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DISTRICT II-ARTESIA O.C.D.

TITUS

OIL GAS LLC

Titus Oil & Gas Production, LLC

Eddy County, NM (NAD83-NME)

A01 Todd DSU

Todd 2-24S-31E State 207H

207H

Plan #1-Rev0

Anticollision Report

31 May, 2019

Company:	Titus Oil & Gas Production, LLC	Local Co-ordinate Reference:	Well Todd 2-24S-31E State 207H - Slot 207H
Project:	Eddy County, NM (NAD83-NME)	TVD Reference:	3508+25 @ 3533.00usft (KB=25)
Reference Site:	A01 Todd DSU	MD Reference:	3508+25 @ 3533.00usft (KB=25)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Todd 2-24S-31E State 207H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	207H	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 separation factor of 12.00	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	15,512.18	Plan #1-Rev0 (207H)	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 202H - 202H - Plan #1-Rev0	1,500.00	1,499.00	74.96	68.50	11.604	CC, ES
Todd 2-24S-31E State 202H - 202H - Plan #1-Rev0	15,512.18	15,220.22	1,355.10	1,168.51	7.263	SF
Todd 2-24S-31E State 203H - 203H - Plan #1-Rev0	2,102.48	2,102.51	44.71	35.73	4.976	CC
Todd 2-24S-31E State 203H - 203H - Plan #1-Rev0	2,300.00	2,299.92	45.20	35.30	4.564	ES
Todd 2-24S-31E State 203H - 203H - Plan #1-Rev0	15,512.18	15,244.31	359.20	222.69	2.631	SF
Todd 2-24S-31E State 304H - 304H - Plan #1-Rev0	1,500.00	1,499.00	54.17	47.71	8.385	CC, ES
Todd 2-24S-31E State 304H - 304H - Plan #1-Rev0	1,600.00	1,598.84	55.31	48.44	8.051	SF
Todd 2-24S-31E State 405H - 405H - Plan #1-Rev0	1,500.00	1,500.00	30.10	23.64	4.658	CC
Todd 2-24S-31E State 405H - 405H - Plan #1-Rev0	1,600.00	1,600.72	30.16	23.29	4.389	ES
Todd 2-24S-31E State 405H - 405H - Plan #1-Rev0	1,700.00	1,701.13	30.56	23.31	4.216	SF
Todd 2-24S-31E State 434H - 434H - Plan #1-Rev0	1,500.00	1,500.00	60.00	53.54	9.285	CC, ES
Todd 2-24S-31E State 434H - 434H - Plan #1-Rev0	1,600.00	1,598.63	62.35	55.48	9.079	SF

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
1,500.00	1,500.00	1,499.00	1,499.00	3.23	3.23	-53.30	44.80	-60.10	74.96	68.50	6.46	11.604	CC, ES
1,600.00	1,599.99	1,597.77	1,597.76	3.44	3.43	-160.97	44.46	-61.30	76.97	70.10	6.87	11.204	
1,700.00	1,699.91	1,696.16	1,696.08	3.63	3.62	-163.86	43.43	-64.95	83.19	75.94	7.25	11.472	
1,762.51	1,762.30	1,757.32	1,757.13	3.76	3.75	-166.25	42.44	-68.44	89.36	81.86	7.49	11.923	
13,400.00	10,460.76	13,108.04	10,143.62	59.54	59.18	-76.52	2,943.31	-811.26	1,356.33	1,241.38	114.95	11.800	
13,500.00	10,460.08	13,208.04	10,142.75	61.22	60.85	-76.51	3,043.30	-811.66	1,356.27	1,238.03	118.24	11.470	
13,600.00	10,459.40	13,308.04	10,141.88	62.91	62.52	-76.50	3,143.30	-812.07	1,356.21	1,234.66	121.55	11.158	
13,700.00	10,458.72	13,408.04	10,141.01	64.60	64.20	-76.49	3,243.29	-812.47	1,356.15	1,231.28	124.87	10.860	
13,800.00	10,458.04	13,508.04	10,140.13	66.30	65.89	-76.49	3,343.29	-812.88	1,356.09	1,227.88	128.21	10.577	
13,900.00	10,457.36	13,608.04	10,139.26	68.01	67.59	-76.48	3,443.28	-813.28	1,356.03	1,224.47	131.56	10.307	
14,000.00	10,456.68	13,708.04	10,138.39	69.72	69.29	-76.47	3,543.28	-813.69	1,355.97	1,221.06	134.92	10.050	
14,100.00	10,456.00	13,808.04	10,137.51	71.44	71.00	-76.46	3,643.27	-814.09	1,355.92	1,217.63	138.29	9.805	
14,200.00	10,455.32	13,908.04	10,136.64	73.17	72.72	-76.45	3,743.27	-814.49	1,355.86	1,214.19	141.67	9.571	
14,300.00	10,454.63	14,008.04	10,135.77	74.90	74.44	-76.44	3,843.26	-814.90	1,355.80	1,210.74	145.06	9.347	
14,400.00	10,453.95	14,108.04	10,134.90	76.63	76.17	-76.43	3,943.26	-815.30	1,355.74	1,207.29	148.45	9.132	
14,500.00	10,453.27	14,208.04	10,134.02	78.37	77.90	-76.42	4,043.26	-815.71	1,355.68	1,203.82	151.86	8.927	

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 207H - Slot 207H
Project:	Eddy County, NM (NAD83-NME)	TVD Reference:	3508+25 @ 3533.00usft (KB=25)
Reference Site:	A01 Todd DSU	MD Reference:	3508+25 @ 3533.00usft (KB=25)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Todd 2-24S-31E State 207H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	207H	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 202H - 202H - Plan #1-Rev0													Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis		Highside Toolface (°)	Offset Wellbore Centre		Distance				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)	Minimum Separation (usft)	Separation Factor		
14,600.00	10,452.59	14,308.04	10,133.15	80.11	79.63	-76.41	4,143.25	-816.11	1,355.62	1,200.35	155.27	8.731		
14,700.00	10,451.91	14,408.04	10,132.28	81.86	81.37	-76.40	4,243.25	-816.51	1,355.57	1,196.88	158.69	8.542		
14,800.00	10,451.23	14,508.04	10,131.40	83.61	83.12	-76.40	4,343.24	-816.92	1,355.51	1,193.40	162.11	8.361		
14,900.00	10,450.55	14,608.04	10,130.53	85.37	84.86	-76.39	4,443.24	-817.32	1,355.45	1,189.91	165.54	8.188		
15,000.00	10,449.87	14,708.04	10,129.66	87.12	86.62	-76.38	4,543.23	-817.73	1,355.39	1,186.41	168.98	8.021		
15,100.00	10,449.19	14,808.04	10,128.79	88.88	88.37	-76.37	4,643.23	-818.13	1,355.33	1,182.91	172.42	7.861		
15,200.00	10,448.51	14,908.04	10,127.91	90.65	90.13	-76.36	4,743.22	-818.53	1,355.28	1,179.41	175.87	7.706		
15,300.00	10,447.83	15,008.04	10,127.04	92.41	91.88	-76.35	4,843.22	-818.94	1,355.22	1,175.90	179.32	7.558		
15,400.00	10,447.15	15,108.04	10,126.17	94.18	93.65	-76.34	4,943.21	-819.34	1,355.16	1,172.39	182.77	7.414		
15,500.00	10,446.47	15,208.04	10,125.29	95.95	95.41	-76.33	5,043.21	-819.75	1,355.10	1,168.90	186.21	7.277		
15,512.18	10,446.39	15,220.22	10,125.19	96.16	95.64	-76.33	5,055.38	-819.80	1,355.10	1,168.51	186.59	7.263 SF		

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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 203H - 203H - 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 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		
1,000.00	1,000.00	999.00	999.00	2.11	2.10	0.13	45.30	0.10	45.30	41.09	4.21	10.755			
1,100.00	1,100.00	1,099.00	1,099.00	2.33	2.33	0.13	45.30	0.10	45.30	40.64	4.66	9.718			
1,200.00	1,200.00	1,199.00	1,199.00	2.56	2.55	0.13	45.30	0.10	45.30	40.19	5.11	8.863			
1,300.00	1,300.00	1,299.00	1,299.00	2.78	2.78	0.13	45.30	0.10	45.30	39.74	5.56	8.146			
1,400.00	1,400.00	1,399.00	1,399.00	3.01	3.00	0.13	45.30	0.10	45.30	39.29	6.01	7.537			
1,500.00	1,500.00	1,499.00	1,499.00	3.23	3.23	0.13	45.30	0.10	45.30	38.84	6.46	7.013			
1,600.00	1,599.99	1,599.30	1,599.29	3.44	3.44	-106.50	44.96	1.35	45.34	38.47	6.87	6.595			
1,700.00	1,699.91	1,699.61	1,699.52	3.63	3.63	-106.48	43.94	5.14	45.45	38.18	7.26	6.257			
1,762.51	1,762.30	1,762.32	1,762.11	3.76	3.76	-106.45	42.96	8.79	45.55	38.03	7.51	6.061			
1,800.00	1,799.70	1,799.92	1,799.61	3.83	3.83	-106.20	42.24	11.46	45.57	37.90	7.67	5.944			
1,900.00	1,899.47	1,900.14	1,899.41	4.04	4.05	-103.34	39.86	20.31	45.22	37.14	8.09	5.593			
2,000.00	1,999.23	2,000.09	1,998.84	4.25	4.27	-99.11	37.21	30.15	44.84	36.32	8.52	5.261			
2,100.00	2,099.00	2,100.03	2,098.26	4.47	4.50	-94.82	34.56	39.99	44.71	35.74	8.97	4.982			
2,102.48	2,101.47	2,102.51	2,100.73	4.48	4.51	-94.72	34.50	40.24	44.71	35.73	8.99	4.976 CC			
2,200.00	2,198.76	2,199.97	2,197.68	4.69	4.74	-90.54	31.91	49.84	44.83	35.40	9.44	4.752			
2,300.00	2,298.52	2,299.92	2,297.10	4.92	4.98	-86.30	29.26	59.68	45.20	35.30	9.90	4.564 ES			
2,400.00	2,398.29	2,399.86	2,396.53	5.15	5.23	-82.15	26.61	69.52	45.81	35.43	10.38	4.415			
2,500.00	2,498.05	2,499.81	2,495.95	5.38	5.49	-78.13	23.96	79.37	46.65	35.80	10.85	4.300			
2,600.00	2,597.82	2,599.75	2,595.37	5.61	5.74	-74.28	21.31	89.21	47.72	36.39	11.33	4.213			
2,700.00	2,697.58	2,699.69	2,694.79	5.85	6.00	-70.60	18.66	99.05	48.99	37.19	11.80	4.152			
2,800.00	2,797.34	2,799.64	2,794.22	6.09	6.26	-67.13	16.01	108.89	50.45	38.18	12.27	4.111			
2,900.00	2,897.11	2,899.58	2,893.64	6.32	6.53	-63.86	13.37	118.74	52.09	39.35	12.74	4.088			
3,000.00	2,996.87	2,999.52	2,993.06	6.56	6.80	-60.80	10.72	128.58	53.89	40.68	13.21	4.079			
3,100.00	3,096.64	3,099.47	3,092.48	6.81	7.07	-57.95	8.07	138.42	55.83	42.15	13.68	4.082			
3,200.00	3,196.40	3,199.41	3,191.91	7.05	7.34	-55.29	5.42	148.27	57.90	43.76	14.14	4.095			
3,300.00	3,296.16	3,299.36	3,291.33	7.29	7.61	-52.82	2.77	158.11	60.08	45.48	14.60	4.115			
3,400.00	3,395.93	3,399.30	3,390.75	7.54	7.88	-50.53	0.12	167.95	62.37	47.31	15.06	4.142			
3,500.00	3,495.69	3,499.24	3,490.17	7.78	8.16	-48.41	-2.53	177.80	64.75	49.24	15.52	4.173			
3,600.00	3,595.46	3,599.19	3,589.60	8.03	8.43	-46.43	-5.18	187.64	67.21	51.24	15.97	4.209			
3,700.00	3,695.22	3,699.13	3,689.02	8.27	8.71	-44.60	-7.83	197.48	69.75	53.33	16.43	4.247			
3,800.00	3,794.98	3,799.08	3,788.44	8.52	8.99	-42.90	-10.48	207.32	72.36	55.48	16.88	4.287			
3,900.00	3,894.75	3,899.02	3,887.87	8.77	9.27	-41.32	-13.13	217.17	75.02	57.69	17.33	4.328			
4,000.00	3,994.51	3,998.96	3,987.29	9.02	9.55	-39.84	-15.78	227.01	77.74	59.95	17.79	4.371			
4,100.00	4,094.28	4,098.91	4,086.71	9.27	9.83	-38.47	-18.43	236.85	80.50	62.26	18.24	4.414			
4,200.00	4,194.04	4,198.85	4,186.13	9.52	10.11	-37.19	-21.08	246.70	83.31	64.62	18.69	4.457			
4,300.00	4,293.80	4,298.79	4,285.56	9.77	10.39	-35.99	-23.73	256.54	86.16	67.01	19.14	4.500			
4,400.00	4,393.57	4,398.74	4,384.98	10.02	10.67	-34.88	-26.38	266.38	89.04	69.44	19.60	4.544			
4,500.00	4,493.33	4,498.68	4,484.40	10.27	10.95	-33.83	-29.03	276.22	91.95	71.90	20.05	4.586			
4,600.00	4,593.10	4,598.63	4,583.82	10.52	11.24	-32.84	-31.68	286.07	94.89	74.39	20.50	4.628			
4,700.00	4,692.86	4,698.57	4,683.25	10.77	11.52	-31.92	-34.33	295.91	97.86	76.91	20.96	4.670			
4,800.00	4,792.62	4,798.51	4,782.67	11.02	11.81	-31.05	-36.98	305.75	100.85	79.45	21.41	4.711			
4,900.00	4,892.39	4,898.46	4,882.09	11.27	12.09	-30.23	-39.63	315.60	103.87	82.01	21.86	4.751			
5,000.00	4,992.15	4,998.40	4,981.51	11.52	12.37	-29.45	-42.28	325.44	106.90	84.59	22.32	4.790			
5,100.00	5,091.91	5,098.35	5,080.94	11.78	12.66	-28.72	-44.92	335.28	109.96	87.19	22.77	4.829			
5,200.00	5,191.68	5,198.29	5,180.36	12.03	12.94	-28.03	-47.57	345.13	113.03	89.80	23.23	4.866			
5,300.00	5,291.44	5,298.23	5,279.78	12.28	13.23	-27.38	-50.22	354.97	116.11	92.43	23.68	4.903			
5,400.00	5,391.21	5,398.18	5,379.21	12.54	13.52	-26.76	-52.87	364.81	119.21	95.08	24.14	4.939			
5,500.00	5,490.97	5,498.12	5,478.63	12.79	13.80	-26.17	-55.52	374.65	122.33	97.73	24.59	4.974			
5,600.00	5,590.73	5,598.06	5,578.05	13.04	14.09	-25.61	-58.17	384.50	125.45	100.40	25.05	5.008			
5,700.00	5,690.50	5,698.01	5,677.47	13.29	14.37	-25.08	-60.82	394.34	128.59	103.08	25.51	5.042			
5,800.00	5,790.26	5,797.95	5,776.90	13.55	14.66	-24.57	-63.47	404.18	131.73	105.77	25.96	5.074			
5,900.00	5,890.03	5,897.90	5,876.32	13.80	14.95	-24.09	-66.12	414.03	134.89	108.47	26.42	5.106			

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

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Reference Site:	A01 Todd DSU	MD Reference:	3508+25 @ 3533.00usft (KB=25)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Todd 2-24S-31E State 207H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	207H	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				
6,000.00	5,989.79	5,997.84	5,975.74	14.06	15.24	-23.62	-68.77	423.87	138.06	111.18	26.88	5.137				
6,100.00	6,089.55	6,097.78	6,075.16	14.31	15.52	-23.18	-71.42	433.71	141.23	113.90	27.33	5.167				
6,200.00	6,189.32	6,197.73	6,174.59	14.56	15.81	-22.76	-74.07	443.55	144.42	116.62	27.79	5.196				
6,300.00	6,289.08	6,297.67	6,274.01	14.82	16.10	-22.36	-76.72	453.40	147.61	119.36	28.25	5.225				
6,400.00	6,388.85	6,397.61	6,373.43	15.07	16.39	-21.97	-79.37	463.24	150.80	122.10	28.71	5.253				
6,500.00	6,488.61	6,497.56	6,472.85	15.33	16.67	-21.60	-82.02	473.08	154.01	124.84	29.17	5.280				
6,600.00	6,588.37	6,597.50	6,572.28	15.58	16.96	-21.25	-84.67	482.93	157.22	127.59	29.63	5.307				
6,700.00	6,688.14	6,697.45	6,671.70	15.84	17.25	-20.91	-87.32	492.77	160.43	130.35	30.08	5.333				
6,800.00	6,787.90	6,797.39	6,771.12	16.09	17.54	-20.58	-89.97	502.61	163.65	133.11	30.54	5.358				
6,900.00	6,887.67	6,897.33	6,870.55	16.35	17.83	-20.27	-92.62	512.46	166.88	135.88	31.00	5.383				
7,000.00	6,987.43	6,997.28	6,969.97	16.60	18.11	-19.96	-95.27	522.30	170.11	138.65	31.46	5.407				
7,100.00	7,087.19	7,097.22	7,069.39	16.85	18.40	-19.67	-97.92	532.14	173.35	141.42	31.92	5.430				
7,200.00	7,186.96	7,197.17	7,168.81	17.11	18.69	-19.39	-100.57	541.98	176.59	144.20	32.38	5.453				
7,300.00	7,286.72	7,297.11	7,268.24	17.36	18.98	-19.12	-103.21	551.83	179.83	146.99	32.84	5.475				
7,400.00	7,386.49	7,397.05	7,367.66	17.62	19.27	-18.86	-105.86	561.67	183.08	149.78	33.30	5.497				
7,500.00	7,486.25	7,497.00	7,467.08	17.88	19.56	-18.61	-108.51	571.51	186.33	152.57	33.76	5.519				
7,600.00	7,586.01	7,596.94	7,566.50	18.13	19.85	-18.37	-111.16	581.36	189.59	155.36	34.23	5.539				
7,700.00	7,685.78	7,696.88	7,665.93	18.39	20.14	-18.13	-113.81	591.20	192.84	158.16	34.69	5.560				
7,800.00	7,785.54	7,796.83	7,765.35	18.64	20.43	-17.90	-116.46	601.04	196.11	160.96	35.15	5.580				
7,900.00	7,885.31	7,896.77	7,864.77	18.90	20.71	-17.68	-119.11	610.89	199.37	163.76	35.61	5.599				
8,000.00	7,985.07	7,996.72	7,964.19	19.15	21.00	-17.47	-121.76	620.73	202.64	166.57	36.07	5.618				
8,100.00	8,084.83	8,096.66	8,063.62	19.41	21.29	-17.27	-124.41	630.57	205.91	169.38	36.53	5.636				
8,200.00	8,184.60	8,196.60	8,163.04	19.66	21.58	-17.07	-127.06	640.41	209.18	172.19	36.99	5.655				
8,300.00	8,284.36	8,296.55	8,262.46	19.92	21.87	-16.87	-129.71	650.26	212.46	175.00	37.46	5.672				
8,400.00	8,384.12	8,396.49	8,361.89	20.17	22.16	-16.69	-132.36	660.10	215.73	177.82	37.92	5.690				
8,500.00	8,483.89	8,496.44	8,461.31	20.43	22.45	-16.50	-135.01	669.94	219.01	180.63	38.38	5.707				
8,600.00	8,583.65	8,596.38	8,560.73	20.69	22.74	-16.33	-137.66	679.79	222.29	183.45	38.84	5.723				
8,700.00	8,683.42	8,696.32	8,660.15	20.94	23.03	-16.16	-140.31	689.63	225.58	186.27	39.30	5.739				
8,800.00	8,783.18	8,796.27	8,759.58	21.20	23.32	-15.99	-142.96	699.47	228.86	189.10	39.77	5.755				
8,900.00	8,882.94	8,896.21	8,859.00	21.45	23.61	-15.83	-145.61	709.31	232.15	191.92	40.23	5.771				
9,000.00	8,982.71	8,996.15	8,958.42	21.71	23.90	-15.67	-148.26	719.16	235.44	194.75	40.69	5.786				
9,100.00	9,082.47	9,099.17	9,060.94	21.97	24.18	-15.53	-150.90	728.98	238.72	197.27	41.16	5.793				
9,200.00	9,182.24	9,205.63	9,167.09	22.22	24.40	-15.54	-152.97	736.68	239.08	197.49	41.59	5.748				
9,300.00	9,282.00	9,312.04	9,273.38	22.48	24.59	-15.72	-154.27	741.51	237.02	195.02	42.01	5.643				
9,400.00	9,381.76	9,418.25	9,379.56	22.73	24.76	-16.09	-154.81	743.49	232.28	189.87	42.41	5.477				
9,456.06	9,437.70	9,475.38	9,436.70	22.88	24.86	-16.36	-154.82	743.54	228.63	185.98	42.65	5.360				
9,500.00	9,481.54	9,519.23	9,480.54	22.98	24.93	-16.54	-154.82	743.54	225.98	183.14	42.84	5.275				
9,600.00	9,581.44	9,619.13	9,580.44	23.16	25.10	-16.85	-154.82	743.54	221.76	178.53	43.23	5.130				
9,700.00	9,681.43	9,719.11	9,680.43	23.33	25.27	-16.98	-154.82	743.54	220.04	176.44	43.60	5.047				
9,718.58	9,700.00	9,737.68	9,699.00	23.36	25.30	89.64	-154.82	743.54	219.99	176.32	43.67	5.038				
9,720.21	9,701.64	9,739.32	9,700.64	23.36	25.30	89.64	-154.82	743.54	219.99	176.32	43.68	5.037				
9,800.00	9,781.43	9,818.67	9,779.79	23.51	25.43	88.50	-150.45	743.52	220.04	176.00	44.05	4.996				
9,900.00	9,881.43	9,912.88	9,871.28	23.69	25.54	82.85	-128.64	743.41	221.77	176.99	44.78	4.953				
10,000.00	9,981.43	9,995.90	9,947.01	23.87	25.60	74.40	-94.86	743.23	230.53	184.96	45.56	5.059				
10,019.75	10,001.17	10,010.73	9,959.85	23.91	25.61	72.62	-87.47	743.20	233.66	187.99	45.67	5.117				
10,025.00	10,006.43	10,014.59	9,963.17	23.92	25.61	72.34	-85.48	743.19	234.58	188.89	45.69	5.134				
10,050.00	10,031.40	10,032.84	9,978.58	23.96	25.62	69.66	-75.71	743.14	239.24	193.49	45.75	5.230				
10,075.00	10,056.30	10,050.00	9,992.72	24.00	25.63	67.18	-66.00	743.09	244.32	198.61	45.71	5.345				
10,100.00	10,081.05	10,068.62	10,007.67	24.04	25.64	64.64	-54.89	743.03	249.75	204.10	45.65	5.471				
10,125.00	10,105.57	10,086.20	10,021.36	24.08	25.64	62.31	-43.87	742.97	255.45	209.95	45.51	5.614				
10,150.00	10,129.82	10,103.58	10,034.50	24.12	25.65	60.10	-32.49	742.92	261.36	216.06	45.30	5.769				
10,175.00	10,153.70	10,120.80	10,047.10	24.15	25.65	58.03	-20.76	742.86	267.40	222.35	45.04	5.936				

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 207H - Slot 207H
Project:	Eddy County, NM (NAD83-NME)	TVD Reference:	3508+25 @ 3533.00usft (KB=25)
Reference Site:	A01 Todd DSU	MD Reference:	3508+25 @ 3533.00usft (KB=25)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Todd 2-24S-31E State 207H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	207H	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 203H - 203H - 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 Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning		
10,200.00	10,177.17	10,137.85	10,059.15	24.18	25.66	56.07	-8.69	742.79	273.52	228.78	44.74	6.113			
10,225.00	10,200.16	10,154.76	10,070.67	24.21	25.66	54.24	3.69	742.73	279.67	235.26	44.41	6.298			
10,250.00	10,222.60	10,171.54	10,081.65	24.23	25.67	52.54	16.37	742.67	285.79	241.75	44.04	6.490			
10,275.00	10,244.44	10,188.20	10,092.11	24.25	25.67	50.95	29.33	742.60	291.85	248.20	43.65	6.687			
10,300.00	10,265.61	10,204.74	10,102.05	24.27	25.67	49.47	42.56	742.53	297.80	254.56	43.24	6.887			
10,325.00	10,286.05	10,221.18	10,111.46	24.29	25.68	48.11	56.04	742.46	303.62	260.79	42.83	7.089			
10,350.00	10,305.71	10,237.53	10,120.35	24.31	25.68	46.85	69.75	742.39	309.25	266.84	42.41	7.292			
10,375.00	10,324.54	10,250.00	10,126.82	24.33	25.68	45.83	80.42	742.34	314.73	272.86	41.86	7.518			
10,400.00	10,342.48	10,269.97	10,136.59	24.34	25.69	44.62	97.83	742.25	319.90	278.31	41.60	7.691			
10,425.00	10,359.49	10,286.08	10,143.93	24.36	25.70	43.64	112.17	742.18	324.86	283.66	41.20	7.885			
10,450.00	10,375.51	10,300.00	10,149.89	24.37	25.70	42.82	124.75	742.11	329.56	288.79	40.77	8.083			
10,475.00	10,390.51	10,318.11	10,157.08	24.39	25.71	41.95	141.37	742.03	333.95	293.44	40.50	8.245			
10,500.00	10,404.44	10,334.04	10,162.88	24.40	25.72	41.22	156.21	741.95	338.04	297.86	40.18	8.413			
10,525.00	10,417.27	10,350.00	10,168.19	24.42	25.73	40.57	171.25	741.88	341.82	301.92	39.90	8.567			
10,550.00	10,428.95	10,365.76	10,172.94	24.44	25.74	39.99	186.29	741.80	345.26	305.61	39.65	8.707			
10,575.00	10,439.47	10,381.57	10,177.20	24.46	25.76	39.49	201.50	741.72	348.36	308.91	39.45	8.831			
10,600.00	10,448.78	10,400.00	10,181.53	24.49	25.78	39.01	219.42	741.63	351.12	311.78	39.33	8.927			
10,625.00	10,456.86	10,413.08	10,184.19	24.53	25.79	38.67	232.22	741.56	353.48	314.31	39.18	9.023			
10,650.00	10,463.70	10,425.00	10,186.30	24.57	25.81	38.39	243.96	741.50	355.53	316.46	39.07	9.100			
10,675.00	10,469.27	10,444.49	10,189.12	24.62	25.84	38.10	263.24	741.41	357.14	318.04	39.10	9.135			
10,700.00	10,473.55	10,460.17	10,190.81	24.68	25.87	37.91	278.83	741.33	358.40	319.26	39.13	9.158			
10,725.00	10,476.54	10,475.00	10,191.94	24.75	25.90	37.78	293.61	741.25	359.28	320.05	39.22	9.160			
10,750.00	10,478.23	10,491.50	10,192.66	24.83	25.93	37.70	310.10	741.17	359.77	320.40	39.37	9.138			
10,772.99	10,478.62	10,507.21	10,192.81	24.92	25.97	37.68	325.80	741.09	359.88	320.34	39.55	9.100			
10,783.13	10,478.56	10,515.27	10,192.76	24.96	25.99	37.68	333.86	741.05	359.87	320.24	39.63	9.080			
10,800.00	10,478.44	10,532.14	10,192.65	25.03	26.03	37.68	350.73	740.96	359.87	320.11	39.76	9.051			
10,900.00	10,477.76	10,632.14	10,191.99	25.55	26.39	37.69	450.73	740.45	359.86	319.25	40.61	8.862			
11,000.00	10,477.08	10,732.14	10,191.33	26.22	26.91	37.69	550.72	739.94	359.84	318.26	41.59	8.653			
11,100.00	10,476.40	10,832.14	10,190.66	27.01	27.57	37.69	650.72	739.43	359.83	317.14	42.69	8.429			
11,200.00	10,475.72	10,932.14	10,190.00	27.90	28.36	37.69	750.72	738.92	359.81	315.90	43.91	8.194			
11,300.00	10,475.04	11,032.14	10,189.34	28.88	29.25	37.69	850.71	738.41	359.80	314.56	45.24	7.952			
11,400.00	10,474.36	11,132.14	10,188.68	29.94	30.24	37.70	950.71	737.90	359.79	313.11	46.67	7.709			
11,500.00	10,473.68	11,232.14	10,188.02	31.07	31.31	37.70	1,050.71	737.39	359.77	311.58	48.19	7.465			
11,600.00	10,473.00	11,332.14	10,187.35	32.27	32.45	37.70	1,150.70	736.88	359.76	309.96	49.79	7.225			
11,700.00	10,472.32	11,432.14	10,186.69	33.52	33.65	37.70	1,250.70	736.37	359.74	308.28	51.47	6.990			
11,800.00	10,471.64	11,532.14	10,186.03	34.82	34.91	37.70	1,350.69	735.86	359.73	306.52	53.21	6.761			
11,900.00	10,470.96	11,632.14	10,185.37	36.17	36.21	37.70	1,450.69	735.35	359.71	304.70	55.01	6.539			
12,000.00	10,470.28	11,732.14	10,184.71	37.56	37.57	37.71	1,550.69	734.84	359.70	302.83	56.87	6.325			
12,100.00	10,469.60	11,832.14	10,184.04	38.98	38.96	37.71	1,650.68	734.32	359.69	300.91	58.78	6.120			
12,200.00	10,468.92	11,932.14	10,183.38	40.44	40.38	37.71	1,750.68	733.81	359.67	298.94	60.73	5.923			
12,300.00	10,468.24	12,032.14	10,182.72	41.93	41.84	37.71	1,850.68	733.30	359.66	296.94	62.72	5.734			
12,400.00	10,467.56	12,132.14	10,182.06	43.44	43.32	37.71	1,950.67	732.79	359.64	294.89	64.75	5.554			
12,500.00	10,466.88	12,232.14	10,181.39	44.97	44.83	37.72	2,050.67	732.28	359.63	292.81	66.82	5.382			
12,600.00	10,466.20	12,332.14	10,180.73	46.53	46.37	37.72	2,150.67	731.77	359.61	290.70	68.91	5.219			
12,700.00	10,465.52	12,432.14	10,180.07	48.11	47.92	37.72	2,250.66	731.26	359.60	288.57	71.03	5.062			
12,800.00	10,464.84	12,532.14	10,179.41	49.70	49.49	37.72	2,350.66	730.75	359.59	286.40	73.18	4.914			
12,900.00	10,464.16	12,632.14	10,178.75	51.31	51.08	37.72	2,450.66	730.24	359.57	284.22	75.35	4.772			
13,000.00	10,463.48	12,732.14	10,178.08	52.93	52.69	37.72	2,550.65	729.73	359.56	282.01	77.55	4.637			
13,100.00	10,462.80	12,832.14	10,177.42	54.57	54.31	37.73	2,650.65	729.22	359.54	279.78	79.76	4.508			
13,200.00	10,462.12	12,932.14	10,176.76	56.21	55.94	37.73	2,750.65	728.71	359.53	277.54	81.99	4.385			
13,300.00	10,461.44	13,032.14	10,176.10	57.87	57.58	37.73	2,850.64	728.20	359.52	275.27	84.24	4.268			
13,400.00	10,460.76	13,132.14	10,175.44	59.54	59.24	37.73	2,950.64	727.69	359.50	273.00	86.50	4.156			

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 207H - Slot 207H
Project:	Eddy County, NM (NAD83-NME)	TVD Reference:	3508+25 @ 3533.00usft (KB=25)
Reference Site:	A01 Todd DSU	MD Reference:	3508+25 @ 3533.00usft (KB=25)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Todd 2-24S-31E State 207H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	207H	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 203H - 203H - 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 Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning		
13,500.00	10,460.08	13,232.14	10,174.77	61.22	60.90	37.73	3,050.64	727.18	359.49	270.70	88.78	4.049			
13,600.00	10,459.40	13,332.14	10,174.11	62.91	62.57	37.73	3,150.63	726.67	359.47	268.40	91.07	3.947			
13,700.00	10,458.72	13,432.14	10,173.45	64.60	64.26	37.74	3,250.63	726.16	359.46	266.08	93.38	3.850			
13,800.00	10,458.04	13,532.14	10,172.79	66.30	65.95	37.74	3,350.63	725.65	359.44	263.75	95.69	3.756			
13,900.00	10,457.36	13,632.14	10,172.13	68.01	67.64	37.74	3,450.62	725.14	359.43	261.41	98.02	3.667			
14,000.00	10,456.68	13,732.14	10,171.46	69.72	69.35	37.74	3,550.62	724.63	359.42	259.06	100.35	3.582			
14,100.00	10,456.00	13,832.14	10,170.80	71.44	71.06	37.74	3,650.61	724.12	359.40	256.71	102.70	3.500			
14,200.00	10,455.32	13,932.14	10,170.14	73.17	72.77	37.75	3,750.61	723.61	359.39	254.34	105.05	3.421			
14,300.00	10,454.63	14,032.14	10,169.48	74.90	74.50	37.75	3,850.61	723.10	359.37	251.96	107.41	3.346			
14,400.00	10,453.95	14,132.14	10,168.82	76.63	76.22	37.75	3,950.60	722.59	359.36	249.58	109.78	3.274			
14,500.00	10,453.27	14,232.14	10,168.15	78.37	77.95	37.75	4,050.60	722.08	359.34	247.19	112.15	3.204			
14,600.00	10,452.59	14,332.14	10,167.49	80.11	79.69	37.75	4,150.60	721.57	359.33	244.80	114.53	3.137			
14,700.00	10,451.91	14,432.14	10,166.83	81.86	81.43	37.75	4,250.59	721.06	359.32	242.39	116.92	3.073			
14,800.00	10,451.23	14,532.14	10,166.17	83.61	83.17	37.76	4,350.59	720.54	359.30	239.99	119.32	3.011			
14,900.00	10,450.55	14,632.14	10,165.51	85.37	84.92	37.76	4,450.59	720.03	359.29	237.57	121.72	2.952			
15,000.00	10,449.87	14,732.14	10,164.84	87.12	86.67	37.76	4,550.58	719.52	359.27	235.15	124.12	2.895			
15,100.00	10,449.19	14,832.14	10,164.18	88.88	88.42	37.76	4,650.58	719.01	359.26	232.73	126.53	2.839			
15,200.00	10,448.51	14,932.14	10,163.52	90.65	90.18	37.76	4,750.58	718.50	359.25	230.30	128.94	2.786			
15,300.00	10,447.83	15,032.14	10,162.86	92.41	91.94	37.77	4,850.57	717.99	359.23	227.87	131.36	2.735			
15,400.00	10,447.15	15,132.14	10,162.20	94.18	93.70	37.77	4,950.57	717.48	359.22	225.43	133.79	2.685			
15,500.00	10,446.47	15,232.14	10,161.53	95.95	95.47	37.77	5,050.57	716.97	359.20	222.99	136.21	2.637			
15,512.18	10,446.39	15,244.31	10,161.45	96.16	95.68	37.77	5,062.74	716.91	359.20	222.69	136.51	2.631 SF			

Company:	Titus Oil & Gas Production, LLC	Local Co-ordinate Reference:	Well Todd 2-24S-31E State 207H - Slot 207H
Project:	Eddy County, NM (NAD83-NME)	TVD Reference:	3508+25 @ 3533.00usft (KB=25)
Reference Site:	A01 Todd DSU	MD Reference:	3508+25 @ 3533.00usft (KB=25)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Todd 2-24S-31E State 207H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	207H	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
A01 Todd DSU - Todd 2-24S-31E State 304H - 304H - 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 Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
1,100.00	1,100.00	1,099.00	1,099.00	2.33	2.33	-33.63	45.10	-30.00	54.17	49.50	4.66	11.620		
1,200.00	1,200.00	1,199.00	1,199.00	2.56	2.55	-33.63	45.10	-30.00	54.17	49.06	5.11	10.598		
1,300.00	1,300.00	1,299.00	1,299.00	2.78	2.78	-33.63	45.10	-30.00	54.17	48.61	5.56	9.741		
1,400.00	1,400.00	1,399.00	1,399.00	3.01	3.00	-33.63	45.10	-30.00	54.17	48.16	6.01	9.012		
1,500.00	1,500.00	1,499.00	1,499.00	3.23	3.23	-33.63	45.10	-30.00	54.17	47.71	6.46	8.385 CC, ES		
1,600.00	1,599.99	1,598.84	1,598.83	3.44	3.43	-142.42	44.47	-31.11	55.31	48.44	6.87	8.051 SF		
1,700.00	1,699.91	1,698.40	1,698.31	3.63	3.62	-148.39	42.60	-34.45	59.18	51.93	7.25	8.163		
1,762.51	1,762.30	1,760.60	1,760.44	3.76	3.74	-152.74	41.17	-36.99	63.22	55.73	7.49	8.438		
1,800.00	1,799.70	1,797.87	1,797.68	3.83	3.81	-155.21	40.32	-38.51	66.08	58.44	7.64	8.650		
1,900.00	1,899.47	1,897.31	1,897.00	4.04	4.01	-160.84	38.04	-42.57	74.22	66.19	8.03	9.240		
2,000.00	1,999.23	1,996.74	1,996.32	4.25	4.21	-165.32	35.76	-46.63	82.94	74.51	8.43	9.835		
2,100.00	2,099.00	2,096.17	2,095.64	4.47	4.42	-168.94	33.48	-50.69	92.06	83.22	8.84	10.416		
2,200.00	2,198.76	2,195.60	2,194.97	4.69	4.63	-171.90	31.20	-54.75	101.48	92.24	9.25	10.973		
2,300.00	2,298.52	2,295.03	2,294.29	4.92	4.84	-174.35	28.92	-58.81	111.13	101.47	9.66	11.500		
2,400.00	2,398.29	2,394.46	2,393.61	5.15	5.05	-176.40	26.64	-62.86	120.94	110.86	10.08	11.996		
15,100.00	10,449.19	16,213.96	11,615.34	88.88	88.45	-143.07	4,653.00	-378.20	1,460.04	1,336.61	123.43	11.829		
15,200.00	10,448.51	16,313.96	11,614.90	90.65	90.20	-143.08	4,752.99	-378.59	1,460.16	1,334.39	125.77	11.609		
15,300.00	10,447.83	16,413.96	11,614.46	92.41	91.96	-143.09	4,852.99	-378.99	1,460.29	1,332.16	128.12	11.398		
15,400.00	10,447.15	16,513.96	11,614.02	94.18	93.72	-143.10	4,952.99	-379.38	1,460.41	1,329.94	130.47	11.193		
15,500.00	10,446.47	16,613.96	11,613.59	95.95	95.48	-143.11	5,052.99	-379.78	1,460.53	1,327.70	132.83	10.996		
15,512.18	10,446.39	16,620.31	11,613.56	96.16	95.61	-143.11	5,059.34	-379.80	1,460.56	1,327.51	133.05	10.978		

Company:	Titus Oil & Gas Production, LLC	Local Co-ordinate Reference:	Well Todd 2-24S-31E State 207H - Slot 207H
Project:	Eddy County, NM (NAD83-NME)	TVD Reference:	3508+25 @ 3533.00usft (KB=25)
Reference Site:	A01 Todd DSU	MD Reference:	3508+25 @ 3533.00usft (KB=25)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Todd 2-24S-31E State 207H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	207H	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		
700.00	700.00	700.00	700.00	1.43	1.43	-90.19	-0.10	-30.10	30.10	27.23	2.87	10.503		
800.00	800.00	800.00	800.00	1.66	1.66	-90.19	-0.10	-30.10	30.10	26.78	3.32	9.079		
900.00	900.00	900.00	900.00	1.88	1.88	-90.19	-0.10	-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	-90.19	-0.10	-30.10	30.10	25.89	4.21	7.142		
1,100.00	1,100.00	1,100.00	1,100.00	2.33	2.33	-90.19	-0.10	-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	-90.19	-0.10	-30.10	30.10	24.99	5.11	5.886		
1,300.00	1,300.00	1,300.00	1,300.00	2.78	2.78	-90.19	-0.10	-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	-90.19	-0.10	-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	-90.19	-0.10	-30.10	30.10	23.64	6.46	4.658 CC		
1,600.00	1,599.99	1,600.72	1,600.70	3.44	3.44	162.84	-0.67	-28.90	30.16	23.29	6.87	4.389 ES		
1,700.00	1,699.91	1,701.13	1,701.05	3.63	3.63	161.96	-2.26	-25.52	30.56	23.31	7.25	4.216 SF		
1,762.51	1,762.30	1,763.63	1,763.49	3.76	3.75	161.96	-3.37	-23.16	31.83	24.34	7.49	4.248		
1,800.00	1,799.70	1,801.10	1,800.93	3.83	3.82	162.12	-4.04	-21.74	32.88	25.24	7.64	4.305		
1,900.00	1,899.47	1,901.06	1,900.81	4.04	4.02	162.52	-5.82	-17.97	35.68	27.65	8.03	4.442		
2,000.00	1,999.23	2,001.02	2,000.68	4.25	4.23	162.85	-7.60	-14.19	38.49	30.05	8.43	4.563		
2,100.00	2,099.00	2,100.98	2,100.55	4.47	4.43	163.14	-9.38	-10.41	41.29	32.45	8.84	4.670		
2,200.00	2,198.76	2,200.95	2,200.43	4.69	4.64	163.40	-11.16	-6.64	44.10	34.84	9.26	4.765		
2,300.00	2,298.52	2,300.91	2,300.30	4.92	4.86	163.62	-12.94	-2.86	46.91	37.24	9.67	4.850		
2,400.00	2,398.29	2,400.87	2,400.17	5.15	5.07	163.82	-14.72	0.91	49.72	39.62	10.09	4.925		
2,500.00	2,498.05	2,500.83	2,500.05	5.38	5.29	164.00	-16.50	4.69	52.53	42.01	10.52	4.994		
2,600.00	2,597.82	2,600.79	2,599.92	5.61	5.50	164.16	-18.28	8.46	55.33	44.39	10.95	5.055		
2,700.00	2,697.58	2,700.75	2,699.79	5.85	5.72	164.30	-20.06	12.24	58.14	46.77	11.38	5.111		
2,800.00	2,797.34	2,800.71	2,799.67	6.09	5.95	164.43	-21.84	16.01	60.95	49.15	11.81	5.162		
2,900.00	2,897.11	2,900.67	2,899.54	6.32	6.17	164.55	-23.62	19.79	63.76	51.52	12.24	5.208		
3,000.00	2,996.87	3,000.63	2,999.41	6.56	6.39	164.66	-25.40	23.56	66.58	53.90	12.68	5.251		
3,100.00	3,096.64	3,100.59	3,099.29	6.81	6.62	164.76	-27.18	27.34	69.39	56.27	13.12	5.290		
3,200.00	3,196.40	3,200.55	3,199.16	7.05	6.84	164.85	-28.96	31.11	72.20	58.64	13.56	5.326		
3,300.00	3,296.16	3,300.51	3,299.03	7.29	7.07	164.94	-30.74	34.89	75.01	61.01	14.00	5.359		
3,400.00	3,395.93	3,400.47	3,398.91	7.54	7.30	165.02	-32.52	38.66	77.82	63.38	14.44	5.389		
3,500.00	3,495.69	3,500.43	3,498.78	7.78	7.52	165.09	-34.30	42.44	80.63	65.75	14.88	5.417		
3,600.00	3,595.46	3,600.39	3,598.65	8.03	7.75	165.16	-36.08	46.21	83.44	68.11	15.33	5.444		
3,700.00	3,695.22	3,700.35	3,698.53	8.27	7.98	165.22	-37.86	49.99	86.25	70.48	15.77	5.468		
3,800.00	3,794.98	3,800.31	3,798.40	8.52	8.21	165.28	-39.64	53.76	89.07	72.85	16.22	5.491		
3,900.00	3,894.75	3,900.27	3,898.27	8.77	8.44	165.34	-41.42	57.54	91.88	75.21	16.67	5.513		
4,000.00	3,994.51	4,000.23	3,998.14	9.02	8.67	165.39	-43.20	61.31	94.69	77.58	17.11	5.533		
4,100.00	4,094.28	4,100.19	4,098.02	9.27	8.90	165.44	-44.98	65.09	97.50	79.94	17.56	5.552		
4,200.00	4,194.04	4,200.15	4,197.89	9.52	9.13	165.49	-46.76	68.86	100.31	82.30	18.01	5.569		
4,300.00	4,293.80	4,300.11	4,297.76	9.77	9.36	165.54	-48.54	72.64	103.13	84.66	18.46	5.586		
4,400.00	4,393.57	4,400.07	4,397.64	10.02	9.59	165.58	-50.32	76.42	105.94	87.03	18.91	5.602		
4,500.00	4,493.33	4,500.03	4,497.51	10.27	9.83	165.62	-52.10	80.19	108.75	89.39	19.36	5.616		
4,600.00	4,593.10	4,600.00	4,597.38	10.52	10.06	165.66	-53.89	83.97	111.56	91.75	19.81	5.631		
4,700.00	4,692.86	4,699.96	4,697.26	10.77	10.29	165.69	-55.67	87.74	114.38	94.11	20.27	5.644		
4,800.00	4,792.62	4,799.92	4,797.13	11.02	10.52	165.73	-57.45	91.52	117.19	96.47	20.72	5.656		
4,900.00	4,892.39	4,899.88	4,897.00	11.27	10.76	165.76	-59.23	95.29	120.00	98.83	21.17	5.668		
5,000.00	4,992.15	4,999.84	4,996.88	11.52	10.99	165.79	-61.01	99.07	122.81	101.19	21.62	5.680		
5,100.00	5,091.91	5,099.80	5,096.75	11.78	11.22	165.82	-62.79	102.84	125.63	103.55	22.08	5.691		
5,200.00	5,191.68	5,199.76	5,196.62	12.03	11.46	165.85	-64.57	106.62	128.44	105.91	22.53	5.701		
5,300.00	5,291.44	5,299.72	5,296.50	12.28	11.69	165.88	-66.35	110.39	131.25	108.27	22.98	5.711		
5,400.00	5,391.21	5,399.68	5,396.37	12.54	11.92	165.90	-68.13	114.17	134.06	110.63	23.44	5.720		
5,500.00	5,490.97	5,499.64	5,496.24	12.79	12.16	165.93	-69.91	117.94	136.88	112.98	23.89	5.729		
5,600.00	5,590.73	5,599.60	5,596.12	13.04	12.39	165.95	-71.69	121.72	139.69	115.34	24.35	5.738		
5,700.00	5,690.50	5,699.56	5,696.99	13.29	12.63	165.98	-73.47	125.49	142.50	117.70	24.80	5.746		

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 207H - Slot 207H
Project:	Eddy County, NM (NAD83-NME)	TVD Reference:	3508+25 @ 3533.00usft (KB=25)
Reference Site:	A01 Todd DSU	MD Reference:	3508+25 @ 3533.00usft (KB=25)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Todd 2-24S-31E State 207H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	207H	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
A01 Todd DSU - Todd 2-24S-31E State 405H - 405H - Plan #1-Rev0															
Reference		Offset		Semi Major Axis		Highside		Offset Wellbore Centre		Distance		Minimum		Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Tooface (")		+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Separation (usft)	Factor		
5,800.00	5,790.26	5,799.52	5,795.86	13.55	12.86	166.00		-75.25	129.27	145.31	120.06	25.26	5.754		
5,900.00	5,890.03	5,899.48	5,895.74	13.80	13.10	166.02		-77.03	133.04	148.13	122.42	25.71	5.761		
6,000.00	5,989.79	5,999.44	5,995.61	14.06	13.33	166.04		-78.81	136.82	150.94	124.77	26.17	5.768		
6,100.00	6,089.55	6,099.40	6,095.48	14.31	13.56	166.06		-80.59	140.59	153.75	127.13	26.62	5.775		
6,200.00	6,189.32	6,199.36	6,195.36	14.56	13.80	166.08		-82.37	144.37	156.57	129.49	27.08	5.782		
6,300.00	6,289.08	6,299.32	6,295.23	14.82	14.03	166.10		-84.15	148.14	159.38	131.84	27.53	5.788		
6,400.00	6,388.85	6,399.28	6,395.10	15.07	14.27	166.12		-85.93	151.92	162.19	134.20	27.99	5.794		
6,500.00	6,488.61	6,499.24	6,494.98	15.33	14.50	166.13		-87.71	155.70	165.00	136.56	28.45	5.800		
6,600.00	6,588.37	6,599.20	6,594.85	15.58	14.74	166.15		-89.49	159.47	167.82	138.91	28.90	5.806		
6,700.00	6,688.14	6,699.16	6,694.72	15.84	14.97	166.17		-91.27	163.25	170.63	141.27	29.36	5.812		
6,800.00	6,787.90	6,799.12	6,794.60	16.09	15.21	166.18		-93.05	167.02	173.44	143.63	29.82	5.817		
6,900.00	6,887.67	6,899.08	6,894.47	16.35	15.45	166.20		-94.83	170.80	176.26	145.98	30.27	5.822		
7,000.00	6,987.43	6,999.05	6,994.34	16.60	15.68	166.21		-96.61	174.57	179.07	148.34	30.73	5.827		
7,100.00	7,087.19	7,099.01	7,094.22	16.85	15.92	166.23		-98.39	178.35	181.88	150.69	31.19	5.832		
7,200.00	7,186.96	7,198.97	7,194.09	17.11	16.15	166.24		-100.17	182.12	184.69	153.05	31.65	5.836		
7,300.00	7,286.72	7,298.93	7,293.96	17.36	16.39	166.25		-101.95	185.90	187.51	155.41	32.10	5.841		
7,400.00	7,386.49	7,398.89	7,393.84	17.62	16.62	166.27		-103.73	189.67	190.32	157.76	32.56	5.845		
7,500.00	7,486.25	7,498.85	7,493.71	17.88	16.86	166.28		-105.51	193.45	193.13	160.12	33.02	5.849		
7,600.00	7,586.01	7,598.81	7,593.58	18.13	17.10	166.29		-107.29	197.22	195.95	162.47	33.48	5.854		
7,700.00	7,685.78	7,698.77	7,693.45	18.39	17.33	166.30		-109.07	201.00	198.76	164.83	33.93	5.857		
7,800.00	7,785.54	7,798.73	7,793.33	18.64	17.57	166.31		-110.85	204.77	201.57	167.18	34.39	5.861		
7,900.00	7,885.31	7,898.69	7,893.20	18.90	17.80	166.33		-112.63	208.55	204.39	169.54	34.85	5.865		
8,000.00	7,985.07	7,998.65	7,993.07	19.15	18.04	166.34		-114.41	212.32	207.20	171.89	35.31	5.869		
8,100.00	8,084.83	8,098.61	8,092.95	19.41	18.28	166.35		-116.19	216.10	210.01	174.25	35.76	5.872		
8,200.00	8,184.60	8,198.57	8,192.82	19.66	18.51	166.36		-117.97	219.87	212.83	176.60	36.22	5.875		
8,300.00	8,284.36	8,298.53	8,292.69	19.92	18.75	166.37		-119.75	223.65	215.64	178.96	36.68	5.879		
8,400.00	8,384.12	8,398.49	8,392.57	20.17	18.98	166.38		-121.53	227.42	218.45	181.31	37.14	5.882		
8,500.00	8,483.89	8,498.45	8,492.44	20.43	19.22	166.39		-123.31	231.20	221.26	183.67	37.60	5.885		
8,600.00	8,583.65	8,598.41	8,592.31	20.69	19.46	166.40		-125.09	234.97	224.08	186.02	38.06	5.888		
8,700.00	8,683.42	8,698.37	8,692.19	20.94	19.69	166.41		-126.87	238.75	226.89	188.38	38.51	5.891		
8,800.00	8,783.18	8,798.33	8,792.06	21.20	19.93	166.41		-128.65	242.53	229.70	190.73	38.97	5.894		
8,900.00	8,882.94	8,898.29	8,891.93	21.45	20.17	166.42		-130.43	246.30	232.52	193.09	39.43	5.897		
9,000.00	8,982.71	8,998.25	8,991.81	21.71	20.40	166.43		-132.21	250.08	235.33	195.44	39.89	5.899		
9,100.00	9,082.47	9,098.21	9,091.68	21.97	20.64	166.44		-133.99	253.85	238.14	197.79	40.35	5.902		
9,200.00	9,182.24	9,198.17	9,191.55	22.22	20.87	166.45		-135.77	257.63	240.96	200.15	40.81	5.905		
9,300.00	9,282.00	9,298.14	9,291.43	22.48	21.11	166.46		-137.55	261.40	243.77	202.50	41.27	5.907		
9,400.00	9,381.76	9,398.10	9,391.30	22.73	21.35	166.46		-139.33	265.18	246.58	204.86	41.73	5.910		
9,456.06	9,437.70	9,454.14	9,447.29	22.88	21.48	166.47		-140.33	267.29	248.16	206.18	41.98	5.911		
9,500.00	9,481.54	9,498.06	9,491.18	22.98	21.58	166.46		-141.11	268.95	249.15	206.98	42.17	5.908		
9,600.00	9,581.44	9,598.06	9,591.09	23.16	21.82	166.34		-142.89	272.73	249.57	206.99	42.58	5.861		
9,700.00	9,681.43	9,698.02	9,690.97	23.33	22.06	166.06		-144.67	276.50	247.46	204.46	42.99	5.756		
9,718.58	9,700.00	9,716.59	9,709.51	23.36	22.10	-87.39		-145.00	277.21	246.78	203.71	43.07	5.729		
9,800.00	9,781.43	9,797.94	9,790.80	23.51	22.29	-87.70		-146.45	280.28	243.65	200.22	43.43	5.611		
9,900.00	9,881.43	9,897.85	9,890.62	23.69	22.53	-88.09		-148.23	284.05	239.81	195.95	43.86	5.468		
10,000.00	9,981.43	9,997.76	9,990.45	23.87	22.77	-88.49		-150.01	287.82	235.98	191.68	44.30	5.327		
10,019.75	10,001.17	10,017.49	10,010.16	23.91	22.81	-88.57		-150.36	288.57	235.23	190.84	44.38	5.300		
10,025.00	10,006.43	10,022.74	10,015.40	23.92	22.83	-88.33		-150.45	288.77	235.02	190.62	44.40	5.293		
10,050.00	10,031.40	10,047.68	10,040.32	23.96	22.89	-88.78		-150.90	289.71	234.05	189.53	44.52	5.257		
10,075.00	10,056.30	10,072.52	10,065.14	24.00	22.94	-89.55		-151.34	290.65	233.06	188.42	44.64	5.221		
10,100.00	10,081.05	10,097.18	10,089.77	24.04	23.00	-90.63		-151.78	291.58	232.11	187.34	44.77	5.184		
10,125.00	10,105.57	10,121.60	10,114.17	24.08	23.06	-92.01		-152.22	292.50	231.27	186.36	44.91	5.149		
10,150.00	10,129.82	10,145.71	10,138.26	24.12	23.12	-93.66		-152.64	293.41	230.63	185.57	45.06	5.118		

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 207H - Slot 207H
Project:	Eddy County, NM (NAD83-NME)	TVD Reference:	3508+25 @ 3533.00usft (KB=25)
Reference Site:	A01 Todd DSU	MD Reference:	3508+25 @ 3533.00usft (KB=25)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Todd 2-24S-31E State 207H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	207H	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 405H - 405H - Plan #1-Rev0														Offset Well Error:	0.00 usft
Survey Program: 0-MWD															
Reference		Offset		Semi Major Axis		Highside Toolface (°)	Offset Wellbore Centre		Distance				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)	Minimum Separation (usft)	Separation Factor			
10,175.00	10,153.70	10,169.44	10,161.97	24.15	23.17	-95.55	-153.07	294.31	230.30	185.08	45.22	5.093			
10,182.28	10,160.58	10,176.27	10,168.80	24.16	23.19	-96.13	-153.19	294.57	230.28	185.02	45.27	5.087			
10,200.00	10,177.17	10,192.74	10,185.25	24.18	23.23	-97.63	-153.48	295.19	230.41	185.02	45.39	5.076			
10,225.00	10,200.16	10,215.53	10,208.02	24.21	23.28	-99.87	-153.89	296.05	231.10	185.53	45.57	5.072			
10,250.00	10,222.60	10,237.75	10,230.23	24.23	23.34	-102.21	-154.28	296.89	232.52	186.77	45.75	5.082			
10,275.00	10,244.44	10,259.35	10,251.80	24.25	23.39	-104.58	-154.67	297.70	234.82	188.88	45.95	5.111			
10,300.00	10,265.61	10,280.26	10,272.70	24.27	23.44	-106.94	-155.04	298.49	238.15	192.01	46.14	5.161			
10,325.00	10,286.05	10,300.43	10,292.85	24.29	23.48	-109.21	-155.40	299.26	242.65	196.30	46.34	5.236			
10,350.00	10,305.71	10,319.80	10,312.20	24.31	23.53	-111.35	-155.74	299.99	248.41	201.88	46.54	5.338			
10,375.00	10,324.54	10,338.31	10,330.70	24.33	23.57	-113.32	-156.07	300.69	255.54	208.82	46.72	5.469			
10,400.00	10,342.48	10,355.65	10,348.02	24.34	23.61	-115.01	-156.38	301.33	264.10	217.20	46.90	5.632			
10,425.00	10,359.49	10,371.78	10,364.14	24.36	23.65	-116.40	-156.64	301.88	274.12	227.07	47.05	5.826			
10,450.00	10,375.51	10,387.01	10,379.36	24.37	23.68	-117.49	-156.86	302.35	285.59	238.40	47.19	6.052			
10,475.00	10,390.51	10,400.00	10,392.34	24.39	23.70	-118.06	-157.02	302.70	298.47	251.16	47.31	6.309			
10,500.00	10,404.44	10,414.62	10,406.96	24.40	23.73	-118.72	-157.19	303.05	312.69	265.27	47.42	6.595			
10,525.00	10,417.27	10,426.92	10,419.25	24.42	23.76	-118.79	-157.31	303.30	328.16	280.66	47.50	6.908			
10,550.00	10,428.95	10,438.15	10,430.49	24.44	23.78	-118.46	-157.40	303.50	344.81	297.23	47.58	7.247			
10,575.00	10,439.47	10,448.29	10,440.62	24.46	23.80	-117.69	-157.47	303.65	362.52	314.88	47.64	7.610			
10,600.00	10,448.78	10,457.29	10,449.62	24.49	23.81	-116.42	-157.53	303.77	381.20	333.52	47.68	7.995			
10,625.00	10,456.86	10,465.13	10,457.46	24.53	23.83	-114.61	-157.57	303.86	400.74	353.03	47.72	8.398			
10,650.00	10,463.70	10,471.77	10,464.11	24.57	23.84	-112.18	-157.60	303.92	421.05	373.31	47.74	8.819			
10,675.00	10,469.27	10,477.20	10,469.53	24.62	23.85	-109.06	-157.62	303.96	442.02	394.26	47.76	9.255			
10,700.00	10,473.55	10,481.37	10,473.70	24.68	23.86	-105.18	-157.63	303.99	463.56	415.78	47.77	9.704			
10,725.00	10,476.54	10,484.28	10,476.61	24.75	23.86	-100.48	-157.64	304.01	485.55	437.78	47.77	10.163			
10,750.00	10,478.23	10,485.90	10,478.23	24.83	23.87	-94.93	-157.64	304.01	507.92	460.15	47.77	10.632			
10,772.99	10,478.62	10,486.24	10,478.57	24.92	23.87	-89.13	-157.64	304.02	528.75	480.98	47.76	11.070			
10,800.00	10,478.44	10,485.99	10,478.32	25.03	23.87	-89.07	-157.64	304.01	553.43	505.68	47.75	11.589			

Company:	Titus Oil & Gas Production, LLC	Local Co-ordinate Reference:	Well Todd 2-24S-31E State 207H - Slot 207H
Project:	Eddy County, NM (NAD83-NME)	TVD Reference:	3508+25 @ 3533.00usft (KB=25)
Reference Site:	A01 Todd DSU	MD Reference:	3508+25 @ 3533.00usft (KB=25)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Todd 2-24S-31E State 207H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	207H	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 - 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							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		
1,200.00	1,200.00	1,200.00	1,200.00	2.56	2.56	-90.10	-0.10	-60.00	60.00	54.89	5.11	11.734		
1,300.00	1,300.00	1,300.00	1,300.00	2.78	2.78	-90.10	-0.10	-60.00	60.00	54.44	5.56	10.786		
1,400.00	1,400.00	1,400.00	1,400.00	3.01	3.01	-90.10	-0.10	-60.00	60.00	53.99	6.01	9.979		
1,500.00	1,500.00	1,500.00	1,500.00	3.23	3.23	-90.10	-0.10	-60.00	60.00	53.54	6.46	9.285 CC, ES		
1,600.00	1,599.99	1,598.63	1,598.62	3.44	3.43	163.00	-0.78	-61.08	62.35	55.48	6.87	9.079 SF		
1,700.00	1,699.91	1,697.95	1,697.88	3.63	3.62	162.49	-2.51	-63.85	68.91	61.66	7.24	9.513		
1,762.51	1,762.30	1,760.22	1,760.12	3.76	3.74	162.49	-3.64	-65.67	74.35	66.86	7.48	9.934		
1,800.00	1,799.70	1,797.54	1,797.42	3.83	3.81	162.57	-4.32	-66.75	77.90	70.27	7.63	10.211		
1,900.00	1,899.47	1,897.09	1,896.91	4.04	4.00	162.75	-6.14	-69.65	87.38	79.36	8.02	10.896		
2,000.00	1,999.23	1,996.64	1,996.40	4.25	4.20	162.90	-7.95	-72.55	96.87	88.45	8.42	11.507		

Company:	Titus Oil & Gas Production, LLC	Local Co-ordinate Reference:	Well Todd 2-24S-31E State 207H - Slot 207H
Project:	Eddy County, NM (NAD83-NME)	TVD Reference:	3508+25 @ 3533.00usft (KB=25)
Reference Site:	A01 Todd DSU	MD Reference:	3508+25 @ 3533.00usft (KB=25)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Todd 2-24S-31E State 207H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	207H	Database:	EDM 5000.14 Single User Db
Reference Design:	Plan #1-Rev0	Offset TVD Reference:	Offset Datum

Reference Depths are relative to 3508+25 @ 3533.00usft (KB=25)

Offset Depths are relative to Offset Datum

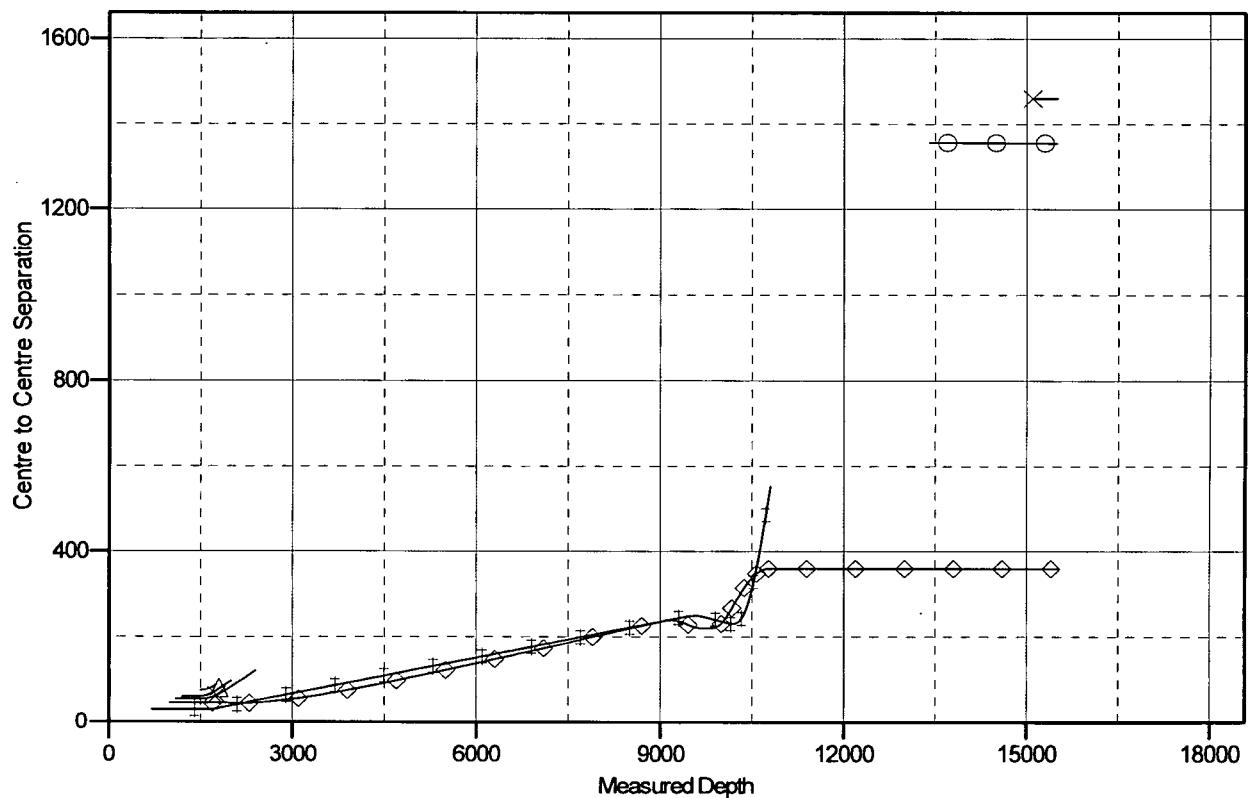
Central Meridian is -104.33333334

Coordinates are relative to: Todd 2-24S-31E State 207H - Slot 207H

Coordinate System is US State Plane 1983, New Mexico Eastern Zone

Grid Convergence at Surface is: 0.31°

Ladder Plot



LEGEND

Todd 2-24S-31E State 404H, 434 HP & n#1 Rev00
 Todd 2-24S-31E State 405H, 405 HP & n#1 Rev00
 Todd 2-24S-31E State 304H, 304 HP & n#1 Rev00

Todd 2-24S-31E State 202H, 202 HP & n#1 Rev00
 Todd 2-24S-31E State 203H, 203 HP & n#1 Rev00

Company:	Titus Oil & Gas Production, LLC	Local Co-ordinate Reference:	Well Todd 2-24S-31E State 207H - Slot 207H
Project:	Eddy County, NM (NAD83-NME)	TVD Reference:	3508+25 @ 3533.00usft (KB=25)
Reference Site:	A01 Todd DSU	MD Reference:	3508+25 @ 3533.00usft (KB=25)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Todd 2-24S-31E State 207H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	207H	Database:	EDM 5000.14 Single User Db
Reference Design:	Plan #1-Rev0	Offset TVD Reference:	Offset Datum

Reference Depths are relative to 3508+25 @ 3533.00usft (KB=25)

Offset Depths are relative to Offset Datum

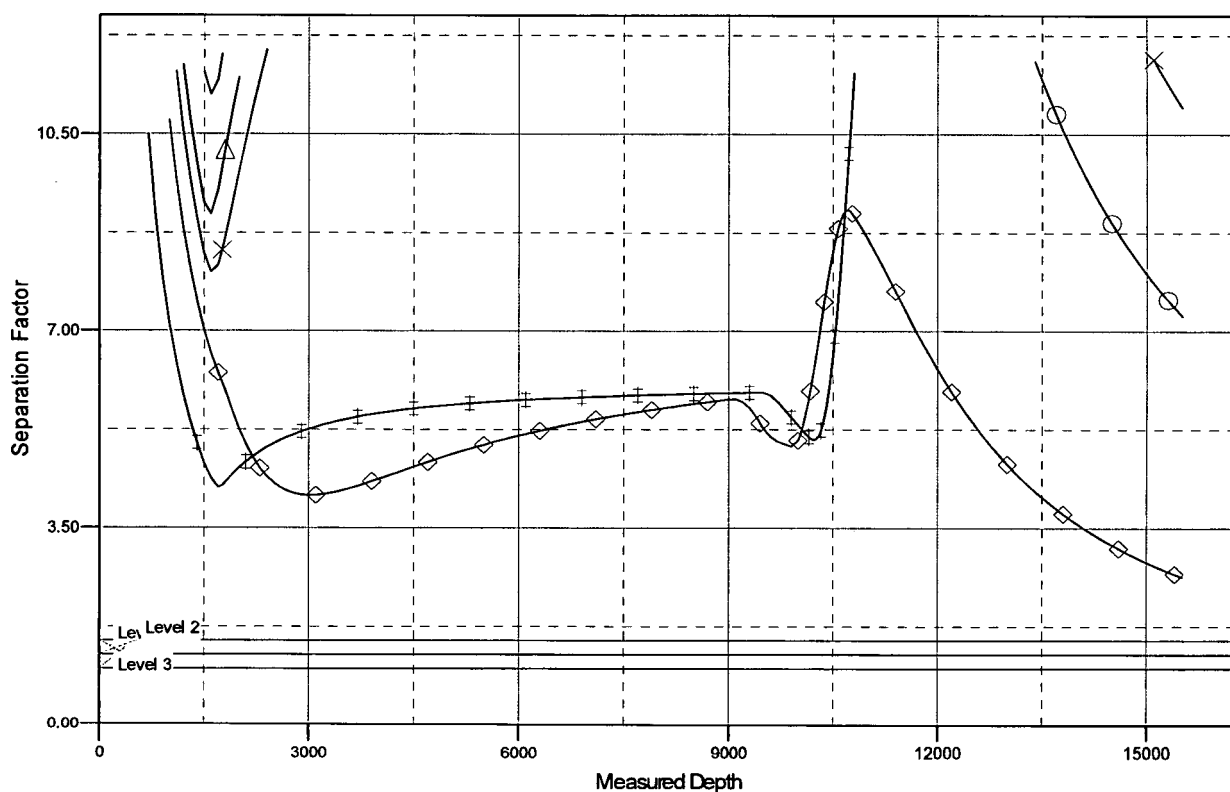
Central Meridian is -104.3333334

Coordinates are relative to: Todd 2-24S-31E State 207H - Slot 207H

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 4341, 4341 HP & nF1-Rev0V0
 Todd 2-24S-31E State 4051, 4051 HP & nF1-Rev0V0
 Todd 2-24S-31E State 3041, 3041 HP & nF1-Rev0V0
 Todd 2-24S-31E State 2031, 2031 HP & nF1-Rev0V0

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 207H
Wellbore: 207H
Plan: Plan #1-Rev0

WELL DETAILS: Todd 2-24S-31E State 207H

Northing	Easting	Latitude	Longitude	Slot
451439.50	722154.00	32.23972974	-103.74850948	207H

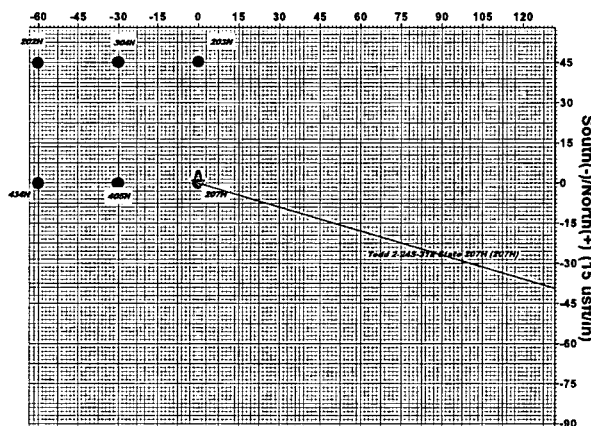
Section Details

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	1762.51	3.94	106.61	1762.30	-2.58	8.64	1.50	106.61	-1.72
4	9456.06	3.94	106.61	9437.70	-153.64	514.91	0.00	0.00	-102.62
5	9718.58	0.00	0.00	9700.00	-156.22	523.55	1.50	180.00	-104.34
6	10019.75	0.00	0.00	10001.17	-156.22	523.55	0.00	0.00	-104.34
7	10772.99	90.39	359.71	10478.62	324.49	521.10	12.00	359.71	373.83
8	15512.18	90.39	359.71	10446.39	5063.50	496.90	0.00	0.00	5087.82

DESIGN TARGET DETAILS

Name	+N/-S	+E/-W	Northing	Easting
A01N03-EON (207H)	-156.22	523.55	451283.28	722677.55
A01N03-PBHL (207H)	5063.50	496.90	458503.00	722650.90
A01N03-LTP (207H)	4973.50	497.50	458413.00	722651.50
A01N03-FTP (207H)	-106.20	523.30	451333.30	722677.30

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



Vertical Section at 5.60° (250 usft/in)

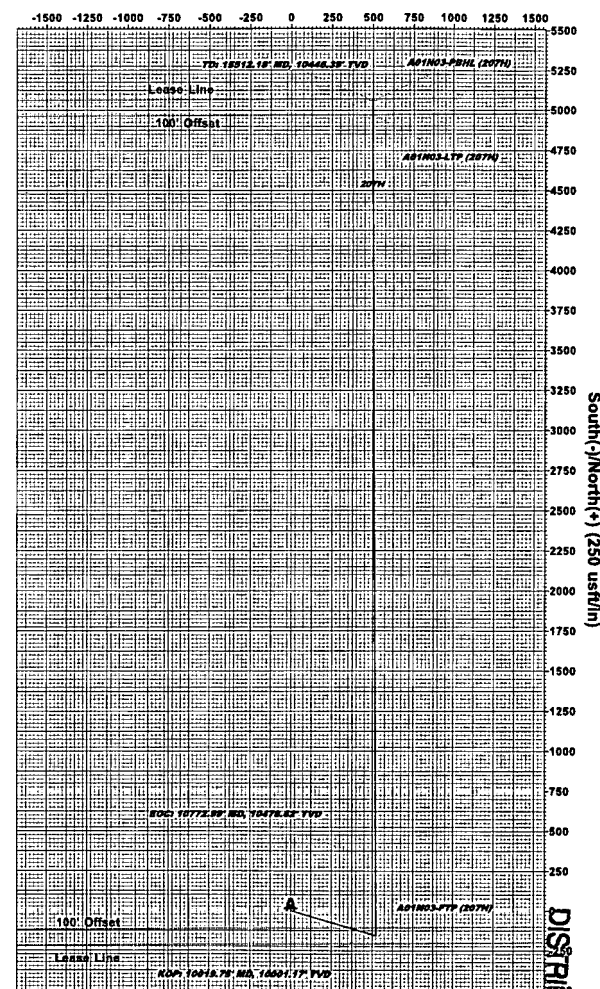


Azimuths to Grid North
True North: -0.31°
Magnetic North: 6.51°

Magnetic Field
Strength: 47727.8nT
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: 3508+25 @ 3533.00usft (KB=25)
Elevation: 3508.00

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



South(-)/North(+) (250 usft/in)

DISPERIT II-ARTESIA O.C.D.

JUN 03 2019

RECEIVED

TURNAZONTAL
WELL PLANNING

Plan: Plan #1-Rev0 (Todd 2-24S-31E State 207H/207H)
Created By: Adrian Castro Date: 13:27, May 31 2019