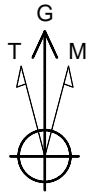


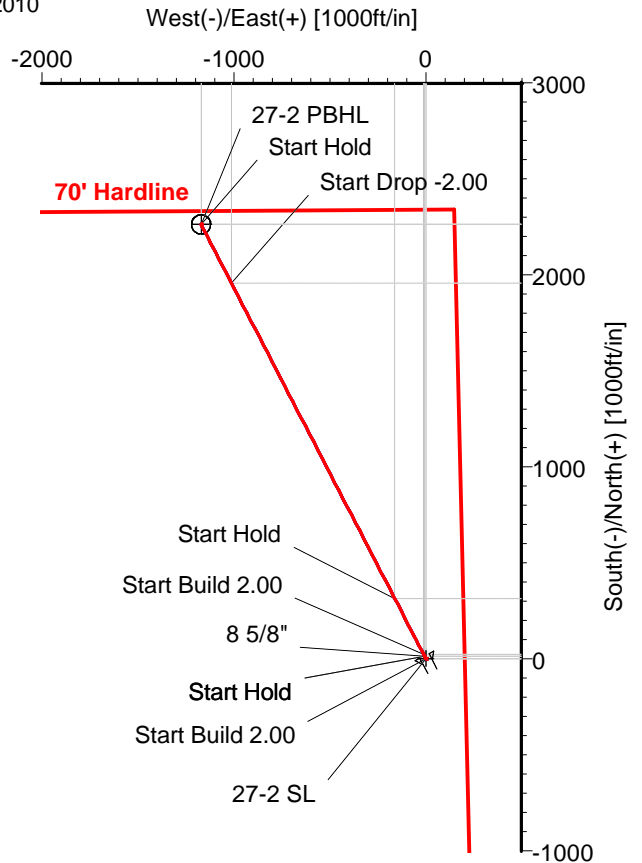
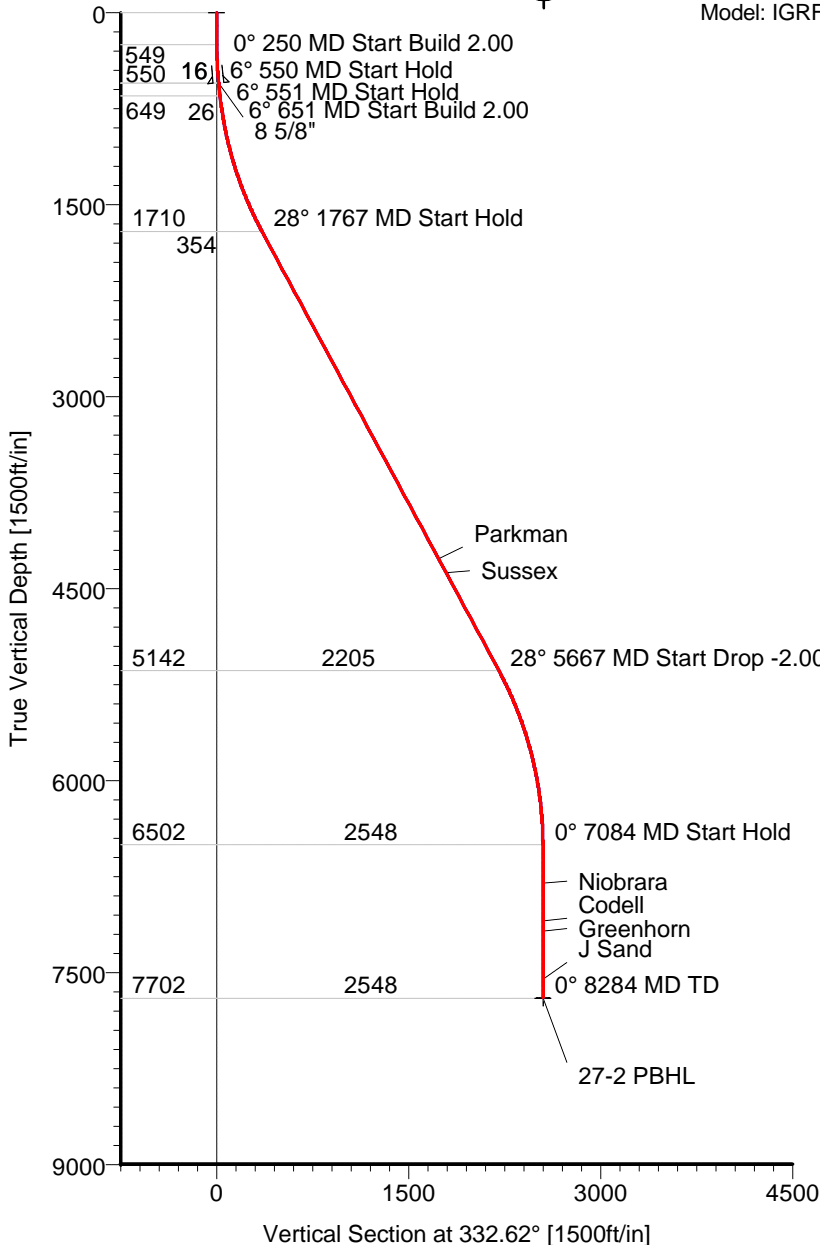
ANADARKO PETROLEUM

Field: Weld County, CO
Site: Shelton 40-2 Pad
Well: 27-2
Wellpath: Original Hole
Plan: Plan #1



Azimuths to Grid North
True North: -0.57°
Magnetic North: 8.17°

Magnetic Field
Strength: 53072nT
Dip Angle: 66.93°
Date: 09/26/2011
Model: IGRF2010



CASING DETAILS

No.	TVD	MD	Name	Size
1	550.00	550.55	8 5/8"	8.625

FORMATION TOP DETAILS

No.	TVDPath	MDPath	Formation
1	4267.00	4672.60	Parkman
2	4377.00	4797.57	Sussex
3	6802.00	7383.76	Niobrara
4	7097.00	7678.76	Codell
5	7177.00	7758.76	Greenhorn
6	7552.00	8133.76	J Sand

TARGET DETAILS

Name	TVD	+N/-S	+E/-W	Latitude	Longitude	Shape
27-2 SL	0.00	0.00	0.00	40°15'18.302N	104°37'17.497W	Point
27-2 PBHL	7702.00	2262.28	-1171.65	40°15'40.772N	104°37'32.321W	Circle (Radius: 50)

SECTION DETAILS

Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	DLeg	TFace	VSec	Target
1	0.00	0.00	332.62	0.00	0.00	0.00	0.00	0.00	0.00	
2	250.00	0.00	332.62	250.00	0.00	0.00	0.00	332.62	0.00	
3	550.00	6.00	332.62	549.45	13.94	-7.22	2.00	332.62	15.69	
4	550.55	6.00	332.62	550.00	13.99	-7.24	0.00	0.00	15.75	
5	650.55	6.00	332.62	649.45	23.27	-12.05	0.00	0.00	26.20	
6	1767.13	28.33	332.62	1709.55	314.05	-162.65	2.00	0.00	353.66	
7	5667.19	28.33	332.62	5142.45	1957.57	-1013.84	0.00	0.00	2204.53	
8	7083.76	0.00	332.62	6502.00	2262.28	-1171.65	2.00	180.00	2547.68	
9	8283.76	0.00	332.62	7702.00	2262.28	-1171.65	0.00	0.00	2547.68	27-2 PBHL

Plan: Plan #1 (27-2/Original Hole)

Created By: Ivonne Gonzalez

Date: 05/09/2011

ALLIS CHALMERS DIRECTIONAL DRILLING SERVICES
911 Regional Park Drive Houston, Texas 77060
Phone: 713-934-9600 Fax: 713-934-9067



**DIRECTIONAL
DRILLING SERVICES**

Allis-Chalmers Energy, Inc.

Planning Report

Company: ANADARKO PETROLEUM Field: Weld County, CO Site: Shelton 40-2 Pad Well: 27-2 Wellpath: Original Hole	Date: 05/09/2011 Co-ordinate(NE) Reference: Well: 27-2, Grid North Vertical (TVD) Reference: 4817'GL+15'KB 4832.0 Section (VS) Reference: Well (0.00N,0.00E,332.62Azi) Plan: Plan #1	Time: 15:50:35 Page: 1
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Field: Weld County, CO	
Map System: US State Plane Coordinate System 1983 Geo Datum: GRS 1980 Sys Datum: Mean Sea Level	Map Zone: Colorado, Northern Zone Coordinate System: Well Centre Geomagnetic Model: IGRF2010

Site: Shelton 40-2 Pad	
Centered on 27-2	
Site Position: From: Geographic Position Uncertainty: 0.00 ft Ground Level: 4817.00 ft	Northing: 1336985.84 ft Easting: 3245189.31 ft Latitude: 40 15 18.302 N Longitude: 104 37 17.497 W North Reference: Grid Grid Convergence: 0.57 deg

Well: 27-2	Slot Name: 27-2
Well Position: +N/-S 0.00 ft +E/-W 0.00 ft Position Uncertainty: 0.00 ft	Northing: 1336985.84 ft Easting : 3245189.31 ft Latitude: 40 15 18.302 N Longitude: 104 37 17.497 W

Wellpath: Original Hole	Drilled From: Surface
Current Datum: 4817'GL+15'KB Magnetic Data: 09/26/2011 Field Strength: 53072 nT Vertical Section: Depth From (TVD) ft	Tie-on Depth: 0.00 ft Above System Datum: Mean Sea Level Declination: 8.74 deg Mag Dip Angle: 66.93 deg +E/-W ft Direction deg
0.00	0.00 0.00 332.62

Plan: Plan #1	Date Composed: 05/09/2011
Principal: Yes	Version: 1
	Tied-to: From Surface

Plan Section Information										
MD ft	Incl deg	Azim deg	TVD ft	+N/-S ft	+E/-W ft	DLS deg/100ft	Build deg/100ft	Turn deg/100ft	TFO deg	Target
0.00	0.00	332.62	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
250.00	0.00	332.62	250.00	0.00	0.00	0.00	0.00	0.00	332.62	
550.00	6.00	332.62	549.45	13.94	-7.22	2.00	2.00	0.00	332.62	
550.55	6.00	332.62	550.00	13.99	-7.24	0.00	0.00	0.00	0.00	
650.55	6.00	332.62	649.45	23.27	-12.05	0.00	0.00	0.00	0.00	
1767.13	28.33	332.62	1709.55	314.05	-162.65	2.00	2.00	0.00	0.00	
5667.19	28.33	332.62	5142.45	1957.57	-1013.84	0.00	0.00	0.00	0.00	
7083.76	0.00	332.62	6502.00	2262.28	-1171.65	2.00	-2.00	0.00	180.00	
8283.76	0.00	332.62	7702.00	2262.28	-1171.65	0.00	0.00	0.00	0.00	27-2 PBHL

Survey										
MD ft	Incl deg	Azim deg	TVD ft	+N/-S ft	+E/-W ft	VS ft	DLS deg/100ft	Build deg/100ft	Turn deg/100ft	Tool/Comment
250.00	0.00	332.62	250.00	0.00	0.00	0.00	0.00	0.00	0.00	
300.00	1.00	332.62	300.00	0.39	-0.20	0.44	2.00	2.00	0.00	
400.00	3.00	332.62	399.93	3.49	-1.81	3.93	2.00	2.00	0.00	
500.00	5.00	332.62	499.68	9.68	-5.01	10.90	2.00	2.00	0.00	
550.00	6.00	332.62	549.45	13.94	-7.22	15.69	2.00	2.00	0.00	
550.55	6.00	332.62	550.00	13.99	-7.24	15.75	0.00	0.00	0.00	8 5/8"
600.00	6.00	332.62	599.18	18.58	-9.62	20.92	0.00	0.00	0.00	
650.55	6.00	332.62	649.45	23.27	-12.05	26.20	0.00	0.00	0.00	
700.00	6.99	332.62	698.58	28.24	-14.62	31.80	2.00	2.00	0.00	
800.00	8.99	332.62	797.61	40.58	-21.01	45.69	2.00	2.00	0.00	
900.00	10.99	332.62	896.09	55.98	-28.99	63.04	2.00	2.00	0.00	
1000.00	12.99	332.62	993.90	74.42	-38.54	83.81	2.00	2.00	0.00	
1100.00	14.99	332.62	1090.93	95.89	-49.66	107.98	2.00	2.00	0.00	

Allis-Chalmers Energy, Inc.

Planning Report

Company: ANADARKO PETROLEUM Field: Weld County, CO Site: Shelton 40-2 Pad Well: 27-2 Wellpath: Original Hole	Date: 05/09/2011 Co-ordinate(NE) Reference: Well: 27-2, Grid North Vertical (TVD) Reference: 4817'GL+15'KB 4832.0 Section (VS) Reference: Well (0.00N,0.00E,332.62Azi) Plan: Plan #1	Page: 2
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Survey

MD ft	Incl deg	Azim deg	TVD ft	+N/-S ft	+E/-W ft	VS ft	DLS deg/100ft	Build deg/100ft	Turn deg/100ft	Tool/Comment
1200.00	16.99	332.62	1187.06	120.34	-62.33	135.53	2.00	2.00	0.00	
1300.00	18.99	332.62	1282.16	147.77	-76.53	166.41	2.00	2.00	0.00	
1400.00	20.99	332.62	1376.13	178.12	-92.25	200.59	2.00	2.00	0.00	
1500.00	22.99	332.62	1468.86	211.37	-109.47	238.03	2.00	2.00	0.00	
1600.00	24.99	332.62	1560.21	247.47	-128.16	278.69	2.00	2.00	0.00	
1700.00	26.99	332.62	1650.10	286.38	-148.32	322.50	2.00	2.00	0.00	
1767.13	28.33	332.62	1709.55	314.05	-162.65	353.66	2.00	2.00	0.00	
1800.00	28.33	332.62	1738.49	327.90	-169.82	369.27	0.00	0.00	0.00	
1900.00	28.33	332.62	1826.51	370.04	-191.65	416.72	0.00	0.00	0.00	
2000.00	28.33	332.62	1914.53	412.18	-213.47	464.18	0.00	0.00	0.00	
2100.00	28.33	332.62	2002.55	454.32	-235.30	511.64	0.00	0.00	0.00	
2200.00	28.33	332.62	2090.57	496.46	-257.12	559.09	0.00	0.00	0.00	
2300.00	28.33	332.62	2178.59	538.60	-278.95	606.55	0.00	0.00	0.00	
2400.00	28.33	332.62	2266.62	580.74	-300.77	654.01	0.00	0.00	0.00	
2500.00	28.33	332.62	2354.64	622.89	-322.60	701.47	0.00	0.00	0.00	
2600.00	28.33	332.62	2442.66	665.03	-344.42	748.92	0.00	0.00	0.00	
2700.00	28.33	332.62	2530.68	707.17	-366.25	796.38	0.00	0.00	0.00	
2800.00	28.33	332.62	2618.70	749.31	-388.07	843.84	0.00	0.00	0.00	
2900.00	28.33	332.62	2706.72	791.45	-409.90	891.29	0.00	0.00	0.00	
3000.00	28.33	332.62	2794.75	833.59	-431.72	938.75	0.00	0.00	0.00	
3100.00	28.33	332.62	2882.77	875.73	-453.55	986.21	0.00	0.00	0.00	
3200.00	28.33	332.62	2970.79	917.87	-475.37	1033.67	0.00	0.00	0.00	
3300.00	28.33	332.62	3058.81	960.01	-497.20	1081.12	0.00	0.00	0.00	
3400.00	28.33	332.62	3146.83	1002.15	-519.02	1128.58	0.00	0.00	0.00	
3500.00	28.33	332.62	3234.85	1044.29	-540.85	1176.04	0.00	0.00	0.00	
3600.00	28.33	332.62	3322.88	1086.43	-562.67	1223.50	0.00	0.00	0.00	
3700.00	28.33	332.62	3410.90	1128.58	-584.50	1270.95	0.00	0.00	0.00	
3800.00	28.33	332.62	3498.92	1170.72	-606.32	1318.41	0.00	0.00	0.00	
3900.00	28.33	332.62	3586.94	1212.86	-628.15	1365.87	0.00	0.00	0.00	
4000.00	28.33	332.62	3674.96	1255.00	-649.97	1413.32	0.00	0.00	0.00	
4100.00	28.33	332.62	3762.98	1297.14	-671.80	1460.78	0.00	0.00	0.00	
4200.00	28.33	332.62	3851.01	1339.28	-693.62	1508.24	0.00	0.00	0.00	
4300.00	28.33	332.62	3939.03	1381.42	-715.45	1555.70	0.00	0.00	0.00	
4400.00	28.33	332.62	4027.05	1423.56	-737.27	1603.15	0.00	0.00	0.00	
4500.00	28.33	332.62	4115.07	1465.70	-759.10	1650.61	0.00	0.00	0.00	
4600.00	28.33	332.62	4203.09	1507.84	-780.92	1698.07	0.00	0.00	0.00	
4672.60	28.33	332.62	4267.00	1538.44	-796.77	1732.52	0.00	0.00	0.00	Parkman
4700.00	28.33	332.62	4291.11	1549.98	-802.75	1745.52	0.00	0.00	0.00	
4797.57	28.33	332.62	4377.00	1591.10	-824.04	1791.83	0.00	0.00	0.00	Sussex
4800.00	28.33	332.62	4379.14	1592.12	-824.57	1792.98	0.00	0.00	0.00	
4900.00	28.33	332.62	4467.16	1634.27	-846.40	1840.44	0.00	0.00	0.00	
5000.00	28.33	332.62	4555.18	1676.41	-868.22	1887.90	0.00	0.00	0.00	
5100.00	28.33	332.62	4643.20	1718.55	-890.05	1935.35	0.00	0.00	0.00	
5200.00	28.33	332.62	4731.22	1760.69	-911.87	1982.81	0.00	0.00	0.00	
5300.00	28.33	332.62	4819.24	1802.83	-933.70	2030.27	0.00	0.00	0.00	
5400.00	28.33	332.62	4907.27	1844.97	-955.52	2077.72	0.00	0.00	0.00	
5500.00	28.33	332.62	4995.29	1887.11	-977.35	2125.18	0.00	0.00	0.00	
5600.00	28.33	332.62	5083.31	1929.25	-999.17	2172.64	0.00	0.00	0.00	
5667.19	28.33	332.62	5142.45	1957.57	-1013.84	2204.53	0.00	0.00	0.00	
5700.00	27.68	332.62	5171.42	1971.25	-1020.92	2219.93	2.00	-2.00	0.00	
5800.00	25.68	332.62	5260.77	2011.11	-1041.57	2264.82	2.00	-2.00	0.00	
5900.00	23.68	332.62	5351.64	2048.18	-1060.77	2306.57	2.00	-2.00	0.00	
6000.00	21.68	332.62	5443.90	2082.41	-1078.50	2345.12	2.00	-2.00	0.00	

Allis-Chalmers Energy, Inc.

Planning Report

Company: ANADARKO PETROLEUM
Field: Weld County, CO
Site: Shelton 40-2 Pad
Well: 27-2
Wellpath: Original Hole

Date: 05/09/2011
Co-ordinate(NE) Reference: Well: 27-2, Grid North
Vertical (TVD) Reference: 4817'GL+15'KB 4832.0
Section (VS) Reference: Well (0.00N,0.00E,332.62Azi)
Plan: Plan #1

Page: 3

Survey

MD ft	Incl deg	Azim deg	TVD ft	+N/-S ft	+E/-W ft	VS ft	DLS deg/100ft	Build deg/100ft	Turn deg/100ft	Tool/Comment
6100.00	19.68	332.62	5537.46	2113.76	-1094.73	2380.42	2.00	-2.00	0.00	
6200.00	17.68	332.62	5632.19	2142.19	-1109.46	2412.44	2.00	-2.00	0.00	
6300.00	15.68	332.62	5727.98	2167.67	-1122.65	2441.13	2.00	-2.00	0.00	
6400.00	13.68	332.62	5824.71	2190.16	-1134.30	2466.47	2.00	-2.00	0.00	
6500.00	11.68	332.62	5922.27	2209.65	-1144.39	2488.41	2.00	-2.00	0.00	
6600.00	9.68	332.62	6020.53	2226.09	-1152.91	2506.93	2.00	-2.00	0.00	
6700.00	7.68	332.62	6119.38	2239.49	-1159.85	2522.01	2.00	-2.00	0.00	
6800.00	5.68	332.62	6218.70	2249.81	-1165.19	2533.64	2.00	-2.00	0.00	
6900.00	3.68	332.62	6318.36	2257.05	-1168.94	2541.79	2.00	-2.00	0.00	
7000.00	1.68	332.62	6418.25	2261.19	-1171.09	2546.46	2.00	-2.00	0.00	
7083.76	0.00	332.62	6502.00	2262.28	-1171.65	2547.68	2.00	-2.00	0.00	
7100.00	0.00	332.62	6518.24	2262.28	-1171.65	2547.68	0.00	0.00	0.00	
7200.00	0.00	332.62	6618.24	2262.28	-1171.65	2547.68	0.00	0.00	0.00	
7300.00	0.00	332.62	6718.24	2262.28	-1171.65	2547.68	0.00	0.00	0.00	
7383.76	0.00	332.62	6802.00	2262.28	-1171.65	2547.68	0.00	0.00	0.00	Niobrara
7400.00	0.00	332.62	6818.24	2262.28	-1171.65	2547.68	0.00	0.00	0.00	
7500.00	0.00	332.62	6918.24	2262.28	-1171.65	2547.68	0.00	0.00	0.00	
7600.00	0.00	332.62	7018.24	2262.28	-1171.65	2547.68	0.00	0.00	0.00	
7678.76	0.00	332.62	7097.00	2262.28	-1171.65	2547.68	0.00	0.00	0.00	Codell
7700.00	0.00	332.62	7118.24	2262.28	-1171.65	2547.68	0.00	0.00	0.00	
7758.76	0.00	332.62	7177.00	2262.28	-1171.65	2547.68	0.00	0.00	0.00	Greenhorn
7800.00	0.00	332.62	7218.24	2262.28	-1171.65	2547.68	0.00	0.00	0.00	
7900.00	0.00	332.62	7318.24	2262.28	-1171.65	2547.68	0.00	0.00	0.00	
8000.00	0.00	332.62	7418.24	2262.28	-1171.65	2547.68	0.00	0.00	0.00	
8100.00	0.00	332.62	7518.24	2262.28	-1171.65	2547.68	0.00	0.00	0.00	
8133.76	0.00	332.62	7552.00	2262.28	-1171.65	2547.68	0.00	0.00	0.00	J Sand
8200.00	0.00	332.62	7618.24	2262.28	-1171.65	2547.68	0.00	0.00	0.00	
8283.76	0.00	332.62	7702.00	2262.28	-1171.65	2547.68	0.00	0.00	0.00	27-2 PBHL

Targets

Name	Description Dip.	Dir.	TVD ft	+N/-S ft	+E/-W ft	Map Northing ft	Map Easting ft	<--- Latitude ---> Deg Min Sec			<--- Longitude ---> Deg Min Sec		
27-2 SL			0.00	0.00	0.00	1336985.84	3245189.31	40	15	18.302 N	104	37	17.497 W
27-2 PBHL			7702.00	2262.28	-1171.65	1339248.12	3244017.66	40	15	40.772 N	104	37	32.321 W
-Circle (Radius: 50)													
-Plan hit target													

Casing Points

MD ft	TVD ft	Diameter in	Hole Size in	Name
550.55	550.00	8.625	9.875	8 5/8"

Formations

MD ft	TVD ft	Formations	Lithology	Dip Angle deg	Dip Direction deg
4672.60	4267.00	Parkman		0.00	0.00
4797.57	4377.00	Sussex		0.00	0.00
7383.76	6802.00	Niobrara		0.00	0.00
7678.76	7097.00	Codell		0.00	0.00
7758.76	7177.00	Greenhorn		0.00	0.00
8133.76	7552.00	J Sand		0.00	0.00