

US ROCKIES WATTENBERG PLANNING

**WELD-NAD83-UTMFT13N
1N-66W-09 FITZSIMMONS 3-9HZ
FITZSIMMONS 14N-9HZ**

Plan A

Plan: Permit Rev-1

Standard Planning Report

02 June, 2016



Azimuths to True North
Magnetic North: 8.18°

Magnetic Field
Strength: 52433.3snT
Dip Angle: 66.61°
Date: 5/31/2016
Model: IGRF2010

SITE: 1N-66W-09 FITZSIMMONS 3-9HZ

Well: FITZSIMMONS 14N-9HZ
Wellbore: Plan A
Design: Permit Rev-1

FORMATION TOP DETAILS

TVDPath	MDPath	Formation
1467.00	1485.92	Fox Hills
4812.00	4939.39	Sussex
7120.00	7306.87	Sharon Springs
7159.00	7366.87	Niobrara
7270.00	7615.86	Nio B

WELL DETAILS: FITZSIMMONS 14N-9HZ

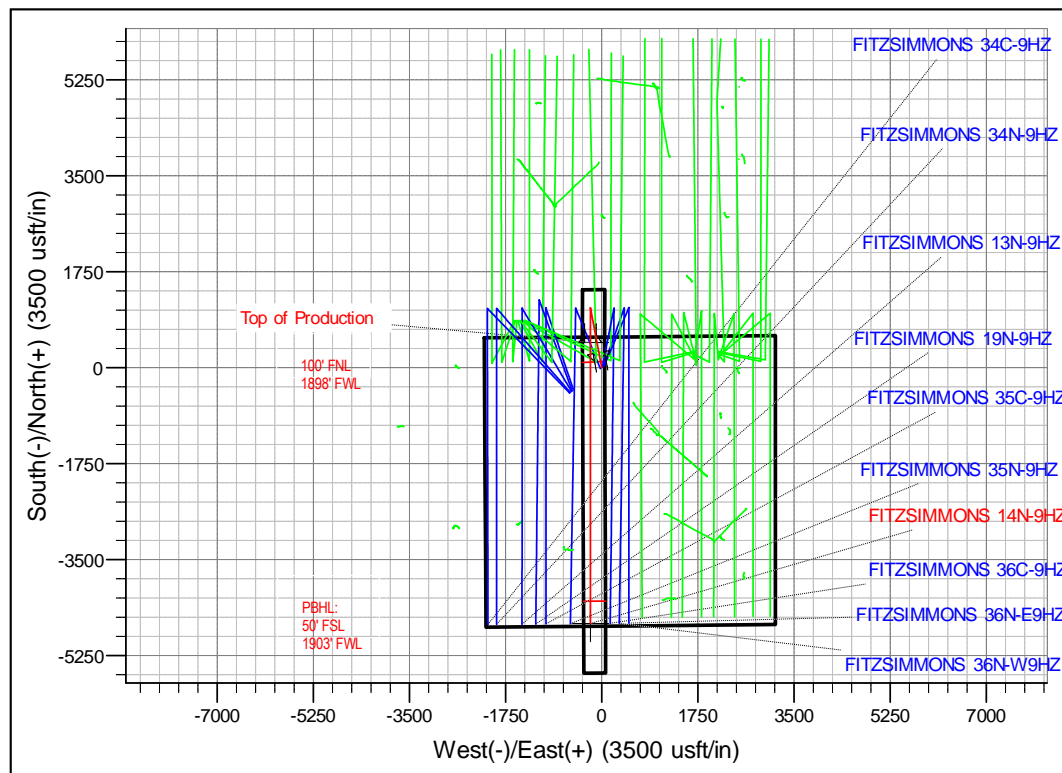
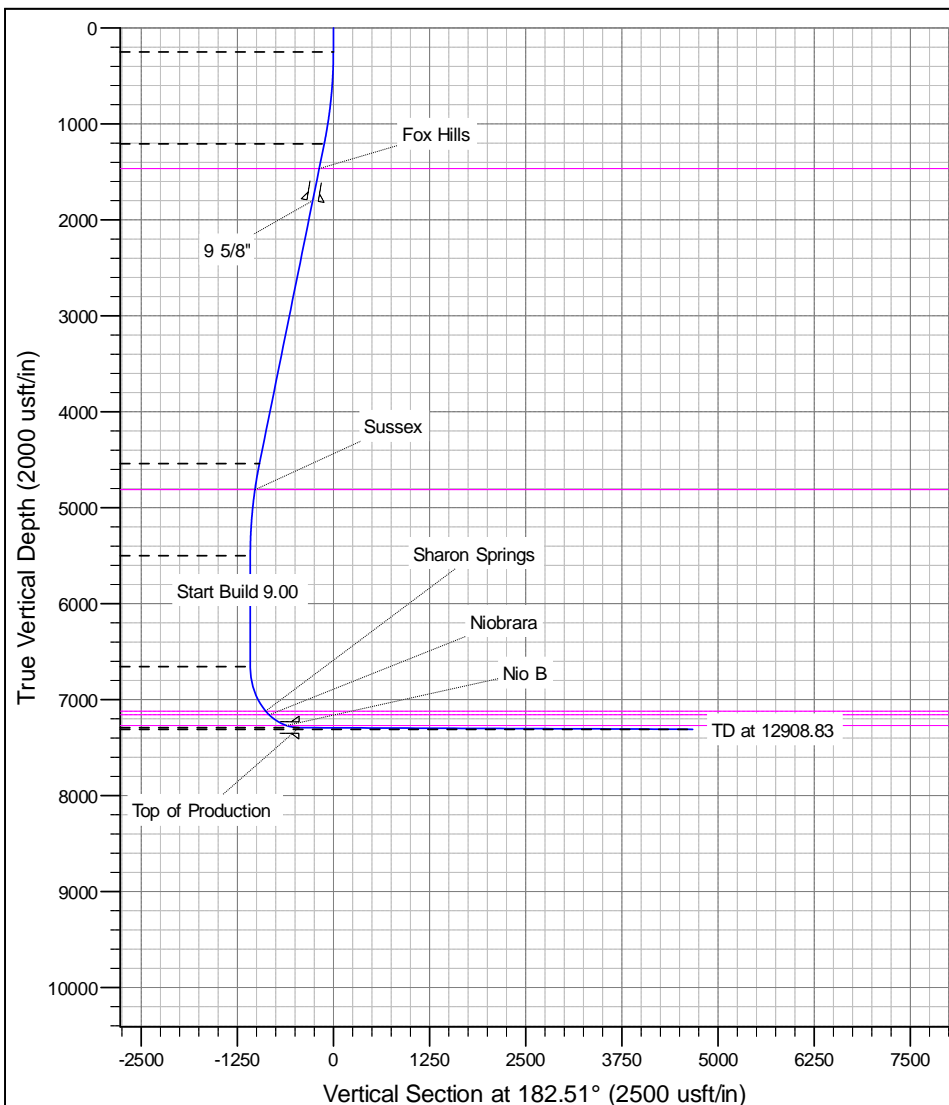
+N/-S	+E/-W	GL: 4990.00 Northing	RKB @ 5007.00usft (D Rig) Easting	Latitude	Longitude	Slot
0.00	0.00	14552820.39	1700829.22	40.071438	-104.784055	

SECTION DETAILS

MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	Vsect
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
250.00	0.00	0.00	250.00	0.00	0.00	0.00	0.00
1220.07	14.55	349.36	1209.67	120.41	-22.62	1.50	-119.31
4661.10	14.55	349.36	4540.33	970.09	-182.20	0.00	-961.17
5631.16	0.00	0.00	5500.00	1090.50	-204.82	1.50	1080.47
6787.56	0.00	0.00	6656.39	1090.50	-204.82	0.00	1080.47
7785.44	89.81	180.00	7293.01	455.99	-204.82	9.00	-446.57
12908.83	89.81	180.00	7310.00	-4667.37	-204.82	0.00	4671.86

DESIGN TARGET DETAILS

Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
FITZSIMMONS 14N-9HZ_PHL	7293.01	456.00	-204.82	14553275.88	1700623.30	40.072690	-104.784787
FITZSIMMONS 14N-9HZ_PBL	7310.00	-4667.37	-204.82	14548152.53	1700635.73	40.058621	-104.784787



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Planning Report

Database:	PLANNING	Local Co-ordinate Reference:	Well FITZSIMMONS 14N-9HZ
Company:	US ROCKIES WATTENBERG PLANNING	TVD Reference:	RKB @ 5007.00usft (D Rig)
Project:	WELD-NAD83-UTMFT13N	MD Reference:	RKB @ 5007.00usft (D Rig)
Site:	1N-66W-09 FITZSIMMONS 3-9HZ	North Reference:	True
Well:	FITZSIMMONS 14N-9HZ	Survey Calculation Method:	Minimum Curvature
Wellbore:	Plan A		
Design:	Permit Rev-1		

Project	WELD-NAD83-UTMFT13N		
Map System:	Universal Transverse Mercator (US Survey Feet)	System Datum:	Mean Sea Level
Geo Datum:	North American Datum 1983		
Map Zone:	Zone 13N (108 W to 102 W)		

Site						1N-66W-09 FITZSIMMONS 3-9HZ											
Site Position:						Northing:			14,552,801.75 usft			Latitude:			40.071387		
From:			Lat/Long			Easting:			1,700,805.49 usft			Longitude:			-104.784140		
Position Uncertainty:			0.00 usft			Slot Radius:			13-3/16 "			Grid Convergence:			0.14		

Well	FITZSIMMONS 14N-9HZ					
Well Position	+N/-S	18.57 usft	Northing:	14,552,820.38 usft	Latitude:	40.071438
	+E/-W	23.78 usft	Easting:	1,700,829.22 usft	Longitude:	-104.784055
Position Uncertainty		3.28 usft	Wellhead Elevation:	0.00 usft	Ground Level:	4,990.00 usft

Wellbore	Plan A				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2010	5/31/2016	8.18	66.61	52,433

Design	Permit Rev-1			
Audit Notes:				
Version:	Phase:	PROTOTYPE	Tie On Depth:	0.00
Vertical Section:	Depth From (TVD) (usft)	+N/-S (usft)	+E/-W (usft)	Direction (°)
	0.00	0.00	0.00	182.51

Plan Sections										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	TFO (°)	Target
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
250.00	0.00	0.00	250.00	0.00	0.00	0.00	0.00	0.00	0.00	
1,220.07	14.55	349.36	1,209.67	120.41	-22.62	1.50	1.50	0.00	349.36	
4,661.10	14.55	349.36	4,540.33	970.09	-182.20	0.00	0.00	0.00	0.00	
5,631.16	0.00	0.00	5,500.00	1,090.50	-204.82	1.50	-1.50	0.00	180.00	
6,787.56	0.00	0.00	6,656.39	1,090.50	-204.82	0.00	0.00	0.00	0.00	
7,785.44	89.81	180.00	7,293.01	455.99	-204.82	9.00	9.00	0.00	180.00	
12,908.83	89.81	180.00	7,310.00	-4,667.37	-204.82	0.00	0.00	0.00	0.00	FITZSIMMONS 14N

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Planning Report

Database:	PLANNING	Local Co-ordinate Reference:	Well FITZSIMMONS 14N-9HZ
Company:	US ROCKIES WATTENBERG PLANNING	TVD Reference:	RKB @ 5007.00usft (D Rig)
Project:	WELD-NAD83-UTMFT13N	MD Reference:	RKB @ 5007.00usft (D Rig)
Site:	1N-66W-09 FITZSIMMONS 3-9HZ	North Reference:	True
Well:	FITZSIMMONS 14N-9HZ	Survey Calculation Method:	Minimum Curvature
Wellbore:	Plan A		
Design:	Permit Rev-1		

Planned Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
100.00	0.00	0.00	100.00	0.00	0.00	0.00	0.00	0.00	0.00
200.00	0.00	0.00	200.00	0.00	0.00	0.00	0.00	0.00	0.00
250.00	0.00	0.00	250.00	0.00	0.00	0.00	0.00	0.00	0.00
300.00	0.75	349.36	300.00	0.32	-0.06	-0.32	1.50	1.50	0.00
400.00	2.25	349.36	399.96	2.89	-0.54	-2.87	1.50	1.50	0.00
500.00	3.75	349.36	499.82	8.04	-1.51	-7.96	1.50	1.50	0.00
600.00	5.25	349.36	599.51	15.75	-2.96	-15.60	1.50	1.50	0.00
700.00	6.75	349.36	698.96	26.02	-4.89	-25.78	1.50	1.50	0.00
800.00	8.25	349.36	798.10	38.85	-7.30	-38.49	1.50	1.50	0.00
900.00	9.75	349.36	896.87	54.22	-10.18	-53.73	1.50	1.50	0.00
1,000.00	11.25	349.36	995.19	72.13	-13.55	-71.47	1.50	1.50	0.00
1,100.00	12.75	349.36	1,093.00	92.57	-17.39	-91.72	1.50	1.50	0.00
1,200.00	14.25	349.36	1,190.24	115.51	-21.70	-114.45	1.50	1.50	0.00
1,220.07	14.55	349.36	1,209.67	120.41	-22.62	-119.31	1.50	1.50	0.00
1,300.00	14.55	349.36	1,287.04	140.15	-26.32	-138.86	0.00	0.00	0.00
1,400.00	14.55	349.36	1,383.83	164.84	-30.96	-163.33	0.00	0.00	0.00
1,485.92	14.55	349.36	1,467.00	186.06	-34.95	-184.35	0.00	0.00	0.00
Fox Hills									
1,500.00	14.55	349.36	1,480.63	189.54	-35.60	-187.79	0.00	0.00	0.00
1,600.00	14.55	349.36	1,577.42	214.23	-40.24	-212.26	0.00	0.00	0.00
1,700.00	14.55	349.36	1,674.21	238.92	-44.87	-236.72	0.00	0.00	0.00
1,800.00	14.55	349.36	1,771.00	263.61	-49.51	-261.19	0.00	0.00	0.00
1,829.96	14.55	349.36	1,800.00	271.01	-50.90	-268.52	0.00	0.00	0.00
9 5/8"									
1,900.00	14.55	349.36	1,867.80	288.31	-54.15	-285.65	0.00	0.00	0.00
2,000.00	14.55	349.36	1,964.59	313.00	-58.79	-310.12	0.00	0.00	0.00
2,100.00	14.55	349.36	2,061.38	337.69	-63.43	-334.59	0.00	0.00	0.00
2,200.00	14.55	349.36	2,158.17	362.38	-68.06	-359.05	0.00	0.00	0.00
2,300.00	14.55	349.36	2,254.97	387.08	-72.70	-383.52	0.00	0.00	0.00
2,400.00	14.55	349.36	2,351.76	411.77	-77.34	-407.98	0.00	0.00	0.00
2,500.00	14.55	349.36	2,448.55	436.46	-81.98	-432.45	0.00	0.00	0.00
2,600.00	14.55	349.36	2,545.34	461.15	-86.61	-456.91	0.00	0.00	0.00
2,700.00	14.55	349.36	2,642.14	485.84	-91.25	-481.38	0.00	0.00	0.00
2,800.00	14.55	349.36	2,738.93	510.54	-95.89	-505.84	0.00	0.00	0.00
2,900.00	14.55	349.36	2,835.72	535.23	-100.53	-530.31	0.00	0.00	0.00
3,000.00	14.55	349.36	2,932.51	559.92	-105.17	-554.77	0.00	0.00	0.00
3,100.00	14.55	349.36	3,029.31	584.61	-109.80	-579.24	0.00	0.00	0.00
3,200.00	14.55	349.36	3,126.10	609.31	-114.44	-603.70	0.00	0.00	0.00
3,300.00	14.55	349.36	3,222.89	634.00	-119.08	-628.17	0.00	0.00	0.00
3,400.00	14.55	349.36	3,319.68	658.69	-123.72	-652.63	0.00	0.00	0.00
3,500.00	14.55	349.36	3,416.48	683.38	-128.35	-677.10	0.00	0.00	0.00
3,600.00	14.55	349.36	3,513.27	708.08	-132.99	-701.56	0.00	0.00	0.00
3,700.00	14.55	349.36	3,610.06	732.77	-137.63	-726.03	0.00	0.00	0.00
3,800.00	14.55	349.36	3,706.85	757.46	-142.27	-750.50	0.00	0.00	0.00
3,900.00	14.55	349.36	3,803.65	782.15	-146.91	-774.96	0.00	0.00	0.00
4,000.00	14.55	349.36	3,900.44	806.85	-151.54	-799.43	0.00	0.00	0.00
4,100.00	14.55	349.36	3,997.23	831.54	-156.18	-823.89	0.00	0.00	0.00
4,200.00	14.55	349.36	4,094.02	856.23	-160.82	-848.36	0.00	0.00	0.00
4,300.00	14.55	349.36	4,190.82	880.92	-165.46	-872.82	0.00	0.00	0.00
4,400.00	14.55	349.36	4,287.61	905.62	-170.09	-897.29	0.00	0.00	0.00
4,500.00	14.55	349.36	4,384.40	930.31	-174.73	-921.75	0.00	0.00	0.00
4,600.00	14.55	349.36	4,481.19	955.00	-179.37	-946.22	0.00	0.00	0.00
4,661.10	14.55	349.36	4,540.33	970.09	-182.20	-961.17	0.00	0.00	0.00

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Planning Report

Database:	PLANNING	Local Co-ordinate Reference:	Well FITZSIMMONS 14N-9HZ
Company:	US ROCKIES WATTENBERG PLANNING	TVD Reference:	RKB @ 5007.00usft (D Rig)
Project:	WELD-NAD83-UTMFT13N	MD Reference:	RKB @ 5007.00usft (D Rig)
Site:	1N-66W-09 FITZSIMMONS 3-9HZ	North Reference:	True
Well:	FITZSIMMONS 14N-9HZ	Survey Calculation Method:	Minimum Curvature
Wellbore:	Plan A		
Design:	Permit Rev-1		

Planned Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
4,700.00	13.97	349.36	4,578.03	979.50	-183.97	-970.50	1.50	-1.50	0.00
4,800.00	12.47	349.36	4,675.38	1,001.97	-188.19	-992.76	1.50	-1.50	0.00
4,900.00	10.97	349.36	4,773.30	1,021.93	-191.94	-1,012.54	1.50	-1.50	0.00
4,939.39	10.38	349.36	4,812.00	1,029.10	-193.29	-1,019.64	1.50	-1.50	0.00
Sussex									
5,000.00	9.47	349.36	4,871.71	1,039.37	-195.22	-1,029.81	1.50	-1.50	0.00
5,100.00	7.97	349.36	4,970.55	1,054.26	-198.01	-1,044.57	1.50	-1.50	0.00
5,200.00	6.47	349.36	5,069.75	1,066.61	-200.33	-1,056.80	1.50	-1.50	0.00
5,300.00	4.97	349.36	5,169.25	1,076.40	-202.17	-1,066.50	1.50	-1.50	0.00
5,400.00	3.47	349.36	5,268.98	1,083.63	-203.53	-1,073.66	1.50	-1.50	0.00
5,500.00	1.97	349.36	5,368.86	1,088.29	-204.40	-1,078.28	1.50	-1.50	0.00
5,600.00	0.47	349.36	5,468.84	1,090.38	-204.80	-1,080.35	1.50	-1.50	0.00
5,631.16	0.00	0.00	5,500.00	1,090.50	-204.82	-1,080.47	1.50	-1.50	0.00
5,700.00	0.00	0.00	5,568.84	1,090.50	-204.82	-1,080.47	0.00	0.00	0.00
5,800.00	0.00	0.00	5,668.84	1,090.50	-204.82	-1,080.47	0.00	0.00	0.00
5,900.00	0.00	0.00	5,768.84	1,090.50	-204.82	-1,080.47	0.00	0.00	0.00
6,000.00	0.00	0.00	5,868.84	1,090.50	-204.82	-1,080.47	0.00	0.00	0.00
6,100.00	0.00	0.00	5,968.84	1,090.50	-204.82	-1,080.47	0.00	0.00	0.00
6,200.00	0.00	0.00	6,068.84	1,090.50	-204.82	-1,080.47	0.00	0.00	0.00
6,300.00	0.00	0.00	6,168.84	1,090.50	-204.82	-1,080.47	0.00	0.00	0.00
6,400.00	0.00	0.00	6,268.84	1,090.50	-204.82	-1,080.47	0.00	0.00	0.00
6,500.00	0.00	0.00	6,368.84	1,090.50	-204.82	-1,080.47	0.00	0.00	0.00
6,600.00	0.00	0.00	6,468.84	1,090.50	-204.82	-1,080.47	0.00	0.00	0.00
6,700.00	0.00	0.00	6,568.84	1,090.50	-204.82	-1,080.47	0.00	0.00	0.00
6,787.56	0.00	0.00	6,656.39	1,090.50	-204.82	-1,080.47	0.00	0.00	0.00
6,800.00	1.12	180.00	6,668.84	1,090.38	-204.82	-1,080.35	9.00	9.00	0.00
6,900.00	10.12	180.00	6,768.26	1,080.60	-204.82	-1,070.58	9.00	9.00	0.00
7,000.00	19.12	180.00	6,864.92	1,055.38	-204.82	-1,045.39	9.00	9.00	0.00
7,100.00	28.12	180.00	6,956.45	1,015.35	-204.82	-1,005.40	9.00	9.00	0.00
7,200.00	37.12	180.00	7,040.59	961.50	-204.82	-951.60	9.00	9.00	0.00
7,300.00	46.12	180.00	7,115.27	895.15	-204.82	-885.31	9.00	9.00	0.00
7,306.87	46.74	180.00	7,120.00	890.18	-204.82	-880.34	9.00	9.00	0.00
Sharon Springs									
7,366.87	52.14	180.00	7,159.00	844.61	-204.82	-834.82	9.00	9.00	0.00
Niobrara									
7,400.00	55.12	180.00	7,178.65	817.94	-204.82	-808.17	9.00	9.00	0.00
7,500.00	64.12	180.00	7,229.17	731.76	-204.82	-722.07	9.00	9.00	0.00
7,600.00	73.12	180.00	7,265.59	638.73	-204.82	-629.14	9.00	9.00	0.00
7,615.86	74.55	180.00	7,270.00	623.50	-204.82	-613.93	9.00	9.00	0.00
Nio B									
7,700.00	82.12	180.00	7,287.00	541.16	-204.82	-531.66	9.00	9.00	0.00
7,785.44	89.81	180.00	7,293.01	456.00	-204.82	-446.58	9.00	9.00	0.00
FITZSIMMONS 14N-9HZ_PHL									
7,785.61	89.81	180.00	7,293.01	455.83	-204.82	-446.41	0.21	0.21	0.00
Top of Production									
7,800.00	89.81	180.00	7,293.06	441.44	-204.82	-432.03	0.00	0.00	0.00
7,900.00	89.81	180.00	7,293.39	341.44	-204.82	-332.13	0.00	0.00	0.00
8,000.00	89.81	180.00	7,293.72	241.44	-204.82	-232.22	0.00	0.00	0.00
8,100.00	89.81	180.00	7,294.05	141.44	-204.82	-132.32	0.00	0.00	0.00
8,200.00	89.81	180.00	7,294.39	41.44	-204.82	-32.42	0.00	0.00	0.00
8,300.00	89.81	180.00	7,294.72	-58.56	-204.82	67.49	0.00	0.00	0.00
8,400.00	89.81	180.00	7,295.05	-158.56	-204.82	167.39	0.00	0.00	0.00
8,500.00	89.81	180.00	7,295.38	-258.56	-204.82	267.29	0.00	0.00	0.00

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Planning Report

Database:	PLANNING	Local Co-ordinate Reference:	Well FITZSIMMONS 14N-9HZ
Company:	US ROCKIES WATTENBERG PLANNING	TVD Reference:	RKB @ 5007.00usft (D Rig)
Project:	WELD-NAD83-UTMFT13N	MD Reference:	RKB @ 5007.00usft (D Rig)
Site:	1N-66W-09 FITZSIMMONS 3-9HZ	North Reference:	True
Well:	FITZSIMMONS 14N-9HZ	Survey Calculation Method:	Minimum Curvature
Wellbore:	Plan A		
Design:	Permit Rev-1		

Planned Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
8,600.00	89.81	180.00	7,295.71	-358.56	-204.82	367.20	0.00	0.00	0.00
8,700.00	89.81	180.00	7,296.04	-458.56	-204.82	467.10	0.00	0.00	0.00
8,800.00	89.81	180.00	7,296.37	-558.56	-204.82	567.00	0.00	0.00	0.00
8,900.00	89.81	180.00	7,296.71	-658.56	-204.82	666.91	0.00	0.00	0.00
9,000.00	89.81	180.00	7,297.04	-758.56	-204.82	766.81	0.00	0.00	0.00
9,100.00	89.81	180.00	7,297.37	-858.56	-204.82	866.71	0.00	0.00	0.00
9,200.00	89.81	180.00	7,297.70	-958.56	-204.82	966.62	0.00	0.00	0.00
9,300.00	89.81	180.00	7,298.03	-1,058.56	-204.82	1,066.52	0.00	0.00	0.00
9,400.00	89.81	180.00	7,298.36	-1,158.56	-204.82	1,166.42	0.00	0.00	0.00
9,500.00	89.81	180.00	7,298.70	-1,258.56	-204.82	1,266.32	0.00	0.00	0.00
9,600.00	89.81	180.00	7,299.03	-1,358.55	-204.82	1,366.23	0.00	0.00	0.00
9,700.00	89.81	180.00	7,299.36	-1,458.55	-204.82	1,466.13	0.00	0.00	0.00
9,800.00	89.81	180.00	7,299.69	-1,558.55	-204.82	1,566.03	0.00	0.00	0.00
9,900.00	89.81	180.00	7,300.02	-1,658.55	-204.82	1,665.94	0.00	0.00	0.00
10,000.00	89.81	180.00	7,300.35	-1,758.55	-204.82	1,765.84	0.00	0.00	0.00
10,100.00	89.81	180.00	7,300.69	-1,858.55	-204.82	1,865.74	0.00	0.00	0.00
10,200.00	89.81	180.00	7,301.02	-1,958.55	-204.82	1,965.65	0.00	0.00	0.00
10,300.00	89.81	180.00	7,301.35	-2,058.55	-204.82	2,065.55	0.00	0.00	0.00
10,400.00	89.81	180.00	7,301.68	-2,158.55	-204.82	2,165.45	0.00	0.00	0.00
10,500.00	89.81	180.00	7,302.01	-2,258.55	-204.82	2,265.36	0.00	0.00	0.00
10,600.00	89.81	180.00	7,302.34	-2,358.55	-204.82	2,365.26	0.00	0.00	0.00
10,700.00	89.81	180.00	7,302.68	-2,458.55	-204.82	2,465.16	0.00	0.00	0.00
10,800.00	89.81	180.00	7,303.01	-2,558.55	-204.82	2,565.07	0.00	0.00	0.00
10,900.00	89.81	180.00	7,303.34	-2,658.55	-204.82	2,664.97	0.00	0.00	0.00
11,000.00	89.81	180.00	7,303.67	-2,758.55	-204.82	2,764.87	0.00	0.00	0.00
11,100.00	89.81	180.00	7,304.00	-2,858.55	-204.82	2,864.78	0.00	0.00	0.00
11,200.00	89.81	180.00	7,304.33	-2,958.55	-204.82	2,964.68	0.00	0.00	0.00
11,300.00	89.81	180.00	7,304.67	-3,058.55	-204.82	3,064.58	0.00	0.00	0.00
11,400.00	89.81	180.00	7,305.00	-3,158.54	-204.82	3,164.49	0.00	0.00	0.00
11,500.00	89.81	180.00	7,305.33	-3,258.54	-204.82	3,264.39	0.00	0.00	0.00
11,600.00	89.81	180.00	7,305.66	-3,358.54	-204.82	3,364.29	0.00	0.00	0.00
11,700.00	89.81	180.00	7,305.99	-3,458.54	-204.82	3,464.20	0.00	0.00	0.00
11,800.00	89.81	180.00	7,306.32	-3,558.54	-204.82	3,564.10	0.00	0.00	0.00
11,900.00	89.81	180.00	7,306.65	-3,658.54	-204.82	3,664.00	0.00	0.00	0.00
12,000.00	89.81	180.00	7,306.99	-3,758.54	-204.82	3,763.91	0.00	0.00	0.00
12,100.00	89.81	180.00	7,307.32	-3,858.54	-204.82	3,863.81	0.00	0.00	0.00
12,200.00	89.81	180.00	7,307.65	-3,958.54	-204.82	3,963.71	0.00	0.00	0.00
12,300.00	89.81	180.00	7,307.98	-4,058.54	-204.82	4,063.62	0.00	0.00	0.00
12,400.00	89.81	180.00	7,308.31	-4,158.54	-204.82	4,163.52	0.00	0.00	0.00
12,500.00	89.81	180.00	7,308.64	-4,258.54	-204.82	4,263.42	0.00	0.00	0.00
12,600.00	89.81	180.00	7,308.98	-4,358.54	-204.82	4,363.33	0.00	0.00	0.00
12,700.00	89.81	180.00	7,309.31	-4,458.54	-204.82	4,463.23	0.00	0.00	0.00
12,800.00	89.81	180.00	7,309.64	-4,558.54	-204.82	4,563.13	0.00	0.00	0.00
12,900.00	89.81	180.00	7,309.97	-4,658.54	-204.82	4,663.04	0.00	0.00	0.00
12,908.83	89.81	180.00	7,310.00	-4,667.37	-204.82	4,671.86	0.00	0.00	0.00
FITZSIMMONS 14N-9HZ_PBHL									

Anadarko

Planning Report

Database:	PLANNING	Local Co-ordinate Reference:	Well FITZSIMMONS 14N-9HZ
Company:	US ROCKIES WATTENBERG PLANNING	TVD Reference:	RKB @ 5007.00usft (D Rig)
Project:	WELD-NAD83-UTMFT13N	MD Reference:	RKB @ 5007.00usft (D Rig)
Site:	1N-66W-09 FITZSIMMONS 3-9HZ	North Reference:	True
Well:	FITZSIMMONS 14N-9HZ	Survey Calculation Method:	Minimum Curvature
Wellbore:	Plan A		
Design:	Permit Rev-1		

Design Targets									
Target Name									
- hit/miss target	Dip Angle	Dip Dir.	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
- Shape	(°)	(°)	(usft)	(usft)	(usft)	(usft)	(usft)		
FITZSIMMONS 14N-9	0.00	0.00	7,293.01	456.00	-204.82	14,553,275.88	1,700,623.30	40.072690	-104.784787
- plan hits target center									
- Point									
FITZSIMMONS 14N-9	0.00	0.00	7,310.00	-4,667.37	-204.82	14,548,152.53	1,700,635.72	40.058621	-104.784787
- plan hits target center									
- Point									

Casing Points					
	Measured Depth (usft)	Vertical Depth (usft)	Name	Casing Diameter (")	Hole Diameter (")
	1,829.96	1,800.00	9 5/8"	9-5/8	13-1/2
	7,785.61	7,293.01	Top of Production	5-1/2	8-1/2

Formations						
	Measured Depth (usft)	Vertical Depth (usft)	Name	Lithology	Dip (°)	Dip Direction (°)
	1,485.92	1,467.00	Fox Hills			
	4,939.39	4,812.00	Sussex			
	7,306.87	7,120.00	Sharon Springs			
	7,366.87	7,159.00	Niobrara			
	7,615.86	7,270.00	Nio B			