

Bayswater Exploration & Production, LLC

Well Name: **Arellano N-10-9HN**

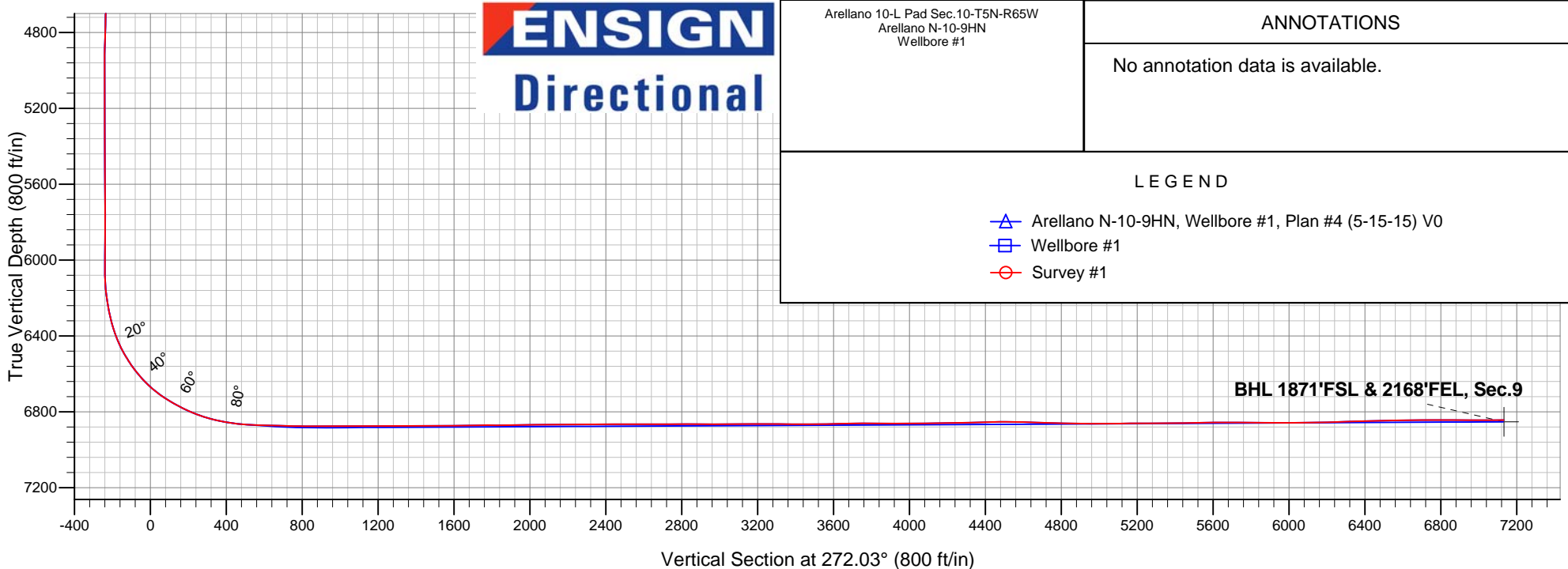
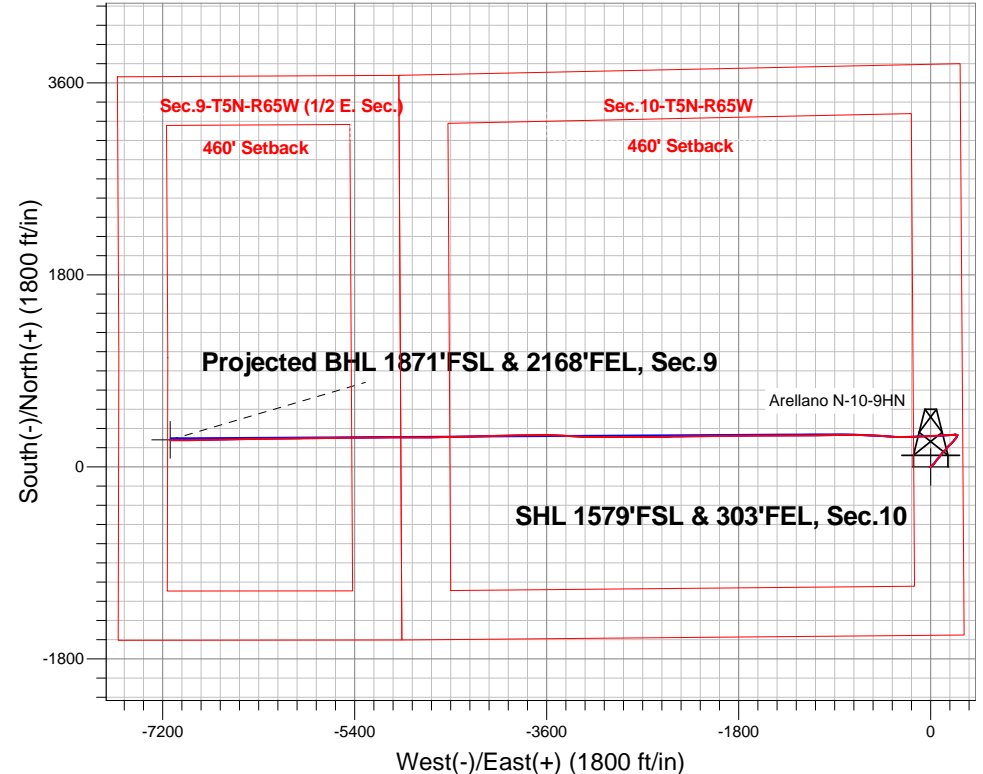
Surface Location: Arellano 10-L Pad Sec.10-T5N-R65W
North American Datum 1983 , US State Plane 1983 , Colorado Northern Zone

Ground Elevation: 4616.0

+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Slot
0.0	0.0	1393699.69	3239166.35	40.410928	-104.641114	
RKB - 22.5' WELL @ 4638.5ft (RKB - 22.5')						

FINAL SURVEY

Projected Bottom Hole Location
13944'MD 6844'TVD 249'N & 7127'W of SHL
90.3 degree Incl @ 269.5 degree AZM





Bayswater Exploration & Production, LLC

SEC.10-T5N-R65W

Arellano 10-L Pad Sec.10-T5N-R65W

Arellano N-10-9HN

Wellbore #1

Survey: Survey #1

Standard Survey Report

19 May, 2015



BAYSWATER
EXPLORATION & PRODUCTION, LLC

Company:	Bayswater Exploration & Production, LLC	Local Co-ordinate Reference:	Well Arellano N-10-9HN
Project:	SEC.10-T5N-R65W	TVD Reference:	WELL @ 4638.5ft (RKB - 22.5')
Site:	Arellano 10-L Pad Sec.10-T5N-R65W	MD Reference:	WELL @ 4638.5ft (RKB - 22.5')
Well:	Arellano N-10-9HN	North Reference:	True
Wellbore:	Wellbore #1	Survey Calculation Method:	Minimum Curvature
Design:	Wellbore #1	Database:	Landmark

Project	SEC.10-T5N-R65W, 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		

Site	Arellano 10-L Pad Sec.10-T5N-R65W		
Site Position:		Northing:	1,393,742.11 ft
From:	Lat/Long	Easting:	3,239,181.53 ft
Position Uncertainty:	0.0 ft	Slot Radius:	"
		Latitude:	40.411044
		Longitude:	-104.641058
		Grid Convergence:	0.55 °

Well	Arellano N-10-9HN		
Well Position	+N/-S	0.0 ft	Northing:
	+E/-W	0.0 ft	Easting:
Position Uncertainty	0.0 ft	Wellhead Elevation:	ft
		Latitude:	40.410928
		Longitude:	-104.641114
		Ground Level:	4,616.0 ft

Wellbore	Wellbore #1		
Magnetics	Model Name	Sample Date	Declination (°)
	IGRF2010	5/15/2015	8.27
			Dip Angle (°)
			66.94
			Field Strength (nT)
			52,739

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)
	0.0	0.0	0.0
			Direction (°)
			272.03

Survey Program	Date	5/19/2015		
From (ft)	To (ft)	Survey (Wellbore)	Tool Name	Description
131.0	13,944.0	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	265.50	1.0	0.0	0.0	0.0	0.38	0.38	0.00	
SHL 1579'FSL & 303'FEL, Sec.10										
131.0	0.50	265.50	131.0	0.0	-0.6	0.6	0.38	0.38	0.00	
223.0	0.90	264.10	223.0	-0.2	-1.7	1.7	0.44	0.43	-1.52	
315.0	0.80	256.10	315.0	-0.4	-3.0	3.0	0.17	-0.11	-8.70	
407.0	0.60	264.20	407.0	-0.6	-4.1	4.1	0.24	-0.22	8.80	
499.0	0.60	244.70	499.0	-0.8	-5.0	5.0	0.22	0.00	-21.20	
591.0	0.60	256.80	591.0	-1.2	-6.0	5.9	0.14	0.00	13.15	
683.0	0.80	242.60	683.0	-1.6	-7.0	6.9	0.29	0.22	-15.43	
745.0	0.70	248.20	745.0	-1.9	-7.7	7.7	0.20	-0.16	9.03	
829.0	0.70	248.90	828.9	-2.3	-8.7	8.6	0.01	0.00	0.83	
925.0	1.50	82.80	924.9	-2.3	-8.0	7.9	2.28	0.83	-173.02	

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

Survey

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1,020.0	2.90	75.60	1,019.9	-1.6	-4.4	4.4	1.50	1.47	-7.58
1,115.0	2.50	48.00	1,114.8	0.4	-0.6	0.6	1.42	-0.42	-29.05
1,208.0	4.20	40.60	1,207.6	4.4	3.2	-3.0	1.88	1.83	-7.96
1,300.0	5.40	54.20	1,299.3	9.4	8.9	-8.5	1.79	1.30	14.78
1,392.0	5.40	53.10	1,390.9	14.6	15.8	-15.3	0.11	0.00	-1.20
1,484.0	4.40	46.80	1,482.5	19.6	21.9	-21.2	1.23	-1.09	-6.85
1,576.0	3.70	36.40	1,574.3	24.4	26.2	-25.3	1.10	-0.76	-11.30
1,668.0	4.90	49.20	1,666.0	29.4	31.0	-29.9	1.66	1.30	13.91
1,760.0	3.80	36.20	1,757.8	34.4	35.7	-34.5	1.60	-1.20	-14.13
1,852.0	4.50	32.50	1,849.5	39.9	39.5	-38.0	0.81	0.76	-4.02
1,944.0	5.30	33.90	1,941.2	46.5	43.8	-42.1	0.88	0.87	1.52
2,036.0	6.20	41.90	2,032.7	53.7	49.5	-47.5	1.31	0.98	8.70
2,128.0	5.90	36.60	2,124.2	61.2	55.6	-53.4	0.69	-0.33	-5.76
2,221.0	6.50	37.30	2,216.7	69.2	61.6	-59.1	0.65	0.65	0.75
2,313.0	6.90	42.70	2,308.1	77.4	68.5	-65.8	0.81	0.43	5.87
2,405.0	8.00	46.10	2,399.3	85.9	76.9	-73.8	1.29	1.20	3.70
2,497.0	7.30	37.80	2,490.5	95.0	85.1	-81.7	1.42	-0.76	-9.02
2,592.0	6.60	30.10	2,584.8	104.5	91.5	-87.8	1.23	-0.74	-8.11
2,687.0	8.40	34.10	2,679.0	114.9	98.2	-94.0	1.97	1.89	4.21
2,783.0	8.70	44.50	2,773.9	125.9	107.2	-102.7	1.64	0.31	10.83
2,878.0	8.00	39.40	2,867.9	136.1	116.4	-111.5	1.07	-0.74	-5.37
2,973.0	7.50	46.40	2,962.0	145.5	125.1	-119.9	1.12	-0.53	7.37
3,068.0	6.00	51.20	3,056.4	152.9	133.5	-128.0	1.69	-1.58	5.05
3,163.0	6.20	37.30	3,150.8	160.1	140.4	-134.7	1.57	0.21	-14.63
3,258.0	5.80	42.60	3,245.3	167.7	146.8	-140.8	0.72	-0.42	5.58
3,354.0	5.10	34.60	3,340.9	174.8	152.5	-146.2	1.07	-0.73	-8.33
3,449.0	5.60	35.50	3,435.5	182.1	157.6	-151.0	0.53	0.53	0.95
3,544.0	6.90	45.70	3,529.9	189.8	164.4	-157.5	1.79	1.37	10.74
3,639.0	6.00	44.80	3,624.3	197.3	172.0	-164.9	0.95	-0.95	-0.95
3,734.0	8.60	45.40	3,718.5	205.8	180.5	-173.1	2.74	2.74	0.63
3,829.0	8.60	45.20	3,812.4	215.8	190.6	-182.8	0.03	0.00	-0.21
3,925.0	8.60	45.20	3,907.4	225.9	200.8	-192.7	0.00	0.00	0.00
4,020.0	6.70	42.20	4,001.5	235.1	209.6	-201.1	2.04	-2.00	-3.16
4,115.0	5.30	37.10	4,096.0	242.7	215.9	-207.2	1.58	-1.47	-5.37
4,210.0	6.50	36.80	4,190.5	250.5	221.8	-212.8	1.26	1.26	-0.32
4,305.0	5.00	43.10	4,285.0	257.8	227.8	-218.6	1.71	-1.58	6.63
4,401.0	5.90	34.60	4,380.6	264.9	233.5	-224.0	1.26	0.94	-8.85
4,496.0	5.00	35.20	4,475.1	272.3	238.7	-228.9	0.95	-0.95	0.63
4,591.0	3.50	31.70	4,569.9	278.2	242.6	-232.6	1.60	-1.58	-3.68
4,686.0	4.50	12.70	4,664.7	284.3	244.9	-234.7	1.73	1.05	-20.00
4,781.0	3.10	21.60	4,759.4	290.3	246.7	-236.2	1.59	-1.47	9.37
4,876.0	3.70	40.60	4,854.3	295.0	249.6	-239.0	1.33	0.63	20.00
4,971.0	1.30	29.40	4,949.2	298.3	252.2	-241.4	2.57	-2.53	-11.79
5,067.0	0.70	258.80	5,045.2	299.1	252.1	-241.4	1.91	-0.63	-136.04
5,162.0	0.40	224.30	5,140.2	298.8	251.3	-240.6	0.46	-0.32	-36.32
5,257.0	0.30	216.10	5,235.2	298.3	250.9	-240.2	0.12	-0.11	-8.63
5,352.0	0.10	326.60	5,330.2	298.2	250.7	-240.0	0.37	-0.21	116.32
5,447.0	0.40	329.80	5,425.2	298.5	250.5	-239.8	0.32	0.32	3.37
5,542.0	0.40	290.40	5,520.2	298.9	250.1	-239.3	0.28	0.00	-41.47
5,637.0	0.70	300.10	5,615.2	299.4	249.2	-238.5	0.33	0.32	10.21
5,732.0	0.30	215.20	5,710.2	299.4	248.6	-237.8	0.78	-0.42	-89.37
5,827.0	0.30	27.60	5,805.2	299.5	248.6	-237.8	0.63	0.00	181.47
5,923.0	0.40	50.30	5,901.2	299.9	248.9	-238.2	0.18	0.10	23.65
6,017.0	0.30	86.30	5,995.2	300.1	249.4	-238.6	0.25	-0.11	38.30

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Well:	Arellano N-10-9HN	North Reference:	True
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)
6,113.0	0.40	282.50	6,091.2	300.2	249.4	-238.6	0.72	0.10	-170.63
6,161.0	4.50	270.40	6,139.1	300.3	247.3	-236.5	8.56	8.54	-25.21
6,208.0	7.30	273.70	6,185.8	300.5	242.5	-231.7	6.00	5.96	7.02
6,256.0	9.80	275.10	6,233.3	301.0	235.4	-224.6	5.23	5.21	2.92
6,303.0	12.00	269.80	6,279.5	301.4	226.5	-215.7	5.14	4.68	-11.28
6,351.0	14.60	266.00	6,326.2	300.9	215.5	-204.7	5.71	5.42	-7.92
6,398.0	17.80	266.00	6,371.3	300.0	202.4	-191.6	6.81	6.81	0.00
6,493.0	26.40	265.60	6,459.2	297.4	166.8	-156.1	9.05	9.05	-0.42
6,588.0	33.90	266.50	6,541.3	294.1	119.2	-108.7	7.91	7.89	0.95
6,684.0	41.00	267.90	6,617.5	291.3	61.0	-50.6	7.45	7.40	1.46
6,779.0	50.50	267.40	6,683.7	288.5	-7.0	17.2	10.01	10.00	-0.53
6,874.0	58.60	267.40	6,738.8	285.0	-84.2	94.3	8.53	8.53	0.00
6,970.0	63.80	268.40	6,785.0	282.0	-168.2	178.1	5.49	5.42	1.04
7,018.0	67.50	268.40	6,804.8	280.7	-212.0	221.8	7.71	7.71	0.00
7,065.0	71.00	270.00	6,821.4	280.1	-255.9	265.7	8.10	7.45	3.40
7,113.0	74.30	270.90	6,835.7	280.5	-301.7	311.4	7.10	6.88	1.88
7,160.0	78.30	272.70	6,846.9	281.9	-347.3	357.1	9.29	8.51	3.83
7,208.0	80.40	274.10	6,855.7	284.7	-394.4	404.3	5.23	4.38	2.92
7,262.0	83.40	273.20	6,863.3	288.1	-447.8	457.7	5.80	5.56	-1.67
7,339.0	87.40	273.50	6,869.5	292.6	-524.4	534.4	5.21	5.19	0.39
7,433.0	89.10	272.10	6,872.4	297.2	-618.2	628.3	2.34	1.81	-1.49
7,527.0	88.20	271.10	6,874.6	299.8	-712.1	722.3	1.43	-0.96	-1.06
7,621.0	90.10	269.30	6,876.0	300.2	-806.1	816.2	2.78	2.02	-1.91
7,713.0	90.10	269.00	6,875.8	298.8	-898.1	908.1	0.33	0.00	-0.33
7,805.0	90.40	268.60	6,875.4	296.9	-990.1	1,000.0	0.54	0.33	-0.43
7,897.0	90.00	268.40	6,875.1	294.5	-1,082.1	1,091.8	0.49	-0.43	-0.22
7,988.0	89.20	269.80	6,875.8	293.0	-1,173.0	1,182.7	1.77	-0.88	1.54
8,080.0	90.90	269.50	6,875.7	292.5	-1,265.0	1,274.6	1.88	1.85	-0.33
8,172.0	90.50	270.50	6,874.6	292.5	-1,357.0	1,366.5	1.17	-0.43	1.09
8,264.0	90.00	269.80	6,874.1	292.7	-1,449.0	1,458.5	0.94	-0.54	-0.76
8,355.0	90.10	270.70	6,874.1	293.1	-1,540.0	1,549.4	1.00	0.11	0.99
8,445.0	91.20	269.80	6,873.0	293.5	-1,630.0	1,639.4	1.58	1.22	-1.00
8,536.0	90.70	269.30	6,871.5	292.8	-1,721.0	1,730.3	0.78	-0.55	-0.55
8,628.0	89.70	269.00	6,871.2	291.4	-1,813.0	1,822.2	1.13	-1.09	-0.33
8,720.0	90.50	269.10	6,871.1	289.9	-1,905.0	1,914.0	0.88	0.87	0.11
8,812.0	91.50	269.80	6,869.5	289.0	-1,996.9	2,005.9	1.33	1.09	0.76
8,904.0	90.70	269.50	6,867.7	288.4	-2,088.9	2,097.8	0.93	-0.87	-0.33
8,995.0	90.20	268.60	6,867.0	286.9	-2,179.9	2,188.7	1.13	-0.55	-0.99
9,086.0	90.00	269.30	6,866.8	285.3	-2,270.9	2,279.6	0.80	-0.22	0.77
9,178.0	90.50	269.80	6,866.4	284.5	-2,362.9	2,371.5	0.77	0.54	0.54
9,269.0	89.60	268.40	6,866.3	283.1	-2,453.9	2,462.4	1.83	-0.99	-1.54
9,361.0	90.00	269.10	6,866.7	281.1	-2,545.9	2,554.2	0.88	0.43	0.76
9,453.0	90.60	270.00	6,866.2	280.4	-2,637.9	2,646.1	1.18	0.65	0.98
9,544.0	90.00	269.50	6,865.7	280.0	-2,728.8	2,737.1	0.86	-0.66	-0.55
9,636.0	90.30	270.50	6,865.5	280.0	-2,820.8	2,829.0	1.13	0.33	1.09
9,728.0	89.30	270.40	6,865.8	280.7	-2,912.8	2,921.0	1.09	-1.09	-0.11
9,820.0	90.30	269.80	6,866.1	280.9	-3,004.8	3,012.9	1.27	1.09	-0.65
9,912.0	90.90	270.00	6,865.1	280.7	-3,096.8	3,104.8	0.69	0.65	0.22
10,004.0	90.00	269.80	6,864.4	280.6	-3,188.8	3,196.8	1.00	-0.98	-0.22
10,096.0	89.00	272.60	6,865.2	282.5	-3,280.8	3,288.7	3.23	-1.09	3.04
10,188.0	89.90	274.10	6,866.1	287.9	-3,372.6	3,380.7	1.90	0.98	1.63
10,280.0	90.20	273.00	6,866.0	293.6	-3,464.5	3,472.7	1.24	0.33	-1.20
10,372.0	91.10	271.80	6,865.0	297.4	-3,556.4	3,564.7	1.63	0.98	-1.30
10,466.0	91.50	269.50	6,862.8	298.5	-3,650.3	3,658.6	2.48	0.43	-2.45

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10,561.0	90.10	269.00	6,861.5	297.2	-3,745.3	3,753.5	1.56	-1.47	-0.53
10,655.0	89.40	268.30	6,861.9	295.0	-3,839.3	3,847.3	1.05	-0.74	-0.74
10,749.0	90.70	269.30	6,861.8	293.0	-3,933.3	3,941.2	1.74	1.38	1.06
10,843.0	89.80	268.80	6,861.4	291.5	-4,027.2	4,035.0	1.10	-0.96	-0.53
10,938.0	90.50	267.90	6,861.2	288.7	-4,122.2	4,129.8	1.20	0.74	-0.95
11,032.0	91.50	269.10	6,859.5	286.3	-4,216.1	4,223.6	1.66	1.06	1.28
11,126.0	91.70	268.30	6,856.9	284.2	-4,310.1	4,317.4	0.88	0.21	-0.85
11,221.0	91.50	269.80	6,854.3	282.6	-4,405.0	4,412.3	1.59	-0.21	1.58
11,315.0	89.60	268.40	6,853.4	281.1	-4,499.0	4,506.1	2.51	-2.02	-1.49
11,410.0	89.00	267.70	6,854.5	277.9	-4,593.9	4,600.9	0.97	-0.63	-0.74
11,504.0	87.80	269.80	6,857.1	275.8	-4,687.9	4,694.7	2.57	-1.28	2.23
11,598.0	87.90	269.80	6,860.7	275.5	-4,781.8	4,788.6	0.11	0.11	0.00
11,692.0	89.30	270.50	6,863.0	275.7	-4,875.8	4,882.5	1.67	1.49	0.74
11,786.0	90.90	270.20	6,862.8	276.3	-4,969.8	4,976.4	1.73	1.70	-0.32
11,880.0	90.40	269.70	6,861.7	276.2	-5,063.8	5,070.4	0.75	-0.53	-0.53
11,975.0	90.20	268.60	6,861.2	274.8	-5,158.8	5,165.3	1.18	-0.21	-1.16
12,069.0	90.30	269.10	6,860.8	272.9	-5,252.7	5,259.1	0.54	0.11	0.53
12,163.0	90.30	270.00	6,860.3	272.2	-5,346.7	5,353.0	0.96	0.00	0.96
12,258.0	90.90	270.50	6,859.3	272.6	-5,441.7	5,448.0	0.82	0.63	0.53
12,352.0	90.80	269.80	6,858.0	272.9	-5,535.7	5,541.9	0.75	-0.11	-0.74
12,446.0	90.30	269.00	6,857.0	271.9	-5,629.7	5,635.8	1.00	-0.53	-0.85
12,540.0	90.10	268.30	6,856.7	269.7	-5,723.7	5,729.6	0.77	-0.21	-0.74
12,635.0	88.70	269.80	6,857.7	268.1	-5,818.7	5,824.5	2.16	-1.47	1.58
12,730.0	90.30	268.10	6,858.5	266.3	-5,913.6	5,919.4	2.46	1.68	-1.79
12,824.0	90.20	270.20	6,858.1	265.0	-6,007.6	6,013.2	2.24	-0.11	2.23
12,918.0	91.30	270.40	6,856.9	265.4	-6,101.6	6,107.2	1.19	1.17	0.21
13,012.0	90.60	267.90	6,855.3	264.0	-6,195.6	6,201.0	2.76	-0.74	-2.66
13,107.0	92.00	269.50	6,853.2	261.9	-6,290.5	6,295.8	2.24	1.47	1.68
13,202.0	92.20	268.60	6,849.7	260.3	-6,385.4	6,390.7	0.97	0.21	-0.95
13,296.0	91.50	269.00	6,846.7	258.4	-6,479.4	6,484.5	0.86	-0.74	0.43
13,391.0	89.80	268.60	6,845.6	256.4	-6,574.3	6,579.3	1.84	-1.79	-0.42
13,485.0	91.00	269.30	6,844.9	254.6	-6,668.3	6,673.2	1.48	1.28	0.74
13,580.0	90.40	269.30	6,843.8	253.5	-6,763.3	6,768.0	0.63	-0.63	0.00
13,674.0	89.80	268.80	6,843.6	251.9	-6,857.3	6,861.9	0.83	-0.64	-0.53
13,768.0	89.70	269.30	6,844.0	250.4	-6,951.3	6,955.8	0.54	-0.11	0.53
13,861.0	90.00	270.00	6,844.3	249.8	-7,044.3	7,048.7	0.82	0.32	0.75
13,889.0	90.30	269.50	6,844.2	249.7	-7,072.3	7,076.7	2.08	1.07	-1.79
13,944.0	90.30	269.50	6,843.9	249.2	-7,127.3	7,131.6	0.00	0.00	0.00

BHL 1875'FSL & 2170'FEL, Sec.9

Checked By: _____ Approved By: _____ Date: _____