

Noble Energy

CO, Weld County (NAD 83 NZ)
Sec 11 Twn 06 N Rng 63 W
Wells Ranch AA11-637 Original Hole
05-123-41253
H&P 326



A Schlumberger Company

Final Survey Report

10-Jun-2015

Well Coordinates:	NAD83 Colorado State Plane, NZ, US
	N 40° 29' 55.10400" W 104° 23' 42.32400"
	1426409.42 usFt 3307273.17 usFt
Ground Level:	4855.00 ft MSL
TVD Reference:	KB 30ft @ 4885.00 ft MSL
Local Coordinate Origin:	Wells Ranch AA11-637 well head
Vertical Section Azimuth:	269.790 ° (Grid North)
North Reference:	Grid North

DOX Version: 2.8

Vertical Section (ft) Azim = 269.79° Scale = 1:1250(ft) Origin = 0N/-S, 0E/-W



Wells Ranch AA11-637 MWD 0' to 13827' Definitive Survey Geodetic Report (Def Survey)



Report Date: June 09, 2015 - 03:20 PM
Client: Noble Energy
Field: CO, Weld County (NAD 83 NZ)
Structure / Slot: Noble 11-06N-63W (Wells Ranch AA11 Pad) / Wells Ranch AA11-637
Well: Wells Ranch AA11-637
Borehole: Original Hole
UWI / API#: Unknown / Unknown
Survey Name: Wells Ranch AA11-637 MWD 0' to 13827' Definitive
Survey Date: June 09, 2015
Tort / AHD / DDI / ERD Ratio: 189.327 ° / 7705.166 ft / 6.478 / 1.148
Coordinate Reference System: NAD83 Colorado State Plane, Northern Zone, US Feet
Location Lat / Long: N 40° 29' 55.10400", W 104° 23' 42.32400"
Location Grid N/E Y/X: N 1426409.415 ftUS, E 3307273.172 ftUS
CRS Grid Convergence Angle: 0.7139 °
Grid Scale Factor: 0.99996618
Version / Patch: 2.8.572.0

Survey / DLS Computation: Minimum Curvature / Lubinski
Vertical Section Azimuth: 269.790 ° (Grid North)
Vertical Section Origin: 0.000 ft, 0.000 ft
TVD Reference Datum: KB 30ft
TVD Reference Elevation: 4885.000 ft above MSL
Seabed / Ground Elevation: 4855.000 ft above MSL
Magnetic Declination: 8.251 °
Total Gravity Field Strength: 999.0533mgn (9.80665 Based)
Gravity Model: GARM
Total Magnetic Field Strength: 52674.314 nT
Magnetic Dip Angle: 67.039 °
Declination Date: June 09, 2015
Magnetic Declination Model: BGGM 2014
North Reference: Grid North
Grid Convergence Used: 0.7139 °
Total Corr Mag North->Grid North: 7.5371 °
Local Coord Referenced To: Well Head

Comments	MD (ft)	Incl (°)	Azim Grid (°)	TVD (ft)	VSEC (ft)	NS (ft)	EW (ft)	DLS (°/100ft)	Northing (ftUS)	Easting (ftUS)	Latitude (N/S ° ' ")	Longitude (E/W ° ' ")
Surface	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A	1426409.41	3307273.17	N 40 29 55.10 W 104 23 42.32	
Begin Ensenco Survey	64.21	0.54	164.30	64.21	-0.08	-0.29	0.08	0.84	1426409.12	3307273.25	N 40 29 55.10 W 104 23 42.32	
	158.12	0.79	154.34	158.11	-0.48	-1.30	0.48	0.29	1426408.11	3307273.65	N 40 29 55.09 W 104 23 42.32	
	252.03	0.28	179.38	252.02	-0.76	-2.11	0.76	0.58	1426407.30	3307273.94	N 40 29 55.08 W 104 23 42.31	
	345.94	0.29	221.79	345.93	-0.60	-2.52	0.61	0.22	1426406.89	3307273.78	N 40 29 55.08 W 104 23 42.32	
	439.85	0.44	256.14	439.84	-0.09	-2.78	0.10	0.28	1426406.63	3307273.27	N 40 29 55.08 W 104 23 42.32	
	533.76	0.32	159.60	533.74	0.17	-3.12	-0.16	0.61	1426406.30	3307273.01	N 40 29 55.07 W 104 23 42.33	
	627.67	0.28	160.37	627.65	0.00	-3.58	0.01	0.04	1426405.84	3307273.18	N 40 29 55.07 W 104 23 42.32	
	721.58	0.21	131.78	721.56	-0.20	-3.91	0.22	0.15	1426405.51	3307273.39	N 40 29 55.07 W 104 23 42.32	
	815.49	0.26	140.23	815.47	-0.46	-4.19	0.48	0.06	1426405.23	3307273.65	N 40 29 55.06 W 104 23 42.32	
	909.40	0.40	132.12	909.38	-0.84	-4.57	0.86	0.16	1426404.84	3307274.03	N 40 29 55.06 W 104 23 42.31	
	1003.31	0.39	153.19	1003.29	-1.23	-5.08	1.25	0.15	1426404.34	3307274.42	N 40 29 55.05 W 104 23 42.31	
	1097.22	0.38	141.25	1097.20	-1.57	-5.60	1.59	0.09	1426403.81	3307274.76	N 40 29 55.05 W 104 23 42.30	
	1191.13	0.36	144.35	1191.10	-1.93	-6.09	1.95	0.03	1426403.33	3307275.12	N 40 29 55.04 W 104 23 42.30	
	1285.04	0.28	136.10	1285.01	-2.26	-6.49	2.28	0.10	1426402.92	3307275.46	N 40 29 55.04 W 104 23 42.30	
	1378.95	0.23	136.86	1378.92	-2.55	-6.79	2.57	0.05	1426402.62	3307275.74	N 40 29 55.04 W 104 23 42.29	
	1472.86	0.20	140.59	1472.83	-2.78	-7.06	2.81	0.04	1426402.36	3307275.98	N 40 29 55.03 W 104 23 42.29	
	1566.77	0.17	224.65	1566.74	-2.78	-7.28	2.81	0.26	1426402.13	3307275.98	N 40 29 55.03 W 104 23 42.29	
	1660.68	0.24	122.18	1660.65	-2.85	-7.49	2.88	0.34	1426401.93	3307276.05	N 40 29 55.03 W 104 23 42.29	
	1754.59	0.24	195.53	1754.56	-2.97	-7.78	2.99	0.31	1426401.63	3307276.17	N 40 29 55.03 W 104 23 42.29	
	1848.50	0.22	192.02	1848.47	-2.87	-8.15	2.90	0.03	1426401.27	3307276.07	N 40 29 55.02 W 104 23 42.29	
9 5/8" Casing Point	1851.00	0.22	194.68	1850.97	-2.87	-8.16	2.90	0.42	1426401.26	3307276.07	N 40 29 55.02 W 104 23 42.29	
	1953.00	0.43	270.38	1952.97	-2.44	-8.34	2.47	0.42	1426401.07	3307275.64	N 40 29 55.02 W 104 23 42.29	
	2045.00	2.02	76.50	2044.95	-3.67	-7.96	3.70	2.65	1426401.45	3307276.87	N 40 29 55.02 W 104 23 42.28	
	2137.00	3.91	62.87	2136.82	-8.05	-6.15	8.07	2.18	1426403.26	3307281.24	N 40 29 55.04 W 104 23 42.22	
	2229.00	5.63	75.71	2228.51	-15.22	-3.61	15.24	2.19	1426405.81	3307288.41	N 40 29 55.07 W 104 23 42.13	
	2321.00	7.29	74.13	2319.92	-25.22	-0.90	25.22	1.81	1426408.52	3307298.39	N 40 29 55.09 W 104 23 42.00	
	2412.00	6.90	70.10	2410.22	-35.93	2.54	35.92	0.69	1426411.96	3307309.09	N 40 29 55.12 W 104 23 41.86	
	2504.00	6.37	69.82	2501.60	-45.93	6.18	45.90	0.58	1426415.60	3307319.07	N 40 29 55.16 W 104 23 41.73	
	2596.00	8.08	75.97	2592.87	-57.00	9.51	56.97	2.04	1426418.93	3307330.14	N 40 29 55.19 W 104 23 41.59	
	2690.00	8.61	76.76	2685.88	-70.27	12.72	70.23	0.58	1426422.14	3307343.40	N 40 29 55.22 W 104 23 41.41	
	2785.00	8.17	74.12	2779.86	-83.70	16.20	83.64	0.62	1426425.61	3307356.81	N 40 29 55.25 W 104 23 41.24	
	2879.00	7.78	74.56	2872.95	-96.27	19.72	96.20	0.42	1426429.14	3307369.37	N 40 29 55.29 W 104 23 41.08	
	2974.00	7.34	74.13	2967.13	-108.32	23.09	108.23	0.47	1426432.51	3307381.40	N 40 29 55.32 W 104 23 40.92	
	3069.00	7.25	73.51	3061.36	-119.91	26.45	119.82	0.13	1426435.87	3307392.99	N 40 29 55.35 W 104 23 40.77	
	3163.00	7.34	85.11	3154.60	-131.59	28.65	131.49	1.57	1426438.06	3307404.66	N 40 29 55.37 W 104 23 40.62	
	3258.00	6.72	86.25	3248.89	-143.19	29.53	143.08	0.67	1426438.94	3307416.25	N 40 29 55.38 W 104 23 40.47	
	3353.00	8.09	80.02	3343.09	-155.33	31.05	155.21	1.67	1426440.47	3307428.38	N 40 29 55.39 W 104 23 40.31	
	3447.00	6.51	79.31	3436.33	-167.08	33.19	166.96	1.68	1426442.60	3307440.13	N 40 29 55.41 W 104 23 40.16	
	3542.00	6.42	69.12	3530.73	-177.35	36.08	177.22	1.21	1426445.49	3307450.38	N 40 29 55.44 W 104 23 40.02	
	3732.00	7.08	69.21	3719.41	-198.25	44.02	198.09	0.35	1426453.43	3307471.26	N 40 29 55.51 W 104 23 39.75	
	3826.00	7.16	67.54	3812.68	-209.10	48.32	208.92	0.24	1426457.73	3307482.08	N 40 29 55.56 W 104 23 39.61	
	3921.00	7.69	75.54	3906.89	-220.74	52.17	220.55	1.22	1426461.58	3307493.71	N 40 29 55.59 W 104 23 39.46	
	4016.00	6.37	71.76	4001.17	-231.91	55.40	231.71	1.47	1426464.81	3307504.87	N 40 29 55.62 W 104 23 39.32	
	4110.00	4.40	83.45	4094.76	-240.45	57.45	240.24	2.39	1426466.86	3307513.41	N 40 29 55.64 W 104 23 39.21	
	4205.00	2.55	94.43	4189.58	-246.18	57.70	245.97	2.06	1426467.11	3307519.13	N 40 29 55.64 W 104 23 39.13	
	4300.00	0.62	38.36	4284.54	-248.61	57.94	248.40	2.38	1426467.35	3307521.56	N 40 29 55.65 W 104 23 39.10	
	4394.00	1.41	351.42	4378.53	-248.76	59.48	248.54	1.15	1426468.89	3307521.70	N 40 29 55.66 W 104 23 39.10	
	4489.00	2.28	310.12	4473.48	-247.15	61.85	246.92	1.62	1426471.27	3307520.08	N 40 29 55.68 W 104 23 39.12	
	4584.00	1.76	318.38	4568.42	-244.74	64.16	244.51	0.63	1426473.57	3307517.67	N 40 29 55.71 W 104 23 39.15	
	4679.00	1.89	252.99	4663.38	-242.28	64.79	242.04	2.08	1426474.21	3307515.20	N 40 29 55.71 W 104 23 39.18	
	4773.00	1.23	189.53	4757.35	-240.62	63.35	240.39	1.84	1426472.76	3307513.55	N 40 29 55.70 W 104 23 39.20	
	4868.00	2.99	223.02	4852.29	-238.75	60.53	238.53	2.19	1426469.94	3307511.69	N 40 29 55.67 W 104 23 39.23	
	4963.00	3.08	200.25	4947.16	-236.16	56.32	235.96	1.26	1426465.74	3307509.12	N 40 29 55.63 W 104 23 39.26	
	5058.00	3.78	216.69	5041.99	-233.39	51.42	233.20	1.26	1426460.83	3307506.37	N 40 29 55.58 W 104 23 39.30	
	5153.00	3.43	250.09	5136.81	-228.83	47.94	228.66	2.21	1426457.35	3307501.82	N 40 29 55.55 W 104 23 39.36	
	5247.00	2.02	280.67	5230.71	-224.56	47.29	224.39	2.10	1426456.70	3307497.55	N 40 29 55.54 W 104 23 39.41	
	5342.00	1.67	258.00	5325.66	-221.56	47.31	221.39	0.84	1426456.72	3307494.55	N 40 29 55.54 W 104 23 39.45	
	5437.00	1.23	252.99	5420.63	-219.23	46.72	219.06	0.48	1426456.14	3307492.22	N 40 29 55.54 W 104 23 39.48	
	5531.00	0.92	224.60	5514.61	-217.73	45.89	217.56	0.65	1426455.30	3307490.73	N 40 29 55.53 W 104 23 39.50	
	5626.00	0.62	204.91	5609.61	-216.97	44.88	216.81	0.42	1426454.29	3307489.98	N 40 29 55.52 W 104 23 39.51	
	5721.00	1.05	222.66	5704.60	-216.16	43.78	216.01	0.52	1426453.19	3307489.17	N 40 29 55.51 W 104 23 39.52	
	5816.00	1.45	199.72	5799.57	-215.16	42.00	215.01	0.67	1426451.42	3307488.17	N 40 29 55.49 W 104 23 39.53	
	5910.00	1.54	191.46	5893.54	-214.50	39.65	214.36	0.25	1426449.06	3307487.52	N 40 29 55.47 W 104 23 39.54	
	6005.00	1.19	154.72	5988.52	-214.66	37.50	214.53	0.97	1426446.92	3307487.69	N 40 29 55.45 W 104 23 39.54	
	6100.00	7.29	265.20	6083.27	-209.06	36.10	208.93	8.20	1426445.52	3307482.10	N 40 29 55.44 W 104 23 39.61	
	6194.00	13.40	264.93	6175.70	-192.25	34.64	192.12	6.50	1426444.05	3307465.29	N 40 29 55.42 W 104 23 39.83	
	6289.00	19.38	258.25	6266.80	-165.81	30.45	165.70	6.59	1426439.87	3307438.87	N 40 29 55.38 W 104 23 40.17	
	6384.00	23.10	266.70	6355.35	-131.74	26.17	131.64	5.06	1426435.58	3307404.81	N 40 29 55.35 W 104 23 40.62	
	6420.00	23.56	270.21	6388.41	-117.49	25.79	117.40	4.07	1426435.20	3307390.56	N 40 29 55.34 W 104 23 40.80	
	6514.00	32.26	282.17	6471.46	-74.08	31.16	73.97	10.97	1426440.57	3307347.14	N 40 29 55.40 W 104 23 41.36	
	6609.00	46.86	283.22	6544.51	-15.29	44.51	15.13	15.38	1426453.92	3307288.30	N 40 29 55.54 W 104 23	

Comments	MD (ft)	Incl (°)	Azim Grid (°)	TVD (ft)	VSEC (ft)	NS (ft)	EW (ft)	DLS (°/100ft)	Northing (ftUS)	Easting (ftUS)	Latitude (N/S ° ' ")	Longitude (E/W ° ' ")
	7082.00	81.01	268.19	6703.46	421.85	56.87	-422.06	2.14	1426466.28	3306851.13	N 40 29 55.72	W 104 23 47.78
Last Enseco Survey Begin IFR Survey	7177.00	90.40	267.00	6710.57	516.40	52.89	-516.60	9.96	1426462.31	3306756.59	N 40 29 55.69	W 104 23 49.00
	7275.00	90.62	266.02	6709.70	614.24	46.93	-614.41	1.02	1426456.34	3306658.78	N 40 29 55.64	W 104 23 50.27
	7370.00	90.89	266.66	6708.45	709.06	40.86	-709.21	0.73	1426450.28	3306563.99	N 40 29 55.59	W 104 23 51.50
	7464.00	90.62	266.42	6707.21	802.90	35.19	-803.03	0.38	1426444.60	3306470.17	N 40 29 55.55	W 104 23 52.71
	7559.00	90.45	266.28	6706.32	897.72	29.14	-897.83	0.23	1426438.56	3306375.37	N 40 29 55.50	W 104 23 53.94
	7654.00	90.82	267.58	6705.27	992.59	24.06	-992.69	1.42	1426433.47	3306280.52	N 40 29 55.46	W 104 23 55.17
	7745.00	90.38	268.03	6704.31	1083.53	20.57	-1083.62	0.69	1426429.99	3306189.59	N 40 29 55.44	W 104 23 56.35
	7837.00	90.58	268.35	6703.54	1175.50	17.67	-1175.57	0.41	1426427.08	3306097.65	N 40 29 55.42	W 104 23 57.54
	7929.00	90.38	268.14	6702.77	1267.46	14.85	-1267.52	0.32	1426424.26	3306005.70	N 40 29 55.41	W 104 23 58.73
	8022.00	90.52	268.20	6702.04	1360.42	11.88	-1360.47	0.16	1426421.29	3305912.75	N 40 29 55.39	W 104 23 59.93
	8114.00	91.24	268.59	6700.63	1452.38	9.30	-1452.42	0.89	1426418.72	3305820.80	N 40 29 55.37	W 104 24 1.12
	8206.00	90.14	269.75	6699.52	1544.36	7.97	-1544.40	1.74	1426417.38	3305728.82	N 40 29 55.37	W 104 24 2.31
	8298.00	90.17	269.96	6699.27	1636.36	7.74	-1636.40	0.23	1426417.15	3305636.83	N 40 29 55.38	W 104 24 3.50
	8390.00	90.48	269.87	6698.75	1728.36	7.60	-1728.40	0.35	1426417.01	3305544.83	N 40 29 55.39	W 104 24 4.69
	8482.00	90.65	270.96	6697.84	1820.35	8.27	-1820.39	1.20	1426417.68	3305452.84	N 40 29 55.41	W 104 24 5.88
	8574.00	89.76	269.64	6697.51	1912.34	8.75	-1912.39	1.73	1426418.16	3305360.85	N 40 29 55.43	W 104 24 7.08
	8666.00	89.72	269.84	6697.93	2004.34	8.33	-2004.39	0.22	1426417.74	3305268.86	N 40 29 55.43	W 104 24 8.27
	8757.00	89.72	270.24	6698.38	2095.34	8.39	-2095.39	0.44	1426417.81	3305177.86	N 40 29 55.44	W 104 24 9.44
	8852.00	89.86	270.04	6698.72	2190.34	8.63	-2190.38	0.26	1426418.04	3305082.87	N 40 29 55.46	W 104 24 10.67
	8947.00	89.45	269.33	6699.30	2285.34	8.10	-2285.38	0.86	1426417.52	3304987.87	N 40 29 55.46	W 104 24 11.90
	9041.00	89.24	269.51	6700.37	2379.33	7.15	-2379.37	0.29	1426416.57	3304893.89	N 40 29 55.47	W 104 24 13.12
	9136.00	89.24	269.40	6701.63	2474.32	6.25	-2474.36	0.12	1426415.66	3304798.90	N 40 29 55.47	W 104 24 14.35
	9231.00	89.86	269.78	6702.38	2569.31	5.57	-2569.35	0.77	1426414.98	3304703.91	N 40 29 55.47	W 104 24 15.58
	9326.00	90.41	270.13	6702.15	2664.31	5.49	-2664.35	0.69	1426414.91	3304608.92	N 40 29 55.48	W 104 24 16.81
	9420.00	90.48	270.15	6701.42	2758.31	5.72	-2758.35	0.08	1426415.14	3304514.92	N 40 29 55.50	W 104 24 18.03
	9515.00	90.45	270.22	6700.65	2853.30	6.03	-2853.34	0.08	1426415.45	3304419.93	N 40 29 55.51	W 104 24 19.25
	9609.00	90.31	270.01	6700.03	2947.30	6.22	-2947.34	0.27	1426415.63	3304325.94	N 40 29 55.53	W 104 24 20.47
	9704.00	90.45	270.07	6699.40	3042.30	6.29	-3042.34	0.16	1426415.70	3304230.94	N 40 29 55.54	W 104 24 21.70
	9799.00	90.21	269.91	6698.85	3137.29	6.27	-3137.34	0.30	1426415.68	3304135.95	N 40 29 55.55	W 104 24 22.93
	9894.00	89.86	269.89	6698.79	3232.29	6.10	-3232.34	0.37	1426415.52	3304040.95	N 40 29 55.56	W 104 24 24.16
	9988.00	89.73	269.59	6699.13	3326.29	5.68	-3326.33	0.35	1426415.09	3303946.96	N 40 29 55.57	W 104 24 25.38
	10083.00	89.79	269.87	6699.53	3421.29	5.23	-3421.33	0.30	1426414.64	3303851.96	N 40 29 55.57	W 104 24 26.61
	10178.00	89.72	269.87	6699.93	3516.29	5.01	-3516.33	0.07	1426414.43	3303756.97	N 40 29 55.58	W 104 24 27.84
	10273.00	89.90	270.26	6700.25	3611.29	5.12	-3611.33	0.45	1426414.54	3303661.97	N 40 29 55.60	W 104 24 29.07
	10367.00	89.24	269.38	6700.95	3705.28	4.83	-3705.33	1.17	1426414.24	3303567.98	N 40 29 55.61	W 104 24 30.28
	10462.00	89.35	269.50	6702.12	3800.27	3.90	-3800.31	0.17	1426413.31	3303472.99	N 40 29 55.61	W 104 24 31.51
	10556.00	89.55	269.84	6703.03	3894.27	3.36	-3894.31	0.42	1426412.77	3303379.00	N 40 29 55.61	W 104 24 32.73
	10651.00	90.00	269.83	6703.40	3989.27	3.08	-3989.31	0.47	1426412.50	3303284.01	N 40 29 55.62	W 104 24 33.96
	10745.00	90.03	269.51	6703.37	4083.27	2.54	-4083.31	0.34	1426411.96	3303190.01	N 40 29 55.63	W 104 24 35.18
	10840.00	89.90	269.71	6703.43	4178.27	1.89	-4178.30	0.25	1426411.31	3303095.02	N 40 29 55.63	W 104 24 36.40
	10935.00	90.28	269.95	6703.28	4273.27	1.61	-4273.30	0.47	1426411.03	3303000.02	N 40 29 55.64	W 104 24 37.63
	11029.00	89.72	269.44	6703.28	4367.27	1.11	-4367.30	0.81	1426410.53	3302906.03	N 40 29 55.65	W 104 24 38.85
	11124.00	89.48	268.75	6703.95	4462.26	-0.39	-4462.29	0.77	1426409.03	3302811.05	N 40 29 55.65	W 104 24 40.08
	11219.00	90.31	270.05	6704.12	4557.25	-1.38	-4557.28	1.62	1426408.03	3302716.06	N 40 29 55.65	W 104 24 41.31
	11314.00	89.69	268.97	6704.12	4652.25	-2.19	-4652.27	1.31	1426407.22	3302621.07	N 40 29 55.65	W 104 24 42.54
	11408.00	89.69	269.12	6704.63	4746.24	-3.76	-4746.26	0.16	1426405.65	3302527.08	N 40 29 55.65	W 104 24 43.76
	11503.00	90.38	270.19	6704.57	4841.24	-4.33	-4841.25	1.34	1426405.08	3302432.09	N 40 29 55.65	W 104 24 44.99
	11598.00	89.93	269.83	6704.31	4936.24	-4.32	-4936.25	0.61	1426405.10	3302337.10	N 40 29 55.66	W 104 24 46.22
	11692.00	90.14	269.91	6704.26	5030.24	-4.53	-5030.25	0.24	1426404.88	3302243.10	N 40 29 55.67	W 104 24 47.43
	11787.00	90.62	270.36	6703.63	5125.23	-4.31	-5125.25	0.69	1426405.11	3302148.11	N 40 29 55.69	W 104 24 48.66
	11881.00	90.07	270.00	6703.06	5219.23	-4.01	-5219.25	0.70	1426405.40	3302054.11	N 40 29 55.70	W 104 24 49.88
	11976.00	90.41	269.88	6702.66	5314.23	-4.11	-5314.25	0.38	1426405.30	3301959.12	N 40 29 55.71	W 104 24 51.11
	12071.00	90.45	270.08	6701.95	5409.22	-4.14	-5409.24	0.21	1426405.27	3301864.12	N 40 29 55.72	W 104 24 52.34
	12165.00	90.45	270.34	6701.21	5503.22	-3.80	-5503.24	0.28	1426405.62	3301770.13	N 40 29 55.74	W 104 24 53.55
	12260.00	90.52	270.11	6700.41	5598.21	-3.43	-5598.24	0.25	1426405.99	3301675.14	N 40 29 55.75	W 104 24 54.78
	12355.00	90.52	270.50	6699.54	5693.20	-2.92	-5693.23	0.41	1426406.49	3301580.15	N 40 29 55.77	W 104 24 56.01
	12449.00	89.97	270.69	6699.14	5787.19	-1.94	-5787.22	0.62	1426407.47	3301486.16	N 40 29 55.79	W 104 24 57.23
	12544.00	89.52	269.77	6699.57	5882.19	-1.56	-5882.22	1.08	1426407.85	3301391.16	N 40 29 55.81	W 104 24 58.46
	12638.00	89.86	270.30	6700.07	5976.18	-1.51	-5976.22	0.67	1426407.91	3301297.17	N 40 29 55.82	W 104 24 59.68
	12733.00	90.07	269.99	6700.13	6071.18	-1.27	-6071.22	0.39	1426408.15	3301202.17	N 40 29 55.83	W 104 25 0.91
	12827.00	89.90	269.32	6700.16	6165.18	-1.83	-6165.22	0.74	1426407.58	3301108.18	N 40 29 55.84	W 104 25 2.12
	12922.00	90.03	269.24	6700.21	6260.18	-3.03	-6260.21	0.16	1426406.39	3301013.19	N 40 29 55.84	W 104 25 3.35
	13016.00	90.14	269.33	6700.08	6354.17	-4.20	-6354.20	0.15	1426405.22	3300919.20	N 40 29 55.84	W 104 25 4.57
	13111.00	89.90	269.47	6700.04	6449.17	-5.19	-6449.20	0.29	1426404.22	3300824.21	N 40 29 55.84	W 104 25 5.80
	13205.00	90.00	269.44	6700.12	6543.17	-6.09	-6543.19	0.11	1426403.33	3300730.21	N 40 29 55.84	W 104 25 7.02
	13299.00	90.10	269.41	6700.04	6637.17	-7.03	-6637.19	0.11	1426402.38	3300636.22	N 40 29 55.84	W 104 25 8.23
	13394.00	90.03	269.25	6699.93	6732.16	-8.14	-6732.18	0.18	1426401.27	3300541.23	N 40 29 55.84	W 104 25 9.46
	13489.00	89.97	268.28	6699.93	6827.15	-10.19	-6827.16	1.02	1426399.23	3300446.26	N 40 29 55.83	W 104 25 10.69
	13583.00	89.76	266.00	6700.16	6921.04	-14.88	-6921.03	2.44	1426394.54	3300352.39	N 40 29 55.80	W 104 25 11.91
	13678.00	89.69	266.53	6700.61	7015.86	-21.07	-7015.83	0.56	1426388.35	3300257.59	N 40 29 55.75	W 104 25 13.14
	13772.00	89.76	266.84	6701.06	7109.72	-26.50	-7109.67	0.34	1426382.91	3300163.75	N 40 29 55.71	W 104 25 14.35
	13785.00	89.86	266.84	6701.11	7122.70	-27.22	-7122.65	0.77	1426382.20	3300150.77	N 40 29 55.70	W 104 25 14.52
Last IFR Survey												
Projection to Bit	13827.00	89.86	266.84	6701.21	7164.65	-29.53	-7164.59	0.00	1426379.88	3300108.84	N 40 29 55.68	W 104 25 15.06