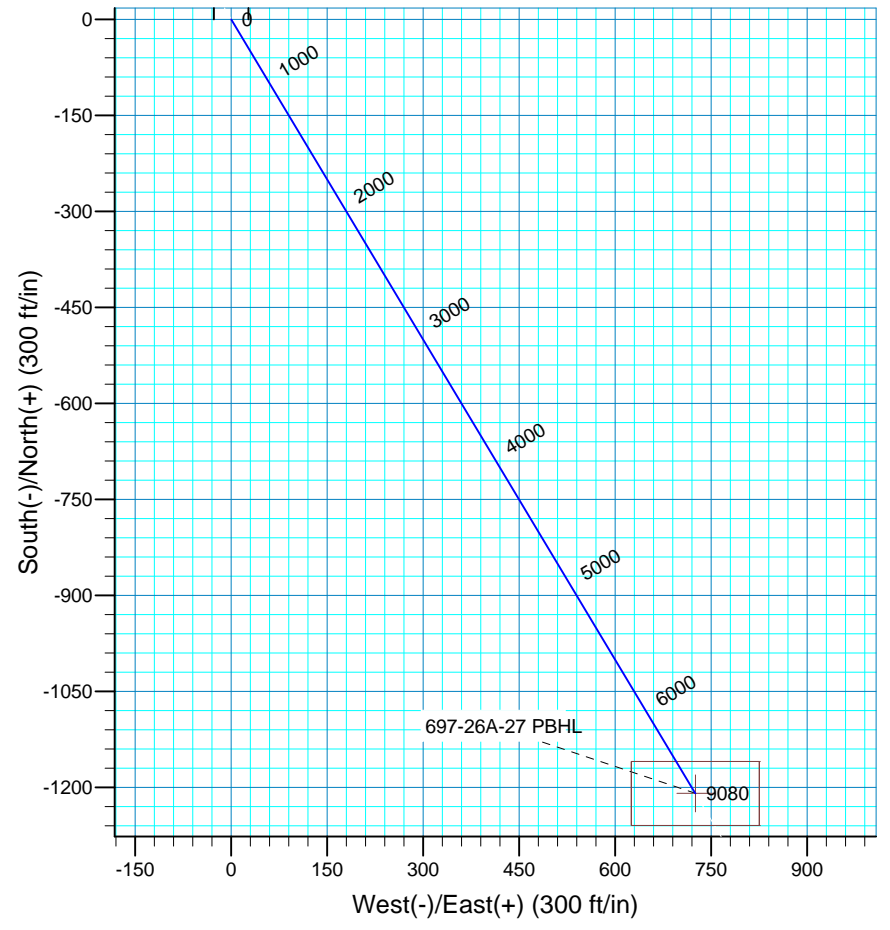
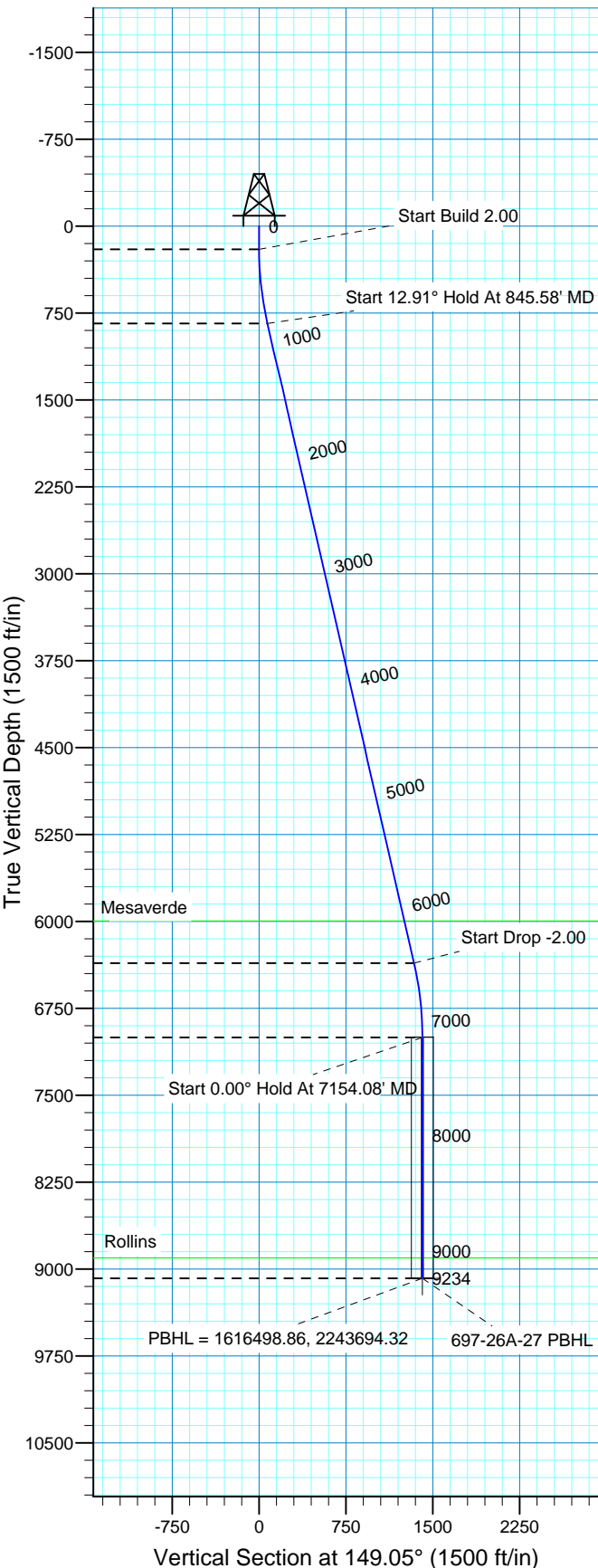


WELL DETAILS: 697-26A-27

		GL 8400' & RKB 24' @ 8424.00ft (H&P 324)		8400.00		
+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Slot
0.00	0.00	1617729.22	2243005.15	39° 29' 55.517 N	108° 10' 58.681 W	A



FORMATION TOP DETAILS				Plan: Plan #2 (697-26A-27/OH)							
TVDP 5996.00 8904.00	MDPath 6135.19 9058.08	Formation Mesaverde Rollins	Created By: Rex Hall    Date: 2010-02-23								
			PROJECT DETAILS: Garfield County, CO NAD 83								
			Geodetic System: US State Plane 1983 Datum: North American Datum 1983 Ellipsoid: GRS 1980 Zone: Colorado Central Zone  System Datum: Mean Sea Level Local North: True								
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	200.00	0.00	0.00	200.00	0.00	0.00	0.00	0.00	0.00		
3	845.58	12.91	149.05	840.13	-62.12	37.25	2.00	149.05	72.43		
4	6508.50	12.91	149.05	6359.87	1147.35	687.95	0.00	0.00	337.80		
5	7154.08	0.00	0.00	7000.00	1209.48	725.20	2.00	180.00	410.23		
6	9234.08	0.00	0.00	9080.00	1209.48	725.20	0.00	0.00	410.23	697-26A-27 PBHL	



## **Marathon Oil Co.**

**Garfield County, CO NAD 83**

**697-26A Pad**

**697-26A-27 - Slot A**

**OH**

**Plan: Plan #2**

## **Standard Planning Report**

**23 February, 2010**



<b>Database:</b>	EDM 2003.16 Multi-User Db	<b>Local Co-ordinate Reference:</b>	Well 697-26A-27 - Slot A
<b>Company:</b>	Marathon Oil Co.	<b>TVD Reference:</b>	GL 8400' & RKB 24' @ 8424.00ft (H&P 324)
<b>Project:</b>	Garfield County, CO NAD 83	<b>MD Reference:</b>	GL 8400' & RKB 24' @ 8424.00ft (H&P 324)
<b>Site:</b>	697-26A Pad	<b>North Reference:</b>	True
<b>Well:</b>	697-26A-27	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	OH		
<b>Design:</b>	Plan #2		

<b>Project</b>	Garfield County, CO NAD 83		
<b>Map System:</b>	US State Plane 1983	<b>System Datum:</b>	Mean Sea Level
<b>Geo Datum:</b>	North American Datum 1983		
<b>Map Zone:</b>	Colorado Central Zone		

Site		697-26A Pad, Sec 26 T6S R97W			
Site Position:		Northing:	1,617,794.11 ft	Latitude:	39° 29' 56.147 N
From:	Map	Easting:	2,242,966.23 ft	Longitude:	108° 10' 59.202 W
Position Uncertainty:	0.00 ft	Slot Radius:	in	Grid Convergence:	-1.69 °

Well	697-26A-27 - Slot A, 905' FNL 1386' FWL					
Well Position	+N/-S	0.00 ft	Northing:	1,617,729.22 ft	Latitude:	39° 29' 55.517 N
	+E/-W	0.00 ft	Easting:	2,243,005.15 ft	Longitude:	108° 10' 58.681 W
Position Uncertainty		0.00 ft	Wellhead Elevation:	ft	Ground Level:	8,400.00 ft

<b>Wellbore</b>	OH				
<b>Magnetics</b>	<b>Model Name</b>	<b>Sample Date</b>	<b>Declination (°)</b>	<b>Dip Angle (°)</b>	<b>Field Strength (nT)</b>
	IGRF200510	12/31/2009	10.60	65.76	52,382

<b>Design</b>	Plan #2			
<b>Audit Notes:</b>				
<b>Version:</b>	<b>Phase:</b>	PLAN	<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 (°)</b>
	0.00	0.00	0.00	149.05

<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
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
200.00	0.00	0.00	200.00	0.00	0.00	0.00	0.00	0.00	0.00	
845.58	12.91	149.05	840.13	-62.12	37.25	2.00	2.00	0.00	149.05	
6,508.50	12.91	149.05	6,359.87	-1,147.35	687.95	0.00	0.00	0.00	0.00	
7,154.08	0.00	0.00	7,000.00	-1,209.48	725.20	2.00	-2.00	0.00	180.00	
9,234.08	0.00	0.00	9,080.00	-1,209.48	725.20	0.00	0.00	0.00	0.00	697-26A-27 PBHL

<b>Database:</b>	EDM 2003.16 Multi-User Db	<b>Local Co-ordinate Reference:</b>	Well 697-26A-27 - Slot A
<b>Company:</b>	Marathon Oil Co.	<b>TVD Reference:</b>	GL 8400' & RKB 24' @ 8424.00ft (H&P 324)
<b>Project:</b>	Garfield County, CO NAD 83	<b>MD Reference:</b>	GL 8400' & RKB 24' @ 8424.00ft (H&P 324)
<b>Site:</b>	697-26A Pad	<b>North Reference:</b>	True
<b>Well:</b>	697-26A-27	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	OH		
<b>Design:</b>	Plan #2		

### 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)
0.00	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
<b>Start Build 2.00</b>									
300.00	2.00	149.05	299.98	-1.50	0.90	1.75	2.00	2.00	0.00
400.00	4.00	149.05	399.84	-5.98	3.59	6.98	2.00	2.00	0.00
500.00	6.00	149.05	499.45	-13.46	8.07	15.69	2.00	2.00	0.00
600.00	8.00	149.05	598.70	-23.91	14.34	27.88	2.00	2.00	0.00
700.00	10.00	149.05	697.47	-37.33	22.38	43.52	2.00	2.00	0.00
800.00	12.00	149.05	795.62	-53.69	32.19	62.60	2.00	2.00	0.00
845.58	12.91	149.05	840.13	-62.12	37.25	72.43	2.00	2.00	0.00
<b>Start 12.91° Hold At 845.58' MD</b>									
900.00	12.91	149.05	893.17	-72.55	43.50	84.59	0.00	0.00	0.00
1,000.00	12.91	149.05	990.65	-91.71	54.99	106.94	0.00	0.00	0.00
1,100.00	12.91	149.05	1,088.12	-110.88	66.48	129.28	0.00	0.00	0.00
1,200.00	12.91	149.05	1,185.59	-130.04	77.97	151.63	0.00	0.00	0.00
1,300.00	12.91	149.05	1,283.06	-149.21	89.46	173.97	0.00	0.00	0.00
1,400.00	12.91	149.05	1,380.53	-168.37	100.95	196.32	0.00	0.00	0.00
1,500.00	12.91	149.05	1,478.00	-187.53	112.45	218.66	0.00	0.00	0.00
1,600.00	12.91	149.05	1,575.48	-206.70	123.94	241.01	0.00	0.00	0.00
1,700.00	12.91	149.05	1,672.95	-225.86	135.43	263.35	0.00	0.00	0.00
1,800.00	12.91	149.05	1,770.42	-245.03	146.92	285.70	0.00	0.00	0.00
1,900.00	12.91	149.05	1,867.89	-264.19	158.41	308.04	0.00	0.00	0.00
2,000.00	12.91	149.05	1,965.36	-283.35	169.90	330.39	0.00	0.00	0.00
2,100.00	12.91	149.05	2,062.83	-302.52	181.39	352.73	0.00	0.00	0.00
2,200.00	12.91	149.05	2,160.30	-321.68	192.88	375.07	0.00	0.00	0.00
2,300.00	12.91	149.05	2,257.78	-340.84	204.37	397.42	0.00	0.00	0.00
2,400.00	12.91	149.05	2,355.25	-360.01	215.86	419.76	0.00	0.00	0.00
2,500.00	12.91	149.05	2,452.72	-379.17	227.35	442.11	0.00	0.00	0.00
2,600.00	12.91	149.05	2,550.19	-398.34	238.84	464.45	0.00	0.00	0.00
2,700.00	12.91	149.05	2,647.66	-417.50	250.33	486.80	0.00	0.00	0.00
2,800.00	12.91	149.05	2,745.13	-436.66	261.82	509.14	0.00	0.00	0.00
2,900.00	12.91	149.05	2,842.61	-455.83	273.31	531.49	0.00	0.00	0.00
3,000.00	12.91	149.05	2,940.08	-474.99	284.80	553.83	0.00	0.00	0.00
3,100.00	12.91	149.05	3,037.55	-494.15	296.30	576.18	0.00	0.00	0.00
3,200.00	12.91	149.05	3,135.02	-513.32	307.79	598.52	0.00	0.00	0.00
3,300.00	12.91	149.05	3,232.49	-532.48	319.28	620.87	0.00	0.00	0.00
3,400.00	12.91	149.05	3,329.96	-551.65	330.77	643.21	0.00	0.00	0.00
3,500.00	12.91	149.05	3,427.44	-570.81	342.26	665.56	0.00	0.00	0.00
3,600.00	12.91	149.05	3,524.91	-589.97	353.75	687.90	0.00	0.00	0.00
3,700.00	12.91	149.05	3,622.38	-609.14	365.24	710.25	0.00	0.00	0.00
3,800.00	12.91	149.05	3,719.85	-628.30	376.73	732.59	0.00	0.00	0.00
3,900.00	12.91	149.05	3,817.32	-647.47	388.22	754.93	0.00	0.00	0.00
4,000.00	12.91	149.05	3,914.79	-666.63	399.71	777.28	0.00	0.00	0.00
4,100.00	12.91	149.05	4,012.27	-685.79	411.20	799.62	0.00	0.00	0.00
4,200.00	12.91	149.05	4,109.74	-704.96	422.69	821.97	0.00	0.00	0.00
4,300.00	12.91	149.05	4,207.21	-724.12	434.18	844.31	0.00	0.00	0.00
4,400.00	12.91	149.05	4,304.68	-743.28	445.67	866.66	0.00	0.00	0.00
4,500.00	12.91	149.05	4,402.15	-762.45	457.16	889.00	0.00	0.00	0.00
4,600.00	12.91	149.05	4,499.62	-781.61	468.65	911.35	0.00	0.00	0.00
4,700.00	12.91	149.05	4,597.09	-800.78	480.15	933.69	0.00	0.00	0.00
4,800.00	12.91	149.05	4,694.57	-819.94	491.64	956.04	0.00	0.00	0.00
4,900.00	12.91	149.05	4,792.04	-839.10	503.13	978.38	0.00	0.00	0.00

**Database:** EDM 2003.16 Multi-User Db  
**Company:** Marathon Oil Co.  
**Project:** Garfield County, CO NAD 83  
**Site:** 697-26A Pad  
**Well:** 697-26A-27  
**Wellbore:** OH  
**Design:** Plan #2

**Local Co-ordinate Reference:** Well 697-26A-27 - Slot A  
**TVD Reference:** GL 8400' & RKB 24' @ 8424.00ft (H&P 324)  
**MD Reference:** GL 8400' & RKB 24' @ 8424.00ft (H&P 324)  
**North Reference:** True  
**Survey Calculation Method:** Minimum Curvature

### 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)
5,000.00	12.91	149.05	4,889.51	-858.27	514.62	1,000.73	0.00	0.00	0.00
5,100.00	12.91	149.05	4,986.98	-877.43	526.11	1,023.07	0.00	0.00	0.00
5,200.00	12.91	149.05	5,084.45	-896.59	537.60	1,045.42	0.00	0.00	0.00
5,300.00	12.91	149.05	5,181.92	-915.76	549.09	1,067.76	0.00	0.00	0.00
5,400.00	12.91	149.05	5,279.40	-934.92	560.58	1,090.11	0.00	0.00	0.00
5,500.00	12.91	149.05	5,376.87	-954.09	572.07	1,112.45	0.00	0.00	0.00
5,600.00	12.91	149.05	5,474.34	-973.25	583.56	1,134.79	0.00	0.00	0.00
5,700.00	12.91	149.05	5,571.81	-992.41	595.05	1,157.14	0.00	0.00	0.00
5,800.00	12.91	149.05	5,669.28	-1,011.58	606.54	1,179.48	0.00	0.00	0.00
5,900.00	12.91	149.05	5,766.75	-1,030.74	618.03	1,201.83	0.00	0.00	0.00
6,000.00	12.91	149.05	5,864.23	-1,049.91	629.52	1,224.17	0.00	0.00	0.00
6,100.00	12.91	149.05	5,961.70	-1,069.07	641.01	1,246.52	0.00	0.00	0.00
6,135.19	12.91	149.05	5,996.00	-1,075.81	645.06	1,254.38	0.00	0.00	0.00
<b>Mesaverde</b>									
6,200.00	12.91	149.05	6,059.17	-1,088.23	652.50	1,268.86	0.00	0.00	0.00
6,300.00	12.91	149.05	6,156.64	-1,107.40	664.00	1,291.21	0.00	0.00	0.00
6,400.00	12.91	149.05	6,254.11	-1,126.56	675.49	1,313.55	0.00	0.00	0.00
6,500.00	12.91	149.05	6,351.58	-1,145.72	686.98	1,335.90	0.00	0.00	0.00
6,508.50	12.91	149.05	6,359.87	-1,147.35	687.95	1,337.80	0.00	0.00	0.00
<b>Start Drop -2.00</b>									
6,600.00	11.08	149.05	6,449.37	-1,163.66	697.73	1,356.81	2.00	-2.00	0.00
6,700.00	9.08	149.05	6,547.82	-1,178.68	706.73	1,374.32	2.00	-2.00	0.00
6,800.00	7.08	149.05	6,646.82	-1,190.73	713.96	1,388.38	2.00	-2.00	0.00
6,900.00	5.08	149.05	6,746.25	-1,199.82	719.41	1,398.97	2.00	-2.00	0.00
7,000.00	3.08	149.05	6,845.99	-1,205.92	723.07	1,406.09	2.00	-2.00	0.00
7,100.00	1.08	149.05	6,945.92	-1,209.04	724.94	1,409.72	2.00	-2.00	0.00
7,154.08	0.00	0.00	7,000.00	-1,209.48	725.20	1,410.23	2.00	-2.00	0.00
<b>Start 0.00° Hold At 7154.08' MD</b>									
7,200.00	0.00	0.00	7,045.92	-1,209.48	725.20	1,410.23	0.00	0.00	0.00
7,300.00	0.00	0.00	7,145.92	-1,209.48	725.20	1,410.23	0.00	0.00	0.00
7,400.00	0.00	0.00	7,245.92	-1,209.48	725.20	1,410.23	0.00	0.00	0.00
7,500.00	0.00	0.00	7,345.92	-1,209.48	725.20	1,410.23	0.00	0.00	0.00
7,600.00	0.00	0.00	7,445.92	-1,209.48	725.20	1,410.23	0.00	0.00	0.00
7,700.00	0.00	0.00	7,545.92	-1,209.48	725.20	1,410.23	0.00	0.00	0.00
7,800.00	0.00	0.00	7,645.92	-1,209.48	725.20	1,410.23	0.00	0.00	0.00
7,900.00	0.00	0.00	7,745.92	-1,209.48	725.20	1,410.23	0.00	0.00	0.00
8,000.00	0.00	0.00	7,845.92	-1,209.48	725.20	1,410.23	0.00	0.00	0.00
8,100.00	0.00	0.00	7,945.92	-1,209.48	725.20	1,410.23	0.00	0.00	0.00
8,200.00	0.00	0.00	8,045.92	-1,209.48	725.20	1,410.23	0.00	0.00	0.00
8,300.00	0.00	0.00	8,145.92	-1,209.48	725.20	1,410.23	0.00	0.00	0.00
8,400.00	0.00	0.00	8,245.92	-1,209.48	725.20	1,410.23	0.00	0.00	0.00
8,500.00	0.00	0.00	8,345.92	-1,209.48	725.20	1,410.23	0.00	0.00	0.00
8,600.00	0.00	0.00	8,445.92	-1,209.48	725.20	1,410.23	0.00	0.00	0.00
8,700.00	0.00	0.00	8,545.92	-1,209.48	725.20	1,410.23	0.00	0.00	0.00
8,800.00	0.00	0.00	8,645.92	-1,209.48	725.20	1,410.23	0.00	0.00	0.00
8,900.00	0.00	0.00	8,745.92	-1,209.48	725.20	1,410.23	0.00	0.00	0.00
9,000.00	0.00	0.00	8,845.92	-1,209.48	725.20	1,410.23	0.00	0.00	0.00
9,058.08	0.00	0.00	8,904.00	-1,209.48	725.20	1,410.23	0.00	0.00	0.00
<b>Rollins</b>									
9,100.00	0.00	0.00	8,945.92	-1,209.48	725.20	1,410.23	0.00	0.00	0.00
9,200.00	0.00	0.00	9,045.92	-1,209.48	725.20	1,410.23	0.00	0.00	0.00
9,234.08	0.00	0.00	9,080.00	-1,209.48	725.20	1,410.23	0.00	0.00	0.00
<b>PBHL = 1616498.86, 2243694.32 - 697-26A-27 PBHL</b>									

<b>Database:</b>	EDM 2003.16 Multi-User Db	<b>Local Co-ordinate Reference:</b>	Well 697-26A-27 - Slot A
<b>Company:</b>	Marathon Oil Co.	<b>TVD Reference:</b>	GL 8400' & RKB 24' @ 8424.00ft (H&P 324)
<b>Project:</b>	Garfield County, CO NAD 83	<b>MD Reference:</b>	GL 8400' & RKB 24' @ 8424.00ft (H&P 324)
<b>Site:</b>	697-26A Pad	<b>North Reference:</b>	True
<b>Well:</b>	697-26A-27	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	OH		
<b>Design:</b>	Plan #2		

Targets									
Target Name									
- hit/miss target	Dip Angle	Dip Dir.	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
- Shape	(°)	(°)	(ft)	(ft)	(ft)	(ft)	(ft)		
697-26A-27 PBHL	0.00	0.00	9,080.00	-1,209.48	725.20	1,616,498.86	2,243,694.32	39° 29' 43.563 N	108° 10' 49.430 W
- plan hits target center									
- Rectangle (sides W100.00 H200.00 D0.00)									

Formations					
Measured Depth	Vertical Depth	Name	Lithology	Dip	Dip Direction
(ft)	(ft)			(°)	(°)
6,135.19	5,996.00	Mesaverde		0.00	
9,058.08	8,904.00	Rollins		0.00	

Plan Annotations				
Measured Depth	Vertical Depth	Local Coordinates		Comment
(ft)	(ft)	+N/-S (ft)	+E/-W (ft)	
200.00	200.00	0.00	0.00	Start Build 2.00
845.58	840.13	-62.12	37.25	Start 12.91° Hold At 845.58' MD
6,508.50	6,359.87	-1,147.35	687.95	Start Drop -2.00
7,154.08	7,000.00	-1,209.48	725.20	Start 0.00° Hold At 7154.08' MD
9,234.08	9,080.00	-1,209.48	725.20	PBHL = 1616498.86, 2243694.32