



Schlumberger



Company: Northeast Energy  
Field: Marcellus  
Well: Boggess 5H  
Rig Name: Patterson 334  
Country: US  
Report Date: Monday, 20 May 2019  
(UTC-06:00) Central Time (US & Canada)  
Prepared by: Michael Okoro / Francis Advent Kalukal



# Well Placement Daily Report

Product Code:

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## Summary of Operations

Total lateral drilled (since entry into target): 20,257 - 8,698 = 11,559 ft MD

In Zone: 10,361 ft  
Out of Zone: 1,198 ft

TD was called on May 20, 2019 at 12:45 AM at 20,257' MD.

- Average Dip over length of lateral was 89.6° (0.4° down), with dip varying between 88.9° (1.1° down) and 90.3° (0.3° up)
- TVD change from Target Top at entry and Target Top at TD was 85.6 ft down-dip
- Bit at TD is projected to be below Target Top (1.5' above the Target Base) and inclined at 89.7°
- Current formation dip is estimated to be 90.1° +/- 0.5deg.
- Total drilling time bit-on-bottom is ~97 hours over 1 run.
- Last survey: MD:20,226'; INC:89.78; AZI:329.26; TVD:8,038.65'; VSEC:12,031.44.48; DLS:1.56 deg/100ft

Marker Tops Crossed:

- Target Top logged at 8,698' MD / 7,950' TVD
- Exited from Target Top at 16,400' MD (8,030' TVD)
- Entered to Target Top at 17,598' MD (8,029' TVD)

No.	Time	MD	Inclination	Azimuth	Recommendation	Decision
34	05/19/2019 22:05:43	19973.00	89.60	328.86	89.9	89.9
33	05/19/2019 16:29:14	19388.45	89.57	328.41	ND to 89.3°	Inc set at 89.3°
32	05/19/2019 12:06:30	18653.45	90.08	329.68	ND to 89.5°	PD set to 89.5°
31	05/19/2019 03:34:29	17863.00	89.72	330.23	90	90
30	05/18/2019 23:37:03	17400.00	90.10	329.88	89.5	89.5
29	05/18/2019 22:32:29	17291.00	89.31	329.72	90	90
28	05/18/2019 20:46:49	17143.00	89.50	328.75	89.2	89.2
27	05/18/2019 19:37:42	16913.00	90.21	330.01	89.5	89.5
26	05/18/2019 19:37:05	16758.00	90.42	329.67	90.1	90.1
25	05/18/2019 16:52:49	16605.98	90.30	329.80	NU to 90.4°	Inc set to 90.4°
24	05/18/2019 08:43:50	16170.00	91.30	330.03	ND to 90.3°	Inc set at 90.3
23	05/18/2019 07:20:50	16023.64	90.54	328.72	NU to 91.5°	Inc set to 91.5°
22	05/18/2019 05:22:24	15802.00	90.65	328.32	90.8	90.8
21	05/18/2019 01:35:33	15516.00	90.20	328.01	90.6	90.6
20	05/17/2019 21:20:18	14827.00	90.00	332.49	90.1	90.1
19	05/17/2019 19:21:34	14540.00	90.10	330.52	89.8	89.8
18	05/17/2019 13:48:50	14130.00	90.55	330.85	Correlation and GR-image both indicate the bit has cut up into the high GR section of the target.	Level off to formation dip. Decrease the inclination to 90.1 deg.
17	05/17/2019 13:47:16	13975.00	90.15	329.65	The bit is located in the middle section of the target section.	To anticipate the expected up-dip, increase the inclination to 90.2 deg and slowly cut up and into the high GR section of the target.
16	05/17/2019 11:33:07	13775.00	89.85	330.75	The GR image indicates the bit is cutting down section.	Decrease the inclination to 89.9 deg.
15	05/17/2019 09:18:04	13380.00	89.49	330.32	The formation apparent dip has increased to ~89.6 deg.	Increase to 89.7 deg.
14	05/17/2019 08:08:05	13182.00	89.60	329.60	Correlation and the GR-image both indicated the bit is cutting up section.	Decrease the inclination to 89.4 deg.
13	05/17/2019 03:54:05	12483.00	89.36	330.14	The bit is slowly cutting down section.	Prepare for the dip to flatten. Increase the inclination to 89.5 deg.
12	05/17/2019 03:24:43	12176.00	89.20	329.39	89.2	89.2

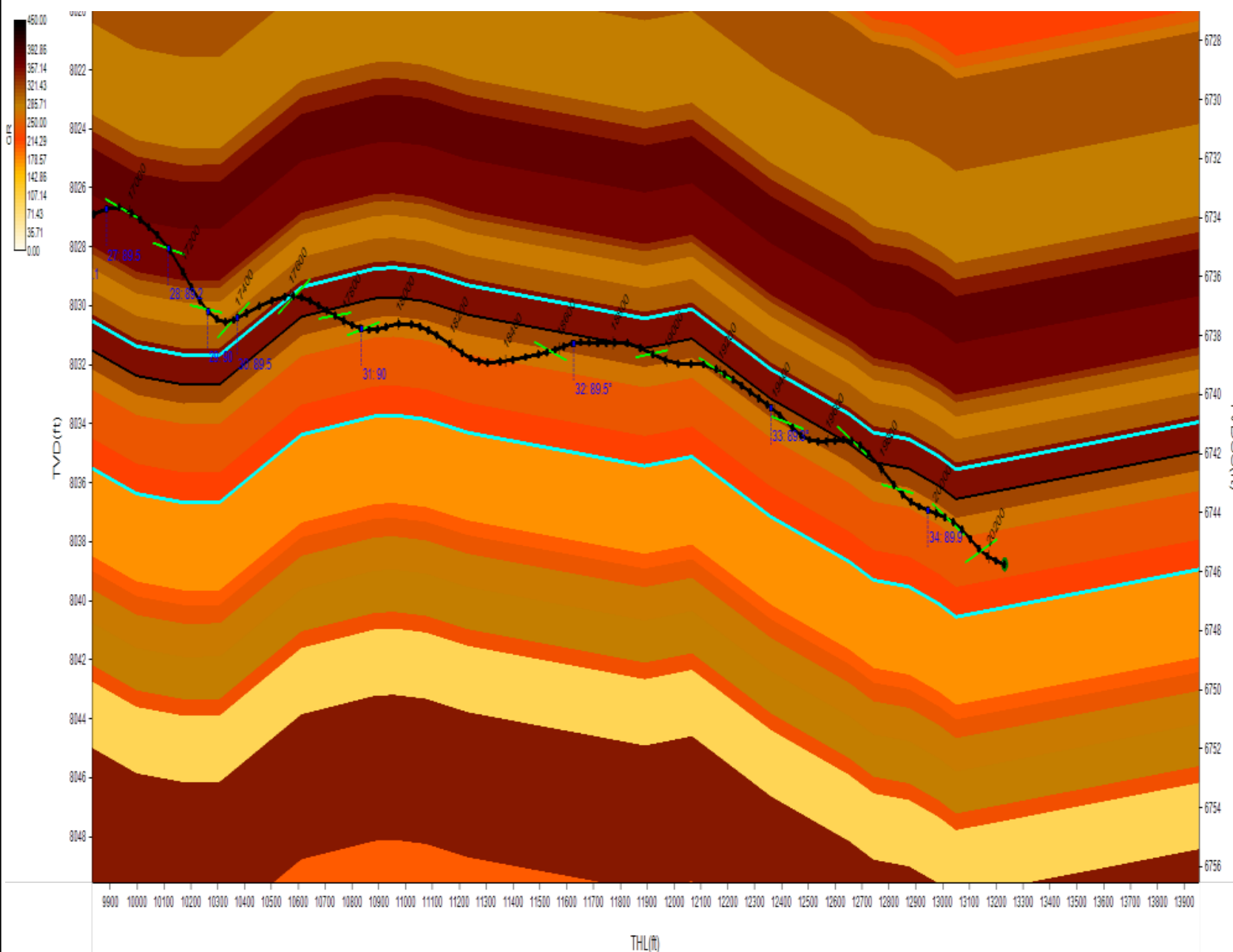
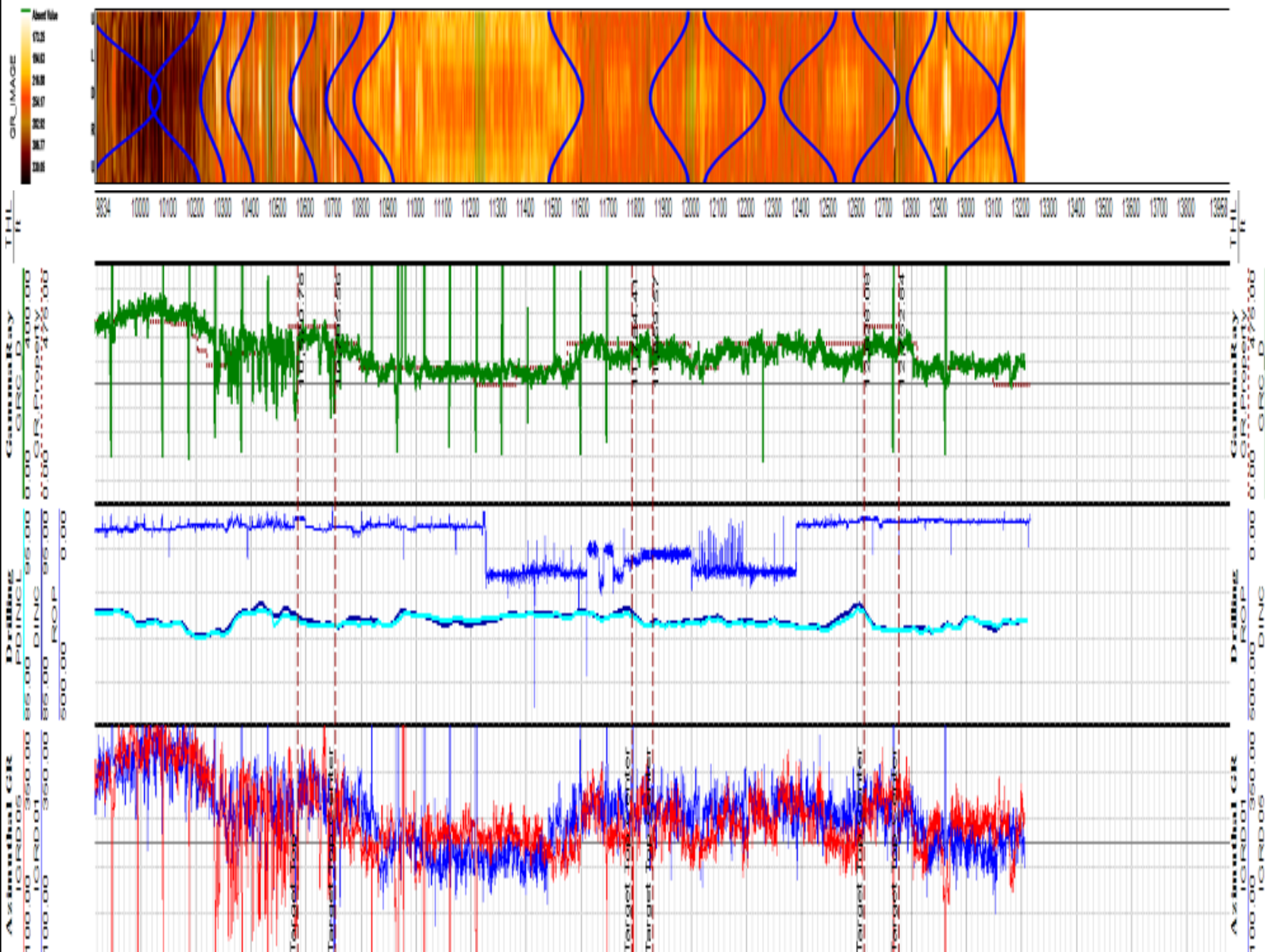
Company	Northeast Energy	CO REP		Bit MD(ft)	20258.99	Hole Size	8.5
Rig Name	Patterson 334	GEOLOGIST	Ben Welsh / Ryan Kadlik	LSS MD(ft)	20257.00	RKB(ft)	1293.00
Start Date	14-May-19	WP ENG	Michael Okoro / Francis Advent Kalukal	LSS TVD(ft)	8038.76	Mud Type	OBM
Job #	19NEB1007	MWD/LWD ENG	Mahmoud Khalil / John Qualls	LSS Inc (deg)	89.78	BHA	Bit+ RSS+MWD
Run #	1	DD	David Jones / Austin Faluyi	LSS Azi (deg)	329.26	Bit Type	PDC

\* LSS: last static survey

### Report Well Path

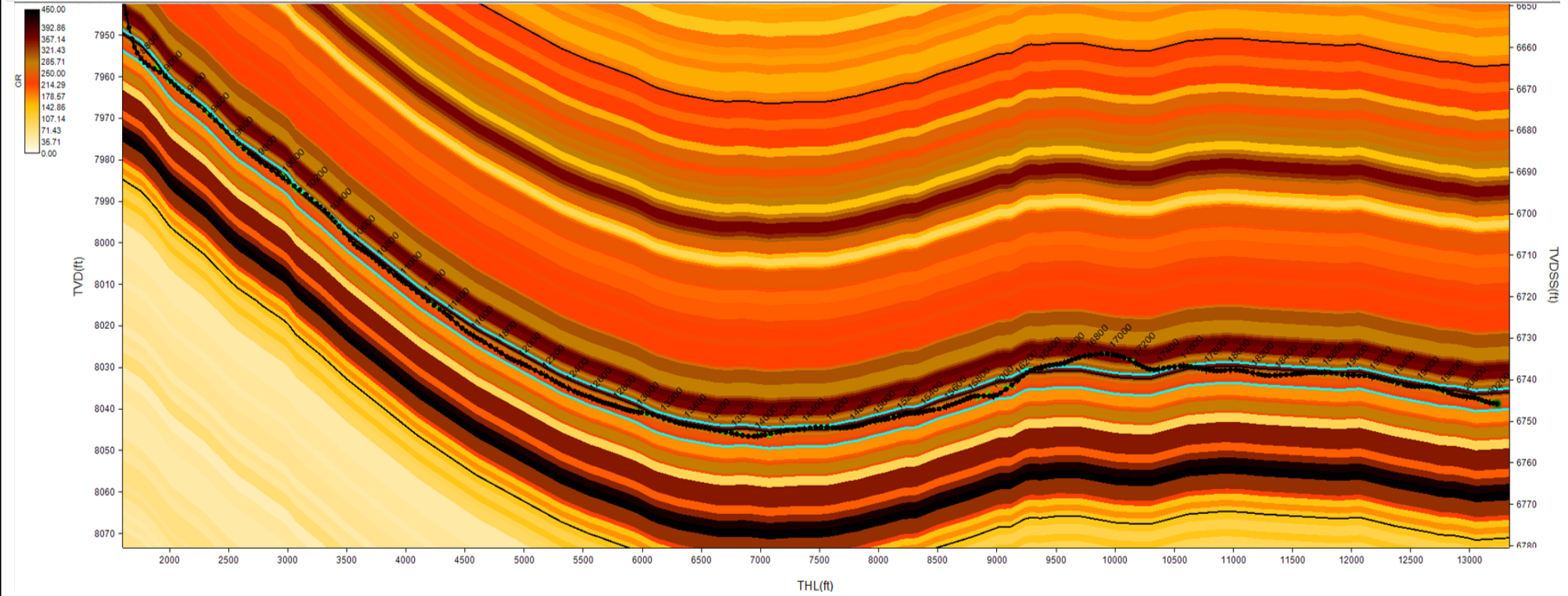
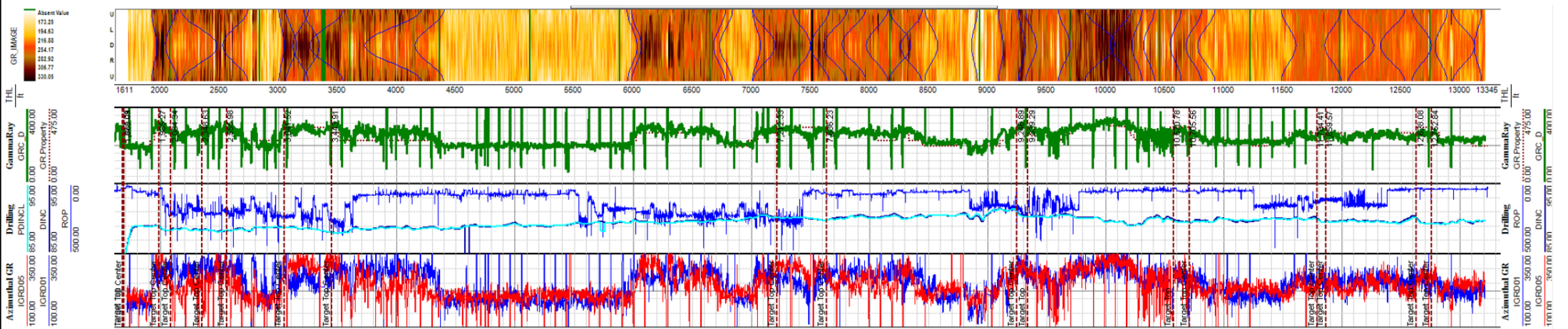
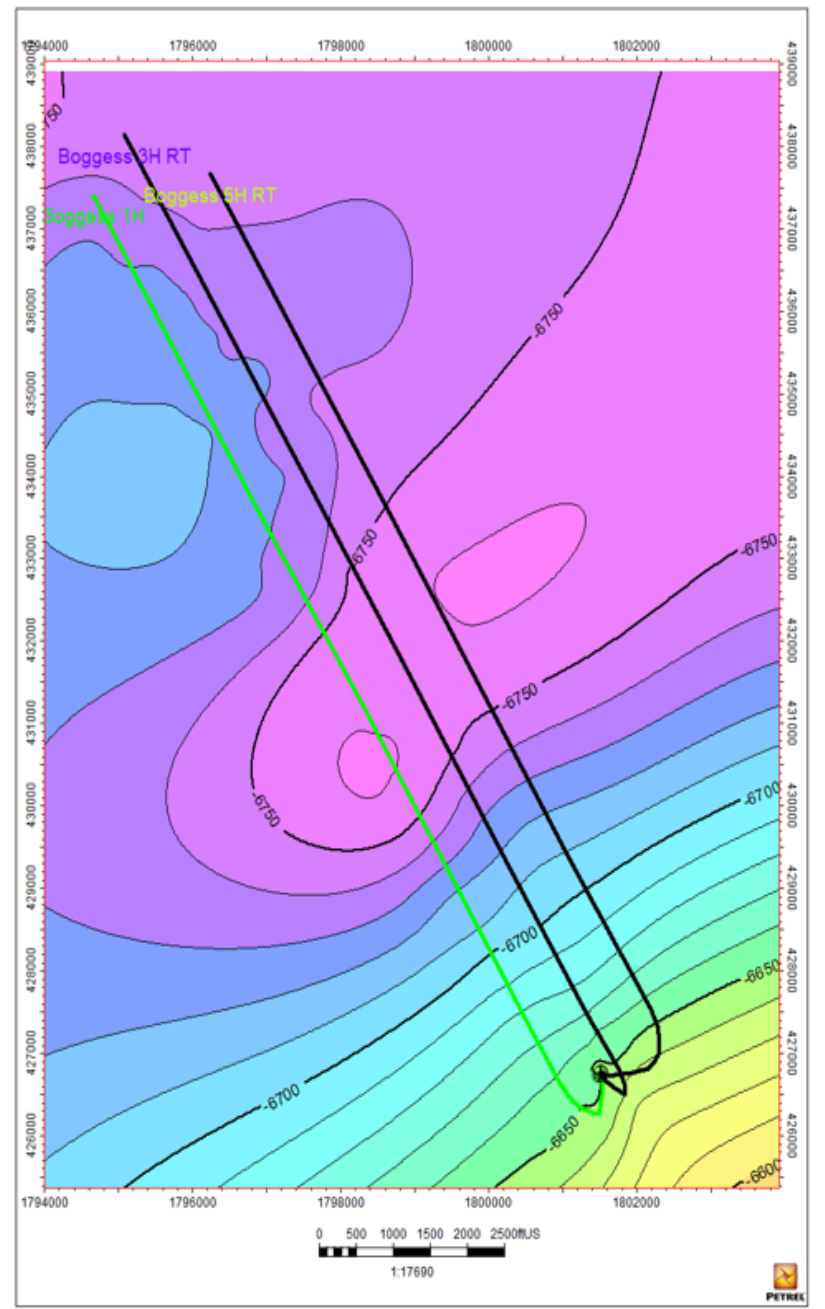
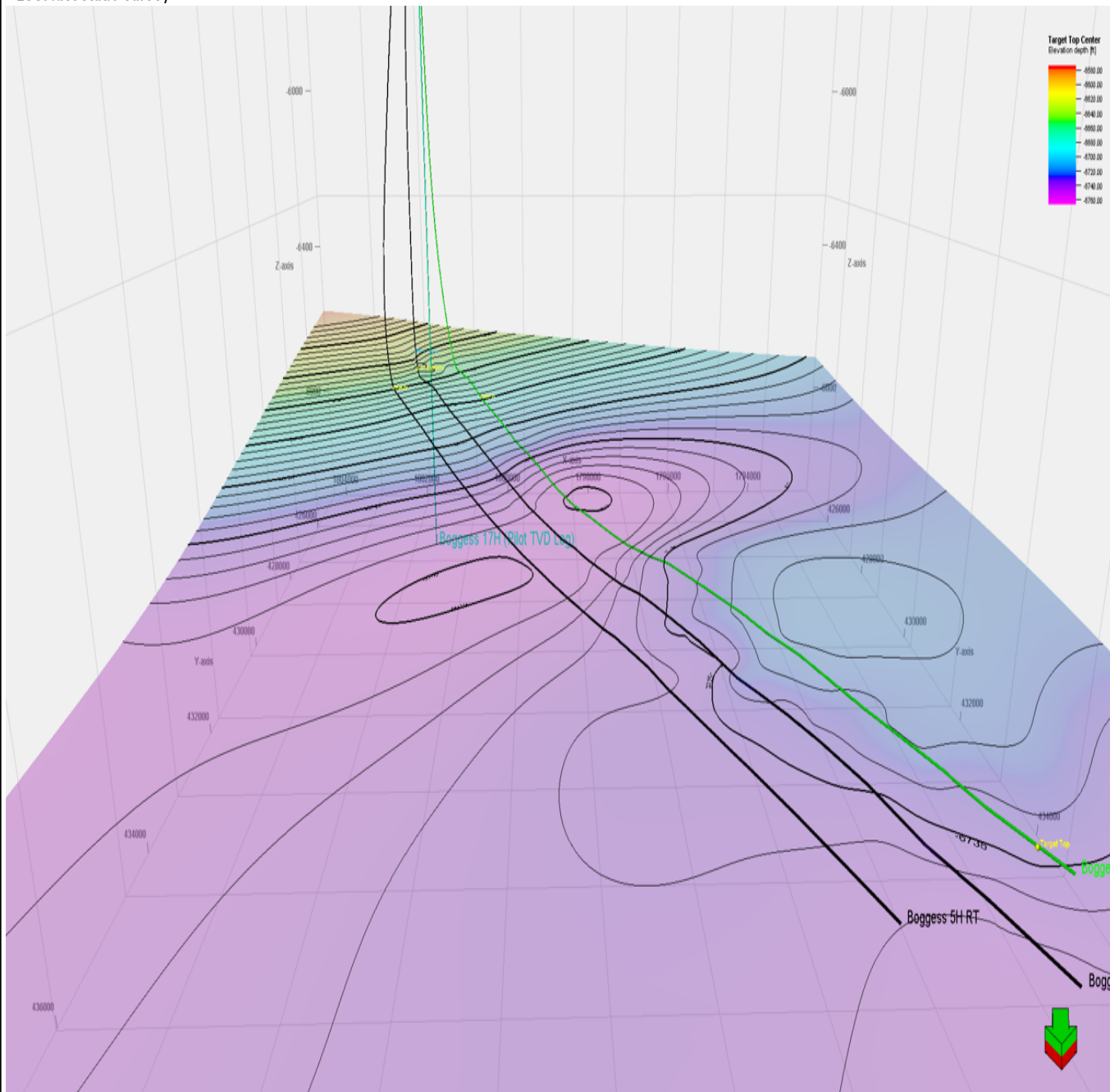
### Note

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