EXECUTIVE SUMMARY

The location B-AD-54 was proposed in XIII-EPMB and released as ADAV vide LRO: AAAB/BMG/EPMB/LRO_Mod/2022-23 dated 21.10.2022 in Agartala Dome Extn-III PML block with a target depth of 3011mMDKB/2715mTVDMSL to explore hydrocarbon prospects of AP-36 sand in Upper Bhuban formation.

The well was spudded on 08.05.2023 as AD#66 by E-1400-XIV rig. It was drilled as an inclined well in 'L' profile up to 3011m MDKB/2762.39m TVDKB/2715m TVDSS with KOP at 300m and net horizontal drift of 1101m at target depth. No major complications were encountered during drilling this well.

The well has penetrated 758m of Tipam, 927m of Bokabil, and was terminated after drilling 1030m of Upper Bhuban Formation. Based on the electro-log correlation with nearby wells the well AD#66 is structurally deeper at Bokabil top by 19m, 76m, 132m, 21m and 99m w.r.t. AD#43, AD#30, AD#37, RO#59, RO#64. At Upper Bhuban level the well is structurally shallower by 105m, 30m, and 137m, w.r.t AD#43, AD#30 and RO#59 and deeper by 48m and 40mw.r.t AD#37, RO#64 respectively.

On correlation with offset wells it was observed that the primary target sand AP-36 is not developed in this well.

Based on evaluation of G&G data and electro-logs no interesting zones were identified in this well from Hydrocarbon point of view. Hence, the well was permanently abandoned without lowering 51/2" casing as per SOP.

Date: 21.11.2023

Place: Agartala

Dharmanand P. Manke

CGM (Geology)- Head Forward Base

GENERAL WELL DATA

A. Location Details

Country		India	
State/ District		Tripura, West Tripura	
Village/ Mandal/Tehsil		Bishalgarh	
Basin		A & AA Basin	
Area/ Structure		Agartala Dome	
Proposed as (*including EPMB/ File details*)		**B-AD-54** 13th BEXB dt 22-23.12.23	
Released as (*Including order no. & date)*		**ADAV** *(AAAB/BMG/Loc.Rel./30th EPMB/2021-22 dated 31.03.2022)*	
		Modified order *(AAAB/BMG/EPMB/LRO_Mod/2022-23 dated 21.10.2022)*	
Well No. (Well Name)		AD#66 (ADAV)	
WBS Element		AG.23E.PMLAD.AD#ADAV	
Well Type / Category		Exploratory / "B"	
Expendable / Non-Expendable		Non-Expendable	
Well Profile		Inclined L-Profile	
COORDINATES	**Released_modified (Sub-Surface)**	Latitude:	**PROJECTION SYSTEM** WGS-84
		Longitude:	
		Northing:	
		Easting:	
	Staked	Latitude:	
		Longitude:	
		Northing:	
		Easting:	
	Actual (Final Surface Location)	Latitude: 3°3'11.831"N	**LAMBERT26_90**
		Longitude: 1°6'1.2"E	
		Northing: 72613.65	
		Easting: 6297.74	
Seismic Reference		IL: 35 XL: 97181 (Tripura Mega Merge vol)	

Offset from Released Location	32.35m due 200.96°N from released location
Target Depth (MDKB/TVDSS)	3011m/2715m
Revised Target Depth, if any (MDKB/TVDSS)	-
Drilled Depth (MDKB/TVDSS)	3011m/2715m
Formation/Member at TD	Upper Bhuban
Logger's Depth (MDKB/TVDSS)	3016m/2720m
Planned Deviation (Inc./Azim.)	26.57º/ 21.51º N at TD
Planned Drift	1094.12m at TD
Actual Deviation (Inc. /Azim.)	28.44º/ 20.63º N at TD
Actual Drift	1101.6m at TD

B. Objective: To explore hydrocarbon prospects in Upper Bhuban sands (AP-36).

C. Rig Details

Rig Name/Type	E-1400-XIV/ Electrical
Departmental / Hired	Departmental
Mud Logging Services	Jindal Drilling & Industries Ltd (Unit no. 2K-1334)

D. Elevation

KB	47.62m
GL	40m

E. Block Details

Block Name	West Tripura
PEL / ML / NELP	Agartala Dome Extn-III PML
Partner (PI)	100%
Operator	ONGC
Area of Block (as on spud date)	60 Sq KM
Effective date	30.03.2011 to 29.03.2031
Discovery well	-

F. Chronology

Well spudded-in on	08.05.2023 at 12:30 hrs
Drilling completed on	16.06.2023 at 17:45 hrs
Hermetically Tested on	Not carried out
Rig released on	26.06.2023 at 06:00 hrs

G. Conventional Core

No conventional core was cut in this well.

H. Production Testing Results

No production testing was carried out in this well.

I. Well Status

Abandoned without lowering Production casing

J. Well Cost

Plan **:** INR

Actual Cost **:** INR

CHAPTER 1: INTRODUCTION

1.1 Exploration History in Brief

Agartala Dome structure is the most prolific hydrocarbon accumulation in Tripura. It is a very subtle dome-like feature lying between highly deformed Baramura structure and Rokhia structure. With around 25 BCM in-place gas reserves, it is the single largest field in Tripura. A total of 64 wells have been drilled in this structure. 8 pay sands have been established in this field. AP-10B of Upper Bhuban is the most successful pay sand established in the Agartala Dome field. It is a relict-feature which is formed by the action of canyons eroding through the earlier deposited beds. The cuts thus formed were filled up by transgressing shale, thus providing the lateral and top sealing to these relicts. Hence, relict features are an excellent exploration target.

1.1.1 Geological Set-up (Tectonics & Structure, Brief of Stratigraphy)

Tectonic Setting of the Basin

The Assam and Assam Arakan Basin evolved as a result of rifting and drifting of the Indian Plate towards north and then north east after the break up from Gondwanaland. Drifting of the Indian subcontinent during Cretaceous time led to subduction of Indian plate margin below the Burmese plate. Oblique subduction of the Indian plate initiated closing of the Neo-Tethys Ocean at northeast and then gradually progressed southward. Intervening ocean became progressively narrower towards south. Subsequent to the closure of the Neo-Tethys Ocean along Arakan Yoma Suture, collision of the continent plates resulted in the development of the Arakan-Burmese Mountain Range. Further compression initiated thrusting and stack of thrust sheets (Schuppen Belt) at north eastern part. At about 10 Ma, all the oceanic crust in the Assam region at the margin of the Indian continent had subducted under the West Burma Plate and initiated extremely oblique collision of the Indian and West Burma Plates. The Assam-Arakan ophiolite belt marks the obducted oceanic crust during collision and marks the boundary between Indian and Burmese plates.

The entire Indo–Burmese orogenic belt represents an accretionary prism complex migrating westward due to continuous eastward subduction of the Indian plate from Late Cretaceous to end of Oligocene. The prism complex as a whole becomes younger

in the westward direction (Hutchinson, 1989; Varga, 1997). The westward migration of the prism complex is believed to have continued through the Tripura-Cachar Fold Belt as the 'Neogene Accretionary Prism' (Dasgupta and Nandy, 1995), which developed above the obliquely subducting Indian lithosphere. Tripura-Cachar Fold Belt had undergone severe folding, faulting and thrusting during different phases of post collision orogeny, the intensity of which increases eastward. Initiation of structuration is considered to have occurred during Mio-Pliocene probably after the deposition of Tipam.

Tectonically, the Tripura-Cachar Fold Belt comprises a series of sub-parallel elongated en-echelon anticlines trending NNW-SSE with slight convexity towards west. The anticlines are bounded by longitudinal reverse faults on one or both limbs (Kunte, 1989).

In Tripura, through remote sensing studies and systematic geological mapping, 24 major structures (18 exposed and 6 concealed) have been identified. So far 18 structures have been probed. In total 11 structures (07 fields are put on production & 04 fields yet to be put on production) have established gas reserves in Bokabil, Upper Bhuban, Middle Bhuban and Lower Bhuban reservoirs.

In general the stratigraphy of the area is represented by thick clastic sequence of Tertiary rocks. Mio-Pliocene and younger sediments are exposed on the surface. Proven gas producing reservoirs are established mainly within the arenaceous facies of Bhuban formations. However, potential of Lower Bhuban, Renji & Barail sediments are yet to be proved.

Structural Analysis

Structural analysis of the Western Tripura sector was taken up through integration of surface geological dataset with the subsurface dataset including seismic profiles and drilled well data. The integrated G & G analysis reveals that the most important structural element within the study area is the East Baramura Thrust, which has vergence towards the east, and is thus a major back thrust (Fig. No. III.1). The spectacularly long N-S trending Baramura structure has developed on the hanging wall of this major back thrust. In the vicinity of the western limit of the study area, near the international boundary with Bangladesh, the Rokhia structure is observed in seismic sections to be developed on the East Rokhia Thrust, which also is a back thrust. In

analogy to other similar fold thrust belts across the world, and in conformity with the recent structural understanding in adjacent Cachar sector, the Rokhia and the Baramura structures, in all probability, are genetically related and are envisaged to have emerged as east verging splays from a deep seated regional decollement which is present below the western Tripura sector and is progressively advancing into the undisturbed Bangladesh foreland.

The analysis of available data indicates that the Barjala-Sundulbari structural high trend owes its origin to the development of a west verging fault (referred here as the West Barjala Fault), which is antithetic to the East Baramura Thrust. This fault does not emerge onto the surface and is therefore a blind fault. Splaying out from the East Baramura Thrust, the West Barjala Fault has developed a blind antithetic fault of its own - the East Baramura Bulge Fault – on which the Baramura Bulge structure has developed.

Generalized Stratigraphy

The oldest exposed stratigraphic unit in Tripura-Cachar region is Barail Group of sediments of Oligocene age, unconformably overlain by the lithostratigraphic units broadly subdivided into Miocene Surma Group, Pliocene Tipam Group and Pleistocene Dupitila Group (Nandy et al. 1983). The lithology, mineralogy and sedimentary features indicate that the Neogene sediments of Surma Group are argillaceous as well as arenaceous sequences.

The Surma Group of sediments is further subdivided into Bhubans and Bokabil. The Bhuban is further subdivided into three litho-units viz. Lower, Middle and Upper Bhuban depending upon the relative abundance of coarser and finer clastics (Evans 1930). Bokabil Formation of Late Miocene to Early Pliocene age overlies the Bhuban formations. Lower and Upper Bhuban formations are more arenaceous in composition. The Middle Bhuban unit is dominantly argillaceous and composed mainly of mudstone, shale, shale-siltstone alternation, shale-sandstone alternation. Surma Group succession is devoid of age-diagnostic fauna and marker horizons hence biostratigraphy control is constrained. Surma Group is overlain by the dominantly arenaceous Tipam Formation deposited in fluvial environment. Tipams are overlain by the Dupitila and the Alluvium ranging from Pleistocene to Recent age. These are exposed in the synclinal areas of Tripura.

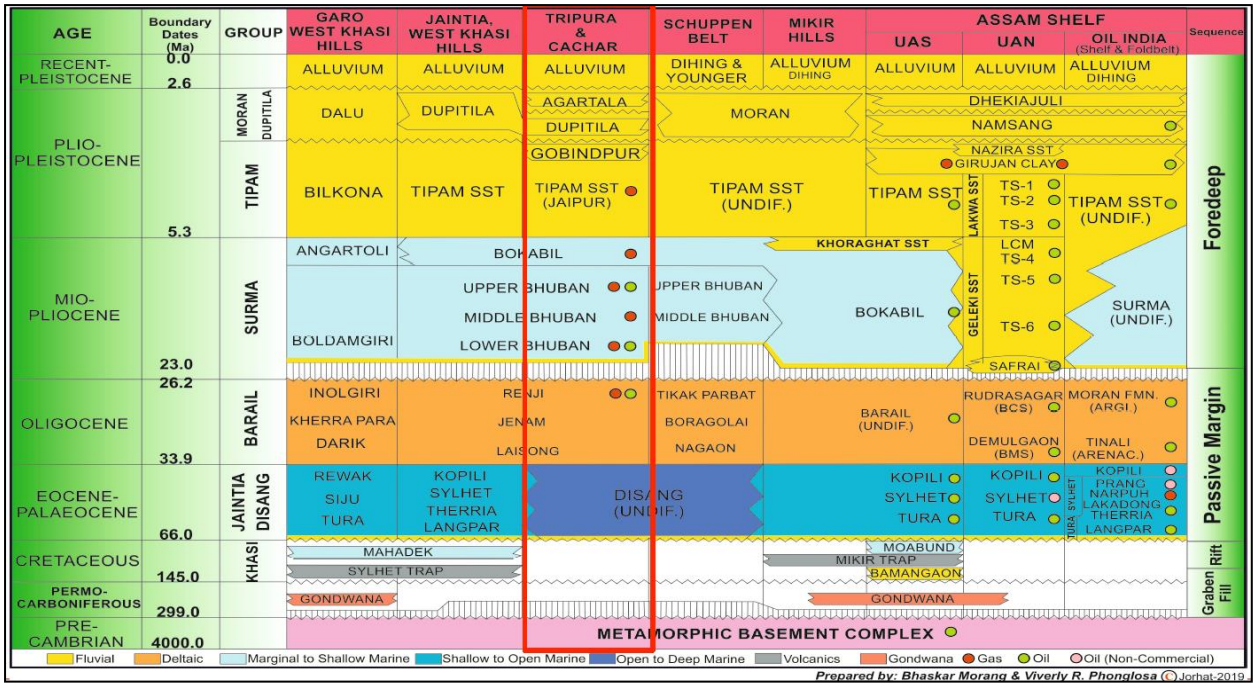


Figure-1: (Generalized Stratigraphy of Assam & Assam Arakan Basin; Mathur & Evan-1964, Chakraborty-1972, Deshpande et.al., 1993, Mathur-2001)

Depositional Regime

During the Middle Eocene to Early Miocene the collision of Indian plate with Burmese plate and Tibetan plate, results in a major switch in sedimentation pattern over the then Bengal Basin. The Tripura Fold Belt has undergone several stages of sedimentation. Surma Group (Bokabil and Bhuban formations) sediments are supposed to be deposited in a deltaic setting (Holtrop and Keizer, 1970; Johnson and Alam, 1991) with occasional marine transgressions (Seshavataram et.al, 1973 and 1975). Most of the sand facies in Tripura are heterogeneous and lenticular in nature. The Tripura fold belt has undergone four stages of basin development i) The sediments deposited during the rifting of India from Gondwana. The synrift history is known only from the western margin and northern margin (Dauki Fault area). These sediments rest unconformably over the basement. The unconformity separating the breakup sediments from the post breakup sedimentation is represented by Lower Cretaceous Rajmahal trap (Curiale et al., 2002). ii). The sediments deposited during drifting consist of Cretaceous to Eocene deposits overlying Upper Paleozoic and Mesozoic Gondwana graben deposits of largely continental origin (Alam, 1989). iii). Early collision sedimentation contemporaneous with continental collision (Oligocene-late Miocene), when initial uplift of the Himalayan and Indo-Burmese ranges occurred. At this time, the proto-

Brahmaputra was depositing its sediment into the Cachar-Tripura area from the north-east. The north-westerly movement of India and the northerly movement of the West Burma Plate caused the frontal fold belt of the Burmese accretionary prism to move westwards (Robertson, 1999). Sediments deposited at this time in the eastern fold belt and Surma range in thickness from 10-15 km and were deposited in deltaic regime with marine incursions mainly in the Oligocene–Late Miocene (Curiale et al., 2002). iv). The Late collision sediments include the Upper Bhuban and Bokabil units overlain by Tipam and Dupitila units. The sedimentological studies indicate that the Middle Bhuban sediments were deposited in pro-delta to delta front environment, whereas the Upper Bhuban sediments in the area are believed to be deposited in the mouth bar to distal bar to pro-delta regime (Dutta et.al.1993). The Bokabil sediments are deposited in delta front environment. Gradually the depositional environment changed to fluvial conditions during deposition of Tipam Formation. Uplift of the Shillong Plateau along the Dauki Fault closed the direct path of Brahmaputra, forcing it northwards around the Shillong Plateau to its present position at the end of the Miocene to Early Pliocene (Roy Choudhury, 2010).

Upper Bhuban

Many wells have penetrated upper Bhuban and it is also well exposed on the crest and limbs of some of the anticlines in Cachar and Eastern Tripura. Sedimentological studies indicate that, in general, the rock is composed of medium grained quartz wacke and calcareous quartz wacke with thin beds of silty shale.

Cores from Upper Bhuban from various wells of Tripura and Cachar show presence channel sands with small bottom scours, cross laminations, rippled shale, current ripples, parallel lamination. Moderate to high energy condition of deposition is inferred from core studies of wells of Rokhia, Tichna, Agartala Dome in a delta slope environment. Cores from few wells of Agartala Dome shows, dominance of shale facies indicating low energy condition of deposition possibly in prodelta regime which is also corroborated by presence of glauconite.

Biostratigraphic and paleontological studies indicate that the sediments of Upper Bhuban are of Middle Miocene age. The sedimentological and paleontological data, sand percentage maps and lithofacies from logs indicated deltaic depositional environment with tidal effect.

Bokabil Formation

This is mainly an argillaceous sequence consisting of claystone and silty shale with thin beds of medium grained sandstone and is well exposed on the crest and limbs of some of the anticlines in Cachar and Tripura.

Sedimentological studies of cores indicate that the sands are massive, laminated at places with occasional streaks and stringers of shale pebbles and infrequent cross bedding and possibly deposited as distributary mouth bar in deltaic environment. Biostratigraphic and paleontological studies indicate that the sediments of Bokabil Formation are of Late Miocene age based on LAD of Apteodinium australiense. Considering these sedimentological and paleontological data, sand percentage maps and lithology from log, the facies cum depositional model of Bokabil was prepared showing deltaic environment with tidal effect.

Tipam Formation

Tipam Formation consists of thick bedded, massive coarse grained sandstone with minor clay and shale interbeds. In Tripura, in the core of the exposed anticlines, Tipam is eroded and is preserved only in the flanks and synclinal areas. Whereas in majority of the structures in Cachar, Tipams are totally eroded. The Sandstone is characterized by lithic wacke with minor association of calcareous quartz wacke.

Integrating sedimentological, paleontological data and various sand maps facies cum depositional model of Tipam has been prepared with depositional environment inferred as fluvial braided system. The majority of the fold-belt area has an N-S or NE-SW trending arenaceous facies.

1.2 Location Map

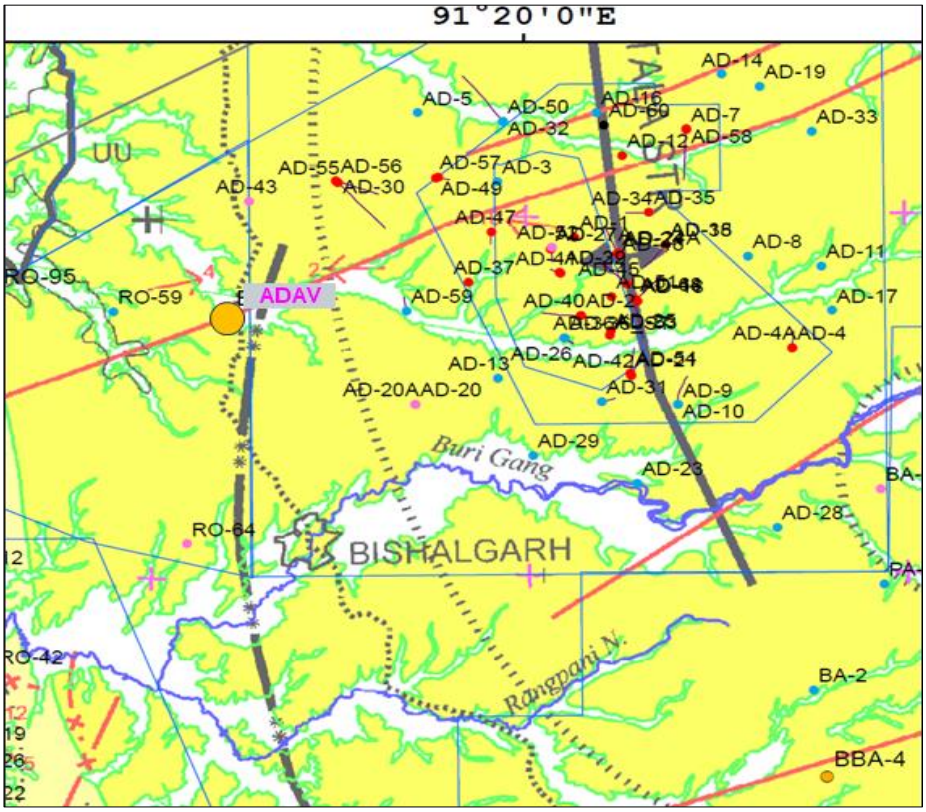


Figure-1.1: Location Map of ADAV

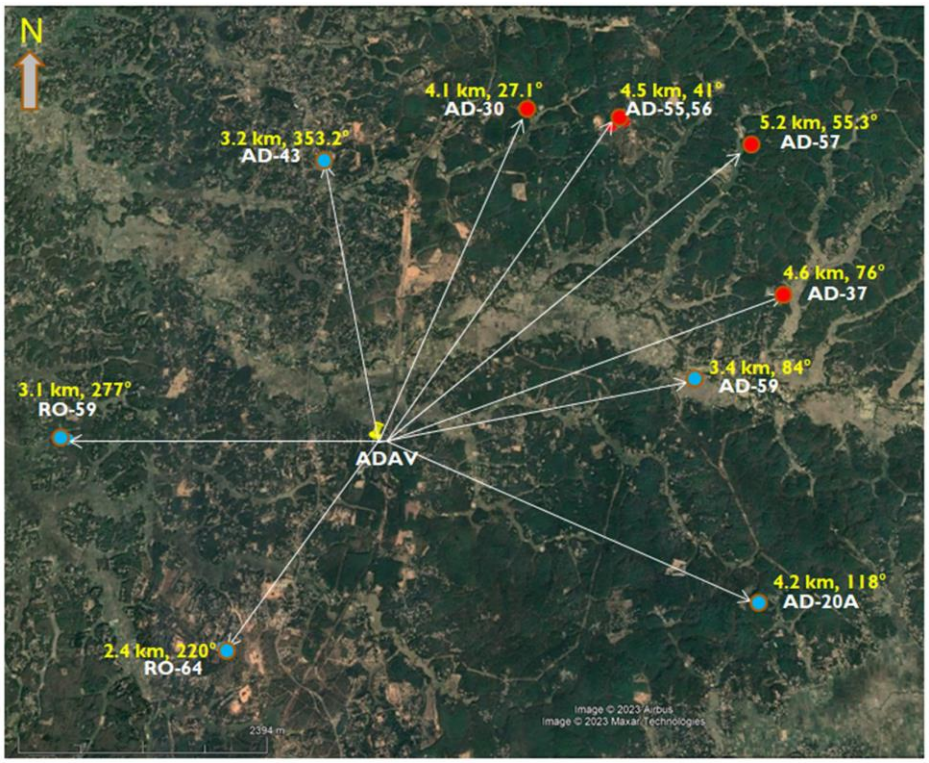


Figure-1.2: Satellite view of location ADAV w.r.t. nearby wells

1.3 Structure Contour map

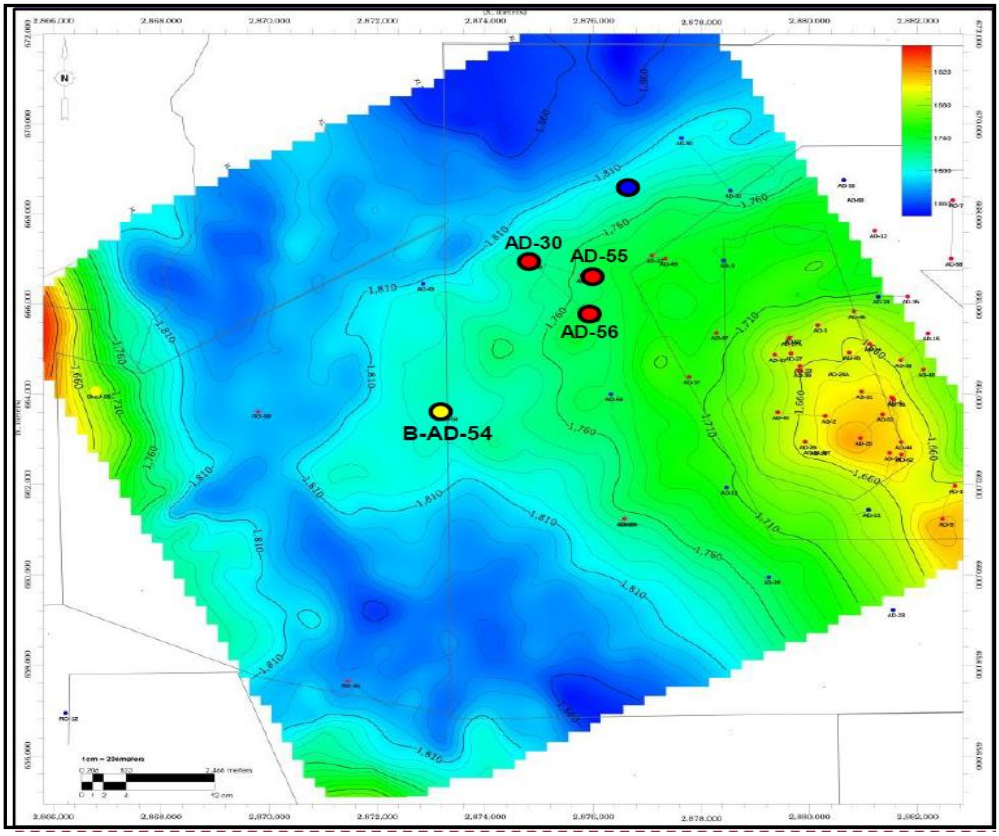


Figure-1.3: Time structure map close to AP-36 Pay sand

1.4 Seismic Lines

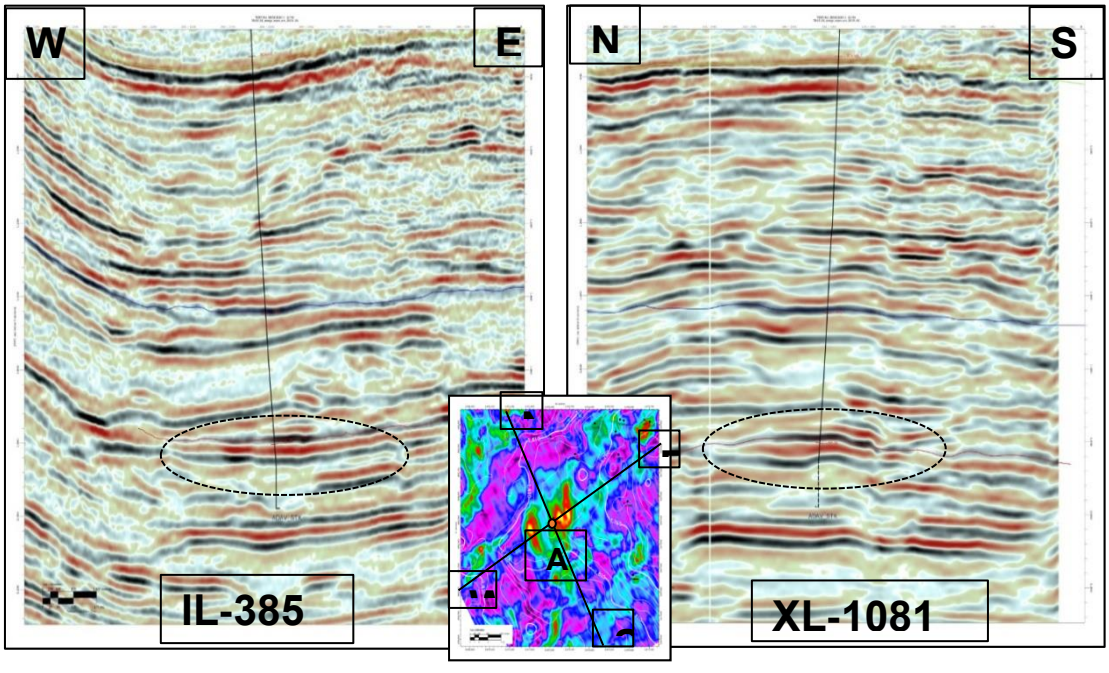


Figure-1.4: Interpreted Seismic IL-385 and XL-1081 passing through ADAV.

CHAPTER 2:
DRILLING HISTORY

2.1 Well Resume

2.1.1 26" Drilling Phase: 0-262m (Plan Days: 5 / Actual Days: 4.15)

The location ADAV was spudded as AD#66 on 08.05.2023 at 12:30hrs. 12¼" pilot hole was drilled up to 51m which was enlarged to 26'' hole and further drilled up to 262m (Phase TD).

Pre-Hydrated Bentonite Suspension mud was used during drilling of this phase with mud weight 1.05-1.07 SG.

20" Casing and Cementation:

The hole was thoroughly conditioned and total 21 joints of 20" casing (Leopard/X-56/133 PPF) were lowered and the casing was cemented keeping casing shoe at 261m (*details in section 7.4*).

After WOC, well-head and BOP stack were installed. Pressure tested well-head at 500 psi, entire BOP stack at 300/2000 psi and found holding.

2.1.2 17½''Drilling Phase: 262-1853m (Plan Days: 15/ Actual Days: 16.65)

17½'' TCR (RR) bit was lowered and cement top was tagged at 249m. CIT was carried out at 1000 psi surface pressure with 1.07 SG mud and found holding. Cement and casing shoe were drilled up to 261.5m and SIT was carried with 120 psi surface pressure using 1.07 SG mud, obtained MWE: 1.39 SG. 17½'' hole was drilled to 266m and PIT was carried out with 100 psi surface pressure using 1.07 SG mud, obtained MWE: 1.34 SG.

The mud system was changed over to C/Lignite-CMC-CFD SYSTEM. The well was kicked off at 300m and drilled directionally up to 1854m MDKB/ 1731.89mTVDKB (Phase TD). This phase was drilled with C/Lignite-CMC-CFD mud of 1.07 -1.16 SG.

17 ½'' Wire-line Logging:

Schlumberger logging services recorded the following logs through wire line:

1. PEX-HRLA-GPIT-GR-CALI-SP (1855-261m)

2. DSI-GR (1844.28-261m)

13 3/8'' Casing and Cementation:

The hole was conditioned and 163 joints of 13⅜" casing (P-110, 68ppf, BTC) was lowered keeping casing shoe at 1853m and float-collar at 1828.55m and cemented with 1.95SG lead cement slurry with planned cement rise of 400m from casing shoe.
After WOC, well head was installed and successfully tested at 300/2000psi. 13 ⅝" BOP stack was installed and function tested. Ram BOPs were tested at 300/3000psi and annular BOP was tested at 300/2800psi.

2.1.3 12 ¼" Drilling Phase: 1853-2500m (Plan Days: 16 days/ Actual Days: 13.32 days)

12¼" TCR bit (RR) was run in and tagged cement top at 1828m. CIT was carried out at 1500 psi surface pressure and found holding. Top plug, bottom plug, float collar, cement and casing shoe were cleared till 1853.5m. SIT was carried out at 960 psi surface pressure and obtained MWE: 1.55 SG. Fresh formation was drilled up to 1860m and PIT was carried out by applying surface pressure 835 psi, obtained MWE: 1.50 SG. The 12 ¼" hole was further drilled down to 1867m and changed over mud system to KCl-PHPA-Polyol-Polyamine system. Further 12 ¼" hole was drilled down to 2500m (Phase TD). This phase was drilled with KCl-PHPA-Polyol-Polyamine mud of 1.16 -1.20 SG.

12 ¼" Wire-line Logging:

After conditioning the well, Schlumberger logging services recorded the following wire line logs:

1. PEX-HRLA-GPITGR-SP-CAL (2490-1853.9m)
2. DSI-GR (2489-1853m)

9 5/8'' Casing and Cementation:

The hole was conditioned and 191 joints of 9 ⅝" casing (P-110, 47 ppf, 4 BTC + 187 TSH) was lowered, keeping casing shoe at 2499m and float collar at 2475m and cemented with 1.95 SG cement slurry with a planned cement rise of 500m.
After WOC, wellhead and BOP stacks were installed. Well-head was pressure tested at 300/2400psi and found holding. Annular BOP and RAM BOPs were pressure tested at 300/3500psi and 300/5000psi respectively.

2.1.4 8 1/2" Drilling Phase: 2500-3011m (Plan Days: 22days/Actual Days: 14.61 days)

8 ½" TCR (RR) bit with slick BHA was run in and tagged float collar at 2475m. CIT was carried out at 2400psi with 1.2 SG mud and found holding. Drilled float collar, cement, shoe and 0.5m below shoe up to 2499.5m. SIT was carried out at 1640 psi surface pressure and obtained MWE: 1.70 SG. The hole was further drilled down to 2505m and PIT was carried out by applying surface pressure up to 1474 psi, obtained MWE: 1.65 SG. 8 ½" hole was further drilled down to *3011m MDKB/ 2762.39mTVDKB* (TD). This phase was drilled with KCl-PHPA-Polyol-Polyamine mud of 1.20 -1.24 SG.

8 ½" Wire-line Logging:

After conditioning the well, Schlumberger logging services recorded the following wire line logs:

1 RTEX-MLL-DSL-SP-ORIT	(3014.40-2485m)
2 CN-ZDL-GR	(3012.27-2485m)
3 XMAC-GR	(3008.66-2485m)
4 SBT-VDL-GR-CCL	(2496-1825m)

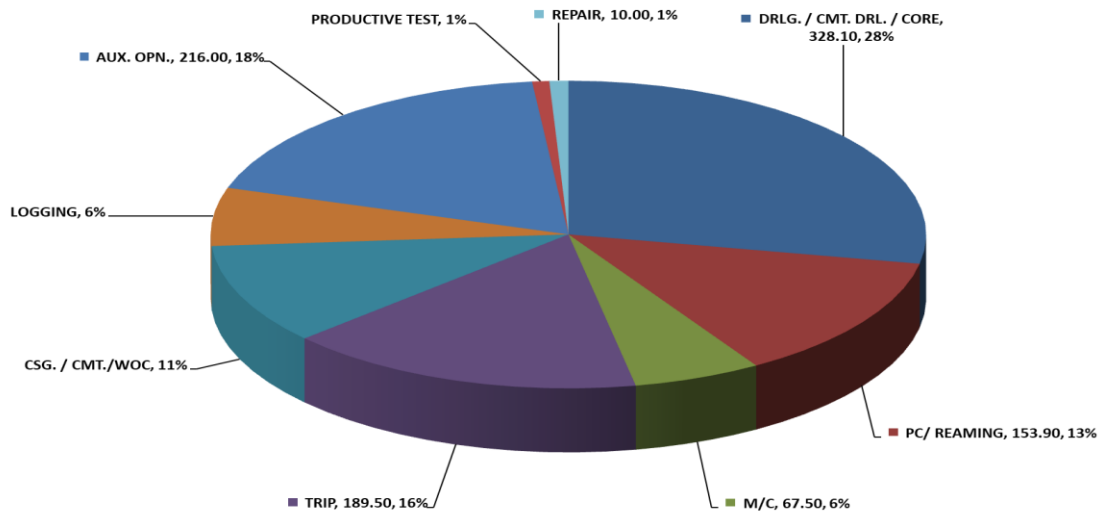
5 ½" Casing and Cementation:

After evaluation of wire line logs and the G&G data, no interesting zone was identified from Hydrocarbon point of view. Therefore, the well was abandoned permanently without lowering 5 ½" casing as per SOP.

TOTAL DRILLING TIME BALANCE OF EXPLORATORY WELL: AD#66 (ADAV)

RIG : E-1400-XIV
SPUD DATE : 08.05.2023 at 1230hrs
HERMETICAL TEST: Not carried out

PRODUCTIVE TIME : 1159.5 hr/48.31 days
NON-PRODUCTIVE TIME : 10 hrs/0.41 days
TOTAL TIME : 1169.5 hrs/48.73 days



NPT details

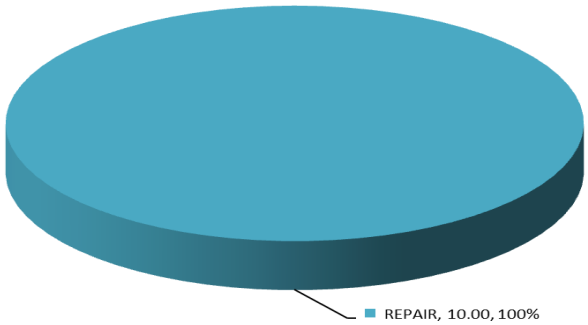
❑**-Repairs:** Swivel replacement due to mud cut (**7 hrs**), Changed wash-pipe due to leakage (**3hrs**).

Figure- 2.1.1: Total drilling time break-up chart

TOTAL NON PRODUCTIVE TIME BREAK UP OF EXPLORATORY WELL: AD#66 (ADAV)

RIG : E-1400-XIV
SPUD DATE : 08.05.2023 at 1230hrs
HERMETICAL TEST: Not carried out

PRODUCTIVE TIME : 1159.5 hr/48.31 days
NON-PRODUCTIVE TIME : 10 hrs/0.41 days
TOTAL TIME : 1169.5 hrs/48.73 days



NPT details

❑**-Repairs:** Swivel replacement due to mud cut (7 hrs), Changed wash-pipe due to leakage (3hrs).

Figure- 2.1.2: Total Non-productive time break-up chart

2.2 Well Construction Diagram

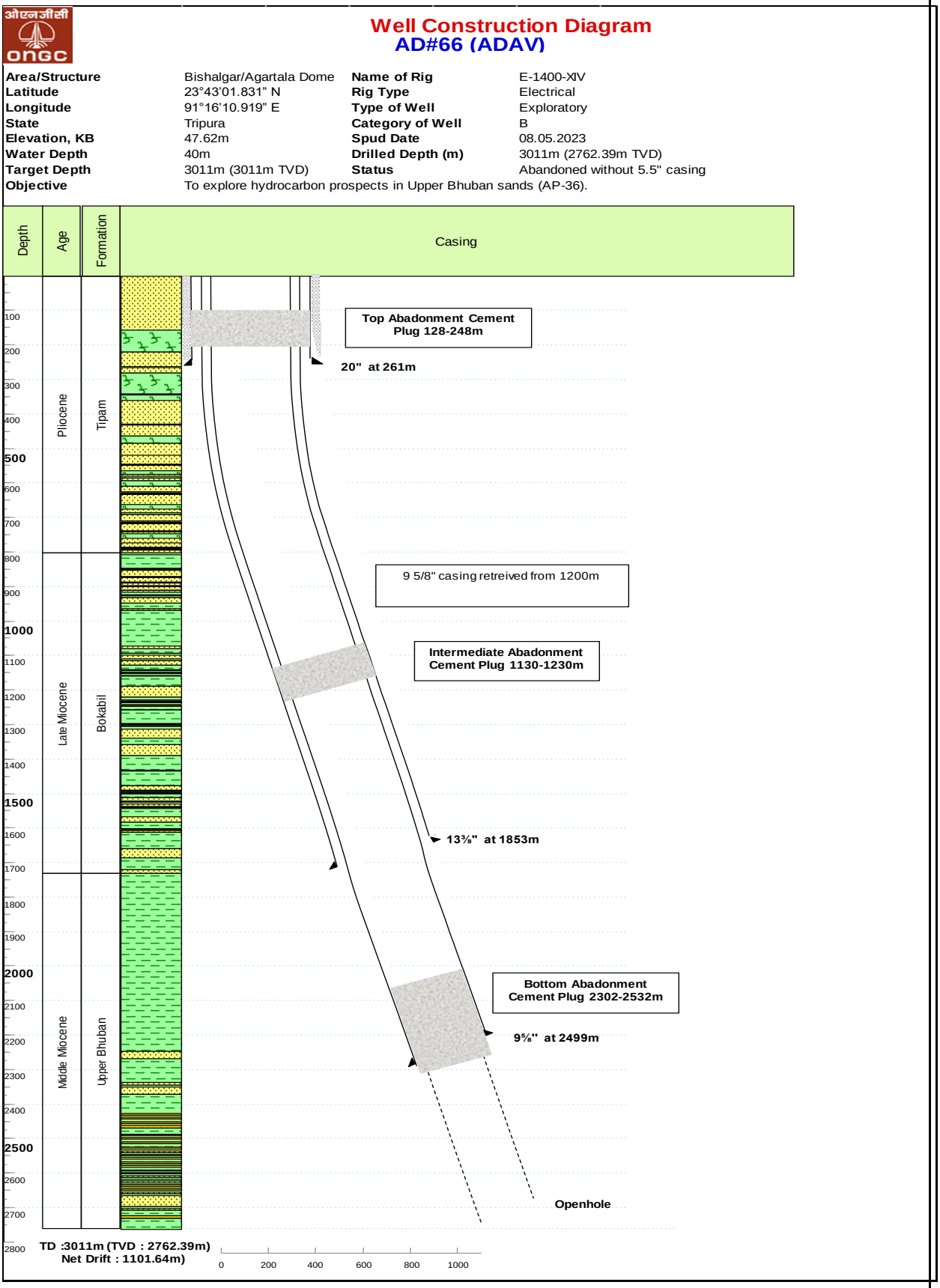


Figure-2.2: Well construction diagram

CHAPTER 3:
FORMATION DATA ACQUISITION (GEOLOGICAL &PETROPHYSICAL DATA)

3.1 Geological Data

3.1.1 Cutting Sample Data:

Two sets of washed and dried samples were collected at 10m intervals from 260m to 1500m. Two sets of washed and dried samples at 5m interval, and one set at 10m interval were collected from 1500m to 3011m (TD). The gross lithological description of cutting samples is tabulated in the detailed lithological description and represented in the form of Master Log (Enclosure-1). Interpreted lithology derived from electro-log represented in the form of Composite log and is attached as Enclosure-2.

3.1.2 Hydrocarbon Shows:

During drilling no hydrocarbon shows were observed.

3.1.3 Side Wall Cores:

No sidewall core was attempted in this well.

3.1.4 Conventional Cores:

No Conventional core was cut in this well.

3.1.5 MDT Samples

No MDT sample was taken in this well.

3.1.6 Formation Gas Shows during Drilling:

No hydrocarbon shows were observed.

3.2 Petrophysical Data

3.2.1 Logs Recorded (Wireline/LWD/TLC)

Following suites of logs were recorded in 17 ½", 12 ¼" and 8 ½" section through wire-line.

Sl. No	Hole Size (")	Date	Interval (m)	Logs Recorded	Remarks
1	17 ½	25.05.23	1855-261	PEX-HRLA-HNGS-GPIT-GR	**SCHLUMBERGER** Driller's depth: 1854m, Logger's depth: 1856m Fluid type: C/Lignite-CMC-CFD MW:1.16 SG; Visc:45 sec; pH: 9; W/L: 6.5 cc Rm: 0.83 Ωm @ 80.3 °F Rmf: 0.73 Ωm @ 78.2 °F Rmc: 1.4 Ωm @ 80.5 °F BHT (°C): 63.2
2			1844.28-261	DSI-GR	
3	12 ¼	07.06.23	2490-1853	PEX-HRLA-HNGS-GPIT-GR	**SCHLUMBERGER** Driller's depth: 2500m, Logger's depth: 2496m Fluid type: KCl-PHPA-Polyol-Polyamine MW:1.20 SG; Visc:50 sec; pH: 9.5; W/L: 5.8 cc Rm: 0.16 Ωm @ 84.3 °F Rmf: 0.13 Ωm @ 84.2 °F Rmc: 0.75 Ωm @ 85.3°F BHT (°C): 73.4
4		07.06.23 - 08.06.23	2489-1853	DSI-GR	
5	8 ½	17.06.2023	2485-3014.40	RTEX-MLL-DSL-SP-ORIT	**Baker Hughes** Driller's depth: 3011m, Logger's depth: 3016m Fluid type: KCl-PHPA-Polyol-Polyamine MW:1.24 SG; Visc:54 sec; pH: 9.0; W/L: 5.8 cc Rm: 0.105 Ωm @ 85 °F Rmf: 0.0709 Ωm @ 85 °F Rmc: 0.1384 Ωm @ 85 °F BHT (°C): 91.6
6		17.06.2023	2485-3012.27	CN-ZDL-GR	
7		17.06.2023-18.06.2023	2485-3008.66	XMAC-GR	
Cased Hole Logging					
Sl. No	**Casing Size (")**	**Date**	**Interval (m)**	**Logs Recorded**	**Remarks**
1	9 5/8	18.06.2023	2496-1825	SBT-VDL-GR-CCL	**Baker Hughes** **Cased hole logs** Fluid type: KCl-PHPA-Polyol-Polyamine MW:1.24 SG; Visc:54 sec; pH: 9.0; W/L: 5.8 cc

3.2.2 Formation Pressure Tests & Samples (MDT/RCI):

No MDT/RCI was carried out in this well.

3.2.3 Vertical Seismic Profile (VSP)

No VSP was carried out due to residential structures close to the well.

CHAPTER 4:
PORE PRESSURE ANALYSIS/ SPECIAL STUDIES

4.1 Pre-Drill Pressure Prediction

Pre-drill pore pressure analysis for the well AD#66(ADAV) was carried out based on the nearby well data. The analysis inferred a near hydrostatic regime up to a depth of 3011m (TD). The maximum formation pressure predicted at TD is 1.10 SG.

Pre-Drill Pressure Summary Plot

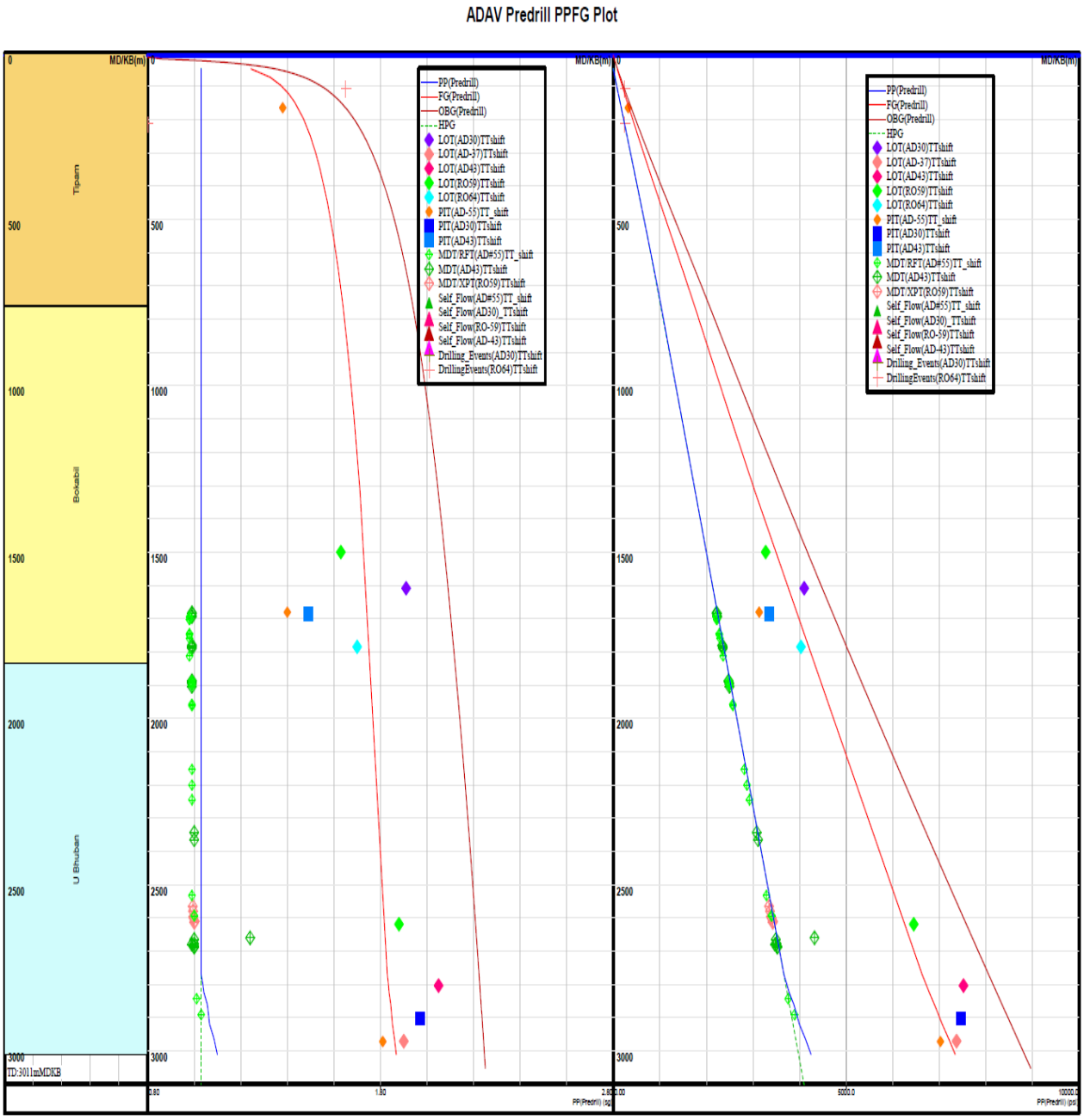


Figure-4.1: Pre-drill pore pressure plot of well AD#66(ADAV)

4.2 Mud Logging Data

4.2.1 Composite Pressure Evaluation Plot

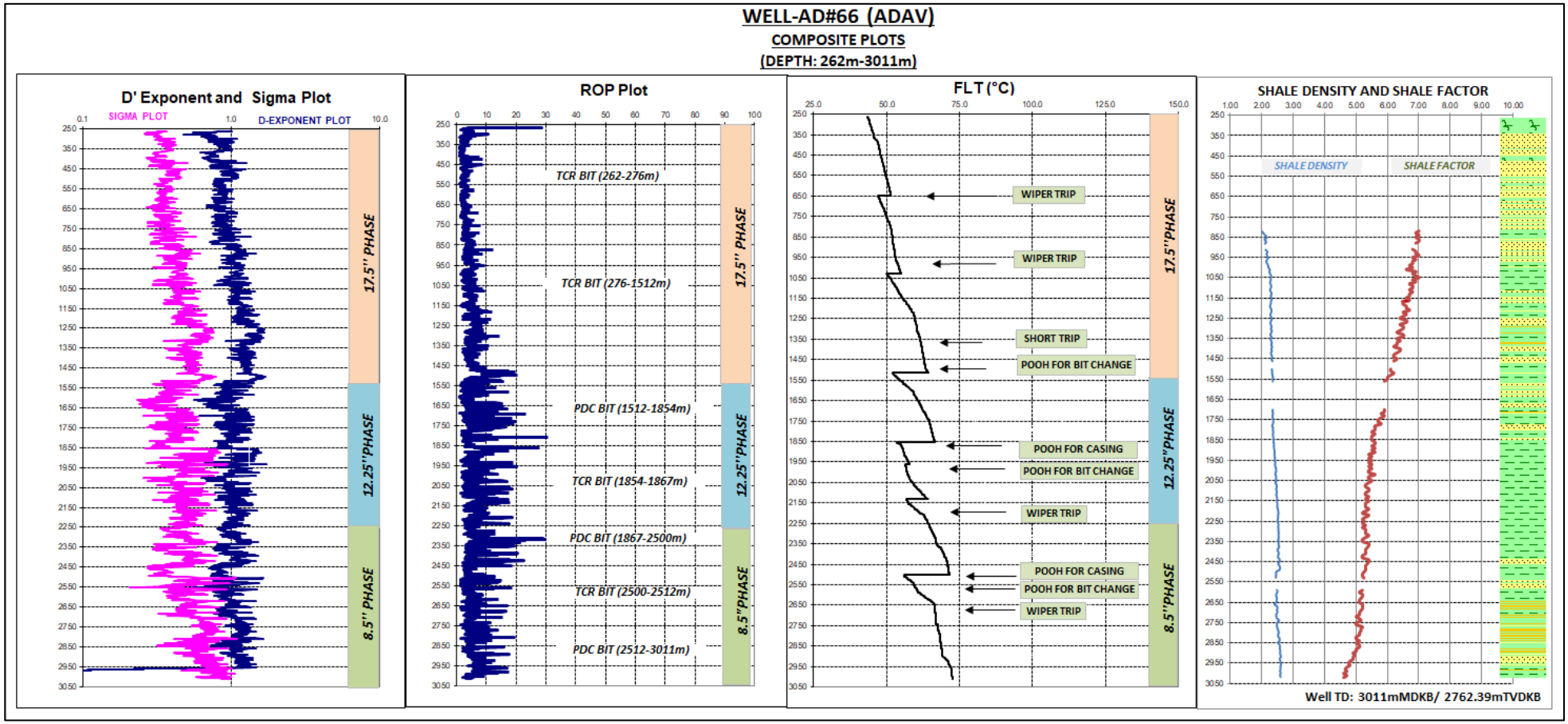


Figure-4.2: Composite Pressure Plot

4.2.2 Shale Density and Shale factor

Shale density, under normal compaction scenario, increases with depth. Any deviation from this consistent trend may indicate existence of geopressure. The magnitude of the bulk density change varies with the type and magnitude of the geopressure. Often, the bulk density will decrease, but in some cases it may remain constant or continue to increase but at a lower rate than the previous established trend.

Shale factor is a measure of clay cation exchange capacity (CEC) represented as milliequivalents (of a suitable ion) per hundred grams (of the compound). Various clay types have different CEC's and CEC in general decrease as clays convert from montmorillonite-rich to illite-rich with temperature (and thus with depth). Pure montmorillonite clays have a CEC of approximately 100 meq/100g. Pure illites show no swelling characteristics, but their CEC is generally between 10 and 40 meq/100g.

In a geopressured zone, caused due to compaction disequilibrium, shale factor will increase within the pressured zone as a result of restriction of dewatering of montmorillonite/ smectite clay minerals. However, with depth if clays diagenesis occurs from montmorillonite to illite, then shale factor will decrease within the pressure zone.

Shale representative samples were selected so as to obtain the true shale density and shale factor with minimum contaminations. Shale density and shale factor studies were carried out at 10m intervals from 820m to 3011m.

The shale density shows gradual increasing trend with depth and the values range from 2.0 to 2.61 gm/cc showing normal compaction trend.

Shale factor plot shows a gradual decreasing trend with depth and the values range from 7.0 to 4.6 meq/100cc. The overall trend indicates transformation of montmorillonite to illite with increasing depth.

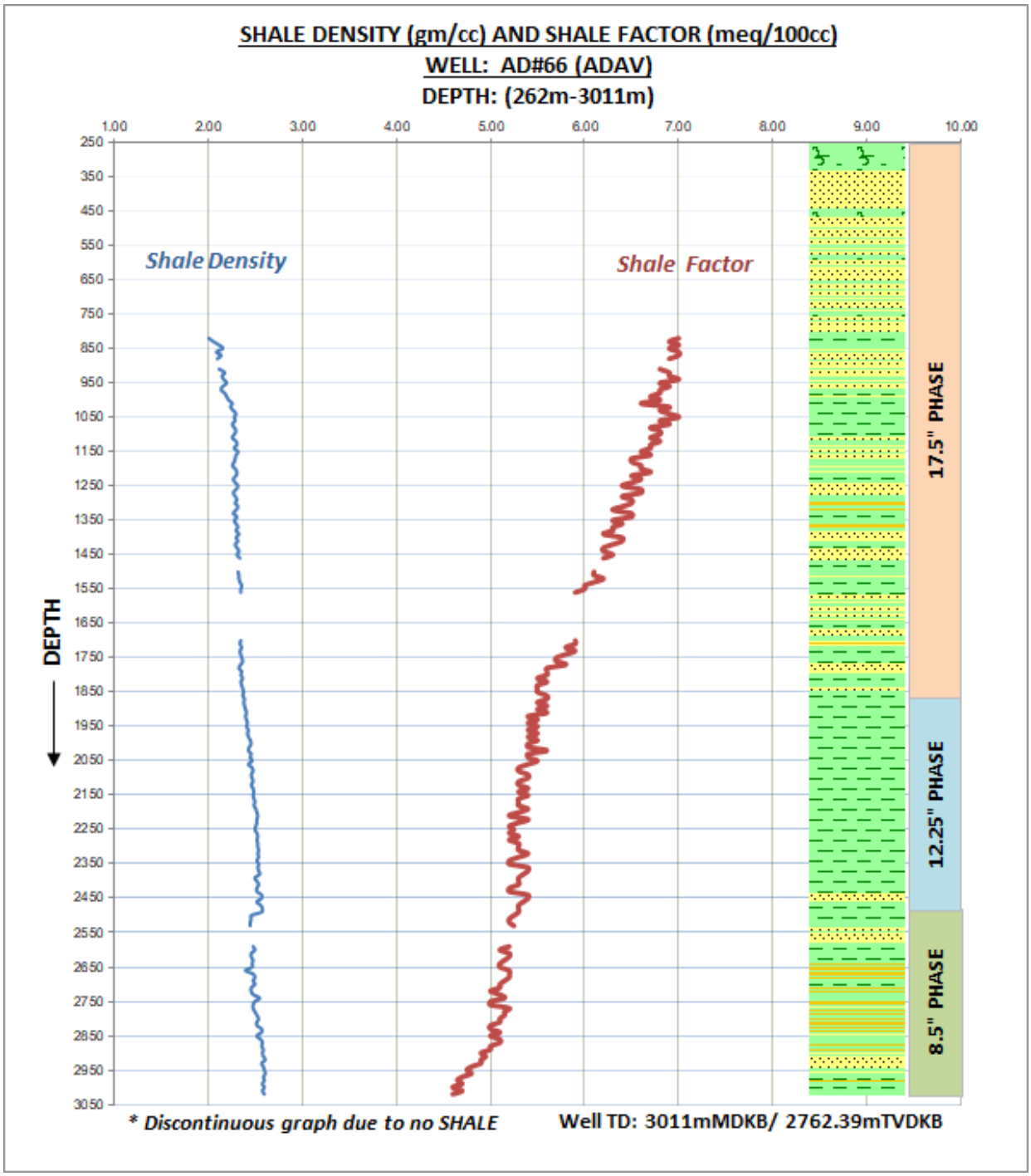


Figure-4.3: Shale Density & Shale Factor Plot

4.2.3 D-exponent and Sigma Plot

For similar lithology, D-exponent increases with depth, compaction, and differential pressure at bottom. In a geo-pressured zone, compaction and differential pressure decreases and is reflected by a decrease in d-exponent. Differential pressure is dependent on mud density, as well as formation pore pressure. Therefore, any change in the mud density used promotes an unwanted change in d-exponent.

D-exponent and sigma values were plotted against drilled depth from 262m to 3011m (DD). The plots show a normal compaction trend from 262m to 3011m.

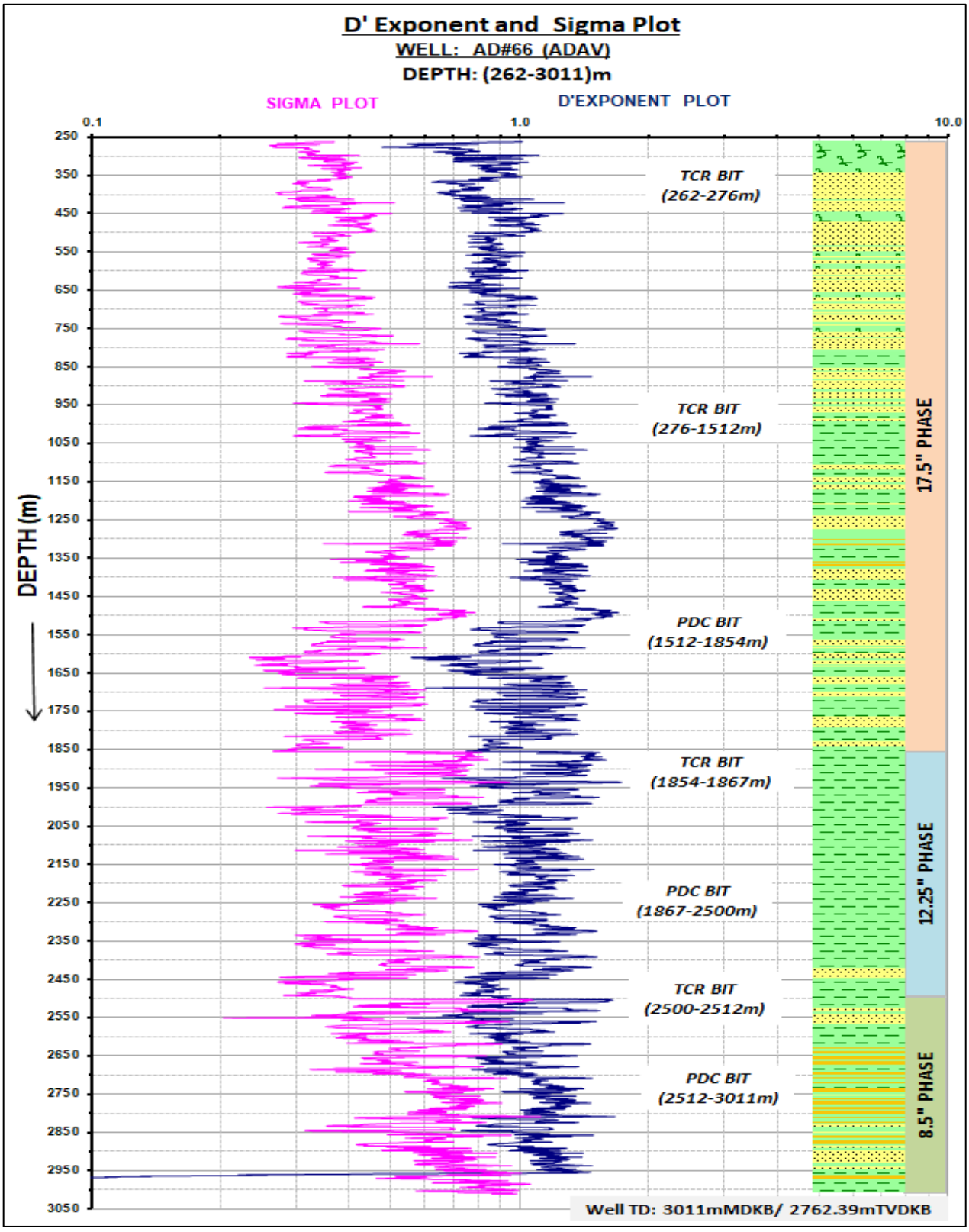


Figure-4.4: D-exponent and Sigma Plot

4.3 Recorded Formation Pressures

4.3.1 MDT Pressures

No MDT/RCI was recorded in this well.

4.3.2 Formation Pressure from Reservoir Studies

No Reservoir Studies were carried out in this well.

4.4 Well Activity (Gain/Loss details)

No well activity was encountered during drilling.

4.5 Pre-drill vs Post-drill Pore Pressure Analysis

Pre-drill pore pressure analysis for the well AD#66 (ADAV) was carried out based on the nearby well data. The analysis inferred a hydrostatic regime upto a depth of 2670m. Thereafter the pore pressure gradient increases marginally attaining pressures equivalent to 1.16SG at target depth i.e 3011m (MDKB)

Post drill Pore pressure plot has been generated for the well AD#66 (ADAV) using available drilling, geological, mud logging and wireline data. Pore pressure upto 3011m was observed to be in the hydrostatic to near hydrostatic with 1.10 SG at TD.

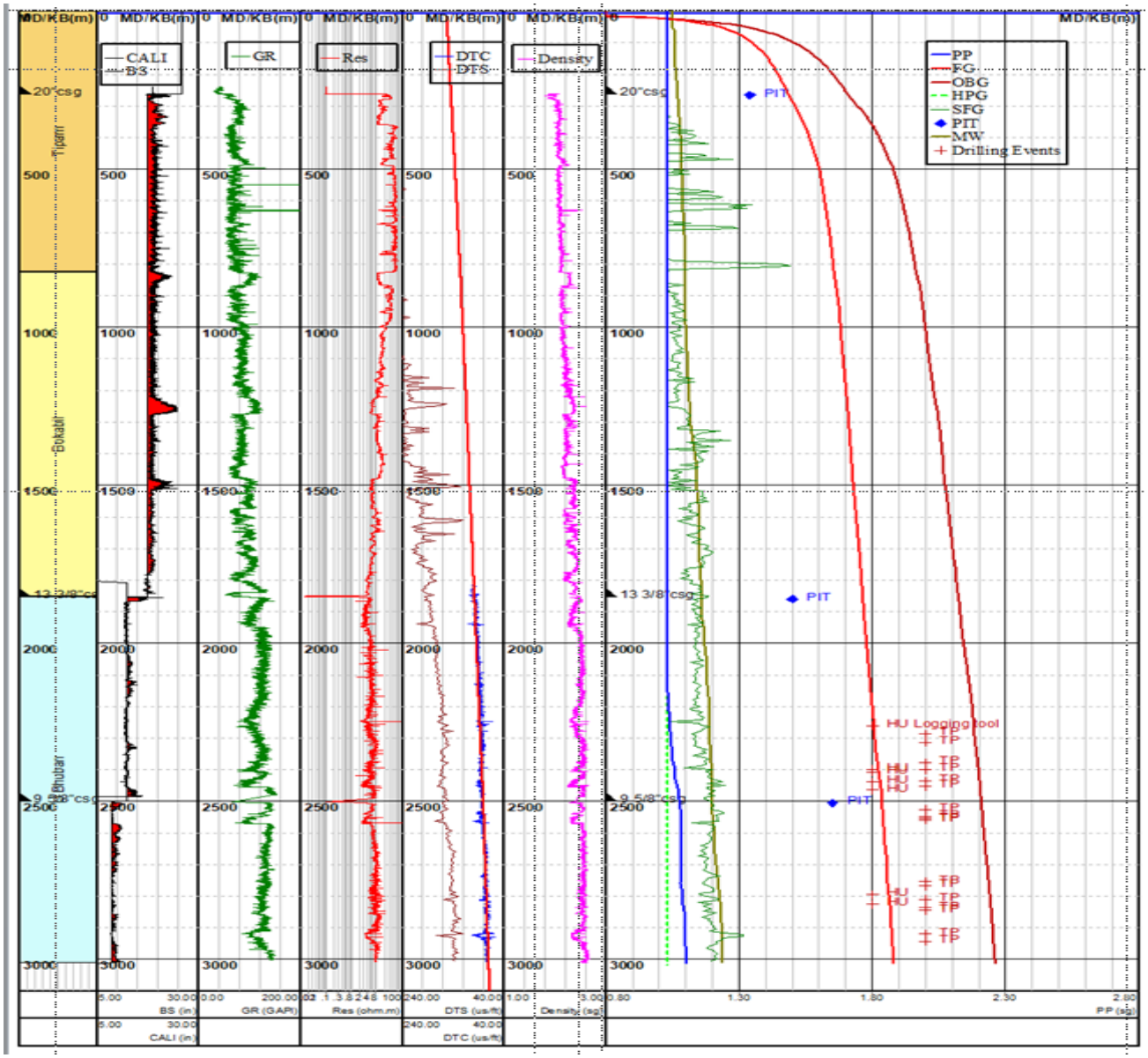


Figure-4.5: Post drill pore pressure plot of well AD#66(ADAV)

4.6 LOT/PIT/SIT Data

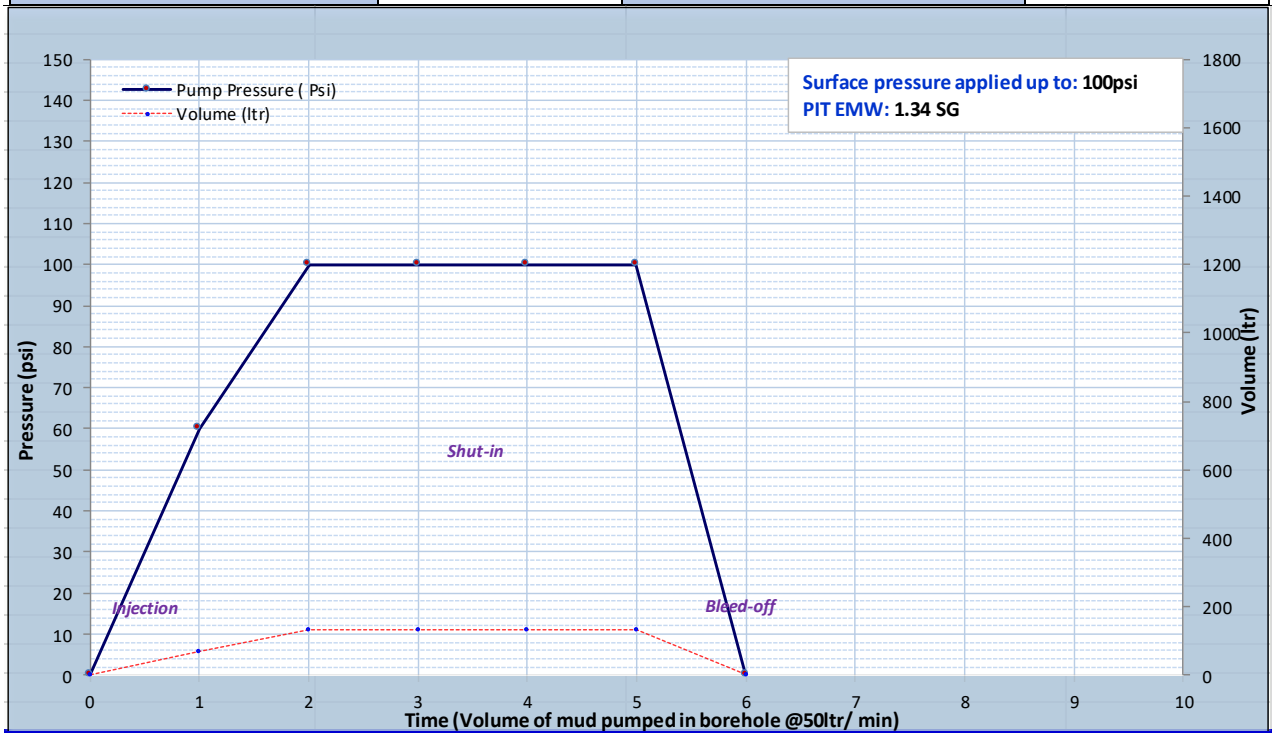
4.6.1 Below Casing Shoe

Depth MDKB (m)	Casing Shoe MDKB/ TVDKB (m)	Formation/ Lithology	MW used (SG)	Leak of test/ Applied Surface Pressure (psi)	EMW (SG)	X-LOT Pressure (psi)	EMW X-LOT (SG)	Remarks
266	261/ 261	Tipam/ Sandstone	1.07	100	1.34	-	-	PIT
1860	1853/ 1732	Upper Bhuban/	1.16	835	1.5	-	-	PIT

		Shale						
2505	2499/ 2307	Upper Bhuban/ Shale	1.20	1474	1.65	-	-	PIT

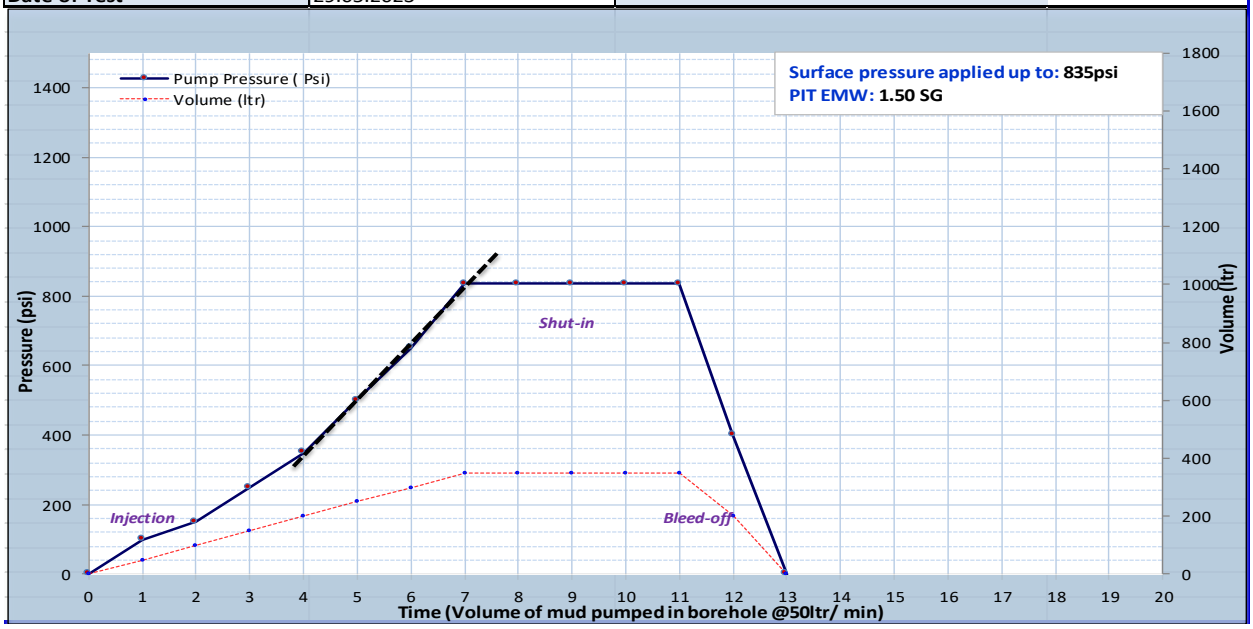
4.6.2 Graph of PIT in 17 ½" hole (at 261m MD/ 261m TVD)

Well Name	AD#66(ADAV)	Surface pressure (psi)	100
Area Name	Agartala Dome	TVD(m)	261.0
Rig Name	E-1400-XIV	Equivalent Mud Weight	1.34
Casing Size (inch)	20	Total Volume pumped (bbl)	135
Casing Shoe TVDKB (m)	261	Total Vol Flowed back (bbl)	135
Drilled Depth TVDKB(m)	266	Total Vol lost in Hole (bbl)	0
Mud Weight	1.07 SG	Mud Type	PHBS



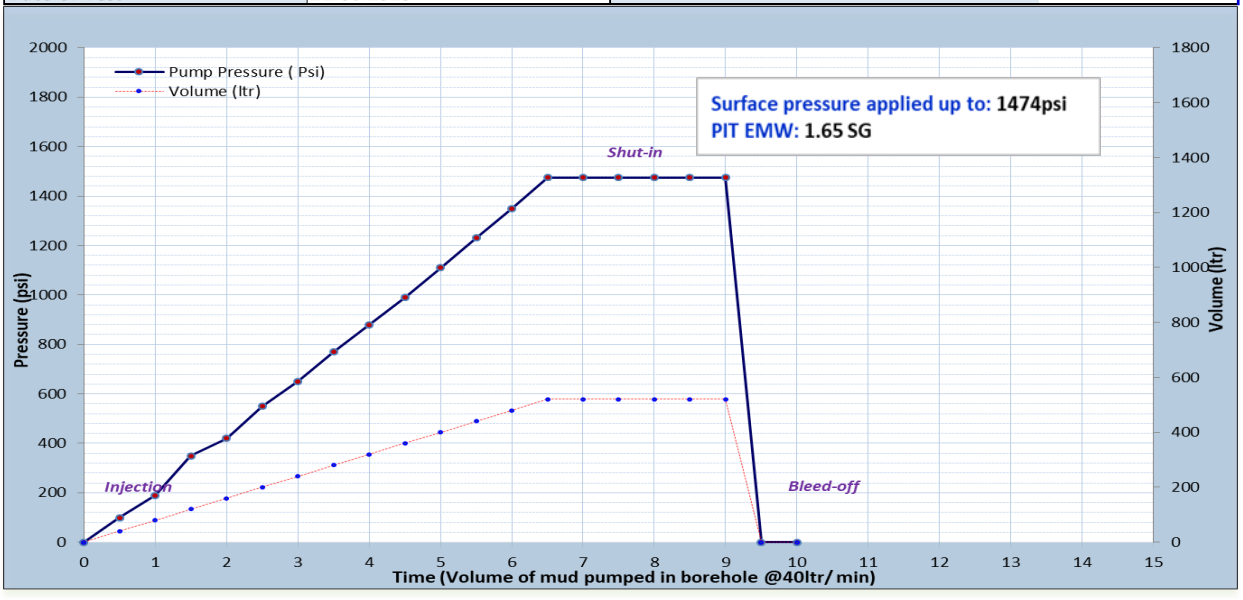
4.6.3 Graph of PIT in 12 ¼" hole (at 1853m MD/ 1732m TVD)

PIT of Well: AD#66(ADAV)			
Well Name	AD#66(ADAV)	**Surface pressure(psi)**	835
Area Name	Agartala Dome	**TVD(m)**	1732.0
Rig Name	E-1400-XIV	**Equivalent Mud Weight (SG)**	1.50
Casing Size (inch)	13 3/8	**Total Volume pumped (litre)**	350
Casing Shoe TVDKB (m)	1732	**Total Vol Flowed back (ltr)**	350
Drilled Depth MDKB(m)	1860	**Total Vol lost in Hole (ltr)**	0
Mud Weight (SG)	1.16		
Mud Type	C/Lignite-CMC-CFD		
Date of Test	29.05.2023		



4.6.4 Graph of PIT in 8 ½" hole (at 2499m MD/ 2307m TVD)

PIT of Well: AD#66 (ADAV)			
Well Name	AD#66 (ADAV)	**Surface pressure(psi)**	1474
Area Name	Agartala Dome	**TVD(m)**	2307.0
Rig Name	E-1400-XIV	**Equivalent Mud Weight (SG)**	1.20
Casing Size (inch)	9 5/8	**Total Volume pumped (litre)**	520
Casing Shoe TVDKB (m)	2307	**Total Vol Flowed back (ltr)**	520
Drilled Depth MDKB(m)	2509	**Total Vol lost in Hole (ltr)**	0
Mud Weight (SG)	1.2		
Mud Type	KCl-PHPA-Polyol-Polyamine		
Date of Test	12.06.2023		



CHAPTER 5:
GEOTHERMAL DATA

5.1 Flow-line Temperature Plot

The temperature of mud at flow line (FLT) was recorded from 600m till 3564m (Revised TD). FLT increased gradually from 43°C at 260m to 73°C at 3011m (TD). No abrupt change in flow line temperature was observed except during tripping.

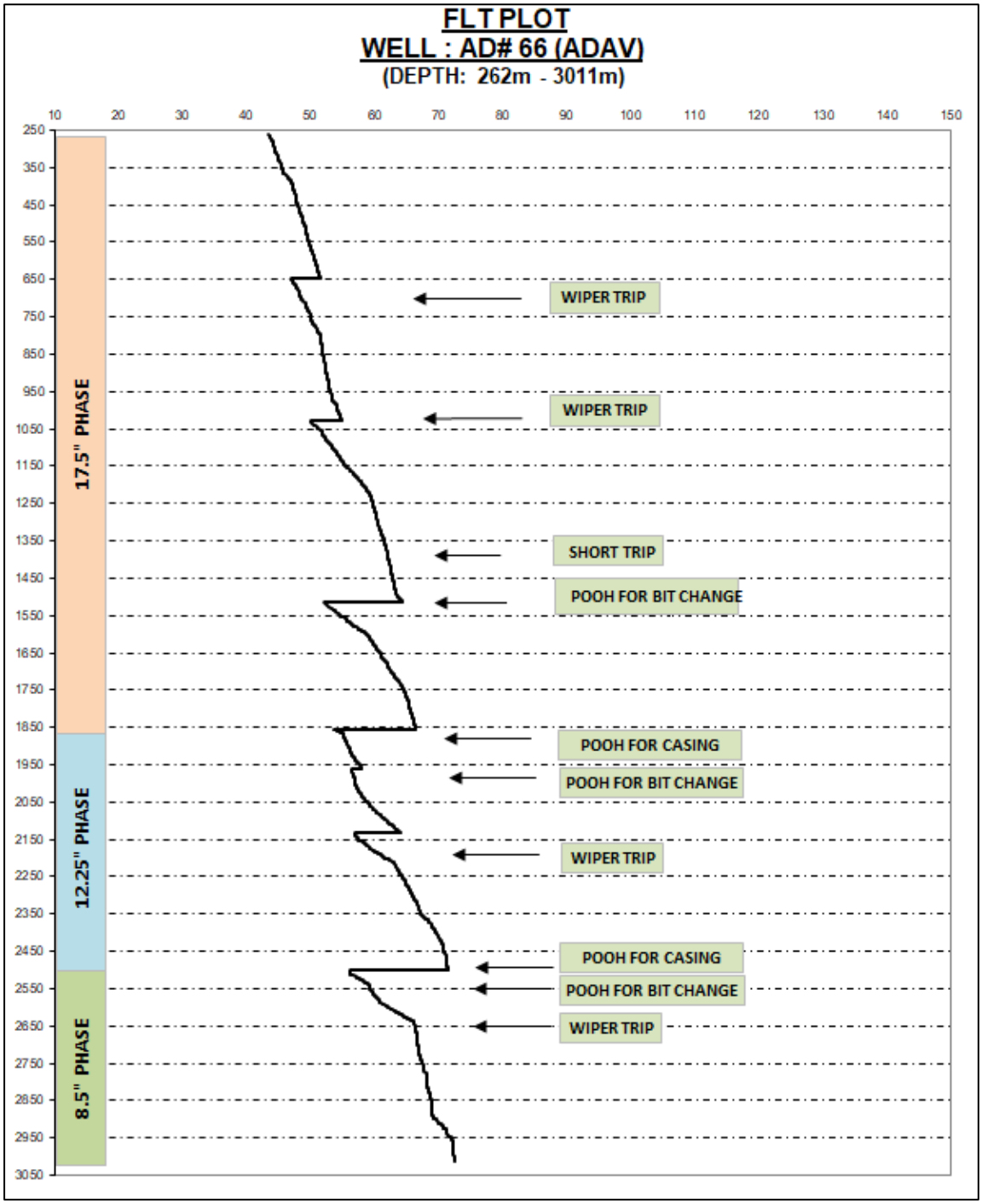


Figure-5.1: FLT Plot

5.2 Borehole Temperature Data (While logging)

Hole Size (")	Run	Logging Suite	Depth MDKB/TVDKB (m)	BHT (°F)	Time since last circulation (hrs)	Horner's BHT (°F)
17½	1	PEX-HRLA-GPIT-GR-CALI-SP	1854/ 1734	145.79	12	-
12 ¼"	1	PEX-HRLA-GPIT-GR-CALI-SP	2500/ 2307	164.18	11.5	-
8 ½"	1	RTEX-MLL-DSL-SP-ORIT	3011/ 2762	192.88	11	202.28
	2	CN-ZDL-GR	3011/ 2762	194.52	15.5	
	3	XMAC-GR	3011/ 2762	196.96	19.5	

Horner Plot

Maximum recorded temperatures of different wireline log suites were plotted against the log (T/(t+T)). Where 'T' is the time since circulation of drilling fluid stopped, and 't' is the total circulation time before wireline tool lowering. Horner temperature was deduced based on BHT recorded in different log runs and time elapsed since last circulation.

In 17 ½" and 12 ¼" open hole, only one BHT data from logging is available for each phase. Thus Horner's BHT extrapolation could not be generated.

In 8 ½" phase, open hole logs were used to derive BHT. Three successive runs run#1: RTEX-MLL-DSL-SP-ORIT, run#2: CN-ZDL-GR and run#3: XMAC-GR were recorded up to 2762m TVDKB after 11 hrs, 15.5 hrs and 19.5 hrs since circulation stopped respectively with the log head BHT recorded being 195.88^{o}F, 194.52^{o}F and 196.96^{o}F. Horner's BHT extrapolated generated a value of 202.28 ^{o}F at 2762mTVDKB (Average depth).

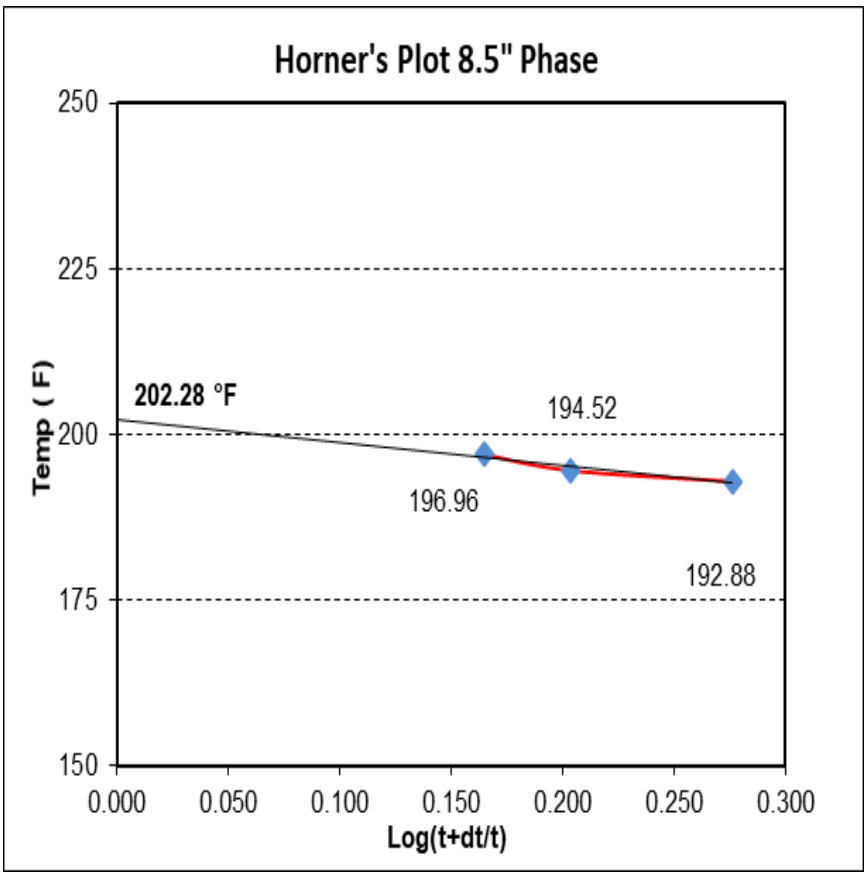


Figure-5.2: Horner's Plot

5.3 Bottom Hole Temperature (Reservoir Studies)

No reservoir studies were carried out in this well.

5.4 Geothermal Analysis

Maximum recorded log head temperatures wherever logs were recorded was used for temperature gradient plot. The surface temperature was assumed to be 30°C.The BHT value was 94.60°C at 2762m TVDKB during recording of 8 ½'' open hole log. There was only a single recorded temperature data each during recording of 17 ½" and 12 ¼" open hole logs due to which Horner's corrected temperature could not be calculated. The following temperature gradients were deduced from temperature data. The overall temperature gradient gives a value of 2.34°C/100m.

		Depth (m) TVDKB	**SBHT (°C)**	**Gradient (per 100m)**
Surface Temperature		0	30	0.00
Average TVD (m)		2762	94.60	2.34
Overall Temp Gradient				2.34

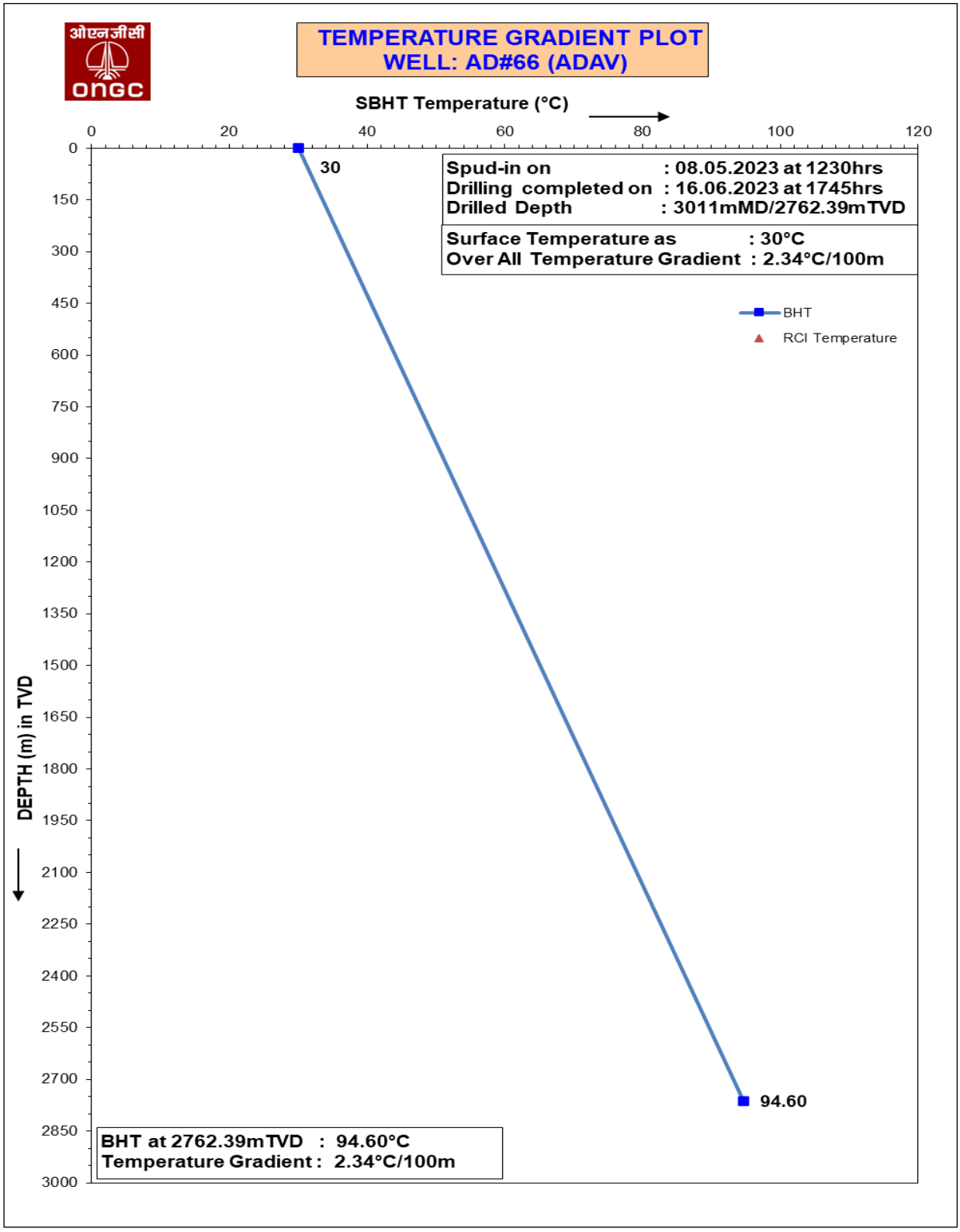


Figure-5.3: Temperature gradient Plot

CHAPTER 6:
STRATIGRAPHY & CORRELATION

6.1 Stratigraphic Sequence Encountered

Age	Formation/ Member	MDKB (m)/ TVDKB(m)		Thickness (m)	Gross Lithology
		From	To		
Pliocene to Pliestocene	Tipam and post Tipam	Surface	825/ 806	806	Thick, massive, medium to coarse grained, friable sand with minor irregular clay and Claystone.
Late Miocene	Bokabil	825/ 806	1854/ 1732	926	Alternation of Claystone and Sandstone with Siltstone intercalation in the upper section and Sandstone with intercalation of Shale &Siltstone in the lower section
Middle Miocene	Upper Bhuban	1854/ 1732	3011+/ 2762+	1030+	Alternating fine to medium grain Sandstone and Siltstone with subordinate Shale and silty shale

6.2 Prognosis vs Actual Stratigraphy

Formation	Pay Sand	GL (m) : 40		KB (m) : 47	
		Prognosed Top	Actual Top		Structural Variance
		MDKB/ TVDKB/TVDSS (m)	MDKB (m)	TVDSS (m)	
Tipam		Surface	Surface	Surface	-
Bokabil		813/ 796/ 749	825	758	9m down
Upper Bhuban	Top	1888/ 1758/ 1732	1854	1685	47m up
	AP-36	2650/2439/2392	Not developed		-
	AP-38	2883/2647/2600	2850/2619/2572		28m up
TD		3011/2762/2715	-	-	-

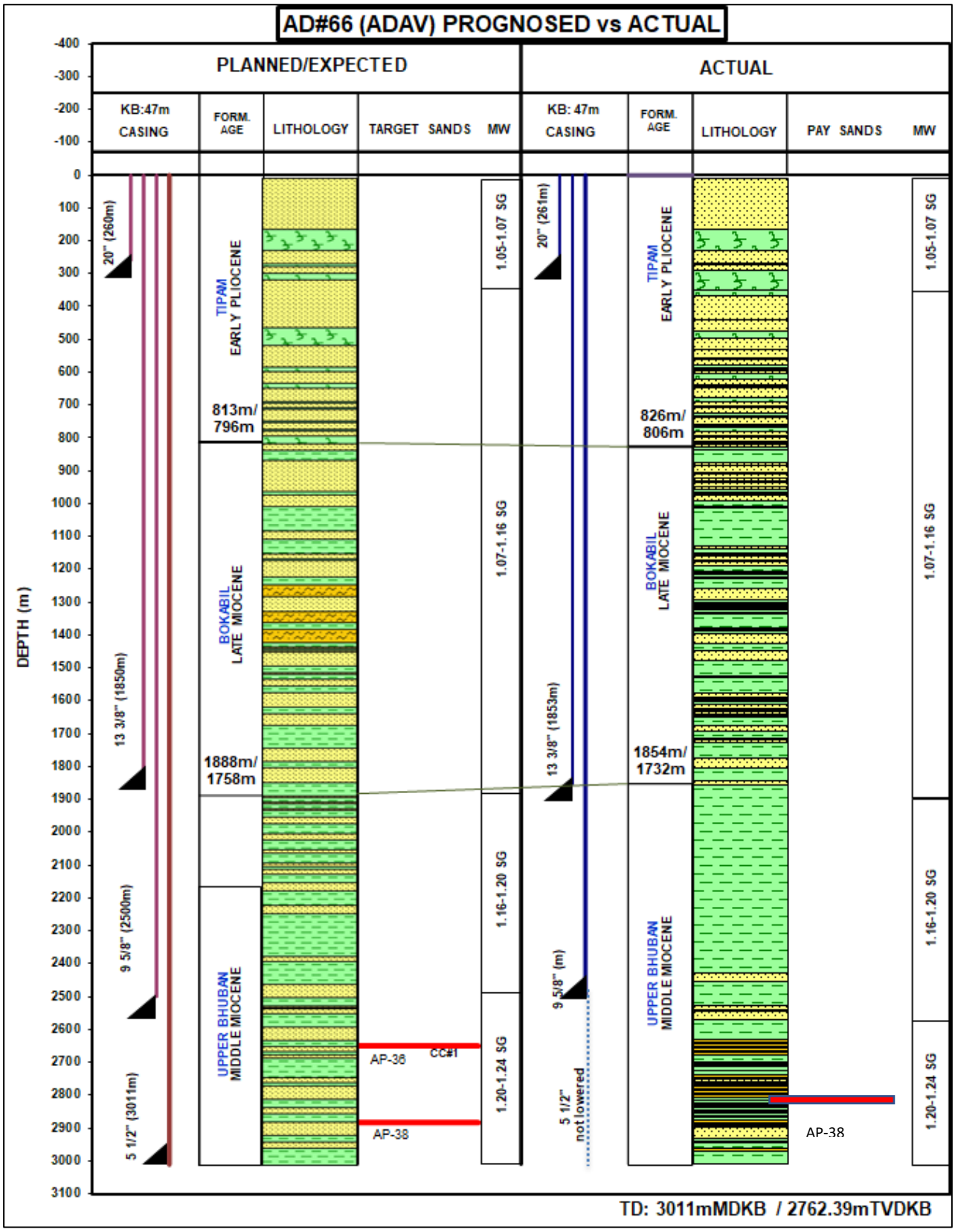


Figure-6.1: Prognosed vs Actual Plot

CHAPTER 7:
DRILLING and MUD PARAMETERS

7.1 Drilling Parameters

Bit No.	Bit Size (")	Make / IADC code/ Sl. No. / Type	JETS (x $^{1}/_{32}$")	Depth (m)		Meters Drilled (m)	Bit on Bottom (Hours)	ROP (min/m)	WOB (Tons)	RPM	SPM	SPP (psi)	Discharge (GPM)
				In	Out								
1	12 ¼	VBI/1-1-7/PIIA-0798/TCR	20X3, 18X1	0	51	51	3.5			40	100	114	230
2	26	VAREL/1-1-1/1665740/TCR	22X3	25	262	237	21	8-10	3-5	55	100-160	1150	600-950
3	17½	Smith/1-1-5/RK1012/TCR	18X3	262	276	14	4	7-10	2-5	50	110-120	650-750	550-600
4	17½	Smith/1-3-5/RK3006/TCR, XRGG+CPS	22X2 18X1 16X1	276	1512	1236	98.3	5-12	3-19	50-55	120-145	1800-2300	750-850
5	17½	Smith/6-1-6/SD1518/PDC	13X9	1512	1854	342	42.5	2-19	2-12	50-55	110-150	2100-2655	720-890
6	12 ¼"	Smith/1-1-7/PIIA-0798/TCR	18x3, 16x1	1854	1867	13	6	6-27	5-15	60-70	130-140	1950-2150	750-790
7	12 ¼"	Smith/7-1-6/JV3947/PDC	16x4, 14x3	1867	2500	633	81	3-15	2-17	40-60	110-140	1600-3000	500-700
8	8 ½"	Smith/1-1-7/--/TCR	20X3, 18X1	2500	2512	12	2	9-34	5-20	50-60	100-115	2000-2200	610-640
9	8 ½"	Baker Hughes/616/A273887/ PDC new	15x3, 16x3	2512	3011	499	57.3	1.5-19	2-16	50-55	90-100	2200-2650	450-550

7.2 Deviation Data (TOTCO)

No TOTCO data was recorded.

7.3 Deviation Data (Inclination Survey& Diagram)

The well was drilled as an inclined ('L' profile) well. The deviation was carried out by Al-Mansoori at 17 ½", 12 ¼" & 8 ½" sections.

MDKB (m)	Angle (◦)	Azi-muth (◦)	TVDKB (m)	TVDSS (m)	N-S (m)	E-W (m)	Net Drift (m)	Net Dir (m)	VS(m)
0.00	0.00	0.00	0.00	-47.00	0.00	0.00	0.00	0.00	0.00
297.47	0.88	36.00	297.46	250.46	2.17	0.71	2.28	18.00	0.01
325.80	2.80	24.50	325.78	278.78	2.96	1.16	3.18	21.48	0.02
354.59	4.70	25.40	354.50	307.50	4.67	1.96	5.06	22.77	0.09
383.20	6.60	21.60	382.98	335.98	7.25	3.08	7.88	23.03	0.22
411.83	7.74	21.86	411.38	364.38	10.57	4.40	11.45	22.63	0.45
440.46	8.88	21.42	439.71	392.71	14.41	5.93	15.59	22.36	0.75
468.87	9.67	22.04	467.75	420.75	18.67	7.63	20.17	22.22	1.12
497.37	10.99	23.62	495.79	448.79	23.38	9.61	25.28	22.34	1.58
526.77	11.90	22.90	524.60	477.60	28.74	11.91	31.11	22.52	2.17
554.35	13.40	21.60	551.51	504.51	34.33	14.20	37.15	22.47	2.84
582.60	14.42	21.86	578.94	531.94	40.64	16.71	43.94	22.36	3.66
610.87	16.00	21.16	606.22	559.22	47.54	19.43	51.36	22.23	4.65
639.71	18.11	21.60	633.79	586.79	55.41	22.52	59.81	22.11	5.92
669.44	19.03	22.74	661.97	614.97	64.18	26.09	69.28	22.12	7.47
697.16	20.20	22.40	688.08	641.08	72.77	29.66	78.59	22.17	9.08
725.65	21.70	21.40	714.69	667.69	82.23	33.46	88.77	22.14	10.96
754.21	22.40	21.51	741.16	694.16	92.20	37.38	99.49	22.07	13.05
782.60	24.31	21.86	767.22	720.22	102.66	41.54	110.75	22.03	15.38
810.36	25.80	23.01	792.37	745.37	113.53	46.03	122.50	22.07	17.99
838.76	25.41	23.27	817.98	770.98	124.81	50.85	134.78	22.17	20.78
867.01	25.36	21.95	843.50	796.50	135.99	55.51	146.89	22.20	23.51
896.54	25.60	21.60	870.16	823.16	147.79	60.22	159.59	22.17	26.38
925.18	26.90	21.70	895.85	848.85	159.57	64.89	172.26	22.13	29.33
953.39	26.55	22.00	921.04	874.04	171.34	69.61	184.94	22.11	32.35
981.92	26.00	22.20	946.63	899.63	183.04	74.37	197.57	22.11	35.29
1009.96	25.63	21.34	971.87	924.87	194.38	78.89	209.78	22.09	38.09
1038.40	26.51	20.46	997.41	950.41	206.06	83.35	222.28	22.02	40.99
1067.01	26.33	21.34	1023.04	976.04	217.95	87.89	235.01	21.96	43.97
1095.82	26.00	21.25	1048.89	1001.89	229.79	92.51	247.71	21.93	46.93
1124.73	26.60	20.20	1074.81	1027.81	241.77	97.04	260.52	21.87	49.92
1153.06	26.11	20.28	1100.20	1053.20	253.57	101.39	273.09	21.79	52.86
1181.83	25.85	21.42	1126.06	1079.06	265.34	105.88	285.69	21.75	55.77
1210.06	26.73	21.77	1151.37	1104.37	276.97	110.48	298.19	21.75	58.69
1238.54	27.30	22.13	1176.74	1129.74	288.97	115.32	311.13	21.75	61.80
1267.16	26.51	21.80	1202.26	1155.26	300.98	120.16	324.08	21.76	64.90
1295.60	25.40	22.00	1227.84	1180.84	312.53	124.80	336.53	21.77	67.76
1322.89	26.02	21.00	1252.42	1205.42	323.54	129.14	348.36	21.76	70.47

MDKB (m)	Angle (◦)	Azi-muth (◦)	TVDKB (m)	TVDSS (m)	N-S (m)	E-W (m)	Net Drift (m)	Net Dir (m)	VS(m)
1351.14	26.00	20.50	1277.81	1230.81	335.13	133.53	360.75	21.72	73.33
1379.07	26.15	21.70	1302.90	1255.90	346.58	137.95	373.03	21.70	76.17
1407.80	27.21	21.70	1328.57	1281.57	358.57	142.72	385.93	21.70	79.23
1436.46	26.77	21.59	1354.11	1307.11	370.66	147.52	398.93	21.70	82.35
1465.05	26.15	22.74	1379.70	1332.70	382.46	152.32	411.67	21.72	85.35
1493.21	26.15	22.39	1404.98	1357.98	393.92	157.09	424.08	21.74	88.23
1521.64	26.64	22.30	1430.45	1383.45	405.61	161.89	436.72	21.76	91.19
1550.12	26.30	22.80	1455.94	1408.94	417.33	166.76	449.41	21.78	94.18
1578.60	26.20	22.70	1481.49	1434.49	428.95	171.63	462.01	21.81	97.11
1606.64	26.15	22.74	1506.65	1459.65	440.36	176.41	474.38	21.83	99.99
1634.48	25.85	22.83	1531.67	1484.67	451.61	181.13	486.58	21.86	102.81
1663.13	25.23	23.53	1557.52	1510.52	462.96	186.00	498.93	21.89	105.61
1691.58	24.70	23.18	1583.32	1536.32	473.99	190.76	510.93	21.92	108.26
1720.40	24.92	23.70	1609.48	1562.48	485.08	195.57	523.02	21.96	110.92
1749.05	24.26	23.40	1635.53	1588.53	496.01	200.33	534.94	21.99	113.52
1777.90	23.60	23.60	1661.90	1614.90	506.74	205.00	546.64	22.03	116.00
1806.25	23.21	23.00	1687.91	1640.91	517.08	209.45	557.89	22.05	118.34
1831.00	22.80	23.80	1710.70	1663.70	525.96	213.29	567.56	22.07	120.30
1864.36	20.53	24.50	1741.70	1694.70	537.20	218.33	579.87	22.12	122.66
1893.17	22.46	23.27	1768.51	1721.51	546.85	222.60	590.42	22.15	124.66
1921.60	25.05	21.60	1794.53	1747.53	557.44	226.98	601.88	22.15	127.07
1950.41	26.11	20.90	1820.51	1773.51	569.03	231.48	614.31	22.14	129.90
1979.23	27.00	20.98	1846.29	1799.29	581.06	236.09	627.20	22.11	132.94
2007.25	27.60	21.40	1871.19	1824.19	593.05	240.73	640.04	22.09	136.06
2035.65	27.91	21.80	1896.32	1849.32	605.34	245.60	653.27	22.08	139.33
2064.11	27.96	21.25	1921.47	1874.47	617.75	250.49	666.60	22.07	142.64
2092.79	27.34	20.10	1946.87	1899.87	630.20	255.19	679.91	22.05	145.92
2121.32	27.03	21.51	1972.25	1925.25	642.38	259.82	692.94	22.02	149.07
2149.61	27.70	21.34	1997.38	1950.38	654.49	264.57	705.94	22.01	152.23
2177.90	28.20	20.90	2022.37	1975.37	666.86	269.35	719.20	21.99	155.53
2206.49	27.60	21.30	2047.63	2000.63	679.34	274.17	732.58	21.98	158.86
2235.25	28.00	20.90	2073.07	2026.07	691.85	279.00	745.99	21.96	162.18
2263.78	28.35	20.98	2098.22	2051.22	704.43	283.81	759.46	21.94	165.56
2292.17	27.70	20.90	2123.28	2076.28	716.89	288.58	772.79	21.93	168.89
2320.53	27.10	21.30	2148.46	2101.46	729.07	293.28	785.84	21.91	172.07
2349.10	27.50	20.90	2173.85	2126.85	741.29	297.99	798.95	21.90	175.25
2377.73	27.30	21.34	2199.27	2152.27	753.58	302.74	812.12	21.89	178.46
2406.46	27.21	21.25	2224.81	2177.81	765.84	307.52	825.28	21.88	181.65
2435.53	27.34	20.81	2250.65	2203.65	778.28	312.30	838.60	21.86	184.88
2464.39	27.43	21.34	2276.27	2229.27	790.66	317.07	851.87	21.85	188.12
2521.34	25.71	22.21	2327.21	2280.21	814.32	326.52	877.34	21.85	194.13
2549.58	26.24	20.00	2352.59	2305.59	825.86	330.98	889.71	21.84	196.99
2579.35	27.20	19.60	2379.19	2332.19	838.45	335.51	903.09	21.81	200.16
2608.03	26.90	19.40	2404.73	2357.73	850.75	339.86	916.12	21.78	203.30
2626.91	27.69	18.61	2421.51	2374.51	858.93	342.68	924.77	21.75	205.40
2664.74	26.80	18.40	2455.14	2408.14	875.36	348.18	942.06	21.69	209.60
2693.19	26.70	18.70	2480.54	2433.54	887.50	352.25	954.85	21.65	212.65
2722.00	26.80	19.10	2506.27	2459.27	899.76	356.45	967.80	21.61	215.73

MDKB (m)	Angle (◦)	Azi-muth (◦)	TVDKB (m)	TVDSS (m)	N-S (m)	E-W (m)	Net Drift (m)	Net Dir (m)	VS(m)
2750.70	27.16	20.98	2531.85	2484.85	912.00	360.92	980.81	21.59	218.85
2779.65	27.25	20.28	2557.60	2510.60	924.38	365.58	994.05	21.58	222.05
2808.60	27.56	19.93	2583.30	2536.30	936.90	370.16	1007.37	21.56	225.30
2836.86	27.70	19.30	2608.33	2561.33	949.24	374.56	1020.47	21.53	228.53
2865.77	27.50	21.50	2633.95	2586.95	961.79	379.23	1033.86	21.52	231.82
2878.79	27.37	21.23	2645.51	2598.51	967.38	381.41	1039.86	21.52	233.28
2894.34	27.21	20.90	2659.33	2612.33	974.03	383.98	1046.99	21.51	235.01
2923.03	27.56	21.07	2684.80	2637.80	986.36	388.70	1060.18	21.51	238.23
2952.01	27.90	21.16	2710.46	2663.46	998.94	393.56	1073.67	21.50	241.55
2981.10	28.44	20.63	2736.10	2689.10	1011.77	398.46	1087.40	21.50	245.00
3011.00	28.44	20.63	2762.39	2715.39	1025.09	403.47	1101.64	21.48	248.61

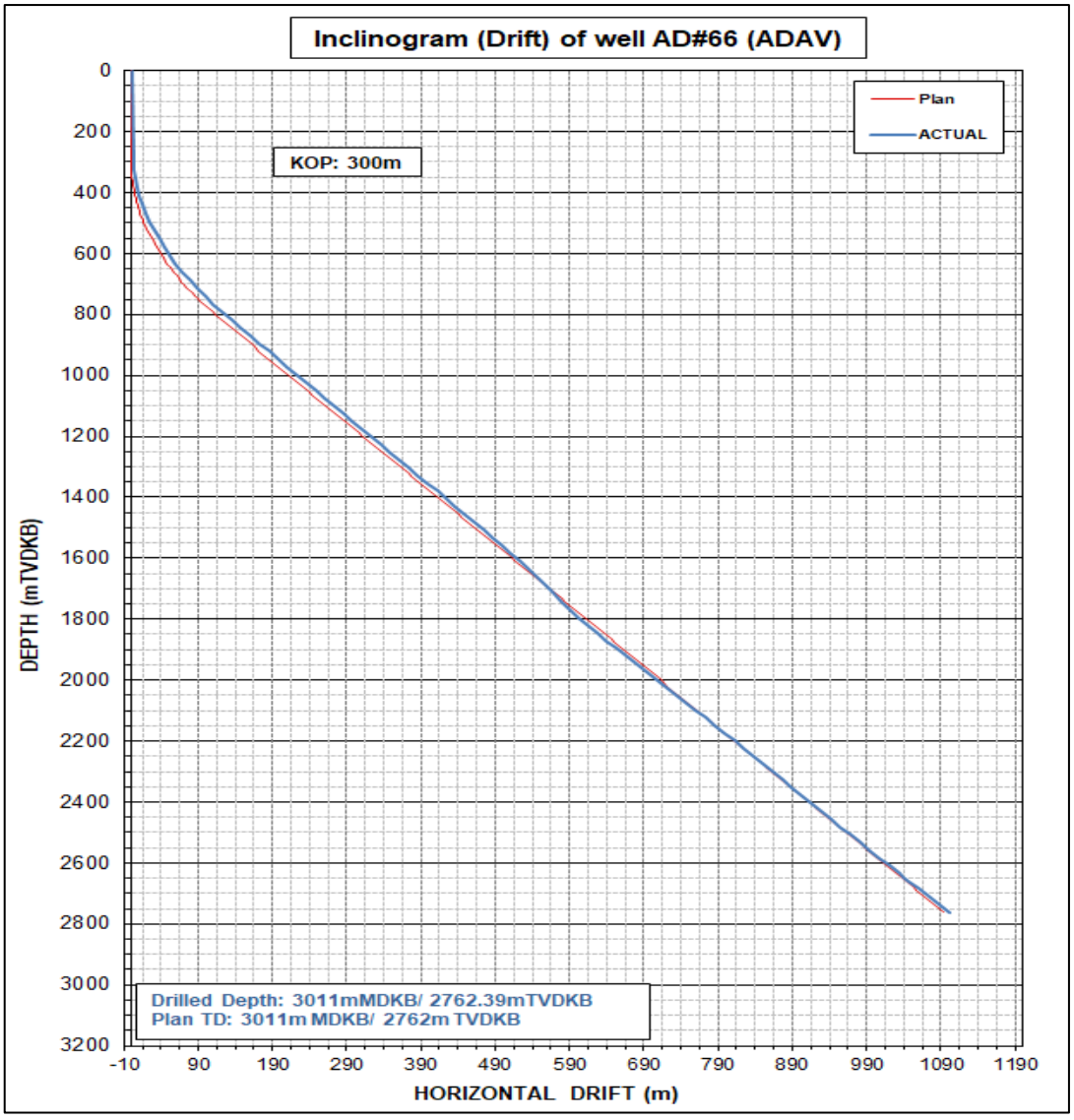


Figure- 7.1: Vertical profile plot

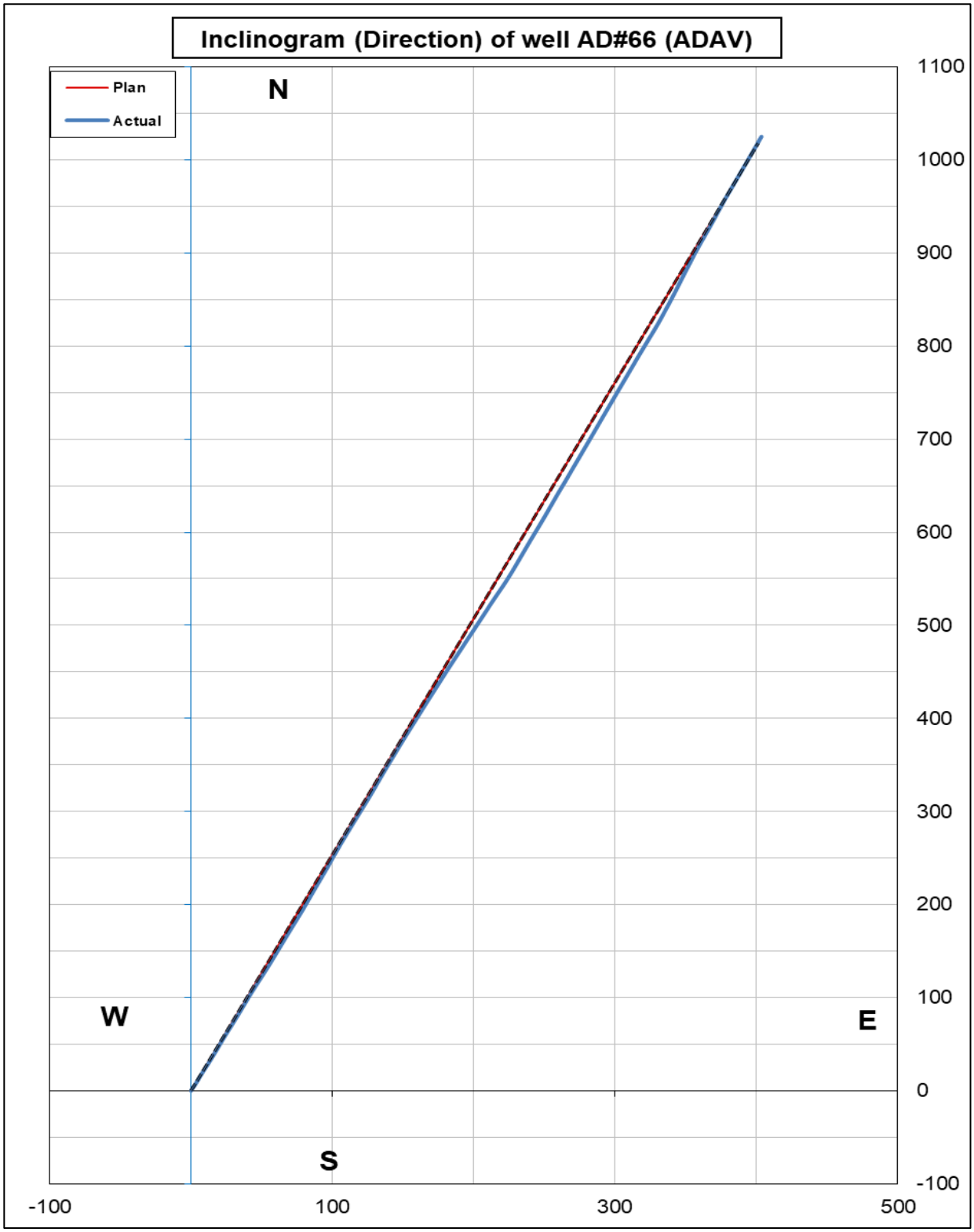


Figure- 7.2: Horizontal profile plot

7.4 Casing & Cementation Data

Casing size (inch)	20	13⅜	$9^5/_8$	5½
Hole Size (inch)	26	17½	12 ¼	Not Lowered
Drill Depth(m)	262	1854	2500	
Casing Shoe(m)	261	1853	2499	
Float Collar (m)	-	1828.5	2475	
Hanger Top (m)	-	-	-	
Short Joint Position	-	-	-	
Casing type and grade	X-56, 133 PPF	P-110, 68PPF	P-110, 47 PPF	
Casing lowering (Time / Date)	20:30 hrs of 10.05.2023	12:30 hrs of 27.05.2023	12:00 hrs of 09.06.2023	
Cementation Time / Date	23:30 hrs of 10.05.2023	15:00 hrs of 27.05.2023	16:00 hrs of 09.06.2023	
Quantity/ cement type	66 MT	44MT	32 MT	
Volume of pre-flush	8 m^3	8 m^3	8m^3	
Volume/ Wt of Lead slurry	43 m^3/ 1.65 SG	23 m^3/ 1.95 SG	25m^3/1.95 SG	
Volume/ Wt of Tail slurry	16 m^3/ 1.95 SG	8 m^3/ 1.95 SG	-	
After Flush	-	-	-	
Displacement Time/Date	03:00 hrs of 11.05.2023	16:30 hrs of 27.05.2023	17:15 hrs of 09.06.2023	
Volume/ Av. Wt. Of Displacing Fluid	43 m^3/ 1.07 SG mud	143 m^3/ 1.16 SG mud	94.5m^3/ 1.20 SG mud	
Plug hitting Pressure	-	40 Ksc raised to 90 Ksc	60 Ksc raised to 90 Ksc	
Cement rise Planned	Surface	400 m from casing shoe	500m from casing shoe	
Cement rise Actual	Surface			
Remarks	WOC for 24hrs	WOC for 24hrs	WOC for 24hrs (8 hrs under 400psi)	

7.5 Mud Parameters Planned

DEPTH (m)	HOLE SIZE (")	M.WH (sp.gr)	VISC. (Sec)	W/L (cc)	pH	SALINITY ppm (as NACL)	PV/YP	$Gel_{0/10/30}$	SOLIDS (%)	SAND (%)	REMARKS
0-260	26	1.05-1.07	45-55	-	9.0-9.5		-			-	Lightly treated Bentonite Gel
260-1850	17 ½	1.07-1.16	45-50	7-9	9.0-9.5		15-20	6-9/10-20/20-30	6-8	-	C/Lignite-CMC-CFD
1850-2500	12 ¼	1.16-1.20	45-55	5-6	8.5-9.0		20-30	7-9/10-20/20-25	8-10	-	KCl-PHPA-Polyol-Polyamine
2500-3011	8 ½	1.20-1.24	45-55	5-6	8.5-9.0		25-30	8-9/15-20/20-30	10-14	-	KCl-PHPA-Polyol-Polyamine

7.6 Mud Parameters Actual

Sl. No	Drilling Phase	Depth Interval (m)	Mud System
1	26"	Surface-262	Lightly treated PHBS
2	17 ½"	600-1854	C/Lignite-CMC-CFD
3	12 ¼"	1854-2500	KCl-PHPA-Polyol-Polyamine
4	8 ½"	2500-3011	KCl-PHPA-Polyol-Polyamine

HOLE SIZE (")	MUD TYPE	DEPTH (m)	M.W(sp.gr)	VISC. (Sec)	W/L (cc)	pH	SALINITY ppm (as NaCl)	PV/YP	GEL_0 / GEL_{10}	SOLIDS (%)	KCL %	REMARKS
26	PHBS	0-262	1.05-1.07	45-47	-	9.5	-	-	-	-	-	-
17½	PHBS	262-276	1.07	45-46	10	9.5	-	11/15	06/16	-	-	-
17½	C Lignite-CMC-CFD	276-393	1.07-1.08	45-46	10-9	9.5	-	11/15	07/18	-	-	-
		393-635	1.08-1.09	47-48	9	9.5	-	11-13/15	07/19	-	-	-
		635-990	1.09-1.10	48-49	9-8.8	9.5	-	12-11/5-14	-	-	-	-
		990-1160	1.10-1.11	49-47	8.5-8.4	9.5	2925	12-11/15	06/23	-	-	-
		1160-1310	1.11-1.12	47-45	8.4-7.6	9.5	2925	11-12/15	05-06/22	8	-	-
		1310-1450	1.12-1.14	45-46	7.6-7	9.5	2925	12/15	06/21	8	-	-
		1450-1602	1.14-1.15	46-45	7	9.5	3510	12-13/15-14	04-05/20-21	8	-	-
		1602-1854	1.15-1.16	45-46	7-6.5	9.5	3510	13-12/14-15	04-05/20	9	-	-
12¼	C Lignite-CMC-CFD	1854-1867	1.16	50	7-6.5	9.5	3510	13-12/14-15	04-05/20	9	-	-

HOLE SIZE (")	MUD TYPE	DEPTH (m)	M.W(sp.gr)	VISC. (Sec)	W/L (cc)	pH	SALINITY ppm (as NaCl)	PV/YP	GEL_0 / GEL_{10}	SOLIDS (%)	KCL %	REMARKS
	KCl-PHPA-Polyol-Polyamine	1867-2007	1.16-1.17	49	6.5	9	30420-32760	16/24-25	5-6/12	8	3	-
		2007-2132	1.17-1.18	49-50	6	9	30420-31590	16-17/24-25	5-6/11-12	8	3	-
		2132-2320	1.18-1.19	50-52	6	9	33930-34515	17-18/27-29	6/11-13	8	3.5	-
		2320-2500	1.19-1.20	51-52	6	9	33930-39780	17-18/29	5/11	9	4	-
8 ½	KCl-PHPA-Polyol-Polyamine	2500-2512	1.20	51-52	6	9	40950	17/27	07/13	9	4	-
		2512-2665	1.20-1.21	52-53	7-6.5	9	40950-42120	18-20/29-28	08-07/16-15	09-10	4	-
		2665-2815	1.21-1.23	53-42	7-6.5	9	42120	18-19/28	08/16	10	4	-
		2815-3011	1.23-1.24	53-54	6.5.8	9	42120-42705	18-17/28-27	07/17	11	4	-

7.6 Mud chemical consumption

Sl No.	Chemical Name	Qty	UOM	Cost
1	Mud Chemical PHPA Stable upto 140deg C	0.2	MT	34,724.06
2	Mud Chemical Barytes (Specific Gravity	256.35	MT	24,76,480.76
3	Sulphonated Asphalt ONGC/MC/69/2007 ONG	5.8	MT	3,37,080.97
4	Chrome Lignite ONGC/MC/20/2007 ONGC Spe	0.875	MT	5,60,659.84
5	Polyol Commercial Grade 2	2.2	MT	3,59,453.03
6	Defoamer Liquid Eco Friendly	450	L	38,144.46
7	Core High Performance Extreme Pressure	1,800.00	KG	2,84,351.22
8	Biocide M123 Biocide For Drilling Fluids	25	KG	1,137.94
9	Mud Additive Deflocculant Chrome Free	4.05	MT	2,88,567.79
10	Non Invasive Fluid Additive	3,200.00	KG	1,35,188.11
11	Mud Chemicals Clay Hydration Suppressant	3,400.00	KG	2,08,600.02
12	Bentonite Powder	70.1	MT	8,91,645.81
13	Caustic Soda Flakes (Sodium Hydroxide)	3,400.00	KG	2,80,168.22
14	Mica Flake	500	KG	7,347.76
15	Soda Ash	400	KG	21,774.72
16	E P Lubricant	200	L	16,282.55
17	Drilling Detergent	400	L	15,723.57
18	XC Polymer	1.15	MT	2,04,531.84
19	PHPA Partialy Hydrolyzed Poly Acryl Am*	3	MT	6,85,264.13

20	Poly Anionic Cellulose (Regular)	4.1	MT	6,88,430.33
21	CMC (High Viscosity Grade)	5	MT	5,62,721.34
22	Carboxymethyl cellulose(Lvg)	8	MT	7,67,318.19
23	Bleaching Powder	475	KG	12,350.00
24	Causticised Lignite	4.475	MT	1,32,846.10
25	Micronized Calcium Carbonate	0.5	MT	3,356.32
26	Pre-gelatinised Starch	2.8	MT	1,19,349.49
27	Poly Anionic Cellulose Lvg	8.6	MT	10,75,258.70
28	Potassium Chloride Revised Ongc/Ws/35/2*	34.25		25,69,879.68
29	Potassium Hydroxide	0.7	MT	92,489.96
30	Graphite Flakes	150	KG	9,976.27
31	Aluminum Stearate	100	KG	13,222.16
Total:				1,28,94,325.34

Mud Weight Planned versus Actual

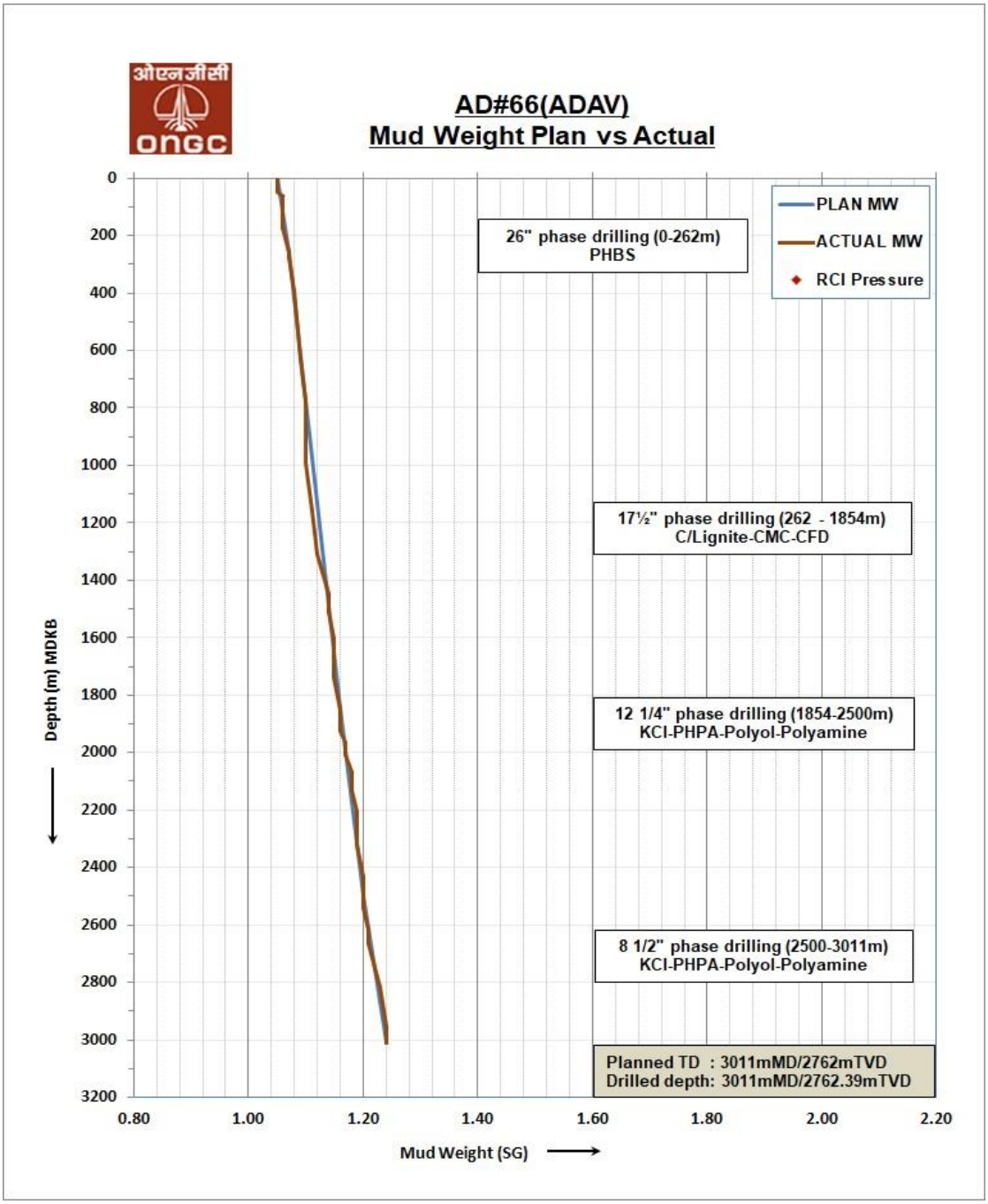


Figure-7.3: Mud Weight Planned versus Actual

CHAPTER 8:
PRODUCTION TESTING

8.1 Production Testing

Based on evaluation of wire line logs and the G&G data, no interesting zone was identified from Hydrocarbon point of view. Therefore, the well was permanently abandoned without lowering 5.5" casing.

CHAPTER 9: COMPLICATIONS

9.1 During Drilling

No Major complications were observed during drilling.

9.2 During Logging

9.2.1 17 ½" Phase

Logging tool troubleshoot: During shallow check of DSI-GR logging tool at 400m, observed log data not being reflected in system. Tool was pulled out inside shoe and recalibrated. After power recycling found data is showing and the tool is working fine. Thereafter tool was run in and log was recorded.

(Time Consumed: 1hrs)

9.3 During Casing and Cementation

No Major complications were observed during casing and cementation.

9.4 During Well Abandonment

No Major complications were observed during well abandonent.

CHAPTER 10:
WELL ABANDONMENT

10. WELL ABANDONMENT:

In view of no interesting zone, it was decided to permanently abandon the well.

10.1 Abandonment Plug Details

10.1.1 Bottom abandonment plug

After a round trip 5" Open-ended drill pipe was run in hole to 2800m. A weighted hi-viscous pill (1.5 SG & visc -150) was placed covering the interval 2500-2800m. Thereafter OEDP was pulled out to 2532m and bottom abandonment cement plug job was carried out with 10.8m^3 of 1.92 SG cement slurry covering the interval 2302m-2532m. After WOC for 24 hours, cement top was tagged at 2334m and successfully tested at 1000psi.

Particulars	Details
Purpose	Bottom abandonment cement plug
Date of job	19.06.2023
Planned plug interval (m)	2302-2532m (230m)
OEDP	2532m
Pre-flush (m^3)	5.10 m^3 of water
Cement slurry (m^3/wt)	10.80 m^3 of 1.92 SG
After flush (m^3)	1.86 m^3 of chemical flush
Displacing fluid (m^3/type)	18.8 m^3 of 1.20 SG mud
Initial P/O	12 stands upto 2190m
Direct wash with	80 m^3 mud by rig pump
Safety P/O	5 stands upto 2045m
Remarks	WOC was for 24 hrs (well-kept closed for 12hrs).

10.1.2 Intermediate abandonment plug

9 5/8" casing was cut by wire-line at 1200m and retrieved 90 joints (~1200m) of 9 5/8" casing. Diverter was run in up to 1228m and 100m of intermediate abandonment plug was palced in the interval 1228-1128m. After WOC, the cement plug was tagged at 990m and tested at 1000psi, was found holding. Actual plug length: 238m (990-1228m).

Particulars	Details
Purpose	Intermediate abandonment cement plug
Date of job	22.06.2023
Planned plug interval (m)	1228-1128
5” DP end depth (m)	1228
Pre-flush (m^3)	6.5/Water
Cement slurry (m^3/wt)	16/1.95 SG
After flush (m^3)	0.93/Water
Displacing fluid (m^3/type)	7.9/water
Initial P/O	09 stands
Direct wash with	80m^3 water
Safety P/O	06 stands
Remarks	WOC for 24hrs (well kept closed for 12 hrs)

10.1.3 Top abandonment plug

100m of weighted Hi-viscous pill of 1.24 SG was placed in the annulus from 350-250m. 13 3/8” casing was perforated in the interval 250-251m and OEDP was run in up to 348m. Well volume was changed over to water. Top abandonment plug of 120m in the interval 248-128m was placed and 60m of cement slurry was raised in the outer annulus (13 3/8”X20”). After WOC, the cement plug was tagged at 120m and was tested at 1000 psi surface pressure, was found holding. A & B section well heads were retrieved and MS plate was welded at well mouth. The Rig E-1400-14 was then released to the next development location ADED w.e.f., 0600hrs on 26.06.2023.

Particulars	Details
Purpose	Top abandonment cement plug
Date of job	24.06.2023
Planned plug interval (m)	248-128
5” DP end depth (m)	248
Cement slurry (m^3/wt)	9.4/1.90SG

Displacing fluid (m^3/type)	1/water
Initial P/O	Up to 77m
Direct wash with	1.5m^3 water
Safety P/O	03 stands
Remarks	WOC for 24hrs

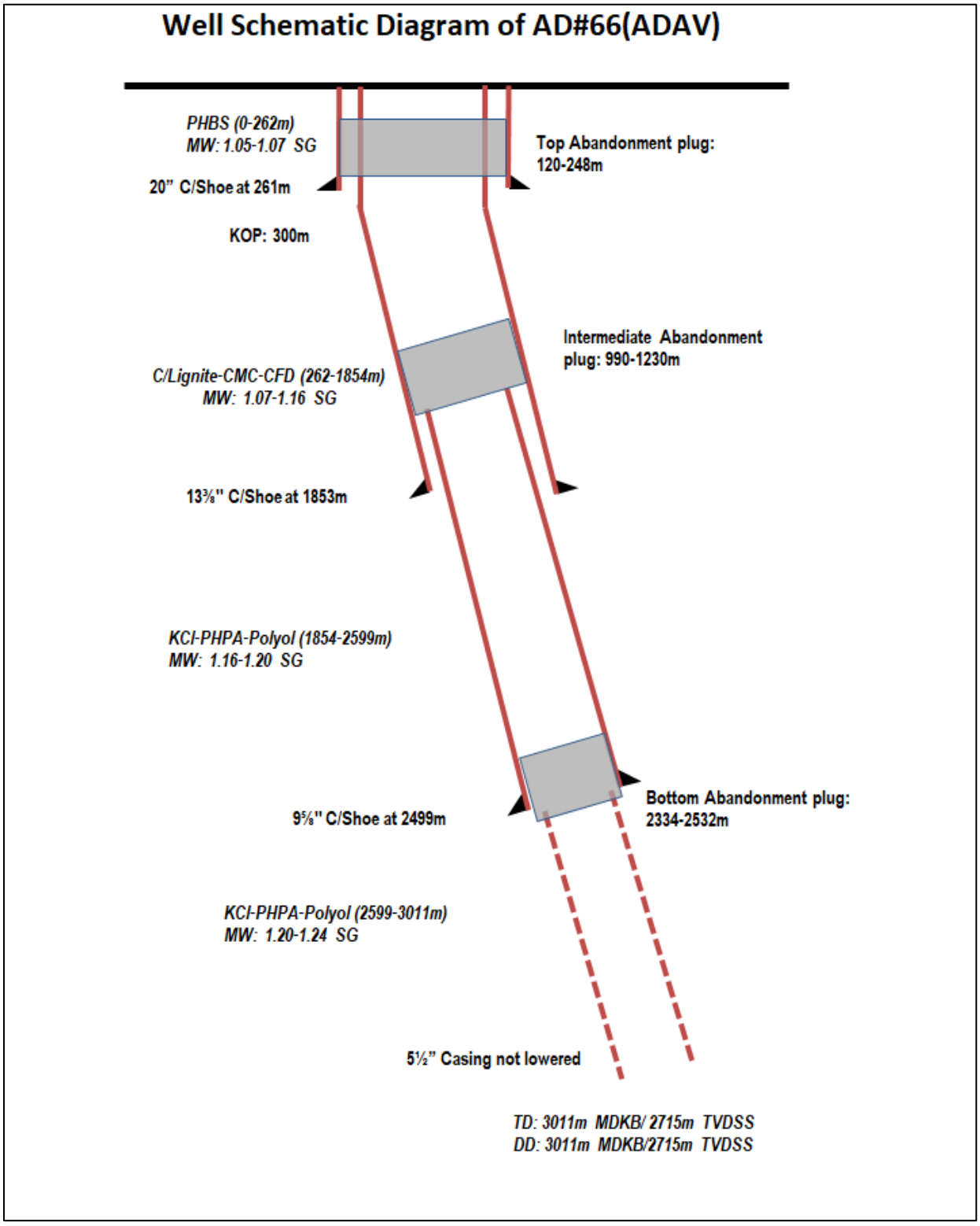
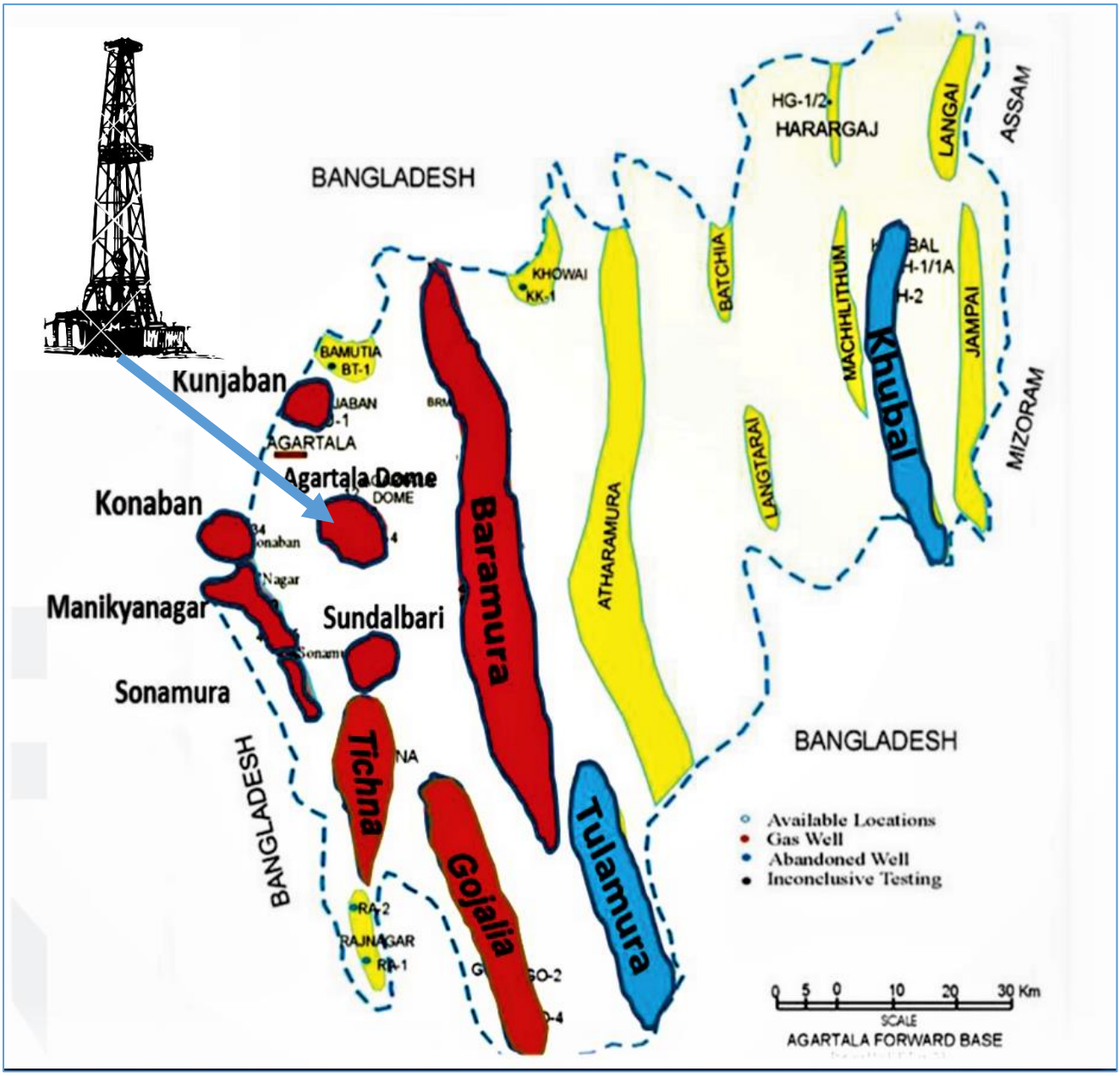


Figure-8: Well Schematic Diagram

Plate: 2

Field Location Map



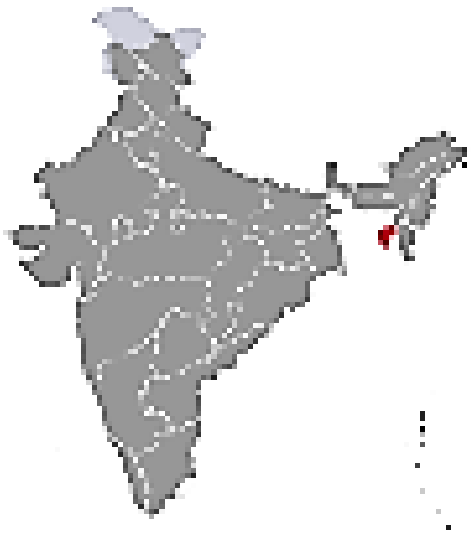
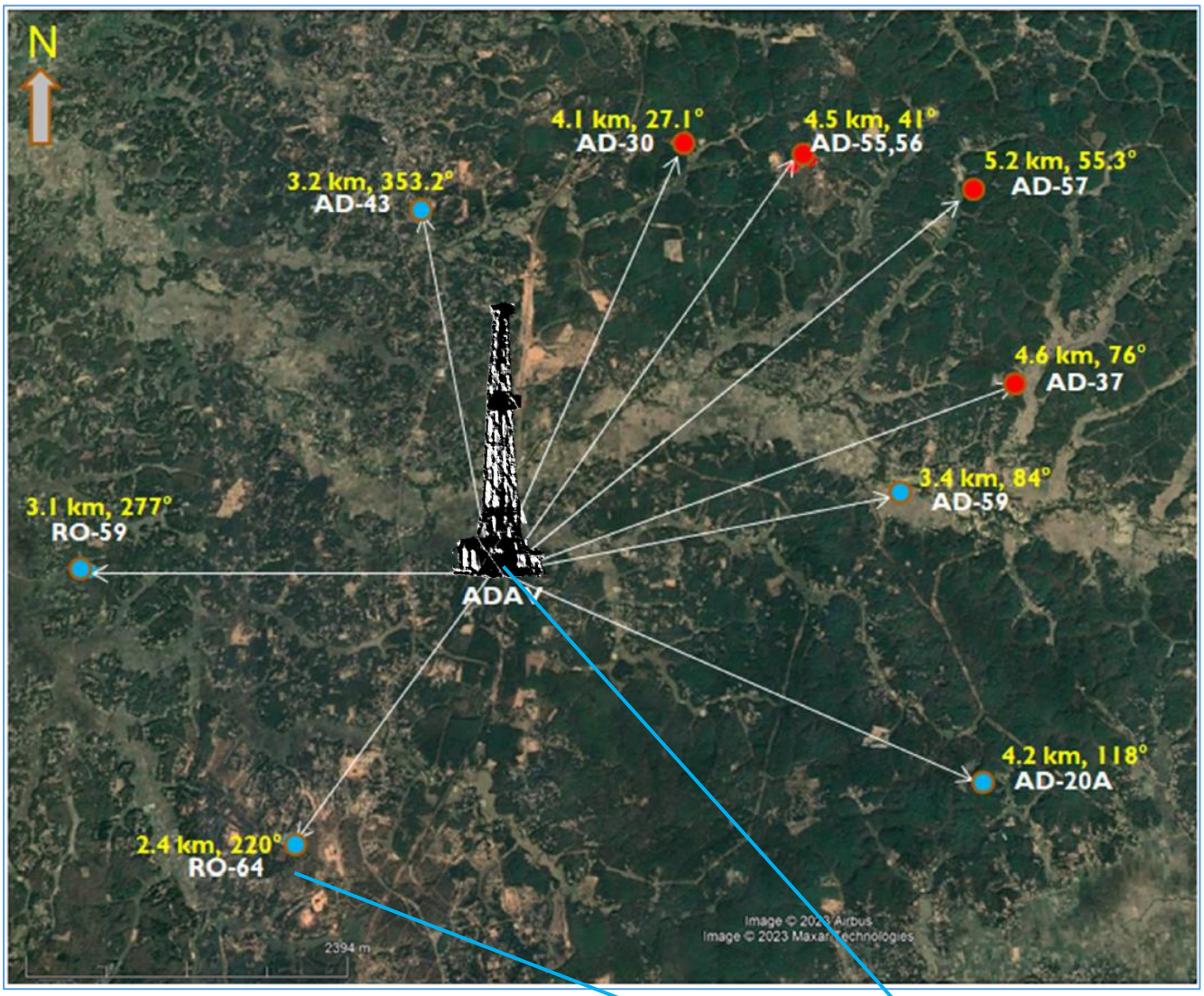


Plate: 3

Well Location Map – Well # ADAV



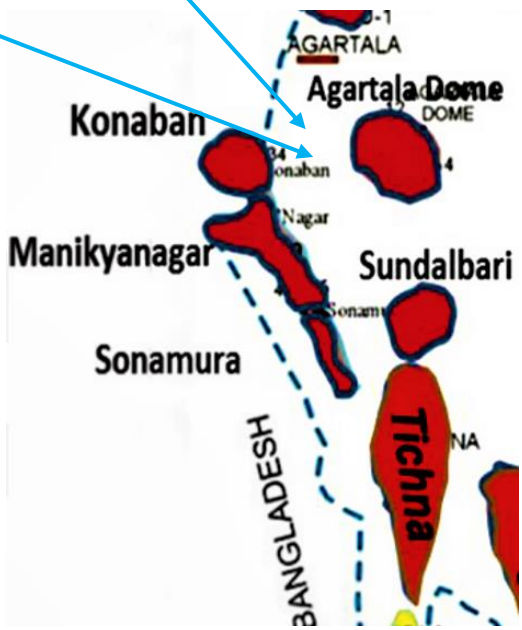


Plate: 4

Seismic IL-385 & XL-1081 passing through location ADAV

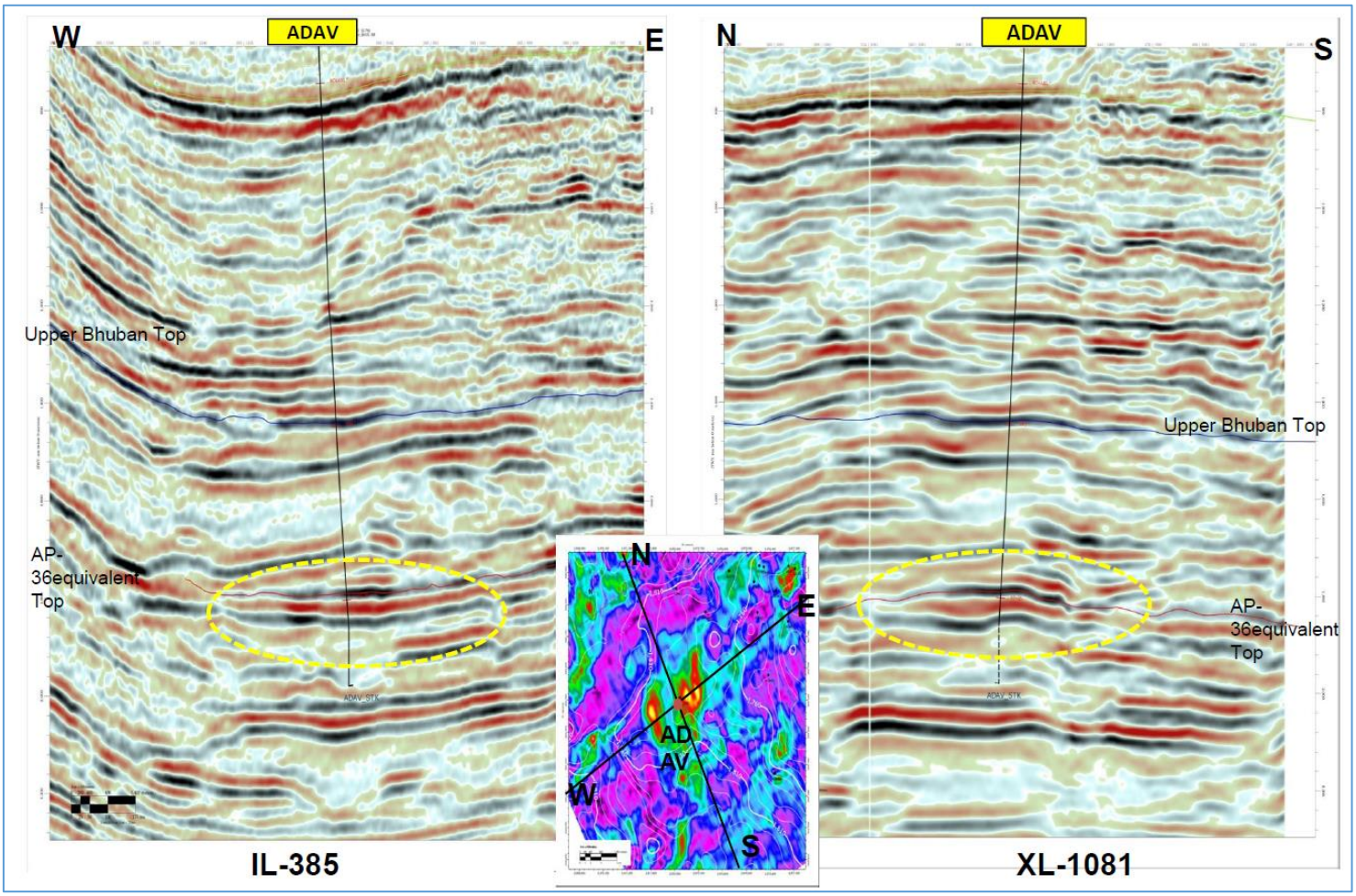


Plate: 5

Time Relief contours of AP-36 pay
(Overlain on RMS attribute map of AP-36 pay sand)

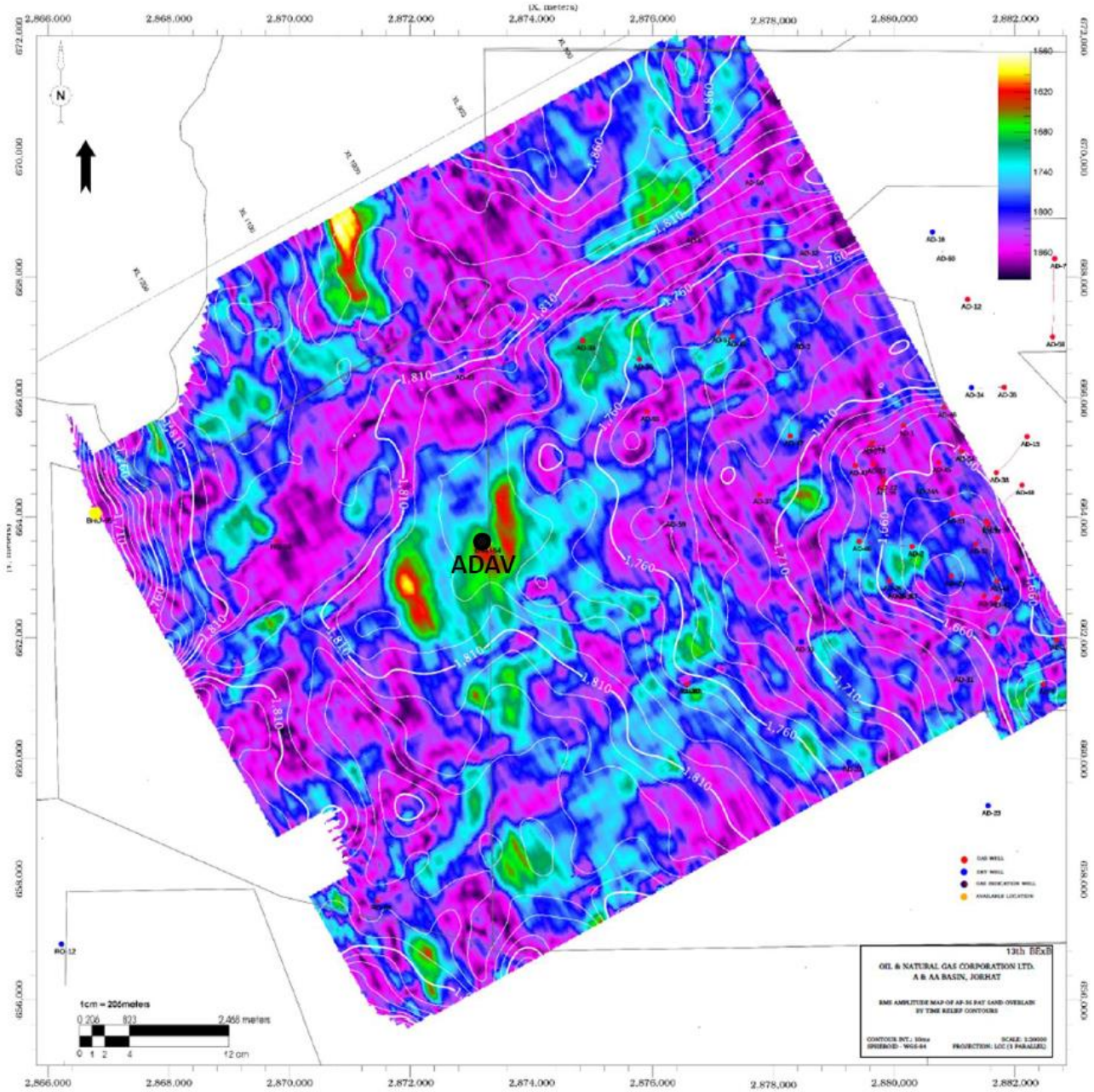


Plate: 6

Time Relief contours close to AP-36 pay sand

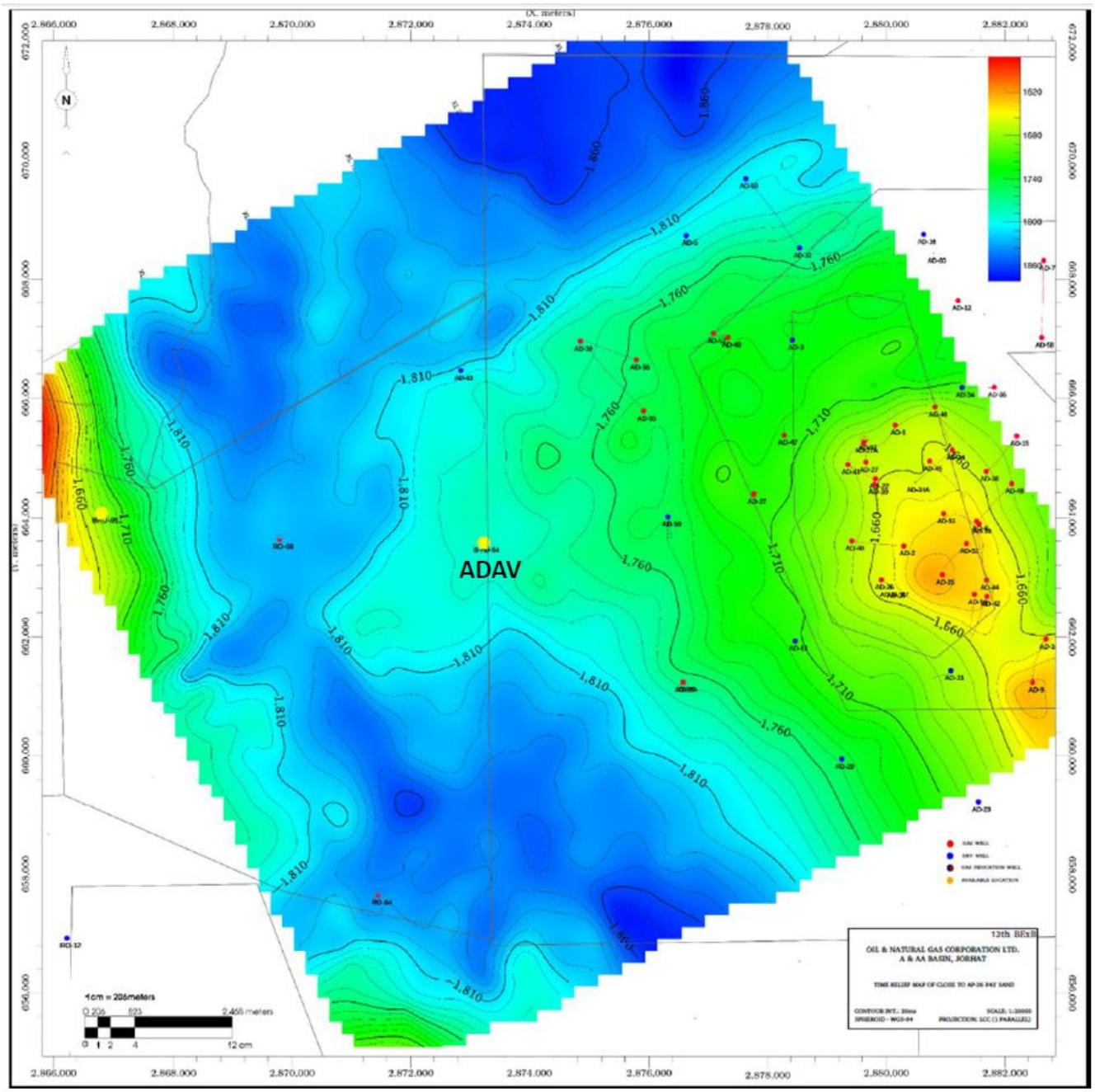


Plate: 7

Well Construction Diagram (Driller's depth)

Well No. AD#66 (ADAV)

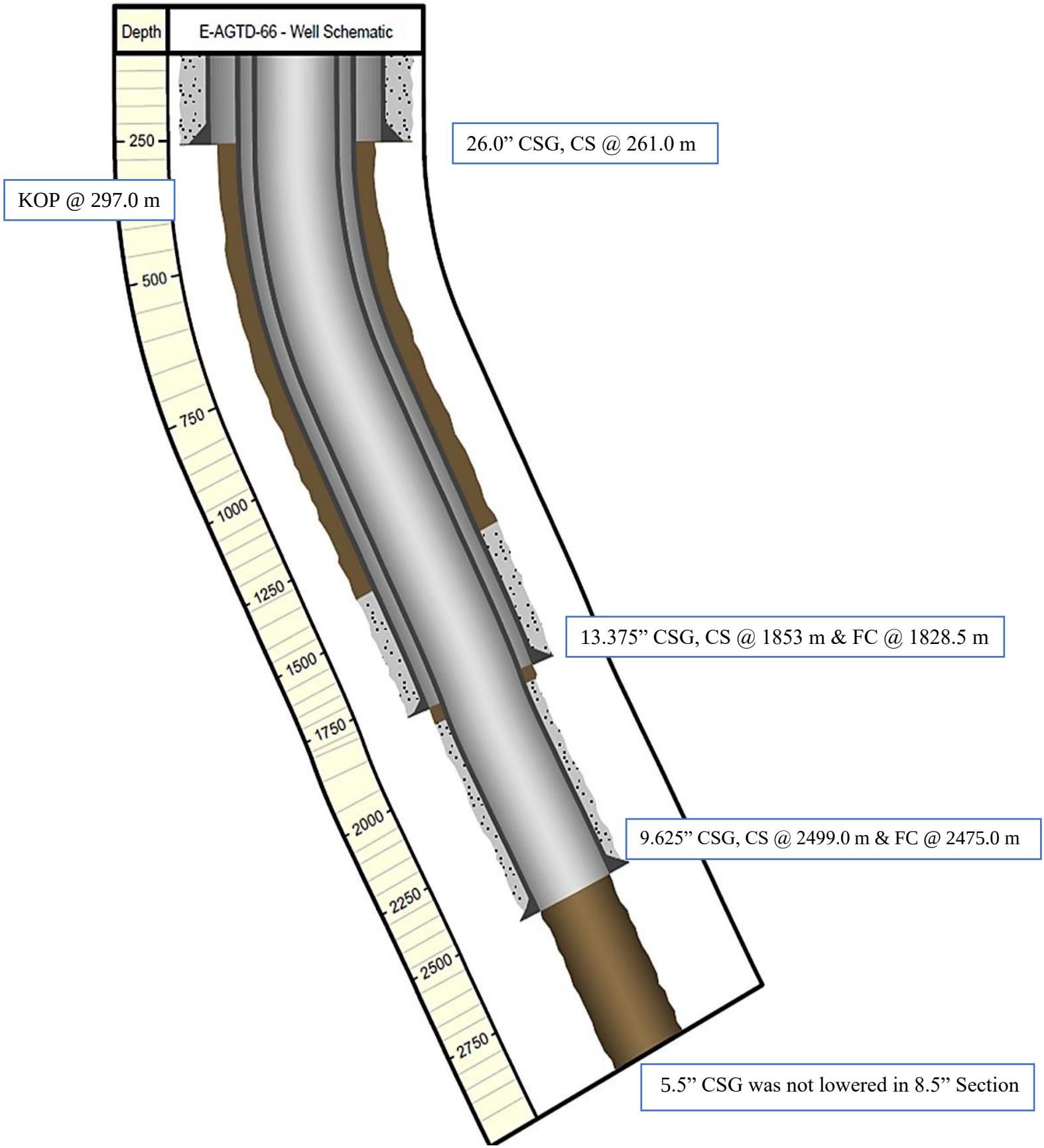
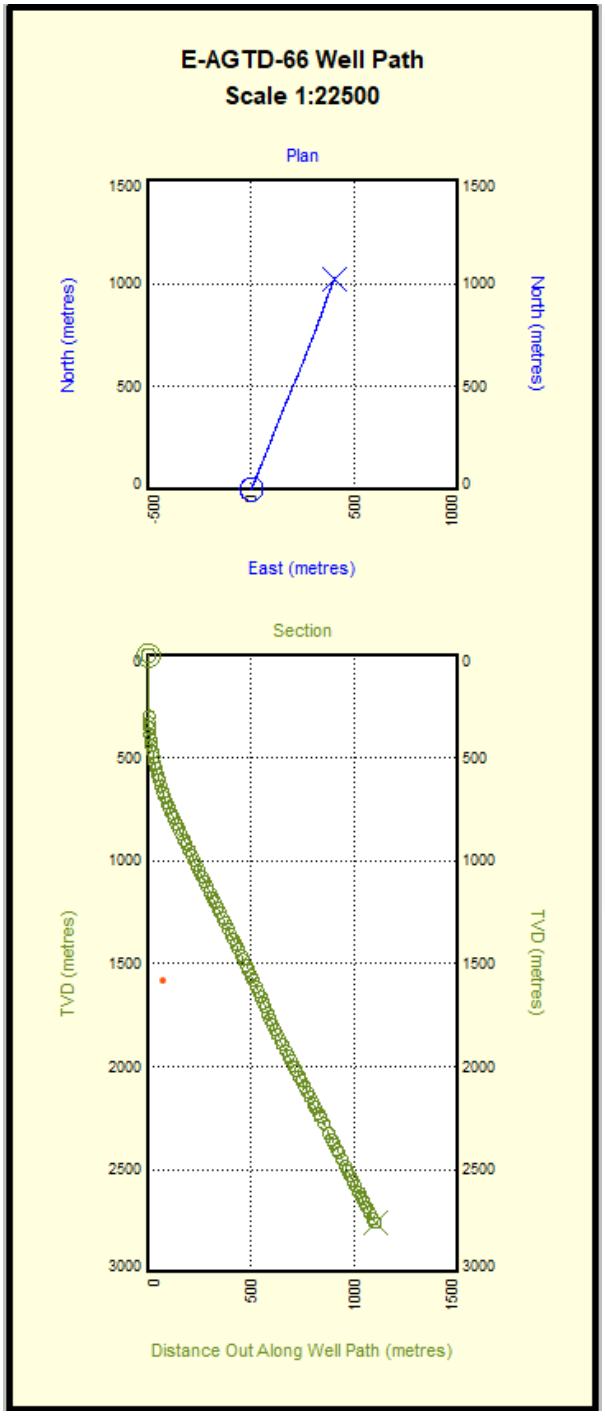
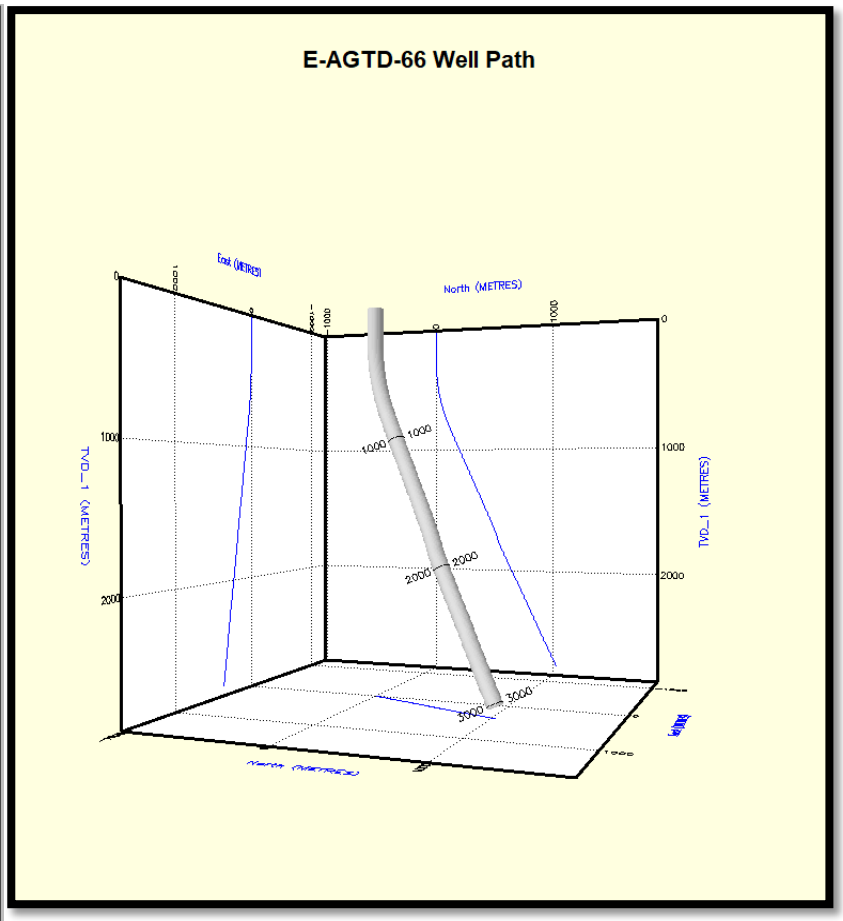


Plate: 8

Well Path Diagram (2-D & 3-D view)

Well No. AD#66 (ADAV)



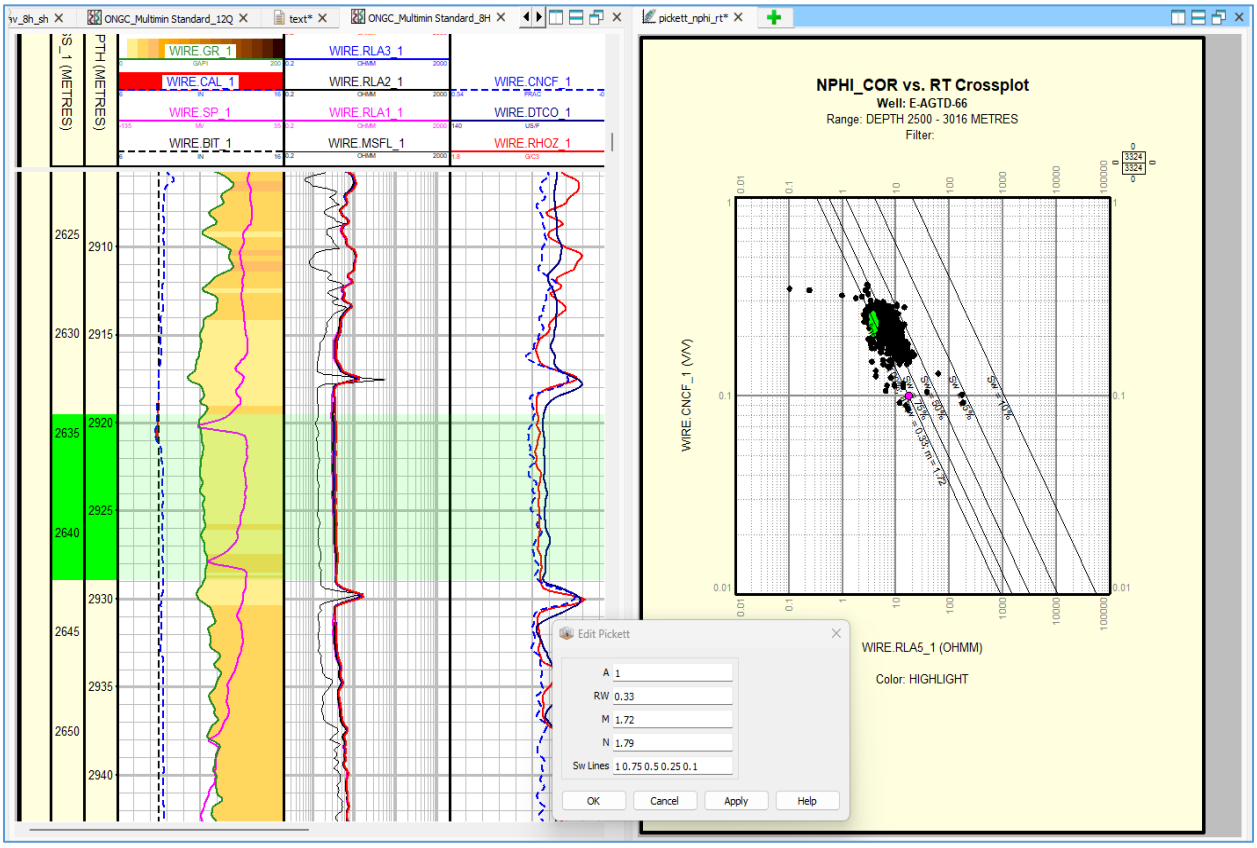


Plot-1

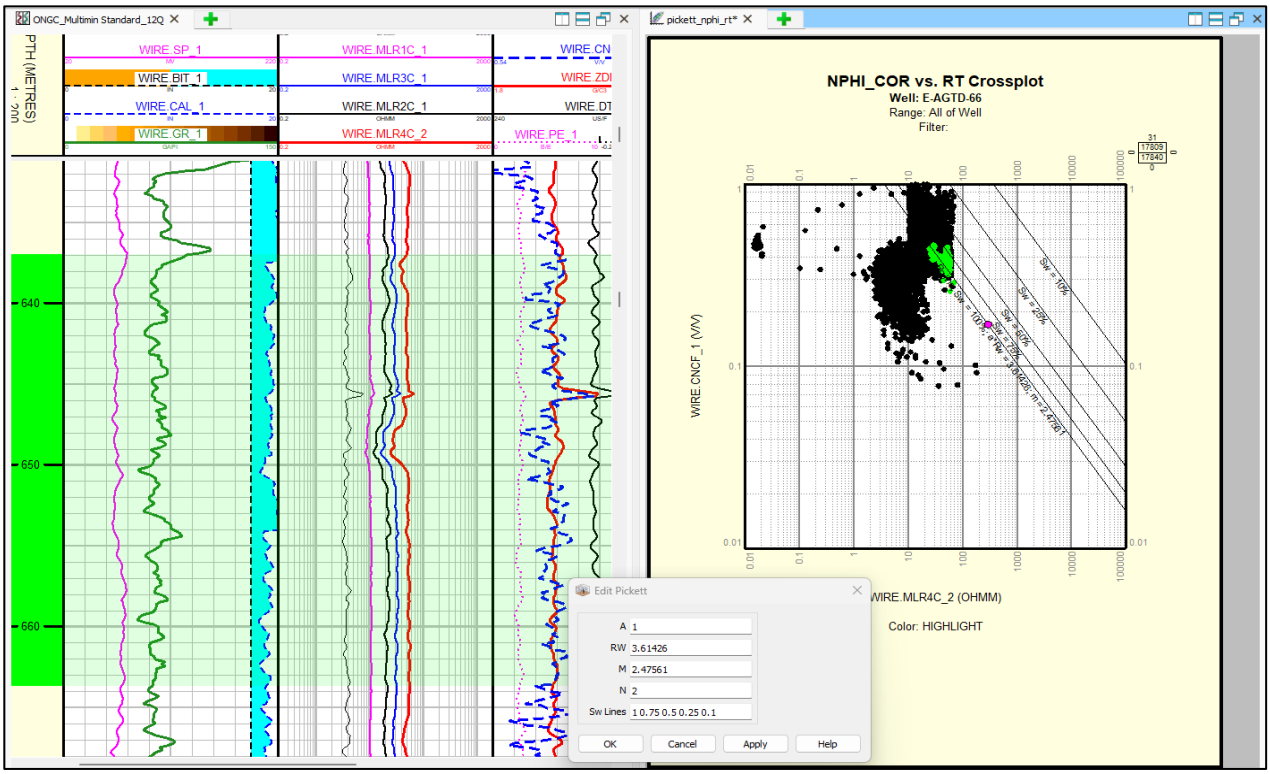
R_w Determination Plot

(Pickett Plot)

Upper Bhuban Formation:



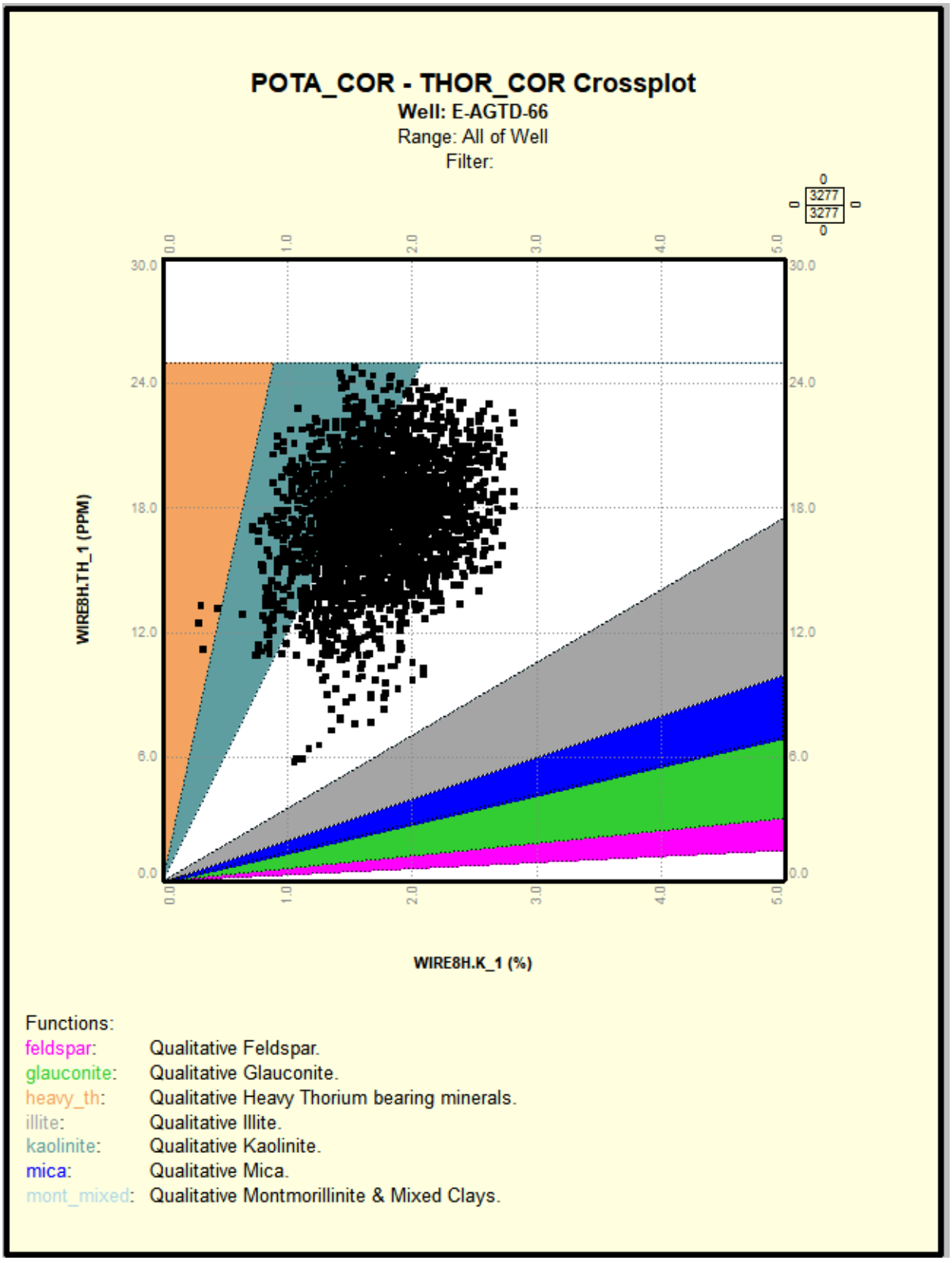
Bokabil Formation:



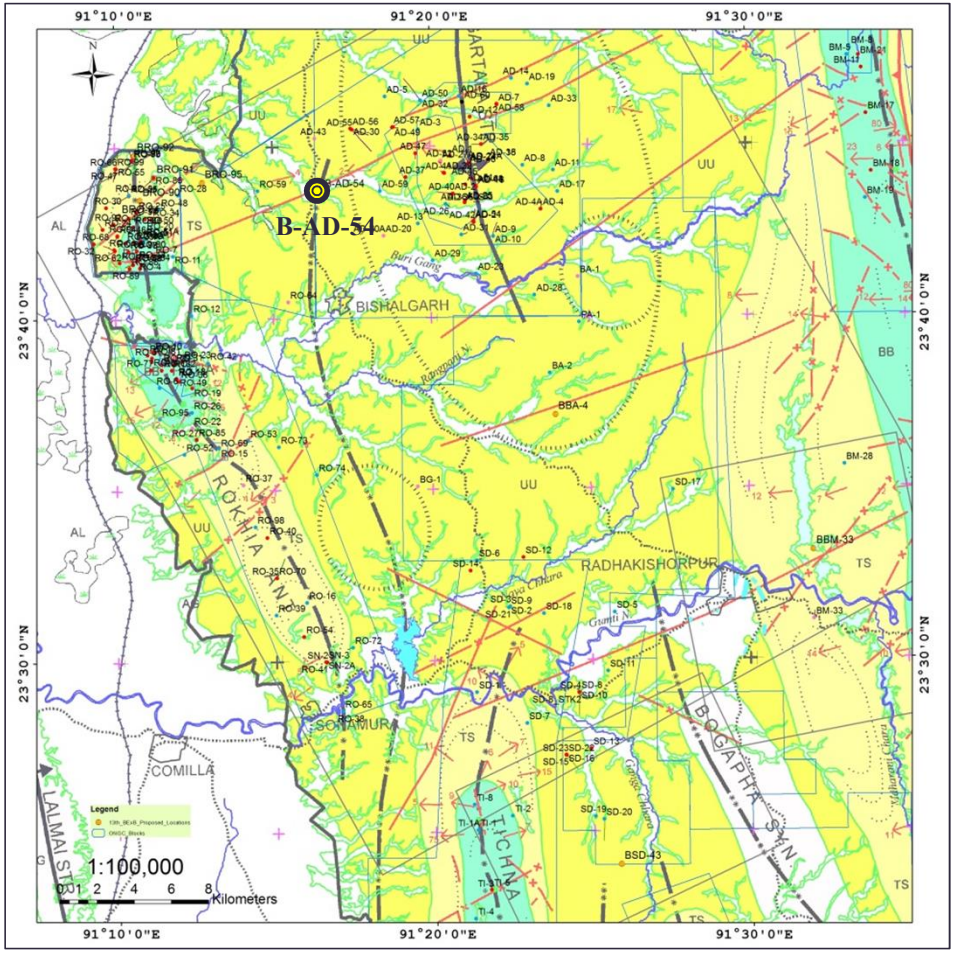
Plot-2

Clay Mineralogy Plot

(Th vs K Cross-Plot)



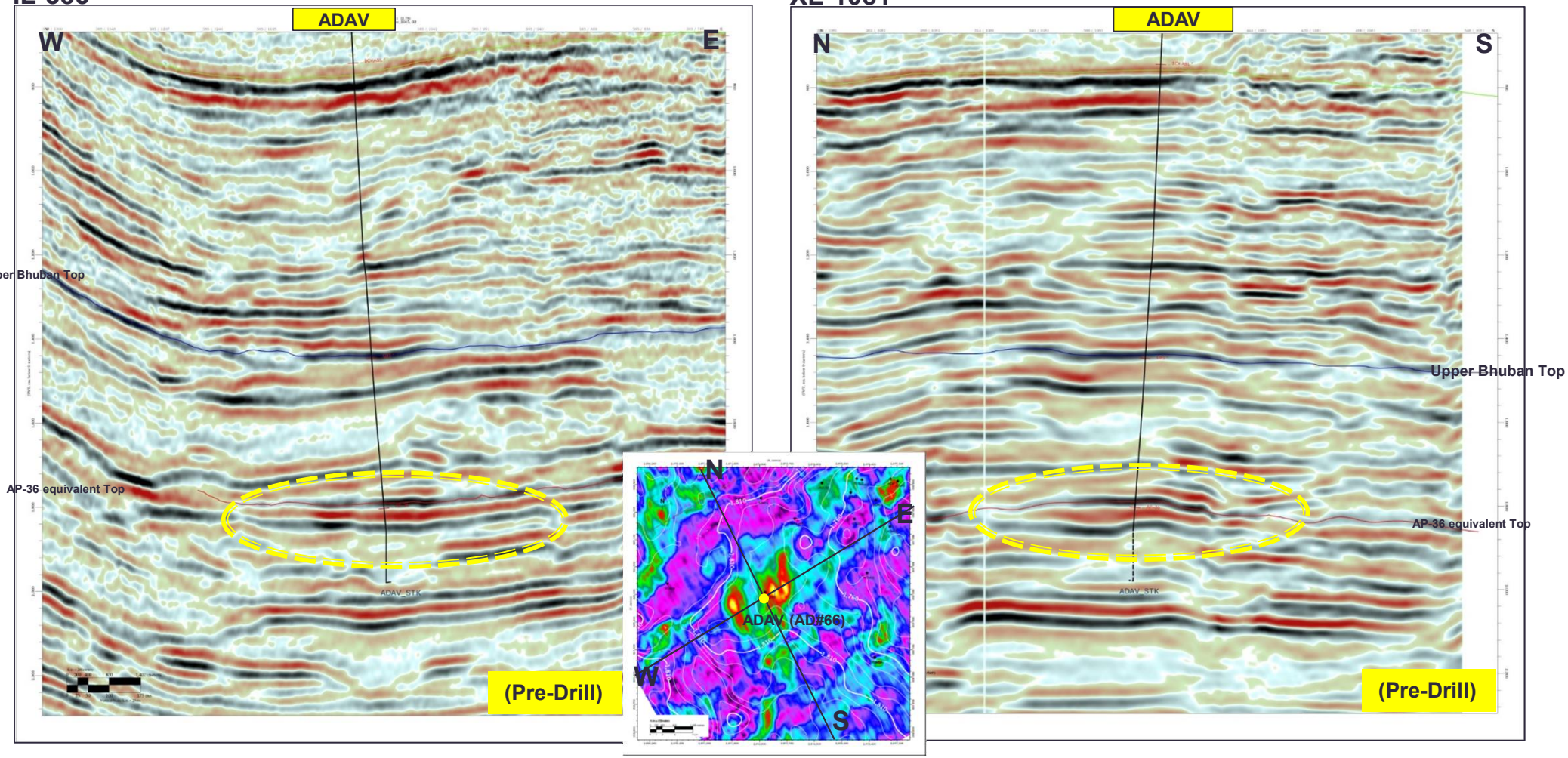
General information AD#66 (ADAV)



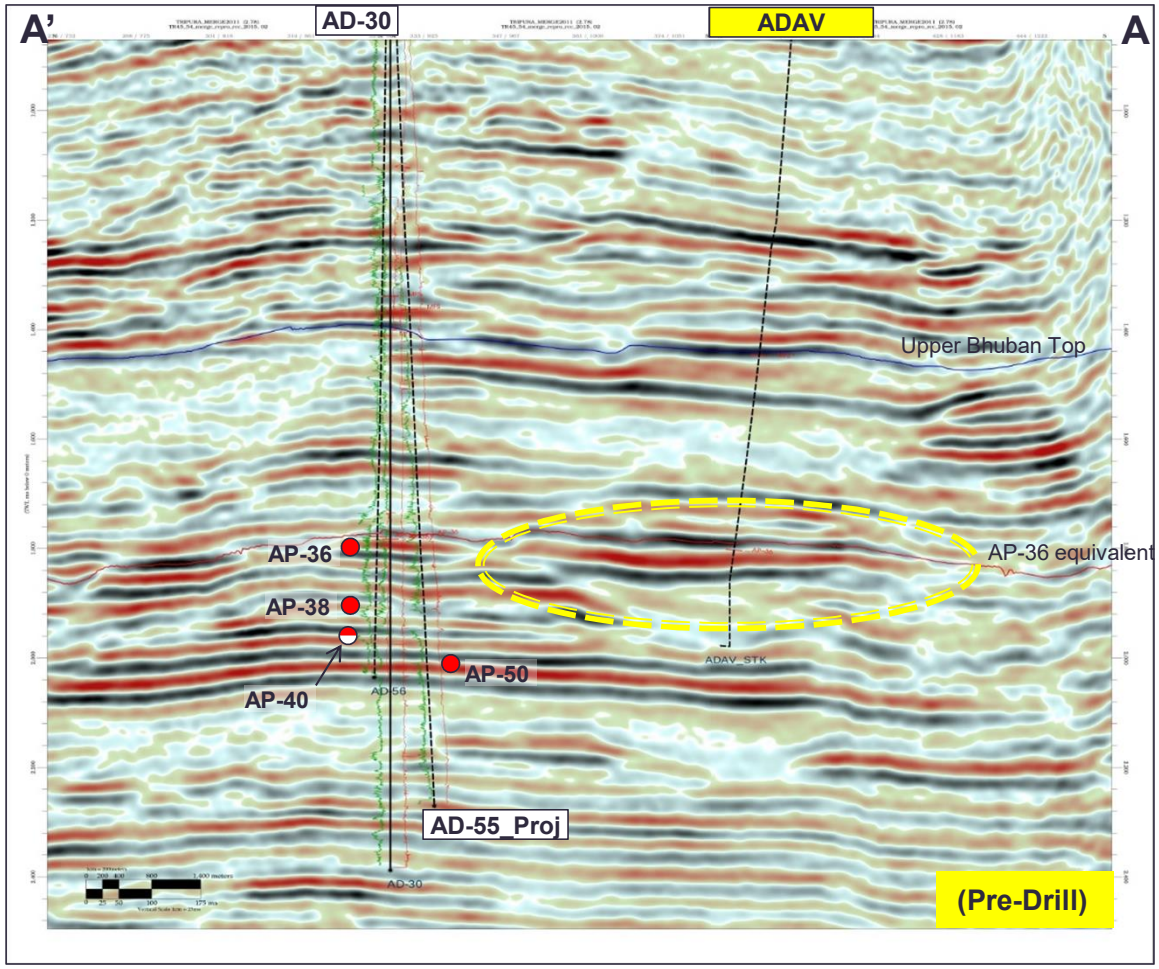
Tripura Geological Map

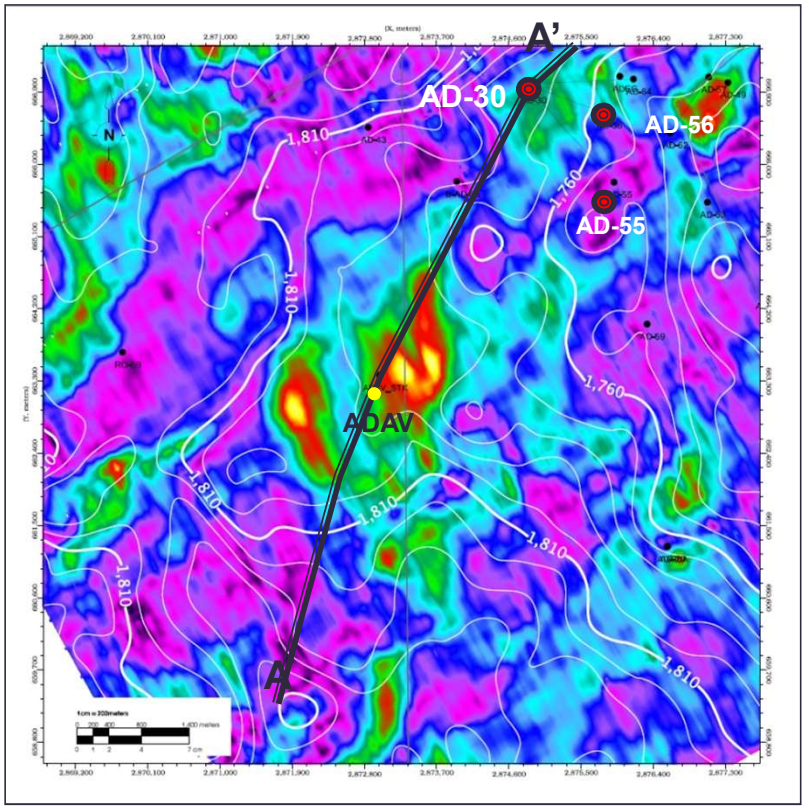
Prospect Name: B-AD-54		Well Name: AD#66 (ADAV)
Block: Agartala Dome Ext-III PML		Sector: Assam Arakan Fold Belt
Well Category: Expl. 'B'		EPMB: 30th EPMB
Loc. Release date: 31.03.2022		Objective: To probe the extension of AP-36 eqv. sand towards the west of AD#30, AD#55 and AD#56 pool
Spud date: 08.05.2023		
Date of HT: Not carried out		Rig release date: 26.06.2023
KB: 47.62m	GL: 40 m	Rig: E-1400-XIV
TD: 2715m TVDSS, 3011m (MDKB)		Driller's Depth: 3011m (MDKB)
Formation at TD: Upper Bhuban		Profile: Inclined "L" Profile
No of Objects identified: Nil		No of Objects tested: Nil
Well Status: Dry and abandoned without lowering of Production casing		

SEISMIC SECTION: IL-385 & XL-1081 PASSING THROUGH WELL ADAV (AD#66)

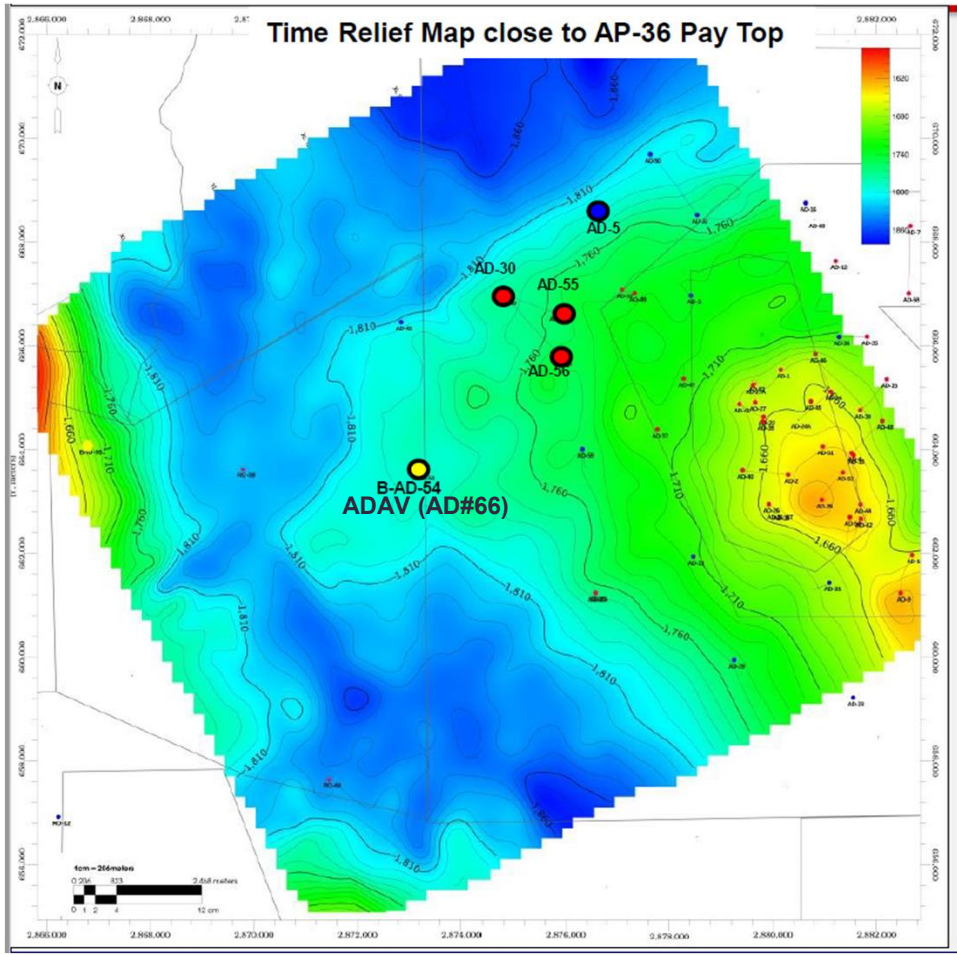


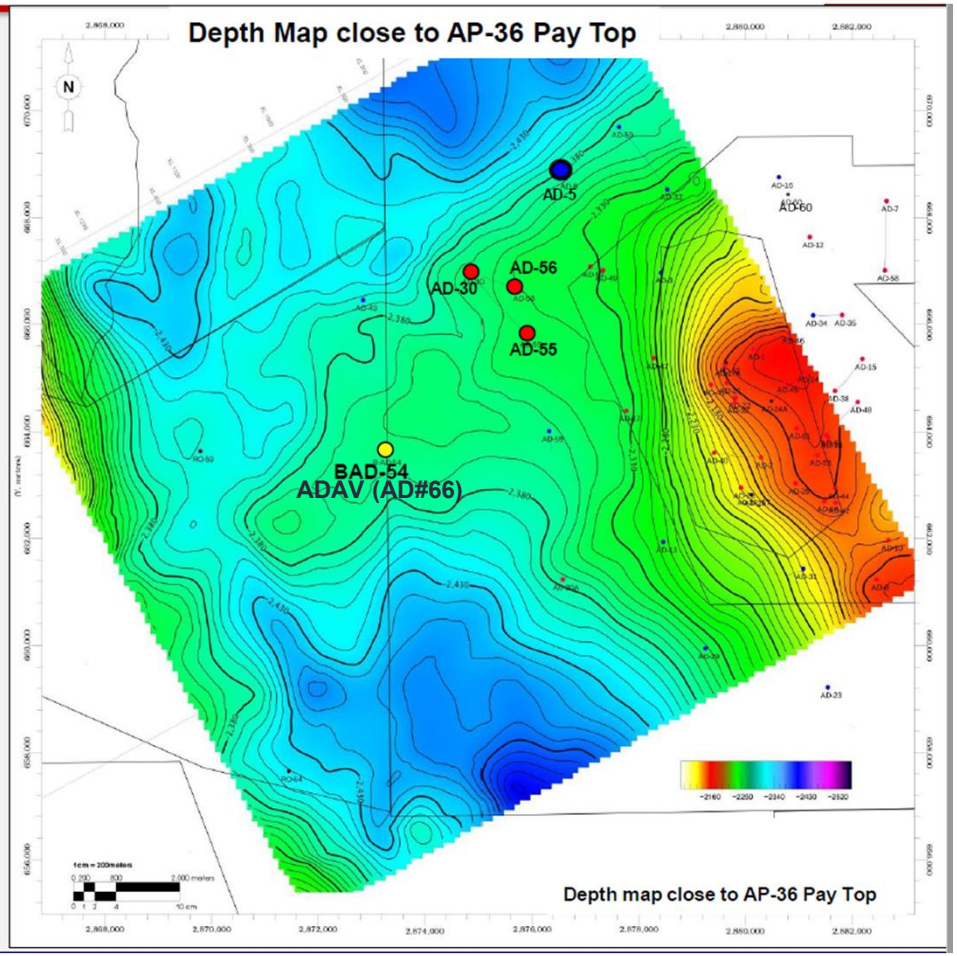
Seismic Section: RC line passing along the well profile of ADAV (AD#66)



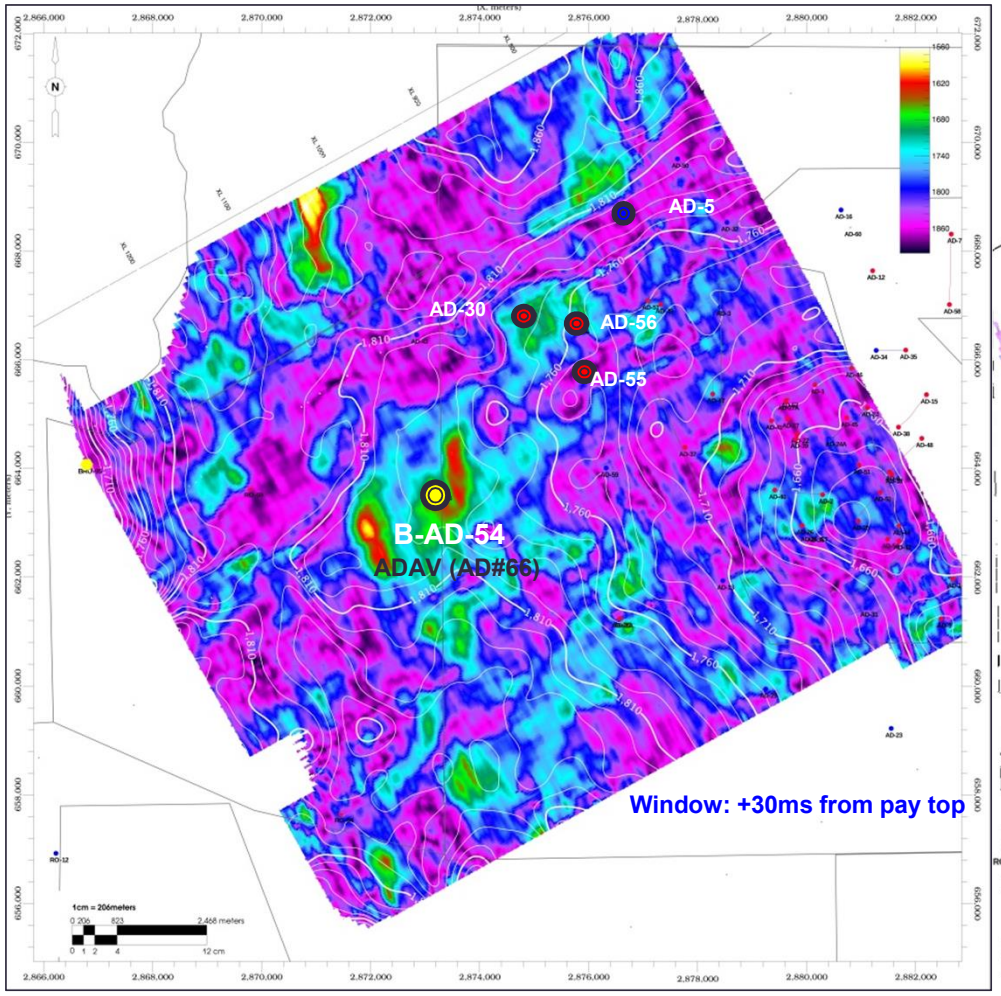


TIME AND DEPTH MAPS CLOSE TO AP-36 PAY TOP

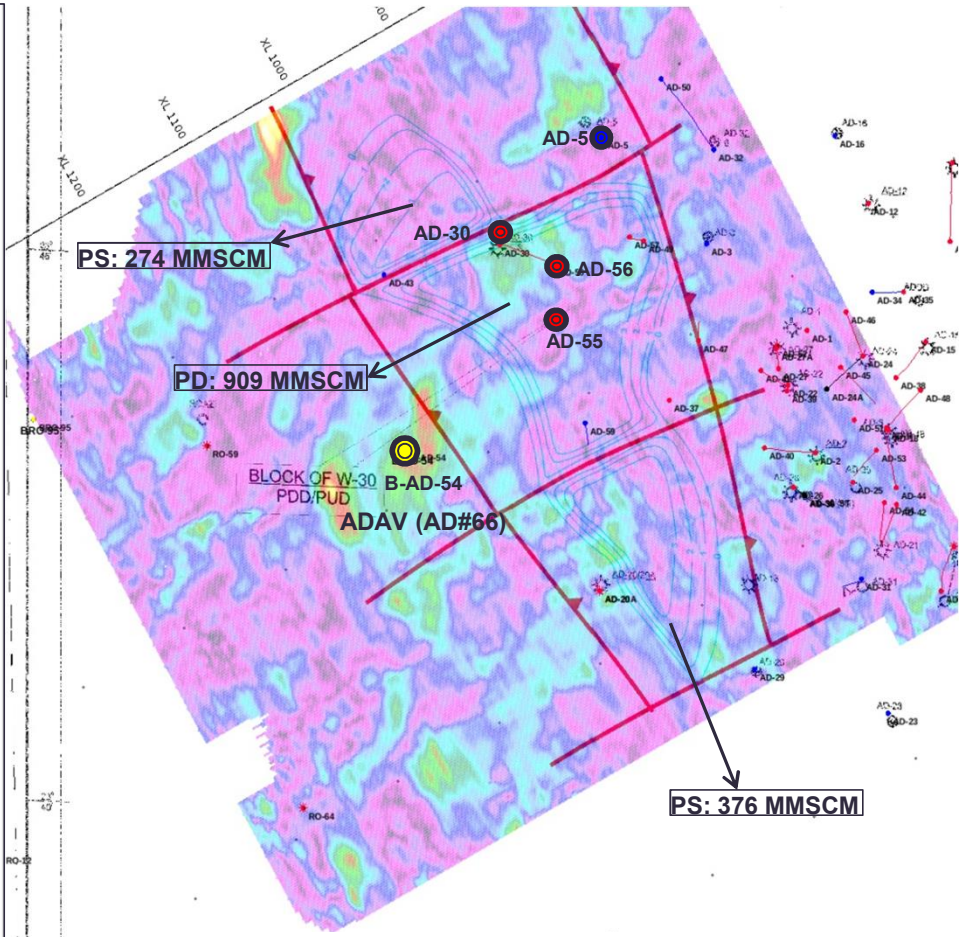




RMS Amplitude Map & REC Isopay Map of AP-36 Pay

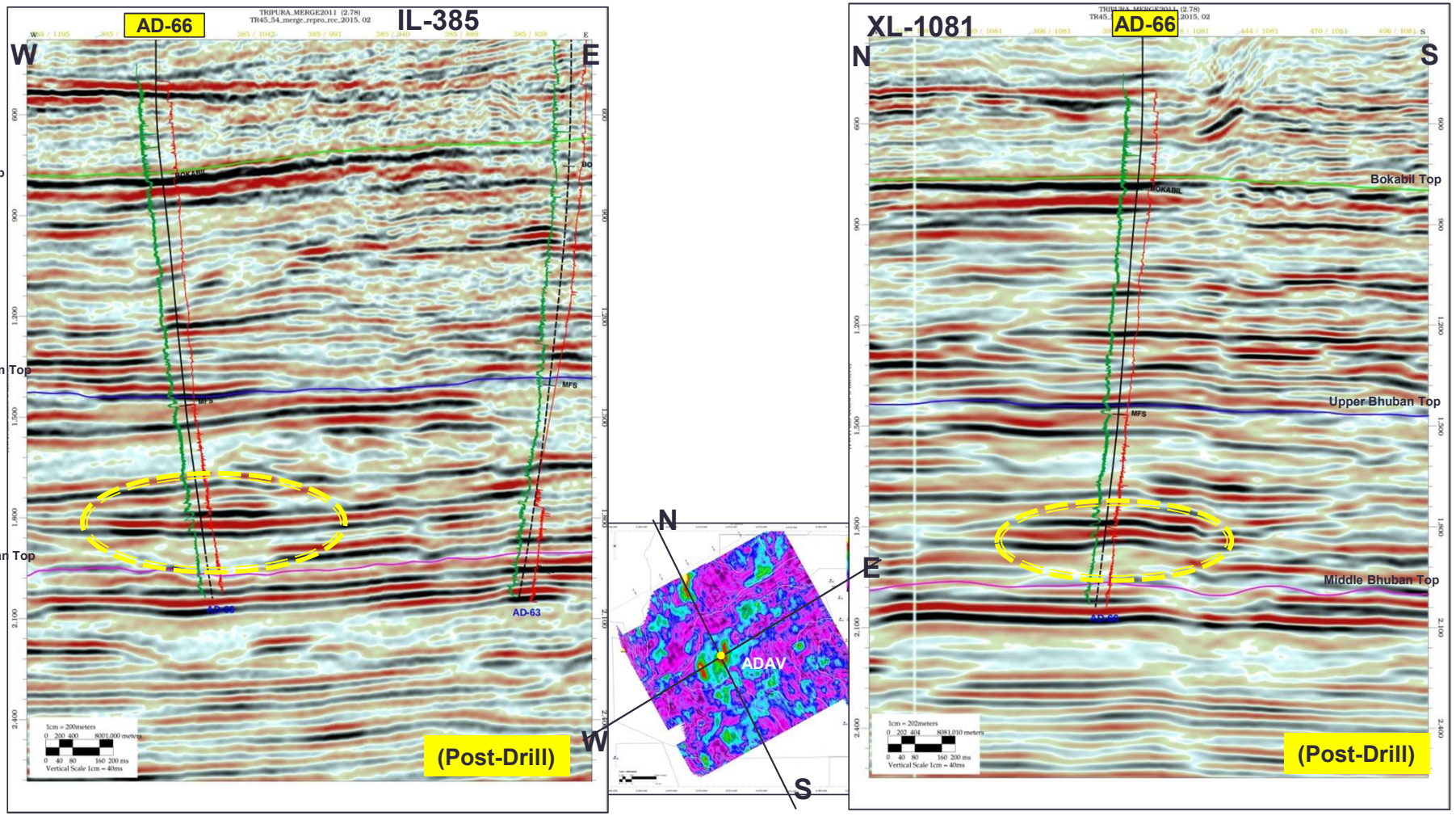


RMS Amplitude map of AP-36 pay overlain by time relief contour of AP-36 pay

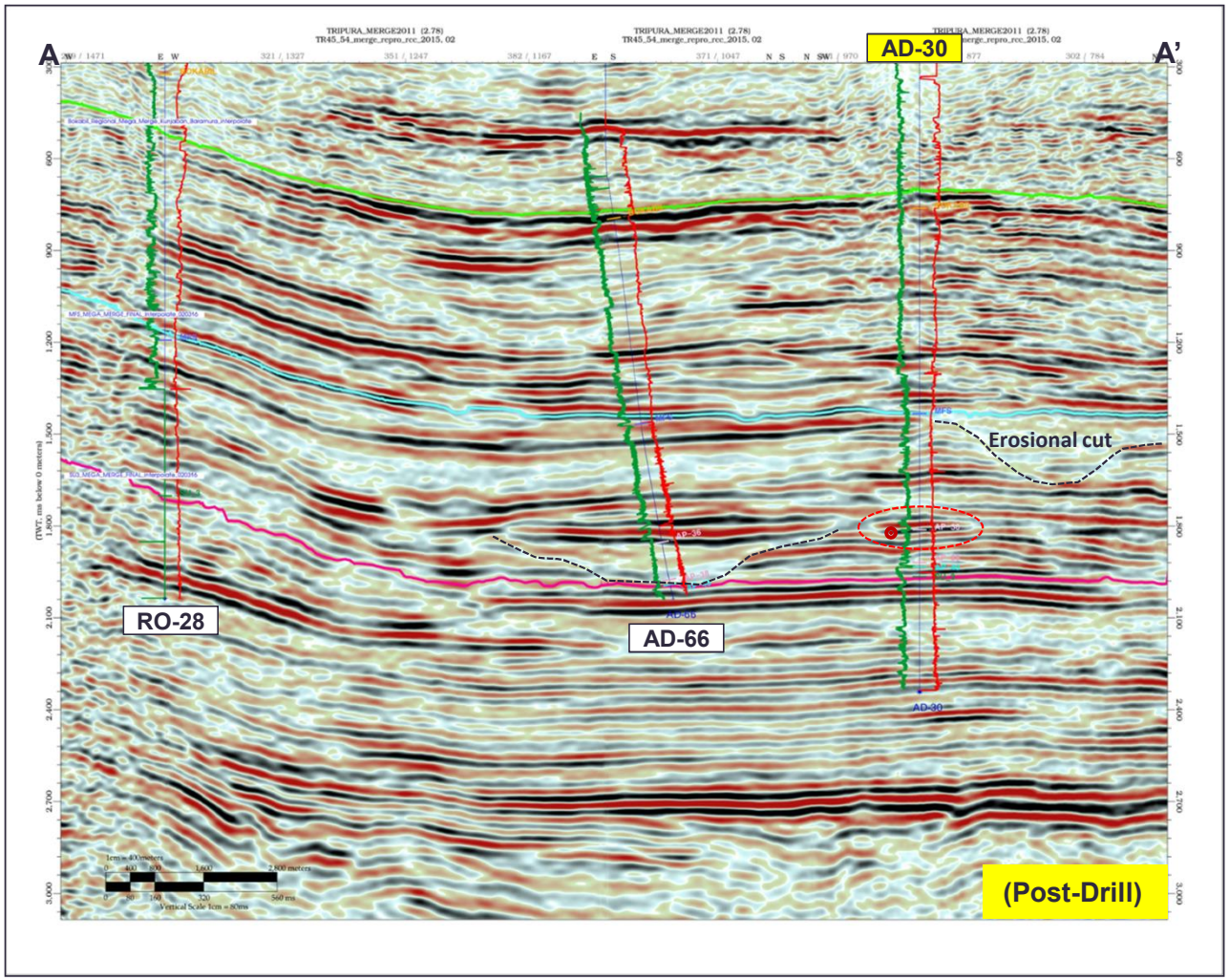


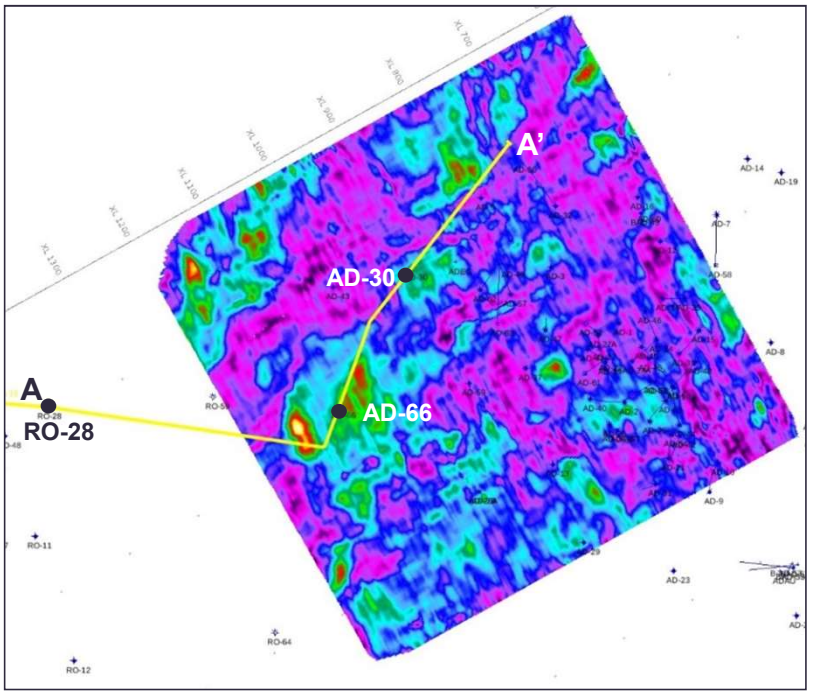
REC Isopay of AP-36 overlain on RMS Amplitude map of AP-36 pay

Seismic Section: IL-385 & XL-1081 passing through ADAV (AD#66)

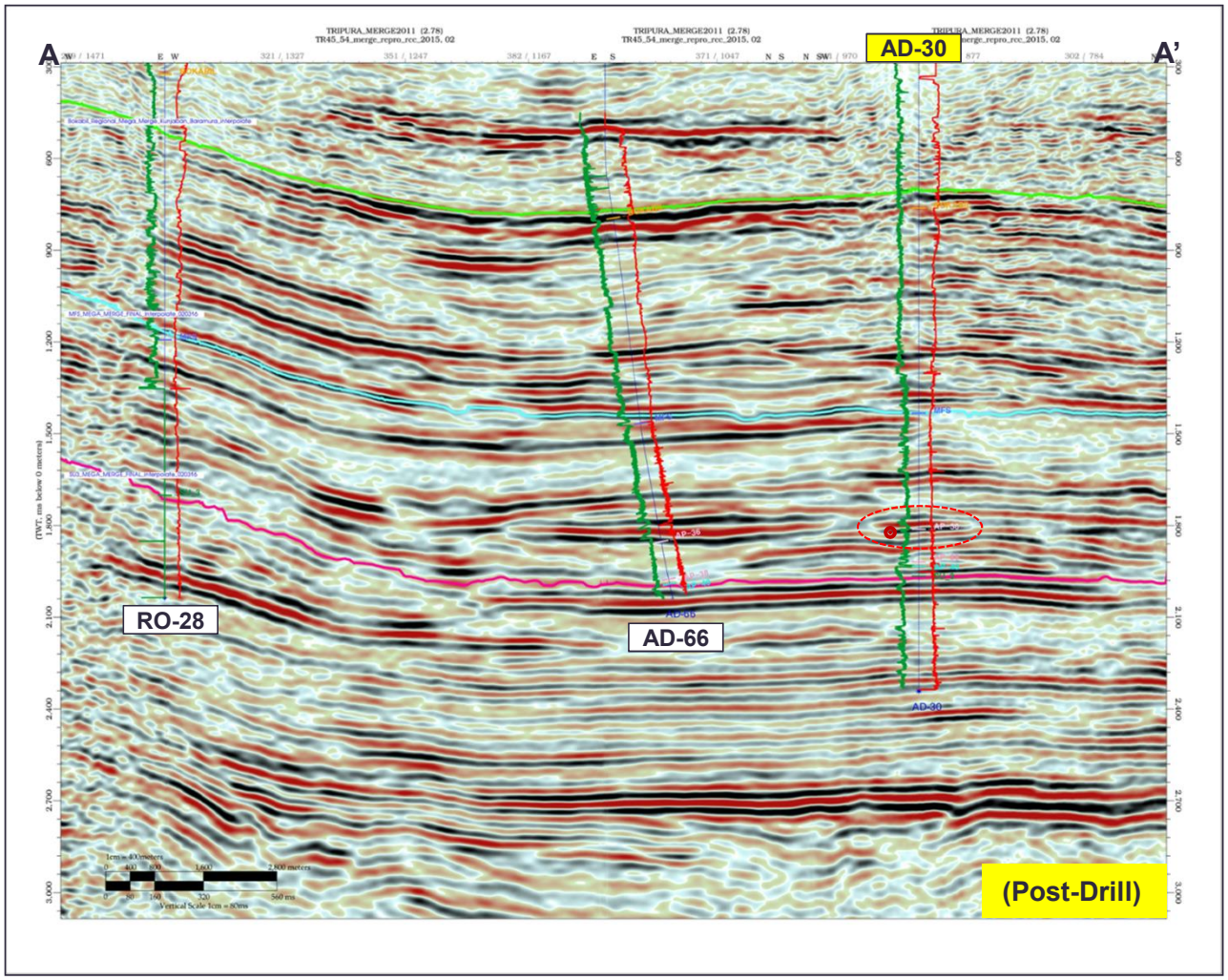


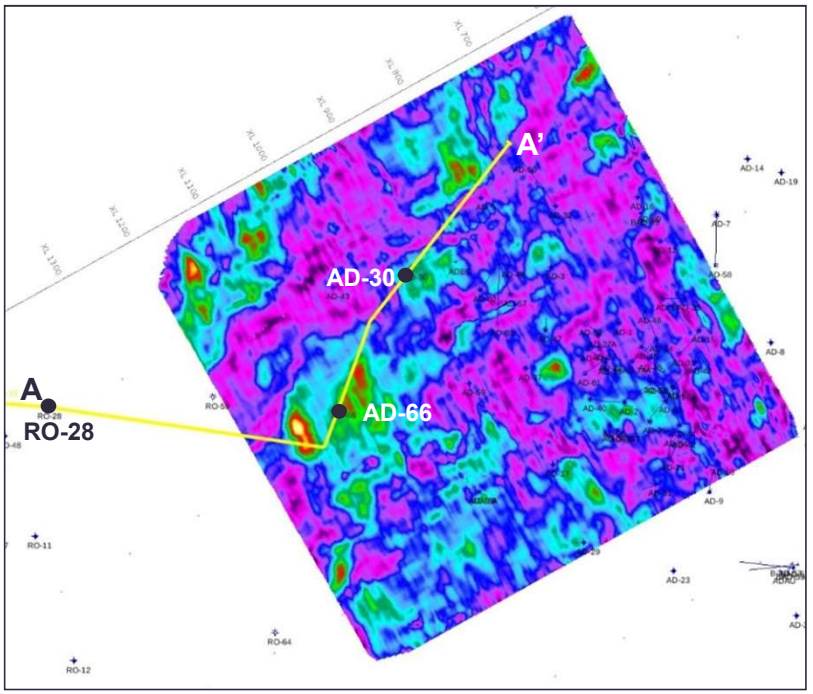
Interpreted RC line passing through wells RO#28, AD#66 and AD#30





RC line passing through RO#28, AD#66 and AD#30





Company		Well Name	ADAV	Env.Clr. Date	JAN 06,2023	Asset	
Year	2022	**Estimated Cost**	437493798.0			**Basin**	

GEO-TECHNICAL ORDER: ADAV(ADAV)

Forward Base Agartala

OIL AND NATURAL GAS CORPORATION LTD.

EXPLORATORY INCLINED

Generated at EPINET center Jorhat, last updated on 27-APR-2023 05:47

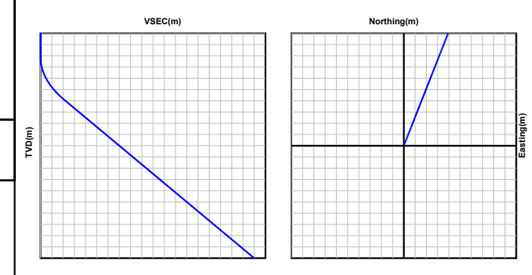
WBS Element:	AG.23E.PMLAD.AD#ADAV	**License Detail:**	F.1-2(61)/GEO/DI/2011/16183-84	**Rig Name:**	E-1400-XIV
Basin /Sub Basin/ Field:	A&AAB/AAFB	**Block Detail:**	AGARTALA DOME EXTN-III PML	**Rig Type:**	Electrical
Structure/Prospect:	AGARTALA DOME	**Consortium Members:**	ONGC	**Well Head Set:**	4CPX5M
State/District :	WEST TRIPURA	**Operator:**	ONGC	**BOP Type:**	Annular & RAM Type (5M)
Postal Address:	BISHALGARH	**Well Type:**	EXPLORATORY	**Mud Pump:**	MH WIRTH 1600HP
Police Station / Fire Station:	BISHALGARH	**Well Profile:**	INCLINED	**Power to Mud Pump:**	Electrical
Target Depth(m) KB:	3011 MDKB/ 2762 TVDKB	**Expandable/**		**Draw Works:**	1400 HP
Ground Level(m):	40	**Reference Wells**	AD-30, AD-55, AD-43, RO-64, RO-59	**Power to DrawWorks**	Electrical
Kelly Bush (m):	47.62	**Mud Logging Services:**	Jindal Industries Pvt.Ltd		
Latitude (Released):	23 ° 43 ' 30.03 " N	**Plan Well Cost(INR):**	437493798		
Longitude (Released):	91 ° 16 ' 22.99 " E				
Latitude: (Surface):	23 ° 43 ' 01.83 " N				
Longitude: (Surface):	91 ° 16 ' 10.91 " E				
Datum:	WGS-84				

Objective: To explore HC prospects in sands of Upper Bhuban (AP-36)

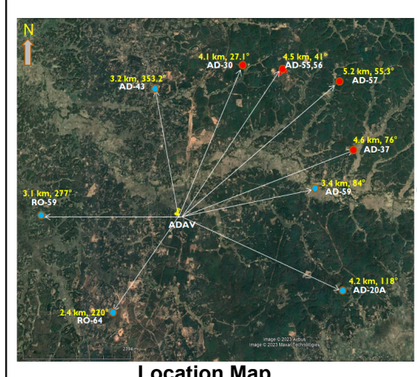
claystone | shale | KB kb | gas | gas/oil

sandstone | siltstone | water | oil

INCLINOGRAM



IMAGES



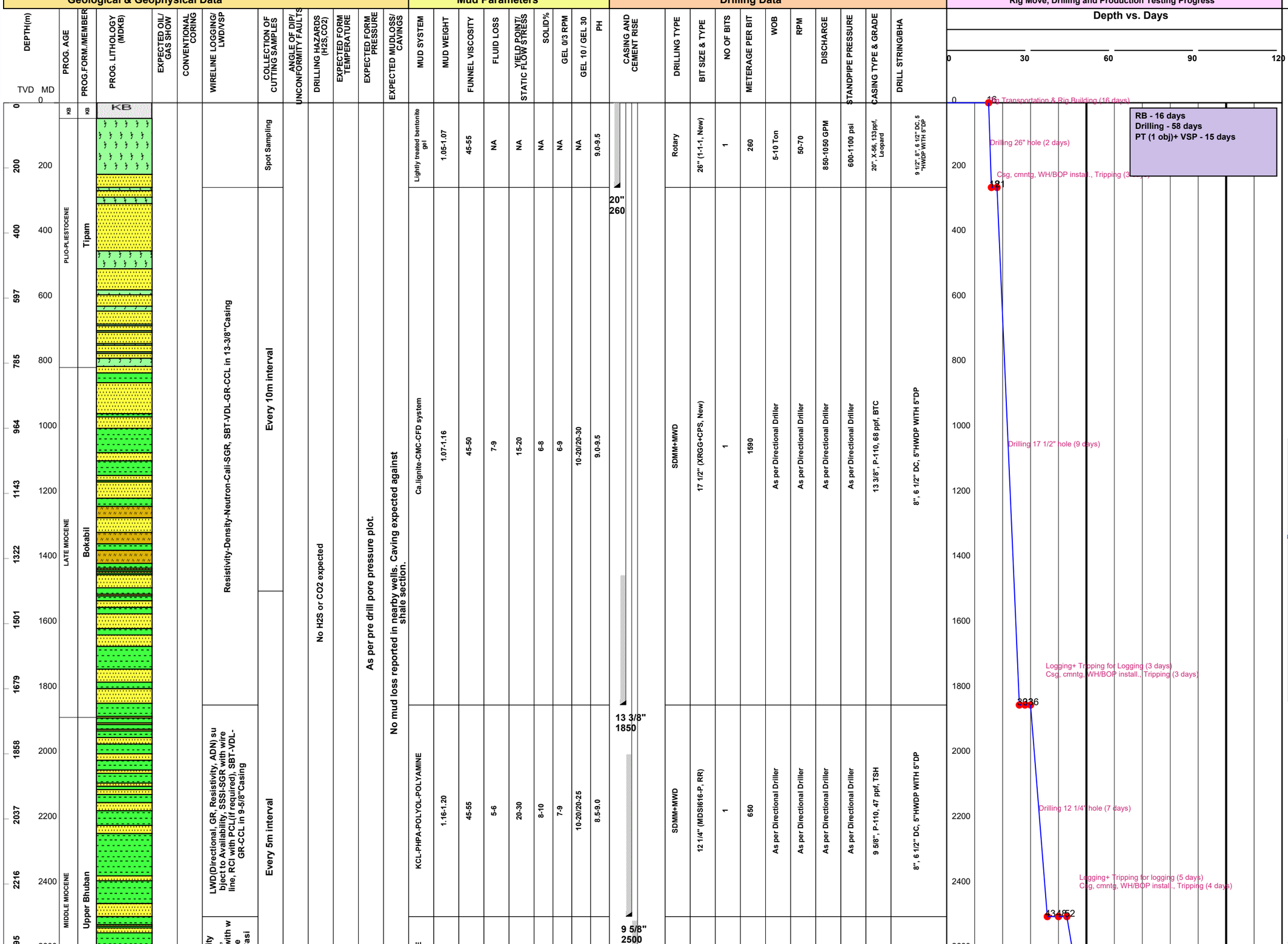
Location Map

Geological & Geophysical Data

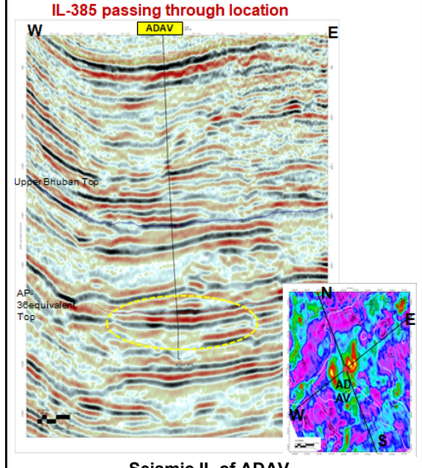
Mud Parameters

Drilling Data

Rig Move, Drilling and Production Testing Progress

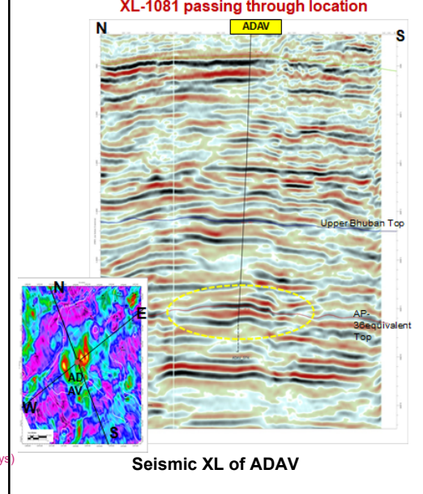


IL-385 passing through location



Seismic IL of ADAV

XL-1081 passing through location



Seismic XL of ADAV

Remarks

1 All drilling parameters are tentative and subject to change as per actual well conditions.
2 The well design is based on the envisaged pore pressure and other sub surface data. In case of variation the mud parameters may be changed as per well behavior and the well will be appropriately completed considering operational safety.
3 CIT, SIT and PIT/ LOT/XLOT to be conducted after every casing as per standard SOP guidelines.
4 Casing Seats, shoe depths and type and planned cement rise are tentative and may change as per bottom hole/Sub surface conditions and final logs to complete the well safely to TD.
5 9 5/8" casing shoe depth may be revised after evaluation of real time LWD data.
6 Core to be taken on getting gas shows. Exact coring depth will be decided by Wellsite Geologist. Efforts should be made to ensure max. recovery of core. Additional coring and logging will be carried out as and when required by the Wellsite Geologist.
7 The Final depth of the well will be decided by the Wellsite Geologist in consultation with Drilling Services.
8 Final casing shoe depth as well as cement rise will be decided on the basis of final log evaluation.
9 Appropriate kill mud of each phase should be prepared prior to drilling from second phase onward.
10 LWD to be used in 12 1/4" and 8 1/2" sections.
11 VSP is to be carried out.

Additional Deviation Data Planned

Kick of Point	300
Landing Point	
Net Drift at target	1094
Net Direction at target	21.51
Vertical Shortning at Target	249
Drain Hole Length	

Complications in Nearby Wells

Well No.	Formation	Nature of Complications
RO-59	Upper Bhuban	Stuck up at 2166m during 9 5/8" casing lowering
AD-55	Upper Bhuban	String stuck at 2329m while making connection
RO-64	Tipam	Mud loss at 15m while drilling 26" hole.

Deviation Data Planned

MD(m)KB	Angle	Azimuth	TVD(M)KB	Net Horizon. Drift	Reservoir Top
300	0	0	300	0	KOP
330	1.48	21.51	330	0.387	
480	8.86	21.51	479.3	13.89	
630	16.24	21.51	625.6	46.456	
810	25.1	21.51	793.8	109.93	
839.95	26.57	21.51	820.8	122.981	EOB
2130	26.57	21.51	1974.6	700.009	
2310	26.57	21.51	2135.6	780.521	
2490	26.57	21.51	2296.6	861.033	
2640	26.57	21.51	2430.7	928.127	
2649.96	26.57	21.51	2439.7	932.582	AP-36
2760	26.57	21.51	2538.1	981.802	
2880	26.57	21.51	2645.4	1035.477	AP-38
2970	26.57	21.51	2725.9	1075.733	
3011.11	26.57	21.51	2762.7	1094.121	TD

SIGNATURES

Name & Designation	Name & Designation	Name & Designation	Name & Designation	Name & Designation
HEAD FORWARD BASE	HEAD DRILLING SERVICES	LM-MUD SERVICE	HEAD LOGGING SERVICES	HEAD WELL SERVICES

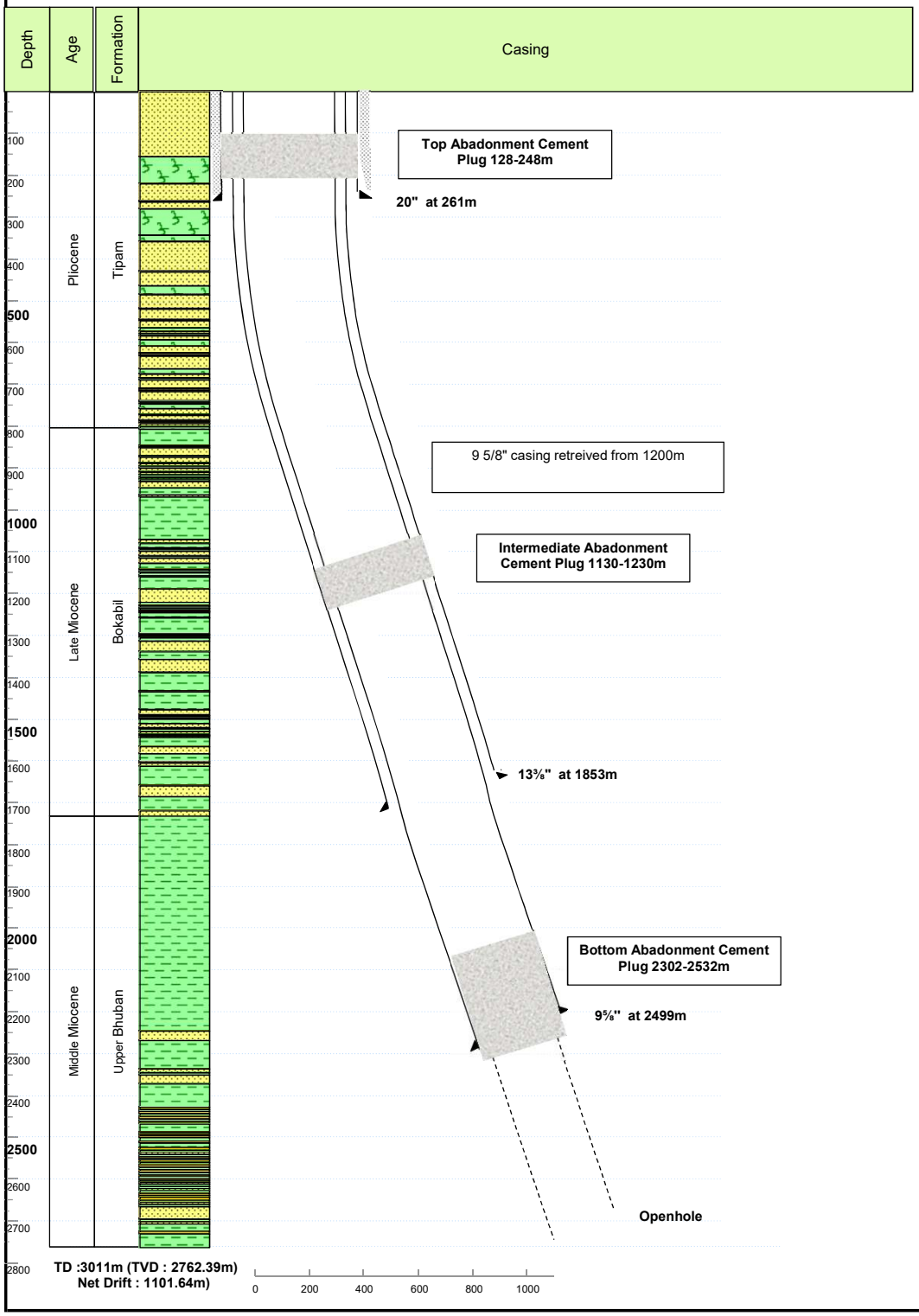
ICE GTO No:	0000003476	GTO Status:	Approved

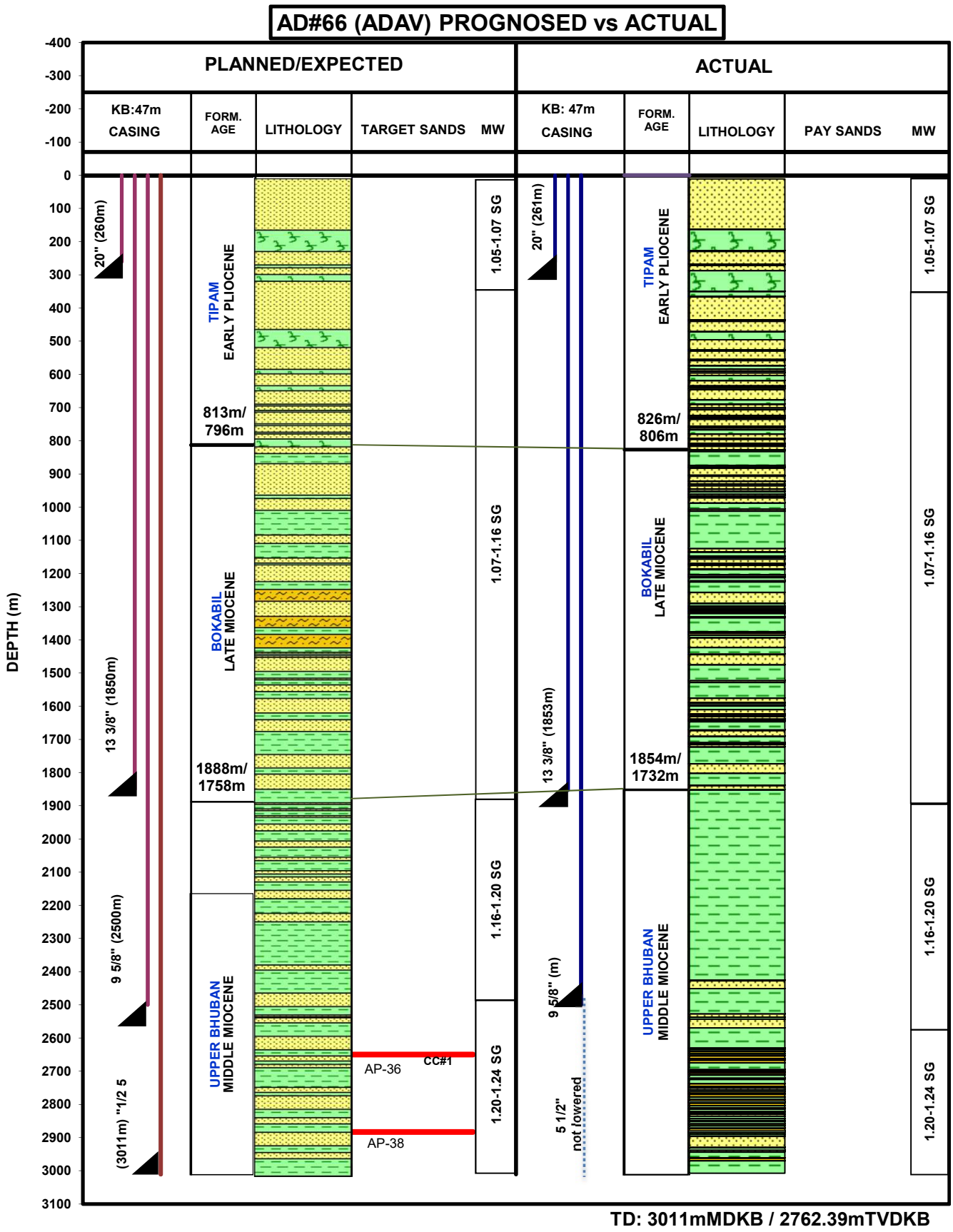
Approvers

Sr. No	Position	Name	Designation	Status
0001	Forward Base Manager	DHARMANAND PRABHAKAR MANKE	Ch.General Manager (Geology)	Approved
0002	Head Drilling Service	MOHD RASHID ALI ANSARI	Gp.General Manager (Drilling)	Approved
0003	LM-Mud Services	SUNIL KUMAR	General Manager (Chem)	Approved
0004	LM-Cementing Services	HARGOVIND SINGH SINGOTIA	General Manager (Drilling)	Approved
0005	Head Well Services	PRAMOD KUMAR SAGAR	Ch.General Manager (Prodn)	Approved
0006	Head Logging Services	PRAMOD KUMAR	General Manager (Geophy-W)	Approved

Well Construction Diagram
AD#66 (ADAV)

Area/Structure	Bishalgar/Agartala Dome	**Name of Rig**	E-1400-XIV
Latitude	23°43'01.831" N	**Rig Type**	Electrical
Longitude	91°16'10.919" E	**Type of Well**	Exploratory
State	Tripura	**Category of Well**	B
Elevation, KB	47.62m	**Spud Date**	08.05.2023
Water Depth	40m	**Drilled Depth (m)**	3011m (2762.39m TVD)
Target Depth	3011m (3011m TVD)	**Status**	Abandoned without 5.5" casing
Objective	To explore hydrocarbon prospects in Upper Bhuban sands (AP-36).		

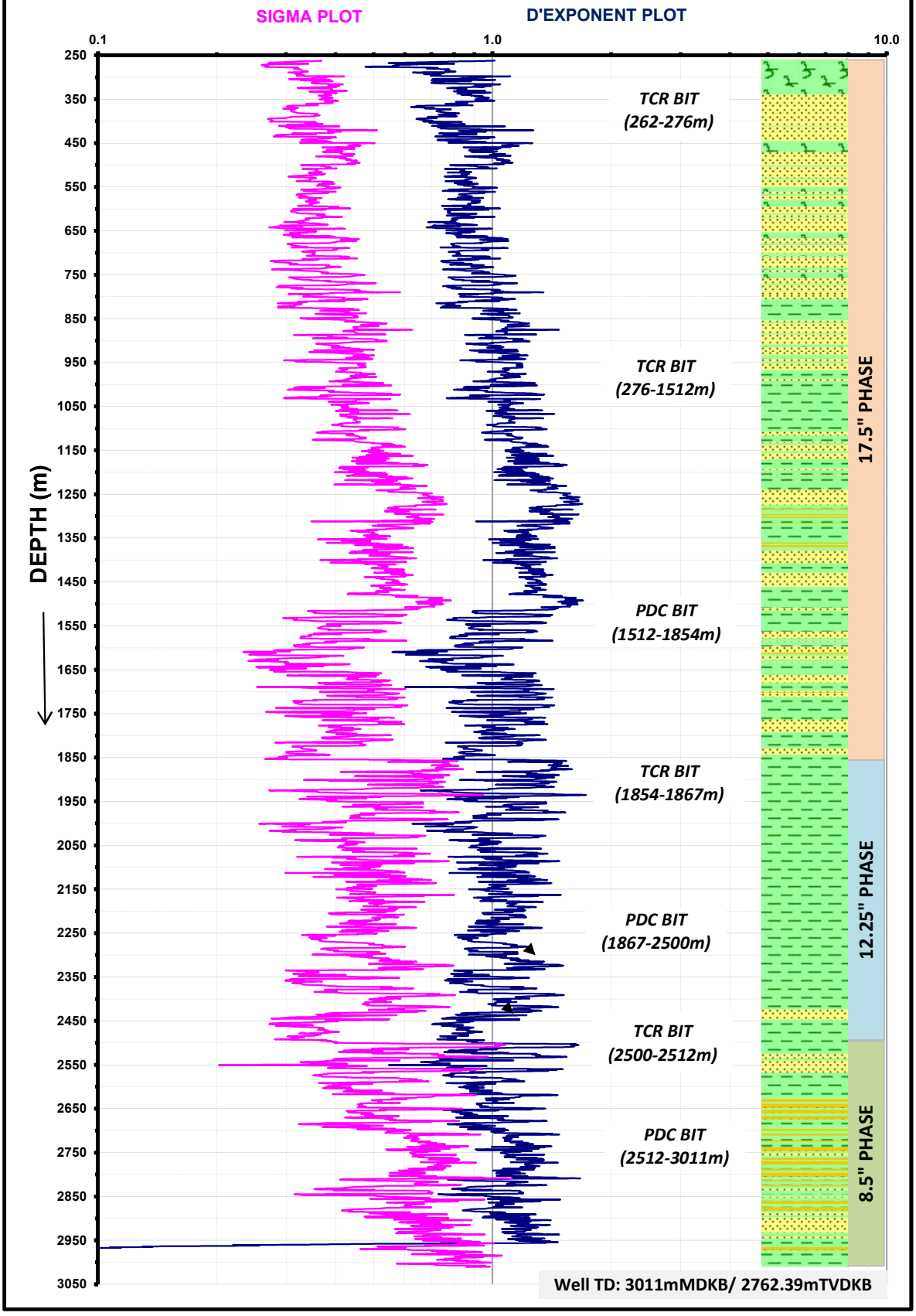


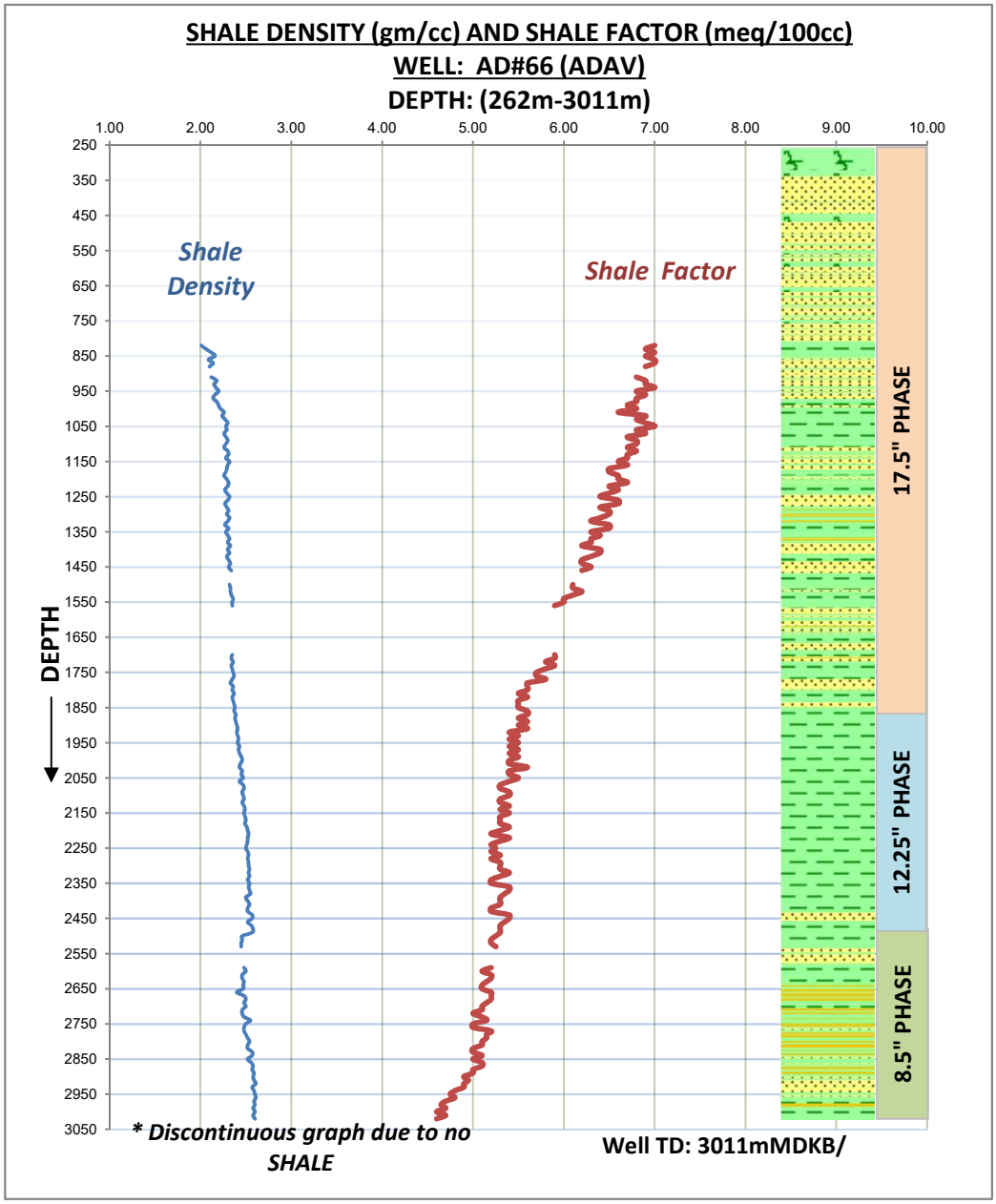

AD#66 (ADAV) PROGNOSED vs ACTUAL
PLANNED/EXPECTED
ACTUAL
KB:47m
CASING
FORM. AGE
LITHOLOGY
TARGET SANDS
MW
KB: 47m
CASING
FORM. AGE
LITHOLOGY
PAY SANDS
MW
DEPTH (m)
-400
-300
-200
-100
0
100
200
300
400
500
600
700
800
900
1000
1100
1200
1300
1400
1500
1600
1700
1800
1900
2000
2100
2200
2300
2400
2500
2600
2700
2800
2900
3000
3100
20" (260m)
13 3/8" (1850m)
9 5/8" (2500m)
(3011m) "1/2 5
TIPAM
EARLY PLIOCENE
813m/
796m
BOKABIL
LATE MIOCENE
1888m/
1758m
UPPER BHUBAN
MIDDLE MIOCENE
AP-36
CC#1
AP-38
1.05-1.07 SG
1.07-1.16 SG
1.16-1.20 SG
1.20-1.24 SG
20" (261m)
13 3/8" (1853m)
9 5/8" (m)
5 1/2"
not lowered
TIPAM
EARLY PLIOCENE
826m/
806m
BOKABIL
LATE MIOCENE
1854m/
1732m
UPPER BHUBAN
MIDDLE MIOCENE
1.05-1.07 SG
1.07-1.16 SG
1.16-1.20 SG
1.20-1.24 SG
TD: 3011mMDKB / 2762.39mTVDKB

D' Exponent and Sigma Plot

WELL: AD#66 (ADAV)

DEPTH: (262-3011)m

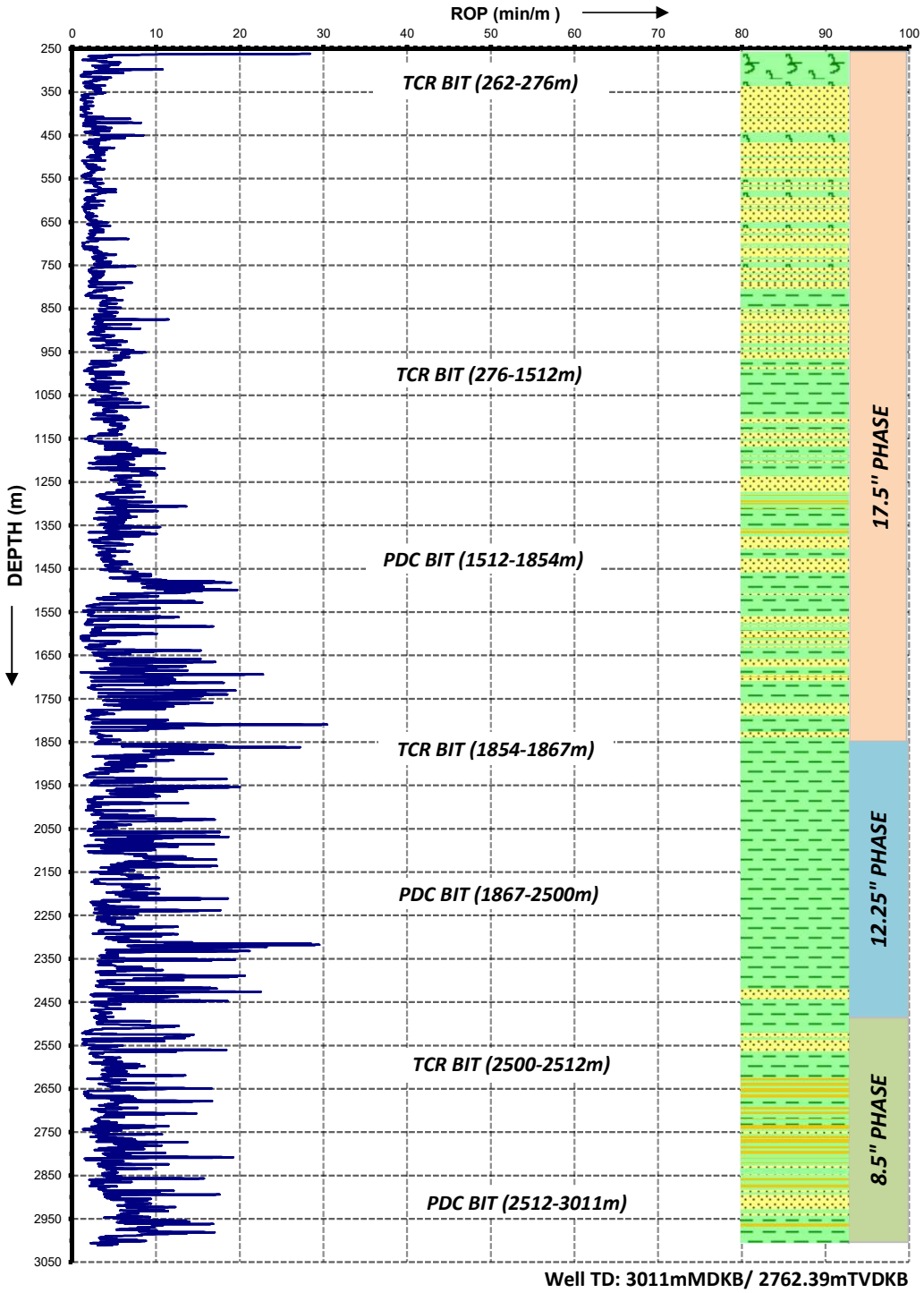



SHALE DENSITY (gm/cc) AND SHALE FACTOR (meq/100cc)
WELL: AD#66 (ADAV)
DEPTH: (262m-3011m)
1.00
2.00
3.00
4.00
5.00
6.00
7.00
8.00
9.00
10.00
250
350
450
550
650
750
850
950
1050
1150
1250
1350
1450
1550
1650
1750
1850
1950
2050
2150
2250
2350
2450
2550
2650
2750
2850
2950
3050
DEPTH
Shale Density
Shale Factor
17.5" PHASE
12.25" PHASE
8.5" PHASE
* Discontinuous graph due to no SHALE
Well TD: 3011mMDKB/

ROP PLOT

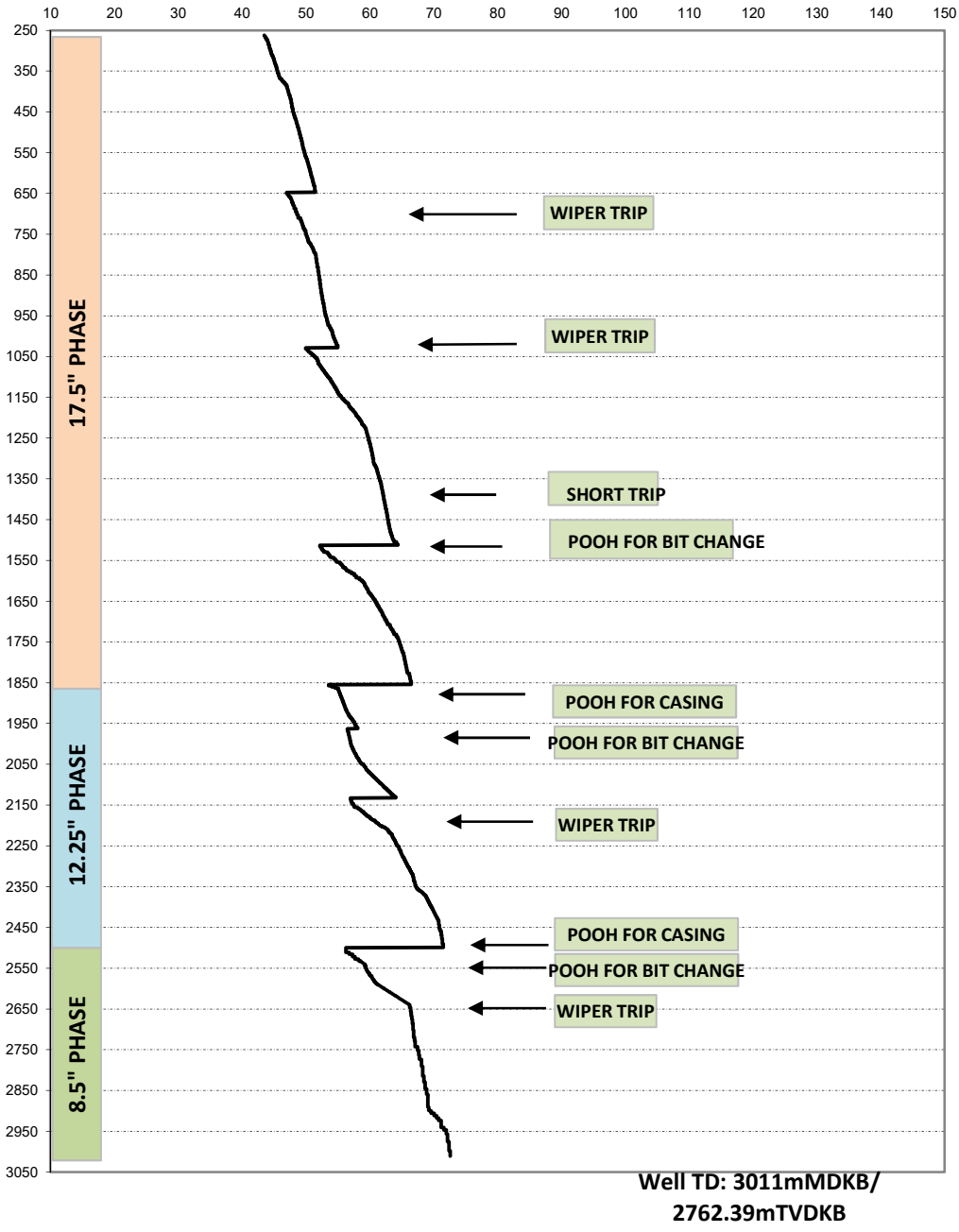
WELL: AD#66 (ADAV)

DEPTH: (262m-3011m)



Well TD: 3011mMDKB/ 2762.39mTVDKB

FLT PLOT
WELL : AD# 66 (ADAV)
(DEPTH: 262m - 3011m)



Well TD: 3011mMDKB/ 2762.39mTVDKB