



PHOENIX

TECHNOLOGY SERVICES USA INC.

Celebrating 20 Years of Focused Solutions

3610 Elkins Road, Midland, Texas 79705 T. 432.684.0057 F. 432.686.7964 www.phxtech.com

January 18, 2018

Oil Conservation Division
State of New Mexico
811 S. First St.
Artesia, New Mexico 88210

Dear District 2 - Artesia

Attention: Regulatory Department

Re: XTO Energy
Nash Unit #60H
Eddy County, New Mexico
API #30-015-43874
Job No. 60720

NM OIL CONSERVATION
ARTESIA DISTRICT

JAN 22 2018

RECEIVED

Enclosed please find the Survey Data Certification, and the original Plat and one copy of the Survey Report performed on the above referenced Well by Phoenix Technology Services, Inc. (P-5 No. 664171). Other information required by your office is as follows:

Name & Title of Surveyor	Drain Hole Number	Surveyed Depths		Dates Performed		Type of Survey
		From	To	Start	End	
Andy Askew	60H	0	5,687	1/11/17	1/11/17	Gyro

A certified plat on which the bottom hole location is oriented both to the surface location and to the lease lines (or unit lines in case of pooling) is attached to the survey report. If any other information is required, please contact the undersigned at the letterhead address and phone number.

Best Regards,

Brittany Carley

Brittany Carley
Operations Administrator

SURVEY CERTIFICATION FORM

3610 Elkins Road Midland, TX 79705 t:432-684-0057 f: 432-686-7964



Company: XTO Energy
Well Name: Nash Unit #60H
Survey Instrument Type: North Seek Rate Gyro

Job #: 60720
County/State: Eddy Co., New Mexico
API #: 30-015-43874

TIE-IN DATA

Measure Depth (ft)	Vertical Depth (ft)	Inclination (°)	Azimuth (°)	N-S Coordinates	E-W Coordinates	Data Source
0	0	0	0	0	0	Surface

First Survey

Date	Depth (ft)	Inclination (°)	Azimuth (°)
2017-01-11	0	0	0

Last Survey

Date	Depth (ft)	Inclination (°)	Azimuth (°)
2017-01-11	5687	0.57	211.97

Projected TD Survey

Date	Depth (ft)	Inclination (°)	Azimuth (°)
0	0	0	0

Grid Correction
-0.21

Gyro Operator: Phoenix Technology Services USA Ltd.
Gyro Supervisor: Angel Guebara

To the best of my knowledge I certify this survey data to be correct and true

Date: 1-11-17

Print Name: Andy Askew

Signature:



PHOENIX
TECHNOLOGY SERVICES

Company: XTO Energy
Well: Nash Unit #60H
Location: Eddy Co, New Mexico
Rig: Noram #25

Job Number: 60720
Grid Corr.: -0.21
Lat: 32.30
Long: -103.93

Date: 01/11/17
Calculation Method: Minimum Curvature
Proposed Azimuth: 357.89
RKB - MSL in feet: 25
Tie Info: Surface

Survey Tool Type	Survey Depth (ft)	Inclination (deg)	Azimuth (deg)	Course Length (ft)	True Vertical Depth (ft)	Vertical Section (ft)	Coordinates		Closure		Dogleg Severity (d/100')	Build Rate (d/100')	Walk Rate (d/100')
							N/S (ft)	E/W (ft)	Distance (ft)	Angle (deg)			
FIELD COPY, NON-DEFINITIVE													
Enter Tie-In Survey on Line 10													
TIE IN	0			0	0	0	0	0					
Gyro	94.53	0.86	292.73	95	94.53	0.30	0.27 N	0.65 W	0.71	292.73	0.91	0.91	309.67
	189.15	1.46	176.15	95	189.14	-0.61	0.65 S	1.23 W	1.39	241.96	2.11	0.63	-123.21
	283.76	1.56	175.53	95	283.71	-3.10	3.14 S	1.05 W	3.31	198.44	0.11	0.11	-0.66
	378.38	1.65	175.57	95	378.30	-5.75	5.78 S	0.84 W	5.84	188.28	0.10	0.10	0.04
	473.00	1.67	173.77	95	472.88	-8.48	8.51 S	0.59 W	8.53	183.94	0.06	0.02	-1.90
	567.62	1.68	173.44	95	567.46	-11.24	11.26 S	0.28 W	11.26	181.42	0.01	0.01	-0.35
	662.24	1.85	173.05	95	662.03	-14.15	14.15 S	0.06 E	14.15	179.74	0.18	0.18	-0.41
	756.85	2.07	175.29	95	756.58	-17.38	17.37 S	0.39 E	17.38	178.71	0.25	0.23	2.37
	851.47	2.33	177.72	95	851.13	-21.01	21.00 S	0.61 E	21.01	178.35	0.29	0.27	2.57
	946.09	2.55	176.54	95	945.67	-25.03	25.02 S	0.81 E	25.03	178.15	0.24	0.23	-1.25
	1040.71	2.93	180.33	95	1040.18	-29.55	29.54 S	0.92 E	29.55	178.21	0.44	0.40	4.01
	1135.33	3.15	179.44	95	1134.67	-34.57	34.56 S	0.93 E	34.57	178.45	0.24	0.23	-0.94
	1229.95	3.02	182.65	95	1229.15	-39.65	39.65 S	0.84 E	39.66	178.78	0.23	-0.14	3.39
	1324.56	3.07	182.01	95	1323.63	-44.66	44.67 S	0.64 E	44.67	179.18	0.06	0.05	-0.68
	1419.18	3.07	182.20	95	1418.11	-49.72	49.73 S	0.45 E	49.74	179.48	0.01	0.00	0.20
	1513.80	3.20	178.98	95	1512.59	-54.88	54.91 S	0.40 E	54.91	179.58	0.23	0.14	-3.40
	1608.42	3.53	173.75	95	1607.05	-60.43	60.44 S	0.77 E	60.45	179.27	0.48	0.35	-5.53
	1703.04	3.12	165.54	95	1701.51	-65.85	65.83 S	1.73 E	65.85	178.50	0.66	-0.43	-8.68
	1797.65	2.73	157.35	95	1795.99	-70.47	70.40 S	3.24 E	70.48	177.37	0.60	-0.41	-8.66
	1892.27	2.58	154.81	95	1890.51	-74.54	74.41 S	5.01 E	74.58	176.15	0.20	-0.16	-2.68
	1986.89	2.19	150.14	95	1985.05	-78.10	77.90 S	6.82 E	78.20	175.00	0.46	-0.41	-4.94
	2081.51	1.88	148.62	95	2079.61	-81.06	80.80 S	8.53 E	81.25	173.97	0.33	-0.33	-1.61
	2176.13	1.74	141.86	95	2174.18	-83.57	83.25 S	10.22 E	83.88	173.00	0.27	-0.15	-7.14
	2270.75	1.97	130.85	95	2268.75	-85.84	85.45 S	12.34 E	86.33	171.78	0.45	0.24	-11.64
	2365.36	2.93	128.27	95	2363.28	-88.52	88.01 S	15.47 E	89.36	170.03	1.02	1.01	-2.73
	2459.98	3.32	132.26	95	2457.76	-92.00	91.35 S	19.40 E	93.38	168.01	0.47	0.41	4.22
	2554.60	3.11	125.32	95	2552.23	-95.48	94.67 S	23.52 E	97.55	166.05	0.47	-0.22	-7.33



Company: XTO Energy
Well: Nash Unit #60H
Location: Eddy Co., New Mexico
Rig: Noram #25

Job Number: 60720
Grid Corr.: -0.21
Lat: 32.30
Long: -103.93

Calculation Method: Minimum Curvature
Proposed Azimuth: 357.89
RKB - MSL in feet: 25
Tie Info: Surface

Survey Tool Type	Survey Depth (ft)	Inclination (deg)	Azimuth (deg)	Course Length (ft)	True Vertical Depth (ft)	Vertical Section (ft)	Coordinates N/S (ft)	E/W (ft)	Closure Distance (ft)	Closure Angle (deg)	Dogleg Severity (d/100')	Build Rate (d/100')	Walk Rate (d/100')
	2649.22	3.27	128.24	95	2646.70	-98.78	97.83 S	27.73 E	101.68	164.17	0.24	0.17	3.09
	2743.84	3.38	128.46	95	2741.16	-102.34	101.23 S	32.04 E	106.18	162.44	0.12	0.12	0.23
	2838.45	3.46	130.12	95	2835.60	-106.08	104.81 S	36.40 E	110.95	160.85	0.13	0.08	1.75
	2933.07	3.26	167.45	95	2930.07	-110.64	109.27 S	39.17 E	116.08	160.28	2.28	-0.21	39.45
	3027.69	2.79	128.67	95	3024.57	-114.79	113.34 S	41.55 E	120.72	159.87	2.17	-0.50	-40.98
	3122.31	2.33	128.85	95	3119.09	-117.56	115.99 S	44.85 E	124.35	158.86	0.49	-0.49	0.19
	3216.93	1.96	124.83	95	3213.65	-119.79	118.12 S	47.68 E	127.38	158.02	0.42	-0.39	-4.25
	3311.55	1.96	125.94	95	3308.21	-121.76	119.99 S	50.31 E	130.11	157.25	0.04	0.00	1.17
	3406.16	2.01	126.67	95	3402.77	-123.80	121.93 S	52.95 E	132.93	156.52	0.06	0.05	0.77
	3500.78	1.84	120.77	95	3497.33	-125.66	123.70 S	55.59 E	135.62	155.80	0.28	-0.18	-6.24
	3595.40	1.82	117.56	95	3591.90	-127.23	125.17 S	58.23 E	138.05	155.05	0.11	-0.02	-3.39
	3690.02	1.52	113.02	95	3686.48	-128.51	126.36 S	60.72 E	140.19	154.34	0.35	-0.32	-4.80
	3784.64	1.48	117.76	95	3781.07	-129.65	127.42 S	62.95 E	142.12	153.71	0.14	-0.04	5.01
	3879.25	1.36	116.12	95	3875.65	-130.79	128.48 S	65.04 E	144.01	153.15	0.13	-0.13	-1.73
	3973.87	1.22	114.87	95	3970.25	-131.78	129.40 S	66.96 E	145.70	152.64	0.15	-0.15	-1.32
	4068.49	1.07	119.91	95	4064.85	-132.70	130.26 S	68.64 E	147.24	152.21	0.19	-0.16	5.33
	4163.11	0.95	121.62	95	4159.45	-133.61	131.11 S	70.08 E	148.67	151.88	0.13	-0.13	1.81
	4257.73	0.89	121.21	95	4254.06	-134.44	131.91 S	71.37 E	149.98	151.58	0.06	-0.06	-0.43
	4352.35	0.93	116.64	95	4348.67	-135.22	132.63 S	72.69 E	151.24	151.28	0.09	0.04	-4.83
	4446.96	0.91	115.90	95	4443.27	-135.94	133.30 S	74.05 E	152.49	150.95	0.02	-0.02	-0.78
	4541.58	0.81	108.87	95	4537.88	-136.53	133.85 S	75.36 E	153.60	150.62	0.15	-0.11	-7.43
	4636.20	0.70	105.15	95	4632.49	-136.94	134.22 S	76.55 E	154.51	150.30	0.13	-0.12	-3.93
	4730.82	0.58	107.16	95	4727.10	-137.27	134.51 S	77.56 E	155.27	150.03	0.13	-0.13	2.12
	4825.44	0.60	116.00	95	4821.72	-137.66	134.87 S	78.47 E	156.03	149.81	0.10	0.02	9.34
	4920.05	0.73	158.10	95	4916.32	-138.46	135.64 S	79.14 E	157.04	149.74	0.52	0.14	44.50
	5014.67	0.64	144.31	95	5010.94	-139.47	136.63 S	79.67 E	158.16	149.75	0.20	-0.10	-14.57
	5109.29	0.55	156.04	95	5105.55	-140.33	137.48 S	80.16 E	159.14	149.75	0.16	-0.10	12.40
	5203.91	0.64	182.29	95	5200.17	-141.28	138.42 S	80.33 E	160.04	149.87	0.30	0.10	27.74
	5298.53	0.50	178.85	95	5294.78	-142.22	139.36 S	80.31 E	160.85	150.04	0.15	-0.15	-3.64
	5393.15	0.42	199.71	95	5389.40	-142.96	140.10 S	80.21 E	161.43	150.21	0.19	-0.08	22.05



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							N/S (ft)	E/W (ft)	Distance (ft)	Angle (deg)			
	5487.76	0.46	195.63	95	5484.00	-143.64	140.79 S	79.99 E	161.93	150.40	0.05	0.04	-4.31
	5582.38	0.56	198.72	95	5578.62	-144.43	141.59 S	79.74 E	162.50	150.62	0.11	0.11	3.27
	5677.00	0.54	210.52	95	5673.24	-145.24	142.42 S	79.36 E	163.04	150.87	0.12	-0.02	12.47
	5687.00	0.57	211.97	10	5683.24	-145.32	142.50 S	79.31 E	163.08	150.90	0.33	0.30	14.50

Form C-102
Revised August 1, 2011
Submit one copy to appropriate
District Office

