



# Survey Report - Geographic

<b>Company:</b>	Anadarko Petroleum Corporation	<b>Local Co-ordinate Reference:</b>	Well Guerrero 35-7 (111405) - Slot 35-7
<b>Project:</b>	Guerrero	<b>TVD Reference:</b>	KB @ 5001.00ft (Original Well Elev)
<b>Site:</b>	Guerrero 13-7 Pad	<b>MD Reference:</b>	KB @ 5001.00ft (Original Well Elev)
<b>Well:</b>	Guerrero 35-7 (111405)	<b>North Reference:</b>	True
<b>Wellbore:</b>	35-7	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Design:</b>	35-7	<b>Database:</b>	EDM5000

<b>Project</b>	Guerrero		
<b>Map System:</b>	Universal Transverse Mercator	<b>System Datum:</b>	Mean Sea Level
<b>Geo Datum:</b>	North American Datum 1983		
<b>Map Zone:</b>	Zone 13N (108 W to 102 W)		

Site	Guerrero 13-7 Pad				
Site Position:		Northing:	14,580,512.71 usft	Latitude:	40.147333000°N
From:	Lat/Long	Easting:	1,720,354.26 usft	Longitude:	104.713945000°W
Position Uncertainty:	0.00 ft	Slot Radius:	13.20 in	Grid Convergence:	0.18 °

Well	Guerrero 35-7 (111405) - Slot 35-7					
Well Position	+N/-S	0.00 ft	Northing:	14,580,513.55 usft	Latitude:	40.147335000°N
	+E/-W	0.00 ft	Easting:	1,720,386.11 usft	Longitude:	104.713831000°W
Position Uncertainty		0.00 ft	Wellhead Elevation:	ft	Ground Level:	4,986.00 ft

<b>Wellbore</b>	35-7				
<b>Magnetics</b>	<b>Model Name</b>	<b>Sample Date</b>	<b>Declination</b>	<b>Dip Angle</b>	<b>Field Strength</b>
			(°)	(°)	(nT)
	IGRF2010	12/15/11	8.75	66.84	52,950

<b>Design</b>	35-7				
<b>Audit Notes:</b>					
<b>Version:</b>	1.0	<b>Phase:</b>	ACTUAL	<b>Tie On Depth:</b>	0.00
<b>Vertical Section:</b>	<b>Depth From (TVD)</b>	<b>+N/-S</b>	<b>+E/-W</b>	<b>Direction</b>	
	(ft)	(ft)	(ft)	(°)	
	0.00	0.00	0.00	118.65	

<b>Survey Program</b>	<b>Date</b>	10/20/11			
<b>From</b>	<b>To</b>	<b>Survey (Wellbore)</b>	<b>Tool Name</b>	<b>Description</b>	
(ft)	(ft)				
45.00	8,108.00	35-7 (35-7)	MWD	MWD - Standard	

<b>Survey</b>									
<b>Measured</b>	<b>Inclination</b>	<b>Azimuth</b>	<b>Vertical</b>	<b>+N/-S</b>	<b>+E/-W</b>	<b>Map</b>	<b>Map</b>	<b>Latitude</b>	<b>Longitude</b>
<b>Depth</b>	(°)	(°)	<b>Depth</b>	(ft)	(ft)	<b>Northing</b>	<b>Easting</b>		
(ft)			(ft)			(usft)	(usft)		
0.00	0.00	0.00	0.00	0.00	0.00	14,580,513.55	1,720,386.11	40.147335000°N	104.713831000°W
45.00	0.70	300.15	45.00	0.14	-0.24	14,580,513.68	1,720,385.87	40.147335380°N	104.713831850°W
137.00	0.62	281.87	136.99	0.52	-1.21	14,580,514.06	1,720,384.90	40.147336436°N	104.713835332°W
198.00	0.62	278.27	197.99	0.64	-1.86	14,580,514.18	1,720,384.25	40.147336753°N	104.713837657°W
290.00	0.31	201.54	289.99	0.48	-2.44	14,580,514.02	1,720,383.67	40.147336314°N	104.713839746°W
383.00	2.11	123.93	382.96	-0.71	-1.12	14,580,512.83	1,720,385.00	40.147333046°N	104.713834993°W
459.00	3.60	115.05	458.87	-2.50	2.21	14,580,511.05	1,720,388.33	40.147328127°N	104.713823103°W
550.00	4.92	115.14	549.62	-5.37	8.33	14,580,508.20	1,720,394.46	40.147320252°N	104.713801199°W
641.00	6.50	113.16	640.16	-9.05	16.60	14,580,504.54	1,720,402.74	40.147310136°N	104.713771609°W
732.00	8.00	117.34	730.43	-13.99	26.96	14,580,499.64	1,720,413.12	40.147296586°N	104.713734532°W
823.00	10.28	116.64	820.27	-20.54	39.84	14,580,493.13	1,720,426.02	40.147278599°N	104.713688425°W
913.00	11.21	117.47	908.69	-28.18	54.78	14,580,485.55	1,720,440.99	40.147257629°N	104.713634962°W

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<b>Project:</b>	Guerrero	<b>TVD Reference:</b>	KB @ 5001.00ft (Original Well Elev)
<b>Site:</b>	Guerrero 13-7 Pad	<b>MD Reference:</b>	KB @ 5001.00ft (Original Well Elev)
<b>Well:</b>	Guerrero 35-7 (111405)	<b>North Reference:</b>	True
<b>Wellbore:</b>	35-7	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Design:</b>	35-7	<b>Database:</b>	EDM5000

Survey										
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude	
951.00	11.12	117.47	945.97	-31.57	61.31	14,580,482.17	1,720,447.52	40.147248308°N	104.713611600°W	
1,037.00	10.99	115.93	1,030.38	-38.98	76.04	14,580,474.81	1,720,462.28	40.147227959°N	104.713558888°W	
1,128.00	11.69	119.67	1,119.60	-47.34	91.85	14,580,466.51	1,720,478.12	40.147205011°N	104.713502308°W	
1,173.00	12.61	119.45	1,163.59	-52.01	100.09	14,580,461.86	1,720,486.37	40.147192182°N	104.713472827°W	
1,264.00	12.70	120.06	1,252.38	-61.90	117.40	14,580,452.02	1,720,503.71	40.147165010°N	104.713410894°W	
1,355.00	13.58	117.03	1,341.00	-71.77	135.57	14,580,442.21	1,720,521.92	40.147137917°N	104.713345857°W	
1,446.00	13.71	116.86	1,429.43	-81.50	154.71	14,580,432.55	1,720,541.08	40.147111204°N	104.713277377°W	
1,537.00	14.50	117.47	1,517.69	-91.62	174.44	14,580,422.48	1,720,560.85	40.147083392°N	104.713206779°W	
1,627.00	14.50	116.15	1,604.82	-101.79	194.55	14,580,412.39	1,720,580.99	40.147055483°N	104.713134815°W	
1,718.00	15.12	120.77	1,692.80	-112.88	214.98	14,580,401.36	1,720,601.45	40.147025020°N	104.713061727°W	
1,809.00	15.29	119.23	1,780.61	-124.81	235.64	14,580,389.49	1,720,622.16	40.146992256°N	104.712987767°W	
1,900.00	14.50	117.95	1,868.56	-136.01	256.18	14,580,378.36	1,720,642.73	40.146961503°N	104.712914286°W	
1,991.00	14.02	114.66	1,956.75	-145.95	276.26	14,580,368.49	1,720,662.84	40.146934209°N	104.712842426°W	
2,081.00	13.80	120.06	2,044.12	-155.87	295.46	14,580,358.62	1,720,682.07	40.146906951°N	104.712773725°W	
2,172.00	14.02	118.44	2,132.45	-166.56	314.54	14,580,348.00	1,720,701.19	40.146877606°N	104.712705427°W	
2,263.00	14.28	120.06	2,220.69	-177.43	333.95	14,580,337.19	1,720,720.63	40.146847751°N	104.712635984°W	
2,354.00	13.49	120.94	2,309.03	-188.51	352.77	14,580,326.17	1,720,739.49	40.146817327°N	104.712568647°W	
2,445.00	12.79	119.45	2,397.65	-198.92	370.64	14,580,315.82	1,720,757.39	40.146788740°N	104.712504683°W	
2,536.00	12.22	117.56	2,486.49	-208.33	387.95	14,580,306.47	1,720,774.73	40.146762903°N	104.712442743°W	
2,626.00	13.18	116.86	2,574.28	-217.37	405.55	14,580,297.48	1,720,792.36	40.146738069°N	104.712379770°W	
2,672.00	13.10	118.35	2,619.08	-222.22	414.82	14,580,292.67	1,720,801.64	40.146724764°N	104.712346612°W	
2,763.00	11.82	118.13	2,707.93	-231.51	432.11	14,580,283.43	1,720,818.97	40.146699248°N	104.712284721°W	
2,854.00	13.40	120.55	2,796.74	-241.26	449.41	14,580,273.73	1,720,836.30	40.146672460°N	104.712222811°W	
2,944.00	13.01	123.14	2,884.36	-252.10	466.88	14,580,262.95	1,720,853.80	40.146642694°N	104.712160319°W	
3,035.00	13.32	122.26	2,972.97	-263.30	484.32	14,580,251.81	1,720,871.28	40.146611950°N	104.712097907°W	
3,126.00	12.92	122.13	3,061.59	-274.30	501.80	14,580,240.86	1,720,888.79	40.146581726°N	104.712035358°W	
3,217.00	12.61	120.24	3,150.34	-284.72	519.00	14,580,230.50	1,720,906.02	40.146553129°N	104.711973821°W	
3,308.00	13.01	121.47	3,239.08	-295.07	536.31	14,580,220.21	1,720,923.37	40.146524706°N	104.711911850°W	
3,399.00	13.10	117.95	3,327.73	-305.25	554.16	14,580,210.09	1,720,941.25	40.146496746°N	104.711847989°W	
3,489.00	12.08	117.16	3,415.56	-314.33	571.55	14,580,201.06	1,720,958.67	40.146471812°N	104.711785765°W	
3,580.00	12.48	117.16	3,504.48	-323.16	588.77	14,580,192.28	1,720,975.92	40.146447549°N	104.711724143°W	
3,671.00	13.01	116.06	3,593.24	-332.15	606.72	14,580,183.35	1,720,993.90	40.146422865°N	104.711659911°W	
3,762.00	11.29	116.06	3,682.20	-340.56	623.93	14,580,174.99	1,721,011.13	40.146399759°N	104.711598345°W	
3,852.00	13.18	118.26	3,770.15	-349.29	640.88	14,580,166.32	1,721,028.11	40.146375787°N	104.711537680°W	
3,943.00	11.21	119.76	3,859.09	-358.60	657.70	14,580,157.07	1,721,044.96	40.146350237°N	104.711477498°W	
4,034.00	10.68	115.23	3,948.44	-366.58	673.00	14,580,149.13	1,721,060.29	40.146328308°N	104.711422724°W	
4,125.00	11.29	117.95	4,037.77	-374.35	688.50	14,580,141.41	1,721,075.81	40.146306971°N	104.711367271°W	
4,215.00	11.38	118.57	4,126.01	-382.73	704.08	14,580,133.09	1,721,091.42	40.146283970°N	104.711311519°W	
4,306.00	13.58	118.35	4,214.86	-392.09	721.37	14,580,123.78	1,721,108.74	40.146258244°N	104.711249654°W	
4,397.00	11.69	117.56	4,303.65	-401.43	738.95	14,580,114.49	1,721,126.35	40.146232595°N	104.711186758°W	
4,488.00	10.81	116.06	4,392.90	-409.45	754.79	14,580,106.53	1,721,142.21	40.146210585°N	104.711130080°W	
4,579.00	10.59	115.84	4,482.32	-416.84	769.98	14,580,099.19	1,721,157.43	40.146190280°N	104.711075718°W	
4,669.00	9.58	119.54	4,570.93	-424.14	783.94	14,580,091.93	1,721,171.41	40.146170240°N	104.711025767°W	
4,760.00	8.48	121.73	4,660.80	-431.40	796.23	14,580,084.71	1,721,183.73	40.146150296°N	104.710981771°W	
4,851.00	7.21	124.06	4,750.95	-438.13	806.67	14,580,078.02	1,721,194.19	40.146131822°N	104.710944420°W	
4,942.00	6.59	123.45	4,841.29	-444.20	815.76	14,580,071.97	1,721,203.30	40.146115134°N	104.710911901°W	
5,033.00	5.32	129.03	4,931.79	-449.74	823.39	14,580,066.46	1,721,210.95	40.146099933°N	104.710884583°W	
5,123.00	3.38	112.15	5,021.53	-453.37	829.09	14,580,062.85	1,721,216.66	40.146089969°N	104.710864189°W	
5,214.00	2.20	103.85	5,112.42	-454.80	833.27	14,580,061.43	1,721,220.84	40.146086043°N	104.710849229°W	
5,305.00	1.89	112.94	5,203.37	-455.80	836.35	14,580,060.44	1,721,223.93	40.146083288°N	104.710838216°W	
5,396.00	1.41	107.76	5,294.33	-456.73	838.80	14,580,059.52	1,721,226.38	40.146080744°N	104.710829455°W	
5,486.00	0.70	120.85	5,384.31	-457.35	840.33	14,580,058.91	1,721,227.90	40.146079042°N	104.710823993°W	
5,577.00	0.48	113.25	5,475.31	-457.78	841.15	14,580,058.47	1,721,228.73	40.146077846°N	104.710821032°W	
5,668.00	0.22	140.06	5,566.31	-458.07	841.62	14,580,058.19	1,721,229.20	40.146077065°N	104.710819377°W	
5,759.00	0.22	241.26	5,657.31	-458.28	841.57	14,580,057.97	1,721,229.16	40.146076467°N	104.710819524°W	

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<b>Site:</b>	Guerrero 13-7 Pad	<b>MD Reference:</b>	KB @ 5001.00ft (Original Well Elev)
<b>Well:</b>	Guerrero 35-7 (111405)	<b>North Reference:</b>	True
<b>Wellbore:</b>	35-7	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Design:</b>	35-7	<b>Database:</b>	EDM5000

Survey										
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude	
5,804.00	0.48	254.67	5,702.31	-458.38	841.32	14,580,057.88	1,721,228.90	40.146076216°N	104.710820446°W	
5,895.00	0.40	250.45	5,793.30	-458.58	840.65	14,580,057.67	1,721,228.23	40.146075647°N	104.710822832°W	
5,986.00	0.40	237.97	5,884.30	-458.86	840.08	14,580,057.40	1,721,227.67	40.146074893°N	104.710824867°W	
6,077.00	0.79	278.75	5,975.30	-458.93	839.19	14,580,057.32	1,721,226.78	40.146074692°N	104.710828050°W	
6,167.00	1.71	319.97	6,065.28	-457.81	837.72	14,580,058.44	1,721,225.30	40.146077775°N	104.710833335°W	
6,258.00	1.89	318.04	6,156.23	-455.65	835.84	14,580,060.59	1,721,223.41	40.146083695°N	104.710840050°W	
6,349.00	1.58	323.44	6,247.19	-453.53	834.09	14,580,062.71	1,721,221.65	40.146089526°N	104.710846314°W	
6,440.00	1.19	267.37	6,338.17	-452.57	832.40	14,580,063.66	1,721,219.96	40.146092175°N	104.710852366°W	
6,531.00	0.40	288.55	6,429.16	-452.51	831.15	14,580,063.72	1,721,218.72	40.146092333°N	104.710856821°W	
6,621.00	1.10	131.75	6,519.15	-452.98	831.50	14,580,063.24	1,721,219.06	40.146091028°N	104.710855581°W	
6,712.00	1.32	112.24	6,610.13	-453.96	833.12	14,580,062.27	1,721,220.69	40.146088341°N	104.710849777°W	
6,803.00	1.41	104.64	6,701.11	-454.64	835.17	14,580,061.60	1,721,222.74	40.146086475°N	104.710842430°W	
6,894.00	0.22	97.26	6,792.10	-454.95	836.43	14,580,061.30	1,721,224.00	40.146085637°N	104.710837933°W	
6,985.00	0.62	117.03	6,883.09	-455.19	837.04	14,580,061.05	1,721,224.61	40.146084962°N	104.710835743°W	
7,076.00	0.62	103.54	6,974.09	-455.53	837.96	14,580,060.72	1,721,225.53	40.146084031°N	104.710832461°W	
7,166.00	0.79	111.76	7,064.08	-455.87	839.01	14,580,060.38	1,721,226.58	40.146083086°N	104.710828705°W	
7,257.00	0.70	101.04	7,155.07	-456.21	840.14	14,580,060.04	1,721,227.71	40.146082155°N	104.710824668°W	
7,348.00	0.70	124.37	7,246.07	-456.63	841.14	14,580,059.62	1,721,228.72	40.146081001°N	104.710821074°W	
7,438.00	0.62	127.14	7,336.06	-457.24	841.98	14,580,059.02	1,721,229.56	40.146079341°N	104.710818061°W	
7,530.00	0.48	135.27	7,428.06	-457.81	842.65	14,580,058.45	1,721,230.23	40.146077764°N	104.710815671°W	
7,620.00	0.48	120.85	7,518.05	-458.27	843.24	14,580,057.99	1,721,230.82	40.146076497°N	104.710813564°W	
7,711.00	0.22	128.06	7,609.05	-458.58	843.71	14,580,057.69	1,721,231.29	40.146075665°N	104.710811900°W	
7,802.00	0.48	118.75	7,700.05	-458.87	844.18	14,580,057.40	1,721,231.76	40.146074865°N	104.710810212°W	
7,893.00	0.40	102.13	7,791.05	-459.12	844.82	14,580,057.15	1,721,232.41	40.146074179°N	104.710807905°W	
7,984.00	0.40	99.54	7,882.04	-459.24	845.45	14,580,057.03	1,721,233.03	40.146073851°N	104.710805673°W	
8,063.00	0.40	115.84	7,961.04	-459.40	845.97	14,580,056.87	1,721,233.55	40.146073395°N	104.710803812°W	
8,108.00	0.40	115.84	8,006.04	-459.54	846.25	14,580,056.73	1,721,233.83	40.146073019°N	104.710802800°W	
Proj to TD at 8108 MD/8006 TVD										

Survey Annotations					
Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates			
		+N/-S (ft)	+E/-W (ft)	Comment	
8,108.00	8,006.04	-459.54	846.25	Proj to TD at 8108 MD/8006 TVD	

Checked By: _____	Approved By: _____	Date: _____
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