



2017-07-04 15:15	1	1950.00	Oil Based Mud	9.1	44	N/A	14.0	75/22.7	Active Pit	29500	0.00
2017-07-05 03:15	1	3950.00	Oil Based Mud	9.0	44	N/A	12.8	73.5/26.5	Active Pit	28000	0.00
2017-07-06 15:00	1	12986.00	Oil Based Mud	9.3	40	N/A	17.5	84.8/15.2	Active Pit	27000	0.00
2017-07-07 03:00	1	15269.00	Oil Based Mud	9.3	40	N/A	17.8	84.3/15.7	Active Pit	26000	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	ATC_SU	14236902	Near Bit VSS	5.93	6.76	7.000	4.330
1	ATC_SU	14236902	Near Bit Inclination	5.93	6.76	7.000	4.330
1	ATC_MWD	12200472	Gamma (single)	2.76	12.93	7.000	3.250
1	ATC_MWD	12200472	Directional (mag)	12.28	22.45	7.000	3.250

Service and Tool Mnemonics

Mnemonic	Name	Description
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

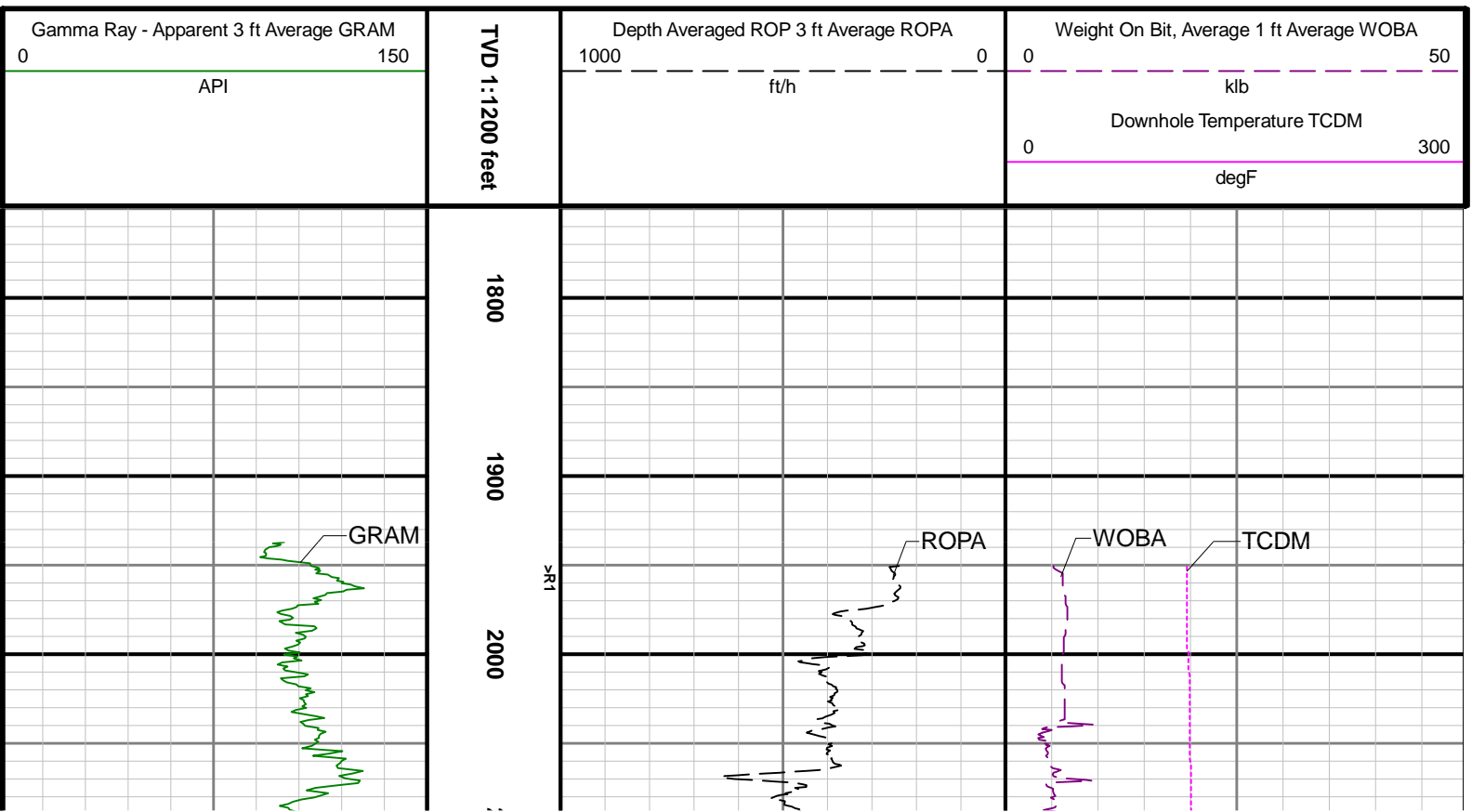
1	Depth measurements obtained from a depth control system not supplied or operated by Baker Hughes. Due to lack of control by Baker Hughes logging engineers, depth calibrations and measurements could not be independently verified.
2	Baker Hughes LWD run 1 utilized a 6 3/4 inch Navigamma service (Gamma Ray and Directional) behind a 8 1/2 inch bit and rotary steerable from 1950 to 17204 feet MD (1950 to 6083 feet TVD).
3	Large gaps in the gamma ray data are due to powering issues with the tool after a connection and drilling ahead.

Remarks

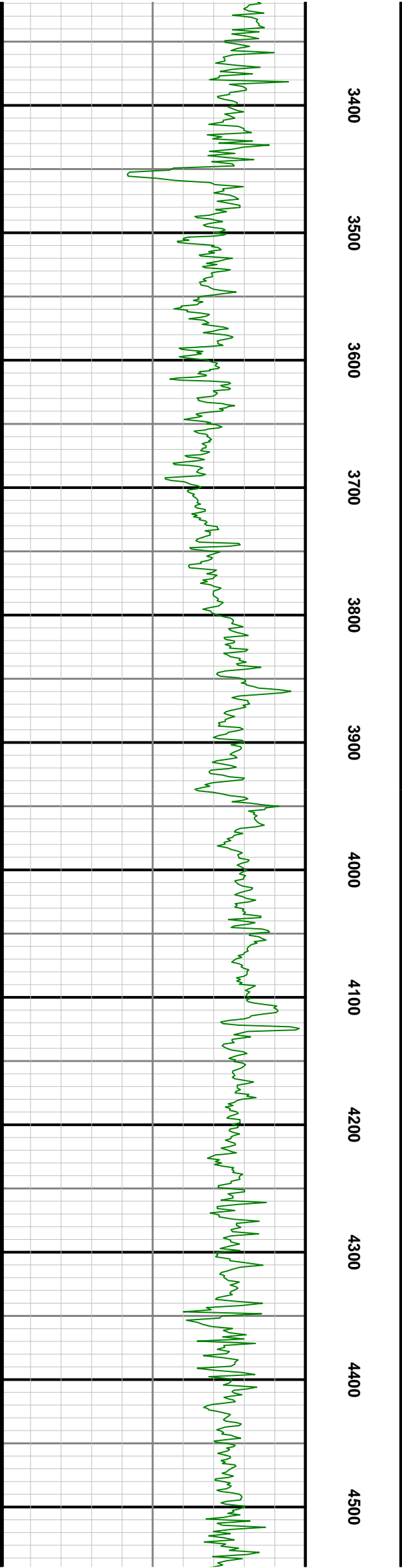
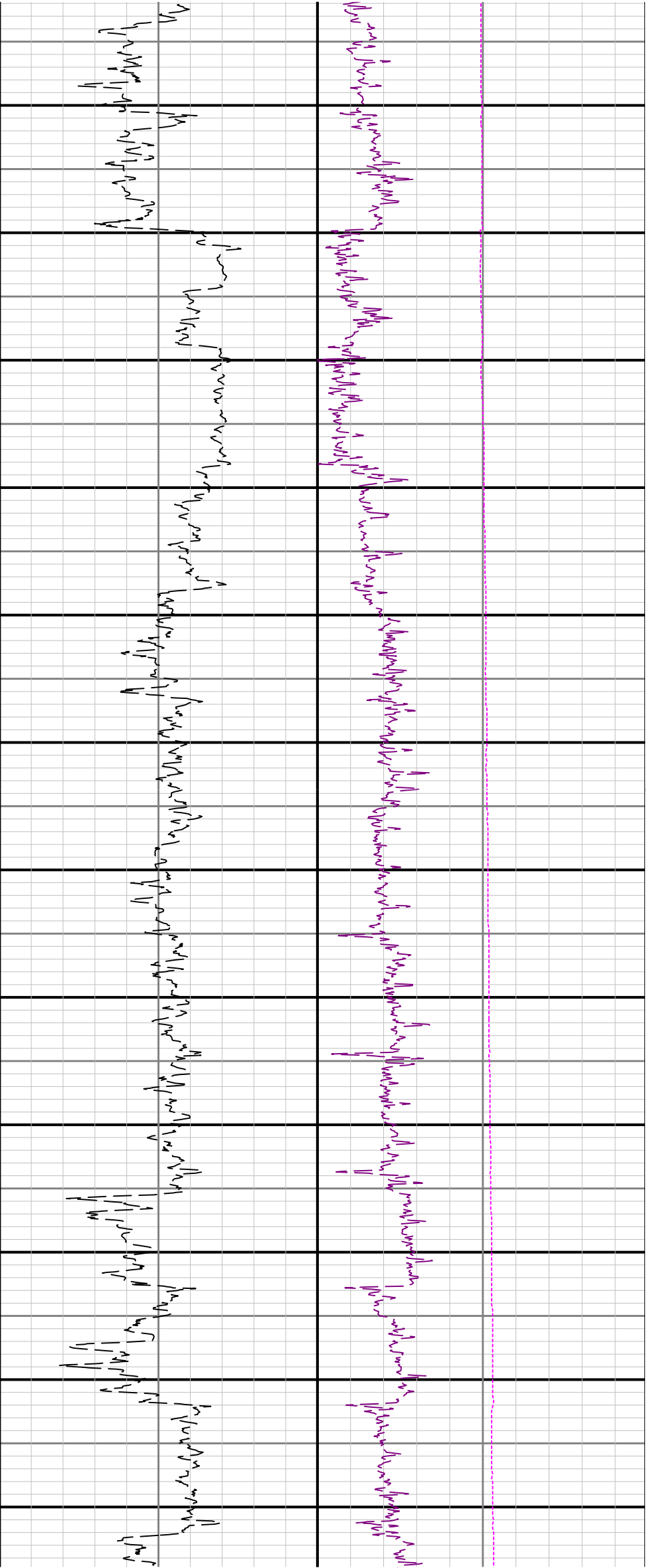
Number	Measured Depth (ft)	Hole Section (in)	Run No.	Remark
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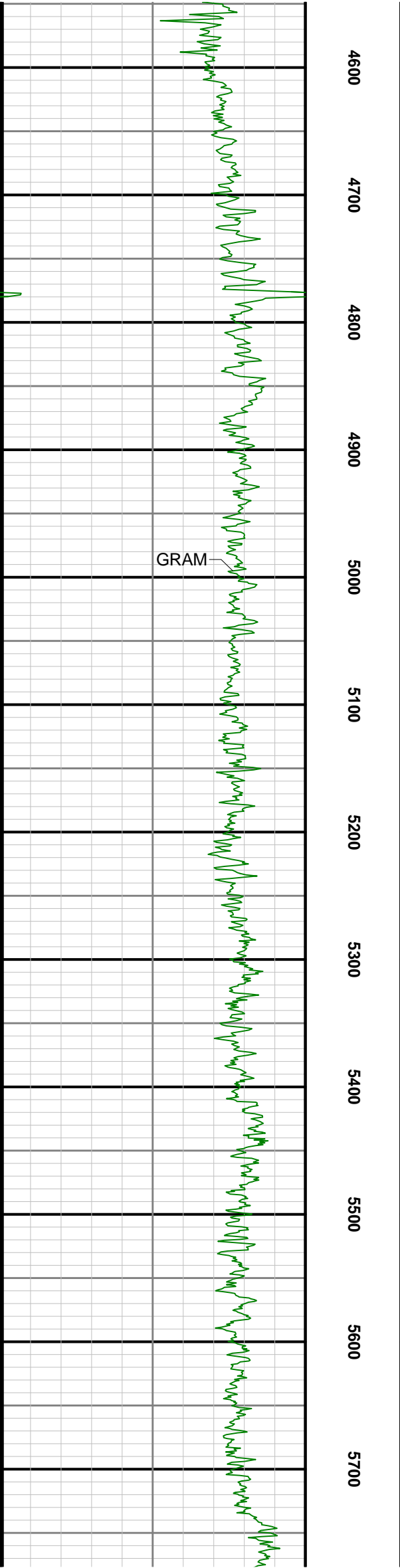
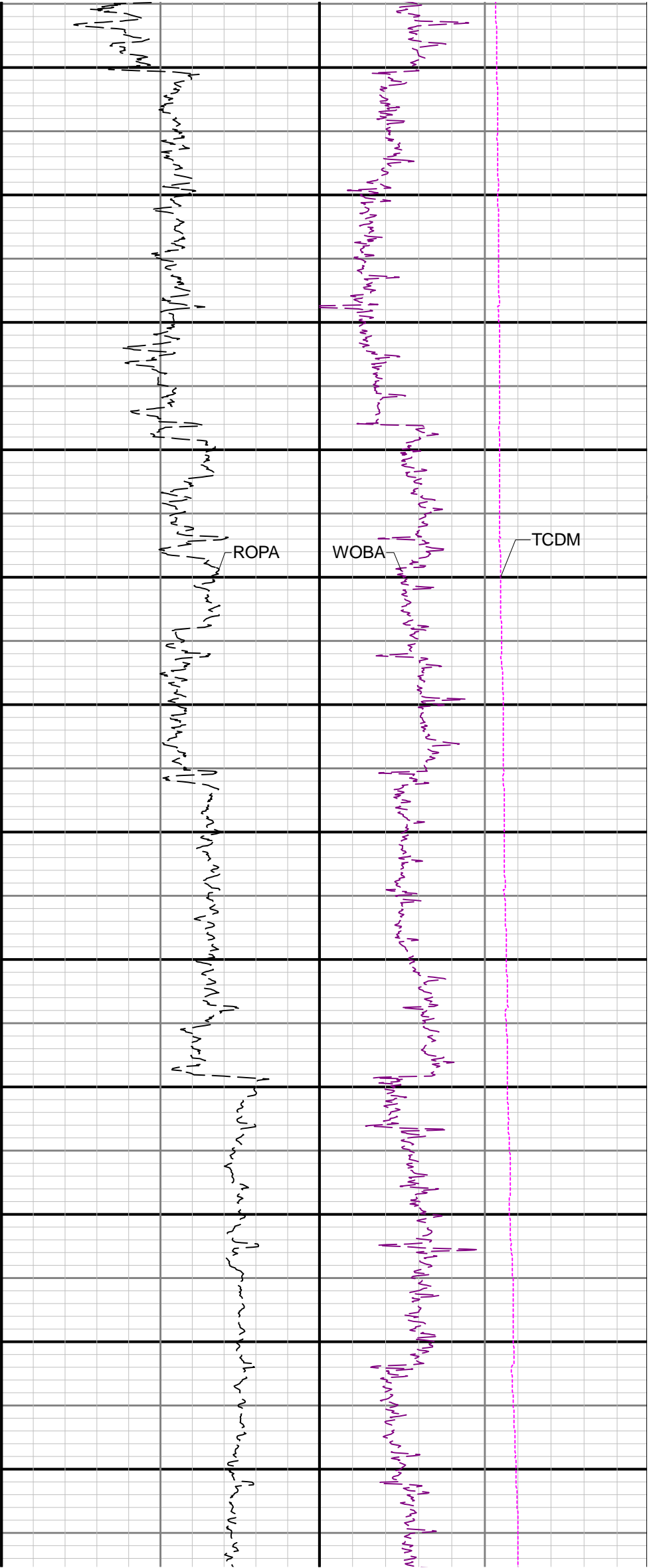
Curve Mnemonics

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 3 ft Average	API
TCDM	Downhole Temperature	degF











	1934.00	0.46	77.01	N/A	-1.21	6.43	1933.98	-1.50	61.00	0.34	0.33	-14.28
	1978.00	0.40	51.63	N/A	-1.07	6.72	1977.98	-1.38	44.00	0.45	-0.14	-57.68
	2072.00	0.50	40.03	N/A	-0.56	7.24	2071.97	-0.89	94.00	0.14	0.11	-12.34
	2167.00	0.85	242.30	N/A	-0.57	6.89	2166.97	-0.88	95.00	1.40	0.37	-166.03
	2261.00	0.82	55.56	N/A	-0.51	6.82	2260.97	-0.82	94.00	1.77	-0.03	184.32
	2356.00	0.78	225.51	N/A	-0.58	6.92	2355.97	-0.90	95.00	1.68	-0.04	178.89
	2450.00	0.03	350.34	N/A	-1.00	6.46	2449.96	-1.30	94.00	0.85	-0.80	132.80
	2545.00	1.75	233.09	N/A	-1.85	5.30	2544.95	-2.09	95.00	1.86	1.81	-123.42
	2639.00	3.45	229.73	N/A	-4.54	1.99	2638.85	-4.63	94.00	1.81	1.81	-3.57
	2734.00	5.15	226.58	N/A	-9.32	-3.28	2733.58	-9.16	95.00	1.81	1.79	-3.32
	2828.00	6.21	226.84	N/A	-15.70	-10.06	2827.11	-15.21	94.00	1.13	1.13	0.28
	2923.00	8.09	238.94	N/A	-22.66	-19.53	2921.38	-21.73	95.00	2.53	1.98	12.74
	3018.00	10.74	226.91	N/A	-32.16	-31.73	3015.10	-30.66	95.00	3.46	2.79	-12.66
	3113.00	14.27	211.29	N/A	-48.22	-44.28	3107.86	-46.12	95.00	5.11	3.72	-16.44
	3207.00	13.50	195.81	N/A	-68.69	-53.29	3199.14	-66.15	94.00	4.02	-0.82	-16.47
	3302.00	13.27	193.04	N/A	-89.98	-58.77	3291.56	-87.16	95.00	0.72	-0.24	-2.92
	3397.00	14.05	194.22	N/A	-111.78	-64.06	3383.87	-108.70	95.00	0.87	0.82	1.24
	3491.00	14.88	189.84	N/A	-134.73	-68.93	3474.89	-131.40	94.00	1.46	0.88	-4.66
	3586.00	13.85	173.66	N/A	-158.06	-69.76	3566.96	-154.67	95.00	4.35	-1.08	-17.03
	3680.00	12.37	174.85	N/A	-179.27	-67.61	3658.51	-175.95	94.00	1.60	-1.57	1.27
	3775.00	12.88	180.58	N/A	-199.99	-66.81	3751.21	-196.69	95.00	1.42	0.54	6.03
	3870.00	12.42	187.35	N/A	-220.72	-68.22	3843.91	-217.33	95.00	1.63	-0.48	7.13
	3964.00	12.86	191.31	N/A	-241.00	-71.57	3935.64	-237.43	94.00	1.03	0.47	4.21
	4059.00	13.12	202.85	N/A	-261.31	-77.83	4028.22	-257.43	95.00	2.74	0.27	12.15
	4153.00	13.35	211.40	N/A	-280.40	-87.62	4119.73	-276.05	94.00	2.09	0.24	9.10
	4248.00	13.33	204.95	N/A	-299.69	-97.96	4212.18	-294.84	95.00	1.57	-0.02	-6.79
	4342.00	13.16	200.64	N/A	-319.53	-106.30	4303.68	-314.28	94.00	1.07	-0.18	-4.59
	4437.00	13.23	193.36	N/A	-340.23	-112.63	4396.18	-334.66	95.00	1.75	0.07	-7.66
	4531.00	13.41	192.83	N/A	-361.33	-117.53	4487.65	-355.50	94.00	0.23	0.19	-0.56
	4626.00	13.14	197.93	N/A	-382.34	-123.30	4580.11	-376.23	95.00	1.26	-0.28	5.37
	4720.00	13.28	203.27	N/A	-402.43	-130.86	4671.63	-395.94	94.00	1.31	0.15	5.68
	4815.00	13.23	202.32	N/A	-422.51	-139.30	4764.10	-415.61	95.00	0.24	-0.05	-1.00
	4910.00	13.11	206.86	N/A	-442.17	-148.29	4856.60	-434.84	95.00	1.10	-0.13	4.78
	5004.00	12.79	211.53	N/A	-460.55	-158.55	4948.21	-452.73	94.00	1.16	-0.34	4.97
	5099.00	13.30	209.65	N/A	-479.01	-169.46	5040.76	-470.67	95.00	0.70	0.54	-1.98
	5193.00	13.25	210.11	N/A	-497.73	-180.21	5132.25	-488.86	94.00	0.12	-0.05	0.49
	5288.00	12.88	207.17	N/A	-516.57	-190.51	5224.79	-507.21	95.00	0.80	-0.39	-3.09
	5382.00	13.23	199.22	N/A	-536.05	-198.83	5316.37	-526.28	94.00	1.94	0.37	-8.46
	5476.00	11.88	188.32	N/A	-555.78	-203.77	5408.13	-545.76	94.00	2.89	-1.44	-11.60
	5571.00	6.79	236.93	N/A	-568.55	-209.91	5501.97	-558.23	95.00	9.43	-5.36	51.17
	5665.00	5.98	347.20	N/A	-566.80	-215.67	5595.65	-556.22	94.00	11.15	-0.86	117.31
	5760.00	14.51	352.22	N/A	-550.15	-218.38	5689.05	-539.47	95.00	9.02	8.98	5.28
	5855.00	23.40	358.64	N/A	-519.44	-220.44	5778.82	-508.69	95.00	9.60	9.36	6.76
	5949.00	31.84	10.86	N/A	-476.31	-216.20	5862.10	-465.81	94.00	10.77	8.98	13.00
	6044.00	40.57	5.44	N/A	-420.83	-208.53	5938.70	-410.73	95.00	9.78	9.19	-5.71
	6138.00	49.14	356.04	N/A	-354.74	-208.09	6005.35	-344.74	94.00	11.51	9.12	-10.00
	6233.00	58.60	354.55	N/A	-278.36	-214.44	6061.30	-268.15	95.00	10.04	9.96	-1.57
	6327.00	67.01	358.79	N/A	-194.99	-219.17	6104.23	-184.65	94.00	9.80	8.95	4.51
	6422.00	77.78	0.89	N/A	-104.58	-219.37	6132.93	-94.32	95.00	11.53	11.34	2.21
	6516.00	84.66	0.24	N/A	-11.74	-218.46	6147.27	-1.63	94.00	7.35	7.32	-0.69
	6611.00	90.06	0.16	N/A	83.12	-218.13	6151.64	93.12	95.00	5.68	5.68	-0.08
	6706.00	90.18	358.83	N/A	178.12	-218.97	6151.44	188.05	95.00	1.41	0.13	-1.40
	6800.00	90.34	357.06	N/A	272.05	-222.34	6151.02	282.04	94.00	1.89	0.17	-1.88
	6895.00	90.52	356.99	N/A	366.92	-227.27	6150.30	377.04	95.00	0.20	0.19	-0.07
	6989.00	90.46	357.04	N/A	460.79	-232.16	6149.50	471.03	94.00	0.08	-0.06	0.05
	7083.00	90.37	357.10	N/A	554.66	-236.97	6148.82	565.03	94.00	0.12	-0.10	0.06
	7178.00	90.55	355.32	N/A	649.45	-243.25	6148.06	660.00	95.00	1.88	0.19	-1.87
	7272.00	90.68	355.83	N/A	743.16	-250.50	6147.05	753.95	94.00	0.56	0.14	0.54
	7367.00	90.43	357.45	N/A	837.99	-256.07	6146.13	848.94	95.00	1.73	-0.26	1.71
	7461.00	90.77	359.53	N/A	931.95	-258.54	6145.14	942.91	94.00	2.24	0.36	2.21
	7650.00	90.59	359.47	N/A	1120.93	-260.19	6142.90	1131.76	189.00	0.10	-0.10	-0.03
	7744.00	90.58	359.14	N/A	1214.92	-261.33	6141.94	1225.70	94.00	0.35	-0.01	-0.35
	7839.00	90.46	359.51	N/A	1309.91	-262.45	6141.08	1320.64	95.00	0.41	-0.13	0.39
	7933.00	90.68	359.22	N/A	1403.90	-263.49	6140.14	1414.58	94.00	0.39	0.23	-0.31
	8028.00	90.74	359.04	N/A	1498.88	-264.94	6138.96	1509.52	95.00	0.20	0.06	-0.19
	8122.00	90.62	359.30	N/A	1592.86	-266.30	6137.85	1603.47	94.00	0.30	-0.13	0.28
	8217.00	90.52	358.46	N/A	1687.84	-268.16	6136.90	1698.43	95.00	0.89	-0.11	-0.88
	8311.00	90.58	359.29	N/A	1781.81	-270.00	6136.00	1792.39	94.00	0.89	0.06	0.88
	8406.00	90.58	0.71	N/A	1876.81	-270.00	6135.04	1887.28	95.00	1.49	0.00	1.49
	8501.00	90.74	359.92	N/A	1971.80	-269.48	6133.95	1982.15	95.00	0.85	0.17	-0.83
	8595.00	90.80	358.46	N/A	2065.78	-270.81	6132.68	2076.09	94.00	1.55	0.06	-1.55
	8690.00	90.68	356.76	N/A	2160.68	-274.77	6131.46	2171.08	95.00	1.79	-0.13	-1.79
	8784.00	90.31	357.71	N/A	2254.57	-279.30	6130.64	2265.07	94.00	1.08	-0.39	1.01
	8879.00	90.31	358.61	N/A	2349.52	-282.35	6130.13	2360.06	95.00	0.95	0.00	0.95
	9068.00	90.46	355.64	N/A	2538.25	-291.83	6128.86	2549.03	189.00	1.57	0.08	-1.57
	9163.00	90.22	354.91	N/A	2632.93	-299.66	6128.30	2643.97	95.00	0.81	-0.25	-0.77
	9257.00	90.58	355.13	N/A	2726.57	-307.82	6127.64	2737.89	94.00	0.45	0.38	0.23
	9351.00	90.40	355.96	N/A	2820.28	-315.12	6126.84	2831.84	94.00	0.90	-0.19	0.88
	9446.00	90.52	356.04	N/A	2915.05	-321.74	6126.07	2926.81	95.00	0.15	0.13	0.08
	9541.00	90.25	357.60	N/A	3009.90	-327.01	6125.43	3021.80	95.00	1.67	-0.28	1.64
	9635.00	90.55	357.79	N/A	3103.82	-330.79	6124.78	3115.79	94.00	0.38	0.32	0.20
	9730.00	90.34	358.55	N/A	3198.77	-333.83	6124.04	3210.78	95.00	0.83	-0.22	0.80
	9825.00	90.25	358.46	N/A	3293.73	-338.64	6123.55	3305.73	95.00	2.10	0.23	2.10

	9825.00	90.25	358.46	N/A	3293.73	-336.31	6123.55	3305.76	95.00	0.13	-0.09	-0.09
	9919.00	90.43	358.59	N/A	3387.70	-338.73	6122.99	3399.74	94.00	0.24	0.19	0.14
	10108.00	90.43	359.70	N/A	3576.67	-341.55	6121.57	3588.64	189.00	0.59	0.00	0.59
	10203.00	90.31	1.06	N/A	3671.67	-340.92	6120.96	3683.50	95.00	1.44	-0.13	1.43
	10297.00	90.37	0.60	N/A	3765.65	-339.55	6120.40	3777.33	94.00	0.49	0.06	-0.49
	10392.00	90.52	359.48	N/A	3860.65	-339.49	6119.67	3872.22	95.00	1.19	0.16	-1.18
	10486.00	90.68	358.27	N/A	3954.62	-341.33	6118.68	3966.18	94.00	1.30	0.17	-1.29
	10580.00	90.25	354.57	N/A	4048.42	-347.20	6117.92	4060.14	94.00	3.96	-0.46	-3.94
	10674.00	90.40	354.12	N/A	4141.96	-356.46	6117.38	4154.01	94.00	0.50	0.16	-0.48
	10769.00	90.31	354.60	N/A	4236.50	-365.80	6116.80	4248.88	95.00	0.51	-0.09	0.51
	10864.00	90.46	356.23	N/A	4331.19	-373.39	6116.16	4343.82	95.00	1.72	0.16	1.72
	10958.00	90.52	357.51	N/A	4425.04	-378.53	6115.35	4437.81	94.00	1.36	0.06	1.36
	11053.00	90.74	358.55	N/A	4519.98	-381.79	6114.31	4532.80	95.00	1.12	0.23	1.09
	11147.00	90.49	358.87	N/A	4613.95	-383.91	6113.30	4626.77	94.00	0.43	-0.27	0.34
	11242.00	90.52	0.02	N/A	4708.94	-384.83	6112.46	4721.70	95.00	1.21	0.03	1.21
	11337.00	90.49	0.17	N/A	4803.94	-384.67	6111.63	4816.59	95.00	0.16	-0.03	0.16
	11431.00	90.62	0.89	N/A	4897.93	-383.80	6110.72	4910.44	94.00	0.78	0.14	0.77
	11526.00	90.55	2.62	N/A	4992.88	-380.89	6109.74	5005.15	95.00	1.82	-0.07	1.82
	11621.00	90.25	2.17	N/A	5087.79	-376.92	6109.08	5099.78	95.00	0.57	-0.32	-0.47
	11715.00	90.22	1.15	N/A	5181.75	-374.20	6108.70	5193.51	94.00	1.09	-0.03	-1.09
	11810.00	90.22	0.41	N/A	5276.74	-372.91	6108.33	5288.34	95.00	0.78	0.00	-0.78
	11904.00	90.34	359.14	N/A	5370.74	-373.28	6107.87	5382.25	94.00	1.36	0.13	-1.35
	11999.00	90.40	357.40	N/A	5465.69	-376.14	6107.26	5477.23	95.00	1.83	0.06	-1.83
	12093.00	90.25	357.92	N/A	5559.61	-379.98	6106.73	5571.23	94.00	0.58	-0.16	0.55
	12188.00	90.28	358.84	N/A	5654.57	-382.67	6106.29	5666.21	95.00	0.97	0.03	0.97
	12283.00	90.00	359.98	N/A	5749.56	-383.64	6106.05	5761.15	95.00	1.24	-0.29	1.20
	12377.00	90.55	359.95	N/A	5843.56	-383.70	6105.60	5855.05	94.00	0.59	0.59	-0.03
	12472.00	90.12	358.09	N/A	5938.54	-385.33	6105.05	5950.00	95.00	2.01	-0.45	-1.96
	12566.00	90.28	356.80	N/A	6032.44	-389.52	6104.72	6044.00	94.00	1.38	0.17	-1.37
	12661.00	90.28	356.52	N/A	6127.28	-395.05	6104.25	6138.99	95.00	0.29	0.00	-0.29
	12755.00	90.46	356.21	N/A	6221.09	-401.01	6103.65	6232.98	94.00	0.38	0.19	-0.33
	12850.00	90.40	356.63	N/A	6315.90	-406.94	6102.93	6327.96	95.00	0.45	-0.06	0.44
	12944.00	90.37	357.45	N/A	6409.77	-411.80	6102.30	6421.96	94.00	0.87	-0.03	0.87
	13039.00	90.15	357.71	N/A	6504.69	-415.81	6101.87	6516.95	95.00	0.36	-0.23	0.27
	13134.00	90.25	356.16	N/A	6599.55	-420.89	6101.54	6611.95	95.00	1.63	0.11	-1.63
	13229.00	90.18	354.83	N/A	6694.25	-428.35	6101.18	6706.90	95.00	1.40	-0.07	-1.40
	13323.00	90.31	356.01	N/A	6787.95	-435.86	6100.78	6800.84	94.00	1.26	0.14	1.26
	13417.00	90.18	356.75	N/A	6881.76	-441.79	6100.38	6894.82	94.00	0.80	-0.14	0.79
	13512.00	90.15	358.00	N/A	6976.66	-446.14	6100.11	6989.82	95.00	1.32	-0.03	1.32
	13606.00	90.22	0.05	N/A	7070.64	-447.74	6099.80	7083.78	94.00	2.18	0.07	2.18
	13701.00	90.28	359.78	N/A	7165.64	-447.88	6099.39	7178.68	95.00	0.29	0.06	-0.28
	13796.00	90.12	359.61	N/A	7260.63	-448.39	6099.06	7273.60	95.00	0.25	-0.17	-0.18
	13890.00	90.18	358.43	N/A	7354.62	-449.99	6098.81	7367.56	94.00	1.26	0.06	-1.26
	13985.00	90.15	356.81	N/A	7449.53	-453.94	6098.54	7462.55	95.00	1.71	-0.03	-1.71
	14079.00	90.34	356.51	N/A	7543.37	-459.42	6098.14	7556.55	94.00	0.38	0.20	-0.32
	14174.00	90.31	357.58	N/A	7638.24	-464.31	6097.60	7651.54	95.00	1.13	-0.03	1.13
	14268.00	90.40	357.47	N/A	7732.15	-468.37	6097.01	7745.54	94.00	0.15	0.10	-0.12
	14363.00	90.12	358.58	N/A	7827.09	-471.65	6096.58	7840.53	95.00	1.21	-0.29	1.17
	14458.00	90.18	1.37	N/A	7922.08	-471.69	6096.33	7935.42	95.00	2.94	0.06	2.94
	14552.00	90.40	4.72	N/A	8015.94	-466.70	6095.86	8028.94	94.00	3.57	0.23	3.56
	14647.00	90.18	6.35	N/A	8110.49	-457.53	6095.38	8122.97	95.00	1.73	-0.23	1.72
	14836.00	90.62	2.79	N/A	8298.85	-442.48	6094.06	8310.44	189.00	1.90	0.23	-1.88
	14931.00	90.86	358.85	N/A	8393.82	-441.12	6092.83	8405.24	95.00	4.15	0.25	-4.15
	15025.00	90.28	354.07	N/A	8487.61	-446.92	6091.89	8499.19	94.00	5.12	-0.62	-5.09
	15119.00	90.25	353.08	N/A	8581.01	-457.44	6091.46	8592.99	94.00	1.05	-0.03	-1.05
	15214.00	90.18	349.03	N/A	8674.84	-472.21	6091.10	8687.39	95.00	4.26	-0.07	-4.26
	15308.00	90.22	350.23	N/A	8767.30	-489.13	6090.77	8780.54	94.00	1.28	0.04	1.28
	15403.00	90.43	352.10	N/A	8861.17	-503.72	6090.24	8874.98	95.00	1.98	0.22	1.97
	15497.00	90.18	356.42	N/A	8954.67	-513.12	6089.74	8968.82	94.00	4.60	-0.27	4.60
	15592.00	90.95	356.13	N/A	9049.47	-519.29	6088.80	9063.80	95.00	0.87	0.81	-0.31
	15687.00	90.15	358.58	N/A	9144.35	-523.67	6087.89	9158.78	95.00	2.71	-0.84	2.58
	15781.00	90.25	3.81	N/A	9238.30	-521.71	6087.56	9252.54	94.00	5.56	0.11	5.56
	15876.00	90.25	4.67	N/A	9333.04	-514.69	6087.14	9346.85	95.00	0.91	0.00	0.91
	15970.00	90.18	3.20	N/A	9426.81	-508.24	6086.79	9440.23	94.00	1.57	-0.07	-1.56
	16065.00	90.15	2.56	N/A	9521.69	-503.46	6086.52	9534.79	95.00	0.67	-0.03	-0.67
	16159.00	90.28	0.93	N/A	9615.64	-500.60	6086.16	9628.51	94.00	1.74	0.14	-1.73
	16254.00	90.28	359.37	N/A	9710.64	-500.35	6085.70	9723.39	95.00	1.64	0.00	-1.64
	16349.00	90.28	357.86	N/A	9805.61	-502.65	6085.24	9818.36	95.00	1.59	0.00	-1.59
	16443.00	90.31	357.15	N/A	9899.52	-506.74	6084.75	9912.36	94.00	0.76	0.03	-0.76
	16538.00	90.18	357.51	N/A	9994.41	-511.17	6084.35	10007.36	95.00	0.40	-0.14	0.38
	16727.00	90.22	357.19	N/A	10183.21	-519.90	6083.69	10196.36	189.00	0.17	0.02	-0.17
	16821.00	90.18	358.90	N/A	10277.15	-523.11	6083.36	10290.35	94.00	1.82	-0.04	1.82
Projection	17204.00	90.18	358.90	N/A	10660.08	-530.46	6082.15	10673.20	383.00	0.00	0.00	0.00