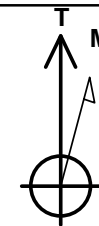
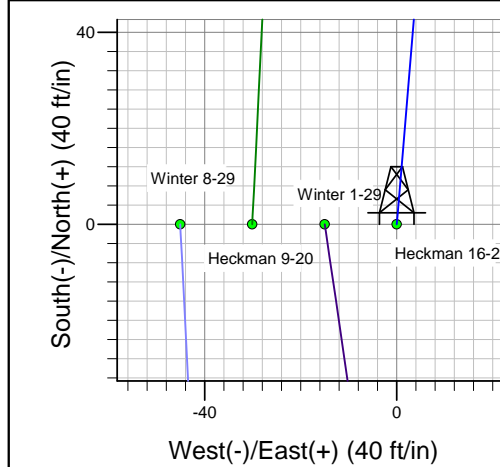
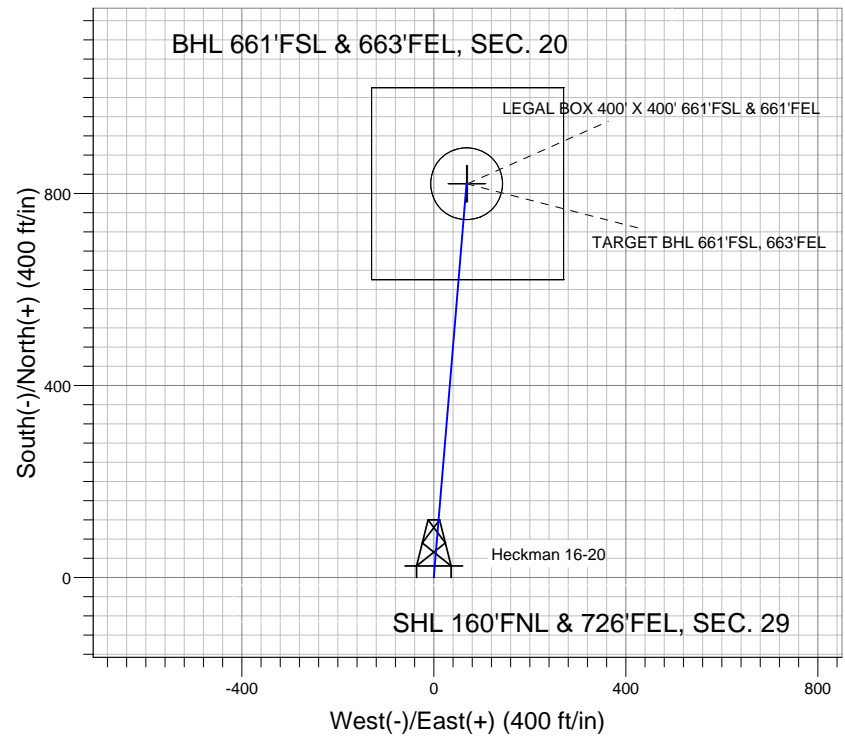
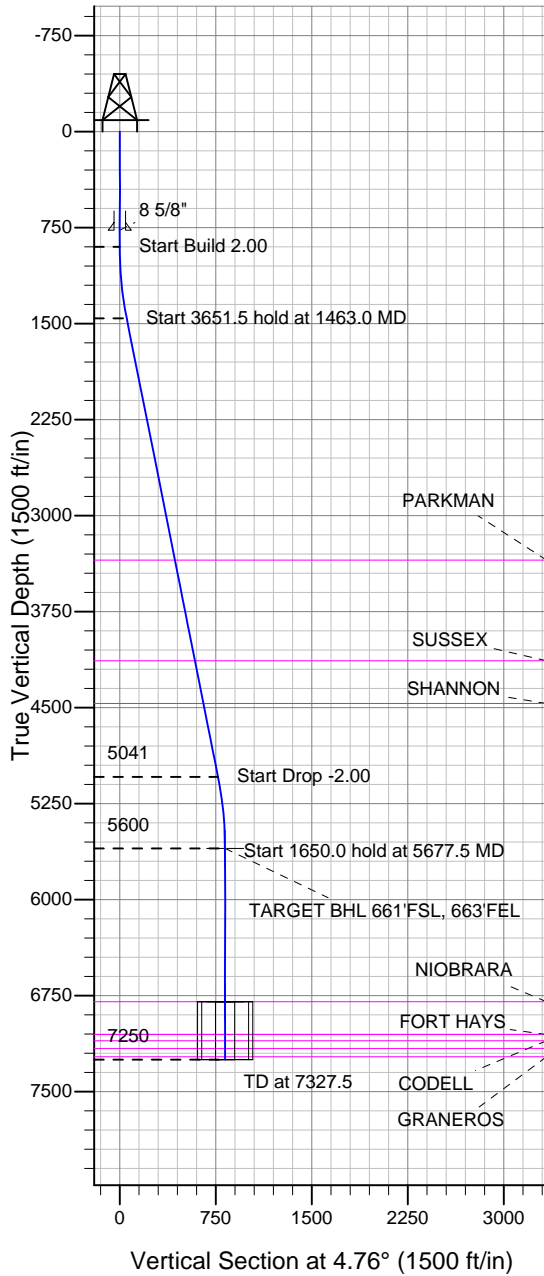


Well Name: Heckman 16-20

Surface Location: Heckman/Winter Pad Sec.29-T7N-R67W
 North American Datum 1983 , US State Plane 1983 , Colorado Northern Zone
 Ground Elevation: 4971.0
 +N/-S 0.0 +E/-W 0.0 Northing 1444521.34 Easting 3163825.13 Latitude 40.552116 Longitude -104.910454 Slot
 Original Well Elev WELL @ 4987.0ft (Original Well Elev)

Bayswater Exploration & Production, LLC



Azimuths to True North
 Magnetic North: 8.70°
 Magnetic Field
 Strength: 52996.6snT
 Dip Angle: 67.08°
 Date: 4/30/2013
 Model: IGRF2010

WELLBORE TARGET DETAILS (LAT/LONG)

Name	TVD	+N/-S	+E/-W	Latitude	Longitude	Shape
TARGET BHL 661'FSL, 663'FEL	5600.0	820.5	68.3	40.554368	-104.910208	Point
LEGAL BOX 400' X 400' 661'FSL & 661'FEL	6798.0	820.5	70.3	40.554368	-104.910201	Rectangle (Sides: L400.0 W400.0)
TARGET CIRCLE 661'FSL & 663'FEL	6798.0	820.5	68.3	40.554368	-104.910208	Circle (Radius: 75.0)

SECTION DETAILS

Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	DLeg	TFace	VSec	Target
1	0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.0	
2	900.0	0.00	0.00	900.0	0.0	0.0	0.00	0.00	0.0	
3	1463.0	11.26	4.76	1459.4	55.0	4.6	2.00	4.76	55.1	
4	5114.5	11.26	4.76	5040.6	765.5	63.7	0.00	0.00	768.2	
5	5677.5	0.00	0.00	5600.0	820.5	68.3	2.00	180.00	823.3	TARGET BHL 661'FSL, 663'FEL
6	7327.5	0.00	0.00	7250.0	820.5	68.3	0.00	0.00	823.3	



Bayswater Exploration & Production, LLC

SEC.29-T7N-R67W

Heckman/Winter Pad Sec.29-T7N-R67W

Heckman 16-20

Wellbore #1

Plan: Plan #1 (4-23-13)

Standard Planning Report

03 May, 2013



Database:	Landmark	Local Co-ordinate Reference:	Well Heckman 16-20
Company:	Bayswater Exploration & Production, LLC	TVD Reference:	WELL @ 4987.0ft (Original Well Elev)
Project:	SEC.29-T7N-R67W	MD Reference:	WELL @ 4987.0ft (Original Well Elev)
Site:	Heckman/Winter Pad Sec.29-T7N-R67W	North Reference:	True
Well:	Heckman 16-20	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plan #1 (4-23-13)		

Project	SEC.29-T7N-R67W, Weld County, Colorado		
Map System:	US State Plane 1983	System Datum:	Mean Sea Level
Geo Datum:	North American Datum 1983		Using Well Reference Point
Map Zone:	Colorado Northern Zone		Using geodetic scale factor

Site	Heckman/Winter Pad Sec.29-T7N-R67W				
Site Position:		Northing:	1,444,521.15ft	Latitude:	40.552116
From:	Lat/Long	Easting:	3,163,795.02ft	Longitude:	-104.910562
Position Uncertainty:	0.0 ft	Slot Radius:	"	Grid Convergence:	0.38 °

Well	Heckman 16-20					
Well Position	+N/-S	0.0 ft	Northing:	1,444,521.34 ft	Latitude:	40.552116
	+E/-W	30.1 ft	Easting:	3,163,825.13 ft	Longitude:	-104.910454
Position Uncertainty		0.0 ft	Wellhead Elevation:	ft	Ground Level:	4,971.0 ft

Wellbore	Wellbore #1				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2010	4/30/2013	8.70	67.08	52,997

Design	Plan #1 (4-23-13)			
Audit Notes:				
Version:	Phase:	PROTOTYPE	Tie On Depth:	0.0
Vertical Section:	Depth From (TVD) (ft)	+N/-S (ft)	+E/-W (ft)	Direction (°)
	0.0	0.0	0.0	4.76

Plan Sections										
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)	TFO (°)	Target
0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.00	0.00	
900.0	0.00	0.00	900.0	0.0	0.0	0.00	0.00	0.00	0.00	
1,463.0	11.26	4.76	1,459.4	55.0	4.6	2.00	2.00	0.00	4.76	
5,114.5	11.26	4.76	5,040.6	765.5	63.7	0.00	0.00	0.00	0.00	
5,677.5	0.00	0.00	5,600.0	820.5	68.3	2.00	-2.00	0.00	180.00	TARGET BHL 661'
7,327.5	0.00	0.00	7,250.0	820.5	68.3	0.00	0.00	0.00	0.00	

Database:	Landmark	Local Co-ordinate Reference:	Well Heckman 16-20
Company:	Bayswater Exploration & Production, LLC	TVD Reference:	WELL @ 4987.0ft (Original Well Elev)
Project:	SEC.29-T7N-R67W	MD Reference:	WELL @ 4987.0ft (Original Well Elev)
Site:	Heckman/Winter Pad Sec.29-T7N-R67W	North Reference:	True
Well:	Heckman 16-20	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plan #1 (4-23-13)		

Planned Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.00	0.00	0.00
40.0	0.00	0.00	40.0	0.0	0.0	0.0	0.00	0.00	0.00
80.0	0.00	0.00	80.0	0.0	0.0	0.0	0.00	0.00	0.00
120.0	0.00	0.00	120.0	0.0	0.0	0.0	0.00	0.00	0.00
160.0	0.00	0.00	160.0	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
240.0	0.00	0.00	240.0	0.0	0.0	0.0	0.00	0.00	0.00
280.0	0.00	0.00	280.0	0.0	0.0	0.0	0.00	0.00	0.00
320.0	0.00	0.00	320.0	0.0	0.0	0.0	0.00	0.00	0.00
360.0	0.00	0.00	360.0	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
440.0	0.00	0.00	440.0	0.0	0.0	0.0	0.00	0.00	0.00
480.0	0.00	0.00	480.0	0.0	0.0	0.0	0.00	0.00	0.00
520.0	0.00	0.00	520.0	0.0	0.0	0.0	0.00	0.00	0.00
560.0	0.00	0.00	560.0	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
640.0	0.00	0.00	640.0	0.0	0.0	0.0	0.00	0.00	0.00
680.0	0.00	0.00	680.0	0.0	0.0	0.0	0.00	0.00	0.00
720.0	0.00	0.00	720.0	0.0	0.0	0.0	0.00	0.00	0.00
760.0	0.00	0.00	760.0	0.0	0.0	0.0	0.00	0.00	0.00
770.0	0.00	0.00	770.0	0.0	0.0	0.0	0.00	0.00	0.00
8 5/8"									
800.0	0.00	0.00	800.0	0.0	0.0	0.0	0.00	0.00	0.00
840.0	0.00	0.00	840.0	0.0	0.0	0.0	0.00	0.00	0.00
880.0	0.00	0.00	880.0	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
920.0	0.40	4.76	920.0	0.1	0.0	0.1	2.00	2.00	0.00
960.0	1.20	4.76	960.0	0.6	0.1	0.6	2.00	2.00	0.00
1,000.0	2.00	4.76	1,000.0	1.7	0.1	1.7	2.00	2.00	0.00
1,040.0	2.80	4.76	1,039.9	3.4	0.3	3.4	2.00	2.00	0.00
1,080.0	3.60	4.76	1,079.9	5.6	0.5	5.7	2.00	2.00	0.00
1,120.0	4.40	4.76	1,119.8	8.4	0.7	8.4	2.00	2.00	0.00
1,160.0	5.20	4.76	1,159.6	11.7	1.0	11.8	2.00	2.00	0.00
1,200.0	6.00	4.76	1,199.5	15.6	1.3	15.7	2.00	2.00	0.00
1,240.0	6.80	4.76	1,239.2	20.1	1.7	20.2	2.00	2.00	0.00
1,280.0	7.60	4.76	1,278.9	25.1	2.1	25.2	2.00	2.00	0.00
1,320.0	8.40	4.76	1,318.5	30.6	2.5	30.7	2.00	2.00	0.00
1,360.0	9.20	4.76	1,358.0	36.7	3.1	36.9	2.00	2.00	0.00
1,400.0	10.00	4.76	1,397.5	43.4	3.6	43.5	2.00	2.00	0.00
1,440.0	10.80	4.76	1,436.8	50.6	4.2	50.7	2.00	2.00	0.00
1,463.0	11.26	4.76	1,459.4	55.0	4.6	55.1	2.00	2.00	0.00
1,480.0	11.26	4.76	1,476.1	58.3	4.9	58.5	0.00	0.00	0.00
1,520.0	11.26	4.76	1,515.3	66.0	5.5	66.3	0.00	0.00	0.00
1,560.0	11.26	4.76	1,554.5	73.8	6.1	74.1	0.00	0.00	0.00
1,600.0	11.26	4.76	1,593.7	81.6	6.8	81.9	0.00	0.00	0.00
1,640.0	11.26	4.76	1,633.0	89.4	7.4	89.7	0.00	0.00	0.00
1,680.0	11.26	4.76	1,672.2	97.2	8.1	97.5	0.00	0.00	0.00
1,720.0	11.26	4.76	1,711.4	105.0	8.7	105.3	0.00	0.00	0.00
1,760.0	11.26	4.76	1,750.7	112.7	9.4	113.1	0.00	0.00	0.00
1,800.0	11.26	4.76	1,789.9	120.5	10.0	120.9	0.00	0.00	0.00
1,840.0	11.26	4.76	1,829.1	128.3	10.7	128.8	0.00	0.00	0.00
1,880.0	11.26	4.76	1,868.4	136.1	11.3	136.6	0.00	0.00	0.00
1,920.0	11.26	4.76	1,907.6	143.9	12.0	144.4	0.00	0.00	0.00
1,960.0	11.26	4.76	1,946.8	151.7	12.6	152.2	0.00	0.00	0.00

Database:	Landmark	Local Co-ordinate Reference:	Well Heckman 16-20
Company:	Bayswater Exploration & Production, LLC	TVD Reference:	WELL @ 4987.0ft (Original Well Elev)
Project:	SEC.29-T7N-R67W	MD Reference:	WELL @ 4987.0ft (Original Well Elev)
Site:	Heckman/Winter Pad Sec.29-T7N-R67W	North Reference:	True
Well:	Heckman 16-20	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plan #1 (4-23-13)		

Planned Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
2,000.0	11.26	4.76	1,986.0	159.4	13.3	160.0	0.00	0.00	0.00
2,040.0	11.26	4.76	2,025.3	167.2	13.9	167.8	0.00	0.00	0.00
2,080.0	11.26	4.76	2,064.5	175.0	14.6	175.6	0.00	0.00	0.00
2,120.0	11.26	4.76	2,103.7	182.8	15.2	183.4	0.00	0.00	0.00
2,160.0	11.26	4.76	2,143.0	190.6	15.9	191.2	0.00	0.00	0.00
2,200.0	11.26	4.76	2,182.2	198.4	16.5	199.1	0.00	0.00	0.00
2,240.0	11.26	4.76	2,221.4	206.2	17.2	206.9	0.00	0.00	0.00
2,280.0	11.26	4.76	2,260.7	213.9	17.8	214.7	0.00	0.00	0.00
2,320.0	11.26	4.76	2,299.9	221.7	18.5	222.5	0.00	0.00	0.00
2,360.0	11.26	4.76	2,339.1	229.5	19.1	230.3	0.00	0.00	0.00
2,400.0	11.26	4.76	2,378.3	237.3	19.8	238.1	0.00	0.00	0.00
2,440.0	11.26	4.76	2,417.6	245.1	20.4	245.9	0.00	0.00	0.00
2,480.0	11.26	4.76	2,456.8	252.9	21.1	253.7	0.00	0.00	0.00
2,520.0	11.26	4.76	2,496.0	260.6	21.7	261.5	0.00	0.00	0.00
2,560.0	11.26	4.76	2,535.3	268.4	22.3	269.4	0.00	0.00	0.00
2,600.0	11.26	4.76	2,574.5	276.2	23.0	277.2	0.00	0.00	0.00
2,640.0	11.26	4.76	2,613.7	284.0	23.6	285.0	0.00	0.00	0.00
2,680.0	11.26	4.76	2,653.0	291.8	24.3	292.8	0.00	0.00	0.00
2,720.0	11.26	4.76	2,692.2	299.6	24.9	300.6	0.00	0.00	0.00
2,760.0	11.26	4.76	2,731.4	307.3	25.6	308.4	0.00	0.00	0.00
2,800.0	11.26	4.76	2,770.6	315.1	26.2	316.2	0.00	0.00	0.00
2,840.0	11.26	4.76	2,809.9	322.9	26.9	324.0	0.00	0.00	0.00
2,880.0	11.26	4.76	2,849.1	330.7	27.5	331.8	0.00	0.00	0.00
2,920.0	11.26	4.76	2,888.3	338.5	28.2	339.6	0.00	0.00	0.00
2,960.0	11.26	4.76	2,927.6	346.3	28.8	347.5	0.00	0.00	0.00
3,000.0	11.26	4.76	2,966.8	354.0	29.5	355.3	0.00	0.00	0.00
3,040.0	11.26	4.76	3,006.0	361.8	30.1	363.1	0.00	0.00	0.00
3,080.0	11.26	4.76	3,045.3	369.6	30.8	370.9	0.00	0.00	0.00
3,120.0	11.26	4.76	3,084.5	377.4	31.4	378.7	0.00	0.00	0.00
3,160.0	11.26	4.76	3,123.7	385.2	32.1	386.5	0.00	0.00	0.00
3,200.0	11.26	4.76	3,162.9	393.0	32.7	394.3	0.00	0.00	0.00
3,240.0	11.26	4.76	3,202.2	400.7	33.4	402.1	0.00	0.00	0.00
3,280.0	11.26	4.76	3,241.4	408.5	34.0	409.9	0.00	0.00	0.00
3,320.0	11.26	4.76	3,280.6	416.3	34.7	417.8	0.00	0.00	0.00
3,360.0	11.26	4.76	3,319.9	424.1	35.3	425.6	0.00	0.00	0.00
3,388.7	11.26	4.76	3,348.0	429.7	35.8	431.2	0.00	0.00	0.00
PARKMAN									
3,400.0	11.26	4.76	3,359.1	431.9	36.0	433.4	0.00	0.00	0.00
3,440.0	11.26	4.76	3,398.3	439.7	36.6	441.2	0.00	0.00	0.00
3,480.0	11.26	4.76	3,437.6	447.4	37.3	449.0	0.00	0.00	0.00
3,520.0	11.26	4.76	3,476.8	455.2	37.9	456.8	0.00	0.00	0.00
3,560.0	11.26	4.76	3,516.0	463.0	38.5	464.6	0.00	0.00	0.00
3,600.0	11.26	4.76	3,555.2	470.8	39.2	472.4	0.00	0.00	0.00
3,640.0	11.26	4.76	3,594.5	478.6	39.8	480.2	0.00	0.00	0.00
3,680.0	11.26	4.76	3,633.7	486.4	40.5	488.0	0.00	0.00	0.00
3,720.0	11.26	4.76	3,672.9	494.1	41.1	495.9	0.00	0.00	0.00
3,760.0	11.26	4.76	3,712.2	501.9	41.8	503.7	0.00	0.00	0.00
3,800.0	11.26	4.76	3,751.4	509.7	42.4	511.5	0.00	0.00	0.00
3,840.0	11.26	4.76	3,790.6	517.5	43.1	519.3	0.00	0.00	0.00
3,880.0	11.26	4.76	3,829.9	525.3	43.7	527.1	0.00	0.00	0.00
3,920.0	11.26	4.76	3,869.1	533.1	44.4	534.9	0.00	0.00	0.00
3,960.0	11.26	4.76	3,908.3	540.9	45.0	542.7	0.00	0.00	0.00
4,000.0	11.26	4.76	3,947.5	548.6	45.7	550.5	0.00	0.00	0.00

Database:	Landmark	Local Co-ordinate Reference:	Well Heckman 16-20
Company:	Bayswater Exploration & Production, LLC	TVD Reference:	WELL @ 4987.0ft (Original Well Elev)
Project:	SEC.29-T7N-R67W	MD Reference:	WELL @ 4987.0ft (Original Well Elev)
Site:	Heckman/Winter Pad Sec.29-T7N-R67W	North Reference:	True
Well:	Heckman 16-20	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plan #1 (4-23-13)		

Planned Survey										
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)	
4,040.0	11.26	4.76	3,986.8	556.4	46.3	558.3	0.00	0.00	0.00	
4,080.0	11.26	4.76	4,026.0	564.2	47.0	566.2	0.00	0.00	0.00	
4,120.0	11.26	4.76	4,065.2	572.0	47.6	574.0	0.00	0.00	0.00	
4,160.0	11.26	4.76	4,104.5	579.8	48.3	581.8	0.00	0.00	0.00	
4,189.1	11.26	4.76	4,133.0	585.4	48.7	587.5	0.00	0.00	0.00	
SUSSEX										
4,200.0	11.26	4.76	4,143.7	587.6	48.9	589.6	0.00	0.00	0.00	
4,240.0	11.26	4.76	4,182.9	595.3	49.6	597.4	0.00	0.00	0.00	
4,280.0	11.26	4.76	4,222.2	603.1	50.2	605.2	0.00	0.00	0.00	
4,320.0	11.26	4.76	4,261.4	610.9	50.9	613.0	0.00	0.00	0.00	
4,360.0	11.26	4.76	4,300.6	618.7	51.5	620.8	0.00	0.00	0.00	
4,400.0	11.26	4.76	4,339.8	626.5	52.2	628.6	0.00	0.00	0.00	
4,440.0	11.26	4.76	4,379.1	634.3	52.8	636.5	0.00	0.00	0.00	
4,480.0	11.26	4.76	4,418.3	642.0	53.5	644.3	0.00	0.00	0.00	
4,520.0	11.26	4.76	4,457.5	649.8	54.1	652.1	0.00	0.00	0.00	
4,530.7	11.26	4.76	4,468.0	651.9	54.3	654.2	0.00	0.00	0.00	
SHANNON										
4,560.0	11.26	4.76	4,496.8	657.6	54.7	659.9	0.00	0.00	0.00	
4,600.0	11.26	4.76	4,536.0	665.4	55.4	667.7	0.00	0.00	0.00	
4,640.0	11.26	4.76	4,575.2	673.2	56.0	675.5	0.00	0.00	0.00	
4,680.0	11.26	4.76	4,614.5	681.0	56.7	683.3	0.00	0.00	0.00	
4,720.0	11.26	4.76	4,653.7	688.7	57.3	691.1	0.00	0.00	0.00	
4,760.0	11.26	4.76	4,692.9	696.5	58.0	698.9	0.00	0.00	0.00	
4,800.0	11.26	4.76	4,732.1	704.3	58.6	706.7	0.00	0.00	0.00	
4,840.0	11.26	4.76	4,771.4	712.1	59.3	714.6	0.00	0.00	0.00	
4,880.0	11.26	4.76	4,810.6	719.9	59.9	722.4	0.00	0.00	0.00	
4,920.0	11.26	4.76	4,849.8	727.7	60.6	730.2	0.00	0.00	0.00	
4,960.0	11.26	4.76	4,889.1	735.4	61.2	738.0	0.00	0.00	0.00	
5,000.0	11.26	4.76	4,928.3	743.2	61.9	745.8	0.00	0.00	0.00	
5,040.0	11.26	4.76	4,967.5	751.0	62.5	753.6	0.00	0.00	0.00	
5,080.0	11.26	4.76	5,006.8	758.8	63.2	761.4	0.00	0.00	0.00	
5,114.5	11.26	4.76	5,040.6	765.5	63.7	768.2	0.00	0.00	0.00	
5,120.0	11.15	4.76	5,046.0	766.6	63.8	769.2	2.00	-2.00	0.00	
5,160.0	10.35	4.76	5,085.3	774.0	64.4	776.7	2.00	-2.00	0.00	
5,200.0	9.55	4.76	5,124.7	780.9	65.0	783.6	2.00	-2.00	0.00	
5,240.0	8.75	4.76	5,164.2	787.2	65.5	790.0	2.00	-2.00	0.00	
5,280.0	7.95	4.76	5,203.7	793.0	66.0	795.8	2.00	-2.00	0.00	
5,320.0	7.15	4.76	5,243.4	798.3	66.5	801.0	2.00	-2.00	0.00	
5,360.0	6.35	4.76	5,283.1	802.9	66.8	805.7	2.00	-2.00	0.00	
5,400.0	5.55	4.76	5,322.9	807.1	67.2	809.9	2.00	-2.00	0.00	
5,440.0	4.75	4.76	5,362.7	810.7	67.5	813.5	2.00	-2.00	0.00	
5,480.0	3.95	4.76	5,402.6	813.7	67.7	816.5	2.00	-2.00	0.00	
5,520.0	3.15	4.76	5,442.6	816.2	67.9	819.0	2.00	-2.00	0.00	
5,560.0	2.35	4.76	5,482.5	818.1	68.1	820.9	2.00	-2.00	0.00	
5,600.0	1.55	4.76	5,522.5	819.4	68.2	822.3	2.00	-2.00	0.00	
5,640.0	0.75	4.76	5,562.5	820.2	68.3	823.1	2.00	-2.00	0.00	
5,677.5	0.00	0.00	5,600.0	820.5	68.3	823.3	2.00	-2.00	0.00	
TARGET BHL 661°FSL, 663°FEL										
5,680.0	0.00	0.00	5,602.5	820.5	68.3	823.3	0.00	0.00	0.00	
5,720.0	0.00	0.00	5,642.5	820.5	68.3	823.3	0.00	0.00	0.00	
5,760.0	0.00	0.00	5,682.5	820.5	68.3	823.3	0.00	0.00	0.00	
5,800.0	0.00	0.00	5,722.5	820.5	68.3	823.3	0.00	0.00	0.00	
5,840.0	0.00	0.00	5,762.5	820.5	68.3	823.3	0.00	0.00	0.00	

Database:	Landmark	Local Co-ordinate Reference:	Well Heckman 16-20
Company:	Bayswater Exploration & Production, LLC	TVD Reference:	WELL @ 4987.0ft (Original Well Elev)
Project:	SEC.29-T7N-R67W	MD Reference:	WELL @ 4987.0ft (Original Well Elev)
Site:	Heckman/Winter Pad Sec.29-T7N-R67W	North Reference:	True
Well:	Heckman 16-20	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plan #1 (4-23-13)		

Planned Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
5,880.0	0.00	0.00	5,802.5	820.5	68.3	823.3	0.00	0.00	0.00
5,920.0	0.00	0.00	5,842.5	820.5	68.3	823.3	0.00	0.00	0.00
5,960.0	0.00	0.00	5,882.5	820.5	68.3	823.3	0.00	0.00	0.00
6,000.0	0.00	0.00	5,922.5	820.5	68.3	823.3	0.00	0.00	0.00
6,040.0	0.00	0.00	5,962.5	820.5	68.3	823.3	0.00	0.00	0.00
6,080.0	0.00	0.00	6,002.5	820.5	68.3	823.3	0.00	0.00	0.00
6,120.0	0.00	0.00	6,042.5	820.5	68.3	823.3	0.00	0.00	0.00
6,160.0	0.00	0.00	6,082.5	820.5	68.3	823.3	0.00	0.00	0.00
6,200.0	0.00	0.00	6,122.5	820.5	68.3	823.3	0.00	0.00	0.00
6,240.0	0.00	0.00	6,162.5	820.5	68.3	823.3	0.00	0.00	0.00
6,280.0	0.00	0.00	6,202.5	820.5	68.3	823.3	0.00	0.00	0.00
6,320.0	0.00	0.00	6,242.5	820.5	68.3	823.3	0.00	0.00	0.00
6,360.0	0.00	0.00	6,282.5	820.5	68.3	823.3	0.00	0.00	0.00
6,400.0	0.00	0.00	6,322.5	820.5	68.3	823.3	0.00	0.00	0.00
6,440.0	0.00	0.00	6,362.5	820.5	68.3	823.3	0.00	0.00	0.00
6,480.0	0.00	0.00	6,402.5	820.5	68.3	823.3	0.00	0.00	0.00
6,520.0	0.00	0.00	6,442.5	820.5	68.3	823.3	0.00	0.00	0.00
6,560.0	0.00	0.00	6,482.5	820.5	68.3	823.3	0.00	0.00	0.00
6,600.0	0.00	0.00	6,522.5	820.5	68.3	823.3	0.00	0.00	0.00
6,640.0	0.00	0.00	6,562.5	820.5	68.3	823.3	0.00	0.00	0.00
6,680.0	0.00	0.00	6,602.5	820.5	68.3	823.3	0.00	0.00	0.00
6,720.0	0.00	0.00	6,642.5	820.5	68.3	823.3	0.00	0.00	0.00
6,760.0	0.00	0.00	6,682.5	820.5	68.3	823.3	0.00	0.00	0.00
6,800.0	0.00	0.00	6,722.5	820.5	68.3	823.3	0.00	0.00	0.00
6,840.0	0.00	0.00	6,762.5	820.5	68.3	823.3	0.00	0.00	0.00
6,875.5	0.00	0.00	6,798.0	820.5	68.3	823.3	0.00	0.00	0.00
NIOBRARA - LEGAL BOX 400' X 400' 661'FSL & 661'FEL - TARGET CIRCLE 661'FSL & 663'FEL									
6,880.0	0.00	0.00	6,802.5	820.5	68.3	823.3	0.00	0.00	0.00
6,920.0	0.00	0.00	6,842.5	820.5	68.3	823.3	0.00	0.00	0.00
6,960.0	0.00	0.00	6,882.5	820.5	68.3	823.3	0.00	0.00	0.00
7,000.0	0.00	0.00	6,922.5	820.5	68.3	823.3	0.00	0.00	0.00
7,040.0	0.00	0.00	6,962.5	820.5	68.3	823.3	0.00	0.00	0.00
7,080.0	0.00	0.00	7,002.5	820.5	68.3	823.3	0.00	0.00	0.00
7,120.0	0.00	0.00	7,042.5	820.5	68.3	823.3	0.00	0.00	0.00
7,131.5	0.00	0.00	7,054.0	820.5	68.3	823.3	0.00	0.00	0.00
FORT HAYS									
7,160.0	0.00	0.00	7,082.5	820.5	68.3	823.3	0.00	0.00	0.00
7,179.5	0.00	0.00	7,102.0	820.5	68.3	823.3	0.00	0.00	0.00
CODELL									
7,200.0	0.00	0.00	7,122.5	820.5	68.3	823.3	0.00	0.00	0.00
7,239.5	0.00	0.00	7,162.0	820.5	68.3	823.3	0.00	0.00	0.00
GREENHORN									
7,240.0	0.00	0.00	7,162.5	820.5	68.3	823.3	0.00	0.00	0.00
7,280.0	0.00	0.00	7,202.5	820.5	68.3	823.3	0.00	0.00	0.00
7,305.5	0.00	0.00	7,228.0	820.5	68.3	823.3	0.00	0.00	0.00
GRANEROS									
7,320.0	0.00	0.00	7,242.5	820.5	68.3	823.3	0.00	0.00	0.00
7,327.5	0.00	0.00	7,250.0	820.5	68.3	823.3	0.00	0.00	0.00

Database:	Landmark	Local Co-ordinate Reference:	Well Heckman 16-20
Company:	Bayswater Exploration & Production, LLC	TVD Reference:	WELL @ 4987.0ft (Original Well Elev)
Project:	SEC.29-T7N-R67W	MD Reference:	WELL @ 4987.0ft (Original Well Elev)
Site:	Heckman/Winter Pad Sec.29-T7N-R67W	North Reference:	True
Well:	Heckman 16-20	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plan #1 (4-23-13)		

Targets										
Target Name	Dip Angle (°)	Dip Dir. (°)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	Northing (ft)	Easting (ft)	Latitude	Longitude	
LEGAL BOX 400' X 400' - hit/miss target - Shape	0.00	0.00	6,798.0	820.5	70.3	1,445,342.26	3,163,889.99	40.554368	-104.910201	
- plan misses target center by 2.0ft at 6875.5ft MD (6798.0 TVD, 820.5 N, 68.3 E) - Rectangle (sides W400.0 H400.0 D452.0)										
TARGET BHL 661'FS - plan hits target center - Point	0.00	0.00	5,600.0	820.5	68.3	1,445,342.22	3,163,887.98	40.554368	-104.910208	
TARGET CIRCLE 661' - plan hits target center - Circle (radius 75.0)	0.00	0.00	6,798.0	820.5	68.3	1,445,342.22	3,163,887.98	40.554368	-104.910208	

Casing Points						
Measured Depth (ft)	Vertical Depth (ft)	Name	Casing Diameter (")	Hole Diameter (")		
770.0	770.0	8 5/8"	8-5/8	12-1/4		

Formations						
Measured Depth (ft)	Vertical Depth (ft)	Name	Lithology	Dip (°)	Dip Direction (°)	
3,388.7	3,348.0	PARKMAN		0.00		
4,189.1	4,133.0	SUSSEX		0.00		
4,530.7	4,468.0	SHANNON		0.00		
6,875.5	6,798.0	NIOBRARA		0.00		
7,131.5	7,054.0	FORT HAYS		0.00		
7,179.5	7,102.0	CODELL		0.00		
7,239.5	7,162.0	GREENHORN		0.00		
7,305.5	7,228.0	GRANEROS		0.00		



Directional

Bayswater Exploration & Production, LLC

SEC.29-T7N-R67W

Heckman/Winter Pad Sec.29-T7N-R67W

Heckman 16-20

Wellbore #1

Plan #1 (4-23-13)

Anticollision Report

03 May, 2013



Directional

Company:	Bayswater Exploration & Production, LLC	Local Co-ordinate Reference:	Well Heckman 16-20
Project:	SEC.29-T7N-R67W	TVD Reference:	WELL @ 4987.0ft (Original Well Elev)
Reference Site:	Heckman/Winter Pad Sec.29-T7N-R67W	MD Reference:	WELL @ 4987.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Heckman 16-20	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	Landmark
Reference Design:	Plan #1 (4-23-13)	Offset TVD Reference:	Offset Datum

Reference	Plan #1 (4-23-13)		
Filter type:	NO GLOBAL FILTER: Using user defined selection & filtering criteria		
Interpolation Method:	MD Interval 100.0ft	Error Model:	ISCWSA
Depth Range:	Unlimited	Scan Method:	Closest Approach 3D
Results Limited by:	Maximum center-center distance of 10,000.0ft	Error Surface:	Elliptical Conic
Warning Levels Evaluated at:	2.00 Sigma		

Survey Tool Program	Date	4/23/2013		
From (ft)	To (ft)	Survey (Wellbore)	Tool Name	Description
0.0	7,327.5	Plan #1 (4-23-13) (Wellbore #1)	MWD	MWD - Standard

Summary						
Site Name	Reference Measured Depth (ft)	Offset Measured Depth (ft)	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Separation Factor	Warning
Offset Well - Wellbore - Design						
Heckman/Winter Pad Sec.29-T7N-R67W						
Heckman 9-20 - Wellbore #1 - Plan #1 (4-23-13)	290.9	291.9	30.1	29.0	27.726	CC
Heckman 9-20 - Wellbore #1 - Plan #1 (4-23-13)	300.0	301.0	30.1	29.0	26.720	ES
Heckman 9-20 - Wellbore #1 - Plan #1 (4-23-13)	600.0	598.6	40.1	37.5	15.759	SF
Winter 1-29 - Wellbore #1 - Plan #1 (4-23-13)	900.0	901.0	15.0	11.2	3.925	CC
Winter 1-29 - Wellbore #1 - Plan #1 (4-23-13)	1,000.0	1,001.0	15.3	11.0	3.570	ES, SF
Winter 8-29 - Wellbore #1 - Plan #1 (4-23-13)	512.2	513.3	45.1	43.0	21.999	CC
Winter 8-29 - Wellbore #1 - Plan #1 (4-23-13)	600.0	600.8	45.3	42.9	18.782	ES
Winter 8-29 - Wellbore #1 - Plan #1 (4-23-13)	800.0	798.7	51.9	48.6	15.611	SF

Offset Design													Offset Site Error:	0.0ft
Heckman/Winter Pad Sec.29-T7N-R67W - Heckman 9-20 - Wellbore #1 - Plan #1 (4-23-13)													Offset Well Error:	0.0ft
Survey Program: 0-MWD														
Reference	Offset	Semi Major Axis					Distance					Warning		
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Warning	
0.0	0.0	1.0	1.0	0.0	0.0	-90.00	0.0	-30.1	30.1	30.1	0.00	N/A		
100.0	100.0	101.0	101.0	0.1	0.1	-90.00	0.0	-30.1	30.1	29.9	0.23	132.667		
200.0	200.0	201.0	201.0	0.3	0.3	-90.00	0.0	-30.1	30.1	29.4	0.68	44.516		
290.9	290.9	291.9	291.9	0.5	0.5	-87.19	1.5	-30.0	30.1	29.0	1.08	27.726	CC	
300.0	300.0	301.0	301.0	0.6	0.6	-86.61	1.8	-30.0	30.1	29.0	1.13	26.720	ES	
400.0	400.0	400.8	400.6	0.8	0.8	-76.72	7.0	-29.8	30.6	29.0	1.58	19.348		
500.0	500.0	500.0	499.5	1.0	1.0	-61.89	15.7	-29.3	33.3	31.3	2.05	16.219		
600.0	600.0	598.6	597.3	1.2	1.3	-46.12	27.7	-28.8	40.1	37.5	2.54	15.759	SF	
700.0	700.0	696.2	693.8	1.5	1.6	-33.20	42.8	-28.0	51.7	48.6	3.03	17.037		
800.0	800.0	792.7	788.5	1.7	2.0	-23.96	61.0	-27.1	67.9	64.4	3.52	19.300		
900.0	900.0	887.8	881.2	1.9	2.4	-17.63	82.1	-26.1	88.4	84.4	4.00	22.065		
1,000.0	1,000.0	981.9	972.2	2.1	2.8	-18.13	105.9	-24.9	110.9	106.5	4.45	24.924		
1,100.0	1,099.8	1,075.2	1,061.7	2.4	3.3	-15.38	132.5	-23.6	133.7	128.8	4.93	27.131		
1,200.0	1,199.5	1,167.9	1,149.6	2.6	3.9	-13.48	161.8	-22.2	156.5	151.1	5.41	28.901		
1,300.0	1,298.7	1,259.9	1,235.9	2.8	4.5	-12.11	193.6	-20.6	179.2	173.2	5.91	30.298		
1,400.0	1,397.5	1,351.3	1,320.6	3.1	5.1	-11.08	228.0	-18.9	201.6	195.2	6.41	31.448		
1,500.0	1,495.7	1,442.1	1,403.5	3.4	5.8	-10.32	264.7	-17.1	224.1	217.1	6.95	32.261		
1,600.0	1,593.7	1,536.7	1,489.0	3.7	6.5	-9.66	305.2	-15.1	248.3	240.8	7.51	33.048		
1,700.0	1,691.8	1,633.6	1,576.6	4.1	7.3	-9.10	346.8	-13.1	272.7	264.6	8.09	33.715		
1,800.0	1,789.9	1,730.6	1,664.1	4.5	8.1	-8.63	388.4	-11.1	297.1	288.4	8.67	34.272		

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

Company:	Bayswater Exploration & Production, LLC	Local Co-ordinate Reference:	Well Heckman 16-20
Project:	SEC.29-T7N-R67W	TVD Reference:	WELL @ 4987.0ft (Original Well Elev)
Reference Site:	Heckman/Winter Pad Sec.29-T7N-R67W	MD Reference:	WELL @ 4987.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Heckman 16-20	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	Landmark
Reference Design:	Plan #1 (4-23-13)	Offset TVD Reference:	Offset Datum

Offset Design													Offset Site Error:	0.0ft		
Survey Program: 0-MWD													Heckman/Winter Pad Sec.29-T7N-R67W - Heckman 9-20 - Wellbore #1 - Plan #1 (4-23-13)		Offset Well Error:	0.0ft
Reference		Offset		Semi Major Axis			Distance						Warning			
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor				
1,900.0	1,888.0	1,827.5	1,751.6	4.8	8.9	-8.23	430.0	-9.0	321.5	312.3	9.26	34.741				
2,000.0	1,986.0	1,924.5	1,839.2	5.2	9.7	-7.89	471.6	-7.0	346.0	336.1	9.85	35.141				
2,100.0	2,084.1	2,021.4	1,926.7	5.6	10.5	-7.60	513.2	-4.9	370.5	360.0	10.44	35.485				
2,200.0	2,182.2	2,118.3	2,014.3	6.0	11.3	-7.34	554.8	-2.9	394.9	383.9	11.04	35.783				
2,300.0	2,280.3	2,215.3	2,101.8	6.4	12.1	-7.11	596.4	-0.9	419.4	407.8	11.64	36.043				
2,400.0	2,378.3	2,312.2	2,189.4	6.8	12.9	-6.90	638.0	1.2	443.9	431.6	12.24	36.271				
2,500.0	2,476.4	2,409.2	2,276.9	7.2	13.7	-6.72	679.6	3.2	468.3	455.5	12.84	36.473				
2,600.0	2,574.5	2,506.1	2,364.4	7.6	14.5	-6.56	721.2	5.3	492.8	479.4	13.45	36.653				
2,700.0	2,672.6	2,603.1	2,452.0	8.0	15.3	-6.41	762.8	7.3	517.3	503.3	14.05	36.814				
2,800.0	2,770.6	2,700.0	2,539.5	8.4	16.1	-6.27	804.4	9.4	541.8	527.2	14.66	36.959				
2,900.0	2,868.7	2,797.0	2,627.1	8.8	16.9	-6.15	846.0	11.4	566.3	551.0	15.27	37.089				
3,000.0	2,966.8	2,893.9	2,714.6	9.2	17.7	-6.04	887.6	13.4	590.8	574.9	15.88	37.207				
3,100.0	3,064.9	2,990.9	2,802.2	9.6	18.5	-5.93	929.2	15.5	615.3	598.8	16.49	37.315				
3,200.0	3,162.9	3,087.8	2,889.7	10.1	19.3	-5.83	970.8	17.5	639.8	622.7	17.10	37.413				
3,300.0	3,261.0	3,184.8	2,977.2	10.5	20.1	-5.75	1,012.4	19.6	664.3	646.6	17.71	37.503				
3,400.0	3,359.1	3,281.7	3,064.8	10.9	20.9	-5.66	1,054.0	21.6	688.8	670.5	18.33	37.586				
3,500.0	3,457.2	3,378.7	3,152.3	11.3	21.7	-5.59	1,095.6	23.6	713.3	694.4	18.94	37.662				
3,600.0	3,555.2	3,475.6	3,239.9	11.7	22.5	-5.51	1,137.2	25.7	737.8	718.3	19.55	37.733				
3,700.0	3,653.3	3,572.5	3,327.4	12.1	23.3	-5.45	1,178.8	27.7	762.3	742.2	20.17	37.798				
3,800.0	3,751.4	3,669.5	3,415.0	12.5	24.1	-5.38	1,220.4	29.8	786.8	766.1	20.78	37.859				
3,900.0	3,849.5	3,766.4	3,502.5	13.0	24.9	-5.32	1,262.0	31.8	811.4	790.0	21.40	37.915				
4,000.0	3,947.5	3,863.4	3,590.0	13.4	25.8	-5.27	1,303.6	33.9	835.9	813.8	22.02	37.968				
4,100.0	4,045.6	3,960.3	3,677.6	13.8	26.6	-5.21	1,345.2	35.9	860.4	837.7	22.63	38.017				
4,200.0	4,143.7	4,057.3	3,765.1	14.2	27.4	-5.16	1,386.8	37.9	884.9	861.6	23.25	38.063				
4,300.0	4,241.8	4,154.2	3,852.7	14.6	28.2	-5.12	1,428.4	40.0	909.4	885.5	23.86	38.106				
4,400.0	4,339.8	4,251.2	3,940.2	15.1	29.0	-5.07	1,470.0	42.0	933.9	909.4	24.48	38.147				
4,500.0	4,437.9	4,348.1	4,027.8	15.5	29.8	-5.03	1,511.6	44.1	958.4	933.3	25.10	38.185				
4,600.0	4,536.0	4,445.1	4,115.3	15.9	30.6	-4.99	1,553.2	46.1	982.9	957.2	25.72	38.221				
4,700.0	4,634.1	4,542.0	4,202.9	16.3	31.4	-4.95	1,594.8	48.1	1,007.5	981.1	26.34	38.255				
4,800.0	4,732.1	4,639.0	4,290.4	16.7	32.2	-4.92	1,636.4	50.2	1,032.0	1,005.0	26.95	38.287				
4,900.0	4,830.2	4,735.9	4,377.9	17.2	33.0	-4.88	1,678.0	52.2	1,056.5	1,028.9	27.57	38.318				
5,000.0	4,928.3	4,832.9	4,465.5	17.6	33.8	-4.85	1,719.6	54.3	1,081.0	1,052.8	28.19	38.346				
5,100.0	5,026.4	4,929.8	4,553.0	18.0	34.6	-4.82	1,761.2	56.3	1,105.5	1,076.7	28.81	38.374				
5,200.0	5,124.7	5,026.4	4,640.3	18.4	35.4	-4.82	1,802.7	58.3	1,131.3	1,101.9	29.31	38.597				
5,300.0	5,223.6	5,122.1	4,726.7	18.6	36.2	-4.82	1,843.7	60.4	1,160.3	1,130.6	29.72	39.046				
5,400.0	5,322.9	5,250.5	4,813.1	18.9	37.2	-4.79	1,897.8	63.0	1,192.0	1,161.8	30.16	39.519				
5,500.0	5,422.6	5,415.1	4,995.5	19.1	38.1	-4.75	1,959.8	66.1	1,222.3	1,191.6	30.62	39.912				
5,600.0	5,522.5	5,583.8	5,155.2	19.3	38.9	-4.70	2,014.2	68.7	1,250.3	1,219.3	31.01	40.322				
5,700.0	5,622.5	5,756.6	5,321.7	19.4	39.7	0.12	2,060.1	71.0	1,275.9	1,244.5	31.38	40.658				
5,800.0	5,722.5	5,934.0	5,495.3	19.5	40.3	0.20	2,096.7	72.8	1,296.5	1,264.5	31.97	40.553				
5,900.0	5,822.5	6,115.5	5,674.8	19.7	40.8	0.25	2,123.0	74.1	1,311.0	1,278.5	32.52	40.316				
6,000.0	5,922.5	6,299.6	5,858.3	19.8	41.1	0.28	2,138.0	74.8	1,319.2	1,286.1	33.01	39.959				
6,100.0	6,022.5	6,464.9	6,023.5	19.9	41.3	0.29	2,141.5	75.0	1,321.0	1,287.6	33.43	39.518				
6,200.0	6,122.5	6,564.9	6,123.5	20.1	41.3	0.29	2,141.5	75.0	1,321.0	1,287.3	33.77	39.122				
6,300.0	6,222.5	6,664.9	6,223.5	20.2	41.4	0.29	2,141.5	75.0	1,321.0	1,286.9	34.11	38.726				
6,400.0	6,322.5	6,764.9	6,323.5	20.4	41.5	0.29	2,141.5	75.0	1,321.0	1,286.6	34.46	38.336				
6,500.0	6,422.5	6,864.9	6,423.5	20.5	41.5	0.29	2,141.5	75.0	1,321.0	1,286.2	34.81	37.951				
6,600.0	6,522.5	6,964.9	6,523.5	20.7	41.6	0.29	2,141.5	75.0	1,321.0	1,285.9	35.16	37.572				
6,700.0	6,622.5	7,064.9	6,623.5	20.8	41.7	0.29	2,141.5	75.0	1,321.0	1,285.5	35.51	37.198				
6,800.0	6,722.5	7,164.9	6,723.5	21.0	41.8	0.29	2,141.5	75.0	1,321.0	1,285.2	35.87	36.830				
6,900.0	6,822.5	7,264.9	6,823.5	21.1	41.8	0.29	2,141.5	75.0	1,321.0	1,284.8	36.23	36.467				
7,000.0	6,922.5	7,364.9	6,923.5	21.3	41.9	0.29	2,141.5	75.0	1,321.0	1,284.5	36.59	36.109				

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

Company:	Bayswater Exploration & Production, LLC	Local Co-ordinate Reference:	Well Heckman 16-20
Project:	SEC.29-T7N-R67W	TVD Reference:	WELL @ 4987.0ft (Original Well Elev)
Reference Site:	Heckman/Winter Pad Sec.29-T7N-R67W	MD Reference:	WELL @ 4987.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Heckman 16-20	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	Landmark
Reference Design:	Plan #1 (4-23-13)	Offset TVD Reference:	Offset Datum

Offset Design Heckman/Winter Pad Sec.29-T7N-R67W - Heckman 9-20 - Wellbore #1 - Plan #1 (4-23-13)													Offset Site Error:	0.0 ft
Survey Program: 0-MWD													Offset Well Error:	0.0 ft
Reference		Offset		Semi Major Axis			Distance						Warning	
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
7,100.0	7,022.5	7,464.9	7,023.5	21.4	42.0	0.29	2,141.5	75.0	1,321.0	1,284.1	36.95	35.756		
7,200.0	7,122.5	7,564.9	7,123.5	21.6	42.0	0.29	2,141.5	75.0	1,321.0	1,283.7	37.31	35.409		
7,263.6	7,186.1	7,628.5	7,187.1	21.7	42.1	0.29	2,141.5	75.0	1,321.0	1,283.5	37.54	35.190		
7,300.0	7,222.5	7,656.4	7,215.0	21.8	42.1	0.29	2,141.5	75.0	1,321.1	1,283.4	37.66	35.079		
7,327.5	7,250.0	7,656.4	7,215.0	21.8	42.1	0.29	2,141.5	75.0	1,321.5	1,283.8	37.72	35.038		

Company:	Bayswater Exploration & Production, LLC	Local Co-ordinate Reference:	Well Heckman 16-20
Project:	SEC.29-T7N-R67W	TVD Reference:	WELL @ 4987.0ft (Original Well Elev)
Reference Site:	Heckman/Winter Pad Sec.29-T7N-R67W	MD Reference:	WELL @ 4987.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Heckman 16-20	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	Landmark
Reference Design:	Plan #1 (4-23-13)	Offset TVD Reference:	Offset Datum

Offset Design Heckman/Winter Pad Sec.29-T7N-R67W - Winter 1-29 - Wellbore #1 - Plan #1 (4-23-13)													Offset Site Error:	0.0ft
Survey Program: 0-MWD													Offset Well Error:	0.0ft
Reference		Offset		Semi Major Axis			Distance						Warning	
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
0.0	0.0	1.0	1.0	0.0	0.0	-90.00	0.0	-15.0	15.0	15.0	0.00	N/A		
100.0	100.0	101.0	101.0	0.1	0.1	-90.00	0.0	-15.0	15.0	14.8	0.23	66.103		
200.0	200.0	201.0	201.0	0.3	0.3	-90.00	0.0	-15.0	15.0	14.3	0.68	22.181		
300.0	300.0	301.0	301.0	0.6	0.6	-90.00	0.0	-15.0	15.0	13.9	1.13	13.326		
400.0	400.0	401.0	401.0	0.8	0.8	-90.00	0.0	-15.0	15.0	13.4	1.58	9.524		
500.0	500.0	501.0	501.0	1.0	1.0	-90.00	0.0	-15.0	15.0	13.0	2.03	7.410		
600.0	600.0	601.0	601.0	1.2	1.2	-90.00	0.0	-15.0	15.0	12.5	2.47	6.064		
700.0	700.0	701.0	701.0	1.5	1.5	-90.00	0.0	-15.0	15.0	12.1	2.92	5.132		
800.0	800.0	801.0	801.0	1.7	1.7	-90.00	0.0	-15.0	15.0	11.6	3.37	4.448		
900.0	900.0	901.0	901.0	1.9	1.9	-90.00	0.0	-15.0	15.0	11.2	3.82	3.925 CC		
1,000.0	1,000.0	1,001.0	1,001.0	2.1	2.1	-101.30	0.0	-15.0	15.3	11.0	4.27	3.570 ES, SF		
1,100.0	1,099.8	1,100.8	1,100.8	2.4	2.4	-118.74	0.0	-15.0	17.1	12.3	4.72	3.616		
1,200.0	1,199.5	1,200.5	1,200.5	2.6	2.6	-138.40	0.0	-15.0	22.6	17.4	5.17	4.372		
1,300.0	1,298.7	1,299.7	1,299.7	2.8	2.8	-152.59	0.0	-15.0	32.7	27.1	5.61	5.837		
1,400.0	1,397.5	1,398.5	1,398.5	3.1	3.0	-161.26	0.0	-15.0	47.2	41.2	6.04	7.811		
1,500.0	1,495.7	1,496.7	1,496.7	3.4	3.3	-166.52	0.0	-15.0	65.3	58.9	6.48	10.085		
1,600.0	1,593.7	1,592.2	1,592.2	3.7	3.4	-169.95	-1.5	-14.8	85.9	79.0	6.91	12.436		
1,700.0	1,691.8	1,686.3	1,686.1	4.1	3.6	-172.64	-6.0	-14.1	109.6	102.3	7.32	14.984		
1,800.0	1,789.9	1,778.7	1,778.3	4.5	3.8	-174.79	-13.4	-13.0	136.5	128.8	7.73	17.662		
1,900.0	1,888.0	1,869.4	1,868.4	4.8	3.9	-176.52	-23.5	-11.6	166.4	158.3	8.14	20.436		
2,000.0	1,986.0	1,962.0	1,960.1	5.2	4.1	-177.96	-36.2	-9.7	198.8	190.3	8.57	23.207		
2,100.0	2,084.1	2,056.4	2,053.6	5.6	4.4	-179.03	-49.3	-7.8	231.5	222.5	8.99	25.738		
2,200.0	2,182.2	2,150.9	2,147.1	6.0	4.6	-179.84	-62.4	-5.9	264.2	254.8	9.42	28.036		
2,300.0	2,280.3	2,245.3	2,240.6	6.4	4.8	179.53	-75.5	-4.0	297.0	287.1	9.86	30.126		
2,400.0	2,378.3	2,339.7	2,334.1	6.8	5.1	179.03	-88.6	-2.1	329.8	319.5	10.30	32.013		
2,500.0	2,476.4	2,434.2	2,427.6	7.2	5.4	178.61	-101.7	-0.2	362.6	351.8	10.74	33.745		
2,600.0	2,574.5	2,528.6	2,521.1	7.6	5.6	178.27	-114.9	1.8	395.4	384.2	11.19	35.327		
2,700.0	2,672.6	2,623.1	2,614.6	8.0	5.9	177.98	-128.0	3.7	428.2	416.6	11.64	36.779		
2,800.0	2,770.6	2,717.5	2,708.1	8.4	6.2	177.73	-141.1	5.6	461.1	449.0	12.10	38.113		
2,900.0	2,868.7	2,811.9	2,801.6	8.8	6.5	177.51	-154.2	7.5	493.9	481.4	12.55	39.343		
3,000.0	2,966.8	2,906.4	2,895.1	9.2	6.8	177.32	-167.3	9.4	526.8	513.7	13.01	40.480		
3,100.0	3,064.9	3,000.8	2,988.6	9.6	7.1	177.15	-180.4	11.3	559.6	546.1	13.47	41.534		
3,200.0	3,162.9	3,095.2	3,082.1	10.1	7.4	177.00	-193.5	13.2	592.5	578.5	13.94	42.511		
3,300.0	3,261.0	3,189.7	3,175.6	10.5	7.7	176.87	-206.6	15.2	625.3	610.9	14.40	43.421		
3,400.0	3,359.1	3,284.1	3,269.1	10.9	8.0	176.75	-219.7	17.1	658.2	643.3	14.87	44.270		
3,500.0	3,457.2	3,378.5	3,362.6	11.3	8.3	176.64	-232.8	19.0	691.1	675.7	15.34	45.062		
3,600.0	3,555.2	3,473.0	3,456.1	11.7	8.6	176.54	-246.0	20.9	723.9	708.1	15.81	45.804		
3,700.0	3,653.3	3,567.4	3,549.6	12.1	8.9	176.45	-259.1	22.8	756.8	740.5	16.28	46.500		
3,800.0	3,751.4	3,661.9	3,643.1	12.5	9.2	176.37	-272.2	24.7	789.7	772.9	16.75	47.153		
3,900.0	3,849.5	3,756.3	3,736.6	13.0	9.5	176.29	-285.3	26.6	822.6	805.3	17.22	47.768		
4,000.0	3,947.5	3,850.7	3,830.1	13.4	9.8	176.22	-298.4	28.6	855.4	837.7	17.69	48.348		
4,100.0	4,045.6	3,945.2	3,923.6	13.8	10.2	176.16	-311.5	30.5	888.3	870.1	18.17	48.894		
4,200.0	4,143.7	4,039.6	4,017.1	14.2	10.5	176.10	-324.6	32.4	921.2	902.5	18.64	49.411		
4,300.0	4,241.8	4,134.0	4,110.6	14.6	10.8	176.04	-337.7	34.3	954.1	934.9	19.12	49.900		
4,400.0	4,339.8	4,228.5	4,204.1	15.1	11.1	175.99	-350.8	36.2	986.9	967.3	19.60	50.363		
4,500.0	4,437.9	4,322.9	4,297.6	15.5	11.4	175.94	-363.9	38.1	1,019.8	999.7	20.07	50.803		
4,600.0	4,536.0	4,417.3	4,391.2	15.9	11.8	175.89	-377.1	40.0	1,052.7	1,032.2	20.55	51.220		
4,700.0	4,634.1	4,511.8	4,484.7	16.3	12.1	175.85	-390.2	41.9	1,085.6	1,064.6	21.03	51.617		
4,800.0	4,732.1	4,606.2	4,578.2	16.7	12.4	175.81	-403.3	43.9	1,118.5	1,097.0	21.51	51.995		
4,900.0	4,830.2	4,700.7	4,671.7	17.2	12.7	175.77	-416.4	45.8	1,151.3	1,129.4	21.99	52.355		
5,000.0	4,928.3	4,795.1	4,765.2	17.6	13.0	175.74	-429.5	47.7	1,184.2	1,161.8	22.47	52.698		
5,100.0	5,026.4	4,889.5	4,858.7	18.0	13.4	175.70	-442.6	49.6	1,217.1	1,194.2	22.95	53.026		

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

Company:	Bayswater Exploration & Production, LLC	Local Co-ordinate Reference:	Well Heckman 16-20
Project:	SEC.29-T7N-R67W	TVD Reference:	WELL @ 4987.0ft (Original Well Elev)
Reference Site:	Heckman/Winter Pad Sec.29-T7N-R67W	MD Reference:	WELL @ 4987.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Heckman 16-20	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	Landmark
Reference Design:	Plan #1 (4-23-13)	Offset TVD Reference:	Offset Datum

Offset Design													Offset Site Error:	0.0 ft		
Survey Program: 0-MWD													Heckman/Winter Pad Sec.29-T7N-R67W - Winter 1-29 - Wellbore #1 - Plan #1 (4-23-13)		Offset Well Error:	0.0 ft
Reference		Offset		Semi Major Axis			Distance						Warning			
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor				
5,200.0	5,124.7	4,984.4	4,952.6	18.4	13.7	175.71	-455.8	51.5	1,248.8	1,225.3	23.49	53.163				
5,300.0	5,223.6	5,080.2	5,047.5	18.6	14.0	175.70	-469.1	53.5	1,277.2	1,253.2	23.99	53.249				
5,400.0	5,322.9	5,214.3	5,180.4	18.9	14.4	175.67	-486.5	56.0	1,301.6	1,277.0	24.52	53.072				
5,500.0	5,422.6	5,394.4	5,359.9	19.1	14.8	175.64	-500.8	58.1	1,317.4	1,292.3	25.09	52.502				
5,600.0	5,522.5	5,558.1	5,523.5	19.3	15.1	175.66	-504.2	58.6	1,323.7	1,298.1	25.58	51.744				
5,700.0	5,622.5	5,658.1	5,623.5	19.4	15.3	-179.58	-504.2	58.6	1,324.7	1,298.8	25.92	51.105				
5,800.0	5,722.5	5,758.1	5,723.5	19.5	15.4	-179.58	-504.2	58.6	1,324.7	1,298.4	26.31	50.350				
5,900.0	5,822.5	5,858.1	5,823.5	19.7	15.6	-179.58	-504.2	58.6	1,324.7	1,298.0	26.70	49.614				
6,000.0	5,922.5	5,958.1	5,923.5	19.8	15.7	-179.58	-504.2	58.6	1,324.7	1,297.6	27.09	48.895				
6,100.0	6,022.5	6,058.1	6,023.5	19.9	15.9	-179.58	-504.2	58.6	1,324.7	1,297.2	27.49	48.194				
6,200.0	6,122.5	6,158.1	6,123.5	20.1	16.0	-179.58	-504.2	58.6	1,324.7	1,296.8	27.88	47.510				
6,300.0	6,222.5	6,258.1	6,223.5	20.2	16.2	-179.58	-504.2	58.6	1,324.7	1,296.4	28.28	46.842				
6,400.0	6,322.5	6,358.1	6,323.5	20.4	16.3	-179.58	-504.2	58.6	1,324.7	1,296.0	28.68	46.191				
6,500.0	6,422.5	6,458.1	6,423.5	20.5	16.5	-179.58	-504.2	58.6	1,324.7	1,295.6	29.08	45.554				
6,600.0	6,522.5	6,558.1	6,523.5	20.7	16.7	-179.58	-504.2	58.6	1,324.7	1,295.2	29.48	44.933				
6,700.0	6,622.5	6,658.1	6,623.5	20.8	16.8	-179.58	-504.2	58.6	1,324.7	1,294.8	29.88	44.327				
6,800.0	6,722.5	6,758.1	6,723.5	21.0	17.0	-179.58	-504.2	58.6	1,324.7	1,294.4	30.29	43.735				
6,900.0	6,822.5	6,858.1	6,823.5	21.1	17.2	-179.58	-504.2	58.6	1,324.7	1,294.0	30.70	43.157				
7,000.0	6,922.5	6,958.1	6,923.5	21.3	17.3	-179.58	-504.2	58.6	1,324.7	1,293.6	31.10	42.592				
7,100.0	7,022.5	7,058.1	7,023.5	21.4	17.5	-179.58	-504.2	58.6	1,324.7	1,293.2	31.51	42.040				
7,200.0	7,122.5	7,158.1	7,123.5	21.6	17.7	-179.58	-504.2	58.6	1,324.7	1,292.8	31.92	41.501				
7,300.0	7,222.5	7,258.1	7,223.5	21.8	17.8	-179.58	-504.2	58.6	1,324.7	1,292.4	32.33	40.974				
7,327.5	7,250.0	7,285.6	7,251.0	21.8	17.9	-179.58	-504.2	58.6	1,324.7	1,292.3	32.44	40.831				

Company:	Bayswater Exploration & Production, LLC	Local Co-ordinate Reference:	Well Heckman 16-20
Project:	SEC.29-T7N-R67W	TVD Reference:	WELL @ 4987.0ft (Original Well Elev)
Reference Site:	Heckman/Winter Pad Sec.29-T7N-R67W	MD Reference:	WELL @ 4987.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Heckman 16-20	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	Landmark
Reference Design:	Plan #1 (4-23-13)	Offset TVD Reference:	Offset Datum

Offset Design Heckman/Winter Pad Sec.29-T7N-R67W - Winter 8-29 - Wellbore #1 - Plan #1 (4-23-13)													Offset Site Error:	0.0 ft
Survey Program: 0-MWD													Offset Well Error:	0.0 ft
Reference		Offset		Semi Major Axis			Distance						Warning	
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
0.0	0.0	1.0	1.0	0.0	0.0	-90.00	0.0	-45.1	45.1	45.1	0.00	N/A		
100.0	100.0	101.0	101.0	0.1	0.1	-90.00	0.0	-45.1	45.1	44.9	0.23	198.770		
200.0	200.0	201.0	201.0	0.3	0.3	-90.00	0.0	-45.1	45.1	44.4	0.68	66.697		
300.0	300.0	301.0	301.0	0.6	0.6	-90.00	0.0	-45.1	45.1	44.0	1.13	40.071		
400.0	400.0	401.0	401.0	0.8	0.8	-90.00	0.0	-45.1	45.1	43.5	1.58	28.644		
500.0	500.0	501.0	501.0	1.0	1.0	-92.26	-1.8	-45.0	45.1	43.1	2.00	22.560		
512.2	512.2	513.3	513.2	1.0	1.0	-92.84	-2.2	-45.0	45.1	43.0	2.05	21.999	CC	
600.0	600.0	600.8	600.7	1.2	1.2	-98.92	-7.0	-44.8	45.3	42.9	2.41	18.782	ES	
700.0	700.0	700.0	699.5	1.5	1.4	-109.47	-15.7	-44.3	47.1	44.2	2.86	16.478		
800.0	800.0	798.7	797.4	1.7	1.7	-122.31	-27.7	-43.7	51.9	48.6	3.32	15.611	SF	
900.0	900.0	896.4	893.9	1.9	1.9	-134.90	-42.8	-43.0	61.1	57.3	3.80	16.084		
1,000.0	1,000.0	992.5	988.3	2.1	2.3	-150.62	-61.0	-42.1	76.7	72.4	4.29	17.861		
1,100.0	1,099.8	1,086.3	1,079.7	2.4	2.7	-159.25	-81.7	-41.1	100.2	95.4	4.76	21.032		
1,200.0	1,199.5	1,177.1	1,167.6	2.6	3.1	-165.37	-104.6	-39.9	131.3	126.1	5.22	25.140		
1,300.0	1,298.7	1,264.6	1,251.5	2.8	3.6	-169.60	-129.3	-38.7	169.4	163.7	5.67	29.874		
1,400.0	1,397.5	1,348.2	1,331.0	3.1	4.0	-172.56	-155.3	-37.4	213.8	207.7	6.10	35.037		
1,500.0	1,495.7	1,427.8	1,405.9	3.4	4.5	-174.70	-182.2	-36.1	263.9	257.4	6.52	40.449		
1,600.0	1,593.7	1,504.5	1,477.4	3.7	5.1	-176.31	-210.0	-34.7	317.1	310.1	6.97	45.505		
1,700.0	1,691.8	1,582.8	1,549.5	4.1	5.6	-177.57	-240.2	-33.2	372.5	365.0	7.42	50.190		
1,800.0	1,789.9	1,665.5	1,625.8	4.5	6.2	-178.57	-272.4	-31.6	428.2	420.4	7.87	54.380		
1,900.0	1,888.0	1,748.3	1,702.0	4.8	6.9	-179.34	-304.6	-30.0	484.1	475.8	8.33	58.098		
2,000.0	1,986.0	1,831.1	1,778.3	5.2	7.5	-179.96	-336.8	-28.4	540.0	531.2	8.80	61.391		
2,100.0	2,084.1	1,913.9	1,854.5	5.6	8.1	179.54	-369.0	-26.8	595.9	586.7	9.26	64.323		
2,200.0	2,182.2	1,996.7	1,930.8	6.0	8.7	179.13	-401.2	-25.2	651.9	642.2	9.74	66.944		
2,300.0	2,280.3	2,079.5	2,007.0	6.4	9.4	178.78	-433.5	-23.5	707.9	697.7	10.22	69.294		
2,400.0	2,378.3	2,162.3	2,083.3	6.8	10.0	178.48	-465.7	-21.9	763.9	753.2	10.70	71.415		
2,500.0	2,476.4	2,245.1	2,159.5	7.2	10.6	178.23	-497.9	-20.3	819.9	808.7	11.18	73.336		
2,600.0	2,574.5	2,327.9	2,235.8	7.6	11.3	178.00	-530.1	-18.7	875.9	864.3	11.67	75.083		
2,700.0	2,672.6	2,410.7	2,312.0	8.0	11.9	177.81	-562.3	-17.1	932.0	919.8	12.15	76.676		
2,800.0	2,770.6	2,493.4	2,388.3	8.4	12.5	177.63	-594.5	-15.5	988.0	975.3	12.64	78.133		
2,900.0	2,868.7	2,576.2	2,464.5	8.8	13.2	177.47	-626.7	-13.9	1,044.0	1,030.9	13.14	79.470		
3,000.0	2,966.8	2,659.0	2,540.8	9.2	13.8	177.33	-658.9	-12.3	1,100.1	1,086.4	13.63	80.701		
3,100.0	3,064.9	2,741.8	2,617.0	9.6	14.5	177.21	-691.1	-10.7	1,156.1	1,142.0	14.13	81.838		
3,200.0	3,162.9	2,824.6	2,693.3	10.1	15.1	177.09	-723.3	-9.1	1,212.2	1,197.6	14.62	82.891		
3,300.0	3,261.0	2,907.4	2,769.5	10.5	15.7	176.99	-755.5	-7.5	1,268.2	1,253.1	15.12	83.869		
3,400.0	3,359.1	2,990.2	2,845.8	10.9	16.4	176.89	-787.8	-5.9	1,324.3	1,308.7	15.62	84.777		
3,500.0	3,457.2	3,073.0	2,922.0	11.3	17.0	176.80	-820.0	-4.3	1,380.4	1,364.2	16.12	85.624		
3,600.0	3,555.2	3,155.8	2,998.3	11.7	17.7	176.72	-852.2	-2.7	1,436.4	1,419.8	16.62	86.415		
3,700.0	3,653.3	3,238.5	3,074.5	12.1	18.3	176.65	-884.4	-1.1	1,492.5	1,475.4	17.12	87.155		
3,800.0	3,751.4	3,321.3	3,150.8	12.5	18.9	176.58	-916.6	0.5	1,548.6	1,530.9	17.63	87.850		
3,900.0	3,849.5	3,404.1	3,227.0	13.0	19.6	176.51	-948.8	2.1	1,604.6	1,586.5	18.13	88.502		
4,000.0	3,947.5	3,486.9	3,303.3	13.4	20.2	176.45	-981.0	3.7	1,660.7	1,642.1	18.64	89.115		
4,100.0	4,045.6	3,569.7	3,379.5	13.8	20.9	176.40	-1,013.2	5.3	1,716.8	1,697.6	19.14	89.693		
4,200.0	4,143.7	3,652.5	3,455.8	14.2	21.5	176.34	-1,045.4	6.9	1,772.9	1,753.2	19.65	90.239		
4,300.0	4,241.8	3,735.3	3,532.0	14.6	22.1	176.29	-1,077.6	8.5	1,828.9	1,808.8	20.15	90.754		
4,400.0	4,339.8	3,818.1	3,608.3	15.1	22.8	176.25	-1,109.8	10.1	1,885.0	1,864.3	20.66	91.242		
4,500.0	4,437.9	3,900.9	3,684.5	15.5	23.4	176.20	-1,142.1	11.7	1,941.1	1,919.9	21.17	91.704		
4,600.0	4,536.0	3,983.6	3,760.8	15.9	24.1	176.16	-1,174.3	13.3	1,997.2	1,975.5	21.67	92.143		
4,700.0	4,634.1	4,066.4	3,837.0	16.3	24.7	176.12	-1,206.5	14.9	2,053.2	2,031.0	22.18	92.559		
4,800.0	4,732.1	4,149.2	3,913.3	16.7	25.4	176.09	-1,238.7	16.5	2,109.3	2,086.6	22.69	92.954		
4,900.0	4,830.2	4,232.0	3,989.5	17.2	26.0	176.05	-1,270.9	18.1	2,165.4	2,142.2	23.20	93.331		
5,000.0	4,928.3	4,314.8	4,065.8	17.6	26.6	176.02	-1,303.1	19.7	2,221.5	2,197.8	23.71	93.690		

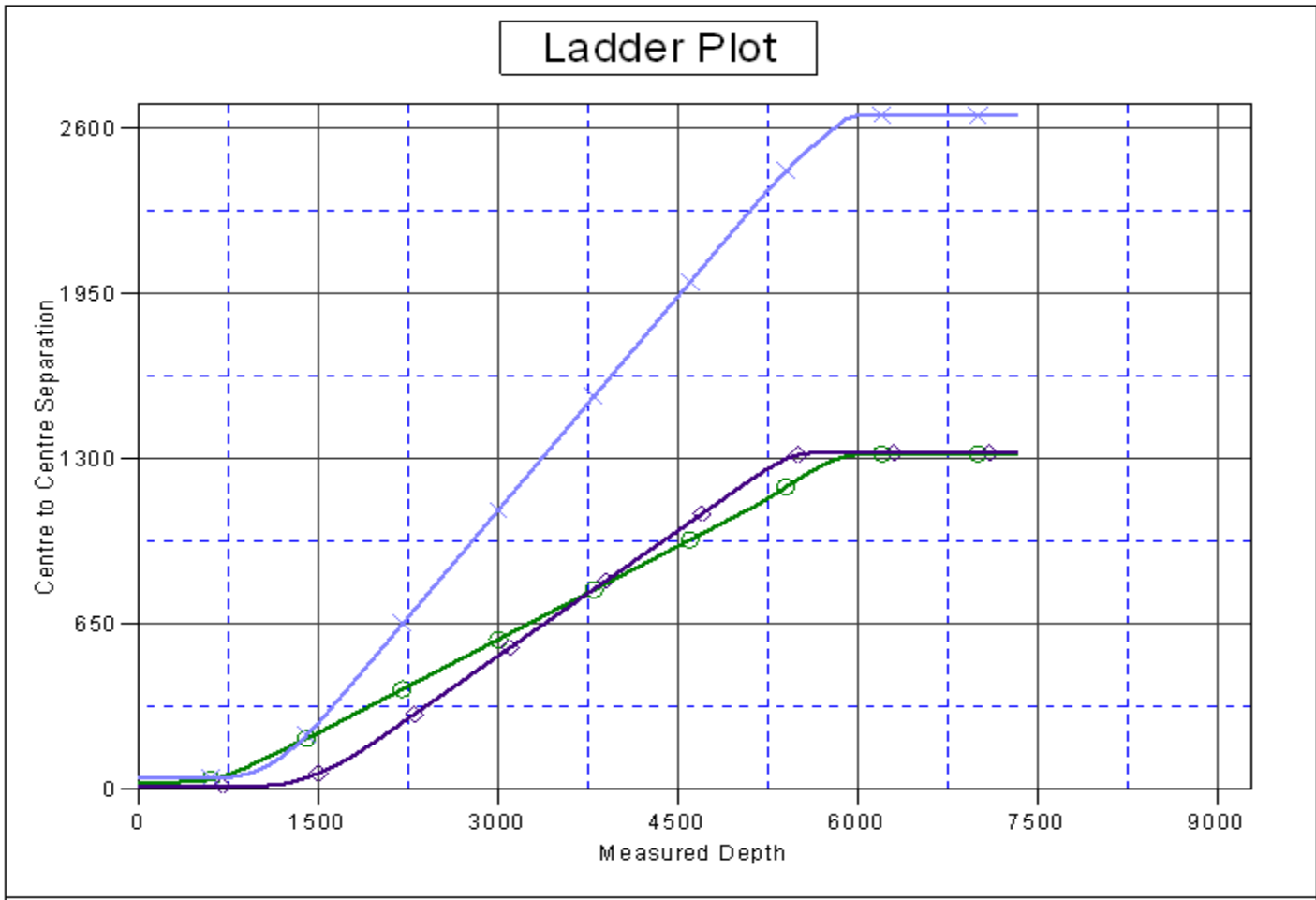
CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

Company:	Bayswater Exploration & Production, LLC	Local Co-ordinate Reference:	Well Heckman 16-20
Project:	SEC.29-T7N-R67W	TVD Reference:	WELL @ 4987.0ft (Original Well Elev)
Reference Site:	Heckman/Winter Pad Sec.29-T7N-R67W	MD Reference:	WELL @ 4987.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Heckman 16-20	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	Landmark
Reference Design:	Plan #1 (4-23-13)	Offset TVD Reference:	Offset Datum

Offset Design													Offset Site Error:	0.0 ft		
Survey Program: 0-MWD													Heckman/Winter Pad Sec.29-T7N-R67W - Winter 8-29 - Wellbore #1 - Plan #1 (4-23-13)		Offset Well Error:	0.0 ft
Reference		Offset		Semi Major Axis			Distance						Warning			
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor				
5,100.0	5,026.4	4,397.6	4,142.0	18.0	27.3	175.99	-1,335.3	21.3	2,277.5	2,253.3	24.22	94.032				
5,200.0	5,124.7	4,481.1	4,218.9	18.4	27.9	176.03	-1,367.8	23.0	2,332.6	2,307.7	24.90	93.665				
5,300.0	5,223.6	4,566.4	4,297.5	18.6	28.6	176.08	-1,401.0	24.6	2,384.7	2,359.1	25.57	93.260				
5,400.0	5,322.9	4,653.5	4,377.7	18.9	29.3	176.11	-1,434.9	26.3	2,433.8	2,407.6	26.22	92.837				
5,500.0	5,422.6	4,742.2	4,459.5	19.1	30.0	176.13	-1,469.4	28.0	2,479.8	2,453.0	26.84	92.401				
5,600.0	5,522.5	4,832.5	4,542.6	19.3	30.7	176.14	-1,504.5	29.8	2,522.8	2,495.3	27.44	91.954				
5,700.0	5,622.5	4,924.2	4,627.1	19.4	31.4	-179.11	-1,540.2	31.5	2,562.6	2,534.6	27.99	91.560				
5,800.0	5,722.5	5,016.3	4,711.9	19.5	32.1	-179.16	-1,576.0	33.3	2,601.5	2,573.0	28.49	91.308				
5,900.0	5,822.5	5,266.3	4,944.1	19.7	33.6	-179.30	-1,668.5	37.9	2,640.0	2,610.5	29.45	89.655				
6,000.0	5,922.5	6,264.4	5,923.5	19.8	36.4	-179.52	-1,832.5	46.1	2,653.1	2,621.4	31.72	83.644				
6,100.0	6,022.5	6,364.4	6,023.5	19.9	36.4	-179.52	-1,832.5	46.1	2,653.1	2,621.0	32.05	82.768				
6,200.0	6,122.5	6,464.4	6,123.5	20.1	36.5	-179.52	-1,832.5	46.1	2,653.1	2,620.7	32.39	81.913				
6,300.0	6,222.5	6,564.4	6,223.5	20.2	36.5	-179.52	-1,832.5	46.1	2,653.1	2,620.4	32.73	81.069				
6,400.0	6,322.5	6,664.4	6,323.5	20.4	36.6	-179.52	-1,832.5	46.1	2,653.1	2,620.0	33.07	80.237				
6,500.0	6,422.5	6,764.4	6,423.5	20.5	36.7	-179.52	-1,832.5	46.1	2,653.1	2,619.7	33.41	79.416				
6,600.0	6,522.5	6,864.4	6,523.5	20.7	36.7	-179.52	-1,832.5	46.1	2,653.1	2,619.3	33.75	78.606				
6,700.0	6,622.5	6,964.4	6,623.5	20.8	36.8	-179.52	-1,832.5	46.1	2,653.1	2,619.0	34.10	77.808				
6,800.0	6,722.5	7,064.4	6,723.5	21.0	36.9	-179.52	-1,832.5	46.1	2,653.1	2,618.6	34.45	77.021				
6,900.0	6,822.5	7,164.4	6,823.5	21.1	36.9	-179.52	-1,832.5	46.1	2,653.1	2,618.3	34.80	76.245				
7,000.0	6,922.5	7,264.4	6,923.5	21.3	37.0	-179.52	-1,832.5	46.1	2,653.1	2,617.9	35.15	75.480				
7,100.0	7,022.5	7,364.4	7,023.5	21.4	37.1	-179.52	-1,832.5	46.1	2,653.1	2,617.6	35.50	74.726				
7,200.0	7,122.5	7,464.4	7,123.5	21.6	37.2	-179.52	-1,832.5	46.1	2,653.1	2,617.2	35.86	73.982				
7,300.0	7,222.5	7,564.4	7,223.5	21.8	37.2	-179.52	-1,832.5	46.1	2,653.1	2,616.9	36.22	73.250				
7,327.5	7,250.0	7,592.0	7,251.0	21.8	37.3	-179.52	-1,832.5	46.1	2,653.1	2,616.8	36.32	73.051				

Company:	Bayswater Exploration & Production, LLC	Local Co-ordinate Reference:	Well Heckman 16-20
Project:	SEC.29-T7N-R67W	TVD Reference:	WELL @ 4987.0ft (Original Well Elev)
Reference Site:	Heckman/Winter Pad Sec.29-T7N-R67W	MD Reference:	WELL @ 4987.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Heckman 16-20	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	Landmark
Reference Design:	Plan #1 (4-23-13)	Offset TVD Reference:	Offset Datum

Reference Depths are relative to WELL @ 4987.0ft (Original Well Elev) Coordinates are relative to: Heckman 16-20
 Offset Depths are relative to Offset Datum Coordinate System is US State Plane 1983, Colorado Northern Zone
 Central Meridian is -105.500000 ° Grid Convergence at Surface is: 0.38°

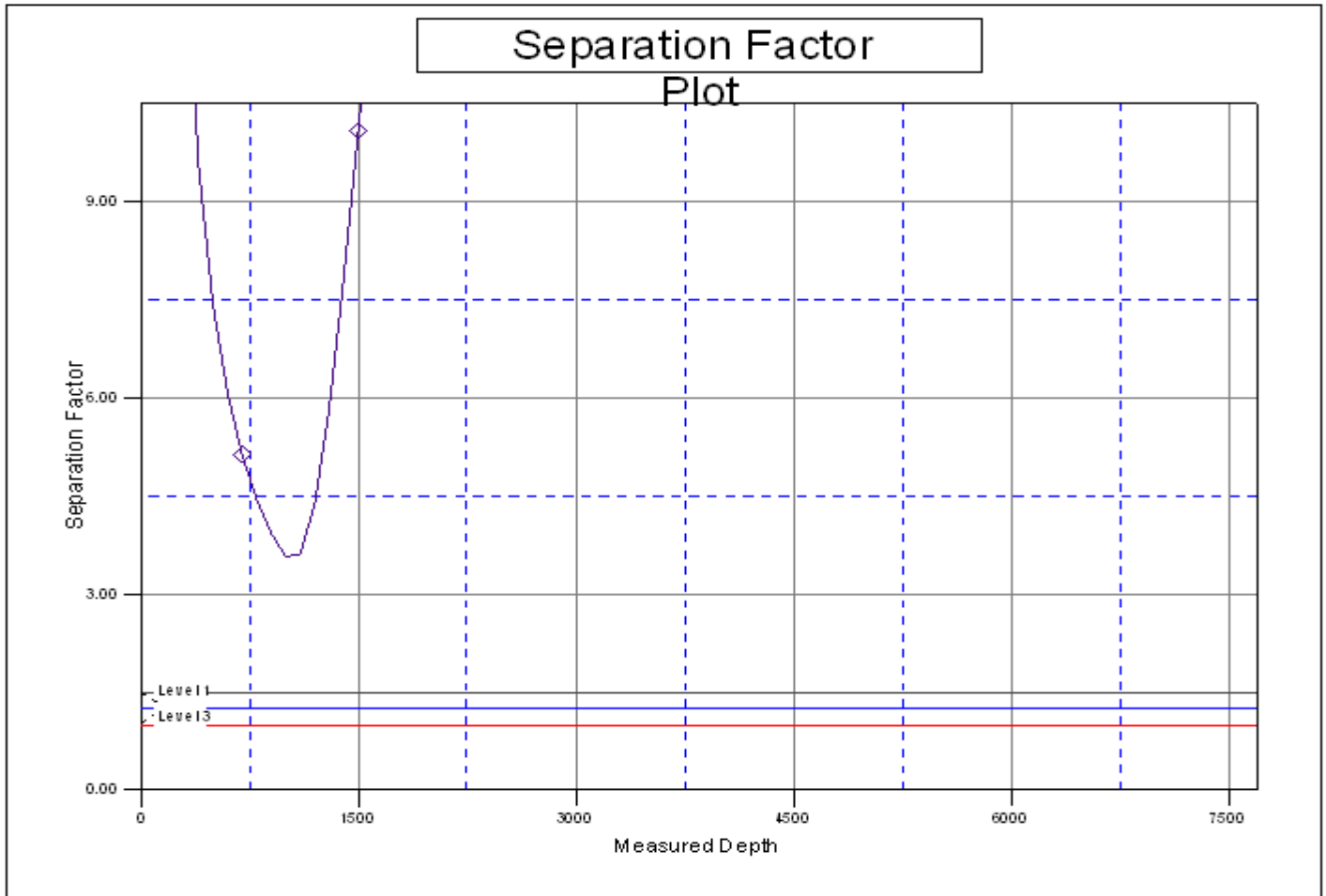


LEGEND

Heckman 9-20, Wellbore #1, Plan #1 (4-23-13) V0 Winter 8-29, Wellbore #1, Plan #1 (4-23-13) V0 Winter 1-29, Wellbore #1, Plan #1 (4-23-13) V0

Company:	Bayswater Exploration & Production, LLC	Local Co-ordinate Reference:	Well Heckman 16-20
Project:	SEC.29-T7N-R67W	TVD Reference:	WELL @ 4987.0ft (Original Well Elev)
Reference Site:	Heckman/Winter Pad Sec.29-T7N-R67W	MD Reference:	WELL @ 4987.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Heckman 16-20	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	Landmark
Reference Design:	Plan #1 (4-23-13)	Offset TVD Reference:	Offset Datum

Reference Depths are relative to WELL @ 4987.0ft (Original Well Elev) Coordinates are relative to: Heckman 16-20
 Offset Depths are relative to Offset Datum Coordinate System is US State Plane 1983, Colorado Northern Zone
 Central Meridian is -105.500000 ° Grid Convergence at Surface is: 0.38°



LEGEND

Heckman 9-20, Wellbore #1, Plan #1 (4-23-13) V0 — Winter 8-29, Wellbore #1, Plan #1 (4-23-13) V0 —◆— Winter 1-29, Wellbore #1, Plan #1 (4-23-13)