

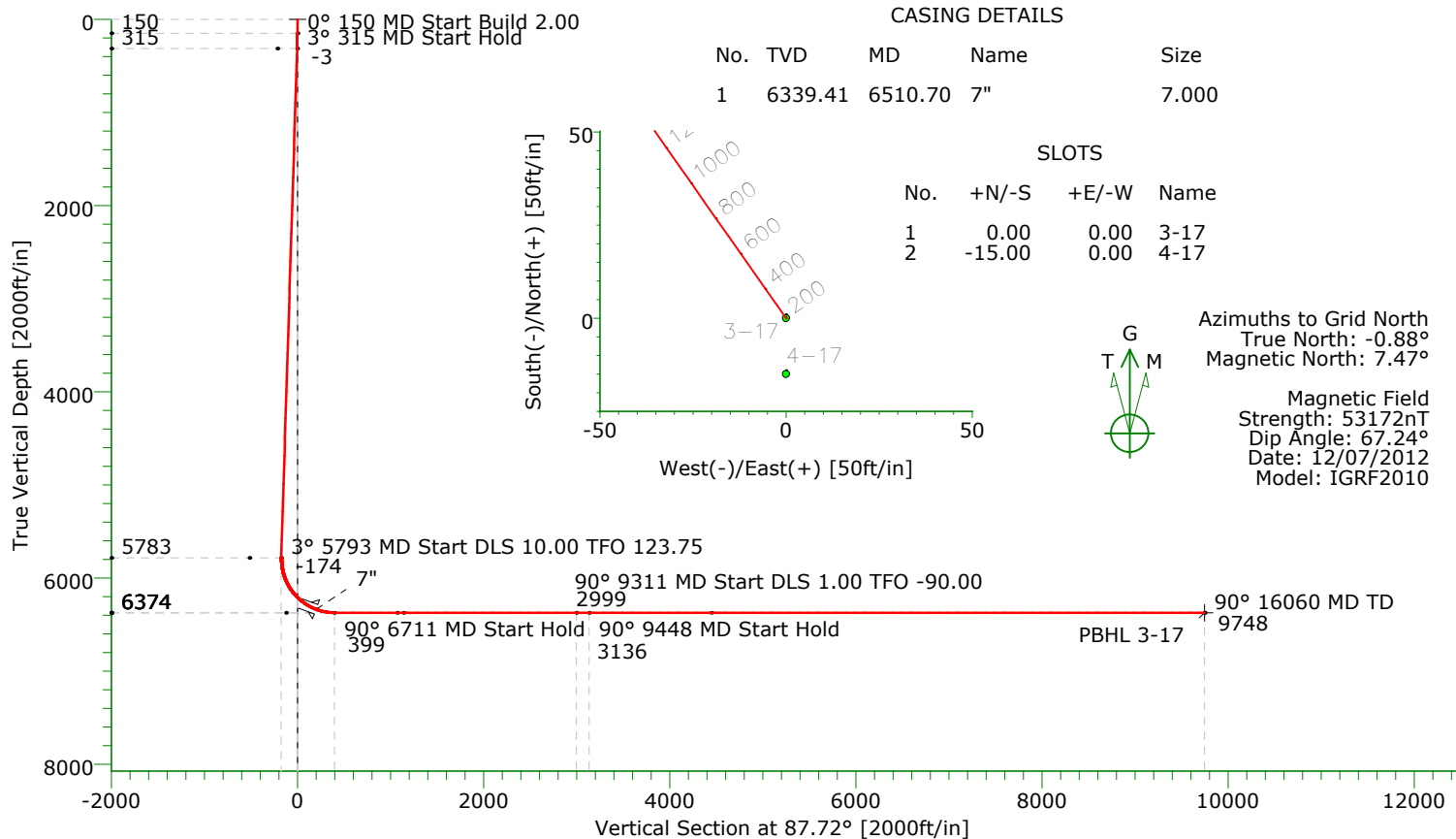
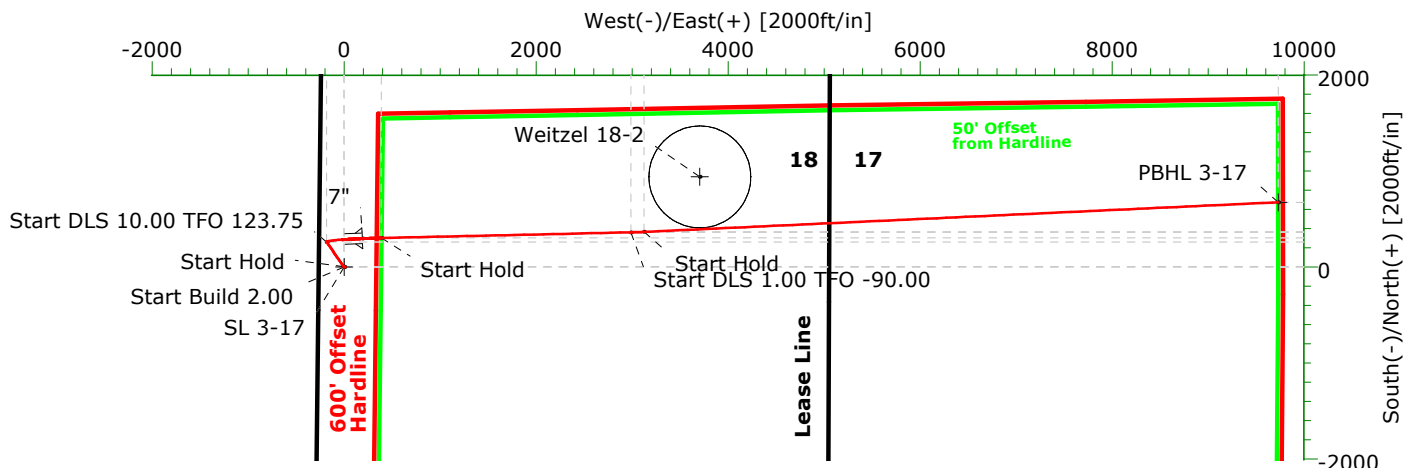


CARRIZO OIL & GAS, INC.

Field: Niobrara CONZ'83
 Site: Slick Rock 2-18-7-60 Pad
 Well: 3-17-7-60
 Wellpath: Original Hole
 Plan: Plan #3



Precision
 Directional Services



CASING DETAILS

No.	TVD	MD	Name	Size
1	6339.41	6510.70	7"	7.000

SLOTS

No.	+N/-S	+E/-W	Name
1	0.00	0.00	3-17
2	-15.00	0.00	4-17



Azimuths to Grid North
 True North: -0.88°
 Magnetic North: 7.47°

Magnetic Field
 Strength: 53172nT
 Dip Angle: 67.24°
 Date: 12/07/2012
 Model: IGRF2010

TARGET DETAILS

Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Shape
SL 3-17	0.00	0.00	0.00	1455693.84	3376348.49	40°34'34.962N	104°08'42.561W	Point
Weitzel 18-2	0.00	940.01	3704.97	1456633.85	3380053.46	40°34'43.688N	104°07'54.364W	Circle (Radius: 530)
PBHL 3-17	6374.00	675.63	9729.07	1456369.47	3386077.56	40°34'40.150N	104°06'36.354W	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	315.34	3.31	324.91	315.24	3.90	-2.74	2.00	0.00	-2.58	
4	5792.55	3.31	324.91	5783.34	262.40	-184.37	0.00	0.00	-173.79	
5	6710.94	90.00	88.70	6374.00	303.75	387.50	10.00	123.75	399.28	
6	9310.94	90.00	88.70	6374.00	362.74	2986.83	0.00	0.00	2998.90	
7	9448.04	90.00	87.33	6374.00	367.49	3123.84	1.00	-90.00	3135.99	
8	16060.45	90.00	87.33	6374.00	675.63	9729.07	0.00	0.00	9748.25	PBHL 3-17

Precision Directional Services, Inc.

Planning Report

Company: CARRIZO OIL & GAS, INC. Field: Niobrara CONZ'83 Site: Slick Rock 2-18-7-60 Pad Well: 3-17-7-60 Wellpath: Original Hole	Date: 02/06/2013 Co-ordinate(NE) Reference: Well: 3-17-7-60, Grid North Vertical (TVD) Reference: 4938'GL+17'KB 4955.0 Section (VS) Reference: Well (0.00N,0.00E,87.72Azi) Plan: Plan #3	Time: 08:03:17 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: Slick Rock 2-18-7-60 Pad			
Weld County, CO			
Site Position: From: Map Position Uncertainty: 0.00 ft Ground Level: 4938.00 ft	Northing: 1455693.84 ft Easting: 3376348.49 ft	Latitude: 40 34 34.962 N Longitude: 104 8 42.561 W North Reference: Grid Grid Convergence: 0.88 deg	

Well: 3-17-7-60 Well Position: +N/-S 0.00 ft +E/-W 0.00 ft Position Uncertainty: 0.00 ft	Slot Name: Northing: 1455693.84 ft Easting : 3376348.49 ft Latitude: 40 34 34.962 N Longitude: 104 8 42.561 W
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Wellpath: Original Hole Current Datum: 4938'GL+17'KB Magnetic Data: 02/28/2013 Field Strength: 53147 nT Vertical Section: Depth From (TVD) ft	Height 4955.00 ft	Drilled From: Surface Tie-on Depth: 0.00 ft Above System Datum: Mean Sea Level Declination: 8.31 deg Mag Dip Angle: 67.23 deg +N/-S ft +E/-W ft Direction deg
0.00	0.00	0.00 87.72

Plan: Plan #3 Principal: No	Date Composed: 02/06/2013 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	
315.34	3.31	324.91	315.24	3.90	-2.74	2.00	2.00	0.00	0.00	
5792.55	3.31	324.91	5783.34	262.40	-184.37	0.00	0.00	0.00	0.00	
6710.94	90.00	88.70	6374.00	303.75	387.50	10.00	9.44	13.48	123.75	
9310.94	90.00	88.70	6374.00	362.74	2986.83	0.00	0.00	0.00	0.00	
9448.04	90.00	87.33	6374.00	367.49	3123.84	1.00	0.00	-1.00	-90.00	
16060.45	90.00	87.33	6374.00	675.63	9729.07	0.00	0.00	0.00	0.00	PBHL 3-17

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	
250.00	2.00	324.91	249.98	1.43	-1.00	-0.95	2.00	2.00	0.00	
315.34	3.31	324.91	315.24	3.90	-2.74	-2.58	2.00	2.00	0.00	
350.00	3.31	324.91	349.85	5.54	-3.89	-3.67	0.00	0.00	0.00	
450.00	3.31	324.91	449.68	10.26	-7.21	-6.79	0.00	0.00	0.00	
550.00	3.31	324.91	549.52	14.98	-10.52	-9.92	0.00	0.00	0.00	
650.00	3.31	324.91	649.35	19.70	-13.84	-13.05	0.00	0.00	0.00	
750.00	3.31	324.91	749.18	24.42	-17.16	-16.17	0.00	0.00	0.00	
850.00	3.31	324.91	849.02	29.14	-20.47	-19.30	0.00	0.00	0.00	
950.00	3.31	324.91	948.85	33.86	-23.79	-22.42	0.00	0.00	0.00	
1050.00	3.31	324.91	1048.69	38.58	-27.10	-25.55	0.00	0.00	0.00	
1150.00	3.31	324.91	1148.52	43.30	-30.42	-28.67	0.00	0.00	0.00	
1250.00	3.31	324.91	1248.35	48.01	-33.74	-31.80	0.00	0.00	0.00	
1350.00	3.31	324.91	1348.19	52.73	-37.05	-34.93	0.00	0.00	0.00	

Precision Directional Services, Inc.

Planning Report

Company: CARRIZO OIL & GAS, INC.
Field: Niobrara CONZ'83
Site: Slick Rock 2-18-7-60 Pad
Well: 3-17-7-60
Wellpath: Original Hole

Date: 02/06/2013
Co-ordinate(NE) Reference: Well: 3-17-7-60, Grid North
Vertical (TVD) Reference: 4938'GL+17'KB 4955.0
Section (VS) Reference: Well (0.00N,0.00E,87.72Azi)
Plan: Plan #3

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
1450.00	3.31	324.91	1448.02	57.45	-40.37	-38.05	0.00	0.00	0.00	
1550.00	3.31	324.91	1547.85	62.17	-43.68	-41.18	0.00	0.00	0.00	
1650.00	3.31	324.91	1647.69	66.89	-47.00	-44.30	0.00	0.00	0.00	
1750.00	3.31	324.91	1747.52	71.61	-50.32	-47.43	0.00	0.00	0.00	
1850.00	3.31	324.91	1847.35	76.33	-53.63	-50.55	0.00	0.00	0.00	
1950.00	3.31	324.91	1947.19	81.05	-56.95	-53.68	0.00	0.00	0.00	
2050.00	3.31	324.91	2047.02	85.77	-60.27	-56.81	0.00	0.00	0.00	
2150.00	3.31	324.91	2146.85	90.49	-63.58	-59.93	0.00	0.00	0.00	
2250.00	3.31	324.91	2246.69	95.21	-66.90	-63.06	0.00	0.00	0.00	
2350.00	3.31	324.91	2346.52	99.93	-70.21	-66.18	0.00	0.00	0.00	
2450.00	3.31	324.91	2446.35	104.65	-73.53	-69.31	0.00	0.00	0.00	
2550.00	3.31	324.91	2546.19	109.37	-76.85	-72.43	0.00	0.00	0.00	
2650.00	3.31	324.91	2646.02	114.09	-80.16	-75.56	0.00	0.00	0.00	
2750.00	3.31	324.91	2745.85	118.81	-83.48	-78.69	0.00	0.00	0.00	
2850.00	3.31	324.91	2845.69	123.53	-86.79	-81.81	0.00	0.00	0.00	
2950.00	3.31	324.91	2945.52	128.25	-90.11	-84.94	0.00	0.00	0.00	
3050.00	3.31	324.91	3045.36	132.97	-93.43	-88.06	0.00	0.00	0.00	
3150.00	3.31	324.91	3145.19	137.69	-96.74	-91.19	0.00	0.00	0.00	
3250.00	3.31	324.91	3245.02	142.41	-100.06	-94.31	0.00	0.00	0.00	
3350.00	3.31	324.91	3344.86	147.13	-103.37	-97.44	0.00	0.00	0.00	
3450.00	3.31	324.91	3444.69	151.85	-106.69	-100.57	0.00	0.00	0.00	
3550.00	3.31	324.91	3544.52	156.57	-110.01	-103.69	0.00	0.00	0.00	
3650.00	3.31	324.91	3644.36	161.28	-113.32	-106.82	0.00	0.00	0.00	
3750.00	3.31	324.91	3744.19	166.00	-116.64	-109.94	0.00	0.00	0.00	
3850.00	3.31	324.91	3844.02	170.72	-119.96	-113.07	0.00	0.00	0.00	
3950.00	3.31	324.91	3943.86	175.44	-123.27	-116.19	0.00	0.00	0.00	
4050.00	3.31	324.91	4043.69	180.16	-126.59	-119.32	0.00	0.00	0.00	
4150.00	3.31	324.91	4143.52	184.88	-129.90	-122.45	0.00	0.00	0.00	
4250.00	3.31	324.91	4243.36	189.60	-133.22	-125.57	0.00	0.00	0.00	
4350.00	3.31	324.91	4343.19	194.32	-136.54	-128.70	0.00	0.00	0.00	
4450.00	3.31	324.91	4443.02	199.04	-139.85	-131.82	0.00	0.00	0.00	
4550.00	3.31	324.91	4542.86	203.76	-143.17	-134.95	0.00	0.00	0.00	
4650.00	3.31	324.91	4642.69	208.48	-146.48	-138.07	0.00	0.00	0.00	
4750.00	3.31	324.91	4742.52	213.20	-149.80	-141.20	0.00	0.00	0.00	
4850.00	3.31	324.91	4842.36	217.92	-153.12	-144.33	0.00	0.00	0.00	
4950.00	3.31	324.91	4942.19	222.64	-156.43	-147.45	0.00	0.00	0.00	
5050.00	3.31	324.91	5042.03	227.36	-159.75	-150.58	0.00	0.00	0.00	
5150.00	3.31	324.91	5141.86	232.08	-163.06	-153.70	0.00	0.00	0.00	
5250.00	3.31	324.91	5241.69	236.80	-166.38	-156.83	0.00	0.00	0.00	
5350.00	3.31	324.91	5341.53	241.52	-169.70	-159.95	0.00	0.00	0.00	
5450.00	3.31	324.91	5441.36	246.24	-173.01	-163.08	0.00	0.00	0.00	
5550.00	3.31	324.91	5541.19	250.96	-176.33	-166.21	0.00	0.00	0.00	
5650.00	3.31	324.91	5641.03	255.68	-179.64	-169.33	0.00	0.00	0.00	
5750.00	3.31	324.91	5740.86	260.40	-182.96	-172.46	0.00	0.00	0.00	
5792.55	3.31	324.91	5783.34	262.40	-184.37	-173.79	0.00	0.00	0.00	
5850.00	4.78	53.62	5840.69	265.18	-183.40	-172.70	10.00	2.56	154.42	
5950.00	14.17	77.74	5939.24	270.26	-168.05	-157.16	10.00	9.39	24.12	
6050.00	24.05	82.52	6033.62	275.53	-135.80	-124.73	10.00	9.88	4.79	
6150.00	34.00	84.62	6120.95	280.81	-87.63	-76.39	10.00	9.95	2.09	
6250.00	43.97	85.85	6198.58	285.96	-25.00	-13.61	10.00	9.97	1.23	
6350.00	53.95	86.70	6264.15	290.82	50.17	61.70	10.00	9.98	0.85	
6450.00	63.94	87.35	6315.67	295.23	135.62	147.26	10.00	9.98	0.66	
6510.70	70.00	87.70	6339.41	297.64	191.40	203.09	10.00	9.99	0.57	7"

Precision Directional Services, Inc.

Planning Report

Company: CARRIZO OIL & GAS, INC.
Field: Niobrara CONZ'83
Site: Slick Rock 2-18-7-60 Pad
Well: 3-17-7-60
Wellpath: Original Hole

Date: 02/06/2013
Co-ordinate(NE) Reference: Well: 3-17-7-60, Grid North
Vertical (TVD) Reference: 4938'GL+17'KB 4955.0
Section (VS) Reference: Well (0.00N,0.00E,87.72Azi)
Plan: Plan #3

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
6550.00	73.93	87.91	6351.57	299.07	228.74	240.45	10.00	9.99	0.53	
6650.00	83.91	88.41	6370.77	302.21	326.70	338.46	10.00	9.99	0.50	
6710.94	90.00	88.70	6374.00	303.75	387.50	399.28	10.00	9.99	0.48	
6750.00	90.00	88.70	6374.00	304.64	426.55	438.33	0.00	0.00	0.00	
6850.00	90.00	88.70	6374.00	306.90	526.53	538.32	0.00	0.00	0.00	
6950.00	90.00	88.70	6374.00	309.17	626.50	638.31	0.00	0.00	0.00	
7050.00	90.00	88.70	6374.00	311.44	726.48	738.29	0.00	0.00	0.00	
7150.00	90.00	88.70	6374.00	313.71	826.45	838.28	0.00	0.00	0.00	
7250.00	90.00	88.70	6374.00	315.98	926.42	938.26	0.00	0.00	0.00	
7350.00	90.00	88.70	6374.00	318.25	1026.40	1038.25	0.00	0.00	0.00	
7450.00	90.00	88.70	6374.00	320.52	1126.37	1138.23	0.00	0.00	0.00	
7550.00	90.00	88.70	6374.00	322.79	1226.35	1238.22	0.00	0.00	0.00	
7650.00	90.00	88.70	6374.00	325.05	1326.32	1338.20	0.00	0.00	0.00	
7750.00	90.00	88.70	6374.00	327.32	1426.30	1438.19	0.00	0.00	0.00	
7850.00	90.00	88.70	6374.00	329.59	1526.27	1538.17	0.00	0.00	0.00	
7950.00	90.00	88.70	6374.00	331.86	1626.24	1638.16	0.00	0.00	0.00	
8050.00	90.00	88.70	6374.00	334.13	1726.22	1738.14	0.00	0.00	0.00	
8150.00	90.00	88.70	6374.00	336.40	1826.19	1838.13	0.00	0.00	0.00	
8250.00	90.00	88.70	6374.00	338.67	1926.17	1938.12	0.00	0.00	0.00	
8350.00	90.00	88.70	6374.00	340.94	2026.14	2038.10	0.00	0.00	0.00	
8450.00	90.00	88.70	6374.00	343.20	2126.12	2138.09	0.00	0.00	0.00	
8550.00	90.00	88.70	6374.00	345.47	2226.09	2238.07	0.00	0.00	0.00	
8650.00	90.00	88.70	6374.00	347.74	2326.06	2338.06	0.00	0.00	0.00	
8750.00	90.00	88.70	6374.00	350.01	2426.04	2438.04	0.00	0.00	0.00	
8850.00	90.00	88.70	6374.00	352.28	2526.01	2538.03	0.00	0.00	0.00	
8950.00	90.00	88.70	6374.00	354.55	2625.99	2638.01	0.00	0.00	0.00	
9050.00	90.00	88.70	6374.00	356.82	2725.96	2738.00	0.00	0.00	0.00	
9150.00	90.00	88.70	6374.00	359.09	2825.94	2837.98	0.00	0.00	0.00	
9250.00	90.00	88.70	6374.00	361.35	2925.91	2937.97	0.00	0.00	0.00	
9310.94	90.00	88.70	6374.00	362.74	2986.83	2998.90	0.00	0.00	0.00	
9350.00	90.00	88.31	6374.00	363.76	3025.88	3037.96	1.00	0.00	-1.00	
9448.04	90.00	87.33	6374.00	367.49	3123.84	3135.99	1.00	0.00	-1.00	
9450.00	90.00	87.33	6374.00	367.58	3125.81	3137.96	0.00	0.00	0.00	
9550.00	90.00	87.33	6374.00	372.24	3225.70	3237.95	0.00	0.00	0.00	
9650.00	90.00	87.33	6374.00	376.90	3325.59	3337.95	0.00	0.00	0.00	
9750.00	90.00	87.33	6374.00	381.56	3425.48	3437.95	0.00	0.00	0.00	
9850.00	90.00	87.33	6374.00	386.22	3525.37	3537.95	0.00	0.00	0.00	
9950.00	90.00	87.33	6374.00	390.88	3625.26	3637.94	0.00	0.00	0.00	
10050.00	90.00	87.33	6374.00	395.54	3725.15	3737.94	0.00	0.00	0.00	
10150.00	90.00	87.33	6374.00	400.20	3825.05	3837.94	0.00	0.00	0.00	
10250.00	90.00	87.33	6374.00	404.86	3924.94	3937.94	0.00	0.00	0.00	
10350.00	90.00	87.33	6374.00	409.52	4024.83	4037.93	0.00	0.00	0.00	
10450.00	90.00	87.33	6374.00	414.18	4124.72	4137.93	0.00	0.00	0.00	
10550.00	90.00	87.33	6374.00	418.84	4224.61	4237.93	0.00	0.00	0.00	
10650.00	90.00	87.33	6374.00	423.50	4324.50	4337.93	0.00	0.00	0.00	
10750.00	90.00	87.33	6374.00	428.16	4424.39	4437.92	0.00	0.00	0.00	
10850.00	90.00	87.33	6374.00	432.82	4524.29	4537.92	0.00	0.00	0.00	
10950.00	90.00	87.33	6374.00	437.48	4624.18	4637.92	0.00	0.00	0.00	
11050.00	90.00	87.33	6374.00	442.14	4724.07	4737.92	0.00	0.00	0.00	
11150.00	90.00	87.33	6374.00	446.80	4823.96	4837.92	0.00	0.00	0.00	
11250.00	90.00	87.33	6374.00	451.46	4923.85	4937.91	0.00	0.00	0.00	
11350.00	90.00	87.33	6374.00	456.12	5023.74	5037.91	0.00	0.00	0.00	
11450.00	90.00	87.33	6374.00	460.78	5123.63	5137.91	0.00	0.00	0.00	

Precision Directional Services, Inc.

Planning Report

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Field: Niobrara CONZ'83
Site: Slick Rock 2-18-7-60 Pad
Well: 3-17-7-60
Wellpath: Original Hole

Date: 02/06/2013
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Vertical (TVD) Reference: 4938'GL+17'KB 4955.0
Section (VS) Reference: Well (0.00N,0.00E,87.72Azi)
Plan: Plan #3

Page: 4

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
11550.00	90.00	87.33	6374.00	465.44	5223.52	5237.91	0.00	0.00	0.00	
11650.00	90.00	87.33	6374.00	470.10	5323.42	5337.90	0.00	0.00	0.00	
11750.00	90.00	87.33	6374.00	474.76	5423.31	5437.90	0.00	0.00	0.00	
11850.00	90.00	87.33	6374.00	479.42	5523.20	5537.90	0.00	0.00	0.00	
11950.00	90.00	87.33	6374.00	484.08	5623.09	5637.90	0.00	0.00	0.00	
12050.00	90.00	87.33	6374.00	488.74	5722.98	5737.89	0.00	0.00	0.00	
12150.00	90.00	87.33	6374.00	493.40	5822.87	5837.89	0.00	0.00	0.00	
12250.00	90.00	87.33	6374.00	498.06	5922.76	5937.89	0.00	0.00	0.00	
12350.00	90.00	87.33	6374.00	502.72	6022.66	6037.89	0.00	0.00	0.00	
12450.00	90.00	87.33	6374.00	507.38	6122.55	6137.89	0.00	0.00	0.00	
12550.00	90.00	87.33	6374.00	512.04	6222.44	6237.88	0.00	0.00	0.00	
12650.00	90.00	87.33	6374.00	516.70	6322.33	6337.88	0.00	0.00	0.00	
12750.00	90.00	87.33	6374.00	521.36	6422.22	6437.88	0.00	0.00	0.00	
12850.00	90.00	87.33	6374.00	526.02	6522.11	6537.88	0.00	0.00	0.00	
12950.00	90.00	87.33	6374.00	530.68	6622.00	6637.87	0.00	0.00	0.00	
13050.00	90.00	87.33	6374.00	535.34	6721.90	6737.87	0.00	0.00	0.00	
13150.00	90.00	87.33	6374.00	540.00	6821.79	6837.87	0.00	0.00	0.00	
13250.00	90.00	87.33	6374.00	544.66	6921.68	6937.87	0.00	0.00	0.00	
13350.00	90.00	87.33	6374.00	549.32	7021.57	7037.86	0.00	0.00	0.00	
13450.00	90.00	87.33	6374.00	553.98	7121.46	7137.86	0.00	0.00	0.00	
13550.00	90.00	87.33	6374.00	558.64	7221.35	7237.86	0.00	0.00	0.00	
13650.00	90.00	87.33	6374.00	563.30	7321.24	7337.86	0.00	0.00	0.00	
13750.00	90.00	87.33	6374.00	567.96	7421.13	7437.85	0.00	0.00	0.00	
13850.00	90.00	87.33	6374.00	572.62	7521.03	7537.85	0.00	0.00	0.00	
13950.00	90.00	87.33	6374.00	577.28	7620.92	7637.85	0.00	0.00	0.00	
14050.00	90.00	87.33	6374.00	581.94	7720.81	7737.85	0.00	0.00	0.00	
14150.00	90.00	87.33	6374.00	586.60	7820.70	7837.85	0.00	0.00	0.00	
14250.00	90.00	87.33	6374.00	591.26	7920.59	7937.84	0.00	0.00	0.00	
14350.00	90.00	87.33	6374.00	595.92	8020.48	8037.84	0.00	0.00	0.00	
14450.00	90.00	87.33	6374.00	600.58	8120.37	8137.84	0.00	0.00	0.00	
14550.00	90.00	87.33	6374.00	605.24	8220.27	8237.84	0.00	0.00	0.00	
14650.00	90.00	87.33	6374.00	609.90	8320.16	8337.83	0.00	0.00	0.00	
14750.00	90.00	87.33	6374.00	614.56	8420.05	8437.83	0.00	0.00	0.00	
14850.00	90.00	87.33	6374.00	619.22	8519.94	8537.83	0.00	0.00	0.00	
14950.00	90.00	87.33	6374.00	623.88	8619.83	8637.83	0.00	0.00	0.00	
15050.00	90.00	87.33	6374.00	628.54	8719.72	8737.82	0.00	0.00	0.00	
15150.00	90.00	87.33	6374.00	633.20	8819.61	8837.82	0.00	0.00	0.00	
15250.00	90.00	87.33	6374.00	637.86	8919.51	8937.82	0.00	0.00	0.00	
15350.00	90.00	87.33	6374.00	642.52	9019.40	9037.82	0.00	0.00	0.00	
15450.00	90.00	87.33	6374.00	647.18	9119.29	9137.82	0.00	0.00	0.00	
15550.00	90.00	87.33	6374.00	651.84	9219.18	9237.81	0.00	0.00	0.00	
15650.00	90.00	87.33	6374.00	656.50	9319.07	9337.81	0.00	0.00	0.00	
15750.00	90.00	87.33	6374.00	661.16	9418.96	9437.81	0.00	0.00	0.00	
15850.00	90.00	87.33	6374.00	665.82	9518.85	9537.81	0.00	0.00	0.00	
15950.00	90.00	87.33	6374.00	670.48	9618.74	9637.80	0.00	0.00	0.00	
16050.00	90.00	87.33	6374.00	675.14	9718.64	9737.80	0.00	0.00	0.00	
16060.45	90.00	87.33	6374.00	675.63	9729.07	9748.25	0.00	0.00	0.00	PBHL 3-17

Precision Directional Services, Inc.

Planning Report

Company: CARRIZO OIL & GAS, INC.
Field: Niobrara CONZ'83
Site: Slick Rock 2-18-7-60 Pad
Well: 3-17-7-60
Wellpath: Original Hole

Date: 02/06/2013
Co-ordinate(NE) Reference: Well: 3-17-7-60, Grid North
Vertical (TVD) Reference: 4938'GL+17'KB 4955.0
Section (VS) Reference: Well (0.00N,0.00E,87.72Azi)
Plan: Plan #3

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Targets

Name	Description Dip.	Dir.	TVD ft	+N/-S ft	+E/-W ft	Map Northing ft	Map Easting ft	<---- Latitude ---->			<--- Longitude --->		
Weitzel 18-2			-100.00	940.01	3704.97	1456633.85	3380053.46	40	34	43.688 N	104	7	54.364 W
-Circle (Radius: 530)													
SL 3-17			0.00	0.00	0.00	1455693.84	3376348.49	40	34	34.962 N	104	8	42.561 W
PBHL 3-17			6374.00	675.63	9729.07	1456369.47	3386077.56	40	34	40.150 N	104	6	36.354 W

Casing Points

MD ft	TVD ft	Diameter in	Hole Size in	Name
6510.70	6339.41	7.000	8.750	7"