



BAYSWATER

Bayswater Exploration & Production, LLC

DJ Basin

Groves Farm 34-L Pad

GROVES FARM R-34-33HC

Wellbore #1

Plan: Design #1

Standard Planning Report

20 April, 2020



BAYSWATER

Bayswater Exploration & Production, LLC

Pad Name: Groves Farm 34-L Pad
Well Name: GROVES FARM R-34-33HC
Ground Level: 4844.0
SHL Latitude: 40° 31' 48.392 N
SHL Longitude: 104° 38' 34.552 W

SECTION DETAILS

Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VSect	Target
1	0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.0	
2	1500.0	0.00	0.00	1500.0	0.0	0.0	0.00	0.00	0.0	
3	2769.8	25.40	130.03	2728.6	-178.1	212.0	2.00	130.03	-194.3	
4	5441.8	25.40	130.03	5142.4	-915.1	1089.5	0.00	0.00	-998.5	
5	6711.6	0.00	271.01	6371.1	-1093.1	1301.5	2.00	180.00	-1192.7	
6	6911.6	0.00	271.01	6571.1	-1093.1	1301.5	0.00	0.00	-1192.7	
7	7807.4	89.58	271.01	7144.0	-1083.1	732.8	10.00	0.00	-627.5	GF R-34-33HC LP
8	18070.6	89.58	271.01	7219.0	-901.3	-9528.5	0.00	0.00	9571.1	GF R-34-33HC PBHL

DESIGN TARGET DETAILS

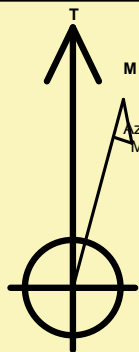
Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Shape
GF R-34-33HC LP	7144.0	-1083.1	732.8	1436034.81	3238983.97	40° 31' 37.690 N	104° 38' 25.062 W	Point
GF R-34-33HC PBHL	- plan hits target center 7219.0	-901.3	-9528.5	1436117.42	3228721.39	40° 31' 39.468 N	104° 40' 37.949 W	Point

REFERENCE INFORMATION

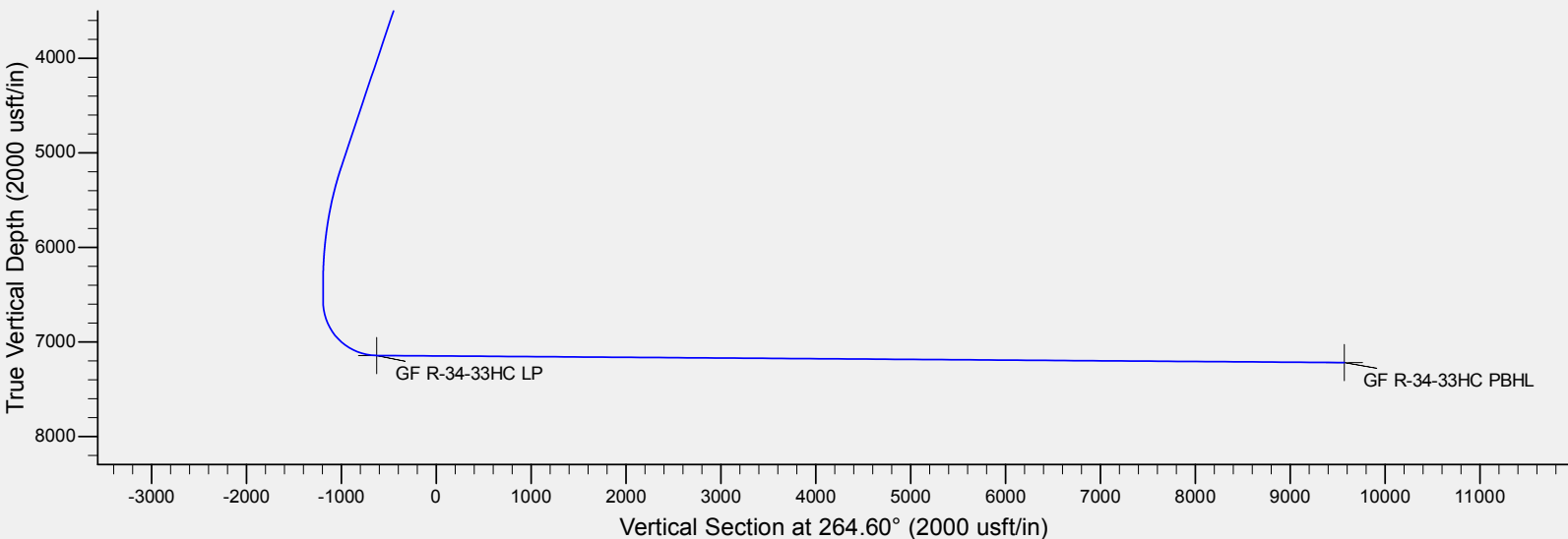
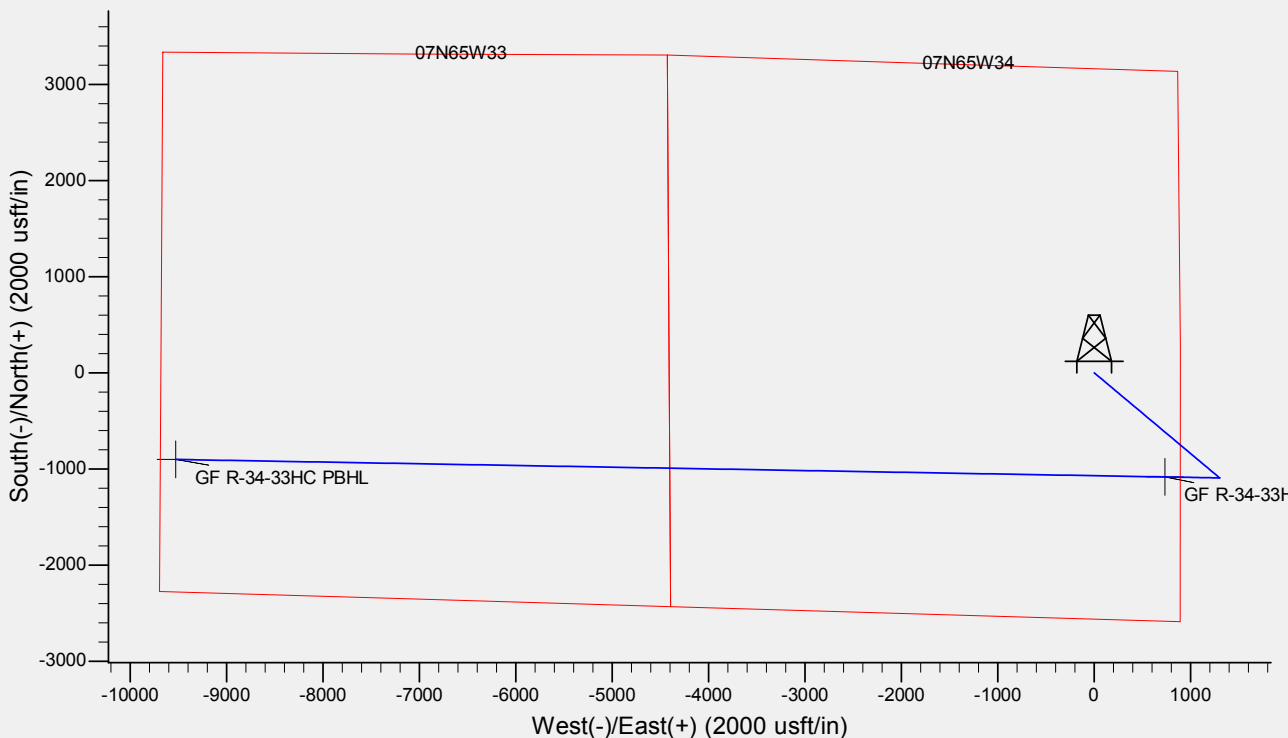
Co-ordinate (N/E) Reference: Well GROVES FARM R-34-33HC, True North
Vertical (TVD) Reference: KB @ 4869.0usft (Original Well Elev)
Section (VS) Reference: Slot - (0.0N, 0.0E)
Measured Depth Reference: KB @ 4869.0usft (Original Well Elev)
Calculation Method: Minimum Curvature

CASING DETAILS

No casing data is available



Azimuths to True North
Magnetic North: 7.86°
Magnetic Field
Strength: 52151.1nT
Dip Angle: 66.90°
Date: 4/8/2020
Model: IGRF2015





Database:	EDM	Local Co-ordinate Reference:	Well GROVES FARM R-34-33HC
Company:	Bayswater Exploration & Production, LLC	TVD Reference:	KB @ 4869.0usft (Original Well Elev)
Project:	DJ Basin	MD Reference:	KB @ 4869.0usft (Original Well Elev)
Site:	Groves Farm 34-L Pad	North Reference:	True
Well:	GROVES FARM R-34-33HC	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Design #1		

Project	DJ Basin, DJ Basin		
Map System:	US State Plane 1983	System Datum:	Mean Sea Level
Geo Datum:	North American Datum 1983		
Map Zone:	Colorado Northern Zone		

Site		Groves Farm 34-L Pad			
Site Position:		Northing:	1,437,185.82 usft	Latitude:	40° 31' 49.134 N
From:	Lat/Long	Easting:	3,238,241.98 usft	Longitude:	104° 38' 34.526 W
Position Uncertainty:	0.0 usft	Slot Radius:	13-3/16 "	Grid Convergence:	0.55 °

Well	GROVES FARM R-34-33HC					
Well Position	+N/-S	-75.1 usft	Northing:	1,437,110.75 usft	Latitude:	40° 31' 48.392 N
	+E/-W	-1.9 usft	Easting:	3,238,240.76 usft	Longitude:	104° 38' 34.552 W
Position Uncertainty		0.0 usft	Wellhead Elevation:		Ground Level:	4,844.0 usft

Wellbore	Wellbore #1				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2015	4/8/2020	7.86	66.90	52,151.11046504

Design	Design #1			
Audit Notes:				
Version:	Phase:	PLAN	Tie On Depth:	0.0
Vertical Section:	Depth From (TVD) (usft)	+N/-S (usft)	+E/-W (usft)	Direction (°)
	0.0	0.0	0.0	264.60

Plan Survey Tool Program	Date	4/20/2020		
Depth From (usft)	Depth To (usft)	Survey (Wellbore)	Tool Name	Remarks
1	0.0	18,070.6	Design #1 (Wellbore #1)	MWD
				OWSG MWD - Standard

Plan Sections										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	TFO (°)	Target
0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.00	0.00	
1,500.0	0.00	0.00	1,500.0	0.0	0.0	0.00	0.00	0.00	0.00	
2,769.8	25.40	130.03	2,728.6	-178.1	212.0	2.00	2.00	0.00	130.03	
5,441.8	25.40	130.03	5,142.4	-915.1	1,089.5	0.00	0.00	0.00	0.00	
6,711.6	0.00	271.02	6,371.1	-1,093.1	1,301.5	2.00	-2.00	0.00	180.00	
6,911.6	0.00	271.02	6,571.1	-1,093.1	1,301.5	0.00	0.00	0.00	0.00	
7,807.4	89.58	271.02	7,144.0	-1,083.1	732.8	10.00	10.00	0.00	0.00	GF R-34-33HC LP
18,070.6	89.58	271.02	7,219.0	-901.3	-9,528.5	0.00	0.00	0.00	0.00	GF R-34-33HC PBHL



Database:	EDM	Local Co-ordinate Reference:	Well GROVES FARM R-34-33HC
Company:	Bayswater Exploration & Production, LLC	TVD Reference:	KB @ 4869.0usft (Original Well Elev)
Project:	DJ Basin	MD Reference:	KB @ 4869.0usft (Original Well Elev)
Site:	Groves Farm 34-L Pad	North Reference:	True
Well:	GROVES FARM R-34-33HC	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Design #1		

Planned 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
100.0	0.00	0.00	100.0	0.0	0.0	0.0	0.00	0.00	0.00
200.0	0.00	0.00	200.0	0.0	0.0	0.0	0.00	0.00	0.00
300.0	0.00	0.00	300.0	0.0	0.0	0.0	0.00	0.00	0.00
400.0	0.00	0.00	400.0	0.0	0.0	0.0	0.00	0.00	0.00
500.0	0.00	0.00	500.0	0.0	0.0	0.0	0.00	0.00	0.00
600.0	0.00	0.00	600.0	0.0	0.0	0.0	0.00	0.00	0.00
700.0	0.00	0.00	700.0	0.0	0.0	0.0	0.00	0.00	0.00
800.0	0.00	0.00	800.0	0.0	0.0	0.0	0.00	0.00	0.00
900.0	0.00	0.00	900.0	0.0	0.0	0.0	0.00	0.00	0.00
1,000.0	0.00	0.00	1,000.0	0.0	0.0	0.0	0.00	0.00	0.00
1,100.0	0.00	0.00	1,100.0	0.0	0.0	0.0	0.00	0.00	0.00
1,200.0	0.00	0.00	1,200.0	0.0	0.0	0.0	0.00	0.00	0.00
1,300.0	0.00	0.00	1,300.0	0.0	0.0	0.0	0.00	0.00	0.00
1,400.0	0.00	0.00	1,400.0	0.0	0.0	0.0	0.00	0.00	0.00
1,500.0	0.00	0.00	1,500.0	0.0	0.0	0.0	0.00	0.00	0.00
1,600.0	2.00	130.03	1,600.0	-1.1	1.3	-1.2	2.00	2.00	0.00
1,700.0	4.00	130.03	1,699.8	-4.5	5.3	-4.9	2.00	2.00	0.00
1,800.0	6.00	130.03	1,799.5	-10.1	12.0	-11.0	2.00	2.00	0.00
1,900.0	8.00	130.03	1,898.7	-17.9	21.3	-19.6	2.00	2.00	0.00
2,000.0	10.00	130.03	1,997.5	-28.0	33.3	-30.5	2.00	2.00	0.00
2,100.0	12.00	130.03	2,095.6	-40.3	47.9	-43.9	2.00	2.00	0.00
2,200.0	14.00	130.03	2,193.1	-54.7	65.2	-59.7	2.00	2.00	0.00
2,300.0	16.00	130.03	2,289.6	-71.4	85.0	-77.9	2.00	2.00	0.00
2,400.0	18.00	130.03	2,385.3	-90.2	107.4	-98.4	2.00	2.00	0.00
2,500.0	20.00	130.03	2,479.8	-111.1	132.3	-121.2	2.00	2.00	0.00
2,600.0	22.00	130.03	2,573.2	-134.2	159.7	-146.4	2.00	2.00	0.00
2,700.0	24.00	130.03	2,665.2	-159.3	189.7	-173.8	2.00	2.00	0.00
2,769.8	25.40	130.03	2,728.6	-178.1	212.0	-194.3	2.00	2.00	0.00
2,800.0	25.40	130.03	2,755.9	-186.4	221.9	-203.4	0.00	0.00	0.00
2,900.0	25.40	130.03	2,846.2	-214.0	254.7	-233.5	0.00	0.00	0.00
3,000.0	25.40	130.03	2,936.6	-241.6	287.6	-263.6	0.00	0.00	0.00
3,100.0	25.40	130.03	3,026.9	-269.1	320.4	-293.7	0.00	0.00	0.00
3,200.0	25.40	130.03	3,117.3	-296.7	353.3	-323.8	0.00	0.00	0.00
3,300.0	25.40	130.03	3,207.6	-324.3	386.1	-353.8	0.00	0.00	0.00
3,400.0	25.40	130.03	3,297.9	-351.9	418.9	-383.9	0.00	0.00	0.00
3,500.0	25.40	130.03	3,388.3	-379.5	451.8	-414.0	0.00	0.00	0.00
3,600.0	25.40	130.03	3,478.6	-407.1	484.6	-444.1	0.00	0.00	0.00
3,700.0	25.40	130.03	3,568.9	-434.6	517.5	-474.2	0.00	0.00	0.00
3,800.0	25.40	130.03	3,659.3	-462.2	550.3	-504.3	0.00	0.00	0.00
3,900.0	25.40	130.03	3,749.6	-489.8	583.1	-534.4	0.00	0.00	0.00
4,000.0	25.40	130.03	3,839.9	-517.4	616.0	-564.5	0.00	0.00	0.00
4,100.0	25.40	130.03	3,930.3	-545.0	648.8	-594.6	0.00	0.00	0.00
4,200.0	25.40	130.03	4,020.6	-572.6	681.7	-624.7	0.00	0.00	0.00
4,300.0	25.40	130.03	4,111.0	-600.1	714.5	-654.8	0.00	0.00	0.00
4,400.0	25.40	130.03	4,201.3	-627.7	747.3	-684.9	0.00	0.00	0.00
4,500.0	25.40	130.03	4,291.6	-655.3	780.2	-715.0	0.00	0.00	0.00
4,600.0	25.40	130.03	4,382.0	-682.9	813.0	-745.1	0.00	0.00	0.00
4,700.0	25.40	130.03	4,472.3	-710.5	845.9	-775.2	0.00	0.00	0.00
4,800.0	25.40	130.03	4,562.6	-738.1	878.7	-805.3	0.00	0.00	0.00
4,900.0	25.40	130.03	4,653.0	-765.6	911.5	-835.4	0.00	0.00	0.00
5,000.0	25.40	130.03	4,743.3	-793.2	944.4	-865.5	0.00	0.00	0.00
5,100.0	25.40	130.03	4,833.6	-820.8	977.2	-895.6	0.00	0.00	0.00
5,200.0	25.40	130.03	4,924.0	-848.4	1,010.1	-925.7	0.00	0.00	0.00



Database:	EDM	Local Co-ordinate Reference:	Well GROVES FARM R-34-33HC
Company:	Bayswater Exploration & Production, LLC	TVD Reference:	KB @ 4869.0usft (Original Well Elev)
Project:	DJ Basin	MD Reference:	KB @ 4869.0usft (Original Well Elev)
Site:	Groves Farm 34-L Pad	North Reference:	True
Well:	GROVES FARM R-34-33HC	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Design #1		

Planned 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)
5,300.0	25.40	130.03	5,014.3	-876.0	1,042.9	-955.8	0.00	0.00	0.00
5,400.0	25.40	130.03	5,104.7	-903.6	1,075.7	-985.9	0.00	0.00	0.00
5,441.8	25.40	130.03	5,142.4	-915.1	1,089.5	-998.5	0.00	0.00	0.00
5,500.0	24.23	130.03	5,195.2	-930.8	1,108.2	-1,015.6	2.00	-2.00	0.00
5,600.0	22.23	130.03	5,287.1	-956.2	1,138.4	-1,043.3	2.00	-2.00	0.00
5,700.0	20.23	130.03	5,380.3	-979.5	1,166.1	-1,068.7	2.00	-2.00	0.00
5,800.0	18.23	130.03	5,474.8	-1,000.6	1,191.3	-1,091.8	2.00	-2.00	0.00
5,900.0	16.23	130.03	5,570.3	-1,019.7	1,214.0	-1,112.6	2.00	-2.00	0.00
6,000.0	14.23	130.03	5,666.7	-1,036.6	1,234.1	-1,131.0	2.00	-2.00	0.00
6,100.0	12.23	130.03	5,764.1	-1,051.3	1,251.7	-1,147.1	2.00	-2.00	0.00
6,200.0	10.23	130.03	5,862.2	-1,063.8	1,266.6	-1,160.8	2.00	-2.00	0.00
6,300.0	8.23	130.03	5,960.9	-1,074.2	1,278.9	-1,172.0	2.00	-2.00	0.00
6,400.0	6.23	130.03	6,060.1	-1,082.3	1,288.5	-1,180.9	2.00	-2.00	0.00
6,500.0	4.23	130.03	6,159.6	-1,088.1	1,295.5	-1,187.3	2.00	-2.00	0.00
6,600.0	2.23	130.03	6,259.5	-1,091.7	1,299.8	-1,191.2	2.00	-2.00	0.00
6,700.0	0.23	130.03	6,359.4	-1,093.1	1,301.4	-1,192.7	2.00	-2.00	0.00
6,711.6	0.00	271.02	6,371.1	-1,093.1	1,301.5	-1,192.7	2.00	-2.00	0.00
6,800.0	0.00	0.00	6,459.4	-1,093.1	1,301.5	-1,192.7	0.00	0.00	0.00
6,900.0	0.00	0.00	6,559.4	-1,093.1	1,301.5	-1,192.7	0.00	0.00	0.00
6,911.6	0.00	271.02	6,571.1	-1,093.1	1,301.5	-1,192.7	0.00	0.00	0.00
7,000.0	8.84	271.02	6,659.1	-1,093.0	1,294.7	-1,186.0	10.00	10.00	0.00
7,100.0	18.84	271.02	6,756.1	-1,092.6	1,270.8	-1,162.2	10.00	10.00	0.00
7,200.0	28.84	271.02	6,847.4	-1,091.9	1,230.4	-1,122.1	10.00	10.00	0.00
7,300.0	38.84	271.02	6,930.4	-1,090.9	1,174.8	-1,066.9	10.00	10.00	0.00
7,400.0	48.84	271.02	7,002.4	-1,089.7	1,105.6	-998.1	10.00	10.00	0.00
7,500.0	58.84	271.02	7,061.3	-1,088.2	1,025.0	-918.0	10.00	10.00	0.00
7,600.0	68.84	271.02	7,105.4	-1,086.7	935.4	-828.9	10.00	10.00	0.00
7,700.0	78.84	271.02	7,133.2	-1,085.0	839.5	-733.6	10.00	10.00	0.00
7,800.0	88.84	271.02	7,143.9	-1,083.2	740.2	-634.9	10.00	10.00	0.00
7,807.4	89.58	271.02	7,144.0	-1,083.1	732.8	-627.5	10.00	10.00	0.00
GF R-34-33HC LP									
7,900.0	89.58	271.02	7,144.7	-1,081.4	640.2	-535.5	0.00	0.00	0.00
8,000.0	89.58	271.02	7,145.4	-1,079.7	540.2	-436.2	0.00	0.00	0.00
8,100.0	89.58	271.02	7,146.1	-1,077.9	440.3	-336.8	0.00	0.00	0.00
8,200.0	89.58	271.02	7,146.9	-1,076.1	340.3	-237.4	0.00	0.00	0.00
8,300.0	89.58	271.02	7,147.6	-1,074.3	240.3	-138.1	0.00	0.00	0.00
8,400.0	89.58	271.02	7,148.3	-1,072.6	140.3	-38.7	0.00	0.00	0.00
8,500.0	89.58	271.02	7,149.1	-1,070.8	40.3	60.7	0.00	0.00	0.00
8,600.0	89.58	271.02	7,149.8	-1,069.0	-59.7	160.1	0.00	0.00	0.00
8,700.0	89.58	271.02	7,150.5	-1,067.3	-159.6	259.4	0.00	0.00	0.00
8,800.0	89.58	271.02	7,151.3	-1,065.5	-259.6	358.8	0.00	0.00	0.00
8,900.0	89.58	271.02	7,152.0	-1,063.7	-359.6	458.2	0.00	0.00	0.00
9,000.0	89.58	271.02	7,152.7	-1,061.9	-459.6	557.5	0.00	0.00	0.00
9,100.0	89.58	271.02	7,153.4	-1,060.2	-559.6	656.9	0.00	0.00	0.00
9,200.0	89.58	271.02	7,154.2	-1,058.4	-659.5	756.3	0.00	0.00	0.00
9,300.0	89.58	271.02	7,154.9	-1,056.6	-759.5	855.6	0.00	0.00	0.00
9,400.0	89.58	271.02	7,155.6	-1,054.9	-859.5	955.0	0.00	0.00	0.00
9,500.0	89.58	271.02	7,156.4	-1,053.1	-959.5	1,054.4	0.00	0.00	0.00
9,600.0	89.58	271.02	7,157.1	-1,051.3	-1,059.5	1,153.8	0.00	0.00	0.00
9,700.0	89.58	271.02	7,157.8	-1,049.5	-1,159.4	1,253.1	0.00	0.00	0.00
9,800.0	89.58	271.02	7,158.6	-1,047.8	-1,259.4	1,352.5	0.00	0.00	0.00
9,900.0	89.58	271.02	7,159.3	-1,046.0	-1,359.4	1,451.9	0.00	0.00	0.00
10,000.0	89.58	271.02	7,160.0	-1,044.2	-1,459.4	1,551.2	0.00	0.00	0.00



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Site:	Groves Farm 34-L Pad	North Reference:	True
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Wellbore:	Wellbore #1		
Design:	Design #1		

Planned 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)	
10,100.0	89.58	271.02	7,160.8	-1,042.5	-1,559.4	1,650.6	0.00	0.00	0.00	
10,200.0	89.58	271.02	7,161.5	-1,040.7	-1,659.4	1,750.0	0.00	0.00	0.00	
10,300.0	89.58	271.02	7,162.2	-1,038.9	-1,759.3	1,849.4	0.00	0.00	0.00	
10,400.0	89.58	271.02	7,162.9	-1,037.1	-1,859.3	1,948.7	0.00	0.00	0.00	
10,500.0	89.58	271.02	7,163.7	-1,035.4	-1,959.3	2,048.1	0.00	0.00	0.00	
10,600.0	89.58	271.02	7,164.4	-1,033.6	-2,059.3	2,147.5	0.00	0.00	0.00	
10,700.0	89.58	271.02	7,165.1	-1,031.8	-2,159.3	2,246.8	0.00	0.00	0.00	
10,800.0	89.58	271.02	7,165.9	-1,030.1	-2,259.2	2,346.2	0.00	0.00	0.00	
10,900.0	89.58	271.02	7,166.6	-1,028.3	-2,359.2	2,445.6	0.00	0.00	0.00	
11,000.0	89.58	271.02	7,167.3	-1,026.5	-2,459.2	2,544.9	0.00	0.00	0.00	
11,100.0	89.58	271.02	7,168.1	-1,024.7	-2,559.2	2,644.3	0.00	0.00	0.00	
11,200.0	89.58	271.02	7,168.8	-1,023.0	-2,659.2	2,743.7	0.00	0.00	0.00	
11,300.0	89.58	271.02	7,169.5	-1,021.2	-2,759.2	2,843.1	0.00	0.00	0.00	
11,400.0	89.58	271.02	7,170.3	-1,019.4	-2,859.1	2,942.4	0.00	0.00	0.00	
11,500.0	89.58	271.02	7,171.0	-1,017.7	-2,959.1	3,041.8	0.00	0.00	0.00	
11,600.0	89.58	271.02	7,171.7	-1,015.9	-3,059.1	3,141.2	0.00	0.00	0.00	
11,700.0	89.58	271.02	7,172.4	-1,014.1	-3,159.1	3,240.5	0.00	0.00	0.00	
11,800.0	89.58	271.02	7,173.2	-1,012.3	-3,259.1	3,339.9	0.00	0.00	0.00	
11,900.0	89.58	271.02	7,173.9	-1,010.6	-3,359.0	3,439.3	0.00	0.00	0.00	
12,000.0	89.58	271.02	7,174.6	-1,008.8	-3,459.0	3,538.7	0.00	0.00	0.00	
12,100.0	89.58	271.02	7,175.4	-1,007.0	-3,559.0	3,638.0	0.00	0.00	0.00	
12,200.0	89.58	271.02	7,176.1	-1,005.3	-3,659.0	3,737.4	0.00	0.00	0.00	
12,300.0	89.58	271.02	7,176.8	-1,003.5	-3,759.0	3,836.8	0.00	0.00	0.00	
12,400.0	89.58	271.02	7,177.6	-1,001.7	-3,859.0	3,936.1	0.00	0.00	0.00	
12,500.0	89.58	271.02	7,178.3	-999.9	-3,958.9	4,035.5	0.00	0.00	0.00	
12,600.0	89.58	271.02	7,179.0	-998.2	-4,058.9	4,134.9	0.00	0.00	0.00	
12,700.0	89.58	271.02	7,179.8	-996.4	-4,158.9	4,234.2	0.00	0.00	0.00	
12,800.0	89.58	271.02	7,180.5	-994.6	-4,258.9	4,333.6	0.00	0.00	0.00	
12,900.0	89.58	271.02	7,181.2	-992.9	-4,358.9	4,433.0	0.00	0.00	0.00	
13,000.0	89.58	271.02	7,181.9	-991.1	-4,458.8	4,532.4	0.00	0.00	0.00	
13,100.0	89.58	271.02	7,182.7	-989.3	-4,558.8	4,631.7	0.00	0.00	0.00	
13,200.0	89.58	271.02	7,183.4	-987.5	-4,658.8	4,731.1	0.00	0.00	0.00	
13,300.0	89.58	271.02	7,184.1	-985.8	-4,758.8	4,830.5	0.00	0.00	0.00	
13,400.0	89.58	271.02	7,184.9	-984.0	-4,858.8	4,929.8	0.00	0.00	0.00	
13,500.0	89.58	271.02	7,185.6	-982.2	-4,958.8	5,029.2	0.00	0.00	0.00	
13,600.0	89.58	271.02	7,186.3	-980.5	-5,058.7	5,128.6	0.00	0.00	0.00	
13,700.0	89.58	271.02	7,187.1	-978.7	-5,158.7	5,228.0	0.00	0.00	0.00	
13,800.0	89.58	271.02	7,187.8	-976.9	-5,258.7	5,327.3	0.00	0.00	0.00	
13,900.0	89.58	271.02	7,188.5	-975.1	-5,358.7	5,426.7	0.00	0.00	0.00	
14,000.0	89.58	271.02	7,189.3	-973.4	-5,458.7	5,526.1	0.00	0.00	0.00	
14,100.0	89.58	271.02	7,190.0	-971.6	-5,558.6	5,625.4	0.00	0.00	0.00	
14,200.0	89.58	271.02	7,190.7	-969.8	-5,658.6	5,724.8	0.00	0.00	0.00	
14,300.0	89.58	271.02	7,191.4	-968.1	-5,758.6	5,824.2	0.00	0.00	0.00	
14,400.0	89.58	271.02	7,192.2	-966.3	-5,858.6	5,923.5	0.00	0.00	0.00	
14,500.0	89.58	271.02	7,192.9	-964.5	-5,958.6	6,022.9	0.00	0.00	0.00	
14,600.0	89.58	271.02	7,193.6	-962.7	-6,058.5	6,122.3	0.00	0.00	0.00	
14,700.0	89.58	271.02	7,194.4	-961.0	-6,158.5	6,221.7	0.00	0.00	0.00	
14,800.0	89.58	271.02	7,195.1	-959.2	-6,258.5	6,321.0	0.00	0.00	0.00	
14,900.0	89.58	271.02	7,195.8	-957.4	-6,358.5	6,420.4	0.00	0.00	0.00	
15,000.0	89.58	271.02	7,196.6	-955.7	-6,458.5	6,519.8	0.00	0.00	0.00	
15,100.0	89.58	271.02	7,197.3	-953.9	-6,558.5	6,619.1	0.00	0.00	0.00	
15,200.0	89.58	271.02	7,198.0	-952.1	-6,658.4	6,718.5	0.00	0.00	0.00	
15,300.0	89.58	271.02	7,198.8	-950.3	-6,758.4	6,817.9	0.00	0.00	0.00	
15,400.0	89.58	271.02	7,199.5	-948.6	-6,858.4	6,917.3	0.00	0.00	0.00	



Database:	EDM	Local Co-ordinate Reference:	Well GROVES FARM R-34-33HC
Company:	Bayswater Exploration & Production, LLC	TVD Reference:	KB @ 4869.0usft (Original Well Elev)
Project:	DJ Basin	MD Reference:	KB @ 4869.0usft (Original Well Elev)
Site:	Groves Farm 34-L Pad	North Reference:	True
Well:	GROVES FARM R-34-33HC	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Design #1		

Planned 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)	
15,500.0	89.58	271.02	7,200.2	-946.8	-6,958.4	7,016.6	0.00	0.00	0.00	
15,600.0	89.58	271.02	7,200.9	-945.0	-7,058.4	7,116.0	0.00	0.00	0.00	
15,700.0	89.58	271.02	7,201.7	-943.3	-7,158.3	7,215.4	0.00	0.00	0.00	
15,800.0	89.58	271.02	7,202.4	-941.5	-7,258.3	7,314.7	0.00	0.00	0.00	
15,900.0	89.58	271.02	7,203.1	-939.7	-7,358.3	7,414.1	0.00	0.00	0.00	
16,000.0	89.58	271.02	7,203.9	-937.9	-7,458.3	7,513.5	0.00	0.00	0.00	
16,100.0	89.58	271.02	7,204.6	-936.2	-7,558.3	7,612.8	0.00	0.00	0.00	
16,200.0	89.58	271.02	7,205.3	-934.4	-7,658.3	7,712.2	0.00	0.00	0.00	
16,300.0	89.58	271.02	7,206.1	-932.6	-7,758.2	7,811.6	0.00	0.00	0.00	
16,400.0	89.58	271.02	7,206.8	-930.9	-7,858.2	7,911.0	0.00	0.00	0.00	
16,500.0	89.58	271.02	7,207.5	-929.1	-7,958.2	8,010.3	0.00	0.00	0.00	
16,600.0	89.58	271.02	7,208.3	-927.3	-8,058.2	8,109.7	0.00	0.00	0.00	
16,700.0	89.58	271.02	7,209.0	-925.5	-8,158.2	8,209.1	0.00	0.00	0.00	
16,800.0	89.58	271.02	7,209.7	-923.8	-8,258.1	8,308.4	0.00	0.00	0.00	
16,900.0	89.58	271.02	7,210.4	-922.0	-8,358.1	8,407.8	0.00	0.00	0.00	
17,000.0	89.58	271.02	7,211.2	-920.2	-8,458.1	8,507.2	0.00	0.00	0.00	
17,100.0	89.58	271.02	7,211.9	-918.5	-8,558.1	8,606.6	0.00	0.00	0.00	
17,200.0	89.58	271.02	7,212.6	-916.7	-8,658.1	8,705.9	0.00	0.00	0.00	
17,300.0	89.58	271.02	7,213.4	-914.9	-8,758.1	8,805.3	0.00	0.00	0.00	
17,400.0	89.58	271.02	7,214.1	-913.1	-8,858.0	8,904.7	0.00	0.00	0.00	
17,500.0	89.58	271.02	7,214.8	-911.4	-8,958.0	9,004.0	0.00	0.00	0.00	
17,600.0	89.58	271.02	7,215.6	-909.6	-9,058.0	9,103.4	0.00	0.00	0.00	
17,700.0	89.58	271.02	7,216.3	-907.8	-9,158.0	9,202.8	0.00	0.00	0.00	
17,800.0	89.58	271.02	7,217.0	-906.1	-9,258.0	9,302.1	0.00	0.00	0.00	
17,900.0	89.58	271.02	7,217.8	-904.3	-9,357.9	9,401.5	0.00	0.00	0.00	
18,000.0	89.58	271.02	7,218.5	-902.5	-9,457.9	9,500.9	0.00	0.00	0.00	
18,070.6	89.58	271.02	7,219.0	-901.3	-9,528.5	9,571.1	0.00	0.00	0.00	
GF R-34-33HC PBHL										

Design Targets									
Target Name	Dip Angle (°)	Dip Dir. (°)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude	Longitude
GF R-34-33HC LP	0.00	0.00	7,144.0	-1,083.1	732.8	1,436,034.81	3,238,983.97	40° 31' 37.690 N	104° 38' 25.062 W
- hit/miss target									
- Shape									
- Point									
GF R-34-33HC PBHL	0.00	0.00	7,219.0	-901.3	-9,528.5	1,436,117.43	3,228,721.39	40° 31' 39.468 N	104° 40' 37.949 W
- plan hits target center									
- Point									