

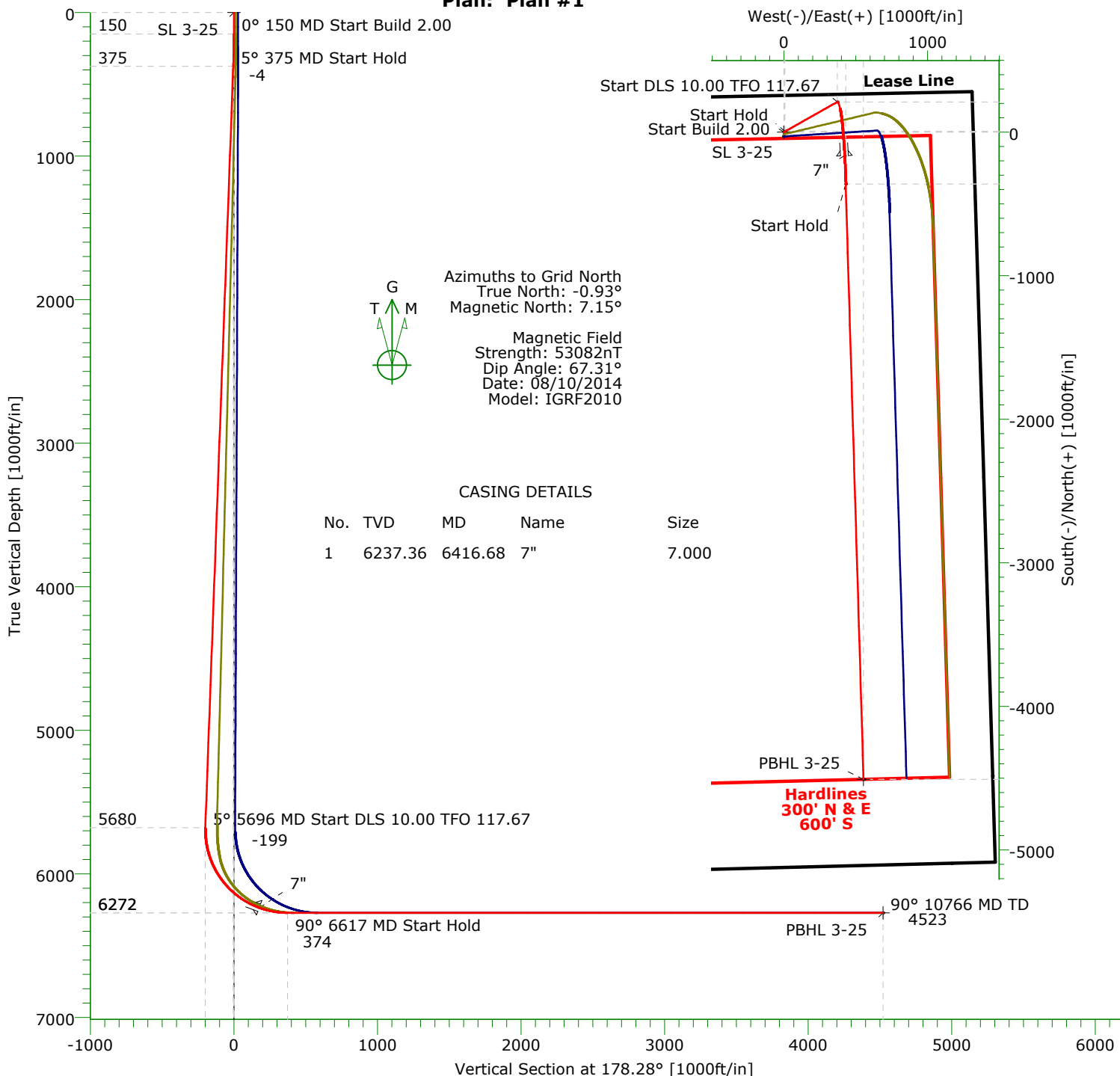


CARRIZO OIL & GAS, INC.

Field: Niobrara CONZ'83
Site: Shull 1-35-9-60 Pad
Well: 3-35-9-60
Wellpath: Original Hole
Plan: Plan #1



Precision
Directional Services



CASING DETAILS				
No.	TVD	MD	Name	Size
1	6237.36	6416.68	7"	7.000

TARGET DETAILS

Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Shape
SL 3-25	0.00	0.00	0.00	1505937.28	3400763.17	40°42'47.567N	104°03'15.583W	Point
PBHL 3-25	6272.00	-4507.99	554.78	1501429.29	3401317.95	40°42'02.939N	104°03'09.336W	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	375.47	4.51	60.54	375.24	4.36	7.72	2.00	0.00	-4.13	
4	5696.22	4.51	60.54	5679.52	210.08	371.98	0.00	0.00	-198.82	
5	6617.19	90.00	178.28	6272.00	-361.00	430.47	10.00	117.67	373.76	
6	10766.04	90.00	178.28	6272.00	-4507.99	554.78	0.00	0.00	4522.61	PBHL 3-25

Plan: Plan #1 (3-35-9-60/Original Hole)

Created By: Tony LoRicca

Date: 07/10/2014

PRECISION DIRECTIONAL SERVICES, INC.

713.435.6250

Precision Directional Services, Inc.

Planning Report

Company: CARRIZO OIL & GAS, INC.		Date: 07/10/2014	Time: 09:59:45	Page: 1
Field: Niobrara CONZ'83		Co-ordinate(NE) Reference: Well: 3-35-9-60, Grid North		
Site: Shull 1-35-9-60 Pad		Vertical (TVD) Reference: 4923'GL+17'KB 4940.0		
Well: 3-35-9-60		Section (VS) Reference: Well (0.00N,0.00E,178.28Azi)		
Wellpath: Original Hole		Plan: Plan #1		

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: Shull 1-35-9-60 Pad				
Weld County, CO				
Site Position:	Northing: 1505922.29 ft	Latitude: 40 42 47.419 N		
From: Map	Easting: 3400763.64 ft	Longitude: 104 3 15.581 W		
Position Uncertainty: 0.00 ft		North Reference: Grid		
Ground Level: 4923.00 ft		Grid Convergence: 0.93 deg		

Well: 3-35-9-60		Slot Name:		
Well Position:	Northing: 1505937.28 ft	Latitude: 40 42 47.567 N		
+N/-S 14.99 ft	Easting : 3400763.17 ft	Longitude: 104 3 15.583 W		
+E/-W -0.47 ft				
Position Uncertainty: 0.00 ft				

Wellpath: Original Hole		Drilled From: Surface		
Current Datum: 4923'GL+17'KB		Tie-on Depth: 0.00 ft		
Magnetic Data: 08/10/2014		Above System Datum: Mean Sea Level		
Field Strength: 53082 nT		Declination: 8.09 deg		
Vertical Section: Depth From (TVD)		Mag Dip Angle: 67.31 deg		
ft	+N/-S ft	+E/-W ft	Direction bearing	
0.00	0.00	0.00	178.28	

Plan: Plan #1		Date Composed: 07/10/2014	
Principal: No		Version: 1	
		Tied-to: From Surface	

Plan Section Information										
MD ft	Incl deg	Azim bearing	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	
375.47	4.51	60.54	375.24	4.36	7.72	2.00	2.00	0.00	0.00	
5696.22	4.51	60.54	5679.52	210.08	371.98	0.00	0.00	0.00	0.00	
6617.19	90.00	178.28	6272.00	-361.00	430.47	10.00	9.28	12.78	117.67	
10766.04	90.00	178.28	6272.00	-4507.99	554.78	0.00	0.00	0.00	0.00	PBHL 3-25

Survey										
MD ft	Incl deg	Azim bearing	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	60.54	200.00	0.21	0.38	-0.20	2.00	2.00	0.00	
300.00	3.00	60.54	299.93	1.93	3.42	-1.83	2.00	2.00	0.00	
375.47	4.51	60.54	375.24	4.36	7.72	-4.13	2.00	2.00	0.00	
400.00	4.51	60.54	399.69	5.31	9.40	-5.02	0.00	0.00	0.00	
500.00	4.51	60.54	499.38	9.18	16.25	-8.68	0.00	0.00	0.00	
600.00	4.51	60.54	599.07	13.04	23.09	-12.34	0.00	0.00	0.00	
700.00	4.51	60.54	698.76	16.91	29.94	-16.00	0.00	0.00	0.00	
800.00	4.51	60.54	798.45	20.77	36.78	-19.66	0.00	0.00	0.00	
900.00	4.51	60.54	898.14	24.64	43.63	-23.32	0.00	0.00	0.00	
1000.00	4.51	60.54	997.83	28.51	50.48	-26.98	0.00	0.00	0.00	
1100.00	4.51	60.54	1097.52	32.37	57.32	-30.64	0.00	0.00	0.00	
1200.00	4.51	60.54	1197.21	36.24	64.17	-34.30	0.00	0.00	0.00	
1300.00	4.51	60.54	1296.91	40.11	71.01	-37.96	0.00	0.00	0.00	
1400.00	4.51	60.54	1396.60	43.97	77.86	-41.62	0.00	0.00	0.00	

Precision Directional Services, Inc.

Planning Report

Company: CARRIZO OIL & GAS, INC.
Field: Niobrara CONZ'83
Site: Shull 1-35-9-60 Pad
Well: 3-35-9-60
Wellpath: Original Hole

Date: 07/10/2014
Co-ordinate(NE) Reference: Well: 3-35-9-60, Grid North
Vertical (TVD) Reference: 4923'GL+17'KB 4940.0
Section (VS) Reference: Well (0.00N,0.00E,178.28Azi)
Plan: Plan #1

Page: 2

Survey

MD ft	Incl deg	Azim bearing	TVD ft	+N/-S ft	+E/-W ft	VS ft	DLS deg/100ft	Build deg/100ft	Turn deg/100ft	Tool/Comment
1500.00	4.51	60.54	1496.29	47.84	84.71	-45.27	0.00	0.00	0.00	
1600.00	4.51	60.54	1595.98	51.71	91.55	-48.93	0.00	0.00	0.00	
1700.00	4.51	60.54	1695.67	55.57	98.40	-52.59	0.00	0.00	0.00	
1800.00	4.51	60.54	1795.36	59.44	105.24	-56.25	0.00	0.00	0.00	
1900.00	4.51	60.54	1895.05	63.30	112.09	-59.91	0.00	0.00	0.00	
2000.00	4.51	60.54	1994.74	67.17	118.94	-63.57	0.00	0.00	0.00	
2100.00	4.51	60.54	2094.43	71.04	125.78	-67.23	0.00	0.00	0.00	
2200.00	4.51	60.54	2194.12	74.90	132.63	-70.89	0.00	0.00	0.00	
2300.00	4.51	60.54	2293.81	78.77	139.47	-74.55	0.00	0.00	0.00	
2400.00	4.51	60.54	2393.50	82.64	146.32	-78.21	0.00	0.00	0.00	
2500.00	4.51	60.54	2493.19	86.50	153.17	-81.87	0.00	0.00	0.00	
2600.00	4.51	60.54	2592.88	90.37	160.01	-85.52	0.00	0.00	0.00	
2700.00	4.51	60.54	2692.57	94.23	166.86	-89.18	0.00	0.00	0.00	
2800.00	4.51	60.54	2792.26	98.10	173.70	-92.84	0.00	0.00	0.00	
2900.00	4.51	60.54	2891.95	101.97	180.55	-96.50	0.00	0.00	0.00	
3000.00	4.51	60.54	2991.64	105.83	187.39	-100.16	0.00	0.00	0.00	
3100.00	4.51	60.54	3091.33	109.70	194.24	-103.82	0.00	0.00	0.00	
3200.00	4.51	60.54	3191.02	113.57	201.09	-107.48	0.00	0.00	0.00	
3300.00	4.51	60.54	3290.71	117.43	207.93	-111.14	0.00	0.00	0.00	
3400.00	4.51	60.54	3390.40	121.30	214.78	-114.80	0.00	0.00	0.00	
3500.00	4.51	60.54	3490.10	125.17	221.62	-118.46	0.00	0.00	0.00	
3600.00	4.51	60.54	3589.79	129.03	228.47	-122.12	0.00	0.00	0.00	
3700.00	4.51	60.54	3689.48	132.90	235.32	-125.77	0.00	0.00	0.00	
3800.00	4.51	60.54	3789.17	136.76	242.16	-129.43	0.00	0.00	0.00	
3900.00	4.51	60.54	3888.86	140.63	249.01	-133.09	0.00	0.00	0.00	
4000.00	4.51	60.54	3988.55	144.50	255.85	-136.75	0.00	0.00	0.00	
4100.00	4.51	60.54	4088.24	148.36	262.70	-140.41	0.00	0.00	0.00	
4200.00	4.51	60.54	4187.93	152.23	269.55	-144.07	0.00	0.00	0.00	
4300.00	4.51	60.54	4287.62	156.10	276.39	-147.73	0.00	0.00	0.00	
4400.00	4.51	60.54	4387.31	159.96	283.24	-151.39	0.00	0.00	0.00	
4500.00	4.51	60.54	4487.00	163.83	290.08	-155.05	0.00	0.00	0.00	
4600.00	4.51	60.54	4586.69	167.69	296.93	-158.71	0.00	0.00	0.00	
4700.00	4.51	60.54	4686.38	171.56	303.78	-162.37	0.00	0.00	0.00	
4800.00	4.51	60.54	4786.07	175.43	310.62	-166.02	0.00	0.00	0.00	
4900.00	4.51	60.54	4885.76	179.29	317.47	-169.68	0.00	0.00	0.00	
5000.00	4.51	60.54	4985.45	183.16	324.31	-173.34	0.00	0.00	0.00	
5100.00	4.51	60.54	5085.14	187.03	331.16	-177.00	0.00	0.00	0.00	
5200.00	4.51	60.54	5184.83	190.89	338.00	-180.66	0.00	0.00	0.00	
5300.00	4.51	60.54	5284.52	194.76	344.85	-184.32	0.00	0.00	0.00	
5400.00	4.51	60.54	5384.21	198.62	351.70	-187.98	0.00	0.00	0.00	
5500.00	4.51	60.54	5483.90	202.49	358.54	-191.64	0.00	0.00	0.00	
5600.00	4.51	60.54	5583.59	206.36	365.39	-195.30	0.00	0.00	0.00	
5696.22	4.51	60.54	5679.52	210.08	371.98	-198.82	0.00	0.00	0.00	
5700.00	4.35	64.97	5683.29	210.21	372.23	-198.94	10.00	-4.30	116.97	
5750.00	5.17	127.74	5733.14	209.63	375.73	-198.26	10.00	1.64	125.56	
5800.00	9.19	152.71	5782.75	204.71	379.35	-193.23	10.00	8.04	49.94	
5850.00	13.86	161.85	5831.74	195.46	383.04	-183.88	10.00	9.34	18.26	
5900.00	18.70	166.38	5879.72	181.98	386.80	-170.28	10.00	9.68	9.07	
5950.00	23.60	169.09	5926.34	164.35	390.58	-152.55	10.00	9.81	5.42	
6000.00	28.54	170.91	5971.24	142.71	394.37	-130.81	10.00	9.87	3.64	
6050.00	33.49	172.23	6014.08	117.23	398.12	-105.23	10.00	9.91	2.64	
6100.00	38.46	173.24	6054.53	88.11	401.82	-76.01	10.00	9.93	2.03	
6150.00	43.43	174.05	6092.28	55.55	405.43	-43.36	10.00	9.94	1.63	
6200.00	48.40	174.73	6127.06	19.82	408.93	-7.53	10.00	9.95	1.35	

Precision Directional Services, Inc.

Planning Report

Company: CARRIZO OIL & GAS, INC.
Field: Niobrara CONZ'83
Site: Shull 1-35-9-60 Pad
Well: 3-35-9-60
Wellpath: Original Hole

Date: 07/10/2014
Co-ordinate(NE) Reference: Well: 3-35-9-60, Grid North
Vertical (TVD) Reference: 4923'GL+17'KB 4940.0
Section (VS) Reference: Well (0.00N,0.00E,178.28Azi)
Plan: Plan #1

Page: 3

Survey

MD ft	Incl deg	Azim bearing	TVD ft	+N/-S ft	+E/-W ft	VS ft	DLS deg/100ft	Build deg/100ft	Turn deg/100ft	Tool/Comment
6250.00	53.38	175.31	6158.59	-18.82	412.29	31.19	10.00	9.96	1.16	
6300.00	58.37	175.82	6186.63	-60.08	415.49	72.52	10.00	9.96	1.02	
6350.00	63.35	176.28	6210.97	-103.63	418.49	116.15	10.00	9.97	0.91	
6400.00	68.34	176.69	6231.42	-149.15	421.29	161.73	10.00	9.97	0.84	
6416.68	70.00	176.83	6237.36	-164.72	422.17	177.31	10.00	9.97	0.80	7"
6450.00	73.32	177.08	6247.84	-196.30	423.85	208.93	10.00	9.97	0.77	
6500.00	78.31	177.46	6260.09	-244.70	426.15	257.38	10.00	9.97	0.74	
6550.00	83.30	177.81	6268.07	-294.00	428.19	306.72	10.00	9.98	0.72	
6600.00	88.28	178.16	6271.74	-343.82	429.94	356.57	10.00	9.98	0.70	
6617.19	90.00	178.28	6272.00	-361.00	430.47	373.76	10.00	9.98	0.70	
6700.00	90.00	178.28	6272.00	-443.77	432.95	456.57	0.00	0.00	0.00	
6800.00	90.00	178.28	6272.00	-543.73	435.95	556.57	0.00	0.00	0.00	
6900.00	90.00	178.28	6272.00	-643.68	438.94	656.57	0.00	0.00	0.00	
7000.00	90.00	178.28	6272.00	-743.64	441.94	756.57	0.00	0.00	0.00	
7100.00	90.00	178.28	6272.00	-843.59	444.94	856.57	0.00	0.00	0.00	
7200.00	90.00	178.28	6272.00	-943.55	447.93	956.57	0.00	0.00	0.00	
7300.00	90.00	178.28	6272.00	-1043.50	450.93	1056.57	0.00	0.00	0.00	
7400.00	90.00	178.28	6272.00	-1143.46	453.92	1156.57	0.00	0.00	0.00	
7500.00	90.00	178.28	6272.00	-1243.41	456.92	1256.57	0.00	0.00	0.00	
7600.00	90.00	178.28	6272.00	-1343.37	459.92	1356.57	0.00	0.00	0.00	
7700.00	90.00	178.28	6272.00	-1443.32	462.91	1456.57	0.00	0.00	0.00	
7800.00	90.00	178.28	6272.00	-1543.28	465.91	1556.57	0.00	0.00	0.00	
7900.00	90.00	178.28	6272.00	-1643.23	468.91	1656.57	0.00	0.00	0.00	
8000.00	90.00	178.28	6272.00	-1743.19	471.90	1756.57	0.00	0.00	0.00	
8100.00	90.00	178.28	6272.00	-1843.14	474.90	1856.57	0.00	0.00	0.00	
8200.00	90.00	178.28	6272.00	-1943.10	477.89	1956.57	0.00	0.00	0.00	
8300.00	90.00	178.28	6272.00	-2043.05	480.89	2056.57	0.00	0.00	0.00	
8400.00	90.00	178.28	6272.00	-2143.01	483.89	2156.57	0.00	0.00	0.00	
8500.00	90.00	178.28	6272.00	-2242.96	486.88	2256.57	0.00	0.00	0.00	
8600.00	90.00	178.28	6272.00	-2342.92	489.88	2356.57	0.00	0.00	0.00	
8700.00	90.00	178.28	6272.00	-2442.87	492.88	2456.57	0.00	0.00	0.00	
8800.00	90.00	178.28	6272.00	-2542.83	495.87	2556.57	0.00	0.00	0.00	
8900.00	90.00	178.28	6272.00	-2642.78	498.87	2656.57	0.00	0.00	0.00	
9000.00	90.00	178.28	6272.00	-2742.74	501.86	2756.57	0.00	0.00	0.00	
9100.00	90.00	178.28	6272.00	-2842.69	504.86	2856.57	0.00	0.00	0.00	
9200.00	90.00	178.28	6272.00	-2942.65	507.86	2956.57	0.00	0.00	0.00	
9300.00	90.00	178.28	6272.00	-3042.60	510.85	3056.57	0.00	0.00	0.00	
9400.00	90.00	178.28	6272.00	-3142.56	513.85	3156.57	0.00	0.00	0.00	
9500.00	90.00	178.28	6272.00	-3242.51	516.85	3256.57	0.00	0.00	0.00	
9600.00	90.00	178.28	6272.00	-3342.47	519.84	3356.57	0.00	0.00	0.00	
9700.00	90.00	178.28	6272.00	-3442.42	522.84	3456.57	0.00	0.00	0.00	
9800.00	90.00	178.28	6272.00	-3542.38	525.83	3556.57	0.00	0.00	0.00	
9900.00	90.00	178.28	6272.00	-3642.33	528.83	3656.57	0.00	0.00	0.00	
10000.00	90.00	178.28	6272.00	-3742.29	531.83	3756.57	0.00	0.00	0.00	
10100.00	90.00	178.28	6272.00	-3842.24	534.82	3856.57	0.00	0.00	0.00	
10200.00	90.00	178.28	6272.00	-3942.20	537.82	3956.57	0.00	0.00	0.00	
10300.00	90.00	178.28	6272.00	-4042.15	540.82	4056.57	0.00	0.00	0.00	
10400.00	90.00	178.28	6272.00	-4142.11	543.81	4156.57	0.00	0.00	0.00	
10500.00	90.00	178.28	6272.00	-4242.06	546.81	4256.57	0.00	0.00	0.00	
10600.00	90.00	178.28	6272.00	-4342.02	549.80	4356.57	0.00	0.00	0.00	
10700.00	90.00	178.28	6272.00	-4441.98	552.80	4456.57	0.00	0.00	0.00	
10766.04	90.00	178.28	6272.00	-4507.99	554.78	4522.61	0.00	0.00	0.00	PBHL 3-25

Precision Directional Services, Inc.

Planning Report

Company: CARRIZO OIL & GAS, INC.
Field: Niobrara CONZ'83
Site: Shull 1-35-9-60 Pad
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Wellpath: Original Hole

Date: 07/10/2014
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Vertical (TVD) Reference: 4923'GL+17'KB 4940.0
Section (VS) Reference: Well (0.00N,0.00E,178.28Azi)
Plan: Plan #1

Page: 4

Targets

Name	Description	Dir.	TVD ft	+N/-S ft	+E/-W ft	Map Northing ft	Map Easting ft	<---- Latitude ---->			<--- Longitude --->			
	Dip.							Deg	Min	Sec	Deg	Min	Sec	
SL 3-25			0.00	0.00	0.00	1505937.283	400763.17	40	42	47.567	N	104	3 15.583	W
PBHL 3-25			6272.00	-4507.99	554.78	1501429.293	401317.95	40	42	2.939	N	104	3 9.336	W

Casing Points

MD ft	TVD ft	Diameter in	Hole Size in	Name
6416.68	6237.36	7.000	8.750	7"