

EE3

Well Name: **Surprise Unit 03-09H**Surface Location: Surprise Unit 03-09H Pad Sec.9-T6N-R80W
North American Datum 1983 , US State Plane 1983 , Colorado Northern Zone

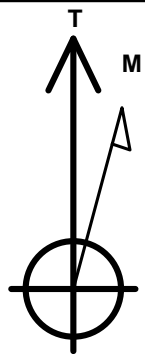
Ground Elevation: 8261.9

+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Slot
0.0	0.0	1429962.32	2754116.91	40.510282	-106.384304	

Original Well Elev WELL @ 8274.9ft (Original Well Elev)

WELLBORE TARGET DETAILS

Name	TVD	+N/-S	+E/-W	Shape
SHL 521'FNL, 1726'FWL, SEC.9	1.0	0.0	0.0	Point
BHL 2594'FSL, 576'FEL, SEC.17	7781.9	-7561.3	-2341.8	Point

Azimuths to True North
Magnetic North: 9.17°Magnetic Field
Strength: 52561.1 snT
Dip Angle: 66.73°
Date: 6/24/2015
Model: IGRF2010Surprise Unit 03-09H Pad Sec.9-T6N-R80W
Surprise Unit 03-09H
Plan #1 (6-24-15)
11:22, June 24 2015

ANNOTATIONS

TVD	MD	Annotation
200.0	200.0	KOP - Start Build 1.50
4026.9	4054.1	Start Drop -1.50
4500.0	4528.5	Start 2804.4 hold at 4528.5 MD
7304.4	7332.9	Start Build 12.00
7781.9	8082.9	Start 6960.7 hold at 8082.9 MD
7781.9	15043.6	TD at 15043.6

South(-)/North(+) (2400 ft/in)

SHL 521'FNL, 1726'FWL, SEC.9

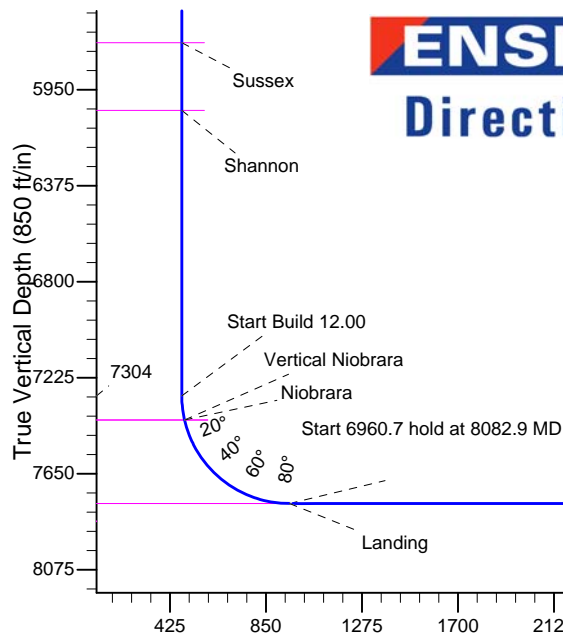
Surprise Unit 03-09H

Rich 21 (D&A)

Surprise Unit 03-09H

BHL 2594'FSL, 576'FEL, SEC.17

West(-)/East(+) (2400 ft/in)



SECTION DETAILS

Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	DLeg	TFace	VSec	Target
1	0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.0	
2	200.0	0.00	0.00	200.0	0.0	0.0	0.00	0.00	0.0	
3	674.4	7.12	197.21	673.2	-28.1	-8.7	1.50	197.21	29.4	
4	4054.1	7.12	197.21	4026.8	-428.0	-132.6	0.00	0.00	448.1	
5	4528.5	0.00	0.00	4500.0	-456.1	-141.3	1.50	180.00	477.5	
6	7332.9	0.00	0.00	7304.4	-456.1	-141.3	0.00	0.00	477.5	
7	8082.9	90.00	197.21	7781.9	-912.2	-282.6	12.00	197.21	955.0	
8	15043.6	90.00	197.21	7781.9	-7561.3	-2341.8	0.00	0.00	7915.6	BHL 2594'FSL, 576'FEL, SEC.17

BHL 2594'FSL, 576'FEL, SEC.17

TD at 15043.6

Vertical Section at 197.21° (850 ft/in)



EE3

SEC.9-T6N-R80W

Surprise Unit 03-09H Pad Sec.9-T6N-R80W

Surprise Unit 03-09H

Wellbore #1

Plan #1 (6-24-15)

Anticollision Report

24 June, 2015

Company:	EE3	Local Co-ordinate Reference:	Well Surprise Unit 03-09H
Project:	SEC.9-T6N-R80W	TVD Reference:	WELL @ 8274.9ft (Original Well Elev)
Reference Site:	Surprise Unit 03-09H Pad Sec.9-T6N-R80W	MD Reference:	WELL @ 8274.9ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Surprise Unit 03-09H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDMNEW
Reference Design:	Plan #1 (6-24-15)	Offset TVD Reference:	Offset Datum

Offset Design		Surprise Unit 03-09H Pad Sec.9-T6N-R80W - Rich 21 (D&A) - Wellbore #1 - Wellbore #1											Offset Site Error: 0.0 ft	
Survey Program: 4500-UNKNOWN													Offset Well Error: 0.0 ft	
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
2,200.0	2,187.0	2,482.1	2,482.1	6.4	49.6	14.75	-1,124.6	-633.7	1,078.4	1,024.1	54.36	19.839		
2,300.0	2,286.3	2,581.4	2,581.4	6.7	51.6	14.92	-1,124.6	-633.7	1,066.4	1,009.9	56.58	18.849		
2,400.0	2,385.5	2,680.6	2,680.6	7.0	53.6	15.09	-1,124.6	-633.7	1,054.5	995.7	58.80	17.933		
2,500.0	2,484.7	2,779.8	2,779.8	7.3	55.6	15.27	-1,124.6	-633.7	1,042.5	981.5	61.02	17.084		
2,600.0	2,584.0	2,879.1	2,879.1	7.7	57.6	15.45	-1,124.6	-633.7	1,030.6	967.3	63.25	16.295		
2,700.0	2,683.2	2,978.3	2,978.3	8.0	59.6	15.63	-1,124.6	-633.7	1,018.6	953.2	65.47	15.559		
2,800.0	2,782.4	3,077.5	3,077.5	8.3	61.6	15.82	-1,124.6	-633.7	1,006.7	939.0	67.69	14.872		
2,900.0	2,881.6	3,176.7	3,176.7	8.7	63.5	16.02	-1,124.6	-633.7	994.8	924.9	69.92	14.228		
3,000.0	2,980.9	3,276.0	3,276.0	9.0	65.5	16.22	-1,124.6	-633.7	982.9	910.7	72.14	13.624		
3,100.0	3,080.1	3,375.2	3,375.2	9.3	67.5	16.42	-1,124.6	-633.7	971.0	896.6	74.37	13.057		
3,200.0	3,179.3	3,474.4	3,474.4	9.6	69.5	16.63	-1,124.6	-633.7	959.1	882.5	76.59	12.522		
3,300.0	3,278.6	3,573.7	3,573.7	10.0	71.5	16.84	-1,124.6	-633.7	947.2	868.4	78.82	12.018		
3,400.0	3,377.8	3,672.9	3,672.9	10.3	73.5	17.06	-1,124.6	-633.7	935.4	854.3	81.05	11.541		
3,500.0	3,477.0	3,772.1	3,772.1	10.6	75.4	17.29	-1,124.6	-633.7	923.5	840.2	83.28	11.090		
3,600.0	3,576.2	3,871.3	3,871.3	11.0	77.4	17.52	-1,124.6	-633.7	911.7	826.2	85.50	10.663		
3,700.0	3,675.5	3,970.6	3,970.6	11.3	79.4	17.76	-1,124.6	-633.7	899.9	812.1	87.73	10.257		
3,800.0	3,774.7	4,069.8	4,069.8	11.6	81.4	18.00	-1,124.6	-633.7	888.1	798.1	89.97	9.871		
3,900.0	3,873.9	4,169.0	4,169.0	11.9	83.4	18.25	-1,124.6	-633.7	876.3	784.1	92.20	9.505		
4,000.0	3,973.2	4,268.3	4,268.3	12.3	85.4	18.51	-1,124.6	-633.7	864.5	770.1	94.43	9.155		
4,054.1	4,026.8	4,321.9	4,321.9	12.4	86.4	18.65	-1,124.6	-633.7	858.2	762.5	95.64	8.973		
4,100.0	4,072.4	4,367.5	4,367.5	12.6	87.4	18.74	-1,124.6	-633.7	853.0	756.3	96.76	8.816		
4,200.0	4,171.9	4,467.0	4,467.0	12.8	89.3	18.91	-1,124.6	-633.7	843.7	744.5	99.14	8.510		
4,284.0	4,255.7	4,500.0	4,500.0	12.9	90.0	18.95	-1,124.6	-633.7	839.3	739.2	100.08	8.386 CC, ES		
4,300.0	4,271.7	4,500.0	4,500.0	13.0	90.0	18.95	-1,124.6	-633.7	839.5	739.3	100.12	8.384 SF		
4,400.0	4,371.6	4,500.0	4,500.0	13.1	90.0	19.00	-1,124.6	-633.7	848.9	748.5	100.39	8.456		
4,500.0	4,471.5	4,500.0	4,500.0	13.3	90.0	19.12	-1,124.6	-633.7	872.2	771.6	100.58	8.671		
4,528.5	4,500.0	4,500.0	4,500.0	13.3	90.0	-143.63	-1,124.6	-633.7	881.2	781.0	100.26	8.790		
4,600.0	4,571.5	4,500.0	4,500.0	13.4	90.0	-143.63	-1,124.6	-633.7	907.7	807.3	100.39	9.041		
4,700.0	4,671.5	4,500.0	4,500.0	13.5	90.0	-143.63	-1,124.6	-633.7	952.5	851.9	100.56	9.471		
4,800.0	4,771.5	4,500.0	4,500.0	13.7	90.0	-143.63	-1,124.6	-633.7	1,005.3	904.5	100.74	9.979		
4,900.0	4,871.5	4,500.0	4,500.0	13.8	90.0	-143.63	-1,124.6	-633.7	1,064.8	963.9	100.91	10.552		
5,000.0	4,971.5	4,500.0	4,500.0	14.0	90.0	-143.63	-1,124.6	-633.7	1,130.1	1,029.0	101.09	11.179		
5,100.0	5,071.5	4,500.0	4,500.0	14.1	90.0	-143.63	-1,124.6	-633.7	1,200.2	1,098.9	101.27	11.852		
5,200.0	5,171.5	4,500.0	4,500.0	14.2	90.0	-143.63	-1,124.6	-633.7	1,274.3	1,172.9	101.45	12.561		
5,300.0	5,271.5	4,500.0	4,500.0	14.4	90.0	-143.63	-1,124.6	-633.7	1,351.7	1,250.1	101.63	13.300		
5,400.0	5,371.5	4,500.0	4,500.0	14.5	90.0	-143.63	-1,124.6	-633.7	1,432.0	1,330.1	101.81	14.064		
5,500.0	5,471.5	4,500.0	4,500.0	14.7	90.0	-143.63	-1,124.6	-633.7	1,514.5	1,412.5	102.00	14.849		
5,600.0	5,571.5	4,500.0	4,500.0	14.8	90.0	-143.63	-1,124.6	-633.7	1,599.1	1,496.9	102.18	15.649		
5,700.0	5,671.5	4,500.0	4,500.0	15.0	90.0	-143.63	-1,124.6	-633.7	1,685.4	1,583.0	102.37	16.463		
5,800.0	5,771.5	4,500.0	4,500.0	15.1	90.0	-143.63	-1,124.6	-633.7	1,773.1	1,670.5	102.56	17.288		
5,900.0	5,871.5	4,500.0	4,500.0	15.3	90.0	-143.63	-1,124.6	-633.7	1,862.0	1,759.3	102.75	18.122		
6,000.0	5,971.5	4,500.0	4,500.0	15.4	90.0	-143.63	-1,124.6	-633.7	1,952.0	1,849.1	102.94	18.963		
6,100.0	6,071.5	4,500.0	4,500.0	15.6	90.0	-143.63	-1,124.6	-633.7	2,043.0	1,939.8	103.13	19.809		
6,200.0	6,171.5	4,500.0	4,500.0	15.8	90.0	-143.63	-1,124.6	-633.7	2,134.7	2,031.4	103.33	20.660		
6,300.0	6,271.5	4,500.0	4,500.0	15.9	90.0	-143.63	-1,124.6	-633.7	2,227.2	2,123.7	103.52	21.515		
6,400.0	6,371.5	4,500.0	4,500.0	16.1	90.0	-143.63	-1,124.6	-633.7	2,320.3	2,216.6	103.72	22.372		
6,500.0	6,471.5	4,500.0	4,500.0	16.2	90.0	-143.63	-1,124.6	-633.7	2,413.9	2,310.0	103.91	23.231		
6,600.0	6,571.5	4,500.0	4,500.0	16.4	90.0	-143.63	-1,124.6	-633.7	2,508.1	2,404.0	104.11	24.091		
6,700.0	6,671.5	4,500.0	4,500.0	16.6	90.0	-143.63	-1,124.6	-633.7	2,602.6	2,498.3	104.31	24.952		
6,800.0	6,771.5	4,500.0	4,500.0	16.7	90.0	-143.63	-1,124.6	-633.7	2,697.6	2,593.1	104.50	25.814		
6,900.0	6,871.5	4,500.0	4,500.0	16.9	90.0	-143.63	-1,124.6	-633.7	2,792.9	2,688.2	104.70	26.675		
7,000.0	6,971.5	4,500.0	4,500.0	17.1	90.0	-143.63	-1,124.6	-633.7	2,888.5	2,783.6	104.90	27.536		

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

Company:	EE3	Local Co-ordinate Reference:	Well Surprise Unit 03-09H
Project:	SEC.9-T6N-R80W	TVD Reference:	WELL @ 8274.9ft (Original Well Elev)
Reference Site:	Surprise Unit 03-09H Pad Sec.9-T6N-R80W	MD Reference:	WELL @ 8274.9ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Surprise Unit 03-09H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDMNEW
Reference Design:	Plan #1 (6-24-15)	Offset TVD Reference:	Offset Datum

Offset Design													Offset Site Error:	0.0 ft
Survey Program: 4500-UNKNOWN													Offset Well Error:	0.0 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
7,100.0	7,071.5	4,500.0	4,500.0	17.3	90.0	-143.63	-1,124.6	-633.7	2,984.5	2,879.4	105.10	28.396		
7,200.0	7,171.5	4,500.0	4,500.0	17.4	90.0	-143.63	-1,124.6	-633.7	3,080.6	2,975.3	105.30	29.255		
7,300.0	7,271.5	4,500.0	4,500.0	17.6	90.0	-143.63	-1,124.6	-633.7	3,177.1	3,071.6	105.51	30.113		
7,332.9	7,304.4	4,500.0	4,500.0	17.7	90.0	-143.63	-1,124.6	-633.7	3,208.8	3,103.3	105.57	30.395		
7,350.0	7,321.5	4,500.0	4,500.0	17.7	90.0	16.94	-1,124.6	-633.7	3,225.3	3,119.5	105.75	30.498		
7,375.0	7,346.5	4,500.0	4,500.0	17.8	90.0	14.47	-1,124.6	-633.7	3,249.0	3,143.5	105.50	30.798		
7,400.0	7,371.3	4,500.0	4,500.0	17.8	90.0	12.64	-1,124.6	-633.7	3,272.3	3,167.4	104.98	31.170		
7,425.0	7,396.0	4,500.0	4,500.0	17.9	90.0	11.23	-1,124.6	-633.7	3,295.2	3,191.0	104.21	31.621		
7,450.0	7,420.4	4,500.0	4,500.0	18.0	90.0	10.12	-1,124.6	-633.7	3,317.6	3,214.4	103.17	32.157		
7,475.0	7,444.4	4,500.0	4,500.0	18.1	90.0	9.22	-1,124.6	-633.7	3,339.4	3,237.5	101.86	32.783		
7,500.0	7,468.1	4,500.0	4,500.0	18.2	90.0	8.48	-1,124.6	-633.7	3,360.6	3,260.3	100.29	33.508		
7,525.0	7,491.4	4,500.0	4,500.0	18.4	90.0	7.87	-1,124.6	-633.7	3,381.1	3,282.7	98.47	34.338		
7,550.0	7,514.1	4,500.0	4,500.0	18.5	90.0	7.35	-1,124.6	-633.7	3,401.0	3,304.6	96.38	35.286		
7,575.0	7,536.3	4,500.0	4,500.0	18.7	90.0	6.91	-1,124.6	-633.7	3,420.1	3,326.0	94.05	36.363		
7,600.0	7,557.8	4,500.0	4,500.0	18.9	90.0	6.53	-1,124.6	-633.7	3,438.4	3,346.9	91.48	37.585		
7,625.0	7,578.7	4,500.0	4,500.0	19.0	90.0	6.20	-1,124.6	-633.7	3,455.9	3,367.2	88.68	38.970		
7,650.0	7,598.7	4,500.0	4,500.0	19.2	90.0	5.92	-1,124.6	-633.7	3,472.6	3,386.9	85.66	40.541		
7,675.0	7,618.0	4,500.0	4,500.0	19.4	90.0	5.67	-1,124.6	-633.7	3,488.3	3,405.9	82.42	42.325		
7,700.0	7,636.4	4,500.0	4,500.0	19.7	90.0	5.46	-1,124.6	-633.7	3,503.2	3,424.2	78.97	44.358		
7,725.0	7,653.9	4,500.0	4,500.0	19.9	90.0	5.27	-1,124.6	-633.7	3,517.1	3,441.7	75.34	46.683		
7,750.0	7,670.5	4,500.0	4,500.0	20.1	90.0	5.11	-1,124.6	-633.7	3,530.0	3,458.5	71.53	49.353		
7,775.0	7,686.0	4,500.0	4,500.0	20.4	90.0	4.96	-1,124.6	-633.7	3,541.9	3,474.4	67.55	52.437		
7,800.0	7,700.5	4,500.0	4,500.0	20.7	90.0	4.84	-1,124.6	-633.7	3,552.8	3,489.4	63.41	56.027		
7,825.0	7,713.9	4,500.0	4,500.0	20.9	90.0	4.73	-1,124.6	-633.7	3,562.7	3,503.5	59.14	60.238		
7,850.0	7,726.2	4,500.0	4,500.0	21.2	90.0	4.64	-1,124.6	-633.7	3,571.5	3,516.7	54.75	65.227		
7,875.0	7,737.3	4,500.0	4,500.0	21.5	90.0	4.56	-1,124.6	-633.7	3,579.2	3,529.0	50.26	71.208		
7,900.0	7,747.3	4,500.0	4,500.0	21.8	90.0	4.50	-1,124.6	-633.7	3,585.9	3,540.2	45.69	78.477		
7,925.0	7,756.0	4,500.0	4,500.0	22.1	90.0	4.44	-1,124.6	-633.7	3,591.4	3,550.3	41.07	87.456		
7,950.0	7,763.5	4,500.0	4,500.0	22.5	90.0	4.40	-1,124.6	-633.7	3,595.8	3,559.4	36.41	98.756		
7,975.0	7,769.8	4,500.0	4,500.0	22.8	90.0	4.37	-1,124.6	-633.7	3,599.1	3,567.4	31.77	113.277		
8,000.0	7,774.7	4,500.0	4,500.0	23.1	90.0	4.35	-1,124.6	-633.7	3,601.3	3,574.1	27.22	132.321		
8,025.0	7,778.4	4,500.0	4,500.0	23.5	90.0	4.34	-1,124.6	-633.7	3,602.4	3,579.5	22.87	157.482		
8,050.0	7,780.8	4,500.0	4,500.0	23.8	90.0	4.34	-1,124.6	-633.7	3,602.3	3,583.2	19.08	188.839		
8,075.0	7,781.8	4,500.0	4,500.0	24.2	90.0	4.35	-1,124.6	-633.7	3,601.1	3,584.4	16.73	215.237		
8,082.9	7,781.9	4,500.0	4,500.0	24.3	90.0	4.36	-1,124.6	-633.7	3,600.5	3,583.9	16.55	217.602		
8,100.0	7,781.9	4,500.0	4,500.0	24.5	90.0	4.36	-1,124.6	-633.7	3,599.1	3,582.5	16.59	216.927		
8,200.0	7,781.9	4,500.0	4,500.0	26.0	90.0	4.36	-1,124.6	-633.7	3,592.4	3,575.5	16.88	212.789		
8,300.0	7,781.9	4,500.0	4,500.0	27.5	90.0	4.36	-1,124.6	-633.7	3,588.5	3,571.3	17.22	208.401		
8,389.7	7,781.9	4,500.0	4,500.0	28.9	90.0	4.36	-1,124.6	-633.7	3,587.4	3,569.8	17.56	204.310		
8,400.0	7,781.9	4,500.0	4,500.0	29.1	90.0	4.36	-1,124.6	-633.7	3,587.4	3,569.8	17.60	203.860		
8,500.0	7,781.9	4,500.0	4,500.0	30.7	90.0	4.36	-1,124.6	-633.7	3,589.1	3,571.1	18.01	199.255		
8,600.0	7,781.9	4,500.0	4,500.0	32.3	90.0	4.36	-1,124.6	-633.7	3,593.5	3,575.1	18.46	194.659		
8,700.0	7,781.9	4,500.0	4,500.0	34.0	90.0	4.36	-1,124.6	-633.7	3,600.8	3,581.8	18.94	190.132		
8,800.0	7,781.9	4,500.0	4,500.0	35.7	90.0	4.36	-1,124.6	-633.7	3,610.8	3,591.3	19.44	185.720		
8,900.0	7,781.9	4,500.0	4,500.0	37.4	90.0	4.36	-1,124.6	-633.7	3,623.5	3,603.5	19.97	181.458		
9,000.0	7,781.9	4,500.0	4,500.0	39.1	90.0	4.36	-1,124.6	-633.7	3,638.9	3,618.4	20.52	177.370		
9,100.0	7,781.9	4,500.0	4,500.0	40.9	90.0	4.36	-1,124.6	-633.7	3,657.0	3,635.9	21.08	173.473		
9,200.0	7,781.9	4,500.0	4,500.0	42.6	90.0	4.36	-1,124.6	-633.7	3,677.7	3,656.1	21.66	169.776		
9,300.0	7,781.9	4,500.0	4,500.0	44.4	90.0	4.36	-1,124.6	-633.7	3,701.1	3,678.8	22.26	166.282		
9,400.0	7,781.9	4,500.0	4,500.0	46.2	90.0	4.36	-1,124.6	-633.7	3,726.9	3,704.0	22.87	162.991		
9,500.0	7,781.9	4,500.0	4,500.0	48.0	90.0	4.36	-1,124.6	-633.7	3,755.3	3,731.8	23.48	159.901		
9,600.0	7,781.9	4,500.0	4,500.0	49.8	90.0	4.36	-1,124.6	-633.7	3,786.0	3,761.9	24.11	157.004		

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

Company:	EE3	Local Co-ordinate Reference:	Well Surprise Unit 03-09H
Project:	SEC.9-T6N-R80W	TVD Reference:	WELL @ 8274.9ft (Original Well Elev)
Reference Site:	Surprise Unit 03-09H Pad Sec.9-T6N-R80W	MD Reference:	WELL @ 8274.9ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Surprise Unit 03-09H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDMNEW
Reference Design:	Plan #1 (6-24-15)	Offset TVD Reference:	Offset Datum

Offset Design													Offset Site Error:	0.0 ft
Survey Program: 4500-UNKNOWN													Offset Well Error:	0.0 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
9,700.0	7,781.9	4,500.0	4,500.0	51.6	90.0	4.36	-1,124.6	-633.7	3,819.2	3,794.4	24.75	154.295		
9,800.0	7,781.9	4,500.0	4,500.0	53.4	90.0	4.36	-1,124.6	-633.7	3,854.6	3,829.2	25.40	151.765		
9,900.0	7,781.9	4,500.0	4,500.0	55.3	90.0	4.36	-1,124.6	-633.7	3,892.3	3,866.3	26.05	149.406		
10,000.0	7,781.9	4,500.0	4,500.0	57.1	90.0	4.36	-1,124.6	-633.7	3,932.2	3,905.5	26.71	147.208		
10,100.0	7,781.9	4,500.0	4,500.0	58.9	90.0	4.36	-1,124.6	-633.7	3,974.2	3,946.8	27.38	145.161		
10,200.0	7,781.9	4,500.0	4,500.0	60.8	90.0	4.36	-1,124.6	-633.7	4,018.2	3,990.2	28.05	143.258		
10,300.0	7,781.9	4,500.0	4,500.0	62.6	90.0	4.36	-1,124.6	-633.7	4,064.3	4,035.6	28.72	141.490		
10,400.0	7,781.9	4,500.0	4,500.0	64.5	90.0	4.36	-1,124.6	-633.7	4,112.2	4,082.8	29.41	139.846		
10,500.0	7,781.9	4,500.0	4,500.0	66.3	90.0	4.36	-1,124.6	-633.7	4,162.0	4,131.9	30.09	138.320		
10,600.0	7,781.9	4,500.0	4,500.0	68.2	90.0	4.36	-1,124.6	-633.7	4,213.6	4,182.8	30.78	136.904		
10,700.0	7,781.9	4,500.0	4,500.0	70.1	90.0	4.36	-1,124.6	-633.7	4,266.9	4,235.4	31.47	135.590		
10,800.0	7,781.9	4,500.0	4,500.0	71.9	90.0	4.36	-1,124.6	-633.7	4,321.9	4,289.7	32.16	134.371		
10,900.0	7,781.9	4,500.0	4,500.0	73.8	90.0	4.36	-1,124.6	-633.7	4,378.4	4,345.6	32.86	133.240		
11,000.0	7,781.9	4,500.0	4,500.0	75.7	90.0	4.36	-1,124.6	-633.7	4,436.5	4,403.0	33.56	132.192		
11,100.0	7,781.9	4,500.0	4,500.0	77.5	90.0	4.36	-1,124.6	-633.7	4,496.1	4,461.8	34.26	131.220		
11,200.0	7,781.9	4,500.0	4,500.0	79.4	90.0	4.36	-1,124.6	-633.7	4,557.1	4,522.1	34.97	130.320		
11,300.0	7,781.9	4,500.0	4,500.0	81.3	90.0	4.36	-1,124.6	-633.7	4,619.4	4,583.7	35.68	129.486		
11,400.0	7,781.9	4,500.0	4,500.0	83.2	90.0	4.36	-1,124.6	-633.7	4,683.0	4,646.7	36.38	128.713		
11,500.0	7,781.9	4,500.0	4,500.0	85.0	90.0	4.36	-1,124.6	-633.7	4,747.9	4,710.8	37.09	127.997		
11,600.0	7,781.9	4,500.0	4,500.0	86.9	90.0	4.36	-1,124.6	-633.7	4,814.0	4,776.2	37.81	127.335		
11,700.0	7,781.9	4,500.0	4,500.0	88.8	90.0	4.36	-1,124.6	-633.7	4,881.3	4,842.8	38.52	126.721		
11,800.0	7,781.9	4,500.0	4,500.0	90.7	90.0	4.36	-1,124.6	-633.7	4,949.7	4,910.4	39.24	126.154		
11,900.0	7,781.9	4,500.0	4,500.0	92.6	90.0	4.36	-1,124.6	-633.7	5,019.1	4,979.1	39.95	125.629		
12,000.0	7,781.9	4,500.0	4,500.0	94.5	90.0	4.36	-1,124.6	-633.7	5,089.5	5,048.9	40.67	125.144		
12,100.0	7,781.9	4,500.0	4,500.0	96.3	90.0	4.36	-1,124.6	-633.7	5,160.9	5,119.5	41.39	124.696		
12,200.0	7,781.9	4,500.0	4,500.0	98.2	90.0	4.36	-1,124.6	-633.7	5,233.3	5,191.2	42.11	124.282		
12,300.0	7,781.9	4,500.0	4,500.0	100.1	90.0	4.36	-1,124.6	-633.7	5,306.5	5,263.7	42.83	123.900		
12,400.0	7,781.9	4,500.0	4,500.0	102.0	90.0	4.36	-1,124.6	-633.7	5,380.7	5,337.1	43.55	123.547		
12,500.0	7,781.9	4,500.0	4,500.0	103.9	90.0	4.36	-1,124.6	-633.7	5,455.6	5,411.3	44.27	123.222		
12,600.0	7,781.9	4,500.0	4,500.0	105.8	90.0	4.36	-1,124.6	-633.7	5,531.3	5,486.3	45.00	122.923		
12,700.0	7,781.9	4,500.0	4,500.0	107.7	90.0	4.36	-1,124.6	-633.7	5,607.8	5,562.1	45.72	122.647		
12,800.0	7,781.9	4,500.0	4,500.0	109.6	90.0	4.36	-1,124.6	-633.7	5,685.0	5,638.6	46.45	122.394		
12,900.0	7,781.9	4,500.0	4,500.0	111.5	90.0	4.36	-1,124.6	-633.7	5,763.0	5,715.8	47.17	122.161		
13,000.0	7,781.9	4,500.0	4,500.0	113.4	90.0	4.36	-1,124.6	-633.7	5,841.6	5,793.7	47.90	121.948		
13,100.0	7,781.9	4,500.0	4,500.0	115.3	90.0	4.36	-1,124.6	-633.7	5,920.8	5,872.2	48.63	121.753		
13,200.0	7,781.9	4,500.0	4,500.0	117.2	90.0	4.36	-1,124.6	-633.7	6,000.7	5,951.3	49.36	121.575		
13,300.0	7,781.9	4,500.0	4,500.0	119.1	90.0	4.36	-1,124.6	-633.7	6,081.1	6,031.0	50.09	121.412		
13,400.0	7,781.9	4,500.0	4,500.0	121.0	90.0	4.36	-1,124.6	-633.7	6,162.1	6,111.3	50.82	121.263		
13,500.0	7,781.9	4,500.0	4,500.0	122.9	90.0	4.36	-1,124.6	-633.7	6,243.7	6,192.2	51.55	121.129		
13,600.0	7,781.9	4,500.0	4,500.0	124.8	90.0	4.36	-1,124.6	-633.7	6,325.8	6,273.5	52.28	121.007		
13,700.0	7,781.9	4,500.0	4,500.0	126.7	90.0	4.36	-1,124.6	-633.7	6,408.4	6,355.4	53.01	120.897		
13,800.0	7,781.9	4,500.0	4,500.0	128.6	90.0	4.36	-1,124.6	-633.7	6,491.5	6,437.8	53.74	120.797		
13,900.0	7,781.9	4,500.0	4,500.0	130.5	90.0	4.36	-1,124.6	-633.7	6,575.1	6,520.6	54.47	120.709		
14,000.0	7,781.9	4,500.0	4,500.0	132.4	90.0	4.36	-1,124.6	-633.7	6,659.1	6,603.9	55.20	120.630		
14,100.0	7,781.9	4,500.0	4,500.0	134.3	90.0	4.36	-1,124.6	-633.7	6,743.6	6,687.7	55.94	120.559		
14,200.0	7,781.9	4,500.0	4,500.0	136.2	90.0	4.36	-1,124.6	-633.7	6,828.5	6,771.8	56.67	120.498		
14,300.0	7,781.9	4,500.0	4,500.0	138.1	90.0	4.36	-1,124.6	-633.7	6,913.8	6,856.4	57.40	120.444		
14,400.0	7,781.9	4,500.0	4,500.0	140.0	90.0	4.36	-1,124.6	-633.7	6,999.5	6,941.3	58.14	120.397		
14,500.0	7,781.9	4,500.0	4,500.0	141.9	90.0	4.36	-1,124.6	-633.7	7,085.5	7,026.6	58.87	120.357		
14,600.0	7,781.9	4,500.0	4,500.0	143.8	90.0	4.36	-1,124.6	-633.7	7,171.9	7,112.3	59.61	120.324		
14,700.0	7,781.9	4,500.0	4,500.0	145.7	90.0	4.36	-1,124.6	-633.7	7,258.7	7,198.4	60.34	120.296		
14,800.0	7,781.9	4,500.0	4,500.0	147.6	90.0	4.36	-1,124.6	-633.7	7,345.8	7,284.7	61.08	120.274		

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

Company:	EE3	Local Co-ordinate Reference:	Well Surprise Unit 03-09H
Project:	SEC.9-T6N-R80W	TVD Reference:	WELL @ 8274.9ft (Original Well Elev)
Reference Site:	Surprise Unit 03-09H Pad Sec.9-T6N-R80W	MD Reference:	WELL @ 8274.9ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Surprise Unit 03-09H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDMNEW
Reference Design:	Plan #1 (6-24-15)	Offset TVD Reference:	Offset Datum

Offset Design Surprise Unit 03-09H Pad Sec.9-T6N-R80W - Rich 21 (D&A) - Wellbore #1 - Wellbore #1												Offset Site Error:	0.0 ft
Survey Program: 4500-UNKNOWN												Offset Well Error:	0.0 ft
Reference	Offset	Semi Major Axis		Distance									
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Warning
14,900.0	7,781.9	4,500.0	4,500.0	149.5	90.0	4.36	-1,124.6	-633.7	7,433.2	7,371.4	61.81	120.258	
15,000.0	7,781.9	4,500.0	4,500.0	151.4	90.0	4.36	-1,124.6	-633.7	7,521.0	7,458.4	62.55	120.246	
15,043.6	7,781.9	4,500.0	4,500.0	152.2	90.0	4.36	-1,124.6	-633.7	7,559.3	7,496.4	62.87	120.242	

Company:	EE3	Local Co-ordinate Reference:	Well Surprise Unit 03-09H
Project:	SEC.9-T6N-R80W	TVD Reference:	WELL @ 8274.9ft (Original Well Elev)
Reference Site:	Surprise Unit 03-09H Pad Sec.9-T6N-R80W	MD Reference:	WELL @ 8274.9ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Surprise Unit 03-09H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDMNEW
Reference Design:	Plan #1 (6-24-15)	Offset TVD Reference:	Offset Datum

Offset Design													Offset Site Error:	0.0 ft
Survey Program: 0-MWD													Offset Well Error:	0.0 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
0.0	0.0	1.2	1.2	0.0	0.0	66.28	20.0	45.6	49.8	49.8	0.00	N/A		
100.0	100.0	101.2	101.2	0.1	0.1	66.28	20.0	45.6	49.8	49.6	0.23	218.992		
200.0	200.0	201.2	201.2	0.3	0.3	66.28	20.0	45.6	49.8	49.1	0.68	73.579 CC, ES		
300.0	300.0	301.2	301.2	0.5	0.6	-132.05	20.0	45.6	50.7	49.6	1.10	45.873		
400.0	399.9	401.1	401.1	0.7	0.8	-135.15	20.0	45.6	53.4	51.9	1.53	34.820		
500.0	499.7	500.9	500.9	1.0	1.0	-139.64	20.0	45.6	58.2	56.2	1.98	29.392		
600.0	599.3	600.5	600.5	1.2	1.2	-144.76	20.0	45.6	65.5	63.0	2.44	26.840		
674.4	673.2	674.4	674.4	1.4	1.4	-148.57	20.0	45.6	72.6	69.8	2.78	26.073		
700.0	698.6	699.8	699.8	1.5	1.5	-149.83	20.0	45.6	75.3	72.4	2.90	25.956		
800.0	797.8	799.0	799.0	1.8	1.7	-153.96	20.0	45.6	86.3	82.9	3.36	25.669		
900.0	897.0	898.2	898.2	2.1	1.9	-157.15	20.0	45.6	97.6	93.7	3.82	25.546		
1,000.0	996.3	997.5	997.5	2.4	2.1	-159.68	20.0	45.6	109.1	104.8	4.28	25.507		
1,100.0	1,095.5	1,096.7	1,096.7	2.8	2.4	-161.72	20.0	45.6	120.8	116.1	4.73	25.512		
1,200.0	1,194.7	1,195.9	1,195.9	3.1	2.6	-163.40	20.0	45.6	132.6	127.4	5.19	25.540		
1,300.0	1,294.0	1,295.2	1,295.2	3.4	2.8	-164.80	20.0	45.6	144.5	138.9	5.65	25.579		
1,400.0	1,393.2	1,394.4	1,394.4	3.7	3.0	-165.99	20.0	45.6	156.5	150.4	6.11	25.622		
1,500.0	1,492.4	1,493.6	1,493.6	4.1	3.2	-167.01	20.0	45.6	168.6	162.0	6.57	25.667		
1,600.0	1,591.7	1,592.9	1,592.9	4.4	3.5	-167.89	20.0	45.6	180.7	173.7	7.03	25.712		
1,700.0	1,690.9	1,692.1	1,692.1	4.7	3.7	-168.66	20.0	45.6	192.8	185.3	7.49	25.755		
1,800.0	1,790.1	1,791.3	1,791.3	5.0	3.9	-169.34	20.0	45.6	205.0	197.0	7.95	25.796		
1,900.0	1,889.3	1,890.5	1,890.5	5.4	4.1	-169.95	20.0	45.6	217.2	208.8	8.41	25.834		
2,000.0	1,988.6	1,989.8	1,989.8	5.7	4.4	-170.49	20.0	45.6	229.4	220.5	8.87	25.871		
2,100.0	2,087.8	2,089.0	2,089.0	6.0	4.6	-170.97	20.0	45.6	241.6	232.3	9.33	25.905		
2,200.0	2,187.0	2,188.2	2,188.2	6.4	4.8	-171.41	20.0	45.6	253.8	244.1	9.79	25.937		
2,300.0	2,286.3	2,287.5	2,287.5	6.7	5.0	-171.81	20.0	45.6	266.1	255.9	10.25	25.967		
2,400.0	2,385.5	2,386.7	2,386.7	7.0	5.3	-172.17	20.0	45.6	278.4	267.7	10.71	25.995		
2,500.0	2,484.7	2,485.9	2,485.9	7.3	5.5	-172.50	20.0	45.6	290.6	279.5	11.17	26.022		
2,600.0	2,584.0	2,585.2	2,585.2	7.7	5.7	-172.81	20.0	45.6	302.9	291.3	11.63	26.047		
2,700.0	2,683.2	2,684.4	2,684.4	8.0	5.9	-173.09	20.0	45.6	315.2	303.1	12.09	26.070		
2,800.0	2,782.4	2,783.6	2,783.6	8.3	6.1	-173.35	20.0	45.6	327.5	315.0	12.55	26.092		
2,900.0	2,881.6	2,882.8	2,882.8	8.7	6.4	-173.59	20.0	45.6	339.8	326.8	13.01	26.112		
3,000.0	2,980.9	2,982.1	2,982.1	9.0	6.6	-173.82	20.0	45.6	352.2	338.7	13.48	26.132		
3,100.0	3,080.1	3,081.3	3,081.3	9.3	6.8	-174.03	20.0	45.6	364.5	350.5	13.94	26.150		
3,200.0	3,179.3	3,180.5	3,180.5	9.6	7.0	-174.22	20.0	45.6	376.8	362.4	14.40	26.167		
3,300.0	3,278.6	3,279.8	3,279.8	10.0	7.3	-174.41	20.0	45.6	389.1	374.3	14.86	26.183		
3,400.0	3,377.8	3,379.0	3,379.0	10.3	7.5	-174.58	20.0	45.6	401.5	386.1	15.32	26.199		
3,500.0	3,477.0	3,478.2	3,478.2	10.6	7.7	-174.74	20.0	45.6	413.8	398.0	15.79	26.214		
3,600.0	3,576.2	3,577.4	3,577.4	11.0	7.9	-174.89	20.0	45.6	426.1	409.9	16.25	26.227		
3,700.0	3,675.5	3,676.7	3,676.7	11.3	8.2	-175.04	20.0	45.6	438.5	421.8	16.71	26.241		
3,800.0	3,774.7	3,775.9	3,775.9	11.6	8.4	-175.17	20.0	45.6	450.8	433.6	17.17	26.253		
3,900.0	3,873.9	3,875.1	3,875.1	11.9	8.6	-175.30	20.0	45.6	463.2	445.5	17.63	26.265		
4,000.0	3,973.2	3,974.4	3,974.4	12.3	8.8	-175.43	20.0	45.6	475.5	457.4	18.10	26.276		
4,054.1	4,026.8	4,028.0	4,028.0	12.4	8.9	-175.49	20.0	45.6	482.2	463.8	18.35	26.282		
4,100.0	4,072.4	4,073.6	4,073.6	12.6	9.0	-175.55	20.0	45.6	487.6	469.0	18.56	26.274		
4,200.0	4,171.9	4,173.1	4,173.1	12.8	9.3	-175.65	20.0	45.6	497.4	478.5	18.98	26.207		
4,300.0	4,271.7	4,272.9	4,272.9	13.0	9.5	-175.72	20.0	45.6	504.7	485.3	19.39	26.027		
4,400.0	4,371.6	4,372.8	4,372.8	13.1	9.7	-175.76	20.0	45.6	509.4	489.6	19.79	25.742		
4,500.0	4,471.5	4,472.7	4,472.7	13.3	9.9	-175.78	20.0	45.6	511.4	491.2	20.17	25.358		
4,528.5	4,500.0	4,501.2	4,501.2	13.3	10.0	21.43	20.0	45.6	511.5	491.1	20.43	25.040		
4,600.0	4,571.5	4,572.7	4,572.7	13.4	10.2	21.43	20.0	45.6	511.5	490.8	20.72	24.685		
4,700.0	4,671.5	4,672.7	4,672.7	13.5	10.4	21.43	20.0	45.6	511.5	490.4	21.12	24.224		
4,800.0	4,771.5	4,772.7	4,772.7	13.7	10.6	21.43	20.0	45.6	511.5	490.0	21.51	23.778		

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

Company:	EE3	Local Co-ordinate Reference:	Well Surprise Unit 03-09H
Project:	SEC.9-T6N-R80W	TVD Reference:	WELL @ 8274.9ft (Original Well Elev)
Reference Site:	Surprise Unit 03-09H Pad Sec.9-T6N-R80W	MD Reference:	WELL @ 8274.9ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Surprise Unit 03-09H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDMNEW
Reference Design:	Plan #1 (6-24-15)	Offset TVD Reference:	Offset Datum

Offset Design		Surprise Unit 03-09H Pad Sec.9-T6N-R80W - Surprise Unit 06-09H - Wellbore #1 - Plan #1 (6-24-15)										Offset Site Error:		0.0 ft
Survey Program: 0-MWD												Offset Well Error:		0.0 ft
Reference		Offset		Semi Major Axis		Highside Toolface (°)	Distance						Warning	
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)		Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
4,900.0	4,871.5	4,872.7	4,872.7	13.8	10.8	21.43	20.0	45.6	511.5	489.6	21.91	23.347		
5,000.0	4,971.5	4,972.7	4,972.7	14.0	11.1	21.43	20.0	45.6	511.5	489.2	22.31	22.928		
5,100.0	5,071.5	5,072.7	5,072.7	14.1	11.3	21.43	20.0	45.6	511.5	488.8	22.71	22.523		
5,200.0	5,171.5	5,172.7	5,172.7	14.2	11.5	21.43	20.0	45.6	511.5	488.4	23.11	22.130		
5,300.0	5,271.5	5,272.7	5,272.7	14.4	11.7	21.43	20.0	45.6	511.5	488.0	23.52	21.749		
5,400.0	5,371.5	5,372.7	5,372.7	14.5	12.0	21.43	20.0	45.6	511.5	487.6	23.92	21.380		
5,500.0	5,471.5	5,472.7	5,472.7	14.7	12.2	21.43	20.0	45.6	511.5	487.2	24.33	21.022		
5,600.0	5,571.5	5,572.7	5,572.7	14.8	12.4	21.43	20.0	45.6	511.5	486.8	24.74	20.674		
5,700.0	5,671.5	5,672.7	5,672.7	15.0	12.6	21.43	20.0	45.6	511.5	486.4	25.15	20.337		
5,800.0	5,771.5	5,772.7	5,772.7	15.1	12.9	21.43	20.0	45.6	511.5	485.9	25.56	20.010		
5,900.0	5,871.5	5,872.7	5,872.7	15.3	13.1	21.43	20.0	45.6	511.5	485.5	25.98	19.692		
6,000.0	5,971.5	5,972.7	5,972.7	15.4	13.3	21.43	20.0	45.6	511.5	485.1	26.39	19.383		
6,100.0	6,071.5	6,072.7	6,072.7	15.6	13.5	21.43	20.0	45.6	511.5	484.7	26.81	19.082		
6,200.0	6,171.5	6,172.7	6,172.7	15.8	13.8	21.43	20.0	45.6	511.5	484.3	27.22	18.791		
6,300.0	6,271.5	6,272.7	6,272.7	15.9	14.0	21.43	20.0	45.6	511.5	483.9	27.64	18.507		
6,400.0	6,371.5	6,372.7	6,372.7	16.1	14.2	21.43	20.0	45.6	511.5	483.5	28.06	18.231		
6,500.0	6,471.5	6,472.7	6,472.7	16.2	14.4	21.43	20.0	45.6	511.5	483.0	28.48	17.963		
6,600.0	6,571.5	6,572.7	6,572.7	16.4	14.7	21.43	20.0	45.6	511.5	482.6	28.90	17.702		
6,700.0	6,671.5	6,672.7	6,672.7	16.6	14.9	21.43	20.0	45.6	511.5	482.2	29.32	17.448		
6,800.0	6,771.5	6,772.7	6,772.7	16.7	15.1	21.43	20.0	45.6	511.5	481.8	29.74	17.200		
6,900.0	6,871.5	6,872.7	6,872.7	16.9	15.3	21.43	20.0	45.6	511.5	481.4	30.16	16.959		
7,000.0	6,971.5	6,972.7	6,972.7	17.1	15.6	21.43	20.0	45.6	511.5	480.9	30.58	16.725		
7,100.0	7,071.5	7,072.7	7,072.7	17.3	15.8	21.43	20.0	45.6	511.5	480.5	31.01	16.496		
7,200.0	7,171.5	7,172.7	7,172.7	17.4	16.0	21.43	20.0	45.6	511.5	480.1	31.43	16.273		
7,300.0	7,271.5	7,272.7	7,272.7	17.6	16.2	21.43	20.0	45.6	511.5	479.7	31.86	16.056		
7,332.9	7,304.4	7,305.6	7,305.6	17.7	16.3	21.43	20.0	45.6	511.5	479.5	32.00	15.986 SF		
7,350.0	7,321.5	7,313.9	7,313.9	17.7	16.3	-175.77	20.1	45.6	512.0	480.0	31.96	16.019		
7,375.0	7,346.5	7,325.0	7,325.0	17.8	16.4	-175.76	20.4	45.7	514.3	482.2	32.01	16.066		
7,400.0	7,371.3	7,337.8	7,337.7	17.8	16.4	-175.74	21.1	45.9	518.5	486.4	32.00	16.201		
7,425.0	7,396.0	7,350.0	7,349.9	17.9	16.4	-175.71	22.0	46.2	524.5	492.6	31.93	16.427		
7,450.0	7,420.4	7,360.6	7,360.5	18.0	16.4	-175.66	23.1	46.6	532.4	500.6	31.80	16.745		
7,475.0	7,444.4	7,375.0	7,374.8	18.1	16.5	-175.62	24.8	47.1	542.1	510.5	31.61	17.150		
7,500.0	7,468.1	7,381.9	7,381.5	18.2	16.5	-175.53	25.8	47.4	553.4	522.1	31.35	17.655		
7,525.0	7,491.4	7,391.7	7,391.2	18.4	16.5	-175.43	27.4	47.9	566.4	535.4	31.04	18.250		
7,550.0	7,514.1	7,400.0	7,399.4	18.5	16.5	-175.31	28.9	48.4	580.9	550.2	30.66	18.942		
7,575.0	7,536.3	7,409.6	7,408.8	18.7	16.5	-175.16	30.8	49.0	596.7	566.5	30.24	19.731		
7,600.0	7,557.8	7,417.6	7,416.6	18.9	16.6	-174.98	32.5	49.5	613.9	584.1	29.77	20.622		
7,625.0	7,578.7	7,425.0	7,423.8	19.0	16.6	-174.75	34.2	50.0	632.3	603.0	29.25	21.618		
7,650.0	7,598.7	7,425.0	7,423.8	19.2	16.6	-174.40	34.2	50.0	651.8	623.2	28.67	22.735		
7,675.0	7,618.0	7,437.6	7,436.0	19.4	16.6	-174.12	37.3	51.0	672.2	644.1	28.08	23.937		
7,700.0	7,636.4	7,450.0	7,447.8	19.7	16.6	-173.79	40.7	52.1	693.6	666.2	27.46	25.257		
7,725.0	7,653.9	7,450.0	7,447.8	19.9	16.6	-173.15	40.7	52.1	715.7	688.9	26.80	26.699		
7,750.0	7,670.5	7,450.0	7,447.8	20.1	16.6	-172.31	40.7	52.1	738.4	712.3	26.15	28.243		
7,775.0	7,686.0	7,450.0	7,447.8	20.4	16.6	-171.16	40.7	52.1	761.8	736.3	25.51	29.864		
7,800.0	7,700.5	7,458.0	7,455.5	20.7	16.7	-169.89	43.0	52.8	785.6	760.7	24.92	31.525		
7,825.0	7,713.9	7,460.3	7,457.6	20.9	16.7	-167.72	43.7	53.0	809.8	785.4	24.47	33.095		
7,850.0	7,726.2	7,462.0	7,459.2	21.2	16.7	-164.14	44.3	53.2	834.4	810.0	24.36	34.257		
7,875.0	7,737.3	7,463.2	7,460.4	21.5	16.7	-157.29	44.6	53.3	859.1	833.9	25.22	34.058		
7,900.0	7,747.3	7,463.9	7,461.0	21.8	16.7	-140.30	44.8	53.4	884.0	854.4	29.63	29.836		
7,925.0	7,756.0	7,464.1	7,461.2	22.1	16.7	-88.24	44.9	53.4	909.0	870.2	38.78	23.442		
7,950.0	7,763.5	7,463.9	7,461.0	22.5	16.7	-37.31	44.8	53.4	934.0	905.3	28.63	32.622		
7,975.0	7,769.8	7,463.2	7,460.4	22.8	16.7	-20.77	44.6	53.3	958.9	935.8	23.05	41.596		

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

Company:	EE3	Local Co-ordinate Reference:	Well Surprise Unit 03-09H
Project:	SEC.9-T6N-R80W	TVD Reference:	WELL @ 8274.9ft (Original Well Elev)
Reference Site:	Surprise Unit 03-09H Pad Sec.9-T6N-R80W	MD Reference:	WELL @ 8274.9ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Surprise Unit 03-09H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDMNEW
Reference Design:	Plan #1 (6-24-15)	Offset TVD Reference:	Offset Datum

Offset Design												Offset Site Error:	0.0 ft
Survey Program: 0-MWD												Offset Well Error:	0.0 ft
Reference		Offset		Semi Major Axis			Distance						
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Warning
8,000.0	7,774.7	7,462.2	7,459.4	23.1	16.7	-14.04	44.3	53.2	983.6	962.7	20.88	47.099	
8,025.0	7,778.4	7,460.7	7,458.0	23.5	16.7	-10.50	43.9	53.1	1,008.2	988.4	19.77	51.007	
8,050.0	7,780.8	7,458.9	7,456.3	23.8	16.7	-8.35	43.3	52.9	1,032.5	1,013.4	19.09	54.084	
8,075.0	7,781.8	7,450.0	7,447.8	24.2	16.6	-6.76	40.7	52.1	1,056.6	1,038.0	18.64	56.678	
8,082.9	7,781.9	7,450.0	7,447.8	24.3	16.6	-6.43	40.7	52.1	1,064.2	1,045.6	18.56	57.342	
8,100.0	7,781.9	7,450.0	7,447.8	24.5	16.6	-6.43	40.7	52.1	1,080.4	1,061.8	18.61	58.067	
8,200.0	7,781.9	7,450.0	7,447.8	26.0	16.6	-6.43	40.7	52.1	1,175.8	1,156.9	18.91	62.163	
8,300.0	7,781.9	7,437.7	7,436.0	27.5	16.6	-6.21	37.4	51.0	1,271.7	1,252.5	19.21	66.183	
8,400.0	7,781.9	7,425.0	7,423.8	29.1	16.6	-5.99	34.2	50.0	1,368.1	1,348.5	19.55	69.966	
8,500.0	7,781.9	7,425.0	7,423.8	30.7	16.6	-5.99	34.2	50.0	1,464.8	1,444.8	19.98	73.305	
8,600.0	7,781.9	7,425.0	7,423.8	32.3	16.6	-5.99	34.2	50.0	1,561.9	1,541.5	20.44	76.401	
8,700.0	7,781.9	7,413.3	7,412.3	34.0	16.6	-5.81	31.6	49.2	1,659.2	1,638.3	20.88	79.461	
8,800.0	7,781.9	7,400.0	7,399.4	35.7	16.5	-5.61	28.9	48.4	1,756.8	1,735.5	21.34	82.341	
8,900.0	7,781.9	7,400.0	7,399.4	37.4	16.5	-5.61	28.9	48.4	1,854.5	1,832.6	21.87	84.790	
9,000.0	7,781.9	7,400.0	7,399.4	39.1	16.5	-5.61	28.9	48.4	1,952.4	1,930.0	22.43	87.054	
9,100.0	7,781.9	7,400.0	7,399.4	40.9	16.5	-5.61	28.9	48.4	2,050.6	2,027.6	23.00	89.147	
9,200.0	7,781.9	7,400.0	7,399.4	42.6	16.5	-5.61	28.9	48.4	2,148.9	2,125.3	23.59	91.084	
9,300.0	7,781.9	7,400.0	7,399.4	44.4	16.5	-5.61	28.9	48.4	2,247.3	2,223.1	24.20	92.880	
9,400.0	7,781.9	7,386.8	7,386.4	46.2	16.5	-5.43	26.6	47.7	2,345.7	2,320.9	24.75	94.785	
9,500.0	7,781.9	7,375.0	7,374.8	48.0	16.5	-5.27	24.8	47.1	2,444.4	2,419.0	25.32	96.549	
9,600.0	7,781.9	7,375.0	7,374.8	49.8	16.5	-5.27	24.8	47.1	2,543.0	2,517.0	25.95	97.987	
9,700.0	7,781.9	7,375.0	7,374.8	51.6	16.5	-5.27	24.8	47.1	2,641.7	2,615.1	26.60	99.328	
9,800.0	7,781.9	7,375.0	7,374.8	53.4	16.5	-5.27	24.8	47.1	2,740.6	2,713.3	27.25	100.579	
9,900.0	7,781.9	7,375.0	7,374.8	55.3	16.5	-5.27	24.8	47.1	2,839.5	2,811.6	27.91	101.748	
10,000.0	7,781.9	7,375.0	7,374.8	57.1	16.5	-5.27	24.8	47.1	2,938.5	2,909.9	28.57	102.842	
10,100.0	7,781.9	7,375.0	7,374.8	58.9	16.5	-5.27	24.8	47.1	3,037.5	3,008.3	29.24	103.869	
10,200.0	7,781.9	7,375.0	7,374.8	60.8	16.5	-5.27	24.8	47.1	3,136.6	3,106.7	29.92	104.832	
10,300.0	7,781.9	7,375.0	7,374.8	62.6	16.5	-5.27	24.8	47.1	3,235.8	3,205.2	30.60	105.738	
10,400.0	7,781.9	7,375.0	7,374.8	64.5	16.5	-5.27	24.8	47.1	3,335.0	3,303.7	31.29	106.592	
10,500.0	7,781.9	7,375.0	7,374.8	66.3	16.5	-5.27	24.8	47.1	3,434.3	3,402.3	31.98	107.396	
10,600.0	7,781.9	7,362.6	7,362.5	68.2	16.4	-5.12	23.3	46.6	3,533.4	3,500.8	32.60	108.378	
10,700.0	7,781.9	7,361.2	7,361.1	70.1	16.4	-5.10	23.1	46.6	3,632.7	3,599.4	33.29	109.120	
10,800.0	7,781.9	7,350.0	7,349.9	71.9	16.4	-4.97	22.0	46.2	3,732.2	3,698.2	33.93	109.998	
10,900.0	7,781.9	7,350.0	7,349.9	73.8	16.4	-4.97	22.0	46.2	3,831.5	3,796.9	34.63	110.641	
11,000.0	7,781.9	7,350.0	7,349.9	75.7	16.4	-4.97	22.0	46.2	3,930.9	3,895.5	35.33	111.251	
11,100.0	7,781.9	7,350.0	7,349.9	77.5	16.4	-4.97	22.0	46.2	4,030.3	3,994.2	36.04	111.830	
11,200.0	7,781.9	7,350.0	7,349.9	79.4	16.4	-4.97	22.0	46.2	4,129.7	4,093.0	36.75	112.382	
11,300.0	7,781.9	7,350.0	7,349.9	81.3	16.4	-4.97	22.0	46.2	4,229.2	4,191.7	37.46	112.907	
11,400.0	7,781.9	7,350.0	7,349.9	83.2	16.4	-4.97	22.0	46.2	4,328.6	4,290.5	38.17	113.407	
11,500.0	7,781.9	7,350.0	7,349.9	85.0	16.4	-4.97	22.0	46.2	4,428.1	4,389.3	38.88	113.884	
11,600.0	7,781.9	7,350.0	7,349.9	86.9	16.4	-4.97	22.0	46.2	4,527.7	4,488.1	39.60	114.340	
11,700.0	7,781.9	7,350.0	7,349.9	88.8	16.4	-4.97	22.0	46.2	4,627.2	4,586.9	40.32	114.776	
11,800.0	7,781.9	7,350.0	7,349.9	90.7	16.4	-4.97	22.0	46.2	4,726.8	4,685.8	41.03	115.193	
11,900.0	7,781.9	7,350.0	7,349.9	92.6	16.4	-4.97	22.0	46.2	4,826.4	4,784.6	41.75	115.593	
12,000.0	7,781.9	7,350.0	7,349.9	94.5	16.4	-4.97	22.0	46.2	4,926.0	4,883.5	42.47	115.976	
12,100.0	7,781.9	7,350.0	7,349.9	96.3	16.4	-4.97	22.0	46.2	5,025.6	4,982.4	43.20	116.343	
12,200.0	7,781.9	7,350.0	7,349.9	98.2	16.4	-4.97	22.0	46.2	5,125.2	5,081.3	43.92	116.695	
12,300.0	7,781.9	7,350.0	7,349.9	100.1	16.4	-4.97	22.0	46.2	5,224.9	5,180.2	44.64	117.034	
12,400.0	7,781.9	7,350.0	7,349.9	102.0	16.4	-4.97	22.0	46.2	5,324.5	5,279.2	45.37	117.360	
12,500.0	7,781.9	7,350.0	7,349.9	103.9	16.4	-4.97	22.0	46.2	5,424.2	5,378.1	46.10	117.673	
12,600.0	7,781.9	7,350.0	7,349.9	105.8	16.4	-4.97	22.0	46.2	5,523.9	5,477.1	46.82	117.974	
12,700.0	7,781.9	7,350.0	7,349.9	107.7	16.4	-4.97	22.0	46.2	5,623.6	5,576.0	47.55	118.265	

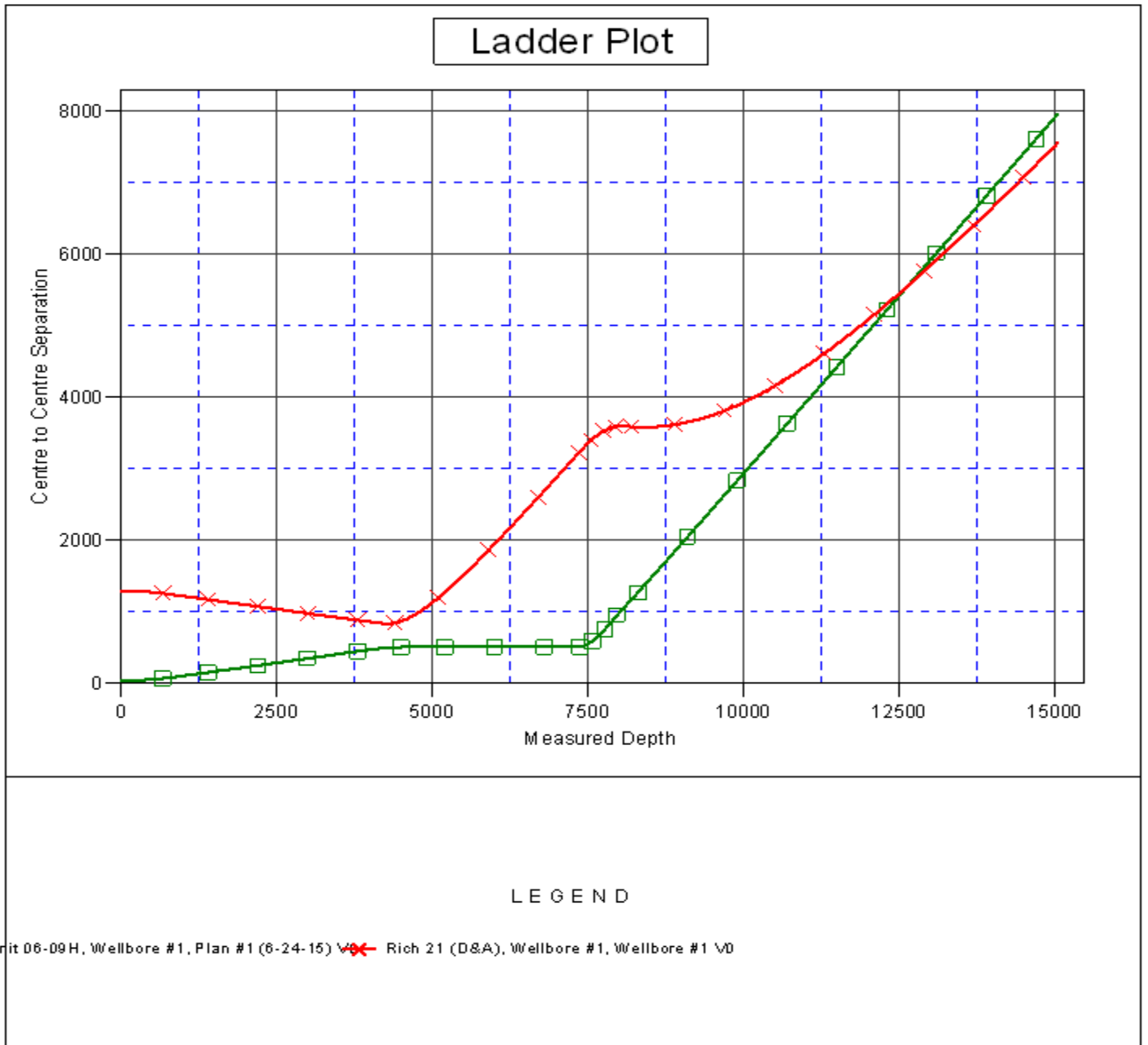
CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

Surprise Unit 03-09H Pad Sec.9-T6N-R80W - Surprise Unit 06-09H - Wellbore #1 - Plan #1 (6-24-15)													Offset Site Error: 0.0 ft	
Survey Program: 0-MWD													Offset Well Error: 0.0 ft	
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
12,800.0	7,781.9	7,350.0	7,349.9	109.6	16.4	-4.97	22.0	46.2	5,723.3	5,675.0	48.28	118.545		
12,900.0	7,781.9	7,350.0	7,349.9	111.5	16.4	-4.97	22.0	46.2	5,823.0	5,774.0	49.01	118.815		
13,000.0	7,781.9	7,350.0	7,349.9	113.4	16.4	-4.97	22.0	46.2	5,922.7	5,873.0	49.74	119.076		
13,100.0	7,781.9	7,350.0	7,349.9	115.3	16.4	-4.97	22.0	46.2	6,022.5	5,972.0	50.47	119.328		
13,200.0	7,781.9	7,350.0	7,349.9	117.2	16.4	-4.97	22.0	46.2	6,122.2	6,071.0	51.20	119.571		
13,300.0	7,781.9	7,350.0	7,349.9	119.1	16.4	-4.97	22.0	46.2	6,222.0	6,170.0	51.93	119.806		
13,400.0	7,781.9	7,350.0	7,349.9	121.0	16.4	-4.97	22.0	46.2	6,321.7	6,269.0	52.67	120.034		
13,500.0	7,781.9	7,350.0	7,349.9	122.9	16.4	-4.97	22.0	46.2	6,421.5	6,368.1	53.40	120.254		
13,600.0	7,781.9	7,338.2	7,338.2	124.8	16.4	-4.84	21.1	45.9	6,521.1	6,467.1	54.05	120.651		
13,700.0	7,781.9	7,337.8	7,337.8	126.7	16.4	-4.84	21.1	45.9	6,620.9	6,566.1	54.78	120.864		
13,800.0	7,781.9	7,337.3	7,337.3	128.6	16.4	-4.83	21.0	45.9	6,720.6	6,665.1	55.51	121.070		
13,900.0	7,781.9	7,336.9	7,336.9	130.5	16.4	-4.83	21.0	45.9	6,820.4	6,764.2	56.24	121.271		
14,000.0	7,781.9	7,325.0	7,325.0	132.4	16.4	-4.70	20.4	45.7	6,920.4	6,863.5	56.89	121.637		
14,100.0	7,781.9	7,325.0	7,325.0	134.3	16.4	-4.70	20.4	45.7	7,020.1	6,962.5	57.63	121.819		
14,200.0	7,781.9	7,325.0	7,325.0	136.2	16.4	-4.70	20.4	45.7	7,119.9	7,061.6	58.36	121.995		
14,300.0	7,781.9	7,325.0	7,325.0	138.1	16.4	-4.70	20.4	45.7	7,219.7	7,160.6	59.10	122.166		
14,400.0	7,781.9	7,325.0	7,325.0	140.0	16.4	-4.70	20.4	45.7	7,319.5	7,259.7	59.83	122.333		
14,500.0	7,781.9	7,325.0	7,325.0	141.9	16.4	-4.70	20.4	45.7	7,419.3	7,358.8	60.57	122.495		
14,600.0	7,781.9	7,325.0	7,325.0	143.8	16.4	-4.70	20.4	45.7	7,519.1	7,457.8	61.30	122.652		
14,700.0	7,781.9	7,325.0	7,325.0	145.7	16.4	-4.70	20.4	45.7	7,619.0	7,556.9	62.04	122.805		
14,800.0	7,781.9	7,325.0	7,325.0	147.6	16.4	-4.70	20.4	45.7	7,718.8	7,656.0	62.78	122.954		
14,900.0	7,781.9	7,325.0	7,325.0	149.5	16.4	-4.70	20.4	45.7	7,818.6	7,755.1	63.51	123.099		
15,000.0	7,781.9	7,325.0	7,325.0	151.4	16.4	-4.70	20.4	45.7	7,918.4	7,854.2	64.25	123.240		
15,043.6	7,781.9	7,325.0	7,325.0	152.2	16.4	-4.70	20.4	45.7	7,961.9	7,897.4	64.57	123.301		

Company: EE3
Project: SEC.9-T6N-R80W
Reference Site: Surprise Unit 03-09H Pad Sec.9-T6N-R80W
Site Error: 0.0ft
Reference Well: Surprise Unit 03-09H
Well Error: 0.0ft
Reference Wellbore: Wellbore #1
Reference Design: Plan #1 (6-24-15)

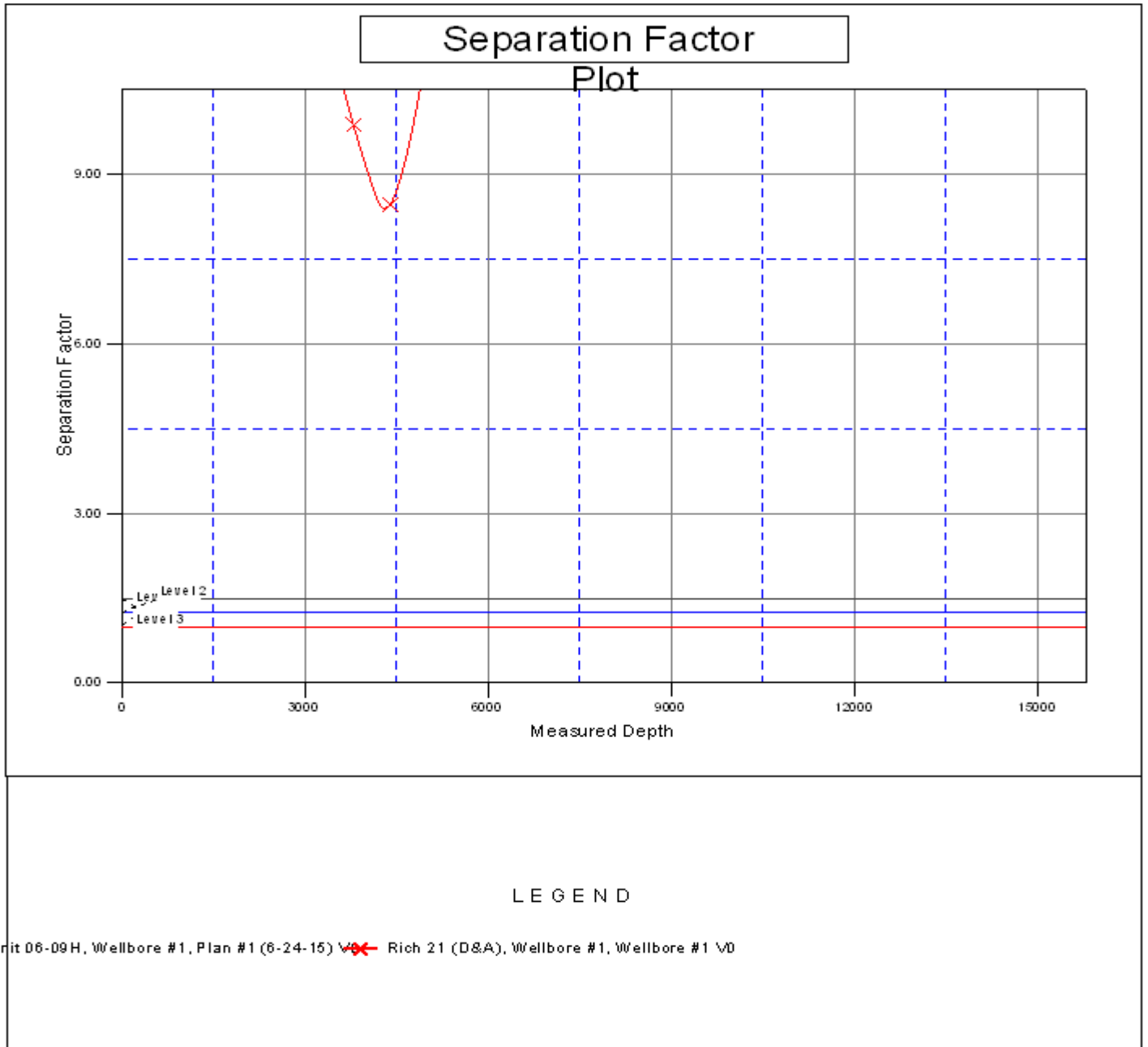
Local Co-ordinate Reference: Well Surprise Unit 03-09H
TVD Reference: WELL @ 8274.9ft (Original Well Elev)
MD Reference: WELL @ 8274.9ft (Original Well Elev)
North Reference: True
Survey Calculation Method: Minimum Curvature
Output errors are at 2.00 sigma
Database: EDMNEW
Offset TVD Reference: Offset Datum

Reference Depths are relative to WELL @ 8274.9ft (Original Well Elev) Coordinates are relative to: Surprise Unit 03-09H
Offset Depths are relative to Offset Datum Coordinate System is US State Plane 1983, Colorado Northern Zone
Central Meridian is -105.500000 ° Grid Convergence at Surface is: -0.57°



Company:	EE3	Local Co-ordinate Reference:	Well Surprise Unit 03-09H
Project:	SEC.9-T6N-R80W	TVD Reference:	WELL @ 8274.9ft (Original Well Elev)
Reference Site:	Surprise Unit 03-09H Pad Sec.9-T6N-R80W	MD Reference:	WELL @ 8274.9ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Surprise Unit 03-09H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDMNEW
Reference Design:	Plan #1 (6-24-15)	Offset TVD Reference:	Offset Datum

Reference Depths are relative to WELL @ 8274.9ft (Original Well Elev) Coordinates are relative to: Surprise Unit 03-09H
Offset Depths are relative to Offset Datum Coordinate System is US State Plane 1983, Colorado Northern Zone
Central Meridian is -105.500000 ° Grid Convergence at Surface is: -0.57°





EE3

SEC.9-T6N-R80W

Surprise Unit 03-09H Pad Sec.9-T6N-R80W

Surprise Unit 03-09H

Wellbore #1

Plan: Plan #1 (6-24-15)

Standard Planning Report

24 June, 2015

Plan Sections										
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)	TFO (°)	Target
0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.00	0.00	
200.0	0.00	0.00	200.0	0.0	0.0	0.00	0.00	0.00	0.00	
674.4	7.12	197.21	673.2	-28.1	-8.7	1.50	1.50	0.00	197.21	
4,054.1	7.12	197.21	4,026.8	-428.0	-132.6	0.00	0.00	0.00	0.00	
4,528.5	0.00	0.00	4,500.0	-456.1	-141.3	1.50	-1.50	0.00	180.00	
7,332.9	0.00	0.00	7,304.4	-456.1	-141.3	0.00	0.00	0.00	0.00	
8,082.9	90.00	197.21	7,781.9	-912.2	-282.6	12.00	12.00	0.00	197.21	
15,043.6	90.00	197.21	7,781.9	-7,561.3	-2,341.8	0.00	0.00	0.00	0.00	BHL 2594'FSL, 576

Database:	EDMNEW	Local Co-ordinate Reference:	Well Surprise Unit 03-09H
Company:	EE3	TVD Reference:	WELL @ 8274.9ft (Original Well Elev)
Project:	SEC.9-T6N-R80W	MD Reference:	WELL @ 8274.9ft (Original Well Elev)
Site:	Surprise Unit 03-09H Pad Sec.9-T6N-R80W	North Reference:	True
Well:	Surprise Unit 03-09H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plan #1 (6-24-15)		

Planned 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
100.0	0.00	0.00	100.0	0.0	0.0	0.0	0.00	0.00	0.00
200.0	0.00	0.00	200.0	0.0	0.0	0.0	0.00	0.00	0.00
KOP - Start Build 1.50									
300.0	1.50	197.21	300.0	-1.3	-0.4	1.3	1.50	1.50	0.00
400.0	3.00	197.21	399.9	-5.0	-1.5	5.2	1.50	1.50	0.00
500.0	4.50	197.21	499.7	-11.2	-3.5	11.8	1.50	1.50	0.00
600.0	6.00	197.21	599.3	-20.0	-6.2	20.9	1.50	1.50	0.00
674.4	7.12	197.21	673.2	-28.1	-8.7	29.4	1.50	1.50	0.00
700.0	7.12	197.21	698.6	-31.1	-9.6	32.6	0.00	0.00	0.00
800.0	7.12	197.21	797.8	-43.0	-13.3	45.0	0.00	0.00	0.00
900.0	7.12	197.21	897.0	-54.8	-17.0	57.4	0.00	0.00	0.00
1,000.0	7.12	197.21	996.3	-66.6	-20.6	69.8	0.00	0.00	0.00
1,100.0	7.12	197.21	1,095.5	-78.5	-24.3	82.1	0.00	0.00	0.00
1,200.0	7.12	197.21	1,194.7	-90.3	-28.0	94.5	0.00	0.00	0.00
1,300.0	7.12	197.21	1,294.0	-102.1	-31.6	106.9	0.00	0.00	0.00
1,400.0	7.12	197.21	1,393.2	-114.0	-35.3	119.3	0.00	0.00	0.00
1,500.0	7.12	197.21	1,492.4	-125.8	-39.0	131.7	0.00	0.00	0.00
1,600.0	7.12	197.21	1,591.7	-137.6	-42.6	144.1	0.00	0.00	0.00
1,700.0	7.12	197.21	1,690.9	-149.5	-46.3	156.5	0.00	0.00	0.00
1,800.0	7.12	197.21	1,790.1	-161.3	-50.0	168.9	0.00	0.00	0.00
1,900.0	7.12	197.21	1,889.3	-173.1	-53.6	181.2	0.00	0.00	0.00
2,000.0	7.12	197.21	1,988.6	-185.0	-57.3	193.6	0.00	0.00	0.00
2,100.0	7.12	197.21	2,087.8	-196.8	-61.0	206.0	0.00	0.00	0.00
2,200.0	7.12	197.21	2,187.0	-208.6	-64.6	218.4	0.00	0.00	0.00
2,300.0	7.12	197.21	2,286.3	-220.4	-68.3	230.8	0.00	0.00	0.00
2,400.0	7.12	197.21	2,385.5	-232.3	-72.0	243.2	0.00	0.00	0.00
2,477.0	7.12	197.21	2,461.9	-241.4	-74.8	252.7	0.00	0.00	0.00
Midcoal									
2,500.0	7.12	197.21	2,484.7	-244.1	-75.6	255.6	0.00	0.00	0.00
2,600.0	7.12	197.21	2,584.0	-255.9	-79.3	267.9	0.00	0.00	0.00
2,700.0	7.12	197.21	2,683.2	-267.8	-83.0	280.3	0.00	0.00	0.00
2,800.0	7.12	197.21	2,782.4	-279.6	-86.6	292.7	0.00	0.00	0.00
2,900.0	7.12	197.21	2,881.6	-291.4	-90.3	305.1	0.00	0.00	0.00
3,000.0	7.12	197.21	2,980.9	-303.3	-94.0	317.5	0.00	0.00	0.00
3,100.0	7.12	197.21	3,080.1	-315.1	-97.6	329.9	0.00	0.00	0.00
3,200.0	7.12	197.21	3,179.3	-326.9	-101.3	342.3	0.00	0.00	0.00
3,263.1	7.12	197.21	3,241.9	-334.4	-103.6	350.1	0.00	0.00	0.00
Suddeth coal									
3,300.0	7.12	197.21	3,278.6	-338.8	-105.0	354.7	0.00	0.00	0.00
3,400.0	7.12	197.21	3,377.8	-350.6	-108.6	367.0	0.00	0.00	0.00
3,500.0	7.12	197.21	3,477.0	-362.4	-112.3	379.4	0.00	0.00	0.00
3,600.0	7.12	197.21	3,576.2	-374.3	-115.9	391.8	0.00	0.00	0.00
3,700.0	7.12	197.21	3,675.5	-386.1	-119.6	404.2	0.00	0.00	0.00
3,800.0	7.12	197.21	3,774.7	-397.9	-123.3	416.6	0.00	0.00	0.00
3,900.0	7.12	197.21	3,873.9	-409.8	-126.9	429.0	0.00	0.00	0.00
4,000.0	7.12	197.21	3,973.2	-421.6	-130.6	441.4	0.00	0.00	0.00
4,054.1	7.12	197.21	4,026.9	-428.0	-132.6	448.1	0.00	0.00	0.00
Start Drop -1.50									
4,100.0	6.43	197.21	4,072.4	-433.2	-134.2	453.5	1.50	-1.50	0.00
4,200.0	4.93	197.21	4,171.9	-442.6	-137.1	463.4	1.50	-1.50	0.00
4,300.0	3.43	197.21	4,271.7	-449.6	-139.3	470.7	1.50	-1.50	0.00
4,400.0	1.93	197.21	4,371.6	-454.0	-140.7	475.3	1.50	-1.50	0.00
4,500.0	0.43	197.21	4,471.5	-456.0	-141.3	477.4	1.50	-1.50	0.00

Database: EDMNEW
Company: EE3
Project: SEC.9-T6N-R80W
Site: Surprise Unit 03-09H Pad Sec.9-T6N-R80W
Well: Surprise Unit 03-09H
Wellbore: Wellbore #1
Design: Plan #1 (6-24-15)

Local Co-ordinate Reference: Well Surprise Unit 03-09H
TVD Reference: WELL @ 8274.9ft (Original Well Elev)
MD Reference: WELL @ 8274.9ft (Original Well Elev)
North Reference: True
Survey Calculation Method: Minimum Curvature

Planned 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)
4,528.5	0.00	0.00	4,500.0	-456.1	-141.3	477.5	1.50	-1.50	0.00
Start 2804.4 hold at 4528.5 MD									
4,600.0	0.00	0.00	4,571.5	-456.1	-141.3	477.5	0.00	0.00	0.00
4,700.0	0.00	0.00	4,671.5	-456.1	-141.3	477.5	0.00	0.00	0.00
4,800.0	0.00	0.00	4,771.5	-456.1	-141.3	477.5	0.00	0.00	0.00
4,900.0	0.00	0.00	4,871.5	-456.1	-141.3	477.5	0.00	0.00	0.00
5,000.0	0.00	0.00	4,971.5	-456.1	-141.3	477.5	0.00	0.00	0.00
5,100.0	0.00	0.00	5,071.5	-456.1	-141.3	477.5	0.00	0.00	0.00
5,200.0	0.00	0.00	5,171.5	-456.1	-141.3	477.5	0.00	0.00	0.00
5,300.0	0.00	0.00	5,271.5	-456.1	-141.3	477.5	0.00	0.00	0.00
5,400.0	0.00	0.00	5,371.5	-456.1	-141.3	477.5	0.00	0.00	0.00
5,500.0	0.00	0.00	5,471.5	-456.1	-141.3	477.5	0.00	0.00	0.00
5,600.0	0.00	0.00	5,571.5	-456.1	-141.3	477.5	0.00	0.00	0.00
5,700.0	0.00	0.00	5,671.5	-456.1	-141.3	477.5	0.00	0.00	0.00
5,770.4	0.00	0.00	5,741.9	-456.1	-141.3	477.5	0.00	0.00	0.00
Sussex									
5,800.0	0.00	0.00	5,771.5	-456.1	-141.3	477.5	0.00	0.00	0.00
5,900.0	0.00	0.00	5,871.5	-456.1	-141.3	477.5	0.00	0.00	0.00
6,000.0	0.00	0.00	5,971.5	-456.1	-141.3	477.5	0.00	0.00	0.00
6,070.4	0.00	0.00	6,041.9	-456.1	-141.3	477.5	0.00	0.00	0.00
Shannon									
6,100.0	0.00	0.00	6,071.5	-456.1	-141.3	477.5	0.00	0.00	0.00
6,200.0	0.00	0.00	6,171.5	-456.1	-141.3	477.5	0.00	0.00	0.00
6,300.0	0.00	0.00	6,271.5	-456.1	-141.3	477.5	0.00	0.00	0.00
6,400.0	0.00	0.00	6,371.5	-456.1	-141.3	477.5	0.00	0.00	0.00
6,500.0	0.00	0.00	6,471.5	-456.1	-141.3	477.5	0.00	0.00	0.00
6,600.0	0.00	0.00	6,571.5	-456.1	-141.3	477.5	0.00	0.00	0.00
6,700.0	0.00	0.00	6,671.5	-456.1	-141.3	477.5	0.00	0.00	0.00
6,800.0	0.00	0.00	6,771.5	-456.1	-141.3	477.5	0.00	0.00	0.00
6,900.0	0.00	0.00	6,871.5	-456.1	-141.3	477.5	0.00	0.00	0.00
7,000.0	0.00	0.00	6,971.5	-456.1	-141.3	477.5	0.00	0.00	0.00
7,100.0	0.00	0.00	7,071.5	-456.1	-141.3	477.5	0.00	0.00	0.00
7,200.0	0.00	0.00	7,171.5	-456.1	-141.3	477.5	0.00	0.00	0.00
7,300.0	0.00	0.00	7,271.5	-456.1	-141.3	477.5	0.00	0.00	0.00
7,332.9	0.00	0.00	7,304.4	-456.1	-141.3	477.5	0.00	0.00	0.00
Start Build 12.00									
7,400.0	8.05	197.21	7,371.3	-460.6	-142.7	482.2	12.00	12.00	0.00
7,441.3	13.01	197.21	7,411.9	-467.8	-144.9	489.7	12.00	12.00	0.00
Vertical Niobrara - Niobrara									
7,500.0	20.05	197.21	7,468.1	-483.7	-149.9	506.4	12.00	12.00	0.00
7,600.0	32.05	197.21	7,557.8	-525.6	-162.8	550.3	12.00	12.00	0.00
7,700.0	44.05	197.21	7,636.4	-584.4	-181.0	611.8	12.00	12.00	0.00
7,800.0	56.05	197.21	7,700.5	-657.5	-203.7	688.3	12.00	12.00	0.00
7,900.0	68.05	197.21	7,747.3	-741.7	-229.8	776.5	12.00	12.00	0.00
8,000.0	80.05	197.21	7,774.7	-833.4	-258.1	872.5	12.00	12.00	0.00
8,082.9	90.00	197.21	7,781.9	-912.2	-282.6	954.9	12.00	12.00	0.00
Start 6960.7 hold at 8082.9 MD - Landing - Toe - 7"									
8,100.0	90.00	197.21	7,781.9	-928.5	-287.6	972.0	0.00	0.00	0.00
8,200.0	90.00	197.21	7,781.9	-1,024.1	-317.2	1,072.0	0.00	0.00	0.00
8,300.0	90.00	197.21	7,781.9	-1,119.6	-346.8	1,172.0	0.00	0.00	0.00
8,400.0	90.00	197.21	7,781.9	-1,215.1	-376.4	1,272.0	0.00	0.00	0.00
8,500.0	90.00	197.21	7,781.9	-1,310.6	-405.9	1,372.0	0.00	0.00	0.00
8,600.0	90.00	197.21	7,781.9	-1,406.1	-435.5	1,472.0	0.00	0.00	0.00

Database:	EDMNEW	Local Co-ordinate Reference:	Well Surprise Unit 03-09H
Company:	EE3	TVD Reference:	WELL @ 8274.9ft (Original Well Elev)
Project:	SEC.9-T6N-R80W	MD Reference:	WELL @ 8274.9ft (Original Well Elev)
Site:	Surprise Unit 03-09H Pad Sec.9-T6N-R80W	North Reference:	True
Well:	Surprise Unit 03-09H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plan #1 (6-24-15)		

Planned 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)
8,700.0	90.00	197.21	7,781.9	-1,501.7	-465.1	1,572.0	0.00	0.00	0.00
8,800.0	90.00	197.21	7,781.9	-1,597.2	-494.7	1,672.0	0.00	0.00	0.00
8,900.0	90.00	197.21	7,781.9	-1,692.7	-524.3	1,772.0	0.00	0.00	0.00
9,000.0	90.00	197.21	7,781.9	-1,788.2	-553.9	1,872.0	0.00	0.00	0.00
9,100.0	90.00	197.21	7,781.9	-1,883.8	-583.4	1,972.0	0.00	0.00	0.00
9,200.0	90.00	197.21	7,781.9	-1,979.3	-613.0	2,072.0	0.00	0.00	0.00
9,300.0	90.00	197.21	7,781.9	-2,074.8	-642.6	2,172.0	0.00	0.00	0.00
9,400.0	90.00	197.21	7,781.9	-2,170.3	-672.2	2,272.0	0.00	0.00	0.00
9,500.0	90.00	197.21	7,781.9	-2,265.9	-701.8	2,372.0	0.00	0.00	0.00
9,600.0	90.00	197.21	7,781.9	-2,361.4	-731.4	2,472.0	0.00	0.00	0.00
9,700.0	90.00	197.21	7,781.9	-2,456.9	-760.9	2,572.0	0.00	0.00	0.00
9,800.0	90.00	197.21	7,781.9	-2,552.4	-790.5	2,672.0	0.00	0.00	0.00
9,900.0	90.00	197.21	7,781.9	-2,648.0	-820.1	2,772.0	0.00	0.00	0.00
10,000.0	90.00	197.21	7,781.9	-2,743.5	-849.7	2,872.0	0.00	0.00	0.00
10,100.0	90.00	197.21	7,781.9	-2,839.0	-879.3	2,972.0	0.00	0.00	0.00
10,200.0	90.00	197.21	7,781.9	-2,934.5	-908.9	3,072.0	0.00	0.00	0.00
10,300.0	90.00	197.21	7,781.9	-3,030.1	-938.4	3,172.0	0.00	0.00	0.00
10,400.0	90.00	197.21	7,781.9	-3,125.6	-968.0	3,272.0	0.00	0.00	0.00
10,500.0	90.00	197.21	7,781.9	-3,221.1	-997.6	3,372.0	0.00	0.00	0.00
10,600.0	90.00	197.21	7,781.9	-3,316.6	-1,027.2	3,472.0	0.00	0.00	0.00
10,700.0	90.00	197.21	7,781.9	-3,412.1	-1,056.8	3,572.0	0.00	0.00	0.00
10,800.0	90.00	197.21	7,781.9	-3,507.7	-1,086.4	3,672.0	0.00	0.00	0.00
10,900.0	90.00	197.21	7,781.9	-3,603.2	-1,115.9	3,772.0	0.00	0.00	0.00
11,000.0	90.00	197.21	7,781.9	-3,698.7	-1,145.5	3,872.0	0.00	0.00	0.00
11,100.0	90.00	197.21	7,781.9	-3,794.2	-1,175.1	3,972.0	0.00	0.00	0.00
11,200.0	90.00	197.21	7,781.9	-3,889.8	-1,204.7	4,072.0	0.00	0.00	0.00
11,300.0	90.00	197.21	7,781.9	-3,985.3	-1,234.3	4,172.0	0.00	0.00	0.00
11,400.0	90.00	197.21	7,781.9	-4,080.8	-1,263.9	4,272.0	0.00	0.00	0.00
11,500.0	90.00	197.21	7,781.9	-4,176.3	-1,293.4	4,372.0	0.00	0.00	0.00
11,600.0	90.00	197.21	7,781.9	-4,271.9	-1,323.0	4,472.0	0.00	0.00	0.00
11,700.0	90.00	197.21	7,781.9	-4,367.4	-1,352.6	4,572.0	0.00	0.00	0.00
11,800.0	90.00	197.21	7,781.9	-4,462.9	-1,382.2	4,672.0	0.00	0.00	0.00
11,900.0	90.00	197.21	7,781.9	-4,558.4	-1,411.8	4,772.0	0.00	0.00	0.00
12,000.0	90.00	197.21	7,781.9	-4,654.0	-1,441.4	4,872.0	0.00	0.00	0.00
12,100.0	90.00	197.21	7,781.9	-4,749.5	-1,470.9	4,972.0	0.00	0.00	0.00
12,200.0	90.00	197.21	7,781.9	-4,845.0	-1,500.5	5,072.0	0.00	0.00	0.00
12,300.0	90.00	197.21	7,781.9	-4,940.5	-1,530.1	5,172.0	0.00	0.00	0.00
12,400.0	90.00	197.21	7,781.9	-5,036.1	-1,559.7	5,272.0	0.00	0.00	0.00
12,500.0	90.00	197.21	7,781.9	-5,131.6	-1,589.3	5,372.0	0.00	0.00	0.00
12,600.0	90.00	197.21	7,781.9	-5,227.1	-1,618.9	5,472.0	0.00	0.00	0.00
12,700.0	90.00	197.21	7,781.9	-5,322.6	-1,648.5	5,572.0	0.00	0.00	0.00
12,800.0	90.00	197.21	7,781.9	-5,418.1	-1,678.0	5,672.0	0.00	0.00	0.00
12,900.0	90.00	197.21	7,781.9	-5,513.7	-1,707.6	5,772.0	0.00	0.00	0.00
13,000.0	90.00	197.21	7,781.9	-5,609.2	-1,737.2	5,872.0	0.00	0.00	0.00
13,100.0	90.00	197.21	7,781.9	-5,704.7	-1,766.8	5,972.0	0.00	0.00	0.00
13,200.0	90.00	197.21	7,781.9	-5,800.2	-1,796.4	6,072.0	0.00	0.00	0.00
13,300.0	90.00	197.21	7,781.9	-5,895.8	-1,826.0	6,172.0	0.00	0.00	0.00
13,400.0	90.00	197.21	7,781.9	-5,991.3	-1,855.5	6,272.0	0.00	0.00	0.00
13,500.0	90.00	197.21	7,781.9	-6,086.8	-1,885.1	6,372.0	0.00	0.00	0.00
13,600.0	90.00	197.21	7,781.9	-6,182.3	-1,914.7	6,472.0	0.00	0.00	0.00
13,700.0	90.00	197.21	7,781.9	-6,277.9	-1,944.3	6,572.0	0.00	0.00	0.00
13,800.0	90.00	197.21	7,781.9	-6,373.4	-1,973.9	6,672.0	0.00	0.00	0.00
13,900.0	90.00	197.21	7,781.9	-6,468.9	-2,003.5	6,772.0	0.00	0.00	0.00
14,000.0	90.00	197.21	7,781.9	-6,564.4	-2,033.0	6,872.0	0.00	0.00	0.00

Database:	EDMNEW	Local Co-ordinate Reference:	Well Surprise Unit 03-09H
Company:	EE3	TVD Reference:	WELL @ 8274.9ft (Original Well Elev)
Project:	SEC.9-T6N-R80W	MD Reference:	WELL @ 8274.9ft (Original Well Elev)
Site:	Surprise Unit 03-09H Pad Sec.9-T6N-R80W	North Reference:	True
Well:	Surprise Unit 03-09H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plan #1 (6-24-15)		

Planned 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)	
14,100.0	90.00	197.21	7,781.9	-6,660.0	-2,062.6	6,972.0	0.00	0.00	0.00	
14,200.0	90.00	197.21	7,781.9	-6,755.5	-2,092.2	7,072.0	0.00	0.00	0.00	
14,300.0	90.00	197.21	7,781.9	-6,851.0	-2,121.8	7,172.0	0.00	0.00	0.00	
14,400.0	90.00	197.21	7,781.9	-6,946.5	-2,151.4	7,272.0	0.00	0.00	0.00	
14,500.0	90.00	197.21	7,781.9	-7,042.1	-2,181.0	7,372.0	0.00	0.00	0.00	
14,600.0	90.00	197.21	7,781.9	-7,137.6	-2,210.5	7,472.0	0.00	0.00	0.00	
14,700.0	90.00	197.21	7,781.9	-7,233.1	-2,240.1	7,572.0	0.00	0.00	0.00	
14,800.0	90.00	197.21	7,781.9	-7,328.6	-2,269.7	7,672.0	0.00	0.00	0.00	
14,900.0	90.00	197.21	7,781.9	-7,424.2	-2,299.3	7,772.0	0.00	0.00	0.00	
15,000.0	90.00	197.21	7,781.9	-7,519.7	-2,328.9	7,872.0	0.00	0.00	0.00	
15,043.6	90.00	197.21	7,781.9	-7,561.3	-2,341.8	7,915.6	0.00	0.00	0.00	

Targets										
Target Name										
- hit/miss target	Dip Angle (°)	Dip Dir. (°)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	Northing (ft)	Easting (ft)	Latitude	Longitude	
- Shape										
SHL 521'FNL, 1726'FI - plan hits target center - Point	0.00	0.00	1.0	0.0	0.0	1,429,962.33	2,754,116.91	40.510282	-106.384304	
BHL 2594'FSL, 576'FI - plan hits target center - Point	0.00	0.00	7,781.9	-7,561.3	-2,341.8	1,422,425.01	2,751,699.94	40.489527	-106.392723	

Casing Points					
Measured Depth (ft)	Vertical Depth (ft)	Name	Casing Diameter (")	Hole Diameter (")	
8,082.9	7,781.9	7"	7	7-1/2	

Formations						
Measured Depth (ft)	Vertical Depth (ft)	Name	Lithology	Dip (°)	Dip Direction (°)	
2,477.0	2,461.9	Midcoal				
3,263.1	3,241.9	Suddeth coal				
5,770.4	5,741.9	Sussex				
6,070.4	6,041.9	Shannon				
7,441.3	7,411.9	Niobrara				
7,441.3	7,411.9	Vertical Niobrara				
8,082.9	7,781.9	Landing				
8,082.9	7,781.9	Toe				
	7,857.9	Carlisle				

Database:	EDMNEW	Local Co-ordinate Reference:	Well Surprise Unit 03-09H
Company:	EE3	TVD Reference:	WELL @ 8274.9ft (Original Well Elev)
Project:	SEC.9-T6N-R80W	MD Reference:	WELL @ 8274.9ft (Original Well Elev)
Site:	Surprise Unit 03-09H Pad Sec.9-T6N-R80W	North Reference:	True
Well:	Surprise Unit 03-09H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plan #1 (6-24-15)		

Plan Annotations				
Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates		Comment
		+N/-S (ft)	+E/-W (ft)	
200.0	200.0	0.0	0.0	KOP - Start Build 1.50
4,054.1	4,026.8	-28.1	-8.7	Start Drop -1.50
4,528.5	4,500.0	-428.0	-132.6	Start 2804.4 hold at 4528.5 MD
7,332.9	7,304.4	-456.1	-141.3	Start Build 12.00
8,082.9	7,781.9	-456.1	-141.3	Start 6960.7 hold at 8082.9 MD
15,043.6	7,781.9	-912.2	-282.6	TD at 15043.6