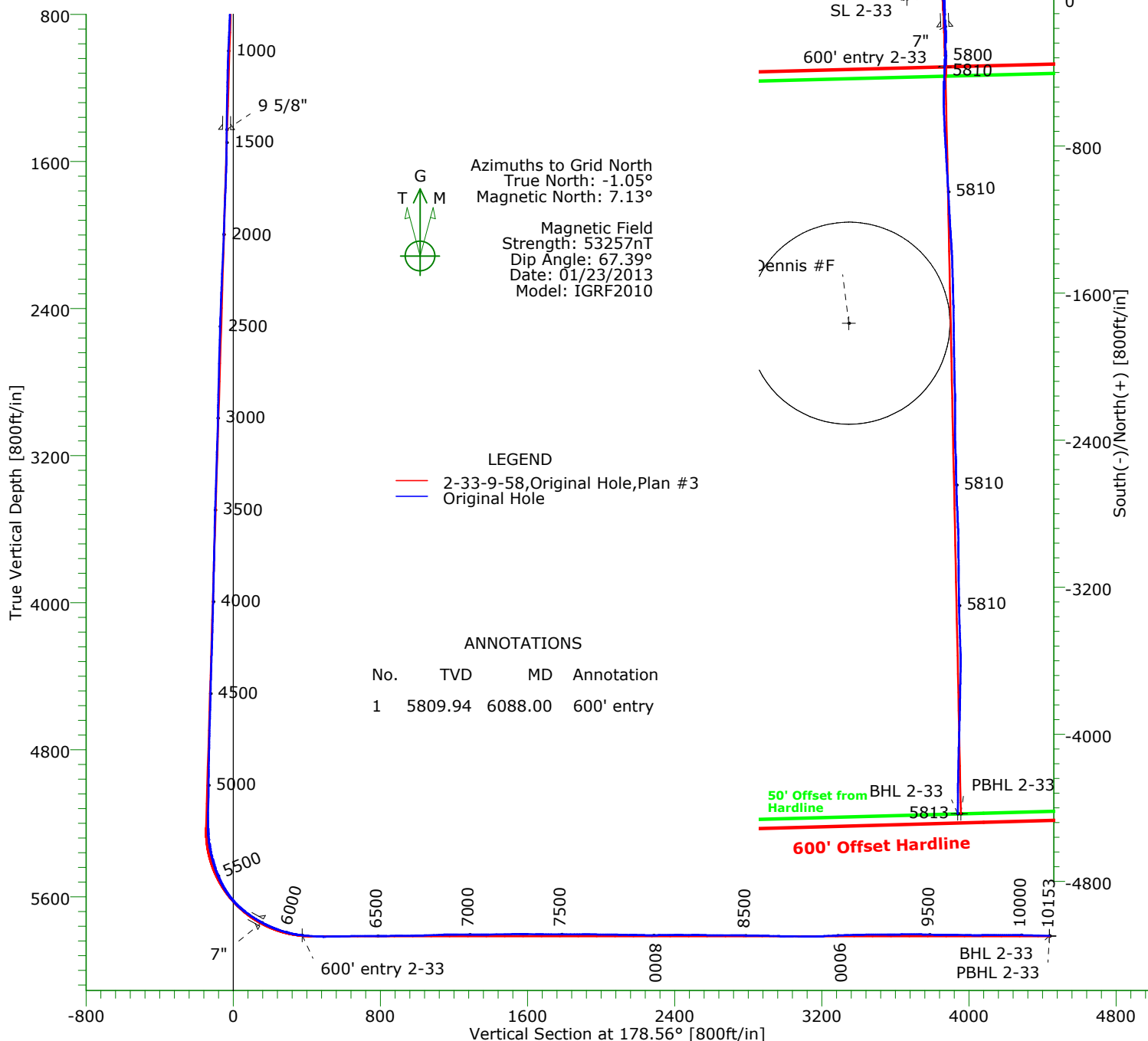


CASING DETAILS

No.	TVD	MD	Name	Size
1	1426.70	1428.00	9 5/8"	9.625
2	5740.41	5856.00	7"	7.000



TARGET DETAILS

Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Shape
Dennis #F	-100.00	-1763.90	-315.78	1505416.84	3451541.90	40°42'33.727N	103°52'16.412W	Circle (Radius: 550)
SL 2-33	0.00	0.00	0.00	1507180.74	3451857.68	40°42'51.097N	103°52'11.891W	Point
600' entry 2-33	5809.94	-370.19	205.52	1506810.55	3452063.20	40°42'47.402N	103°52'09.311W	Point
BHL 2-33	5813.27	-4432.05	275.77	1502748.69	3452133.45	40°42'07.260N	103°52'09.369W	Point
PBHL 2-33	5815.00	-4432.55	293.31	1502748.19	3452150.99	40°42'07.252N	103°52'09.141W	Point

Wellpath: (2,33,9,58/Original Hole)

Date: 03/08/2013

PRECISION DIRECTIONAL SERVICES, INC.

713.435.6250

Precision Directional Services, Inc.

Survey Report

Company: CARRIZO OIL & GAS, INC.		Date: 02/08/2013	Time: 11:16:57	Page: 1
Field: Niobrara CONZ'83		Co-ordinate(NE) Reference: Well: 2-33-9-58, Grid North		
Site: Bringelson Ranch 33-21-9-58 Pad		Vertical (TVD) Reference: 4842'GL+17"KB 4859.0		
Well: 2-33-9-58		Section (VS) Reference: Well (0.00N,0.00E,178.56Azi)		
Wellpath: Original Hole		Survey Calculation Method: Minimum Curvature	Db: Sybase	

Field: Niobrara CONZ'83				
Map System: US State Plane Coordinate System 1983		Map Zone: Colorado, Northern Zone		
Geo Datum: GRS 1980		Coordinate System: Well Centre		
Sys Datum: Mean Sea Level		Geomagnetic Model: IGRF2010		

Site: Bringelson Ranch 33-21-9-58 Pad				
Weld County, CO				
Site Position:	Northing: 1507165.75 ft	Latitude: 40 42 50.948 N		
From: Map	Easting: 3451858.07 ft	Longitude: 103 52 11.889 W		
Position Uncertainty: 0.00 ft		North Reference: Grid		
Ground Level: 4842.00 ft		Grid Convergence: 1.05 deg		

Well: 2-33-9-58 centered on 33-21		Slot Name: 2-33		
Well Position: +N/-S 14.99 ft	Northing: 1507180.74 ft	Latitude: 40 42 51.097 N		
+E/-W -0.39 ft	Easting : 3451857.68 ft	Longitude: 103 52 11.891 W		
Position Uncertainty: 0.00 ft				

Wellpath: Original Hole		Drilled From: Surface	
Current Datum: 4842'GL+17"KB		Tie-on Depth: 0.00 ft	
Magnetic Data: 01/23/2013		Above System Datum: Mean Sea Level	
Field Strength: 53257 nT		Declination: 8.18 deg	
Vertical Section: Depth From (TVD)		Mag Dip Angle: 67.39 deg	
ft	+N/-S ft	+E/-W ft	Direction deg
0.00	0.00	0.00	178.56

Survey Program for Definitive Wellpath				
Date: 02/07/2013		Validated: No	Version: 0	
Actual From ft	To ft	Survey	Toolcode	Tool Name
109.00	10092.00	Survey #1 (109.00-10092.00)	MWD	Std MWD
10153.00	10153.00	Survey #2 (10153.00-10153.00)	Project	Projection

Survey										
MD ft	Incl deg	Azim deg	TVD ft	+N/-S ft	+E/-W ft	VS ft	DLS deg/100ft	Build deg/100ft	Turn deg/100ft	Tool/Comment
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	TIE LINE
109.00	0.20	331.70	109.00	0.17	-0.09	-0.17	0.18	0.18	0.00	MWD
140.00	0.40	337.10	140.00	0.31	-0.16	-0.32	0.65	0.65	17.42	MWD
231.00	1.10	29.00	230.99	1.37	0.14	-1.37	1.00	0.77	57.03	MWD
323.00	2.40	38.50	322.95	3.65	1.77	-3.61	1.44	1.41	10.33	MWD
417.00	2.30	33.70	416.87	6.76	4.04	-6.66	0.23	-0.11	-5.11	MWD
508.00	2.10	42.00	507.80	9.52	6.17	-9.36	0.41	-0.22	9.12	MWD
600.00	2.00	39.30	599.74	12.01	8.31	-11.80	0.15	-0.11	-2.93	MWD
691.00	1.90	39.70	690.69	14.40	10.28	-14.14	0.11	-0.11	0.44	MWD
783.00	3.30	49.00	782.59	17.31	13.26	-16.98	1.58	1.52	10.11	MWD
874.00	3.90	47.60	873.41	21.12	17.52	-20.67	0.67	0.66	-1.54	MWD
965.00	3.30	46.20	964.23	25.02	21.69	-24.47	0.67	-0.66	-1.54	MWD
1057.00	3.30	46.60	1056.08	28.67	25.53	-28.02	0.03	0.00	0.43	MWD
1148.00	2.70	65.00	1146.96	31.38	29.38	-30.63	1.24	-0.66	20.22	MWD
1239.00	2.40	68.70	1237.87	32.97	33.09	-32.13	0.38	-0.33	4.07	MWD
1331.00	2.40	66.40	1329.79	34.45	36.65	-33.51	0.10	0.00	-2.50	MWD
1448.00	2.40	71.70	1446.68	36.20	41.22	-35.15	0.19	0.00	4.53	MWD
1491.00	2.40	73.10	1489.65	36.74	42.94	-35.65	0.14	0.00	3.26	MWD
1576.00	2.10	72.20	1574.58	37.73	46.13	-36.56	0.36	-0.35	-1.06	MWD
1661.00	3.00	52.90	1659.50	39.55	49.38	-38.30	1.45	1.06	-22.71	MWD
1746.00	3.20	43.60	1744.37	42.61	52.79	-41.27	0.64	0.24	-10.94	MWD
1770.00	2.90	42.50	1768.34	43.54	53.66	-42.18	1.27	-1.25	-4.58	MWD

Precision Directional Services, Inc.

Survey Report

Company: CARRIZO OIL & GAS, INC.
Field: Niobrara CONZ'83
Site: Bringelson Ranch 33-21-9-58 Pad
Well: 2-33-9-58
Wellpath: Original Hole

Date: 02/08/2013 **Time:** 11:16:57 **Page:** 2
Co-ordinate(NE) Reference: Well: 2-33-9-58, Grid North
Vertical (TVD) Reference: 4842'GL+17"KB 4859.0
Section (VS) Reference: Well (0.00N,0.00E,178.56Azi)
Survey Calculation Method: Minimum Curvature **Db:** Sybase

Survey

MD ft	Incl deg	Azim deg	TVD ft	+N/-S ft	+E/-W ft	VS ft	DLS deg/100ft	Build deg/100ft	Turn deg/100ft	Tool/Comment
1855.00	2.70	33.70	1853.24	46.79	56.23	-45.37	0.56	-0.24	-10.35	MWD
1939.00	2.60	35.30	1937.15	50.00	58.43	-48.51	0.15	-0.12	1.90	MWD
2023.00	2.70	23.20	2021.06	53.37	60.31	-51.84	0.68	0.12	-14.40	MWD
2108.00	2.60	19.10	2105.97	57.03	61.73	-55.46	0.25	-0.12	-4.82	MWD
2193.00	2.70	21.80	2190.88	60.71	63.10	-59.11	0.19	0.12	3.18	MWD
2279.00	2.40	18.10	2276.79	64.30	64.41	-62.66	0.40	-0.35	-4.30	MWD
2364.00	3.00	44.10	2361.70	67.59	66.51	-65.90	1.59	0.71	30.59	MWD
2448.00	3.10	41.10	2445.58	70.88	69.54	-69.11	0.22	0.12	-3.57	MWD
2532.00	2.80	58.70	2529.47	73.66	72.78	-71.81	1.13	-0.36	20.95	MWD
2617.00	2.90	58.50	2614.37	75.86	76.39	-73.92	0.12	0.12	-0.24	MWD
2703.00	2.80	59.90	2700.26	78.05	80.06	-76.02	0.14	-0.12	1.63	MWD
2788.00	2.80	59.40	2785.16	80.15	83.65	-78.02	0.03	0.00	-0.59	MWD
2873.00	2.70	56.90	2870.06	82.30	87.11	-80.09	0.18	-0.12	-2.94	MWD
2957.00	2.20	59.60	2953.98	84.20	90.16	-81.91	0.61	-0.60	3.21	MWD
3043.00	2.90	53.90	3039.90	86.31	93.34	-83.94	0.86	0.81	-6.63	MWD
3128.00	3.00	52.50	3124.79	88.94	96.84	-86.47	0.14	0.12	-1.65	MWD
3213.00	3.50	57.50	3209.65	91.68	100.79	-89.12	0.68	0.59	5.88	MWD
3298.00	3.50	61.30	3294.49	94.32	105.26	-91.65	0.27	0.00	4.47	MWD
3384.00	3.60	60.80	3380.33	96.90	109.92	-94.11	0.12	0.12	-0.58	MWD
3469.00	4.20	61.30	3465.13	99.70	114.98	-96.78	0.71	0.71	0.59	MWD
3554.00	3.40	66.60	3549.94	102.19	120.02	-99.15	1.03	-0.94	6.24	MWD
3639.00	3.30	66.80	3634.80	104.16	124.58	-101.00	0.12	-0.12	0.24	MWD
3724.00	3.30	65.40	3719.66	106.14	129.06	-102.86	0.09	0.00	-1.65	MWD
3810.00	2.20	56.80	3805.56	108.08	132.69	-104.71	1.36	-1.28	-10.00	MWD
3895.00	1.80	39.20	3890.50	110.00	134.90	-106.58	0.86	-0.47	-20.71	MWD
3980.00	1.40	20.20	3975.47	112.01	136.10	-108.56	0.78	-0.47	-22.35	MWD
4065.00	2.20	44.40	4060.43	114.15	137.60	-110.66	1.28	0.94	28.47	MWD
4150.00	1.60	28.40	4145.38	116.36	139.30	-112.82	0.94	-0.71	-18.82	MWD
4235.00	2.50	38.50	4230.33	118.86	141.02	-115.28	1.14	1.06	11.88	MWD
4320.00	2.00	353.80	4315.27	121.78	142.02	-118.17	2.08	-0.59	-52.59	MWD
4405.00	1.60	17.90	4400.23	124.39	142.22	-120.77	1.00	-0.47	28.35	MWD
4490.00	1.80	45.70	4485.19	126.45	143.54	-122.80	0.99	0.24	32.71	MWD
4576.00	2.80	53.90	4571.12	128.63	146.21	-124.91	1.22	1.16	9.53	MWD
4660.00	3.40	59.60	4655.00	131.10	150.01	-127.29	0.80	0.71	6.79	MWD
4746.00	2.90	62.40	4740.87	133.40	154.14	-129.48	0.61	-0.58	3.26	MWD
4831.00	3.30	67.50	4825.74	135.33	158.31	-131.31	0.57	0.47	6.00	MWD
4916.00	2.90	72.60	4910.62	136.91	162.62	-132.78	0.57	-0.47	6.00	MWD
5001.00	2.10	76.60	4995.54	137.91	166.18	-133.69	0.96	-0.94	4.71	MWD
5063.00	2.20	54.50	5057.50	138.87	168.26	-134.59	1.34	0.16	-35.65	MWD
5148.00	2.20	57.50	5142.43	140.69	170.96	-136.35	0.14	0.00	3.53	MWD
5191.00	1.80	59.90	5185.41	141.47	172.24	-137.10	0.95	-0.93	5.58	MWD
5233.00	2.50	121.40	5227.38	141.33	173.60	-136.92	5.43	1.67	146.43	MWD
5275.00	5.40	155.50	5269.28	139.05	175.20	-134.60	8.60	6.90	81.19	MWD
5318.00	8.70	151.80	5311.95	134.34	177.57	-129.84	7.74	7.67	-8.60	MWD
5361.00	12.60	153.40	5354.20	127.28	181.21	-122.68	9.09	9.07	3.72	MWD
5403.00	15.90	158.40	5394.91	117.83	185.38	-113.13	8.38	7.86	11.90	MWD
5446.00	17.90	170.10	5436.06	105.84	188.69	-101.06	9.15	4.65	27.21	MWD
5488.00	21.40	174.20	5475.61	91.85	190.57	-87.03	8.95	8.33	9.76	MWD
5531.00	25.60	173.80	5515.03	74.80	192.37	-69.95	9.77	9.77	-0.93	MWD
5574.00	30.20	174.70	5553.03	54.79	194.37	-49.89	10.74	10.70	2.09	MWD
5616.00	35.50	175.60	5588.30	32.10	196.29	-27.15	12.67	12.62	2.14	MWD
5659.00	41.10	176.50	5622.03	5.52	198.11	-0.54	13.09	13.02	2.09	MWD
5701.00	47.10	176.10	5652.18	-23.63	200.00	28.65	14.30	14.29	-0.95	MWD

Precision Directional Services, Inc.

Survey Report

Company: CARRIZO OIL & GAS, INC.
Field: Niobrara CONZ'83
Site: Bringelson Ranch 33-21-9-58 Pad
Well: 2-33-9-58
Wellpath: Original Hole

Date: 02/08/2013 **Time:** 11:16:57 **Page:** 3
Co-ordinate(NE) Reference: Well: 2-33-9-58, Grid North
Vertical (TVD) Reference: 4842'GL+17'KB 4859.0
Section (VS) Reference: Well (0.00N,0.00E,178.56Azi)
Survey Calculation Method: Minimum Curvature **Db:** Sybase

Survey

MD ft	Incl deg	Azim deg	TVD ft	+N/-S ft	+E/-W ft	VS ft	DLS deg/100ft	Build deg/100ft	Turn deg/100ft	Tool/Comment
5744.00	53.20	176.60	5679.72	-56.56	202.09	61.62	14.21	14.19	1.16	MWD
5787.00	56.40	177.00	5704.50	-91.64	204.05	96.74	7.48	7.44	0.93	MWD
5814.00	57.90	177.50	5719.15	-114.30	205.14	119.42	5.77	5.56	1.85	MWD
5868.00	62.20	177.90	5746.10	-161.04	207.01	166.19	7.99	7.96	0.74	MWD
5910.00	66.70	178.70	5764.21	-198.90	208.13	204.07	10.85	10.71	1.90	MWD
5953.00	71.50	180.10	5779.55	-239.06	208.54	244.22	11.57	11.16	3.26	MWD
5996.00	73.60	180.90	5792.44	-280.08	208.18	285.22	5.20	4.88	1.86	MWD
6038.00	78.20	181.20	5802.67	-320.79	207.44	325.90	10.97	10.95	0.71	MWD
6081.00	84.20	183.00	5809.24	-363.24	205.88	368.30	14.55	13.95	4.19	MWD
6088.00	84.45	182.93	5809.94	-370.19	205.52	375.24	3.70	3.57	-0.95	600' entry
6123.00	85.70	182.60	5812.94	-405.02	203.83	410.02	3.70	3.57	-0.95	MWD
6165.00	86.10	182.30	5815.94	-446.88	202.04	451.81	1.19	0.95	-0.71	MWD
6208.00	90.10	181.20	5817.37	-489.82	200.73	494.71	9.65	9.30	-2.56	MWD
6250.00	90.90	180.70	5817.00	-531.82	200.03	536.67	2.25	1.90	-1.19	MWD
6293.00	91.70	178.70	5816.03	-574.80	200.26	579.65	5.01	1.86	-4.65	MWD
6335.00	91.30	178.00	5814.93	-616.77	201.47	621.64	1.92	-0.95	-1.67	MWD
6378.00	90.70	177.70	5814.18	-659.73	203.08	664.63	1.56	-1.40	-0.70	MWD
6425.00	90.60	177.30	5813.64	-706.68	205.13	711.62	0.88	-0.21	-0.85	MWD
6466.00	90.00	176.60	5813.43	-747.63	207.31	752.60	2.25	-1.46	-1.71	MWD
6508.00	89.30	176.10	5813.69	-789.54	209.99	794.57	2.05	-1.67	-1.19	MWD
6550.00	91.10	177.30	5813.54	-831.47	212.40	836.54	5.15	4.29	2.86	MWD
6593.00	90.80	177.20	5812.83	-874.41	214.47	879.52	0.74	-0.70	-0.23	MWD
6635.00	90.30	176.50	5812.42	-916.35	216.77	921.50	2.05	-1.19	-1.67	MWD
6678.00	90.20	176.10	5812.24	-959.26	219.55	964.47	0.96	-0.23	-0.93	MWD
6720.00	91.50	176.80	5811.61	-1001.17	222.15	1006.44	3.52	3.10	1.67	MWD
6763.00	92.20	177.20	5810.23	-1044.09	224.40	1049.40	1.87	1.63	0.93	MWD
6805.00	92.20	176.80	5808.61	-1086.00	226.59	1091.35	0.95	0.00	-0.95	MWD
6848.00	92.10	176.60	5807.00	-1128.90	229.07	1134.30	0.52	-0.23	-0.47	MWD
6890.00	90.70	177.50	5805.97	-1170.83	231.23	1176.27	3.96	-3.33	2.14	MWD
6933.00	90.00	176.30	5805.71	-1213.76	233.55	1219.25	3.23	-1.63	-2.79	MWD
6975.00	89.80	175.90	5805.78	-1255.67	236.41	1261.21	1.06	-0.48	-0.95	MWD
7018.00	90.10	177.00	5805.82	-1298.58	239.07	1304.18	2.65	0.70	2.56	MWD
7060.00	89.70	175.80	5805.90	-1340.50	241.71	1346.15	3.01	-0.95	-2.86	MWD
7103.00	90.70	177.20	5805.74	-1383.42	244.34	1389.12	4.00	2.33	3.26	MWD
7145.00	90.70	177.90	5805.23	-1425.37	246.13	1431.11	1.67	0.00	1.67	MWD
7188.00	90.70	178.60	5804.71	-1468.35	247.44	1474.11	1.63	0.00	1.63	MWD
7231.00	91.20	178.40	5803.99	-1511.33	248.57	1517.10	1.25	1.16	-0.47	MWD
7273.00	91.30	177.90	5803.08	-1553.30	249.92	1559.09	1.21	0.24	-1.19	MWD
7316.00	88.50	178.70	5803.15	-1596.27	251.20	1602.08	6.77	-6.51	1.86	MWD
7358.00	88.40	178.70	5804.29	-1638.25	252.15	1644.07	0.24	-0.24	0.00	MWD
7401.00	89.90	179.30	5804.93	-1681.24	252.90	1687.06	3.76	3.49	1.40	MWD
7442.00	89.80	179.10	5805.03	-1722.23	253.48	1728.06	0.55	-0.24	-0.49	MWD
7484.00	89.70	179.10	5805.22	-1764.23	254.14	1770.06	0.24	-0.24	0.00	MWD
7526.00	90.00	179.30	5805.33	-1806.22	254.72	1812.05	0.86	0.71	0.48	MWD
7569.00	90.10	179.40	5805.29	-1849.22	255.21	1855.05	0.33	0.23	0.23	MWD
7612.00	90.20	179.60	5805.18	-1892.22	255.58	1898.04	0.52	0.23	0.47	MWD
7654.00	89.80	178.60	5805.18	-1934.21	256.24	1940.04	2.56	-0.95	-2.38	MWD
7697.00	89.70	178.90	5805.36	-1977.20	257.18	1983.04	0.74	-0.23	0.70	MWD
7739.00	89.50	179.10	5805.66	-2019.19	257.92	2025.04	0.67	-0.48	0.48	MWD
7782.00	89.00	178.90	5806.22	-2062.18	258.67	2068.03	1.25	-1.16	-0.47	MWD
7825.00	88.70	178.20	5807.08	-2105.16	259.75	2111.02	1.77	-0.70	-1.63	MWD
7867.00	88.30	178.20	5808.18	-2147.12	261.07	2153.01	0.95	-0.95	0.00	MWD
7910.00	89.70	180.30	5808.93	-2190.11	261.63	2195.99	5.87	3.26	4.88	MWD
7951.00	89.30	180.70	5809.29	-2231.11	261.28	2236.97	1.38	-0.98	0.98	MWD

Precision Directional Services, Inc.

Survey Report

Company: CARRIZO OIL & GAS, INC.
Field: Niobrara CONZ'83
Site: Bringelson Ranch 33-21-9-58 Pad
Well: 2-33-9-58
Wellpath: Original Hole

Date: 02/08/2013 **Time:** 11:16:57 **Page:** 4
Co-ordinate(NE) Reference: Well: 2-33-9-58, Grid North
Vertical (TVD) Reference: 4842'GL+17'KB 4859.0
Section (VS) Reference: Well (0.00N,0.00E,178.56Azi)
Survey Calculation Method: Minimum Curvature **Db:** Sybase

Survey

MD ft	Incl deg	Azim deg	TVD ft	+N/-S ft	+E/-W ft	VS ft	DLS deg/100ft	Build deg/100ft	Turn deg/100ft	Tool/Comment
7994.00	90.00	180.10	5809.55	-2274.11	260.98	2279.95	2.14	1.63	-1.40	MWD
8036.00	91.10	180.00	5809.15	-2316.10	260.94	2321.93	2.63	2.62	-0.24	MWD
8078.00	90.90	179.40	5808.42	-2358.10	261.16	2363.91	1.51	-0.48	-1.43	MWD
8121.00	90.30	178.70	5807.97	-2401.09	261.87	2406.91	2.14	-1.40	-1.63	MWD
8163.00	89.30	177.50	5808.11	-2443.06	263.27	2448.91	3.72	-2.38	-2.86	MWD
8206.00	88.90	177.30	5808.79	-2486.01	265.22	2491.89	1.04	-0.93	-0.47	MWD
8249.00	90.00	179.40	5809.20	-2528.99	266.45	2534.89	5.51	2.56	4.88	MWD
8291.00	89.50	179.10	5809.39	-2570.99	267.00	2576.88	1.39	-1.19	-0.71	MWD
8334.00	89.40	178.40	5809.80	-2613.97	267.94	2619.88	1.64	-0.23	-1.63	MWD
8376.00	90.00	178.90	5810.02	-2655.96	268.93	2661.88	1.86	1.43	1.19	MWD
8418.00	90.00	178.20	5810.02	-2697.95	269.99	2703.88	1.67	0.00	-1.67	MWD
8461.00	89.60	177.30	5810.17	-2740.91	271.68	2746.87	2.29	-0.93	-2.09	MWD
8503.00	88.80	176.80	5810.75	-2782.85	273.84	2788.86	2.25	-1.90	-1.19	MWD
8546.00	89.20	178.00	5811.51	-2825.80	275.79	2831.84	2.94	0.93	2.79	MWD
8589.00	88.50	177.50	5812.37	-2868.76	277.48	2874.83	2.00	-1.63	-1.16	MWD
8631.00	88.70	178.60	5813.39	-2910.72	278.91	2916.81	2.66	0.48	2.62	MWD
8674.00	88.60	178.70	5814.41	-2953.70	279.92	2959.80	0.33	-0.23	0.23	MWD
8716.00	89.60	180.10	5815.07	-2995.69	280.36	3001.79	4.10	2.38	3.33	MWD
8759.00	89.10	179.30	5815.56	-3038.68	280.59	3044.78	2.19	-1.16	-1.86	MWD
8802.00	88.90	179.40	5816.31	-3081.68	281.08	3087.77	0.52	-0.47	0.23	MWD
8844.00	90.30	179.60	5816.60	-3123.67	281.44	3129.76	3.37	3.33	0.48	MWD
8887.00	91.20	179.40	5816.04	-3166.67	281.82	3172.75	2.14	2.09	-0.47	MWD
8930.00	93.20	179.40	5814.39	-3209.63	282.27	3215.71	4.65	4.65	0.00	MWD
8972.00	93.00	179.40	5812.11	-3251.57	282.71	3257.64	0.48	-0.48	0.00	MWD
9015.00	92.10	178.90	5810.20	-3294.52	283.34	3300.60	2.39	-2.09	-1.16	MWD
9058.00	91.70	178.60	5808.78	-3337.48	284.28	3343.57	1.16	-0.93	-0.70	MWD
9100.00	91.40	178.60	5807.64	-3379.46	285.31	3385.56	0.71	-0.71	0.00	MWD
9143.00	90.90	178.00	5806.78	-3422.43	286.58	3428.55	1.82	-1.16	-1.40	MWD
9185.00	90.70	178.20	5806.19	-3464.40	287.97	3470.54	0.67	-0.48	0.48	MWD
9228.00	90.60	177.90	5805.70	-3507.37	289.44	3513.54	0.74	-0.23	-0.70	MWD
9270.00	90.10	178.00	5805.45	-3549.35	290.94	3555.54	1.21	-1.19	0.24	MWD
9313.00	90.00	179.60	5805.41	-3592.33	291.84	3598.53	3.73	-0.23	3.72	MWD
9356.00	90.40	180.70	5805.26	-3635.33	291.73	3641.52	2.72	0.93	2.56	MWD
9398.00	90.10	181.00	5805.07	-3677.33	291.10	3683.48	1.01	-0.71	0.71	MWD
9441.00	89.70	181.40	5805.15	-3720.32	290.20	3726.44	1.32	-0.93	0.93	MWD
9483.00	88.70	180.90	5805.74	-3762.31	289.36	3768.39	2.66	-2.38	-1.19	MWD
9526.00	88.50	180.90	5806.79	-3805.29	288.69	3811.34	0.47	-0.47	0.00	MWD
9569.00	90.10	181.20	5807.31	-3848.27	287.90	3854.29	3.79	3.72	0.70	MWD
9610.00	89.60	181.70	5807.42	-3889.26	286.86	3895.24	1.72	-1.22	1.22	MWD
9653.00	88.90	181.00	5807.98	-3932.25	285.85	3938.19	2.30	-1.63	-1.63	MWD
9696.00	88.90	181.40	5808.81	-3975.23	284.95	3981.13	0.93	0.00	0.93	MWD
9738.00	89.30	181.90	5809.47	-4017.21	283.74	4023.07	1.52	0.95	1.19	MWD
9781.00	91.00	181.90	5809.35	-4060.18	282.31	4065.99	3.95	3.95	0.00	MWD
9823.00	90.80	181.20	5808.69	-4102.16	281.18	4107.93	1.73	-0.48	-1.67	MWD
9866.00	90.20	181.20	5808.32	-4145.15	280.28	4150.88	1.40	-1.40	0.00	MWD
9909.00	89.90	181.00	5808.28	-4188.14	279.45	4193.84	0.84	-0.70	-0.47	MWD
9951.00	89.60	181.20	5808.47	-4230.13	278.64	4235.80	0.86	-0.71	0.48	MWD
9994.00	89.00	181.00	5808.99	-4273.12	277.82	4278.75	1.47	-1.40	-0.47	MWD
10037.00	88.60	180.50	5809.89	-4316.11	277.26	4321.71	1.49	-0.93	-1.16	MWD
10079.00	88.20	180.50	5811.06	-4358.09	276.89	4363.67	0.95	-0.95	0.00	MWD
10092.00	88.30	180.90	5811.46	-4371.08	276.73	4376.66	3.17	0.77	3.08	MWD
10153.00	88.30	180.90	5813.27	-4432.05	275.77	4437.58	0.00	0.00	0.00	Project

Precision Directional Services, Inc.

Survey Report

Company: CARRIZO OIL & GAS, INC.
Field: Niobrara CONZ'83
Site: Bringelson Ranch 33-21-9-58 Pad
Well: 2-33-9-58
Wellpath: Original Hole

Date: 02/08/2013
Co-ordinate(NE) Reference: Well: 2-33-9-58, Grid North
Vertical (TVD) Reference: 4842'GL+17'KB 4859.0
Section (VS) Reference: Well (0.00N,0.00E,178.56Azi)
Survey Calculation Method: Minimum Curvature
Time: 11:16:57
Page: 5
Db: Sybase

Annotation

MD ft	TVD ft	
6088.00	5809.94	600' entry