



Country : USA
Field : Wattenberg
Location : 40.008687
 : -104.942617
Well : Lizzy North 36-12HZ
Company : Occidental Petroleum
Rig : Precision 461

Company : Occidental Petroleum
Rig : Precision 461
Well : Lizzy North 36-12HZ
Field : Wattenberg
County/Parish : Weld
State/Province : Colorado
Country : USA
Well ID : 05-123-52257

LOCATION

Latitude : 40.008687
Longitude : -104.942617
DJ Basin
Sect: 36 Twp: 1N Range: 68W

Other Services:
Gamma Ray

Permanent Datum : MSL
Log Measured From : RKB
Elevation: 5130

Elev. KB : 20
DF : 20
GLWD : 5110

Depth Logged : 2178 to : 8465
Date Logged : 02/13/2024 to : 02/16/2024
Total Depth MD : 19837.00 TVD : 7819.0
Spud Date : 11/18/2023

FINAL PRINT
Job Number:
AEP-RM-240008

Run		Borehole Record (MD) Size From To		Run		Borehole Record (MD) Size From To	
1	7.875	2178	19837				
				Casing Record (MD) Size Weight From To			
				9.625		0	2178

DISCLAIMER

Altitude Energy Partners does not guarantee the accuracy or correctness of interpretations in or from this log. Since all interpretations are opinions based on measurements Altitude Energy Partners shall under no circumstance be responsible for consequential damages or and other loss, cost or expense incurred or sustained in connection with the use of such interpretations.

LOGGING SUMMARY

Log Run	1	2		
Bit Run	1	2		
Hole Size (in)	7.88	7.88		
Sensor Suite	WPR	WPR		

Measured Depth

In Hole From	2178	18522		
In Hole To	18522	19837		
Log From	2178.00	7150.00		
Log To	7150.00	8465.00		

Date/Time

In Hole Date	2024-02-12	2024-02-15		
In Hole Time	21:22:02	12:52:34		
Out Hole Date	2024-02-15	2024-02-16		
Out Hole Time	00:38:00	15:31:16		
Begin Log Date	2024-02-13	2024-02-15		
Begin Log Time	07:14:26	20:44:05		
End Log Date	2024-02-14	2024-02-16		
End Log Time	17:07:49	05:36:52		

LWD Engineer	Dom Pitre	John Edwards			
Oil Company Rep	Sam Antrim	Brett Curtis			
DRILLING FLUID SUMMARY					
Mud Type	OBM	OBM			
Density (lb/gal)	9.55	9.80			
Funnel Viscosity	55	63			
Plastic Viscosity	15	16			
Chlorides	45500	45000			
Oil/Water Ratio	66.29 / 33.71	67.05 / 32.95			
Maximum Circ Temp (F)	135	135			

CORRECTIONS					
Log Run	1	2			
Bit Run	1	2			
Start Date/Time	2024-02-12 21:22:02	2024-02-15 12:52:34			
Start Depth (ft)	2178	7150			
End Date/Time	2024-02-15 00:38:01	2024-02-16 15:31:16			
End Depth (ft)	7150	8465			

Gamma Ray Corrections					
Collar Correction	2.228	2.228			
Mud Density (lb/gal)	12	12			
Mud Correction	1	1			
Calibration	4.24	4.24			
%K	0	0			

WPR Corrections					
Effective Hole Diam (in)	7.875	7.875			
Surface Rm (ohm-m)	1000	1000			
Surface Mud Temp (F)	113	116			
Bottom Hole Circ Temp (F)	213.8	219.2			
Rm @ BHT	542.857	543.161			

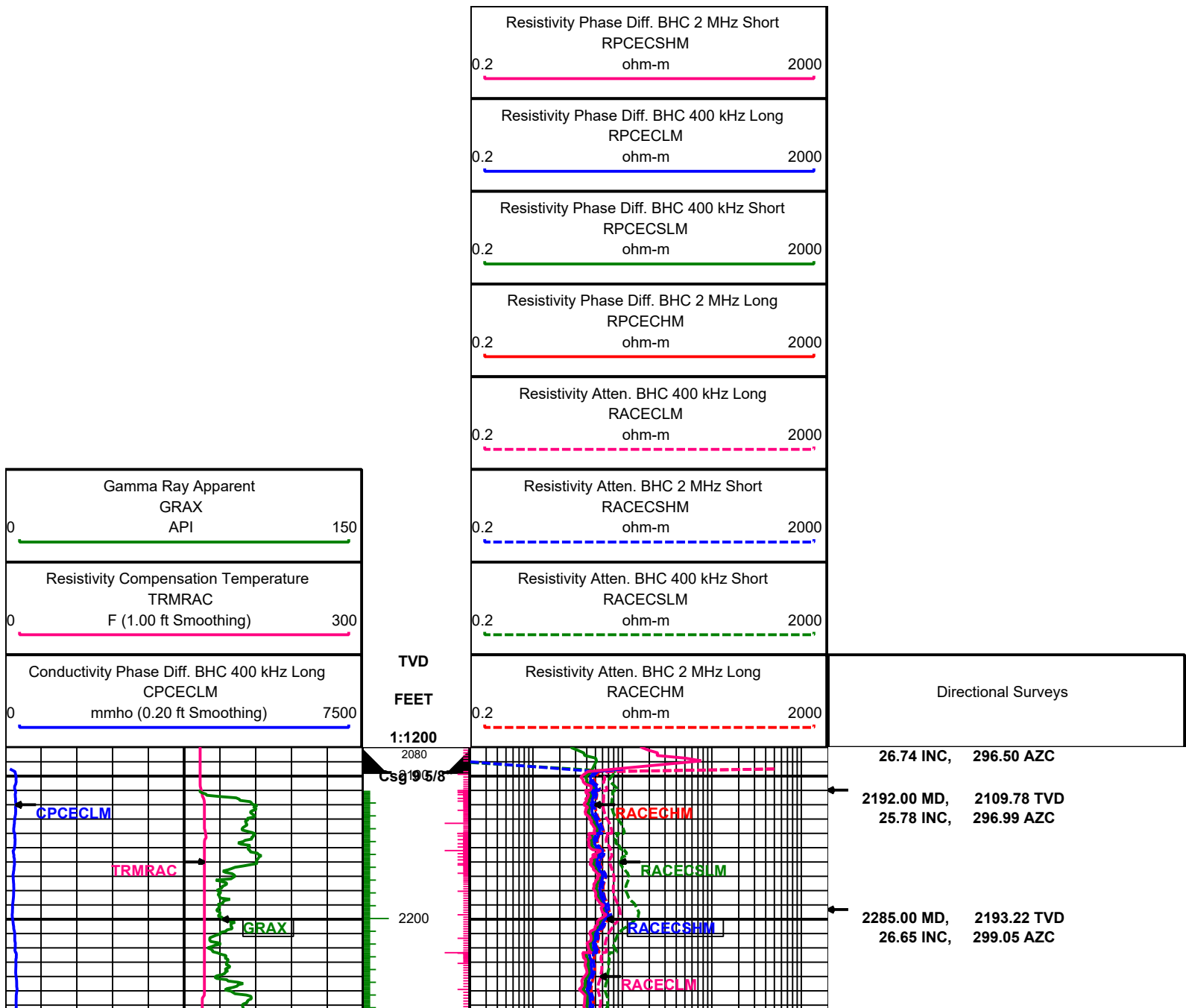
EQUIPMENT					
Log Run	1	2			
Bit Run	1	2			
Start Date/Time	2024-02-12 21:22:02	2024-02-15 12:52:34			
Start Depth (ft)	2178	18522			
End Date/Time	2024-02-15 00:38:00	2024-02-16 15:31:16			
End Depth (ft)	18522	19837			

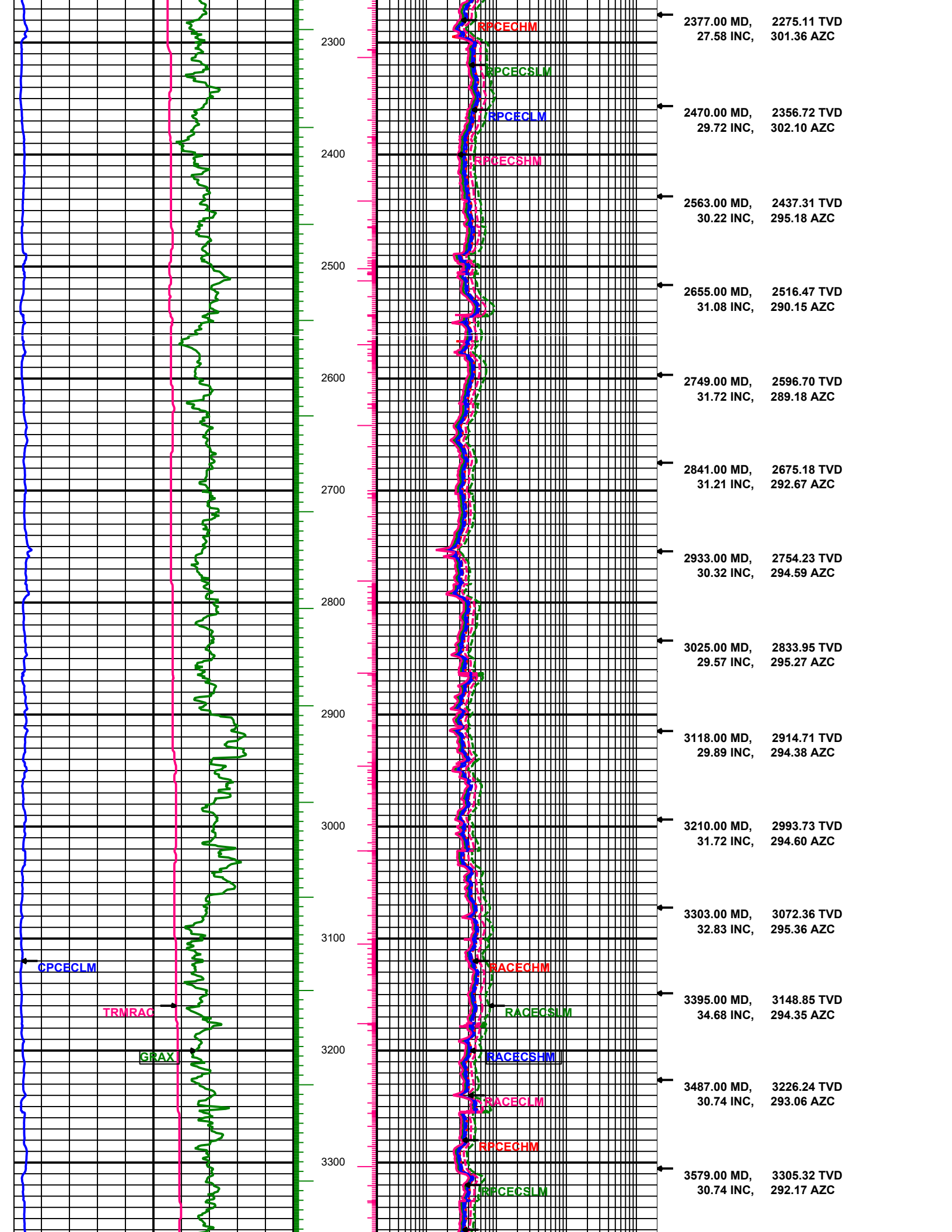
Serial Numbers					
Surface Gear					
Flow Sub					
Pulser					

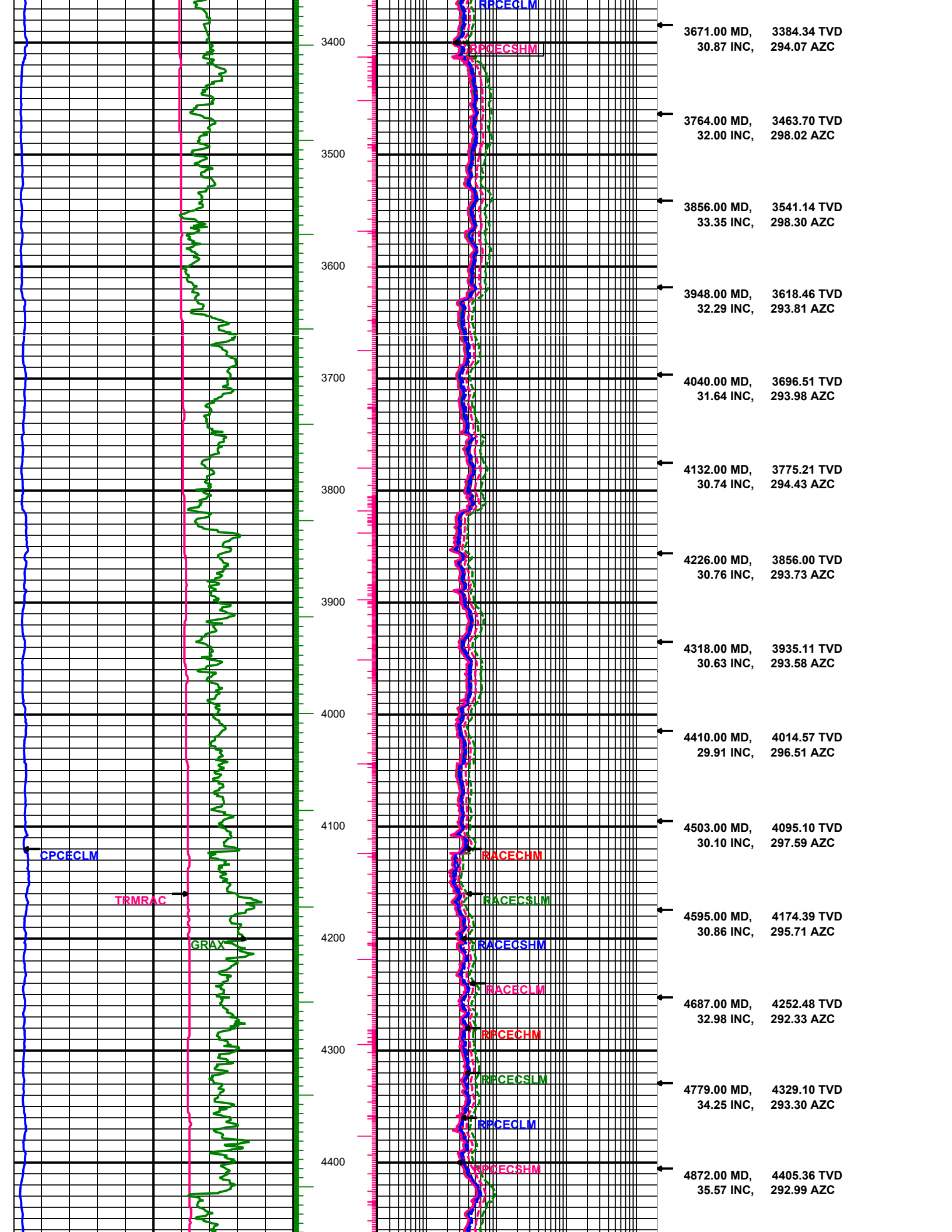
Battery 1				
Battery 2				
Turbine Alternator				
Directional Sensor				
Gamma Sensor	XGM789	XGM789		
WPR Sensor	568	568		
Vibration Sensor				

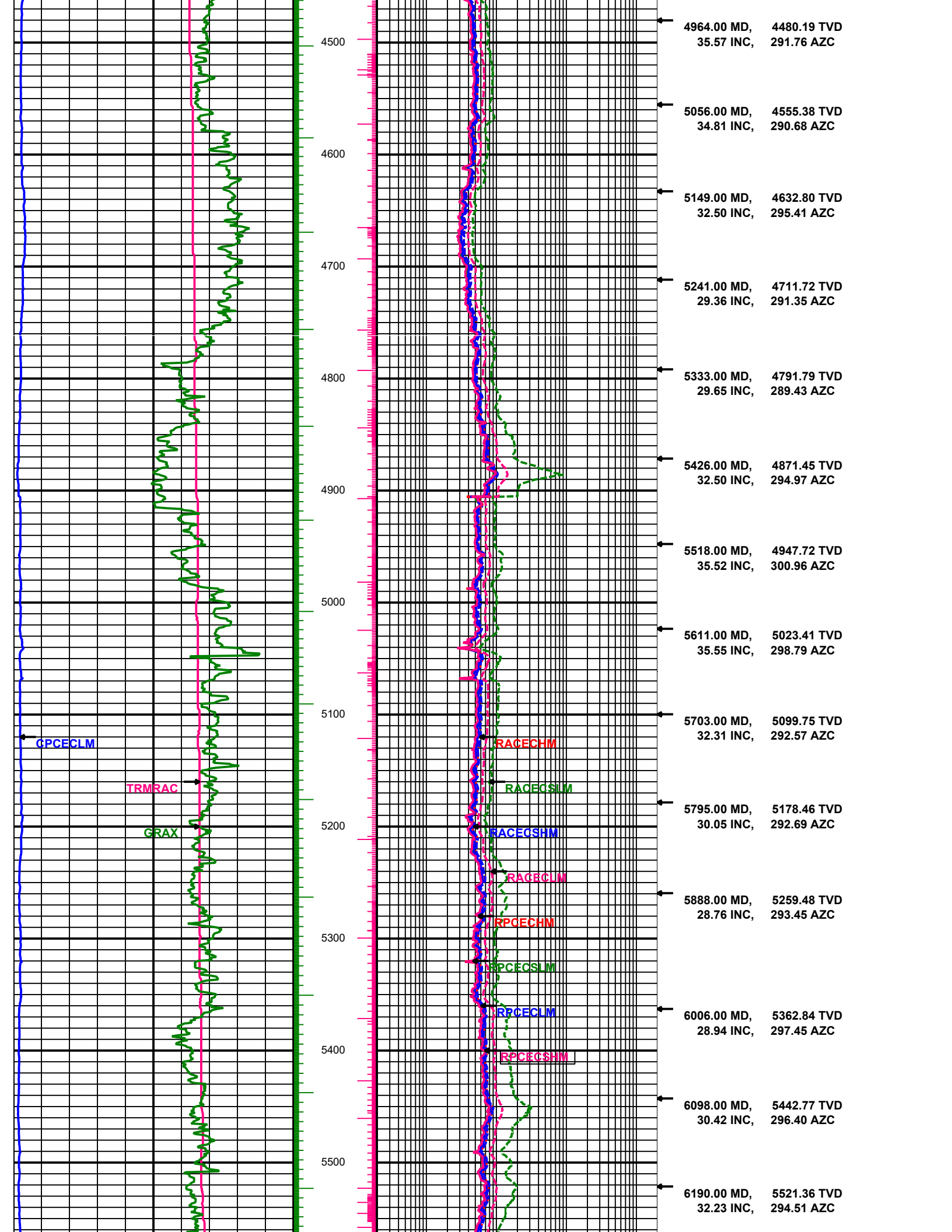
Sensor Offsets To Bit

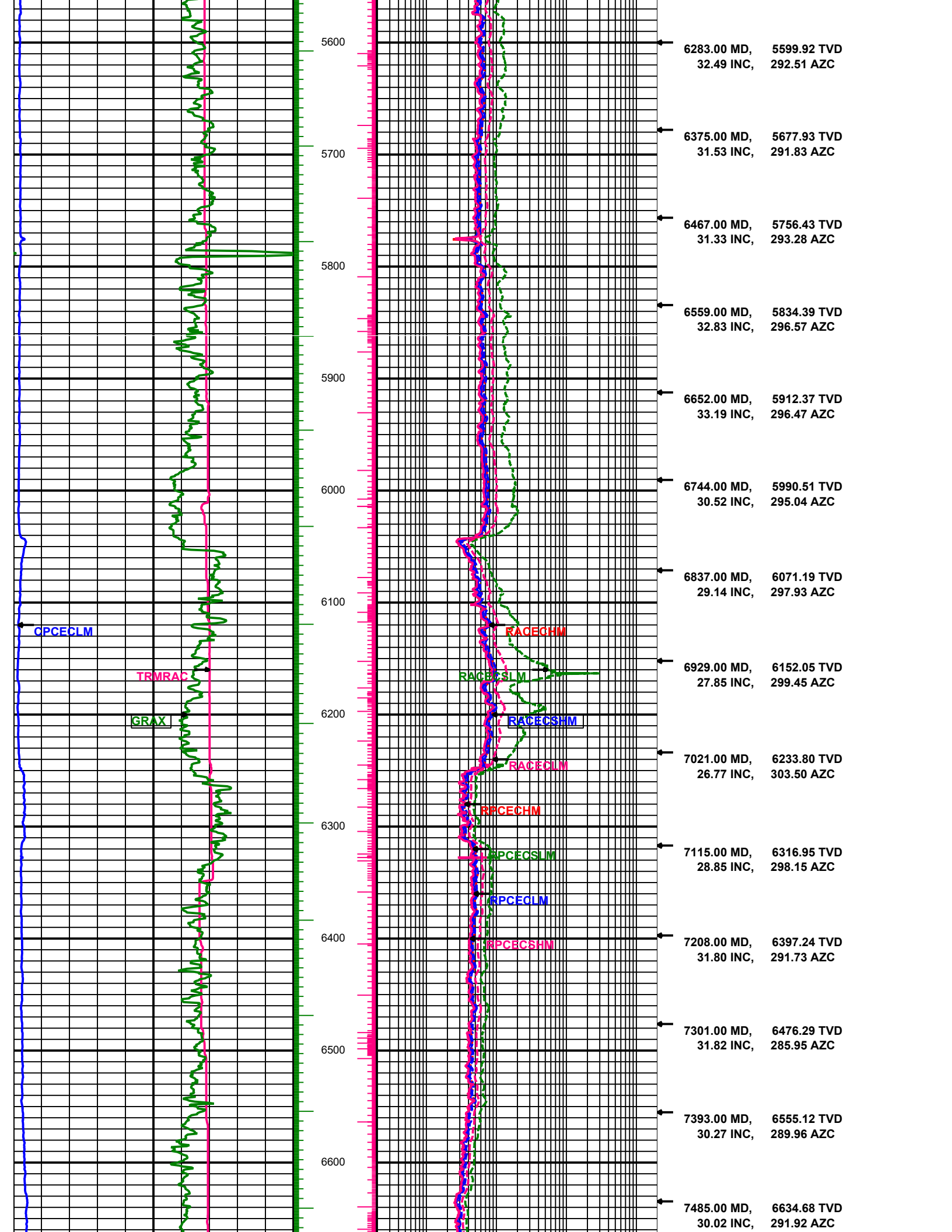
Directional (ft)				
Gamma Ray (ft)	34.73	34.73		
WPR (ft)	11371.76	11371.76		
PWD (ft)				
Vibration (ft)				

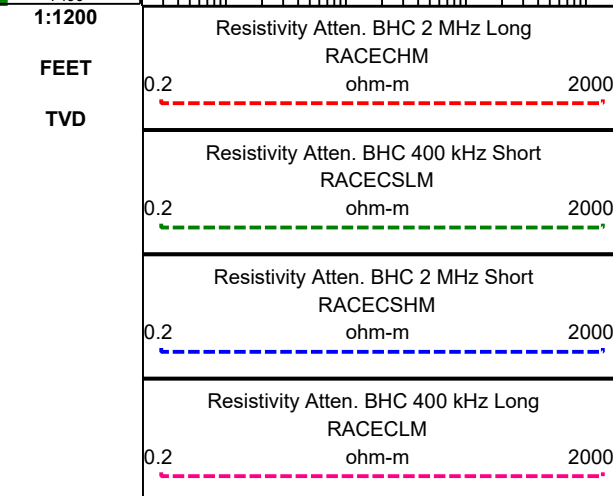
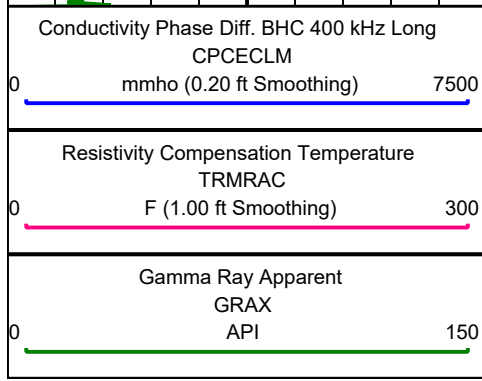
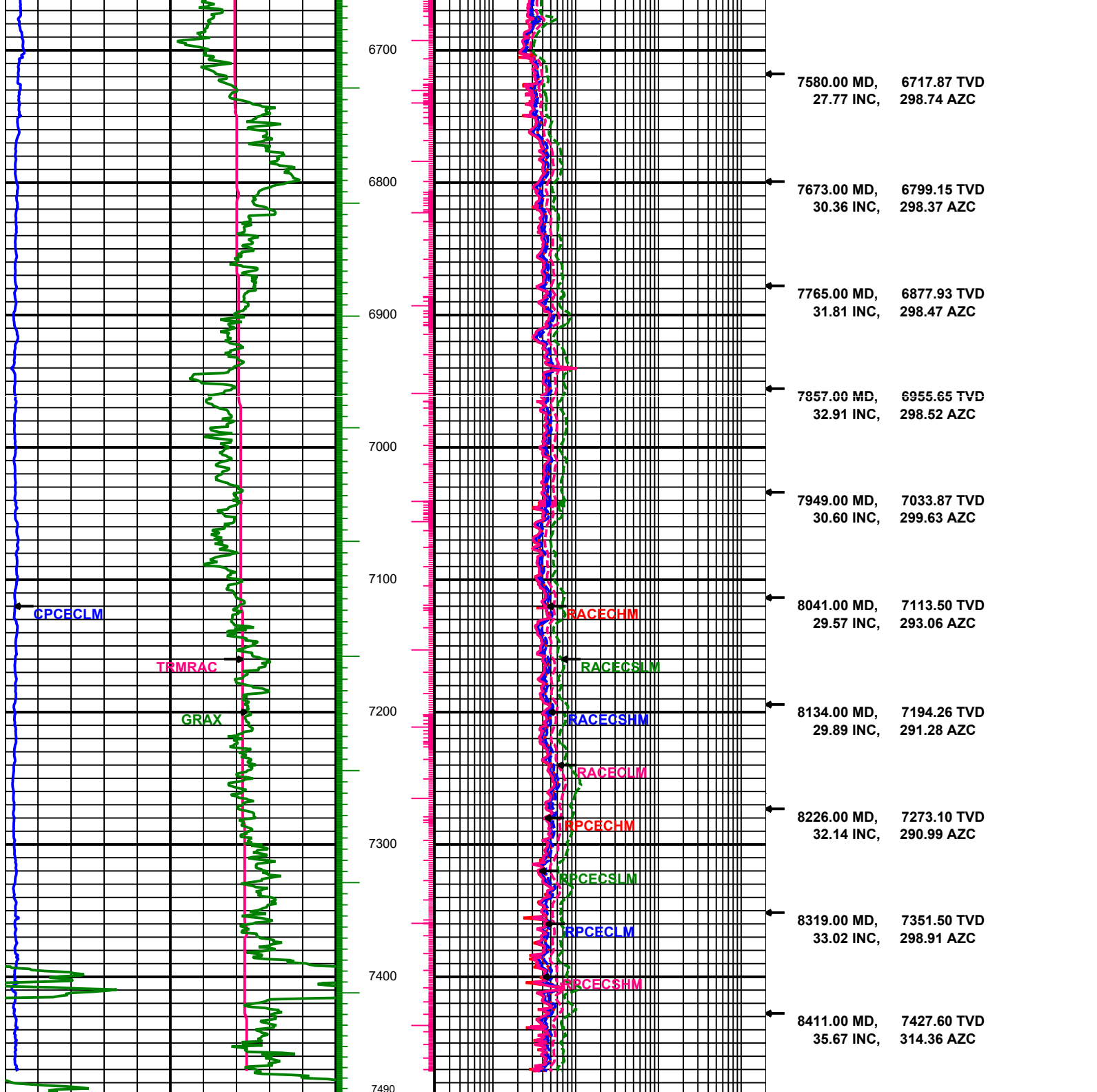












Directional Surveys

Resistivity Phase Diff. BHC 2 MHz Long RPCECHM	0.2	ohm-m	2000
Resistivity Phase Diff. BHC 400 kHz Short RPCECSLM	0.2	ohm-m	2000
Resistivity Phase Diff. BHC 400 kHz Long RPCECLM	0.2	ohm-m	2000
Resistivity Phase Diff. BHC 2 MHz Short RPCECSHM	0.2	ohm-m	2000