

ANADARKO PETROLEUM CORP

WELD COUNTY (NAD 83)

SE SW SEC 35 T2N R66W 6th P.M.

BAJA BERG 35-7HZ

JOB # 2019-024-461

28 January, 2019

Survey: FINAL SURVEYS





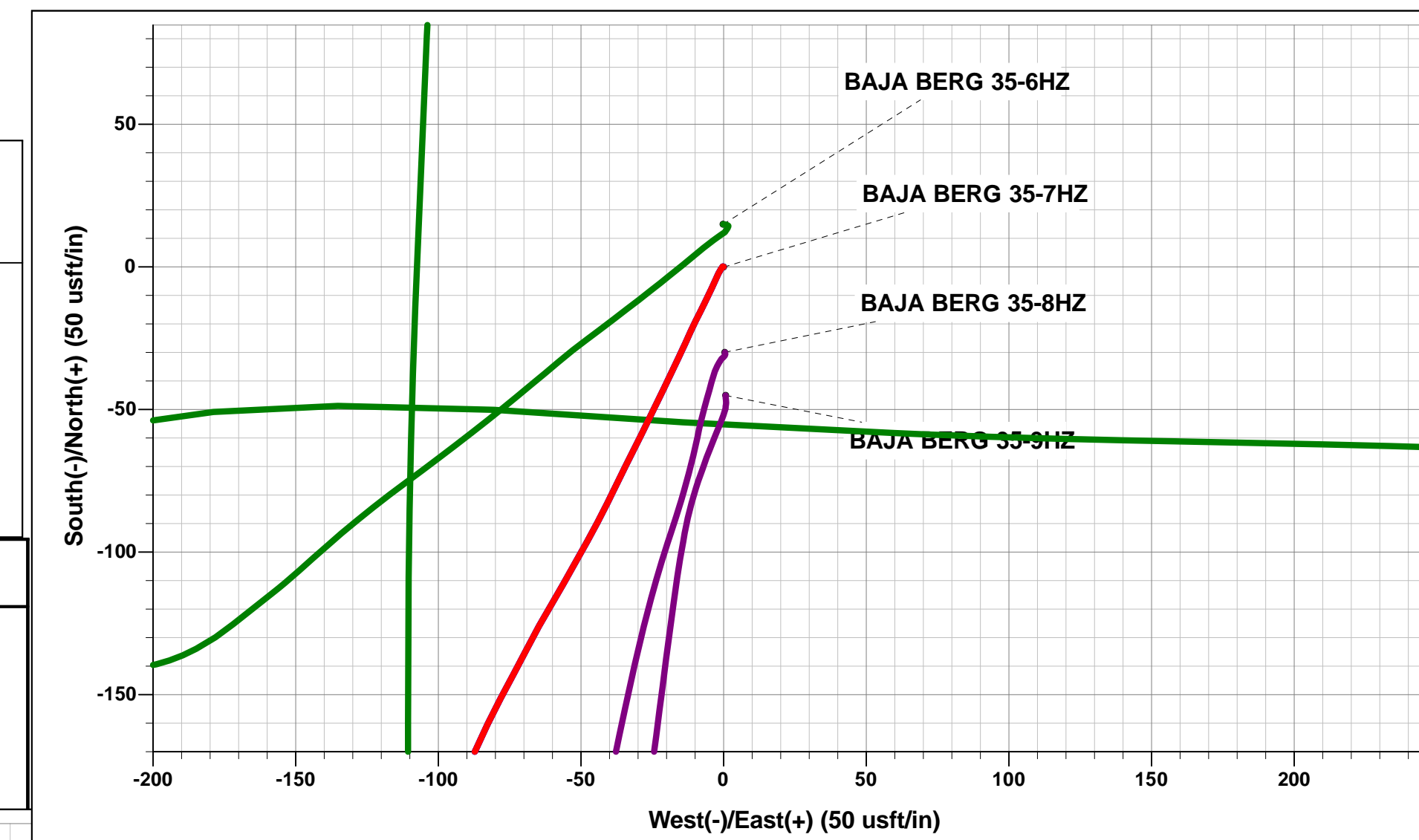
Project: WELD COUNTY (NAD 83)
Site: SE SW SEC 35 T2N R66W 6th P.M.
Well: BAJA BERG 35-7HZ
Wellbore: JOB # 2019-024-461
Design: FINAL SURVEYS



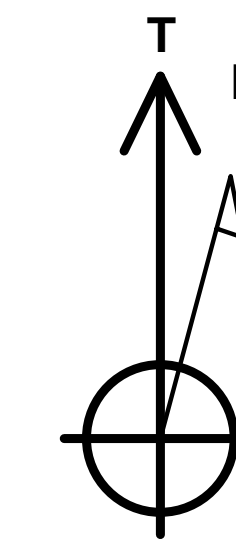
ANNOTATIONS										
TVD	MD	Inc	Azi	+N/-S	+E/-W	VSec	Departure	Annotation		
1843.2	1883.0	17.05	203.09	-271.0	-132.3	-128.2	301.9	~ ENTER TGT BOX (1883' MD)		
6685.0	6746.0	0.94	183.60	-455.7	-205.3	-198.3	558.8	KOP		
7381.5	7878.0	87.68	92.35	-450.6	540.2	547.0	1306.6	HEEL:40.089381; -104.856988		
7386.2	8011.0	88.31	91.22	-454.7	673.1	679.9	1439.5	~ CROSS 460' HARDLINE (8011' MD)		
7338.6	14177.0	89.26	88.35	-537.7	6835.4	6842.7	7604.4	LAST SURVEY JAN 27, 2019		
7339.5	14245.0	89.26	88.35	-535.8	6903.3	6910.7	7672.4	PROJECTION TO TD:40.089145; -104.834247		

WELLBORE TARGET DETAILS (LAT/LONG)

Name	TVD	+N/-S	+E/-W	Latitude	Longitude
BHL - BAJA BERG 35-7HZ (P5)	7320.0	-583.2	10206.0	40° 5' 20.440 N	104° 49' 20.794 W
HEEL - BAJA BERG 35-7HZ (P5)	7377.0	-465.1	483.0	40° 5' 21.628 N	104° 51' 25.894 W
KOP - BAJA BERG 35-7HZ (P5)	6740.4	-457.3	-157.4	40° 5' 21.705 N	104° 51' 34.133 W

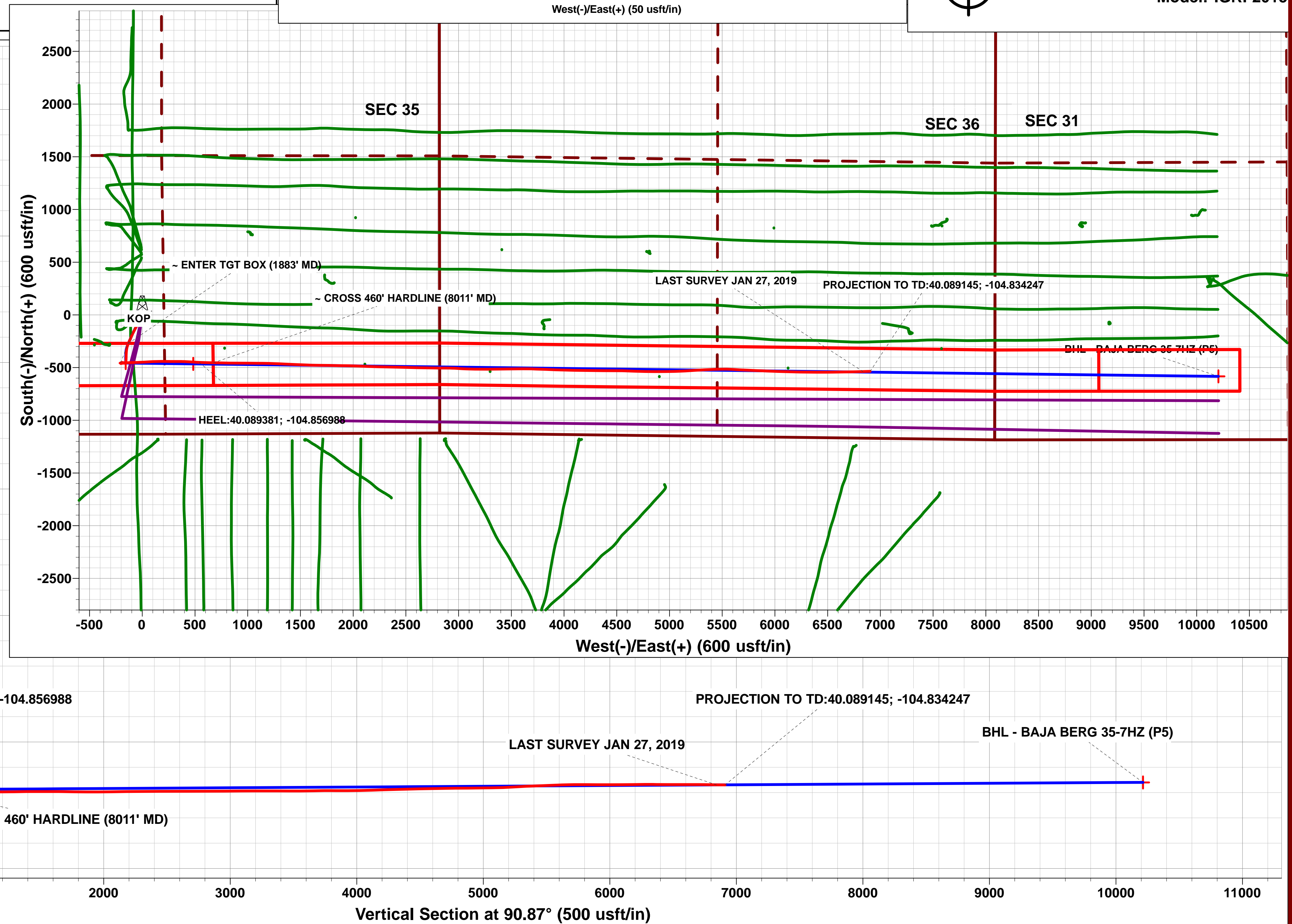
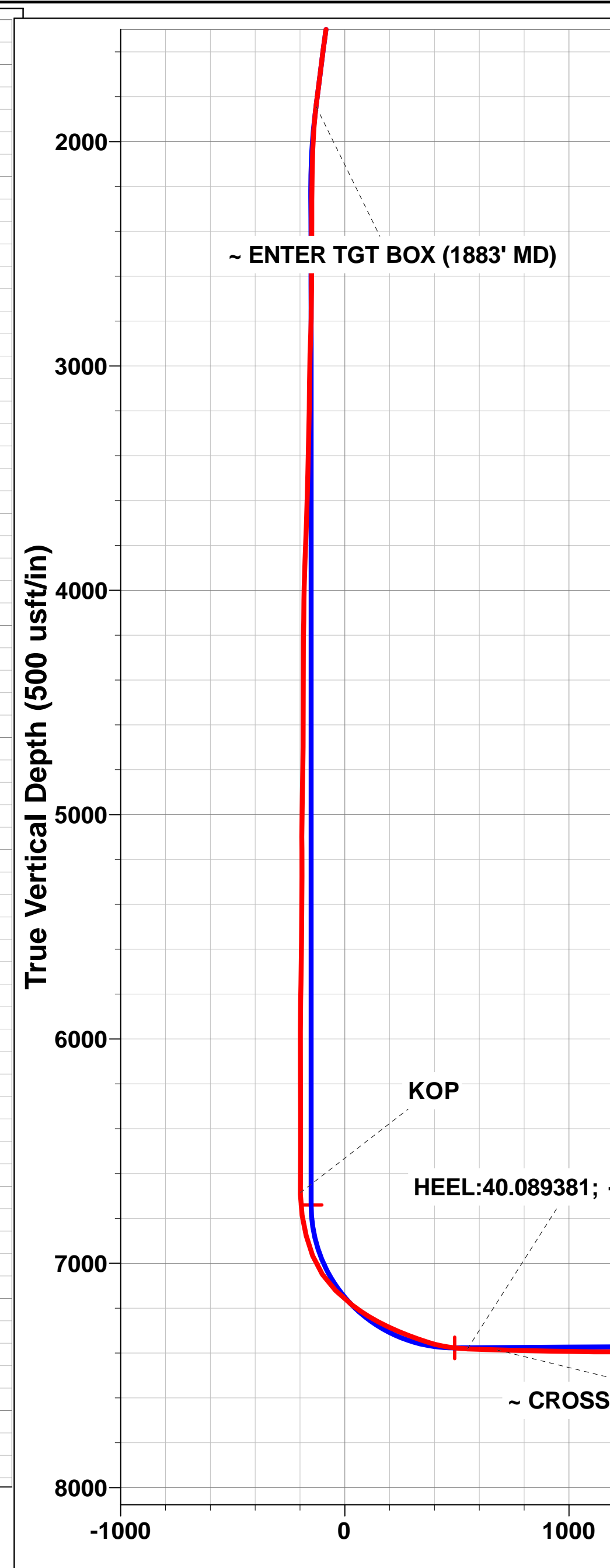
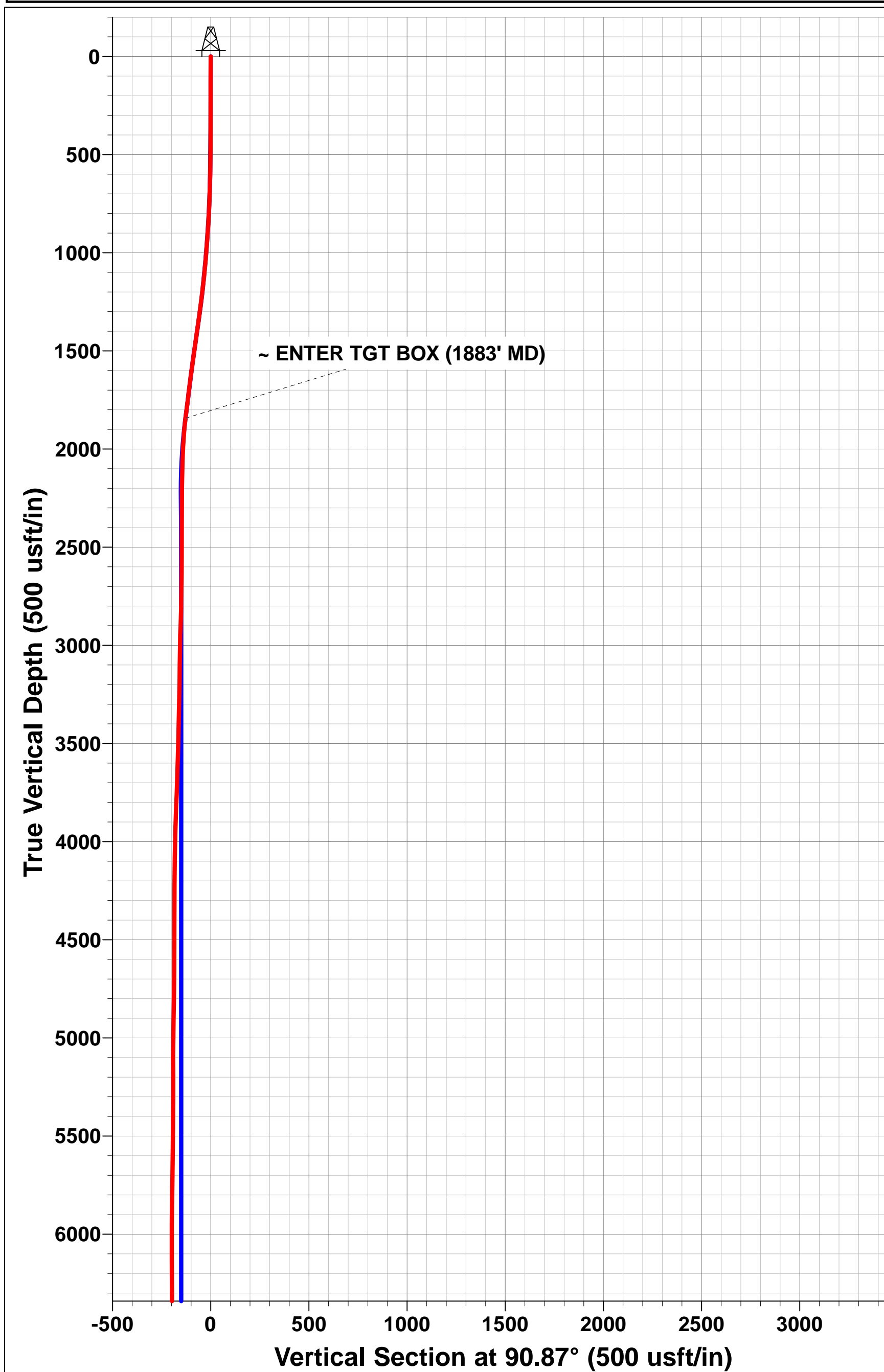


AS DRILLED LOCAL COORDINATES:
SHL: 1132ft FSL & 2450ft FWL of Sec 35
HEEL: 679.5ft FSL & 2279.8ft FEL of Sec 35
BHL: 648.4ft FSL & 1181.7ft FEL of Sec 36



Azimuths to True North
Magnetic North: 8.07°

Magnetic Field
Strength: 52041.4snT
Dip Angle: 66.55°
Date: 12/01/2019
Model: IGRF2015



Survey Report



Company:	ANADARKO PETROLEUM CORP	Local Co-ordinate Reference:	Well BAJA BERG 35-7HZ
Project:	WELD COUNTY (NAD 83)	TVD Reference:	KB 20' @ 4955.0usft (PD461)
Site:	SE SW SEC 35 T2N R66W 6th P.M.	MD Reference:	KB 20' @ 4955.0usft (PD461)
Well:	BAJA BERG 35-7HZ	North Reference:	True
Wellbore:	JOB # 2019-024-461	Survey Calculation Method:	Minimum Curvature
Design:	FINAL SURVEYS	Database:	Database 1

Project	WELD COUNTY (NAD 83)		
Map System:	Universal Transverse Mercator (US Survey Feet)	System Datum:	Mean Sea Level
Geo Datum:	North American Datum 1983		
Map Zone:	Zone 13N (108 W to 102 W)	Using geodetic scale factor	

Site	SE SW SEC 35 T2N R66W 6th P.M.				
Site Position:		Northing:	14,559,777.58 usft	Latitude:	40° 5' 26.372 N
From:	Lat/Long	Easting:	1,679,874.12 usft	Longitude:	104° 51' 32.110 W
Position Uncertainty:	0.0 usft	Slot Radius:	13-3/16"	Grid Convergence:	0.09 °

Well	BAJA BERG 35-7HZ					
Well Position	+N/-S	0.0 usft	Northing:	14,559,762.61 usft	Latitude:	40° 5' 26.224 N
	+E/-W	0.0 usft	Easting:	1,679,874.30 usft	Longitude:	104° 51' 32.108 W
Position Uncertainty		0.0 usft	Wellhead Elevation:	usft	Ground Level:	4,935.0 usft

Wellbore	JOB # 2019-024-461				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2015	12/01/2019	8.07	66.55	52,041

Design	FINAL SURVEYS				
Audit Notes:					
Version:	1.0	Phase:	ACTUAL	Tie On Depth:	0.0
Vertical Section:	Depth From (TVD) (usft)		+N/-S (usft)	+E/-W (usft)	Direction (°)
	0.0		0.0	0.0	90.87

Survey Program	Date	28/01/2019			
From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description	
131.0	14,245.0	FINAL SURVEYS (JOB # 2019-024-461)	APC_ISCWSA REV 2 MWD+	Fixed:v2:crustal field declination	

Survey										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	Subsea Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
0.0	0.00	0.00	0.0	4,955.0	0.0	0.0	0.0	0.00	0.00	0.00
131.0	0.18	304.92	131.0	4,824.0	0.1	-0.2	-0.2	0.14	0.14	0.00
163.0	0.22	278.11	163.0	4,792.0	0.2	-0.3	-0.3	0.31	0.12	-83.78
194.0	0.00	318.01	194.0	4,761.0	0.2	-0.3	-0.3	0.71	-0.71	0.00
226.0	0.13	218.34	226.0	4,729.0	0.1	-0.4	-0.4	0.41	0.41	0.00
258.0	0.13	243.39	258.0	4,697.0	0.1	-0.4	-0.4	0.18	0.00	78.28
290.0	0.22	186.35	290.0	4,665.0	0.0	-0.4	-0.4	0.58	0.28	-178.25
321.0	0.35	204.11	321.0	4,634.0	-0.1	-0.5	-0.5	0.50	0.42	57.29
353.0	0.48	219.57	353.0	4,602.0	-0.3	-0.6	-0.6	0.53	0.41	48.31
385.0	0.66	218.61	385.0	4,570.0	-0.6	-0.8	-0.8	0.56	0.56	-3.00
417.0	0.66	204.63	417.0	4,538.0	-0.9	-1.0	-1.0	0.50	0.00	-43.69
449.0	0.88	215.00	449.0	4,506.0	-1.3	-1.2	-1.2	0.81	0.69	32.41
481.0	1.10	204.19	481.0	4,474.0	-1.7	-1.5	-1.5	0.90	0.69	-33.78

Survey Report



Company:	ANADARKO PETROLEUM CORP	Local Co-ordinate Reference:	Well BAJA BERG 35-7HZ
Project:	WELD COUNTY (NAD 83)	TVD Reference:	KB 20' @ 4955.0usft (PD461)
Site:	SE SW SEC 35 T2N R66W 6th P.M.	MD Reference:	KB 20' @ 4955.0usft (PD461)
Well:	BAJA BERG 35-7HZ	North Reference:	True
Wellbore:	JOB # 2019-024-461	Survey Calculation Method:	Minimum Curvature
Design:	FINAL SURVEYS	Database:	Database 1

Survey										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	Subsea Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
512.0	1.27	212.72	512.0	4,443.0	-2.3	-1.8	-1.8	0.79	0.55	27.52
544.0	1.41	204.63	544.0	4,411.0	-3.0	-2.2	-2.1	0.73	0.44	-25.28
576.0	1.63	202.35	576.0	4,379.0	-3.7	-2.5	-2.4	0.71	0.69	-7.12
607.0	2.37	204.19	606.9	4,348.1	-4.7	-2.9	-2.9	2.40	2.39	5.94
671.0	3.82	205.25	670.8	4,284.2	-7.9	-4.4	-4.3	2.27	2.27	1.66
702.0	4.83	206.30	701.8	4,253.2	-10.0	-5.4	-5.2	3.27	3.26	3.39
734.0	5.76	205.95	733.6	4,221.4	-12.6	-6.7	-6.5	2.91	2.91	-1.09
766.0	6.46	206.39	765.4	4,189.6	-15.7	-8.2	-8.0	2.19	2.19	1.37
798.0	6.86	206.39	797.2	4,157.8	-19.0	-9.8	-9.6	1.25	1.25	0.00
829.0	7.60	204.46	828.0	4,127.0	-22.5	-11.5	-11.2	2.51	2.39	-6.23
861.0	8.61	204.55	859.7	4,095.3	-26.6	-13.4	-13.0	3.16	3.16	0.28
893.0	9.40	205.34	891.3	4,063.7	-31.2	-15.5	-15.0	2.50	2.47	2.47
925.0	9.67	204.90	922.8	4,032.2	-36.0	-17.8	-17.2	0.87	0.84	-1.37
956.0	10.11	205.86	953.4	4,001.6	-40.8	-20.0	-19.4	1.52	1.42	3.10
988.0	10.55	205.86	984.8	3,970.2	-45.9	-22.5	-21.8	1.37	1.37	0.00
1,020.0	11.51	206.39	1,016.2	3,938.8	-51.4	-25.2	-24.5	3.02	3.00	1.66
1,052.0	12.08	206.22	1,047.6	3,907.4	-57.3	-28.1	-27.3	1.78	1.78	-0.53
1,083.0	12.66	206.48	1,077.9	3,877.1	-63.2	-31.1	-30.1	1.88	1.87	0.84
1,115.0	13.05	206.48	1,109.1	3,845.9	-69.6	-34.3	-33.2	1.22	1.22	0.00
1,147.0	13.36	205.78	1,140.2	3,814.8	-76.2	-37.5	-36.3	1.09	0.97	-2.19
1,179.0	13.71	206.83	1,171.3	3,783.7	-82.9	-40.8	-39.5	1.34	1.09	3.28
1,210.0	13.97	207.36	1,201.4	3,753.6	-89.5	-44.2	-42.8	0.93	0.84	1.71
1,242.0	14.46	209.47	1,232.4	3,722.6	-96.4	-47.9	-46.4	2.23	1.53	6.59
1,274.0	15.64	209.12	1,263.3	3,691.7	-103.7	-52.0	-50.4	3.70	3.69	-1.09
1,305.0	15.73	209.38	1,293.2	3,661.8	-111.0	-56.1	-54.4	0.37	0.29	0.84
1,337.0	15.73	210.79	1,324.0	3,631.0	-118.5	-60.4	-58.6	1.19	0.00	4.41
1,368.0	16.57	208.85	1,353.8	3,601.2	-126.0	-64.7	-62.8	3.22	2.71	-6.26
1,400.0	17.14	207.53	1,384.4	3,570.6	-134.1	-69.1	-67.0	2.15	1.78	-4.12
1,432.0	17.93	208.24	1,414.9	3,540.1	-142.7	-73.6	-71.4	2.56	2.47	2.22
1,463.0	18.37	207.62	1,444.4	3,510.6	-151.2	-78.1	-75.8	1.55	1.42	-2.00
1,495.0	18.85	205.78	1,474.7	3,480.3	-160.3	-82.7	-80.3	2.37	1.50	-5.75
1,527.0	19.34	204.28	1,504.9	3,450.1	-169.8	-87.1	-84.5	2.17	1.53	-4.69
1,558.0	18.94	205.16	1,534.2	3,420.8	-179.0	-91.4	-88.7	1.59	-1.29	2.84
1,589.0	18.63	205.60	1,563.6	3,391.4	-188.0	-95.7	-92.8	1.10	-1.00	1.42
1,621.0	17.67	203.84	1,594.0	3,361.0	-197.1	-99.8	-96.8	3.45	-3.00	-5.50
1,653.0	17.53	204.02	1,624.5	3,330.5	-205.9	-103.8	-100.6	0.47	-0.44	0.56
1,716.0	18.06	203.84	1,684.5	3,270.5	-223.5	-111.6	-108.2	0.85	0.84	-0.29
1,748.0	18.37	203.14	1,714.9	3,240.1	-232.7	-115.6	-112.0	1.19	0.97	-2.19
1,780.0	18.98	203.75	1,745.2	3,209.8	-242.1	-119.6	-115.9	2.00	1.91	1.91
1,812.0	17.93	203.49	1,775.5	3,179.5	-251.4	-123.7	-119.9	3.29	-3.28	-0.81
1,844.0	17.71	204.19	1,806.0	3,149.0	-260.4	-127.6	-123.7	0.96	-0.69	2.19
~ ENTER TGT BOX (1883' MD)										
1,883.0	17.05	203.09	1,843.2	3,111.8	-271.0	-132.3	-128.2	1.90	-1.70	-2.82
1,940.0	16.09	201.33	1,897.8	3,057.2	-286.1	-138.5	-134.1	1.90	-1.68	-3.09
2,034.0	15.43	189.78	1,988.3	2,966.7	-310.5	-145.3	-140.6	3.40	-0.70	-12.29
2,128.0	14.63	188.00	2,079.1	2,875.9	-334.6	-149.1	-144.0	0.98	-0.85	-1.89
2,222.0	13.97	184.74	2,170.2	2,784.8	-357.7	-151.7	-146.3	1.11	-0.70	-3.47
2,317.0	13.17	181.82	2,262.5	2,692.5	-379.9	-153.0	-147.2	1.11	-0.84	-3.07
2,411.0	10.72	181.11	2,354.5	2,600.5	-399.4	-153.5	-147.4	2.61	-2.61	-0.76
2,505.0	8.30	183.10	2,447.2	2,507.8	-414.9	-154.0	-147.7	2.60	-2.57	2.12
2,599.0	7.53	179.56	2,540.3	2,414.7	-427.8	-154.4	-147.8	0.97	-0.82	-3.77
2,692.0	6.53	184.35	2,632.6	2,322.4	-439.2	-154.7	-148.0	1.25	-1.08	5.15
2,785.0	5.83	192.26	2,725.1	2,229.9	-449.1	-156.1	-149.3	1.18	-0.75	8.51

Survey Report



Company:	ANADARKO PETROLEUM CORP	Local Co-ordinate Reference:	Well BAJA BERG 35-7HZ
Project:	WELD COUNTY (NAD 83)	TVD Reference:	KB 20' @ 4955.0usft (PD461)
Site:	SE SW SEC 35 T2N R66W 6th P.M.	MD Reference:	KB 20' @ 4955.0usft (PD461)
Well:	BAJA BERG 35-7HZ	North Reference:	True
Wellbore:	JOB # 2019-024-461	Survey Calculation Method:	Minimum Curvature
Design:	FINAL SURVEYS	Database:	Database 1

Survey										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	Subsea Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
2,879.0	3.20	194.68	2,818.8	2,136.2	-456.3	-157.8	-150.8	2.80	-2.80	2.57
2,974.0	2.79	259.58	2,913.7	2,041.3	-459.3	-160.7	-153.8	3.40	-0.43	68.32
3,067.0	0.91	317.20	3,006.6	1,948.4	-459.1	-163.5	-156.5	2.61	-2.02	61.96
3,161.0	0.96	309.55	3,100.6	1,854.4	-458.1	-164.6	-157.6	0.14	0.05	-8.14
3,255.0	1.06	303.82	3,194.6	1,760.4	-457.1	-165.9	-159.0	0.15	0.11	-6.10
3,350.0	1.31	301.59	3,289.6	1,665.4	-456.0	-167.6	-160.6	0.27	0.26	-2.35
3,445.0	1.41	289.54	3,384.5	1,570.5	-455.1	-169.6	-162.7	0.32	0.11	-12.68
3,540.0	1.44	281.74	3,479.5	1,475.5	-454.4	-171.9	-164.9	0.21	0.03	-8.21
3,633.0	1.61	278.83	3,572.5	1,382.5	-454.0	-174.3	-167.4	0.20	0.18	-3.13
3,725.0	1.80	274.82	3,664.4	1,290.6	-453.7	-177.0	-170.1	0.24	0.21	-4.36
3,820.0	2.04	275.75	3,759.4	1,195.6	-453.4	-180.2	-173.3	0.25	0.25	0.98
3,914.0	2.47	277.92	3,853.3	1,101.7	-452.9	-183.9	-177.0	0.47	0.46	2.31
4,008.0	1.63	295.66	3,947.3	1,007.7	-452.1	-187.1	-180.2	1.11	-0.89	18.87
4,102.0	0.76	256.32	4,041.2	913.8	-451.7	-188.9	-182.0	1.22	-0.93	-41.85
4,196.0	0.91	268.10	4,135.2	819.8	-451.8	-190.2	-183.3	0.24	0.16	12.53
4,289.0	0.82	277.72	4,228.2	726.8	-451.8	-191.6	-184.7	0.18	-0.10	10.34
4,384.0	1.00	184.20	4,323.2	631.8	-452.5	-192.4	-185.5	1.40	0.19	-98.44
4,477.0	0.67	177.03	4,416.2	538.8	-453.8	-192.4	-185.5	0.37	-0.35	-7.71
4,570.0	0.51	214.54	4,509.2	445.8	-454.7	-192.6	-185.7	0.44	-0.17	40.33
4,665.0	0.13	223.16	4,604.2	350.8	-455.2	-192.9	-186.0	0.40	-0.40	9.07
4,759.0	0.47	250.51	4,698.2	256.8	-455.4	-193.4	-186.4	0.38	0.36	29.10
4,853.0	0.79	250.51	4,792.2	162.8	-455.7	-194.3	-187.4	0.34	0.34	0.00
4,973.0	1.07	242.27	4,912.2	42.8	-456.5	-196.1	-189.1	0.26	0.23	-6.87
5,066.0	1.53	237.24	5,005.1	-50.1	-457.6	-197.9	-190.9	0.51	0.49	-5.41
5,160.0	0.57	151.10	5,099.1	-144.1	-458.7	-198.7	-191.8	1.70	-1.02	-91.64
5,254.0	0.44	173.24	5,193.1	-238.1	-459.4	-198.5	-191.5	0.25	-0.14	23.55
5,348.0	0.47	185.76	5,287.1	-332.1	-460.2	-198.5	-191.5	0.11	0.03	13.32
5,442.0	0.47	212.56	5,381.1	-426.1	-460.9	-198.7	-191.7	0.23	0.00	28.51
5,537.0	0.44	252.57	5,476.1	-521.1	-461.3	-199.3	-192.2	0.33	-0.03	42.12
5,630.0	0.62	262.34	5,569.1	-614.1	-461.5	-200.1	-193.1	0.22	0.19	10.51
5,725.0	0.93	274.12	5,664.1	-709.1	-461.5	-201.4	-194.4	0.37	0.33	12.40
5,818.0	0.87	277.50	5,757.1	-802.1	-461.4	-202.8	-195.8	0.09	-0.06	3.63
5,911.0	0.98	273.43	5,850.1	-895.1	-461.2	-204.3	-197.3	0.14	0.12	-4.38
6,005.0	0.71	7.07	5,944.1	-989.1	-460.6	-205.1	-198.0	1.33	-0.29	99.62
6,099.0	0.63	351.87	6,038.1	-1,083.1	-459.5	-205.1	-198.1	0.21	-0.09	-16.17
6,192.0	0.60	338.13	6,131.1	-1,176.1	-458.6	-205.3	-198.3	0.16	-0.03	-14.77
6,285.0	0.95	54.22	6,224.1	-1,269.1	-457.7	-204.9	-197.9	1.07	0.38	81.82
6,380.0	0.74	14.43	6,319.0	-1,364.0	-456.6	-204.1	-197.1	0.64	-0.22	-41.88
6,473.0	0.82	358.86	6,412.0	-1,457.0	-455.4	-203.9	-197.0	0.24	0.09	-16.74
6,567.0	0.37	298.88	6,506.0	-1,551.0	-454.5	-204.2	-197.3	0.76	-0.48	-63.81
6,659.0	0.60	233.67	6,598.0	-1,643.0	-454.7	-204.9	-197.9	0.61	0.25	-70.88
KOP										
6,746.0	0.94	183.60	6,685.0	-1,730.0	-455.7	-205.3	-198.3	0.82	0.39	-57.56
6,753.0	0.98	181.43	6,692.0	-1,737.0	-455.8	-205.3	-198.3	0.82	0.64	-30.93
6,847.0	9.34	103.10	6,785.6	-1,830.6	-458.3	-197.9	-190.9	9.78	8.89	-83.33
6,940.0	14.40	82.84	6,876.6	-1,921.6	-458.6	-179.0	-172.0	6.97	5.44	-21.78
7,034.0	21.35	82.36	6,966.0	-2,011.0	-454.8	-150.4	-143.5	7.40	7.39	-0.51
7,128.0	33.52	89.41	7,049.3	-2,094.3	-452.3	-107.3	-100.5	13.38	12.95	7.50
7,222.0	45.84	88.33	7,121.5	-2,166.5	-451.0	-47.5	-40.6	13.13	13.11	-1.15
7,317.0	51.74	86.34	7,184.1	-2,229.1	-447.7	23.9	30.7	6.41	6.21	-2.09
7,410.0	58.75	87.00	7,237.1	-2,282.1	-443.2	100.1	106.8	7.56	7.54	0.71
7,504.0	65.09	90.20	7,281.3	-2,326.3	-441.3	183.0	189.7	7.38	6.74	3.40
7,597.0	68.26	91.03	7,318.1	-2,363.1	-442.2	268.4	275.0	3.51	3.41	0.89

Survey Report



Company:	ANADARKO PETROLEUM CORP	Local Co-ordinate Reference:	Well BAJA BERG 35-7HZ
Project:	WELD COUNTY (NAD 83)	TVD Reference:	KB 20' @ 4955.0usft (PD461)
Site:	SE SW SEC 35 T2N R66W 6th P.M.	MD Reference:	KB 20' @ 4955.0usft (PD461)
Well:	BAJA BERG 35-7HZ	North Reference:	True
Wellbore:	JOB # 2019-024-461	Survey Calculation Method:	Minimum Curvature
Design:	FINAL SURVEYS	Database:	Database 1

Survey										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	Subsea Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
7,690.0	71.86	89.45	7,349.8	-2,394.8	-442.6	355.8	362.4	4.19	3.87	-1.70
7,785.0	80.85	94.08	7,372.2	-2,417.2	-445.5	447.9	454.6	10.58	9.46	4.87
HEEL:40.089381; -104.856988										
7,787.0	87.68	92.35	7,381.5	-2,426.5	-450.6	540.2	547.0	7.57	7.34	-1.86
7,972.0	88.08	91.47	7,385.0	-2,430.0	-453.8	634.1	640.9	1.03	0.43	-0.94
~ CROSS 460' HARDLINE (8011' MD)										
8,011.0	88.31	91.22	7,386.2	-2,431.2	-454.7	673.1	679.9	0.86	0.58	-0.64
8,067.0	88.63	90.86	7,387.7	-2,432.7	-455.7	729.1	735.9	0.86	0.58	-0.64
8,161.0	88.68	91.00	7,389.9	-2,434.9	-457.2	823.0	829.9	0.16	0.05	0.15
8,254.0	88.95	90.14	7,391.9	-2,436.9	-458.2	916.0	922.9	0.97	0.29	-0.92
8,347.0	89.07	90.38	7,393.5	-2,438.5	-458.6	1,009.0	1,015.8	0.29	0.13	0.26
8,442.0	89.48	89.95	7,394.7	-2,439.7	-458.9	1,104.0	1,110.8	0.63	0.43	-0.45
8,536.0	90.21	92.01	7,394.9	-2,439.9	-460.5	1,198.0	1,204.8	2.33	0.78	2.19
8,630.0	91.50	92.44	7,393.5	-2,438.5	-464.1	1,291.9	1,298.8	1.45	1.37	0.46
8,724.0	90.30	92.55	7,392.0	-2,437.0	-468.2	1,385.8	1,392.7	1.28	-1.28	0.12
8,818.0	89.55	92.19	7,392.2	-2,437.2	-472.1	1,479.7	1,486.7	0.89	-0.80	-0.38
8,912.0	90.33	92.38	7,392.3	-2,437.3	-475.8	1,573.6	1,580.7	0.85	0.83	0.20
9,006.0	89.06	90.57	7,392.8	-2,437.8	-478.3	1,667.6	1,674.7	2.35	-1.35	-1.93
9,101.0	89.11	91.22	7,394.3	-2,439.3	-479.7	1,762.6	1,769.6	0.69	0.05	0.68
9,195.0	89.76	90.59	7,395.2	-2,440.2	-481.2	1,856.5	1,863.6	0.96	0.69	-0.67
9,288.0	90.29	91.19	7,395.2	-2,440.2	-482.7	1,949.5	1,956.6	0.86	0.57	0.65
9,383.0	91.03	92.14	7,394.1	-2,439.1	-485.4	2,044.5	2,051.6	1.27	0.78	1.00
9,478.0	90.21	92.24	7,393.0	-2,438.0	-489.1	2,139.4	2,146.6	0.87	-0.86	0.11
9,572.0	91.23	91.62	7,391.9	-2,436.9	-492.2	2,233.3	2,240.6	1.27	1.09	-0.66
9,665.0	89.94	90.94	7,390.9	-2,435.9	-494.3	2,326.3	2,333.6	1.57	-1.39	-0.73
9,760.0	90.34	91.40	7,390.7	-2,435.7	-496.2	2,421.3	2,428.5	0.64	0.42	0.48
9,853.0	90.08	91.54	7,390.3	-2,435.3	-498.6	2,514.3	2,521.5	0.32	-0.28	0.15
9,948.0	90.10	91.21	7,390.2	-2,435.2	-500.9	2,609.2	2,616.5	0.35	0.02	-0.35
10,043.0	90.11	91.10	7,390.0	-2,435.0	-502.8	2,704.2	2,711.5	0.12	0.01	-0.12
10,135.0	89.97	90.35	7,390.0	-2,435.0	-504.0	2,796.2	2,803.5	0.83	-0.15	-0.82
10,230.0	90.68	90.40	7,389.4	-2,434.4	-504.6	2,891.2	2,898.5	0.75	0.75	0.05
10,324.0	90.71	93.64	7,388.3	-2,433.3	-507.9	2,985.1	2,992.5	3.45	0.03	3.45
10,418.0	90.10	92.52	7,387.6	-2,432.6	-513.0	3,079.0	3,086.4	1.36	-0.65	-1.19
10,512.0	90.06	89.61	7,387.5	-2,432.5	-514.7	3,173.0	3,180.4	3.10	-0.04	-3.10
10,606.0	90.24	90.66	7,387.2	-2,432.2	-514.9	3,267.0	3,274.4	1.13	0.19	1.12
10,700.0	89.70	90.00	7,387.3	-2,432.3	-515.5	3,361.0	3,368.4	0.91	-0.57	-0.70
10,794.0	89.51	88.11	7,387.9	-2,432.9	-513.9	3,454.9	3,462.3	2.02	-0.20	-2.01
10,888.0	90.74	89.11	7,387.7	-2,432.7	-511.7	3,548.9	3,556.3	1.69	1.31	1.06
10,982.0	91.28	90.96	7,386.1	-2,431.1	-511.7	3,642.9	3,650.2	2.05	0.57	1.97
11,075.0	90.31	92.30	7,384.8	-2,429.8	-514.4	3,735.8	3,743.2	1.78	-1.04	1.44
11,169.0	89.11	91.48	7,385.2	-2,430.2	-517.5	3,829.8	3,837.2	1.55	-1.28	-0.87
11,262.0	90.81	91.70	7,385.3	-2,430.3	-520.0	3,922.7	3,930.2	1.84	1.83	0.24
11,357.0	91.17	92.58	7,383.7	-2,428.7	-523.6	4,017.7	4,025.1	1.00	0.38	0.93
11,451.0	91.98	91.46	7,381.1	-2,426.1	-526.9	4,111.6	4,119.1	1.47	0.86	-1.19
11,545.0	91.25	89.87	7,378.4	-2,423.4	-528.0	4,205.5	4,213.0	1.86	-0.78	-1.69
11,639.0	91.77	90.90	7,376.0	-2,421.0	-528.6	4,299.5	4,307.0	1.23	0.55	1.10
11,734.0	91.29	90.00	7,373.4	-2,418.4	-529.4	4,394.4	4,402.0	1.07	-0.51	-0.95
11,829.0	91.88	90.29	7,370.8	-2,415.8	-529.6	4,489.4	4,496.9	0.69	0.62	0.31
11,923.0	90.66	91.89	7,368.7	-2,413.7	-531.4	4,583.4	4,590.9	2.14	-1.30	1.70
12,017.0	91.16	92.03	7,367.2	-2,412.2	-534.6	4,677.3	4,684.9	0.55	0.53	0.15
12,111.0	90.42	91.16	7,365.9	-2,410.9	-537.2	4,771.2	4,778.9	1.21	-0.79	-0.93
12,205.0	90.63	89.81	7,365.1	-2,410.1	-538.0	4,865.2	4,872.8	1.45	0.22	-1.44
12,300.0	90.86	89.90	7,363.8	-2,408.8	-537.8	4,960.2	4,967.8	0.26	0.24	0.09

Survey Report



Company:	ANADARKO PETROLEUM CORP	Local Co-ordinate Reference:	Well BAJA BERG 35-7HZ
Project:	WELD COUNTY (NAD 83)	TVD Reference:	KB 20' @ 4955.0usft (PD461)
Site:	SE SW SEC 35 T2N R66W 6th P.M.	MD Reference:	KB 20' @ 4955.0usft (PD461)
Well:	BAJA BERG 35-7HZ	North Reference:	True
Wellbore:	JOB # 2019-024-461	Survey Calculation Method:	Minimum Curvature
Design:	FINAL SURVEYS	Database:	Database 1

Survey										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	Subsea Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
12,393.0	90.24	88.82	7,362.9	-2,407.9	-536.7	5,053.2	5,060.8	1.34	-0.67	-1.16
12,488.0	92.40	85.59	7,360.7	-2,405.7	-532.1	5,148.1	5,155.5	4.09	2.27	-3.40
12,581.0	94.00	87.12	7,355.6	-2,400.6	-526.2	5,240.7	5,248.1	2.38	1.72	1.65
12,675.0	92.30	86.51	7,350.4	-2,395.4	-521.0	5,334.4	5,341.7	1.92	-1.81	-0.65
12,769.0	92.10	88.05	7,346.8	-2,391.8	-516.5	5,428.3	5,435.5	1.65	-0.21	1.64
12,862.0	92.49	90.37	7,343.1	-2,388.1	-515.2	5,521.2	5,528.3	2.53	0.42	2.49
12,957.0	91.83	93.64	7,339.5	-2,384.5	-518.6	5,616.0	5,623.2	3.51	-0.69	3.44
13,051.0	91.04	91.96	7,337.1	-2,382.1	-523.2	5,709.9	5,717.2	1.97	-0.84	-1.79
13,146.0	88.87	92.29	7,337.2	-2,382.2	-526.7	5,804.8	5,812.1	2.31	-2.28	0.35
13,240.0	89.66	93.17	7,338.4	-2,383.4	-531.2	5,898.7	5,906.1	1.26	0.84	0.94
13,333.0	90.30	92.67	7,338.4	-2,383.4	-535.9	5,991.6	5,999.0	0.87	0.69	-0.54
13,426.0	90.45	90.82	7,337.8	-2,382.8	-538.7	6,084.5	6,092.0	2.00	0.16	-1.99
13,519.0	91.02	91.23	7,336.6	-2,381.6	-540.4	6,177.5	6,185.0	0.75	0.61	0.44
13,612.0	90.14	91.65	7,335.7	-2,380.7	-542.7	6,270.5	6,278.0	1.05	-0.95	0.45
13,705.0	88.91	89.79	7,336.5	-2,381.5	-543.9	6,363.4	6,371.0	2.40	-1.32	-2.00
13,799.0	90.52	89.96	7,336.9	-2,381.9	-543.7	6,457.4	6,464.9	1.72	1.71	0.18
13,893.0	89.60	89.61	7,336.8	-2,381.8	-543.3	6,551.4	6,558.9	1.05	-0.98	-0.37
13,988.0	90.51	88.85	7,336.7	-2,381.7	-542.1	6,646.4	6,653.9	1.25	0.96	-0.80
14,083.0	88.96	88.76	7,337.2	-2,382.2	-540.1	6,741.4	6,748.8	1.63	-1.63	-0.09
LAST SURVEY JAN 27, 2019										
14,177.0	89.26	88.35	7,338.6	-2,383.6	-537.7	6,835.4	6,842.7	0.54	0.32	-0.44
PROJECTION TO TD:40.089145; -104.834247										
14,245.0	89.26	88.35	7,339.5	-2,384.5	-535.8	6,903.3	6,910.7	0.00	0.00	0.00

Survey Report



Company:	ANADARKO PETROLEUM CORP	Local Co-ordinate Reference:	Well BAJA BERG 35-7HZ
Project:	WELD COUNTY (NAD 83)	TVD Reference:	KB 20' @ 4955.0usft (PD461)
Site:	SE SW SEC 35 T2N R66W 6th P.M.	MD Reference:	KB 20' @ 4955.0usft (PD461)
Well:	BAJA BERG 35-7HZ	North Reference:	True
Wellbore:	JOB # 2019-024-461	Survey Calculation Method:	Minimum Curvature
Design:	FINAL SURVEYS	Database:	Database 1

Targets									
Target Name - hit/miss target - Shape	Dip Angle (°)	Dip Dir. (°)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude	Longitude
BHL - BAJA BERG 35-7I - survey misses target center by 3303.1usft at 14245.0usft MD (7339.5 TVD, -535.8 N, 6903.3 E) - Point	0.00	0.00	7,320.0	-583.2	10,206.0	14,559,195.82	1,690,077.12	40° 5' 20.440 N	104° 49' 20.794 W
HEEL - BAJA BERG 35- - survey misses target center by 17.3usft at 7821.4usft MD (7377.2 TVD, -447.8 N, 483.9 E) - Point	0.00	0.00	7,377.0	-465.1	483.0	14,559,298.46	1,680,357.84	40° 5' 21.628 N	104° 51' 25.894 W
KOP - BAJA BERG 35-7 - survey misses target center by 87.7usft at 6721.8usft MD (6660.8 TVD, -455.3 N, -205.2 E) - Point	0.00	0.00	6,660.8	-424.2	-287.3	14,559,338.17	1,679,587.81	40° 5' 22.032 N	104° 51' 35.804 W
HEEL - BAJA BERG 35- - survey misses target center by 11.9usft at 7771.3usft MD (7369.9 TVD, -444.6 N, 434.4 E) - Point	0.00	0.00	7,377.0	-435.1	433.0	14,559,328.37	1,680,307.78	40° 5' 21.924 N	104° 51' 26.537 W
KOP - BAJA BERG 35-7 - survey misses target center by 31.6usft at 6800.4usft MD (6739.3 TVD, -456.8 N, -203.4 E) - Point	0.00	0.00	6,740.4	-425.4	-206.2	14,559,337.07	1,679,668.81	40° 5' 22.020 N	104° 51' 34.762 W
BHL - BAJA BERG 35-7I - survey misses target center by 3303.0usft at 14245.0usft MD (7339.5 TVD, -535.8 N, 6903.3 E) - Point	0.00	0.00	7,320.0	-582.9	10,206.0	14,559,196.14	1,690,077.12	40° 5' 20.443 N	104° 49' 20.794 W
HEEL - BAJA BERG 35- - survey misses target center by 11.9usft at 7771.3usft MD (7369.9 TVD, -444.6 N, 434.4 E) - Point	0.00	0.00	7,377.0	-435.1	433.0	14,559,328.37	1,680,307.78	40° 5' 21.924 N	104° 51' 26.537 W
KOP - BAJA BERG 35-7 - survey misses target center by 45.8usft at 6805.1usft MD (6744.0 TVD, -456.9 N, -203.0 E) - Point	0.00	0.00	6,740.4	-457.3	-157.4	14,559,305.27	1,679,717.73	40° 5' 21.705 N	104° 51' 34.133 W
HEEL - BAJA BERG 35- - survey misses target center by 11.4usft at 7789.9usft MD (7373.0 TVD, -445.8 N, 452.8 E) - Point	0.00	0.00	7,377.0	-435.1	453.0	14,559,328.40	1,680,327.77	40° 5' 21.924 N	104° 51' 26.280 W
BHL - BAJA BERG 35-7I - survey misses target center by 3303.0usft at 14245.0usft MD (7339.5 TVD, -535.8 N, 6903.3 E) - Point	0.00	0.00	7,336.0	-582.9	10,206.0	14,559,196.14	1,690,077.12	40° 5' 20.443 N	104° 49' 20.794 W
KOP - BAJA BERG 35-7 - survey misses target center by 35.3usft at 6801.9usft MD (6740.8 TVD, -456.9 N, -203.3 E) - Point	0.00	0.00	6,740.4	-425.4	-187.2	14,559,337.11	1,679,687.80	40° 5' 22.020 N	104° 51' 34.517 W

Survey Annotations				
Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
1,883.0	1,843.2	+N/-S (usft)	+E/-W (usft)	~ ENTER TGT BOX (1883' MD)
6,746.0	6,685.0	-455.7	-205.3	KOP
7,878.0	7,381.5	-450.6	540.2	HEEL:40.089381; -104.856988
8,011.0	7,386.2	-454.7	673.1	~ CROSS 460' HARDLINE (8011' MD)
14,177.0	7,338.6	-537.7	6,835.4	LAST SURVEY JAN 27, 2019
14,245.0	7,339.5	-535.8	6,903.3	PROJECTION TO TD:40.089145; -104.834247

Checked By: _____	Approved By: _____	Date: _____
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