



Company: Jay-Bee Oil & Gas  
Lease/Well: Sneezy/11

Rig Name: Jay-Bee Oil & Gas 28  
State/Country: West Virginia/Tyler Co.  
Latitude: 39.43, Longitude: -80.67



GRID North is 0.75 Degrees West of True North  
VS-Azi: 0.00 Degrees

FIELD COPY ONLY (NOT DEFINITIVE)

Depth Reference : RKB= 5'

DRILLOG HA GYRO SURVEY CALCULATIONS

Filename: sneezy 11-de\_gyro survey.ut  
Minimum Curvature Method  
Report Date/Time: 5/13/2014 / 13:14

Vaughn Energy Services  
Martinsburg, West Virginia  
304-777-2188  
Jesse Koats

Measured Depth FT	Incl Angle Deg	Drift Direction Deg	TVD FT	+N-S FT	+E-W FT	Vertical Section FT	Closure Distance FT	Closure Direction Deg	Dogleg Severity Deg/100
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	****
100.00	0.62	234.72	100.00	-0.31	-0.44	-0.31	0.54	234.72	0.62
200.00	0.59	246.19	199.99	-0.84	-1.36	-0.84	1.60	238.41	0.13
300.00	0.93	160.69	299.99	-1.81	-1.57	-1.81	2.40	220.88	1.06
400.00	1.57	155.80	399.96	-3.83	-0.74	-3.83	3.90	180.82	0.65
500.00	1.16	180.95	499.93	-6.09	-0.19	-6.09	6.09	181.81	0.72
600.00	1.26	207.84	599.91	-8.08	-0.72	-8.08	8.11	185.12	0.57
700.00	2.22	246.03	699.87	-9.84	-3.00	-9.84	10.29	196.98	1.45
800.00	1.98	253.66	799.80	-11.11	-6.43	-11.11	12.83	210.05	0.37
900.00	1.61	236.43	899.75	-12.37	-9.25	-12.37	16.45	216.79	0.65
1000.00	1.42	231.41	999.72	-13.92	-11.39	-13.92	17.99	219.30	0.24
1100.00	1.21	221.68	1099.69	-15.48	-13.06	-15.48	20.26	220.16	0.31
1200.00	1.20	227.16	1199.67	-16.98	-14.53	-16.98	22.35	220.56	0.12
1300.00	1.01	223.64	1299.65	-18.34	-15.91	-18.34	24.28	220.95	0.20
1400.00	0.93	212.60	1399.64	-19.66	-16.95	-19.66	25.96	220.77	0.20
1500.00	0.80	206.92	1499.63	-20.96	-17.70	-20.96	27.44	220.18	0.15
1600.00	0.80	210.83	1599.62	-22.18	-18.37	-22.18	28.80	219.83	0.05
1700.00	0.86	199.19	1699.61	-23.49	-18.98	-23.49	30.19	218.94	0.18
1800.00	0.66	196.58	1799.60	-24.74	-19.39	-24.74	31.43	218.08	0.20
1900.00	0.45	190.63	1899.59	-25.88	-19.62	-25.68	32.32	217.38	0.22
2000.00	0.63	180.56	1999.59	-26.60	-19.79	-26.60	33.16	216.66	0.18
2100.00	0.58	209.43	2099.58	-27.58	-20.14	-27.58	34.16	216.14	0.20
2200.00	0.91	224.32	2199.57	-28.59	-20.95	-28.59	35.44	216.23	0.38
2300.00	0.76	249.82	2299.56	-29.39	-22.13	-29.39	36.79	216.98	0.40
2400.00	0.72	257.49	2399.55	-29.76	-23.37	-29.76	37.84	218.15	0.11
2500.00	0.66	280.25	2499.55	-29.79	-24.55	-29.79	38.61	219.60	0.28
2600.00	0.40	284.69	2599.54	-29.60	-25.46	-29.60	39.04	220.70	0.26
2700.00	0.46	278.76	2699.54	-29.45	-26.19	-29.45	39.41	221.65	0.06
2800.00	0.25	288.29	2799.54	-29.32	-26.79	-29.32	39.72	222.41	0.21
2900.00	0.36	292.24	2899.54	-29.14	-27.28	-29.14	39.92	223.12	0.11
3000.00	0.18	310.81	2999.54	-28.91	-27.70	-28.91	40.14	223.77	0.19
3100.00	0.16	294.43	3099.54	-28.75	-27.96	-28.75	40.09	224.18	0.05
3200.00	0.20	305.09	3199.53	-28.59	-28.22	-28.59	40.17	224.63	0.05
3300.00	0.14	315.45	3299.53	-28.40	-28.45	-28.40	40.20	225.05	0.06
3400.00	0.38	326.63	3399.53	-28.03	-28.72	-28.03	40.12	225.69	0.26

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Measured Depth FT	Incl Angle Deg	Drift Direction Deg	TVD FT	+N-S FT	+E-W FT	Vertical Section FT	Closure Distance FT	Closure Direction Deg	Dogleg Severity Deg/100
3500.00	0.39	334.26	3499.53	-27.44	-29.05	-27.44	39.96	226.63	0.05
3600.00	0.13	339.42	3699.53	-27.02	-29.22	-27.02	39.80	227.25	0.27
3700.00	0.30	344.37	3699.53	-26.66	-29.32	-26.66	39.62	227.73	0.17
3800.00	0.27	346.11	3799.53	-26.16	-29.66	-26.16	39.39	228.38	0.03
3900.00	0.25	356.75	3899.53	-25.71	-29.51	-25.71	39.14	228.94	0.05
4000.00	0.23	340.90	3999.53	-25.31	-29.69	-25.31	38.94	229.06	0.07
4100.00	0.21	331.24	4099.53	-24.93	-29.76	-24.96	38.83	230.00	0.04
4200.00	0.24	315.38	4199.52	-24.65	-29.93	-24.65	38.81	230.57	0.07
4300.00	0.20	312.61	4299.52	-24.37	-30.26	-24.37	38.84	231.13	0.04
4400.00	0.38	292.97	4399.52	-24.12	-30.66	-24.12	39.00	231.80	0.22
4500.00	0.49	299.05	4409.52	-23.78	-31.33	-23.78	39.33	232.80	0.12
4600.00	0.51	303.21	4509.52	-23.32	-32.08	-23.32	39.66	233.98	0.05
4700.00	0.63	298.42	4609.51	-22.81	-32.93	-22.81	40.06	235.30	0.13
4800.00	0.97	296.34	4709.50	-22.17	-34.17	-22.17	40.73	237.03	0.34
4900.00	1.08	310.18	4809.48	-21.18	-35.66	-21.18	41.47	239.29	0.27
5000.00	0.85	321.81	4909.47	-19.99	-36.84	-19.99	41.91	241.51	0.31
5100.00	0.48	330.98	5009.46	-19.04	-37.50	-19.04	42.06	243.08	0.38
5200.00	0.31	326.99	5109.46	-18.08	-38.09	-18.08	42.16	244.61	0.33
5300.00	0.81	330.55	5209.45	-16.87	-38.82	-16.87	42.33	246.51	0.05
5400.00	1.00	329.46	5309.43	-15.47	-39.63	-15.47	42.54	248.67	0.24
5500.00	1.26	328.40	5409.41	-13.75	-40.67	-13.75	42.93	251.33	0.21
5600.00	1.30	331.50	5509.39	-11.81	-41.79	-11.81	43.43	254.21	0.08
5700.00	1.62	321.66	5609.36	-9.78	-43.15	-9.78	44.25	257.23	0.33
5800.00	1.09	321.40	5709.33	-7.09	-44.57	-7.99	45.28	259.83	0.43
5900.00	1.44	315.25	5809.31	-6.36	-46.04	-6.36	46.08	262.14	0.37
6000.00	1.93	315.79	5909.26	-4.26	-48.10	-4.26	48.20	264.94	0.50
6100.00	1.53	317.92	6009.22	-2.06	-50.18	-2.06	50.22	267.65	0.41

HORIZONTAL DISPLACEMENT IS  
60.22 FEET AT 267.65 DEGREES

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V.E.S.

WV Department of  
Environmental Protection



**Company:** Jay-Bee Oil & Gas  
**Rig:** Jay-Bee Oil & Gas 28  
**Latitude:** 39.431  
**Longitude:** -80.670  
**API #** 47-095-67039  
**Date:** 5/13/14

**Well:** Sneazy 11  
**Location:** Tyler Co. W.V.  
**North Reference:** GC: 0.75  
**Depth Reference:** RKB= 5'  
**Surveyor:** Jesse Moats  
**VS:** 0.000

Field copy only not definitive.

Depth	Inc	AzG	N/ S	E/-W	TVD	DL	VS	CD	Cbrg
0.00	0.00	0.00	0.00	0.00	0.00	****	0.00	0.00	0.00
100	0.62	234.72	-0.31	-0.44	100.00	0.62	-0.31	0.54	234.72
200	0.59	246.19	-0.84	-1.36	199.99	0.13	-0.84	1.60	238.41
300	0.93	160.69	-1.81	-1.57	299.99	1.06	-1.81	2.40	220.88
400	1.57	155.80	-3.83	-0.74	399.96	0.65	-3.83	3.90	190.92
500	1.16	180.95	-6.09	-0.19	499.93	0.72	-6.09	6.09	181.81
600	1.26	207.84	-8.08	-0.72	599.91	0.57	-8.08	8.11	185.12
700	2.22	246.03	-9.84	-3.00	699.87	1.45	-9.84	10.29	196.98
800	1.98	253.66	-11.11	-6.43	799.80	0.37	-11.11	12.83	210.05
900	1.61	236.43	-12.37	-9.25	899.75	0.65	-12.37	15.45	216.79
1000	1.42	231.41	-13.92	-11.39	999.72	0.24	-13.92	17.99	219.30
1100	1.21	221.68	-15.48	-13.06	1099.69	0.31	-15.48	20.26	220.16
1200	1.20	227.16	-16.98	-14.53	1199.67	0.12	-16.98	22.35	220.56
1300	1.01	223.44	-18.34	-15.91	1299.65	0.20	-18.34	24.28	220.95
1400	0.93	212.50	-19.66	-16.95	1399.64	0.20	-19.66	25.96	220.77
1500	0.80	206.92	-20.96	-17.70	1499.63	0.15	-20.96	27.44	220.18
1600	0.80	210.83	-22.18	-18.37	1599.62	0.05	-22.18	28.80	219.63
1700	0.86	199.19	-23.49	-18.98	1699.61	0.18	-23.49	30.19	218.94
1800	0.66	196.58	-24.74	-19.39	1799.60	0.20	-24.74	31.43	218.08
1900	0.45	190.63	-25.68	-19.62	1899.59	0.22	-25.68	32.32	217.38
2000	0.63	190.56	-26.60	-19.79	1999.59	0.18	-26.60	33.16	216.66
2100	0.58	209.43	-27.58	-20.14	2099.58	0.20	-27.58	34.15	216.14
2200	0.91	224.32	-28.59	-20.95	2199.57	0.38	-28.59	35.44	216.23
2300	0.76	249.82	-29.39	-22.13	2299.56	0.40	-29.39	36.79	216.98
2400	0.72	257.49	-29.76	-23.37	2399.55	0.11	-29.76	37.84	218.15
2500	0.66	280.25	-29.79	-24.55	2499.55	0.28	-29.79	38.61	219.50
2600	0.40	284.69	-29.60	-25.46	2599.54	0.26	-29.60	39.04	220.70
2700	0.45	278.76	-29.45	-26.19	2699.54	0.06	-29.45	39.41	221.65
2800	0.25	288.29	-29.32	-26.79	2799.54	0.21	-29.32	39.72	222.41
2900	0.36	292.24	-29.14	-27.28	2899.54	0.11	-29.14	39.92	223.12
3000	0.18	310.81	-28.91	-27.70	2999.54	0.19	-28.91	40.04	223.77
3100	0.16	294.43	-28.75	-27.95	3099.54	0.05	-28.75	40.09	224.19
3200	0.20	305.09	-28.59	-28.22	3199.53	0.05	-28.59	40.17	224.63
3300	0.14	315.45	-28.40	-28.45	3299.53	0.06	-28.40	40.20	225.05
3400	0.38	326.63	-28.03	-28.72	3399.53	0.25	-28.03	40.13	225.69
3500	0.39	334.26	-27.44	-29.05	3499.53	0.05	-27.44	39.96	226.63
3600	0.13	349.42	-27.02	-29.22	3599.53	0.27	-27.02	39.80	227.25
3700	0.30	344.37	-26.65	-29.32	3699.53	0.17	-26.65	39.62	227.73

3800	0.27	346.11	-26.16	-29.44	3799.53	0.03	-26.16	39.39	228.38
3900	0.25	356.75	-25.71	-29.51	3899.53	0.05	-25.71	39.14	228.94
4000	0.23	340.99	-25.31	-29.59	3999.53	0.07	-25.31	38.94	229.46
4100	0.21	331.24	-24.96	-29.74	4099.53	0.04	-24.96	38.83	230.00
4200	0.24	315.38	-24.65	-29.98	4199.52	0.07	-24.65	38.81	230.57
4300	0.20	318.51	-24.37	-30.24	4299.52	0.04	-24.37	38.84	231.13
4400	0.38	292.97	-24.12	-30.65	4399.52	0.22	-24.12	39.00	231.80
4500	0.49	299.06	-23.78	-31.33	4499.52	0.12	-23.78	39.33	232.80
4600	0.51	304.21	-23.32	-32.08	4599.52	0.05	-23.32	39.66	233.98
4700	0.63	298.42	-22.81	-32.93	4699.51	0.13	-22.81	40.06	235.30
4800	0.97	296.34	-22.17	-34.17	4799.50	0.34	-22.17	40.73	237.03
4900	1.08	310.18	-21.18	-35.66	4899.48	0.27	-21.18	41.47	239.29
5000	0.85	321.81	-19.99	-36.84	4999.47	0.31	-19.99	41.91	241.51
5100	0.48	330.98	-19.04	-37.50	5099.46	0.38	-19.04	42.05	243.08
5200	0.81	326.99	-18.08	-38.09	5199.46	0.33	-18.08	42.16	244.61
5300	0.81	330.55	-16.87	-38.82	5299.45	0.05	-16.87	42.33	246.51
5400	1.05	329.46	-15.47	-39.63	5399.43	0.24	-15.47	42.54	248.67
5500	1.26	328.40	-13.75	-40.67	5499.41	0.21	-13.75	42.93	251.33
5600	1.30	331.50	-11.81	-41.79	5599.39	0.08	-11.81	43.43	254.21
5700	1.52	321.66	-9.78	-43.15	5699.36	0.33	-9.78	44.25	257.23
5800	1.09	321.48	-7.99	-44.57	5799.33	0.43	-7.99	45.28	259.83
5900	1.44	315.25	-6.36	-46.04	5899.31	0.37	-6.36	46.48	262.14
6000	1.93	315.79	-4.26	-48.10	5999.26	0.50	-4.26	48.29	264.94
6100	1.53	317.92	-2.06	-50.18	6099.22	0.41	-2.06	50.22	267.65

**Horizontal Displacement is**

50.22 feet at 267.65 degrees

Thank you  
 Jesse Moats  
 Vaughn Energy Services

# PANTHER DRILLING SYSTEMS MWD SURVEY REPORT



Company:	Jay Bee	Job Number:	NE140008
Well:	Sneezy #11	Magnetic Decl.:	-7.84
Location:	Broad Run rd.	Grid Corr.:	
Rig:	HWD #12	Total Grid Corr.:	

Calculation Method	Minimum Curvature
Proposed Azimuth	195.07
WELL API #	
Tie Into:	Gyro

Survey #	Survey Tool Type	Survey Depth (ft)	Inclination (deg)	Azimuth (deg)	Course Length (ft)	True Vertical Depth (ft)	Vertical Section (ft)	Coordinates		Closure		Dogleg Severity (d/100')	Build Rate (d/100')
								N/S (ft)	E/W (ft)	Distance (ft)	Angle (deg)		
Tie In		6111	1.53	317.92	0	6110.22	15.06	-2.1	-50.14	0	0	0	0
1	MP	6204.00	1.50	317.90	93	6203.19	13.73	0.28	S 51.79	W 51.79	269.70	0.03	-0.03
2	MP	6244.00	1.10	319.70	40	6243.18	13.23	0.41	N 52.39	W 52.39	270.44	1.01	-1.00
3	MP	6289.00	0.60	322.80	45	6288.17	12.84	0.92	N 52.81	W 52.81	271.00	1.12	-1.11
4	MP	6333.00	0.40	334.30	44	6332.17	12.58	1.24	N 53.02	W 53.02	271.35	0.51	-0.45
5	MP	6378.00	0.40	342.40	45	6377.17	12.33	1.54	N 53.13	W 53.13	271.66	0.13	0.00
6	MP	6422.00	0.10	25.10	44	6421.17	12.16	1.72	N 53.16	W 53.16	271.85	0.76	-0.68
7	MP	6467.00	0.30	345.70	45	6466.17	12.02	1.87	N 53.17	W 53.17	272.01	0.51	0.44
8	MP	6511.00	0.20	273.40	44	6510.17	11.94	1.98	N 53.28	W 53.28	272.13	0.70	-0.23
9	MP	6556.00	2.90	189.60	45	6555.15	13.09	0.87	N 53.55	W 53.55	270.93	6.41	6.00
10	MP	6600.00	5.30	198.20	44	6599.03	16.22	2.16	S 54.37	W 54.41	267.72	5.62	5.45
11	MP	6645.00	6.00	203.90	45	6643.81	20.62	6.29	S 55.97	W 56.32	263.59	1.99	1.56
12	MP	6689.00	9.00	201.80	44	6687.43	26.32	11.59	S 58.18	W 59.32	258.74	6.85	6.82
13	MP	6733.00	11.50	195.90	44	6730.73	34.12	19.00	S 60.66	W 63.57	252.61	6.16	5.68
14	MP	6778.00	13.10	195.50	45	6774.69	43.71	28.23	S 63.25	W 69.27	245.95	3.56	3.56
15	MP	6820.00	16.20	194.70	42	6815.32	54.33	38.49	S 66.01	W 76.41	239.76	7.40	7.38
16	MP	6864.00	18.40	190.20	44	6857.33	67.39	51.26	S 68.80	W 85.80	233.31	5.85	5.00
17	MP	6908.00	22.20	189.30	44	6898.59	82.58	66.30	S 71.37	W 97.42	227.11	8.67	8.64
18	MP	6953.00	25.30	189.70	45	6939.78	100.62	84.18	S 74.37	W 112.32	221.46	6.90	6.89
19	MP	6997.00	27.90	191.50	44	6979.12	120.26	103.53	S 78.00	W 129.63	216.99	6.19	5.91
20	MP	7041.00	30.60	192.20	44	7017.50	141.72	124.57	S 82.42	W 149.37	213.49	6.19	6.14
21	MP	7086.00	34.20	193.70	45	7055.49	165.81	148.06	S 87.84	W 172.16	210.68	8.20	8.00
22	MP	7130.00	37.60	194.30	44	7091.13	191.60	173.09	S 94.09	W 197.01	208.53	7.77	7.73
23	MP	7174.00	41.30	194.80	44	7125.10	219.55	200.15	S 101.12	W 224.24	206.80	8.44	8.41
24	MP	7219.00	45.20	195.20	45	7157.87	250.38	229.92	S 109.10	W 254.49	205.38	8.69	8.67
25	MP	7263.00	49.10	195.30	44	7187.79	282.63	261.04	S 117.58	W 286.30	204.25	8.87	8.86
26	MP	7308.00	52.80	194.70	45	7216.13	317.57	294.79	S 126.62	W 320.83	203.24	8.29	8.22
27	MP	7353.00	56.20	193.00	45	7242.26	354.19	330.35	S 135.38	W 357.02	202.28	8.16	7.56
28	MP	7397.00	60.00	192.00	44	7265.51	391.50	366.82	S 143.45	W 393.87	201.36	8.85	8.64
29	MP	7442.00	64.20	192.70	45	7286.56	431.22	405.66	S 151.96	W 433.19	200.54	9.43	9.33
30	MP	7486.00	66.20	193.00	44	7305.02	471.13	444.60	S 160.85	W 472.80	199.89	4.59	4.55
31	MP	7530.00	66.30	192.40	44	7322.74	511.37	483.88	S 169.70	W 512.78	199.33	1.27	0.23
32	MP	7575.00	71.20	193.70	45	7339.04	553.27	524.73	S 179.17	W 554.47	198.85	11.22	10.89
33	MP	7617.00	75.30	195.20	42	7351.14	593.47	563.66	S 189.21	W 594.57	198.56	10.34	9.76
34	MP	7661.00	75.20	195.70	44	7362.35	636.02	604.67	S 200.55	W 637.06	198.35	1.12	-0.23
35	MP	7706.00	74.80	195.80	45	7373.99	679.48	646.51	S 212.35	W 680.49	198.18	0.91	-0.89
36	MP	7750.00	78.50	197.40	44	7384.15	722.27	687.53	S 224.58	W 723.28	198.09	9.12	8.41
37	MP	7794.00	81.20	197.60	44	7391.91	765.54	728.83	S 237.60	W 766.58	198.06	6.15	6.14
38	MP	7838.00	83.90	196.60	44	7397.61	809.14	770.52	S 250.43	W 810.20	198.00	6.54	6.14
39	MP	7882.00	87.20	196.00	44	7401.02	852.99	812.62	S 262.74	W 854.04	197.92	7.62	7.50
40	MP	7927.00	87.70	196.20	45	7403.03	897.93	855.81	S 275.21	W 898.97	197.83	1.20	1.11
41	MP	7969.00	88.00	195.90	42	7404.60	939.90	896.15	S 286.81	W 940.93	197.75	1.01	0.71
42	MP	8013.00	89.80	194.70	44	7405.45	983.89	938.58	S 298.42	W 984.88	197.64	4.92	4.09
43	MP	8057.00	89.10	194.20	44	7405.87	1027.88	981.18	S 309.40	W 1028.81	197.50	1.96	-1.59
44	MP	8101.00	89.00	193.70	44	7406.60	1071.87	1023.88	S 320.00	W 1072.72	197.36	1.16	-0.23
45	MP	8146.00	89.50	193.60	45	7407.19	1116.85	1067.61	S 330.62	W 1117.63	197.21	1.13	1.11
46	MP	8190.00	90.20	194.50	44	7407.30	1160.84	1110.29	S 341.30	W 1161.56	197.09	2.59	1.59
47	MP	8235.00	91.40	194.90	45	7406.67	1205.84	1153.81	S 352.72	W 1206.52	197.00	2.81	2.67
48	MP	8279.00	91.70	194.50	44	7405.48	1249.82	1196.35	S 363.88	W 1250.47	196.92	1.14	0.68
49	MP	8323.00	91.60	193.60	44	7404.22	1293.79	1239.02	S 374.56	W 1294.40	196.82	2.06	-0.23
50	MP	8368.00	91.10	193.30	45	7403.16	1338.76	1282.77	S 385.02	W 1339.31	196.71	1.30	-1.11
51	MP	8412.00	89.20	189.70	44	7403.04	1382.67	1325.88	S 393.79	W 1383.12	196.54	9.25	-4.32
52	MP	8457.00	89.50	189.60	45	7403.55	1427.46	1370.24	S 401.33	W 1427.81	196.32	0.70	0.67

## PANTHER DRILLING SYSTEMS MWD SURVEY REPORT

53	MP	8501.00	91.30	191.20	44	7403.25	1471.31	1413.51	S	409.28	W	1471.57	196.15	5.47	4.09
54	MP	8546.00	89.80	189.40	45	7402.81	1516.15	1457.78	S	417.32	W	1516.34	195.97	5.21	-3.33
55	MP	8590.00	89.80	192.60	44	7402.97	1560.04	1500.97	S	425.72	W	1560.17	195.83	7.27	0.00
56	MP	8635.00	91.90	193.90	45	7402.30	1605.00	1544.76	S	436.03	W	1605.12	195.76	5.49	4.67
57	MP	8679.00	91.70	192.70	44	7400.92	1648.96	1587.56	S	446.15	W	1649.06	195.70	2.76	-0.45
58	MP	8723.00	91.80	192.90	44	7399.57	1692.91	1630.45	S	455.89	W	1692.98	195.62	0.51	0.23
59	MP	8768.00	91.60	193.40	45	7398.24	1737.86	1674.25	S	466.12	W	1737.92	195.56	1.20	-0.44
60	MP	8812.00	90.80	193.80	44	7397.32	1781.84	1717.01	S	476.47	W	1781.89	195.51	2.03	-1.82
61	MP	8856.00	90.80	193.80	44	7396.70	1825.82	1759.73	S	486.96	W	1825.87	195.47	0.00	0.00
62	MP	8901.00	91.20	194.00	45	7395.92	1870.80	1803.41	S	497.77	W	1870.84	195.43	0.99	0.89
63	MP	8945.00	92.10	195.90	44	7394.65	1914.78	1845.90	S	509.11	W	1914.82	195.42	4.78	2.05
64	MP	8989.00	90.60	196.30	44	7393.61	1958.76	1888.16	S	521.31	W	1958.80	195.43	3.53	-3.41
65	MP	9034.00	90.20	195.80	45	7393.30	2003.76	1931.40	S	533.75	W	2003.80	195.45	1.42	-0.89
66	MP	9078.00	90.60	195.30	44	7392.99	2047.75	1973.79	S	545.55	W	2047.80	195.45	1.46	0.91
67	MP	9122.00	91.30	195.50	44	7392.26	2091.75	2016.21	S	557.23	W	2091.79	195.45	1.65	1.59
68	MP	9167.00	91.30	195.60	45	7391.24	2136.73	2059.55	S	569.29	W	2136.78	195.45	0.22	0.00
69	MP	9211.00	90.70	195.50	44	7390.47	2180.72	2101.93	S	581.09	W	2180.77	195.45	1.38	-1.36
70	MP	9256.00	89.40	195.80	45	7390.43	2225.72	2145.26	S	593.22	W	2225.77	195.46	2.96	-2.89
71	MP	9300.00	87.80	196.20	44	7391.51	2269.70	2187.54	S	605.35	W	2269.75	195.47	3.75	-3.64
72	MP	9344.00	88.20	195.90	44	7393.05	2313.67	2229.80	S	617.51	W	2313.73	195.48	1.14	0.91
73	MP	9389.00	89.30	195.50	45	7394.03	2358.65	2273.11	S	629.68	W	2358.71	195.48	2.60	2.44
74	MP	9434.00	89.40	195.50	45	7394.54	2403.65	2316.47	S	641.70	W	2403.71	195.48	0.22	0.22
75	MP	9478.00	89.30	195.10	44	7395.04	2447.64	2358.91	S	653.31	W	2447.71	195.48	0.94	-0.23
76	MP	9523.00	89.90	194.90	45	7395.35	2492.64	2402.37	S	664.96	W	2492.70	195.47	1.41	1.33
77	MP	9565.00	90.00	195.20	42	7395.39	2534.64	2442.93	S	675.87	W	2534.70	195.46	0.75	0.24
78	MP	9612.00	90.50	195.20	47	7395.18	2581.64	2488.29	S	688.19	W	2581.70	195.46	1.06	1.06
79	MP	9656.00	90.90	195.00	44	7394.64	2625.64	2530.77	S	699.65	W	2625.70	195.45	1.02	0.91
80	MP	9700.00	90.40	194.90	44	7394.15	2669.64	2573.27	S	711.00	W	2669.69	195.45	1.16	-1.14
81	MP	9745.00	90.50	194.70	45	7393.79	2714.63	2616.78	S	722.50	W	2714.69	195.43	0.50	0.22
82	MP	9789.00	89.90	194.50	44	7393.64	2758.63	2659.36	S	733.59	W	2758.68	195.42	1.44	-1.36
83	MP	9834.00	89.60	193.80	45	7393.83	2803.63	2702.99	S	744.59	W	2803.67	195.40	1.69	-0.67
84	MP	9878.00	89.50	194.00	44	7394.18	2847.62	2745.70	S	755.16	W	2847.66	195.38	0.51	-0.23
85	MP	9922.00	90.20	194.90	44	7394.30	2891.61	2788.31	S	766.14	W	2891.65	195.36	2.59	1.59
86	MP	9967.00	90.00	194.40	45	7394.22	2936.61	2831.85	S	777.52	W	2936.65	195.35	1.20	-0.44
87	MP	10011.00	89.90	194.60	44	7394.26	2980.61	2874.45	S	788.53	W	2980.64	195.34	0.51	-0.23
88	MP	10056.00	90.00	193.50	45	7394.29	3025.60	2918.10	S	799.46	W	3025.63	195.32	2.45	0.22
89	MP	10101.00	91.20	193.60	45	7393.82	3070.58	2961.84	S	810.00	W	3070.60	195.30	2.68	2.67
90	MP	10145	90.70	192.60	44	7393.09	3114.55	3004.69	S	819.97	W	3114.57	195.26	2.54	-1.14
91	MP	10190	90.70	193.80	45	7392.54	3159.52	3048.50	S	830.25	W	3159.53	195.23	2.67	0.00
92	MP	10235	90.50	193.30	45	7392.07	3204.50	3092.24	S	840.79	W	3204.51	195.21	1.20	-0.44
93	MP	10279	88.60	194.20	44	7392.42	3248.49	3134.98	S	851.25	W	3248.49	195.19	4.78	-4.32
94	MP	10323	88.40	194.30	44	7393.57	3292.47	3177.61	S	862.07	W	3292.47	195.18	0.51	-0.45
95	MP	10368	88.40	194.30	45	7394.83	3337.44	3221.20	S	873.18	W	3337.45	195.17	0.00	0.00
96	MP	10412	88.30	194.30	44	7396.09	3381.42	3263.82	S	884.05	W	3381.43	195.16	0.23	-0.23
97	MP	10456	88.70	194.20	44	7397.25	3425.40	3306.45	S	894.87	W	3425.41	195.14	0.94	0.91
98	MP	10501	90.00	194.40	45	7397.76	3470.40	3350.05	S	905.99	W	3470.40	195.13	2.92	2.89
99	MP	10545	90.00	194.20	44	7397.76	3514.39	3392.69	S	916.86	W	3514.39	195.12	0.45	0.00
100	MP	10589	89.80	193.80	44	7397.83	3558.38	3435.38	S	927.50	W	3558.38	195.11	1.02	-0.45
101	MP	10634	90.20	194.00	45	7397.83	3603.37	3479.06	S	938.31	W	3603.37	195.09	0.99	0.89
102	MP	10676	90.20	194.00	42	7397.69	3645.37	3519.81	S	948.47	W	3645.37	195.08	0.00	0.00
103	MP	10720	90.20	194.40	44	7397.53	3689.36	3562.47	S	959.27	W	3689.36	195.07	0.91	0.00
104	MP	10764	90.00	194.20	44	7397.46	3733.36	3605.11	S	970.13	W	3733.36	195.06	0.64	-0.45
105	MP	10809	90.00	194.70	45	7397.46	3778.35	3648.68	S	981.36	W	3778.35	195.05	1.11	0.00
106	MP	10853	90.30	194.80	44	7397.34	3822.35	3691.23	S	992.56	W	3822.35	195.05	0.72	0.68
107	MP	10898	90.20	194.40	45	7397.14	3867.35	3734.78	S	1003.91	W	3867.35	195.05	0.92	-0.22
108	MP	10942	90.30	194.50	44	7396.95	3911.35	3777.39	S	1014.89	W	3911.35	195.04	0.32	0.23
109	MP	10986	90.20	194.50	44	7396.76	3955.35	3819.98	S	1025.90	W	3955.35	195.03	0.23	-0.23
110	MP	11031	90.30	194.90	45	7396.56	4000.34	3863.51	S	1037.32	W	4000.34	195.03	0.92	0.22
PTB		11100	90.30	194.90	69	7396.20	4069.34	3930.19	S	1055.06	W	4069.34	195.03	0.00	0.00

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