



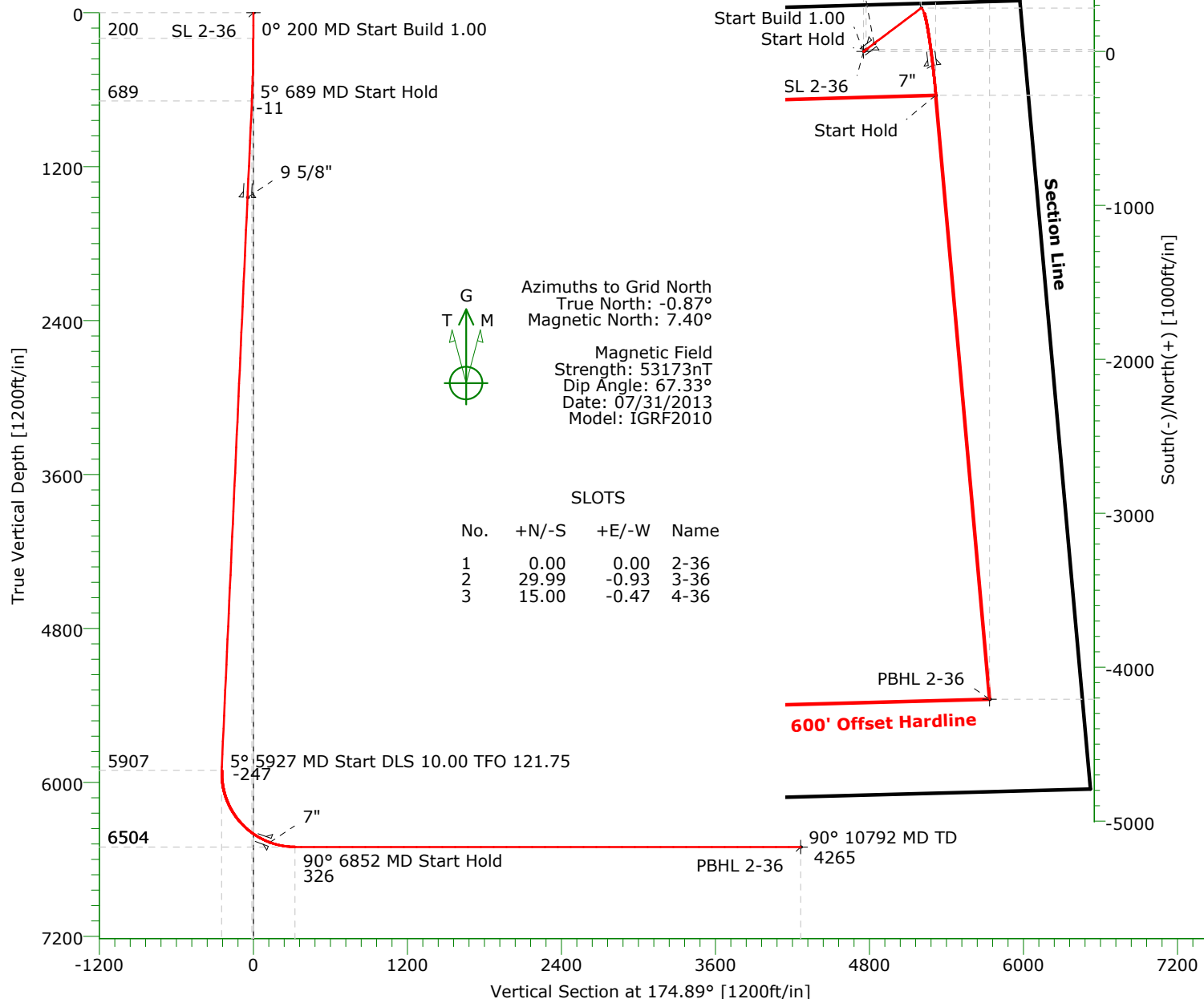
# CARRIZO OIL & GAS, INC.

Field: Niobrara CONZ'83  
Site: State 2-36-9-61 Pad  
Well: 2-36-9-61  
Wellpath: Original Hole  
Plan: Plan #2



## CASING DETAILS

No.	TVD	MD	Name	Size
1	1440.00	1443.34	9 5/8"	9.625
2	6469.35	6651.75	7"	7.000



## TARGET DETAILS

Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Shape
SL 2-36	0.00	0.00	0.00	1504972.35	3374387.12	40°42'42.143N	104°08'58.251W	Point
PBHL 2-36	6504.00	-4208.92	818.58	1500763.43	3375205.70	40°42'00.435N	104°08'48.456W	Point

## SECTION DETAILS

Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	DLeg	TFace	VSec	Target
1	0.00	0.00	51.58	0.00	0.00	0.00	0.00	0.00	0.00	
2	200.00	0.00	51.58	200.00	0.00	0.00	0.00	51.58	0.00	
3	689.25	4.89	53.05	688.65	12.55	16.68	1.00	0.00	-11.01	
4	5926.51	4.89	53.05	5906.84	281.06	373.63	0.00	0.00	-246.66	
5	6852.30	90.00	174.89	6504.00	-285.18	467.84	10.00	121.75	325.72	
6	10791.69	90.00	174.89	6504.00	-4208.92	818.55	0.00	0.00	4265.10	PBHL 2-36

# Precision Directional Services, Inc.

## Planning Report

<b>Company:</b> CARRIZO OIL & GAS, INC. <b>Field:</b> Niobrara CONZ'83 <b>Site:</b> State 2-36-9-61 Pad <b>Well:</b> 2-36-9-61 <b>Wellpath:</b> Original Hole	<b>Date:</b> 06/28/2013 <b>Co-ordinate(NE) Reference:</b> Well: 2-36-9-61, Grid North <b>Vertical (TVD) Reference:</b> 4932'GL+17'KB 4949.0 <b>Section (VS) Reference:</b> Well (0.00N,0.00E,174.89Azi) <b>Plan:</b> Plan #2	<b>Time:</b> 09:02:29 <b>Page:</b> 1
---	--	---

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

<b>Site:</b> State 2-36-9-61 Pad			
Weld County, CO			
<b>Site Position:</b>	<b>Northing:</b> 1504982.85 ft	<b>Latitude:</b> 40 42 42.195 N	
<b>From:</b> Map	<b>Easting:</b> 3374728.13 ft	<b>Longitude:</b> 104 8 53.821 W	
<b>Position Uncertainty:</b> 0.00 ft		<b>North Reference:</b> Grid	
<b>Ground Level:</b> 4932.00 ft		<b>Grid Convergence:</b> 0.87 deg	

<b>Well:</b> 2-36-9-61 302'FNL1041'FEL adj 6-28 <b>Well Position:</b> +N/-S -10.50 ft +E/-W -341.01 ft <b>Position Uncertainty:</b> 0.00 ft	<b>Slot Name:</b> 2-36  <b>Latitude:</b> 40 42 42.143 N <b>Longitude:</b> 104 8 58.251 W
---	---

<b>Wellpath:</b> Original Hole  <b>Current Datum:</b> 4932'GL+17'KB <b>Magnetic Data:</b> 07/31/2013 <b>Field Strength:</b> 53173 nT <b>Vertical Section:</b> Depth From (TVD) ft	<b>Height</b> 4949.00 ft	<b>Drilled From:</b> Surface <b>Tie-on Depth:</b> 0.00 ft <b>Above System Datum:</b> Mean Sea Level <b>Declination:</b> 8.27 deg <b>Mag Dip Angle:</b> 67.33 deg <b>+E/-W</b> ft <b>Direction</b> deg
0.00	0.00	0.00 174.89

<b>Plan:</b> Plan #2  <b>Principal:</b> No	<b>Date Composed:</b> 06/28/2013 <b>Version:</b> 1 <b>Tied-to:</b> From Surface
--	---

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	51.58	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
200.00	0.00	51.58	200.00	0.00	0.00	0.00	0.00	0.00	51.58	
689.25	4.89	53.05	688.65	12.55	16.68	1.00	1.00	0.00	0.00	
5926.51	4.89	53.05	5906.84	281.06	373.63	0.00	0.00	0.00	0.00	
6852.30	90.00	174.89	6504.00	-285.18	467.84	10.00	9.19	13.16	121.75	
10791.69	90.00	174.89	6504.00	-4208.92	818.55	0.00	0.00	0.00	0.00	PBHL 2-36

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	51.58	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
100.00	0.00	51.58	100.00	0.00	0.00	0.00	0.00	0.00	0.00	
200.00	0.00	51.58	200.00	0.00	0.00	0.00	0.00	0.00	0.00	
300.00	1.00	53.05	299.99	0.52	0.70	-0.46	1.00	1.00	0.00	
400.00	2.00	53.05	399.96	2.10	2.79	-1.84	1.00	1.00	0.00	
500.00	3.00	53.05	499.86	4.72	6.28	-4.14	1.00	1.00	0.00	
600.00	4.00	53.05	599.68	8.39	11.15	-7.36	1.00	1.00	0.00	
689.25	4.89	53.05	688.65	12.55	16.68	-11.01	1.00	1.00	0.00	
700.00	4.89	53.05	699.37	13.10	17.42	-11.50	0.00	0.00	0.00	
800.00	4.89	53.05	799.00	18.23	24.23	-16.00	0.00	0.00	0.00	
900.00	4.89	53.05	898.64	23.35	31.05	-20.50	0.00	0.00	0.00	
1000.00	4.89	53.05	998.27	28.48	37.86	-25.00	0.00	0.00	0.00	
1100.00	4.89	53.05	1097.91	33.61	44.68	-29.50	0.00	0.00	0.00	
1200.00	4.89	53.05	1197.54	38.74	51.49	-33.99	0.00	0.00	0.00	
1300.00	4.89	53.05	1297.18	43.86	58.31	-38.49	0.00	0.00	0.00	

# Precision Directional Services, Inc.

## Planning Report

**Company:** CARRIZO OIL & GAS, INC.  
**Field:** Niobrara CONZ'83  
**Site:** State 2-36-9-61 Pad  
**Well:** 2-36-9-61  
**Wellpath:** Original Hole

**Date:** 06/28/2013  
**Co-ordinate(NE) Reference:** Well: 2-36-9-61, Grid North  
**Vertical (TVD) Reference:** 4932'GL+17'KB 4949.0  
**Section (VS) Reference:** Well (0.00N,0.00E,174.89Azi)  
**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
1400.00	4.89	53.05	1396.82	48.99	65.12	-42.99	0.00	0.00	0.00	9 5/8"
1443.34	4.89	53.05	1440.00	51.21	68.08	-44.94	0.00	0.00	0.00	
1500.00	4.89	53.05	1496.45	54.12	71.94	-47.49	0.00	0.00	0.00	
1600.00	4.89	53.05	1596.09	59.24	78.76	-51.99	0.00	0.00	0.00	
1700.00	4.89	53.05	1695.72	64.37	85.57	-56.49	0.00	0.00	0.00	
1800.00	4.89	53.05	1795.36	69.50	92.39	-60.99	0.00	0.00	0.00	
1900.00	4.89	53.05	1894.99	74.62	99.20	-65.49	0.00	0.00	0.00	
2000.00	4.89	53.05	1994.63	79.75	106.02	-69.99	0.00	0.00	0.00	
2100.00	4.89	53.05	2094.27	84.88	112.83	-74.49	0.00	0.00	0.00	
2200.00	4.89	53.05	2193.90	90.00	119.65	-78.99	0.00	0.00	0.00	
2300.00	4.89	53.05	2293.54	95.13	126.46	-83.49	0.00	0.00	0.00	
2400.00	4.89	53.05	2393.17	100.26	133.28	-87.99	0.00	0.00	0.00	
2500.00	4.89	53.05	2492.81	105.38	140.10	-92.49	0.00	0.00	0.00	
2600.00	4.89	53.05	2592.44	110.51	146.91	-96.99	0.00	0.00	0.00	
2700.00	4.89	53.05	2692.08	115.64	153.73	-101.49	0.00	0.00	0.00	
2800.00	4.89	53.05	2791.72	120.77	160.54	-105.99	0.00	0.00	0.00	
2900.00	4.89	53.05	2891.35	125.89	167.36	-110.49	0.00	0.00	0.00	
3000.00	4.89	53.05	2990.99	131.02	174.17	-114.99	0.00	0.00	0.00	
3100.00	4.89	53.05	3090.62	136.15	180.99	-119.48	0.00	0.00	0.00	
3200.00	4.89	53.05	3190.26	141.27	187.81	-123.98	0.00	0.00	0.00	
3300.00	4.89	53.05	3289.89	146.40	194.62	-128.48	0.00	0.00	0.00	
3400.00	4.89	53.05	3389.53	151.53	201.44	-132.98	0.00	0.00	0.00	
3500.00	4.89	53.05	3489.16	156.65	208.25	-137.48	0.00	0.00	0.00	
3600.00	4.89	53.05	3588.80	161.78	215.07	-141.98	0.00	0.00	0.00	
3700.00	4.89	53.05	3688.44	166.91	221.88	-146.48	0.00	0.00	0.00	
3800.00	4.89	53.05	3788.07	172.03	228.70	-150.98	0.00	0.00	0.00	
3900.00	4.89	53.05	3887.71	177.16	235.51	-155.48	0.00	0.00	0.00	
4000.00	4.89	53.05	3987.34	182.29	242.33	-159.98	0.00	0.00	0.00	
4100.00	4.89	53.05	4086.98	187.42	249.15	-164.48	0.00	0.00	0.00	
4200.00	4.89	53.05	4186.61	192.54	255.96	-168.98	0.00	0.00	0.00	
4300.00	4.89	53.05	4286.25	197.67	262.78	-173.48	0.00	0.00	0.00	
4400.00	4.89	53.05	4385.89	202.80	269.59	-177.98	0.00	0.00	0.00	
4500.00	4.89	53.05	4485.52	207.92	276.41	-182.48	0.00	0.00	0.00	
4600.00	4.89	53.05	4585.16	213.05	283.22	-186.98	0.00	0.00	0.00	
4700.00	4.89	53.05	4684.79	218.18	290.04	-191.48	0.00	0.00	0.00	
4800.00	4.89	53.05	4784.43	223.30	296.85	-195.98	0.00	0.00	0.00	
4900.00	4.89	53.05	4884.06	228.43	303.67	-200.48	0.00	0.00	0.00	
5000.00	4.89	53.05	4983.70	233.56	310.49	-204.97	0.00	0.00	0.00	
5100.00	4.89	53.05	5083.34	238.68	317.30	-209.47	0.00	0.00	0.00	
5200.00	4.89	53.05	5182.97	243.81	324.12	-213.97	0.00	0.00	0.00	
5300.00	4.89	53.05	5282.61	248.94	330.93	-218.47	0.00	0.00	0.00	
5400.00	4.89	53.05	5382.24	254.07	337.75	-222.97	0.00	0.00	0.00	
5500.00	4.89	53.05	5481.88	259.19	344.56	-227.47	0.00	0.00	0.00	
5600.00	4.89	53.05	5581.51	264.32	351.38	-231.97	0.00	0.00	0.00	
5700.00	4.89	53.05	5681.15	269.45	358.19	-236.47	0.00	0.00	0.00	
5800.00	4.89	53.05	5780.78	274.57	365.01	-240.97	0.00	0.00	0.00	
5900.00	4.89	53.05	5880.42	279.70	371.83	-245.47	0.00	0.00	0.00	
5926.51	4.89	53.05	5906.84	281.06	373.63	-246.66	0.00	0.00	0.00	
6000.00	6.33	133.90	5980.07	280.13	379.06	-245.26	10.00	1.95	110.02	
6100.00	15.33	159.51	6078.23	263.89	387.68	-228.31	10.00	9.01	25.62	
6200.00	25.09	165.96	6171.97	230.85	397.48	-194.53	10.00	9.76	6.45	
6300.00	34.99	168.93	6258.44	182.02	408.15	-144.94	10.00	9.89	2.97	
6400.00	44.92	170.71	6335.00	118.88	419.39	-81.05	10.00	9.94	1.78	
6500.00	54.88	171.96	6399.33	43.35	430.83	-4.80	10.00	9.95	1.25	

# Precision Directional Services, Inc.

## Planning Report

<b>Company:</b> CARRIZO OIL & GAS, INC. <b>Field:</b> Niobrara CONZ'83 <b>Site:</b> State 2-36-9-61 Pad <b>Well:</b> 2-36-9-61 <b>Wellpath:</b> Original Hole	<b>Date:</b> 06/28/2013 <b>Time:</b> 09:02:29 <b>Page:</b> 3 <b>Co-ordinate(NE) Reference:</b> Well: 2-36-9-61, Grid North <b>Vertical (TVD) Reference:</b> 4932'GL+17'KB 4949.0 <b>Section (VS) Reference:</b> Well (0.00N,0.00E,174.89Azi) <b>Plan:</b> Plan #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
6600.00	64.84	172.94	6449.48	-42.27	442.15	81.49	10.00	9.96	0.97	
6651.75	70.00	173.38	6469.35	-89.70	447.84	129.23	10.00	9.97	0.85	7"
6700.00	74.81	173.76	6483.93	-135.39	452.99	175.20	10.00	9.97	0.80	
6800.00	84.78	174.51	6501.62	-233.17	463.02	273.48	10.00	9.97	0.75	
6852.30	90.00	174.89	6504.00	-285.18	467.84	325.72	10.00	9.97	0.73	
6900.00	90.00	174.89	6504.00	-332.69	472.09	373.41	0.00	0.00	0.00	
7000.00	90.00	174.89	6504.00	-432.29	480.99	473.41	0.00	0.00	0.00	
7100.00	90.00	174.89	6504.00	-531.89	489.89	573.41	0.00	0.00	0.00	
7200.00	90.00	174.89	6504.00	-631.50	498.79	673.41	0.00	0.00	0.00	
7300.00	90.00	174.89	6504.00	-731.10	507.70	773.41	0.00	0.00	0.00	
7400.00	90.00	174.89	6504.00	-830.70	516.60	873.41	0.00	0.00	0.00	
7500.00	90.00	174.89	6504.00	-930.30	525.50	973.41	0.00	0.00	0.00	
7600.00	90.00	174.89	6504.00	-1029.91	534.41	1073.41	0.00	0.00	0.00	
7700.00	90.00	174.89	6504.00	-1129.51	543.31	1173.41	0.00	0.00	0.00	
7800.00	90.00	174.89	6504.00	-1229.11	552.21	1273.41	0.00	0.00	0.00	
7900.00	90.00	174.89	6504.00	-1328.72	561.11	1373.41	0.00	0.00	0.00	
8000.00	90.00	174.89	6504.00	-1428.32	570.02	1473.41	0.00	0.00	0.00	
8100.00	90.00	174.89	6504.00	-1527.92	578.92	1573.41	0.00	0.00	0.00	
8200.00	90.00	174.89	6504.00	-1627.52	587.82	1673.41	0.00	0.00	0.00	
8300.00	90.00	174.89	6504.00	-1727.13	596.72	1773.41	0.00	0.00	0.00	
8400.00	90.00	174.89	6504.00	-1826.73	605.63	1873.41	0.00	0.00	0.00	
8500.00	90.00	174.89	6504.00	-1926.33	614.53	1973.41	0.00	0.00	0.00	
8600.00	90.00	174.89	6504.00	-2025.94	623.43	2073.41	0.00	0.00	0.00	
8700.00	90.00	174.89	6504.00	-2125.54	632.34	2173.41	0.00	0.00	0.00	
8800.00	90.00	174.89	6504.00	-2225.14	641.24	2273.41	0.00	0.00	0.00	
8900.00	90.00	174.89	6504.00	-2324.75	650.14	2373.41	0.00	0.00	0.00	
9000.00	90.00	174.89	6504.00	-2424.35	659.04	2473.41	0.00	0.00	0.00	
9100.00	90.00	174.89	6504.00	-2523.95	667.95	2573.41	0.00	0.00	0.00	
9200.00	90.00	174.89	6504.00	-2623.55	676.85	2673.41	0.00	0.00	0.00	
9300.00	90.00	174.89	6504.00	-2723.16	685.75	2773.41	0.00	0.00	0.00	
9400.00	90.00	174.89	6504.00	-2822.76	694.65	2873.41	0.00	0.00	0.00	
9500.00	90.00	174.89	6504.00	-2922.36	703.56	2973.41	0.00	0.00	0.00	
9600.00	90.00	174.89	6504.00	-3021.97	712.46	3073.41	0.00	0.00	0.00	
9700.00	90.00	174.89	6504.00	-3121.57	721.36	3173.41	0.00	0.00	0.00	
9800.00	90.00	174.89	6504.00	-3221.17	730.27	3273.41	0.00	0.00	0.00	
9900.00	90.00	174.89	6504.00	-3320.77	739.17	3373.41	0.00	0.00	0.00	
10000.00	90.00	174.89	6504.00	-3420.38	748.07	3473.41	0.00	0.00	0.00	
10100.00	90.00	174.89	6504.00	-3519.98	756.97	3573.41	0.00	0.00	0.00	
10200.00	90.00	174.89	6504.00	-3619.58	765.88	3673.41	0.00	0.00	0.00	
10300.00	90.00	174.89	6504.00	-3719.19	774.78	3773.41	0.00	0.00	0.00	
10400.00	90.00	174.89	6504.00	-3818.79	783.68	3873.41	0.00	0.00	0.00	
10500.00	90.00	174.89	6504.00	-3918.39	792.58	3973.41	0.00	0.00	0.00	
10600.00	90.00	174.89	6504.00	-4017.99	801.49	4073.41	0.00	0.00	0.00	
10700.00	90.00	174.89	6504.00	-4117.60	810.39	4173.41	0.00	0.00	0.00	
10791.69	90.00	174.89	6504.00	-4208.92	818.55	4265.10	0.00	0.00	0.00	PBHL 2-36

### Targets

Name	Description Dip.	Dir.	TVD ft	+N/-S ft	+E/-W ft	Map Northing ft	Map Easting ft	<--- Latitude --->			<--- Longitude --->		
SL 2-36			0.00	0.00	0.00	1504972.353374	387.12	40	42	42.143 N	104	8	58.251 W
PBHL 2-36			6504.00	-4208.92	818.58	1500763.433375	205.70	40	42	0.435 N	104	8	48.456 W

# Precision Directional Services, Inc.

## Planning Report

**Company:** CARRIZO OIL & GAS, INC.

**Field:** Niobrara CONZ'83

**Site:** State 2-36-9-61 Pad

**Well:** 2-36-9-61

**Wellpath:** Original Hole

**Date:** 06/28/2013

**Time:** 09:02:29

**Page:** 4

**Co-ordinate(NE) Reference:** Well: 2-36-9-61, Grid North

**Vertical (TVD) Reference:** 4932'GL+17'KB 4949.0

**Section (VS) Reference:** Well (0.00N,0.00E,174.89Azi)

**Plan:** Plan #2

### Casing Points

MD ft	TVD ft	Diameter in	Hole Size in	Name
1443.34	1440.00	9.625	12.250	9 5/8"
6651.75	6469.35	7.000	8.500	7"