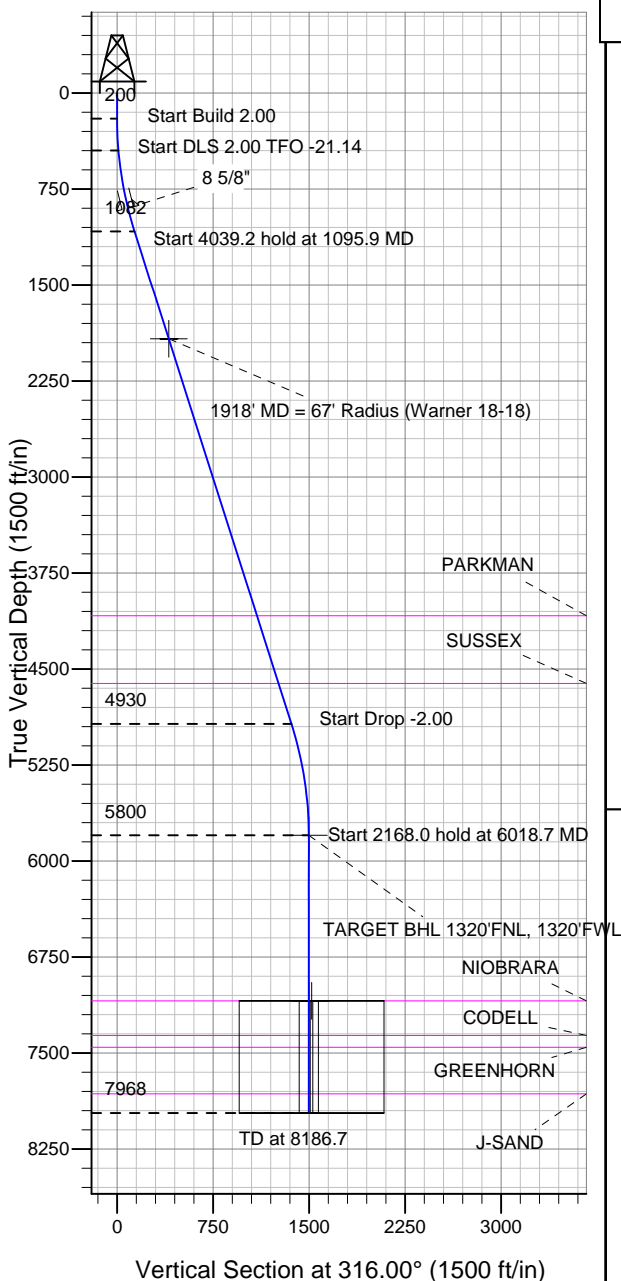


ENSIGN

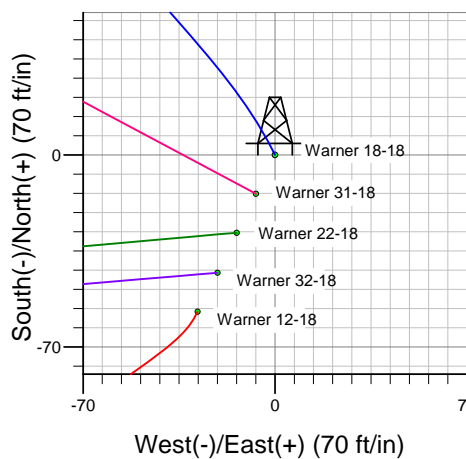
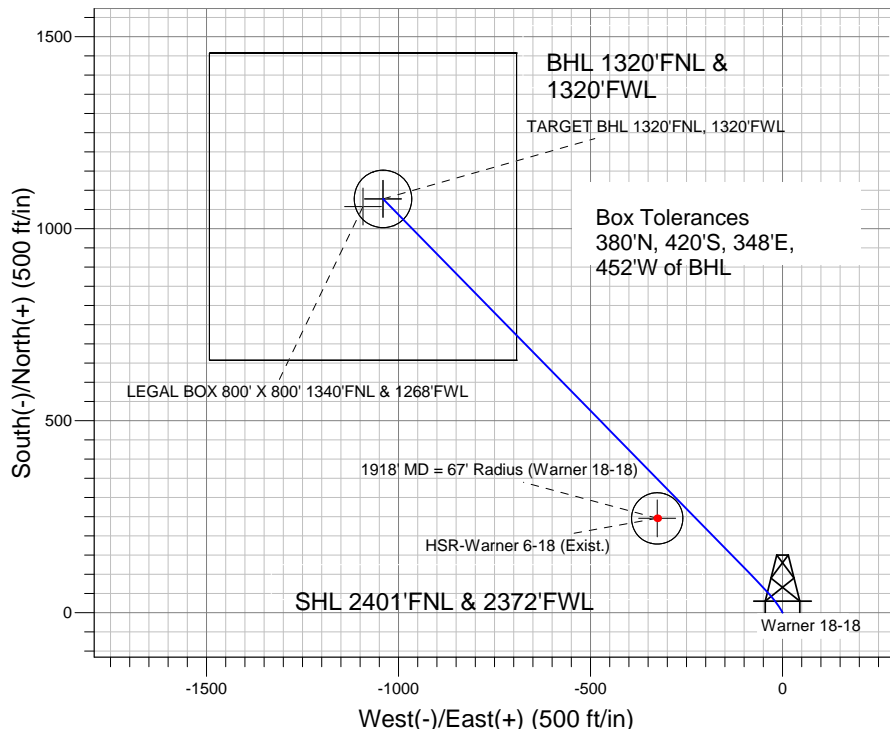
Directional

Well Name: Warner 18-18

Surface Location: Warner 25-18 Pad Sec.18-T2N-R65W
 North American Datum 1983 , US State Plane 1983 , Colorado Northern Zone
 Ground Elevation: 4983.0
 +N/-S +E/-W Northing Easting Latitude Longitude Slot
 0.0 0.0 1294594.29 3221583.88 40.139337 -104.707433
 Original Well Elev WELL @ 4997.0ft (Original Well Elev)



Anadarko, Weld County CO



FORMATION TOP DETAILS

TVDPath	MDPath	Formation
4083.0	4245.7	PARKMAN
4613.0	4802.0	SUSSEX
7093.0	7311.7	NIOBRARA
7363.0	7581.7	CODELL
7456.0	7674.7	GREENHORN
7818.0	8036.7	J-SAND



Azimuths to True North
 Magnetic North: 8.84°

Magnetic Field
 Strength: 53025.2snT
 Dip Angle: 66.86°
 Date: 3/17/2011
 Model: IGRF2010

Well Name: Warner 18-18 Lat/Long: 40.139337 -104.707433

WELLBORE TARGET DETAILS (LAT/LONG)

Name	TVD	+N/-S	+E/-W	Latitude	Longitude	Shape
1918' MD = 67' Radius (Warner 18-18)	1921.0	245.2	-326.3	40.140010	-104.708600	Circle (Radius: 67.0)
TARGET BHL 1320'FNL, 1320'FWL	5800.0	1077.3	-1040.3	40.142294	-104.711154	Point
LEGAL BOX 800' X 800' 1340'FNL & 1268'FWL	7093.0	1057.3	-1092.3	40.142239	-104.711340	Rectangle (Sides: L800.0 W800.0)
TARGET CIRCLE 1320'FNL & 1320'FWL	7093.0	1077.3	-1040.3	40.142294	-104.711154	Circle (Radius: 75.0)

SECTION DETAILS

Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	DLeg	TFace	VSec	Target
1	0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.0	
2	200.0	0.00	0.00	200.0	0.0	0.0	0.00	0.00	0.0	
3	450.0	5.00	331.00	449.7	9.5	-5.3	2.00	331.00	10.5	
4	1095.9	17.67	315.60	1081.8	104.6	-87.9	2.00	-21.14	136.3	
5	5135.1	17.67	315.60	4930.4	980.7	-945.7	0.00	0.00	1362.4	
6	6018.7	0.00	0.00	5800.0	1077.3	-1040.3	2.00	180.00	1497.6	TARGET BHL 1320'FNL, 1320'FWL
7	8186.7	0.00	0.00	7968.0	1077.3	-1040.3	0.00	0.00	1497.6	

CASING DETAILS

TVD	MD	Name	Size
900.0	906.9	8 5/8"	8-5/8

Warner 25-18 Pad Sec.18-T2N-R65W
 Warner 18-18
 Plan #1 (3-03-11)
 15:26, March 17 2011



Directional

Anadarko, Weld County CO

SEC.18-T2N-R65W

Warner 25-18 Pad Sec.18-T2N-R65W

Warner 18-18

Wellbore #1

Plan: Plan #1 (3-03-11)

Standard Planning Report

17 March, 2011

Database:	Landmark	Local Co-ordinate Reference:	Well Warner 18-18
Company:	Anadarko, Weld County CO	TVD Reference:	WELL @ 4997.0ft (Original Well Elev)
Project:	SEC.18-T2N-R65W	MD Reference:	WELL @ 4997.0ft (Original Well Elev)
Site:	Warner 25-18 Pad Sec.18-T2N-R65W	North Reference:	True
Well:	Warner 18-18	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plan #1 (3-03-11)		

Project	SEC.18-T2N-R65W, Weld County, Colorado		
Map System:	US State Plane 1983	System Datum:	Mean Sea Level
Geo Datum:	North American Datum 1983		Using Well Reference Point
Map Zone:	Colorado Northern Zone		Using geodetic scale factor

Site						Warner 25-18 Pad Sec.18-T2N-R65W											
Site Position:						Northing:			1,294,594.31 ft			Latitude:			40.139337		
From:			Lat/Long			Easting:			3,221,583.88 ft			Longitude:			-104.707433		
Position Uncertainty:			0.0 ft			Slot Radius:			"			Grid Convergence:			0.51 °		

Well	Warner 18-18					
Well Position	+N/-S	0.0 ft	Northing:	1,294,594.29 ft	Latitude:	40.139337
	+E/-W	0.0 ft	Easting:	3,221,583.88 ft	Longitude:	-104.707433
Position Uncertainty		0.0 ft	Wellhead Elevation:	ft	Ground Level:	4,983.0 ft

Wellbore	Wellbore #1				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2010	3/17/2011	8.84	66.86	53,025

Design	Plan #1 (3-03-11)			
Audit Notes:				
Version:	Phase:	PROTOTYPE	Tie On Depth:	0.0
Vertical Section:	Depth From (TVD) (ft)	+N/-S (ft)	+E/-W (ft)	Direction (°)
	0.0	0.0	0.0	316.00

Plan Sections										
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)	TFO (°)	Target
0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.00	0.00	
200.0	0.00	0.00	200.0	0.0	0.0	0.00	0.00	0.00	0.00	
450.0	5.00	331.00	449.7	9.5	-5.3	2.00	2.00	0.00	331.00	
1,095.9	17.67	315.60	1,081.8	104.6	-87.9	2.00	1.96	-2.38	-21.14	
5,135.1	17.67	315.60	4,930.4	980.7	-945.7	0.00	0.00	0.00	0.00	
6,018.7	0.00	0.00	5,800.0	1,077.3	-1,040.3	2.00	-2.00	0.00	180.00	TARGET BHL 132C
8,186.7	0.00	0.00	7,968.0	1,077.3	-1,040.3	0.00	0.00	0.00	0.00	

Database:	Landmark	Local Co-ordinate Reference:	Well Warner 18-18
Company:	Anadarko, Weld County CO	TVD Reference:	WELL @ 4997.0ft (Original Well Elev)
Project:	SEC.18-T2N-R65W	MD Reference:	WELL @ 4997.0ft (Original Well Elev)
Site:	Warner 25-18 Pad Sec.18-T2N-R65W	North Reference:	True
Well:	Warner 18-18	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plan #1 (3-03-11)		

Planned Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.00	0.00	0.00
40.0	0.00	0.00	40.0	0.0	0.0	0.0	0.00	0.00	0.00
80.0	0.00	0.00	80.0	0.0	0.0	0.0	0.00	0.00	0.00
120.0	0.00	0.00	120.0	0.0	0.0	0.0	0.00	0.00	0.00
160.0	0.00	0.00	160.0	0.0	0.0	0.0	0.00	0.00	0.00
200.0	0.00	0.00	200.0	0.0	0.0	0.0	0.00	0.00	0.00
240.0	0.80	331.00	240.0	0.2	-0.1	0.3	2.00	2.00	0.00
280.0	1.60	331.00	280.0	1.0	-0.5	1.1	2.00	2.00	0.00
320.0	2.40	331.00	320.0	2.2	-1.2	2.4	2.00	2.00	0.00
360.0	3.20	331.00	359.9	3.9	-2.2	4.3	2.00	2.00	0.00
400.0	4.00	331.00	399.8	6.1	-3.4	6.7	2.00	2.00	0.00
440.0	4.80	331.00	439.7	8.8	-4.9	9.7	2.00	2.00	0.00
450.0	5.00	331.00	449.7	9.5	-5.3	10.5	2.00	2.00	0.00
480.0	5.56	328.77	479.6	11.9	-6.7	13.2	2.00	1.88	-7.44
520.0	6.33	326.41	519.3	15.4	-8.9	17.3	2.00	1.91	-5.88
560.0	7.10	324.57	559.1	19.3	-11.5	21.9	2.00	1.93	-4.62
600.0	7.87	323.08	598.7	23.5	-14.6	27.0	2.00	1.94	-3.71
640.0	8.65	321.86	638.3	28.0	-18.1	32.8	2.00	1.95	-3.05
680.0	9.44	320.84	677.8	32.9	-22.1	39.0	2.00	1.96	-2.55
720.0	10.22	319.98	717.2	38.2	-26.4	45.8	2.00	1.97	-2.16
760.0	11.01	319.24	756.5	43.8	-31.2	53.2	2.00	1.97	-1.85
800.0	11.80	318.59	795.7	49.8	-36.4	61.1	2.00	1.97	-1.61
840.0	12.59	318.03	834.8	56.1	-42.0	69.5	2.00	1.98	-1.41
880.0	13.38	317.53	873.8	62.7	-48.1	78.5	2.00	1.98	-1.25
906.9	13.92	317.23	900.0	67.4	-52.4	84.9	2.00	1.98	-1.13
8 5/8"									
920.0	14.18	317.09	912.7	69.7	-54.5	88.0	2.00	1.98	-1.07
960.0	14.97	316.69	951.4	77.1	-61.4	98.1	2.00	1.98	-0.99
1,000.0	15.77	316.33	990.0	84.8	-68.7	108.7	2.00	1.99	-0.90
1,040.0	16.56	316.01	1,028.4	92.8	-76.4	119.8	2.00	1.99	-0.81
1,080.0	17.36	315.71	1,066.6	101.2	-84.5	131.5	2.00	1.99	-0.74
1,095.9	17.67	315.60	1,081.8	104.6	-87.9	136.3	2.00	1.99	-0.69
1,120.0	17.67	315.60	1,104.8	109.8	-93.0	143.6	0.00	0.00	0.00
1,160.0	17.67	315.60	1,142.9	118.5	-101.5	155.7	0.00	0.00	0.00
1,200.0	17.67	315.60	1,181.0	127.2	-110.0	167.9	0.00	0.00	0.00
1,240.0	17.67	315.60	1,219.1	135.9	-118.5	180.0	0.00	0.00	0.00
1,280.0	17.67	315.60	1,257.2	144.5	-127.0	192.2	0.00	0.00	0.00
1,320.0	17.67	315.60	1,295.3	153.2	-135.5	204.3	0.00	0.00	0.00
1,360.0	17.67	315.60	1,333.4	161.9	-144.0	216.5	0.00	0.00	0.00
1,400.0	17.67	315.60	1,371.5	170.6	-152.5	228.6	0.00	0.00	0.00
1,440.0	17.67	315.60	1,409.7	179.2	-161.0	240.7	0.00	0.00	0.00
1,480.0	17.67	315.60	1,447.8	187.9	-169.5	252.9	0.00	0.00	0.00
1,520.0	17.67	315.60	1,485.9	196.6	-177.9	265.0	0.00	0.00	0.00
1,560.0	17.67	315.60	1,524.0	205.3	-186.4	277.2	0.00	0.00	0.00
1,600.0	17.67	315.60	1,562.1	213.9	-194.9	289.3	0.00	0.00	0.00
1,640.0	17.67	315.60	1,600.2	222.6	-203.4	301.5	0.00	0.00	0.00
1,680.0	17.67	315.60	1,638.3	231.3	-211.9	313.6	0.00	0.00	0.00
1,720.0	17.67	315.60	1,676.4	240.0	-220.4	325.7	0.00	0.00	0.00
1,760.0	17.67	315.60	1,714.6	248.6	-228.9	337.9	0.00	0.00	0.00
1,800.0	17.67	315.60	1,752.7	257.3	-237.4	350.0	0.00	0.00	0.00
1,840.0	17.67	315.60	1,790.8	266.0	-245.9	362.2	0.00	0.00	0.00
1,880.0	17.67	315.60	1,828.9	274.7	-254.4	374.3	0.00	0.00	0.00
1,920.0	17.67	315.60	1,867.0	283.3	-262.9	386.4	0.00	0.00	0.00
1,960.0	17.67	315.60	1,905.1	292.0	-271.4	398.6	0.00	0.00	0.00

Database:	Landmark	Local Co-ordinate Reference:	Well Warner 18-18
Company:	Anadarko, Weld County CO	TVD Reference:	WELL @ 4997.0ft (Original Well Elev)
Project:	SEC.18-T2N-R65W	MD Reference:	WELL @ 4997.0ft (Original Well Elev)
Site:	Warner 25-18 Pad Sec.18-T2N-R65W	North Reference:	True
Well:	Warner 18-18	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plan #1 (3-03-11)		

Planned Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
1,976.6	17.67	315.60	1,921.0	295.6	-274.9	403.6	0.00	0.00	0.00
1918' MD = 67' Radius (Warner 18-18)									
2,000.0	17.67	315.60	1,943.2	300.7	-279.9	410.7	0.00	0.00	0.00
2,040.0	17.67	315.60	1,981.3	309.4	-288.4	422.9	0.00	0.00	0.00
2,080.0	17.67	315.60	2,019.5	318.0	-296.9	435.0	0.00	0.00	0.00
2,120.0	17.67	315.60	2,057.6	326.7	-305.4	447.2	0.00	0.00	0.00
2,160.0	17.67	315.60	2,095.7	335.4	-313.9	459.3	0.00	0.00	0.00
2,200.0	17.67	315.60	2,133.8	344.1	-322.4	471.4	0.00	0.00	0.00
2,240.0	17.67	315.60	2,171.9	352.7	-330.9	483.6	0.00	0.00	0.00
2,280.0	17.67	315.60	2,210.0	361.4	-339.4	495.7	0.00	0.00	0.00
2,320.0	17.67	315.60	2,248.1	370.1	-347.9	507.9	0.00	0.00	0.00
2,360.0	17.67	315.60	2,286.2	378.8	-356.4	520.0	0.00	0.00	0.00
2,400.0	17.67	315.60	2,324.4	387.5	-364.8	532.2	0.00	0.00	0.00
2,440.0	17.67	315.60	2,362.5	396.1	-373.3	544.3	0.00	0.00	0.00
2,480.0	17.67	315.60	2,400.6	404.8	-381.8	556.4	0.00	0.00	0.00
2,520.0	17.67	315.60	2,438.7	413.5	-390.3	568.6	0.00	0.00	0.00
2,560.0	17.67	315.60	2,476.8	422.2	-398.8	580.7	0.00	0.00	0.00
2,600.0	17.67	315.60	2,514.9	430.8	-407.3	592.9	0.00	0.00	0.00
2,640.0	17.67	315.60	2,553.0	439.5	-415.8	605.0	0.00	0.00	0.00
2,680.0	17.67	315.60	2,591.1	448.2	-424.3	617.1	0.00	0.00	0.00
2,720.0	17.67	315.60	2,629.3	456.9	-432.8	629.3	0.00	0.00	0.00
2,760.0	17.67	315.60	2,667.4	465.5	-441.3	641.4	0.00	0.00	0.00
2,800.0	17.67	315.60	2,705.5	474.2	-449.8	653.6	0.00	0.00	0.00
2,840.0	17.67	315.60	2,743.6	482.9	-458.3	665.7	0.00	0.00	0.00
2,880.0	17.67	315.60	2,781.7	491.6	-466.8	677.9	0.00	0.00	0.00
2,920.0	17.67	315.60	2,819.8	500.2	-475.3	690.0	0.00	0.00	0.00
2,960.0	17.67	315.60	2,857.9	508.9	-483.8	702.1	0.00	0.00	0.00
3,000.0	17.67	315.60	2,896.0	517.6	-492.3	714.3	0.00	0.00	0.00
3,040.0	17.67	315.60	2,934.2	526.3	-500.8	726.4	0.00	0.00	0.00
3,080.0	17.67	315.60	2,972.3	534.9	-509.3	738.6	0.00	0.00	0.00
3,120.0	17.67	315.60	3,010.4	543.6	-517.8	750.7	0.00	0.00	0.00
3,160.0	17.67	315.60	3,048.5	552.3	-526.3	762.9	0.00	0.00	0.00
3,200.0	17.67	315.60	3,086.6	561.0	-534.8	775.0	0.00	0.00	0.00
3,240.0	17.67	315.60	3,124.7	569.6	-543.3	787.1	0.00	0.00	0.00
3,280.0	17.67	315.60	3,162.8	578.3	-551.7	799.3	0.00	0.00	0.00
3,320.0	17.67	315.60	3,200.9	587.0	-560.2	811.4	0.00	0.00	0.00
3,360.0	17.67	315.60	3,239.1	595.7	-568.7	823.6	0.00	0.00	0.00
3,400.0	17.67	315.60	3,277.2	604.3	-577.2	835.7	0.00	0.00	0.00
3,440.0	17.67	315.60	3,315.3	613.0	-585.7	847.9	0.00	0.00	0.00
3,480.0	17.67	315.60	3,353.4	621.7	-594.2	860.0	0.00	0.00	0.00
3,520.0	17.67	315.60	3,391.5	630.4	-602.7	872.1	0.00	0.00	0.00
3,560.0	17.67	315.60	3,429.6	639.0	-611.2	884.3	0.00	0.00	0.00
3,600.0	17.67	315.60	3,467.7	647.7	-619.7	896.4	0.00	0.00	0.00
3,640.0	17.67	315.60	3,505.8	656.4	-628.2	908.6	0.00	0.00	0.00
3,680.0	17.67	315.60	3,544.0	665.1	-636.7	920.7	0.00	0.00	0.00
3,720.0	17.67	315.60	3,582.1	673.8	-645.2	932.8	0.00	0.00	0.00
3,760.0	17.67	315.60	3,620.2	682.4	-653.7	945.0	0.00	0.00	0.00
3,800.0	17.67	315.60	3,658.3	691.1	-662.2	957.1	0.00	0.00	0.00
3,840.0	17.67	315.60	3,696.4	699.8	-670.7	969.3	0.00	0.00	0.00
3,880.0	17.67	315.60	3,734.5	708.5	-679.2	981.4	0.00	0.00	0.00
3,920.0	17.67	315.60	3,772.6	717.1	-687.7	993.6	0.00	0.00	0.00
3,960.0	17.67	315.60	3,810.7	725.8	-696.2	1,005.7	0.00	0.00	0.00
4,000.0	17.67	315.60	3,848.9	734.5	-704.7	1,017.8	0.00	0.00	0.00

Database:	Landmark	Local Co-ordinate Reference:	Well Warner 18-18
Company:	Anadarko, Weld County CO	TVD Reference:	WELL @ 4997.0ft (Original Well Elev)
Project:	SEC.18-T2N-R65W	MD Reference:	WELL @ 4997.0ft (Original Well Elev)
Site:	Warner 25-18 Pad Sec.18-T2N-R65W	North Reference:	True
Well:	Warner 18-18	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plan #1 (3-03-11)		

Planned Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
4,040.0	17.67	315.60	3,887.0	743.2	-713.2	1,030.0	0.00	0.00	0.00
4,080.0	17.67	315.60	3,925.1	751.8	-721.7	1,042.1	0.00	0.00	0.00
4,120.0	17.67	315.60	3,963.2	760.5	-730.2	1,054.3	0.00	0.00	0.00
4,160.0	17.67	315.60	4,001.3	769.2	-738.6	1,066.4	0.00	0.00	0.00
4,200.0	17.67	315.60	4,039.4	777.9	-747.1	1,078.6	0.00	0.00	0.00
4,240.0	17.67	315.60	4,077.5	786.5	-755.6	1,090.7	0.00	0.00	0.00
4,245.7	17.67	315.60	4,083.0	787.8	-756.9	1,092.4	0.00	0.00	0.00
PARKMAN									
4,280.0	17.67	315.60	4,115.6	795.2	-764.1	1,102.8	0.00	0.00	0.00
4,320.0	17.67	315.60	4,153.8	803.9	-772.6	1,115.0	0.00	0.00	0.00
4,360.0	17.67	315.60	4,191.9	812.6	-781.1	1,127.1	0.00	0.00	0.00
4,400.0	17.67	315.60	4,230.0	821.2	-789.6	1,139.3	0.00	0.00	0.00
4,440.0	17.67	315.60	4,268.1	829.9	-798.1	1,151.4	0.00	0.00	0.00
4,480.0	17.67	315.60	4,306.2	838.6	-806.6	1,163.6	0.00	0.00	0.00
4,520.0	17.67	315.60	4,344.3	847.3	-815.1	1,175.7	0.00	0.00	0.00
4,560.0	17.67	315.60	4,382.4	855.9	-823.6	1,187.8	0.00	0.00	0.00
4,600.0	17.67	315.60	4,420.5	864.6	-832.1	1,200.0	0.00	0.00	0.00
4,640.0	17.67	315.60	4,458.7	873.3	-840.6	1,212.1	0.00	0.00	0.00
4,680.0	17.67	315.60	4,496.8	882.0	-849.1	1,224.3	0.00	0.00	0.00
4,720.0	17.67	315.60	4,534.9	890.6	-857.6	1,236.4	0.00	0.00	0.00
4,760.0	17.67	315.60	4,573.0	899.3	-866.1	1,248.5	0.00	0.00	0.00
4,800.0	17.67	315.60	4,611.1	908.0	-874.6	1,260.7	0.00	0.00	0.00
4,802.0	17.67	315.60	4,613.0	908.4	-875.0	1,261.3	0.00	0.00	0.00
SUSSEX									
4,840.0	17.67	315.60	4,649.2	916.7	-883.1	1,272.8	0.00	0.00	0.00
4,880.0	17.67	315.60	4,687.3	925.3	-891.6	1,285.0	0.00	0.00	0.00
4,920.0	17.67	315.60	4,725.4	934.0	-900.1	1,297.1	0.00	0.00	0.00
4,960.0	17.67	315.60	4,763.6	942.7	-908.6	1,309.3	0.00	0.00	0.00
5,000.0	17.67	315.60	4,801.7	951.4	-917.1	1,321.4	0.00	0.00	0.00
5,040.0	17.67	315.60	4,839.8	960.0	-925.5	1,333.5	0.00	0.00	0.00
5,080.0	17.67	315.60	4,877.9	968.7	-934.0	1,345.7	0.00	0.00	0.00
5,120.0	17.67	315.60	4,916.0	977.4	-942.5	1,357.8	0.00	0.00	0.00
5,135.1	17.67	315.60	4,930.4	980.7	-945.7	1,362.4	0.00	0.00	0.00
5,160.0	17.17	315.60	4,954.1	986.0	-951.0	1,369.9	2.00	-2.00	0.00
5,200.0	16.37	315.60	4,992.4	994.2	-959.0	1,381.4	2.00	-2.00	0.00
5,240.0	15.57	315.60	5,030.9	1,002.1	-966.7	1,392.4	2.00	-2.00	0.00
5,280.0	14.77	315.60	5,069.5	1,009.6	-974.1	1,402.9	2.00	-2.00	0.00
5,320.0	13.97	315.60	5,108.3	1,016.7	-981.0	1,412.8	2.00	-2.00	0.00
5,360.0	13.17	315.60	5,147.1	1,023.4	-987.6	1,422.2	2.00	-2.00	0.00
5,400.0	12.37	315.60	5,186.1	1,029.7	-993.8	1,431.0	2.00	-2.00	0.00
5,440.0	11.57	315.60	5,225.3	1,035.6	-999.6	1,439.3	2.00	-2.00	0.00
5,480.0	10.77	315.60	5,264.5	1,041.2	-1,005.0	1,447.1	2.00	-2.00	0.00
5,520.0	9.97	315.60	5,303.9	1,046.3	-1,010.0	1,454.3	2.00	-2.00	0.00
5,560.0	9.17	315.60	5,343.3	1,051.1	-1,014.7	1,460.9	2.00	-2.00	0.00
5,600.0	8.37	315.60	5,382.8	1,055.4	-1,019.0	1,467.0	2.00	-2.00	0.00
5,640.0	7.57	315.60	5,422.4	1,059.4	-1,022.8	1,472.6	2.00	-2.00	0.00
5,680.0	6.77	315.60	5,462.1	1,063.0	-1,026.3	1,477.6	2.00	-2.00	0.00
5,720.0	5.97	315.60	5,501.9	1,066.1	-1,029.4	1,482.0	2.00	-2.00	0.00
5,760.0	5.17	315.60	5,541.7	1,068.9	-1,032.2	1,485.9	2.00	-2.00	0.00
5,800.0	4.37	315.60	5,581.6	1,071.3	-1,034.5	1,489.2	2.00	-2.00	0.00
5,840.0	3.57	315.60	5,621.5	1,073.3	-1,036.4	1,492.0	2.00	-2.00	0.00
5,880.0	2.77	315.60	5,661.4	1,074.9	-1,038.0	1,494.2	2.00	-2.00	0.00
5,920.0	1.97	315.60	5,701.4	1,076.0	-1,039.1	1,495.9	2.00	-2.00	0.00
5,960.0	1.17	315.60	5,741.4	1,076.8	-1,039.9	1,497.0	2.00	-2.00	0.00

Database:	Landmark	Local Co-ordinate Reference:	Well Warner 18-18
Company:	Anadarko, Weld County CO	TVD Reference:	WELL @ 4997.0ft (Original Well Elev)
Project:	SEC.18-T2N-R65W	MD Reference:	WELL @ 4997.0ft (Original Well Elev)
Site:	Warner 25-18 Pad Sec.18-T2N-R65W	North Reference:	True
Well:	Warner 18-18	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plan #1 (3-03-11)		

Planned Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
6,000.0	0.37	315.60	5,781.3	1,077.2	-1,040.3	1,497.5	2.00	-2.00	0.00
6,018.7	0.00	0.00	5,800.0	1,077.3	-1,040.3	1,497.6	2.00	-2.00	0.00
TARGET BHL 1320'FNL, 1320'FWL									
6,040.0	0.00	0.00	5,821.3	1,077.3	-1,040.3	1,497.6	0.00	0.00	0.00
6,080.0	0.00	0.00	5,861.3	1,077.3	-1,040.3	1,497.6	0.00	0.00	0.00
6,120.0	0.00	0.00	5,901.3	1,077.3	-1,040.3	1,497.6	0.00	0.00	0.00
6,160.0	0.00	0.00	5,941.3	1,077.3	-1,040.3	1,497.6	0.00	0.00	0.00
6,200.0	0.00	0.00	5,981.3	1,077.3	-1,040.3	1,497.6	0.00	0.00	0.00
6,240.0	0.00	0.00	6,021.3	1,077.3	-1,040.3	1,497.6	0.00	0.00	0.00
6,280.0	0.00	0.00	6,061.3	1,077.3	-1,040.3	1,497.6	0.00	0.00	0.00
6,320.0	0.00	0.00	6,101.3	1,077.3	-1,040.3	1,497.6	0.00	0.00	0.00
6,360.0	0.00	0.00	6,141.3	1,077.3	-1,040.3	1,497.6	0.00	0.00	0.00
6,400.0	0.00	0.00	6,181.3	1,077.3	-1,040.3	1,497.6	0.00	0.00	0.00
6,440.0	0.00	0.00	6,221.3	1,077.3	-1,040.3	1,497.6	0.00	0.00	0.00
6,480.0	0.00	0.00	6,261.3	1,077.3	-1,040.3	1,497.6	0.00	0.00	0.00
6,520.0	0.00	0.00	6,301.3	1,077.3	-1,040.3	1,497.6	0.00	0.00	0.00
6,560.0	0.00	0.00	6,341.3	1,077.3	-1,040.3	1,497.6	0.00	0.00	0.00
6,600.0	0.00	0.00	6,381.3	1,077.3	-1,040.3	1,497.6	0.00	0.00	0.00
6,640.0	0.00	0.00	6,421.3	1,077.3	-1,040.3	1,497.6	0.00	0.00	0.00
6,680.0	0.00	0.00	6,461.3	1,077.3	-1,040.3	1,497.6	0.00	0.00	0.00
6,720.0	0.00	0.00	6,501.3	1,077.3	-1,040.3	1,497.6	0.00	0.00	0.00
6,760.0	0.00	0.00	6,541.3	1,077.3	-1,040.3	1,497.6	0.00	0.00	0.00
6,800.0	0.00	0.00	6,581.3	1,077.3	-1,040.3	1,497.6	0.00	0.00	0.00
6,840.0	0.00	0.00	6,621.3	1,077.3	-1,040.3	1,497.6	0.00	0.00	0.00
6,880.0	0.00	0.00	6,661.3	1,077.3	-1,040.3	1,497.6	0.00	0.00	0.00
6,920.0	0.00	0.00	6,701.3	1,077.3	-1,040.3	1,497.6	0.00	0.00	0.00
6,960.0	0.00	0.00	6,741.3	1,077.3	-1,040.3	1,497.6	0.00	0.00	0.00
7,000.0	0.00	0.00	6,781.3	1,077.3	-1,040.3	1,497.6	0.00	0.00	0.00
7,040.0	0.00	0.00	6,821.3	1,077.3	-1,040.3	1,497.6	0.00	0.00	0.00
7,080.0	0.00	0.00	6,861.3	1,077.3	-1,040.3	1,497.6	0.00	0.00	0.00
7,120.0	0.00	0.00	6,901.3	1,077.3	-1,040.3	1,497.6	0.00	0.00	0.00
7,160.0	0.00	0.00	6,941.3	1,077.3	-1,040.3	1,497.6	0.00	0.00	0.00
7,200.0	0.00	0.00	6,981.3	1,077.3	-1,040.3	1,497.6	0.00	0.00	0.00
7,240.0	0.00	0.00	7,021.3	1,077.3	-1,040.3	1,497.6	0.00	0.00	0.00
7,280.0	0.00	0.00	7,061.3	1,077.3	-1,040.3	1,497.6	0.00	0.00	0.00
7,311.7	0.00	0.00	7,093.0	1,077.3	-1,040.3	1,497.6	0.00	0.00	0.00
NIOBRARA - TARGET CIRCLE 1320'FNL & 1320'FWL - LEGAL BOX 800' X 800' 1340'FNL & 1268'FWL									
7,320.0	0.00	0.00	7,101.3	1,077.3	-1,040.3	1,497.6	0.00	0.00	0.00
7,360.0	0.00	0.00	7,141.3	1,077.3	-1,040.3	1,497.6	0.00	0.00	0.00
7,400.0	0.00	0.00	7,181.3	1,077.3	-1,040.3	1,497.6	0.00	0.00	0.00
7,440.0	0.00	0.00	7,221.3	1,077.3	-1,040.3	1,497.6	0.00	0.00	0.00
7,480.0	0.00	0.00	7,261.3	1,077.3	-1,040.3	1,497.6	0.00	0.00	0.00
7,520.0	0.00	0.00	7,301.3	1,077.3	-1,040.3	1,497.6	0.00	0.00	0.00
7,560.0	0.00	0.00	7,341.3	1,077.3	-1,040.3	1,497.6	0.00	0.00	0.00
7,581.7	0.00	0.00	7,363.0	1,077.3	-1,040.3	1,497.6	0.00	0.00	0.00
CODELL									
7,600.0	0.00	0.00	7,381.3	1,077.3	-1,040.3	1,497.6	0.00	0.00	0.00
7,640.0	0.00	0.00	7,421.3	1,077.3	-1,040.3	1,497.6	0.00	0.00	0.00
7,674.7	0.00	0.00	7,456.0	1,077.3	-1,040.3	1,497.6	0.00	0.00	0.00
GREENHORN									
7,680.0	0.00	0.00	7,461.3	1,077.3	-1,040.3	1,497.6	0.00	0.00	0.00
7,720.0	0.00	0.00	7,501.3	1,077.3	-1,040.3	1,497.6	0.00	0.00	0.00
7,760.0	0.00	0.00	7,541.3	1,077.3	-1,040.3	1,497.6	0.00	0.00	0.00

Database:	Landmark	Local Co-ordinate Reference:	Well Warner 18-18
Company:	Anadarko, Weld County CO	TVD Reference:	WELL @ 4997.0ft (Original Well Elev)
Project:	SEC.18-T2N-R65W	MD Reference:	WELL @ 4997.0ft (Original Well Elev)
Site:	Warner 25-18 Pad Sec.18-T2N-R65W	North Reference:	True
Well:	Warner 18-18	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plan #1 (3-03-11)		

Planned Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
7,800.0	0.00	0.00	7,581.3	1,077.3	-1,040.3	1,497.6	0.00	0.00	0.00
7,840.0	0.00	0.00	7,621.3	1,077.3	-1,040.3	1,497.6	0.00	0.00	0.00
7,880.0	0.00	0.00	7,661.3	1,077.3	-1,040.3	1,497.6	0.00	0.00	0.00
7,920.0	0.00	0.00	7,701.3	1,077.3	-1,040.3	1,497.6	0.00	0.00	0.00
7,960.0	0.00	0.00	7,741.3	1,077.3	-1,040.3	1,497.6	0.00	0.00	0.00
8,000.0	0.00	0.00	7,781.3	1,077.3	-1,040.3	1,497.6	0.00	0.00	0.00
8,036.7	0.00	0.00	7,818.0	1,077.3	-1,040.3	1,497.6	0.00	0.00	0.00
J-SAND									
8,040.0	0.00	0.00	7,821.3	1,077.3	-1,040.3	1,497.6	0.00	0.00	0.00
8,080.0	0.00	0.00	7,861.3	1,077.3	-1,040.3	1,497.6	0.00	0.00	0.00
8,120.0	0.00	0.00	7,901.3	1,077.3	-1,040.3	1,497.6	0.00	0.00	0.00
8,160.0	0.00	0.00	7,941.3	1,077.3	-1,040.3	1,497.6	0.00	0.00	0.00
8,186.7	0.00	0.00	7,968.0	1,077.3	-1,040.3	1,497.6	0.00	0.00	0.00

Targets									
Target Name	Dip Angle (°)	Dip Dir. (°)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	Northing (ft)	Easting (ft)	Latitude	Longitude
- hit/miss target									
- Shape									
TARGET CIRCLE 132'	0.00	0.00	7,093.0	1,077.3	-1,040.3	1,295,662.16	3,220,534.02	40.142294	-104.711154
- plan hits target center									
- Circle (radius 75.0)									
TARGET BHL 1320'F	0.00	0.00	5,800.0	1,077.3	-1,040.3	1,295,662.16	3,220,534.02	40.142294	-104.711154
- plan hits target center									
- Point									
LEGAL BOX 800' X 800'	0.00	0.00	7,093.0	1,057.3	-1,092.3	1,295,641.75	3,220,482.22	40.142239	-104.711340
- plan misses target center by 55.7ft at 7311.7ft MD (7093.0 TVD, 1077.3 N, -1040.3 E)									
- Rectangle (sides W800.0 H800.0 D875.0)									
1918' MD = 67' Radius:	0.00	0.00	1,921.0	245.2	-326.3	1,294,836.54	3,221,255.43	40.140010	-104.708600
- plan misses target center by 72.0ft at 1976.6ft MD (1921.0 TVD, 295.6 N, -274.9 E)									
- Circle (radius 67.0)									

Casing Points					
Measured Depth (ft)	Vertical Depth (ft)	Name	Casing Diameter (")	Hole Diameter (")	
906.9	900.0	8 5/8"	8-5/8	12-1/4	

Formations					
Measured Depth (ft)	Vertical Depth (ft)	Name	Lithology	Dip (°)	Dip Direction (°)
4,245.7	4,083.0	PARKMAN		0.00	
4,802.0	4,613.0	SUSSEX		0.00	
7,311.7	7,093.0	NIOBRARA		0.00	
7,581.7	7,363.0	CODELL		0.00	
7,674.7	7,456.0	GREENHORN		0.00	
8,036.7	7,818.0	J-SAND		0.00	

Database:	Landmark	Local Co-ordinate Reference:	Well Warner 18-18
Company:	Anadarko, Weld County CO	TVD Reference:	WELL @ 4997.0ft (Original Well Elev)
Project:	SEC.18-T2N-R65W	MD Reference:	WELL @ 4997.0ft (Original Well Elev)
Site:	Warner 25-18 Pad Sec.18-T2N-R65W	North Reference:	True
Well:	Warner 18-18	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plan #1 (3-03-11)		



Directional

Anadarko, Weld County CO

SEC.18-T2N-R65W

Warner 25-18 Pad Sec.18-T2N-R65W

Warner 18-18

Wellbore #1

Plan #1 (3-03-11)

Anticollision Report

17 March, 2011



Company:	Anadarko, Weld County CO	Local Co-ordinate Reference:	Well Warner 18-18
Project:	SEC.18-T2N-R65W	TVD Reference:	WELL @ 4997.0ft (Original Well Elev)
Reference Site:	Warner 25-18 Pad Sec.18-T2N-R65W	MD Reference:	WELL @ 4997.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Warner 18-18	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	Landmark
Reference Design:	Plan #1 (3-03-11)	Offset TVD Reference:	Offset Datum

Reference	Plan #1 (3-03-11)		
Filter type:	NO GLOBAL FILTER: Using user defined selection & filtering criteria		
Interpolation Method:	Stations	Error Model:	ISCWSA
Depth Range:	Unlimited	Scan Method:	Closest Approach 3D
Results Limited by:	Maximum center-center distance of 10,000.0ft	Error Surface:	Elliptical Conic
Warning Levels Evaluated at:	2.00 Sigma		

Survey Tool Program	Date 3/17/2011			
From (ft)	To (ft)	Survey (Wellbore)	Tool Name	Description
0.0	8,186.3	Plan #1 (3-03-11) (Wellbore #1)	MWD	MWD - Standard

Summary						
Site Name	Reference Measured Depth (ft)	Offset Measured Depth (ft)	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Separation Factor	Warning
Offset Well - Wellbore - Design						
Warner 25-18 Pad Sec.18-T2N-R65W						
HSR-Warner 6-18 (Exist.) - Wellbore #1 - Design #1	1,976.3	1,917.6	72.0	58.9	5.510	CC, ES
HSR-Warner 6-18 (Exist.) - Wellbore #1 - Design #1	2,000.0	1,940.2	72.3	59.1	5.467	SF
Warner 31-18 - Wellbore #1 - Plan #1 (3-07-11)	200.0	200.0	15.8	15.2	23.482	CC, ES
Warner 31-18 - Wellbore #1 - Plan #1 (3-07-11)	1,400.0	1,392.7	100.0	89.3	9.344	SF

Offset Design Warner 25-18 Pad Sec.18-T2N-R65W - HSR-Warner 6-18 (Exist.) - Wellbore #1 - Design #1												
Survey Program: 0-MWD												
Reference		Offset		Semi Major Axis			Distance					
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor
0.0	0.0	0.0	0.0	0.0	0.0	-53.08	245.2	-326.3	408.1			
100.0	100.0	97.0	97.0	0.1	0.1	-53.08	245.2	-326.3	408.1	407.9	0.22	1,843.411
200.0	200.0	197.0	197.0	0.3	0.3	-53.08	245.2	-326.3	408.1	407.5	0.67	611.384
300.0	300.0	297.0	297.0	0.6	0.6	-24.19	245.2	-326.3	406.5	405.4	1.12	362.337
400.0	399.8	396.8	396.8	0.8	0.8	-24.54	245.2	-326.3	401.8	400.2	1.58	254.243
450.0	449.7	446.7	446.7	0.9	0.9	-24.80	245.2	-326.3	398.2	396.4	1.81	219.988
500.0	499.5	496.5	496.5	1.0	1.0	-21.61	245.2	-326.3	393.8	391.8	2.04	193.018
600.0	598.7	595.7	595.7	1.3	1.2	-17.81	245.2	-326.3	382.5	380.0	2.50	152.799
700.0	697.5	694.5	694.5	1.6	1.4	-15.85	245.2	-326.3	367.7	364.8	2.97	123.763
800.0	795.7	792.7	792.7	2.0	1.7	-14.91	245.2	-326.3	349.6	346.2	3.44	101.487
900.0	893.3	890.3	890.3	2.4	1.9	-14.65	245.2	-326.3	328.2	324.2	3.93	83.588
1,000.0	990.0	987.0	987.0	2.9	2.1	-14.96	245.2	-326.3	303.4	299.0	4.42	68.685
1,095.9	1,081.8	1,078.8	1,078.8	3.5	2.3	-15.79	245.2	-326.3	276.8	271.9	4.91	56.418
1,100.0	1,085.7	1,082.7	1,082.7	3.5	2.3	-15.86	245.2	-326.3	275.6	270.6	4.93	55.922
1,200.0	1,181.0	1,178.0	1,178.0	4.1	2.5	-17.78	245.2	-326.3	246.4	240.9	5.47	45.015
1,300.0	1,276.3	1,273.3	1,273.3	4.7	2.7	-20.21	245.2	-326.3	217.5	211.5	6.05	35.928
1,400.0	1,371.5	1,368.5	1,368.5	5.3	3.0	-23.36	245.2	-326.3	189.2	182.5	6.69	28.282
1,500.0	1,466.8	1,463.8	1,463.8	5.9	3.2	-27.59	245.2	-326.3	161.5	154.1	7.40	21.814
1,600.0	1,562.1	1,559.1	1,559.1	6.5	3.4	-33.48	245.2	-326.3	135.0	126.8	8.25	16.360
1,700.0	1,657.4	1,654.4	1,654.4	7.1	3.6	-42.02	245.2	-326.3	110.5	101.2	9.31	11.865
1,800.0	1,752.7	1,749.7	1,749.7	7.8	3.8	-54.70	245.2	-326.3	89.7	79.0	10.67	8.409
1,900.0	1,847.9	1,844.9	1,844.9	8.4	4.0	-72.97	245.2	-326.3	75.6	63.4	12.18	6.210
1,976.3	1,920.6	1,917.6	1,917.6	8.9	4.2	-90.00	245.2	-326.3	72.0	58.9	13.06	5.510 CC, ES

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

Company:	Anadarko, Weld County CO	Local Co-ordinate Reference:	Well Warner 18-18
Project:	SEC.18-T2N-R65W	TVD Reference:	WELL @ 4997.0ft (Original Well Elev)
Reference Site:	Warner 25-18 Pad Sec.18-T2N-R65W	MD Reference:	WELL @ 4997.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Warner 18-18	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	Landmark
Reference Design:	Plan #1 (3-03-11)	Offset TVD Reference:	Offset Datum

Offset Design Warner 25-18 Pad Sec.18-T2N-R65W - HSR-Warner 6-18 (Exist.) - Wellbore #1 - Design #1												Offset Site Error:	0.0ft
Survey Program: 0-MWD												Offset Well Error:	0.0ft
Reference		Offset		Semi Major Axis			Distance						
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Warning
2,000.0	1,943.2	1,940.2	1,940.2	9.0	4.2	-95.45	245.2	-326.3	72.3	59.1	13.23	5.467 SF	
2,100.0	2,038.5	2,035.5	2,035.5	9.6	4.5	-116.44	245.2	-326.3	81.2	67.8	13.41	6.056	
2,200.0	2,133.8	2,130.8	2,130.8	10.3	4.7	-131.96	245.2	-326.3	99.0	85.8	13.18	7.511	
2,300.0	2,229.1	2,226.1	2,226.1	10.9	4.9	-142.45	245.2	-326.3	121.8	108.8	13.02	9.359	
2,400.0	2,324.4	2,321.4	2,321.4	11.5	5.1	-149.57	245.2	-326.3	147.4	134.4	13.03	11.313	
2,500.0	2,419.6	2,416.6	2,416.6	12.2	5.3	-154.58	245.2	-326.3	174.5	161.3	13.19	13.232	
2,600.0	2,514.9	2,511.9	2,511.9	12.8	5.5	-158.25	245.2	-326.3	202.6	189.1	13.45	15.059	
2,700.0	2,610.2	2,607.2	2,607.2	13.4	5.7	-161.02	245.2	-326.3	231.2	217.4	13.78	16.775	
2,800.0	2,705.5	2,702.5	2,702.5	14.0	6.0	-163.19	245.2	-326.3	260.2	246.1	14.16	18.377	
2,900.0	2,800.8	2,797.8	2,797.8	14.7	6.2	-164.92	245.2	-326.3	289.5	274.9	14.57	19.871	
3,000.0	2,896.0	2,893.0	2,893.0	15.3	6.4	-166.34	245.2	-326.3	319.0	304.0	15.00	21.264	
3,100.0	2,991.3	2,988.3	2,988.3	15.9	6.6	-167.51	245.2	-326.3	348.6	333.2	15.45	22.564	
3,200.0	3,086.6	3,083.6	3,083.6	16.6	6.8	-168.50	245.2	-326.3	378.4	362.5	15.91	23.780	
3,300.0	3,181.9	3,178.9	3,178.9	17.2	7.0	-169.35	245.2	-326.3	408.2	391.9	16.38	24.917	
3,400.0	3,277.2	3,274.2	3,274.2	17.8	7.2	-170.08	245.2	-326.3	438.2	421.3	16.86	25.984	
3,500.0	3,372.4	3,369.4	3,369.4	18.4	7.5	-170.72	245.2	-326.3	468.1	450.8	17.35	26.986	
3,600.0	3,467.7	3,464.7	3,464.7	19.1	7.7	-171.29	245.2	-326.3	498.1	480.3	17.84	27.929	
3,700.0	3,563.0	3,560.0	3,560.0	19.7	7.9	-171.78	245.2	-326.3	528.2	509.9	18.33	28.817	
3,800.0	3,658.3	3,655.3	3,655.3	20.3	8.1	-172.23	245.2	-326.3	558.3	539.5	18.83	29.656	
3,900.0	3,753.6	3,750.6	3,750.6	21.0	8.3	-172.63	245.2	-326.3	588.4	569.1	19.32	30.450	
4,000.0	3,848.9	3,845.9	3,845.9	21.6	8.5	-172.99	245.2	-326.3	618.5	598.7	19.82	31.201	
4,100.0	3,944.1	3,941.1	3,941.1	22.2	8.7	-173.32	245.2	-326.3	648.7	628.4	20.33	31.913	
4,200.0	4,039.4	4,036.4	4,036.4	22.9	9.0	-173.61	245.2	-326.3	678.9	658.0	20.83	32.589	
4,300.0	4,134.7	4,131.7	4,131.7	23.5	9.2	-173.89	245.2	-326.3	709.1	687.7	21.34	33.232	
4,400.0	4,230.0	4,227.0	4,227.0	24.1	9.4	-174.14	245.2	-326.3	739.3	717.4	21.84	33.843	
4,500.0	4,325.3	4,322.3	4,322.3	24.8	9.6	-174.37	245.2	-326.3	769.5	747.1	22.35	34.426	
4,600.0	4,420.5	4,417.5	4,417.5	25.4	9.8	-174.58	245.2	-326.3	799.7	776.9	22.86	34.982	
4,700.0	4,515.8	4,512.8	4,512.8	26.0	10.0	-174.78	245.2	-326.3	830.0	806.6	23.37	35.513	
4,800.0	4,611.1	4,608.1	4,608.1	26.7	10.2	-174.96	245.2	-326.3	860.2	836.3	23.88	36.020	
4,900.0	4,706.4	4,703.4	4,703.4	27.3	10.5	-175.13	245.2	-326.3	890.5	866.1	24.39	36.506	
5,000.0	4,801.7	4,798.7	4,798.7	27.9	10.7	-175.29	245.2	-326.3	920.7	895.8	24.90	36.971	
5,100.0	4,896.9	4,893.9	4,893.9	28.5	10.9	-175.44	245.2	-326.3	951.0	925.6	25.42	37.416	
5,135.1	4,930.4	4,927.4	4,927.4	28.8	11.0	-175.49	245.2	-326.3	961.6	936.0	25.60	37.568	
5,200.0	4,992.4	4,989.4	4,989.4	29.1	11.1	-175.61	245.2	-326.3	980.6	954.6	25.97	37.752	
5,300.0	5,088.9	5,085.9	5,085.9	29.6	11.3	-175.77	245.2	-326.3	1,007.0	980.5	26.50	37.993	
5,400.0	5,186.1	5,183.1	5,183.1	30.0	11.5	-175.90	245.2	-326.3	1,030.1	1,003.1	27.00	38.151	
5,500.0	5,284.2	5,281.2	5,281.2	30.3	11.8	-176.00	245.2	-326.3	1,049.7	1,022.3	27.46	38.232	
5,600.0	5,382.8	5,379.8	5,379.8	30.6	12.0	-176.09	245.2	-326.3	1,066.0	1,038.1	27.88	38.241	
5,700.0	5,482.0	5,479.0	5,479.0	30.8	12.2	-176.15	245.2	-326.3	1,078.8	1,050.5	28.25	38.184	
5,800.0	5,581.6	5,578.6	5,578.6	31.0	12.4	-176.20	245.2	-326.3	1,088.1	1,059.5	28.59	38.062	
5,900.0	5,681.4	5,678.4	5,678.4	31.2	12.7	-176.22	245.2	-326.3	1,094.0	1,065.1	28.88	37.880	
6,000.0	5,781.3	5,778.3	5,778.3	31.3	12.9	-176.24	245.2	-326.3	1,096.4	1,067.3	29.13	37.637	
6,018.7	5,800.0	5,797.0	5,797.0	31.3	12.9	139.37	245.2	-326.3	1,096.5	1,067.3	29.17	37.585	
6,100.0	5,881.3	5,878.3	5,878.3	31.4	13.1	139.37	245.2	-326.3	1,096.5	1,067.0	29.48	37.196	
6,200.0	5,981.3	5,978.3	5,978.3	31.5	13.3	139.37	245.2	-326.3	1,096.5	1,066.6	29.87	36.712	
6,300.0	6,081.3	6,078.3	6,078.3	31.6	13.5	139.37	245.2	-326.3	1,096.5	1,066.2	30.26	36.240	
6,400.0	6,181.3	6,178.3	6,178.3	31.7	13.8	139.37	245.2	-326.3	1,096.5	1,065.8	30.65	35.777	
6,500.0	6,281.3	6,278.3	6,278.3	31.7	14.0	139.37	245.2	-326.3	1,096.5	1,065.4	31.04	35.325	
6,600.0	6,381.3	6,378.3	6,378.3	31.8	14.2	139.37	245.2	-326.3	1,096.5	1,065.0	31.43	34.883	
6,700.0	6,481.3	6,478.3	6,478.3	31.9	14.4	139.37	245.2	-326.3	1,096.5	1,064.6	31.83	34.450	
6,800.0	6,581.3	6,578.3	6,578.3	32.0	14.7	139.37	245.2	-326.3	1,096.5	1,064.2	32.22	34.026	
6,900.0	6,681.3	6,678.3	6,678.3	32.1	14.9	139.37	245.2	-326.3	1,096.5	1,063.8	32.62	33.612	

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

Company:	Anadarko, Weld County CO	Local Co-ordinate Reference:	Well Warner 18-18
Project:	SEC.18-T2N-R65W	TVD Reference:	WELL @ 4997.0ft (Original Well Elev)
Reference Site:	Warner 25-18 Pad Sec.18-T2N-R65W	MD Reference:	WELL @ 4997.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Warner 18-18	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	Landmark
Reference Design:	Plan #1 (3-03-11)	Offset TVD Reference:	Offset Datum

Offset Design Warner 25-18 Pad Sec.18-T2N-R65W - HSR-Warner 6-18 (Exist.) - Wellbore #1 - Design #1												Offset Site Error:	0.0 ft
Survey Program: 0-MWD												Offset Well Error:	0.0 ft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	
7,000.0	6,781.3	6,778.3	6,778.3	32.2	15.1	139.37	245.2	-326.3	1,096.5	1,063.4	33.02	33.206	
7,100.0	6,881.3	6,878.3	6,878.3	32.3	15.3	139.37	245.2	-326.3	1,096.5	1,063.0	33.42	32.809	
7,200.0	6,981.3	6,978.3	6,978.3	32.4	15.6	139.37	245.2	-326.3	1,096.5	1,062.6	33.82	32.420	
7,300.0	7,081.3	7,078.3	7,078.3	32.5	15.8	139.37	245.2	-326.3	1,096.5	1,062.2	34.22	32.040	
7,400.0	7,181.3	7,178.3	7,178.3	32.6	16.0	139.37	245.2	-326.3	1,096.5	1,061.8	34.62	31.667	
7,500.0	7,281.3	7,278.3	7,278.3	32.7	16.2	139.37	245.2	-326.3	1,096.5	1,061.4	35.03	31.302	
7,600.0	7,381.3	7,378.3	7,378.3	32.9	16.5	139.37	245.2	-326.3	1,096.5	1,061.0	35.43	30.944	
7,700.0	7,481.3	7,478.3	7,478.3	33.0	16.7	139.37	245.2	-326.3	1,096.5	1,060.6	35.84	30.594	
7,800.0	7,581.3	7,578.3	7,578.3	33.1	16.9	139.37	245.2	-326.3	1,096.5	1,060.2	36.25	30.251	
7,900.0	7,681.3	7,678.3	7,678.3	33.2	17.1	139.37	245.2	-326.3	1,096.5	1,059.8	36.65	29.914	
8,000.0	7,781.3	7,778.3	7,778.3	33.3	17.4	139.37	245.2	-326.3	1,096.5	1,059.4	37.06	29.585	
8,100.0	7,881.3	7,878.3	7,878.3	33.4	17.6	139.37	245.2	-326.3	1,096.5	1,059.0	37.47	29.262	
8,186.7	7,968.0	7,965.0	7,965.0	33.5	17.8	139.37	245.2	-326.3	1,096.5	1,058.7	37.75	29.048	

Company:	Anadarko, Weld County CO	Local Co-ordinate Reference:	Well Warner 18-18
Project:	SEC.18-T2N-R65W	TVD Reference:	WELL @ 4997.0ft (Original Well Elev)
Reference Site:	Warner 25-18 Pad Sec.18-T2N-R65W	MD Reference:	WELL @ 4997.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Warner 18-18	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	Landmark
Reference Design:	Plan #1 (3-03-11)	Offset TVD Reference:	Offset Datum

Offset Design Warner 25-18 Pad Sec.18-T2N-R65W - Warner 31-18 - Wellbore #1 - Plan #1 (3-07-11)													Offset Site Error:	0.0ft
Survey Program: 0-MWD													Offset Well Error:	0.0ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
0.0	0.0	0.0	0.0	0.0	0.0	-153.80	-14.2	-7.0	15.8	15.8	0.00	N/A		
100.0	100.0	100.0	100.0	0.1	0.1	-153.80	-14.2	-7.0	15.8	15.6	0.22	70.446		
200.0	200.0	200.0	200.0	0.3	0.3	-153.80	-14.2	-7.0	15.8	15.2	0.67	23.482 CC, ES		
300.0	300.0	300.0	300.0	0.6	0.6	-123.72	-13.4	-8.5	16.8	15.7	1.12	14.969		
400.0	399.8	400.0	399.8	0.8	0.8	-121.11	-10.9	-13.1	19.6	18.1	1.58	12.410		
450.0	449.7	449.9	449.6	0.9	0.9	-119.59	-9.1	-16.6	21.8	20.0	1.83	11.909		
500.0	499.5	499.8	499.3	1.0	1.0	-114.75	-6.8	-20.8	24.3	22.2	2.08	11.671		
600.0	598.7	599.5	598.3	1.3	1.3	-108.29	-1.1	-31.5	29.9	27.2	2.64	11.300		
700.0	697.5	699.2	696.7	1.6	1.7	-104.24	6.2	-45.3	36.1	32.9	3.29	10.995		
800.0	795.7	798.8	794.4	2.0	2.0	-101.52	15.1	-62.0	43.1	39.1	4.03	10.698		
900.0	893.3	898.2	891.3	2.4	2.5	-99.60	25.6	-81.7	50.8	45.9	4.89	10.394		
1,000.0	990.0	997.6	987.3	2.9	3.0	-98.19	37.6	-104.3	59.2	53.3	5.87	10.086		
1,095.9	1,081.8	1,092.7	1,078.3	3.5	3.5	-97.17	50.6	-128.8	67.8	60.9	6.92	9.792		
1,100.0	1,085.7	1,096.8	1,082.2	3.5	3.5	-97.16	51.2	-129.9	68.2	61.2	6.97	9.781		
1,200.0	1,181.0	1,195.8	1,175.9	4.1	4.2	-95.72	66.3	-158.2	77.8	69.6	8.17	9.520		
1,300.0	1,276.3	1,294.6	1,268.1	4.7	4.9	-92.43	82.9	-189.3	88.3	78.9	9.43	9.359		
1,400.0	1,371.5	1,392.7	1,358.5	5.3	5.6	-87.99	100.8	-223.0	100.0	89.3	10.71	9.344 SF		
1,500.0	1,466.8	1,490.0	1,446.8	5.9	6.5	-82.95	120.0	-259.0	113.6	101.6	11.95	9.508		
1,600.0	1,562.1	1,586.3	1,532.8	6.5	7.4	-77.74	140.4	-297.3	129.4	116.3	13.12	9.866		
1,700.0	1,657.4	1,683.4	1,618.4	7.1	8.3	-72.85	161.9	-337.7	147.4	133.2	14.21	10.373		
1,800.0	1,752.7	1,781.0	1,704.4	7.8	9.3	-68.98	183.6	-378.5	166.3	151.0	15.26	10.896		
1,900.0	1,847.9	1,878.6	1,790.5	8.4	10.3	-65.91	205.3	-419.2	185.8	169.5	16.29	11.406		
2,000.0	1,943.2	1,976.3	1,876.5	9.0	11.3	-63.41	227.0	-460.0	205.7	188.4	17.30	11.890		
2,100.0	2,038.5	2,073.9	1,962.5	9.6	12.3	-61.36	248.8	-500.8	225.9	207.6	18.30	12.343		
2,200.0	2,133.8	2,171.6	2,048.6	10.3	13.3	-59.65	270.5	-541.5	246.4	227.1	19.30	12.764		
2,300.0	2,229.1	2,269.2	2,134.6	10.9	14.3	-58.20	292.2	-582.3	267.0	246.7	20.30	13.155		
2,400.0	2,324.4	2,366.8	2,220.6	11.5	15.2	-56.95	313.9	-623.0	287.8	266.5	21.29	13.516		
2,500.0	2,419.6	2,464.5	2,306.7	12.2	16.2	-55.88	335.6	-663.8	308.7	286.4	22.29	13.850		
2,600.0	2,514.9	2,562.1	2,392.7	12.8	17.2	-54.94	357.3	-704.5	329.7	306.4	23.28	14.159		
2,700.0	2,610.2	2,659.8	2,478.7	13.4	18.2	-54.11	379.0	-745.3	350.7	326.4	24.28	14.446		
2,800.0	2,705.5	2,757.4	2,564.8	14.0	19.3	-53.38	400.7	-786.0	371.8	346.6	25.27	14.713		
2,900.0	2,800.8	2,855.0	2,650.8	14.7	20.3	-52.72	422.4	-826.8	393.0	366.7	26.27	14.960		
3,000.0	2,896.0	2,952.7	2,736.8	15.3	21.3	-52.13	444.1	-867.5	414.2	387.0	27.27	15.191		
3,100.0	2,991.3	3,050.3	2,822.8	15.9	22.3	-51.60	465.8	-908.3	435.5	407.2	28.27	15.407		
3,200.0	3,086.6	3,148.0	2,908.9	16.6	23.3	-51.12	487.5	-949.1	456.8	427.5	29.26	15.608		
3,300.0	3,181.9	3,245.6	2,994.9	17.2	24.3	-50.68	509.2	-989.8	478.1	447.8	30.26	15.797		
3,400.0	3,277.2	3,343.2	3,080.9	17.8	25.3	-50.28	530.9	-1,030.6	499.4	468.1	31.26	15.974		
3,500.0	3,372.4	3,440.9	3,167.0	18.4	26.3	-49.91	552.6	-1,071.3	520.8	488.5	32.26	16.140		
3,600.0	3,467.7	3,538.5	3,253.0	19.1	27.3	-49.57	574.3	-1,112.1	542.1	508.9	33.27	16.297		
3,700.0	3,563.0	3,636.2	3,339.0	19.7	28.3	-49.26	596.0	-1,152.8	563.5	529.3	34.27	16.445		
3,800.0	3,658.3	3,733.8	3,425.1	20.3	29.3	-48.97	617.7	-1,193.6	584.9	549.7	35.27	16.585		
3,900.0	3,753.6	3,831.4	3,511.1	21.0	30.3	-48.70	639.4	-1,234.3	606.4	570.1	36.27	16.717		
4,000.0	3,848.9	3,929.1	3,597.1	21.6	31.3	-48.45	661.1	-1,275.1	627.8	590.5	37.28	16.842		
4,100.0	3,944.1	4,026.7	3,683.2	22.2	32.3	-48.21	682.8	-1,315.8	649.2	611.0	38.28	16.960		
4,200.0	4,039.4	4,124.4	3,769.2	22.9	33.3	-47.99	704.5	-1,356.6	670.7	631.4	39.28	17.073		
4,300.0	4,134.7	4,222.0	3,855.2	23.5	34.3	-47.79	726.2	-1,397.4	692.2	651.9	40.29	17.180		
4,400.0	4,230.0	4,319.6	3,941.3	24.1	35.3	-47.59	747.9	-1,438.1	713.6	672.3	41.29	17.282		
4,500.0	4,325.3	4,417.3	4,027.3	24.8	36.3	-47.41	769.6	-1,478.9	735.1	692.8	42.30	17.379		
4,600.0	4,420.5	4,514.9	4,113.3	25.4	37.4	-47.24	791.4	-1,519.6	756.6	713.3	43.30	17.471		
4,700.0	4,515.8	4,612.6	4,199.4	26.0	38.4	-47.07	813.1	-1,560.4	778.1	733.8	44.31	17.560		
4,800.0	4,611.1	4,710.2	4,285.4	26.7	39.4	-46.92	834.8	-1,601.1	799.6	754.3	45.32	17.644		
4,900.0	4,706.4	4,807.8	4,371.4	27.3	40.4	-46.77	856.5	-1,641.9	821.1	774.8	46.32	17.725		

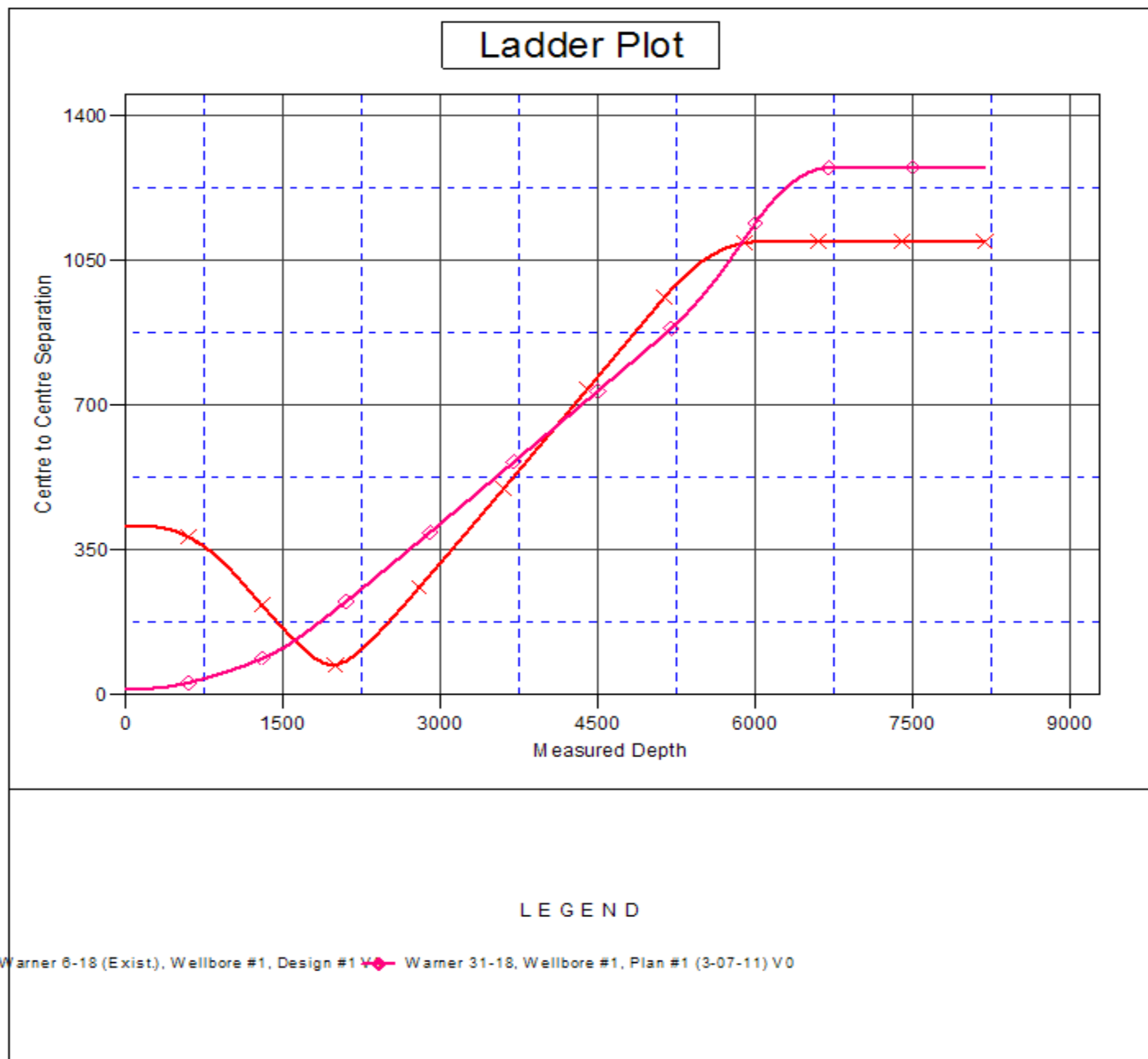
CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

Company:	Anadarko, Weld County CO	Local Co-ordinate Reference:	Well Warner 18-18
Project:	SEC.18-T2N-R65W	TVD Reference:	WELL @ 4997.0ft (Original Well Elev)
Reference Site:	Warner 25-18 Pad Sec.18-T2N-R65W	MD Reference:	WELL @ 4997.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Warner 18-18	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	Landmark
Reference Design:	Plan #1 (3-03-11)	Offset TVD Reference:	Offset Datum

Offset Design Warner 25-18 Pad Sec.18-T2N-R65W - Warner 31-18 - Wellbore #1 - Plan #1 (3-07-11)													Offset Site Error:	0.0 ft
Survey Program: 0-MWD													Offset Well Error:	0.0 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
5,000.0	4,801.7	4,905.5	4,457.5	27.9	41.4	-46.64	878.2	-1,682.6	842.6	795.3	47.33	17.803		
5,100.0	4,896.9	5,003.1	4,543.5	28.5	42.4	-46.50	899.9	-1,723.4	864.1	815.8	48.34	17.877		
5,135.1	4,930.4	5,037.4	4,573.7	28.8	42.7	-46.46	907.5	-1,737.7	871.6	823.0	48.69	17.902		
5,200.0	4,992.4	5,100.6	4,629.4	29.1	43.4	-46.56	921.5	-1,764.1	886.1	836.7	49.36	17.953		
5,300.0	5,088.9	5,197.5	4,714.8	29.6	44.4	-46.62	943.1	-1,804.5	910.3	860.1	50.24	18.119		
5,400.0	5,186.1	5,293.7	4,799.5	30.0	45.4	-46.57	964.5	-1,844.7	936.9	885.9	51.00	18.370		
5,500.0	5,284.2	5,389.0	4,883.5	30.3	46.4	-46.43	985.6	-1,884.4	965.8	914.2	51.65	18.702		
5,600.0	5,382.8	5,483.2	4,966.5	30.6	47.4	-46.21	1,006.6	-1,923.8	997.2	945.0	52.18	19.112		
5,700.0	5,482.0	5,576.4	5,048.6	30.8	48.3	-45.94	1,027.3	-1,962.7	1,031.0	978.4	52.60	19.599		
5,800.0	5,581.6	5,668.3	5,129.6	31.0	49.3	-45.62	1,047.7	-2,001.0	1,067.3	1,014.3	52.94	20.161		
5,900.0	5,681.4	5,797.8	5,244.8	31.2	50.4	-44.90	1,075.6	-2,053.4	1,104.7	1,051.7	53.03	20.833		
6,000.0	5,781.3	5,940.2	5,374.2	31.3	51.4	-44.09	1,103.4	-2,105.6	1,140.8	1,087.8	52.97	21.537		
6,018.7	5,800.0	5,967.2	5,399.1	31.3	51.6	-88.34	1,108.4	-2,114.9	1,147.3	1,094.4	52.95	21.669		
6,100.0	5,881.3	6,087.3	5,510.9	31.4	52.4	-87.34	1,129.0	-2,153.6	1,174.4	1,121.7	52.69	22.289		
6,200.0	5,981.3	6,240.2	5,655.7	31.5	53.2	-86.30	1,152.0	-2,196.7	1,203.7	1,151.2	52.48	22.935		
6,300.0	6,081.3	6,398.2	5,808.0	31.6	54.0	-85.47	1,171.9	-2,234.2	1,228.4	1,176.0	52.39	23.447		
6,400.0	6,181.3	6,560.7	5,966.7	31.7	54.6	-84.82	1,188.2	-2,264.8	1,248.1	1,195.8	52.38	23.826		
6,500.0	6,281.3	6,726.8	6,130.6	31.7	55.0	-84.36	1,200.5	-2,287.9	1,262.7	1,210.3	52.47	24.067		
6,600.0	6,381.3	6,895.4	6,298.4	31.8	55.3	-84.07	1,208.4	-2,302.8	1,272.0	1,219.3	52.63	24.170		
6,700.0	6,481.3	7,065.4	6,468.2	31.9	55.5	-83.95	1,211.7	-2,308.9	1,275.7	1,222.9	52.85	24.139		
6,800.0	6,581.3	7,178.5	6,581.3	32.0	55.6	-83.95	1,211.8	-2,309.0	1,275.8	1,222.8	53.08	24.037		
6,900.0	6,681.3	7,278.5	6,681.3	32.1	55.6	-83.95	1,211.8	-2,309.0	1,275.8	1,222.5	53.30	23.939		
7,000.0	6,781.3	7,378.5	6,781.3	32.2	55.7	-83.95	1,211.8	-2,309.0	1,275.8	1,222.3	53.52	23.840		
7,100.0	6,881.3	7,478.5	6,881.3	32.3	55.8	-83.95	1,211.8	-2,309.0	1,275.8	1,222.1	53.74	23.740		
7,200.0	6,981.3	7,578.5	6,981.3	32.4	55.8	-83.95	1,211.8	-2,309.0	1,275.8	1,221.9	53.97	23.640		
7,300.0	7,081.3	7,678.5	7,081.3	32.5	55.9	-83.95	1,211.8	-2,309.0	1,275.8	1,221.6	54.20	23.539		
7,400.0	7,181.3	7,778.5	7,181.3	32.6	55.9	-83.95	1,211.8	-2,309.0	1,275.8	1,221.4	54.43	23.439		
7,500.0	7,281.3	7,878.5	7,281.3	32.7	56.0	-83.95	1,211.8	-2,309.0	1,275.8	1,221.2	54.67	23.338		
7,600.0	7,381.3	7,978.5	7,381.3	32.9	56.1	-83.95	1,211.8	-2,309.0	1,275.8	1,220.9	54.91	23.236		
7,700.0	7,481.3	8,078.5	7,481.3	33.0	56.1	-83.95	1,211.8	-2,309.0	1,275.8	1,220.7	55.15	23.135		
7,800.0	7,581.3	8,178.5	7,581.3	33.1	56.2	-83.95	1,211.8	-2,309.0	1,275.8	1,220.4	55.39	23.033		
7,900.0	7,681.3	8,278.5	7,681.3	33.2	56.3	-83.95	1,211.8	-2,309.0	1,275.8	1,220.2	55.64	22.931		
8,000.0	7,781.3	8,378.5	7,781.3	33.3	56.3	-83.95	1,211.8	-2,309.0	1,275.8	1,220.0	55.89	22.830		
8,100.0	7,881.3	8,478.5	7,881.3	33.4	56.4	-83.95	1,211.8	-2,309.0	1,275.8	1,219.7	56.14	22.727		
8,186.7	7,968.0	8,565.2	7,968.0	33.5	56.5	-83.95	1,211.8	-2,309.0	1,275.8	1,219.5	56.30	22.663		

Company:	Anadarko, Weld County CO	Local Co-ordinate Reference:	Well Warner 18-18
Project:	SEC.18-T2N-R65W	TVD Reference:	WELL @ 4997.0ft (Original Well Elev)
Reference Site:	Warner 25-18 Pad Sec.18-T2N-R65W	MD Reference:	WELL @ 4997.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Warner 18-18	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	Landmark
Reference Design:	Plan #1 (3-03-11)	Offset TVD Reference:	Offset Datum

Reference Depths are relative to WELL @ 4997.0ft (Original Well Elev) Coordinates are relative to: Warner 18-18
Offset Depths are relative to Offset Datum
Coordinate System is US State Plane 1983, Colorado Northern Zone
Central Meridian is -105.500000 °
Grid Convergence at Surface is: 0.51°



Company:	Anadarko, Weld County CO	Local Co-ordinate Reference:	Well Warner 18-18
Project:	SEC.18-T2N-R65W	TVD Reference:	WELL @ 4997.0ft (Original Well Elev)
Reference Site:	Warner 25-18 Pad Sec.18-T2N-R65W	MD Reference:	WELL @ 4997.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Warner 18-18	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	Landmark
Reference Design:	Plan #1 (3-03-11)	Offset TVD Reference:	Offset Datum

Reference Depths are relative to WELL @ 4997.0ft (Original Well Elev) Coordinates are relative to: Warner 18-18
 Offset Depths are relative to Offset Datum Coordinate System is US State Plane 1983, Colorado Northern Zone
 Central Meridian is -105.500000 ° Grid Convergence at Surface is: 0.51°

