ENSIGN Directional

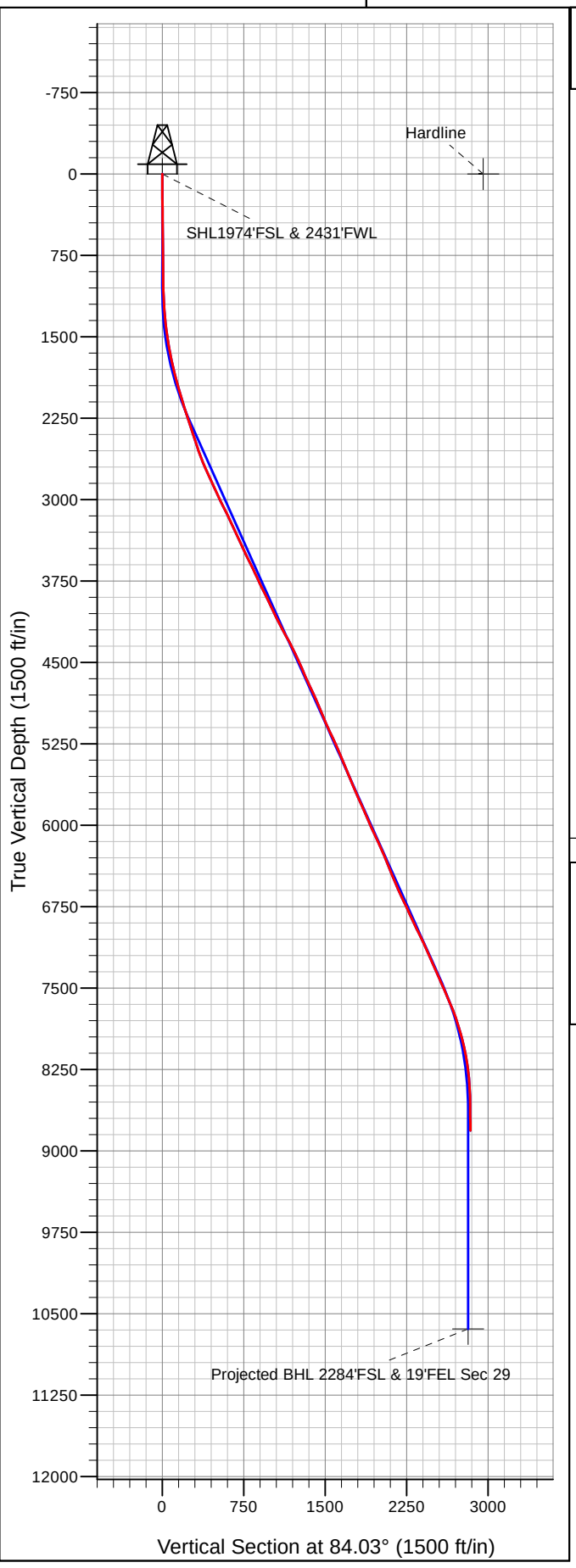
Well Name: NGL C5A

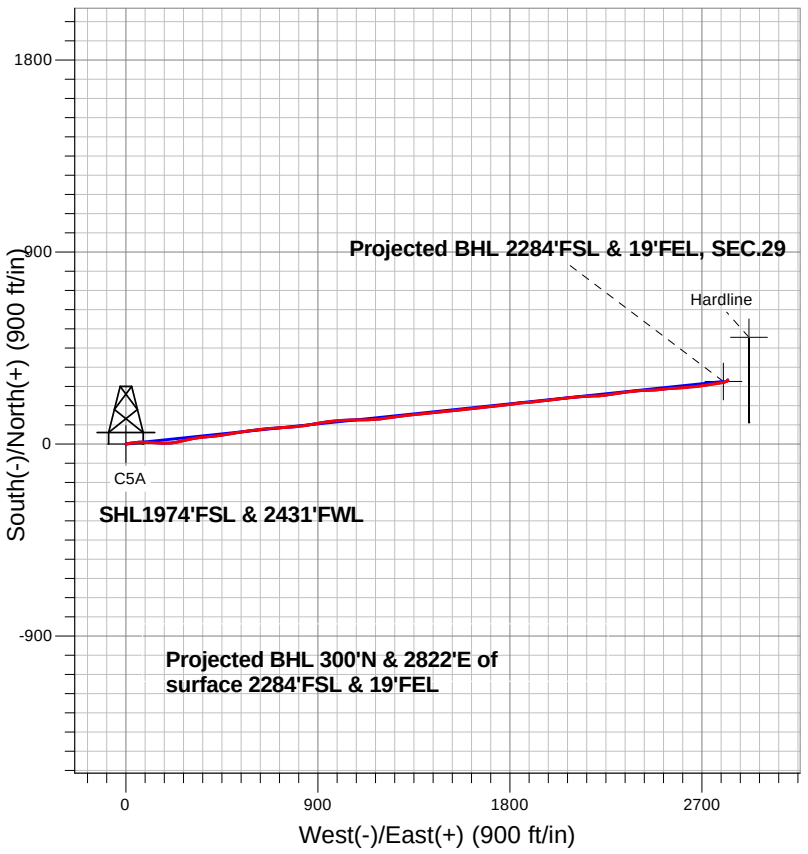
Surface Location: NGL C5A Pad Sec.29-T2N-R64W
North American Datum 1983 US State Plane 1983 Colorado Northern Zone
Ground Elevation: 4937.0

+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Slot
0.0	0.0	1283435.68	3258549.59	40.107724	-104.575638	

Original Well Elev RKB @ 4957.0ft (Original Well Elev)

NGL Water Solutions DJ, LLC





LEGEND

- C5A, Wellbore #1, Plan 3 (Oct 1, 2015) V0
- Wellbore #1
- Survey #1

Final Survey Plot

**Projected Final Survey -
9385'MD & 8812'TVD @
1.2 deg Inc 9.6 deg AZ**

Project: SEC.29-T2N-R64W
Site: NGL C5A Pad Sec.29-T2N-R64W
Well: C5A
Plan: Wellbore #1

ENSIGN Directional

NGL Water Solutions DJ, LLC

SEC.29-T2N-R64W
NGL C5A Pad Sec.29-T2N-R64
W C5A

Wellbore #1

Survey: Survey #1

Standard Survey Report

09 October, 2015

Company:	NGL Water Solutions DJ, LLC	**Local Co-ordinate Reference:**	Well C5A
Project:	SEC.29-T2N-R64W	**TVD Reference:**	RKB @ 4953.0ft (Original Well Elev)
Site:	NGL C5A Pad Sec.29-T2N-R64	**MD Reference:**	RKB @ 4953.0ft (Original Well Elev)
Well:	W C5A	**North Reference:**	True
Wellbore:	Wellbore #1	**Survey Calculation Method:**	Minimum Curvature
Design:	Wellbore #1	**Database:**	US_EDM

Project SEC.29-T2N-R64W

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 NGL C5A Pad Sec.29-T2N-R64W

Site Position:		**Northing:**	1,281,681.39 usft	**Latitude:**	40.102965
From:	Lat/Long	**Easting:**	3,256,564.90 usft	**Longitude:**	-104.582798
Position Uncertainty:	0.0 ft	**Slot Radius:**	13-3/16 "	**Grid Convergence:**	0.59 °

Well C5A

Well Position	**+N/-S**	0.0 ft	**Northing:**	1,283,435.68 usft	**Latitude:**	40.107724
	+E/-W	0.0 ft	**Easting:**	3,258,549.60 usft	**Longitude:**	-104.575638
Position Uncertainty		0.0 ft	**Wellhead Elevation:**	0.0 ft	**Ground Level:**	4,937.0 ft

Wellbore Wellbore #1

Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	HDGM	9/24/2015	8.38	66.63	52,411

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	84.03

Survey Program **Date** 10/9/2015

From (ft)	To (ft)	Survey (Wellbore)	Tool Name	Description
136.0	9,385.0	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 (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.00	0.00	0.00
10.3	0.03	83.50	10.3	0.0	0.0	0.0	0.29	0.29	0.00
Hardline									
136.0	0.40	83.50	136.0	0.1	0.5	0.5	0.29	0.29	0.00
227.0	0.60	116.30	227.0	-0.1	1.2	1.2	0.38	0.22	36.04
320.0	0.40	81.30	320.0	-0.3	2.0	1.9	0.38	-0.22	-37.63
412.0	0.40	62.30	412.0	-0.1	2.6	2.6	0.14	0.00	-20.65
504.0	0.40	85.40	504.0	0.1	3.2	3.2	0.17	0.00	25.11
577.0	0.50	70.10	577.0	0.2	3.7	3.7	0.21	0.14	-20.96
661.0	0.80	80.50	661.0	0.4	4.7	4.7	0.38	0.36	12.38
748.0	0.80	61.60	748.0	0.8	5.8	5.8	0.30	0.00	-21.72

Company:	NGL Water Solutions DJ, LLC	**Local Co-ordinate Reference:**	Well C5A
Project:	SEC.29-T2N-R64W	**TVD Reference:**	RKB @ 4957.0ft (Original Well Elev)
Site:	NGL C5A Pad Sec.29-T2N-R64	**MD Reference:**	RKB @ 4957.0ft (Original Well Elev)
Well:	W C5A	**North Reference:**	True
Wellbore:	Wellbore #1	**Survey Calculation Method:**	Minimum Curvature
Design:	Wellbore #1	**Database:**	US_EDM

Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
833.0	0.90	81.90	833.0	1.2	7.0	7.1	0.37	0.12	23.88
920.0	0.60	66.20	920.0	1.5	8.1	8.2	0.41	-0.34	-18.05
987.0	0.50	94.30	987.0	1.6	8.7	8.8	0.42	-0.15	41.94
1,059.0	0.50	88.00	1,058.9	1.6	9.3	9.4	0.08	0.00	-8.75
1,144.0	2.70	90.50	1,143.9	1.6	11.7	11.8	2.59	2.59	2.94
1,229.0	4.00	74.60	1,228.8	2.4	16.5	16.7	1.87	1.53	-18.71
1,314.0	5.30	80.30	1,313.5	3.8	23.3	23.5	1.62	1.53	6.71
1,399.0	6.90	83.80	1,398.0	5.0	32.2	32.6	1.93	1.88	4.12
1,484.0	8.20	81.90	1,482.3	6.4	43.3	43.7	1.56	1.53	-2.24
1,569.0	9.20	84.80	1,566.3	7.9	56.1	56.6	1.28	1.18	3.41
1,653.0	10.60	90.30	1,649.0	8.5	70.5	71.0	2.01	1.67	6.55
1,738.0	12.50	92.80	1,732.3	8.0	87.5	87.8	2.31	2.24	2.94
1,823.0	14.20	93.30	1,815.0	6.9	107.1	107.2	2.00	2.00	0.59
1,910.0	15.20	92.60	1,899.2	5.8	129.1	129.0	1.17	1.15	-0.80
1,995.0	16.10	92.60	1,981.0	4.7	152.0	151.7	1.06	1.06	0.00
2,080.0	17.30	92.20	2,062.4	3.7	176.4	175.9	1.42	1.41	-0.47
2,165.0	17.90	87.50	2,143.4	3.8	202.1	201.4	1.81	0.71	-5.53
2,250.0	17.80	80.10	2,224.4	6.6	228.0	227.4	2.67	-0.12	-8.71
2,335.0	17.40	77.10	2,305.4	11.7	253.2	253.0	1.17	-0.47	-3.53
2,420.0	17.80	76.40	2,386.4	17.6	278.2	278.5	0.53	0.47	-0.82
2,507.0	18.40	78.90	2,469.1	23.3	304.6	305.3	1.13	0.69	2.87
2,594.0	20.30	81.20	2,551.2	28.3	333.0	334.1	2.35	2.18	2.64
2,679.0	21.10	84.70	2,630.7	32.0	362.8	364.1	1.73	0.94	4.12
2,764.0	23.80	85.50	2,709.3	34.7	395.1	396.6	3.20	3.18	0.94
2,849.0	25.10	82.60	2,786.6	38.4	430.1	431.7	2.08	1.53	-3.41
2,936.0	24.70	80.30	2,865.5	43.8	466.3	468.3	1.20	-0.46	-2.64
3,021.0	24.20	80.30	2,942.9	49.8	501.0	503.4	0.59	-0.59	0.00
3,106.0	26.50	80.80	3,019.7	55.7	536.9	539.8	2.72	2.71	0.59
3,191.0	26.60	82.60	3,095.8	61.2	574.5	577.7	0.95	0.12	2.12
3,275.0	25.60	83.30	3,171.2	65.8	611.1	614.7	1.25	-1.19	0.83
3,362.0	24.70	84.50	3,250.0	69.7	647.9	651.6	1.19	-1.03	1.38
3,447.0	24.40	84.30	3,327.3	73.1	683.1	687.0	0.37	-0.35	-0.24
3,532.0	24.80	87.10	3,404.6	75.8	718.3	722.3	1.45	0.47	3.29
3,617.0	25.50	86.80	3,481.5	77.7	754.4	758.4	0.84	0.82	-0.35
3,704.0	26.60	83.80	3,559.7	80.9	792.5	796.6	1.97	1.26	-3.45
3,793.0	25.80	82.40	3,639.5	85.6	831.5	835.9	1.14	-0.90	-1.57
3,879.0	24.70	79.60	3,717.3	91.3	867.7	872.5	1.89	-1.28	-3.26
3,964.0	25.80	79.90	3,794.2	97.7	903.4	908.6	1.30	1.29	0.35
4,048.0	26.10	82.40	3,869.7	103.4	939.7	945.3	1.35	0.36	2.98
4,136.0	26.10	84.70	3,948.7	107.7	978.2	984.1	1.15	0.00	2.61
4,221.0	25.60	87.10	4,025.2	110.4	1,015.1	1,021.1	1.36	-0.59	2.82
4,306.0	25.80	88.40	4,101.8	111.8	1,051.9	1,057.9	0.70	0.24	1.53
4,393.0	28.40	89.20	4,179.3	112.7	1,091.6	1,097.4	3.02	2.99	0.92

Company:	NGL Water Solutions DJ, LLC	**Local Co-ordinate Reference:**	Well C5A
Project:	SEC.29-T2N-R64W	**TVD Reference:**	RKB @ 4957.0ft (Original Well Elev)
Site:	NGL C5A Pad Sec.29-T2N-R64	**MD Reference:**	RKB @ 4957.0ft (Original Well Elev)
Well:	W C5A	**North Reference:**	True
Wellbore:	Wellbore #1	**Survey Calculation Method:**	Minimum Curvature
Design:	Wellbore #1	**Database:**	US_EDM

Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
4,478.0	29.60	87.80	4,253.6	113.7	1,132.8	1,138.4	1.62	1.41	-1.65
4,563.0	27.30	86.10	4,328.4	115.9	1,173.2	1,178.9	2.87	-2.71	-2.00
4,648.0	25.80	81.50	4,404.4	119.9	1,210.9	1,216.8	2.99	-1.76	-5.41
4,733.0	24.40	81.70	4,481.4	125.2	1,246.6	1,252.9	1.65	-1.65	0.24
4,818.0	23.20	83.40	4,559.1	129.7	1,280.6	1,287.1	1.63	-1.41	2.00
4,903.0	23.80	84.00	4,637.1	133.4	1,314.3	1,321.0	0.76	0.71	0.71
4,988.0	25.30	83.80	4,714.4	137.1	1,349.4	1,356.4	1.77	1.76	-0.24
5,073.0	25.10	83.10	4,791.3	141.3	1,385.4	1,392.5	0.42	-0.24	-0.82
5,160.0	23.10	84.00	4,870.7	145.3	1,420.7	1,428.1	2.34	-2.30	1.03
5,245.0	22.10	84.50	4,949.2	148.5	1,453.2	1,460.7	1.20	-1.18	0.59
5,330.0	23.60	85.20	5,027.5	151.5	1,486.0	1,493.7	1.79	1.76	0.82
5,415.0	24.40	84.70	5,105.2	154.5	1,520.5	1,528.3	0.97	0.94	-0.59
5,502.0	24.90	84.00	5,184.2	158.1	1,556.6	1,564.6	0.67	0.57	-0.80
5,587.0	24.40	83.30	5,261.5	162.0	1,591.8	1,600.0	0.68	-0.59	-0.82
5,673.0	22.80	82.00	5,340.3	166.4	1,626.0	1,634.5	1.96	-1.86	-1.51
5,758.0	21.90	83.60	5,418.9	170.5	1,658.0	1,666.8	1.28	-1.06	1.88
5,843.0	22.50	85.40	5,497.6	173.6	1,690.0	1,698.9	1.07	0.71	2.12
5,928.0	22.40	83.80	5,576.2	176.6	1,722.3	1,731.3	0.73	-0.12	-1.88
6,013.0	23.00	83.80	5,654.6	180.2	1,754.9	1,764.1	0.71	0.71	0.00
6,099.0	24.70	82.90	5,733.2	184.2	1,789.4	1,798.9	2.02	1.98	-1.05
6,184.0	24.30	81.90	5,810.6	188.8	1,824.4	1,834.1	0.68	-0.47	-1.18
6,269.0	23.30	85.00	5,888.4	192.8	1,858.4	1,868.4	1.88	-1.18	3.65
6,354.0	23.10	87.00	5,966.5	195.1	1,891.8	1,901.9	0.96	-0.24	2.35
6,439.0	24.20	82.00	6,044.4	198.4	1,925.8	1,935.9	2.69	1.29	-5.88
6,523.0	25.70	82.00	6,120.5	203.3	1,960.8	1,971.4	1.79	1.79	0.00
6,608.0	24.40	82.90	6,197.5	208.1	1,996.5	2,007.3	1.59	-1.53	1.06
6,696.0	23.10	83.30	6,278.1	212.3	2,031.7	2,042.8	1.49	-1.48	0.45
6,781.0	21.80	83.80	6,356.6	216.0	2,064.0	2,075.2	1.55	-1.53	0.59
6,866.0	21.60	85.00	6,435.6	219.1	2,095.2	2,106.7	0.57	-0.24	1.41
6,952.0	22.70	87.10	6,515.3	221.3	2,127.6	2,139.1	1.58	1.28	2.44
7,037.0	24.40	88.40	6,593.2	222.6	2,161.5	2,172.9	2.09	2.00	1.53
7,122.0	25.90	86.40	6,670.1	224.3	2,197.6	2,209.0	2.03	1.76	-2.35
7,207.0	25.00	84.00	6,746.9	227.3	2,234.0	2,245.5	1.61	-1.06	-2.82
7,292.0	24.50	81.30	6,824.1	231.8	2,269.3	2,281.1	1.45	-0.59	-3.18
7,376.0	25.40	81.00	6,900.2	237.3	2,304.3	2,316.5	1.08	1.07	-0.36
7,461.0	27.30	82.60	6,976.4	242.7	2,341.6	2,354.2	2.39	2.24	1.88
7,546.0	24.50	83.60	7,052.8	247.1	2,378.5	2,391.3	3.33	-3.29	1.18
7,631.0	24.00	87.00	7,130.3	250.0	2,413.2	2,426.2	1.74	-0.59	4.00
7,716.0	23.90	88.20	7,208.0	251.4	2,447.7	2,460.6	0.59	-0.12	1.41
7,803.0	24.90	84.50	7,287.3	253.8	2,483.6	2,496.5	2.10	1.15	-4.25
7,890.0	24.20	84.80	7,366.4	257.1	2,519.6	2,532.6	0.82	-0.80	0.34
7,975.0	22.60	85.90	7,444.4	259.9	2,553.2	2,566.4	1.95	-1.88	1.29
8,060.0	23.40	86.10	7,522.6	262.2	2,586.3	2,599.6	0.95	0.94	0.24

Company:	NGL Water Solutions DJ, LLC	**Local Co-ordinate Reference:**	Well C5A
Project:	SEC.29-T2N-R64W	**TVD Reference:**	RKB @ 4957.0ft (Original Well Elev)
Site:	NGL C5A Pad Sec.29-T2N-R64	**MD Reference:**	RKB @ 4957.0ft (Original Well Elev)
Well:	W C5A	**North Reference:**	True
Wellbore:	Wellbore #1	**Survey Calculation Method:**	Minimum Curvature
Design:	Wellbore #1	**Database:**	US_EDM

Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
8,145.0	23.30	85.70	7,600.7	264.6	2,619.9	2,633.2	0.22	-0.12	-0.47
8,230.0	22.80	84.30	7,678.9	267.5	2,653.1	2,666.5	0.87	-0.59	-1.65
8,314.0	19.20	82.20	7,757.3	271.0	2,683.0	2,696.6	4.38	-4.29	-2.50
8,399.0	17.10	81.70	7,838.1	274.7	2,709.2	2,723.1	2.48	-2.47	-0.59
8,484.0	15.60	81.00	7,919.6	278.3	2,732.9	2,747.0	1.78	-1.76	-0.82
8,568.0	13.90	82.70	8,000.9	281.3	2,754.0	2,768.3	2.09	-2.02	2.02
8,653.0	12.10	81.00	8,083.7	284.0	2,772.9	2,787.4	2.16	-2.12	-2.00
8,738.0	9.30	79.90	8,167.2	286.6	2,788.5	2,803.2	3.30	-3.29	-1.29
8,823.0	7.30	77.30	8,251.3	289.0	2,800.5	2,815.4	2.39	-2.35	-3.06
8,908.0	4.40	71.30	8,335.9	291.2	2,808.9	2,824.0	3.48	-3.41	-7.06
8,993.0	3.80	70.80	8,420.6	293.2	2,814.6	2,829.9	0.71	-0.71	-0.59
9,078.0	1.90	56.70	8,505.5	294.9	2,818.5	2,833.9	2.37	-2.24	-16.59
9,153.0	0.90	38.60	8,580.5	296.1	2,819.9	2,835.4	1.44	-1.33	-24.13
9,238.0	1.00	35.10	8,665.5	297.2	2,820.7	2,836.3	0.14	0.12	-4.12
9,323.0	1.20	9.80	8,750.5	298.7	2,821.3	2,837.1	0.61	0.24	-29.76
9,335.0	1.20	9.60	8,762.5	298.9	2,821.4	2,837.1	0.03	0.00	-1.67
9,385.0	1.20	9.60	8,812.5	300.0	2,821.5	2,837.4	0.00	0.00	0.00
BHL 2277'FSL & 40'FEL Sec 29									

Checked By: _____ Approved By: _____ Date: _____