



Company: DJR Operating
Project: Gallo Canyon Unit
Site: M26 2306 Pad
Well: # 307H
Wellbore: Original Drilling
Design: APD

WELL DETAILS: # 307H

+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
0.00	0.00	1889193.51	2837649.22	36.19139300	-107.44509700

GL 6954' & RKB 14' @ 6968.00usft

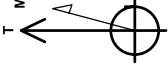
4

Plan: APD (# 307H/Original Drilling)

Created By: Janie Collins Date: 13:55, August 10 2020

PROJECT DETAILS: Gallo Canyon Unit

Geodetic System: US State Plane 1983
Datum: North American Datum 1983
Ellipsoid: GRS 1980
Zone: New Mexico Western Zone
System Datum: Mean Sea Level
Local North: True



Azimuths to True North
Magnetic North: 8.55°
Magnetic Field
Strength: 49201.1nT
Dip Angle: 62.78°
Date: 7/31/2020
Model: HDGM_FILE

CASING DETAILS

TVD	MD	Name
350.00	350.00	Surface
5071.56	5478.66	Intermediate

FORMATION DETAILS

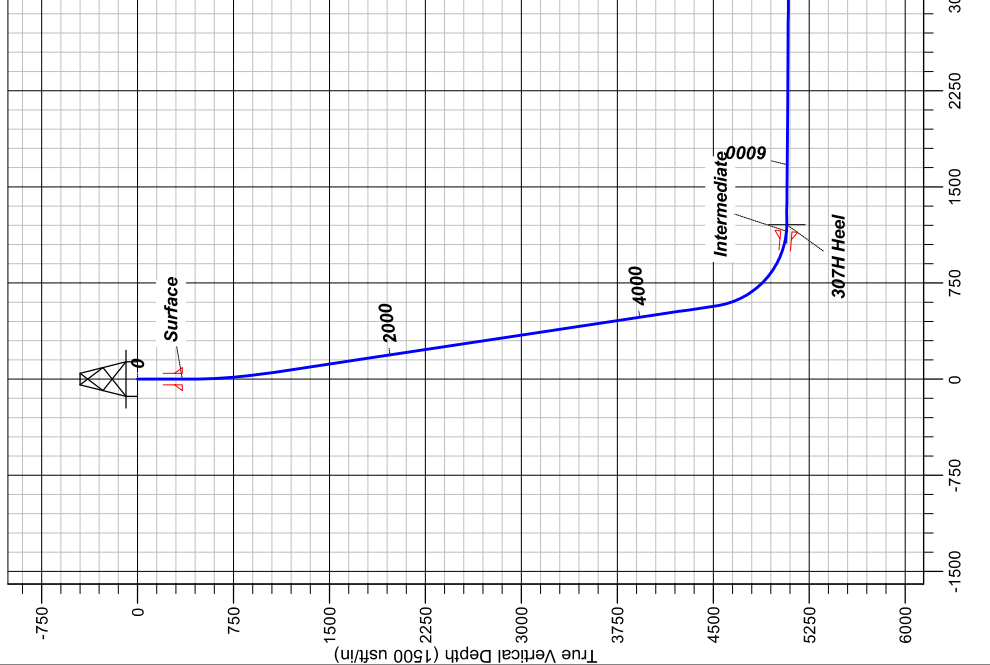
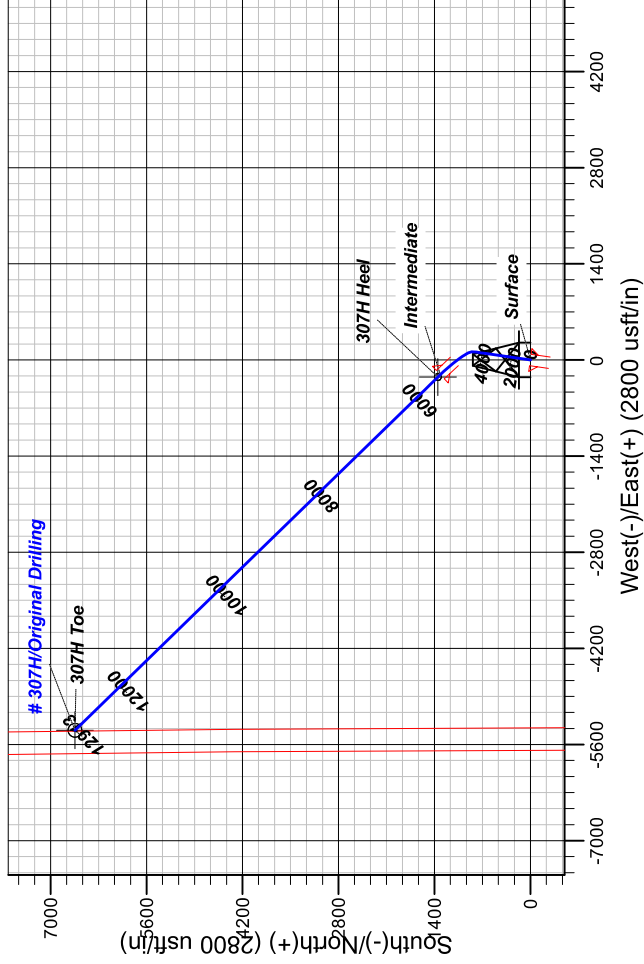
TVDPath	MDPath	Formation
1409.00	1423.33	Ojo Alamo
1514.00	1530.86	Kirtland
1725.00	1746.95	Fruitland
1947.00	1974.31	Pictured Cliffs
2050.00	2079.80	Lewis
2813.00	2861.20	Chacra
3481.00	3545.32	Menefee
4184.00	4285.28	Point Lookout
4379.00	4464.99	Mancos
4744.00	4849.24	Mancos Silt

DESIGN TARGET DETAILS

Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
307H Heel	5074.00	1350.04	-248.32	1890542.54	2837395.50	36.19510164	-107.44593860
307H Toe	5128.00	6844.69	-5393.02	1895816.57	2832229.66	36.20964500	-107.46337800

SECTION DETAILS

MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VSect	Target
0.00	0.00	0.000	0.00	0.00	0.00	0.00	0.00	0.00	
400.00	0.00	0.000	400.00	0.00	0.00	0.00	0.00	0.00	
1023.07	12.46	8.207	1018.16	68.90	-9.63	2.00	8.21	45.79	
1023.07	12.46	8.207	4023.07	170.16	-17.16	0.00	0.00	0.00	
5593.34	89.58	315.923	5073.40	1354.74	-248.32	0.00	-53.93	1202.72	307H Heel
12913.03	89.58	315.923	5128.00	6844.69	-5393.02	0.00	0.00	8557.84	307H Toe



Vertical Section at 320.936° (1500 usft/in)



DJR Operating

Gallo Canyon Unit

M26 2306 Pad

307H - Slot 4

Original Drilling

Plan: APD

Standard Planning Report

10 August, 2020



Database:	DJR	Local Co-ordinate Reference:	Well # 307H - Slot 4
Company:	DJR Operating	TVD Reference:	GL 6954' & RKB 14' @ 6968.00usft
Project:	Gallo Canyon Unit	MD Reference:	GL 6954' & RKB 14' @ 6968.00usft
Site:	M26 2306 Pad	North Reference:	True
Well:	# 307H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Original Drilling		
Design:	APD		

Project	Gallo Canyon Unit, Sandoval County, NM		
Map System:	US State Plane 1983	System Datum:	Mean Sea Level
Geo Datum:	North American Datum 1983		
Map Zone:	New Mexico Western Zone		

Site	M26 2306 Pad				
Site Position:		Northing:	1,889,165.63 usft	Latitude:	36.19131700
From:	Lat/Long	Easting:	2,837,595.93 usft	Longitude:	-107.44527800
Position Uncertainty:	0.00 usft	Slot Radius:	13.20 in	Grid Convergence:	0.23 °

Well	# 307H - Slot 4					
Well Position	+N/-S	27.67 usft	Northing:	1,889,193.51 usft	Latitude:	36.19139300
	+E/-W	53.41 usft	Easting:	2,837,649.23 usft	Longitude:	-107.44509700
Position Uncertainty		0.00 usft	Wellhead Elevation:		Ground Level:	6,954.00 usft

Wellbore	Original Drilling				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	HDGM_FILE	7/31/2020	8.55	62.78	49,201.10000000

Design	APD			
Audit Notes:				
Version:	Phase:	PLAN	Tie On Depth:	0.00
Vertical Section:	Depth From (TVD) (usft)	+N/-S (usft)	+E/-W (usft)	Direction (°)
	0.00	0.00	0.00	320.936

Plan Survey Tool Program	Date	8/10/2020		
Depth From (usft)	Depth To (usft)	Survey (Wellbore)	Tool Name	Remarks
1	0.00	12,913.03	APD (Original Drilling)	MWD+HDGM
				OWSG MWD + HDGM

Plan Sections										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)	TFO (°)	Target
0.00	0.00	0.000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
400.00	0.00	0.000	400.00	0.00	0.00	0.00	0.00	0.00	0.00	
1,023.07	12.46	8.207	1,018.16	66.80	9.63	2.00	2.00	0.00	8.21	
4,619.02	12.46	8.207	4,529.40	834.79	120.40	0.00	0.00	0.00	0.00	
5,530.34	89.58	315.823	5,074.00	1,350.04	-248.32	9.00	8.46	-5.75	-53.12	307H Heel
12,913.03	89.58	315.823	5,128.00	6,644.69	-5,393.02	0.00	0.00	0.00	0.00	307H Toe

Database:	DJR	Local Co-ordinate Reference:	Well # 307H - Slot 4
Company:	DJR Operating	TVD Reference:	GL 6954' & RKB 14' @ 6968.00usft
Project:	Gallo Canyon Unit	MD Reference:	GL 6954' & RKB 14' @ 6968.00usft
Site:	M26 2306 Pad	North Reference:	True
Well:	# 307H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Original Drilling		
Design:	APD		

Planned Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
0.00	0.00	0.000	0.00	0.00	0.00	0.00	0.00	0.00	0.00
100.00	0.00	0.000	100.00	0.00	0.00	0.00	0.00	0.00	0.00
200.00	0.00	0.000	200.00	0.00	0.00	0.00	0.00	0.00	0.00
300.00	0.00	0.000	300.00	0.00	0.00	0.00	0.00	0.00	0.00
400.00	0.00	0.000	400.00	0.00	0.00	0.00	0.00	0.00	0.00
500.00	2.00	8.207	499.98	1.73	0.25	1.18	2.00	2.00	0.00
600.00	4.00	8.207	599.84	6.91	1.00	4.74	2.00	2.00	0.00
700.00	6.00	8.207	699.45	15.53	2.24	10.65	2.00	2.00	0.00
800.00	8.00	8.207	798.70	27.59	3.98	18.92	2.00	2.00	0.00
900.00	10.00	8.207	897.47	43.08	6.21	29.53	2.00	2.00	0.00
1,000.00	12.00	8.207	995.62	61.96	8.94	42.48	2.00	2.00	0.00
1,023.07	12.46	8.207	1,018.16	66.80	9.63	45.79	2.00	2.00	0.00
1,100.00	12.46	8.207	1,093.29	83.23	12.00	57.06	0.00	0.00	0.00
1,200.00	12.46	8.207	1,190.93	104.59	15.08	71.70	0.00	0.00	0.00
1,300.00	12.46	8.207	1,288.58	125.94	18.16	86.34	0.00	0.00	0.00
1,400.00	12.46	8.207	1,386.22	147.30	21.24	100.98	0.00	0.00	0.00
1,500.00	12.46	8.207	1,483.86	168.66	24.32	115.62	0.00	0.00	0.00
1,600.00	12.46	8.207	1,581.51	190.01	27.41	130.27	0.00	0.00	0.00
1,700.00	12.46	8.207	1,679.15	211.37	30.49	144.91	0.00	0.00	0.00
1,800.00	12.46	8.207	1,776.80	232.73	33.57	159.55	0.00	0.00	0.00
1,900.00	12.46	8.207	1,874.44	254.09	36.65	174.19	0.00	0.00	0.00
2,000.00	12.46	8.207	1,972.08	275.44	39.73	188.83	0.00	0.00	0.00
2,100.00	12.46	8.207	2,069.73	296.80	42.81	203.47	0.00	0.00	0.00
2,200.00	12.46	8.207	2,167.37	318.16	45.89	218.11	0.00	0.00	0.00
2,300.00	12.46	8.207	2,265.02	339.51	48.97	232.76	0.00	0.00	0.00
2,400.00	12.46	8.207	2,362.66	360.87	52.05	247.40	0.00	0.00	0.00
2,500.00	12.46	8.207	2,460.31	382.23	55.13	262.04	0.00	0.00	0.00
2,600.00	12.46	8.207	2,557.95	403.58	58.21	276.68	0.00	0.00	0.00
2,700.00	12.46	8.207	2,655.59	424.94	61.29	291.32	0.00	0.00	0.00
2,800.00	12.46	8.207	2,753.24	446.30	64.37	305.96	0.00	0.00	0.00
2,900.00	12.46	8.207	2,850.88	467.66	67.45	320.60	0.00	0.00	0.00
3,000.00	12.46	8.207	2,948.53	489.01	70.53	335.25	0.00	0.00	0.00
3,100.00	12.46	8.207	3,046.17	510.37	73.61	349.89	0.00	0.00	0.00
3,200.00	12.46	8.207	3,143.82	531.73	76.69	364.53	0.00	0.00	0.00
3,300.00	12.46	8.207	3,241.46	553.08	79.77	379.17	0.00	0.00	0.00
3,400.00	12.46	8.207	3,339.10	574.44	82.85	393.81	0.00	0.00	0.00
3,500.00	12.46	8.207	3,436.75	595.80	85.93	408.45	0.00	0.00	0.00
3,600.00	12.46	8.207	3,534.39	617.16	89.01	423.09	0.00	0.00	0.00
3,700.00	12.46	8.207	3,632.04	638.51	92.09	437.74	0.00	0.00	0.00
3,800.00	12.46	8.207	3,729.68	659.87	95.17	452.38	0.00	0.00	0.00
3,900.00	12.46	8.207	3,827.32	681.23	98.25	467.02	0.00	0.00	0.00
4,000.00	12.46	8.207	3,924.97	702.58	101.33	481.66	0.00	0.00	0.00
4,100.00	12.46	8.207	4,022.61	723.94	104.41	496.30	0.00	0.00	0.00
4,200.00	12.46	8.207	4,120.26	745.30	107.49	510.94	0.00	0.00	0.00
4,300.00	12.46	8.207	4,217.90	766.66	110.57	525.58	0.00	0.00	0.00
4,400.00	12.46	8.207	4,315.55	788.01	113.65	540.23	0.00	0.00	0.00
4,500.00	12.46	8.207	4,413.19	809.37	116.73	554.87	0.00	0.00	0.00
4,600.00	12.46	8.207	4,510.83	830.73	119.81	569.51	0.00	0.00	0.00
4,619.02	12.46	8.207	4,529.40	834.79	120.40	572.29	0.00	0.00	0.00
4,700.00	17.80	348.822	4,607.60	855.61	119.24	589.19	9.00	6.59	-23.94
4,800.00	25.72	337.080	4,700.44	890.66	107.81	623.61	9.00	7.92	-11.74
4,900.00	34.15	330.718	4,787.04	935.22	85.58	672.22	9.00	8.43	-6.36
5,000.00	42.80	326.659	4,865.27	988.19	53.12	733.81	9.00	8.64	-4.06
5,100.00	51.54	323.749	4,933.20	1,048.27	11.21	806.86	9.00	8.75	-2.91

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Site:	M26 2306 Pad	North Reference:	True
Well:	# 307H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Original Drilling		
Design:	APD		

Planned Survey										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)	
5,200.00	60.34	321.476	4,989.15	1,113.97	-39.11	889.58	9.00	8.80	-2.27	
5,300.00	69.18	319.571	5,031.75	1,183.68	-96.60	979.94	9.00	8.83	-1.90	
5,400.00	78.03	317.879	5,059.96	1,255.68	-159.84	1,075.70	9.00	8.85	-1.69	
5,500.00	86.89	316.295	5,073.07	1,328.20	-227.28	1,174.51	9.00	8.86	-1.58	
5,530.34	89.58	315.823	5,074.00	1,350.04	-248.32	1,204.72	9.00	8.86	-1.56	
5,600.00	89.58	315.823	5,074.51	1,400.00	-296.87	1,274.10	0.00	0.00	0.00	
5,700.00	89.58	315.823	5,075.24	1,471.71	-366.55	1,373.70	0.00	0.00	0.00	
5,800.00	89.58	315.823	5,075.97	1,543.43	-436.24	1,473.30	0.00	0.00	0.00	
5,900.00	89.58	315.823	5,076.70	1,615.15	-505.93	1,572.90	0.00	0.00	0.00	
6,000.00	89.58	315.823	5,077.44	1,686.86	-575.61	1,672.50	0.00	0.00	0.00	
6,100.00	89.58	315.823	5,078.17	1,758.58	-645.30	1,772.10	0.00	0.00	0.00	
6,200.00	89.58	315.823	5,078.90	1,830.30	-714.98	1,871.70	0.00	0.00	0.00	
6,300.00	89.58	315.823	5,079.63	1,902.02	-784.67	1,971.30	0.00	0.00	0.00	
6,400.00	89.58	315.823	5,080.36	1,973.73	-854.36	2,070.90	0.00	0.00	0.00	
6,500.00	89.58	315.823	5,081.09	2,045.45	-924.04	2,170.50	0.00	0.00	0.00	
6,600.00	89.58	315.823	5,081.82	2,117.17	-993.73	2,270.10	0.00	0.00	0.00	
6,700.00	89.58	315.823	5,082.56	2,188.88	-1,063.41	2,369.70	0.00	0.00	0.00	
6,800.00	89.58	315.823	5,083.29	2,260.60	-1,133.10	2,469.29	0.00	0.00	0.00	
6,900.00	89.58	315.823	5,084.02	2,332.32	-1,202.79	2,568.89	0.00	0.00	0.00	
7,000.00	89.58	315.823	5,084.75	2,404.04	-1,272.47	2,668.49	0.00	0.00	0.00	
7,100.00	89.58	315.823	5,085.48	2,475.75	-1,342.16	2,768.09	0.00	0.00	0.00	
7,200.00	89.58	315.823	5,086.21	2,547.47	-1,411.84	2,867.69	0.00	0.00	0.00	
7,300.00	89.58	315.823	5,086.94	2,619.19	-1,481.53	2,967.29	0.00	0.00	0.00	
7,400.00	89.58	315.823	5,087.68	2,690.90	-1,551.22	3,066.89	0.00	0.00	0.00	
7,500.00	89.58	315.823	5,088.41	2,762.62	-1,620.90	3,166.49	0.00	0.00	0.00	
7,600.00	89.58	315.823	5,089.14	2,834.34	-1,690.59	3,266.09	0.00	0.00	0.00	
7,700.00	89.58	315.823	5,089.87	2,906.05	-1,760.27	3,365.69	0.00	0.00	0.00	
7,800.00	89.58	315.823	5,090.60	2,977.77	-1,829.96	3,465.29	0.00	0.00	0.00	
7,900.00	89.58	315.823	5,091.33	3,049.49	-1,899.65	3,564.89	0.00	0.00	0.00	
8,000.00	89.58	315.823	5,092.06	3,121.21	-1,969.33	3,664.49	0.00	0.00	0.00	
8,100.00	89.58	315.823	5,092.80	3,192.92	-2,039.02	3,764.09	0.00	0.00	0.00	
8,200.00	89.58	315.823	5,093.53	3,264.64	-2,108.70	3,863.69	0.00	0.00	0.00	
8,300.00	89.58	315.823	5,094.26	3,336.36	-2,178.39	3,963.29	0.00	0.00	0.00	
8,400.00	89.58	315.823	5,094.99	3,408.07	-2,248.08	4,062.88	0.00	0.00	0.00	
8,500.00	89.58	315.823	5,095.72	3,479.79	-2,317.76	4,162.48	0.00	0.00	0.00	
8,600.00	89.58	315.823	5,096.45	3,551.51	-2,387.45	4,262.08	0.00	0.00	0.00	
8,700.00	89.58	315.823	5,097.18	3,623.22	-2,457.13	4,361.68	0.00	0.00	0.00	
8,800.00	89.58	315.823	5,097.92	3,694.94	-2,526.82	4,461.28	0.00	0.00	0.00	
8,900.00	89.58	315.823	5,098.65	3,766.66	-2,596.50	4,560.88	0.00	0.00	0.00	
9,000.00	89.58	315.823	5,099.38	3,838.38	-2,666.19	4,660.48	0.00	0.00	0.00	
9,100.00	89.58	315.823	5,100.11	3,910.09	-2,735.88	4,760.08	0.00	0.00	0.00	
9,200.00	89.58	315.823	5,100.84	3,981.81	-2,805.56	4,859.68	0.00	0.00	0.00	
9,300.00	89.58	315.823	5,101.57	4,053.53	-2,875.25	4,959.28	0.00	0.00	0.00	
9,400.00	89.58	315.823	5,102.30	4,125.24	-2,944.93	5,058.88	0.00	0.00	0.00	
9,500.00	89.58	315.823	5,103.04	4,196.96	-3,014.62	5,158.48	0.00	0.00	0.00	
9,600.00	89.58	315.823	5,103.77	4,268.68	-3,084.31	5,258.08	0.00	0.00	0.00	
9,700.00	89.58	315.823	5,104.50	4,340.39	-3,153.99	5,357.68	0.00	0.00	0.00	
9,800.00	89.58	315.823	5,105.23	4,412.11	-3,223.68	5,457.28	0.00	0.00	0.00	
9,900.00	89.58	315.823	5,105.96	4,483.83	-3,293.36	5,556.88	0.00	0.00	0.00	
10,000.00	89.58	315.823	5,106.69	4,555.55	-3,363.05	5,656.47	0.00	0.00	0.00	
10,100.00	89.58	315.823	5,107.42	4,627.26	-3,432.74	5,756.07	0.00	0.00	0.00	
10,200.00	89.58	315.823	5,108.16	4,698.98	-3,502.42	5,855.67	0.00	0.00	0.00	
10,300.00	89.58	315.823	5,108.89	4,770.70	-3,572.11	5,955.27	0.00	0.00	0.00	
10,400.00	89.58	315.823	5,109.62	4,842.41	-3,641.79	6,054.87	0.00	0.00	0.00	

Database:	DJR	Local Co-ordinate Reference:	Well # 307H - Slot 4
Company:	DJR Operating	TVD Reference:	GL 6954' & RKB 14' @ 6968.00usft
Project:	Gallo Canyon Unit	MD Reference:	GL 6954' & RKB 14' @ 6968.00usft
Site:	M26 2306 Pad	North Reference:	True
Well:	# 307H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Original Drilling		
Design:	APD		

Planned Survey										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)	
10,500.00	89.58	315.823	5,110.35	4,914.13	-3,711.48	6,154.47	0.00	0.00	0.00	
10,600.00	89.58	315.823	5,111.08	4,985.85	-3,781.17	6,254.07	0.00	0.00	0.00	
10,700.00	89.58	315.823	5,111.81	5,057.57	-3,850.85	6,353.67	0.00	0.00	0.00	
10,800.00	89.58	315.823	5,112.54	5,129.28	-3,920.54	6,453.27	0.00	0.00	0.00	
10,900.00	89.58	315.823	5,113.28	5,201.00	-3,990.22	6,552.87	0.00	0.00	0.00	
11,000.00	89.58	315.823	5,114.01	5,272.72	-4,059.91	6,652.47	0.00	0.00	0.00	
11,100.00	89.58	315.823	5,114.74	5,344.43	-4,129.60	6,752.07	0.00	0.00	0.00	
11,200.00	89.58	315.823	5,115.47	5,416.15	-4,199.28	6,851.67	0.00	0.00	0.00	
11,300.00	89.58	315.823	5,116.20	5,487.87	-4,268.97	6,951.27	0.00	0.00	0.00	
11,400.00	89.58	315.823	5,116.93	5,559.58	-4,338.65	7,050.87	0.00	0.00	0.00	
11,500.00	89.58	315.823	5,117.66	5,631.30	-4,408.34	7,150.47	0.00	0.00	0.00	
11,600.00	89.58	315.823	5,118.40	5,703.02	-4,478.03	7,250.07	0.00	0.00	0.00	
11,700.00	89.58	315.823	5,119.13	5,774.74	-4,547.71	7,349.66	0.00	0.00	0.00	
11,800.00	89.58	315.823	5,119.86	5,846.45	-4,617.40	7,449.26	0.00	0.00	0.00	
11,900.00	89.58	315.823	5,120.59	5,918.17	-4,687.08	7,548.86	0.00	0.00	0.00	
12,000.00	89.58	315.823	5,121.32	5,989.89	-4,756.77	7,648.46	0.00	0.00	0.00	
12,100.00	89.58	315.823	5,122.05	6,061.60	-4,826.46	7,748.06	0.00	0.00	0.00	
12,200.00	89.58	315.823	5,122.78	6,133.32	-4,896.14	7,847.66	0.00	0.00	0.00	
12,300.00	89.58	315.823	5,123.52	6,205.04	-4,965.83	7,947.26	0.00	0.00	0.00	
12,400.00	89.58	315.823	5,124.25	6,276.75	-5,035.51	8,046.86	0.00	0.00	0.00	
12,500.00	89.58	315.823	5,124.98	6,348.47	-5,105.20	8,146.46	0.00	0.00	0.00	
12,600.00	89.58	315.823	5,125.71	6,420.19	-5,174.89	8,246.06	0.00	0.00	0.00	
12,700.00	89.58	315.823	5,126.44	6,491.91	-5,244.57	8,345.66	0.00	0.00	0.00	
12,800.00	89.58	315.823	5,127.17	6,563.62	-5,314.26	8,445.26	0.00	0.00	0.00	
12,900.00	89.58	315.823	5,127.90	6,635.34	-5,383.94	8,544.86	0.00	0.00	0.00	
12,913.03	89.58	315.823	5,128.00	6,644.69	-5,393.02	8,557.84	0.00	0.00	0.00	

Design Targets									
Target Name	Dip Angle (°)	Dip Dir. (°)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude	Longitude
- hit/miss target									
- Shape									
307H Heel	0.00	0.000	5,074.00	1,350.04	-248.32	1,890,542.54	2,837,395.50	36.19510164	-107.44593860
- plan hits target center									
- Circle (radius 50.00)									
307H Toe	0.00	0.000	5,128.00	6,644.69	-5,393.02	1,895,816.57	2,832,229.66	36.20964500	-107.46337800
- plan hits target center									
- Circle (radius 100.00)									

Casing Points					
Measured Depth (usft)	Vertical Depth (usft)	Name	Casing Diameter (in)	Hole Diameter (in)	
350.00	350.00	Surface	9.62	12.25	
5,478.66	5,071.56	Intermediate	7.00	8.75	

Database:	DJR	Local Co-ordinate Reference:	Well # 307H - Slot 4
Company:	DJR Operating	TVD Reference:	GL 6954' & RKB 14' @ 6968.00usft
Project:	Gallo Canyon Unit	MD Reference:	GL 6954' & RKB 14' @ 6968.00usft
Site:	M26 2306 Pad	North Reference:	True
Well:	# 307H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Original Drilling		
Design:	APD		

Formations						
Measured Depth (usft)	Vertical Depth (usft)	Name	Lithology	Dip (°)	Dip Direction (°)	
1,423.33	1,409.00	Ojo Alamo		0.00	0.000	
1,530.86	1,514.00	Kirtland		0.00	0.000	
1,746.95	1,725.00	Fruitland		0.00	0.000	
1,974.31	1,947.00	Pictured Cliffs		0.00	0.000	
2,079.80	2,050.00	Lewis		0.00	0.000	
2,861.20	2,813.00	Chacra		0.00	0.000	
3,545.32	3,481.00	Menefee		0.00	0.000	
4,265.28	4,184.00	Point Lookout		0.00	0.000	
4,464.99	4,379.00	Mancos		0.00	0.000	
4,849.24	4,744.00	Mancos Silt		0.00	0.000	



DJR Operating

Gallo Canyon Unit

M26 2306 Pad

307H

Original Drilling

APD

Anticollision Report

10 August, 2020



Company:	DJR Operating	Local Co-ordinate Reference:	Well # 307H - Slot 4
Project:	Gallo Canyon Unit	TVD Reference:	GL 6954' & RKB 14' @ 6968.00usft
Reference Site:	M26 2306 Pad	MD Reference:	GL 6954' & RKB 14' @ 6968.00usft
Site Error:	0.00 usft	North Reference:	True
Reference Well:	# 307H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	Original Drilling	Database:	DJR
Reference Design:	APD	Offset TVD Reference:	Offset Datum

Reference	APD		
Filter type:	NO GLOBAL FILTER: Using user defined selection & filtering criteria		
Interpolation Method:	Stations	Error Model:	ISCWSA
Depth Range:	Unlimited	Scan Method:	Closest Approach 3D
Results Limited by:	Maximum ellipse separation of 1,000.00 usft	Error Surface:	Pedal Curve
Warning Levels Evaluated at:	2.00 Sigma	Casing Method:	Not applied

Survey Tool Program		Date	8/10/2020		
From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description	
0.00	12,913.03	APD (Original Drilling)	MWD+HDGM	OWSG MWD + HDGM	

Summary						
Site Name	Reference Measured Depth (usft)	Offset Measured Depth (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Separation Factor	Warning
Offset Well - Wellbore - Design						
M26 2306 Pad						
# 303H - Original Drilling - APD	661.83	661.88	31.71	27.42	7.388	CC, ES
# 303H - Original Drilling - APD	11,600.00	12,302.73	1,336.33	972.22	3.670	SF
# 304H - Original Drilling - APD	400.00	400.00	20.17	17.71	8.202	CC, ES
# 304H - Original Drilling - APD	500.00	499.49	22.32	19.16	7.065	SF
# 305H - Original Drilling - APD	550.21	551.42	39.75	36.21	11.233	CC
# 305H - Original Drilling - APD	600.00	601.21	40.01	36.12	10.271	ES
# 305H - Original Drilling - APD	12,300.00	12,926.74	777.09	435.12	2.272	SF
# 308H - Original Drilling - APD Rev 1	400.00	400.00	60.15	57.69	24.460	CC, ES
# 308H - Original Drilling - APD Rev 1	10,700.00	10,525.38	2,620.80	2,322.29	8.780	SF
# 309H - Original Drilling - APD	400.00	400.00	19.82	17.36	8.058	CC
# 309H - Original Drilling - APD	1,023.07	1,020.40	21.44	14.41	3.048	ES
# 309H - Original Drilling - APD	1,100.00	1,096.99	22.44	14.80	2.937	SF

Offset Design		M26 2306 Pad - # 303H - Original Drilling - APD											Offset Site Error:	0.00 usft
Survey Program:		0-MWD+HDGM											Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
0.00	0.00	0.00	0.00	0.00	0.00	62.13	18.57	35.11	39.72					
100.00	100.00	100.00	100.00	0.15	0.15	62.13	18.57	35.11	39.72	39.41	0.31	128.841		
200.00	200.00	200.00	200.00	0.51	0.51	62.13	18.57	35.11	39.72	38.69	1.03	38.742		
300.00	300.00	300.00	300.00	0.87	0.87	62.13	18.57	35.11	39.72	37.98	1.74	22.799		
400.00	400.00	400.00	400.00	1.23	1.23	62.13	18.57	35.11	39.72	37.26	2.46	16.152		
500.00	499.98	500.74	500.72	1.59	1.57	58.24	16.82	34.80	37.71	34.55	3.16	11.926		
600.00	599.84	600.73	600.57	1.95	1.91	73.72	11.64	33.88	33.23	29.38	3.86	8.618		
661.83	661.47	661.88	661.51	2.18	2.13	90.95	6.79	33.02	31.71	27.42	4.29	7.388	CC, ES	
700.00	699.45	699.28	698.73	2.32	2.26	103.86	3.19	32.38	32.57	28.01	4.56	7.139		
800.00	798.70	795.69	794.43	2.68	2.60	134.68	-8.30	30.33	44.73	39.45	5.28	8.474		
900.00	897.47	891.04	888.81	3.06	2.96	152.29	-21.68	27.95	68.85	62.87	5.98	11.511		
1,000.00	995.62	985.46	982.26	3.46	3.33	161.14	-34.97	25.58	99.25	92.58	6.68	14.863		
1,023.07	1,018.16	1,007.07	1,003.65	3.55	3.41	162.54	-38.01	25.04	106.93	100.08	6.84	15.621		
1,100.00	1,093.29	1,079.05	1,074.89	3.88	3.70	166.18	-48.14	23.23	133.13	125.76	7.37	18.067		
1,200.00	1,190.93	1,172.61	1,167.48	4.30	4.07	169.21	-61.31	20.89	167.65	159.60	8.05	20.817		
1,300.00	1,288.58	1,266.16	1,260.08	4.73	4.44	171.21	-74.49	18.54	202.44	193.70	8.74	23.155		



Lonestar Consulting, LLC
Anticollision Report



Company:	DJR Operating	Local Co-ordinate Reference:	Well # 307H - Slot 4
Project:	Gallo Canyon Unit	TVD Reference:	GL 6954' & RKB 14' @ 6968.00usft
Reference Site:	M26 2306 Pad	MD Reference:	GL 6954' & RKB 14' @ 6968.00usft
Site Error:	0.00 usft	North Reference:	True
Reference Well:	# 307H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	Original Drilling	Database:	DJR
Reference Design:	APD	Offset TVD Reference:	Offset Datum

Offset Design M26 2306 Pad - # 303H - Original Drilling - APD													Offset Site Error:	0.00 usft
Survey Program: 0-MWD+HDGM													Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
1,400.00	1,386.22	1,359.72	1,352.67	5.17	4.82	172.63	-87.66	16.20	237.39	227.96	9.44	25.157		
1,500.00	1,483.86	1,453.28	1,445.27	5.61	5.19	173.68	-100.83	13.85	272.43	262.30	10.13	26.887		
1,600.00	1,581.51	1,546.83	1,537.86	6.05	5.57	174.49	-114.00	11.50	307.54	296.71	10.83	28.393		
1,700.00	1,679.15	1,640.39	1,630.46	6.50	5.95	175.13	-127.17	9.16	342.69	331.15	11.53	29.715		
1,800.00	1,776.80	1,733.95	1,723.06	6.95	6.34	175.66	-140.34	6.81	377.86	365.63	12.23	30.884		
1,900.00	1,874.44	1,827.51	1,815.65	7.40	6.72	176.09	-153.51	4.47	413.07	400.13	12.94	31.924		
2,000.00	1,972.08	1,921.06	1,908.25	7.85	7.10	176.46	-166.68	2.12	448.28	434.64	13.64	32.854		
2,100.00	2,069.73	2,014.62	2,000.84	8.30	7.48	176.78	-179.85	-0.22	483.52	469.17	14.35	33.692		
2,200.00	2,167.37	2,108.18	2,093.44	8.75	7.87	177.05	-193.02	-2.57	518.76	503.70	15.06	34.450		
2,300.00	2,265.02	2,201.73	2,186.03	9.21	8.25	177.28	-206.19	-4.91	554.01	538.25	15.77	35.138		
2,400.00	2,362.66	2,295.29	2,278.63	9.66	8.64	177.49	-219.36	-7.26	589.28	572.80	16.48	35.766		
2,500.00	2,460.31	2,388.85	2,371.23	10.12	9.02	177.68	-232.53	-9.61	624.54	607.36	17.19	36.341		
2,600.00	2,557.95	2,482.41	2,463.82	10.57	9.41	177.84	-245.70	-11.95	659.81	641.92	17.90	36.870		
2,700.00	2,655.59	2,575.96	2,556.42	11.03	9.79	177.99	-258.87	-14.30	695.09	676.48	18.61	37.357		
2,800.00	2,753.24	2,669.52	2,649.01	11.48	10.18	178.12	-272.04	-16.64	730.37	711.05	19.32	37.808		
2,900.00	2,850.88	2,763.08	2,741.61	11.94	10.56	178.25	-285.21	-18.99	765.65	745.62	20.03	38.226		
3,000.00	2,948.53	2,856.63	2,834.20	12.40	10.95	178.36	-298.38	-21.33	800.94	780.19	20.74	38.615		
3,100.00	3,046.17	2,950.19	2,926.80	12.86	11.34	178.46	-311.55	-23.68	836.22	814.77	21.45	38.978		
3,200.00	3,143.82	3,043.75	3,019.40	13.31	11.72	178.55	-324.72	-26.02	871.51	849.35	22.17	39.316		
3,300.00	3,241.46	3,137.30	3,111.99	13.77	12.11	178.64	-337.89	-28.37	906.80	883.93	22.88	39.634		
3,400.00	3,339.10	3,230.86	3,204.59	14.23	12.49	178.72	-351.06	-30.72	942.10	918.51	23.59	39.931		
3,500.00	3,436.75	3,324.42	3,297.18	14.69	12.88	178.79	-364.23	-33.06	977.39	953.09	24.31	40.211		
3,600.00	3,534.39	3,417.98	3,389.78	15.15	13.27	178.86	-377.40	-35.41	1,012.69	987.67	25.02	40.474		
3,700.00	3,632.04	3,511.53	3,482.38	15.60	13.65	178.93	-390.57	-37.75	1,047.99	1,022.25	25.73	40.723		
3,800.00	3,729.68	3,605.09	3,574.97	16.06	14.04	178.99	-403.74	-40.10	1,083.29	1,056.84	26.45	40.957		
3,900.00	3,827.32	3,698.65	3,667.57	16.52	14.43	179.04	-416.91	-42.44	1,118.58	1,091.42	27.16	41.179		
4,000.00	3,924.97	3,792.20	3,760.16	16.98	14.82	179.09	-430.08	-44.79	1,153.88	1,126.01	27.88	41.390		
4,100.00	4,022.61	3,885.76	3,852.76	17.44	15.20	179.14	-443.25	-47.14	1,189.19	1,160.59	28.59	41.589		
4,200.00	4,120.26	3,979.32	3,945.35	17.90	15.59	179.19	-456.42	-49.48	1,224.49	1,195.18	29.31	41.779		
4,300.00	4,217.90	4,072.88	4,037.95	18.36	15.98	179.23	-469.60	-51.83	1,259.79	1,229.77	30.02	41.959		
4,400.00	4,315.55	4,166.43	4,130.55	18.82	16.36	179.28	-482.77	-54.17	1,295.09	1,264.35	30.74	42.131		
4,500.00	4,413.19	4,263.60	4,226.60	19.28	16.74	179.32	-495.94	-56.51	1,330.39	1,294.00	31.45	42.303		
4,600.00	4,510.83	4,360.76	4,322.76	19.74	17.12	179.36	-509.11	-58.85	1,365.69	1,323.24	32.16	42.475		
4,619.02	4,529.40	4,379.33	4,340.33	19.82	17.20	179.37	-510.77	-59.11	1,369.89	1,327.28	32.31	42.500		
4,650.00	4,559.55	4,409.48	4,369.48	19.97	17.35	179.38	-513.94	-60.38	1,374.09	1,331.48	32.46	42.525		
4,700.00	4,607.60	4,457.53	4,417.53	20.22	17.60	179.40	-517.11	-61.65	1,388.29	1,345.68	32.61	42.550		
4,750.00	4,654.66	4,504.59	4,464.59	20.48	17.86	179.41	-520.28	-62.92	1,402.49	1,359.88	32.76	42.575		
4,800.00	4,700.44	4,550.76	4,510.76	20.76	18.12	179.42	-523.45	-64.19	1,416.69	1,374.08	32.91	42.600		
4,850.00	4,744.66	4,594.93	4,554.93	21.05	18.37	179.43	-526.62	-65.46	1,430.89	1,388.28	33.06	42.625		
4,900.00	4,787.04	4,639.10	4,599.10	21.35	18.62	179.44	-529.79	-66.73	1,445.09	1,402.48	33.21	42.650		
4,950.00	4,827.33	4,683.27	4,643.27	21.67	18.87	179.45	-532.96	-68.00	1,459.29	1,416.68	33.36	42.675		
4,961.55	4,836.31	4,692.25	4,652.25	21.75	18.95	179.46	-534.52	-68.33	1,463.49	1,420.88	33.41	42.680		
5,000.00	4,865.27	4,711.23	4,671.23	22.01	19.21	179.47	-537.69	-69.60	1,477.69	1,435.08	33.56	42.700		
5,050.00	4,900.63	4,746.59	4,706.59	22.37	19.57	179.48	-540.86	-70.87	1,491.89	1,449.28	33.71	42.725		
5,100.00	4,933.20	4,779.16	4,739.16	22.75	19.95	179.49	-544.03	-72.14	1,506.09	1,463.48	33.86	42.750		
5,150.00	4,962.76	4,811.73	4,771.73	23.17	20.37	179.50	-547.20	-73.41	1,520.29	1,477.68	34.01	42.775		
5,200.00	4,989.15	4,844.30	4,804.30	23.61	20.79	179.51	-550.37	-74.68	1,534.49	1,491.88	34.16	42.800		
5,250.00	5,012.20	4,876.87	4,836.87	24.10	21.20	179.52	-553.54	-75.95	1,548.69	1,506.08	34.31	42.825		
5,300.00	5,031.75	4,909.44	4,869.44	24.63	21.62	179.53	-556.71	-77.22	1,562.89	1,520.28	34.46	42.850		
5,350.00	5,047.71	4,941.01	4,901.01	25.21	22.10	179.54	-559.88	-78.49	1,577.09	1,534.48	34.61	42.875		
5,400.00	5,059.96	4,972.58	4,932.58	25.83	22.72	179.55	-563.05	-80.00	1,591.29	1,548.68	34.76	42.900		
5,450.00	5,068.43	4,981.05	4,941.05	26.50	23.39	179.56	-566.22	-81.27	1,605.49	1,562.88	34.91	42.925		

Company:	DJR Operating	Local Co-ordinate Reference:	Well # 307H - Slot 4
Project:	Gallo Canyon Unit	TVD Reference:	GL 6954' & RKB 14' @ 6968.00usft
Reference Site:	M26 2306 Pad	MD Reference:	GL 6954' & RKB 14' @ 6968.00usft
Site Error:	0.00 usft	North Reference:	True
Reference Well:	# 307H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	Original Drilling	Database:	DJR
Reference Design:	APD	Offset TVD Reference:	Offset Datum

Offset Design M26 2306 Pad - # 303H - Original Drilling - APD													Offset Site Error: 0.00 usft
Survey Program: 0-MWD+HDGM													Offset Well Error: 0.00 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
5,500.00	5,073.07	6,257.53	5,063.19	27.20	38.17	-89.61	437.06	-1,123.32	1,263.77	1,199.84	63.93	19.769	
5,530.34	5,074.00	6,287.85	5,063.35	27.65	38.86	-89.52	458.56	-1,144.70	1,264.25	1,199.15	65.10	19.420	
5,600.00	5,074.51	6,357.51	5,063.71	28.73	40.45	-89.52	507.94	-1,193.82	1,265.07	1,197.21	67.86	18.642	
5,700.00	5,075.24	6,457.50	5,064.24	30.41	42.77	-89.51	578.84	-1,264.34	1,266.24	1,194.27	71.96	17.595	
5,800.00	5,075.97	6,557.49	5,064.76	32.21	45.11	-89.50	649.73	-1,334.85	1,267.41	1,191.20	76.21	16.631	
5,900.00	5,076.70	6,657.49	5,065.29	34.11	47.48	-89.49	720.63	-1,405.36	1,268.57	1,188.01	80.57	15.746	
6,000.00	5,077.44	6,757.48	5,065.82	36.11	49.87	-89.48	791.52	-1,475.88	1,269.74	1,184.72	85.02	14.934	
6,100.00	5,078.17	6,857.47	5,066.34	38.17	52.28	-89.47	862.42	-1,546.39	1,270.91	1,181.35	89.56	14.191	
6,200.00	5,078.90	6,957.46	5,066.87	40.30	54.71	-89.46	933.31	-1,616.91	1,272.08	1,177.91	94.17	13.509	
6,300.00	5,079.63	7,057.46	5,067.40	42.47	57.15	-89.45	1,004.21	-1,687.42	1,273.25	1,174.42	98.83	12.883	
6,400.00	5,080.36	7,157.45	5,067.92	44.69	59.60	-89.45	1,075.10	-1,757.93	1,274.42	1,170.87	103.55	12.307	
6,500.00	5,081.09	7,257.44	5,068.45	46.95	62.07	-89.44	1,146.00	-1,828.45	1,275.59	1,167.28	108.31	11.777	
6,600.00	5,081.82	7,357.44	5,068.97	49.24	64.54	-89.43	1,216.89	-1,898.96	1,276.75	1,163.65	113.11	11.288	
6,700.00	5,082.56	7,457.43	5,069.50	51.56	67.02	-89.42	1,287.79	-1,969.48	1,277.92	1,159.99	117.94	10.836	
6,800.00	5,083.29	7,557.42	5,070.03	53.90	69.51	-89.41	1,358.68	-2,039.99	1,279.09	1,156.30	122.80	10.416	
6,900.00	5,084.02	7,657.42	5,070.55	56.26	72.01	-89.40	1,429.58	-2,110.50	1,280.26	1,152.58	127.68	10.027	
7,000.00	5,084.75	7,757.41	5,071.08	58.64	74.51	-89.39	1,500.47	-2,181.02	1,281.43	1,148.85	132.58	9.665	
7,100.00	5,085.48	7,857.40	5,071.61	61.04	77.02	-89.38	1,571.37	-2,251.53	1,282.60	1,145.09	137.51	9.327	
7,200.00	5,086.21	7,957.39	5,072.13	63.45	79.53	-89.38	1,642.26	-2,322.05	1,283.77	1,141.32	142.45	9.012	
7,300.00	5,086.94	8,057.39	5,072.66	65.87	82.05	-89.37	1,713.16	-2,392.56	1,284.94	1,137.53	147.41	8.717	
7,400.00	5,087.68	8,157.38	5,073.18	68.31	84.57	-89.36	1,784.05	-2,463.07	1,286.11	1,133.72	152.38	8.440	
7,500.00	5,088.41	8,257.37	5,073.71	70.75	87.10	-89.35	1,854.95	-2,533.59	1,287.27	1,129.91	157.37	8.180	
7,600.00	5,089.14	8,357.37	5,074.24	73.21	89.63	-89.34	1,925.84	-2,604.10	1,288.44	1,126.08	162.36	7.935	
7,700.00	5,089.87	8,457.36	5,074.76	75.67	92.16	-89.33	1,996.74	-2,674.61	1,289.61	1,122.24	167.37	7.705	
7,800.00	5,090.60	8,557.35	5,075.29	78.14	94.70	-89.33	2,067.63	-2,745.13	1,290.78	1,118.39	172.39	7.488	
7,900.00	5,091.33	8,657.35	5,075.82	80.61	97.24	-89.32	2,138.53	-2,815.64	1,291.95	1,114.54	177.41	7.282	
8,000.00	5,092.06	8,757.34	5,076.34	83.09	99.78	-89.31	2,209.42	-2,886.16	1,293.12	1,110.68	182.44	7.088	
8,100.00	5,092.80	8,857.33	5,076.87	85.58	102.32	-89.30	2,280.32	-2,956.67	1,294.29	1,106.81	187.48	6.903	
8,200.00	5,093.53	8,957.32	5,077.39	88.07	104.87	-89.29	2,351.21	-3,027.18	1,295.46	1,102.93	192.53	6.729	
8,300.00	5,094.26	9,057.32	5,077.92	90.57	107.41	-89.28	2,422.11	-3,097.70	1,296.63	1,099.05	197.58	6.562	
8,400.00	5,094.99	9,157.31	5,078.45	93.07	109.96	-89.27	2,493.00	-3,168.21	1,297.80	1,095.16	202.64	6.404	
8,500.00	5,095.72	9,257.30	5,078.97	95.57	112.52	-89.27	2,563.90	-3,238.73	1,298.97	1,091.26	207.70	6.254	
8,600.00	5,096.45	9,357.30	5,079.50	98.08	115.07	-89.26	2,634.79	-3,309.24	1,300.14	1,087.36	212.77	6.110	
8,700.00	5,097.18	9,457.29	5,080.03	100.59	117.62	-89.25	2,705.69	-3,379.75	1,301.31	1,083.46	217.84	5.974	
8,800.00	5,097.92	9,557.28	5,080.55	103.11	120.18	-89.24	2,776.58	-3,450.27	1,302.47	1,079.55	222.92	5.843	
8,900.00	5,098.65	9,657.28	5,081.08	105.63	122.74	-89.23	2,847.48	-3,520.78	1,303.64	1,075.64	228.00	5.718	
9,000.00	5,099.38	9,757.27	5,081.60	108.15	125.30	-89.22	2,918.37	-3,591.30	1,304.81	1,071.73	233.08	5.598	
9,100.00	5,100.11	9,857.26	5,082.13	110.67	127.86	-89.22	2,989.27	-3,661.81	1,305.98	1,067.81	238.17	5.483	
9,200.00	5,100.84	9,957.25	5,082.66	113.19	130.42	-89.21	3,060.16	-3,732.32	1,307.15	1,063.89	243.26	5.373	
9,300.00	5,101.57	10,057.25	5,083.18	115.72	132.98	-89.20	3,131.06	-3,802.84	1,308.32	1,059.97	248.35	5.268	
9,400.00	5,102.30	10,157.24	5,083.71	118.25	135.54	-89.19	3,201.95	-3,873.35	1,309.49	1,056.04	253.45	5.167	
9,500.00	5,103.04	10,257.23	5,084.24	120.78	138.11	-89.18	3,272.85	-3,943.87	1,310.66	1,052.11	258.55	5.069	
9,600.00	5,103.77	10,357.23	5,084.76	123.31	140.67	-89.17	3,343.74	-4,014.38	1,311.83	1,048.18	263.65	4.976	
9,700.00	5,104.50	10,457.22	5,085.29	125.85	143.24	-89.17	3,414.64	-4,084.89	1,313.00	1,044.25	268.75	4.886	
9,800.00	5,105.23	10,557.21	5,085.81	128.38	145.80	-89.16	3,485.53	-4,155.41	1,314.17	1,040.31	273.86	4.799	
9,900.00	5,105.96	10,657.20	5,086.34	130.92	148.37	-89.15	3,556.43	-4,225.92	1,315.34	1,036.37	278.97	4.715	
10,000.00	5,106.69	10,757.20	5,086.87	133.46	150.94	-89.14	3,627.32	-4,296.44	1,316.51	1,032.43	284.08	4.634	
10,100.00	5,107.42	10,857.19	5,087.39	136.00	153.51	-89.13	3,698.22	-4,366.95	1,317.68	1,028.49	289.19	4.556	
10,200.00	5,108.16	10,957.18	5,087.92	138.54	156.08	-89.13	3,769.11	-4,437.46	1,318.85	1,024.55	294.30	4.481	
10,300.00	5,108.89	11,057.18	5,088.45	141.08	158.65	-89.12	3,840.01	-4,507.98	1,320.02	1,020.60	299.41	4.409	
10,400.00	5,109.62	11,157.17	5,088.97	143.63	161.22	-89.11	3,910.90	-4,578.49	1,321.19	1,016.66	304.53	4.338	
10,500.00	5,110.35	11,257.16	5,089.50	146.17	163.79	-89.10	3,981.80	-4,649.01	1,322.36	1,012.71	309.65	4.271	



Lonestar Consulting, LLC
Anticollision Report



Company:	DJR Operating	Local Co-ordinate Reference:	Well # 307H - Slot 4
Project:	Gallo Canyon Unit	TVD Reference:	GL 6954' & RKB 14' @ 6968.00usft
Reference Site:	M26 2306 Pad	MD Reference:	GL 6954' & RKB 14' @ 6968.00usft
Site Error:	0.00 usft	North Reference:	True
Reference Well:	# 307H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	Original Drilling	Database:	DJR
Reference Design:	APD	Offset TVD Reference:	Offset Datum

Offset Design M26 2306 Pad - # 303H - Original Drilling - APD													Offset Site Error:	0.00 usft
Survey Program: 0-MWD+HDGM													Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
10,600.00	5,111.08	11,357.16	5,090.02	148.72	166.36	-89.09	4,052.69	-4,719.52	1,323.53	1,008.76	314.77	4.205		
10,700.00	5,111.81	11,457.15	5,090.55	151.27	168.93	-89.09	4,123.59	-4,790.03	1,324.70	1,004.81	319.89	4.141		
10,800.00	5,112.54	11,557.14	5,091.08	153.81	171.50	-89.08	4,194.48	-4,860.55	1,325.87	1,000.86	325.01	4.079		
10,900.00	5,113.28	11,657.13	5,091.60	156.36	174.08	-89.07	4,265.38	-4,931.06	1,327.04	996.91	330.13	4.020		
11,000.00	5,114.01	11,757.13	5,092.13	158.91	176.65	-89.06	4,336.27	-5,001.58	1,328.21	992.95	335.25	3.962		
11,100.00	5,114.74	11,857.12	5,092.65	161.46	179.22	-89.05	4,407.17	-5,072.09	1,329.38	989.00	340.38	3.906		
11,200.00	5,115.47	11,957.11	5,093.18	164.01	181.80	-89.04	4,478.06	-5,142.60	1,330.55	985.04	345.50	3.851		
11,300.00	5,116.20	12,057.11	5,093.71	166.56	184.37	-89.04	4,548.96	-5,213.12	1,331.72	981.09	350.63	3.798		
11,400.00	5,116.93	12,157.10	5,094.23	169.12	186.95	-89.03	4,619.85	-5,283.63	1,332.89	977.13	355.76	3.747		
11,500.00	5,117.66	12,257.09	5,094.76	171.67	189.52	-89.02	4,690.75	-5,354.15	1,334.06	973.17	360.89	3.697		
11,600.00	5,118.40	12,302.73	5,095.00	174.22	190.70	-89.02	4,723.11	-5,386.33	1,336.33	972.22	364.12	3.670 SF		
11,700.00	5,119.13	12,302.73	5,095.00	176.78	190.70	-89.02	4,723.11	-5,386.33	1,345.28	981.07	364.21	3.694		
11,800.00	5,119.86	12,302.73	5,095.00	179.33	190.70	-89.02	4,723.11	-5,386.33	1,361.53	999.16	362.38	3.757		
11,900.00	5,120.59	12,302.73	5,095.00	181.88	190.70	-89.02	4,723.11	-5,386.33	1,384.84	1,026.05	358.78	3.860		
12,000.00	5,121.32	12,302.73	5,095.00	184.44	190.70	-89.02	4,723.11	-5,386.33	1,414.84	1,061.19	353.65	4.001		
12,100.00	5,122.05	12,302.73	5,095.00	187.00	190.70	-89.02	4,723.11	-5,386.33	1,451.12	1,103.88	347.25	4.179		
12,200.00	5,122.78	12,302.73	5,095.00	189.55	190.70	-89.02	4,723.11	-5,386.33	1,493.24	1,153.39	339.85	4.394		
12,300.00	5,123.52	12,302.73	5,095.00	192.11	190.70	-89.02	4,723.11	-5,386.33	1,540.70	1,208.97	331.73	4.644		
12,400.00	5,124.25	12,302.73	5,095.00	194.67	190.70	-89.02	4,723.11	-5,386.33	1,593.03	1,269.91	323.12	4.930		
12,500.00	5,124.98	12,302.73	5,095.00	197.22	190.70	-89.02	4,723.11	-5,386.33	1,649.77	1,335.52	314.25	5.250		
12,600.00	5,125.71	12,302.73	5,095.00	199.78	190.70	-89.02	4,723.11	-5,386.33	1,710.48	1,405.20	305.27	5.603		
12,700.00	5,126.44	12,302.73	5,095.00	202.34	190.70	-89.02	4,723.11	-5,386.33	1,774.75	1,478.41	296.34	5.989		
12,800.00	5,127.17	12,302.73	5,095.00	204.90	190.70	-89.02	4,723.11	-5,386.33	1,842.21	1,554.66	287.55	6.407		
12,900.00	5,127.90	12,302.73	5,095.00	207.46	190.70	-89.02	4,723.11	-5,386.33	1,912.52	1,633.53	278.98	6.855		
12,913.03	5,128.00	12,302.73	5,095.00	207.79	190.70	-89.02	4,723.11	-5,386.33	1,921.88	1,643.99	277.88	6.916		



Lonestar Consulting, LLC
Anticollision Report



Company:	DJR Operating	Local Co-ordinate Reference:	Well # 307H - Slot 4
Project:	Gallo Canyon Unit	TVD Reference:	GL 6954' & RKB 14' @ 6968.00usft
Reference Site:	M26 2306 Pad	MD Reference:	GL 6954' & RKB 14' @ 6968.00usft
Site Error:	0.00 usft	North Reference:	True
Reference Well:	# 307H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	Original Drilling	Database:	DJR
Reference Design:	APD	Offset TVD Reference:	Offset Datum

Offset Design M26 2306 Pad - # 304H - Original Drilling - APD													Offset Site Error:	0.00 usft
Survey Program: 0-MWD+HDGM													Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis		Distance								Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
0.00	0.00	0.00	0.00	0.00	0.00	-116.82	-9.10	-18.00	20.17					
100.00	100.00	100.00	100.00	0.15	0.15	-116.82	-9.10	-18.00	20.17	19.86	0.31	65.425		
200.00	200.00	200.00	200.00	0.51	0.51	-116.82	-9.10	-18.00	20.17	19.14	1.03	19.673		
300.00	300.00	300.00	300.00	0.87	0.87	-116.82	-9.10	-18.00	20.17	18.43	1.74	11.577		
400.00	400.00	400.00	400.00	1.23	1.23	-116.82	-9.10	-18.00	20.17	17.71	2.46	8.202 CC, ES		
500.00	499.98	499.49	499.47	1.59	1.57	-132.36	-10.82	-18.20	22.32	19.16	3.16	7.065 SF		
600.00	599.84	598.26	598.10	1.95	1.91	-147.06	-15.91	-18.81	30.26	26.41	3.86	7.847		
700.00	699.45	695.78	695.26	2.32	2.25	-158.90	-24.23	-19.80	45.65	41.09	4.56	10.011		
800.00	798.70	793.33	792.33	2.68	2.59	-165.80	-33.84	-20.95	66.60	61.34	5.27	12.650		
900.00	897.47	890.06	888.57	3.06	2.95	-169.76	-43.37	-22.08	91.39	85.42	5.97	15.310		
1,000.00	995.62	985.84	983.88	3.46	3.30	-172.24	-52.80	-23.20	119.76	113.08	6.67	17.947		
1,023.07	1,018.16	1,007.78	1,005.72	3.55	3.38	-172.67	-54.96	-23.46	126.79	119.95	6.84	18.536		
1,100.00	1,093.29	1,080.89	1,078.46	3.88	3.66	-173.91	-62.17	-24.32	150.60	143.22	7.37	20.430		
1,200.00	1,190.93	1,175.91	1,173.02	4.30	4.02	-175.03	-71.53	-25.43	181.60	173.54	8.07	22.517		
1,300.00	1,288.58	1,270.93	1,267.57	4.73	4.38	-175.82	-80.89	-26.55	212.65	203.89	8.76	24.268		
1,400.00	1,386.22	1,365.95	1,362.12	5.17	4.74	-176.41	-90.25	-27.66	243.73	234.26	9.46	25.755		
1,500.00	1,483.86	1,460.98	1,456.68	5.61	5.10	-176.87	-99.61	-28.78	274.82	264.66	10.17	27.032		
1,600.00	1,581.51	1,556.00	1,551.23	6.05	5.46	-177.23	-108.97	-29.89	305.93	295.06	10.87	28.139		
1,700.00	1,679.15	1,651.02	1,645.79	6.50	5.83	-177.53	-118.33	-31.01	337.05	325.47	11.58	29.108		
1,800.00	1,776.80	1,746.04	1,740.34	6.95	6.19	-177.78	-127.69	-32.12	368.17	355.88	12.29	29.963		
1,900.00	1,874.44	1,841.07	1,834.89	7.40	6.55	-177.99	-137.06	-33.24	399.30	386.30	13.00	30.721		
2,000.00	1,972.08	1,936.09	1,929.45	7.85	6.92	-178.16	-146.42	-34.35	430.43	416.72	13.71	31.399		
2,100.00	2,069.73	2,031.11	2,024.00	8.30	7.28	-178.32	-155.78	-35.47	461.57	447.15	14.42	32.009		
2,200.00	2,167.37	2,126.13	2,118.55	8.75	7.65	-178.45	-165.14	-36.58	492.71	477.57	15.13	32.559		
2,300.00	2,265.02	2,221.15	2,213.11	9.21	8.02	-178.57	-174.50	-37.70	523.85	508.00	15.85	33.059		
2,400.00	2,362.66	2,316.18	2,307.66	9.66	8.38	-178.68	-183.86	-38.81	554.99	538.43	16.56	33.515		
2,500.00	2,460.31	2,411.20	2,402.21	10.12	8.75	-178.77	-193.22	-39.93	586.13	568.86	17.27	33.932		
2,600.00	2,557.95	2,506.22	2,496.77	10.57	9.11	-178.86	-202.58	-41.04	617.28	599.29	17.99	34.315		
2,700.00	2,655.59	2,601.24	2,591.32	11.03	9.48	-178.93	-211.94	-42.16	648.43	629.72	18.70	34.668		
2,800.00	2,753.24	2,696.27	2,685.87	11.48	9.85	-179.00	-221.31	-43.27	679.57	660.15	19.42	34.994		
2,900.00	2,850.88	2,791.29	2,780.43	11.94	10.21	-179.07	-230.67	-44.39	710.72	690.59	20.14	35.297		
3,000.00	2,948.53	2,886.31	2,874.98	12.40	10.58	-179.12	-240.03	-45.50	741.87	721.02	20.85	35.578		
3,100.00	3,046.17	2,981.33	2,969.53	12.86	10.95	-179.18	-249.39	-46.62	773.02	751.45	21.57	35.840		
3,200.00	3,143.82	3,076.36	3,064.09	13.31	11.32	-179.23	-258.75	-47.73	804.17	781.89	22.29	36.085		
3,300.00	3,241.46	3,171.38	3,158.64	13.77	11.68	-179.27	-268.11	-48.85	835.32	812.32	23.00	36.314		
3,400.00	3,339.10	3,266.40	3,253.19	14.23	12.05	-179.32	-277.47	-49.96	866.47	842.75	23.72	36.529		
3,500.00	3,436.75	3,361.42	3,347.75	14.69	12.42	-179.35	-286.83	-51.08	897.63	873.19	24.44	36.731		
3,600.00	3,534.39	3,456.45	3,442.30	15.15	12.79	-179.39	-296.20	-52.19	928.78	903.62	25.16	36.921		
3,700.00	3,632.04	3,551.47	3,536.86	15.60	13.15	-179.43	-305.56	-53.31	959.93	934.06	25.87	37.101		
3,800.00	3,729.68	3,646.49	3,631.41	16.06	13.52	-179.46	-314.92	-54.42	991.08	964.49	26.59	37.270		
3,900.00	3,827.32	3,741.51	3,725.96	16.52	13.89	-179.49	-324.28	-55.54	1,022.24	994.93	27.31	37.430		
4,000.00	3,924.97	3,836.53	3,820.52	16.98	14.26	-179.52	-333.64	-56.65	1,053.39	1,025.36	28.03	37.582		
4,100.00	4,022.61	3,931.56	3,915.07	17.44	14.62	-179.54	-343.00	-57.77	1,084.54	1,055.79	28.75	37.726		
4,200.00	4,120.26	4,026.58	4,009.62	17.90	14.99	-179.57	-352.36	-58.88	1,115.70	1,086.23	29.47	37.863		
4,300.00	4,217.90	4,121.60	4,104.18	18.36	15.36	-179.59	-361.72	-59.99	1,146.85	1,116.66	30.19	37.993		
4,400.00	4,315.55	4,216.62	4,198.73	18.82	15.73	-179.62	-371.08	-61.11	1,178.00	1,147.10	30.90	38.117		
4,500.00	4,413.19	4,311.65	4,293.28	19.28	16.09	-179.64	-380.45	-62.22	1,209.16	1,177.53	31.62	38.235		
4,600.00	4,510.83	4,406.67	4,387.84	19.74	16.46	-179.66	-389.81	-63.34	1,240.31	1,207.97	32.34	38.348		
4,619.02	4,529.40	4,424.74	4,405.82	19.82	16.53	-179.66	-391.59	-63.55	1,246.24	1,213.76	32.48	38.369		
4,650.00	4,559.55	4,454.03	4,434.96	19.97	16.64	-170.11	-394.47	-63.90	1,256.31	1,223.61	32.70	38.414		
4,700.00	4,607.60	4,487.32	4,468.09	20.22	16.77	-158.87	-397.82	-64.22	1,274.44	1,241.47	32.97	38.653		
4,750.00	4,654.66	4,500.00	4,480.68	20.48	16.82	-150.73	-399.31	-64.14	1,295.48	1,262.40	33.08	39.161		

Company:	DJR Operating	Local Co-ordinate Reference:	Well # 307H - Slot 4
Project:	Gallo Canyon Unit	TVD Reference:	GL 6954' & RKB 14' @ 6968.00usft
Reference Site:	M26 2306 Pad	MD Reference:	GL 6954' & RKB 14' @ 6968.00usft
Site Error:	0.00 usft	North Reference:	True
Reference Well:	# 307H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	Original Drilling	Database:	DJR
Reference Design:	APD	Offset TVD Reference:	Offset Datum

Offset Design M26 2306 Pad - # 304H - Original Drilling - APD													Offset Site Error:	0.00 usft
Survey Program: 0-MWD+HDGM													Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
4,800.00	4,700.44	4,525.78	4,506.19	20.76	16.93	-144.55	-402.90	-63.43	1,319.23	1,285.94	33.29	39.629		
4,850.00	4,744.66	4,550.00	4,530.03	21.05	17.03	-139.41	-406.95	-62.10	1,345.68	1,312.19	33.49	40.186		
4,900.00	4,787.04	4,550.00	4,530.03	21.35	17.03	-134.24	-406.95	-62.10	1,374.52	1,341.04	33.47	41.063		
4,950.00	4,827.33	4,571.86	4,551.42	21.67	17.12	-129.82	-411.17	-60.36	1,405.48	1,371.83	33.65	41.765		
5,000.00	4,865.27	4,583.70	4,562.92	22.01	17.17	-125.15	-413.66	-59.20	1,438.48	1,404.74	33.74	42.628		
5,050.00	4,900.63	4,600.00	4,578.70	22.37	17.24	-120.57	-417.36	-57.36	1,473.25	1,439.37	33.89	43.476		
5,100.00	4,933.20	4,600.00	4,578.70	22.75	17.24	-115.12	-417.36	-57.36	1,509.45	1,475.57	33.88	44.549		
5,150.00	4,962.76	4,600.00	4,578.70	23.17	17.24	-109.38	-417.36	-57.36	1,546.97	1,513.08	33.89	45.646		
5,200.00	4,989.15	4,600.00	4,578.70	23.61	17.24	-103.39	-417.36	-57.36	1,585.49	1,551.58	33.91	46.752		
5,250.00	5,012.20	4,616.82	4,594.86	24.10	17.31	-98.18	-421.47	-55.16	1,624.47	1,590.34	34.12	47.606		
5,300.00	5,031.75	4,618.74	4,596.70	24.63	17.32	-92.13	-421.96	-54.89	1,664.06	1,629.85	34.21	48.648		
5,350.00	5,047.71	4,619.31	4,597.24	25.21	17.33	-86.09	-422.10	-54.81	1,703.85	1,669.55	34.30	49.677		
5,400.00	5,059.96	4,618.62	4,596.58	25.83	17.32	-80.22	-421.93	-54.91	1,743.59	1,709.19	34.40	50.682		
5,450.00	5,068.43	4,600.00	4,578.70	26.50	17.24	-73.81	-417.36	-57.36	1,783.30	1,748.94	34.35	51.910		
5,500.00	5,073.07	4,600.00	4,578.70	27.20	17.24	-68.86	-417.36	-57.36	1,822.16	1,787.65	34.51	52.796		
5,530.34	5,074.00	4,600.00	4,578.70	27.65	17.24	-66.10	-417.36	-57.36	1,845.39	1,810.77	34.62	53.304		
5,600.00	5,074.51	4,600.00	4,578.70	28.73	17.24	-66.10	-417.36	-57.36	1,898.94	1,864.05	34.89	54.429		
5,700.00	5,075.24	4,600.00	4,578.70	30.41	17.24	-66.10	-417.36	-57.36	1,977.56	1,942.27	35.29	56.041		
5,800.00	5,075.97	4,600.00	4,578.70	32.21	17.24	-66.10	-417.36	-57.36	2,058.04	2,022.35	35.69	57.662		
5,900.00	5,076.70	4,600.00	4,578.70	34.11	17.24	-66.10	-417.36	-57.36	2,140.16	2,104.07	36.09	59.298		
6,000.00	5,077.44	4,580.81	4,560.12	36.11	17.16	-65.26	-413.04	-59.50	2,223.42	2,187.10	36.32	61.215		
6,100.00	5,078.17	4,575.61	4,555.07	38.17	17.14	-65.04	-411.94	-60.01	2,308.11	2,271.45	36.66	62.954		
6,200.00	5,078.90	4,570.79	4,550.36	40.30	17.12	-64.83	-410.95	-60.46	2,393.94	2,356.94	37.00	64.707		
6,300.00	5,079.63	4,550.00	4,530.03	42.47	17.03	-63.93	-406.95	-62.10	2,481.03	2,443.84	37.19	66.717		
6,400.00	5,080.36	4,550.00	4,530.03	44.69	17.03	-63.93	-406.95	-62.10	2,568.69	2,531.16	37.53	68.436		
6,500.00	5,081.09	4,550.00	4,530.03	46.95	17.03	-63.93	-406.95	-62.10	2,657.23	2,619.37	37.86	70.177		
6,600.00	5,081.82	4,550.00	4,530.03	49.24	17.03	-63.93	-406.95	-62.10	2,746.56	2,708.38	38.18	71.938		
6,700.00	5,082.56	4,550.00	4,530.03	51.56	17.03	-63.93	-406.95	-62.10	2,836.60	2,798.12	38.48	73.717		
6,800.00	5,083.29	4,550.00	4,530.03	53.90	17.03	-63.93	-406.95	-62.10	2,927.28	2,888.52	38.77	75.513		
6,900.00	5,084.02	4,550.00	4,530.03	56.26	17.03	-63.93	-406.95	-62.10	3,018.55	2,979.52	39.04	77.325		
7,000.00	5,084.75	4,550.00	4,530.03	58.64	17.03	-63.93	-406.95	-62.10	3,110.36	3,071.07	39.30	79.151		
7,100.00	5,085.48	4,550.00	4,530.03	61.04	17.03	-63.93	-406.95	-62.10	3,202.66	3,163.12	39.54	80.991		
7,200.00	5,086.21	4,550.00	4,530.03	63.45	17.03	-63.93	-406.95	-62.10	3,295.41	3,255.63	39.78	82.843		
7,300.00	5,086.94	4,550.00	4,530.03	65.87	17.03	-63.93	-406.95	-62.10	3,388.58	3,348.57	40.00	84.706		
7,400.00	5,087.68	4,550.00	4,530.03	68.31	17.03	-63.93	-406.95	-62.10	3,482.12	3,441.90	40.22	86.578		
7,500.00	5,088.41	4,550.00	4,530.03	70.75	17.03	-63.93	-406.95	-62.10	3,576.01	3,535.58	40.43	88.460		
7,600.00	5,089.14	4,527.32	4,507.71	73.21	16.94	-62.95	-403.14	-63.36	3,669.77	3,629.30	40.47	90.677		
7,700.00	5,089.87	4,525.30	4,505.72	75.67	16.93	-62.86	-402.83	-63.44	3,764.19	3,723.55	40.65	92.604		
7,800.00	5,090.60	4,523.37	4,503.82	78.14	16.92	-62.78	-402.54	-63.52	3,858.90	3,818.08	40.82	94.537		
7,900.00	5,091.33	4,521.53	4,502.00	80.61	16.91	-62.70	-402.26	-63.59	3,953.85	3,912.87	40.98	96.475		
8,000.00	5,092.06	4,500.00	4,480.68	83.09	16.82	-61.79	-399.31	-64.14	4,049.39	4,008.38	41.01	98.739		
8,100.00	5,092.80	4,500.00	4,480.68	85.58	16.82	-61.79	-399.31	-64.14	4,144.75	4,103.58	41.18	100.660		
8,200.00	5,093.53	4,500.00	4,480.68	88.07	16.82	-61.79	-399.31	-64.14	4,240.33	4,198.99	41.33	102.584		
8,300.00	5,094.26	4,500.00	4,480.68	90.57	16.82	-61.79	-399.31	-64.14	4,336.10	4,294.61	41.49	104.513		
8,400.00	5,094.99	4,500.00	4,480.68	93.07	16.82	-61.79	-399.31	-64.14	4,432.06	4,390.42	41.64	106.444		
8,500.00	5,095.72	4,500.00	4,480.68	95.57	16.82	-61.79	-399.31	-64.14	4,528.19	4,486.41	41.78	108.378		
8,600.00	5,096.45	4,500.00	4,480.68	98.08	16.82	-61.79	-399.31	-64.14	4,624.49	4,582.57	41.92	110.315		
8,700.00	5,097.18	4,500.00	4,480.68	100.59	16.82	-61.79	-399.31	-64.14	4,720.94	4,678.89	42.06	112.253		
8,800.00	5,097.92	4,500.00	4,480.68	103.11	16.82	-61.79	-399.31	-64.14	4,817.54	4,775.35	42.19	114.192		
8,900.00	5,098.65	4,500.00	4,480.68	105.63	16.82	-61.79	-399.31	-64.14	4,914.27	4,871.96	42.32	116.133		
9,000.00	5,099.38	4,500.00	4,480.68	108.15	16.82	-61.79	-399.31	-64.14	5,011.13	4,968.69	42.44	118.074		
9,100.00	5,100.11	4,500.00	4,480.68	110.67	16.82	-61.79	-399.31	-64.14	5,108.11	5,065.55	42.56	120.015		

Company:	DJR Operating	Local Co-ordinate Reference:	Well # 307H - Slot 4
Project:	Gallo Canyon Unit	TVD Reference:	GL 6954' & RKB 14' @ 6968.00usft
Reference Site:	M26 2306 Pad	MD Reference:	GL 6954' & RKB 14' @ 6968.00usft
Site Error:	0.00 usft	North Reference:	True
Reference Well:	# 307H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	Original Drilling	Database:	DJR
Reference Design:	APD	Offset TVD Reference:	Offset Datum

Offset Design M26 2306 Pad - # 304H - Original Drilling - APD													Offset Site Error:	0.00 usft
Survey Program: 0-MWD+HDGM													Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis			Distance						Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
9,200.00	5,100.84	4,500.00	4,480.68	113.19	16.82	-61.79	-399.31	-64.14	5,205.21	5,162.53	42.68	121.956		
9,300.00	5,101.57	4,500.00	4,480.68	115.72	16.82	-61.79	-399.31	-64.14	5,302.42	5,259.62	42.80	123.897		
9,400.00	5,102.30	4,500.00	4,480.68	118.25	16.82	-61.79	-399.31	-64.14	5,399.72	5,356.81	42.91	125.837		
9,500.00	5,103.04	4,500.00	4,480.68	120.78	16.82	-61.79	-399.31	-64.14	5,497.13	5,454.10	43.02	127.777		
9,600.00	5,103.77	4,500.00	4,480.68	123.31	16.82	-61.79	-399.31	-64.14	5,594.62	5,551.49	43.13	129.715		
9,700.00	5,104.50	4,500.00	4,480.68	125.85	16.82	-61.79	-399.31	-64.14	5,692.20	5,648.96	43.24	131.652		
9,800.00	5,105.23	4,500.00	4,480.68	128.38	16.82	-61.79	-399.31	-64.14	5,789.87	5,746.52	43.34	133.587		
9,900.00	5,105.96	4,500.00	4,480.68	130.92	16.82	-61.79	-399.31	-64.14	5,887.61	5,844.16	43.44	135.521		
10,000.00	5,106.69	4,500.00	4,480.68	133.46	16.82	-61.79	-399.31	-64.14	5,985.43	5,941.88	43.55	137.452		
10,100.00	5,107.42	4,500.00	4,480.68	136.00	16.82	-61.79	-399.31	-64.14	6,083.31	6,039.67	43.64	139.382		
10,200.00	5,108.16	4,500.00	4,480.68	138.54	16.82	-61.79	-399.31	-64.14	6,181.27	6,137.53	43.74	141.309		
10,300.00	5,108.89	4,500.00	4,480.68	141.08	16.82	-61.79	-399.31	-64.14	6,279.29	6,235.45	43.84	143.233		
10,400.00	5,109.62	4,500.00	4,480.68	143.63	16.82	-61.79	-399.31	-64.14	6,377.37	6,333.44	43.93	145.155		
10,500.00	5,110.35	4,500.00	4,480.68	146.17	16.82	-61.79	-399.31	-64.14	6,475.51	6,431.48	44.03	147.074		
10,600.00	5,111.08	4,500.00	4,480.68	148.72	16.82	-61.79	-399.31	-64.14	6,573.71	6,529.59	44.12	148.990		
10,700.00	5,111.81	4,500.00	4,480.68	151.27	16.82	-61.79	-399.31	-64.14	6,671.96	6,627.74	44.21	150.902		
10,800.00	5,112.54	4,500.00	4,480.68	153.81	16.82	-61.79	-399.31	-64.14	6,770.26	6,725.95	44.30	152.812		
10,900.00	5,113.28	4,489.24	4,470.00	156.36	16.78	-61.33	-398.03	-64.22	6,868.51	6,824.18	44.33	154.933		
11,000.00	5,114.01	4,488.61	4,469.37	158.91	16.78	-61.30	-397.96	-64.22	6,966.90	6,922.48	44.42	156.850		
11,100.00	5,114.74	4,487.99	4,468.75	161.46	16.78	-61.28	-397.89	-64.22	7,065.33	7,020.82	44.50	158.763		
11,200.00	5,115.47	4,487.39	4,468.15	164.01	16.77	-61.25	-397.82	-64.22	7,163.80	7,119.21	44.59	160.672		
11,300.00	5,116.20	4,476.62	4,457.44	166.56	16.73	-60.80	-396.70	-64.16	7,262.40	7,217.79	44.61	162.794		
11,400.00	5,116.93	4,476.62	4,457.44	169.12	16.73	-60.80	-396.70	-64.16	7,360.95	7,316.25	44.70	164.684		
11,500.00	5,117.66	4,476.62	4,457.44	171.67	16.73	-60.80	-396.70	-64.16	7,459.53	7,414.75	44.78	166.570		
11,600.00	5,118.40	4,476.62	4,457.44	174.22	16.73	-60.80	-396.70	-64.16	7,558.15	7,513.28	44.87	168.452		
11,700.00	5,119.13	4,476.62	4,457.44	176.78	16.73	-60.80	-396.70	-64.16	7,656.80	7,611.85	44.95	170.330		
11,800.00	5,119.86	4,476.62	4,457.44	179.33	16.73	-60.80	-396.70	-64.16	7,755.49	7,710.46	45.04	172.203		
11,900.00	5,120.59	4,476.62	4,457.44	181.88	16.73	-60.80	-396.70	-64.16	7,854.22	7,809.10	45.12	174.071		
12,000.00	5,121.32	4,476.62	4,457.44	184.44	16.73	-60.80	-396.70	-64.16	7,952.97	7,907.77	45.20	175.936		
12,100.00	5,122.05	4,476.62	4,457.44	187.00	16.73	-60.80	-396.70	-64.16	8,051.76	8,006.47	45.29	177.795		
12,200.00	5,122.78	4,476.62	4,457.44	189.55	16.73	-60.80	-396.70	-64.16	8,150.57	8,105.21	45.37	179.650		
12,300.00	5,123.52	4,476.62	4,457.44	192.11	16.73	-60.80	-396.70	-64.16	8,249.42	8,203.97	45.45	181.500		
12,400.00	5,124.25	4,476.62	4,457.44	194.67	16.73	-60.80	-396.70	-64.16	8,348.29	8,302.76	45.53	183.345		
12,500.00	5,124.98	4,476.62	4,457.44	197.22	16.73	-60.80	-396.70	-64.16	8,447.19	8,401.57	45.61	185.185		
12,600.00	5,125.71	4,476.62	4,457.44	199.78	16.73	-60.80	-396.70	-64.16	8,546.11	8,500.42	45.70	187.020		
12,700.00	5,126.44	4,476.62	4,457.44	202.34	16.73	-60.80	-396.70	-64.16	8,645.06	8,599.28	45.78	188.850		
12,800.00	5,127.17	4,476.62	4,457.44	204.90	16.73	-60.80	-396.70	-64.16	8,744.03	8,698.18	45.86	190.675		
12,900.00	5,127.90	4,476.62	4,457.44	207.46	16.73	-60.80	-396.70	-64.16	8,843.03	8,797.09	45.94	192.495		
12,913.03	5,128.00	4,476.62	4,457.44	207.79	16.73	-60.80	-396.70	-64.16	8,855.93	8,809.98	45.95	192.732		

Company:	DJR Operating	Local Co-ordinate Reference:	Well # 307H - Slot 4
Project:	Gallo Canyon Unit	TVD Reference:	GL 6954' & RKB 14' @ 6968.00usft
Reference Site:	M26 2306 Pad	MD Reference:	GL 6954' & RKB 14' @ 6968.00usft
Site Error:	0.00 usft	North Reference:	True
Reference Well:	# 307H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	Original Drilling	Database:	DJR
Reference Design:	APD	Offset TVD Reference:	Offset Datum

Offset Design M26 2306 Pad - # 305H - Original Drilling - APD													Offset Site Error:	0.00 usft
Survey Program: 0-MWD+HDGM													Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
0.00	0.00	0.00	0.00	0.00	0.00	-117.01	-18.20	-35.70	40.08					
100.00	100.00	100.00	100.00	0.15	0.15	-117.01	-18.20	-35.70	40.08	39.77	0.31	129.996		
200.00	200.00	200.00	200.00	0.51	0.51	-117.01	-18.20	-35.70	40.08	39.05	1.03	39.090		
300.00	300.00	300.00	300.00	0.87	0.87	-117.01	-18.20	-35.70	40.08	38.33	1.74	23.003		
400.00	400.00	400.00	400.00	1.23	1.23	-117.01	-18.20	-35.70	40.08	37.62	2.46	16.297		
500.00	499.98	500.94	500.92	1.59	1.59	-125.38	-16.48	-35.25	39.91	36.73	3.18	12.556		
550.21	550.14	551.42	551.35	1.77	1.78	-125.68	-14.41	-34.70	39.75	36.21	3.54	11.233 CC		
600.00	599.84	601.21	601.09	1.95	1.95	-126.81	-12.22	-34.13	40.01	36.12	3.90	10.271 ES		
700.00	699.45	701.11	700.89	2.32	2.31	-131.77	-7.83	-32.97	42.28	37.66	4.62	9.159		
800.00	798.70	800.81	800.48	2.68	2.67	-139.06	-3.45	-31.81	47.41	42.07	5.34	8.876		
900.00	897.47	900.18	899.75	3.06	3.03	-146.86	0.92	-30.66	56.05	49.98	6.07	9.234		
1,000.00	995.62	999.09	998.56	3.46	3.38	-153.79	5.27	-29.51	68.56	61.76	6.80	10.083		
1,023.07	1,018.16	1,021.83	1,021.28	3.55	3.47	-155.20	6.27	-29.25	72.01	65.04	6.97	10.330		
1,100.00	1,093.29	1,097.63	1,097.00	3.88	3.74	-159.22	9.60	-28.37	84.05	76.52	7.53	11.165		
1,200.00	1,190.93	1,196.15	1,195.41	4.30	4.10	-162.97	13.93	-27.22	100.14	91.89	8.25	12.135		
1,300.00	1,288.58	1,294.66	1,293.83	4.73	4.45	-165.68	18.26	-26.08	116.53	107.56	8.98	12.980		
1,400.00	1,386.22	1,393.18	1,392.24	5.17	4.81	-167.72	22.59	-24.94	133.12	123.41	9.71	13.717		
1,500.00	1,483.86	1,491.70	1,490.66	5.61	5.16	-169.31	26.92	-23.80	149.83	139.40	10.43	14.360		
1,600.00	1,581.51	1,590.22	1,589.08	6.05	5.52	-170.58	31.26	-22.65	166.64	155.47	11.16	14.926		
1,700.00	1,679.15	1,688.73	1,687.49	6.50	5.88	-171.62	35.59	-21.51	183.50	171.61	11.89	15.427		
1,800.00	1,776.80	1,787.25	1,785.91	6.95	6.23	-172.48	39.92	-20.37	200.42	187.79	12.63	15.873		
1,900.00	1,874.44	1,885.77	1,884.32	7.40	6.59	-173.21	44.25	-19.22	217.37	204.01	13.36	16.271		
2,000.00	1,972.08	1,984.29	1,982.74	7.85	6.95	-173.83	48.58	-18.08	234.36	220.26	14.09	16.629		
2,100.00	2,069.73	2,082.81	2,081.15	8.30	7.30	-174.37	52.91	-16.94	251.36	236.53	14.83	16.953		
2,200.00	2,167.37	2,181.32	2,179.57	8.75	7.66	-174.84	57.24	-15.79	268.39	252.82	15.56	17.247		
2,300.00	2,265.02	2,279.84	2,277.99	9.21	8.02	-175.25	61.57	-14.65	285.43	269.13	16.30	17.515		
2,400.00	2,362.66	2,378.36	2,376.40	9.66	8.38	-175.62	65.90	-13.51	302.48	285.45	17.03	17.760		
2,500.00	2,460.31	2,476.88	2,474.82	10.12	8.73	-175.94	70.23	-12.37	319.54	301.78	17.77	17.985		
2,600.00	2,557.95	2,575.39	2,573.23	10.57	9.09	-176.24	74.56	-11.22	336.62	318.11	18.50	18.192		
2,700.00	2,655.59	2,673.91	2,671.65	11.03	9.45	-176.51	78.89	-10.08	353.70	334.46	19.24	18.384		
2,800.00	2,753.24	2,772.43	2,770.07	11.48	9.80	-176.75	83.22	-8.94	370.78	350.81	19.98	18.561		
2,900.00	2,850.88	2,870.95	2,868.48	11.94	10.16	-176.97	87.55	-7.79	387.88	367.16	20.71	18.726		
3,000.00	2,948.53	2,969.47	2,966.90	12.40	10.52	-177.17	91.89	-6.65	404.98	383.53	21.45	18.880		
3,100.00	3,046.17	3,067.98	3,065.31	12.86	10.87	-177.36	96.22	-5.51	422.08	399.89	22.19	19.024		
3,200.00	3,143.82	3,166.50	3,163.73	13.31	11.23	-177.53	100.55	-4.37	439.18	416.26	22.92	19.158		
3,300.00	3,241.46	3,265.02	3,262.15	13.77	11.59	-177.68	104.88	-3.22	456.30	432.63	23.66	19.284		
3,400.00	3,339.10	3,363.54	3,360.56	14.23	11.94	-177.83	109.21	-2.08	473.41	449.01	24.40	19.403		
3,500.00	3,436.75	3,462.05	3,458.98	14.69	12.30	-177.97	113.54	-0.94	490.53	465.39	25.14	19.514		
3,600.00	3,534.39	3,560.57	3,557.39	15.15	12.66	-178.10	117.87	0.21	507.64	481.77	25.87	19.619		
3,700.00	3,632.04	3,659.09	3,655.81	15.60	13.01	-178.21	122.20	1.35	524.76	498.15	26.61	19.719		
3,800.00	3,729.68	3,757.61	3,754.23	16.06	13.37	-178.33	126.53	2.49	541.89	514.54	27.35	19.813		
3,900.00	3,827.32	3,856.13	3,852.64	16.52	13.73	-178.43	130.86	3.63	559.01	530.92	28.09	19.902		
4,000.00	3,924.97	3,954.64	3,951.06	16.98	14.09	-178.53	135.19	4.78	576.14	547.31	28.83	19.986		
4,100.00	4,022.61	4,053.16	4,049.47	17.44	14.44	-178.62	139.52	5.92	593.27	563.70	29.57	20.066		
4,200.00	4,120.26	4,151.68	4,147.89	17.90	14.80	-178.71	143.85	7.06	610.40	580.09	30.30	20.143		
4,300.00	4,217.90	4,250.20	4,246.31	18.36	15.16	-178.79	148.18	8.21	627.53	596.49	31.04	20.215		
4,400.00	4,315.55	4,348.71	4,344.72	18.82	15.51	-178.87	152.51	9.35	644.66	612.88	31.78	20.284		
4,500.00	4,413.19	4,447.23	4,443.14	19.28	15.87	-178.94	156.85	10.49	661.79	629.27	32.52	20.351		
4,600.00	4,510.83	4,545.75	4,541.55	19.74	16.23	-179.02	161.18	11.63	678.93	645.67	33.26	20.414		
4,619.02	4,529.40	4,564.48	4,560.27	19.82	16.30	-179.03	162.00	11.85	682.19	648.79	33.40	20.425		
4,650.00	4,559.55	4,594.92	4,590.67	19.97	16.41	-169.86	163.34	12.20	687.93	654.30	33.63	20.456		
4,700.00	4,607.60	4,643.50	4,639.20	20.22	16.58	-159.42	165.47	12.77	699.02	665.01	34.00	20.558		



Lonestar Consulting, LLC
Anticollision Report



Company:	DJR Operating	Local Co-ordinate Reference:	Well # 307H - Slot 4
Project:	Gallo Canyon Unit	TVD Reference:	GL 6954' & RKB 14' @ 6968.00usft
Reference Site:	M26 2306 Pad	MD Reference:	GL 6954' & RKB 14' @ 6968.00usft
Site Error:	0.00 usft	North Reference:	True
Reference Well:	# 307H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	Original Drilling	Database:	DJR
Reference Design:	APD	Offset TVD Reference:	Offset Datum

Offset Design M26 2306 Pad - # 305H - Original Drilling - APD													Offset Site Error:	0.00 usft
Survey Program: 0-MWD+HDGM													Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis			Distance						Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
4,750.00	4,654.66	4,691.18	4,686.83	20.48	16.75	-152.49	167.57	13.32	712.33	677.96	34.37	20.723		
4,800.00	4,700.44	4,737.66	4,733.26	20.76	16.92	-147.63	169.61	13.86	727.88	693.14	34.74	20.951		
4,850.00	4,744.66	4,782.65	4,778.20	21.05	17.09	-144.04	171.59	14.38	745.69	710.59	35.10	21.242		
4,900.00	4,787.04	4,825.87	4,821.38	21.35	17.24	-141.22	173.49	14.88	765.78	730.32	35.46	21.597		
4,950.00	4,827.33	4,946.48	4,941.32	21.67	17.68	-141.06	184.06	11.05	787.25	751.07	36.18	21.761		
5,000.00	4,865.27	5,182.66	5,160.57	22.01	18.59	-141.75	249.47	-41.48	801.16	764.89	36.28	22.084		
5,050.00	4,900.63	5,527.03	5,393.31	22.37	20.68	-138.03	432.15	-209.11	802.52	767.45	35.06	22.887		
5,100.00	4,933.20	5,734.89	5,457.86	22.75	23.04	-132.34	573.75	-345.42	792.22	755.77	36.45	21.734		
5,150.00	4,962.76	5,858.90	5,466.20	23.17	24.86	-128.11	661.87	-432.00	777.36	738.49	38.87	19.999		
5,200.00	4,989.15	5,901.25	5,466.50	23.61	25.53	-127.04	692.01	-461.75	764.55	724.05	40.50	18.879		
5,250.00	5,012.20	5,945.56	5,466.82	24.10	26.28	-126.02	723.55	-492.88	754.02	711.85	42.17	17.882		
5,300.00	5,031.75	5,991.55	5,467.14	24.63	27.07	-125.08	756.27	-525.19	745.61	701.76	43.84	17.007		
5,350.00	5,047.71	6,038.93	5,467.47	25.21	27.93	-124.26	789.99	-558.47	739.15	693.61	45.54	16.232		
5,400.00	5,059.96	6,087.41	5,467.81	25.83	28.82	-123.58	824.49	-592.53	734.50	687.28	47.22	15.555		
5,450.00	5,068.43	6,136.70	5,468.16	26.50	29.77	-123.09	859.57	-627.16	731.54	682.65	48.89	14.962		
5,500.00	5,073.07	6,186.49	5,468.51	27.20	30.73	-122.80	895.00	-662.14	730.17	679.65	50.52	14.454		
5,519.63	5,073.83	6,206.12	5,468.65	27.49	31.12	-122.75	908.96	-675.92	730.05	678.91	51.14	14.276		
5,530.34	5,074.00	6,216.82	5,468.73	27.65	31.34	-122.73	916.58	-683.44	730.08	678.61	51.47	14.183		
5,600.00	5,074.51	6,286.48	5,469.22	28.73	32.75	-122.71	966.15	-732.38	730.54	676.85	53.69	13.607		
5,700.00	5,075.24	6,386.47	5,469.92	30.41	34.85	-122.67	1,037.31	-802.63	731.19	674.17	57.02	12.824		
5,800.00	5,075.97	6,486.47	5,470.63	32.21	37.00	-122.64	1,108.47	-872.88	731.84	671.35	60.49	12.099		
5,900.00	5,076.70	6,586.47	5,471.33	34.11	39.21	-122.60	1,179.64	-943.13	732.49	668.41	64.08	11.430		
6,000.00	5,077.44	6,686.47	5,472.04	36.11	41.46	-122.57	1,250.80	-1,013.38	733.15	665.36	67.78	10.816		
6,100.00	5,078.17	6,786.46	5,472.74	38.17	43.75	-122.53	1,321.96	-1,083.63	733.80	662.23	71.57	10.252		
6,200.00	5,078.90	6,886.46	5,473.44	40.30	46.07	-122.50	1,393.12	-1,153.88	734.45	659.02	75.44	9.736		
6,300.00	5,079.63	6,986.46	5,474.15	42.47	48.42	-122.46	1,464.28	-1,224.13	735.11	655.74	79.37	9.262		
6,400.00	5,080.36	7,086.45	5,474.85	44.69	50.78	-122.43	1,535.44	-1,294.38	735.76	652.41	83.35	8.827		
6,500.00	5,081.09	7,186.45	5,475.56	46.95	53.17	-122.39	1,606.60	-1,364.63	736.42	649.03	87.39	8.427		
6,600.00	5,081.82	7,286.45	5,476.26	49.24	55.58	-122.36	1,677.76	-1,434.88	737.07	645.60	91.47	8.058		
6,700.00	5,082.56	7,386.44	5,476.97	51.56	58.00	-122.32	1,748.92	-1,505.13	737.72	642.14	95.58	7.718		
6,800.00	5,083.29	7,486.44	5,477.67	53.90	60.44	-122.29	1,820.08	-1,575.38	738.38	638.65	99.73	7.404		
6,900.00	5,084.02	7,586.44	5,478.38	56.26	62.88	-122.25	1,891.24	-1,645.63	739.03	635.12	103.91	7.112		
7,000.00	5,084.75	7,686.43	5,479.08	58.64	65.34	-122.22	1,962.40	-1,715.88	739.69	631.57	108.12	6.842		
7,100.00	5,085.48	7,786.43	5,479.79	61.04	67.81	-122.19	2,033.57	-1,786.13	740.35	628.00	112.34	6.590		
7,200.00	5,086.21	7,886.43	5,480.49	63.45	70.28	-122.15	2,104.73	-1,856.37	741.00	624.41	116.60	6.355		
7,300.00	5,086.94	7,986.42	5,481.20	65.87	72.77	-122.12	2,175.89	-1,926.62	741.66	620.79	120.87	6.136		
7,400.00	5,087.68	8,086.42	5,481.90	68.31	75.26	-122.08	2,247.05	-1,996.87	742.32	617.16	125.15	5.931		
7,500.00	5,088.41	8,186.42	5,482.60	70.75	77.75	-122.05	2,318.21	-2,067.12	742.97	613.51	129.46	5.739		
7,600.00	5,089.14	8,286.42	5,483.31	73.21	80.25	-122.01	2,389.37	-2,137.37	743.63	609.85	133.78	5.559		
7,700.00	5,089.87	8,386.41	5,484.01	75.67	82.76	-121.98	2,460.53	-2,207.62	744.29	606.17	138.11	5.389		
7,800.00	5,090.60	8,486.41	5,484.72	78.14	85.27	-121.95	2,531.69	-2,277.87	744.94	602.49	142.46	5.229		
7,900.00	5,091.33	8,586.41	5,485.42	80.61	87.78	-121.91	2,602.85	-2,348.12	745.60	598.78	146.82	5.078		
8,000.00	5,092.06	8,686.40	5,486.13	83.09	90.30	-121.88	2,674.01	-2,418.37	746.26	595.07	151.19	4.936		
8,100.00	5,092.80	8,786.40	5,486.83	85.58	92.83	-121.84	2,745.17	-2,488.62	746.92	591.35	155.57	4.801		
8,200.00	5,093.53	8,886.40	5,487.54	88.07	95.35	-121.81	2,816.33	-2,558.87	747.58	587.62	159.96	4.674		
8,300.00	5,094.26	8,986.39	5,488.24	90.57	97.88	-121.78	2,887.50	-2,629.12	748.24	583.88	164.36	4.553		
8,400.00	5,094.99	9,086.39	5,488.95	93.07	100.41	-121.74	2,958.66	-2,699.37	748.90	580.13	168.76	4.438		
8,500.00	5,095.72	9,186.39	5,489.65	95.57	102.95	-121.71	3,029.82	-2,769.62	749.55	576.38	173.18	4.328		
8,600.00	5,096.45	9,286.38	5,490.35	98.08	105.48	-121.68	3,100.98	-2,839.87	750.21	572.61	177.60	4.224		
8,700.00	5,097.18	9,386.38	5,491.06	100.59	108.02	-121.64	3,172.14	-2,910.12	750.87	568.84	182.03	4.125		
8,800.00	5,097.92	9,486.38	5,491.76	103.11	110.56	-121.61	3,243.30	-2,980.37	751.53	565.06	186.47	4.030		
8,900.00	5,098.65	9,586.37	5,492.47	105.63	113.11	-121.58	3,314.46	-3,050.62	752.20	561.28	190.92	3.940		

Company:	DJR Operating	Local Co-ordinate Reference:	Well # 307H - Slot 4
Project:	Gallo Canyon Unit	TVD Reference:	GL 6954' & RKB 14' @ 6968.00usft
Reference Site:	M26 2306 Pad	MD Reference:	GL 6954' & RKB 14' @ 6968.00usft
Site Error:	0.00 usft	North Reference:	True
Reference Well:	# 307H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	Original Drilling	Database:	DJR
Reference Design:	APD	Offset TVD Reference:	Offset Datum

Offset Design M26 2306 Pad - # 305H - Original Drilling - APD													Offset Site Error:	0.00 usft
Survey Program: 0-MWD+HDGM													Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis			Distance						Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
9,000.00	5,099.38	9,686.37	5,493.17	108.15	115.65	-121.54	3,385.62	-3,120.87	752.86	557.49	195.37	3.853		
9,100.00	5,100.11	9,786.37	5,493.88	110.67	118.20	-121.51	3,456.78	-3,191.12	753.52	553.69	199.83	3.771		
9,200.00	5,100.84	9,886.36	5,494.58	113.19	120.74	-121.48	3,527.94	-3,261.37	754.18	549.89	204.29	3.692		
9,300.00	5,101.57	9,986.36	5,495.29	115.72	123.29	-121.44	3,599.10	-3,331.62	754.84	546.08	208.76	3.616		
9,400.00	5,102.30	10,086.36	5,495.99	118.25	125.84	-121.41	3,670.26	-3,401.87	755.50	542.27	213.24	3.543		
9,500.00	5,103.04	10,186.36	5,496.70	120.78	128.40	-121.38	3,741.43	-3,472.12	756.16	538.45	217.72	3.473		
9,600.00	5,103.77	10,286.35	5,497.40	123.31	130.95	-121.34	3,812.59	-3,542.37	756.83	534.62	222.20	3.406		
9,700.00	5,104.50	10,386.35	5,498.11	125.85	133.50	-121.31	3,883.75	-3,612.62	757.49	530.80	226.69	3.341		
9,800.00	5,105.23	10,486.35	5,498.81	128.38	136.06	-121.28	3,954.91	-3,682.87	758.15	526.96	231.19	3.279		
9,900.00	5,105.96	10,586.34	5,499.51	130.92	138.62	-121.25	4,026.07	-3,753.12	758.81	523.13	235.69	3.220		
10,000.00	5,106.69	10,686.34	5,500.22	133.46	141.17	-121.21	4,097.23	-3,823.36	759.48	519.28	240.19	3.162		
10,100.00	5,107.42	10,786.34	5,500.92	136.00	143.73	-121.18	4,168.39	-3,893.61	760.14	515.44	244.70	3.106		
10,200.00	5,108.16	10,886.33	5,501.63	138.54	146.29	-121.15	4,239.55	-3,963.86	760.80	511.59	249.22	3.053		
10,300.00	5,108.89	10,986.33	5,502.33	141.08	148.85	-121.12	4,310.71	-4,034.11	761.47	507.73	253.73	3.001		
10,400.00	5,109.62	11,086.33	5,503.04	143.63	151.41	-121.08	4,381.87	-4,104.36	762.13	503.88	258.26	2.951		
10,500.00	5,110.35	11,186.32	5,503.74	146.17	153.98	-121.05	4,453.03	-4,174.61	762.80	500.01	262.78	2.903		
10,600.00	5,111.08	11,286.32	5,504.45	148.72	156.54	-121.02	4,524.19	-4,244.86	763.46	496.15	267.31	2.856		
10,700.00	5,111.81	11,386.32	5,505.15	151.27	159.10	-120.99	4,595.36	-4,315.11	764.13	492.28	271.85	2.811		
10,800.00	5,112.54	11,486.31	5,505.86	153.81	161.67	-120.95	4,666.52	-4,385.36	764.79	488.41	276.38	2.767		
10,900.00	5,113.28	11,586.31	5,506.56	156.36	164.23	-120.92	4,737.68	-4,455.61	765.46	484.53	280.93	2.725		
11,000.00	5,114.01	11,686.31	5,507.26	158.91	166.79	-120.89	4,808.84	-4,525.86	766.12	480.65	285.47	2.684		
11,100.00	5,114.74	11,786.31	5,507.97	161.46	169.36	-120.86	4,880.00	-4,596.11	766.79	476.77	290.02	2.644		
11,200.00	5,115.47	11,886.30	5,508.67	164.01	171.93	-120.83	4,951.16	-4,666.36	767.46	472.88	294.57	2.605		
11,300.00	5,116.20	11,986.30	5,509.38	166.56	174.49	-120.79	5,022.32	-4,736.61	768.12	468.99	299.13	2.568		
11,400.00	5,116.93	12,086.30	5,510.08	169.12	177.06	-120.76	5,093.48	-4,806.86	768.79	465.10	303.69	2.532		
11,500.00	5,117.66	12,186.29	5,510.79	171.67	179.63	-120.73	5,164.64	-4,877.11	769.46	461.21	308.25	2.496		
11,600.00	5,118.40	12,286.29	5,511.49	174.22	182.20	-120.70	5,235.80	-4,947.36	770.12	457.31	312.82	2.462		
11,700.00	5,119.13	12,386.29	5,512.20	176.78	184.76	-120.67	5,306.96	-5,017.61	770.79	453.40	317.39	2.429		
11,800.00	5,119.86	12,486.28	5,512.90	179.33	187.33	-120.63	5,378.12	-5,087.86	771.46	449.50	321.96	2.396		
11,900.00	5,120.59	12,586.28	5,513.61	181.88	189.90	-120.60	5,449.29	-5,158.11	772.13	445.59	326.53	2.365		
12,000.00	5,121.32	12,686.28	5,514.31	184.44	192.47	-120.57	5,520.45	-5,228.36	772.79	441.68	331.11	2.334		
12,100.00	5,122.05	12,786.27	5,515.02	187.00	195.04	-120.54	5,591.61	-5,298.61	773.46	437.77	335.69	2.304		
12,200.00	5,122.78	12,886.27	5,515.72	189.55	197.61	-120.51	5,662.77	-5,368.86	774.13	433.85	340.28	2.275		
12,300.00	5,123.52	12,926.74	5,516.00	192.11	198.65	-120.49	5,691.56	-5,397.29	777.09	435.12	341.97	2.272 SF		
12,400.00	5,124.25	12,926.74	5,516.00	194.67	198.65	-120.49	5,691.56	-5,397.29	791.71	454.29	337.43	2.346		
12,500.00	5,124.98	12,926.74	5,516.00	197.22	198.65	-120.49	5,691.56	-5,397.29	818.38	490.12	328.26	2.493		
12,600.00	5,125.71	12,926.74	5,516.00	199.78	198.65	-120.49	5,691.56	-5,397.29	855.97	540.28	315.69	2.711		
12,700.00	5,126.44	12,926.74	5,516.00	202.34	198.65	-120.49	5,691.56	-5,397.29	903.12	602.06	301.07	3.000		
12,800.00	5,127.17	12,926.74	5,516.00	204.90	198.65	-120.49	5,691.56	-5,397.29	958.42	672.89	285.54	3.357		
12,900.00	5,127.90	12,926.74	5,516.00	207.46	198.65	-120.49	5,691.56	-5,397.29	1,020.55	750.58	269.97	3.780		
12,913.03	5,128.00	12,926.74	5,516.00	207.79	198.65	-120.49	5,691.56	-5,397.29	1,029.09	761.12	267.97	3.840		

Company:	DJR Operating	Local Co-ordinate Reference:	Well # 307H - Slot 4
Project:	Gallo Canyon Unit	TVD Reference:	GL 6954' & RKB 14' @ 6968.00usft
Reference Site:	M26 2306 Pad	MD Reference:	GL 6954' & RKB 14' @ 6968.00usft
Site Error:	0.00 usft	North Reference:	True
Reference Well:	# 307H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	Original Drilling	Database:	DJR
Reference Design:	APD	Offset TVD Reference:	Offset Datum

Offset Design M26 2306 Pad - # 308H - Original Drilling - APD Rev 1													Offset Site Error:	0.00 usft
Survey Program: 0-MWD+HDGM													Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis		Distance								Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
0.00	0.00	0.00	0.00	0.00	0.00	-117.38	-27.67	-53.41	60.15					
100.00	100.00	100.00	100.00	0.15	0.15	-117.38	-27.67	-53.41	60.15	59.84	0.31	195.107		
200.00	200.00	200.00	200.00	0.51	0.51	-117.38	-27.67	-53.41	60.15	59.12	1.03	58.669		
300.00	300.00	300.00	300.00	0.87	0.87	-117.38	-27.67	-53.41	60.15	58.41	1.74	34.525		
400.00	400.00	400.00	400.00	1.23	1.23	-117.38	-27.67	-53.41	60.15	57.69	2.46	24.460 CC, ES		
500.00	499.98	498.08	498.06	1.59	1.57	-126.14	-27.70	-55.09	62.70	59.54	3.16	19.825		
600.00	599.84	595.76	595.61	1.95	1.92	-127.55	-27.80	-60.09	70.39	66.52	3.87	18.210		
700.00	699.45	692.64	692.13	2.32	2.26	-129.29	-27.97	-68.34	83.23	78.66	4.57	18.210		
800.00	798.70	788.32	787.14	2.68	2.62	-130.94	-28.21	-79.68	101.23	95.95	5.28	19.179		
900.00	897.47	882.47	880.19	3.06	2.98	-132.28	-28.50	-93.93	124.30	118.31	5.99	20.761		
1,000.00	995.62	974.73	970.89	3.46	3.36	-133.30	-28.85	-110.85	152.35	145.65	6.70	22.740		
1,023.07	1,018.16	995.72	991.43	3.55	3.44	-133.49	-28.94	-115.11	159.51	152.64	6.87	23.227		
1,100.00	1,093.29	1,065.07	1,059.11	3.88	3.75	-134.17	-29.25	-130.25	184.54	177.13	7.41	24.897		
1,200.00	1,190.93	1,157.15	1,148.51	4.30	4.16	-134.50	-29.71	-152.31	218.76	210.62	8.14	26.873		
1,300.00	1,288.58	1,251.04	1,239.61	4.73	4.60	-134.71	-30.18	-175.02	253.17	244.26	8.90	28.439		
1,400.00	1,386.22	1,344.93	1,330.71	5.17	5.05	-134.88	-30.65	-197.73	287.57	277.90	9.67	29.733		
1,500.00	1,483.86	1,438.83	1,421.82	5.61	5.50	-135.01	-31.12	-220.44	321.98	311.53	10.45	30.815		
1,600.00	1,581.51	1,532.72	1,512.92	6.05	5.96	-135.11	-31.59	-243.16	356.39	345.16	11.23	31.731		
1,700.00	1,679.15	1,626.61	1,604.02	6.50	6.43	-135.20	-32.06	-265.87	390.80	378.78	12.02	32.515		
1,800.00	1,776.80	1,720.50	1,695.12	6.95	6.89	-135.27	-32.53	-288.58	425.22	412.40	12.81	33.192		
1,900.00	1,874.44	1,814.39	1,786.22	7.40	7.36	-135.33	-33.00	-311.29	459.63	446.02	13.61	33.783		
2,000.00	1,972.08	1,908.28	1,877.33	7.85	7.84	-135.38	-33.47	-334.00	494.04	479.64	14.40	34.302		
2,100.00	2,069.73	2,002.17	1,968.43	8.30	8.31	-135.43	-33.94	-356.71	528.45	513.25	15.20	34.761		
2,200.00	2,167.37	2,096.07	2,059.53	8.75	8.79	-135.47	-34.41	-379.42	562.87	546.86	16.00	35.170		
2,300.00	2,265.02	2,189.96	2,150.63	9.21	9.26	-135.50	-34.88	-402.13	597.28	580.47	16.81	35.537		
2,400.00	2,362.66	2,283.85	2,241.73	9.66	9.74	-135.54	-35.35	-424.84	631.69	614.08	17.61	35.867		
2,500.00	2,460.31	2,377.74	2,332.84	10.12	10.22	-135.56	-35.82	-447.55	666.11	647.69	18.42	36.165		
2,600.00	2,557.95	2,471.63	2,423.94	10.57	10.70	-135.59	-36.29	-470.27	700.52	681.29	19.23	36.437		
2,700.00	2,655.59	2,565.52	2,515.04	11.03	11.18	-135.61	-36.76	-492.98	734.93	714.90	20.03	36.685		
2,800.00	2,753.24	2,659.42	2,606.14	11.48	11.66	-135.63	-37.23	-515.69	769.35	748.51	20.84	36.912		
2,900.00	2,850.88	2,753.31	2,697.25	11.94	12.14	-135.65	-37.69	-538.40	803.76	782.11	21.65	37.121		
3,000.00	2,948.53	2,847.20	2,788.35	12.40	12.62	-135.67	-38.16	-561.11	838.18	815.71	22.46	37.313		
3,100.00	3,046.17	2,941.09	2,879.45	12.86	13.10	-135.69	-38.63	-583.82	872.59	849.32	23.27	37.491		
3,200.00	3,143.82	3,034.98	2,970.55	13.31	13.58	-135.70	-39.10	-606.53	907.01	882.92	24.09	37.656		
3,300.00	3,241.46	3,128.87	3,061.65	13.77	14.07	-135.72	-39.57	-629.24	941.42	916.52	24.90	37.810		
3,400.00	3,339.10	3,222.76	3,152.76	14.23	14.55	-135.73	-40.04	-651.95	975.83	950.12	25.71	37.953		
3,500.00	3,436.75	3,316.66	3,243.86	14.69	15.03	-135.74	-40.51	-674.66	1,010.25	983.72	26.53	38.087		
3,600.00	3,534.39	3,410.55	3,334.96	15.15	15.51	-135.75	-40.98	-697.37	1,044.66	1,017.32	27.34	38.212		
3,700.00	3,632.04	3,504.44	3,426.06	15.60	16.00	-135.76	-41.45	-720.09	1,079.08	1,050.92	28.15	38.329		
3,800.00	3,729.68	3,598.33	3,517.16	16.06	16.48	-135.77	-41.92	-742.80	1,113.49	1,084.52	28.97	38.439		
3,900.00	3,827.32	3,692.22	3,608.27	16.52	16.97	-135.78	-42.39	-765.51	1,147.91	1,118.12	29.78	38.543		
4,000.00	3,924.97	3,786.11	3,699.37	16.98	17.45	-135.79	-42.86	-788.22	1,182.32	1,151.72	30.60	38.641		
4,100.00	4,022.61	3,880.00	3,790.47	17.44	17.93	-135.80	-43.33	-810.93	1,216.74	1,185.32	31.41	38.733		
4,200.00	4,120.26	3,973.90	3,881.57	17.90	18.42	-135.81	-43.80	-833.64	1,251.15	1,218.92	32.23	38.820		
4,300.00	4,217.90	4,067.79	3,972.68	18.36	18.90	-135.82	-44.27	-856.35	1,285.56	1,252.52	33.05	38.903		
4,400.00	4,315.55	4,161.68	4,063.78	18.82	19.39	-135.82	-44.74	-879.06	1,319.98	1,286.12	33.86	38.981		
4,500.00	4,413.19	4,255.57	4,154.88	19.28	19.87	-135.83	-45.21	-901.77	1,354.39	1,319.72	34.68	39.056		
4,600.00	4,510.83	4,349.46	4,245.98	19.74	20.36	-135.84	-45.68	-924.48	1,388.81	1,353.31	35.50	39.126		
4,619.02	4,529.40	4,367.32	4,263.31	19.82	20.45	-135.84	-45.77	-928.80	1,395.35	1,359.70	35.65	39.140		
4,650.00	4,559.55	4,396.43	4,291.55	19.97	20.60	-126.05	-45.91	-935.85	1,405.92	1,370.01	35.91	39.153		
4,700.00	4,607.60	4,443.36	4,337.10	20.22	20.84	-114.74	-46.15	-947.20	1,422.55	1,386.20	36.34	39.142		
4,750.00	4,654.66	4,490.00	4,382.34	20.48	21.08	-107.09	-46.38	-958.48	1,438.58	1,401.78	36.80	39.093		

Company:	DJR Operating	Local Co-ordinate Reference:	Well # 307H - Slot 4
Project:	Gallo Canyon Unit	TVD Reference:	GL 6954' & RKB 14' @ 6968.00usft
Reference Site:	M26 2306 Pad	MD Reference:	GL 6954' & RKB 14' @ 6968.00usft
Site Error:	0.00 usft	North Reference:	True
Reference Well:	# 307H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	Original Drilling	Database:	DJR
Reference Design:	APD	Offset TVD Reference:	Offset Datum

Offset Design M26 2306 Pad - # 308H - Original Drilling - APD Rev 1													Offset Site Error:	0.00 usft
Survey Program: 0-MWD+HDGM													Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
4,800.00	4,700.44	4,536.04	4,427.02	20.76	21.32	-101.70	-46.61	-969.62	1,453.99	1,416.71	37.27	39.008		
4,850.00	4,744.66	4,581.21	4,470.84	21.05	21.56	-97.76	-46.84	-980.54	1,468.77	1,431.00	37.77	38.891		
4,900.00	4,787.04	4,625.22	4,513.55	21.35	21.78	-94.82	-47.06	-991.19	1,482.94	1,444.66	38.28	38.744		
4,950.00	4,827.33	4,667.81	4,554.87	21.67	22.00	-92.58	-47.27	-1,001.49	1,496.54	1,457.74	38.80	38.570		
5,000.00	4,865.27	4,708.71	4,594.56	22.01	22.21	-90.85	-47.48	-1,011.38	1,509.65	1,470.31	39.34	38.370		
5,050.00	4,900.63	4,747.68	4,632.37	22.37	22.42	-89.50	-47.67	-1,020.81	1,522.34	1,482.43	39.91	38.148		
5,100.00	4,933.20	4,784.46	4,668.06	22.75	22.61	-88.43	-47.85	-1,029.70	1,534.69	1,494.20	40.49	37.904		
5,150.00	4,962.76	4,818.84	4,701.41	23.17	22.78	-87.57	-48.03	-1,038.02	1,546.81	1,505.72	41.09	37.642		
5,200.00	4,989.15	4,850.59	4,732.23	23.61	22.95	-86.83	-48.18	-1,045.70	1,558.80	1,517.07	41.72	37.363		
5,250.00	5,012.20	4,879.54	4,760.31	24.10	23.10	-86.18	-48.33	-1,052.70	1,570.73	1,528.36	42.37	37.071		
5,300.00	5,031.75	4,905.49	4,785.49	24.63	23.23	-85.57	-48.46	-1,058.98	1,582.72	1,539.67	43.04	36.770		
5,350.00	5,047.71	4,928.29	4,807.61	25.21	23.35	-84.96	-48.57	-1,064.49	1,594.82	1,551.08	43.74	36.464		
5,400.00	5,059.96	4,947.79	4,826.54	25.83	23.45	-84.32	-48.67	-1,069.21	1,607.10	1,562.66	44.44	36.161		
5,450.00	5,068.43	4,963.88	4,842.15	26.50	23.53	-83.62	-48.75	-1,073.10	1,619.61	1,574.45	45.16	35.866		
5,500.00	5,073.07	4,976.46	4,854.35	27.20	23.60	-82.85	-48.81	-1,076.15	1,632.36	1,586.48	45.87	35.586		
5,530.34	5,074.00	4,982.35	4,860.06	27.65	23.63	-82.35	-48.84	-1,077.57	1,640.21	1,593.91	46.30	35.426		
5,600.00	5,074.51	4,994.33	4,871.70	28.73	23.69	-82.78	-48.90	-1,080.47	1,659.66	1,612.38	47.29	35.098		
5,700.00	5,075.24	5,011.54	4,888.39	30.41	23.78	-83.39	-48.99	-1,084.63	1,692.07	1,643.35	48.71	34.736		
5,800.00	5,075.97	5,028.75	4,905.09	32.21	23.87	-84.00	-49.08	-1,088.79	1,729.48	1,679.36	50.12	34.508		
5,900.00	5,076.70	5,045.95	4,921.78	34.11	23.96	-84.61	-49.16	-1,092.96	1,771.59	1,720.11	51.48	34.413		
6,000.00	5,077.44	5,063.16	4,938.48	36.11	24.05	-85.22	-49.25	-1,097.12	1,818.07	1,765.28	52.78	34.444		
6,100.00	5,078.17	6,015.90	5,455.21	38.17	36.40	-102.03	295.31	-1,704.50	1,845.33	1,775.51	69.82	26.429		
6,200.00	5,078.90	6,114.41	5,455.51	40.30	38.40	-101.91	353.12	-1,784.27	1,862.06	1,788.06	74.00	25.163		
6,300.00	5,079.63	6,212.93	5,455.82	42.47	40.50	-101.79	410.94	-1,864.03	1,878.79	1,800.48	78.31	23.993		
6,400.00	5,080.36	6,311.44	5,456.12	44.69	42.67	-101.67	468.75	-1,943.80	1,895.53	1,812.81	82.72	22.916		
6,500.00	5,081.09	6,409.95	5,456.42	46.95	44.90	-101.56	526.57	-2,023.56	1,912.28	1,825.06	87.22	21.925		
6,600.00	5,081.82	6,508.47	5,456.72	49.24	47.18	-101.44	584.38	-2,103.32	1,929.03	1,837.24	91.80	21.014		
6,700.00	5,082.56	6,606.98	5,457.02	51.56	49.52	-101.33	642.20	-2,183.09	1,945.80	1,849.36	96.44	20.176		
6,800.00	5,083.29	6,705.50	5,457.32	53.90	51.89	-101.22	700.01	-2,262.85	1,962.57	1,861.43	101.14	19.404		
6,900.00	5,084.02	6,804.01	5,457.62	56.26	54.30	-101.11	757.83	-2,342.61	1,979.34	1,873.45	105.89	18.692		
7,000.00	5,084.75	6,902.52	5,457.92	58.64	56.74	-101.00	815.64	-2,422.38	1,996.13	1,885.44	110.69	18.033		
7,100.00	5,085.48	7,001.04	5,458.22	61.04	59.20	-100.90	873.46	-2,502.14	2,012.92	1,897.39	115.53	17.424		
7,200.00	5,086.21	7,099.55	5,458.53	63.45	61.69	-100.80	931.28	-2,581.91	2,029.72	1,909.32	120.40	16.859		
7,300.00	5,086.94	7,198.07	5,458.83	65.87	64.20	-100.70	989.09	-2,661.67	2,046.52	1,921.22	125.30	16.334		
7,400.00	5,087.68	7,296.58	5,459.13	68.31	66.73	-100.60	1,046.91	-2,741.43	2,063.33	1,933.11	130.22	15.845		
7,500.00	5,088.41	7,395.09	5,459.43	70.75	69.27	-100.50	1,104.72	-2,821.20	2,080.14	1,944.97	135.17	15.389		
7,600.00	5,089.14	7,493.61	5,459.73	73.21	71.82	-100.40	1,162.54	-2,900.96	2,096.97	1,956.82	140.15	14.963		
7,700.00	5,089.87	7,592.12	5,460.03	75.67	74.39	-100.31	1,220.35	-2,980.73	2,113.79	1,968.65	145.14	14.564		
7,800.00	5,090.60	7,690.63	5,460.33	78.14	76.98	-100.21	1,278.17	-3,060.49	2,130.62	1,980.47	150.15	14.190		
7,900.00	5,091.33	7,789.15	5,460.63	80.61	79.57	-100.12	1,335.98	-3,140.25	2,147.46	1,992.29	155.18	13.839		
8,000.00	5,092.06	7,887.66	5,460.94	83.09	82.17	-100.03	1,393.80	-3,220.02	2,164.31	2,004.09	160.22	13.508		
8,100.00	5,092.80	7,986.18	5,461.24	85.58	84.78	-99.94	1,451.61	-3,299.78	2,181.15	2,015.88	165.27	13.197		
8,200.00	5,093.53	8,084.69	5,461.54	88.07	87.39	-99.85	1,509.43	-3,379.55	2,198.01	2,027.67	170.34	12.904		
8,300.00	5,094.26	8,183.20	5,461.84	90.57	90.02	-99.77	1,567.24	-3,459.31	2,214.87	2,039.44	175.42	12.626		
8,400.00	5,094.99	8,281.72	5,462.14	93.07	92.65	-99.68	1,625.06	-3,539.07	2,231.73	2,051.22	180.51	12.363		
8,500.00	5,095.72	8,380.23	5,462.44	95.57	95.29	-99.60	1,682.88	-3,618.84	2,248.60	2,062.99	185.61	12.115		
8,600.00	5,096.45	8,478.75	5,462.74	98.08	97.93	-99.51	1,740.69	-3,698.60	2,265.47	2,074.75	190.72	11.879		
8,700.00	5,097.18	8,577.26	5,463.04	100.59	100.57	-99.43	1,798.51	-3,778.37	2,282.35	2,086.51	195.83	11.654		
8,800.00	5,097.92	8,675.77	5,463.35	103.11	103.22	-99.35	1,856.32	-3,858.13	2,299.23	2,098.27	200.96	11.441		
8,900.00	5,098.65	8,774.29	5,463.65	105.63	105.88	-99.27	1,914.14	-3,937.89	2,316.11	2,110.02	206.09	11.238		
9,000.00	5,099.38	8,872.80	5,463.95	108.15	108.54	-99.20	1,971.95	-4,017.66	2,333.00	2,121.77	211.23	11.045		
9,100.00	5,100.11	8,971.32	5,464.25	110.67	111.20	-99.12	2,029.77	-4,097.42	2,349.90	2,133.52	216.38	10.860		

Company:	DJR Operating	Local Co-ordinate Reference:	Well # 307H - Slot 4
Project:	Gallo Canyon Unit	TVD Reference:	GL 6954' & RKB 14' @ 6968.00usft
Reference Site:	M26 2306 Pad	MD Reference:	GL 6954' & RKB 14' @ 6968.00usft
Site Error:	0.00 usft	North Reference:	True
Reference Well:	# 307H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	Original Drilling	Database:	DJR
Reference Design:	APD	Offset TVD Reference:	Offset Datum

Offset Design M26 2306 Pad - # 308H - Original Drilling - APD Rev 1													Offset Site Error:	0.00 usft
Survey Program: 0-MWD+HDGM													Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis			Distance						Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
9,200.00	5,100.84	9,069.83	5,464.55	113.19	113.87	-99.04	2,087.58	-4,177.18	2,366.80	2,145.27	221.53	10.684		
9,300.00	5,101.57	9,168.34	5,464.85	115.72	116.54	-98.97	2,145.40	-4,256.95	2,383.70	2,157.02	226.68	10.516		
9,400.00	5,102.30	9,266.86	5,465.15	118.25	119.21	-98.89	2,203.21	-4,336.71	2,400.60	2,168.76	231.84	10.354		
9,500.00	5,103.04	9,365.37	5,465.45	120.78	121.89	-98.82	2,261.03	-4,416.48	2,417.51	2,180.50	237.01	10.200		
9,600.00	5,103.77	9,463.89	5,465.75	123.31	124.56	-98.75	2,318.85	-4,496.24	2,434.43	2,192.25	242.18	10.052		
9,700.00	5,104.50	9,562.40	5,466.06	125.85	127.24	-98.68	2,376.66	-4,576.00	2,451.35	2,203.99	247.36	9.910		
9,800.00	5,105.23	9,660.91	5,466.36	128.38	129.93	-98.61	2,434.48	-4,655.77	2,468.27	2,215.73	252.54	9.774		
9,900.00	5,105.96	9,759.43	5,466.66	130.92	132.61	-98.54	2,492.29	-4,735.53	2,485.19	2,227.47	257.72	9.643		
10,000.00	5,106.69	9,857.94	5,466.96	133.46	135.30	-98.47	2,550.11	-4,815.30	2,502.12	2,239.21	262.91	9.517		
10,100.00	5,107.42	9,956.46	5,467.26	136.00	137.99	-98.41	2,607.92	-4,895.06	2,519.05	2,250.95	268.10	9.396		
10,200.00	5,108.16	10,054.97	5,467.56	138.54	140.68	-98.34	2,665.74	-4,974.82	2,535.98	2,262.69	273.29	9.279		
10,300.00	5,108.89	10,153.48	5,467.86	141.08	143.37	-98.28	2,723.55	-5,054.59	2,552.92	2,274.43	278.49	9.167		
10,400.00	5,109.62	10,252.00	5,468.16	143.63	146.06	-98.21	2,781.37	-5,134.35	2,569.86	2,286.17	283.69	9.059		
10,500.00	5,110.35	10,350.51	5,468.47	146.17	148.75	-98.15	2,839.18	-5,214.12	2,586.81	2,297.91	288.89	8.954		
10,600.00	5,111.08	10,449.02	5,468.77	148.72	151.45	-98.09	2,897.00	-5,293.88	2,603.75	2,309.66	294.10	8.853		
10,700.00	5,111.81	10,525.38	5,469.00	151.27	153.54	-98.04	2,941.81	-5,355.70	2,620.80	2,322.29	298.51	8.780 SF		
10,800.00	5,112.54	10,525.38	5,469.00	153.81	153.54	-98.04	2,941.81	-5,355.70	2,640.42	2,340.52	299.90	8.804		
10,900.00	5,113.28	10,525.38	5,469.00	156.36	153.54	-98.04	2,941.81	-5,355.70	2,663.65	2,362.78	300.87	8.853		
11,000.00	5,114.01	10,525.38	5,469.00	158.91	153.54	-98.04	2,941.81	-5,355.70	2,690.40	2,388.95	301.44	8.925		
11,100.00	5,114.74	10,525.38	5,469.00	161.46	153.54	-98.04	2,941.81	-5,355.70	2,720.56	2,418.93	301.63	9.019		
11,200.00	5,115.47	10,525.38	5,469.00	164.01	153.54	-98.04	2,941.81	-5,355.70	2,754.03	2,452.56	301.47	9.135		
11,300.00	5,116.20	10,525.38	5,469.00	166.56	153.54	-98.04	2,941.81	-5,355.70	2,790.68	2,489.71	300.97	9.272		
11,400.00	5,116.93	10,525.38	5,469.00	169.12	153.54	-98.04	2,941.81	-5,355.70	2,830.39	2,530.22	300.17	9.429		
11,500.00	5,117.66	10,525.38	5,469.00	171.67	153.54	-98.04	2,941.81	-5,355.70	2,873.03	2,573.95	299.09	9.606		
11,600.00	5,118.40	10,525.38	5,469.00	174.22	153.54	-98.04	2,941.81	-5,355.70	2,918.48	2,620.72	297.76	9.801		
11,700.00	5,119.13	10,525.38	5,469.00	176.78	153.54	-98.04	2,941.81	-5,355.70	2,966.61	2,670.39	296.22	10.015		
11,800.00	5,119.86	10,525.38	5,469.00	179.33	153.54	-98.04	2,941.81	-5,355.70	3,017.28	2,722.80	294.48	10.246		
11,900.00	5,120.59	10,525.38	5,469.00	181.88	153.54	-98.04	2,941.81	-5,355.70	3,070.37	2,777.80	292.58	10.494		
12,000.00	5,121.32	10,525.38	5,469.00	184.44	153.54	-98.04	2,941.81	-5,355.70	3,125.76	2,835.24	290.53	10.759		
12,100.00	5,122.05	10,525.38	5,469.00	187.00	153.54	-98.04	2,941.81	-5,355.70	3,183.33	2,894.97	288.36	11.039		
12,200.00	5,122.78	10,525.38	5,469.00	189.55	153.54	-98.04	2,941.81	-5,355.70	3,242.97	2,956.87	286.10	11.335		
12,300.00	5,123.52	10,525.38	5,469.00	192.11	153.54	-98.04	2,941.81	-5,355.70	3,304.55	3,020.80	283.75	11.646		
12,400.00	5,124.25	10,525.38	5,469.00	194.67	153.54	-98.04	2,941.81	-5,355.70	3,367.98	3,086.64	281.34	11.971		
12,500.00	5,124.98	10,525.38	5,469.00	197.22	153.54	-98.04	2,941.81	-5,355.70	3,433.14	3,154.26	278.88	12.310		
12,600.00	5,125.71	10,525.38	5,469.00	199.78	153.54	-98.04	2,941.81	-5,355.70	3,499.96	3,223.56	276.39	12.663		
12,700.00	5,126.44	10,525.38	5,469.00	202.34	153.54	-98.04	2,941.81	-5,355.70	3,568.32	3,294.44	273.88	13.029		
12,800.00	5,127.17	10,525.38	5,469.00	204.90	153.54	-98.04	2,941.81	-5,355.70	3,638.15	3,366.79	271.36	13.407		
12,900.00	5,127.90	10,525.38	5,469.00	207.46	153.54	-98.04	2,941.81	-5,355.70	3,709.36	3,440.52	268.84	13.798		
12,913.03	5,128.00	10,525.38	5,469.00	207.79	153.54	-98.04	2,941.81	-5,355.70	3,718.74	3,450.23	268.51	13.849		



Lonestar Consulting, LLC
Anticollision Report



Company:	DJR Operating	Local Co-ordinate Reference:	Well # 307H - Slot 4
Project:	Gallo Canyon Unit	TVD Reference:	GL 6954' & RKB 14' @ 6968.00usft
Reference Site:	M26 2306 Pad	MD Reference:	GL 6954' & RKB 14' @ 6968.00usft
Site Error:	0.00 usft	North Reference:	True
Reference Well:	# 307H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	Original Drilling	Database:	DJR
Reference Design:	APD	Offset TVD Reference:	Offset Datum

Offset Design M26 2306 Pad - # 309H - Original Drilling - APD													Offset Site Error:	0.00 usft
Survey Program: 0-MWD+HDGM													Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
0.00	0.00	0.00	0.00	0.00	0.00	61.47	9.46	17.41	19.82					
100.00	100.00	100.00	100.00	0.15	0.15	61.47	9.46	17.41	19.82	19.51	0.31	64.278		
200.00	200.00	200.00	200.00	0.51	0.51	61.47	9.46	17.41	19.82	18.79	1.03	19.328		
300.00	300.00	300.00	300.00	0.87	0.87	61.47	9.46	17.41	19.82	18.07	1.74	11.374		
400.00	400.00	400.00	400.00	1.23	1.23	61.47	9.46	17.41	19.82	17.36	2.46	8.058 CC		
500.00	499.98	499.57	499.55	1.59	1.59	53.38	11.17	17.71	19.86	16.68	3.17	6.257		
600.00	599.84	599.14	598.98	1.95	1.95	53.72	16.28	18.62	19.98	16.09	3.89	5.139		
700.00	699.45	698.71	698.17	2.32	2.31	54.29	24.78	20.13	20.18	15.58	4.61	4.382		
800.00	798.70	798.28	797.00	2.68	2.68	55.07	36.68	22.25	20.47	15.14	5.33	3.838		
900.00	897.47	897.86	895.36	3.06	3.05	56.03	51.95	24.96	20.85	14.77	6.08	3.430		
1,000.00	995.62	997.43	993.11	3.46	3.45	57.15	70.58	28.27	21.32	14.47	6.85	3.112		
1,023.07	1,018.16	1,020.40	1,015.56	3.55	3.55	57.43	75.35	29.12	21.44	14.41	7.03	3.048 ES		
1,100.00	1,093.29	1,096.99	1,090.14	3.88	3.87	56.19	92.53	32.18	22.44	14.80	7.64	2.937 SF		
1,200.00	1,190.93	1,196.86	1,186.92	4.30	4.30	51.24	116.75	36.48	24.94	16.51	8.43	2.959		
1,300.00	1,288.58	1,296.80	1,283.78	4.73	4.75	47.14	141.05	40.80	27.63	18.41	9.22	2.996		
1,400.00	1,386.22	1,396.75	1,380.63	5.17	5.21	43.78	165.34	45.12	30.44	20.43	10.02	3.039		
1,500.00	1,483.86	1,496.70	1,477.48	5.61	5.67	41.00	189.63	49.44	33.34	22.53	10.81	3.085		
1,600.00	1,581.51	1,596.64	1,574.33	6.05	6.13	38.67	213.93	53.76	36.30	24.70	11.60	3.129		
1,700.00	1,679.15	1,696.59	1,671.19	6.50	6.60	36.69	238.22	58.08	39.32	26.92	12.39	3.173		
1,800.00	1,776.80	1,796.53	1,768.04	6.95	7.07	34.99	262.51	62.40	42.37	29.19	13.18	3.214		
1,900.00	1,874.44	1,896.48	1,864.89	7.40	7.54	33.52	286.81	66.72	45.45	31.48	13.97	3.253		
2,000.00	1,972.08	1,996.43	1,961.74	7.85	8.02	32.24	311.10	71.03	48.57	33.80	14.77	3.289		
2,100.00	2,069.73	2,096.37	2,058.60	8.30	8.50	31.12	335.39	75.35	51.70	36.14	15.56	3.323		
2,200.00	2,167.37	2,196.32	2,155.45	8.75	8.97	30.12	359.69	79.67	54.85	38.50	16.35	3.355		
2,300.00	2,265.02	2,296.27	2,252.30	9.21	9.45	29.23	383.98	83.99	58.01	40.87	17.14	3.384		
2,400.00	2,362.66	2,396.21	2,349.15	9.66	9.93	28.44	408.27	88.31	61.19	43.26	17.93	3.412		
2,500.00	2,460.31	2,496.16	2,446.01	10.12	10.41	27.72	432.57	92.63	64.38	45.65	18.73	3.438		
2,600.00	2,557.95	2,596.10	2,542.86	10.57	10.90	27.07	456.86	96.95	67.58	48.06	19.52	3.462		
2,700.00	2,655.59	2,696.05	2,639.71	11.03	11.38	26.48	481.15	101.27	70.78	50.47	20.31	3.485		
2,800.00	2,753.24	2,796.00	2,736.56	11.48	11.86	25.94	505.45	105.59	74.00	52.89	21.11	3.506		
2,900.00	2,850.88	2,895.94	2,833.42	11.94	12.34	25.45	529.74	109.90	77.21	55.31	21.90	3.526		
3,000.00	2,948.53	2,995.89	2,930.27	12.40	12.83	24.99	554.03	114.22	80.44	57.74	22.69	3.544		
3,100.00	3,046.17	3,095.83	3,027.12	12.86	13.31	24.57	578.33	118.54	83.67	60.18	23.49	3.562		
3,200.00	3,143.82	3,195.78	3,123.97	13.31	13.80	24.18	602.62	122.86	86.90	62.62	24.28	3.579		
3,300.00	3,241.46	3,295.73	3,220.83	13.77	14.28	23.82	626.91	127.18	90.13	65.06	25.08	3.594		
3,400.00	3,339.10	3,395.67	3,317.68	14.23	14.77	23.49	651.21	131.50	93.37	67.50	25.87	3.609		
3,500.00	3,436.75	3,495.62	3,414.53	14.69	15.25	23.17	675.50	135.82	96.62	69.95	26.67	3.623		
3,600.00	3,534.39	3,595.56	3,511.38	15.15	15.74	22.88	699.79	140.14	99.86	72.40	27.46	3.637		
3,700.00	3,632.04	3,695.51	3,608.24	15.60	16.22	22.61	724.09	144.45	103.11	74.85	28.26	3.649		
3,800.00	3,729.68	3,795.46	3,705.09	16.06	16.71	22.35	748.38	148.77	106.36	77.31	29.05	3.661		
3,900.00	3,827.32	3,895.40	3,801.94	16.52	17.19	22.11	772.67	153.09	109.61	79.76	29.85	3.673		
4,000.00	3,924.97	3,995.35	3,898.79	16.98	17.68	21.88	796.97	157.41	112.86	82.22	30.64	3.683		
4,100.00	4,022.61	4,095.29	3,995.65	17.44	18.17	21.66	821.26	161.73	116.12	84.68	31.44	3.694		
4,200.00	4,120.26	4,195.24	4,092.50	17.90	18.65	21.46	845.55	166.05	119.38	87.14	32.23	3.704		
4,300.00	4,217.90	4,295.19	4,189.35	18.36	19.14	21.26	869.85	170.37	122.63	89.61	33.03	3.713		
4,400.00	4,315.55	4,395.13	4,286.20	18.82	19.63	21.08	894.14	174.69	125.89	92.07	33.82	3.722		
4,500.00	4,413.19	4,497.08	4,385.11	19.28	20.12	21.30	918.26	179.74	128.90	94.24	34.67	3.718		
4,600.00	4,510.83	4,601.42	4,487.23	19.74	20.55	21.14	933.44	184.03	128.90	93.03	35.87	3.594		
4,619.02	4,529.40	4,620.65	4,506.00	19.82	20.61	29.02	934.87	197.93	128.74	92.59	36.16	3.561		
4,648.04	4,557.65	4,649.27	4,533.84	19.96	20.71	40.90	936.20	204.44	128.60	91.93	36.66	3.508		
4,650.00	4,559.55	4,651.15	4,535.67	19.97	20.72	41.66	936.25	204.90	128.60	91.90	36.70	3.504		
4,700.00	4,607.60	4,697.18	4,580.00	20.22	20.86	59.55	936.28	217.23	129.89	92.11	37.78	3.438		

Company:	DJR Operating	Local Co-ordinate Reference:	Well # 307H - Slot 4
Project:	Gallo Canyon Unit	TVD Reference:	GL 6954' & RKB 14' @ 6968.00usft
Reference Site:	M26 2306 Pad	MD Reference:	GL 6954' & RKB 14' @ 6968.00usft
Site Error:	0.00 usft	North Reference:	True
Reference Well:	# 307H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	Original Drilling	Database:	DJR
Reference Design:	APD	Offset TVD Reference:	Offset Datum

Offset Design M26 2306 Pad - # 309H - Original Drilling - APD													Offset Site Error:	0.00 usft
Survey Program: 0-MWD+HDGM													Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis			Distance						Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
4,750.00	4,654.66	4,738.31	4,619.02	20.48	20.96	74.78	934.22	230.03	135.68	96.84	38.84	3.493		
4,800.00	4,700.44	4,773.94	4,652.25	20.76	21.04	87.12	930.84	242.44	148.54	109.05	39.49	3.762		
4,850.00	4,744.66	4,803.93	4,679.71	21.05	21.11	96.34	926.86	253.81	169.46	129.94	39.51	4.289		
4,900.00	4,787.04	4,828.48	4,701.80	21.35	21.15	102.53	922.84	263.72	197.87	158.79	39.08	5.063		
4,950.00	4,827.33	4,850.00	4,720.86	21.67	21.19	106.50	918.75	272.85	232.40	193.79	38.61	6.019		
5,000.00	4,865.27	4,862.86	4,732.09	22.01	21.21	106.72	916.06	278.49	271.54	233.70	37.83	7.177		
5,050.00	4,900.63	4,873.68	4,741.46	22.37	21.22	104.78	913.64	283.35	314.07	276.77	37.30	8.420		
5,100.00	4,933.20	4,880.93	4,747.69	22.75	21.23	99.78	911.96	286.65	358.98	322.10	36.88	9.734		
5,150.00	4,962.76	4,885.05	4,751.21	23.17	21.24	91.19	910.97	288.55	405.49	368.91	36.58	11.085		
5,200.00	4,989.15	4,886.45	4,752.40	23.61	21.24	78.78	910.64	289.20	452.98	416.59	36.39	12.449		
5,250.00	5,012.20	4,885.48	4,751.57	24.10	21.24	63.67	910.87	288.75	500.95	464.66	36.29	13.805		
5,300.00	5,031.75	4,882.45	4,748.99	24.63	21.23	48.59	911.60	287.36	549.01	512.74	36.26	15.139		
5,350.00	5,047.71	4,877.64	4,744.87	25.21	21.23	35.93	912.73	285.15	596.81	560.50	36.31	16.437		
5,400.00	5,059.96	4,871.26	4,739.38	25.83	21.22	26.36	914.19	282.25	644.08	607.67	36.41	17.689		
5,450.00	5,068.43	4,863.53	4,732.68	26.50	21.21	19.37	915.91	278.79	690.57	654.01	36.56	18.890		
5,500.00	5,073.07	4,850.00	4,720.86	27.20	21.19	13.94	918.75	272.85	736.09	699.50	36.59	20.115		
5,530.34	5,074.00	4,850.00	4,720.86	27.65	21.19	11.87	918.75	272.85	763.11	726.20	36.91	20.675		
5,600.00	5,074.51	4,835.20	4,707.79	28.73	21.16	11.07	921.62	266.53	825.07	787.91	37.16	22.201		
5,700.00	5,075.24	4,817.83	4,692.27	30.41	21.13	10.18	924.67	259.35	915.25	877.72	37.54	24.383		
5,800.00	5,075.97	4,800.00	4,676.14	32.21	21.10	9.32	927.44	252.27	1,006.66	968.85	37.80	26.630		
5,900.00	5,076.70	4,800.00	4,676.14	34.11	21.10	9.32	927.44	252.27	1,099.21	1,060.84	38.37	28.649		
6,000.00	5,077.44	4,776.32	4,654.45	36.11	21.05	8.27	930.56	243.31	1,192.29	1,153.92	38.37	31.075		
6,100.00	5,078.17	4,750.00	4,629.99	38.17	20.99	7.19	933.27	233.97	1,286.51	1,248.21	38.30	33.588		
6,200.00	5,078.90	4,750.00	4,629.99	40.30	20.99	7.19	933.27	233.97	1,380.83	1,342.15	38.68	35.703		
6,300.00	5,079.63	4,750.00	4,629.99	42.47	20.99	7.19	933.27	233.97	1,475.89	1,436.91	38.99	37.855		
6,400.00	5,080.36	4,750.00	4,629.99	44.69	20.99	7.19	933.27	233.97	1,571.57	1,532.32	39.25	40.037		
6,500.00	5,081.09	4,729.95	4,611.15	46.95	20.94	6.44	934.80	227.29	1,667.32	1,628.12	39.20	42.534		
6,600.00	5,081.82	4,722.90	4,604.49	49.24	20.92	6.19	935.22	225.04	1,763.59	1,724.27	39.32	44.854		
6,700.00	5,082.56	4,700.00	4,582.70	51.56	20.86	5.41	936.20	218.05	1,860.44	1,821.22	39.21	47.442		
6,800.00	5,083.29	4,700.00	4,582.70	53.90	20.86	5.41	936.20	218.05	1,957.10	1,917.70	39.40	49.674		
6,900.00	5,084.02	4,700.00	4,582.70	56.26	20.86	5.41	936.20	218.05	2,054.08	2,014.51	39.56	51.918		
7,000.00	5,084.75	4,700.00	4,582.70	58.64	20.86	5.41	936.20	218.05	2,151.34	2,111.62	39.71	54.172		
7,100.00	5,085.48	4,700.00	4,582.70	61.04	20.86	5.41	936.20	218.05	2,248.83	2,208.99	39.85	56.435		
7,200.00	5,086.21	4,700.00	4,582.70	63.45	20.86	5.41	936.20	218.05	2,346.54	2,306.57	39.97	58.704		
7,300.00	5,086.94	4,700.00	4,582.70	65.87	20.86	5.41	936.20	218.05	2,444.44	2,404.35	40.09	60.978		
7,400.00	5,087.68	4,700.00	4,582.70	68.31	20.86	5.41	936.20	218.05	2,542.49	2,502.30	40.19	63.257		
7,500.00	5,088.41	4,678.38	4,561.97	70.75	20.80	4.73	936.57	211.94	2,640.24	2,600.17	40.07	65.884		
7,600.00	5,089.14	4,674.87	4,558.59	73.21	20.79	4.62	936.58	210.99	2,738.42	2,698.28	40.14	68.224		
7,700.00	5,089.87	4,671.56	4,555.40	75.67	20.78	4.52	936.57	210.10	2,836.71	2,796.51	40.20	70.564		
7,800.00	5,090.60	4,650.00	4,534.55	78.14	20.72	3.90	936.22	204.62	2,935.41	2,895.33	40.09	73.228		
7,900.00	5,091.33	4,650.00	4,534.55	80.61	20.72	3.90	936.22	204.62	3,033.78	2,993.61	40.18	75.513		
8,000.00	5,092.06	4,650.00	4,534.55	83.09	20.72	3.90	936.22	204.62	3,132.26	3,092.00	40.26	77.798		
8,100.00	5,092.80	4,650.00	4,534.55	85.58	20.72	3.90	936.22	204.62	3,230.83	3,190.48	40.34	80.082		
8,200.00	5,093.53	4,650.00	4,534.55	88.07	20.72	3.90	936.22	204.62	3,329.48	3,289.06	40.42	82.365		
8,300.00	5,094.26	4,650.00	4,534.55	90.57	20.72	3.90	936.22	204.62	3,428.22	3,387.71	40.50	84.646		
8,400.00	5,094.99	4,650.00	4,534.55	93.07	20.72	3.90	936.22	204.62	3,527.02	3,486.44	40.58	86.925		
8,500.00	5,095.72	4,650.00	4,534.55	95.57	20.72	3.90	936.22	204.62	3,625.89	3,585.24	40.65	89.202		
8,600.00	5,096.45	4,650.00	4,534.55	98.08	20.72	3.90	936.22	204.62	3,724.82	3,684.10	40.72	91.475		
8,700.00	5,097.18	4,650.00	4,534.55	100.59	20.72	3.90	936.22	204.62	3,823.80	3,783.02	40.79	93.746		
8,800.00	5,097.92	4,650.00	4,534.55	103.11	20.72	3.90	936.22	204.62	3,922.84	3,881.98	40.86	96.013		
8,900.00	5,098.65	4,650.00	4,534.55	105.63	20.72	3.90	936.22	204.62	4,021.93	3,981.00	40.92	98.276		
9,000.00	5,099.38	4,650.00	4,534.55	108.15	20.72	3.90	936.22	204.62	4,121.05	4,080.06	40.99	100.536		



Lonestar Consulting, LLC
Anticollision Report



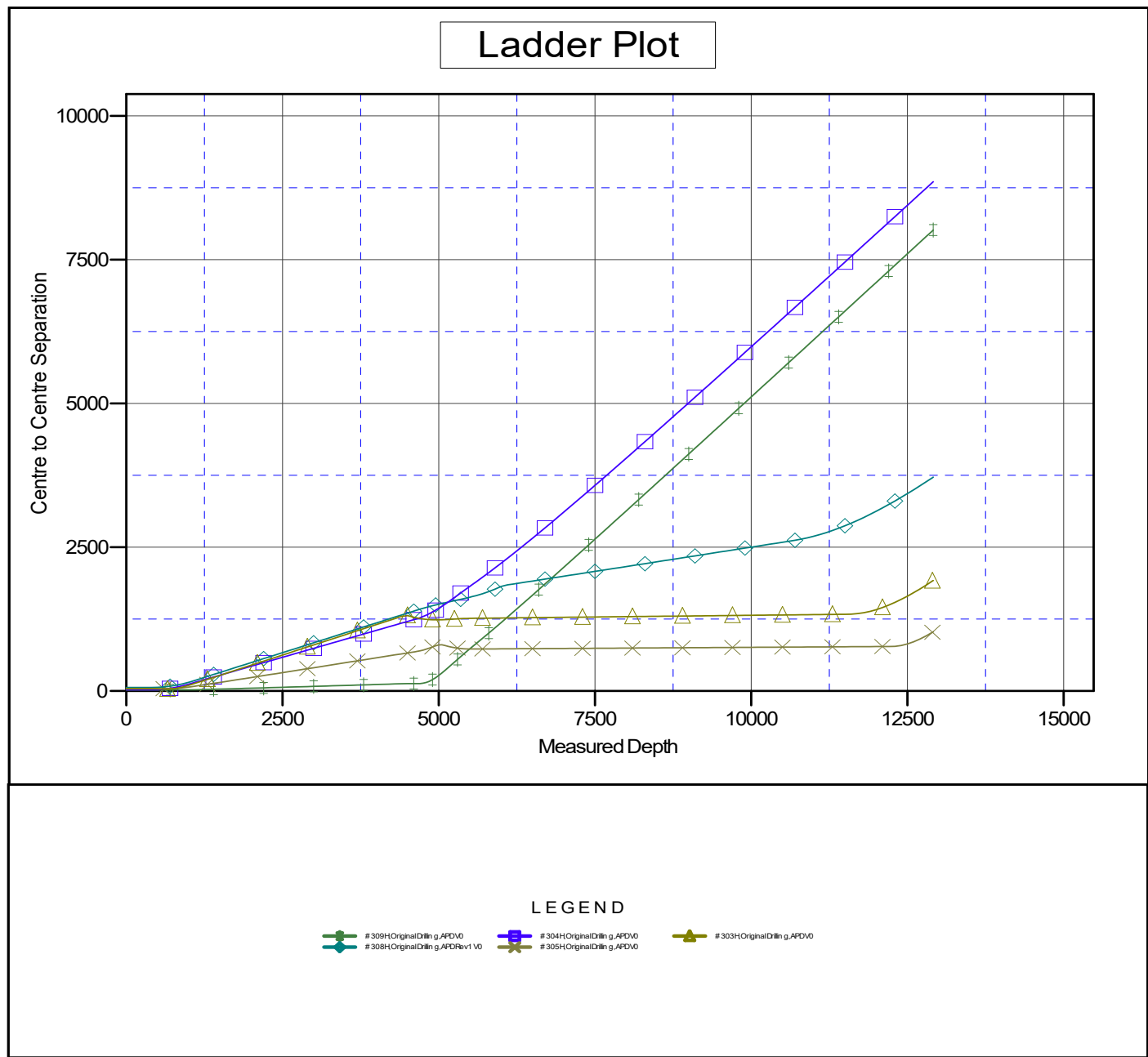
Company:	DJR Operating	Local Co-ordinate Reference:	Well # 307H - Slot 4
Project:	Gallo Canyon Unit	TVD Reference:	GL 6954' & RKB 14' @ 6968.00usft
Reference Site:	M26 2306 Pad	MD Reference:	GL 6954' & RKB 14' @ 6968.00usft
Site Error:	0.00 usft	North Reference:	True
Reference Well:	# 307H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	Original Drilling	Database:	DJR
Reference Design:	APD	Offset TVD Reference:	Offset Datum

Offset Design M26 2306 Pad - # 309H - Original Drilling - APD												Offset Site Error:	0.00 usft
Survey Program: 0-MWD+HDGM												Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis		Distance							
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
9,100.00	5,100.11	4,650.00	4,534.55	110.67	20.72	3.90	936.22	204.62	4,220.22	4,179.17	41.06	102.790	
9,200.00	5,100.84	4,650.00	4,534.55	113.19	20.72	3.90	936.22	204.62	4,319.43	4,278.31	41.12	105.041	
9,300.00	5,101.57	4,650.00	4,534.55	115.72	20.72	3.90	936.22	204.62	4,418.68	4,377.49	41.19	107.286	
9,400.00	5,102.30	4,650.00	4,534.55	118.25	20.72	3.90	936.22	204.62	4,517.95	4,476.70	41.25	109.527	
9,500.00	5,103.04	4,650.00	4,534.55	120.78	20.72	3.90	936.22	204.62	4,617.26	4,575.95	41.31	111.762	
9,600.00	5,103.77	4,650.00	4,534.55	123.31	20.72	3.90	936.22	204.62	4,716.60	4,675.22	41.38	113.992	
9,700.00	5,104.50	4,650.00	4,534.55	125.85	20.72	3.90	936.22	204.62	4,815.97	4,774.53	41.44	116.216	
9,800.00	5,105.23	4,650.00	4,534.55	128.38	20.72	3.90	936.22	204.62	4,915.36	4,873.85	41.50	118.435	
9,900.00	5,105.96	4,650.00	4,534.55	130.92	20.72	3.90	936.22	204.62	5,014.77	4,973.21	41.57	120.648	
10,000.00	5,106.69	4,626.88	4,512.08	133.46	20.64	3.28	935.24	199.27	5,113.74	5,072.28	41.45	123.358	
10,100.00	5,107.42	4,625.73	4,510.96	136.00	20.63	3.25	935.18	199.02	5,213.15	5,171.64	41.51	125.589	
10,200.00	5,108.16	4,624.62	4,509.88	138.54	20.63	3.22	935.11	198.78	5,312.58	5,271.02	41.57	127.812	
10,300.00	5,108.89	4,623.54	4,508.83	141.08	20.62	3.19	935.05	198.55	5,412.03	5,370.41	41.62	130.029	
10,400.00	5,109.62	4,622.50	4,507.81	143.63	20.62	3.17	934.99	198.32	5,511.50	5,469.82	41.68	132.239	
10,500.00	5,110.35	4,600.00	4,485.84	146.17	20.54	2.61	933.32	193.76	5,611.39	5,569.81	41.58	134.955	
10,600.00	5,111.08	4,600.00	4,485.84	148.72	20.54	2.61	933.32	193.76	5,710.86	5,669.21	41.65	137.131	
10,700.00	5,111.81	4,600.00	4,485.84	151.27	20.54	2.61	933.32	193.76	5,810.34	5,768.63	41.71	139.300	
10,800.00	5,112.54	4,600.00	4,485.84	153.81	20.54	2.61	933.32	193.76	5,909.84	5,868.07	41.78	141.462	
10,900.00	5,113.28	4,600.00	4,485.84	156.36	20.54	2.61	933.32	193.76	6,009.36	5,967.52	41.84	143.617	
11,000.00	5,114.01	4,600.00	4,485.84	158.91	20.54	2.61	933.32	193.76	6,108.90	6,066.99	41.91	145.765	
11,100.00	5,114.74	4,600.00	4,485.84	161.46	20.54	2.61	933.32	193.76	6,208.45	6,166.47	41.98	147.906	
11,200.00	5,115.47	4,600.00	4,485.84	164.01	20.54	2.61	933.32	193.76	6,308.01	6,265.97	42.04	150.039	
11,300.00	5,116.20	4,600.00	4,485.84	166.56	20.54	2.61	933.32	193.76	6,407.59	6,365.48	42.11	152.165	
11,400.00	5,116.93	4,600.00	4,485.84	169.12	20.54	2.61	933.32	193.76	6,507.17	6,465.00	42.18	154.283	
11,500.00	5,117.66	4,600.00	4,485.84	171.67	20.54	2.61	933.32	193.76	6,606.78	6,564.53	42.24	156.394	
11,600.00	5,118.40	4,600.00	4,485.84	174.22	20.54	2.61	933.32	193.76	6,706.39	6,664.08	42.31	158.496	
11,700.00	5,119.13	4,600.00	4,485.84	176.78	20.54	2.61	933.32	193.76	6,806.02	6,763.64	42.38	160.591	
11,800.00	5,119.86	4,600.00	4,485.84	179.33	20.54	2.61	933.32	193.76	6,905.65	6,863.20	42.45	162.679	
11,900.00	5,120.59	4,600.00	4,485.84	181.88	20.54	2.61	933.32	193.76	7,005.30	6,962.78	42.52	164.758	
12,000.00	5,121.32	4,600.00	4,485.84	184.44	20.54	2.61	933.32	193.76	7,104.96	7,062.37	42.59	166.829	
12,100.00	5,122.05	4,600.00	4,485.84	187.00	20.54	2.61	933.32	193.76	7,204.62	7,161.96	42.66	168.893	
12,200.00	5,122.78	4,600.00	4,485.84	189.55	20.54	2.61	933.32	193.76	7,304.30	7,261.57	42.73	170.948	
12,300.00	5,123.52	4,600.00	4,485.84	192.11	20.54	2.61	933.32	193.76	7,403.98	7,361.18	42.80	172.995	
12,400.00	5,124.25	4,600.00	4,485.84	194.67	20.54	2.61	933.32	193.76	7,503.67	7,460.80	42.87	175.034	
12,500.00	5,124.98	4,600.00	4,485.84	197.22	20.54	2.61	933.32	193.76	7,603.37	7,560.43	42.94	177.064	
12,600.00	5,125.71	4,600.00	4,485.84	199.78	20.54	2.61	933.32	193.76	7,703.08	7,660.07	43.01	179.087	
12,700.00	5,126.44	4,600.00	4,485.84	202.34	20.54	2.61	933.32	193.76	7,802.80	7,759.71	43.09	181.101	
12,800.00	5,127.17	4,600.00	4,485.84	204.90	20.54	2.61	933.32	193.76	7,902.52	7,859.36	43.16	183.106	
12,900.00	5,127.90	4,600.00	4,485.84	207.46	20.54	2.61	933.32	193.76	8,002.25	7,959.02	43.23	185.104	
12,913.03	5,128.00	4,600.00	4,485.84	207.79	20.54	2.61	933.32	193.76	8,015.25	7,972.01	43.24	185.363	

Company:	DJR Operating	Local Co-ordinate Reference:	Well # 307H - Slot 4
Project:	Gallo Canyon Unit	TVD Reference:	GL 6954' & RKB 14' @ 6968.00usft
Reference Site:	M26 2306 Pad	MD Reference:	GL 6954' & RKB 14' @ 6968.00usft
Site Error:	0.00 usft	North Reference:	True
Reference Well:	# 307H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	Original Drilling	Database:	DJR
Reference Design:	APD	Offset TVD Reference:	Offset Datum

Reference Depths are relative to GL 6954' & RKB 14' @ 6968.00usft
 Offset Depths are relative to Offset Datum
 Central Meridian is -107.83333333

Coordinates are relative to: # 307H - Slot 4
 Coordinate System is US State Plane 1983, New Mexico Western Zone
 Grid Convergence at Surface is: 0.23°

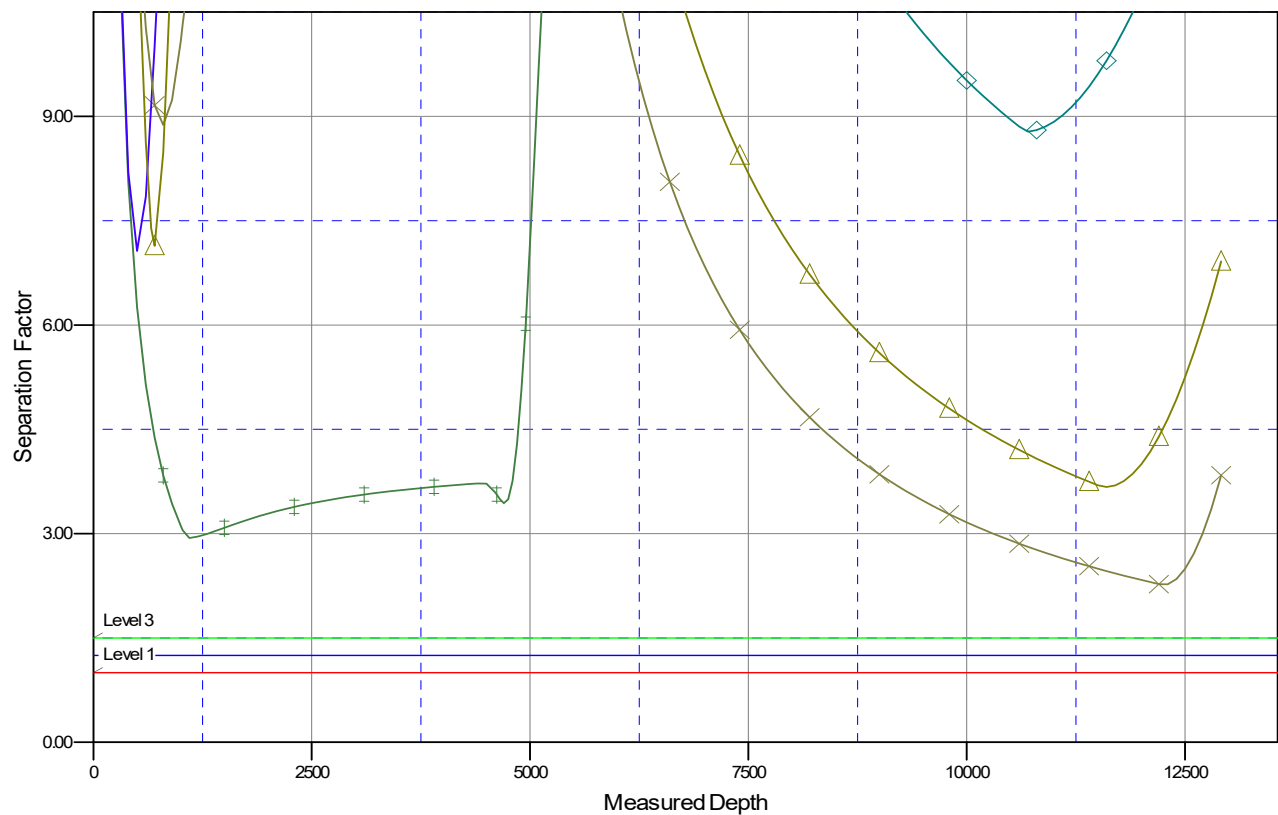


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Reference Depths are relative to GL 6954' & RKB 14' @ 6968.00usft
Offset Depths are relative to Offset Datum
Central Meridian is -107.8333333

Coordinates are relative to: # 307H - Slot 4
Coordinate System is US State Plane 1983, New Mexico Western Zone
Grid Convergence at Surface is: 0.23°

Separation Factor Plot



LEGEND

 #309HOriginalDrilling.g.APDV0
 #304HOriginalDrilling.g.APDV0
 #303HOriginalDrilling.g.APDV0