

[illegible]

[illegible]



ProDirectional

Survey Data Sheet

Customer: Marathon Oil

Well: Grama Ridge 8 State 5H

Rig: H&P 480

Field: Bone Springs

Pad:

Pro Job #: LNM5147117

County/Parish: Lea

State: New Mexico

Day MWD Operator: Ronnie Watson

Night MWD Operator: Michael Bostic

Day Directional Driller: Johnny Gabrielson

Night Directional Driller: Tony Wilde

Date of First Survey: 08/09/17

Date of Last Survey: 08/20/17

Total Field (Gauss): 48249.8

Nominal Dip Angle (°): 60.22

Total Correction (°): 6.40

Map Direction:

Map Reference:

Vertical Section Plane (°): 359.64

Vertical Section Offset (ft): 0.00

Tool Code	Directional Sensor Serial #	Run #	MD	Pumped Up Inc	Pumped Up Azm	TVD	Vertical Section	N/S	E/W	Closure Distance	Closure Angle	Motor Yield	Dog Leg Severity	Temp (°F)	Vib/Shk Color	Flow Rate (gpm)	Date	Time of Pumps Up
Survey Tie-In to:			1661.98	0.60	287.00	1661.71		16.43	2.39									
MWD+IFR	7191	1	1713.0	1.1	291.20	1712.72	16.67	16.69	1.68	16.77	5.74		0.99	93		601	08/09/17	11:01
MWD+IFR	7191	1	1807.0	1.00	302.90	1806.71	17.46	17.46	0.15	17.46	0.49		0.25	95		601	08/09/17	11:47
MWD+IFR	7191	1	1902.0	0.80	308.00	1901.70	18.32	18.32	-1.07	18.35	356.65		0.23	99		602	08/09/17	12:25
MWD+IFR	7191	1	1996.0	0.60	288.40	1995.69	18.89	18.87	-2.05	18.99	353.79		0.33	104		862	08/09/17	12:49
MWD+IFR	7191	1	2091.0	0.60	288.90	2090.68	19.21	19.19	-3.00	19.43	351.12		0.01	108		861	08/09/17	13:15
MWD+IFR	7191	1	2185.0	0.90	300.00	2184.68	19.75	19.72	-4.10	20.14	348.25		0.35	109		861	08/09/17	13:37
MWD+IFR	7191	1	2279.0	0.80	290.30	2278.67	20.35	20.32	-5.36	21.01	345.23		0.19	109		861	08/09/17	14:01
MWD+IFR	7191	1	2374.0	1.00	296.90	2373.65	20.97	20.92	-6.72	21.98	342.20		0.24	110		859	08/09/17	14:24
MWD+IFR	7191	1	2468.0	0.80	301.80	2467.64	21.69	21.64	-8.01	23.07	339.69		0.23	114		861	08/09/17	14:46
MWD+IFR	7191	1	2563.0	0.70	297.20	2562.63	22.31	22.26	-9.09	24.04	337.79		0.12	118		861	08/09/17	15:12
MWD+IFR	7191	1	2658.0	0.60	341.80	2657.63	23.05	22.99	-9.76	24.98	337.00		0.53	120		859	08/09/17	15:56
MWD+IFR	7191	1	2752.0	0.60	10.50	2751.62	24.01	23.94	-9.82	25.88	337.69		0.32	122		859	08/09/17	16:20
MWD+IFR	7191	1	2847.0	0.80	39.50	2846.62	25.00	24.95	-9.31	26.63	339.53		0.42	124		858	08/09/17	16:44
MWD+IFR	7191	1	2941.0	1.50	58.80	2940.60	26.14	26.09	-7.84	27.24	343.27		0.84	126		856	08/09/17	17:06
MWD+IFR	7191	1	3035.0	2.30	75.60	3034.55	27.23	27.20	-4.96	27.64	349.66		1.03	127		857	08/09/17	17:34
MWD+IFR	7191	1	3130.0	2.20	87.40	3129.47	27.76	27.75	-1.29	27.78	357.33		0.50	124		861	08/09/17	18:38
MWD+IFR	7191	1	3224.0	2.00	91.10	3223.41	27.79	27.80	2.15	27.89	4.42		0.26	126		735	08/09/17	19:10
MWD+IFR	7191	1	3318.0	2.10	88.60	3317.35	27.78	27.81	5.51	28.35	11.21		0.14	126		735	08/09/17	19:58
MWD+IFR	7191	1	3413.0	1.40	97.90	3412.31	27.64	27.70	8.40	28.94	16.87		0.79	126		735	08/09/17	20:33
MWD+IFR	7191	1	3507.0	1.30	81.20	3506.28	27.63	27.70	10.59	29.66	20.92		0.43	126		735	08/09/17	21:58
MWD+IFR	7191	1	3601.0	1.40	73.90	3600.25	28.10	28.18	12.75	30.93	24.34		0.21	126		697	08/09/17	22:37
MWD+IFR	7191	1	3696.0	0.60	106.50	3695.24	28.27	28.36	14.34	31.78	26.82		1.00	126		697	08/09/17	23:26
MWD+IFR	7191	1	3790.0	0.50	189.10	3789.24	27.73	27.82	14.75	31.49	27.93		0.78	126		697	08/10/17	0:36
MWD+IFR	7191	1	3884.0	0.60	175.60	3883.23	26.83	26.92	14.72	30.68	28.67		0.17	131		717	08/10/17	1:10
MWD+IFR	7191	1	3979.0	0.40	199.60	3978.23	26.02	26.11	14.65	29.94	29.29		0.30	131		717	08/10/17	2:01
MWD+IFR	7191	1	4073.0	0.50	168.00	4072.23	25.31	25.40	14.62	29.31	29.92		0.28	131		717	08/10/17	2:42
MWD+IFR	7191	1	4168.0	0.60	218.90	4167.22	24.52	24.61	14.40	28.51	30.32		0.51	131		717	08/10/17	3:23
MWD+IFR	7191	1	4263.0	0.20	232.40	4262.22	24.04	24.12	13.95	27.87	30.04		0.43	131		717	08/10/17	4:40
MWD+IFR	7191	1	4357.0	0.50	259.20	4356.22	23.86	23.95	13.42	27.45	29.27		0.36	127		717	08/10/17	5:18
MWD+IFR	7191	1	4451.0	1.30	244.60	4450.21	23.34	23.41	12.05	26.33	27.24		0.88	127		717	08/10/17	5:58
MWD+IFR	7191	1	4546.0	1.90	247.40	4545.17	22.28	22.35	9.63	24.33	23.31		0.64	127		717	08/10/17	6:44
MWD+IFR	7191	1	4641.0	1.70	249.50	4640.12	21.20	21.25	6.85	22.32	17.88		0.22	127		717	08/10/17	7:37
MWD+IFR	7191	1	4735.0	1.90	252.60	4734.07	20.27	20.29	4.06	20.69	11.31		0.24	129		717	08/10/17	8:24
MWD+IFR	7191	1	4830.0	1.70	241.70	4829.03	19.14	19.15	1.32	19.20	3.93		0.42	129		717	08/10/17	11:13
MWD+IFR	7191	1	4924.0	1.90	253.70	4922.98	18.06	18.05	-1.41	18.11	355.54		0.45	129		717	08/10/17	12:02
MWD+IFR	7191	1	4957.0	1.80	253.80	4955.96	17.77	17.76	-2.43	17.92	352.21		0.30	129		717	08/10/17	12:36
MWD+IFR	7191	2	5102.0	1.60	244.30	5100.90	16.28	16.24	-6.44	17.47	338.37		0.24	117		717	08/12/17	15:36
MWD+IFR	7191	2	5196.0	1.60	242.80	5194.86	15.13	15.07	-8.79	17.45	329.75		0.04	117		717	08/12/17	16:32
MWD+IFR	7191	2	5291.0	2.00	241.70	5289.82	13.75	13.68	-11.43	17.83	320.12		0.42	117		717	08/12/17	17:29
MWD+IFR	7191	2	5385.0	2.80	246.20	5383.73	12.07	11.98	-14.98	19.18	308.66		0.87	124		717	08/12/17	18:19
MWD+IFR	7191	2	5480.0	4.10	255.10	5478.56	10.30	10.17	-20.38	22.78	296.52		1.48	124		717	08/12/17	19:04
MWD+IFR	7191	2	5575.0	4.10	258.20	5573.32	8.77	8.60	-26.99	28.32	287.68		0.23	126		717	08/12/17	19:45
MWD+IFR	7191	2	5669.0	4.00	259.50	5667.08	7.53	7.32	-33.50	34.29	282.32		0.14	126		717	08/12/17	20:22
MWD+IFR	7191	2	5764.0	4.60	258.10	5761.81	6.18	5.93	-40.49	40.92	278.33		0.64	126		717	08/12/17	21:12
MWD+IFR	7191	2	5858.0	5.10	248.50	5855.48	3.92	3.62	-48.06	48.20	274.31		1.01	126		717	08/12/17	21:59
MWD+IFR	7191	2	5953.0	5.10	249.60	5950.10	0.95	0.60	-55.95	55.95	270.61		0.10	126		588	08/12/17	22:31
MWD+IFR	7191	2	6047.0	5.10	250.40	6043.73	-1.86	-2.26	-63.80	63.84	267.97		0.08	126		588	08/12/17	22:59
MWD+IFR	7191	2	6141.0	4.80	248.80	6137.38	-4.63	-5.08	-71.40	71.58	265.93		0.35	127		588	08/12/17	23:30
MWD+IFR	7191	2	6236.0	6.10	245.40	6231.95	-8.12	-8.62	-79.70	80.16	263.83		1.41	127		588	08/13/17	00:12
MWD+IFR	7191	2	6330.0	6.30	246.60	6325.40	-12.19	-12.75	-88.97	89.88	261.85		0.25	127		588	08/13/17	00:46
MWD+IFR	7191	2	6425.0	6.40	248.90	6419.82	-16.10	-16.73	-98.70	100.10	260.38		0.29	127		588	08/13/17	01:16
MWD+IFR	7191	2	6519.0	5.80	251.10	6513.28	-19.47	-20.15	-108.08	109.94	259.44		0.68	127		588	08/13/17	01:52
MWD+IFR	7191	2	6614.0	5.70	254.00	6607.81	-22.27	-23.01	-117.15	119.39	258.89		0.32	127		588	08/13/17	02:30
MWD+IFR	7191	2	6708.0	5.60	257.00	6701.35	-24.53	-25.32	-126.11	128.63	258.65		0.33	124		588	08/13/17	03:04

MWD+IFR	7191	2	6803.0	5.30	254.30	6795.92	-26.71	-27.55	-134.85	137.64	258.45	0.42	124		588	08/13/17	04:31
MWD+IFR	7191	2	6897.0	5.80	242.50	6889.48	-30.02	-30.92	-143.24	146.54	257.82	1.32	124		588	08/13/17	05:21
MWD+IFR	7191	2	6991.0	5.80	244.60	6983.00	-34.20	-35.15	-151.75	155.76	256.96	0.23	124		588	08/13/17	05:57
MWD+IFR	7191	2	7086.0	5.50	245.50	7077.54	-38.09	-39.10	-160.22	164.93	256.29	0.33	126		588	08/13/17	06:44
MWD+IFR	7191	2	7180.0	5.00	244.10	7171.15	-41.70	-42.76	-168.01	173.36	255.72	0.55	126		558	08/13/17	07:38
MWD+IFR	7191	2	7275.0	4.80	243.60	7265.80	-45.23	-46.33	-175.29	181.31	255.19	0.22	126		558	08/13/17	08:31
MWD+IFR	7191	2	7369.0	5.20	247.40	7359.44	-48.57	-49.72	-182.75	189.39	254.78	0.55	126		558	08/13/17	09:31
MWD+IFR	7191	2	7464.0	5.10	249.40	7454.06	-51.66	-52.86	-190.68	197.87	254.51	0.22	126		600	08/13/17	10:16
MWD+IFR	7191	2	7558.0	4.70	248.30	7547.71	-54.51	-55.75	-198.16	205.86	254.29	0.44	126		600	08/13/17	10:56
MWD+IFR	7191	2	7653.0	3.70	248.20	7642.46	-57.04	-58.33	-204.63	212.78	254.09	1.05	126		600	08/13/17	12:27
MWD+IFR	7191	2	7747.0	4.80	246.20	7736.20	-59.72	-61.04	-211.04	219.69	253.87	1.18	127		600	08/13/17	14:14
MWD+IFR	7191	2	7842.0	5.30	247.80	7830.83	-62.93	-64.30	-218.74	228.00	253.62	0.55	129		600	08/13/17	14:59
MWD+IFR	7191	2	7936.0	4.00	247.90	7924.52	-65.76	-67.18	-225.80	235.58	253.43	1.38	129		600	08/13/17	15:51
MWD+IFR	7191	2	8031.0	3.60	243.80	8019.31	-68.29	-69.74	-231.54	241.82	253.24	0.51	129		600	08/13/17	17:06
MWD+IFR	7191	2	8125.0	4.70	243.40	8113.06	-71.27	-72.77	-237.64	248.53	252.97	1.17	129		600	08/13/17	18:19
MWD+IFR	7191	2	8219.0	4.20	243.90	8206.78	-74.47	-76.01	-244.17	255.73	252.71	0.53	130		600	08/13/17	19:30
MWD+IFR	7191	2	8314.0	3.40	242.10	8301.57	-77.29	-78.86	-249.78	261.94	252.48	0.85	135		600	08/13/17	19:45
MWD+IFR	7191	2	8408.0	2.50	239.10	8395.44	-79.62	-81.21	-254.01	266.67	252.27	0.97	135		587	08/13/17	20:44
MWD+IFR	7191	2	8503.0	2.00	231.30	8490.37	-81.70	-83.31	-257.08	270.24	252.04	0.62	133		587	08/13/17	11:40
MWD+IFR	7191	2	8597.0	1.30	231.40	8584.33	-83.38	-85.01	-259.19	272.78	251.84	0.74	133		587	08/13/17	22:44
MWD+IFR	7191	2	8691.0	0.80	170.00	8678.32	-84.68	-86.32	-259.91	273.87	251.63	1.23	133		587	08/13/17	23:34
MWD+IFR	7191	2	8786.0	1.20	150.00	8773.30	-86.20	-87.83	-259.30	273.77	251.29	0.55	133		587	08/14/17	00:32
MWD+IFR	7191	2	8880.0	1.70	142.20	8867.27	-88.16	-89.79	-257.95	273.13	250.81	0.57	133		587	08/14/17	01:39
MWD+IFR	7191	2	8975.0	2.10	140.40	8962.22	-90.63	-92.24	-255.98	272.09	250.18	0.43	133		587	08/14/17	02:41
MWD+IFR	7191	2	9069.0	2.80	129.10	9056.13	-93.42	-95.02	-253.10	270.35	249.42	0.90	135		587	08/14/17	03:58
MWD+IFR	7191	2	9163.0	4.00	135.70	9149.97	-97.24	-98.81	-249.03	267.91	248.36	1.34	135		587	08/14/17	05:25
MWD+IFR	3822	3	9262.0	4.19	143.60	9248.71	-102.65	-104.19	-244.47	265.75	246.92	0.60			500	08/14/17	21:55
MWD+IFR	3822	3	9357.0	4.31	144.67	9343.45	-108.39	-109.90	-240.35	264.28	245.43	0.15			500	08/14/17	22:39
MWD+IFR	3822	3	9451.0	5.40	149.52	9437.11	-115.11	-116.59	-236.06	263.28	243.71	1.24			500	08/14/17	23:44
MWD+IFR	3822	3	9545.0	5.71	147.40	9530.67	-122.89	-124.34	-231.30	262.60	241.74	0.40			500	08/15/17	00:42
MWD+IFR	3822	3	9640.0	4.58	137.63	9625.29	-129.70	-131.13	-226.19	261.45	239.90	1.50			500	08/15/17	02:45
MWD+IFR	3822	3	9734.0	3.98	120.00	9719.03	-134.14	-135.53	-220.84	259.11	238.46	1.53			543	08/15/17	12:04
MWD+IFR	3822	3	9829.0	2.95	79.71	9813.87	-135.39	-136.74	-215.58	255.29	237.61	2.71			543	08/15/17	17:28
MWD+IFR	3822	4	9923.0	6.80	15.43	9907.57	-129.61	-130.94	-211.71	248.93	238.26	6.51			474	08/16/17	12:41
MWD+IFR	3822	4	10017.0	19.50	12.33	9998.91	-108.86	-110.16	-206.86	234.37	241.96	13.53			474	08/16/17	14:25
MWD+IFR	3822	4	10112.0	31.10	15.00	10084.66	-69.60	-70.84	-197.09	209.44	250.23	12.27			474	08/16/17	16:02
MWD+IFR	3822	4	10157.0	33.00	13.73	10122.80	-46.50	-47.71	-191.18	197.04	255.99	4.48			474	08/16/17	17:44
MWD+IFR	3822	4	10202.0	37.50	9.23	10159.54	-21.10	-22.27	-186.07	187.40	263.18	11.54			474	08/16/17	19:13
MWD+IFR	3822	4	10247.0	41.50	3.33	10194.27	7.31	6.16	-183.00	183.11	271.93	12.18			580	08/16/17	19:53
MWD+IFR	3822	4	10301.0	44.00	359.93	10233.93	43.93	42.79	-181.99	186.95	283.23	6.30			580	08/16/17	20:55
MWD+IFR	3822	4	10348.0	44.50	359.43	10267.59	76.73	75.58	-182.17	197.23	292.53	1.30			580	08/16/17	22:00
MWD+IFR	3822	4	10395.0	47.00	358.93	10300.39	110.39	109.24	-182.65	212.83	300.88	5.37			580	08/16/17	22:50
MWD+IFR	3822	4	10442.0	50.70	0.03	10331.31	145.77	144.62	-182.97	233.22	308.32	8.07			580	08/16/17	23:21
MWD+IFR	3822	4	10490.0	55.20	0.43	10360.22	184.07	182.92	-182.81	258.61	315.02	9.40			580	08/17/17	00:31
MWD+IFR	3822	4	10537.0	58.30	354.64	10386.01	223.31	222.16	-184.53	288.80	320.29	12.23			577	08/17/17	01:25
MWD+IFR	3822	4	10584.0	60.10	354.33	10410.07	263.52	262.34	-188.41	322.99	324.31	3.87			578	08/17/17	02:31
MWD+IFR	3822	4	10631.0	64.00	355.03	10432.10	304.87	303.67	-192.26	359.42	327.66	8.40			578	08/17/17	03:18
MWD+IFR	3822	4	10679.0	68.20	355.83	10451.54	348.63	347.41	-195.75	398.76	330.60	8.88			578	08/17/17	04:05
MWD+IFR	3822	4	10726.0	70.70	355.63	10468.04	392.53	391.29	-199.03	439.00	333.04	5.33			578	08/17/17	04:53
MWD+IFR	3822	4	10773.0	73.50	356.03	10482.48	437.16	435.89	-202.28	480.54	335.11	6.01			578	08/17/17	05:53
MWD+IFR	3822	4	10820.0	75.50	356.03	10495.04	482.35	481.07	-205.41	523.09	336.88	4.26			578	08/17/17	06:56
MWD+IFR	3822	4	10868.0	79.00	355.63	10505.63	529.06	527.76	-208.82	567.57	338.41	7.34			578	08/17/17	07:52
MWD+IFR	3822	4	10915.0	80.50	355.03	10513.99	575.18	573.85	-212.58	611.96	339.67	3.43			578	08/17/17	08:53
MWD+IFR	3822	4	10962.0	84.30	354.63	10520.21	621.59	620.24	-216.78	657.03	340.73	8.13			578	08/17/17	10:17
MWD+IFR	3822	4	11009.0	86.20	355.63	10524.10	668.28	666.91	-220.76	702.50	341.68	4.56			578	08/17/17	11:15
MWD+IFR	3822	4	11057.0	87.40	356.43	10526.78	716.11	714.72	-224.07	749.02	342.59	3.00			578	08/17/17	12:26
MWD+IFR	3822	4	11104.0	88.10	357.33	10528.63	763.02	761.61	-226.63	794.61	343.43	2.42			578	08/17/17	13:31
MWD+IFR	3822	4	11151.0	88.60	357.43	10529.98	809.96	808.54	-228.78	840.28	344.20	1.08			578	08/17/17	14:20
MWD+IFR	3822	4	11246.0	85.90	357.53	10534.54	904.78	903.33	-232.95	932.88	345.54	2.84			578	08/17/17	16:08
MWD+IFR	3822	4	11340.0	86.30	357.23	10540.93	998.49	997.02	-237.24	1024.85	346.62	0.53			578	08/17/17	17:48
MWD+IFR	3822	4	11435.0	85.30	357.23	10547.89	1093.15	1091.65	-241.81	1118.11	347.51	1.05			557	08/17/17	19:24
MWD+IFR	3822	4	11529.0	87.67	356.90	10553.65	1186.87	1185.34	-246.62	1210.73	348.25	2.55			557	08/17/17	20:27
MWD+IFR	3822	4	11624.0	88.00	359.33	10557.24	1281.76	1280.22	-249.74	1304.35	348.96	2.58			533	08/17/17	23:50
MWD+IFR	3822	4	11718.0	87.20	0.63	10561.18	1375.67	1374.13	-249.77	1396.65	349.70	1.62			593	08/18/17	01:38

MWD+IFR	3822	4	11813.0	86.90	2.03	10566.07	1470.50	1468.98	-247.57	1489.69	350.43	1.51	600	08/18/17	03:04
MWD+IFR	3822	4	11908.0	88.40	1.63	10569.96	1565.35	1563.85	-244.54	1582.85	351.11	1.63	600	08/18/17	04:22
MWD+IFR	3822	4	12002.0	87.20	1.33	10573.57	1659.23	1657.74	-242.12	1675.33	351.69	1.32	530	08/18/17	06:23
MWD+IFR	3822	4	12097.0	86.80	0.13	10578.54	1754.08	1752.60	-240.91	1769.08	352.17	1.33	530	08/18/17	08:18
MWD+IFR	3822	4	12191.0	84.80	359.43	10585.43	1847.82	1846.34	-241.27	1862.04	352.56	2.25	530	08/18/17	10:34
MWD+IFR	3822	4	12286.0	84.70	359.33	10594.12	1942.42	1940.94	-242.29	1956.00	352.88	0.15	530	08/18/17	12:00
MWD+IFR	3822	4	12380.0	86.10	359.43	10601.66	2036.12	2034.63	-243.30	2049.13	353.18	1.49	530	08/18/17	14:12
MWD+IFR	3822	4	12475.0	86.90	0.13	10607.46	2130.94	2129.45	-243.67	2143.35	353.47	1.12	570	08/18/17	15:19
MWD+IFR	3822	4	12569.0	87.30	0.13	10612.21	2224.82	2223.33	-243.45	2236.62	353.75	0.43	570	08/18/17	16:49
MWD+IFR	3822	4	12663.0	88.20	359.33	10615.90	2318.74	2317.25	-243.90	2330.05	353.99	1.28	570	08/18/17	18:15
MWD+IFR	3822	4	12757.0	88.50	358.73	10618.61	2412.70	2411.20	-245.49	2423.67	354.19	0.71	570	08/18/17	19:56
MWD+IFR	3822	4	12852.0	88.20	358.93	10621.34	2507.65	2506.14	-247.43	2518.33	354.36	0.38	570	08/18/17	21:23
MWD+IFR	3822	4	12946.0	89.30	358.73	10623.40	2601.61	2600.10	-249.35	2612.03	354.52	1.19	570	08/18/17	22:35
MWD+IFR	3822	4	13041.0	87.70	358.03	10625.88	2696.55	2695.02	-252.03	2706.78	354.66	1.84	570	08/19/17	00:47
MWD+IFR	3822	4	13135.0	85.40	357.33	10631.54	2790.32	2788.77	-255.83	2800.48	354.76	2.56	547	08/19/17	02:39
MWD+IFR	3822	4	13230.0	85.80	357.03	10638.83	2884.96	2883.38	-260.49	2895.12	354.84	0.53	547	08/19/17	04:02
MWD+IFR	3822	4	13324.0	85.90	358.23	10645.63	2978.65	2977.05	-264.36	2988.76	354.93	1.28	547	08/19/17	05:40
MWD+IFR	3822	4	13419.0	88.20	358.33	10650.52	3073.49	3071.87	-267.21	3083.47	355.03	2.42	578	08/19/17	07:58
MWD+IFR	3822	4	13513.0	88.30	358.93	10653.39	3167.43	3165.80	-269.46	3177.25	355.13	0.65	578	08/19/17	09:16
MWD+IFR	3822	4	13608.0	88.80	359.23	10655.79	3262.40	3260.76	-270.98	3272.00	355.25	0.61	578	08/19/17	10:41
MWD+IFR	3822	4	13702.0	88.00	359.73	10658.42	3356.36	3354.72	-271.84	3365.71	355.37	1.00	578	08/19/17	12:09
MWD+IFR	3822	4	13797.0	89.80	359.13	10660.24	3451.34	3449.69	-272.78	3460.46	355.48	2.00	578	08/19/17	14:07
MWD+IFR	3822	4	13891.0	90.10	358.83	10660.32	3545.33	3543.67	-274.45	3554.29	355.57	0.45	578	08/19/17	16:23
MWD+IFR	3822	4	13986.0	90.60	358.63	10659.74	3640.31	3638.65	-276.56	3649.14	355.65	0.57	578	08/19/17	17:53
MWD+IFR	3822	4	14080.0	89.50	359.43	10659.66	3734.31	3732.63	-278.15	3742.98	355.74	1.45	578	08/19/17	19:49
MWD+IFR	3822	4	14175.0	88.00	359.43	10661.73	3829.28	3827.60	-279.10	3837.77	355.83	1.58	570	08/19/17	21:44
MWD+IFR	3822	4	14269.0	87.40	0.03	10665.51	3923.20	3921.53	-279.54	3931.48	355.92	0.90	570	08/19/17	23:46
MWD+IFR	3822	4	14363.0	88.60	359.43	10668.79	4017.15	4015.47	-279.98	4025.21	356.01	1.43	570	08/20/17	01:28
MWD+IFR	3822	4	14458.0	89.40	359.53	10670.44	4112.13	4110.45	-280.84	4120.03	356.09	0.85	570	08/20/17	03:35
MWD+IFR	3822	4	14552.0	88.60	359.93	10672.08	4206.11	4204.43	-281.29	4213.83	356.17	0.95	570	08/20/17	06:20
MWD+IFR	3822	4	14647.0	89.90	359.23	10673.33	4301.10	4299.42	-281.98	4308.65	356.25	1.55	570	08/20/17	08:23
MWD+IFR	3822	4	14741.0	90.50	359.03	10673.00	4395.10	4393.40	-283.41	4402.54	356.31	0.67	570	08/20/17	10:11
MWD+IFR	3822	4	14835.0	91.60	359.13	10671.28	4489.08	4487.38	-284.92	4496.41	356.37	1.18	570	08/20/17	11:51
MWD+IFR	3822	4	14930.0	92.60	358.53	10667.80	4584.00	4582.29	-286.86	4591.26	356.42	1.23	570	08/20/17	13:35
MWD+IFR	3822	4	14993.0	93.20	358.03	10664.61	4646.90	4645.18	-288.75	4654.15	356.44	1.24	570	08/20/17	14:46
MWD+IFR	3822	PTB	15044.0	93.20	358.02	10661.76	4697.80	4696.07	-290.50	4705.05	356.46	0.02	570	08/20/17	