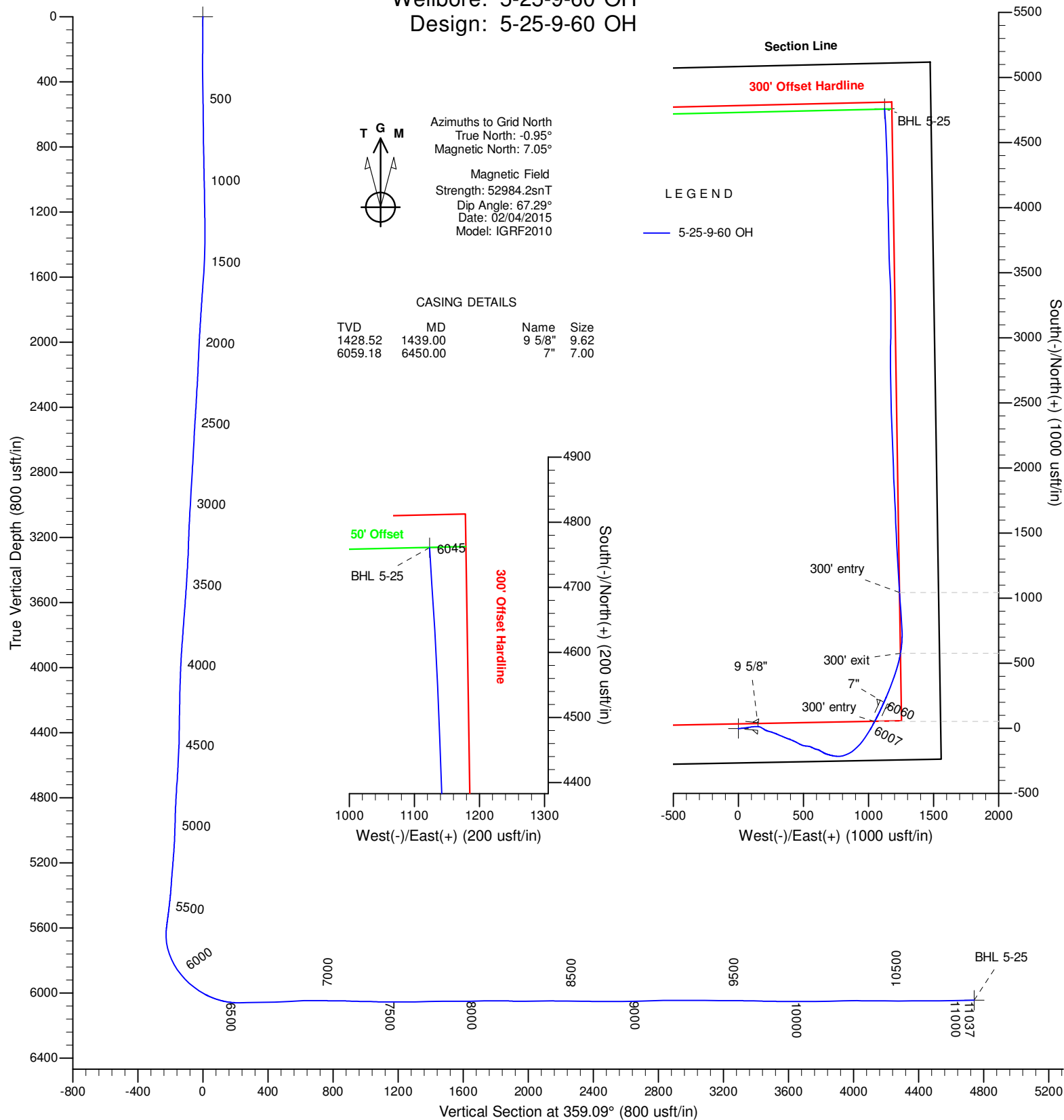




Project: Niobrara CON'83
County: Weld
Site: Shull 25-9-60 Pad
Well: 5-25-9-60
Wellbore: 5-25-9-60 OH
Design: 5-25-9-60 OH



Azimuths to Grid North
True North: -0.95°
Magnetic North: 7.05°

Magnetic Field
Strength: 52984.2snT
Dip Angle: 67.29°
Date: 02/04/2015
Model: IGRF2010

CASING DETAILS			
TVD	MD	Name	Size
1428.52	1439.00	9 5/8"	9.62
6059.18	6450.00	7"	7.00

DESIGN TARGET DETAILS

Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Shape
SL 5-25	0.00	0.00	0.00	1506555.10	3405843.40	40° 42' 52.88 N	104° 2' 9.40 W	Point
BHL 5-25	6045.11	4760.63	1123.36	1511315.68	3406966.75	40° 43' 39.73 N	104° 1' 53.79 W	Point

Titan Directional Drilling, LLC

Survey Report

Company:	Carrizo Oil & Gas, Inc.	Local Co-ordinate Reference:	Well 5-25-9-60
Project:	Niobrara CON'83	TVD Reference:	Well @ 4904.00usft
Site:	Shull 25-9-60 Pad	MD Reference:	Well @ 4904.00usft
Well:	5-25-9-60	North Reference:	Grid
Wellbore:	5-25-9-60 OH	Survey Calculation Method:	Minimum Curvature
Design:	5-25-9-60 OH	Database:	EDM 5000.1 Single User Db

Project	Niobrara CON'83, Weld County, CO		
Map System:	US State Plane 1983	System Datum:	Mean Sea Level
Geo Datum:	North American Datum 1983		
Map Zone:	Colorado Northern Zone		Using geodetic scale factor

Site	Shull 25-9-60 Pad, Centered on 6-25-9-60		
Site Position:		Northing:	1,506,554.60 usft
From:	Map	Easting:	3,405,828.40 usft
Position Uncertainty:	0.00 usft	Slot Radius:	13.20 in
		Latitude:	40° 42' 52.87 N
		Longitude:	104° 2' 9.59 W
		Grid Convergence:	0.95 °

Well	5-25-9-60		
Well Position	+N/-S	0.00 usft	Northing:
	+E/-W	0.00 usft	Easting:
Position Uncertainty	0.00 usft	Wellhead Elevation:	4,904.00 usft
		Latitude:	40° 42' 52.88 N
		Longitude:	104° 2' 9.40 W
		Ground Level:	4,887.00 usft

Wellbore	5-25-9-60 OH		
Magnetics	Model Name	Sample Date	Declination (°)
	IGRF2010	02/04/15	8.00
			Dip Angle (°)
			67.29
			Field Strength (nT)
			52,984

Design	5-25-9-60 OH		
Audit Notes:			
Version:	1.0	Phase:	ACTUAL
		Tie On Depth:	0.00
Vertical Section:	Depth From (TVD) (usft)	+N/-S (usft)	+E/-W (usft)
	0.00	0.00	0.00
			Direction (°)
			359.09

Survey Program	Date	02/16/15		
From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description
138.00	10,981.00	Survey #1 (5-25-9-60 OH)	MWD	MWD - Standard
11,037.00	11,037.00	Survey #2 (5-25-9-60 OH)	ZERO-ERROR	Zero Error

Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
138.00	0.60	204.70	138.00	-0.66	-0.30	-0.65	0.43	0.43	0.00
231.00	1.40	119.30	230.99	-1.65	0.49	-1.66	1.59	0.86	-91.83
322.00	3.20	83.50	321.91	-1.91	3.98	-1.97	2.44	1.98	-39.34
414.00	5.20	80.00	413.66	-0.90	10.64	-1.07	2.19	2.17	-3.80
505.00	7.10	81.00	504.13	0.70	20.25	0.38	2.09	2.09	1.10
596.00	7.50	85.00	594.40	2.10	31.72	1.59	0.71	0.44	4.40
687.00	7.60	84.00	684.61	3.24	43.63	2.55	0.18	0.11	-1.10
778.00	7.40	83.10	774.83	4.58	55.43	3.69	0.25	-0.22	-0.99
869.00	7.30	81.30	865.08	6.15	66.96	5.09	0.28	-0.11	-1.98

Titan Directional Drilling, LLC

Survey Report

Company:	Carrizo Oil & Gas, Inc.	Local Co-ordinate Reference:	Well 5-25-9-60
Project:	Niobrara CON'83	TVD Reference:	Well @ 4904.00usft
Site:	Shull 25-9-60 Pad	MD Reference:	Well @ 4904.00usft
Well:	5-25-9-60	North Reference:	Grid
Wellbore:	5-25-9-60 OH	Survey Calculation Method:	Minimum Curvature
Design:	5-25-9-60 OH	Database:	EDM 5000.1 Single User Db

Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
960.00	8.70	80.50	955.19	8.17	79.46	6.90	1.54	1.54	-0.88
1,051.00	9.20	82.50	1,045.09	10.25	93.46	8.76	0.65	0.55	2.20
1,143.00	8.90	83.40	1,135.94	12.03	107.83	10.31	0.36	-0.33	0.98
1,234.00	9.00	82.90	1,225.83	13.72	121.88	11.78	0.14	0.11	-0.55
1,326.00	8.60	90.20	1,316.75	14.58	135.90	12.42	1.29	-0.43	7.93
1,402.00	8.40	91.20	1,391.92	14.45	147.13	12.11	0.33	-0.26	1.32
1,439.00	8.44	95.25	1,428.52	14.14	152.54	11.72	1.61	0.11	10.96
9 5/8"									
1,501.00	8.60	101.90	1,489.84	12.77	161.61	10.20	1.61	0.26	10.72
1,586.00	7.90	118.70	1,573.97	8.65	172.95	5.90	2.94	-0.82	19.76
1,670.00	7.90	123.50	1,657.17	2.69	182.83	-0.21	0.79	0.00	5.71
1,755.00	7.20	123.20	1,741.43	-3.45	192.16	-6.50	0.82	-0.82	-0.35
1,840.00	6.30	122.90	1,825.84	-8.90	200.53	-12.08	1.06	-1.06	-0.35
1,925.00	8.00	116.00	1,910.18	-14.02	209.76	-17.35	2.24	2.00	-8.12
2,010.00	9.00	109.30	1,994.25	-18.81	221.35	-22.33	1.65	1.18	-7.88
2,094.00	9.00	105.10	2,077.22	-22.70	233.90	-26.41	0.78	0.00	-5.00
2,179.00	8.70	103.30	2,161.20	-25.91	246.57	-29.82	0.48	-0.35	-2.12
2,264.00	9.50	110.40	2,245.14	-29.83	259.41	-33.95	1.62	0.94	8.35
2,348.00	9.30	108.90	2,328.01	-34.45	272.32	-38.77	0.38	-0.24	-1.79
2,434.00	9.10	112.30	2,412.90	-39.28	285.19	-43.81	0.67	-0.23	3.95
2,519.00	7.90	114.40	2,496.97	-44.24	296.73	-48.95	1.46	-1.41	2.47
2,604.00	7.40	113.40	2,581.21	-48.83	307.07	-53.70	0.61	-0.59	-1.18
2,688.00	7.70	112.80	2,664.48	-53.16	317.23	-58.19	0.37	0.36	-0.71
2,773.00	7.90	113.10	2,748.70	-57.66	327.85	-62.86	0.24	0.24	0.35
2,858.00	8.20	112.40	2,832.86	-62.26	338.83	-67.64	0.37	0.35	-0.82
2,942.00	8.50	112.50	2,915.97	-66.92	350.10	-72.47	0.36	0.36	0.12
3,027.00	8.30	112.40	3,000.06	-71.66	361.58	-77.40	0.24	-0.24	-0.12
3,112.00	7.90	111.50	3,084.21	-76.14	372.68	-82.05	0.49	-0.47	-1.06
3,195.00	7.00	109.50	3,166.51	-79.92	382.76	-85.99	1.13	-1.08	-2.41
3,280.00	5.90	104.30	3,250.97	-82.72	391.87	-88.94	1.46	-1.29	-6.12
3,365.00	7.20	113.70	3,335.41	-85.94	400.98	-92.31	1.98	1.53	11.06
3,450.00	8.10	113.70	3,419.66	-90.49	411.35	-97.02	1.06	1.06	0.00
3,536.00	8.70	114.60	3,504.73	-95.64	422.81	-102.34	0.71	0.70	1.05
3,621.00	9.50	114.90	3,588.66	-101.27	435.02	-108.17	0.94	0.94	0.35
3,706.00	8.40	118.10	3,672.63	-107.14	446.85	-114.23	1.42	-1.29	3.76
3,791.00	8.60	118.80	3,756.69	-113.13	457.90	-120.39	0.26	0.24	0.82
3,875.00	9.00	119.00	3,839.70	-119.34	469.15	-126.78	0.48	0.48	0.24
3,960.00	7.90	113.70	3,923.78	-124.91	480.31	-132.53	1.58	-1.29	-6.24
4,045.00	7.30	110.20	4,008.04	-129.12	490.73	-136.91	0.89	-0.71	-4.12
4,130.00	6.70	102.40	4,092.40	-132.05	500.64	-139.99	1.32	-0.71	-9.18
4,214.00	6.90	100.40	4,175.81	-134.02	510.39	-142.11	0.37	0.24	-2.38
4,299.00	7.30	94.00	4,260.16	-135.32	520.80	-143.58	1.04	0.47	-7.53
4,384.00	6.60	98.60	4,344.54	-136.42	531.02	-144.84	1.05	-0.82	5.41

Titan Directional Drilling, LLC

Survey Report

Company:	Carrizo Oil & Gas, Inc.	Local Co-ordinate Reference:	Well 5-25-9-60
Project:	Niobrara CON'83	TVD Reference:	Well @ 4904.00usft
Site:	Shull 25-9-60 Pad	MD Reference:	Well @ 4904.00usft
Well:	5-25-9-60	North Reference:	Grid
Wellbore:	5-25-9-60 OH	Survey Calculation Method:	Minimum Curvature
Design:	5-25-9-60 OH	Database:	EDM 5000.1 Single User Db

Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
4,468.00	6.40	95.30	4,428.00	-137.58	540.45	-146.15	0.50	-0.24	-3.93
4,553.00	6.90	112.10	4,512.43	-139.94	549.90	-148.66	2.35	0.59	19.76
4,638.00	7.10	112.30	4,596.80	-143.85	559.49	-152.72	0.24	0.24	0.24
4,722.00	8.50	115.70	4,680.02	-148.51	569.89	-157.55	1.75	1.67	4.05
4,807.00	8.20	113.90	4,764.12	-153.69	581.09	-162.91	0.47	-0.35	-2.12
4,893.00	7.60	111.80	4,849.30	-158.29	591.98	-167.68	0.77	-0.70	-2.44
4,978.00	6.10	99.90	4,933.70	-161.15	601.65	-170.69	2.42	-1.76	-14.00
5,063.00	6.90	105.00	5,018.15	-163.25	611.03	-172.94	1.16	0.94	6.00
5,148.00	7.40	118.50	5,102.50	-167.18	620.77	-177.03	2.06	0.59	15.88
5,232.00	8.70	121.40	5,185.67	-173.08	630.95	-183.08	1.62	1.55	3.45
5,317.00	9.10	119.30	5,269.64	-179.72	642.30	-189.90	0.61	0.47	-2.47
5,397.00	7.80	118.60	5,348.77	-185.41	652.58	-195.76	1.63	-1.62	-0.87
5,440.00	10.10	120.30	5,391.25	-188.71	658.40	-199.15	5.38	5.35	3.95
5,482.00	15.00	114.30	5,432.23	-192.81	666.54	-203.38	12.06	11.67	-14.29
5,525.00	19.60	107.20	5,473.28	-197.23	678.51	-207.99	11.75	10.70	-16.51
5,567.00	23.10	106.90	5,512.39	-201.71	693.13	-212.70	8.34	8.33	-0.71
5,610.00	27.60	104.00	5,551.24	-206.58	710.87	-217.85	10.85	10.47	-6.74
5,652.00	31.80	100.20	5,587.72	-210.89	731.21	-222.49	10.95	10.00	-9.05
5,695.00	35.40	96.30	5,623.54	-214.27	754.75	-226.23	9.76	8.37	-9.07
5,737.00	35.60	86.40	5,657.76	-214.83	779.07	-227.19	13.68	0.48	-23.57
5,779.00	34.30	76.30	5,692.21	-211.26	802.79	-223.99	14.11	-3.10	-24.05
5,820.00	35.40	67.60	5,725.88	-203.99	825.00	-217.08	12.41	2.68	-21.22
5,863.00	37.80	62.90	5,760.40	-193.24	848.26	-206.70	8.58	5.58	-10.93
5,906.00	38.80	55.50	5,794.17	-179.60	871.10	-193.42	10.91	2.33	-17.21
5,948.00	41.50	49.90	5,826.28	-163.18	892.60	-177.34	10.73	6.43	-13.33
5,991.00	45.30	44.70	5,857.53	-143.12	914.26	-157.64	12.12	8.84	-12.09
6,034.00	48.00	40.20	5,887.05	-120.05	935.34	-134.90	9.86	6.28	-10.47
6,076.00	50.60	38.80	5,914.43	-95.48	955.58	-110.65	6.69	6.19	-3.33
6,118.00	53.70	34.30	5,940.21	-68.83	975.30	-84.32	11.22	7.38	-10.71
6,161.00	57.20	32.30	5,964.60	-39.23	994.73	-55.04	9.00	8.14	-4.65
6,204.00	60.50	30.20	5,986.84	-7.77	1,013.80	-23.88	8.74	7.67	-4.88
6,246.00	64.60	27.90	6,006.20	24.81	1,031.88	8.41	10.90	9.76	-5.48
6,283.00	68.47	28.59	6,020.93	54.70	1,047.95	38.04	10.60	10.46	1.87
300' entry									
6,289.00	69.10	28.70	6,023.10	59.61	1,050.63	42.90	10.60	10.47	1.81
6,331.00	73.00	26.80	6,036.73	94.76	1,069.11	77.76	10.22	9.29	-4.52
6,374.00	77.00	25.60	6,047.86	132.02	1,087.44	114.72	9.68	9.30	-2.79
6,416.00	82.00	24.60	6,055.51	169.40	1,104.95	151.82	12.13	11.90	-2.38
6,450.00	85.60	24.03	6,059.18	200.20	1,118.87	182.40	10.72	10.59	-1.68
7"									
6,500.00	90.90	23.20	6,060.71	245.98	1,138.88	227.85	10.72	10.60	-1.66
6,546.00	91.30	21.70	6,059.83	288.48	1,156.44	270.07	3.37	0.87	-3.26
6,637.00	90.50	20.00	6,058.40	373.51	1,188.82	354.57	2.06	-0.88	-1.87
6,729.00	91.50	16.90	6,056.79	460.76	1,217.93	441.34	3.54	1.09	-3.37

Titan Directional Drilling, LLC

Survey Report

Company:	Carrizo Oil & Gas, Inc.	Local Co-ordinate Reference:	Well 5-25-9-60
Project:	Niobrara CON'83	TVD Reference:	Well @ 4904.00usft
Site:	Shull 25-9-60 Pad	MD Reference:	Well @ 4904.00usft
Well:	5-25-9-60	North Reference:	Grid
Wellbore:	5-25-9-60 OH	Survey Calculation Method:	Minimum Curvature
Design:	5-25-9-60 OH	Database:	EDM 5000.1 Single User Db

Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
6,821.00	93.50	12.00	6,052.78	549.73	1,240.86	529.94	5.75	2.17	-5.33
6,848.00	93.27	10.00	6,051.18	576.18	1,246.01	556.31	7.43	-0.85	-7.40
300' exit									
6,913.00	92.70	5.20	6,047.79	640.51	1,254.59	620.49	7.43	-0.88	-7.39
7,005.00	88.40	359.40	6,046.91	732.37	1,258.28	712.28	7.85	-4.67	-6.30
7,089.00	89.80	355.70	6,048.23	816.26	1,254.69	796.22	4.71	1.67	-4.40
7,175.00	88.20	356.00	6,049.73	902.02	1,248.46	882.07	1.89	-1.86	0.35
7,258.00	88.60	355.90	6,052.05	984.78	1,242.60	964.91	0.50	0.48	-0.12
7,318.00	88.74	356.11	6,053.44	1,044.62	1,238.42	1,024.81	0.42	0.23	0.35
300' entry									
7,344.00	88.80	356.20	6,054.00	1,070.56	1,236.68	1,050.77	0.42	0.23	0.35
7,429.00	89.40	356.20	6,055.34	1,155.36	1,231.05	1,135.65	0.71	0.71	0.00
7,513.00	90.80	357.30	6,055.19	1,239.22	1,226.29	1,219.57	2.12	1.67	1.31
7,598.00	90.20	357.00	6,054.45	1,324.11	1,222.06	1,304.52	0.79	-0.71	-0.35
7,683.00	91.90	357.40	6,052.89	1,408.99	1,217.91	1,389.46	2.05	2.00	0.47
7,768.00	89.40	357.10	6,051.93	1,493.88	1,213.83	1,474.40	2.96	-2.94	-0.35
7,853.00	90.60	357.60	6,051.93	1,578.79	1,209.90	1,559.36	1.53	1.41	0.59
7,938.00	90.90	357.40	6,050.81	1,663.70	1,206.19	1,644.32	0.42	0.35	-0.24
8,023.00	91.60	357.80	6,048.96	1,748.60	1,202.64	1,729.27	0.95	0.82	0.47
8,108.00	89.40	357.50	6,048.22	1,833.52	1,199.15	1,814.24	2.61	-2.59	-0.35
8,193.00	87.90	356.70	6,050.22	1,918.39	1,194.85	1,899.16	2.00	-1.76	-0.94
8,278.00	91.20	358.30	6,050.89	2,003.29	1,191.15	1,984.11	4.31	3.88	1.88
8,363.00	90.40	357.70	6,049.70	2,088.23	1,188.18	2,069.08	1.18	-0.94	-0.71
8,448.00	89.80	358.10	6,049.55	2,173.17	1,185.06	2,154.06	0.85	-0.71	0.47
8,533.00	89.20	357.80	6,050.29	2,258.11	1,182.02	2,239.04	0.79	-0.71	-0.35
8,618.00	89.30	358.00	6,051.41	2,343.05	1,178.91	2,324.02	0.26	0.12	0.24
8,702.00	89.60	357.60	6,052.21	2,426.98	1,175.69	2,407.99	0.60	0.36	-0.48
8,785.00	90.50	359.80	6,052.14	2,509.96	1,173.80	2,490.98	2.86	1.08	2.65
8,872.00	89.10	358.60	6,052.44	2,596.94	1,172.59	2,577.98	2.12	-1.61	-1.38
8,957.00	92.20	359.10	6,051.48	2,681.91	1,170.88	2,662.96	3.69	3.65	0.59
9,042.00	92.10	358.80	6,048.29	2,766.84	1,169.33	2,747.90	0.37	-0.12	-0.35
9,126.00	90.90	0.40	6,046.09	2,850.80	1,168.74	2,831.87	2.38	-1.43	1.90
9,210.00	89.60	1.30	6,045.73	2,934.79	1,169.99	2,915.82	1.88	-1.55	1.07
9,295.00	89.90	1.10	6,046.10	3,019.77	1,171.77	3,000.76	0.42	0.35	-0.24
9,380.00	89.70	0.30	6,046.39	3,104.76	1,172.80	3,085.73	0.97	-0.24	-0.94
9,465.00	89.70	359.80	6,046.84	3,189.76	1,172.88	3,170.72	0.59	0.00	-0.59
9,551.00	89.70	359.40	6,047.29	3,275.76	1,172.28	3,256.71	0.47	0.00	-0.47
9,636.00	88.90	357.60	6,048.33	3,360.72	1,170.05	3,341.70	2.32	-0.94	-2.12
9,721.00	88.80	357.50	6,050.03	3,445.62	1,166.42	3,426.65	0.17	-0.12	-0.12
9,807.00	88.90	356.70	6,051.76	3,531.49	1,162.07	3,512.58	0.94	0.12	-0.93
9,892.00	89.10	358.30	6,053.24	3,616.40	1,158.36	3,597.53	1.90	0.24	1.88
9,977.00	90.70	359.40	6,053.39	3,701.38	1,156.66	3,682.53	2.28	1.88	1.29
10,062.00	90.60	358.90	6,052.43	3,786.36	1,155.40	3,767.52	0.60	-0.12	-0.59

Titan Directional Drilling, LLC

Survey Report

Company:	Carrizo Oil & Gas, Inc.	Local Co-ordinate Reference:	Well 5-25-9-60
Project:	Niobrara CON'83	TVD Reference:	Well @ 4904.00usft
Site:	Shull 25-9-60 Pad	MD Reference:	Well @ 4904.00usft
Well:	5-25-9-60	North Reference:	Grid
Wellbore:	5-25-9-60 OH	Survey Calculation Method:	Minimum Curvature
Design:	5-25-9-60 OH	Database:	EDM 5000.1 Single User Db

Survey										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)	
10,146.00	91.30	358.70	6,051.03	3,870.33	1,153.64	3,851.51	0.87	0.83	-0.24	
10,231.00	91.70	358.20	6,048.81	3,955.27	1,151.34	3,936.47	0.75	0.47	-0.59	
10,316.00	89.40	359.30	6,047.99	4,040.24	1,149.49	4,021.46	3.00	-2.71	1.29	
10,401.00	89.60	359.20	6,048.73	4,125.23	1,148.37	4,106.46	0.26	0.24	-0.12	
10,486.00	89.70	358.60	6,049.25	4,210.21	1,146.74	4,191.45	0.72	0.12	-0.71	
10,571.00	89.80	358.40	6,049.62	4,295.18	1,144.52	4,276.45	0.26	0.12	-0.24	
10,657.00	90.60	358.30	6,049.32	4,381.14	1,142.04	4,362.44	0.94	0.93	-0.12	
10,741.00	90.30	357.80	6,048.66	4,465.09	1,139.18	4,446.42	0.69	-0.36	-0.60	
10,824.00	90.50	357.40	6,048.09	4,548.02	1,135.71	4,529.39	0.54	0.24	-0.48	
10,910.00	90.50	356.60	6,047.33	4,633.89	1,131.21	4,615.33	0.93	0.00	-0.93	
10,981.00	91.20	356.40	6,046.28	4,704.75	1,126.87	4,686.25	1.03	0.99	-0.28	
11,037.00	91.20	356.40	6,045.11	4,760.63	1,123.36	4,742.18	0.00	0.00	0.00	

Design Targets										
Target Name	Dip Angle (°)	Dip Dir. (°)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude	Longitude	
- hit/miss target										
- Shape										
SL 5-25	0.00	0.00	0.00	0.00	0.00	1,506,555.10	3,405,843.40	40° 42' 52.88 N	104° 2' 9.40 W	
- actual wellpath hits target center										
- Point										
BHL 5-25	0.00	0.00	6,045.11	4,760.63	1,123.36	1,511,315.68	3,406,966.74	40° 43' 39.73 N	104° 1' 53.79 W	
- actual wellpath hits target center										
- Point										

Casing Points					
Measured Depth (usft)	Vertical Depth (usft)	Name		Casing Diameter (in)	Hole Diameter (in)
1,439.00	1,428.52	9 5/8"		9.62	12.25
6,450.00	6,059.18	7"		7.00	7.50

Design Annotations					
Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment	
		+N/-S (usft)	+E/-W (usft)		
6,283.00	6,020.93	54.70	1,047.95	300' entry	
6,848.00	6,051.18	576.18	1,246.01	300' exit	
7,318.00	6,053.44	1,044.62	1,238.42	300' entry	