



BAYSWATER

Bayswater Exploration & Production, LLC

DJ Basin

Groves Farm 34-L Pad

GROVES FARM V-34-33HC

Wellbore #1

Plan: Design #1

Standard Planning Report

20 April, 2020



Pad Name: Groves Farm 34-L Pad
Well Name: GROVES FARM V-34-33HC
Ground Level: 4844.0
SHL Latitude: 40° 31' 47.798 N
SHL Longitude: 104° 38' 34.573 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	3457.5	39.15	145.74	3308.7	-531.5	362.1	2.00	145.74	-266.4	
4	5084.4	39.15	145.74	4570.4	-1380.5	940.3	0.00	0.00	-691.8	
5	7041.9	0.00	271.41	6379.1	-1912.0	1302.4	2.00	180.00	-958.2	
6	7241.9	0.00	271.41	6579.1	-1912.0	1302.4	0.00	0.00	-958.2	
7	8137.6	89.57	271.41	7152.0	-1898.0	733.9	10.00	0.00	-400.4	GF V-34-33HC LP
8	18406.6	89.57	271.41	7229.0	-1645.2	-9531.6	0.00	0.00	9672.6	GF V-34-33HC PBHL

DESIGN TARGET DETAILS

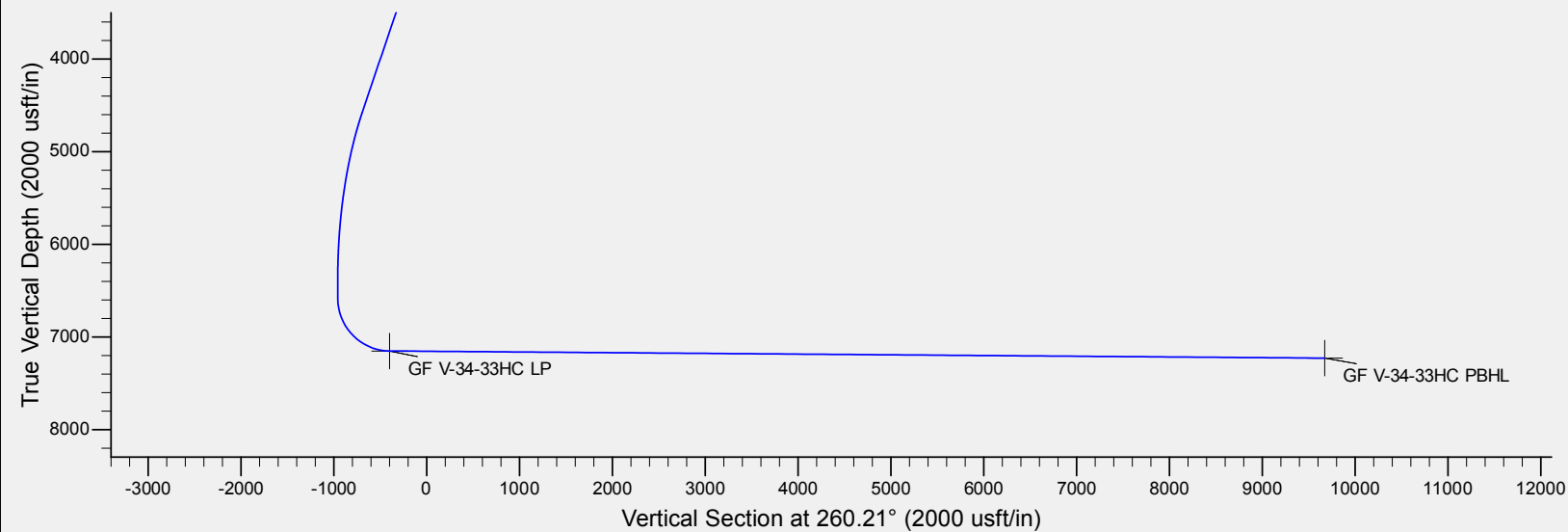
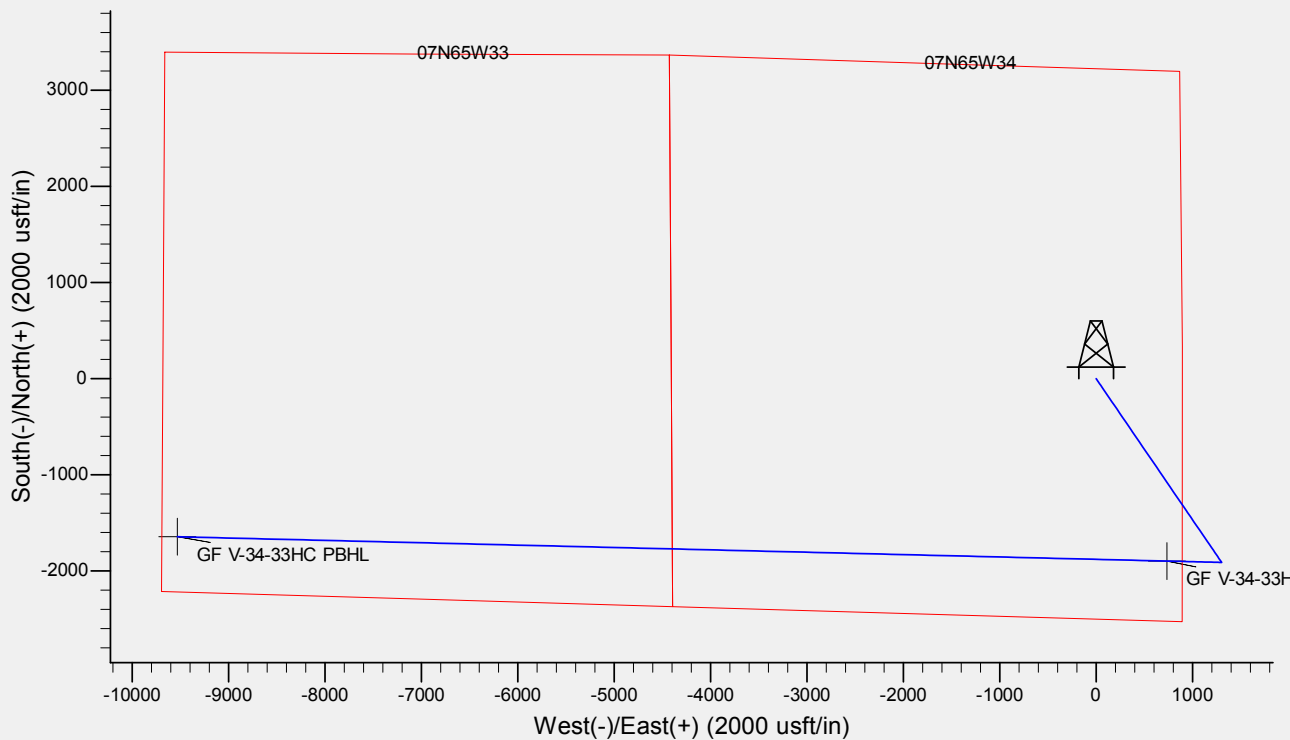
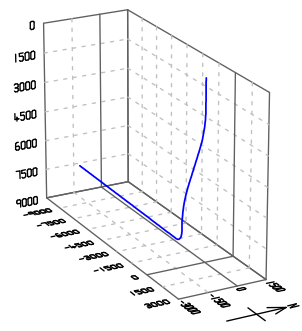
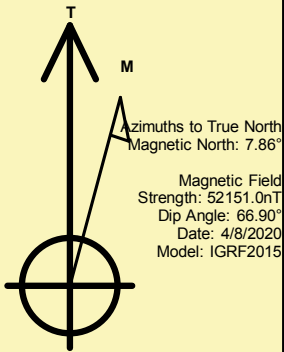
Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Shape
GF V-34-33HC LP	7152.0	-1898.0	733.9	1435159.78	3238991.90	40° 31' 29.042 N	104° 38' 25.069 W	Point
GF V-34-33HC PBHL	- plan hits target center 7229.0	-1645.2	-9531.6	1435313.39	3228724.40	40° 31' 31.523 N	104° 40' 38.006 W	Point

REFERENCE INFORMATION

Co-ordinate (N/E) Reference: Well GROVES FARM V-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





Database:	EDM	Local Co-ordinate Reference:	Well GROVES FARM V-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 V-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 V-34-33HC					
Well Position	+N/-S	-135.2 usft	Northing:	1,437,050.62 usft	Latitude:	40° 31' 47.798 N
	+E/-W	-3.6 usft	Easting:	3,238,239.67 usft	Longitude:	104° 38' 34.573 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	52,151.02506082

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	260.21

Plan Survey Tool Program	Date	4/20/2020		
Depth From (usft)	Depth To (usft)	Survey (Wellbore)	Tool Name	Remarks
1	0.0	18,406.6	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	
3,457.5	39.15	145.74	3,308.7	-531.5	362.1	2.00	2.00	0.00	145.74	
5,084.4	39.15	145.74	4,570.4	-1,380.5	940.3	0.00	0.00	0.00	0.00	
7,041.9	0.00	271.41	6,379.1	-1,912.0	1,302.4	2.00	-2.00	0.00	180.00	
7,241.9	0.00	271.41	6,579.1	-1,912.0	1,302.4	0.00	0.00	0.00	0.00	
8,137.6	89.57	271.41	7,152.0	-1,898.0	733.9	10.00	10.00	0.00	0.00	GF V-34-33HC LP
18,406.6	89.57	271.41	7,229.0	-1,645.2	-9,531.6	0.00	0.00	0.00	0.00	GF V-34-33HC PBHL



Database:	EDM	Local Co-ordinate Reference:	Well GROVES FARM V-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 V-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	145.74	1,600.0	-1.4	1.0	-0.7	2.00	2.00	0.00
1,700.0	4.00	145.74	1,699.8	-5.8	3.9	-2.9	2.00	2.00	0.00
1,800.0	6.00	145.74	1,799.5	-13.0	8.8	-6.5	2.00	2.00	0.00
1,900.0	8.00	145.74	1,898.7	-23.0	15.7	-11.5	2.00	2.00	0.00
2,000.0	10.00	145.74	1,997.5	-36.0	24.5	-18.0	2.00	2.00	0.00
2,100.0	12.00	145.74	2,095.6	-51.7	35.2	-25.9	2.00	2.00	0.00
2,200.0	14.00	145.74	2,193.1	-70.3	47.9	-35.2	2.00	2.00	0.00
2,300.0	16.00	145.74	2,289.6	-91.7	62.5	-46.0	2.00	2.00	0.00
2,400.0	18.00	145.74	2,385.3	-115.9	78.9	-58.1	2.00	2.00	0.00
2,500.0	20.00	145.74	2,479.8	-142.8	97.3	-71.6	2.00	2.00	0.00
2,600.0	22.00	145.74	2,573.2	-172.4	117.4	-86.4	2.00	2.00	0.00
2,700.0	24.00	145.74	2,665.2	-204.7	139.4	-102.6	2.00	2.00	0.00
2,800.0	26.00	145.74	2,755.8	-239.6	163.2	-120.1	2.00	2.00	0.00
2,900.0	28.00	145.74	2,844.9	-277.1	188.8	-138.9	2.00	2.00	0.00
3,000.0	30.00	145.74	2,932.4	-317.2	216.1	-159.0	2.00	2.00	0.00
3,100.0	32.00	145.74	3,018.1	-359.8	245.1	-180.3	2.00	2.00	0.00
3,200.0	34.00	145.74	3,102.0	-404.8	275.7	-202.9	2.00	2.00	0.00
3,300.0	36.00	145.74	3,183.9	-452.2	308.0	-226.6	2.00	2.00	0.00
3,400.0	38.00	145.74	3,263.7	-501.9	341.9	-251.5	2.00	2.00	0.00
3,457.5	39.15	145.74	3,308.7	-531.5	362.1	-266.4	2.00	2.00	0.00
3,500.0	39.15	145.74	3,341.7	-553.7	377.2	-277.5	0.00	0.00	0.00
3,600.0	39.15	145.74	3,419.2	-605.9	412.7	-303.7	0.00	0.00	0.00
3,700.0	39.15	145.74	3,496.8	-658.1	448.3	-329.8	0.00	0.00	0.00
3,800.0	39.15	145.74	3,574.3	-710.3	483.8	-356.0	0.00	0.00	0.00
3,900.0	39.15	145.74	3,651.9	-762.5	519.4	-382.1	0.00	0.00	0.00
4,000.0	39.15	145.74	3,729.4	-814.6	554.9	-408.3	0.00	0.00	0.00
4,100.0	39.15	145.74	3,807.0	-866.8	590.4	-434.4	0.00	0.00	0.00
4,200.0	39.15	145.74	3,884.5	-919.0	626.0	-460.6	0.00	0.00	0.00
4,300.0	39.15	145.74	3,962.1	-971.2	661.5	-486.7	0.00	0.00	0.00
4,400.0	39.15	145.74	4,039.6	-1,023.3	697.1	-512.9	0.00	0.00	0.00
4,500.0	39.15	145.74	4,117.2	-1,075.5	732.6	-539.0	0.00	0.00	0.00
4,600.0	39.15	145.74	4,194.7	-1,127.7	768.2	-565.2	0.00	0.00	0.00
4,700.0	39.15	145.74	4,272.3	-1,179.9	803.7	-591.3	0.00	0.00	0.00
4,800.0	39.15	145.74	4,349.8	-1,232.1	839.2	-617.5	0.00	0.00	0.00
4,900.0	39.15	145.74	4,427.4	-1,284.2	874.8	-643.6	0.00	0.00	0.00
5,000.0	39.15	145.74	4,504.9	-1,336.4	910.3	-669.7	0.00	0.00	0.00
5,084.4	39.15	145.74	4,570.4	-1,380.5	940.3	-691.8	0.00	0.00	0.00
5,100.0	38.84	145.74	4,582.5	-1,388.6	945.8	-695.9	2.00	-2.00	0.00



Database:	EDM	Local Co-ordinate Reference:	Well GROVES FARM V-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 V-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)
5,200.0	36.84	145.74	4,661.4	-1,439.3	980.4	-721.3	2.00	-2.00	0.00
5,300.0	34.84	145.74	4,742.5	-1,487.7	1,013.3	-745.5	2.00	-2.00	0.00
5,400.0	32.84	145.74	4,825.6	-1,533.7	1,044.7	-768.6	2.00	-2.00	0.00
5,500.0	30.84	145.74	4,910.5	-1,577.3	1,074.4	-790.5	2.00	-2.00	0.00
5,600.0	28.84	145.74	4,997.3	-1,618.4	1,102.4	-811.1	2.00	-2.00	0.00
5,700.0	26.84	145.74	5,085.7	-1,657.0	1,128.7	-830.4	2.00	-2.00	0.00
5,800.0	24.84	145.74	5,175.7	-1,693.0	1,153.2	-848.5	2.00	-2.00	0.00
5,900.0	22.84	145.74	5,267.1	-1,726.4	1,176.0	-865.2	2.00	-2.00	0.00
6,000.0	20.84	145.74	5,360.0	-1,757.2	1,196.9	-880.6	2.00	-2.00	0.00
6,100.0	18.84	145.74	5,454.0	-1,785.2	1,216.0	-894.7	2.00	-2.00	0.00
6,200.0	16.84	145.74	5,549.2	-1,810.5	1,233.3	-907.3	2.00	-2.00	0.00
6,300.0	14.84	145.74	5,645.4	-1,833.1	1,248.6	-918.6	2.00	-2.00	0.00
6,400.0	12.84	145.74	5,742.5	-1,852.8	1,262.1	-928.6	2.00	-2.00	0.00
6,500.0	10.84	145.74	5,840.4	-1,869.8	1,273.6	-937.0	2.00	-2.00	0.00
6,600.0	8.84	145.74	5,938.9	-1,883.9	1,283.3	-944.1	2.00	-2.00	0.00
6,700.0	6.84	145.74	6,038.0	-1,895.2	1,290.9	-949.8	2.00	-2.00	0.00
6,800.0	4.84	145.74	6,137.4	-1,903.6	1,296.7	-954.0	2.00	-2.00	0.00
6,900.0	2.84	145.74	6,237.2	-1,909.1	1,300.4	-956.8	2.00	-2.00	0.00
7,000.0	0.84	145.74	6,337.1	-1,911.8	1,302.2	-958.1	2.00	-2.00	0.00
7,041.9	0.00	271.41	6,379.1	-1,912.0	1,302.4	-958.2	2.00	-2.00	0.00
7,100.0	0.00	0.00	6,437.1	-1,912.0	1,302.4	-958.2	0.00	0.00	0.00
7,200.0	0.00	0.00	6,537.1	-1,912.0	1,302.4	-958.2	0.00	0.00	0.00
7,241.9	0.00	271.41	6,579.1	-1,912.0	1,302.4	-958.2	0.00	0.00	0.00
7,300.0	5.81	271.41	6,637.0	-1,912.0	1,299.5	-955.3	10.00	10.00	0.00
7,400.0	15.81	271.41	6,735.1	-1,911.5	1,280.7	-937.0	10.00	10.00	0.00
7,500.0	25.81	271.41	6,828.5	-1,910.6	1,245.3	-902.2	10.00	10.00	0.00
7,600.0	35.81	271.41	6,914.3	-1,909.4	1,194.1	-852.0	10.00	10.00	0.00
7,700.0	45.81	271.41	6,989.9	-1,907.8	1,128.9	-787.9	10.00	10.00	0.00
7,800.0	55.81	271.41	7,053.0	-1,905.8	1,051.5	-712.0	10.00	10.00	0.00
7,900.0	65.81	271.41	7,101.7	-1,903.7	964.3	-626.5	10.00	10.00	0.00
8,000.0	75.81	271.41	7,134.5	-1,901.4	870.0	-534.0	10.00	10.00	0.00
8,100.0	85.81	271.41	7,150.5	-1,899.0	771.5	-437.3	10.00	10.00	0.00
8,137.6	89.57	271.41	7,152.0	-1,898.0	733.9	-400.4	10.00	10.00	0.00
GF V-34-33HC LP									
8,200.0	89.57	271.41	7,152.5	-1,896.5	671.6	-339.2	0.00	0.00	0.00
8,300.0	89.57	271.41	7,153.2	-1,894.0	571.6	-241.1	0.00	0.00	0.00
8,400.0	89.57	271.41	7,154.0	-1,891.6	471.6	-143.0	0.00	0.00	0.00
8,500.0	89.57	271.41	7,154.7	-1,889.1	371.7	-44.9	0.00	0.00	0.00
8,600.0	89.57	271.41	7,155.5	-1,886.6	271.7	53.2	0.00	0.00	0.00
8,700.0	89.57	271.41	7,156.2	-1,884.2	171.7	151.3	0.00	0.00	0.00
8,800.0	89.57	271.41	7,157.0	-1,881.7	71.8	249.4	0.00	0.00	0.00
8,900.0	89.57	271.41	7,157.7	-1,879.3	-28.2	347.4	0.00	0.00	0.00
9,000.0	89.57	271.41	7,158.5	-1,876.8	-128.2	445.5	0.00	0.00	0.00
9,100.0	89.57	271.41	7,159.2	-1,874.3	-228.1	543.6	0.00	0.00	0.00
9,200.0	89.57	271.41	7,160.0	-1,871.9	-328.1	641.7	0.00	0.00	0.00
9,300.0	89.57	271.41	7,160.7	-1,869.4	-428.1	739.8	0.00	0.00	0.00
9,400.0	89.57	271.41	7,161.5	-1,866.9	-528.0	837.9	0.00	0.00	0.00
9,500.0	89.57	271.41	7,162.2	-1,864.5	-628.0	936.0	0.00	0.00	0.00
9,600.0	89.57	271.41	7,163.0	-1,862.0	-728.0	1,034.1	0.00	0.00	0.00
9,700.0	89.57	271.41	7,163.7	-1,859.6	-827.9	1,132.2	0.00	0.00	0.00
9,800.0	89.57	271.41	7,164.5	-1,857.1	-927.9	1,230.3	0.00	0.00	0.00
9,900.0	89.57	271.41	7,165.2	-1,854.6	-1,027.9	1,328.4	0.00	0.00	0.00
10,000.0	89.57	271.41	7,166.0	-1,852.2	-1,127.9	1,426.4	0.00	0.00	0.00



Database:	EDM	Local Co-ordinate Reference:	Well GROVES FARM V-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 V-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)
10,100.0	89.57	271.41	7,166.7	-1,849.7	-1,227.8	1,524.5	0.00	0.00	0.00
10,200.0	89.57	271.41	7,167.5	-1,847.2	-1,327.8	1,622.6	0.00	0.00	0.00
10,300.0	89.57	271.41	7,168.2	-1,844.8	-1,427.8	1,720.7	0.00	0.00	0.00
10,400.0	89.57	271.41	7,169.0	-1,842.3	-1,527.7	1,818.8	0.00	0.00	0.00
10,500.0	89.57	271.41	7,169.7	-1,839.9	-1,627.7	1,916.9	0.00	0.00	0.00
10,600.0	89.57	271.41	7,170.5	-1,837.4	-1,727.7	2,015.0	0.00	0.00	0.00
10,700.0	89.57	271.41	7,171.2	-1,834.9	-1,827.6	2,113.1	0.00	0.00	0.00
10,800.0	89.57	271.41	7,172.0	-1,832.5	-1,927.6	2,211.2	0.00	0.00	0.00
10,900.0	89.57	271.41	7,172.7	-1,830.0	-2,027.6	2,309.3	0.00	0.00	0.00
11,000.0	89.57	271.41	7,173.5	-1,827.5	-2,127.5	2,407.4	0.00	0.00	0.00
11,100.0	89.57	271.41	7,174.2	-1,825.1	-2,227.5	2,505.5	0.00	0.00	0.00
11,200.0	89.57	271.41	7,175.0	-1,822.6	-2,327.5	2,603.5	0.00	0.00	0.00
11,300.0	89.57	271.41	7,175.7	-1,820.2	-2,427.4	2,701.6	0.00	0.00	0.00
11,400.0	89.57	271.41	7,176.5	-1,817.7	-2,527.4	2,799.7	0.00	0.00	0.00
11,500.0	89.57	271.41	7,177.2	-1,815.2	-2,627.4	2,897.8	0.00	0.00	0.00
11,600.0	89.57	271.41	7,178.0	-1,812.8	-2,727.3	2,995.9	0.00	0.00	0.00
11,700.0	89.57	271.41	7,178.7	-1,810.3	-2,827.3	3,094.0	0.00	0.00	0.00
11,800.0	89.57	271.41	7,179.5	-1,807.9	-2,927.3	3,192.1	0.00	0.00	0.00
11,900.0	89.57	271.41	7,180.2	-1,805.4	-3,027.2	3,290.2	0.00	0.00	0.00
12,000.0	89.57	271.41	7,181.0	-1,802.9	-3,127.2	3,388.3	0.00	0.00	0.00
12,100.0	89.57	271.41	7,181.7	-1,800.5	-3,227.2	3,486.4	0.00	0.00	0.00
12,200.0	89.57	271.41	7,182.5	-1,798.0	-3,327.1	3,584.5	0.00	0.00	0.00
12,300.0	89.57	271.41	7,183.2	-1,795.5	-3,427.1	3,682.6	0.00	0.00	0.00
12,400.0	89.57	271.41	7,184.0	-1,793.1	-3,527.1	3,780.6	0.00	0.00	0.00
12,500.0	89.57	271.41	7,184.7	-1,790.6	-3,627.0	3,878.7	0.00	0.00	0.00
12,600.0	89.57	271.41	7,185.5	-1,788.2	-3,727.0	3,976.8	0.00	0.00	0.00
12,700.0	89.57	271.41	7,186.2	-1,785.7	-3,827.0	4,074.9	0.00	0.00	0.00
12,800.0	89.57	271.41	7,187.0	-1,783.2	-3,926.9	4,173.0	0.00	0.00	0.00
12,900.0	89.57	271.41	7,187.7	-1,780.8	-4,026.9	4,271.1	0.00	0.00	0.00
13,000.0	89.57	271.41	7,188.5	-1,778.3	-4,126.9	4,369.2	0.00	0.00	0.00
13,100.0	89.57	271.41	7,189.2	-1,775.8	-4,226.8	4,467.3	0.00	0.00	0.00
13,200.0	89.57	271.41	7,190.0	-1,773.4	-4,326.8	4,565.4	0.00	0.00	0.00
13,300.0	89.57	271.41	7,190.7	-1,770.9	-4,426.8	4,663.5	0.00	0.00	0.00
13,400.0	89.57	271.41	7,191.5	-1,768.5	-4,526.7	4,761.6	0.00	0.00	0.00
13,500.0	89.57	271.41	7,192.2	-1,766.0	-4,626.7	4,859.6	0.00	0.00	0.00
13,600.0	89.57	271.41	7,193.0	-1,763.5	-4,726.7	4,957.7	0.00	0.00	0.00
13,700.0	89.57	271.41	7,193.7	-1,761.1	-4,826.6	5,055.8	0.00	0.00	0.00
13,800.0	89.57	271.41	7,194.5	-1,758.6	-4,926.6	5,153.9	0.00	0.00	0.00
13,900.0	89.57	271.41	7,195.2	-1,756.1	-5,026.6	5,252.0	0.00	0.00	0.00
14,000.0	89.57	271.41	7,196.0	-1,753.7	-5,126.5	5,350.1	0.00	0.00	0.00
14,100.0	89.57	271.41	7,196.7	-1,751.2	-5,226.5	5,448.2	0.00	0.00	0.00
14,200.0	89.57	271.41	7,197.5	-1,748.8	-5,326.5	5,546.3	0.00	0.00	0.00
14,300.0	89.57	271.41	7,198.2	-1,746.3	-5,426.4	5,644.4	0.00	0.00	0.00
14,400.0	89.57	271.41	7,199.0	-1,743.8	-5,526.4	5,742.5	0.00	0.00	0.00
14,500.0	89.57	271.41	7,199.7	-1,741.4	-5,626.4	5,840.6	0.00	0.00	0.00
14,600.0	89.57	271.41	7,200.5	-1,738.9	-5,726.3	5,938.7	0.00	0.00	0.00
14,700.0	89.57	271.41	7,201.2	-1,736.4	-5,826.3	6,036.7	0.00	0.00	0.00
14,800.0	89.57	271.41	7,202.0	-1,734.0	-5,926.3	6,134.8	0.00	0.00	0.00
14,900.0	89.57	271.41	7,202.7	-1,731.5	-6,026.2	6,232.9	0.00	0.00	0.00
15,000.0	89.57	271.41	7,203.5	-1,729.1	-6,126.2	6,331.0	0.00	0.00	0.00
15,100.0	89.57	271.41	7,204.2	-1,726.6	-6,226.2	6,429.1	0.00	0.00	0.00
15,200.0	89.57	271.41	7,205.0	-1,724.1	-6,326.1	6,527.2	0.00	0.00	0.00
15,300.0	89.57	271.41	7,205.7	-1,721.7	-6,426.1	6,625.3	0.00	0.00	0.00
15,400.0	89.57	271.41	7,206.5	-1,719.2	-6,526.1	6,723.4	0.00	0.00	0.00



Database:	EDM	Local Co-ordinate Reference:	Well GROVES FARM V-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 V-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	89.57	271.41	7,207.2	-1,716.8	-6,626.0	6,821.5	0.00	0.00	0.00
15,600.0	89.57	271.41	7,208.0	-1,714.3	-6,726.0	6,919.6	0.00	0.00	0.00
15,700.0	89.57	271.41	7,208.7	-1,711.8	-6,826.0	7,017.7	0.00	0.00	0.00
15,800.0	89.57	271.41	7,209.5	-1,709.4	-6,925.9	7,115.8	0.00	0.00	0.00
15,900.0	89.57	271.41	7,210.2	-1,706.9	-7,025.9	7,213.8	0.00	0.00	0.00
16,000.0	89.57	271.41	7,211.0	-1,704.4	-7,125.9	7,311.9	0.00	0.00	0.00
16,100.0	89.57	271.41	7,211.7	-1,702.0	-7,225.8	7,410.0	0.00	0.00	0.00
16,200.0	89.57	271.41	7,212.5	-1,699.5	-7,325.8	7,508.1	0.00	0.00	0.00
16,300.0	89.57	271.41	7,213.2	-1,697.1	-7,425.8	7,606.2	0.00	0.00	0.00
16,400.0	89.57	271.41	7,214.0	-1,694.6	-7,525.7	7,704.3	0.00	0.00	0.00
16,500.0	89.57	271.41	7,214.7	-1,692.1	-7,625.7	7,802.4	0.00	0.00	0.00
16,600.0	89.57	271.41	7,215.5	-1,689.7	-7,725.7	7,900.5	0.00	0.00	0.00
16,700.0	89.57	271.41	7,216.2	-1,687.2	-7,825.6	7,998.6	0.00	0.00	0.00
16,800.0	89.57	271.41	7,217.0	-1,684.7	-7,925.6	8,096.7	0.00	0.00	0.00
16,900.0	89.57	271.41	7,217.7	-1,682.3	-8,025.6	8,194.8	0.00	0.00	0.00
17,000.0	89.57	271.41	7,218.5	-1,679.8	-8,125.5	8,292.9	0.00	0.00	0.00
17,100.0	89.57	271.41	7,219.2	-1,677.4	-8,225.5	8,390.9	0.00	0.00	0.00
17,200.0	89.57	271.41	7,220.0	-1,674.9	-8,325.5	8,489.0	0.00	0.00	0.00
17,300.0	89.57	271.41	7,220.7	-1,672.4	-8,425.4	8,587.1	0.00	0.00	0.00
17,400.0	89.57	271.41	7,221.5	-1,670.0	-8,525.4	8,685.2	0.00	0.00	0.00
17,500.0	89.57	271.41	7,222.2	-1,667.5	-8,625.4	8,783.3	0.00	0.00	0.00
17,600.0	89.57	271.41	7,223.0	-1,665.0	-8,725.3	8,881.4	0.00	0.00	0.00
17,700.0	89.57	271.41	7,223.7	-1,662.6	-8,825.3	8,979.5	0.00	0.00	0.00
17,800.0	89.57	271.41	7,224.5	-1,660.1	-8,925.3	9,077.6	0.00	0.00	0.00
17,900.0	89.57	271.41	7,225.2	-1,657.7	-9,025.2	9,175.7	0.00	0.00	0.00
18,000.0	89.57	271.41	7,226.0	-1,655.2	-9,125.2	9,273.8	0.00	0.00	0.00
18,100.0	89.57	271.41	7,226.7	-1,652.7	-9,225.2	9,371.9	0.00	0.00	0.00
18,200.0	89.57	271.41	7,227.5	-1,650.3	-9,325.1	9,469.9	0.00	0.00	0.00
18,300.0	89.57	271.41	7,228.2	-1,647.8	-9,425.1	9,568.0	0.00	0.00	0.00
18,400.0	89.57	271.41	7,229.0	-1,645.3	-9,525.1	9,666.1	0.00	0.00	0.00
18,406.6	89.57	271.41	7,229.0	-1,645.2	-9,531.6	9,672.6	0.00	0.00	0.00
GF V-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 V-34-33HC LP - hit/miss target - Shape - Point	0.00	0.00	7,152.0	-1,898.0	733.9	1,435,159.78	3,238,991.90	40° 31' 29.042 N	104° 38' 25.069 W
GF V-34-33HC PBHL - plan hits target center - Point	0.00	0.00	7,229.0	-1,645.2	-9,531.6	1,435,313.39	3,228,724.40	40° 31' 31.523 N	104° 40' 38.006 W