

# **Denver Division- Colorado**

**DJ - Hereford Ranch**

**Fiscus Mesa 08-09H**

**Fiscus Mesa 08-09H**

**Original Wellbore**

**Plan: APD Directional Plan**

## **Standard Planning Report**

**13 December, 2010**

# EOG Resources Inc

## Planning Report

<b>Database:</b>	EDM	<b>Local Co-ordinate Reference:</b>	Site Fiscus Mesa 08-09H
<b>Company:</b>	Denver Division- Colorado	<b>TVD Reference:</b>	Rig @ 4735.00ft (TBD)
<b>Project:</b>	DJ - Hereford Ranch	<b>MD Reference:</b>	Rig @ 4735.00ft (TBD)
<b>Site:</b>	Fiscus Mesa 08-09H	<b>North Reference:</b>	True
<b>Well:</b>	Fiscus Mesa 08-09H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Original Wellbore		
<b>Design:</b>	APD Directional Plan		

<b>Project</b>	DJ - Hereford Ranch, Weld County		
<b>Map System:</b>	US State Plane 1927 (Exact solution)	<b>System Datum:</b>	Mean Sea Level
<b>Geo Datum:</b>	NAD 1927 (NADCON CONUS)		
<b>Map Zone:</b>	Colorado North 501		

<b>Site</b>	Fiscus Mesa 08-09H		
<b>Site Position:</b>		<b>Northing:</b>	523,889.23 ft
<b>From:</b>	Lat/Long	<b>Easting:</b>	2,453,992.35 ft
<b>Position Uncertainty:</b>	0.00 ft	<b>Slot Radius:</b>	"
		<b>Latitude:</b>	40° 45' 35.899 N
		<b>Longitude:</b>	103° 51' 40.230 W
		<b>Grid Convergence:</b>	1.06 deg

<b>Well</b>	Fiscus Mesa 08-09H		
<b>Well Position</b>	<b>+N/-S</b>	0.00 ft	<b>Northing:</b>
	<b>+E/-W</b>	0.00 ft	<b>Easting:</b>
<b>Position Uncertainty</b>	0.00 ft	<b>Wellhead Elevation:</b>	ft
		<b>Latitude:</b>	40° 45' 35.899 N
		<b>Longitude:</b>	103° 51' 40.230 W
		<b>Ground Level:</b>	4,713.00 ft

<b>Wellbore</b>	Original Wellbore				
<b>Magnetics</b>	<b>Model Name</b>	<b>Sample Date</b>	<b>Declination (deg)</b>	<b>Dip Angle (deg)</b>	<b>Field Strength (nT)</b>
	IGRF200510	10/27/2010	8.44	67.52	53,499

<b>Design</b>	APD Directional Plan			
<b>Audit Notes:</b>				
<b>Version:</b>	<b>Phase:</b>	PROTOTYPE	<b>Tie On Depth:</b>	0.00
<b>Vertical Section:</b>	<b>Depth From (TVD) (ft)</b>	<b>+N/-S (ft)</b>	<b>+E/-W (ft)</b>	<b>Direction (deg)</b>
	0.00	0.00	0.00	332.87

<b>Plan Sections</b>										
<b>Measured Depth (ft)</b>	<b>Inclination (deg)</b>	<b>Azimuth (deg)</b>	<b>Vertical Depth (ft)</b>	<b>+N/-S (ft)</b>	<b>+E/-W (ft)</b>	<b>Dogleg Rate (?/100ft)</b>	<b>Build Rate (?/100ft)</b>	<b>Turn Rate (?/100ft)</b>	<b>TFO (deg)</b>	<b>Target</b>
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
5,192.53	0.00	0.00	5,192.53	0.00	0.00	0.00	0.00	0.00	0.00	
5,942.54	90.00	332.87	5,670.00	424.94	-217.71	12.00	12.00	0.00	332.87	
10,190.01	90.00	332.87	5,670.00	4,205.17	-2,154.44	0.00	0.00	0.00	0.00	Fiscus Mesa 8-09H

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<b>Company:</b>	Denver Division- Colorado	<b>TVD Reference:</b>	Rig @ 4735.00ft (TBD)
<b>Project:</b>	DJ - Hereford Ranch	<b>MD Reference:</b>	Rig @ 4735.00ft (TBD)
<b>Site:</b>	Fiscus Mesa 08-09H	<b>North Reference:</b>	True
<b>Well:</b>	Fiscus Mesa 08-09H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Original Wellbore		
<b>Design:</b>	APD Directional Plan		

### Planned Survey

Measured Depth (ft)	Inclination (deg)	Azimuth (deg)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (?/100ft)	Build Rate (?/100ft)	Turn Rate (?/100ft)
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
100.00	0.00	0.00	100.00	0.00	0.00	0.00	0.00	0.00	0.00
200.00	0.00	0.00	200.00	0.00	0.00	0.00	0.00	0.00	0.00
300.00	0.00	0.00	300.00	0.00	0.00	0.00	0.00	0.00	0.00
400.00	0.00	0.00	400.00	0.00	0.00	0.00	0.00	0.00	0.00
500.00	0.00	0.00	500.00	0.00	0.00	0.00	0.00	0.00	0.00
600.00	0.00	0.00	600.00	0.00	0.00	0.00	0.00	0.00	0.00
700.00	0.00	0.00	700.00	0.00	0.00	0.00	0.00	0.00	0.00
800.00	0.00	0.00	800.00	0.00	0.00	0.00	0.00	0.00	0.00
<b>9-5/8"</b>									
900.00	0.00	0.00	900.00	0.00	0.00	0.00	0.00	0.00	0.00
1,000.00	0.00	0.00	1,000.00	0.00	0.00	0.00	0.00	0.00	0.00
1,100.00	0.00	0.00	1,100.00	0.00	0.00	0.00	0.00	0.00	0.00
1,200.00	0.00	0.00	1,200.00	0.00	0.00	0.00	0.00	0.00	0.00
1,300.00	0.00	0.00	1,300.00	0.00	0.00	0.00	0.00	0.00	0.00
1,400.00	0.00	0.00	1,400.00	0.00	0.00	0.00	0.00	0.00	0.00
1,500.00	0.00	0.00	1,500.00	0.00	0.00	0.00	0.00	0.00	0.00
1,600.00	0.00	0.00	1,600.00	0.00	0.00	0.00	0.00	0.00	0.00
1,700.00	0.00	0.00	1,700.00	0.00	0.00	0.00	0.00	0.00	0.00
1,800.00	0.00	0.00	1,800.00	0.00	0.00	0.00	0.00	0.00	0.00
1,900.00	0.00	0.00	1,900.00	0.00	0.00	0.00	0.00	0.00	0.00
2,000.00	0.00	0.00	2,000.00	0.00	0.00	0.00	0.00	0.00	0.00
2,100.00	0.00	0.00	2,100.00	0.00	0.00	0.00	0.00	0.00	0.00
2,200.00	0.00	0.00	2,200.00	0.00	0.00	0.00	0.00	0.00	0.00
2,300.00	0.00	0.00	2,300.00	0.00	0.00	0.00	0.00	0.00	0.00
2,400.00	0.00	0.00	2,400.00	0.00	0.00	0.00	0.00	0.00	0.00
2,500.00	0.00	0.00	2,500.00	0.00	0.00	0.00	0.00	0.00	0.00
2,600.00	0.00	0.00	2,600.00	0.00	0.00	0.00	0.00	0.00	0.00
2,700.00	0.00	0.00	2,700.00	0.00	0.00	0.00	0.00	0.00	0.00
2,800.00	0.00	0.00	2,800.00	0.00	0.00	0.00	0.00	0.00	0.00
2,900.00	0.00	0.00	2,900.00	0.00	0.00	0.00	0.00	0.00	0.00
3,000.00	0.00	0.00	3,000.00	0.00	0.00	0.00	0.00	0.00	0.00
3,100.00	0.00	0.00	3,100.00	0.00	0.00	0.00	0.00	0.00	0.00
3,200.00	0.00	0.00	3,200.00	0.00	0.00	0.00	0.00	0.00	0.00
3,300.00	0.00	0.00	3,300.00	0.00	0.00	0.00	0.00	0.00	0.00
3,400.00	0.00	0.00	3,400.00	0.00	0.00	0.00	0.00	0.00	0.00
3,500.00	0.00	0.00	3,500.00	0.00	0.00	0.00	0.00	0.00	0.00
3,600.00	0.00	0.00	3,600.00	0.00	0.00	0.00	0.00	0.00	0.00
3,700.00	0.00	0.00	3,700.00	0.00	0.00	0.00	0.00	0.00	0.00
3,800.00	0.00	0.00	3,800.00	0.00	0.00	0.00	0.00	0.00	0.00
3,900.00	0.00	0.00	3,900.00	0.00	0.00	0.00	0.00	0.00	0.00
4,000.00	0.00	0.00	4,000.00	0.00	0.00	0.00	0.00	0.00	0.00
4,100.00	0.00	0.00	4,100.00	0.00	0.00	0.00	0.00	0.00	0.00
4,200.00	0.00	0.00	4,200.00	0.00	0.00	0.00	0.00	0.00	0.00
4,300.00	0.00	0.00	4,300.00	0.00	0.00	0.00	0.00	0.00	0.00
4,400.00	0.00	0.00	4,400.00	0.00	0.00	0.00	0.00	0.00	0.00
4,500.00	0.00	0.00	4,500.00	0.00	0.00	0.00	0.00	0.00	0.00
4,600.00	0.00	0.00	4,600.00	0.00	0.00	0.00	0.00	0.00	0.00
4,700.00	0.00	0.00	4,700.00	0.00	0.00	0.00	0.00	0.00	0.00
4,800.00	0.00	0.00	4,800.00	0.00	0.00	0.00	0.00	0.00	0.00
4,900.00	0.00	0.00	4,900.00	0.00	0.00	0.00	0.00	0.00	0.00
5,000.00	0.00	0.00	5,000.00	0.00	0.00	0.00	0.00	0.00	0.00
5,100.00	0.00	0.00	5,100.00	0.00	0.00	0.00	0.00	0.00	0.00

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<b>Site:</b>	Fiscus Mesa 08-09H	<b>North Reference:</b>	True
<b>Well:</b>	Fiscus Mesa 08-09H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Original Wellbore		
<b>Design:</b>	APD Directional Plan		

### Planned Survey

Measured Depth (ft)	Inclination (deg)	Azimuth (deg)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (?/100ft)	Build Rate (?/100ft)	Turn Rate (?/100ft)
5,192.53	0.00	0.00	5,192.53	0.00	0.00	0.00	0.00	0.00	0.00
5,200.00	0.90	332.87	5,200.00	0.05	-0.03	0.06	12.00	12.00	0.00
5,300.00	12.90	332.87	5,299.09	10.72	-5.49	12.04	12.00	12.00	0.00
5,400.00	24.90	332.87	5,393.53	39.49	-20.23	44.37	12.00	12.00	0.00
5,500.00	36.90	332.87	5,479.19	85.10	-43.60	95.62	12.00	12.00	0.00
5,600.00	48.90	332.87	5,552.31	145.57	-74.58	163.57	12.00	12.00	0.00
5,700.00	60.90	332.87	5,609.71	218.25	-111.82	245.23	12.00	12.00	0.00
5,800.00	72.90	332.87	5,648.88	299.96	-153.68	337.04	12.00	12.00	0.00
5,900.00	84.90	332.87	5,668.11	387.14	-198.34	434.99	12.00	12.00	0.00
5,942.54	90.00	332.87	5,670.00	424.95	-217.71	477.47	12.00	12.00	0.00
7"									
6,000.00	90.00	332.87	5,670.00	476.08	-243.91	534.93	0.00	0.00	0.00
6,100.00	90.00	332.87	5,670.00	565.08	-289.51	634.93	0.00	0.00	0.00
6,200.00	90.00	332.87	5,670.00	654.08	-335.11	734.93	0.00	0.00	0.00
6,300.00	90.00	332.87	5,670.00	743.08	-380.70	834.93	0.00	0.00	0.00
6,400.00	90.00	332.87	5,670.00	832.08	-426.30	934.93	0.00	0.00	0.00
6,500.00	90.00	332.87	5,670.00	921.08	-471.90	1,034.93	0.00	0.00	0.00
6,600.00	90.00	332.87	5,670.00	1,010.08	-517.50	1,134.93	0.00	0.00	0.00
6,700.00	90.00	332.87	5,670.00	1,099.08	-563.09	1,234.93	0.00	0.00	0.00
6,800.00	90.00	332.87	5,670.00	1,188.08	-608.69	1,334.93	0.00	0.00	0.00
6,900.00	90.00	332.87	5,670.00	1,277.08	-654.29	1,434.93	0.00	0.00	0.00
7,000.00	90.00	332.87	5,670.00	1,366.08	-699.89	1,534.93	0.00	0.00	0.00
7,100.00	90.00	332.87	5,670.00	1,455.08	-745.48	1,634.93	0.00	0.00	0.00
7,200.00	90.00	332.87	5,670.00	1,544.08	-791.08	1,734.93	0.00	0.00	0.00
7,300.00	90.00	332.87	5,670.00	1,633.08	-836.68	1,834.93	0.00	0.00	0.00
7,400.00	90.00	332.87	5,670.00	1,722.08	-882.27	1,934.93	0.00	0.00	0.00
7,500.00	90.00	332.87	5,670.00	1,811.08	-927.87	2,034.93	0.00	0.00	0.00
7,600.00	90.00	332.87	5,670.00	1,900.07	-973.47	2,134.93	0.00	0.00	0.00
7,700.00	90.00	332.87	5,670.00	1,989.07	-1,019.07	2,234.93	0.00	0.00	0.00
7,800.00	90.00	332.87	5,670.00	2,078.07	-1,064.66	2,334.93	0.00	0.00	0.00
7,900.00	90.00	332.87	5,670.00	2,167.07	-1,110.26	2,434.93	0.00	0.00	0.00
8,000.00	90.00	332.87	5,670.00	2,256.07	-1,155.86	2,534.93	0.00	0.00	0.00
8,100.00	90.00	332.87	5,670.00	2,345.07	-1,201.46	2,634.93	0.00	0.00	0.00
8,200.00	90.00	332.87	5,670.00	2,434.07	-1,247.05	2,734.93	0.00	0.00	0.00
8,300.00	90.00	332.87	5,670.00	2,523.07	-1,292.65	2,834.93	0.00	0.00	0.00
8,400.00	90.00	332.87	5,670.00	2,612.07	-1,338.25	2,934.93	0.00	0.00	0.00
8,500.00	90.00	332.87	5,670.00	2,701.07	-1,383.84	3,034.93	0.00	0.00	0.00
8,600.00	90.00	332.87	5,670.00	2,790.07	-1,429.44	3,134.93	0.00	0.00	0.00
8,700.00	90.00	332.87	5,670.00	2,879.07	-1,475.04	3,234.93	0.00	0.00	0.00
8,800.00	90.00	332.87	5,670.00	2,968.07	-1,520.64	3,334.93	0.00	0.00	0.00
8,900.00	90.00	332.87	5,670.00	3,057.07	-1,566.23	3,434.93	0.00	0.00	0.00
9,000.00	90.00	332.87	5,670.00	3,146.07	-1,611.83	3,534.93	0.00	0.00	0.00
9,100.00	90.00	332.87	5,670.00	3,235.07	-1,657.43	3,634.93	0.00	0.00	0.00
9,200.00	90.00	332.87	5,670.00	3,324.07	-1,703.02	3,734.93	0.00	0.00	0.00
9,300.00	90.00	332.87	5,670.00	3,413.06	-1,748.62	3,834.93	0.00	0.00	0.00
9,400.00	90.00	332.87	5,670.00	3,502.06	-1,794.22	3,934.93	0.00	0.00	0.00
9,500.00	90.00	332.87	5,670.00	3,591.06	-1,839.82	4,034.93	0.00	0.00	0.00
9,600.00	90.00	332.87	5,670.00	3,680.06	-1,885.41	4,134.93	0.00	0.00	0.00
9,700.00	90.00	332.87	5,670.00	3,769.06	-1,931.01	4,234.93	0.00	0.00	0.00
9,800.00	90.00	332.87	5,670.00	3,858.06	-1,976.61	4,334.93	0.00	0.00	0.00
9,900.00	90.00	332.87	5,670.00	3,947.06	-2,022.21	4,434.93	0.00	0.00	0.00
10,000.00	90.00	332.87	5,670.00	4,036.06	-2,067.80	4,534.93	0.00	0.00	0.00
10,100.00	90.00	332.87	5,670.00	4,125.06	-2,113.40	4,634.93	0.00	0.00	0.00

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<b>Project:</b>	DJ - Hereford Ranch	<b>MD Reference:</b>	Rig @ 4735.00ft (TBD)
<b>Site:</b>	Fiscus Mesa 08-09H	<b>North Reference:</b>	True
<b>Well:</b>	Fiscus Mesa 08-09H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Original Wellbore		
<b>Design:</b>	APD Directional Plan		

Planned Survey									
Measured Depth (ft)	Inclination (deg)	Azimuth (deg)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (?/100ft)	Build Rate (?/100ft)	Turn Rate (?/100ft)
10,190.01	90.00	332.87	5,670.00	4,205.17	-2,154.44	4,724.94	0.00	0.00	0.00
4 1/2" - Fiscus Mesa 8-09H (BHL)									

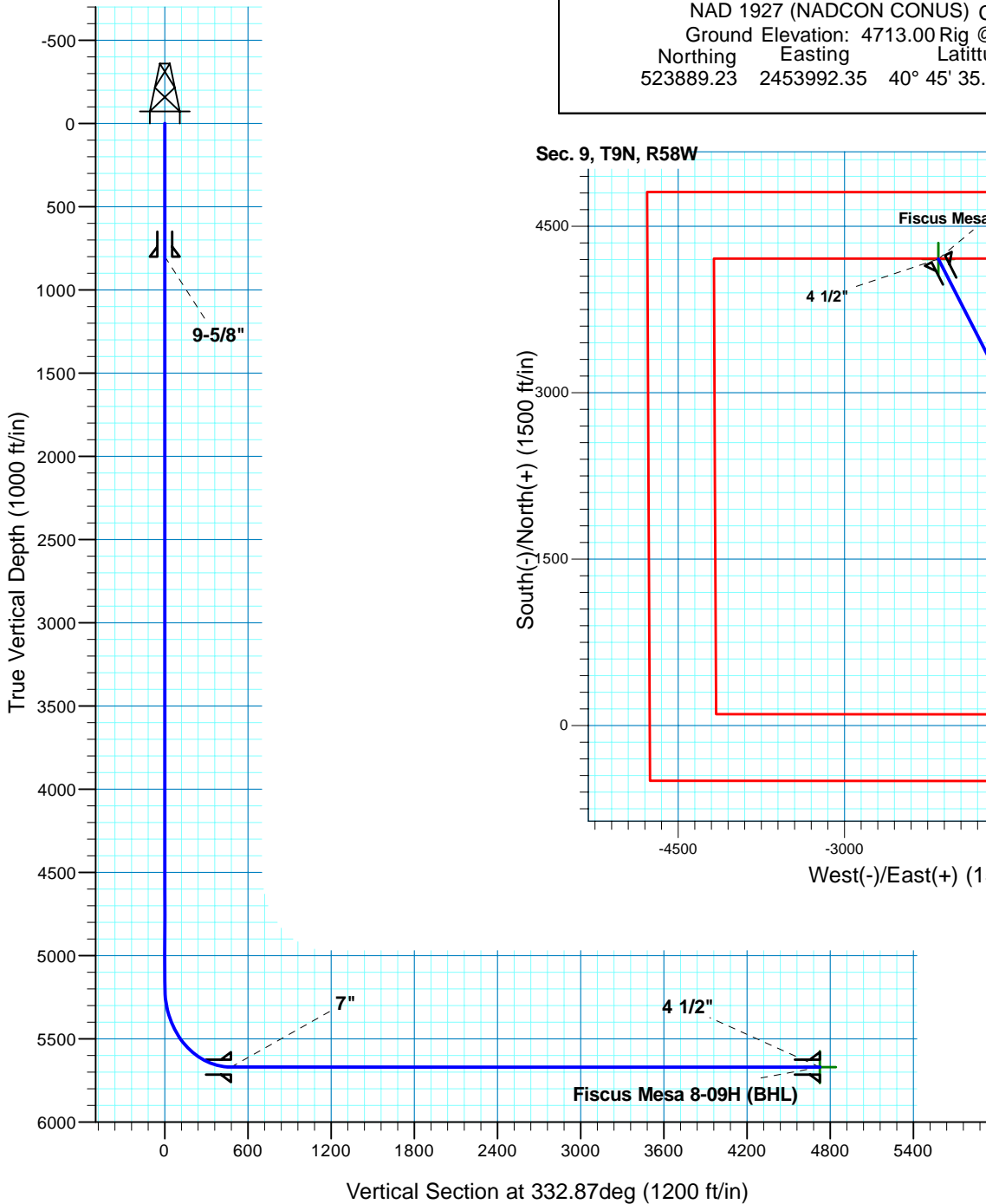
Targets									
Target Name									
- hit/miss target	Dip Angle (deg)	Dip Dir. (deg)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	Northing (ft)	Easting (ft)	Latitude	Longitude
- Shape									
Fiscus Mesa 8-09H (E	0.00	1.05	5,670.00	4,205.17	-2,154.44	528,053.86	2,451,760.57	40° 46' 17.450 N	103° 52' 8.231 W
- plan hits target center									
- Point									

Casing Points					
Measured Depth (ft)	Vertical Depth (ft)	Name		Casing Diameter (")	Hole Diameter (")
800.00	800.00	9-5/8"		9-5/8	13-1/2
5,942.54	5,670.00	7"		7	8-3/4
10,190.01	5,670.00	4 1/2"		4-1/2	6

# Fiscus Mesa 08-09H

Section 9 T9N R58W

Weld County, CO



Surface Location			
NAD 1927 (NADCON CONUS) Colorado North 501			
Ground Elevation: 4713.00 Rig @ 4735.00ft (TBD)			
Northing	Easting	Latitude	Longitude
523889.23	2453992.35	40° 45' 35.899 N	103° 51' 40.230 W

**T M**  
 Azimuths to True North  
 Magnetic North: 8.44°  
 Magnetic Field  
 Strength: 53499.3snT  
 Dip Angle: 67.52°  
 Date: 10/27/2010  
 Model: IGRF200510

Project: DJ - Hereford Ranch  
 Site: Fiscus Mesa 08-09H  
 Well: Fiscus Mesa 08-09H  
 Plan: APD Directional Plan

## SECTION DETAILS

Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	DLeg	TFace	VSec	Target
1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
2	5192.53	0.00	0.00	5192.53	0.00	0.00	0.00	0.00	0.00	
3	5942.54	90.00	332.87	5670.00	424.94	-217.71	12.00	332.87	477.47	
4	10190.01	90.00	332.87	5670.00	4205.17	-2154.44	0.00	0.00	4724.94	Fiscus Mesa 8-09H (BHL)

## TARGET DETAILS

Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Shape
Fiscus Mesa 8-09H (BHL)	5670.00	4205.17	-2154.44	528053.86	2451760.57	40° 46' 17.450 N	103° 52' 8.231 W	Point