

US ROCKIES REGION PLANNING

COLORADO NORTHERN ZONE - 83

WELD_HEDGE 1-27 PAD

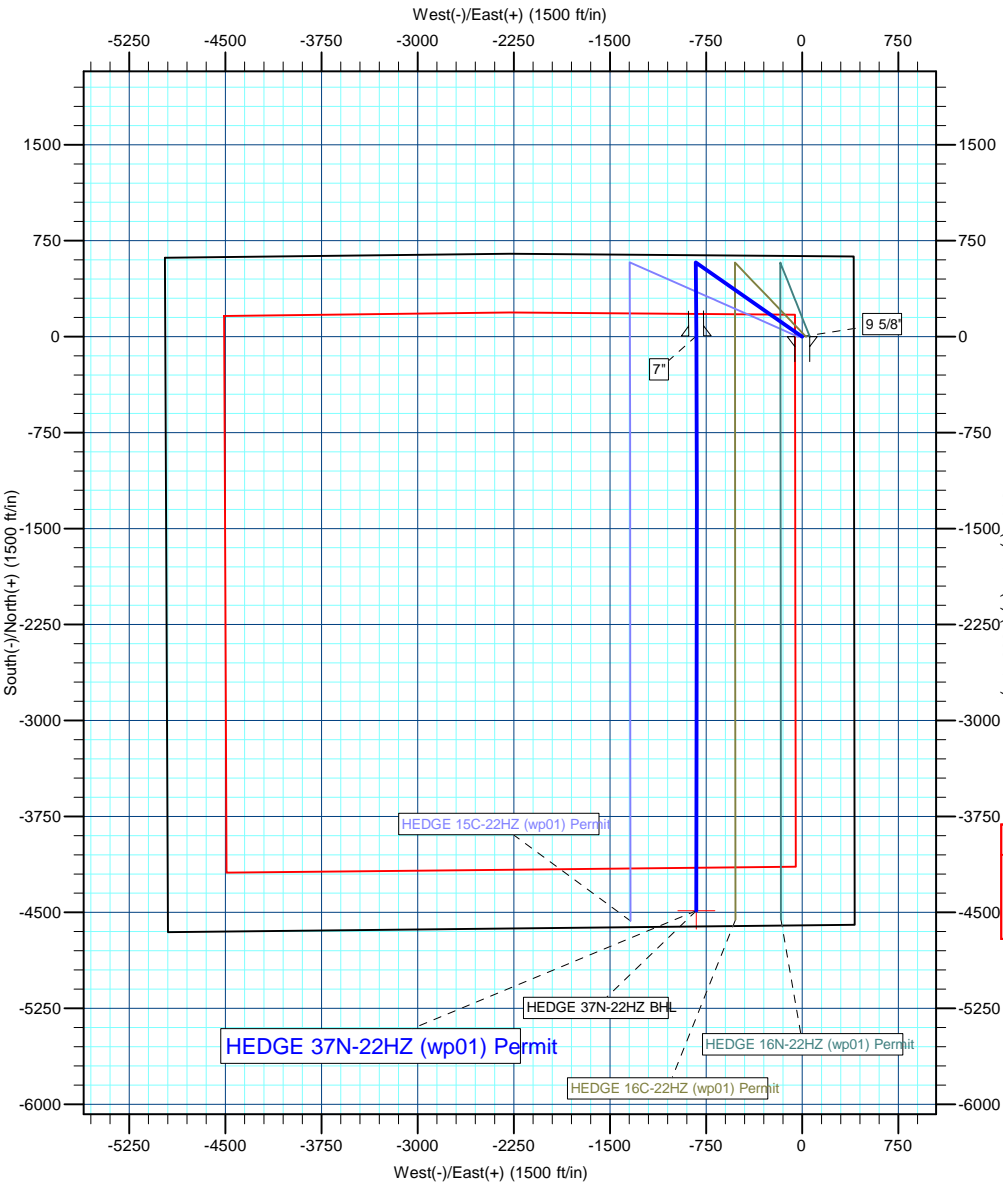
HEDGE 37N-22HZ

HEDGE 37N-22HZ

Plan: HEDGE 37N-22HZ (wp01) Permit

Standard Planning Report

20 September, 2012



Azimuths to True North
 Magnetic North: 8.67°

Magnetic Field
 Strength: 52901.9snT
 Dip Angle: 66.86°
 Date: 9/19/2012
 Model: IGRF2010

Project: COLORADO NORTHERN ZONE - 83
Site: WELD_HEDGE 1-27 PAD
Well: HEDGE 37N-22HZ
Wellbore: HEDGE 37N-22HZ
Section:
SHL:
Design: HEDGE 37N-22HZ (wp01) Permit
Latitude: 40.216082
Longitude: -104.755248
GL: 4905.00
KB: 16' RKB + 4905' GL @ 4921.00ft



WELL DETAILS: HEDGE 37N-22HZ

+N/-S	+E/-W	Northing	Ground Level: Easting	4905.00 Latitude	40.216082 Longitude	Slot
0.00	0.00	1322434.25	3207981.41			

SECTION DETAILS

MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	V Sect
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1100.00	0.00	0.00	1100.00	0.00	0.00	0.00	0.00	0.00
1749.79	13.00	304.96	1744.23	42.05	-60.13	2.00	304.96	-30.47
5604.28	13.00	304.96	5500.00	538.75	-770.50	0.00	0.00	-390.41
6254.07	0.00	0.00	6144.23	580.80	-830.63	2.00	180.00	-420.88
6681.88	0.00	0.00	6572.04	580.80	-830.63	0.00	0.00	-420.88
7583.88	90.20	179.55	7145.00	5.86	-826.12	10.00	179.55	143.75
8826.98	90.20	180.06	7140.61	-1237.22	-821.90	0.04	89.47	1365.53
12075.19	90.20	180.06	7129.00	-4485.41	-825.38	0.00	0.00	4560.72

WELLBORE TARGET DETAILS (MAP CO-ORDINATES AND LAT/LONG)

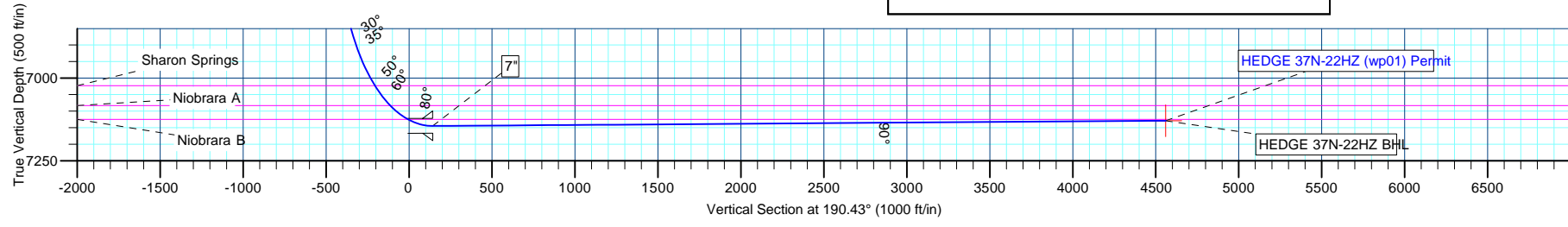
Name	TVD	+N/-S	+E/-W	Latitude	Longitude	Shape Point
HEDGE 37N-22HZ BHL	7129.00	-4485.41	-825.38	40.203769	-104.758203	

FORMATION TOP DETAILS

TVDPath	MDPath	Formation
691.00	691.00	Fox Hills
3940.00	4003.28	Parkman
4471.00	4548.23	Sussex
7023.00	7201.01	Sharon Springs
7083.00	7312.87	Niobrara A
7125.00	7430.05	Niobrara B

CASING DETAILS

TVD	MD	Name	Size
937.00	937.00	9 5/8"	9-5/8
7145.00	7583.88	7"	7



Andarko Petroleum Corporation

Planning Report

Database:	edmp	Local Co-ordinate Reference:	Well HEDGE 37N-22HZ
Company:	US ROCKIES REGION PLANNING	TVD Reference:	16' RKB + 4905' GL @ 4921.00ft
Project:	COLORADO NORTHERN ZONE - 83	MD Reference:	16' RKB + 4905' GL @ 4921.00ft
Site:	WELD_HEDGE 1-27 PAD	North Reference:	True
Well:	HEDGE 37N-22HZ	Survey Calculation Method:	Minimum Curvature
Wellbore:	HEDGE 37N-22HZ		
Design:	HEDGE 37N-22HZ (wp01) Permit		

Project COLORADO NORTHERN ZONE - 83			
Map System:	US State Plane 1983	System Datum:	Mean Sea Level
Geo Datum:	North American Datum 1983		
Map Zone:	Colorado Northern Zone		

Site WELD_HEDGE 1-27 PAD					
Site Position:		Northing:	1,322,434.03 usft	Latitude:	40.216080
From:	Lat/Long	Easting:	3,208,041.18 usft	Longitude:	-104.755034
Position Uncertainty:	0.00 ft	Slot Radius:	13-3/16 "	Grid Convergence:	0.48 °

Well HEDGE 37N-22HZ					
Well Position	+N/-S	0.72 ft	Northing:	1,322,434.25 usft	Latitude:
	+E/-W	-59.76 ft	Easting:	3,207,981.41 usft	Longitude:
Position Uncertainty		0.00 ft	Wellhead Elevation:		Ground Level:
					4,905.00 ft

Wellbore HEDGE 37N-22HZ					
Magnetics	Model Name	Sample Date	Declination	Dip Angle	Field Strength
	IGRF2010	9/19/2012	(°)	(°)	(nT)
			8.67	66.86	52,902

Design HEDGE 37N-22HZ (wp01) Permit					
Audit Notes:					
Version:	Phase:	PLAN	Tie On Depth:	0.00	
Vertical Section:	Depth From (TVD)	+N/-S	+E/-W	Direction	
	(ft)	(ft)	(ft)	(°)	
	0.00	0.00	0.00	190.43	

Plan Sections										
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	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	
1,100.00	0.00	0.00	1,100.00	0.00	0.00	0.00	0.00	0.00	0.00	
1,749.79	13.00	304.96	1,744.23	42.05	-60.13	2.00	2.00	-8.47	304.96	
5,604.28	13.00	304.96	5,500.00	538.75	-770.50	0.00	0.00	0.00	0.00	
6,254.07	0.00	0.00	6,144.23	580.80	-830.63	2.00	-2.00	8.47	180.00	
6,681.88	0.00	0.00	6,572.04	580.80	-830.63	0.00	0.00	0.00	0.00	
7,583.88	90.20	179.55	7,145.00	5.86	-826.12	10.00	10.00	0.00	179.55	
8,826.98	90.20	180.06	7,140.61	-1,237.22	-821.90	0.04	0.00	0.04	89.47	
12,075.19	90.20	180.06	7,129.00	-4,485.41	-825.38	0.00	0.00	0.00	0.00	HEDGE 37N-22HZ BI

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Site:	WELD_HEDGE 1-27 PAD	North Reference:	True
Well:	HEDGE 37N-22HZ	Survey Calculation Method:	Minimum Curvature
Wellbore:	HEDGE 37N-22HZ		
Design:	HEDGE 37N-22HZ (wp01) Permit		

Planned Survey										
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	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	0.00
100.00	0.00	0.00	100.00	0.00	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	0.00
300.00	0.00	0.00	300.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
400.00	0.00	0.00	400.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
500.00	0.00	0.00	500.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
600.00	0.00	0.00	600.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
691.00	0.00	0.00	691.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Fox Hills										
700.00	0.00	0.00	700.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
800.00	0.00	0.00	800.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
900.00	0.00	0.00	900.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
937.00	0.00	0.00	937.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
9 5/8"										
1,000.00	0.00	0.00	1,000.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1,100.00	0.00	0.00	1,100.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Start DLS 2.00 TFO 304.96										
1,200.00	2.00	304.96	1,199.98	1.00	-1.43	-0.72	2.00	2.00	0.00	0.00
1,300.00	4.00	304.96	1,299.84	4.00	-5.72	-2.90	2.00	2.00	0.00	0.00
1,400.00	6.00	304.96	1,399.45	8.99	-12.86	-6.52	2.00	2.00	0.00	0.00
1,500.00	8.00	304.96	1,498.70	15.98	-22.85	-11.58	2.00	2.00	0.00	0.00
1,600.00	10.00	304.96	1,597.47	24.94	-35.67	-18.07	2.00	2.00	0.00	0.00
1,700.00	12.00	304.96	1,695.62	35.87	-51.30	-26.00	2.00	2.00	0.00	0.00
1,749.79	13.00	304.96	1,744.23	42.05	-60.13	-30.47	2.00	2.00	0.00	0.00
Start 3854.49 hold at 1749.79 MD										
1,800.00	13.00	304.96	1,793.16	48.52	-69.39	-35.16	0.00	0.00	0.00	0.00
1,900.00	13.00	304.96	1,890.60	61.40	-87.82	-44.50	0.00	0.00	0.00	0.00
2,000.00	13.00	304.96	1,988.03	74.29	-106.25	-53.84	0.00	0.00	0.00	0.00
2,100.00	13.00	304.96	2,085.47	87.18	-124.68	-63.17	0.00	0.00	0.00	0.00
2,200.00	13.00	304.96	2,182.91	100.06	-143.11	-72.51	0.00	0.00	0.00	0.00
2,300.00	13.00	304.96	2,280.35	112.95	-161.54	-81.85	0.00	0.00	0.00	0.00
2,400.00	13.00	304.96	2,377.79	125.84	-179.97	-91.19	0.00	0.00	0.00	0.00
2,500.00	13.00	304.96	2,475.23	138.72	-198.39	-100.53	0.00	0.00	0.00	0.00
2,600.00	13.00	304.96	2,572.67	151.61	-216.82	-109.86	0.00	0.00	0.00	0.00
2,700.00	13.00	304.96	2,670.10	164.49	-235.25	-119.20	0.00	0.00	0.00	0.00
2,800.00	13.00	304.96	2,767.54	177.38	-253.68	-128.54	0.00	0.00	0.00	0.00
2,900.00	13.00	304.96	2,864.98	190.27	-272.11	-137.88	0.00	0.00	0.00	0.00
3,000.00	13.00	304.96	2,962.42	203.15	-290.54	-147.22	0.00	0.00	0.00	0.00
3,100.00	13.00	304.96	3,059.86	216.04	-308.97	-156.56	0.00	0.00	0.00	0.00
3,200.00	13.00	304.96	3,157.30	228.93	-327.40	-165.89	0.00	0.00	0.00	0.00
3,300.00	13.00	304.96	3,254.74	241.81	-345.83	-175.23	0.00	0.00	0.00	0.00
3,400.00	13.00	304.96	3,352.18	254.70	-364.26	-184.57	0.00	0.00	0.00	0.00
3,500.00	13.00	304.96	3,449.61	267.59	-382.69	-193.91	0.00	0.00	0.00	0.00
3,600.00	13.00	304.96	3,547.05	280.47	-401.12	-203.25	0.00	0.00	0.00	0.00
3,700.00	13.00	304.96	3,644.49	293.36	-419.55	-212.59	0.00	0.00	0.00	0.00
3,800.00	13.00	304.96	3,741.93	306.24	-437.98	-221.92	0.00	0.00	0.00	0.00
3,900.00	13.00	304.96	3,839.37	319.13	-456.41	-231.26	0.00	0.00	0.00	0.00
4,000.00	13.00	304.96	3,936.81	332.02	-474.84	-240.60	0.00	0.00	0.00	0.00
4,003.28	13.00	304.96	3,940.00	332.44	-475.44	-240.91	0.00	0.00	0.00	0.00
Parkman										
4,100.00	13.00	304.96	4,034.25	344.90	-493.27	-249.94	0.00	0.00	0.00	0.00
4,200.00	13.00	304.96	4,131.68	357.79	-511.70	-259.28	0.00	0.00	0.00	0.00
4,300.00	13.00	304.96	4,229.12	370.68	-530.13	-268.61	0.00	0.00	0.00	0.00
4,400.00	13.00	304.96	4,326.56	383.56	-548.56	-277.95	0.00	0.00	0.00	0.00

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Site:	WELD_HEDGE 1-27 PAD	North Reference:	True
Well:	HEDGE 37N-22HZ	Survey Calculation Method:	Minimum Curvature
Wellbore:	HEDGE 37N-22HZ		
Design:	HEDGE 37N-22HZ (wp01) Permit		

Planned Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
4,500.00	13.00	304.96	4,424.00	396.45	-566.99	-287.29	0.00	0.00	0.00
4,548.23	13.00	304.96	4,471.00	402.66	-575.88	-291.80	0.00	0.00	0.00
Sussex									
4,600.00	13.00	304.96	4,521.44	409.33	-585.42	-296.63	0.00	0.00	0.00
4,700.00	13.00	304.96	4,618.88	422.22	-603.84	-305.97	0.00	0.00	0.00
4,800.00	13.00	304.96	4,716.32	435.11	-622.27	-315.31	0.00	0.00	0.00
4,900.00	13.00	304.96	4,813.76	447.99	-640.70	-324.64	0.00	0.00	0.00
5,000.00	13.00	304.96	4,911.19	460.88	-659.13	-333.98	0.00	0.00	0.00
5,100.00	13.00	304.96	5,008.63	473.77	-677.56	-343.32	0.00	0.00	0.00
5,200.00	13.00	304.96	5,106.07	486.65	-695.99	-352.66	0.00	0.00	0.00
5,300.00	13.00	304.96	5,203.51	499.54	-714.42	-362.00	0.00	0.00	0.00
5,400.00	13.00	304.96	5,300.95	512.43	-732.85	-371.34	0.00	0.00	0.00
5,500.00	13.00	304.96	5,398.39	525.31	-751.28	-380.67	0.00	0.00	0.00
5,604.28	13.00	304.96	5,500.00	538.75	-770.50	-390.41	0.00	0.00	0.00
Start DLS 2.00 TFO 180.00									
5,700.00	11.08	304.96	5,593.61	550.19	-786.86	-398.70	2.00	-2.00	0.00
5,800.00	9.08	304.96	5,692.06	560.22	-801.21	-405.97	2.00	-2.00	0.00
5,900.00	7.08	304.96	5,791.06	568.27	-812.73	-411.81	2.00	-2.00	0.00
6,000.00	5.08	304.96	5,890.49	574.35	-821.41	-416.21	2.00	-2.00	0.00
6,100.00	3.08	304.96	5,990.23	578.42	-827.24	-419.16	2.00	-2.00	0.00
6,200.00	1.08	304.96	6,090.16	580.50	-830.22	-420.67	2.00	-2.00	0.00
6,254.07	0.00	0.00	6,144.23	580.80	-830.63	-420.88	2.00	-2.00	101.79
Start 427.81 hold at 6254.07 MD									
6,300.00	0.00	0.00	6,190.16	580.80	-830.63	-420.88	0.00	0.00	0.00
6,400.00	0.00	0.00	6,290.16	580.80	-830.63	-420.88	0.00	0.00	0.00
6,500.00	0.00	0.00	6,390.16	580.80	-830.63	-420.88	0.00	0.00	0.00
6,600.00	0.00	0.00	6,490.16	580.80	-830.63	-420.88	0.00	0.00	0.00
6,681.88	0.00	0.00	6,572.04	580.80	-830.63	-420.88	0.00	0.00	0.00
Start Build 10.00									
6,700.00	1.81	179.55	6,590.16	580.51	-830.63	-420.60	10.00	10.00	991.04
6,750.00	6.81	179.55	6,640.00	576.75	-830.60	-416.91	10.00	10.00	0.00
6,800.00	11.81	179.55	6,689.32	568.67	-830.54	-408.97	10.00	10.00	0.00
6,850.00	16.81	179.55	6,737.76	556.31	-830.44	-396.83	10.00	10.00	0.00
6,900.00	21.81	179.55	6,784.93	539.78	-830.31	-380.60	10.00	10.00	0.00
6,950.00	26.81	179.55	6,830.48	519.20	-830.15	-360.39	10.00	10.00	0.00
7,000.00	31.81	179.55	6,874.07	494.73	-829.96	-336.36	10.00	10.00	0.00
7,050.00	36.81	179.55	6,915.35	466.56	-829.74	-308.69	10.00	10.00	0.00
7,100.00	41.81	179.55	6,954.02	434.89	-829.49	-277.59	10.00	10.00	0.00
7,150.00	46.81	179.55	6,989.79	399.98	-829.21	-243.30	10.00	10.00	0.00
7,200.00	51.81	179.55	7,022.38	362.08	-828.92	-206.08	10.00	10.00	0.00
7,201.01	51.91	179.55	7,023.00	361.28	-828.91	-205.30	10.00	10.00	0.00
Sharon Springs									
7,250.00	56.81	179.55	7,051.54	321.48	-828.60	-166.22	10.00	10.00	0.00
7,300.00	61.81	179.55	7,077.05	278.50	-828.26	-124.00	10.00	10.00	0.00
7,312.87	63.10	179.55	7,083.00	267.08	-828.17	-112.80	10.00	10.00	0.00
Niobrara A									
7,350.00	66.81	179.55	7,098.71	233.45	-827.91	-79.77	10.00	10.00	0.00
7,400.00	71.81	179.55	7,116.37	186.70	-827.54	-33.85	10.00	10.00	0.00
7,430.05	74.82	179.55	7,125.00	157.92	-827.31	-5.58	10.00	10.00	0.00
Niobrara B									
7,450.00	76.81	179.55	7,129.89	138.57	-827.16	13.41	10.00	10.00	0.00
7,500.00	81.81	179.55	7,139.16	89.46	-826.78	61.64	10.00	10.00	0.00
7,550.00	86.81	179.55	7,144.11	39.72	-826.38	110.49	10.00	10.00	0.00

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Wellbore:	HEDGE 37N-22HZ		
Design:	HEDGE 37N-22HZ (wp01) Permit		

Planned Survey										
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7,583.88	90.20	179.55	7,145.00	5.86	-826.12	143.74	10.00	10.00	0.00	
Start DLS 0.04 TFO 89.47 - 7"										
7,600.00	90.20	179.56	7,144.94	-10.26	-825.99	159.57	0.04	0.00	0.04	
7,700.00	90.20	179.60	7,144.59	-110.26	-825.26	257.79	0.04	0.00	0.04	
7,800.00	90.20	179.64	7,144.24	-210.25	-824.59	356.01	0.04	0.00	0.04	
7,900.00	90.20	179.68	7,143.89	-310.25	-823.99	454.25	0.04	0.00	0.04	
8,000.00	90.20	179.72	7,143.54	-410.25	-823.47	552.50	0.04	0.00	0.04	
8,100.00	90.20	179.76	7,143.19	-510.25	-823.02	650.77	0.04	0.00	0.04	
8,200.00	90.20	179.80	7,142.83	-610.25	-822.64	749.05	0.04	0.00	0.04	
8,300.00	90.20	179.84	7,142.48	-710.24	-822.34	847.34	0.04	0.00	0.04	
8,400.00	90.20	179.89	7,142.13	-810.24	-822.10	945.64	0.04	0.00	0.04	
8,500.00	90.20	179.93	7,141.77	-910.24	-821.94	1,043.96	0.04	0.00	0.04	
8,600.00	90.20	179.97	7,141.42	-1,010.24	-821.84	1,142.29	0.04	0.00	0.04	
8,700.00	90.20	180.01	7,141.06	-1,110.24	-821.82	1,240.64	0.04	0.00	0.04	
8,800.00	90.20	180.05	7,140.70	-1,210.24	-821.88	1,339.00	0.04	0.00	0.04	
8,826.98	90.20	180.06	7,140.61	-1,237.22	-821.90	1,365.53	0.04	0.00	0.04	
Start 3248.22 hold at 8826.98 MD										
8,900.00	90.20	180.06	7,140.35	-1,310.24	-821.98	1,437.36	0.00	0.00	0.00	
9,000.00	90.20	180.06	7,139.99	-1,410.24	-822.09	1,535.73	0.00	0.00	0.00	
9,100.00	90.20	180.06	7,139.63	-1,510.24	-822.20	1,634.10	0.00	0.00	0.00	
9,200.00	90.20	180.06	7,139.27	-1,610.24	-822.30	1,732.47	0.00	0.00	0.00	
9,300.00	90.20	180.06	7,138.92	-1,710.24	-822.41	1,830.83	0.00	0.00	0.00	
9,400.00	90.20	180.06	7,138.56	-1,810.24	-822.52	1,929.20	0.00	0.00	0.00	
9,500.00	90.20	180.06	7,138.20	-1,910.24	-822.62	2,027.57	0.00	0.00	0.00	
9,600.00	90.20	180.06	7,137.84	-2,010.24	-822.73	2,125.94	0.00	0.00	0.00	
9,700.00	90.20	180.06	7,137.49	-2,110.23	-822.84	2,224.30	0.00	0.00	0.00	
9,800.00	90.20	180.06	7,137.13	-2,210.23	-822.95	2,322.67	0.00	0.00	0.00	
9,900.00	90.20	180.06	7,136.77	-2,310.23	-823.05	2,421.04	0.00	0.00	0.00	
10,000.00	90.20	180.06	7,136.42	-2,410.23	-823.16	2,519.41	0.00	0.00	0.00	
10,100.00	90.20	180.06	7,136.06	-2,510.23	-823.27	2,617.77	0.00	0.00	0.00	
10,200.00	90.20	180.06	7,135.70	-2,610.23	-823.37	2,716.14	0.00	0.00	0.00	
10,300.00	90.20	180.06	7,135.34	-2,710.23	-823.48	2,814.51	0.00	0.00	0.00	
10,400.00	90.20	180.06	7,134.99	-2,810.23	-823.59	2,912.88	0.00	0.00	0.00	
10,500.00	90.20	180.06	7,134.63	-2,910.23	-823.69	3,011.24	0.00	0.00	0.00	
10,600.00	90.20	180.06	7,134.27	-3,010.23	-823.80	3,109.61	0.00	0.00	0.00	
10,700.00	90.20	180.06	7,133.91	-3,110.23	-823.91	3,207.98	0.00	0.00	0.00	
10,800.00	90.20	180.06	7,133.56	-3,210.23	-824.02	3,306.35	0.00	0.00	0.00	
10,900.00	90.20	180.06	7,133.20	-3,310.23	-824.12	3,404.71	0.00	0.00	0.00	
11,000.00	90.20	180.06	7,132.84	-3,410.23	-824.23	3,503.08	0.00	0.00	0.00	
11,100.00	90.20	180.06	7,132.48	-3,510.22	-824.34	3,601.45	0.00	0.00	0.00	
11,200.00	90.20	180.06	7,132.13	-3,610.22	-824.44	3,699.81	0.00	0.00	0.00	
11,300.00	90.20	180.06	7,131.77	-3,710.22	-824.55	3,798.18	0.00	0.00	0.00	
11,400.00	90.20	180.06	7,131.41	-3,810.22	-824.66	3,896.55	0.00	0.00	0.00	
11,500.00	90.20	180.06	7,131.06	-3,910.22	-824.77	3,994.92	0.00	0.00	0.00	
11,600.00	90.20	180.06	7,130.70	-4,010.22	-824.87	4,093.28	0.00	0.00	0.00	
11,700.00	90.20	180.06	7,130.34	-4,110.22	-824.98	4,191.65	0.00	0.00	0.00	
11,800.00	90.20	180.06	7,129.98	-4,210.22	-825.09	4,290.02	0.00	0.00	0.00	
11,900.00	90.20	180.06	7,129.63	-4,310.22	-825.19	4,388.39	0.00	0.00	0.00	
12,000.00	90.20	180.06	7,129.27	-4,410.22	-825.30	4,486.75	0.00	0.00	0.00	
12,075.19	90.20	180.06	7,129.00	-4,485.41	-825.38	4,560.72	0.00	0.00	0.00	
TD at 12075.19 - HEDGE 37N-22HZ BHL										

Andarko Petroleum Corporation

Planning Report

Database:	edmp	Local Co-ordinate Reference:	Well HEDGE 37N-22HZ
Company:	US ROCKIES REGION PLANNING	TVD Reference:	16' RKB + 4905' GL @ 4921.00ft
Project:	COLORADO NORTHERN ZONE - 83	MD Reference:	16' RKB + 4905' GL @ 4921.00ft
Site:	WELD_HEDGE 1-27 PAD	North Reference:	True
Well:	HEDGE 37N-22HZ	Survey Calculation Method:	Minimum Curvature
Wellbore:	HEDGE 37N-22HZ		
Design:	HEDGE 37N-22HZ (wp01) Permit		

Design Targets									
Target Name	Dip Angle	Dip Dir.	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
- hit/miss target	(°)	(°)	(ft)	(ft)	(ft)	(usft)	(usft)		
- Shape									
HEDGE 37N-22HZ BHL	0.00	0.00	7,129.00	-4,485.41	-825.38	1,317,942.07	3,207,193.73	40.203769	-104.758203
- plan hits target center									
- Point									

Casing Points					
Measured Depth	Vertical Depth		Name	Casing Diameter	Hole Diameter
(ft)	(ft)			(")	(")
937.00	937.00	9 5/8"		9-5/8	12-1/4
7,583.88	7,145.00	7"		7	7-1/2

Formations						
Measured Depth	Vertical Depth		Name	Lithology	Dip	Dip Direction
(ft)	(ft)				(°)	(°)
691.00	691.00		Fox Hills			
4,003.28	3,940.00		Parkman			
4,548.23	4,471.00		Sussex			
7,201.01	7,023.00		Sharon Springs			
7,312.87	7,083.00		Niobrara A			
7,430.05	7,125.00		Niobrara B			

Plan Annotations					
Measured Depth	Vertical Depth	Local Coordinates		Comment	
(ft)	(ft)	+N/-S	+E/-W		
		(ft)	(ft)		
1,100.00	1,100.00	0.00	0.00	Start DLS 2.00 TFO 304.96	
1,749.79	1,744.23	42.05	-60.13	Start 3854.49 hold at 1749.79 MD	
5,604.28	5,500.00	538.75	-770.50	Start DLS 2.00 TFO 180.00	
6,254.07	6,144.23	580.80	-830.63	Start 427.81 hold at 6254.07 MD	
6,681.88	6,572.04	580.80	-830.63	Start Build 10.00	
7,583.88	7,145.00	5.86	-826.12	Start DLS 0.04 TFO 89.47	
8,826.98	7,140.61	-1,237.22	-821.90	Start 3248.22 hold at 8826.98 MD	
12,075.19	7,129.00	-4,485.41	-825.38	TD at 12075.19	