ENSIGN Directional

Sauer F33-78-1HN

MD
1":100'

Company: Noble Energy Inc.
Well Name: Sauer F33-78-1HN
UWI or LSD: 05-123-35635
Rig Id: Ensign 121
State: Colorado
County/Parish: Weld
Country: USA
Survey Company: Ensign Energy Inc
Job number: 121-172
Company Rep 1 Noble Energy

DD1 Zach Gentry
DD2 Jamie Sheets
DD3 Brian Bednarek

LWD1 Andrew Demrow
LWD2 Ryan Prue

Log measurements: Gamma
Depth measured from:
Maximum temperature:

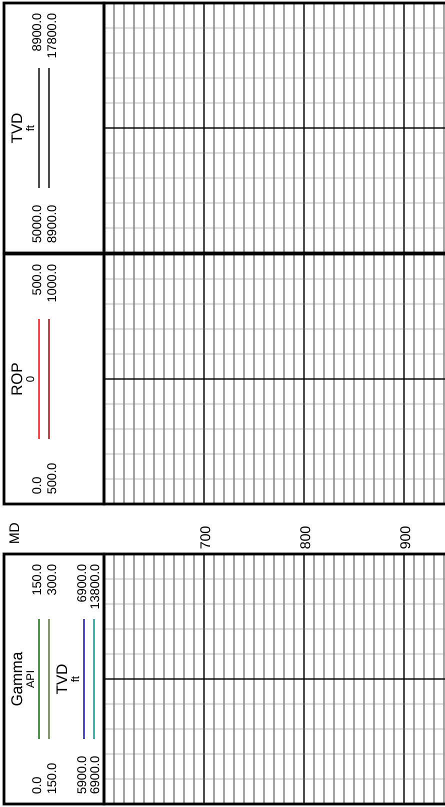
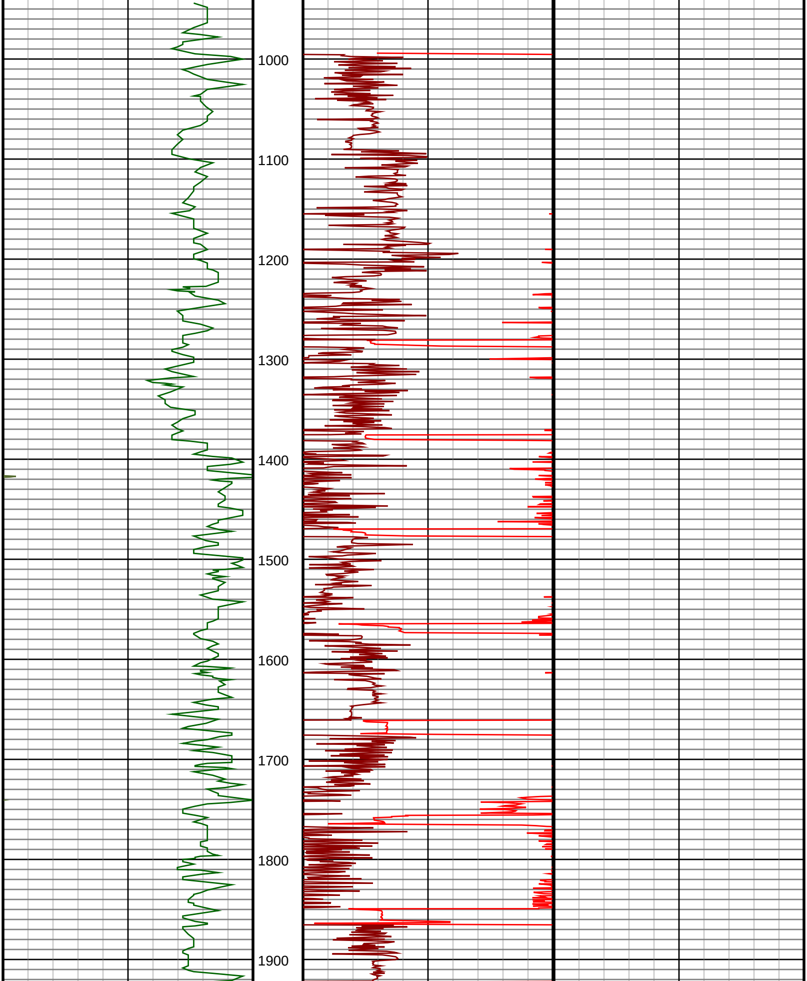
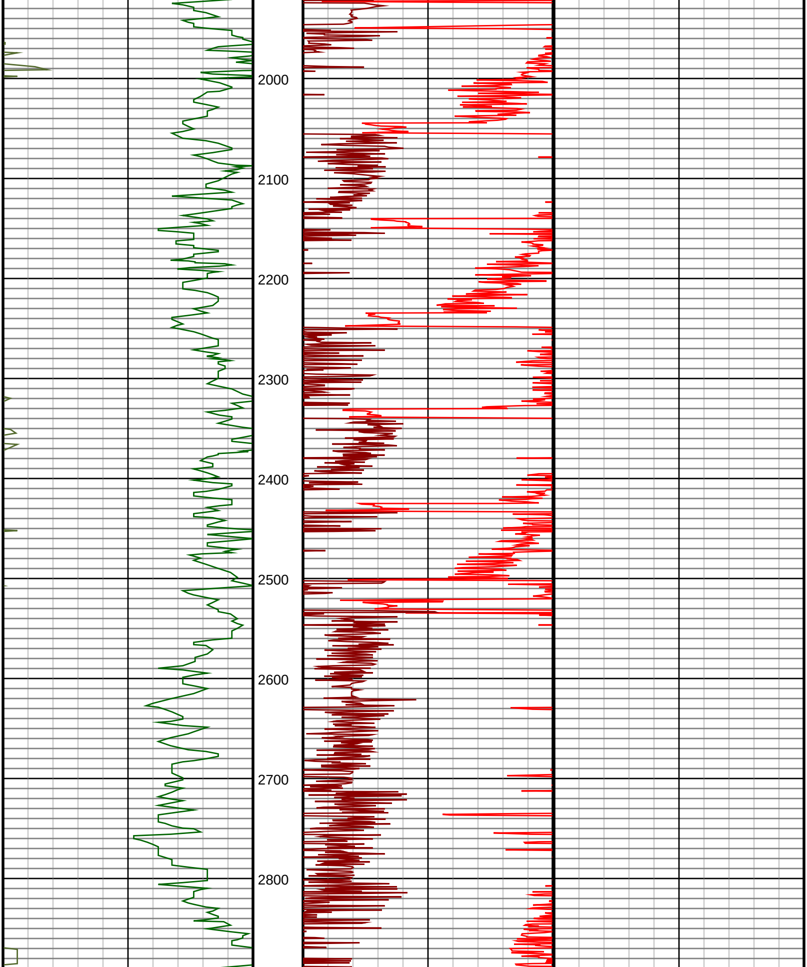
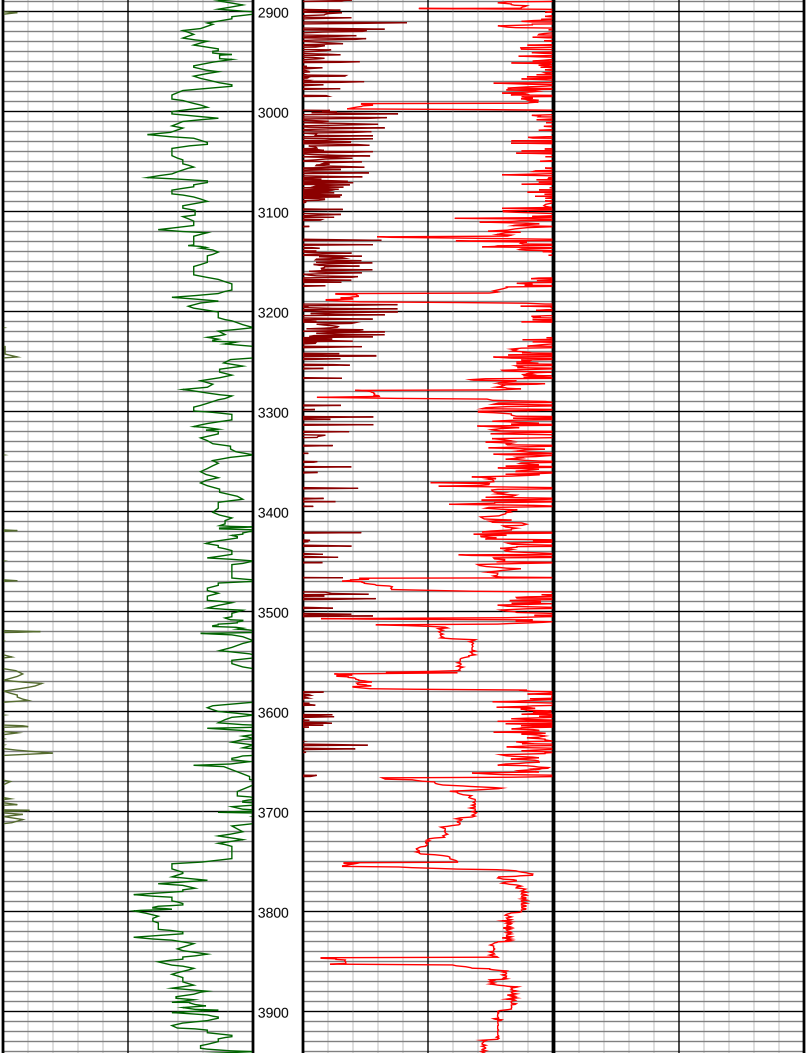
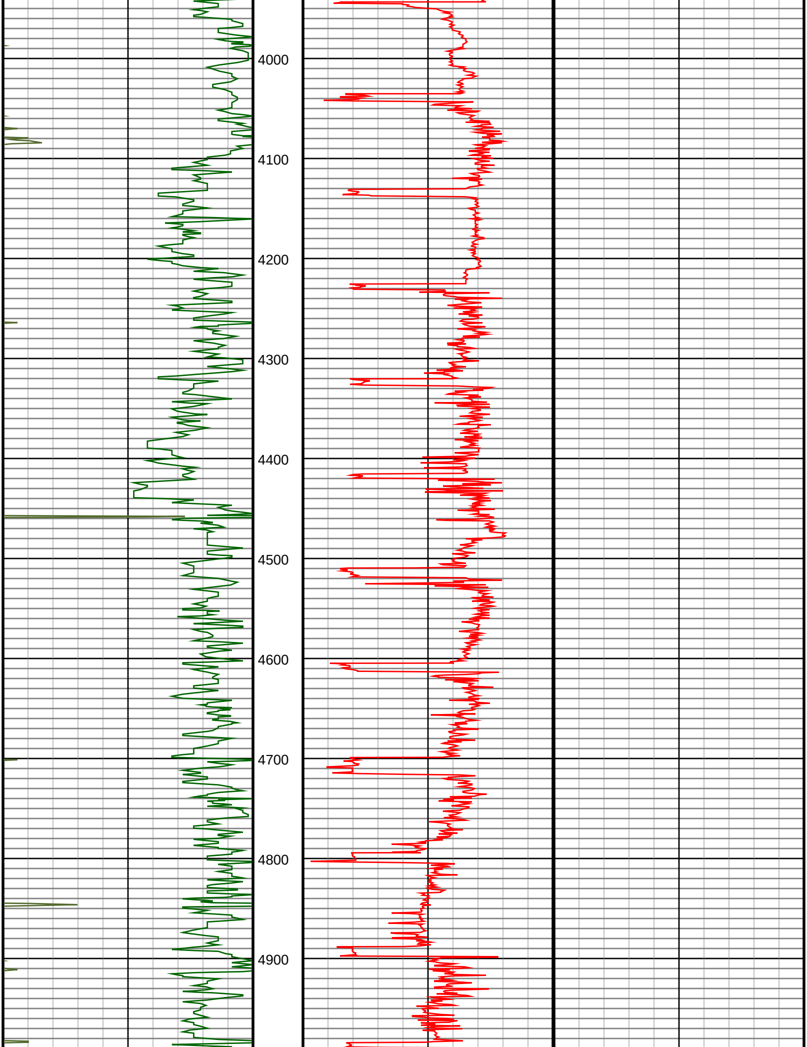
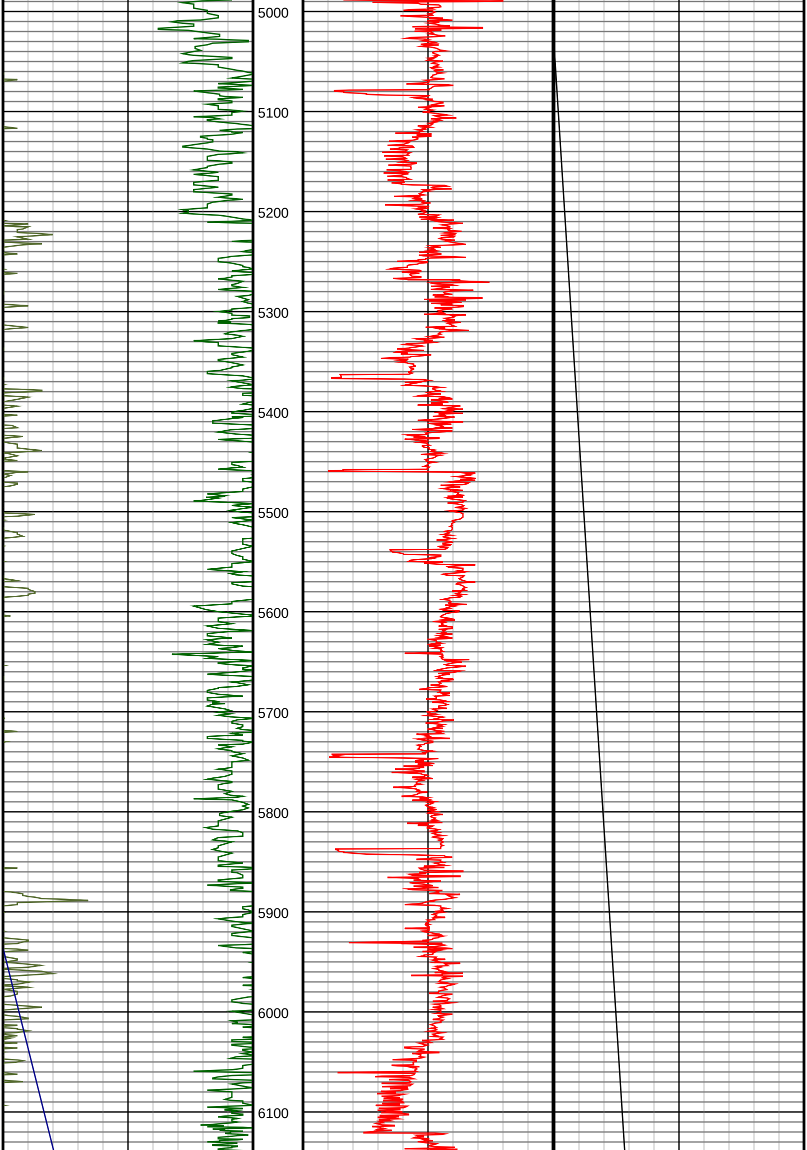
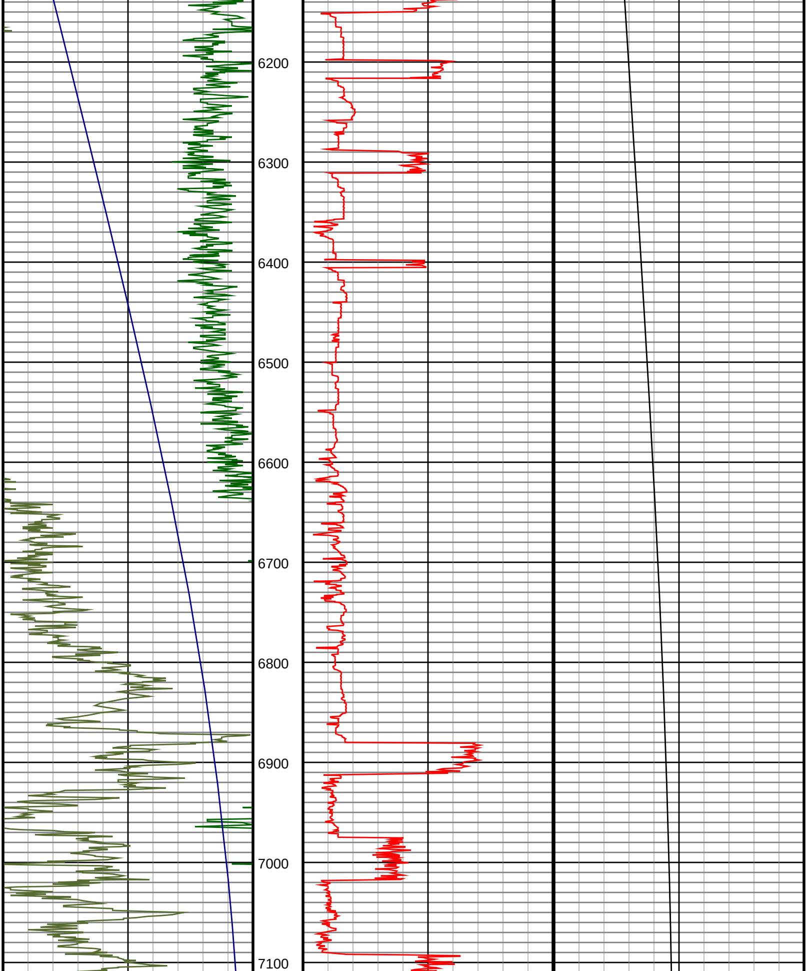
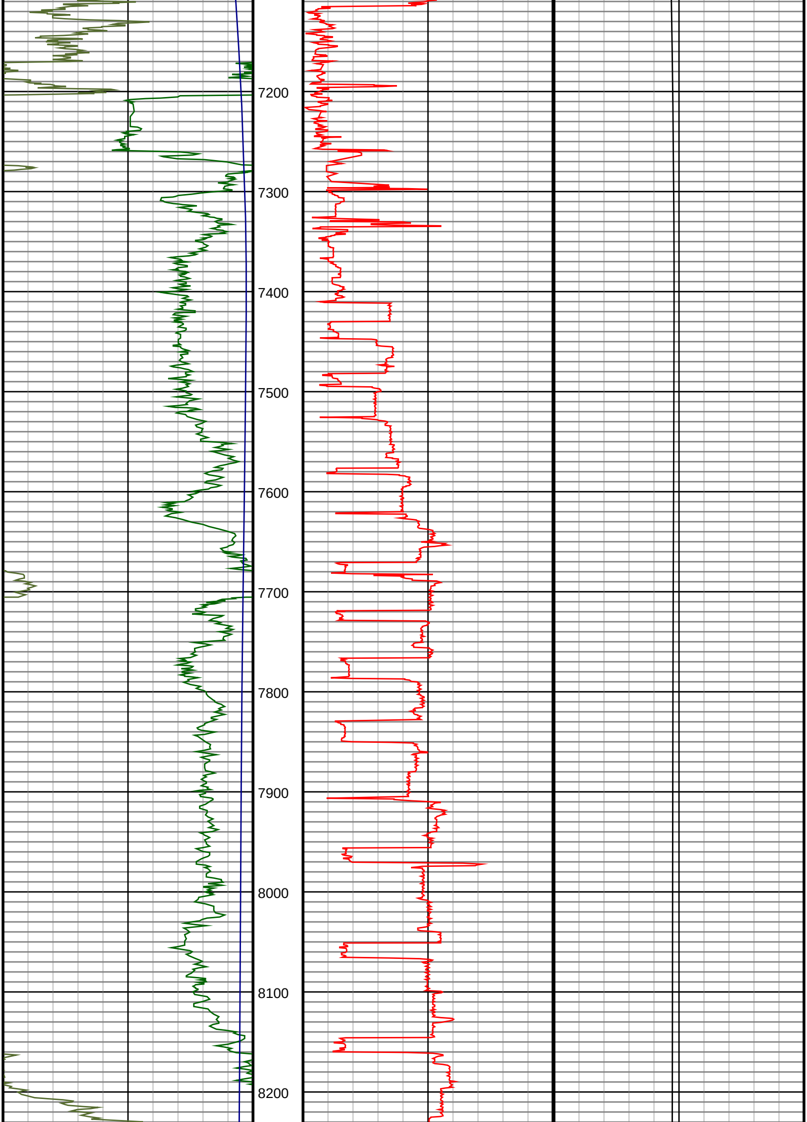
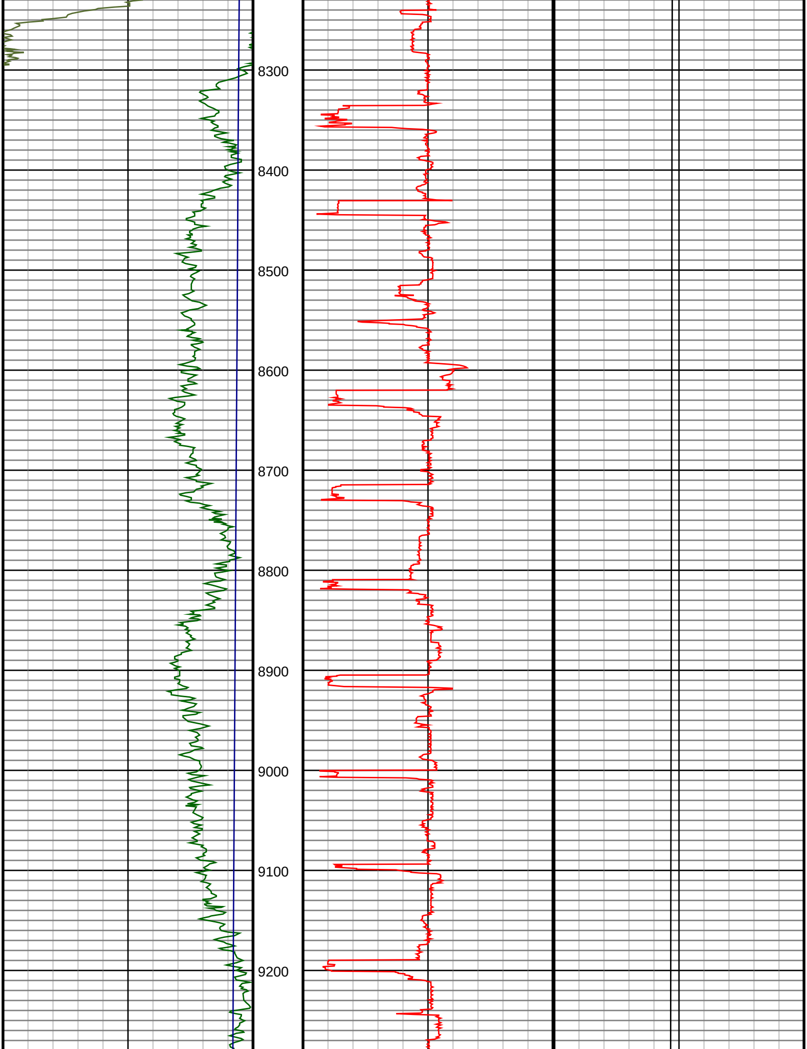
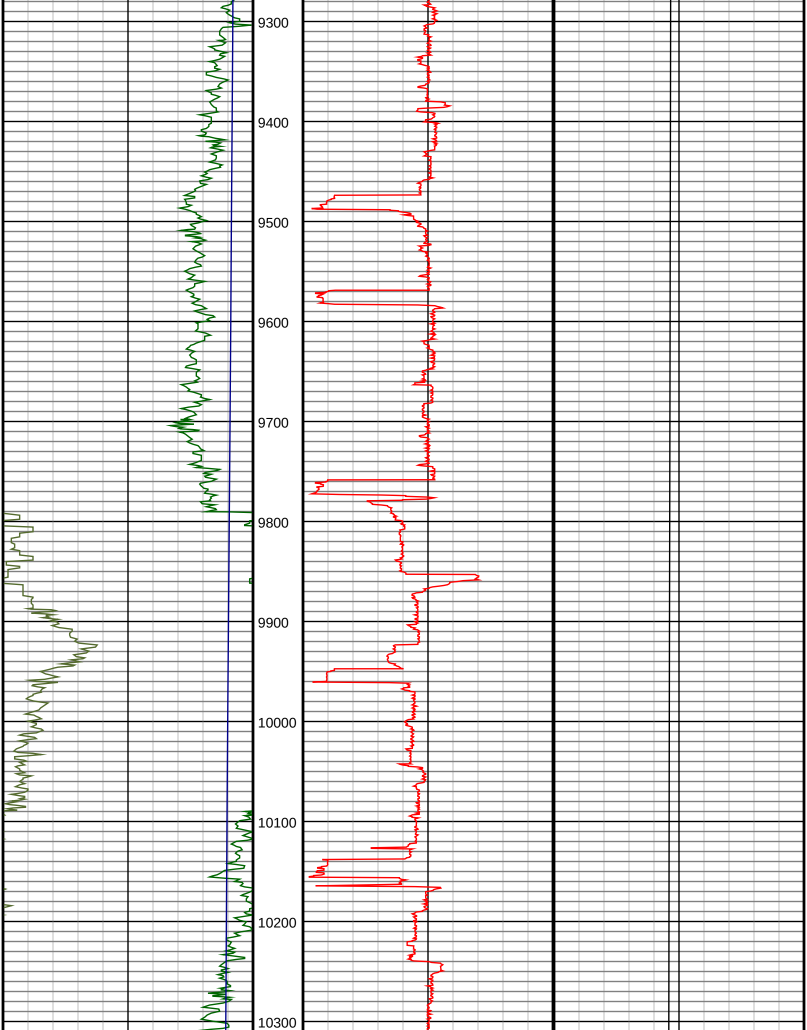
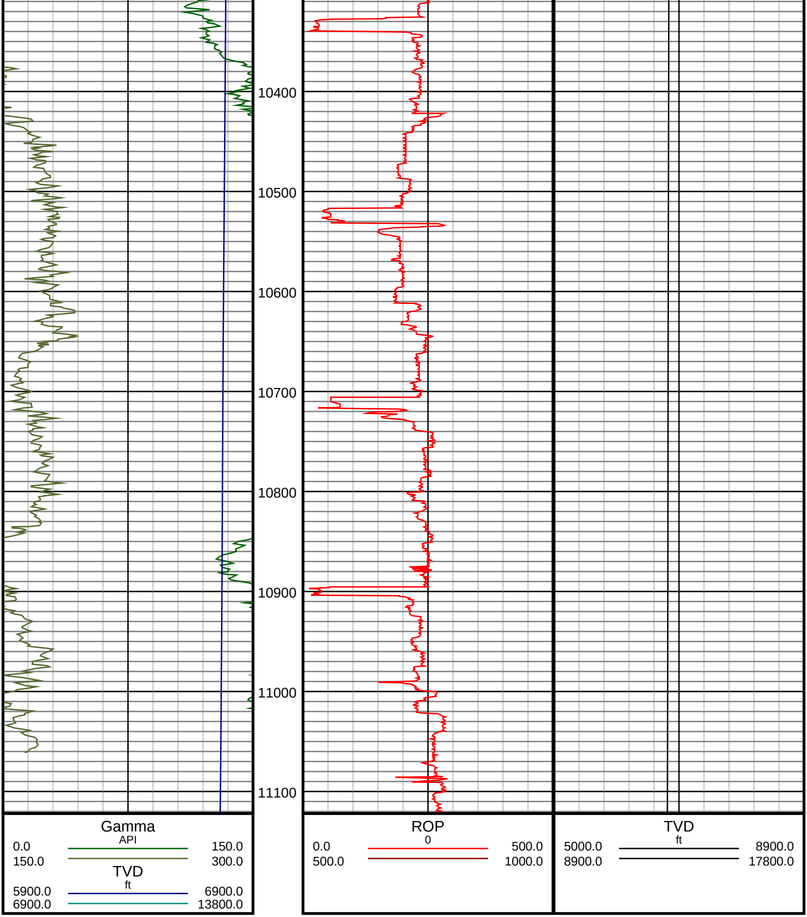
	Depth	Date
Start:	618 ft	04-25-2013
End:	11122 ft	05-02-2013

Casing	Depth	Size
Surface:	619	9 5/8
Intermediate:	7241	7

Mud Type:
Density:
Viscosity:
Rm: **Rmf:** **Rmc:**

Elevations
KB: 4684
GL: 4671
DF: 4684

		Offsets		Depths		Dates	
Run	**Bit Size**	**Gamma**	**Survey**	**Start**	**End**	**Start**	**End**
1	8.75	52.55	47.55	624	7256	04-25-2013	04-28-2013
2	6.125	60.31	55.31	7256	9945	04-29-2013	05-01-2013
3	6.125	60.58	55.58	9945	11122	05-01-2013	05-02-2013
4							
5							
6							
7							
8							
9							
10							

Ensign Energy Inc uses its best efforts to provide its customers with accurate information and interpretations in conjunction with services performed but will not be held liable or responsible for the accuracy of such information or interpretation.