

30-015-27458

Nearburg Producing Company

Project: Eddy County, NM
 Site: Ross Ranch 22 #2
 Well: Ross Ranch 22 #2
 Wellbore: Lateral #1
 Plan: Plan #3 (Ross Ranch 22 #2 Lateral #1)

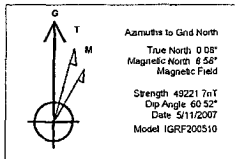


PROJECT DETAILS Eddy County NM

Geodetic System: US State Plane 1927 (Exact solution)
 Datum: NAD 1927 (NADCON CONUS)
 Ellipsoid: Clarke 1866
 Zone: New Mexico East 3001
 System Datum: Ground Level

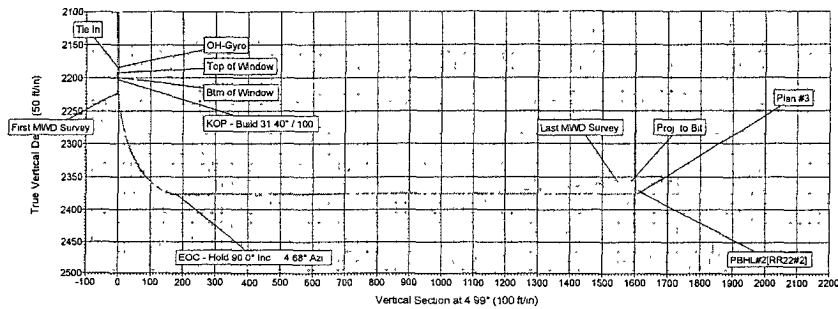
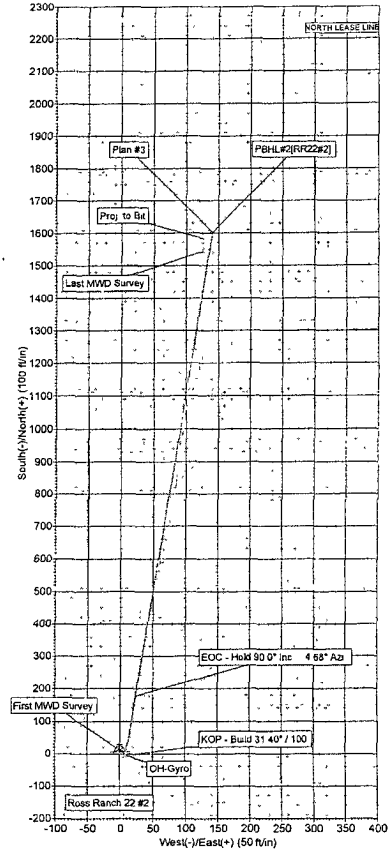
ANNOTATIONS

TVD	MD	Annotation
2183.97	2184.00	Tie In
2191.57	2192.00	Top of Window
2198.67	2198.70	Botm of Window
2202.66	2202.70	KOP - Build 31.40° / 100
2274.97	2479.15	EOC - Hold 90.0° Inc - 4.68° Azi



SECTION DETAILS

Sec	MD	Inc	Azi	TVD	+N-S	+E-W	DLeg	TFace	VSec	Target
1	2184.00	0.19	114.73	2183.97	-4.28	8.37	0.00	0.00	-3.54	
2	2192.00	0.19	114.73	2191.57	-4.29	8.40	0.00	0.00	-3.54	
3	2198.70	3.19	4.68	2198.67	-4.11	8.42	48.66	-113.19	-3.36	
4	2202.70	3.19	4.68	2202.66	-3.89	8.44	0.00	0.00	-3.14	
5	2479.15	90.00	4.68	2274.97	177.66	23.31	31.40	0.00	179.04	
6	3908.24	90.00	4.68	2275.00	1602.00	140.00	0.00	0.00	1608.11	PBHL#1[RR22#2]



Plan: Plan #3 (Ross Ranch 22 #2 Lateral #1)
 Created By: L.P. Burton Date: May 23 2007

Nearburg Producing Co.

Eddy County, NM.

Ross Ranch 22 #2

Ross Ranch 22 #2

Lateral #1

Survey: MWD Survey #1

Standard Survey Report

29 May, 2007



Black Viper Energy
Survey Report



Company	Nearburg Producing Co.	Local Co-ordinate Reference:	Well Ross Ranch 22 #2
Project	Eddy County, NM	TVD Reference:	WELL @ 0.00ft (Original Well Elev)
Site	Ross Ranch 22 #2	MD Reference:	WELL @ 0.00ft (Original Well Elev)
Well	Ross Ranch 22 #2	North Reference:	Grid
Wellbore	Lateral #1	Survey Calculation Method:	Minimum Curvature
Design	Lateral #1	Database	EDM 2003 14 Server Db

Project	Eddy County, NM		
Map System	US State Plane 1927 (Exact solution)	System Datum	Ground Level
Geo Datum	NAD 1927 (NADCON CONUS)		
Map Zone	New Mexico East 3001		

Site	Ross Ranch 22 #2				
Site Position		Northing	599,621.21 ft	Latitude:	32° 38' 54.143 N
From	Lat/Long	Easting:	455,217.96 ft	Longitude	104° 28' 43.788 W
Position Uncertainty	0.00 ft	Slot Radius:	"	Grid Convergence:	-0.08 "

Well	Ross Ranch 22 #2					
Well Position	+N/-S	0.00 ft	Northing	599,621.21 ft	Latitude	32° 38' 54.143 N
	+E/-W	0.00 ft	Easting	455,217.96 ft	Longitude	104° 28' 43.788 W
Position Uncertainty	0.00 ft	Wellhead Elevation	ft	Ground Level	0.00 ft	

Wellbore	Lateral #1				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF200510	5/11/2007	8.51	60.52	49,222

Design	Lateral #1				
Audit Notes:					
Version:	1.0	Phase:	ACTUAL	Tie On Depth:	2,184.00
Vertical Section:	Depth From (TVD) (ft)	+N/-S (ft)	+E/-W (ft)	Direction (°)	
	0.00	0.00	0.00	4.99	

Survey Program	Date 5/29/2007				
From (ft)	To (ft)	Survey (Wellbore)	Tool Name	Description	
100.00	2,184.00	Gyro Survey #1 (OH)	NS-GYRO-MS	North sensing gyrocompassing m/s	
2,184.00	3,890.00	MWD Survey #1 (Lateral #1)	MWD	MWD - Standard	

Survey										
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)	
2,184.00	0.19	114.73	2,183.97	-4.28	8.37	-3.54	0.00	0.00	0.00	
2,223.00	8.50	13.40	2,222.83	-1.50	9.10	-0.70	21.90	21.31	-259.82	
First MWD Survey										
2,255.00	18.90	4.90	2,253.88	5.99	10.09	6.84	33.02	32.50	-26.56	
2,287.00	29.20	3.30	2,283.06	18.98	10.99	19.86	32.25	32.19	-5.00	
2,318.00	39.20	3.10	2,308.67	36.35	11.96	37.26	32.26	32.26	-0.65	
2,349.00	49.00	5.30	2,330.90	57.84	13.57	58.80	31.99	31.61	7.10	
2,381.00	58.60	7.10	2,349.78	83.48	16.38	84.58	30.34	30.00	5.63	
2,413.00	68.60	4.50	2,364.00	111.95	19.24	113.20	32.08	31.25	-8.13	
2,444.00	78.20	1.40	2,372.84	141.59	20.75	142.85	32.41	30.97	-10.00	
2,474.00	87.60	2.50	2,376.55	171.30	21.77	172.55	31.54	31.33	3.67	
2,505.00	90.70	5.30	2,377.01	202.22	23.87	203.53	13.47	10.00	9.03	

Black Viper Energy

Survey Report



Company:	Nearburg Producing Co	Local Co-ordinate Reference:	Well Ross Ranch 22 #2
Project:	Eddy County, NM	TVD Reference:	WELL @ 0 00ft (Original Well Elev)
Site:	Ross Ranch 22 #2	MD Reference:	WELL @ 0 00ft (Original Well Elev)
Well:	Ross Ranch 22 #2	North Reference:	Gnd
Wellbore:	Lateral #1	Survey Calculation Method:	Minimum Curvature
Design:	Lateral #1	Database:	EDM 2003 14 Server Db

Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
2,537.00	90.00	4.60	2,376.81	234.10	26.64	235.53	3.09	-2.19	-2.19
2,569.00	89.90	4.20	2,376.84	266.01	29.09	267.53	1.29	-0.31	-1.25
2,600.00	89.60	4.20	2,376.97	296.92	31.36	298.53	0.97	-0.97	0.00
2,632.00	89.50	4.10	2,377.23	328.84	33.68	330.52	0.44	-0.31	-0.31
2,664.00	89.10	5.20	2,377.62	360.73	36.27	362.52	3.66	-1.25	3.44
2,695.00	88.70	4.00	2,378.21	391.62	38.76	393.51	4.08	-1.29	-3.87
2,733.00	90.80	5.90	2,378.38	429.48	42.03	431.51	7.45	5.53	5.00
2,763.00	91.70	6.80	2,377.72	459.29	45.35	461.49	4.24	3.00	3.00
2,793.00	91.50	6.80	2,376.89	489.06	48.90	491.46	0.67	-0.67	0.00
2,823.00	90.40	6.60	2,376.39	518.85	52.40	521.45	3.73	-3.67	-0.67
2,853.00	90.20	6.90	2,376.23	548.65	55.83	551.43	1.20	-0.67	1.00
2,882.00	90.00	7.50	2,376.18	577.42	59.56	580.41	2.18	-0.69	2.07
2,913.00	90.09	7.40	2,376.18	608.16	63.58	611.38	0.32	0.00	-0.32
2,944.00	90.80	6.20	2,375.96	638.94	67.25	642.37	4.65	2.58	-3.87
2,967.00	90.90	5.50	2,375.62	661.81	69.60	665.36	3.07	0.43	-3.04
3,007.00	90.70	5.60	2,375.06	701.62	73.46	705.35	0.56	-0.50	0.25
3,039.00	90.90	5.40	2,374.62	733.47	76.53	737.35	0.88	0.63	-0.63
3,071.00	91.00	4.60	2,374.09	765.35	79.32	769.34	2.52	0.31	-2.50
3,102.00	90.30	3.90	2,373.74	796.26	81.62	800.34	3.19	-2.26	-2.26
3,134.00	90.60	3.90	2,373.48	828.18	83.79	832.33	0.94	0.94	0.00
3,166.00	90.30	3.50	2,373.23	860.11	85.86	864.32	1.56	-0.94	-1.25
3,197.00	88.40	2.80	2,373.58	891.06	87.56	895.30	6.53	-6.13	-2.26
3,229.00	88.60	3.00	2,374.42	923.01	89.18	927.27	0.88	0.63	0.63
3,260.00	89.60	4.30	2,374.91	953.94	91.15	958.26	5.29	3.23	4.19
3,292.00	90.00	4.30	2,375.02	985.85	93.55	990.26	1.25	1.25	0.00
3,324.00	90.20	4.30	2,374.97	1,017.76	95.95	1,022.25	0.63	0.63	0.00
3,355.00	90.40	4.50	2,374.80	1,048.67	98.33	1,053.25	0.91	0.65	0.65
3,387.00	91.00	4.40	2,374.41	1,080.57	100.81	1,085.25	1.90	1.88	-0.31
3,450.00	91.40	4.10	2,373.09	1,143.39	105.48	1,148.23	0.79	0.63	-0.48
3,512.00	91.70	3.90	2,371.42	1,205.21	109.80	1,210.20	0.58	0.48	-0.32
3,606.00	92.40	3.50	2,368.05	1,298.96	115.87	1,304.11	0.86	0.74	-0.43
3,670.00	91.70	2.50	2,365.76	1,362.83	119.21	1,368.03	1.91	-1.09	-1.56
3,733.00	92.30	2.20	2,363.56	1,425.73	121.80	1,430.92	1.06	0.95	-0.48
3,796.00	92.60	1.70	2,360.87	1,488.64	123.94	1,483.78	0.92	0.48	-0.79
3,851.00	93.20	1.50	2,358.09	1,543.55	125.47	1,548.61	1.15	1.09	-0.36
Last MWD Survey									
3,890.00	93.20	1.50	2,355.91	1,582.47	126.49	1,587.48	0.00	0.00	0.00
Proj to Bit									

Black Viper Energy
Survey Report



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Site:	Ross Ranch 22 #2	MD Reference:	WELL @ 0 00ft (Original Well Elev)
Well:	Ross Ranch 22 #2	North Reference:	Grid
Wellbore:	Lateral #1	Survey Calculation Method:	Minimum Curvature
Design:	Lateral #1	Database:	EDM 2003 14 Server Db

Targets									
Target Name									
- hit/miss target	Dip Angle	Dip Dir.	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
- Shape	(°)	(°)	(ft)	(ft)	(ft)	(ft)	(ft)		
NLL	0 00	360.00	2,475 00	2,262 00	0 00	601,883 21	455,217 96	32° 39' 16 527 N	104° 28' 43 824 W
- survey misses by 701 38ft at 3890 00ft MD (2355 91 TVD, 1582 47 N, 126 49 E)									
- Point									
PBHL#1[RR22#2]	0 00	360 00	2,375.00	1,602 00	140 00	601,223 21	455,357.96	32° 39' 9 998 N	104° 28' 42 176 W
- survey misses by 30 47ft at 3890 00ft MD (2355 91 TVD, 1582 47 N, 126 49 E)									
- Point									
PBHL#2[RR22#2]	0 00	0 00	2,370 00	1,602 00	140 00	601,223 21	455,357 96	32° 39' 9 998 N	104° 28' 42 176 W
- survey misses by 27 61ft at 3890 00ft MD (2355 91 TVD, 1582 47 N, 126 49 E)									
- Point									

Survey Annotations				
Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates		Comment
		+N/-S (ft)	+E/-W (ft)	
2,223 00	2,222 83	-1 50	9 10	First MWD Survey
3,851 00	2,358 09	1,543 55	125 47	Last MWD Survey
3,890 00	2,355 91	1,582 47	126 49	Proj to Bit

Checked By _____	Approved By: _____	Date _____
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