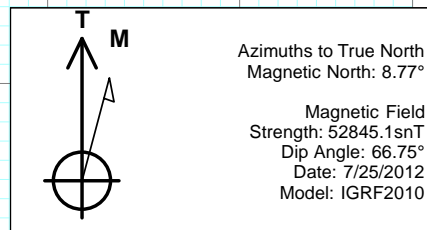
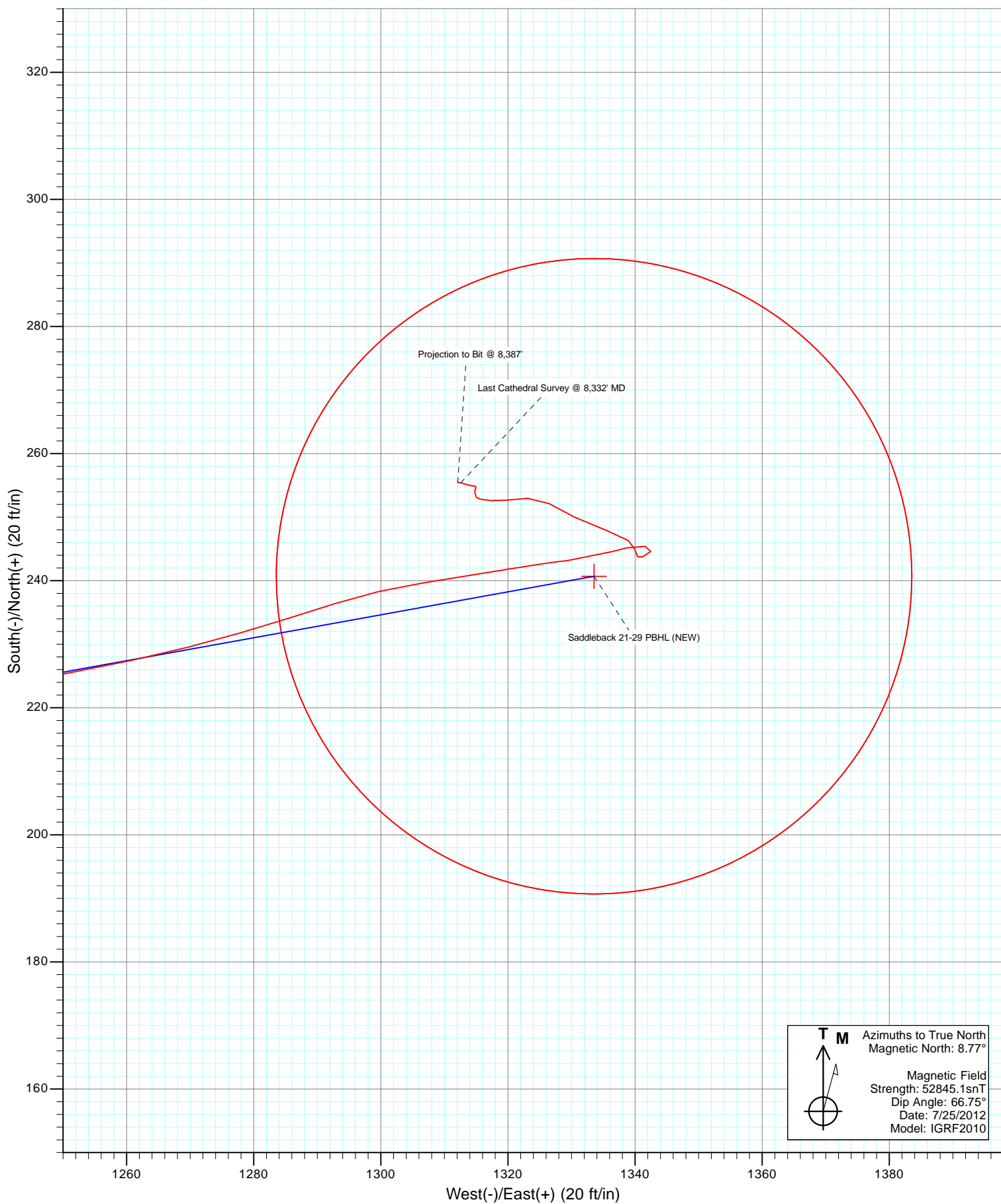


Bottom Hole Location Saddleback 21-29
1040' FNL 1063' FWL



DD Saddleback 21-29 125467;182855 DN WELL @ 5030.0ft (Xtreme 11) North American Datum 1983 Well Saddleback 21-29, True North						
Type	Target	Target	Azimuth	Origin Type	N/S	E/W
Target	Saddleback 21-29 PBHL (NEW)		79.77	Slot	0.0	0.0
Name	Target	TVD	+N/-S	+E/-W	Latitude	Longitude
Saddleback 21-29 PBHL		8196.0	-39.3	1333.6	40.112947	-104.914680
Saddleback 21-29 PBHL (NEW)		8196.0	240.7	1333.6	40.113716	-104.914680



Cathedral Energy Services

Survey Report

Company:	Anadarko Petroleum Corporation	Local Co-ordinate Reference:	Well Saddleback 21-29
Project:	DJ Wattenberg	TVD Reference:	WELL @ 5030.0ft (Xtreme 11)
Site:	S29-T2N-R67W (Saddleback)	MD Reference:	WELL @ 5030.0ft (Xtreme 11)
Well:	Saddleback 21-29	North Reference:	True
Wellbore:	DD	Survey Calculation Method:	Minimum Curvature
Design:	DD	Database:	USA EDM 5000 Multi Users DB

Project	DJ Wattenberg		
Map System:	US State Plane 1983	System Datum:	Mean Sea Level
Geo Datum:	North American Datum 1983		
Map Zone:	Colorado Northern Zone		

Site		S29-T2N-R67W (Saddleback)			
Site Position:		Northing:	1,284,564.16 ft	Latitude:	40.113055
From:	Lat/Long	Easting:	3,162,379.27 ft	Longitude:	-104.919448
Position Uncertainty:	0.0 ft	Slot Radius:	13.200 in	Grid Convergence:	0.38 °

Well	Saddleback 21-29					
Well Position	+N/-S	0.0 ft	Northing:	1,284,564.15 ft	Latitude:	40.113055
	+E/-W	0.0 ft	Easting:	3,162,379.27 ft	Longitude:	-104.919448
Position Uncertainty		0.0 ft	Wellhead Elevation:	ft	Ground Level:	5,015.0 ft

Wellbore	DD				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2010	7/25/2012	8.77	66.75	52,845

Design	DD				
Audit Notes:					
Version:	1.0	Phase:	ACTUAL	Tie On Depth:	0.0
Vertical Section:	Depth From (TVD)	+N/-S	+E/-W	Direction	
	(ft)	(ft)	(ft)	(°)	
	0.0	0.0	0.0	79.77	

Survey Program	Date	9/13/2012			
From (ft)	To (ft)	Survey (Wellbore)	Tool Name	Description	
105.6	8,387.0	Survey #1 (DD)	MWD	Geolink MWD	

Survey										
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Formations / Comments	
0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.00	0.00		
105.6	0.60	203.90	105.6	-0.5	-0.2	-0.3	0.57	0.57		
194.0	1.30	170.40	194.0	-1.9	-0.2	-0.6	0.98	0.79		
282.0	2.30	133.50	281.9	-4.1	1.2	0.5	1.68	1.14		
369.0	3.00	98.80	368.9	-5.7	4.7	3.6	1.97	0.80		
462.0	2.90	80.30	461.7	-5.6	9.4	8.3	1.02	-0.11		
553.0	2.90	36.60	552.6	-3.4	13.1	12.3	2.37	0.00		
644.0	4.30	13.50	643.5	1.8	15.3	15.3	2.19	1.54		
734.0	5.70	17.80	733.1	9.3	17.4	18.8	1.61	1.56		
825.0	5.80	33.70	823.7	17.4	21.3	24.1	1.75	0.11		
865.0	5.70	41.30	863.5	20.6	23.8	27.1	1.92	-0.25		
972.0	6.50	47.50	969.8	28.7	31.7	36.3	0.97	0.75		
1,063.0	7.00	71.00	1,060.2	34.0	40.8	46.2	3.06	0.55		

Cathedral Energy Services

Survey Report

Company:	Anadarko Petroleum Corporation	Local Co-ordinate Reference:	Well Saddleback 21-29
Project:	DJ Wattenberg	TVD Reference:	WELL @ 5030.0ft (Xtreme 11)
Site:	S29-T2N-R67W (Saddleback)	MD Reference:	WELL @ 5030.0ft (Xtreme 11)
Well:	Saddleback 21-29	North Reference:	True
Wellbore:	DD	Survey Calculation Method:	Minimum Curvature
Design:	DD	Database:	USA EDM 5000 Multi Users DB

Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Formations / Comments
1,153.0	8.10	77.30	1,149.5	37.1	52.2	57.9	1.53	1.22	
1,244.0	9.50	84.50	1,239.4	39.3	65.9	71.8	1.95	1.54	
1,335.0	11.20	86.40	1,328.9	40.6	82.2	88.1	1.91	1.87	
1,426.0	12.90	87.30	1,417.9	41.6	101.2	106.9	1.88	1.87	
1,516.0	14.40	80.60	1,505.4	43.9	122.2	128.1	2.42	1.67	
1,607.0	15.70	76.70	1,593.2	48.6	145.4	151.7	1.81	1.43	
1,698.0	15.00	79.60	1,681.0	53.5	168.9	175.8	1.14	-0.77	
1,789.0	15.60	83.70	1,768.8	57.0	192.7	199.8	1.36	0.66	
1,880.0	16.80	85.50	1,856.1	59.4	218.0	225.0	1.43	1.32	
1,971.0	17.30	79.80	1,943.2	62.8	244.4	251.7	1.92	0.55	
2,061.0	16.50	78.40	2,029.3	67.7	270.1	277.8	1.00	-0.89	
2,152.0	16.70	80.20	2,116.5	72.6	295.6	303.8	0.61	0.22	
2,243.0	17.00	81.90	2,203.6	76.7	321.7	330.2	0.63	0.33	
2,333.0	16.10	81.10	2,289.8	80.4	347.0	355.8	1.03	-1.00	
2,424.0	17.60	81.50	2,376.9	84.4	373.1	382.2	1.65	1.65	
2,515.0	16.20	81.90	2,464.0	88.3	399.3	408.6	1.54	-1.54	
2,606.0	17.10	80.90	2,551.2	92.2	425.1	434.7	1.04	0.99	
2,696.0	15.60	79.30	2,637.5	96.5	450.0	460.0	1.74	-1.67	
2,787.0	15.80	80.90	2,725.1	100.7	474.3	484.6	0.52	0.22	
2,878.0	16.40	82.70	2,812.6	104.3	499.3	509.8	0.86	0.66	
2,969.0	16.60	80.60	2,899.8	108.1	524.8	535.7	0.69	0.22	
3,059.0	17.70	77.90	2,985.8	113.0	550.9	562.2	1.51	1.22	
3,150.0	16.50	76.10	3,072.8	119.0	577.0	588.9	1.44	-1.32	
3,241.0	14.90	74.80	3,160.4	125.2	600.8	613.5	1.80	-1.76	
3,332.0	15.20	79.70	3,248.3	130.4	623.8	637.1	1.44	0.33	
3,423.0	14.90	82.90	3,336.2	134.0	647.2	660.7	0.97	-0.33	
3,513.0	15.40	81.30	3,423.0	137.2	670.5	684.2	0.72	0.56	
3,604.0	15.20	83.10	3,510.8	140.5	694.3	708.2	0.57	-0.22	
3,695.0	15.60	81.50	3,598.6	143.7	718.2	732.3	0.64	0.44	
3,786.0	16.30	85.90	3,686.1	146.5	743.0	757.2	1.53	0.77	
3,877.0	16.30	87.10	3,773.4	148.0	768.5	782.6	0.37	0.00	
3,967.0	16.50	82.10	3,859.7	150.4	793.8	807.9	1.58	0.22	
4,058.0	16.20	82.70	3,947.1	153.8	819.2	833.5	0.38	-0.33	
4,149.0	16.80	78.00	4,034.3	158.2	844.6	859.3	1.61	0.66	
4,240.0	14.80	76.30	4,121.9	163.6	868.8	884.1	2.26	-2.20	
4,330.0	14.50	76.80	4,208.9	168.9	890.9	906.8	0.36	-0.33	
4,421.0	15.00	80.00	4,296.9	173.6	913.6	929.9	1.05	0.55	
4,512.0	14.20	84.40	4,385.0	176.7	936.3	952.8	1.50	-0.88	
4,602.0	15.20	82.00	4,472.1	179.4	959.0	975.6	1.30	1.11	
4,693.0	13.40	81.60	4,560.2	182.6	981.3	998.1	1.98	-1.98	
4,784.0	14.00	83.40	4,648.7	185.4	1,002.6	1,019.6	0.81	0.66	
4,875.0	15.90	83.80	4,736.6	188.1	1,026.0	1,043.0	2.09	2.09	
4,965.0	17.40	78.60	4,822.8	192.0	1,051.4	1,068.8	2.35	1.67	
5,056.0	15.10	78.20	4,910.2	197.2	1,076.3	1,094.3	2.53	-2.53	
5,147.0	13.70	77.10	4,998.3	202.0	1,098.5	1,116.9	1.57	-1.54	
5,238.0	12.90	79.90	5,086.9	206.2	1,119.0	1,137.8	1.13	-0.88	
5,329.0	11.00	84.00	5,175.9	208.9	1,137.6	1,156.6	2.29	-2.09	
5,419.0	12.30	86.00	5,264.0	210.4	1,155.7	1,174.7	1.51	1.44	
5,510.0	13.30	77.20	5,352.8	213.4	1,175.6	1,194.8	2.40	1.10	
5,601.0	13.80	81.90	5,441.2	217.3	1,196.5	1,216.1	1.33	0.55	
5,692.0	15.20	82.50	5,529.3	220.4	1,219.1	1,238.9	1.55	1.54	
5,783.0	13.60	80.10	5,617.5	223.8	1,241.5	1,261.5	1.88	-1.76	
5,873.0	11.80	78.00	5,705.3	227.5	1,260.9	1,281.3	2.06	-2.00	

Cathedral Energy Services

Survey Report

Company:	Anadarko Petroleum Corporation	Local Co-ordinate Reference:	Well Saddleback 21-29
Project:	DJ Wattenberg	TVD Reference:	WELL @ 5030.0ft (Xtreme 11)
Site:	S29-T2N-R67W (Saddleback)	MD Reference:	WELL @ 5030.0ft (Xtreme 11)
Well:	Saddleback 21-29	North Reference:	True
Wellbore:	DD	Survey Calculation Method:	Minimum Curvature
Design:	DD	Database:	USA EDM 5000 Multi Users DB

Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Formations / Comments
5,964.0	10.40	73.40	5,794.6	231.8	1,277.9	1,298.7	1.82	-1.54	
6,055.0	9.20	72.20	5,884.2	236.3	1,292.7	1,314.1	1.34	-1.32	
6,146.0	9.10	81.30	5,974.1	239.7	1,306.7	1,328.5	1.59	-0.11	
6,236.0	7.70	80.40	6,063.1	241.7	1,319.7	1,341.6	1.56	-1.56	
6,327.0	4.70	83.70	6,153.6	243.2	1,329.4	1,351.5	3.32	-3.30	
6,418.0	4.50	73.30	6,244.3	244.6	1,336.5	1,358.7	0.94	-0.22	
6,509.0	2.10	97.60	6,335.1	245.4	1,341.6	1,363.9	3.00	-2.64	
6,599.0	1.20	232.50	6,425.1	244.6	1,342.5	1,364.6	3.41	-1.00	
6,690.0	0.80	241.00	6,516.1	243.7	1,341.2	1,363.2	0.47	-0.44	
6,781.0	0.50	327.20	6,607.1	243.8	1,340.4	1,362.4	1.01	-0.33	
6,872.0	1.10	344.20	6,698.1	244.9	1,340.0	1,362.2	0.70	0.66	
6,962.0	1.20	306.20	6,788.1	246.3	1,339.0	1,361.4	0.84	0.11	
7,053.0	3.50	290.80	6,879.0	247.9	1,335.6	1,358.4	2.60	2.53	
7,144.0	3.50	294.80	6,969.8	250.0	1,330.5	1,353.7	0.27	0.00	
7,235.0	2.20	302.90	7,060.7	252.1	1,326.5	1,350.2	1.49	-1.43	
7,326.0	2.40	265.90	7,151.6	252.9	1,323.1	1,347.0	1.62	0.22	
7,416.0	1.70	265.10	7,241.6	252.7	1,319.9	1,343.8	0.78	-0.78	
7,507.0	1.50	272.00	7,332.5	252.6	1,317.4	1,341.3	0.30	-0.22	
7,598.0	0.60	288.80	7,423.5	252.8	1,315.7	1,339.7	1.03	-0.99	
7,688.0	0.30	303.60	7,513.5	253.1	1,315.1	1,339.1	0.35	-0.33	
7,779.0	0.50	355.80	7,604.5	253.6	1,314.9	1,339.0	0.43	0.22	
7,870.0	0.20	343.40	7,695.5	254.2	1,314.8	1,339.0	0.34	-0.33	
7,961.0	0.40	41.00	7,786.5	254.6	1,315.0	1,339.3	0.37	0.22	
8,052.0	0.30	278.80	7,877.5	254.8	1,314.9	1,339.3	0.68	-0.11	
8,143.0	0.70	278.80	7,968.5	255.0	1,314.1	1,338.5	0.44	0.44	
8,234.0	0.40	296.10	8,059.5	255.2	1,313.3	1,337.8	0.37	-0.33	
8,332.0	0.50	278.80	8,157.5	255.4	1,312.6	1,337.1	0.17	0.10	Last Cathedral Survey @ 8,332' MD Projection to Bit @ 8,387'
8,387.0	0.50	278.80	8,212.5	255.5	1,312.1	1,336.6	0.00	0.00	

Targets									
Target Name	- hit/miss target	Dip Angle (°)	Dip Dir. (°)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	Northing (ft)	Easting (ft)	
Saddleback 21-29 PBHL	- actual wellpath misses target center by 25.9ft at 8370.3ft MD (8195.8 TVD, 255.5 N, 1312.3 E)	0.00	0.00	8,196.0	240.7	1,333.6	1,284,813.58	3,163,711.23	40.113716 -104.914680
	- Circle (radius 50.0)								
Saddleback 21-29 PBHL	- actual wellpath misses target center by 295.5ft at 8369.9ft MD (8195.4 TVD, 255.5 N, 1312.3 E)	0.00	0.00	8,196.0	-39.3	1,333.6	1,284,533.59	3,163,713.06	40.112947 -104.914680
	- Circle (radius 50.0)								

Design Annotations					
Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates		Comment	
		+N/-S (ft)	+E/-W (ft)		
8,332.0	8,157.5	255.4	1,312.6	Last Cathedral Survey @ 8,332' MD	
8,387.0	8,212.5	255.5	1,312.1	Projection to Bit @ 8,387'	

Checked By: _____ Approved By: _____ Date: _____