



Pad Name: Groves Farm 34-L Pad
Well Name: GROVES FARM O-34-33HC
Ground Level: 4844.0
SHL Latitude: 40° 31' 48.839 N
SHL Longitude: 104° 38' 34.537 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	2466.1	19.32	108.33	2447.9	-50.7	153.2	2.00	108.33	-151.5	
4	5632.8	19.32	108.33	5436.2	-380.2	1147.8	0.00	0.00	-1135.3	
5	6598.8	0.00	270.70	6384.1	-430.9	1300.9	2.00	180.00	-1286.7	
6	6798.8	0.00	270.70	6584.1	-430.9	1300.9	0.00	0.00	-1286.7	
7	7694.9	89.61	270.70	7157.0	-424.0	731.9	10.00	0.00	-718.2	GF O-34-33HC LP
8	12682.7	89.61	272.78	7190.9	-272.9	-4253.1	0.04	89.95	4259.6	
9	12838.3	89.61	269.67	7192.0	-269.6	-4408.7	2.00	-90.07	4415.0	GF O-34-33HC VP
10	17955.8	89.61	269.67	7227.0	-299.4	-9526.1	0.00	0.00	9530.8	GF O-34-33HC PBHL

DESIGN TARGET DETAILS

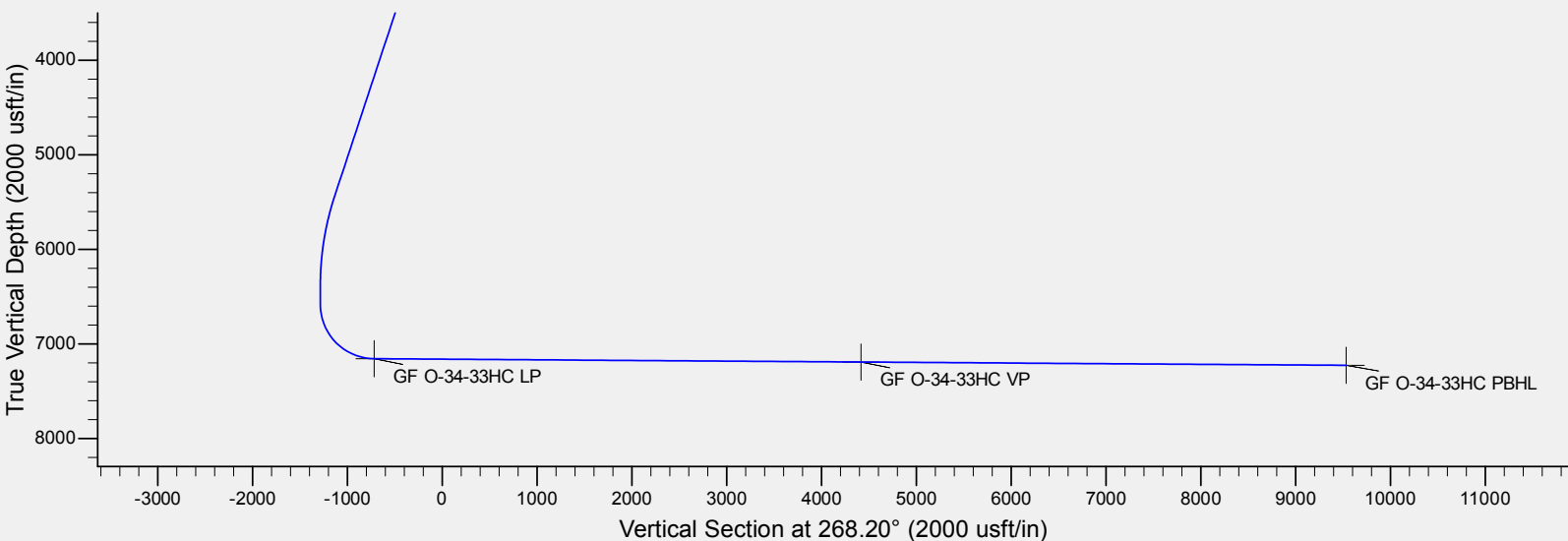
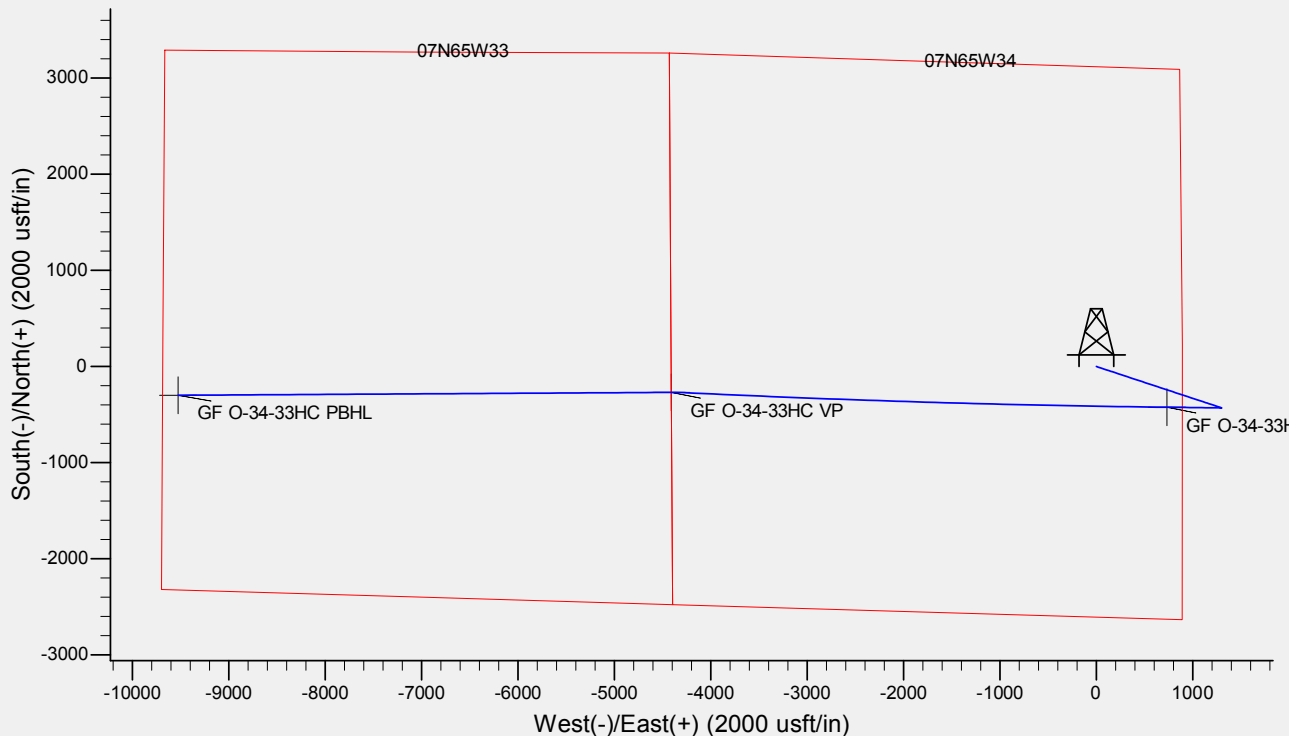
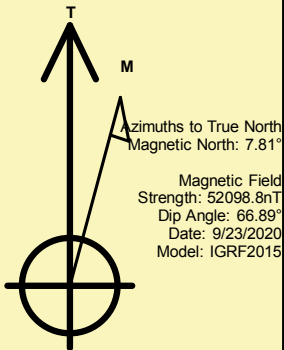
Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Shape
GF O-34-33HC LP	7157.0	-424.0	731.9	1436738.99	3238977.42	40° 31' 44.648 N	104° 38' 25.058 W	Point
GF O-34-33HC VP	- plan hits target center 7192.0	-269.6	-4408.7	1436843.78	3233835.51	40° 31' 46.171 N	104° 39' 31.633 W	Point
GF O-34-33HC PBHL	- plan hits target center 7227.0	-299.4	-9526.1	1436764.44	3228718.72	40° 31' 45.862 N	104° 40' 37.906 W	Point

REFERENCE INFORMATION

Co-ordinate (N/E) Reference: Well GROVES FARM O-34-33HC, True North
Vertical (TVD) Reference: KB @ 4867.0usft (Original Well Elev)
Section (VS) Reference: Slot - (0.0N, 0.0E)
Measured Depth Reference: KB @ 4867.0usft (Original Well Elev)
Calculation Method: Minimum Curvature

CASING DETAILS

No casing data is available





BAYSWATER

Bayswater Exploration & Production, LLC

DJ Basin

Groves Farm 34-L Pad

GROVES FARM O-34-33HC

Wellbore #1

Plan: Design #1

Standard Planning Report

26 September, 2020



Database:	EDM	Local Co-ordinate Reference:	Well GROVES FARM O-34-33HC
Company:	Bayswater Exploration & Production, LLC	TVD Reference:	KB @ 4867.0usft (Original Well Elev)
Project:	DJ Basin	MD Reference:	KB @ 4867.0usft (Original Well Elev)
Site:	Groves Farm 34-L Pad	North Reference:	True
Well:	GROVES FARM O-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 O-34-33HC					
Well Position	+N/-S	-29.9 usft	Northing:	1,437,155.93 usft	Latitude:	40° 31' 48.839 N
	+E/-W	-0.8 usft	Easting:	3,238,241.44 usft	Longitude:	104° 38' 34.537 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	9/23/2020	7.81	66.89	52,098.76971464

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	268.20	

Plan Survey Tool Program	Date	9/23/2020			
Depth From (usft)	Depth To (usft)	Survey (Wellbore)	Tool Name	Remarks	
1	0.0	17,955.8	Design #1 (Wellbore #1)	MWD	
				OWSG MWD - Standard	



Database:	EDM	Local Co-ordinate Reference:	Well GROVES FARM O-34-33HC
Company:	Bayswater Exploration & Production, LLC	TVD Reference:	KB @ 4867.0usft (Original Well Elev)
Project:	DJ Basin	MD Reference:	KB @ 4867.0usft (Original Well Elev)
Site:	Groves Farm 34-L Pad	North Reference:	True
Well:	GROVES FARM O-34-33HC	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Design #1		

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	
2,466.1	19.32	108.33	2,447.9	-50.7	153.2	2.00	2.00	0.00	108.33	
5,632.8	19.32	108.33	5,436.2	-380.2	1,147.8	0.00	0.00	0.00	0.00	
6,598.8	0.00	270.70	6,384.1	-430.9	1,300.9	2.00	-2.00	0.00	180.00	
6,798.8	0.00	270.70	6,584.1	-430.9	1,300.9	0.00	0.00	0.00	0.00	
7,694.9	89.61	270.70	7,157.0	-424.0	731.9	10.00	10.00	0.00	0.00	GF O-34-33HC LP
12,682.7	89.61	272.78	7,190.9	-272.9	-4,253.1	0.04	0.00	0.04	89.95	
12,838.3	89.61	269.67	7,192.0	-269.6	-4,408.7	2.00	0.00	-2.00	-90.07	GF O-34-33HC VP
17,955.8	89.61	269.67	7,227.0	-299.4	-9,526.1	0.00	0.00	0.00	0.00	GF O-34-33HC PBHL



Database:	EDM	Local Co-ordinate Reference:	Well GROVES FARM O-34-33HC
Company:	Bayswater Exploration & Production, LLC	TVD Reference:	KB @ 4867.0usft (Original Well Elev)
Project:	DJ Basin	MD Reference:	KB @ 4867.0usft (Original Well Elev)
Site:	Groves Farm 34-L Pad	North Reference:	True
Well:	GROVES FARM O-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	108.33	1,600.0	-0.5	1.7	-1.6	2.00	2.00	0.00
1,700.0	4.00	108.33	1,699.8	-2.2	6.6	-6.6	2.00	2.00	0.00
1,800.0	6.00	108.33	1,799.5	-4.9	14.9	-14.7	2.00	2.00	0.00
1,900.0	8.00	108.33	1,898.7	-8.8	26.5	-26.2	2.00	2.00	0.00
2,000.0	10.00	108.33	1,997.5	-13.7	41.3	-40.9	2.00	2.00	0.00
2,100.0	12.00	108.33	2,095.6	-19.7	59.4	-58.8	2.00	2.00	0.00
2,200.0	14.00	108.33	2,193.1	-26.8	80.8	-79.9	2.00	2.00	0.00
2,300.0	16.00	108.33	2,289.6	-34.9	105.3	-104.2	2.00	2.00	0.00
2,400.0	18.00	108.33	2,385.3	-44.1	133.1	-131.6	2.00	2.00	0.00
2,466.1	19.32	108.33	2,447.9	-50.7	153.2	-151.5	2.00	2.00	0.00
2,500.0	19.32	108.33	2,479.9	-54.3	163.8	-162.0	0.00	0.00	0.00
2,600.0	19.32	108.33	2,574.3	-64.7	195.2	-193.1	0.00	0.00	0.00
2,700.0	19.32	108.33	2,668.6	-75.1	226.6	-224.2	0.00	0.00	0.00
2,800.0	19.32	108.33	2,763.0	-85.5	258.0	-255.2	0.00	0.00	0.00
2,900.0	19.32	108.33	2,857.4	-95.9	289.5	-286.3	0.00	0.00	0.00
3,000.0	19.32	108.33	2,951.7	-106.3	320.9	-317.4	0.00	0.00	0.00
3,100.0	19.32	108.33	3,046.1	-116.7	352.3	-348.4	0.00	0.00	0.00
3,200.0	19.32	108.33	3,140.5	-127.1	383.7	-379.5	0.00	0.00	0.00
3,300.0	19.32	108.33	3,234.8	-137.5	415.1	-410.6	0.00	0.00	0.00
3,400.0	19.32	108.33	3,329.2	-147.9	446.5	-441.6	0.00	0.00	0.00
3,500.0	19.32	108.33	3,423.6	-158.3	477.9	-472.7	0.00	0.00	0.00
3,600.0	19.32	108.33	3,517.9	-168.7	509.3	-503.8	0.00	0.00	0.00
3,700.0	19.32	108.33	3,612.3	-179.1	540.7	-534.8	0.00	0.00	0.00
3,800.0	19.32	108.33	3,706.7	-189.5	572.1	-565.9	0.00	0.00	0.00
3,900.0	19.32	108.33	3,801.0	-199.9	603.5	-597.0	0.00	0.00	0.00
4,000.0	19.32	108.33	3,895.4	-210.3	634.9	-628.0	0.00	0.00	0.00
4,100.0	19.32	108.33	3,989.8	-220.7	666.4	-659.1	0.00	0.00	0.00
4,200.0	19.32	108.33	4,084.1	-231.1	697.8	-690.2	0.00	0.00	0.00
4,300.0	19.32	108.33	4,178.5	-241.5	729.2	-721.2	0.00	0.00	0.00
4,400.0	19.32	108.33	4,272.9	-251.9	760.6	-752.3	0.00	0.00	0.00
4,500.0	19.32	108.33	4,367.2	-262.4	792.0	-783.4	0.00	0.00	0.00
4,600.0	19.32	108.33	4,461.6	-272.8	823.4	-814.4	0.00	0.00	0.00
4,700.0	19.32	108.33	4,556.0	-283.2	854.8	-845.5	0.00	0.00	0.00
4,800.0	19.32	108.33	4,650.3	-293.6	886.2	-876.5	0.00	0.00	0.00
4,900.0	19.32	108.33	4,744.7	-304.0	917.6	-907.6	0.00	0.00	0.00
5,000.0	19.32	108.33	4,839.1	-314.4	949.0	-938.7	0.00	0.00	0.00
5,100.0	19.32	108.33	4,933.4	-324.8	980.4	-969.7	0.00	0.00	0.00
5,200.0	19.32	108.33	5,027.8	-335.2	1,011.8	-1,000.8	0.00	0.00	0.00



Database:	EDM	Local Co-ordinate Reference:	Well GROVES FARM O-34-33HC
Company:	Bayswater Exploration & Production, LLC	TVD Reference:	KB @ 4867.0usft (Original Well Elev)
Project:	DJ Basin	MD Reference:	KB @ 4867.0usft (Original Well Elev)
Site:	Groves Farm 34-L Pad	North Reference:	True
Well:	GROVES FARM O-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	19.32	108.33	5,122.2	-345.6	1,043.2	-1,031.9	0.00	0.00	0.00
5,400.0	19.32	108.33	5,216.5	-356.0	1,074.7	-1,062.9	0.00	0.00	0.00
5,500.0	19.32	108.33	5,310.9	-366.4	1,106.1	-1,094.0	0.00	0.00	0.00
5,600.0	19.32	108.33	5,405.3	-376.8	1,137.5	-1,125.1	0.00	0.00	0.00
5,632.8	19.32	108.33	5,436.2	-380.2	1,147.8	-1,135.3	0.00	0.00	0.00
5,700.0	17.98	108.33	5,499.9	-387.0	1,168.2	-1,155.4	2.00	-2.00	0.00
5,800.0	15.98	108.33	5,595.5	-396.2	1,195.9	-1,182.9	2.00	-2.00	0.00
5,900.0	13.98	108.33	5,692.1	-404.3	1,220.4	-1,207.1	2.00	-2.00	0.00
6,000.0	11.98	108.33	5,789.6	-411.3	1,241.7	-1,228.2	2.00	-2.00	0.00
6,100.0	9.98	108.33	5,887.8	-417.3	1,259.8	-1,246.1	2.00	-2.00	0.00
6,200.0	7.98	108.33	5,986.5	-422.2	1,274.6	-1,260.7	2.00	-2.00	0.00
6,300.0	5.98	108.33	6,085.8	-426.1	1,286.1	-1,272.1	2.00	-2.00	0.00
6,400.0	3.98	108.33	6,185.4	-428.8	1,294.4	-1,280.3	2.00	-2.00	0.00
6,500.0	1.98	108.33	6,285.3	-430.4	1,299.3	-1,285.1	2.00	-2.00	0.00
6,598.8	0.00	270.70	6,384.1	-430.9	1,300.9	-1,286.7	2.00	-2.00	0.00
6,600.0	0.00	0.00	6,385.2	-430.9	1,300.9	-1,286.7	0.00	0.00	0.00
6,700.0	0.00	0.00	6,485.2	-430.9	1,300.9	-1,286.7	0.00	0.00	0.00
6,798.8	0.00	270.70	6,584.1	-430.9	1,300.9	-1,286.7	0.00	0.00	0.00
6,800.0	0.12	270.70	6,585.2	-430.9	1,300.9	-1,286.7	10.00	10.00	0.00
6,900.0	10.12	270.70	6,684.7	-430.8	1,292.0	-1,277.8	10.00	10.00	0.00
7,000.0	20.12	270.70	6,781.1	-430.5	1,266.0	-1,251.8	10.00	10.00	0.00
7,100.0	30.12	270.70	6,871.6	-430.0	1,223.6	-1,209.5	10.00	10.00	0.00
7,200.0	40.12	270.70	6,953.2	-429.3	1,166.1	-1,152.1	10.00	10.00	0.00
7,300.0	50.12	270.70	7,023.7	-428.5	1,095.4	-1,081.4	10.00	10.00	0.00
7,400.0	60.12	270.70	7,080.8	-427.5	1,013.4	-999.5	10.00	10.00	0.00
7,500.0	70.12	270.70	7,122.9	-426.4	922.9	-909.0	10.00	10.00	0.00
7,600.0	80.12	270.70	7,148.5	-425.2	826.3	-812.6	10.00	10.00	0.00
7,694.9	89.61	270.70	7,157.0	-424.0	731.9	-718.2	10.00	10.00	0.00
GF O-34-33HC LP									
7,700.0	89.61	270.70	7,157.0	-424.0	726.8	-713.2	0.04	0.00	0.04
7,800.0	89.61	270.74	7,157.7	-422.7	626.8	-613.3	0.04	0.00	0.04
7,900.0	89.61	270.78	7,158.4	-421.4	526.9	-513.4	0.04	0.00	0.04
8,000.0	89.61	270.82	7,159.1	-420.0	426.9	-413.5	0.04	0.00	0.04
8,100.0	89.61	270.87	7,159.8	-418.5	326.9	-313.6	0.04	0.00	0.04
8,200.0	89.61	270.91	7,160.4	-417.0	226.9	-213.7	0.04	0.00	0.04
8,300.0	89.61	270.95	7,161.1	-415.4	126.9	-113.8	0.04	0.00	0.04
8,400.0	89.61	270.99	7,161.8	-413.7	26.9	-13.9	0.04	0.00	0.04
8,500.0	89.61	271.03	7,162.5	-411.9	-73.1	86.0	0.04	0.00	0.04
8,600.0	89.61	271.07	7,163.2	-410.1	-173.0	185.8	0.04	0.00	0.04
8,700.0	89.61	271.12	7,163.9	-408.1	-273.0	285.7	0.04	0.00	0.04
8,800.0	89.61	271.16	7,164.5	-406.2	-373.0	385.6	0.04	0.00	0.04
8,900.0	89.61	271.20	7,165.2	-404.1	-473.0	485.4	0.04	0.00	0.04
9,000.0	89.61	271.24	7,165.9	-402.0	-572.9	585.3	0.04	0.00	0.04
9,100.0	89.61	271.28	7,166.6	-399.8	-672.9	685.1	0.04	0.00	0.04
9,200.0	89.61	271.32	7,167.3	-397.5	-772.9	785.0	0.04	0.00	0.04
9,300.0	89.61	271.37	7,167.9	-395.2	-872.9	884.8	0.04	0.00	0.04
9,400.0	89.61	271.41	7,168.6	-392.7	-972.8	984.7	0.04	0.00	0.04
9,500.0	89.61	271.45	7,169.3	-390.2	-1,072.8	1,084.5	0.04	0.00	0.04
9,600.0	89.61	271.49	7,170.0	-387.7	-1,172.8	1,184.4	0.04	0.00	0.04
9,700.0	89.61	271.53	7,170.7	-385.0	-1,272.7	1,284.2	0.04	0.00	0.04
9,800.0	89.61	271.57	7,171.3	-382.3	-1,372.7	1,384.0	0.04	0.00	0.04
9,900.0	89.61	271.62	7,172.0	-379.5	-1,472.6	1,483.8	0.04	0.00	0.04
10,000.0	89.61	271.66	7,172.7	-376.7	-1,572.6	1,583.7	0.04	0.00	0.04



Database:	EDM	Local Co-ordinate Reference:	Well GROVES FARM O-34-33HC
Company:	Bayswater Exploration & Production, LLC	TVD Reference:	KB @ 4867.0usft (Original Well Elev)
Project:	DJ Basin	MD Reference:	KB @ 4867.0usft (Original Well Elev)
Site:	Groves Farm 34-L Pad	North Reference:	True
Well:	GROVES FARM O-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	89.61	271.70	7,173.4	-373.8	-1,672.6	1,683.5	0.04	0.00	0.04	
10,200.0	89.61	271.74	7,174.1	-370.8	-1,772.5	1,783.3	0.04	0.00	0.04	
10,300.0	89.61	271.78	7,174.8	-367.7	-1,872.5	1,883.1	0.04	0.00	0.04	
10,400.0	89.61	271.83	7,175.4	-364.5	-1,972.4	1,982.9	0.04	0.00	0.04	
10,500.0	89.61	271.87	7,176.1	-361.3	-2,072.4	2,082.7	0.04	0.00	0.04	
10,600.0	89.61	271.91	7,176.8	-358.0	-2,172.3	2,182.5	0.04	0.00	0.04	
10,700.0	89.61	271.95	7,177.5	-354.6	-2,272.2	2,282.3	0.04	0.00	0.04	
10,800.0	89.61	271.99	7,178.2	-351.2	-2,372.2	2,382.0	0.04	0.00	0.04	
10,900.0	89.61	272.03	7,178.8	-347.7	-2,472.1	2,481.8	0.04	0.00	0.04	
11,000.0	89.61	272.08	7,179.5	-344.1	-2,572.0	2,581.6	0.04	0.00	0.04	
11,100.0	89.61	272.12	7,180.2	-340.5	-2,672.0	2,681.4	0.04	0.00	0.04	
11,200.0	89.61	272.16	7,180.9	-336.7	-2,771.9	2,781.1	0.04	0.00	0.04	
11,300.0	89.61	272.20	7,181.6	-332.9	-2,871.8	2,880.9	0.04	0.00	0.04	
11,400.0	89.61	272.24	7,182.2	-329.0	-2,971.7	2,980.6	0.04	0.00	0.04	
11,500.0	89.61	272.28	7,182.9	-325.1	-3,071.7	3,080.4	0.04	0.00	0.04	
11,600.0	89.61	272.33	7,183.6	-321.1	-3,171.6	3,180.1	0.04	0.00	0.04	
11,700.0	89.61	272.37	7,184.3	-317.0	-3,271.5	3,279.8	0.04	0.00	0.04	
11,800.0	89.61	272.41	7,184.9	-312.8	-3,371.4	3,379.6	0.04	0.00	0.04	
11,900.0	89.61	272.45	7,185.6	-308.6	-3,471.3	3,479.3	0.04	0.00	0.04	
12,000.0	89.61	272.49	7,186.3	-304.3	-3,571.2	3,579.0	0.04	0.00	0.04	
12,100.0	89.61	272.53	7,187.0	-299.9	-3,671.1	3,678.7	0.04	0.00	0.04	
12,200.0	89.61	272.58	7,187.7	-295.4	-3,771.0	3,778.4	0.04	0.00	0.04	
12,300.0	89.61	272.62	7,188.3	-290.9	-3,870.9	3,878.1	0.04	0.00	0.04	
12,400.0	89.61	272.66	7,189.0	-286.3	-3,970.8	3,977.8	0.04	0.00	0.04	
12,500.0	89.61	272.70	7,189.7	-281.6	-4,070.7	4,077.5	0.04	0.00	0.04	
12,600.0	89.61	272.74	7,190.4	-276.8	-4,170.6	4,177.2	0.04	0.00	0.04	
12,682.7	89.61	272.78	7,190.9	-272.9	-4,253.1	4,259.6	0.04	0.00	0.04	
12,700.0	89.61	272.43	7,191.1	-272.1	-4,270.5	4,276.9	2.00	0.00	-2.00	
12,800.0	89.61	270.43	7,191.7	-269.6	-4,370.4	4,376.7	2.00	0.00	-2.00	
12,838.3	89.61	269.67	7,192.0	-269.6	-4,408.7	4,415.0	2.00	0.00	-2.00	
GF O-34-33HC VP										
12,900.0	89.61	269.67	7,192.4	-269.9	-4,470.4	4,476.7	0.00	0.00	0.00	
13,000.0	89.61	269.67	7,193.1	-270.5	-4,570.4	4,576.7	0.00	0.00	0.00	
13,100.0	89.61	269.67	7,193.8	-271.1	-4,670.4	4,676.6	0.00	0.00	0.00	
13,200.0	89.61	269.67	7,194.5	-271.7	-4,770.4	4,776.6	0.00	0.00	0.00	
13,300.0	89.61	269.67	7,195.2	-272.2	-4,870.4	4,876.6	0.00	0.00	0.00	
13,400.0	89.61	269.67	7,195.8	-272.8	-4,970.4	4,976.5	0.00	0.00	0.00	
13,500.0	89.61	269.67	7,196.5	-273.4	-5,070.4	5,076.5	0.00	0.00	0.00	
13,600.0	89.61	269.67	7,197.2	-274.0	-5,170.4	5,176.5	0.00	0.00	0.00	
13,700.0	89.61	269.67	7,197.9	-274.6	-5,270.4	5,276.4	0.00	0.00	0.00	
13,800.0	89.61	269.67	7,198.6	-275.2	-5,370.4	5,376.4	0.00	0.00	0.00	
13,900.0	89.61	269.67	7,199.3	-275.7	-5,470.4	5,476.3	0.00	0.00	0.00	
14,000.0	89.61	269.67	7,199.9	-276.3	-5,570.4	5,576.3	0.00	0.00	0.00	
14,100.0	89.61	269.67	7,200.6	-276.9	-5,670.4	5,676.3	0.00	0.00	0.00	
14,200.0	89.61	269.67	7,201.3	-277.5	-5,770.4	5,776.2	0.00	0.00	0.00	
14,300.0	89.61	269.67	7,202.0	-278.1	-5,870.4	5,876.2	0.00	0.00	0.00	
14,400.0	89.61	269.67	7,202.7	-278.7	-5,970.4	5,976.2	0.00	0.00	0.00	
14,500.0	89.61	269.67	7,203.4	-279.3	-6,070.4	6,076.1	0.00	0.00	0.00	
14,600.0	89.61	269.67	7,204.0	-279.8	-6,170.4	6,176.1	0.00	0.00	0.00	
14,700.0	89.61	269.67	7,204.7	-280.4	-6,270.4	6,276.1	0.00	0.00	0.00	
14,800.0	89.61	269.67	7,205.4	-281.0	-6,370.3	6,376.0	0.00	0.00	0.00	
14,900.0	89.61	269.67	7,206.1	-281.6	-6,470.3	6,476.0	0.00	0.00	0.00	
15,000.0	89.61	269.67	7,206.8	-282.2	-6,570.3	6,576.0	0.00	0.00	0.00	
15,100.0	89.61	269.67	7,207.5	-282.8	-6,670.3	6,675.9	0.00	0.00	0.00	



Database:	EDM	Local Co-ordinate Reference:	Well GROVES FARM O-34-33HC
Company:	Bayswater Exploration & Production, LLC	TVD Reference:	KB @ 4867.0usft (Original Well Elev)
Project:	DJ Basin	MD Reference:	KB @ 4867.0usft (Original Well Elev)
Site:	Groves Farm 34-L Pad	North Reference:	True
Well:	GROVES FARM O-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)	
15,200.0	89.61	269.67	7,208.2	-283.3	-6,770.3	6,775.9	0.00	0.00	0.00	
15,300.0	89.61	269.67	7,208.8	-283.9	-6,870.3	6,875.9	0.00	0.00	0.00	
15,400.0	89.61	269.67	7,209.5	-284.5	-6,970.3	6,975.8	0.00	0.00	0.00	
15,500.0	89.61	269.67	7,210.2	-285.1	-7,070.3	7,075.8	0.00	0.00	0.00	
15,600.0	89.61	269.67	7,210.9	-285.7	-7,170.3	7,175.8	0.00	0.00	0.00	
15,700.0	89.61	269.67	7,211.6	-286.3	-7,270.3	7,275.7	0.00	0.00	0.00	
15,800.0	89.61	269.67	7,212.3	-286.8	-7,370.3	7,375.7	0.00	0.00	0.00	
15,900.0	89.61	269.67	7,212.9	-287.4	-7,470.3	7,475.6	0.00	0.00	0.00	
16,000.0	89.61	269.67	7,213.6	-288.0	-7,570.3	7,575.6	0.00	0.00	0.00	
16,100.0	89.61	269.67	7,214.3	-288.6	-7,670.3	7,675.6	0.00	0.00	0.00	
16,200.0	89.61	269.67	7,215.0	-289.2	-7,770.3	7,775.5	0.00	0.00	0.00	
16,300.0	89.61	269.67	7,215.7	-289.8	-7,870.3	7,875.5	0.00	0.00	0.00	
16,400.0	89.61	269.67	7,216.4	-290.3	-7,970.3	7,975.5	0.00	0.00	0.00	
16,500.0	89.61	269.67	7,217.0	-290.9	-8,070.3	8,075.4	0.00	0.00	0.00	
16,600.0	89.61	269.67	7,217.7	-291.5	-8,170.3	8,175.4	0.00	0.00	0.00	
16,700.0	89.61	269.67	7,218.4	-292.1	-8,270.3	8,275.4	0.00	0.00	0.00	
16,800.0	89.61	269.67	7,219.1	-292.7	-8,370.3	8,375.3	0.00	0.00	0.00	
16,900.0	89.61	269.67	7,219.8	-293.3	-8,470.3	8,475.3	0.00	0.00	0.00	
17,000.0	89.61	269.67	7,220.5	-293.9	-8,570.3	8,575.3	0.00	0.00	0.00	
17,100.0	89.61	269.67	7,221.1	-294.4	-8,670.3	8,675.2	0.00	0.00	0.00	
17,200.0	89.61	269.67	7,221.8	-295.0	-8,770.3	8,775.2	0.00	0.00	0.00	
17,300.0	89.61	269.67	7,222.5	-295.6	-8,870.2	8,875.2	0.00	0.00	0.00	
17,400.0	89.61	269.67	7,223.2	-296.2	-8,970.2	8,975.1	0.00	0.00	0.00	
17,500.0	89.61	269.67	7,223.9	-296.8	-9,070.2	9,075.1	0.00	0.00	0.00	
17,600.0	89.61	269.67	7,224.6	-297.4	-9,170.2	9,175.0	0.00	0.00	0.00	
17,700.0	89.61	269.67	7,225.3	-297.9	-9,270.2	9,275.0	0.00	0.00	0.00	
17,800.0	89.61	269.67	7,225.9	-298.5	-9,370.2	9,375.0	0.00	0.00	0.00	
17,900.0	89.61	269.67	7,226.6	-299.1	-9,470.2	9,474.9	0.00	0.00	0.00	
17,955.8	89.61	269.67	7,227.0	-299.4	-9,526.1	9,530.8	0.00	0.00	0.00	
GF O-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 O-34-33HC LP - hit/miss target - Shape - Point	0.00	0.00	7,157.0	-424.0	731.9	1,436,738.99	3,238,977.42	40° 31' 44.648 N	104° 38' 25.058 W	
GF O-34-33HC VP - plan hits target center - Point	0.00	0.00	7,192.0	-269.6	-4,408.7	1,436,843.78	3,233,835.51	40° 31' 46.171 N	104° 39' 31.633 W	
GF O-34-33HC PBHL - plan hits target center - Point	0.00	0.00	7,227.0	-299.4	-9,526.1	1,436,764.44	3,228,718.72	40° 31' 45.862 N	104° 40' 37.906 W	