

BOPCO, L.P.

**Poker Lake Unit 362H
Eddy Co, NM**

KB ELEV: 3301
GL ELEV: 3282

SECTION DETAILS

Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	DLeg	TFace	VSec	Target
1	0.00	0.00	316.46	0.00	0.00	0.00	0.00	0.00	0.00	
2	6843.08	0.00	316.46	6843.08	0.00	0.00	0.00	0.00	0.00	
3	7443.08	60.00	316.46	7339.28	207.67	-197.34	10.00	316.46	286.48	
4	7643.08	60.00	316.46	7439.28	333.23	-316.65	0.00	0.00	459.68	
5	7949.92	90.68	316.46	7516.00	545.86	-518.70	10.00	0.00	753.00	
6	12976.16	90.68	316.46	7456.00	4189.21	-3980.71	0.00	0.00	5778.89	PBHL

FIELD DETAILS

Eddy County, NM (Nad 27)

Geodetic System: US State Plane Coordinate System 1927
Ellipsoid: NAD27 (Clarke 1866)
Zone: New Mexico, Eastern Zone
Magnetic Model: IGRF2010

System Datum: Mean Sea Level
Local North: Grid North

SITE DETAILS

Poker Lake Unit 362H

Site Centre Northing: 430544.53
Easting: 640054.32

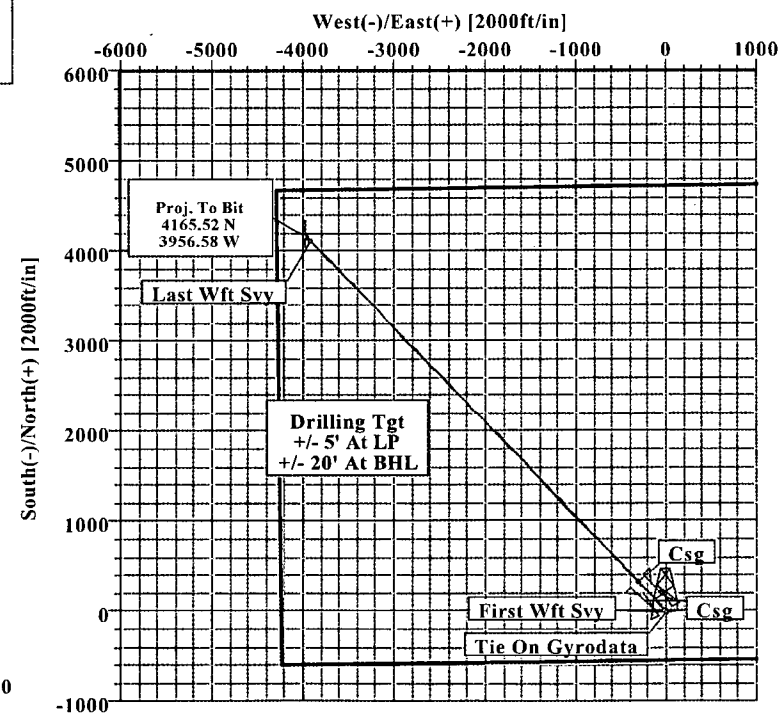
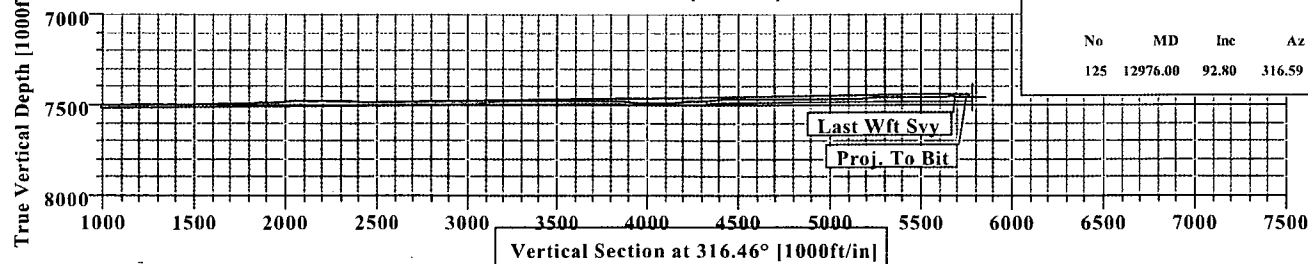
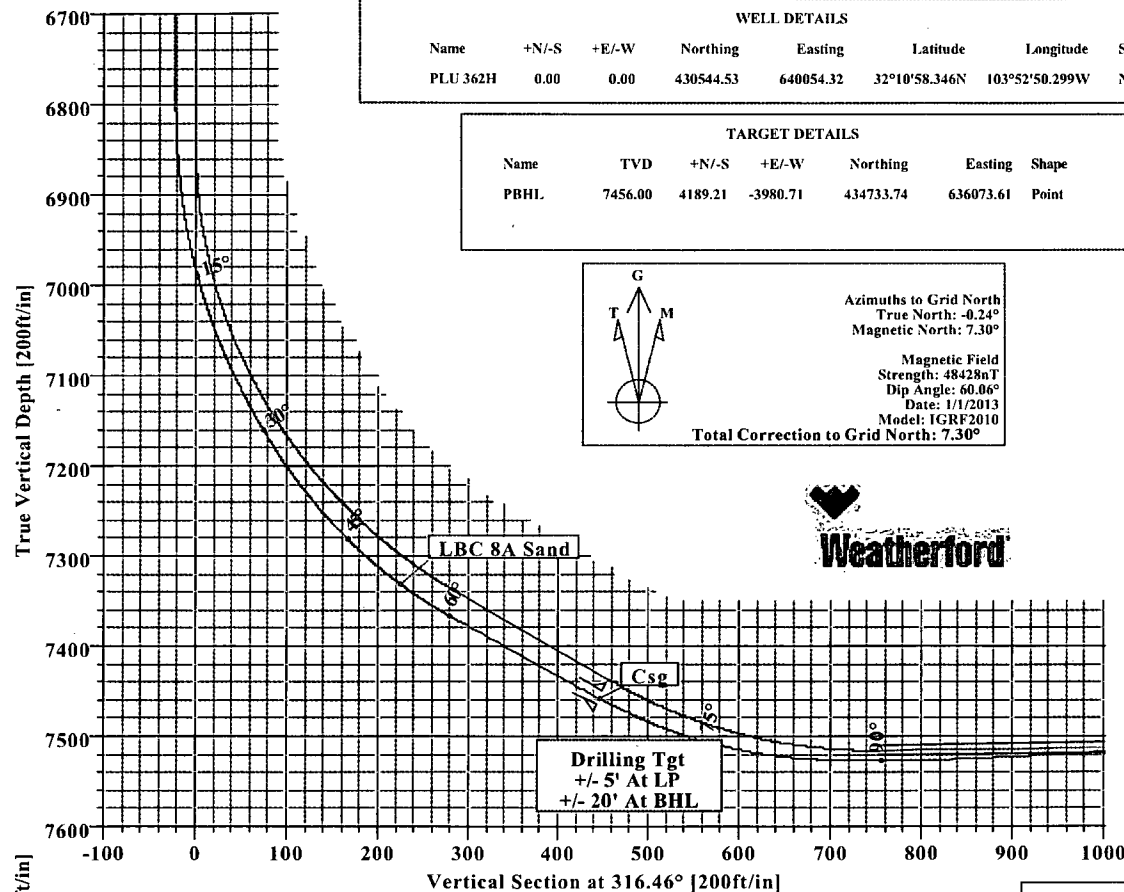
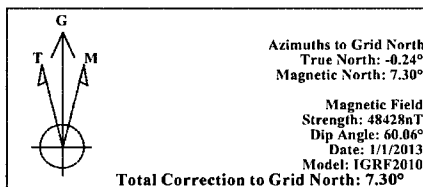
Ground Level: 3282.00
Positional Uncertainty: 0.00
Convergence: 0.24

WELL DETAILS

Name	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Slot
PLU 362H	0.00	0.00	430544.53	640054.32	32°10'58.346N	103°52'50.299W	N/A

TARGET DETAILS

Name	TVD	+N/-S	+E/-W	Northing	Easting	Shape
PBHL	7456.00	4189.21	-3980.71	434733.74	636073.61	Point



Survey: Wft Svy (PLU 362H/1)

No	MD	Inc	Az	TVD	+N/-S	+E/-W	DLeg	TFace	VSec
125	12976.00	92.80	316.59	7449.96	4165.52	-3956.58	0.00	0.00	5745.09

LEGEND
PLU 362H,1,Plan #1
Wft Svy

Survey: Wft Svy (PLU 362H/1)

Created By: Russell W. Joyner

Date: 1/22/2013

15-40799

Weatherford

Wft Survey Report X Y's.



Weatherford

Company: BOPCO, L.P. Field: Eddy County, NM (Nad 27) Site: Poker Lake Unit 362H Well: PLU 362H Wellpath: 1	Date: 1/22/2013 Time: 05:53:31 Page: 1 Co-ordinate(NE) Reference: Well: PLU 362H, Grid North Vertical (TVD) Reference: SITE 3301.0 Section (VS) Reference: Well (0.00N,0.00E,316.46Azi) Survey Calculation Method: Minimum Curvature Db: Sybase
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Survey: Wft Svy Company: Weatherford Tool: MWD;MWD - Standard	Start Date: 1/7/2013 Engineer: Russell W. Joyner Tied-to: User Defined
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Site: Poker Lake Unit 362H

Site Position: From: Map Position Uncertainty: 0.00 ft Ground Level: 3282.00 ft	Northing: 430544.53 ft Easting: 640054.32 ft	Latitude: 32 10 58.346 N Longitude: 103 52 50.299 W North Reference: Grid Grid Convergence: 0.24 deg
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Well: PLU 362H Well Position: +N/-S 0.00 ft +E/-W 0.00 ft Position Uncertainty: 0.00 ft	Slot Name: Northing: 430544.53 ft Latitude: 32 10 58.346 N Easting: 640054.32 ft Longitude: 103 52 50.299 W
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Wellpath: 1 Current Datum: SITE Magnetic Data: 1/1/2013 Field Strength: 48428 nT Vertical Section: Depth From (TVD)	Height 3301.00 ft +N/-S ft	Drilled From: Surface Tie-on Depth: 0.00 ft Above System Datum: Mean Sea Level Declination: 7.54 deg Mag Dip Angle: 60.06 deg +E/-W Direction deg
0.00	0.00	0.00 316.46

Survey											
MD ft	Incl deg	Azim deg	TVD ft	N/S ft	E/W ft	DLS deg/100ft	VS ft	MapN ft	MapE ft	Comment	
3706.30	0.25	177.59	3706.16	-12.28	2.64	0.00	-10.72	430532.25	640056.96	Tie On Gyrodata First Wft Svy	
3831.00	0.49	139.22	3830.85	-12.96	3.00	0.27	-11.46	430531.57	640057.32		
3926.00	0.53	137.26	3925.85	-13.59	3.57	0.05	-12.30	430530.94	640057.89		
4021.00	0.45	127.57	4020.85	-14.14	4.16	0.12	-13.11	430530.39	640058.48		
4116.00	0.44	111.96	4115.84	-14.50	4.79	0.13	-13.81	430530.03	640059.11		
4211.00	0.45	115.46	4210.84	-14.80	5.47	0.03	-14.49	430529.73	640059.79		
4305.00	0.51	131.41	4304.84	-15.23	6.12	0.16	-15.25	430529.30	640060.44		
4399.00	0.36	126.76	4398.83	-15.68	6.67	0.16	-15.96	430528.85	640060.99		
4492.00	0.28	126.93	4491.83	-16.00	7.08	0.09	-16.47	430528.53	640061.40		
4586.00	0.29	130.02	4585.83	-16.29	7.45	0.02	-16.94	430528.24	640061.77		
4679.00	0.29	110.59	4678.83	-16.52	7.85	0.11	-17.38	430528.01	640062.17		
4773.00	0.42	110.60	4772.83	-16.73	8.39	0.14	-17.91	430527.80	640062.71		
4865.00	0.35	114.94	4864.83	-16.96	8.96	0.08	-18.47	430527.57	640063.28		
4959.00	0.38	102.25	4958.83	-17.15	9.53	0.09	-19.00	430527.38	640063.85		
5052.00	0.29	92.29	5051.82	-17.23	10.07	0.11	-19.42	430527.30	640064.39		
5144.00	0.31	100.92	5143.82	-17.28	10.54	0.05	-19.79	430527.25	640064.86		
5239.00	0.21	113.47	5238.82	-17.40	10.95	0.12	-20.16	430527.13	640065.27		
5333.00	0.22	76.13	5332.82	-17.43	11.29	0.15	-20.41	430527.10	640065.61		
5426.00	0.28	98.54	5425.82	-17.42	11.69	0.12	-20.67	430527.11	640066.01		
5519.00	0.22	103.53	5518.82	-17.49	12.08	0.07	-21.00	430527.04	640066.40		
5615.00	0.25	76.00	5614.82	-17.48	12.47	0.12	-21.26	430527.05	640066.79		
5708.00	0.35	89.47	5707.82	-17.43	12.95	0.13	-21.56	430527.10	640067.27		
5802.00	0.36	96.41	5801.82	-17.46	13.53	0.05	-21.98	430527.07	640067.85		
5896.00	0.41	121.56	5895.81	-17.67	14.11	0.19	-22.53	430526.86	640068.43		
5990.00	0.43	107.75	5989.81	-17.96	14.73	0.11	-23.16	430526.57	640069.05		
6083.00	0.50	131.98	6082.81	-18.33	15.36	0.22	-23.87	430526.20	640069.68		
6176.00	0.63	113.41	6175.80	-18.81	16.14	0.24	-24.75	430525.72	640070.46		
6270.00	0.63	133.56	6269.80	-19.37	16.98	0.23	-25.74	430525.16	640071.30		
6364.00	0.38	354.79	6363.80	-19.41	17.33	1.01	-26.01	430525.12	640071.65		
6457.00	0.41	321.07	6456.79	-18.85	17.09	0.25	-25.44	430525.68	640071.41		

Weatherford

Wft Survey Report X Y's.



Weatherford

Company: BOPCO, L.P.	Date: 1/22/2013	Time: 05:53:31	Page: 2
Field: Eddy County, NM (Nad 27)	Co-ordinate(NE) Reference: Well: PLU 362H, Grid North		
Site: Poker Lake Unit 362H	Vertical (TVD) Reference: SITE 3301.0		
Well: PLU 362H	Section (VS) Reference: Well (0.00N,0.00E,316.46Azi)		
Wellpath: 1	Survey Calculation Method: Minimum Curvature	Db: Sybase	

Survey

MD ft	Incl deg	Azim deg	TVD ft	N/S ft	E/W ft	DLS deg/100ft	VS ft	MapN ft	MapE ft	Comment
6551.00	0.55	321.12	6550.79	-18.24	16.60	0.15	-24.65	430526.29	640070.92	
6583.00	0.58	314.87	6582.79	-18.00	16.39	0.21	-24.34	430526.53	640070.71	
6646.00	0.51	317.37	6645.79	-17.57	15.97	0.12	-23.74	430526.96	640070.29	
6740.00	0.63	329.27	6739.78	-16.82	15.42	0.18	-22.82	430527.71	640069.74	
6802.00	0.94	320.87	6801.78	-16.13	14.93	0.53	-21.98	430528.40	640069.25	
6833.00	2.50	319.46	6832.76	-15.42	14.33	5.03	-21.05	430529.11	640068.65	
6864.00	4.70	313.81	6863.70	-14.03	12.97	7.18	-19.10	430530.50	640067.29	
6896.00	6.83	315.16	6895.53	-11.77	10.69	6.67	-15.89	430532.76	640065.01	
6927.00	9.43	315.17	6926.22	-8.66	7.59	8.39	-11.51	430535.87	640061.91	
6959.00	12.07	314.50	6957.66	-4.46	3.36	8.26	-5.54	430540.07	640057.68	
6989.00	14.79	313.20	6986.83	0.36	-1.67	9.12	1.41	430544.89	640052.65	
7021.00	17.61	313.11	7017.56	6.47	-8.18	8.81	10.33	430551.00	640046.14	
7052.00	20.39	313.93	7046.87	13.42	-15.50	9.01	20.40	430557.95	640038.82	
7084.00	23.15	315.18	7076.58	21.75	-23.95	8.75	32.26	430566.28	640030.37	
7115.00	25.88	316.29	7104.78	30.97	-32.92	8.93	45.13	430575.50	640021.40	
7146.00	27.90	316.01	7132.43	41.08	-42.63	6.53	59.14	430585.61	640011.69	
7178.00	30.06	316.22	7160.42	52.25	-53.38	6.76	74.65	430596.78	640000.94	
7209.00	32.64	316.41	7186.90	63.91	-64.52	8.33	90.77	430608.44	639989.80	
7241.00	35.83	316.51	7213.35	76.96	-76.92	9.97	108.78	430621.49	639977.40	
7272.00	38.87	316.74	7237.99	90.63	-89.83	9.82	127.58	430635.16	639964.49	
7303.00	41.69	316.96	7261.64	105.25	-103.54	9.11	147.62	430649.78	639950.78	
7333.00	45.22	317.26	7283.41	120.37	-117.57	11.79	168.25	430664.90	639936.75	
7364.00	48.89	316.98	7304.53	137.00	-133.01	11.86	190.94	430681.53	639921.31	
7396.00	52.55	316.74	7324.78	155.07	-149.95	11.45	215.70	430699.60	639904.37	
7427.00	55.94	316.59	7342.89	173.36	-167.21	10.94	240.85	430717.89	639887.11	
7460.00	59.45	316.39	7360.53	193.59	-186.41	10.65	268.74	430738.12	639867.91	
7491.00	60.84	316.08	7375.96	213.00	-205.01	4.57	295.63	430757.53	639849.31	
7523.00	60.95	315.80	7391.52	233.09	-224.45	0.84	323.58	430777.62	639829.87	
7553.00	61.16	315.77	7406.04	251.91	-242.76	0.71	349.84	430796.44	639811.56	
7585.00	61.38	315.63	7421.42	271.99	-262.36	0.79	377.89	430816.52	639791.96	
7616.00	61.55	315.64	7436.23	291.46	-281.40	0.55	405.12	430835.99	639772.92	
7621.00	61.44	315.32	7438.62	294.59	-284.48	6.04	409.52	430839.12	639769.84	
7701.00	64.31	314.81	7475.09	344.99	-334.77	3.63	480.69	430889.52	639719.55	
7732.00	67.82	314.44	7487.66	364.89	-354.93	11.37	509.01	430909.42	639699.39	
7764.00	71.63	314.59	7498.75	385.93	-376.33	11.91	539.00	430930.46	639677.99	
7796.00	75.14	315.24	7507.90	407.58	-398.04	11.14	569.65	430952.11	639656.28	
7827.00	78.17	316.06	7515.05	429.15	-419.12	10.11	599.80	430973.68	639635.20	
7859.00	81.64	316.42	7520.66	451.90	-440.91	10.90	631.30	430996.43	639613.41	
7891.00	84.81	316.92	7524.44	475.01	-462.71	10.03	663.08	431019.54	639591.61	
7922.00	87.69	316.74	7526.46	497.57	-483.87	9.31	694.01	431042.10	639570.45	
7954.00	89.02	316.94	7527.38	520.90	-505.75	4.20	725.99	431065.43	639548.57	
8049.00	92.10	317.02	7526.46	590.34	-570.56	3.24	820.97	431134.87	639483.76	
8144.00	93.22	317.17	7522.05	659.85	-635.16	1.19	915.86	431204.38	639419.16	
8240.00	93.43	316.15	7516.48	729.56	-700.94	1.08	1011.70	431274.09	639353.38	
8334.00	94.62	316.09	7509.88	797.14	-765.93	1.27	1105.46	431341.67	639288.39	
8429.00	92.24	314.98	7504.20	864.81	-832.35	2.76	1200.27	431409.34	639221.97	
8523.00	93.21	315.12	7499.73	931.26	-898.69	1.04	1294.14	431475.79	639155.63	
8618.00	90.35	315.00	7496.78	998.47	-965.75	3.01	1389.05	431543.00	639088.57	
8713.00	91.47	317.70	7495.27	1067.19	-1031.31	3.08	1484.03	431611.72	639023.01	
8809.00	88.60	315.37	7495.21	1136.86	-1097.34	3.85	1580.01	431681.39	638956.98	
8903.00	89.51	316.24	7496.76	1204.24	-1162.86	1.34	1673.99	431748.77	638891.46	
8998.00	92.24	317.65	7495.31	1273.64	-1227.70	3.23	1768.97	431818.17	638826.62	

Weatherford

Wft Survey Report X Y's.



Weatherford

Company: BOPCO, LP Field: Eddy County, NM (Nad 27) Site: Roker Lake Unit 362H Well: PLU 362H Wellpath: 1	Date: 1/22/2013 Time: 05:53:31 Page: 3 Co-ordinate(NE) Reference: Well: PLU 362H; Grid North Vertical (TVD) Reference: SITE 3301.0 Section (VS) Reference: Well (0.00N,0.00E,316.46Azi) Survey Calculation Method: Minimum Curvature Db: Sybase
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Survey

MD ft	Incl deg	Azim deg	TVD ft	N/S ft	E/W ft	DLS deg/100ft	VS ft.	MapN ft	MapE ft	Comment
9093.00	94.13	318.79	7490.03	1344.37	-1290.89	2.32	1863.77	431888.90	638763.43	
9188.00	92.31	318.33	7484.70	1415.47	-1353.66	1.98	1958.55	431960.00	638700.66	
9282.00	90.28	317.84	7482.57	1485.40	-1416.44	2.22	2052.48	432029.93	638637.88	
9377.00	90.98	318.05	7481.53	1555.93	-1480.07	0.77	2147.45	432100.46	638574.25	
9472.00	89.02	317.26	7481.53	1626.14	-1544.06	2.22	2242.42	432170.67	638510.26	
9567.00	89.65	316.63	7482.63	1695.55	-1608.91	0.94	2337.41	432240.08	638445.41	
9661.00	87.97	316.17	7484.58	1763.61	-1673.72	1.85	2431.38	432308.14	638380.60	
9756.00	86.64	315.05	7489.05	1831.41	-1740.10	1.83	2526.27	432375.94	638314.22	
9851.00	88.81	315.78	7492.82	1899.02	-1806.73	2.41	2621.17	432443.55	638247.59	
9946.00	91.89	316.23	7492.24	1967.35	-1872.70	3.28	2716.15	432511.88	638181.62	
10041.00	92.03	316.18	7488.99	2035.88	-1938.41	0.16	2811.10	432580.41	638115.91	
10136.00	89.93	316.20	7487.36	2104.43	-2004.16	2.21	2906.07	432648.96	638050.16	
10233.00	90.49	316.66	7487.01	2174.70	-2071.02	0.75	3003.07	432719.23	637983.30	
10328.00	92.38	316.86	7484.63	2243.89	-2136.08	2.00	3098.04	432788.42	637918.24	
10423.00	90.56	317.24	7482.19	2313.39	-2200.78	1.96	3193.00	432857.92	637853.54	
10518.00	89.23	316.76	7482.37	2382.87	-2265.57	1.49	3287.99	432927.40	637788.75	
10613.00	89.65	316.52	7483.30	2451.94	-2330.79	0.51	3382.99	432996.47	637723.53	
10709.00	90.07	315.88	7483.53	2521.23	-2397.24	0.80	3478.98	433065.76	637657.08	
10804.00	90.42	315.53	7483.12	2589.22	-2463.58	0.52	3573.97	433133.75	637590.74	
10899.00	90.63	314.85	7482.25	2656.62	-2530.53	0.75	3668.95	433201.15	637523.79	
10994.00	88.95	317.01	7482.60	2724.87	-2596.60	2.88	3763.93	433269.40	637457.72	
11089.00	88.95	316.52	7484.34	2794.07	-2661.66	0.52	3858.92	433338.60	637392.66	
11184.00	90.00	316.10	7485.21	2862.76	-2727.28	1.19	3953.91	433407.29	637327.04	
11276.00	89.93	315.69	7485.27	2928.82	-2791.31	0.45	4045.90	433473.35	637263.01	
11369.00	90.35	314.87	7485.04	2994.90	-2856.75	0.99	4138.88	433539.43	637197.57	
11462.00	92.38	317.37	7482.83	3061.90	-2921.18	3.46	4231.84	433606.43	637133.14	
11555.00	93.43	317.11	7478.11	3130.10	-2984.24	1.16	4324.71	433674.63	637070.08	
11649.00	91.68	317.80	7473.92	3199.28	-3047.74	2.00	4418.60	433743.81	637006.58	
11742.00	91.19	316.92	7471.59	3267.67	-3110.71	1.08	4511.56	433812.20	636943.61	
11835.00	92.45	316.30	7468.64	3335.22	-3174.57	1.51	4604.51	433879.75	636879.75	
11927.00	89.79	317.24	7466.84	3402.23	-3237.56	3.07	4696.48	433946.76	636816.76	
12020.00	89.16	316.78	7467.69	3470.25	-3300.97	0.84	4789.47	434014.78	636753.35	
12113.00	89.23	317.00	7469.00	3538.14	-3364.52	0.25	4882.46	434082.67	636689.80	
12206.00	90.49	317.71	7469.23	3606.55	-3427.52	1.56	4975.45	434151.08	636626.80	
12299.00	91.19	316.50	7467.86	3674.67	-3490.81	1.50	5068.43	434219.20	636563.51	
12392.00	92.24	315.56	7465.08	3741.57	-3555.35	1.52	5161.38	434286.10	636498.97	
12485.00	91.40	316.58	7462.13	3808.51	-3619.84	1.42	5254.33	434353.04	636434.48	
12578.00	89.72	316.19	7461.22	3875.84	-3683.99	1.85	5347.32	434420.37	636370.33	
12672.00	92.31	318.36	7459.55	3944.87	-3747.75	3.59	5441.29	434489.40	636306.57	
12765.00	90.42	316.09	7457.34	4013.11	-3810.88	3.18	5534.24	434557.64	636243.44	
12858.00	92.03	316.05	7455.35	4080.07	-3875.38	1.73	5627.21	434624.60	636178.94	
12914.00	92.80	316.59	7452.99	4120.53	-3914.02	1.68	5683.16	434665.06	636140.30	Last Wft Svy
12976.00	92.80	316.59	7449.96	4165.52	-3956.58	0.00	5745.09	434710.05	636097.74	Proj. To Bit

Annotation

MD ft	TVD ft	
3706.30	3706.16	Tie On Gyrodata
3831.00	3830.85	First Wft Svy
12914.00	7452.99	Last Wft Svy
12976.00	7449.96	Proj. To Bit