



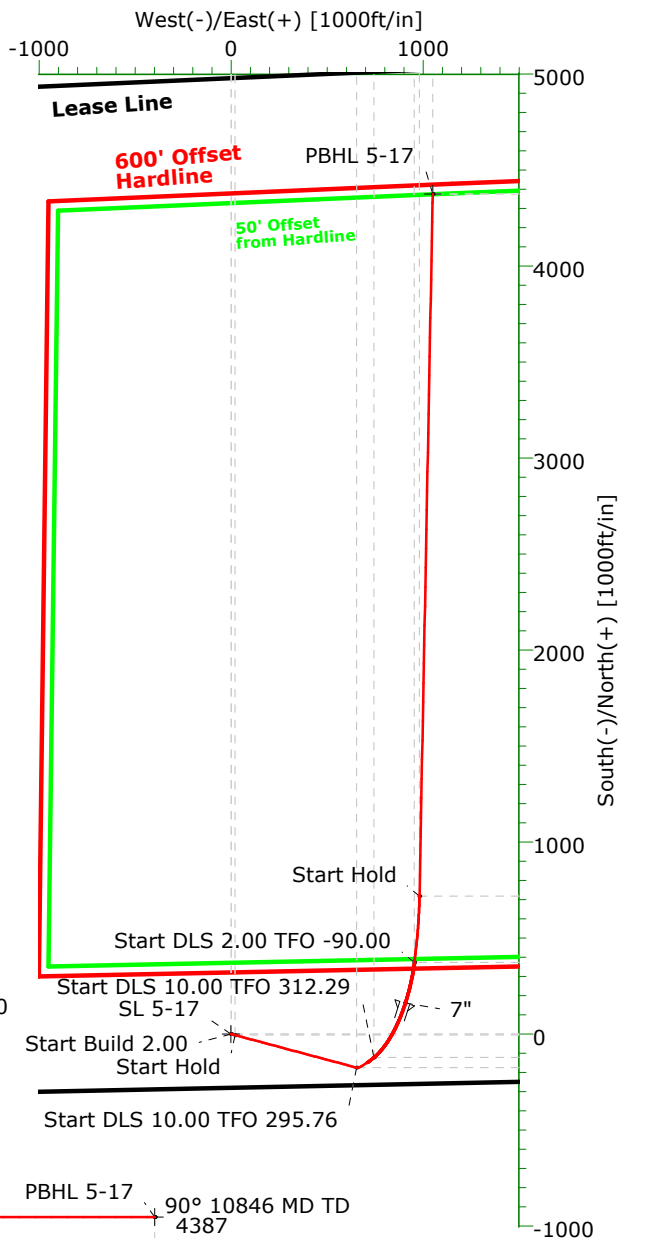
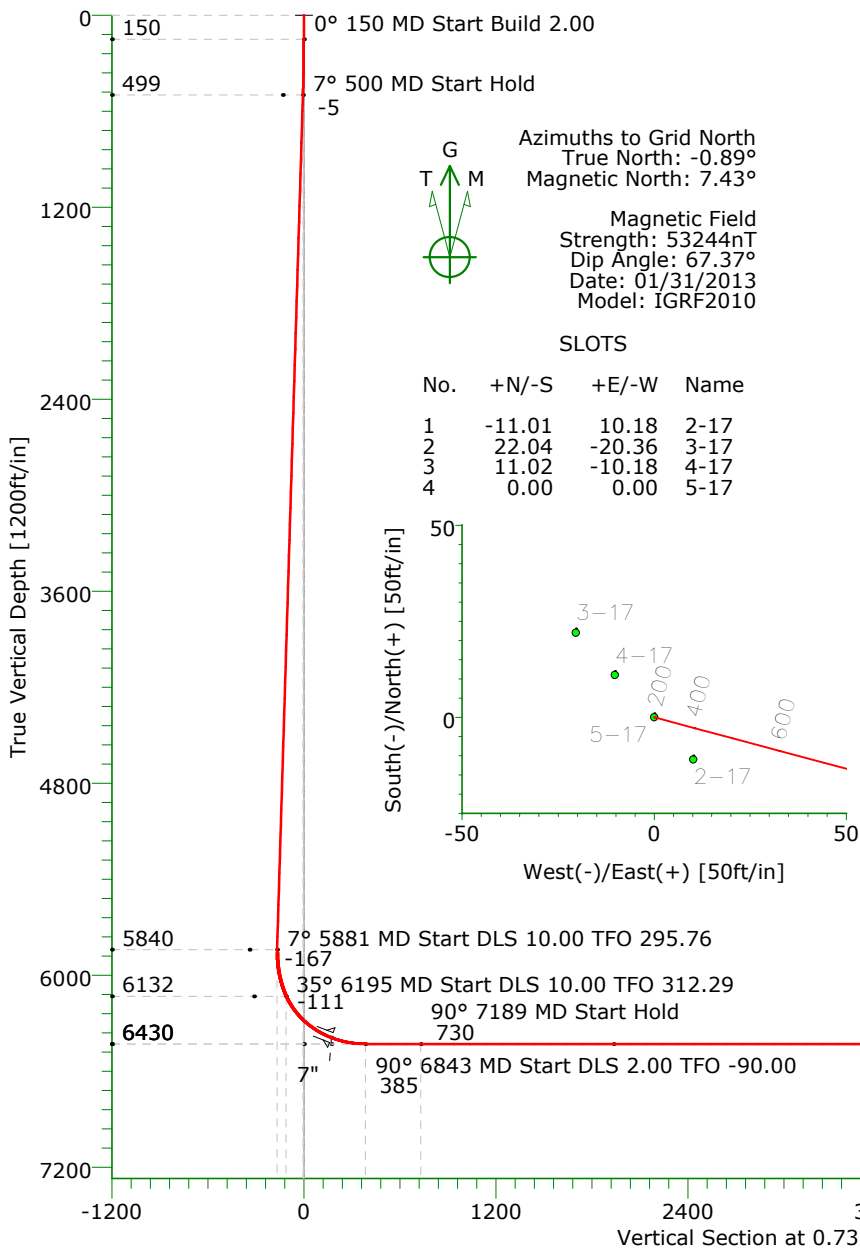
CARRIZO OIL & GAS, INC.

Field: Niobrara CONZ'83
Site: Nelson 2-17-9-60 Pad
Well: 5-17-9-60
Wellpath: Original Hole
Plan: Plan #2



CASING DETAILS

No.	TVD	MD	Name	Size
1	6391.54	6621.32	7"	7.000



TARGET DETAILS

Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Shape
SL 5-17	0.00	0.00	0.00	1516480.01	3382051.17	40°44'34.673N	104°07'16.417W	Point
PBHL 5-17	6430.00	4374.18	1050.48	1520854.19	3383101.65	40°45'17.728N	104°07'01.885W	Point

SECTION DETAILS

Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	DLeg	TFace	VSec	Target
1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
2	150.00	0.00	0.00	150.00	0.00	0.00	0.00	0.00	0.00	
3	500.00	7.00	105.00	499.13	-5.53	20.63	2.00	105.00	-5.26	
4	5880.98	7.00	105.00	5840.00	-175.25	654.06	0.00	0.00	-166.91	
5	6195.43	35.00	50.00	6132.22	-120.87	743.92	10.00	295.76	-111.39	
6	6843.35	90.00	8.00	6430.00	373.14	954.24	10.00	312.29	385.27	
7	7189.40	90.00	1.08	6430.00	717.89	981.61	2.00	-90.00	730.34	
8	10846.34	90.00	1.08	6430.00	4374.18	1050.48	0.00	0.00	4387.21	PBHL 5-17

Precision Directional Services, Inc.

Planning Report

Company: CARRIZO OIL & GAS, INC. Field: Niobrara CONZ'83 Site: Nelson 2-17-9-60 Pad Well: 5-17-9-60 Wellpath: Original Hole	Date: 01/22/2013 Co-ordinate(NE) Reference: Vertical (TVD) Reference: Section (VS) Reference: Plan:	Time: 15:39:48 Well: 5-17-9-60, Grid North 4991'GL+17'KB 4508.0 Well (0.00N,0.00E,0.73Azi) Plan #2	Page: 1
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Field: Niobrara CONZ'83 Map System: US State Plane Coordinate System 1983 Geo Datum: GRS 1980 Sys Datum: Mean Sea Level	Map Zone: Colorado, Northern Zone Coordinate System: Well Centre Geomagnetic Model: IGRF2010
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Site: Nelson 2-17-9-60 Pad Weld County, CO Site Position: From: Map Position Uncertainty: 0.00 ft Ground Level: 4991.00 ft	Northing: 1516469.00 ft Easting: 3382061.35 ft Latitude: 40 44 34.562 N Longitude: 104 7 16.287 W North Reference: Grid Grid Convergence: 0.89 deg
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Well: 5-17-9-60 centered on 2-17 Well Position: +N/-S 11.01 ft +E/-W -10.18 ft Position Uncertainty: 0.00 ft	Slot Name: 5-17 Latitude: 40 44 34.673 N Longitude: 104 7 16.417 W
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Wellpath: Original Hole Current Datum: 4991'GL+17'KB Magnetic Data: 01/31/2013 Field Strength: 53244 nT Vertical Section: Depth From (TVD) ft	Drilled From: Surface Tie-on Depth: 0.00 ft Above System Datum: Mean Sea Level Declination: 8.32 deg Mag Dip Angle: 67.37 deg +N/-S ft +E/-W ft Direction deg
0.00	0.00

Plan: Plan #2 Principal: No	Date Composed: 01/22/2013 Version: 1 Tied-to: From Surface
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Plan Section Information										
MD ft	Incl deg	Azim deg	TVD ft	+N/-S ft	+E/-W ft	DLS deg/100ft	Build deg/100ft	Turn deg/100ft	TFO deg	Target
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
150.00	0.00	0.00	150.00	0.00	0.00	0.00	0.00	0.00	0.00	
500.00	7.00	105.00	499.13	-5.53	20.63	2.00	2.00	0.00	105.00	
5880.98	7.00	105.00	5840.00	-175.25	654.06	0.00	0.00	0.00	0.00	
6195.43	35.00	50.00	6132.22	-120.87	743.92	10.00	8.90	-17.49	295.76	
6843.35	90.00	8.00	6430.00	373.14	954.24	10.00	8.49	-6.48	312.29	
7189.40	90.00	1.08	6430.00	717.89	981.61	2.00	0.00	-2.00	-90.00	
10846.34	90.00	1.08	6430.00	4374.18	1050.48	0.00	0.00	0.00	0.00	PBHL 5-17

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
150.00	0.00	0.00	150.00	0.00	0.00	0.00	0.00	0.00	0.00	
200.00	1.00	105.00	200.00	-0.11	0.42	-0.11	2.00	2.00	0.00	
300.00	3.00	105.00	299.93	-1.02	3.79	-0.97	2.00	2.00	0.00	
400.00	5.00	105.00	399.68	-2.82	10.53	-2.69	2.00	2.00	0.00	
500.00	7.00	105.00	499.13	-5.53	20.63	-5.26	2.00	2.00	0.00	
600.00	7.00	105.00	598.38	-8.68	32.40	-8.27	0.00	0.00	0.00	
700.00	7.00	105.00	697.64	-11.84	44.17	-11.27	0.00	0.00	0.00	
800.00	7.00	105.00	796.89	-14.99	55.94	-14.28	0.00	0.00	0.00	
900.00	7.00	105.00	896.15	-18.14	67.71	-17.28	0.00	0.00	0.00	
1000.00	7.00	105.00	995.40	-21.30	79.48	-20.28	0.00	0.00	0.00	
1100.00	7.00	105.00	1094.66	-24.45	91.26	-23.29	0.00	0.00	0.00	
1200.00	7.00	105.00	1193.91	-27.61	103.03	-26.29	0.00	0.00	0.00	
1300.00	7.00	105.00	1293.17	-30.76	114.80	-29.30	0.00	0.00	0.00	
1400.00	7.00	105.00	1392.42	-33.91	126.57	-32.30	0.00	0.00	0.00	

Precision Directional Services, Inc.

Planning Report

Company: CARRIZO OIL & GAS, INC.
Field: Niobrara CONZ'83
Site: Nelson 2-17-9-60 Pad
Well: 5-17-9-60
Wellpath: Original Hole

Date: 01/22/2013
Co-ordinate(NE) Reference: Well: 5-17-9-60, Grid North
Vertical (TVD) Reference: 4991'GL+17'KB 4508.0
Section (VS) Reference: Well (0.00N,0.00E,0.73Azi)
Plan: Plan #2

Page: 2

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
1500.00	7.00	105.00	1491.68	-37.07	138.34	-35.30	0.00	0.00	0.00	
1600.00	7.00	105.00	1590.93	-40.22	150.11	-38.31	0.00	0.00	0.00	
1700.00	7.00	105.00	1690.19	-43.38	161.89	-41.31	0.00	0.00	0.00	
1800.00	7.00	105.00	1789.44	-46.53	173.66	-44.32	0.00	0.00	0.00	
1900.00	7.00	105.00	1888.69	-49.69	185.43	-47.32	0.00	0.00	0.00	
2000.00	7.00	105.00	1987.95	-52.84	197.20	-50.32	0.00	0.00	0.00	
2100.00	7.00	105.00	2087.20	-55.99	208.97	-53.33	0.00	0.00	0.00	
2200.00	7.00	105.00	2186.46	-59.15	220.74	-56.33	0.00	0.00	0.00	
2300.00	7.00	105.00	2285.71	-62.30	232.52	-59.34	0.00	0.00	0.00	
2400.00	7.00	105.00	2384.97	-65.46	244.29	-62.34	0.00	0.00	0.00	
2500.00	7.00	105.00	2484.22	-68.61	256.06	-65.34	0.00	0.00	0.00	
2600.00	7.00	105.00	2583.48	-71.77	267.83	-68.35	0.00	0.00	0.00	
2700.00	7.00	105.00	2682.73	-74.92	279.60	-71.35	0.00	0.00	0.00	
2800.00	7.00	105.00	2781.99	-78.07	291.37	-74.35	0.00	0.00	0.00	
2900.00	7.00	105.00	2881.24	-81.23	303.15	-77.36	0.00	0.00	0.00	
3000.00	7.00	105.00	2980.50	-84.38	314.92	-80.36	0.00	0.00	0.00	
3100.00	7.00	105.00	3079.75	-87.54	326.69	-83.37	0.00	0.00	0.00	
3200.00	7.00	105.00	3179.00	-90.69	338.46	-86.37	0.00	0.00	0.00	
3300.00	7.00	105.00	3278.26	-93.84	350.23	-89.37	0.00	0.00	0.00	
3400.00	7.00	105.00	3377.51	-97.00	362.00	-92.38	0.00	0.00	0.00	
3500.00	7.00	105.00	3476.77	-100.15	373.78	-95.38	0.00	0.00	0.00	
3600.00	7.00	105.00	3576.02	-103.31	385.55	-98.39	0.00	0.00	0.00	
3700.00	7.00	105.00	3675.28	-106.46	397.32	-101.39	0.00	0.00	0.00	
3800.00	7.00	105.00	3774.53	-109.62	409.09	-104.39	0.00	0.00	0.00	
3900.00	7.00	105.00	3873.79	-112.77	420.86	-107.40	0.00	0.00	0.00	
4000.00	7.00	105.00	3973.04	-115.92	432.63	-110.40	0.00	0.00	0.00	
4100.00	7.00	105.00	4072.30	-119.08	444.41	-113.41	0.00	0.00	0.00	
4200.00	7.00	105.00	4171.55	-122.23	456.18	-116.41	0.00	0.00	0.00	
4300.00	7.00	105.00	4270.81	-125.39	467.95	-119.41	0.00	0.00	0.00	
4400.00	7.00	105.00	4370.06	-128.54	479.72	-122.42	0.00	0.00	0.00	
4500.00	7.00	105.00	4469.31	-131.70	491.49	-125.42	0.00	0.00	0.00	
4600.00	7.00	105.00	4568.57	-134.85	503.26	-128.43	0.00	0.00	0.00	
4700.00	7.00	105.00	4667.82	-138.00	515.04	-131.43	0.00	0.00	0.00	
4800.00	7.00	105.00	4767.08	-141.16	526.81	-134.43	0.00	0.00	0.00	
4900.00	7.00	105.00	4866.33	-144.31	538.58	-137.44	0.00	0.00	0.00	
5000.00	7.00	105.00	4965.59	-147.47	550.35	-140.44	0.00	0.00	0.00	
5100.00	7.00	105.00	5064.84	-150.62	562.12	-143.45	0.00	0.00	0.00	
5200.00	7.00	105.00	5164.10	-153.77	573.89	-146.45	0.00	0.00	0.00	
5300.00	7.00	105.00	5263.35	-156.93	585.67	-149.45	0.00	0.00	0.00	
5400.00	7.00	105.00	5362.61	-160.08	597.44	-152.46	0.00	0.00	0.00	
5500.00	7.00	105.00	5461.86	-163.24	609.21	-155.46	0.00	0.00	0.00	
5600.00	7.00	105.00	5561.12	-166.39	620.98	-158.47	0.00	0.00	0.00	
5700.00	7.00	105.00	5660.37	-169.55	632.75	-161.47	0.00	0.00	0.00	
5800.00	7.00	105.00	5759.62	-172.70	644.52	-164.47	0.00	0.00	0.00	
5880.98	7.00	105.00	5840.00	-175.25	654.06	-166.91	0.00	0.00	0.00	
5900.00	8.01	92.61	5858.86	-175.61	656.50	-167.24	10.00	5.32	-65.12	
5950.00	11.77	72.94	5908.12	-174.28	664.86	-165.79	10.00	7.51	-39.34	
6000.00	16.20	63.26	5956.63	-169.64	675.97	-161.01	10.00	8.87	-19.36	
6050.00	20.89	57.75	6004.03	-161.74	689.75	-152.94	10.00	9.37	-11.04	
6100.00	25.69	54.20	6049.94	-150.64	706.09	-141.63	10.00	9.60	-7.10	
6150.00	30.55	51.71	6094.03	-136.41	724.86	-127.17	10.00	9.72	-4.98	
6195.43	35.00	50.00	6132.22	-120.87	743.92	-111.39	10.00	9.79	-3.76	
6200.00	35.31	49.42	6135.95	-119.17	745.92	-109.66	10.00	6.76	-12.79	

Precision Directional Services, Inc.

Planning Report

Company: CARRIZO OIL & GAS, INC.
Field: Niobrara CONZ'83
Site: Nelson 2-17-9-60 Pad
Well: 5-17-9-60
Wellpath: Original Hole

Date: 01/22/2013
Co-ordinate(NE) Reference: Well: 5-17-9-60, Grid North
Vertical (TVD) Reference: 4991'GL+17"KB 4508.0
Section (VS) Reference: Well (0.00N,0.00E,0.73Azi)
Plan: Plan #2

Page: 3

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
6250.00	38.85	43.56	6175.85	-98.39	767.72	-88.61	10.00	7.09	-11.70	
6300.00	42.65	38.57	6213.73	-73.77	789.10	-63.71	10.00	7.59	-9.98	
6350.00	46.63	34.27	6249.31	-45.50	809.91	-35.17	10.00	7.96	-8.61	
6400.00	50.75	30.51	6282.31	-13.78	829.98	-3.20	10.00	8.25	-7.53	
6450.00	54.98	27.16	6312.49	21.14	849.17	31.96	10.00	8.46	-6.68	
6500.00	59.30	24.15	6339.62	59.00	867.32	70.04	10.00	8.63	-6.02	
6550.00	63.67	21.41	6363.49	99.50	884.31	110.76	10.00	8.75	-5.50	
6600.00	68.10	18.86	6383.92	142.34	899.99	153.79	10.00	8.85	-5.10	
6621.32	70.00	17.82	6391.54	161.23	906.26	172.77	10.00	8.91	-4.86	7"
6650.00	72.56	16.46	6400.75	187.19	914.26	198.82	10.00	8.94	-4.73	
6700.00	77.05	14.19	6413.85	233.71	927.00	245.50	10.00	8.98	-4.56	
6750.00	81.56	11.99	6423.13	281.55	938.11	293.48	10.00	9.02	-4.40	
6800.00	86.08	9.84	6428.52	330.35	947.52	342.39	10.00	9.04	-4.29	
6843.35	90.00	8.00	6430.00	373.14	954.24	385.27	10.00	9.05	-4.25	
6900.00	90.00	6.87	6430.00	429.31	961.56	441.53	2.00	0.00	-2.00	
7000.00	90.00	4.87	6430.00	528.78	971.79	541.12	2.00	0.00	-2.00	
7100.00	90.00	2.87	6430.00	628.55	978.53	640.96	2.00	0.00	-2.00	
7189.40	90.00	1.08	6430.00	717.89	981.61	730.34	2.00	0.00	-2.00	
7200.00	90.00	1.08	6430.00	728.49	981.81	740.94	0.00	0.00	0.00	
7300.00	90.00	1.08	6430.00	828.47	983.69	840.94	0.00	0.00	0.00	
7400.00	90.00	1.08	6430.00	928.45	985.57	940.94	0.00	0.00	0.00	
7500.00	90.00	1.08	6430.00	1028.44	987.46	1040.93	0.00	0.00	0.00	
7600.00	90.00	1.08	6430.00	1128.42	989.34	1140.93	0.00	0.00	0.00	
7700.00	90.00	1.08	6430.00	1228.40	991.22	1240.93	0.00	0.00	0.00	
7800.00	90.00	1.08	6430.00	1328.38	993.11	1340.93	0.00	0.00	0.00	
7900.00	90.00	1.08	6430.00	1428.37	994.99	1440.93	0.00	0.00	0.00	
8000.00	90.00	1.08	6430.00	1528.35	996.87	1540.92	0.00	0.00	0.00	
8100.00	90.00	1.08	6430.00	1628.33	998.76	1640.92	0.00	0.00	0.00	
8200.00	90.00	1.08	6430.00	1728.31	1000.64	1740.92	0.00	0.00	0.00	
8300.00	90.00	1.08	6430.00	1828.29	1002.52	1840.92	0.00	0.00	0.00	
8400.00	90.00	1.08	6430.00	1928.28	1004.41	1940.92	0.00	0.00	0.00	
8500.00	90.00	1.08	6430.00	2028.26	1006.29	2040.91	0.00	0.00	0.00	
8600.00	90.00	1.08	6430.00	2128.24	1008.17	2140.91	0.00	0.00	0.00	
8700.00	90.00	1.08	6430.00	2228.22	1010.06	2240.91	0.00	0.00	0.00	
8800.00	90.00	1.08	6430.00	2328.21	1011.94	2340.91	0.00	0.00	0.00	
8900.00	90.00	1.08	6430.00	2428.19	1013.82	2440.91	0.00	0.00	0.00	
9000.00	90.00	1.08	6430.00	2528.17	1015.71	2540.91	0.00	0.00	0.00	
9100.00	90.00	1.08	6430.00	2628.15	1017.59	2640.90	0.00	0.00	0.00	
9200.00	90.00	1.08	6430.00	2728.13	1019.47	2740.90	0.00	0.00	0.00	
9300.00	90.00	1.08	6430.00	2828.12	1021.36	2840.90	0.00	0.00	0.00	
9400.00	90.00	1.08	6430.00	2928.10	1023.24	2940.90	0.00	0.00	0.00	
9500.00	90.00	1.08	6430.00	3028.08	1025.12	3040.90	0.00	0.00	0.00	
9600.00	90.00	1.08	6430.00	3128.06	1027.01	3140.89	0.00	0.00	0.00	
9700.00	90.00	1.08	6430.00	3228.05	1028.89	3240.89	0.00	0.00	0.00	
9800.00	90.00	1.08	6430.00	3328.03	1030.77	3340.89	0.00	0.00	0.00	
9900.00	90.00	1.08	6430.00	3428.01	1032.66	3440.89	0.00	0.00	0.00	
10000.00	90.00	1.08	6430.00	3527.99	1034.54	3540.89	0.00	0.00	0.00	
10100.00	90.00	1.08	6430.00	3627.98	1036.42	3640.89	0.00	0.00	0.00	
10200.00	90.00	1.08	6430.00	3727.96	1038.31	3740.88	0.00	0.00	0.00	
10300.00	90.00	1.08	6430.00	3827.94	1040.19	3840.88	0.00	0.00	0.00	
10400.00	90.00	1.08	6430.00	3927.92	1042.07	3940.88	0.00	0.00	0.00	
10500.00	90.00	1.08	6430.00	4027.90	1043.96	4040.88	0.00	0.00	0.00	
10600.00	90.00	1.08	6430.00	4127.89	1045.84	4140.88	0.00	0.00	0.00	

Precision Directional Services, Inc.

Planning Report

Company: CARRIZO OIL & GAS, INC. Field: Niobrara CONZ'83 Site: Nelson 2-17-9-60 Pad Well: 5-17-9-60 Wellpath: Original Hole	Date: 01/22/2013 Co-ordinate(NE) Reference: Vertical (TVD) Reference: Section (VS) Reference: Plan:	Time: 15:39:48 Well: 5-17-9-60, Grid North 4991'GL+17"KB 4508.0 Well (0.00N,0.00E,0.73Azi) Plan #2	Page: 4
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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
10700.00	90.00	1.08	6430.00	4227.87	1047.72	4240.87	0.00	0.00	0.00	
10800.00	90.00	1.08	6430.00	4327.85	1049.61	4340.87	0.00	0.00	0.00	
10846.34	90.00	1.08	6430.00	4374.18	1050.48	4387.21	0.00	0.00	0.00	PBHL 5-17

Targets

Name	Description Dip.	Dir.	TVD ft	+N/-S ft	+E/-W ft	Map Northing ft	Map Easting ft	<---- Latitude ---->			<--- Longitude --->		
SL 5-17			0.00	0.00	0.00	1516480.01	3382051.17	40	44	34.673 N	104	7	16.417 W
PBHL 5-17			6430.00	4374.18	1050.48	1520854.19	3383101.65	40	45	17.728 N	104	7	1.885 W

Casing Points

MD ft	TVD ft	Diameter in	Hole Size in	Name
6621.32	6391.54	7.000	8.750	7"