



XTO ENERGY, INC.

Eddy County, NM

Sec 21, T22S, R30E

James Ranch Unit DI 1 #157H

Wellbore #1

30 015-42607

Design: Wellbore #1

Survey Report - Geographic

30 August, 2017

**NM OIL CONSERVATION
ARTESIA DISTRICT**

MAR 28 2018

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Survey Report - Geographic



Company	XTO ENERGY INC	Local Co-ordinate Reference	Well James Ranch Unit DI 1 #157H
Project:	Eddy County NM	TVD Reference	RKB @ 3189 0usft (Noram #25)
Site	Sec 21 T22S R30E	MD Reference	RKB @ 3189 0usft (Noram #25)
Well	James Ranch Unit DI 1 #157H	North Reference	Grid
Wellbore	Wellbore #1	Survey Calculation Method	Minimum Curvature
Design	Wellbore #1	Database	EDM 5000 1 Single User Db

Project	Eddy County NM		
Map System	US State Plane 1927 (Exact solution)	System Datum	Mean Sea Level
Geo Datum	NAD 1927 (NADCON CONUS)		
Map Zone	New Mexico East 3001		

Site	Sec 21 T22S, R30E		
Site Position		Northing	502 495 20 usft
From	Map	Easting	639 272 00 usft
Position Uncertainty	0 0 usft	Slot Radius	13-3/16 "
		Latitude	32° 22' 50 401 N
		Longitude	103° 52' 55 882 W
		Grid Convergence	0 24 °

Well	James Ranch Unit DI 1 #157H		
Well Position	+N/-S	0 0 usft	Northing
	+E/-W	0 0 usft	Easting
Position Uncertainty	0 0 usft	Wellhead Elevation	0 0 usft
		Latitude	32° 22' 50 401 N
		Longitude	103° 52' 55 882 W
		Ground Level	3 165 0 usft

Wellbore	Wellbore #1		
Magnetics	Model Name	Sample Date	Declination
			(°)
	IGRF2015	7/22/2017	7 10
			Dip Angle
			(°)
			60 16
			Field Strength
			(nT)
			47 990 14953419

Design	Wellbore #1		
Audit Notes			
Version	1 0	Phase	ACTUAL
Vertical Section		Depth From (TVD)	+N/-S
		(usft)	(usft)
		0 0	0 0
			+E/-W
			(usft)
			0 0
			Direction
			(°)
			268 03

Survey Program	Date 8/30/2017		
From	To	Survey (Wellbore)	Tool Name
(usft)	(usft)		
142 0	23 310 0	MWD Surveys (Wellbore #1)	MWD
			Description
			OWSG MWD - Standard

Survey									
Measured	Inclination	Azimuth	Vertical	+N/-S	+E/-W	Map	Map		
Depth	(°)	(°)	Depth	(usft)	(usft)	Northing	Easting	Latitude	Longitude
(usft)			(usft)			(usft)	(usft)		
0 0	0 00	0 00	0 0	0 0	0 0	502 495 20	639 272 00	32° 22' 50 401 N	103° 52' 55 882 W
142 0	0 70	266 10	142 0	-0 1	-0 9	502 495 14	639 271 14	32° 22' 50 400 N	103° 52' 55 892 W
First MWD Survey @ 142 0' MD / TVD									
228 0	1 40	2 50	228 0	1 0	-1 3	502 496 16	639 270 66	32° 22' 50 410 N	103° 52' 55 897 W
316 0	1 60	1 70	316 0	3 3	-1 3	502 498 46	639 270 74	32° 22' 50 433 N	103° 52' 55 896 W
345 0	1 80	1 30	344 9	4 1	-1 2	502 499 32	639 270 77	32° 22' 50 442 N	103° 52' 55 896 W
374 0	3 30	349 70	373 9	5 4	-1 4	502,500 59	639 270 63	32° 22' 50 454 N	103° 52' 55 897 W
405 0	1 50	349 70	404 9	6 7	-1 6	502 501 87	639 270 40	32° 22' 50 467 N	103° 52' 55 900 W
434 0	1 30	342 60	433 9	7 4	-1 8	502,502 56	639 270 23	32° 22' 50 474 N	103° 52' 55 902 W
465 0	1 10	342 30	464 9	8 0	-2 0	502 503 18	639 270 03	32° 22' 50 480 N	103° 52' 55 904 W
487 0	1 20	339 10	486 9	8 4	-2 1	502 503 59	639,269 89	32° 22' 50 484 N	103° 52' 55 906 W
563 0	1 40	327 90	562 8	9 9	-2 9	502 505 12	639,269 11	32° 22' 50 499 N	103° 52' 55 915 W



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Well	James Ranch Unit DI 1 #157H	North Reference	Gnd
Wellbore	Wellbore #1	Survey Calculation Method	Minimum Curvature
Design	Wellbore #1	Database	EDM 5000 1 Single User Db

Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude
595 0	1 10	315 80	594 8	10 5	-3 3	502 505 68	639 268 69	32° 22' 50 505 N	103° 52' 55 920 W
626 0	1 10	302 00	625 8	10 8	-3 8	502 506 05	639 268 23	32° 22' 50 508 N	103° 52' 55 925 W
658 0	1 10	276 80	657 8	11 0	-4 3	502 506 25	639 267 66	32° 22' 50 510 N	103° 52' 55 932 W
689 0	1 50	227 10	688 8	10 8	-4 9	502 506 01	639 267 07	32° 22' 50 508 N	103° 52' 55 939 W
721 0	1 80	217 80	720 8	10 1	-5 5	502 505 32	639 266 45	32° 22' 50 501 N	103° 52' 55 946 W
752 0	2 00	218 20	751 8	9 3	-6 2	502 504 51	639 265 82	32° 22' 50 493 N	103° 52' 55 953 W
775 0	2 20	210 30	774 8	8 6	-6 7	502 503 82	639 265 35	32° 22' 50 486 N	103° 52' 55 959 W
806 0	2 50	199 20	805 7	7 5	-7 2	502 502 66	639 264 83	32° 22' 50 475 N	103° 52' 55 965 W
838 0	2 70	188 40	837 7	6 1	-7 5	502 501 26	639 264 49	32° 22' 50 461 N	103° 52' 55 969 W
869 0	2 80	179 10	868 7	4 6	-7 6	502 499 78	639 264 39	32° 22' 50 447 N	103° 52' 55 970 W
901 0	2 40	157 90	900 6	3 2	-7 3	502 498 38	639 264 66	32° 22' 50 433 N	103° 52' 55 977 W
932 0	2 30	143 70	931 6	2 1	-6 7	502 497 28	639 265 27	32° 22' 50 422 N	103° 52' 55 960 W
964 0	2 10	138 00	963 6	1 1	-6 0	502 496 32	639 266 04	32° 22' 50 412 N	103° 52' 55 951 W
995 0	1 20	120 60	994 6	0 5	-5 3	502 495 73	639 266 70	32° 22' 50 406 N	103° 52' 55 943 W
1 027 0	0 70	102 40	1 026 6	0 3	-4 8	502 495 52	639 267 18	32° 22' 50 404 N	103° 52' 55 938 W
1 058 0	0 60	84 40	1 057 6	0 3	-4 5	502 495 50	639 267 53	32° 22' 50 404 N	103° 52' 55 934 W
1 090 0	0 60	69 70	1 089 6	0 4	-4 2	502 495 57	639 267 85	32° 22' 50 405 N	103° 52' 55 930 W
1 122 0	0 60	85 30	1 121 6	0 4	-3 8	502 495 64	639 268 18	32° 22' 50 405 N	103° 52' 55 926 W
1 153 0	0 60	96 40	1 152 6	0 4	-3 5	502 495 64	639 268 50	32° 22' 50 405 N	103° 52' 55 922 W
1 185 0	0 70	95 30	1 184 6	0 4	-3 1	502 495 60	639 268 86	32° 22' 50 405 N	103° 52' 55 918 W
1 216 0	0 70	111 80	1 215 6	0 3	-2 8	502 495 51	639 269 23	32° 22' 50 404 N	103° 52' 55 914 W
1 248 0	0 70	111 60	1 247 6	0 2	-2 4	502 495 37	639 269 59	32° 22' 50 403 N	103° 52' 55 910 W
1 279 0	0 60	118 80	1 278 6	0 0	-2 1	502 495 22	639 269 91	32° 22' 50 401 N	103° 52' 55 906 W
1 311 0	0 70	131 80	1 310 6	-0 2	-1 8	502 495 01	639 270 20	32° 22' 50 399 N	103° 52' 55 903 W
1 342 0	0 70	118 80	1 341 6	-0 4	-1 5	502 494 79	639 270 51	32° 22' 50 397 N	103° 52' 55 899 W
1 374 0	0 70	133 90	1 373 6	-0 6	-1 2	502 494 56	639 270 82	32° 22' 50 395 N	103° 52' 55 895 W
1 405 0	0 60	125 80	1 404 6	-0 9	-0 9	502 494 34	639 271 09	32° 22' 50 392 N	103° 52' 55 892 W
1 437 0	0 60	121 90	1 436 6	-1 1	-0 6	502 494 15	639 271 36	32° 22' 50 391 N	103° 52' 55 889 W
1 468 0	0 70	120 50	1 467 6	-1 2	-0 3	502 493 97	639 271 67	32° 22' 50 389 N	103° 52' 55 886 W
1 500 0	0 60	117 60	1 499 6	-1 4	0 0	502 493 79	639 271 98	32° 22' 50 387 N	103° 52' 55 882 W
1 531 0	0 50	116 50	1 530 5	-1 5	0 2	502 493 66	639 272 25	32° 22' 50 386 N	103° 52' 55 879 W
1 562 0	0 40	119 60	1 561 5	-1 7	0 5	502 493 54	639 272 46	32° 22' 50 385 N	103° 52' 55 876 W
1 593 0	0 40	103 40	1 592 5	-1 7	0 7	502 493 46	639 272 66	32° 22' 50 384 N	103° 52' 55 874 W
1 625 0	0 40	112 70	1 624 5	-1 8	0 9	502 493 40	639 272 87	32° 22' 50 383 N	103° 52' 55 872 W
1 655 0	0 40	146 00	1 654 5	-1 9	1 0	502 493 27	639 273 03	32° 22' 50 382 N	103° 52' 55 870 W
1 687 0	0 40	110 70	1 686 5	-2 1	1 2	502 493 14	639 273 20	32° 22' 50 380 N	103° 52' 55 868 W
1 718 0	0 20	109 90	1 717 5	-2 1	1 3	502 493 08	639 273 35	32° 22' 50 380 N	103° 52' 55 866 W
1 749 0	0 20	106 40	1 748 5	-2 2	1 4	502 493 05	639 273 45	32° 22' 50 380 N	103° 52' 55 865 W
1 780 0	0 10	116 50	1 779 5	-2 2	1 5	502 493 02	639 273 53	32° 22' 50 379 N	103° 52' 55 864 W
1 811 0	0 20	123 00	1 810 5	-2 2	1 6	502 492 98	639 273 60	32° 22' 50 379 N	103° 52' 55 863 W
1 843 0	0 20	104 90	1 842 5	-2 3	1 7	502 492 93	639 273 70	32° 22' 50 378 N	103° 52' 55 862 W
1 875 0	0 00	136 30	1 874 5	-2 3	1 7	502 492 92	639 273 75	32° 22' 50 378 N	103° 52' 55 861 W
1 906 0	0 10	69 00	1 905 5	-2 3	1 8	502 492 93	639 273 78	32° 22' 50 378 N	103° 52' 55 861 W
1 937 0	0 20	54 60	1 936 5	-2 2	1 8	502 492 97	639 273 85	32° 22' 50 379 N	103° 52' 55 860 W
1 968 0	0 10	67 30	1 967 5	-2 2	1 9	502 493 01	639 273 92	32° 22' 50 379 N	103° 52' 55 859 W
2 000 0	0 20	38 20	1 999 5	-2 1	2 0	502 493 06	639 273 98	32° 22' 50 380 N	103° 52' 55 859 W
2 032 0	0 20	15 50	2 031 5	-2 0	2 0	502 493 16	639 274 02	32° 22' 50 381 N	103° 52' 55 858 W
2 063 0	0 20	347 30	2 062 5	-1 9	2 0	502 493 27	639 274 03	32° 22' 50 382 N	103° 52' 55 858 W
2 095 0	0 10	319 00	2 094 5	-1 9	2 0	502 493 34	639 274 00	32° 22' 50 382 N	103° 52' 55 858 W
2 126 0	0 10	357 80	2 125 5	-1 8	2 0	502 493 39	639 273 98	32° 22' 50 383 N	103° 52' 55 859 W
2 158 0	0 00	11 60	2 157 5	-1 8	2 0	502 493 42	639 273 98	32° 22' 50 383 N	103° 52' 55 859 W
2 190 0	0 10	15 00	2 189 5	-1 8	2 0	502 493 45	639 273 98	32° 22' 50 383 N	103° 52' 55 859 W
2 221 0	0 00	324 70	2 220 5	-1 7	2 0	502 493 47	639 273 99	32° 22' 50 384 N	103° 52' 55 859 W
2 252 0	0 20	325 50	2 251 5	-1 7	2 0	502 493 52	639 273 96	32° 22' 50 384 N	103° 52' 55 859 W
2 284 0	0 00	47 20	2 283 5	-1 6	1 9	502 493 56	639 273 93	32° 22' 50 385 N	103° 52' 55 859 W



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Well	James Ranch Unit DI 1 #157H	North Reference	Gnd
Wellbore	Wellbore #1	Survey Calculation Method	Minimum Curvature
Design	Wellbore #1	Database	EDM 5000 1 Single User Db

Survey										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N-S (usft)	+E/W (usft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude	
2 316 0	0 10	267 10	2 315 5	-1 6	1 9	502 493 56	639 273 90	32° 22' 50 385 N	103° 52' 55 860 W	
2 346 0	0 10	321 80	2 345 5	-1 6	1 9	502 493 58	639 273 86	32° 22' 50 385 N	103° 52' 55 860 W	
2 378 0	0 10	286 70	2 377 5	-1 6	1 8	502 493 61	639 273 81	32° 22' 50 385 N	103° 52' 55 861 W	
2 409 0	0 20	238 10	2 408 5	-1 6	1 7	502 493 59	639 273 74	32° 22' 50 385 N	103° 52' 55 861 W	
2 440 0	0 10	213 60	2 439 5	-1 7	1 7	502 493 54	639 273 68	32° 22' 50 384 N	103° 52' 55 862 W	
2 472 0	0 20	252 90	2 471 5	-1 7	1 6	502 493 50	639 273 61	32° 22' 50 384 N	103° 52' 55 863 W	
2 503 0	0 20	252 80	2 502 5	-1 7	1 5	502 493 47	639 273 51	32° 22' 50 384 N	103° 52' 55 864 W	
2 535 0	0 10	250 10	2 534 5	-1 8	1 4	502 493 44	639 273 43	32° 22' 50 383 N	103° 52' 55 865 W	
2 567 0	0 10	300 50	2 566 5	-1 8	1 4	502 493 45	639 273 38	32° 22' 50 384 N	103° 52' 55 866 W	
2 598 0	0 10	148 00	2 597 5	-1 8	1 4	502 493 44	639 273 37	32° 22' 50 383 N	103° 52' 55 866 W	
2 629 0	0 00	208 40	2 628 5	-1 8	1 4	502 493 41	639 273 39	32° 22' 50 383 N	103° 52' 55 866 W	
2 661 0	0 20	122 80	2 660 5	-1 8	1 4	502 493 38	639 273 43	32° 22' 50 383 N	103° 52' 55 865 W	
2 692 0	0 40	134 10	2 691 5	-1 9	1 6	502 493 28	639 273 56	32° 22' 50 382 N	103° 52' 55 864 W	
2 724 0	0 60	139 00	2 723 5	-2 1	1 7	502 493 07	639 273 75	32° 22' 50 380 N	103° 52' 55 861 W	
2 755 0	0 60	136 30	2 754 5	-2 4	2 0	502 492 83	639 273 96	32° 22' 50 377 N	103° 52' 55 859 W	
2 787 0	0 80	129 30	2 786 5	-2 6	2 2	502 492 57	639 274 25	32° 22' 50 375 N	103° 52' 55 855 W	
2 818 0	1 00	133 40	2 817 5	-3 0	2 6	502 492 25	639 274 62	32° 22' 50 372 N	103° 52' 55 851 W	
2 849 0	0 90	138 30	2 848 5	-3 3	3 0	502 491 88	639 274 98	32° 22' 50 368 N	103° 52' 55 847 W	
2 881 0	0 90	130 70	2 880 5	-3 7	3 3	502 491 53	639 275 33	32° 22' 50 364 N	103° 52' 55 843 W	
2 912 0	0 90	133 00	2 911 5	-4 0	3 7	502 491 20	639 275 70	32° 22' 50 361 N	103° 52' 55 839 W	
2 944 0	1 00	126 80	2 943 5	-4 3	4 1	502 490 87	639 276 10	32° 22' 50 358 N	103° 52' 55 834 W	
2 975 0	1 10	124 50	2 974 5	-4 7	4 6	502 490 54	639 276 56	32° 22' 50 355 N	103° 52' 55 829 W	
3 007 0	1 10	131 40	3 006 5	-5 0	5 0	502 490 16	639 277 05	32° 22' 50 351 N	103° 52' 55 823 W	
3 039 0	1 20	138 80	3 038 5	-5 5	5 5	502 489 70	639 277 50	32° 22' 50 346 N	103° 52' 55 818 W	
3 070 0	1 50	150 10	3 069 5	-6 1	5 9	502 489 11	639 277 92	32° 22' 50 340 N	103° 52' 55 813 W	
3 102 0	1 80	152 90	3 101 5	-6 9	6 3	502 488 30	639 278 35	32° 22' 50 332 N	103° 52' 55 808 W	
3 133 0	2 10	159 70	3 132 5	-7 9	6 8	502 487 33	639 278 77	32° 22' 50 323 N	103° 52' 55 803 W	
3 165 0	2 40	169 30	3 164 4	-9 1	7 1	502 486 12	639 279 10	32° 22' 50 311 N	103° 52' 55 799 W	
3 196 0	2 70	171 40	3 195 4	-10 4	7 3	502 484 76	639 279 33	32° 22' 50 297 N	103° 52' 55 797 W	
3 228 0	2 80	181 80	3 227 4	-12 0	7 4	502 483 24	639 279 42	32° 22' 50 282 N	103° 52' 55 796 W	
3 259 0	2 70	190 40	3 258 3	-13 4	7 3	502 481 76	639 279 26	32° 22' 50 268 N	103° 52' 55 798 W	
3 291 0	2 70	201 10	3 290 3	-14 9	6 9	502 480 32	639 278 85	32° 22' 50 253 N	103° 52' 55 802 W	
3 322 0	2 70	204 30	3 321 3	-16 2	6 3	502 478 97	639 278 29	32° 22' 50 240 N	103° 52' 55 809 W	
3 354 0	2 80	206 90	3 353 2	-17 6	5 6	502 477 59	639 277 63	32° 22' 50 226 N	103° 52' 55 817 W	
3 385 0	2 80	212 10	3 384 2	-18 9	4 9	502 476 27	639 276 88	32° 22' 50 213 N	103° 52' 55 826 W	
3 417 0	2 60	207 10	3 416 2	-20 2	4 1	502 474 96	639 276 14	32° 22' 50 200 N	103° 52' 55 834 W	
3 448 0	2 50	206 20	3 447 1	-21 5	3 5	502 473 73	639 275 52	32° 22' 50 188 N	103° 52' 55 842 W	
3 479 0	2 30	201 30	3 478 1	-22 7	3 0	502 472 54	639 274 99	32° 22' 50 177 N	103° 52' 55 848 W	
3 511 0	2 50	191 80	3 510 1	-23 9	2 6	502 471 26	639 274 62	32° 22' 50 164 N	103° 52' 55 852 W	
3 542 0	2 80	187 20	3 541 0	-25 4	2 4	502 469 85	639 274 38	32° 22' 50 150 N	103° 52' 55 855 W	
3 557 0	2 90	187 50	3 556 0	-26 1	2 3	502 469 11	639 274 29	32° 22' 50 143 N	103° 52' 55 856 W	
3 624 0	3 00	186 20	3 622 9	-29 5	1 9	502 465 68	639 273 88	32° 22' 50 109 N	103° 52' 55 861 W	
3 656 0	3 00	181 20	3 654 9	-31 2	1 8	502 464 01	639 273 77	32° 22' 50 092 N	103° 52' 55 863 W	
3 687 0	3 30	183 70	3 685 8	-32 9	1 7	502 462 31	639 273 70	32° 22' 50 075 N	103° 52' 55 863 W	
3 719 0	3 40	183 30	3 717 8	-34 8	1 6	502 460 45	639 273 58	32° 22' 50 057 N	103° 52' 55 865 W	
3 782 0	3 60	186 20	3 780 7	-38 6	1 3	502 456 62	639 273 26	32° 22' 50 019 N	103° 52' 55 869 W	
3 813 0	4 60	189 50	3 811 6	-40 8	0 9	502 454 42	639 272 95	32° 22' 49 997 N	103° 52' 55 873 W	
3 845 0	4 70	190 70	3 843 5	-43 3	0 5	502 451 87	639 272 50	32° 22' 49 972 N	103° 52' 55 878 W	
3 877 0	4 70	192 40	3 875 4	-45 9	0 0	502 449 30	639 271 97	32° 22' 49 947 N	103° 52' 55 884 W	
3 908 0	4 70	189 80	3 906 3	-48 4	-0 5	502 446 81	639 271 48	32° 22' 49 922 N	103° 52' 55 890 W	
3 939 0	4 70	192 20	3 937 2	-50 9	-1 0	502 444 31	639 271 00	32° 22' 49 897 N	103° 52' 55 896 W	
3 971 0	4 60	191 50	3 969 1	-53 4	-1 5	502 441 78	639 270 46	32° 22' 49 872 N	103° 52' 55 902 W	
4 002 0	4 70	194 10	4 000 0	-55 9	-2 1	502 439 33	639 269 91	32° 22' 49 848 N	103° 52' 55 909 W	
4 034 0	4 60	193 50	4 031 8	-58 4	-2 7	502 436 81	639 269 29	32° 22' 49 823 N	103° 52' 55 916 W	
4 065 0	4 50	194 20	4 062 8	-60 8	-3 3	502 434 42	639 268 70	32° 22' 49 800 N	103° 52' 55 923 W	



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Well	James Ranch Unit DI 1 #157H	North Reference	Gnd
Wellbore	Wellbore #1	Survey Calculation Method	Minimum Curvature
Design	Wellbore #1	Database	EDM 5000 1 Single User Db

Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude
4 096 0	4 50	193 80	4 093 7	-63 1	-3 9	502 432 06	639 268 11	32° 22' 49 776 N	103° 52' 55 930 W
4 128 0	4 50	192 30	4 125 6	-65 6	-4 5	502 429 61	639 267 54	32° 22' 49 752 N	103° 52' 55 937 W
4 159 0	4 50	195 10	4 156 5	-68 0	-5 0	502 427 25	639 266 97	32° 22' 49 729 N	103° 52' 55 944 W
4 191 0	4 50	194 40	4 188 4	-70 4	-5 7	502 424 82	639 266 33	32° 22' 49 705 N	103° 52' 55 951 W
4 222 0	4 70	188 70	4 219 3	-72 8	-6 2	502 422 39	639 265 83	32° 22' 49 681 N	103° 52' 55 957 W
4 253 0	4 70	185 90	4 250 2	-75 3	-6 5	502 419 87	639 265 51	32° 22' 49 656 N	103° 52' 55 961 W
4 285 0	4 80	184 00	4 282 0	-78 0	-6 7	502 417 23	639 265 28	32° 22' 49 630 N	103° 52' 55 964 W
4 317 0	4 80	183 50	4 313 9	-80 6	-6 9	502 414 56	639 265 11	32° 22' 49 603 N	103° 52' 55 966 W
4 349 0	4 80	182 90	4 345 8	-83 3	-7 0	502 411 89	639 264 96	32° 22' 49 577 N	103° 52' 55 968 W
4 443 0	4 50	184 00	4 439 5	-90 9	-7 5	502 404 28	639 264 50	32° 22' 49 502 N	103° 52' 55 974 W
4 537 0	4 30	185 60	4 533 2	-98 1	-8 1	502 397 09	639 263 90	32° 22' 49 430 N	103° 52' 55 981 W
4 632 0	4 60	179 90	4 628 0	-105 5	-8 4	502 389 74	639 263 56	32° 22' 49 358 N	103° 52' 55 985 W
4 726 0	4 40	180 70	4 721 7	-112 8	-8 5	502 382 36	639 263 52	32° 22' 49 285 N	103° 52' 55 986 W
4 820 0	4 30	178 00	4 815 4	-120 0	-8 4	502 375 24	639 263 60	32° 22' 49 214 N	103° 52' 55 985 W
4 914 0	4 30	180 10	4 909 1	-127 0	-8 3	502 368 19	639 263 72	32° 22' 49 144 N	103° 52' 55 984 W
5 008 0	3 90	180 90	5 002 9	-133 7	-8 3	502 361 47	639 263 66	32° 22' 49 078 N	103° 52' 55 985 W
5 103 0	3 60	179 00	5 097 7	-139 9	-8 3	502 355 26	639 263 66	32° 22' 49 016 N	103° 52' 55 986 W
5 196 0	4 50	179 50	5 190 5	-146 5	-8 3	502 348 69	639 263 75	32° 22' 48 951 N	103° 52' 55 985 W
5 291 0	4 40	180 10	5 285 2	-153 9	-8 2	502 341 32	639 263 77	32° 22' 48 879 N	103° 52' 55 985 W
5 385 0	4 40	177 50	5 378 9	-161 1	-8 1	502 334 11	639 263 92	32° 22' 48 807 N	103° 52' 55 984 W
5 479 0	4 30	176 00	5 472 6	-168 2	-7 7	502 326 99	639 264 33	32° 22' 48 737 N	103° 52' 55 979 W
5 574 0	4 40	174 90	5 567 3	-175 4	-7 1	502 319 81	639 264 90	32° 22' 48 666 N	103° 52' 55 973 W
5 668 0	4 30	174 50	5 661 1	-182 5	-6 4	502 312 71	639 265 56	32° 22' 48 595 N	103° 52' 55 966 W
5 762 0	4 20	173 50	5 754 8	-189 4	-5 7	502 305 78	639 266 28	32° 22' 48 527 N	103° 52' 55 958 W
5 857 0	4 10	173 20	5 849 6	-196 2	-4 9	502 298 96	639 267 08	32° 22' 48 459 N	103° 52' 55 949 W
5 951 0	3 90	175 60	5 943 3	-202 8	-4 3	502 292 43	639 267 72	32° 22' 48 395 N	103° 52' 55 941 W
6 045 0	4 40	184 70	6 037 1	-209 6	-4 3	502 285 65	639 267 67	32° 22' 48 327 N	103° 52' 55 942 W
6 139 0	4 10	186 20	6 130 8	-216 5	-5 0	502 278 72	639 267 02	32° 22' 48 259 N	103° 52' 55 950 W
6 234 0	3 90	186 90	6 225 6	-223 1	-5 7	502 272 13	639 266 26	32° 22' 48 194 N	103° 52' 55 960 W
6 328 0	4 40	179 50	6 319 4	-229 8	-6 1	502 265 35	639 265 91	32° 22' 48 127 N	103° 52' 55 964 W
6 422 0	4 20	177 90	6 413 1	-236 9	-5 9	502 258 31	639 266 07	32° 22' 48 057 N	103° 52' 55 962 W
6 517 0	4 50	181 90	6 507 8	-244 1	-5 9	502 251 11	639 266 07	32° 22' 47 986 N	103° 52' 55 963 W
6 611 0	4 40	181 90	6 601 5	-251 4	-6 2	502 243 82	639 265 83	32° 22' 47 914 N	103° 52' 55 966 W
6 705 0	4 50	182 60	6 695 2	-258 7	-6 5	502 236 53	639 265 54	32° 22' 47 841 N	103° 52' 55 970 W
6 800 0	4 40	182 60	6 790 0	-266 0	-6 8	502 229 17	639 265 21	32° 22' 47 769 N	103° 52' 55 974 W
6 894 0	4 20	183 10	6 883 7	-273 1	-7 1	502 222 13	639 264 86	32° 22' 47 699 N	103° 52' 55 978 W
6 989 0	4 60	179 80	6 978 4	-280 4	-7 3	502 214 84	639 264 68	32° 22' 47 627 N	103° 52' 55 981 W
7 083 0	5 00	179 60	7 072 1	-288 2	-7 3	502 206 98	639 264 72	32° 22' 47 549 N	103° 52' 55 981 W
7 177 0	4 70	177 50	7 165 8	-296 2	-7 1	502 199 03	639 264 92	32° 22' 47 470 N	103° 52' 55 979 W
7 272 0	4 30	173 70	7 260 5	-303 6	-6 5	502 191 61	639 265 48	32° 22' 47 397 N	103° 52' 55 973 W
7 366 0	4 10	173 20	7 354 2	-310 4	-5 7	502 184 77	639 266 27	32° 22' 47 329 N	103° 52' 55 964 W
7 461 0	4 40	167 30	7 448 9	-317 4	-4 5	502 177 84	639 267 47	32° 22' 47 261 N	103° 52' 55 950 W
7 556 0	4 20	174 90	7 543 7	-324 4	-3 4	502 170 82	639 268 58	32° 22' 47 191 N	103° 52' 55 937 W
7 650 0	2 80	170 60	7 637 5	-330 1	-2 7	502 165 13	639 269 26	32° 22' 47 135 N	103° 52' 55 930 W
7 744 0	2 50	166 20	7 731 4	-334 3	-1 9	502 160 87	639 270 12	32° 22' 47 093 N	103° 52' 55 920 W
7 839 0	2 90	170 70	7 826 3	-338 7	-1 0	502 156 49	639 271 01	32° 22' 47 049 N	103° 52' 55 910 W
7 933 0	3 80	177 00	7 920 1	-344 2	-0 5	502 151 03	639 271 55	32° 22' 46 995 N	103° 52' 55 904 W
8 027 0	5 20	189 50	8 013 8	-351 5	-1 0	502 143 72	639 271 01	32° 22' 46 923 N	103° 52' 55 910 W
8 122 0	3 70	187 00	8 108 6	-358 8	-2 1	502 136 43	639 269 93	32° 22' 46 851 N	103° 52' 55 923 W
8 217 0	4 10	187 10	8 203 3	-365 2	-2 9	502 130 01	639 269 14	32° 22' 46 787 N	103° 52' 55 933 W
8 312 0	3 90	181 40	8 298 1	-371 8	-3 4	502 123 41	639 268 64	32° 22' 46 722 N	103° 52' 55 939 W
8 369 0	3 90	178 60	8 355 0	-375 7	-3 4	502 119 54	639 268 64	32° 22' 46 684 N	103° 52' 55 939 W
8 459 0	4 30	200 90	8 444 7	-381 9	-4 5	502 113 33	639 267 51	32° 22' 46 622 N	103° 52' 55 953 W
8 491 0	4 70	207 80	8 476 6	-384 2	-5 5	502 111 05	639 266 47	32° 22' 46 600 N	103° 52' 55 965 W
8 522 0	5 00	213 60	8 507 5	-386 4	-6 9	502 108 80	639 265 13	32° 22' 46 577 N	103° 52' 55 981 W



Survey Report - Geographic



Company	XTO ENERGY, INC	Local Co-ordinate Reference	Well James Ranch Unit DI 1 #157H
Project:	Eddy County NM	TVD Reference	RKB @ 3189 Ousft (Noram #25)
Site	Sec 21 T22S, R30E	MD Reference	RKB @ 3189 Ousft (Noram #25)
Well	James Ranch Unit DI 1 #157H	North Reference	Grd
Wellbore	Wellbore #1	Survey Calculation Method	Minimum Curvature
Design	Wellbore #1	Database	EDM 5000 1 Single User Db

Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude
8 554 0	5 70	218 50	8 539 4	-388 8	-8 6	502 106 39	639 263 37	32° 22' 46 554 N	103° 52' 56 001 W
8 585 0	6 50	220 80	8 570 2	-391 3	-10 7	502 103 86	639 261 26	32° 22' 46 529 N	103° 52' 56 026 W
8 616 0	7 60	221 20	8 601 0	-394 2	-13 2	502 100 99	639 258 77	32° 22' 46 500 N	103° 52' 56 055 W
8 647 0	8 60	222 90	8 631 7	-397 5	-16 2	502 097 75	639 255 84	32° 22' 46 468 N	103° 52' 56 090 W
8 678 0	9 80	226 90	8 662 3	-401 0	-19 7	502 094 25	639 252 33	32° 22' 46 434 N	103° 52' 56 131 W
8 709 0	11 10	230 30	8 692 8	-404 7	-23 9	502 090 54	639 248 11	32° 22' 46 397 N	103° 52' 56 180 W
8 740 0	12 40	233 80	8 723 1	-408 5	-28 9	502 086 67	639 243 13	32° 22' 46 359 N	103° 52' 56 238 W
8 772 0	13 80	238 90	8 754 3	-412 5	-34 9	502 082 67	639 237 09	32° 22' 46 320 N	103° 52' 56 309 W
8 803 0	15 10	243 80	8 784 3	-416 2	-41 7	502 078 97	639 230 30	32° 22' 46 284 N	103° 52' 56 388 W
8 834 0	16 00	248 40	8 814 2	-419 6	-49 3	502 075 62	639 222 70	32° 22' 46 251 N	103° 52' 56 477 W
8 866 0	17 40	252 30	8 844 8	-422 7	-58 0	502 072 54	639 214 04	32° 22' 46 221 N	103° 52' 56 578 W
8 898 0	19 20	255 90	8 875 2	-425 4	-67 6	502 069 80	639 204 38	32° 22' 46 194 N	103° 52' 56 691 W
8 929 0	21 30	258 90	8 904 3	-427 7	-78 1	502 067 48	639 193 91	32° 22' 46 171 N	103° 52' 56 813 W
8 961 0	23 60	261 20	8 933 9	-429 8	-90 1	502 065 38	639 181 88	32° 22' 46 151 N	103° 52' 56 954 W
8 993 0	26 10	263 50	8 962 9	-431 6	-103 5	502 063 60	639 168 55	32° 22' 46 134 N	103° 52' 57 109 W
9 025 0	28 50	265 10	8 991 3	-433 1	-118 1	502 062 15	639 153 95	32° 22' 46 120 N	103° 52' 57 280 W
9 056 0	32 50	266 80	9 018 0	-434 1	-133 7	502 061 05	639 138 26	32° 22' 46 110 N	103° 52' 57 463 W
9 087 0	38 20	268 90	9 043 3	-434 8	-151 7	502 060 40	639 120 34	32° 22' 46 105 N	103° 52' 57 672 W
9 119 0	44 50	270 70	9 067 3	-434 9	-172 8	502 060 35	639 099 21	32° 22' 46 105 N	103° 52' 57 918 W
9 150 0	51 50	271 10	9 088 0	-434 5	-195 8	502 060 72	639 076 19	32° 22' 46 110 N	103° 52' 58 186 W
9 181 0	57 70	271 40	9 106 0	-433 9	-221 1	502 061 27	639 050 94	32° 22' 46 116 N	103° 52' 58 481 W
9 213 0	61 00	271 80	9 122 3	-433 2	-248 6	502 062 04	639 023 43	32° 22' 46 125 N	103° 52' 58 802 W
9 245 0	63 50	271 40	9 137 2	-432 4	-276 9	502 062 83	638 995 12	32° 22' 46 134 N	103° 52' 59 132 W
9 276 0	66 70	270 40	9 150 3	-431 9	-305 0	502 063 27	638 967 01	32° 22' 46 139 N	103° 52' 59 459 W
9 308 0	69 80	270 20	9 162 1	-431 8	-334 7	502 063 42	638 937 29	32° 22' 46 142 N	103° 52' 59 806 W
9 339 0	72 00	268 10	9 172 3	-432 2	-364 0	502 062 99	638 908 01	32° 22' 46 139 N	103° 53' 0 147 W
9 371 0	73 20	266 30	9 181 8	-433 7	-394 5	502 061 49	638 877 51	32° 22' 46 125 N	103° 53' 0 503 W
9 403 0	74 40	265 30	9 190 8	-436 0	-425 1	502 059 24	638 846 86	32° 22' 46 104 N	103° 53' 0 861 W
9 434 0	76 00	265 40	9 198 7	-438 4	-455 0	502 056 81	638 816 99	32° 22' 46 082 N	103° 53' 1 209 W
9 465 0	78 20	266 10	9 205 6	-440 6	-485 1	502 054 57	638 786 86	32° 22' 46 061 N	103° 53' 1 561 W
9 496 0	79 90	266 10	9 211 5	-442 7	-515 5	502 052 50	638 756 50	32° 22' 46 042 N	103° 53' 1 915 W
9 528 0	80 90	266 30	9 216 8	-444 8	-547 0	502 050 41	638 725 01	32° 22' 46 022 N	103° 53' 2 282 W
9 559 0	81 20	266 50	9 221 6	-446 7	-577 6	502 048 49	638 694 45	32° 22' 46 004 N	103° 53' 2 638 W
9 591 0	83 10	266 30	9 226 0	-448 7	-609 2	502 046 50	638 662 81	32° 22' 45 986 N	103° 53' 3 007 W
9 622 0	85 40	266 50	9 229 1	-450 6	-640 0	502 044 56	638 632 03	32° 22' 45 968 N	103° 53' 3 366 W
9 654 0	88 50	267 20	9 230 8	-452 4	-671 9	502 042 81	638 600 13	32° 22' 45 952 N	103° 53' 3 739 W
9 685 0	91 50	267 90	9 230 8	-453 7	-702 8	502 041 48	638 569 16	32° 22' 45 940 N	103° 53' 4 100 W
9 716 0	93 60	268 80	9 229 4	-454 6	-733 8	502 040 59	638 538 21	32° 22' 45 933 N	103° 53' 4 461 W
9 779 0	94 80	268 10	9 224 8	-456 3	-796 6	502 038 89	638 475 40	32° 22' 45 919 N	103° 53' 5 193 W
9 874 0	93 50	266 70	9 218 0	-460 6	-891 3	502 034 59	638 380 75	32° 22' 45 880 N	103° 53' 6 297 W
9 995 0	91 40	265 90	9 212 8	-468 4	-1 011 9	502 026 79	638 260 12	32° 22' 45 808 N	103° 53' 7 704 W
10 088 0	90 70	267 50	9 211 1	-473 8	-1 104 7	502 021 44	638 167 30	32° 22' 45 759 N	103° 53' 8 787 W
10 183 0	89 70	267 70	9 210 7	-477 7	-1 199 6	502 017 46	638 072 38	32° 22' 45 723 N	103° 53' 9 894 W
10 278 0	90 20	267 80	9 210 8	-481 5	-1 294 5	502 013 73	637 977 46	32° 22' 45 690 N	103° 53' 11 001 W
10 372 0	90 60	268 30	9 210 2	-484 7	-1 388 5	502 010 53	637 883 51	32° 22' 45 662 N	103° 53' 12 097 W
10 467 0	90 10	269 10	9 209 6	-486 8	-1 483 5	502 008 38	637 788 54	32° 22' 45 645 N	103° 53' 13 204 W
10 562 0	89 40	270 40	9 210 0	-487 2	-1 578 5	502 007 96	637 693 55	32° 22' 45 645 N	103° 53' 14 312 W
10 657 0	91 10	271 40	9 209 6	-485 7	-1 673 4	502 009 45	637 598 56	32° 22' 45 663 N	103° 53' 15 419 W
10 752 0	92 90	271 70	9 206 3	-483 2	-1 768 3	502 012 02	637 503 66	32° 22' 45 693 N	103° 53' 16 526 W
10 846 0	92 70	271 70	9 201 7	-480 4	-1 862 2	502 014 81	637 409 81	32° 22' 45 724 N	103° 53' 17 620 W
10 941 0	92 80	271 40	9 197 1	-477 8	-1 957 0	502 017 37	637 314 96	32° 22' 45 754 N	103° 53' 18 726 W
11 035 0	90 70	270 20	9 194 3	-476 5	-2 051 0	502 018 69	637 221 02	32° 22' 45 770 N	103° 53' 19 822 W
11 128 0	90 20	269 10	9 193 5	-477 1	-2 144 0	502 018 12	637 128 02	32° 22' 45 769 N	103° 53' 20 906 W
11 220 0	91 50	268 90	9 192 2	-478 7	-2 236 0	502 016 51	637 036 05	32° 22' 45 756 N	103° 53' 21 979 W
11 314 0	91 20	269 70	9 189 9	-479 8	-2 329 9	502 015 36	636 942 08	32° 22' 45 749 N	103° 53' 23 074 W



Survey Report - Geographic



Company	XTO ENERGY INC	Local Co-ordinate Reference	Well James Ranch Unit DI 1 #157H
Project	Eddy County, NM	TVD Reference	RKB @ 3189 0usft (Noram #25)
Site	Sec 21, T22S R30E	MD Reference	RKB @ 3189 0usft (Noram #25)
Well	James Ranch Unit DI 1 #157H	North Reference	Grid
Wellbore	Wellbore #1	Survey Calculation Method	Minimum Curvature
Design	Wellbore #1	Database	EDM 5000 1 Single User Db

Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude
11 407 0	91 60	271 10	9 187 7	-479 2	-2 422 9	502 016 01	636 849 12	32° 22' 45 759 N	103° 53' 24 158 W
11 501 0	93 60	271 10	9 183 4	-477 4	-2 516 8	502 017 82	636,755 23	32° 22' 45 781 N	103° 53' 25 253 W
11 594 0	92 50	271 10	9 178 5	-475 6	-2 609 6	502 019 60	636 662 39	32° 22' 45 802 N	103° 53' 26 336 W
11 689 0	88 30	269 70	9 177 8	-474 9	-2 704 6	502 020 26	636 567 41	32° 22' 45 813 N	103° 53' 27 443 W
11 784 0	88 20	268 70	9 180 7	-476 3	-2 799 5	502 018 93	636 472 47	32° 22' 45 804 N	103° 53' 28 550 W
11,878 0	88 80	267 90	9 183 2	-479 1	-2 893 5	502 016 15	636 378 54	32° 22' 45 780 N	103° 53' 29 646 W
11 973 0	89 40	266 60	9 184 7	-483 6	-2 988 3	502 011 59	636 283 67	32° 22' 45 739 N	103° 53' 30 752 W
12 068 0	89 80	268 00	9 185 3	-488 1	-3 083 2	502 007 11	636 188 78	32° 22' 45 698 N	103° 53' 31 859 W
12 161 0	91 40	270 10	9 184 3	-489 6	-3 176 2	502 005 57	636 095 80	32° 22' 45 687 N	103° 53' 32 943 W
12 255 0	92 90	269 80	9 180 8	-489 7	-3 270 1	502 005 49	636 001 87	32° 22' 45 690 N	103° 53' 34 039 W
12 349 0	93 50	270 10	9 175 6	-489 8	-3 364 0	502 005 41	635 908 02	32° 22' 45 693 N	103° 53' 35 133 W
12 443 0	91 50	270 10	9 171 5	-489 6	-3 457 9	502 005 57	635 814 11	32° 22' 45 698 N	103° 53' 36 228 W
12 538 0	91 90	270 20	9 168 6	-489 4	-3 552 8	502 005 82	635 719 16	32° 22' 45 704 N	103° 53' 37 335 W
12 632 0	93 60	269 80	9 164 1	-489 4	-3 646 7	502 005 82	635 625 27	32° 22' 45 708 N	103° 53' 38 430 W
12 725 0	92 30	270 10	9 159 4	-489 5	-3 739 6	502 005 74	635 532 39	32° 22' 45 711 N	103° 53' 39 513 W
12 820 0	92 10	269 70	9 155 7	-489 6	-3 834 5	502 005 58	635 437 46	32° 22' 45 713 N	103° 53' 40 620 W
12 914 0	93 20	268 30	9 151 4	-491 3	-3 928 4	502 003 94	635 343 58	32° 22' 45 701 N	103° 53' 41 715 W
13 009 0	91 60	268 10	9 147 4	-494 2	-4 023 3	502 000 96	635,248 72	32° 22' 45 675 N	103° 53' 42 822 W
13 105 0	91 30	268 00	9 145 0	-497 5	-4 119 2	501 997 69	635 152 80	32° 22' 45 647 N	103° 53' 43 940 W
13 199 0	90 80	268 30	9 143 2	-500 5	-4 213 1	501,994 66	635 058 87	32° 22' 45 621 N	103° 53' 45 036 W
13 294 0	90 80	268 40	9 141 9	-503 3	-4 308 1	501 991 92	634 963 92	32° 22' 45 598 N	103° 53' 46 143 W
13 388 0	91 00	270 20	9 140 4	-504 4	-4 402 1	501 990 77	634 869 94	32° 22' 45 590 N	103° 53' 47 239 W
13 483 0	89 90	271 10	9 139 7	-503 4	-4 497 1	501 991 85	634 774 95	32° 22' 45 604 N	103° 53' 48 347 W
13 578 0	90 80	272 10	9 139 1	-500 7	-4 592 0	501 994 50	634,679 99	32° 22' 45 635 N	103° 53' 49 454 W
13 673 0	91 10	272 60	9 137 5	-496 8	-4 686 9	501 998 40	634 585 08	32° 22' 45 677 N	103° 53' 50 560 W
13 767 0	91 60	273 40	9 135 3	-491 9	-4 780 8	502 003 32	634 491 24	32° 22' 45 729 N	103° 53' 51 654 W
13 861 0	93 30	273 10	9 131 3	-486 6	-4 874 5	502 008 64	634,397 48	32° 22' 45 786 N	103° 53' 52 747 W
13 954 0	94 00	272 50	9 125 4	-482 0	-4 967 2	502 013 17	634,304 78	32° 22' 45 834 N	103° 53' 53 828 W
14 049 0	93 20	271 70	9 119 4	-478 6	-5 062 0	502 016 65	634 210 03	32° 22' 45 873 N	103° 53' 54 933 W
14 144 0	92 70	270 40	9 114 5	-476 8	-5 156 8	502 018 39	634 115 18	32° 22' 45 894 N	103° 53' 56 039 W
14 239 0	94 80	269 80	9 108 3	-476 6	-5 251 6	502 018 55	634 020 39	32° 22' 45 899 N	103° 53' 57 144 W
14 334 0	94 70	269 80	9 100 4	-477 0	-5 346 3	502 018 22	633 925 71	32° 22' 45 900 N	103° 53' 58 248 W
14 414 0	95 75	269 30	9 093 2	-477 6	-5 426 0	502 017 60	633 846 05	32° 22' 45 897 N	103° 53' 59 177 W
14 508 0	96 71	269 39	9 083 0	-478 7	-5 519 4	502 016 53	633 752 61	32° 22' 45 890 N	103° 54' 0 267 W
14 607 0	95 81	269 21	9 072 2	-479 9	-5 617 8	502 015 33	633 654 21	32° 22' 45 882 N	103° 54' 1 414 W
14 702 0	92 98	268 95	9 064 9	-481 4	-5 712 5	502 013 80	633 559 51	32° 22' 45 871 N	103° 54' 2 519 W
14 797 0	91 04	268 60	9 061 5	-483 4	-5 807 4	502 011 77	633 464 60	32° 22' 45 854 N	103° 54' 3 626 W
14 893 0	89 70	268 95	9 060 9	-485 5	-5 903 4	502 009 72	633 368 62	32° 22' 45 838 N	103° 54' 4 745 W
14 987 0	89 66	269 48	9 061 4	-486 8	-5 997 4	502 008 43	633 274 63	32° 22' 45 829 N	103° 54' 5 841 W
15 082 0	89 33	269 21	9 062 3	-487 9	-6 092 4	502 007 35	633 179 64	32° 22' 45 822 N	103° 54' 6 949 W
15 176 0	89 18	268 86	9 063 5	-489 4	-6 186 3	502 005 77	633 085 67	32° 22' 45 810 N	103° 54' 8 045 W
15 271 0	89 40	268 86	9 064 7	-491 3	-6 281 3	502 003 88	632 990 69	32° 22' 45 795 N	103° 54' 9 152 W
15 365 0	89 15	268 95	9 065 9	-493 1	-6 375 3	502 002 08	632 896 72	32° 22' 45 781 N	103° 54' 10 248 W
15 460 0	89 48	270 27	9 067 0	-493 8	-6 470 3	502 001 43	632 801 73	32° 22' 45 778 N	103° 54' 11 356 W
15 555 0	91 04	270 97	9 066 6	-492 7	-6 565 3	502 002 46	632 706 74	32° 22' 45 792 N	103° 54' 12 464 W
15 649 0	91 18	271 15	9 064 8	-491 0	-6 659 2	502 004 20	632 612 77	32° 22' 45 813 N	103° 54' 13 559 W
15 743 0	91 32	271 06	9 062 7	-489 2	-6 753 2	502 006 01	632,518 81	32° 22' 45 835 N	103° 54' 14 655 W
15 838 0	91 40	271 06	9 060 5	-487 4	-6 848 1	502 007 77	632 423 85	32° 22' 45 856 N	103° 54' 15 762 W
15,932 0	91 40	270 88	9 058 2	-485 8	-6,942 1	502 009 36	632 329 90	32° 22' 45 876 N	103° 54' 16 858 W
16 026 0	91 44	270 88	9 055 8	-484 4	-7 036 1	502 010 80	632 235 94	32° 22' 45 894 N	103° 54' 17 953 W
16 120 0	91 46	271 06	9 053 4	-482 8	-7 130 0	502 012 39	632 141 98	32° 22' 45 913 N	103° 54' 19 049 W
16 214 0	92 08	270 80	9 050 5	-481 3	-7,224 0	502 013 92	632 048 04	32° 22' 45 932 N	103° 54' 20 144 W
16 309 0	92 01	269 39	9 047 2	-481 1	-7,318 9	502 014 08	631 953 10	32° 22' 45 937 N	103° 54' 21 251 W
16 404 0	91 44	269 21	9 044 3	-482 3	-7 413 9	502 012 92	631 858 15	32° 22' 45 929 N	103° 54' 22 358 W
16,498 0	91 37	269 13	9 042 0	-483 6	-7 507 8	502 011 55	631 764 19	32° 22' 45 920 N	103° 54' 23 454 W



Survey Report - Geographic



Company	XTO ENERGY INC	Local Co-ordinate Reference	Well James Ranch Unit DI 1 #157H
Project:	Eddy County NM	TVD Reference	RKB @ 3189 Ousft (Noram #25)
Site	Sec 21 T22S R30E	MD Reference	RKB @ 3189 Ousft (Noram #25)
Well	James Ranch Unit DI 1 #157H	North Reference	Grid
Wellbore	Wellbore #1	Survey Calculation Method	Minimum Curvature
Design	Wellbore #1	Database	EDM 5000 1 Single User Db

Survey										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude	
16 593 0	91 42	269 39	9 039 7	-484 9	-7 602 8	502 010 33	631 669 23	32° 22' 45 911 N	103° 54' 24 562 W	
16 686 0	91 48	269 57	9 037 3	-485 7	-7 695 7	502 009 48	631 576 26	32° 22' 45 907 N	103° 54' 25 646 W	
16 779 0	91 44	269 13	9 035 0	-486 8	-7 788 7	502 008 43	631 483 30	32° 22' 45 900 N	103° 54' 26 730 W	
16 872 0	91 33	269 04	9 032 7	-488 3	-7 881 7	502 006 94	631 390 33	32° 22' 45 889 N	103° 54' 27 814 W	
16 967 0	91 13	268 86	9 030 7	-490 0	-7 976 6	502 005 20	631 295 37	32° 22' 45 875 N	103° 54' 28 921 W	
17 062 0	91 53	268 77	9 028 5	-492 0	-8 071 6	502,003 24	631,200 42	32° 22' 45 860 N	103° 54' 30 029 W	
17 157 0	91 57	268 95	9 025 9	-493 9	-8 166 5	502 001 35	631 105 47	32° 22' 45 845 N	103° 54' 31 136 W	
17 251 0	91 40	269 83	9 023 5	-494 9	-8 260 5	502 000 35	631 011 51	32° 22' 45 838 N	103° 54' 32 232 W	
17 346 0	91 51	270 88	9 021 0	-494 3	-8 355 5	502 000 94	630,916 54	32° 22' 45 848 N	103° 54' 33 339 W	
17,440 0	91 33	270 97	9 018 7	-492 7	-8 449 4	502 002 46	630 822 58	32° 22' 45 867 N	103° 54' 34 435 W	
17 535 0	91 40	270 80	9 016 5	-491 3	-8 544 4	502 003 92	630 727 62	32° 22' 45 885 N	103° 54' 35 542 W	
17 628 0	91 48	271 06	9 014 1	-489 8	-8 637 3	502 005 43	630 634 66	32° 22' 45 904 N	103° 54' 36 626 W	
17 722 0	91 53	270 97	9 011 6	-488 1	-8 731 3	502 007 10	630 540 71	32° 22' 45 924 N	103° 54' 37 721 W	
17 817 0	91 44	270 97	9 009 2	-486 5	-8 826 2	502 008 70	630 445 76	32° 22' 45 943 N	103° 54' 38 829 W	
17 912 0	92 03	271 15	9 006 3	-484 7	-8 921 2	502 010 46	630 350 82	32° 22' 46 043 N	103° 54' 39 936 W	
18 006 0	92 01	271 06	9 003 0	-482 9	-9 015 1	502 012 27	630 256 89	32° 22' 46 062 N	103° 54' 41 031 W	
18 101 0	91 83	270 97	8 999 8	-481 2	-9 110 0	502 013 95	630 161 96	32° 22' 46 006 N	103° 54' 42 138 W	
18 195 0	91 99	270 88	8 996 7	-479 7	-9 204 0	502 015 47	630 068 03	32° 22' 46 025 N	103° 54' 43 233 W	
18 289 0	91 86	270 88	8 993 5	-478 3	-9 297 9	502 016 91	629 974 09	32° 22' 46 043 N	103° 54' 44 328 W	
18 384 0	91 79	270 97	8 990 5	-476 8	-9 392 9	502 018 45	629 879 15	32° 22' 46 062 N	103° 54' 45 435 W	
18 478 0	91 81	270 88	8 987 5	-475 2	-9 486 8	502,019 96	629 785 21	32° 22' 46 080 N	103° 54' 46 531 W	
18 573 0	92 27	271 41	8 984 2	-473 3	-9 581 7	502 021 86	629 690 29	32° 22' 46 103 N	103° 54' 47 638 W	
18 668 0	91 99	271 06	8 980 6	-471 3	-9 676 6	502 023 91	629 595 38	32° 22' 46 127 N	103° 54' 48 744 W	
18 763 0	92 23	270 01	8 977 1	-470 4	-9 771 6	502 024 79	629 500 45	32° 22' 46 139 N	103° 54' 49 851 W	
18 857 0	91 99	269 48	8 973 7	-470 8	-9 865 5	502 024 38	629 406 51	32° 22' 46 139 N	103° 54' 50 947 W	
18 952 0	92 25	269 57	8 970 2	-471 6	-9 960 4	502 023 59	629 311 58	32° 22' 46 135 N	103° 54' 52 054 W	
19 047 0	91 97	269 57	8 966 7	-472 3	-10 055 4	502,022 88	629 216 65	32° 22' 46 131 N	103° 54' 53 161 W	
19 141 0	91 64	269 48	8 963 7	-473 1	-10 149 3	502 022 10	629 122 70	32° 22' 46 127 N	103° 54' 54 256 W	
19 237 0	91 53	269 13	8 961 0	-474 3	-10 245 3	502 020 93	629 028 74	32° 22' 46 119 N	103° 54' 55 375 W	
19 331 0	91 62	269 21	8 958 5	-475 6	-10 339 2	502 019 57	628 932 79	32° 22' 46 110 N	103° 54' 56 471 W	
19 427 0	91 29	269 21	8 956 0	-477 0	-10 435 2	502 018 25	628 836 83	32° 22' 46 100 N	103° 54' 57 590 W	
19 521 0	91 44	269 30	8 953 8	-478 2	-10 529 1	502 017 03	628 742 86	32° 22' 46 092 N	103° 54' 58 686 W	
19 616 0	91 53	269 30	8 951 3	-479 3	-10 624 1	502 015 87	628 647 90	32° 22' 46 084 N	103° 54' 59 793 W	
19 710 0	91 42	269 57	8,948 9	-480 3	-10 718 1	502 014 94	628 553 94	32° 22' 46 078 N	103° 55' 0 889 W	
19 805 0	91 68	269 39	8 946 3	-481 1	-10 813 0	502 014 08	628 458 98	32° 22' 46 074 N	103° 55' 1 996 W	
19 900 0	92 32	269 65	8 943 0	-481 9	-10 908 0	502 013 28	628 364 04	32° 22' 46 069 N	103° 55' 3 104 W	
19 995 0	92 65	270 62	8 938 9	-481 7	-11 002 9	502 013 51	628 269 13	32° 22' 46 075 N	103° 55' 4 210 W	
20 092 0	91 53	270 62	8 935 4	-480 6	-11 099 8	502 014 55	628 172 20	32° 22' 46 089 N	103° 55' 5 340 W	
20 187 0	91 13	271 32	8 933 2	-479 0	-11 194 8	502 016 16	628 077 24	32° 22' 46 109 N	103° 55' 6 448 W	
20 281 0	91 35	270 97	8 931 1	-477 2	-11 288 7	502 018 04	627 983 28	32° 22' 46 131 N	103° 55' 7 543 W	
20 376 0	91 26	271 32	8 929 0	-475 3	-11 383 7	502 019 94	627 888 33	32° 22' 46 153 N	103° 55' 8 651 W	
20 471 0	91 53	271 59	8 926 6	-472 9	-11 478 6	502 022 35	627 793 38	32° 22' 46 181 N	103° 55' 9 758 W	
20 566 0	91 46	270 09	8 924 2	-471 5	-11 573 6	502 023 74	627 698 43	32° 22' 46 198 N	103° 55' 10 865 W	
20 660 0	91 68	270 01	8 921 6	-471 4	-11 667 5	502 023 82	627 604 46	32° 22' 46 203 N	103° 55' 11 960 W	
20 755 0	92 05	267 81	8 918 5	-473 2	-11 762 5	502 022 02	627 509 54	32° 22' 46 188 N	103° 55' 13 068 W	
20 849 0	91 33	267 10	8 915 7	-477 4	-11 856 3	502 017 85	627,415 67	32° 22' 46 151 N	103° 55' 14 162 W	
20 944 0	91 37	267 10	8 913 5	-482 2	-11 951 2	502 013 04	627 320 82	32° 22' 46 107 N	103° 55' 15 269 W	
21 038 0	91 07	267 28	8 911 5	-486 8	-12 045 0	502 008 43	627 226 96	32° 22' 46 065 N	103° 55' 16 363 W	
21 133 0	90 74	268 60	8 910 0	-490 2	-12 140 0	502 005 02	627,132 03	32° 22' 46 035 N	103° 55' 17 470 W	
21 228 0	90 69	268 95	8 908 8	-492 2	-12 234 9	502 002 99	627 037 06	32° 22' 46 018 N	103° 55' 18 578 W	
21 322 0	91 95	268 77	8 906 6	-494 1	-12,328 9	502 001 12	626,943 11	32° 22' 46 003 N	103° 55' 19 674 W	
21,417 0	91 18	270 27	8 904 0	-494 9	-12 423 9	502 000 32	626 848 15	32° 22' 45 999 N	103° 55' 20 781 W	
21 512 0	91 62	270 88	8 901 7	-493 9	-12 518 8	502 001 28	626 753 18	32° 22' 46 012 N	103° 55' 21 888 W	
21 606 0	91 37	270 80	8 899 3	-492 5	-12 612 8	502 002 65	626 659 22	32° 22' 46 029 N	103° 55' 22 984 W	
21 700 0	91 15	270 71	8 897 2	-491 3	-12 706 7	502 003 89	626 565 25	32° 22' 46 045 N	103° 55' 24 080 W	



Survey Report - Geographic



Company	XTO ENERGY INC	Local Co-ordinate Reference	Well James Ranch Unit DI 1 #157H
Project:	Eddy County NM	TVD Reference	RKB @ 3189 0usft (Noram #25)
Site	Sec 21 T22S R30E	MD Reference	RKB @ 3189 0usft (Noram #25)
Well	James Ranch Unit DI 1 #157H	North Reference	Gnd
Wellbore	Wellbore #1	Survey Calculation Method	Minimum Curvature
Design	Wellbore #1	Database	EDM 5000 1 Single User Db

Survey										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude	
21 795 0	91 31	270 36	8 895 2	-490 4	-12 801 7	502 004 78	626 470 28	32° 22' 46 057 N	103° 55' 25 187 W	
21 889 0	91 09	270 27	8 893 2	-489 9	-12 895 7	502 005 30	626 376 30	32° 22' 46 066 N	103° 55' 26 283 W	
21 983 0	91 57	270 62	8 891 0	-489 2	-12 989 7	502 006 03	626 282 33	32° 22' 46 077 N	103° 55' 27 379 W	
22 078 0	91 57	270 53	8 888 4	-488 2	-13 084 6	502 006 98	626 187 37	32° 22' 46 090 N	103° 55' 28 486 W	
22 172 0	91 73	270 97	8 885 7	-487 0	-13 178 6	502 008 21	626 093 42	32° 22' 46 106 N	103° 55' 29 582 W	
22 267 0	91 51	269 57	8 883 0	-486 5	-13 273 5	502 008 66	625 998 46	32° 22' 46 114 N	103° 55' 30 689 W	
22 362 0	91 48	268 95	8 880 5	-487 8	-13 368 5	502 007 43	625 903 50	32° 22' 46 105 N	103° 55' 31 796 W	
22 457 0	91 37	268 69	8 878 2	-489 7	-13 463 5	502 005 47	625 808 55	32° 22' 46 089 N	103° 55' 32 904 W	
22 551 0	91 99	268 69	8 875 4	-491 9	-13 557 4	502 003 33	625 714 62	32° 22' 46 072 N	103° 55' 33 999 W	
22 646 0	92 34	268 77	8 871 8	-494 0	-13 652 3	502 001 22	625 619 71	32° 22' 46 054 N	103° 55' 35 106 W	
22 741 0	92 27	269 21	8 868 0	-495 7	-13 747 2	501 999 55	625 524 80	32° 22' 46 041 N	103° 55' 36 213 W	
22 836 0	92 36	268 95	8 864 2	-497 2	-13 842 1	501 998 02	625 429 89	32° 22' 46 030 N	103° 55' 37 320 W	
22 931 0	92 19	268 69	8 860 4	-499 1	-13 937 0	501 996 07	625 334 98	32° 22' 46 014 N	103° 55' 38 426 W	
23 025 0	92 34	268 86	8 856 7	-501 1	-14 030 9	501 994 06	625 241 08	32° 22' 45 998 N	103° 55' 39 521 W	
23 120 0	92 27	269 04	8 852 9	-502 9	-14 125 8	501 992 32	625 146 17	32° 22' 45 984 N	103° 55' 40 628 W	
23 215 0	92 30	268 77	8 849 1	-504 7	-14 220 7	501 990 51	625 051 27	32° 22' 45 970 N	103° 55' 41 735 W	
23 277 0	92 05	269 21	8 846 7	-505 8	-14 282 7	501 989 42	624 989 32	32° 22' 45 961 N	103° 55' 42 457 W	
23 310 0	92 05	269 21	8 845 5	-506 2	-14 315 7	501 988 96	624 956 34	32° 22' 45 958 N	103° 55' 42 842 W	
TD @ 23310 0' MD / 8845 5' TVD										

Design Annotations					
Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates			
		+N/-S (usft)	+E/-W (usft)	Comment	
142 0	142 0	-0 1	-0 9	First MWD Survey @ 142 0 MD / TVD	
23 310 0	8 845 5	-506 2	-14 315 7	TD @ 23310 0' MD / 8845 5' TVD	