



B.C Operating, Inc.

Lea County
Gay Nineties 4H

Plan: 140905 Gay Nineties #4H

MOJO Standard Plan

09 September, 2014



DIRECTIONAL CORPORATION

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Company: B.C. Operating, Inc. Project: Lea County Site: Gay Nineties #4H Well: Gay Nineties #4H Wellbore: Gay Nineties #4H Design: 140905 Gay Nineties #4H		Local Co-ordinate Reference: TVD Reference: MD Reference: North Reference: Survey/Calculation Method: Database:		Well: Gay Nineties #4H WELL @ 3591.0usft (Original Well Elev) WELL @ 3591.0usft (Original Well Elev) Grid: Minimum Curvature EDM 5000'; Single User Db	
Project Lea County					
Map System: US State Plane 1983 Geo Datum: North American Datum 1983 Map Zone: New Mexico Eastern Zone					
System Datum: Mean Sea Level					
Site Gay Nineties #4H					
Site Position: From: Map Position Uncertainty: 0.0 usft		Northing: 588,050.70 usft Easting: 730,662.59 usft Slot Radius: 13-3/16"		Latitude: 32° 36' 54.350 N Longitude: 103° 43' 6.414 W Grid Convergence: 0.33°	
Well: Gay Nineties #4H					
Well Position +N/S 0.0 usft +E/W 0.0 usft Wellhead Elevation: 0.0 usft		Northing: 588,050.70 usft Easting: 730,662.59 usft		Latitude: 32° 36' 54.350 N Longitude: 103° 43' 6.414 W Ground Level: 3,569.0 usft	
Wellbore: Gay Nineties #4H					
Magnetics Model Name: IGRF2010 Sample Date: 09/09/2014		Declination (°): 7.28 Dip Angle (°): 60.44 Field Strength (nT): 48,511			
Design: 140905 Gay Nineties #4H					
Audit Notes:					
Version:					
Vertical Section: Depth From (TVD) (usft): 0.0 +E/W (usft): 0.0 Direction (°): 200.49		Tie On Depth: 0.0 PLAN Phase:			
Survey Tool/Program Date: 09/09/2014					
From (usft): To (usft): Survey (Wellbore): Tool Name:		Depth From (TVD) (usft): 0.0 +E/W (usft): 0.0 Direction (°): 200.49		Description:	
0.0 17,324.4 140905 Gay Nineties #4H (Gay Nineties #					

Company: Project: Site: Well: Wellbore: Design:		B.C. Operating, Inc. Lea County Gay Nineties #4H Gay Nineties #4H Gay Nineties #4H 140905 Gay Nineties #4H		Local Coordinates Reference TVD Reference: MD Reference: North Reference: Survey/Calculation Method: Database:					Well Gay Nineties #4H WELL @ 359110usft (Original Well Elev): WELL @ 359110usft (Original Well Elev): Grid: Minimum Curvature EDM, 5000:1 Single User Db.				
MD (usft)	Inc (°)	Azi (azimuth) (°)	TVD (usft)	TVDSS (usft)	N/S (usft)	EW (usft)	V/Sec (usft)	D/Leg (ft/100usft)	Northing (usft)	Easting (usft)			
0.0	0.00	0.00	0.0	-3,591.0	0.0	0.0	0.0	0.0	588,050.70	730,662.59			
100.0	0.00	0.00	100.0	-3,491.0	0.0	0.0	0.0	0.0	588,050.70	730,662.59			
200.0	0.00	0.00	200.0	-3,391.0	0.0	0.0	0.0	0.0	588,050.70	730,662.59			
300.0	0.00	0.00	300.0	-3,291.0	0.0	0.0	0.0	0.0	588,050.70	730,662.59			
400.0	0.00	0.00	400.0	-3,191.0	0.0	0.0	0.0	0.0	588,050.70	730,662.59			
500.0	0.00	0.00	500.0	-3,091.0	0.0	0.0	0.0	0.0	588,050.70	730,662.59			
600.0	0.00	0.00	600.0	-2,991.0	0.0	0.0	0.0	0.0	588,050.70	730,662.59			
700.0	0.00	0.00	700.0	-2,891.0	0.0	0.0	0.0	0.0	588,050.70	730,662.59			
800.0	0.00	0.00	800.0	-2,791.0	0.0	0.0	0.0	0.0	588,050.70	730,662.59			
900.0	0.00	0.00	900.0	-2,691.0	0.0	0.0	0.0	0.0	588,050.70	730,662.59			
1,000.0	0.00	0.00	1,000.0	-2,591.0	0.0	0.0	0.0	0.0	588,050.70	730,662.59			
1,100.0	0.00	0.00	1,100.0	-2,491.0	0.0	0.0	0.0	0.0	588,050.70	730,662.59			
1,200.0	0.00	0.00	1,200.0	-2,391.0	0.0	0.0	0.0	0.0	588,050.70	730,662.59			
1,300.0	0.00	0.00	1,300.0	-2,291.0	0.0	0.0	0.0	0.0	588,050.70	730,662.59			
1,400.0	0.00	0.00	1,400.0	-2,191.0	0.0	0.0	0.0	0.0	588,050.70	730,662.59			
1,500.0	0.00	0.00	1,500.0	-2,091.0	0.0	0.0	0.0	0.0	588,050.70	730,662.59			
1,600.0	0.00	0.00	1,600.0	-1,991.0	0.0	0.0	0.0	0.0	588,050.70	730,662.59			
1,700.0	0.00	0.00	1,700.0	-1,891.0	0.0	0.0	0.0	0.0	588,050.70	730,662.59			
1,800.0	0.00	0.00	1,800.0	-1,791.0	0.0	0.0	0.0	0.0	588,050.70	730,662.59			
1,900.0	0.00	0.00	1,900.0	-1,691.0	0.0	0.0	0.0	0.0	588,050.70	730,662.59			
2,000.0	0.00	0.00	2,000.0	-1,591.0	0.0	0.0	0.0	0.0	588,050.70	730,662.59			
2,100.0	0.00	0.00	2,100.0	-1,491.0	0.0	0.0	0.0	0.0	588,050.70	730,662.59			
2,200.0	0.00	0.00	2,200.0	-1,391.0	0.0	0.0	0.0	0.0	588,050.70	730,662.59			
2,300.0	0.00	0.00	2,300.0	-1,291.0	0.0	0.0	0.0	0.0	588,050.70	730,662.59			
2,400.0	0.00	0.00	2,400.0	-1,191.0	0.0	0.0	0.0	0.0	588,050.70	730,662.59			
2,500.0	0.00	0.00	2,500.0	-1,091.0	0.0	0.0	0.0	0.0	588,050.70	730,662.59			
2,600.0	0.00	0.00	2,600.0	-991.0	0.0	0.0	0.0	0.0	588,050.70	730,662.59			

Company		B/C Operating, Inc.		Lea County		Gay Nineties #4H		Well		Wellbore		Design		140905 Gay Nineties #4H		Well Gay Nineties #4H		WELL @ 3591.0usft (Original Well Elev)		WELL @ 3591.0usft (Original Well Elev)		Grid		Minimum Curvature		EDM/5000.1 Single User Db	
Project		Local Coordinates Reference		TVD Reference		MD Reference		North Reference		Survey/Calculation Method		Database		TVD		MD		TVD		MD		TVD		MD		TVD	
Planned Survey		TVD (usft)		MD (usft)		TVD (usft)		MD (usft)		TVD (usft)		MD (usft)		TVD (usft)		MD (usft)		TVD (usft)		MD (usft)		TVD (usft)		MD (usft)		TVD (usft)	
MD (usft)		Inc (°)		Azi (azimuth)		TVD (usft)		N/S (usft)		E/W (usft)		V/Sec (usft)		D/Leg (°/100usft)		Northing (usft)		Easting (usft)		Northing (usft)		Easting (usft)		Northing (usft)		Easting (usft)	
2,700.0	0.00	0.00	0.00	0.00	0.00	2,700.0	-891.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	588,050.70	730,662.59	588,050.70	730,662.59	588,050.70	730,662.59	588,050.70	730,662.59	588,050.70	730,662.59		
2,800.0	0.00	0.00	0.00	0.00	0.00	2,800.0	-791.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	588,050.70	730,662.59	588,050.70	730,662.59	588,050.70	730,662.59	588,050.70	730,662.59	588,050.70	730,662.59		
2,900.0	0.00	0.00	0.00	0.00	0.00	2,900.0	-691.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	588,050.70	730,662.59	588,050.70	730,662.59	588,050.70	730,662.59	588,050.70	730,662.59	588,050.70	730,662.59		
3,000.0	0.00	0.00	0.00	0.00	0.00	3,000.0	-591.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	588,050.70	730,662.59	588,050.70	730,662.59	588,050.70	730,662.59	588,050.70	730,662.59	588,050.70	730,662.59		
3,100.0	0.00	0.00	0.00	0.00	0.00	3,100.0	-491.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	588,050.70	730,662.59	588,050.70	730,662.59	588,050.70	730,662.59	588,050.70	730,662.59	588,050.70	730,662.59		
3,200.0	0.00	0.00	0.00	0.00	0.00	3,200.0	-391.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	588,050.70	730,662.59	588,050.70	730,662.59	588,050.70	730,662.59	588,050.70	730,662.59	588,050.70	730,662.59		
3,300.0	0.00	0.00	0.00	0.00	0.00	3,300.0	-291.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	588,050.70	730,662.59	588,050.70	730,662.59	588,050.70	730,662.59	588,050.70	730,662.59	588,050.70	730,662.59		
3,400.0	0.00	0.00	0.00	0.00	0.00	3,400.0	-191.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	588,050.70	730,662.59	588,050.70	730,662.59	588,050.70	730,662.59	588,050.70	730,662.59	588,050.70	730,662.59		
3,500.0	0.00	0.00	0.00	0.00	0.00	3,500.0	-91.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	588,050.70	730,662.59	588,050.70	730,662.59	588,050.70	730,662.59	588,050.70	730,662.59	588,050.70	730,662.59		
3,600.0	0.00	0.00	0.00	0.00	0.00	3,600.0	9.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	588,050.70	730,662.59	588,050.70	730,662.59	588,050.70	730,662.59	588,050.70	730,662.59	588,050.70	730,662.59		
3,700.0	0.00	0.00	0.00	0.00	0.00	3,700.0	109.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	588,050.70	730,662.59	588,050.70	730,662.59	588,050.70	730,662.59	588,050.70	730,662.59	588,050.70	730,662.59		
3,800.0	0.00	0.00	0.00	0.00	0.00	3,800.0	209.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	588,050.70	730,662.59	588,050.70	730,662.59	588,050.70	730,662.59	588,050.70	730,662.59	588,050.70	730,662.59		
3,900.0	0.00	0.00	0.00	0.00	0.00	3,900.0	309.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	588,050.70	730,662.59	588,050.70	730,662.59	588,050.70	730,662.59	588,050.70	730,662.59	588,050.70	730,662.59		
4,000.0	0.00	0.00	0.00	0.00	0.00	4,000.0	409.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	588,050.70	730,662.59	588,050.70	730,662.59	588,050.70	730,662.59	588,050.70	730,662.59	588,050.70	730,662.59		
4,100.0	0.00	0.00	0.00	0.00	0.00	4,100.0	509.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	588,050.70	730,662.59	588,050.70	730,662.59	588,050.70	730,662.59	588,050.70	730,662.59	588,050.70	730,662.59		
4,200.0	0.00	0.00	0.00	0.00	0.00	4,200.0	609.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	588,050.70	730,662.59	588,050.70	730,662.59	588,050.70	730,662.59	588,050.70	730,662.59	588,050.70	730,662.59		
4,300.0	0.00	0.00	0.00	0.00	0.00	4,300.0	709.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	588,050.70	730,662.59	588,050.70	730,662.59	588,050.70	730,662.59	588,050.70	730,662.59	588,050.70	730,662.59		
4,400.0	0.00	0.00	0.00	0.00	0.00	4,400.0	809.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	588,050.70	730,662.59	588,050.70	730,662.59	588,050.70	730,662.59	588,050.70	730,662.59	588,050.70	730,662.59		
4,500.0	0.00	0.00	0.00	0.00	0.00	4,500.0	909.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	588,050.70	730,662.59	588,050.70	730,662.59	588,050.70	730,662.59	588,050.70	730,662.59	588,050.70	730,662.59		
4,550.0	0.00	0.00	0.00	0.00	0.00	4,550.0	959.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	588,050.70	730,662.59	588,050.70	730,662.59	588,050.70	730,662.59	588,050.70	730,662.59	588,050.70	730,662.59		
Start 6 Deg Inc. Nudge		0.75		270.00		4,600.0	1,009.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	588,050.70	730,662.26	588,050.70	730,659.65	588,050.70	730,659.65	588,050.70	730,659.65	588,050.70	730,659.65		
4,600.0	0.00	0.00	0.00	0.00	0.00	4,600.0	1,109.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	588,050.70	730,659.65	588,050.70	730,659.65	588,050.70	730,659.65	588,050.70	730,659.65	588,050.70	730,659.65		
4,700.0	0.00	0.00	0.00	0.00	0.00	4,700.0	1,208.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	588,050.70	730,654.41	588,050.70	730,654.41	588,050.70	730,654.41	588,050.70	730,654.41	588,050.70	730,654.41		
4,800.0	0.00	0.00	0.00	0.00	0.00	4,800.0	1,308.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	588,050.70	730,646.57	588,050.70	730,646.57	588,050.70	730,646.57	588,050.70	730,646.57	588,050.70	730,646.57		
4,900.0	0.00	0.00	0.00	0.00	0.00	4,900.0	1,358.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	588,050.70	730,641.67	588,050.70	730,641.67	588,050.70	730,641.67	588,050.70	730,641.67	588,050.70	730,641.67		
5,000.0	0.00	0.00	0.00	0.00	0.00	5,000.0	1,408.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	588,050.70	730,636.44	588,050.70	730,636.44	588,050.70	730,636.44	588,050.70	730,636.44	588,050.70	730,636.44		

Company:		B/C Operating, Inc.		Wellbore:		Design:		Planned Survey		
Project:	Lea County	Site:	Gay Nineties 4H	Well:	Gay Nineties #4H	MD (usft)	Azi (azimuth) (°)	Inc. (°)		
MD (usft)										
5,100.0	6.00	270.00	5,098.4	1,507.4	N/S (usft)	E/W (usft)	V/Sec (usft)	DLeg. (°/100usft)	Northing (usft)	Easting (usft)
5,200.0	6.00	270.00	5,197.9	1,606.9	0.0	-36.6	12.8	0.00	588,050.70	730,625.99
5,300.0	6.00	270.00	5,297.4	1,706.4	0.0	-47.1	16.5	0.00	588,050.70	730,615.53
5,400.0	6.00	270.00	5,396.8	1,805.8	0.0	-57.5	20.1	0.00	588,050.70	730,605.08
5,500.0	6.00	270.00	5,496.3	1,905.3	0.0	-68.0	23.8	0.00	588,050.70	730,594.63
5,600.0	6.00	270.00	5,595.7	2,004.7	0.0	-78.4	27.4	0.00	588,050.70	730,584.17
5,700.0	6.00	270.00	5,695.2	2,104.2	0.0	-88.9	31.1	0.00	588,050.70	730,573.72
5,800.0	6.00	270.00	5,794.6	2,203.6	0.0	-99.3	34.8	0.00	588,050.70	730,563.27
5,900.0	6.00	270.00	5,894.1	2,303.1	0.0	-109.8	38.4	0.00	588,050.70	730,552.82
6,000.0	6.00	270.00	5,993.5	2,402.5	0.0	-120.2	42.1	0.00	588,050.70	730,542.36
6,100.0	6.00	270.00	6,093.0	2,502.0	0.0	-130.7	45.7	0.00	588,050.70	730,531.91
6,200.0	6.00	270.00	6,192.4	2,601.4	0.0	-141.1	49.4	0.00	588,050.70	730,521.46
6,300.0	6.00	270.00	6,291.9	2,700.9	0.0	-151.6	53.1	0.00	588,050.70	730,511.00
6,400.0	6.00	270.00	6,391.3	2,800.3	0.0	-162.0	56.7	0.00	588,050.70	730,500.55
6,500.0	6.00	270.00	6,490.8	2,899.8	0.0	-172.5	60.4	0.00	588,050.70	730,490.10
6,600.0	6.00	270.00	6,590.2	2,999.2	0.0	-182.9	64.0	0.00	588,050.70	730,479.65
6,700.0	6.00	270.00	6,689.7	3,098.7	0.0	-193.4	67.7	0.00	588,050.70	730,469.19
6,800.0	6.00	270.00	6,789.1	3,198.1	0.0	-203.8	71.4	0.00	588,050.70	730,458.74
6,900.0	6.00	270.00	6,888.6	3,297.6	0.0	-214.3	75.0	0.00	588,050.70	730,448.29
7,000.0	6.00	270.00	6,988.0	3,397.0	0.0	-224.8	78.7	0.00	588,050.70	730,437.83
7,100.0	6.00	270.00	7,087.5	3,496.5	0.0	-235.2	82.3	0.00	588,050.70	730,427.38
7,200.0	6.00	270.00	7,186.9	3,595.9	0.0	-245.7	86.0	0.00	588,050.70	730,416.93
7,300.0	6.00	270.00	7,286.4	3,695.4	0.0	-256.1	89.6	0.00	588,050.70	730,406.48
7,400.0	6.00	270.00	7,385.8	3,794.8	0.0	-266.6	93.3	0.00	588,050.70	730,396.02
7,500.0	6.00	270.00	7,485.3	3,894.3	0.0	-277.0	97.0	0.00	588,050.70	730,385.57
7,600.0	6.00	270.00	7,584.8	3,993.8	0.0	-287.5	100.6	0.00	588,050.70	730,375.12
7,700.0	6.00	270.00	7,684.2	4,093.2	0.0	-297.9	104.3	0.00	588,050.70	730,364.66
					0.0	-308.4	107.9	0.00	588,050.70	730,354.21

Company: B.C. Operating, Inc.		Local Co-ordinate Reference:		Well Gay Nipples #4H						
Project: Lea County		TVD Reference:		WELL @ 3591.0usft (Original Well Elev)						
Site: Gay Nipples #4H		MD Reference:		WELL @ 3591.0usft (Original Well Elev)						
Well: Gay Nipples #4H		North Reference:		Grid:						
Wellbore: Gay Nipples #4H		Survey Calculation Method:		Minimum Curvature						
Design: 140905, Gay Nipples #4H		Database:		EDM 5000.1 Single User Db						
Planned Survey										
MD (usft)	Inc (°)	Azi (azimuth) (°)	TVD (usft)	TVDSS (usft)	N/S (usft)	E/W (usft)	V. Sec (usft)	D Leg (7100usft)	Northing (usft)	Easting (usft)
7,800.0	6.00	270.00	7,783.7	4,192.7	0.0	-318.8	111.6	0.00	588,050.70	730,343.76
7,900.0	6.00	270.00	7,883.1	4,292.1	0.0	-329.3	115.3	0.00	588,050.70	730,333.31
7,950.0	6.00	270.00	7,932.8	4,341.8	0.0	-334.5	117.1	0.00	588,050.70	730,328.08
Build to 40 Deg Inc @ 251.5 Deg Azi						-341.4	120.1	8.00	588,050.07	730,321.24
8,000.0	9.84	261.51	7,982.4	4,391.4	-0.6	-341.4	120.1	8.00	588,050.07	730,321.24
40 Deg Tangent for 1700ft						-351.4	125.4	8.00	588,048.18	730,311.20
8,050.0	13.77	257.80	8,031.3	4,440.3	-2.5	-351.4	125.4	8.00	588,048.18	730,311.20
8,100.0	17.73	255.71	8,079.4	4,488.4	-5.7	-364.6	132.9	8.00	588,045.04	730,298.00
8,150.0	21.70	254.37	8,126.5	4,535.5	-10.0	-380.9	142.7	8.00	588,040.67	730,281.72
8,200.0	25.68	253.43	8,172.2	4,581.2	-15.6	-400.2	154.7	8.00	588,035.09	730,262.42
8,250.0	29.67	252.72	8,216.5	4,625.5	-22.4	-422.4	168.8	8.00	588,028.32	730,240.21
8,300.0	33.66	252.17	8,259.1	4,668.1	-30.3	-447.4	185.0	8.00	588,020.40	730,215.20
8,350.0	37.65	251.73	8,299.7	4,708.7	-39.3	-475.1	203.1	8.00	588,011.37	730,187.49
8,379.4	40.00	251.50	8,322.6	4,731.6	-45.2	-492.6	214.7	8.00	588,005.55	730,169.99
8,400.0	40.00	251.50	8,338.4	4,747.4	-49.3	-505.1	223.0	0.00	588,001.35	730,157.45
8,500.0	40.00	251.50	8,415.0	4,824.0	-69.7	-566.1	263.5	0.00	587,980.95	730,096.49
8,600.0	40.00	251.50	8,491.6	4,900.6	-90.1	-627.1	303.9	0.00	587,960.56	730,035.53
8,700.0	40.00	251.50	8,568.2	4,977.2	-110.5	-688.0	344.4	0.00	587,940.16	729,974.58
8,800.0	40.00	251.50	8,644.8	5,053.8	-130.9	-749.0	384.8	0.00	587,919.77	729,913.62
8,900.0	40.00	251.50	8,721.4	5,130.4	-151.3	-809.9	425.3	0.00	587,899.37	729,852.66
9,000.0	40.00	251.50	8,798.0	5,207.0	-171.7	-870.9	465.7	0.00	587,878.97	729,791.70
9,100.0	40.00	251.50	8,874.6	5,283.6	-192.1	-931.8	506.1	0.00	587,858.58	729,730.75
9,200.0	40.00	251.50	8,951.2	5,360.2	-212.5	-992.8	546.6	0.00	587,838.18	729,669.79
9,300.0	40.00	251.50	9,027.8	5,436.8	-232.9	-1,053.8	587.0	0.00	587,817.79	729,608.83
9,400.0	40.00	251.50	9,104.4	5,513.4	-253.3	-1,114.7	627.5	0.00	587,797.39	729,547.88
9,500.0	40.00	251.50	9,181.0	5,590.0	-273.7	-1,175.7	667.9	0.00	587,776.99	729,486.92
9,600.0	40.00	251.50	9,257.6	5,666.6	-294.1	-1,236.6	708.4	0.00	587,756.60	729,425.96

Company: Project: Site: Well: Wellbore: Design:			B/C Operating, Inc. Lea County Gay Nineties 4H Gay Nineties #4H Gay Nineties #4H 140905 Gay Nineties #4H			Local Co-ordinate Reference: TVD Reference: MD Reference: North Reference: Survey/Calculation Method: Database:					Well Gay Nineties #4H WELL @ 3591.0usft (Original Well Elev) WELL @ 3591.0usft (Original Well Elev) Grd Minimum Curvature EDM 5000:1 Single User Db		
Planned Survey													
MD (usft)	Inc (°)	Azi(azimuth) (°)	TVD (usft)	TVDSS (usft)	N/S (usft)	E/W (usft)	V/Sec (usft)	DLeg (°/100usft)	Northing (usft)	Easting (usft)			
9,700.0	40.00	251.50	9,334.2	5,743.2	-314.5	-1,297.6	748.8	0.00	587,736.20	729,365.01			
9,800.0	40.00	251.50	9,410.8	5,819.8	-334.9	-1,358.5	789.2	0.00	587,715.81	729,304.05			
9,900.0	40.00	251.50	9,487.4	5,896.4	-355.3	-1,419.5	829.7	0.00	587,695.41	729,243.09			
10,000.0	40.00	251.50	9,564.0	5,973.0	-375.7	-1,480.5	870.1	0.00	587,675.01	729,182.13			
10,079.0	40.00	251.50	9,624.5	6,033.5	-391.8	-1,528.6	902.1	0.00	587,658.90	729,133.98			
Landing Point @ 10745ft MD/9900ft TVD													
10,079.4	40.00	251.50	9,624.9	6,033.9	-391.9	-1,528.9	902.3	0.00	587,658.82	729,133.72			
10,100.0	41.47	250.36	9,640.5	6,049.5	-396.3	-1,541.6	910.8	8.00	587,654.43	729,121.03			
10,150.0	45.08	247.86	9,676.9	6,085.9	-408.5	-1,573.6	933.5	8.00	587,642.19	729,089.03			
10,200.0	48.74	245.65	9,711.0	6,120.0	-422.9	-1,607.1	958.7	8.00	587,627.76	729,055.49			
10,250.0	52.44	243.68	9,742.8	6,151.8	-439.5	-1,642.0	986.4	8.00	587,611.22	729,020.59			
10,300.0	56.17	241.89	9,771.9	6,180.9	-458.1	-1,678.1	1,016.5	8.00	587,592.64	728,984.50			
10,350.0	59.92	240.26	9,798.4	6,207.4	-478.6	-1,715.2	1,048.7	8.00	587,572.11	728,947.38			
10,400.0	63.69	238.74	9,822.0	6,231.0	-501.0	-1,753.2	1,082.9	8.00	587,549.74	728,909.42			
10,450.0	67.48	237.33	9,842.7	6,251.7	-525.1	-1,791.8	1,119.0	8.00	587,525.64	728,870.81			
10,500.0	71.28	235.98	9,860.3	6,269.3	-550.8	-1,830.9	1,156.8	8.00	587,499.91	728,831.73			
10,550.0	75.08	234.70	9,874.7	6,283.7	-578.0	-1,870.2	1,196.1	8.00	587,472.70	728,792.37			
10,600.0	78.90	233.46	9,886.0	6,295.0	-606.6	-1,909.7	1,236.7	8.00	587,444.12	728,752.93			
10,650.0	82.72	232.25	9,894.0	6,303.0	-636.4	-1,949.0	1,278.3	8.00	587,414.32	728,713.60			
10,700.0	86.54	231.07	9,898.7	6,307.7	-667.3	-1,988.0	1,320.9	8.00	587,383.45	728,674.56			
10,745.3	90.00	230.00	9,900.0	6,309.0	-696.0	-2,023.0	1,360.1	8.00	587,354.68	728,639.62			
10,800.0	90.00	228.22	9,900.0	6,309.0	-731.8	-2,064.3	1,408.1	3.25	587,318.86	728,598.26			
10,900.0	90.00	224.97	9,900.0	6,309.0	-800.5	-2,137.0	1,497.9	3.25	587,250.16	728,525.62			
11,000.0	90.00	221.72	9,900.0	6,309.0	-873.3	-2,205.6	1,590.1	3.25	587,177.45	728,456.98			
11,100.0	90.00	218.47	9,900.0	6,309.0	-949.7	-2,270.0	1,684.2	3.25	587,100.96	728,392.58			
11,200.0	90.00	215.22	9,900.0	6,309.0	-1,029.7	-2,330.0	1,780.2	3.25	587,020.95	728,332.62			
11,300.0	90.00	211.97	9,900.0	6,309.0	-1,113.0	-2,385.3	1,877.6	3.25	586,937.67	728,277.30			

Company / Project		B.C. Operating, Inc. Lea County		Local Co-ordinate Reference		Well Gay Nineties #4H	
Site	Well	Well	Well	TVD Reference	MD Reference	North Reference	WELL @ 3591.0ustf (Original Well Elev)
Wellbore	Design	Well	Well	North Reference	Survey Calculation Method	Database	WELL @ 3591.0ustf (Original Well Elev)
Planned Survey							
MD (ustf)	Inc (°)	Azi (azimuth) (°)	TVD (ustf)	TVSS (ustf)	N/S (ustf)	E/W (ustf)	V. Sec (ustf)
11,400.0	90.00	208.72	9,900.0	6,309.0	-1,199.3	-2,435.8	1,976.1
11,500.0	90.00	205.47	9,900.0	6,309.0	-1,288.3	-2,481.4	2,075.4
11,600.0	90.00	202.22	9,900.0	6,309.0	-1,379.8	-2,521.8	2,175.2
11,700.0	90.00	198.97	9,900.0	6,309.0	-1,473.4	-2,557.0	2,275.2
11,800.0	90.00	195.72	9,900.0	6,309.0	-1,568.8	-2,586.8	2,375.0
11,900.0	90.00	192.47	9,900.0	6,309.0	-1,665.8	-2,611.1	2,474.4
12,000.0	90.00	189.22	9,900.0	6,309.0	-1,764.0	-2,629.9	2,573.0
12,100.0	90.00	185.97	9,900.0	6,309.0	-1,863.1	-2,643.1	2,670.4
12,200.0	90.00	182.72	9,900.0	6,309.0	-1,962.8	-2,650.7	2,766.5
12,285.3	90.00	179.95	9,900.0	6,309.0	-2,048.1	-2,652.7	2,847.0
12,288.4	90.00	179.95	9,900.0	6,309.0	-2,051.1	-2,652.7	2,849.9
12,300.0	90.00	179.95	9,900.0	6,309.0	-2,062.8	-2,652.7	2,860.8
12,400.0	90.00	179.95	9,900.0	6,309.0	-2,162.8	-2,652.6	2,954.5
12,500.0	90.00	179.95	9,900.0	6,309.0	-2,262.8	-2,652.5	3,048.1
12,600.0	90.00	179.95	9,900.0	6,309.0	-2,362.8	-2,652.4	3,141.7
12,700.0	90.00	179.95	9,900.0	6,309.0	-2,462.8	-2,652.4	3,235.4
12,800.0	90.00	179.95	9,900.0	6,309.0	-2,562.8	-2,652.3	3,329.0
12,900.0	90.00	179.95	9,900.0	6,309.0	-2,662.8	-2,652.2	3,422.7
13,000.0	90.00	179.95	9,900.0	6,309.0	-2,762.8	-2,652.1	3,516.3
13,100.0	90.00	179.95	9,900.0	6,309.0	-2,862.8	-2,652.0	3,610.0
13,200.0	90.00	179.95	9,900.0	6,309.0	-2,962.8	-2,651.9	3,703.6
13,300.0	90.00	179.95	9,900.0	6,309.0	-3,062.8	-2,651.8	3,797.2
13,400.0	90.00	179.95	9,900.0	6,309.0	-3,162.8	-2,651.7	3,890.9
13,500.0	90.00	179.95	9,900.0	6,309.0	-3,262.8	-2,651.7	3,984.5
13,600.0	90.00	179.95	9,900.0	6,309.0	-3,362.8	-2,651.6	4,078.2
13,700.0	90.00	179.95	9,900.0	6,309.0	-3,462.8	-2,651.5	4,171.8
13,800.0	90.00	179.95	9,900.0	6,309.0	-3,562.8	-2,651.4	4,265.5

Company: Project: Site: Well: Wellbore: Design:			B.C. Operating, Inc. Lea County Gay Nineties #4H Gay Nineties #4H Gay Nineties #4H 140905 Gay Nineties #4H			Local Co-ordinate Reference: TVD Reference: MD Reference: North Reference: Survey Calculation Method: Database: Well Gay Nineties #4H WELL @ 3591.0ust (Original Well Elev) WELL @ 3591.0ust (Original Well Elev) Grid: Minimum Curvature EDM: 5000.1 Single User Db:					
MD (ust)	Inc (°)	Azi (azimuth) (°)	TVD (ust)	TVDSS (ust)	N/S (ust)	E/W (ust)	V/Sec (ust)	DLeg (100ust)	Northing (ust)	Easting (ust)	
13,900.0	90.00	179.95	9,900.0	6,309.0	-3,662.8	-2,651.3	4,359.1	0.00	584,387.93	728,011.29	
14,000.0	90.00	179.95	9,900.0	6,309.0	-3,762.8	-2,651.2	4,452.7	0.00	584,287.93	728,011.37	
14,100.0	90.00	179.95	9,900.0	6,309.0	-3,862.8	-2,651.1	4,546.4	0.00	584,187.93	728,011.46	
14,200.0	90.00	179.95	9,900.0	6,309.0	-3,962.8	-2,651.0	4,640.0	0.00	584,087.93	728,011.55	
14,300.0	90.00	179.95	9,900.0	6,309.0	-4,062.8	-2,651.0	4,733.7	0.00	583,987.93	728,011.64	
14,400.0	90.00	179.95	9,900.0	6,309.0	-4,162.8	-2,650.9	4,827.3	0.00	583,887.93	728,011.72	
14,500.0	90.00	179.95	9,900.0	6,309.0	-4,262.8	-2,650.8	4,921.0	0.00	583,787.93	728,011.81	
14,600.0	90.00	179.95	9,900.0	6,309.0	-4,362.8	-2,650.7	5,014.6	0.00	583,687.93	728,011.90	
14,700.0	90.00	179.95	9,900.0	6,309.0	-4,462.8	-2,650.6	5,108.2	0.00	583,587.93	728,011.99	
14,800.0	90.00	179.95	9,900.0	6,309.0	-4,562.8	-2,650.5	5,201.9	0.00	583,487.93	728,012.07	
14,900.0	90.00	179.95	9,900.0	6,309.0	-4,662.8	-2,650.4	5,295.5	0.00	583,387.93	728,012.16	
15,000.0	90.00	179.95	9,900.0	6,309.0	-4,762.8	-2,650.3	5,389.2	0.00	583,287.93	728,012.25	
15,100.0	90.00	179.95	9,900.0	6,309.0	-4,862.8	-2,650.3	5,482.8	0.00	583,187.93	728,012.34	
15,200.0	90.00	179.95	9,900.0	6,309.0	-4,962.8	-2,650.2	5,576.5	0.00	583,087.93	728,012.42	
15,300.0	90.00	179.95	9,900.0	6,309.0	-5,062.8	-2,650.1	5,670.1	0.00	582,987.93	728,012.51	
15,400.0	90.00	179.95	9,900.0	6,309.0	-5,162.8	-2,650.0	5,763.7	0.00	582,887.93	728,012.60	
15,500.0	90.00	179.95	9,900.0	6,309.0	-5,262.8	-2,649.9	5,857.4	0.00	582,787.93	728,012.68	
15,600.0	90.00	179.95	9,900.0	6,309.0	-5,362.8	-2,649.8	5,951.0	0.00	582,687.93	728,012.77	
15,700.0	90.00	179.95	9,900.0	6,309.0	-5,462.8	-2,649.7	6,044.7	0.00	582,587.93	728,012.86	
15,800.0	90.00	179.95	9,900.0	6,309.0	-5,562.8	-2,649.6	6,138.3	0.00	582,487.93	728,012.95	
15,900.0	90.00	179.95	9,900.0	6,309.0	-5,662.8	-2,649.6	6,232.0	0.00	582,387.93	728,013.03	
16,000.0	90.00	179.95	9,900.0	6,309.0	-5,762.8	-2,649.5	6,325.6	0.00	582,287.93	728,013.12	
16,100.0	90.00	179.95	9,900.0	6,309.0	-5,862.8	-2,649.4	6,419.2	0.00	582,187.93	728,013.21	
16,200.0	90.00	179.95	9,900.0	6,309.0	-5,962.8	-2,649.3	6,512.9	0.00	582,087.93	728,013.30	
16,300.0	90.00	179.95	9,900.0	6,309.0	-6,062.8	-2,649.2	6,606.5	0.00	581,987.93	728,013.38	
16,400.0	90.00	179.95	9,900.0	6,309.0	-6,162.8	-2,649.1	6,700.2	0.00	581,887.93	728,013.47	
16,500.0	90.00	179.95	9,900.0	6,309.0	-6,262.8	-2,649.0	6,793.8	0.00	581,787.93	728,013.56	

Company: B.C. Operating, Inc.	Local/Coordinate Reference: Well Gay Nineties #4H
Project: Lee County	WELL @ 3591.0usft (Original Well Elev)
Site: Gay Nineties 4H	WELL @ 3591.0usft (Original Well Elev)
Well: Gay Nineties #4H	Grid
Wellbore: Gay Nineties #4H	Minimum Curvature
Design: 140905 Gay Nineties #4H	EDM 5000.1 Single User Db

Planned Survey	MD (usft)	Inc (°)	Azi (azimuth) (°)	TVD (usft)	TVDSS (usft)	N/S (usft)	E/W (usft)	V. Sec (usft)	D. Leg (C/100usft)	Northing (usft)	Easting (usft)
	16,600.0	90.00	179.95	9,900.0	6,309.0	-6,362.8	-2,648.9	6,887.5	0.00	581,687.93	728,013.65
	16,700.0	90.00	179.95	9,900.0	6,309.0	-6,462.8	-2,648.9	6,981.1	0.00	581,587.93	728,013.73
	16,800.0	90.00	179.95	9,900.0	6,309.0	-6,562.8	-2,648.8	7,074.7	0.00	581,487.93	728,013.82
	16,900.0	90.00	179.95	9,900.0	6,309.0	-6,662.8	-2,648.7	7,168.4	0.00	581,387.93	728,013.91
	17,000.0	90.00	179.95	9,900.0	6,309.0	-6,762.8	-2,648.6	7,262.0	0.00	581,287.93	728,014.00
	17,100.0	90.00	179.95	9,900.0	6,309.0	-6,862.8	-2,648.5	7,355.7	0.00	581,187.93	728,014.08
	17,200.0	90.00	179.95	9,900.0	6,309.0	-6,962.8	-2,648.4	7,449.3	0.00	581,087.93	728,014.17
	17,234.0	90.00	179.95	9,900.0	6,309.0	-6,996.8	-2,648.4	7,481.2	0.00	581,053.93	728,014.20
BHL @ 17324ftMD											
	17,300.0	90.00	179.95	9,900.0	6,309.0	-7,062.8	-2,648.3	7,543.0	0.00	580,987.93	728,014.26
	17,321.3	90.00	179.95	9,900.0	6,309.0	-7,084.0	-2,648.3	7,562.9	0.00	580,966.65	728,014.28
	17,324.4	90.00	179.95	9,900.0	6,309.0	-7,087.1	-2,648.3	7,565.8	0.01	580,963.58	728,014.28

Plan Annotations	Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates	N/S (usft)	E/W (usft)	Comment
	4,550.0	4,550.0	0.0	0.0	0.0	Start 6 Deg Inc. Nudge
	7,950.0	7,932.8	0.0	-334.5	-334.5	Build to 40 Deg Inc. @ 251.5 Deg Azi
	8,000.0	7,982.4	-0.6	-341.4	-341.4	40 Deg Tangent for 1700ft
	10,079.0	9,624.5	-391.8	-1,528.6	-1,528.6	Landing Point @ 10745ftMD/9900ftVD
	17,234.0	9,900.0	-6,996.8	-2,648.4	-2,648.4	BHL @ 17324ftMD

Checked By: _____

Approved By: _____

Date: _____

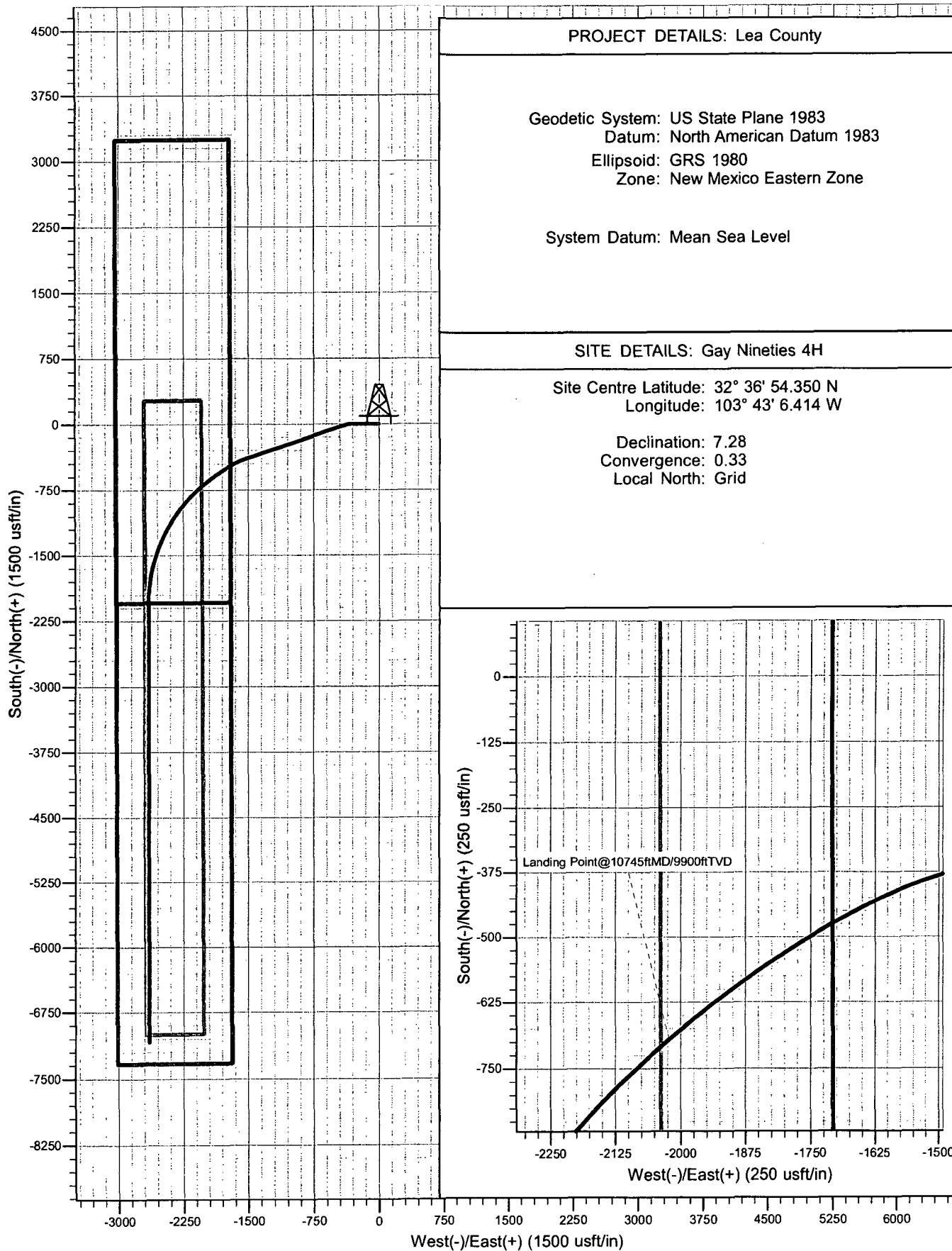
Project: Lea County
 Site: Gay Nineties 4H
 Well: Gay Nineties #4H
 Wellbore: Gay Nineties #4H
 Design: 140905 Gay Nineties #4H

BC OPERATING, INC.



Azimuths to Grid North
 True North: -0.33°
 Magnetic North: 6.95°

Magnetic Field
 Strength: 48510.5nT
 Dip Angle: 60.44°
 Date: 09/09/2014
 Model: IGRF2010



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ANNOTATIONS

TVD	MD	Inc	Azi	+N/-S	+E/-W	VSect	Departure	Annotation
4550.0	4550.0	0.00	0.00	0.0	0.0	0.0	0.0	Start 6 Deg Inc. Nudge
7932.8	7950.0	6.00	270.00	0.0	-334.5	117.1	334.5	Build to 40 Deg Inc.@251.5 Deg Azi
7982.4	8000.0	9.84	261.51	-0.6	-341.4	120.1	341.4	40 Deg Tangent for 1700ft
9900.0	10745.0	89.98	230.01	-695.8	-2022.7	1359.9	2174.8	Landing Point@10745ftMD/9900ftTVD
9900.0	17234.0	90.00	179.95	-6996.8	-2648.4	7481.2	8663.8	BHL @ 17324ftMD

