



BAYSWATER

Bayswater Exploration & Production, LLC

DJ Basin

Groves Farm 34-L Pad

GROVES FARM M-34-33HN

Wellbore #1

Plan: Design #1

Standard Planning Report

13 April, 2020

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	2185.9	13.72	88.37	2179.4	2.3	81.7	2.00	88.37	-81.7	
4	5672.7	13.72	88.37	5566.7	25.9	908.2	0.00	0.00	-907.8	
5	6358.6	0.00	271.82	6246.1	28.2	989.9	2.00	180.00	-989.5	
6	6558.6	0.00	271.82	6446.1	28.2	989.9	0.00	0.00	-989.5	
7	7454.2	89.56	271.82	7019.0	46.3	421.7	10.00	0.00	-421.1	GF M-34-33HN LP
8	11954.2	89.56	271.82	7053.9	189.0	-4075.9	0.00	0.00	4077.9	
9	12052.8	89.56	273.84	7054.7	193.9	-4174.5	2.05	89.93	4176.5	
10	12291.1	89.55	268.96	7056.5	199.7	-4412.5	2.05	-90.09	4414.6	GF M-34-33HN VP
11	17093.7	89.55	268.96	7094.0	112.5	-9214.3	0.00	0.00	9215.0	GF M-34-33HN PBHL

DESIGN TARGET DETAILS

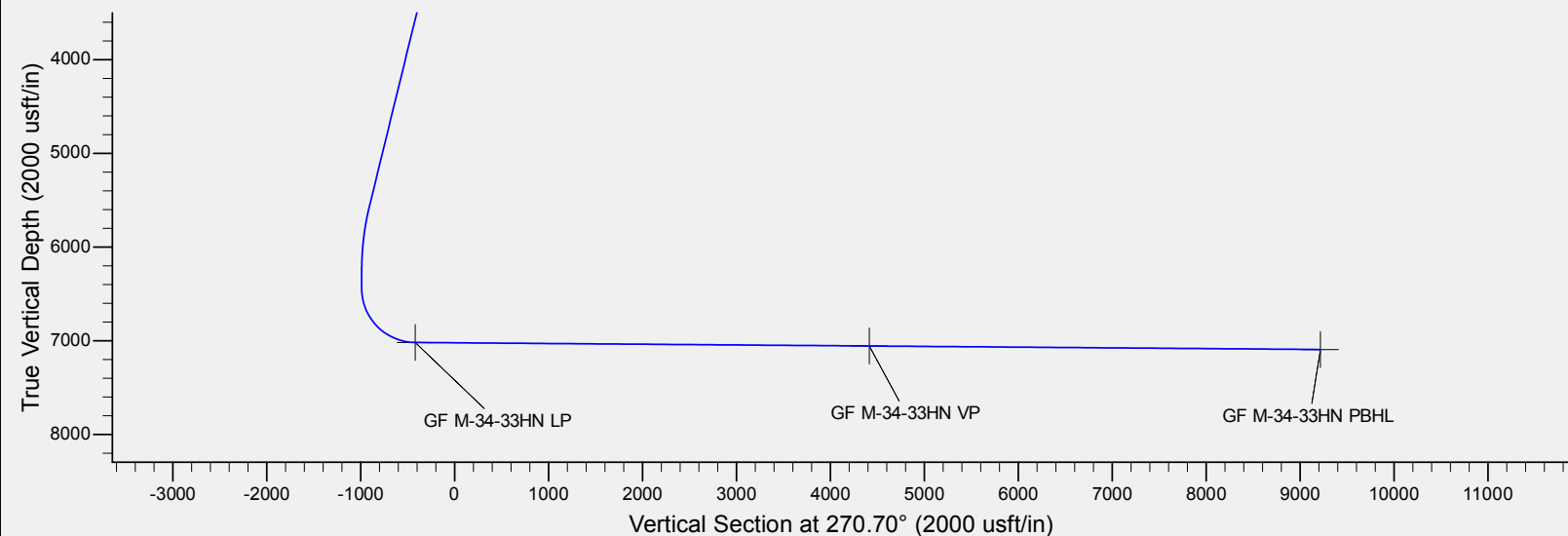
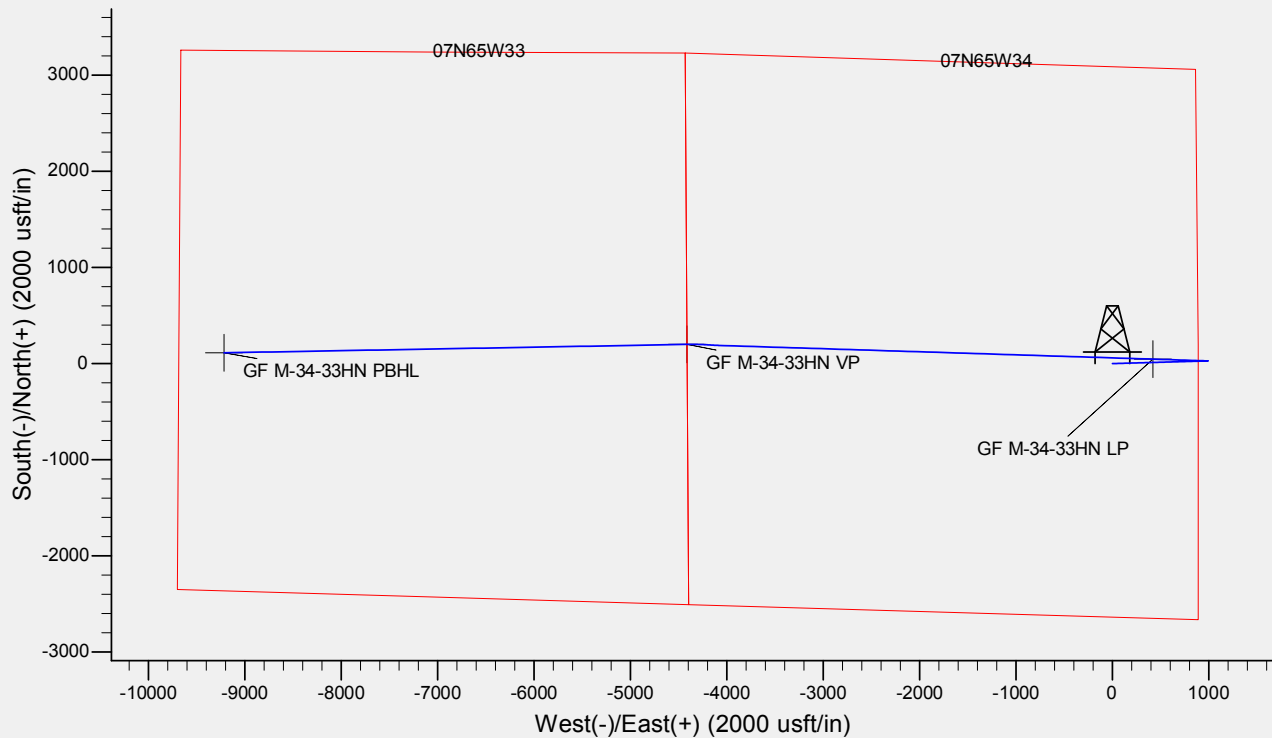
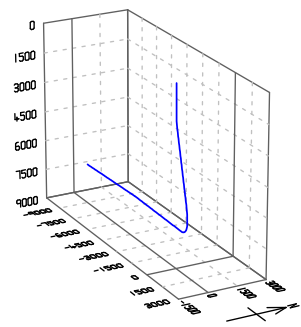
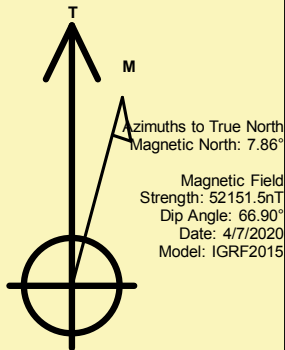
Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Shape
GF M-34-33HN LP	7019.0	46.3	421.7	1437236.16	3238663.20	40° 31' 49.591 N	104° 38' 29.065 W	Point
GF M-34-33HN VP	- plan hits target center 7056.5	199.7	-4412.5	1437342.83	3233827.72	40° 31' 51.103 N	104° 39' 31.673 W	Point
GF M-34-33HN PBHL	- plan hits target center 7094.0	112.5	-9214.3	1437209.23	3229027.05	40° 31' 50.228 N	104° 40' 33.859 W	Point

REFERENCE INFORMATION

Co-ordinate (N/E) Reference: Well GROVES FARM M-34-33HN, 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 M-34-33HN
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 M-34-33HN	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 M-34-33HN					
Well Position	+N/-S	0.0 usft	Northing:	1,437,185.81 usft	Latitude:	40° 31' 49.134 N
	+E/-W	0.0 usft	Easting:	3,238,241.98 usft	Longitude:	104° 38' 34.526 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	4/7/2020	7.86	66.90	52,151.52822812

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	270.70	

Plan Survey Tool Program	Date	4/7/2020			
Depth From (usft)	Depth To (usft)	Survey (Wellbore)	Tool Name	Remarks	
1	0.0	17,093.7	Design #1 (Wellbore #1)	MWD	
				OWSG MWD - Standard	



Database:	EDM	Local Co-ordinate Reference:	Well GROVES FARM M-34-33HN
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 M-34-33HN	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	
2,185.9	13.72	88.37	2,179.4	2.3	81.7	2.00	2.00	0.00	88.37	
5,672.7	13.72	88.37	5,566.7	25.9	908.2	0.00	0.00	0.00	0.00	
6,358.6	0.00	271.82	6,246.1	28.2	989.9	2.00	-2.00	0.00	180.00	
6,558.6	0.00	271.82	6,446.1	28.2	989.9	0.00	0.00	0.00	0.00	
7,454.2	89.56	271.82	7,019.0	46.3	421.7	10.00	10.00	0.00	0.00	GF M-34-33HN LP
11,954.2	89.56	271.82	7,053.9	189.0	-4,075.9	0.00	0.00	0.00	0.00	
12,052.8	89.56	273.84	7,054.7	193.9	-4,174.5	2.05	0.00	2.05	89.93	
12,291.1	89.55	268.96	7,056.5	199.7	-4,412.5	2.05	0.00	-2.05	-90.09	GF M-34-33HN VP
17,093.7	89.55	268.96	7,094.0	112.5	-9,214.3	0.00	0.00	0.00	0.00	GF M-34-33HN PBHL



Database:	EDM	Local Co-ordinate Reference:	Well GROVES FARM M-34-33HN
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 M-34-33HN	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	88.37	1,600.0	0.0	1.7	-1.7	2.00	2.00	0.00
1,700.0	4.00	88.37	1,699.8	0.2	7.0	-7.0	2.00	2.00	0.00
1,800.0	6.00	88.37	1,799.5	0.4	15.7	-15.7	2.00	2.00	0.00
1,900.0	8.00	88.37	1,898.7	0.8	27.9	-27.9	2.00	2.00	0.00
2,000.0	10.00	88.37	1,997.5	1.2	43.5	-43.5	2.00	2.00	0.00
2,100.0	12.00	88.37	2,095.6	1.8	62.6	-62.6	2.00	2.00	0.00
2,185.9	13.72	88.37	2,179.4	2.3	81.7	-81.7	2.00	2.00	0.00
2,200.0	13.72	88.37	2,193.1	2.4	85.0	-85.0	0.00	0.00	0.00
2,300.0	13.72	88.37	2,290.2	3.1	108.7	-108.7	0.00	0.00	0.00
2,400.0	13.72	88.37	2,387.4	3.8	132.4	-132.4	0.00	0.00	0.00
2,500.0	13.72	88.37	2,484.5	4.5	156.1	-156.1	0.00	0.00	0.00
2,600.0	13.72	88.37	2,581.7	5.1	179.8	-179.8	0.00	0.00	0.00
2,700.0	13.72	88.37	2,678.8	5.8	203.6	-203.6	0.00	0.00	0.00
2,800.0	13.72	88.37	2,775.9	6.5	227.3	-227.2	0.00	0.00	0.00
2,900.0	13.72	88.37	2,873.1	7.2	251.0	-250.9	0.00	0.00	0.00
3,000.0	13.72	88.37	2,970.2	7.8	274.7	-274.6	0.00	0.00	0.00
3,100.0	13.72	88.37	3,067.4	8.5	298.4	-298.2	0.00	0.00	0.00
3,200.0	13.72	88.37	3,164.5	9.2	322.1	-321.9	0.00	0.00	0.00
3,300.0	13.72	88.37	3,261.7	9.9	345.8	-345.6	0.00	0.00	0.00
3,400.0	13.72	88.37	3,358.8	10.5	369.5	-369.3	0.00	0.00	0.00
3,500.0	13.72	88.37	3,456.0	11.2	393.2	-393.0	0.00	0.00	0.00
3,600.0	13.72	88.37	3,553.1	11.9	416.9	-416.7	0.00	0.00	0.00
3,700.0	13.72	88.37	3,650.3	12.6	440.6	-440.4	0.00	0.00	0.00
3,800.0	13.72	88.37	3,747.4	13.2	464.3	-464.1	0.00	0.00	0.00
3,900.0	13.72	88.37	3,844.6	13.9	488.0	-487.8	0.00	0.00	0.00
4,000.0	13.72	88.37	3,941.7	14.6	511.7	-511.5	0.00	0.00	0.00
4,100.0	13.72	88.37	4,038.9	15.3	535.4	-535.2	0.00	0.00	0.00
4,200.0	13.72	88.37	4,136.0	16.0	559.1	-558.9	0.00	0.00	0.00
4,300.0	13.72	88.37	4,233.2	16.6	582.8	-582.6	0.00	0.00	0.00
4,400.0	13.72	88.37	4,330.3	17.3	606.5	-606.3	0.00	0.00	0.00
4,500.0	13.72	88.37	4,427.5	18.0	630.2	-630.0	0.00	0.00	0.00
4,600.0	13.72	88.37	4,524.6	18.7	653.9	-653.7	0.00	0.00	0.00
4,700.0	13.72	88.37	4,621.7	19.3	677.7	-677.4	0.00	0.00	0.00
4,800.0	13.72	88.37	4,718.9	20.0	701.4	-701.1	0.00	0.00	0.00
4,900.0	13.72	88.37	4,816.0	20.7	725.1	-724.8	0.00	0.00	0.00
5,000.0	13.72	88.37	4,913.2	21.4	748.8	-748.5	0.00	0.00	0.00
5,100.0	13.72	88.37	5,010.3	22.0	772.5	-772.1	0.00	0.00	0.00
5,200.0	13.72	88.37	5,107.5	22.7	796.2	-795.8	0.00	0.00	0.00



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Project:	DJ Basin	MD Reference:	KB @ 4869.0usft (Original Well Elev)
Site:	Groves Farm 34-L Pad	North Reference:	True
Well:	GROVES FARM M-34-33HN	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	13.72	88.37	5,204.6	23.4	819.9	-819.5	0.00	0.00	0.00
5,400.0	13.72	88.37	5,301.8	24.1	843.6	-843.2	0.00	0.00	0.00
5,500.0	13.72	88.37	5,398.9	24.7	867.3	-866.9	0.00	0.00	0.00
5,600.0	13.72	88.37	5,496.1	25.4	891.0	-890.6	0.00	0.00	0.00
5,672.7	13.72	88.37	5,566.7	25.9	908.2	-907.8	0.00	0.00	0.00
5,700.0	13.17	88.37	5,593.3	26.1	914.6	-914.2	2.00	-2.00	0.00
5,800.0	11.17	88.37	5,691.0	26.7	935.7	-935.3	2.00	-2.00	0.00
5,900.0	9.17	88.37	5,789.4	27.2	953.3	-952.9	2.00	-2.00	0.00
6,000.0	7.17	88.37	5,888.4	27.6	967.5	-967.1	2.00	-2.00	0.00
6,100.0	5.17	88.37	5,987.8	27.9	978.3	-977.8	2.00	-2.00	0.00
6,200.0	3.17	88.37	6,087.5	28.1	985.5	-985.1	2.00	-2.00	0.00
6,300.0	1.17	88.37	6,187.5	28.2	989.3	-988.9	2.00	-2.00	0.00
6,358.6	0.00	271.82	6,246.1	28.2	989.9	-989.5	2.00	-2.00	0.00
6,400.0	0.00	0.00	6,287.5	28.2	989.9	-989.5	0.00	0.00	0.00
6,500.0	0.00	0.00	6,387.5	28.2	989.9	-989.5	0.00	0.00	0.00
6,558.6	0.00	271.82	6,446.1	28.2	989.9	-989.5	0.00	0.00	0.00
6,600.0	4.14	271.82	6,487.4	28.3	988.4	-988.0	10.00	10.00	0.00
6,700.0	14.14	271.82	6,586.0	28.8	972.6	-972.1	10.00	10.00	0.00
6,800.0	24.14	271.82	6,680.4	29.8	939.8	-939.4	10.00	10.00	0.00
6,900.0	34.14	271.82	6,767.6	31.4	891.2	-890.8	10.00	10.00	0.00
7,000.0	44.14	271.82	6,845.1	33.4	828.2	-827.7	10.00	10.00	0.00
7,100.0	54.14	271.82	6,910.4	35.8	752.7	-752.2	10.00	10.00	0.00
7,200.0	64.14	271.82	6,961.6	38.5	667.0	-666.5	10.00	10.00	0.00
7,300.0	74.14	271.82	6,997.2	41.4	573.7	-573.2	10.00	10.00	0.00
7,400.0	84.14	271.82	7,016.0	44.6	475.7	-475.1	10.00	10.00	0.00
7,454.2	89.56	271.82	7,019.0	46.3	421.7	-421.1	10.00	10.00	0.00
GF M-34-33HN LP									
7,500.0	89.56	271.82	7,019.4	47.7	375.9	-375.3	0.00	0.00	0.00
7,600.0	89.56	271.82	7,020.1	50.9	275.9	-275.3	0.00	0.00	0.00
7,700.0	89.56	271.82	7,020.9	54.1	176.0	-175.3	0.00	0.00	0.00
7,800.0	89.56	271.82	7,021.7	57.2	76.0	-75.3	0.00	0.00	0.00
7,900.0	89.56	271.82	7,022.5	60.4	-23.9	24.7	0.00	0.00	0.00
8,000.0	89.56	271.82	7,023.2	63.6	-123.9	124.6	0.00	0.00	0.00
8,100.0	89.56	271.82	7,024.0	66.8	-223.8	224.6	0.00	0.00	0.00
8,200.0	89.56	271.82	7,024.8	69.9	-323.8	324.6	0.00	0.00	0.00
8,300.0	89.56	271.82	7,025.6	73.1	-423.7	424.6	0.00	0.00	0.00
8,400.0	89.56	271.82	7,026.3	76.3	-523.7	524.5	0.00	0.00	0.00
8,500.0	89.56	271.82	7,027.1	79.4	-623.6	624.5	0.00	0.00	0.00
8,600.0	89.56	271.82	7,027.9	82.6	-723.6	724.5	0.00	0.00	0.00
8,700.0	89.56	271.82	7,028.7	85.8	-823.5	824.5	0.00	0.00	0.00
8,800.0	89.56	271.82	7,029.4	89.0	-923.4	924.5	0.00	0.00	0.00
8,900.0	89.56	271.82	7,030.2	92.1	-1,023.4	1,024.4	0.00	0.00	0.00
9,000.0	89.56	271.82	7,031.0	95.3	-1,123.3	1,124.4	0.00	0.00	0.00
9,100.0	89.56	271.82	7,031.8	98.5	-1,223.3	1,224.4	0.00	0.00	0.00
9,200.0	89.56	271.82	7,032.5	101.6	-1,323.2	1,324.4	0.00	0.00	0.00
9,300.0	89.56	271.82	7,033.3	104.8	-1,423.2	1,424.4	0.00	0.00	0.00
9,400.0	89.56	271.82	7,034.1	108.0	-1,523.1	1,524.3	0.00	0.00	0.00
9,500.0	89.56	271.82	7,034.9	111.2	-1,623.1	1,624.3	0.00	0.00	0.00
9,600.0	89.56	271.82	7,035.6	114.3	-1,723.0	1,724.3	0.00	0.00	0.00
9,700.0	89.56	271.82	7,036.4	117.5	-1,823.0	1,824.3	0.00	0.00	0.00
9,800.0	89.56	271.82	7,037.2	120.7	-1,922.9	1,924.2	0.00	0.00	0.00
9,900.0	89.56	271.82	7,038.0	123.8	-2,022.9	2,024.2	0.00	0.00	0.00
10,000.0	89.56	271.82	7,038.7	127.0	-2,122.8	2,124.2	0.00	0.00	0.00



Database:	EDM	Local Co-ordinate Reference:	Well GROVES FARM M-34-33HN
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 M-34-33HN	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	89.56	271.82	7,039.5	130.2	-2,222.8	2,224.2	0.00	0.00	0.00	
10,200.0	89.56	271.82	7,040.3	133.4	-2,322.7	2,324.2	0.00	0.00	0.00	
10,300.0	89.56	271.82	7,041.1	136.5	-2,422.6	2,424.1	0.00	0.00	0.00	
10,400.0	89.56	271.82	7,041.8	139.7	-2,522.6	2,524.1	0.00	0.00	0.00	
10,500.0	89.56	271.82	7,042.6	142.9	-2,622.5	2,624.1	0.00	0.00	0.00	
10,600.0	89.56	271.82	7,043.4	146.0	-2,722.5	2,724.1	0.00	0.00	0.00	
10,700.0	89.56	271.82	7,044.2	149.2	-2,822.4	2,824.0	0.00	0.00	0.00	
10,800.0	89.56	271.82	7,044.9	152.4	-2,922.4	2,924.0	0.00	0.00	0.00	
10,900.0	89.56	271.82	7,045.7	155.6	-3,022.3	3,024.0	0.00	0.00	0.00	
11,000.0	89.56	271.82	7,046.5	158.7	-3,122.3	3,124.0	0.00	0.00	0.00	
11,100.0	89.56	271.82	7,047.3	161.9	-3,222.2	3,224.0	0.00	0.00	0.00	
11,200.0	89.56	271.82	7,048.0	165.1	-3,322.2	3,323.9	0.00	0.00	0.00	
11,300.0	89.56	271.82	7,048.8	168.2	-3,422.1	3,423.9	0.00	0.00	0.00	
11,400.0	89.56	271.82	7,049.6	171.4	-3,522.1	3,523.9	0.00	0.00	0.00	
11,500.0	89.56	271.82	7,050.4	174.6	-3,622.0	3,623.9	0.00	0.00	0.00	
11,600.0	89.56	271.82	7,051.1	177.8	-3,722.0	3,723.8	0.00	0.00	0.00	
11,700.0	89.56	271.82	7,051.9	180.9	-3,821.9	3,823.8	0.00	0.00	0.00	
11,800.0	89.56	271.82	7,052.7	184.1	-3,921.8	3,923.8	0.00	0.00	0.00	
11,900.0	89.56	271.82	7,053.5	187.3	-4,021.8	4,023.8	0.00	0.00	0.00	
11,954.2	89.56	271.82	7,053.9	189.0	-4,075.9	4,077.9	0.00	0.00	0.00	
12,000.0	89.56	272.76	7,054.2	190.8	-4,121.7	4,123.7	2.05	0.00	2.05	
12,052.8	89.56	273.84	7,054.7	193.9	-4,174.5	4,176.5	2.05	0.00	2.05	
12,100.0	89.56	272.87	7,055.0	196.6	-4,221.6	4,223.6	2.05	0.00	-2.05	
12,200.0	89.55	270.82	7,055.8	199.8	-4,321.5	4,323.6	2.05	0.00	-2.05	
12,291.1	89.55	268.96	7,056.5	199.7	-4,412.5	4,414.6	2.05	0.00	-2.05	
GF M-34-33HN VP										
12,300.0	89.55	268.96	7,056.6	199.5	-4,421.5	4,423.6	0.00	0.00	0.00	
12,400.0	89.55	268.96	7,057.4	197.7	-4,521.5	4,523.5	0.00	0.00	0.00	
12,500.0	89.55	268.96	7,058.1	195.9	-4,621.4	4,623.5	0.00	0.00	0.00	
12,600.0	89.55	268.96	7,058.9	194.1	-4,721.4	4,723.4	0.00	0.00	0.00	
12,700.0	89.55	268.96	7,059.7	192.3	-4,821.4	4,823.4	0.00	0.00	0.00	
12,800.0	89.55	268.96	7,060.5	190.4	-4,921.4	4,923.3	0.00	0.00	0.00	
12,900.0	89.55	268.96	7,061.3	188.6	-5,021.4	5,023.3	0.00	0.00	0.00	
13,000.0	89.55	268.96	7,062.0	186.8	-5,121.3	5,123.2	0.00	0.00	0.00	
13,100.0	89.55	268.96	7,062.8	185.0	-5,221.3	5,223.2	0.00	0.00	0.00	
13,200.0	89.55	268.96	7,063.6	183.2	-5,321.3	5,323.1	0.00	0.00	0.00	
13,300.0	89.55	268.96	7,064.4	181.4	-5,421.3	5,423.1	0.00	0.00	0.00	
13,400.0	89.55	268.96	7,065.2	179.5	-5,521.3	5,523.0	0.00	0.00	0.00	
13,500.0	89.55	268.96	7,065.9	177.7	-5,621.2	5,623.0	0.00	0.00	0.00	
13,600.0	89.55	268.96	7,066.7	175.9	-5,721.2	5,722.9	0.00	0.00	0.00	
13,700.0	89.55	268.96	7,067.5	174.1	-5,821.2	5,822.9	0.00	0.00	0.00	
13,800.0	89.55	268.96	7,068.3	172.3	-5,921.2	5,922.9	0.00	0.00	0.00	
13,900.0	89.55	268.96	7,069.1	170.5	-6,021.2	6,022.8	0.00	0.00	0.00	
14,000.0	89.55	268.96	7,069.8	168.6	-6,121.2	6,122.8	0.00	0.00	0.00	
14,100.0	89.55	268.96	7,070.6	166.8	-6,221.1	6,222.7	0.00	0.00	0.00	
14,200.0	89.55	268.96	7,071.4	165.0	-6,321.1	6,322.7	0.00	0.00	0.00	
14,300.0	89.55	268.96	7,072.2	163.2	-6,421.1	6,422.6	0.00	0.00	0.00	
14,400.0	89.55	268.96	7,073.0	161.4	-6,521.1	6,522.6	0.00	0.00	0.00	
14,500.0	89.55	268.96	7,073.7	159.6	-6,621.1	6,622.5	0.00	0.00	0.00	
14,600.0	89.55	268.96	7,074.5	157.8	-6,721.0	6,722.5	0.00	0.00	0.00	
14,700.0	89.55	268.96	7,075.3	155.9	-6,821.0	6,822.4	0.00	0.00	0.00	
14,800.0	89.55	268.96	7,076.1	154.1	-6,921.0	6,922.4	0.00	0.00	0.00	
14,900.0	89.55	268.96	7,076.9	152.3	-7,021.0	7,022.3	0.00	0.00	0.00	
15,000.0	89.55	268.96	7,077.7	150.5	-7,121.0	7,122.3	0.00	0.00	0.00	



Database:	EDM	Local Co-ordinate Reference:	Well GROVES FARM M-34-33HN
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 M-34-33HN	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)	
15,100.0	89.55	268.96	7,078.4	148.7	-7,220.9	7,222.2	0.00	0.00	0.00	
15,200.0	89.55	268.96	7,079.2	146.9	-7,320.9	7,322.2	0.00	0.00	0.00	
15,300.0	89.55	268.96	7,080.0	145.0	-7,420.9	7,422.1	0.00	0.00	0.00	
15,400.0	89.55	268.96	7,080.8	143.2	-7,520.9	7,522.1	0.00	0.00	0.00	
15,500.0	89.55	268.96	7,081.6	141.4	-7,620.9	7,622.0	0.00	0.00	0.00	
15,600.0	89.55	268.96	7,082.3	139.6	-7,720.8	7,722.0	0.00	0.00	0.00	
15,700.0	89.55	268.96	7,083.1	137.8	-7,820.8	7,821.9	0.00	0.00	0.00	
15,800.0	89.55	268.96	7,083.9	136.0	-7,920.8	7,921.9	0.00	0.00	0.00	
15,900.0	89.55	268.96	7,084.7	134.1	-8,020.8	8,021.8	0.00	0.00	0.00	
16,000.0	89.55	268.96	7,085.5	132.3	-8,120.8	8,121.8	0.00	0.00	0.00	
16,100.0	89.55	268.96	7,086.2	130.5	-8,220.7	8,221.7	0.00	0.00	0.00	
16,200.0	89.55	268.96	7,087.0	128.7	-8,320.7	8,321.7	0.00	0.00	0.00	
16,300.0	89.55	268.96	7,087.8	126.9	-8,420.7	8,421.6	0.00	0.00	0.00	
16,400.0	89.55	268.96	7,088.6	125.1	-8,520.7	8,521.6	0.00	0.00	0.00	
16,500.0	89.55	268.96	7,089.4	123.3	-8,620.7	8,621.5	0.00	0.00	0.00	
16,600.0	89.55	268.96	7,090.1	121.4	-8,720.6	8,721.5	0.00	0.00	0.00	
16,700.0	89.55	268.96	7,090.9	119.6	-8,820.6	8,821.4	0.00	0.00	0.00	
16,800.0	89.55	268.96	7,091.7	117.8	-8,920.6	8,921.4	0.00	0.00	0.00	
16,900.0	89.55	268.96	7,092.5	116.0	-9,020.6	9,021.3	0.00	0.00	0.00	
17,000.0	89.55	268.96	7,093.3	114.2	-9,120.6	9,121.3	0.00	0.00	0.00	
17,093.7	89.55	268.96	7,094.0	112.5	-9,214.3	9,215.0	0.00	0.00	0.00	
GF M-34-33HN PBHL										

Design Targets										
Target Name	Dip Angle (°)	Dip Dir. (°)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude		Longitude
GF M-34-33HN LP - hit/miss target - Shape - Point	0.00	0.00	7,019.0	46.3	421.7	1,437,236.16	3,238,663.20	40° 31' 49.591 N		104° 38' 29.065 W
GF M-34-33HN VP - plan hits target center - Point	0.00	0.00	7,056.5	199.7	-4,412.5	1,437,342.83	3,233,827.72	40° 31' 51.103 N		104° 39' 31.673 W
GF M-34-33HN PBHL - plan hits target center - Point	0.00	0.00	7,094.0	112.5	-9,214.3	1,437,209.23	3,229,027.05	40° 31' 50.228 N		104° 40' 33.859 W