

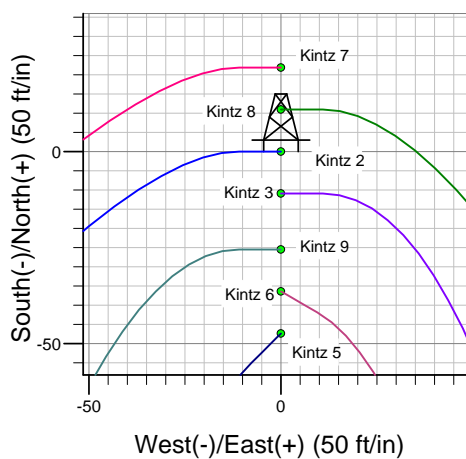
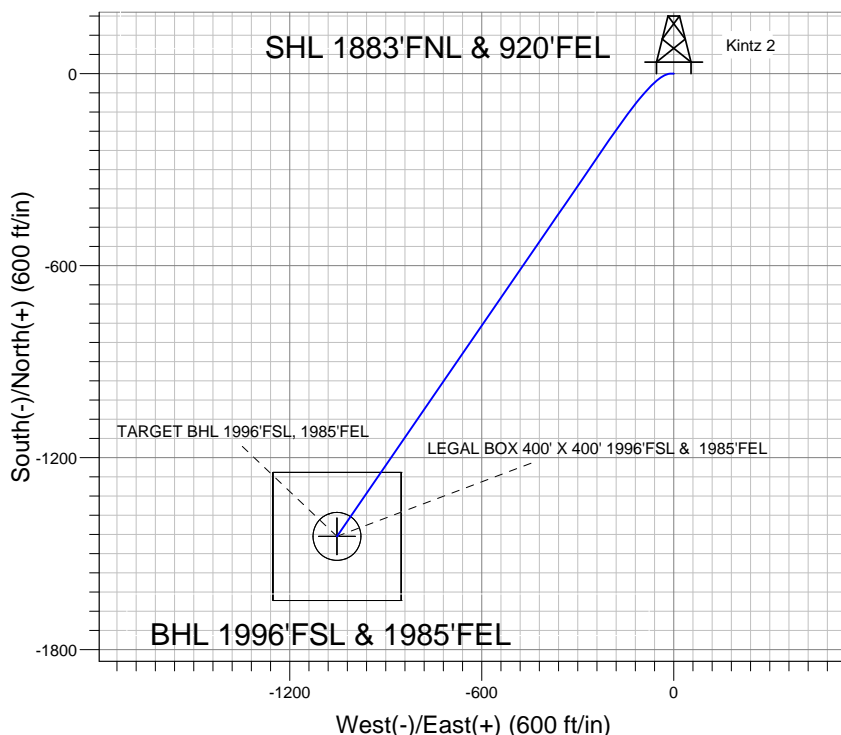
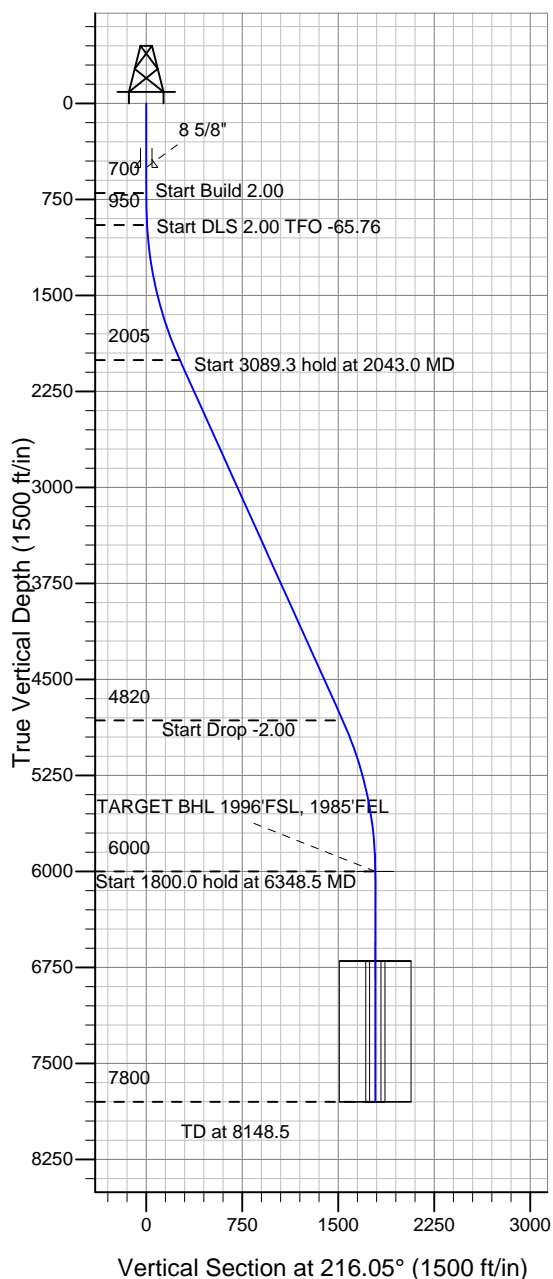
Well Name: Kintz 2

Surface Location: Kintz 1 Pad Sec.8-T3N-R68W
North American Datum 1983 , US State Plane 1983 , Colorado Northern Zone

Ground Elevation: 5079.0

+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Slot
0.0	0.0	1331531.29	3133746.53	40.242460	-105.020890	
Original Well Elev WELL @ 5092.0ft (Original Well Elev)						

Top Operating Company



Kintz 1 Pad Sec.8-T3N-R68W
Kintz 2
Plan #1 (11-08-12)
11:24, November 12 2012



Azimuths to True North
Magnetic North: 8.80°

Magnetic Field
Strength: 52871.4snT
Dip Angle: 66.83°
Date: 11/8/2012
Model: IGRF2010

WELLBORE TARGET DETAILS (LAT/LONG)

Name	TVD	+N/-S	+E/-W	Latitude	Longitude	Shape
TARGET BHL 1996'FSL, 1985'FEL	6000.0	-1446.2	-1052.5	40.238490	-105.024660	Point
LEGAL BOX 400' X 400' 1996'FSL & 1985'FEL	6700.0	-1446.2	-1052.5	40.238490	-105.024660	Rectangle (Sides: L400.0 W400.0)
TARGET CIRCLE 1996'FSL & 1985'FEL	6700.0	-1446.2	-1052.5	40.238490	-105.024660	Circle (Radius: 75.0)

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	700.0	0.00	0.00	700.0	0.0	0.0	0.00	0.00	0.0	
3	950.0	5.00	270.00	949.7	0.0	-10.9	2.00	270.00	6.4	
4	2043.0	24.32	214.48	2004.9	-187.8	-188.1	2.00	-65.76	262.6	
5	5132.3	24.32	214.48	4820.1	-1236.7	-908.6	0.00	0.00	1534.5	
6	6348.5	0.00	0.00	6000.0	-1446.2	-1052.5	2.00	180.00	1788.7	TARGET BHL 1996'FSL, 1985'FEL
7	8148.5	0.00	0.00	7800.0	-1446.2	-1052.5	0.00	0.00	1788.7	



Top Operating Company

SEC.8-T3N-R68W

Kintz 1 Pad Sec.8-T3N-R68W

Kintz 2

Wellbore #1

Plan: Plan #1 (11-08-12)

Standard Planning Report

12 November, 2012

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	
700.0	0.00	0.00	700.0	0.0	0.0	0.00	0.00	0.00	0.00	
950.0	5.00	270.00	949.7	0.0	-10.9	2.00	2.00	0.00	270.00	
2,043.0	24.32	214.48	2,004.9	-187.8	-188.1	2.00	1.77	-5.08	-65.76	
5,132.3	24.32	214.48	4,820.1	-1,236.7	-908.6	0.00	0.00	0.00	0.00	
6,348.5	0.00	0.00	6,000.0	-1,446.2	-1,052.5	2.00	-2.00	0.00	180.00	TARGET BHL 1996
8,148.5	0.00	0.00	7,800.0	-1,446.2	-1,052.5	0.00	0.00	0.00	0.00	

Database:	Landmark	Local Co-ordinate Reference:	Well Kintz 2
Company:	Top Operating Company	TVD Reference:	WELL @ 5092.0ft (Original Well Elev)
Project:	SEC.8-T3N-R68W	MD Reference:	WELL @ 5092.0ft (Original Well Elev)
Site:	Kintz 1 Pad Sec.8-T3N-R68W	North Reference:	True
Well:	Kintz 2	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plan #1 (11-08-12)		

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
40.0	0.00	0.00	40.0	0.0	0.0	0.0	0.00	0.00	0.00
80.0	0.00	0.00	80.0	0.0	0.0	0.0	0.00	0.00	0.00
120.0	0.00	0.00	120.0	0.0	0.0	0.0	0.00	0.00	0.00
160.0	0.00	0.00	160.0	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
240.0	0.00	0.00	240.0	0.0	0.0	0.0	0.00	0.00	0.00
280.0	0.00	0.00	280.0	0.0	0.0	0.0	0.00	0.00	0.00
320.0	0.00	0.00	320.0	0.0	0.0	0.0	0.00	0.00	0.00
360.0	0.00	0.00	360.0	0.0	0.0	0.0	0.00	0.00	0.00
400.0	0.00	0.00	400.0	0.0	0.0	0.0	0.00	0.00	0.00
440.0	0.00	0.00	440.0	0.0	0.0	0.0	0.00	0.00	0.00
480.0	0.00	0.00	480.0	0.0	0.0	0.0	0.00	0.00	0.00
500.0	0.00	0.00	500.0	0.0	0.0	0.0	0.00	0.00	0.00
8 5/8"									
520.0	0.00	0.00	520.0	0.0	0.0	0.0	0.00	0.00	0.00
560.0	0.00	0.00	560.0	0.0	0.0	0.0	0.00	0.00	0.00
600.0	0.00	0.00	600.0	0.0	0.0	0.0	0.00	0.00	0.00
640.0	0.00	0.00	640.0	0.0	0.0	0.0	0.00	0.00	0.00
680.0	0.00	0.00	680.0	0.0	0.0	0.0	0.00	0.00	0.00
700.0	0.00	0.00	700.0	0.0	0.0	0.0	0.00	0.00	0.00
720.0	0.40	270.00	720.0	0.0	-0.1	0.0	2.00	2.00	0.00
760.0	1.20	270.00	760.0	0.0	-0.6	0.4	2.00	2.00	0.00
800.0	2.00	270.00	800.0	0.0	-1.7	1.0	2.00	2.00	0.00
840.0	2.80	270.00	839.9	0.0	-3.4	2.0	2.00	2.00	0.00
880.0	3.60	270.00	879.9	0.0	-5.7	3.3	2.00	2.00	0.00
920.0	4.40	270.00	919.8	0.0	-8.4	5.0	2.00	2.00	0.00
950.0	5.00	270.00	949.7	0.0	-10.9	6.4	2.00	2.00	0.00
960.0	5.09	267.94	959.6	0.0	-11.8	6.9	2.00	0.85	-20.58
1,000.0	5.49	260.42	999.5	-0.4	-15.4	9.4	2.00	1.00	-18.81
1,040.0	5.97	254.01	1,039.3	-1.3	-19.3	12.4	2.00	1.20	-16.02
1,080.0	6.51	248.61	1,079.0	-2.7	-23.4	16.0	2.00	1.36	-13.49
1,120.0	7.11	244.08	1,118.8	-4.6	-27.8	20.1	2.00	1.48	-11.34
1,160.0	7.74	240.26	1,158.4	-7.0	-32.3	24.7	2.00	1.58	-9.55
1,200.0	8.40	237.02	1,198.0	-9.9	-37.1	29.9	2.00	1.65	-8.09
1,240.0	9.08	234.26	1,237.6	-13.4	-42.1	35.6	2.00	1.70	-6.90
1,280.0	9.78	231.89	1,277.0	-17.3	-47.4	41.9	2.00	1.75	-5.94
1,320.0	10.49	229.83	1,316.4	-21.8	-52.8	48.7	2.00	1.78	-5.14
1,360.0	11.21	228.03	1,355.7	-26.7	-58.5	56.0	2.00	1.81	-4.49
1,400.0	11.95	226.46	1,394.9	-32.2	-64.4	63.9	2.00	1.84	-3.95
1,440.0	12.69	225.06	1,433.9	-38.1	-70.5	72.3	2.00	1.86	-3.49
1,480.0	13.44	223.81	1,472.9	-44.6	-76.8	81.2	2.00	1.87	-3.11
1,520.0	14.19	222.70	1,511.8	-51.5	-83.4	90.7	2.00	1.89	-2.79
1,560.0	14.95	221.69	1,550.5	-59.0	-90.1	100.7	2.00	1.90	-2.51
1,600.0	15.72	220.78	1,589.0	-66.9	-97.1	111.3	2.00	1.91	-2.27
1,640.0	16.48	219.96	1,627.5	-75.4	-104.3	122.3	2.00	1.92	-2.07
1,680.0	17.25	219.20	1,665.7	-84.3	-111.7	133.9	2.00	1.92	-1.89
1,720.0	18.02	218.51	1,703.9	-93.8	-119.3	146.0	2.00	1.93	-1.73
1,760.0	18.80	217.87	1,741.8	-103.7	-127.1	158.6	2.00	1.94	-1.59
1,800.0	19.58	217.28	1,779.6	-114.1	-135.1	171.8	2.00	1.94	-1.47
1,840.0	20.35	216.74	1,817.2	-125.0	-143.3	185.4	2.00	1.95	-1.36
1,880.0	21.13	216.23	1,854.6	-136.4	-151.7	199.6	2.00	1.95	-1.27
1,920.0	21.91	215.76	1,891.8	-148.3	-160.4	214.3	2.00	1.95	-1.18
1,960.0	22.70	215.31	1,928.8	-160.7	-169.2	229.5	2.00	1.96	-1.10

Database:	Landmark	Local Co-ordinate Reference:	Well Kintz 2
Company:	Top Operating Company	TVD Reference:	WELL @ 5092.0ft (Original Well Elev)
Project:	SEC.8-T3N-R68W	MD Reference:	WELL @ 5092.0ft (Original Well Elev)
Site:	Kintz 1 Pad Sec.8-T3N-R68W	North Reference:	True
Well:	Kintz 2	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plan #1 (11-08-12)		

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)
2,000.0	23.48	214.90	1,965.6	-173.5	-178.2	245.1	2.00	1.96	-1.03
2,040.0	24.26	214.51	2,002.2	-186.8	-187.4	261.3	2.00	1.96	-0.97
2,043.0	24.32	214.48	2,004.9	-187.8	-188.1	262.6	2.00	1.96	-0.94
2,080.0	24.32	214.48	2,038.6	-200.4	-196.8	277.8	0.00	0.00	0.00
2,120.0	24.32	214.48	2,075.1	-214.0	-206.1	294.3	0.00	0.00	0.00
2,160.0	24.32	214.48	2,111.5	-227.5	-215.4	310.7	0.00	0.00	0.00
2,200.0	24.32	214.48	2,148.0	-241.1	-224.7	327.2	0.00	0.00	0.00
2,240.0	24.32	214.48	2,184.4	-254.7	-234.1	343.7	0.00	0.00	0.00
2,280.0	24.32	214.48	2,220.9	-268.3	-243.4	360.1	0.00	0.00	0.00
2,320.0	24.32	214.48	2,257.3	-281.9	-252.7	376.6	0.00	0.00	0.00
2,360.0	24.32	214.48	2,293.8	-295.4	-262.1	393.1	0.00	0.00	0.00
2,400.0	24.32	214.48	2,330.2	-309.0	-271.4	409.5	0.00	0.00	0.00
2,440.0	24.32	214.48	2,366.7	-322.6	-280.7	426.0	0.00	0.00	0.00
2,480.0	24.32	214.48	2,403.1	-336.2	-290.0	442.5	0.00	0.00	0.00
2,520.0	24.32	214.48	2,439.6	-349.8	-299.4	459.0	0.00	0.00	0.00
2,560.0	24.32	214.48	2,476.0	-363.3	-308.7	475.4	0.00	0.00	0.00
2,600.0	24.32	214.48	2,512.5	-376.9	-318.0	491.9	0.00	0.00	0.00
2,640.0	24.32	214.48	2,548.9	-390.5	-327.4	508.4	0.00	0.00	0.00
2,680.0	24.32	214.48	2,585.4	-404.1	-336.7	524.8	0.00	0.00	0.00
2,720.0	24.32	214.48	2,621.8	-417.7	-346.0	541.3	0.00	0.00	0.00
2,760.0	24.32	214.48	2,658.3	-431.2	-355.3	557.8	0.00	0.00	0.00
2,800.0	24.32	214.48	2,694.7	-444.8	-364.7	574.2	0.00	0.00	0.00
2,840.0	24.32	214.48	2,731.2	-458.4	-374.0	590.7	0.00	0.00	0.00
2,880.0	24.32	214.48	2,767.6	-472.0	-383.3	607.2	0.00	0.00	0.00
2,920.0	24.32	214.48	2,804.1	-485.6	-392.6	623.6	0.00	0.00	0.00
2,960.0	24.32	214.48	2,840.5	-499.1	-402.0	640.1	0.00	0.00	0.00
3,000.0	24.32	214.48	2,877.0	-512.7	-411.3	656.6	0.00	0.00	0.00
3,040.0	24.32	214.48	2,913.4	-526.3	-420.6	673.1	0.00	0.00	0.00
3,080.0	24.32	214.48	2,949.9	-539.9	-430.0	689.5	0.00	0.00	0.00
3,120.0	24.32	214.48	2,986.3	-553.5	-439.3	706.0	0.00	0.00	0.00
3,160.0	24.32	214.48	3,022.8	-567.0	-448.6	722.5	0.00	0.00	0.00
3,200.0	24.32	214.48	3,059.2	-580.6	-457.9	738.9	0.00	0.00	0.00
3,240.0	24.32	214.48	3,095.7	-594.2	-467.3	755.4	0.00	0.00	0.00
3,280.0	24.32	214.48	3,132.1	-607.8	-476.6	771.9	0.00	0.00	0.00
3,320.0	24.32	214.48	3,168.6	-621.4	-485.9	788.3	0.00	0.00	0.00
3,360.0	24.32	214.48	3,205.0	-634.9	-495.3	804.8	0.00	0.00	0.00
3,400.0	24.32	214.48	3,241.5	-648.5	-504.6	821.3	0.00	0.00	0.00
3,440.0	24.32	214.48	3,277.9	-662.1	-513.9	837.7	0.00	0.00	0.00
3,480.0	24.32	214.48	3,314.4	-675.7	-523.2	854.2	0.00	0.00	0.00
3,520.0	24.32	214.48	3,350.8	-689.3	-532.6	870.7	0.00	0.00	0.00
3,560.0	24.32	214.48	3,387.3	-702.8	-541.9	887.1	0.00	0.00	0.00
3,600.0	24.32	214.48	3,423.7	-716.4	-551.2	903.6	0.00	0.00	0.00
3,640.0	24.32	214.48	3,460.2	-730.0	-560.5	920.1	0.00	0.00	0.00
3,680.0	24.32	214.48	3,496.6	-743.6	-569.9	936.6	0.00	0.00	0.00
3,720.0	24.32	214.48	3,533.1	-757.2	-579.2	953.0	0.00	0.00	0.00
3,760.0	24.32	214.48	3,569.5	-770.7	-588.5	969.5	0.00	0.00	0.00
3,800.0	24.32	214.48	3,606.0	-784.3	-597.9	986.0	0.00	0.00	0.00
3,840.0	24.32	214.48	3,642.4	-797.9	-607.2	1,002.4	0.00	0.00	0.00
3,880.0	24.32	214.48	3,678.9	-811.5	-616.5	1,018.9	0.00	0.00	0.00
3,920.0	24.32	214.48	3,715.3	-825.1	-625.8	1,035.4	0.00	0.00	0.00
3,960.0	24.32	214.48	3,751.8	-838.6	-635.2	1,051.8	0.00	0.00	0.00
4,000.0	24.32	214.48	3,788.2	-852.2	-644.5	1,068.3	0.00	0.00	0.00
4,040.0	24.32	214.48	3,824.7	-865.8	-653.8	1,084.8	0.00	0.00	0.00
4,080.0	24.32	214.48	3,861.1	-879.4	-663.2	1,101.2	0.00	0.00	0.00

Database:	Landmark	Local Co-ordinate Reference:	Well Kintz 2
Company:	Top Operating Company	TVD Reference:	WELL @ 5092.0ft (Original Well Elev)
Project:	SEC.8-T3N-R68W	MD Reference:	WELL @ 5092.0ft (Original Well Elev)
Site:	Kintz 1 Pad Sec.8-T3N-R68W	North Reference:	True
Well:	Kintz 2	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plan #1 (11-08-12)		

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)
4,120.0	24.32	214.48	3,897.6	-893.0	-672.5	1,117.7	0.00	0.00	0.00
4,160.0	24.32	214.48	3,934.0	-906.5	-681.8	1,134.2	0.00	0.00	0.00
4,200.0	24.32	214.48	3,970.5	-920.1	-691.1	1,150.7	0.00	0.00	0.00
4,240.0	24.32	214.48	4,006.9	-933.7	-700.5	1,167.1	0.00	0.00	0.00
4,280.0	24.32	214.48	4,043.4	-947.3	-709.8	1,183.6	0.00	0.00	0.00
4,320.0	24.32	214.48	4,079.8	-960.9	-719.1	1,200.1	0.00	0.00	0.00
4,360.0	24.32	214.48	4,116.3	-974.4	-728.5	1,216.5	0.00	0.00	0.00
4,400.0	24.32	214.48	4,152.7	-988.0	-737.8	1,233.0	0.00	0.00	0.00
4,440.0	24.32	214.48	4,189.2	-1,001.6	-747.1	1,249.5	0.00	0.00	0.00
4,480.0	24.32	214.48	4,225.6	-1,015.2	-756.4	1,265.9	0.00	0.00	0.00
4,520.0	24.32	214.48	4,262.1	-1,028.8	-765.8	1,282.4	0.00	0.00	0.00
4,560.0	24.32	214.48	4,298.5	-1,042.3	-775.1	1,298.9	0.00	0.00	0.00
4,600.0	24.32	214.48	4,335.0	-1,055.9	-784.4	1,315.3	0.00	0.00	0.00
4,640.0	24.32	214.48	4,371.4	-1,069.5	-793.7	1,331.8	0.00	0.00	0.00
4,680.0	24.32	214.48	4,407.9	-1,083.1	-803.1	1,348.3	0.00	0.00	0.00
4,720.0	24.32	214.48	4,444.3	-1,096.7	-812.4	1,364.7	0.00	0.00	0.00
4,760.0	24.32	214.48	4,480.8	-1,110.2	-821.7	1,381.2	0.00	0.00	0.00
4,800.0	24.32	214.48	4,517.2	-1,123.8	-831.1	1,397.7	0.00	0.00	0.00
4,840.0	24.32	214.48	4,553.7	-1,137.4	-840.4	1,414.2	0.00	0.00	0.00
4,880.0	24.32	214.48	4,590.1	-1,151.0	-849.7	1,430.6	0.00	0.00	0.00
4,920.0	24.32	214.48	4,626.6	-1,164.6	-859.0	1,447.1	0.00	0.00	0.00
4,960.0	24.32	214.48	4,663.0	-1,178.1	-868.4	1,463.6	0.00	0.00	0.00
5,000.0	24.32	214.48	4,699.5	-1,191.7	-877.7	1,480.0	0.00	0.00	0.00
5,040.0	24.32	214.48	4,735.9	-1,205.3	-887.0	1,496.5	0.00	0.00	0.00
5,080.0	24.32	214.48	4,772.4	-1,218.9	-896.4	1,513.0	0.00	0.00	0.00
5,120.0	24.32	214.48	4,808.8	-1,232.5	-905.7	1,529.4	0.00	0.00	0.00
5,132.3	24.32	214.48	4,820.1	-1,236.7	-908.6	1,534.5	0.00	0.00	0.00
5,160.0	23.77	214.48	4,845.3	-1,245.9	-914.9	1,545.8	2.00	-2.00	0.00
5,200.0	22.97	214.48	4,882.0	-1,259.0	-923.9	1,561.6	2.00	-2.00	0.00
5,240.0	22.17	214.48	4,919.0	-1,271.7	-932.6	1,577.0	2.00	-2.00	0.00
5,280.0	21.37	214.48	4,956.1	-1,283.9	-941.0	1,591.8	2.00	-2.00	0.00
5,320.0	20.57	214.48	4,993.5	-1,295.7	-949.1	1,606.1	2.00	-2.00	0.00
5,360.0	19.77	214.48	5,031.0	-1,307.1	-956.9	1,619.9	2.00	-2.00	0.00
5,400.0	18.97	214.48	5,068.8	-1,318.0	-964.4	1,633.2	2.00	-2.00	0.00
5,440.0	18.17	214.48	5,106.7	-1,328.5	-971.7	1,645.9	2.00	-2.00	0.00
5,480.0	17.37	214.48	5,144.8	-1,338.6	-978.6	1,658.1	2.00	-2.00	0.00
5,520.0	16.57	214.48	5,183.0	-1,348.2	-985.2	1,669.8	2.00	-2.00	0.00
5,560.0	15.77	214.48	5,221.4	-1,357.4	-991.5	1,680.9	2.00	-2.00	0.00
5,600.0	14.97	214.48	5,260.0	-1,366.1	-997.5	1,691.5	2.00	-2.00	0.00
5,640.0	14.17	214.48	5,298.7	-1,374.4	-1,003.2	1,701.6	2.00	-2.00	0.00
5,680.0	13.37	214.48	5,337.6	-1,382.3	-1,008.6	1,711.1	2.00	-2.00	0.00
5,720.0	12.57	214.48	5,376.5	-1,389.7	-1,013.7	1,720.1	2.00	-2.00	0.00
5,760.0	11.77	214.48	5,415.6	-1,396.6	-1,018.4	1,728.5	2.00	-2.00	0.00
5,800.0	10.97	214.48	5,454.9	-1,403.1	-1,022.9	1,736.4	2.00	-2.00	0.00
5,840.0	10.17	214.48	5,494.2	-1,409.1	-1,027.1	1,743.7	2.00	-2.00	0.00
5,880.0	9.37	214.48	5,533.6	-1,414.7	-1,030.9	1,750.5	2.00	-2.00	0.00
5,920.0	8.57	214.48	5,573.1	-1,419.9	-1,034.4	1,756.7	2.00	-2.00	0.00
5,960.0	7.77	214.48	5,612.7	-1,424.6	-1,037.6	1,762.4	2.00	-2.00	0.00
6,000.0	6.97	214.48	5,652.4	-1,428.8	-1,040.5	1,767.5	2.00	-2.00	0.00
6,040.0	6.17	214.48	5,692.1	-1,432.6	-1,043.1	1,772.1	2.00	-2.00	0.00
6,080.0	5.37	214.48	5,731.9	-1,435.9	-1,045.4	1,776.1	2.00	-2.00	0.00
6,120.0	4.57	214.48	5,771.8	-1,438.7	-1,047.4	1,779.6	2.00	-2.00	0.00
6,160.0	3.77	214.48	5,811.7	-1,441.1	-1,049.0	1,782.5	2.00	-2.00	0.00
6,200.0	2.97	214.48	5,851.6	-1,443.1	-1,050.4	1,784.9	2.00	-2.00	0.00

Database:	Landmark	Local Co-ordinate Reference:	Well Kintz 2
Company:	Top Operating Company	TVD Reference:	WELL @ 5092.0ft (Original Well Elev)
Project:	SEC.8-T3N-R68W	MD Reference:	WELL @ 5092.0ft (Original Well Elev)
Site:	Kintz 1 Pad Sec.8-T3N-R68W	North Reference:	True
Well:	Kintz 2	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plan #1 (11-08-12)		

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)
6,240.0	2.17	214.48	5,891.5	-1,444.6	-1,051.4	1,786.7	2.00	-2.00	0.00
6,280.0	1.37	214.48	5,931.5	-1,445.6	-1,052.1	1,787.9	2.00	-2.00	0.00
6,320.0	0.57	214.48	5,971.5	-1,446.1	-1,052.5	1,788.6	2.00	-2.00	0.00
6,348.5	0.00	0.00	6,000.0	-1,446.2	-1,052.5	1,788.7	2.00	-2.00	0.00
TARGET BHL 1996'FSL, 1985'FEL									
6,360.0	0.00	0.00	6,011.5	-1,446.2	-1,052.5	1,788.7	0.00	0.00	0.00
6,400.0	0.00	0.00	6,051.5	-1,446.2	-1,052.5	1,788.7	0.00	0.00	0.00
6,440.0	0.00	0.00	6,091.5	-1,446.2	-1,052.5	1,788.7	0.00	0.00	0.00
6,480.0	0.00	0.00	6,131.5	-1,446.2	-1,052.5	1,788.7	0.00	0.00	0.00
6,520.0	0.00	0.00	6,171.5	-1,446.2	-1,052.5	1,788.7	0.00	0.00	0.00
6,560.0	0.00	0.00	6,211.5	-1,446.2	-1,052.5	1,788.7	0.00	0.00	0.00
6,600.0	0.00	0.00	6,251.5	-1,446.2	-1,052.5	1,788.7	0.00	0.00	0.00
6,640.0	0.00	0.00	6,291.5	-1,446.2	-1,052.5	1,788.7	0.00	0.00	0.00
6,680.0	0.00	0.00	6,331.5	-1,446.2	-1,052.5	1,788.7	0.00	0.00	0.00
6,720.0	0.00	0.00	6,371.5	-1,446.2	-1,052.5	1,788.7	0.00	0.00	0.00
6,760.0	0.00	0.00	6,411.5	-1,446.2	-1,052.5	1,788.7	0.00	0.00	0.00
6,800.0	0.00	0.00	6,451.5	-1,446.2	-1,052.5	1,788.7	0.00	0.00	0.00
6,840.0	0.00	0.00	6,491.5	-1,446.2	-1,052.5	1,788.7	0.00	0.00	0.00
6,880.0	0.00	0.00	6,531.5	-1,446.2	-1,052.5	1,788.7	0.00	0.00	0.00
6,920.0	0.00	0.00	6,571.5	-1,446.2	-1,052.5	1,788.7	0.00	0.00	0.00
6,960.0	0.00	0.00	6,611.5	-1,446.2	-1,052.5	1,788.7	0.00	0.00	0.00
7,000.0	0.00	0.00	6,651.5	-1,446.2	-1,052.5	1,788.7	0.00	0.00	0.00
7,040.0	0.00	0.00	6,691.5	-1,446.2	-1,052.5	1,788.7	0.00	0.00	0.00
7,048.5	0.00	0.00	6,700.0	-1,446.2	-1,052.5	1,788.7	0.00	0.00	0.00
TARGET CIRCLE 1996'FSL & 1985'FEL - LEGAL BOX 400' X 400' 1996'FSL & 1985'FEL									
7,080.0	0.00	0.00	6,731.5	-1,446.2	-1,052.5	1,788.7	0.00	0.00	0.00
7,120.0	0.00	0.00	6,771.5	-1,446.2	-1,052.5	1,788.7	0.00	0.00	0.00
7,160.0	0.00	0.00	6,811.5	-1,446.2	-1,052.5	1,788.7	0.00	0.00	0.00
7,200.0	0.00	0.00	6,851.5	-1,446.2	-1,052.5	1,788.7	0.00	0.00	0.00
7,240.0	0.00	0.00	6,891.5	-1,446.2	-1,052.5	1,788.7	0.00	0.00	0.00
7,280.0	0.00	0.00	6,931.5	-1,446.2	-1,052.5	1,788.7	0.00	0.00	0.00
7,320.0	0.00	0.00	6,971.5	-1,446.2	-1,052.5	1,788.7	0.00	0.00	0.00
7,360.0	0.00	0.00	7,011.5	-1,446.2	-1,052.5	1,788.7	0.00	0.00	0.00
7,400.0	0.00	0.00	7,051.5	-1,446.2	-1,052.5	1,788.7	0.00	0.00	0.00
7,440.0	0.00	0.00	7,091.5	-1,446.2	-1,052.5	1,788.7	0.00	0.00	0.00
7,480.0	0.00	0.00	7,131.5	-1,446.2	-1,052.5	1,788.7	0.00	0.00	0.00
7,520.0	0.00	0.00	7,171.5	-1,446.2	-1,052.5	1,788.7	0.00	0.00	0.00
7,560.0	0.00	0.00	7,211.5	-1,446.2	-1,052.5	1,788.7	0.00	0.00	0.00
7,600.0	0.00	0.00	7,251.5	-1,446.2	-1,052.5	1,788.7	0.00	0.00	0.00
7,640.0	0.00	0.00	7,291.5	-1,446.2	-1,052.5	1,788.7	0.00	0.00	0.00
7,680.0	0.00	0.00	7,331.5	-1,446.2	-1,052.5	1,788.7	0.00	0.00	0.00
7,720.0	0.00	0.00	7,371.5	-1,446.2	-1,052.5	1,788.7	0.00	0.00	0.00
7,760.0	0.00	0.00	7,411.5	-1,446.2	-1,052.5	1,788.7	0.00	0.00	0.00
7,800.0	0.00	0.00	7,451.5	-1,446.2	-1,052.5	1,788.7	0.00	0.00	0.00
7,840.0	0.00	0.00	7,491.5	-1,446.2	-1,052.5	1,788.7	0.00	0.00	0.00
7,880.0	0.00	0.00	7,531.5	-1,446.2	-1,052.5	1,788.7	0.00	0.00	0.00
7,920.0	0.00	0.00	7,571.5	-1,446.2	-1,052.5	1,788.7	0.00	0.00	0.00
7,960.0	0.00	0.00	7,611.5	-1,446.2	-1,052.5	1,788.7	0.00	0.00	0.00
8,000.0	0.00	0.00	7,651.5	-1,446.2	-1,052.5	1,788.7	0.00	0.00	0.00
8,040.0	0.00	0.00	7,691.5	-1,446.2	-1,052.5	1,788.7	0.00	0.00	0.00
8,080.0	0.00	0.00	7,731.5	-1,446.2	-1,052.5	1,788.7	0.00	0.00	0.00
8,120.0	0.00	0.00	7,771.5	-1,446.2	-1,052.5	1,788.7	0.00	0.00	0.00
8,148.5	0.00	0.00	7,800.0	-1,446.2	-1,052.5	1,788.7	0.00	0.00	0.00

Database:	Landmark	Local Co-ordinate Reference:	Well Kintz 2
Company:	Top Operating Company	TVD Reference:	WELL @ 5092.0ft (Original Well Elev)
Project:	SEC.8-T3N-R68W	MD Reference:	WELL @ 5092.0ft (Original Well Elev)
Site:	Kintz 1 Pad Sec.8-T3N-R68W	North Reference:	True
Well:	Kintz 2	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plan #1 (11-08-12)		

Targets									
Target Name	Dip Angle	Dip Dir.	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
- hit/miss target	(°)	(°)	(ft)	(ft)	(ft)	(ft)	(ft)		
- Shape									
TARGET CIRCLE 1996'F: - plan hits target center - Circle (radius 75.0)	0.00	0.00	6,700.0	-1,446.2	-1,052.5	1,330,079.44	3,132,701.87	40.238490	-105.024660
TARGET BHL 1996'F: - plan hits target center - Point	0.00	0.00	6,000.0	-1,446.2	-1,052.5	1,330,079.44	3,132,701.87	40.238490	-105.024660
LEGAL BOX 400' X 400' - plan hits target center - Rectangle (sides W400.0 H400.0 D1,100.0)	0.00	0.00	6,700.0	-1,446.2	-1,052.5	1,330,079.44	3,132,701.87	40.238490	-105.024660

Casing Points					
Measured Depth (ft)	Vertical Depth (ft)	Name	Casing Diameter (")	Hole Diameter (")	
500.0	500.0	8 5/8"	8-5/8	12-1/4	



Top Operating Company

SEC.8-T3N-R68W

Kintz 1 Pad Sec.8-T3N-R68W

Kintz 2

Wellbore #1

Plan #1 (11-08-12)

Anticollision Report

12 November, 2012

Company:	Top Operating Company	Local Co-ordinate Reference:	Well Kintz 2
Project:	SEC.8-T3N-R68W	TVD Reference:	WELL @ 5092.0ft (Original Well Elev)
Reference Site:	Kintz 1 Pad Sec.8-T3N-R68W	MD Reference:	WELL @ 5092.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Kintz 2	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	Landmark
Reference Design:	Plan #1 (11-08-12)	Offset TVD Reference:	Offset Datum

Offset Design												Offset Site Error:	0.0 ft
Survey Program: 7800-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	
1,200.0	1,198.0	1,197.0	1,197.0	2.6	23.9	147.82	69.2	0.0	87.4	61.2	26.27	3.328	
1,300.0	1,296.7	1,295.7	1,295.7	2.8	25.9	158.31	69.2	0.0	101.8	73.5	28.29	3.599	
1,400.0	1,394.9	1,393.9	1,393.9	3.2	27.9	165.67	69.2	0.0	120.1	89.8	30.25	3.970	
1,500.0	1,492.3	1,491.3	1,491.3	3.5	29.8	170.84	69.2	0.0	142.0	109.8	32.14	4.417	
1,600.0	1,589.0	1,588.0	1,588.0	4.0	31.8	174.51	69.2	0.0	167.2	133.3	33.96	4.925	
1,700.0	1,684.8	1,683.8	1,683.8	4.5	33.7	177.14	69.2	0.0	195.9	160.2	35.69	5.488	
1,800.0	1,779.6	1,778.6	1,778.6	5.0	35.6	179.05	69.2	0.0	227.8	190.4	37.35	6.099	
1,900.0	1,873.2	1,872.2	1,872.2	5.6	37.4	-179.54	69.2	0.0	262.9	223.9	38.91	6.756	
2,000.0	1,965.6	1,964.6	1,964.6	6.3	39.3	-178.49	69.2	0.0	301.1	260.7	40.37	7.460	
2,043.0	2,004.9	2,003.9	2,003.9	6.6	40.1	-178.12	69.2	0.0	318.5	277.6	40.96	7.776	
2,100.0	2,056.9	2,055.9	2,055.9	7.0	41.1	-178.25	69.2	0.0	342.0	299.9	42.08	8.126	
2,200.0	2,148.0	2,147.0	2,147.0	7.8	42.9	-178.43	69.2	0.0	383.2	339.1	44.06	8.696	
2,300.0	2,239.1	2,238.1	2,238.1	8.6	44.8	-178.59	69.2	0.0	424.3	378.3	46.04	9.216	
2,400.0	2,330.2	2,329.2	2,329.2	9.3	46.6	-178.71	69.2	0.0	465.5	417.5	48.03	9.692	
2,500.0	2,421.4	2,420.4	2,420.4	10.1	48.4	-178.82	69.2	0.0	506.7	456.7	50.03	10.129	
2,600.0	2,512.5	2,511.5	2,511.5	10.9	50.2	-178.91	69.2	0.0	547.9	495.9	52.02	10.531	
2,700.0	2,603.6	2,602.6	2,602.6	11.7	52.1	-178.98	69.2	0.0	589.1	535.0	54.02	10.904	
2,800.0	2,694.7	2,693.7	2,693.7	12.5	53.9	-179.05	69.2	0.0	630.3	574.2	56.03	11.249	
2,900.0	2,785.9	2,784.9	2,784.9	13.4	55.7	-179.11	69.2	0.0	671.4	613.4	58.04	11.569	
3,000.0	2,877.0	2,876.0	2,876.0	14.2	57.5	-179.16	69.2	0.0	712.6	652.6	60.04	11.868	
3,100.0	2,968.1	2,967.1	2,967.1	15.0	59.3	-179.20	69.2	0.0	753.8	691.7	62.06	12.147	
3,200.0	3,059.2	3,058.2	3,058.2	15.8	61.2	-179.25	69.2	0.0	795.0	730.9	64.07	12.409	
3,300.0	3,150.4	3,149.4	3,149.4	16.6	63.0	-179.28	69.2	0.0	836.2	770.1	66.08	12.654	
3,400.0	3,241.5	3,240.5	3,240.5	17.4	64.8	-179.32	69.2	0.0	877.4	809.3	68.10	12.884	
3,500.0	3,332.6	3,331.6	3,331.6	18.3	66.6	-179.35	69.2	0.0	918.5	848.4	70.11	13.101	
3,600.0	3,423.7	3,422.7	3,422.7	19.1	68.5	-179.37	69.2	0.0	959.7	887.6	72.13	13.306	
3,700.0	3,514.9	3,513.9	3,513.9	19.9	70.3	-179.40	69.2	0.0	1,000.9	926.8	74.15	13.499	
3,800.0	3,606.0	3,605.0	3,605.0	20.7	72.1	-179.42	69.2	0.0	1,042.1	965.9	76.17	13.682	
3,900.0	3,697.1	3,696.1	3,696.1	21.6	73.9	-179.45	69.2	0.0	1,083.3	1,005.1	78.19	13.855	
4,000.0	3,788.2	3,787.2	3,787.2	22.4	75.7	-179.47	69.2	0.0	1,124.5	1,044.3	80.21	14.020	
4,100.0	3,879.3	3,878.3	3,878.3	23.2	77.6	-179.49	69.2	0.0	1,165.7	1,083.4	82.23	14.176	
4,200.0	3,970.5	3,969.5	3,969.5	24.1	79.4	-179.50	69.2	0.0	1,206.8	1,122.6	84.25	14.325	
4,300.0	4,061.6	4,060.6	4,060.6	24.9	81.2	-179.52	69.2	0.0	1,248.0	1,161.8	86.27	14.466	
4,400.0	4,152.7	4,151.7	4,151.7	25.7	83.0	-179.53	69.2	0.0	1,289.2	1,200.9	88.29	14.602	
4,500.0	4,243.8	4,242.8	4,242.8	26.5	84.9	-179.55	69.2	0.0	1,330.4	1,240.1	90.32	14.731	
4,600.0	4,335.0	4,334.0	4,334.0	27.4	86.7	-179.56	69.2	0.0	1,371.6	1,279.2	92.34	14.854	
4,700.0	4,426.1	4,425.1	4,425.1	28.2	88.5	-179.58	69.2	0.0	1,412.8	1,318.4	94.36	14.972	
4,800.0	4,517.2	4,516.2	4,516.2	29.0	90.3	-179.59	69.2	0.0	1,454.0	1,357.6	96.39	15.085	
4,900.0	4,608.3	4,607.3	4,607.3	29.9	92.1	-179.60	69.2	0.0	1,495.1	1,396.7	98.41	15.193	
5,000.0	4,699.5	4,698.5	4,698.5	30.7	94.0	-179.61	69.2	0.0	1,536.3	1,435.9	100.43	15.297	
5,100.0	4,790.6	4,789.6	4,789.6	31.5	95.8	-179.62	69.2	0.0	1,577.5	1,475.1	102.46	15.397	
5,132.3	4,820.1	4,819.1	4,819.1	31.8	96.4	-179.62	69.2	0.0	1,590.8	1,487.7	103.11	15.428	
5,200.0	4,882.0	4,881.0	4,881.0	32.3	97.6	-179.63	69.2	0.0	1,618.0	1,512.6	105.42	15.348	
5,300.0	4,974.8	4,973.8	4,973.8	32.8	99.5	-179.65	69.2	0.0	1,655.4	1,546.6	108.75	15.221	
5,400.0	5,068.8	5,067.8	5,067.8	33.3	101.4	-179.66	69.2	0.0	1,689.5	1,577.5	112.02	15.083	
5,500.0	5,163.9	5,162.9	5,162.9	33.8	103.3	-179.67	69.2	0.0	1,720.4	1,605.2	115.19	14.935	
5,600.0	5,260.0	5,259.0	5,259.0	34.3	105.2	-179.68	69.2	0.0	1,747.9	1,629.6	118.27	14.779	
5,700.0	5,357.0	5,356.0	5,356.0	34.6	107.1	-179.68	69.2	0.0	1,772.0	1,650.8	121.24	14.616	
5,800.0	5,454.9	5,453.9	5,453.9	35.0	109.1	-179.69	69.2	0.0	1,792.8	1,668.7	124.09	14.447	
5,900.0	5,553.3	5,552.3	5,552.3	35.3	111.0	-179.69	69.2	0.0	1,810.1	1,683.3	126.82	14.273	
6,000.0	5,652.4	5,651.4	5,651.4	35.5	113.0	-179.70	69.2	0.0	1,823.9	1,694.5	129.41	14.095	
6,100.0	5,751.8	5,750.8	5,750.8	35.7	115.0	-179.70	69.2	0.0	1,834.3	1,702.5	131.85	13.912	

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

Company:	Top Operating Company	Local Co-ordinate Reference:	Well Kintz 2
Project:	SEC.8-T3N-R68W	TVD Reference:	WELL @ 5092.0ft (Original Well Elev)
Reference Site:	Kintz 1 Pad Sec.8-T3N-R68W	MD Reference:	WELL @ 5092.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Kintz 2	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	Landmark
Reference Design:	Plan #1 (11-08-12)	Offset TVD Reference:	Offset Datum

Offset Design Kintz 1 Pad Sec.8-T3N-R68W - Kintz 1 (Exist.) - Wellbore #1 - Wellbore #1												Offset Site Error: 0.0 ft	
Survey Program: 7800-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
6,200.0	5,851.6	5,850.6	5,850.6	35.9	117.0	-179.70	69.2	0.0	1,841.3	1,707.1	134.14	13.727	
6,300.0	5,951.5	5,950.5	5,950.5	36.0	119.0	-179.70	69.2	0.0	1,844.7	1,708.5	136.25	13.539	
6,348.5	6,000.0	5,999.0	5,999.0	36.1	120.0	34.78	69.2	0.0	1,845.1	1,707.9	137.22	13.446	
6,400.0	6,051.5	6,050.5	6,050.5	36.1	121.0	34.78	69.2	0.0	1,845.1	1,706.8	138.33	13.339	
6,500.0	6,151.5	6,150.5	6,150.5	36.2	123.0	34.78	69.2	0.0	1,845.1	1,704.7	140.47	13.136	
6,600.0	6,251.5	6,250.5	6,250.5	36.2	125.0	34.78	69.2	0.0	1,845.1	1,702.5	142.61	12.938	
6,700.0	6,351.5	6,350.5	6,350.5	36.3	127.0	34.78	69.2	0.0	1,845.1	1,700.4	144.75	12.747	
6,800.0	6,451.5	6,450.5	6,450.5	36.4	129.0	34.78	69.2	0.0	1,845.1	1,698.2	146.89	12.561	
6,900.0	6,551.5	6,550.5	6,550.5	36.4	131.0	34.78	69.2	0.0	1,845.1	1,696.1	149.04	12.380	
7,000.0	6,651.5	6,650.5	6,650.5	36.5	133.0	34.78	69.2	0.0	1,845.1	1,693.9	151.19	12.204	
7,100.0	6,751.5	6,750.5	6,750.5	36.6	135.0	34.78	69.2	0.0	1,845.1	1,691.8	153.34	12.033	
7,200.0	6,851.5	6,850.5	6,850.5	36.7	137.0	34.78	69.2	0.0	1,845.1	1,689.6	155.49	11.867	
7,300.0	6,951.5	6,950.5	6,950.5	36.7	139.0	34.78	69.2	0.0	1,845.1	1,687.5	157.64	11.704	
7,400.0	7,051.5	7,050.5	7,050.5	36.8	141.0	34.78	69.2	0.0	1,845.1	1,685.3	159.80	11.547	
7,500.0	7,151.5	7,150.5	7,150.5	36.9	143.0	34.78	69.2	0.0	1,845.1	1,683.2	161.95	11.393	
7,600.0	7,251.5	7,250.5	7,250.5	37.0	145.0	34.78	69.2	0.0	1,845.1	1,681.0	164.11	11.243	
7,700.0	7,351.5	7,350.5	7,350.5	37.1	147.0	34.78	69.2	0.0	1,845.1	1,678.9	166.27	11.097	
7,800.0	7,451.5	7,450.5	7,450.5	37.1	149.0	34.78	69.2	0.0	1,845.1	1,676.7	168.43	10.955	
7,900.0	7,551.5	7,550.5	7,550.5	37.2	151.0	34.78	69.2	0.0	1,845.1	1,674.5	170.59	10.816	
8,000.0	7,651.5	7,650.5	7,650.5	37.3	153.0	34.78	69.2	0.0	1,845.1	1,672.4	172.75	10.681	
8,100.0	7,751.5	7,750.5	7,750.5	37.4	155.0	34.78	69.2	0.0	1,845.1	1,670.2	174.91	10.549	
8,148.5	7,800.0	7,799.0	7,799.0	37.4	156.0	34.78	69.2	0.0	1,845.1	1,669.2	175.96	10.486	

Company:	Top Operating Company	Local Co-ordinate Reference:	Well Kintz 2
Project:	SEC.8-T3N-R68W	TVD Reference:	WELL @ 5092.0ft (Original Well Elev)
Reference Site:	Kintz 1 Pad Sec.8-T3N-R68W	MD Reference:	WELL @ 5092.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Kintz 2	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	Landmark
Reference Design:	Plan #1 (11-08-12)	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	0.0	0.0	0.0	0.0	180.00	-10.9	0.0	10.9	10.9	0.00	N/A		
100.0	100.0	100.0	100.0	0.1	0.1	180.00	-10.9	0.0	10.9	10.7	0.22	48.624		
200.0	200.0	200.0	200.0	0.3	0.3	180.00	-10.9	0.0	10.9	10.3	0.67	16.208		
300.0	300.0	300.0	300.0	0.6	0.6	180.00	-10.9	0.0	10.9	9.8	1.12	9.725		
400.0	400.0	400.0	400.0	0.8	0.8	180.00	-10.9	0.0	10.9	9.4	1.57	6.946		
500.0	500.0	500.0	500.0	1.0	1.0	180.00	-10.9	0.0	10.9	8.9	2.02	5.403		
600.0	600.0	600.0	600.0	1.2	1.2	180.00	-10.9	0.0	10.9	8.5	2.47	4.420		
700.0	700.0	700.0	700.0	1.5	1.5	180.00	-10.9	0.0	10.9	8.0	2.92	3.740 CC		
727.4	727.4	727.4	727.4	1.5	1.5	-90.68	-10.9	0.0	10.9	7.9	3.04	3.594		
800.0	800.0	800.0	800.0	1.7	1.7	-99.07	-10.9	0.0	11.1	7.7	3.36	3.295 ES, SF		
900.0	899.8	899.8	899.8	1.9	1.9	-122.50	-10.9	0.0	13.0	9.2	3.79	3.421		
950.0	949.7	949.5	949.5	2.0	2.0	-135.88	-10.9	0.4	15.7	11.7	4.00	3.935		
1,000.0	999.5	998.9	998.9	2.1	2.1	-138.62	-10.9	1.7	20.1	15.9	4.20	4.787		
1,100.0	1,098.9	1,096.8	1,096.7	2.3	2.3	-142.97	-10.9	6.8	33.2	28.6	4.60	7.228		
1,200.0	1,198.0	1,194.0	1,193.5	2.6	2.5	-144.85	-11.3	14.7	52.0	47.0	5.00	10.411		
1,300.0	1,296.7	1,291.7	1,290.9	2.8	2.7	-143.87	-14.4	23.0	73.5	68.1	5.38	13.645		
1,400.0	1,394.9	1,389.5	1,388.1	3.2	2.9	-142.06	-20.9	31.0	96.3	90.5	5.80	16.614		
1,500.0	1,492.3	1,487.3	1,485.1	3.5	3.2	-140.15	-30.7	38.7	120.3	114.0	6.25	19.243		
1,600.0	1,589.0	1,585.1	1,581.7	4.0	3.4	-138.34	-43.8	46.2	145.4	138.6	6.77	21.484		
1,700.0	1,684.8	1,683.0	1,677.9	4.5	3.7	-136.65	-60.2	53.4	171.4	164.1	7.35	23.307		
1,800.0	1,779.6	1,780.8	1,773.5	5.0	4.0	-135.09	-79.9	60.3	198.4	190.4	8.03	24.703		
1,900.0	1,873.2	1,878.7	1,868.4	5.6	4.4	-133.62	-102.8	66.8	226.4	217.6	8.81	25.694		
2,000.0	1,965.6	1,976.5	1,962.5	6.3	4.8	-132.25	-129.0	73.1	255.2	245.5	9.70	26.314		
2,043.0	2,004.9	2,018.6	2,002.7	6.6	5.0	-131.69	-141.2	75.7	267.9	257.8	10.12	26.483		
2,100.0	2,056.9	2,074.5	2,055.7	7.0	5.3	-131.62	-158.4	79.0	284.6	273.9	10.71	26.585		
2,200.0	2,148.0	2,172.8	2,148.3	7.8	5.8	-131.04	-191.1	84.6	313.4	301.6	11.83	26.588		
2,300.0	2,239.1	2,269.8	2,238.6	8.6	6.4	-130.10	-225.9	89.9	341.5	328.5	13.04	26.186		
2,400.0	2,330.2	2,365.6	2,327.8	9.3	7.0	-129.26	-260.6	95.1	369.6	355.3	14.29	25.860		
2,500.0	2,421.4	2,461.5	2,417.0	10.1	7.6	-128.54	-295.3	100.2	397.8	382.3	15.57	25.543		
2,600.0	2,512.5	2,557.3	2,506.2	10.9	8.2	-127.91	-330.0	105.4	426.1	409.2	16.88	25.243		
2,700.0	2,603.6	2,653.1	2,595.4	11.7	8.9	-127.36	-364.7	110.6	454.4	436.2	18.20	24.964		
2,800.0	2,694.7	2,749.0	2,684.5	12.5	9.5	-126.88	-399.4	115.8	482.7	463.1	19.54	24.706		
2,900.0	2,785.9	2,844.8	2,773.7	13.4	10.2	-126.45	-434.1	120.9	511.0	490.1	20.88	24.469		
3,000.0	2,877.0	2,940.6	2,862.9	14.2	10.9	-126.07	-468.8	126.1	539.4	517.1	22.24	24.251		
3,100.0	2,968.1	3,036.4	2,952.1	15.0	11.5	-125.72	-503.5	131.3	567.8	544.2	23.61	24.051		
3,200.0	3,059.2	3,132.3	3,041.3	15.8	12.2	-125.41	-538.2	136.5	596.2	571.2	24.98	23.867		
3,300.0	3,150.4	3,228.1	3,130.4	16.6	12.9	-125.12	-572.8	141.6	624.6	598.3	26.36	23.698		
3,400.0	3,241.5	3,323.9	3,219.6	17.4	13.6	-124.86	-607.5	146.8	653.0	625.3	27.74	23.543		
3,500.0	3,332.6	3,419.8	3,308.8	18.3	14.3	-124.62	-642.2	152.0	681.5	652.4	29.12	23.399		
3,600.0	3,423.7	3,515.6	3,398.0	19.1	14.9	-124.40	-676.9	157.2	709.9	679.4	30.51	23.266		
3,700.0	3,514.9	3,611.4	3,487.2	19.9	15.6	-124.20	-711.6	162.3	738.4	706.5	31.91	23.143		
3,800.0	3,606.0	3,707.3	3,576.4	20.7	16.3	-124.01	-746.3	167.5	766.9	733.6	33.30	23.028		
3,900.0	3,697.1	3,803.1	3,665.5	21.6	17.0	-123.84	-781.0	172.7	795.4	760.7	34.70	22.921		
4,000.0	3,788.2	3,898.9	3,754.7	22.4	17.7	-123.68	-815.7	177.9	823.8	787.7	36.10	22.822		
4,100.0	3,879.3	3,994.8	3,843.9	23.2	18.4	-123.53	-850.4	183.0	852.3	814.8	37.50	22.728		
4,200.0	3,970.5	4,090.6	3,933.1	24.1	19.1	-123.39	-885.1	188.2	880.8	841.9	38.90	22.641		
4,300.0	4,061.6	4,186.4	4,022.3	24.9	19.8	-123.25	-919.8	193.4	909.3	869.0	40.31	22.559		
4,400.0	4,152.7	4,282.3	4,111.4	25.7	20.5	-123.13	-954.5	198.6	937.8	896.1	41.71	22.482		
4,500.0	4,243.8	4,378.1	4,200.6	26.5	21.2	-123.01	-989.2	203.7	966.4	923.2	43.12	22.410		
4,600.0	4,335.0	4,473.9	4,289.8	27.4	21.9	-122.90	-1,023.9	208.9	994.9	950.3	44.53	22.342		
4,700.0	4,426.1	4,569.8	4,379.0	28.2	22.6	-122.80	-1,058.6	214.1	1,023.4	977.4	45.94	22.277		
4,800.0	4,517.2	4,665.6	4,468.2	29.0	23.3	-122.70	-1,093.3	219.2	1,051.9	1,004.6	47.35	22.216		

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

Company:	Top Operating Company	Local Co-ordinate Reference:	Well Kintz 2
Project:	SEC.8-T3N-R68W	TVD Reference:	WELL @ 5092.0ft (Original Well Elev)
Reference Site:	Kintz 1 Pad Sec.8-T3N-R68W	MD Reference:	WELL @ 5092.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Kintz 2	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	Landmark
Reference Design:	Plan #1 (11-08-12)	Offset TVD Reference:	Offset Datum

Offset Design Kintz 1 Pad Sec.8-T3N-R68W - Kintz 3 - Wellbore #1 - Plan #1 (11-08-12)												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
4,900.0	4,608.3	4,761.4	4,557.3	29.9	24.0	-122.60	-1,128.0	224.4	1,080.4	1,031.7	48.76	22.158	
5,000.0	4,699.5	4,857.3	4,646.5	30.7	24.7	-122.52	-1,162.6	229.6	1,108.9	1,058.8	50.17	22.103	
5,100.0	4,790.6	4,953.1	4,735.7	31.5	25.4	-122.43	-1,197.3	234.8	1,137.5	1,085.9	51.58	22.051	
5,132.3	4,820.1	4,984.1	4,764.6	31.8	25.6	-122.41	-1,208.6	236.4	1,146.7	1,094.7	52.04	22.035	
5,200.0	4,882.0	5,049.0	4,825.0	32.3	26.1	-122.65	-1,232.1	240.0	1,165.6	1,112.6	52.96	22.009	
5,300.0	4,974.8	5,149.5	4,918.8	32.8	26.7	-122.89	-1,267.6	245.3	1,191.9	1,137.8	54.11	22.026	
5,400.0	5,068.8	5,252.5	5,016.2	33.3	27.2	-123.12	-1,300.8	250.2	1,215.9	1,160.8	55.13	22.054	
5,500.0	5,163.9	5,356.3	5,115.5	33.8	27.6	-123.33	-1,330.7	254.7	1,237.6	1,181.5	56.08	22.070	
5,600.0	5,260.0	5,461.0	5,216.7	34.3	28.1	-123.54	-1,357.2	258.6	1,256.9	1,199.9	56.93	22.077	
5,700.0	5,357.0	5,566.3	5,319.4	34.6	28.5	-123.74	-1,380.2	262.0	1,273.8	1,216.1	57.70	22.076	
5,800.0	5,454.9	5,672.1	5,423.4	35.0	28.8	-123.93	-1,399.5	264.9	1,288.2	1,229.8	58.37	22.069	
5,900.0	5,553.3	5,778.5	5,528.6	35.3	29.1	-124.12	-1,415.1	267.2	1,300.2	1,241.2	58.94	22.058	
6,000.0	5,652.4	5,885.2	5,634.6	35.5	29.3	-124.30	-1,426.8	269.0	1,309.7	1,250.3	59.41	22.044	
6,100.0	5,751.8	5,992.1	5,741.2	35.7	29.5	-124.47	-1,434.6	270.2	1,316.6	1,256.9	59.78	22.026	
6,200.0	5,851.6	6,099.1	5,848.1	35.9	29.6	-124.64	-1,438.5	270.7	1,321.1	1,261.1	60.03	22.006	
6,300.0	5,951.5	6,202.5	5,951.5	36.0	29.7	-124.78	-1,439.0	270.8	1,323.1	1,262.9	60.20	21.979	
6,348.5	6,000.0	6,251.0	6,000.0	36.1	29.8	89.69	-1,439.0	270.8	1,323.4	1,263.1	60.27	21.958	
6,400.0	6,051.5	6,302.5	6,051.5	36.1	29.8	89.69	-1,439.0	270.8	1,323.4	1,263.0	60.35	21.928	
6,500.0	6,151.5	6,402.5	6,151.5	36.2	29.9	89.69	-1,439.0	270.8	1,323.4	1,262.9	60.51	21.871	
6,600.0	6,251.5	6,502.5	6,251.5	36.2	30.0	89.69	-1,439.0	270.8	1,323.4	1,262.7	60.67	21.813	
6,700.0	6,351.5	6,602.5	6,351.5	36.3	30.1	89.69	-1,439.0	270.8	1,323.4	1,262.5	60.83	21.755	
6,800.0	6,451.5	6,702.5	6,451.5	36.4	30.1	89.69	-1,439.0	270.8	1,323.4	1,262.4	61.00	21.696	
6,900.0	6,551.5	6,802.5	6,551.5	36.4	30.2	89.69	-1,439.0	270.8	1,323.4	1,262.2	61.17	21.636	
7,000.0	6,651.5	6,902.5	6,651.5	36.5	30.3	89.69	-1,439.0	270.8	1,323.4	1,262.0	61.34	21.576	
7,100.0	6,751.5	7,002.5	6,751.5	36.6	30.4	89.69	-1,439.0	270.8	1,323.4	1,261.9	61.51	21.514	
7,200.0	6,851.5	7,102.5	6,851.5	36.7	30.5	89.69	-1,439.0	270.8	1,323.4	1,261.7	61.69	21.453	
7,300.0	6,951.5	7,202.5	6,951.5	36.7	30.6	89.69	-1,439.0	270.8	1,323.4	1,261.5	61.87	21.390	
7,400.0	7,051.5	7,302.5	7,051.5	36.8	30.7	89.69	-1,439.0	270.8	1,323.4	1,261.3	62.05	21.328	
7,500.0	7,151.5	7,402.5	7,151.5	36.9	30.8	89.69	-1,439.0	270.8	1,323.4	1,261.1	62.23	21.264	
7,600.0	7,251.5	7,502.5	7,251.5	37.0	30.9	89.69	-1,439.0	270.8	1,323.4	1,260.9	62.42	21.200	
7,700.0	7,351.5	7,602.5	7,351.5	37.1	31.0	89.69	-1,439.0	270.8	1,323.4	1,260.8	62.61	21.136	
7,800.0	7,451.5	7,702.5	7,451.5	37.1	31.1	89.69	-1,439.0	270.8	1,323.4	1,260.6	62.81	21.071	
7,900.0	7,551.5	7,802.5	7,551.5	37.2	31.2	89.69	-1,439.0	270.8	1,323.4	1,260.4	63.00	21.005	
8,000.0	7,651.5	7,902.5	7,651.5	37.3	31.3	89.69	-1,439.0	270.8	1,323.4	1,260.2	63.20	20.939	
8,100.0	7,751.5	8,002.5	7,751.5	37.4	31.4	89.69	-1,439.0	270.8	1,323.4	1,260.0	63.40	20.873	
8,148.5	7,800.0	8,051.0	7,800.0	37.4	31.4	89.69	-1,439.0	270.8	1,323.4	1,259.9	63.50	20.841	

Company:	Top Operating Company	Local Co-ordinate Reference:	Well Kintz 2
Project:	SEC.8-T3N-R68W	TVD Reference:	WELL @ 5092.0ft (Original Well Elev)
Reference Site:	Kintz 1 Pad Sec.8-T3N-R68W	MD Reference:	WELL @ 5092.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Kintz 2	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	Landmark
Reference Design:	Plan #1 (11-08-12)	Offset TVD Reference:	Offset Datum

Offset Design													Offset Site Error:	0.0 ft
Survey Program: 0-MWDD													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	0.0	0.0	0.0	0.0	0.00	21.9	0.0	21.9					
100.0	100.0	100.0	100.0	0.1	0.1	0.00	21.9	0.0	21.9	21.6	0.22	97.267		
200.0	200.0	200.0	200.0	0.3	0.3	0.00	21.9	0.0	21.9	21.2	0.67	32.422 CC		
227.7	227.7	227.7	227.7	0.4	0.4	-0.35	21.9	-0.1	21.9	21.1	0.80	27.461		
300.0	300.0	300.0	299.9	0.6	0.6	-4.56	21.9	-1.7	21.9	20.8	1.11	19.675 ES		
400.0	400.0	399.7	399.5	0.8	0.8	-17.65	21.9	-7.0	22.9	21.4	1.56	14.692		
500.0	500.0	499.4	498.9	1.0	1.0	-35.64	21.5	-15.4	26.5	24.4	2.02	13.102		
600.0	600.0	599.1	597.9	1.2	1.3	-54.35	18.5	-25.7	31.7	29.3	2.49	12.756 SF		
700.0	700.0	698.1	696.1	1.5	1.6	-71.71	12.4	-37.6	39.8	36.8	3.00	13.264		
800.0	800.0	796.5	793.1	1.7	1.9	4.04	3.5	-51.0	49.9	46.5	3.38	14.772		
900.0	899.8	894.3	889.1	1.9	2.3	-7.96	-8.3	-65.9	60.4	56.6	3.80	15.892		
950.0	949.7	942.9	936.5	2.0	2.5	-13.45	-15.3	-73.8	66.1	62.1	4.02	16.426		
1,000.0	999.5	991.3	983.6	2.1	2.7	-8.91	-22.9	-82.1	72.2	67.9	4.23	17.040		
1,100.0	1,098.9	1,087.8	1,076.9	2.3	3.2	-2.46	-40.2	-99.8	85.6	81.0	4.67	18.343		
1,200.0	1,198.0	1,183.7	1,168.7	2.6	3.7	1.33	-60.2	-118.7	100.2	95.1	5.12	19.565		
1,300.0	1,296.7	1,279.1	1,259.2	2.8	4.3	3.60	-82.7	-139.0	115.4	109.8	5.59	20.637		
1,400.0	1,394.9	1,374.0	1,348.1	3.2	4.9	5.06	-107.8	-160.5	131.0	124.9	6.08	21.544		
1,500.0	1,492.3	1,468.4	1,435.5	3.5	5.6	6.08	-135.4	-183.3	146.7	140.1	6.58	22.277		
1,600.0	1,589.0	1,562.3	1,521.2	4.0	6.3	6.84	-165.3	-207.2	162.5	155.4	7.10	22.870		
1,700.0	1,684.8	1,655.7	1,605.2	4.5	7.1	7.45	-197.6	-232.2	178.2	170.6	7.64	23.312		
1,800.0	1,779.6	1,748.7	1,687.5	5.0	7.9	7.98	-232.1	-258.3	193.9	185.7	8.21	23.630		
1,900.0	1,873.2	1,844.8	1,771.3	5.6	8.8	8.46	-269.9	-286.4	209.0	200.2	8.80	23.752		
2,000.0	1,965.6	1,944.0	1,857.6	6.3	9.8	9.13	-309.2	-315.5	221.2	211.8	9.42	23.476		
2,043.0	2,004.9	1,986.8	1,894.9	6.6	10.2	9.48	-326.2	-328.0	225.4	215.7	9.70	23.248		
2,100.0	2,056.9	2,043.6	1,944.3	7.0	10.8	9.51	-348.7	-344.6	230.7	220.6	10.10	22.837		
2,200.0	2,148.0	2,143.1	2,030.9	7.8	11.7	9.56	-388.1	-373.8	239.9	229.0	10.82	22.163		
2,300.0	2,239.1	2,242.7	2,117.6	8.6	12.7	9.61	-427.5	-403.0	249.0	237.5	11.56	21.546		
2,400.0	2,330.2	2,342.3	2,204.2	9.3	13.7	9.66	-467.0	-432.2	258.2	245.9	12.31	20.983		
2,500.0	2,421.4	2,441.9	2,290.9	10.1	14.7	9.70	-506.4	-461.4	267.4	254.3	13.06	20.469		
2,600.0	2,512.5	2,541.5	2,377.5	10.9	15.6	9.74	-545.8	-490.6	276.6	262.8	13.83	19.999		
2,700.0	2,603.6	2,641.0	2,464.2	11.7	16.6	9.78	-585.2	-519.7	285.8	271.2	14.60	19.570		
2,800.0	2,694.7	2,740.6	2,550.8	12.5	17.6	9.81	-624.7	-548.9	295.0	279.6	15.38	19.176		
2,900.0	2,785.9	2,840.2	2,637.5	13.4	18.6	9.84	-664.1	-578.1	304.2	288.0	16.17	18.813		
3,000.0	2,877.0	2,939.8	2,724.2	14.2	19.6	9.87	-703.5	-607.3	313.3	296.4	16.96	18.480		
3,100.0	2,968.1	3,039.3	2,810.8	15.0	20.6	9.90	-743.0	-636.5	322.5	304.8	17.75	18.172		
3,200.0	3,059.2	3,138.9	2,897.5	15.8	21.6	9.93	-782.4	-665.6	331.7	313.2	18.54	17.887		
3,300.0	3,150.4	3,238.5	2,984.1	16.6	22.5	9.96	-821.8	-694.8	340.9	321.5	19.34	17.623		
3,400.0	3,241.5	3,338.1	3,070.8	17.4	23.5	9.98	-861.3	-724.0	350.1	329.9	20.15	17.378		
3,500.0	3,332.6	3,437.7	3,157.4	18.3	24.5	10.00	-900.7	-753.2	359.3	338.3	20.95	17.149		
3,600.0	3,423.7	3,537.2	3,244.1	19.1	25.5	10.03	-940.1	-782.4	368.4	346.7	21.76	16.935		
3,700.0	3,514.9	3,636.8	3,330.7	19.9	26.5	10.05	-979.6	-811.6	377.6	355.1	22.56	16.736		
3,800.0	3,606.0	3,736.4	3,417.4	20.7	27.5	10.07	-1,019.0	-840.7	386.8	363.4	23.37	16.549		
3,900.0	3,697.1	3,836.0	3,504.1	21.6	28.5	10.09	-1,058.4	-869.9	396.0	371.8	24.19	16.373		
4,000.0	3,788.2	3,935.5	3,590.7	22.4	29.5	10.11	-1,097.9	-899.1	405.2	380.2	25.00	16.208		
4,100.0	3,879.3	4,035.1	3,677.4	23.2	30.5	10.12	-1,137.3	-928.3	414.4	388.6	25.81	16.053		
4,200.0	3,970.5	4,134.7	3,764.0	24.1	31.5	10.14	-1,176.7	-957.5	423.6	396.9	26.63	15.906		
4,300.0	4,061.6	4,234.3	3,850.7	24.9	32.4	10.16	-1,216.2	-986.7	432.7	405.3	27.45	15.768		
4,400.0	4,152.7	4,333.8	3,937.3	25.7	33.4	10.17	-1,255.6	-1,015.8	441.9	413.7	28.26	15.636		
4,500.0	4,243.8	4,433.4	4,024.0	26.5	34.4	10.19	-1,295.0	-1,045.0	451.1	422.0	29.08	15.512		
4,600.0	4,335.0	4,533.0	4,110.6	27.4	35.4	10.20	-1,334.4	-1,074.2	460.3	430.4	29.90	15.394		
4,700.0	4,426.1	4,632.6	4,197.3	28.2	36.4	10.21	-1,373.9	-1,103.4	469.5	438.8	30.72	15.282		
4,800.0	4,517.2	4,732.2	4,283.9	29.0	37.4	10.23	-1,413.3	-1,132.6	478.7	447.1	31.54	15.176		

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

Kintz 1 Pad Sec.8-T3N-R68W - Kintz 7 - Wellbore #1 - Plan #1 (11-08-12)													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		
4,900.0	4,608.3	4,831.7	4,370.6	29.9	38.4	10.24	-1,452.7	-1,161.8	487.9	455.5	32.36	15.075		
5,000.0	4,699.5	4,931.3	4,457.3	30.7	39.4	10.25	-1,492.2	-1,190.9	497.0	463.9	33.18	14.978		
5,100.0	4,790.6	5,030.9	4,543.9	31.5	40.4	10.26	-1,531.6	-1,220.1	506.2	472.2	34.01	14.886		
5,132.3	4,820.1	5,063.1	4,571.9	31.8	40.7	10.27	-1,544.4	-1,229.6	509.2	474.9	34.27	14.857		
5,200.0	4,882.0	5,130.4	4,630.5	32.3	41.4	10.28	-1,571.0	-1,249.3	516.2	481.4	34.80	14.832		
5,300.0	4,974.8	5,229.5	4,716.8	32.8	42.4	10.26	-1,610.3	-1,278.3	529.4	493.9	35.50	14.911		
5,400.0	5,068.8	5,328.1	4,802.6	33.3	43.3	10.19	-1,649.3	-1,307.2	546.0	509.9	36.13	15.111		
5,500.0	5,163.9	5,426.1	4,887.8	33.8	44.3	10.08	-1,688.1	-1,335.9	566.0	529.3	36.69	15.428		
5,600.0	5,260.0	5,523.3	4,972.4	34.3	45.3	9.93	-1,726.6	-1,364.4	589.3	552.2	37.16	15.857		
5,700.0	5,357.0	5,619.6	5,056.2	34.6	46.3	9.75	-1,764.7	-1,392.7	616.0	578.4	37.57	16.397		
5,800.0	5,454.9	5,714.9	5,139.2	35.0	47.2	9.55	-1,802.5	-1,420.6	646.0	608.1	37.90	17.045		
5,900.0	5,553.3	5,820.7	5,231.4	35.3	48.2	9.31	-1,844.1	-1,451.4	679.0	640.8	38.18	17.785		
6,000.0	5,652.4	5,945.0	5,341.9	35.5	49.0	9.02	-1,889.9	-1,485.3	711.9	673.5	38.40	18.537		
6,100.0	5,751.8	6,071.6	5,456.8	35.7	49.8	8.75	-1,932.5	-1,516.8	744.0	705.4	38.56	19.295		
6,200.0	5,851.6	6,200.6	5,576.2	35.9	50.6	8.51	-1,971.7	-1,545.9	775.2	736.5	38.64	20.060		
6,300.0	5,951.5	6,331.9	5,699.9	36.0	51.3	8.27	-2,007.2	-1,572.1	805.3	766.7	38.65	20.838		
6,348.5	6,000.0	6,396.4	5,761.3	36.1	51.6	-137.35	-2,022.9	-1,583.7	819.6	781.0	38.63	21.218		
6,400.0	6,051.5	6,465.7	5,827.9	36.1	51.9	-137.50	-2,038.6	-1,595.3	834.0	795.2	38.84	21.474		
6,500.0	6,151.5	6,603.0	5,960.9	36.2	52.4	-137.74	-2,065.8	-1,615.5	858.5	819.3	39.24	21.876		
6,600.0	6,251.5	6,743.4	6,098.4	36.2	52.9	-137.93	-2,088.3	-1,632.1	878.3	838.7	39.64	22.158		
6,700.0	6,351.5	6,886.2	6,239.6	36.3	53.3	-138.06	-2,105.5	-1,644.9	893.3	853.3	40.02	22.320		
6,800.0	6,451.5	7,030.9	6,383.6	36.4	53.5	-138.15	-2,117.2	-1,653.5	903.4	863.0	40.38	22.370		
6,900.0	6,551.5	7,176.7	6,529.1	36.4	53.7	-138.19	-2,123.1	-1,657.9	908.4	867.6	40.71	22.310		
7,000.0	6,651.5	7,299.0	6,651.5	36.5	53.8	-138.20	-2,123.8	-1,658.4	908.9	867.9	41.01	22.167		
7,100.0	6,751.5	7,399.0	6,751.5	36.6	53.8	-138.20	-2,123.8	-1,658.4	908.9	867.7	41.26	22.029		
7,200.0	6,851.5	7,499.0	6,851.5	36.7	53.9	-138.20	-2,123.8	-1,658.4	908.9	867.4	41.52	21.891		
7,300.0	6,951.5	7,599.0	6,951.5	36.7	53.9	-138.20	-2,123.8	-1,658.4	908.9	867.2	41.79	21.753		
7,400.0	7,051.5	7,699.0	7,051.5	36.8	54.0	-138.20	-2,123.8	-1,658.4	908.9	866.9	42.05	21.615		
7,500.0	7,151.5	7,799.0	7,151.5	36.9	54.0	-138.20	-2,123.8	-1,658.4	908.9	866.6	42.32	21.477		
7,600.0	7,251.5	7,899.0	7,251.5	37.0	54.1	-138.20	-2,123.8	-1,658.4	908.9	866.4	42.59	21.340		
7,700.0	7,351.5	7,999.0	7,351.5	37.1	54.1	-138.20	-2,123.8	-1,658.4	908.9	866.1	42.87	21.203		
7,800.0	7,451.5	8,099.0	7,451.5	37.1	54.2	-138.20	-2,123.8	-1,658.4	908.9	865.8	43.15	21.066		
7,900.0	7,551.5	8,199.0	7,551.5	37.2	54.2	-138.20	-2,123.8	-1,658.4	908.9	865.5	43.43	20.930		
8,000.0	7,651.5	8,299.0	7,651.5	37.3	54.3	-138.20	-2,123.8	-1,658.4	908.9	865.2	43.71	20.794		
8,100.0	7,751.5	8,399.0	7,751.5	37.4	54.4	-138.20	-2,123.8	-1,658.4	908.9	865.0	44.00	20.658		
8,148.5	7,800.0	8,447.5	7,800.0	37.4	54.4	-138.20	-2,123.8	-1,658.4	908.9	864.8	44.14	20.593		

Company:	Top Operating Company	Local Co-ordinate Reference:	Well Kintz 2
Project:	SEC.8-T3N-R68W	TVD Reference:	WELL @ 5092.0ft (Original Well Elev)
Reference Site:	Kintz 1 Pad Sec.8-T3N-R68W	MD Reference:	WELL @ 5092.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Kintz 2	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	Landmark
Reference Design:	Plan #1 (11-08-12)	Offset TVD Reference:	Offset Datum

Offset Design													Offset Site Error:	0.0 ft
Survey Program: 0-MWDD													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	0.0	0.0	0.0	0.0	0.00	10.9	0.0	10.9	10.9	0.00	N/A		
100.0	100.0	100.0	100.0	0.1	0.1	0.00	10.9	0.0	10.9	10.7	0.22	48.643		
200.0	200.0	200.0	200.0	0.3	0.3	0.00	10.9	0.0	10.9	10.3	0.67	16.214		
300.0	300.0	300.0	300.0	0.6	0.6	0.00	10.9	0.0	10.9	9.8	1.12	9.729		
400.0	400.0	400.0	400.0	0.8	0.8	0.00	10.9	0.0	10.9	9.4	1.57	6.949 CC		
427.3	427.3	427.3	427.3	0.8	0.8	0.68	10.9	0.1	10.9	9.2	1.69	6.458		
500.0	500.0	500.0	499.9	1.0	1.0	9.06	10.9	1.7	11.1	9.1	2.01	5.505 ES		
600.0	600.0	599.7	599.5	1.2	1.2	32.47	10.9	7.0	13.0	10.5	2.45	5.297 SF		
700.0	700.0	699.3	698.8	1.5	1.4	55.47	10.5	15.3	18.6	15.7	2.90	6.419		
800.0	800.0	798.8	797.8	1.7	1.7	164.79	7.2	24.6	27.4	24.1	3.31	8.290		
900.0	899.8	897.3	895.5	1.9	1.9	179.31	0.5	34.6	41.8	38.1	3.73	11.218		
950.0	949.7	946.0	943.8	2.0	2.1	-175.39	-4.0	39.7	51.2	47.2	3.94	12.979		
1,000.0	999.5	994.4	991.6	2.1	2.2	-161.73	-9.3	45.0	61.6	57.5	4.15	14.863		
1,100.0	1,098.9	1,090.6	1,086.3	2.3	2.5	-142.59	-22.2	56.0	84.6	80.0	4.57	18.511		
1,200.0	1,198.0	1,185.9	1,179.6	2.6	2.9	-130.61	-38.0	67.5	109.8	104.8	5.03	21.816		
1,300.0	1,296.7	1,280.2	1,271.2	2.8	3.3	-122.76	-56.7	79.4	137.1	131.5	5.55	24.679		
1,400.0	1,394.9	1,373.5	1,361.2	3.2	3.7	-117.34	-78.1	91.7	166.1	160.0	6.14	27.053		
1,500.0	1,492.3	1,465.9	1,449.5	3.5	4.2	-113.42	-102.0	104.4	197.0	190.2	6.81	28.923		
1,600.0	1,589.0	1,557.2	1,535.8	4.0	4.7	-110.46	-128.5	117.5	229.5	221.9	7.57	30.324		
1,700.0	1,684.8	1,647.4	1,620.3	4.5	5.3	-108.15	-157.4	130.9	263.7	255.2	8.42	31.305		
1,800.0	1,779.6	1,736.6	1,702.8	5.0	6.0	-106.29	-188.4	144.6	299.4	290.0	9.38	31.930		
1,900.0	1,873.2	1,824.8	1,783.3	5.6	6.6	-104.74	-221.6	158.5	336.7	326.2	10.43	32.274		
2,000.0	1,965.6	1,912.0	1,861.8	6.3	7.3	-103.43	-256.9	172.8	375.4	363.8	11.58	32.402		
2,043.0	2,004.9	1,949.2	1,894.9	6.6	7.6	-102.91	-272.6	178.9	392.5	380.3	12.12	32.394		
2,100.0	2,056.9	1,999.0	1,938.9	7.0	8.1	-103.17	-294.3	187.3	415.5	402.6	12.85	32.334		
2,200.0	2,148.0	2,090.4	2,019.5	7.8	8.9	-103.52	-334.5	202.7	456.0	441.8	14.20	32.119		
2,300.0	2,239.1	2,181.7	2,100.1	8.6	9.7	-103.82	-374.8	218.2	496.6	481.1	15.58	31.885		
2,400.0	2,330.2	2,273.1	2,180.6	9.3	10.6	-104.07	-415.0	233.6	537.2	520.3	16.97	31.649		
2,500.0	2,421.4	2,364.5	2,261.2	10.1	11.4	-104.28	-455.2	249.0	577.8	559.4	18.39	31.422		
2,600.0	2,512.5	2,455.8	2,341.8	10.9	12.3	-104.47	-495.4	264.5	618.4	598.6	19.82	31.206		
2,700.0	2,603.6	2,547.2	2,422.4	11.7	13.1	-104.63	-535.6	279.9	659.1	637.8	21.26	31.004		
2,800.0	2,694.7	2,638.6	2,502.9	12.5	14.0	-104.78	-575.9	295.3	699.7	677.0	22.70	30.817		
2,900.0	2,785.9	2,729.9	2,583.5	13.4	14.8	-104.91	-616.1	310.8	740.3	716.1	24.16	30.643		
3,000.0	2,877.0	2,821.3	2,664.1	14.2	15.7	-105.02	-656.3	326.2	780.9	755.3	25.62	30.482		
3,100.0	2,968.1	2,912.7	2,744.7	15.0	16.6	-105.13	-696.5	341.6	821.5	794.5	27.08	30.333		
3,200.0	3,059.2	3,004.0	2,825.2	15.8	17.4	-105.22	-736.7	357.0	862.2	833.6	28.55	30.195		
3,300.0	3,150.4	3,095.4	2,905.8	16.6	18.3	-105.31	-776.9	372.5	902.8	872.8	30.03	30.068		
3,400.0	3,241.5	3,186.8	2,986.4	17.4	19.2	-105.39	-817.2	387.9	943.4	911.9	31.50	29.949		
3,500.0	3,332.6	3,278.1	3,067.0	18.3	20.0	-105.46	-857.4	403.3	984.1	951.1	32.98	29.838		
3,600.0	3,423.7	3,369.5	3,147.5	19.1	20.9	-105.52	-897.6	418.8	1,024.7	990.2	34.46	29.735		
3,700.0	3,514.9	3,460.9	3,228.1	19.9	21.8	-105.59	-937.8	434.2	1,065.3	1,029.4	35.94	29.639		
3,800.0	3,606.0	3,552.2	3,308.7	20.7	22.6	-105.64	-978.0	449.6	1,106.0	1,068.5	37.43	29.549		
3,900.0	3,697.1	3,643.6	3,389.2	21.6	23.5	-105.70	-1,018.3	465.1	1,146.6	1,107.7	38.91	29.465		
4,000.0	3,788.2	3,735.0	3,469.8	22.4	24.4	-105.74	-1,058.5	480.5	1,187.2	1,146.8	40.40	29.386		
4,100.0	3,879.3	3,826.3	3,550.4	23.2	25.3	-105.79	-1,098.7	495.9	1,227.9	1,186.0	41.89	29.312		
4,200.0	3,970.5	3,917.7	3,631.0	24.1	26.1	-105.83	-1,138.9	511.4	1,268.5	1,225.1	43.38	29.242		
4,300.0	4,061.6	4,009.1	3,711.5	24.9	27.0	-105.87	-1,179.1	526.8	1,309.2	1,264.3	44.87	29.176		
4,400.0	4,152.7	4,100.4	3,792.1	25.7	27.9	-105.91	-1,219.4	542.2	1,349.8	1,303.4	46.36	29.114		
4,500.0	4,243.8	4,191.8	3,872.7	26.5	28.7	-105.95	-1,259.6	557.6	1,390.4	1,342.6	47.86	29.055		
4,600.0	4,335.0	4,283.2	3,953.3	27.4	29.6	-105.98	-1,299.8	573.1	1,431.1	1,381.7	49.35	28.999		
4,700.0	4,426.1	4,374.5	4,033.8	28.2	30.5	-106.01	-1,340.0	588.5	1,471.7	1,420.9	50.84	28.946		
4,800.0	4,517.2	4,465.9	4,114.4	29.0	31.4	-106.04	-1,380.2	603.9	1,512.4	1,460.0	52.34	28.896		

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

Offset Design													Offset Site Error:	
Kintz 1 Pad Sec.8-T3N-R68W - Kintz 8 - Wellbore #1 - Plan #1 (11-08-12)													0.0 ft	
Survey Program: 0-MWD													Offset Well Error:	
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth	Vertical Depth	Measured Depth	Vertical Depth	Reference	Offset	Highside Toolface	Offset Wellbore Centre		Between Centres	Between Ellipses	Minimum Separation	Separation Factor		
(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(°)	+N/-S (ft)	+E/-W (ft)	(ft)	(ft)	(ft)			
4,900.0	4,608.3	4,557.3	4,195.0	29.9	32.2	-106.07	-1,420.5	619.4	1,553.0	1,499.2	53.83	28.848		
5,000.0	4,699.5	4,648.6	4,275.6	30.7	33.1	-106.10	-1,460.7	634.8	1,593.6	1,538.3	55.33	28.803		
5,100.0	4,790.6	4,740.0	4,356.1	31.5	34.0	-106.12	-1,500.9	650.2	1,634.3	1,577.5	56.83	28.759		
5,132.3	4,820.1	4,769.5	4,382.2	31.8	34.3	-106.13	-1,513.9	655.2	1,647.4	1,590.1	57.31	28.746		
5,200.0	4,882.0	4,831.4	4,436.8	32.3	34.9	-106.69	-1,541.2	665.7	1,674.7	1,616.3	58.39	28.681		
5,300.0	4,974.8	4,923.2	4,517.7	32.8	35.7	-107.40	-1,581.6	681.2	1,714.3	1,654.4	59.84	28.647		
5,400.0	5,068.8	5,015.2	4,598.9	33.3	36.6	-107.96	-1,622.1	696.7	1,752.9	1,691.7	61.24	28.621		
5,500.0	5,163.9	5,107.3	4,680.1	33.8	37.5	-108.40	-1,662.6	712.3	1,790.6	1,728.0	62.59	28.606		
5,600.0	5,260.0	5,199.5	4,761.3	34.3	38.4	-108.72	-1,703.2	727.8	1,827.3	1,763.4	63.89	28.602		
5,700.0	5,357.0	5,291.5	4,842.5	34.6	39.3	-108.92	-1,743.7	743.4	1,863.1	1,798.0	65.12	28.611		
5,800.0	5,454.9	5,383.3	4,923.5	35.0	40.2	-109.03	-1,784.1	758.9	1,898.0	1,831.7	66.28	28.635		
5,900.0	5,553.3	5,517.4	5,042.6	35.3	41.3	-108.76	-1,841.5	780.9	1,931.3	1,863.8	67.52	28.604		
6,000.0	5,652.4	5,676.3	5,187.2	35.5	42.3	-108.32	-1,902.9	804.5	1,960.9	1,892.3	68.59	28.588		
6,100.0	5,751.8	5,840.8	5,340.5	35.7	43.2	-107.87	-1,958.5	825.8	1,986.4	1,916.9	69.53	28.568		
6,200.0	5,851.6	6,010.5	5,502.0	35.9	44.0	-107.39	-2,007.1	844.4	2,007.6	1,937.3	70.33	28.546		
6,300.0	5,951.5	6,184.8	5,670.9	36.0	44.7	-106.89	-2,047.6	860.0	2,024.3	1,953.3	70.96	28.528		
6,348.5	6,000.0	6,270.8	5,755.1	36.1	45.0	-107.85	-2,064.1	866.3	2,030.7	1,959.5	71.20	28.520		
6,400.0	6,051.5	6,363.3	5,846.0	36.1	45.3	-108.20	-2,079.1	872.1	2,036.4	1,965.0	71.39	28.524		
6,500.0	6,151.5	6,545.2	6,026.5	36.2	45.7	-108.71	-2,100.7	880.4	2,044.5	1,972.8	71.70	28.513		
6,600.0	6,251.5	6,729.5	6,210.3	36.2	46.0	-108.96	-2,111.6	884.5	2,048.6	1,976.6	71.95	28.471		
6,700.0	6,351.5	6,870.7	6,351.5	36.3	46.1	-108.99	-2,112.9	885.0	2,049.1	1,976.9	72.13	28.408		
6,800.0	6,451.5	6,970.7	6,451.5	36.4	46.1	-108.99	-2,112.9	885.0	2,049.1	1,976.8	72.27	28.353		
6,900.0	6,551.5	7,070.7	6,551.5	36.4	46.2	-108.99	-2,112.9	885.0	2,049.1	1,976.7	72.41	28.299		
7,000.0	6,651.5	7,170.7	6,651.5	36.5	46.2	-108.99	-2,112.9	885.0	2,049.1	1,976.5	72.55	28.244		
7,100.0	6,751.5	7,270.7	6,751.5	36.6	46.3	-108.99	-2,112.9	885.0	2,049.1	1,976.4	72.69	28.188		
7,200.0	6,851.5	7,370.7	6,851.5	36.7	46.3	-108.99	-2,112.9	885.0	2,049.1	1,976.2	72.84	28.132		
7,300.0	6,951.5	7,470.7	6,951.5	36.7	46.4	-108.99	-2,112.9	885.0	2,049.1	1,976.1	72.99	28.075		
7,400.0	7,051.5	7,570.7	7,051.5	36.8	46.5	-108.99	-2,112.9	885.0	2,049.1	1,975.9	73.14	28.017		
7,500.0	7,151.5	7,670.7	7,151.5	36.9	46.5	-108.99	-2,112.9	885.0	2,049.1	1,975.8	73.29	27.958		
7,600.0	7,251.5	7,770.7	7,251.5	37.0	46.6	-108.99	-2,112.9	885.0	2,049.1	1,975.6	73.45	27.899		
7,700.0	7,351.5	7,870.7	7,351.5	37.1	46.6	-108.99	-2,112.9	885.0	2,049.1	1,975.5	73.60	27.839		
7,800.0	7,451.5	7,970.7	7,451.5	37.1	46.7	-108.99	-2,112.9	885.0	2,049.1	1,975.3	73.76	27.778		
7,900.0	7,551.5	8,070.7	7,551.5	37.2	46.8	-108.99	-2,112.9	885.0	2,049.1	1,975.1	73.93	27.717		
8,000.0	7,651.5	8,170.7	7,651.5	37.3	46.8	-108.99	-2,112.9	885.0	2,049.1	1,975.0	74.09	27.655		
8,100.0	7,751.5	8,270.7	7,751.5	37.4	46.9	-108.99	-2,112.9	885.0	2,049.1	1,974.8	74.26	27.593		
8,148.5	7,800.0	8,319.1	7,800.0	37.4	46.9	-108.99	-2,112.9	885.0	2,049.1	1,974.7	74.34	27.562		

Company:	Top Operating Company	Local Co-ordinate Reference:	Well Kintz 2
Project:	SEC.8-T3N-R68W	TVD Reference:	WELL @ 5092.0ft (Original Well Elev)
Reference Site:	Kintz 1 Pad Sec.8-T3N-R68W	MD Reference:	WELL @ 5092.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Kintz 2	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	Landmark
Reference Design:	Plan #1 (11-08-12)	Offset TVD Reference:	Offset Datum

Offset Design													Offset Site Error:	0.0 ft
Survey Program: 0-MWID													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	0.0	0.0	0.0	0.0	180.00	-25.5	0.0	25.5					
100.0	100.0	100.0	100.0	0.1	0.1	180.00	-25.5	0.0	25.5	25.3	0.22	113.456		
200.0	200.0	200.0	200.0	0.3	0.3	180.00	-25.5	0.0	25.5	24.8	0.67	37.819		
300.0	300.0	300.0	300.0	0.6	0.6	180.00	-25.5	0.0	25.5	24.4	1.12	22.691		
400.0	400.0	400.0	400.0	0.8	0.8	180.00	-25.5	0.0	25.5	23.9	1.57	16.208		
500.0	500.0	500.0	500.0	1.0	1.0	180.00	-25.5	0.0	25.5	23.5	2.02	12.606		
600.0	600.0	600.0	600.0	1.2	1.2	180.00	-25.5	0.0	25.5	23.0	2.47	10.314		
700.0	700.0	700.0	700.0	1.5	1.5	180.00	-25.5	0.0	25.5	22.6	2.92	8.727		
768.8	768.8	768.8	768.8	1.6	1.6	-90.00	-25.5	-0.8	25.5	22.3	3.21	7.934 CC		
800.0	800.0	800.0	800.0	1.7	1.7	-90.00	-25.5	-1.7	25.5	22.2	3.35	7.620		
900.0	899.8	900.0	899.8	1.9	1.9	-90.00	-25.5	-7.0	25.5	21.7	3.76	6.775		
910.9	910.7	910.9	910.7	1.9	1.9	-90.00	-25.5	-7.8	25.5	21.7	3.81	6.689		
950.0	949.7	950.0	949.7	2.0	2.0	-90.00	-25.5	-10.9	25.5	21.5	3.99	6.399		
1,000.0	999.5	999.6	999.1	2.1	2.1	-80.86	-25.9	-15.2	25.5	21.3	4.20	6.084		
1,100.0	1,098.9	1,098.7	1,097.7	2.3	2.3	-69.94	-29.4	-23.8	25.9	21.2	4.62	5.601 ES		
1,200.0	1,198.0	1,197.7	1,196.1	2.6	2.5	-66.84	-36.2	-32.4	26.7	21.7	5.08	5.263		
1,300.0	1,296.7	1,296.7	1,294.2	2.8	2.8	-68.93	-46.5	-41.0	28.6	23.0	5.60	5.101 SF		
1,400.0	1,394.9	1,395.6	1,391.8	3.2	3.0	-73.81	-60.1	-49.4	31.8	25.6	6.20	5.131		
1,500.0	1,492.3	1,494.3	1,488.7	3.5	3.4	-79.54	-77.1	-57.9	36.8	29.9	6.88	5.340		
1,600.0	1,589.0	1,593.8	1,585.9	4.0	3.7	-86.24	-96.2	-66.3	42.6	34.9	7.65	5.567		
1,700.0	1,684.8	1,693.3	1,683.2	4.5	4.1	-95.08	-115.4	-74.7	48.5	40.1	8.45	5.742		
1,800.0	1,779.6	1,792.4	1,780.1	5.0	4.5	-105.22	-134.4	-83.1	55.8	46.6	9.21	6.061		
1,900.0	1,873.2	1,891.1	1,876.6	5.6	4.9	-115.58	-153.5	-91.5	65.6	55.7	9.84	6.661		
2,000.0	1,965.6	1,989.3	1,972.6	6.3	5.3	-125.13	-172.4	-99.8	78.7	68.3	10.34	7.607		
2,043.0	2,004.9	2,031.4	2,013.7	6.6	5.4	-128.83	-180.5	-103.4	85.5	75.0	10.53	8.120		
2,100.0	2,056.9	2,087.0	2,068.1	7.0	5.7	-133.67	-191.2	-108.1	95.3	84.6	10.76	8.856		
2,200.0	2,148.0	2,184.6	2,163.5	7.8	6.1	-140.09	-210.0	-116.4	113.8	102.6	11.21	10.152		
2,300.0	2,239.1	2,282.2	2,258.9	8.6	6.5	-144.69	-228.8	-124.7	133.3	121.6	11.70	11.393		
2,400.0	2,330.2	2,379.8	2,354.4	9.3	6.9	-148.12	-247.6	-133.0	153.4	141.1	12.22	12.549		
2,500.0	2,421.4	2,477.4	2,449.8	10.1	7.4	-150.74	-266.4	-141.2	173.9	161.1	12.77	13.610		
2,600.0	2,512.5	2,575.0	2,545.2	10.9	7.8	-152.82	-285.2	-149.5	194.6	181.3	13.35	14.581		
2,700.0	2,603.6	2,672.6	2,640.6	11.7	8.2	-154.49	-304.0	-157.8	215.6	201.7	13.94	15.467		
2,800.0	2,694.7	2,770.2	2,736.0	12.5	8.7	-155.87	-322.8	-166.1	236.7	222.2	14.54	16.277		
2,900.0	2,785.9	2,867.8	2,831.4	13.4	9.1	-157.02	-341.6	-174.3	258.0	242.8	15.16	17.018		
3,000.0	2,877.0	2,965.4	2,926.8	14.2	9.5	-157.99	-360.4	-182.6	279.3	263.5	15.78	17.696		
3,100.0	2,968.1	3,063.0	3,022.3	15.0	10.0	-158.83	-379.2	-190.9	300.7	284.2	16.41	18.320		
3,200.0	3,059.2	3,160.6	3,117.7	15.8	10.4	-159.56	-398.0	-199.2	322.1	305.0	17.05	18.894		
3,300.0	3,150.4	3,258.2	3,213.1	16.6	10.9	-160.19	-416.8	-207.4	343.6	325.9	17.69	19.424		
3,400.0	3,241.5	3,355.8	3,308.5	17.4	11.3	-160.75	-435.6	-215.7	365.1	346.7	18.33	19.914		
3,500.0	3,332.6	3,453.4	3,403.9	18.3	11.8	-161.25	-454.4	-224.0	386.6	367.6	18.98	20.369		
3,600.0	3,423.7	3,551.0	3,499.3	19.1	12.2	-161.70	-473.2	-232.3	408.2	388.6	19.63	20.792		
3,700.0	3,514.9	3,648.6	3,594.7	19.9	12.6	-162.10	-492.0	-240.6	429.8	409.5	20.29	21.186		
3,800.0	3,606.0	3,746.2	3,690.1	20.7	13.1	-162.46	-510.7	-248.8	451.4	430.4	20.94	21.554		
3,900.0	3,697.1	3,843.8	3,785.6	21.6	13.5	-162.79	-529.5	-257.1	473.0	451.4	21.60	21.898		
4,000.0	3,788.2	3,941.4	3,881.0	22.4	14.0	-163.09	-548.3	-265.4	494.6	472.4	22.26	22.220		
4,100.0	3,879.3	4,039.0	3,976.4	23.2	14.4	-163.37	-567.1	-273.7	516.3	493.4	22.92	22.523		
4,200.0	3,970.5	4,136.6	4,071.8	24.1	14.9	-163.62	-585.9	-281.9	538.0	514.4	23.59	22.808		
4,300.0	4,061.6	4,234.2	4,167.2	24.9	15.3	-163.86	-604.7	-290.2	559.6	535.4	24.25	23.077		
4,400.0	4,152.7	4,331.8	4,262.6	25.7	15.8	-164.07	-623.5	-298.5	581.3	556.4	24.92	23.330		
4,500.0	4,243.8	4,429.4	4,358.0	26.5	16.2	-164.27	-642.3	-306.8	603.0	577.4	25.58	23.569		
4,600.0	4,335.0	4,527.0	4,453.5	27.4	16.7	-164.46	-661.1	-315.0	624.7	598.4	26.25	23.796		
4,700.0	4,426.1	4,624.6	4,548.9	28.2	17.1	-164.63	-679.9	-323.3	646.4	619.4	26.92	24.011		

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

Company:	Top Operating Company	Local Co-ordinate Reference:	Well Kintz 2
Project:	SEC.8-T3N-R68W	TVD Reference:	WELL @ 5092.0ft (Original Well Elev)
Reference Site:	Kintz 1 Pad Sec.8-T3N-R68W	MD Reference:	WELL @ 5092.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Kintz 2	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	Landmark
Reference Design:	Plan #1 (11-08-12)	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
4,800.0	4,517.2	4,722.2	4,644.3	29.0	17.6	-164.80	-698.7	-331.6	668.1	640.5	27.59	24.215	
4,900.0	4,608.3	4,819.8	4,739.7	29.9	18.0	-164.95	-717.5	-339.9	689.8	661.5	28.26	24.408	
5,000.0	4,699.5	4,917.4	4,835.1	30.7	18.5	-165.09	-736.3	-348.2	711.5	682.6	28.93	24.593	
5,100.0	4,790.6	5,015.0	4,930.5	31.5	18.9	-165.23	-755.1	-356.4	733.2	703.6	29.60	24.768	
5,132.3	4,820.1	5,046.6	4,961.4	31.8	19.0	-165.27	-761.2	-359.1	740.2	710.4	29.82	24.823	
5,200.0	4,882.0	5,100.0	5,013.6	32.3	19.3	-165.40	-771.4	-363.6	754.3	724.0	30.27	24.923	
5,300.0	4,974.8	5,185.9	5,098.0	32.8	19.5	-165.60	-786.4	-370.2	774.1	743.2	30.83	25.107	
5,400.0	5,068.8	5,264.6	5,175.6	33.3	19.8	-165.80	-798.0	-375.3	793.0	761.7	31.33	25.315	
5,500.0	5,163.9	5,342.9	5,253.3	33.8	20.0	-166.00	-807.7	-379.6	811.1	779.3	31.76	25.534	
5,600.0	5,260.0	5,421.1	5,330.9	34.3	20.1	-166.20	-815.4	-383.0	828.3	796.1	32.15	25.765	
5,700.0	5,357.0	5,500.0	5,409.6	34.6	20.3	-166.42	-821.2	-385.5	844.5	812.1	32.47	26.009	
5,800.0	5,454.9	5,576.6	5,486.1	35.0	20.4	-166.63	-824.9	-387.1	859.9	827.2	32.73	26.272	
5,900.0	5,553.3	5,654.1	5,563.5	35.3	20.5	-166.85	-826.7	-388.0	874.4	841.5	32.94	26.544	
6,000.0	5,652.4	5,742.9	5,652.4	35.5	20.6	-167.08	-827.0	-388.1	887.7	854.6	33.11	26.811	
6,100.0	5,751.8	5,842.4	5,751.8	35.7	20.7	-167.27	-827.0	-388.1	897.8	864.6	33.25	27.005	
6,200.0	5,851.6	5,942.1	5,851.6	35.9	20.8	-167.40	-827.0	-388.1	904.6	871.2	33.36	27.118	
6,300.0	5,951.5	6,042.1	5,951.5	36.0	20.9	-167.46	-827.0	-388.1	907.9	874.5	33.44	27.151	
6,348.5	6,000.0	6,090.5	6,000.0	36.1	21.0	47.02	-827.0	-388.1	908.3	874.8	33.47	27.136	
6,400.0	6,051.5	6,142.1	6,051.5	36.1	21.1	47.02	-827.0	-388.1	908.3	874.7	33.63	27.013	
6,500.0	6,151.5	6,242.1	6,151.5	36.2	21.2	47.02	-827.0	-388.1	908.3	874.4	33.91	26.783	
6,600.0	6,251.5	6,342.1	6,251.5	36.2	21.3	47.02	-827.0	-388.1	908.3	874.1	34.21	26.554	
6,700.0	6,351.5	6,442.1	6,351.5	36.3	21.4	47.02	-827.0	-388.1	908.3	873.8	34.50	26.326	
6,800.0	6,451.5	6,542.1	6,451.5	36.4	21.5	47.02	-827.0	-388.1	908.3	873.5	34.80	26.099	
6,900.0	6,551.5	6,642.1	6,551.5	36.4	21.6	47.02	-827.0	-388.1	908.3	873.2	35.10	25.875	
7,000.0	6,651.5	6,742.1	6,651.5	36.5	21.8	47.02	-827.0	-388.1	908.3	872.9	35.41	25.651	
7,100.0	6,751.5	6,842.1	6,751.5	36.6	21.9	47.02	-827.0	-388.1	908.3	872.6	35.72	25.430	
7,200.0	6,851.5	6,942.1	6,851.5	36.7	22.0	47.02	-827.0	-388.1	908.3	872.3	36.03	25.210	
7,300.0	6,951.5	7,042.1	6,951.5	36.7	22.1	47.02	-827.0	-388.1	908.3	872.0	36.34	24.992	
7,400.0	7,051.5	7,142.1	7,051.5	36.8	22.3	47.02	-827.0	-388.1	908.3	871.7	36.66	24.776	
7,500.0	7,151.5	7,242.1	7,151.5	36.9	22.4	47.02	-827.0	-388.1	908.3	871.3	36.98	24.562	
7,600.0	7,251.5	7,342.1	7,251.5	37.0	22.5	47.02	-827.0	-388.1	908.3	871.0	37.30	24.349	
7,700.0	7,351.5	7,442.1	7,351.5	37.1	22.7	47.02	-827.0	-388.1	908.3	870.7	37.63	24.139	
7,800.0	7,451.5	7,542.1	7,451.5	37.1	22.8	47.02	-827.0	-388.1	908.3	870.4	37.96	23.931	
7,900.0	7,551.5	7,642.1	7,551.5	37.2	22.9	47.02	-827.0	-388.1	908.3	870.0	38.29	23.724	
8,000.0	7,651.5	7,742.1	7,651.5	37.3	23.1	47.02	-827.0	-388.1	908.3	869.7	38.62	23.520	
8,100.0	7,751.5	7,842.1	7,751.5	37.4	23.2	47.02	-827.0	-388.1	908.3	869.4	38.95	23.318	
8,148.5	7,800.0	7,890.5	7,800.0	37.4	23.3	47.02	-827.0	-388.1	908.3	869.2	39.12	23.221	

Reference Depths are relative to WELL @ 5092.0ft (Original Well Elev)Coordinates are relative to: Kintz 2
Offset Depths are relative to Offset DatumCoordinate System is US State Plane 1983, Colorado Northern Zone
Central Meridian is -105.500000 °Grid Convergence at Surface is: 0.31°



Company:	Top Operating Company	Local Co-ordinate Reference:	Well Kintz 2
Project:	SEC.8-T3N-R68W	TVD Reference:	WELL @ 5092.0ft (Original Well Elev)
Reference Site:	Kintz 1 Pad Sec.8-T3N-R68W	MD Reference:	WELL @ 5092.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Kintz 2	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	Landmark
Reference Design:	Plan #1 (11-08-12)	Offset TVD Reference:	Offset Datum

Reference Depths are relative to WELL @ 5092.0ft (Original Well Elev) Coordinates are relative to: Kintz 2
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: 0.31°

