



LWD MEMORY LOG

Gamma Ray
Azimuthal Gamma Ray

Scale: **1:240 TVD**

Company: **Bonanza Creek Oil Company**

Well: **PRONGHORN 24-8-5XRLNB St 2**

Field: **Weld County**

County: **Weld** State: **Colorado**

Country: **United States**

Driller's Depth

Status: **Final Print**

API No: 05-123-45068-02

Job ID: 109524695

Permanent Datum (P.D.): Mean Sea Level

Log Measured From: Rig Floor

Elevation: 0.00 ft

Above P.D. 4625.00 ft

Elev. KB: 4625.00 ft

Elev. DF: 4608.00 ft

Elev. GL: 4608.00 ft

Latitude: 040° 24' 33.098" N

Longitude: 104° 14' 17.150" W

SEC: 8 TWN: 5N RGE: 61W

Directional

Other Services:

Interval Drilled

Magnetic Field Reference

Date From: N/A Top: (ft) 0.00

Date To: N/A Bottom: (ft) 0.00

Spud Date: N/A

Azi Reference North: N/A

Total Magnetic Field Strength: (nT) N/A

Mag to Reference North Correction: (deg) N/A

Dip Angle: (deg) N/A

Borehole Record

Casing Record

Mud Record

Deviation Record

Acquisition System

Software Version

Other

Rig: Akita 519

Contractor: Akita Drilling

District: RMA

Unit: D&E

RT 4.2

4.2.8155.1

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Log Run Summary

Run No	Bit Run No.	Bit Size (in)	Bit Type	Bit Gauge Length (in)	Assembly Type	Logged Interval		Bit Depth Interval		Date / Time		Circ. Hours (h)
						Top (ft)	Bottom (ft)	From (ft)	To (ft)	Start Logging	End Logging	
1	1	13.500	PDC	4.00	Steerable	0.00	0.00	17.00	1615.00	N/A	N/A	4.93
2	2	8.500	PDC	2.00	Rotary Steerable	5000.00	11194.00	1615.00	11207.00	2018-12-01 10:50	2018-12-02 18:33	37.27
4	4	8.500	PDC	2.00	Rotary Steerable	6330.00	16141.00	6343.00	16154.00	2018-12-06 14:33	2018-12-08 05:40	38.94

Crew

Name	Arrive Wellsite	Depart Wellsite	Name	Arrive Wellsite	Depart Wellsite	Name	Arrive Wellsite	Depart Wellsite
Steve Bueghly	2018-11-29	2018-12-08						

Mud Properties Record

Date / Time	Run No.	Measured Depth (ft)	Mud Type	Density (ppg)	Viscosity (cP)	pH	Fluid Loss (cm3)	Oil / Water	Source	Total Chlorides (ppm)	K+ (%)
2018-11-24 22:48	1	17.00	Water Based Mud	8.6	3	9	N/A	N/A	Active Pit	400	9.00
2018-12-01 15:00	2	5936.00	Diesel-Oil Based Mud	9.1	7	N/A	0.0	78/12	Active Pit	22500	0.00
2018-12-02 17:00	2	10780.00	Diesel-Oil Based Mud	9.4	10	N/A	0.0	75/13.5	Active Pit	22500	0.00
2018-12-03 12:00	2	11203.00	Diesel-Oil Based Mud	9.5	10	N/A	0.0	75/13	Active Pit	22500	0.00
2018-12-06 16:00	4	6310.00	Diesel-Oil Based Mud	9.2	10	N/A	0.0	77/13	Active Pit	23000	0.00

Equipment and Service Data

Run No.	Tool	Serial Number	Measurement	Sensor Offset (ft)	Bit Offset (ft)	Max O.D. (in)	Min I.D. (in)
1	NaviTrak	10350729	Directional (mag)	16.84	52.91	8.000	0.000
1	NaviTrak	10350729	VSS	16.84	52.91	8.000	0.000
2	ATC_SU	12273681	Near Bit VSS	5.93	6.83	7.000	4.330
2	ATC_SU	12273681	Near Bit Inclination	5.93	6.83	7.000	4.330
2	ATC_MWD	14281557	Gamma (single)	2.77	13.00	7.000	3.250
2	ATC_MWD	14281557	Directional (mag)	12.27	22.50	7.000	3.250
4	ATC_SU	12273681	Near Bit VSS	5.93	6.83	7.000	4.330
4	ATC_SU	12273681	Near Bit Inclination	5.93	6.83	7.000	4.330
4	ATC_MWD	14281557	Gamma (single)	2.77	13.00	7.000	3.250
4	ATC_MWD	14281557	Directional (mag)	12.27	22.50	7.000	3.250

Service and Tool Mnemonics

Mnemonic	Name	Description

N1K	Navi Irak	Probe Based Directional Module, Navi Irak Platform
ATC_SU	ATC_SU	Auto Trak Curve Steering Unit
ATC_MWD	ATC_MWD	Auto Trak Curve MWD
ATC_LCPM	ATC_LCPM	Auto Trak Curve LCPM

Comments


- 1 Depth measurements were obtained from a depth control system not supplied or operated by Baker Hughes. Due to the lack of control by Baker Hughes, depth calibrations and measurements could not be independently verified.
- 2 Baker Hughes LWD Run 1 used the 8 inch NaviTrak service (Directional) behind a 13 1/2 inch bit and steerable assembly to drill from 17 to 1615 feet MD (17 to 1614 feet TVD).
- 3 Baker Hughes LWD Run 2 and Sidetrack Run 4 used the 6 3/4 inch NaviGamma service (Gamma Ray, Azimuthal Gamma Ray and Directional) behind an 8 1/2 inch bit and rotary steerable assembly to drill from 1615 to 16154 feet MD (1614 to 6092 feet TVD).
- 4 The Gamma Ray Apparent (GRAM) data is presented from 0 to 200 API, per customer's request.

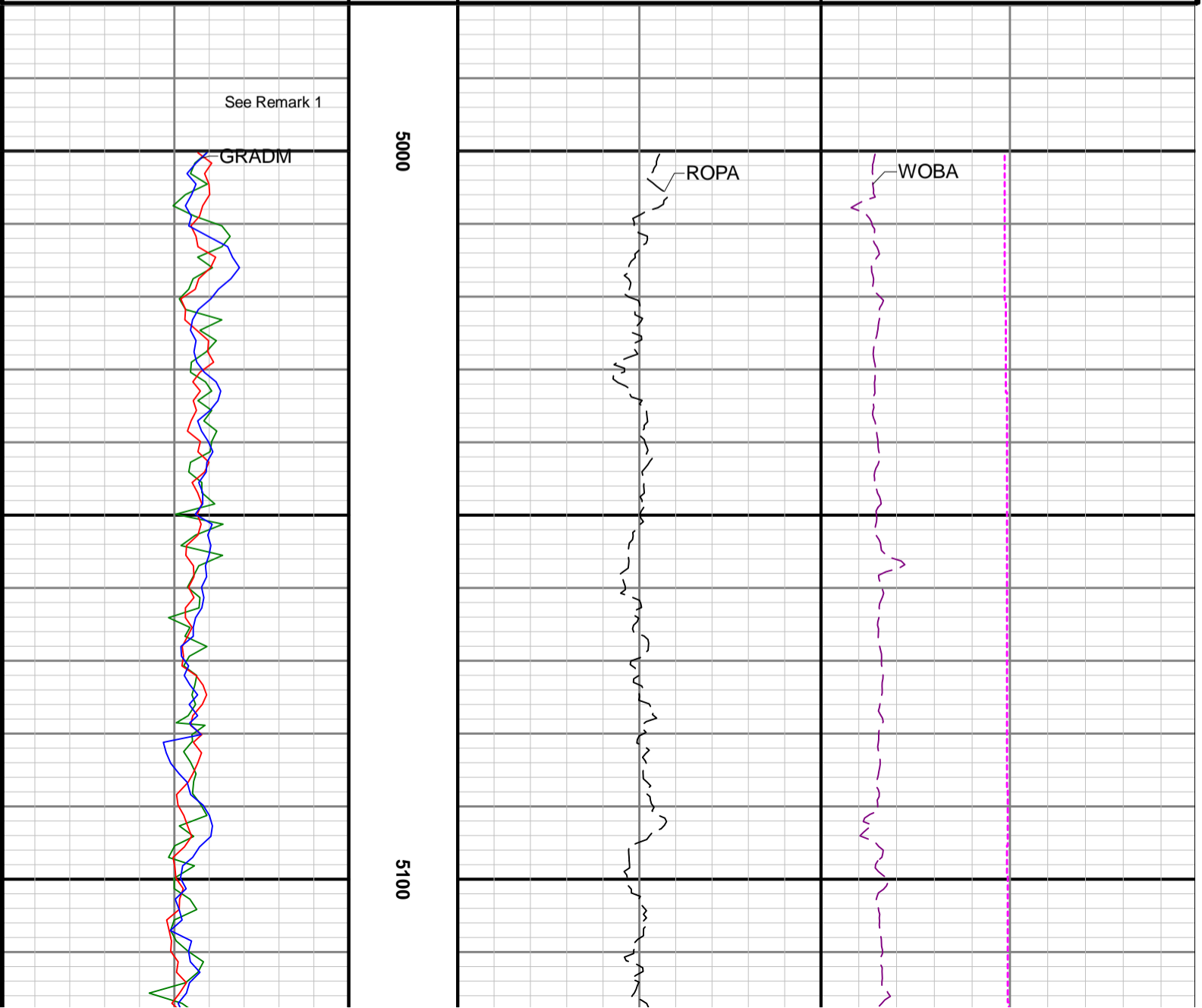
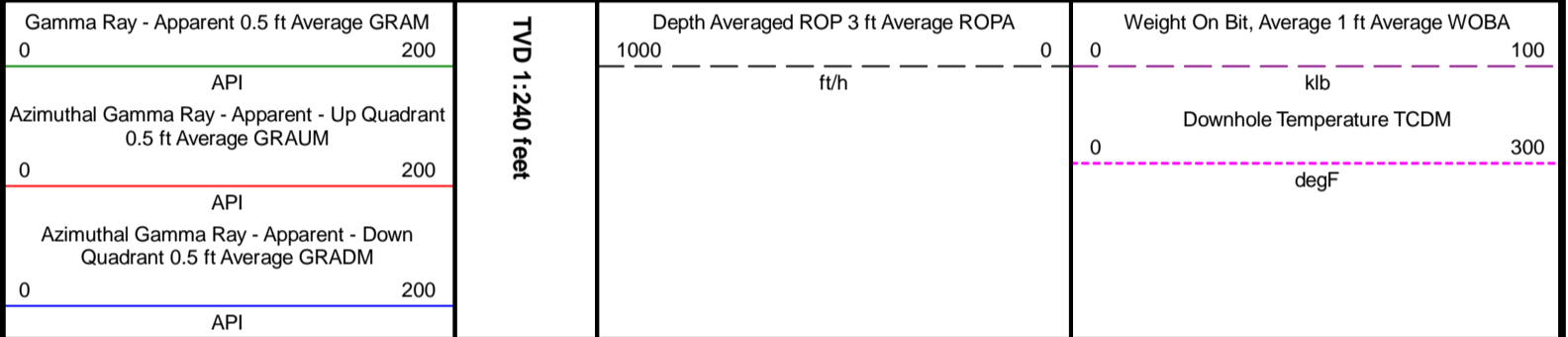
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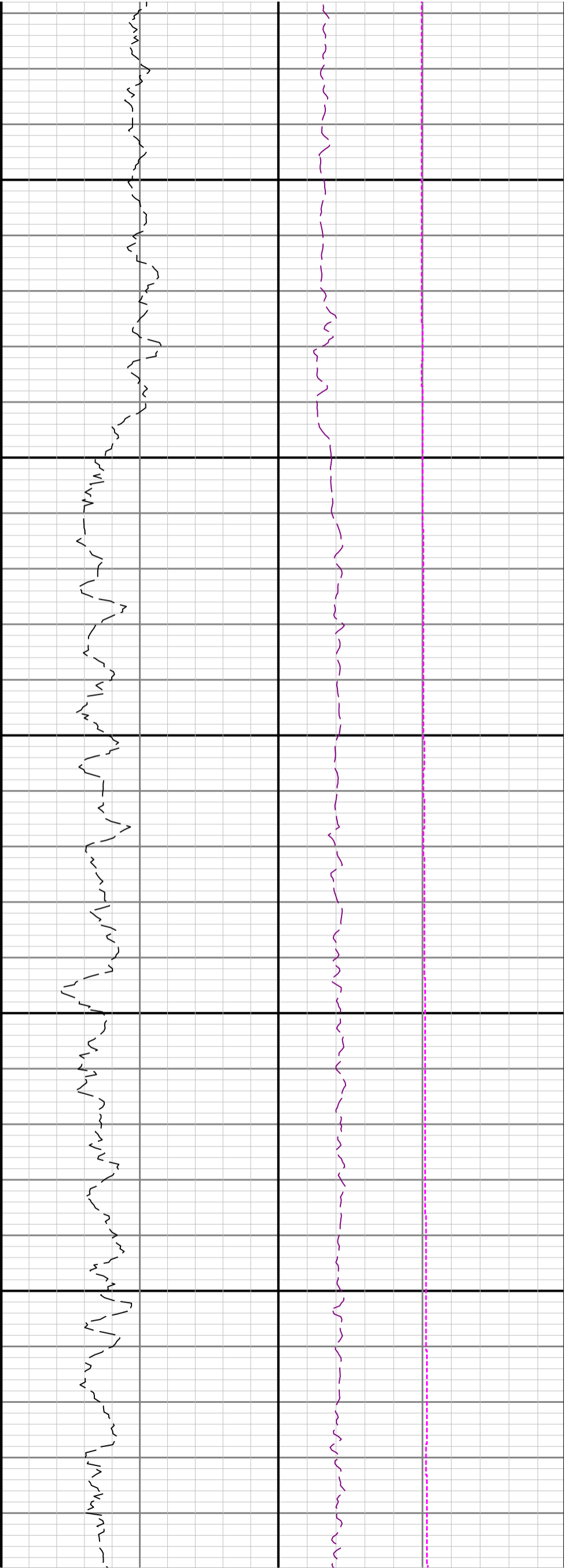
Number	Measured Depth (ft)	Hole Section (in)	Run No.	Remark
1	5051.00	8.500	2	The Gamma Ray Apparent (GRAM) log starts at 5000 feet, per customer's request.

Curve Mnemonics

Presented Curves	Description	Units
ROPA	Depth Averaged ROP 3 ft Average	ft/h
WOBA	Weight On Bit, Average 1 ft Average	klb
GRAM	Gamma Ray - Apparent - Memory 0.5 ft Average	API
GRADM	Gamma Ray - Apparent - Down Quadrant - Memory 0.5 ft Average	API
GRAUM	Gamma Ray - Apparent - Up Quadrant - Memory 0.5 ft Average	API
TCDM	Directional Real-Time Survey Temperature	degF

	Company	Bonanza Creek Oil Company		
	Well	PRONGHORN 24-8-5XRLNB St 2		
	Interval	Date From:	N/A	Top: 0.00 ft
	Created	Date To:	N/A	Bottom: 0.00 ft

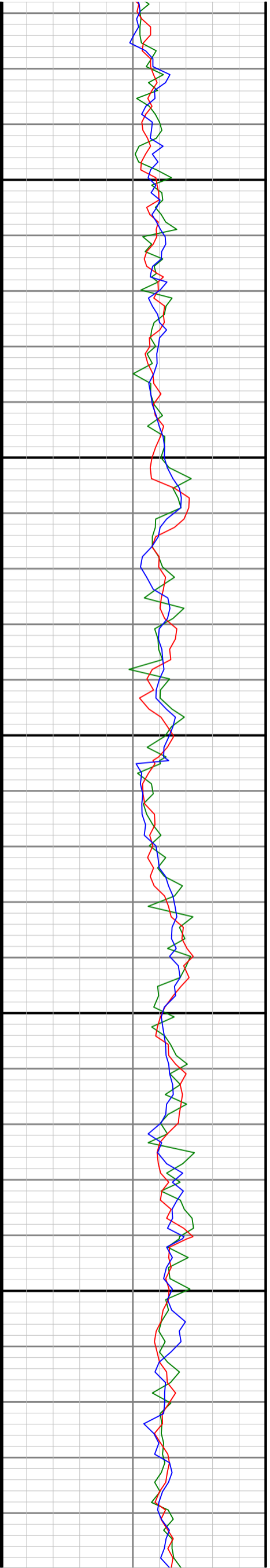


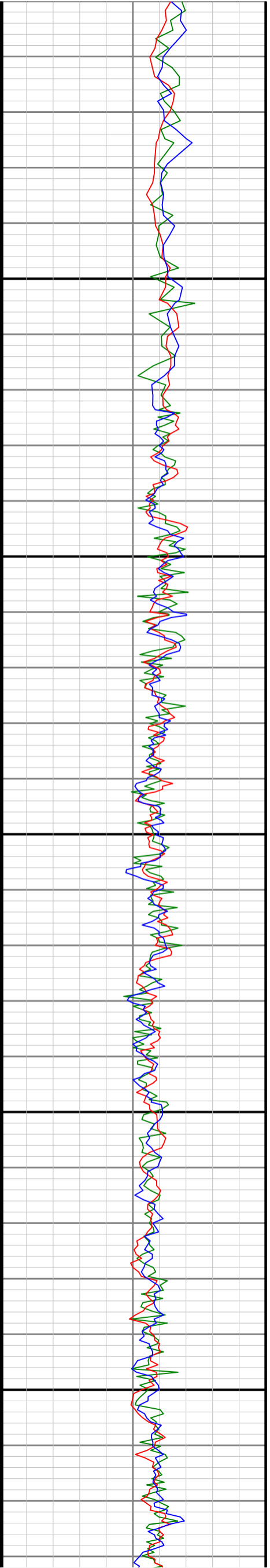


5200

5300

54

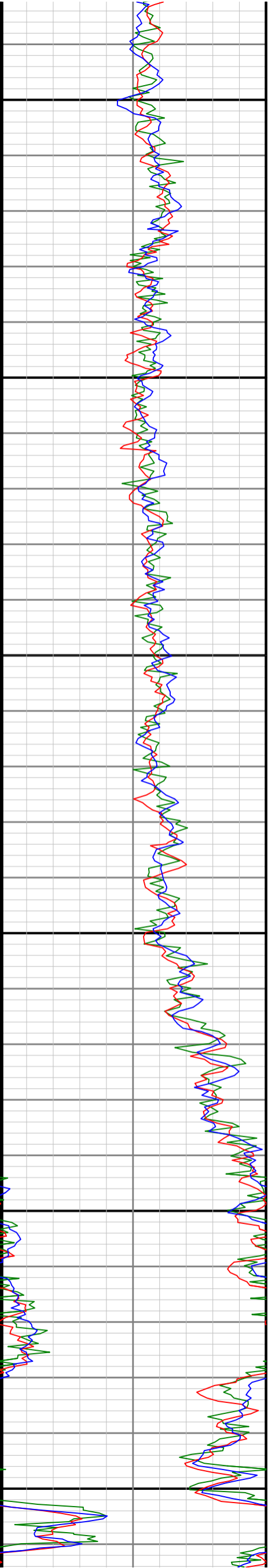




5500

5600

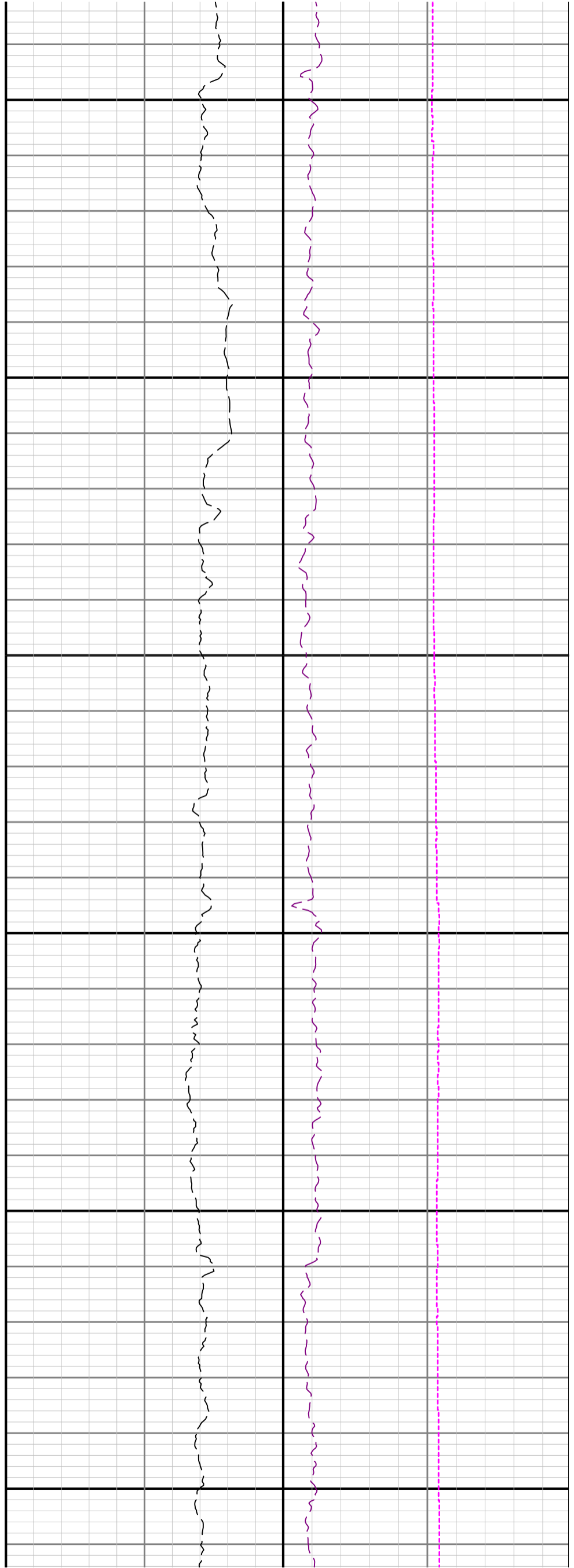


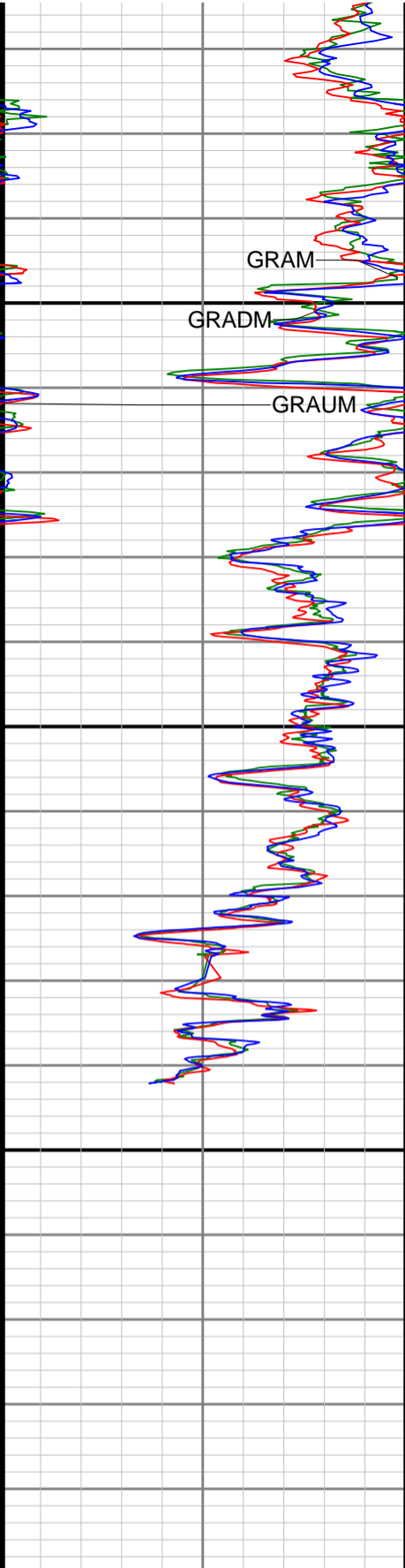


5700

5800

5900

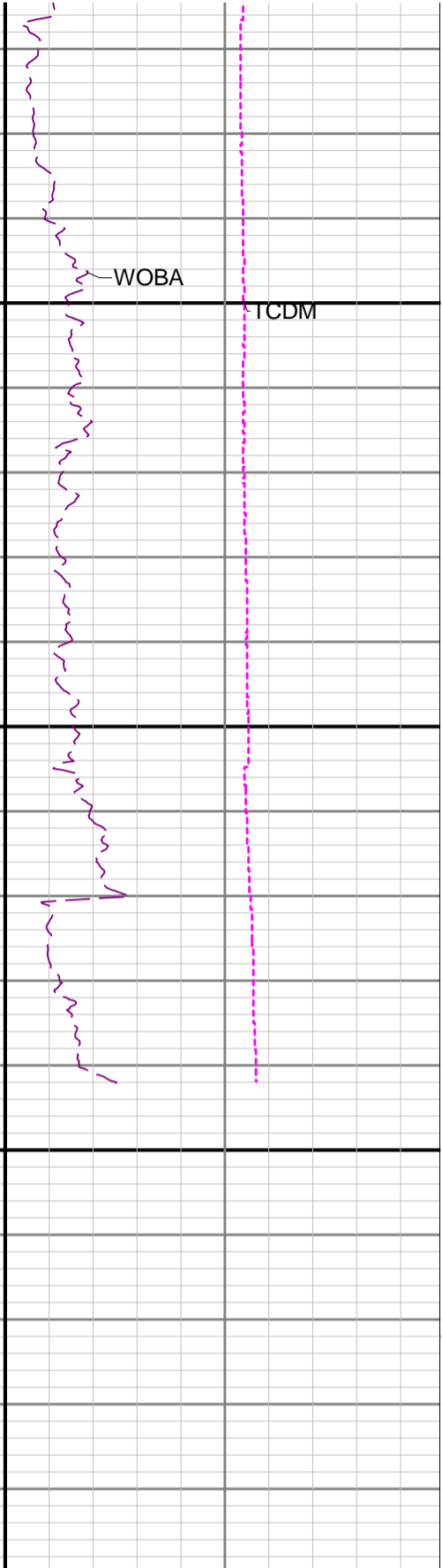
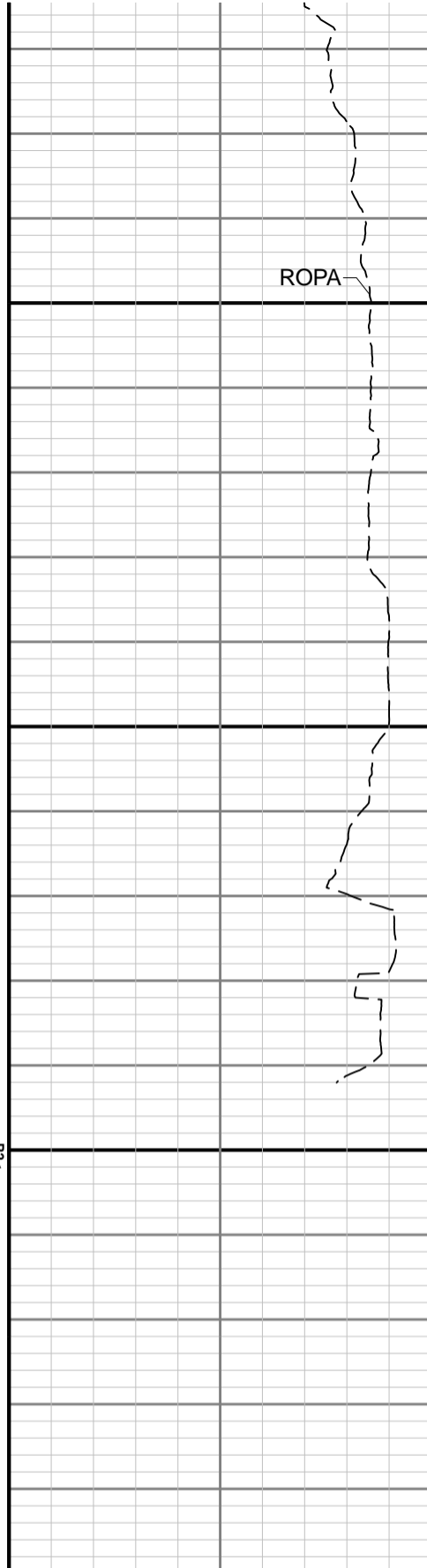




6000

6100

R2<



Gamma Ray - Apparent 0.5 ft Average GRAM	
0	200
API	
Azimuthal Gamma Ray - Apparent - Up Quadrant 0.5 ft Average GRAUM	
0	200
API	
Azimuthal Gamma Ray - Apparent - Down Quadrant 0.5 ft Average GRADM	
0	200
API	

TVD 1:240 feet

Depth Averaged ROP 3 ft Average ROPA	
1000	0
ft/h	

Weight On Bit, Average 1 ft Average WOB	
0	100
klb	
Downhole Temperature TCDM	
0	300
degF	

Directional Survey Summary															
Latitude: 040° 24' 33.098" N		Longitude: 104° 14' 17.150" W		North Reference: N/A		Drill Depth Zero: Rig Floor		Vertical Datum is: Mean Sea Level		Vertical Datum to DDZ: (ft) 4625.00		Vertical Section North: (ft) N/A		Vertical Section East: (ft) N/A	
Vertical Section North: (ft) N/A		Vertical Section East: (ft) N/A		Grid Convergence: (deg) N/A		Magnetic Declination: (deg) N/A		TVD Calculation Method: Minimum Curvature		Total Correction: (deg) N/A		Local Magnetic Field: (nT) N/A		Local Gravity Field: (m/s ²) N/A	
Magnetic Correction: N/A		Local Magnetic Field: (nT) N/A		Local Magnetic Dip Angle: (deg) N/A		Local Gravity Field: (m/s ²) N/A									
Tie-In / Projection	Measured Depth (ft)	Inclination (deg)	Azimuth (deg)	Temperature (degF)	North (ft)	East (ft)	True Vertical Depth (ft)	TVD Subsea (ft)	Vertical Section (ft)	Course Length (ft)	Dog Leg Severity (deg/100ft)	Build Rate (deg/100ft)	Turn Rate (deg/100ft)		
Tie-In	17.00	0.00	0.00	N/A	0.00	0.00	17.00	-4608.00	0.00	0.00	0.00	0.00	0.00	0.00	
	124.00	0.42	86.30	-18457.9	0.03	0.39	124.00	-4501.00	0.05	107.00	0.39	0.39	80.65		
	211.00	0.33	89.31	71.6	0.05	0.96	211.00	-4414.00	0.11	87.00	0.11	-0.10	3.46		
	297.00	0.22	131.20	74.3	-0.06	1.33	297.00	-4328.00	0.03	86.00	0.26	-0.13	48.71		
	385.00	0.33	135.19	74.3	-0.35	1.64	385.00	-4240.00	-0.25	88.00	0.13	0.12	4.53		

	473.00	0.44	126.47	77.0	-0.73	2.09	472.99	-4152.01	-0.60	88.00	0.14	0.12	-9.91
	562.00	0.50	117.27	77.0	-1.11	2.71	561.99	-4063.01	-0.94	89.00	0.11	0.07	-10.34
	650.00	0.52	81.84	74.3	-1.23	3.44	649.99	-3975.01	-1.01	88.00	0.35	0.02	-40.26
	738.00	0.32	135.89	74.3	-1.35	4.01	737.98	-3887.02	-1.10	88.00	0.48	-0.23	61.42
	825.00	0.35	115.06	285.2	-1.64	4.42	824.98	-3800.02	-1.36	87.00	0.14	0.03	-23.94
	914.00	0.22	136.87	77.0	-1.88	4.78	913.98	-3711.02	-1.57	89.00	0.19	-0.15	24.51
	1002.00	0.44	59.27	77.0	-1.83	5.19	1001.98	-3623.02	-1.50	88.00	0.51	0.25	-88.18
	1091.00	0.49	44.01	77.0	-1.38	5.75	1090.98	-3534.02	-1.02	89.00	0.15	0.06	-17.15
	1179.00	0.13	242.21	74.3	-1.15	5.92	1178.98	-3446.02	-0.78	88.00	0.70	-0.41	-183.86
	1267.00	0.29	281.97	77.0	-1.15	5.61	1266.98	-3358.02	-0.80	88.00	0.24	0.18	45.18
	1355.00	0.49	271.77	77.0	-1.10	5.02	1354.97	-3270.03	-0.78	88.00	0.24	0.23	-11.59
	1444.00	0.31	264.29	77.0	-1.11	4.40	1443.97	-3181.03	-0.83	89.00	0.21	-0.20	-8.40
	1560.00	0.79	347.46	77.0	-0.36	3.91	1559.97	-3065.03	-0.12	116.00	0.70	0.41	71.70
	1686.00	0.86	174.83	104.1	-0.45	3.81	1685.96	-2939.04	-0.22	126.00	1.31	0.06	-137.01
	1774.00	0.75	7.94	106.8	-0.54	3.95	1773.96	-2851.04	-0.29	88.00	1.82	-0.12	-189.65
	1862.00	0.39	171.22	106.8	-0.27	4.08	1861.96	-2763.04	-0.01	88.00	1.28	-0.41	185.55
	1950.00	0.74	7.07	109.5	0.00	4.19	1949.96	-2675.04	0.26	88.00	1.27	0.40	-186.53
	2037.00	0.13	182.03	109.5	0.46	4.26	2036.95	-2588.05	0.72	87.00	1.00	-0.70	201.10
	2125.00	2.15	153.78	109.5	-1.12	4.98	2124.93	-2500.07	-0.81	88.00	2.31	2.30	-32.10
	2213.00	4.24	151.95	112.2	-5.47	7.24	2212.79	-2412.21	-5.01	88.00	2.38	2.37	-2.08
	2302.00	6.58	148.13	112.2	-12.71	11.48	2301.39	-2323.61	-11.97	89.00	2.66	2.63	-4.29
	2391.00	8.74	139.61	112.2	-22.19	18.56	2389.59	-2235.41	-20.99	89.00	2.74	2.43	-9.57
	2479.00	11.07	133.68	112.2	-33.12	29.00	2476.28	-2148.72	-31.25	88.00	2.89	2.65	-6.74
	2566.00	11.05	130.61	109.5	-44.31	41.37	2561.66	-2063.34	-41.66	87.00	0.68	-0.02	-3.53
	2654.00	11.18	128.57	112.2	-55.12	54.44	2648.01	-1976.99	-51.63	88.00	0.47	0.15	-2.32
	2743.00	11.17	125.95	114.9	-65.56	68.17	2735.32	-1889.68	-61.20	89.00	0.57	-0.01	-2.94
	2832.00	11.07	124.99	117.6	-75.52	82.15	2822.65	-1802.35	-70.28	89.00	0.24	-0.11	-1.08
	2920.00	11.06	124.70	117.6	-85.17	96.01	2909.02	-1715.98	-79.05	88.00	0.06	-0.01	-0.33
	3008.00	11.02	129.71	120.3	-95.35	109.42	2995.39	-1629.61	-88.37	88.00	1.09	-0.05	5.69
	3097.00	11.02	131.56	120.3	-106.43	122.33	3082.75	-1542.25	-98.63	89.00	0.40	0.00	2.08
	3184.00	11.16	127.71	120.3	-117.10	135.21	3168.13	-1456.87	-108.47	87.00	0.87	0.16	-4.43
	3273.00	11.13	117.90	123.0	-126.38	149.62	3255.46	-1369.54	-116.85	89.00	2.13	-0.03	-11.02
	3360.00	11.02	108.16	123.0	-132.91	164.94	3340.84	-1284.16	-122.41	87.00	2.15	-0.13	-11.20
	3447.00	11.13	106.17	125.7	-137.84	180.91	3426.22	-1198.78	-126.34	87.00	0.46	0.13	-2.29
	3536.00	11.09	96.10	125.7	-141.14	197.67	3513.56	-1111.44	-128.59	89.00	2.18	-0.04	-11.31
	3624.00	11.04	98.48	125.7	-143.28	214.42	3599.93	-1025.07	-129.69	88.00	0.52	-0.06	2.70
	3713.00	11.09	107.86	125.7	-147.16	230.99	3687.28	-937.72	-132.53	89.00	2.02	0.06	10.54
	3800.00	11.32	117.97	128.4	-153.73	246.50	3772.63	-852.37	-138.13	87.00	2.27	0.26	11.62
	3888.00	11.51	130.58	128.4	-163.50	260.80	3858.90	-766.10	-146.99	88.00	2.84	0.22	14.33
	3977.00	11.54	140.52	128.4	-176.15	273.21	3946.12	-678.88	-158.84	89.00	2.23	0.03	11.17
	4065.00	11.72	144.17	377.1	-190.19	284.03	4032.31	-592.69	-172.18	88.00	0.86	0.20	4.15
	4154.00	11.55	148.23	131.1	-205.09	294.02	4119.49	-505.51	-186.44	89.00	0.94	-0.19	4.56
	4242.00	11.55	149.69	133.8	-220.19	303.10	4205.70	-419.30	-200.94	88.00	0.33	0.00	1.66
	4330.00	11.71	146.09	136.5	-235.20	312.53	4291.90	-333.10	-215.34	88.00	0.84	0.18	-4.09
	4419.00	11.59	133.95	136.5	-248.90	324.01	4379.08	-245.92	-228.31	89.00	2.75	-0.13	-13.64
	4507.00	11.48	126.19	136.5	-260.21	337.44	4465.31	-159.69	-238.76	88.00	1.77	-0.12	-8.82
	4595.00	11.56	129.49	139.2	-270.99	351.31	4551.53	-73.47	-248.65	88.00	0.75	0.09	3.75
	4682.00	11.53	132.07	141.9	-282.36	364.49	4636.77	11.77	-259.18	87.00	0.59	-0.03	2.97
	4770.00	11.29	131.59	141.9	-293.97	377.46	4723.04	98.04	-269.96	88.00	0.29	-0.27	-0.55
	4859.00	11.50	143.31	144.6	-306.87	389.28	4810.29	185.29	-282.10	89.00	2.61	0.24	13.17
	5037.00	11.42	137.80	144.6	-334.15	411.72	4984.75	359.75	-307.94	178.00	0.62	-0.04	-3.10
	5124.00	11.46	127.76	147.3	-345.83	424.34	5070.03	445.03	-318.81	87.00	2.29	0.05	-11.54
	5213.00	11.57	117.32	150.0	-355.34	439.26	5157.25	532.25	-327.38	89.00	2.34	0.12	-11.73
	5301.00	11.59	111.42	150.0	-362.62	455.33	5243.46	618.46	-333.64	88.00	1.35	0.02	-6.70
	5388.00	11.59	104.93	152.7	-368.06	471.91	5328.69	703.69	-338.05	87.00	1.50	0.00	-7.46
	5477.00	11.59	107.73	150.0	-373.09	489.07	5415.88	790.88	-342.00	89.00	0.63	0.00	3.15
	5566.00	10.63	111.01	150.0	-378.75	505.25	5503.21	878.21	-346.65	89.00	1.29	-1.08	3.69
	5654.00	14.37	63.22	150.0	-376.74	522.62	5589.32	964.32	-343.56	88.00	12.08	4.25	-54.31
	5742.00	21.34	42.12	155.4	-359.90	543.16	5673.12	1048.12	-325.48	88.00	10.69	7.92	-23.98
	5830.00	28.82	28.38	155.4	-329.29	564.02	5752.83	1127.83	-293.64	88.00	10.72	8.50	-15.61
	5917.00	36.51	22.60	158.1	-286.88	583.97	5826.03	1201.03	-250.06	87.00	9.53	8.84	-6.64
	6003.00	42.88	22.44	160.8	-236.16	604.99	5892.17	1267.17	-198.14	86.00	7.41	7.41	-0.19
	6091.00	50.88	20.47	163.5	-176.41	628.40	5952.28	1327.28	-137.05	88.00	9.24	9.09	-2.24
	6179.00	57.14	11.48	163.5	-108.05	647.74	6004.03	1379.03	-67.62	88.00	10.90	7.11	-10.22
	6268.00	66.98	4.90	166.2	-30.35	658.71	6045.72	1420.72	10.61	89.00	12.83	11.06	-7.39
	6330.00	73.36	5.66	168.9	27.69	664.09	6066.74	1441.74	68.88	62.00	10.35	10.29	1.23
	6356.00	73.71	5.44	168.9	52.51	666.50	6074.11	1449.11	93.80	26.00	1.57	1.35	-0.85
	6444.00	79.82	6.00	171.6	137.71	675.04	6094.25	1469.25	179.36	88.00	6.97	6.94	0.64
	6532.00	86.58	6.75	174.3	224.50	684.74	6104.66	1479.66	266.58	88.00	7.73	7.68	0.85
	6620.00	86.24	5.66	174.3	311.81	694.23	6110.17	1485.17	354.31	88.00	1.30	-0.39	-1.24
	6709.00	87.41	5.77	177.0	400.23	703.08	6115.10	1490.10	443.11	89.00	1.32	1.31	0.12
	6797.00	88.27	6.18	179.7	487.69	712.23	6118.42	1493.42	530.97	88.00	1.08	0.98	0.47
	6886.00	88.15	6.34	182.5	576.11	721.93	6121.20	1496.20	619.83	89.00	0.22	-0.13	0.18
	6973.00	90.25	7.59	182.5	662.45	732.48	6122.41	1497.41	706.66	87.00	2.81	2.41	1.44
	7062.00	90.12	6.26	185.2	750.80	743.21	6122.13	1497.13	795.50	89.00	1.50	-0.15	-1.49
	7150.00	90.40	4.60	187.9	838.40	751.54	6121.73	1496.73	883.45	88.00	1.91	0.32	-1.89
	7238.00	90.40	4.08	187.9	926.15	758.20	6121.11	1496.11	971.44	88.00	0.59	0.00	-0.59
	7326.00	90.43	5.49	185.2	1013.84	765.54	6120.47	1495.47	1059.42	88.00	1.60	0.03	1.60
	7413.00	90.09	2.94	187.9	1100.59	771.93	6120.08	1495.08	1146.40	87.00	2.96	-0.39	-2.93
	7502.00	90.12	2.03	187.9	1189.51	775.79	6119.92	1494.92	1235.39	89.00	1.02	0.03	-1.02
	7590.00	90.09	359.06	190.6	1277.50	776.63	6119.76	1494.76	1323.25	88.00	3.38	-0.03	-3.37
	7676.00	90.18	357.28	193.3	1363.45	773.88	6119.55	1494.55	1408.87	86.00	2.07	0.10	-2.07
	7763.00	90.12	356.13	193.3	1450.30	768.88	6119.32	1494.32	1495.25	87.00	1.32	-0.07	-1.32
	7851.00	90.09	355.77	193.3	1538.08	762.67	6119.16	1494.16	1582.47	88.00	0.41	-0.03	-0.41
	7941.00	90.15	355.33	196.0	1627.81	755.68	6118.98	1493.98	1671.59	90.00	0.49	0.07	-0.49
	8030.00	90.15	356.70	196.0	1716.59	749.50	6118.74	1493.74	1759.82	89.00	1.54	0.00	1.54
	8116.00	90.06	358.87	198.7	1802.52	746.17	6118.58	149					

	8817.00	90.18	0.51	204.1	2503.45	739.67	6116.02	1491.02	2544.55	89.00	0.21	0.07	0.20
	8906.00	90.22	1.49	204.1	2592.44	741.22	6115.71	1490.71	2633.46	89.00	1.10	0.04	1.10
	8994.00	90.25	1.96	206.8	2680.40	743.87	6115.34	1490.34	2721.41	88.00	0.54	0.03	0.53
	9082.00	90.37	2.09	206.8	2768.34	746.98	6114.87	1489.87	2809.38	88.00	0.20	0.14	0.15
	9169.00	90.46	2.06	209.5	2855.28	750.13	6114.24	1489.24	2896.35	87.00	0.11	0.10	-0.03
	9257.00	90.46	0.45	212.2	2943.25	752.06	6113.53	1488.53	2984.27	88.00	1.83	0.00	-1.83
	9346.00	90.37	358.29	212.2	3032.24	751.08	6112.89	1487.89	3073.03	89.00	2.43	-0.10	-2.43
	9433.00	90.28	357.66	212.2	3119.19	748.00	6112.39	1487.39	3159.61	87.00	0.73	-0.10	-0.72
	9519.00	90.18	357.86	212.2	3205.12	744.64	6112.05	1487.05	3245.17	86.00	0.26	-0.12	0.23
	9607.00	90.18	359.01	212.2	3293.08	742.24	6111.77	1486.77	3332.82	88.00	1.31	0.00	1.31
	9695.00	90.43	359.15	214.9	3381.07	740.83	6111.30	1486.30	3420.55	88.00	0.33	0.28	0.16
	9783.00	90.34	358.07	214.9	3469.04	738.69	6110.71	1485.71	3508.22	88.00	1.23	-0.10	-1.23
	9870.00	90.40	357.93	214.9	3555.99	735.65	6110.15	1485.15	3594.80	87.00	0.18	0.07	-0.16
	9958.00	90.49	357.15	214.9	3643.90	731.88	6109.47	1484.47	3682.32	88.00	0.89	0.10	-0.89
	10047.00	90.34	356.59	214.9	3732.77	727.02	6108.82	1483.82	3770.71	89.00	0.65	-0.17	-0.63
	10135.00	90.15	357.07	217.6	3820.63	722.15	6108.45	1483.45	3858.10	88.00	0.59	-0.22	0.55
	10224.00	90.31	355.33	217.6	3909.43	716.25	6108.09	1483.09	3946.36	89.00	1.96	0.18	-1.96
	10312.00	90.43	0.32	217.6	3997.34	712.92	6107.52	1482.52	4033.89	88.00	5.67	0.14	5.67
	10402.00	90.37	6.87	220.3	4087.11	718.56	6106.89	1481.89	4123.84	90.00	7.28	-0.07	7.28
	10490.00	90.28	1.09	220.3	4174.86	724.66	6106.39	1481.39	4211.80	88.00	6.57	-0.10	-6.57
	10577.00	90.55	357.68	223.0	4261.84	723.73	6105.76	1480.76	4298.55	87.00	3.93	0.31	-3.92
	10665.00	90.31	358.79	223.0	4349.79	721.02	6105.10	1480.10	4386.17	88.00	1.29	-0.27	1.26
	10753.00	90.22	359.42	225.7	4437.78	719.64	6104.69	1479.69	4473.90	88.00	0.72	-0.10	0.72
	10841.00	90.34	0.30	225.7	4525.78	719.43	6104.26	1479.26	4561.72	88.00	1.01	0.14	1.00
	10928.00	90.37	359.97	228.4	4612.78	719.63	6103.72	1478.72	4648.56	87.00	0.38	0.03	-0.38
	11016.00	90.18	357.61	228.4	4700.75	717.77	6103.30	1478.30	4736.25	88.00	2.69	-0.22	-2.68
	11103.00	90.34	355.82	228.4	4787.60	712.79	6102.91	1477.91	4822.62	87.00	2.07	0.18	-2.06
	11191.00	90.40	353.18	228.4	4875.19	704.36	6102.34	1477.34	4909.52	88.00	3.00	0.07	-3.00
	11278.00	90.37	352.01	231.1	4961.46	693.14	6101.75	1476.75	4994.93	87.00	1.35	-0.03	-1.34
	11365.00	90.31	353.05	231.1	5047.72	681.83	6101.24	1476.24	5080.32	87.00	1.20	-0.07	1.20
	11453.00	90.43	356.58	223.0	5135.34	673.88	6100.67	1475.67	5167.28	88.00	4.01	0.14	4.01
	11540.00	90.12	0.01	225.7	5222.29	671.29	6100.25	1475.25	5253.90	87.00	3.96	-0.36	3.94
	11627.00	90.03	3.14	228.4	5309.25	673.68	6100.14	1475.14	5340.83	87.00	3.60	-0.10	3.60
	11715.00	90.12	4.54	231.1	5397.05	679.58	6100.02	1475.02	5428.83	88.00	1.59	0.10	1.59
	11803.00	90.28	3.31	233.8	5484.84	685.60	6099.72	1474.72	5516.83	88.00	1.41	0.18	-1.40
	11892.00	90.43	0.06	236.5	5573.79	688.22	6099.16	1474.16	5605.76	89.00	3.66	0.17	-3.65
	11980.00	90.28	357.67	236.5	5661.76	686.47	6098.62	1473.62	5693.46	88.00	2.72	-0.17	-2.72
	12067.00	90.25	356.42	236.5	5748.64	681.99	6098.22	1473.22	5779.90	87.00	1.44	-0.03	-1.44
	12155.00	90.25	356.91	239.2	5836.49	676.87	6097.83	1472.83	5867.26	88.00	0.56	0.00	0.56
	12244.00	90.18	358.93	239.2	5925.43	673.64	6097.50	1472.50	5955.82	89.00	2.27	-0.08	2.27
	12331.00	90.06	0.62	239.2	6012.42	673.30	6097.32	1472.32	6042.63	87.00	1.95	-0.14	1.94
	12419.00	90.34	3.53	239.2	6100.36	676.48	6097.01	1472.01	6130.59	88.00	3.32	0.32	3.31
	12507.00	90.12	4.82	241.9	6188.12	682.89	6096.66	1471.66	6218.58	88.00	1.49	-0.25	1.47
	12596.00	90.09	4.43	241.9	6276.83	690.07	6096.49	1471.49	6307.57	89.00	0.44	-0.03	-0.44
	12683.00	90.15	3.32	241.9	6363.63	695.95	6096.31	1471.31	6394.56	87.00	1.28	0.07	-1.28
	12772.00	90.09	2.47	241.9	6452.51	700.44	6096.12	1471.12	6483.56	89.00	0.96	-0.07	-0.96
	12859.00	90.18	0.68	241.9	6539.48	702.83	6095.92	1470.92	6570.50	87.00	2.06	0.10	-2.06
	12947.00	90.18	359.25	244.6	6627.48	702.78	6095.64	1470.64	6658.32	88.00	1.62	0.00	-1.62
	13035.00	90.03	358.92	244.6	6715.46	701.37	6095.48	1470.48	6746.06	88.00	0.41	-0.17	-0.37
	13121.00	90.03	358.76	244.6	6801.45	699.63	6095.44	1470.44	6831.76	86.00	0.19	0.00	-0.19
	13209.00	90.06	359.61	244.6	6889.44	698.38	6095.37	1470.37	6919.51	88.00	0.97	0.03	0.97
	13297.00	89.97	359.53	247.3	6977.43	697.72	6095.34	1470.34	7007.29	88.00	0.14	-0.10	-0.09
	13385.00	90.15	358.60	247.3	7065.42	696.28	6095.25	1470.25	7095.02	88.00	1.08	0.20	-1.06
	13472.00	90.18	359.17	247.3	7152.40	694.59	6095.00	1470.00	7181.73	87.00	0.66	0.03	0.66
	13561.00	90.09	0.11	247.3	7241.40	694.03	6094.79	1469.79	7270.52	89.00	1.06	-0.10	1.06
	13649.00	89.88	359.48	247.3	7329.40	693.72	6094.81	1469.81	7358.33	88.00	0.75	-0.24	-0.72
	13737.00	89.72	359.46	247.3	7417.40	692.90	6095.12	1470.12	7446.11	88.00	0.18	-0.18	-0.02
	13826.00	89.91	357.47	247.3	7506.36	690.52	6095.41	1470.41	7534.75	89.00	2.25	0.21	-2.24
	13914.00	90.18	357.48	250.0	7594.27	686.64	6095.34	1470.34	7622.25	88.00	0.31	0.31	0.01
	14002.00	90.15	356.98	250.0	7682.17	682.39	6095.09	1470.09	7709.72	88.00	0.57	-0.03	-0.57
	14091.00	90.25	358.69	250.0	7771.10	679.03	6094.78	1469.78	7798.27	89.00	1.92	0.11	1.92
	14179.00	90.15	0.55	247.3	7859.10	678.44	6094.47	1469.47	7886.06	88.00	2.12	-0.11	2.11
	14267.00	89.85	2.40	247.3	7947.06	680.71	6094.47	1469.47	7974.00	88.00	2.13	-0.34	2.10
	14356.00	90.25	0.24	247.3	8036.03	682.76	6094.39	1469.39	8062.92	89.00	2.47	0.45	-2.43
	14444.00	89.91	355.86	247.3	8123.96	679.77	6094.27	1469.27	8150.49	88.00	4.99	-0.39	-4.98
	14532.00	90.12	351.30	250.0	8211.39	669.93	6094.25	1469.25	8237.14	88.00	5.19	0.24	-5.18
	14621.00	89.91	355.16	247.3	8299.75	659.44	6094.22	1469.22	8324.68	89.00	4.34	-0.24	4.34
	14710.00	89.75	359.13	247.3	8388.62	655.01	6094.49	1469.49	8413.10	89.00	4.46	-0.18	4.46
	14799.00	89.97	359.70	247.3	8477.61	654.10	6094.70	1469.70	8501.87	89.00	0.69	0.25	0.64
	14886.00	89.78	357.65	247.3	8564.59	652.09	6094.89	1469.89	8588.55	87.00	2.37	-0.22	-2.36
	14973.00	89.88	357.80	250.0	8651.52	648.63	6095.15	1470.15	8675.10	87.00	0.21	0.11	0.17
	15060.00	89.94	357.66	250.0	8738.45	645.19	6095.29	1470.29	8761.65	87.00	0.18	0.07	-0.16
	15148.00	90.06	357.72	250.0	8826.38	641.64	6095.29	1470.29	8849.19	88.00	0.15	0.14	0.07
	15237.00	90.06	358.26	250.0	8915.32	638.52	6095.20	1470.20	8937.77	89.00	0.61	0.00	0.61
	15325.00	90.09	358.83	250.0	9003.29	636.28	6095.08	1470.08	9025.43	88.00	0.65	0.03	0.65
	15413.00	90.15	359.89	250.0	9091.29	635.30	6094.90	1469.90	9113.19	88.00	1.21	0.07	1.20
	15501.00	90.25	0.17	250.0	9179.29	635.35	6094.59	1469.59	9201.02	88.00	0.34	0.11	0.32
	15589.00	90.22	359.07	250.0	9267.28	634.76	6094.23	1469.23	9288.81	88.00	1.25	-0.03	-1.25
	15678.00	90.15	358.20	250.0	9356.26	632.64	6093.94	1468.94	9377.48	89.00	0.98	-0.08	-0.98
	15766.00	90.37	357.24	252.7	9444.18	629.14	6093.54	1468.54	9465.03	88.00	1.12	0.25	-1.09
	15853.00	90.06	356.93	252.7	9531.07	624.72	6093.21	1468.21	9551.47	87.00	0.50	-0.36	-0.36
	15940.00	90.22	357.00	252.7	9617.95	620.11	6093.00	1468.00	9637.89	87.00	0.20	0.18	0.08
	16028.00	90.22	357.55	252.7	9705.85	615.93	6092.66	1467.66	9725.36	88.00	0.62	0.00	0.62
	16129.00	90.18	357.87	252.7									