cc − XPT−BA QCP Resolution: 0.010psi

Output DLIS Files

DEFAULT	TLD_MCFL_CNL_XPT_089LTP	FN:141	PRODUCER	28−Jul−2006 05:48	2636.0 M	0.9 M
RT	TLD_MCFL_CNL_XPT_089LTP	FN:142	PRODUCER	28−Jul−2006 05:50	2636.0 M	0.9 M

XPT Oil Pressure Curve (HOILP)
0 (PSIA) 4000

Hydrostatic Pressure (CP_HYD)
0 (PSIA) 10000

Sapphire Manometer Temperature (MTEP_SAP)
0 (DEGC) 150

Sapphire Pressure (CP_SAP)
0 (PSIA) 10000

PRETEST_VOLUME From XPT_7 to XPT_PTV_CURVE

XPT Pretest Volume Curve (PTV_XPT)
0 (C3) 50

XPT Motor Speed Curve (MSPE_XPT) (RPM)
0 5000

CQG Pressure (QCP)
0 (PSIA) 10000

Sapphire Zoomed Pressure (CP_SAP)
0 (PSIA) 1000

Sapphire Zoomed Pressure (CP_SAP)
0 (PSIA) 100

Sapphire Zoomed Pressure (CP_SAP)
0 (PSIA) 10

XPT Actions Image (AIMG) (−−−−

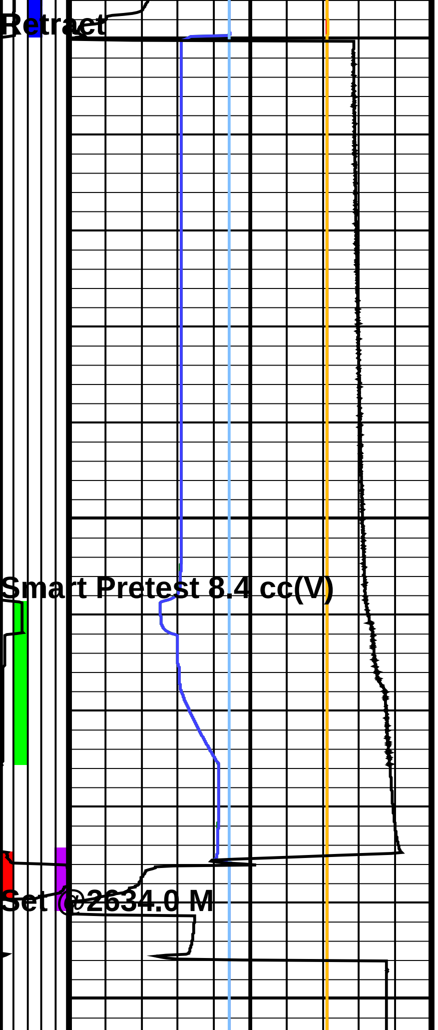
CQG Temperature (MTEP_QG)
0 (DEGC) 150

XPT Time Log (ETIM_XPT) (S)	CQG Pressure (QCP) (PSIA)	Sapphire Pressure (CP_SAP) (PSIA)
00:05:30	4391.30	4392.02

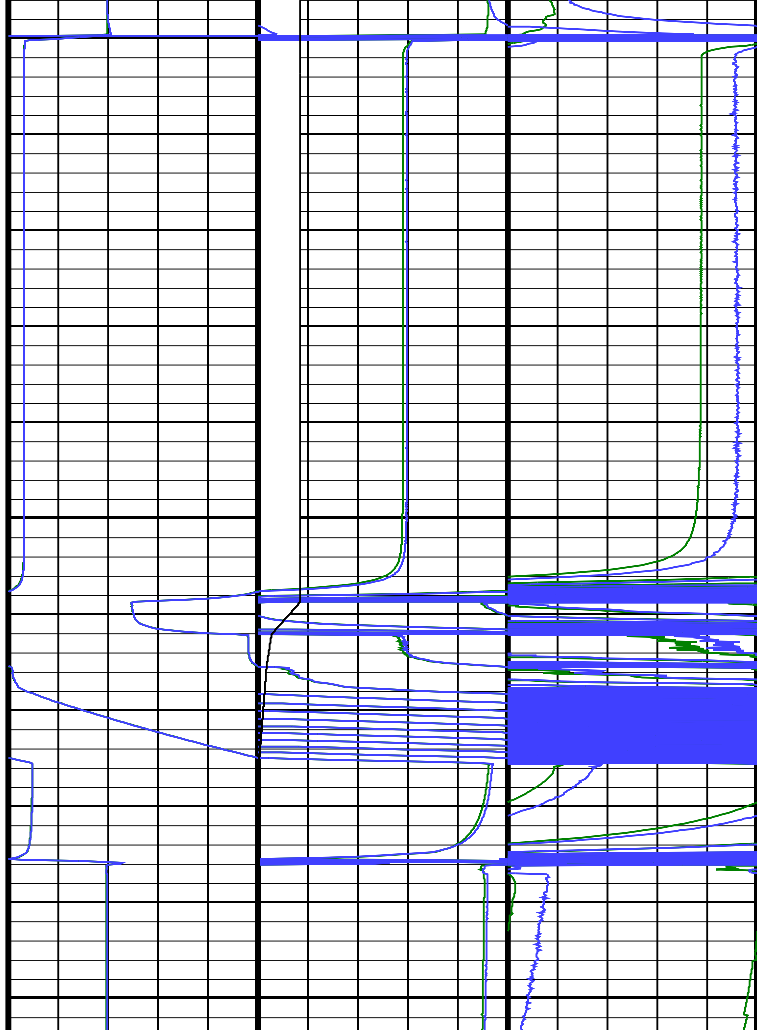
CQG Zoomed Pressure (QCP)
0 (PSIA) 1000

CQG Zoomed Pressure (QCP)
0 (PSIA) 100

CQG Zoomed Pressure (QCP)
0 (PSIA) 10



XPT Time Log (ETIM_XPT) (S)	CQG Pressure (QCP) (PSIA)	Sapphire Pressure (CP_SAP) (PSIA)
00:05:20	4391.82	4393.31
00:05:10	3060.42	3061.07
00:05:00	3057.72	3059.13
00:04:50	3057.72	3059.06
00:04:40	3057.71	3059.18
00:04:30	3057.71	3059.15
00:04:20	3057.71	3059.09
00:04:10	3057.72	3059.22
00:04:00	3057.72	3059.12
00:03:50	3057.71	3059.13
00:03:40	3057.70	3059.15
00:03:30	3057.70	3059.16
00:03:20	3057.70	3059.14
00:03:10	3057.67	3059.19
00:03:00	3057.65	3059.20
00:02:50	3057.59	3059.19
00:02:40	3057.45	3058.98
00:02:30	3056.71	3058.23
00:02:20	3028.55	3033.51
00:02:10	2503.24	2502.86
00:02:00	2956.73	2958.19
00:01:50	3023.19	3023.74
00:01:40	3343.76	3343.20
00:01:30	3798.73	3797.93
00:01:20	4091.58	4093.10
00:01:10	4089.13	4090.64
00:01:00	4080.97	4082.02
00:00:50	4390.02	4391.53
00:00:40	4390.14	4391.37
00:00:30	4389.95	4391.19
00:00:20	4389.74	4390.92
00:00:10	4389.53	4390.73
00:00:00	4389.40	4390.48



XPT Actions Image (AIMG) (----

CQG Temperature (MTEP_QG) 0 (DEGC) 150

XPT Time Log (ETIM_XPT) (S)

CQG Pressure (QCP) (PSIA)

Sapphire Pressure (CP_SAP) (PSIA)

CQG Zoomed Pressure (QCP) 0 (PSIA) 1000

CQG Zoomed Pressure (QCP) 0 (PSIA) 100

CQG Zoomed Pressure (QCP) 0 (PSIA) 10

XPT Motor Speed Curve (MSPE_XPT) (RPM) 0 5000

CQG Pressure (QCP) 0 (PSIA) 10000

Sapphire Zoomed Pressure (CP_SAP) 0 (PSIA) 1000

Sapphire Zoomed Pressure (CP_SAP) 0 (PSIA) 100

Sapphire Zoomed Pressure (CP_SAP) 0 (PSIA) 10

Sapphire Pressure (CP_SAP) 0 (PSIA) 10000

XPT Pretest Volume Curve (PTV_XPT) 0 (C3) 50

Sapphire Manometer Temperature (MTEP_SAP) 0 (DEGC) 150

PRETEST_VOLUME From XPT_7 to XPT_PTV_CURVE

Hydrostatic Pressure (CP_HYD) 0 (PSIA) 10000

XPT Oil Pressure Curve

	(HOILP)	
0	(PSIA)	4000

XPT Actions Image

WHITE: No Action / COLORED: Action in progress
Left to right:
1. Set (Red)
2. Pretest (Green)
3. Retract (Blue)
4. Init Pretest (Orange)
5. ACom Calibration (Purple)

XPT Dynamic Compensation Status

Quartz Gauge Pressure compensated and corrected
Sapphire Gauge Pressure compensated and corrected
Hydrostatic Sapphire Gauge Pressure compensated and corrected

Parameters

DLIS Name	Description	Value	
	XPT−BA: Xpress Pressure Tool − BA		
BTA_HYD	Hydrostatic Gauge Board Temperature A Coefficient	1.0042	
BTA_SAP	Sapphire Board Temperature A Coefficient	1.0208	
BTB_HYD	Hydrostatic Gauge Board Temperature B Coefficient	0	
BTB_SAP	Sapphire Board Temperature B Coefficient	0	
BTCT_HYD	Hydrostatic Gauge Board Temperature Coefficients Read From Data Channels	YES	
BTCT_SAP	Sapphire Board Temperature Coefficients Read Fram Data Channels	YES	
DDPL_XPT	Pretest Drawdown Limit	2200	PSIA
DEVI_FL_CORR_XPT	Tool Deviation Angle	0	DEG
FLD_XPT	Flowline Density	1	G/C3
GDSV	Gauges Downhole Software Version	2.1	
GDYCO	Sapphire Dynamic Compensation Applied	YES	
PAC_SAP	Sapphire Gauge Pressure A Coefficient	0.999414	
PA_HYD	Hydrostatic Gauge Pressure A Coefficient	1.0083	
PBC_SAP	Sapphire Gauge Pressure B Coefficient	0	
PB_HYD	Hydrostatic Gauge Pressure B Coefficient	0	
PCT_HYD	Hydrostatic Gauge Pressure Coefficients Read From Data Channels	YES	
PCT_SAP	Sapphire Pressure Coefficients Read From Data Channels	YES	
PGSR	Pressure Gauges Sampling Rate	300	ms
PRSP	Pretest Rate	1	C3/S
PTM_XPT	Pretest Type	SMART	
PTVO_XPT	Pretest Volume	10	C3
QDYCO	CQG Dynamic Compensation Applied	YES	
TAC_SAP	Sapphire Gauge Temperature A Coefficient	1.0227	
TA_HYD	Hydrostatic Gauge Temperature A Coefficient	0.999149	
TBC_SAP	Sapphire Gauge Temperature B Coefficient	0	
TB_HYD	Hydrostatic Gauge Temperature B Coefficient	0	
TCT_HYD	Hydrostatic Gauge Temperature Coefficients Read >From Data Channels	YES	
TCT_SAP	Sapphire Temperature Coefficients Read From Data Channels	YES	

Output DLIS Files

DEFAULT	TLD_MCFL_CNL_XPT_089LTP	FN:141	PRODUCER	28−Jul−2006 05:48
RT	TLD_MCFL_CNL_XPT_089LTP	FN:142	PRODUCER	28−Jul−2006 05:50

Schlumberger

Station Depth (MD)
2640.0 m

MAXIS Field Log

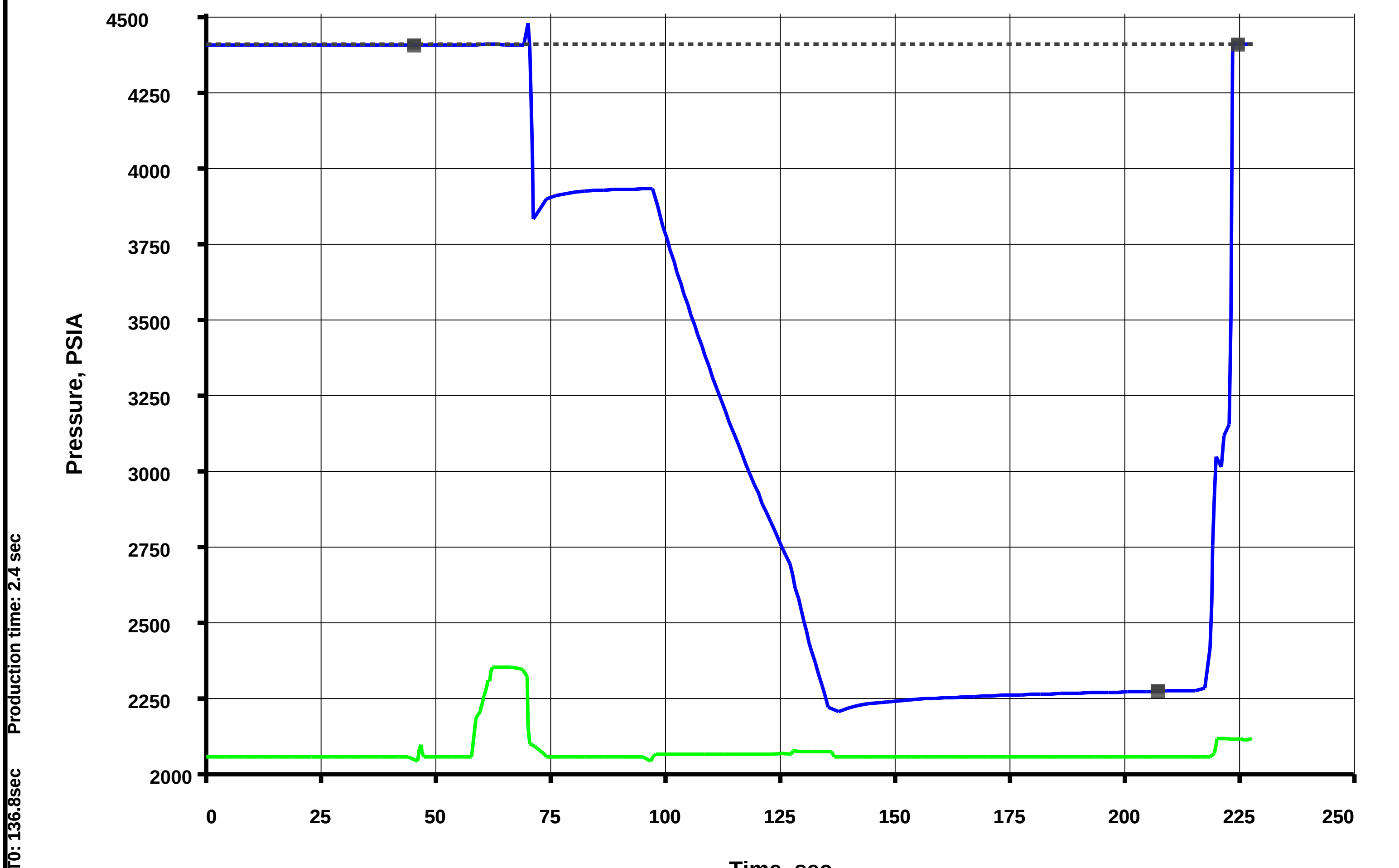
File 88 | Depth, M: 2639.95 | Dry Test − Conventional probe

27−Jul−2006 | Nexus Energy

Longtom

Longtom−3

Mud Pressure before test, PSIA: 4396.98
Mud Pressure after test, PSIA: 4398.38
Last build−up pressure, PSIA: 2274.42



Mobility Based Flow Volume: 0.2 cc

Total Pretest Volume: 2.3 cc − XPT−BA QCP Resolution: 0.010psi

Output DLIS Files

DEFAULT	TLD_MCFL_CNL_XPT_088LTP	FN:139	PRODUCER	28−Jul−2006 05:40	2642.0 M	0.6 M
RT	TLD_MCFL_CNL_XPT_088LTP	FN:140	PRODUCER	28−Jul−2006 05:42	2642.0 M	0.6 M

Changed Parameter Summary

DLIS Name	New Value	Previous Value	Depth & Time
PTM_XPT	SMART	MANUAL	2642.0 05:41:49

XPT Oil Pressure Curve (HOILP)
0 (PSIA) 4000

Hydrostatic Pressure (CP_HYD)
0 (PSIA) 10000

Sapphire Manometer Temperature (MTEP_SAP)
0 (DEGC) 150

Sapphire Pressure (CP_SAP)
0 (PSIA) 10000

PRETEST_VOLUME From XPT_7 to XPT_PTV_CURVE

XPT Pretest Volume Curve (PTV_XPT)
0 (C3) 50

XPT Motor

r Speed Curve (MSPE_XPT) (RPM) 0 5000

CQG Pressure (QCP) 0 (PSIA) 10000

Sapphire Zoomed Pressure (CP_SAP) 0 (PSIA) 1000

Sapphire Zoomed Pressure (CP_SAP) 0 (PSIA) 100

Sapphire Zoomed Pressure (CP_SAP) 0 (PSIA) 10

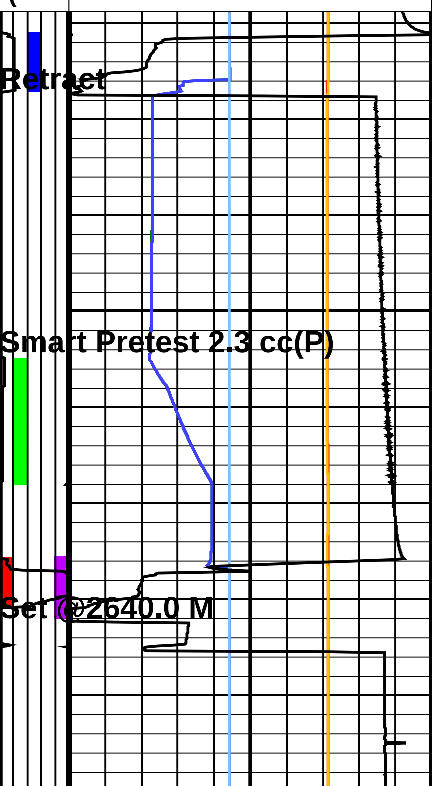
XPT Actions Image (AIMG) (----

CQG Temperature (MTEP_QG) 0 (DEGC) 150

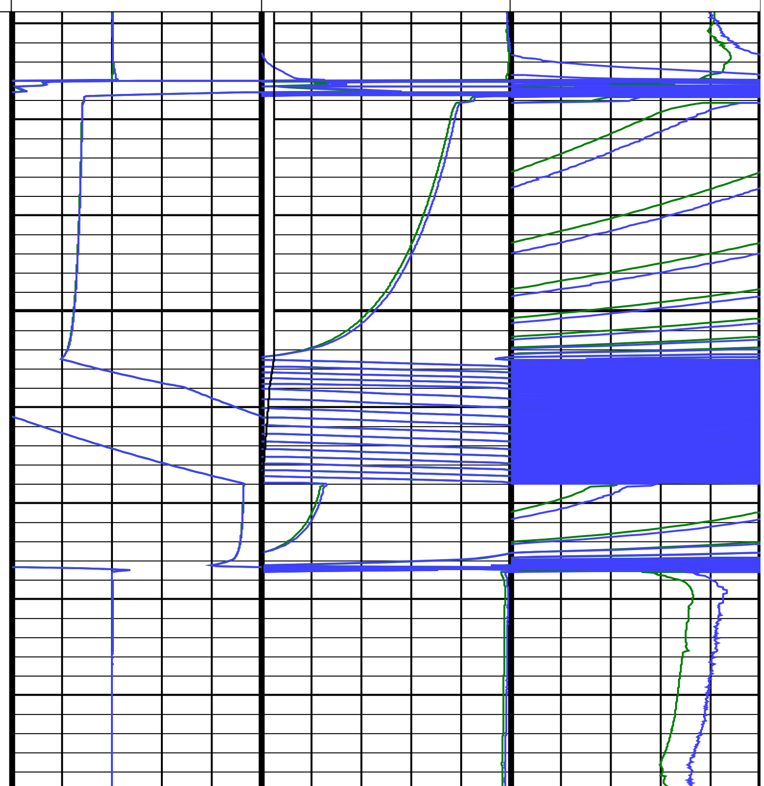
CQG Zoomed Pressure (QCP) 0 (PSIA) 1000

CQG Zoomed Pressure (QCP) 0 (PSIA) 100

CQG Zoomed Pressure (QCP) 0 (PSIA) 10



XPT Time Log (ETIM_XPT) (S)	CQG Pressure (QCP) (PSIA)	Sapphire Pressure (CP_SAP) (PSIA)
00:04:00	4397.95	4398.31
00:03:50	4398.72	4401.14
00:03:40	3043.29	3055.91
00:03:30	2274.94	2276.70
00:03:20	2271.78	2273.66
00:03:10	2268.17	2270.01
00:03:00	2263.91	2265.89
00:02:50	2258.33	2260.32
00:02:40	2251.33	2253.32
00:02:30	2241.34	2243.48
00:02:20	2219.76	2221.33
00:02:10	2519.85	2519.39
00:02:00	2934.98	2934.96
00:01:50	3328.10	3327.54
00:01:40	3786.28	3786.19
00:01:30	3920.81	3922.32
00:01:20	3911.39	3912.84
00:01:10	4421.53	4423.84
00:01:00	4397.21	4398.44
00:00:50	4396.98	4398.16
00:00:40	4396.78	4398.01
00:00:30	4396.62	4397.76
00:00:20	4396.41	4397.56
00:00:10	4395.95	4397.11
00:00:00	4396.50	4397.48



XPT Actions Image (AIMG) (----

CQG Temperature (MTEP_QG) 0 (DEGC) 150

XPT Time Log (ETIM_XPT) (S)

CQG Pressure (QCP) (PSIA)

Sapphire Pressure (CP_SAP) (PSIA)

CQG Zoomed Pressure (QCP) 0 (PSIA) 1000

CQG Zoomed Pressure (QCP) 0 (PSIA) 100

CQG Zoomed Pressure (QCP) 0 (PSIA) 10

XPT Motor Speed Curve (MSPE_XPT) (RPM) 0 5000

CQG Pressure (QCP) 0 (PSIA) 10000

Sapphire Zoomed Pressure (CP_SAP) 0 (PSIA) 1000

Sapphire Zoomed Pressure (CP_SAP) 0 (PSIA) 100

Sapphire Zoomed Pressure (CP_SAP) 0 (PSIA) 10

Sapphire Pressure (CP_SAP) 0 (PSIA) 10000

XPT Pretest Volume Curve (PTV_XPT) 0 (C3) 50

Sapphire Manometer Temperature (MTEP_SAP) 0 (DEGC) 150
Hydrostatic Pressure (CP_HYD) 0 (PSIA) 10000
XPT Oil Pressure Curve (HOILP) 0 (PSIA) 4000

PRETEST_ VOLUME From XPT_7 to XPT_PTV_CURVE

XPT Actions Image

WHITE: No Action / COLORED: Action in progress
Left to right:

1. Set (Red)
2. Pretest (Green)
3. Retract (Blue)
4. Init Pretest (Orange)
5. ACom Calibration (Purple)

XPT Dynamic Compensation Status

Quartz Gauge Pressure compensated and corrected
Sapphire Gauge Pressure compensated and corrected
Hydrostatic Sapphire Gauge Pressure compensated and corrected

Parameters

DLIS Name	Description	Value	
XPT−BA: Xpress Pressure Tool − BA			
BTA_HYD	Hydrostatic Gauge Board Temperature A Coefficient	1.00421	
BTA_SAP	Sapphire Board Temperature A Coefficient	1.0208	
BTB_HYD	Hydrostatic Gauge Board Temperature B Coefficient	0	
BTB_SAP	Sapphire Board Temperature B Coefficient	0	
BTCT_HYD	Hydrostatic Gauge Board Temperature Coefficients Read From Data Channels	YES	
BTCT_SAP	Sapphire Board Temperature Coefficients Read Fram Data Channels	YES	
DDPL_XPT	Pretest Drawdown Limit	2200	PSIA
DEVI_FL_CORR_XPT	Tool Deviation Angle	0	DEG
FLD_XPT	Flowline Density	1	G/C3
GDSV	Gauges Downhole Software Version	2.1	
GDYCO	Sapphire Dynamic Compensation Applied	YES	
PAC_SAP	Sapphire Gauge Pressure A Coefficient	0.999413	
PA_HYD	Hydrostatic Gauge Pressure A Coefficient	1.00831	
PBC_SAP	Sapphire Gauge Pressure B Coefficient	0	
PB_HYD	Hydrostatic Gauge Pressure B Coefficient	0	
PCT_HYD	Hydrostatic Gauge Pressure Coefficients Read From Data Channels	YES	
PCT_SAP	Sapphire Pressure Coefficients Read From Data Channels	YES	
PGSR	Pressure Gauges Sampling Rate	300	ms
PRSP	Pretest Rate	1	C3/S
PTM_XPT	Pretest Type	MANUAL	
PTVO_XPT	Pretest Volume	10	C3
QDYCO	CQG Dynamic Compensation Applied	YES	
TAC_SAP	Sapphire Gauge Temperature A Coefficient	1.0227	
TA_HYD	Hydrostatic Gauge Temperature A Coefficient	0.999154	
TBC_SAP	Sapphire Gauge Temperature B Coefficient	0	
TB_HYD	Hydrostatic Gauge Temperature B Coefficient	0	
TCT_HYD	Hydrostatic Gauge Temperature Coefficients Read >From Data Channels	YES	
TCT_SAP	Sapphire Temperature Coefficients Read From Data Channels	YES	

Output DLIS Files

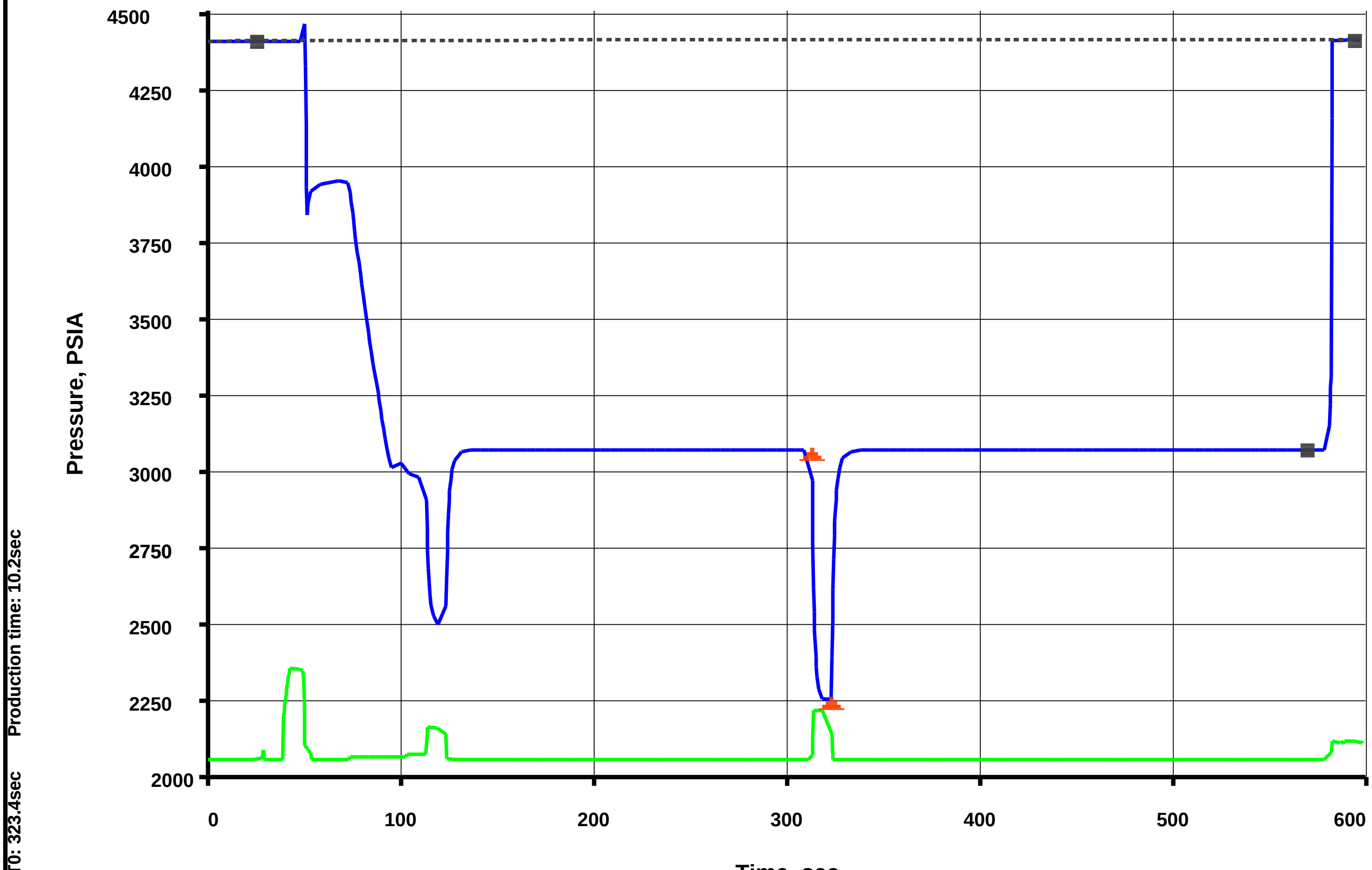
DEFAULT	TLD_MCFL_CNL_XPT_088LTP	FN:139	PRODUCER	28−Jul−2006 05:40
RT	TLD_MCFL_CNL_XPT_088LTP	FN:140	PRODUCER	28−Jul−2006 05:42

Schlumberger

Station Depth (MD)
2644.0 m

MAXIS Field Log

File 87	Depth, M: 2643.98	Volumetric Limited draw−down − Conventional probe	
27−Jul−2006	Nexus Energy	Mud Pressure before test, PSIA:	4398.57
	Longtom	Mud Pressure after test, PSIA:	4402.64
	Longtom−3	Last build−up pressure, PSIA:	3067.62
		Draw−down mobility, md/cp:	6.4



Mobility Based Flow Volume: 9.9 cc

Total Pretest Volume: 10.0cc − XPT−BA QCP Resolution: 0.010psi

Output DLIS Files

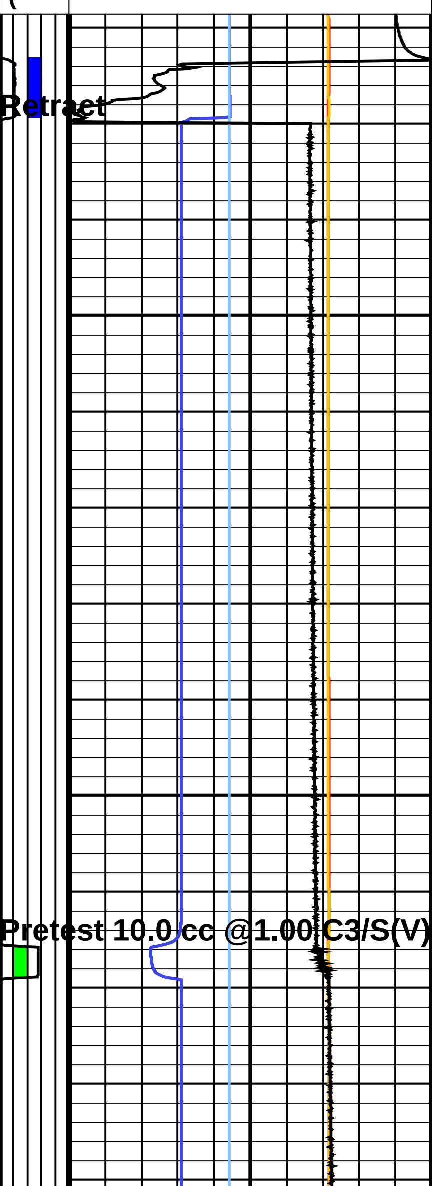
DEFAULT	TLD_MCFL_CNL_XPT_087LTP	FN:137	PRODUCER	28−Jul−2006 05:26	2646.0 M	1.6 M
RT	TLD_MCFL_CNL_XPT_087LTP	FN:138	PRODUCER	28−Jul−2006 05:28	2646.0 M	1.6 M

Changed Parameter Summary

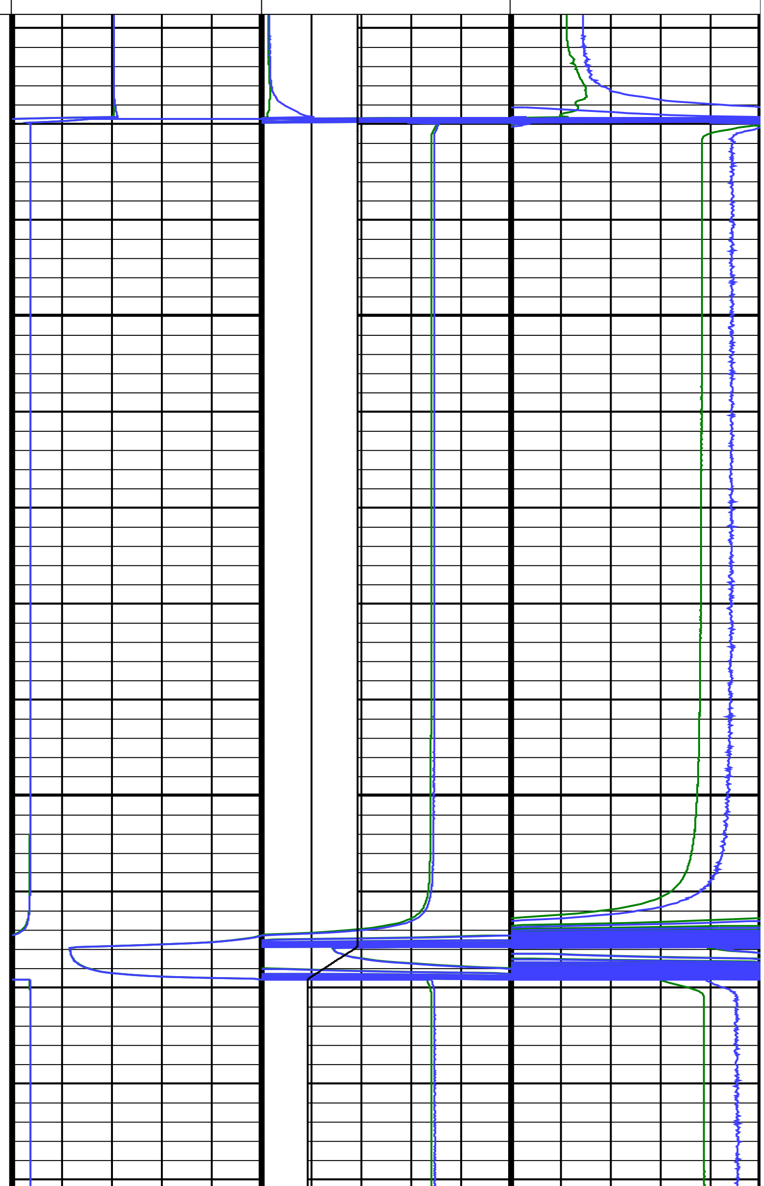
DLIS Name	New Value	Previous Value	Depth & Time
PTM_XPT	SMART MANUAL	MANUAL SMART	2646.0 05:27:46 2646.0 05:32:01

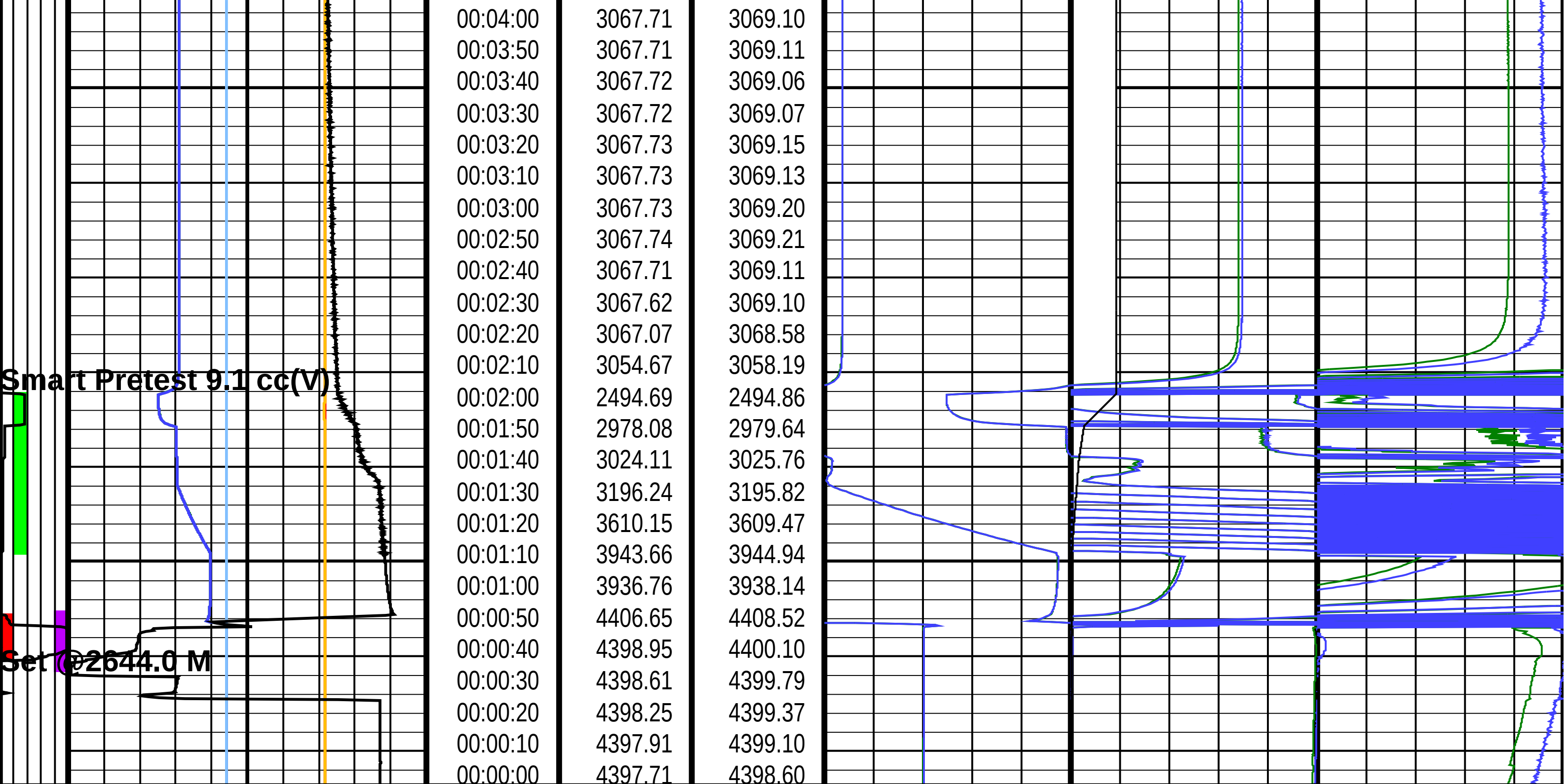
XPT Oil Pressure Curve (HOILP)		
0	(PSIA)	4000
Hydrostatic Pressure (CP_HYD)		
0	(PSIA)	10000

XPT Motor Speed Curve (MSPE_XPT) (RPM) 0 — 5000	Sapphire Manometer Temperature (MTEP_SAP) 0 (DEGC) 150; Sapphire Pressure (CP_SAP) 0 (PSIA) 10000; CQG Pressure (QCP) 0 (PSIA) 10000				Sapphire Zoomed Pressure (CP_SAP) 0 (PSIA) 1000	PRETEST_VOLUME From XPT_7 to XPT_PTV_CURVE; XPT Pretest Volume Curve (PTV_XPT) 0 (C3) 50; Sapphire Zoomed Pressure (CP_SAP) 0 (PSIA) 100	Sapphire Zoomed Pressure (CP_SAP) 0 (PSIA) 10
XPT Actions Image (AIMG) (----	CQG Temperature (MTEP_QG) 0 (DEGC) 150	XPT Time Log (ETIM_XPT) (S)	CQG Pressure (QCP) (PSIA)	Sapphire Pressure (CP_SAP) (PSIA)	CQG Zoomed Pressure (QCP) 0 (PSIA) 1000	CQG Zoomed Pressure (QCP) 0 (PSIA) 100	CQG Zoomed Pressure (QCP) 0 (PSIA) 10



XPT Time Log (ETIM_XPT) (S)	CQG Pressure (QCP) (PSIA)	Sapphire Pressure (CP_SAP) (PSIA)
00:10:10	4402.19	4402.85
00:10:00	4402.45	4402.93
00:09:50	4402.94	4404.66
00:09:40	3069.39	3070.00
00:09:30	3067.62	3068.85
00:09:20	3067.63	3068.85
00:09:10	3067.62	3068.88
00:09:00	3067.62	3068.76
00:08:50	3067.61	3068.77
00:08:40	3067.61	3068.85
00:08:30	3067.61	3068.74
00:08:20	3067.60	3068.79
00:08:10	3067.60	3068.87
00:08:00	3067.59	3068.72
00:07:50	3067.59	3068.73
00:07:40	3067.58	3068.79
00:07:30	3067.58	3068.72
00:07:20	3067.57	3068.79
00:07:10	3067.57	3068.80
00:07:00	3067.56	3068.75
00:06:50	3067.54	3068.73
00:06:40	3067.53	3068.78
00:06:30	3067.50	3068.77
00:06:20	3067.47	3068.66
00:06:10	3067.41	3068.60
00:06:00	3067.32	3068.58
00:05:50	3067.11	3068.30
00:05:40	3066.18	3067.39
00:05:30	3048.31	3052.38
00:05:20	2237.57	2236.58
00:05:10	3067.28	3068.69
00:05:00	3067.70	3069.01
00:04:50	3067.70	3068.95
00:04:40	3067.70	3069.05
00:04:30	3067.70	3068.98
00:04:20	3067.70	3069.02
00:04:10	3067.71	3069.03





XPT Time Log (ETIM_XPT) (S)	CQG Pressure (QCP) (PSIA)	Sapphire Pressure (CP_SAP) (PSIA)
00:04:00	3067.71	3069.10
00:03:50	3067.71	3069.11
00:03:40	3067.72	3069.06
00:03:30	3067.72	3069.07
00:03:20	3067.73	3069.15
00:03:10	3067.73	3069.13
00:03:00	3067.73	3069.20
00:02:50	3067.74	3069.21
00:02:40	3067.71	3069.11
00:02:30	3067.62	3069.10
00:02:20	3067.07	3068.58
00:02:10	3054.67	3058.19
00:02:00	2494.69	2494.86
00:01:50	2978.08	2979.64
00:01:40	3024.11	3025.76
00:01:30	3196.24	3195.82
00:01:20	3610.15	3609.47
00:01:10	3943.66	3944.94
00:01:00	3936.76	3938.14
00:00:50	4406.65	4408.52
00:00:40	4398.95	4400.10
00:00:30	4398.61	4399.79
00:00:20	4398.25	4399.37
00:00:10	4397.91	4399.10
00:00:00	4397.71	4398.60

XPT Actions Image (AIMG) (----

CQG Temperature (MTEP_QG) 0 (DEGC) 150

XPT Time Log (ETIM_XPT) (S)

CQG Pressure (QCP) (PSIA)

Sapphire Pressure (CP_SAP) (PSIA)

CQG Zoomed Pressure (QCP) 0 (PSIA) 1000

CQG Zoomed Pressure (QCP) 0 (PSIA) 100

CQG Zoomed Pressure (QCP) 0 (PSIA) 10

XPT Motor Speed Curve (MSPE_XPT) (RPM) 0 5000

CQG Pressure (QCP) 0 (PSIA) 10000

Sapphire Zoomed Pressure (CP_SAP) 0 (PSIA) 1000

Sapphire Zoomed Pressure (CP_SAP) 0 (PSIA) 100

Sapphire Zoomed Pressure (CP_SAP) 0 (PSIA) 10

Sapphire Pressure (CP_SAP) 0 (PSIA) 10000

XPT Pretest Volume Curve (PTV_XPT) 0 (C3) 50

Sapphire Manometer Temperature (MTEP_SAP) 0 (DEGC) 150

PRETEST_VOLUME From XPT_7 to XPT_PTV_CURVE

Hydrostatic Pressure (CP_HYD) 0 (PSIA) 10000

XPT Oil Pressure Curve (HOILP) 0 (PSIA) 4000

XPT Actions Image

WHITE: No Action / COLORED: Action in progress
Left to right:

1. Set (Red)
2. Pretest (Green)
3. Retract (Blue)
4. Init Pretest (Orange)
5. ACom Calibration (Purple)

XPT Dynamic Compensation Status

Quartz Gauge Pressure compensated and corrected
Sapphire Gauge Pressure compensated and corrected
Hydrostatic Sapphire Gauge Pressure compensated and corrected

Parameters

DLIS Name	Description	Value	
	XPT−BA: Xpress Pressure Tool − BA		
BTA_HYD	Hydrostatic Gauge Board Temperature A Coefficient	1.00421	
BTA_SAP	Sapphire Board Temperature A Coefficient	1.02081	
BTB_HYD	Hydrostatic Gauge Board Temperature B Coefficient	0	
BTB_SAP	Sapphire Board Temperature B Coefficient	0	
BTCT_HYD	Hydrostatic Gauge Board Temperature Coefficients Read From Data Channels	YES	
BTCT_SAP	Sapphire Board Temperature Coefficients Read Fram Data Channels	YES	
DDPL_XPT	Pretest Drawdown Limit	2200	PSIA
DEVI_FL_CORR_XPT	Tool Deviation Angle	0	DEG
FLD_XPT	Flowline Density	1	G/C3
GDSV	Gauges Downhole Software Version	2.1	
GDYCO	Sapphire Dynamic Compensation Applied	YES	
PAC_SAP	Sapphire Gauge Pressure A Coefficient	0.999409	
PA_HYD	Hydrostatic Gauge Pressure A Coefficient	1.00831	
PBC_SAP	Sapphire Gauge Pressure B Coefficient	0	
PB_HYD	Hydrostatic Gauge Pressure B Coefficient	0	
PCT_HYD	Hydrostatic Gauge Pressure Coefficients Read From Data Channels	YES	
PCT_SAP	Sapphire Pressure Coefficients Read From Data Channels	YES	
PGSR	Pressure Gauges Sampling Rate	300	ms
PRSP	Pretest Rate	1	C3/S
PTM_XPT	Pretest Type	MANUAL	
PTVO_XPT	Pretest Volume	10	C3
QDYCO	CQG Dynamic Compensation Applied	YES	
TAC_SAP	Sapphire Gauge Temperature A Coefficient	1.02269	
TA_HYD	Hydrostatic Gauge Temperature A Coefficient	0.999156	
TBC_SAP	Sapphire Gauge Temperature B Coefficient	0	
TB_HYD	Hydrostatic Gauge Temperature B Coefficient	0	
TCT_HYD	Hydrostatic Gauge Temperature Coefficients Read >From Data Channels	YES	
TCT_SAP	Sapphire Temperature Coefficients Read From Data Channels	YES	

Output DLIS Files

DEFAULT	TLD_MCFL_CNL_XPT_087LTP	FN:137	PRODUCER	28−Jul−2006 05:26
RT	TLD_MCFL_CNL_XPT_087LTP	FN:138	PRODUCER	28−Jul−2006 05:28

Schlumberger

Station Depth (MD)
2659.0 m

MAXIS Field Log

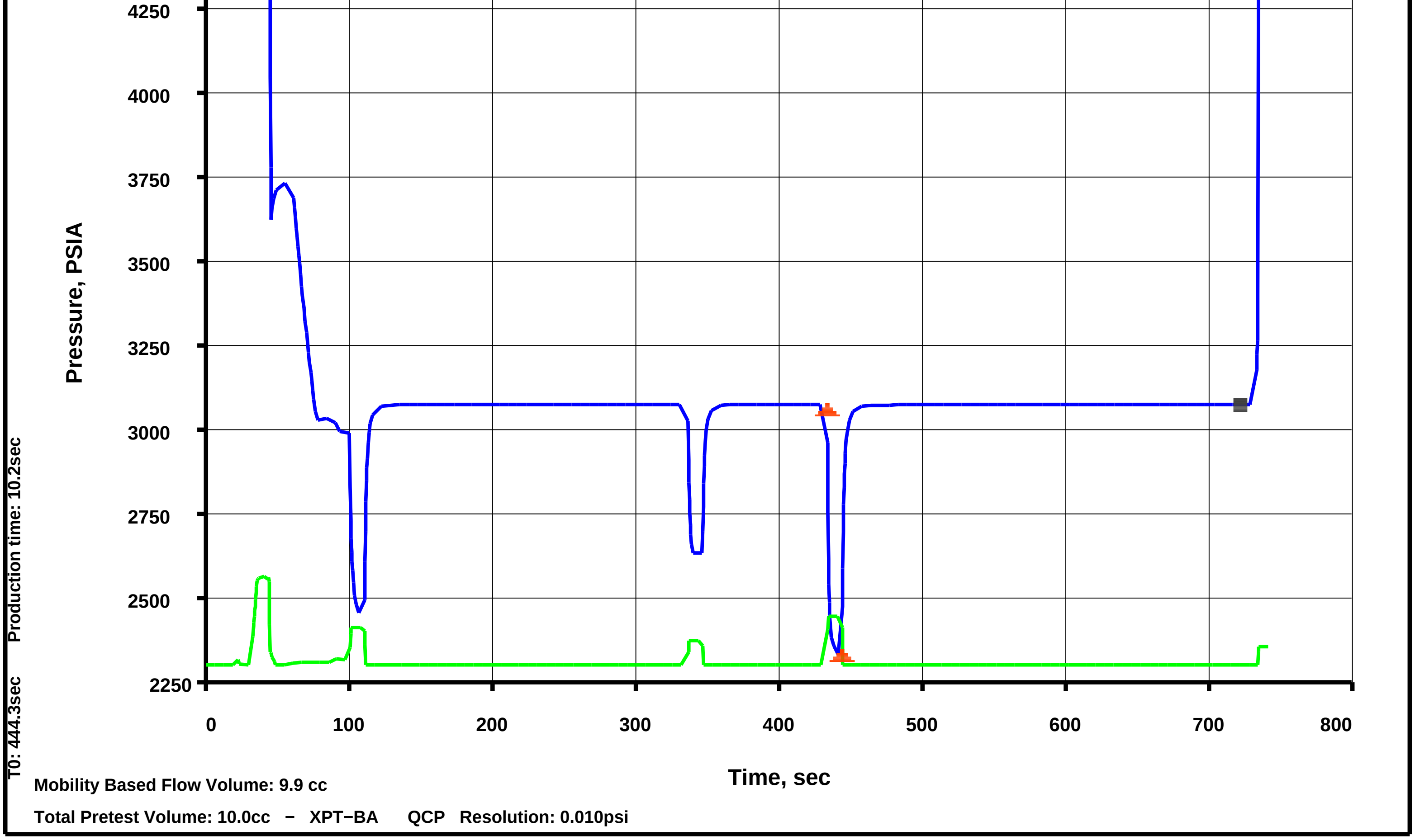
File 86 Depth, M: 2658.99 Volumetric Limited draw−down − Conventional probe

27−Jul−2006 Nexus Energy

Longtom

Longtom−3

Mud Pressure before test, PSIA:	4416.62
Mud Pressure after test, PSIA:	4420.01
Last build−up pressure, PSIA:	3073.62
Draw−down mobility, md/cp:	7



Output DLIS Files

DEFAULT	TLD_MCFL_CNL_XPT_086LTP	FN:135	PRODUCER	28−Jul−2006 05:09	2661.0 M	1.9 M
RT	TLD_MCFL_CNL_XPT_086LTP	FN:136	PRODUCER	28−Jul−2006 05:11	2661.0 M	1.9 M

Changed Parameter Summary

DLIS Name	New Value		Previous Value		Depth & Time
PRSP	0.5	C3/S	0.3	C3/S	2661.0 05:15:16
	1	C3/S	0.5	C3/S	2661.0 05:16:51
PTM_XPT	MANUAL		SMART		2661.0 05:15:08
PTVO_XPT	5	C3	1	C3	2661.0 05:15:12
	10	C3	5	C3	2661.0 05:16:49

XPT Oil Pressure Curve (HOILP)
0 (PSIA) 4000

Hydrostatic Pressure (CP_HYD)
0 (PSIA) 10000

Sapphire Manometer Temperature (MTEP_SAP)
0 (DEGC) 150

Sapphire Pressure (CP_SAP)
0 (PSIA) 10000

PRETEST_VOLUME From XPT_7 to XPT_PTV_CURVE

XPT Pretest Volume Curve (PTV_XPT)
0 (C3) 50

XPT Motor Speed Curve (MSP

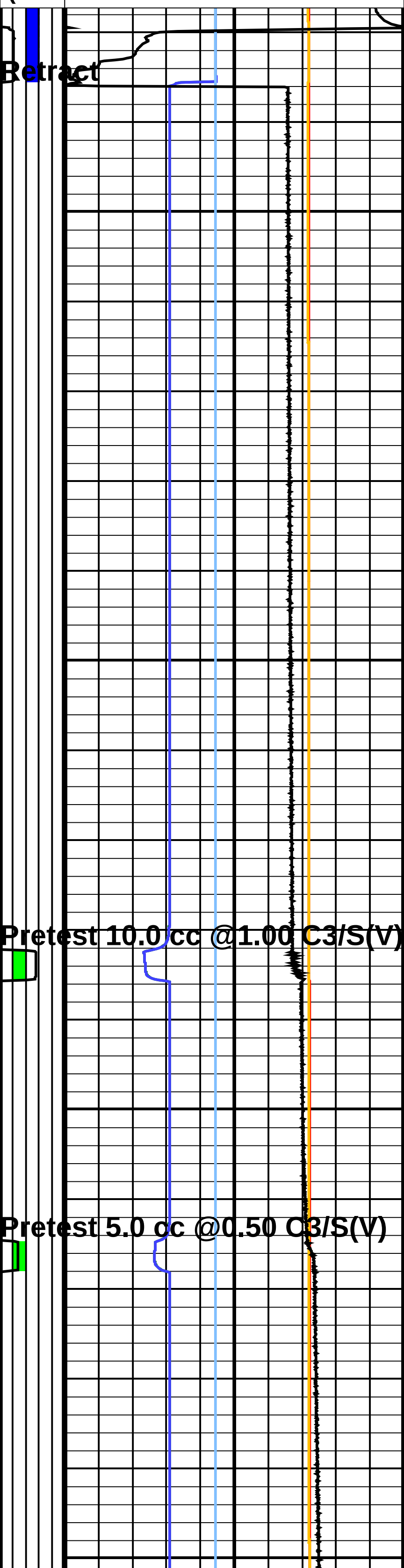
CQG Pressure (QCP)
0 (PSIA) 10000

Sapphire Zoomed Pressure (CP_SAP)
0 (PSIA) 1000

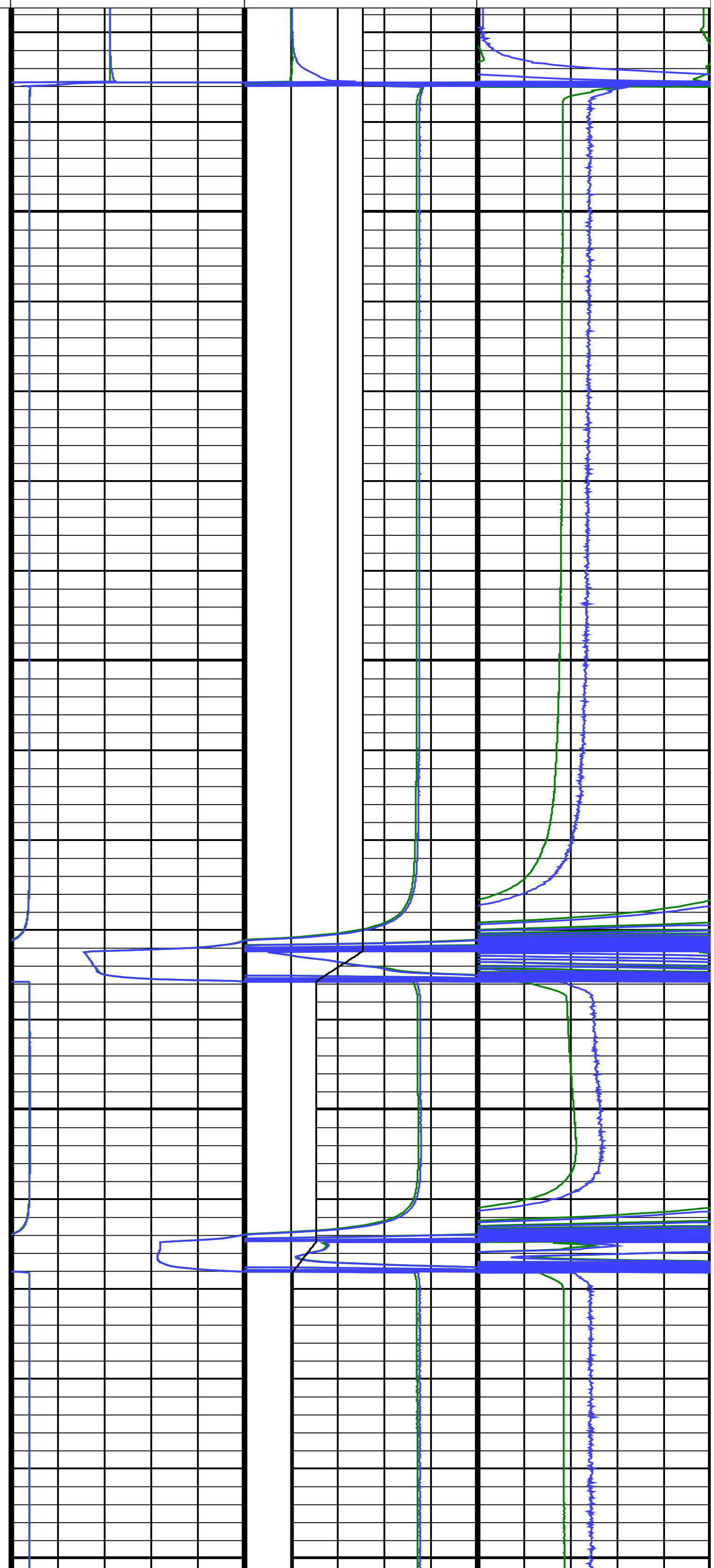
Sapphire Zoomed Pressure (CP_SAP)
0 (PSIA) 100

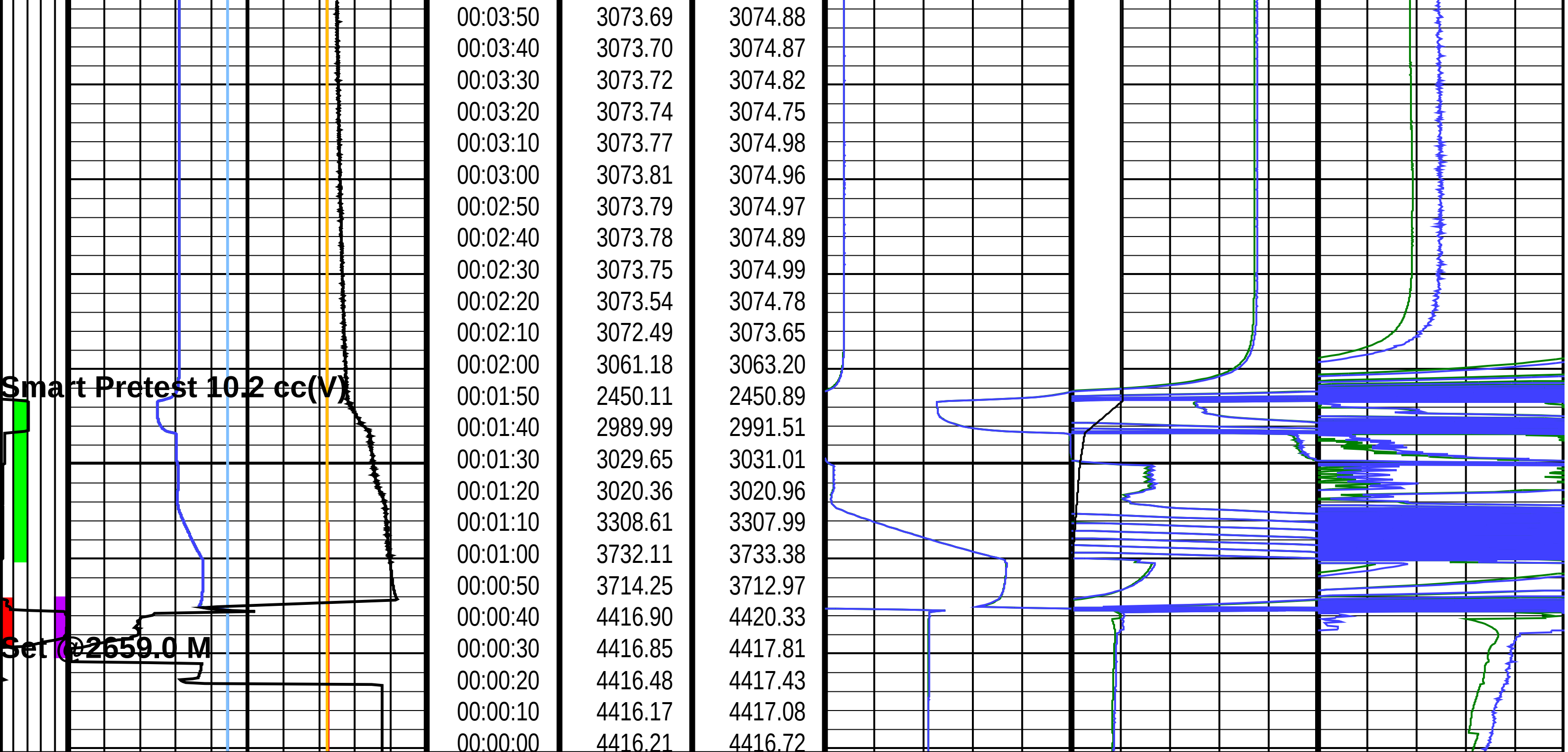
Sapphire Zoomed Pressure (CP_SAP)
0 (PSIA) 10

(MSPE_XPT) (RPM) 0 5000					CQG Zoomed Pressure (QCP) 0 (PSIA) 1000	CQG Zoomed Pressure (QCP) 0 (PSIA) 100	CQG Zoomed Pressure (QCP) 0 (PSIA) 10
XPT Actions Image (AIMG) (----	CQG Temperature (MTEP_QG) 0 (DEGC) 150	XPT Time Log (ETIM_XPT) (S)	CQG Pressure (QCP) (PSIA)	Sapphire Pressure (CP_SAP) (PSIA)	CQG Zoomed Pressure (QCP) 0 (PSIA) 1000	CQG Zoomed Pressure (QCP) 0 (PSIA) 100	CQG Zoomed Pressure (QCP) 0 (PSIA) 10



XPT Time Log (ETIM_XPT) (S)	CQG Pressure (QCP) (PSIA)	Sapphire Pressure (CP_SAP) (PSIA)
00:12:30	4419.71	4420.17
00:12:20	4419.79	4424.39
00:12:10	3073.86	3074.94
00:12:00	3073.62	3074.78
00:11:50	3073.62	3074.83
00:11:40	3073.62	3074.79
00:11:30	3073.61	3074.76
00:11:20	3073.60	3074.73
00:11:10	3073.59	3074.61
00:11:00	3073.59	3074.72
00:10:50	3073.58	3074.69
00:10:40	3073.58	3074.66
00:10:30	3073.57	3074.67
00:10:20	3073.56	3074.68
00:10:10	3073.56	3074.69
00:10:00	3073.56	3074.67
00:09:50	3073.55	3074.68
00:09:40	3073.55	3074.70
00:09:30	3073.53	3074.65
00:09:20	3073.52	3074.65
00:09:10	3073.49	3074.52
00:09:00	3073.47	3074.66
00:08:50	3073.44	3074.49
00:08:40	3073.40	3074.51
00:08:30	3073.34	3074.40
00:08:20	3073.27	3074.37
00:08:10	3073.13	3074.28
00:08:00	3072.84	3073.95
00:07:50	3072.17	3073.28
00:07:40	3069.02	3070.07
00:07:30	3035.19	3039.54
00:07:20	2344.69	2343.55
00:07:10	3073.67	3074.80
00:07:00	3073.84	3074.98
00:06:50	3073.91	3074.98
00:06:40	3074.01	3075.14
00:06:30	3074.10	3075.21
00:06:20	3074.18	3075.31
00:06:10	3073.94	3074.97
00:06:00	3071.18	3072.34
00:05:50	3008.49	3013.26
00:05:40	2651.27	2648.66
00:05:30	3073.65	3074.78
00:05:20	3073.66	3074.82
00:05:10	3073.65	3074.78
00:05:00	3073.66	3074.87
00:04:50	3073.66	3074.78
00:04:40	3073.66	3074.83
00:04:30	3073.67	3074.87
00:04:20	3073.66	3074.86
00:04:10	3073.67	3074.78
00:04:00	3073.68	3074.80





XPT Time Log (ETIM_XPT) (S)	CQG Pressure (QCP) (PSIA)	Sapphire Pressure (CP_SAP) (PSIA)
00:03:50	3073.69	3074.88
00:03:40	3073.70	3074.87
00:03:30	3073.72	3074.82
00:03:20	3073.74	3074.75
00:03:10	3073.77	3074.98
00:03:00	3073.81	3074.96
00:02:50	3073.79	3074.97
00:02:40	3073.78	3074.89
00:02:30	3073.75	3074.99
00:02:20	3073.54	3074.78
00:02:10	3072.49	3073.65
00:02:00	3061.18	3063.20
00:01:50	2450.11	2450.89
00:01:40	2989.99	2991.51
00:01:30	3029.65	3031.01
00:01:20	3020.36	3020.96
00:01:10	3308.61	3307.99
00:01:00	3732.11	3733.38
00:00:50	3714.25	3712.97
00:00:40	4416.90	4420.33
00:00:30	4416.85	4417.81
00:00:20	4416.48	4417.43
00:00:10	4416.17	4417.08
00:00:00	4416.21	4416.72

XPT Actions Image (AIMG) (----

CQG Temperature (MTEP_QG) 0 (DEGC) 150

XPT Time Log (ETIM_XPT) (S)

CQG Pressure (QCP) (PSIA)

Sapphire Pressure (CP_SAP) (PSIA)

CQG Zoomed Pressure (QCP) 0 (PSIA) 1000

CQG Zoomed Pressure (QCP) 0 (PSIA) 100

CQG Zoomed Pressure (QCP) 0 (PSIA) 10

XPT Motor Speed Curve (MSPE_XPT) (RPM) 0 5000

CQG Pressure (QCP) 0 (PSIA) 10000

Sapphire Zoomed Pressure (CP_SAP) 0 (PSIA) 1000

Sapphire Zoomed Pressure (CP_SAP) 0 (PSIA) 100

Sapphire Zoomed Pressure (CP_SAP) 0 (PSIA) 10

Sapphire Pressure (CP_SAP) 0 (PSIA) 10000

XPT Pretest Volume Curve (PTV_XPT) 0 (C3) 50

Sapphire Manometer Temperature (MTEP_SAP) 0 (DEGC) 150

PRETEST_VOLUME From XPT_7 to XPT_PTV_CURVE

Hydrostatic Pressure (CP_HYD) 0 (PSIA) 10000

XPT Oil Pressure Curve (HOILP) 0 (PSIA) 4000

XPT Actions Image

WHITE: No Action / COLORED: Action in progress
Left to right:

1. Set (Red)

2. Pretest (Green)
3. Retract (Blue)
4. Init Pretest (Orange)
5. ACom Calibration (Purple)

XPT Dynamic Compensation Status

Quartz Gauge Pressure compensated and corrected
Sapphire Gauge Pressure compensated and corrected
Hydrostatic Sapphire Gauge Pressure compensated and corrected

Parameters

DLIS Name	Description	Value	
	XPT−BA: Xpress Pressure Tool − BA		
BTA_HYD	Hydrostatic Gauge Board Temperature A Coefficient	1.00423	
BTA_SAP	Sapphire Board Temperature A Coefficient	1.02081	
BTB_HYD	Hydrostatic Gauge Board Temperature B Coefficient	0	
BTB_SAP	Sapphire Board Temperature B Coefficient	0	
BTCT_HYD	Hydrostatic Gauge Board Temperature Coefficients Read From Data Channels	YES	
BTCT_SAP	Sapphire Board Temperature Coefficients Read Fram Data Channels	YES	
DDPL_XPT	Pretest Drawdown Limit	2200	PSIA
DEVI_FL_CORR_XPT	Tool Deviation Angle	0	DEG
FLD_XPT	Flowline Density	1	G/C3
GDSV	Gauges Downhole Software Version	2.1	
GDYCO	Sapphire Dynamic Compensation Applied	YES	
PAC_SAP	Sapphire Gauge Pressure A Coefficient	0.999405	
PA_HYD	Hydrostatic Gauge Pressure A Coefficient	1.00833	
PBC_SAP	Sapphire Gauge Pressure B Coefficient	0	
PB_HYD	Hydrostatic Gauge Pressure B Coefficient	0	
PCT_HYD	Hydrostatic Gauge Pressure Coefficients Read From Data Channels	YES	
PCT_SAP	Sapphire Pressure Coefficients Read From Data Channels	YES	
PGSR	Pressure Gauges Sampling Rate	300	ms
PRSP	Pretest Rate	0.3	C3/S
PTM_XPT	Pretest Type	SMART	
PTVO_XPT	Pretest Volume	1	C3
QDYCO	CQG Dynamic Compensation Applied	YES	
TAC_SAP	Sapphire Gauge Temperature A Coefficient	1.02269	
TA_HYD	Hydrostatic Gauge Temperature A Coefficient	0.999158	
TBC_SAP	Sapphire Gauge Temperature B Coefficient	0	
TB_HYD	Hydrostatic Gauge Temperature B Coefficient	0	
TCT_HYD	Hydrostatic Gauge Temperature Coefficients Read >From Data Channels	YES	
TCT_SAP	Sapphire Temperature Coefficients Read From Data Channels	YES	

Output DLIS Files

DEFAULT	TLD_MCFL_CNL_XPT_086LTP	FN:135	PRODUCER	28−Jul−2006 05:09
RT	TLD_MCFL_CNL_XPT_086LTP	FN:136	PRODUCER	28−Jul−2006 05:11

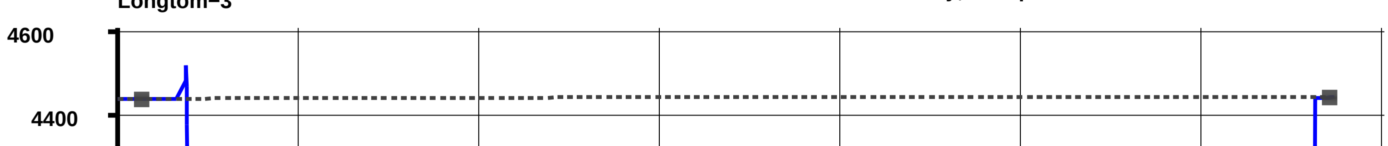
Schlumberger

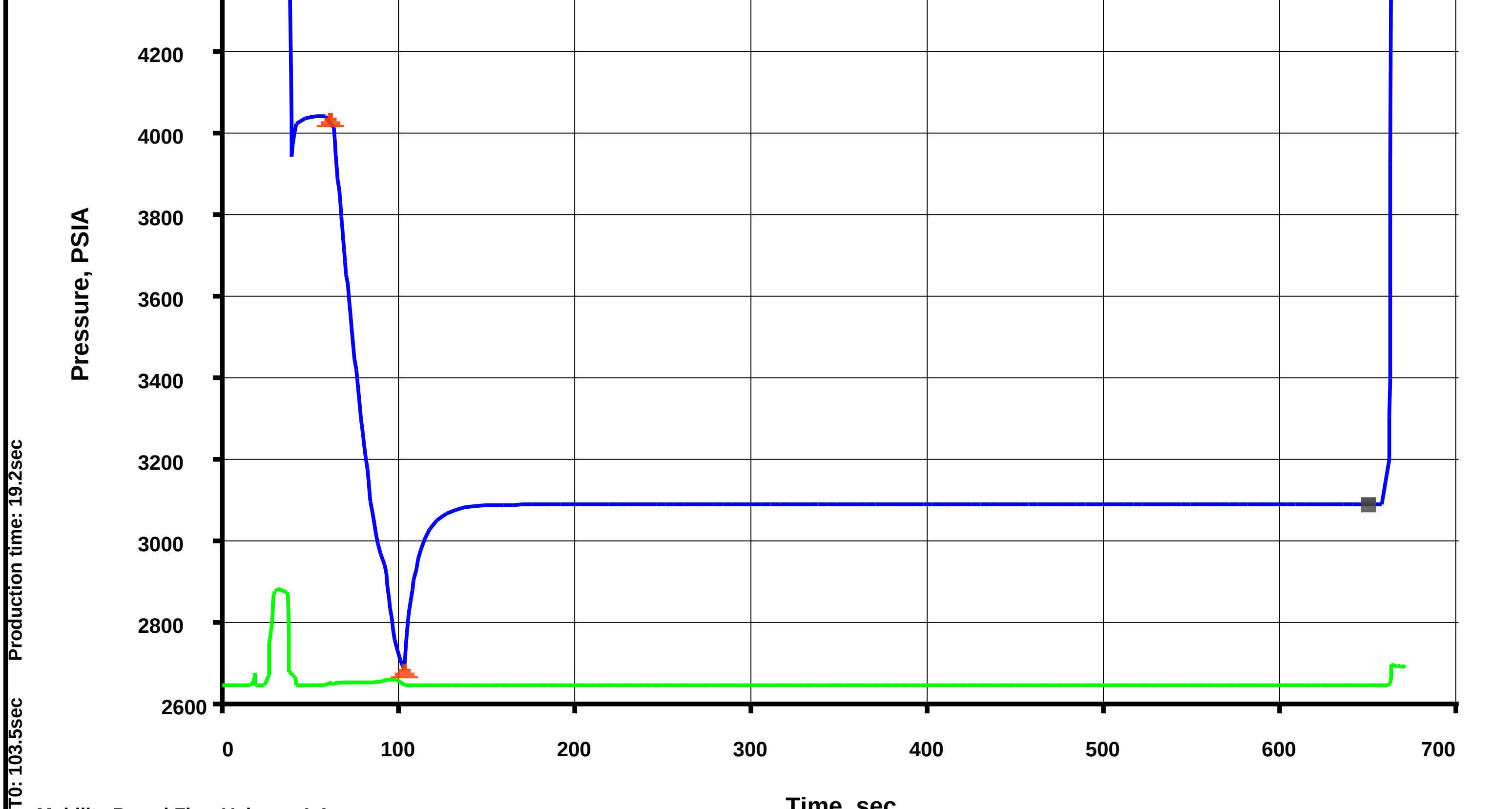
Station Depth (MD)
2670.0 m

MAXIS Field Log

File 85	Depth, M: 2669.97	Smart Pretest − Conventional probe
27−Jul−2006	Nexus Energy	
	Longtom	
	Longtom−3	

Mud Pressure before test, PSIA:	4429.14
Mud Pressure after test, PSIA:	4433.34
Last build−up pressure, PSIA:	3087.94
Draw−down mobility, md/cp:	1.1





Mobility Based Flow Volume: 1.4 cc

Total Pretest Volume: 2.5 cc − XPT−BA QCP Resolution: 0.010psi

Output DLIS Files

DEFAULT	TLD_MCFL_CNL_XPT_085LTP	FN:133	PRODUCER	28−Jul−2006 04:55	2672.0 M	1.8 M
RT	TLD_MCFL_CNL_XPT_085LTP	FN:134	PRODUCER	28−Jul−2006 04:57	2672.0 M	1.8 M

Changed Parameter Summary

DLIS Name	New Value	Previous Value	Depth & Time
DDPL_XPT	2300 PSIA	2500 PSIA	2672.0 04:56:00
	2200 PSIA	2300 PSIA	2672.0 04:56:14

XPT Oil Pressure Curve (HOILP)
0 (PSIA) 4000

Hydrostatic Pressure (CP_HYD)
0 (PSIA) 10000

Sapphire Manometer Temperature (MTEP_SAP)
0 (DEGC) 150

Sapphire Pressure (CP_SAP)
0 (PSIA) 10000

PRETEST_VOLUME From XPT_7 to XPT_PTV_CURVE

XPT Pretest Volume Curve (PTV_XPT)
0 (C3) 50

XPT Motor Speed Curve (MSPE_XPT) (RPM)

CQG Pressure (QCP)
0 (PSIA) 10000

Sapphire Zoomed Pressure (CP_SAP)
0 (PSIA) 1000

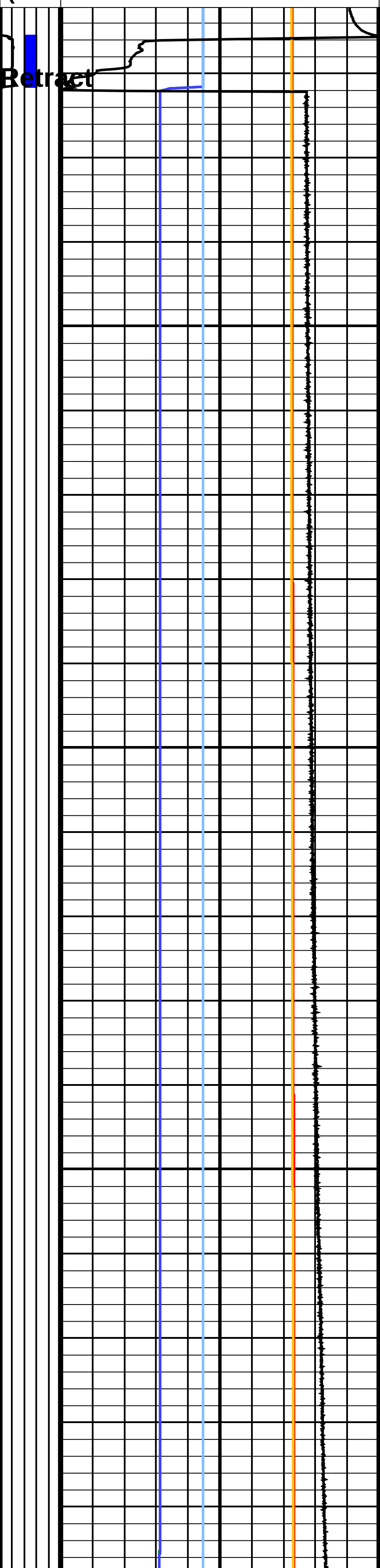
Sapphire Zoomed Pressure (CP_SAP)
0 (PSIA) 100

Sapphire Zoomed Pressure (CP_SAP)
0 (PSIA) 10

0
5000

XPT Actions Image (AIMG) (----

CQG Temperature (MTEP_QG) 0 (DEGC) 150

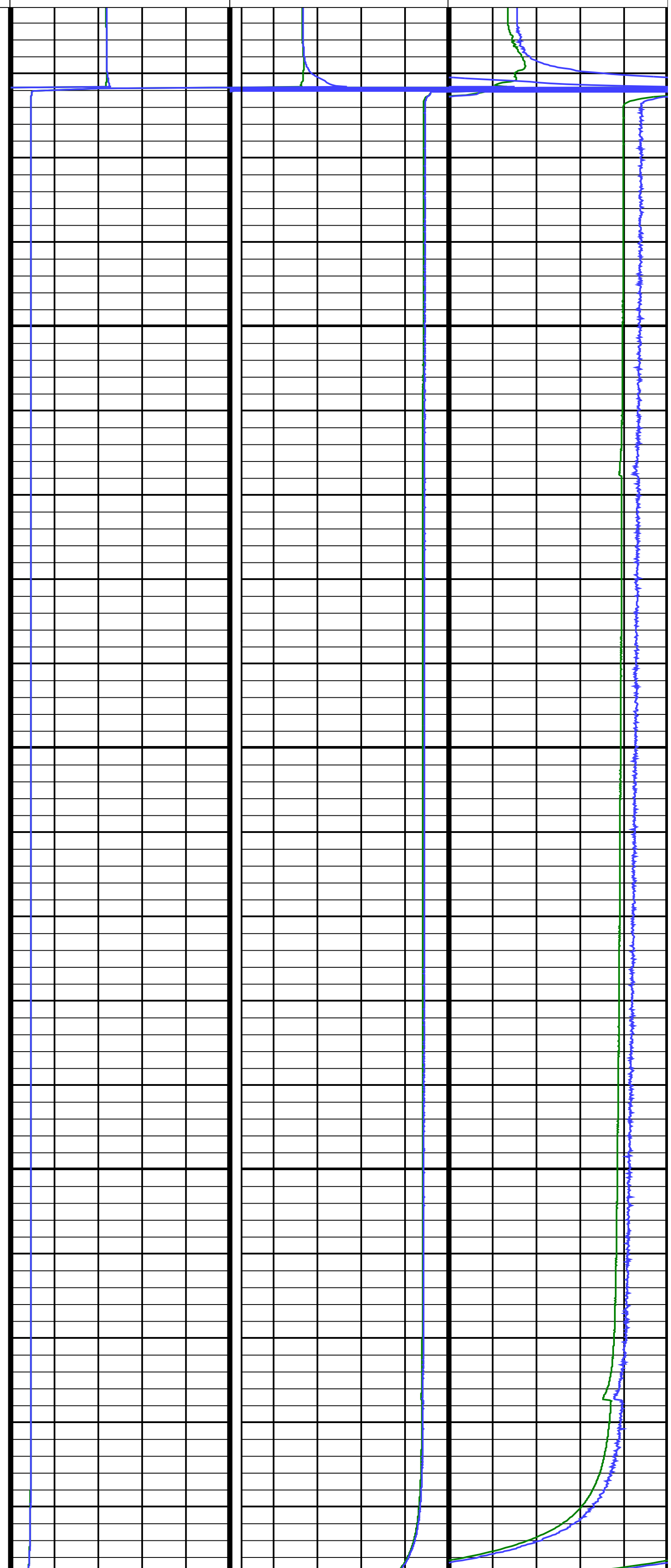


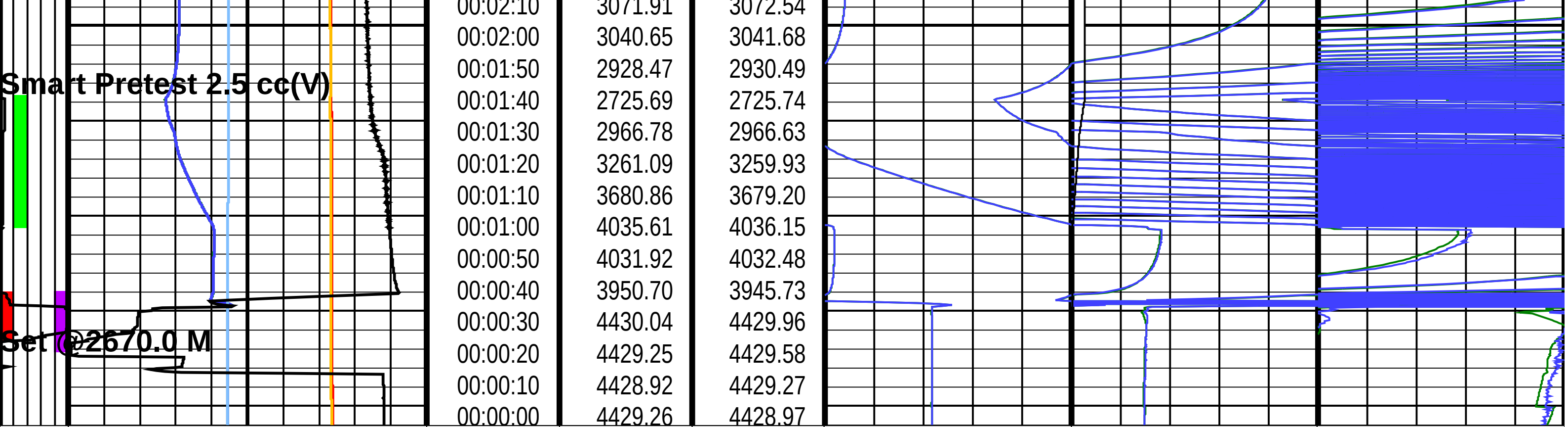
XPT Time Log (ETIM_XPT) (S)	CQG Pressure (QCP) (PSIA)	Sapphire Pressure (CP_SAP) (PSIA)
00:11:20	4432.83	4433.19
00:11:10	4433.42	4434.31
00:11:00	3091.63	3091.44
00:10:50	3087.93	3088.72
00:10:40	3087.93	3088.63
00:10:30	3087.93	3088.65
00:10:20	3087.93	3088.77
00:10:10	3087.93	3088.76
00:10:00	3087.92	3088.68
00:09:50	3087.91	3088.68
00:09:40	3087.91	3088.63
00:09:30	3087.90	3088.72
00:09:20	3087.89	3088.63
00:09:10	3087.88	3088.61
00:09:00	3087.86	3088.61
00:08:50	3087.81	3088.55
00:08:40	3087.86	3088.64
00:08:30	3087.85	3088.56
00:08:20	3087.85	3088.66
00:08:10	3087.84	3088.58
00:08:00	3087.84	3088.59
00:07:50	3087.83	3088.45
00:07:40	3087.83	3088.59
00:07:30	3087.82	3088.49
00:07:20	3087.81	3088.59
00:07:10	3087.80	3088.49
00:07:00	3087.80	3088.45
00:06:50	3087.79	3088.43
00:06:40	3087.78	3088.43
00:06:30	3087.77	3088.44
00:06:20	3087.77	3088.48
00:06:10	3087.76	3088.38
00:06:00	3087.75	3088.33
00:05:50	3087.74	3088.41
00:05:40	3087.73	3088.33
00:05:30	3087.71	3088.33
00:05:20	3087.71	3088.28
00:05:10	3087.70	3088.31
00:05:00	3087.68	3088.19
00:04:50	3087.67	3088.27
00:04:40	3087.66	3088.18
00:04:30	3087.64	3088.21
00:04:20	3087.62	3088.15
00:04:10	3087.61	3088.05
00:04:00	3087.59	3088.10
00:03:50	3087.56	3088.05
00:03:40	3087.53	3088.13
00:03:30	3087.45	3088.04
00:03:20	3087.25	3087.72
00:03:10	3087.33	3087.86
00:03:00	3087.19	3087.70
00:02:50	3086.91	3087.41
00:02:40	3086.36	3086.87
00:02:30	3085.10	3085.60
00:02:20	3081.66	3082.10

CQG Zoomed Pressure (QCP) 0 (PSIA) 1000

CQG Zoomed Pressure (QCP) 0 (PSIA) 100

CQG Zoomed Pressure (QCP) 0 (PSIA) 10





XPT Actions Image (AIMG) (----

CQG Temperature (MTEP_QG)
0 (DEGC) 150

XPT Time Log (ETIM_XPT) (S)

CQG Pressure (QCP) (PSIA)

Sapphire Pressure (CP_SAP) (PSIA)

CQG Zoomed Pressure (QCP)
0 (PSIA) 1000

CQG Zoomed Pressure (QCP)
0 (PSIA) 100

CQG Zoomed Pressure (QCP)
0 (PSIA) 10

XPT Motor Speed Curve (MSPE_XPT) (RPM)
0 5000

CQG Pressure (QCP)
0 (PSIA) 10000

Sapphire Zoomed Pressure (CP_SAP)
0 (PSIA) 1000

Sapphire Zoomed Pressure (CP_SAP)
0 (PSIA) 100

Sapphire Zoomed Pressure (CP_SAP)
0 (PSIA) 10

Sapphire Pressure (CP_SAP)
0 (PSIA) 10000

XPT Pretest Volume Curve (PTV_XPT)
0 (C3) 50

Sapphire Manometer Temperature (MTEP_SAP)
0 (DEGC) 150

PRETEST_VOLUME From XPT_7 to XPT_PTV_CURVE

Hydrostatic Pressure (CP_HYD)
0 (PSIA) 10000

XPT Oil Pressure Curve (HOILP)
0 (PSIA) 4000

XPT Actions Image

WHITE: No Action / COLORED: Action in progress
Left to right:

1. Set (Red)
2. Pretest (Green)
3. Retract (Blue)
4. Init Pretest (Orange)
5. ACom Calibration (Purple)

XPT Dynamic Compensation Status

Quartz Gauge Pressure compensated and corrected
Sapphire Gauge Pressure compensated and corrected
Hydrostatic Sapphire Gauge Pressure compensated and corrected

Parameters

DLIS Name	Description	Value	
	XPT−BA: Xpress Pressure Tool − BA		
BTA_HYD	Hydrostatic Gauge Board Temperature A Coefficient	1.00424	
BTA_SAP	Sapphire Board Temperature A Coefficient	1.02081	
BTB_HYD	Hydrostatic Gauge Board Temperature B Coefficient	0	
BTB_SAP	Sapphire Board Temperature B Coefficient	0	
BTCT_HYD	Hydrostatic Gauge Board Temperature Coefficients Read From Data Channels	YES	
BTCT_SAP	Sapphire Board Temperature Coefficients Read Fram Data Channels	YES	
DDPL_XPT	Pretest Drawdown Limit	2500	PSIA
DEVI_FL_CORR_XPT	Tool Deviation Angle	0	DEG
FLD_XPT	Flowline Density	1	G/C3
GDSV	Gauges Downhole Software Version	2.1	
GDYCO	Sapphire Dynamic Compensation Applied	YES	
PAC_SAP	Sapphire Gauge Pressure A Coefficient	0.999396	
PA_HYD	Hydrostatic Gauge Pressure A Coefficient	1.00835	
PBC_SAP	Sapphire Gauge Pressure B Coefficient	0	
PB_HYD	Hydrostatic Gauge Pressure B Coefficient	0	
PCT_HYD	Hydrostatic Gauge Pressure Coefficients Read From Data Channels	YES	
PCT_SAP	Sapphire Pressure Coefficients Read From Data Channels	YES	
PGSR	Pressure Gauges Sampling Rate	300	ms
PRSP	Pretest Rate	0.3	C3/S
PTM_XPT	Pretest Type	SMART	
PTVO_XPT	Pretest Volume	1	C3
QDYCO	CQG Dynamic Compensation Applied	YES	
TAC_SAP	Sapphire Gauge Temperature A Coefficient	1.02268	
TA_HYD	Hydrostatic Gauge Temperature A Coefficient	0.99917	
TBC_SAP	Sapphire Gauge Temperature B Coefficient	0	
TB_HYD	Hydrostatic Gauge Temperature B Coefficient	0	
TCT_HYD	Hydrostatic Gauge Temperature Coefficients Read >From Data Channels	YES	
TCT_SAP	Sapphire Temperature Coefficients Read From Data Channels	YES	

Output DLIS Files

DEFAULT	TLD_MCFL_CNL_XPT_085LTP	FN:133	PRODUCER	28−Jul−2006 04:55
RT	TLD_MCFL_CNL_XPT_085LTP	FN:134	PRODUCER	28−Jul−2006 04:57

Schlumberger

Station Depth (MD)
2860.0 m

MAXIS Field Log

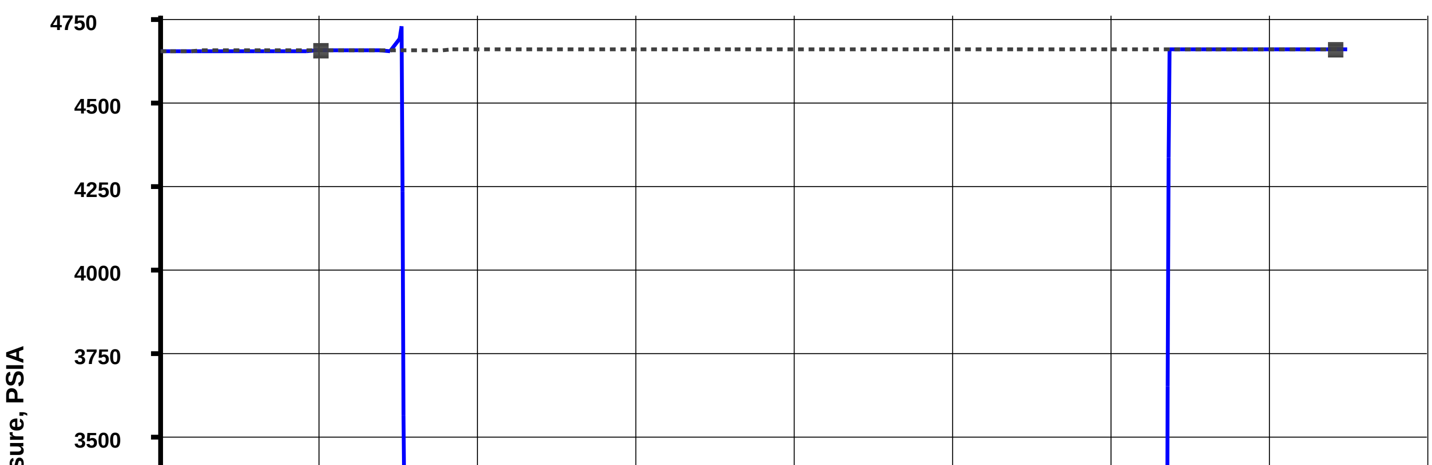
File 84 **Depth, M: 2859.96** **Dry Test − Conventional probe**

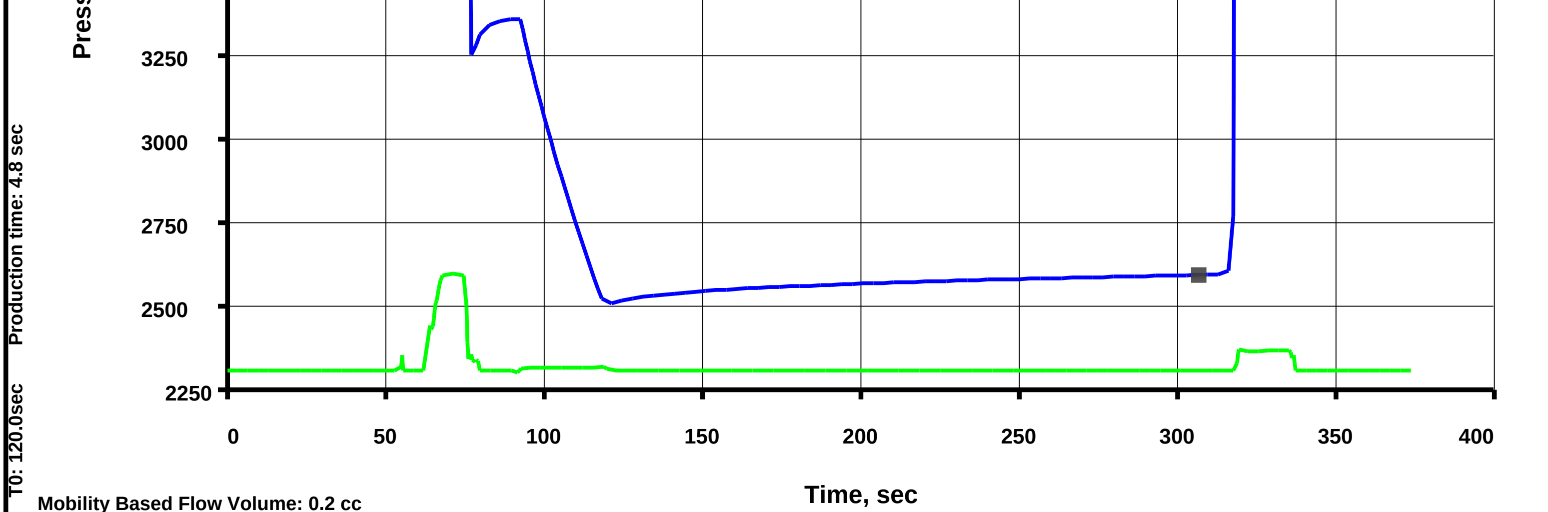
27−Jul−2006 **Nexus Energy**

Longtom

Longtom−3

Mud Pressure before test, PSIA:	4644.55
Mud Pressure after test, PSIA:	4647.87
Last build−up pressure, PSIA:	2593.43





Mobility Based Flow Volume: 0.2 cc

Total Pretest Volume: 1.3 cc – XPT−BA QCP Resolution: 0.010psi

Output DLIS Files

DEFAULT	TLD_MCFL_CNL_XPT_084LTP	FN:131	PRODUCER	28−Jul−2006 04:36	2862.0 M	1.0 M
RT	TLD_MCFL_CNL_XPT_084LTP	FN:132	PRODUCER	28−Jul−2006 04:38	2862.0 M	1.0 M

Changed Parameter Summary

DLIS Name	New Value	Previous Value	Depth & Time
PTM_XPT	SMART	MANUAL	2862.0 04:36:24

XPT Oil Pressure Curve (HOILP) 0 (PSIA) 4000

Hydrostatic Pressure (CP_HYD) 0 (PSIA) 10000

Sapphire Manometer Temperature (MTEP_SAP) 0 (DEGC) 150

Sapphire Pressure (CP_SAP) 0 (PSIA) 10000

PRETEST_VOLUME From XPT_7 to XPT_PTV_CURVE

XPT Pretest Volume Curve (PTV_XPT) 0 (C3) 50

XPT Motor Speed Curve (MSPE_XPT) (RPM) 0 5000

CQG Pressure (QCP) 0 (PSIA) 10000

Sapphire Zoomed Pressure (CP_SAP) 0 (PSIA) 1000

Sapphire Zoomed Pressure (CP_SAP) 0 (PSIA) 100

Sapphire Zoomed Pressure (CP_SAP) 0 (PSIA) 10

XPT Actions Image (AIMG) (−−−−

CQG Temperature (MTEP_QG) 0 (DEGC) 150

XPT Time Log (ETIM_XPT) (S)

CQG Pressure (QCP) (PSIA)

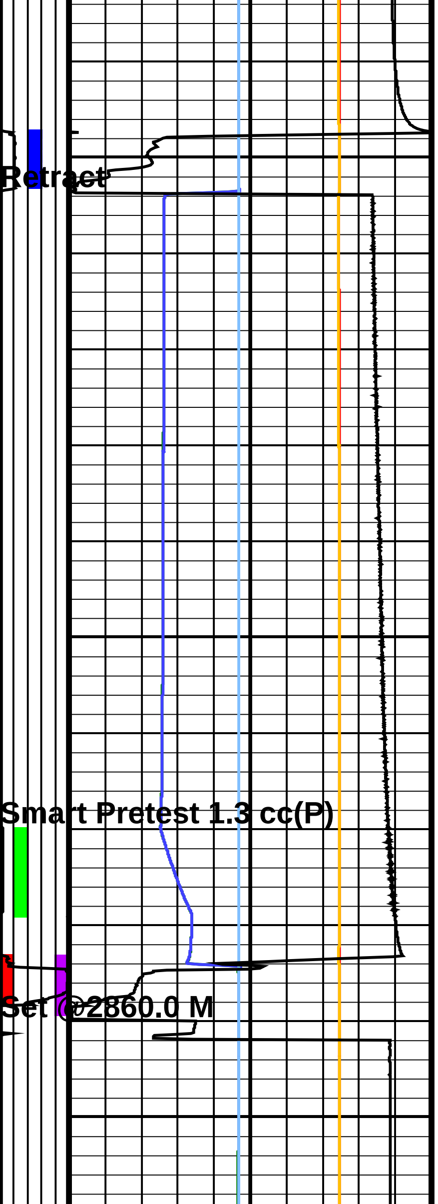
Sapphire Pressure (CP_SAP) (PSIA)

CQG Zoomed Pressure (QCP) 0 (PSIA) 1000

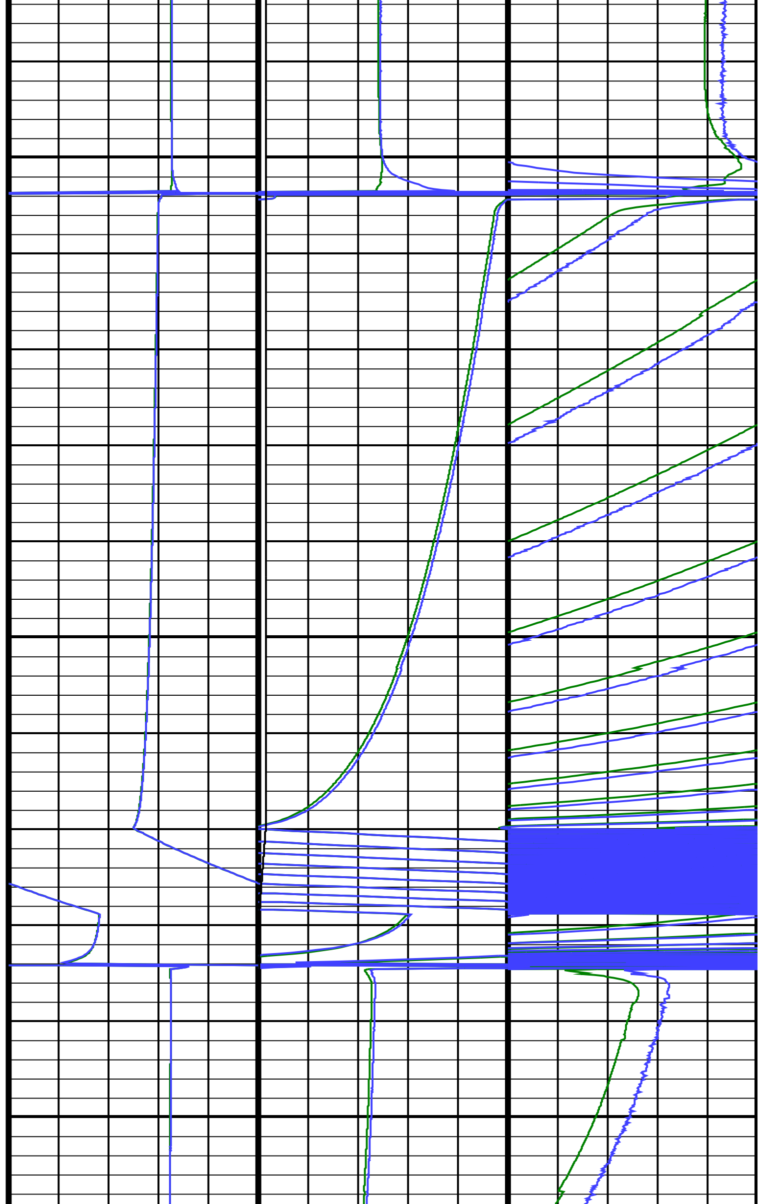
CQG Zoomed Pressure (QCP) 0 (PSIA) 100

CQG Zoomed Pressure (QCP) 0 (PSIA) 10

00:06:20 4647.88 4648.65



XPT Time Log (ETIM_XPT) (S)	CQG Pressure (QCP) (PSIA)	Sapphire Pressure (CP_SAP) (PSIA)
00:06:10	4647.85	4648.60
00:06:00	4647.85	4648.53
00:05:50	4647.87	4648.54
00:05:40	4648.08	4648.65
00:05:30	4649.02	4649.34
00:05:20	4647.42	4666.66
00:05:10	2593.85	2595.24
00:05:00	2591.81	2593.16
00:04:50	2589.73	2591.23
00:04:40	2587.66	2589.17
00:04:30	2585.61	2587.11
00:04:20	2583.36	2584.87
00:04:10	2581.01	2582.52
00:04:00	2578.57	2580.05
00:03:50	2575.93	2577.56
00:03:40	2573.17	2574.61
00:03:30	2570.26	2571.73
00:03:20	2566.99	2568.52
00:03:10	2563.55	2565.17
00:03:00	2559.71	2561.30
00:02:50	2555.14	2556.95
00:02:40	2550.61	2552.40
00:02:30	2544.54	2546.28
00:02:20	2536.64	2538.57
00:02:10	2525.63	2527.59
00:02:00	2499.35	2500.43
00:01:50	2754.67	2755.15
00:01:40	3074.49	3074.26
00:01:30	3356.10	3357.89
00:01:20	3308.38	3301.27
00:01:10	4645.08	4646.43
00:01:00	4644.82	4646.12
00:00:50	4644.39	4645.74
00:00:40	4643.99	4645.31
00:00:30	4643.53	4644.87
00:00:20	4642.94	4644.22
00:00:10	4642.29	4643.61
00:00:00	4641.71	4642.76



XPT Actions Image (AIMG) (----

CQG Temperature (MTEP_QG) 0 (DEGC) 150

XPT Time Log (ETIM_XPT) (S)

CQG Pressure (QCP) (PSIA)

Sapphire Pressure (CP_SAP) (PSIA)

CQG Zoomed Pressure (QCP) 0 (PSIA) 1000

CQG Zoomed Pressure (QCP) 0 (PSIA) 100

CQG Zoomed Pressure (QCP) 0 (PSIA) 10

XPT Motor Speed Curve (MSPE_XPT) (RPM) 0 5000

CQG Pressure (QCP) 0 (PSIA) 10000

Sapphire Zoomed Pressure (CP_SAP) 0 (PSIA) 1000

Sapphire Zoomed Pressure (CP_SAP) 0 (PSIA) 100

Sapphire Zoomed Pressure (CP_SAP) 0 (PSIA) 10

Sapphire Pressure (CP_SAP) 0 (PSIA) 10000

XPT Pretest Volume Curve (PTV_XPT) 0 (C3) 50

Sapphire Manometer Temperature (MTEP_SAP) 0 (DEGC) 150

PRETEST_VOLUME From XPT_7 to XPT_PTV_CURVE

Hydrostatic Pressure (CP_HYD)		
0	(PSIA)	10000

XPT Oil Pressure Curve (HOILP)		
0	(PSIA)	4000

XPT Actions Image

WHITE: No Action / COLORED: Action in progress
Left to right:

1. Set (Red)
2. Pretest (Green)
3. Retract (Blue)
4. Init Pretest (Orange)
5. ACom Calibration (Purple)

XPT Dynamic Compensation Status

Quartz Gauge Pressure compensated and corrected
Sapphire Gauge Pressure compensated and corrected
Hydrostatic Sapphire Gauge Pressure compensated and corrected

Parameters

DLIS Name	Description	Value	
XPT–BA: Xpress Pressure Tool – BA			
BTA_HYD	Hydrostatic Gauge Board Temperature A Coefficient	1.00425	
BTA_SAP	Sapphire Board Temperature A Coefficient	1.02082	
BTB_HYD	Hydrostatic Gauge Board Temperature B Coefficient	0	
BTB_SAP	Sapphire Board Temperature B Coefficient	0	
BTCT_HYD	Hydrostatic Gauge Board Temperature Coefficients Read From Data Channels	YES	
BTCT_SAP	Sapphire Board Temperature Coefficients Read Fram Data Channels	YES	
DDPL_XPT	Pretest Drawdown Limit	2500	PSIA
DEVI_FL_CORR_XPT	Tool Deviation Angle	0	DEG
FLD_XPT	Flowline Density	1	G/C3
GDSV	Gauges Downhole Software Version	2.1	
GDYCO	Sapphire Dynamic Compensation Applied	YES	
PAC_SAP	Sapphire Gauge Pressure A Coefficient	0.999394	
PA_HYD	Hydrostatic Gauge Pressure A Coefficient	1.00837	
PBC_SAP	Sapphire Gauge Pressure B Coefficient	0	
PB_HYD	Hydrostatic Gauge Pressure B Coefficient	0	
PCT_HYD	Hydrostatic Gauge Pressure Coefficients Read From Data Channels	YES	
PCT_SAP	Sapphire Pressure Coefficients Read From Data Channels	YES	
PGSR	Pressure Gauges Sampling Rate	300	ms
PRSP	Pretest Rate	0.3	C3/S
PTM_XPT	Pretest Type	MANUAL	
PTVO_XPT	Pretest Volume	1	C3
QDYCO	CQG Dynamic Compensation Applied	YES	
TAC_SAP	Sapphire Gauge Temperature A Coefficient	1.02269	
TA_HYD	Hydrostatic Gauge Temperature A Coefficient	0.99917	
TBC_SAP	Sapphire Gauge Temperature B Coefficient	0	
TB_HYD	Hydrostatic Gauge Temperature B Coefficient	0	
TCT_HYD	Hydrostatic Gauge Temperature Coefficients Read >From Data Channels	YES	
TCT_SAP	Sapphire Temperature Coefficients Read From Data Channels	YES	

Output DLIS Files

DEFAULT	TLD_MCFL_CNL_XPT_084LTP	FN:131	PRODUCER	28–Jul–2006 04:36
RT	TLD_MCFL_CNL_XPT_084LTP	FN:132	PRODUCER	28–Jul–2006 04:38

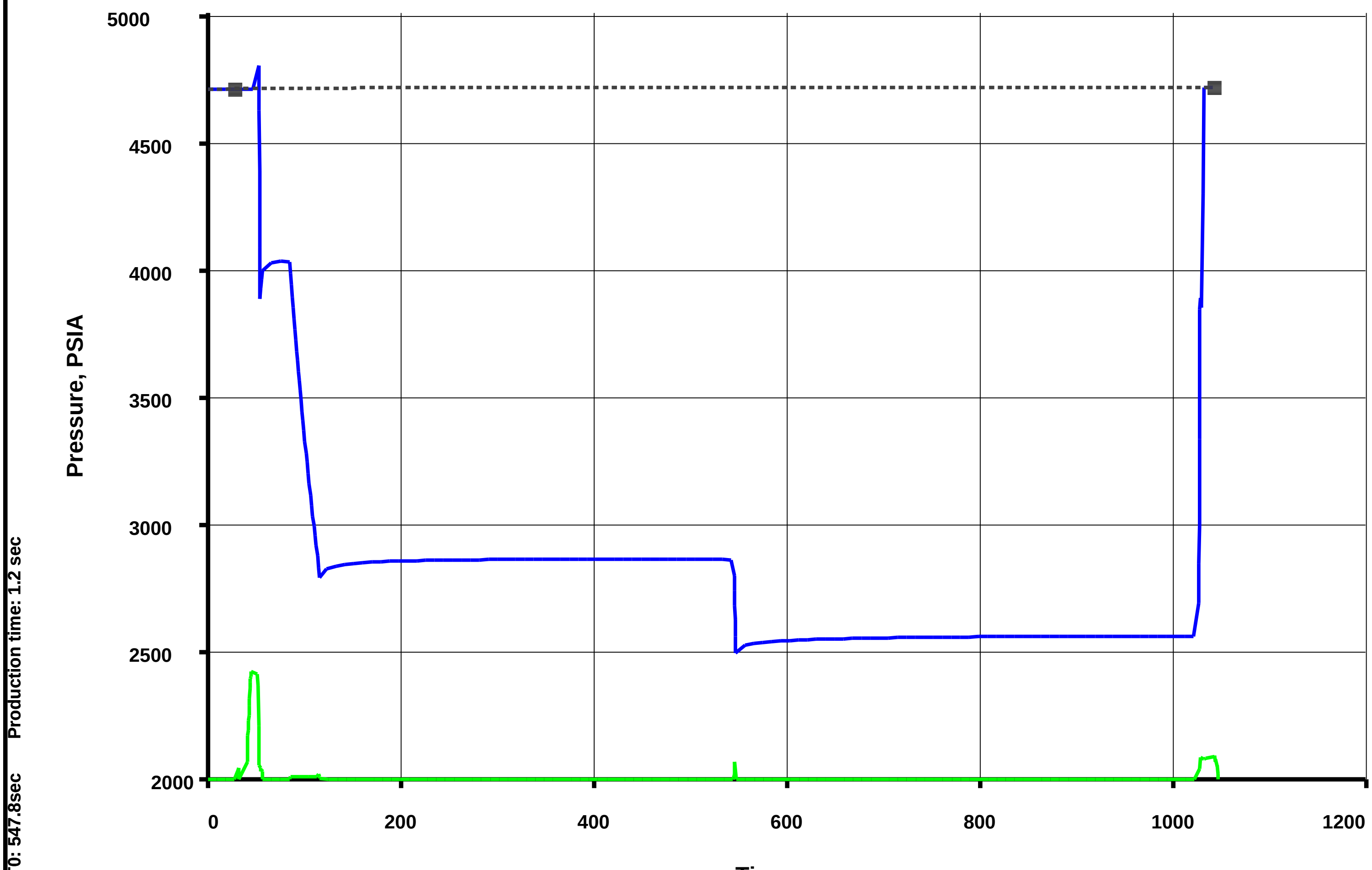
Schlumberger

Station Depth (MD)
2908.0 m

MAXIS Field Log

File 83 | Depth, M: 2907.96 | Unrecognizable − Conventional probe
27−Jul−2006 | Nexus Energy
Longtom
Longtom−3

Mud Pressure before test, PSIA: 4700.65
Mud Pressure after test, PSIA: 4705.96



Mobility Based Flow Volume: 0.3 cc

Total Pretest Volume: 0.6 cc − XPT−BA QCP Resolution: 0.010psi

Output DLIS Files

DEFAULT	TLD_MCFL_CNL_XPT_083LTP	FN:129	PRODUCER	28−Jul−2006 04:13	2910.0 M	2.7 M
RT	TLD_MCFL_CNL_XPT_083LTP	FN:130	PRODUCER	28−Jul−2006 04:15	2910.0 M	2.7 M

Changed Parameter Summary

DLIS Name	New Value	Previous Value	Depth & Time
DDPL_XPT	2800 PSIA	3000 PSIA	2910.0 04:14:07
	2500 PSIA	2800 PSIA	2910.0 04:21:49
PTM_XPT	MANUAL	SMART	2910.0 04:21:39
PTVO_XPT	1 C3	5 C3	2910.0 04:21:55
	0.5 C3	1 C3	2910.0 04:22:03
	1 C3	0.5 C3	2910.0 04:22:16

XPT Oil Pressure Curve (HOILP)		
0	(PSIA)	4000
Hydrostatic Pressure (CP_HYD)		
0	(PSIA)	10000
Sapphire Manometer		

PRETEST_

Sapphire Manometer Temperature (MTEP_SAP)
0 (DEGC) 150

Sapphire Pressure (CP_SAP)
0 (PSIA) 10000

VOLUME From XPT_7 to XPT_PTV_CURVE

XPT Pretest Volume Curve (PTV_XPT)
0 (C3) 50

XPT Motor Speed Curve (MSPE_XPT) (RPM)
0 5000

CQG Pressure (QCP)
0 (PSIA) 10000

Sapphire Zoomed Pressure (CP_SAP)
0 (PSIA) 1000

Sapphire Zoomed Pressure (CP_SAP)
0 (PSIA) 100

Sapphire Zoomed Pressure (CP_SAP)
0 (PSIA) 10

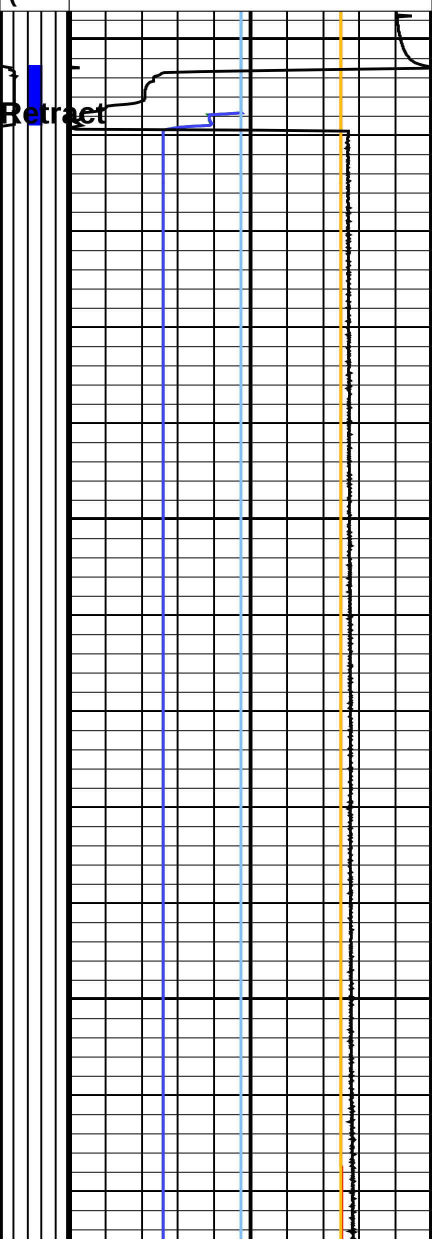
XPT Actions Image (AIMG) (----

CQG Temperature (MTEP_QG)
0 (DEGC) 150

CQG Zoomed Pressure (QCP)
0 (PSIA) 1000

CQG Zoomed Pressure (QCP)
0 (PSIA) 100

CQG Zoomed Pressure (QCP)
0 (PSIA) 10



XPT Time Log (ETIM_XPT) (S)	CQG Pressure (QCP) (PSIA)	Sapphire Pressure (CP_SAP) (PSIA)
00:17:40	4705.30	4705.94
00:17:29	4705.63	4706.10
00:17:20	4706.60	4707.34
00:17:10	3845.61	3856.38
00:17:00	2562.22	2563.57
00:16:50	2562.13	2563.46
00:16:40	2562.02	2563.48
00:16:30	2561.90	2563.38
00:16:20	2561.77	2563.17
00:16:10	2561.64	2563.08
00:16:00	2561.51	2562.93
00:15:50	2561.38	2562.84
00:15:40	2561.26	2562.73
00:15:30	2561.15	2562.58
00:15:20	2561.03	2562.46
00:15:10	2560.93	2562.38
00:15:00	2560.82	2562.23
00:14:50	2560.70	2562.12
00:14:40	2560.59	2562.04
00:14:30	2560.45	2561.86
00:14:20	2560.30	2561.70
00:14:10	2560.14	2561.59
00:14:00	2559.96	2561.42
00:13:50	2559.76	2561.14
00:13:40	2559.56	2561.00
00:13:30	2559.34	2560.80
00:13:20	2559.09	2560.59
00:13:10	2558.82	2560.28
00:13:00	2558.53	2559.95
00:12:50	2558.21	2559.65
00:12:40	2557.85	2559.32
00:12:30	2557.47	2558.91
00:12:20	2557.07	2558.59
00:12:10	2556.62	2558.13
00:12:00	2556.13	2557.56
00:11:50	2555.61	2557.08
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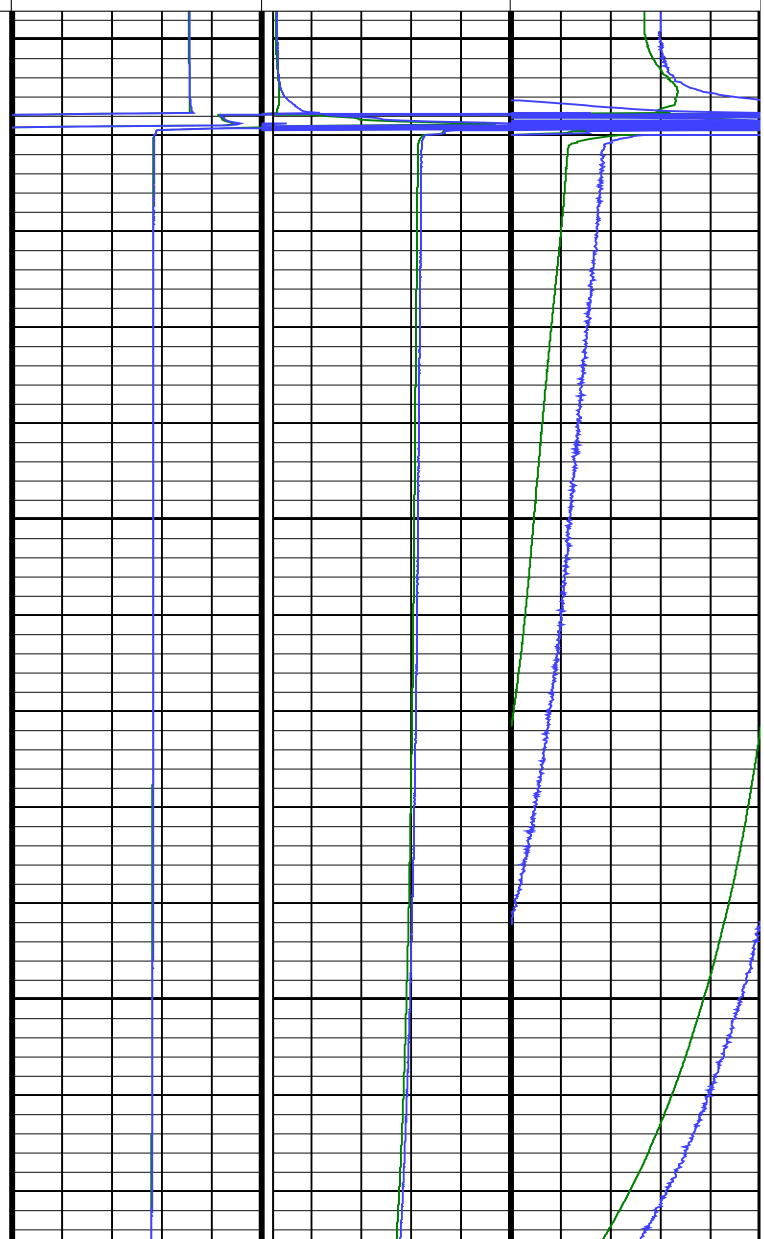
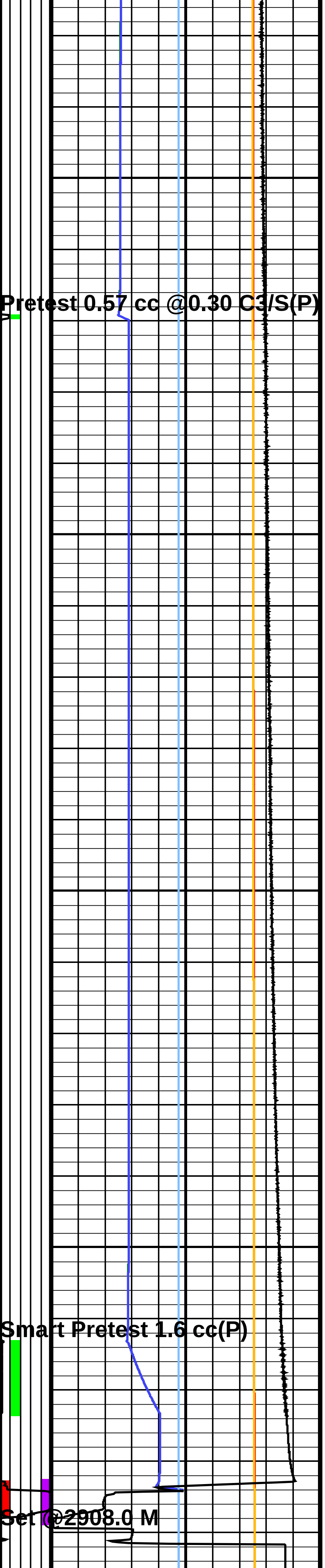
00:11:30	2554.36	2555.75
00:11:20	2553.64	2555.19





00:11:10	2552.81	2554.38
00:11:00	2551.97	2553.45
00:10:50	2551.02	2552.65
00:10:40	2549.94	2551.42
00:10:30	2548.74	2550.32
00:10:20	2547.40	2548.91
00:10:10	2545.77	2547.36
00:10:00	2543.85	2545.42
00:09:50	2541.52	2543.12
00:09:40	2538.45	2540.03
00:09:30	2534.43	2536.08
00:09:20	2528.15	2529.82
00:09:10	2504.35	2503.77
00:09:00	2860.50	2861.87
00:08:50	2860.62	2861.96
00:08:40	2860.74	2862.15
00:08:30	2860.86	2862.20
00:08:20	2860.98	2862.32
00:08:10	2861.08	2862.42
00:08:00	2861.19	2862.49
00:07:50	2861.29	2862.55
00:07:40	2861.38	2862.74
00:07:30	2861.47	2862.84
00:07:20	2861.55	2862.90
00:07:10	2861.61	2862.94
00:07:00	2861.67	2862.97
00:06:50	2861.70	2863.11
00:06:40	2861.73	2863.11
00:06:30	2861.76	2863.04
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00:06:10	2861.73	2863.14
00:06:00	2861.68	2863.02
00:05:50	2861.62	2863.00
00:05:40	2861.53	2862.91
00:05:30	2861.56	2862.89
00:05:20	2861.43	2862.79
00:05:10	2861.24	2862.64
00:05:00	2861.01	2862.44
00:04:50	2860.74	2862.17
00:04:40	2860.43	2861.78
00:04:30	2860.08	2861.45
00:04:20	2859.65	2861.08
00:04:10	2859.16	2860.58
00:04:00	2858.62	2860.06
00:03:50	2857.96	2859.35
00:03:40	2857.19	2858.60
00:03:30	2856.29	2857.75
00:03:20	2855.19	2856.64
00:03:10	2853.93	2855.45
00:03:00	2852.41	2853.89
00:02:50	2850.42	2852.02
00:02:40	2847.93	2849.55
00:02:30	2844.74	2846.43
00:02:20	2839.90	2841.58
00:02:10	2832.50	2834.33
00:02:00	2816.57	2818.22
00:01:50	3003.65	3003.83
00:01:40	3355.33	3354.89
00:01:30	3775.88	3775.19
00:01:20	4027.93	4029.29
00:01:10	4023.24	4024.75
00:01:00	4007.58	4008.08
00:00:50	4700.70	4702.97
00:00:40	4701.10	4702.49
00:00:30	4700.56	4701.97
00:00:20	4699.94	4701.33

00:00:10	4699.24	4700.66
00:00:00	4698.61	4699.86

XPT Actions Image (AIMG) (----

CQG Temperature (MTEP_QG) 0 (DEGC) 150

XPT Time Log (ETIM_XPT) (S)

CQG Pressure (QCP) (PSIA)

Sapphire Pressure (CP_SAP) (PSIA)

CQG Zoomed Pressure (QCP) 0 (PSIA) 1000

CQG Zoomed Pressure (QCP) 0 (PSIA) 100

CQG Zoomed Pressure (QCP) 0 (PSIA) 10

XPT Motor Speed Curve (MSPE_XPT) (RPM) 0 5000

CQG Pressure (QCP) 0 (PSIA) 10000

Sapphire Zoomed Pressure (CP_SAP) 0 (PSIA) 1000

Sapphire Zoomed Pressure (CP_SAP) 0 (PSIA) 100

Sapphire Zoomed Pressure (CP_SAP) 0 (PSIA) 10

Sapphire Pressure (CP_SAP) 0 (PSIA) 10000

XPT Pretest Volume Curve (PTV_XPT) 0 (C3) 50

Sapphire Manometer Temperature (MTEP_SAP) 0 (DEGC) 150

PRETEST_VOLUME From XPT_7 to XPT_PTV_CURVE

Hydrostatic Pressure (CP_HYD) 0 (PSIA) 10000

XPT Oil Pressure Curve (HOILP) 0 (PSIA) 4000

XPT Actions Image

WHITE: No Action / COLORED: Action in progress
Left to right:

1. Set (Red)
2. Pretest (Green)
3. Retract (Blue)
4. Init Pretest (Orange)
5. ACom Calibration (Purple)

XPT Dynamic Compensation Status

Quartz Gauge Pressure compensated and corrected
Sapphire Gauge Pressure compensated and corrected
Hydrostatic Sapphire Gauge Pressure compensated and corrected

Parameters

DLIS Name	Description	Value	
XPT−BA: Xpress Pressure Tool − BA			
BTA_HYD	Hydrostatic Gauge Board Temperature A Coefficient	1.00426	
BTA_SAP	Sapphire Board Temperature A Coefficient	1.02082	
BTB_HYD	Hydrostatic Gauge Board Temperature B Coefficient	0	
BTB_SAP	Sapphire Board Temperature B Coefficient	0	
BTCT_HYD	Hydrostatic Gauge Board Temperature Coefficients Read From Data Channels	YES	
BTCT_SAP	Sapphire Board Temperature Coefficients Read Fram Data Channels	YES	
DDPL_XPT	Pretest Drawdown Limit	3000	PSIA

DEVI_FL_CORR_XPT	Tool Deviation Angle	0	DEG
FLD_XPT	Flowline Density	1	G/C3
GDSV	Gauges Downhole Software Version	2.1	
GDYCO	Sapphire Dynamic Compensation Applied	YES	
PAC_SAP	Sapphire Gauge Pressure A Coefficient	0.99939	
PA_HYD	Hydrostatic Gauge Pressure A Coefficient	1.00839	
PBC_SAP	Sapphire Gauge Pressure B Coefficient	0	
PB_HYD	Hydrostatic Gauge Pressure B Coefficient	0	
PCT_HYD	Hydrostatic Gauge Pressure Coefficients Read From Data Channels	YES	
PCT_SAP	Sapphire Pressure Coefficients Read From Data Channels	YES	
PGSR	Pressure Gauges Sampling Rate	300	ms
PRSP	Pretest Rate	0.3	C3/S
PTM_XPT	Pretest Type	SMART	
PTVO_XPT	Pretest Volume	5	C3
QDYCO	CQG Dynamic Compensation Applied	YES	
TAC_SAP	Sapphire Gauge Temperature A Coefficient	1.02268	
TA_HYD	Hydrostatic Gauge Temperature A Coefficient	0.999175	
TBC_SAP	Sapphire Gauge Temperature B Coefficient	0	
TB_HYD	Hydrostatic Gauge Temperature B Coefficient	0	
TCT_HYD	Hydrostatic Gauge Temperature Coefficients Read >From Data Channels	YES	
TCT_SAP	Sapphire Temperature Coefficients Read From Data Channels	YES	

Output DLIS Files

DEFAULT	TLD_MCFL_CNL_XPT_083LTP	FN:129	PRODUCER	28−Jul−2006 04:13
RT	TLD_MCFL_CNL_XPT_083LTP	FN:130	PRODUCER	28−Jul−2006 04:15

Schlumberger

Station Depth (MD)
2983.5 m

MAXIS Field Log

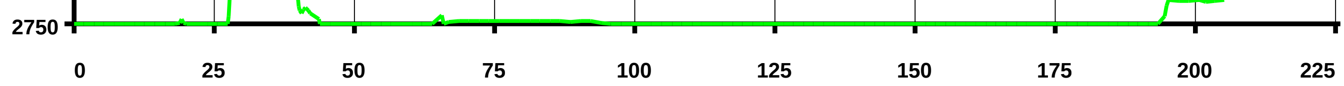
File 82 — Depth, M: 2983.47 — Dry Test − Conventional probe

27−Jul−2006 — Nexus Energy

Longtom

Longtom−3

Mud Pressure before test, PSIA:	4788.42
Mud Pressure after test, PSIA:	4793.38
Last build−up pressure, PSIA:	3199.08



Mobility Based Flow Volume: 0.3 cc

Total Pretest Volume: 1.4 cc – XPT–BA QCP Resolution: 0.010psi

Output DLIS Files

DEFAULT	TLD_MCFL_CNL_XPT_082LTP	FN:127	PRODUCER	28–Jul–2006 04:01	2985.5 M	0.6 M
RT	TLD_MCFL_CNL_XPT_082LTP	FN:128	PRODUCER	28–Jul–2006 04:03	2985.5 M	0.6 M

XPT Oil Pressure Curve (HOILP) 0 (PSIA) 4000

Hydrostatic Pressure (CP_HYD) 0 (PSIA) 10000

Sapphire Manometer Temperature (MTEP_SAP) 0 (DEGC) 150

Sapphire Pressure (CP_SAP) 0 (PSIA) 10000

PRETEST_VOLUME From XPT_7 to XPT_PTV_CURVE

XPT Pretest Volume Curve (PTV_XPT) 0 (C3) 50

XPT Motor Speed Curve (MSPE_XPT) (RPM) 0 5000

CQG Pressure (QCP) 0 (PSIA) 10000

Sapphire Zoomed Pressure (CP_SAP) 0 (PSIA) 1000

Sapphire Zoomed Pressure (CP_SAP) 0 (PSIA) 100

Sapphire Zoomed Pressure (CP_SAP) 0 (PSIA) 10

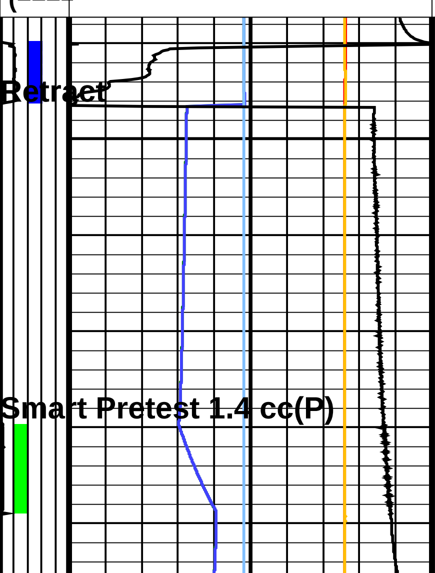
XPT Actions Image (AIMG) (----

CQG Temperature (MTEP_QG) 0 (DEGC) 150

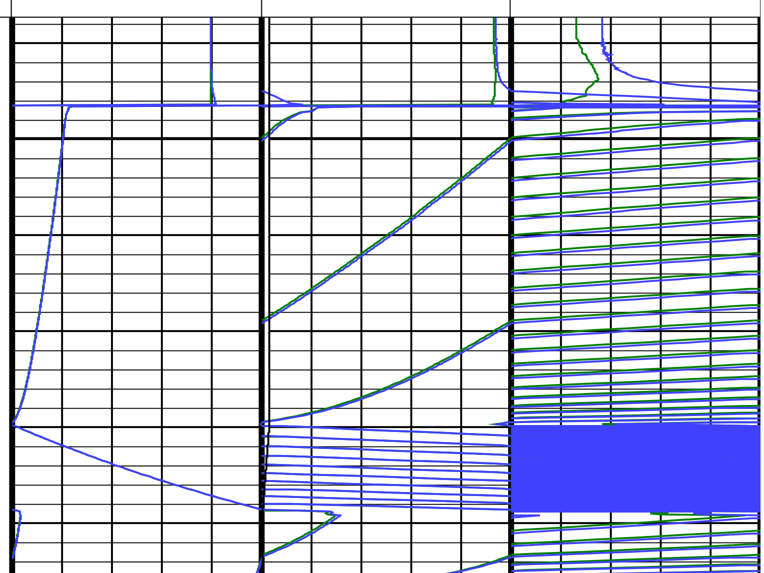
CQG Zoomed Pressure (QCP) 0 (PSIA) 1000

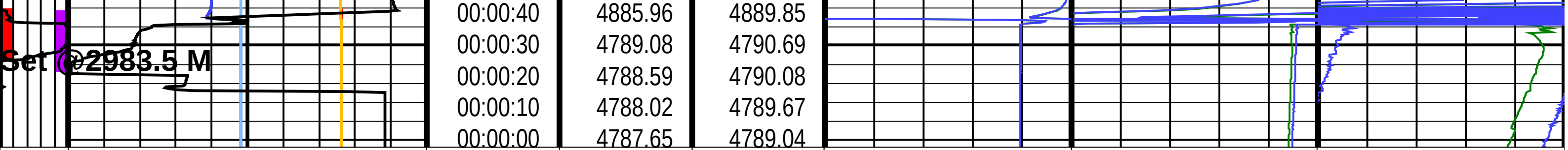
CQG Zoomed Pressure (QCP) 0 (PSIA) 100

CQG Zoomed Pressure (QCP) 0 (PSIA) 10



XPT Time Log (ETIM_XPT) (S)	CQG Pressure (QCP) (PSIA)	Sapphire Pressure (CP_SAP) (PSIA)
00:03:30	4792.81	4793.65
00:03:20	4793.26	4796.19
00:03:10	3212.43	3213.40
00:03:00	3194.87	3196.42
00:02:50	3179.07	3180.60
00:02:40	3162.80	3164.46
00:02:30	3145.12	3146.74
00:02:20	3127.17	3128.79
00:02:10	3108.33	3110.11
00:02:00	3087.80	3089.61
00:01:50	3063.78	3065.66
00:01:40	3032.66	3034.77
00:01:30	3089.92	3090.30
00:01:20	3437.38	3437.27
00:01:10	3841.36	3841.30
00:01:00	4019.79	4021.53
00:00:50	3990.25	3991.94





XPT Actions Image (AIMG) (----

CQG Temperature (MTEP_QG)
0 (DEGC) 150

XPT Time Log (ETIM_XPT) (S)

CQG Pressure (QCP) (PSIA)

Sapphire Pressure (CP_SAP) (PSIA)

CQG Zoomed Pressure (QCP)
0 (PSIA) 1000

CQG Zoomed Pressure (QCP)
0 (PSIA) 100

CQG Zoomed Pressure (QCP)
0 (PSIA) 10

XPT Motor Speed Curve (MSPE_XPT) (RPM)
0 5000

CQG Pressure (QCP)
0 (PSIA) 10000

Sapphire Zoomed Pressure (CP_SAP)
0 (PSIA) 1000

Sapphire Zoomed Pressure (CP_SAP)
0 (PSIA) 100

Sapphire Zoomed Pressure (CP_SAP)
0 (PSIA) 10

Sapphire Pressure (CP_SAP)
0 (PSIA) 10000

XPT Pretest Volume Curve (PTV_XPT)
0 (C3) 50

Sapphire Manometer Temperature (MTEP_SAP)
0 (DEGC) 150

PRETEST_ VOLUME From XPT_7 to XPT_PTV_CURVE

Hydrostatic Pressure (CP_HYD)
0 (PSIA) 10000

XPT Oil Pressure Curve (HOILP)
0 (PSIA) 4000

XPT Actions Image

WHITE: No Action / COLORED: Action in progress
Left to right:

1. Set (Red)
2. Pretest (Green)
3. Retract (Blue)
4. Init Pretest (Orange)
5. ACom Calibration (Purple)

XPT Dynamic Compensation Status

Quartz Gauge Pressure compensated and corrected
Sapphire Gauge Pressure compensated and corrected
Hydrostatic Sapphire Gauge Pressure compensated and corrected

Parameters

DLIS Name	Description	Value
	XPT−BA: Xpress Pressure Tool − BA	
BTA_HYD	Hydrostatic Gauge Board Temperature A Coefficient	1.00427
BTA_SAP	Sapphire Board Temperature A Coefficient	1.02083
BTB_HYD	Hydrostatic Gauge Board Temperature B Coefficient	0
BTB_SAP	Sapphire Board Temperature B Coefficient	0
BTCT_HYD	Hydrostatic Gauge Board Temperature Coefficients Read From Data Channels	

		YES	
BTCT_SAP	Sapphire Board Temperature Coefficients Read Fram Data Channels	YES	
DDPL_XPT	Pretest Drawdown Limit	3000	PSIA
DEVI_FL_CORR_XPT	Tool Deviation Angle	0	DEG
FLD_XPT	Flowline Density	1	G/C3
GDSV	Gauges Downhole Software Version	2.1	
GDYCO	Sapphire Dynamic Compensation Applied	YES	
PAC_SAP	Sapphire Gauge Pressure A Coefficient	0.99939	
PA_HYD	Hydrostatic Gauge Pressure A Coefficient	1.0084	
PBC_SAP	Sapphire Gauge Pressure B Coefficient	0	
PB_HYD	Hydrostatic Gauge Pressure B Coefficient	0	
PCT_HYD	Hydrostatic Gauge Pressure Coefficients Read From Data Channels	YES	
PCT_SAP	Sapphire Pressure Coefficients Read From Data Channels	YES	
PGSR	Pressure Gauges Sampling Rate	300	ms
PRSP	Pretest Rate	0.3	C3/S
PTM_XPT	Pretest Type	SMART	
PTVO_XPT	Pretest Volume	5	C3
QDYCO	CQG Dynamic Compensation Applied	YES	
TAC_SAP	Sapphire Gauge Temperature A Coefficient	1.02269	
TA_HYD	Hydrostatic Gauge Temperature A Coefficient	0.999181	
TBC_SAP	Sapphire Gauge Temperature B Coefficient	0	
TB_HYD	Hydrostatic Gauge Temperature B Coefficient	0	
TCT_HYD	Hydrostatic Gauge Temperature Coefficients Read >From Data Channels	YES	
TCT_SAP	Sapphire Temperature Coefficients Read From Data Channels	YES	

Output DLIS Files

DEFAULT	TLD_MCFL_CNL_XPT_082LTP	FN:127	PRODUCER	28−Jul−2006 04:01
RT	TLD_MCFL_CNL_XPT_082LTP	FN:128	PRODUCER	28−Jul−2006 04:03

Schlumberger

Station Depth (MD)
3089.0 m

MAXIS Field Log

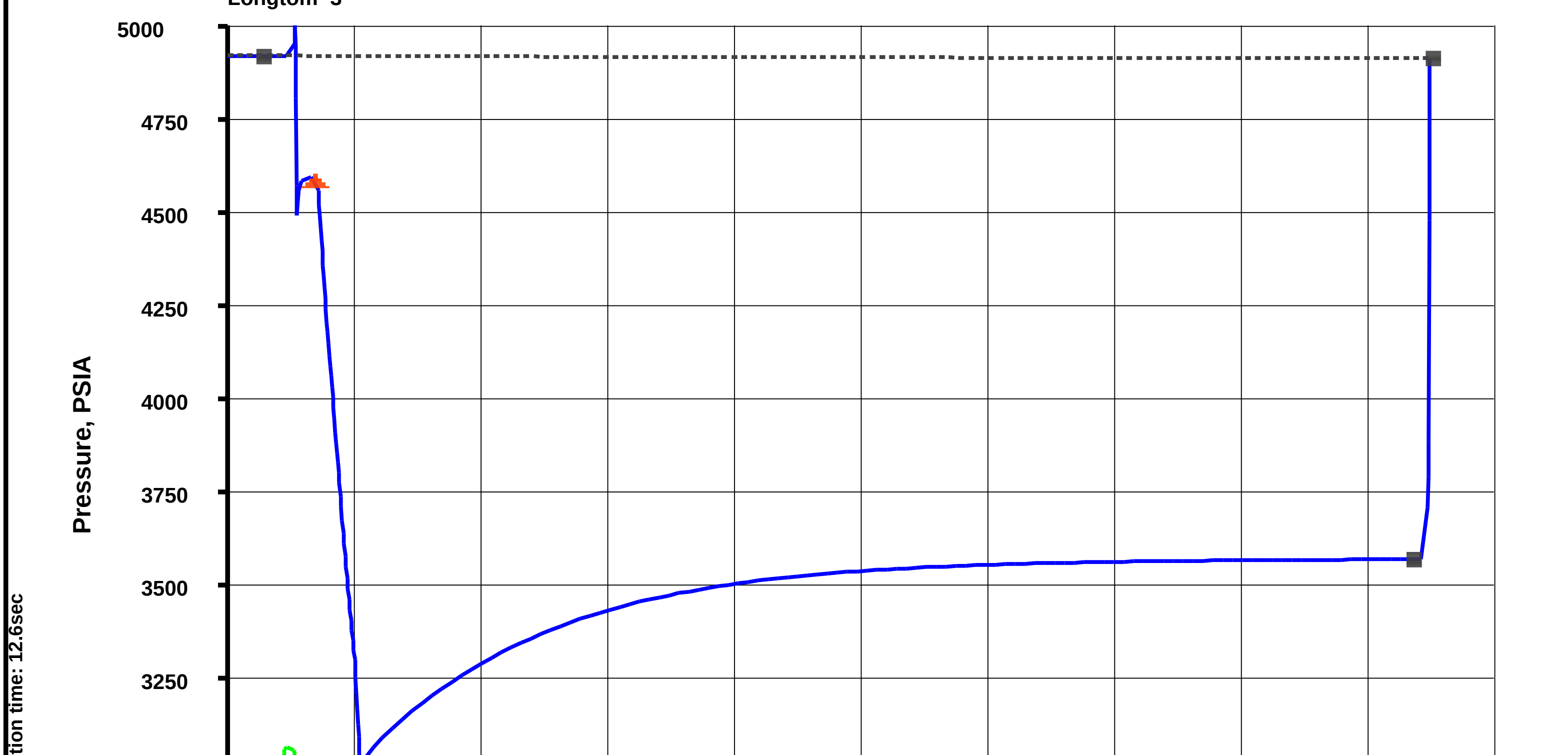
File 81 | Depth, M: 3088.96 | Smart Pretest − Conventional probe

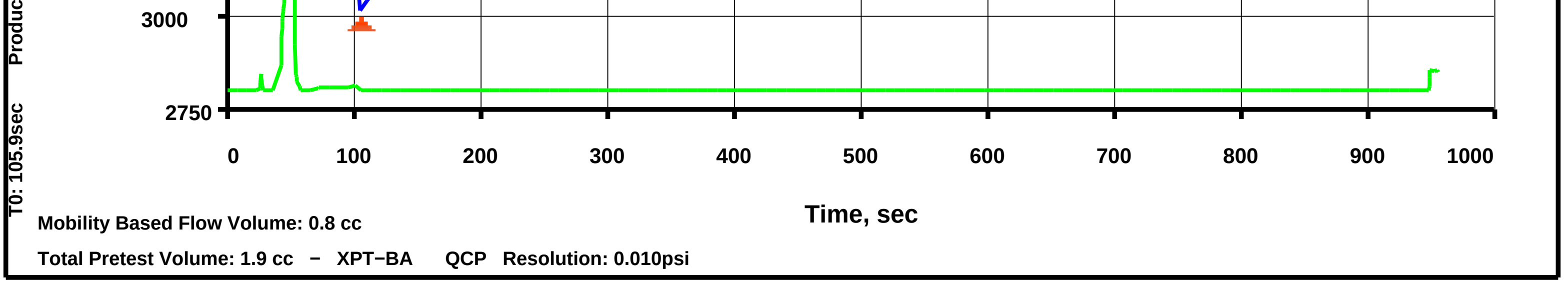
27−Jul−2006 | Nexus Energy

Longtom

Longtom−3

Mud Pressure before test, PSIA:	4916.18
Mud Pressure after test, PSIA:	4910.09
Last build−up pressure, PSIA:	3568.45
Draw−down mobility, md/cp:	0.06





Output DLIS Files

DEFAULT	TLD_MCFL_CNL_XPT_081LTP	FN:125	PRODUCER	28–Jul–2006 03:29	3091.0 M	2.5 M
RT	TLD_MCFL_CNL_XPT_081LTP	FN:126	PRODUCER	28–Jul–2006 03:31	3091.0 M	2.5 M

XPT Oil Pressure Curve (HOILP) 0 (PSIA) 4000

Hydrostatic Pressure (CP_HYD) 0 (PSIA) 10000

Sapphire Manometer Temperature (MTEP_SAP) 0 (DEGC) 150

Sapphire Pressure (CP_SAP) 0 (PSIA) 10000

PRETEST_VOLUME From XPT_7 to XPT_PTV_CURVE

XPT Pretest Volume Curve (PTV_XPT) 0 (C3) 50

XPT Motor Speed Curve (MSPE_XPT) (RPM) 0 5000

CQG Pressure (QCP) 0 (PSIA) 10000

Sapphire Zoomed Pressure (CP_SAP) 0 (PSIA) 1000

Sapphire Zoomed Pressure (CP_SAP) 0 (PSIA) 100

Sapphire Zoomed Pressure (CP_SAP) 0 (PSIA) 10

XPT Actions Image (AIMG) (----

CQG Temperature (MTEP_QG) 0 (DEGC) 150

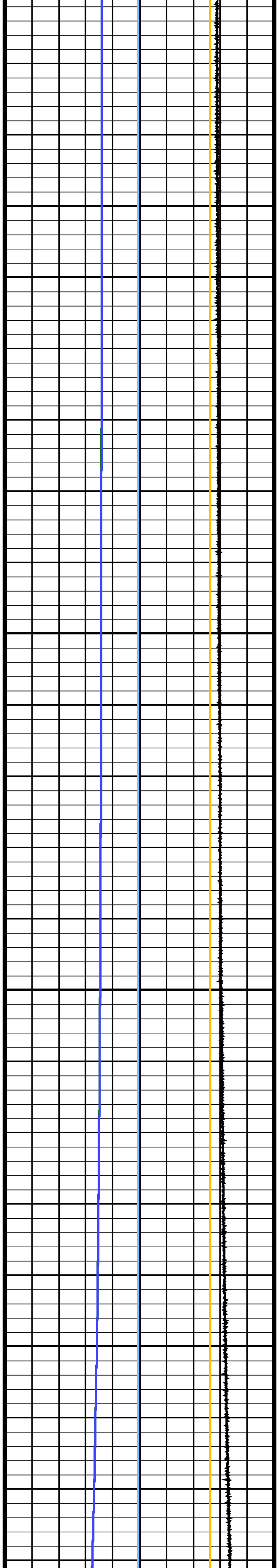
CQG Zoomed Pressure (QCP) 0 (PSIA) 1000

CQG Zoomed Pressure (QCP) 0 (PSIA) 100

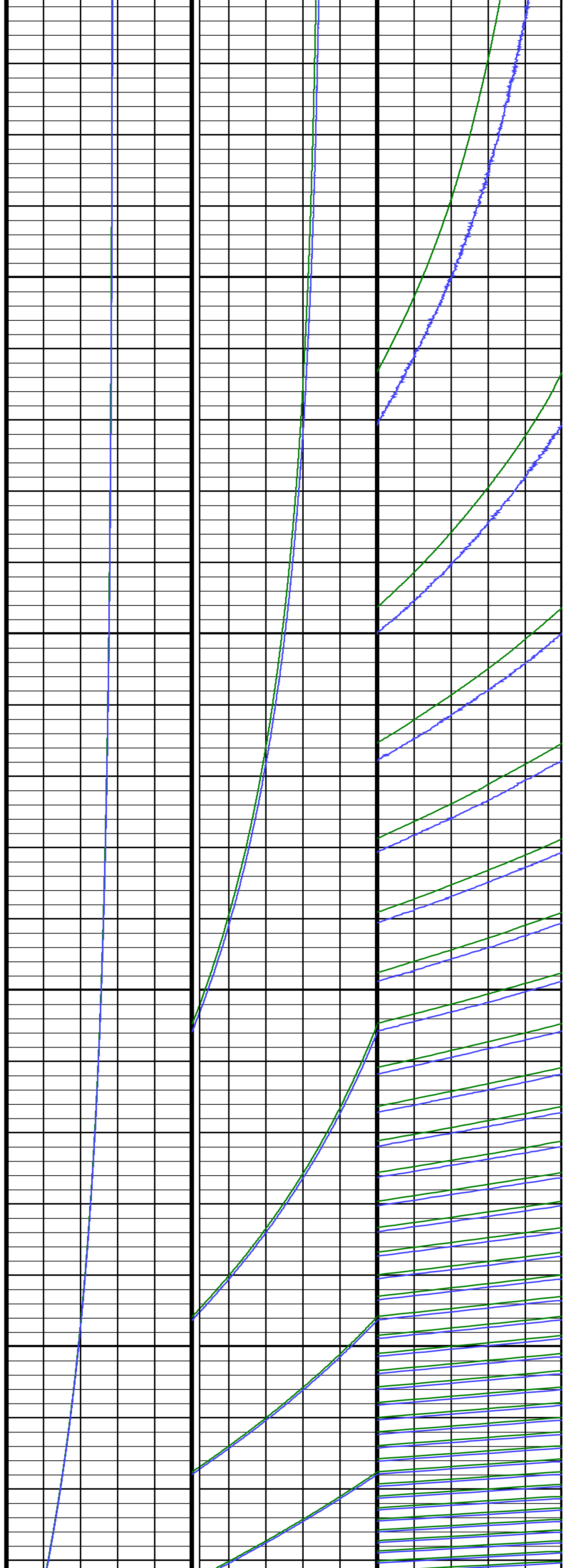
CQG Zoomed Pressure (QCP) 0 (PSIA) 10

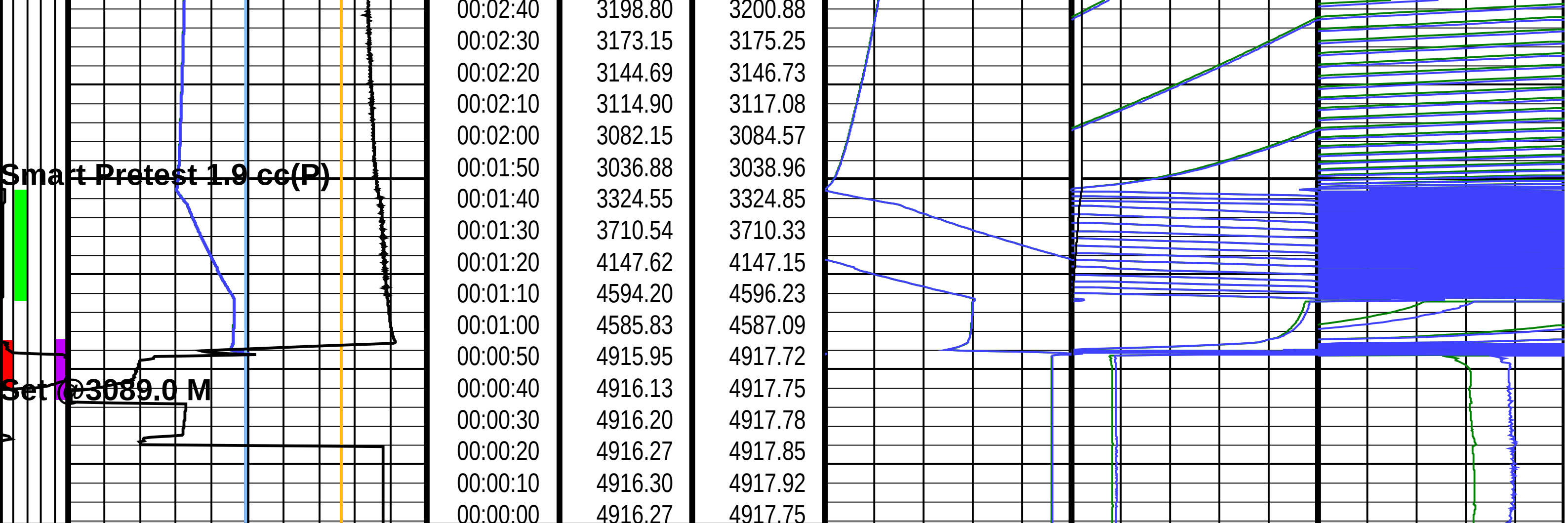
Retract

XPT Time Log (ETIM_XPT) (S)	CQG Pressure (QCP) (PSIA)	Sapphire Pressure (CP_SAP) (PSIA)
00:16:10	4909.75	4910.80
00:16:00	4910.24	4911.15
00:15:50	4909.22	4924.76
00:15:40	3568.47	3569.99
00:15:30	3568.36	3569.86
00:15:20	3568.23	3569.69
00:15:10	3568.11	3569.63
00:15:00	3567.97	3569.51
00:14:50	3567.82	3569.35
00:14:40	3567.66	3569.27
00:14:30	3567.50	3569.02
00:14:20	3567.31	3568.88
00:14:10	3567.12	3568.67
00:14:00	3566.92	3568.48
00:13:50	3566.69	3568.19



00:13:40	3566.45	3567.98
00:13:30	3566.20	3567.68
00:13:20	3565.93	3567.49
00:13:10	3565.63	3567.15
00:13:00	3565.32	3566.86
00:12:50	3565.01	3566.53
00:12:40	3564.65	3566.21
00:12:30	3564.28	3565.84
00:12:20	3563.88	3565.50
00:12:10	3563.43	3565.04
00:12:00	3562.97	3564.51
00:11:50	3562.46	3564.02
00:11:40	3561.90	3563.46
00:11:30	3561.31	3562.81
00:11:20	3560.69	3562.23
00:11:10	3560.00	3561.48
00:11:00	3559.35	3561.00
00:10:50	3558.58	3560.21
00:10:40	3557.74	3559.28
00:10:30	3556.85	3558.40
00:10:20	3555.88	3557.45
00:10:10	3554.84	3556.36
00:10:00	3553.75	3555.44
00:09:50	3552.60	3554.16
00:09:40	3551.29	3552.90
00:09:30	3549.92	3551.51
00:09:20	3548.45	3549.99
00:09:10	3546.92	3548.56
00:09:00	3545.18	3546.80
00:08:50	3543.33	3545.00
00:08:40	3541.45	3543.09
00:08:30	3539.27	3540.94
00:08:20	3536.98	3538.65
00:08:10	3534.64	3536.25
00:08:00	3531.92	3533.53
00:07:50	3529.19	3530.81
00:07:40	3526.13	3527.66
00:07:30	3522.83	3524.47
00:07:20	3519.31	3520.88
00:07:10	3515.62	3517.30
00:07:00	3511.45	3513.04
00:06:50	3507.10	3508.70
00:06:40	3502.50	3504.09
00:06:30	3497.34	3498.92
00:06:20	3492.01	3493.58
00:06:10	3486.22	3487.76
00:06:00	3479.84	3481.45
00:05:50	3473.16	3474.77
00:05:40	3466.03	3467.66
00:05:30	3458.08	3459.71
00:05:20	3449.79	3451.42
00:05:10	3440.95	3442.65
00:05:00	3431.39	3433.07
00:04:50	3420.84	3422.57
00:04:40	3409.89	3411.62
00:04:30	3398.19	3399.93
00:04:20	3385.22	3386.83
00:04:10	3371.63	3373.39
00:04:00	3357.25	3359.01
00:03:50	3341.29	3343.10
00:03:40	3324.76	3326.59
00:03:30	3307.13	3309.03
00:03:20	3287.69	3289.58
00:03:10	3267.79	3269.70
00:03:00	3246.24	3248.16
00:02:50	3223.08	3225.05





XPT Time Log (ETIM_XPT) (S)	CQG Pressure (QCP) (PSIA)	Sapphire Pressure (CP_SAP) (PSIA)
00:02:40	3198.80	3200.88
00:02:30	3173.15	3175.25
00:02:20	3144.69	3146.73
00:02:10	3114.90	3117.08
00:02:00	3082.15	3084.57
00:01:50	3036.88	3038.96
00:01:40	3324.55	3324.85
00:01:30	3710.54	3710.33
00:01:20	4147.62	4147.15
00:01:10	4594.20	4596.23
00:01:00	4585.83	4587.09
00:00:50	4915.95	4917.72
00:00:40	4916.13	4917.75
00:00:30	4916.20	4917.78
00:00:20	4916.27	4917.85
00:00:10	4916.30	4917.92
00:00:00	4916.27	4917.75

XPT Actions Image (AIMG) (----

CQG Temperature (MTEP_QG) 0 (DEGC) 150

XPT Motor Speed Curve (MSPE_XPT) (RPM) 0 5000

CQG Pressure (QCP) 0 (PSIA) 10000

Sapphire Pressure (CP_SAP) 0 (PSIA) 10000

Sapphire Manometer Temperature (MTEP_SAP) 0 (DEGC) 150

Hydrostatic Pressure (CP_HYD) 0 (PSIA) 10000

XPT Oil Pressure Curve (HOILP) 0 (PSIA) 4000

CQG Zoomed Pressure (QCP) 0 (PSIA) 1000

Sapphire Zoomed Pressure (CP_SAP) 0 (PSIA) 1000

CQG Zoomed Pressure (QCP) 0 (PSIA) 100

Sapphire Zoomed Pressure (CP_SAP) 0 (PSIA) 100

XPT Pretest Volume Curve (PTV_XPT) 0 (C3) 50

PRETEST_VOLUME From XPT_7 to XPT_PTV_CURVE

CQG Zoomed Pressure (QCP) 0 (PSIA) 10

Sapphire Zoomed Pressure (CP_SAP) 0 (PSIA) 10

XPT Actions Image

WHITE: No Action / COLORED: Action in progress
Left to right:
1. Set (Red)
2. Pretest (Green)
3. Retract (Blue)
4. Init Pretest (Orange)
5. ACom Calibration (Purple)

XPT Dynamic Compensation Status

Quartz Gauge Pressure compensated and corrected
Sapphire Gauge Pressure compensated and corrected
Hydrostatic Sapphire Gauge Pressure compensated and corrected

Parameters

DLIS Name	Description	Value	
XPT−BA: Xpress Pressure Tool − BA			
BTA_HYD	Hydrostatic Gauge Board Temperature A Coefficient	1.00427	
BTA_SAP	Sapphire Board Temperature A Coefficient	1.02083	
BTB_HYD	Hydrostatic Gauge Board Temperature B Coefficient	0	
BTB_SAP	Sapphire Board Temperature B Coefficient	0	
BTCT_HYD	Hydrostatic Gauge Board Temperature Coefficients Read From Data Channels	YES	
BTCT_SAP	Sapphire Board Temperature Coefficients Read Fram Data Channels	YES	
DDPL_XPT	Pretest Drawdown Limit	3000	PSIA
DEVI_FL_CORR_XPT	Tool Deviation Angle	0	DEG
FLD_XPT	Flowline Density	1	G/C3
GDSV	Gauges Downhole Software Version	2.1	
GDYCO	Sapphire Dynamic Compensation Applied	YES	
PAC_SAP	Sapphire Gauge Pressure A Coefficient	0.999389	
PA_HYD	Hydrostatic Gauge Pressure A Coefficient	1.0084	
PBC_SAP	Sapphire Gauge Pressure B Coefficient	0	
PB_HYD	Hydrostatic Gauge Pressure B Coefficient	0	
PCT_HYD	Hydrostatic Gauge Pressure Coefficients Read From Data Channels	YES	
PCT_SAP	Sapphire Pressure Coefficients Read From Data Channels	YES	
PGSR	Pressure Gauges Sampling Rate	300	ms
PRSP	Pretest Rate	0.3	C3/S
PTM_XPT	Pretest Type	SMART	
PTVO_XPT	Pretest Volume	5	C3
QDYCO	CQG Dynamic Compensation Applied	YES	
TAC_SAP	Sapphire Gauge Temperature A Coefficient	1.02268	
TA_HYD	Hydrostatic Gauge Temperature A Coefficient	0.999184	
TBC_SAP	Sapphire Gauge Temperature B Coefficient	0	
TB_HYD	Hydrostatic Gauge Temperature B Coefficient	0	
TCT_HYD	Hydrostatic Gauge Temperature Coefficients Read >From Data Channels	YES	
TCT_SAP	Sapphire Temperature Coefficients Read From Data Channels	YES	

Output DLIS Files

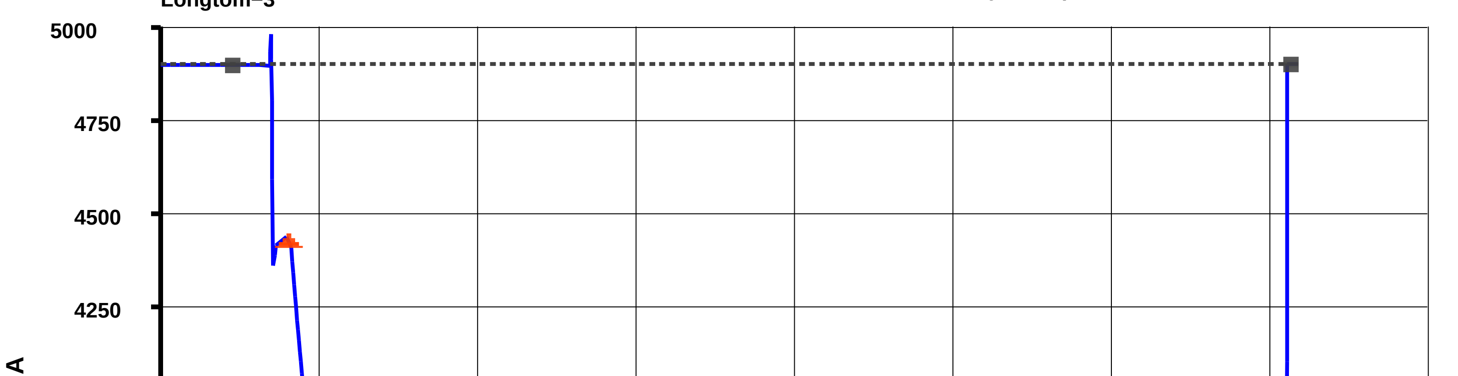
DEFAULT	TLD_MCFL_CNL_XPT_081LTP	FN:125	PRODUCER	28−Jul−2006 03:29
RT	TLD_MCFL_CNL_XPT_081LTP	FN:126	PRODUCER	28−Jul−2006 03:31

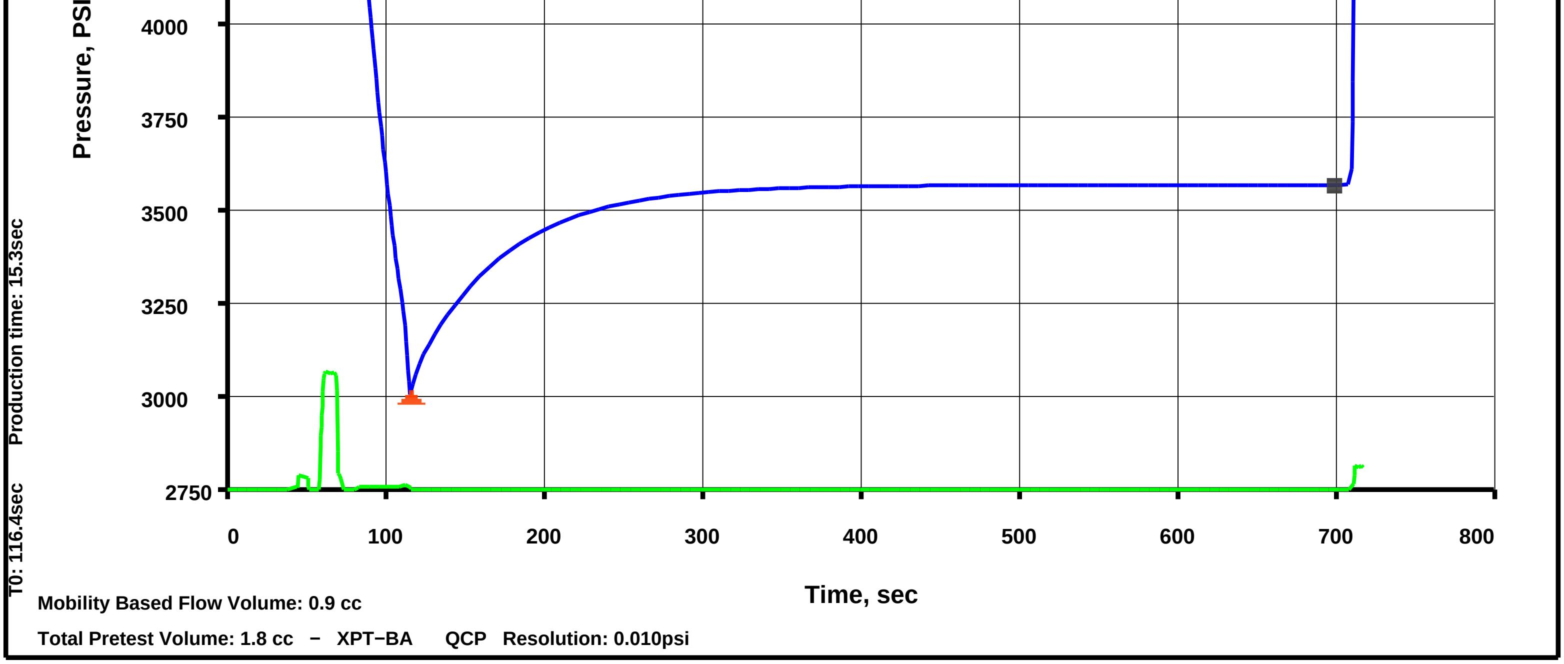
Schlumberger

Station Depth (MD)
3079.0 m

MAXIS Field Log

File 80	Depth, M: 3078.94	Smart Pretest − Conventional probe	
27−Jul−2006	Nexus Energy	Mud Pressure before test, PSIA:	4896.16
		Mud Pressure after test, PSIA:	4898.15
	Longtom	Last build−up pressure, PSIA:	3567.28
	Longtom−3	Draw−down mobility, md/cp:	0.1





Output DLIS Files

DEFAULT	TLD_MCFL_CNL_XPT_080LTP	FN:123	PRODUCER	28–Jul–2006 03:13	3081.0 M	1.9 M
RT	TLD_MCFL_CNL_XPT_080LTP	FN:124	PRODUCER	28–Jul–2006 03:15	3081.0 M	1.9 M

XPT Oil Pressure Curve (HOILP)
0 (PSIA) 4000

Hydrostatic Pressure (CP_HYD)
0 (PSIA) 10000

Sapphire Manometer Temperature (MTEP_SAP)
0 (DEGC) 150

Sapphire Pressure (CP_SAP)
0 (PSIA) 10000

PRETEST_VOLUME From XPT_7 to XPT_PTV_CURVE

XPT Pretest Volume Curve (PTV_XPT)
0 (C3) 50

XPT Motor Speed Curve (MSPE_XPT) (RPM)
0 5000

CQG Pressure (QCP)
0 (PSIA) 10000

Sapphire Zoomed Pressure (CP_SAP)
0 (PSIA) 1000

Sapphire Zoomed Pressure (CP_SAP)
0 (PSIA) 100

Sapphire Zoomed Pressure (CP_SAP)
0 (PSIA) 10

XPT Actions Image (AIMG) (––––

CQG Temperature (MTEP_QG)
0 (DEGC) 150

XPT Time Log (ETIM_XPT) (S)

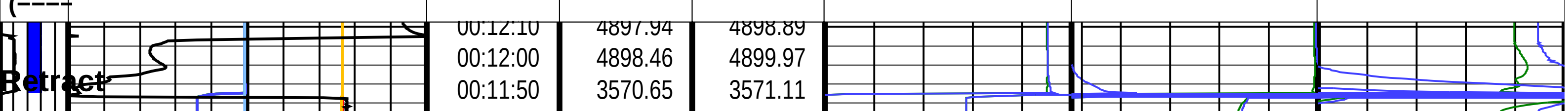
CQG Pressure (QCP) (PSIA)

Sapphire Pressure (CP_SAP) (PSIA)

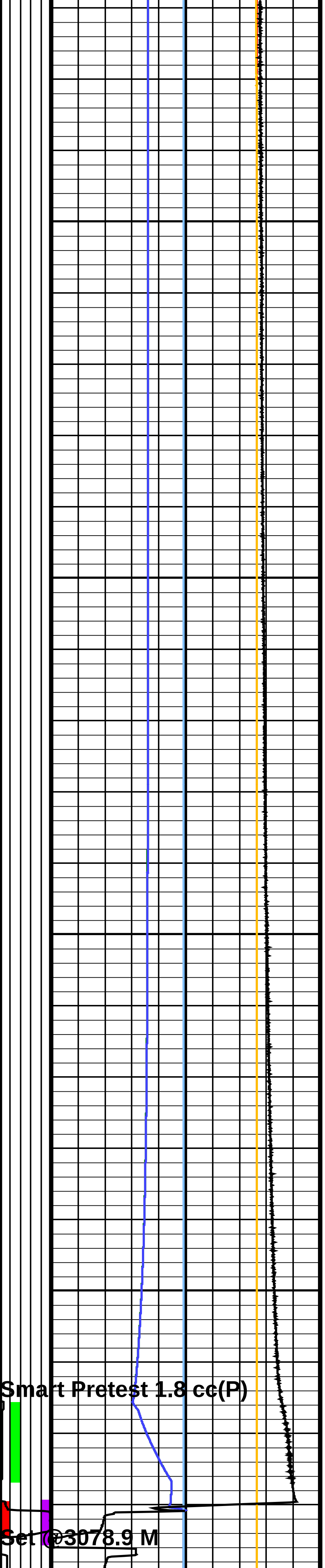
CQG Zoomed Pressure (QCP)
0 (PSIA) 1000

CQG Zoomed Pressure (QCP)
0 (PSIA) 100

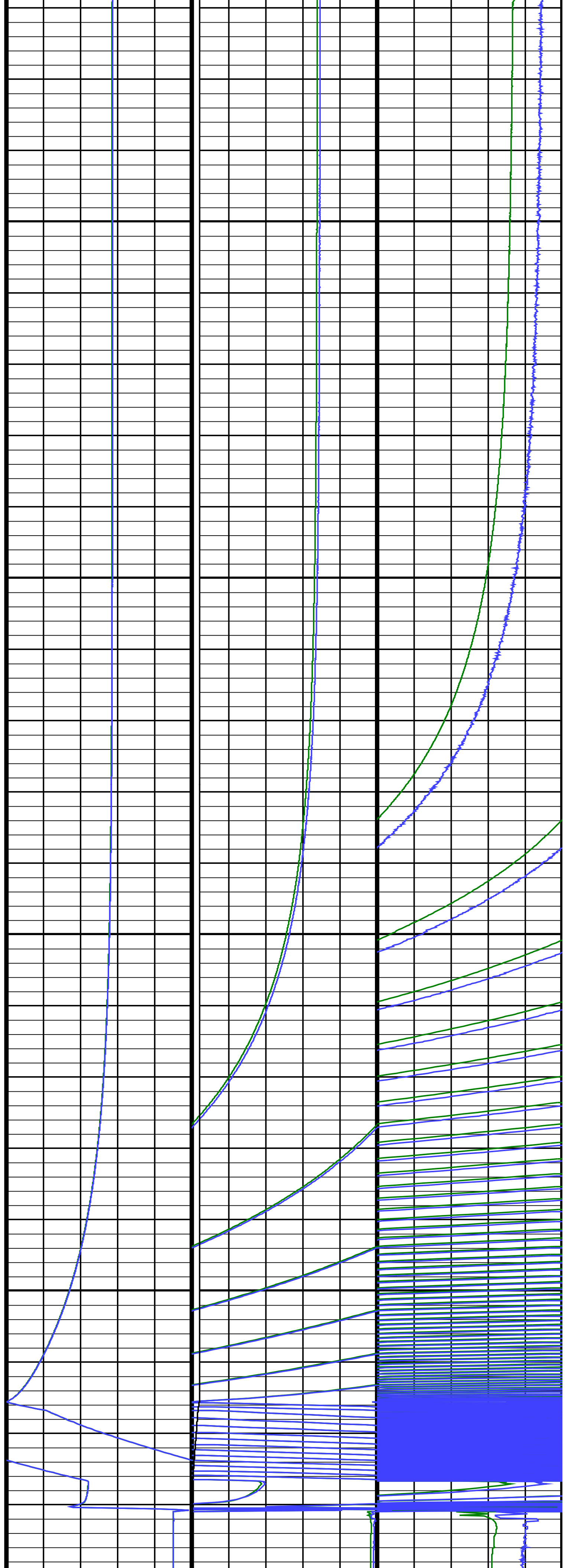
CQG Zoomed Pressure (QCP)
0 (PSIA) 10

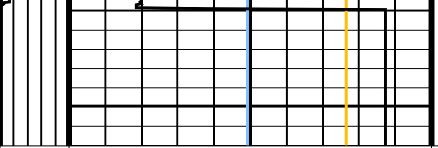


XPT Time Log	CQG Pressure	Sapphire Pressure
00:12:10	4897.94	4898.89
00:12:00	4898.46	4899.97
00:11:50	3570.65	3571.11

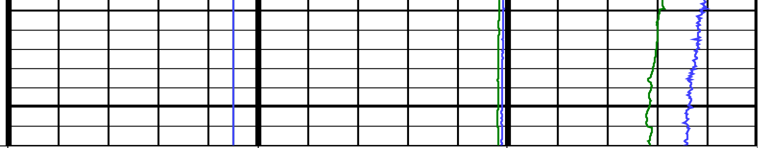


00:11:40	3567.28	3568.79
00:11:30	3567.27	3568.81
00:11:20	3567.25	3568.76
00:11:10	3567.24	3568.74
00:11:00	3567.22	3568.74
00:10:50	3567.21	3568.74
00:10:40	3567.19	3568.79
00:10:30	3567.17	3568.74
00:10:20	3567.14	3568.63
00:10:10	3567.12	3568.66
00:10:00	3567.09	3568.66
00:09:50	3567.06	3568.62
00:09:40	3567.03	3568.57
00:09:30	3566.99	3568.50
00:09:20	3566.94	3568.40
00:09:10	3566.88	3568.40
00:09:00	3566.82	3568.31
00:08:50	3566.75	3568.30
00:08:40	3566.66	3568.15
00:08:30	3566.57	3568.13
00:08:20	3566.46	3567.99
00:08:10	3566.32	3567.92
00:08:00	3566.17	3567.69
00:07:50	3565.99	3567.52
00:07:40	3565.77	3567.37
00:07:30	3565.53	3567.04
00:07:20	3565.24	3566.78
00:07:10	3564.90	3566.58
00:07:00	3564.49	3566.01
00:06:50	3564.01	3565.53
00:06:40	3563.46	3565.05
00:06:30	3562.76	3564.34
00:06:20	3561.96	3563.51
00:06:10	3561.01	3562.58
00:06:00	3559.84	3561.46
00:05:50	3558.52	3560.10
00:05:40	3556.91	3558.54
00:05:30	3554.93	3556.52
00:05:20	3552.61	3554.28
00:05:10	3549.97	3551.58
00:05:00	3546.58	3548.27
00:04:50	3542.66	3544.33
00:04:40	3538.01	3539.69
00:04:30	3532.29	3533.99
00:04:20	3525.65	3527.34
00:04:10	3517.70	3519.46
00:04:00	3507.78	3509.48
00:03:50	3496.52	3498.20
00:03:40	3482.84	3484.52
00:03:30	3466.43	3468.16
00:03:20	3446.96	3448.74
00:03:10	3424.14	3426.01
00:03:00	3396.68	3398.53
00:02:50	3363.36	3365.30
00:02:40	3324.77	3326.73
00:02:30	3279.19	3281.36
00:02:20	3223.45	3225.59
00:02:10	3157.87	3160.39
00:02:00	3071.51	3073.84
00:01:50	3271.50	3272.10
00:01:40	3615.49	3615.50
00:01:30	4042.92	4042.54
00:01:20	4435.96	4437.72
00:01:10	4977.21	4980.77
00:01:00	4896.36	4897.95
00:00:50	4896.17	4897.80





XPT Time Log (ETIM_XPT) (S)	CQG Pressure (QCP) (PSIA)	Sapphire Pressure (CP_SAP) (PSIA)
00:00:40	4895.99	4897.67
00:00:30	4895.90	4897.54
00:00:20	4895.68	4897.32
00:00:10	4895.51	4897.16
00:00:00	4895.65	4897.01



XPT Actions Image (AIM G) (----

CQG Temperature (MTEP_QG) 0 (DEGC) 150

CQG Zoomed Pressure (QCP) 0 (PSIA) 1000

CQG Zoomed Pressure (QCP) 0 (PSIA) 100

CQG Zoomed Pressure (QCP) 0 (PSIA) 10

XPT Motor Speed Curve (MSPE_XPT) (RPM) 0 5000

CQG Pressure (QCP) 0 (PSIA) 10000

Sapphire Zoomed Pressure (CP_SAP) 0 (PSIA) 1000

Sapphire Zoomed Pressure (CP_SAP) 0 (PSIA) 100

Sapphire Zoomed Pressure (CP_SAP) 0 (PSIA) 10

Sapphire Pressure (CP_SAP) 0 (PSIA) 10000

XPT Pretest Volume Curve (PTV_XPT) 0 (C3) 50

Sapphire Manometer Temperature (MTEP_SAP) 0 (DEGC) 150

PRETEST_VOLUME From XPT_7 to XPT_PTV_CURVE

Hydrostatic Pressure (CP_HYD) 0 (PSIA) 10000

XPT Oil Pressure Curve (HOILP) 0 (PSIA) 4000

XPT Actions Image

WHITE: No Action / COLORED: Action in progress
Left to right:

1. Set (Red)
2. Pretest (Green)
3. Retract (Blue)
4. Init Pretest (Orange)
5. ACom Calibration (Purple)

XPT Dynamic Compensation Status

Quartz Gauge Pressure compensated and corrected
Sapphire Gauge Pressure compensated and corrected
Hydrostatic Sapphire Gauge Pressure compensated and corrected

Parameters

DLIS Name	Description	Value
	XPT-BA: Xpress Pressure Tool - BA	
BTA_HYD	Hydrostatic Gauge Board Temperature A Coefficient	1.00427
BTA_SAP	Sapphire Board Temperature A Coefficient	1.02082
BTB_HYD	Hydrostatic Gauge Board Temperature B Coefficient	0
BTB_SAP	Sapphire Board Temperature B Coefficient	0
BTCT_HYD	Hydrostatic Gauge Board Temperature Coefficients Read From Data Channels	

		YES	
BTCT_SAP	Sapphire Board Temperature Coefficients Read Fram Data Channels	YES	
DDPL_XPT	Pretest Drawdown Limit	3000	PSIA
DEVI_FL_CORR_XPT	Tool Deviation Angle	0	DEG
FLD_XPT	Flowline Density	1	G/C3
GDSV	Gauges Downhole Software Version	2.1	
GDYCO	Sapphire Dynamic Compensation Applied	YES	
PAC_SAP	Sapphire Gauge Pressure A Coefficient	0.999387	
PA_HYD	Hydrostatic Gauge Pressure A Coefficient	1.00841	
PBC_SAP	Sapphire Gauge Pressure B Coefficient	0	
PB_HYD	Hydrostatic Gauge Pressure B Coefficient	0	
PCT_HYD	Hydrostatic Gauge Pressure Coefficients Read From Data Channels	YES	
PCT_SAP	Sapphire Pressure Coefficients Read From Data Channels	YES	
PGSR	Pressure Gauges Sampling Rate	300	ms
PRSP	Pretest Rate	0.3	C3/S
PTM_XPT	Pretest Type	SMART	
PTVO_XPT	Pretest Volume	5	C3
QDYCO	CQG Dynamic Compensation Applied	YES	
TAC_SAP	Sapphire Gauge Temperature A Coefficient	1.02268	
TA_HYD	Hydrostatic Gauge Temperature A Coefficient	0.999183	
TBC_SAP	Sapphire Gauge Temperature B Coefficient	0	
TB_HYD	Hydrostatic Gauge Temperature B Coefficient	0	
TCT_HYD	Hydrostatic Gauge Temperature Coefficients Read >From Data Channels	YES	
TCT_SAP	Sapphire Temperature Coefficients Read From Data Channels	YES	

Output DLIS Files

DEFAULT	TLD_MCFL_CNL_XPT_080LTP	FN:123	PRODUCER	28−Jul−2006 03:13
RT	TLD_MCFL_CNL_XPT_080LTP	FN:124	PRODUCER	28−Jul−2006 03:15

Schlumberger

Station Depth (MD)
3085.0 m

MAXIS Field Log

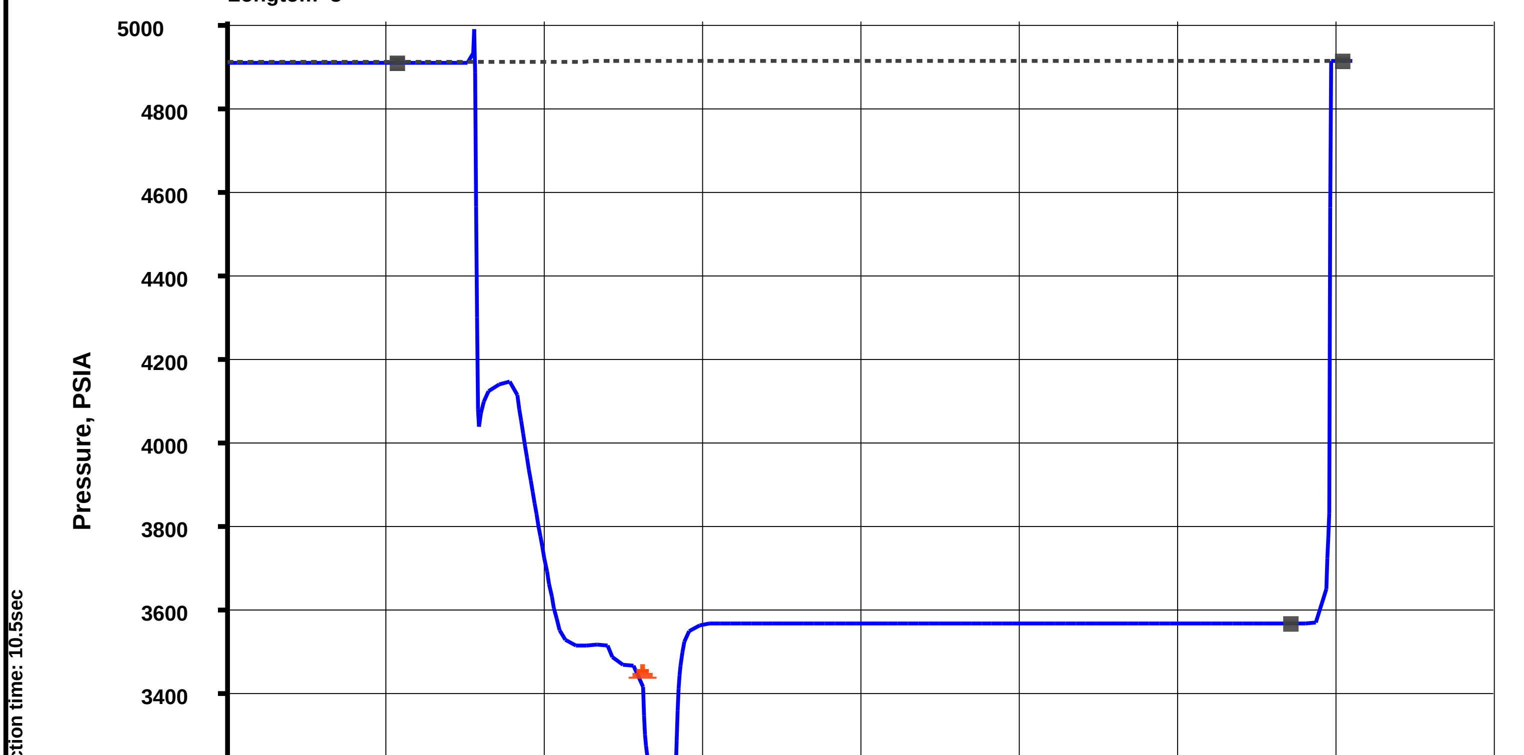
File 79 Depth, M: 3084.97 Smart Pretest − Conventional probe

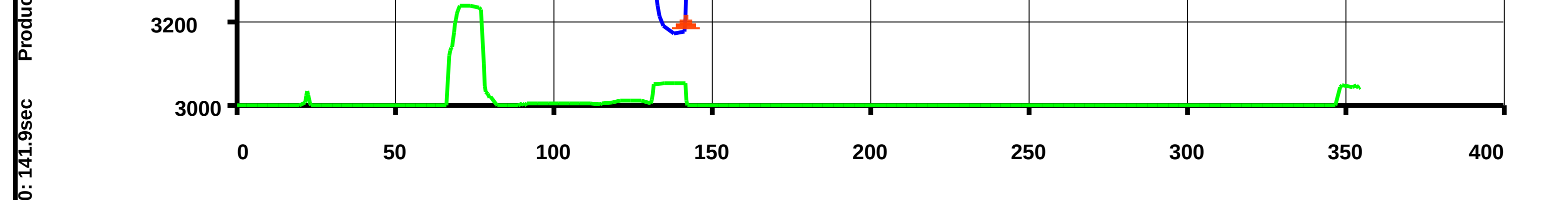
27−Jul−2006 Nexus Energy

Longtom

Longtom−3

Mud Pressure before test, PSIA:	4901.18
Mud Pressure after test, PSIA:	4904.31
Last build−up pressure, PSIA:	3566.49
Draw−down mobility, md/cp:	5.6





Mobility Based Flow Volume: 4.2 cc

Total Pretest Volume: 6.8 cc – XPT–BA QCP Resolution: 0.010psi

Output DLIS Files

DEFAULT	TLD_MCFL_CNL_XPT_079LTP	FN:121	PRODUCER	28–Jul–2006 03:04	3087.0 M	0.9 M
RT	TLD_MCFL_CNL_XPT_079LTP	FN:122	PRODUCER	28–Jul–2006 03:06	3087.0 M	0.9 M

XPT Oil Pressure Curve (HOILP) 0 (PSIA) 4000

Hydrostatic Pressure (CP_HYD) 0 (PSIA) 10000

Sapphire Manometer Temperature (MTEP_SAP) 0 (DEGC) 150

Sapphire Pressure (CP_SAP) 0 (PSIA) 10000

PRETEST_VOLUME From XPT_7 to XPT_PTV_CURVE

XPT Pretest Volume Curve (PTV_XPT) 0 (C3) 50

XPT Motor Speed Curve (MSPE_XPT) (RPM) 0 5000

CQG Pressure (QCP) 0 (PSIA) 10000

Sapphire Zoomed Pressure (CP_SAP) 0 (PSIA) 1000

Sapphire Zoomed Pressure (CP_SAP) 0 (PSIA) 100

Sapphire Zoomed Pressure (CP_SAP) 0 (PSIA) 10

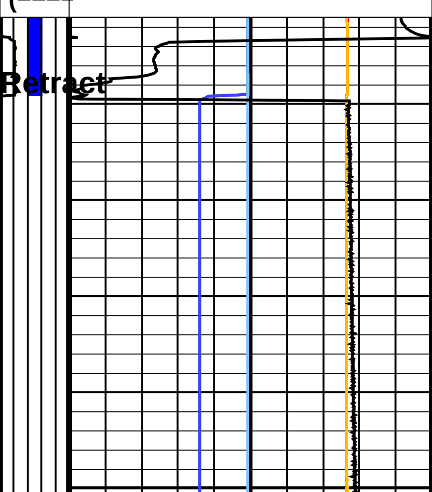
XPT Actions Image (AIMG) (––––

CQG Temperature (MTEP_QG) 0 (DEGC) 150

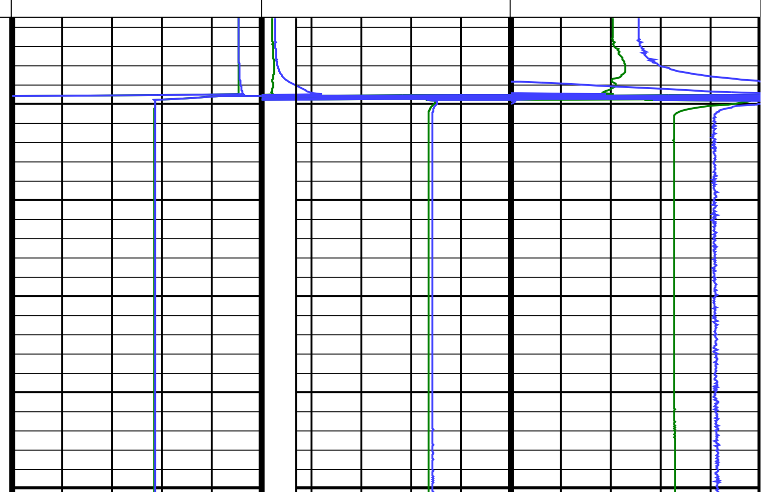
CQG Zoomed Pressure (QCP) 0 (PSIA) 1000

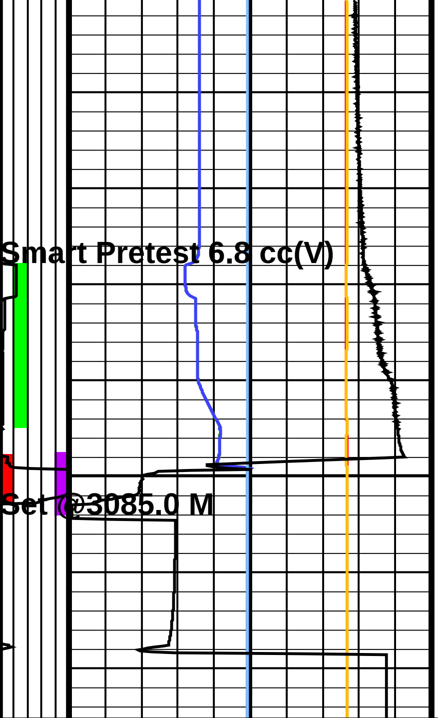
CQG Zoomed Pressure (QCP) 0 (PSIA) 100

CQG Zoomed Pressure (QCP) 0 (PSIA) 10

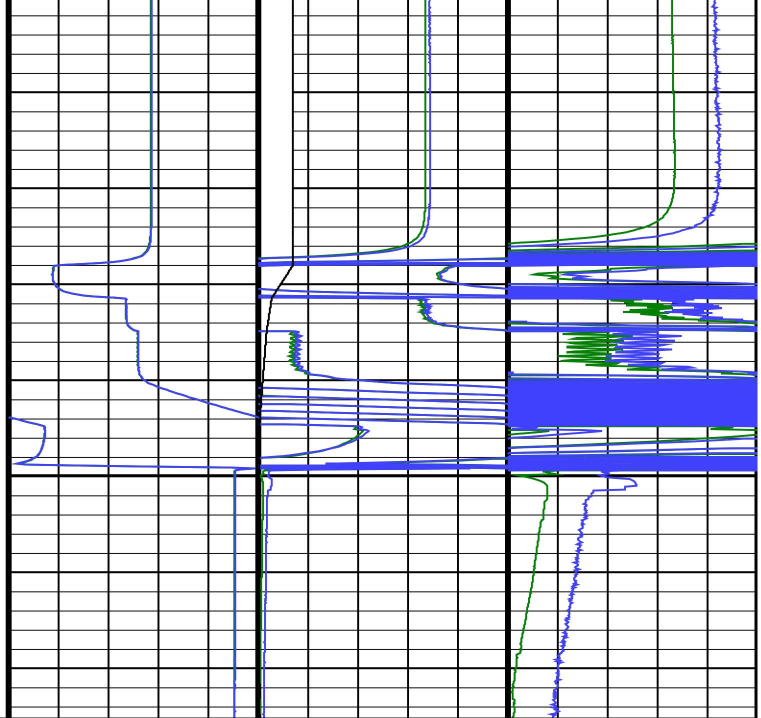


XPT Time Log (ETIM_XPT) (S)	CQG Pressure (QCP) (PSIA)	Sapphire Pressure (CP_SAP) (PSIA)
00:06:10	4904.02	4905.07
00:06:00	4904.41	4905.44
00:05:50	4903.85	4917.17
00:05:40	3566.48	3568.10
00:05:30	3566.49	3568.10
00:05:20	3566.49	3568.13
00:05:10	3566.49	3568.09
00:05:00	3566.49	3568.09
00:04:50	3566.49	3568.13
00:04:40	3566.50	3568.12
00:04:30	3566.50	3568.13
00:04:20	3566.51	3568.12
00:04:10	3566.51	3568.24
00:04:00	3566.52	3568.19
00:03:50	3566.54	3568.24





XPT Time Log (ETIM_XPT) (S)	CQG Pressure (QCP) (PSIA)	Sapphire Pressure (CP_SAP) (PSIA)
00:03:40	3566.54	3568.26
00:03:30	3566.56	3568.28
00:03:20	3566.58	3568.28
00:03:10	3566.62	3568.34
00:03:00	3566.64	3568.36
00:02:50	3566.64	3568.42
00:02:40	3566.46	3568.20
00:02:30	3562.51	3565.02
00:02:20	3173.59	3175.08
00:02:10	3464.60	3466.56
00:02:00	3513.87	3515.84
00:01:50	3515.58	3517.19
00:01:40	3733.36	3733.20
00:01:30	4141.63	4143.74
00:01:20	4051.29	4044.09
00:01:10	4901.54	4903.29
00:01:00	4901.25	4902.95
00:00:50	4901.06	4902.79
00:00:40	4900.88	4902.53
00:00:30	4900.65	4902.34
00:00:20	4900.33	4902.03
00:00:10	4900.17	4901.97
00:00:00	4900.16	4901.78



XPT Actions Image (AIMG) (----

XPT Motor Speed Curve (MSPE_XPT) (RPM) 0 5000

CQG Temperature (MTEP_QG) 0 (DEGC) 150

CQG Pressure (QCP) 0 (PSIA) 10000

Sapphire Pressure (CP_SAP) 0 (PSIA) 10000

Sapphire Manometer Temperature (MTEP_SAP) 0 (DEGC) 150

Hydrostatic Pressure (CP_HYD) 0 (PSIA) 10000

XPT Oil Pressure Curve (HOILP) 0 (PSIA) 4000

XPT Time Log (ETIM_XPT) (S)

CQG Pressure (QCP) (PSIA)

Sapphire Pressure (CP_SAP) (PSIA)

CQG Zoomed Pressure (QCP) 0 (PSIA) 1000

Sapphire Zoomed Pressure (CP_SAP) 0 (PSIA) 1000

CQG Zoomed Pressure (QCP) 0 (PSIA) 100

Sapphire Zoomed Pressure (CP_SAP) 0 (PSIA) 100

XPT Pretest Volume Curve (PTV_XPT) 0 (C3) 50

PRETEST_VOLUME From XPT_7 to XPT_PTV_CURVE

CQG Zoomed Pressure (QCP) 0 (PSIA) 10

Sapphire Zoomed Pressure (CP_SAP) 0 (PSIA) 10

XPT Actions Image

WHITE: No Action / COLORED: Action in progress
Left to right:

1. Set (Red)
2. Pretest (Green)
3. Retract (Blue)

4. Init Pretest (Orange)
5. ACom Calibration (Purple)

XPT Dynamic Compensation Status

Quartz Gauge Pressure compensated and corrected
Sapphire Gauge Pressure compensated and corrected
Hydrostatic Sapphire Gauge Pressure compensated and corrected

Parameters

DLIS Name	Description	Value	
	XPT−BA: Xpress Pressure Tool − BA		
BTA_HYD	Hydrostatic Gauge Board Temperature A Coefficient	1.00428	
BTA_SAP	Sapphire Board Temperature A Coefficient	1.02083	
BTB_HYD	Hydrostatic Gauge Board Temperature B Coefficient	0	
BTB_SAP	Sapphire Board Temperature B Coefficient	0	
BTCT_HYD	Hydrostatic Gauge Board Temperature Coefficients Read From Data Channels	YES	
BTCT_SAP	Sapphire Board Temperature Coefficients Read Fram Data Channels	YES	
DDPL_XPT	Pretest Drawdown Limit	3000	PSIA
DEVI_FL_CORR_XPT	Tool Deviation Angle	0	DEG
FLD_XPT	Flowline Density	1	G/C3
GDSV	Gauges Downhole Software Version	2.1	
GDYCO	Sapphire Dynamic Compensation Applied	YES	
PAC_SAP	Sapphire Gauge Pressure A Coefficient	0.999386	
PA_HYD	Hydrostatic Gauge Pressure A Coefficient	1.00841	
PBC_SAP	Sapphire Gauge Pressure B Coefficient	0	
PB_HYD	Hydrostatic Gauge Pressure B Coefficient	0	
PCT_HYD	Hydrostatic Gauge Pressure Coefficients Read From Data Channels	YES	
PCT_SAP	Sapphire Pressure Coefficients Read From Data Channels	YES	
PGSR	Pressure Gauges Sampling Rate	300	ms
PRSP	Pretest Rate	0.3	C3/S
PTM_XPT	Pretest Type	SMART	
PTVO_XPT	Pretest Volume	5	C3
QDYCO	CQG Dynamic Compensation Applied	YES	
TAC_SAP	Sapphire Gauge Temperature A Coefficient	1.02268	
TA_HYD	Hydrostatic Gauge Temperature A Coefficient	0.999184	
TBC_SAP	Sapphire Gauge Temperature B Coefficient	0	
TB_HYD	Hydrostatic Gauge Temperature B Coefficient	0	
TCT_HYD	Hydrostatic Gauge Temperature Coefficients Read >From Data Channels	YES	
TCT_SAP	Sapphire Temperature Coefficients Read From Data Channels	YES	

Output DLIS Files

DEFAULT	TLD_MCFL_CNL_XPT_079LTP	FN:121	PRODUCER	28−Jul−2006 03:04
RT	TLD_MCFL_CNL_XPT_079LTP	FN:122	PRODUCER	28−Jul−2006 03:06

Schlumberger

Station Depth (MD)
3098.0 m

MAXIS Field Log

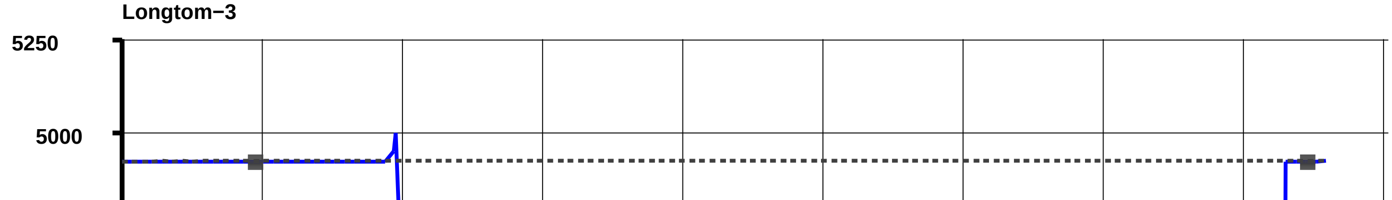
File 78   Depth, M: 3097.95   Dry Test − Conventional probe

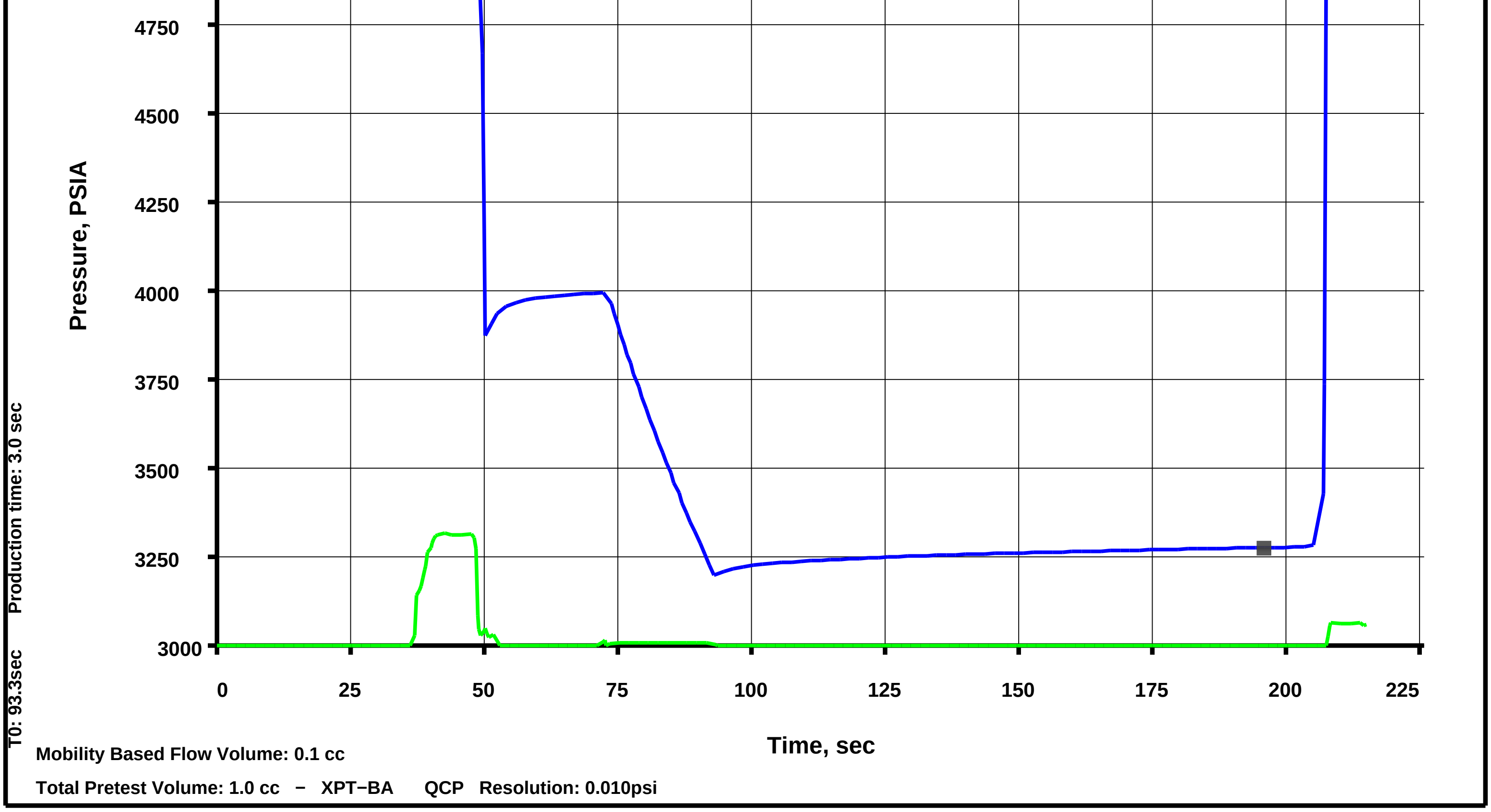
27−Jul−2006   Nexus Energy

Longtom

Longtom−3

Mud Pressure before test, PSIA:	4919.02
Mud Pressure after test, PSIA:	4920.66
Last build−up pressure, PSIA:	3276.89





Output DLIS Files

DEFAULT	TLD_MCFL_CNL_XPT_078LTP	FN:119	PRODUCER	28−Jul−2006 02:56	3100.0 M	0.6 M
RT	TLD_MCFL_CNL_XPT_078LTP	FN:120	PRODUCER	28−Jul−2006 02:58	3100.0 M	0.6 M

Changed Parameter Summary

DLIS Name	New Value	Previous Value	Depth & Time
DDPL_XPT	3000 PSIA	3200 PSIA	3100.0 02:58:15

XPT Oil Pressure Curve (HOILP)
0 (PSIA) 4000

Hydrostatic Pressure (CP_HYD)
0 (PSIA) 10000

Sapphire Manometer Temperature (MTEP_SAP)
0 (DEGC) 150

Sapphire Pressure (CP_SAP)
0 (PSIA) 10000

PRETEST_VOLUME From XPT_7 to XPT_PTV_CURVE

XPT Pretest Volume Curve (PTV_XPT)
0 (C3) 50

XPT Motor Speed Curve (MSPE_XPT) (RPM)
0 5000

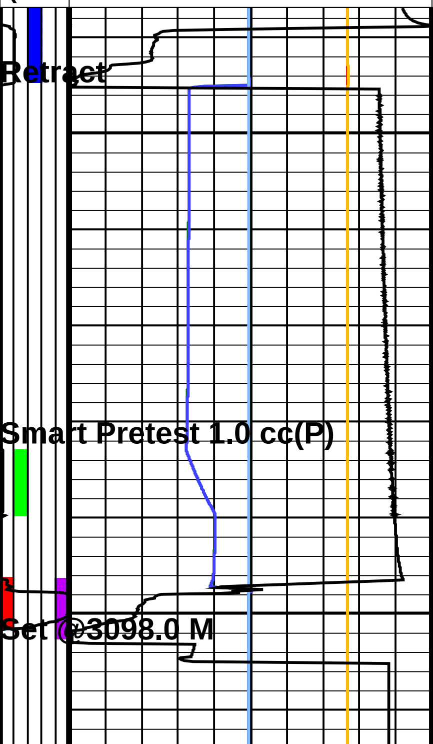
CQG Pressure (QCP)
0 (PSIA) 10000

Sapphire Zoomed Pressure (CP_SAP)
0 (PSIA) 1000

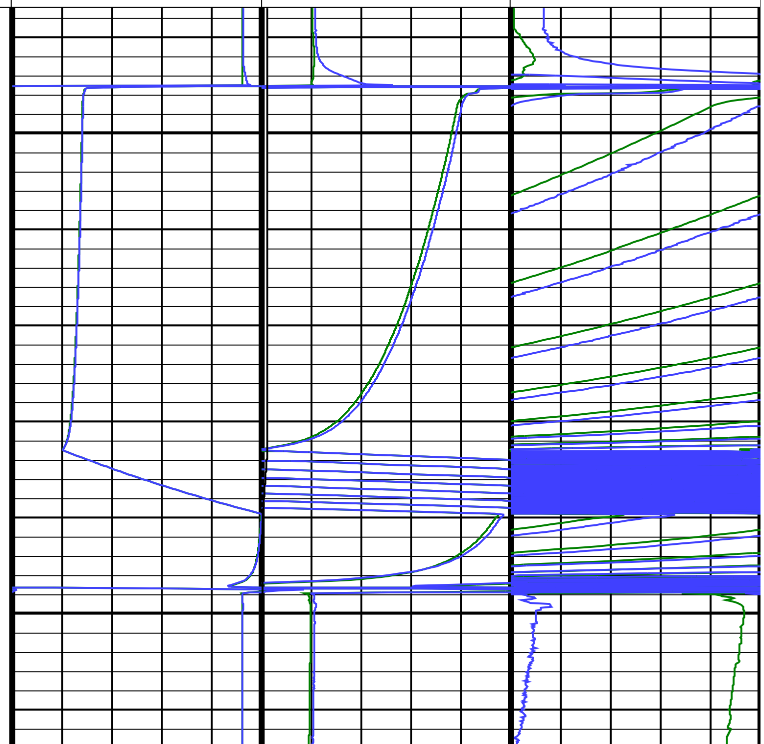
Sapphire Zoomed Pressure (CP_SAP)
0 (PSIA) 100

Sapphire Zoomed Pressure (CP_SAP)
0 (PSIA) 10

XPT Actions Image (AIMG) (----	CQG Temperature (MTEP_QG) 0 (DEGC) 150	XPT Time Log (ETIM_XPT) (S)	CQG Pressure (QCP) (PSIA)	Sapphire Pressure (CP_SAP) (PSIA)	CQG Zoomed Pressure (QCP) 0 (PSIA) 1000	CQG Zoomed Pressure (QCP) 0 (PSIA) 100	CQG Zoomed Pressure (QCP) 0 (PSIA) 10



XPT Time Log (ETIM_XPT) (S)	CQG Pressure (QCP) (PSIA)	Sapphire Pressure (CP_SAP) (PSIA)
00:03:40	4920.49	4921.60
00:03:30	4920.48	4931.74
00:03:20	3277.92	3279.78
00:03:10	3275.24	3277.04
00:03:00	3272.30	3274.23
00:02:50	3269.14	3271.06
00:02:40	3265.72	3267.57
00:02:30	3261.92	3263.82
00:02:20	3257.69	3259.60
00:02:10	3252.81	3254.76
00:02:00	3246.74	3248.71
00:01:50	3239.11	3241.11
00:01:40	3226.57	3228.71
00:01:30	3298.86	3299.18
00:01:20	3676.89	3676.90
00:01:10	3991.90	3993.85
00:01:00	3977.88	3979.81
00:00:50	4173.10	4161.74
00:00:40	4919.28	4920.95
00:00:30	4919.10	4920.82
00:00:20	4918.88	4920.53
00:00:10	4918.76	4920.53
00:00:00	4918.59	4920.13



XPT Actions Image (AIMG) (----	CQG Temperature (MTEP_QG) 0 (DEGC) 150	XPT Time Log (ETIM_XPT) (S)	CQG Pressure (QCP) (PSIA)	Sapphire Pressure (CP_SAP) (PSIA)	CQG Zoomed Pressure (QCP) 0 (PSIA) 1000	CQG Zoomed Pressure (QCP) 0 (PSIA) 100	CQG Zoomed Pressure (QCP) 0 (PSIA) 10
XPT Motor Speed Curve (MSPE_XPT) (RPM) 0 5000	CQG Pressure (QCP) 0 (PSIA) 10000				Sapphire Zoomed Pressure (CP_SAP) 0 (PSIA) 1000	Sapphire Zoomed Pressure (CP_SAP) 0 (PSIA) 100	Sapphire Zoomed Pressure (CP_SAP) 0 (PSIA) 10
	Sapphire Pressure (CP_SAP) 0 (PSIA) 10000					XPT Pretest Volume Curve (PTV_XPT) 0 (C3) 50	
	Sapphire Manometer Temperature (MTEP_SAP) 0 (DEGC) 150					PRETEST_VOLUME From XPT_7 to XPT_PTV_CURVE	
	Hydrostatic Pressure (CP_HYD) 0 (PSIA) 10000						
	XPT Oil Pressure Curve (HOILP)						

0	(PSIA)	4000

XPT Actions Image

WHITE: No Action / COLORED: Action in progress
Left to right:

1. Set (Red)
2. Pretest (Green)
3. Retract (Blue)
4. Init Pretest (Orange)
5. ACom Calibration (Purple)

XPT Dynamic Compensation Status

Quartz Gauge Pressure compensated and corrected
Sapphire Gauge Pressure compensated and corrected
Hydrostatic Sapphire Gauge Pressure compensated and corrected

Parameters

DLIS Name	Description	Value	
XPT−BA: Xpress Pressure Tool − BA			
BTA_HYD	Hydrostatic Gauge Board Temperature A Coefficient	1.00428	
BTA_SAP	Sapphire Board Temperature A Coefficient	1.02082	
BTB_HYD	Hydrostatic Gauge Board Temperature B Coefficient	0	
BTB_SAP	Sapphire Board Temperature B Coefficient	0	
BTCT_HYD	Hydrostatic Gauge Board Temperature Coefficients Read From Data Channels	YES	
BTCT_SAP	Sapphire Board Temperature Coefficients Read Fram Data Channels	YES	
DDPL_XPT	Pretest Drawdown Limit	3200	PSIA
DEVI_FL_CORR_XPT	Tool Deviation Angle	0	DEG
FLD_XPT	Flowline Density	1	G/C3
GDSV	Gauges Downhole Software Version	2.1	
GDYCO	Sapphire Dynamic Compensation Applied	YES	
PAC_SAP	Sapphire Gauge Pressure A Coefficient	0.999383	
PA_HYD	Hydrostatic Gauge Pressure A Coefficient	1.00841	
PBC_SAP	Sapphire Gauge Pressure B Coefficient	0	
PB_HYD	Hydrostatic Gauge Pressure B Coefficient	0	
PCT_HYD	Hydrostatic Gauge Pressure Coefficients Read From Data Channels	YES	
PCT_SAP	Sapphire Pressure Coefficients Read From Data Channels	YES	
PGSR	Pressure Gauges Sampling Rate	300	ms
PRSP	Pretest Rate	0.3	C3/S
PTM_XPT	Pretest Type	SMART	
PTVO_XPT	Pretest Volume	5	C3
QDYCO	CQG Dynamic Compensation Applied	YES	
TAC_SAP	Sapphire Gauge Temperature A Coefficient	1.02268	
TA_HYD	Hydrostatic Gauge Temperature A Coefficient	0.999182	
TBC_SAP	Sapphire Gauge Temperature B Coefficient	0	
TB_HYD	Hydrostatic Gauge Temperature B Coefficient	0	
TCT_HYD	Hydrostatic Gauge Temperature Coefficients Read >From Data Channels	YES	
TCT_SAP	Sapphire Temperature Coefficients Read From Data Channels	YES	

Output DLIS Files

DEFAULT	TLD_MCFL_CNL_XPT_078LTP	FN:119	PRODUCER	28−Jul−2006 02:56
RT	TLD_MCFL_CNL_XPT_078LTP	FN:120	PRODUCER	28−Jul−2006 02:58

Schlumberger

Station Depth (MD)
3101.5 m

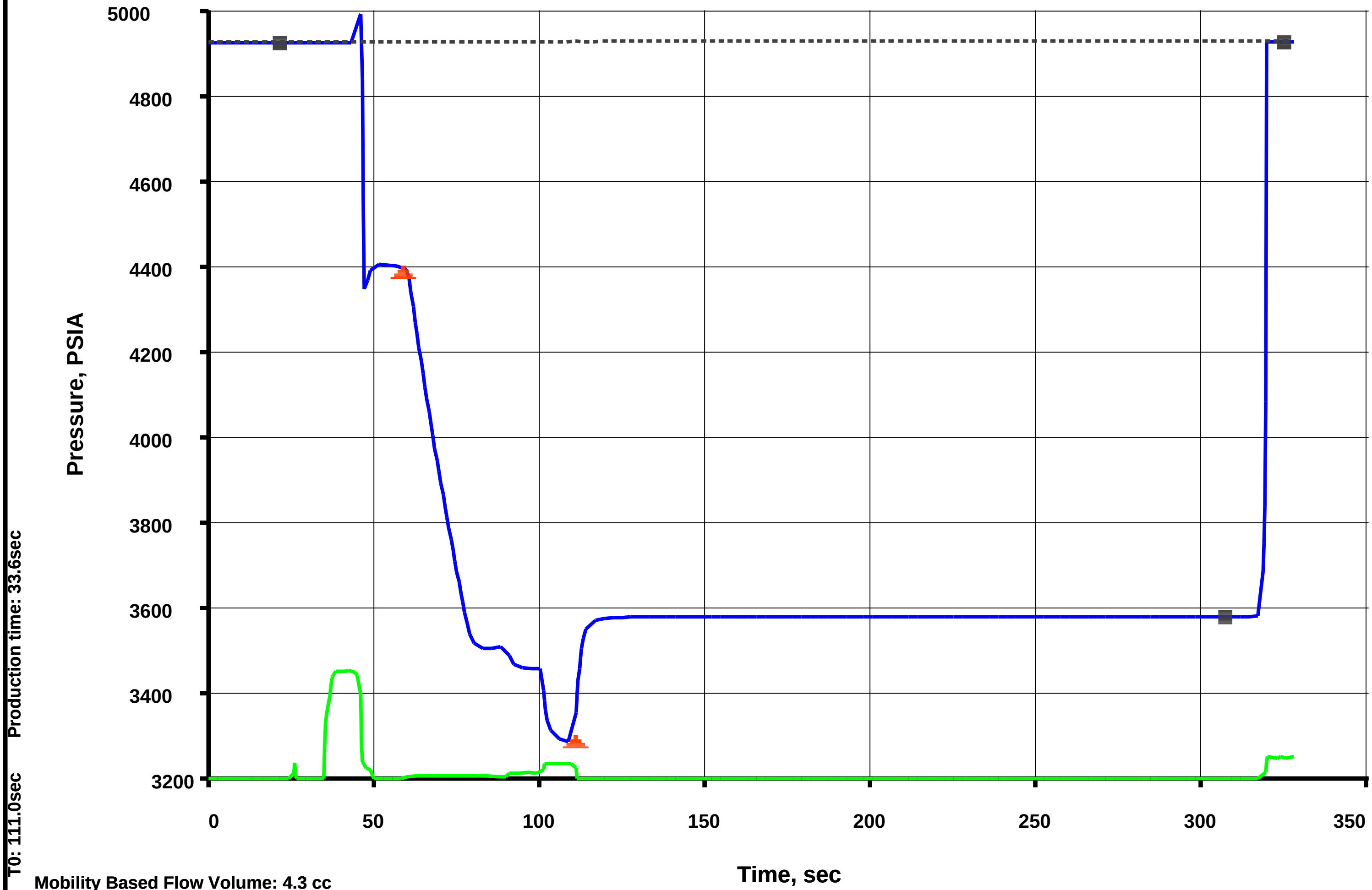
MAXIS Field Log

27−Jul−2006 Nexus Energy

Longtom

Longtom−3

Mud Pressure before test, PSIA: 4923.5
Mud Pressure after test, PSIA: 4925.22
Last build−up pressure, PSIA: 3578.94
Draw−down mobility, md/cp: 4.7



Mobility Based Flow Volume: 4.3 cc

Total Pretest Volume: 5.2 cc − XPT−BA QCP Resolution: 0.010psi

Output DLIS Files

DEFAULT	TLD_MCFL_CNL_XPT_077LTP	FN:117	PRODUCER	28−Jul−2006 02:44	3103.5 M	0.9 M
RT	TLD_MCFL_CNL_XPT_077LTP	FN:118	PRODUCER	28−Jul−2006 02:46	3103.5 M	0.9 M

XPT Oil Pressure Curve (HOILP)
0 (PSIA) 4000

Hydrostatic Pressure (CP_HYD)
0 (PSIA) 10000

Sapphire Manometer Temperature (MTEP_SAP)
0 (DEGC) 150

Sapphire Pressure (CP_SAP)
0 (PSIA) 10000

PRETEST_ VOLUME From XPT_7 to XPT_PTV_CURVE

XPT Pretest Volume Curve (PTV_XPT)
0 (C3) 50

XPT Motor Speed Curve (MSPE_XPT)

CQG Pressure (QCP)
0 (PSIA) 10000

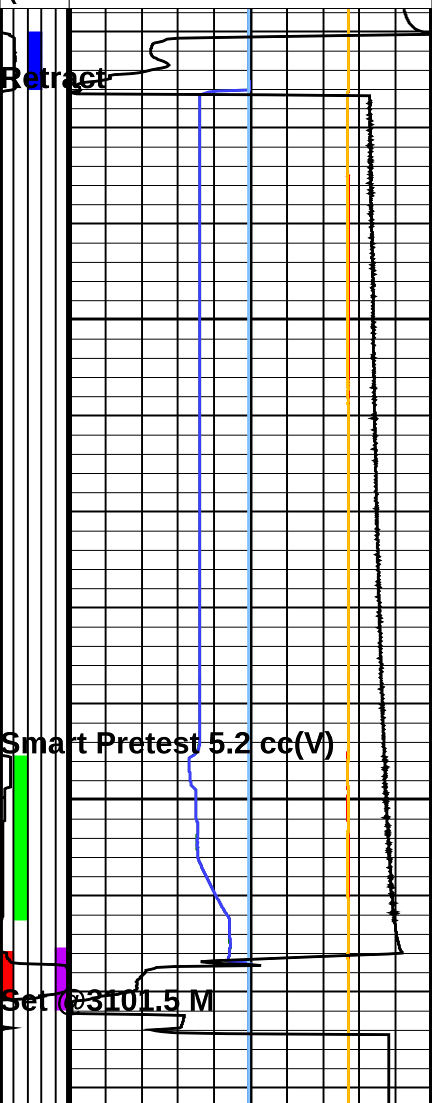
Sapphire Zoomed Pressure (CP_SAP)
0 (PSIA) 1000

Sapphire Zoomed Pressure (CP_SAP)
0 (PSIA) 100

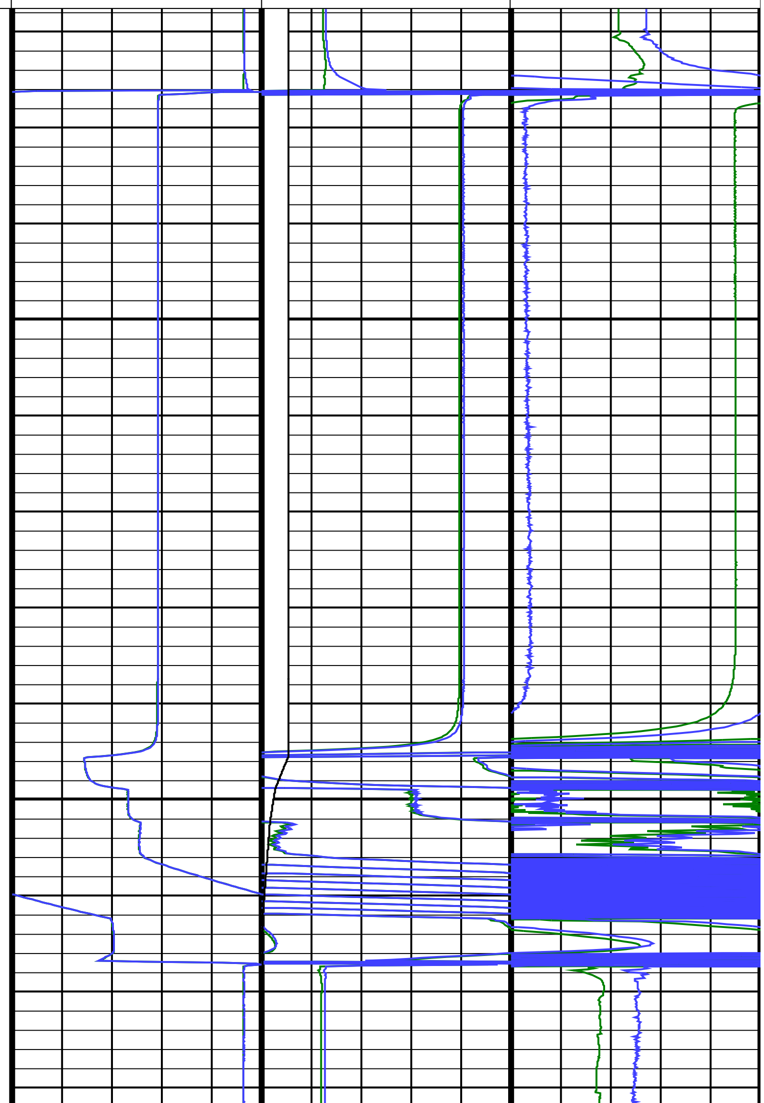
Sapphire Zoomed Pressure (CP_SAP)
0 (PSIA) 10

XPT)
(RPM)
0
5000

XPT Actions Image (AIMG) (----	CQG Temperature (MTEP_QG) 0 (DEGC) 150	XPT Time Log (ETIM_XPT) (S)	CQG Pressure (QCP) (PSIA)	Sapphire Pressure (CP_SAP) (PSIA)	CQG Zoomed Pressure (QCP) 0 (PSIA) 1000	CQG Zoomed Pressure (QCP) 0 (PSIA) 100	CQG Zoomed Pressure (QCP) 0 (PSIA) 10



XPT Time Log (ETIM_XPT) (S)	CQG Pressure (QCP) (PSIA)	Sapphire Pressure (CP_SAP) (PSIA)
00:05:40	4924.28	4925.39
00:05:30	4925.10	4926.25
00:05:20	4924.45	4940.29
00:05:10	3578.94	3580.56
00:05:00	3578.94	3580.53
00:04:50	3578.94	3580.57
00:04:40	3578.95	3580.50
00:04:30	3578.94	3580.61
00:04:20	3578.95	3580.56
00:04:10	3578.94	3580.52
00:04:00	3578.95	3580.62
00:03:50	3578.96	3580.64
00:03:40	3578.96	3580.56
00:03:30	3578.96	3580.71
00:03:20	3578.96	3580.66
00:03:10	3578.97	3580.69
00:03:00	3578.97	3580.66
00:02:50	3578.98	3580.63
00:02:40	3578.98	3580.73
00:02:30	3578.96	3580.72
00:02:20	3578.92	3580.72
00:02:10	3578.69	3580.52
00:02:00	3576.02	3578.21
00:01:50	3284.81	3286.46
00:01:40	3459.74	3461.80
00:01:30	3510.92	3513.17
00:01:20	3521.53	3522.04
00:01:10	3904.34	3903.98
00:01:00	4391.59	4393.29
00:00:50	4402.70	4401.10
00:00:40	4923.66	4925.04
00:00:30	4923.50	4925.07
00:00:20	4923.50	4924.99
00:00:10	4923.39	4924.92
00:00:00	4923.45	4924.66



XPT Actions Image (AIMG) (----	CQG Temperature (MTEP_QG) 0 (DEGC) 150	XPT Time Log (ETIM_XPT) (S)	CQG Pressure (QCP) (PSIA)	Sapphire Pressure (CP_SAP) (PSIA)	CQG Zoomed Pressure (QCP) 0 (PSIA) 1000	CQG Zoomed Pressure (QCP) 0 (PSIA) 100	CQG Zoomed Pressure (QCP) 0 (PSIA) 10

XPT Motor Speed Curve (MSPE_XPT) (RPM) 0	CQG Pressure (QCP) 0 (PSIA) 10000		Sapphire Zoomed Pressure (CP_SAP) 0 (PSIA) 1000	Sapphire Zoomed Pressure (CP_SAP) 0 (PSIA) 100	Sapphire Zoomed Pressure (CP_SAP) 0 (PSIA) 10

0
5000

Sapphire Pressure (CP_SAP)		
0	(PSIA)	10000

Sapphire Manometer Temperature (MTEP_SAP)		
0	(DEGC)	150

Hydrostatic Pressure (CP_HYD)		
0	(PSIA)	10000

XPT Oil Pressure Curve (HOILP)		
0	(PSIA)	4000

XPT Pretest Volume Curve (PTV_XPT)		
0	(C3)	50

PRETEST_ VOLUME From XPT_7 to XPT_PTV_CURVE

XPT Actions Image

WHITE: No Action / COLORED: Action in progress
Left to right:
1. Set (Red)
2. Pretest (Green)
3. Retract (Blue)
4. Init Pretest (Orange)
5. ACom Calibration (Purple)

XPT Dynamic Compensation Status

Quartz Gauge Pressure compensated and corrected
Sapphire Gauge Pressure compensated and corrected
Hydrostatic Sapphire Gauge Pressure compensated and corrected

Parameters

DLIS Name	Description	Value	
XPT−BA: Xpress Pressure Tool − BA			
BTA_HYD	Hydrostatic Gauge Board Temperature A Coefficient	1.00427	
BTA_SAP	Sapphire Board Temperature A Coefficient	1.02083	
BTB_HYD	Hydrostatic Gauge Board Temperature B Coefficient	0	
BTB_SAP	Sapphire Board Temperature B Coefficient	0	
BTCT_HYD	Hydrostatic Gauge Board Temperature Coefficients Read From Data Channels	YES	
BTCT_SAP	Sapphire Board Temperature Coefficients Read Fram Data Channels	YES	
DDPL_XPT	Pretest Drawdown Limit	3200	PSIA
DEVI_FL_CORR_XPT	Tool Deviation Angle	0	DEG
FLD_XPT	Flowline Density	1	G/C3
GDSV	Gauges Downhole Software Version	2.1	
GDYCO	Sapphire Dynamic Compensation Applied	YES	
PAC_SAP	Sapphire Gauge Pressure A Coefficient	0.999387	
PA_HYD	Hydrostatic Gauge Pressure A Coefficient	1.00842	
PBC_SAP	Sapphire Gauge Pressure B Coefficient	0	
PB_HYD	Hydrostatic Gauge Pressure B Coefficient	0	
PCT_HYD	Hydrostatic Gauge Pressure Coefficients Read From Data Channels	YES	
PCT_SAP	Sapphire Pressure Coefficients Read From Data Channels	YES	
PGSR	Pressure Gauges Sampling Rate	300	ms
PRSP	Pretest Rate	0.3	C3/S
PTM_XPT	Pretest Type	SMART	
PTVO_XPT	Pretest Volume	5	C3
QDYCO	CQG Dynamic Compensation Applied	YES	
TAC_SAP	Sapphire Gauge Temperature A Coefficient	1.02268	
TA_HYD	Hydrostatic Gauge Temperature A Coefficient	0.999187	
TBC_SAP	Sapphire Gauge Temperature B Coefficient	0	
TB_HYD	Hydrostatic Gauge Temperature B Coefficient	0	
TCT_HYD	Hydrostatic Gauge Temperature Coefficients Read >From Data Channels	YES	
TCT_SAP	Sapphire Temperature Coefficients Read From Data Channels	YES	

Output DLIS Files

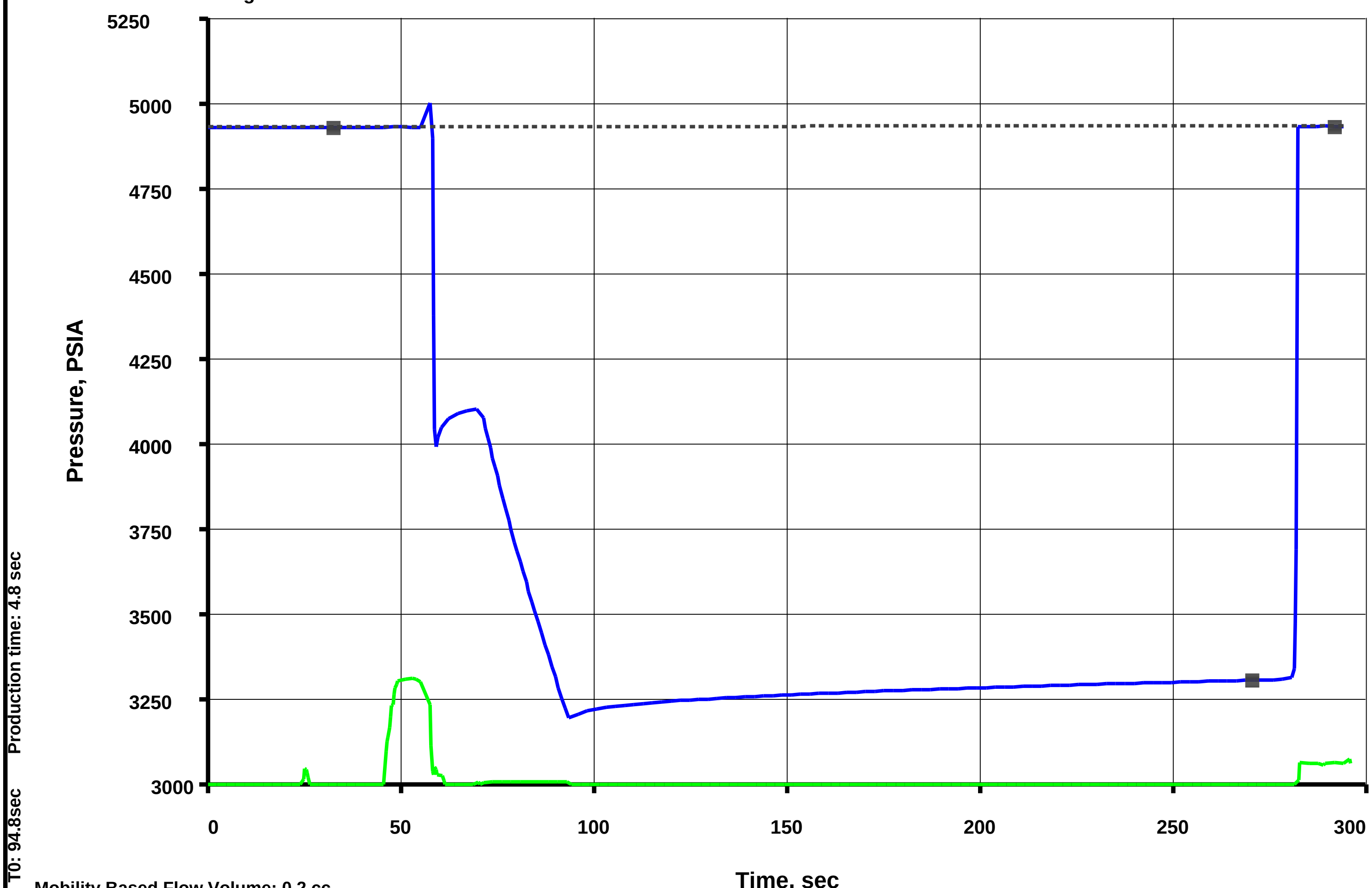
DEFAULT	TLD_MCFL_CNL_XPT_077LTP	FN:117	PRODUCER	28−Jul−2006 02:44
RT	TLD_MCFL_CNL_XPT_077LTP	FN:118	PRODUCER	28−Jul−2006 02:46

Schlumberger

Station Depth (MD)
3107.0 m

MAXIS Field Log

File 76	**Depth, M: 3106.97**	**Dry Test − Conventional probe**	
27−Jul−2006	**Nexus Energy**	**Mud Pressure before test, PSIA:**	**4928.21**
		Mud Pressure after test, PSIA:	**4930.95**
	Longtom	**Last build−up pressure, PSIA:**	**3307.12**
	Longtom−3		



Mobility Based Flow Volume: 0.2 cc

Total Pretest Volume: 1.1 cc − XPT−BA QCP Resolution: 0.010psi

Output DLIS Files

DEFAULT	TLD_MCFL_CNL_XPT_076LTP	FN:115	PRODUCER	28−Jul−2006 02:35	3109.0 M	0.8 M
RT	TLD_MCFL_CNL_XPT_076LTP	FN:116	PRODUCER	28−Jul−2006 02:37	3109.0 M	0.8 M

XPT Oil Pressure Curve (HOILP)		
0	(PSIA)	4000

Hydrostatic Pressure (CP_HYD)		
0	(PSIA)	10000

Sapphire Manometer

PRETEST_ VOLUME

Temperature (MTEP_SAP)
0 (DEGC) 150

Sapphire Pressure (CP_SAP)
0 (PSIA) 10000

VOLUME From XPT_7 to XPT_PTV_CURVE

XPT Pretest Volume Curve (PTV_XPT)
0 (C3) 50

XPT Motor Speed Curve (MSPE_XPT) (RPM)
0 5000

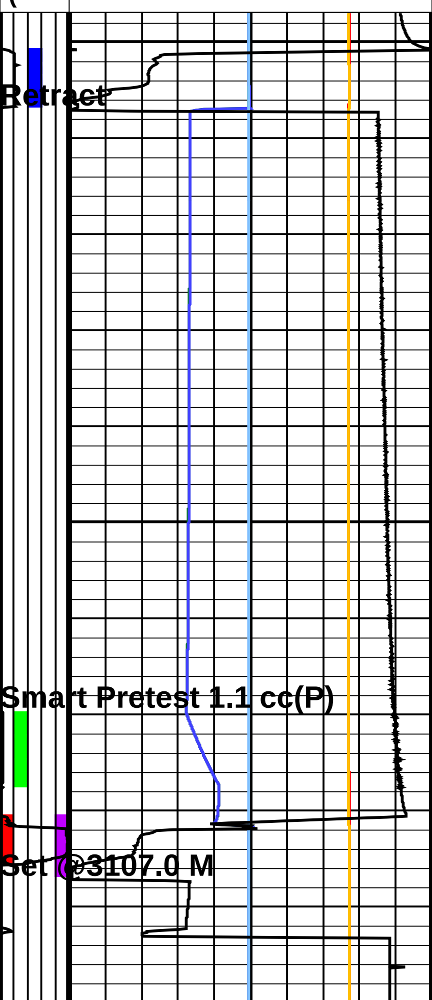
CQG Pressure (QCP)
0 (PSIA) 10000

Sapphire Zoomed Pressure (CP_SAP) 0 (PSIA) 1000 | Sapphire Zoomed Pressure (CP_SAP) 0 (PSIA) 100 | Sapphire Zoomed Pressure (CP_SAP) 0 (PSIA) 10

XPT Actions Image (AIMG) (----

CQG Temperature (MTEP_QG)
0 (DEGC) 150

CQG Zoomed Pressure (QCP) 0 (PSIA) 1000 | CQG Zoomed Pressure (QCP) 0 (PSIA) 100 | CQG Zoomed Pressure (QCP) 0 (PSIA) 10



XPT Time Log (ETIM_XPT) (S)	CQG Pressure (QCP) (PSIA)	Sapphire Pressure (CP_SAP) (PSIA)
00:05:10	4930.23	4931.50
00:05:00	4930.47	4931.43
00:04:50	4931.19	4933.35
00:04:40	3313.30	3313.91
00:04:30	3306.61	3308.14
00:04:20	3303.77	3305.32
00:04:10	3300.82	3302.39
00:04:00	3297.66	3299.30
00:03:50	3294.86	3296.46
00:03:40	3291.65	3293.37
00:03:30	3288.16	3289.86
00:03:20	3284.72	3286.44
00:03:10	3281.02	3282.77
00:03:00	3277.03	3278.74
00:02:50	3272.89	3274.64
00:02:40	3268.35	3270.14
00:02:30	3263.79	3265.55
00:02:20	3258.40	3260.12
00:02:10	3252.22	3254.04
00:02:00	3244.97	3246.88
00:01:50	3235.20	3237.19
00:01:40	3220.00	3221.99
00:01:30	3316.30	3316.40
00:01:20	3696.74	3696.48
00:01:10	4095.48	4097.37
00:01:00	4030.96	4023.70
00:00:50	4928.67	4930.04
00:00:40	4928.29	4929.80
00:00:30	4928.12	4929.67
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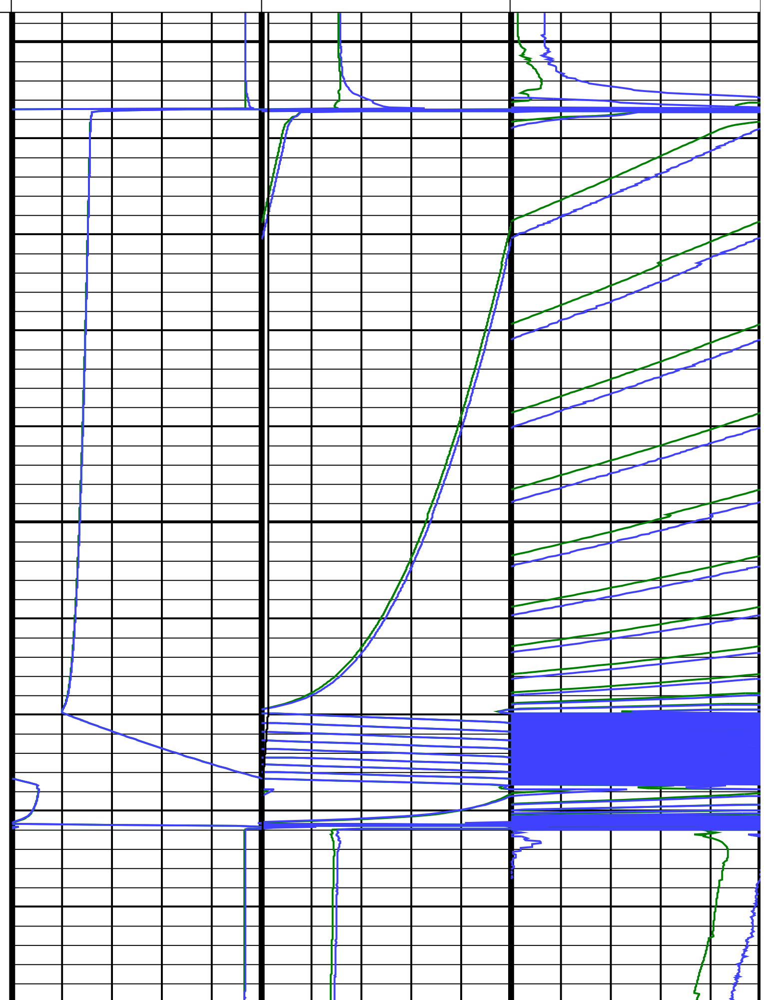
00:00:10	4927.44	4929.01
00:00:00	4927.22	4928.62



XPT Actions Image (AIMG)

CQG Temperature (MTEP_QG)
0 (DEGC) 150

XPT Time Log (ETIM_XPT) (S) | CQG Pressure (QCP) (PSIA) | Sapphire Pressure (CP_SAP) (PSIA)

CQG Zoomed Pressure (QCP) 0 (PSIA) 1000 | CQG Zoomed Pressure (QCP) 0 (PSIA) 100 | CQG Zoomed Pressure (QCP) 0 (PSIA) 10

XPT Motor Speed Curve (MSPE_XPT) (RPM) 0 — 5000	CQG Pressure (QCP) 0 (PSIA) 10000				Sapphire Zoomed Pressure (CP_SAP) 0 (PSIA) 1000	Sapphire Zoomed Pressure (CP_SAP) 0 (PSIA) 100	Sapphire Zoomed Pressure (CP_SAP) 0 (PSIA) 10
	Sapphire Pressure (CP_SAP) 0 (PSIA) 10000					XPT Pretest Volume Curve (PTV_XPT) 0 (C3) 50	
	Sapphire Manometer Temperature (MTEP_SAP) 0 (DEGC) 150					PRETEST_ VOLUME From XPT_7 to XPT_PTV_CURVE	
	Hydrostatic Pressure (CP_HYD) 0 (PSIA) 10000						
	XPT Oil Pressure Curve (HOILP) 0 (PSIA) 4000						

XPT Actions Image

WHITE: No Action / COLORED: Action in progress
Left to right:

1. Set (Red)
2. Pretest (Green)
3. Retract (Blue)
4. Init Pretest (Orange)
5. ACom Calibration (Purple)

XPT Dynamic Compensation Status

Quartz Gauge Pressure compensated and corrected
Sapphire Gauge Pressure compensated and corrected
Hydrostatic Sapphire Gauge Pressure compensated and corrected

Parameters

DLIS Name	Description	Value	
	XPT−BA: Xpress Pressure Tool − BA		
BTA_HYD	Hydrostatic Gauge Board Temperature A Coefficient	1.00428	
BTA_SAP	Sapphire Board Temperature A Coefficient	1.02083	
BTB_HYD	Hydrostatic Gauge Board Temperature B Coefficient	0	
BTB_SAP	Sapphire Board Temperature B Coefficient	0	
BTCT_HYD	Hydrostatic Gauge Board Temperature Coefficients Read From Data Channels	YES	
BTCT_SAP	Sapphire Board Temperature Coefficients Read Fram Data Channels	YES	
DDPL_XPT	Pretest Drawdown Limit	3200	PSIA
DEVI_FL_CORR_XPT	Tool Deviation Angle	0	DEG
FLD_XPT	Flowline Density	1	G/C3
GDSV	Gauges Downhole Software Version	2.1	
GDYCO	Sapphire Dynamic Compensation Applied	YES	
PAC_SAP	Sapphire Gauge Pressure A Coefficient	0.999383	
PA_HYD	Hydrostatic Gauge Pressure A Coefficient	1.00842	
PBC_SAP	Sapphire Gauge Pressure B Coefficient	0	
PB_HYD	Hydrostatic Gauge Pressure B Coefficient	0	
PCT_HYD	Hydrostatic Gauge Pressure Coefficients Read From Data Channels	YES	
PCT_SAP	Sapphire Pressure Coefficients Read From Data Channels	YES	
PGSR	Pressure Gauges Sampling Rate	300	ms
PRSP	Pretest Rate	0.3	C3/S
PTM_XPT	Pretest Type	SMART	

PTVO_XPT	Pretest Volume	5	C3
QDYCO	CQG Dynamic Compensation Applied	YES	
TAC_SAP	Sapphire Gauge Temperature A Coefficient	1.02268	
TA_HYD	Hydrostatic Gauge Temperature A Coefficient	0.999186	
TBC_SAP	Sapphire Gauge Temperature B Coefficient	0	
TB_HYD	Hydrostatic Gauge Temperature B Coefficient	0	
TCT_HYD	Hydrostatic Gauge Temperature Coefficients Read >From Data Channels	YES	
TCT_SAP	Sapphire Temperature Coefficients Read From Data Channels	YES	

Output DLIS Files

DEFAULT	TLD_MCFL_CNL_XPT_076LTP	FN:115	PRODUCER	28−Jul−2006 02:35
RT	TLD_MCFL_CNL_XPT_076LTP	FN:116	PRODUCER	28−Jul−2006 02:37

Schlumberger

Station Depth (MD)
3115.0 m

MAXIS Field Log

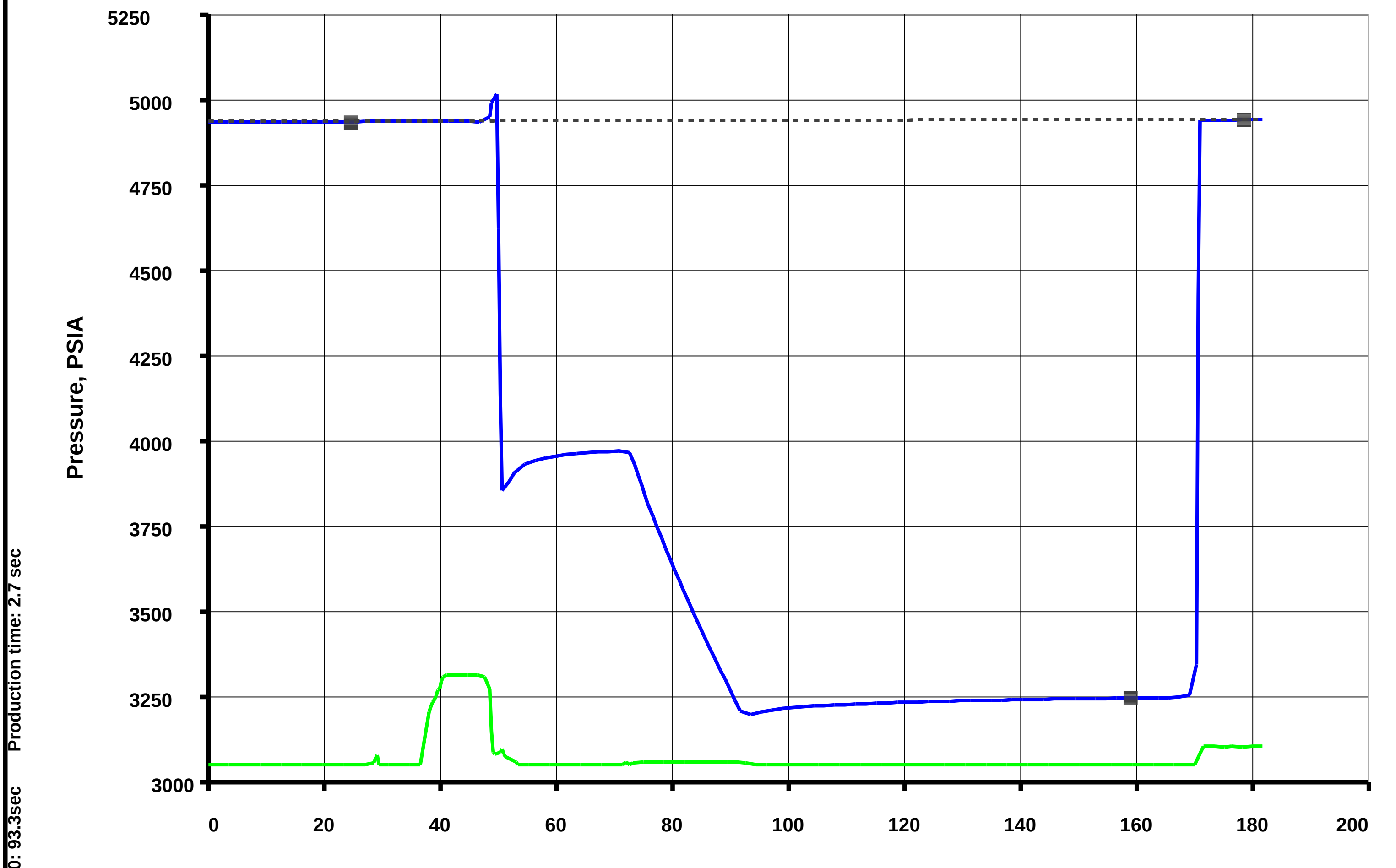
File 75 | Depth, M: 3114.96 | Dry Test − Conventional probe

27−Jul−2006 | Nexus Energy

Longtom

Longtom−3

Mud Pressure before test, PSIA:	4933.69
Mud Pressure after test, PSIA:	4939.26
Last build−up pressure, PSIA:	3247.6



Mobility Based Flow Volume: 0.1 cc

Total Pretest Volume: 1.0 cc − XPT−BA QCP Resolution: 0.010psi

Output DLIS Files

DEFAULT	TLD_MCFL_CNL_XPT_075LTP	FN:113	PRODUCER	28−Jul−2006 02:29	3117.0 M	0.5 M
RT	TLD_MCFL_CNL_XPT_075LTP	FN:114	PRODUCER	28−Jul−2006 02:31	3117.0 M	0.5 M

XPT Oil Pressure Curve (HOILP)
0 (PSIA) 4000

Hydrostatic Pressure (CP_HYD)
0 (PSIA) 10000

Sapphire Manometer Temperature (MTEP_SAP)
0 (DEGC) 150

Sapphire Pressure (CP_SAP)
0 (PSIA) 10000

PRETEST_VOLUME From XPT_7 to XPT_PTV_CURVE

XPT Pretest Volume Curve (PTV_XPT)
0 (C3) 50

XPT Motor Speed Curve (MSPE_XPT) (RPM)
0 5000

CQG Pressure (QCP)
0 (PSIA) 10000

Sapphire Zoomed Pressure (CP_SAP)
0 (PSIA) 1000

Sapphire Zoomed Pressure (CP_SAP)
0 (PSIA) 100

Sapphire Zoomed Pressure (CP_SAP)
0 (PSIA) 10

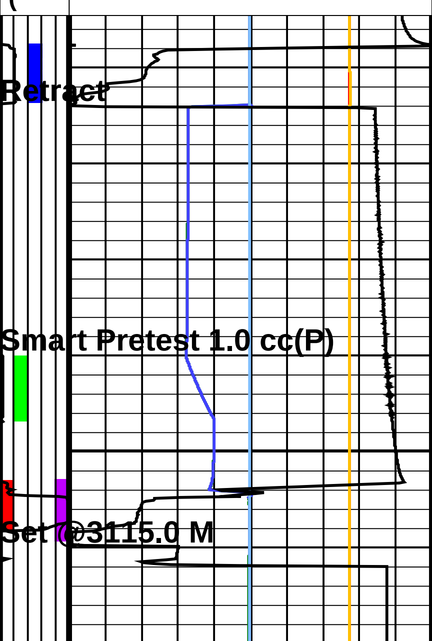
XPT Actions Image (AIMG) (−−−−

CQG Temperature (MTEP_QG)
0 (DEGC) 150

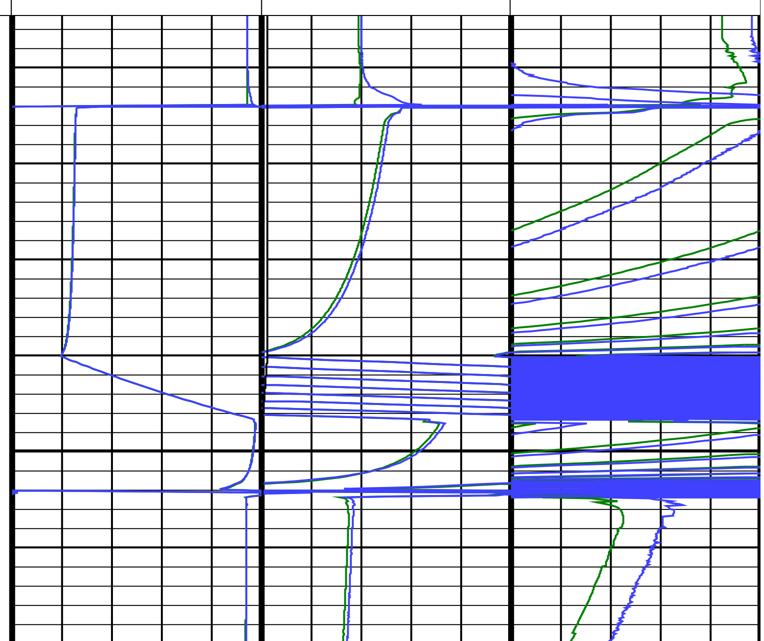
CQG Zoomed Pressure (QCP)
0 (PSIA) 1000

CQG Zoomed Pressure (QCP)
0 (PSIA) 100

CQG Zoomed Pressure (QCP)
0 (PSIA) 10



XPT Time Log (ETIM_XPT) (S)	CQG Pressure (QCP) (PSIA)	Sapphire Pressure (CP_SAP) (PSIA)
00:03:10	4938.60	4939.65
00:03:00	4939.31	4940.72
00:02:50	3255.55	3255.62
00:02:40	3247.61	3249.44
00:02:30	3245.34	3247.15
00:02:20	3242.63	3244.46
00:02:10	3239.33	3241.22
00:02:00	3235.07	3237.05
00:01:50	3229.06	3231.06
00:01:40	3217.99	3220.10
00:01:30	3268.13	3268.43
00:01:20	3637.22	3637.11
00:01:10	3969.82	3971.75
00:01:00	3955.37	3957.23
00:00:50	4621.56	4616.12
00:00:40	4934.44	4936.03
00:00:30	4933.85	4935.56
00:00:20	4933.29	4934.97
00:00:10	4932.68	4934.30
00:00:00	4932.13	4933.72



XPT Actions Image (AIM

CQG Temperature (MTEP_QG)
0 (DEGC) 150

XPT Time Log (ETIM_XPT) (S)

CQG Pressure (QCP) (PSIA)

Sapphire Pressure (CP_SAP) (PSIA)

CQG Zoomed Pressure (QCP)
0 (PSIA) 1000

CQG Zoomed Pressure (QCP)
0 (PSIA) 100

CQG Zoomed Pressure (QCP)
0 (PSIA) 10

G) (−−−−							
XPT Motor Speed Curve (MSPE_XPT) (RPM) 0 5000	CQG Pressure (QCP) 0 (PSIA) 10000				Sapphire Zoomed Pressure (CP_SAP) 0 (PSIA) 1000	Sapphire Zoomed Pressure (CP_SAP) 0 (PSIA) 100	Sapphire Zoomed Pressure (CP_SAP) 0 (PSIA) 10
	Sapphire Pressure (CP_SAP) 0 (PSIA) 10000					XPT Pretest Volume Curve (PTV_XPT) 0 (C3) 50	
	Sapphire Manometer Temperature (MTEP_SAP) 0 (DEGC) 150					PRETEST_ VOLUME From XPT_7 to XPT_PTV_CURVE	
	Hydrostatic Pressure (CP_ HYD) 0 (PSIA) 10000						
	XPT Oil Pressure Curve (HOILP) 0 (PSIA) 4000						

XPT Actions Image

WHITE: No Action / COLORED: Action in progress
Left to right:

1. Set (Red)
2. Pretest (Green)
3. Retract (Blue)
4. Init Pretest (Orange)
5. ACom Calibration (Purple)

XPT Dynamic Compensation Status

Quartz Gauge Pressure compensated and corrected
Sapphire Gauge Pressure compensated and corrected
Hydrostatic Sapphire Gauge Pressure compensated and corrected

Parameters

DLIS Name	Description	Value	
	XPT−BA: Xpress Pressure Tool − BA		
BTA_HYD	Hydrostatic Gauge Board Temperature A Coefficient	1.00428	
BTA_SAP	Sapphire Board Temperature A Coefficient	1.02083	
BTB_HYD	Hydrostatic Gauge Board Temperature B Coefficient	0	
BTB_SAP	Sapphire Board Temperature B Coefficient	0	
BTCT_HYD	Hydrostatic Gauge Board Temperature Coefficients Read From Data Channels	YES	
BTCT_SAP	Sapphire Board Temperature Coefficients Read Fram Data Channels	YES	
DDPL_XPT	Pretest Drawdown Limit	3200	PSIA
DEVI_FL_CORR_XPT	Tool Deviation Angle	0	DEG
FLD_XPT	Flowline Density	1	G/C3
GDSV	Gauges Downhole Software Version	2.1	
GDYCO	Sapphire Dynamic Compensation Applied	YES	
PAC_SAP	Sapphire Gauge Pressure A Coefficient	0.999381	
PA_HYD	Hydrostatic Gauge Pressure A Coefficient	1.00842	
PBC_SAP	Sapphire Gauge Pressure B Coefficient	0	
PB_HYD	Hydrostatic Gauge Pressure B Coefficient	0	
PCT_HYD	Hydrostatic Gauge Pressure Coefficients Read From Data Channels	YES	
PCT_SAP	Sapphire Pressure Coefficients Read From Data Channels	YES	
PGSR	Pressure Gauges Sampling Rate	300	ms
PRSP	Pretest Rate	0.3	C3/S

PTM_XPT	Pretest Type	SMART	
PTVO_XPT	Pretest Volume	5	C3
QDYCO	CQG Dynamic Compensation Applied	YES	
TAC_SAP	Sapphire Gauge Temperature A Coefficient	1.02267	
TA_HYD	Hydrostatic Gauge Temperature A Coefficient	0.99919	
TBC_SAP	Sapphire Gauge Temperature B Coefficient	0	
TB_HYD	Hydrostatic Gauge Temperature B Coefficient	0	
TCT_HYD	Hydrostatic Gauge Temperature Coefficients Read >From Data Channels	YES	
TCT_SAP	Sapphire Temperature Coefficients Read From Data Channels	YES	

Output DLIS Files

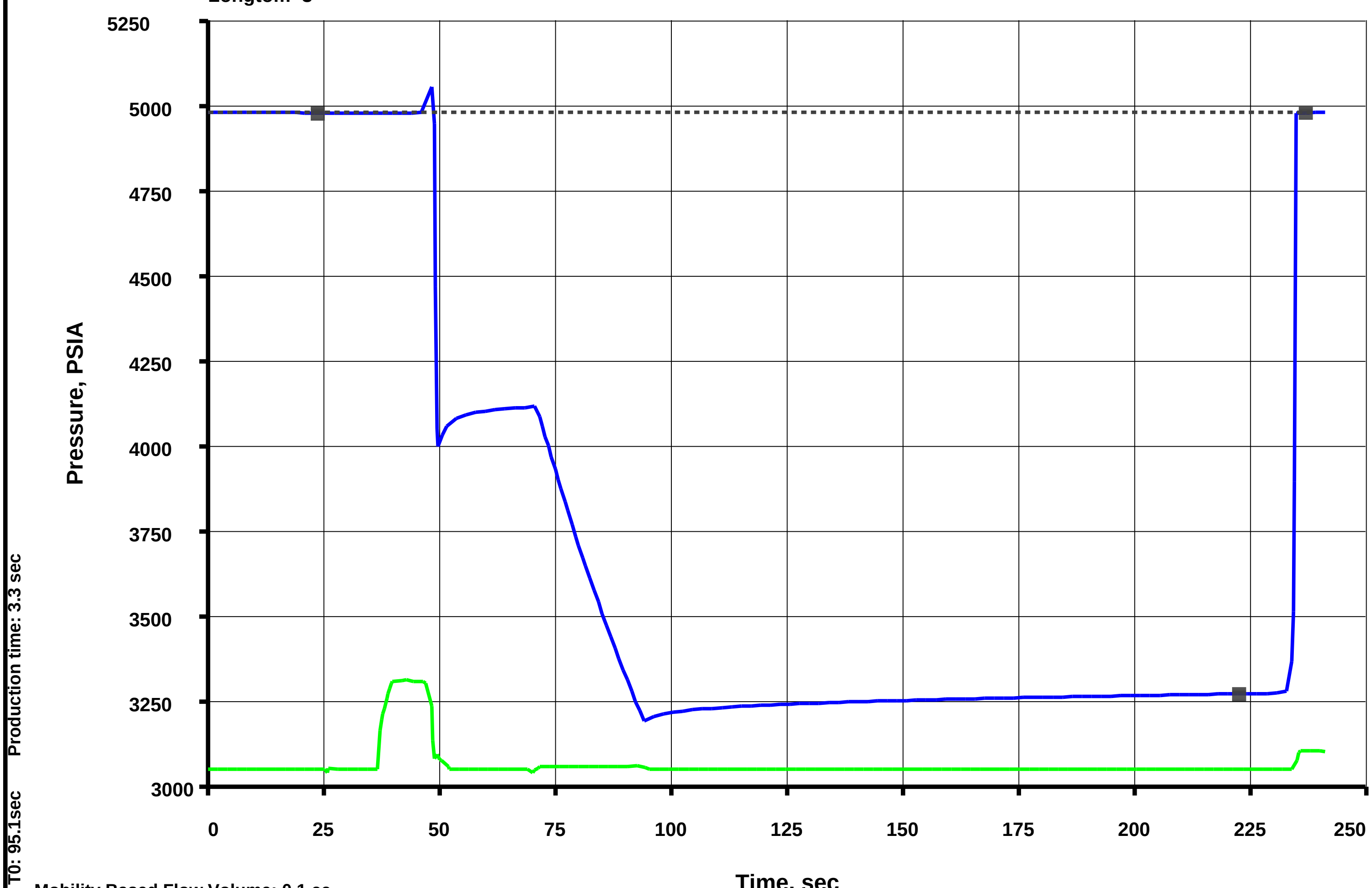
DEFAULT	TLD_MCFL_CNL_XPT_075LTP	FN:113	PRODUCER	28−Jul−2006 02:29
RT	TLD_MCFL_CNL_XPT_075LTP	FN:114	PRODUCER	28−Jul−2006 02:31

Schlumberger

Station Depth (MD)
3146.5 m

MAXIS Field Log

File 74	Depth, M: 3146.46	Dry Test − Conventional probe	
27−Jul−2006	Nexus Energy	Mud Pressure before test, PSIA:	4977.22
		Mud Pressure after test, PSIA:	4977.91
	Longtom	Last build−up pressure, PSIA:	3273.79
	Longtom−3		



Mobility Based Flow Volume: 0.1 cc

Total Pretest Volume: 1.1 cc − XPT−BA QCP Resolution: 0.010psi

Output DLIS Files

DEFAULT	TLD_MCFL_CNL_XPT_074LTP	FN:111	PRODUCER	28−Jul−2006 02:19	3148.5 M	0.7 M
RT	TLD_MCFL_CNL_XPT_074LTP	FN:112	PRODUCER	28−Jul−2006 02:21	3148.5 M	0.7 M

XPT Oil Pressure Curve (HOILP) 0 (PSIA) 4000

Hydrostatic Pressure (CP_HYD) 0 (PSIA) 10000

Sapphire Manometer Temperature (MTEP_SAP) 0 (DEGC) 150

Sapphire Pressure (CP_SAP) 0 (PSIA) 10000

PRETEST_VOLUME From XPT_7 to XPT_PTV_CURVE

XPT Pretest Volume Curve (PTV_XPT) 0 (C3) 50

XPT Motor Speed Curve (MSPE_XPT) (RPM) 0 5000

CQG Pressure (QCP) 0 (PSIA) 10000

Sapphire Zoomed Pressure (CP_SAP) 0 (PSIA) 1000

Sapphire Zoomed Pressure (CP_SAP) 0 (PSIA) 100

Sapphire Zoomed Pressure (CP_SAP) 0 (PSIA) 10

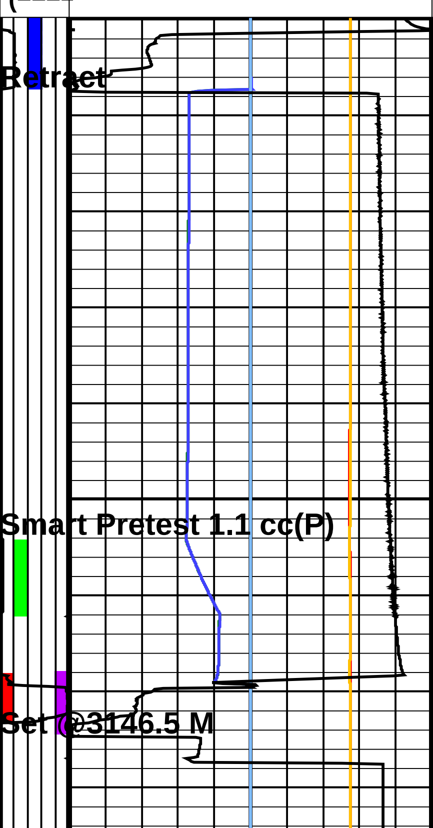
XPT Actions Image (AIMG) (−−−−

CQG Temperature (MTEP_QG) 0 (DEGC) 150

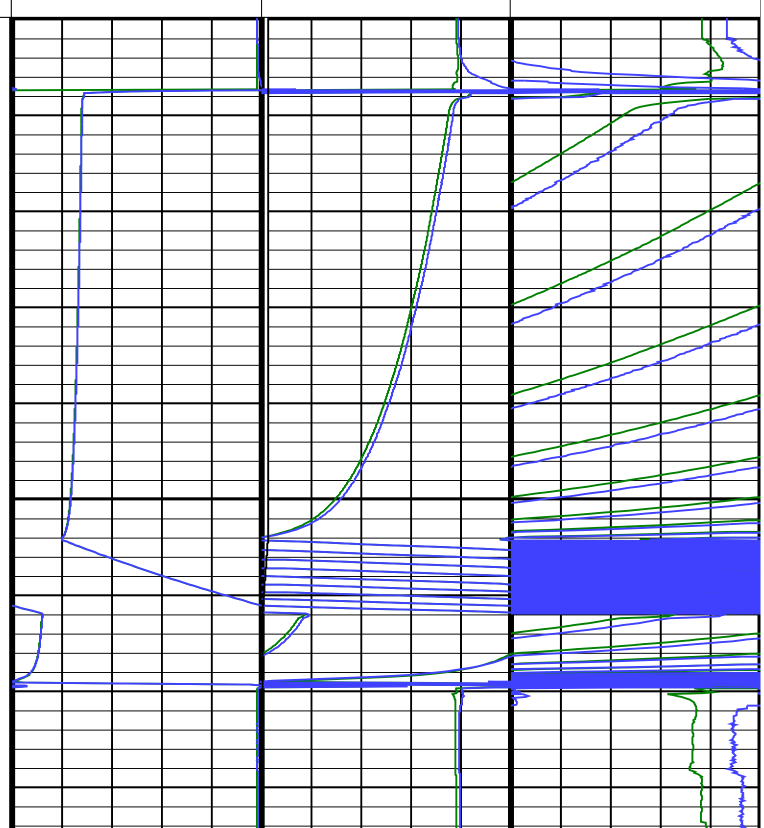
CQG Zoomed Pressure (QCP) 0 (PSIA) 1000

CQG Zoomed Pressure (QCP) 0 (PSIA) 100

CQG Zoomed Pressure (QCP) 0 (PSIA) 10



XPT Time Log (ETIM_XPT) (S)	CQG Pressure (QCP) (PSIA)	Sapphire Pressure (CP_SAP) (PSIA)
00:04:10	4977.88	4978.84
00:04:00	4977.72	4983.98
00:03:50	3275.39	3277.04
00:03:40	3273.05	3274.86
00:03:30	3270.86	3272.69
00:03:20	3268.57	3270.44
00:03:10	3266.21	3268.09
00:03:00	3263.52	3265.40
00:02:50	3260.66	3262.51
00:02:40	3257.54	3259.48
00:02:30	3254.03	3255.86
00:02:20	3250.13	3252.10
00:02:10	3245.51	3247.41
00:02:00	3239.71	3241.62
00:01:50	3232.14	3234.24
00:01:40	3218.76	3220.86
00:01:30	3344.00	3344.23
00:01:20	3722.40	3722.16
00:01:10	4115.37	4117.41
00:01:00	4102.19	4104.20
00:00:50	3999.79	3990.27
00:00:40	4977.39	4979.00
00:00:30	4977.27	4978.93
00:00:20	4977.59	4979.23
00:00:10	4977.60	4979.22
00:00:00	4977.77	4979.24



XPT Actions Image (----

CQG Temperature (MTEP_QG)
0 (DEGC) 150

XPT Time Log (ETIM_XPT) (S)

CQG Pressure (QCP) (PSIA)

Sapphire Pressure (CP_SAP) (PSIA)

CQG Zoomed Pressure (QCP)
0 (PSIA) 1000

CQG Zoomed Pressure (QCP)
0 (PSIA) 100

CQG Zoomed Pressure (QCP)
0 (PSIA) 10

XPT Motor Speed Curve (MSPE_XPT) (RPM)
0 5000

CQG Pressure (QCP)
0 (PSIA) 10000

Sapphire Zoomed Pressure (CP_SAP)
0 (PSIA) 1000

Sapphire Zoomed Pressure (CP_SAP)
0 (PSIA) 100

Sapphire Zoomed Pressure (CP_SAP)
0 (PSIA) 10

Sapphire Pressure (CP_SAP)
0 (PSIA) 10000

XPT Pretest Volume Curve (PTV_XPT)
0 (C3) 50

Sapphire Manometer Temperature (MTEP_SAP)
0 (DEGC) 150

PRETEST_VOLUME From XPT_7 to XPT_PTV_CURVE

Hydrostatic Pressure (CP_HYD)
0 (PSIA) 10000

XPT Oil Pressure Curve (HOILP)
0 (PSIA) 4000

XPT Actions Image

WHITE: No Action / COLORED: Action in progress

Left to right:

1. Set (Red)
2. Pretest (Green)
3. Retract (Blue)
4. Init Pretest (Orange)
5. ACom Calibration (Purple)

XPT Dynamic Compensation Status

Quartz Gauge Pressure compensated and corrected
Sapphire Gauge Pressure compensated and corrected
Hydrostatic Sapphire Gauge Pressure compensated and corrected

Parameters

DLIS Name	Description	Value	
	XPT−BA: Xpress Pressure Tool − BA		
BTA_HYD	Hydrostatic Gauge Board Temperature A Coefficient	1.00429	
BTA_SAP	Sapphire Board Temperature A Coefficient	1.02083	
BTB_HYD	Hydrostatic Gauge Board Temperature B Coefficient	0	
BTB_SAP	Sapphire Board Temperature B Coefficient	0	
BTCT_HYD	Hydrostatic Gauge Board Temperature Coefficients Read From Data Channels	YES	
BTCT_SAP	Sapphire Board Temperature Coefficients Read Fram Data Channels	YES	
DDPL_XPT	Pretest Drawdown Limit	3200	PSIA
DEVI_FL_CORR_XPT	Tool Deviation Angle	0	DEG
FLD_XPT	Flowline Density	1	G/C3
GDSV	Gauges Downhole Software Version	2.1	
GDYCO	Sapphire Dynamic Compensation Applied	YES	

PAC_SAP	Sapphire Gauge Pressure A Coefficient	0.999381	
PA_HYD	Hydrostatic Gauge Pressure A Coefficient	1.00843	
PBC_SAP	Sapphire Gauge Pressure B Coefficient	0	
PB_HYD	Hydrostatic Gauge Pressure B Coefficient	0	
PCT_HYD	Hydrostatic Gauge Pressure Coefficients Read From Data Channels	YES	
PCT_SAP	Sapphire Pressure Coefficients Read From Data Channels	YES	
PGSR	Pressure Gauges Sampling Rate	300	ms
PRSP	Pretest Rate	0.3	C3/S
PTM_XPT	Pretest Type	SMART	
PTVO_XPT	Pretest Volume	5	C3
QDYCO	CQG Dynamic Compensation Applied	YES	
TAC_SAP	Sapphire Gauge Temperature A Coefficient	1.02267	
TA_HYD	Hydrostatic Gauge Temperature A Coefficient	0.999192	
TBC_SAP	Sapphire Gauge Temperature B Coefficient	0	
TB_HYD	Hydrostatic Gauge Temperature B Coefficient	0	
TCT_HYD	Hydrostatic Gauge Temperature Coefficients Read >From Data Channels	YES	
TCT_SAP	Sapphire Temperature Coefficients Read From Data Channels	YES	

Output DLIS Files

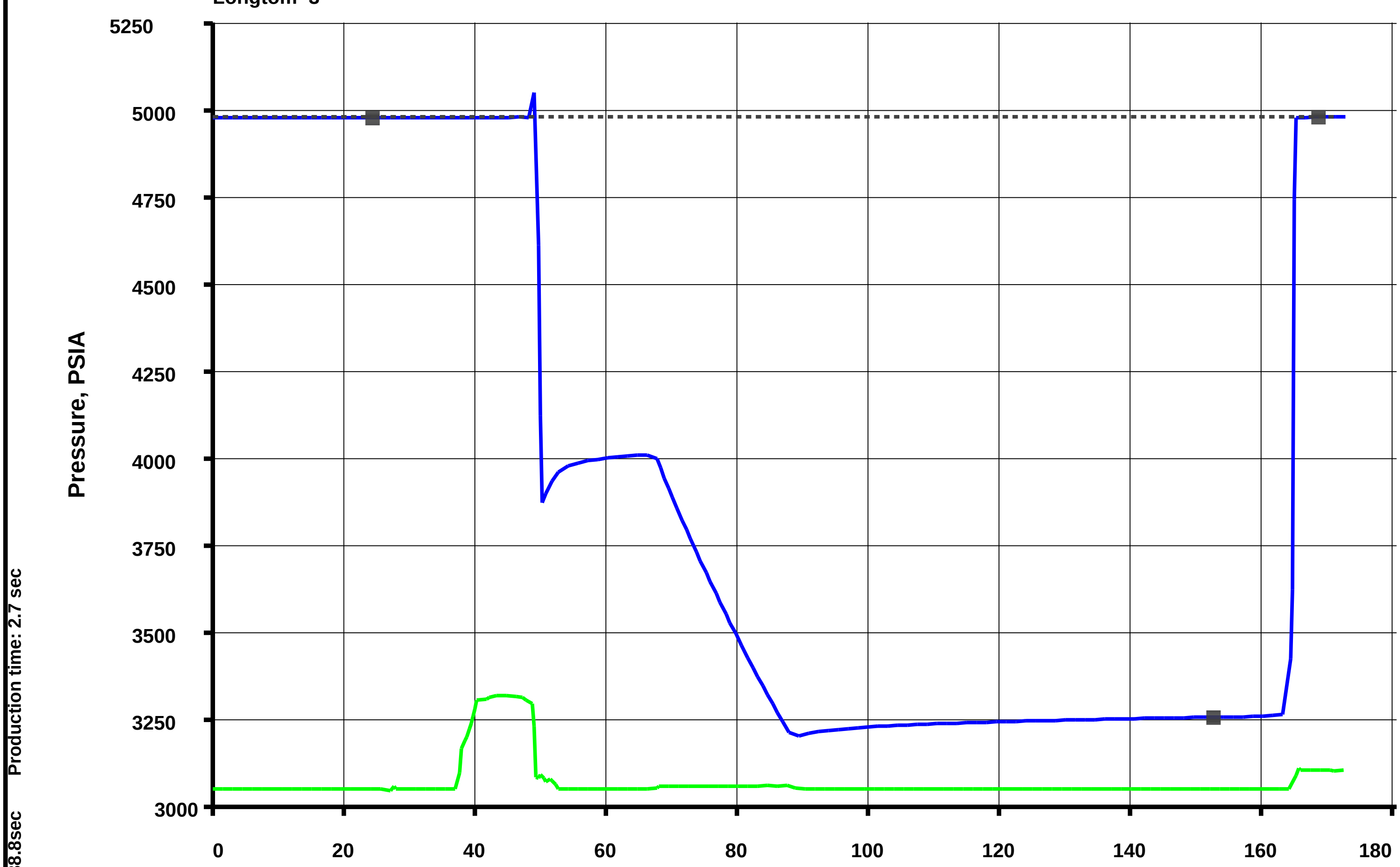
DEFAULT	TLD_MCFL_CNL_XPT_074LTP	FN:111	PRODUCER	28−Jul−2006 02:19
RT	TLD_MCFL_CNL_XPT_074LTP	FN:112	PRODUCER	28−Jul−2006 02:21

Schlumberger

Station Depth (MD)
3147.5 m

MAXIS Field Log

File 73	Depth, M: 3147.49	Dry Test − Conventional probe	
27−Jul−2006	Nexus Energy	Mud Pressure before test, PSIA:	4977.08
	Longtom	Mud Pressure after test, PSIA:	4978.49
	Longtom−3	Last build−up pressure, PSIA:	3258.49



Mobility Based Flow Volume: 0.1 cc

Time, sec

Total Pretest Volume: 1.0 cc – XPT−BA QCP Resolution: 0.010psi

Output DLIS Files

DEFAULT	TLD_MCFL_CNL_XPT_073LTP	FN:109	PRODUCER	28−Jul−2006 02:13	3149.5 M	0.5 M
RT	TLD_MCFL_CNL_XPT_073LTP	FN:110	PRODUCER	28−Jul−2006 02:15	3149.5 M	0.5 M

Changed Parameter Summary

DLIS Name	New Value	Previous Value	Depth & Time
DDPL_XPT	3200 PSIA	3000 PSIA	3149.5 02:14:30

XPT Oil Pressure Curve (HOILP) 0 (PSIA) 4000

Hydrostatic Pressure (CP_HYD) 0 (PSIA) 10000

Sapphire Manometer Temperature (MTEP_SAP) 0 (DEGC) 150

Sapphire Pressure (CP_SAP) 0 (PSIA) 10000

PRETEST_VOLUME From XPT_7 to XPT_PTV_CURVE

XPT Pretest Volume Curve (PTV_XPT) 0 (C3) 50

XPT Motor Speed Curve (MSPE_XPT) (RPM) 0 5000

CQG Pressure (QCP) 0 (PSIA) 10000

Sapphire Zoomed Pressure (CP_SAP) 0 (PSIA) 1000

Sapphire Zoomed Pressure (CP_SAP) 0 (PSIA) 100

Sapphire Zoomed Pressure (CP_SAP) 0 (PSIA) 10

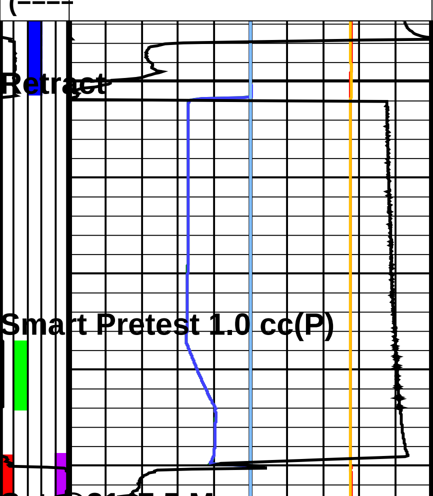
XPT Actions Image (AIMG) (−−−−

CQG Temperature (MTEP_QG) 0 (DEGC) 150

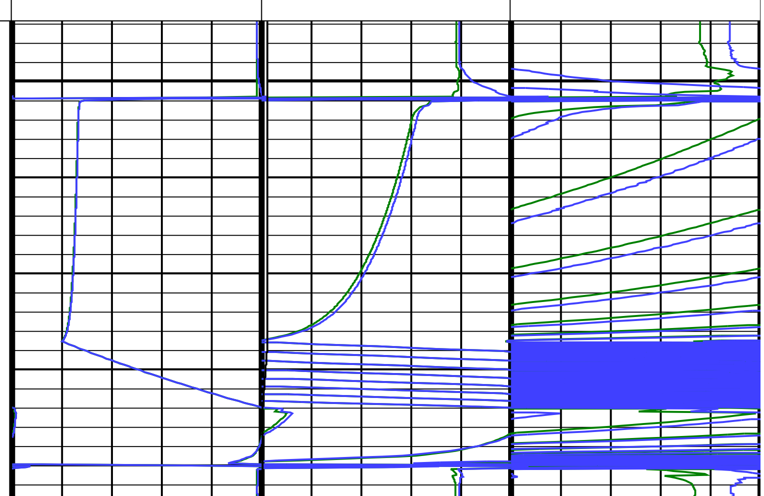
CQG Zoomed Pressure (QCP) 0 (PSIA) 1000

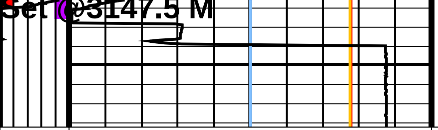
CQG Zoomed Pressure (QCP) 0 (PSIA) 100

CQG Zoomed Pressure (QCP) 0 (PSIA) 10

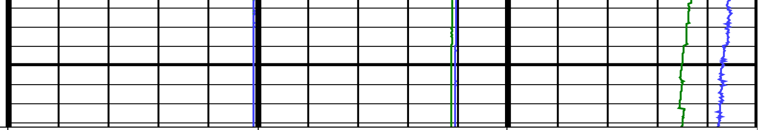


XPT Time Log (ETIM_XPT) (S)	CQG Pressure (QCP) (PSIA)	Sapphire Pressure (CP_SAP) (PSIA)
00:03:00	4977.63	4978.75
00:02:50	4978.31	4983.62
00:02:40	3261.19	3262.82
00:02:30	3257.54	3259.47
00:02:20	3254.08	3256.01
00:02:10	3250.12	3252.08
00:02:00	3245.36	3247.20
00:01:50	3239.09	3241.06
00:01:40	3230.17	3232.26
00:01:30	3208.36	3209.71
00:01:20	3484.24	3484.32
00:01:10	3888.97	3889.58
00:01:00	4000.86	4002.94
00:00:50	4122.51	4109.80
00:00:40	4977.32	4978.87





00:00:30	4977.12	4978.76
00:00:20	4976.93	4978.57
00:00:10	4976.89	4978.55
00:00:00	4976.95	4978.34



XPT Actions Image (AIMG) (----)

XPT Motor Speed Curve (MSPE_XPT) (RPM) 0 5000

CQG Temperature (MTEP_QG) 0 (DEGC) 150

CQG Pressure (QCP) 0 (PSIA) 10000

Sapphire Pressure (CP_SAP) 0 (PSIA) 10000

Sapphire Manometer Temperature (MTEP_SAP) 0 (DEGC) 150

Hydrostatic Pressure (CP_HYD) 0 (PSIA) 10000

XPT Oil Pressure Curve (HOILP) 0 (PSIA) 4000

XPT Time Log (ETIM_XPT) (S)

CQG Pressure (QCP) (PSIA)

Sapphire Pressure (CP_SAP) (PSIA)

CQG Zoomed Pressure (QCP) 0 (PSIA) 1000

Sapphire Zoomed Pressure (CP_SAP) 0 (PSIA) 1000

CQG Zoomed Pressure (QCP) 0 (PSIA) 100

Sapphire Zoomed Pressure (CP_SAP) 0 (PSIA) 100

XPT Pretest Volume Curve (PTV_XPT) 0 (C3) 50

PRETEST_VOLUME From XPT_7 to XPT_PTV_CURVE

CQG Zoomed Pressure (QCP) 0 (PSIA) 10

Sapphire Zoomed Pressure (CP_SAP) 0 (PSIA) 10

XPT Actions Image

WHITE: No Action / COLORED: Action in progress
Left to right:

1. Set (Red)
2. Pretest (Green)
3. Retract (Blue)
4. Init Pretest (Orange)
5. ACom Calibration (Purple)

XPT Dynamic Compensation Status

Quartz Gauge Pressure compensated and corrected
Sapphire Gauge Pressure compensated and corrected
Hydrostatic Sapphire Gauge Pressure compensated and corrected

Parameters

DLIS Name	Description	Value
	XPT−BA: Xpress Pressure Tool − BA	
BTA_HYD	Hydrostatic Gauge Board Temperature A Coefficient	1.00429
BTA_SAP	Sapphire Board Temperature A Coefficient	1.02083
BTB_HYD	Hydrostatic Gauge Board Temperature B Coefficient	0
BTB_SAP	Sapphire Board Temperature B Coefficient	0
BTCT_HYD	Hydrostatic Gauge Board Temperature Coefficients Read From Data Channels	YES

BTCT_SAP	Sapphire Board Temperature Coefficients Read Fram Data Channels	YES	
DDPL_XPT	Pretest Drawdown Limit	3000	PSIA
DEVI_FL_CORR_XPT	Tool Deviation Angle	0	DEG
FLD_XPT	Flowline Density	1	G/C3
GDSV	Gauges Downhole Software Version	2.1	
GDYCO	Sapphire Dynamic Compensation Applied	YES	
PAC_SAP	Sapphire Gauge Pressure A Coefficient	0.999385	
PA_HYD	Hydrostatic Gauge Pressure A Coefficient	1.00843	
PBC_SAP	Sapphire Gauge Pressure B Coefficient	0	
PB_HYD	Hydrostatic Gauge Pressure B Coefficient	0	
PCT_HYD	Hydrostatic Gauge Pressure Coefficients Read From Data Channels	YES	
PCT_SAP	Sapphire Pressure Coefficients Read From Data Channels	YES	
PGSR	Pressure Gauges Sampling Rate	300	ms
PRSP	Pretest Rate	0.3	C3/S
PTM_XPT	Pretest Type	SMART	
PTVO_XPT	Pretest Volume	5	C3
QDYCO	CQG Dynamic Compensation Applied	YES	
TAC_SAP	Sapphire Gauge Temperature A Coefficient	1.02268	
TA_HYD	Hydrostatic Gauge Temperature A Coefficient	0.999187	
TBC_SAP	Sapphire Gauge Temperature B Coefficient	0	
TB_HYD	Hydrostatic Gauge Temperature B Coefficient	0	
TCT_HYD	Hydrostatic Gauge Temperature Coefficients Read >From Data Channels	YES	
TCT_SAP	Sapphire Temperature Coefficients Read From Data Channels	YES	

Output DLIS Files

DEFAULT	TLD_MCFL_CNL_XPT_073LTP	FN:109	PRODUCER	28−Jul−2006 02:13
RT	TLD_MCFL_CNL_XPT_073LTP	FN:110	PRODUCER	28−Jul−2006 02:15

Schlumberger

Station Depth (MD)
3153.5 m

MAXIS Field Log

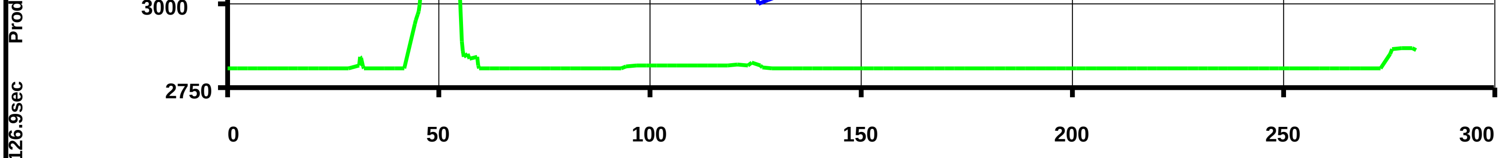
File 72 | Depth, M: 3153.46 | Dry Test − Conventional probe

27−Jul−2006 | Nexus Energy

Longtom

Longtom−3

Mud Pressure before test, PSIA:	4981.64
Mud Pressure after test, PSIA:	4986.25
Last build−up pressure, PSIA:	3070.97



Mobility Based Flow Volume: 0.2 cc

Total Pretest Volume: 1.7 cc – XPT–BA QCP Resolution: 0.010psi

Output DLIS Files

DEFAULT	TLD_MCFL_CNL_XPT_072LTP	FN:107	PRODUCER	28–Jul–2006 02:03	3155.5 M	0.8 M
RT	TLD_MCFL_CNL_XPT_072LTP	FN:108	PRODUCER	28–Jul–2006 02:05	3155.5 M	0.8 M

XPT Oil Pressure Curve (HOILP) 0 (PSIA) 4000

Hydrostatic Pressure (CP_HYD) 0 (PSIA) 10000

Sapphire Manometer Temperature (MTEP_SAP) 0 (DEGC) 150

Sapphire Pressure (CP_SAP) 0 (PSIA) 10000

PRETEST_VOLUME From XPT_7 to XPT_PTV_CURVE

XPT Pretest Volume Curve (PTV_XPT) 0 (C3) 50

XPT Motor Speed Curve (MSPE_XPT) (RPM) 0 5000

CQG Pressure (QCP) 0 (PSIA) 10000

Sapphire Zoomed Pressure (CP_SAP) 0 (PSIA) 1000

Sapphire Zoomed Pressure (CP_SAP) 0 (PSIA) 100

Sapphire Zoomed Pressure (CP_SAP) 0 (PSIA) 10

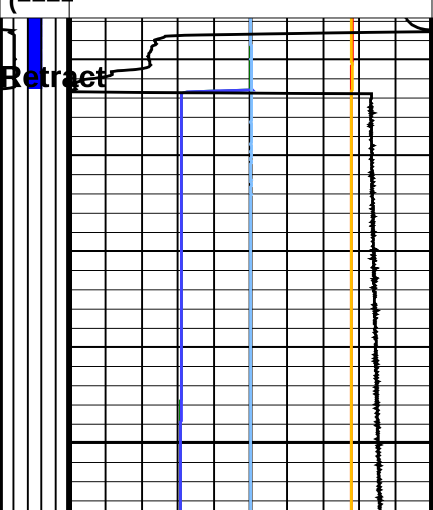
XPT Actions Image (AIMG) (––––

CQG Temperature (MTEP_QG) 0 (DEGC) 150

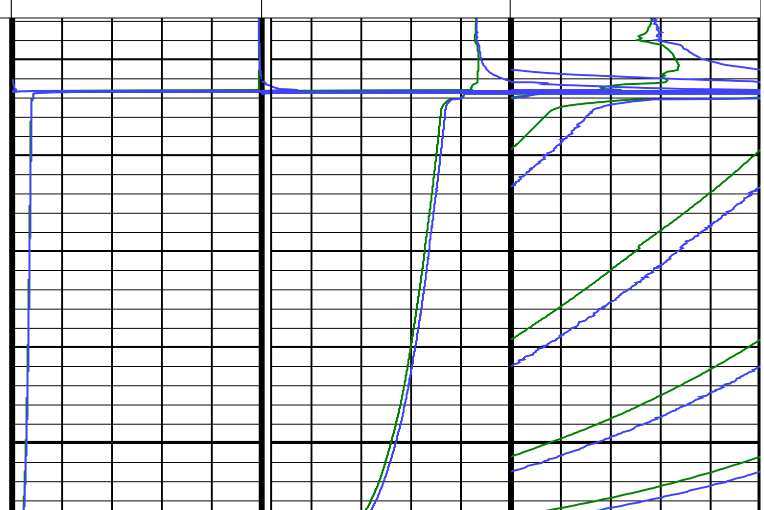
CQG Zoomed Pressure (QCP) 0 (PSIA) 1000

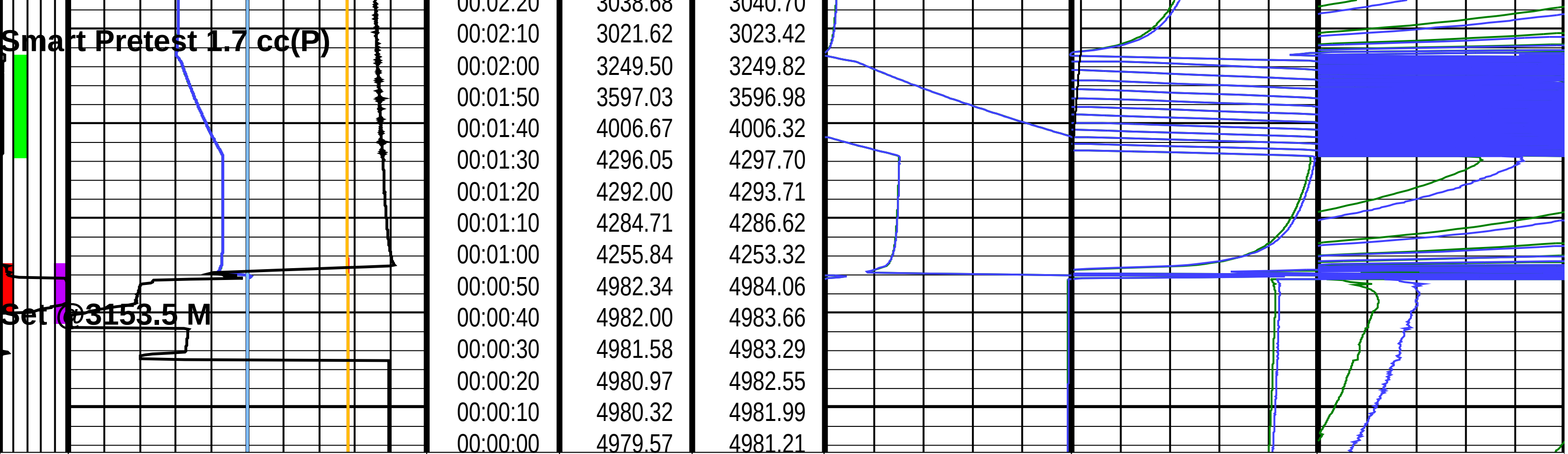
CQG Zoomed Pressure (QCP) 0 (PSIA) 100

CQG Zoomed Pressure (QCP) 0 (PSIA) 10



XPT Time Log (ETIM_XPT) (S)	CQG Pressure (QCP) (PSIA)	Sapphire Pressure (CP_SAP) (PSIA)
00:04:50	4985.45	4986.14
00:04:40	4986.07	4991.81
00:04:30	3072.12	3073.64
00:04:20	3070.47	3072.19
00:04:10	3069.06	3070.77
00:04:00	3067.47	3069.18
00:03:50	3065.77	3067.47
00:03:40	3064.20	3065.94
00:03:30	3062.44	3064.18
00:03:20	3060.56	3062.33
00:03:10	3058.52	3060.29
00:03:00	3056.08	3057.86
00:02:50	3053.28	3055.10
00:02:40	3049.89	3051.80
00:02:30	3045.33	3047.25





XPT Time Log (ETIM_XPT) (S)	CQG Pressure (QCP) (PSIA)	Sapphire Pressure (CP_SAP) (PSIA)
00:02:20	3038.68	3040.70
00:02:10	3021.62	3023.42
00:02:00	3249.50	3249.82
00:01:50	3597.03	3596.98
00:01:40	4006.67	4006.32
00:01:30	4296.05	4297.70
00:01:20	4292.00	4293.71
00:01:10	4284.71	4286.62
00:01:00	4255.84	4253.32
00:00:50	4982.34	4984.06
00:00:40	4982.00	4983.66
00:00:30	4981.58	4983.29
00:00:20	4980.97	4982.55
00:00:10	4980.32	4981.99
00:00:00	4979.57	4981.21

XPT Actions Image (AIMG) (----

CQG Temperature (MTEP_QG) 0 (DEGC) 150

XPT Time Log (ETIM_XPT) (S)

CQG Pressure (QCP) (PSIA)

Sapphire Pressure (CP_SAP) (PSIA)

CQG Zoomed Pressure (QCP) 0 (PSIA) 1000

CQG Zoomed Pressure (QCP) 0 (PSIA) 100

CQG Zoomed Pressure (QCP) 0 (PSIA) 10

XPT Motor Speed Curve (MSPE_XPT) (RPM) 0 5000

CQG Pressure (QCP) 0 (PSIA) 10000

Sapphire Zoomed Pressure (CP_SAP) 0 (PSIA) 1000

Sapphire Zoomed Pressure (CP_SAP) 0 (PSIA) 100

Sapphire Zoomed Pressure (CP_SAP) 0 (PSIA) 10

Sapphire Pressure (CP_SAP) 0 (PSIA) 10000

XPT Pretest Volume Curve (PTV_XPT) 0 (C3) 50

Sapphire Manometer Temperature (MTEP_SAP) 0 (DEGC) 150

PRETEST_VOLUME From XPT_7 to XPT_PTV_CURVE

Hydrostatic Pressure (CP_HYD) 0 (PSIA) 10000

XPT Oil Pressure Curve (HOILP) 0 (PSIA) 4000

XPT Actions Image

WHITE: No Action / COLORED: Action in progress
Left to right:

1. Set (Red)
2. Pretest (Green)
3. Retract (Blue)
4. Init Pretest (Orange)
5. ACom Calibration (Purple)

XPT Dynamic Compensation Status

Quartz Gauge Pressure compensated and corrected
Sapphire Gauge Pressure compensated and corrected
Hydrostatic Sapphire Gauge Pressure compensated and corrected

Hydrostatic Sapphire Gauge Pressure compensated and corrected

Parameters

DLIS Name	Description	Value	
	XPT−BA: Xpress Pressure Tool − BA		
BTA_HYD	Hydrostatic Gauge Board Temperature A Coefficient	1.00429	
BTA_SAP	Sapphire Board Temperature A Coefficient	1.02083	
BTB_HYD	Hydrostatic Gauge Board Temperature B Coefficient	0	
BTB_SAP	Sapphire Board Temperature B Coefficient	0	
BTCT_HYD	Hydrostatic Gauge Board Temperature Coefficients Read From Data Channels	YES	
BTCT_SAP	Sapphire Board Temperature Coefficients Read Fram Data Channels	YES	
DDPL_XPT	Pretest Drawdown Limit	3000	PSIA
DEVI_FL_CORR_XPT	Tool Deviation Angle	0	DEG
FLD_XPT	Flowline Density	1	G/C3
GDSV	Gauges Downhole Software Version	2.1	
GDYCO	Sapphire Dynamic Compensation Applied	YES	
PAC_SAP	Sapphire Gauge Pressure A Coefficient	0.99938	
PA_HYD	Hydrostatic Gauge Pressure A Coefficient	1.00844	
PBC_SAP	Sapphire Gauge Pressure B Coefficient	0	
PB_HYD	Hydrostatic Gauge Pressure B Coefficient	0	
PCT_HYD	Hydrostatic Gauge Pressure Coefficients Read From Data Channels	YES	
PCT_SAP	Sapphire Pressure Coefficients Read From Data Channels	YES	
PGSR	Pressure Gauges Sampling Rate	300	ms
PRSP	Pretest Rate	0.3	C3/S
PTM_XPT	Pretest Type	SMART	
PTVO_XPT	Pretest Volume	5	C3
QDYCO	CQG Dynamic Compensation Applied	YES	
TAC_SAP	Sapphire Gauge Temperature A Coefficient	1.02267	
TA_HYD	Hydrostatic Gauge Temperature A Coefficient	0.999194	
TBC_SAP	Sapphire Gauge Temperature B Coefficient	0	
TB_HYD	Hydrostatic Gauge Temperature B Coefficient	0	
TCT_HYD	Hydrostatic Gauge Temperature Coefficients Read >From Data Channels	YES	
TCT_SAP	Sapphire Temperature Coefficients Read From Data Channels	YES	

Output DLIS Files

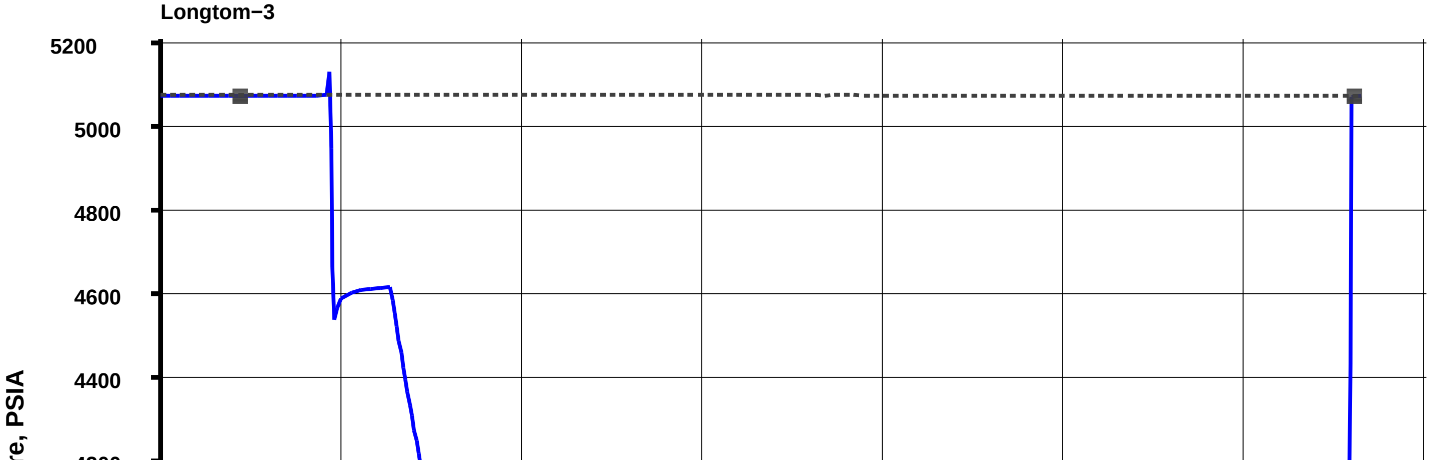
DEFAULT	TLD_MCFL_CNL_XPT_072LTP	FN:107	PRODUCER	28−Jul−2006 02:03
RT	TLD_MCFL_CNL_XPT_072LTP	FN:108	PRODUCER	28−Jul−2006 02:05

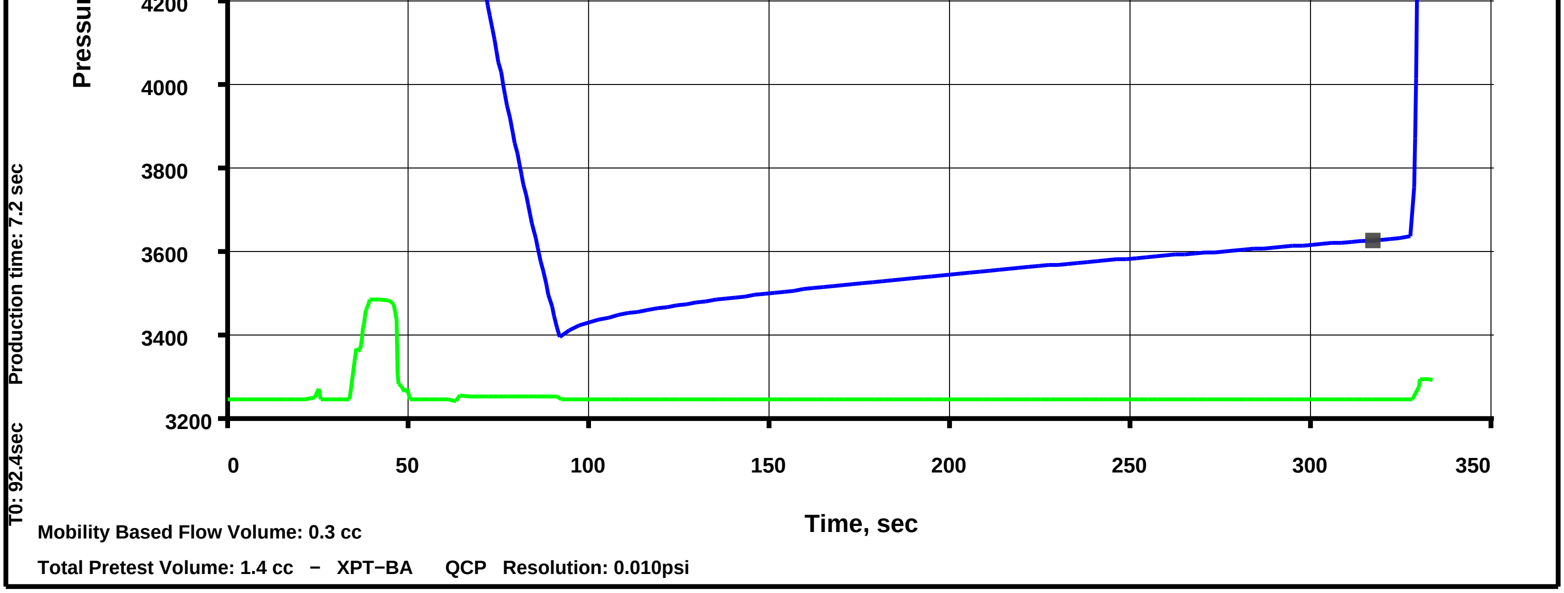
Schlumberger

Station Depth (MD)
3221.5 m

MAXIS Field Log

File 71	Depth, M: 3221.48	Dry Test − Conventional probe	
27−Jul−2006	Nexus Energy	Mud Pressure before test, PSIA:	5064.29
	Longtom	Mud Pressure after test, PSIA:	5062.98
	Longtom−3	Last build−up pressure, PSIA:	3625.98





Output DLIS Files

DEFAULT	TLD_MCFL_CNL_XPT_071LTP	FN:105	PRODUCER	28–Jul–2006 01:48	3223.5 M	0.9 M
RT	TLD_MCFL_CNL_XPT_071LTP	FN:106	PRODUCER	28–Jul–2006 01:50	3223.5 M	0.9 M

Changed Parameter Summary

DLIS Name	New Value	Previous Value	Depth & Time
DDPL_XPT	3000 PSIA	3400 PSIA	3223.5 01:50:44

XPT Oil Pressure Curve (HOILP) 0 (PSIA) 4000

Hydrostatic Pressure (CP_HYD) 0 (PSIA) 10000

Sapphire Manometer Temperature (MTEP_SAP) 0 (DEGC) 150

Sapphire Pressure (CP_SAP) 0 (PSIA) 10000

PRETEST_VOLUME From XPT_7 to XPT_PTV_CURVE

XPT Pretest Volume Curve (PTV_XPT) 0 (C3) 50

XPT Motor Speed Curve (MSPE_XPT) (RPM) 0 5000

CQG Pressure (QCP) 0 (PSIA) 10000

Sapphire Zoomed Pressure (CP_SAP) 0 (PSIA) 1000

Sapphire Zoomed Pressure (CP_SAP) 0 (PSIA) 100

Sapphire Zoomed Pressure (CP_SAP) 0 (PSIA) 10

XPT Actions Image (AIMG) (––––

CQG Temperature (MTEP_QG) 0 (DEGC) 150

XPT Time Log (ETIM_XPT) (S)

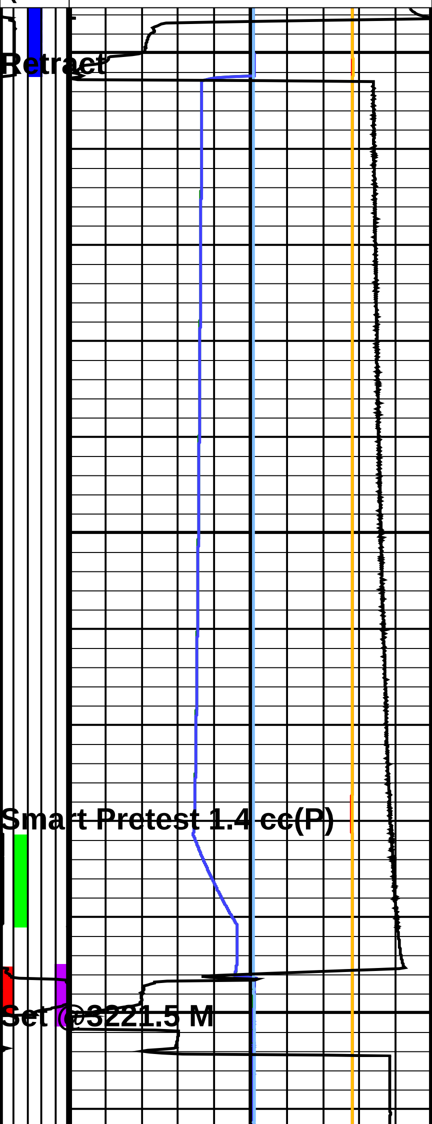
CQG Pressure (QCP) (PSIA)

Sapphire Pressure (CP_SAP) (PSIA)

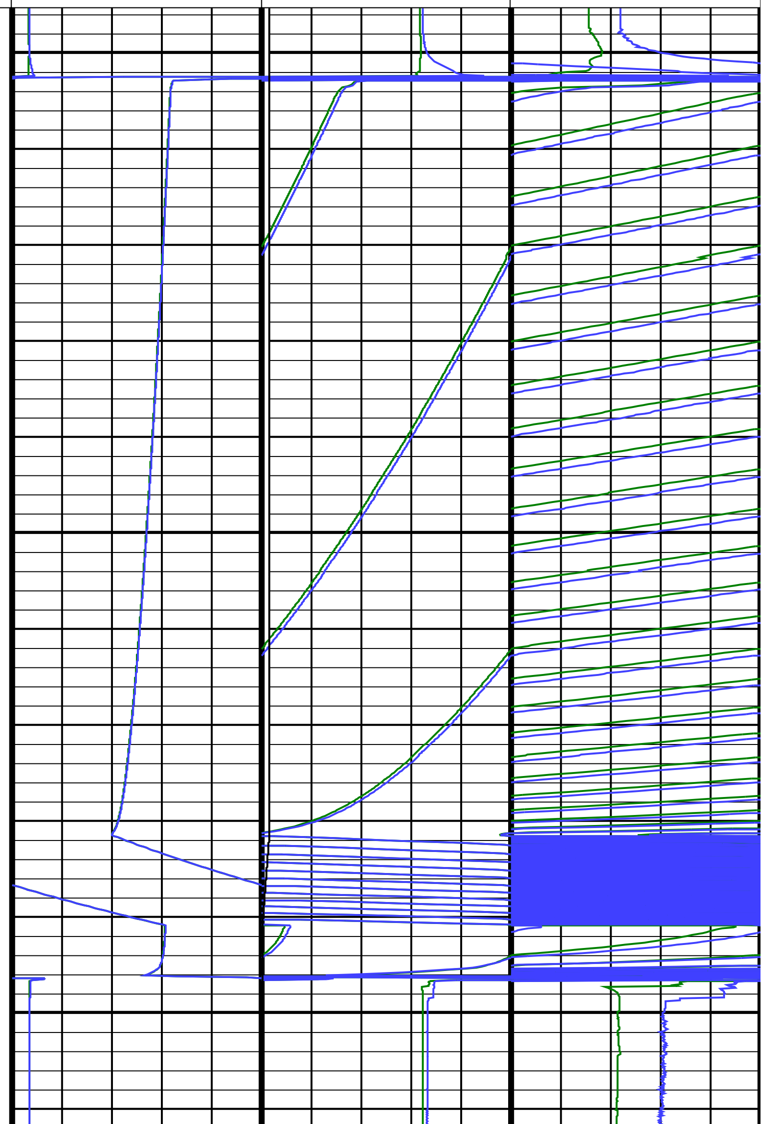
CQG Zoomed Pressure (QCP) 0 (PSIA) 1000

CQG Zoomed Pressure (QCP) 0 (PSIA) 100

CQG Zoomed Pressure (QCP) 0 (PSIA) 10



XPT Time Log (ETIM_XPT) (S)	CQG Pressure (QCP) (PSIA)	Sapphire Pressure (CP_SAP) (PSIA)
00:05:40	5063.43	5064.79
00:05:30	5061.77	5077.62
00:05:20	3627.42	3629.23
00:05:10	3621.46	3623.22
00:05:00	3615.43	3617.17
00:04:50	3608.95	3610.73
00:04:40	3602.52	3604.34
00:04:30	3596.40	3598.22
00:04:20	3589.46	3591.25
00:04:10	3582.63	3584.40
00:04:00	3575.51	3577.40
00:03:50	3568.00	3569.85
00:03:40	3560.68	3562.59
00:03:30	3552.91	3554.87
00:03:20	3544.62	3546.59
00:03:10	3536.52	3538.55
00:03:00	3527.93	3530.03
00:02:50	3518.91	3521.01
00:02:40	3509.55	3511.55
00:02:30	3499.78	3501.94
00:02:20	3488.95	3491.05
00:02:10	3477.57	3479.64
00:02:00	3464.74	3466.91
00:01:50	3450.17	3452.38
00:01:40	3430.49	3432.93
00:01:30	3455.36	3455.83
00:01:20	3832.65	3832.76
00:01:10	4285.52	4285.35
00:01:00	4606.82	4608.99
00:00:50	4581.67	4579.95
00:00:40	5064.31	5066.16
00:00:30	5064.25	5065.98
00:00:20	5064.23	5066.01
00:00:10	5064.21	5066.04
00:00:00	5064.14	5065.90



XPT Actions Image (AIMG) (-----

XPT Motor Speed Curve (MSPE_XPT) (RPM) 0 5000

CQG Temperature (MTEP_QG) 0 (DEGC) 150

CQG Pressure (QCP) 0 (PSIA) 10000

Sapphire Pressure (CP_SAP) 0 (PSIA) 10000

Sapphire Manometer Temperature (MTEP_SAP) 0 (DEGC) 150

Hydrostatic Pressure (CP_HYD)

CQG Zoomed Pressure (QCP) 0 (PSIA) 1000

Sapphire Zoomed Pressure (CP_SAP) 0 (PSIA) 1000

CQG Zoomed Pressure (QCP) 0 (PSIA) 100

Sapphire Zoomed Pressure (CP_SAP) 0 (PSIA) 100

XPT Pretest Volume Curve (PTV_XPT) 0 (C3) 50

PRETEST_VOLUME From XPT_7 to XPT_PTV_CURVE

CQG Zoomed Pressure (QCP) 0 (PSIA) 10

Sapphire Zoomed Pressure (CP_SAP) 0 (PSIA) 10

0	(PSIA)	10000

XPT Oil Pressure Curve (HOILP)		
0	(PSIA)	4000

XPT Actions Image

WHITE: No Action / COLORED: Action in progress
Left to right:

1. Set (Red)
2. Pretest (Green)
3. Retract (Blue)
4. Init Pretest (Orange)
5. ACom Calibration (Purple)

XPT Dynamic Compensation Status

Quartz Gauge Pressure compensated and corrected
Sapphire Gauge Pressure compensated and corrected
Hydrostatic Sapphire Gauge Pressure compensated and corrected

Parameters

DLIS Name	Description	Value	
XPT−BA: Xpress Pressure Tool − BA			
BTA_HYD	Hydrostatic Gauge Board Temperature A Coefficient	1.0043	
BTA_SAP	Sapphire Board Temperature A Coefficient	1.02083	
BTB_HYD	Hydrostatic Gauge Board Temperature B Coefficient	0	
BTB_SAP	Sapphire Board Temperature B Coefficient	0	
BTCT_HYD	Hydrostatic Gauge Board Temperature Coefficients Read From Data Channels	YES	
BTCT_SAP	Sapphire Board Temperature Coefficients Read Fram Data Channels	YES	
DDPL_XPT	Pretest Drawdown Limit	3400	PSIA
DEVI_FL_CORR_XPT	Tool Deviation Angle	0	DEG
FLD_XPT	Flowline Density	1	G/C3
GDSV	Gauges Downhole Software Version	2.1	
GDYCO	Sapphire Dynamic Compensation Applied	YES	
PAC_SAP	Sapphire Gauge Pressure A Coefficient	0.999379	
PA_HYD	Hydrostatic Gauge Pressure A Coefficient	1.00844	
PBC_SAP	Sapphire Gauge Pressure B Coefficient	0	
PB_HYD	Hydrostatic Gauge Pressure B Coefficient	0	
PCT_HYD	Hydrostatic Gauge Pressure Coefficients Read From Data Channels	YES	
PCT_SAP	Sapphire Pressure Coefficients Read From Data Channels	YES	
PGSR	Pressure Gauges Sampling Rate	300	ms
PRSP	Pretest Rate	0.3	C3/S
PTM_XPT	Pretest Type	SMART	
PTVO_XPT	Pretest Volume	5	C3
QDYCO	CQG Dynamic Compensation Applied	YES	
TAC_SAP	Sapphire Gauge Temperature A Coefficient	1.02267	
TA_HYD	Hydrostatic Gauge Temperature A Coefficient	0.999196	
TBC_SAP	Sapphire Gauge Temperature B Coefficient	0	
TB_HYD	Hydrostatic Gauge Temperature B Coefficient	0	
TCT_HYD	Hydrostatic Gauge Temperature Coefficients Read >From Data Channels	YES	
TCT_SAP	Sapphire Temperature Coefficients Read From Data Channels	YES	

Output DLIS Files

DEFAULT	TLD_MCFL_CNL_XPT_071LTP	FN:105	PRODUCER	28−Jul−2006 01:48
RT	TLD_MCFL_CNL_XPT_071LTP	FN:106	PRODUCER	28−Jul−2006 01:50

Schlumberger

Station Depth (MD)
3220.5 m

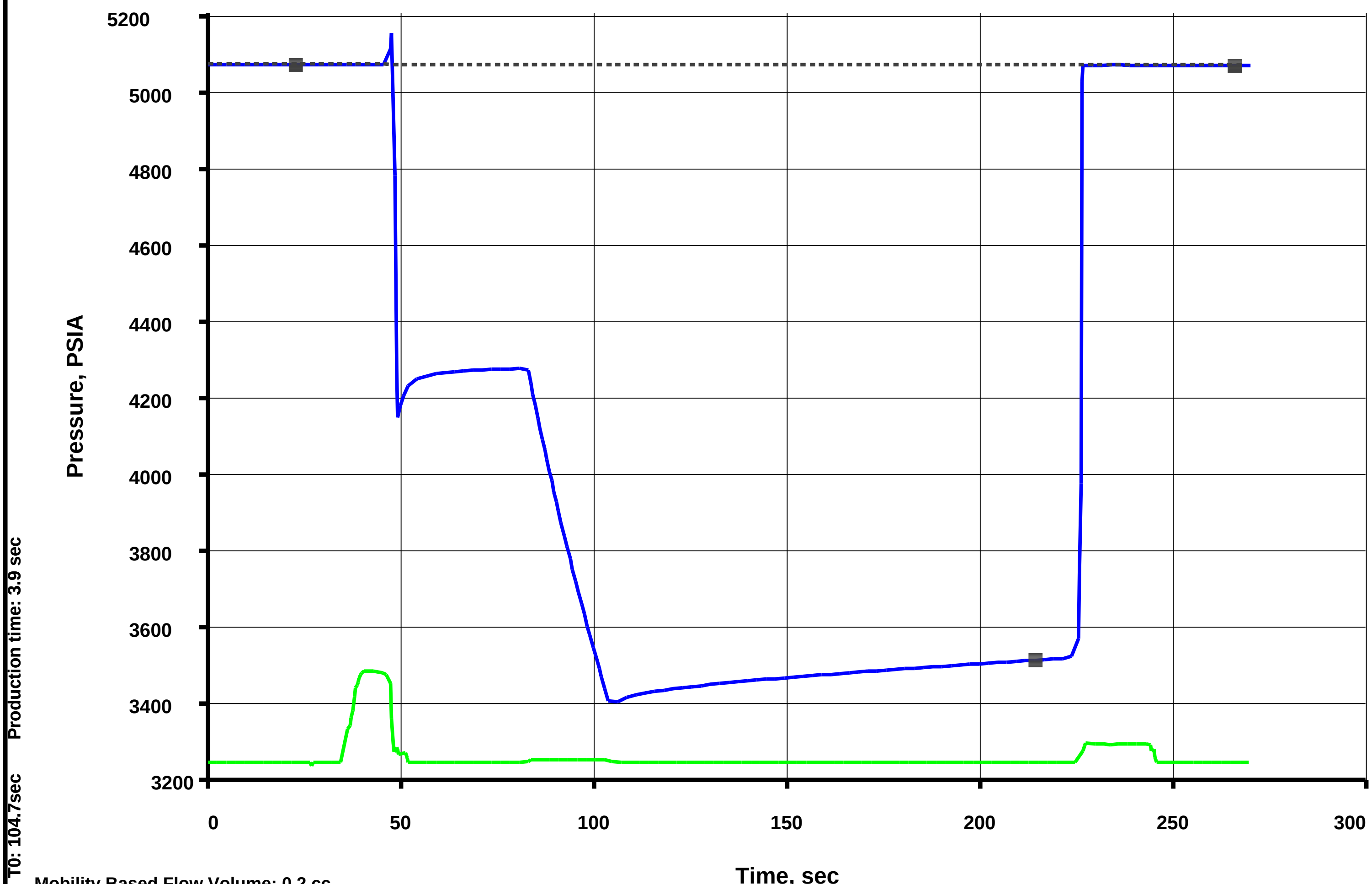
File 70 | Depth, M: 3220.47 | Dry Test − Conventional probe

27−Jul−2006 | Nexus Energy

Longtom

Longtom−3

Mud Pressure before test, PSIA: 5063.23
Mud Pressure after test, PSIA: 5061.65
Last build−up pressure, PSIA: 3513.36



Mobility Based Flow Volume: 0.2 cc

Total Pretest Volume: 1.0 cc − XPT−BA QCP Resolution: 0.010psi

Output DLIS Files

DEFAULT	TLD_MCFL_CNL_XPT_070LTP	FN:103	PRODUCER	28−Jul−2006 01:41	3222.5 M	0.7 M
RT	TLD_MCFL_CNL_XPT_070LTP	FN:104	PRODUCER	28−Jul−2006 01:43	3222.5 M	0.7 M

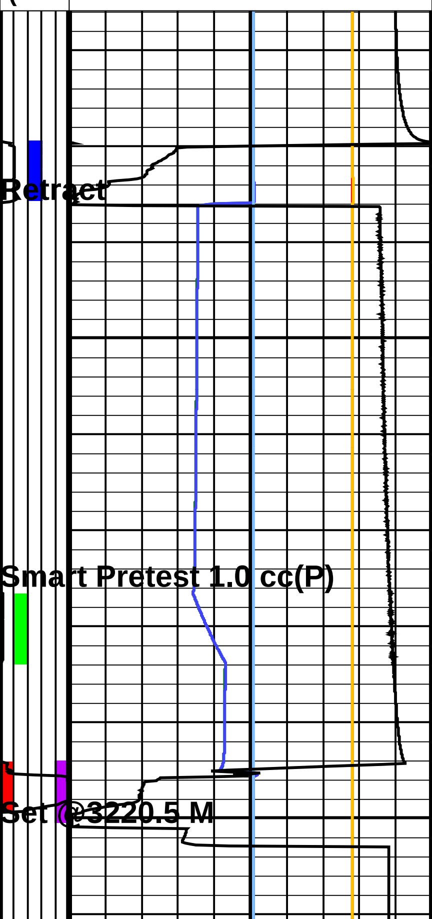
Changed Parameter Summary

DLIS Name	New Value	Previous Value	Depth & Time
DDPL_XPT	3400 PSIA	3600 PSIA	3222.5 01:42:14

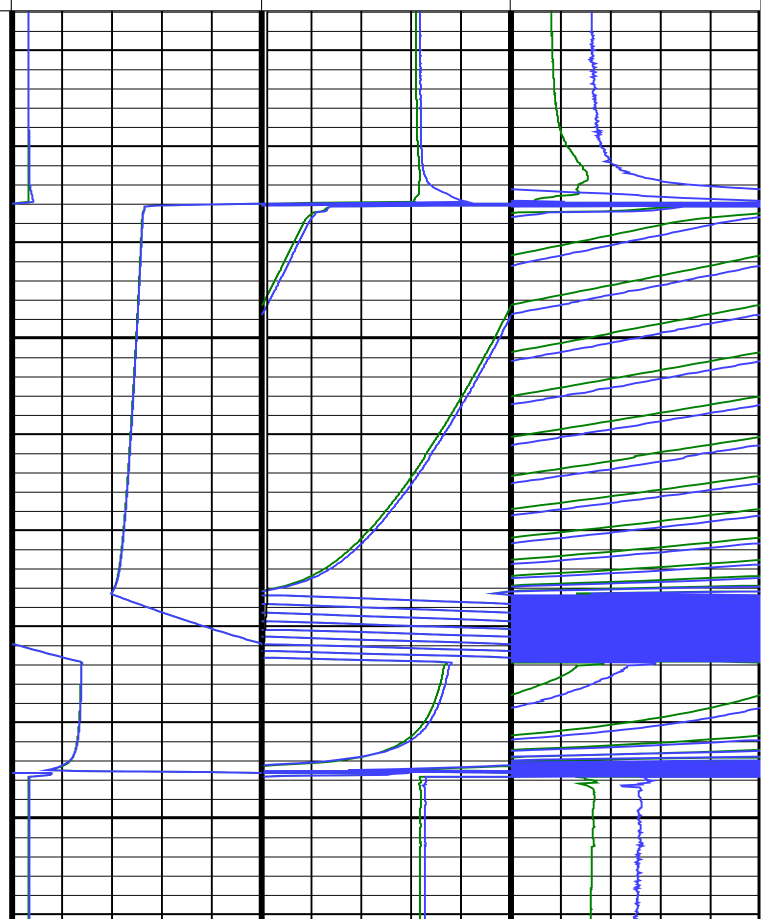
XPT Oil Pressure Curve (HOILP)		
0	(PSIA)	4000
Hydrostatic Pressure (CP_HYD)		
0	(PSIA)	10000
Sapphire Manometer Temperature (MTEP_SAP)		
0	(DEGC)	150
Sapphire Pressure (CP_SAP)		
0	(PSIA)	10000

PRETEST_VOLUME From XPT_7 to XPT_PTV_CURVE		
XPT Pretest Volume Curve (PTV_XPT)		
0	(C3)	50

XPT Motor Speed Curve (MSPE_XPT) (RPM) 0 5000	CQG Pressure (QCP) 0 (PSIA) 10000				Sapphire Zoomed Pressure (CP_SAP) 0 (PSIA) 1000	Sapphire Zoomed Pressure (CP_SAP) 0 (PSIA) 100	Sapphire Zoomed Pressure (CP_SAP) 0 (PSIA) 10
XPT Actions Image (AIMG) (----	CQG Temperature (MTEP_QG) 0 (DEGC) 150	XPT Time Log (ETIM_XPT) (S)	CQG Pressure (QCP) (PSIA)	Sapphire Pressure (CP_SAP) (PSIA)	CQG Zoomed Pressure (QCP) 0 (PSIA) 1000	CQG Zoomed Pressure (QCP) 0 (PSIA) 100	CQG Zoomed Pressure (QCP) 0 (PSIA) 10



XPT Time Log (ETIM_XPT) (S)	CQG Pressure (QCP) (PSIA)	Sapphire Pressure (CP_SAP) (PSIA)
00:04:40	5061.59	5063.15
00:04:30	5061.64	5063.23
00:04:20	5061.72	5063.28
00:04:10	5061.92	5063.42
00:04:00	5062.59	5063.87
00:03:50	5062.69	5072.31
00:03:40	3516.16	3518.10
00:03:30	3509.96	3512.02
00:03:20	3503.37	3505.40
00:03:10	3496.76	3498.78
00:03:00	3490.08	3492.06
00:02:50	3482.71	3484.78
00:02:40	3475.25	3477.26
00:02:30	3467.18	3469.27
00:02:20	3458.70	3460.78
00:02:10	3449.03	3451.20
00:02:00	3437.50	3439.68
00:01:50	3419.55	3421.75
00:01:40	3545.73	3546.07
00:01:30	3936.28	3936.18
00:01:20	4272.29	4274.25
00:01:10	4268.64	4270.63
00:01:00	4259.89	4262.05
00:00:50	4174.33	4166.52
00:00:40	5063.29	5065.15
00:00:30	5063.23	5065.09
00:00:20	5063.19	5065.02
00:00:10	5063.16	5065.05
00:00:00	5063.11	5064.89



XPT Actions Image (AIMG) (----	CQG Temperature (MTEP_QG) 0 (DEGC) 150	XPT Time Log (ETIM_XPT) (S)	CQG Pressure (QCP) (PSIA)	Sapphire Pressure (CP_SAP) (PSIA)	CQG Zoomed Pressure (QCP) 0 (PSIA) 1000	CQG Zoomed Pressure (QCP) 0 (PSIA) 100	CQG Zoomed Pressure (QCP) 0 (PSIA) 10
XPT Motor Speed Curve (MSP	CQG Pressure (QCP) 0 (PSIA) 10000				Sapphire Zoomed Pressure (CP_SAP) 0 (PSIA) 1000	Sapphire Zoomed Pressure (CP_SAP) 0 (PSIA) 100	Sapphire Zoomed Pressure (CP_SAP) 0 (PSIA) 10

E_
XPT)
(RPM)
0
5000

Sapphire Pressure (CP_SAP)		
0	(PSIA)	10000
Sapphire Manometer Temperature (MTEP_SAP)		
0	(DEGC)	150
Hydrostatic Pressure (CP_HYD)		
0	(PSIA)	10000
XPT Oil Pressure Curve (HOILP)		
0	(PSIA)	4000

XPT Pretest Volume Curve (PTV_XPT)		
0	(C3)	50
PRETEST_VOLUME From XPT_7 to XPT_PTV_CURVE		

XPT Actions Image

WHITE: No Action / COLORED: Action in progress
Left to right:

1. Set (Red)
2. Pretest (Green)
3. Retract (Blue)
4. Init Pretest (Orange)
5. ACom Calibration (Purple)

XPT Dynamic Compensation Status

Quartz Gauge Pressure compensated and corrected
Sapphire Gauge Pressure compensated and corrected
Hydrostatic Sapphire Gauge Pressure compensated and corrected

Parameters

DLIS Name	Description	Value	
	XPT−BA: Xpress Pressure Tool − BA		
BTA_HYD	Hydrostatic Gauge Board Temperature A Coefficient	1.00429	
BTA_SAP	Sapphire Board Temperature A Coefficient	1.02083	
BTB_HYD	Hydrostatic Gauge Board Temperature B Coefficient	0	
BTB_SAP	Sapphire Board Temperature B Coefficient	0	
BTCT_HYD	Hydrostatic Gauge Board Temperature Coefficients Read From Data Channels	YES	
BTCT_SAP	Sapphire Board Temperature Coefficients Read Fram Data Channels	YES	
DDPL_XPT	Pretest Drawdown Limit	3600	PSIA
DEVI_FL_CORR_XPT	Tool Deviation Angle	0	DEG
FLD_XPT	Flowline Density	1	G/C3
GDSV	Gauges Downhole Software Version	2.1	
GDYCO	Sapphire Dynamic Compensation Applied	YES	
PAC_SAP	Sapphire Gauge Pressure A Coefficient	0.999379	
PA_HYD	Hydrostatic Gauge Pressure A Coefficient	1.00844	
PBC_SAP	Sapphire Gauge Pressure B Coefficient	0	
PB_HYD	Hydrostatic Gauge Pressure B Coefficient	0	
PCT_HYD	Hydrostatic Gauge Pressure Coefficients Read From Data Channels	YES	
PCT_SAP	Sapphire Pressure Coefficients Read From Data Channels	YES	
PGSR	Pressure Gauges Sampling Rate	300	ms
PRSP	Pretest Rate	0.3	C3/S
PTM_XPT	Pretest Type	SMART	
PTVO_XPT	Pretest Volume	5	C3
QDYCO	CQG Dynamic Compensation Applied	YES	
TAC_SAP	Sapphire Gauge Temperature A Coefficient	1.02268	
TA_HYD	Hydrostatic Gauge Temperature A Coefficient	0.999196	
TBC_SAP	Sapphire Gauge Temperature B Coefficient	0	
TB_HYD	Hydrostatic Gauge Temperature B Coefficient	0	
TCT_HYD	Hydrostatic Gauge Temperature Coefficients Read >From Data Channels	YES	
TCT_SAP	Sapphire Temperature Coefficients Read From Data Channels	YES	

Output DLIS Files

DEFAULT	TLD_MCFL_CNL_XPT_070LTP	FN:103	PRODUCER	28−Jul−2006 01:41
RT	TLD_MCFL_CNL_XPT_070LTP	FN:104	PRODUCER	28−Jul−2006 01:43

Schlumberger

Station Depth (MD)
3225.5 m

MAXIS Field Log

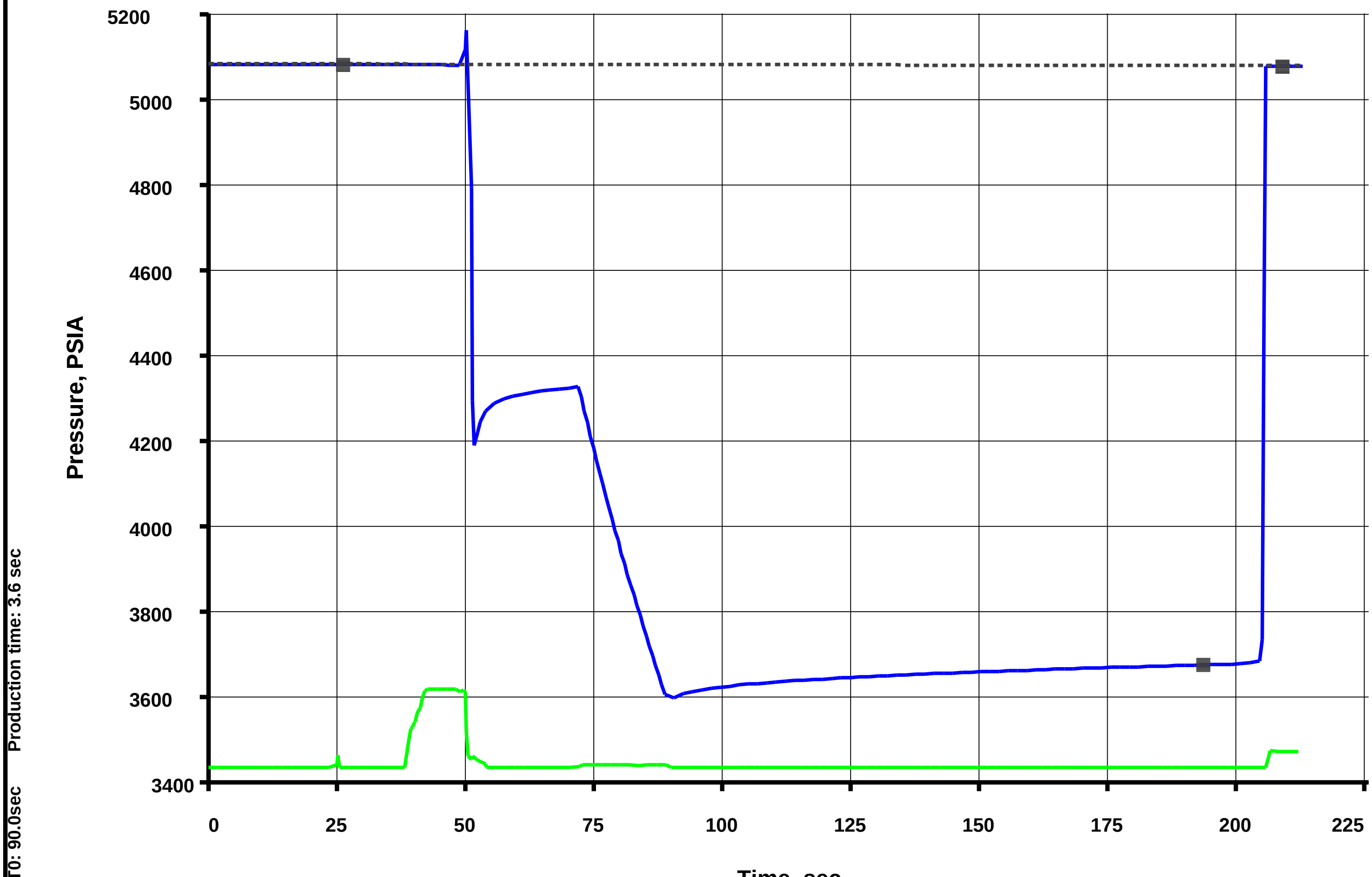
File 69 | Depth, M: 3225.46 | Dry Test − Conventional probe

27−Jul−2006 | Nexus Energy

Longtom

Longtom−3

Mud Pressure before test, PSIA:	5078.8
Mud Pressure after test, PSIA:	5076.07
Last build−up pressure, PSIA:	3676.05



Mobility Based Flow Volume: 0.1 cc

Total Pretest Volume: 0.8 cc − XPT−BA QCP Resolution: 0.010psi

Output DLIS Files

DEFAULT	TLD_MCFL_CNL_XPT_069LTP	FN:101	PRODUCER	28−Jul−2006 01:33	3227.5 M	0.6 M
RT	TLD_MCFL_CNL_XPT_069LTP	FN:102	PRODUCER	28−Jul−2006 01:35	3227.5 M	0.6 M

Changed Parameter Summary

DLIS Name	New Value	Previous Value	Depth & Time
DDPL_XPT	3600 PSIA	3500 PSIA	3227.5 01:34:57

XPT Oil Pressure Curve

XPT Oil Pressure Curve (HOILP)
0 (PSIA) 4000

Hydrostatic Pressure (CP_HYD)
0 (PSIA) 10000

Sapphire Manometer Temperature (MTEP_SAP)
0 (DEGC) 150

Sapphire Pressure (CP_SAP)
0 (PSIA) 10000

PRETEST_VOLUME From XPT_7 to XPT_PTV_CURVE

XPT Pretest Volume Curve (PTV_XPT)
0 (C3) 50

XPT Motor Speed Curve (MSPE_XPT) (RPM)
0 5000

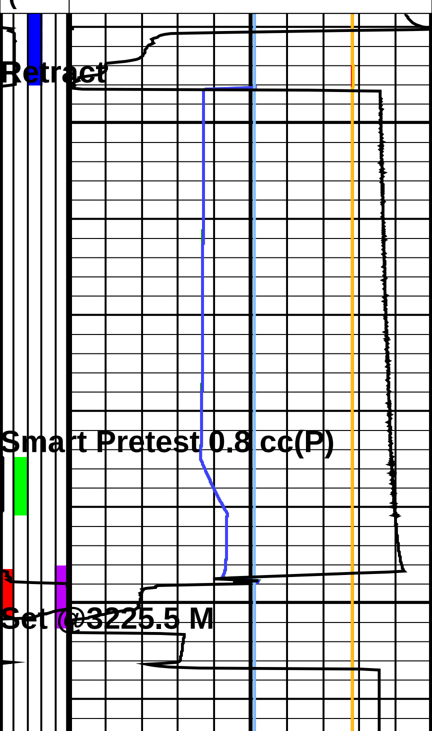
CQG Pressure (QCP)
0 (PSIA) 10000

Sapphire Zoomed Pressure (CP_SAP) 0 (PSIA) 1000 | Sapphire Zoomed Pressure (CP_SAP) 0 (PSIA) 100 | Sapphire Zoomed Pressure (CP_SAP) 0 (PSIA) 10

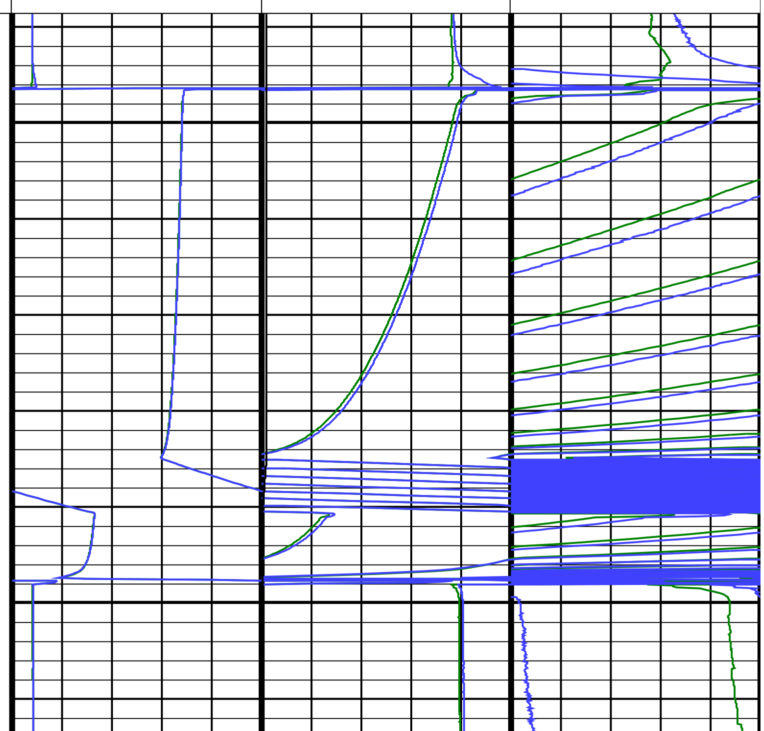
XPT Actions Image (AIMG) (----

CQG Temperature (MTEP_QG)
0 (DEGC) 150

CQG Zoomed Pressure (QCP) 0 (PSIA) 1000 | CQG Zoomed Pressure (QCP) 0 (PSIA) 100 | CQG Zoomed Pressure (QCP) 0 (PSIA) 10



XPT Time Log (ETIM_XPT) (S)	CQG Pressure (QCP) (PSIA)	Sapphire Pressure (CP_SAP) (PSIA)
00:03:40	5075.69	5077.07
00:03:30	5076.04	5081.24
00:03:20	3678.15	3679.92
00:03:10	3674.82	3676.69
00:03:00	3671.36	3673.23
00:02:50	3667.70	3669.58
00:02:40	3663.78	3665.70
00:02:30	3659.64	3661.53
00:02:20	3654.81	3656.67
00:02:10	3649.48	3651.40
00:02:00	3643.23	3645.13
00:01:50	3635.38	3637.38
00:01:40	3624.70	3626.92
00:01:30	3597.25	3598.14
00:01:20	3935.25	3935.15
00:01:10	4322.79	4324.90
00:01:00	4306.86	4308.75
00:00:50	5159.71	5163.88
00:00:40	5078.69	5080.31
00:00:30	5078.77	5080.51
00:00:20	5078.82	5080.56
00:00:10	5079.04	5080.75
00:00:00	5079.28	5080.88



XPT Actions Image (AIMG)

CQG Temperature (MTEP_QG)
0 (DEGC) 150

XPT Time Log (ETIM_XPT) (S) | CQG Pressure (QCP) (PSIA) | Sapphire Pressure (CP_SAP) (PSIA)

CQG Zoomed Pressure (QCP) 0 (PSIA) 1000 | CQG Zoomed Pressure (QCP) 0 (PSIA) 100 | CQG Zoomed Pressure (QCP) 0 (PSIA) 10

S)
(----

XPT Motor Speed Curve (MSPE_XPT) (RPM)
0 5000

CQG Pressure (QCP)
0 (PSIA) 10000

Sapphire Zoomed Pressure (CP_SAP)
0 (PSIA) 1000

Sapphire Zoomed Pressure (CP_SAP)
0 (PSIA) 100

Sapphire Zoomed Pressure (CP_SAP)
0 (PSIA) 10

Sapphire Pressure (CP_SAP)
0 (PSIA) 10000

XPT Pretest Volume Curve (PTV_XPT)
0 (C3) 50

Sapphire Manometer Temperature (MTEP_SAP)
0 (DEGC) 150

PRETEST_VOLUME From XPT_7 to XPT_PTV_CURVE

Hydrostatic Pressure (CP_HYD)
0 (PSIA) 10000

XPT Oil Pressure Curve (HOILP)
0 (PSIA) 4000

XPT Actions Image

WHITE: No Action / COLORED: Action in progress
Left to right:

1. Set (Red)
2. Pretest (Green)
3. Retract (Blue)
4. Init Pretest (Orange)
5. ACom Calibration (Purple)

XPT Dynamic Compensation Status

Quartz Gauge Pressure compensated and corrected
Sapphire Gauge Pressure compensated and corrected
Hydrostatic Sapphire Gauge Pressure compensated and corrected

Parameters

DLIS Name	Description	Value	
XPT-BA: Xpress Pressure Tool - BA			
BTA_HYD	Hydrostatic Gauge Board Temperature A Coefficient	1.00429	
BTA_SAP	Sapphire Board Temperature A Coefficient	1.02083	
BTB_HYD	Hydrostatic Gauge Board Temperature B Coefficient	0	
BTB_SAP	Sapphire Board Temperature B Coefficient	0	
BTCT_HYD	Hydrostatic Gauge Board Temperature Coefficients Read From Data Channels	YES	
BTCT_SAP	Sapphire Board Temperature Coefficients Read Fram Data Channels	YES	
DDPL_XPT	Pretest Drawdown Limit	3500	PSIA
DEVI_FL_CORR_XPT	Tool Deviation Angle	0	DEG
FLD_XPT	Flowline Density	1	G/C3
GDSV	Gauges Downhole Software Version	2.1	
GDYCO	Sapphire Dynamic Compensation Applied	YES	
PAC_SAP	Sapphire Gauge Pressure A Coefficient	0.99938	
PA_HYD	Hydrostatic Gauge Pressure A Coefficient	1.00844	
PBC_SAP	Sapphire Gauge Pressure B Coefficient	0	
PB_HYD	Hydrostatic Gauge Pressure B Coefficient	0	
PCT_HYD	Hydrostatic Gauge Pressure Coefficients Read From Data Channels	YES	
PCT_SAP	Sapphire Pressure Coefficients Read From Data Channels	YES	
PGSR	Pressure Gauges Sampling Rate	300	ms
PRSP	Pretest Rate	0.3	C3/S
PTM_XPT	Pretest Type	SMART	

PTM_XPT	Pretest Type	SMART	
PTVO_XPT	Pretest Volume	5	C3
QDYCO	CQG Dynamic Compensation Applied	YES	
TAC_SAP	Sapphire Gauge Temperature A Coefficient	1.02267	
TA_HYD	Hydrostatic Gauge Temperature A Coefficient	0.999196	
TBC_SAP	Sapphire Gauge Temperature B Coefficient	0	
TB_HYD	Hydrostatic Gauge Temperature B Coefficient	0	
TCT_HYD	Hydrostatic Gauge Temperature Coefficients Read >From Data Channels	YES	
TCT_SAP	Sapphire Temperature Coefficients Read From Data Channels	YES	

Output DLIS Files

DEFAULT	TLD_MCFL_CNL_XPT_069LTP	FN:101	PRODUCER	28−Jul−2006 01:33
RT	TLD_MCFL_CNL_XPT_069LTP	FN:102	PRODUCER	28−Jul−2006 01:35

Schlumberger

Station Depth (MD)
3207.0 m

MAXIS Field Log

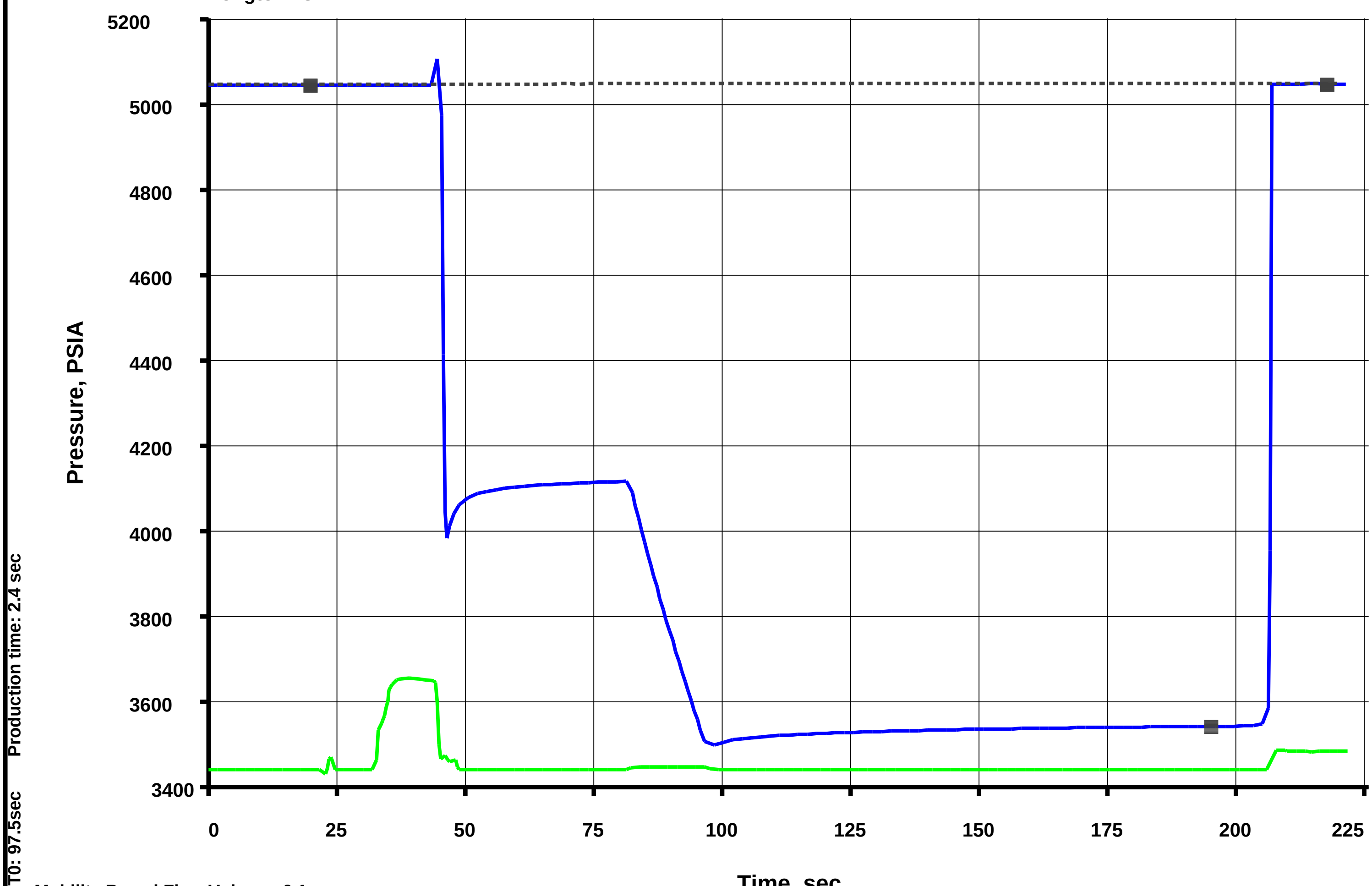
File 68 | Depth, M: 3206.93 | Dry Test − Conventional probe

27−Jul−2006 | Nexus Energy

Longtom

Longtom−3

Mud Pressure before test, PSIA: 5043.2
Mud Pressure after test, PSIA: 5045.49
Last build−up pressure, PSIA: 3543.52



Mobility Based Flow Volume: 0.1 cc

Total Pretest Volume: 0.7 cc − XPT−BA QCP Resolution: 0.010psi

Output DLIS Files

DEFAULT	TLD_MCFL_CNL_XPT_068LTP	FN:99	PRODUCER	28−Jul−2006 01:25	3209.0 M	0.6 M
RT	TLD_MCFL_CNL_XPT_068LTP	FN:100	PRODUCER	28−Jul−2006 01:27	3209.0 M	0.6 M

XPT Oil Pressure Curve (HOILP)
0 (PSIA) 4000

Hydrostatic Pressure (CP_HYD)
0 (PSIA) 10000

Sapphire Manometer Temperature (MTEP_SAP)
0 (DEGC) 150

Sapphire Pressure (CP_SAP)
0 (PSIA) 10000

PRETEST_VOLUME From XPT_7 to XPT_PTV_CURVE

XPT Pretest Volume Curve (PTV_XPT)
0 (C3) 50

XPT Motor Speed Curve (MSPE_XPT) (RPM)
0 5000

CQG Pressure (QCP)
0 (PSIA) 10000

Sapphire Zoomed Pressure (CP_SAP)
0 (PSIA) 1000

Sapphire Zoomed Pressure (CP_SAP)
0 (PSIA) 100

Sapphire Zoomed Pressure (CP_SAP)
0 (PSIA) 10

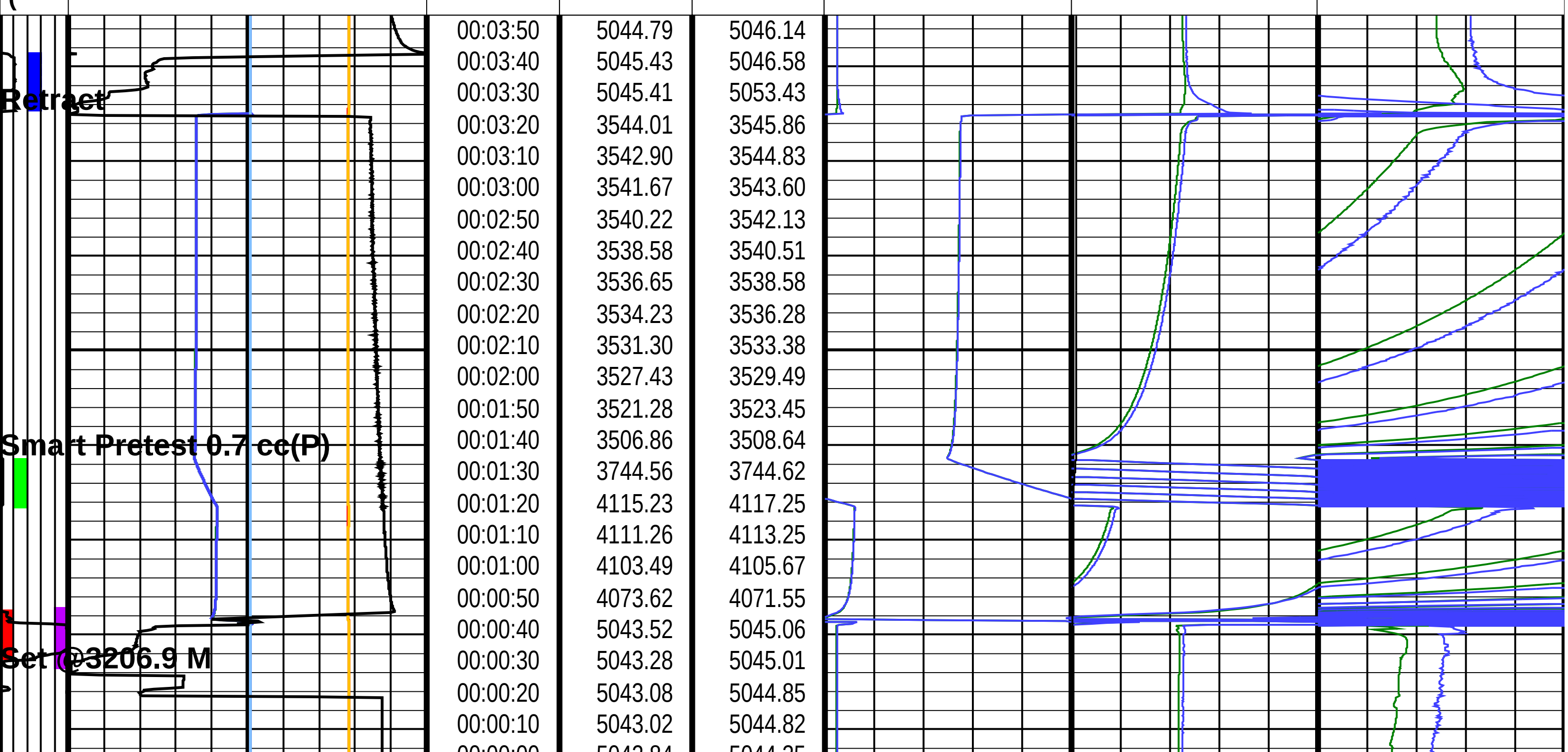
XPT Actions Image (AIMG) (−−−−

CQG Temperature (MTEP_QG)
0 (DEGC) 150

CQG Zoomed Pressure (QCP)
0 (PSIA) 1000

CQG Zoomed Pressure (QCP)
0 (PSIA) 100

CQG Zoomed Pressure (QCP)
0 (PSIA) 10



XPT Time Log (ETIM_XPT) (S)	CQG Pressure (QCP) (PSIA)	Sapphire Pressure (CP_SAP) (PSIA)
00:03:50	5044.79	5046.14
00:03:40	5045.43	5046.58
00:03:30	5045.41	5053.43
00:03:20	3544.01	3545.86
00:03:10	3542.90	3544.83
00:03:00	3541.67	3543.60
00:02:50	3540.22	3542.13
00:02:40	3538.58	3540.51
00:02:30	3536.65	3538.58
00:02:20	3534.23	3536.28
00:02:10	3531.30	3533.38
00:02:00	3527.43	3529.49
00:01:50	3521.28	3523.45
00:01:40	3506.86	3508.64
00:01:30	3744.56	3744.62
00:01:20	4115.23	4117.25
00:01:10	4111.26	4113.25
00:01:00	4103.49	4105.67
00:00:50	4073.62	4071.55
00:00:40	5043.52	5045.06
00:00:30	5043.28	5045.01
00:00:20	5043.08	5044.85
00:00:10	5043.02	5044.82
00:00:00	5042.84	5044.35

XPT Actio
CQG Temperature (MTEP
XPT Time
CQG
Sapphire
CQG Zoomed
CQG Zoomed
CQG Zoomed

ns Image (AIMG) (----

CQG Temperature (MTEP_QG)
0 (DEGC) 150

Log (ETIM_XPT) (S)

CQG Pressure (QCP) (PSIA)

Sapphire Pressure (CP_SAP) (PSIA)

CQG Zoomed Pressure (QCP)
0 (PSIA) 1000

CQG Zoomed Pressure (QCP)
0 (PSIA) 100

CQG Zoomed Pressure (QCP)
0 (PSIA) 10

XPT Motor Speed Curve (MSPE_XPT) (RPM)
0 5000

CQG Pressure (QCP)
0 (PSIA) 10000

Sapphire Zoomed Pressure (CP_SAP)
0 (PSIA) 1000

Sapphire Zoomed Pressure (CP_SAP)
0 (PSIA) 100

Sapphire Zoomed Pressure (CP_SAP)
0 (PSIA) 10

Sapphire Pressure (CP_SAP)
0 (PSIA) 10000

XPT Pretest Volume Curve (PTV_XPT)
0 (C3) 50

Sapphire Manometer Temperature (MTEP_SAP)
0 (DEGC) 150

PRETEST_VOLUME From XPT_7 to XPT_PTV_CURVE

Hydrostatic Pressure (CP_HYD)
0 (PSIA) 10000

XPT Oil Pressure Curve (HOILP)
0 (PSIA) 4000

XPT Actions Image

WHITE: No Action / COLORED: Action in progress
Left to right:

1. Set (Red)
2. Pretest (Green)
3. Retract (Blue)
4. Init Pretest (Orange)
5. ACom Calibration (Purple)

XPT Dynamic Compensation Status

Quartz Gauge Pressure compensated and corrected
Sapphire Gauge Pressure compensated and corrected
Hydrostatic Sapphire Gauge Pressure compensated and corrected

Parameters

DLIS Name	Description	Value	
	XPT-BA: Xpress Pressure Tool - BA		
BTA_HYD	Hydrostatic Gauge Board Temperature A Coefficient	1.0043	
BTA_SAP	Sapphire Board Temperature A Coefficient	1.02083	
BTB_HYD	Hydrostatic Gauge Board Temperature B Coefficient	0	
BTB_SAP	Sapphire Board Temperature B Coefficient	0	
BTCT_HYD	Hydrostatic Gauge Board Temperature Coefficients Read From Data Channels	YES	
BTCT_SAP	Sapphire Board Temperature Coefficients Read Fram Data Channels	YES	
DDPL_XPT	Pretest Drawdown Limit	3500	PSIA
DEVI_FL_CORR_XPT	Tool Deviation Angle	0	DEG
FLD_XPT	Flowline Density	1	G/C3
GDSV	Gauges Downhole Software Version	2.1	
GDYCO	Sapphire Dynamic Compensation Applied	YES	
PAC_SAP	Sapphire Gauge Pressure A Coefficient	0.999381	
PA_HYD	Hydrostatic Gauge Pressure A Coefficient	1.00844	
PBC_SAP	Sapphire Gauge Pressure B Coefficient	0	

PB_HYD	Hydrostatic Gauge Pressure B Coefficient	0	
PCT_HYD	Hydrostatic Gauge Pressure Coefficients Read From Data Channels	YES	
PCT_SAP	Sapphire Pressure Coefficients Read From Data Channels	YES	
PGSR	Pressure Gauges Sampling Rate	300	ms
PRSP	Pretest Rate	0.3	C3/S
PTM_XPT	Pretest Type	SMART	
PTVO_XPT	Pretest Volume	5	C3
QDYCO	CQG Dynamic Compensation Applied	YES	
TAC_SAP	Sapphire Gauge Temperature A Coefficient	1.02267	
TA_HYD	Hydrostatic Gauge Temperature A Coefficient	0.999199	
TBC_SAP	Sapphire Gauge Temperature B Coefficient	0	
TB_HYD	Hydrostatic Gauge Temperature B Coefficient	0	
TCT_HYD	Hydrostatic Gauge Temperature Coefficients Read >From Data Channels	YES	
TCT_SAP	Sapphire Temperature Coefficients Read From Data Channels	YES	

Output DLIS Files

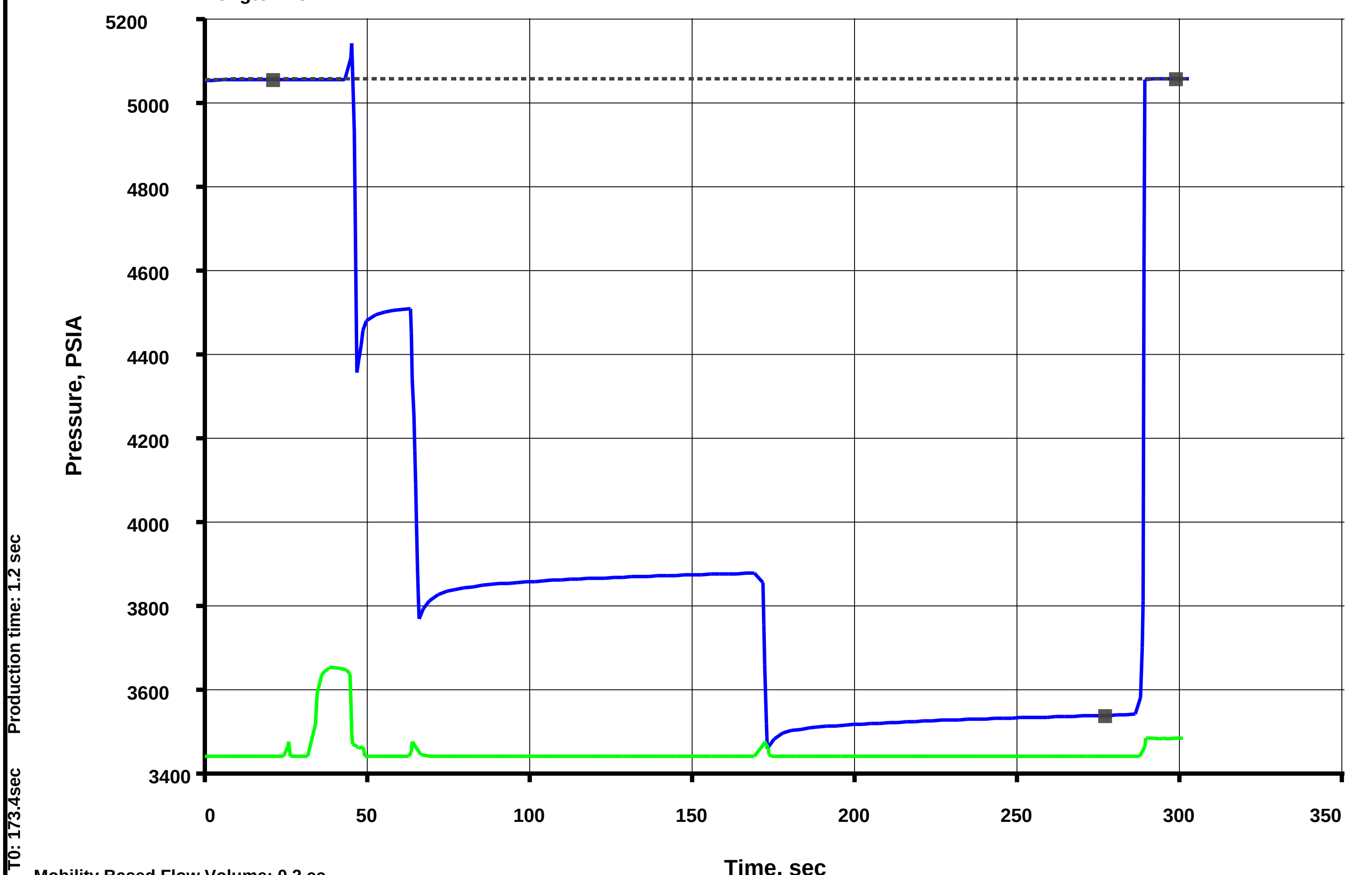
DEFAULT	TLD_MCFL_CNL_XPT_068LTP	FN:99	PRODUCER	28−Jul−2006 01:25
RT	TLD_MCFL_CNL_XPT_068LTP	FN:100	PRODUCER	28−Jul−2006 01:27

Schlumberger

Station Depth (MD)
3215.0 m

MAXIS Field Log

File 67	Depth, M: 3214.96	Dry Test − Conventional probe	
27−Jul−2006	Nexus Energy	Mud Pressure before test, PSIA:	5052.39
		Mud Pressure after test, PSIA:	5054.46
	Longtom	Last build−up pressure, PSIA:	3539.6
	Longtom−3		



Mobility Based Flow Volume: 0.2 cc

Total Pretest Volume: 0.5 cc – XPT–BA QCP Resolution: 0.010psi

Output DLIS Files

DEFAULT	TLD_MCFL_CNL_XPT_067LTP	FN:97	PRODUCER	28–Jul–2006 01:15	3217.0 M	0.8 M
RT	TLD_MCFL_CNL_XPT_067LTP	FN:98	PRODUCER	28–Jul–2006 01:17	3217.0 M	0.8 M

Changed Parameter Summary

DLIS Name	New Value	Previous Value	Depth & Time
DDPL_XPT	3500 PSIA	3800 PSIA	3217.0 01:18:13

XPT Oil Pressure Curve (HOILP) 0 (PSIA) 4000

Hydrostatic Pressure (CP_HYD) 0 (PSIA) 10000

Sapphire Manometer Temperature (MTEP_SAP) 0 (DEGC) 150

Sapphire Pressure (CP_SAP) 0 (PSIA) 10000

PRETEST_VOLUME From XPT_7 to XPT_PTV_CURVE

XPT Pretest Volume Curve (PTV_XPT) 0 (C3) 50

XPT Motor Speed Curve (MSPE_XPT) (RPM) 0 5000

CQG Pressure (QCP) 0 (PSIA) 10000

Sapphire Zoomed Pressure (CP_SAP) 0 (PSIA) 1000

Sapphire Zoomed Pressure (CP_SAP) 0 (PSIA) 100

Sapphire Zoomed Pressure (CP_SAP) 0 (PSIA) 10

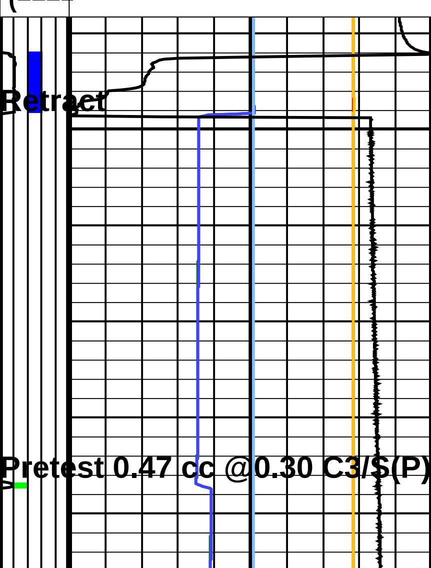
XPT Actions Image (AIMG) (––––

CQG Temperature (MTEP_QG) 0 (DEGC) 150

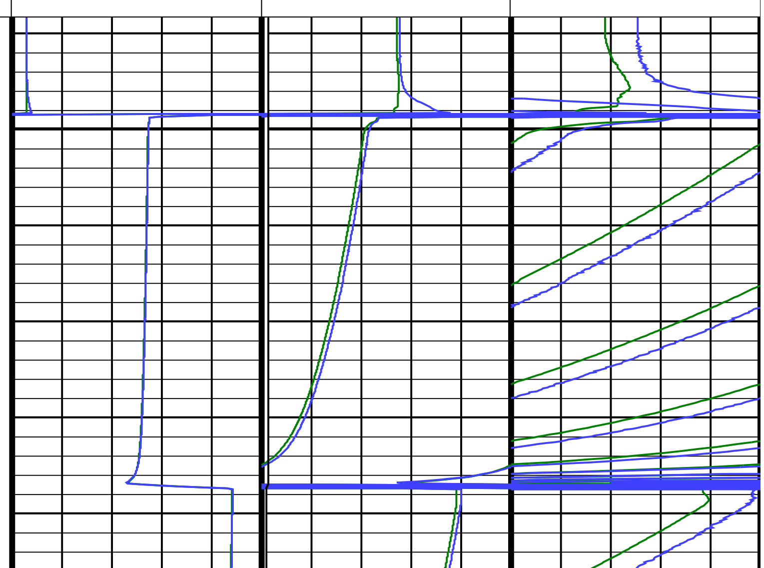
CQG Zoomed Pressure (QCP) 0 (PSIA) 1000

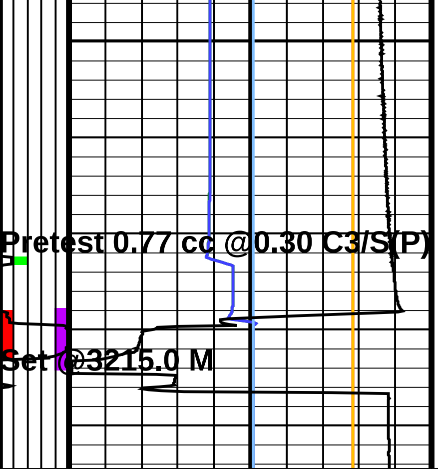
CQG Zoomed Pressure (QCP) 0 (PSIA) 100

CQG Zoomed Pressure (QCP) 0 (PSIA) 10

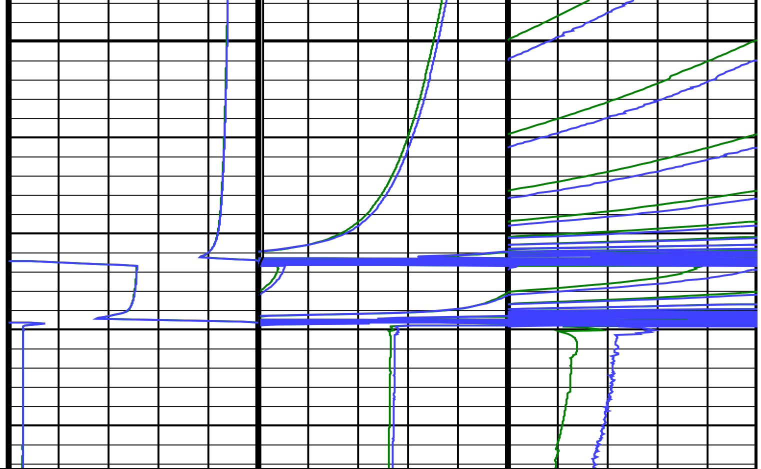


XPT Time Log (ETIM_XPT) (S)	CQG Pressure (QCP) (PSIA)	Sapphire Pressure (CP_SAP) (PSIA)
00:05:10	5053.81	5055.05
00:05:00	5054.53	5055.63
00:04:50	5052.82	5068.38
00:04:40	3540.14	3541.96
00:04:30	3538.12	3539.92
00:04:20	3535.93	3537.77
00:04:10	3533.65	3535.44
00:04:00	3531.19	3533.12
00:03:50	3528.62	3530.45
00:03:40	3525.64	3527.59
00:03:30	3522.30	3524.18
00:03:20	3518.17	3520.17
00:03:10	3512.80	3514.85
00:03:00	3502.48	3504.31
00:02:50	3877.70	3879.60
00:02:40	3876.39	3878.01
00:02:30	3874.10	3875.82





XPT Time Log (ETIM_XPT) (S)	CQG Pressure (QCP) (PSIA)	Sapphire Pressure (CP_SAP) (PSIA)
00:02:20	3871.55	3873.27
00:02:10	3868.75	3870.53
00:02:00	3865.85	3867.71
00:01:50	3862.17	3864.03
00:01:40	3857.77	3859.66
00:01:30	3852.23	3854.10
00:01:20	3843.34	3845.30
00:01:10	3819.60	3819.73
00:01:00	4506.31	4508.44
00:00:50	4479.26	4478.16
00:00:40	5052.70	5054.31
00:00:30	5052.51	5054.17
00:00:20	5052.29	5053.91
00:00:10	5052.02	5053.69
00:00:00	5051.85	5053.50



XPT Actions Image (AIMG) (----

CQG Temperature (MTEP_QG) 0 (DEGC) 150

CQG Zoomed Pressure (QCP) 0 (PSIA) 1000

CQG Zoomed Pressure (QCP) 0 (PSIA) 100

CQG Zoomed Pressure (QCP) 0 (PSIA) 10

XPT Motor Speed Curve (MSPE_XPT) (RPM) 0 5000

CQG Pressure (QCP) 0 (PSIA) 10000

Sapphire Zoomed Pressure (CP_SAP) 0 (PSIA) 1000

Sapphire Zoomed Pressure (CP_SAP) 0 (PSIA) 100

Sapphire Zoomed Pressure (CP_SAP) 0 (PSIA) 10

Sapphire Pressure (CP_SAP) 0 (PSIA) 10000

XPT Pretest Volume Curve (PTV_XPT) 0 (C3) 50

Sapphire Manometer Temperature (MTEP_SAP) 0 (DEGC) 150

PRETEST_VOLUME From XPT_7 to XPT_PTV_CURVE

Hydrostatic Pressure (CP_HYD) 0 (PSIA) 10000

XPT Oil Pressure Curve (HOILP) 0 (PSIA) 4000

XPT Actions Image

WHITE: No Action / COLORED: Action in progress
Left to right:

1. Set (Red)
2. Pretest (Green)
3. Retract (Blue)
4. Init Pretest (Orange)
5. ACom Calibration (Purple)

XPT Dynamic Compensation Status

Quartz Gauge Pressure compensated and corrected
Sapphire Gauge Pressure compensated and corrected
Hydrostatic Sapphire Gauge Pressure compensated and corrected

Hydrostatic Sapphire Gauge Pressure compensated and corrected

Parameters

DLIS Name	Description	Value	
	XPT−BA: Xpress Pressure Tool − BA		
BTA_HYD	Hydrostatic Gauge Board Temperature A Coefficient	1.0043	
BTA_SAP	Sapphire Board Temperature A Coefficient	1.02083	
BTB_HYD	Hydrostatic Gauge Board Temperature B Coefficient	0	
BTB_SAP	Sapphire Board Temperature B Coefficient	0	
BTCT_HYD	Hydrostatic Gauge Board Temperature Coefficients Read From Data Channels	YES	
BTCT_SAP	Sapphire Board Temperature Coefficients Read Fram Data Channels	YES	
DDPL_XPT	Pretest Drawdown Limit	3800	PSIA
DEVI_FL_CORR_XPT	Tool Deviation Angle	0	DEG
FLD_XPT	Flowline Density	1	G/C3
GDSV	Gauges Downhole Software Version	2.1	
GDYCO	Sapphire Dynamic Compensation Applied	YES	
PAC_SAP	Sapphire Gauge Pressure A Coefficient	0.999378	
PA_HYD	Hydrostatic Gauge Pressure A Coefficient	1.00845	
PBC_SAP	Sapphire Gauge Pressure B Coefficient	0	
PB_HYD	Hydrostatic Gauge Pressure B Coefficient	0	
PCT_HYD	Hydrostatic Gauge Pressure Coefficients Read From Data Channels	YES	
PCT_SAP	Sapphire Pressure Coefficients Read From Data Channels	YES	
PGSR	Pressure Gauges Sampling Rate	300	ms
PRSP	Pretest Rate	0.3	C3/S
PTM_XPT	Pretest Type	MANUAL	
PTVO_XPT	Pretest Volume	5	C3
QDYCO	CQG Dynamic Compensation Applied	YES	
TAC_SAP	Sapphire Gauge Temperature A Coefficient	1.02267	
TA_HYD	Hydrostatic Gauge Temperature A Coefficient	0.999197	
TBC_SAP	Sapphire Gauge Temperature B Coefficient	0	
TB_HYD	Hydrostatic Gauge Temperature B Coefficient	0	
TCT_HYD	Hydrostatic Gauge Temperature Coefficients Read >From Data Channels	YES	
TCT_SAP	Sapphire Temperature Coefficients Read From Data Channels	YES	

Output DLIS Files

DEFAULT	TLD_MCFL_CNL_XPT_067LTP	FN:97	PRODUCER	28−Jul−2006 01:15
RT	TLD_MCFL_CNL_XPT_067LTP	FN:98	PRODUCER	28−Jul−2006 01:17

Schlumberger

Station Depth (MD)
3220.0 m

MAXIS Field Log

File 66

27−Jul−2006

Depth, M: 3219.97

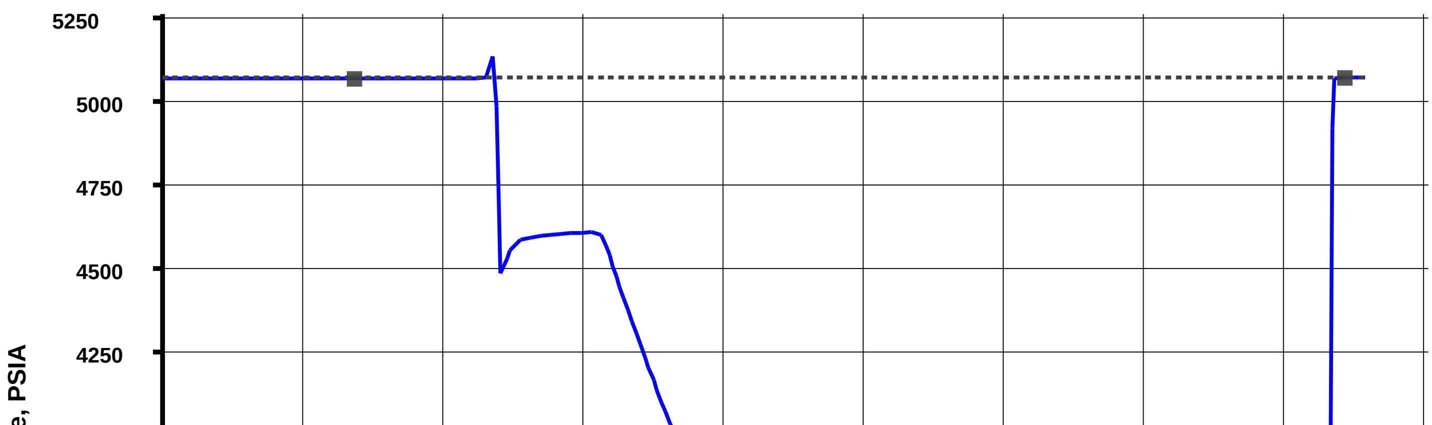
Nexus Energy

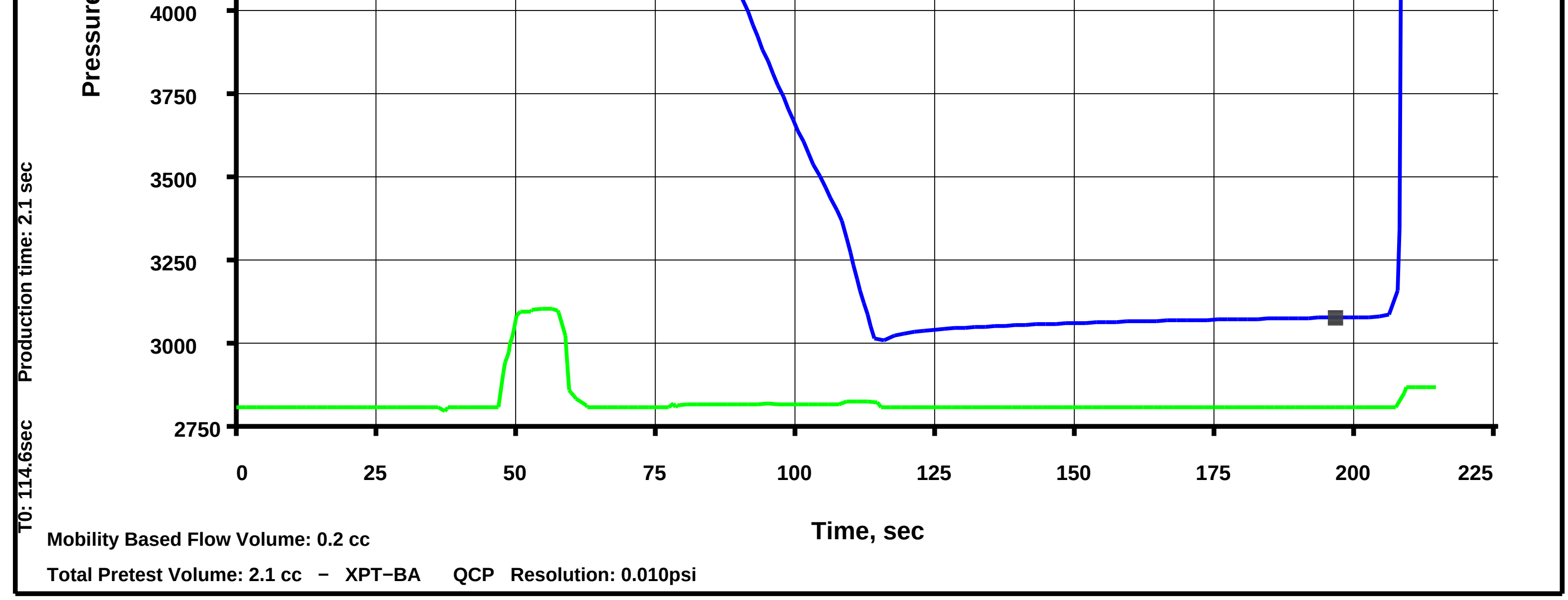
Longtom

Longtom−3

Dry Test − Conventional probe

Mud Pressure before test, PSIA: 5058.06
Mud Pressure after test, PSIA: 5060.02
Last build−up pressure, PSIA: 3077.05





Output DLIS Files

DEFAULT	TLD_MCFL_CNL_XPT_066LTP	FN:95	PRODUCER	28–Jul–2006 01:07	3222.0 M	0.6 M
RT	TLD_MCFL_CNL_XPT_066LTP	FN:96	PRODUCER	28–Jul–2006 01:09	3222.0 M	0.6 M

XPT Oil Pressure Curve (HOILP)
0 (PSIA) 4000

Hydrostatic Pressure (CP_HYD)
0 (PSIA) 10000

Sapphire Manometer Temperature (MTEP_SAP)
0 (DEGC) 150

Sapphire Pressure (CP_SAP)
0 (PSIA) 10000

PRETEST_VOLUME From XPT_7 to XPT_PTV_CURVE

XPT Pretest Volume Curve (PTV_XPT)
0 (C3) 50

XPT Motor Speed Curve (MSPE_XPT) (RPM)
0 5000

CQG Pressure (QCP)
0 (PSIA) 10000

Sapphire Zoomed Pressure (CP_SAP)
0 (PSIA) 1000

Sapphire Zoomed Pressure (CP_SAP)
0 (PSIA) 100

Sapphire Zoomed Pressure (CP_SAP)
0 (PSIA) 10

XPT Actions Image (AIMG) (––––

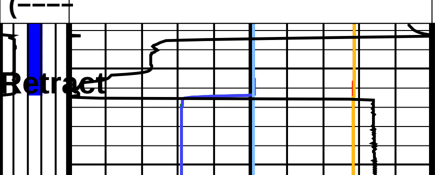
CQG Temperature (MTEP_QG)
0 (DEGC) 150

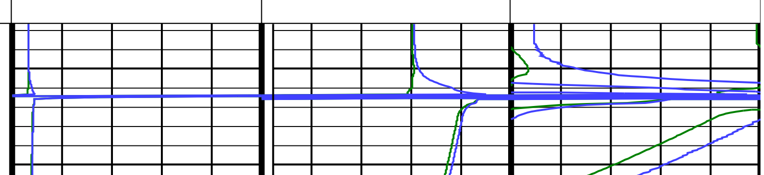
XPT Time Log (ETIM_XPT) (S)	CQG Pressure (QCP) (PSIA)	Sapphire Pressure (CP_SAP) (PSIA)
00:03:40	5060.32	5061.30
00:03:30	5058.84	5076.98
00:03:20	3077.83	3079.83
00:03:10	3075.16	3077.03

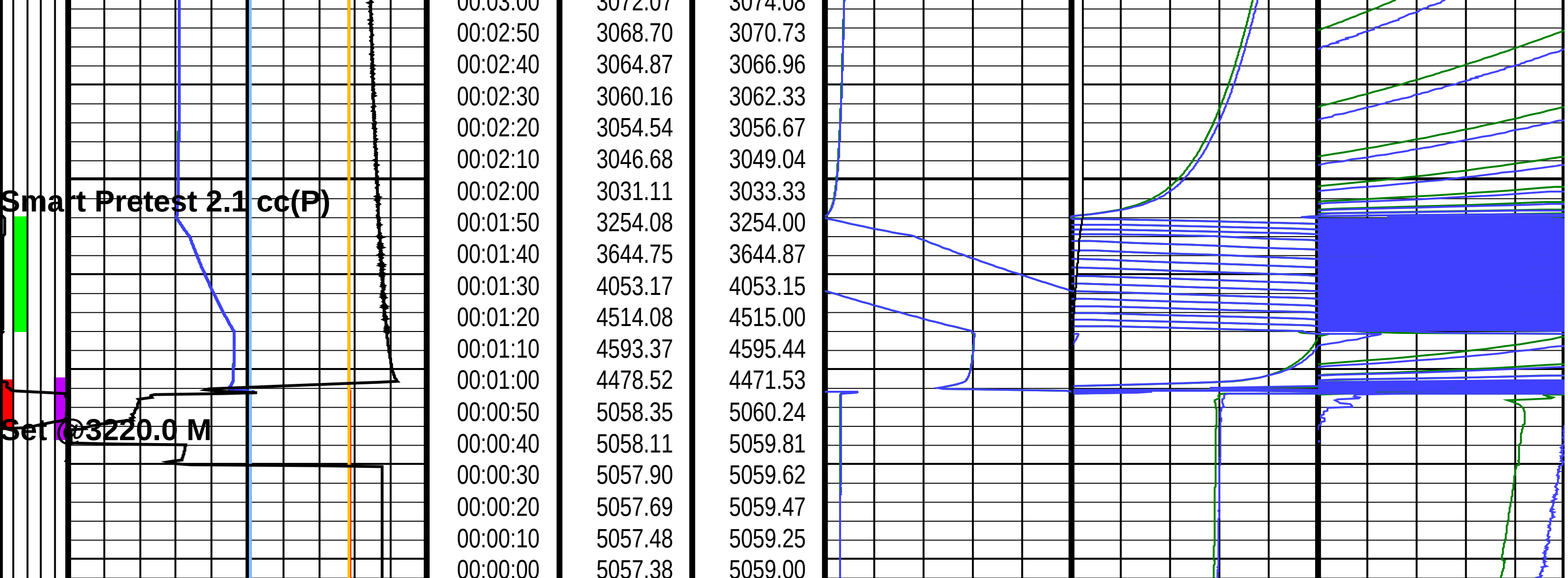
CQG Zoomed Pressure (QCP)
0 (PSIA) 1000

CQG Zoomed Pressure (QCP)
0 (PSIA) 100

CQG Zoomed Pressure (QCP)
0 (PSIA) 10







XPT Actions Image (AIMG) (----	CQG Temperature (MTEP_QG) 0 (DEGC) 150	XPT Time Log (ETIM_XPT) (S)	CQG Pressure (QCP) (PSIA)	Sapphire Pressure (CP_SAP) (PSIA)	CQG Zoomed Pressure (QCP) 0 (PSIA) 1000	CQG Zoomed Pressure (QCP) 0 (PSIA) 100	CQG Zoomed Pressure (QCP) 0 (PSIA) 10
XPT Motor Speed Curve (MSPE_XPT) (RPM) 0 5000	CQG Pressure (QCP) 0 (PSIA) 10000				Sapphire Zoomed Pressure (CP_SAP) 0 (PSIA) 1000	Sapphire Zoomed Pressure (CP_SAP) 0 (PSIA) 100	Sapphire Zoomed Pressure (CP_SAP) 0 (PSIA) 10
	Sapphire Pressure (CP_SAP) 0 (PSIA) 10000					XPT Pretest Volume Curve (PTV_XPT) 0 (C3) 50	
	Sapphire Manometer Temperature (MTEP_SAP) 0 (DEGC) 150					PRETEST_VOLUME From XPT_7 to XPT_PTV_CURVE	
	Hydrostatic Pressure (CP_HYD) 0 (PSIA) 10000						
	XPT Oil Pressure Curve (HOILP) 0 (PSIA) 4000						

XPT Actions Image

WHITE: No Action / COLORED: Action in progress
Left to right:

1. Set (Red)
2. Pretest (Green)
3. Retract (Blue)
4. Init Pretest (Orange)
5. ACom Calibration (Purple)

XPT Dynamic Compensation Status

XPT Dynamic Compensation Status

Quartz Gauge Pressure compensated and corrected
Sapphire Gauge Pressure compensated and corrected
Hydrostatic Sapphire Gauge Pressure compensated and corrected

Parameters

XPT−BA: Xpress Pressure Tool − BA

DLIS Name	Description	Value	
BTA_HYD	Hydrostatic Gauge Board Temperature A Coefficient	1.0043	
BTA_SAP	Sapphire Board Temperature A Coefficient	1.02084	
BTB_HYD	Hydrostatic Gauge Board Temperature B Coefficient	0	
BTB_SAP	Sapphire Board Temperature B Coefficient	0	
BTCT_HYD	Hydrostatic Gauge Board Temperature Coefficients Read From Data Channels	YES	
BTCT_SAP	Sapphire Board Temperature Coefficients Read Fram Data Channels	YES	
DDPL_XPT	Pretest Drawdown Limit	3000	PSIA
DEVI_FL_CORR_XPT	Tool Deviation Angle	0	DEG
FLD_XPT	Flowline Density	1	G/C3
GDSV	Gauges Downhole Software Version	2.1	
GDYCO	Sapphire Dynamic Compensation Applied	YES	
PAC_SAP	Sapphire Gauge Pressure A Coefficient	0.999376	
PA_HYD	Hydrostatic Gauge Pressure A Coefficient	1.00845	
PBC_SAP	Sapphire Gauge Pressure B Coefficient	0	
PB_HYD	Hydrostatic Gauge Pressure B Coefficient	0	
PCT_HYD	Hydrostatic Gauge Pressure Coefficients Read From Data Channels	YES	
PCT_SAP	Sapphire Pressure Coefficients Read From Data Channels	YES	
PGSR	Pressure Gauges Sampling Rate	300	ms
PRSP	Pretest Rate	0.4	C3/S
PTM_XPT	Pretest Type	SMART	
PTVO_XPT	Pretest Volume	5	C3
QDYCO	CQG Dynamic Compensation Applied	YES	
TAC_SAP	Sapphire Gauge Temperature A Coefficient	1.02267	
TA_HYD	Hydrostatic Gauge Temperature A Coefficient	0.999195	
TBC_SAP	Sapphire Gauge Temperature B Coefficient	0	
TB_HYD	Hydrostatic Gauge Temperature B Coefficient	0	
TCT_HYD	Hydrostatic Gauge Temperature Coefficients Read >From Data Channels	YES	
TCT_SAP	Sapphire Temperature Coefficients Read From Data Channels	YES	

Output DLIS Files

DEFAULT	TLD_MCFL_CNL_XPT_066LTP	FN:95	PRODUCER	28−Jul−2006 01:07
RT	TLD_MCFL_CNL_XPT_066LTP	FN:96	PRODUCER	28−Jul−2006 01:09

Schlumberger

Station Depth (MD)
3227.0 m

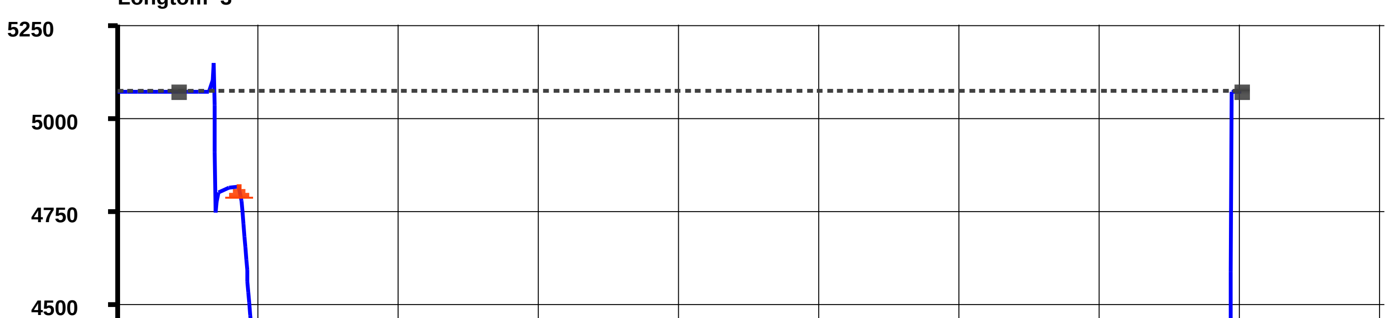
MAXIS Field Log

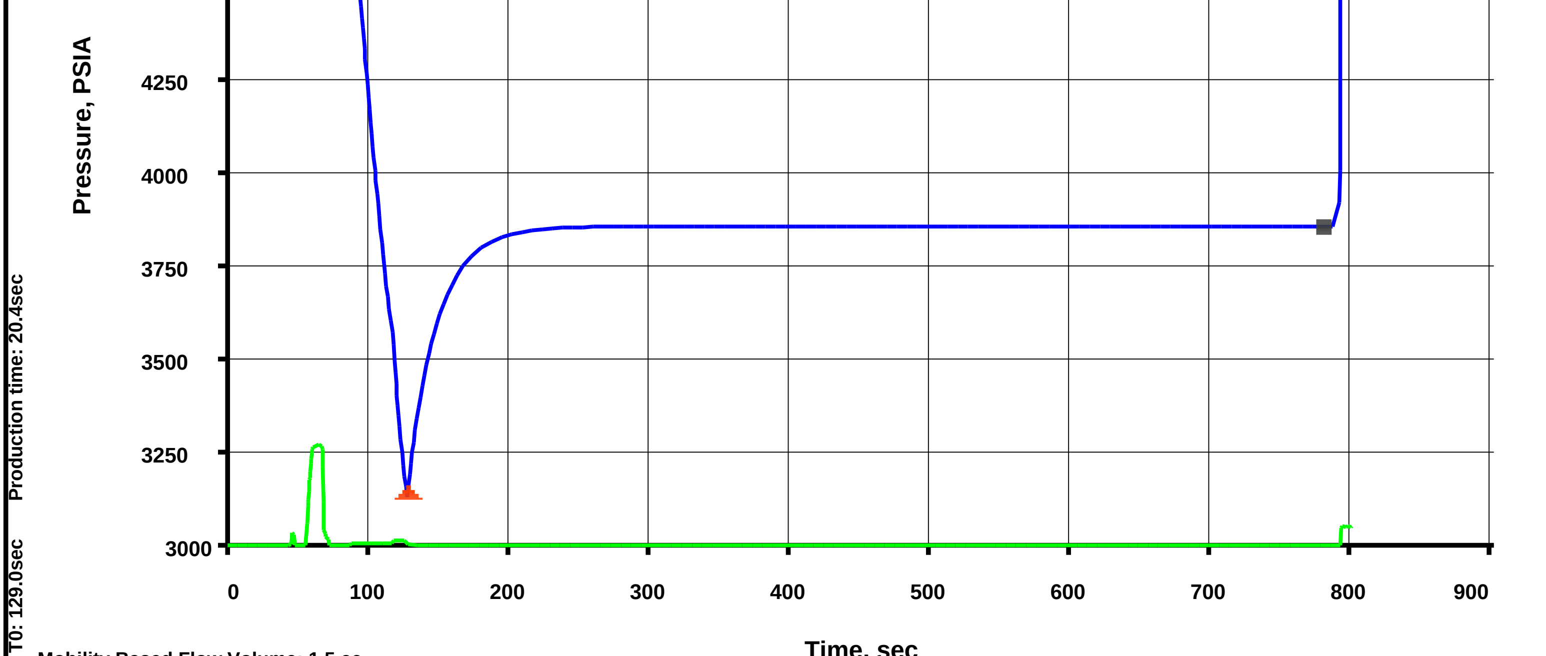
File 65
27−Jul−2006

Depth, M: 3226.98
Nexus Energy
Longtom
Longtom−3

Smart Pretest − Conventional probe

Mud Pressure before test, PSIA:	5069.07
Mud Pressure after test, PSIA:	5069.16
Last build−up pressure, PSIA:	3856.17
Draw−down mobility, md/cp:	0.4





Mobility Based Flow Volume: 1.5 cc

Total Pretest Volume: 2.5 cc – XPT−BA QCP Resolution: 0.010psi

Output DLIS Files

DEFAULT	TLD_MCFL_CNL_XPT_065LTP	FN:93	PRODUCER	28−Jul−2006 00:50	3229.0 M	2.1 M
RT	TLD_MCFL_CNL_XPT_065LTP	FN:94	PRODUCER	28−Jul−2006 00:52	3229.0 M	2.1 M

XPT Oil Pressure Curve (HOILP) 0 (PSIA) 4000

Hydrostatic Pressure (CP_HYD) 0 (PSIA) 10000

Sapphire Manometer Temperature (MTEP_SAP) 0 (DEGC) 150

Sapphire Pressure (CP_SAP) 0 (PSIA) 10000

PRETEST_VOLUME From XPT_7 to XPT_PTV_CURVE

XPT Pretest Volume Curve (PTV_XPT) 0 (C3) 50

XPT Motor Speed Curve (MSPE_XPT) (RPM) 0 5000

CQG Pressure (QCP) 0 (PSIA) 10000

Sapphire Zoomed Pressure (CP_SAP) 0 (PSIA) 1000

Sapphire Zoomed Pressure (CP_SAP) 0 (PSIA) 100

Sapphire Zoomed Pressure (CP_SAP) 0 (PSIA) 10

XPT Actions Image (AIMG) (−−−

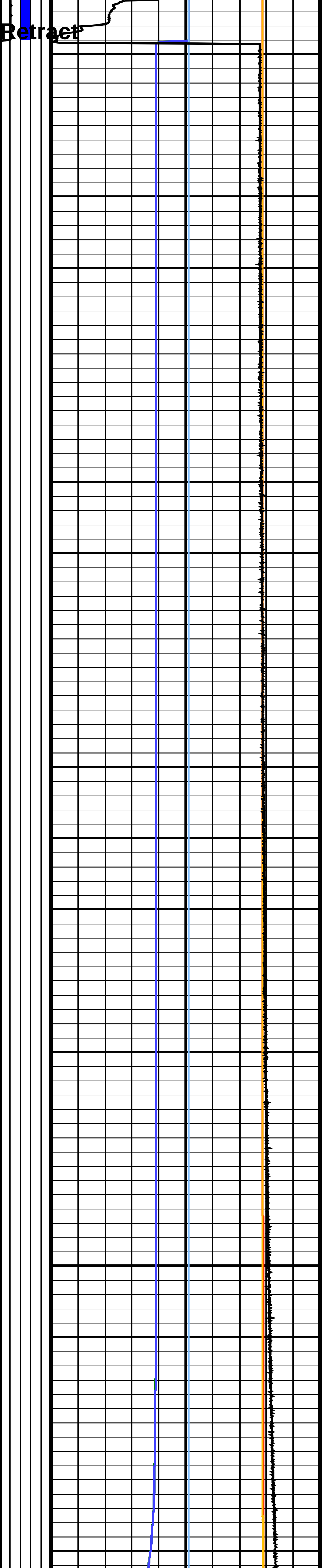
CQG Temperature (MTEP_QG) 0 (DEGC) 150

XPT Time Log (ETIM_XPT) (S)	CQG Pressure (QCP) (PSIA)	Sapphire Pressure (CP_SAP) (PSIA)
00:13:30	5068.64	5069.79

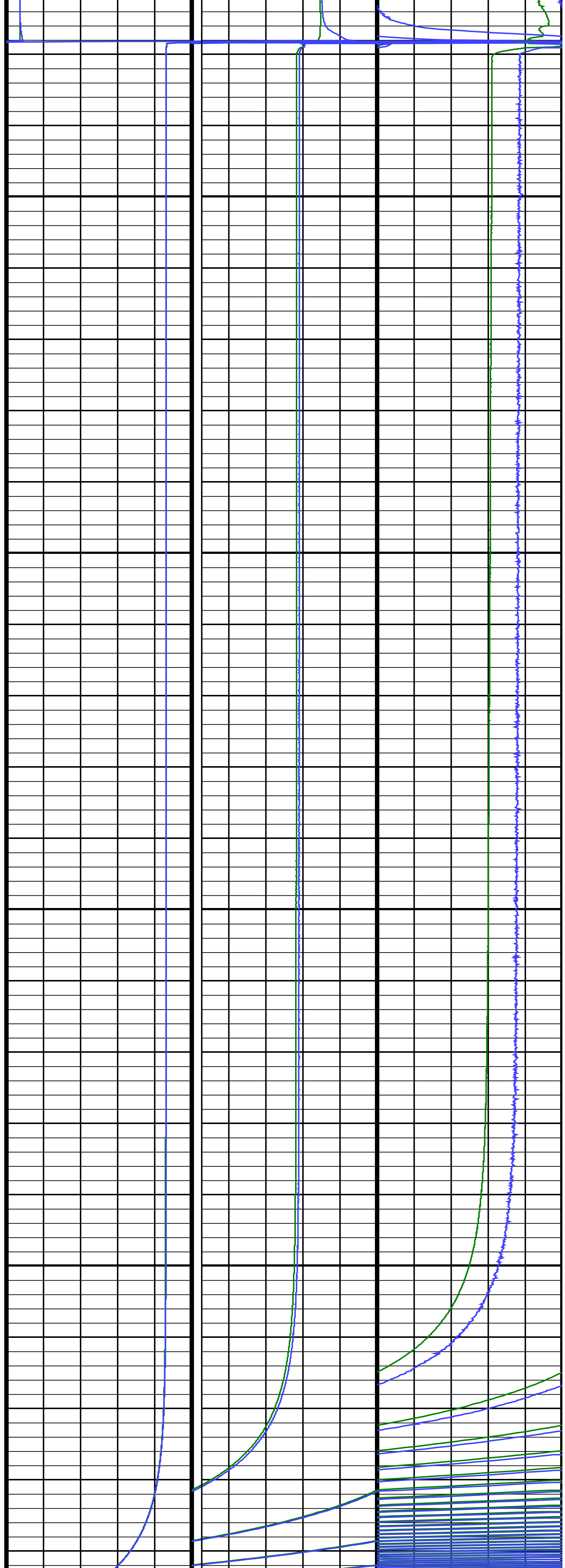
CQG Zoomed Pressure (QCP) 0 (PSIA) 1000

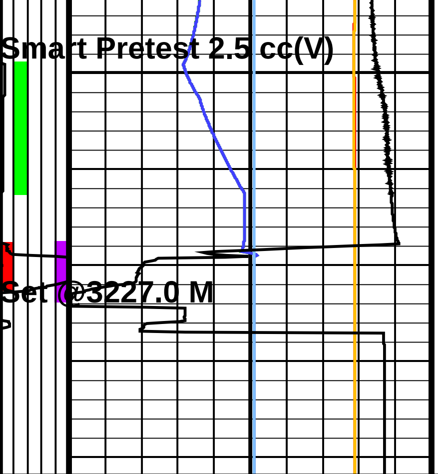
CQG Zoomed Pressure (QCP) 0 (PSIA) 100

CQG Zoomed Pressure (QCP) 0 (PSIA) 10

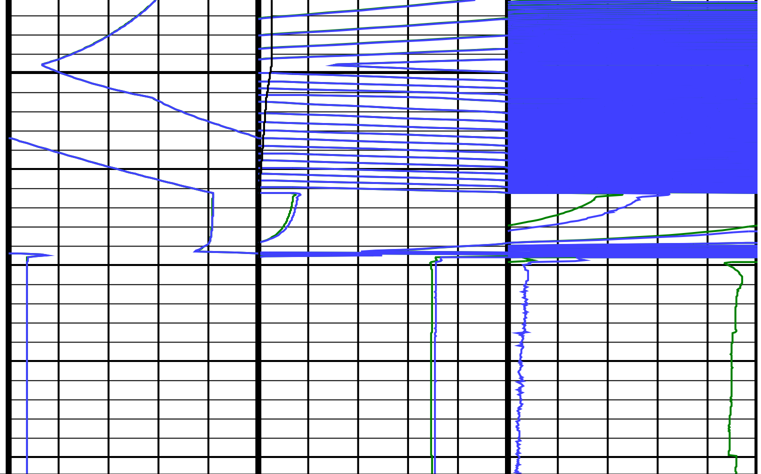


00:13:20	5069.21	5070.88
00:13:10	3860.37	3860.72
00:13:00	3856.17	3857.65
00:12:50	3856.16	3857.68
00:12:40	3856.16	3857.61
00:12:30	3856.16	3857.58
00:12:20	3856.15	3857.59
00:12:10	3856.14	3857.71
00:12:00	3856.14	3857.62
00:11:50	3856.13	3857.66
00:11:40	3856.12	3857.62
00:11:30	3856.11	3857.63
00:11:20	3856.11	3857.59
00:11:10	3856.10	3857.62
00:11:00	3856.10	3857.61
00:10:50	3856.09	3857.66
00:10:40	3856.09	3857.59
00:10:30	3856.08	3857.59
00:10:20	3856.08	3857.57
00:10:10	3856.07	3857.57
00:10:00	3856.07	3857.52
00:09:50	3856.07	3857.55
00:09:40	3856.06	3857.54
00:09:30	3856.06	3857.65
00:09:20	3856.05	3857.49
00:09:10	3856.04	3857.56
00:09:00	3856.04	3857.53
00:08:50	3856.03	3857.55
00:08:40	3856.02	3857.58
00:08:30	3856.02	3857.50
00:08:20	3856.01	3857.53
00:08:10	3856.00	3857.43
00:08:00	3855.99	3857.52
00:07:50	3855.99	3857.56
00:07:40	3855.98	3857.50
00:07:30	3855.97	3857.45
00:07:20	3855.97	3857.49
00:07:10	3855.96	3857.55
00:07:00	3855.95	3857.46
00:06:50	3855.94	3857.45
00:06:40	3855.94	3857.50
00:06:30	3855.92	3857.47
00:06:20	3855.91	3857.37
00:06:10	3855.89	3857.46
00:06:00	3855.87	3857.35
00:05:50	3855.85	3857.39
00:05:40	3855.81	3857.38
00:05:30	3855.77	3857.38
00:05:20	3855.71	3857.26
00:05:10	3855.63	3857.11
00:05:00	3855.51	3857.12
00:04:50	3855.34	3856.87
00:04:40	3855.08	3856.64
00:04:30	3854.70	3856.23
00:04:20	3854.11	3855.74
00:04:10	3853.24	3854.86
00:04:00	3851.86	3853.48
00:03:50	3849.75	3851.37
00:03:40	3846.38	3848.01
00:03:30	3840.95	3842.56
00:03:20	3832.52	3834.17
00:03:10	3818.77	3820.57
00:03:00	3796.86	3798.73
00:02:50	3759.61	3761.46
00:02:40	3701.39	3703.49
00:02:30	3606.18	3608.57





XPT Time Log (ETIM_XPT) (S)	CQG Pressure (QCP) (PSIA)	Sapphire Pressure (CP_SAP) (PSIA)
00:02:20	3450.62	3453.64
00:02:10	3202.21	3204.27
00:02:00	3432.41	3432.36
00:01:50	3810.40	3810.46
00:01:40	4223.49	4223.15
00:01:30	4694.87	4695.30
00:01:20	4811.34	4813.11
00:01:10	4748.73	4746.55
00:01:00	5069.34	5070.70
00:00:50	5069.07	5070.64
00:00:40	5068.92	5070.57
00:00:30	5068.93	5070.47
00:00:20	5068.89	5070.34
00:00:10	5068.86	5070.35
00:00:00	5069.09	5070.33



XPT Actions Image (AIMG) (----

CQG Temperature (MTEP_QG)
0 (DEGC) 150

XPT Time Log (ETIM_XPT) (S)

CQG Pressure (QCP) (PSIA)

Sapphire Pressure (CP_SAP) (PSIA)

CQG Zoomed Pressure (QCP)
0 (PSIA) 1000

CQG Zoomed Pressure (QCP)
0 (PSIA) 100

CQG Zoomed Pressure (QCP)
0 (PSIA) 10

XPT Motor Speed Curve (MSPE_XPT) (RPM)
0 5000

CQG Pressure (QCP)
0 (PSIA) 10000

Sapphire Zoomed Pressure (CP_SAP)
0 (PSIA) 1000

Sapphire Zoomed Pressure (CP_SAP)
0 (PSIA) 100

Sapphire Zoomed Pressure (CP_SAP)
0 (PSIA) 10

Sapphire Pressure (CP_SAP)
0 (PSIA) 10000

XPT Pretest Volume Curve (PTV_XPT)
0 (C3) 50

Sapphire Manometer Temperature (MTEP_SAP)
0 (DEGC) 150

PRETEST_VOLUME From XPT_7 to XPT_PTV_CURVE

Hydrostatic Pressure (CP_HYD)
0 (PSIA) 10000

XPT Oil Pressure Curve (HOILP)
0 (PSIA) 4000

XPT Actions Image

WHITE: No Action / COLORED: Action in progress
Left to right:

1. Set (Red)
2. Pretest (Green)
3. Retract (Blue)
4. Init Pretest (Orange)
5. ACom Calibration (Purple)

XPT Dynamic Compensation Status

Quartz Gauge Pressure compensated and corrected
Sapphire Gauge Pressure compensated and corrected

Hydrostatic Sapphire Gauge Pressure compensated and corrected

Parameters

DLIS Name	Description	Value	
	XPT−BA: Xpress Pressure Tool − BA		
BTA_HYD	Hydrostatic Gauge Board Temperature A Coefficient	1.0043	
BTA_SAP	Sapphire Board Temperature A Coefficient	1.02084	
BTB_HYD	Hydrostatic Gauge Board Temperature B Coefficient	0	
BTB_SAP	Sapphire Board Temperature B Coefficient	0	
BTCT_HYD	Hydrostatic Gauge Board Temperature Coefficients Read From Data Channels	YES	
BTCT_SAP	Sapphire Board Temperature Coefficients Read Fram Data Channels	YES	
DDPL_XPT	Pretest Drawdown Limit	3000	PSIA
DEVI_FL_CORR_XPT	Tool Deviation Angle	0	DEG
FLD_XPT	Flowline Density	1	G/C3
GDSV	Gauges Downhole Software Version	2.1	
GDYCO	Sapphire Dynamic Compensation Applied	YES	
PAC_SAP	Sapphire Gauge Pressure A Coefficient	0.999377	
PA_HYD	Hydrostatic Gauge Pressure A Coefficient	1.00846	
PBC_SAP	Sapphire Gauge Pressure B Coefficient	0	
PB_HYD	Hydrostatic Gauge Pressure B Coefficient	0	
PCT_HYD	Hydrostatic Gauge Pressure Coefficients Read From Data Channels	YES	
PCT_SAP	Sapphire Pressure Coefficients Read From Data Channels	YES	
PGSR	Pressure Gauges Sampling Rate	300	ms
PRSP	Pretest Rate	0.4	C3/S
PTM_XPT	Pretest Type	SMART	
PTVO_XPT	Pretest Volume	5	C3
QDYCO	CQG Dynamic Compensation Applied	YES	
TAC_SAP	Sapphire Gauge Temperature A Coefficient	1.02267	
TA_HYD	Hydrostatic Gauge Temperature A Coefficient	0.999198	
TBC_SAP	Sapphire Gauge Temperature B Coefficient	0	
TB_HYD	Hydrostatic Gauge Temperature B Coefficient	0	
TCT_HYD	Hydrostatic Gauge Temperature Coefficients Read >From Data Channels	YES	
TCT_SAP	Sapphire Temperature Coefficients Read From Data Channels	YES	

Output DLIS Files

DEFAULT	TLD_MCFL_CNL_XPT_065LTP	FN:93	PRODUCER	28−Jul−2006 00:50
RT	TLD_MCFL_CNL_XPT_065LTP	FN:94	PRODUCER	28−Jul−2006 00:52

Schlumberger

Station Depth (MD)
3228.0 m

MAXIS Field Log

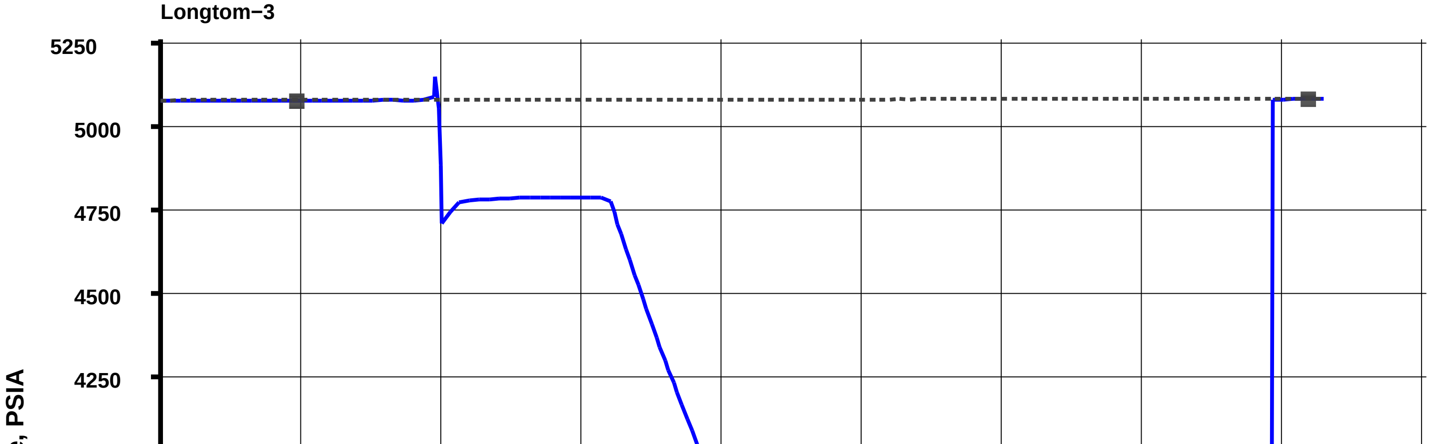
File 64 | Depth, M: 3227.95 | Dry Test − Conventional probe

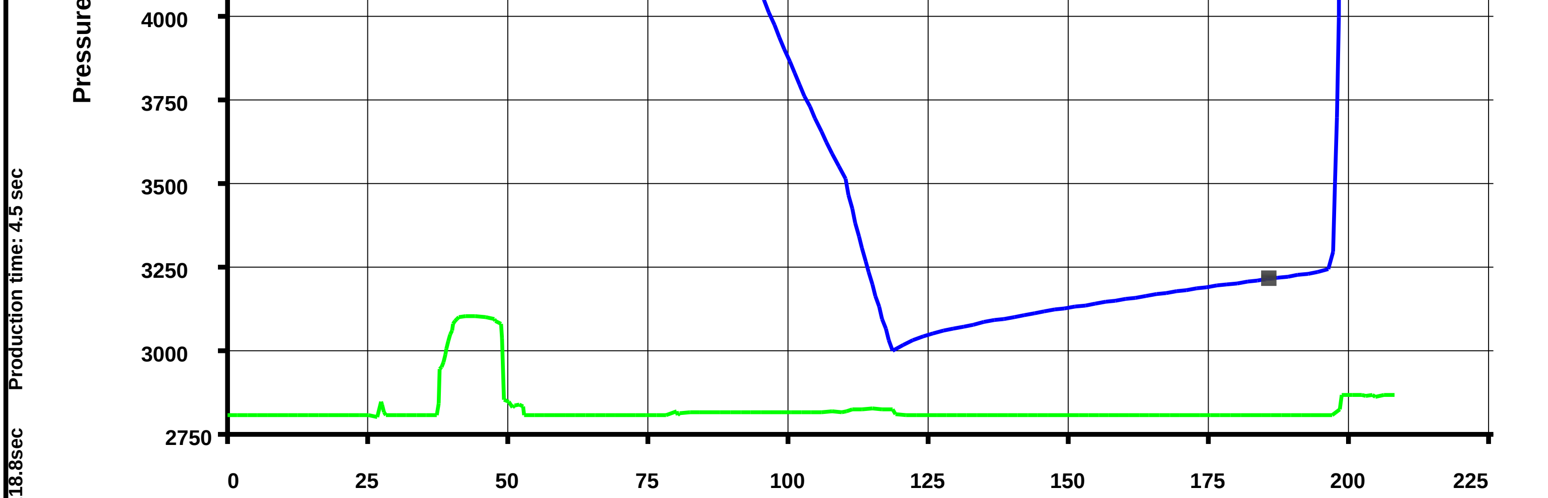
27−Jul−2006 | Nexus Energy

Longtom

Longtom−3

Mud Pressure before test, PSIA: 5066.68
Mud Pressure after test, PSIA: 5070.58
Last build−up pressure, PSIA: 3216.03





Mobility Based Flow Volume: 0.4 cc

Total Pretest Volume: 2.3 cc – XPT–BA QCP Resolution: 0.010psi

Output DLIS Files

DEFAULT	TLD_MCFL_CNL_XPT_064LTP	FN:91	PRODUCER	28–Jul–2006 00:42	3230.0 M	0.6 M
RT	TLD_MCFL_CNL_XPT_064LTP	FN:92	PRODUCER	28–Jul–2006 00:44	3230.0 M	0.6 M

Changed Parameter Summary

DLIS Name	New Value	Previous Value	Depth & Time
PTM_XPT	SMART	MANUAL	3230.0 00:44:01

XPT Oil Pressure Curve (HOILP)
0 (PSIA) 4000

Hydrostatic Pressure (CP_HYD)
0 (PSIA) 10000

Sapphire Manometer Temperature (MTEP_SAP)
0 (DEGC) 150

Sapphire Pressure (CP_SAP)
0 (PSIA) 10000

PRETEST_VOLUME From XPT_7 to XPT_PTV_CURVE

XPT Pretest Volume Curve (PTV_XPT)
0 (C3) 50

XPT Motor Speed Curve (MSPE_XPT) (RPM)
0 5000

CQG Pressure (QCP)
0 (PSIA) 10000

Sapphire Zoomed Pressure (CP_SAP)
0 (PSIA) 1000

Sapphire Zoomed Pressure (CP_SAP)
0 (PSIA) 100

Sapphire Zoomed Pressure (CP_SAP)
0 (PSIA) 10

XPT Actions Image (AIMG)
(

CQG Temperature (MTEP_QG)
0 (DEGC) 150

XPT Time Log (ETIM_XPT) (S)

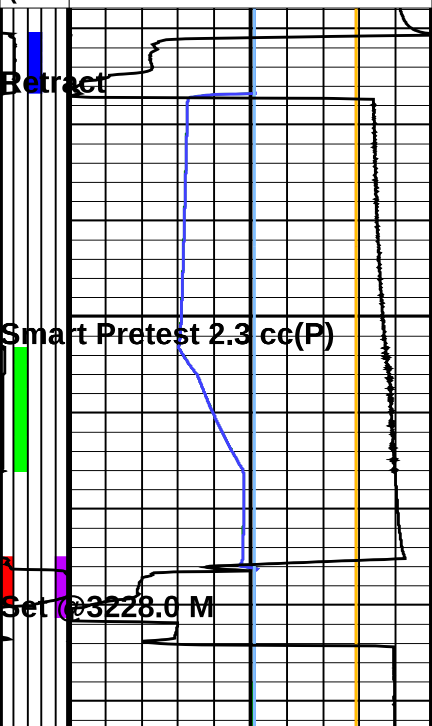
CQG Pressure (QCP) (PSIA)

Sapphire Pressure (CP_SAP) (PSIA)

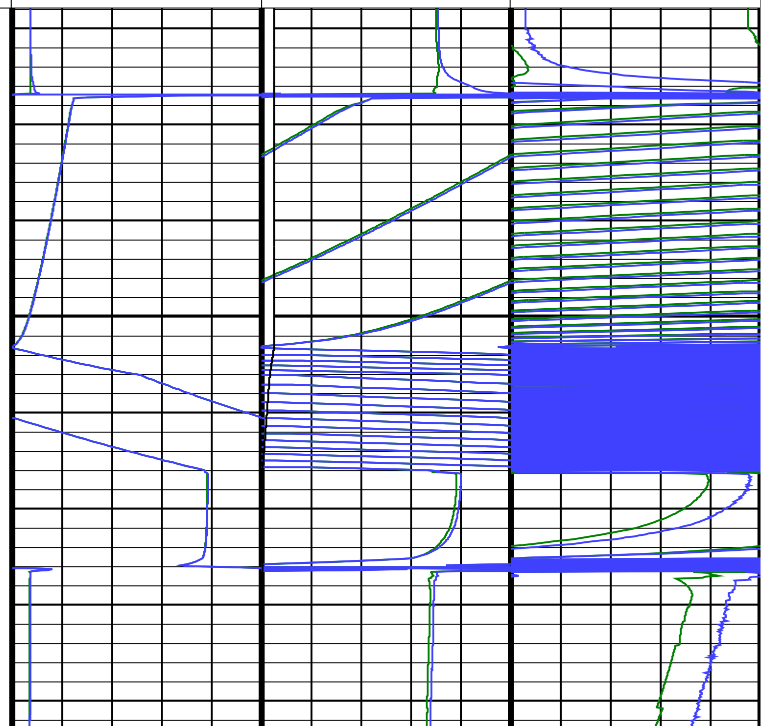
CQG Zoomed Pressure (QCP)
0 (PSIA) 1000

CQG Zoomed Pressure (QCP)
0 (PSIA) 100

CQG Zoomed Pressure (QCP)
0 (PSIA) 10



XPT Time Log (ETIM_XPT) (S)	CQG Pressure (QCP) (PSIA)	Sapphire Pressure (CP_SAP) (PSIA)
00:03:40	5069.46	5070.53
00:03:30	5070.31	5071.21
00:03:20	5070.00	5084.35
00:03:10	3224.67	3226.36
00:03:00	3201.96	3203.79
00:02:50	3178.97	3180.85
00:02:40	3154.70	3156.54
00:02:30	3129.39	3131.35
00:02:20	3100.73	3102.73
00:02:10	3069.60	3071.77
00:02:00	3016.73	3017.37
00:01:50	3510.47	3510.89
00:01:40	3860.74	3860.50
00:01:30	4279.08	4278.69
00:01:20	4768.74	4770.37
00:01:10	4777.23	4778.95
00:01:00	4773.62	4775.35
00:00:50	4875.23	4872.88
00:00:40	5067.19	5068.75
00:00:30	5066.77	5068.38
00:00:20	5066.37	5067.93
00:00:10	5065.97	5067.55
00:00:00	5065.76	5067.24



XPT Actions Image (AIMG) (----

CQG Temperature (MTEP_QG) 0 (DEGC) 150

CQG Zoomed Pressure (QCP) 0 (PSIA) 1000

CQG Zoomed Pressure (QCP) 0 (PSIA) 100

CQG Zoomed Pressure (QCP) 0 (PSIA) 10

XPT Motor Speed Curve (MSPE_XPT) (RPM) 0 5000

CQG Pressure (QCP) 0 (PSIA) 10000

Sapphire Zoomed Pressure (CP_SAP) 0 (PSIA) 1000

Sapphire Zoomed Pressure (CP_SAP) 0 (PSIA) 100

Sapphire Zoomed Pressure (CP_SAP) 0 (PSIA) 10

Sapphire Pressure (CP_SAP) 0 (PSIA) 10000

XPT Pretest Volume Curve (PTV_XPT) 0 (C3) 50

PRETEST_VOLUME From XPT_7 to XPT_PTV_CURVE

Sapphire Manometer Temperature (MTEP_SAP) 0 (DEGC) 150

Hydrostatic Pressure (CP_HYD) 0 (PSIA) 10000

XPT Oil Pressure Curve (HOILP) 0 (PSIA) 4000

XPT Actions Image

WHITE: No Action / COLORED: Action in progress
Left to right:
1. Set (Red)
2. Pretest (Green)

3. Retract (Blue)
4. Init Pretest (Orange)
5. ACom Calibration (Purple)

XPT Dynamic Compensation Status

Quartz Gauge Pressure compensated and corrected
Sapphire Gauge Pressure compensated and corrected
Hydrostatic Sapphire Gauge Pressure compensated and corrected

Parameters

DLIS Name	Description	Value	
XPT−BA: Xpress Pressure Tool − BA			
BTA_HYD	Hydrostatic Gauge Board Temperature A Coefficient	1.00431	
BTA_SAP	Sapphire Board Temperature A Coefficient	1.02084	
BTB_HYD	Hydrostatic Gauge Board Temperature B Coefficient	0	
BTB_SAP	Sapphire Board Temperature B Coefficient	0	
BTCT_HYD	Hydrostatic Gauge Board Temperature Coefficients Read From Data Channels	YES	
BTCT_SAP	Sapphire Board Temperature Coefficients Read Fram Data Channels	YES	
DDPL_XPT	Pretest Drawdown Limit	3000	PSIA
DEVI_FL_CORR_XPT	Tool Deviation Angle	0	DEG
FLD_XPT	Flowline Density	1	G/C3
GDSV	Gauges Downhole Software Version	2.1	
GDYCO	Sapphire Dynamic Compensation Applied	YES	
PAC_SAP	Sapphire Gauge Pressure A Coefficient	0.999374	
PA_HYD	Hydrostatic Gauge Pressure A Coefficient	1.00847	
PBC_SAP	Sapphire Gauge Pressure B Coefficient	0	
PB_HYD	Hydrostatic Gauge Pressure B Coefficient	0	
PCT_HYD	Hydrostatic Gauge Pressure Coefficients Read From Data Channels	YES	
PCT_SAP	Sapphire Pressure Coefficients Read From Data Channels	YES	
PGSR	Pressure Gauges Sampling Rate	300	ms
PRSP	Pretest Rate	0.4	C3/S
PTM_XPT	Pretest Type	MANUAL	
PTVO_XPT	Pretest Volume	5	C3
QDYCO	CQG Dynamic Compensation Applied	YES	
TAC_SAP	Sapphire Gauge Temperature A Coefficient	1.02267	
TA_HYD	Hydrostatic Gauge Temperature A Coefficient	0.999202	
TBC_SAP	Sapphire Gauge Temperature B Coefficient	0	
TB_HYD	Hydrostatic Gauge Temperature B Coefficient	0	
TCT_HYD	Hydrostatic Gauge Temperature Coefficients Read >From Data Channels	YES	
TCT_SAP	Sapphire Temperature Coefficients Read From Data Channels	YES	

Output DLIS Files

DEFAULT	TLD_MCFL_CNL_XPT_064LTP	FN:91	PRODUCER	28−Jul−2006 00:42
RT	TLD_MCFL_CNL_XPT_064LTP	FN:92	PRODUCER	28−Jul−2006 00:44

Schlumberger

Station Depth (MD)
3298.0 m

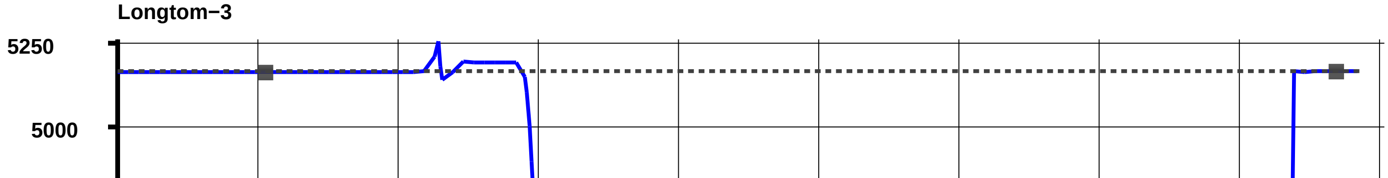
MAXIS Field Log

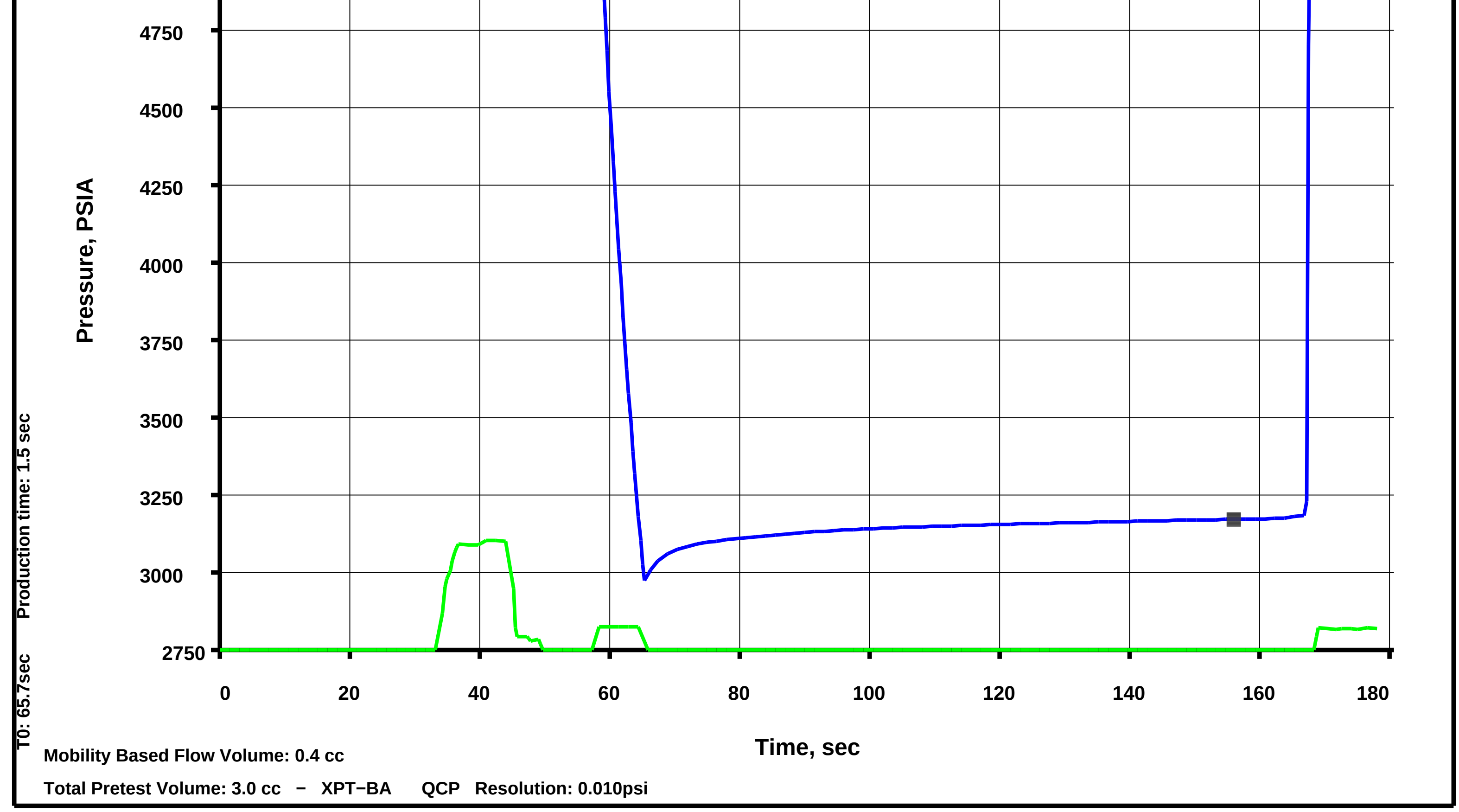
File 63
27−Jul−2006

Depth, M: 3297.97
Nexus Energy
Longtom
Longtom−3

Dry Test − Conventional probe

Mud Pressure before test, PSIA:	5151.96
Mud Pressure after test, PSIA:	5154.11
Last build−up pressure, PSIA:	3171.2





Output DLIS Files

DEFAULT	TLD_MCFL_CNL_XPT_063LTP	FN:89	PRODUCER	28–Jul–2006 00:32	3300.0 M	0.5 M
RT	TLD_MCFL_CNL_XPT_063LTP	FN:90	PRODUCER	28–Jul–2006 00:34	3300.0 M	0.5 M

XPT Oil Pressure Curve (HOILP)
0 (PSIA) 4000

Hydrostatic Pressure (CP_HYD)
0 (PSIA) 10000

Sapphire Manometer Temperature (MTEP_SAP)
0 (DEGC) 150

Sapphire Pressure (CP_SAP)
0 (PSIA) 10000

PRETEST_ VOLUME From XPT_7 to XPT_PTV_CURVE

XPT Pretest Volume Curve (PTV_XPT)
0 (C3) 50

XPT Motor Speed Curve (MSPE_XPT) (RPM)
0 5000

CQG Pressure (QCP)
0 (PSIA) 10000

Sapphire Zoomed Pressure (CP_SAP)
0 (PSIA) 1000

Sapphire Zoomed Pressure (CP_SAP)
0 (PSIA) 100

Sapphire Zoomed Pressure (CP_SAP)
0 (PSIA) 10

XPT Actions Imag

CQG Temperature (MTEP_QG)
0 (DEGC) 150

XPT Time Log (ETIM_

CQG Pressure (QCP)

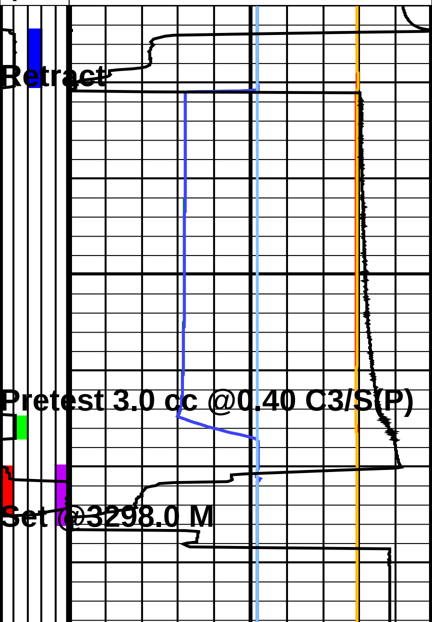
Sapphire Pressure (CP_SAP)

CQG Zoomed Pressure (QCP)
0 (PSIA) 1000

CQG Zoomed Pressure (QCP)
0 (PSIA) 100

CQG Zoomed Pressure (QCP)
0 (PSIA) 10

XPT Actions Image (AIMG)	CQG Temperature (MTEP_QG) 0 (DEGC) 150	XPT Time Log (ETIM_XPT) (S)	CQG Pressure (QCP) (PSIA)	Sapphire Pressure (CP_SAP) (PSIA)	CQG Zoomed Pressure (QCP) 0 (PSIA) 1000	CQG Zoomed Pressure (QCP) 0 (PSIA) 100	CQG Zoomed Pressure (QCP) 0 (PSIA) 10



XPT Time Log (ETIM_XPT) (S)	CQG Pressure (QCP) (PSIA)	Sapphire Pressure (CP_SAP) (PSIA)
00:03:10	5152.95	5154.24
00:03:00	5153.70	5154.81
00:02:50	5153.61	5168.65
00:02:40	3172.59	3174.74
00:02:30	3168.68	3170.87
00:02:20	3164.43	3166.56
00:02:10	3159.80	3161.94
00:02:00	3154.55	3156.77
00:01:50	3148.50	3150.74
00:01:40	3140.63	3142.97
00:01:30	3128.25	3130.74
00:01:20	3110.82	3113.53
00:01:10	3071.31	3072.81
00:01:00	4417.49	4411.45
00:00:50	5181.32	5183.36
00:00:40	5152.15	5155.55
00:00:30	5152.10	5153.92
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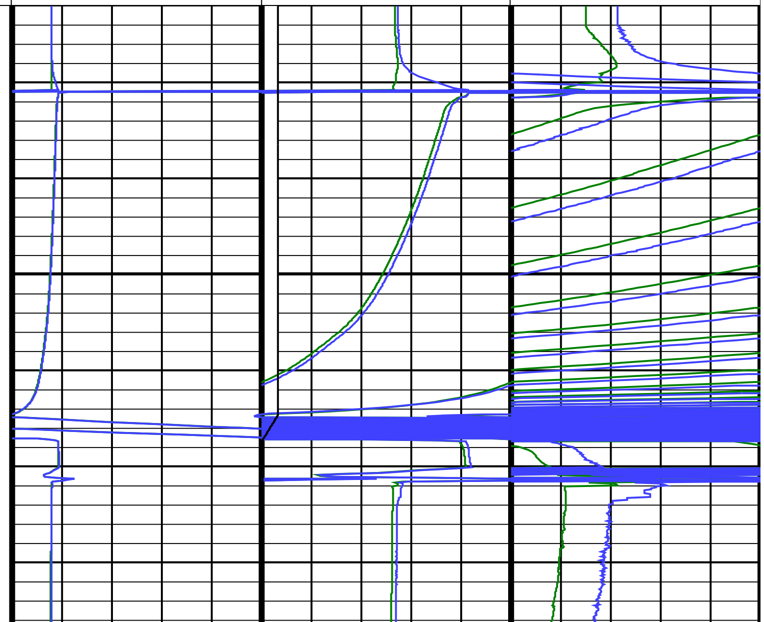
00:00:10	5151.74	5153.54
00:00:00	5151.57	5153.28



XPT Actions Image (AIMG) (----

CQG Temperature (MTEP_QG) 0 (DEGC) 150

XPT Time Log (ETIM_XPT) (S)

CQG Pressure (QCP) (PSIA)

Sapphire Pressure (CP_SAP) (PSIA)

CQG Zoomed Pressure (QCP) 0 (PSIA) 1000

CQG Zoomed Pressure (QCP) 0 (PSIA) 100

CQG Zoomed Pressure (QCP) 0 (PSIA) 10

XPT Motor Speed Curve (MSPE_XPT) (RPM) 0 5000

CQG Pressure (QCP) 0 (PSIA) 10000

Sapphire Zoomed Pressure (CP_SAP) 0 (PSIA) 1000

Sapphire Zoomed Pressure (CP_SAP) 0 (PSIA) 100

Sapphire Zoomed Pressure (CP_SAP) 0 (PSIA) 10

Sapphire Pressure (CP_SAP) 0 (PSIA) 10000

XPT Pretest Volume Curve (PTV_XPT) 0 (C3) 50

Sapphire Manometer Temperature (MTEP_SAP) 0 (DEGC) 150

PRETEST_VOLUME From XPT_7 to XPT_PTV_CURVE

Hydrostatic Pressure (CP_HYD) 0 (PSIA) 10000

XPT Oil Pressure Curve (HOILP) 0 (PSIA) 4000

XPT Actions Image

WHITE: No Action / COLORED: Action in progress

Left to right:

1. Set (Red)
2. Pretest (Green)

3. Retract (Blue)
4. Init Pretest (Orange)
5. ACom Calibration (Purple)

XPT Dynamic Compensation Status

Quartz Gauge Pressure compensated and corrected
Sapphire Gauge Pressure compensated and corrected
Hydrostatic Sapphire Gauge Pressure compensated and corrected

Parameters

XPT−BA: Xpress Pressure Tool − BA

DLIS Name	Description	Value	
BTA_HYD	Hydrostatic Gauge Board Temperature A Coefficient	1.00431	
BTA_SAP	Sapphire Board Temperature A Coefficient	1.02084	
BTB_HYD	Hydrostatic Gauge Board Temperature B Coefficient	0	
BTB_SAP	Sapphire Board Temperature B Coefficient	0	
BTCT_HYD	Hydrostatic Gauge Board Temperature Coefficients Read From Data Channels	YES	
BTCT_SAP	Sapphire Board Temperature Coefficients Read Fram Data Channels	YES	
DDPL_XPT	Pretest Drawdown Limit	3000	PSIA
DEVI_FL_CORR_XPT	Tool Deviation Angle	0	DEG
FLD_XPT	Flowline Density	1	G/C3
GDSV	Gauges Downhole Software Version	2.1	
GDYCO	Sapphire Dynamic Compensation Applied	YES	
PAC_SAP	Sapphire Gauge Pressure A Coefficient	0.999377	
PA_HYD	Hydrostatic Gauge Pressure A Coefficient	1.00847	
PBC_SAP	Sapphire Gauge Pressure B Coefficient	0	
PB_HYD	Hydrostatic Gauge Pressure B Coefficient	0	
PCT_HYD	Hydrostatic Gauge Pressure Coefficients Read From Data Channels	YES	
PCT_SAP	Sapphire Pressure Coefficients Read From Data Channels	YES	
PGSR	Pressure Gauges Sampling Rate	300	ms
PRSP	Pretest Rate	0.4	C3/S
PTM_XPT	Pretest Type	MANUAL	
PTVO_XPT	Pretest Volume	5	C3
QDYCO	CQG Dynamic Compensation Applied	YES	
TAC_SAP	Sapphire Gauge Temperature A Coefficient	1.02267	
TA_HYD	Hydrostatic Gauge Temperature A Coefficient	0.999207	
TBC_SAP	Sapphire Gauge Temperature B Coefficient	0	
TB_HYD	Hydrostatic Gauge Temperature B Coefficient	0	
TCT_HYD	Hydrostatic Gauge Temperature Coefficients Read >From Data Channels	YES	
TCT_SAP	Sapphire Temperature Coefficients Read From Data Channels	YES	

Output DLIS Files

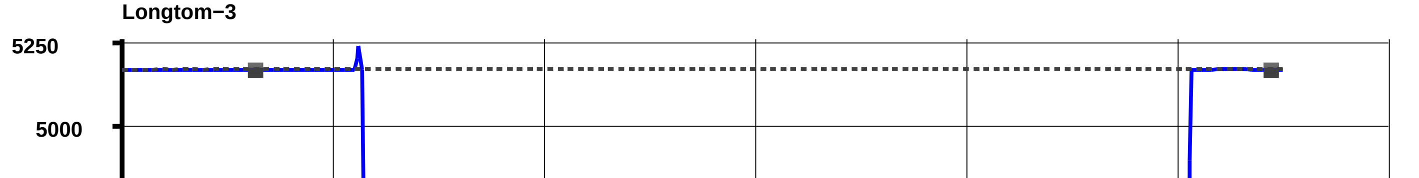
DEFAULT	TLD_MCFL_CNL_XPT_063LTP	FN:89	PRODUCER	28−Jul−2006 00:32
RT	TLD_MCFL_CNL_XPT_063LTP	FN:90	PRODUCER	28−Jul−2006 00:34

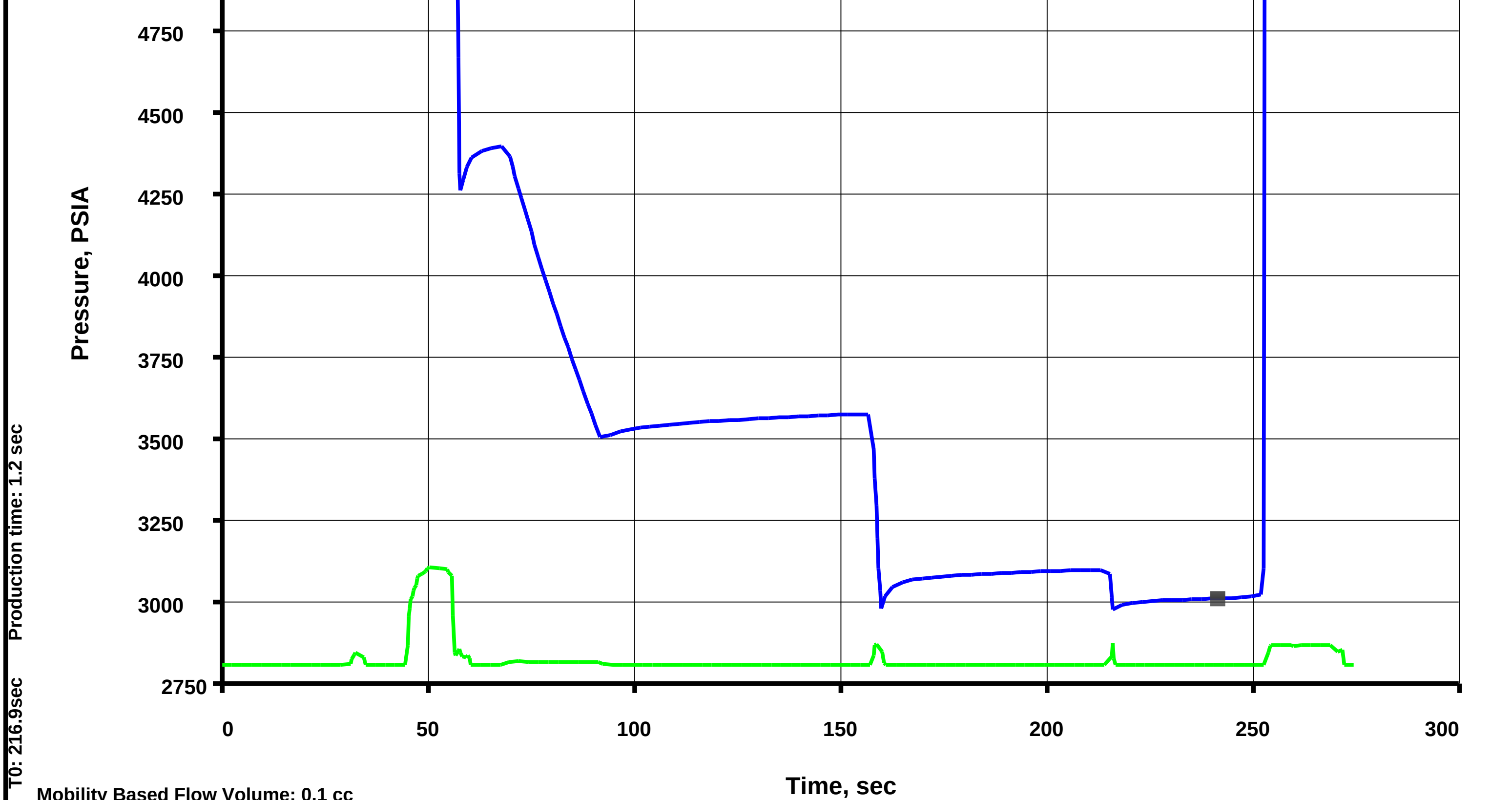
Schlumberger

Station Depth (MD)
3302.0 m

MAXIS Field Log

File 62	Depth, M: 3301.97	Dry Test − Conventional probe	
27−Jul−2006	Nexus Energy	Mud Pressure before test, PSIA:	5156.83
		Mud Pressure after test, PSIA:	5157.7
	Longtom	Last build−up pressure, PSIA:	3011.05
	Longtom−3		





Mobility Based Flow Volume: 0.1 cc

Total Pretest Volume: 0.2 cc – XPT–BA QCP Resolution: 0.010psi

Output DLIS Files

DEFAULT	TLD_MCFL_CNL_XPT_062LTP	FN:87	PRODUCER	28–Jul–2006 00:23	3304.0 M	0.7 M
RT	TLD_MCFL_CNL_XPT_062LTP	FN:88	PRODUCER	28–Jul–2006 00:25	3304.0 M	0.7 M

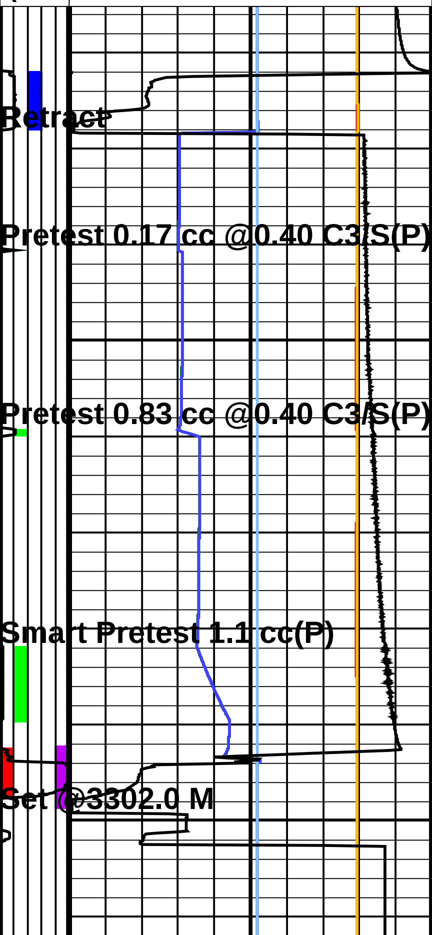
Changed Parameter Summary

DLIS Name	New Value	Previous Value	Depth & Time
DDPL_XPT	3000 PSIA	3500 PSIA	3304.0 00:26:22
PTM_XPT	MANUAL	SMART	3304.0 00:26:18

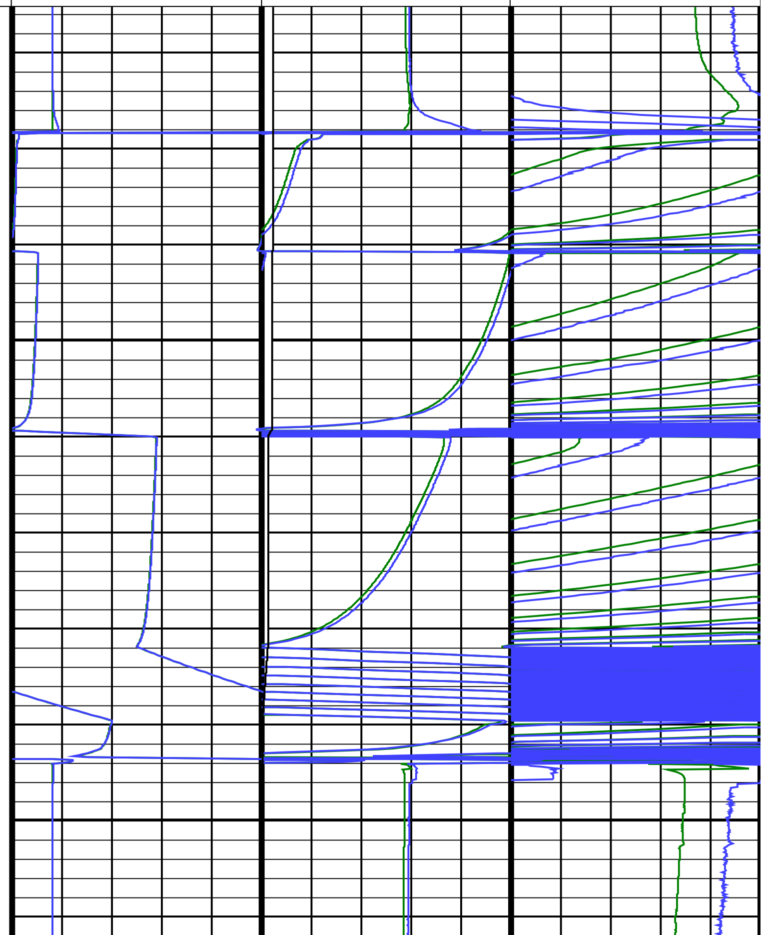
	XPT Oil Pressure Curve (HOILP) 0 (PSIA) 4000			
	Hydrostatic Pressure (CP_HYD) 0 (PSIA) 10000			
	Sapphire Manometer Temperature (MTEP_SAP) 0 (DEGC) 150		PRETEST_VOLUME From XPT_7 to XPT_PTV_CURVE	
	Sapphire Pressure (CP_SAP) 0 (PSIA) 10000		XPT Pretest Volume Curve (PTV_XPT) 0 (C3) 50	
XPT Motor Speed Curve (MSPE_XPT) (RPM) 0	CQG Pressure (QCP) 0 (PSIA) 10000	Sapphire Zoomed Pressure (CP_SAP) 0 (PSIA) 1000	Sapphire Zoomed Pressure (CP_SAP) 0 (PSIA) 100	Sapphire Zoomed Pressure (CP_SAP) 0 (PSIA) 10

5000

XPT Actions Image (AIMG) (----	CQG Temperature (MTEP_QG) 0 (DEGC) 150	XPT Time Log (ETIM_XPT) (S)	CQG Pressure (QCP) (PSIA)	Sapphire Pressure (CP_SAP) (PSIA)	CQG Zoomed Pressure (QCP) 0 (PSIA) 1000	CQG Zoomed Pressure (QCP) 0 (PSIA) 100	CQG Zoomed Pressure (QCP) 0 (PSIA) 10



XPT Time Log (ETIM_XPT) (S)	CQG Pressure (QCP) (PSIA)	Sapphire Pressure (CP_SAP) (PSIA)
00:04:40	5157.48	5159.00
00:04:30	5158.11	5159.29
00:04:20	5159.00	5162.78
00:04:10	3016.60	3017.89
00:04:00	3010.01	3012.16
00:03:50	3005.54	3007.79
00:03:40	2996.05	2997.85
00:03:30	3097.52	3099.71
00:03:20	3093.58	3095.79
00:03:10	3088.85	3091.07
00:03:00	3082.25	3084.50
00:02:50	3072.20	3074.69
00:02:40	2979.50	2974.66
00:02:30	3570.47	3572.64
00:02:20	3564.80	3566.97
00:02:10	3558.66	3560.92
00:02:00	3551.60	3554.03
00:01:50	3542.05	3544.41
00:01:40	3527.54	3530.04
00:01:30	3564.60	3565.17
00:01:20	3933.45	3933.76
00:01:10	4356.72	4358.66
00:01:00	4346.32	4342.29
00:00:50	5156.92	5159.96
00:00:40	5156.86	5158.67
00:00:30	5156.79	5158.64
00:00:20	5156.66	5158.51
00:00:10	5156.59	5158.45
00:00:00	5156.50	5158.27



XPT Actions Image (AIMG) (----	CQG Temperature (MTEP_QG) 0 (DEGC) 150	XPT Time Log (ETIM_XPT) (S)	CQG Pressure (QCP) (PSIA)	Sapphire Pressure (CP_SAP) (PSIA)	CQG Zoomed Pressure (QCP) 0 (PSIA) 1000	CQG Zoomed Pressure (QCP) 0 (PSIA) 100	CQG Zoomed Pressure (QCP) 0 (PSIA) 10
XPT Motor Speed Curve (MSPE_XPT) (RPM) 0 5000	CQG Pressure (QCP) 0 (PSIA) 10000				Sapphire Zoomed Pressure (CP_SAP) 0 (PSIA) 1000	Sapphire Zoomed Pressure (CP_SAP) 0 (PSIA) 100	Sapphire Zoomed Pressure (CP_SAP) 0 (PSIA) 10
	Sapphire Pressure (CP_SAP) 0 (PSIA) 10000					XPT Pretest Volume Curve (PTV_XPT) 0 (C3) 50	
	Sapphire Manometer Temperature (MTEP_SAP)					PRETEST_ VOLUME From XPT_7 to	

0 (DEGC) 150	From XPT_7 to XPT_PTV_CURVE
Hydrostatic Pressure (CP_HYD) 0 (PSIA) 10000	
XPT Oil Pressure Curve (HOILP) 0 (PSIA) 4000	

XPT Actions Image

WHITE: No Action / COLORED: Action in progress
Left to right:

1. Set (Red)
2. Pretest (Green)
3. Retract (Blue)
4. Init Pretest (Orange)
5. ACom Calibration (Purple)

XPT Dynamic Compensation Status

Quartz Gauge Pressure compensated and corrected
Sapphire Gauge Pressure compensated and corrected
Hydrostatic Sapphire Gauge Pressure compensated and corrected

Parameters

DLIS Name	Description	Value	
	XPT−BA: Xpress Pressure Tool − BA		
BTA_HYD	Hydrostatic Gauge Board Temperature A Coefficient	1.00431	
BTA_SAP	Sapphire Board Temperature A Coefficient	1.02084	
BTB_HYD	Hydrostatic Gauge Board Temperature B Coefficient	0	
BTB_SAP	Sapphire Board Temperature B Coefficient	0	
BTCT_HYD	Hydrostatic Gauge Board Temperature Coefficients Read From Data Channels	YES	
BTCT_SAP	Sapphire Board Temperature Coefficients Read Fram Data Channels	YES	
DDPL_XPT	Pretest Drawdown Limit	3500	PSIA
DEVI_FL_CORR_XPT	Tool Deviation Angle	0	DEG
FLD_XPT	Flowline Density	1	G/C3
GDSV	Gauges Downhole Software Version	2.1	
GDYCO	Sapphire Dynamic Compensation Applied	YES	
PAC_SAP	Sapphire Gauge Pressure A Coefficient	0.999376	
PA_HYD	Hydrostatic Gauge Pressure A Coefficient	1.00847	
PBC_SAP	Sapphire Gauge Pressure B Coefficient	0	
PB_HYD	Hydrostatic Gauge Pressure B Coefficient	0	
PCT_HYD	Hydrostatic Gauge Pressure Coefficients Read From Data Channels	YES	
PCT_SAP	Sapphire Pressure Coefficients Read From Data Channels	YES	
PGSR	Pressure Gauges Sampling Rate	300	ms
PRSP	Pretest Rate	0.4	C3/S
PTM_XPT	Pretest Type	SMART	
PTVO_XPT	Pretest Volume	5	C3
QDYCO	CQG Dynamic Compensation Applied	YES	
TAC_SAP	Sapphire Gauge Temperature A Coefficient	1.02267	
TA_HYD	Hydrostatic Gauge Temperature A Coefficient	0.999203	
TBC_SAP	Sapphire Gauge Temperature B Coefficient	0	
TB_HYD	Hydrostatic Gauge Temperature B Coefficient	0	
TCT_HYD	Hydrostatic Gauge Temperature Coefficients Read >From Data Channels	YES	
TCT_SAP	Sapphire Temperature Coefficients Read From Data Channels	YES	

Output DLIS Files

DEFAULT	TLD_MCFL_CNL_XPT_062LTP	FN:87	PRODUCER	28−Jul−2006 00:23
RT	TLD_MCFL_CNL_XPT_062LTP	FN:88	PRODUCER	28−Jul−2006 00:25

Schlumberger

Station Depth (MD)
3306.5 m

MAXIS Field Log

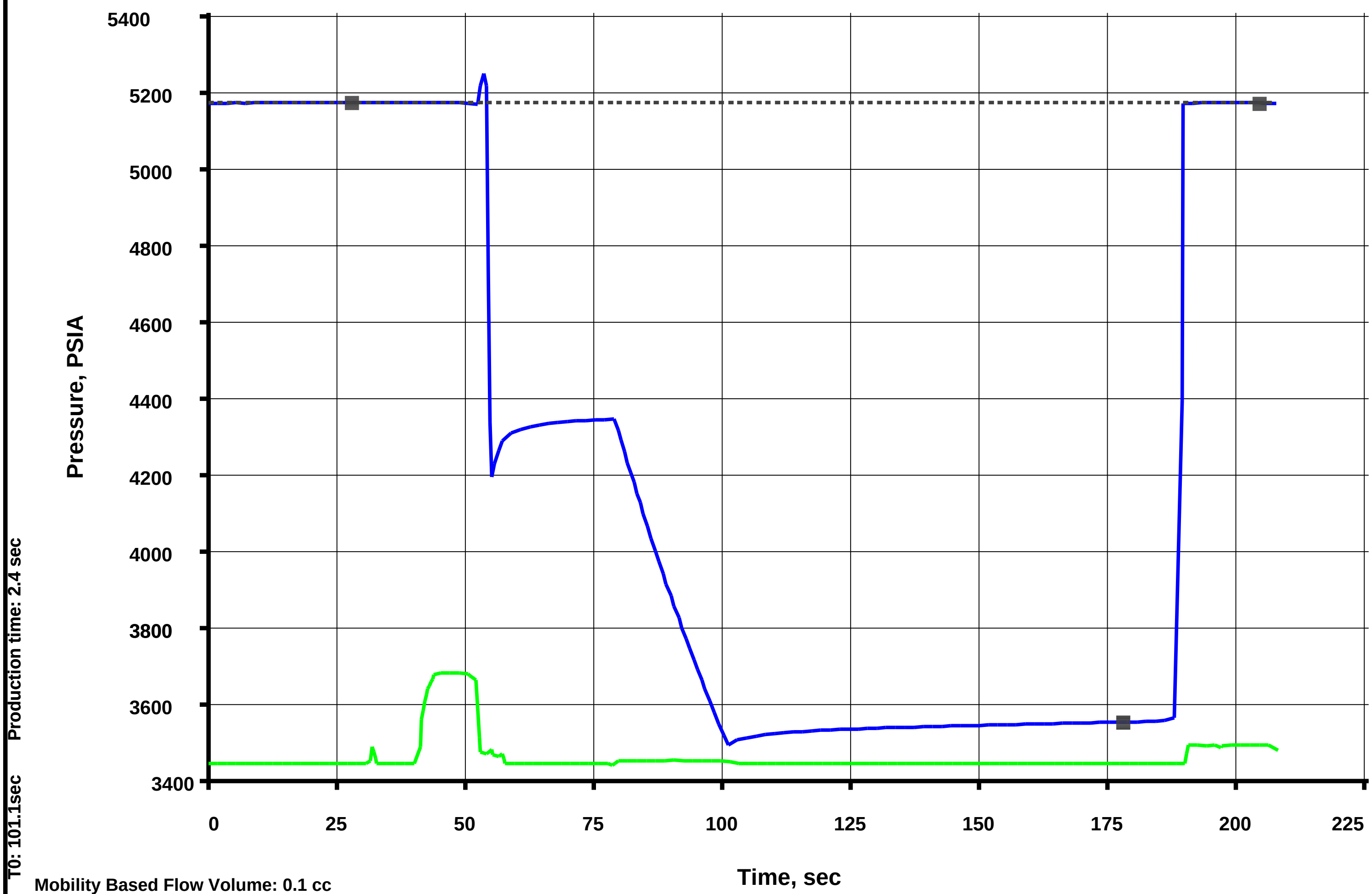
File 61 | Depth, M: 3306.43 | Dry Test – Conventional probe

27–Jul–2006 | Nexus Energy

Longtom

Longtom–3

Mud Pressure before test, PSIA:	5164.7
Mud Pressure after test, PSIA:	5164.36
Last build–up pressure, PSIA:	3554.82



Mobility Based Flow Volume: 0.1 cc

Total Pretest Volume: 1.1 cc – XPT–BA QCP Resolution: 0.010psi

Output DLIS Files

DEFAULT	TLD_MCFL_CNL_XPT_061LTP	FN:85	PRODUCER	28–Jul–2006 00:16	3308.5 M	0.6 M
RT	TLD_MCFL_CNL_XPT_061LTP	FN:86	PRODUCER	28–Jul–2006 00:18	3308.5 M	0.6 M

XPT Oil Pressure Curve (HOILP)
0 (PSIA) 4000

Hydrostatic Pressure (CP_HYD)
0 (PSIA) 10000

Sapphire Manometer Temperature (MTEP_SAP)
0 (DEGC) 150

Sapphire Pressure (CP_SAP)
0 (PSIA) 10000

PRETEST_VOLUME From XPT_7 to XPT_PTV_CURVE

XPT Pretest Volume Curve (PTV_XPT)
0 (C3) 50

XPT

Motor Speed Curve (MSPE_XPT) (RPM) 0 5000

CQG Pressure (QCP) 0 (PSIA) 10000

Sapphire Zoomed Pressure (CP_SAP) 0 (PSIA) 1000

Sapphire Zoomed Pressure (CP_SAP) 0 (PSIA) 100

Sapphire Zoomed Pressure (CP_SAP) 0 (PSIA) 10

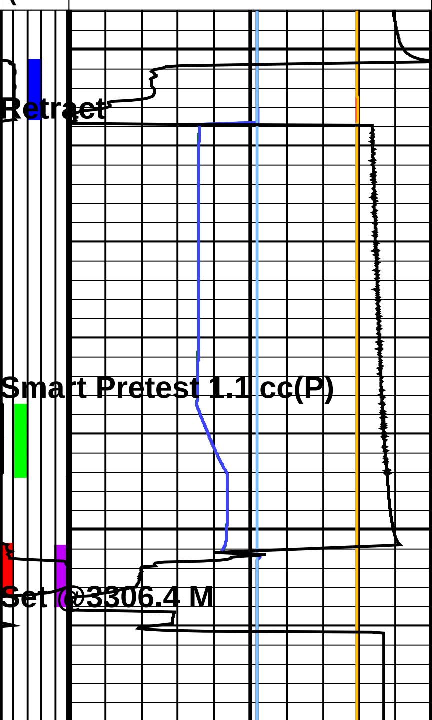
XPT Actions Image (AIMG) (----

CQG Temperature (MTEP_QG) 0 (DEGC) 150

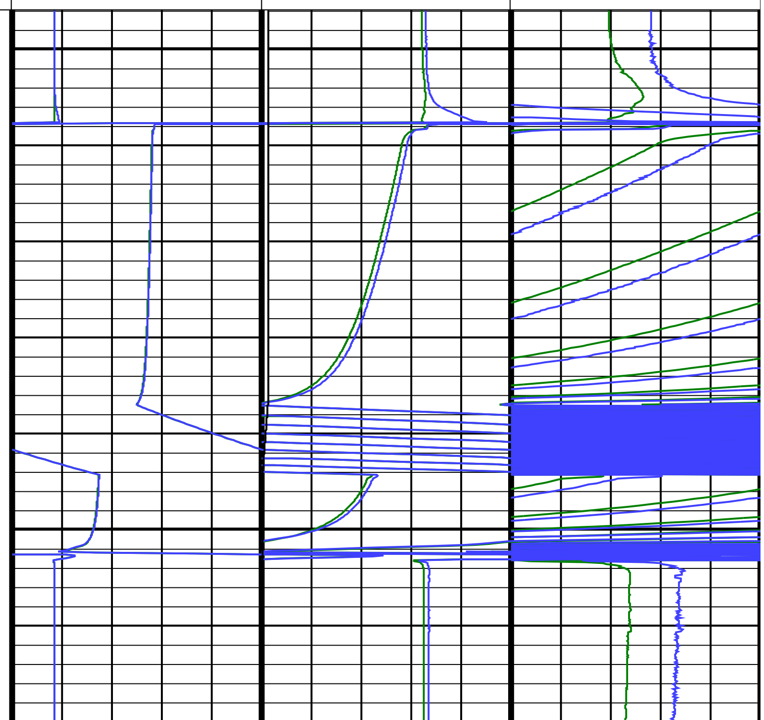
CQG Zoomed Pressure (QCP) 0 (PSIA) 1000

CQG Zoomed Pressure (QCP) 0 (PSIA) 100

CQG Zoomed Pressure (QCP) 0 (PSIA) 10



XPT Time Log (ETIM_XPT) (S)	CQG Pressure (QCP) (PSIA)	Sapphire Pressure (CP_SAP) (PSIA)
00:03:40	5163.89	5165.56
00:03:30	5164.10	5165.61
00:03:20	5165.08	5166.51
00:03:10	5163.84	5182.58
00:03:00	3555.29	3557.49
00:02:50	3552.52	3554.75
00:02:40	3549.56	3551.80
00:02:30	3546.42	3548.71
00:02:20	3543.00	3545.32
00:02:10	3538.78	3541.11
00:02:00	3533.37	3535.82
00:01:50	3524.87	3527.41
00:01:40	3519.69	3520.46
00:01:30	3868.68	3868.97
00:01:20	4286.92	4288.34
00:01:10	4335.75	4338.01
00:01:00	4313.30	4313.82
00:00:50	5164.31	5166.36
00:00:40	5164.70	5166.70
00:00:30	5164.78	5166.79
00:00:20	5164.63	5166.62
00:00:10	5164.58	5166.52
00:00:00	5164.53	5166.37



XPT Actions Image (AIMG) (----

CQG Temperature (MTEP_QG) 0 (DEGC) 150

XPT Time Log (ETIM_XPT) (S)

CQG Pressure (QCP) (PSIA)

Sapphire Pressure (CP_SAP) (PSIA)

CQG Zoomed Pressure (QCP) 0 (PSIA) 1000

CQG Zoomed Pressure (QCP) 0 (PSIA) 100

CQG Zoomed Pressure (QCP) 0 (PSIA) 10

XPT Motor Speed Curve (MSPE_XPT) (RPM) 0 5000

CQG Pressure (QCP) 0 (PSIA) 10000

Sapphire Zoomed Pressure (CP_SAP) 0 (PSIA) 1000

Sapphire Zoomed Pressure (CP_SAP) 0 (PSIA) 100

Sapphire Zoomed Pressure (CP_SAP) 0 (PSIA) 10

Sapphire Pressure (CP_SAP) 0 (PSIA) 10000

XPT Pretest Volume Curve (PTV_XPT) 0 (C3) 50

Sapphire Manometer Temperature (MTEP_SAP)		
0	(DEGC)	150
Hydrostatic Pressure (CP_HYD)		
0	(PSIA)	10000
XPT Oil Pressure Curve (HOILP)		
0	(PSIA)	4000

PRETEST_VOLUME From XPT_7 to XPT_PTV_CURVE

XPT Actions Image

WHITE: No Action / COLORED: Action in progress
Left to right:

1. Set (Red)
2. Pretest (Green)
3. Retract (Blue)
4. Init Pretest (Orange)
5. ACom Calibration (Purple)

XPT Dynamic Compensation Status

Quartz Gauge Pressure compensated and corrected
Sapphire Gauge Pressure compensated and corrected
Hydrostatic Sapphire Gauge Pressure compensated and corrected

Parameters

DLIS Name	Description	Value	
	XPT−BA: Xpress Pressure Tool − BA		
BTA_HYD	Hydrostatic Gauge Board Temperature A Coefficient	1.00431	
BTA_SAP	Sapphire Board Temperature A Coefficient	1.02084	
BTB_HYD	Hydrostatic Gauge Board Temperature B Coefficient	0	
BTB_SAP	Sapphire Board Temperature B Coefficient	0	
BTCT_HYD	Hydrostatic Gauge Board Temperature Coefficients Read From Data Channels	YES	
BTCT_SAP	Sapphire Board Temperature Coefficients Read Fram Data Channels	YES	
DDPL_XPT	Pretest Drawdown Limit	3500	PSIA
DEVI_FL_CORR_XPT	Tool Deviation Angle	0	DEG
FLD_XPT	Flowline Density	1	G/C3
GDSV	Gauges Downhole Software Version	2.1	
GDYCO	Sapphire Dynamic Compensation Applied	YES	
PAC_SAP	Sapphire Gauge Pressure A Coefficient	0.999374	
PA_HYD	Hydrostatic Gauge Pressure A Coefficient	1.00847	
PBC_SAP	Sapphire Gauge Pressure B Coefficient	0	
PB_HYD	Hydrostatic Gauge Pressure B Coefficient	0	
PCT_HYD	Hydrostatic Gauge Pressure Coefficients Read From Data Channels	YES	
PCT_SAP	Sapphire Pressure Coefficients Read From Data Channels	YES	
PGSR	Pressure Gauges Sampling Rate	300	ms
PRSP	Pretest Rate	0.4	C3/S
PTM_XPT	Pretest Type	SMART	
PTVO_XPT	Pretest Volume	5	C3
QDYCO	CQG Dynamic Compensation Applied	YES	
TAC_SAP	Sapphire Gauge Temperature A Coefficient	1.02267	
TA_HYD	Hydrostatic Gauge Temperature A Coefficient	0.999203	
TBC_SAP	Sapphire Gauge Temperature B Coefficient	0	
TB_HYD	Hydrostatic Gauge Temperature B Coefficient	0	
TCT_HYD	Hydrostatic Gauge Temperature Coefficients Read >From Data Channels	YES	
TCT_SAP	Sapphire Temperature Coefficients Read From Data Channels	YES	

Output DLIS Files

DEFAULT	TLD_MCFL_CNL_XPT_061LTP	FN:85	PRODUCER	28−Jul−2006 00:16
RT	TLD_MCFL_CNL_XPT_061LTP	FN:86	PRODUCER	28−Jul−2006 00:18

Station Depth (MD)

Schlumberger

Station Depth (MD)
3304.0 m

MAXIS Field Log

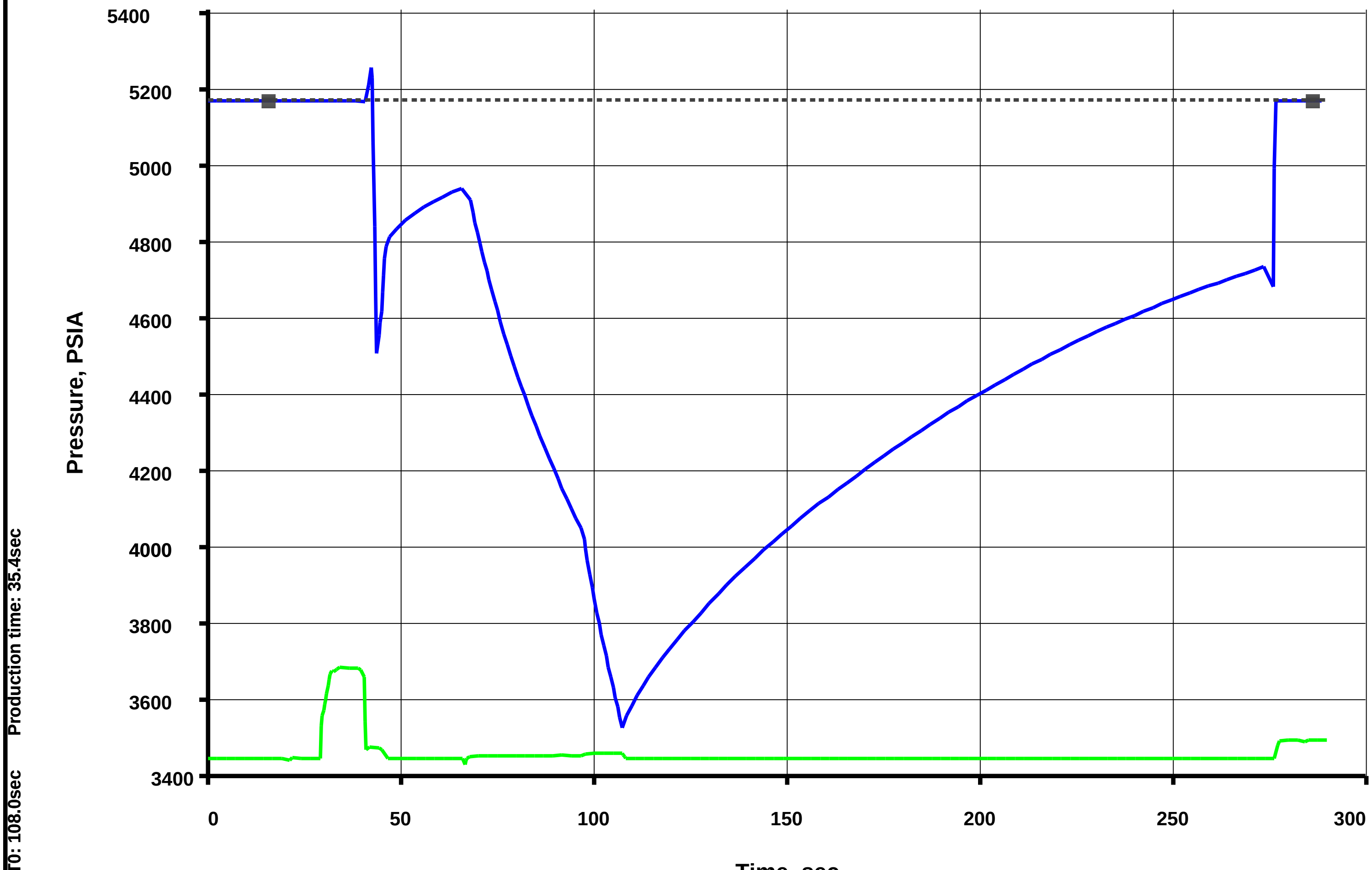
File 59 | Depth, M: 3303.96 | Lost Seal − Conventional probe

27−Jul−2006 | Nexus Energy

Longtom

Longtom−3

Mud Pressure before test, PSIA: 5161.66
Mud Pressure after test, PSIA: 5161.67



Mobility Based Flow Volume: 2.2 cc

Total Pretest Volume: 2.4 cc − XPT−BA QCP Resolution: 0.010psi

Output DLIS Files

DEFAULT	TLD_MCFL_CNL_XPT_059LTP	FN:81	PRODUCER	28−Jul−2006 00:04	3306.0 M	0.8 M
RT	TLD_MCFL_CNL_XPT_059LTP	FN:82	PRODUCER	28−Jul−2006 00:06	3306.0 M	0.8 M

XPT Oil Pressure Curve (HOILP)
0 (PSIA) 4000

Hydrostatic Pressure (CP_HYD)
0 (PSIA) 10000

Sapphire Manometer Temperature (MTEP_SAP)
0 (DEGC) 150

Sapphire Pressure (CP_SAP)

PRETEST_VOLUME From XPT_7 to XPT_PTV_CURVE

XPT Pretest Volume Curve (PTV_XPT)

	0 (PSIA) 10000		Curve (PTV_XPT) 0 (C3) 50

XPT Motor Speed Curve (MSPE_XPT) (RPM) 0 5000

CQG Pressure (QCP) 0 (PSIA) 10000

Sapphire Zoomed Pressure (CP_SAP) 0 (PSIA) 1000

Sapphire Zoomed Pressure (CP_SAP) 0 (PSIA) 100

Sapphire Zoomed Pressure (CP_SAP) 0 (PSIA) 10

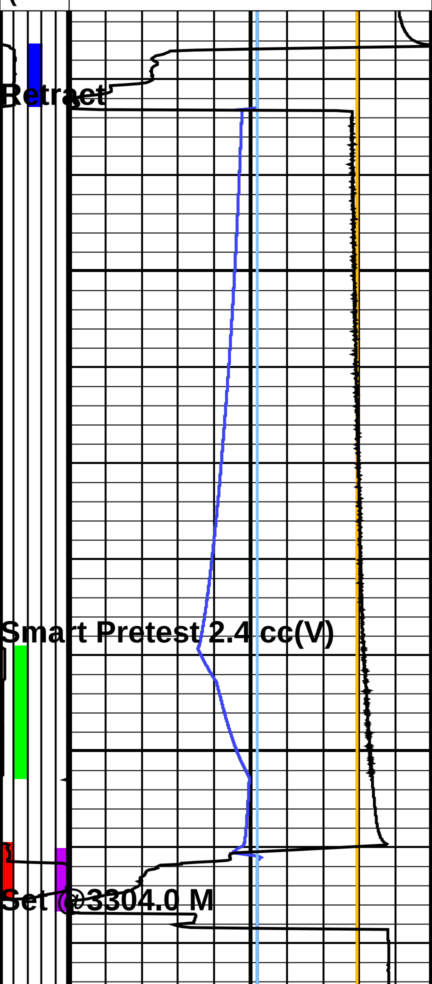
XPT Actions Image (AIMG) (----

CQG Temperature (MTEP_QG) 0 (DEGC) 150

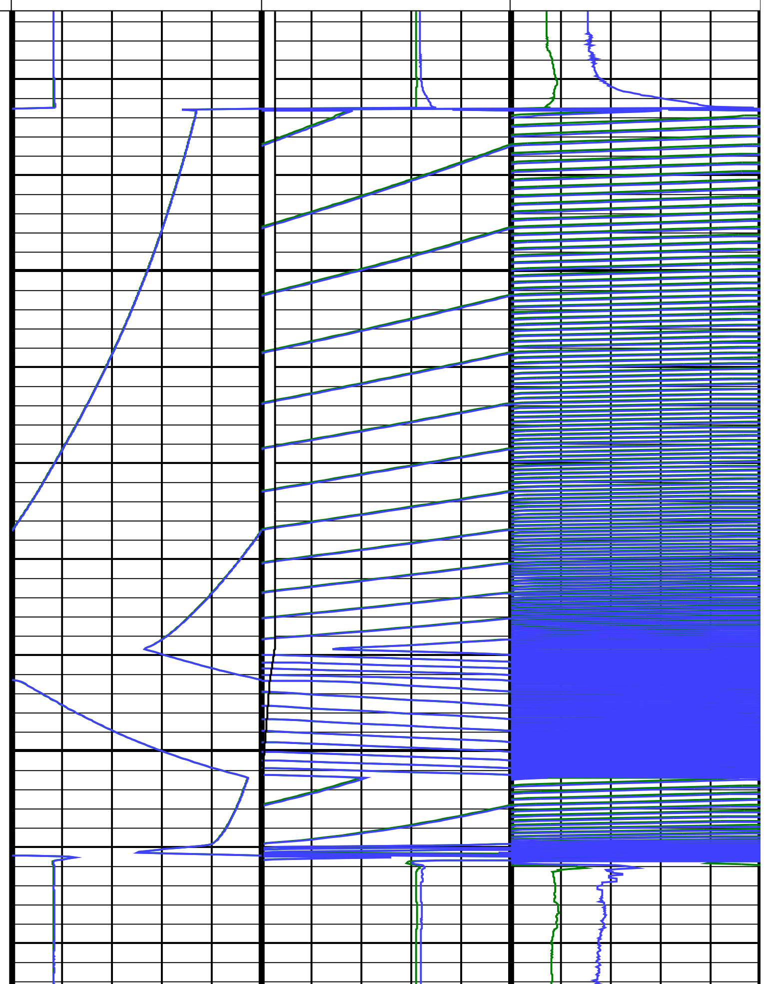
CQG Zoomed Pressure (QCP) 0 (PSIA) 1000

CQG Zoomed Pressure (QCP) 0 (PSIA) 100

CQG Zoomed Pressure (QCP) 0 (PSIA) 10



XPT Time Log (ETIM_XPT) (S)	CQG Pressure (QCP) (PSIA)	Sapphire Pressure (CP_SAP) (PSIA)
00:05:00	5161.37	5163.00
00:04:50	5161.64	5163.27
00:04:40	5161.70	5165.72
00:04:30	4715.07	4717.15
00:04:20	4680.22	4682.22
00:04:10	4643.00	4644.96
00:04:00	4600.94	4603.12
00:03:50	4556.58	4558.70
00:03:40	4508.07	4510.42
00:03:30	4453.54	4455.61
00:03:20	4397.03	4399.18
00:03:10	4335.36	4337.51
00:03:00	4267.48	4269.73
00:02:50	4196.15	4198.42
00:02:40	4122.49	4124.85
00:02:30	4040.82	4043.31
00:02:20	3950.89	3953.40
00:02:10	3851.10	3853.70
00:02:00	3732.07	3734.96
00:01:50	3583.44	3585.46
00:01:40	3877.72	3877.82
00:01:30	4193.33	4194.32
00:01:20	4459.07	4459.59
00:01:10	4819.10	4819.98
00:01:00	4906.09	4908.37
00:00:50	4836.86	4839.49
00:00:40	5162.02	5164.20
00:00:30	5161.72	5163.58
00:00:20	5161.68	5163.55
00:00:10	5161.59	5163.40
00:00:00	5161.53	5163.37



XPT Actions Image (AIMG) (----

CQG Temperature (MTEP_QG) 0 (DEGC) 150

XPT Time Log (ETIM_XPT) (S)	CQG Pressure (QCP) (PSIA)	Sapphire Pressure (CP_SAP) (PSIA)

CQG Zoomed Pressure (QCP) 0 (PSIA) 1000

CQG Zoomed Pressure (QCP) 0 (PSIA) 100

CQG Zoomed Pressure (QCP) 0 (PSIA) 10

XPT Motor Spee

d Curve (MSPE_XPT) (RPM) 0 5000	CQG Pressure (QCP) 0 (PSIA) 10000		Sapphire Zoomed Pressure (CP_SAP) 0 (PSIA) 1000	Sapphire Zoomed Pressure (CP_SAP) 0 (PSIA) 100	Sapphire Zoomed Pressure (CP_SAP) 0 (PSIA) 10
	Sapphire Pressure (CP_SAP) 0 (PSIA) 10000			XPT Pretest Volume Curve (PTV_XPT) 0 (C3) 50	
	Sapphire Manometer Temperature (MTEP_SAP) 0 (DEGC) 150			PRETEST_ VOLUME From XPT_7 to XPT_PTV_CURVE	
	Hydrostatic Pressure (CP_HYD) 0 (PSIA) 10000				
	XPT Oil Pressure Curve (HOILP) 0 (PSIA) 4000				

XPT Actions Image

WHITE: No Action / COLORED: Action in progress
Left to right:

1. Set (Red)
2. Pretest (Green)
3. Retract (Blue)
4. Init Pretest (Orange)
5. ACom Calibration (Purple)

XPT Dynamic Compensation Status

Quartz Gauge Pressure compensated and corrected
Sapphire Gauge Pressure compensated and corrected
Hydrostatic Sapphire Gauge Pressure compensated and corrected

Parameters

DLIS Name	Description	Value	
XPT−BA: Xpress Pressure Tool − BA			
BTA_HYD	Hydrostatic Gauge Board Temperature A Coefficient	1.00431	
BTA_SAP	Sapphire Board Temperature A Coefficient	1.02084	
BTB_HYD	Hydrostatic Gauge Board Temperature B Coefficient	0	
BTB_SAP	Sapphire Board Temperature B Coefficient	0	
BTCT_HYD	Hydrostatic Gauge Board Temperature Coefficients Read From Data Channels	YES	
BTCT_SAP	Sapphire Board Temperature Coefficients Read Fram Data Channels	YES	
DDPL_XPT	Pretest Drawdown Limit	3500	PSIA
DEVI_FL_CORR_XPT	Tool Deviation Angle	0	DEG
FLD_XPT	Flowline Density	1	G/C3
GDSV	Gauges Downhole Software Version	2.1	
GDYCO	Sapphire Dynamic Compensation Applied	YES	
PAC_SAP	Sapphire Gauge Pressure A Coefficient	0.999375	
PA_HYD	Hydrostatic Gauge Pressure A Coefficient	1.00847	
PBC_SAP	Sapphire Gauge Pressure B Coefficient	0	
PB_HYD	Hydrostatic Gauge Pressure B Coefficient	0	
PCT_HYD	Hydrostatic Gauge Pressure Coefficients Read From Data Channels	YES	
PCT_SAP	Sapphire Pressure Coefficients Read From Data Channels	YES	
PGSR	Pressure Gauges Sampling Rate	300	ms
PRSP	Pretest Rate	0.4	C3/S
PTM_XPT	Pretest Type	SMART	
PTVO_XPT	Pretest Volume	5	C3
QDYCO	CQG Dynamic Compensation Applied	YES	
TAC_SAP	Sapphire Gauge Temperature A Coefficient	1.02267	
TA_HYD	Hydrostatic Gauge Temperature A Coefficient	0.99921	
TBC_SAP	Sapphire Gauge Temperature B Coefficient	0	
TB_HYD	Hydrostatic Gauge Temperature B Coefficient	0	

TCT_HYD	Hydrostatic Gauge Temperature Coefficients Read >From Data Channels	YES
TCT_SAP	Sapphire Temperature Coefficients Read From Data Channels	YES

Output DLIS Files

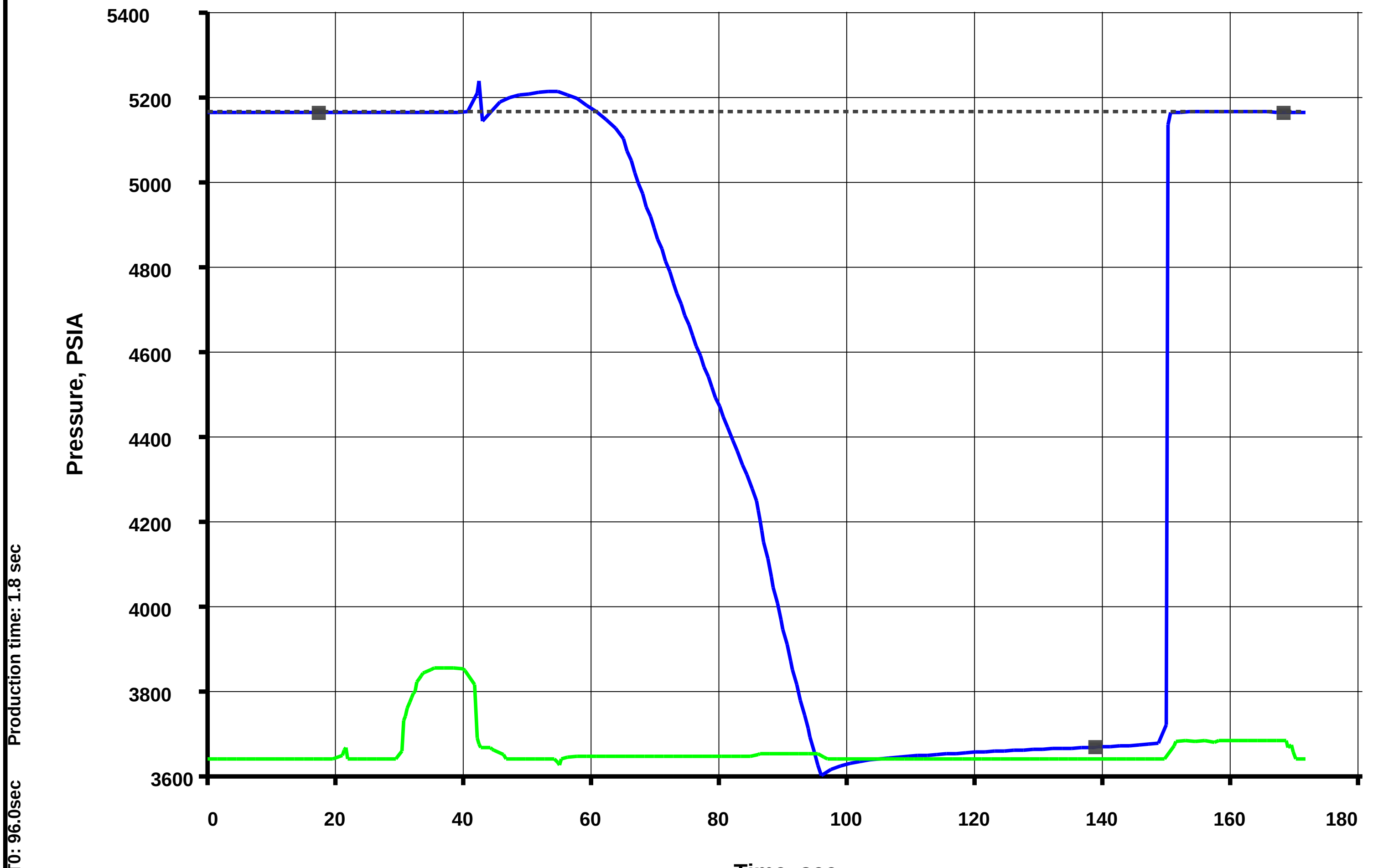
DEFAULT	TLD_MCFL_CNL_XPT_059LTP	FN:81	PRODUCER	28−Jul−2006 00:04
RT	TLD_MCFL_CNL_XPT_059LTP	FN:82	PRODUCER	28−Jul−2006 00:06

Schlumberger

Station Depth (MD)
3305.5 m

MAXIS Field Log

File 58	Depth, M: 3305.49	Dry Test − Conventional probe	
27−Jul−2006	Nexus Energy	Mud Pressure before test, PSIA:	5162.29
	Longtom	Mud Pressure after test, PSIA:	5163.21
	Longtom−3	Last build−up pressure, PSIA:	3670.47



Mobility Based Flow Volume: 0.2 cc

Total Pretest Volume: 2.4 cc − XPT−BA QCP Resolution: 0.010psi

Output DLIS Files

DEFAULT	TLD_MCFL_CNL_XPT_058LTP	FN:79	PRODUCER	27−Jul−2006 23:57	3307.5 M	0.5 M
RT	TLD_MCFL_CNL_XPT_058LTP	FN:80	PRODUCER	27−Jul−2006 23:59	3307.5 M	0.5 M

XPT Oil Pressure Curve (HOILP)

0 (PSIA) 4000

0 (PSIA) 4000

Hydrostatic Pressure (CP_HYD)
0 (PSIA) 10000

Sapphire Manometer Temperature (MTEP_SAP)
0 (DEGC) 150

Sapphire Pressure (CP_SAP)
0 (PSIA) 10000

PRETEST_VOLUME From XPT_7 to XPT_PTV_CURVE

XPT Pretest Volume Curve (PTV_XPT)
0 (C3) 50

XPT Motor Speed Curve (MSPE_XPT) (RPM)
0 5000

CQG Pressure (QCP)
0 (PSIA) 10000

Sapphire Zoomed Pressure (CP_SAP)
0 (PSIA) 1000

Sapphire Zoomed Pressure (CP_SAP)
0 (PSIA) 100

Sapphire Zoomed Pressure (CP_SAP)
0 (PSIA) 10

XPT Actions Image (AIMG) (----

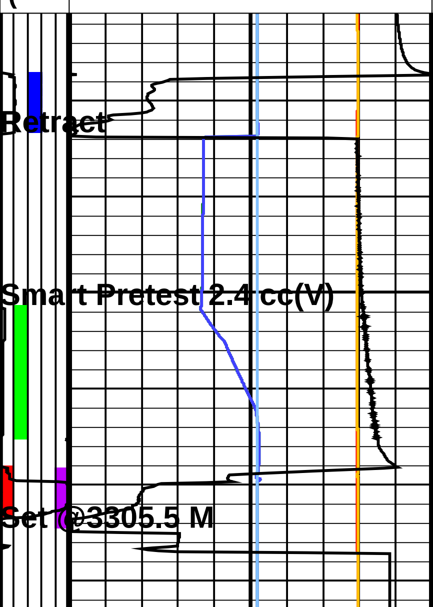
CQG Temperature (MTEP_QG)
0 (DEGC) 150

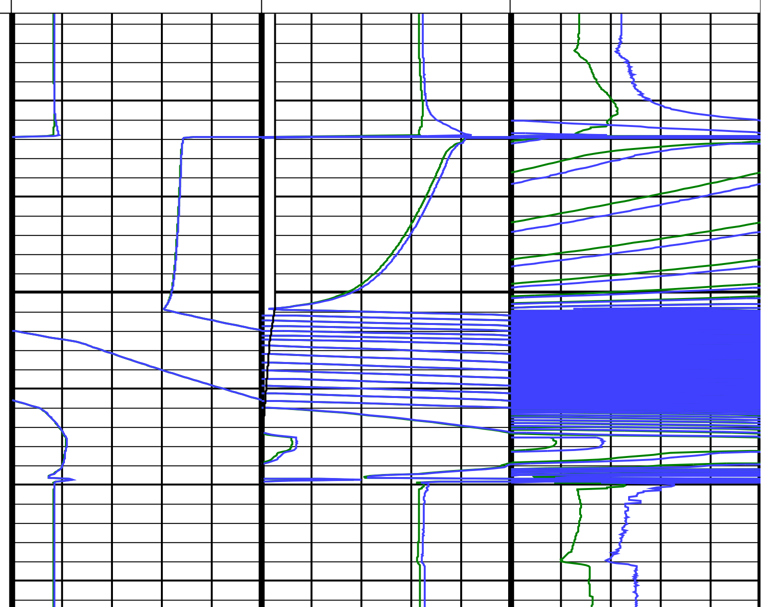
XPT Time Log (ETIM_XPT) (S)	CQG Pressure (QCP) (PSIA)	Sapphire Pressure (CP_SAP) (PSIA)
00:03:00	5162.67	5164.31
00:02:50	5163.20	5164.70
00:02:40	5164.11	5165.73
00:02:30	5163.08	5183.82
00:02:20	3670.83	3672.94
00:02:10	3664.85	3667.06
00:02:00	3657.95	3660.18
00:01:50	3648.58	3650.88
00:01:40	3630.94	3632.90
00:01:30	3929.72	3929.02
00:01:20	4470.77	4471.16
00:01:10	4876.51	4876.73
00:01:00	5170.77	5172.25
00:00:50	5205.23	5207.30
00:00:40	5163.79	5165.81
00:00:30	5162.72	5164.57
00:00:20	5162.39	5164.23
00:00:10	5163.09	5164.94
00:00:00	5163.16	5164.95

CQG Zoomed Pressure (QCP)
0 (PSIA) 1000

CQG Zoomed Pressure (QCP)
0 (PSIA) 100

CQG Zoomed Pressure (QCP)
0 (PSIA) 10





XPT Actions Image (AIMG) (----

CQG Temperature (MTEP_QG)
0 (DEGC) 150

XPT Time Log (ETIM_XPT) (S)

CQG Pressure (QCP) (PSIA)

Sapphire Pressure (CP_SAP) (PSIA)

CQG Zoomed Pressure (QCP)
0 (PSIA) 1000

CQG Zoomed Pressure (QCP)
0 (PSIA) 100

CQG Zoomed Pressure (QCP)
0 (PSIA) 10

XPT Motor Speed

Curve (MSPE_XPT) (RPM) 0 5000

CQG Pressure (QCP)
0 (PSIA) 10000

Sapphire Pressure (CP_SAP)
0 (PSIA) 10000

Sapphire Manometer Temperature (MTEP_SAP)
0 (DEGC) 150

Hydrostatic Pressure (CP_HYD)
0 (PSIA) 10000

XPT Oil Pressure Curve (HOILP)
0 (PSIA) 4000

Sapphire Zoomed Pressure (CP_SAP)
0 (PSIA) 1000

Sapphire Zoomed Pressure (CP_SAP)
0 (PSIA) 100

Sapphire Zoomed Pressure (CP_SAP)
0 (PSIA) 10

XPT Pretest Volume Curve (PTV_XPT)
0 (C3) 50

PRETEST_VOLUME From XPT_7 to XPT_PTV_CURVE

XPT Actions Image

WHITE: No Action / COLORED: Action in progress
Left to right:

1. Set (Red)
2. Pretest (Green)
3. Retract (Blue)
4. Init Pretest (Orange)
5. ACom Calibration (Purple)

XPT Dynamic Compensation Status

Quartz Gauge Pressure compensated and corrected
Sapphire Gauge Pressure compensated and corrected
Hydrostatic Sapphire Gauge Pressure compensated and corrected

Parameters

DLIS Name	Description	Value	
XPT−BA: Xpress Pressure Tool − BA			
BTA_HYD	Hydrostatic Gauge Board Temperature A Coefficient	1.00431	
BTA_SAP	Sapphire Board Temperature A Coefficient	1.02084	
BTB_HYD	Hydrostatic Gauge Board Temperature B Coefficient	0	
BTB_SAP	Sapphire Board Temperature B Coefficient	0	
BTCT_HYD	Hydrostatic Gauge Board Temperature Coefficients Read From Data Channels	YES	
BTCT_SAP	Sapphire Board Temperature Coefficients Read Fram Data Channels	YES	
DDPL_XPT	Pretest Drawdown Limit	3500	PSIA
DEVI_FL_CORR_XPT	Tool Deviation Angle	0	DEG
FLD_XPT	Flowline Density	1	G/C3
GDSV	Gauges Downhole Software Version	2.1	
GDYCO	Sapphire Dynamic Compensation Applied	YES	
PAC_SAP	Sapphire Gauge Pressure A Coefficient	0.999374	
PA_HYD	Hydrostatic Gauge Pressure A Coefficient	1.00847	
PBC_SAP	Sapphire Gauge Pressure B Coefficient	0	
PB_HYD	Hydrostatic Gauge Pressure B Coefficient	0	
PCT_HYD	Hydrostatic Gauge Pressure Coefficients Read From Data Channels	YES	
PCT_SAP	Sapphire Pressure Coefficients Read From Data Channels	YES	
PGSR	Pressure Gauges Sampling Rate	300	ms
PRSP	Pretest Rate	0.4	C3/S
PTM_XPT	Pretest Type	SMART	
PTVO_XPT	Pretest Volume	5	C3
QDYCO	CQG Dynamic Compensation Applied	YES	
TAC_SAP	Sapphire Gauge Temperature A Coefficient	1.02267	
TA_HYD	Hydrostatic Gauge Temperature A Coefficient	0.999209	
TBC_SAP	Sapphire Gauge Temperature B Coefficient	0	
TB_HYD	Hydrostatic Gauge Temperature B Coefficient	0	
TCT_HYD	Hydrostatic Gauge Temperature Coefficients Read >From Data Channels		

TCT_HYD	Hydrostatic Gauge Temperature Coefficients Read From Data Channels	YES
TCT_SAP	Sapphire Temperature Coefficients Read From Data Channels	YES

Output DLIS Files

DEFAULT	TLD_MCFL_CNL_XPT_058LTP	FN:79	PRODUCER	27−Jul−2006 23:57
RT	TLD_MCFL_CNL_XPT_058LTP	FN:80	PRODUCER	27−Jul−2006 23:59

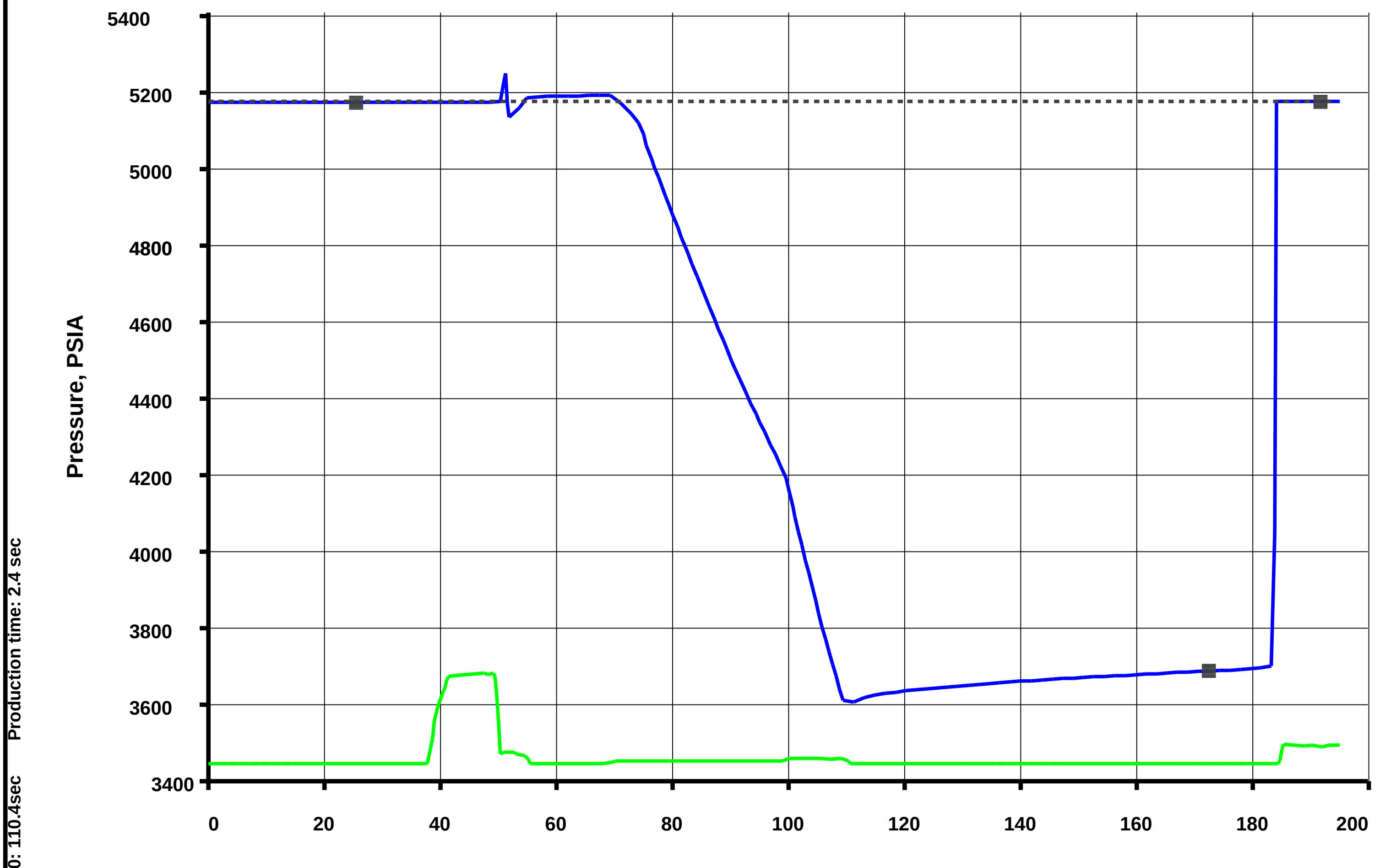
Schlumberger

Station Depth (MD)
3309.0 m

MAXIS Field Log

File 57	Depth, M: 3308.95	Dry Test − Conventional probe
27−Jul−2006	Nexus Energy	
	Longtom	
	Longtom−3	

Mud Pressure before test, PSIA:	5166.5
Mud Pressure after test, PSIA:	5168.26
Last build−up pressure, PSIA:	3688.17



Mobility Based Flow Volume: 0.2 cc

Total Pretest Volume: 2.5 cc − XPT−BA QCP Resolution: 0.010psi

Output DLIS Files

DEFAULT	TLD_MCFL_CNL_XPT_057LTP	FN:77	PRODUCER	27−Jul−2006 23:49	3311.0 M	0.5 M
RT	TLD_MCFL_CNL_XPT_057LTP	FN:78	PRODUCER	27−Jul−2006 23:51	3311.0 M	0.5 M

XPT Oil Pressure Curve (HOILP)		
0	(PSIA)	4000

Hydrostatic Pressure (CP_HYD) 0 (PSIA) 10000

Sapphire Manometer Temperature (MTEP_SAP) 0 (DEGC) 150

Sapphire Pressure (CP_SAP) 0 (PSIA) 10000

PRETEST_VOLUME From XPT_7 to XPT_PTV_CURVE

XPT Pretest Volume Curve (PTV_XPT) 0 (C3) 50

XPT Motor Speed Curve (MSPE_XPT) (RPM) 0 5000

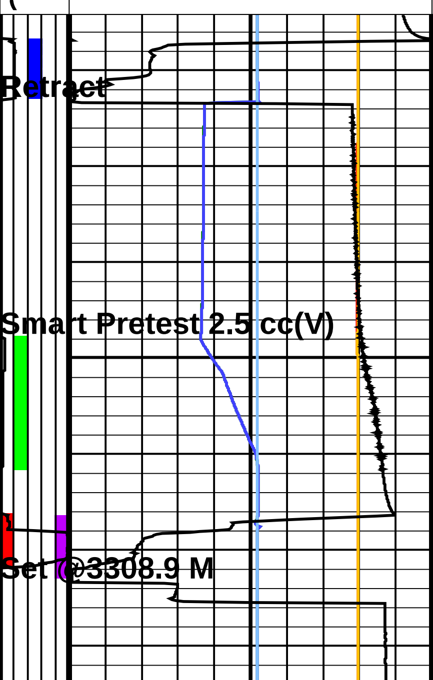
CQG Pressure (QCP) 0 (PSIA) 10000

Sapphire Zoomed Pressure (CP_SAP) 0 (PSIA) 1000 | Sapphire Zoomed Pressure (CP_SAP) 0 (PSIA) 100 | Sapphire Zoomed Pressure (CP_SAP) 0 (PSIA) 10

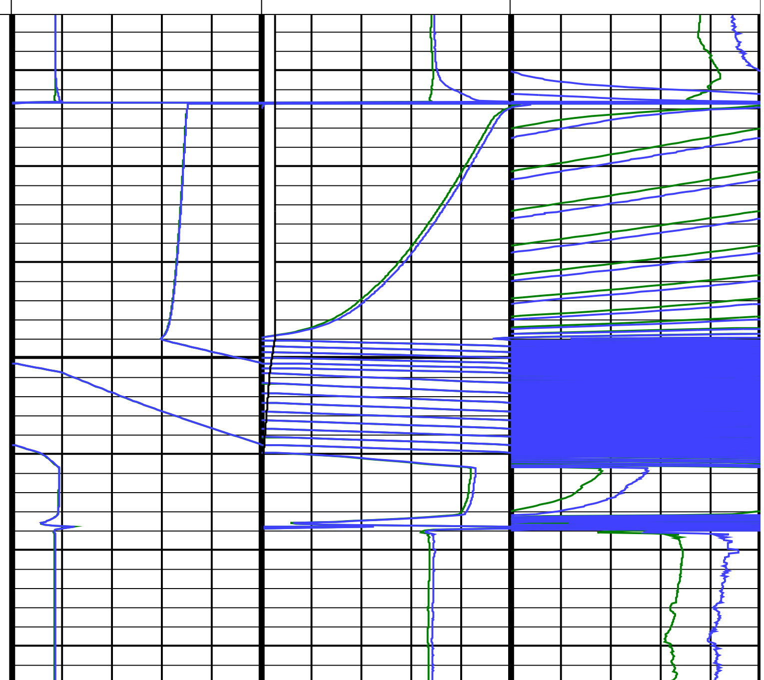
XPT Actions Image (AIMG) (----

CQG Temperature (MTEP_QG) 0 (DEGC) 150

CQG Zoomed Pressure (QCP) 0 (PSIA) 1000 | CQG Zoomed Pressure (QCP) 0 (PSIA) 100 | CQG Zoomed Pressure (QCP) 0 (PSIA) 10



XPT Time Log (ETIM_XPT) (S)	CQG Pressure (QCP) (PSIA)	Sapphire Pressure (CP_SAP) (PSIA)
00:03:20	5167.86	5169.30
00:03:10	5168.00	5172.61
00:03:00	3693.21	3695.01
00:02:50	3685.55	3687.66
00:02:40	3677.95	3679.96
00:02:30	3669.62	3671.80
00:02:20	3660.54	3662.76
00:02:10	3649.82	3652.11
00:02:00	3635.36	3637.59
00:01:50	3598.45	3597.97
00:01:40	4171.43	4172.01
00:01:30	4505.38	4505.86
00:01:20	4886.32	4886.68
00:01:10	5181.78	5183.57
00:01:00	5182.01	5183.82
00:00:50	5163.73	5165.40
00:00:40	5166.81	5168.62
00:00:30	5166.62	5168.41
00:00:20	5166.36	5168.15
00:00:10	5166.46	5168.23
00:00:00	5166.63	5168.39



XPT Actions Image (AIMG) (----

CQG Temperature (MTEP_QG) 0 (DEGC) 150

XPT Time Log (ETIM_XPT) (S) | CQG Pressure (QCP) (PSIA) | Sapphire Pressure (CP_SAP) (PSIA)

CQG Zoomed Pressure (QCP) 0 (PSIA) 1000 | CQG Zoomed Pressure (QCP) 0 (PSIA) 100 | CQG Zoomed Pressure (QCP) 0 (PSIA) 10

XPT Motor

Speed Curve (MSPE_XPT) (RPM) 0 5000	CQG Pressure (QCP) 0 (PSIA) 10000		Sapphire Zoomed Pressure (CP_SAP) 0 (PSIA) 1000	Sapphire Zoomed Pressure (CP_SAP) 0 (PSIA) 100	Sapphire Zoomed Pressure (CP_SAP) 0 (PSIA) 10
	Sapphire Pressure (CP_SAP) 0 (PSIA) 10000			XPT Pretest Volume Curve (PTV_XPT) 0 (C3) 50	
	Sapphire Manometer Temperature (MTEP_SAP) 0 (DEGC) 150			PRETEST_ VOLUME From XPT_7 to XPT_PTV_CURVE	
	Hydrostatic Pressure (CP_HYD) 0 (PSIA) 10000				
	XPT Oil Pressure Curve (HOILP) 0 (PSIA) 4000				

XPT Actions Image

WHITE: No Action / COLORED: Action in progress
Left to right:

1. Set (Red)
2. Pretest (Green)
3. Retract (Blue)
4. Init Pretest (Orange)
5. ACom Calibration (Purple)

XPT Dynamic Compensation Status

Quartz Gauge Pressure compensated and corrected
Sapphire Gauge Pressure compensated and corrected
Hydrostatic Sapphire Gauge Pressure compensated and corrected

Parameters

DLIS Name	Description	Value	
	XPT−BA: Xpress Pressure Tool − BA		
BTA_HYD	Hydrostatic Gauge Board Temperature A Coefficient	1.00432	
BTA_SAP	Sapphire Board Temperature A Coefficient	1.02084	
BTB_HYD	Hydrostatic Gauge Board Temperature B Coefficient	0	
BTB_SAP	Sapphire Board Temperature B Coefficient	0	
BTCT_HYD	Hydrostatic Gauge Board Temperature Coefficients Read From Data Channels	YES	
BTCT_SAP	Sapphire Board Temperature Coefficients Read Fram Data Channels	YES	
DDPL_XPT	Pretest Drawdown Limit	3500	PSIA
DEVI_FL_CORR_XPT	Tool Deviation Angle	0	DEG
FLD_XPT	Flowline Density	1	G/C3
GDSV	Gauges Downhole Software Version	2.1	
GDYCO	Sapphire Dynamic Compensation Applied	YES	
PAC_SAP	Sapphire Gauge Pressure A Coefficient	0.999375	
PA_HYD	Hydrostatic Gauge Pressure A Coefficient	1.00848	
PBC_SAP	Sapphire Gauge Pressure B Coefficient	0	
PB_HYD	Hydrostatic Gauge Pressure B Coefficient	0	
PCT_HYD	Hydrostatic Gauge Pressure Coefficients Read From Data Channels	YES	
PCT_SAP	Sapphire Pressure Coefficients Read From Data Channels	YES	
PGSR	Pressure Gauges Sampling Rate	300	ms
PRSP	Pretest Rate	0.4	C3/S
PTM_XPT	Pretest Type	SMART	
PTVO_XPT	Pretest Volume	5	C3
QDYCO	CQG Dynamic Compensation Applied	YES	
TAC_SAP	Sapphire Gauge Temperature A Coefficient	1.02267	
TA_HYD	Hydrostatic Gauge Temperature A Coefficient	0.999206	
TBC_SAP	Sapphire Gauge Temperature B Coefficient	0	

TBC_SAP	Sapphire Gauge Temperature B Coefficient	0
TB_HYD	Hydrostatic Gauge Temperature B Coefficient	0
TCT_HYD	Hydrostatic Gauge Temperature Coefficients Read >From Data Channels	YES
TCT_SAP	Sapphire Temperature Coefficients Read From Data Channels	YES

Output DLIS Files

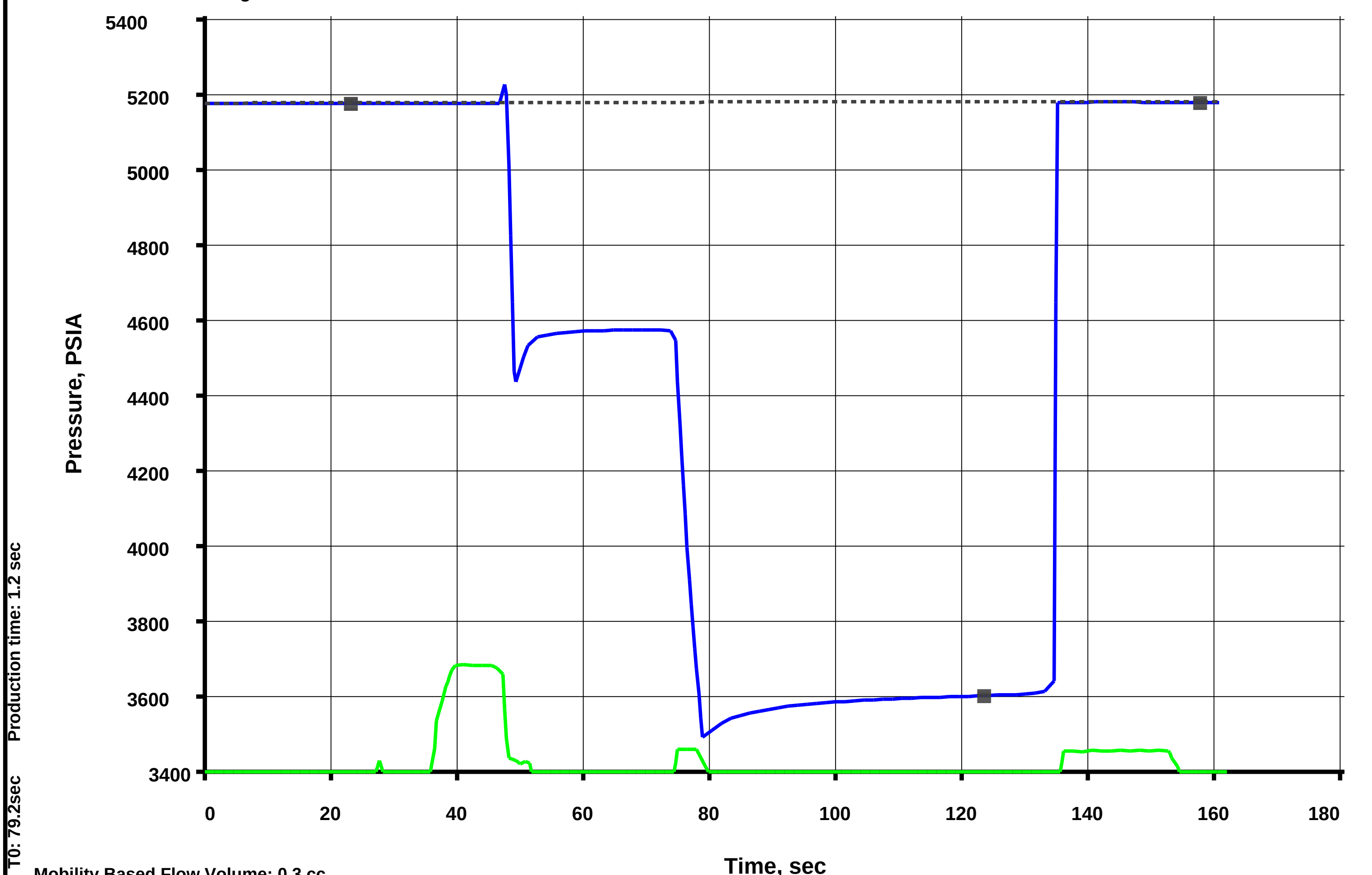
DEFAULT	TLD_MCFL_CNL_XPT_057LTP	FN:77	PRODUCER	27−Jul−2006 23:49
RT	TLD_MCFL_CNL_XPT_057LTP	FN:78	PRODUCER	27−Jul−2006 23:51

Schlumberger

Station Depth (MD)
3312.0 m

MAXIS Field Log

File 56	Depth, M: 3312.00	Dry Test − Conventional probe	
27−Jul−2006	Nexus Energy	Mud Pressure before test, PSIA:	5168.27
	Longtom	Mud Pressure after test, PSIA:	5170.75
	Longtom−3	Last build−up pressure, PSIA:	3602.91



Mobility Based Flow Volume: 0.3 cc

Total Pretest Volume: 1.8 cc − XPT−BA QCP Resolution: 0.010psi

Output DLIS Files

DEFAULT	TLD_MCFL_CNL_XPT_056LTP	FN:75	PRODUCER	27−Jul−2006 23:43	3314.0 M	0.5 M
RT	TLD_MCFL_CNL_XPT_056LTP	FN:76	PRODUCER	27−Jul−2006 23:45	3314.0 M	0.5 M

XPT Oil Pressure Curve

(HOILP)
0 (PSIA) 4000

Hydrostatic Pressure (CP_HYD)
0 (PSIA) 10000

Sapphire Manometer Temperature (MTEP_SAP)
0 (DEGC) 150

Sapphire Pressure (CP_SAP)
0 (PSIA) 10000

PRETEST_VOLUME From XPT_7 to XPT_PTV_CURVE

XPT Pretest Volume Curve (PTV_XPT)
0 (C3) 50

XPT Motor Speed Curve (MSPE_XPT) (RPM) 0 5000

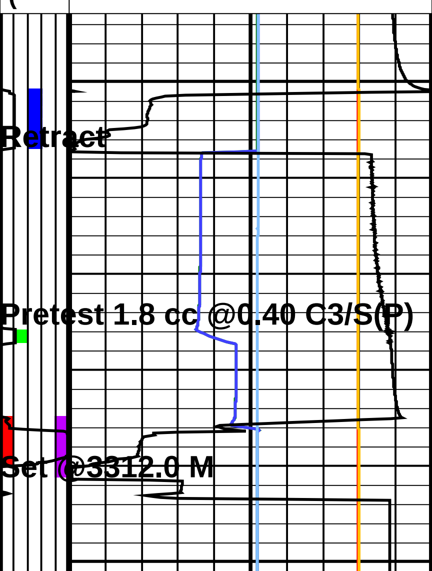
CQG Pressure (QCP)
0 (PSIA) 10000

Sapphire Zoomed Pressure (CP_SAP) 0 (PSIA) 1000 | Sapphire Zoomed Pressure (CP_SAP) 0 (PSIA) 100 | Sapphire Zoomed Pressure (CP_SAP) 0 (PSIA) 10

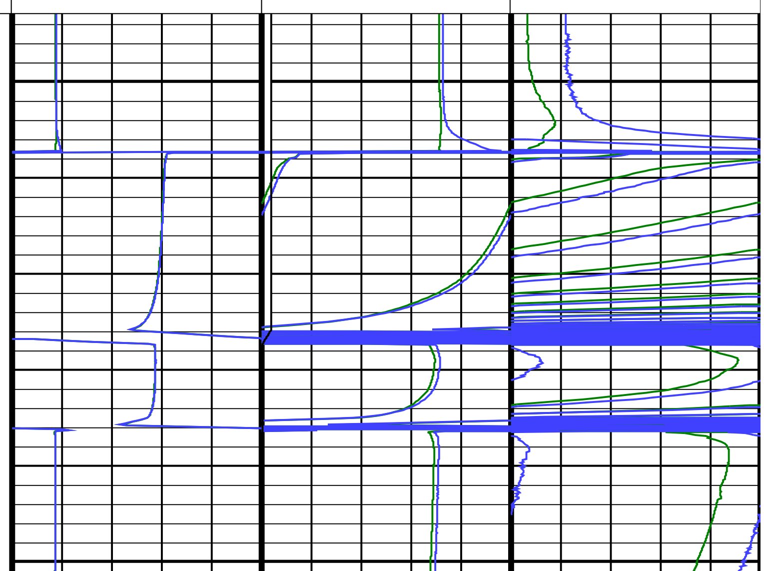
XPT Actions Image (AIMG) (----

CQG Temperature (MTEP_QG)
0 (DEGC) 150

CQG Zoomed Pressure (QCP) 0 (PSIA) 1000 | CQG Zoomed Pressure (QCP) 0 (PSIA) 100 | CQG Zoomed Pressure (QCP) 0 (PSIA) 10



XPT Time Log (ETIM_XPT) (S)	CQG Pressure (QCP) (PSIA)	Sapphire Pressure (CP_SAP) (PSIA)
00:02:50	5170.64	5172.22
00:02:40	5170.74	5172.21
00:02:30	5171.21	5172.54
00:02:20	5171.31	5177.01
00:02:10	3606.60	3608.37
00:02:00	3600.71	3602.71
00:01:50	3594.38	3596.53
00:01:40	3586.04	3588.29
00:01:30	3569.43	3572.00
00:01:20	3504.66	3501.04
00:01:10	4569.02	4571.13
00:01:00	4566.25	4568.42
00:00:50	4467.61	4462.83
00:00:40	5168.70	5170.59
00:00:30	5168.38	5170.28
00:00:20	5168.06	5169.93
00:00:10	5167.60	5169.47
00:00:00	5167.16	5168.85



XPT Actions Image (AIMG) (----

CQG Temperature (MTEP_QG)
0 (DEGC) 150

XPT Time Log (ETIM_XPT) (S) | CQG Pressure (QCP) (PSIA) | Sapphire Pressure (CP_SAP) (PSIA)

CQG Zoomed Pressure (QCP) 0 (PSIA) 1000 | CQG Zoomed Pressure (QCP) 0 (PSIA) 100 | CQG Zoomed Pressure (QCP) 0 (PSIA) 10

XPT Motor Speed

d Curve (MSPE_XPT) (RPM) 0 5000	CQG Pressure (QCP) 0 (PSIA) 10000	Sapphire Zoomed Pressure (CP_SAP) 0 (PSIA) 1000	Sapphire Zoomed Pressure (CP_SAP) 0 (PSIA) 100	Sapphire Zoomed Pressure (CP_SAP) 0 (PSIA) 10
	Sapphire Pressure (CP_SAP) 0 (PSIA) 10000		XPT Pretest Volume Curve (PTV_XPT) 0 (C3) 50	
	Sapphire Manometer Temperature (MTEP_SAP) 0 (DEGC) 150		PRETEST_ VOLUME From XPT_7 to XPT_PTV_CURVE	
	Hydrostatic Pressure (CP_HYD) 0 (PSIA) 10000			
	XPT Oil Pressure Curve (HOILP) 0 (PSIA) 4000			

XPT Actions Image

WHITE: No Action / COLORED: Action in progress
Left to right:

1. Set (Red)
2. Pretest (Green)
3. Retract (Blue)
4. Init Pretest (Orange)
5. ACom Calibration (Purple)

XPT Dynamic Compensation Status

Quartz Gauge Pressure compensated and corrected
Sapphire Gauge Pressure compensated and corrected
Hydrostatic Sapphire Gauge Pressure compensated and corrected

Parameters

DLIS Name	Description	Value	
	XPT−BA: Xpress Pressure Tool − BA		
BTA_HYD	Hydrostatic Gauge Board Temperature A Coefficient	1.00432	
BTA_SAP	Sapphire Board Temperature A Coefficient	1.02084	
BTB_HYD	Hydrostatic Gauge Board Temperature B Coefficient	0	
BTB_SAP	Sapphire Board Temperature B Coefficient	0	
BTCT_HYD	Hydrostatic Gauge Board Temperature Coefficients Read From Data Channels	YES	
BTCT_SAP	Sapphire Board Temperature Coefficients Read Fram Data Channels	YES	
DDPL_XPT	Pretest Drawdown Limit	3500	PSIA
DEVI_FL_CORR_XPT	Tool Deviation Angle	0	DEG
FLD_XPT	Flowline Density	1	G/C3
GDSV	Gauges Downhole Software Version	2.1	
GDYCO	Sapphire Dynamic Compensation Applied	YES	
PAC_SAP	Sapphire Gauge Pressure A Coefficient	0.999374	
PA_HYD	Hydrostatic Gauge Pressure A Coefficient	1.00848	
PBC_SAP	Sapphire Gauge Pressure B Coefficient	0	
PB_HYD	Hydrostatic Gauge Pressure B Coefficient	0	
PCT_HYD	Hydrostatic Gauge Pressure Coefficients Read From Data Channels	YES	
PCT_SAP	Sapphire Pressure Coefficients Read From Data Channels	YES	
PGSR	Pressure Gauges Sampling Rate	300	ms
PRSP	Pretest Rate	0.4	C3/S
PTM_XPT	Pretest Type	MANUAL	
PTVO_XPT	Pretest Volume	5	C3
QDYCO	CQG Dynamic Compensation Applied	YES	
TAC_SAP	Sapphire Gauge Temperature A Coefficient	1.02268	
TA_HYD	Hydrostatic Gauge Temperature A Coefficient	0.999205	
TBC_SAP	Sapphire Gauge Temperature B Coefficient	0	
TB_HYD	Hydrostatic Gauge Temperature B Coefficient	0	
TCT_HYD	Hydrostatic Gauge Temperature Coefficients Read >From Data Channels		

TCT_HYD	Hydrostatic Gauge Temperature Coefficients Read From Data Channels	YES
TCT_SAP	Sapphire Temperature Coefficients Read From Data Channels	YES

Output DLIS Files

DEFAULT	TLD_MCFL_CNL_XPT_056LTP	FN:75	PRODUCER	27−Jul−2006 23:43
RT	TLD_MCFL_CNL_XPT_056LTP	FN:76	PRODUCER	27−Jul−2006 23:45

Schlumberger

Station Depth (MD)
3381.0 m

MAXIS Field Log

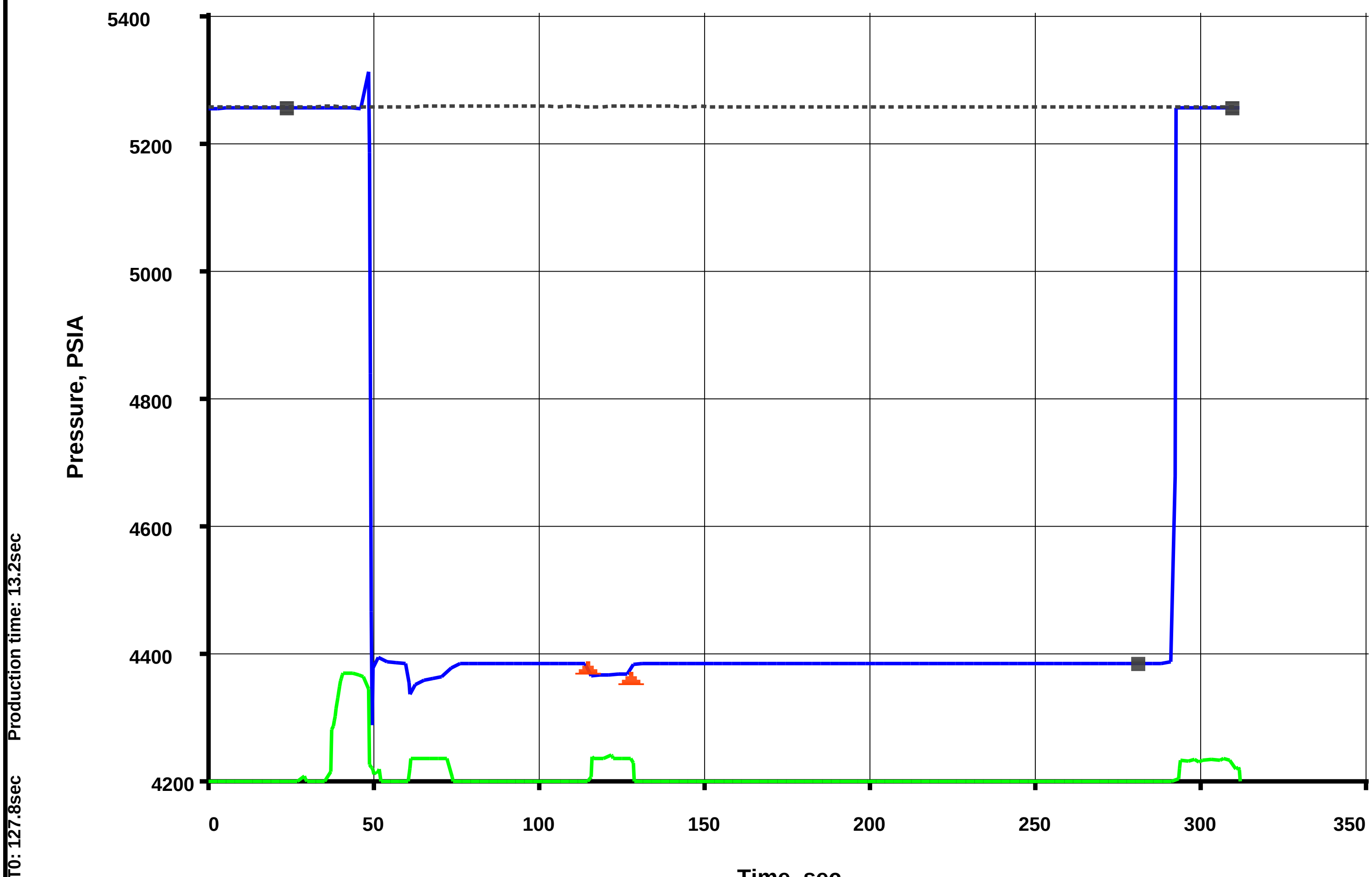
File 55 | Depth, M: 3380.95 | Volumetric Limited draw−down − Conventional probe

27−Jul−2006 | Nexus Energy

Longtom

Longtom−3

Mud Pressure before test, PSIA:	5251.11
Mud Pressure after test, PSIA:	5251.11
Last build−up pressure, PSIA:	4384.59
Draw−down mobility, md/cp:	121.3



Mobility Based Flow Volume: 5.0 cc

Total Pretest Volume: 5.0 cc − XPT−BA QCP Resolution: 0.010psi

Output DLIS Files

DEFAULT	TLD_MCFL_CNL_XPT_055LTP	FN:73	PRODUCER	27−Jul−2006 23:30	3383.0 M	0.8 M
RT	TLD_MCFL_CNL_XPT_055LTP	FN:74	PRODUCER	27−Jul−2006 23:32	3383.0 M	0.8 M

XPT Oil Pressure Curve (HOILP)		
0	(PSIA)	4000

Hydrostatic Pressure (CP_HYD) 0 (PSIA) 10000

Sapphire Manometer Temperature (MTEP_SAP) 0 (DEGC) 150

Sapphire Pressure (CP_SAP) 0 (PSIA) 10000

PRETEST_VOLUME From XPT_7 to XPT_PTV_CURVE

XPT Pretest Volume Curve (PTV_XPT) 0 (C3) 50

XPT Motor Speed Curve (MSPE_XPT) (RPM) 0 5000

CQG Pressure (QCP) 0 (PSIA) 10000

Sapphire Zoomed Pressure (CP_SAP) 0 (PSIA) 1000

Sapphire Zoomed Pressure (CP_SAP) 0 (PSIA) 100

Sapphire Zoomed Pressure (CP_SAP) 0 (PSIA) 10

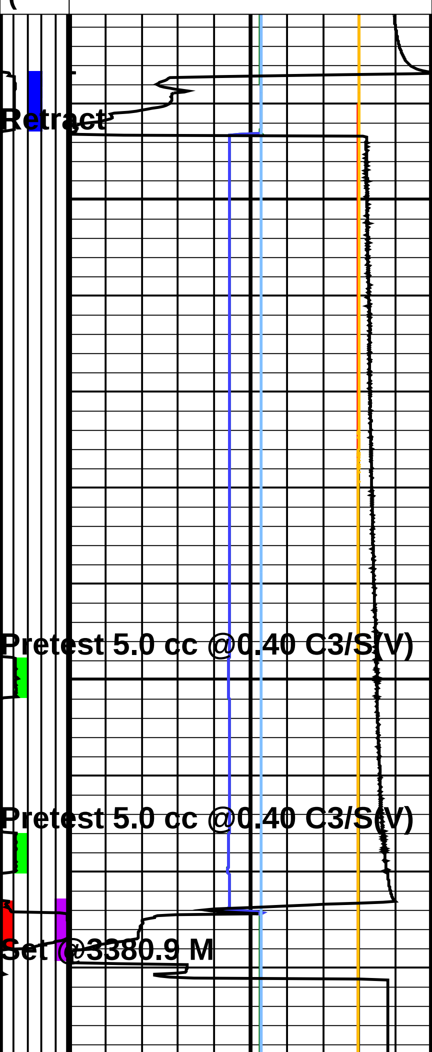
XPT Actions Image (AIMG) (----

CQG Temperature (MTEP_QG) 0 (DEGC) 150

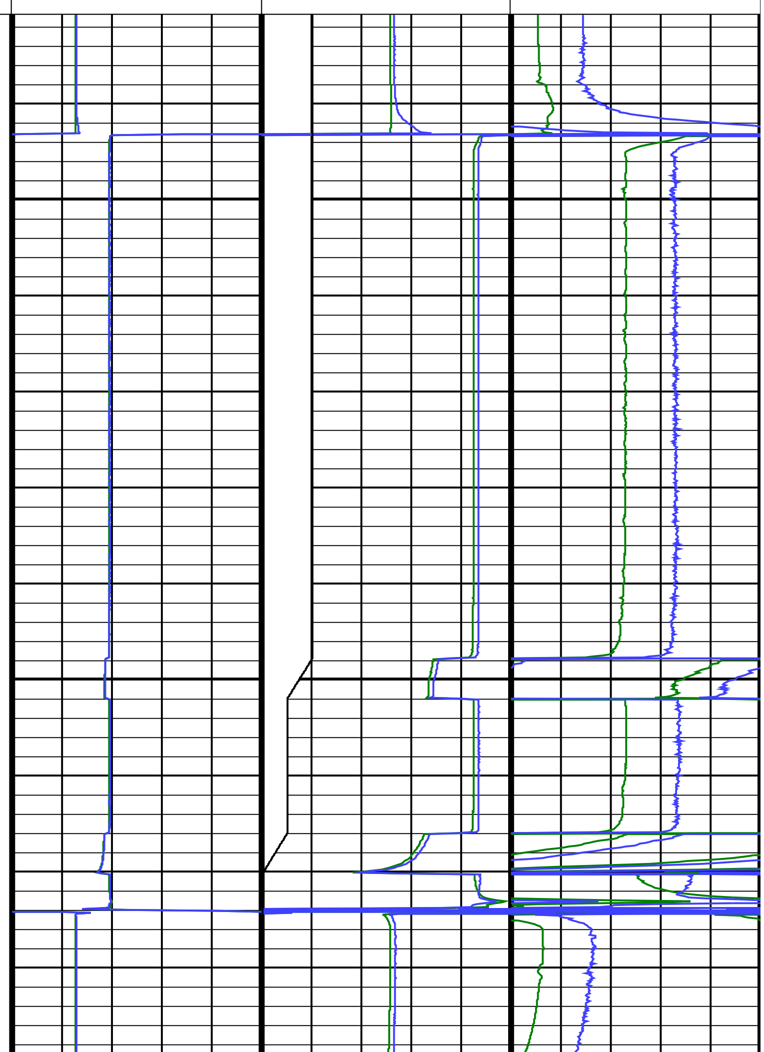
CQG Zoomed Pressure (QCP) 0 (PSIA) 1000

CQG Zoomed Pressure (QCP) 0 (PSIA) 100

CQG Zoomed Pressure (QCP) 0 (PSIA) 10



XPT Time Log (ETIM_XPT) (S)	CQG Pressure (QCP) (PSIA)	Sapphire Pressure (CP_SAP) (PSIA)
00:05:20	5251.05	5252.85
00:05:10	5251.07	5252.75
00:05:00	5251.64	5253.83
00:04:50	4386.44	4387.71
00:04:40	4384.57	4386.48
00:04:30	4384.58	4386.54
00:04:20	4384.58	4386.56
00:04:10	4384.58	4386.56
00:04:00	4384.58	4386.58
00:03:50	4384.55	4386.58
00:03:40	4384.52	4386.51
00:03:30	4384.57	4386.55
00:03:20	4384.56	4386.50
00:03:10	4384.55	4386.53
00:03:00	4384.55	4386.64
00:02:50	4384.50	4386.55
00:02:40	4384.51	4386.59
00:02:30	4384.47	4386.61
00:02:20	4384.38	4386.45
00:02:10	4384.06	4386.24
00:02:00	4366.55	4368.49
00:01:50	4384.58	4386.72
00:01:40	4384.57	4386.71
00:01:30	4384.53	4386.63
00:01:20	4384.42	4386.60
00:01:10	4362.90	4365.13
00:01:00	4384.99	4387.27
00:00:50	4390.47	4383.48
00:00:40	5251.24	5253.18
00:00:30	5251.06	5253.02
00:00:20	5251.00	5252.94
00:00:10	5250.75	5252.75



XPT Actions Image (AIMG)	CQG Temperature (MTEP_QG) 0 (DEGC) 150	XPT Time Log (ETIM_XPT) (S)	CQG Pressure (QCP) (PSIA)	Sapphire Pressure (CP_SAP) (PSIA)	CQG Zoomed Pressure (QCP) 0 (PSIA) 1000	CQG Zoomed Pressure (QCP) 0 (PSIA) 100	CQG Zoomed Pressure (QCP) 0 (PSIA) 10
XPT Motor Speed Curve (MSPE_XPT) (RPM) 0 5000	CQG Pressure (QCP) 0 (PSIA) 10000				Sapphire Zoomed Pressure (CP_SAP) 0 (PSIA) 1000	Sapphire Zoomed Pressure (CP_SAP) 0 (PSIA) 100	Sapphire Zoomed Pressure (CP_SAP) 0 (PSIA) 10
	Sapphire Pressure (CP_SAP) 0 (PSIA) 10000					XPT Pretest Volume Curve (PTV_XPT) 0 (C3) 50	
	Sapphire Manometer Temperature (MTEP_SAP) 0 (DEGC) 150					PRETEST_VOLUME From XPT_7 to XPT_PTV_CURVE	
	Hydrostatic Pressure (CP_HYD) 0 (PSIA) 10000						
	XPT Oil Pressure Curve (HOILP) 0 (PSIA) 4000						

XPT Actions Image

WHITE: No Action / COLORED: Action in progress
Left to right:

1. Set (Red)
2. Pretest (Green)
3. Retract (Blue)
4. Init Pretest (Orange)
5. ACom Calibration (Purple)

XPT Dynamic Compensation Status

Quartz Gauge Pressure compensated and corrected
Sapphire Gauge Pressure compensated and corrected
Hydrostatic Sapphire Gauge Pressure compensated and corrected

Parameters

DLIS Name	Description	Value	
	XPT−BA: Xpress Pressure Tool − BA		
BTA_HYD	Hydrostatic Gauge Board Temperature A Coefficient	1.00432	
BTA_SAP	Sapphire Board Temperature A Coefficient	1.02084	
BTB_HYD	Hydrostatic Gauge Board Temperature B Coefficient	0	
BTB_SAP	Sapphire Board Temperature B Coefficient	0	
BTCT_HYD	Hydrostatic Gauge Board Temperature Coefficients Read From Data Channels	YES	
BTCT_SAP	Sapphire Board Temperature Coefficients Read Fram Data Channels	YES	
DDPL_XPT	Pretest Drawdown Limit	3500	PSIA
DEVI_FL_CORR_XPT	Tool Deviation Angle	0	DEG
FLD_XPT	Flowline Density	1	G/C3

GDSV	Gauges Downhole Software Version	2.1	
GDYCO	Sapphire Dynamic Compensation Applied	YES	
PAC_SAP	Sapphire Gauge Pressure A Coefficient	0.999374	
PA_HYD	Hydrostatic Gauge Pressure A Coefficient	1.00848	
PBC_SAP	Sapphire Gauge Pressure B Coefficient	0	
PB_HYD	Hydrostatic Gauge Pressure B Coefficient	0	
PCT_HYD	Hydrostatic Gauge Pressure Coefficients Read From Data Channels	YES	
PCT_SAP	Sapphire Pressure Coefficients Read From Data Channels	YES	
PGSR	Pressure Gauges Sampling Rate	300	ms
PRSP	Pretest Rate	0.4	C3/S
PTM_XPT	Pretest Type	MANUAL	
PTVO_XPT	Pretest Volume	5	C3
QDYCO	CQG Dynamic Compensation Applied	YES	
TAC_SAP	Sapphire Gauge Temperature A Coefficient	1.02267	
TA_HYD	Hydrostatic Gauge Temperature A Coefficient	0.999206	
TBC_SAP	Sapphire Gauge Temperature B Coefficient	0	
TB_HYD	Hydrostatic Gauge Temperature B Coefficient	0	
TCT_HYD	Hydrostatic Gauge Temperature Coefficients Read >From Data Channels	YES	
TCT_SAP	Sapphire Temperature Coefficients Read From Data Channels	YES	

Output DLIS Files

DEFAULT	TLD_MCFL_CNL_XPT_055LTP	FN:73	PRODUCER	27−Jul−2006 23:30
RT	TLD_MCFL_CNL_XPT_055LTP	FN:74	PRODUCER	27−Jul−2006 23:32

Schlumberger

Station Depth (MD)
3385.0 m

MAXIS Field Log

File 54

27−Jul−2006

Depth, M: 3384.96

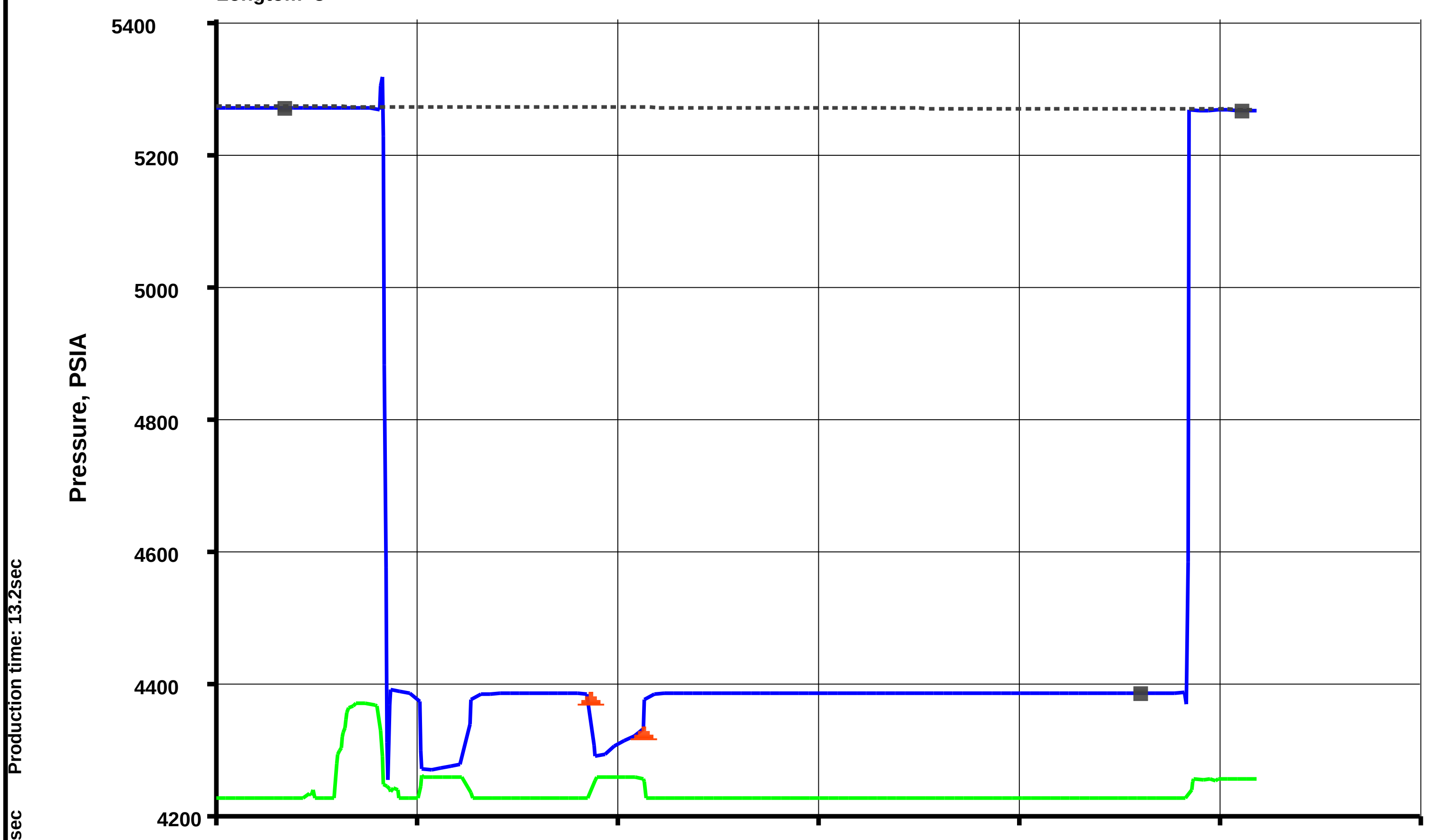
Nexus Energy

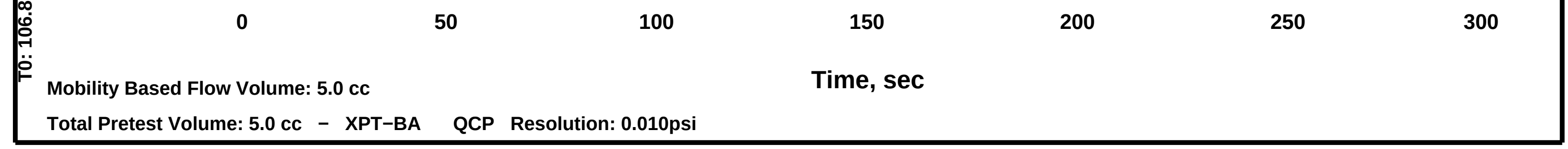
Longtom

Longtom−3

Volumetric Limited draw−down − Conventional probe

Mud Pressure before test, PSIA:	5266.45
Mud Pressure after test, PSIA:	5262.45
Last build−up pressure, PSIA:	4385.27
Draw−down mobility, md/cp:	29





Output DLIS Files

DEFAULT	TLD_MCFL_CNL_XPT_054LTP	FN:71	PRODUCER	27–Jul–2006 23:18	3387.0 M	0.7 M
RT	TLD_MCFL_CNL_XPT_054LTP	FN:72	PRODUCER	27–Jul–2006 23:19	3387.0 M	0.7 M

XPT Oil Pressure Curve (HOILP) 0 (PSIA) 4000

Hydrostatic Pressure (CP_HYD) 0 (PSIA) 10000

Sapphire Manometer Temperature (MTEP_SAP) 0 (DEGC) 150

Sapphire Pressure (CP_SAP) 0 (PSIA) 10000

PRETEST_VOLUME From XPT_7 to XPT_PTV_CURVE

XPT Pretest Volume Curve (PTV_XPT) 0 (C3) 50

XPT Motor Speed Curve (MSPE_XPT) (RPM) 0 5000

CQG Pressure (QCP) 0 (PSIA) 10000

Sapphire Zoomed Pressure (CP_SAP) 0 (PSIA) 1000

Sapphire Zoomed Pressure (CP_SAP) 0 (PSIA) 100

Sapphire Zoomed Pressure (CP_SAP) 0 (PSIA) 10

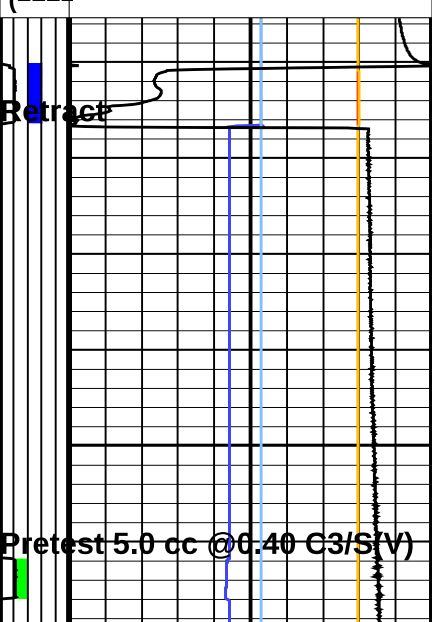
XPT Actions Image (AIMG) (––––

CQG Temperature (MTEP_QG) 0 (DEGC) 150

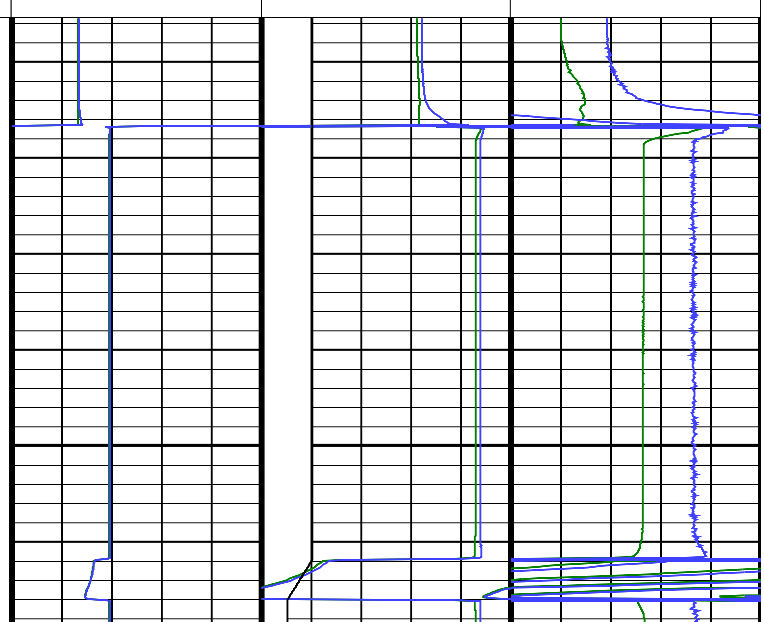
CQG Zoomed Pressure (QCP) 0 (PSIA) 1000

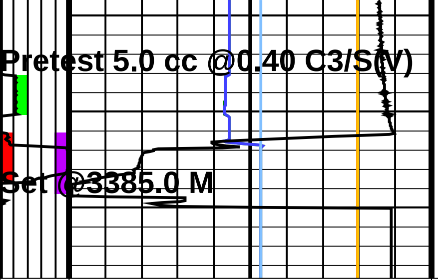
CQG Zoomed Pressure (QCP) 0 (PSIA) 100

CQG Zoomed Pressure (QCP) 0 (PSIA) 10

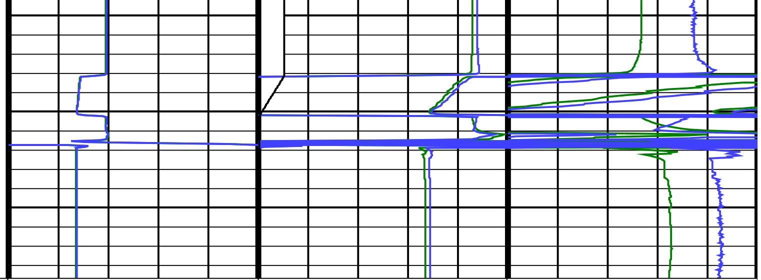


XPT Time Log (ETIM_XPT) (S)	CQG Pressure (QCP) (PSIA)	Sapphire Pressure (CP_SAP) (PSIA)
00:04:30	5261.95	5263.80
00:04:20	5262.29	5264.06
00:04:10	5262.92	5265.36
00:04:00	4386.67	4388.14
00:03:50	4385.26	4387.28
00:03:40	4385.26	4387.26
00:03:30	4385.26	4387.15
00:03:20	4385.26	4387.27
00:03:10	4385.25	4387.24
00:03:00	4385.25	4387.20
00:02:50	4385.24	4387.21
00:02:40	4385.24	4387.24
00:02:30	4385.23	4387.32
00:02:20	4385.23	4387.26
00:02:10	4385.22	4387.26
00:02:00	4385.23	4387.24
00:01:50	4385.08	4387.61
00:01:40	4308.85	4310.98
00:01:30	4385.24	4387.35





XPT Time Log (ETIM_XPT) (S)	CQG Pressure (QCP) (PSIA)	Sapphire Pressure (CP_SAP) (PSIA)
00:01:20	4385.30	4387.43
00:01:10	4385.21	4387.53
00:01:00	4277.58	4279.89
00:00:50	4385.41	4387.06
00:00:40	5266.07	5268.63
00:00:30	5266.38	5268.38
00:00:20	5266.45	5268.47
00:00:10	5266.51	5268.53
00:00:00	5266.44	5268.36



XPT Actions Image (AIMG) (----

CQG Temperature (MTEP_QG) 0 (DEGC) 150

XPT Time Log (ETIM_XPT) (S)

CQG Pressure (QCP) (PSIA)

Sapphire Pressure (CP_SAP) (PSIA)

CQG Zoomed Pressure (QCP) 0 (PSIA) 1000

CQG Zoomed Pressure (QCP) 0 (PSIA) 100

CQG Zoomed Pressure (QCP) 0 (PSIA) 10

XPT Motor Speed Curve (MSPE_XPT) (RPM) 0 5000

CQG Pressure (QCP) 0 (PSIA) 10000

Sapphire Zoomed Pressure (CP_SAP) 0 (PSIA) 1000

Sapphire Zoomed Pressure (CP_SAP) 0 (PSIA) 100

Sapphire Zoomed Pressure (CP_SAP) 0 (PSIA) 10

Sapphire Pressure (CP_SAP) 0 (PSIA) 10000

XPT Pretest Volume Curve (PTV_XPT) 0 (C3) 50

Sapphire Manometer Temperature (MTEP_SAP) 0 (DEGC) 150

PRETEST_VOLUME From XPT_7 to XPT_PTV_CURVE

Hydrostatic Pressure (CP_HYD) 0 (PSIA) 10000

XPT Oil Pressure Curve (HOILP) 0 (PSIA) 4000

XPT Actions Image

WHITE: No Action / COLORED: Action in progress
Left to right:

1. Set (Red)
2. Pretest (Green)
3. Retract (Blue)
4. Init Pretest (Orange)
5. ACom Calibration (Purple)

XPT Dynamic Compensation Status

Quartz Gauge Pressure compensated and corrected
Sapphire Gauge Pressure compensated and corrected
Hydrostatic Sapphire Gauge Pressure compensated and corrected

Parameters

DLIS Name	Description	Value

XPT–BA: Xpress Pressure Tool – BA

BTA_HYD	Hydrostatic Gauge Board Temperature A Coefficient	1.00432	
BTA_SAP	Sapphire Board Temperature A Coefficient	1.02084	
BTB_HYD	Hydrostatic Gauge Board Temperature B Coefficient	0	
BTB_SAP	Sapphire Board Temperature B Coefficient	0	
BTCT_HYD	Hydrostatic Gauge Board Temperature Coefficients Read From Data Channels	YES	
BTCT_SAP	Sapphire Board Temperature Coefficients Read Fram Data Channels	YES	
DDPL_XPT	Pretest Drawdown Limit	3500	PSIA
DEVI_FL_CORR_XPT	Tool Deviation Angle	0	DEG
FLD_XPT	Flowline Density	1	G/C3
GDSV	Gauges Downhole Software Version	2.1	
GDYCO	Sapphire Dynamic Compensation Applied	YES	
PAC_SAP	Sapphire Gauge Pressure A Coefficient	0.999377	
PA_HYD	Hydrostatic Gauge Pressure A Coefficient	1.00848	
PBC_SAP	Sapphire Gauge Pressure B Coefficient	0	
PB_HYD	Hydrostatic Gauge Pressure B Coefficient	0	
PCT_HYD	Hydrostatic Gauge Pressure Coefficients Read From Data Channels	YES	
PCT_SAP	Sapphire Pressure Coefficients Read From Data Channels	YES	
PGSR	Pressure Gauges Sampling Rate	300	ms
PRSP	Pretest Rate	0.4	C3/S
PTM_XPT	Pretest Type	MANUAL	
PTVO_XPT	Pretest Volume	5	C3
QDYCO	CQG Dynamic Compensation Applied	YES	
TAC_SAP	Sapphire Gauge Temperature A Coefficient	1.02268	
TA_HYD	Hydrostatic Gauge Temperature A Coefficient	0.999207	
TBC_SAP	Sapphire Gauge Temperature B Coefficient	0	
TB_HYD	Hydrostatic Gauge Temperature B Coefficient	0	
TCT_HYD	Hydrostatic Gauge Temperature Coefficients Read >From Data Channels	YES	
TCT_SAP	Sapphire Temperature Coefficients Read From Data Channels	YES	

Output DLIS Files

DEFAULT	TLD_MCFL_CNL_XPT_054LTP	FN:71	PRODUCER	27−Jul−2006 23:18
RT	TLD_MCFL_CNL_XPT_054LTP	FN:72	PRODUCER	27−Jul−2006 23:19

Schlumberger

Station Depth (MD)
3376.5 m

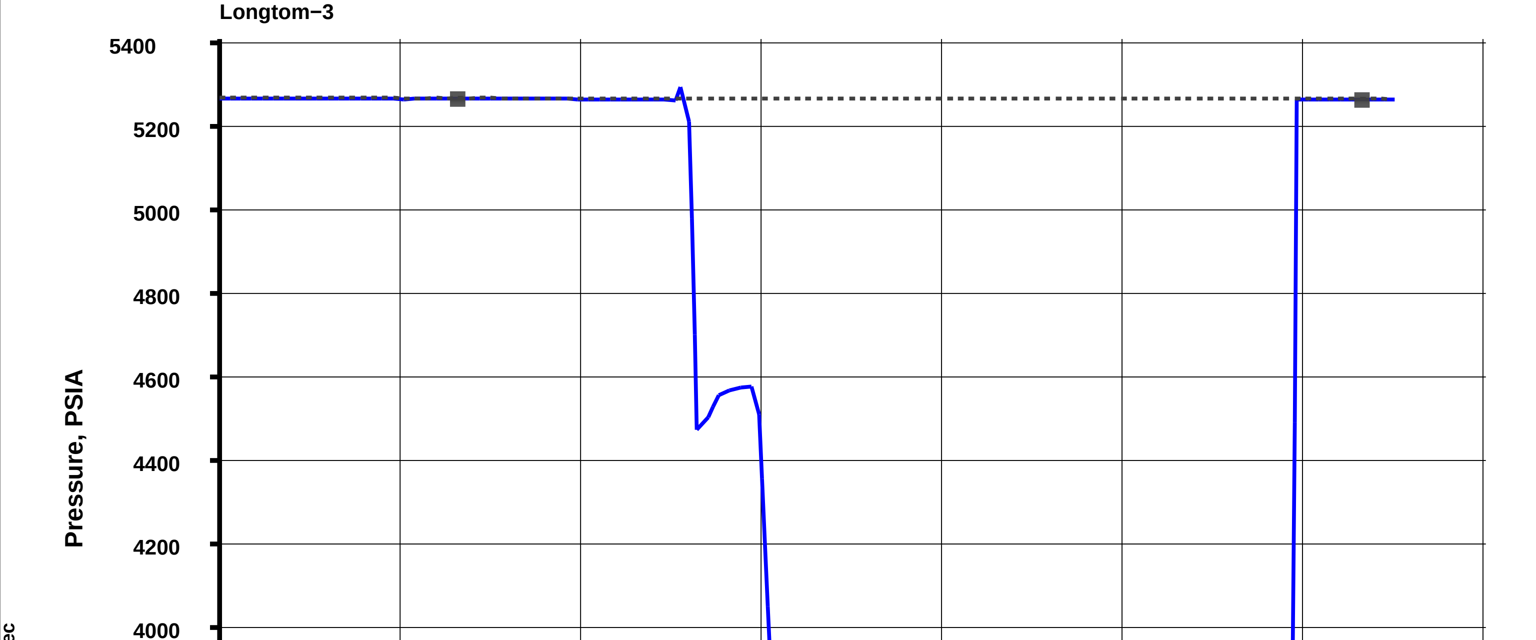
MAXIS Field Log

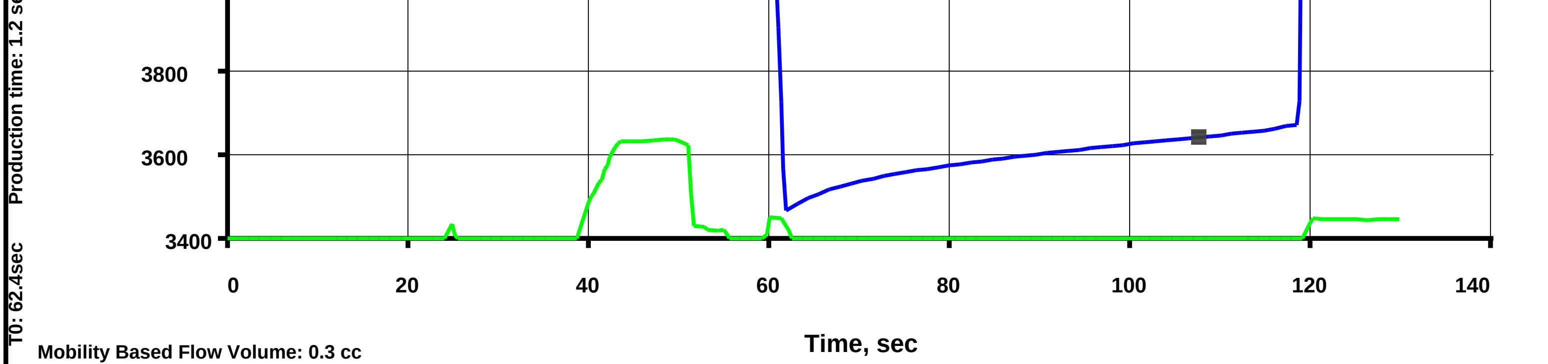
File 53
27−Jul−2006

Depth, M: 3376.49
Nexus Energy
Longtom
Longtom−3

Dry Test − Conventional probe

Mud Pressure before test, PSIA: 5256.17
Mud Pressure after test, PSIA: 5255.19
Last build−up pressure, PSIA: 3643.78





Mobility Based Flow Volume: 0.3 cc

Total Pretest Volume: 0.9 cc – XPT–BA QCP Resolution: 0.010psi

Output DLIS Files

DEFAULT	TLD_MCFL_CNL_XPT_053LTP	FN:69	PRODUCER	27–Jul–2006 23:11	3378.5 M	0.4 M
RT	TLD_MCFL_CNL_XPT_053LTP	FN:70	PRODUCER	27–Jul–2006 23:13	3378.5 M	0.4 M

XPT Oil Pressure Curve (HOILP) 0 (PSIA) 4000

Hydrostatic Pressure (CP_HYD) 0 (PSIA) 10000

Sapphire Manometer Temperature (MTEP_SAP) 0 (DEGC) 150

Sapphire Pressure (CP_SAP) 0 (PSIA) 10000

PRETEST_VOLUME From XPT_7 to XPT_PTV_CURVE

XPT Pretest Volume Curve (PTV_XPT) 0 (C3) 50

XPT Motor Speed Curve (MSPE_XPT) (RPM) 0 5000

CQG Pressure (QCP) 0 (PSIA) 10000

Sapphire Zoomed Pressure (CP_SAP) 0 (PSIA) 1000

Sapphire Zoomed Pressure (CP_SAP) 0 (PSIA) 100

Sapphire Zoomed Pressure (CP_SAP) 0 (PSIA) 10

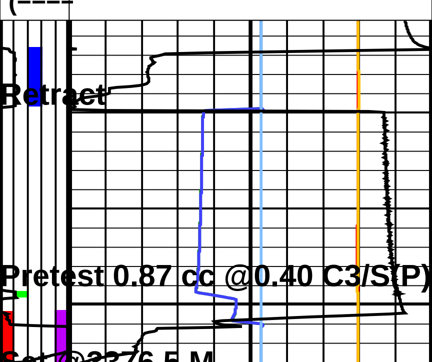
XPT Actions Image (AIMG) (––––

CQG Temperature (MTEP_QG) 0 (DEGC) 150

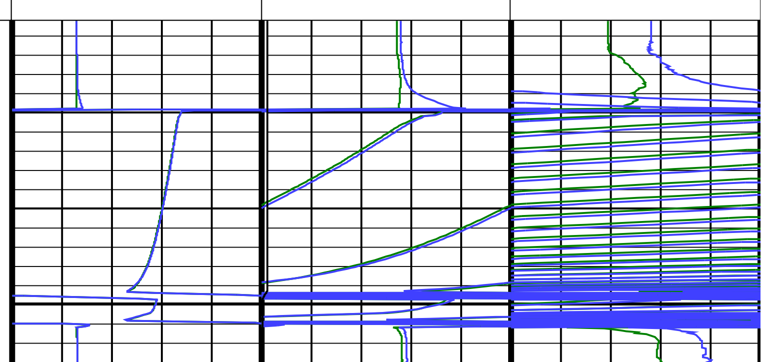
CQG Zoomed Pressure (QCP) 0 (PSIA) 1000

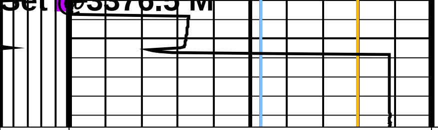
CQG Zoomed Pressure (QCP) 0 (PSIA) 100

CQG Zoomed Pressure (QCP) 0 (PSIA) 10

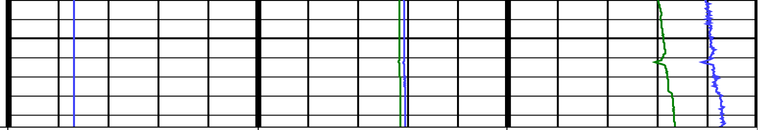


XPT Time Log (ETIM_XPT) (S)	CQG Pressure (QCP) (PSIA)	Sapphire Pressure (CP_SAP) (PSIA)
00:02:20	5253.86	5255.61
00:02:10	5255.02	5256.56
00:02:00	5254.49	5273.75
00:01:50	3646.83	3649.11
00:01:40	3625.87	3628.21
00:01:30	3602.08	3604.57
00:01:20	3574.97	3577.63
00:01:10	3536.11	3538.63
00:01:00	4351.03	4349.66
00:00:50	5254.05	5256.45
00:00:40	5255.98	5257.84





00:00:30	5256.15	5258.03
00:00:20	5255.97	5257.85
00:00:10	5256.54	5258.54
00:00:00	5256.65	5258.44



XPT Actions Image (AIMG) (----

CQG Temperature (MTEP_QG) 0 (DEGC) 150

XPT Time Log (ETIM_XPT) (S)

CQG Pressure (QCP) (PSIA)

Sapphire Pressure (CP_SAP) (PSIA)

CQG Zoomed Pressure (QCP) 0 (PSIA) 1000

CQG Zoomed Pressure (QCP) 0 (PSIA) 100

CQG Zoomed Pressure (QCP) 0 (PSIA) 10

XPT Motor Speed Curve (MSPE_XPT) (RPM) 0 5000

CQG Pressure (QCP) 0 (PSIA) 10000

Sapphire Zoomed Pressure (CP_SAP) 0 (PSIA) 1000

Sapphire Zoomed Pressure (CP_SAP) 0 (PSIA) 100

Sapphire Zoomed Pressure (CP_SAP) 0 (PSIA) 10

Sapphire Pressure (CP_SAP) 0 (PSIA) 10000

XPT Pretest Volume Curve (PTV_XPT) 0 (C3) 50

Sapphire Manometer Temperature (MTEP_SAP) 0 (DEGC) 150

PRETEST_VOLUME From XPT_7 to XPT_PTV_CURVE

Hydrostatic Pressure (CP_HYD) 0 (PSIA) 10000

XPT Oil Pressure Curve (HOILP) 0 (PSIA) 4000

XPT Actions Image

WHITE: No Action / COLORED: Action in progress
Left to right:

1. Set (Red)
2. Pretest (Green)
3. Retract (Blue)
4. Init Pretest (Orange)
5. ACom Calibration (Purple)

XPT Dynamic Compensation Status

Quartz Gauge Pressure compensated and corrected
Sapphire Gauge Pressure compensated and corrected
Hydrostatic Sapphire Gauge Pressure compensated and corrected

Parameters

DLIS Name	Description	Value
	XPT-BA: Xpress Pressure Tool - BA	
BTA_HYD	Hydrostatic Gauge Board Temperature A Coefficient	1.00431
BTA_SAP	Sapphire Board Temperature A Coefficient	1.02084
BTB_HYD	Hydrostatic Gauge Board Temperature B Coefficient	0
BTB_SAP	Sapphire Board Temperature B Coefficient	0
BTCT_HYD	Hydrostatic Gauge Board Temperature Coefficients Read From Data Channels	YES

BTCT_SAP	Sapphire Board Temperature Coefficients Read Fram Data Channels	YES	
DDPL_XPT	Pretest Drawdown Limit	3500	PSIA
DEVI_FL_CORR_XPT	Tool Deviation Angle	0	DEG
FLD_XPT	Flowline Density	1	G/C3
GDSV	Gauges Downhole Software Version	2.1	
GDYCO	Sapphire Dynamic Compensation Applied	YES	
PAC_SAP	Sapphire Gauge Pressure A Coefficient	0.999378	
PA_HYD	Hydrostatic Gauge Pressure A Coefficient	1.00847	
PBC_SAP	Sapphire Gauge Pressure B Coefficient	0	
PB_HYD	Hydrostatic Gauge Pressure B Coefficient	0	
PCT_HYD	Hydrostatic Gauge Pressure Coefficients Read From Data Channels	YES	
PCT_SAP	Sapphire Pressure Coefficients Read From Data Channels	YES	
PGSR	Pressure Gauges Sampling Rate	300	ms
PRSP	Pretest Rate	0.4	C3/S
PTM_XPT	Pretest Type	MANUAL	
PTVO_XPT	Pretest Volume	5	C3
QDYCO	CQG Dynamic Compensation Applied	YES	
TAC_SAP	Sapphire Gauge Temperature A Coefficient	1.02268	
TA_HYD	Hydrostatic Gauge Temperature A Coefficient	0.99921	
TBC_SAP	Sapphire Gauge Temperature B Coefficient	0	
TB_HYD	Hydrostatic Gauge Temperature B Coefficient	0	
TCT_HYD	Hydrostatic Gauge Temperature Coefficients Read >From Data Channels	YES	
TCT_SAP	Sapphire Temperature Coefficients Read From Data Channels	YES	

Output DLIS Files

DEFAULT	TLD_MCFL_CNL_XPT_053LTP	FN:69	PRODUCER	27−Jul−2006 23:11
RT	TLD_MCFL_CNL_XPT_053LTP	FN:70	PRODUCER	27−Jul−2006 23:13

Schlumberger

Station Depth (MD)
3365.0 m

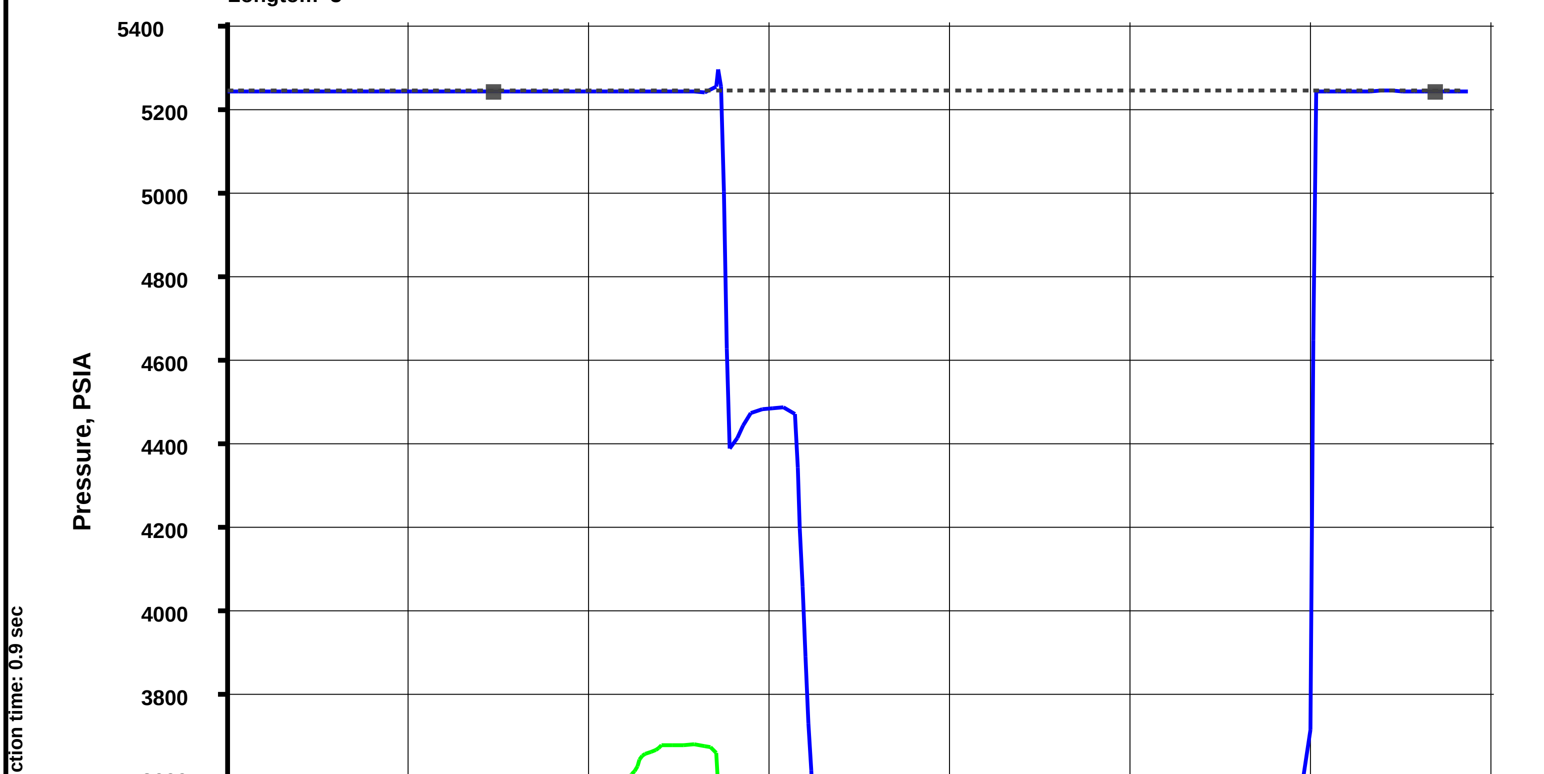
MAXIS Field Log

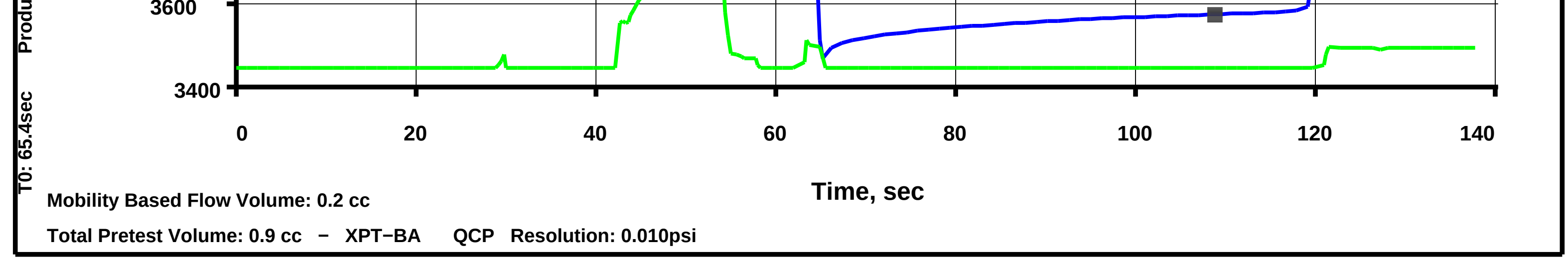
File 52
27−Jul−2006

Depth, M: 3364.95
Nexus Energy
Longtom
Longtom−3

Dry Test − Conventional probe

Mud Pressure before test, PSIA:	5234.68
Mud Pressure after test, PSIA:	5234.81
Last build−up pressure, PSIA:	3575.46





Output DLIS Files

DEFAULT	TLD_MCFL_CNL_XPT_052LTP	FN:67	PRODUCER	27–Jul–2006 23:03	3367.0 M	0.4 M
RT	TLD_MCFL_CNL_XPT_052LTP	FN:68	PRODUCER	27–Jul–2006 23:05	3367.0 M	0.4 M

XPT Oil Pressure Curve (HOILP)
0 (PSIA) 4000

Hydrostatic Pressure (CP_HYD)
0 (PSIA) 10000

Sapphire Manometer Temperature (MTEP_SAP)
0 (DEGC) 150

Sapphire Pressure (CP_SAP)
0 (PSIA) 10000

PRETEST_VOLUME From XPT_7 to XPT_PTV_CURVE

XPT Pretest Volume Curve (PTV_XPT)
0 (C3) 50

XPT Motor Speed Curve (MSPE_XPT) (RPM)
0 5000

CQG Pressure (QCP)
0 (PSIA) 10000

Sapphire Zoomed Pressure (CP_SAP)
0 (PSIA) 1000

Sapphire Zoomed Pressure (CP_SAP)
0 (PSIA) 100

Sapphire Zoomed Pressure (CP_SAP)
0 (PSIA) 10

XPT Actions Image (AIMG) (––––

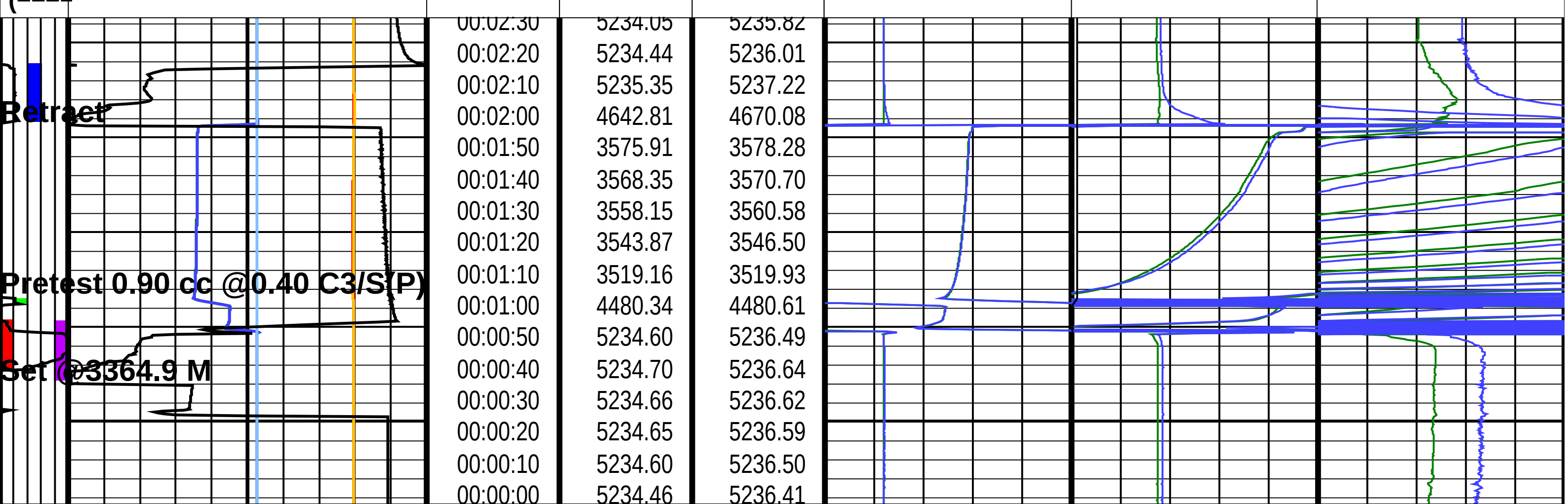
CQG Temperature (MTEP_QG)
0 (DEGC) 150

XPT Time Log (ETIM_XPT) (S)	CQG Pressure (QCP) (PSIA)	Sapphire Pressure (CP_SAP) (PSIA)
00:02:30	5234.05	5235.82
00:02:20	5234.44	5236.01
00:02:10	5235.35	5237.22
00:02:00	4642.81	4670.08
00:01:50	3575.91	3578.28
00:01:40	3568.35	3570.70
00:01:30	3558.15	3560.58
00:01:20	3543.87	3546.50
00:01:10	3519.16	3519.93
00:01:00	4480.34	4480.61
00:00:50	5234.60	5236.49
00:00:40	5234.70	5236.64
00:00:30	5234.66	5236.62
00:00:20	5234.65	5236.59
00:00:10	5234.60	5236.50
00:00:00	5234.46	5236.41

CQG Zoomed Pressure (QCP)
0 (PSIA) 1000

CQG Zoomed Pressure (QCP)
0 (PSIA) 100

CQG Zoomed Pressure (QCP)
0 (PSIA) 10



XPT Actions Image (AIMG) (----

CQG Temperature (MTEP_QG)
0 (DEGC) 150

XPT Time Log (ETIM_XPT) (S)

CQG Pressure (QCP) (PSIA)

Sapphire Pressure (CP_SAP) (PSIA)

CQG Zoomed Pressure (QCP)
0 (PSIA) 1000

CQG Zoomed Pressure (QCP)
0 (PSIA) 100

CQG Zoomed Pressure (QCP)
0 (PSIA) 10

XPT Motor Speed Curve (MSPE_XPT) (RPM)
0 5000

CQG Pressure (QCP)
0 (PSIA) 10000

Sapphire Zoomed Pressure (CP_SAP)
0 (PSIA) 1000

Sapphire Zoomed Pressure (CP_SAP)
0 (PSIA) 100

Sapphire Zoomed Pressure (CP_SAP)
0 (PSIA) 10

Sapphire Pressure (CP_SAP)
0 (PSIA) 10000

XPT Pretest Volume Curve (PTV_XPT)
0 (C3) 50

Sapphire Manometer Temperature (MTEP_SAP)
0 (DEGC) 150

PRETEST_VOLUME From XPT_7 to XPT_PTV_CURVE

Hydrostatic Pressure (CP_HYD)
0 (PSIA) 10000

XPT Oil Pressure Curve (HOILP)
0 (PSIA) 4000

XPT Actions Image

WHITE: No Action / COLORED: Action in progress
Left to right:

1. Set (Red)
2. Pretest (Green)
3. Retract (Blue)
4. Init Pretest (Orange)
5. ACom Calibration (Purple)

XPT Dynamic Compensation Status

Quartz Gauge Pressure compensated and corrected
Sapphire Gauge Pressure compensated and corrected
Hydrostatic Sapphire Gauge Pressure compensated and corrected

Parameters

DLIS Name	Description	Value	
	XPT−BA: Xpress Pressure Tool − BA		
BTA_HYD	Hydrostatic Gauge Board Temperature A Coefficient	1.00432	
BTA_SAP	Sapphire Board Temperature A Coefficient	1.02085	
BTB_HYD	Hydrostatic Gauge Board Temperature B Coefficient	0	
BTB_SAP	Sapphire Board Temperature B Coefficient	0	
BTCT_HYD	Hydrostatic Gauge Board Temperature Coefficients Read From Data Channels	YES	
BTCT_SAP	Sapphire Board Temperature Coefficients Read Fram Data Channels	YES	
DDPL_XPT	Pretest Drawdown Limit	3500	PSIA
DEVI_FL_CORR_XPT	Tool Deviation Angle	0	DEG
FLD_XPT	Flowline Density	1	G/C3
GDSV	Gauges Downhole Software Version	2.1	

GDYCO	Sapphire Dynamic Compensation Applied	YES	
PAC_SAP	Sapphire Gauge Pressure A Coefficient	0.999377	
PA_HYD	Hydrostatic Gauge Pressure A Coefficient	1.00848	
PBC_SAP	Sapphire Gauge Pressure B Coefficient	0	
PB_HYD	Hydrostatic Gauge Pressure B Coefficient	0	
PCT_HYD	Hydrostatic Gauge Pressure Coefficients Read From Data Channels	YES	
PCT_SAP	Sapphire Pressure Coefficients Read From Data Channels	YES	
PGSR	Pressure Gauges Sampling Rate	300	ms
PRSP	Pretest Rate	0.4	C3/S
PTM_XPT	Pretest Type	MANUAL	
PTVO_XPT	Pretest Volume	5	C3
QDYCO	CQG Dynamic Compensation Applied	YES	
TAC_SAP	Sapphire Gauge Temperature A Coefficient	1.02268	
TA_HYD	Hydrostatic Gauge Temperature A Coefficient	0.99921	
TBC_SAP	Sapphire Gauge Temperature B Coefficient	0	
TB_HYD	Hydrostatic Gauge Temperature B Coefficient	0	
TCT_HYD	Hydrostatic Gauge Temperature Coefficients Read >From Data Channels	YES	
TCT_SAP	Sapphire Temperature Coefficients Read From Data Channels	YES	

Output DLIS Files

DEFAULT	TLD_MCFL_CNL_XPT_052LTP	FN:67	PRODUCER	27−Jul−2006 23:03
RT	TLD_MCFL_CNL_XPT_052LTP	FN:68	PRODUCER	27−Jul−2006 23:05

Schlumberger

Station Depth (MD)
3364.0 m

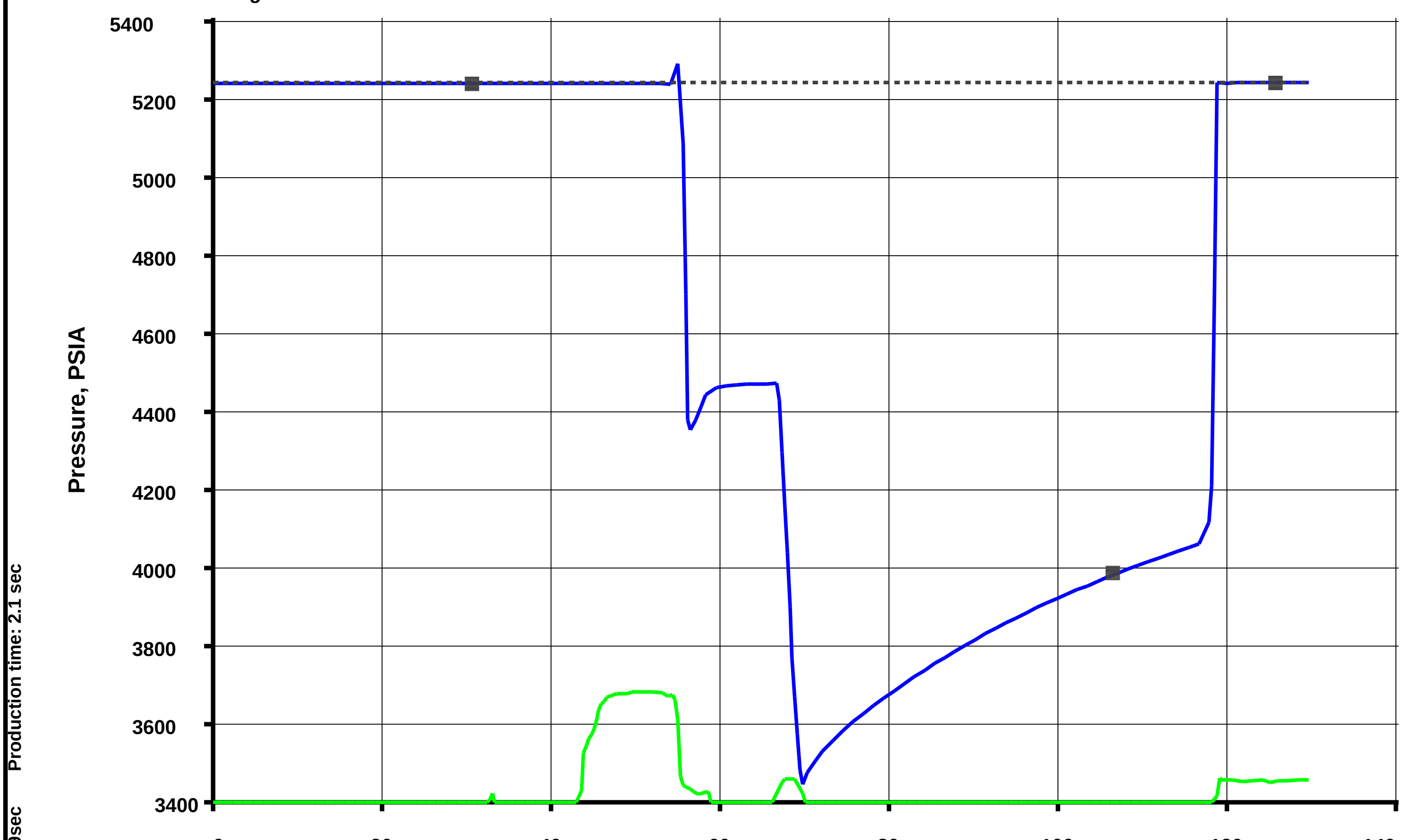
MAXIS Field Log

File 51
27−Jul−2006

Depth, M: 3363.95
Nexus Energy
Longtom
Longtom−3

Dry Test − Conventional probe

Mud Pressure before test, PSIA:	5232.84
Mud Pressure after test, PSIA:	5233.5
Last build−up pressure, PSIA:	3986.94



Mobility Based Flow Volume: 0.7 cc

Total Pretest Volume: 1.0 cc – XPT–BA QCP Resolution: 0.010psi

Output DLIS Files

DEFAULT	TLD_MCFL_CNL_XPT_051LTP	FN:65	PRODUCER	27–Jul–2006 22:57	3366.0 M	0.4 M
RT	TLD_MCFL_CNL_XPT_051LTP	FN:66	PRODUCER	27–Jul–2006 22:59	3366.0 M	0.4 M

XPT Oil Pressure Curve (HOILP) 0 (PSIA) 4000

Hydrostatic Pressure (CP_HYD) 0 (PSIA) 10000

Sapphire Manometer Temperature (MTEP_SAP) 0 (DEGC) 150

Sapphire Pressure (CP_SAP) 0 (PSIA) 10000

PRETEST_VOLUME From XPT_7 to XPT_PTV_CURVE

XPT Pretest Volume Curve (PTV_XPT) 0 (C3) 50

XPT Motor Speed Curve (MSPE_XPT) (RPM) 0 5000

CQG Pressure (QCP) 0 (PSIA) 10000

Sapphire Zoomed Pressure (CP_SAP) 0 (PSIA) 1000

Sapphire Zoomed Pressure (CP_SAP) 0 (PSIA) 100

Sapphire Zoomed Pressure (CP_SAP) 0 (PSIA) 10

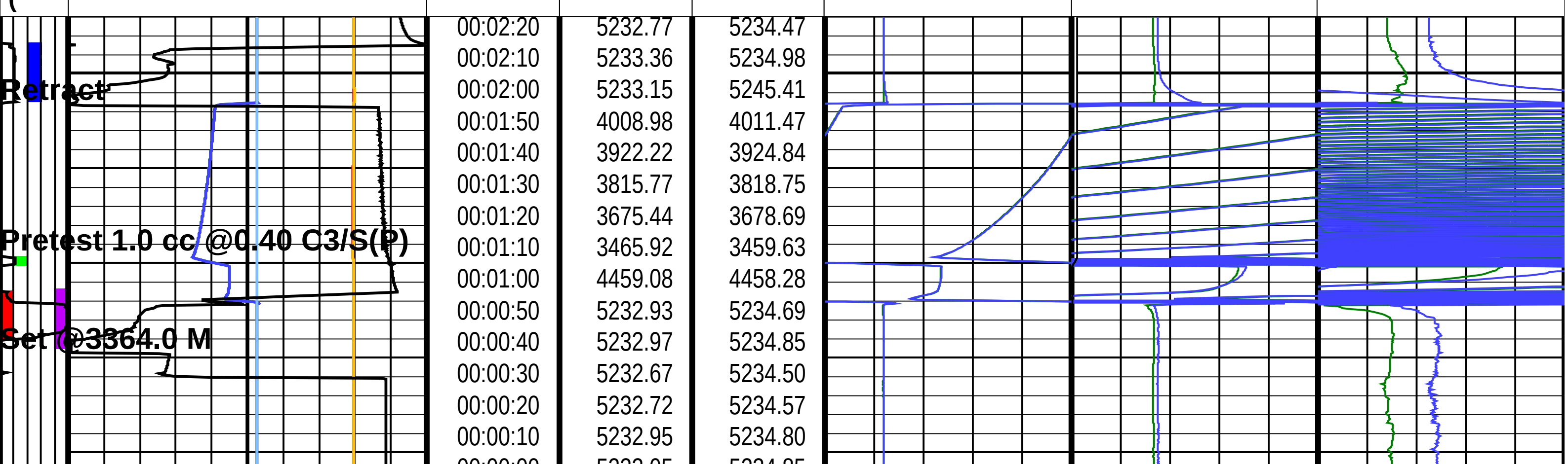
XPT Actions Image (AIMG) (––––

CQG Temperature (MTEP_QG) 0 (DEGC) 150

CQG Zoomed Pressure (QCP) 0 (PSIA) 1000

CQG Zoomed Pressure (QCP) 0 (PSIA) 100

CQG Zoomed Pressure (QCP) 0 (PSIA) 10



XPT Time Log (ETIM_XPT) (S)	CQG Pressure (QCP) (PSIA)	Sapphire Pressure (CP_SAP) (PSIA)
00:02:20	5232.77	5234.47
00:02:10	5233.36	5234.98
00:02:00	5233.15	5245.41
00:01:50	4008.98	4011.47
00:01:40	3922.22	3924.84
00:01:30	3815.77	3818.75
00:01:20	3675.44	3678.69
00:01:10	3465.92	3459.63
00:01:00	4459.08	4458.28
00:00:50	5232.93	5234.69
00:00:40	5232.97	5234.85
00:00:30	5232.67	5234.50
00:00:20	5232.72	5234.57
00:00:10	5232.95	5234.80
00:00:00	5233.05	5234.85

XPT Actions Imag

CQG Temperature (MTEP_QG)

XPT Time Log (ETIM

CQG Pressure

Sapphire Pressure

CQG Zoomed Pressure (QCP)

CQG Zoomed Pressure (QCP)

CQG Zoomed Pressure (QCP)

Image (AIMG) (−−−−	0 (DEGC) 150	(ETIM_XPT) (S)	(QCP) (PSIA)	(CP_SAP) (PSIA)	0 (PSIA) 1000	0 (PSIA) 100	0 (PSIA) 10
XPT Motor Speed Curve (MSPE_XPT) (RPM) 0 5000	CQG Pressure (QCP) 0 (PSIA) 10000				Sapphire Zoomed Pressure (CP_SAP) 0 (PSIA) 1000	Sapphire Zoomed Pressure (CP_SAP) 0 (PSIA) 100	Sapphire Zoomed Pressure (CP_SAP) 0 (PSIA) 10
	Sapphire Pressure (CP_SAP) 0 (PSIA) 10000					XPT Pretest Volume Curve (PTV_XPT) 0 (C3) 50	
	Sapphire Manometer Temperature (MTEP_SAP) 0 (DEGC) 150					PRETEST_ VOLUME From XPT_7 to XPT_PTV_CURVE	
	Hydrostatic Pressure (CP_HYD) 0 (PSIA) 10000						
	XPT Oil Pressure Curve (HOILP) 0 (PSIA) 4000						

XPT Actions Image

WHITE: No Action / COLORED: Action in progress
Left to right:

1. Set (Red)
2. Pretest (Green)
3. Retract (Blue)
4. Init Pretest (Orange)
5. ACom Calibration (Purple)

XPT Dynamic Compensation Status

Quartz Gauge Pressure compensated and corrected
Sapphire Gauge Pressure compensated and corrected
Hydrostatic Sapphire Gauge Pressure compensated and corrected

Parameters

DLIS Name	Description	Value	
	XPT−BA: Xpress Pressure Tool − BA		
BTA_HYD	Hydrostatic Gauge Board Temperature A Coefficient	1.00431	
BTA_SAP	Sapphire Board Temperature A Coefficient	1.02085	
BTB_HYD	Hydrostatic Gauge Board Temperature B Coefficient	0	
BTB_SAP	Sapphire Board Temperature B Coefficient	0	
BTCT_HYD	Hydrostatic Gauge Board Temperature Coefficients Read From Data Channels	YES	
BTCT_SAP	Sapphire Board Temperature Coefficients Read Fram Data Channels	YES	
DDPL_XPT	Pretest Drawdown Limit	3500	PSIA
DEVI_FL_CORR_XPT	Tool Deviation Angle	0	DEG
FLD_XPT	Flowline Density	1	G/C3
GDSV	Gauges Downhole Software Version	2.1	
GDYCO	Sapphire Dynamic Compensation Applied	YES	
PAC_SAP	Sapphire Gauge Pressure A Coefficient	0.999377	
PA_HYD	Hydrostatic Gauge Pressure A Coefficient	1.00848	
PBC_SAP	Sapphire Gauge Pressure B Coefficient	0	
PB_HYD	Hydrostatic Gauge Pressure B Coefficient	0	
PCT_HYD	Hydrostatic Gauge Pressure Coefficients Read From Data Channels	YES	

PCT_SAP	Sapphire Pressure Coefficients Read From Data Channels	YES	
PGSR	Pressure Gauges Sampling Rate	300	ms
PRSP	Pretest Rate	0.4	C3/S
PTM_XPT	Pretest Type	MANUAL	
PTVO_XPT	Pretest Volume	5	C3
QDYCO	CQG Dynamic Compensation Applied	YES	
TAC_SAP	Sapphire Gauge Temperature A Coefficient	1.02268	
TA_HYD	Hydrostatic Gauge Temperature A Coefficient	0.999212	
TBC_SAP	Sapphire Gauge Temperature B Coefficient	0	
TB_HYD	Hydrostatic Gauge Temperature B Coefficient	0	
TCT_HYD	Hydrostatic Gauge Temperature Coefficients Read >From Data Channels	YES	
TCT_SAP	Sapphire Temperature Coefficients Read From Data Channels	YES	

Output DLIS Files

DEFAULT	TLD_MCFL_CNL_XPT_051LTP	FN:65	PRODUCER	27−Jul−2006 22:57
RT	TLD_MCFL_CNL_XPT_051LTP	FN:66	PRODUCER	27−Jul−2006 22:59

Schlumberger

Station Depth (MD)
3363.0 m

MAXIS Field Log

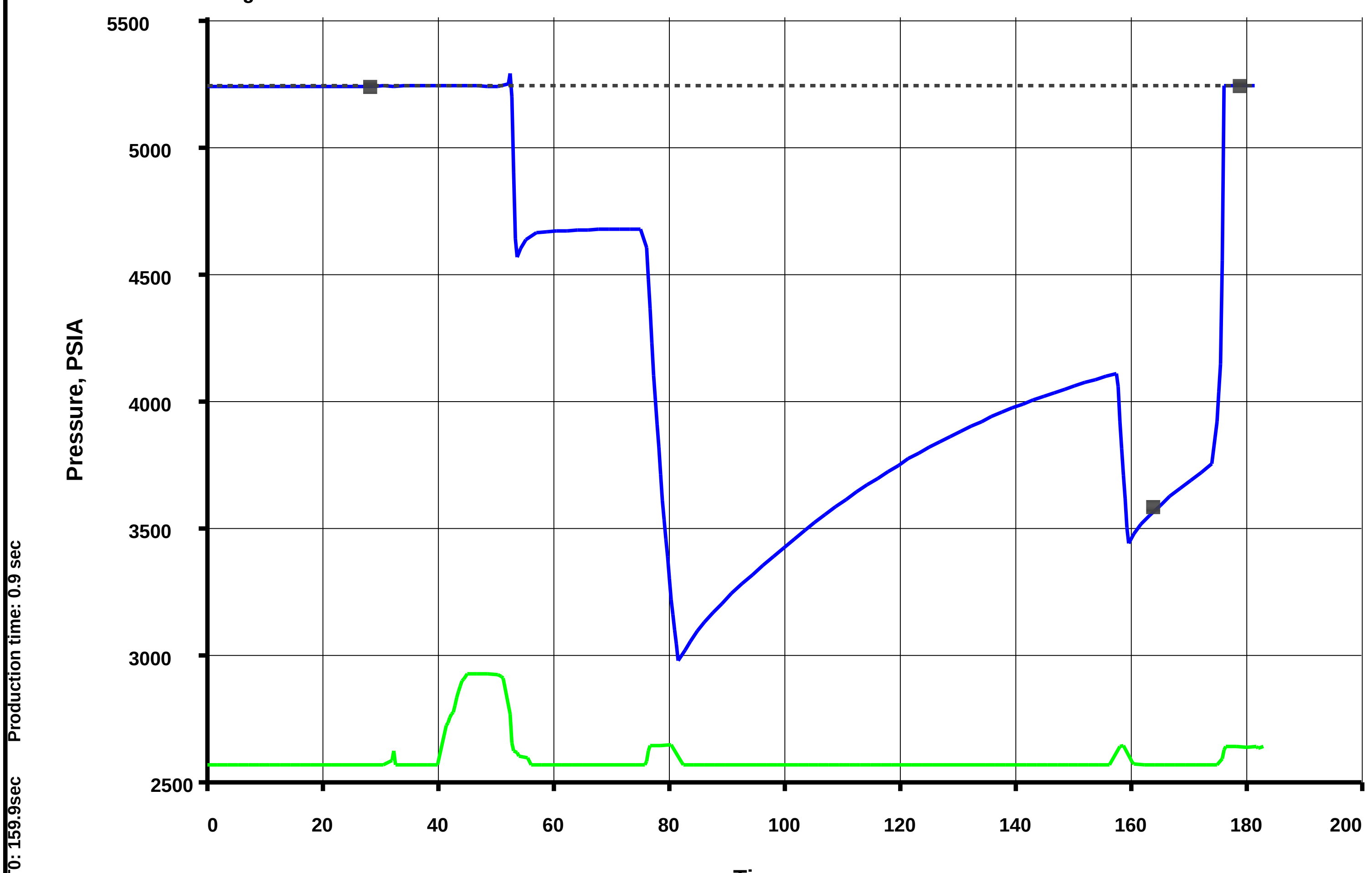
File 50 | Depth, M: 3362.97 | Dry Test − Conventional probe

27−Jul−2006 | Nexus Energy

Longtom

Longtom−3

Mud Pressure before test, PSIA: 5229.1
Mud Pressure after test, PSIA: 5230.48
Last build−up pressure, PSIA: 3580.67



Mobility Based Flow Volume: 0.2 cc

Total Pretest Volume: 0.7 cc − XPT−BA QCP Resolution: 0.010psi

Output DLIS Files

DEFAULT	TLD_MCFL_CNL_XPT_050LTP	FN:63	PRODUCER	27−Jul−2006 22:51	3365.0 M	0.5 M
RT	TLD_MCFL_CNL_XPT_050LTP	FN:64	PRODUCER	27−Jul−2006 22:52	3365.0 M	0.5 M

Changed Parameter Summary

DLIS Name	New Value	Previous Value	Depth & Time
DDPL_XPT	3500 PSIA	3000 PSIA	3365.0 22:53:28

XPT Oil Pressure Curve (HOILP) 0 (PSIA) 4000

Hydrostatic Pressure (CP_HYD) 0 (PSIA) 10000

Sapphire Manometer Temperature (MTEP_SAP) 0 (DEGC) 150

Sapphire Pressure (CP_SAP) 0 (PSIA) 10000

PRETEST_VOLUME From XPT_7 to XPT_PTV_CURVE

XPT Pretest Volume Curve (PTV_XPT) 0 (C3) 50

XPT Motor Speed Curve (MSPE_XPT) (RPM) 0 5000

CQG Pressure (QCP) 0 (PSIA) 10000

Sapphire Zoomed Pressure (CP_SAP) 0 (PSIA) 1000

Sapphire Zoomed Pressure (CP_SAP) 0 (PSIA) 100

Sapphire Zoomed Pressure (CP_SAP) 0 (PSIA) 10

XPT Actions Image (AIMG) (−−−−

CQG Temperature (MTEP_QG) 0 (DEGC) 150

CQG Zoomed Pressure (QCP) 0 (PSIA) 1000

CQG Zoomed Pressure (QCP) 0 (PSIA) 100

CQG Zoomed Pressure (QCP) 0 (PSIA) 10

XPT Time Log (ETIM_XPT) (S)	CQG Pressure (QCP) (PSIA)	Sapphire Pressure (CP_SAP) (PSIA)
00:03:10	5230.27	5231.65
00:03:00	5230.33	5238.56
00:02:50	3675.48	3678.46
00:02:40	3453.42	3448.99
00:02:30	4050.76	4053.26
00:02:20	3970.75	3973.21
00:02:10	3870.02	3872.61
00:02:00	3743.94	3746.69
00:01:50	3595.92	3598.97
00:01:40	3422.01	3425.42
00:01:30	3215.75	3219.52
00:01:20	3385.41	3376.60
00:01:10	4668.26	4670.41
00:01:00	4660.01	4661.41
00:00:50	5228.61	5230.30
00:00:40	5229.22	5231.03
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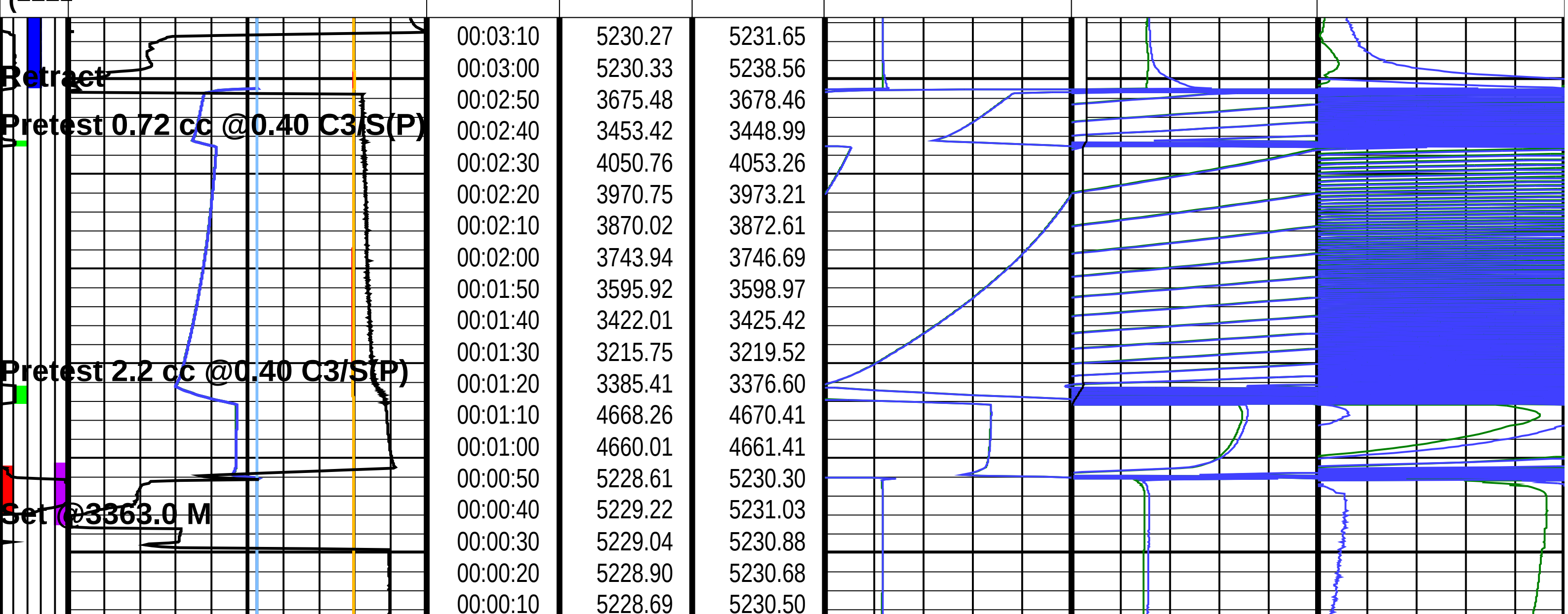
00:00:20	5228.90	5230.68
00:00:10	5228.69	5230.50



		00:00:00	5228.41	5230.17			
XPT Actions Image (AIMG) (----	CQG Temperature (MTEP_QG) 0 (DEGC) 150	XPT Time Log (ETIM_XPT) (S)	CQG Pressure (QCP) (PSIA)	Sapphire Pressure (CP_SAP) (PSIA)	CQG Zoomed Pressure (QCP) 0 (PSIA) 1000	CQG Zoomed Pressure (QCP) 0 (PSIA) 100	CQG Zoomed Pressure (QCP) 0 (PSIA) 10
XPT Motor Speed Curve (MSPE_XPT) (RPM) 0 5000	CQG Pressure (QCP) 0 (PSIA) 10000				Sapphire Zoomed Pressure (CP_SAP) 0 (PSIA) 1000	Sapphire Zoomed Pressure (CP_SAP) 0 (PSIA) 100	Sapphire Zoomed Pressure (CP_SAP) 0 (PSIA) 10
	Sapphire Pressure (CP_SAP) 0 (PSIA) 10000					XPT Pretest Volume Curve (PTV_XPT) 0 (C3) 50	
	Sapphire Manometer Temperature (MTEP_SAP) 0 (DEGC) 150					PRETEST_VOLUME From XPT_7 to XPT_PTV_CURVE	
	Hydrostatic Pressure (CP_HYD) 0 (PSIA) 10000						
	XPT Oil Pressure Curve (HOILP) 0 (PSIA) 4000						

XPT Actions Image

WHITE: No Action / COLORED: Action in progress
Left to right:

1. Set (Red)
2. Pretest (Green)
3. Retract (Blue)
4. Init Pretest (Orange)
5. ACom Calibration (Purple)

XPT Dynamic Compensation Status

Quartz Gauge Pressure compensated and corrected
Sapphire Gauge Pressure compensated and corrected
Hydrostatic Sapphire Gauge Pressure compensated and corrected

Parameters

DLIS Name	Description	Value	
	XPT-BA: Xpress Pressure Tool - BA		
BTA_HYD	Hydrostatic Gauge Board Temperature A Coefficient	1.00431	
BTA_SAP	Sapphire Board Temperature A Coefficient	1.02084	
BTB_HYD	Hydrostatic Gauge Board Temperature B Coefficient	0	
BTB_SAP	Sapphire Board Temperature B Coefficient	0	
BTCT_HYD	Hydrostatic Gauge Board Temperature Coefficients Read From Data Channels	YES	
BTCT_SAP	Sapphire Board Temperature Coefficients Read Fram Data Channels	YES	
DDPL_XPT	Pretest Drawdown Limit	3000	PSIA
DEVI_FL_CORR_XPT	Tool Deviation Angle	0	DEG
FLD_XPT	Flowline Density	1	G/C3

FLD_XPT	Flowline Density	1	G/C3
GDSV	Gauges Downhole Software Version	2.1	
GDYCO	Sapphire Dynamic Compensation Applied	YES	
PAC_SAP	Sapphire Gauge Pressure A Coefficient	0.99938	
PA_HYD	Hydrostatic Gauge Pressure A Coefficient	1.00848	
PBC_SAP	Sapphire Gauge Pressure B Coefficient	0	
PB_HYD	Hydrostatic Gauge Pressure B Coefficient	0	
PCT_HYD	Hydrostatic Gauge Pressure Coefficients Read From Data Channels	YES	
PCT_SAP	Sapphire Pressure Coefficients Read From Data Channels	YES	
PGSR	Pressure Gauges Sampling Rate	300	ms
PRSP	Pretest Rate	0.4	C3/S
PTM_XPT	Pretest Type	MANUAL	
PTVO_XPT	Pretest Volume	5	C3
QDYCO	CQG Dynamic Compensation Applied	YES	
TAC_SAP	Sapphire Gauge Temperature A Coefficient	1.02268	
TA_HYD	Hydrostatic Gauge Temperature A Coefficient	0.999209	
TBC_SAP	Sapphire Gauge Temperature B Coefficient	0	
TB_HYD	Hydrostatic Gauge Temperature B Coefficient	0	
TCT_HYD	Hydrostatic Gauge Temperature Coefficients Read >From Data Channels	YES	
TCT_SAP	Sapphire Temperature Coefficients Read From Data Channels	YES	

Output DLIS Files

DEFAULT	TLD_MCFL_CNL_XPT_050LTP	FN:63	PRODUCER	27−Jul−2006 22:51
RT	TLD_MCFL_CNL_XPT_050LTP	FN:64	PRODUCER	27−Jul−2006 22:52

Schlumberger

Station Depth (MD)
3367.5 m

MAXIS Field Log

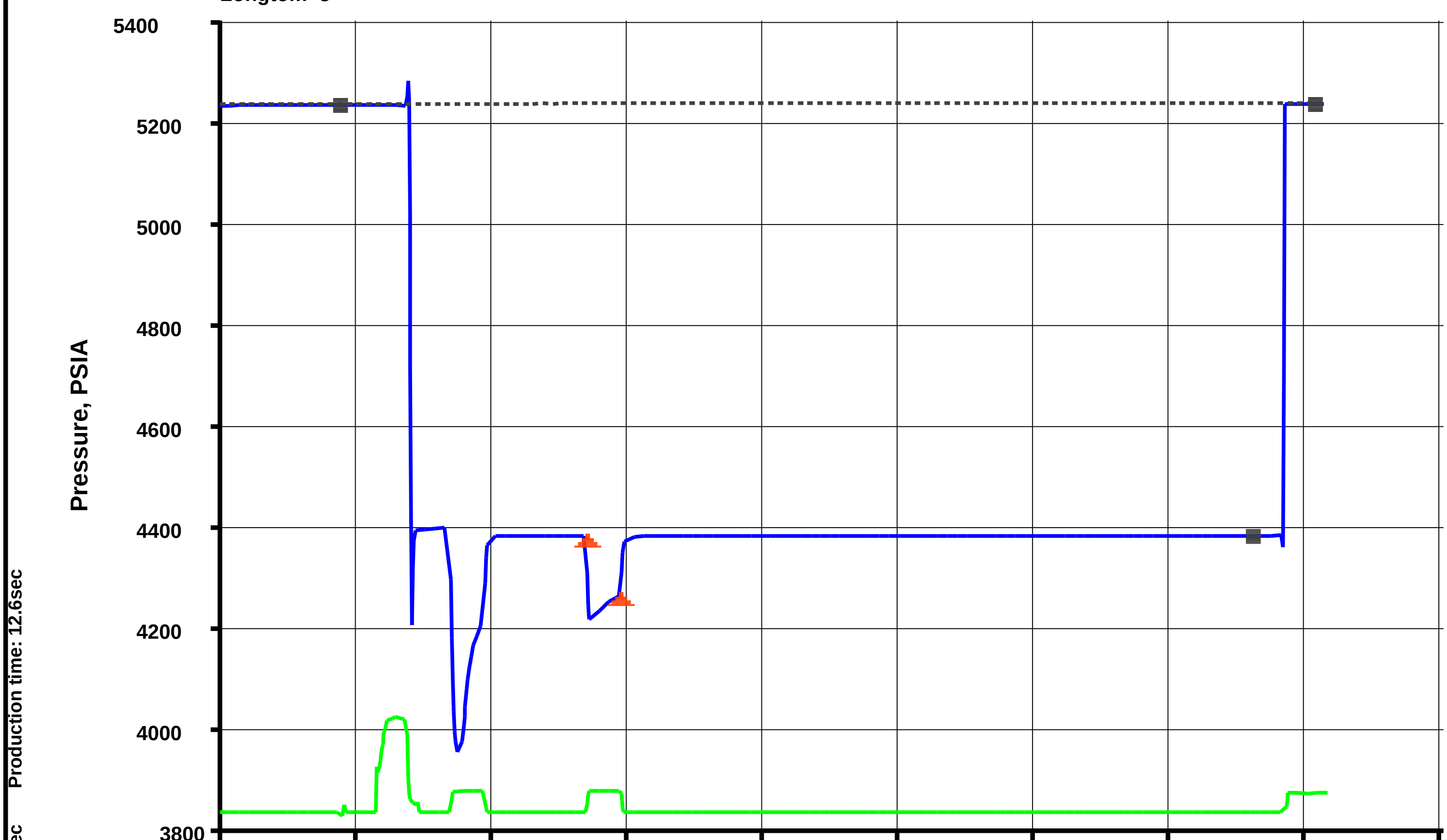
File 49 | Depth, M: 3367.47 | Volumetric Limited draw−down − Conventional probe

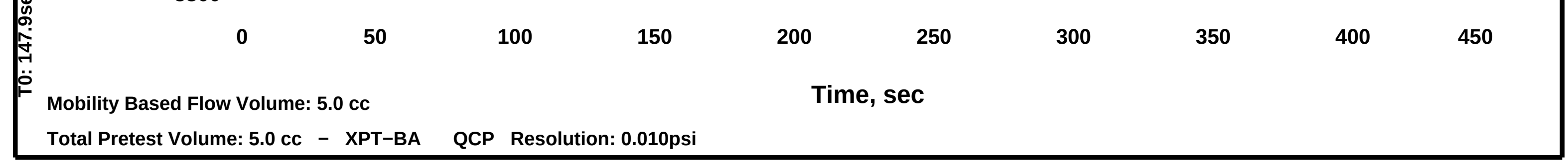
27−Jul−2006 | Nexus Energy

Longtom

Longtom−3

Mud Pressure before test, PSIA:	5232.59
Mud Pressure after test, PSIA:	5235.11
Last build−up pressure, PSIA:	4382.56
Draw−down mobility, md/cp:	15.5





Output DLIS Files

DEFAULT	TLD_MCFL_CNL_XPT_049LTP	FN:61	PRODUCER	27–Jul–2006 22:41	3369.5 M	1.1 M
RT	TLD_MCFL_CNL_XPT_049LTP	FN:62	PRODUCER	27–Jul–2006 22:43	3369.5 M	1.1 M

Changed Parameter Summary

DLIS Name	New Value	Previous Value	Depth & Time
PTM_XPT	MANUAL	SMART	3369.5 22:42:24

XPT Oil Pressure Curve (HOILP) 0 (PSIA) 4000

Hydrostatic Pressure (CP_HYD) 0 (PSIA) 10000

Sapphire Manometer Temperature (MTEP_SAP) 0 (DEGC) 150

Sapphire Pressure (CP_SAP) 0 (PSIA) 10000

PRETEST_VOLUME From XPT_7 to XPT_PTV_CURVE

XPT Pretest Volume Curve (PTV_XPT) 0 (C3) 50

XPT Motor Speed Curve (MSPE_XPT) (RPM) 0 5000

CQG Pressure (QCP) 0 (PSIA) 10000

Sapphire Zoomed Pressure (CP_SAP) 0 (PSIA) 1000

Sapphire Zoomed Pressure (CP_SAP) 0 (PSIA) 100

Sapphire Zoomed Pressure (CP_SAP) 0 (PSIA) 10

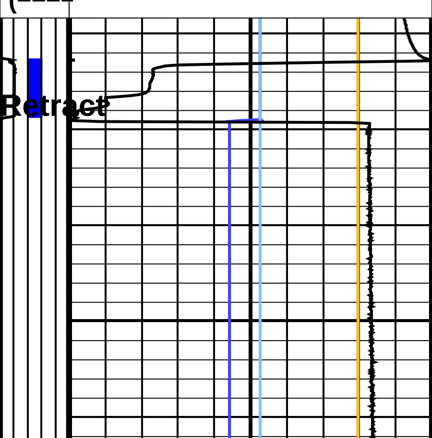
XPT Actions Image (AIMG) (----

CQG Temperature (MTEP_QG) 0 (DEGC) 150

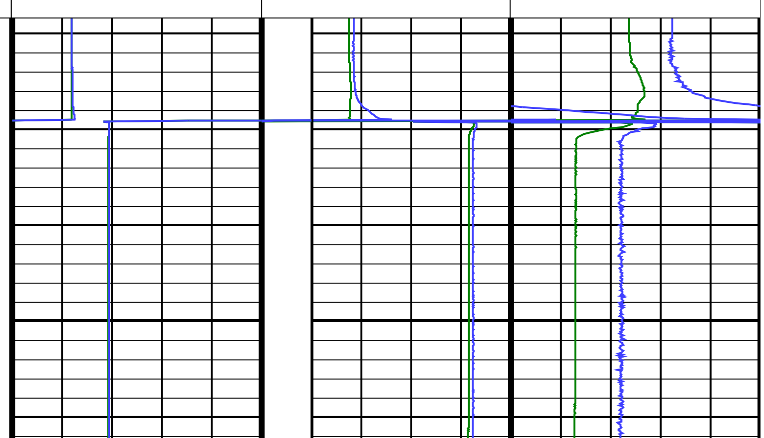
CQG Zoomed Pressure (QCP) 0 (PSIA) 1000

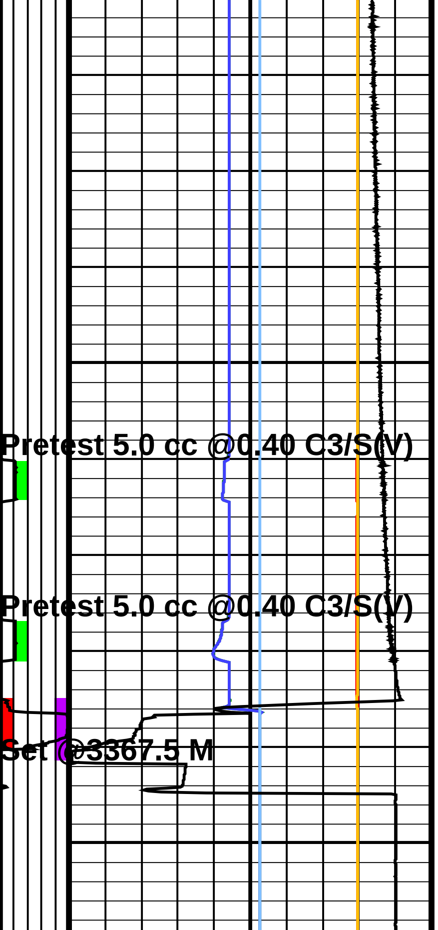
CQG Zoomed Pressure (QCP) 0 (PSIA) 100

CQG Zoomed Pressure (QCP) 0 (PSIA) 10

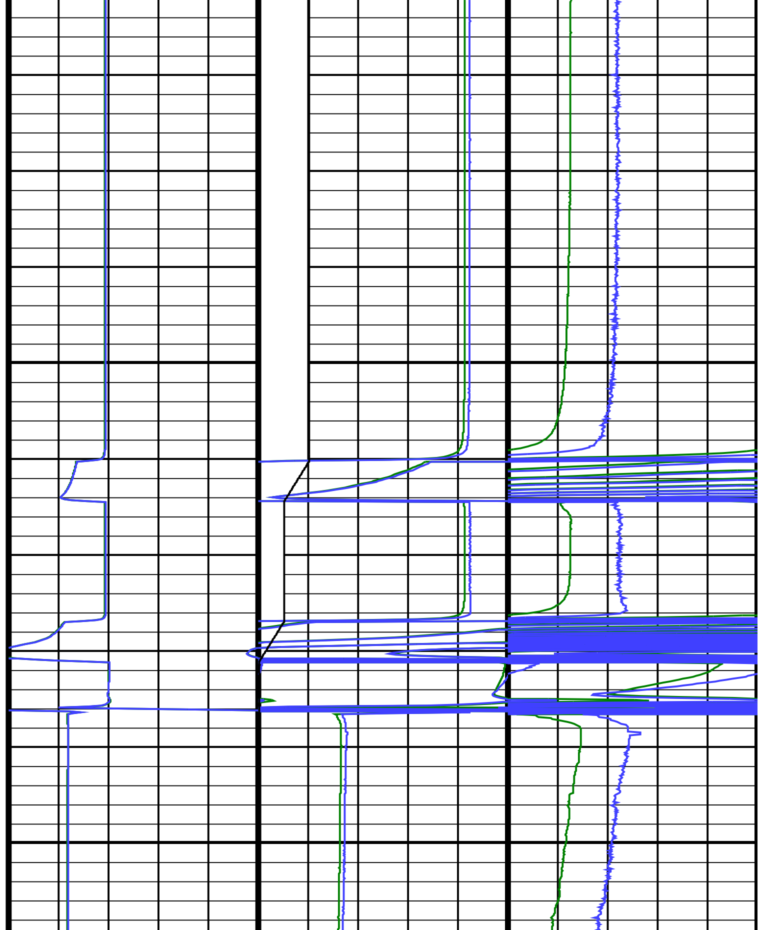


XPT Time Log (ETIM_XPT) (S)	CQG Pressure (QCP) (PSIA)	Sapphire Pressure (CP_SAP) (PSIA)
00:07:00	5234.69	5236.40
00:06:50	5234.78	5236.39
00:06:40	5235.30	5237.33
00:06:30	4384.64	4385.68
00:06:20	4382.56	4384.39
00:06:10	4382.56	4384.35
00:06:00	4382.56	4384.39
00:05:50	4382.56	4384.40
00:05:40	4382.55	4384.38
00:05:30	4382.54	4384.44
00:05:20	4382.54	4384.36
00:05:10	4382.52	4384.40
00:05:00	4382.52	4384.35
00:04:50	4382.45	4384.34





XPT Time Log (ETIM_XPT) (S)	CQG Pressure (QCP) (PSIA)	Sapphire Pressure (CP_SAP) (PSIA)
00:04:50	4382.49	4384.34
00:04:40	4382.48	4384.34
00:04:30	4382.47	4384.29
00:04:20	4382.47	4384.35
00:04:10	4382.48	4384.38
00:04:00	4382.46	4384.31
00:03:50	4382.44	4384.35
00:03:40	4382.42	4384.32
00:03:30	4382.39	4384.35
00:03:20	4382.36	4384.24
00:03:10	4382.32	4384.31
00:03:00	4382.27	4384.22
00:02:50	4382.16	4384.11
00:02:40	4381.91	4383.92
00:02:30	4376.60	4379.71
00:02:20	4235.90	4237.51
00:02:10	4382.47	4384.44
00:02:00	4382.46	4384.45
00:01:50	4382.43	4384.45
00:01:40	4380.19	4384.05
00:01:30	4007.64	4008.36
00:01:20	4396.98	4398.97
00:01:10	5018.60	5016.84
00:01:00	5232.87	5234.81
00:00:50	5232.64	5234.56
00:00:40	5232.39	5234.21
00:00:30	5232.32	5234.26
00:00:20	5232.13	5234.06
00:00:10	5231.95	5233.84
00:00:00	5231.70	5233.49



XPT Actions Image (AIMG) (----

XPT Motor Speed Curve (MSPE_XPT) (RPM) 0 5000

CQG Temperature (MTEP_QG) 0 (DEGC) 150

CQG Pressure (QCP) 0 (PSIA) 10000

Sapphire Pressure (CP_SAP) 0 (PSIA) 10000

Sapphire Manometer Temperature (MTEP_SAP) 0 (DEGC) 150

Hydrostatic Pressure (CP_HYD) 0 (PSIA) 10000

XPT Oil Pressure Curve (HOILP) 0 (PSIA) 4000

CQG Zoomed Pressure (QCP) 0 (PSIA) 1000

Sapphire Zoomed Pressure (CP_SAP) 0 (PSIA) 1000

CQG Zoomed Pressure (QCP) 0 (PSIA) 100

Sapphire Zoomed Pressure (CP_SAP) 0 (PSIA) 100

XPT Pretest Volume Curve (PTV_XPT) 0 (C3) 50

PRETEST_VOLUME From XPT_7 to XPT_PTV_CURVE

CQG Zoomed Pressure (QCP) 0 (PSIA) 10

Sapphire Zoomed Pressure (CP_SAP) 0 (PSIA) 10

XPT Actions Image

WHITE: No Action / COLORED: Action in progress
Left to right:

1. Set (Red)
2. Pretest (Green)
3. Retract (Blue)
4. Init Pretest (Orange)
5. ACom Calibration (Purple)

XPT Dynamic Compensation Status

Quartz Gauge Pressure compensated and corrected
Sapphire Gauge Pressure compensated and corrected
Hydrostatic Sapphire Gauge Pressure compensated and corrected

Parameters

DLIS Name	Description	Value	
XPT−BA: Xpress Pressure Tool − BA			
BTA_HYD	Hydrostatic Gauge Board Temperature A Coefficient	1.00432	
BTA_SAP	Sapphire Board Temperature A Coefficient	1.02085	
BTB_HYD	Hydrostatic Gauge Board Temperature B Coefficient	0	
BTB_SAP	Sapphire Board Temperature B Coefficient	0	
BTCT_HYD	Hydrostatic Gauge Board Temperature Coefficients Read From Data Channels	YES	
BTCT_SAP	Sapphire Board Temperature Coefficients Read Fram Data Channels	YES	
DDPL_XPT	Pretest Drawdown Limit	3000	PSIA
DEVI_FL_CORR_XPT	Tool Deviation Angle	0	DEG
FLD_XPT	Flowline Density	1	G/C3
GDSV	Gauges Downhole Software Version	2.1	
GDYCO	Sapphire Dynamic Compensation Applied	YES	
PAC_SAP	Sapphire Gauge Pressure A Coefficient	0.999379	
PA_HYD	Hydrostatic Gauge Pressure A Coefficient	1.00847	
PBC_SAP	Sapphire Gauge Pressure B Coefficient	0	
PB_HYD	Hydrostatic Gauge Pressure B Coefficient	0	
PCT_HYD	Hydrostatic Gauge Pressure Coefficients Read From Data Channels	YES	
PCT_SAP	Sapphire Pressure Coefficients Read From Data Channels	YES	
PGSR	Pressure Gauges Sampling Rate	300	ms
PRSP	Pretest Rate	0.4	C3/S
PTM_XPT	Pretest Type	SMART	
PTVO_XPT	Pretest Volume	5	C3
QDYCO	CQG Dynamic Compensation Applied	YES	
TAC_SAP	Sapphire Gauge Temperature A Coefficient	1.02268	
TA_HYD	Hydrostatic Gauge Temperature A Coefficient	0.999207	
TBC_SAP	Sapphire Gauge Temperature B Coefficient	0	
TB_HYD	Hydrostatic Gauge Temperature B Coefficient	0	
TCT_HYD	Hydrostatic Gauge Temperature Coefficients Read >From Data Channels	YES	
TCT_SAP	Sapphire Temperature Coefficients Read From Data Channels	YES	

Output DLIS Files

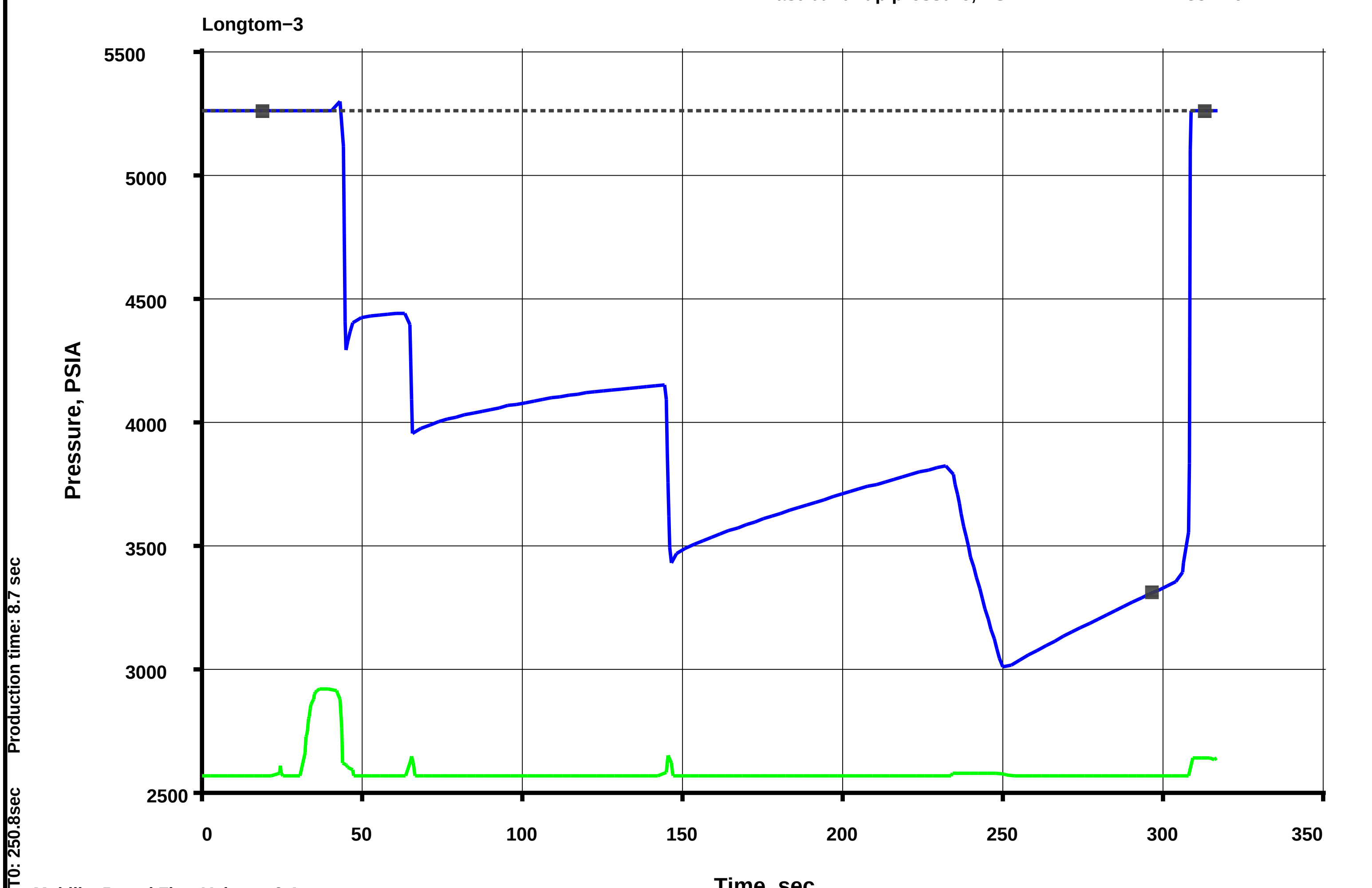
DEFAULT	TLD_MCFL_CNL_XPT_049LTP	FN:61	PRODUCER	27−Jul−2006 22:41
RT	TLD_MCFL_CNL_XPT_049LTP	FN:62	PRODUCER	27−Jul−2006 22:43

Schlumberger

Station Depth (MD)
3377.0 m

MAXIS Field Log

File 48	Depth, M: 3376.96	Dry Test − Conventional probe	
27−Jul−2006	Nexus Energy	Mud Pressure before test, PSIA:	5247.01
		Mud Pressure after test, PSIA:	5247.41
	Longtom	Last build−up pressure, PSIA:	3311.62



Mobility Based Flow Volume: 0.4 cc

Total Pretest Volume: 0.8 cc − XPT−BA QCP Resolution: 0.010psi

Output DLIS Files

DEFAULT	TLD_MCFL_CNL_XPT_048LTP	FN:59	PRODUCER	27−Jul−2006 22:31	3379.0 M	0.8 M
RT	TLD_MCFL_CNL_XPT_048LTP	FN:60	PRODUCER	27−Jul−2006 22:33	3379.0 M	0.8 M

Changed Parameter Summary

DLIS Name	New Value	Previous Value	Depth & Time
DDPL_XPT	3500 PSIA	4000 PSIA	3379.0 22:33:57
	3000 PSIA	3500 PSIA	3379.0 22:35:13
PTM_XPT	SMART	MANUAL	3379.0 22:35:32

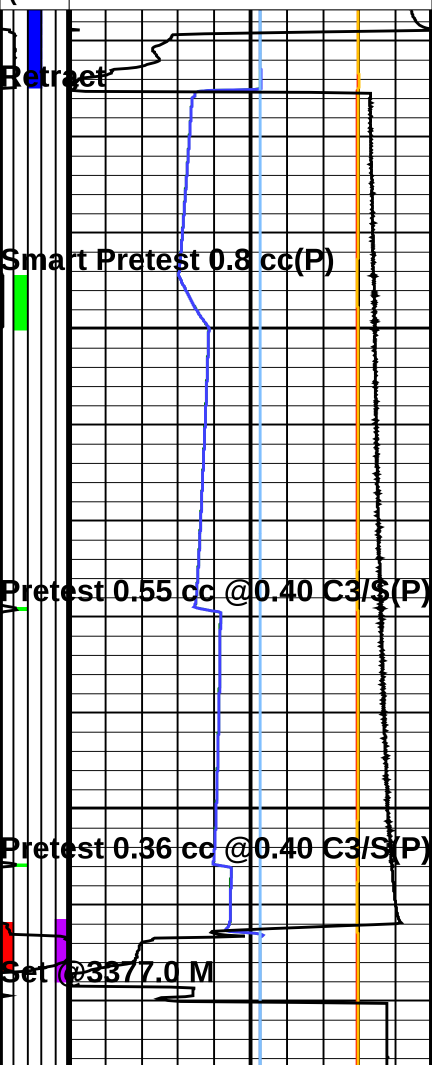
XPT Oil Pressure Curve (HOILP)	0	(PSIA)	4000
Hydrostatic Pressure (CP_HYD)	0	(PSIA)	10000
Sapphire Manometer Temperature (MTEP_SAP)	0	(DEGC)	150
Sapphire Pressure (CP_SAP)	0	(PSIA)	10000

PRETEST_ VOLUME From XPT_7 to XPT_PTV_CURVE

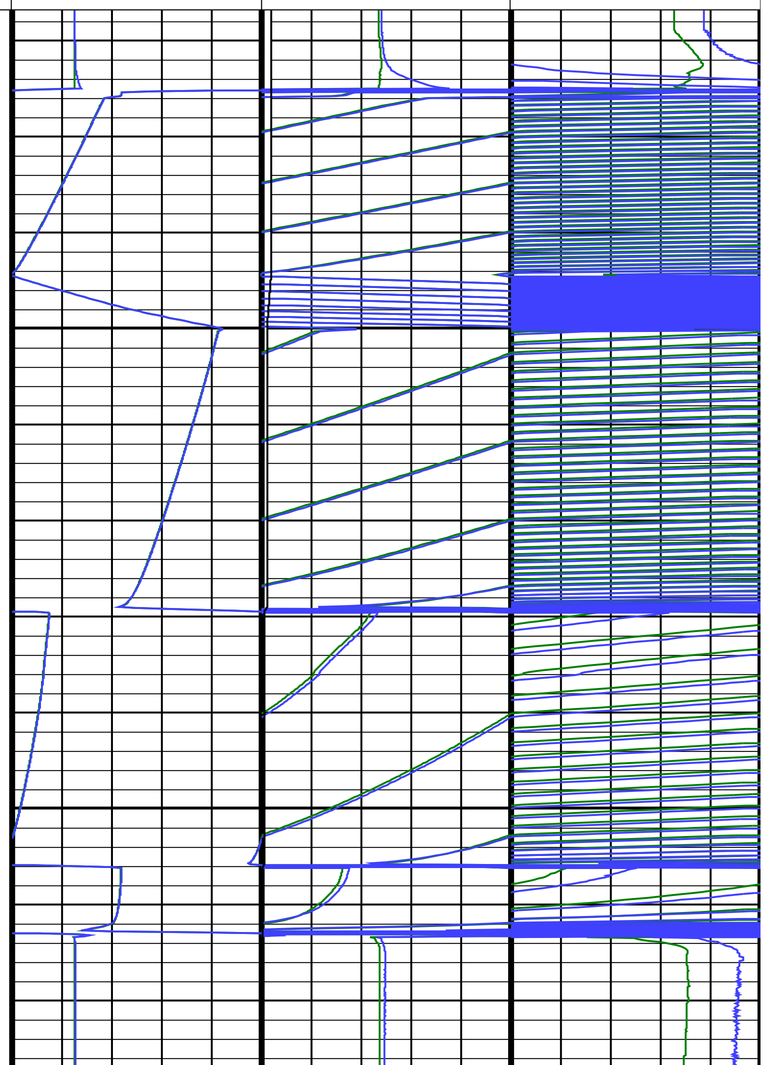
XPT Pretest Volume Curve (PTV_XPT)	0	(C3)	50

XPT Moto r Spee

d Curv e (MSPE_ XPT) (RPM) 0 5000	CQG Pressure (QCP) 0 (PSIA) 10000				Sapphire Zoomed Pressure (CP_SAP) 0 (PSIA) 1000	Sapphire Zoomed Pressure (CP_SAP) 0 (PSIA) 100	Sapphire Zoomed Pressure (CP_SAP) 0 (PSIA) 10
XPT Actions Image (AIMG) (----	CQG Temperature (MTEP_QG) 0 (DEGC) 150	XPT Time Log (ETIM_XPT) (S)	CQG Pressure (QCP) (PSIA)	Sapphire Pressure (CP_SAP) (PSIA)	CQG Zoomed Pressure (QCP) 0 (PSIA) 1000	CQG Zoomed Pressure (QCP) 0 (PSIA) 100	CQG Zoomed Pressure (QCP) 0 (PSIA) 10



XPT Time Log (ETIM_XPT) (S)	CQG Pressure (QCP) (PSIA)	Sapphire Pressure (CP_SAP) (PSIA)
00:05:30	5246.49	5247.69
00:05:20	5247.25	5248.48
00:05:10	5246.91	5263.39
00:05:00	3331.55	3333.83
00:04:50	3269.55	3272.01
00:04:40	3206.90	3209.30
00:04:30	3143.18	3145.77
00:04:20	3073.82	3076.49
00:04:10	2993.67	2994.18
00:04:00	3426.18	3425.68
00:03:50	3813.24	3815.43
00:03:40	3780.25	3782.44
00:03:30	3744.56	3746.77
00:03:20	3706.19	3708.46
00:03:10	3666.91	3669.19
00:03:00	3626.62	3628.95
00:02:50	3582.91	3585.41
00:02:40	3537.25	3539.93
00:02:30	3481.37	3481.47
00:02:20	4139.01	4141.22
00:02:10	4125.81	4128.03
00:02:00	4112.62	4114.80
00:01:50	4093.38	4095.70
00:01:40	4070.98	4073.44
00:01:30	4046.12	4048.62
00:01:20	4016.65	4019.16
00:01:10	3978.45	3979.10
00:01:00	4430.39	4432.74
00:00:50	4415.78	4416.33
00:00:40	5246.79	5248.77
00:00:30	5247.05	5249.08
00:00:20	5247.00	5249.09
00:00:10	5246.97	5248.99
00:00:00	5246.85	5248.80



XPT Actions Image (AIMG) (----	CQG Temperature (MTEP_QG) 0 (DEGC) 150	XPT Time Log (ETIM_XPT) (S)	CQG Pressure (QCP) (PSIA)	Sapphire Pressure (CP_SAP) (PSIA)	CQG Zoomed Pressure (QCP) 0 (PSIA) 1000	CQG Zoomed Pressure (QCP) 0 (PSIA) 100	CQG Zoomed Pressure (QCP) 0 (PSIA) 10
XPT Motor Speed Curve (MSP	CQG Pressure (QCP) 0 (PSIA) 10000				Sapphire Zoomed Pressure (CP_SAP) 0 (PSIA) 1000	Sapphire Zoomed Pressure (CP_SAP) 0 (PSIA) 100	Sapphire Zoomed Pressure (CP_SAP) 0 (PSIA) 10

E_ XPT) (RPM) 0 5000	Sapphire Pressure (CP_SAP) 0 (PSIA) 10000	XPT Pretest Volume Curve (PTV_XPT) 0 (C3) 50
	Sapphire Manometer Temperature (MTEP_SAP) 0 (DEGC) 150	PRETEST_ VOLUME From XPT_7 to XPT_PTV_CURVE
	Hydrostatic Pressure (CP_ HYD) 0 (PSIA) 10000	
	XPT Oil Pressure Curve (HOILP) 0 (PSIA) 4000	

XPT Actions Image

WHITE: No Action / COLORED: Action in progress
Left to right:

1. Set (Red)
2. Pretest (Green)
3. Retract (Blue)
4. Init Pretest (Orange)
5. ACom Calibration (Purple)

XPT Dynamic Compensation Status

Quartz Gauge Pressure compensated and corrected
Sapphire Gauge Pressure compensated and corrected
Hydrostatic Sapphire Gauge Pressure compensated and corrected

Parameters

DLIS Name	Description	Value	
	XPT−BA: Xpress Pressure Tool − BA		
BTA_HYD	Hydrostatic Gauge Board Temperature A Coefficient	1.00431	
BTA_SAP	Sapphire Board Temperature A Coefficient	1.02084	
BTB_HYD	Hydrostatic Gauge Board Temperature B Coefficient	0	
BTB_SAP	Sapphire Board Temperature B Coefficient	0	
BTCT_HYD	Hydrostatic Gauge Board Temperature Coefficients Read From Data Channels	YES	
BTCT_SAP	Sapphire Board Temperature Coefficients Read Fram Data Channels	YES	
DDPL_XPT	Pretest Drawdown Limit	4000	PSIA
DEVI_FL_CORR_XPT	Tool Deviation Angle	0	DEG
FLD_XPT	Flowline Density	1	G/C3
GDSV	Gauges Downhole Software Version	2.1	
GDYCO	Sapphire Dynamic Compensation Applied	YES	
PAC_SAP	Sapphire Gauge Pressure A Coefficient	0.999379	
PA_HYD	Hydrostatic Gauge Pressure A Coefficient	1.00847	
PBC_SAP	Sapphire Gauge Pressure B Coefficient	0	
PB_HYD	Hydrostatic Gauge Pressure B Coefficient	0	
PCT_HYD	Hydrostatic Gauge Pressure Coefficients Read From Data Channels	YES	
PCT_SAP	Sapphire Pressure Coefficients Read From Data Channels	YES	
PGSR	Pressure Gauges Sampling Rate	300	ms
PRSP	Pretest Rate	0.4	C3/S
PTM_XPT	Pretest Type	MANUAL	
PTVO_XPT	Pretest Volume	5	C3
QDYCO	CQG Dynamic Compensation Applied	YES	
TAC_SAP	Sapphire Gauge Temperature A Coefficient	1.02268	
TA_HYD	Hydrostatic Gauge Temperature A Coefficient	0.99921	
TBC_SAP	Sapphire Gauge Temperature B Coefficient	0	
TB_HYD	Hydrostatic Gauge Temperature B Coefficient	0	
TCT_HYD	Hydrostatic Gauge Temperature Coefficients Read >From Data Channels	YES	
TCT_SAP	Sapphire Temperature Coefficients Read From Data Channels	YES	

Output DLIS Files

DEFAULT	TLD_MCFL_CNL_XPT_048LTP	FN:59	PRODUCER	27−Jul−2006 22:31
RT	TLD_MCFL_CNL_XPT_048LTP	FN:60	PRODUCER	27−Jul−2006 22:33

Schlumberger

Station Depth (MD) 3376.0 m

MAXIS Field Log

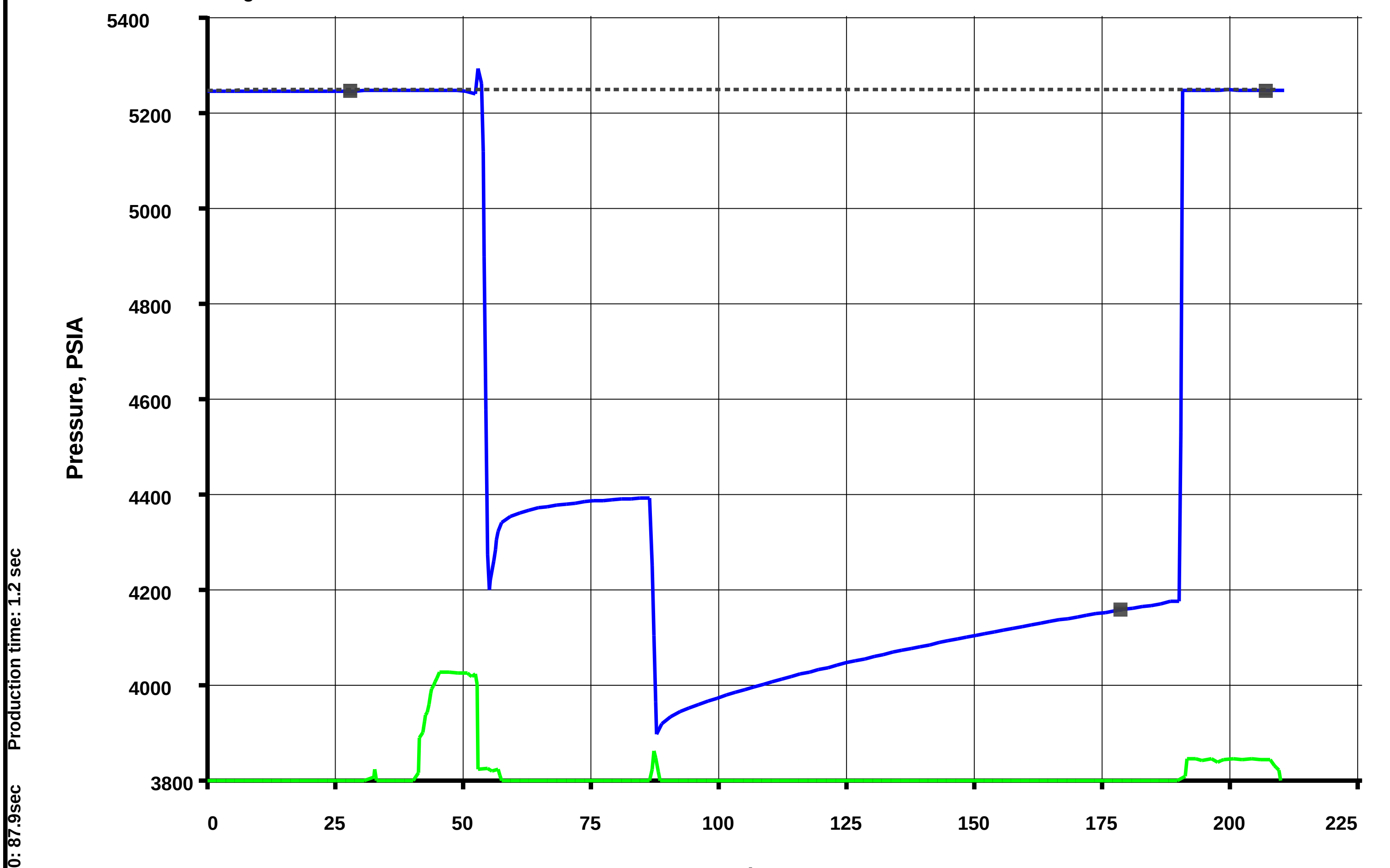
File 47 | Depth, M: 3375.98 | Dry Test − Conventional probe

27−Jul−2006 | Nexus Energy

Longtom

Longtom−3

Mud Pressure before test, PSIA:	5242.78
Mud Pressure after test, PSIA:	5244.04
Last build−up pressure, PSIA:	4159.36



Mobility Based Flow Volume: 0.3 cc

Total Pretest Volume: 0.4 cc − XPT−BA QCP Resolution: 0.010psi

Output DLIS Files

DEFAULT	TLD_MCFL_CNL_XPT_047LTP	FN:57	PRODUCER	27−Jul−2006 22:24	3378.0 M	0.6 M
RT	TLD_MCFL_CNL_XPT_047LTP	FN:58	PRODUCER	27−Jul−2006 22:26	3378.0 M	0.6 M

Changed Parameter Summary

DLIS Name	New Value	Previous Value	Depth & Time
PRSP	0.4 C3/S	0.5 C3/S	3378.0 22:25:14

XPT Oil Pressure Curve

XPT Oil Pressure Curve (HOILP)
0 (PSIA) 4000

Hydrostatic Pressure (CP_HYD)
0 (PSIA) 10000

Sapphire Manometer Temperature (MTEP_SAP)
0 (DEGC) 150

Sapphire Pressure (CP_SAP)
0 (PSIA) 10000

PRETEST_VOLUME From XPT_7 to XPT_PTV_CURVE

XPT Pretest Volume Curve (PTV_XPT)
0 (C3) 50

XPT Motor Speed Curve (MSPE_XPT) (RPM)
0 5000

CQG Pressure (QCP)
0 (PSIA) 10000

Sapphire Zoomed Pressure (CP_SAP)
0 (PSIA) 1000

Sapphire Zoomed Pressure (CP_SAP)
0 (PSIA) 100

Sapphire Zoomed Pressure (CP_SAP)
0 (PSIA) 10

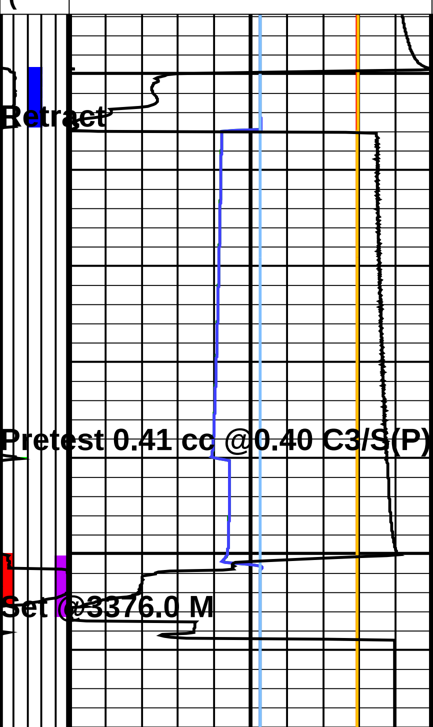
XPT Actions Image (AIMG) (----

CQG Temperature (MTEP_QG)
0 (DEGC) 150

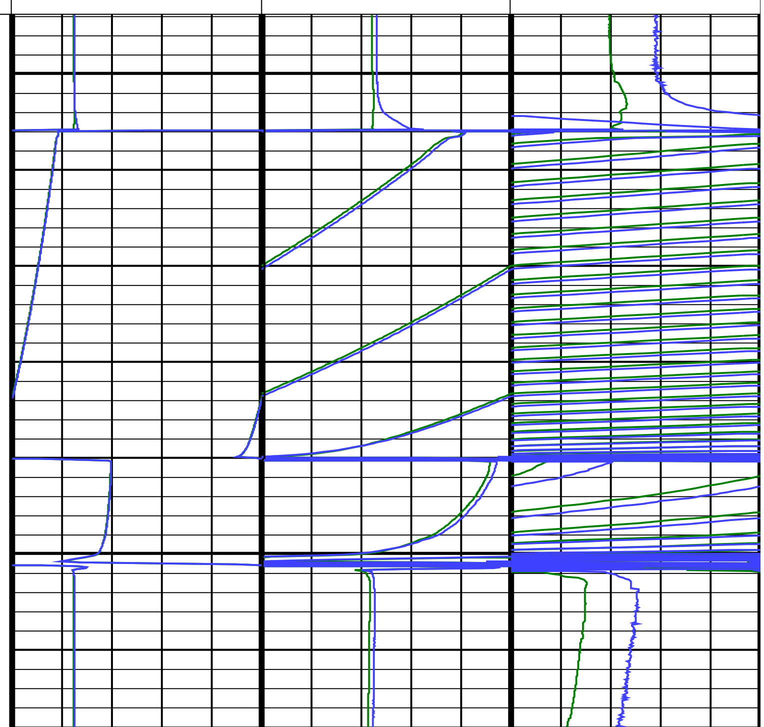
CQG Zoomed Pressure (QCP)
0 (PSIA) 1000

CQG Zoomed Pressure (QCP)
0 (PSIA) 100

CQG Zoomed Pressure (QCP)
0 (PSIA) 10



XPT Time Log (ETIM_XPT) (S)	CQG Pressure (QCP) (PSIA)	Sapphire Pressure (CP_SAP) (PSIA)
00:03:40	5243.91	5245.74
00:03:30	5243.99	5245.83
00:03:20	5244.55	5246.40
00:03:10	5244.34	5264.48
00:03:00	4160.93	4163.12
00:02:50	4143.49	4145.80
00:02:40	4125.14	4127.45
00:02:30	4104.60	4106.84
00:02:20	4083.36	4085.81
00:02:10	4060.23	4062.60
00:02:00	4034.58	4037.05
00:01:50	4007.00	4009.51
00:01:40	3975.60	3978.19
00:01:30	3933.23	3932.46
00:01:20	4388.77	4391.04
00:01:10	4379.41	4381.87
00:01:00	4357.23	4358.11
00:00:50	5242.67	5244.45
00:00:40	5242.94	5245.02
00:00:30	5242.76	5244.77
00:00:20	5242.61	5244.63
00:00:10	5242.43	5244.44
00:00:00	5242.13	5244.23



XPT Actions Image (AIMG)

CQG Temperature (MTEP_QG)
0 (DEGC) 150

XPT Time Log (ETIM_XPT) (S)

CQG Pressure (QCP) (PSIA)

Sapphire Pressure (CP_SAP) (PSIA)

CQG Zoomed Pressure (QCP)
0 (PSIA) 1000

CQG Zoomed Pressure (QCP)
0 (PSIA) 100

CQG Zoomed Pressure (QCP)
0 (PSIA) 10

(----							
XPT Motor Speed Curve (MSPE_XPT) (RPM) 0 5000	CQG Pressure (QCP) 0 (PSIA) 10000				Sapphire Zoomed Pressure (CP_SAP) 0 (PSIA) 1000	Sapphire Zoomed Pressure (CP_SAP) 0 (PSIA) 100	Sapphire Zoomed Pressure (CP_SAP) 0 (PSIA) 10
	Sapphire Pressure (CP_SAP) 0 (PSIA) 10000					XPT Pretest Volume Curve (PTV_XPT) 0 (C3) 50	
	Sapphire Manometer Temperature (MTEP_SAP) 0 (DEGC) 150					PRETEST_ VOLUME From XPT_7 to XPT_PTV_CURVE	
	Hydrostatic Pressure (CP_ HYD) 0 (PSIA) 10000						
	XPT Oil Pressure Curve (HOILP) 0 (PSIA) 4000						

XPT Actions Image

WHITE: No Action / COLORED: Action in progress
Left to right:

1. Set (Red)
2. Pretest (Green)
3. Retract (Blue)
4. Init Pretest (Orange)
5. ACom Calibration (Purple)

XPT Dynamic Compensation Status

Quartz Gauge Pressure compensated and corrected
Sapphire Gauge Pressure compensated and corrected
Hydrostatic Sapphire Gauge Pressure compensated and corrected

Parameters

DLIS Name	Description	Value	
	XPT-BA: Xpress Pressure Tool - BA		
BTA_HYD	Hydrostatic Gauge Board Temperature A Coefficient	1.00431	
BTA_SAP	Sapphire Board Temperature A Coefficient	1.02084	
BTB_HYD	Hydrostatic Gauge Board Temperature B Coefficient	0	
BTB_SAP	Sapphire Board Temperature B Coefficient	0	
BTCT_HYD	Hydrostatic Gauge Board Temperature Coefficients Read From Data Channels	YES	
BTCT_SAP	Sapphire Board Temperature Coefficients Read Fram Data Channels	YES	
DDPL_XPT	Pretest Drawdown Limit	4000	PSIA
DEVI_FL_CORR_XPT	Tool Deviation Angle	0	DEG
FLD_XPT	Flowline Density	1	G/C3
GDSV	Gauges Downhole Software Version	2.1	
GDYCO	Sapphire Dynamic Compensation Applied	YES	
PAC_SAP	Sapphire Gauge Pressure A Coefficient	0.999381	
PA_HYD	Hydrostatic Gauge Pressure A Coefficient	1.00847	
PBC_SAP	Sapphire Gauge Pressure B Coefficient	0	
PB_HYD	Hydrostatic Gauge Pressure B Coefficient	0	
PCT_HYD	Hydrostatic Gauge Pressure Coefficients Read From Data Channels	YES	
PCT_SAP	Sapphire Pressure Coefficients Read From Data Channels	YES	
PGSR	Pressure Gauges Sampling Rate	300	ms
PRSP	Pretest Rate	0.5	C3/S
PTM_XPT	Pretest Type	MANUAL	

PTM_XPT	Pretest Type	MANUAL	
PTVO_XPT	Pretest Volume	5	C3
QDYCO	CQG Dynamic Compensation Applied	YES	
TAC_SAP	Sapphire Gauge Temperature A Coefficient	1.02268	
TA_HYD	Hydrostatic Gauge Temperature A Coefficient	0.999211	
TBC_SAP	Sapphire Gauge Temperature B Coefficient	0	
TB_HYD	Hydrostatic Gauge Temperature B Coefficient	0	
TCT_HYD	Hydrostatic Gauge Temperature Coefficients Read >From Data Channels	YES	
TCT_SAP	Sapphire Temperature Coefficients Read From Data Channels	YES	

Output DLIS Files

DEFAULT	TLD_MCFL_CNL_XPT_047LTP	FN:57	PRODUCER	27−Jul−2006 22:24
RT	TLD_MCFL_CNL_XPT_047LTP	FN:58	PRODUCER	27−Jul−2006 22:26

Schlumberger

Station Depth (MD)
3383.0 m

MAXIS Field Log

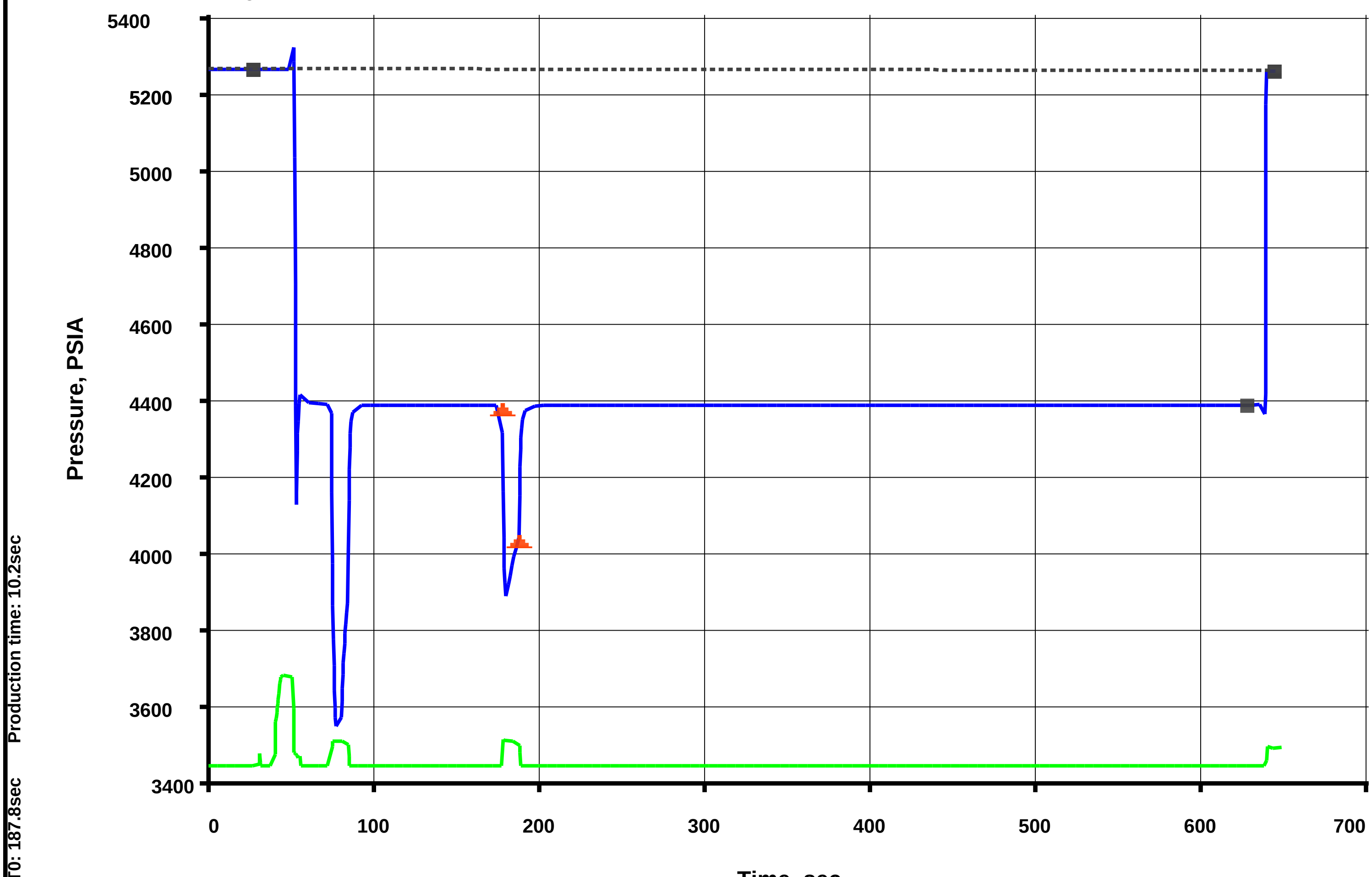
File 46 | Depth, M: 3382.96 | Volumetric Limited draw−down − Conventional probe

27−Jul−2006 | Nexus Energy

Longtom

Longtom−3

Mud Pressure before test, PSIA:	5257.74
Mud Pressure after test, PSIA:	5253.65
Last build−up pressure, PSIA:	4384.8
Draw−down mobility, md/cp:	6.2



Mobility Based Flow Volume: 5.0 cc

Total Pretest Volume: 5.0 cc − XPT−BA QCP Resolution: 0.010psi

Output DLIS Files

DEFAULT	TLD_MCFL_CNL_XPT_046LTP	FN:55	PRODUCER	27–Jul–2006 22:08	3385.0 M	1.7 M
RT	TLD_MCFL_CNL_XPT_046LTP	FN:56	PRODUCER	27–Jul–2006 22:09	3385.0 M	1.7 M

Changed Parameter Summary

DLIS Name	New Value	Previous Value	Depth & Time
DDPL_XPT	4000 PSIA	50 PSIA	3385.0 22:19:09

XPT Oil Pressure Curve (HOILP) 0 (PSIA) 4000

Hydrostatic Pressure (CP_HYD) 0 (PSIA) 10000

Sapphire Manometer Temperature (MTEP_SAP) 0 (DEGC) 150

Sapphire Pressure (CP_SAP) 0 (PSIA) 10000

PRETEST_VOLUME From XPT_7 to XPT_PTV_CURVE

XPT Pretest Volume Curve (PTV_XPT) 0 (C3) 50

XPT Motor Speed Curve (MSPE_XPT) (RPM) 0 5000

CQG Pressure (QCP) 0 (PSIA) 10000

Sapphire Zoomed Pressure (CP_SAP) 0 (PSIA) 1000

Sapphire Zoomed Pressure (CP_SAP) 0 (PSIA) 100

Sapphire Zoomed Pressure (CP_SAP) 0 (PSIA) 10

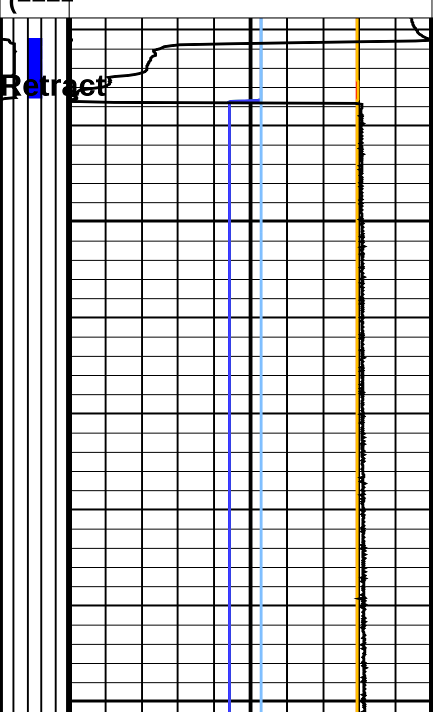
XPT Actions Image (AIMG) (––––

CQG Temperature (MTEP_QG) 0 (DEGC) 150

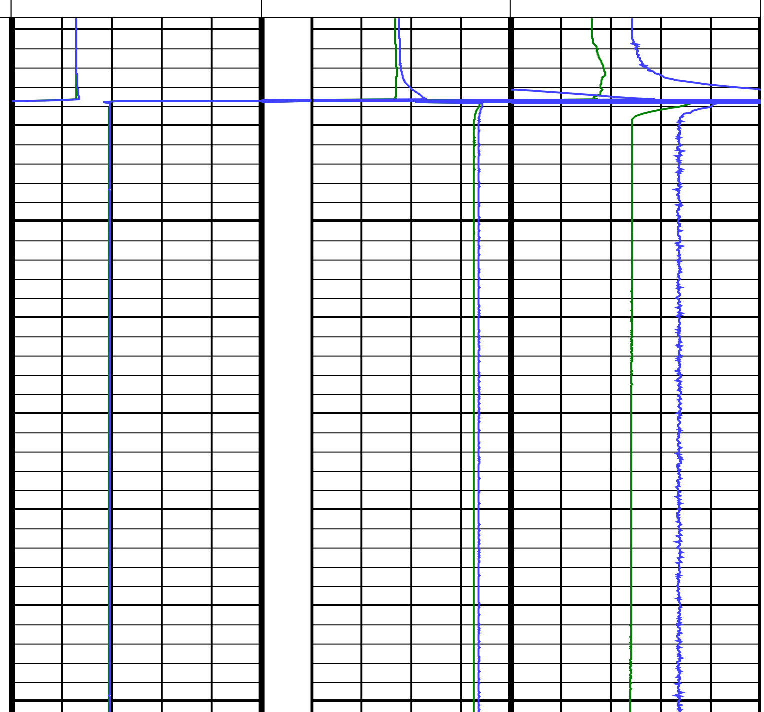
CQG Zoomed Pressure (QCP) 0 (PSIA) 1000

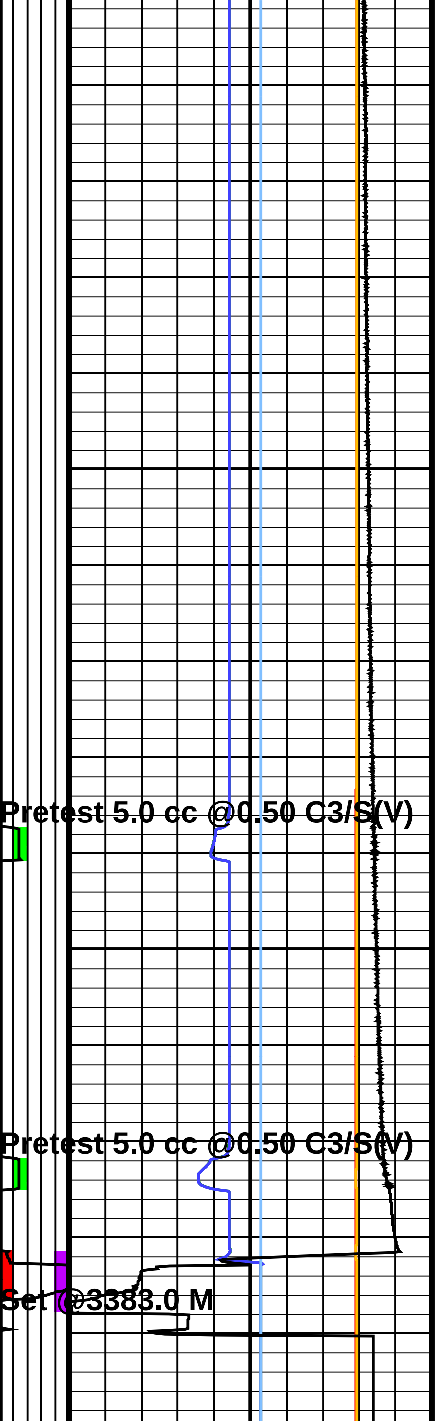
CQG Zoomed Pressure (QCP) 0 (PSIA) 100

CQG Zoomed Pressure (QCP) 0 (PSIA) 10

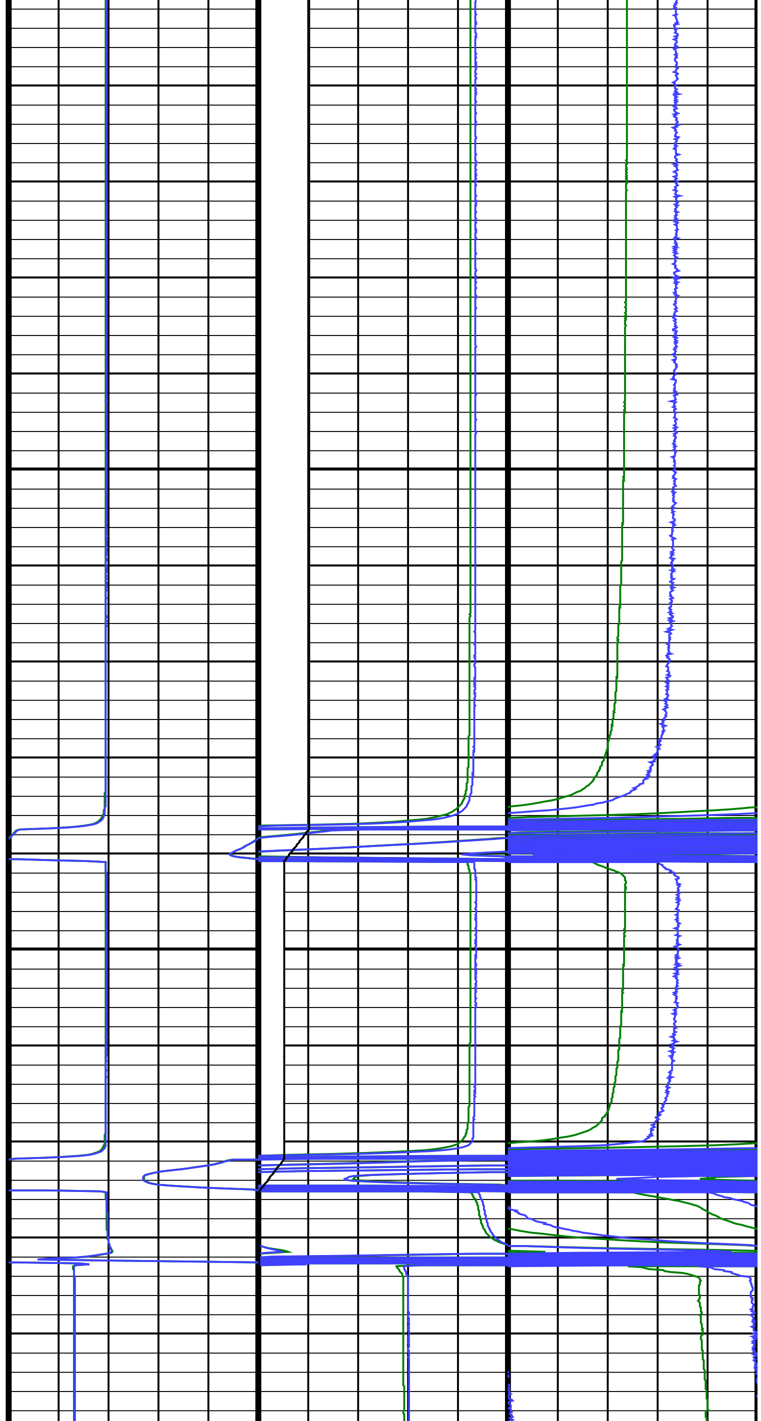


XPT Time Log (ETIM_XPT) (S)	CQG Pressure (QCP) (PSIA)	Sapphire Pressure (CP_SAP) (PSIA)
00:11:00	5253.20	5254.81
00:10:50	5253.58	5255.19
00:10:40	5253.52	5262.92
00:10:30	4384.81	4386.65
00:10:20	4384.80	4386.66
00:10:10	4384.80	4386.70
00:10:00	4384.80	4386.64
00:09:50	4384.79	4386.71
00:09:40	4384.79	4386.66
00:09:30	4384.80	4386.73
00:09:20	4384.79	4386.76
00:09:10	4384.79	4386.72
00:09:00	4384.78	4386.74
00:08:50	4384.78	4386.66
00:08:40	4384.77	4386.78
00:08:30	4384.77	4386.73
00:08:20	4384.76	4386.58
00:08:10	4384.76	4386.68
00:08:00	4384.76	4386.72
00:07:50	4384.75	4386.67
00:07:40	4384.75	4386.70
00:07:30	4384.74	4386.67





XPT Time Log (ETIM_XPT) (S)	CQG Pressure (QCP) (PSIA)	Sapphire Pressure (CP_SAP) (PSIA)
00:07:20	4384.74	4386.77
00:07:10	4384.73	4386.74
00:07:00	4384.72	4386.67
00:06:50	4384.72	4386.73
00:06:40	4384.71	4386.70
00:06:30	4384.71	4386.71
00:06:20	4384.70	4386.70
00:06:10	4384.69	4386.72
00:06:00	4384.69	4386.80
00:05:50	4384.67	4386.71
00:05:40	4384.66	4386.67
00:05:30	4384.65	4386.70
00:05:20	4384.63	4386.65
00:05:10	4384.62	4386.69
00:05:00	4384.60	4386.59
00:04:50	4384.58	4386.60
00:04:40	4384.55	4386.54
00:04:30	4384.51	4386.58
00:04:20	4384.46	4386.58
00:04:10	4384.39	4386.54
00:04:00	4384.35	4386.43
00:03:50	4384.28	4386.30
00:03:40	4384.13	4386.27
00:03:30	4383.83	4385.82
00:03:20	4382.92	4385.01
00:03:10	4353.65	4359.38
00:03:00	3887.23	3884.92
00:02:50	4384.67	4386.83
00:02:40	4384.65	4386.73
00:02:30	4384.61	4386.80
00:02:20	4384.57	4386.75
00:02:10	4384.51	4386.59
00:02:00	4384.42	4386.61
00:01:50	4384.27	4386.40
00:01:40	4383.99	4386.16
00:01:30	4380.87	4385.30
00:01:20	3556.83	3555.86
00:01:10	4387.52	4389.86
00:01:00	4392.72	4394.48
00:00:50	5256.19	5258.61
00:00:40	5257.63	5259.74
00:00:30	5257.77	5259.82
00:00:20	5257.81	5259.96
00:00:10	5257.93	5259.99
00:00:00	5257.95	5260.07



XPT Actions Image (AIMG) (----

CQG Temperature (MTEP_QG)
0 (DEGC) 150

CQG Zoomed Pressure (QCP)
0 (PSIA) 1000

CQG Zoomed Pressure (QCP)
0 (PSIA) 100

CQG Zoomed Pressure (QCP)
0 (PSIA) 10

XPT Motor Speed Curve (MSPE_XPT) (RPM)
0 5000

CQG Pressure (QCP)
0 (PSIA) 10000

Sapphire Zoomed Pressure (CP_SAP)
0 (PSIA) 1000

Sapphire Zoomed Pressure (CP_SAP)
0 (PSIA) 100

Sapphire Zoomed Pressure (CP_SAP)
0 (PSIA) 10

XPT Pretest Volume

Sapphire Pressure (CP_SAP)		
0	(PSIA)	10000

Sapphire Manometer Temperature (MTEP_SAP)		
0	(DEGC)	150

Hydrostatic Pressure (CP_HYD)		
0	(PSIA)	10000

XPT Oil Pressure Curve (HOILP)		
0	(PSIA)	4000

XPT Pretest Volume Curve (PTV_XPT)		
0	(C3)	50

PRETEST_VOLUME From XPT_7 to XPT_PTV_CURVE

XPT Actions Image

WHITE: No Action / COLORED: Action in progress
Left to right:

1. Set (Red)
2. Pretest (Green)
3. Retract (Blue)
4. Init Pretest (Orange)
5. ACom Calibration (Purple)

XPT Dynamic Compensation Status

Quartz Gauge Pressure compensated and corrected
Sapphire Gauge Pressure compensated and corrected
Hydrostatic Sapphire Gauge Pressure compensated and corrected

Parameters

XPT−BA: Xpress Pressure Tool − BA

DLIS Name	Description	Value	
BTA_HYD	Hydrostatic Gauge Board Temperature A Coefficient	1.00431	
BTA_SAP	Sapphire Board Temperature A Coefficient	1.02084	
BTB_HYD	Hydrostatic Gauge Board Temperature B Coefficient	0	
BTB_SAP	Sapphire Board Temperature B Coefficient	0	
BTCT_HYD	Hydrostatic Gauge Board Temperature Coefficients Read From Data Channels	YES	
BTCT_SAP	Sapphire Board Temperature Coefficients Read Fram Data Channels	YES	
DDPL_XPT	Pretest Drawdown Limit	50	PSIA
DEVI_FL_CORR_XPT	Tool Deviation Angle	0	DEG
FLD_XPT	Flowline Density	1	G/C3
GDSV	Gauges Downhole Software Version	2.1	
GDYCO	Sapphire Dynamic Compensation Applied	YES	
PAC_SAP	Sapphire Gauge Pressure A Coefficient	0.999384	
PA_HYD	Hydrostatic Gauge Pressure A Coefficient	1.00846	
PBC_SAP	Sapphire Gauge Pressure B Coefficient	0	
PB_HYD	Hydrostatic Gauge Pressure B Coefficient	0	
PCT_HYD	Hydrostatic Gauge Pressure Coefficients Read From Data Channels	YES	
PCT_SAP	Sapphire Pressure Coefficients Read From Data Channels	YES	
PGSR	Pressure Gauges Sampling Rate	300	ms
PRSP	Pretest Rate	0.5	C3/S
PTM_XPT	Pretest Type	MANUAL	
PTVO_XPT	Pretest Volume	5	C3
QDYCO	CQG Dynamic Compensation Applied	YES	
TAC_SAP	Sapphire Gauge Temperature A Coefficient	1.02268	
TA_HYD	Hydrostatic Gauge Temperature A Coefficient	0.999207	
TBC_SAP	Sapphire Gauge Temperature B Coefficient	0	
TB_HYD	Hydrostatic Gauge Temperature B Coefficient	0	
TCT_HYD	Hydrostatic Gauge Temperature Coefficients Read >From Data Channels	YES	
TCT_SAP	Sapphire Temperature Coefficients Read From Data Channels	YES	

Output DLIS Files

DEFAULT	TLD_MCFL_CNL_XPT_046LTP	FN:55	PRODUCER	27−Jul−2006 22:08
RT	TLD_MCFL_CNL_XPT_046LTP	FN:56	PRODUCER	27−Jul−2006 22:09

Schlumberger

Station Depth (MD)
3387.0 m

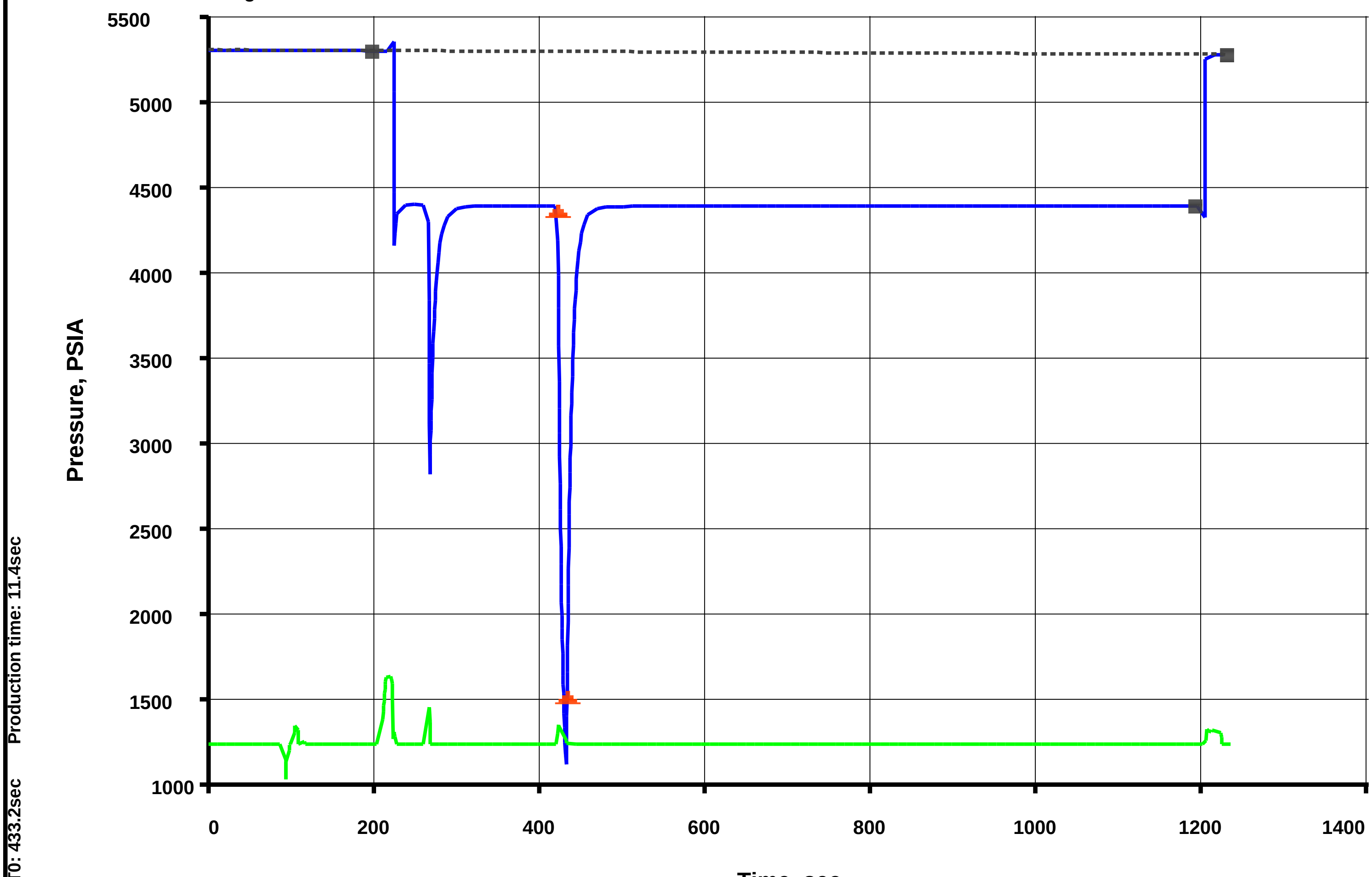
MAXIS Field Log

File 45
27−Jul−2006

Depth, M: 3386.97
Nexus Energy
Longtom
Longtom−3

Volumetric Limited draw−down − Conventional probe

Mud Pressure before test, PSIA: 5293.97
Mud Pressure after test, PSIA: 5271.6
Last build−up pressure, PSIA: 4386.8
Draw−down mobility, md/cp: 0.7



Mobility Based Flow Volume: 5.0 cc

Total Pretest Volume: 5.0 cc − XPT−BA QCP Resolution: 0.010psi

Output DLIS Files

DEFAULT	TLD_MCFL_CNL_XPT_045LTP	FN:53	PRODUCER	27−Jul−2006 21:39	3389.0 M	3.2 M
RT	TLD_MCFL_CNL_XPT_045LTP	FN:54	PRODUCER	27−Jul−2006 21:41	3389.0 M	3.2 M

Changed Parameter Summary

DLIS Name	New Value	Previous Value	Depth & Time
DDPL_XPT	3000 PSIA	−33.9161 PSIA	3389.0 21:42:50
	50 PSIA	3000 PSIA	3389.0 21:46:03
PRSP	1 C3/S	0.5 C3/S	3389.0 21:43:05
	0.5 C3/S	1 C3/S	3389.0 21:45:58
PTVO_XPT	5 C3	10 C3	3389.0 21:42:56

XPT Oil Pressure Curve (HOILP)		
0	(PSIA)	4000

Hydrostatic Pressure (CP_HYD)
0 (PSIA) 10000

Sapphire Manometer Temperature (MTEP_SAP)
0 (DEGC) 150

Sapphire Pressure (CP_SAP)
0 (PSIA) 10000

PRETEST_VOLUME From XPT_7 to XPT_PTV_CURVE

XPT Pretest Volume Curve (PTV_XPT)
0 (C3) 50

XPT Motor Speed Curve (MSPE_XPT) (RPM)
0 5000

CQG Pressure (QCP)
0 (PSIA) 10000

Sapphire Zoomed Pressure (CP_SAP)
0 (PSIA) 1000

Sapphire Zoomed Pressure (CP_SAP)
0 (PSIA) 100

Sapphire Zoomed Pressure (CP_SAP)
0 (PSIA) 10

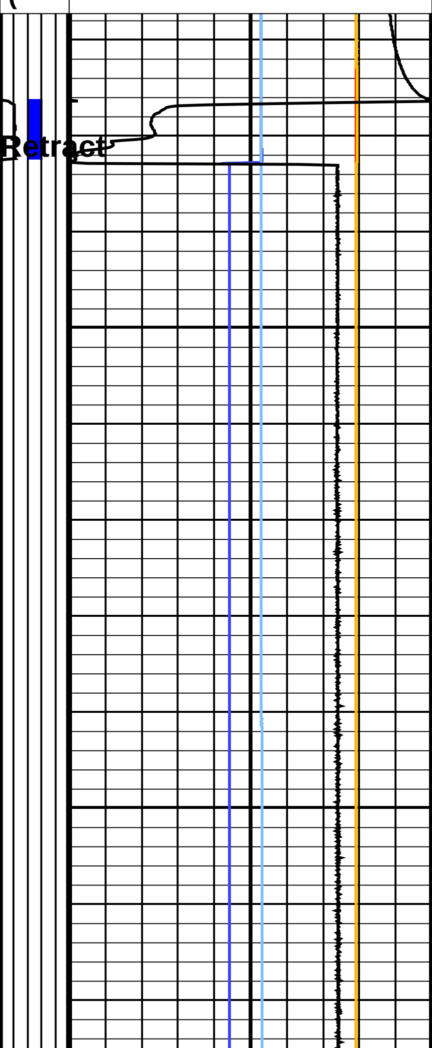
XPT Actions Image (AIMG) (----

CQG Temperature (MTEP_QG)
0 (DEGC) 150

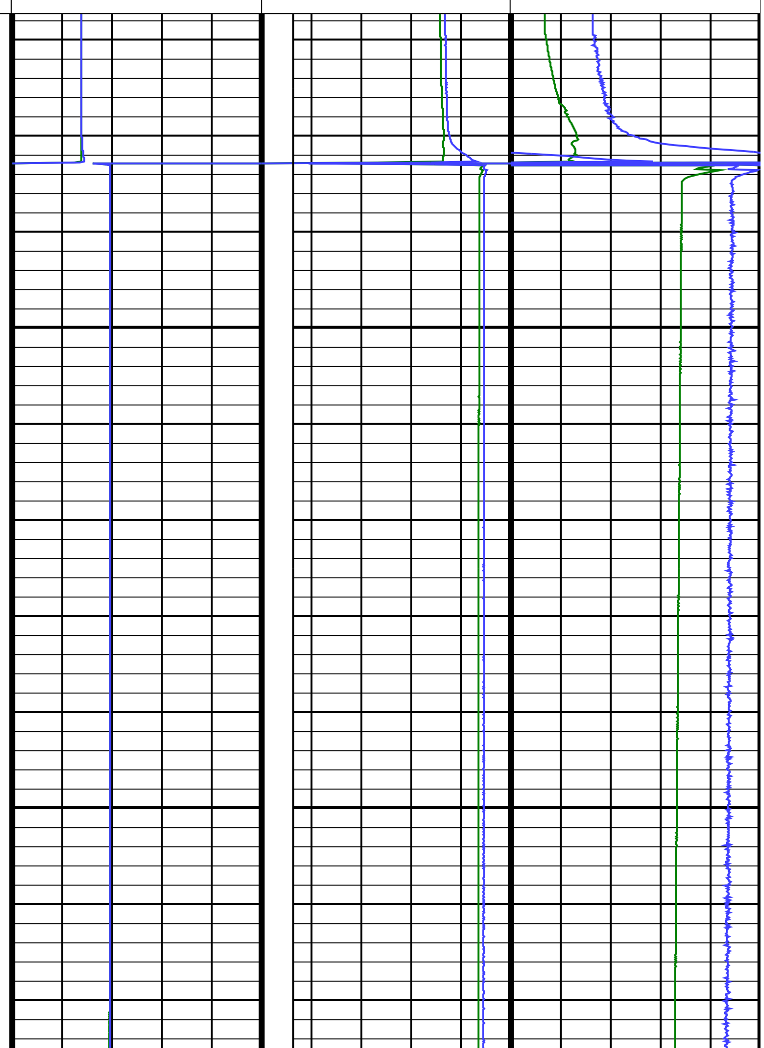
CQG Zoomed Pressure (QCP)
0 (PSIA) 1000

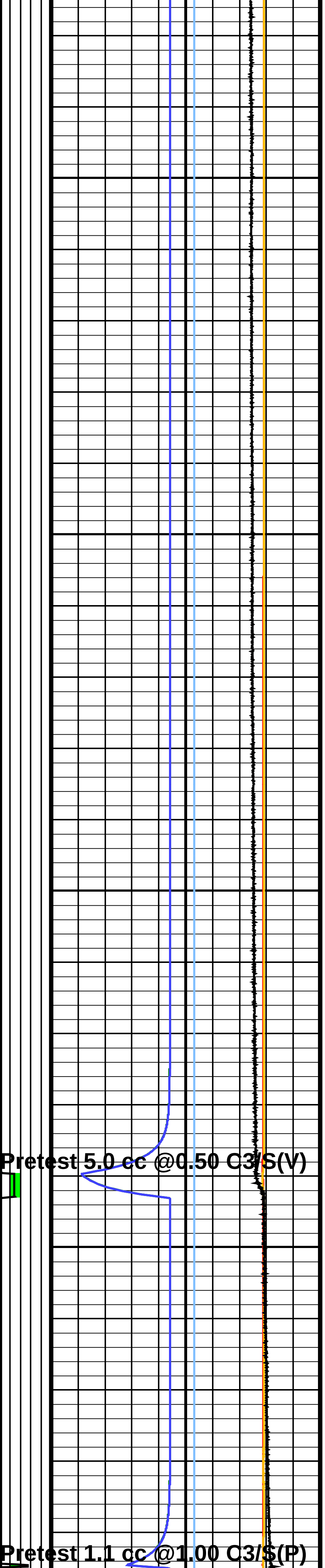
CQG Zoomed Pressure (QCP)
0 (PSIA) 100

CQG Zoomed Pressure (QCP)
0 (PSIA) 10

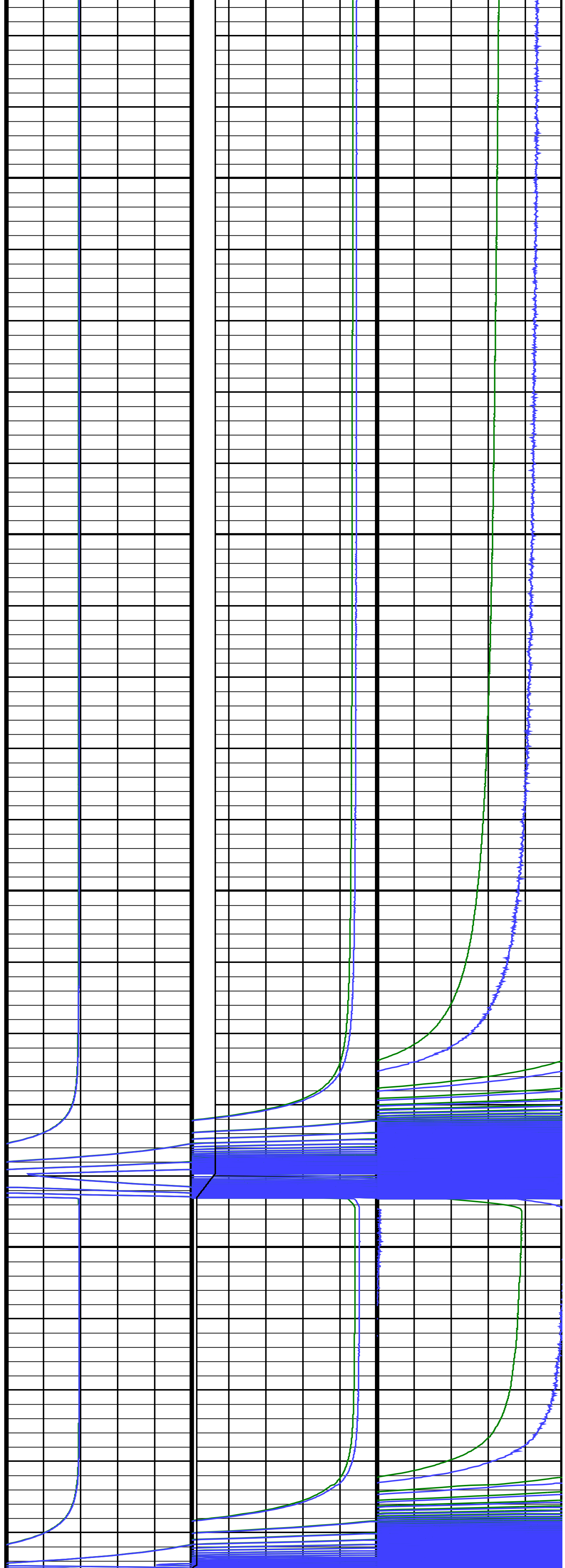


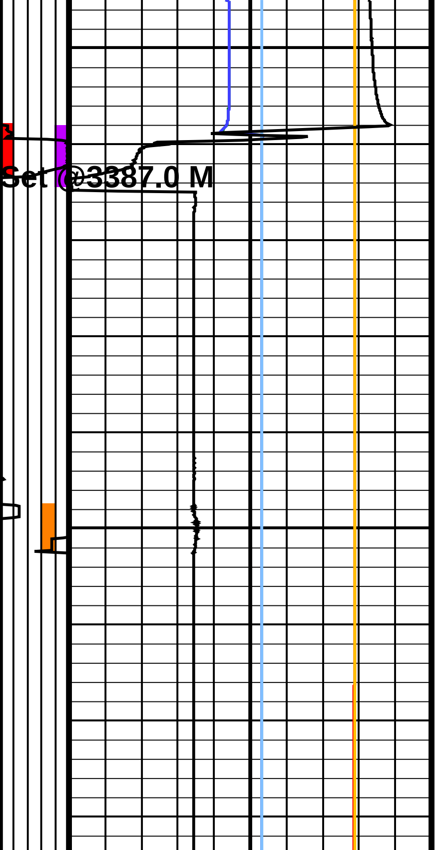
XPT Time Log (ETIM_XPT) (S)	CQG Pressure (QCP) (PSIA)	Sapphire Pressure (CP_SAP) (PSIA)
00:20:39	5271.41	5273.23
00:20:29	5271.64	5273.55
00:20:19	5272.12	5273.92
00:20:09	5272.45	5275.52
00:19:59	4387.74	4389.47
00:19:49	4386.80	4388.88
00:19:39	4386.79	4388.81
00:19:29	4386.78	4388.77
00:19:19	4386.77	4388.80
00:19:09	4386.75	4388.74
00:18:59	4386.75	4388.73
00:18:49	4386.73	4388.75
00:18:39	4386.73	4388.74
00:18:29	4386.72	4388.77
00:18:19	4386.71	4388.72
00:18:09	4386.69	4388.70
00:17:59	4386.69	4388.71
00:17:49	4386.68	4388.76
00:17:39	4386.67	4388.70
00:17:29	4386.65	4388.71
00:17:19	4386.65	4388.68
00:17:09	4386.63	4388.73
00:16:59	4386.63	4388.71
00:16:49	4386.61	4388.64
00:16:40	4386.61	4388.73
00:16:29	4386.60	4388.53
00:16:19	4386.59	4388.75
00:16:10	4386.57	4388.73
00:15:59	4386.57	4388.65
00:15:49	4386.55	4388.62
00:15:40	4386.54	4388.60
00:15:29	4386.53	4388.56



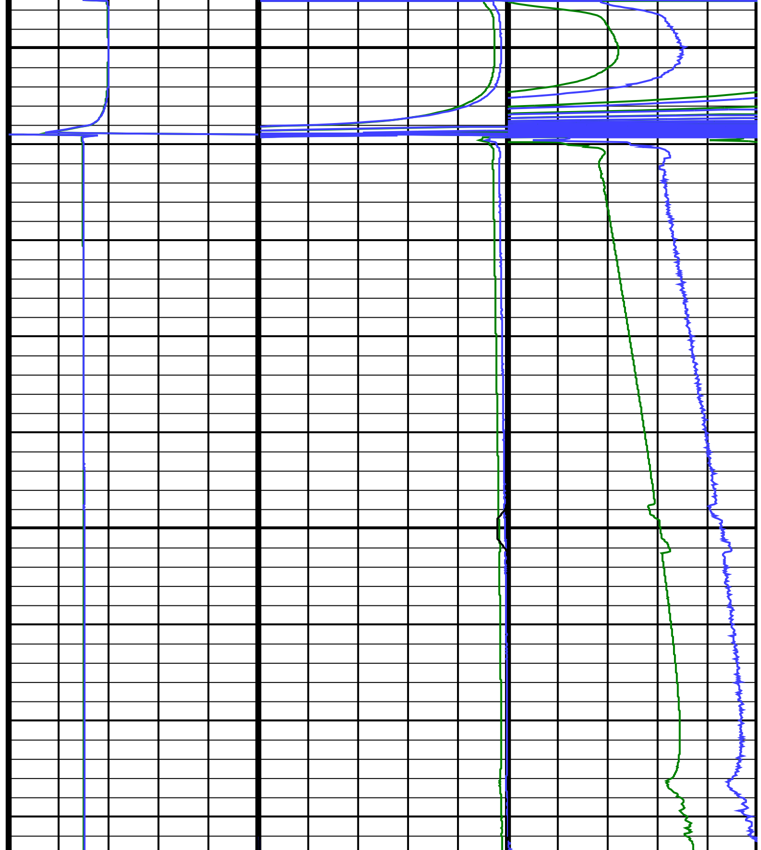


00:15:20	4386.52	4388.60
00:15:10	4386.51	4388.65
00:14:59	4386.49	4388.55
00:14:50	4386.49	4388.59
00:14:40	4386.47	4388.60
00:14:29	4386.47	4388.63
00:14:20	4386.45	4388.60
00:14:10	4386.44	4388.55
00:13:59	4386.43	4388.59
00:13:50	4386.41	4388.52
00:13:40	4386.40	4388.54
00:13:29	4386.38	4388.50
00:13:20	4386.37	4388.52
00:13:10	4386.35	4388.43
00:12:59	4386.34	4388.47
00:12:50	4386.32	4388.46
00:12:40	4386.30	4388.42
00:12:30	4386.29	4388.40
00:12:20	4386.27	4388.43
00:12:10	4386.25	4388.38
00:12:00	4386.22	4388.45
00:11:50	4386.21	4388.29
00:11:40	4386.18	4388.34
00:11:30	4386.16	4388.25
00:11:20	4386.14	4388.33
00:11:10	4386.11	4388.32
00:11:00	4386.08	4388.21
00:10:50	4386.04	4388.21
00:10:40	4386.01	4388.22
00:10:30	4385.96	4388.19
00:10:20	4385.92	4388.11
00:10:10	4385.87	4388.12
00:10:00	4385.82	4387.99
00:09:50	4385.75	4387.98
00:09:40	4385.67	4387.82
00:09:30	4385.58	4387.86
00:09:20	4385.48	4387.62
00:09:10	4385.35	4387.56
00:09:00	4385.20	4387.35
00:08:50	4384.99	4387.19
00:08:40	4384.71	4386.93
00:08:30	4384.31	4386.48
00:08:20	4383.69	4385.92
00:08:10	4382.53	4384.75
00:08:00	4379.99	4382.18
00:07:50	4372.48	4374.70
00:07:40	4342.38	4344.83
00:07:30	4204.87	4208.69
00:07:20	3487.75	3501.99
00:07:10	1376.58	1367.83
00:07:00	4386.13	4388.99
00:06:50	4387.75	4390.09
00:06:40	4387.72	4390.03
00:06:30	4387.68	4390.02
00:06:20	4387.60	4389.95
00:06:10	4387.54	4389.98
00:06:00	4387.46	4389.89
00:05:50	4387.30	4389.66
00:05:40	4387.08	4389.57
00:05:30	4386.68	4389.03
00:05:20	4385.81	4388.19
00:05:10	4383.17	4385.62
00:05:00	4372.84	4375.38
00:04:50	4334.90	4337.88
00:04:40	4156.91	4162.54
00:04:30	3316.15	3314.15





XPT Time Log (ETIM_XPT) (S)	CQG Pressure (QCP) (PSIA)	Sapphire Pressure (CP_SAP) (PSIA)
00:04:20	4393.81	4396.28
00:04:10	4394.38	4396.95
00:04:00	4392.16	4394.76
00:03:50	4364.16	4365.15
00:03:40	5293.58	5296.05
00:03:30	5293.78	5296.15
00:03:20	5293.99	5296.33
00:03:10	5294.22	5296.62
00:03:00	5294.43	5296.91
00:02:50	5294.64	5297.06
00:02:40	5294.85	5297.22
00:02:30	5295.06	5297.51
00:02:20	5295.27	5297.69
00:02:10	5295.46	5297.90
00:02:00	5295.66	5298.08
00:01:50	5295.83	5298.32
00:01:40	5296.09	5298.60
00:01:30	5296.19	5298.67
00:01:20	5296.36	5298.76
00:01:10	5296.52	5298.96
00:01:00	5296.66	5299.13
00:00:50	5296.77	5299.17
00:00:40	5296.85	5299.32
00:00:30	5296.82	5299.21
00:00:20	5296.43	5298.92
00:00:10	5297.06	5299.49
00:00:00	5297.41	5300.10



XPT Actions Image (AIMG) (----

XPT Motor Speed Curve (MSPE_XPT) (RPM) 0 5000

CQG Temperature (MTEP_QG) 0 (DEGC) 150

CQG Pressure (QCP) 0 (PSIA) 10000

Sapphire Pressure (CP_SAP) 0 (PSIA) 10000

Sapphire Manometer Temperature (MTEP_SAP) 0 (DEGC) 150

Hydrostatic Pressure (CP_HYD) 0 (PSIA) 10000

XPT Oil Pressure Curve (HOILP) 0 (PSIA) 4000

CQG Zoomed Pressure (QCP) 0 (PSIA) 1000

Sapphire Zoomed Pressure (CP_SAP) 0 (PSIA) 1000

CQG Zoomed Pressure (QCP) 0 (PSIA) 100

Sapphire Zoomed Pressure (CP_SAP) 0 (PSIA) 100

XPT Pretest Volume Curve (PTV_XPT) 0 (C3) 50

PRETEST_VOLUME From XPT_7 to XPT_PTV_CURVE

CQG Zoomed Pressure (QCP) 0 (PSIA) 10

Sapphire Zoomed Pressure (CP_SAP) 0 (PSIA) 10

XPT Actions Image

WHITE: No Action / COLORED: Action in progress
Left to right:

1. Set (Red)
2. Pretest (Green)
3. Retract (Blue)
4. Init Pretest (Orange)
5. ACom Calibration (Purple)

XPT Dynamic Compensation Status

Quartz Gauge Pressure compensated and corrected
Sapphire Gauge Pressure compensated and corrected
Hydrostatic Sapphire Gauge Pressure compensated and corrected

Parameters

DLIS Name	Description	Value	
XPT−BA: Xpress Pressure Tool − BA			
BTA_HYD	Hydrostatic Gauge Board Temperature A Coefficient	1.00426	
BTA_SAP	Sapphire Board Temperature A Coefficient	1.02083	
BTB_HYD	Hydrostatic Gauge Board Temperature B Coefficient	0	
BTB_SAP	Sapphire Board Temperature B Coefficient	0	
BTCT_HYD	Hydrostatic Gauge Board Temperature Coefficients Read From Data Channels	YES	
BTCT_SAP	Sapphire Board Temperature Coefficients Read Fram Data Channels	YES	
DDPL_XPT	Pretest Drawdown Limit	−33.9161	PSIA
DEVI_FL_CORR_XPT	Tool Deviation Angle	0	DEG
FLD_XPT	Flowline Density	1	G/C3
GDSV	Gauges Downhole Software Version	2.1	
GDYCO	Sapphire Dynamic Compensation Applied	YES	
PAC_SAP	Sapphire Gauge Pressure A Coefficient	0.999406	
PA_HYD	Hydrostatic Gauge Pressure A Coefficient	1.00839	
PBC_SAP	Sapphire Gauge Pressure B Coefficient	0	
PB_HYD	Hydrostatic Gauge Pressure B Coefficient	0	
PCT_HYD	Hydrostatic Gauge Pressure Coefficients Read From Data Channels	YES	
PCT_SAP	Sapphire Pressure Coefficients Read From Data Channels	YES	
PGSR	Pressure Gauges Sampling Rate	300	ms
PRSP	Pretest Rate	0.5	C3/S
PTM_XPT	Pretest Type	MANUAL	
PTVO_XPT	Pretest Volume	10	C3
QDYCO	CQG Dynamic Compensation Applied	YES	
TAC_SAP	Sapphire Gauge Temperature A Coefficient	1.02269	
TA_HYD	Hydrostatic Gauge Temperature A Coefficient	0.999188	
TBC_SAP	Sapphire Gauge Temperature B Coefficient	0	
TB_HYD	Hydrostatic Gauge Temperature B Coefficient	0	
TCT_HYD	Hydrostatic Gauge Temperature Coefficients Read >From Data Channels	YES	
TCT_SAP	Sapphire Temperature Coefficients Read From Data Channels	YES	

Output DLIS Files

DEFAULT	TLD_MCFL_CNL_XPT_045LTP	FN:53	PRODUCER	27−Jul−2006 21:39
RT	TLD_MCFL_CNL_XPT_045LTP	FN:54	PRODUCER	27−Jul−2006 21:41

Schlumberger

Inclination Data

MAXIS Field Log

```
.-----------------------------------------------------------
|                                   |
|           WFTI INCLINOMETRY LIST              |
| Meas. Tie Depth :    0.0 M   True Vert. Tie Depth:    0.0 M |
|                                   |
```

Measured Depth (M)	Deviation (DEG)	Azimuth (DEG)	True Vertical Depth (M)
0.0	0.00	0.00	0.0
144.2	1.15	319.96	144.2
199.1	1.01	318.90	199.1
285.5	0.76	323.69	285.5
373.3	0.37	296.51	373.3
457.6	0.62	341.09	457.6
514.7	0.23	237.37	514.6
573.4	0.45	70.54	573.3
657.5	0.64	5.03	657.4
744.2	1.17	5.68	744.1
801.3	1.68	354.31	801.3
857.4	2.23	356.98	857.3
887.0	2.27	357.17	886.9
999.9	2.36	353.35	999.7
1018.3	2.23	356.04	1018.0
1047.0	1.01	290.32	1046.8
1077.0	6.03	203.50	1076.7
1105.8	7.59	191.48	1105.3
1134.2	8.42	183.60	1133.4
1162.7	7.78	184.31	1161.6
1192.1	8.75	184.32	1190.7
1220.4	9.47	189.48	1218.7
1249.7	10.96	194.37	1247.5
1278.5	14.31	197.37	1275.6
1307.3	16.74	194.01	1303.3
1336.2	18.51	192.10	1330.9
1364.0	19.19	191.62	1357.2
1392.0	19.64	193.71	1383.6
1420.2	20.00	193.92	1410.1
1449.9	23.60	192.64	1437.7
1476.9	30.14	190.26	1461.8
1507.9	32.61	185.04	1488.3
1535.4	36.53	180.20	1510.8
1564.5	43.00	182.29	1533.2
1592.9	47.93	185.98	1553.2
1621.4	53.50	189.79	1571.2
1649.1	57.52	191.89	1586.9
1676.2	57.60	191.24	1601.4
1705.3	57.87	191.14	1616.9
1735.7	57.57	191.17	1633.2
1765.0	57.99	190.00	1648.8
1791.9	57.90	188.89	1663.1
1821.3	57.88	186.25	1678.7
1849.2	57.85	182.84	1693.5
1877.5	57.88	182.40	1708.6
1906.2	57.15	180.91	1724.0
1933.5	55.97	183.80	1739.1
1962.8	54.79	188.54	1755.7
1991.1	54.07	193.55	1772.2
2018.1	54.09	197.64	1788.0
2049.9	56.00	198.23	1806.2
2078.1	57.93	198.55	1821.6
2107.7	60.12	198.19	1836.8
2136.3	61.08	197.34	1850.9
2165.3	61.30	194.55	1864.9

2191.8	61.20	192.77	1877.6
2221.1	59.28	191.55	1892.1
2250.0	57.06	191.02	1907.4
2279.1	56.53	189.97	1923.3
2305.8	55.95	190.81	1938.1
2335.0	55.68	190.51	1954.6
2363.4	55.31	190.15	1970.6
2392.1	54.69	190.43	1987.1
2420.6	54.10	190.34	2003.7
2450.1	55.91	190.75	2020.6
2478.7	55.94	190.68	2036.6
2507.9	55.65	190.44	2053.1
2536.5	55.06	190.65	2069.3
2564.1	54.34	191.06	2085.3
2593.1	53.58	191.13	2102.3
2622.0	56.08	189.87	2119.0
2650.4	56.50	189.65	2134.7
2679.3	56.48	190.36	2150.7
2707.9	56.10	189.90	2166.6
2737.1	56.27	190.01	2182.8
2765.7	56.34	190.08	2198.6
2794.3	55.90	190.30	2214.6
2821.3	55.16	190.31	2229.9
2850.2	54.42	189.84	2246.5
2878.7	54.27	190.26	2263.2
2908.2	53.56	190.33	2280.6
2937.1	54.47	190.58	2297.5
2966.0	56.10	191.84	2314.0
2994.9	57.40	191.74	2329.8
3023.9	57.18	190.41	2345.5
3051.3	56.23	190.20	2360.5
3079.8	55.69	189.95	2376.5
3108.8	55.85	189.24	2392.8
3136.7	55.73	189.71	2408.5
3165.7	55.99	189.65	2424.8
3194.4	55.36	188.87	2440.9
3224.2	55.41	188.71	2457.9
3251.1	54.64	188.63	2473.3
3280.7	53.54	188.69	2490.7
3309.4	53.51	188.46	2507.7
3338.3	54.91	188.63	2524.6
3367.1	55.26	188.76	2541.1
3396.1	55.88	188.66	2557.5
3423.7	55.65	188.44	2573.0

CORRELATION PASS (1:200)

MAXIS Field Log

Input DLIS Files

DEFAULT	Splice_TLD_MCFL_CNL_104CUP	FN:1	PRODUCER	28−Jul−2006 10:02	3443.5 M	78.5 M

Output DLIS Files

DEFAULT	TLD_MCFL_CNL_XPT_107PUP	FN:168	PRODUCER	28−Jul−2006 10:19	1800.0 M	86.0 M
CUSTOMER	TLD_MCFL_CNL_XPT_107PUC	FN:169	CUSTOMER	28−Jul−2006 10:19	1800.0 M	86.0 M
GR	TLD_MCFL_CNL_XPT_107PUC	FN:170	CUSTOMER	28−Jul−2006 10:19	1800.0 M	86.0 M

OP System Version: 14C0−302

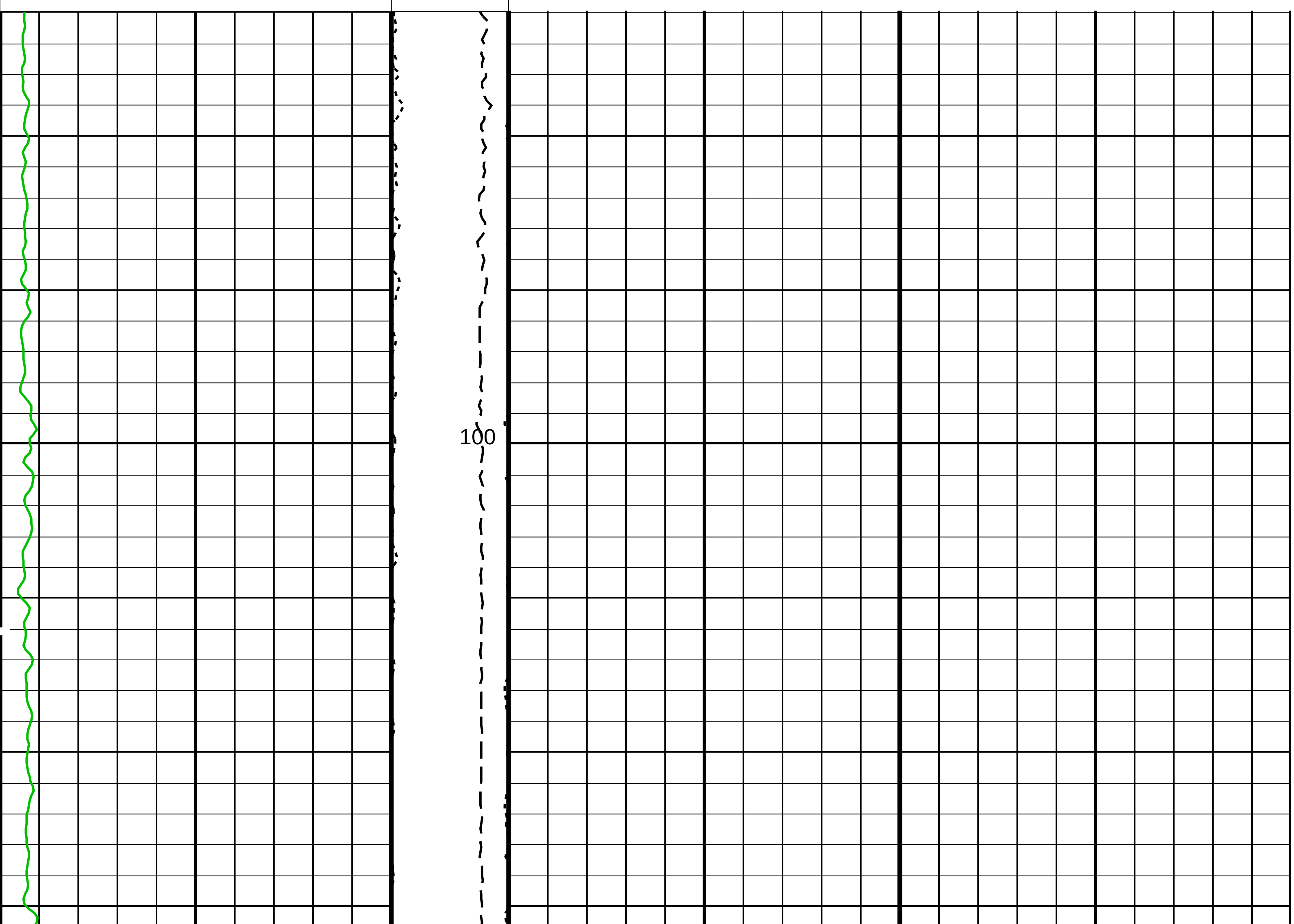
MCM

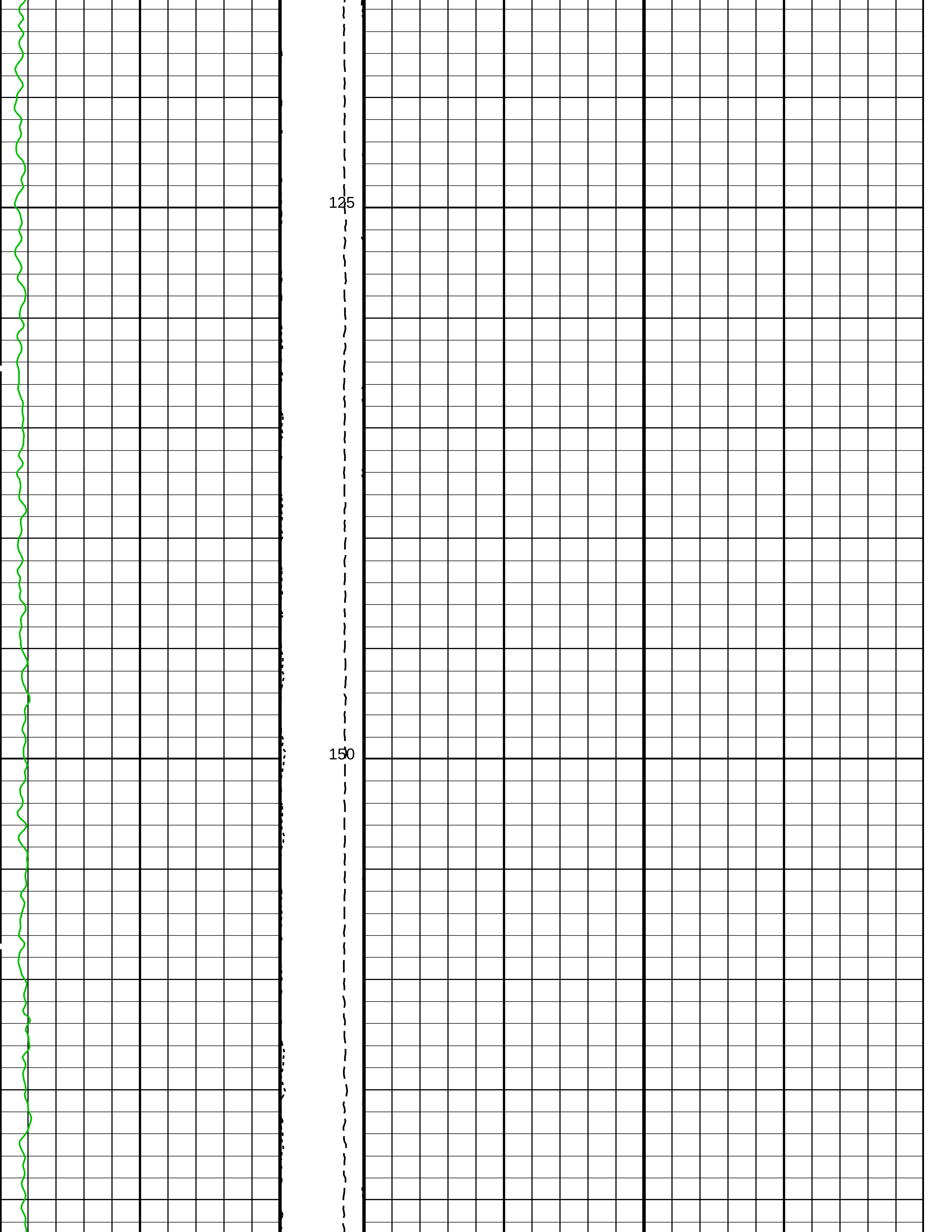
HILTB−FTB	SRPC−3193−Q3_2006_b	XPT−BA	SRPC−3193−Q3_2006_b
SGT−N	SRPC−3193−Q3_2006_b	CMRT−B	SPC−3131−CMR_b
ACTS−B1	SRPC−3193−Q3_2006_b	DTA−A	SRPC−3193−Q3_2006_b
DTC−H	SRPC−3193−Q3_2006_b		

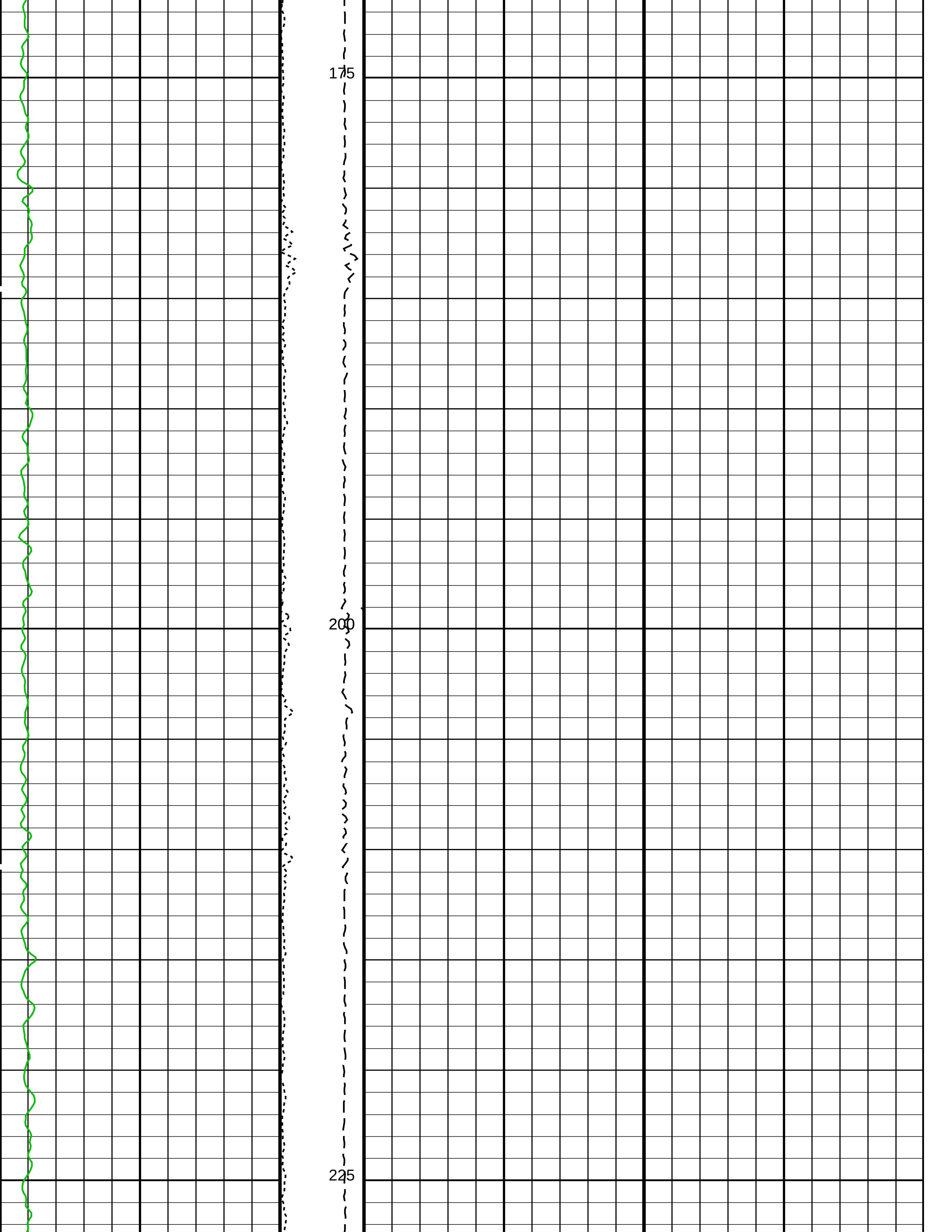
PIP SUMMARY

Time Mark Every 60 S

	Calibrated Downhole Force (CDF) (LBF) 0 2000
Gamma Ray (ECGR) 0 (GAPI) 200	Tension (TENS) (LBF) 0 2000




125
150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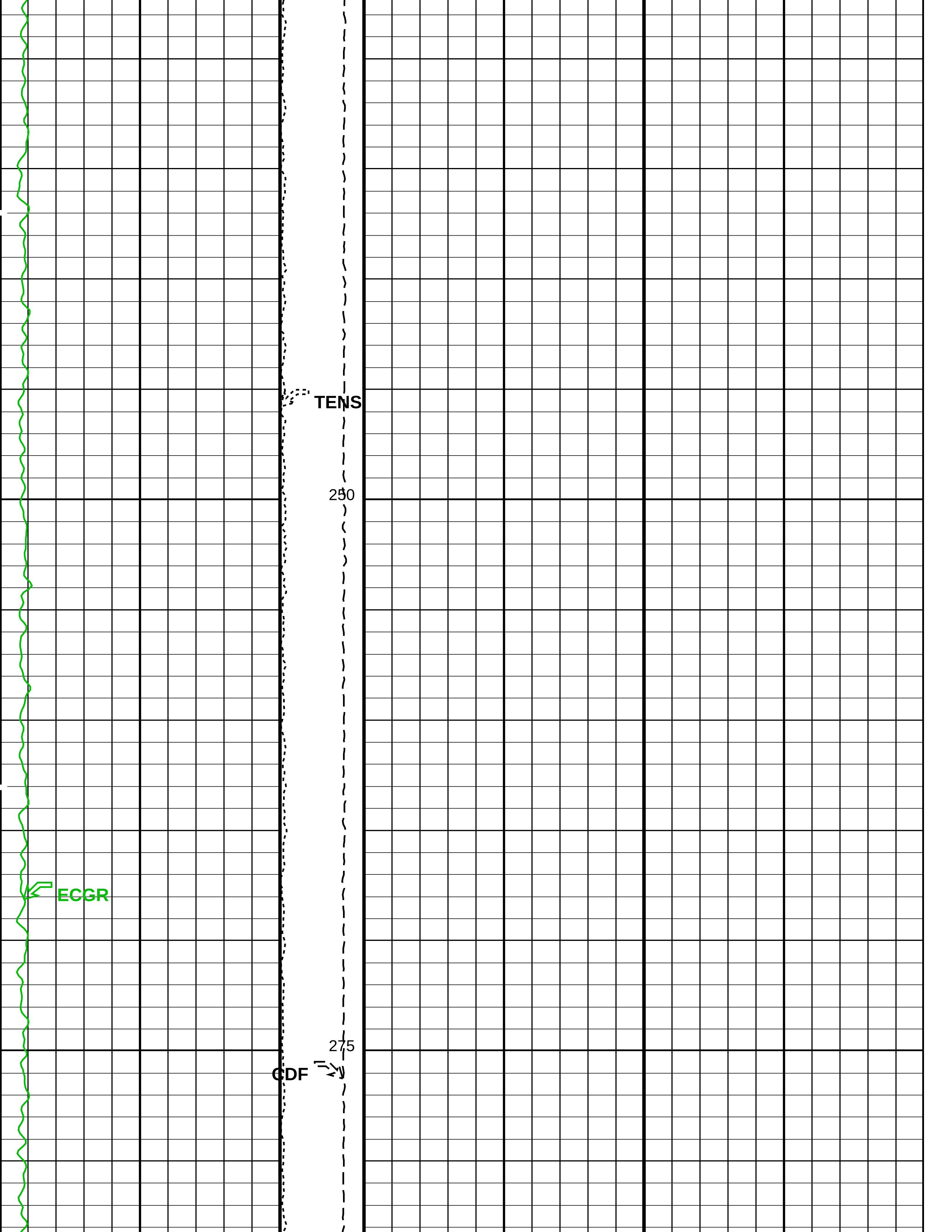
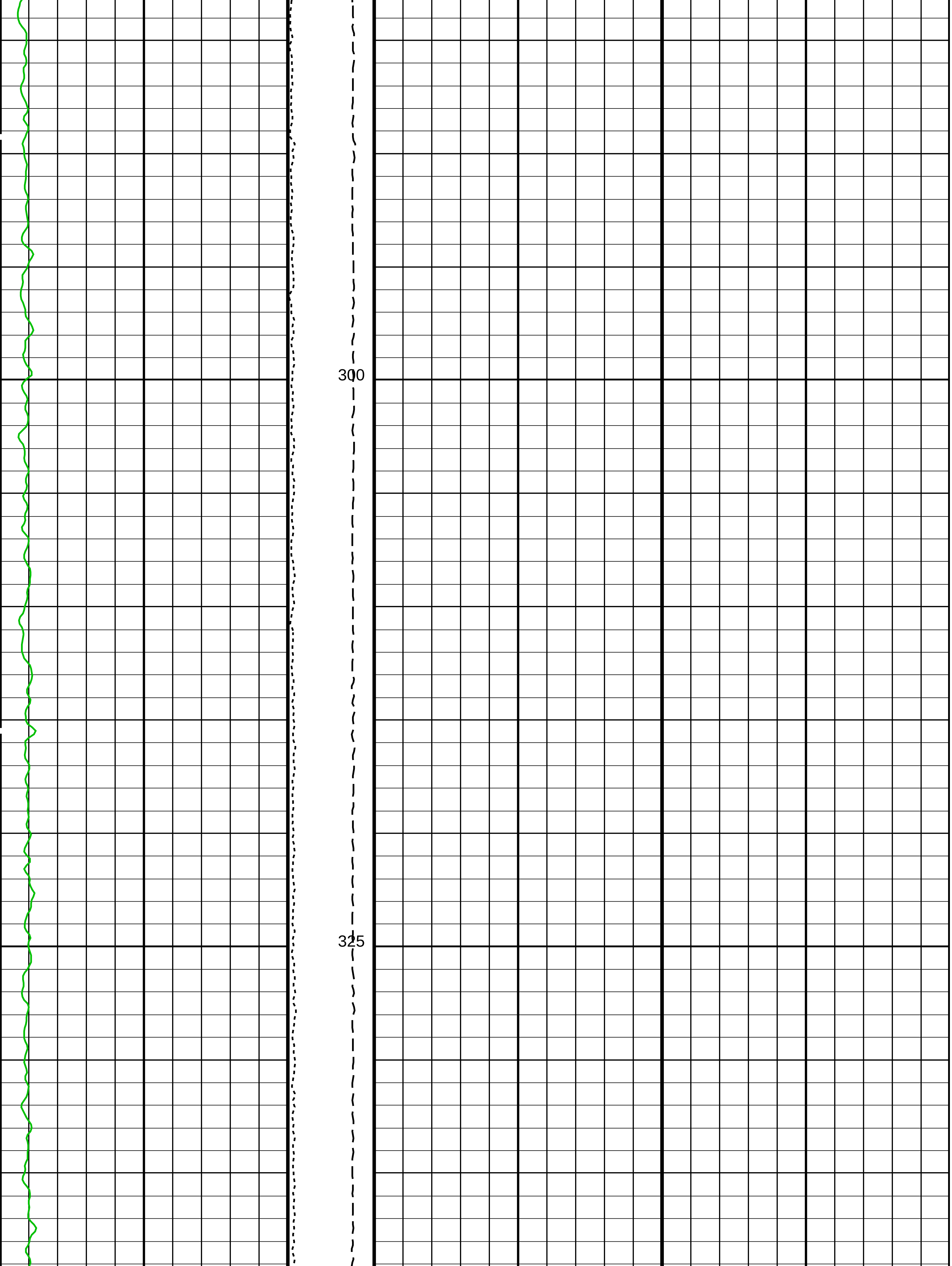
200
225


TENS
250
ECGR
275
CDF


300
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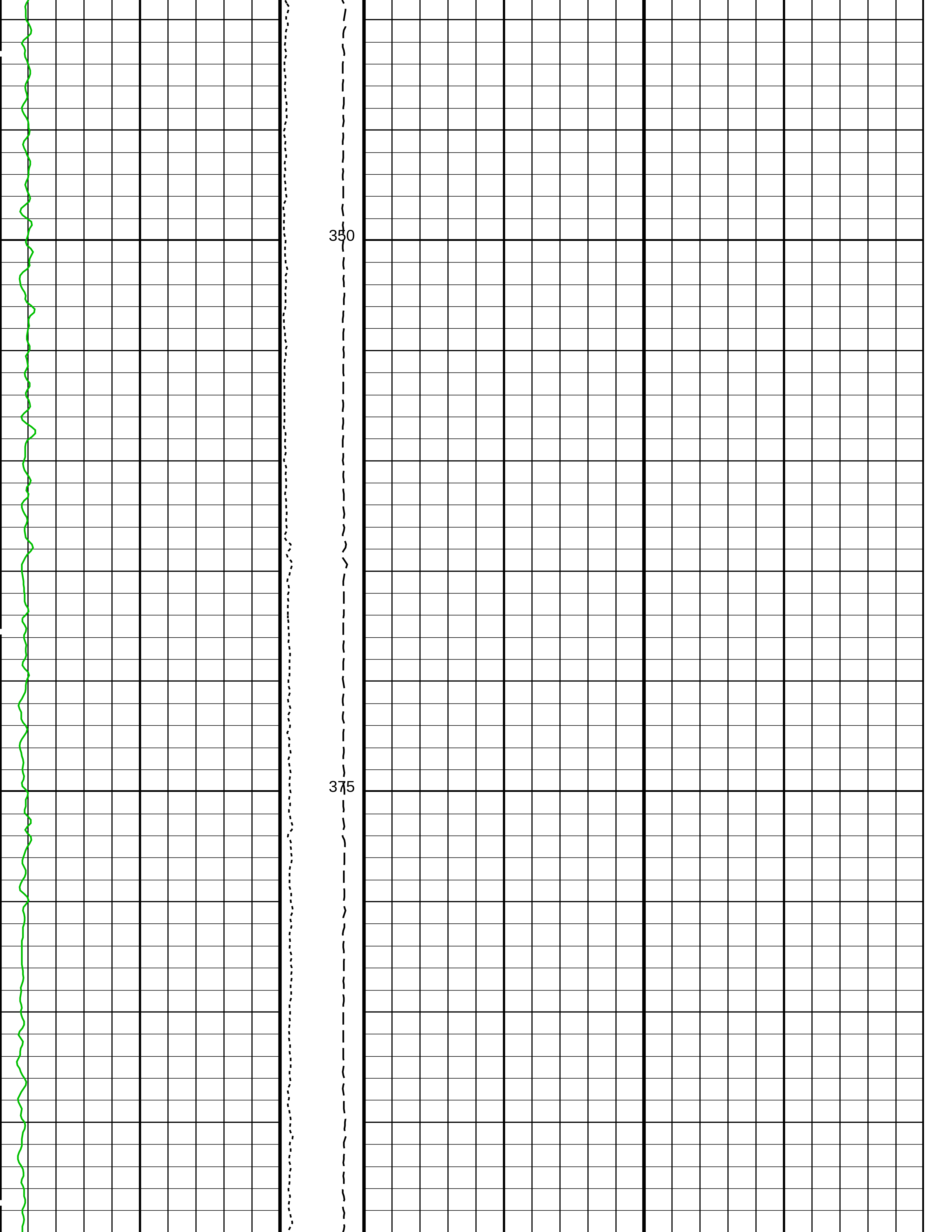
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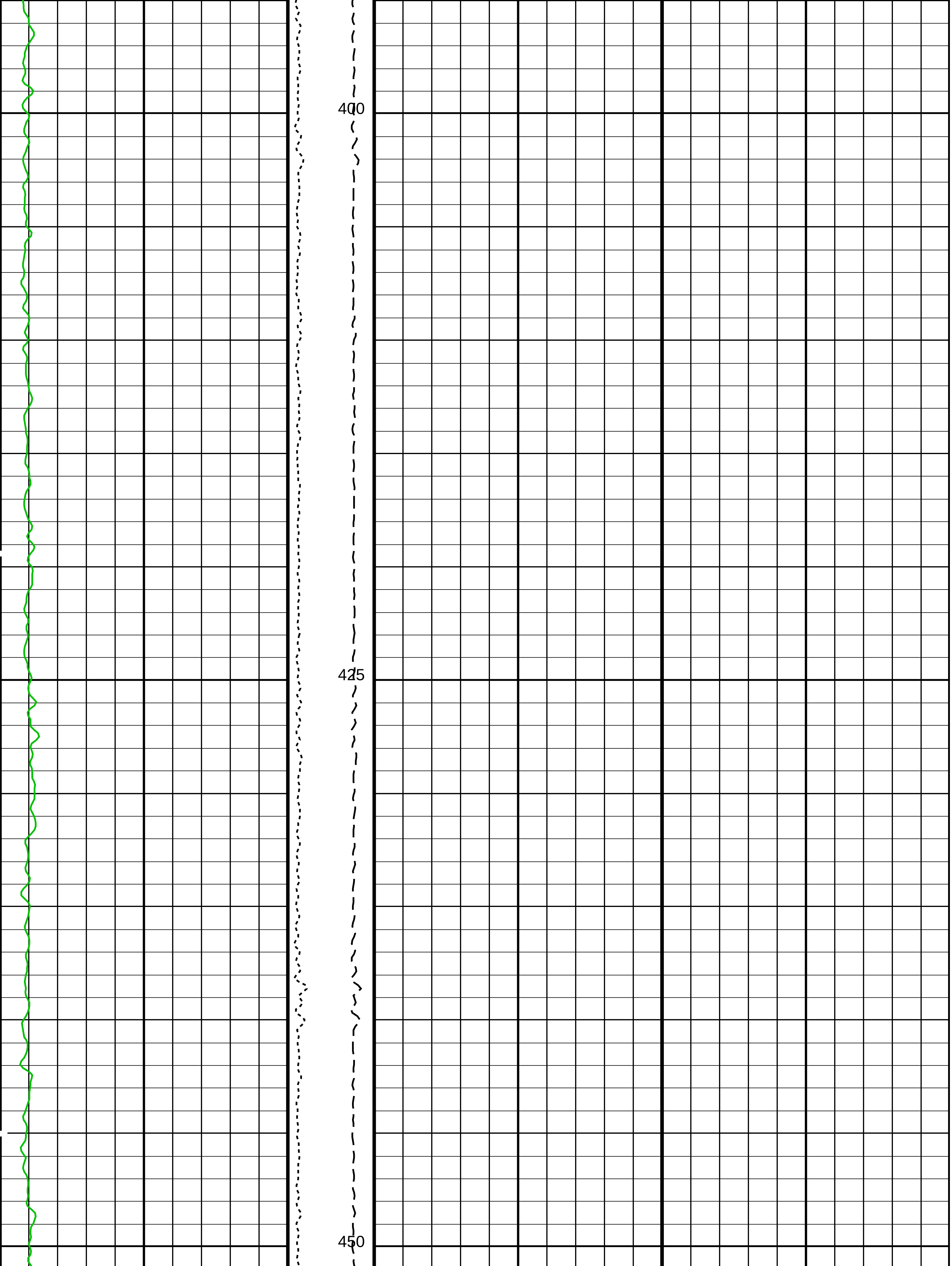
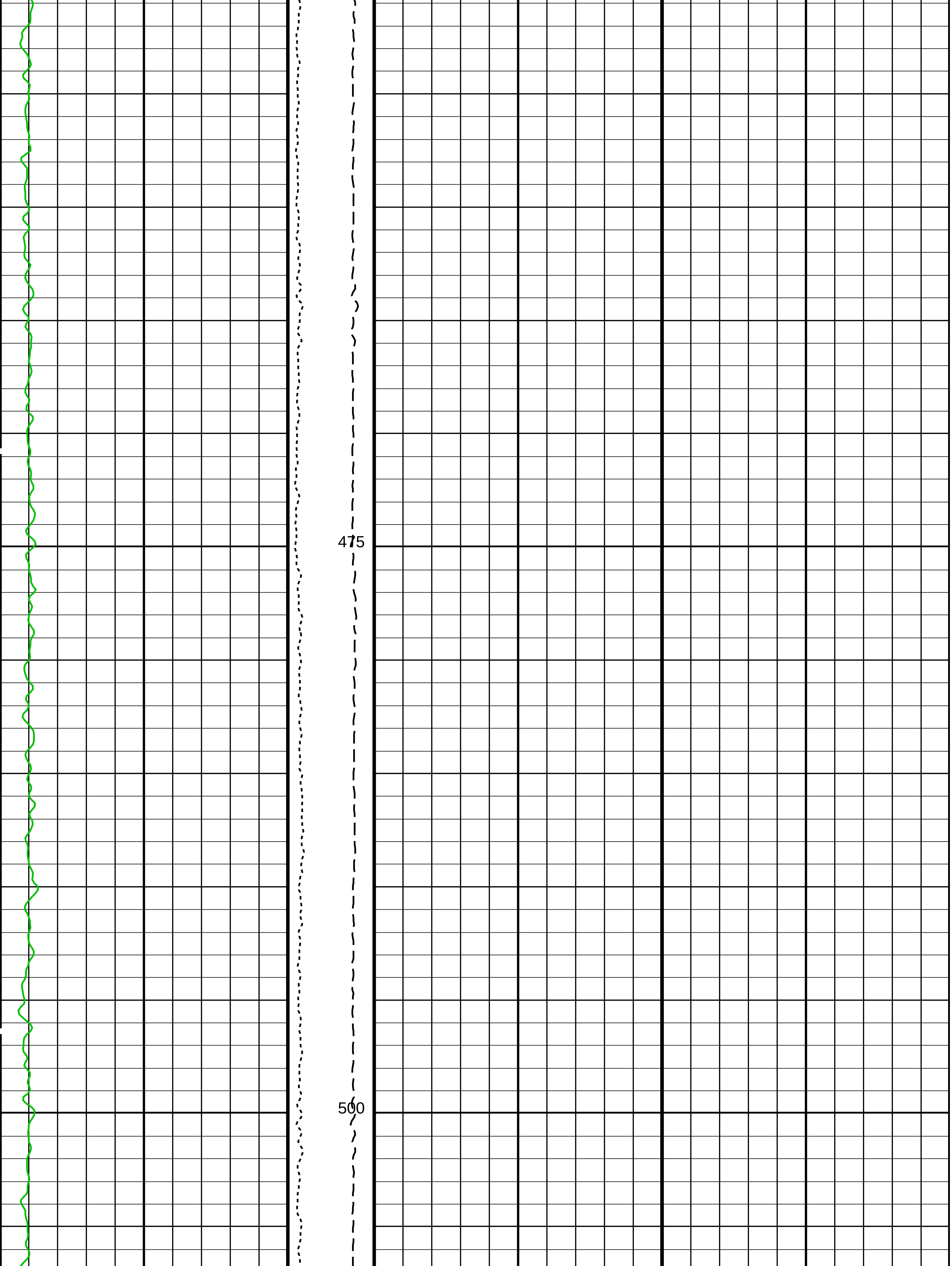


400
425
450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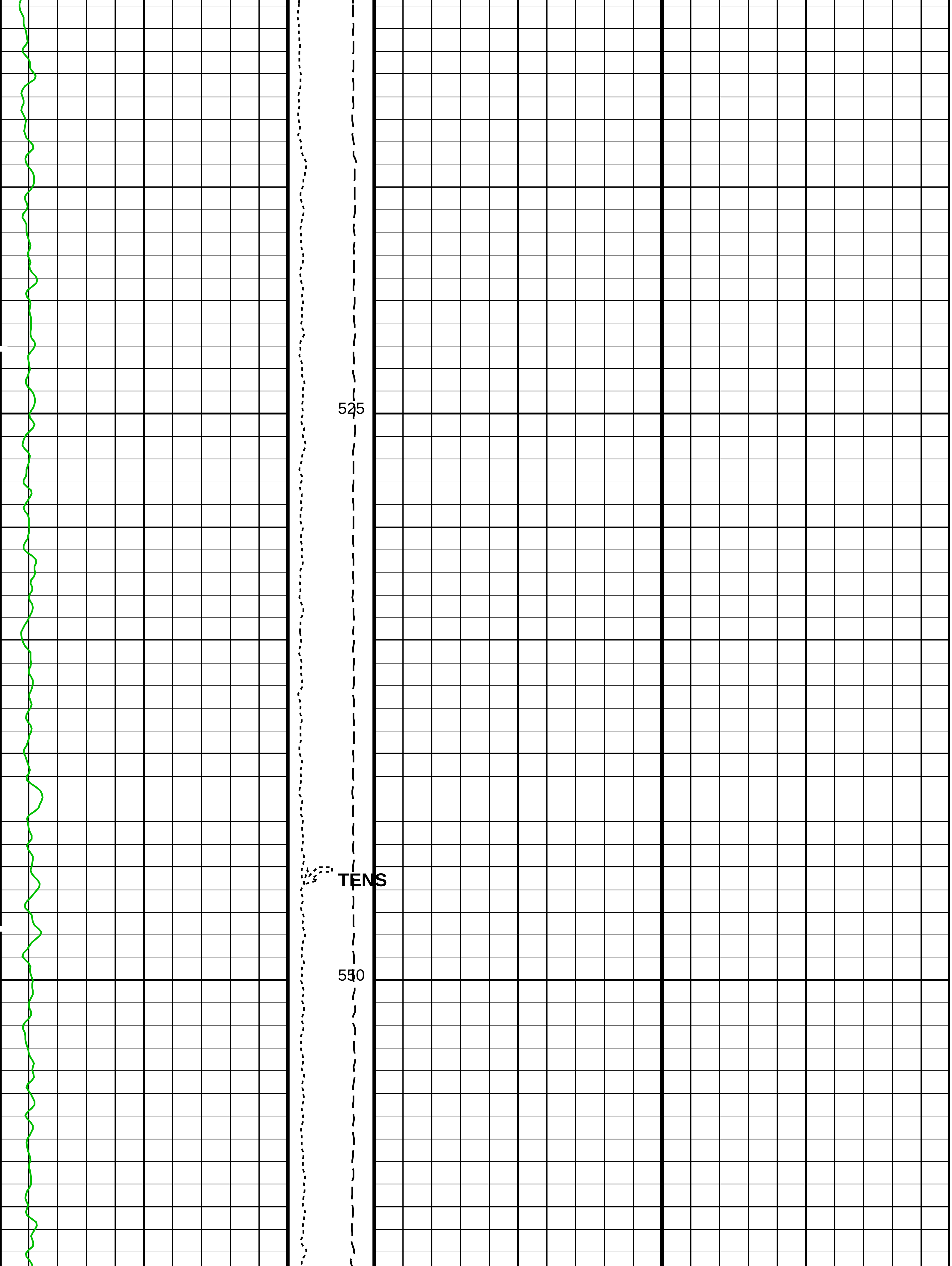
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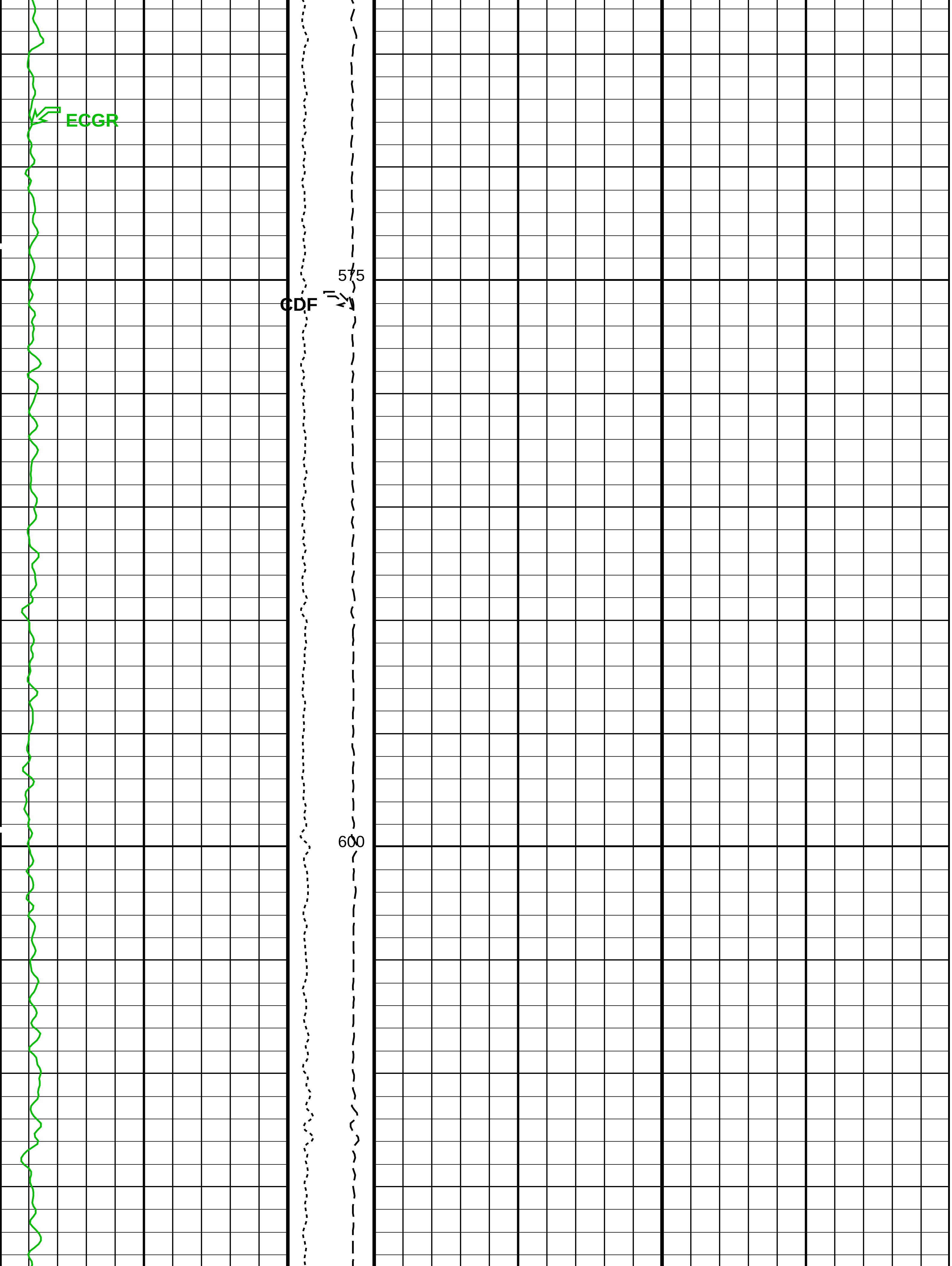
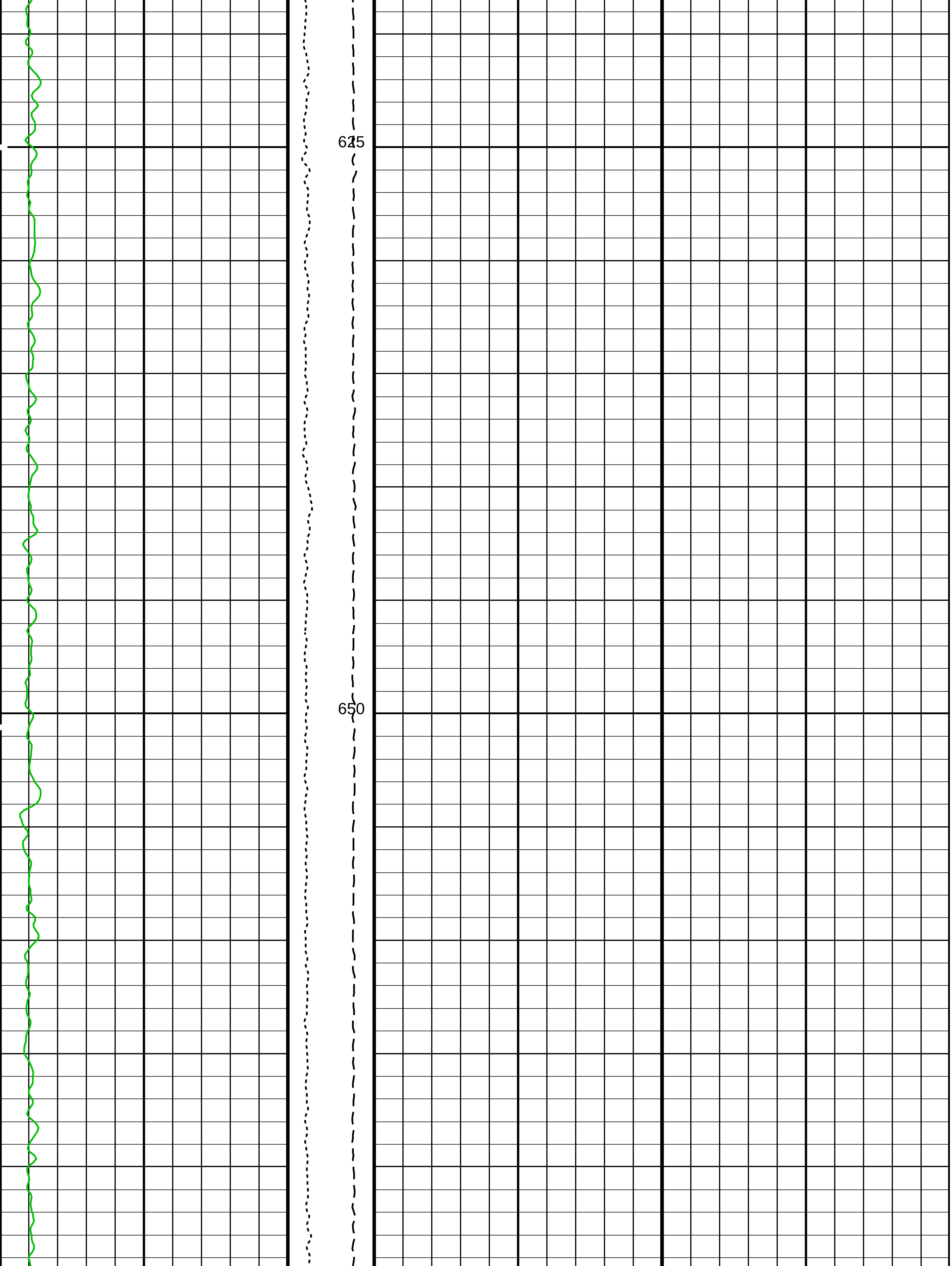
TENS
550


ECGR
575
CDF
600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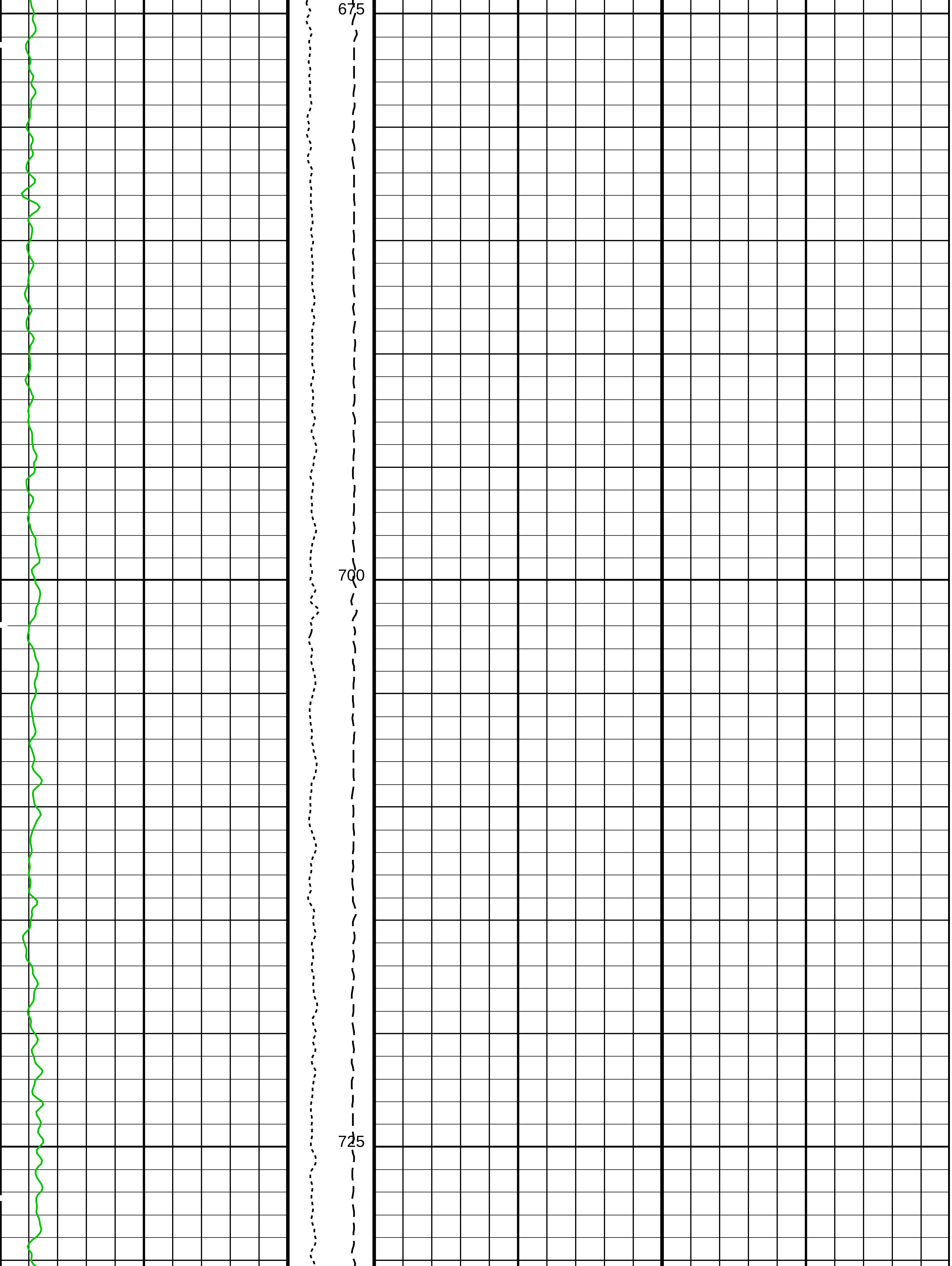
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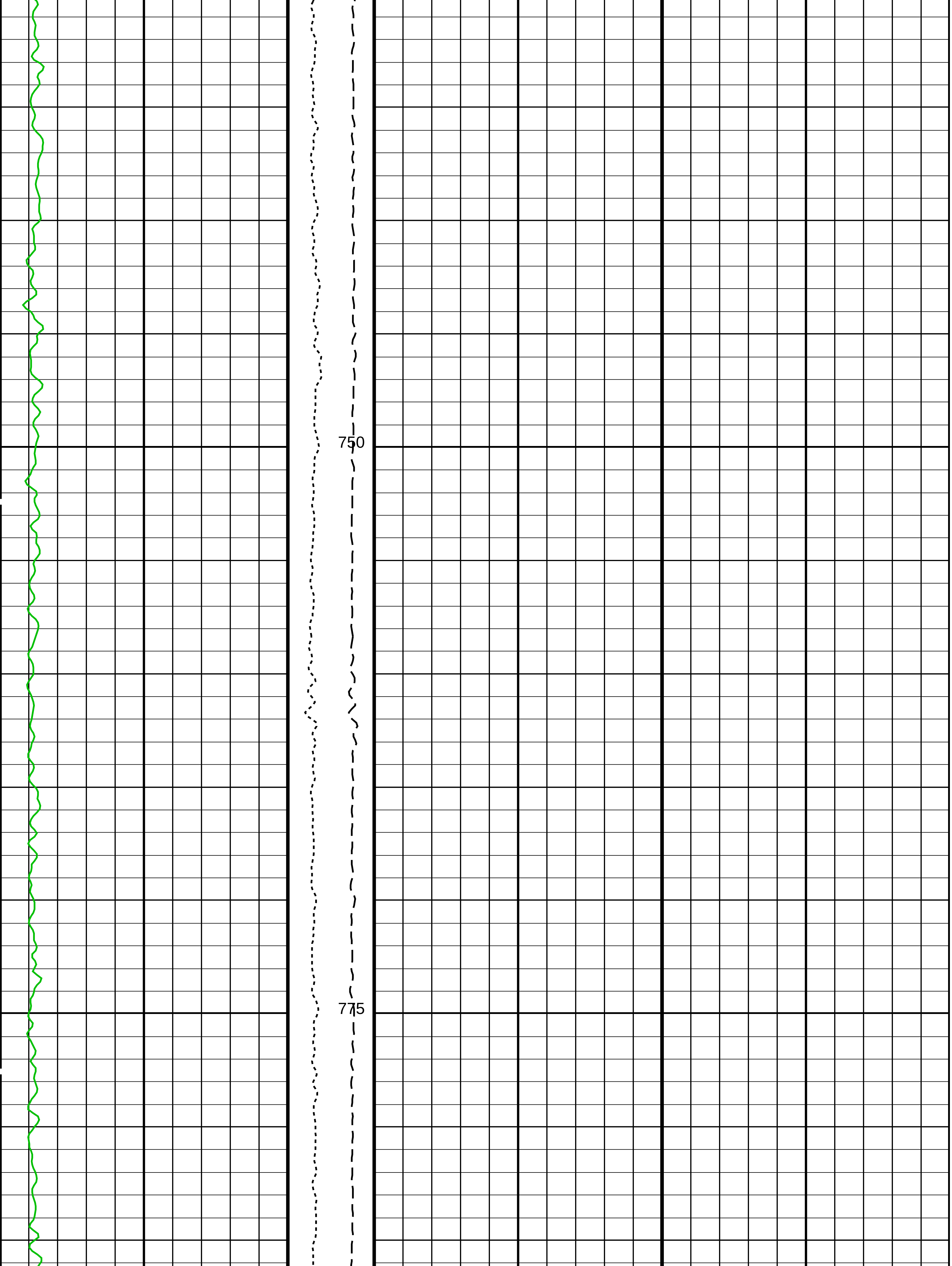
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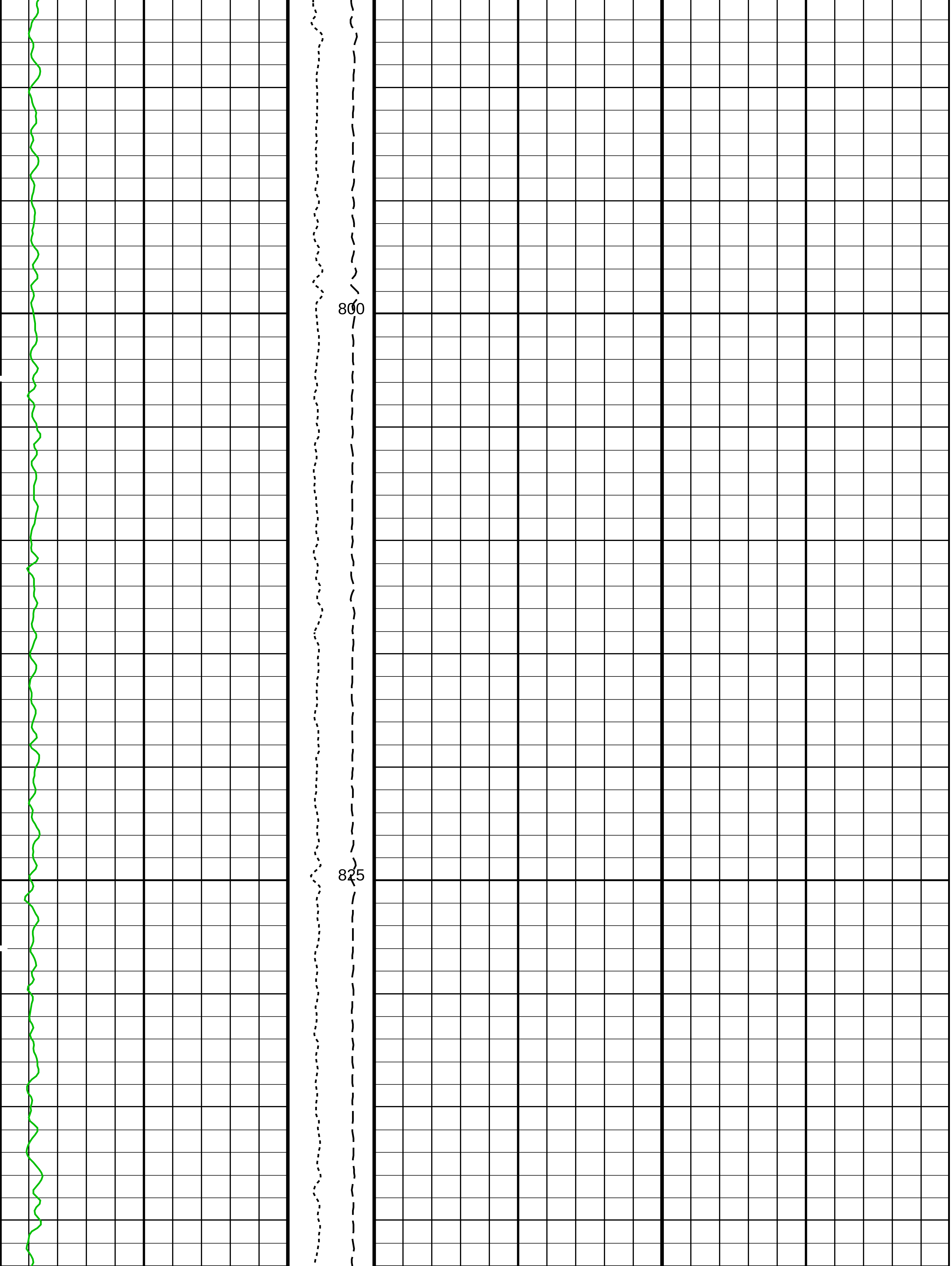
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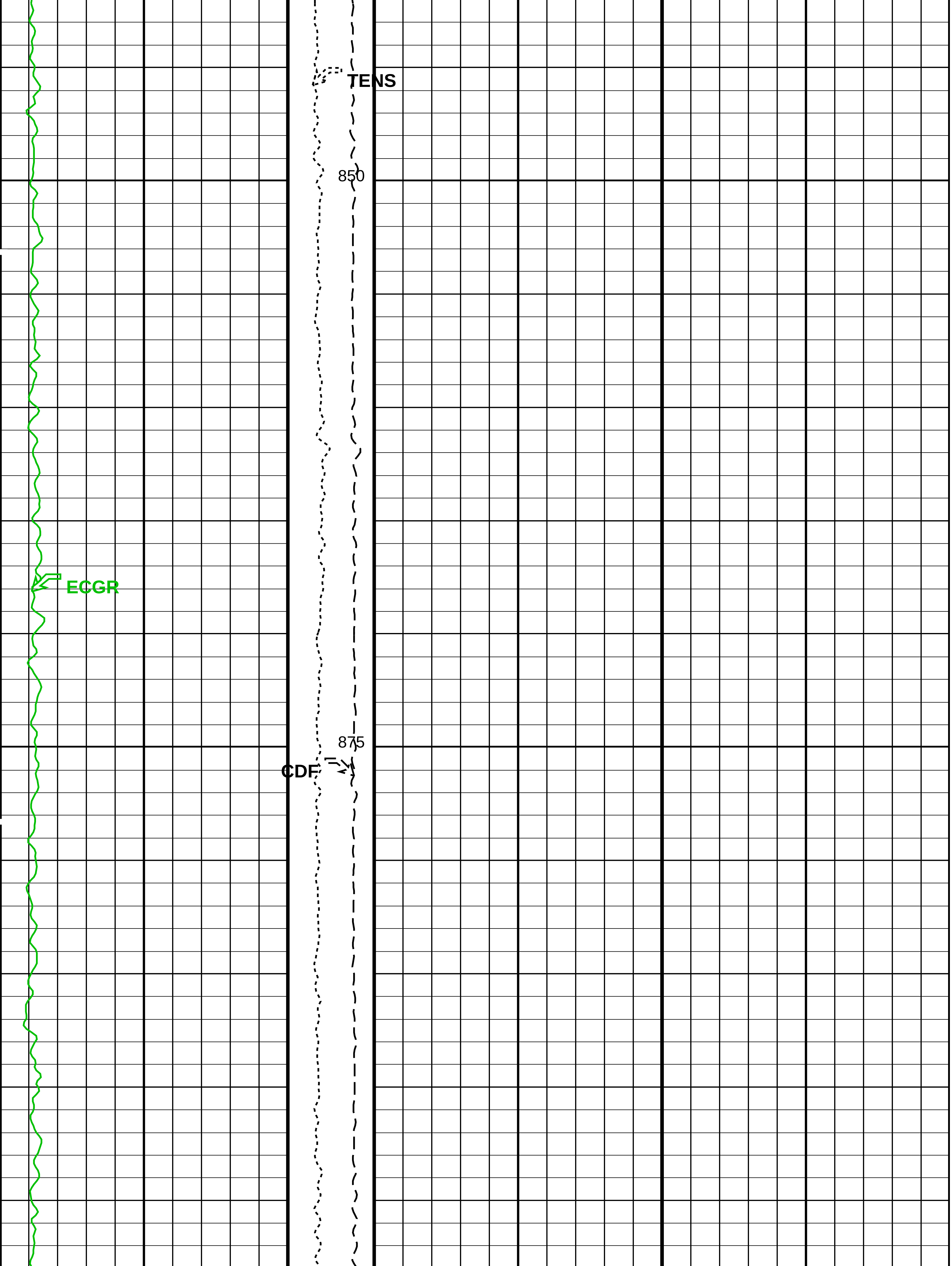
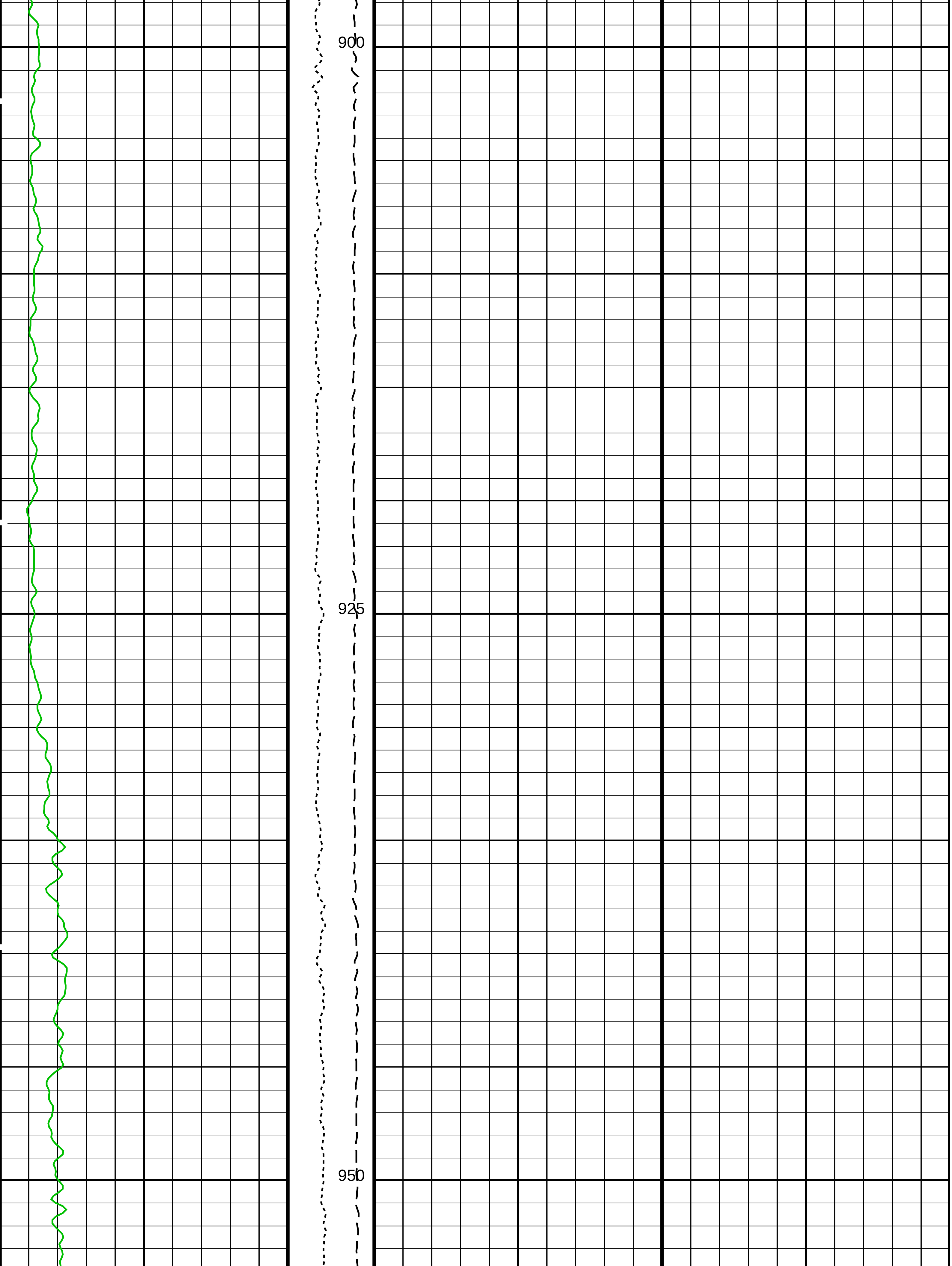

TENS
850
ECGR
875
CDF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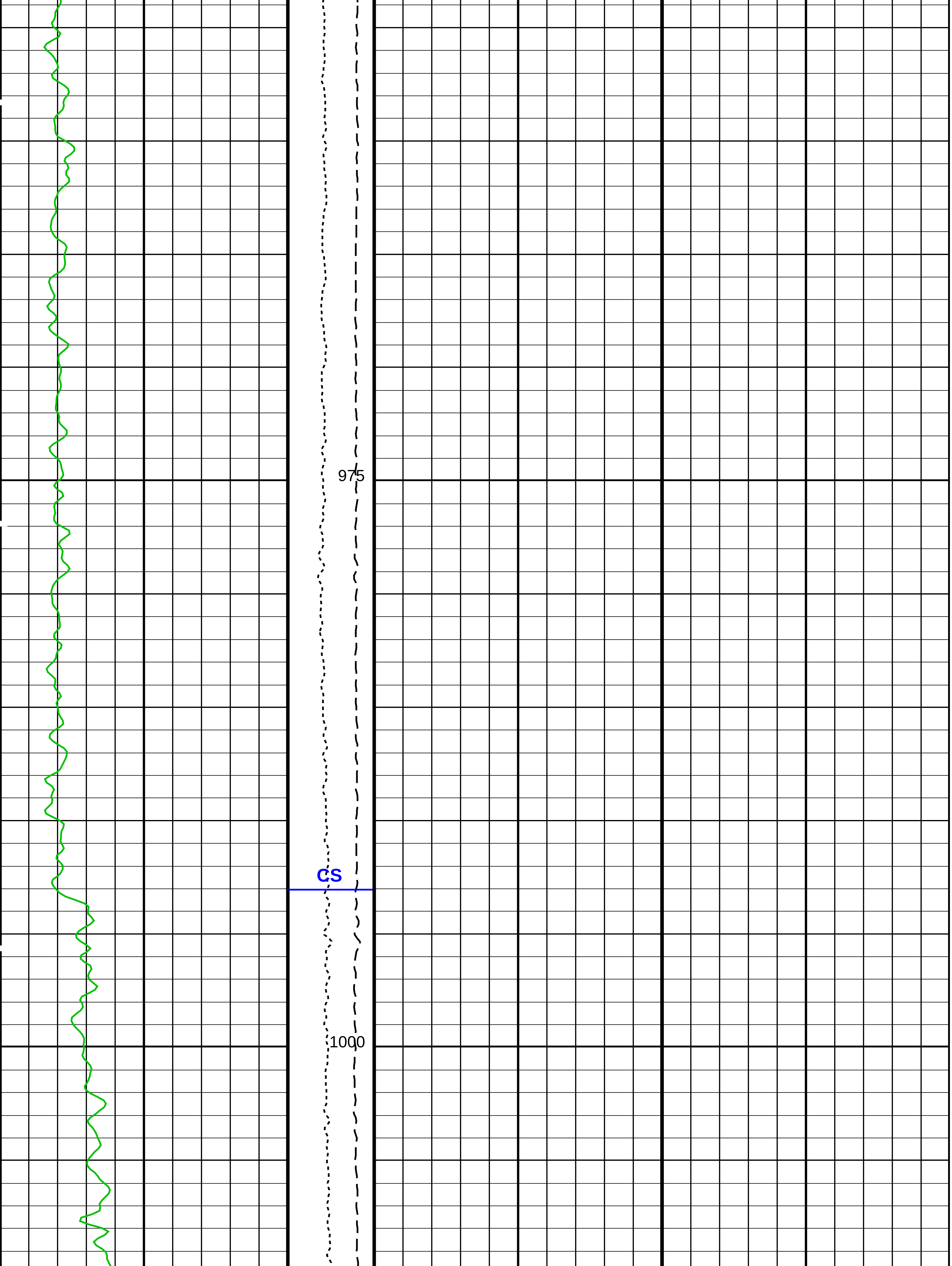
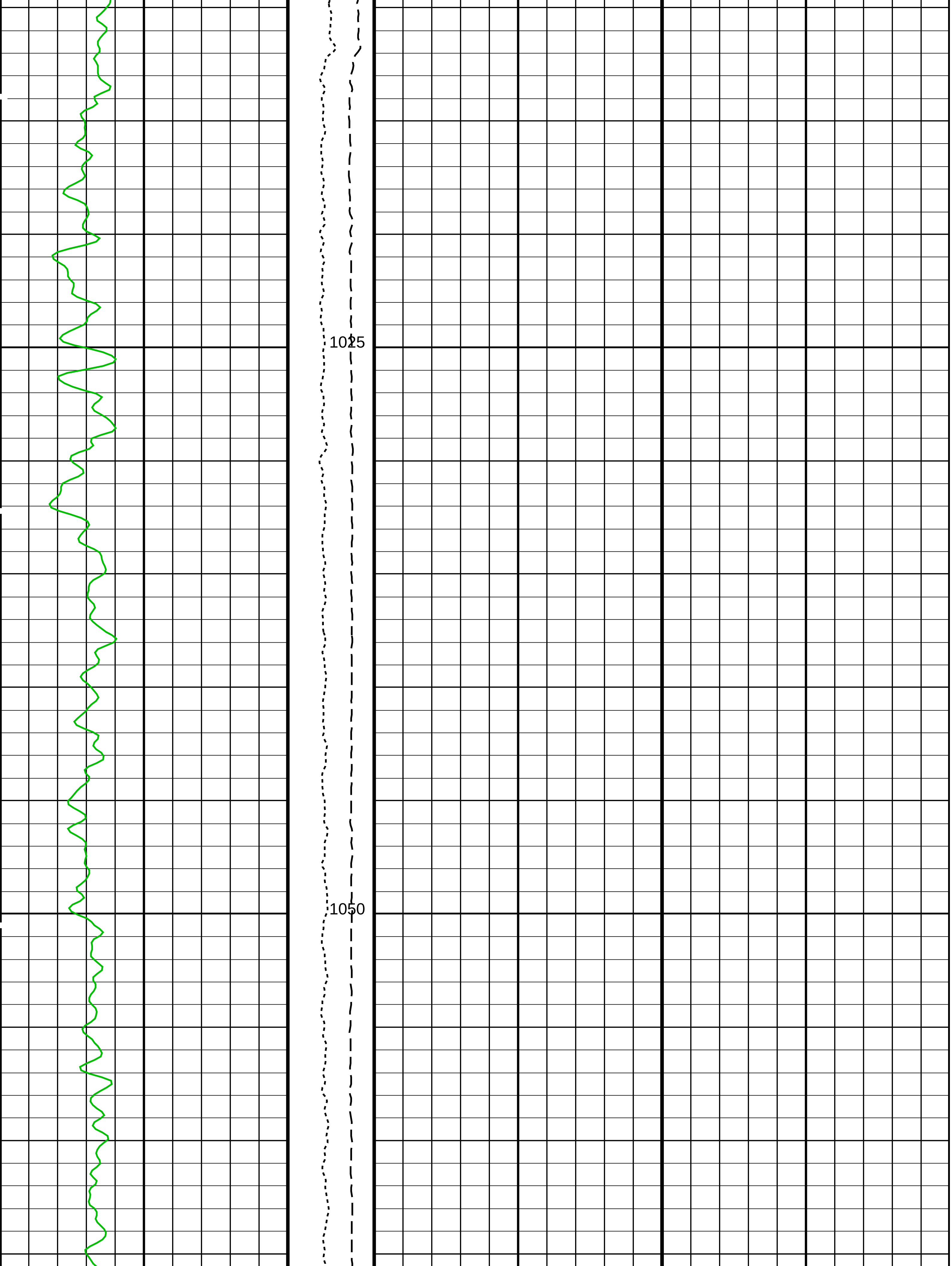
925
950


975
CS
1000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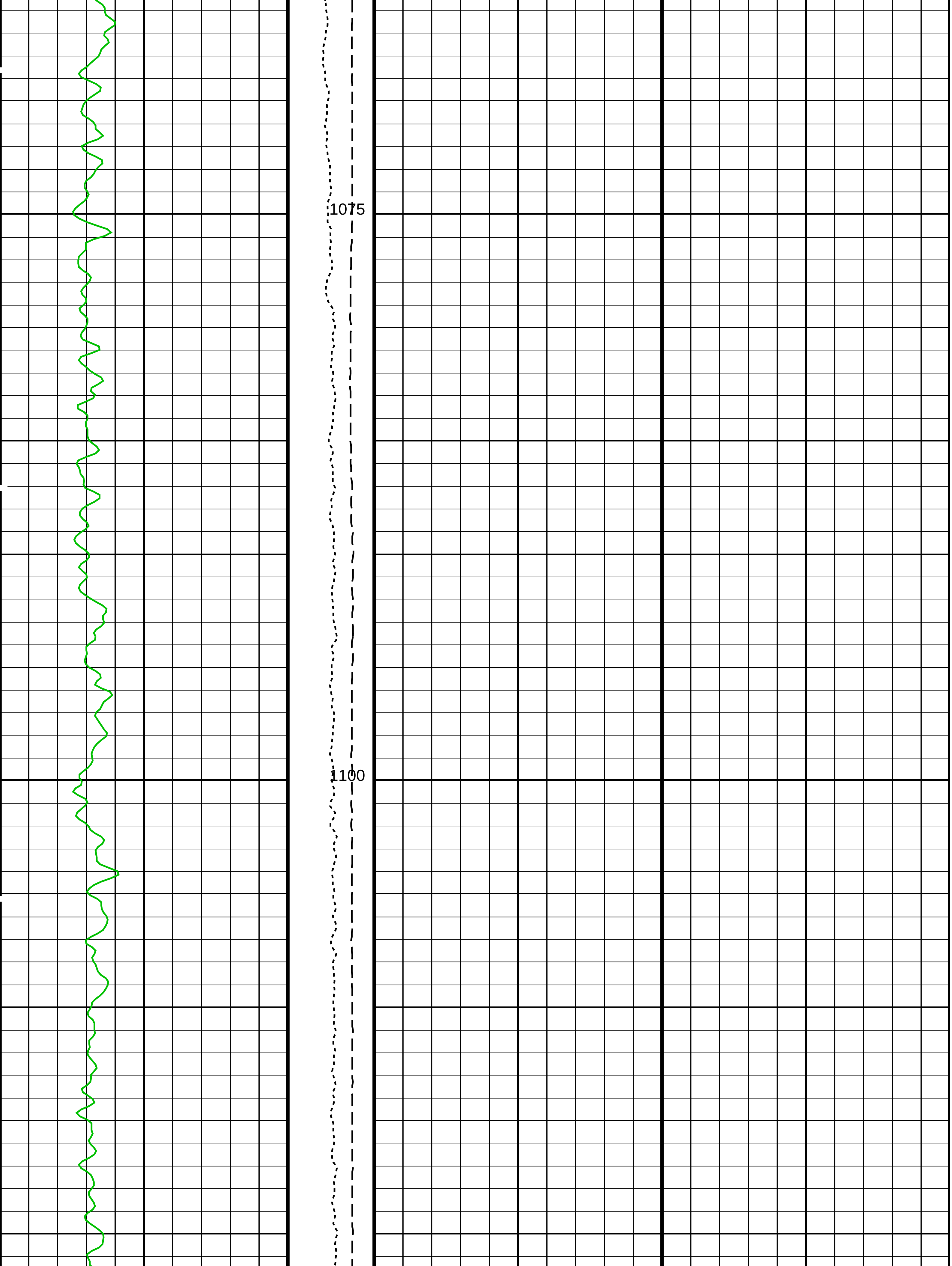
1050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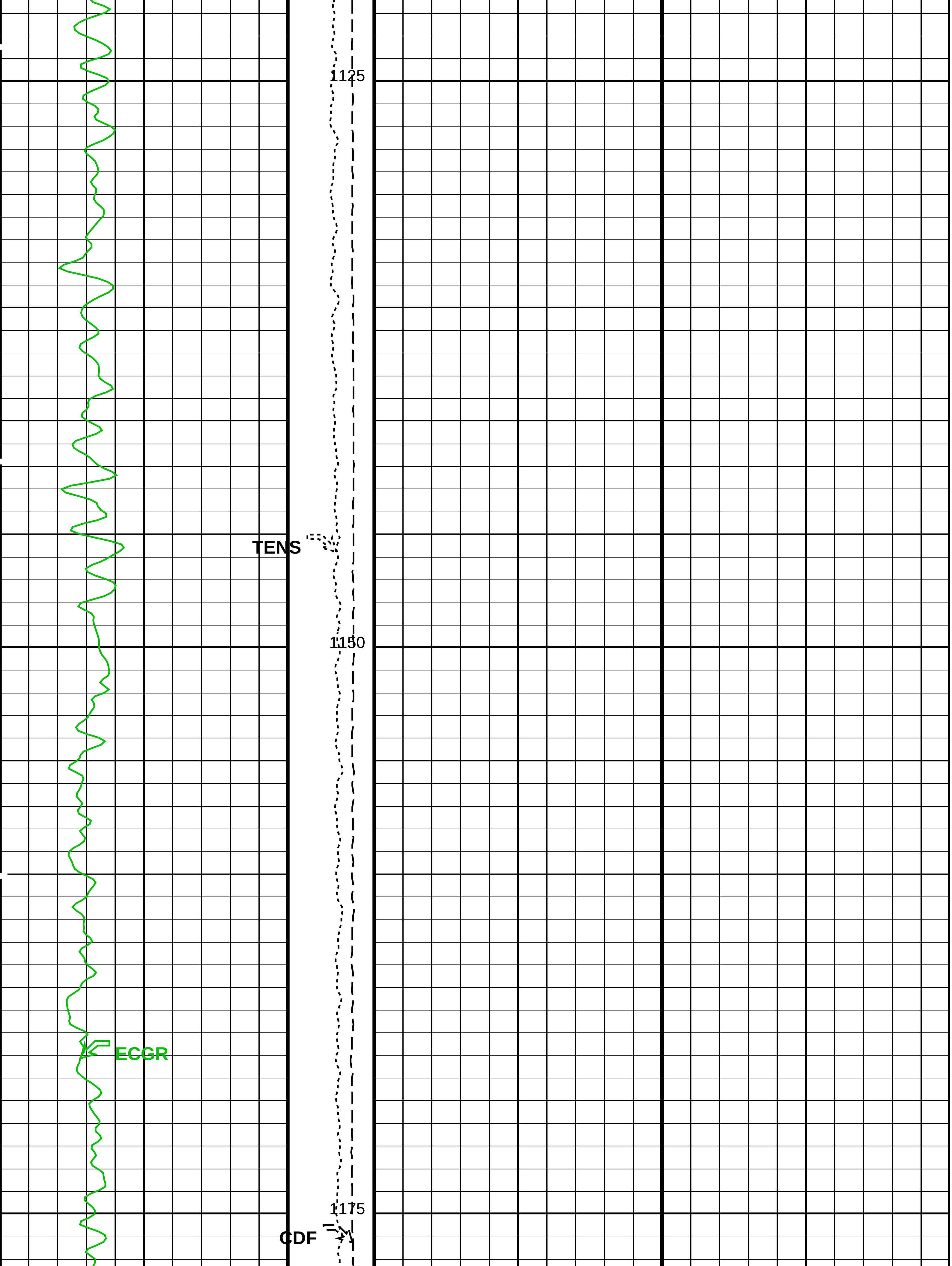
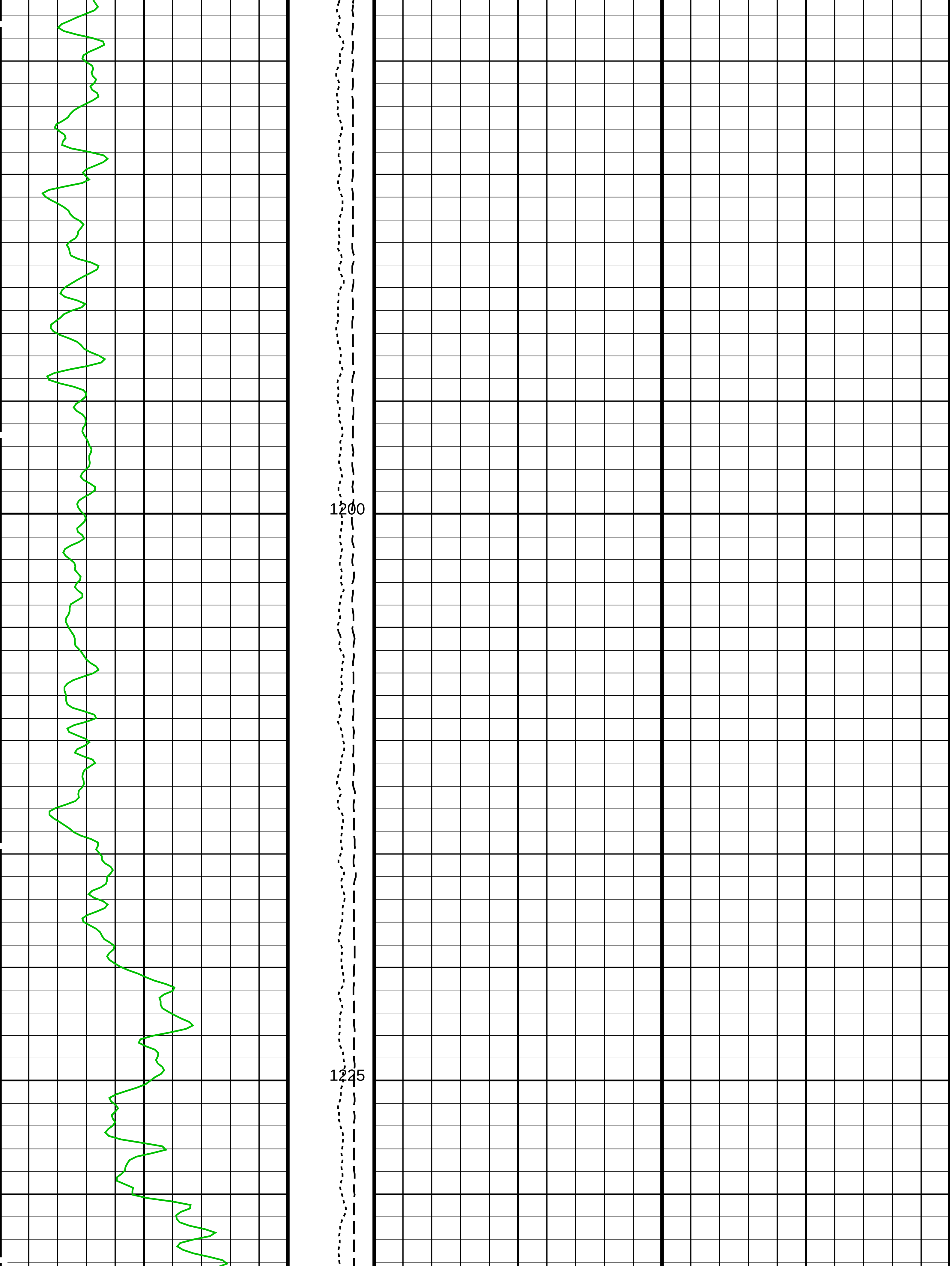

1125
TENS
1150
ECGR
1175
CDF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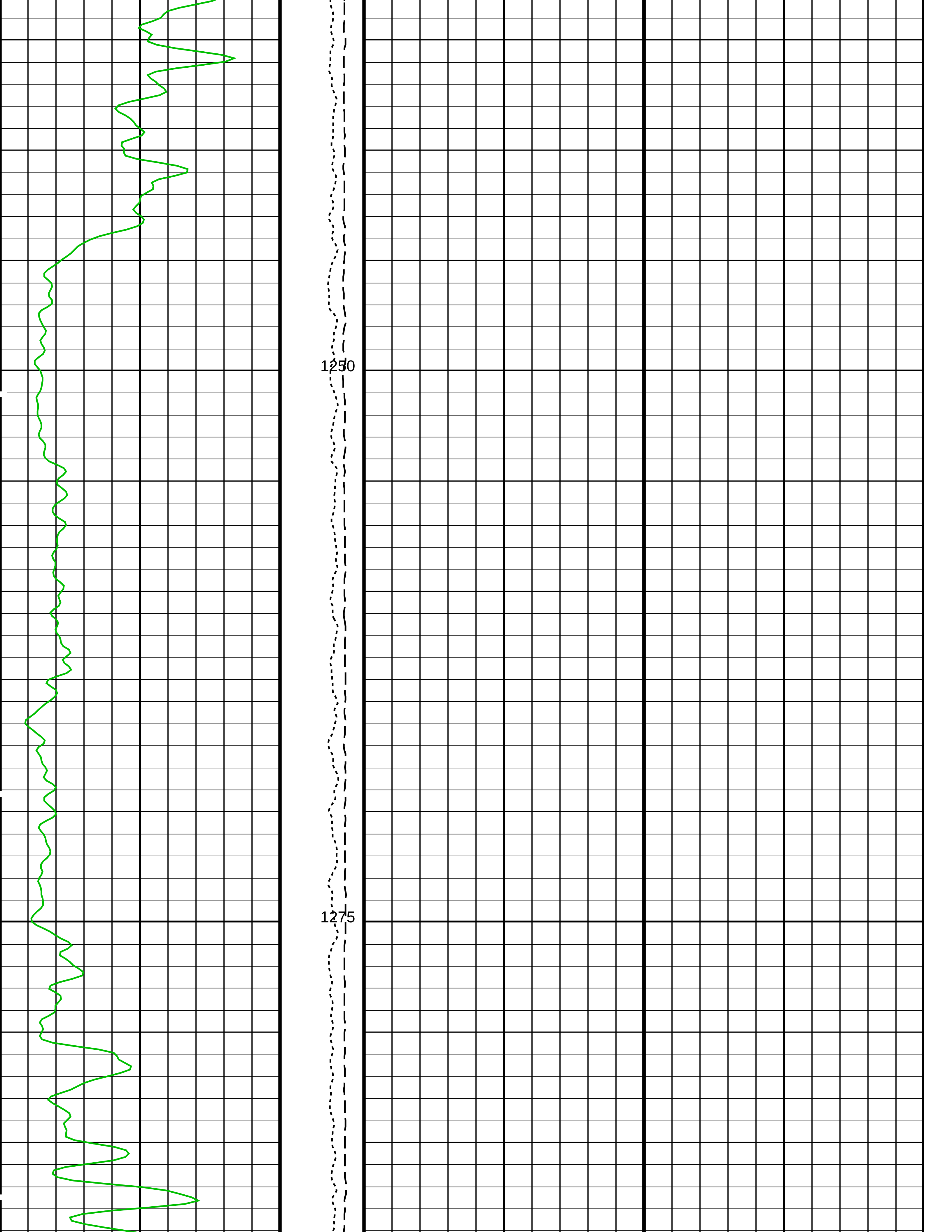
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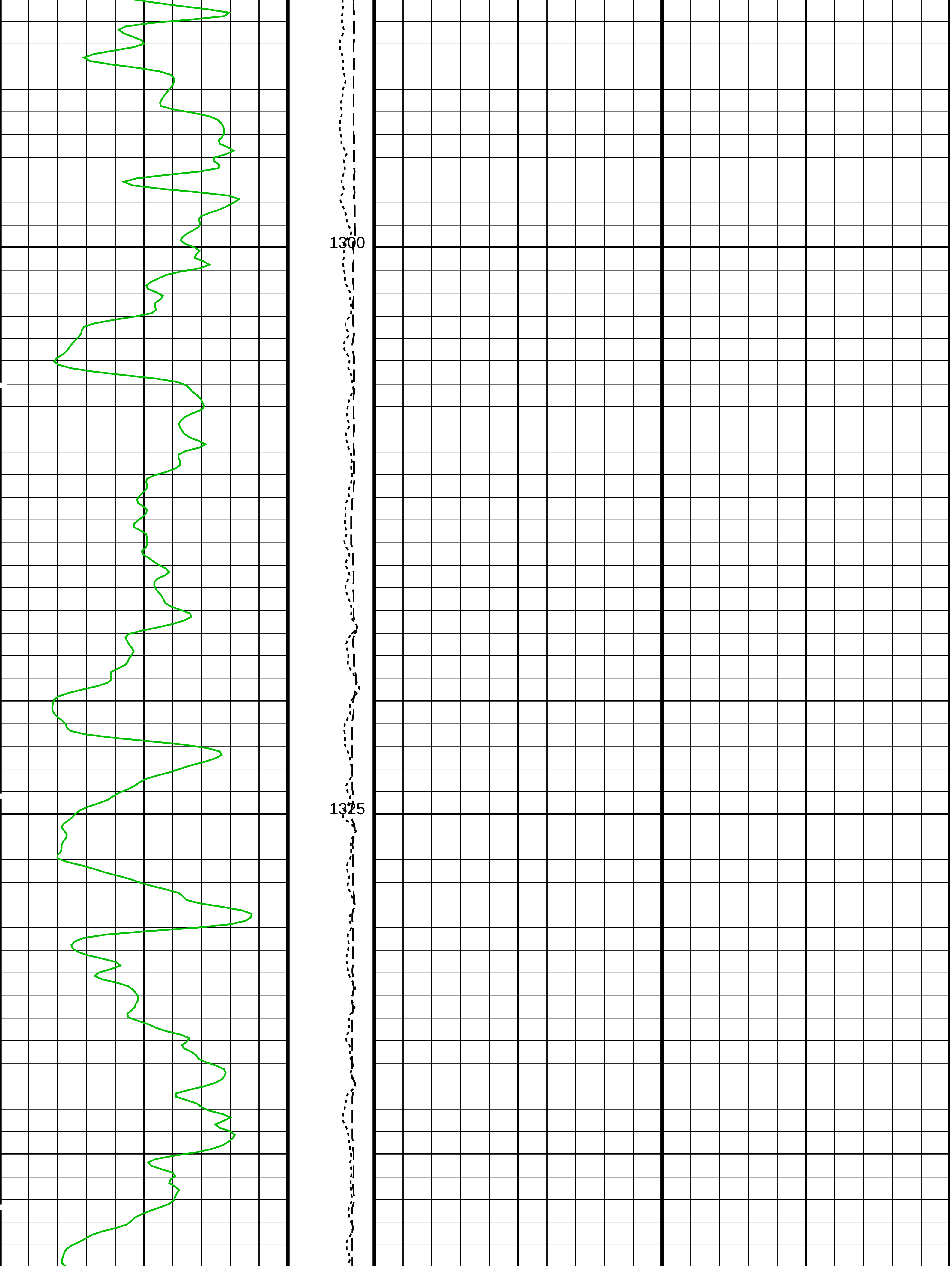
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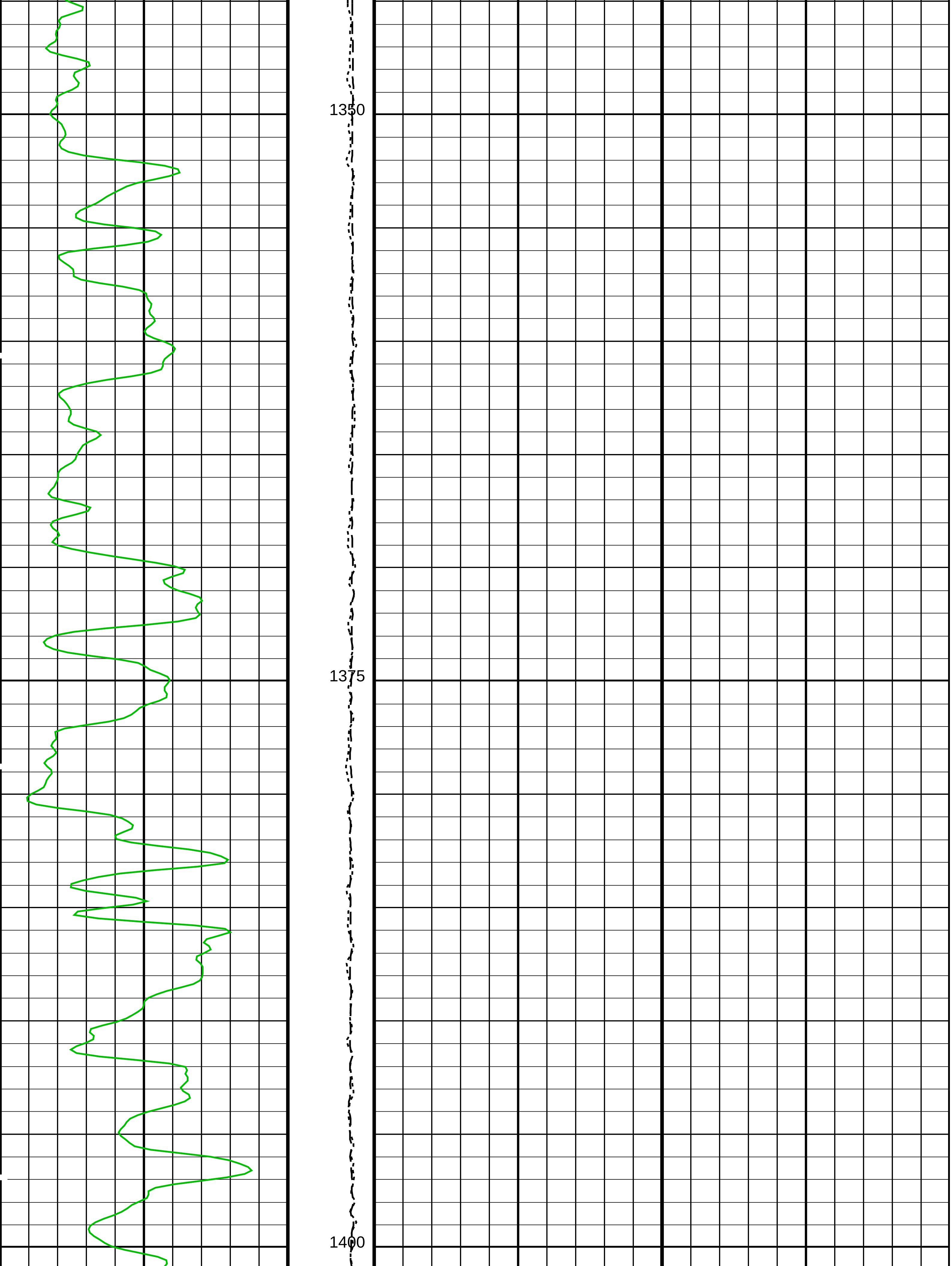
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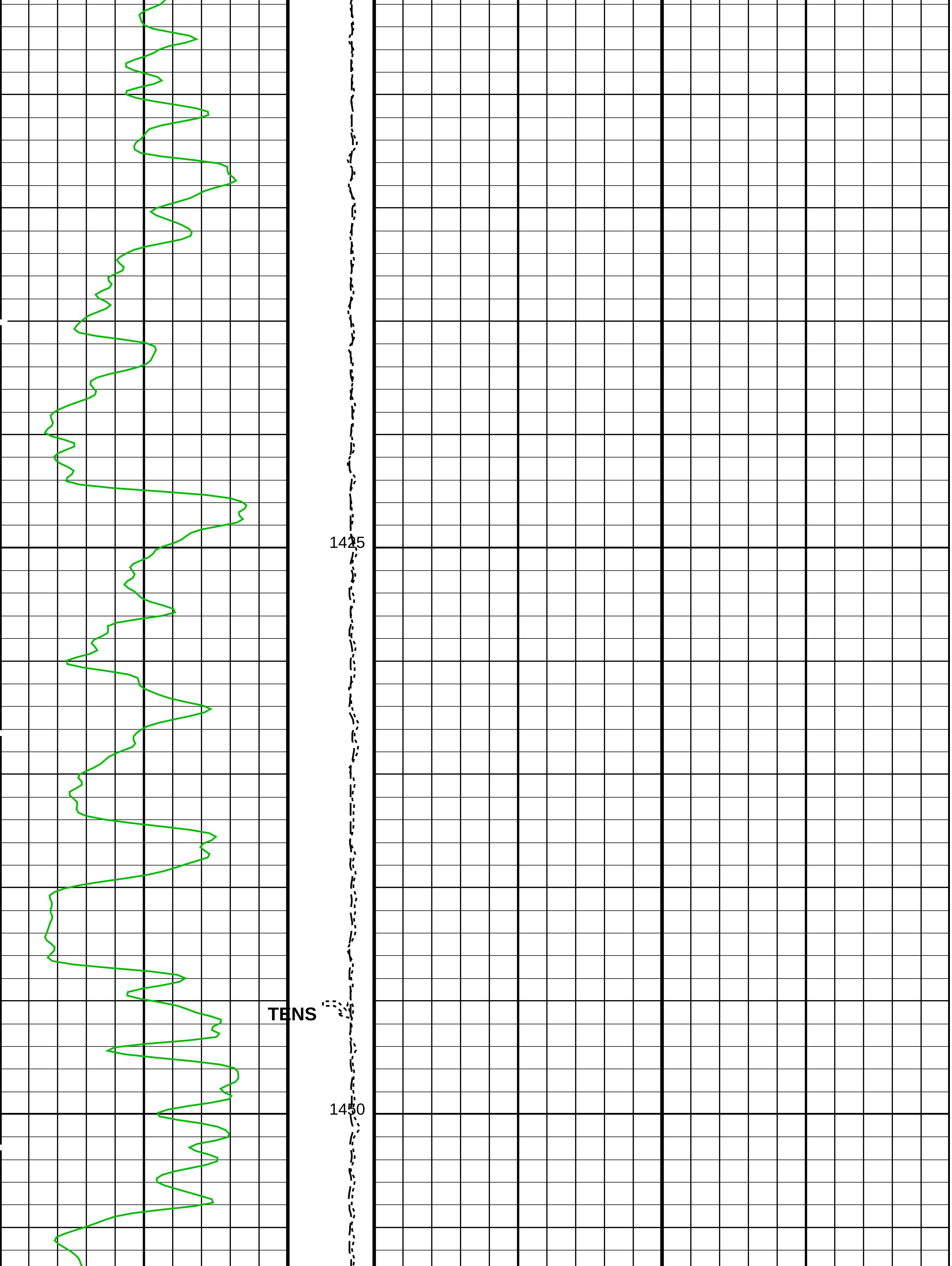
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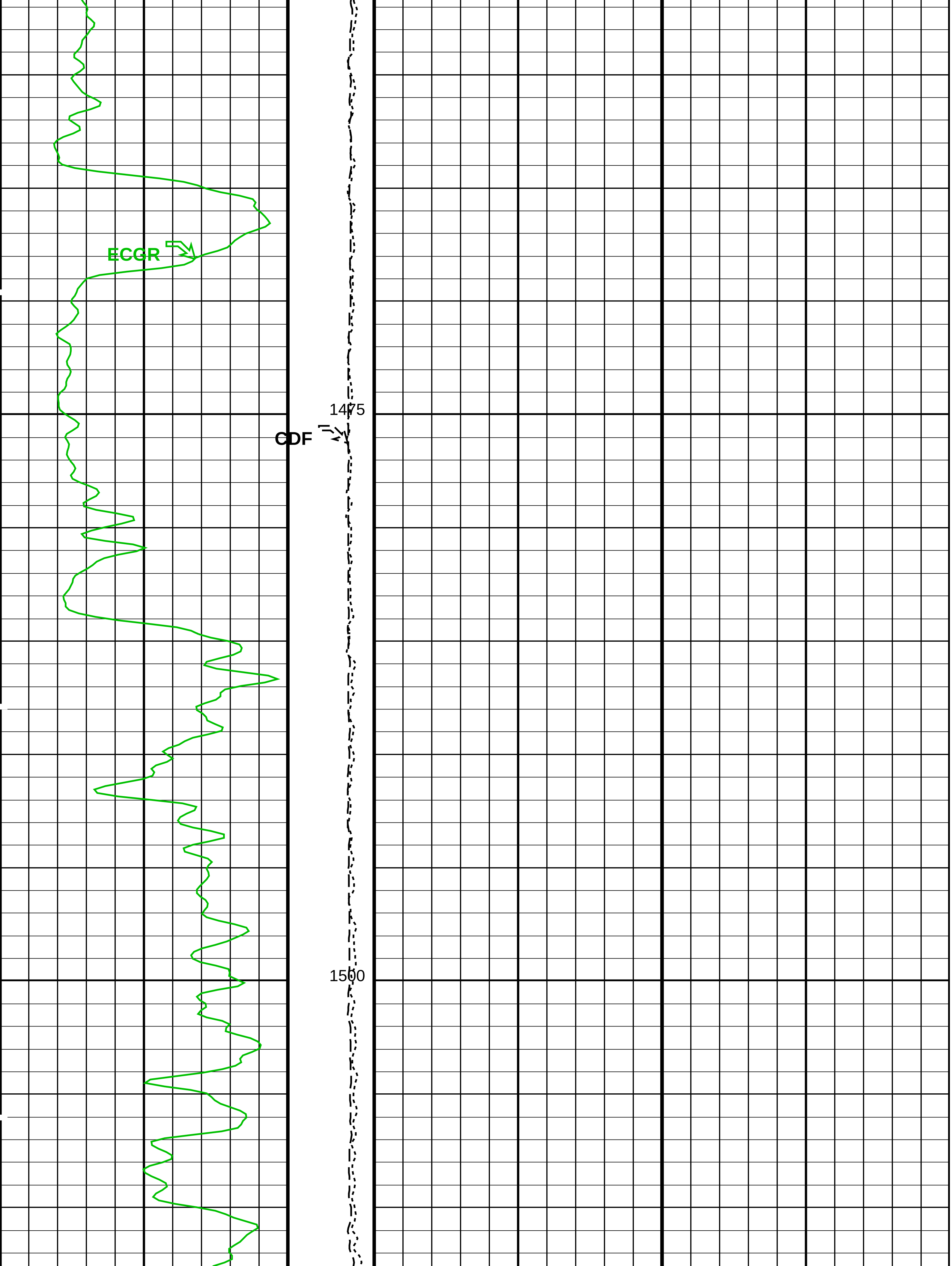
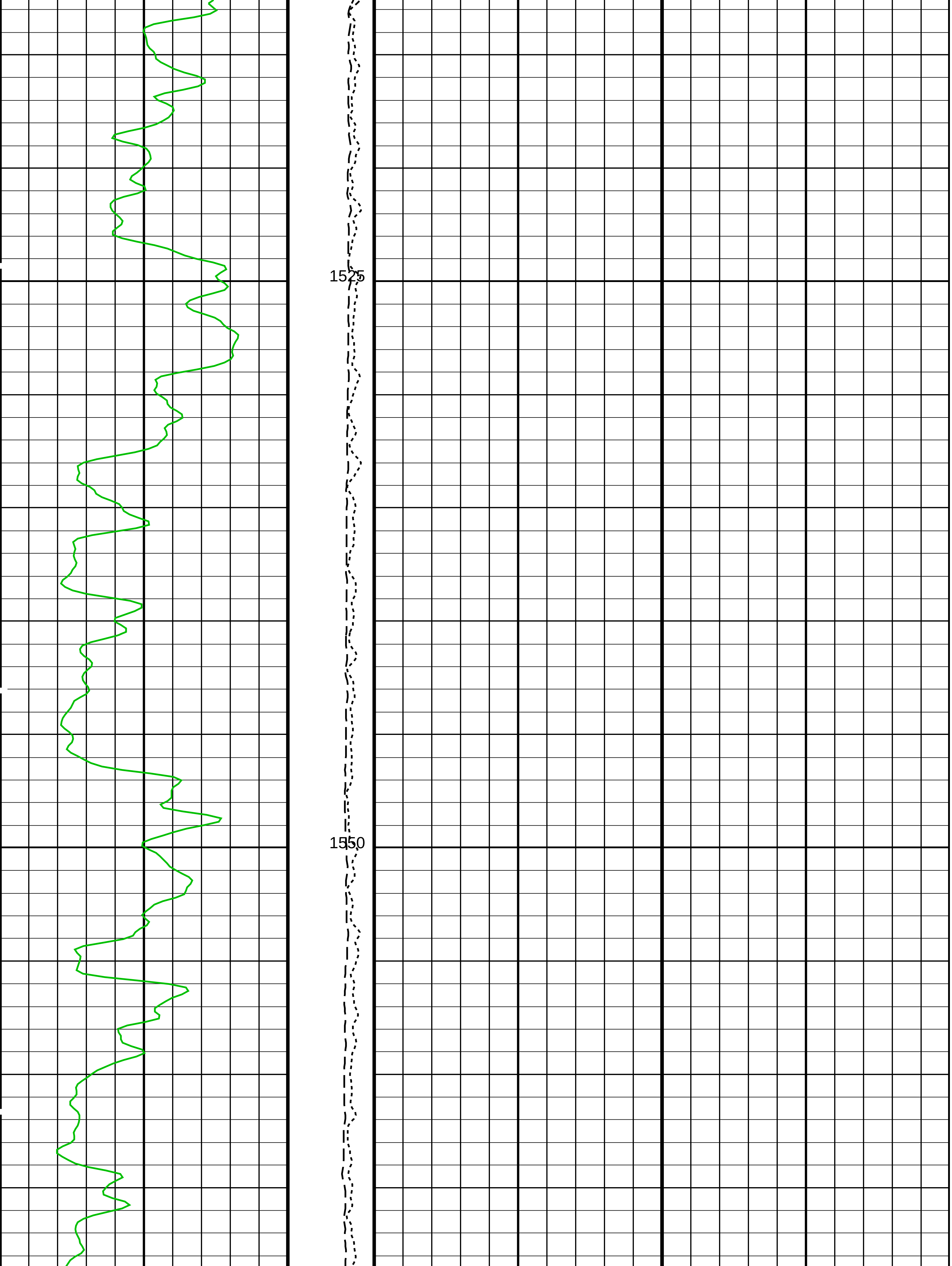
TENS
1450



ECGR
CDF
1475
1500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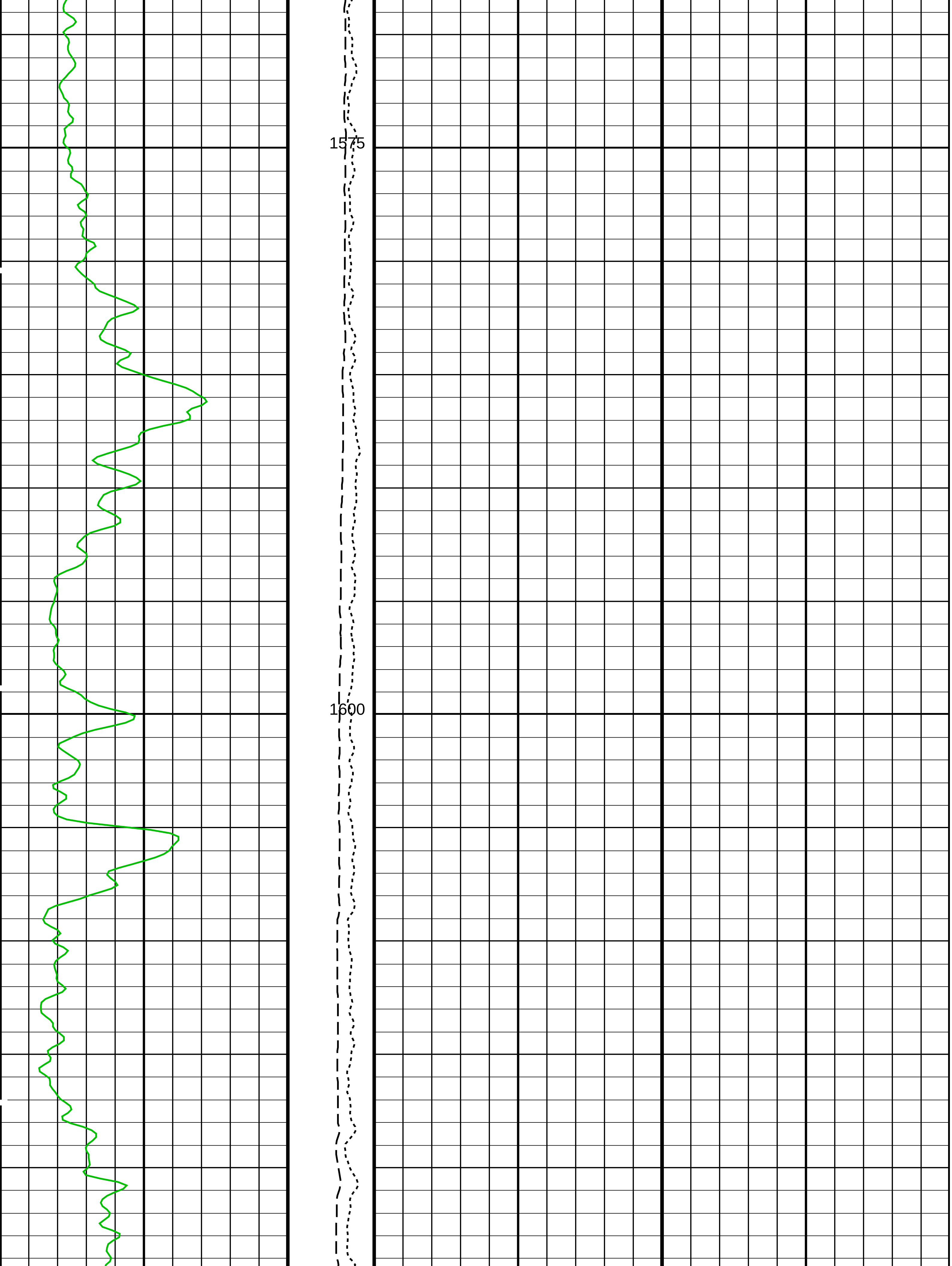
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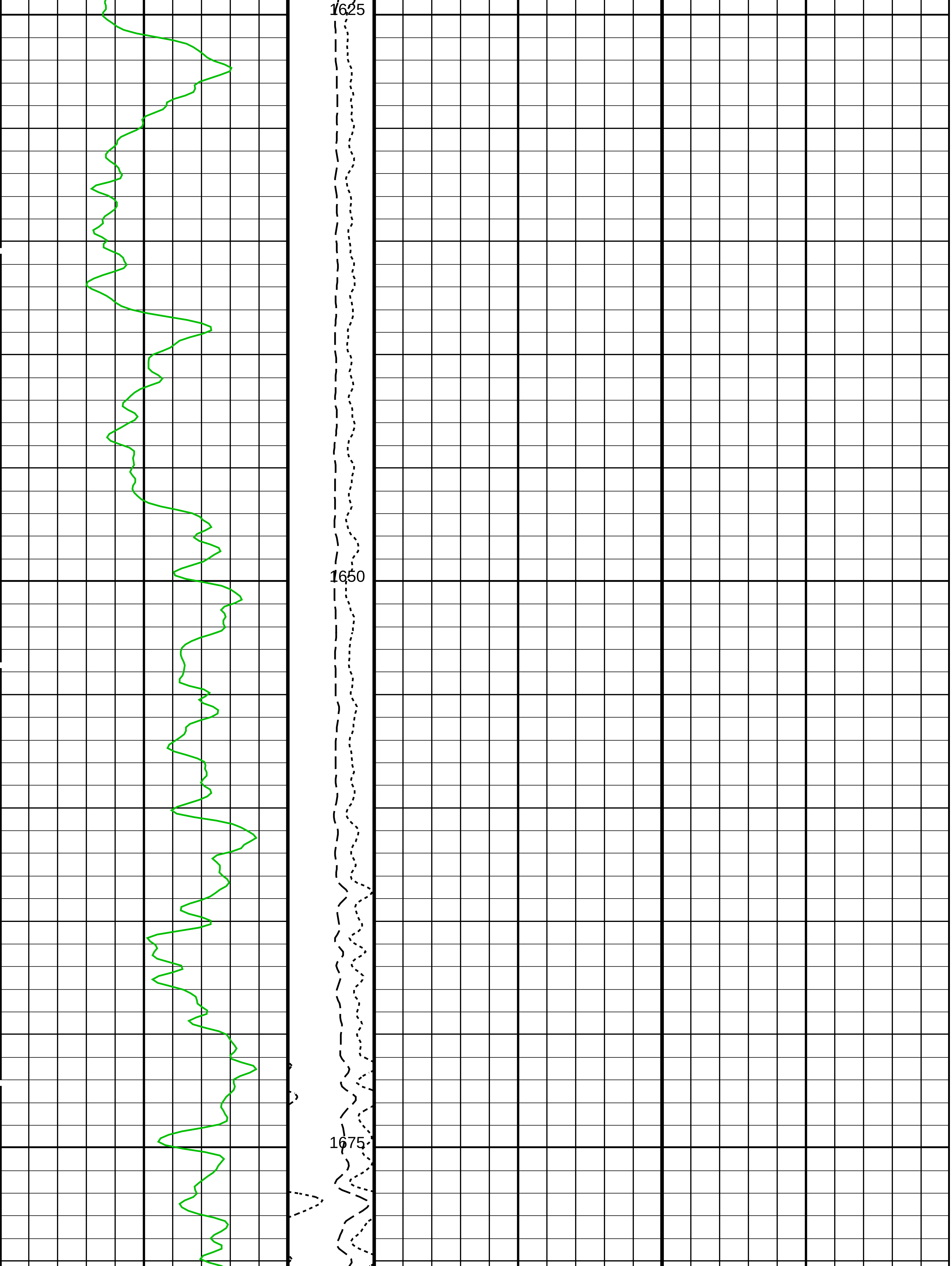
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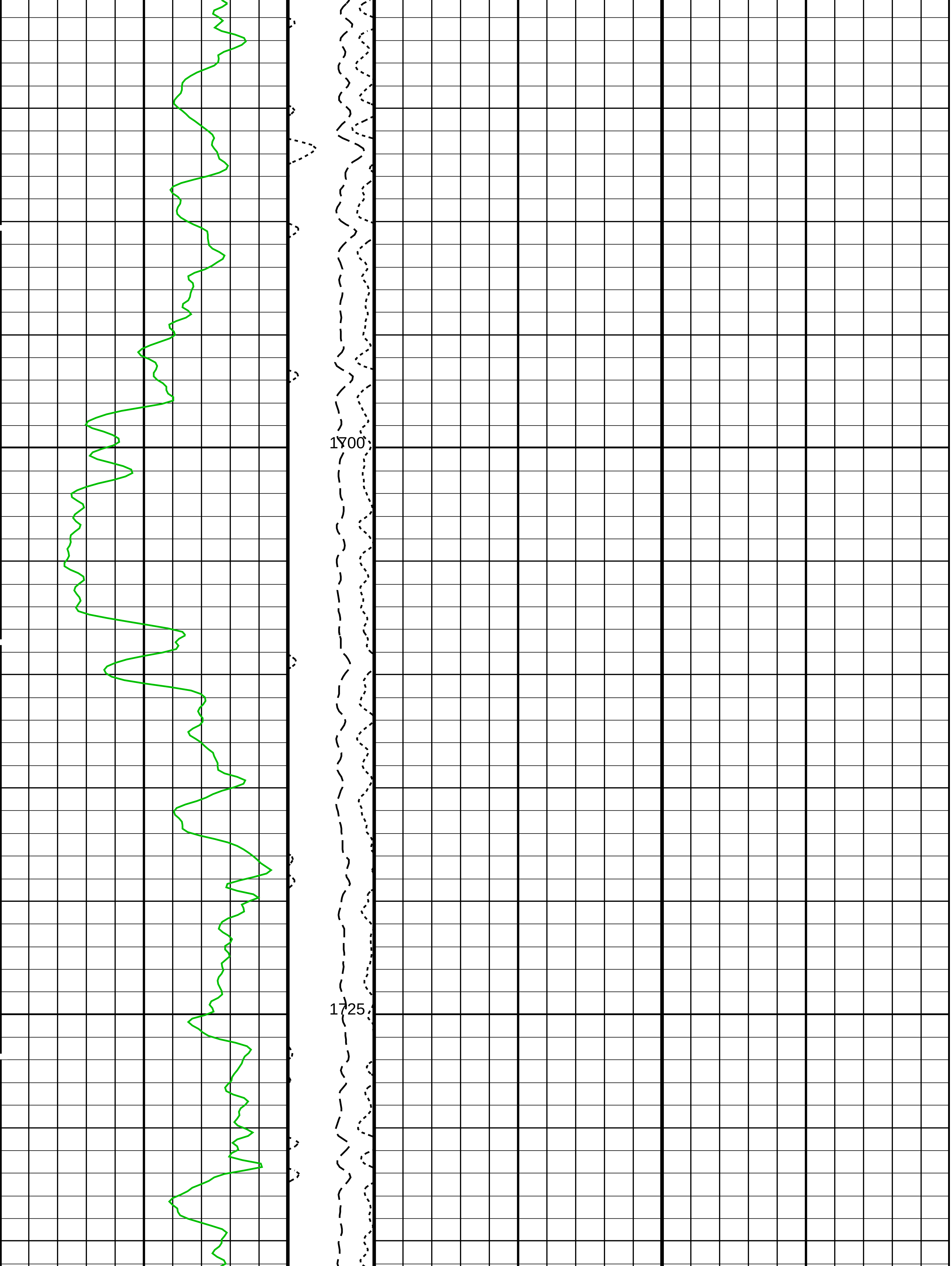
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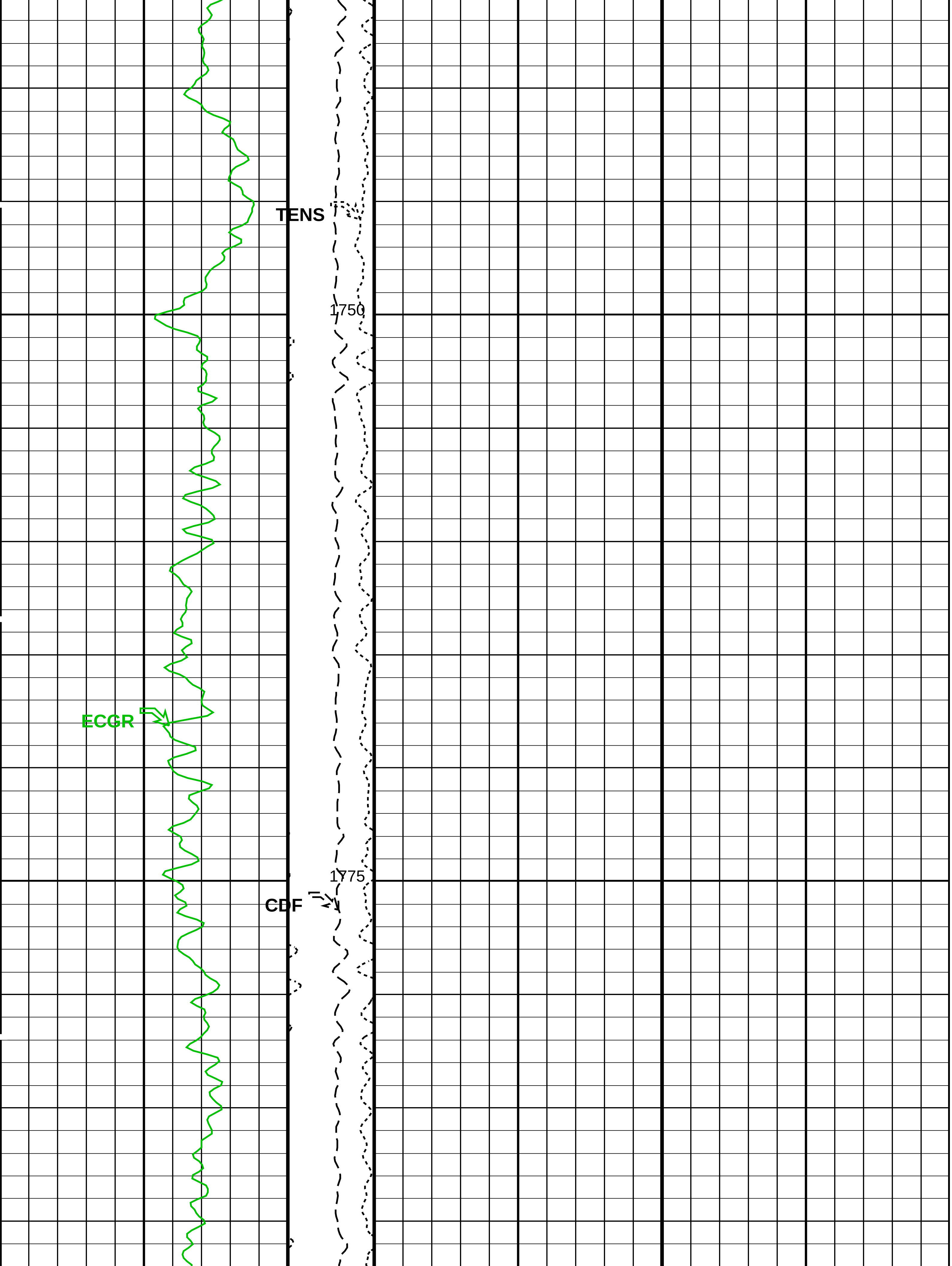
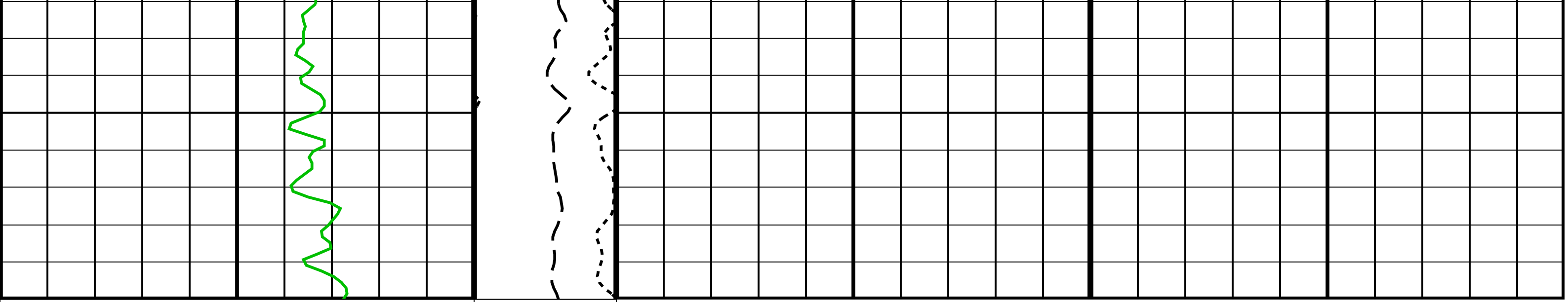

TENS
1750
ECGR
1775
CDF



Gamma Ray (ECGR)
0 (GAPI) 200

Tension (TENS) (LBF)
0 2000

Calibrated Downhole Force (CDF) (LBF)
0 2000

PIP SUMMARY

Time Mark Every 60 S

Parameters

HILTB–FTB: High resolution Integrated Logging Tool–DTS

DLIS Name	Description	Value	
BHFL	Borehole Fluid Type	OIL	
BHFL_TLD	HILT Nuclear Mud Base	OIL	
BHS	Borehole Status	OPEN	
BHT	Bottom Hole Temperature (used in calculations)	118	DEGC
BSCO	Borehole Salinity Correction Option	NO	
CCCO	Casing & Cement Thickness Correction Option	NO	
DHC	Density Hole Correction	BS	
DPPM	Density Porosity Processing Mode	STAN	
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	20000	PPM
FSCO	Formation Salinity Correction Option	NO	
GCLF	Germany Coal–like Formation Option	NO	
GCSE	Generalized Caliper Selection	HCAL	
GDEV	Average Angular Deviation of Borehole from Normal	35	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	BARITE	
MATR	Rock Matrix for Neutron Porosity Corrections	LIMESTONE	
MCCO	Mud Cake Correction Option	NO	
MCOR	Mud Correction	BARI	
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	BARITE	
NPRM	HRDD Processing Mode	StdRes	
NSAR	HRDD Depth Sampling Rate	1	IN
PEA_FILTER	PEA Filter	NO_FILTER	

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	20	DEGC
SOCN	Standoff Distance	0.125	IN
SOCO	Standoff Correction Option	YES	
XPT−BA: Xpress Pressure Tool − BA			
BHS	Borehole Status	OPEN	
BHT	Bottom Hole Temperature (used in calculations)	118	DEGC
BTA_HYD	Hydrostatic Gauge Board Temperature A Coefficient	1.0039	
BTA_SAP	Sapphire Board Temperature A Coefficient	1.02068	
BTB_HYD	Hydrostatic Gauge Board Temperature B Coefficient	0	
BTB_SAP	Sapphire Board Temperature B Coefficient	0	
BTCT_HYD	Hydrostatic Gauge Board Temperature Coefficients Read From Data Channels	YES	
BTCT_SAP	Sapphire Board Temperature Coefficients Read Fram Data Channels	YES	
DDPL_XPT	Pretest Drawdown Limit	2200	PSIA
DEVI_FL_CORR_XPT	Tool Deviation Angle	0	DEG
FLD_XPT	Flowline Density	1	G/C3
FPTH	Filling Accumulator Pressure Threshold	1000	PSIA
GCSE	Generalized Caliper Selection	HCAL	
GDBV	Gauges Downhole Boot Version	M.m	
GDDS	Gauge For Drawdown Selector	QUARTZ	
GDEV	Average Angular Deviation of Borehole from Normal	35	DEG
GDSV	Gauges Downhole Software Version	2.1	
GDYCO	Sapphire Dynamic Compensation Applied	YES	
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	BARITE	
MATR	Rock Matrix for Neutron Porosity Corrections	LIMESTONE	
MDBV	Motors Downhole Boot Version	M.m	
MDSV1	Motors Downhole Software Version 1	2.1	
MDSV2	Motors Downhole Software Version 2	2.1	
PAC_SAP	Sapphire Gauge Pressure A Coefficient	0.999588	
PA_HYD	Hydrostatic Gauge Pressure A Coefficient	1.00776	
PBC_SAP	Sapphire Gauge Pressure B Coefficient	0	
PB_HYD	Hydrostatic Gauge Pressure B Coefficient	0	
PCT_HYD	Hydrostatic Gauge Pressure Coefficients Read From Data Channels	YES	
PCT_SAP	Sapphire Pressure Coefficients Read From Data Channels	YES	
PGSR	Pressure Gauges Sampling Rate	300	ms
PRSP	Pretest Rate	1	C3/S
PTM_XPT	Pretest Type	SMART	
PTVO_XPT	Pretest Volume	10	C3
QDYCO	CQG Dynamic Compensation Applied	YES	
SHT	Surface Hole Temperature	20	DEGC
SPTH	Setting Pressure Threshold	3200	PSIA
STAB_RATE	LQC Stabilization Rate	82.7371	KPAH
TAC_SAP	Sapphire Gauge Temperature A Coefficient	1.02277	
TA_HYD	Hydrostatic Gauge Temperature A Coefficient	0.999037	
TBC_SAP	Sapphire Gauge Temperature B Coefficient	0	
TB_HYD	Hydrostatic Gauge Temperature B Coefficient	0	
TCT_HYD	Hydrostatic Gauge Temperature Coefficients Read >From Data Channels	YES	
TCT_SAP	Sapphire Temperature Coefficients Read From Data Channels	YES	
U−SAGO	Sapphire Automatic Gain_Offset	NO	
SGT−N: Scintillation Gamma Ray Tool − N			
BHS	Borehole Status	OPEN	
BHT	Bottom Hole Temperature (used in calculations)	118	DEGC
DPPM	Density Porosity Processing Mode	STAN	
GCSE	Generalized Caliper Selection	HCAL	
GDEV	Average Angular Deviation of Borehole from Normal	35	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	BARITE	
MATR	Rock Matrix for Neutron Porosity Corrections	LIMESTONE	
SHT	Surface Hole Temperature	20	DEGC
SOGR	SGT Standoff Distance	0	IN
CMRT−B: Combinable Magnetic Resonance Tool − B			
BHS	Borehole Status	OPEN	
BHT	Bottom Hole Temperature (used in calculations)	118	DEGC
GCSE	Generalized Caliper Selection	HCAL	
GDEV	Average Angular Deviation of Borehole from Normal	35	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	BARITE	
MATR	Rock Matrix for Neutron Porosity Corrections	LIMESTONE	
SHT	Surface Hole Temperature	20	DEGC
System and Miscellaneous			
ALTDPCHAN	Name of alternate depth channel	SpeedCorrectedDepth	

BS	Bit Size	9.500	IN
BSAL	Borehole Salinity	260000.00	PPM
CSIZ	Current Casing Size	16.000	IN
CWEI	Casing Weight	84.00	LB/F
DFD	Drilling Fluid Density	1.45	G/C3
DO	Depth Offset for Playback	7.0	M
MST	Mud Sample Temperature	−50000.00	DEGC
PBVSADP	Use alternate depth channel for playback	NO	
PP	Playback Processing	NORMAL	
RMFS	Resistivity of Mud Filtrate Sample	−50000.0000	OHMM
RW	Resistivity of Connate Water	1.0000	OHMM
TD	Total Depth	3434	M
TDD	Total Depth − Driller	3437.00	M
TDL	Total Depth − Logger	3434.00	M
TWS	Temperature of Connate Water Sample	37.78	DEGC

Format: GR_Only Vertical Scale: 1:200 Graphics File Created: 28−Jul−2006 10:19

OP System Version: 14C0−302

MCM

HILTB−FTB	SRPC−3193−Q3_2006_b	XPT−BA	SRPC−3193−Q3_2006_b
SGT−N	SRPC−3193−Q3_2006_b	CMRT−B	SPC−3131−CMR_b
ACTS−B1	SRPC−3193−Q3_2006_b	DTA−A	SRPC−3193−Q3_2006_b
DTC−H	SRPC−3193−Q3_2006_b		

Input DLIS Files

DEFAULT	Splice_TLD_MCFL_CNL_104CUP	FN:1	PRODUCER	28−Jul−2006 10:02	3443.5 M	78.5 M

Output DLIS Files

DEFAULT	TLD_MCFL_CNL_XPT_107PUP	FN:168	PRODUCER	28−Jul−2006 10:19
CUSTOMER	TLD_MCFL_CNL_XPT_107PUC	FN:169	CUSTOMER	28−Jul−2006 10:19
GR	TLD_MCFL_CNL_XPT_107PUC	FN:170	CUSTOMER	28−Jul−2006 10:19

Schlumberger

Calibrations

MAXIS Field Log

Client:	Nexus Energy	Tool:	XPT
Field:	Longtom	Sub Type:	−−−
Well:	Longtom−3	Sensor:	All
Run date:	27−Jul−2006		

XPT Quartz Gauge Type L

Information	GAUGE CQG−LB.3610 PCB.099 DMC.003:
Sensor Serial NB	3610
Calib Date ddmmyy	130306
Coefficients Checksum	OK

XPT Sapphire Gauge 20kPsi

Information	COEFFICIENTS FOR GAUGE XPT−B.4232 FORMATION:
Sensor Serial NB	4232
Calib Date ddmmyy	100306
Coefficients Checksum	OK

XPT Hydrostatic Sapphire Gauge 20kPsi

Information	**COEFFICIENTS FOR GAUGE XPT−B.4251 HYDROSTATIC:**
Sensor Serial NB	**4251**
Calib Date ddmmyy	**100306**
Coefficients Checksum	**OK**

Company: **Nexus Energy**

Schlumberger

Well: **Longtom−3**
Field: **Longtom**
Rig: **Ocean Patriot**
Country: **Australia**

PEX−XPT−CMI
Pressure Express Log
Suite 1 Run 1