



Jay-Bee Oil & Gas

Pleasants County

P4 Pad

P4N5

Wellbore #1

Design: Wellbore #1

QES Survey Report

15 November, 2018



MAY 03 2021

WV Department of
Environmental Protection
06/18/2021



Survey Report



Company:	Jay-Bee Oil & Gas	Local Co-ordinate Reference:	Well P4N5
Project:	Pleasants County	TVD Reference:	Well @ 977.8usft (Patterson #581)
Site:	P4 Pad	MD Reference:	Well @ 977.8usft (Patterson #581)
Well:	P4N5	North Reference:	Grid
Wellbore:	Wellbore #1	Survey Calculation Method:	Minimum Curvature
Design:	Wellbore #1	Database:	EDM 5000.1 Single User Db

Project	Pleasants County		
Map System:	US State Plane 1983	System Datum:	Mean Sea Level
Geo Datum:	North American Datum 1983		
Map Zone:	West Virginia Northern Zone		

Site	P4 Pad				
Site Position:		Northing:	341,266.74 usft	Latitude:	39° 25' 34.766 N
From:	Lat/Long	Easting:	1,525,094.26 usft	Longitude:	81° 4' 11.201 W
Position Uncertainty:	0.0 usft	Slot Radius:	13-3/16 "	Grid Convergence:	-1.00 °

Well	P4N5					
Well Position	+N/-S	0.0 usft	Northing:	341,266.93 usft	Latitude:	39° 25' 34.768 N
	+E/-W	0.0 usft	Easting:	1,525,094.13 usft	Longitude:	81° 4' 11.202 W
Position Uncertainty		0.0 usft	Wellhead Elevation:	usft	Ground Level:	957.2 usft

Wellbore	Wellbore #1				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2015	10/29/2018	-8.41	66.61	51,874.31878330

Design	Wellbore #1				
Audit Notes:					
Version:	1.0	Phase:	ACTUAL	Tie On Depth:	0.0
Vertical Section:	Depth From (TVD) (usft)	+N/-S (usft)	+E/-W (usft)	Direction (°)	
	0.0	0.0	0.0		327.09

Survey Program	Date	11/15/2018			
From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description	
60.0	364.0	Gyro (Wellbore #1)	GYRO-NS	OWSG Gyrocompass Gyro	
422.0	14,654.0	QES MWD Surveys (Wellbore #1)	OWSG MWD - Standard	OWSG MWD - Standard	

Survey										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	
0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.00	0.00	0.00	
60.0	0.50	260.65	60.0	0.0	-0.3	0.1	0.83	0.83	0.00	
90.0	0.56	268.51	90.0	-0.1	-0.5	0.2	0.31	0.20	26.20	
120.0	0.91	253.22	120.0	-0.1	-0.9	0.4	1.33	0.17	-50.97	
150.0	1.00	254.23	150.0	-0.3	-1.4	0.5	0.31	0.30	3.37	
180.0	1.11	250.70	180.0	-0.4	-1.9	0.7	0.43	0.30	-11.77	
210.0	1.20	251.48	210.0	-0.6	-2.5	0.8	0.40	0.30	2.60	
240.0	1.32	251.22	240.0	-0.9	-3.1	1.0	0.40	0.40	-0.87	
270.0	1.23	248.54	270.0	-1.1	-3.7	1.1	0.36	0.36	-8.93	
300.0	1.14	247.32	300.0	-1.3	-4.3	1.2	0.31	0.31	-4.07	

RECEIVED
Office of Oil and Gas
MAY 03 2021
West Virginia Department of Environmental Protection



Survey Report



Company:	Jay-Bee Oil & Gas	Local Co-ordinate Reference:	Well P4N5
Project:	Pleasants County	TVD Reference:	Well @ 977.8usft (Patterson #581)
Site:	P4 Pad	MD Reference:	Well @ 977.8usft (Patterson #581)
Well:	P4N5	North Reference:	Grid
Wellbore:	Wellbore #1	Survey Calculation Method:	Minimum Curvature
Design:	Wellbore #1	Database:	EDM 5000.1 Single User Db

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	
330.0	1.15	244.10	330.0	-1.6	-4.9	1.3	0.22	0.03	-10.73	
Gyro Tie In @ 364.0' MD / 363.9' TVD										
364.0	1.13	244.44	363.9	-1.9	-5.5	1.4	0.06	-0.06	1.00	
422.0	1.68	239.25	421.9	-2.5	-6.7	1.5	0.97	0.95	-8.95	
516.0	4.39	232.08	515.8	-5.5	-10.7	1.3	2.91	2.88	-7.63	
610.0	8.83	233.14	609.1	-12.0	-19.4	0.4	4.72	4.72	1.13	
705.0	11.81	232.07	702.6	-22.3	-32.9	-0.9	3.14	3.14	-1.13	
800.0	14.97	232.04	795.0	-35.9	-50.2	-2.8	3.33	3.33	-0.03	
895.0	16.14	229.71	886.5	-52.0	-70.0	-5.6	1.40	1.23	-2.45	
990.0	14.95	227.57	978.0	-68.8	-89.1	-9.3	1.39	-1.25	-2.25	
1,085.0	14.67	227.96	1,069.9	-85.1	-107.0	-13.3	0.31	-0.29	0.41	
1,179.0	15.60	229.18	1,160.6	-101.3	-125.5	-16.9	1.05	0.99	1.30	
1,274.0	16.69	229.73	1,251.9	-118.5	-145.5	-20.4	1.16	1.15	0.58	
1,369.0	15.82	229.01	1,343.1	-135.8	-165.7	-24.0	0.94	-0.92	-0.76	
1,463.0	15.94	229.60	1,433.5	-152.6	-185.2	-27.5	0.21	0.13	0.63	
1,558.0	15.80	227.58	1,524.9	-169.8	-204.7	-31.3	0.60	-0.15	-2.13	
1,653.0	15.66	226.63	1,616.3	-187.3	-223.6	-35.8	0.31	-0.15	-1.00	
1,747.0	15.30	227.50	1,706.9	-204.4	-241.9	-40.1	0.46	-0.38	0.93	
1,843.0	16.70	232.76	1,799.2	-221.3	-262.3	-43.3	2.10	-1.46	5.48	
1,937.0	16.73	232.14	1,889.2	-237.8	-283.7	-45.5	0.19	0.03	-0.66	
2,032.0	16.40	230.71	1,980.3	-254.6	-304.9	-48.1	0.55	-0.35	-1.51	
2,212.0	12.02	223.21	2,154.7	-284.4	-337.4	-55.5	2.63	-2.43	-4.17	
2,307.0	11.98	230.03	2,247.7	-298.0	-351.7	-59.0	1.49	-0.04	7.18	
2,402.0	13.17	232.67	2,340.4	-310.9	-367.9	-61.1	1.39	1.25	2.78	
2,496.0	14.10	232.74	2,431.7	-324.3	-385.5	-62.8	0.99	0.99	0.07	
2,591.0	15.80	233.57	2,523.5	-339.0	-405.1	-64.5	1.80	1.79	0.87	
2,686.0	16.61	231.73	2,614.7	-355.1	-426.2	-66.5	1.01	0.85	-1.94	
2,781.0	17.08	230.09	2,705.7	-372.4	-447.5	-69.5	0.70	0.49	-1.73	
2,876.0	17.32	226.39	2,796.4	-391.1	-468.5	-73.8	1.18	0.25	-3.89	
2,971.0	17.16	226.75	2,887.2	-410.5	-488.9	-79.0	0.20	-0.17	0.38	
3,066.0	16.56	224.67	2,978.1	-429.7	-508.7	-84.4	0.90	-0.63	-2.19	
3,160.0	15.40	227.39	3,068.4	-447.7	-527.3	-89.4	1.47	-1.23	2.89	
3,255.0	15.77	234.99	3,160.0	-463.6	-547.1	-92.0	2.18	0.39	8.00	
3,350.0	17.69	239.34	3,250.9	-478.4	-570.1	-91.9	2.41	2.02	4.58	
3,444.0	18.47	238.02	3,340.3	-493.6	-595.0	-91.1	0.94	0.83	-1.40	
3,539.0	19.27	231.85	3,430.2	-511.2	-620.1	-92.3	2.26	0.84	-6.49	
3,633.0	17.06	223.54	3,519.5	-530.8	-641.8	-96.9	3.62	-2.35	-8.84	
3,728.0	16.68	227.61	3,610.4	-550.1	-661.5	-102.4	1.31	1.08	4.28	
3,823.0	17.71	231.48	3,701.2	-568.3	-682.9	-106.1	1.62	0.60	4.07	
3,917.0	18.27	229.81	3,790.6	-586.7	-705.3	-109.3	0.91	0.41	-1.78	
4,012.0	17.88	226.56	3,880.9	-606.3	-727.3	-113.9	1.14	0.41	-3.42	
4,106.0	18.15	228.33	3,970.3	-626.0	-748.7	-118.8	0.65	0.29	1.88	
4,201.0	17.53	225.26	4,060.7	-645.9	-769.9	-123.9	1.19	0.65	-3.23	

RECEIVED
 MAY 03 2021
 Office of Oil and Gas
 WV Department of Environmental Protection



Survey Report



Company:	Jay-Bee Oil & Gas	Local Co-ordinate Reference:	Well P4N5
Project:	Pleasants County	TVD Reference:	Well @ 977.8usft (Patterson #581)
Site:	P4 Pad	MD Reference:	Well @ 977.8usft (Patterson #581)
Well:	P4N5	North Reference:	Grid
Wellbore:	Wellbore #1	Survey Calculation Method:	Minimum Curvature
Design:	Wellbore #1	Database:	EDM 5000.1 Single User Db

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
4,296.0	15.92	220.63	4,151.7	-665.9	-788.6	-130.6	2.20	-1.69	-4.87
4,390.0	9.25	219.48	4,243.4	-681.5	-801.8	-136.5	7.10	-7.10	-1.22
4,486.0	6.91	230.35	4,338.5	-691.1	-811.1	-139.5	2.90	-2.44	11.32
4,580.0	8.74	232.09	4,431.6	-699.1	-821.1	-140.8	1.96	1.95	1.85
4,675.0	5.47	216.26	4,525.8	-707.2	-829.5	-143.1	3.98	-3.44	-16.66
4,770.0	2.13	222.51	4,620.6	-712.2	-833.4	-145.1	3.54	-3.52	6.58
4,864.0	1.03	305.72	4,714.6	-713.0	-835.2	-144.8	2.40	-1.17	88.52
4,959.0	0.40	123.06	4,809.6	-712.7	-835.6	-144.3	1.50	-0.66	186.87
5,053.0	0.80	84.50	4,903.6	-712.8	-834.7	-144.9	0.58	0.43	-41.02
5,148.0	1.40	272.70	4,998.6	-712.7	-835.2	-144.5	2.31	0.63	-180.84
5,248.0	2.10	258.50	5,098.5	-713.0	-838.2	-143.1	0.82	0.70	-14.20
5,279.0	2.00	259.90	5,129.5	-713.2	-839.3	-142.7	0.36	-0.32	4.52
5,326.0	3.10	287.40	5,176.5	-712.9	-841.3	-141.4	3.44	2.34	58.51
5,374.0	6.90	309.60	5,224.3	-710.7	-844.8	-137.7	8.74	7.92	46.25
5,421.0	9.40	316.30	5,270.8	-706.1	-849.6	-131.2	5.68	5.32	14.26
5,469.0	11.60	321.40	5,318.0	-699.5	-855.4	-122.5	4.97	4.58	10.63
5,516.0	14.70	320.90	5,363.8	-691.2	-862.1	-111.9	6.60	6.60	-1.06
5,564.0	18.70	321.70	5,409.7	-680.4	-870.7	-98.2	8.35	8.33	1.67
5,611.0	22.40	326.90	5,453.7	-667.0	-880.2	-81.7	8.77	7.87	11.06
5,658.0	26.10	329.90	5,496.6	-650.6	-890.3	-62.4	8.30	7.87	6.38
5,705.0	30.80	329.90	5,537.9	-631.2	-901.5	-40.1	10.00	10.00	0.00
5,753.0	35.20	330.00	5,578.1	-608.6	-914.6	-14.0	9.17	9.17	0.21
5,800.0	39.80	330.10	5,615.4	-583.8	-928.9	14.6	9.79	9.79	0.21
5,847.0	43.60	330.70	5,650.5	-556.6	-944.3	45.8	8.13	8.09	1.28
5,894.0	47.30	332.40	5,683.5	-527.2	-960.3	79.2	8.28	7.87	3.62
5,942.0	51.60	331.90	5,714.7	-494.9	-977.3	115.5	8.99	8.96	-1.04
5,989.0	56.00	332.00	5,742.4	-461.5	-995.2	153.3	9.36	9.36	0.21
6,037.0	58.40	332.70	5,768.4	-425.7	-1,013.9	193.5	5.15	5.00	1.46
6,084.0	61.10	333.10	5,792.1	-389.6	-1,032.4	233.8	5.79	5.74	0.85
6,132.0	63.60	333.80	5,814.4	-351.5	-1,051.4	276.1	5.37	5.21	1.46
6,179.0	64.80	334.50	5,834.8	-313.5	-1,069.8	318.1	2.88	2.55	1.49
6,227.0	69.80	335.30	5,853.3	-273.4	-1,088.6	361.9	10.53	10.42	1.67
6,274.0	75.30	336.90	5,867.4	-232.4	-1,106.7	406.2	12.14	11.70	3.40
6,322.0	79.60	338.30	5,877.8	-189.1	-1,124.6	452.3	9.40	8.96	2.92
6,369.0	84.30	338.80	5,884.4	-145.8	-1,141.6	497.9	10.06	10.00	1.06
6,417.0	87.40	338.60	5,887.9	-101.2	-1,159.0	544.7	6.47	6.46	-0.42
6,464.0	88.70	338.60	5,889.5	-57.5	-1,176.1	590.8	2.77	2.77	0.00
6,511.0	92.40	339.10	5,889.1	-13.6	-1,193.1	636.8	7.94	7.87	1.06
6,606.0	92.80	335.80	5,884.7	74.0	-1,229.5	730.1	3.50	3.50	-3.47
6,701.0	91.90	332.10	5,880.8	159.3	-1,271.1	824.3	0.61	-0.95	-3.89
6,796.0	92.40	331.80	5,877.3	243.0	-1,315.8	918.9	0.61	0.53	-0.32
6,891.0	92.90	331.30	5,872.9	326.5	-1,361.0	1,013.5	4.00	4.00	-0.53
6,985.0	90.00	328.90	5,870.5	407.9	-1,407.8	1,107.4	4.00	-3.09	-2.55

RECEIVED
 3.50
 Office of Oil and Gas
 MAY 03 2021
 WV Department of
 Environmental Protection



Survey Report



Company:	Jay-Bee Oil & Gas	Local Co-ordinate Reference:	Well P4N5
Project:	Pleasants County	TVD Reference:	Well @ 977.8usft (Patterson #581)
Site:	P4 Pad	MD Reference:	Well @ 977.8usft (Patterson #581)
Well:	P4N5	North Reference:	Grid
Wellbore:	Wellbore #1	Survey Calculation Method:	Minimum Curvature
Design:	Wellbore #1	Database:	EDM 5000.1 Single User Db

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
7,080.0	90.50	331.40	5,870.1	490.3	-1,455.1	1,202.2	2.68	0.53	2.63
7,175.0	90.20	332.10	5,869.5	574.0	-1,500.1	1,296.9	0.80	-0.32	0.74
7,270.0	90.70	333.50	5,868.8	658.5	-1,543.5	1,391.4	1.56	0.53	1.47
7,364.0	90.70	333.50	5,867.6	742.6	-1,585.4	1,484.8	0.00	0.00	0.00
7,459.0	90.50	332.10	5,866.6	827.1	-1,628.9	1,579.4	1.49	-0.21	-1.47
7,554.0	90.90	334.00	5,865.5	911.8	-1,671.9	1,673.8	2.04	0.42	2.00
7,649.0	90.50	333.70	5,864.3	997.0	-1,713.8	1,768.2	0.53	-0.42	-0.32
7,743.0	90.90	332.20	5,863.2	1,080.7	-1,756.5	1,861.7	1.65	0.43	-1.60
7,838.0	90.90	334.40	5,861.7	1,165.6	-1,799.2	1,956.1	2.32	0.00	2.32
7,933.0	91.30	334.00	5,859.8	1,251.1	-1,840.5	2,050.3	0.60	0.42	-0.42
8,028.0	91.10	333.70	5,857.8	1,336.4	-1,882.4	2,144.7	0.38	-0.21	-0.32
8,122.0	91.10	332.30	5,856.0	1,420.1	-1,925.1	2,238.1	1.49	0.00	-1.49
8,217.0	90.90	335.10	5,854.4	1,505.3	-1,967.1	2,332.5	2.95	-0.21	2.95
8,312.0	90.30	332.70	5,853.4	1,590.6	-2,008.9	2,426.8	2.60	-0.63	-2.53
8,406.0	91.60	335.10	5,851.8	1,675.0	-2,050.3	2,520.1	2.90	1.38	2.55
8,501.0	91.50	333.90	5,849.3	1,760.7	-2,091.2	2,614.3	1.27	-0.11	-1.26
8,594.0	90.70	334.20	5,847.5	1,844.3	-2,131.8	2,706.6	0.92	-0.86	0.32
8,689.0	90.30	333.10	5,846.6	1,929.4	-2,174.0	2,801.0	1.23	-0.42	-1.16
8,784.0	90.60	331.10	5,845.9	2,013.3	-2,218.5	2,895.6	2.13	0.32	-2.11
8,878.0	89.50	331.60	5,845.8	2,095.8	-2,263.5	2,989.3	1.29	-1.17	0.53
8,972.0	89.90	333.70	5,846.3	2,179.3	-2,306.7	3,082.9	2.27	0.43	2.23
9,067.0	91.30	335.40	5,845.3	2,265.1	-2,347.5	3,177.1	2.32	1.47	1.79
9,162.0	90.20	334.00	5,844.1	2,351.0	-2,388.1	3,271.2	1.87	-1.16	-1.47
9,257.0	90.10	334.10	5,843.8	2,436.4	-2,429.7	3,365.5	0.15	-0.11	0.11
9,351.0	90.90	333.70	5,843.0	2,520.8	-2,471.0	3,458.8	0.95	0.85	-0.43
9,446.0	90.00	334.60	5,842.3	2,606.3	-2,512.5	3,553.1	1.34	-0.95	0.95
9,541.0	89.20	333.90	5,842.9	2,691.9	-2,553.7	3,647.4	1.12	-0.84	-0.74
9,636.0	90.50	334.10	5,843.2	2,777.2	-2,595.4	3,741.7	1.38	1.37	0.21
9,731.0	91.20	334.00	5,841.8	2,862.7	-2,636.9	3,836.0	0.74	0.74	-0.11
9,826.0	91.50	333.20	5,839.5	2,947.7	-2,679.2	3,930.3	0.90	0.32	-0.84
9,920.0	91.30	332.70	5,837.2	3,031.4	-2,721.9	4,023.8	0.57	-0.21	-0.53
10,015.0	91.40	331.50	5,835.0	3,115.3	-2,766.3	4,118.4	1.27	0.11	-1.26
10,110.0	90.30	333.00	5,833.6	3,199.4	-2,810.6	4,213.0	1.96	-1.16	1.58
10,205.0	91.10	333.10	5,832.4	3,284.1	-2,853.6	4,307.5	0.85	0.84	0.11
10,300.0	90.50	330.70	5,831.1	3,367.9	-2,898.4	4,402.1	2.60	-0.63	-2.53
10,394.0	90.00	330.80	5,830.7	3,449.9	-2,944.3	4,496.0	0.54	-0.53	0.11
10,489.0	91.30	336.60	5,829.6	3,535.0	-2,986.4	4,590.3	6.26	1.37	6.11
10,583.0	91.00	335.90	5,827.7	3,621.0	-3,024.2	4,683.1	0.81	0.00	-0.74
10,678.0	90.80	333.20	5,826.2	3,706.8	-3,065.0	4,777.2	2.85	0.00	-2.84
10,773.0	90.80	334.20	5,824.9	3,791.9	-3,107.1	4,871.6	1.05	0.00	1.05
10,868.0	90.50	331.10	5,823.8	3,876.3	-3,150.7	4,966.1	3.28	-0.32	-3.26
10,962.0	90.70	332.00	5,822.8	3,959.0	-3,195.5	5,059.8	0.98	0.21	0.96
11,056.0	90.70	333.60	5,821.7	4,042.5	-3,238.5	5,153.4	1.70	0.00	1.70
11,151.0	91.10	334.20	5,820.2	4,127.8	-3,280.3	5,247.7	0.76	0.42	0.63

RECEIVED
Office of Oil and Gas
MAY 03 2021
WV Department of Environmental Protection



Survey Report



Company:	Jay-Bee Oil & Gas	Local Co-ordinate Reference:	Well P4N5
Project:	Pleasants County	TVD Reference:	Well @ 977.8usft (Patterson #581)
Site:	P4 Pad	MD Reference:	Well @ 977.8usft (Patterson #581)
Well:	P4N5	North Reference:	Grid
Wellbore:	Wellbore #1	Survey Calculation Method:	Minimum Curvature
Design:	Wellbore #1	Database:	EDM 5000.1 Single User Db

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Bulld Rate (°/100usft)	Turn Rate (°/100usft)	
11,245.0	88.40	333.40	5,820.6	4,212.2	-3,321.8	5,341.0	3.00	-2.87	-0.85	
11,340.0	89.90	334.60	5,822.0	4,297.6	-3,363.4	5,435.3	2.02	1.58	1.26	
11,435.0	90.30	334.90	5,821.8	4,383.5	-3,403.9	5,529.5	0.53	0.42	0.32	
11,530.0	91.60	335.30	5,820.3	4,469.6	-3,443.9	5,623.5	1.43	1.37	0.42	
11,625.0	91.30	334.10	5,817.9	4,555.5	-3,484.5	5,717.7	1.30	-0.32	-1.26	
11,719.0	90.90	333.30	5,816.1	4,639.7	-3,526.2	5,811.0	0.95	-0.43	-0.85	
11,814.0	89.60	331.20	5,815.6	4,723.8	-3,570.4	5,905.6	2.60	-1.37	-2.21	
11,909.0	89.80	333.70	5,816.1	4,808.0	-3,614.3	6,000.2	2.64	0.21	2.63	
12,003.0	90.60	335.60	5,815.8	4,893.0	-3,654.6	6,093.4	2.19	0.85	2.02	
12,098.0	90.90	334.90	5,814.6	4,979.2	-3,694.3	6,187.4	0.80	0.32	-0.74	
12,193.0	90.80	334.10	5,813.2	5,065.0	-3,735.2	6,281.6	0.85	-0.11	-0.84	
12,288.0	91.00	333.60	5,811.7	5,150.2	-3,777.1	6,375.9	0.57	0.21	-0.53	
12,383.0	91.30	332.50	5,809.8	5,234.9	-3,820.1	6,470.4	1.20	0.32	-1.16	
12,477.0	91.40	331.20	5,807.6	5,317.8	-3,864.5	6,564.0	1.39	0.11	-1.38	
12,571.0	90.30	332.60	5,806.2	5,400.7	-3,908.7	6,657.7	1.89	-1.17	1.49	
12,666.0	90.20	334.50	5,805.7	5,485.7	-3,951.1	6,752.1	2.00	-0.11	2.00	
12,761.0	90.20	333.80	5,805.4	5,571.2	-3,992.5	6,846.4	0.74	0.00	-0.74	
12,856.0	90.50	333.80	5,804.8	5,656.5	-4,034.4	6,940.7	0.32	0.32	0.00	
12,950.0	90.90	333.40	5,803.7	5,740.6	-4,076.2	7,034.1	0.60	0.43	-0.43	
13,045.0	91.60	332.60	5,801.6	5,825.3	-4,119.3	7,128.6	1.12	0.74	-0.84	
13,140.0	90.30	333.90	5,800.0	5,910.1	-4,162.1	7,223.0	1.94	-1.37	1.37	
13,235.0	90.20	333.00	5,799.6	5,995.1	-4,204.5	7,317.4	0.95	-0.11	-0.95	
13,330.0	91.10	334.90	5,798.5	6,080.4	-4,246.3	7,411.7	2.21	0.95	2.00	
13,424.0	90.90	333.70	5,796.9	6,165.1	-4,287.0	7,505.0	1.29	-0.21	-1.28	
13,519.0	90.80	335.60	5,795.5	6,250.9	-4,327.7	7,599.1	2.00	-0.11	2.00	
13,614.0	90.80	334.10	5,794.2	6,336.9	-4,368.0	7,693.2	1.58	0.00	-1.58	
13,708.0	90.90	334.00	5,792.8	6,421.4	-4,409.2	7,786.5	0.15	0.11	-0.11	
13,803.0	91.00	333.90	5,791.2	6,506.8	-4,450.9	7,880.9	0.15	0.11	-0.11	
13,898.0	90.70	332.50	5,789.8	6,591.5	-4,493.7	7,975.3	1.51	-0.32	-1.47	
13,992.0	90.40	335.00	5,788.9	6,675.8	-4,535.3	8,068.7	2.68	-0.32	2.66	
14,087.0	90.20	335.20	5,788.4	6,762.0	-4,575.3	8,162.7	0.30	-0.21	0.21	
14,182.0	90.60	333.80	5,787.7	6,847.8	-4,616.2	8,256.9	1.53	0.42	-1.47	
14,277.0	90.10	332.30	5,787.1	6,932.4	-4,659.2	8,351.4	1.66	-0.53	-1.58	
14,371.0	90.90	334.30	5,786.3	7,016.4	-4,701.5	8,444.8	2.29	0.85	2.13	
14,466.0	91.40	334.70	5,784.4	7,102.1	-4,742.4	8,539.0	0.67	0.53	0.42	
14,561.0	91.80	333.90	5,781.8	7,187.7	-4,783.5	8,633.2	0.94	0.42	-0.84	
TD @ 14654.0' MD / 5778.8' TVD										
14,654.0	91.80	333.90	5,778.8	7,271.2	-4,824.4	8,725.5	0.00	0.00	0.00	

RECEIVED
Office of Oil and Gas

MAY 03 2021

WV Department of
Environmental Protection



Survey Report



Company:	Jay-Bee Oil & Gas	Local Co-ordinate Reference:	Well P4N5
Project:	Pleasants County	TVD Reference:	Well @ 977.8usft (Patterson #581)
Site:	P4 Pad	MD Reference:	Well @ 977.8usft (Patterson #581)
Well:	P4N5	North Reference:	Grid
Wellbore:	Wellbore #1	Survey Calculation Method:	Minimum Curvature
Design:	Wellbore #1	Database:	EDM 5000.1 Single User Db

Design Annotations					
Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment	
		+N/-S (usft)	+E/-W (usft)		
364.0	363.9	-1.9	-5.5	Gyro Tie In @ 364.0' MD / 363.9' TVD	
14,654.0	5,778.8	7,271.2	-4,824.4	TD @ 14654.0' MD / 5778.8' TVD	

Checked By: _____ Approved By: _____ Date: _____

RECEIVED
Office of Oil and Gas
MAY 03 2021
WV Department of
Environmental Protection