

Tekton Energy

Well Name: **Raindance 3 #1-1-32-090-4-CH**

Surface Location: Raindance Pad Sec.30-T6N-R67W
 North American Datum 1983 , US State Plane 1983 , Colorado Northern Zone

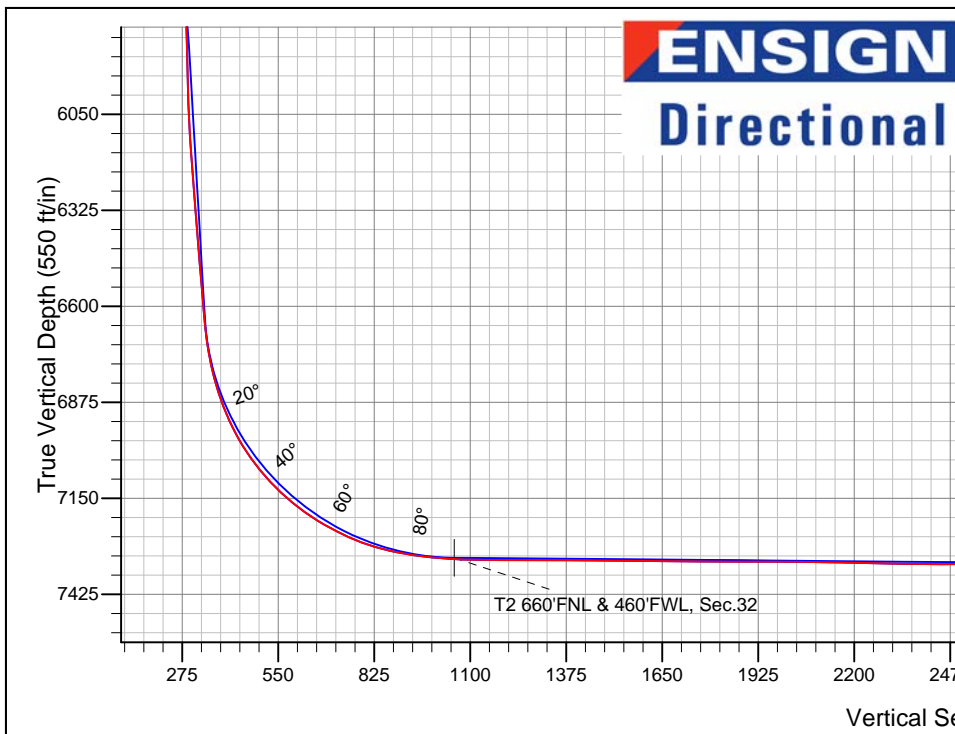
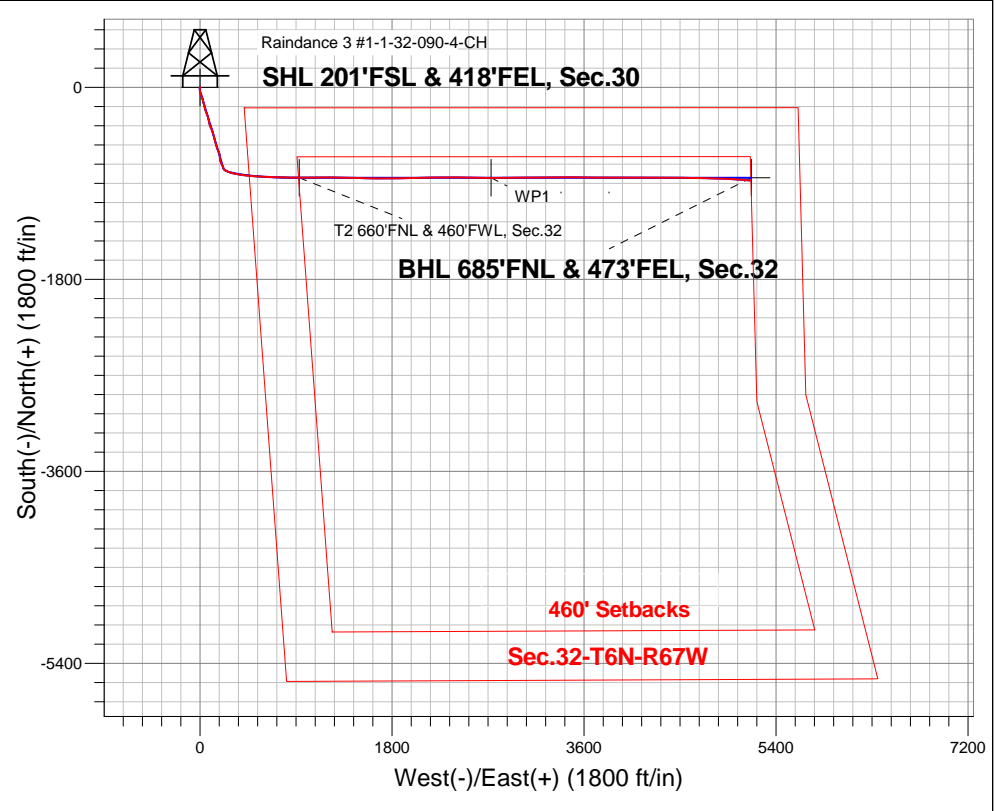
Ground Elevation: 4982.0

+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Slot
0.0	0.0	1407744.11	3159183.60	40.451250	-104.928010	

RKB - 22.5' WELL @ 5004.5ft (RKB - 22.5')

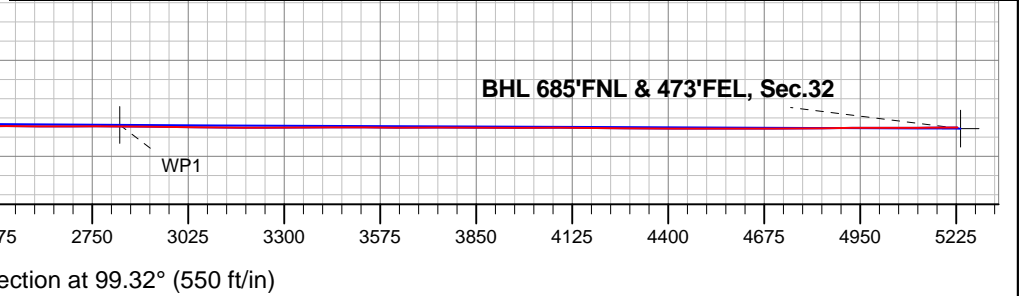
FINAL SURVEY

Projected Bottom Hole Location
 12022'MD 7342'TVD 874'S & 5156'E of SHL
 90.4 degree Incl @ 94.66 degree AZM



Raindance Pad Sec.30-T6N-R67W Raindance 3 #1-1-32-090-4-CH Wellbore #1 10:02, April 07 2014	ANNOTATIONS
	No annotation data is available.

LEGEND	
	Raindance 3 #1-1-32-090-4-CH, Wellbore #1, Plan #2 (3-17-14) V0
	Wellbore #1
	Survey #1





Tekton Energy

SEC.30-T6N-R67W

Raindance Pad Sec.30-T6N-R67W

Raindance 3 #1-1-32-090-4-CH

Wellbore #1

Survey: Survey #1

Standard Survey Report

07 April, 2014

Company:	Tekton Energy	Local Co-ordinate Reference:	Well Raindance 3 #1-1-32-090-4-CH
Project:	SEC.30-T6N-R67W	TVD Reference:	WELL @ 5004.5ft (RKB - 22.5')
Site:	Raindance Pad Sec.30-T6N-R67W	MD Reference:	WELL @ 5004.5ft (RKB - 22.5')
Well:	Raindance 3 #1-1-32-090-4-CH	North Reference:	True
Wellbore:	Wellbore #1	Survey Calculation Method:	Minimum Curvature
Design:	Wellbore #1	Database:	Landmark

Project	SEC.30-T6N-R67W, Weld County, CO		
Map System:	US State Plane 1983	System Datum:	Mean Sea Level
Geo Datum:	North American Datum 1983		Using Well Reference Point
Map Zone:	Colorado Northern Zone		Using geodetic scale factor

Site	Raindance Pad Sec.30-T6N-R67W				
Site Position:		Northing:	1,407,736.65ft	Latitude:	40.451230
From:	Lat/Long	Easting:	3,159,155.82ft	Longitude:	-104.928110
Position Uncertainty:	0.0 ft	Slot Radius:	"	Grid Convergence:	0.37 °

Well	Raindance 3 #1-1-32-090-4-CH					
Well Position	+N/-S	0.0 ft	Northing:	1,407,744.11 ft	Latitude:	40.451250
	+E/-W	0.0 ft	Easting:	3,159,183.60 ft	Longitude:	-104.928010
Position Uncertainty		0.0 ft	Wellhead Elevation:	ft	Ground Level:	4,982.0 ft

Wellbore	Wellbore #1				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2010	3/17/2014	8.59	66.97	52,849

Design	Wellbore #1				
Audit Notes:					
Version:	1.0	Phase:	ACTUAL	Tie On Depth:	0.0
Vertical Section:		Depth From (TVD) (ft)	+N/-S (ft)	+E/-W (ft)	Direction (°)
		0.0	0.0	0.0	99.32

Survey Program	Date	4/7/2014			
From (ft)	To (ft)	Survey (Wellbore)	Tool Name	Description	
151.0	12,022.0	Survey #1 (Wellbore #1)	MWD	MWD - Standard	

Survey										
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)	
0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.00	0.00	0.00	
1.0	0.00	239.20	1.0	0.0	0.0	0.0	0.26	0.26	0.00	
SHL 201°FSL & 418°FEL, Sec.30										
151.0	0.40	239.20	151.0	-0.3	-0.5	-0.4	0.26	0.26	0.00	
253.0	0.40	279.60	253.0	-0.4	-1.1	-1.0	0.27	0.00	39.61	
345.0	0.60	285.40	345.0	-0.2	-1.9	-1.8	0.22	0.22	6.30	
437.0	0.90	198.60	437.0	-0.8	-2.6	-2.4	1.15	0.33	-94.35	
529.0	1.90	189.10	529.0	-3.0	-3.1	-2.5	1.11	1.09	-10.33	
622.0	2.80	180.50	621.9	-6.8	-3.3	-2.2	1.04	0.97	-9.25	
713.0	4.10	175.80	712.7	-12.2	-3.1	-1.1	1.46	1.43	-5.16	
805.0	5.50	179.10	804.4	-19.9	-2.8	0.5	1.55	1.52	3.59	
918.0	7.50	175.90	916.7	-32.7	-2.2	3.1	1.80	1.77	-2.83	
1,012.0	9.10	168.20	1,009.7	-46.1	-0.2	7.2	2.07	1.70	-8.19	

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Wellbore:	Wellbore #1	Survey Calculation Method:	Minimum Curvature
Design:	Wellbore #1	Database:	Landmark

Survey										
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1,105.0	9.70	158.40	1,101.4	-60.6	4.2	13.9	1.84	0.65	-10.54	
1,197.0	9.50	161.90	1,192.1	-75.0	9.4	21.4	0.67	-0.22	3.80	
1,289.0	8.60	158.40	1,283.0	-88.6	14.3	28.4	1.15	-0.98	-3.80	
1,381.0	7.20	149.90	1,374.1	-100.0	19.7	35.6	1.98	-1.52	-9.24	
1,473.0	6.30	163.30	1,465.5	-109.8	24.0	41.5	1.97	-0.98	14.57	
1,565.0	6.20	166.40	1,556.9	-119.5	26.7	45.7	0.38	-0.11	3.37	
1,658.0	6.50	170.70	1,649.4	-129.5	28.7	49.3	0.60	0.32	4.62	
1,749.0	7.80	167.50	1,739.7	-140.7	30.9	53.2	1.49	1.43	-3.52	
1,841.0	6.40	165.60	1,831.0	-151.7	33.5	57.6	1.54	-1.52	-2.07	
1,934.0	7.10	161.70	1,923.3	-162.2	36.6	62.4	0.90	0.75	-4.19	
2,026.0	7.10	171.00	2,014.6	-173.2	39.3	66.8	1.25	0.00	10.11	
2,118.0	7.70	163.30	2,105.8	-184.7	41.9	71.3	1.26	0.65	-8.37	
2,210.0	6.70	163.30	2,197.1	-195.8	45.2	76.3	1.09	-1.09	0.00	
2,302.0	7.40	164.30	2,288.4	-206.6	48.4	81.2	0.77	0.76	1.09	
2,396.0	7.90	162.80	2,381.6	-218.6	51.9	86.6	0.57	0.53	-1.60	
2,491.0	7.70	159.40	2,475.7	-230.8	56.1	92.7	0.53	-0.21	-3.58	
2,584.0	7.10	157.50	2,567.9	-242.0	60.5	98.9	0.70	-0.65	-2.04	
2,676.0	8.20	161.00	2,659.1	-253.4	64.8	105.0	1.30	1.20	3.80	
2,770.0	6.90	158.90	2,752.3	-265.0	69.0	111.0	1.41	-1.38	-2.23	
2,864.0	7.90	167.30	2,845.5	-276.6	72.5	116.3	1.56	1.06	8.94	
2,957.0	7.10	166.60	2,937.7	-288.4	75.2	120.9	0.87	-0.86	-0.75	
3,052.0	7.70	162.90	3,031.9	-300.2	78.4	126.0	0.81	0.63	-3.89	
3,147.0	7.60	169.40	3,126.1	-312.5	81.5	131.0	0.92	-0.11	6.84	
3,242.0	7.50	171.70	3,220.3	-324.8	83.5	135.0	0.34	-0.11	2.42	
3,337.0	7.70	165.40	3,314.4	-337.1	86.0	139.5	0.90	0.21	-6.63	
3,432.0	7.40	163.10	3,408.6	-349.1	89.4	144.7	0.45	-0.32	-2.42	
3,526.0	7.70	154.00	3,501.8	-360.5	93.9	151.1	1.31	0.32	-9.68	
3,621.0	7.80	159.90	3,595.9	-372.3	98.9	157.9	0.84	0.11	6.21	
3,714.0	8.00	157.70	3,688.0	-384.2	103.5	164.4	0.39	0.22	-2.37	
3,810.0	8.20	157.30	3,783.1	-396.7	108.7	171.5	0.22	0.21	-0.42	
3,903.0	6.90	165.60	3,875.3	-408.2	112.7	177.3	1.82	-1.40	8.92	
3,997.0	6.70	165.20	3,968.6	-419.0	115.5	181.8	0.22	-0.21	-0.43	
4,092.0	6.40	160.50	4,063.0	-429.4	118.7	186.6	0.65	-0.32	-4.95	
4,185.0	7.10	158.70	4,155.4	-439.6	122.5	192.1	0.79	0.75	-1.94	
4,280.0	7.90	161.00	4,249.5	-451.3	126.7	198.1	0.90	0.84	2.42	
4,374.0	6.90	160.60	4,342.8	-462.7	130.7	203.9	1.07	-1.06	-0.43	
4,468.0	8.00	166.60	4,436.0	-474.4	134.1	209.2	1.43	1.17	6.38	
4,562.0	8.50	164.90	4,529.0	-487.4	137.4	214.6	0.59	0.53	-1.81	
4,655.0	8.00	165.60	4,621.0	-500.4	140.8	220.0	0.55	-0.54	0.75	
4,750.0	8.80	170.80	4,715.0	-513.9	143.6	225.0	1.16	0.84	5.47	
4,844.0	8.40	170.50	4,808.0	-527.8	145.9	229.5	0.43	-0.43	-0.32	
4,937.0	7.60	162.90	4,900.0	-540.4	148.8	234.4	1.42	-0.86	-8.17	
5,029.0	7.00	160.80	4,991.3	-551.5	152.5	239.8	0.71	-0.65	-2.28	
5,124.0	7.40	158.00	5,085.6	-562.6	156.7	245.7	0.56	0.42	-2.95	
5,217.0	8.00	159.10	5,177.7	-574.2	161.2	252.1	0.66	0.65	1.18	
5,311.0	7.90	155.90	5,270.8	-586.2	166.2	259.0	0.48	-0.11	-3.40	
5,405.0	7.60	156.20	5,364.0	-597.8	171.3	265.9	0.32	-0.32	0.32	
5,498.0	7.10	156.20	5,456.2	-608.7	176.1	272.4	0.54	-0.54	0.00	
5,592.0	6.80	164.90	5,549.5	-619.4	179.9	277.9	1.16	-0.32	9.26	
5,686.0	6.80	169.80	5,642.8	-630.2	182.4	282.0	0.62	0.00	5.21	
5,781.0	7.30	171.40	5,737.1	-641.7	184.3	285.8	0.57	0.53	1.68	
5,876.0	6.40	181.70	5,831.4	-653.0	185.0	288.3	1.60	-0.95	10.84	
5,970.0	6.80	175.40	5,924.8	-663.8	185.3	290.4	0.88	0.43	-6.70	
6,063.0	7.10	175.80	6,017.1	-675.0	186.2	293.0	0.33	0.32	0.43	

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Wellbore:	Wellbore #1	Survey Calculation Method:	Minimum Curvature
Design:	Wellbore #1	Database:	Landmark

Survey										
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)	
6,158.0	7.30	162.00	6,111.4	-686.6	188.5	297.2	1.83	0.21	-14.53	
6,252.0	8.90	157.30	6,204.5	-699.0	193.1	303.8	1.84	1.70	-5.00	
6,346.0	8.30	157.30	6,297.4	-712.0	198.5	311.2	0.64	-0.64	0.00	
6,438.0	7.30	154.30	6,388.5	-723.4	203.6	318.1	1.17	-1.09	-3.26	
6,532.0	8.90	153.10	6,481.6	-735.2	209.5	325.8	1.71	1.70	-1.28	
6,628.0	9.60	161.20	6,576.4	-749.4	215.5	334.0	1.54	0.73	8.44	
6,675.0	8.90	158.50	6,622.8	-756.5	218.1	337.7	1.75	-1.49	-5.74	
6,722.0	9.70	148.00	6,669.1	-763.3	221.5	342.2	3.98	1.70	-22.34	
6,769.0	11.20	136.60	6,715.4	-769.9	226.7	348.4	5.42	3.19	-24.26	
6,815.0	13.20	129.00	6,760.3	-776.5	233.9	356.5	5.57	4.35	-16.52	
6,862.0	15.70	120.00	6,805.8	-783.0	243.6	367.2	7.14	5.32	-19.15	
6,909.0	18.60	113.00	6,850.7	-789.2	256.0	380.4	7.56	6.17	-14.89	
6,956.0	21.90	109.00	6,894.8	-794.9	271.2	396.3	7.61	7.02	-8.51	
7,003.0	25.90	106.00	6,937.8	-800.6	289.3	415.2	8.89	8.51	-6.38	
7,050.0	29.50	103.50	6,979.4	-806.2	310.4	436.9	8.05	7.66	-5.32	
7,095.0	33.50	101.40	7,017.8	-811.2	333.4	460.4	9.22	8.89	-4.67	
7,142.0	37.50	100.70	7,056.0	-816.4	360.2	487.7	8.55	8.51	-1.49	
7,189.0	42.10	98.20	7,092.1	-821.3	389.9	517.7	10.36	9.79	-5.32	
7,236.0	46.30	97.00	7,125.8	-825.6	422.3	550.5	9.11	8.94	-2.55	
7,283.0	49.30	96.10	7,157.4	-829.6	456.9	585.2	6.54	6.38	-1.91	
7,330.0	54.00	94.40	7,186.5	-833.0	493.6	622.0	10.39	10.00	-3.62	
7,377.0	58.60	92.80	7,212.6	-835.4	532.6	660.9	10.19	9.79	-3.40	
7,424.0	61.80	92.40	7,236.0	-837.3	573.4	701.4	6.85	6.81	-0.85	
7,471.0	64.90	93.00	7,257.0	-839.2	615.3	743.1	6.69	6.60	1.28	
7,518.0	69.60	91.70	7,275.2	-841.0	658.6	786.1	10.32	10.00	-2.77	
7,564.0	74.00	91.20	7,289.6	-842.1	702.3	829.4	9.62	9.57	-1.09	
7,611.0	77.60	92.10	7,301.1	-843.4	747.8	874.5	7.88	7.66	1.91	
7,659.0	80.40	91.70	7,310.3	-845.0	794.9	921.3	5.89	5.83	-0.83	
7,706.0	83.40	91.20	7,316.9	-846.2	841.4	967.4	6.47	6.38	-1.06	
7,752.0	85.80	90.20	7,321.2	-846.7	887.2	1,012.6	5.65	5.22	-2.17	
7,780.0	86.70	90.20	7,323.0	-846.8	915.1	1,040.2	3.21	3.21	0.00	
7,794.3	86.97	90.13	7,323.8	-846.9	929.4	1,054.3	1.96	1.90	-0.48	
T2 660'FNL & 460'FWL, Sec.32										
7,822.0	87.50	90.00	7,325.2	-846.9	957.1	1,081.6	1.96	1.90	-0.48	
7,850.0	88.90	90.17	7,326.1	-846.9	985.1	1,109.2	5.04	5.00	0.61	
7,944.0	89.87	89.38	7,327.1	-846.6	1,079.1	1,201.9	1.33	1.03	-0.84	
8,038.0	89.69	89.37	7,327.4	-845.5	1,173.1	1,294.5	0.19	-0.19	-0.01	
8,133.0	89.78	90.78	7,327.9	-845.7	1,268.1	1,388.3	1.49	0.09	1.48	
8,227.0	89.87	91.85	7,328.2	-847.8	1,362.0	1,481.4	1.14	0.10	1.14	
8,322.0	88.99	91.67	7,329.1	-850.7	1,457.0	1,575.5	0.95	-0.93	-0.19	
8,416.0	89.52	90.81	7,330.3	-852.8	1,550.9	1,668.6	1.07	0.56	-0.91	
8,510.0	89.43	90.45	7,331.2	-853.8	1,644.9	1,761.5	0.39	-0.10	-0.38	
8,605.0	89.96	90.14	7,331.7	-854.3	1,739.9	1,855.3	0.65	0.56	-0.33	
8,700.0	90.13	89.40	7,331.6	-853.9	1,834.9	1,949.0	0.80	0.18	-0.78	
8,794.0	89.52	88.56	7,331.9	-852.2	1,928.9	2,041.5	1.10	-0.65	-0.89	
8,888.0	88.99	88.32	7,333.1	-849.7	2,022.9	2,133.8	0.62	-0.56	-0.26	
8,982.0	88.11	89.47	7,335.5	-847.9	2,116.8	2,226.2	1.54	-0.94	1.22	
9,077.0	89.52	88.83	7,337.5	-846.5	2,211.8	2,319.7	1.63	1.48	-0.67	
9,171.0	89.52	89.33	7,338.3	-844.9	2,305.8	2,412.2	0.53	0.00	0.53	
9,265.0	89.78	90.83	7,338.8	-845.1	2,399.8	2,505.0	1.62	0.28	1.60	
9,359.0	89.96	90.80	7,339.0	-846.4	2,493.8	2,597.9	0.19	0.19	-0.03	
9,454.0	89.60	90.86	7,339.4	-847.8	2,588.8	2,691.9	0.38	-0.38	0.06	
9,548.0	90.40	90.87	7,339.4	-849.2	2,682.7	2,784.9	0.85	0.85	0.01	
9,593.4	89.93	90.72	7,339.3	-849.8	2,728.2	2,829.8	1.08	-1.03	-0.32	

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Design:	Wellbore #1	Database:	Landmark

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Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
WP1									
9,642.0	89.43	90.57	7,339.5	-850.4	2,776.7	2,877.8	1.08	-1.03	-0.32
9,736.0	89.08	89.64	7,340.8	-850.6	2,870.7	2,970.6	1.06	-0.37	-0.99
9,831.0	89.43	88.21	7,342.0	-848.8	2,965.7	3,064.0	1.55	0.37	-1.51
9,925.0	89.52	88.65	7,342.9	-846.2	3,059.7	3,156.3	0.48	0.10	0.47
10,020.0	90.31	88.98	7,343.0	-844.2	3,154.6	3,249.7	0.90	0.83	0.35
10,114.0	90.48	89.79	7,342.4	-843.2	3,248.6	3,342.3	0.88	0.18	0.86
10,209.0	90.22	90.43	7,341.8	-843.4	3,343.6	3,436.1	0.73	-0.27	0.67
10,303.0	89.43	90.81	7,342.1	-844.4	3,437.6	3,529.0	0.93	-0.84	0.40
10,397.0	89.69	90.52	7,342.8	-845.5	3,531.6	3,621.9	0.41	0.28	-0.31
10,492.0	90.48	89.92	7,342.6	-845.9	3,626.6	3,715.7	1.04	0.83	-0.63
10,586.0	89.34	90.10	7,342.8	-845.9	3,720.6	3,808.5	1.23	-1.21	0.19
10,680.0	89.96	90.19	7,343.4	-846.1	3,814.6	3,901.3	0.67	0.66	0.10
10,775.0	90.48	89.45	7,343.0	-845.8	3,909.6	3,995.0	0.95	0.55	-0.78
10,869.0	89.52	90.21	7,343.0	-845.6	4,003.6	4,087.7	1.30	-1.02	0.81
10,963.0	89.43	90.71	7,343.9	-846.3	4,097.6	4,180.6	0.54	-0.10	0.53
11,058.0	89.69	90.59	7,344.6	-847.4	4,192.6	4,274.5	0.30	0.27	-0.13
11,152.0	89.52	90.41	7,345.2	-848.2	4,286.6	4,367.4	0.26	-0.18	-0.19
11,246.0	89.69	90.70	7,345.9	-849.1	4,380.6	4,460.3	0.36	0.18	0.31
11,340.0	90.13	90.34	7,346.0	-850.0	4,474.6	4,553.1	0.60	0.47	-0.38
11,435.0	90.22	90.10	7,345.7	-850.3	4,569.6	4,647.0	0.27	0.09	-0.25
11,529.0	90.22	89.91	7,345.4	-850.4	4,663.6	4,739.7	0.20	0.00	-0.20
11,634.0	90.84	91.59	7,344.4	-851.7	4,768.5	4,843.5	1.71	0.59	1.60
11,718.0	89.96	92.37	7,343.8	-854.6	4,852.5	4,926.8	1.40	-1.05	0.93
11,812.0	90.04	92.90	7,343.8	-858.9	4,946.4	5,020.2	0.57	0.09	0.56
11,906.0	90.40	93.76	7,343.5	-864.4	5,040.2	5,113.7	0.99	0.38	0.91
11,938.0	90.40	94.66	7,343.2	-866.8	5,072.1	5,145.6	2.81	0.00	2.81
12,022.0	90.40	94.66	7,342.7	-873.6	5,155.9	5,229.3	0.00	0.00	0.00
BHL 660'FNL & 460'FEL, Sec.32									

Checked By: _____	Approved By: _____	Date: _____
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