

Survey Report Landscape

Company: XTO Energy
Project: Lea County, NM (NAD27) NMEZ US
Site: Mis Amigos State
Well: MIS AMIGOS STATE 907H
Wellbore: 907H
Design: 907H (AsDrilled)

Local Co-ordinate Reference: Well MIS AMIGOS STATE 907H
TVD Reference: 3659+18 @ 3677.00usft (P595)
MD Reference: 3659+18 @ 3677.00usft (P595)
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Database: STRYKER_EDM

Project Lea County, NM (NAD27) NMEZ US

Map System: US State Plane 1927 (Exact solution)
Geo Datum: NAD 1927 (NADCON CONUS)
Map Zone: New Mexico East 3001

System Datum: Mean Sea Level

Site Mis Amigos State

Site Position:	Northing:	457,195.20 usft	Latitude:	32.25484056
From: Map	Easting:	725,498.90 usft	Longitude:	-103.60388889
Position Uncertainty:	0.00 usft	Slot Radius:	13.20 in	Grid Convergence: 0.39 °

Well MIS AMIGOS STATE 907H

Well Position	+N/-S	0.00 usft	Northing:	457,194.10 usft	Latitude:	32.25483810
	+E/-W	0.00 usft	Easting:	725,469.00 usft	Longitude:	-103.60398563
Position Uncertainty	0.00 usft	Wellhead Elevation:	usft	Ground Level:	3,659.00 usft	

Wellbore 907H

Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2015	01/07/19	6.80	60.07	47,791.04422083

Design 907H (AsDrilled)

Audit Notes:

Version:	1.0	Phase:	ACTUAL	Tie On Depth:	0.00
Vertical Section:	Depth From (TVD) (usft)	+N/-S (usft)	+E/-W (usft)	Direction (°)	
	0.00	0.00	0.00	353.69	

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Survey Program		Date	01/17/19		
From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description	
80.00	15,873.00	Survey #1 (907H)	MWD	OWSG MWD - Standard	
15,985.00	17,524.00	Survey #2 Stryker (907H)	MWD	OWSG MWD - Standard	
17,570.00	17,570.00	Survey #3 (907H)	Projection	Projection	

MD (usft)	Inc (°)	Azi (azimuth) (°)	TVD (usft)	N/S (usft)	E/W (usft)	Closure Distance (usft)	Closure Azimuth (°)	DLeg (°/100ft)	Northing (usft)	Easting (usft)
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	457,194.10	725,469.00
MAS 907H SHL										
80.00	0.50	68.90	80.00	0.13	0.33	0.35	68.90	0.62	457,194.23	725,469.33
198.00	0.60	284.10	198.00	0.46	0.21	0.51	24.13	0.89	457,194.56	725,469.21
288.00	0.50	286.70	287.99	0.69	-0.63	0.93	317.73	0.11	457,194.79	725,468.37
382.00	0.50	315.70	381.99	1.10	-1.31	1.71	310.13	0.27	457,195.20	725,467.69
473.00	0.30	343.20	472.99	1.61	-1.65	2.31	314.31	0.30	457,195.71	725,467.35
563.00	0.50	355.60	562.98	2.23	-1.75	2.83	321.87	0.24	457,196.33	725,467.25
652.00	0.50	318.90	651.98	2.91	-2.04	3.55	325.03	0.35	457,197.01	725,466.96
740.00	0.50	348.70	739.98	3.58	-2.36	4.29	326.54	0.29	457,197.68	725,466.64
833.00	0.60	47.30	832.97	4.30	-2.08	4.78	334.16	0.59	457,198.40	725,466.92
923.00	0.60	79.30	922.97	4.71	-1.28	4.88	344.85	0.37	457,198.81	725,467.72
1,013.00	0.10	304.70	1,012.97	4.84	-0.88	4.92	349.74	0.75	457,198.94	725,468.12
1,102.00	0.50	264.20	1,101.97	4.85	-1.33	5.03	344.69	0.48	457,198.95	725,467.67
1,150.00	0.30	247.90	1,149.97	4.78	-1.65	5.06	340.94	0.48	457,198.88	725,467.35
1,258.00	0.20	236.80	1,257.97	4.57	-2.07	5.02	335.62	0.10	457,198.67	725,466.93
1,348.00	0.20	250.10	1,347.96	4.43	-2.35	5.02	332.05	0.05	457,198.53	725,466.65
1,437.00	0.40	317.50	1,436.96	4.61	-2.71	5.34	329.57	0.42	457,198.71	725,466.29
1,527.00	0.40	314.60	1,526.96	5.06	-3.14	5.96	328.15	0.02	457,199.16	725,465.86
1,617.00	0.40	291.90	1,616.96	5.40	-3.66	6.52	325.87	0.17	457,199.50	725,465.34
1,706.00	0.40	293.40	1,705.96	5.64	-4.23	7.05	323.10	0.01	457,199.74	725,464.77

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1,796.00	0.50	293.40	1,795.95	5.92	-4.88	7.67	320.49	0.11	457,200.02	725,464.12
1,885.00	0.40	293.90	1,884.95	6.20	-5.52	8.30	318.31	0.11	457,200.30	725,463.48
1,975.00	0.35	289.20	1,974.95	6.41	-6.07	8.83	316.60	0.07	457,200.51	725,462.93
2,065.00	0.35	284.30	2,064.95	6.57	-6.59	9.31	314.91	0.03	457,200.67	725,462.41
2,148.00	0.48	280.00	2,147.95	6.70	-7.18	9.82	313.00	0.16	457,200.80	725,461.82
2,244.00	0.48	295.40	2,243.94	6.94	-7.94	10.54	311.15	0.13	457,201.04	725,461.06
2,333.00	0.57	306.80	2,332.94	7.36	-8.63	11.35	310.47	0.15	457,201.46	725,460.37
2,423.00	0.70	298.90	2,422.93	7.90	-9.47	12.33	309.82	0.17	457,202.00	725,459.53
2,512.00	0.62	288.80	2,511.93	8.31	-10.40	13.32	308.63	0.16	457,202.41	725,458.60
2,602.00	0.70	292.20	2,601.92	8.68	-11.37	14.31	307.35	0.10	457,202.78	725,457.63
2,692.00	0.66	305.20	2,691.91	9.19	-12.31	15.36	306.74	0.18	457,203.29	725,456.69
2,781.00	0.79	306.00	2,780.91	9.84	-13.22	16.48	306.67	0.15	457,203.94	725,455.78
2,871.00	0.79	317.80	2,870.90	10.67	-14.14	17.71	307.03	0.18	457,204.77	725,454.86
2,960.00	0.79	324.90	2,959.89	11.62	-14.90	18.90	307.95	0.11	457,205.72	725,454.10
3,050.00	0.92	317.30	3,049.88	12.66	-15.75	20.21	308.79	0.19	457,206.76	725,453.25
3,140.00	0.88	315.70	3,139.87	13.69	-16.72	21.61	309.30	0.05	457,207.79	725,452.28
3,229.00	0.92	323.60	3,228.86	14.75	-17.63	22.98	309.93	0.15	457,208.85	725,451.37
3,319.00	1.01	322.50	3,318.85	15.96	-18.54	24.46	310.73	0.10	457,210.06	725,450.46
3,408.00	1.10	328.50	3,407.83	17.31	-19.46	26.05	311.66	0.16	457,211.41	725,449.54
3,498.00	1.10	328.00	3,497.81	18.78	-20.37	27.71	312.68	0.01	457,212.88	725,448.63
3,587.00	1.10	336.30	3,586.80	20.29	-21.17	29.32	313.79	0.18	457,214.39	725,447.83
3,677.00	0.60	273.20	3,676.79	21.11	-21.98	30.48	313.83	1.10	457,215.21	725,447.02
3,767.00	0.70	234.40	3,766.78	20.81	-22.90	30.95	312.26	0.49	457,214.91	725,446.10
3,856.00	1.00	235.10	3,855.77	20.05	-23.98	31.26	309.90	0.34	457,214.15	725,445.02
3,946.00	1.10	233.60	3,945.76	19.09	-25.32	31.71	307.01	0.12	457,213.19	725,443.68
4,036.00	1.10	231.90	4,035.74	18.04	-26.69	32.22	304.06	0.04	457,212.14	725,442.31
4,125.00	1.14	232.90	4,124.73	16.98	-28.07	32.81	301.17	0.05	457,211.08	725,440.93

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4,215.00	1.23	239.50	4,214.71	15.95	-29.62	33.64	298.31	0.18	457,210.05	725,439.38
4,305.00	1.05	217.80	4,304.69	14.81	-30.96	34.32	295.57	0.52	457,208.91	725,438.04
4,394.00	1.20	193.40	4,393.67	13.26	-31.67	34.34	292.72	0.56	457,207.36	725,437.33
4,484.00	1.20	187.80	4,483.65	11.41	-32.02	33.99	289.61	0.13	457,205.51	725,436.98
4,574.00	1.50	182.20	4,573.63	9.30	-32.19	33.51	286.11	0.36	457,203.40	725,436.81
4,663.00	1.70	171.30	4,662.59	6.83	-32.04	32.76	282.03	0.41	457,200.93	725,436.96
4,753.00	2.10	165.60	4,752.54	3.91	-31.43	31.67	277.10	0.49	457,198.01	725,437.57
4,842.00	2.20	158.30	4,841.48	0.75	-30.39	30.40	271.41	0.33	457,194.85	725,438.61
4,932.00	1.70	184.00	4,931.43	-2.19	-29.84	29.92	265.80	1.11	457,191.91	725,439.16
5,023.00	1.70	192.90	5,022.39	-4.85	-30.24	30.63	260.88	0.29	457,189.25	725,438.76
5,151.00	1.43	191.50	5,150.34	-8.27	-30.98	32.06	255.06	0.21	457,185.83	725,438.02
5,242.00	1.49	186.75	5,241.31	-10.56	-31.35	33.08	251.39	0.15	457,183.54	725,437.65
5,331.00	1.44	187.40	5,330.28	-12.81	-31.63	34.12	247.94	0.06	457,181.29	725,437.37
5,421.00	1.40	185.72	5,420.26	-15.03	-31.88	35.25	244.76	0.06	457,179.07	725,437.12
5,510.00	1.14	198.38	5,509.23	-16.95	-32.27	36.45	242.29	0.43	457,177.15	725,436.73
5,600.00	0.89	224.65	5,599.22	-18.30	-33.04	37.77	241.02	0.58	457,175.80	725,435.96
5,690.00	0.93	232.19	5,689.21	-19.24	-34.11	39.16	240.57	0.14	457,174.86	725,434.89
5,779.00	0.91	231.44	5,778.20	-20.13	-35.23	40.58	240.26	0.03	457,173.97	725,433.77
5,869.00	0.82	246.19	5,868.19	-20.83	-36.38	41.92	240.20	0.27	457,173.27	725,432.62
5,959.00	0.80	248.76	5,958.18	-21.32	-37.56	43.19	240.42	0.05	457,172.78	725,431.44
6,048.00	0.77	242.42	6,047.17	-21.82	-38.67	44.40	240.56	0.10	457,172.28	725,430.33
6,138.00	0.82	247.17	6,137.16	-22.35	-39.80	45.64	240.68	0.09	457,171.75	725,429.20
6,227.00	0.80	240.69	6,226.15	-22.90	-40.92	46.90	240.77	0.11	457,171.20	725,428.08
6,317.00	1.06	231.00	6,316.14	-23.73	-42.12	48.35	240.60	0.34	457,170.37	725,426.88
6,407.00	1.54	217.60	6,406.12	-25.22	-43.50	50.28	239.90	0.63	457,168.88	725,425.50
6,496.00	1.97	210.95	6,495.08	-27.48	-45.02	52.74	238.60	0.53	457,166.62	725,423.98
6,586.00	3.36	213.59	6,584.98	-31.00	-47.28	56.53	236.75	1.55	457,163.10	725,421.72

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6,676.00	3.83	214.11	6,674.80	-35.69	-50.42	61.77	234.71	0.52	457,158.41	725,418.58
6,765.00	3.48	217.09	6,763.62	-40.30	-53.72	67.15	233.12	0.45	457,153.80	725,415.28
6,855.00	3.79	216.23	6,853.44	-44.88	-57.12	72.64	231.84	0.35	457,149.22	725,411.88
6,945.00	4.34	213.83	6,943.21	-50.11	-60.77	78.77	230.49	0.64	457,143.99	725,408.23
7,035.00	4.39	213.49	7,032.95	-55.81	-64.57	85.35	229.16	0.06	457,138.29	725,404.43
7,124.00	4.48	214.15	7,121.68	-61.53	-68.40	92.00	228.03	0.12	457,132.57	725,400.60
7,215.00	4.68	215.74	7,212.39	-67.48	-72.57	99.09	227.08	0.26	457,126.62	725,396.43
7,304.00	4.76	215.49	7,301.09	-73.44	-76.83	106.28	226.29	0.09	457,120.66	725,392.17
7,393.00	4.89	218.90	7,389.77	-79.39	-81.36	113.68	225.70	0.35	457,114.71	725,387.64
7,483.00	4.73	219.08	7,479.46	-85.26	-86.10	121.17	225.28	0.18	457,108.84	725,382.90
7,573.00	4.23	222.52	7,569.18	-90.59	-90.69	128.18	225.03	0.63	457,103.51	725,378.31
7,662.00	3.84	220.99	7,657.96	-95.26	-94.86	134.43	224.88	0.45	457,098.84	725,374.14
7,752.00	3.64	223.65	7,747.77	-99.60	-98.81	140.30	224.77	0.29	457,094.50	725,370.19
7,842.00	3.57	223.15	7,837.59	-103.71	-102.70	145.95	224.72	0.09	457,090.39	725,366.30
7,931.00	3.50	224.80	7,926.42	-107.66	-106.51	151.44	224.69	0.14	457,086.44	725,362.49
8,021.00	3.23	223.77	8,016.27	-111.44	-110.20	156.72	224.68	0.31	457,082.66	725,358.80
8,110.00	3.64	225.43	8,105.11	-115.23	-113.94	162.05	224.68	0.47	457,078.87	725,355.06
8,200.00	4.00	224.58	8,194.91	-119.47	-118.18	168.05	224.69	0.40	457,074.63	725,350.82
8,290.00	4.01	223.76	8,284.69	-123.98	-122.56	174.34	224.67	0.06	457,070.12	725,346.44
8,379.00	3.98	224.95	8,373.47	-128.41	-126.90	180.54	224.66	0.10	457,065.69	725,342.10
8,469.00	3.85	221.66	8,463.26	-132.88	-131.11	186.68	224.62	0.29	457,061.22	725,337.89
8,558.00	3.92	223.05	8,552.06	-137.34	-135.17	192.70	224.55	0.13	457,056.76	725,333.83
8,648.00	3.78	221.71	8,641.85	-141.80	-139.25	198.74	224.48	0.18	457,052.30	725,329.75
8,738.00	3.60	222.29	8,731.67	-146.11	-143.12	204.53	224.41	0.20	457,047.99	725,325.88
8,827.00	3.18	223.47	8,820.51	-149.96	-146.70	209.79	224.37	0.48	457,044.14	725,322.30
8,917.00	3.37	223.32	8,910.36	-153.70	-150.23	214.93	224.35	0.21	457,040.40	725,318.77
9,007.00	3.52	222.45	9,000.20	-157.66	-153.91	220.33	224.31	0.18	457,036.44	725,315.09

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9,096.00	3.54	221.71	9,089.03	-161.73	-157.59	225.81	224.26	0.06	457,032.37	725,311.41
9,186.00	3.61	218.33	9,178.86	-166.03	-161.19	231.40	224.15	0.25	457,028.07	725,307.81
9,276.00	3.35	216.23	9,268.69	-170.37	-164.50	236.83	224.00	0.32	457,023.73	725,304.50
9,365.00	3.15	217.73	9,357.55	-174.40	-167.54	241.84	223.85	0.24	457,019.70	725,301.46
9,455.00	3.65	214.25	9,447.39	-178.73	-170.66	247.12	223.68	0.60	457,015.37	725,298.34
9,544.00	5.00	216.33	9,536.13	-184.19	-174.55	253.76	223.46	1.53	457,009.91	725,294.45
9,634.00	4.92	213.57	9,625.80	-190.57	-179.01	261.46	223.21	0.28	457,003.53	725,289.99
9,724.00	4.70	206.83	9,715.48	-197.07	-182.81	268.81	222.85	0.67	456,997.03	725,286.19
9,813.00	5.64	204.40	9,804.12	-204.31	-186.26	276.47	222.35	1.08	456,989.79	725,282.74
9,903.00	5.04	200.19	9,893.73	-212.05	-189.45	284.35	221.78	0.80	456,982.05	725,279.55
9,993.00	4.01	192.41	9,983.45	-218.83	-191.49	290.79	221.19	1.33	456,975.27	725,277.51
10,082.00	3.24	197.32	10,072.27	-224.27	-192.91	295.83	220.70	0.93	456,969.83	725,276.09
10,172.00	3.31	212.28	10,162.12	-228.90	-195.06	300.74	220.44	0.95	456,965.20	725,273.94
10,262.00	4.01	216.25	10,251.94	-233.63	-198.31	306.45	220.32	0.83	456,960.47	725,270.69
10,352.00	3.68	214.41	10,341.74	-238.55	-201.80	312.46	220.23	0.39	456,955.55	725,267.20
10,441.00	3.45	212.64	10,430.56	-243.16	-204.86	317.96	220.11	0.29	456,950.94	725,264.14
10,531.00	4.30	219.30	10,520.36	-248.06	-208.45	324.01	220.04	1.07	456,946.04	725,260.55
10,621.00	3.67	224.15	10,610.14	-252.73	-212.60	330.26	220.07	0.79	456,941.37	725,256.40
10,710.00	3.42	201.41	10,698.97	-257.25	-215.55	335.62	219.96	1.59	456,936.85	725,253.45
10,800.00	3.80	182.39	10,788.80	-262.73	-216.66	340.54	219.51	1.39	456,931.37	725,252.34
10,889.00	5.20	188.14	10,877.52	-269.67	-217.35	346.36	218.87	1.65	456,924.43	725,251.65
10,979.00	5.87	192.18	10,967.10	-278.20	-218.90	354.00	218.20	0.86	456,915.90	725,250.10
11,068.00	5.53	206.09	11,055.67	-286.50	-221.74	362.29	217.74	1.59	456,907.60	725,247.26
11,158.00	6.25	220.79	11,145.20	-294.11	-226.85	371.43	217.64	1.85	456,899.99	725,242.15
11,248.00	5.08	234.53	11,234.76	-300.13	-233.30	380.14	217.86	1.98	456,893.97	725,235.70
11,337.00	3.57	253.43	11,323.51	-303.21	-239.16	386.18	218.27	2.31	456,890.89	725,229.84
11,427.00	3.30	267.35	11,413.35	-304.13	-244.44	390.18	218.79	0.97	456,889.97	725,224.56

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 Design: 907H (AsDrilled)

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 North Reference: Grid
 Survey Calculation Method: Minimum Curvature
 Database: STRYKER_EDM

Survey

MD (usft)	Inc (°)	Azi (azimuth) (°)	TVD (usft)	N/S (usft)	E/W (usft)	Closure Distance (usft)	Closure Azimuth (°)	DLeg (°/100ft)	Northing (usft)	Easting (usft)
11,517.00	3.16	267.39	11,503.20	-304.36	-249.50	393.56	219.34	0.16	456,889.74	725,219.50
11,606.00	3.42	254.28	11,592.06	-305.19	-254.51	397.39	219.83	0.89	456,888.91	725,214.49
11,702.00	2.92	250.00	11,687.91	-306.80	-259.56	401.87	220.23	0.58	456,887.30	725,209.44
11,809.00	2.10	241.56	11,794.81	-308.67	-263.85	406.07	220.52	0.84	456,885.43	725,205.15
11,903.00	3.22	280.35	11,888.71	-309.01	-267.96	409.01	220.93	2.19	456,885.09	725,201.04
11,948.00	4.20	281.32	11,933.62	-308.46	-270.82	410.48	221.28	2.18	456,885.64	725,198.18
11,997.00	4.63	303.65	11,982.48	-307.02	-274.23	411.65	221.77	3.59	456,887.08	725,194.77
12,016.00	5.23	306.56	12,001.41	-306.07	-275.56	411.84	222.00	3.42	456,888.03	725,193.44
12,062.00	8.29	313.93	12,047.08	-302.52	-279.63	411.97	222.75	6.90	456,891.58	725,189.37
12,110.00	13.43	317.15	12,094.21	-296.03	-285.92	411.56	224.00	10.78	456,898.07	725,183.08
12,157.00	17.87	315.77	12,139.45	-286.86	-294.67	411.24	225.77	9.48	456,907.24	725,174.33
12,204.00	23.30	315.74	12,183.44	-275.03	-306.19	411.57	228.07	11.55	456,919.07	725,162.81
12,248.00	27.54	315.18	12,223.17	-261.57	-319.44	412.87	230.69	9.65	456,932.53	725,149.56
12,298.00	30.20	314.35	12,266.95	-244.58	-336.59	416.06	234.00	5.38	456,949.52	725,132.41
12,345.00	35.05	316.66	12,306.52	-226.49	-354.31	420.52	237.41	10.65	456,967.61	725,114.69
12,392.00	38.15	317.57	12,344.25	-205.95	-373.37	426.41	241.12	6.70	456,988.15	725,095.63
12,439.00	41.24	319.56	12,380.41	-183.44	-393.22	433.91	244.99	7.11	457,010.66	725,075.78
12,487.00	46.70	323.38	12,414.95	-157.36	-413.92	442.82	249.19	12.64	457,036.74	725,055.08
12,534.00	52.08	328.35	12,445.54	-127.82	-433.87	452.31	253.59	13.98	457,066.28	725,035.13
12,581.00	58.46	330.67	12,472.31	-94.54	-453.43	463.18	258.22	14.17	457,099.56	725,015.57
12,628.00	66.68	335.41	12,493.95	-57.37	-472.27	475.74	263.07	19.64	457,136.73	724,996.73
12,652.00	71.13	337.38	12,502.59	-36.86	-481.22	482.63	265.62	20.06	457,157.24	724,987.78
Wellpath Crosses FTP										
12,672.94	75.03	339.02	12,508.68	-18.26	-488.66	489.00	267.86	20.06	457,175.84	724,980.34
MAS 907H FTP										
12,675.00	75.41	339.18	12,509.21	-16.40	-489.37	489.64	268.08	20.06	457,177.70	724,979.63
12,718.00	81.86	345.19	12,517.68	23.70	-502.23	502.79	272.70	20.31	457,217.80	724,966.77

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MD (usft)	Inc (°)	Azi (azimuth) (°)	TVD (usft)	N/S (usft)	E/W (usft)	Closure Distance (usft)	Closure Azimuth (°)	DLeg (°/100ft)	Northing (usft)	Easting (usft)
12,769.00	84.32	347.45	12,523.82	72.89	-514.20	519.34	278.07	6.53	457,266.99	724,954.80
12,816.00	89.65	349.75	12,526.29	118.88	-523.47	536.80	282.79	12.35	457,312.98	724,945.53
12,863.00	93.99	353.46	12,524.80	165.33	-530.33	555.50	287.32	12.14	457,359.43	724,938.67
12,957.00	94.41	353.56	12,517.92	258.48	-540.92	599.51	295.54	0.46	457,452.58	724,928.08
13,051.00	92.38	356.52	12,512.35	351.95	-549.03	652.15	302.66	3.81	457,546.05	724,919.97
13,145.00	90.07	359.73	12,510.34	445.86	-552.10	709.65	308.92	4.21	457,639.96	724,916.90
13,240.00	90.49	0.06	12,509.87	540.85	-552.28	773.00	314.40	0.56	457,734.95	724,916.72
13,334.00	90.98	359.73	12,508.67	634.85	-552.45	841.57	318.97	0.63	457,828.95	724,916.55
13,428.00	90.00	1.26	12,507.86	728.84	-551.64	914.06	322.88	1.93	457,922.94	724,917.36
13,523.00	88.81	1.07	12,508.85	823.81	-549.71	990.37	326.29	1.27	458,017.91	724,919.29
13,617.00	88.04	1.15	12,511.43	917.75	-547.89	1,068.86	329.16	0.82	458,111.85	724,921.11
13,712.00	88.67	2.10	12,514.16	1,012.68	-545.19	1,150.11	331.70	1.20	458,206.78	724,923.81
13,805.00	87.83	2.37	12,517.00	1,105.56	-541.57	1,231.08	333.90	0.95	458,299.66	724,927.43
13,899.00	89.58	2.04	12,519.13	1,199.46	-537.95	1,314.58	335.84	1.89	458,393.56	724,931.05
13,993.00	91.33	3.02	12,518.38	1,293.36	-533.80	1,399.19	337.57	2.13	458,487.46	724,935.20
14,087.00	88.60	1.76	12,518.44	1,387.27	-529.89	1,485.03	339.10	3.20	458,581.37	724,939.11
14,181.00	87.48	1.73	12,521.65	1,481.17	-527.02	1,572.14	340.41	1.19	458,675.27	724,941.98
14,276.00	89.93	1.85	12,523.80	1,576.09	-524.06	1,660.94	341.61	2.58	458,770.19	724,944.94
14,370.00	90.63	2.40	12,523.34	1,670.03	-520.57	1,749.28	342.69	0.95	458,864.13	724,948.43
14,465.00	88.32	2.41	12,524.21	1,764.93	-516.59	1,838.98	343.69	2.43	458,959.03	724,952.41
14,560.00	89.37	1.80	12,526.12	1,859.85	-513.10	1,929.33	344.58	1.28	459,053.95	724,955.90
14,654.00	90.21	1.55	12,526.47	1,953.81	-510.35	2,019.36	345.36	0.93	459,147.91	724,958.65
14,748.00	90.35	0.80	12,526.01	2,047.78	-508.42	2,109.96	346.06	0.81	459,241.88	724,960.58
14,841.00	87.55	359.85	12,527.71	2,140.76	-507.90	2,200.18	346.65	3.18	459,334.86	724,961.10
14,935.00	89.72	358.88	12,529.95	2,234.72	-508.94	2,291.94	347.17	2.53	459,428.82	724,960.06
15,029.00	89.79	357.16	12,530.35	2,328.66	-512.18	2,384.32	347.60	1.83	459,522.76	724,956.82
15,124.00	90.21	356.64	12,530.35	2,423.52	-517.32	2,478.12	347.95	0.70	459,617.62	724,951.68

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Survey

MD (usft)	Inc (°)	Azi (azimuth) (°)	TVD (usft)	N/S (usft)	E/W (usft)	Closure Distance (usft)	Closure Azimuth (°)	DLeg (°/100ft)	Northing (usft)	Easting (usft)
15,218.00	91.61	357.62	12,528.86	2,517.38	-522.03	2,570.94	348.28	1.82	459,711.48	724,946.97
15,312.00	91.19	358.48	12,526.56	2,611.30	-525.23	2,663.60	348.63	1.02	459,805.40	724,943.77
15,406.00	88.67	357.91	12,526.68	2,705.25	-528.19	2,756.33	348.95	2.75	459,899.35	724,940.81
15,500.00	96.31	359.30	12,522.60	2,799.06	-530.47	2,848.88	349.27	8.26	459,993.16	724,938.53
15,594.00	100.33	359.08	12,509.00	2,892.04	-531.79	2,940.53	349.58	4.28	460,086.14	724,937.21
15,688.00	99.99	0.03	12,492.42	2,984.56	-532.51	3,031.69	349.88	1.06	460,178.66	724,936.49
15,782.00	100.54	0.71	12,475.67	3,077.05	-531.91	3,122.69	350.19	0.92	460,271.15	724,937.09
15,873.00	96.23	2.97	12,462.40	3,167.01	-529.01	3,210.89	350.52	5.34	460,361.11	724,939.99
15,985.00	93.30	6.20	12,453.09	3,278.24	-520.08	3,319.23	350.99	3.89	460,472.34	724,948.92
First Stryker Survey										
16,017.00	92.40	6.20	12,451.50	3,310.01	-516.63	3,350.08	351.13	2.81	460,504.11	724,952.37
16,050.00	88.90	6.40	12,451.13	3,342.80	-513.01	3,381.94	351.28	10.62	460,536.90	724,955.99
16,079.00	87.60	5.20	12,452.01	3,371.64	-510.08	3,410.01	351.40	6.10	460,565.74	724,958.92
16,111.00	86.30	3.10	12,453.72	3,403.51	-507.77	3,441.18	351.51	7.71	460,597.61	724,961.23
16,138.00	84.84	0.52	12,455.80	3,430.41	-506.92	3,467.66	351.59	10.95	460,624.51	724,962.08
16,170.00	84.57	0.26	12,458.75	3,462.27	-506.70	3,499.15	351.67	1.17	460,656.37	724,962.30
16,202.00	85.89	0.43	12,461.42	3,494.16	-506.51	3,530.68	351.75	4.16	460,688.26	724,962.49
16,233.00	87.30	0.79	12,463.26	3,525.10	-506.18	3,561.26	351.83	4.69	460,719.20	724,962.82
16,264.00	87.43	0.87	12,464.68	3,556.07	-505.73	3,591.85	351.91	0.49	460,750.17	724,963.27
16,310.00	87.69	1.14	12,466.64	3,602.02	-504.92	3,637.24	352.02	0.81	460,796.12	724,964.08
16,358.00	86.95	0.87	12,468.88	3,649.96	-504.08	3,684.60	352.14	1.64	460,844.06	724,964.92
16,452.00	88.57	0.26	12,472.56	3,743.88	-503.16	3,777.54	352.35	1.84	460,937.98	724,965.84
16,546.00	86.59	357.36	12,476.53	3,837.76	-505.11	3,870.86	352.50	3.73	461,031.86	724,963.89
16,640.00	87.47	355.86	12,481.40	3,931.47	-510.66	3,964.49	352.60	1.85	461,125.57	724,958.34
16,734.00	89.76	356.20	12,483.67	4,025.21	-517.16	4,058.29	352.68	2.46	461,219.31	724,951.84
16,828.00	89.01	356.04	12,484.68	4,118.99	-523.52	4,152.12	352.76	0.82	461,313.09	724,945.48
16,922.00	89.49	355.86	12,485.91	4,212.74	-530.16	4,245.97	352.83	0.55	461,406.84	724,938.84

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MD (usft)	Inc (°)	Azi (azimuth) (°)	TVD (usft)	N/S (usft)	E/W (usft)	Closure Distance (usft)	Closure Azimuth (°)	DLeg (°/100ft)	Northing (usft)	Easting (usft)
17,017.00	89.23	357.88	12,486.97	4,307.59	-535.35	4,340.73	352.92	2.14	461,501.69	724,933.65
17,110.00	90.02	358.24	12,487.58	4,400.53	-538.50	4,433.36	353.02	0.93	461,594.63	724,930.50
17,204.00	89.93	358.41	12,487.62	4,494.49	-541.24	4,526.97	353.13	0.20	461,688.59	724,927.76
17,298.00	92.75	359.99	12,485.42	4,588.45	-542.56	4,620.41	353.26	3.44	461,782.55	724,926.44
17,392.00	90.81	1.75	12,482.50	4,682.38	-541.13	4,713.55	353.41	2.79	461,876.48	724,927.87
17,486.00	86.86	1.40	12,484.41	4,776.31	-538.55	4,806.57	353.57	4.22	461,970.41	724,930.45
17,524.00	86.64	0.26	12,486.57	4,814.24	-538.00	4,844.21	353.62	3.05	462,008.34	724,931.00
17,527.00	86.64	0.26	12,486.74	4,817.24	-537.98	4,847.18	353.63	0.00	462,011.34	724,931.02
Wellpath Crosses LTP - MAS 907H LTP										
<u>17,570.00</u>	86.64	0.26	<u>12,489.26</u>	4,860.16	-537.79	4,889.83	353.69	0.00	462,054.26	724,931.21
TD @ 57°FNL 332'FWL - MAS 907H PBHL										

Design Annotations

Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+N/-S (usft)	+E/-W (usft)	
12,652.00	12,502.59	-36.86	-481.22	Wellpath Crosses FTP
15,985.00	12,453.09	3,278.24	-520.08	First Stryker Survey
17,527.00	12,486.74	4,817.24	-537.98	Wellpath Crosses LTP
17,570.00	12,489.26	4,860.16	-537.79	TD @ 57°FNL 332'FWL

Checked By: _____ Approved By: _____ Date: _____