



Stryker Energy Directional Services, LLC

- FINAL -

SURVEY CALCULATION REPORT

Minimum Curvature Calculations

Operator: Mewbourne Oil Co.
Lease Name: Pronghorn 15 B3DM Fed Com #1H
API /Job Number: 30-025-42968 M171001
Comments: Tie-in to Stryker Directional Survey
Survey Company: Stryker Energy Services

Target KBTVD: 11,380 Feet
Target Angle: 90.00 Degrees
Section Plane: 179.50 Degrees
Declination Corrected to Grid: 6.50 Degrees
Bit to Survey Offset: 49 Feet

Survey Number	Measured Depth	Drift (Degrees)	Azimuth (Degrees)	Course Length	TVD (Feet)	Vertical Section	+N/-S (Feet)	+E/-W (Feet)	BUR	DLS	KBTVD	+Above -Below	
												Target	
T/I	10,535	2.83	298.16	N/A	10,526.4	45.2	-45.4	-20.7			10526.4	853.6	
1	10,702	4.30	347.70	167	10,693.1	37.1	-37.3	-25.7	0.9	2.0	10693.1	686.9	
2	10,766	1.50	316.90	64	10,757.0	34.1	-34.4	-26.8	-4.4	4.9	10757.0	623.0	
3	10,797	4.50	188.80	31	10,788.0	35.0	-35.3	-27.2	9.7	17.9	10788.0	592.0	
4	10,829	10.60	187.20	32	10,819.7	39.2	-39.5	-27.8	19.1	19.1	10819.7	560.3	
5	10,861	17.10	184.40	32	10,850.7	46.8	-47.1	-28.5	20.3	20.4	10850.7	529.3	
6	10,892	20.70	182.10	31	10,880.1	56.8	-57.1	-29.1	11.6	11.9	10880.1	499.9	
7	10,924	22.80	179.80	32	10,909.8	68.7	-68.9	-29.2	6.6	7.1	10909.8	470.2	
8	10,955	25.00	178.20	31	10,938.1	81.2	-81.5	-29.0	7.1	7.4	10938.1	441.9	
9	10,987	27.60	176.60	32	10,966.8	95.4	-95.7	-28.4	8.1	8.4	10966.8	413.2	
10	11,019	29.90	174.70	32	10,994.9	110.8	-111.0	-27.2	7.2	7.7	10994.9	385.1	
11	11,050	32.70	174.20	31	11,021.3	126.8	-127.0	-25.6	9.0	9.1	11021.3	358.7	
12	11,082	35.10	174.80	32	11,047.9	144.6	-144.8	-23.9	7.5	7.6	11047.9	332.1	
13	11,114	36.10	173.40	32	11,073.9	163.1	-163.3	-22.0	3.1	4.0	11073.9	306.1	
14	11,145	38.10	172.30	31	11,098.7	181.7	-181.9	-19.7	6.5	6.8	11098.7	281.3	
15	11,177	41.50	172.20	32	11,123.2	202.0	-202.2	-16.9	10.6	10.6	11123.2	256.8	
16	11,208	45.30	174.50	31	11,145.8	223.2	-223.3	-14.5	12.3	13.3	11145.8	234.2	
17	11,240	47.40	176.90	32	11,167.8	246.3	-246.4	-12.7	6.6	8.5	11167.8	212.2	
18	11,272	49.50	178.40	32	11,189.1	270.2	-270.3	-11.8	6.6	7.4	11189.1	190.9	
19	11,303	51.20	178.00	31	11,208.8	294.1	-294.2	-11.0	5.5	5.6	11208.8	171.2	
20	11,335	53.30	177.30	32	11,228.4	319.4	-319.5	-10.0	6.6	6.8	11228.4	151.6	
21	11,367	56.60	177.40	32	11,246.8	345.5	-345.6	-8.8	10.3	10.3	11246.8	133.2	
22	11,398	60.50	178.40	31	11,263.0	372.0	-372.1	-7.8	12.6	12.9	11263.0	117.0	
23	11,430	63.70	178.50	32	11,278.0	400.2	-400.3	-7.0	10.0	10.0	11278.0	102.0	
24	11,462	66.50	178.60	32	11,291.4	429.3	-429.3	-6.3	8.7	8.8	11291.4	88.6	
25	11,493	68.40	179.20	31	11,303.3	457.9	-458.0	-5.7	6.1	6.4	11303.3	76.7	
26	11,525	69.00	179.40	32	11,314.9	487.7	-487.8	-5.4	1.9	2.0	11314.9	65.1	
27	11,557	72.40	179.80	32	11,325.5	517.9	-518.0	-5.2	10.6	10.7	11325.5	54.5	
28	11,589	77.40	181.00	32	11,333.8	548.8	-548.9	-5.4	15.6	16.0	11333.8	46.2	
29	11,621	80.40	181.00	32	11,340.0	580.2	-580.2	-5.9	9.4	9.4	11340.0	40.0	
30	11,652	83.30	180.00	31	11,344.4	610.8	-610.9	-6.2	9.4	9.9	11344.4	35.6	
31	11,748	88.10	178.80	96	11,351.6	706.5	-706.6	-5.2	5.0	5.2	11351.6	28.4	
32	11,844	87.80	178.80	96	11,355.0	802.5	-802.5	-3.2	-0.3	0.3	11355.0	25.0	
33	11,939	87.80	178.90	95	11,358.7	897.4	-897.4	-1.3	0.0	0.1	11358.7	21.3	
34	12,033	87.40	179.00	94	11,362.6	991.3	-991.3	0.4	-0.4	0.4	11362.6	17.4	
35	12,128	88.70	179.80	95	11,365.8	1,086.3	-1,086.3	1.4	1.4	1.6	11365.8	14.2	
36	12,223	87.20	178.90	95	11,369.2	1,181.2	-1,181.2	2.5	-1.6	1.8	11369.2	10.8	
37	12,318	86.70	177.90	95	11,374.3	1,276.0	-1,276.0	5.2	-0.5	1.2	11374.3	5.7	
38	12,413	91.90	179.70	95	11,375.5	1,371.0	-1,371.0	7.1	5.5	5.8	11375.5	4.5	
39	12,508	92.30	179.80	95	11,372.0	1,465.9	-1,465.9	7.6	0.4	0.4	11372.0	8.0	
40	12,603	91.60	180.00	95	11,368.7	1,560.9	-1,560.8	7.7	-0.7	0.8	11368.7	11.3	
41	12,698	88.70	178.90	95	11,368.5	1,655.8	-1,655.8	8.6	-3.1	3.3	11368.5	11.5	
42	12,793	88.70	178.90	95	11,370.7	1,750.8	-1,750.8	10.5	0.0	0.0	11370.7	9.3	



Stryker Energy Directional Services, LLC

SURVEY CALCULATION REPORT Minimum Curvature Calculations

Operator: Mewbourne Oil Co.
Lease Name: Pronghorn 15 B3DM Fed Com #1H
API /Job Number: 30-025-42968 M171001
Comments: Tie-in to Stryker Directional Survey
Survey Company: Stryker Energy Services

Target KBTVD: 11,380 Feet
Target Angle: 90.00 Degrees
Section Plane: 179.50 Degrees
Declination Corrected to Grid: 6.50 Degrees
Bit to Survey Offset: 49 Feet

Survey Number	Measured Depth	Drift (Degrees)	Azimuth (Degrees)	Course Length	TVD (Feet)	Vertical Section	+N/-S (Feet)	+E/-W (Feet)	BUR	DLS	KBTVD	+Above -Below Target
43	12,888	87.90	177.80	95	11,373.5	1,845.7	-1,845.7	13.2	-0.8	1.4	11373.5	6.5
44	12,983	84.80	176.50	95	11,379.5	1,940.4	-1,940.3	17.9	-3.3	3.5	11379.5	0.5
45	13,078	88.50	177.50	95	11,385.1	2,035.1	-2,035.0	22.9	3.9	4.0	11385.1	-5.1
46	13,174	89.30	177.40	96	11,386.9	2,131.1	-2,130.9	27.1	0.8	0.8	11386.9	-6.9
47	13,269	88.70	177.20	95	11,388.6	2,226.0	-2,225.8	31.6	-0.6	0.7	11388.6	-8.6
48	13,364	89.40	178.20	95	11,390.1	2,320.9	-2,320.7	35.4	0.7	1.3	11390.1	-10.1
49	13,460	92.20	178.30	96	11,388.8	2,416.9	-2,416.6	38.4	2.9	2.9	11388.8	-8.8
50	13,554	91.50	177.90	94	11,385.8	2,510.8	-2,510.5	41.5	-0.7	0.9	11385.8	-5.8
51	13,650	89.40	177.20	96	11,385.0	2,606.7	-2,606.4	45.6	-2.2	2.3	11385.0	-5.0
52	13,745	89.50	177.30	95	11,385.9	2,701.6	-2,701.3	50.1	0.1	0.1	11385.9	-5.9
53	13,840	89.10	177.40	95	11,387.1	2,796.6	-2,796.2	54.5	-0.4	0.4	11387.1	-7.1
54	13,935	90.20	176.60	95	11,387.7	2,891.5	-2,891.1	59.5	1.2	1.4	11387.7	-7.7
55	14,030	89.90	176.80	95	11,387.6	2,986.4	-2,985.9	65.0	-0.3	0.4	11387.6	-7.6
56	14,125	92.40	178.40	95	11,385.7	3,081.3	-3,080.8	68.9	2.6	3.1	11385.7	-5.7
57	14,219	91.40	178.20	94	11,382.6	3,175.2	-3,174.7	71.7	-1.1	1.1	11382.6	-2.6
58	14,314	91.80	178.20	95	11,379.9	3,270.1	-3,269.6	74.7	0.4	0.4	11379.9	0.1
59	14,410	90.60	178.00	96	11,377.9	3,366.1	-3,365.5	77.9	-1.3	1.3	11377.9	2.1
60	14,505	90.80	178.20	95	11,376.7	3,461.0	-3,460.5	81.0	0.2	0.3	11376.7	3.3
61	14,600	93.10	179.70	95	11,373.5	3,556.0	-3,555.4	82.8	2.4	2.9	11373.5	6.5
62	14,695	89.90	183.10	95	11,371.0	3,650.8	-3,650.2	80.5	-3.4	4.9	11371.0	9.0
63	14,790	89.90	184.10	95	11,371.2	3,745.6	-3,745.1	74.5	0.0	1.1	11371.2	8.8
64	14,886	88.40	184.00	96	11,372.6	3,841.2	-3,840.8	67.7	-1.6	1.6	11372.6	7.4
65	14,981	88.70	184.50	95	11,375.0	3,935.9	-3,935.5	60.7	0.3	0.6	11375.0	5.0
66	15,077	89.20	185.10	96	11,376.8	4,031.5	-4,031.2	52.6	0.5	0.8	11376.8	3.2
TD	15,188	89.20	185.10	111	11,378.3	4,141.9	-4,141.7	42.8	0.0	0.0	11378.3	1.7

Closure Distance @ T.D. : 4141.9 Feet
Closure Direction @ T.D. : 179.4 Degrees
Distance from Section Line @ T.D. : 6.6 Feet Left of Section Line

Curve				Target	1	2	3	4	5	6	7	8
MD	11629.00	11629		MD	12200	12700	13200	13700	14200	14700	15200	15700
TVD	11322.00	11347		TVD	11369	11374	11379	11380	11380	11380	11380	11380
INC	89.18	89.18		INC	87.49	89.42	89.42	90	90	90	90	90

Target	9	10	11	12	13	14	15	16
MD	15805							
TVD	11380							
INC	90							