



Stryker Energy Directional Services, LLC

SURVEY CALCULATION REPORT

Minimum Curvature Calculations



Operator: Permian Partners
 Lease Name: Monsoon Federal SWD #1
 API /Job Number: 30-025-47362 M201155
 Comments: Tie-in to Invictus Survey
 Survey Company: Stryker Energy Services

Target KBTVD: 0 Feet
 Target Angle: 0.00 Degrees
 Section Plane: 0.00 Degrees
 Declination Corrected to Grid: 6.32 Degrees
 Bit to Survey Offset: 48 Feet

Number	Measured Depth	Drift (Degrees)	Azimuth (Degrees)	Course Length	TVD (Feet)	Vertical Section	+N/-S (Feet)	+E/-W (Feet)	Closure Distance	Closure Direction	BUR	DLS
T/I	0	0.0	0.0	N/A	0.0	0.0	0.0	0.0			0.0	0.0
1	249	1.4	94.3	249	249.0	-0.2	-0.2	3.0	3.0	94.3	0.6	0.6
2	589	1.7	107.3	340	588.9	-2.0	-2.0	12.0	12.2	99.7	0.1	0.1
3	928	0.9	106.3	339	927.8	-4.3	-4.3	19.3	19.8	102.5	-0.2	0.2
4	1,009	1.8	108.6	81	1,008.7	-4.9	-4.9	21.2	21.7	102.9	1.1	1.1
5	1,103	1.4	112.1	94	1,102.7	-5.8	-5.8	23.6	24.3	103.7	-0.4	0.4
6	1,198	1.4	116.6	95	1,197.7	-6.7	-6.7	25.7	26.6	104.6	0.0	0.1
7	1,292	1.1	119.2	94	1,291.6	-7.7	-7.7	27.6	28.6	105.6	-0.3	0.3
8	1,388	1.0	117.8	96	1,387.6	-8.5	-8.5	29.1	30.3	106.3	-0.1	0.1
9	1,482	0.7	118.9	94	1,481.6	-9.2	-9.2	30.3	31.7	106.8	-0.3	0.3
10	1,577	0.5	130.6	95	1,576.6	-9.7	-9.7	31.1	32.6	107.3	-0.2	0.2
11	1,672	0.4	166.9	95	1,671.6	-10.3	-10.3	31.5	33.2	108.1	-0.1	0.3
12	1,767	0.4	192.3	95	1,766.6	-11.0	-11.0	31.5	33.4	109.2	0.0	0.2
13	1,862	0.4	189.9	95	1,861.6	-11.6	-11.6	31.4	33.5	110.3	0.0	0.0
14	1,957	0.4	224.7	95	1,956.6	-12.2	-12.2	31.1	33.4	111.4	0.0	0.3
15	2,052	0.5	225.8	95	2,051.6	-12.7	-12.7	30.6	33.1	112.6	0.1	0.1
16	2,146	0.5	224.7	94	2,145.6	-13.3	-13.3	30.0	32.8	113.9	0.0	0.0
17	2,240	0.7	220.4	94	2,239.6	-14.0	-14.0	29.4	32.5	115.5	0.2	0.2
18	2,335	0.7	230.0	95	2,334.6	-14.8	-14.8	28.5	32.2	117.5	0.0	0.1
19	2,430	0.7	232.0	95	2,429.6	-15.6	-15.6	27.6	31.7	119.4	0.0	0.0
20	2,525	0.7	238.0	95	2,524.6	-16.2	-16.2	26.7	31.2	121.3	0.0	0.1
21	2,620	0.8	224.6	95	2,619.6	-17.0	-17.0	25.7	30.8	123.5	0.1	0.2
22	2,715	0.8	228.4	95	2,714.6	-17.9	-17.9	24.8	30.6	125.9	0.0	0.1
23	2,810	1.0	217.0	95	2,809.5	-19.0	-19.0	23.8	30.4	128.7	0.2	0.3
24	2,904	0.8	226.1	94	2,903.5	-20.1	-20.1	22.8	30.4	131.4	-0.2	0.3
25	3,000	0.8	219.6	96	2,999.5	-21.1	-21.1	21.9	30.4	134.0	0.0	0.1
26	3,094	0.6	201.1	94	3,093.5	-22.1	-22.1	21.3	30.7	136.0	-0.2	0.3
27	3,285	0.3	338.0	191	3,284.5	-22.5	-22.5	20.7	30.6	137.4	-0.2	0.4
28	3,380	0.5	97.0	95	3,379.5	-22.4	-22.4	21.1	30.7	136.7	0.2	0.7
29	3,475	0.9	73.0	95	3,474.5	-22.2	-22.2	22.2	31.4	135.0	0.4	0.5
30	3,570	0.8	66.4	95	3,569.5	-21.7	-21.7	23.5	32.0	132.7	-0.1	0.1
31	3,665	0.9	68.1	95	3,664.5	-21.2	-21.2	24.8	32.6	130.5	0.1	0.1
32	3,761	0.8	67.8	96	3,760.5	-20.6	-20.6	26.1	33.3	128.3	-0.1	0.1
33	3,856	0.8	68.5	95	3,855.5	-20.1	-20.1	27.4	34.0	126.4	0.0	0.0
34	3,951	0.9	81.7	95	3,950.4	-19.8	-19.8	28.7	34.9	124.6	0.1	0.2
35	4,046	1.3	91.2	95	4,045.4	-19.7	-19.7	30.5	36.3	122.8	0.4	0.5
36	4,141	1.4	96.9	95	4,140.4	-19.9	-19.9	32.8	38.3	121.2	0.1	0.2
37	4,236	1.8	97.5	95	4,235.4	-20.2	-20.2	35.4	40.8	119.7	0.4	0.4
38	4,331	2.2	105.6	95	4,330.3	-20.9	-20.9	38.6	43.9	118.4	0.4	0.5
39	4,426	2.4	117.6	95	4,425.2	-22.3	-22.3	42.1	47.7	117.9	0.2	0.5
40	4,521	2.1	110.2	95	4,520.2	-23.8	-23.8	45.5	51.4	117.6	-0.3	0.4
41	4,605	2.1	116.7	84	4,604.1	-25.0	-25.0	48.4	54.5	117.4	0.0	0.3
42	4,710	1.7	116.2	105	4,709.0	-26.6	-26.6	51.5	57.9	117.3	-0.4	0.4
43	4,805	1.6	114.3	95	4,804.0	-27.8	-27.8	54.0	60.7	117.2	-0.1	0.1
44	4,901	1.5	110.6	96	4,900.0	-28.8	-28.8	56.4	63.3	117.0	-0.1	0.1
45	4,995	1.6	106.9	94	4,993.9	-29.6	-29.6	58.8	65.8	116.7	0.1	0.2
46	5,090	1.8	110.6	95	5,088.9	-30.5	-30.5	61.4	68.6	116.4	0.2	0.2
47	5,185	1.5	98.6	95	5,183.9	-31.2	-31.2	64.1	71.2	116.0	-0.3	0.5
48	5,280	1.4	94.6	95	5,278.8	-31.5	-31.5	66.4	73.5	115.3	-0.1	0.1
49	5,374	1.4	103.2	94	5,372.8	-31.8	-31.8	68.7	75.7	114.9	0.0	0.2



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Number	Measured Depth	Drift (Degrees)	Azimuth (Degrees)	Course Length	TVD (Feet)	Vertical Section	+N/-S (Feet)	+E/-W (Feet)	Closure Distance	Closure Direction	BUR	DLS
50	5,469	1.3	88.8	95	5,467.8	-32.1	-32.1	70.9	77.8	114.3	-0.1	0.4
51	5,564	1.1	100.4	95	5,562.7	-32.2	-32.2	72.9	79.7	113.8	-0.2	0.3
52	5,659	1.0	96.2	95	5,657.7	-32.5	-32.5	74.6	81.4	113.5	-0.1	0.1
53	5,754	1.0	87.4	95	5,752.7	-32.5	-32.5	76.3	82.9	113.1	0.0	0.2
54	5,849	0.6	77.1	95	5,847.7	-32.4	-32.4	77.6	84.0	112.7	-0.4	0.4
55	5,942	0.5	85.3	93	5,940.7	-32.2	-32.2	78.4	84.8	112.3	-0.1	0.1
56	6,037	0.6	63.1	95	6,035.7	-32.0	-32.0	79.3	85.5	112.0	0.1	0.2
57	6,132	0.4	96.6	95	6,130.7	-31.8	-31.8	80.1	86.2	111.6	-0.2	0.4
58	6,227	0.5	46.9	95	6,225.7	-31.5	-31.5	80.7	86.7	111.3	0.1	0.4
59	6,322	0.3	103.1	95	6,320.7	-31.3	-31.3	81.3	87.1	111.1	-0.2	0.4
60	6,417	0.3	25.5	95	6,415.7	-31.1	-31.1	81.6	87.3	110.9	0.0	0.4
61	6,512	0.3	342.4	95	6,510.7	-30.7	-30.7	81.6	87.2	110.6	0.0	0.2
62	6,607	0.4	282.8	95	6,605.7	-30.4	-30.4	81.2	86.7	110.5	0.1	0.4
63	6,702	0.5	281.8	95	6,700.7	-30.2	-30.2	80.5	86.0	110.6	0.1	0.1
64	6,797	0.5	294.7	95	6,795.7	-30.0	-30.0	79.7	85.2	110.6	0.0	0.1
65	6,891	0.2	245.7	94	6,889.7	-29.8	-29.8	79.2	84.6	110.6	-0.3	0.4
66	6,985	0.4	268.8	94	6,983.7	-29.9	-29.9	78.7	84.2	110.8	0.2	0.2
67	7,080	0.5	256.1	95	7,078.7	-30.0	-30.0	78.0	83.6	111.1	0.1	0.1
68	7,175	0.7	247.8	95	7,173.7	-30.3	-30.3	77.1	82.8	111.5	0.2	0.2
69	7,270	0.8	239.3	95	7,268.7	-30.9	-30.9	75.9	82.0	112.1	0.1	0.2
70	7,365	1.1	222.3	95	7,363.6	-31.9	-31.9	74.8	81.3	113.1	0.3	0.4
71	7,461	1.0	221.5	96	7,459.6	-33.2	-33.2	73.6	80.7	114.3	-0.1	0.1
72	7,556	0.8	222.1	95	7,554.6	-34.3	-34.3	72.6	80.3	115.3	-0.2	0.2
73	7,651	0.7	210.8	95	7,649.6	-35.3	-35.3	71.8	80.1	116.2	-0.1	0.2
74	7,746	0.9	217.4	95	7,744.6	-36.4	-36.4	71.1	79.9	117.1	0.2	0.2
75	7,841	0.8	222.2	95	7,839.6	-37.5	-37.5	70.2	79.6	118.1	-0.1	0.1
76	7,936	0.7	216.2	95	7,934.6	-38.5	-38.5	69.4	79.4	119.0	-0.1	0.1
77	8,031	0.7	222.6	95	8,029.6	-39.4	-39.4	68.7	79.2	119.8	0.0	0.1
78	8,126	0.7	206.5	95	8,124.6	-40.3	-40.3	68.0	79.1	120.6	0.0	0.2
79	8,220	0.8	205.5	94	8,218.6	-41.4	-41.4	67.5	79.2	121.5	0.1	0.1
80	8,315	0.9	222.3	95	8,313.5	-42.6	-42.6	66.7	79.1	122.5	0.1	0.3
81	8,410	1.3	220.2	95	8,408.5	-43.9	-43.9	65.5	78.9	123.9	0.4	0.4
82	8,505	1.2	206.4	95	8,503.5	-45.7	-45.7	64.4	78.9	125.3	-0.1	0.3
83	8,600	0.8	207.8	95	8,598.5	-47.1	-47.1	63.6	79.2	126.5	-0.4	0.4
84	8,695	0.9	206.9	95	8,693.5	-48.4	-48.4	63.0	79.4	127.5	0.1	0.1
85	8,789	1.2	235.5	94	8,787.5	-49.6	-49.6	61.8	79.3	128.7	0.3	0.6
86	8,885	1.3	226.8	96	8,883.4	-50.9	-50.9	60.2	78.8	130.2	0.1	0.2
87	8,979	1.1	246.1	94	8,977.4	-52.0	-52.0	58.6	78.3	131.6	-0.2	0.5
88	9,073	0.9	223.1	94	9,071.4	-52.9	-52.9	57.3	78.0	132.7	-0.2	0.5
89	9,168	0.9	264.3	95	9,166.4	-53.5	-53.5	56.0	77.5	133.7	0.0	0.7
90	9,263	0.7	282.7	95	9,261.4	-53.5	-53.5	54.7	76.5	134.4	-0.2	0.3
91	9,357	1.4	263.0	94	9,355.4	-53.5	-53.5	53.0	75.3	135.3	0.7	0.8
92	9,453	0.8	248.3	96	9,451.4	-53.9	-53.9	51.2	74.3	136.5	-0.6	0.7
93	9,547	0.7	304.4	94	9,545.3	-53.8	-53.8	50.1	73.5	137.0	-0.1	0.8
94	9,640	1.2	347.2	93	9,638.3	-52.5	-52.5	49.4	72.1	136.7	0.5	0.9
95	9,735	1.5	22.7	95	9,733.3	-50.4	-50.4	49.7	70.8	135.4	0.3	0.9
96	9,829	1.1	33.4	94	9,827.3	-48.5	-48.5	50.7	70.2	133.8	-0.4	0.5
97	9,922	0.8	332.7	93	9,920.3	-47.2	-47.2	50.9	69.4	132.9	-0.3	1.1
98	10,017	0.9	284.5	95	10,015.3	-46.4	-46.4	49.8	68.1	133.0	0.1	0.7
99	10,111	1.0	294.9	94	10,109.2	-45.9	-45.9	48.4	66.7	133.5	0.1	0.2
100	10,205	0.8	160.4	94	10,203.2	-46.2	-46.2	47.9	66.5	134.0	-0.2	1.8



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101	10,299	1.7	130.0	94	10,297.2	-47.7	-47.7	49.2	68.5	134.1	1.0	1.2
102	10,393	2.2	115.0	94	10,391.2	-49.3	-49.3	51.9	71.6	133.6	0.5	0.8
103	10,487	1.9	115.3	94	10,485.1	-50.8	-50.8	54.9	74.8	132.8	-0.3	0.3
104	10,581	1.2	116.2	94	10,579.1	-51.9	-51.9	57.2	77.2	132.2	-0.7	0.7
105	10,675	1.3	96.8	94	10,673.0	-52.4	-52.4	59.1	79.0	131.6	0.1	0.4
106	10,770	1.5	101.2	95	10,768.0	-52.8	-52.8	61.3	80.9	130.7	0.2	0.3
107	10,863	1.1	135.4	93	10,861.0	-53.6	-53.6	63.1	82.8	130.3	-0.5	0.9
108	10,957	0.4	188.5	94	10,955.0	-54.6	-54.6	63.7	83.9	130.6	-0.6	0.9
109	11,050	1.2	230.4	93	11,048.0	-55.6	-55.6	62.9	83.9	131.5	0.8	1.0
110	11,144	1.2	273.7	94	11,142.0	-56.2	-56.2	61.1	83.0	132.6	0.0	1.0
111	11,237	1.4	291.5	93	11,234.9	-55.7	-55.7	59.1	81.2	133.3	0.2	0.5
112	11,331	1.2	298.4	94	11,328.9	-54.8	-54.8	57.2	79.2	133.8	-0.2	0.3
113	11,425	1.5	299.8	94	11,422.9	-53.7	-53.7	55.2	77.0	134.2	0.3	0.3
114	11,519	1.3	308.0	94	11,516.8	-52.4	-52.4	53.3	74.8	134.5	-0.2	0.3
115	11,613	1.6	306.7	94	11,610.8	-51.0	-51.0	51.4	72.4	134.8	0.3	0.3
116	11,706	1.6	304.8	93	11,703.8	-49.5	-49.5	49.3	69.8	135.1	0.1	0.1
117	11,800	1.6	294.9	94	11,797.7	-48.2	-48.2	47.0	67.3	135.7	-0.1	0.3
118	11,893	1.8	268.1	93	11,890.7	-47.7	-47.7	44.4	65.2	137.0	0.2	0.9
119	11,987	1.5	265.3	94	11,984.7	-47.8	-47.8	41.8	63.5	138.8	-0.3	0.3
120	12,052	1.5	262.2	65	12,049.6	-48.0	-48.0	40.2	62.6	140.1	0.0	0.1
121	12,125	1.5	261.4	73	12,122.6	-48.3	-48.3	38.3	61.7	141.5	0.0	0.0
122	12,219	2.3	271.1	94	12,216.6	-48.4	-48.4	35.3	59.9	143.9	0.9	1.0
123	12,314	2.7	278.5	95	12,311.5	-48.0	-48.0	31.2	57.3	147.0	0.5	0.6
124	12,408	2.5	286.6	94	12,405.4	-47.1	-47.1	27.0	54.3	150.2	-0.2	0.5
125	12,502	2.5	304.2	94	12,499.3	-45.4	-45.4	23.3	51.1	152.8	0.0	0.8
126	12,595	2.6	316.5	93	12,592.2	-42.7	-42.7	20.2	47.3	154.7	0.2	0.6
127	12,689	2.2	325.9	94	12,686.1	-39.7	-39.7	17.7	43.4	155.9	-0.5	0.6
128	12,783	2.2	354.1	94	12,780.1	-36.4	-36.4	16.5	40.0	155.6	-0.1	1.1
129	12,877	1.9	7.4	94	12,874.0	-33.1	-33.1	16.5	37.0	153.5	-0.3	0.6
130	12,971	1.3	352.8	94	12,968.0	-30.5	-30.5	16.6	34.7	151.4	-0.6	0.8
131	13,066	1.6	333.5	95	13,062.9	-28.3	-28.3	15.9	32.4	150.7	0.3	0.6
132	13,159	1.9	335.3	93	13,155.9	-25.7	-25.7	14.7	29.6	150.3	0.3	0.3
133	13,251	2.2	344.9	92	13,247.8	-22.6	-22.6	13.6	26.4	149.1	0.3	0.5
134	13,344	2.0	344.3	93	13,340.8	-19.3	-19.3	12.7	23.1	146.8	-0.2	0.2
135	13,438	1.7	338.6	94	13,434.7	-16.5	-16.5	11.7	20.2	144.6	-0.3	0.3
136	13,532	1.7	333.1	94	13,528.7	-13.9	-13.9	10.6	17.5	142.8	0.0	0.2
137	13,626	1.6	333.5	94	13,622.6	-11.5	-11.5	9.3	14.8	140.9	-0.1	0.1
138	13,720	1.7	330.7	94	13,716.6	-9.2	-9.2	8.1	12.2	138.5	0.1	0.1
139	13,814	1.7	327.4	94	13,810.6	-6.8	-6.8	6.7	9.5	135.5	0.0	0.1
140	13,908	1.7	325.0	94	13,904.5	-4.5	-4.5	5.2	6.9	131.2	0.0	0.1
141	14,002	1.6	327.3	94	13,998.5	-2.3	-2.3	3.7	4.3	121.9	0.0	0.1
142	14,096	1.6	325.7	94	14,092.4	-0.1	-0.1	2.2	2.2	92.2	-0.1	0.1
143	14,190	1.6	329.2	94	14,186.4	2.1	2.1	0.8	2.3	21.2	0.0	0.1
144	14,284	2.0	335.8	94	14,280.4	4.7	4.7	-0.5	4.7	353.8	0.4	0.5
145	14,378	1.7	339.7	94	14,374.3	7.5	7.5	-1.7	7.6	347.5	-0.3	0.4
146	14,472	1.8	327.7	94	14,468.3	10.0	10.0	-2.9	10.4	343.7	0.1	0.4
147	14,566	1.5	327.9	94	14,562.2	12.3	12.3	-4.3	13.0	340.5	-0.4	0.4
148	14,660	1.5	326.6	94	14,656.2	14.3	14.3	-5.6	15.4	338.4	0.0	0.1
149	14,753	2.1	317.5	93	14,749.2	16.5	16.5	-7.5	18.2	335.7	0.7	0.7
150	14,846	2.7	320.4	93	14,842.1	19.5	19.5	-10.0	21.9	332.8	0.7	0.7



Stryker Energy Directional Services, LLC



SURVEY CALCULATION REPORT

Minimum Curvature Calculations

Operator: Permian Partners
Lease Name: Monsoon Federal SWD #1
API /Job Number: 30-025-47362 M201155
Comments: Tie-in to Invictus Survey
Survey Company: Stryker Energy Services

Target KBTVD: 0 Feet
Target Angle: 0.00 Degrees
Section Plane: 0.00 Degrees
Declination Corrected to Grid: 6.32 Degrees
Bit to Survey Offset: 48 Feet

Number	Measured Depth	Drift (Degrees)	Azimuth (Degrees)	Course Length	TVD (Feet)	Vertical Section	+N/-S (Feet)	+E/-W (Feet)	Closure Distance	Closure Direction	BUR	DLS
151	14,940	3.4	320.1	94	14,935.9	23.4	23.4	-13.3	26.9	330.4	0.7	0.7
152	15,035	3.9	320.4	95	15,030.7	28.1	28.1	-17.2	32.9	328.6	0.5	0.5
153	15,128	4.5	320.6	93	15,123.5	33.4	33.4	-21.5	39.7	327.2	0.7	0.7
154	15,232	4.2	315.2	104	15,227.2	39.2	39.2	-26.8	47.5	325.7	-0.3	0.5
155	15,326	2.3	285.2	94	15,321.0	42.1	42.1	-31.0	52.3	323.6	-2.0	2.6
156	15,419	2.5	276.8	93	15,413.9	42.9	42.9	-34.9	55.3	320.9	0.2	0.4
157	15,513	2.4	289.2	94	15,507.9	43.8	43.8	-38.8	58.5	318.4	-0.1	0.6
158	15,607	2.3	287.5	94	15,601.8	45.0	45.0	-42.5	61.9	316.7	-0.1	0.2
159	15,702	2.6	297.5	95	15,696.7	46.6	46.6	-46.2	65.6	315.2	0.3	0.5
160	15,796	3.0	306.1	94	15,790.6	49.0	49.0	-50.0	70.0	314.4	0.4	0.6
161	15,890	3.7	317.2	94	15,884.4	52.6	52.6	-54.1	75.5	314.2	0.8	1.1
162	15,984	4.0	321.9	94	15,978.2	57.5	57.5	-58.2	81.8	314.7	0.3	0.5
163	16,078	4.7	320.9	94	16,071.9	63.1	63.1	-62.7	88.9	315.2	0.7	0.7
164	16,172	4.4	319.0	94	16,165.6	68.8	68.8	-67.5	96.4	315.6	-0.3	0.4
165	16,266	4.4	324.8	94	16,259.4	74.5	74.5	-71.9	103.5	316.0	0.0	0.5
166	16,360	5.1	329.8	94	16,353.0	81.0	81.0	-76.1	111.1	316.8	0.7	0.8
167	16,454	5.6	337.8	94	16,446.6	88.8	88.8	-79.9	119.4	318.0	0.6	1.0
168	16,548	5.2	343.9	94	16,540.2	97.1	97.1	-82.8	127.6	319.6	-0.4	0.7
169	16,642	4.4	343.7	94	16,633.9	104.7	104.7	-85.0	134.8	320.9	-0.9	0.9
170	16,736	4.0	359.3	94	16,727.6	111.4	111.4	-86.0	140.7	322.3	-0.3	1.3
171	16,830	3.4	27.8	94	16,821.4	117.2	117.2	-84.7	144.6	324.1	-0.6	2.1
172	16,925	2.8	56.4	95	16,916.3	121.0	121.0	-81.5	145.9	326.0	-0.7	1.7
173	17,019	2.0	102.9	94	17,010.2	121.9	121.9	-78.0	144.7	327.4	-0.9	2.2
174	17,113	1.7	115.7	94	17,104.2	121.0	121.0	-75.2	142.4	328.1	-0.3	0.5
175	17,207	1.0	98.5	94	17,198.1	120.3	120.3	-73.1	140.8	328.7	-0.7	0.8
176	17,300	0.8	81.1	93	17,291.1	120.2	120.2	-71.7	140.0	329.2	-0.1	0.3
177	17,517	1.2	323.9	217	17,508.1	122.4	122.4	-71.5	141.7	329.7	0.2	0.8
178	17,653	0.8	84.5	136	17,644.1	123.6	123.6	-71.4	142.8	330.0	-0.3	1.3
179	17,934	2.4	32.4	281	17,925.0	128.7	128.7	-66.2	144.8	332.8	0.5	0.7
180	18,028	4.9	34.5	94	18,018.8	133.7	133.7	-62.9	147.7	334.8	2.7	2.7
181	18,122	1.6	34.9	94	18,112.6	138.0	138.0	-59.9	150.5	336.5	-3.5	3.5
182	18,215	1.0	251.5	93	18,205.6	138.8	138.8	-59.9	151.2	336.7	-0.6	2.7
183	18,310	2.4	270.9	95	18,300.5	138.6	138.6	-62.7	152.1	335.7	1.5	1.6
184	18,403	3.4	288.8	93	18,393.4	139.5	139.5	-67.3	154.9	334.3	1.0	1.4
185	18,497	2.5	269.0	94	18,487.3	140.4	140.4	-72.0	157.7	332.9	-0.9	1.4
186	18,592	2.3	240.3	95	18,582.2	139.4	139.4	-75.7	158.6	331.5	-0.2	1.3
187	18,686	3.3	241.5	94	18,676.1	137.2	137.2	-79.7	158.6	329.9	1.0	1.0
PTB	18,750	3.3	241.5	64	18,740.0	135.5	135.5	-82.9	158.8	328.5	0.0	0.0

Closure Distance @ T.D. : 179.2 Feet
Closure Direction @ T.D. : 332.6 Degrees
Distance from Section Line @ T.D. : 82.5 Feet Left of Section Line