

# **US ROCKIES WATTENBERG PLANNING**

**WELD-NAD83-UTMFT13N**

**3N-68W-22 Hilgers 16-22HZ Pad**

**HILGERS 34N-22HZ**

**Plan A**

**Plan: Permit Rev-1**

## **Standard Planning Report**

**08 September, 2015**

Project: WELD-NAD83-UTMFT13N  
Site: 3N-68W-22 Hilgers 16-22HZ Pad  
Well: HILGERS 34N-22HZ  
Wellbore: Plan A  
Design: Permit Rev-1

# US ROCKIES WATTENBERG PLANNING

SECTION DETAILS

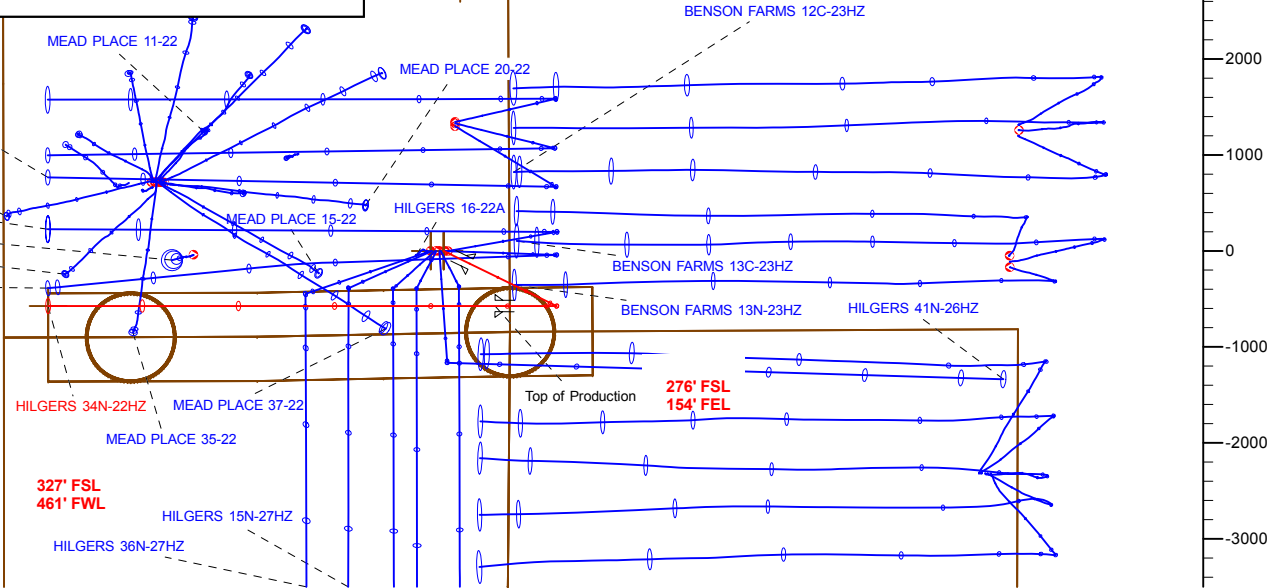
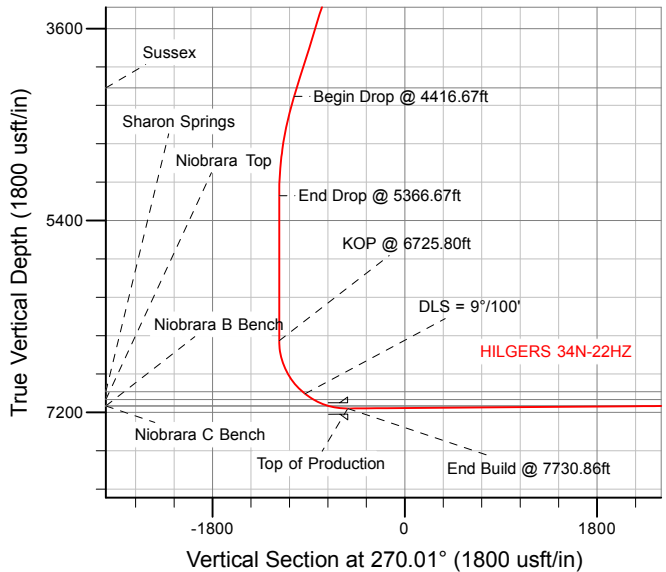
Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VSect	Target
1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
2	250.00	0.00	0.00	250.00	0.00	0.00	0.00	0.00	0.00	
3	1516.67	19.00	116.00	1493.58	-91.23	187.04	1.50	116.00	-187.06	
4	4416.67	19.00	116.00	4235.58	-505.11	1035.64	0.00	0.00	-1035.72	
5	5366.67	0.00	0.00	5168.27	-573.53	1175.92	2.00	-180.00	-1176.02	
6	6725.80	0.00	0.00	6527.40	-573.53	1175.92	0.00	0.00	-1176.02	
7	7730.86	90.46	270.01	7164.00	-573.42	534.23	9.00	270.01	-534.33	
8	12380.56	90.46	270.01	7127.00	-572.61	-4115.32	0.00	0.00	4115.22	HILGERS 34N-22HZ_TOE

WELLBORE TARGET DETAILS (LAT/LONG)

Name	TVD	+N/-S	+E/-W	Latitude	Longitude	Shape
HILGERS 34N-22HZ_SHL	0.00	0.00	0.00	40.206604	-104.981992	Point
HILGERS 34N-22HZ_TOE	7127.00	-572.61	-4115.32	40.205031	-104.996731	Point

West(-)/East(+) (2000 usft/in)

South(-)/North(+) (2000 usft/in)



WELL DETAILS: HILGERS 34N-22HZ

Ground Level: 4999.00

RKB = 17' @ 5016.00usft (D Rig)

Plan: Permit Rev-1 (HILGERS 34N-22HZ/Plan A)

Created By: Clint Eshelman

Date: 9/8/2015

Reviewed: \_\_\_\_\_

Date: \_\_\_\_\_

# Anadarko

## Planning Report

<b>Database:</b>	PLANNING	<b>Local Co-ordinate Reference:</b>	Well HILGERS 34N-22HZ
<b>Company:</b>	US ROCKIES WATTENBERG PLANNING	<b>TVD Reference:</b>	RKB = 17' @ 5016.00usft (D Rig)
<b>Project:</b>	WELD-NAD83-UTMFT13N	<b>MD Reference:</b>	RKB = 17' @ 5016.00usft (D Rig)
<b>Site:</b>	3N-68W-22 Hilgers 16-22HZ Pad	<b>North Reference:</b>	True
<b>Well:</b>	HILGERS 34N-22HZ	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Plan A		
<b>Design:</b>	Permit Rev-1		

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

Site	3N-68W-22 Hilgers 16-22HZ Pad				
Site Position:		Northing:	14,601,968.89 usft	Latitude:	40.206606
From:	Lat/Long	Easting:	1,645,309.73 usft	Longitude:	-104.982475
Position Uncertainty:	0.00 usft	Slot Radius:	13-3/16 "	Grid Convergence:	0.01 °

Well	HILGERS 34N-22HZ					
Well Position	+N/-S	-0.73 usft	Northing:	14,601,968.19 usft	Latitude:	40.206604
	+E/-W	134.86 usft	Easting:	1,645,444.59 usft	Longitude:	-104.981992
Position Uncertainty		3.28 usft	Wellhead Elevation:	0.00 usft	Ground Level:	4,999.00 usft

<b>Wellbore</b>	Plan A				
<b>Magnetics</b>	<b>Model Name</b>	<b>Sample Date</b>	<b>Declination (°)</b>	<b>Dip Angle (°)</b>	<b>Field Strength (nT)</b>
	IGRF2010	9/6/2015	8.39	66.71	52,561

<b>Design</b>	Permit Rev-1			
<b>Audit Notes:</b>				
<b>Version:</b>	<b>Phase:</b>	PROTOTYPE	<b>Tie On Depth:</b>	0.00
<b>Vertical Section:</b>	<b>Depth From (TVD) (usft)</b>	<b>+N/-S (usft)</b>	<b>+E/-W (usft)</b>	<b>Direction (°)</b>
	0.00	0.00	0.00	270.01

<b>Plan Sections</b>										
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	
1,516.67	19.00	116.00	1,493.58	-91.23	187.04	1.50	1.50	0.00	116.00	
4,416.67	19.00	116.00	4,235.58	-505.11	1,035.64	0.00	0.00	0.00	0.00	
5,366.67	0.00	0.00	5,168.27	-573.53	1,175.92	2.00	-2.00	-12.21	-180.00	
6,725.80	0.00	0.00	6,527.40	-573.53	1,175.92	0.00	0.00	0.00	0.00	
7,730.86	90.46	270.01	7,164.00	-573.42	534.23	9.00	9.00	-8.95	270.01	
12,380.56	90.46	270.01	7,127.00	-572.61	-4,115.32	0.00	0.00	0.00	0.00	HILGERS 34N-22HZ_

# Anadarko

## Planning Report

<b>Database:</b>	PLANNING	<b>Local Co-ordinate Reference:</b>	Well HILGERS 34N-22HZ
<b>Company:</b>	US ROCKIES WATTENBERG PLANNING	<b>TVD Reference:</b>	RKB = 17' @ 5016.00usft (D Rig)
<b>Project:</b>	WELD-NAD83-UTMFT13N	<b>MD Reference:</b>	RKB = 17' @ 5016.00usft (D Rig)
<b>Site:</b>	3N-68W-22 Hilgers 16-22HZ Pad	<b>North Reference:</b>	True
<b>Well:</b>	HILGERS 34N-22HZ	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Plan A		
<b>Design:</b>	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
Begin Nudge @ 250.00ft									
300.00	0.75	116.00	300.00	-0.14	0.29	-0.29	1.50	1.50	0.00
316.00	0.99	116.00	316.00	-0.25	0.51	-0.51	1.50	1.50	0.00
Fox Hills									
400.00	2.25	116.00	399.96	-1.29	2.65	-2.65	1.50	1.50	0.00
500.00	3.75	116.00	499.82	-3.59	7.35	-7.35	1.50	1.50	0.00
600.00	5.25	116.00	599.51	-7.02	14.40	-14.40	1.50	1.50	0.00
700.00	6.75	116.00	698.96	-11.61	23.80	-23.80	1.50	1.50	0.00
800.00	8.25	116.00	798.10	-17.33	35.53	-35.53	1.50	1.50	0.00
900.00	9.75	116.00	896.87	-24.19	49.59	-49.59	1.50	1.50	0.00
1,000.00	11.25	116.00	995.19	-32.17	65.97	-65.97	1.50	1.50	0.00
1,100.00	12.75	116.00	1,093.00	-41.29	84.65	-84.66	1.50	1.50	0.00
1,200.00	14.25	116.00	1,190.24	-51.52	105.63	-105.64	1.50	1.50	0.00
1,300.00	15.75	116.00	1,286.83	-62.87	128.90	-128.91	1.50	1.50	0.00
1,400.00	17.25	116.00	1,382.71	-75.32	154.42	-154.44	1.50	1.50	0.00
1,500.00	18.75	116.00	1,477.81	-88.86	182.20	-182.21	1.50	1.50	0.00
1,516.67	19.00	116.00	1,493.58	-91.23	187.04	-187.06	1.50	1.50	0.00
End Nudge @ 1516.67ft									
1,600.00	19.00	116.00	1,572.37	-103.12	211.43	-211.45	0.00	0.00	0.00
1,700.00	19.00	116.00	1,666.92	-117.39	240.69	-240.71	0.00	0.00	0.00
1,800.00	19.00	116.00	1,761.48	-131.66	269.95	-269.97	0.00	0.00	0.00
1,840.74	19.00	116.00	1,800.00	-137.48	281.87	-281.90	0.00	0.00	0.00
9 5/8"									
1,900.00	19.00	116.00	1,856.03	-145.94	299.21	-299.24	0.00	0.00	0.00
2,000.00	19.00	116.00	1,950.58	-160.21	328.47	-328.50	0.00	0.00	0.00
2,100.00	19.00	116.00	2,045.13	-174.48	357.74	-357.77	0.00	0.00	0.00
2,200.00	19.00	116.00	2,139.68	-188.75	387.00	-387.03	0.00	0.00	0.00
2,300.00	19.00	116.00	2,234.24	-203.02	416.26	-416.30	0.00	0.00	0.00
2,400.00	19.00	116.00	2,328.79	-217.30	445.52	-445.56	0.00	0.00	0.00
2,500.00	19.00	116.00	2,423.34	-231.57	474.78	-474.82	0.00	0.00	0.00
2,600.00	19.00	116.00	2,517.89	-245.84	504.05	-504.09	0.00	0.00	0.00
2,700.00	19.00	116.00	2,612.44	-260.11	533.31	-533.35	0.00	0.00	0.00
2,800.00	19.00	116.00	2,706.99	-274.38	562.57	-562.62	0.00	0.00	0.00
2,900.00	19.00	116.00	2,801.55	-288.66	591.83	-591.88	0.00	0.00	0.00
3,000.00	19.00	116.00	2,896.10	-302.93	621.09	-621.15	0.00	0.00	0.00
3,100.00	19.00	116.00	2,990.65	-317.20	650.36	-650.41	0.00	0.00	0.00
3,200.00	19.00	116.00	3,085.20	-331.47	679.62	-679.68	0.00	0.00	0.00
3,300.00	19.00	116.00	3,179.75	-345.74	708.88	-708.94	0.00	0.00	0.00
3,400.00	19.00	116.00	3,274.31	-360.02	738.14	-738.20	0.00	0.00	0.00
3,500.00	19.00	116.00	3,368.86	-374.29	767.40	-767.47	0.00	0.00	0.00
3,600.00	19.00	116.00	3,463.41	-388.56	796.66	-796.73	0.00	0.00	0.00
3,700.00	19.00	116.00	3,557.96	-402.83	825.93	-826.00	0.00	0.00	0.00
3,800.00	19.00	116.00	3,652.51	-417.10	855.19	-855.26	0.00	0.00	0.00
3,900.00	19.00	116.00	3,747.06	-431.38	884.45	-884.53	0.00	0.00	0.00
4,000.00	19.00	116.00	3,841.62	-445.65	913.71	-913.79	0.00	0.00	0.00
4,100.00	19.00	116.00	3,936.17	-459.92	942.97	-943.05	0.00	0.00	0.00
4,200.00	19.00	116.00	4,030.72	-474.19	972.24	-972.32	0.00	0.00	0.00
4,300.00	19.00	116.00	4,125.27	-488.46	1,001.50	-1,001.58	0.00	0.00	0.00
4,332.50	19.00	116.00	4,156.00	-493.10	1,011.01	-1,011.09	0.00	0.00	0.00
Sussex									

# Anadarko

## Planning Report

<b>Database:</b>	PLANNING	<b>Local Co-ordinate Reference:</b>	Well HILGERS 34N-22HZ
<b>Company:</b>	US ROCKIES WATTENBERG PLANNING	<b>TVD Reference:</b>	RKB = 17' @ 5016.00usft (D Rig)
<b>Project:</b>	WELD-NAD83-UTMFT13N	<b>MD Reference:</b>	RKB = 17' @ 5016.00usft (D Rig)
<b>Site:</b>	3N-68W-22 Hilgers 16-22HZ Pad	<b>North Reference:</b>	True
<b>Well:</b>	HILGERS 34N-22HZ	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Plan A		
<b>Design:</b>	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)
4,400.00	19.00	116.00	4,219.82	-502.74	1,030.76	-1,030.85	0.00	0.00	0.00
4,416.67	19.00	116.00	4,235.59	-505.11	1,035.64	-1,035.73	0.00	0.00	0.00
<b>Begin Drop @ 4416.67ft</b>									
4,500.00	17.33	116.00	4,314.76	-516.50	1,058.99	-1,059.08	2.00	-2.00	0.00
4,600.00	15.33	116.00	4,410.72	-528.83	1,084.26	-1,084.36	2.00	-2.00	0.00
4,700.00	13.33	116.00	4,507.60	-539.68	1,106.51	-1,106.61	2.00	-2.00	0.00
4,800.00	11.33	116.00	4,605.29	-549.05	1,125.71	-1,125.81	2.00	-2.00	0.00
4,900.00	9.33	116.00	4,703.66	-556.91	1,141.83	-1,141.93	2.00	-2.00	0.00
5,000.00	7.33	116.00	4,802.60	-563.26	1,154.86	-1,154.96	2.00	-2.00	0.00
5,100.00	5.33	116.00	4,901.99	-568.10	1,164.77	-1,164.87	2.00	-2.00	0.00
5,200.00	3.33	116.00	5,001.69	-571.41	1,171.56	-1,171.66	2.00	-2.00	0.00
5,300.00	1.33	116.00	5,101.61	-573.19	1,175.22	-1,175.32	2.00	-2.00	0.00
5,366.67	0.00	0.00	5,168.27	-573.53	1,175.92	-1,176.02	2.00	-2.00	-173.99
<b>End Drop @ 5366.67ft</b>									
5,400.00	0.00	0.00	5,201.60	-573.53	1,175.92	-1,176.02	0.00	0.00	0.00
5,500.00	0.00	0.00	5,301.60	-573.53	1,175.92	-1,176.02	0.00	0.00	0.00
5,600.00	0.00	0.00	5,401.60	-573.53	1,175.92	-1,176.02	0.00	0.00	0.00
5,700.00	0.00	0.00	5,501.60	-573.53	1,175.92	-1,176.02	0.00	0.00	0.00
5,800.00	0.00	0.00	5,601.60	-573.53	1,175.92	-1,176.02	0.00	0.00	0.00
5,900.00	0.00	0.00	5,701.60	-573.53	1,175.92	-1,176.02	0.00	0.00	0.00
6,000.00	0.00	0.00	5,801.60	-573.53	1,175.92	-1,176.02	0.00	0.00	0.00
6,100.00	0.00	0.00	5,901.60	-573.53	1,175.92	-1,176.02	0.00	0.00	0.00
6,200.00	0.00	0.00	6,001.60	-573.53	1,175.92	-1,176.02	0.00	0.00	0.00
6,300.00	0.00	0.00	6,101.60	-573.53	1,175.92	-1,176.02	0.00	0.00	0.00
6,400.00	0.00	0.00	6,201.60	-573.53	1,175.92	-1,176.02	0.00	0.00	0.00
6,500.00	0.00	0.00	6,301.60	-573.53	1,175.92	-1,176.02	0.00	0.00	0.00
6,600.00	0.00	0.00	6,401.60	-573.53	1,175.92	-1,176.02	0.00	0.00	0.00
6,700.00	0.00	0.00	6,501.60	-573.53	1,175.92	-1,176.02	0.00	0.00	0.00
6,725.80	0.00	0.00	6,527.40	-573.53	1,175.92	-1,176.02	0.00	0.00	0.00
<b>KOP @ 6725.80ft</b>									
6,800.00	6.68	270.01	6,601.43	-573.53	1,171.60	-1,171.70	9.00	9.00	-121.28
6,900.00	15.68	270.01	6,699.43	-573.53	1,152.23	-1,152.33	9.00	9.00	0.00
7,000.00	24.68	270.01	6,793.20	-573.52	1,117.77	-1,117.87	9.00	9.00	0.00
7,100.00	33.68	270.01	6,880.42	-573.52	1,069.07	-1,069.17	9.00	9.00	0.00
7,200.00	42.68	270.01	6,958.95	-573.50	1,007.32	-1,007.42	9.00	9.00	0.00
7,267.11	48.72	270.01	7,005.80	-573.50	959.32	-959.42	9.00	9.00	0.00
<b>Sharon Springs</b>									
7,300.00	51.68	270.01	7,026.85	-573.49	934.05	-934.15	9.00	9.00	0.00
<b>DLS = 9°/100'</b>									
7,396.64	60.38	270.01	7,080.80	-573.48	853.99	-854.09	9.00	9.00	0.00
<b>Niobrara Top</b>									
7,400.00	60.68	270.01	7,082.46	-573.48	851.06	-851.16	9.00	9.00	0.00
7,500.00	69.68	270.01	7,124.39	-573.46	760.39	-760.49	9.00	9.00	0.00
7,547.46	73.95	270.01	7,139.20	-573.45	715.31	-715.41	9.00	9.00	0.00
<b>Niobrara B Bench - Niobrara C Bench</b>									
7,600.00	78.68	270.01	7,151.63	-573.44	664.28	-664.38	9.00	9.00	0.00
7,700.00	87.68	270.01	7,163.49	-573.43	565.09	-565.19	9.00	9.00	0.00
7,730.86	90.46	270.01	7,164.00	-573.42	534.24	-534.34	9.00	9.00	0.00
<b>End Build @ 7730.86ft - Top of Production</b>									
7,800.00	90.46	270.01	7,163.45	-573.41	465.10	-465.20	0.00	0.00	0.00
7,900.00	90.46	270.01	7,162.65	-573.39	365.10	-365.20	0.00	0.00	0.00
8,000.00	90.46	270.01	7,161.86	-573.37	265.10	-265.20	0.00	0.00	0.00
8,100.00	90.46	270.01	7,161.06	-573.36	165.11	-165.21	0.00	0.00	0.00

# Anadarko

## Planning Report

<b>Database:</b>	PLANNING	<b>Local Co-ordinate Reference:</b>	Well HILGERS 34N-22HZ
<b>Company:</b>	US ROCKIES WATTENBERG PLANNING	<b>TVD Reference:</b>	RKB = 17' @ 5016.00usft (D Rig)
<b>Project:</b>	WELD-NAD83-UTMFT13N	<b>MD Reference:</b>	RKB = 17' @ 5016.00usft (D Rig)
<b>Site:</b>	3N-68W-22 Hilgers 16-22HZ Pad	<b>North Reference:</b>	True
<b>Well:</b>	HILGERS 34N-22HZ	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Plan A		
<b>Design:</b>	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)
8,200.00	90.46	270.01	7,160.26	-573.34	65.11	-65.21	0.00	0.00	0.00
8,300.00	90.46	270.01	7,159.47	-573.32	-34.89	34.79	0.00	0.00	0.00
8,400.00	90.46	270.01	7,158.67	-573.30	-134.88	134.78	0.00	0.00	0.00
8,500.00	90.46	270.01	7,157.88	-573.29	-234.88	234.78	0.00	0.00	0.00
8,600.00	90.46	270.01	7,157.08	-573.27	-334.88	334.78	0.00	0.00	0.00
8,700.00	90.46	270.01	7,156.29	-573.25	-434.87	434.77	0.00	0.00	0.00
8,800.00	90.46	270.01	7,155.49	-573.24	-534.87	534.77	0.00	0.00	0.00
8,900.00	90.46	270.01	7,154.69	-573.22	-634.87	634.77	0.00	0.00	0.00
9,000.00	90.46	270.01	7,153.90	-573.20	-734.86	734.76	0.00	0.00	0.00
9,100.00	90.46	270.01	7,153.10	-573.18	-834.86	834.76	0.00	0.00	0.00
9,200.00	90.46	270.01	7,152.31	-573.17	-934.86	934.76	0.00	0.00	0.00
9,300.00	90.46	270.01	7,151.51	-573.15	-1,034.85	1,034.75	0.00	0.00	0.00
9,400.00	90.46	270.01	7,150.72	-573.13	-1,134.85	1,134.75	0.00	0.00	0.00
9,500.00	90.46	270.01	7,149.92	-573.11	-1,234.85	1,234.75	0.00	0.00	0.00
9,600.00	90.46	270.01	7,149.12	-573.10	-1,334.85	1,334.75	0.00	0.00	0.00
9,700.00	90.46	270.01	7,148.33	-573.08	-1,434.84	1,434.74	0.00	0.00	0.00
9,800.00	90.46	270.01	7,147.53	-573.06	-1,534.84	1,534.74	0.00	0.00	0.00
9,900.00	90.46	270.01	7,146.74	-573.04	-1,634.84	1,634.74	0.00	0.00	0.00
10,000.00	90.46	270.01	7,145.94	-573.03	-1,734.83	1,734.73	0.00	0.00	0.00
10,100.00	90.46	270.01	7,145.15	-573.01	-1,834.83	1,834.73	0.00	0.00	0.00
10,200.00	90.46	270.01	7,144.35	-572.99	-1,934.83	1,934.73	0.00	0.00	0.00
10,300.00	90.46	270.01	7,143.55	-572.97	-2,034.82	2,034.72	0.00	0.00	0.00
10,400.00	90.46	270.01	7,142.76	-572.96	-2,134.82	2,134.72	0.00	0.00	0.00
10,500.00	90.46	270.01	7,141.96	-572.94	-2,234.82	2,234.72	0.00	0.00	0.00
10,600.00	90.46	270.01	7,141.17	-572.92	-2,334.81	2,334.71	0.00	0.00	0.00
10,700.00	90.46	270.01	7,140.37	-572.90	-2,434.81	2,434.71	0.00	0.00	0.00
10,800.00	90.46	270.01	7,139.58	-572.89	-2,534.81	2,534.71	0.00	0.00	0.00
10,900.00	90.46	270.01	7,138.78	-572.87	-2,634.80	2,634.70	0.00	0.00	0.00
11,000.00	90.46	270.01	7,137.98	-572.85	-2,734.80	2,734.70	0.00	0.00	0.00
11,100.00	90.46	270.01	7,137.19	-572.83	-2,834.80	2,834.70	0.00	0.00	0.00
11,200.00	90.46	270.01	7,136.39	-572.82	-2,934.79	2,934.69	0.00	0.00	0.00
11,300.00	90.46	270.01	7,135.60	-572.80	-3,034.79	3,034.69	0.00	0.00	0.00
11,400.00	90.46	270.01	7,134.80	-572.78	-3,134.79	3,134.69	0.00	0.00	0.00
11,500.00	90.46	270.01	7,134.01	-572.76	-3,234.79	3,234.69	0.00	0.00	0.00
11,600.00	90.46	270.01	7,133.21	-572.75	-3,334.78	3,334.68	0.00	0.00	0.00
11,700.00	90.46	270.01	7,132.42	-572.73	-3,434.78	3,434.68	0.00	0.00	0.00
11,800.00	90.46	270.01	7,131.62	-572.71	-3,534.78	3,534.68	0.00	0.00	0.00
11,900.00	90.46	270.01	7,130.82	-572.69	-3,634.77	3,634.67	0.00	0.00	0.00
12,000.00	90.46	270.01	7,130.03	-572.68	-3,734.77	3,734.67	0.00	0.00	0.00
12,100.00	90.46	270.01	7,129.23	-572.66	-3,834.77	3,834.67	0.00	0.00	0.00
12,200.00	90.46	270.01	7,128.44	-572.64	-3,934.76	3,934.66	0.00	0.00	0.00
12,300.00	90.46	270.01	7,127.64	-572.62	-4,034.76	4,034.66	0.00	0.00	0.00
12,380.56	90.46	270.01	7,127.00	-572.61	-4,115.32	4,115.22	0.00	0.00	0.00
TD Well @ 12380.56ft									

# Anadarko

## Planning Report

<b>Database:</b>	PLANNING	<b>Local Co-ordinate Reference:</b>	Well HILGERS 34N-22HZ
<b>Company:</b>	US ROCKIES WATTENBERG PLANNING	<b>TVD Reference:</b>	RKB = 17' @ 5016.00usft (D Rig)
<b>Project:</b>	WELD-NAD83-UTMFT13N	<b>MD Reference:</b>	RKB = 17' @ 5016.00usft (D Rig)
<b>Site:</b>	3N-68W-22 Hilgers 16-22HZ Pad	<b>North Reference:</b>	True
<b>Well:</b>	HILGERS 34N-22HZ	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Plan A		
<b>Design:</b>	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)		
HILGERS 34N-22HZ_St	0.00	0.00	0.00	0.00	0.00	14,601,968.19	1,645,444.59	40.206604	-104.981992
- plan hits target center									
- Point									
3N-R68W-Sec. 27_Secti	0.00	0.00	0.00	0.73	-134.86	14,601,968.89	1,645,309.73	40.206606	-104.982475
- plan misses target center by 134.86usft at 0.00usft MD (0.00 TVD, 0.00 N, 0.00 E)									
- Polygon									
Point 1			0.00	-901.61	-4,440.91	14,601,066.38	1,640,869.01		
Point 2			0.00	-893.57	-1,805.40	14,601,074.96	1,643,504.51		
Point 3			0.00	-845.64	823.41	14,601,123.42	1,646,133.31		
Point 4			0.00	-3,498.41	802.83	14,598,470.65	1,646,113.27		
Point 5			0.00	-6,154.53	782.53	14,595,814.52	1,646,093.51		
Point 6			0.00	-6,204.04	-4,436.84	14,595,763.95	1,640,874.15		
HILGERS 34N-22HZ_46	0.00	0.00	0.00	0.00	0.00	14,601,968.19	1,645,444.59	40.206604	-104.981992
- plan hits target center									
- Polygon									
Point 1			0.00	-429.17	-3,254.61	14,601,538.36	1,642,190.07		
Point 2			0.00	-430.45	-3,220.24	14,601,537.09	1,642,224.44		
Point 3			0.00	-434.37	-3,185.31	14,601,533.18	1,642,259.37		
Point 4			0.00	-440.89	-3,150.77	14,601,526.66	1,642,293.91		
Point 5			0.00	-449.96	-3,116.81	14,601,517.60	1,642,327.87		
Point 6			0.00	-461.55	-3,083.64	14,601,506.02	1,642,361.04		
Point 7			0.00	-475.59	-3,051.41	14,601,491.98	1,642,393.28		
Point 8			0.00	-491.99	-3,020.32	14,601,475.59	1,642,424.37		
Point 9			0.00	-510.67	-2,990.56	14,601,456.92	1,642,454.13		
Point 10			0.00	-531.52	-2,962.26	14,601,436.07	1,642,482.44		
Point 11			0.00	-554.44	-2,935.61	14,601,413.16	1,642,509.09		
Point 12			0.00	-579.28	-2,910.74	14,601,388.32	1,642,533.97		
Point 13			0.00	-605.90	-2,887.81	14,601,361.71	1,642,556.90		
Point 14			0.00	-634.16	-2,866.91	14,601,333.45	1,642,577.81		
Point 15			0.00	-663.92	-2,848.20	14,601,303.69	1,642,596.52		
Point 16			0.00	-694.98	-2,831.75	14,601,272.64	1,642,612.98		
Point 17			0.00	-727.18	-2,817.68	14,601,240.44	1,642,627.06		
Point 18			0.00	-760.36	-2,806.06	14,601,207.26	1,642,638.68		
Point 19			0.00	-794.30	-2,796.93	14,601,173.32	1,642,647.82		
Point 20			0.00	-828.83	-2,790.38	14,601,138.80	1,642,654.38		
Point 21			0.00	-863.75	-2,786.43	14,601,103.88	1,642,658.33		
Point 22			0.00	-898.88	-2,785.08	14,601,068.75	1,642,659.69		
Point 23			0.00	-934.00	-2,786.38	14,601,033.63	1,642,658.40		
Point 24			0.00	-968.93	-2,790.30	14,600,998.70	1,642,654.49		
Point 25			0.00	-1,003.47	-2,796.82	14,600,964.15	1,642,647.97		
Point 26			0.00	-1,037.42	-2,805.88	14,600,930.20	1,642,638.92		
Point 27			0.00	-1,070.60	-2,817.48	14,600,897.02	1,642,627.33		
Point 28			0.00	-1,102.82	-2,831.52	14,600,864.80	1,642,613.29		
Point 29			0.00	-1,133.91	-2,847.91	14,600,833.70	1,642,596.91		
Point 30			0.00	-1,163.68	-2,866.60	14,600,803.93	1,642,578.22		
Point 31			0.00	-1,191.97	-2,887.45	14,600,775.64	1,642,557.38		
Point 32			0.00	-1,218.63	-2,910.36	14,600,748.97	1,642,534.48		
Point 33			0.00	-1,243.49	-2,935.20	14,600,724.11	1,642,509.64		
Point 34			0.00	-1,266.43	-2,961.83	14,600,701.16	1,642,483.02		
Point 35			0.00	-1,287.33	-2,990.09	14,600,680.26	1,642,454.76		
Point 36			0.00	-1,306.04	-3,019.85	14,600,661.54	1,642,425.00		
Point 37			0.00	-1,322.49	-3,050.91	14,600,645.08	1,642,393.95		
Point 38			0.00	-1,336.56	-3,083.11	14,600,631.01	1,642,361.75		
Point 39			0.00	-1,348.18	-3,116.29	14,600,619.38	1,642,328.57		
Point 40			0.00	-1,357.31	-3,150.23	14,600,610.24	1,642,294.63		
Point 41			0.00	-1,363.86	-3,184.76	14,600,603.69	1,642,260.11		
Point 42			0.00	-1,367.81	-3,219.68	14,600,599.73	1,642,225.19		



# Anadarko

## Planning Report

<b>Database:</b>	PLANNING	<b>Local Co-ordinate Reference:</b>	Well HILGERS 34N-22HZ
<b>Company:</b>	US ROCKIES WATTENBERG PLANNING	<b>TVD Reference:</b>	RKB = 17' @ 5016.00usft (D Rig)
<b>Project:</b>	WELD-NAD83-UTMFT13N	<b>MD Reference:</b>	RKB = 17' @ 5016.00usft (D Rig)
<b>Site:</b>	3N-68W-22 Hilgers 16-22HZ Pad	<b>North Reference:</b>	True
<b>Well:</b>	HILGERS 34N-22HZ	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Plan A		
<b>Design:</b>	Permit Rev-1		

Point 43	0.00	-1,369.17	-3,255.18	14,600,598.36	1,642,189.69
Point 44	0.00	-1,367.86	-3,289.93	14,600,599.66	1,642,154.94
Point 45	0.00	-1,363.94	-3,324.86	14,600,603.58	1,642,120.01
Point 46	0.00	-1,357.42	-3,359.40	14,600,610.09	1,642,085.46
Point 47	0.00	-1,348.35	-3,393.35	14,600,619.15	1,642,051.51
Point 48	0.00	-1,336.76	-3,426.53	14,600,630.74	1,642,018.33
Point 49	0.00	-1,322.72	-3,458.75	14,600,644.77	1,641,986.11
Point 50	0.00	-1,306.32	-3,489.84	14,600,661.16	1,641,955.01
Point 51	0.00	-1,287.64	-3,519.61	14,600,679.84	1,641,925.24
Point 52	0.00	-1,266.79	-3,547.90	14,600,700.68	1,641,896.95
Point 53	0.00	-1,243.87	-3,574.55	14,600,723.60	1,641,870.29
Point 54	0.00	-1,219.04	-3,599.42	14,600,748.42	1,641,845.42
Point 55	0.00	-1,192.41	-3,622.36	14,600,775.05	1,641,822.47
Point 56	0.00	-1,164.14	-3,643.25	14,600,803.31	1,641,801.58
Point 57	0.00	-1,134.39	-3,661.97	14,600,833.06	1,641,782.85
Point 58	0.00	-1,103.33	-3,678.41	14,600,864.12	1,641,766.40
Point 59	0.00	-1,071.13	-3,692.49	14,600,896.31	1,641,752.32
Point 60	0.00	-1,037.95	-3,704.11	14,600,929.49	1,641,740.69
Point 61	0.00	-1,004.01	-3,713.23	14,600,963.43	1,641,731.56
Point 62	0.00	-969.48	-3,719.79	14,600,997.96	1,641,725.00
Point 63	0.00	-934.55	-3,723.74	14,601,032.89	1,641,721.04
Point 64	0.00	-899.43	-3,725.07	14,601,068.01	1,641,719.70
Point 65	0.00	-864.31	-3,723.78	14,601,103.13	1,641,720.98
Point 66	0.00	-829.38	-3,719.87	14,601,138.06	1,641,724.89
Point 67	0.00	-794.84	-3,713.35	14,601,172.60	1,641,731.40
Point 68	0.00	-760.88	-3,704.28	14,601,206.56	1,641,740.46
Point 69	0.00	-727.71	-3,692.69	14,601,239.73	1,641,752.05
Point 70	0.00	-695.48	-3,678.65	14,601,271.97	1,641,766.08
Point 71	0.00	-664.40	-3,662.25	14,601,303.05	1,641,782.47
Point 72	0.00	-634.63	-3,643.56	14,601,332.82	1,641,801.16
Point 73	0.00	-606.34	-3,622.72	14,601,361.12	1,641,821.99
Point 74	0.00	-579.69	-3,599.80	14,601,387.77	1,641,844.91
Point 75	0.00	-554.81	-3,574.96	14,601,412.66	1,641,869.74
Point 76	0.00	-531.88	-3,548.34	14,601,435.59	1,641,896.36
Point 77	0.00	-510.98	-3,520.07	14,601,456.50	1,641,924.62
Point 78	0.00	-492.27	-3,490.32	14,601,475.21	1,641,954.37
Point 79	0.00	-475.82	-3,459.26	14,601,491.67	1,641,985.43
Point 80	0.00	-461.75	-3,427.05	14,601,505.75	1,642,017.63
Point 81	0.00	-450.13	-3,393.88	14,601,517.37	1,642,050.80
Point 82	0.00	-441.00	-3,359.94	14,601,526.51	1,642,084.74
Point 83	0.00	-434.45	-3,325.41	14,601,533.07	1,642,119.27
Point 84	0.00	-430.50	-3,290.48	14,601,537.02	1,642,154.20
Point 85	0.00	-429.17	-3,255.36	14,601,538.36	1,642,189.32
Point 86	0.00	-449.15	-3,254.61	14,601,518.38	1,642,190.07
Point 87	0.00	-450.37	-3,288.24	14,601,517.15	1,642,156.44
Point 88	0.00	-454.10	-3,321.69	14,601,513.42	1,642,122.99
Point 89	0.00	-460.32	-3,354.77	14,601,507.19	1,642,089.91
Point 90	0.00	-469.00	-3,387.28	14,601,498.50	1,642,057.40
Point 91	0.00	-480.08	-3,419.06	14,601,487.42	1,642,025.63
Point 92	0.00	-493.51	-3,449.91	14,601,473.98	1,641,994.78
Point 93	0.00	-509.20	-3,479.69	14,601,458.29	1,641,965.00
Point 94	0.00	-527.08	-3,508.20	14,601,440.40	1,641,936.50
Point 95	0.00	-547.04	-3,535.29	14,601,420.43	1,641,909.41
Point 96	0.00	-568.96	-3,560.83	14,601,398.51	1,641,883.87
Point 97	0.00	-592.73	-3,584.64	14,601,374.73	1,641,860.07
Point 98	0.00	-618.21	-3,606.62	14,601,349.25	1,641,838.09
Point 99	0.00	-645.27	-3,626.63	14,601,322.19	1,641,818.09
Point 100	0.00	-673.75	-3,644.57	14,601,293.70	1,641,800.16
Point 101	0.00	-703.48	-3,660.32	14,601,263.97	1,641,784.41
Point 102	0.00	-734.32	-3,673.81	14,601,233.13	1,641,770.93
Point 103	0.00	-766.07	-3,684.96	14,601,201.37	1,641,759.78
Point 104	0.00	-798.57	-3,693.70	14,601,168.87	1,641,751.05
Point 105	0.00	-831.62	-3,699.99	14,601,135.82	1,641,744.77
Point 106	0.00	-865.06	-3,703.80	14,601,102.38	1,641,740.96



# Anadarko

## Planning Report

<b>Database:</b>	PLANNING	<b>Local Co-ordinate Reference:</b>	Well HILGERS 34N-22HZ
<b>Company:</b>	US ROCKIES WATTENBERG PLANNING	<b>TVD Reference:</b>	RKB = 17' @ 5016.00usft (D Rig)
<b>Project:</b>	WELD-NAD83-UTMFT13N	<b>MD Reference:</b>	RKB = 17' @ 5016.00usft (D Rig)
<b>Site:</b>	3N-68W-22 Hilgers 16-22HZ Pad	<b>North Reference:</b>	True
<b>Well:</b>	HILGERS 34N-22HZ	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Plan A		
<b>Design:</b>	Permit Rev-1		

Point 107	0.00	-898.69	-3,705.08	14,601,068.75	1,641,739.69
Point 108	0.00	-932.32	-3,703.86	14,601,035.12	1,641,740.92
Point 109	0.00	-965.76	-3,700.13	14,601,001.68	1,641,744.65
Point 110	0.00	-998.84	-3,693.91	14,600,968.60	1,641,750.88
Point 111	0.00	-1,031.35	-3,685.23	14,600,936.09	1,641,759.57
Point 112	0.00	-1,063.13	-3,674.15	14,600,904.32	1,641,770.65
Point 113	0.00	-1,093.98	-3,660.72	14,600,873.47	1,641,784.09
Point 114	0.00	-1,123.76	-3,645.03	14,600,843.69	1,641,799.79
Point 115	0.00	-1,152.27	-3,627.16	14,600,815.19	1,641,817.66
Point 116	0.00	-1,179.36	-3,607.20	14,600,788.10	1,641,837.63
Point 117	0.00	-1,204.90	-3,585.28	14,600,762.56	1,641,859.55
Point 118	0.00	-1,228.71	-3,561.50	14,600,738.76	1,641,883.34
Point 119	0.00	-1,250.70	-3,536.02	14,600,716.77	1,641,908.82
Point 120	0.00	-1,270.70	-3,508.96	14,600,696.78	1,641,935.89
Point 121	0.00	-1,288.64	-3,480.48	14,600,678.85	1,641,964.37
Point 122	0.00	-1,304.40	-3,450.76	14,600,663.09	1,641,994.09
Point 123	0.00	-1,317.88	-3,419.92	14,600,649.62	1,642,024.94
Point 124	0.00	-1,329.03	-3,388.17	14,600,638.47	1,642,056.69
Point 125	0.00	-1,337.77	-3,355.67	14,600,629.74	1,642,089.19
Point 126	0.00	-1,344.06	-3,322.61	14,600,623.46	1,642,122.25
Point 127	0.00	-1,347.87	-3,289.18	14,600,619.65	1,642,155.68
Point 128	0.00	-1,349.15	-3,255.18	14,600,618.38	1,642,189.68
Point 129	0.00	-1,347.94	-3,221.92	14,600,619.60	1,642,222.94
Point 130	0.00	-1,344.21	-3,188.47	14,600,623.34	1,642,256.39
Point 131	0.00	-1,337.99	-3,155.40	14,600,629.56	1,642,289.46
Point 132	0.00	-1,329.30	-3,122.88	14,600,638.26	1,642,321.98
Point 133	0.00	-1,318.23	-3,091.11	14,600,649.33	1,642,353.75
Point 134	0.00	-1,304.79	-3,060.25	14,600,662.78	1,642,384.60
Point 135	0.00	-1,289.10	-3,030.48	14,600,678.48	1,642,414.37
Point 136	0.00	-1,271.23	-3,001.97	14,600,696.35	1,642,442.88
Point 137	0.00	-1,251.27	-2,974.88	14,600,716.32	1,642,469.96
Point 138	0.00	-1,229.35	-2,949.34	14,600,738.24	1,642,495.50
Point 139	0.00	-1,205.58	-2,925.52	14,600,762.02	1,642,519.31
Point 140	0.00	-1,180.10	-2,903.54	14,600,787.50	1,642,541.29
Point 141	0.00	-1,153.04	-2,883.53	14,600,814.57	1,642,561.29
Point 142	0.00	-1,124.56	-2,865.60	14,600,843.05	1,642,579.22
Point 143	0.00	-1,094.83	-2,849.84	14,600,872.78	1,642,594.97
Point 144	0.00	-1,063.99	-2,836.35	14,600,903.63	1,642,608.45
Point 145	0.00	-1,032.24	-2,825.20	14,600,935.38	1,642,619.60
Point 146	0.00	-999.74	-2,816.46	14,600,967.88	1,642,628.33
Point 147	0.00	-966.69	-2,810.17	14,601,000.93	1,642,634.61
Point 148	0.00	-933.25	-2,806.37	14,601,034.37	1,642,638.41
Point 149	0.00	-899.62	-2,805.07	14,601,068.00	1,642,639.70
Point 150	0.00	-865.99	-2,806.30	14,601,101.63	1,642,638.46
Point 151	0.00	-832.55	-2,810.03	14,601,135.07	1,642,634.73
Point 152	0.00	-799.47	-2,816.25	14,601,168.15	1,642,628.50
Point 153	0.00	-766.95	-2,824.93	14,601,200.67	1,642,619.81
Point 154	0.00	-735.18	-2,836.01	14,601,232.44	1,642,608.73
Point 155	0.00	-704.33	-2,849.44	14,601,263.28	1,642,595.29
Point 156	0.00	-674.55	-2,865.13	14,601,293.06	1,642,579.60
Point 157	0.00	-646.04	-2,883.00	14,601,321.57	1,642,561.72
Point 158	0.00	-618.95	-2,902.96	14,601,348.65	1,642,541.75
Point 159	0.00	-593.41	-2,924.88	14,601,374.19	1,642,519.83
Point 160	0.00	-569.60	-2,948.66	14,601,397.99	1,642,496.04
Point 161	0.00	-547.61	-2,974.14	14,601,419.98	1,642,470.56
Point 162	0.00	-527.61	-3,001.20	14,601,439.97	1,642,443.50
Point 163	0.00	-509.67	-3,029.68	14,601,457.91	1,642,415.01
Point 164	0.00	-493.91	-3,059.41	14,601,473.66	1,642,385.28
Point 165	0.00	-480.43	-3,090.24	14,601,487.13	1,642,354.45
Point 166	0.00	-469.28	-3,122.00	14,601,498.28	1,642,322.68
Point 167	0.00	-460.54	-3,154.50	14,601,507.01	1,642,290.18
Point 168	0.00	-454.24	-3,187.55	14,601,513.31	1,642,257.13
Point 169	0.00	-450.44	-3,220.99	14,601,517.10	1,642,223.69
Point 170	0.00	-449.15	-3,255.36	14,601,518.38	1,642,189.32

# Anadarko

## Planning Report

<b>Database:</b>	PLANNING	<b>Local Co-ordinate Reference:</b>	Well HILGERS 34N-22HZ
<b>Company:</b>	US ROCKIES WATTENBERG PLANNING	<b>TVD Reference:</b>	RKB = 17' @ 5016.00usft (D Rig)
<b>Project:</b>	WELD-NAD83-UTMFT13N	<b>MD Reference:</b>	RKB = 17' @ 5016.00usft (D Rig)
<b>Site:</b>	3N-68W-22 Hilgers 16-22HZ Pad	<b>North Reference:</b>	True
<b>Well:</b>	HILGERS 34N-22HZ	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Plan A		
<b>Design:</b>	Permit Rev-1		

Point 171			0.00	-429.17	-3,254.61	14,601,538.36	1,642,190.07		
HILGERS 34N-22HZ_46	0.00	0.00	0.00	0.00	0.00	14,601,968.19	1,645,444.59	40.206604	-104.981992
- plan hits target center									
- Polygon									
Point 1			0.00	-374.24	691.87	14,601,594.09	1,646,136.53		
Point 2			0.00	-375.52	726.25	14,601,592.82	1,646,170.92		
Point 3			0.00	-379.44	761.18	14,601,588.91	1,646,205.85		
Point 4			0.00	-385.96	795.72	14,601,582.39	1,646,240.39		
Point 5			0.00	-395.03	829.67	14,601,573.33	1,646,274.34		
Point 6			0.00	-406.62	862.86	14,601,561.75	1,646,307.53		
Point 7			0.00	-420.66	895.07	14,601,547.71	1,646,339.74		
Point 8			0.00	-437.06	926.16	14,601,531.32	1,646,370.84		
Point 9			0.00	-455.74	955.94	14,601,512.65	1,646,400.62		
Point 10			0.00	-476.60	984.22	14,601,491.79	1,646,428.91		
Point 11			0.00	-499.51	1,010.88	14,601,468.89	1,646,455.57		
Point 12			0.00	-524.35	1,035.74	14,601,444.05	1,646,480.44		
Point 13			0.00	-550.97	1,058.69	14,601,417.44	1,646,503.39		
Point 14			0.00	-579.23	1,079.57	14,601,389.18	1,646,524.28		
Point 15			0.00	-608.99	1,098.29	14,601,359.42	1,646,543.00		
Point 16			0.00	-640.05	1,114.74	14,601,328.37	1,646,559.46		
Point 17			0.00	-672.25	1,128.81	14,601,296.17	1,646,573.54		
Point 18			0.00	-705.43	1,140.43	14,601,262.99	1,646,585.16		
Point 19			0.00	-739.37	1,149.55	14,601,229.06	1,646,594.29		
Point 20			0.00	-773.90	1,156.11	14,601,194.53	1,646,600.86		
Point 21			0.00	-808.82	1,160.06	14,601,159.61	1,646,604.81		
Point 22			0.00	-843.95	1,161.40	14,601,124.48	1,646,606.16		
Point 23			0.00	-879.07	1,160.11	14,601,089.36	1,646,604.88		
Point 24			0.00	-914.00	1,156.19	14,601,054.43	1,646,600.96		
Point 25			0.00	-948.54	1,149.68	14,601,019.89	1,646,594.46		
Point 26			0.00	-982.49	1,140.60	14,600,985.93	1,646,585.39		
Point 27			0.00	-1,015.67	1,129.01	14,600,952.75	1,646,573.80		
Point 28			0.00	-1,047.89	1,114.98	14,600,920.53	1,646,559.78		
Point 29			0.00	-1,078.98	1,098.57	14,600,889.43	1,646,543.38		
Point 30			0.00	-1,108.75	1,079.89	14,600,859.66	1,646,524.70		
Point 31			0.00	-1,137.04	1,059.04	14,600,831.37	1,646,503.86		
Point 32			0.00	-1,163.70	1,036.12	14,600,804.70	1,646,480.94		
Point 33			0.00	-1,188.56	1,011.29	14,600,779.84	1,646,456.12		
Point 34			0.00	-1,211.51	984.66	14,600,756.88	1,646,429.49		
Point 35			0.00	-1,232.40	956.39	14,600,735.99	1,646,401.23		
Point 36			0.00	-1,251.11	926.64	14,600,717.27	1,646,371.48		
Point 37			0.00	-1,267.56	895.58	14,600,700.81	1,646,340.43		
Point 38			0.00	-1,281.63	863.37	14,600,686.74	1,646,308.22		
Point 39			0.00	-1,293.25	830.21	14,600,675.11	1,646,275.06		
Point 40			0.00	-1,302.38	796.26	14,600,665.97	1,646,241.11		
Point 41			0.00	-1,308.93	761.73	14,600,659.42	1,646,206.58		
Point 42			0.00	-1,312.88	726.80	14,600,655.46	1,646,171.66		
Point 43			0.00	-1,314.24	691.31	14,600,654.09	1,646,136.17		
Point 44			0.00	-1,312.93	656.56	14,600,655.40	1,646,101.42		
Point 45			0.00	-1,309.01	621.63	14,600,659.31	1,646,066.48		
Point 46			0.00	-1,302.49	587.09	14,600,665.82	1,646,031.94		
Point 47			0.00	-1,293.42	553.14	14,600,674.88	1,645,997.99		
Point 48			0.00	-1,281.83	519.96	14,600,686.47	1,645,964.81		
Point 49			0.00	-1,267.79	487.73	14,600,700.50	1,645,932.58		
Point 50			0.00	-1,251.39	456.65	14,600,716.89	1,645,901.49		
Point 51			0.00	-1,232.71	426.88	14,600,735.57	1,645,871.72		
Point 52			0.00	-1,211.86	398.59	14,600,756.41	1,645,843.42		
Point 53			0.00	-1,188.94	371.94	14,600,779.33	1,645,816.77		
Point 54			0.00	-1,164.11	347.06	14,600,804.15	1,645,791.89		
Point 55			0.00	-1,137.48	324.13	14,600,830.78	1,645,768.95		
Point 56			0.00	-1,109.21	303.23	14,600,859.04	1,645,748.04		
Point 57			0.00	-1,079.46	284.52	14,600,888.79	1,645,729.33		
Point 58			0.00	-1,048.40	268.08	14,600,919.85	1,645,712.88		
Point 59			0.00	-1,016.20	254.00	14,600,952.04	1,645,698.80		

# Anadarko

## Planning Report

<b>Database:</b>	PLANNING	<b>Local Co-ordinate Reference:</b>	Well HILGERS 34N-22HZ
<b>Company:</b>	US ROCKIES WATTENBERG PLANNING	<b>TVD Reference:</b>	RKB = 17' @ 5016.00usft (D Rig)
<b>Project:</b>	WELD-NAD83-UTMFT13N	<b>MD Reference:</b>	RKB = 17' @ 5016.00usft (D Rig)
<b>Site:</b>	3N-68W-22 Hilgers 16-22HZ Pad	<b>North Reference:</b>	True
<b>Well:</b>	HILGERS 34N-22HZ	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Plan A		
<b>Design:</b>	Permit Rev-1		

Point 60	0.00	-983.02	242.38	14,600,985.22	1,645,687.17
Point 61	0.00	-949.08	233.26	14,601,019.16	1,645,678.04
Point 62	0.00	-914.55	226.70	14,601,053.69	1,645,671.47
Point 63	0.00	-879.62	222.75	14,601,088.62	1,645,667.52
Point 64	0.00	-844.50	221.42	14,601,123.74	1,645,666.18
Point 65	0.00	-809.38	222.70	14,601,158.86	1,645,667.45
Point 66	0.00	-774.45	226.62	14,601,193.79	1,645,671.37
Point 67	0.00	-739.91	233.14	14,601,228.33	1,645,677.88
Point 68	0.00	-705.95	242.21	14,601,262.29	1,645,686.94
Point 69	0.00	-672.78	253.80	14,601,295.46	1,645,698.53
Point 70	0.00	-640.55	267.84	14,601,327.70	1,645,712.56
Point 71	0.00	-609.47	284.24	14,601,358.78	1,645,728.95
Point 72	0.00	-579.70	302.92	14,601,388.55	1,645,747.63
Point 73	0.00	-551.41	323.78	14,601,416.85	1,645,768.48
Point 74	0.00	-524.76	346.69	14,601,443.50	1,645,791.39
Point 75	0.00	-499.88	371.53	14,601,468.39	1,645,816.22
Point 76	0.00	-476.95	398.15	14,601,491.32	1,645,842.84
Point 77	0.00	-456.05	426.42	14,601,512.23	1,645,871.10
Point 78	0.00	-437.34	456.17	14,601,530.94	1,645,900.85
Point 79	0.00	-420.89	487.23	14,601,547.40	1,645,931.90
Point 80	0.00	-406.82	519.44	14,601,561.48	1,645,964.11
Point 81	0.00	-395.20	552.61	14,601,573.10	1,645,997.28
Point 82	0.00	-386.07	586.55	14,601,582.24	1,646,031.22
Point 83	0.00	-379.52	621.08	14,601,588.80	1,646,065.75
Point 84	0.00	-375.57	656.00	14,601,592.76	1,646,100.67
Point 85	0.00	-374.24	691.12	14,601,594.09	1,646,135.78
Point 86	0.00	-394.22	691.87	14,601,574.11	1,646,136.54
Point 87	0.00	-395.44	658.24	14,601,572.89	1,646,102.91
Point 88	0.00	-399.17	624.80	14,601,569.15	1,646,069.47
Point 89	0.00	-405.40	591.73	14,601,562.91	1,646,036.40
Point 90	0.00	-414.07	559.20	14,601,554.24	1,646,003.87
Point 91	0.00	-425.15	527.43	14,601,543.15	1,645,972.11
Point 92	0.00	-438.58	496.57	14,601,529.71	1,645,941.25
Point 93	0.00	-454.27	466.81	14,601,514.02	1,645,911.49
Point 94	0.00	-472.15	438.29	14,601,496.13	1,645,882.97
Point 95	0.00	-492.11	411.20	14,601,476.17	1,645,855.89
Point 96	0.00	-514.03	385.66	14,601,454.24	1,645,830.35
Point 97	0.00	-537.80	361.84	14,601,430.47	1,645,806.54
Point 98	0.00	-563.28	339.86	14,601,404.98	1,645,784.56
Point 99	0.00	-590.34	319.86	14,601,377.92	1,645,764.57
Point 100	0.00	-618.82	301.92	14,601,349.43	1,645,746.63
Point 101	0.00	-648.55	286.17	14,601,319.70	1,645,730.89
Point 102	0.00	-679.39	272.68	14,601,288.86	1,645,717.41
Point 103	0.00	-711.14	261.52	14,601,257.11	1,645,706.25
Point 104	0.00	-743.64	252.79	14,601,224.60	1,645,697.53
Point 105	0.00	-776.70	246.49	14,601,191.54	1,645,691.24
Point 106	0.00	-810.13	242.69	14,601,158.11	1,645,687.44
Point 107	0.00	-843.76	241.40	14,601,124.48	1,645,686.16
Point 108	0.00	-877.39	242.62	14,601,090.85	1,645,687.39
Point 109	0.00	-910.84	246.35	14,601,057.40	1,645,691.12
Point 110	0.00	-943.91	252.58	14,601,024.33	1,645,697.36
Point 111	0.00	-976.42	261.25	14,600,991.83	1,645,706.04
Point 112	0.00	-1,008.20	272.33	14,600,960.05	1,645,717.12
Point 113	0.00	-1,039.05	285.76	14,600,929.20	1,645,730.56
Point 114	0.00	-1,068.83	301.45	14,600,899.42	1,645,746.26
Point 115	0.00	-1,097.34	319.33	14,600,870.92	1,645,764.14
Point 116	0.00	-1,124.43	339.29	14,600,843.83	1,645,784.11
Point 117	0.00	-1,149.97	361.21	14,600,818.30	1,645,806.03
Point 118	0.00	-1,173.78	384.98	14,600,794.49	1,645,829.81
Point 119	0.00	-1,195.77	410.47	14,600,772.51	1,645,855.30
Point 120	0.00	-1,215.77	437.52	14,600,752.51	1,645,882.36
Point 121	0.00	-1,233.71	466.00	14,600,734.58	1,645,910.84
Point 122	0.00	-1,249.47	495.73	14,600,718.82	1,645,940.57
Point 123	0.00	-1,262.95	526.56	14,600,705.35	1,645,971.41

# Anadarko

## Planning Report

<b>Database:</b>	PLANNING	<b>Local Co-ordinate Reference:</b>	Well HILGERS 34N-22HZ
<b>Company:</b>	US ROCKIES WATTENBERG PLANNING	<b>TVD Reference:</b>	RKB = 17' @ 5016.00usft (D Rig)
<b>Project:</b>	WELD-NAD83-UTMFT13N	<b>MD Reference:</b>	RKB = 17' @ 5016.00usft (D Rig)
<b>Site:</b>	3N-68W-22 Hilgers 16-22HZ Pad	<b>North Reference:</b>	True
<b>Well:</b>	HILGERS 34N-22HZ	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Plan A		
<b>Design:</b>	Permit Rev-1		

Point 124	0.00	-1,274.10	558.32	14,600,694.21	1,646,003.17			
Point 125	0.00	-1,282.85	590.82	14,600,685.46	1,646,035.67			
Point 126	0.00	-1,289.13	623.88	14,600,679.19	1,646,068.73			
Point 127	0.00	-1,292.94	657.32	14,600,675.39	1,646,102.17			
Point 128	0.00	-1,294.22	691.32	14,600,674.11	1,646,136.17			
Point 129	0.00	-1,293.01	724.58	14,600,675.33	1,646,169.43			
Point 130	0.00	-1,289.28	758.02	14,600,679.07	1,646,202.87			
Point 131	0.00	-1,283.06	791.09	14,600,685.29	1,646,235.94			
Point 132	0.00	-1,274.37	823.60	14,600,693.99	1,646,268.45			
Point 133	0.00	-1,263.30	855.38	14,600,705.07	1,646,300.23			
Point 134	0.00	-1,249.87	886.23	14,600,718.50	1,646,331.07			
Point 135	0.00	-1,234.17	916.01	14,600,734.21	1,646,360.85			
Point 136	0.00	-1,216.30	944.52	14,600,752.08	1,646,389.36			
Point 137	0.00	-1,196.34	971.62	14,600,772.05	1,646,416.45			
Point 138	0.00	-1,174.42	997.15	14,600,793.97	1,646,441.98			
Point 139	0.00	-1,150.65	1,020.96	14,600,817.75	1,646,465.78			
Point 140	0.00	-1,125.17	1,042.95	14,600,843.23	1,646,487.77			
Point 141	0.00	-1,098.11	1,062.96	14,600,870.30	1,646,507.77			
Point 142	0.00	-1,069.63	1,080.89	14,600,898.78	1,646,525.70			
Point 143	0.00	-1,039.90	1,096.65	14,600,928.51	1,646,541.45			
Point 144	0.00	-1,009.06	1,110.13	14,600,959.36	1,646,554.92			
Point 145	0.00	-977.31	1,121.28	14,600,991.11	1,646,566.07			
Point 146	0.00	-944.81	1,130.03	14,601,023.61	1,646,574.81			
Point 147	0.00	-911.76	1,136.31	14,601,056.66	1,646,581.08			
Point 148	0.00	-878.32	1,140.12	14,601,090.10	1,646,584.89			
Point 149	0.00	-844.69	1,141.42	14,601,123.73	1,646,586.18			
Point 150	0.00	-811.06	1,140.19	14,601,157.36	1,646,584.94			
Point 151	0.00	-777.62	1,136.46	14,601,190.80	1,646,581.21			
Point 152	0.00	-744.54	1,130.24	14,601,223.88	1,646,574.98			
Point 153	0.00	-712.02	1,121.55	14,601,256.40	1,646,566.28			
Point 154	0.00	-680.25	1,110.48	14,601,288.17	1,646,555.21			
Point 155	0.00	-649.40	1,097.05	14,601,319.01	1,646,541.77			
Point 156	0.00	-619.63	1,081.35	14,601,348.78	1,646,526.06			
Point 157	0.00	-591.11	1,063.48	14,601,377.30	1,646,508.19			
Point 158	0.00	-564.02	1,043.52	14,601,404.38	1,646,488.22			
Point 159	0.00	-538.48	1,021.60	14,601,429.92	1,646,466.30			
Point 160	0.00	-514.66	997.83	14,601,453.73	1,646,442.52			
Point 161	0.00	-492.68	972.35	14,601,475.71	1,646,417.04			
Point 162	0.00	-472.68	945.29	14,601,495.70	1,646,389.97			
Point 163	0.00	-454.74	916.82	14,601,513.64	1,646,361.50			
Point 164	0.00	-438.99	887.08	14,601,529.38	1,646,331.76			
Point 165	0.00	-425.50	856.24	14,601,542.87	1,646,300.92			
Point 166	0.00	-414.34	824.49	14,601,554.02	1,646,269.16			
Point 167	0.00	-405.61	792.00	14,601,562.74	1,646,236.67			
Point 168	0.00	-399.31	758.94	14,601,569.04	1,646,203.61			
Point 169	0.00	-395.51	725.50	14,601,572.83	1,646,170.17			
Point 170	0.00	-394.22	691.12	14,601,574.11	1,646,135.79			
Point 171	0.00	-374.24	691.87	14,601,594.09	1,646,136.53			
HILGERS 34N-22HZ_Hz	0.00	0.00	0.00	0.00	14,601,968.19	1,645,444.59	40.206604	-104.981992
- plan hits target center								
- Polygon								
Point 1	0.00	-441.78	-4,113.70	14,601,525.58	1,641,330.98			
Point 2	0.00	-439.15	-3,256.83	14,601,528.38	1,642,187.85			
Point 3	0.00	-435.09	-1,939.94	14,601,532.71	1,643,504.74			
Point 4	0.00	-409.64	-625.39	14,601,558.43	1,644,819.28			
Point 5	0.00	-384.23	689.18	14,601,584.10	1,646,133.85			
Point 6	0.00	-375.84	1,547.38	14,601,592.67	1,646,992.05			
Point 7	0.00	-1,295.87	1,548.76	14,600,672.64	1,646,993.61			
Point 8	0.00	-1,304.39	687.82	14,600,663.94	1,646,132.67			
Point 9	0.00	-1,329.82	-625.84	14,600,638.25	1,644,819.02			
Point 10	0.00	-1,355.13	-1,939.51	14,600,612.67	1,643,505.35			
Point 11	0.00	-1,359.15	-3,256.03	14,600,608.38	1,642,188.83			
Point 12	0.00	-1,361.78	-4,112.56	14,600,605.58	1,641,332.31			

# Anadarko

## Planning Report

<b>Database:</b>	PLANNING	<b>Local Co-ordinate Reference:</b>	Well HILGERS 34N-22HZ
<b>Company:</b>	US ROCKIES WATTENBERG PLANNING	<b>TVD Reference:</b>	RKB = 17' @ 5016.00usft (D Rig)
<b>Project:</b>	WELD-NAD83-UTMFT13N	<b>MD Reference:</b>	RKB = 17' @ 5016.00usft (D Rig)
<b>Site:</b>	3N-68W-22 Hilgers 16-22HZ Pad	<b>North Reference:</b>	True
<b>Well:</b>	HILGERS 34N-22HZ	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Plan A		
<b>Design:</b>	Permit Rev-1		

Point 13			0.00	-441.78	-4,113.70	14,601,525.58	1,641,330.98		
3N-R68W-Sec. 22_Secti	0.00	0.00	15.00	2,788.33	170.30	14,604,756.55	1,645,614.32	40.214261	-104.981382
- plan misses target center by 2793.52usft at 15.00usft MD (15.00 TVD, 0.00 N, 0.00 E)									
- Polygon									
Point 1			15.00	1,609.13	-4,756.64	14,606,364.72	1,640,857.35		
Point 2			15.00	1,644.10	-2,132.46	14,606,400.22	1,643,481.53		
Point 3			15.00	1,698.21	493.16	14,606,454.86	1,646,107.13		
Point 4			15.00	-967.02	505.37	14,603,789.63	1,646,119.89		
Point 5			15.00	-3,630.21	518.25	14,601,126.45	1,646,133.31		
Point 6			15.00	-3,681.09	-2,110.42	14,601,075.03	1,643,504.65		
Point 7			15.00	-3,689.13	-4,746.07	14,601,066.46	1,640,869.00		
Point 8			15.00	-1,042.08	-4,750.66	14,603,713.51	1,640,863.87		
HILGERS 34N-22HZ_TC	0.00	0.00	7,127.00	-572.61	-4,115.32	14,601,394.75	1,641,329.39	40.205031	-104.996731
- plan hits target center									
- Point									

Casing Points					
Measured Depth (usft)	Vertical Depth (usft)	Name	Casing Diameter (")	Hole Diameter (")	
1,840.74	1,800.00	9 5/8"	9-5/8	13-1/2	
7,730.86	7,164.00	Top of Production	5-1/2	7-7/8	

Formations						
Measured Depth (usft)	Vertical Depth (usft)	Name	Lithology	Dip (°)	Dip Direction (°)	
316.00	316.00	Fox Hills				
4,332.50	4,156.00	Sussex				
7,267.11	7,005.80	Sharon Springs				
7,396.64	7,080.80	Niobrara Top				
7,547.46	7,139.20	Niobrara B Bench				
7,547.46	7,139.20	Niobrara C Bench				

Plan Annotations					
Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment	
		+N/-S (usft)	+E/-W (usft)		
250.00	250.00	0.00	0.00	Begin Nudge @ 250.00ft	
1,516.67	1,493.58	-91.23	187.04	End Nudge @ 1516.67ft	
4,416.67	4,235.59	-505.11	1,035.64	Begin Drop @ 4416.67ft	
5,366.67	5,168.27	-573.53	1,175.92	End Drop @ 5366.67ft	
6,725.80	6,527.40	-573.53	1,175.92	KOP @ 6725.80ft	
7,300.00	7,026.85	-573.49	934.05	DLS = 9°/100'	
7,730.86	7,164.00	-573.42	534.24	End Build @ 7730.86ft	
12,380.56	7,127.00	-572.61	-4,115.32	TD Well @ 12380.56ft	