

TITUS

OIL GAS LLC

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DISTRICT II-ARTESIA O.C.D.

Titus Oil & Gas Production, LLC

Eddy County, NM (NAD83-NME)

A01 Todd DSU

Todd 2-24S-31E State 202H

202H

Plan #1-Rev0

Anticollision Report

31 May, 2019

Company:	Titus Oil & Gas Production, LLC	Local Co-ordinate Reference:	Well Todd 2-24S-31E State 202H (202H) - Slot 202H
Project:	Eddy County, NM (NAD83-NME)	TVD Reference:	3507+25 @ 3532.00usft (KB=25)
Reference Site:	A01 Todd DSU	MD Reference:	3507+25 @ 3532.00usft (KB=25)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Todd 2-24S-31E State 202H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	202H	Database:	EDM 5000.14 Single User Db
Reference Design:	Plan #1-Rev0	Offset TVD Reference:	Offset Datum

Reference	Plan #1-Rev0		
Filter type:	NO GLOBAL FILTER: Using user defined selection & filtering criteria		
Interpolation Method:	Stations	Error Model:	ISCWSA
Depth Range:	Unlimited	Scan Method:	Closest Approach 3D
Results Limited by:	Maximum center-center distance of 9,999.98 usft	Error Surface:	Pedal Curve
Warning Levels Evaluated at:	2.00 Sigma	Casing Method:	Not applied

Survey Tool Program	Date 5/31/2019			
From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description
0.00	15,220.26	Plan #1-Rev0 (202H)	MWD	MWD - Standard

Summary						
Site Name	Reference Measured Depth (usft)	Offset Measured Depth (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Separation Factor	Warning
Offset Well - Wellbore - Design						
A01 Todd DSU						
Todd 2-24S-31E State 203H (203H) - 203H - Plan #1-Re	1,500.00	1,500.00	60.20	53.74	9.316	CC, ES
Todd 2-24S-31E State 203H (203H) - 203H - Plan #1-Re	15,221.13	15,245.96	1,537.15	1,347.11	8.089	SF
Todd 2-24S-31E State 207H (207H) - 207H - Plan #1-Re	1,416.33	1,417.33	74.96	68.87	12.313	CC
Todd 2-24S-31E State 207H (207H) - 207H - Plan #1-Re	1,500.00	1,500.98	74.96	68.50	11.597	ES
Todd 2-24S-31E State 207H (207H) - 207H - Plan #1-Re	15,221.13	15,512.18	1,355.10	1,168.50	7.262	SF
Todd 2-24S-31E State 304H (304H) - 304H - Plan #1-Re	1,500.00	1,500.00	30.10	23.64	4.658	CC
Todd 2-24S-31E State 304H (304H) - 304H - Plan #1-Re	1,600.00	1,600.69	30.21	23.34	4.396	ES
Todd 2-24S-31E State 304H (304H) - 304H - Plan #1-Re	1,700.00	1,701.23	30.61	23.36	4.224	SF
Todd 2-24S-31E State 405H (405H) - 405H - Plan #1-Re	1,416.33	1,417.33	54.00	47.91	8.870	CC
Todd 2-24S-31E State 405H (405H) - 405H - Plan #1-Re	1,500.00	1,500.99	54.00	47.54	8.354	ES
Todd 2-24S-31E State 405H (405H) - 405H - Plan #1-Re	1,600.00	1,600.00	55.57	48.69	8.085	SF
Todd 2-24S-31E State 434H (434H) - 434H - Plan #1-Re	1,416.33	1,417.33	44.90	38.81	7.375	CC
Todd 2-24S-31E State 434H (434H) - 434H - Plan #1-Re	1,600.00	1,600.38	45.25	38.37	6.584	ES
Todd 2-24S-31E State 434H (434H) - 434H - Plan #1-Re	2,100.00	2,099.45	49.70	40.79	5.580	SF

Offset Design	A01 Todd DSU - Todd 2-24S-31E State 203H (203H) - 203H - Plan #1-Rev0										Offset Site Error:	0.00 usft
Survey Program:	0-MWD										Offset Well Error:	0.00 usft
Reference	Offset	Semi Major Axis		Distance		Minimum Separation		Separation Factor		Warning		
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor
0.00	0.00	0.00	0.00	0.00	0.00	89.52	0.50	60.20	60.20			
100.00	100.00	100.00	100.00	0.08	0.08	89.52	0.50	60.20	60.20	60.03	0.17	357.124
200.00	200.00	200.00	200.00	0.31	0.31	89.52	0.50	60.20	60.20	59.58	0.62	97.398
300.00	300.00	300.00	300.00	0.53	0.53	89.52	0.50	60.20	60.20	59.13	1.07	56.388
400.00	400.00	400.00	400.00	0.76	0.76	89.52	0.50	60.20	60.20	58.68	1.52	39.680
500.00	500.00	500.00	500.00	0.98	0.98	89.52	0.50	60.20	60.20	58.24	1.97	30.611
600.00	600.00	600.00	600.00	1.21	1.21	89.52	0.50	60.20	60.20	57.79	2.42	24.916
700.00	700.00	700.00	700.00	1.43	1.43	89.52	0.50	60.20	60.20	57.34	2.87	21.007
800.00	800.00	800.00	800.00	1.66	1.66	89.52	0.50	60.20	60.20	56.89	3.32	18.159
900.00	900.00	900.00	900.00	1.88	1.88	89.52	0.50	60.20	60.20	56.44	3.76	15.991
1,000.00	1,000.00	1,000.00	1,000.00	2.11	2.11	89.52	0.50	60.20	60.20	55.99	4.21	14.285
1,100.00	1,100.00	1,100.00	1,100.00	2.33	2.33	89.52	0.50	60.20	60.20	55.54	4.66	12.908
1,200.00	1,200.00	1,200.00	1,200.00	2.56	2.56	89.52	0.50	60.20	60.20	55.09	5.11	11.773

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

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Reference Wellbore	202H	Database:	EDM 5000.14 Single User Db
Reference Design:	Plan #1-Rev0	Offset TVD Reference:	Offset Datum

Offset Design														Offset Site Error:	0.00 usft
Survey Program: 0-MWD														Offset Well Error:	0.00 usft
Reference															
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Semi Major Axis (usft)	Highside Tooface (")	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning	
1,300.00	1,300.00	1,300.00	1,300.00	2.78	2.78	89.52		0.50	60.20	60.20	54.64	5.56	10.822		
1,400.00	1,400.00	1,400.00	1,400.00	3.01	3.01	89.52		0.50	60.20	60.20	54.19	6.01	10.013		
1,500.00	1,500.00	1,500.00	1,500.00	3.23	3.23	89.52		0.50	60.20	60.20	53.74	6.46	9.316 CC, ES		
1,600.00	1,599.99	1,598.44	1,598.43	3.44	3.43	-164.65		0.17	61.42	62.71	55.83	6.87	9.126		
1,700.00	1,699.91	1,696.52	1,696.43	3.63	3.63	-164.62		-0.81	65.08	70.21	62.96	7.25	9.684		
1,800.00	1,799.69	1,793.86	1,793.57	3.83	3.82	-164.58		-2.44	71.11	82.67	75.04	7.63	10.832		
1,889.67	1,888.99	1,880.24	1,879.61	4.02	4.01	-164.54		-4.42	78.46	98.02	90.04	7.98	12.288		
1,900.00	1,899.27	1,890.25	1,889.58	4.05	4.03	-164.54		-4.68	79.43	100.03	92.01	8.02	12.473		
2,000.00	1,998.75	1,988.19	1,987.00	4.27	4.24	-164.53		-7.27	89.08	119.58	111.16	8.42	14.205		
2,100.00	2,098.23	2,086.26	2,084.56	4.50	4.47	-164.52		-9.87	98.74	139.13	130.31	8.83	15.765		
2,200.00	2,197.71	2,184.33	2,182.12	4.74	4.70	-164.52		-12.47	108.40	158.68	149.45	9.24	17.175		
2,300.00	2,297.19	2,282.40	2,279.68	4.98	4.94	-164.51		-15.07	118.05	178.24	168.58	9.66	18.455		
2,400.00	2,396.67	2,380.47	2,377.24	5.23	5.18	-164.51		-17.67	127.71	197.79	187.71	10.08	19.617		
2,500.00	2,496.15	2,478.54	2,474.80	5.48	5.43	-164.50		-20.27	137.37	217.34	206.83	10.51	20.678		
2,600.00	2,595.63	2,576.61	2,572.35	5.74	5.68	-164.50		-22.87	147.03	236.89	225.95	10.94	21.647		
2,700.00	2,695.11	2,674.68	2,669.91	6.00	5.94	-164.50		-25.47	156.69	256.44	245.07	11.38	22.537		
2,800.00	2,794.59	2,772.75	2,767.47	6.27	6.19	-164.50		-28.07	166.35	276.00	264.18	11.82	23.354		
2,900.00	2,894.07	2,870.82	2,865.03	6.53	6.45	-164.49		-30.67	176.00	295.55	283.29	12.26	24.108		
3,000.00	2,993.55	2,968.89	2,962.59	6.80	6.71	-164.49		-33.27	185.66	315.10	302.40	12.70	24.804		
3,100.00	3,093.03	3,066.96	3,060.15	7.07	6.98	-164.49		-35.87	195.32	334.65	321.50	13.15	25.450		
3,200.00	3,192.51	3,165.03	3,157.71	7.34	7.24	-164.49		-38.47	204.98	354.20	340.61	13.60	26.049		
3,300.00	3,291.99	3,263.10	3,255.26	7.61	7.51	-164.49		-41.07	214.64	373.76	359.71	14.05	26.606		
3,400.00	3,391.47	3,361.17	3,352.82	7.89	7.78	-164.49		-43.67	224.30	393.31	378.81	14.50	27.126		
3,500.00	3,490.95	3,459.24	3,450.38	8.17	8.05	-164.49		-46.27	233.96	412.86	397.91	14.95	27.612		
3,600.00	3,590.43	3,557.31	3,547.94	8.44	8.32	-164.49		-48.87	243.61	432.41	417.01	15.41	28.066		
3,700.00	3,689.91	3,655.38	3,645.50	8.72	8.59	-164.49		-51.47	253.27	451.96	436.10	15.86	28.493		
3,800.00	3,789.39	3,753.45	3,743.06	9.00	8.86	-164.48		-54.07	262.93	471.52	455.20	16.32	28.893		
3,900.00	3,888.87	3,851.52	3,840.62	9.28	9.13	-164.48		-56.67	272.59	491.07	474.29	16.78	29.270		
4,000.00	3,988.35	3,949.59	3,938.17	9.56	9.41	-164.48		-59.27	282.25	510.62	493.38	17.24	29.625		
4,100.00	4,087.83	4,047.66	4,035.73	9.84	9.68	-164.48		-61.87	291.91	530.17	512.48	17.70	29.960		
4,200.00	4,187.31	4,145.73	4,133.29	10.12	9.96	-164.48		-64.47	301.56	549.72	531.57	18.16	30.277		
4,300.00	4,286.79	4,243.80	4,230.85	10.41	10.24	-164.48		-67.07	311.22	569.28	550.66	18.62	30.577		
4,400.00	4,386.27	4,341.87	4,328.41	10.69	10.51	-164.48		-69.67	320.88	588.83	569.75	19.08	30.861		
4,500.00	4,485.75	4,439.94	4,425.97	10.97	10.79	-164.48		-72.27	330.54	608.38	588.84	19.54	31.131		
4,600.00	4,585.23	4,538.01	4,523.53	11.26	11.07	-164.48		-74.87	340.20	627.93	607.93	20.01	31.387		
4,700.00	4,684.71	4,636.08	4,621.08	11.54	11.34	-164.48		-77.47	349.86	647.48	627.01	20.47	31.631		
4,800.00	4,784.19	4,734.15	4,718.64	11.83	11.62	-164.48		-80.07	359.51	667.04	646.10	20.93	31.863		
4,900.00	4,883.67	4,832.22	4,816.20	12.11	11.90	-164.48		-82.67	369.17	686.59	665.19	21.40	32.084		
5,000.00	4,983.15	4,930.29	4,913.76	12.40	12.18	-164.48		-85.27	378.83	706.14	684.27	21.87	32.295		
5,100.00	5,082.63	5,028.36	5,011.32	12.68	12.46	-164.48		-87.87	388.49	725.69	703.36	22.33	32.497		
5,200.00	5,182.11	5,126.43	5,108.88	12.97	12.74	-164.48		-90.47	398.15	745.24	722.45	22.80	32.689		
5,300.00	5,281.59	5,224.50	5,206.44	13.26	13.02	-164.48		-93.07	407.81	764.80	741.53	23.26	32.873		
5,400.00	5,381.07	5,322.57	5,303.99	13.55	13.30	-164.48		-95.67	417.47	784.35	760.62	23.73	33.050		
5,500.00	5,480.55	5,420.64	5,401.55	13.83	13.58	-164.48		-98.27	427.12	803.90	779.70	24.20	33.219		
5,600.00	5,580.03	5,518.71	5,499.11	14.12	13.86	-164.48		-100.87	436.78	823.45	798.78	24.67	33.381		
5,700.00	5,679.51	5,616.78	5,596.67	14.41	14.14	-164.48		-103.47	446.44	843.00	817.87	25.14	33.537		
5,800.00	5,778.99	5,714.85	5,694.23	14.70	14.42	-164.48		-106.07	456.10	862.56	836.95	25.61	33.687		
5,900.00	5,878.47	5,812.92	5,791.79	14.98	14.70	-164.48		-108.67	465.76	882.11	856.03	26.07	33.831		
6,000.00	5,977.96	5,910.99	5,889.35	15.27	14.99	-164.48		-111.27	475.42	901.66	875.12	26.54	33.969		
6,100.00	6,077.44	6,009.06	5,986.90	15.56	15.27	-164.48		-113.87	485.07	921.21	894.20	27.01	34.102		
6,200.00	6,176.92	6,107.13	6,084.46	15.85	15.55	-164.48		-116.47	494.73	940.76	913.28	27.48	34.230		

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Offset Design													Offset Site Error:	0.00 usft
Survey Program: 0-MWD													Offset Well Error:	0.00 usft
Reference														
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6,300.00	6,276.40	6,205.20	6,182.02	16.14	15.83	-164.48	-119.07	504.39	960.32	932.36	27.95	34.354		
6,400.00	6,375.88	6,303.27	6,279.58	16.43	16.11	-164.48	-121.67	514.05	979.87	951.44	28.42	34.473		
6,500.00	6,475.36	6,401.34	6,377.14	16.72	16.40	-164.48	-124.27	523.71	999.42	970.53	28.89	34.588		
6,600.00	6,574.84	6,499.41	6,474.70	17.01	16.68	-164.48	-126.87	533.37	1,018.97	989.61	29.37	34.700		
6,700.00	6,674.32	6,597.48	6,572.26	17.29	16.96	-164.48	-129.47	543.02	1,038.52	1,008.69	29.84	34.807		
6,800.00	6,773.80	6,695.55	6,669.81	17.58	17.24	-164.48	-132.07	552.68	1,058.08	1,027.77	30.31	34.911		
6,900.00	6,873.28	6,793.62	6,767.37	17.87	17.53	-164.48	-134.67	562.34	1,077.63	1,046.85	30.78	35.011		
7,000.00	6,972.76	6,891.69	6,864.93	18.16	17.81	-164.48	-137.27	572.00	1,097.18	1,065.93	31.25	35.108		
7,100.00	7,072.24	6,989.76	6,962.49	18.45	18.09	-164.48	-139.87	581.66	1,116.73	1,085.01	31.72	35.202		
7,200.00	7,171.72	7,087.83	7,060.05	18.74	18.38	-164.48	-142.47	591.32	1,136.28	1,104.09	32.20	35.293		
7,300.00	7,271.20	7,185.90	7,157.61	19.03	18.66	-164.48	-145.07	600.98	1,155.84	1,123.17	32.67	35.381		
7,400.00	7,370.68	7,283.97	7,255.17	19.32	18.94	-164.48	-147.67	610.63	1,175.39	1,142.25	33.14	35.466		
7,500.00	7,470.16	7,382.04	7,352.72	19.61	19.23	-164.48	-150.27	620.29	1,194.94	1,161.33	33.61	35.549		
7,600.00	7,569.64	7,480.11	7,450.28	19.90	19.51	-164.48	-152.87	629.95	1,214.49	1,180.40	34.09	35.629		
7,700.00	7,669.12	7,578.18	7,547.84	20.19	19.79	-164.47	-155.47	639.61	1,234.04	1,199.48	34.56	35.707		
7,800.00	7,768.60	7,676.25	7,645.40	20.48	20.08	-164.47	-158.07	649.27	1,253.60	1,218.56	35.03	35.783		
7,900.00	7,868.08	7,774.32	7,742.96	20.77	20.36	-164.47	-160.67	658.93	1,273.15	1,237.64	35.51	35.856		
8,000.00	7,967.56	7,872.39	7,840.52	21.07	20.64	-164.47	-163.27	668.58	1,292.70	1,256.72	35.98	35.927		
8,100.00	8,067.04	7,970.46	7,938.08	21.36	20.93	-164.47	-165.87	678.24	1,312.25	1,275.80	36.45	35.997		
8,200.00	8,166.52	8,068.53	8,035.63	21.65	21.21	-164.47	-168.47	687.90	1,331.80	1,294.87	36.93	36.064		
8,300.00	8,266.00	8,166.60	8,133.19	21.94	21.50	-164.47	-171.07	697.56	1,351.36	1,313.95	37.40	36.130		
8,400.00	8,365.48	8,264.67	8,230.75	22.23	21.78	-164.47	-173.66	707.22	1,370.91	1,333.03	37.88	36.193		
8,500.00	8,464.96	8,362.74	8,328.31	22.52	22.06	-164.47	-176.26	716.88	1,390.46	1,352.11	38.35	36.255		
8,600.00	8,564.44	8,460.81	8,425.87	22.81	22.35	-164.47	-178.86	726.53	1,410.01	1,371.18	38.83	36.316		
8,700.00	8,663.92	8,558.88	8,523.43	23.10	22.63	-164.47	-181.46	736.19	1,429.56	1,390.26	39.30	36.374		
8,800.00	8,763.40	8,656.95	8,620.99	23.39	22.92	-164.47	-184.06	745.85	1,449.12	1,409.34	39.78	36.431		
8,900.00	8,862.88	8,755.02	8,718.54	23.68	23.20	-164.47	-186.66	755.51	1,468.67	1,428.42	40.25	36.487		
9,000.00	8,962.36	8,853.09	8,816.10	23.97	23.49	-164.47	-189.26	765.17	1,488.22	1,447.49	40.73	36.541		
9,037.85	9,000.01	8,890.21	8,853.03	24.08	23.59	-164.47	-190.25	768.82	1,495.62	1,454.71	40.91	36.562		
9,100.00	9,061.89	8,951.25	8,913.75	24.24	23.77	-164.52	-191.87	774.84	1,507.29	1,466.11	41.19	36.598		
9,200.00	9,161.62	9,050.70	9,012.69	24.44	24.06	-164.55	-194.50	784.63	1,524.06	1,482.45	41.61	36.628		
9,300.00	9,261.51	9,212.38	9,173.83	24.62	24.41	-164.55	-197.88	797.17	1,536.26	1,494.08	42.19	36.417		
9,400.00	9,361.49	9,375.64	9,336.95	24.78	24.69	-164.54	-199.48	803.14	1,541.87	1,499.18	42.69	36.121		
9,427.51	9,389.00	9,420.67	9,381.99	24.82	24.77	89.64	-199.61	803.60	1,542.25	1,499.43	42.82	36.018		
9,500.00	9,461.49	9,500.17	9,461.49	24.94	24.90	89.64	-199.62	803.64	1,542.27	1,499.16	43.11	35.778		
9,600.00	9,561.49	9,600.17	9,561.49	25.11	25.06	89.64	-199.62	803.64	1,542.27	1,498.78	43.49	35.466		
9,700.00	9,661.49	9,700.17	9,661.49	25.28	25.23	89.64	-199.62	803.64	1,542.27	1,498.40	43.87	35.159		
9,727.61	9,689.10	9,727.78	9,689.10	25.33	25.28	89.64	-199.62	803.64	1,542.27	1,498.30	43.97	35.075		
9,750.00	9,711.48	9,750.16	9,711.48	25.36	25.32	89.89	-199.62	803.64	1,542.27	1,498.21	44.05	35.008		
9,775.00	9,736.41	9,775.10	9,736.41	25.40	25.36	89.94	-199.16	803.64	1,542.27	1,498.12	44.14	34.937		
9,800.00	9,761.21	9,800.11	9,761.35	25.44	25.40	90.00	-197.40	803.63	1,542.26	1,498.04	44.23	34.872		
9,825.00	9,785.81	9,825.19	9,786.24	25.47	25.43	90.05	-194.33	803.61	1,542.26	1,497.96	44.30	34.813		
9,850.00	9,810.15	9,850.34	9,811.00	25.50	25.47	90.10	-189.94	803.59	1,542.26	1,497.89	44.37	34.758		
9,875.00	9,834.16	9,875.56	9,835.57	25.52	25.50	90.15	-184.24	803.56	1,542.26	1,497.82	44.43	34.709		
9,900.00	9,857.77	9,900.85	9,859.87	25.55	25.53	90.20	-177.23	803.53	1,542.25	1,497.76	44.49	34.664		
9,925.00	9,880.91	9,926.22	9,883.83	25.57	25.55	90.25	-168.91	803.48	1,542.25	1,497.71	44.54	34.623		
9,950.00	9,903.53	9,951.67	9,907.39	25.59	25.57	90.30	-159.30	803.43	1,542.24	1,497.65	44.59	34.586		
9,975.00	9,925.57	9,977.18	9,930.46	25.60	25.59	90.35	-148.42	803.38	1,542.24	1,497.60	44.64	34.551		
10,000.00	9,946.95	10,002.76	9,952.98	25.62	25.61	90.40	-136.29	803.32	1,542.24	1,497.56	44.68	34.518		
10,025.00	9,967.63	10,028.42	9,974.88	25.63	25.62	90.45	-122.93	803.25	1,542.23	1,497.51	44.72	34.485		
10,050.00	9,987.54	10,054.14	9,996.08	25.64	25.63	90.49	-108.38	803.17	1,542.23	1,497.46	44.76	34.452		

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

Company:	Titus Oil & Gas Production, LLC	Local Co-ordinate Reference:	Well Todd 2-24S-31E State 202H (202H) - Slot 202H
Project:	Eddy County, NM (NAD83-NME)	TVD Reference:	3507+25 @ 3532.00usft (KB=25)
Reference Site:	A01 Todd DSU	MD Reference:	3507+25 @ 3532.00usft (KB=25)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Todd 2-24S-31E State 202H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	202H	Database:	EDM 5000.14 Single User Db
Reference Design:	Plan #1-Rev0	Offset TVD Reference:	Offset Datum

Offset Design													Offset Site Error:	0.00 usft
Survey Program: O-MWD													Offset Well Error:	0.00 usft
A01 Todd DSU - Todd 2-24S-31E State 203H (203H) - 203H - Plan #1-Rev0														
Reference		Offset		Semi Major Axis		Distance								Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Tooface (")	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
10,075.00	10,006.64	10,079.93	10,016.53	25.64	25.64	90.54	-92.66	803.09	1,542.22	1,497.41	44.81	34.419		
10,100.00	10,024.87	10,105.78	10,036.14	25.65	25.65	90.58	-75.82	803.01	1,542.21	1,497.36	44.85	34.383		
10,125.00	10,042.17	10,131.70	10,054.85	25.65	25.66	90.62	-57.89	802.92	1,542.21	1,497.30	44.91	34.344		
10,150.00	10,058.51	10,157.68	10,072.61	25.66	25.66	90.66	-38.93	802.82	1,542.20	1,497.24	44.96	34.300		
10,175.00	10,073.83	10,183.72	10,089.34	25.67	25.67	90.70	-18.99	802.72	1,542.19	1,497.16	45.03	34.252		
10,200.00	10,088.11	10,209.81	10,105.00	25.67	25.67	90.74	1.88	802.61	1,542.18	1,497.08	45.10	34.197		
10,225.00	10,101.28	10,235.95	10,119.51	25.68	25.68	90.77	23.61	802.50	1,542.17	1,496.99	45.18	34.135		
10,250.00	10,113.33	10,262.14	10,132.84	25.69	25.69	90.80	46.15	802.39	1,542.16	1,496.89	45.27	34.066		
10,275.00	10,124.22	10,288.38	10,144.94	25.70	25.70	90.83	69.43	802.27	1,542.14	1,496.77	45.37	33.987		
10,300.00	10,133.91	10,314.65	10,155.75	25.71	25.71	90.86	93.38	802.14	1,542.13	1,496.64	45.49	33.900		
10,325.00	10,142.38	10,340.97	10,165.25	25.73	25.72	90.88	117.92	802.02	1,542.11	1,496.49	45.62	33.804		
10,350.00	10,149.61	10,367.32	10,173.38	25.75	25.74	90.90	142.97	801.89	1,542.09	1,496.33	45.76	33.697		
10,375.00	10,155.58	10,393.69	10,180.13	25.77	25.77	90.92	168.47	801.76	1,542.08	1,496.16	45.92	33.581		
10,400.00	10,160.27	10,420.10	10,185.46	25.81	25.80	90.94	194.32	801.63	1,542.06	1,495.96	46.09	33.455		
10,425.00	10,163.67	10,446.52	10,189.36	25.85	25.84	90.95	220.45	801.50	1,542.03	1,495.76	46.28	33.320		
10,450.00	10,165.77	10,472.96	10,191.81	25.89	25.89	90.97	246.77	801.36	1,542.01	1,495.53	46.48	33.176		
10,475.00	10,166.56	10,499.41	10,192.80	25.95	25.95	90.97	273.20	801.23	1,541.99	1,495.29	46.69	33.024		
10,481.78	10,166.55	10,506.58	10,192.82	25.96	25.97	90.98	280.38	801.19	1,541.98	1,495.23	46.75	32.981		
10,500.00	10,166.39	10,524.84	10,192.70	26.01	26.01	90.98	298.63	801.10	1,541.96	1,495.04	46.93	32.859		
10,600.00	10,165.52	10,624.84	10,192.04	26.36	26.36	90.99	398.62	800.59	1,541.86	1,493.87	47.99	32.131		
10,700.00	10,164.64	10,724.83	10,191.37	26.85	26.87	90.99	498.62	800.08	1,541.76	1,492.47	49.29	31.278		
10,800.00	10,163.77	10,824.83	10,190.71	27.49	27.52	91.00	598.62	799.57	1,541.65	1,490.83	50.83	30.331		
10,900.00	10,162.90	10,924.83	10,190.05	28.26	28.30	91.01	698.61	799.06	1,541.55	1,488.98	52.57	29.322		
11,000.00	10,162.02	11,024.83	10,189.39	29.14	29.18	91.02	798.61	798.55	1,541.45	1,486.94	54.51	28.279		
11,100.00	10,161.15	11,124.83	10,188.73	30.12	30.16	91.03	898.61	798.03	1,541.35	1,484.73	56.62	27.225		
11,200.00	10,160.28	11,224.83	10,188.06	31.17	31.23	91.03	998.60	797.52	1,541.25	1,482.37	58.87	26.179		
11,300.00	10,159.41	11,324.83	10,187.40	32.31	32.36	91.04	1,098.60	797.01	1,541.14	1,479.87	61.27	25.154		
11,400.00	10,158.53	11,424.83	10,186.74	33.50	33.56	91.05	1,198.59	796.50	1,541.04	1,477.26	63.78	24.161		
11,500.00	10,157.66	11,524.83	10,186.08	34.75	34.81	91.06	1,298.59	795.99	1,540.94	1,474.53	66.40	23.206		
11,600.00	10,156.79	11,624.83	10,185.42	36.06	36.12	91.07	1,398.59	795.48	1,540.84	1,471.72	69.12	22.293		
11,700.00	10,155.91	11,724.83	10,184.75	37.40	37.46	91.07	1,498.58	794.97	1,540.73	1,468.82	71.92	21.423		
11,800.00	10,155.04	11,824.83	10,184.09	38.79	38.85	91.08	1,598.58	794.46	1,540.63	1,465.84	74.79	20.599		
11,900.00	10,154.17	11,924.83	10,183.43	40.21	40.28	91.09	1,698.58	793.95	1,540.53	1,462.80	77.73	19.819		
12,000.00	10,153.30	12,024.83	10,182.77	41.66	41.73	91.10	1,798.57	793.44	1,540.43	1,459.70	80.73	19.081		
12,100.00	10,152.42	12,124.83	10,182.11	43.15	43.21	91.10	1,898.57	792.93	1,540.32	1,456.54	83.78	18.385		
12,200.00	10,151.55	12,224.83	10,181.44	44.66	44.72	91.11	1,998.56	792.42	1,540.22	1,453.34	86.88	17.729		
12,300.00	10,150.68	12,324.83	10,180.78	46.19	46.25	91.12	2,098.56	791.91	1,540.12	1,450.10	90.02	17.109		
12,400.00	10,149.80	12,424.83	10,180.12	47.74	47.80	91.13	2,198.56	791.40	1,540.02	1,446.82	93.20	16.525		
12,500.00	10,148.93	12,524.83	10,179.46	49.31	49.38	91.14	2,298.55	790.89	1,539.92	1,443.51	96.41	15.973		
12,600.00	10,148.06	12,624.83	10,178.80	50.90	50.96	91.14	2,398.55	790.38	1,539.81	1,440.16	99.65	15.452		
12,700.00	10,147.19	12,724.83	10,178.13	52.50	52.57	91.15	2,498.55	789.87	1,539.71	1,436.79	102.92	14.960		
12,800.00	10,146.31	12,824.83	10,177.47	54.12	54.19	91.16	2,598.54	789.36	1,539.61	1,433.39	106.22	14.495		
12,900.00	10,145.44	12,924.83	10,176.81	55.75	55.82	91.17	2,698.54	788.85	1,539.51	1,429.97	109.54	14.055		
13,000.00	10,144.57	13,024.83	10,176.15	57.39	57.46	91.18	2,798.53	788.34	1,539.41	1,426.53	112.88	13.638		
13,100.00	10,143.69	13,124.83	10,175.48	59.05	59.11	91.18	2,898.53	787.83	1,539.30	1,423.07	116.24	13.243		
13,200.00	10,142.82	13,224.83	10,174.82	60.71	60.78	91.19	2,998.53	787.32	1,539.20	1,419.59	119.61	12.868		
13,300.00	10,141.95	13,324.83	10,174.16	62.39	62.45	91.20	3,098.52	786.81	1,539.10	1,416.10	123.01	12.512		
13,400.00	10,141.08	13,424.83	10,173.50	64.07	64.13	91.21	3,198.52	786.30	1,539.00	1,412.59	126.41	12.174		
13,500.00	10,140.20	13,524.83	10,172.84	65.76	65.82	91.22	3,298.52	785.79	1,538.90	1,409.06	129.84	11.853		
13,600.00	10,139.33	13,624.83	10,172.17	67.45	67.52	91.22	3,398.51	785.28	1,538.80	1,405.53	133.27	11.547		
13,700.00	10,138.46	13,724.83	10,171.51	69.16	69.22	91.23	3,498.51	784.77	1,538.69	1,401.98	136.71	11.255		

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

Company:	Titus Oil & Gas Production, LLC	Local Co-ordinate Reference:	Well Todd 2-24S-31E State 202H (202H) - Slot 202H
Project:	Eddy County, NM (NAD83-NME)	TVD Reference:	3507+25 @ 3532.00usft (KB=25)
Reference Site:	A01 Todd DSU	MD Reference:	3507+25 @ 3532.00usft (KB=25)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Todd 2-24S-31E State 202H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	202H	Database:	EDM 5000.14 Single User Db
Reference Design:	Plan #1-Rev0	Offset TVD Reference:	Offset Datum

Offset Design													Offset Site Error:	
A01 Todd DSU - Todd 2-24S-31E State 203H (203H) - 203H - Plan #1-Rev0													0.00 usft	
Survey Program:		0-MWD											Offset Well Error:	
Reference		Offset		Semi Major Axis			Distance							
Measured Depth	Vertical Depth	Measured Depth	Vertical Depth	Reference	Offset	Highside Toolface	Offset Wellbore Centre		Between Centres	Between Ellipses	Minimum Separation	Separation Factor	Warning	
(usft)	(usft)	(usft)	(usft)	(usft)	(usft)	(°)	+N/-S (usft)	+E/-W (usft)	(usft)	(usft)	(usft)			
13,800.00	10,137.58	13,824.83	10,170.85	70.87	70.93	91.24	3,598.50	784.25	1,538.59	1,398.42	140.17	10.977		
13,900.00	10,136.71	13,924.83	10,170.19	72.58	72.65	91.25	3,698.50	783.74	1,538.49	1,394.85	143.64	10.711		
14,000.00	10,135.84	14,024.83	10,169.53	74.30	74.37	91.26	3,798.50	783.23	1,538.39	1,391.28	147.11	10.457		
14,100.00	10,134.97	14,124.83	10,168.86	76.03	76.10	91.26	3,898.49	782.72	1,538.29	1,387.69	150.60	10.215		
14,200.00	10,134.09	14,224.83	10,168.20	77.76	77.83	91.27	3,998.49	782.21	1,538.19	1,384.10	154.09	9.982		
14,300.00	10,133.22	14,324.82	10,167.54	79.50	79.56	91.28	4,098.49	781.70	1,538.08	1,380.49	157.59	9.760		
14,400.00	10,132.35	14,424.82	10,166.88	81.23	81.30	91.29	4,198.48	781.19	1,537.98	1,376.89	161.10	9.547		
14,500.00	10,131.47	14,524.82	10,166.22	82.98	83.04	91.30	4,298.48	780.68	1,537.88	1,373.27	164.61	9.343		
14,600.00	10,130.60	14,624.82	10,165.55	84.72	84.79	91.30	4,398.47	780.17	1,537.78	1,369.65	168.13	9.146		
14,700.00	10,129.73	14,724.82	10,164.89	86.47	86.54	91.31	4,498.47	779.66	1,537.68	1,366.02	171.66	8.958		
14,800.00	10,128.86	14,824.82	10,164.23	88.23	88.29	91.32	4,598.47	779.15	1,537.58	1,362.39	175.19	8.777		
14,900.00	10,127.98	14,924.82	10,163.57	89.98	90.05	91.33	4,698.46	778.64	1,537.48	1,358.75	178.72	8.603		
15,000.00	10,127.11	15,024.82	10,162.91	91.74	91.81	91.33	4,798.46	778.13	1,537.37	1,355.11	182.26	8.435		
15,100.00	10,126.24	15,124.82	10,162.24	93.51	93.57	91.34	4,898.46	777.62	1,537.27	1,351.46	185.81	8.273		
15,200.00	10,125.36	15,224.82	10,161.58	95.27	95.34	91.35	4,998.45	777.11	1,537.17	1,347.81	189.36	8.118		
15,221.13	10,125.18	15,245.96	10,161.44	95.66	95.71	91.35	5,019.58	777.00	1,537.15	1,347.11	190.04	8.089 SF		

Company:	Titus Oil & Gas Production, LLC	Local Co-ordinate Reference:	Well Todd 2-24S-31E State 202H (202H) - Slot 202H
Project:	Eddy County, NM (NAD83-NME)	TVD Reference:	3507+25 @ 3532.00usft (KB=25)
Reference Site:	A01 Todd DSU	MD Reference:	3507+25 @ 3532.00usft (KB=25)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Todd 2-24S-31E State 202H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	202H	Database:	EDM 5000.14 Single User Db
Reference Design:	Plan #1-Rev0	Offset TVD Reference:	Offset Datum

Offset Design													Offset Site Error:	0.00 usft
A01 Todd DSU - Todd 2-24S-31E State 207H (207H) - 207H - Plan #1-Rev0													Offset Well Error:	0.00 usft
Survey Program: 0-MWD														
Reference		Offset		Semi Major Axis		Highside Tooface (")	Offset Wellbore Centre		Distance		Minimum Separation (usft)	Separation Factor	Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)		+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)				
0.00	0.00	1.00	1.00	0.00	0.00	126.70	-44.80	60.10	74.96					
100.00	100.00	101.00	101.00	0.08	0.09	126.70	-44.80	60.10	74.96	74.79	0.17	438.820		
200.00	200.00	201.00	201.00	0.31	0.31	126.70	-44.80	60.10	74.96	74.34	0.62	120.835		
300.00	300.00	301.00	301.00	0.53	0.54	126.70	-44.80	60.10	74.96	73.89	1.07	70.064		
400.00	400.00	401.00	401.00	0.76	0.76	126.70	-44.80	60.10	74.96	73.44	1.52	49.335		
500.00	500.00	501.00	501.00	0.98	0.99	126.70	-44.80	60.10	74.96	72.99	1.97	38.071		
600.00	600.00	601.00	601.00	1.21	1.21	126.70	-44.80	60.10	74.96	72.54	2.42	30.995		
700.00	700.00	701.00	701.00	1.43	1.44	126.70	-44.80	60.10	74.96	72.09	2.87	26.137		
800.00	800.00	801.00	801.00	1.66	1.66	126.70	-44.80	60.10	74.96	71.64	3.32	22.595		
900.00	900.00	901.00	901.00	1.88	1.88	126.70	-44.80	60.10	74.96	71.19	3.77	19.899		
1,000.00	1,000.00	1,001.00	1,001.00	2.11	2.11	126.70	-44.80	60.10	74.96	70.74	4.22	17.777		
1,100.00	1,100.00	1,101.00	1,101.00	2.33	2.33	126.70	-44.80	60.10	74.96	70.29	4.67	16.065		
1,200.00	1,200.00	1,201.00	1,201.00	2.56	2.56	126.70	-44.80	60.10	74.96	69.84	5.12	14.653		
1,300.00	1,300.00	1,301.00	1,301.00	2.78	2.78	126.70	-44.80	60.10	74.96	69.40	5.57	13.469		
1,400.00	1,400.00	1,401.00	1,401.00	3.01	3.01	126.70	-44.80	60.10	74.96	68.95	6.01	12.463		
1,416.33	1,416.33	1,417.33	1,417.33	3.04	3.05	126.70	-44.80	60.10	74.96	68.87	6.09	12.313 CC		
1,500.00	1,500.00	1,500.98	1,500.98	3.23	3.23	126.70	-44.80	60.10	74.96	68.50	6.46	11.597 ES		
1,600.00	1,599.99	1,600.00	1,599.99	3.44	3.44	-128.56	-45.17	61.35	77.01	70.13	6.88	11.201		
1,700.00	1,699.91	1,696.87	1,696.79	3.63	3.63	-131.40	-46.25	64.96	83.22	75.97	7.25	11.480		
1,800.00	1,799.69	1,794.67	1,794.39	3.83	3.82	-135.28	-48.01	70.86	93.82	86.18	7.63	12.288		
1,889.67	1,888.99	1,883.29	1,882.80	4.02	4.01	-138.94	-49.75	76.69	105.80	97.81	7.99	13.235		
1,900.00	1,899.27	1,893.49	1,892.97	4.05	4.03	-139.36	-49.95	77.36	107.30	99.26	8.04	13.351		
2,000.00	1,998.75	1,992.14	1,991.39	4.27	4.24	-142.91	-51.89	83.85	122.06	113.61	8.44	14.458		
2,100.00	2,098.23	2,090.80	2,089.81	4.50	4.45	-145.69	-53.82	90.34	137.17	128.32	8.85	15.495		
2,200.00	2,197.71	2,189.45	2,188.24	4.74	4.67	-147.92	-55.76	96.84	152.54	143.27	9.27	16.458		
2,300.00	2,297.19	2,288.11	2,286.66	4.98	4.89	-149.74	-57.70	103.33	168.10	158.41	9.69	17.349		
2,400.00	2,396.67	2,386.76	2,385.08	5.23	5.12	-151.24	-59.64	109.82	183.79	173.67	10.11	18.172		
2,500.00	2,496.15	2,485.42	2,483.50	5.48	5.35	-152.52	-61.57	116.31	199.59	189.04	10.54	18.932		
2,600.00	2,595.63	2,584.07	2,581.93	5.74	5.58	-153.60	-63.51	122.80	215.46	204.49	10.97	19.634		
2,700.00	2,695.11	2,682.73	2,680.35	6.00	5.81	-154.54	-65.45	129.29	231.41	220.00	11.41	20.284		
2,800.00	2,794.59	2,781.38	2,778.77	6.27	6.04	-155.35	-67.38	135.79	247.40	235.56	11.85	20.887		
2,900.00	2,894.07	2,880.04	2,877.19	6.53	6.28	-156.07	-69.32	142.28	263.44	251.16	12.28	21.446		
3,000.00	2,993.55	2,978.69	2,975.61	6.80	6.51	-156.70	-71.26	148.77	279.52	266.79	12.73	21.965		
3,100.00	3,093.03	3,077.35	3,074.04	7.07	6.75	-157.27	-73.20	155.26	295.62	282.45	13.17	22.449		
3,200.00	3,192.51	3,176.00	3,172.46	7.34	6.99	-157.77	-75.13	161.75	311.75	298.14	13.61	22.900		
3,300.00	3,291.99	3,274.66	3,270.88	7.61	7.23	-158.23	-77.07	168.25	327.90	313.84	14.06	23.322		
3,400.00	3,391.47	3,373.31	3,369.30	7.89	7.47	-158.64	-79.01	174.74	344.07	329.57	14.51	23.716		
3,500.00	3,490.95	3,471.97	3,467.72	8.17	7.71	-159.02	-80.94	181.23	360.26	345.30	14.96	24.086		
3,600.00	3,590.43	3,570.62	3,566.15	8.44	7.96	-159.37	-82.88	187.72	376.46	361.05	15.41	24.434		
3,700.00	3,689.91	3,669.28	3,664.57	8.72	8.20	-159.68	-84.82	194.21	392.67	376.81	15.86	24.761		
3,800.00	3,789.39	3,767.93	3,762.99	9.00	8.44	-159.97	-86.75	200.71	408.89	392.58	16.31	25.069		
3,900.00	3,888.87	3,866.59	3,861.41	9.28	8.69	-160.24	-88.69	207.20	425.12	408.36	16.76	25.359		
4,000.00	3,988.35	3,965.24	3,959.83	9.56	8.93	-160.49	-90.63	213.69	441.36	424.15	17.22	25.633		
4,100.00	4,087.83	4,063.90	4,058.26	9.84	9.18	-160.72	-92.57	220.18	457.61	439.94	17.67	25.893		
4,200.00	4,187.31	4,162.55	4,156.68	10.12	9.42	-160.94	-94.50	226.67	473.87	455.74	18.13	26.139		
4,300.00	4,286.79	4,261.21	4,255.10	10.41	9.67	-161.14	-96.44	233.17	490.13	471.54	18.59	26.372		
4,400.00	4,386.27	4,359.86	4,353.52	10.69	9.92	-161.33	-98.38	239.66	506.39	487.35	19.04	26.593		
4,500.00	4,485.75	4,458.52	4,451.95	10.97	10.16	-161.50	-100.31	246.15	522.66	503.16	19.50	26.804		
4,600.00	4,585.23	4,557.17	4,550.37	11.26	10.41	-161.67	-102.25	252.64	538.94	518.98	19.96	27.004		
4,700.00	4,684.71	4,655.83	4,648.79	11.54	10.66	-161.82	-104.19	259.13	555.22	534.80	20.42	27.195		
4,800.00	4,784.19	4,754.48	4,747.21	11.83	10.91	-161.97	-106.13	265.63	571.50	550.63	20.88	27.377		

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

Company:	Titus Oil & Gas Production, LLC	Local Co-ordinate Reference:	Well Todd 2-24S-31E State 202H (202H) - Slot 202H
Project:	Eddy County, NM (NAD83-NME)	TVD Reference:	3507+25 @ 3532.00usft (KB=25)
Reference Site:	A01 Todd DSU	MD Reference:	3507+25 @ 3532.00usft (KB=25)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Todd 2-24S-31E State 202H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	202H	Database:	EDM 5000.14 Single User Db
Reference Design:	Plan #1-Rev0	Offset TVD Reference:	Offset Datum

Offset Design													Offset Site Error:	0.00 usft
Survey Program: O-MWD													Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis		Distance								Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
4,900.00	4,883.67	4,853.14	4,845.63	12.11	11.15	-162.11	-108.06	272.12	587.79	566.45	21.34	27.550		
5,000.00	4,983.15	4,951.79	4,944.06	12.40	11.40	-162.24	-110.00	278.61	604.08	582.28	21.80	27.716		
5,100.00	5,082.63	5,050.45	5,042.48	12.68	11.65	-162.37	-111.94	285.10	620.37	598.12	22.26	27.875		
5,200.00	5,182.11	5,149.10	5,140.90	12.97	11.90	-162.48	-113.87	291.59	636.67	613.95	22.72	28.027		
5,300.00	5,281.59	5,247.76	5,239.32	13.26	12.15	-162.60	-115.81	298.08	652.96	629.79	23.18	28.172		
5,400.00	5,381.07	5,346.41	5,337.74	13.55	12.40	-162.70	-117.75	304.58	669.27	645.63	23.64	28.312		
5,500.00	5,480.55	5,445.07	5,436.17	13.83	12.65	-162.81	-119.69	311.07	685.57	661.47	24.10	28.446		
5,600.00	5,580.03	5,543.72	5,534.59	14.12	12.90	-162.90	-121.62	317.56	701.87	677.31	24.56	28.574		
5,700.00	5,679.51	5,642.38	5,633.01	14.41	13.15	-163.00	-123.56	324.05	718.18	693.15	25.03	28.698		
5,800.00	5,778.99	5,741.03	5,731.43	14.70	13.40	-163.08	-125.50	330.54	734.49	709.00	25.49	28.817		
5,900.00	5,878.47	5,839.69	5,829.86	14.98	13.65	-163.17	-127.43	337.04	750.80	724.85	25.95	28.931		
6,000.00	5,977.96	5,938.34	5,928.28	15.27	13.90	-163.25	-129.37	343.53	767.11	740.69	26.41	29.041		
6,100.00	6,077.44	6,037.00	6,026.70	15.56	14.15	-163.33	-131.31	350.02	783.42	756.54	26.88	29.147		
6,200.00	6,176.92	6,135.65	6,125.12	15.85	14.40	-163.40	-133.25	356.51	799.74	772.39	27.34	29.249		
6,300.00	6,276.40	6,234.31	6,223.54	16.14	14.65	-163.47	-135.18	363.00	816.05	788.25	27.81	29.348		
6,400.00	6,375.88	6,332.96	6,321.97	16.43	14.90	-163.54	-137.12	369.50	832.37	804.10	28.27	29.443		
6,500.00	6,475.36	6,431.62	6,420.39	16.72	15.15	-163.61	-139.06	375.99	848.69	819.95	28.73	29.535		
6,600.00	6,574.84	6,530.27	6,518.81	17.01	15.40	-163.67	-140.99	382.48	865.01	835.81	29.20	29.624		
6,700.00	6,674.32	6,628.93	6,617.23	17.29	15.65	-163.73	-142.93	388.97	881.33	851.66	29.66	29.710		
6,800.00	6,773.80	6,727.58	6,715.65	17.58	15.91	-163.79	-144.87	395.46	897.65	867.52	30.13	29.793		
6,900.00	6,873.28	6,826.24	6,814.08	17.87	16.16	-163.85	-146.80	401.96	913.97	883.37	30.59	29.873		
7,000.00	6,972.76	6,924.89	6,912.50	18.16	16.41	-163.90	-148.74	408.45	930.29	899.23	31.06	29.951		
7,100.00	7,072.24	7,023.55	7,010.92	18.45	16.66	-163.96	-150.68	414.94	946.61	915.09	31.53	30.027		
7,200.00	7,171.72	7,122.20	7,109.34	18.74	16.91	-164.01	-152.62	421.43	962.94	930.95	31.99	30.100		
7,300.00	7,271.20	7,220.86	7,207.76	19.03	17.16	-164.06	-154.55	427.92	979.26	946.81	32.46	30.171		
7,400.00	7,370.68	7,319.51	7,306.19	19.32	17.41	-164.11	-156.49	434.42	995.59	962.66	32.92	30.239		
7,500.00	7,470.16	7,418.17	7,404.61	19.61	17.67	-164.15	-158.43	440.91	1,011.91	978.52	33.39	30.306		
7,600.00	7,569.64	7,516.82	7,503.03	19.90	17.92	-164.20	-160.36	447.40	1,028.24	994.39	33.86	30.371		
7,700.00	7,669.12	7,615.48	7,601.45	20.19	18.17	-164.24	-162.30	453.89	1,044.57	1,010.25	34.32	30.434		
7,800.00	7,768.60	7,714.13	7,699.88	20.48	18.42	-164.28	-164.24	460.38	1,060.90	1,026.11	34.79	30.495		
7,900.00	7,868.08	7,812.79	7,798.30	20.77	18.67	-164.32	-166.18	466.87	1,077.23	1,041.97	35.26	30.554		
8,000.00	7,967.56	7,911.44	7,896.72	21.07	18.93	-164.36	-168.11	473.37	1,093.55	1,057.83	35.72	30.612		
8,100.00	8,067.04	8,010.10	7,995.14	21.36	19.18	-164.40	-170.05	479.86	1,109.88	1,073.69	36.19	30.668		
8,200.00	8,166.52	8,108.75	8,093.56	21.65	19.43	-164.44	-171.99	486.35	1,126.21	1,089.56	36.66	30.722		
8,300.00	8,266.00	8,207.41	8,191.99	21.94	19.68	-164.48	-173.92	492.84	1,142.54	1,105.42	37.13	30.775		
8,400.00	8,365.48	8,306.06	8,290.41	22.23	19.93	-164.51	-175.86	499.33	1,158.88	1,121.28	37.59	30.827		
8,500.00	8,464.96	8,404.72	8,388.83	22.52	20.19	-164.55	-177.80	505.83	1,175.21	1,137.15	38.06	30.877		
8,600.00	8,564.44	8,503.37	8,487.25	22.81	20.44	-164.58	-179.74	512.32	1,191.54	1,153.01	38.53	30.926		
8,700.00	8,663.92	8,602.03	8,585.67	23.10	20.69	-164.61	-181.67	518.81	1,207.87	1,168.88	39.00	30.974		
8,800.00	8,763.40	8,700.68	8,684.10	23.39	20.94	-164.64	-183.61	525.30	1,224.20	1,184.74	39.46	31.021		
8,900.00	8,862.88	8,799.34	8,782.52	23.68	21.20	-164.67	-185.55	531.79	1,240.54	1,200.60	39.93	31.066		
9,000.00	8,962.36	8,897.99	8,880.94	23.97	21.45	-164.70	-187.48	538.29	1,256.87	1,216.47	40.40	31.110		
9,037.85	9,000.01	8,935.33	8,918.19	24.08	21.54	-164.72	-188.22	540.74	1,263.05	1,222.47	40.58	31.127		
9,100.00	9,061.89	8,996.72	8,979.44	24.24	21.70	-164.77	-189.42	544.78	1,272.72	1,231.87	40.85	31.154		
9,200.00	9,161.62	9,095.80	9,078.28	24.44	21.95	-164.81	-191.37	551.30	1,286.25	1,244.99	41.27	31.170		
9,300.00	9,261.51	9,195.19	9,177.43	24.62	22.21	-164.82	-193.32	557.84	1,297.28	1,255.60	41.68	31.128		
9,400.00	9,361.49	9,294.81	9,276.82	24.78	22.46	-164.79	-195.28	564.40	1,305.79	1,263.71	42.08	31.030		
9,427.51	9,389.00	9,322.25	9,304.20	24.82	22.53	89.41	-195.81	566.20	1,307.69	1,265.50	42.20	30.991		
9,500.00	9,461.49	9,394.57	9,376.34	24.94	22.72	89.47	-197.23	570.96	1,312.45	1,269.95	42.50	30.879		
9,600.00	9,561.49	9,513.19	9,494.72	25.11	23.00	89.57	-199.44	578.36	1,318.74	1,275.76	42.98	30.684		
9,700.00	9,661.49	9,662.50	9,643.92	25.28	23.27	89.64	-200.90	583.26	1,322.01	1,278.53	43.48	30.406		

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

Company:	Titus Oil & Gas Production, LLC	Local Co-ordinate Reference:	Well Todd 2-24S-31E State 202H (202H) - Slot 202H
Project:	Eddy County, NM (NAD83-NME)	TVD Reference:	3507+25 @ 3532.00usft (KB=25)
Reference Site:	A01 Todd DSU	MD Reference:	3507+25 @ 3532.00usft (KB=25)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Todd 2-24S-31E State 202H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	202H	Database:	EDM 5000.14 Single User Db
Reference Design:	Plan #1-Rev0	Offset TVD Reference:	Offset Datum

Offset Design														Offset Site Error:	0.00 usft
A01 Todd DSU - Todd 2-24S-31E State 207H (207H) - 207H - Plan #1-Rev0														Offset Well Error:	0.00 usft
Survey Program: 0-MWD															
Reference		Offset		Semi Major Axis		Distance									
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Tooface (')	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning		
9,727.61	9,689.10	9,703.78	9,685.20	25.33	23.34	89.64	-201.01	583.62	1,322.26	1,278.65	43.61	30.321			
9,750.00	9,711.48	9,731.05	9,712.48	25.36	23.38	89.90	-201.02	583.65	1,322.27	1,278.57	43.70	30.255			
9,775.00	9,736.41	9,755.98	9,737.41	25.40	23.43	89.98	-201.02	583.65	1,322.27	1,278.48	43.80	30.191			
9,780.23	9,741.61	9,761.19	9,742.61	25.41	23.44	90.00	-201.02	583.65	1,322.27	1,278.46	43.82	30.178			
9,800.00	9,761.21	9,780.78	9,762.21	25.44	23.47	90.11	-201.02	583.65	1,322.28	1,278.39	43.89	30.130			
9,825.00	9,785.81	9,805.39	9,786.81	25.47	23.52	90.30	-201.02	583.65	1,322.29	1,278.32	43.97	30.071			
9,850.00	9,810.15	9,829.73	9,811.15	25.50	23.56	90.53	-201.02	583.65	1,322.33	1,278.28	44.06	30.015			
9,875.00	9,834.16	9,853.73	9,835.16	25.52	23.61	90.81	-201.02	583.65	1,322.42	1,278.28	44.14	29.963			
9,900.00	9,857.77	9,877.34	9,858.77	25.55	23.65	91.13	-201.02	583.65	1,322.57	1,278.35	44.21	29.914			
9,925.00	9,880.91	9,900.49	9,881.91	25.57	23.69	91.48	-201.02	583.65	1,322.80	1,278.51	44.29	29.869			
9,950.00	9,903.53	9,923.11	9,904.53	25.59	23.73	91.86	-201.02	583.65	1,323.14	1,278.78	44.36	29.829			
9,975.00	9,925.57	9,945.14	9,926.57	25.60	23.77	92.25	-201.02	583.65	1,323.62	1,279.20	44.43	29.794			
10,000.00	9,946.95	9,966.52	9,947.95	25.62	23.81	92.65	-201.02	583.65	1,324.27	1,279.78	44.49	29.765			
10,025.00	9,967.63	9,987.20	9,968.63	25.63	23.85	93.05	-201.02	583.65	1,325.12	1,280.56	44.55	29.742			
10,050.00	9,987.54	10,007.12	9,988.54	25.64	23.89	93.44	-201.02	583.65	1,326.19	1,281.58	44.61	29.725			
10,075.00	10,006.64	10,026.37	10,007.99	25.64	23.92	93.87	-200.94	583.65	1,327.52	1,282.84	44.68	29.713			
10,100.00	10,024.87	10,054.27	10,035.66	25.65	23.97	94.41	-199.77	583.64	1,329.07	1,284.32	44.75	29.700			
10,125.00	10,042.17	10,081.50	10,062.75	25.65	24.01	94.97	-197.03	583.63	1,330.80	1,285.98	44.82	29.692			
10,150.00	10,058.51	10,110.27	10,091.16	25.66	24.06	95.53	-192.46	583.61	1,332.71	1,287.82	44.89	29.689			
10,175.00	10,073.83	10,140.82	10,120.95	25.67	24.10	96.12	-185.75	583.57	1,334.79	1,289.83	44.96	29.691			
10,200.00	10,088.11	10,173.42	10,152.20	25.67	24.15	96.72	-176.50	583.52	1,337.01	1,291.99	45.02	29.696			
10,225.00	10,101.28	10,208.38	10,184.93	25.68	24.19	97.36	-164.24	583.46	1,339.35	1,294.26	45.09	29.706			
10,250.00	10,113.33	10,246.07	10,219.11	25.69	24.23	98.01	-148.38	583.38	1,341.78	1,296.63	45.15	29.720			
10,275.00	10,124.22	10,286.89	10,254.59	25.70	24.26	98.70	-128.22	583.28	1,344.26	1,299.05	45.21	29.735			
10,300.00	10,133.91	10,331.26	10,291.05	25.71	24.30	99.41	-102.95	583.15	1,346.74	1,301.47	45.27	29.751			
10,325.00	10,142.38	10,379.62	10,327.93	25.73	24.33	100.14	-71.70	582.99	1,349.15	1,303.82	45.33	29.762			
10,350.00	10,149.61	10,432.33	10,364.29	25.75	24.36	100.87	-33.58	582.80	1,351.43	1,306.02	45.41	29.761			
10,375.00	10,155.58	10,489.62	10,398.79	25.77	24.39	101.57	12.11	582.56	1,353.49	1,307.98	45.51	29.740			
10,400.00	10,160.27	10,551.45	10,429.60	25.81	24.44	102.20	65.67	582.29	1,355.25	1,309.60	45.65	29.685			
10,425.00	10,163.67	10,617.44	10,454.55	25.85	24.51	102.72	126.71	581.98	1,356.62	1,310.75	45.86	29.580			
10,450.00	10,165.77	10,686.72	10,471.44	25.89	24.64	103.08	193.83	581.63	1,357.51	1,311.36	46.15	29.412			
10,475.00	10,166.56	10,744.64	10,477.86	25.95	24.81	103.22	251.35	581.34	1,357.87	1,311.39	46.48	29.214			
10,481.78	10,166.55	10,777.43	10,478.57	25.96	24.93	103.24	284.12	581.17	1,357.87	1,311.21	46.66	29.103			
10,490.32	10,166.47	10,783.08	10,478.56	25.98	24.96	103.24	289.77	581.14	1,357.87	1,311.14	46.72	29.061			
10,500.00	10,166.39	10,792.76	10,478.49	26.01	25.00	103.25	299.45	581.09	1,357.86	1,311.05	46.82	29.005			
10,600.00	10,165.52	10,892.76	10,477.81	26.36	25.51	103.25	399.45	580.58	1,357.80	1,309.91	47.90	28.347			
10,700.00	10,164.64	10,992.76	10,477.13	26.85	26.17	103.26	499.44	580.07	1,357.74	1,308.53	49.22	27.588			
10,800.00	10,163.77	11,092.76	10,476.45	27.49	26.95	103.27	599.44	579.56	1,357.69	1,306.94	50.75	26.752			
10,900.00	10,162.90	11,192.76	10,475.77	28.26	27.83	103.28	699.43	579.05	1,357.63	1,305.14	52.48	25.867			
11,000.00	10,162.02	11,292.76	10,475.09	29.14	28.81	103.29	799.43	578.54	1,357.57	1,303.17	54.40	24.956			
11,100.00	10,161.15	11,392.76	10,474.41	30.12	29.86	103.30	899.43	578.03	1,357.51	1,301.03	56.47	24.037			
11,200.00	10,160.28	11,492.76	10,473.73	31.17	30.99	103.31	999.42	577.52	1,357.45	1,298.75	58.70	23.127			
11,300.00	10,159.41	11,592.76	10,473.05	32.31	32.18	103.32	1,099.42	577.01	1,357.39	1,296.34	61.04	22.236			
11,400.00	10,158.53	11,692.76	10,472.37	33.50	33.43	103.33	1,199.42	576.50	1,357.33	1,293.82	63.51	21.373			
11,500.00	10,157.66	11,792.76	10,471.69	34.75	34.73	103.34	1,299.41	575.99	1,357.27	1,291.20	66.07	20.542			
11,600.00	10,156.79	11,892.75	10,471.01	36.06	36.07	103.34	1,399.41	575.48	1,357.21	1,288.48	68.73	19.747			
11,700.00	10,155.91	11,992.75	10,470.33	37.40	37.46	103.35	1,499.40	574.97	1,357.15	1,285.69	71.46	18.991			
11,800.00	10,155.04	12,092.75	10,469.65	38.79	38.88	103.36	1,599.40	574.46	1,357.09	1,282.82	74.27	18.272			
11,900.00	10,154.17	12,192.75	10,468.97	40.21	40.33	103.37	1,699.40	573.95	1,357.03	1,279.89	77.14	17.592			
12,000.00	10,153.30	12,292.75	10,468.29	41.66	41.82	103.38	1,799.39	573.44	1,356.98	1,276.91	80.07	16.948			
12,100.00	10,152.42	12,392.75	10,467.61	43.15	43.33	103.39	1,899.39	572.93	1,356.92	1,273.87	83.05	16.339			

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

Company:	Titus Oil & Gas Production, LLC	Local Co-ordinate Reference:	Well Todd 2-24S-31E State 202H (202H) - Slot 202H
Project:	Eddy County, NM (NAD83-NME)	TVD Reference:	3507+25 @ 3532.00usft (KB=25)
Reference Site:	A01 Todd DSU	MD Reference:	3507+25 @ 3532.00usft (KB=25)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Todd 2-24S-31E State 202H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	202H	Database:	EDM 5000.14 Single User Db
Reference Design:	Plan #1-Rev0	Offset TVD Reference:	Offset Datum

Offset Design													Offset Site Error:	0.00 usft
A01 Todd DSU - Todd 2-24S-31E State 207H (207H) - 207H - Plan #1-Rev0													Offset Well Error:	0.00 usft
Survey Program: 0-MWD														
Reference		Offset		Semi Major Axis		Distance		Minimum Separation		Warning				
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
12,200.00	10,151.55	12,492.75	10,466.93	44.66	44.86	103.40	1,999.38	572.42	1,356.86	1,270.79	86.07	15.765		
12,300.00	10,150.68	12,592.75	10,466.25	46.19	46.42	103.41	2,099.38	571.91	1,356.80	1,267.67	89.13	15.222		
12,400.00	10,149.80	12,692.75	10,465.57	47.74	47.99	103.42	2,199.38	571.39	1,356.74	1,264.51	92.23	14.710		
12,500.00	10,148.93	12,792.75	10,464.89	49.31	49.58	103.42	2,299.37	570.88	1,356.68	1,261.32	95.36	14.226		
12,600.00	10,148.06	12,892.75	10,464.21	50.90	51.19	103.43	2,399.37	570.37	1,356.62	1,258.10	98.53	13.769		
12,700.00	10,147.19	12,992.75	10,463.53	52.50	52.81	103.44	2,499.37	569.86	1,356.56	1,254.85	101.72	13.337		
12,800.00	10,146.31	13,092.75	10,462.85	54.12	54.45	103.45	2,599.36	569.35	1,356.51	1,251.58	104.93	12.928		
12,900.00	10,145.44	13,192.75	10,462.17	55.75	56.09	103.46	2,699.36	568.84	1,356.45	1,248.28	108.17	12.540		
13,000.00	10,144.57	13,292.75	10,461.49	57.39	57.75	103.47	2,799.35	568.33	1,356.39	1,244.97	111.42	12.173		
13,100.00	10,143.69	13,392.75	10,460.81	59.05	59.42	103.48	2,899.35	567.82	1,356.33	1,241.63	114.70	11.825		
13,200.00	10,142.82	13,492.75	10,460.13	60.71	61.10	103.49	2,999.35	567.31	1,356.27	1,238.28	117.99	11.495		
13,300.00	10,141.95	13,592.75	10,459.45	62.39	62.78	103.50	3,099.34	566.80	1,356.21	1,234.91	121.30	11.181		
13,400.00	10,141.08	13,692.75	10,458.77	64.07	64.48	103.51	3,199.34	566.29	1,356.15	1,231.53	124.62	10.882		
13,500.00	10,140.20	13,792.75	10,458.09	65.76	66.18	103.51	3,299.33	565.78	1,356.10	1,228.14	127.96	10.598		
13,600.00	10,139.33	13,892.75	10,457.40	67.45	67.89	103.52	3,399.33	565.27	1,356.04	1,224.73	131.30	10.327		
13,700.00	10,138.46	13,992.75	10,456.72	69.16	69.60	103.53	3,499.33	564.76	1,355.98	1,221.32	134.66	10.069		
13,800.00	10,137.58	14,092.75	10,456.04	70.87	71.32	103.54	3,599.32	564.25	1,355.92	1,217.89	138.03	9.823		
13,900.00	10,136.71	14,192.75	10,455.36	72.58	73.04	103.55	3,699.32	563.74	1,355.86	1,214.45	141.41	9.588		
14,000.00	10,135.84	14,292.75	10,454.68	74.30	74.77	103.56	3,799.32	563.23	1,355.80	1,211.00	144.80	9.363		
14,100.00	10,134.97	14,392.75	10,454.00	76.03	76.51	103.57	3,899.31	562.72	1,355.75	1,207.55	148.20	9.148		
14,200.00	10,134.09	14,492.75	10,453.32	77.76	78.25	103.58	3,999.31	562.20	1,355.69	1,204.09	151.60	8.943		
14,300.00	10,133.22	14,592.75	10,452.64	79.50	79.99	103.59	4,099.30	561.69	1,355.63	1,200.62	155.01	8.745		
14,400.00	10,132.35	14,692.75	10,451.96	81.23	81.74	103.59	4,199.30	561.18	1,355.57	1,197.14	158.43	8.556		
14,500.00	10,131.47	14,792.75	10,451.28	82.98	83.49	103.60	4,299.30	560.67	1,355.51	1,193.66	161.85	8.375		
14,600.00	10,130.60	14,892.75	10,450.60	84.72	85.24	103.61	4,399.29	560.16	1,355.45	1,190.17	165.28	8.201		
14,700.00	10,129.73	14,992.75	10,449.92	86.47	87.00	103.62	4,499.29	559.65	1,355.40	1,186.68	168.72	8.033		
14,800.00	10,128.86	15,092.75	10,449.24	88.23	88.76	103.63	4,599.28	559.14	1,355.34	1,183.18	172.16	7.873		
14,900.00	10,127.98	15,192.75	10,448.56	89.98	90.52	103.64	4,699.28	558.63	1,355.28	1,179.67	175.61	7.718		
15,000.00	10,127.11	15,292.75	10,447.88	91.74	92.28	103.65	4,799.28	558.12	1,355.22	1,176.17	179.06	7.569		
15,100.00	10,126.24	15,392.75	10,447.20	93.51	94.05	103.66	4,899.27	557.61	1,355.17	1,172.65	182.51	7.425		
15,200.00	10,125.36	15,492.75	10,446.52	95.27	95.82	103.67	4,999.27	557.10	1,355.11	1,169.14	185.97	7.287		
15,219.89	10,125.19	15,512.18	10,446.39	95.63	96.16	103.67	5,018.70	557.00	1,355.10	1,168.51	186.58	7.263		
15,221.13	10,125.18	15,512.18	10,446.39	95.66	96.16	103.67	5,018.70	557.00	1,355.10	1,168.50	186.60	7.262 SF		

Company:	Titus Oil & Gas Production, LLC	Local Co-ordinate Reference:	Well Todd 2-24S-31E State 202H (202H) - Slot 202H
Project:	Eddy County, NM (NAD83-NME)	TVD Reference:	3507+25 @ 3532.00usft (KB=25)
Reference Site:	A01 Todd DSU	MD Reference:	3507+25 @ 3532.00usft (KB=25)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Todd 2-24S-31E State 202H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	202H	Database:	EDM 5000.14 Single User Db
Reference Design:	Plan #1-Rev0	Offset TVD Reference:	Offset Datum

Offset Design													Offset Site Error: 0.00 usft	
Survey Program: 0-MWD													Offset Well Error: 0.00 usft	
Reference		Offset		Semi Major Axis		Highside Toolface (°)	Offset Wellbore Centre		Distance		Minimum Separation (usft)	Separation Factor	Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)		+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)				
0.00	0.00	0.00	0.00	0.00	0.00	89.43	0.30	30.10	30.10					
100.00	100.00	100.00	100.00	0.08	0.08	89.43	0.30	30.10	30.10	29.93	0.17	178.565		
200.00	200.00	200.00	200.00	0.31	0.31	89.43	0.30	30.10	30.10	29.48	0.62	48.700		
300.00	300.00	300.00	300.00	0.53	0.53	89.43	0.30	30.10	30.10	29.03	1.07	28.194		
400.00	400.00	400.00	400.00	0.76	0.76	89.43	0.30	30.10	30.10	28.58	1.52	19.841		
500.00	500.00	500.00	500.00	0.98	0.98	89.43	0.30	30.10	30.10	28.13	1.97	15.306		
600.00	600.00	600.00	600.00	1.21	1.21	89.43	0.30	30.10	30.10	27.69	2.42	12.458		
700.00	700.00	700.00	700.00	1.43	1.43	89.43	0.30	30.10	30.10	27.24	2.87	10.504		
800.00	800.00	800.00	800.00	1.66	1.66	89.43	0.30	30.10	30.10	26.79	3.32	9.080		
900.00	900.00	900.00	900.00	1.88	1.88	89.43	0.30	30.10	30.10	26.34	3.76	7.995		
1,000.00	1,000.00	1,000.00	1,000.00	2.11	2.11	89.43	0.30	30.10	30.10	25.89	4.21	7.143		
1,100.00	1,100.00	1,100.00	1,100.00	2.33	2.33	89.43	0.30	30.10	30.10	25.44	4.66	6.454		
1,200.00	1,200.00	1,200.00	1,200.00	2.56	2.56	89.43	0.30	30.10	30.10	24.99	5.11	5.887		
1,300.00	1,300.00	1,300.00	1,300.00	2.78	2.78	89.43	0.30	30.10	30.10	24.54	5.56	5.411		
1,400.00	1,400.00	1,400.00	1,400.00	3.01	3.01	89.43	0.30	30.10	30.10	24.09	6.01	5.006		
1,500.00	1,500.00	1,500.00	1,500.00	3.23	3.23	89.43	0.30	30.10	30.10	23.64	6.46	4.658 CC		
1,600.00	1,599.99	1,600.69	1,600.68	3.44	3.44	-164.20	-0.35	28.94	30.21	23.34	6.87	4.396 ES		
1,700.00	1,699.91	1,701.23	1,701.14	3.63	3.63	-162.63	-2.26	25.54	30.61	23.36	7.25	4.224 SF		
1,800.00	1,799.69	1,801.20	1,801.00	3.83	3.82	-161.83	-4.56	21.46	32.84	25.20	7.63	4.302		
1,889.67	1,888.99	1,890.77	1,890.47	4.02	4.00	-162.31	-6.61	17.80	36.95	28.97	7.99	4.626		
1,900.00	1,899.27	1,901.09	1,900.78	4.05	4.02	-162.41	-6.85	17.38	37.54	29.51	8.03	4.675		
2,000.00	1,998.75	2,000.92	2,000.50	4.27	4.22	-163.29	-9.14	13.30	43.26	34.83	8.43	5.130		
2,100.00	2,098.23	2,100.76	2,100.23	4.50	4.43	-163.96	-11.43	9.23	48.98	40.14	8.84	5.541		
2,200.00	2,197.71	2,200.59	2,199.95	4.74	4.64	-164.49	-13.72	5.15	54.71	45.46	9.26	5.911		
2,300.00	2,297.19	2,300.42	2,299.68	4.98	4.85	-164.93	-16.01	1.07	60.44	50.77	9.67	6.248		
2,400.00	2,396.67	2,400.26	2,399.40	5.23	5.07	-165.28	-18.30	-3.00	66.18	56.08	10.10	6.553		
2,500.00	2,496.15	2,500.09	2,499.13	5.48	5.28	-165.58	-20.59	-7.08	71.91	61.39	10.53	6.832		
2,600.00	2,595.63	2,599.93	2,598.85	5.74	5.50	-165.84	-22.88	-11.15	77.65	66.69	10.96	7.087		
2,700.00	2,695.11	2,699.76	2,698.58	6.00	5.73	-166.06	-25.17	-15.23	83.39	72.00	11.39	7.320		
2,800.00	2,794.59	2,799.60	2,798.30	6.27	5.95	-166.25	-27.46	-19.30	89.13	77.30	11.83	7.535		
2,900.00	2,894.07	2,899.43	2,898.03	6.53	6.17	-166.42	-29.75	-23.38	94.88	82.61	12.27	7.734		
3,000.00	2,993.55	2,999.27	2,997.75	6.80	6.40	-166.57	-32.04	-27.46	100.62	87.91	12.71	7.917		
3,100.00	3,093.03	3,099.10	3,097.48	7.07	6.62	-166.70	-34.32	-31.53	106.36	93.21	13.15	8.087		
3,200.00	3,192.51	3,198.94	3,197.20	7.34	6.85	-166.82	-36.61	-35.61	112.10	98.51	13.60	8.244		
3,300.00	3,291.99	3,298.77	3,296.93	7.61	7.08	-166.93	-38.90	-39.68	117.85	103.80	14.04	8.391		
3,400.00	3,391.47	3,398.61	3,396.65	7.89	7.31	-167.02	-41.19	-43.76	123.59	109.10	14.49	8.528		
3,500.00	3,490.95	3,498.44	3,496.38	8.17	7.54	-167.11	-43.48	-47.83	129.34	114.40	14.94	8.656		
3,600.00	3,590.43	3,598.28	3,596.10	8.44	7.77	-167.19	-45.77	-51.91	135.08	119.69	15.39	8.776		
3,700.00	3,689.91	3,698.11	3,695.83	8.72	8.00	-167.27	-48.06	-55.99	140.83	124.98	15.84	8.888		
3,800.00	3,789.39	3,797.94	3,795.55	9.00	8.24	-167.34	-50.35	-60.06	146.57	130.28	16.30	8.994		
3,900.00	3,888.87	3,897.78	3,895.28	9.28	8.47	-167.40	-52.64	-64.14	152.32	135.57	16.75	9.094		
4,000.00	3,988.35	3,997.61	3,995.00	9.56	8.70	-167.46	-54.93	-68.21	158.07	140.86	17.20	9.187		
4,100.00	4,087.83	4,097.45	4,094.73	9.84	8.93	-167.52	-57.22	-72.29	163.81	146.15	17.66	9.276		
4,200.00	4,187.31	4,197.28	4,194.46	10.12	9.17	-167.57	-59.51	-76.37	169.56	151.44	18.12	9.360		
4,300.00	4,286.79	4,297.12	4,294.18	10.41	9.40	-167.62	-61.80	-80.44	175.30	156.73	18.57	9.439		
4,400.00	4,386.27	4,396.95	4,393.91	10.69	9.64	-167.66	-64.09	-84.52	181.05	162.02	19.03	9.514		
4,500.00	4,485.75	4,496.79	4,493.63	10.97	9.87	-167.70	-66.38	-88.59	186.80	167.31	19.49	9.586		
4,600.00	4,585.23	4,596.62	4,593.36	11.26	10.11	-167.74	-68.67	-92.67	192.54	172.60	19.95	9.654		
4,700.00	4,684.71	4,696.46	4,693.08	11.54	10.34	-167.78	-70.96	-96.74	198.29	177.89	20.40	9.718		
4,800.00	4,784.19	4,796.29	4,792.81	11.83	10.58	-167.82	-73.25	-100.82	204.04	183.18	20.86	9.780		
4,900.00	4,883.67	4,896.13	4,892.53	12.11	10.81	-167.85	-75.54	-104.90	209.79	188.46	21.32	9.839		

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

Company:	Titus Oil & Gas Production, LLC	Local Co-ordinate Reference:	Well Todd 2-24S-31E State 202H (202H) - Slot 202H
Project:	Eddy County, NM (NAD83-NME)	TVD Reference:	3507+25 @ 3532.00usft (KB=25)
Reference Site:	A01 Todd DSU	MD Reference:	3507+25 @ 3532.00usft (KB=25)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Todd 2-24S-31E State 202H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	202H	Database:	EDM 5000.14 Single User Db
Reference Design:	Plan #1-Rev0	Offset TVD Reference:	Offset Datum

Offset Design													Offset Site Error:	0.00 usft
Survey Program: 0-MWD													Offset Well Error:	0.00 usft
Reference														
Offset														
Semi Major Axis														
Distance														
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning	
5,000.00	4,983.15	4,995.96	4,992.26	12.40	11.05	-167.88	-77.83	-108.97	215.53	193.75	21.78	9.895		
5,100.00	5,082.63	5,095.80	5,091.98	12.68	11.29	-167.91	-80.12	-113.05	221.28	199.04	22.24	9.948		
5,200.00	5,182.11	5,195.63	5,191.71	12.97	11.52	-167.94	-82.41	-117.12	227.03	204.32	22.70	9.999		
5,300.00	5,281.59	5,295.46	5,291.43	13.26	11.76	-167.97	-84.70	-121.20	232.77	209.61	23.17	10.048		
5,400.00	5,381.07	5,395.30	5,391.16	13.55	12.00	-167.99	-86.99	-125.27	238.52	214.89	23.63	10.095		
5,500.00	5,480.55	5,495.13	5,490.88	13.83	12.23	-168.02	-89.28	-129.35	244.27	220.18	24.09	10.140		
5,600.00	5,580.03	5,594.97	5,590.61	14.12	12.47	-168.04	-91.57	-133.43	250.02	225.46	24.55	10.184		
5,700.00	5,679.51	5,694.80	5,690.33	14.41	12.71	-168.06	-93.86	-137.50	255.76	230.75	25.01	10.225		
5,800.00	5,778.99	5,794.64	5,790.06	14.70	12.95	-168.08	-96.15	-141.58	261.51	236.03	25.48	10.265		
5,900.00	5,878.47	5,894.47	5,889.78	14.98	13.18	-168.10	-98.44	-145.65	267.26	241.32	25.94	10.304		
6,000.00	5,977.96	5,994.31	5,989.51	15.27	13.42	-168.12	-100.73	-149.73	273.00	246.60	26.40	10.341		
6,100.00	6,077.44	6,094.14	6,089.23	15.56	13.66	-168.14	-103.02	-153.80	278.75	251.89	26.86	10.376		
6,200.00	6,176.92	6,193.98	6,188.96	15.85	13.90	-168.16	-105.31	-157.88	284.50	257.17	27.33	10.411		
6,300.00	6,276.40	6,293.81	6,288.68	16.14	14.14	-168.18	-107.60	-161.96	290.25	262.46	27.79	10.444		
6,400.00	6,375.88	6,393.65	6,388.41	16.43	14.38	-168.19	-109.89	-166.03	296.00	267.74	28.26	10.476		
6,500.00	6,475.36	6,493.48	6,488.13	16.72	14.61	-168.21	-112.18	-170.11	301.74	273.02	28.72	10.507		
6,600.00	6,574.84	6,593.31	6,587.86	17.01	14.85	-168.22	-114.47	-174.18	307.49	278.31	29.18	10.536		
6,700.00	6,674.32	6,693.15	6,687.58	17.29	15.09	-168.24	-116.76	-178.26	313.24	283.59	29.65	10.565		
6,800.00	6,773.80	6,792.98	6,787.31	17.58	15.33	-168.25	-119.05	-182.34	318.99	288.87	30.11	10.593		
6,900.00	6,873.28	6,892.82	6,887.03	17.87	15.57	-168.27	-121.34	-186.41	324.73	294.16	30.58	10.620		
7,000.00	6,972.76	6,992.65	6,986.76	18.16	15.81	-168.28	-123.63	-190.49	330.48	299.44	31.04	10.646		
7,100.00	7,072.24	7,092.49	7,086.48	18.45	16.05	-168.29	-125.92	-194.56	336.23	304.72	31.51	10.672		
7,200.00	7,171.72	7,192.32	7,186.21	18.74	16.28	-168.31	-128.21	-198.64	341.98	310.00	31.97	10.696		
7,300.00	7,271.20	7,292.16	7,285.93	19.03	16.52	-168.32	-130.49	-202.71	347.72	315.29	32.44	10.720		
7,400.00	7,370.68	7,391.99	7,385.66	19.32	16.76	-168.33	-132.78	-206.79	353.47	320.57	32.90	10.743		
7,500.00	7,470.16	7,491.83	7,485.38	19.61	17.00	-168.34	-135.07	-210.87	359.22	325.85	33.37	10.765		
7,600.00	7,569.64	7,591.66	7,585.11	19.90	17.24	-168.35	-137.36	-214.94	364.97	331.13	33.83	10.787		
7,700.00	7,669.12	7,691.50	7,684.84	20.19	17.48	-168.36	-139.65	-219.02	370.72	336.42	34.30	10.808		
7,800.00	7,768.60	7,791.33	7,784.56	20.48	17.72	-168.37	-141.94	-223.09	376.46	341.70	34.77	10.829		
7,900.00	7,868.08	7,891.17	7,884.29	20.77	17.96	-168.38	-144.23	-227.17	382.21	346.98	35.23	10.849		
8,000.00	7,967.56	7,991.00	7,984.01	21.07	18.20	-168.39	-146.52	-231.24	387.96	352.26	35.70	10.868		
8,100.00	8,067.04	8,090.83	8,083.74	21.36	18.44	-168.40	-148.81	-235.32	393.71	357.54	36.16	10.887		
8,200.00	8,166.52	8,190.67	8,183.46	21.65	18.68	-168.41	-151.10	-239.40	399.45	362.83	36.63	10.905		
8,300.00	8,266.00	8,290.50	8,283.19	21.94	18.92	-168.42	-153.39	-243.47	405.20	368.11	37.10	10.923		
8,400.00	8,365.48	8,390.34	8,382.91	22.23	19.16	-168.43	-155.68	-247.55	410.95	373.39	37.56	10.941		
8,500.00	8,464.96	8,490.17	8,482.64	22.52	19.40	-168.44	-157.97	-251.62	416.70	378.67	38.03	10.958		
8,600.00	8,564.44	8,590.01	8,582.36	22.81	19.64	-168.44	-160.26	-255.70	422.45	383.95	38.49	10.974		
8,700.00	8,663.92	8,689.84	8,682.09	23.10	19.88	-168.45	-162.55	-259.77	428.19	389.23	38.96	10.990		
8,800.00	8,763.40	8,789.68	8,781.81	23.39	20.12	-168.46	-164.84	-263.85	433.94	394.51	39.43	11.006		
8,900.00	8,862.88	8,889.51	8,881.54	23.68	20.36	-168.47	-167.13	-267.93	439.69	399.80	39.89	11.021		
9,000.00	8,962.36	8,989.35	8,981.26	23.97	20.60	-168.47	-169.42	-272.00	445.44	405.08	40.36	11.036		
9,037.85	9,000.01	9,027.13	9,019.01	24.08	20.69	-168.48	-170.29	-273.54	447.61	407.08	40.54	11.042		
9,100.00	9,061.89	9,089.21	9,081.01	24.24	20.84	-168.48	-171.71	-276.08	450.69	409.88	40.81	11.043		
9,200.00	9,161.62	9,189.16	9,180.86	24.44	21.08	-168.42	-174.00	-280.16	453.56	412.34	41.23	11.001		
9,300.00	9,261.51	9,289.15	9,280.74	24.62	21.32	-168.29	-176.30	-284.24	453.88	412.23	41.64	10.900		
9,400.00	9,361.49	9,389.11	9,380.59	24.78	21.56	-168.08	-178.59	-288.32	451.63	409.57	42.05	10.739		
9,427.51	9,389.00	9,416.60	9,408.05	24.82	21.62	86.17	-179.22	-289.44	450.56	408.39	42.17	10.684		
9,500.00	9,461.49	9,489.01	9,480.37	24.94	21.80	86.36	-180.88	-292.40	447.50	405.02	42.48	10.533		
9,600.00	9,561.49	9,588.90	9,580.15	25.11	22.04	86.62	-183.17	-296.48	443.28	400.37	42.92	10.329		
9,700.00	9,661.49	9,688.79	9,679.94	25.28	22.28	86.89	-185.46	-300.56	439.08	395.73	43.35	10.129		
9,727.61	9,689.10	9,716.37	9,707.49	25.33	22.34	86.97	-186.10	-301.68	437.92	394.45	43.47	10.074		

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

Company:	Titus Oil & Gas Production, LLC	Local Co-ordinate Reference:	Well Todd 2-24S-31E State 202H (202H) - Slot 202H
Project:	Eddy County, NM (NAD83-NME)	TVD Reference:	3507+25 @ 3532.00usft (KB=25)
Reference Site:	A01 Todd DSU	MD Reference:	3507+25 @ 3532.00usft (KB=25)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Todd 2-24S-31E State 202H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	202H	Database:	EDM 5000.14 Single User Db
Reference Design:	Plan #1-Rev0	Offset TVD Reference:	Offset Datum

Offset Design													Offset Site Error:	0.00 usft
Survey Program: 0-MWD													Offset Well Error:	0.00 usft
Reference													Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Semi Major Axis (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
9,750.00	9,711.48	9,738.71	9,729.81	25.36	22.40	87.44	-186.61	-302.60	436.95	393.39	43.57	10.029		
9,775.00	9,736.41	9,763.57	9,754.64	25.40	22.46	87.88	-187.18	-303.61	435.83	392.15	43.68	9.977		
9,800.00	9,761.21	9,788.28	9,779.31	25.44	22.52	88.50	-187.74	-304.62	434.68	390.87	43.80	9.923		
9,825.00	9,785.81	9,812.75	9,803.76	25.47	22.57	89.28	-188.31	-305.62	433.54	389.61	43.93	9.869		
9,850.00	9,810.15	9,836.93	9,827.92	25.50	22.63	90.21	-188.86	-306.61	432.45	388.39	44.06	9.815		
9,875.00	9,834.16	9,860.75	9,851.71	25.52	22.69	91.27	-189.41	-307.58	431.48	387.28	44.20	9.762		
9,900.00	9,857.77	9,884.15	9,875.08	25.55	22.75	92.46	-189.94	-308.53	430.69	386.35	44.34	9.713		
9,925.00	9,880.91	9,907.06	9,897.96	25.57	22.80	93.74	-190.47	-309.47	430.17	385.68	44.49	9.669		
9,948.55	9,902.24	9,928.13	9,919.02	25.59	22.85	95.01	-190.95	-310.33	429.99	385.35	44.63	9.634		
9,950.00	9,903.53	9,929.41	9,920.29	25.59	22.86	95.09	-190.98	-310.38	429.99	385.35	44.64	9.632		
9,975.00	9,925.57	9,951.15	9,942.01	25.60	22.91	96.49	-191.48	-311.27	430.25	385.45	44.80	9.603		
10,000.00	9,946.95	9,972.22	9,963.05	25.62	22.96	97.91	-191.96	-312.13	431.04	386.08	44.97	9.586		
10,025.00	9,967.63	9,992.55	9,983.37	25.63	23.01	99.30	-192.43	-312.96	432.47	387.33	45.14	9.581		
10,050.00	9,987.54	10,012.10	10,002.89	25.64	23.05	100.65	-192.88	-313.76	434.63	389.31	45.31	9.592		
10,075.00	10,006.64	10,030.81	10,021.58	25.64	23.10	101.93	-193.31	-314.52	437.60	392.11	45.49	9.620		
10,100.00	10,024.87	10,048.63	10,039.38	25.65	23.14	103.09	-193.72	-315.25	441.48	395.81	45.67	9.667		
10,125.00	10,042.17	10,065.50	10,056.24	25.65	23.18	104.13	-194.10	-315.94	446.34	400.50	45.85	9.736		
10,150.00	10,058.51	10,081.39	10,072.11	25.66	23.22	105.00	-194.47	-316.59	452.25	406.23	46.02	9.827		
10,175.00	10,073.83	10,096.25	10,086.95	25.67	23.26	105.68	-194.81	-317.19	459.25	413.06	46.19	9.943		
10,200.00	10,088.11	10,110.04	10,100.72	25.67	23.29	106.16	-195.12	-317.75	467.38	421.02	46.35	10.083		
10,225.00	10,101.28	10,122.72	10,113.39	25.68	23.32	106.39	-195.42	-318.27	476.64	430.14	46.51	10.249		
10,250.00	10,113.33	10,134.25	10,124.91	25.69	23.35	106.38	-195.68	-318.74	487.05	440.40	46.65	10.440		
10,275.00	10,124.22	10,144.61	10,135.26	25.70	23.37	106.08	-195.92	-319.17	498.57	451.79	46.78	10.657		
10,300.00	10,133.91	10,153.77	10,144.41	25.71	23.39	105.48	-196.13	-319.54	511.18	464.28	46.90	10.899		
10,325.00	10,142.38	10,161.70	10,152.33	25.73	23.41	104.56	-196.31	-319.86	524.83	477.82	47.01	11.165		
10,350.00	10,149.61	10,168.38	10,159.00	25.75	23.43	103.30	-196.46	-320.14	539.46	492.36	47.10	11.454		
10,375.00	10,155.58	10,173.79	10,164.40	25.77	23.44	101.67	-196.59	-320.36	554.99	507.82	47.18	11.764		
10,400.00	10,160.27	10,177.91	10,168.52	25.81	23.45	99.66	-196.68	-320.53	571.36	524.12	47.24	12.095		
10,425.00	10,163.67	10,180.74	10,171.35	25.85	23.46	97.25	-196.75	-320.64	588.47	541.17	47.29	12.443		
10,450.00	10,165.77	10,182.27	10,172.88	25.89	23.46	94.44	-196.78	-320.70	606.23	558.90	47.33	12.808		
10,475.00	10,166.56	10,182.49	10,173.10	25.95	23.46	91.24	-196.79	-320.71	624.56	577.20	47.36	13.188		
10,481.78	10,166.55	10,182.33	10,172.93	25.96	23.46	90.31	-196.78	-320.71	629.61	582.25	47.37	13.293		
10,500.00	10,166.39	10,181.75	10,172.36	26.01	23.46	90.23	-196.77	-320.68	643.35	595.97	47.38	13.579		
10,600.00	10,165.52	10,178.60	10,169.22	26.36	23.45	89.80	-196.70	-320.55	722.29	674.88	47.42	15.233		
10,700.00	10,164.64	10,175.46	10,166.07	26.85	23.45	89.37	-196.63	-320.43	805.91	758.49	47.42	16.996		
10,800.00	10,163.77	10,172.31	10,162.92	27.49	23.44	88.94	-196.55	-320.30	892.89	845.49	47.40	18.838		
10,900.00	10,162.90	10,169.16	10,159.78	28.26	23.43	88.51	-196.48	-320.17	982.35	934.97	47.37	20.736		
11,000.00	10,162.02	10,166.01	10,156.63	29.14	23.42	88.08	-196.41	-320.04	1,073.65	1,026.31	47.34	22.678		
11,100.00	10,161.15	10,162.86	10,153.49	30.12	23.42	87.65	-196.34	-319.91	1,166.38	1,119.07	47.31	24.652		
11,200.00	10,160.28	10,159.71	10,150.34	31.17	23.41	87.22	-196.26	-319.78	1,260.21	1,212.92	47.29	26.651		
11,300.00	10,159.41	10,156.56	10,147.20	32.31	23.40	86.80	-196.19	-319.65	1,354.92	1,307.66	47.26	28.669		
11,400.00	10,158.53	10,153.41	10,144.05	33.50	23.39	86.37	-196.12	-319.53	1,450.33	1,403.09	47.24	30.703		
11,500.00	10,157.66	12,904.45	11,629.87	34.75	35.13	163.37	1,298.74	-305.02	1,536.47	1,492.20	44.27	34.703		
11,600.00	10,156.79	13,004.45	11,629.43	36.06	36.42	163.38	1,398.74	-305.42	1,536.89	1,491.55	45.34	33.896		
11,700.00	10,155.91	13,104.45	11,628.99	37.40	37.74	163.38	1,498.73	-305.81	1,537.31	1,490.86	46.45	33.097		
11,800.00	10,155.04	13,204.44	11,628.55	38.79	39.11	163.38	1,598.73	-306.21	1,537.73	1,490.13	47.59	32.309		
11,900.00	10,154.17	13,304.44	11,628.11	40.21	40.51	163.39	1,698.73	-306.60	1,538.15	1,489.37	48.77	31.536		
12,000.00	10,153.30	13,404.44	11,627.67	41.66	41.95	163.39	1,798.72	-307.00	1,538.56	1,488.58	49.99	30.778		
12,100.00	10,152.42	13,504.44	11,627.23	43.15	43.42	163.40	1,898.72	-307.39	1,538.98	1,487.75	51.23	30.039		
12,200.00	10,151.55	13,604.44	11,626.80	44.66	44.91	163.40	1,998.72	-307.79	1,539.40	1,486.90	52.51	29.319		
12,300.00	10,150.68	13,704.44	11,626.36	46.19	46.43	163.41	2,098.72	-308.18	1,539.82	1,486.01	53.80	28.619		

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

Company:	Titus Oil & Gas Production, LLC	Local Co-ordinate Reference:	Well Todd 2-24S-31E State 202H (202H) - Slot 202H
Project:	Eddy County, NM (NAD83-NME)	TVD Reference:	3507+25 @ 3532.00usft (KB=25)
Reference Site:	A01 Todd DSU	MD Reference:	3507+25 @ 3532.00usft (KB=25)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Todd 2-24S-31E State 202H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	202H	Database:	EDM 5000.14 Single User Db
Reference Design:	Plan #1-Rev0	Offset TVD Reference:	Offset Datum

Offset Design													Offset Site Error: 0.00 usft	
A01 Todd DSU - Todd 2-24S-31E State 304H (304H) - 304H - Plan #1-Rev0													Offset Well Error: 0.00 usft	
Survey Program: 0-MWD														
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
12,400.00	10,149.80	13,804.44	11,625.92	47.74	47.96	163.41	2,198.71	-308.58	1,540.24	1,485.11	55.13	27.939		
12,500.00	10,148.93	13,904.44	11,625.48	49.31	49.52	163.41	2,298.71	-308.97	1,540.66	1,484.18	56.47	27.281		
12,600.00	10,148.06	14,004.44	11,625.04	50.90	51.10	163.42	2,398.71	-309.37	1,541.07	1,483.23	57.84	26.643		
12,700.00	10,147.19	14,104.44	11,624.60	52.50	52.69	163.42	2,498.71	-309.76	1,541.49	1,482.27	59.23	26.027		
12,800.00	10,146.31	14,204.44	11,624.16	54.12	54.30	163.43	2,598.70	-310.16	1,541.91	1,481.28	60.63	25.430		
12,900.00	10,145.44	14,304.43	11,623.72	55.75	55.92	163.43	2,698.70	-310.55	1,542.33	1,480.27	62.05	24.854		
13,000.00	10,144.57	14,404.43	11,623.28	57.39	57.55	163.44	2,798.70	-310.95	1,542.75	1,479.26	63.49	24.298		
13,100.00	10,143.69	14,504.43	11,622.84	59.05	59.20	163.44	2,898.70	-311.34	1,543.17	1,478.22	64.95	23.761		
13,200.00	10,142.82	14,604.43	11,622.41	60.71	60.85	163.44	2,998.69	-311.74	1,543.59	1,477.17	66.41	23.243		
13,300.00	10,141.95	14,704.43	11,621.97	62.39	62.52	163.45	3,098.69	-312.13	1,544.00	1,476.11	67.89	22.742		
13,400.00	10,141.08	14,804.43	11,621.53	64.07	64.19	163.45	3,198.69	-312.53	1,544.42	1,475.04	69.38	22.259		
13,500.00	10,140.20	14,904.43	11,621.09	65.76	65.88	163.46	3,298.68	-312.92	1,544.84	1,473.95	70.89	21.793		
13,600.00	10,139.33	15,004.43	11,620.65	67.45	67.57	163.46	3,398.68	-313.32	1,545.26	1,472.86	72.40	21.343		
13,700.00	10,138.46	15,104.43	11,620.21	69.16	69.26	163.47	3,498.68	-313.71	1,545.68	1,471.76	73.92	20.909		
13,800.00	10,137.58	15,204.43	11,619.77	70.87	70.97	163.47	3,598.68	-314.11	1,546.10	1,470.64	75.46	20.490		
13,900.00	10,136.71	15,304.42	11,619.33	72.58	72.68	163.47	3,698.67	-314.50	1,546.52	1,469.52	77.00	20.085		
14,000.00	10,135.84	15,404.42	11,618.89	74.30	74.39	163.48	3,798.67	-314.90	1,546.93	1,468.39	78.55	19.694		
14,100.00	10,134.97	15,504.42	11,618.46	76.03	76.11	163.48	3,898.67	-315.29	1,547.35	1,467.25	80.10	19.317		
14,200.00	10,134.09	15,604.42	11,618.02	77.76	77.84	163.49	3,998.67	-315.69	1,547.77	1,466.10	81.67	18.952		
14,300.00	10,133.22	15,704.42	11,617.58	79.50	79.57	163.49	4,098.66	-316.08	1,548.19	1,464.95	83.24	18.599		
14,400.00	10,132.35	15,804.42	11,617.14	81.23	81.30	163.50	4,198.66	-316.48	1,548.61	1,463.79	84.82	18.258		
14,500.00	10,131.47	15,904.42	11,616.70	82.98	83.04	163.50	4,298.66	-316.87	1,549.03	1,462.62	86.40	17.928		
14,600.00	10,130.60	16,004.42	11,616.26	84.72	84.79	163.50	4,398.66	-317.27	1,549.45	1,461.45	87.99	17.609		
14,700.00	10,129.73	16,104.42	11,615.82	86.47	86.53	163.51	4,498.65	-317.66	1,549.86	1,460.28	89.59	17.300		
14,800.00	10,128.86	16,204.42	11,615.38	88.23	88.28	163.51	4,598.65	-318.06	1,550.28	1,459.10	91.19	17.001		
14,900.00	10,127.98	16,304.42	11,614.94	89.98	90.03	163.52	4,698.65	-318.45	1,550.70	1,457.91	92.79	16.712		
15,000.00	10,127.11	16,404.41	11,614.51	91.74	91.79	163.52	4,798.64	-318.85	1,551.12	1,456.72	94.40	16.431		
15,100.00	10,126.24	16,504.41	11,614.07	93.51	93.55	163.53	4,898.64	-319.24	1,551.54	1,455.52	96.02	16.159		
15,200.00	10,125.36	16,604.41	11,613.63	95.27	95.31	163.53	4,998.64	-319.64	1,551.96	1,454.32	97.63	15.896		
15,221.13	10,125.18	16,620.31	11,613.56	95.66	95.61	163.53	5,014.54	-319.70	1,552.05	1,454.15	97.90	15.853		

Company:	Titus Oil & Gas Production, LLC	Local Co-ordinate Reference:	Well Todd 2-24S-31E State 202H (202H) - Slot 202H
Project:	Eddy County, NM (NAD83-NME)	TVD Reference:	3507+25 @ 3532.00usft (KB=25)
Reference Site:	A01 Todd DSU	MD Reference:	3507+25 @ 3532.00usft (KB=25)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Todd 2-24S-31E State 202H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	202H	Database:	EDM 5000.14 Single User Db
Reference Design:	Plan #1-Rev0	Offset TVD Reference:	Offset Datum

Offset Design													Offset Site Error:	
Survey Program: 0-MWD													Offset Well Error:	
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
0.00	0.00	1.00	1.00	0.00	0.00	146.25	-44.90	30.00	54.00					
100.00	100.00	101.00	101.00	0.08	0.09	146.25	-44.90	30.00	54.00	53.83	0.17	316.118		
200.00	200.00	201.00	201.00	0.31	0.31	146.25	-44.90	30.00	54.00	53.38	0.62	87.047		
300.00	300.00	301.00	301.00	0.53	0.54	146.25	-44.90	30.00	54.00	52.93	1.07	50.473		
400.00	400.00	401.00	401.00	0.76	0.76	146.25	-44.90	30.00	54.00	52.48	1.52	35.540		
500.00	500.00	501.00	501.00	0.98	0.99	146.25	-44.90	30.00	54.00	52.03	1.97	27.426		
600.00	600.00	601.00	601.00	1.21	1.21	146.25	-44.90	30.00	54.00	51.58	2.42	22.328		
700.00	700.00	701.00	701.00	1.43	1.44	146.25	-44.90	30.00	54.00	51.13	2.87	18.828		
800.00	800.00	801.00	801.00	1.66	1.66	146.25	-44.90	30.00	54.00	50.68	3.32	16.277		
900.00	900.00	901.00	901.00	1.88	1.88	146.25	-44.90	30.00	54.00	50.23	3.77	14.335		
1,000.00	1,000.00	1,001.00	1,001.00	2.11	2.11	146.25	-44.90	30.00	54.00	49.78	4.22	12.807		
1,100.00	1,100.00	1,101.00	1,101.00	2.33	2.33	146.25	-44.90	30.00	54.00	49.33	4.67	11.573		
1,200.00	1,200.00	1,201.00	1,201.00	2.56	2.56	146.25	-44.90	30.00	54.00	48.88	5.12	10.556		
1,300.00	1,300.00	1,301.00	1,301.00	2.78	2.78	146.25	-44.90	30.00	54.00	48.43	5.57	9.703		
1,400.00	1,400.00	1,401.00	1,401.00	3.01	3.01	146.25	-44.90	30.00	54.00	47.99	6.01	8.978		
1,416.33	1,416.33	1,417.33	1,417.33	3.04	3.05	146.25	-44.90	30.00	54.00	47.91	6.09	8.870	CC	
1,500.00	1,500.00	1,500.99	1,500.99	3.23	3.23	146.25	-44.90	30.00	54.00	47.54	6.46	8.354	ES	
1,600.00	1,599.99	1,600.00	1,599.99	3.44	3.44	-109.88	-45.46	31.18	55.57	48.69	6.87	8.085	SF	
1,700.00	1,699.91	1,698.68	1,698.60	3.63	3.62	-114.97	-47.02	34.49	60.38	53.14	7.25	8.329		
1,800.00	1,799.69	1,798.17	1,798.01	3.83	3.82	-121.36	-48.79	38.25	67.40	59.76	7.64	8.822		
1,889.67	1,888.99	1,887.14	1,886.90	4.02	3.99	-127.33	-50.37	41.61	75.61	67.61	8.00	9.453		
1,900.00	1,899.27	1,897.38	1,897.12	4.05	4.01	-128.01	-50.56	42.00	76.68	68.64	8.04	9.536		
2,000.00	1,998.75	1,996.45	1,996.11	4.27	4.22	-133.76	-52.32	45.74	87.52	79.07	8.45	10.360		
2,100.00	2,098.23	2,095.52	2,095.10	4.50	4.42	-138.22	-54.08	49.48	99.03	90.17	8.86	11.179		
2,200.00	2,197.71	2,194.60	2,194.08	4.74	4.63	-141.74	-55.85	53.22	111.02	101.74	9.27	11.970		
2,300.00	2,297.19	2,293.67	2,293.07	4.98	4.84	-144.56	-57.61	56.96	123.33	113.64	9.69	12.722		
2,400.00	2,396.67	2,392.74	2,392.05	5.23	5.05	-146.87	-59.38	60.70	135.89	125.77	10.12	13.430		
2,500.00	2,496.15	2,491.81	2,491.04	5.48	5.27	-148.79	-61.14	64.45	148.63	138.09	10.55	14.094		
2,600.00	2,595.63	2,590.89	2,590.03	5.74	5.48	-150.40	-62.91	68.19	161.51	150.54	10.98	14.715		
2,700.00	2,695.11	2,689.96	2,689.01	6.00	5.70	-151.77	-64.67	71.93	174.50	163.09	11.41	15.294		
2,800.00	2,794.59	2,789.03	2,788.00	6.27	5.92	-152.96	-66.44	75.67	187.57	175.72	11.84	15.836		
2,900.00	2,894.07	2,888.10	2,886.99	6.53	6.14	-153.99	-68.20	79.41	200.71	188.43	12.28	16.342		
3,000.00	2,993.55	2,987.18	2,985.97	6.80	6.36	-154.89	-69.96	83.15	213.90	201.18	12.72	16.815		
3,100.00	3,093.03	3,086.25	3,084.96	7.07	6.58	-155.69	-71.73	86.90	227.14	213.98	13.16	17.257		
3,200.00	3,192.51	3,185.32	3,183.95	7.34	6.81	-156.40	-73.49	90.64	240.42	226.82	13.61	17.671		
3,300.00	3,291.99	3,284.40	3,282.93	7.61	7.03	-157.03	-75.26	94.38	253.74	239.69	14.05	18.060		
3,400.00	3,391.47	3,383.47	3,381.92	7.89	7.26	-157.60	-77.02	98.12	267.08	252.58	14.50	18.425		
3,500.00	3,490.95	3,482.54	3,480.90	8.17	7.48	-158.12	-78.79	101.86	280.44	265.50	14.94	18.768		
3,600.00	3,590.43	3,581.61	3,579.89	8.44	7.71	-158.59	-80.55	105.60	293.82	278.43	15.39	19.092		
3,700.00	3,689.91	3,680.69	3,678.88	8.72	7.94	-159.02	-82.31	109.35	307.23	291.39	15.84	19.397		
3,800.00	3,789.39	3,779.76	3,777.86	9.00	8.16	-159.41	-84.08	113.09	320.64	304.35	16.29	19.685		
3,900.00	3,888.87	3,878.83	3,876.85	9.28	8.39	-159.78	-85.84	116.83	334.07	317.33	16.74	19.957		
4,000.00	3,988.35	3,977.90	3,975.84	9.56	8.62	-160.11	-87.61	120.57	347.52	330.33	17.19	20.214		
4,100.00	4,087.83	4,076.98	4,074.82	9.84	8.85	-160.42	-89.37	124.31	360.97	343.33	17.64	20.459		
4,200.00	4,187.31	4,176.05	4,173.81	10.12	9.08	-160.71	-91.14	128.05	374.43	356.34	18.10	20.690		
4,300.00	4,286.79	4,275.12	4,272.80	10.41	9.30	-160.97	-92.90	131.80	387.91	369.36	18.55	20.911		
4,400.00	4,386.27	4,374.20	4,371.78	10.69	9.53	-161.22	-94.66	135.54	401.39	382.38	19.01	21.120		
4,500.00	4,485.75	4,473.27	4,470.77	10.97	9.76	-161.46	-96.43	139.28	414.87	395.41	19.46	21.319		
4,600.00	4,585.23	4,572.34	4,569.75	11.26	9.99	-161.67	-98.19	143.02	428.37	408.45	19.92	21.509		
4,700.00	4,684.71	4,671.41	4,668.74	11.54	10.22	-161.88	-99.96	146.76	441.86	421.49	20.37	21.690		
4,800.00	4,784.19	4,770.49	4,767.73	11.83	10.46	-162.07	-101.72	150.50	455.37	434.54	20.83	21.863		

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

Company:	Titus Oil & Gas Production, LLC	Local Co-ordinate Reference:	Well Todd 2-24S-31E State 202H (202H) - Slot 202H
Project:	Eddy County, NM (NAD83-NME)	TVD Reference:	3507+25 @ 3532.00usft (KB=25)
Reference Site:	A01 Todd DSU	MD Reference:	3507+25 @ 3532.00usft (KB=25)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Todd 2-24S-31E State 202H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	202H	Database:	EDM 5000.14 Single User Db
Reference Design:	Plan #1-Rev0	Offset TVD Reference:	Offset Datum

Offset Design													Offset Site Error:
A01 Todd DSU - Todd 2-24S-31E State 405H (405H) - 405H - Plan #1-Rev0													0.00 usft
Survey Program: 0-MWD													Offset Well Error: 0.00 usft
Reference	Offset		Semi Major Axis		Distance		Minimum Separation		Warning				
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
4,900.00	4,883.67	4,869.56	4,866.71	12.11	10.69	-162.25	-103.49	154.25	468.88	447.59	21.28	22.029	
5,000.00	4,983.15	4,968.63	4,965.70	12.40	10.92	-162.42	-105.25	157.99	482.39	460.65	21.74	22.187	
5,100.00	5,082.63	5,067.70	5,064.69	12.68	11.15	-162.59	-107.01	161.73	495.91	473.71	22.20	22.338	
5,200.00	5,182.11	5,166.78	5,163.67	12.97	11.38	-162.74	-108.78	165.47	509.43	486.77	22.66	22.484	
5,300.00	5,281.59	5,265.85	5,262.66	13.26	11.61	-162.89	-110.54	169.21	522.95	499.84	23.12	22.623	
5,400.00	5,381.07	5,364.92	5,361.64	13.55	11.84	-163.02	-112.31	172.96	536.48	512.91	23.58	22.756	
5,500.00	5,480.55	5,464.00	5,460.63	13.83	12.07	-163.16	-114.07	176.70	550.01	525.98	24.03	22.885	
5,600.00	5,580.03	5,563.07	5,559.62	14.12	12.31	-163.28	-115.84	180.44	563.54	539.05	24.49	23.008	
5,700.00	5,679.51	5,662.14	5,658.60	14.41	12.54	-163.40	-117.60	184.18	577.08	552.13	24.95	23.127	
5,800.00	5,778.99	5,761.21	5,757.59	14.70	12.77	-163.51	-119.36	187.92	590.62	565.20	25.41	23.241	
5,900.00	5,878.47	5,860.29	5,856.58	14.98	13.00	-163.62	-121.13	191.66	604.16	578.28	25.87	23.351	
6,000.00	5,977.96	5,959.36	5,955.56	15.27	13.24	-163.73	-122.89	195.41	617.70	591.37	26.33	23.457	
6,100.00	6,077.44	6,058.43	6,054.55	15.56	13.47	-163.83	-124.66	199.15	631.24	604.45	26.79	23.559	
6,200.00	6,176.92	6,157.50	6,153.54	15.85	13.70	-163.92	-126.42	202.89	644.79	617.53	27.25	23.658	
6,300.00	6,276.40	6,256.58	6,252.52	16.14	13.93	-164.01	-128.19	206.63	658.34	630.62	27.72	23.753	
6,400.00	6,375.88	6,355.65	6,351.51	16.43	14.17	-164.10	-129.95	210.37	671.89	643.71	28.18	23.845	
6,500.00	6,475.36	6,454.72	6,450.49	16.72	14.40	-164.18	-131.71	214.11	685.44	656.80	28.64	23.934	
6,600.00	6,574.84	6,553.80	6,549.48	17.01	14.63	-164.26	-133.48	217.86	698.99	669.89	29.10	24.020	
6,700.00	6,674.32	6,652.87	6,648.47	17.29	14.87	-164.34	-135.24	221.60	712.54	682.98	29.56	24.103	
6,800.00	6,773.80	6,751.94	6,747.45	17.58	15.10	-164.42	-137.01	225.34	726.10	696.07	30.02	24.184	
6,900.00	6,873.28	6,851.01	6,846.44	17.87	15.33	-164.49	-138.77	229.08	739.65	709.17	30.49	24.262	
7,000.00	6,972.76	6,950.09	6,945.43	18.16	15.57	-164.56	-140.54	232.82	753.21	722.26	30.95	24.337	
7,100.00	7,072.24	7,049.16	7,044.41	18.45	15.80	-164.63	-142.30	236.56	766.77	735.35	31.41	24.411	
7,200.00	7,171.72	7,148.23	7,143.40	18.74	16.03	-164.69	-144.06	240.31	780.32	748.45	31.87	24.482	
7,300.00	7,271.20	7,247.30	7,242.39	19.03	16.27	-164.75	-145.83	244.05	793.88	761.55	32.34	24.551	
7,400.00	7,370.68	7,346.38	7,341.37	19.32	16.50	-164.81	-147.59	247.79	807.45	774.65	32.80	24.618	
7,500.00	7,470.16	7,445.45	7,440.36	19.61	16.73	-164.87	-149.36	251.53	821.01	787.74	33.26	24.683	
7,600.00	7,569.64	7,544.52	7,539.34	19.90	16.97	-164.93	-151.12	255.27	834.57	800.84	33.73	24.746	
7,700.00	7,669.12	7,643.60	7,638.33	20.19	17.20	-164.98	-152.89	259.01	848.13	813.94	34.19	24.807	
7,800.00	7,768.60	7,742.67	7,737.32	20.48	17.43	-165.04	-154.65	262.76	861.70	827.04	34.65	24.867	
7,900.00	7,868.08	7,841.74	7,836.30	20.77	17.67	-165.09	-156.41	266.50	875.26	840.14	35.12	24.925	
8,000.00	7,967.56	7,940.81	7,935.29	21.07	17.90	-165.14	-158.18	270.24	888.83	853.25	35.58	24.981	
8,100.00	8,067.04	8,039.89	8,034.28	21.36	18.14	-165.19	-159.94	273.98	902.39	866.35	36.04	25.036	
8,200.00	8,166.52	8,138.96	8,133.26	21.65	18.37	-165.23	-161.71	277.72	915.96	879.45	36.51	25.089	
8,300.00	8,266.00	8,238.03	8,232.25	21.94	18.60	-165.28	-163.47	281.46	929.53	892.55	36.97	25.141	
8,400.00	8,365.48	8,337.10	8,331.23	22.23	18.84	-165.32	-165.24	285.21	943.09	905.66	37.44	25.192	
8,500.00	8,464.96	8,436.18	8,430.22	22.52	19.07	-165.37	-167.00	288.95	956.66	918.76	37.90	25.241	
8,600.00	8,564.44	8,535.25	8,529.21	22.81	19.31	-165.41	-168.77	292.69	970.23	931.87	38.36	25.290	
8,700.00	8,663.92	8,634.32	8,628.19	23.10	19.54	-165.45	-170.53	296.43	983.80	944.97	38.83	25.336	
8,800.00	8,763.40	8,733.40	8,727.18	23.39	19.78	-165.49	-172.29	300.17	997.37	958.07	39.29	25.382	
8,900.00	8,862.88	8,832.47	8,826.17	23.68	20.01	-165.53	-174.06	303.91	1,010.94	971.18	39.76	25.427	
9,000.00	8,962.36	8,931.54	8,925.15	23.97	20.24	-165.57	-175.82	307.66	1,024.51	984.29	40.22	25.470	
9,037.85	9,000.01	8,969.04	8,962.62	24.08	20.33	-165.58	-176.49	309.07	1,029.65	989.25	40.40	25.487	
9,100.00	9,061.89	9,030.68	9,024.20	24.24	20.48	-165.62	-177.59	311.40	1,037.59	996.92	40.67	25.511	
9,200.00	9,161.62	9,130.10	9,123.53	24.44	20.71	-165.66	-179.36	315.16	1,048.34	1,007.26	41.08	25.518	
9,300.00	9,261.51	9,229.75	9,223.10	24.62	20.95	-165.65	-181.13	318.92	1,056.57	1,015.08	41.49	25.466	
9,400.00	9,361.49	9,329.58	9,322.84	24.78	21.19	-165.60	-182.91	322.69	1,062.26	1,020.37	41.89	25.356	
9,427.51	9,389.00	9,357.06	9,350.30	24.82	21.25	88.61	-183.40	323.73	1,063.38	1,021.38	42.01	25.315	
9,500.00	9,461.49	9,429.49	9,422.66	24.94	21.42	88.68	-184.69	326.46	1,066.09	1,023.78	42.31	25.196	
9,600.00	9,561.49	9,529.40	9,522.49	25.11	21.66	88.78	-186.47	330.24	1,069.83	1,027.09	42.73	25.035	
9,700.00	9,661.49	9,629.31	9,622.32	25.28	21.90	88.88	-188.25	334.01	1,073.57	1,030.41	43.15	24.877	

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

Company:	Titus Oil & Gas Production, LLC	Local Co-ordinate Reference:	Well Todd 2-24S-31E State 202H (202H) - Slot 202H
Project:	Eddy County, NM (NAD83-NME)	TVD Reference:	3507+25 @ 3532.00usft (KB=25)
Reference Site:	A01 Todd DSU	MD Reference:	3507+25 @ 3532.00usft (KB=25)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Todd 2-24S-31E State 202H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	202H	Database:	EDM 5000.14 Single User Db
Reference Design:	Plan #1-Rev0	Offset TVD Reference:	Offset Datum

Offset Design													Offset Site Error:	0.00 usft
Survey Program: 0-MWD													Offset Well Error:	0.00 usft
Reference														
Offset														
Semi Major Axis														
Distance														
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning	
9,727.61	9,689.10	9,656.90	9,649.88	25.33	21.96	88.91	-188.74	335.05	1,074.60	1,031.33	43.27	24.834		
9,750.00	9,711.48	9,679.25	9,672.21	25.36	22.01	89.09	-189.14	335.90	1,075.43	1,032.07	43.36	24.800		
9,775.00	9,736.41	9,704.13	9,697.07	25.40	22.07	89.10	-189.58	336.83	1,076.34	1,032.87	43.47	24.762		
9,800.00	9,761.21	9,728.85	9,721.77	25.44	22.13	89.18	-190.02	337.77	1,077.24	1,033.67	43.57	24.726		
9,825.00	9,785.81	9,753.35	9,746.25	25.47	22.19	89.33	-190.46	338.69	1,078.13	1,034.47	43.67	24.690		
9,850.00	9,810.15	9,777.57	9,770.44	25.50	22.25	89.53	-190.89	339.61	1,079.04	1,035.28	43.76	24.657		
9,875.00	9,834.16	9,801.43	9,794.28	25.52	22.30	89.80	-191.31	340.51	1,079.98	1,036.13	43.85	24.627		
9,900.00	9,857.77	9,824.87	9,817.70	25.55	22.36	90.10	-191.73	341.39	1,080.98	1,037.04	43.94	24.599		
9,925.00	9,880.91	9,847.82	9,840.64	25.57	22.41	90.45	-192.14	342.26	1,082.06	1,038.03	44.03	24.575		
9,950.00	9,903.53	9,870.23	9,863.03	25.59	22.47	90.84	-192.54	343.11	1,083.25	1,039.13	44.12	24.555		
9,975.00	9,925.57	9,892.04	9,884.81	25.60	22.52	91.24	-192.93	343.93	1,084.58	1,040.38	44.20	24.539		
10,000.00	9,946.95	9,913.17	9,905.92	25.62	22.57	91.65	-193.30	344.73	1,086.09	1,041.81	44.28	24.530		
10,025.00	9,967.63	9,933.58	9,926.31	25.63	22.62	92.06	-193.67	345.50	1,087.81	1,043.46	44.35	24.527		
10,050.00	9,987.54	9,953.20	9,945.92	25.64	22.66	92.46	-194.02	346.24	1,089.78	1,045.36	44.43	24.530		
10,075.00	10,006.64	9,971.99	9,964.70	25.64	22.71	92.84	-194.35	346.95	1,092.04	1,047.55	44.50	24.542		
10,100.00	10,024.87	9,989.90	9,982.58	25.65	22.75	93.18	-194.67	347.63	1,094.63	1,050.06	44.56	24.563		
10,125.00	10,042.17	10,006.86	9,999.54	25.65	22.79	93.48	-194.97	348.27	1,097.57	1,052.94	44.63	24.592		
10,150.00	10,058.51	10,022.85	10,015.51	25.66	22.83	93.72	-195.26	348.87	1,100.90	1,056.20	44.69	24.632		
10,175.00	10,073.83	10,037.81	10,030.45	25.67	22.86	93.89	-195.52	349.44	1,104.65	1,059.90	44.76	24.682		
10,200.00	10,088.11	10,051.70	10,044.33	25.67	22.90	93.98	-195.77	349.96	1,108.86	1,064.04	44.81	24.744		
10,225.00	10,101.28	10,064.48	10,057.10	25.68	22.93	93.99	-196.00	350.44	1,113.54	1,068.67	44.87	24.817		
10,250.00	10,113.33	10,076.12	10,068.74	25.69	22.95	93.89	-196.21	350.88	1,118.71	1,073.79	44.92	24.903		
10,275.00	10,124.22	10,086.59	10,079.20	25.70	22.98	93.69	-196.39	351.28	1,124.39	1,079.42	44.97	25.001		
10,300.00	10,133.91	10,095.86	10,088.46	25.71	23.00	93.37	-196.56	351.63	1,130.59	1,085.57	45.02	25.112		
10,325.00	10,142.38	10,103.91	10,096.50	25.73	23.02	92.93	-196.70	351.93	1,137.32	1,092.25	45.07	25.235		
10,350.00	10,149.61	10,110.70	10,103.29	25.75	23.03	92.36	-196.82	352.19	1,144.57	1,099.45	45.11	25.372		
10,375.00	10,155.58	10,116.23	10,108.81	25.77	23.05	91.67	-196.92	352.40	1,152.33	1,107.18	45.15	25.522		
10,400.00	10,160.27	10,120.47	10,113.05	25.81	23.06	90.84	-197.00	352.56	1,160.59	1,115.40	45.19	25.685		
10,425.00	10,163.67	10,123.43	10,116.00	25.85	23.06	89.87	-197.05	352.67	1,169.34	1,124.12	45.22	25.860		
10,450.00	10,165.77	10,125.07	10,117.64	25.89	23.07	88.77	-197.08	352.73	1,178.54	1,133.29	45.25	26.047		
10,475.00	10,166.56	10,125.42	10,117.99	25.95	23.07	87.53	-197.08	352.75	1,188.17	1,142.90	45.27	26.245		
10,481.78	10,166.55	10,125.28	10,117.85	25.96	23.07	87.18	-197.08	352.74	1,190.85	1,145.57	45.28	26.301		
10,500.00	10,166.39	10,124.80	10,117.37	26.01	23.07	87.15	-197.07	352.72	1,198.21	1,152.92	45.29	26.454		
10,600.00	10,165.52	10,122.13	10,114.70	26.36	23.06	87.01	-197.02	352.62	1,242.59	1,197.19	45.40	27.371		
10,700.00	10,164.64	10,119.46	10,112.04	26.85	23.06	86.87	-196.98	352.52	1,293.19	1,247.67	45.52	28.411		
10,800.00	10,163.77	10,116.79	10,109.37	27.49	23.05	86.73	-196.93	352.42	1,349.30	1,303.66	45.64	29.561		
10,900.00	10,162.90	10,114.12	10,106.70	28.26	23.04	86.59	-196.88	352.32	1,410.28	1,364.51	45.77	30.810		
11,000.00	10,162.02	10,111.46	10,104.04	29.14	23.04	86.45	-196.83	352.22	1,475.52	1,429.62	45.90	32.145		
11,100.00	10,161.15	10,108.79	10,101.37	30.12	23.03	86.31	-196.79	352.12	1,544.47	1,498.45	46.03	33.557		
11,200.00	10,160.28	10,106.12	10,098.71	31.17	23.02	86.17	-196.74	352.02	1,616.67	1,570.53	46.14	35.036		
11,300.00	10,159.41	10,103.45	10,096.04	32.31	23.02	86.03	-196.69	351.92	1,691.70	1,645.44	46.25	36.573		
11,400.00	10,158.53	10,100.78	10,093.38	33.50	23.01	85.89	-196.64	351.82	1,769.19	1,722.83	46.36	38.162		
11,500.00	10,157.66	10,098.12	10,090.71	34.75	23.00	85.75	-196.60	351.71	1,848.85	1,802.39	46.46	39.797		
11,600.00	10,156.79	10,095.45	10,088.04	36.06	23.00	85.61	-196.55	351.61	1,930.39	1,883.84	46.55	41.470		
11,700.00	10,155.91	13,241.09	11,772.92	37.40	38.76	145.74	1,500.77	355.30	1,955.32	1,900.15	55.17	35.441		
11,800.00	10,155.04	13,341.09	11,772.64	38.79	40.14	145.75	1,600.77	354.78	1,955.74	1,898.89	56.85	34.400		
11,900.00	10,154.17	13,441.09	11,772.36	40.21	41.55	145.76	1,700.76	354.26	1,956.17	1,897.59	58.58	33.392		
12,000.00	10,153.30	13,541.08	11,772.08	41.66	43.00	145.78	1,800.76	353.74	1,956.59	1,896.24	60.35	32.418		
12,100.00	10,152.42	13,641.08	11,771.80	43.15	44.47	145.79	1,900.76	353.22	1,957.02	1,894.85	62.17	31.480		
12,200.00	10,151.55	13,741.08	11,771.52	44.66	45.97	145.80	2,000.75	352.70	1,957.45	1,893.43	64.02	30.578		
12,300.00	10,150.68	13,841.08	11,771.24	46.19	47.49	145.81	2,100.75	352.18	1,957.87	1,891.97	65.90	29.711		

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

Company:	Titus Oil & Gas Production, LLC	Local Co-ordinate Reference:	Well Todd 2-24S-31E State 202H (202H) - Slot 202H
Project:	Eddy County, NM (NAD83-NME)	TVD Reference:	3507+25 @ 3532.00usft (KB=25)
Reference Site:	A01 Todd DSU	MD Reference:	3507+25 @ 3532.00usft (KB=25)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Todd 2-24S-31E State 202H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	202H	Database:	EDM 5000.14 Single User Db
Reference Design:	Plan #1-Rev0	Offset TVD Reference:	Offset Datum

Offset Design													Offset Site Error:		0.00 usft
Survey Program: 0-MWD													Offset Well Error:		0.00 usft
Reference		Offset		Semi Major Axis			Distance						Warning		
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor			
12,400.00	10,149.80	13,941.08	11,770.96	47.74	49.04	145.83	2,200.75	351.66	1,958.30	1,890.49	67.81	28.880			
12,500.00	10,148.93	14,041.08	11,770.68	49.31	50.60	145.84	2,300.74	351.14	1,958.72	1,888.98	69.75	28.083			
12,600.00	10,148.06	14,141.07	11,770.40	50.90	52.18	145.85	2,400.74	350.62	1,959.15	1,887.44	71.71	27.319			
12,700.00	10,147.19	14,241.07	11,770.12	52.50	53.77	145.86	2,500.73	350.10	1,959.58	1,885.87	73.70	26.588			
12,800.00	10,146.31	14,341.07	11,769.85	54.12	55.38	145.88	2,600.73	349.58	1,960.00	1,884.29	75.71	25.888			
12,900.00	10,145.44	14,441.07	11,769.57	55.75	57.01	145.89	2,700.73	349.06	1,960.43	1,882.69	77.74	25.218			
13,000.00	10,144.57	14,541.07	11,769.29	57.39	58.64	145.90	2,800.72	348.54	1,960.85	1,881.07	79.79	24.576			
13,100.00	10,143.69	14,641.06	11,769.01	59.05	60.29	145.91	2,900.72	348.02	1,961.28	1,879.43	81.85	23.962			
13,200.00	10,142.82	14,741.06	11,768.73	60.71	61.95	145.93	3,000.72	347.50	1,961.71	1,877.78	83.93	23.373			
13,300.00	10,141.95	14,841.06	11,768.45	62.39	63.61	145.94	3,100.71	346.98	1,962.13	1,876.11	86.02	22.809			
13,400.00	10,141.08	14,941.06	11,768.17	64.07	65.29	145.95	3,200.71	346.46	1,962.56	1,874.43	88.13	22.269			
13,500.00	10,140.20	15,041.06	11,767.89	65.76	66.97	145.96	3,300.71	345.94	1,962.99	1,872.74	90.25	21.751			
13,600.00	10,139.33	15,141.06	11,767.61	67.45	68.66	145.98	3,400.70	345.42	1,963.41	1,871.04	92.38	21.254			
13,700.00	10,138.46	15,241.05	11,767.33	69.16	70.36	145.99	3,500.70	344.89	1,963.84	1,869.33	94.52	20.778			
13,800.00	10,137.58	15,341.05	11,767.05	70.87	72.06	146.00	3,600.70	344.37	1,964.27	1,867.60	96.67	20.320			
13,900.00	10,136.71	15,441.05	11,766.78	72.58	73.77	146.01	3,700.69	343.85	1,964.70	1,865.87	98.82	19.881			
14,000.00	10,135.84	15,541.05	11,766.50	74.30	75.49	146.03	3,800.69	343.33	1,965.12	1,864.13	100.99	19.459			
14,100.00	10,134.97	15,641.05	11,766.22	76.03	77.21	146.04	3,900.68	342.81	1,965.55	1,862.39	103.16	19.053			
14,200.00	10,134.09	15,741.04	11,765.94	77.76	78.94	146.05	4,000.68	342.29	1,965.98	1,860.63	105.35	18.662			
14,300.00	10,133.22	15,841.04	11,765.66	79.50	80.67	146.06	4,100.68	341.77	1,966.41	1,858.87	107.53	18.287			
14,400.00	10,132.35	15,941.04	11,765.38	81.23	82.40	146.08	4,200.67	341.25	1,966.83	1,857.11	109.73	17.925			
14,500.00	10,131.47	16,041.04	11,765.10	82.98	84.14	146.09	4,300.67	340.73	1,967.26	1,855.33	111.93	17.576			
14,600.00	10,130.60	16,141.04	11,764.82	84.72	85.88	146.10	4,400.67	340.21	1,967.69	1,853.56	114.13	17.241			
14,700.00	10,129.73	16,241.04	11,764.54	86.47	87.63	146.11	4,500.66	339.69	1,968.12	1,851.78	116.34	16.917			
14,800.00	10,128.86	16,341.03	11,764.26	88.23	89.38	146.13	4,600.66	339.17	1,968.55	1,849.99	118.56	16.604			
14,900.00	10,127.98	16,441.03	11,763.98	89.98	91.13	146.14	4,700.66	338.65	1,968.97	1,848.20	120.78	16.303			
15,000.00	10,127.11	16,541.03	11,763.71	91.74	92.89	146.15	4,800.65	338.13	1,969.40	1,846.40	123.00	16.012			
15,100.00	10,126.24	16,641.03	11,763.43	93.51	94.64	146.16	4,900.65	337.61	1,969.83	1,844.60	125.23	15.730			
15,200.00	10,125.36	16,741.03	11,763.15	95.27	96.41	146.18	5,000.65	337.09	1,970.26	1,842.80	127.46	15.458			
15,221.13	10,125.18	16,757.88	11,763.10	95.66	96.70	146.18	5,017.50	337.00	1,970.35	1,842.53	127.82	15.415			

Company:	Titus Oil & Gas Production, LLC	Local Co-ordinate Reference:	Well Todd 2-24S-31E State 202H (202H) - Slot 202H
Project:	Eddy County, NM (NAD83-NME)	TVD Reference:	3507+25 @ 3532.00usft (KB=25)
Reference Site:	A01 Todd DSU	MD Reference:	3507+25 @ 3532.00usft (KB=25)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Todd 2-24S-31E State 202H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	202H	Database:	EDM 5000.14 Single User Db
Reference Design:	Plan #1-Rev0	Offset TVD Reference:	Offset Datum

Offset Design													Offset Site Error:	0.00 usft
Survey Program: 0-MWD													Offset Well Error:	0.00 usft
Reference														
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Semi Major Axis (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Distance Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
0.00	0.00	1.00	1.00	0.00	0.00	179.87		-44.90	0.10	44.90				
100.00	100.00	101.00	101.00	0.08	0.09	179.87		-44.90	0.10	44.90	44.73	0.17	262.847	
200.00	200.00	201.00	201.00	0.31	0.31	179.87		-44.90	0.10	44.90	44.28	0.62	72.378	
300.00	300.00	301.00	301.00	0.53	0.54	179.87		-44.90	0.10	44.90	43.83	1.07	41.967	
400.00	400.00	401.00	401.00	0.76	0.76	179.87		-44.90	0.10	44.90	43.38	1.52	29.551	
500.00	500.00	501.00	501.00	0.98	0.99	179.87		-44.90	0.10	44.90	42.93	1.97	22.804	
600.00	600.00	601.00	601.00	1.21	1.21	179.87		-44.90	0.10	44.90	42.48	2.42	18.565	
700.00	700.00	701.00	701.00	1.43	1.44	179.87		-44.90	0.10	44.90	42.03	2.87	15.655	
800.00	800.00	801.00	801.00	1.66	1.66	179.87		-44.90	0.10	44.90	41.58	3.32	13.534	
900.00	900.00	901.00	901.00	1.88	1.88	179.87		-44.90	0.10	44.90	41.13	3.77	11.919	
1,000.00	1,000.00	1,001.00	1,001.00	2.11	2.11	179.87		-44.90	0.10	44.90	40.68	4.22	10.648	
1,100.00	1,100.00	1,101.00	1,101.00	2.33	2.33	179.87		-44.90	0.10	44.90	40.23	4.67	9.623	
1,200.00	1,200.00	1,201.00	1,201.00	2.56	2.56	179.87		-44.90	0.10	44.90	39.78	5.12	8.777	
1,300.00	1,300.00	1,301.00	1,301.00	2.78	2.78	179.87		-44.90	0.10	44.90	39.33	5.57	8.068	
1,400.00	1,400.00	1,401.00	1,401.00	3.01	3.01	179.87		-44.90	0.10	44.90	38.89	6.01	7.465	
1,416.33	1,416.33	1,417.33	1,417.33	3.04	3.05	179.87		-44.90	0.10	44.90	38.81	6.09	7.375 CC	
1,500.00	1,500.00	1,500.99	1,500.99	3.23	3.23	179.87		-44.90	0.10	44.90	38.44	6.46	6.946	
1,600.00	1,599.99	1,600.38	1,600.36	3.44	3.43	-74.47		-45.60	-1.02	45.25	38.37	6.87	6.584 ES	
1,700.00	1,699.91	1,700.17	1,700.11	3.63	3.62	-75.67		-47.35	-3.82	45.95	38.69	7.25	6.336	
1,800.00	1,799.69	1,800.11	1,799.99	3.83	3.81	-79.86		-49.17	-6.73	46.20	38.55	7.65	6.043	
1,889.67	1,888.99	1,889.63	1,889.45	4.02	3.99	-86.28		-50.80	-9.34	46.43	38.42	8.01	5.796	
1,900.00	1,899.27	1,899.94	1,899.75	4.05	4.01	-87.16		-50.99	-9.64	46.49	38.43	8.05	5.772	
2,000.00	1,998.75	1,999.69	1,999.45	4.27	4.21	-95.52		-52.80	-12.54	47.61	39.14	8.48	5.618	
2,100.00	2,098.23	2,099.45	2,099.15	4.50	4.41	-103.34		-54.62	-15.45	49.70	40.79	8.91	5.580 SF	
2,200.00	2,197.71	2,199.21	2,198.85	4.74	4.61	-110.41		-56.44	-18.35	52.63	43.29	9.34	5.634	
2,300.00	2,297.19	2,298.96	2,298.54	4.98	4.82	-116.65		-58.25	-21.26	56.27	46.49	9.78	5.755	
2,400.00	2,396.67	2,398.72	2,398.24	5.23	5.03	-122.08		-60.07	-24.16	60.50	50.28	10.21	5.923	
2,500.00	2,496.15	2,498.48	2,497.94	5.48	5.25	-126.77		-61.89	-27.07	65.20	54.55	10.65	6.121	
2,600.00	2,595.63	2,598.24	2,597.64	5.74	5.46	-130.80		-63.70	-29.97	70.27	59.18	11.09	6.337	
2,700.00	2,695.11	2,697.99	2,697.34	6.00	5.68	-134.28		-65.52	-32.88	75.65	64.12	11.53	6.562	
2,800.00	2,794.59	2,797.75	2,797.04	6.27	5.89	-137.29		-67.34	-35.78	81.27	69.30	11.97	6.790	
2,900.00	2,894.07	2,897.51	2,896.74	6.53	6.11	-139.91		-69.15	-38.69	87.08	74.67	12.41	7.018	
3,000.00	2,993.55	2,997.27	2,996.43	6.80	6.33	-142.19		-70.97	-41.59	93.05	80.20	12.85	7.241	
3,100.00	3,093.03	3,097.02	3,096.13	7.07	6.55	-144.19		-72.78	-44.50	99.15	85.86	13.29	7.459	
3,200.00	3,192.51	3,196.78	3,195.83	7.34	6.77	-145.96		-74.60	-47.40	105.36	91.62	13.74	7.671	
3,300.00	3,291.99	3,296.54	3,295.53	7.61	6.99	-147.54		-76.42	-50.31	111.65	97.47	14.18	7.874	
3,400.00	3,391.47	3,396.30	3,395.23	7.89	7.22	-148.94		-78.23	-53.21	118.03	103.40	14.63	8.070	
3,500.00	3,490.95	3,496.05	3,494.93	8.17	7.44	-150.20		-80.05	-56.12	124.46	109.39	15.07	8.258	
3,600.00	3,590.43	3,595.81	3,594.62	8.44	7.66	-151.34		-81.87	-59.02	130.95	115.43	15.52	8.438	
3,700.00	3,689.91	3,695.57	3,694.32	8.72	7.89	-152.37		-83.68	-61.93	137.48	121.52	15.97	8.611	
3,800.00	3,789.39	3,795.32	3,794.02	9.00	8.11	-153.30		-85.50	-64.83	144.06	127.64	16.42	8.776	
3,900.00	3,888.87	3,895.08	3,893.72	9.28	8.34	-154.15		-87.32	-67.74	150.67	133.80	16.87	8.934	
4,000.00	3,988.35	3,994.84	3,993.42	9.56	8.57	-154.93		-89.13	-70.64	157.31	139.99	17.32	9.085	
4,100.00	4,087.83	4,094.60	4,093.12	9.84	8.79	-155.65		-90.95	-73.55	163.98	146.21	17.77	9.229	
4,200.00	4,187.31	4,194.35	4,192.82	10.12	9.02	-156.31		-92.76	-76.45	170.67	152.45	18.22	9.368	
4,300.00	4,286.79	4,294.11	4,292.51	10.41	9.25	-156.92		-94.58	-79.36	177.38	158.71	18.67	9.500	
4,400.00	4,386.27	4,393.87	4,392.21	10.69	9.47	-157.49		-96.40	-82.27	184.11	164.99	19.12	9.627	
4,500.00	4,485.75	4,493.63	4,491.91	10.97	9.70	-158.02		-98.21	-85.17	190.86	171.28	19.58	9.749	
4,600.00	4,585.23	4,593.38	4,591.61	11.26	9.93	-158.51		-100.03	-88.08	197.62	177.59	20.03	9.865	
4,700.00	4,684.71	4,693.14	4,691.31	11.54	10.16	-158.97		-101.85	-90.98	204.39	183.91	20.49	9.977	
4,800.00	4,784.19	4,792.90	4,791.01	11.83	10.39	-159.40		-103.66	-93.89	211.18	190.24	20.94	10.084	

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

Company:	Titus Oil & Gas Production, LLC	Local Co-ordinate Reference:	Well Todd 2-24S-31E State 202H (202H) - Slot 202H
Project:	Eddy County, NM (NAD83-NME)	TVD Reference:	3507+25 @ 3532.00usft (KB=25)
Reference Site:	A01 Todd DSU	MD Reference:	3507+25 @ 3532.00usft (KB=25)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Todd 2-24S-31E State 202H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	202H	Database:	EDM 5000.14 Single User Db
Reference Design:	Plan #1-Rev0	Offset TVD Reference:	Offset Datum

Offset Design										A01 Todd DSU - Todd 2-24S-31E State 434H (434H) - 434H - Plan #1-Rev0				Offset Site Error:		0.00 usft	
Survey Program: 0-MWD														Offset Well Error:		0.00 usft	
Reference		Offset		Semi Major Axis		Highside Toolface (°)	Offset Wellbore Centre		Distance		Minimum Separation (usft)	Separation Factor	Warning				
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)		+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)							
4,900.00	4,883.67	4,892.65	4,890.70	12.11	10.62	-159.80	-105.48	-96.79	217.98	196.58	21.40	10.187					
5,000.00	4,983.15	4,992.41	4,990.40	12.40	10.84	-160.18	-107.30	-99.70	224.79	202.94	21.85	10.287					
5,100.00	5,082.63	5,092.17	5,090.10	12.68	11.07	-160.53	-109.11	-102.60	231.61	209.30	22.31	10.382					
5,200.00	5,182.11	5,191.93	5,189.80	12.97	11.30	-160.87	-110.93	-105.51	238.43	215.67	22.77	10.473					
5,300.00	5,281.59	5,291.68	5,289.50	13.26	11.53	-161.18	-112.75	-108.41	245.27	222.05	23.22	10.562					
5,400.00	5,381.07	5,391.44	5,389.20	13.55	11.76	-161.48	-114.56	-111.32	252.11	228.43	23.68	10.647					
5,500.00	5,480.55	5,491.20	5,488.90	13.83	11.99	-161.77	-116.38	-114.22	258.96	234.82	24.14	10.729					
5,600.00	5,580.03	5,590.96	5,588.59	14.12	12.22	-162.04	-118.19	-117.13	265.81	241.22	24.59	10.808					
5,700.00	5,679.51	5,690.71	5,688.29	14.41	12.45	-162.29	-120.01	-120.03	272.67	247.62	25.05	10.884					
5,800.00	5,778.99	5,790.47	5,787.99	14.70	12.68	-162.53	-121.83	-122.94	279.53	254.02	25.51	10.957					
5,900.00	5,878.47	5,890.23	5,887.69	14.98	12.91	-162.77	-123.64	-125.84	286.40	260.43	25.97	11.028					
6,000.00	5,977.96	5,989.98	5,987.39	15.27	13.14	-162.99	-125.46	-128.75	293.28	266.85	26.43	11.097					
6,100.00	6,077.44	6,089.74	6,087.09	15.56	13.38	-163.20	-127.28	-131.65	300.15	273.27	26.89	11.163					
6,200.00	6,176.92	6,189.50	6,186.78	15.85	13.61	-163.40	-129.09	-134.56	307.03	279.69	27.35	11.227					
6,300.00	6,276.40	6,289.26	6,286.48	16.14	13.84	-163.59	-130.91	-137.46	313.92	286.11	27.81	11.290					
6,400.00	6,375.88	6,389.01	6,386.18	16.43	14.07	-163.77	-132.73	-140.37	320.81	292.54	28.27	11.350					
6,500.00	6,475.36	6,488.77	6,485.88	16.72	14.30	-163.95	-134.54	-143.27	327.70	298.97	28.73	11.408					
6,600.00	6,574.84	6,588.53	6,585.58	17.01	14.53	-164.12	-136.36	-146.18	334.59	305.41	29.19	11.464					
6,700.00	6,674.32	6,688.29	6,685.28	17.29	14.76	-164.28	-138.18	-149.08	341.49	311.85	29.65	11.519					
6,800.00	6,773.80	6,788.04	6,784.97	17.58	14.99	-164.44	-139.99	-151.99	348.39	318.28	30.11	11.572					
6,900.00	6,873.28	6,887.80	6,884.67	17.87	15.22	-164.58	-141.81	-154.89	355.29	324.73	30.57	11.624					
7,000.00	6,972.76	6,987.56	6,984.37	18.16	15.46	-164.73	-143.62	-157.80	362.20	331.17	31.03	11.674					
7,100.00	7,072.24	7,087.32	7,084.07	18.45	15.69	-164.87	-145.44	-160.70	369.10	337.62	31.49	11.722					
7,200.00	7,171.72	7,187.07	7,183.77	18.74	15.92	-165.00	-147.26	-163.61	376.01	344.06	31.95	11.769					
7,300.00	7,271.20	7,286.83	7,283.47	19.03	16.15	-165.13	-149.07	-166.51	382.92	350.51	32.41	11.815					
7,400.00	7,370.68	7,386.59	7,383.17	19.32	16.38	-165.25	-150.89	-169.42	389.84	356.97	32.87	11.860					
7,500.00	7,470.16	7,486.34	7,482.86	19.61	16.61	-165.37	-152.71	-172.32	396.75	363.42	33.33	11.903					
7,600.00	7,569.64	7,586.10	7,582.56	19.90	16.85	-165.49	-154.52	-175.23	403.67	369.87	33.79	11.945					
7,700.00	7,669.12	7,685.86	7,682.26	20.19	17.08	-165.60	-156.34	-178.13	410.59	376.33	34.25	11.986					
7,800.00	7,768.60	7,785.62	7,781.96	20.48	17.31	-165.71	-158.16	-181.04	417.50	382.79	34.72	12.026					
7,900.00	7,868.08	7,885.37	7,881.66	20.77	17.54	-165.81	-159.97	-183.95	424.43	389.25	35.18	12.065					
8,000.00	7,967.56	7,985.13	7,981.36	21.07	17.77	-165.91	-161.79	-186.85	431.35	395.71	35.64	12.103					
8,100.00	8,067.04	8,084.89	8,081.05	21.36	18.01	-166.01	-163.60	-189.76	438.27	402.17	36.10	12.140					
8,200.00	8,166.52	8,184.65	8,180.75	21.65	18.24	-166.11	-165.42	-192.66	445.19	408.63	36.56	12.176					
8,300.00	8,266.00	8,284.40	8,280.45	21.94	18.47	-166.20	-167.24	-195.57	452.12	415.09	37.03	12.211					
8,400.00	8,365.48	8,384.16	8,380.15	22.23	18.70	-166.29	-169.05	-198.47	459.05	421.56	37.49	12.245					
8,500.00	8,464.96	8,483.92	8,479.85	22.52	18.93	-166.37	-170.87	-201.38	465.98	428.02	37.95	12.279					
8,600.00	8,564.44	8,583.67	8,579.55	22.81	19.17	-166.46	-172.69	-204.28	472.90	434.49	38.41	12.311					
8,700.00	8,663.92	8,683.43	8,679.25	23.10	19.40	-166.54	-174.50	-207.19	479.83	440.96	38.88	12.343					
8,800.00	8,763.40	8,783.19	8,778.94	23.39	19.63	-166.62	-176.32	-210.09	486.76	447.43	39.34	12.374					
8,900.00	8,862.88	8,882.95	8,878.64	23.68	19.86	-166.70	-178.14	-213.00	493.70	453.90	39.80	12.404					
9,000.00	8,962.36	8,982.70	8,978.34	23.97	20.10	-166.77	-179.95	-215.90	500.63	460.37	40.26	12.434					
9,037.85	9,000.01	9,020.46	9,016.07	24.08	20.18	-166.80	-180.64	-217.00	503.25	462.82	40.44	12.445					
9,100.00	9,061.89	9,082.49	9,078.07	24.24	20.33	-166.84	-181.77	-218.81	507.07	466.36	40.71	12.456					
9,200.00	9,161.62	9,182.41	9,177.93	24.44	20.56	-166.86	-183.59	-221.72	511.15	470.03	41.12	12.431					
9,300.00	9,261.51	9,282.39	9,277.85	24.62	20.79	-166.79	-185.41	-224.63	512.68	471.15	41.53	12.345					
9,400.00	9,361.49	9,382.38	9,377.78	24.78	21.03	-166.65	-187.23	-227.54	511.67	469.73	41.94	12.201					
9,427.51	9,389.00	9,409.88	9,405.26	24.82	21.09	87.58	-187.73	-228.34	510.94	468.89	42.05	12.151					
9,500.00	9,461.49	9,482.32	9,477.66	24.94	21.26	87.72	-189.05	-230.45	508.78	466.42	42.36	12.011					
9,600.00	9,561.49	9,582.26	9,577.54	25.11	21.49	87.92	-190.87	-233.36	505.80	463.01	42.79	11.822					
9,700.00	9,661.49	9,682.20	9,677.43	25.28	21.73	88.11	-192.69	-236.27	502.82	459.61	43.21	11.636					

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

Company:	Titus Oil & Gas Production, LLC	Local Co-ordinate Reference:	Well Todd 2-24S-31E State 202H (202H) - Slot 202H
Project:	Eddy County, NM (NAD83-NME)	TVD Reference:	3507+25 @ 3532.00usft (KB=25)
Reference Site:	A01 Todd DSU	MD Reference:	3507+25 @ 3532.00usft (KB=25)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Todd 2-24S-31E State 202H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	202H	Database:	EDM 5000.14 Single User Db
Reference Design:	Plan #1-Rev0	Offset TVD Reference:	Offset Datum

Offset Design														Offset Site Error:	0.00 usft
Survey Program: 0-MWD														Offset Well Error:	0.00 usft
Reference															
		Offset		Semi Major Axis						Distance					
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning		
9,727.61	9,689.10	9,709.80	9,705.01	25.33	21.79	88.16	-193.19	-237.08	502.00	458.67	43.33	11.586			
9,750.00	9,711.48	9,732.15	9,727.35	25.36	21.84	88.58	-193.60	-237.73	501.32	457.90	43.43	11.544			
9,775.00	9,736.41	9,757.04	9,752.22	25.40	21.90	88.93	-194.05	-238.45	500.54	457.00	43.54	11.497			
9,800.00	9,761.21	9,781.77	9,776.93	25.44	21.96	89.43	-194.50	-239.17	499.75	456.10	43.65	11.448			
9,825.00	9,785.81	9,806.27	9,801.43	25.47	22.02	90.07	-194.95	-239.89	498.99	455.22	43.77	11.400			
9,850.00	9,810.15	9,830.50	9,825.63	25.50	22.07	90.84	-195.39	-240.59	498.29	454.39	43.89	11.353			
9,875.00	9,834.16	9,854.36	9,849.48	25.52	22.13	91.72	-195.82	-241.29	497.69	453.68	44.01	11.308			
9,900.00	9,857.77	9,877.81	9,872.92	25.55	22.18	92.71	-196.25	-241.97	497.27	453.13	44.14	11.266			
9,925.00	9,880.91	9,900.77	9,895.86	25.57	22.24	93.78	-196.67	-242.64	497.09	452.82	44.27	11.228			
9,928.51	9,884.12	9,903.95	9,899.05	25.57	22.24	93.93	-196.73	-242.73	497.09	452.80	44.29	11.224			
9,950.00	9,903.53	9,923.18	9,918.27	25.59	22.29	94.91	-197.08	-243.29	497.21	452.81	44.40	11.198			
9,975.00	9,925.57	9,944.99	9,940.06	25.60	22.34	96.07	-197.47	-243.93	497.72	453.18	44.54	11.175			
10,000.00	9,946.95	9,966.13	9,961.19	25.62	22.39	97.25	-197.86	-244.54	498.69	454.02	44.67	11.163			
10,025.00	9,967.63	9,986.54	9,981.59	25.63	22.44	98.42	-198.23	-245.14	500.21	455.40	44.81	11.162			
10,050.00	9,987.54	10,006.17	10,001.20	25.64	22.48	99.55	-198.59	-245.71	502.37	457.41	44.95	11.175			
10,075.00	10,006.64	10,024.96	10,019.99	25.64	22.53	100.61	-198.93	-246.25	505.23	460.14	45.10	11.203			
10,100.00	10,024.87	10,042.87	10,037.88	25.65	22.57	101.59	-199.26	-246.78	508.89	463.65	45.24	11.249			
10,125.00	10,042.17	10,059.84	10,054.84	25.65	22.61	102.45	-199.57	-247.27	513.40	468.02	45.38	11.314			
10,150.00	10,058.51	10,075.83	10,070.82	25.66	22.65	103.17	-199.86	-247.74	518.82	473.31	45.52	11.399			
10,175.00	10,073.83	10,090.78	10,085.77	25.67	22.68	103.74	-200.13	-248.17	525.21	479.57	45.65	11.505			
10,200.00	10,088.11	10,104.68	10,099.65	25.67	22.71	104.12	-200.38	-248.58	532.61	486.83	45.78	11.635			
10,225.00	10,101.28	10,117.46	10,112.43	25.68	22.74	104.29	-200.61	-248.95	541.02	495.12	45.90	11.787			
10,250.00	10,113.33	10,129.11	10,124.07	25.69	22.77	104.25	-200.83	-249.29	550.47	504.45	46.02	11.963			
10,275.00	10,124.22	10,139.58	10,134.53	25.70	22.79	103.96	-201.02	-249.59	560.94	514.82	46.12	12.162			
10,300.00	10,133.91	10,148.85	10,143.80	25.71	22.82	103.41	-201.19	-249.86	572.42	526.20	46.22	12.385			
10,325.00	10,142.38	10,156.89	10,151.83	25.73	22.83	102.58	-201.33	-250.10	584.88	538.58	46.31	12.631			
10,350.00	10,149.61	10,163.68	10,158.62	25.75	22.85	101.46	-201.46	-250.29	598.27	551.89	46.38	12.899			
10,375.00	10,155.58	10,169.21	10,164.15	25.77	22.86	100.02	-201.56	-250.46	612.54	566.09	46.45	13.188			
10,400.00	10,160.27	10,173.45	10,168.39	25.81	22.87	98.26	-201.63	-250.58	627.62	581.11	46.50	13.496			
10,425.00	10,163.67	10,176.40	10,171.33	25.85	22.88	96.17	-201.69	-250.66	643.44	596.89	46.55	13.823			
10,450.00	10,165.77	10,178.05	10,172.98	25.89	22.88	93.74	-201.72	-250.71	659.92	613.34	46.58	14.167			
10,475.00	10,166.56	10,178.38	10,173.32	25.95	22.88	90.98	-201.72	-250.72	676.99	630.38	46.61	14.526			
10,481.78	10,166.55	10,178.25	10,173.18	25.96	22.88	90.17	-201.72	-250.72	681.71	635.10	46.61	14.625			
10,500.00	10,166.39	10,177.76	10,172.69	26.01	22.88	90.12	-201.71	-250.70	694.55	647.93	46.62	14.897			
10,600.00	10,165.52	10,175.08	10,170.01	26.36	22.88	89.80	-201.66	-250.63	768.93	722.27	46.66	16.478			
10,700.00	10,164.64	10,172.40	10,167.34	26.85	22.87	89.49	-201.61	-250.55	848.58	801.91	46.67	18.181			
10,800.00	10,163.77	10,169.72	10,164.66	27.49	22.86	89.17	-201.57	-250.47	932.16	885.49	46.67	19.975			
10,900.00	10,162.90	10,167.04	10,161.98	28.26	22.86	88.86	-201.52	-250.39	1,018.69	972.04	46.65	21.837			
11,000.00	10,162.02	10,164.36	10,159.30	29.14	22.85	88.54	-201.47	-250.31	1,107.49	1,060.86	46.63	23.750			
11,100.00	10,161.15	10,161.67	10,156.62	30.12	22.85	88.23	-201.42	-250.24	1,198.04	1,151.43	46.61	25.704			
11,200.00	10,160.28	10,158.99	10,153.94	31.17	22.84	87.92	-201.37	-250.16	1,289.99	1,243.40	46.59	27.689			
11,300.00	10,159.41	10,156.31	10,151.26	32.31	22.83	87.60	-201.32	-250.08	1,383.05	1,336.48	46.57	29.699			
11,400.00	10,158.53	10,153.63	10,146.58	33.50	22.83	87.29	-201.27	-250.00	1,477.01	1,430.46	46.55	31.728			
11,500.00	10,157.66	10,150.95	10,145.90	34.75	22.82	86.98	-201.22	-249.92	1,571.71	1,525.18	46.54	33.773			
11,600.00	10,156.79	10,148.27	10,143.22	36.06	22.81	86.67	-201.18	-249.85	1,667.03	1,620.51	46.53	35.831			
11,700.00	10,155.91	10,145.59	10,140.54	37.40	22.81	86.35	-201.13	-249.77	1,762.86	1,716.35	46.51	37.899			
11,800.00	10,155.04	13,513.29	11,946.43	38.79	40.14	166.20	1,596.68	-306.18	1,843.60	1,796.65	46.94	39.274			
11,900.00	10,154.17	13,613.29	11,946.18	40.21	41.54	166.21	1,696.68	-306.57	1,844.21	1,796.17	48.03	38.396			
12,000.00	10,153.30	13,713.28	11,945.93	41.66	42.98	166.21	1,796.67	-306.97	1,844.82	1,795.66	49.15	37.532			
12,100.00	10,152.42	13,813.28	11,945.69	43.15	44.45	166.21	1,896.67	-307.36	1,845.43	1,795.12	50.30	36.685			
12,200.00	10,151.55	13,913.28	11,945.44	44.66	45.94	166.22	1,996.67	-307.76	1,846.04	1,794.55	51.48	35.856			

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

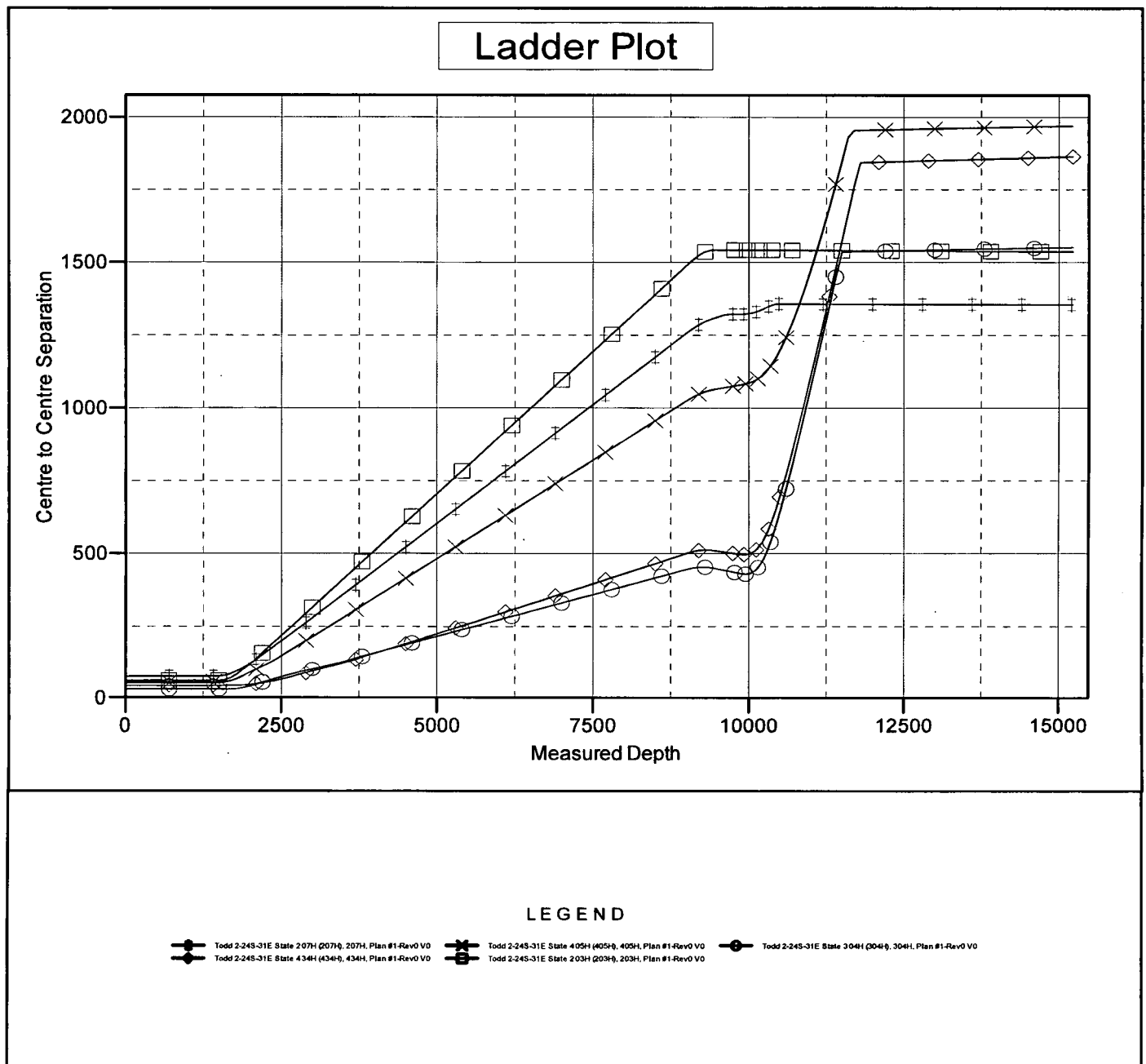
Company:	Titus Oil & Gas Production, LLC	Local Co-ordinate Reference:	Well Todd 2-24S-31E State 202H (202H) - Slot 202H
Project:	Eddy County, NM (NAD83-NME)	TVD Reference:	3507+25 @ 3532.00usft (KB=25)
Reference Site:	A01 Todd DSU	MD Reference:	3507+25 @ 3532.00usft (KB=25)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Todd 2-24S-31E State 202H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	202H	Database:	EDM 5000.14 Single User Db
Reference Design:	Plan #1-Rev0	Offset TVD Reference:	Offset Datum

Offset Design													Offset Site Error:		0.00 usft	
Survey Program: 0-MWD													Offset Well Error:		0.00 usft	
Reference		Offset		Semi Major Axis			Distance						Warning			
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor				
12,300.00	10,150.68	14,013.28	11,945.19	46.19	47.45	166.22	2,096.66	-308.16	1,846.65	1,793.96	52.69	35.048				
12,400.00	10,149.80	14,113.28	11,944.95	47.74	48.99	166.23	2,196.66	-308.55	1,847.26	1,793.34	53.92	34.260				
12,500.00	10,148.93	14,213.27	11,944.70	49.31	50.54	166.23	2,296.66	-308.95	1,847.87	1,792.70	55.17	33.494				
12,600.00	10,148.06	14,313.27	11,944.45	50.90	52.12	166.24	2,396.66	-309.34	1,848.48	1,792.04	56.44	32.749				
12,700.00	10,147.19	14,413.27	11,944.21	52.50	53.71	166.24	2,496.65	-309.74	1,849.09	1,791.35	57.74	32.027				
12,800.00	10,146.31	14,513.27	11,943.96	54.12	55.31	166.24	2,596.65	-310.13	1,849.70	1,790.65	59.05	31.326				
12,900.00	10,145.44	14,613.27	11,943.71	55.75	56.93	166.25	2,696.65	-310.53	1,850.31	1,789.94	60.37	30.648				
13,000.00	10,144.57	14,713.26	11,943.47	57.39	58.56	166.25	2,796.64	-310.93	1,850.92	1,789.20	61.72	29.990				
13,100.00	10,143.69	14,813.26	11,943.22	59.05	60.20	166.26	2,896.64	-311.32	1,851.53	1,788.45	63.08	29.354				
13,200.00	10,142.82	14,913.26	11,942.97	60.71	61.86	166.26	2,996.64	-311.72	1,852.14	1,787.69	64.45	28.738				
13,300.00	10,141.95	15,013.26	11,942.73	62.39	63.52	166.27	3,096.63	-312.11	1,852.75	1,786.92	65.83	28.142				
13,400.00	10,141.08	15,113.26	11,942.48	64.07	65.19	166.27	3,196.63	-312.51	1,853.36	1,786.13	67.23	27.566				
13,500.00	10,140.20	15,213.25	11,942.23	65.76	66.87	166.28	3,296.63	-312.90	1,853.97	1,785.33	68.64	27.009				
13,600.00	10,139.33	15,313.25	11,941.99	67.45	68.56	166.28	3,396.62	-313.30	1,854.58	1,784.52	70.06	26.470				
13,700.00	10,138.46	15,413.25	11,941.74	69.16	70.25	166.28	3,496.62	-313.70	1,855.19	1,783.70	71.49	25.949				
13,800.00	10,137.58	15,513.25	11,941.49	70.87	71.95	166.29	3,596.62	-314.09	1,855.80	1,782.87	72.93	25.445				
13,900.00	10,136.71	15,613.25	11,941.25	72.58	73.66	166.29	3,696.62	-314.49	1,856.41	1,782.03	74.38	24.957				
14,000.00	10,135.84	15,713.24	11,941.00	74.30	75.37	166.30	3,796.61	-314.88	1,857.02	1,781.18	75.84	24.485				
14,100.00	10,134.97	15,813.24	11,940.75	76.03	77.09	166.30	3,896.61	-315.28	1,857.63	1,780.33	77.31	24.029				
14,200.00	10,134.09	15,913.24	11,940.51	77.76	78.82	166.31	3,996.61	-315.67	1,858.24	1,779.46	78.78	23.587				
14,300.00	10,133.22	16,013.24	11,940.26	79.50	80.54	166.31	4,096.60	-316.07	1,858.86	1,778.59	80.26	23.160				
14,400.00	10,132.35	16,113.24	11,940.02	81.23	82.28	166.31	4,196.60	-316.47	1,859.47	1,777.72	81.75	22.746				
14,500.00	10,131.47	16,213.23	11,939.77	82.98	84.01	166.32	4,296.60	-316.86	1,860.08	1,776.83	83.24	22.345				
14,600.00	10,130.60	16,313.23	11,939.52	84.72	85.75	166.32	4,396.59	-317.26	1,860.69	1,775.94	84.74	21.957				
14,700.00	10,129.73	16,413.23	11,939.28	86.47	87.50	166.33	4,496.59	-317.65	1,861.30	1,775.05	86.25	21.581				
14,800.00	10,128.86	16,513.23	11,939.03	88.23	89.24	166.33	4,596.59	-318.05	1,861.91	1,774.15	87.76	21.216				
14,900.00	10,127.98	16,613.23	11,938.78	89.98	91.00	166.34	4,696.59	-318.44	1,862.52	1,773.24	89.27	20.863				
15,000.00	10,127.11	16,713.22	11,938.54	91.74	92.75	166.34	4,796.58	-318.84	1,863.13	1,772.33	90.80	20.520				
15,100.00	10,126.24	16,813.22	11,938.29	93.51	94.51	166.34	4,896.58	-319.24	1,863.74	1,771.42	92.32	20.188				
15,200.00	10,125.36	16,913.22	11,938.04	95.27	96.23	166.35	4,996.58	-319.63	1,864.35	1,770.53	93.82	19.872				
15,221.13	10,125.18	16,930.55	11,938.00	95.66	96.49	166.35	5,013.90	-319.70	1,864.48	1,770.45	94.03	19.828				

Company:	Titus Oil & Gas Production, LLC	Local Co-ordinate Reference:	Well Todd 2-24S-31E State 202H (202H) - Slot 202H
Project:	Eddy County, NM (NAD83-NME)	TVD Reference:	3507+25 @ 3532.00usft (KB=25)
Reference Site:	A01 Todd DSU	MD Reference:	3507+25 @ 3532.00usft (KB=25)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Todd 2-24S-31E State 202H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	202H	Database:	EDM 5000.14 Single User Db
Reference Design:	Plan #1-Rev0	Offset TVD Reference:	Offset Datum

Reference Depths are relative to 3507+25 @ 3532.00usft (KB=25)
 Offset Depths are relative to Offset Datum
 Central Meridian is -104.3333334

Coordinates are relative to: Todd 2-24S-31E State 202H (202H) - Slot 202H
 Coordinate System is US State Plane 1983, New Mexico Eastern Zone
 Grid Convergence at Surface is: 0.31°

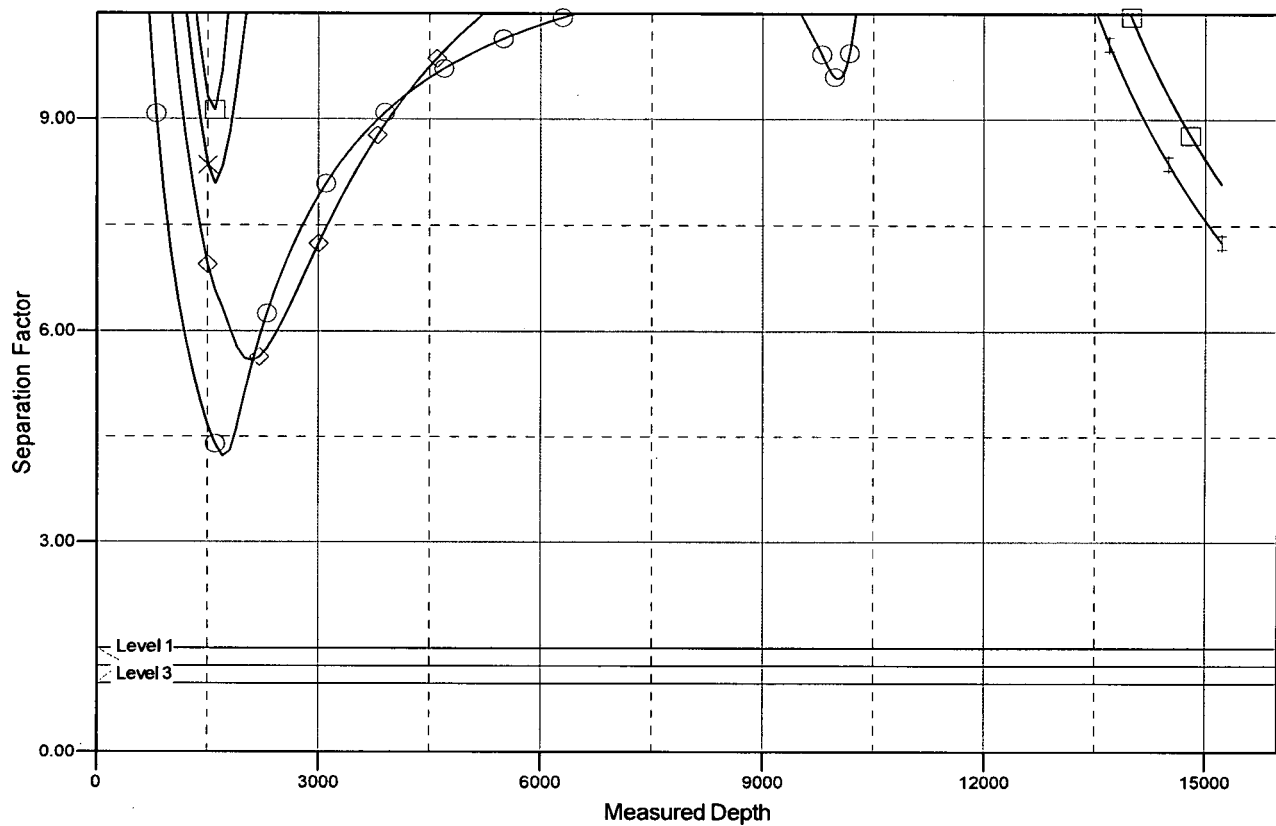


Company:	Titus Oil & Gas Production, LLC	Local Co-ordinate Reference:	Well Todd 2-24S-31E State 202H (202H) - Slot 202H
Project:	Eddy County, NM (NAD83-NME)	TVD Reference:	3507+25 @ 3532.00usft (KB=25)
Reference Site:	A01 Todd DSU	MD Reference:	3507+25 @ 3532.00usft (KB=25)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Todd 2-24S-31E State 202H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	202H	Database:	EDM 5000.14 Single User Db
Reference Design:	Plan #1-Rev0	Offset TVD Reference:	Offset Datum

Reference Depths are relative to 3507+25 @ 3532.00usft (KB=25)
Offset Depths are relative to Offset Datum
Central Meridian is -104.33333334

Coordinates are relative to: Todd 2-24S-31E State 202H (202H) - Slot 202H
Coordinate System is US State Plane 1983, New Mexico Eastern Zone
Grid Convergence at Surface is: 0.31°

Separation Factor Plot



LEGEND

- Todd 2-24S-31E State 207H (207H), 207H, Plan #1-Rev0 V0
- Todd 2-24S-31E State 405H (405H), 405H, Plan #1-Rev0 V0
- Todd 2-24S-31E State 304H (304H), 304H, Plan #1-Rev0 V0
- Todd 2-24S-31E State 434H (434H), 434H, Plan #1-Rev0 V0
- Todd 2-24S-31E State 203H (203H), 203H, Plan #1-Rev0 V0

TITUS

OIL GAS LLC

Titus Oil & Gas Production, LLC
Project: Eddy County, NM (NAD83-NME)
Site: A01 Todd DSU
Well: Todd 2-24S-31E State 202H
Wellbore: 202H
Plan: Plan #1-Rev0

WELL DETAILS: Todd 2-24S-31E State 202H

Northing	Easting	Latitude	Longitude	Slot
451484.30	722093.90	32.23985378	-103.74870307	202H

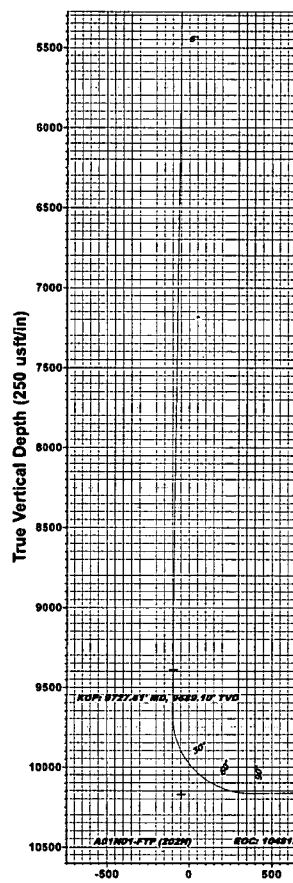
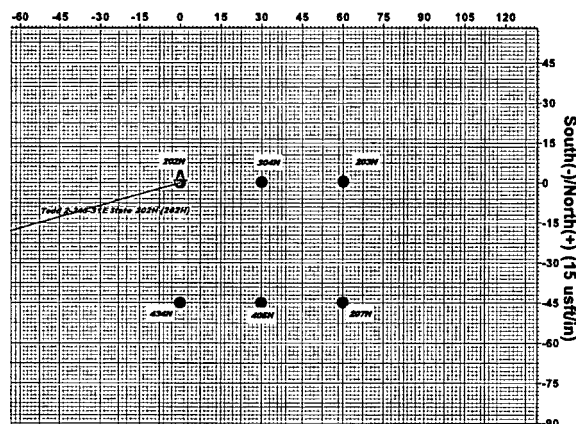
Section Details

Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VSect
1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2	1500.00	0.00	0.00	1500.00	0.00	0.00	0.00	0.00	0.00
3	1889.67	5.85	254.18	1888.99	-5.41	-19.11	1.50	254.18	-2.49
4	9037.85	5.85	254.18	9000.01	-203.85	-719.49	0.00	0.00	-93.71
5	9427.51	0.00	0.00	9389.00	-209.26	-738.60	1.50	180.00	-96.20
6	9727.61	0.00	0.00	9689.10	-209.26	-738.60	0.00	0.00	-96.20
7	10481.78	90.50	359.77	10166.55	272.37	-740.55	12.00	359.77	380.28
8	15221.13	90.50	359.77	10125.18	5011.50	-759.70	0.00	0.00	5068.75

DESIGN TARGET DETAILS

Name	+N/-S	+E/-W	Northing	Easting
A01N01-EON (202H)	-209.26	-738.60	451275.04	721355.30
A01N01-PBHL (202H)	5011.50	-759.70	458495.80	721334.20
A01N01-LTP (202H)	4921.50	-759.30	458405.80	721334.60
A01N01-FTP (202H)	-159.30	-738.80	451325.00	721355.10

West(-)/East(+) (15 usft/in)



Vertical Section at 351.38° (250 usft/in)

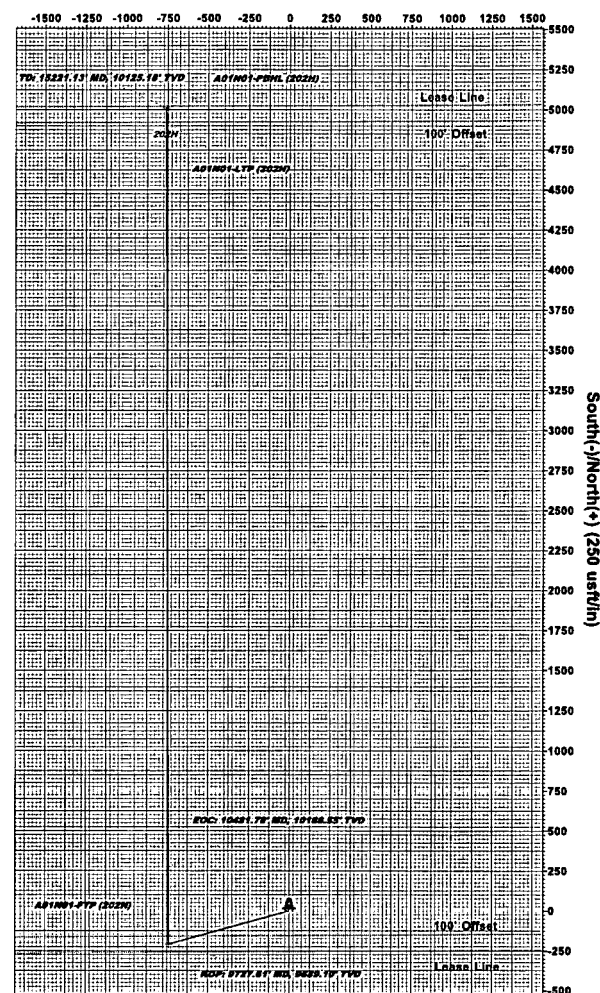


Azimuths to Grid North
True North: -0.31°
Magnetic North: 6.51°

Magnetic Field
Strength: 47727.9snT
Dip Angle: 60.02°
Date: 5/30/2019
Model: IGRF2015

PROJECT DETAILS: Eddy County, NM (NAD83-NME)
Geodetic System: US State Plane 1983
Datum: North American Datum 1983
Ellipsoid: GRS 1980
Zone: New Mexico Eastern Zone
System Datum: Mean Sea Level
Local North: Grid
Grid Convergence: 0.31° West
KB Elevation: 3507+25 @ 3532.00usft (KB=25)
Elevation: 3507.00

West(-)/East(+) (250 usft/in)



TURNAZONTAL
WELL PLANNING

Plan: Plan #1-Rev0 (Todd 2-24S-31E State 202H/202H)
Created By: Adrian Castro Date: 13:17, May 31 2019