

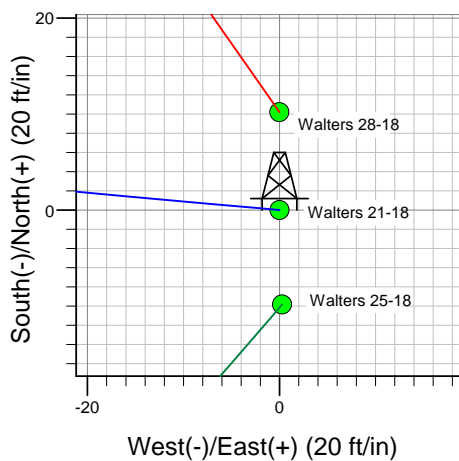
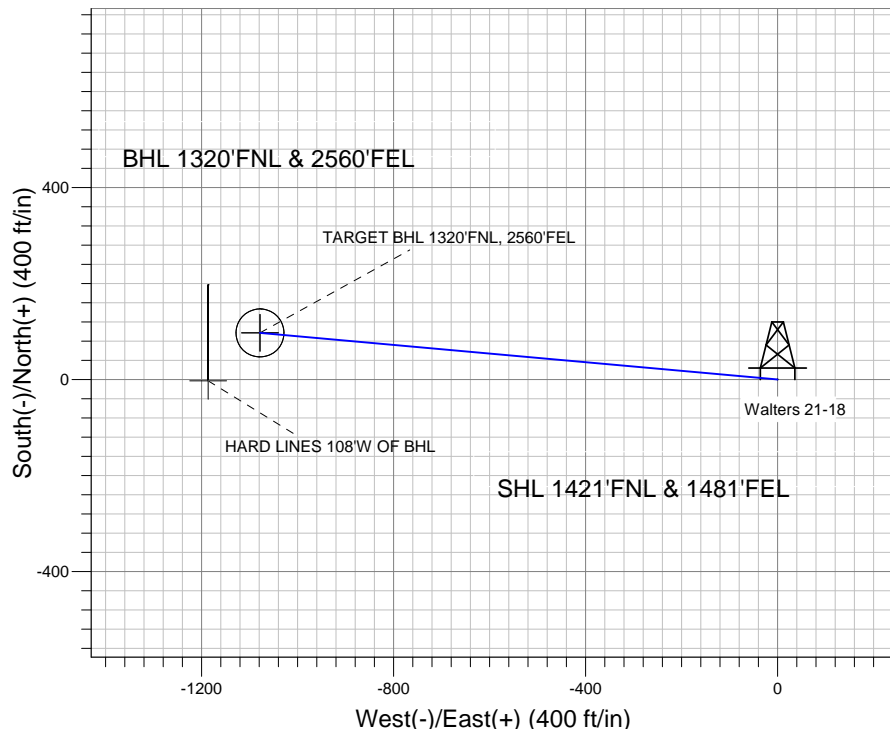
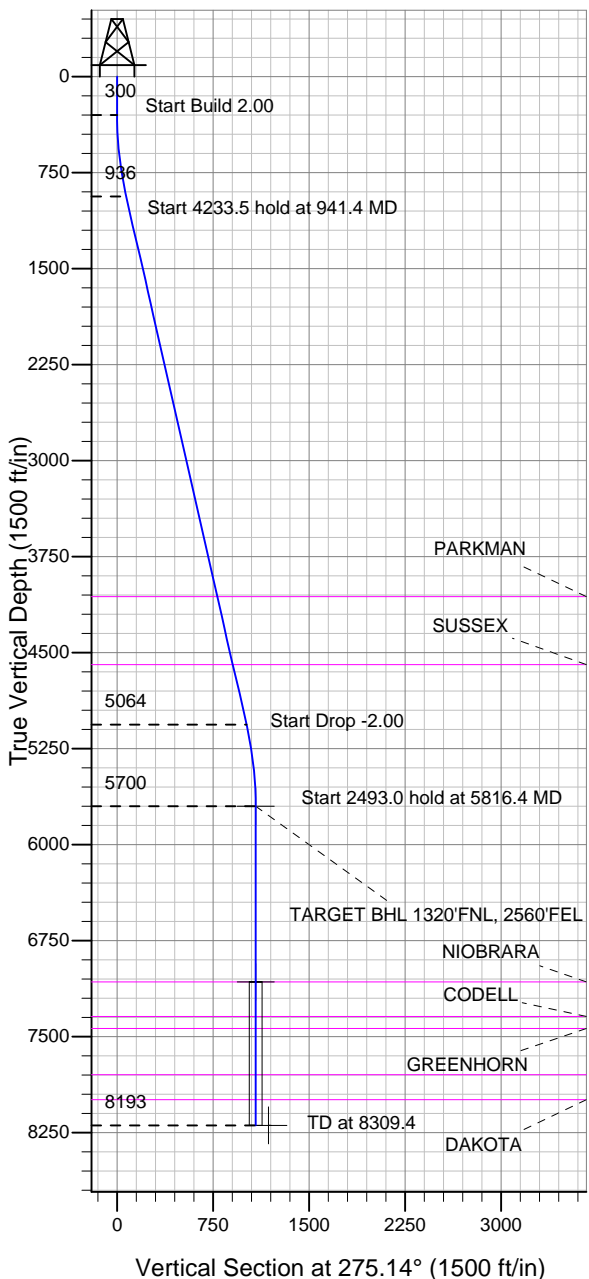
# ENSIGN

## Directional

### Well Name: Walters 21-18

Surface Location: Walters 17-18 Pad Sec.18-T2N-R65W  
 North American Datum 1983 , US State Plane 1983 , Colorado Northern Zone  
 Ground Elevation: 4963.0  
 +N/-S +E/-W Northing Easting Latitude Longitude Slot  
 0.0 0.0 1295592.09 3222923.66 40.142043 -104.702609  
 Original Well Elev WELL @ 4977.0ft (Original Well Elev)

### Anadarko, Weld County CO



#### FORMATION TOP DETAILS

TVDPATH	MDPATH	FORMATION
4063.0	4148.4	PARKMAN
4593.0	4692.0	SUSSEX
7073.0	7189.4	NIOBRARA
7343.0	7459.4	CODELL
7436.0	7552.4	GREENHORN
7798.0	7914.4	J-SAND
7993.0	8109.4	DAKOTA



Azimuths to True North  
 Magnetic North: 8.84°

Magnetic Field  
 Strength: 53023.0nT  
 Dip Angle: 66.86°  
 Date: 4/1/2011  
 Model: IGRF2010

Well Name: Walters 21-18 Lat/Long: 40.142043 -104.702609

#### WELLBORE TARGET DETAILS (LAT/LONG)

Name	TVD	+N/-S	+E/-W	Latitude	Longitude	Shape
TARGET BHL 1320'FNL, 2560'FEL	5700.0	96.9	-1078.6	40.142309	-104.706467	Point
TARGET CIRCLE 1320'FNL & 2560'FEL	7073.0	96.9	-1078.6	40.142309	-104.706467	Circle (Radius: 50.0)
HARD LINES 108'W OF BHL	8193.0	-3.1	-1186.6	40.142034	-104.706853	Polygon

#### 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	300.0	0.00	0.00	300.0	0.0	0.0	0.00	0.00	0.0	
3	941.4	12.83	275.14	936.1	6.4	-71.2	2.00	275.14	71.5	
4	5174.9	12.83	275.14	5063.9	90.5	-1007.4	0.00	0.00	1011.5	
5	5816.4	0.00	0.00	5700.0	96.9	-1078.6	2.00	180.00	1083.0	TARGET BHL 1320'FNL, 2560'FEL
6	8309.4	0.00	0.00	8193.0	96.9	-1078.6	0.00	0.00	1083.0	

#### CASING DETAILS

TVD	MD	Name	Size
900.0	904.5	8 5/8"	8-5/8

Walters 17-18 Pad Sec.18-T2N-R65W  
 Walters 21-18  
 Plan #1 (4-01-11)  
 11:22, April 06 2011



## **Directional**

### **Anadarko, Weld County CO**

**SEC.18-T2N-R65W**

**Walters 17-18 Pad Sec.18-T2N-R65W**

**Walters 21-18**

**Wellbore #1**

**Plan: Plan #1 (4-01-11)**

### **Standard Planning Report**

**06 April, 2011**

<b>Database:</b>	Landmark	<b>Local Co-ordinate Reference:</b>	Well Walters 21-18
<b>Company:</b>	Anadarko, Weld County CO	<b>TVD Reference:</b>	WELL @ 4977.0ft (Original Well Elev)
<b>Project:</b>	SEC.18-T2N-R65W	<b>MD Reference:</b>	WELL @ 4977.0ft (Original Well Elev)
<b>Site:</b>	Walters 17-18 Pad Sec.18-T2N-R65W	<b>North Reference:</b>	True
<b>Well:</b>	Walters 21-18	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Wellbore #1		
<b>Design:</b>	Plan #1 (4-01-11)		

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

Site		Walters 17-18 Pad Sec.18-T2N-R65W			
Site Position:		Northing:	1,295,602.30 ft	Latitude:	40.142071
From:	Lat/Long	Easting:	3,222,923.57 ft	Longitude:	-104.702609
Position Uncertainty:	0.0 ft	Slot Radius:	"	Grid Convergence:	0.52 °

Well	Walters 21-18					
Well Position	+N-S	-10.2 ft	Northing:	1,295,592.09 ft	Latitude:	40.142043
	+E-W	0.0 ft	Easting:	3,222,923.66 ft	Longitude:	-104.702609
Position Uncertainty		0.0 ft	Wellhead Elevation:	ft	Ground Level:	4,963.0 ft

<b>Wellbore</b>	Wellbore #1				
<b>Magnetics</b>	<b>Model Name</b>	<b>Sample Date</b>	<b>Declination (°)</b>	<b>Dip Angle (°)</b>	<b>Field Strength (nT)</b>
	IGRF2010	4/1/2011	8.84	66.86	53,023

<b>Design</b>	Plan #1 (4-01-11)			
<b>Audit Notes:</b>				
<b>Version:</b>	<b>Phase:</b>	PROTOTYPE	<b>Tie On Depth:</b>	0.0
<b>Vertical Section:</b>	<b>Depth From (TVD) (ft)</b>	<b>+N/-S (ft)</b>	<b>+E/-W (ft)</b>	<b>Direction (°)</b>
	0.0	0.0	0.0	275.14

<b>Plan Sections</b>										
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	
300.0	0.00	0.00	300.0	0.0	0.0	0.00	0.00	0.00	0.00	
941.4	12.83	275.14	936.1	6.4	-71.2	2.00	2.00	0.00	275.14	
5,174.9	12.83	275.14	5,063.9	90.5	-1,007.4	0.00	0.00	0.00	0.00	
5,816.4	0.00	0.00	5,700.0	96.9	-1,078.6	2.00	-2.00	0.00	180.00	TARGET BHL 132C
8,309.4	0.00	0.00	8,193.0	96.9	-1,078.6	0.00	0.00	0.00	0.00	

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<b>Project:</b>	SEC.18-T2N-R65W	<b>MD Reference:</b>	WELL @ 4977.0ft (Original Well Elev)
<b>Site:</b>	Walters 17-18 Pad Sec.18-T2N-R65W	<b>North Reference:</b>	True
<b>Well:</b>	Walters 21-18	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Wellbore #1		
<b>Design:</b>	Plan #1 (4-01-11)		

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	0.00	0.00	240.0	0.0	0.0	0.0	0.00	0.00	0.00
280.0	0.00	0.00	280.0	0.0	0.0	0.0	0.00	0.00	0.00
300.0	0.00	0.00	300.0	0.0	0.0	0.0	0.00	0.00	0.00
320.0	0.40	275.14	320.0	0.0	-0.1	0.1	2.00	2.00	0.00
360.0	1.20	275.14	360.0	0.1	-0.6	0.6	2.00	2.00	0.00
400.0	2.00	275.14	400.0	0.2	-1.7	1.7	2.00	2.00	0.00
440.0	2.80	275.14	439.9	0.3	-3.4	3.4	2.00	2.00	0.00
480.0	3.60	275.14	479.9	0.5	-5.6	5.7	2.00	2.00	0.00
520.0	4.40	275.14	519.8	0.8	-8.4	8.4	2.00	2.00	0.00
560.0	5.20	275.14	559.6	1.1	-11.7	11.8	2.00	2.00	0.00
600.0	6.00	275.14	599.5	1.4	-15.6	15.7	2.00	2.00	0.00
640.0	6.80	275.14	639.2	1.8	-20.1	20.2	2.00	2.00	0.00
680.0	7.60	275.14	678.9	2.3	-25.1	25.2	2.00	2.00	0.00
720.0	8.40	275.14	718.5	2.8	-30.6	30.7	2.00	2.00	0.00
760.0	9.20	275.14	758.0	3.3	-36.7	36.9	2.00	2.00	0.00
800.0	10.00	275.14	797.5	3.9	-43.3	43.5	2.00	2.00	0.00
840.0	10.80	275.14	836.8	4.5	-50.5	50.7	2.00	2.00	0.00
880.0	11.60	275.14	876.0	5.2	-58.3	58.5	2.00	2.00	0.00
904.5	12.09	275.14	900.0	5.7	-63.3	63.5	2.00	2.00	0.00
8 5/8"									
920.0	12.40	275.14	915.2	6.0	-66.6	66.8	2.00	2.00	0.00
941.4	12.83	275.14	936.1	6.4	-71.2	71.5	2.00	2.00	0.00
960.0	12.83	275.14	954.2	6.8	-75.3	75.6	0.00	0.00	0.00
1,000.0	12.83	275.14	993.2	7.6	-84.2	84.5	0.00	0.00	0.00
1,040.0	12.83	275.14	1,032.2	8.4	-93.0	93.4	0.00	0.00	0.00
1,080.0	12.83	275.14	1,071.2	9.2	-101.9	102.3	0.00	0.00	0.00
1,120.0	12.83	275.14	1,110.2	9.9	-110.7	111.2	0.00	0.00	0.00
1,160.0	12.83	275.14	1,149.2	10.7	-119.6	120.0	0.00	0.00	0.00
1,200.0	12.83	275.14	1,188.2	11.5	-128.4	128.9	0.00	0.00	0.00
1,240.0	12.83	275.14	1,227.2	12.3	-137.2	137.8	0.00	0.00	0.00
1,280.0	12.83	275.14	1,266.2	13.1	-146.1	146.7	0.00	0.00	0.00
1,320.0	12.83	275.14	1,305.2	13.9	-154.9	155.6	0.00	0.00	0.00
1,360.0	12.83	275.14	1,344.2	14.7	-163.8	164.4	0.00	0.00	0.00
1,400.0	12.83	275.14	1,383.2	15.5	-172.6	173.3	0.00	0.00	0.00
1,440.0	12.83	275.14	1,422.2	16.3	-181.5	182.2	0.00	0.00	0.00
1,480.0	12.83	275.14	1,461.2	17.1	-190.3	191.1	0.00	0.00	0.00
1,520.0	12.83	275.14	1,500.2	17.9	-199.2	200.0	0.00	0.00	0.00
1,560.0	12.83	275.14	1,539.2	18.7	-208.0	208.8	0.00	0.00	0.00
1,600.0	12.83	275.14	1,578.2	19.5	-216.9	217.7	0.00	0.00	0.00
1,640.0	12.83	275.14	1,617.2	20.3	-225.7	226.6	0.00	0.00	0.00
1,680.0	12.83	275.14	1,656.2	21.1	-234.5	235.5	0.00	0.00	0.00
1,720.0	12.83	275.14	1,695.2	21.9	-243.4	244.4	0.00	0.00	0.00
1,760.0	12.83	275.14	1,734.2	22.7	-252.2	253.3	0.00	0.00	0.00
1,800.0	12.83	275.14	1,773.2	23.5	-261.1	262.1	0.00	0.00	0.00
1,840.0	12.83	275.14	1,812.2	24.3	-269.9	271.0	0.00	0.00	0.00
1,880.0	12.83	275.14	1,851.2	25.1	-278.8	279.9	0.00	0.00	0.00
1,920.0	12.83	275.14	1,890.2	25.8	-287.6	288.8	0.00	0.00	0.00
1,960.0	12.83	275.14	1,929.2	26.6	-296.5	297.7	0.00	0.00	0.00

<b>Database:</b>	Landmark	<b>Local Co-ordinate Reference:</b>	Well Walters 21-18
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<b>Well:</b>	Walters 21-18	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Wellbore #1		
<b>Design:</b>	Plan #1 (4-01-11)		

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)	
2,000.0	12.83	275.14	1,968.2	27.4	-305.3	306.5	0.00	0.00	0.00	
2,040.0	12.83	275.14	2,007.2	28.2	-314.2	315.4	0.00	0.00	0.00	
2,080.0	12.83	275.14	2,046.2	29.0	-323.0	324.3	0.00	0.00	0.00	
2,120.0	12.83	275.14	2,085.2	29.8	-331.8	333.2	0.00	0.00	0.00	
2,160.0	12.83	275.14	2,124.2	30.6	-340.7	342.1	0.00	0.00	0.00	
2,200.0	12.83	275.14	2,163.2	31.4	-349.5	350.9	0.00	0.00	0.00	
2,240.0	12.83	275.14	2,202.2	32.2	-358.4	359.8	0.00	0.00	0.00	
2,280.0	12.83	275.14	2,241.2	33.0	-367.2	368.7	0.00	0.00	0.00	
2,320.0	12.83	275.14	2,280.2	33.8	-376.1	377.6	0.00	0.00	0.00	
2,360.0	12.83	275.14	2,319.2	34.6	-384.9	386.5	0.00	0.00	0.00	
2,400.0	12.83	275.14	2,358.2	35.4	-393.8	395.4	0.00	0.00	0.00	
2,440.0	12.83	275.14	2,397.3	36.2	-402.6	404.2	0.00	0.00	0.00	
2,480.0	12.83	275.14	2,436.3	37.0	-411.5	413.1	0.00	0.00	0.00	
2,520.0	12.83	275.14	2,475.3	37.8	-420.3	422.0	0.00	0.00	0.00	
2,560.0	12.83	275.14	2,514.3	38.6	-429.1	430.9	0.00	0.00	0.00	
2,600.0	12.83	275.14	2,553.3	39.4	-438.0	439.8	0.00	0.00	0.00	
2,640.0	12.83	275.14	2,592.3	40.2	-446.8	448.6	0.00	0.00	0.00	
2,680.0	12.83	275.14	2,631.3	41.0	-455.7	457.5	0.00	0.00	0.00	
2,720.0	12.83	275.14	2,670.3	41.7	-464.5	466.4	0.00	0.00	0.00	
2,760.0	12.83	275.14	2,709.3	42.5	-473.4	475.3	0.00	0.00	0.00	
2,800.0	12.83	275.14	2,748.3	43.3	-482.2	484.2	0.00	0.00	0.00	
2,840.0	12.83	275.14	2,787.3	44.1	-491.1	493.0	0.00	0.00	0.00	
2,880.0	12.83	275.14	2,826.3	44.9	-499.9	501.9	0.00	0.00	0.00	
2,920.0	12.83	275.14	2,865.3	45.7	-508.8	510.8	0.00	0.00	0.00	
2,960.0	12.83	275.14	2,904.3	46.5	-517.6	519.7	0.00	0.00	0.00	
3,000.0	12.83	275.14	2,943.3	47.3	-526.4	528.6	0.00	0.00	0.00	
3,040.0	12.83	275.14	2,982.3	48.1	-535.3	537.4	0.00	0.00	0.00	
3,080.0	12.83	275.14	3,021.3	48.9	-544.1	546.3	0.00	0.00	0.00	
3,120.0	12.83	275.14	3,060.3	49.7	-553.0	555.2	0.00	0.00	0.00	
3,160.0	12.83	275.14	3,099.3	50.5	-561.8	564.1	0.00	0.00	0.00	
3,200.0	12.83	275.14	3,138.3	51.3	-570.7	573.0	0.00	0.00	0.00	
3,240.0	12.83	275.14	3,177.3	52.1	-579.5	581.9	0.00	0.00	0.00	
3,280.0	12.83	275.14	3,216.3	52.9	-588.4	590.7	0.00	0.00	0.00	
3,320.0	12.83	275.14	3,255.3	53.7	-597.2	599.6	0.00	0.00	0.00	
3,360.0	12.83	275.14	3,294.3	54.5	-606.1	608.5	0.00	0.00	0.00	
3,400.0	12.83	275.14	3,333.3	55.3	-614.9	617.4	0.00	0.00	0.00	
3,440.0	12.83	275.14	3,372.3	56.1	-623.7	626.3	0.00	0.00	0.00	
3,480.0	12.83	275.14	3,411.3	56.9	-632.6	635.1	0.00	0.00	0.00	
3,520.0	12.83	275.14	3,450.3	57.6	-641.4	644.0	0.00	0.00	0.00	
3,560.0	12.83	275.14	3,489.3	58.4	-650.3	652.9	0.00	0.00	0.00	
3,600.0	12.83	275.14	3,528.3	59.2	-659.1	661.8	0.00	0.00	0.00	
3,640.0	12.83	275.14	3,567.3	60.0	-668.0	670.7	0.00	0.00	0.00	
3,680.0	12.83	275.14	3,606.3	60.8	-676.8	679.5	0.00	0.00	0.00	
3,720.0	12.83	275.14	3,645.3	61.6	-685.7	688.4	0.00	0.00	0.00	
3,760.0	12.83	275.14	3,684.3	62.4	-694.5	697.3	0.00	0.00	0.00	
3,800.0	12.83	275.14	3,723.3	63.2	-703.4	706.2	0.00	0.00	0.00	
3,840.0	12.83	275.14	3,762.3	64.0	-712.2	715.1	0.00	0.00	0.00	
3,880.0	12.83	275.14	3,801.3	64.8	-721.0	724.0	0.00	0.00	0.00	
3,920.0	12.83	275.14	3,840.3	65.6	-729.9	732.8	0.00	0.00	0.00	
3,960.0	12.83	275.14	3,879.3	66.4	-738.7	741.7	0.00	0.00	0.00	
4,000.0	12.83	275.14	3,918.3	67.2	-747.6	750.6	0.00	0.00	0.00	
4,040.0	12.83	275.14	3,957.3	68.0	-756.4	759.5	0.00	0.00	0.00	
4,080.0	12.83	275.14	3,996.3	68.8	-765.3	768.4	0.00	0.00	0.00	
4,120.0	12.83	275.14	4,035.3	69.6	-774.1	777.2	0.00	0.00	0.00	

<b>Database:</b>	Landmark	<b>Local Co-ordinate Reference:</b>	Well Walters 21-18
<b>Company:</b>	Anadarko, Weld County CO	<b>TVD Reference:</b>	WELL @ 4977.0ft (Original Well Elev)
<b>Project:</b>	SEC.18-T2N-R65W	<b>MD Reference:</b>	WELL @ 4977.0ft (Original Well Elev)
<b>Site:</b>	Walters 17-18 Pad Sec.18-T2N-R65W	<b>North Reference:</b>	True
<b>Well:</b>	Walters 21-18	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Wellbore #1		
<b>Design:</b>	Plan #1 (4-01-11)		

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)
4,148.4	12.83	275.14	4,063.0	70.1	-780.4	783.5	0.00	0.00	0.00
<b>PARKMAN</b>									
4,160.0	12.83	275.14	4,074.3	70.4	-783.0	786.1	0.00	0.00	0.00
4,200.0	12.83	275.14	4,113.3	71.2	-791.8	795.0	0.00	0.00	0.00
4,240.0	12.83	275.14	4,152.3	72.0	-800.7	803.9	0.00	0.00	0.00
4,280.0	12.83	275.14	4,191.3	72.8	-809.5	812.8	0.00	0.00	0.00
4,320.0	12.83	275.14	4,230.3	73.5	-818.3	821.6	0.00	0.00	0.00
4,360.0	12.83	275.14	4,269.3	74.3	-827.2	830.5	0.00	0.00	0.00
4,400.0	12.83	275.14	4,308.3	75.1	-836.0	839.4	0.00	0.00	0.00
4,440.0	12.83	275.14	4,347.3	75.9	-844.9	848.3	0.00	0.00	0.00
4,480.0	12.83	275.14	4,386.3	76.7	-853.7	857.2	0.00	0.00	0.00
4,520.0	12.83	275.14	4,425.3	77.5	-862.6	866.1	0.00	0.00	0.00
4,560.0	12.83	275.14	4,464.3	78.3	-871.4	874.9	0.00	0.00	0.00
4,600.0	12.83	275.14	4,503.3	79.1	-880.3	883.8	0.00	0.00	0.00
4,640.0	12.83	275.14	4,542.3	79.9	-889.1	892.7	0.00	0.00	0.00
4,680.0	12.83	275.14	4,581.3	80.7	-898.0	901.6	0.00	0.00	0.00
4,692.0	12.83	275.14	4,593.0	80.9	-900.6	904.2	0.00	0.00	0.00
<b>SUSSEX</b>									
4,720.0	12.83	275.14	4,620.3	81.5	-906.8	910.5	0.00	0.00	0.00
4,760.0	12.83	275.14	4,659.3	82.3	-915.6	919.3	0.00	0.00	0.00
4,800.0	12.83	275.14	4,698.3	83.1	-924.5	928.2	0.00	0.00	0.00
4,840.0	12.83	275.14	4,737.3	83.9	-933.3	937.1	0.00	0.00	0.00
4,880.0	12.83	275.14	4,776.3	84.7	-942.2	946.0	0.00	0.00	0.00
4,920.0	12.83	275.14	4,815.4	85.5	-951.0	954.9	0.00	0.00	0.00
4,960.0	12.83	275.14	4,854.4	86.3	-959.9	963.7	0.00	0.00	0.00
5,000.0	12.83	275.14	4,893.4	87.1	-968.7	972.6	0.00	0.00	0.00
5,040.0	12.83	275.14	4,932.4	87.9	-977.6	981.5	0.00	0.00	0.00
5,080.0	12.83	275.14	4,971.4	88.7	-986.4	990.4	0.00	0.00	0.00
5,120.0	12.83	275.14	5,010.4	89.4	-995.3	999.3	0.00	0.00	0.00
5,160.0	12.83	275.14	5,049.4	90.2	-1,004.1	1,008.1	0.00	0.00	0.00
5,174.9	12.83	275.14	5,063.9	90.5	-1,007.4	1,011.5	0.00	0.00	0.00
5,200.0	12.33	275.14	5,088.4	91.0	-1,012.8	1,016.9	2.00	-2.00	0.00
5,240.0	11.53	275.14	5,127.5	91.8	-1,021.1	1,025.2	2.00	-2.00	0.00
5,280.0	10.73	275.14	5,166.8	92.5	-1,028.8	1,032.9	2.00	-2.00	0.00
5,320.0	9.93	275.14	5,206.1	93.1	-1,035.9	1,040.1	2.00	-2.00	0.00
5,360.0	9.13	275.14	5,245.6	93.7	-1,042.5	1,046.7	2.00	-2.00	0.00
5,400.0	8.33	275.14	5,285.1	94.2	-1,048.5	1,052.8	2.00	-2.00	0.00
5,440.0	7.53	275.14	5,324.7	94.7	-1,054.0	1,058.3	2.00	-2.00	0.00
5,480.0	6.73	275.14	5,364.4	95.2	-1,059.0	1,063.2	2.00	-2.00	0.00
5,520.0	5.93	275.14	5,404.2	95.6	-1,063.4	1,067.7	2.00	-2.00	0.00
5,560.0	5.13	275.14	5,444.0	95.9	-1,067.2	1,071.5	2.00	-2.00	0.00
5,600.0	4.33	275.14	5,483.8	96.2	-1,070.5	1,074.8	2.00	-2.00	0.00
5,640.0	3.53	275.14	5,523.8	96.5	-1,073.2	1,077.5	2.00	-2.00	0.00
5,680.0	2.73	275.14	5,563.7	96.6	-1,075.4	1,079.7	2.00	-2.00	0.00
5,720.0	1.93	275.14	5,603.7	96.8	-1,077.0	1,081.4	2.00	-2.00	0.00
5,760.0	1.13	275.14	5,643.6	96.9	-1,078.1	1,082.4	2.00	-2.00	0.00
5,800.0	0.33	275.14	5,683.6	96.9	-1,078.6	1,082.9	2.00	-2.00	0.00
5,816.4	0.00	0.00	5,700.0	96.9	-1,078.6	1,083.0	2.00	-2.00	0.00
<b>TARGET BHL 1320'FNL, 2560'FEL</b>									
5,840.0	0.00	0.00	5,723.6	96.9	-1,078.6	1,083.0	0.00	0.00	0.00
5,880.0	0.00	0.00	5,763.6	96.9	-1,078.6	1,083.0	0.00	0.00	0.00
5,920.0	0.00	0.00	5,803.6	96.9	-1,078.6	1,083.0	0.00	0.00	0.00
5,960.0	0.00	0.00	5,843.6	96.9	-1,078.6	1,083.0	0.00	0.00	0.00

<b>Database:</b>	Landmark	<b>Local Co-ordinate Reference:</b>	Well Walters 21-18
<b>Company:</b>	Anadarko, Weld County CO	<b>TVD Reference:</b>	WELL @ 4977.0ft (Original Well Elev)
<b>Project:</b>	SEC.18-T2N-R65W	<b>MD Reference:</b>	WELL @ 4977.0ft (Original Well Elev)
<b>Site:</b>	Walters 17-18 Pad Sec.18-T2N-R65W	<b>North Reference:</b>	True
<b>Well:</b>	Walters 21-18	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Wellbore #1		
<b>Design:</b>	Plan #1 (4-01-11)		

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	0.00	0.00	5,883.6	96.9	-1,078.6	1,083.0	0.00	0.00	0.00
6,040.0	0.00	0.00	5,923.6	96.9	-1,078.6	1,083.0	0.00	0.00	0.00
6,080.0	0.00	0.00	5,963.6	96.9	-1,078.6	1,083.0	0.00	0.00	0.00
6,120.0	0.00	0.00	6,003.6	96.9	-1,078.6	1,083.0	0.00	0.00	0.00
6,160.0	0.00	0.00	6,043.6	96.9	-1,078.6	1,083.0	0.00	0.00	0.00
6,200.0	0.00	0.00	6,083.6	96.9	-1,078.6	1,083.0	0.00	0.00	0.00
6,240.0	0.00	0.00	6,123.6	96.9	-1,078.6	1,083.0	0.00	0.00	0.00
6,280.0	0.00	0.00	6,163.6	96.9	-1,078.6	1,083.0	0.00	0.00	0.00
6,320.0	0.00	0.00	6,203.6	96.9	-1,078.6	1,083.0	0.00	0.00	0.00
6,360.0	0.00	0.00	6,243.6	96.9	-1,078.6	1,083.0	0.00	0.00	0.00
6,400.0	0.00	0.00	6,283.6	96.9	-1,078.6	1,083.0	0.00	0.00	0.00
6,440.0	0.00	0.00	6,323.6	96.9	-1,078.6	1,083.0	0.00	0.00	0.00
6,480.0	0.00	0.00	6,363.6	96.9	-1,078.6	1,083.0	0.00	0.00	0.00
6,520.0	0.00	0.00	6,403.6	96.9	-1,078.6	1,083.0	0.00	0.00	0.00
6,560.0	0.00	0.00	6,443.6	96.9	-1,078.6	1,083.0	0.00	0.00	0.00
6,600.0	0.00	0.00	6,483.6	96.9	-1,078.6	1,083.0	0.00	0.00	0.00
6,640.0	0.00	0.00	6,523.6	96.9	-1,078.6	1,083.0	0.00	0.00	0.00
6,680.0	0.00	0.00	6,563.6	96.9	-1,078.6	1,083.0	0.00	0.00	0.00
6,720.0	0.00	0.00	6,603.6	96.9	-1,078.6	1,083.0	0.00	0.00	0.00
6,760.0	0.00	0.00	6,643.6	96.9	-1,078.6	1,083.0	0.00	0.00	0.00
6,800.0	0.00	0.00	6,683.6	96.9	-1,078.6	1,083.0	0.00	0.00	0.00
6,840.0	0.00	0.00	6,723.6	96.9	-1,078.6	1,083.0	0.00	0.00	0.00
6,880.0	0.00	0.00	6,763.6	96.9	-1,078.6	1,083.0	0.00	0.00	0.00
6,920.0	0.00	0.00	6,803.6	96.9	-1,078.6	1,083.0	0.00	0.00	0.00
6,960.0	0.00	0.00	6,843.6	96.9	-1,078.6	1,083.0	0.00	0.00	0.00
7,000.0	0.00	0.00	6,883.6	96.9	-1,078.6	1,083.0	0.00	0.00	0.00
7,040.0	0.00	0.00	6,923.6	96.9	-1,078.6	1,083.0	0.00	0.00	0.00
7,080.0	0.00	0.00	6,963.6	96.9	-1,078.6	1,083.0	0.00	0.00	0.00
7,120.0	0.00	0.00	7,003.6	96.9	-1,078.6	1,083.0	0.00	0.00	0.00
7,160.0	0.00	0.00	7,043.6	96.9	-1,078.6	1,083.0	0.00	0.00	0.00
7,189.4	0.00	0.00	7,073.0	96.9	-1,078.6	1,083.0	0.00	0.00	0.00
<b>NIOBRARA - TARGET CIRCLE 1320'FNL &amp; 2560'FEL</b>									
7,200.0	0.00	0.00	7,083.6	96.9	-1,078.6	1,083.0	0.00	0.00	0.00
7,240.0	0.00	0.00	7,123.6	96.9	-1,078.6	1,083.0	0.00	0.00	0.00
7,280.0	0.00	0.00	7,163.6	96.9	-1,078.6	1,083.0	0.00	0.00	0.00
7,320.0	0.00	0.00	7,203.6	96.9	-1,078.6	1,083.0	0.00	0.00	0.00
7,360.0	0.00	0.00	7,243.6	96.9	-1,078.6	1,083.0	0.00	0.00	0.00
7,400.0	0.00	0.00	7,283.6	96.9	-1,078.6	1,083.0	0.00	0.00	0.00
7,440.0	0.00	0.00	7,323.6	96.9	-1,078.6	1,083.0	0.00	0.00	0.00
7,459.4	0.00	0.00	7,343.0	96.9	-1,078.6	1,083.0	0.00	0.00	0.00
<b>CODELL</b>									
7,480.0	0.00	0.00	7,363.6	96.9	-1,078.6	1,083.0	0.00	0.00	0.00
7,520.0	0.00	0.00	7,403.6	96.9	-1,078.6	1,083.0	0.00	0.00	0.00
7,552.4	0.00	0.00	7,436.0	96.9	-1,078.6	1,083.0	0.00	0.00	0.00
<b>GREENHORN</b>									
7,560.0	0.00	0.00	7,443.6	96.9	-1,078.6	1,083.0	0.00	0.00	0.00
7,600.0	0.00	0.00	7,483.6	96.9	-1,078.6	1,083.0	0.00	0.00	0.00
7,640.0	0.00	0.00	7,523.6	96.9	-1,078.6	1,083.0	0.00	0.00	0.00
7,680.0	0.00	0.00	7,563.6	96.9	-1,078.6	1,083.0	0.00	0.00	0.00
7,720.0	0.00	0.00	7,603.6	96.9	-1,078.6	1,083.0	0.00	0.00	0.00
7,760.0	0.00	0.00	7,643.6	96.9	-1,078.6	1,083.0	0.00	0.00	0.00
7,800.0	0.00	0.00	7,683.6	96.9	-1,078.6	1,083.0	0.00	0.00	0.00
7,840.0	0.00	0.00	7,723.6	96.9	-1,078.6	1,083.0	0.00	0.00	0.00



<b>Database:</b>	Landmark	<b>Local Co-ordinate Reference:</b>	Well Walters 21-18
<b>Company:</b>	Anadarko, Weld County CO	<b>TVD Reference:</b>	WELL @ 4977.0ft (Original Well Elev)
<b>Project:</b>	SEC.18-T2N-R65W	<b>MD Reference:</b>	WELL @ 4977.0ft (Original Well Elev)
<b>Site:</b>	Walters 17-18 Pad Sec.18-T2N-R65W	<b>North Reference:</b>	True
<b>Well:</b>	Walters 21-18	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Wellbore #1		
<b>Design:</b>	Plan #1 (4-01-11)		

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)
7,880.0	0.00	0.00	7,763.6	96.9	-1,078.6	1,083.0	0.00	0.00	0.00
7,914.4	0.00	0.00	7,798.0	96.9	-1,078.6	1,083.0	0.00	0.00	0.00
<b>J-SAND</b>									
7,920.0	0.00	0.00	7,803.6	96.9	-1,078.6	1,083.0	0.00	0.00	0.00
7,960.0	0.00	0.00	7,843.6	96.9	-1,078.6	1,083.0	0.00	0.00	0.00
8,000.0	0.00	0.00	7,883.6	96.9	-1,078.6	1,083.0	0.00	0.00	0.00
8,040.0	0.00	0.00	7,923.6	96.9	-1,078.6	1,083.0	0.00	0.00	0.00
8,080.0	0.00	0.00	7,963.6	96.9	-1,078.6	1,083.0	0.00	0.00	0.00
8,109.4	0.00	0.00	7,993.0	96.9	-1,078.6	1,083.0	0.00	0.00	0.00
<b>DAKOTA</b>									
8,120.0	0.00	0.00	8,003.6	96.9	-1,078.6	1,083.0	0.00	0.00	0.00
8,160.0	0.00	0.00	8,043.6	96.9	-1,078.6	1,083.0	0.00	0.00	0.00
8,200.0	0.00	0.00	8,083.6	96.9	-1,078.6	1,083.0	0.00	0.00	0.00
8,240.0	0.00	0.00	8,123.6	96.9	-1,078.6	1,083.0	0.00	0.00	0.00
8,280.0	0.00	0.00	8,163.6	96.9	-1,078.6	1,083.0	0.00	0.00	0.00
8,309.4	0.00	0.00	8,193.0	96.9	-1,078.6	1,083.0	0.00	0.00	0.00
<b>HARD LINES 108'W OF BHL</b>									

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									
HARD LINES 108'W (	0.00	0.00	8,193.0	-3.1	-1,186.6	1,295,578.32	3,221,737.19	40.142034	-104.706853
- plan misses target center by 147.2ft at 8309.4ft MD (8193.0 TVD, 96.9 N, -1078.6 E)									
- Polygon									
Point 1			8,193.0	0.0	0.0	1,295,578.32	3,221,737.19		
Point 2			8,193.0	200.0	0.0	1,295,778.31	3,221,735.39		
TARGET BHL 1320'F	0.00	0.00	5,700.0	96.9	-1,078.6	1,295,679.32	3,221,844.25	40.142309	-104.706467
- plan hits target center									
- Point									
TARGET CIRCLE 132	0.00	0.00	7,073.0	96.9	-1,078.6	1,295,679.32	3,221,844.25	40.142309	-104.706467
- plan hits target center									
- Circle (radius 50.0)									

Casing Points					
Measured Depth (ft)	Vertical Depth (ft)	Name	Casing Diameter (")	Hole Diameter (")	
904.5	900.0	8 5/8"	8-5/8	12-1/4	



<b>Database:</b>	Landmark	<b>Local Co-ordinate Reference:</b>	Well Walters 21-18
<b>Company:</b>	Anadarko, Weld County CO	<b>TVD Reference:</b>	WELL @ 4977.0ft (Original Well Elev)
<b>Project:</b>	SEC.18-T2N-R65W	<b>MD Reference:</b>	WELL @ 4977.0ft (Original Well Elev)
<b>Site:</b>	Walters 17-18 Pad Sec.18-T2N-R65W	<b>North Reference:</b>	True
<b>Well:</b>	Walters 21-18	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Wellbore #1		
<b>Design:</b>	Plan #1 (4-01-11)		

Formations						
Measured Depth (ft)	Vertical Depth (ft)	Name	Lithology	Dip (°)	Dip Direction (°)	
4,148.4	4,063.0	PARKMAN		0.00		
4,692.0	4,593.0	SUSSEX		0.00		
7,189.4	7,073.0	NIOBRARA		0.00		
7,459.4	7,343.0	CODELL		0.00		
7,552.4	7,436.0	GREENHORN		0.00		
7,914.4	7,798.0	J-SAND		0.00		
8,109.4	7,993.0	DAKOTA		0.00		



## **Directional**

### **Anadarko, Weld County CO**

**SEC.18-T2N-R65W**

**Walters 17-18 Pad Sec.18-T2N-R65W**

**Walters 21-18**

**Wellbore #1**

**Plan #1 (4-01-11)**

### **Anticollision Report**

**06 April, 2011**



<b>Company:</b>	Anadarko, Weld County CO	<b>Local Co-ordinate Reference:</b>	Well Walters 21-18
<b>Project:</b>	SEC.18-T2N-R65W	<b>TVD Reference:</b>	WELL @ 4977.0ft (Original Well Elev)
<b>Reference Site:</b>	Walters 17-18 Pad Sec.18-T2N-R65W	<b>MD Reference:</b>	WELL @ 4977.0ft (Original Well Elev)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Walters 21-18	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	Wellbore #1	<b>Database:</b>	Landmark
<b>Reference Design:</b>	Plan #1 (4-01-11)	<b>Offset TVD Reference:</b>	Offset Datum

<b>Reference</b>	Plan #1 (4-01-11)		
<b>Filter type:</b>	NO GLOBAL FILTER: Using user defined selection & filtering criteria		
<b>Interpolation Method:</b>	Stations	<b>Error Model:</b>	ISCWSA
<b>Depth Range:</b>	Unlimited	<b>Scan Method:</b>	Closest Approach 3D
<b>Results Limited by:</b>	Maximum center-center distance of 10,000.0ft	<b>Error Surface:</b>	Elliptical Conic
<b>Warning Levels Evaluated at:</b>	2.00 Sigma		

<b>Survey Tool Program</b>	<b>Date</b> 4/6/2011			
<b>From (ft)</b>	<b>To (ft)</b>	<b>Survey (Wellbore)</b>	<b>Tool Name</b>	<b>Description</b>
0.0	8,309.4	Plan #1 (4-01-11) (Wellbore #1)	MWD	MWD - Standard

<b>Summary</b>						
<b>Site Name</b>	<b>Reference Measured Depth (ft)</b>	<b>Offset Measured Depth (ft)</b>	<b>Distance Between Centres (ft)</b>	<b>Distance Between Ellipses (ft)</b>	<b>Separation Factor</b>	<b>Warning</b>
<b>Offset Well - Wellbore - Design</b>						
Walters 17-18 Pad Sec.18-T2N-R65W						
Walters 25-18 - Wellbore #1 - Plan #1 (4-01-11)	300.0	300.0	9.8	8.7	8.756	CC
Walters 25-18 - Wellbore #1 - Plan #1 (4-01-11)	400.0	400.0	10.2	8.6	6.519	ES
Walters 25-18 - Wellbore #1 - Plan #1 (4-01-11)	500.0	499.8	12.7	10.7	6.329	SF
Walters 28-18 - Wellbore #1 - Plan #1 (4-01-11)	200.0	200.0	10.2	9.5	15.133	CC, ES
Walters 28-18 - Wellbore #1 - Plan #1 (4-01-11)	400.0	399.2	15.9	14.3	10.131	SF

<b>Offset Design</b> Walters 17-18 Pad Sec.18-T2N-R65W - Walters 25-18 - Wellbore #1 - Plan #1 (4-01-11)													<b>Offset Site Error:</b> 0.0 ft
<b>Survey Program:</b> 0-MWD													<b>Offset Well Error:</b> 0.0 ft
<b>Reference Measured Depth (ft)</b>	<b>Vertical Depth (ft)</b>	<b>Offset Measured Depth (ft)</b>	<b>Vertical Depth (ft)</b>	<b>Semi Major Axis Reference (ft)</b>	<b>Offset (ft)</b>	<b>Highside Toolface (°)</b>	<b>Offset Wellbore Centre +N/-S (ft)</b>	<b>+E/-W (ft)</b>	<b>Distance Between Centres (ft)</b>	<b>Distance Between Ellipses (ft)</b>	<b>Minimum Separation (ft)</b>	<b>Separation Factor</b>	<b>Warning</b>
0.0	0.0	0.0	0.0	0.0	0.0	178.37	-9.8	0.3	9.8	9.8	0.00	N/A	
100.0	100.0	100.0	100.0	0.1	0.1	178.37	-9.8	0.3	9.8	9.6	0.22	43.779	
200.0	200.0	200.0	200.0	0.3	0.3	178.37	-9.8	0.3	9.8	9.2	0.67	14.593	
300.0	300.0	300.0	300.0	0.6	0.6	178.37	-9.8	0.3	9.8	8.7	1.12	8.756	CC
400.0	400.0	400.0	400.0	0.8	0.8	-106.54	-9.8	0.3	10.2	8.6	1.56	6.519	ES
500.0	499.8	499.8	499.8	1.0	1.0	-129.72	-9.8	0.3	12.7	10.7	2.01	6.329	SF
600.0	599.5	599.5	599.5	1.2	1.2	-149.76	-9.8	0.3	19.5	17.0	2.46	7.904	
700.0	698.7	698.7	698.7	1.5	1.5	-161.23	-9.8	0.3	30.6	27.7	2.92	10.494	
800.0	797.5	797.5	797.5	1.8	1.7	-167.48	-9.8	0.3	45.7	42.4	3.37	13.556	
900.0	895.6	895.6	895.6	2.2	1.9	-171.10	-9.8	0.3	64.5	60.7	3.83	16.846	
941.4	936.1	936.1	936.1	2.4	2.0	-172.15	-9.8	0.3	73.3	69.3	4.02	18.248	
1,000.0	993.2	993.2	993.2	2.6	2.1	-173.33	-9.8	0.3	86.2	81.9	4.29	20.111	
1,100.0	1,090.7	1,090.7	1,090.7	3.1	2.3	-174.69	-9.8	0.3	108.3	103.6	4.75	22.792	
1,200.0	1,188.2	1,190.3	1,190.3	3.6	2.5	-175.06	-10.9	-0.6	129.7	124.5	5.20	24.931	
1,300.0	1,285.7	1,290.8	1,290.7	4.0	2.7	-174.16	-14.6	-3.9	149.4	143.8	5.65	26.465	
1,400.0	1,383.2	1,391.8	1,391.3	4.5	2.9	-172.39	-21.1	-9.4	167.5	161.3	6.11	27.395	
1,500.0	1,480.7	1,492.9	1,491.7	5.0	3.1	-169.97	-30.2	-17.3	184.1	177.5	6.62	27.804	
1,600.0	1,578.2	1,594.1	1,591.6	5.4	3.4	-167.02	-42.0	-27.5	199.6	192.4	7.19	27.772	
1,700.0	1,675.7	1,694.9	1,690.7	5.9	3.7	-163.62	-56.5	-39.9	214.3	206.5	7.83	27.374	
1,800.0	1,773.2	1,795.2	1,788.4	6.4	4.0	-159.83	-73.4	-54.5	228.7	220.1	8.57	26.694	
1,900.0	1,870.7	1,894.8	1,884.6	6.9	4.4	-155.74	-92.8	-71.2	243.1	233.7	9.41	25.830	
2,000.0	1,968.2	1,993.3	1,978.9	7.4	4.9	-151.40	-114.5	-89.9	258.2	247.8	10.37	24.889	

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

<b>Company:</b>	Anadarko, Weld County CO	<b>Local Co-ordinate Reference:</b>	Well Walters 21-18
<b>Project:</b>	SEC.18-T2N-R65W	<b>TVD Reference:</b>	WELL @ 4977.0ft (Original Well Elev)
<b>Reference Site:</b>	Walters 17-18 Pad Sec.18-T2N-R65W	<b>MD Reference:</b>	WELL @ 4977.0ft (Original Well Elev)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Walters 21-18	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	Wellbore #1	<b>Database:</b>	Landmark
<b>Reference Design:</b>	Plan #1 (4-01-11)	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design Walters 17-18 Pad Sec.18-T2N-R65W - Walters 25-18 - Wellbore #1 - Plan #1 (4-01-11)												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	
2,100.0	2,065.7	2,090.6	2,071.0	7.8	5.4	-146.91	-138.3	-110.4	274.3	262.9	11.44	23.975	
2,200.0	2,163.2	2,186.5	2,160.7	8.3	6.0	-142.34	-164.0	-132.6	292.0	279.4	12.60	23.174	
2,300.0	2,260.7	2,282.0	2,249.4	8.8	6.6	-138.06	-190.7	-155.6	311.5	297.7	13.80	22.567	
2,400.0	2,358.2	2,377.4	2,338.1	9.3	7.2	-134.27	-217.3	-178.6	332.5	317.5	15.00	22.168	
2,500.0	2,455.8	2,472.8	2,426.8	9.8	7.9	-130.92	-244.0	-201.5	354.9	338.7	16.19	21.926	
2,600.0	2,553.3	2,568.2	2,515.4	10.3	8.5	-127.97	-270.6	-224.5	378.3	360.9	17.35	21.799	
2,700.0	2,650.8	2,663.6	2,604.1	10.8	9.2	-125.35	-297.2	-247.4	402.5	384.0	18.50	21.759	
2,800.0	2,748.3	2,759.0	2,692.8	11.2	9.9	-123.03	-323.9	-270.4	427.5	407.9	19.63	21.780	
2,900.0	2,845.8	2,854.4	2,781.5	11.7	10.6	-120.96	-350.5	-293.4	453.1	432.4	20.74	21.847	
3,000.0	2,943.3	2,949.8	2,870.2	12.2	11.3	-119.11	-377.1	-316.3	479.2	457.4	21.84	21.945	
3,100.0	3,040.8	3,045.2	2,958.9	12.7	11.9	-117.44	-403.8	-339.3	505.7	482.8	22.92	22.067	
3,200.0	3,138.3	3,140.6	3,047.6	13.2	12.6	-115.94	-430.4	-362.2	532.6	508.6	23.99	22.203	
3,300.0	3,235.8	3,236.0	3,136.3	13.7	13.3	-114.58	-457.0	-385.2	559.8	534.8	25.05	22.350	
3,400.0	3,333.3	3,331.4	3,224.9	14.2	14.0	-113.35	-483.7	-408.2	587.3	561.2	26.10	22.504	
3,500.0	3,430.8	3,426.8	3,313.6	14.6	14.7	-112.23	-510.3	-431.1	615.0	587.9	27.14	22.661	
3,600.0	3,528.3	3,522.2	3,402.3	15.1	15.5	-111.20	-536.9	-454.1	642.9	614.7	28.17	22.819	
3,700.0	3,625.8	3,617.6	3,491.0	15.6	16.2	-110.26	-563.6	-477.0	671.0	641.8	29.20	22.977	
3,800.0	3,723.3	3,713.0	3,579.7	16.1	16.9	-109.39	-590.2	-500.0	699.2	669.0	30.23	23.134	
3,900.0	3,820.8	3,808.4	3,668.4	16.6	17.6	-108.59	-616.9	-523.0	727.6	696.4	31.24	23.288	
4,000.0	3,918.3	3,903.9	3,757.1	17.1	18.3	-107.85	-643.5	-545.9	756.1	723.9	32.26	23.440	
4,100.0	4,015.8	3,999.3	3,845.8	17.6	19.0	-107.16	-670.1	-568.9	784.7	751.5	33.27	23.588	
4,200.0	4,113.3	4,094.7	3,934.5	18.1	19.7	-106.52	-696.8	-591.8	813.4	779.2	34.28	23.733	
4,300.0	4,210.8	4,190.1	4,023.1	18.5	20.4	-105.92	-723.4	-614.8	842.2	807.0	35.28	23.873	
4,400.0	4,308.3	4,285.5	4,111.8	19.0	21.1	-105.36	-750.0	-637.8	871.1	834.8	36.28	24.010	
4,500.0	4,405.8	4,380.9	4,200.5	19.5	21.9	-104.84	-776.7	-660.7	900.1	862.8	37.28	24.143	
4,600.0	4,503.3	4,476.3	4,289.2	20.0	22.6	-104.35	-803.3	-683.7	929.1	890.8	38.28	24.272	
4,700.0	4,600.8	4,571.7	4,377.9	20.5	23.3	-103.89	-829.9	-706.6	958.1	918.9	39.27	24.397	
4,800.0	4,698.3	4,667.1	4,466.6	21.0	24.0	-103.46	-856.6	-729.6	987.3	947.0	40.27	24.519	
4,900.0	4,795.8	4,762.5	4,555.3	21.5	24.7	-103.05	-883.2	-752.6	1,016.4	975.2	41.26	24.636	
5,000.0	4,893.4	4,857.9	4,644.0	22.0	25.4	-102.67	-909.9	-775.5	1,045.6	1,003.4	42.25	24.750	
5,100.0	4,990.9	4,953.3	4,732.7	22.4	26.2	-102.30	-936.5	-798.5	1,074.9	1,031.7	43.24	24.861	
5,174.9	5,063.9	5,024.8	4,799.1	22.8	26.7	-102.04	-956.5	-815.7	1,096.8	1,052.9	43.98	24.941	
5,200.0	5,088.4	5,048.7	4,821.3	22.9	26.9	-102.10	-963.1	-821.4	1,104.2	1,059.9	44.24	24.958	
5,300.0	5,186.4	5,169.2	4,933.9	23.2	27.6	-102.15	-995.6	-849.4	1,132.2	1,087.0	45.19	25.055	
5,400.0	5,285.1	5,300.7	5,058.7	23.5	28.2	-102.10	-1,027.0	-876.5	1,156.8	1,110.7	46.03	25.131	
5,500.0	5,384.3	5,434.7	5,187.7	23.8	28.8	-101.98	-1,054.6	-900.3	1,177.7	1,130.9	46.76	25.184	
5,600.0	5,483.8	5,571.0	5,320.4	24.0	29.3	-101.81	-1,077.9	-920.3	1,194.9	1,147.5	47.39	25.214	
5,700.0	5,583.7	5,709.1	5,456.3	24.1	29.8	-101.57	-1,096.5	-936.4	1,208.2	1,160.3	47.90	25.223	
5,800.0	5,683.6	5,848.8	5,594.8	24.3	30.1	-101.27	-1,110.4	-948.4	1,217.6	1,169.3	48.28	25.217	
5,816.4	5,700.0	5,871.8	5,617.6	24.3	30.2	173.92	-1,112.2	-949.9	1,218.7	1,170.4	48.34	25.214	
5,900.0	5,783.6	5,989.7	5,735.2	24.4	30.4	174.24	-1,119.1	-955.9	1,223.2	1,174.6	48.57	25.186	
6,000.0	5,883.6	6,131.4	5,876.8	24.5	30.5	174.40	-1,122.7	-958.9	1,225.5	1,176.6	48.83	25.096	
6,100.0	5,983.6	6,238.2	5,983.6	24.6	30.6	174.40	-1,122.7	-959.0	1,225.5	1,176.5	49.06	24.982	
6,200.0	6,083.6	6,338.2	6,083.6	24.7	30.7	174.40	-1,122.7	-959.0	1,225.5	1,176.2	49.28	24.858	
6,300.0	6,183.6	6,438.2	6,183.6	24.8	30.8	174.40	-1,122.7	-959.0	1,225.5	1,176.0	49.50	24.759	
6,400.0	6,283.6	6,538.2	6,283.6	24.9	30.9	174.40	-1,122.7	-959.0	1,225.5	1,175.8	49.72	24.646	
6,500.0	6,383.6	6,638.2	6,383.6	25.1	31.0	174.40	-1,122.7	-959.0	1,225.5	1,175.6	49.95	24.534	
6,600.0	6,483.6	6,738.2	6,483.6	25.2	31.1	174.40	-1,122.7	-959.0	1,225.5	1,175.3	50.18	24.420	
6,700.0	6,583.6	6,838.2	6,583.6	25.3	31.1	174.40	-1,122.7	-959.0	1,225.5	1,175.1	50.42	24.307	
6,800.0	6,683.6	6,938.2	6,683.6	25.4	31.2	174.40	-1,122.7	-959.0	1,225.5	1,174.9	50.66	24.193	
6,900.0	6,783.6	7,038.2	6,783.6	25.5	31.3	174.40	-1,122.7	-959.0	1,225.5	1,174.6	50.90	24.078	
7,000.0	6,883.6	7,138.2	6,883.6	25.7	31.4	174.40	-1,122.7	-959.0	1,225.5	1,174.4	51.14	23.964	

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

<b>Company:</b>	Anadarko, Weld County CO	<b>Local Co-ordinate Reference:</b>	Well Walters 21-18
<b>Project:</b>	SEC.18-T2N-R65W	<b>TVD Reference:</b>	WELL @ 4977.0ft (Original Well Elev)
<b>Reference Site:</b>	Walters 17-18 Pad Sec.18-T2N-R65W	<b>MD Reference:</b>	WELL @ 4977.0ft (Original Well Elev)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Walters 21-18	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	Wellbore #1	<b>Database:</b>	Landmark
<b>Reference Design:</b>	Plan #1 (4-01-11)	<b>Offset TVD Reference:</b>	Offset Datum

<b>Offset Design</b> Walters 17-18 Pad Sec.18-T2N-R65W - Walters 25-18 - Wellbore #1 - Plan #1 (4-01-11)												<b>Offset Site Error:</b>	0.0 ft
Survey Program: 0-MWD												<b>Offset Well Error:</b>	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	
7,100.0	6,983.6	7,238.2	6,983.6	25.8	31.5	174.40	-1,122.7	-959.0	1,225.5	1,174.1	51.39	23.849	
7,200.0	7,083.6	7,338.2	7,083.6	25.9	31.6	174.40	-1,122.7	-959.0	1,225.5	1,173.9	51.64	23.734	
7,300.0	7,183.6	7,438.2	7,183.6	26.1	31.7	174.40	-1,122.7	-959.0	1,225.5	1,173.6	51.89	23.619	
7,400.0	7,283.6	7,538.2	7,283.6	26.2	31.8	174.40	-1,122.7	-959.0	1,225.5	1,173.4	52.14	23.504	
7,500.0	7,383.6	7,638.2	7,383.6	26.3	31.9	174.40	-1,122.7	-959.0	1,225.5	1,173.1	52.40	23.389	
7,600.0	7,483.6	7,738.2	7,483.6	26.5	32.0	174.40	-1,122.7	-959.0	1,225.5	1,172.9	52.66	23.274	
7,700.0	7,583.6	7,838.2	7,583.6	26.6	32.1	174.40	-1,122.7	-959.0	1,225.5	1,172.6	52.92	23.159	
7,800.0	7,683.6	7,938.2	7,683.6	26.7	32.2	174.40	-1,122.7	-959.0	1,225.5	1,172.3	53.18	23.043	
7,900.0	7,783.6	8,038.2	7,783.6	26.9	32.3	174.40	-1,122.7	-959.0	1,225.5	1,172.1	53.45	22.928	
8,000.0	7,883.6	8,138.2	7,883.6	27.0	32.4	174.40	-1,122.7	-959.0	1,225.5	1,171.8	53.72	22.813	
8,048.2	7,931.8	8,186.5	7,931.8	27.1	32.5	174.40	-1,122.7	-959.0	1,225.5	1,171.7	53.85	22.758	
8,100.0	7,983.6	8,202.6	7,948.0	27.1	32.5	174.40	-1,122.7	-959.0	1,226.0	1,172.1	53.94	22.728	
8,200.0	8,083.6	8,202.6	7,948.0	27.3	32.5	174.40	-1,122.7	-959.0	1,233.0	1,178.9	54.09	22.797	
8,309.4	8,193.0	8,202.6	7,948.0	27.4	32.5	174.40	-1,122.7	-959.0	1,249.8	1,195.5	54.24	23.040	

<b>Company:</b>	Anadarko, Weld County CO	<b>Local Co-ordinate Reference:</b>	Well Walters 21-18
<b>Project:</b>	SEC.18-T2N-R65W	<b>TVD Reference:</b>	WELL @ 4977.0ft (Original Well Elev)
<b>Reference Site:</b>	Walters 17-18 Pad Sec.18-T2N-R65W	<b>MD Reference:</b>	WELL @ 4977.0ft (Original Well Elev)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Walters 21-18	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	Wellbore #1	<b>Database:</b>	Landmark
<b>Reference Design:</b>	Plan #1 (4-01-11)	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design Walters 17-18 Pad Sec.18-T2N-R65W - Walters 28-18 - Wellbore #1 - Plan #1 (4-01-11)													Offset Site Error:	0.0ft
Survey Program: 0-MWD													Offset Well Error:	0.0ft
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Semi Major Axis Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Warning	
0.0	0.0	0.0	0.0	0.0	0.0	0.00	10.2	0.0	10.2	10.2	0.00	N/A		
100.0	100.0	100.0	100.0	0.1	0.1	0.00	10.2	0.0	10.2	10.0	0.22	45.400		
200.0	200.0	200.0	200.0	0.3	0.3	0.00	10.2	0.0	10.2	9.5	0.67	15.133 CC, ES		
300.0	300.0	299.7	299.6	0.6	0.6	-4.88	11.6	-1.0	11.7	10.6	1.12	10.409		
400.0	400.0	399.2	399.0	0.8	0.8	76.70	15.9	-4.0	15.9	14.3	1.57	10.131 SF		
500.0	499.8	498.3	497.8	1.0	1.0	79.57	22.9	-8.9	22.5	20.5	2.03	11.077		
600.0	599.5	597.1	595.9	1.2	1.3	84.02	32.7	-15.7	31.5	29.0	2.53	12.458		
700.0	698.7	695.4	692.9	1.5	1.6	88.22	45.2	-24.5	43.3	40.2	3.09	13.977		
800.0	797.5	793.0	788.8	1.8	2.0	91.69	60.3	-35.0	57.7	54.0	3.74	15.453		
900.0	895.6	889.8	883.2	2.2	2.4	94.45	78.0	-47.3	74.9	70.5	4.46	16.786		
941.4	936.1	929.7	921.8	2.4	2.6	95.41	86.0	-52.9	82.9	78.1	4.80	17.279		
1,000.0	993.2	985.8	976.0	2.6	2.9	96.49	98.0	-61.3	94.9	89.6	5.28	17.953		
1,100.0	1,090.7	1,081.0	1,067.2	3.1	3.4	96.86	120.4	-77.0	117.0	110.9	6.15	19.033		
1,200.0	1,188.2	1,175.5	1,156.7	3.6	4.0	96.13	145.0	-94.2	141.4	134.3	7.05	20.063		
1,300.0	1,285.7	1,272.2	1,248.0	4.0	4.6	95.27	171.3	-112.5	166.6	158.6	7.97	20.900		
1,400.0	1,383.2	1,368.9	1,339.3	4.5	5.2	94.63	197.5	-130.8	191.8	182.9	8.90	21.545		
1,500.0	1,480.7	1,465.7	1,430.6	5.0	5.9	94.15	223.7	-149.1	217.1	207.2	9.84	22.051		
1,600.0	1,578.2	1,562.4	1,521.9	5.4	6.5	93.76	249.9	-167.4	242.3	231.5	10.79	22.457		
1,700.0	1,675.7	1,659.2	1,613.2	5.9	7.1	93.45	276.2	-185.8	267.6	255.9	11.74	22.789		
1,800.0	1,773.2	1,755.9	1,704.5	6.4	7.8	93.19	302.4	-204.1	292.9	280.2	12.70	23.066		
1,900.0	1,870.7	1,852.7	1,795.8	6.9	8.4	92.97	328.6	-222.4	318.2	304.5	13.66	23.299		
2,000.0	1,968.2	1,949.4	1,887.1	7.4	9.1	92.79	354.9	-240.7	343.4	328.8	14.62	23.498		
2,100.0	2,065.7	2,046.2	1,978.4	7.8	9.7	92.63	381.1	-259.0	368.7	353.2	15.58	23.670		
2,200.0	2,163.2	2,142.9	2,069.7	8.3	10.4	92.49	407.3	-277.3	394.0	377.5	16.54	23.820		
2,300.0	2,260.7	2,239.6	2,161.0	8.8	11.0	92.36	433.5	-295.7	419.3	401.8	17.51	23.952		
2,400.0	2,358.2	2,336.4	2,252.3	9.3	11.7	92.26	459.8	-314.0	444.6	426.1	18.47	24.069		
2,500.0	2,455.8	2,433.1	2,343.7	9.8	12.3	92.16	486.0	-332.3	469.9	450.5	19.44	24.173		
2,600.0	2,553.3	2,529.9	2,435.0	10.3	13.0	92.07	512.2	-350.6	495.2	474.8	20.41	24.266		
2,700.0	2,650.8	2,626.6	2,526.3	10.8	13.6	91.99	538.4	-368.9	520.5	499.1	21.38	24.350		
2,800.0	2,748.3	2,723.4	2,617.6	11.2	14.3	91.92	564.7	-387.2	545.8	523.5	22.34	24.426		
2,900.0	2,845.8	2,820.1	2,708.9	11.7	15.0	91.86	590.9	-405.6	571.1	547.8	23.31	24.496		
3,000.0	2,943.3	2,916.9	2,800.2	12.2	15.6	91.80	617.1	-423.9	596.4	572.1	24.28	24.559		
3,100.0	3,040.8	3,013.6	2,891.5	12.7	16.3	91.74	643.4	-442.2	621.7	596.4	25.25	24.617		
3,200.0	3,138.3	3,110.3	2,982.8	13.2	16.9	91.69	669.6	-460.5	647.0	620.8	26.23	24.670		
3,300.0	3,235.8	3,207.1	3,074.1	13.7	17.6	91.65	695.8	-478.8	672.3	645.1	27.20	24.720		
3,400.0	3,333.3	3,303.8	3,165.4	14.2	18.2	91.60	722.0	-497.2	697.6	669.4	28.17	24.765		
3,500.0	3,430.8	3,400.6	3,256.7	14.6	18.9	91.56	748.3	-515.5	722.9	693.8	29.14	24.808		
3,600.0	3,528.3	3,497.3	3,348.0	15.1	19.5	91.52	774.5	-533.8	748.2	718.1	30.11	24.847		
3,700.0	3,625.8	3,594.1	3,439.3	15.6	20.2	91.49	800.7	-552.1	773.5	742.4	31.08	24.884		
3,800.0	3,723.3	3,690.8	3,530.6	16.1	20.8	91.46	827.0	-570.4	798.8	766.8	32.06	24.919		
3,900.0	3,820.8	3,787.6	3,621.9	16.6	21.5	91.43	853.2	-588.7	824.1	791.1	33.03	24.951		
4,000.0	3,918.3	3,884.3	3,713.2	17.1	22.2	91.40	879.4	-607.1	849.4	815.4	34.00	24.981		
4,100.0	4,015.8	3,981.1	3,804.5	17.6	22.8	91.37	905.6	-625.4	874.7	839.8	34.98	25.010		
4,200.0	4,113.3	4,077.8	3,895.8	18.1	23.5	91.34	931.9	-643.7	900.0	864.1	35.95	25.036		
4,300.0	4,210.8	4,174.5	3,987.1	18.5	24.1	91.32	958.1	-662.0	925.3	888.4	36.92	25.062		
4,400.0	4,308.3	4,271.3	4,078.4	19.0	24.8	91.30	984.3	-680.3	950.6	912.7	37.90	25.086		
4,500.0	4,405.8	4,368.0	4,169.7	19.5	25.4	91.27	1,010.5	-698.6	975.9	937.1	38.87	25.108		
4,600.0	4,503.3	4,464.8	4,261.0	20.0	26.1	91.25	1,036.8	-717.0	1,001.3	961.4	39.84	25.130		
4,700.0	4,600.8	4,561.5	4,352.3	20.5	26.7	91.23	1,063.0	-735.3	1,026.6	985.7	40.82	25.150		
4,800.0	4,698.3	4,658.3	4,443.6	21.0	27.4	91.22	1,089.2	-753.6	1,051.9	1,010.1	41.79	25.170		
4,900.0	4,795.8	4,755.0	4,534.9	21.5	28.1	91.20	1,115.5	-771.9	1,077.2	1,034.4	42.77	25.188		
5,000.0	4,893.4	4,851.8	4,626.2	22.0	28.7	91.18	1,141.7	-790.2	1,102.5	1,058.7	43.74	25.206		

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

<b>Company:</b>	Anadarko, Weld County CO	<b>Local Co-ordinate Reference:</b>	Well Walters 21-18
<b>Project:</b>	SEC.18-T2N-R65W	<b>TVD Reference:</b>	WELL @ 4977.0ft (Original Well Elev)
<b>Reference Site:</b>	Walters 17-18 Pad Sec.18-T2N-R65W	<b>MD Reference:</b>	WELL @ 4977.0ft (Original Well Elev)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Walters 21-18	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	Wellbore #1	<b>Database:</b>	Landmark
<b>Reference Design:</b>	Plan #1 (4-01-11)	<b>Offset TVD Reference:</b>	Offset Datum

<b>Offset Design</b> Walters 17-18 Pad Sec.18-T2N-R65W - Walters 28-18 - Wellbore #1 - Plan #1 (4-01-11)												<b>Offset Site Error:</b>	0.0 ft
Survey Program: 0-MWD												<b>Offset Well Error:</b>	0.0 ft
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
5,100.0	4,990.9	4,948.5	4,717.5	22.4	29.4	91.16	1,167.9	-808.6	1,127.8	1,083.1	44.71	25.222	
5,174.9	5,063.9	5,021.0	4,785.9	22.8	29.9	91.15	1,187.6	-822.3	1,146.7	1,101.3	45.44	25.234	
5,200.0	5,088.4	5,045.2	4,808.8	22.9	30.0	91.27	1,194.1	-826.9	1,153.1	1,107.4	45.70	25.230	
5,300.0	5,186.4	5,142.0	4,900.1	23.2	30.7	91.65	1,220.4	-845.2	1,178.3	1,131.7	46.62	25.274	
5,400.0	5,285.1	5,256.9	5,008.7	23.5	31.4	91.80	1,251.0	-866.6	1,203.2	1,155.7	47.47	25.346	
5,500.0	5,384.3	5,398.7	5,144.6	23.8	32.0	91.78	1,284.5	-890.0	1,225.0	1,176.8	48.23	25.400	
5,600.0	5,483.8	5,543.1	5,284.8	24.0	32.6	91.68	1,312.8	-909.7	1,243.2	1,194.3	48.86	25.445	
5,700.0	5,583.7	5,689.7	5,428.6	24.1	33.1	91.51	1,335.6	-925.7	1,257.6	1,208.2	49.37	25.474	
5,800.0	5,683.6	5,838.0	5,575.5	24.3	33.5	91.25	1,352.5	-937.5	1,268.1	1,218.3	49.74	25.496	
5,816.4	5,700.0	5,862.4	5,599.8	24.3	33.5	6.34	1,354.7	-939.0	1,269.4	1,219.6	49.78	25.499	
5,900.0	5,783.6	5,987.8	5,724.7	24.4	33.8	6.03	1,363.2	-944.9	1,274.7	1,224.7	49.99	25.498	
6,000.0	5,883.6	6,138.5	5,875.3	24.5	34.0	5.87	1,367.5	-948.0	1,277.3	1,227.1	50.24	25.425	
6,100.0	5,983.6	6,246.8	5,983.6	24.6	34.0	5.87	1,367.6	-948.0	1,277.3	1,226.9	50.46	25.314	
6,200.0	6,083.6	6,346.8	6,083.6	24.7	34.1	5.87	1,367.6	-948.0	1,277.3	1,226.7	50.69	25.202	
6,300.0	6,183.6	6,446.8	6,183.6	24.8	34.2	5.87	1,367.6	-948.0	1,277.3	1,226.4	50.91	25.089	
6,400.0	6,283.6	6,546.8	6,283.6	24.9	34.3	5.87	1,367.6	-948.0	1,277.3	1,226.2	51.14	24.976	
6,500.0	6,383.6	6,646.8	6,383.6	25.1	34.4	5.87	1,367.6	-948.0	1,277.3	1,226.0	51.38	24.862	
6,600.0	6,483.6	6,746.8	6,483.6	25.2	34.5	5.87	1,367.6	-948.0	1,277.3	1,225.7	51.61	24.748	
6,700.0	6,583.6	6,846.8	6,583.6	25.3	34.6	5.87	1,367.6	-948.0	1,277.3	1,225.5	51.85	24.634	
6,800.0	6,683.6	6,946.8	6,683.6	25.4	34.6	5.87	1,367.6	-948.0	1,277.3	1,225.3	52.10	24.519	
6,900.0	6,783.6	7,046.8	6,783.6	25.5	34.7	5.87	1,367.6	-948.0	1,277.3	1,225.0	52.34	24.405	
7,000.0	6,883.6	7,146.8	6,883.6	25.7	34.8	5.87	1,367.6	-948.0	1,277.3	1,224.8	52.59	24.290	
7,100.0	6,983.6	7,246.8	6,983.6	25.8	34.9	5.87	1,367.6	-948.0	1,277.3	1,224.5	52.84	24.175	
7,200.0	7,083.6	7,346.8	7,083.6	25.9	35.0	5.87	1,367.6	-948.0	1,277.3	1,224.3	53.09	24.060	
7,300.0	7,183.6	7,446.8	7,183.6	26.1	35.1	5.87	1,367.6	-948.0	1,277.3	1,224.0	53.35	23.944	
7,400.0	7,283.6	7,546.8	7,283.6	26.2	35.2	5.87	1,367.6	-948.0	1,277.3	1,223.7	53.60	23.829	
7,500.0	7,383.6	7,646.8	7,383.6	26.3	35.3	5.87	1,367.6	-948.0	1,277.3	1,223.5	53.87	23.714	
7,600.0	7,483.6	7,746.8	7,483.6	26.5	35.4	5.87	1,367.6	-948.0	1,277.3	1,223.2	54.13	23.599	
7,700.0	7,583.6	7,846.8	7,583.6	26.6	35.5	5.87	1,367.6	-948.0	1,277.3	1,223.0	54.39	23.484	
7,800.0	7,683.6	7,946.8	7,683.6	26.7	35.6	5.87	1,367.6	-948.0	1,277.3	1,222.7	54.66	23.368	
7,900.0	7,783.6	8,046.8	7,783.6	26.9	35.7	5.87	1,367.6	-948.0	1,277.3	1,222.4	54.93	23.254	
8,000.0	7,883.6	8,146.8	7,883.6	27.0	35.8	5.87	1,367.6	-948.0	1,277.3	1,222.1	55.20	23.139	
8,048.2	7,931.8	8,195.0	7,931.8	27.1	35.9	5.87	1,367.6	-948.0	1,277.3	1,222.0	55.34	23.083	
8,100.0	7,983.6	8,211.2	7,948.0	27.1	35.9	5.87	1,367.6	-948.0	1,277.8	1,222.4	55.43	23.053	
8,200.0	8,083.6	8,211.2	7,948.0	27.3	35.9	5.87	1,367.6	-948.0	1,284.5	1,229.0	55.57	23.115	
8,309.4	8,193.0	8,211.2	7,948.0	27.4	35.9	5.87	1,367.6	-948.0	1,300.6	1,244.9	55.73	23.339	



<b>Company:</b>	Anadarko, Weld County CO	<b>Local Co-ordinate Reference:</b>	Well Walters 21-18
<b>Project:</b>	SEC.18-T2N-R65W	<b>TVD Reference:</b>	WELL @ 4977.0ft (Original Well Elev)
<b>Reference Site:</b>	Walters 17-18 Pad Sec.18-T2N-R65W	<b>MD Reference:</b>	WELL @ 4977.0ft (Original Well Elev)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Walters 21-18	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	Wellbore #1	<b>Database:</b>	Landmark
<b>Reference Design:</b>	Plan #1 (4-01-11)	<b>Offset TVD Reference:</b>	Offset Datum

Reference Depths are relative to WELL @ 4977.0ft (Original Well Elev) Coordinates are relative to: Walters 21-18  
 Offset Depths are relative to Offset Datum  
 Central Meridian is -105.500000 °  
 Coordinate System is US State Plane 1983, Colorado Northern Zone  
 Grid Convergence at Surface is: 0.52°



<b>Company:</b>	Anadarko, Weld County CO	<b>Local Co-ordinate Reference:</b>	Well Walters 21-18
<b>Project:</b>	SEC.18-T2N-R65W	<b>TVD Reference:</b>	WELL @ 4977.0ft (Original Well Elev)
<b>Reference Site:</b>	Walters 17-18 Pad Sec.18-T2N-R65W	<b>MD Reference:</b>	WELL @ 4977.0ft (Original Well Elev)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Walters 21-18	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	Wellbore #1	<b>Database:</b>	Landmark
<b>Reference Design:</b>	Plan #1 (4-01-11)	<b>Offset TVD Reference:</b>	Offset Datum

Reference Depths are relative to WELL @ 4977.0ft (Original Well Elev) Coordinates are relative to: Walters 21-18  
 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: 0.52°

