

US ROCKIES WATTENBERG PLANNING

WELD-NAD83-UTMFT13N

1N-66W-09 FITZSIMMONS 18-9HZ

FITZSIMMONS 13N-9HZ

Plan A

Plan: Permit Rev-1

Standard Planning Report

01 June, 2016



Azimuths to True North
Magnetic North: 8.18°

Magnetic Field
Strength: 52432.5snT
Dip Angle: 66.61°
Date: 5/31/2016
Model: IGRF2010

SITE: 1N-66W-09 FITZSIMMONS 18-9HZ

Well: FITZSIMMONS 13N-9HZ
Wellbore: Plan A
Design: Permit Rev-1

FORMATION TOP DETAILS

TVDPath	MDPath	Formation
1469.00	1490.70	Fox Hills
4814.00	5080.89	Sussex
7133.00	7469.53	Sharon Springs
7172.00	7523.03	Niobrara
7280.00	7706.76	Nio B
7340.00	7883.29	Nio C

WELL DETAILS: FITZSIMMONS 13N-9HZ

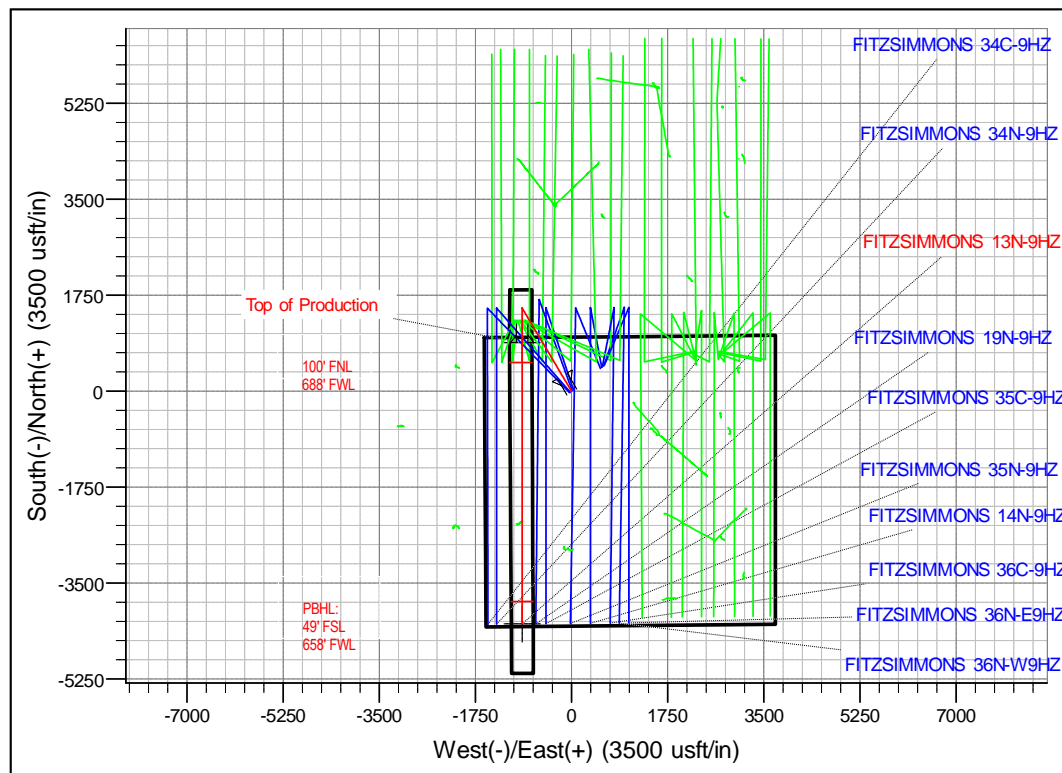
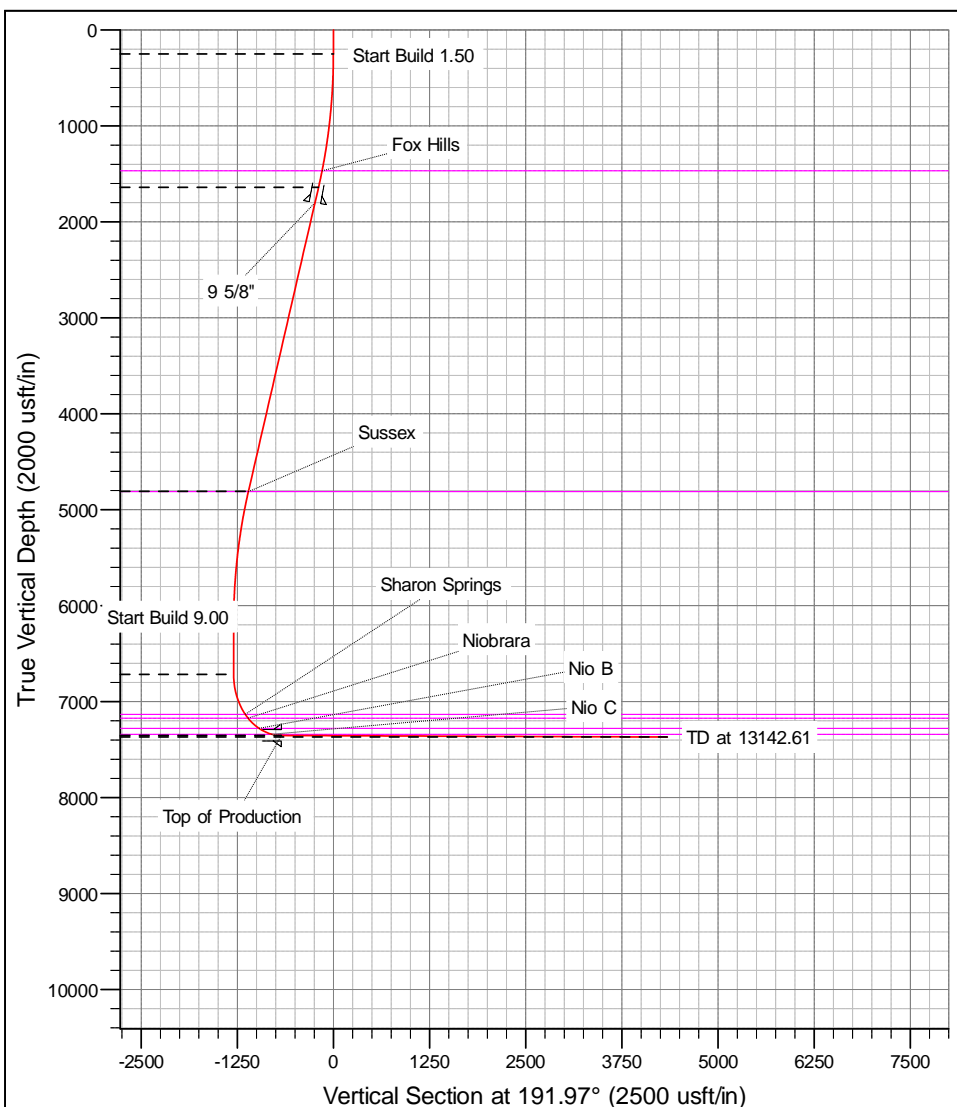
+N/-S	+E/-W	GL: 4992.00 Northing	RKB @ 5009.00usft (D Rig) Easting	Latitude	Longitude	Slot
0.00	0.00	14552385.73	1700280.82	40.070248	-104.786019	

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
1674.37	21.37	329.32	1641.58	225.77	-133.94	1.50	-193.08
5074.90	21.37	329.32	4808.42	1291.23	-766.06	0.00	1104.31
6499.26	0.00	0.00	6200.00	1517.00	-900.00	1.50	1297.39
7016.54	0.00	0.00	6717.27	1517.00	-900.00	0.00	1297.39
8014.54	89.82	180.00	7353.89	882.38	-900.00	9.00	-676.56
13142.61	89.82	180.00	7370.00	-4245.67	-900.00	0.00	4340.01

DESIGN TARGET DETAILS

Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
FITZSIMMONS 13N-9HZ_PHL	7353.89	882.38	-900.00	14553265.94	1699378.70	40.072671	-104.789236
FITZSIMMONS 13N-9HZ_PBHL	7370.00	-4245.67	-900.00	14548137.90	1699391.03	40.058589	-104.789235



Anadarko

Planning Report

Database:	PLANNING	Local Co-ordinate Reference:	Well FITZSIMMONS 13N-9HZ
Company:	US ROCKIES WATTENBERG PLANNING	TVD Reference:	RKB @ 5009.00usft (D Rig)
Project:	WELD-NAD83-UTMFT13N	MD Reference:	RKB @ 5009.00usft (D Rig)
Site:	1N-66W-09 FITZSIMMONS 18-9HZ	North Reference:	True
Well:	FITZSIMMONS 13N-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 18-9HZ				
Site Position:		Northing:	14,552,357.60 usft	Latitude:	40.070171	
From:	Lat/Long	Easting:	1,700,245.63 usft	Longitude:	-104.786145	
Position Uncertainty:		0.00 usft	Slot Radius:	13-3/16 "	Grid Convergence:	0.14 °

Well	FITZSIMMONS 13N-9HZ					
Well Position	+N-S	28.04 usft	Northing:	14,552,385.72 usft	Latitude:	40.070248
	+E-W	35.25 usft	Easting:	1,700,280.82 usft	Longitude:	-104.786019
Position Uncertainty		3.28 usft	Wellhead Elevation:	0.00 usft	Ground Level:	4,992.00 usft

Wellbore	Plan A				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2010	5/31/2016	8.18	66.61	52,432

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	191.97

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	
1,674.37	21.37	329.32	1,641.58	225.77	-133.94	1.50	1.50	0.00	329.32	
5,074.90	21.37	329.32	4,808.42	1,291.23	-766.06	0.00	0.00	0.00	0.00	
6,499.26	0.00	0.00	6,200.00	1,517.00	-900.00	1.50	-1.50	0.00	180.00	
7,016.54	0.00	0.00	6,717.27	1,517.00	-900.00	0.00	0.00	0.00	0.00	
8,014.54	89.82	180.00	7,353.89	882.38	-900.00	9.00	9.00	0.00	180.00	
13,142.61	89.82	180.00	7,370.00	-4,245.67	-900.00	0.00	0.00	0.00	0.00	FITZSIMMONS 13N

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Planning Report

Database:	PLANNING	Local Co-ordinate Reference:	Well FITZSIMMONS 13N-9HZ
Company:	US ROCKIES WATTENBERG PLANNING	TVD Reference:	RKB @ 5009.00usft (D Rig)
Project:	WELD-NAD83-UTMFT13N	MD Reference:	RKB @ 5009.00usft (D Rig)
Site:	1N-66W-09 FITZSIMMONS 18-9HZ	North Reference:	True
Well:	FITZSIMMONS 13N-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	329.32	300.00	0.28	-0.17	-0.24	1.50	1.50	0.00
400.00	2.25	329.32	399.96	2.53	-1.50	-2.17	1.50	1.50	0.00
500.00	3.75	329.32	499.82	7.03	-4.17	-6.02	1.50	1.50	0.00
600.00	5.25	329.32	599.51	13.78	-8.18	-11.79	1.50	1.50	0.00
700.00	6.75	329.32	698.96	22.77	-13.51	-19.47	1.50	1.50	0.00
800.00	8.25	329.32	798.10	34.00	-20.17	-29.07	1.50	1.50	0.00
900.00	9.75	329.32	896.87	47.45	-28.15	-40.58	1.50	1.50	0.00
1,000.00	11.25	329.32	995.19	63.12	-37.45	-53.98	1.50	1.50	0.00
1,100.00	12.75	329.32	1,093.00	81.00	-48.06	-69.28	1.50	1.50	0.00
1,200.00	14.25	329.32	1,190.24	101.08	-59.97	-86.45	1.50	1.50	0.00
1,300.00	15.75	329.32	1,286.83	123.34	-73.17	-105.48	1.50	1.50	0.00
1,400.00	17.25	329.32	1,382.71	147.76	-87.66	-126.37	1.50	1.50	0.00
1,490.70	18.61	329.32	1,469.00	171.78	-101.91	-146.91	1.50	1.50	0.00
Fox Hills									
1,500.00	18.75	329.32	1,477.81	174.34	-103.43	-149.10	1.50	1.50	0.00
1,600.00	20.25	329.32	1,572.07	203.05	-120.46	-173.65	1.50	1.50	0.00
1,674.37	21.37	329.32	1,641.58	225.77	-133.94	-193.08	1.50	1.50	0.00
1,700.00	21.37	329.32	1,665.46	233.80	-138.71	-199.95	0.00	0.00	0.00
1,800.00	21.37	329.32	1,758.58	265.13	-157.30	-226.75	0.00	0.00	0.00
1,844.47	21.37	329.32	1,800.00	279.06	-165.56	-238.67	0.00	0.00	0.00
9 5/8"									
1,900.00	21.37	329.32	1,851.71	296.46	-175.88	-253.54	0.00	0.00	0.00
2,000.00	21.37	329.32	1,944.84	327.80	-194.47	-280.34	0.00	0.00	0.00
2,100.00	21.37	329.32	2,037.97	359.13	-213.06	-307.14	0.00	0.00	0.00
2,200.00	21.37	329.32	2,131.09	390.46	-231.65	-333.93	0.00	0.00	0.00
2,300.00	21.37	329.32	2,224.22	421.79	-250.24	-360.73	0.00	0.00	0.00
2,400.00	21.37	329.32	2,317.35	453.12	-268.83	-387.53	0.00	0.00	0.00
2,500.00	21.37	329.32	2,410.48	484.46	-287.42	-414.32	0.00	0.00	0.00
2,600.00	21.37	329.32	2,503.60	515.79	-306.01	-441.12	0.00	0.00	0.00
2,700.00	21.37	329.32	2,596.73	547.12	-324.59	-467.92	0.00	0.00	0.00
2,800.00	21.37	329.32	2,689.86	578.45	-343.18	-494.71	0.00	0.00	0.00
2,900.00	21.37	329.32	2,782.99	609.79	-361.77	-521.51	0.00	0.00	0.00
3,000.00	21.37	329.32	2,876.11	641.12	-380.36	-548.31	0.00	0.00	0.00
3,100.00	21.37	329.32	2,969.24	672.45	-398.95	-575.10	0.00	0.00	0.00
3,200.00	21.37	329.32	3,062.37	703.78	-417.54	-601.90	0.00	0.00	0.00
3,300.00	21.37	329.32	3,155.50	735.12	-436.13	-628.70	0.00	0.00	0.00
3,400.00	21.37	329.32	3,248.62	766.45	-454.72	-655.49	0.00	0.00	0.00
3,500.00	21.37	329.32	3,341.75	797.78	-473.30	-682.29	0.00	0.00	0.00
3,600.00	21.37	329.32	3,434.88	829.11	-491.89	-709.08	0.00	0.00	0.00
3,700.00	21.37	329.32	3,528.01	860.45	-510.48	-735.88	0.00	0.00	0.00
3,800.00	21.37	329.32	3,621.14	891.78	-529.07	-762.68	0.00	0.00	0.00
3,900.00	21.37	329.32	3,714.26	923.11	-547.66	-789.47	0.00	0.00	0.00
4,000.00	21.37	329.32	3,807.39	954.44	-566.25	-816.27	0.00	0.00	0.00
4,100.00	21.37	329.32	3,900.52	985.78	-584.84	-843.07	0.00	0.00	0.00
4,200.00	21.37	329.32	3,993.65	1,017.11	-603.43	-869.86	0.00	0.00	0.00
4,300.00	21.37	329.32	4,086.77	1,048.44	-622.01	-896.66	0.00	0.00	0.00
4,400.00	21.37	329.32	4,179.90	1,079.77	-640.60	-923.46	0.00	0.00	0.00
4,500.00	21.37	329.32	4,273.03	1,111.10	-659.19	-950.25	0.00	0.00	0.00
4,600.00	21.37	329.32	4,366.16	1,142.44	-677.78	-977.05	0.00	0.00	0.00
4,700.00	21.37	329.32	4,459.28	1,173.77	-696.37	-1,003.85	0.00	0.00	0.00

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Planning Report

Database:	PLANNING	Local Co-ordinate Reference:	Well FITZSIMMONS 13N-9HZ
Company:	US ROCKIES WATTENBERG PLANNING	TVD Reference:	RKB @ 5009.00usft (D Rig)
Project:	WELD-NAD83-UTMFT13N	MD Reference:	RKB @ 5009.00usft (D Rig)
Site:	1N-66W-09 FITZSIMMONS 18-9HZ	North Reference:	True
Well:	FITZSIMMONS 13N-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)
4,800.00	21.37	329.32	4,552.41	1,205.10	-714.96	-1,030.64	0.00	0.00	0.00
4,900.00	21.37	329.32	4,645.54	1,236.43	-733.55	-1,057.44	0.00	0.00	0.00
5,000.00	21.37	329.32	4,738.67	1,267.77	-752.14	-1,084.24	0.00	0.00	0.00
5,074.90	21.37	329.32	4,808.42	1,291.23	-766.06	-1,104.31	0.00	0.00	0.00
5,080.89	21.28	329.32	4,814.00	1,293.11	-767.17	-1,105.91	1.50	-1.50	0.00
Sussex									
5,100.00	20.99	329.32	4,831.82	1,299.03	-770.69	-1,110.98	1.50	-1.50	0.00
5,200.00	19.49	329.32	4,925.65	1,328.78	-788.34	-1,136.42	1.50	-1.50	0.00
5,300.00	17.99	329.32	5,020.34	1,356.41	-804.73	-1,160.05	1.50	-1.50	0.00
5,400.00	16.49	329.32	5,115.85	1,381.90	-819.85	-1,181.85	1.50	-1.50	0.00
5,500.00	14.99	329.32	5,212.10	1,405.23	-833.69	-1,201.80	1.50	-1.50	0.00
5,600.00	13.49	329.32	5,309.02	1,426.38	-846.24	-1,219.89	1.50	-1.50	0.00
5,700.00	11.99	329.32	5,406.56	1,445.34	-857.49	-1,236.11	1.50	-1.50	0.00
5,800.00	10.49	329.32	5,504.64	1,462.11	-867.43	-1,250.44	1.50	-1.50	0.00
5,900.00	8.99	329.32	5,603.19	1,476.65	-876.06	-1,262.88	1.50	-1.50	0.00
6,000.00	7.49	329.32	5,702.16	1,488.98	-883.38	-1,273.42	1.50	-1.50	0.00
6,100.00	5.99	329.32	5,801.46	1,499.07	-889.36	-1,282.05	1.50	-1.50	0.00
6,200.00	4.49	329.32	5,901.04	1,506.92	-894.02	-1,288.77	1.50	-1.50	0.00
6,300.00	2.99	329.32	6,000.83	1,512.53	-897.35	-1,293.57	1.50	-1.50	0.00
6,400.00	1.49	329.32	6,100.75	1,515.89	-899.34	-1,296.44	1.50	-1.50	0.00
6,499.26	0.00	0.00	6,200.00	1,517.00	-900.00	-1,297.39	1.50	-1.50	0.00
6,500.00	0.00	0.00	6,200.74	1,517.00	-900.00	-1,297.39	0.00	0.00	0.00
6,600.00	0.00	0.00	6,300.74	1,517.00	-900.00	-1,297.39	0.00	0.00	0.00
6,700.00	0.00	0.00	6,400.74	1,517.00	-900.00	-1,297.39	0.00	0.00	0.00
6,800.00	0.00	0.00	6,500.74	1,517.00	-900.00	-1,297.39	0.00	0.00	0.00
6,900.00	0.00	0.00	6,600.74	1,517.00	-900.00	-1,297.39	0.00	0.00	0.00
7,000.00	0.00	0.00	6,700.74	1,517.00	-900.00	-1,297.39	0.00	0.00	0.00
7,016.54	0.00	0.00	6,717.27	1,517.00	-900.00	-1,297.39	0.00	0.00	0.00
7,100.00	7.51	180.00	6,800.50	1,511.54	-900.00	-1,292.04	9.00	9.00	0.00
7,200.00	16.51	180.00	6,898.21	1,490.75	-900.00	-1,271.71	9.00	9.00	0.00
7,300.00	25.51	180.00	6,991.46	1,454.93	-900.00	-1,236.67	9.00	9.00	0.00
7,400.00	34.51	180.00	7,077.97	1,404.96	-900.00	-1,187.79	9.00	9.00	0.00
7,469.54	40.77	180.00	7,133.00	1,362.52	-900.00	-1,146.26	9.00	9.00	0.00
Sharon Springs									
7,500.00	43.51	180.00	7,155.59	1,342.08	-900.00	-1,126.27	9.00	9.00	0.00
7,523.03	45.58	180.00	7,172.00	1,325.92	-900.00	-1,110.46	9.00	9.00	0.00
Niobrara									
7,600.00	52.51	180.00	7,222.42	1,267.83	-900.00	-1,053.63	9.00	9.00	0.00
7,700.00	61.51	180.00	7,276.81	1,184.03	-900.00	-971.66	9.00	9.00	0.00
7,706.76	62.12	180.00	7,280.00	1,178.08	-900.00	-965.83	9.00	9.00	0.00
Nio B									
7,800.00	70.51	180.00	7,317.42	1,092.77	-900.00	-882.38	9.00	9.00	0.00
7,883.29	78.01	180.00	7,340.00	1,012.65	-900.00	-804.00	9.00	9.00	0.00
Nio C									
7,900.00	79.51	180.00	7,343.26	996.27	-900.00	-787.97	9.00	9.00	0.00
8,000.00	88.51	180.00	7,353.68	896.91	-900.00	-690.78	9.00	9.00	0.00
8,014.54	89.82	180.00	7,353.89	882.38	-900.00	-676.56	9.00	9.00	0.00
Top of Production - FITZSIMMONS 13N-9HZ_PHL									
8,100.00	89.82	180.00	7,354.16	796.92	-900.00	-592.96	0.00	0.00	0.00
8,200.00	89.82	180.00	7,354.47	696.92	-900.00	-495.13	0.00	0.00	0.00
8,300.00	89.82	180.00	7,354.79	596.92	-900.00	-397.31	0.00	0.00	0.00
8,400.00	89.82	180.00	7,355.10	496.92	-900.00	-299.48	0.00	0.00	0.00
8,500.00	89.82	180.00	7,355.41	396.92	-900.00	-201.66	0.00	0.00	0.00

Anadarko

Planning Report

Database:	PLANNING	Local Co-ordinate Reference:	Well FITZSIMMONS 13N-9HZ
Company:	US ROCKIES WATTENBERG PLANNING	TVD Reference:	RKB @ 5009.00usft (D Rig)
Project:	WELD-NAD83-UTMFT13N	MD Reference:	RKB @ 5009.00usft (D Rig)
Site:	1N-66W-09 FITZSIMMONS 18-9HZ	North Reference:	True
Well:	FITZSIMMONS 13N-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	89.82	180.00	7,355.73	296.92	-900.00	-103.83	0.00	0.00	0.00
8,700.00	89.82	180.00	7,356.04	196.92	-900.00	-6.00	0.00	0.00	0.00
8,800.00	89.82	180.00	7,356.36	96.92	-900.00	91.82	0.00	0.00	0.00
8,900.00	89.82	180.00	7,356.67	-3.08	-900.00	189.65	0.00	0.00	0.00
9,000.00	89.82	180.00	7,356.99	-103.08	-900.00	287.47	0.00	0.00	0.00
9,100.00	89.82	180.00	7,357.30	-203.08	-900.00	385.30	0.00	0.00	0.00
9,200.00	89.82	180.00	7,357.61	-303.08	-900.00	483.12	0.00	0.00	0.00
9,300.00	89.82	180.00	7,357.93	-403.08	-900.00	580.95	0.00	0.00	0.00
9,400.00	89.82	180.00	7,358.24	-503.08	-900.00	678.78	0.00	0.00	0.00
9,500.00	89.82	180.00	7,358.56	-603.08	-900.00	776.60	0.00	0.00	0.00
9,600.00	89.82	180.00	7,358.87	-703.08	-900.00	874.43	0.00	0.00	0.00
9,700.00	89.82	180.00	7,359.18	-803.08	-900.00	972.25	0.00	0.00	0.00
9,800.00	89.82	180.00	7,359.50	-903.07	-900.00	1,070.08	0.00	0.00	0.00
9,900.00	89.82	180.00	7,359.81	-1,003.07	-900.00	1,167.90	0.00	0.00	0.00
10,000.00	89.82	180.00	7,360.13	-1,103.07	-900.00	1,265.73	0.00	0.00	0.00
10,100.00	89.82	180.00	7,360.44	-1,203.07	-900.00	1,363.56	0.00	0.00	0.00
10,200.00	89.82	180.00	7,360.76	-1,303.07	-900.00	1,461.38	0.00	0.00	0.00
10,300.00	89.82	180.00	7,361.07	-1,403.07	-900.00	1,559.21	0.00	0.00	0.00
10,400.00	89.82	180.00	7,361.38	-1,503.07	-900.00	1,657.03	0.00	0.00	0.00
10,500.00	89.82	180.00	7,361.70	-1,603.07	-900.00	1,754.86	0.00	0.00	0.00
10,600.00	89.82	180.00	7,362.01	-1,703.07	-900.00	1,852.68	0.00	0.00	0.00
10,700.00	89.82	180.00	7,362.33	-1,803.07	-900.00	1,950.51	0.00	0.00	0.00
10,800.00	89.82	180.00	7,362.64	-1,903.07	-900.00	2,048.34	0.00	0.00	0.00
10,900.00	89.82	180.00	7,362.95	-2,003.07	-900.00	2,146.16	0.00	0.00	0.00
11,000.00	89.82	180.00	7,363.27	-2,103.07	-900.00	2,243.99	0.00	0.00	0.00
11,100.00	89.82	180.00	7,363.58	-2,203.07	-900.00	2,341.81	0.00	0.00	0.00
11,200.00	89.82	180.00	7,363.90	-2,303.07	-900.00	2,439.64	0.00	0.00	0.00
11,300.00	89.82	180.00	7,364.21	-2,403.07	-900.00	2,537.46	0.00	0.00	0.00
11,400.00	89.82	180.00	7,364.53	-2,503.07	-900.00	2,635.29	0.00	0.00	0.00
11,500.00	89.82	180.00	7,364.84	-2,603.07	-900.00	2,733.12	0.00	0.00	0.00
11,600.00	89.82	180.00	7,365.15	-2,703.07	-900.00	2,830.94	0.00	0.00	0.00
11,700.00	89.82	180.00	7,365.47	-2,803.07	-900.00	2,928.77	0.00	0.00	0.00
11,800.00	89.82	180.00	7,365.78	-2,903.06	-900.00	3,026.59	0.00	0.00	0.00
11,900.00	89.82	180.00	7,366.10	-3,003.06	-900.00	3,124.42	0.00	0.00	0.00
12,000.00	89.82	180.00	7,366.41	-3,103.06	-900.00	3,222.24	0.00	0.00	0.00
12,100.00	89.82	180.00	7,366.72	-3,203.06	-900.00	3,320.07	0.00	0.00	0.00
12,200.00	89.82	180.00	7,367.04	-3,303.06	-900.00	3,417.90	0.00	0.00	0.00
12,300.00	89.82	180.00	7,367.35	-3,403.06	-900.00	3,515.72	0.00	0.00	0.00
12,400.00	89.82	180.00	7,367.67	-3,503.06	-900.00	3,613.55	0.00	0.00	0.00
12,500.00	89.82	180.00	7,367.98	-3,603.06	-900.00	3,711.37	0.00	0.00	0.00
12,600.00	89.82	180.00	7,368.30	-3,703.06	-900.00	3,809.20	0.00	0.00	0.00
12,700.00	89.82	180.00	7,368.61	-3,803.06	-900.00	3,907.02	0.00	0.00	0.00
12,800.00	89.82	180.00	7,368.92	-3,903.06	-900.00	4,004.85	0.00	0.00	0.00
12,900.00	89.82	180.00	7,369.24	-4,003.06	-900.00	4,102.68	0.00	0.00	0.00
13,000.00	89.82	180.00	7,369.55	-4,103.06	-900.00	4,200.50	0.00	0.00	0.00
13,100.00	89.82	180.00	7,369.87	-4,203.06	-900.00	4,298.33	0.00	0.00	0.00
13,142.61	89.82	180.00	7,370.00	-4,245.67	-900.00	4,340.01	0.00	0.00	0.00
FITZSIMMONS 13N-9HZ_PBHL									

Anadarko

Planning Report

Database:	PLANNING	Local Co-ordinate Reference:	Well FITZSIMMONS 13N-9HZ
Company:	US ROCKIES WATTENBERG PLANNING	TVD Reference:	RKB @ 5009.00usft (D Rig)
Project:	WELD-NAD83-UTMFT13N	MD Reference:	RKB @ 5009.00usft (D Rig)
Site:	1N-66W-09 FITZSIMMONS 18-9HZ	North Reference:	True
Well:	FITZSIMMONS 13N-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 13N-9	0.00	0.00	7,353.89	882.38	-900.00	14,553,265.93	1,699,378.70	40.072671	-104.789236
- plan hits target center									
- Point									
FITZSIMMONS 13N-9	0.00	0.00	7,370.00	-4,245.67	-900.00	14,548,137.90	1,699,391.03	40.058589	-104.789236
- plan hits target center									
- Point									

Casing Points					
	Measured Depth (usft)	Vertical Depth (usft)	Name	Casing Diameter (")	Hole Diameter (")
	1,844.47	1,800.00	9 5/8"	9-5/8	13-1/2
	8,014.54	7,353.89	Top of Production	5-1/2	8-1/2

Formations						
	Measured Depth (usft)	Vertical Depth (usft)	Name	Lithology	Dip (°)	Dip Direction (°)
	1,490.70	1,469.00	Fox Hills			
	5,080.89	4,814.00	Sussex			
	7,469.54	7,133.00	Sharon Springs			
	7,523.03	7,172.00	Niobrara			
	7,706.76	7,280.00	Nio B			
	7,883.29	7,340.00	Nio C			