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JAN 22 2020

Form C-102

Revised August 1, 2011

District I

1625 N. French Dr., Hobbs, NM 88240
Phone: (575) 393-6161 Fax: (575) 393-0720

District II

811 S. First St., Artesia, NM 88210
Phone: (575) 748-1283 Fax: (575) 748-9720

District III

1000 Rio Brazos Road, Aztec, NM 87410
Phone: (505) 334-6178 Fax: (505) 334-6170

District IV

1220 S. St. Francis Dr., Santa Fe, NM 87505
Phone: (505) 476-3460 Fax: (505) 476-3462State of New Mexico
Energy, Minerals & Natural Resources Department

OIL CONSERVATION DIVISION

1220 South St. Francis Dr.

Santa Fe, NM 87505

Submit to appropriate
District Office☒ AMENDED REPORT

as-drilled

WELL LOCATION AND ACREAGE DEDICATION PLAT

¹ API Number 30-015-44854	² Pool Code 39350	³ Pool Name Livingston Ridge, Bone Spring
⁴ Property Code 32158	⁵ Property Name TOMB RAIDER 12 FED	⁶ Well Number 213H
⁷ OGRID No. 6137	⁸ Operator Name DEVON ENERGY PRODUCTION COMPANY, L.P.	⁹ Elevation 3504.0

¹⁰ Surface Location

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
O	12	23 S	31 E		50	SOUTH	1450	EAST	EDDY

¹¹ Bottom Hole Location If Different From Surface

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
B	12	23 S	31 E		21	NORTH	1669	EAST	EDDY
¹² Dedicated Acres 160	¹³ Joint or Infill	¹⁴ Consolidation Code	¹⁵ Order No.						

No allowable will be assigned to this completion until all interests have been consolidated or a non-standard unit has been approved by the division.

N89°42'20"E 2634.57 FT NW CORNER SEC. 12 LAT. = 32.3262057°N LONG. = 103.7400123°W NMSP EAST (FT) N = 482913.26 E = 724607.20 AS-DRILLED LAST TAKE POINT 168' FSL, 1669' FEL LAT. = 32.3257394°N LONG. = 103.7283565°W NMSP EAST (FT) N = 482763.72 E = 728208.54 W/4 CORNER SEC. 12 LAT. = 32.3189531°N LONG. = 103.7400200°W NMSP EAST (FT) N = 480274.75 E = 724619.44 AS-DRILLED KOP 43' FSL, 1710' FEL LAT. = 32.3118146°N LONG. = 103.7284925°W NMSP EAST (FT) N = 477697.72 E = 728195.14 SW CORNER SEC. 12 LAT. = 32.3116999°N LONG. = 103.7400280°W NMSP EAST (FT) N = 477636.10 E = 724631.57		N89°41'07"E 2635.44 FT N/4 CORNER SEC. 12 LAT. = 32.3262026°N LONG. = 103.7314852°W NMSP EAST (FT) N = 482926.80 E = 727241.16 AS-DRILLED BOTTOM OF HOLE LAT. = 32.3261432°N LONG. = 103.7283580°W NMSP EAST (FT) N = 482910.63 E = 728207.28 NOTE: LATITUDE AND LONGITUDE COORDINATES ARE SHOWN USING THE NORTH AMERICAN DATUM OF 1983 (NAD83). LISTED NEW MEXICO STATE PLANE EAST COORDINATES ARE GRID (NAD83). BASIS OF BEARING AND DISTANCES USED ARE NEW MEXICO STATE PLANE EAST COORDINATES MODIFIED TO THE SURFACE. VERTICAL DATUM NAVD88. TOMB RAIDER 12 FED 213H ELEV. = 3504.0' LAT. = 32.3118337°N (NAD83) LONG. = 103.7276518°W NMSP EAST (FT) N = 477706.15 E = 728454.84 S/4 CORNER SEC. 12 LAT. = 32.3116989°N LONG. = 103.7314958°W NMSP EAST (FT) N = 477650.42 E = 727267.52		N89°41'07"E 2635.44 FT NE CORNER SEC. 12 LAT. = 32.3262014°N LONG. = 103.7229554°W NMSP EAST (FT) N = 482941.27 E = 729875.98 E/4 CORNER SEC. 12 LAT. = 32.3189486°N LONG. = 103.7229585°W NMSP EAST (FT) N = 480302.72 E = 729890.06 SE CORNER SEC. 12 LAT. = 32.3116930°N LONG. = 103.7229595°W NMSP EAST (FT) N = 477663.17 E = 729904.77	
N00°15'57"W 2639.10 FT N00°15'48"W 2639.26 FT		N00°18'20"E 2639.16 FT N00°19'10"E 2640.16 FT			
1669' 21' 1450'					

¹⁷ OPERATOR CERTIFICATION

I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief, and that this organization either owns a working interest or unleased mineral interest in the land including the proposed bottom hole location or has a right to drill this well at this location pursuant to a contract with an owner of such a mineral or working interest, or to a voluntary pooling agreement or a compulsory pooling order heretofore entered by the division.

Jenny Harms 9-11-2019
Signature Date

Jenny Harms
Printed Name

Jenny.harms@dmn.com
E-mail Address

¹⁸ SURVEYOR CERTIFICATION

I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my belief.

AUGUST 21, 2019
Date of Survey

William F. Jaramillo
Signature and Seal of Professional Surveyor

Certificate Number 12789
WILLIAM F. JARAMILLO, PLS 5239B

Intent ☐ As Drilled ☒

API #

30-015-44854

Operator Name:

DEVON ENERGY PRODUCTION CO., L.P.

Property Name:

TOMB RAIDER 12 FED

Well Number

213H

Kick Off Point (KOP)

UL	Section	Township	Range	Lot	Feet	From N/S	Feet	From E/W	County
O	12	23S	31E		43	SOUTH	1710	EAST	EDDY
Latitude					Longitude			NAD	
32.3118146					103.7284925			83	

First Take Point (FTP)

UL	Section	Township	Range	Lot	Feet	From N/S	Feet	From E/W	County
O	12	23S	31E		373	SOUTH	1669	EAST	EDDY
Latitude					Longitude			NAD	
32.3127232					103.7283593			83	

Last Take Point (LTP)

UL	Section	Township	Range	Lot	Feet	From N/S	Feet	From E/W	County
B	12	23S	31E		168	NORTH	1669	EAST	EDDY
Latitude					Longitude			NAD	
32.3257394					103.7283565			83	

Is this well the defining well for the Horizontal Spacing Unit?

yes

Is this well an infill well?

no

If infill is yes please provide API if available, Operator Name and well number for Defining well for Horizontal Spacing Unit.

API #

Operator Name:

Property Name:

Well Number

KZ 06/29/2018



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EMNRD-OGD ARTESIA

March 6, 2019

Devon Energy Production Company, LP
Well: Tomb Raider 12 Fed 213H
County/Parish: Eddy County, NM

LEAM MWD: (OH) from 0' MD – 15,213' MD
Projection: 15,271' MD

This Borehole Survey taken between 01/13/19 and 02/28/19 had been conducted and calculated according to the highest professional standards and complies with all known State and Federal requirements.

Reviewed and Approved:

Date: March 6, 2019



Survey Certification Form

State of New Mexico

Eddy County

I, Randy W. Rakowitz, certify that; I am employed by LEAM Drilling Services, that I did on the day(s) of 01/13/2019 through 02/28/2019, conduct or supervise the taking of MWD Survey from a depth of 0' MD to 15,271' MD; that the data is true, correct, complete and within the limitations of the tools as set forth by LEAM Drilling Services, that I am authorized and qualified to make this report; that this survey was conducted at the request of Devon Energy Production Company, LP for the Tomb Raider 12 Fed 213H in Eddy County, New Mexico; and that I reviewed this report and find that it conforms to the principals and procedures as set forth by LEAM Drilling Services.

A handwritten signature in black ink, appearing to read 'Randy W. Rakowitz', is written over a horizontal line.

Randy W. Rakowitz
MWD Operations Coordinator

LEAM Drilling Systems

Survey Report

Company:	Devon Energy	Local Co-ordinate Reference:	Well Tomb Raider 12 Fed 213H
Project:	Eddy County, NM (NAD-83)	TVD Reference:	3504.0' GE + 32' KB @ 3536.00usft
Site:	Tomb Raider 12 Fed	MD Reference:	3504.0' GE + 32' KB @ 3536.00usft
Well:	Tomb Raider 12 Fed 213H	North Reference:	Grid
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	OH	Database:	LEAM Multi_User Db

Project	Eddy County, NM (NAD-83)	
Map System:	US State Plane 1983	System Datum:
Geo Datum:	North American Datum 1983	Mean Sea Level
Map Zone:	New Mexico Eastern Zone	

Site	Tomb Raider 12 Fed	
Site Position:		Northing:
From:	Map	477,706.15 usft
Position Uncertainty:	0.00 usft	Easting:
		728,454.84 usft
		Slot Radius:
		13-3/16 "
		Latitude:
		32° 18' 42.6014 N
		Longitude:
		103° 43' 39.5463 W
		Grid Convergence:
		0.32 °

Well	Tomb Raider 12 Fed 213H	
Well Position	+N/-S	0.00 usft
	+E/-W	0.00 usft
Position Uncertainty	0.00 usft	Wellhead Elevation:
		0.00 usft
	Northing:	477,706.15 usft
	Easting:	728,454.84 usft
	Latitude:	32° 18' 42.6014 N
	Longitude:	103° 43' 39.5463 W
	Ground Level:	3,504.00 usft

Wellbore	OH	
Magnetics	Model Name	Sample Date
	HDGM	11/28/2018
	Declination	Dip Angle
	(°)	(°)
	6.87	60.07
		Field Strength
		(nT)
		48,031.00000000

Design	OH	
Audit Notes:		
Version:	1.0	Phase:
		ACTUAL
		Tie On Depth:
		0.00
Vertical Section:	Depth From (TVD)	+N/-S
	(usft)	(usft)
	0.00	0.00
		+E/-W
		(usft)
		0.00
		Direction
		(°)
		0.01

Survey Program	Date	3/10/2019	
From	To	Survey (Wellbore)	Tool Name
(usft)	(usft)		
149.00	15,213.00	Survey #1 - MWD (OH)	LEAM MWD+HDGM
15,271.00	15,271.00	Projection (OH)	Project
			Description
			MWD+HDGM
			Projection

Survey										
Measured	Inclination	Azimuth	Vertical	+N/-S	+E/-W	Vertical	Dogleg	Build	Turn	
Depth	(°)	(°)	Depth	(usft)	(usft)	Section	Rate	Rate	Rate	
(usft)			(usft)			(usft)	(°/100usft)	(°/100usft)	(°/100usft)	
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
149.00	0.70	163.70	149.00	-0.87	0.26	-0.87	0.47	0.47	0.00	
241.00	0.40	160.90	240.99	-1.72	0.52	-1.72	0.33	-0.33	-3.04	
332.00	0.40	224.50	331.99	-2.24	0.40	-2.24	0.46	0.00	69.89	
424.00	0.40	95.50	423.99	-2.50	0.49	-2.50	0.78	0.00	-140.22	
514.00	0.53	75.26	513.99	-2.43	1.21	-2.43	0.23	0.14	-22.49	
606.00	0.35	106.90	605.98	-2.40	1.89	-2.40	0.32	-0.20	34.39	
697.00	0.20	92.80	696.98	-2.49	2.31	-2.49	0.18	-0.16	-15.49	
789.00	0.70	351.20	788.98	-1.94	2.39	-1.94	0.83	0.54	-110.43	
847.00	0.70	13.60	846.98	-1.25	2.42	-1.25	0.47	0.00	38.62	

LEAM Drilling Systems

Survey Report

Company:	Devon Energy	Local Co-ordinate Reference:	Well Tomb Raider 12 Fed 213H
Project:	Eddy County, NM (NAD-83)	TVD Reference:	3504.0' GE + 32' KB @ 3536.00usft
Site:	Tomb Raider 12 Fed	MD Reference:	3504.0' GE + 32' KB @ 3536.00usft
Well:	Tomb Raider 12 Fed 213H	North Reference:	Grid
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	OH	Database:	LEAM Multi_User Db

Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
972.00	0.60	332.10	971.97	0.07	2.29	0.07	0.38	-0.08	-33.20
1,063.00	0.60	321.40	1,062.96	0.87	1.77	0.87	0.12	0.00	-11.76
1,154.00	0.70	316.30	1,153.96	1.64	1.09	1.64	0.13	0.11	-5.60
1,249.00	0.60	335.60	1,248.95	2.51	0.48	2.51	0.25	-0.11	20.32
1,339.00	0.40	315.00	1,338.95	3.16	0.07	3.16	0.30	-0.22	-22.89
1,430.00	0.30	309.90	1,429.95	3.54	-0.34	3.54	0.11	-0.11	-5.60
1,521.00	0.30	334.20	1,520.95	3.91	-0.63	3.91	0.14	0.00	26.70
1,615.00	0.40	318.40	1,614.94	4.38	-0.95	4.38	0.15	0.11	-16.81
1,705.00	0.30	0.60	1,704.94	4.85	-1.16	4.85	0.30	-0.11	46.89
1,798.00	0.10	123.60	1,797.94	5.05	-1.09	5.05	0.39	-0.22	132.26
1,894.00	0.20	171.90	1,893.94	4.83	-0.99	4.83	0.16	0.10	50.31
1,988.00	0.30	178.10	1,987.94	4.43	-0.96	4.42	0.11	0.11	6.60
2,084.00	0.20	129.90	2,083.94	4.07	-0.83	4.07	0.23	-0.10	-50.21
2,179.00	0.30	135.20	2,178.94	3.78	-0.52	3.78	0.11	0.11	5.58
2,273.00	0.50	150.50	2,272.94	3.25	-0.15	3.25	0.24	0.21	16.28
2,369.00	0.40	132.60	2,368.93	2.66	0.30	2.66	0.18	-0.10	-18.65
2,462.00	0.50	115.30	2,461.93	2.27	0.91	2.27	0.18	0.11	-18.60
2,557.00	0.70	109.70	2,556.93	1.89	1.83	1.89	0.22	0.21	-5.89
2,652.00	0.70	102.90	2,651.92	1.57	2.94	1.57	0.09	0.00	-7.16
2,742.00	0.90	90.20	2,741.91	1.44	4.19	1.44	0.30	0.22	-14.11
2,838.00	1.00	71.00	2,837.90	1.71	5.73	1.71	0.35	0.10	-20.00
2,931.00	1.00	76.10	2,930.88	2.17	7.29	2.17	0.10	0.00	5.48
3,024.00	1.10	83.50	3,023.87	2.47	8.96	2.47	0.18	0.11	7.96
3,121.00	1.10	76.10	3,120.85	2.80	10.79	2.80	0.15	0.00	-7.63
3,216.00	0.30	121.50	3,215.84	2.89	11.89	2.89	0.96	-0.84	47.79
3,311.00	0.40	95.30	3,310.84	2.73	12.43	2.73	0.20	0.11	-27.58
3,407.00	1.70	250.90	3,406.83	2.23	11.42	2.23	2.16	1.35	162.08
3,503.00	0.40	62.40	3,502.82	1.92	10.37	1.92	2.18	-1.35	178.65
3,592.00	0.50	92.00	3,591.81	2.05	11.03	2.05	0.28	0.11	33.26
3,686.00	1.00	103.40	3,685.81	1.85	12.24	1.85	0.55	0.53	12.13
3,780.00	1.70	119.00	3,779.78	0.98	14.26	0.98	0.83	0.74	16.60
3,875.00	2.60	122.70	3,874.71	-0.87	17.30	-0.87	0.96	0.95	3.89
3,970.00	2.30	128.50	3,969.62	-3.22	20.61	-3.22	0.41	-0.32	6.11
4,161.00	3.30	134.00	4,160.39	-9.42	27.56	-9.42	0.54	0.52	2.88
4,254.00	3.40	136.60	4,253.24	-13.29	31.38	-13.28	0.20	0.11	2.80
4,349.00	3.30	132.00	4,348.07	-17.16	35.35	-17.16	0.30	-0.11	-4.84
4,445.00	3.00	133.10	4,443.93	-20.73	39.24	-20.72	0.32	-0.31	1.15
4,539.00	2.60	132.90	4,537.82	-23.86	42.60	-23.86	0.43	-0.43	-0.21
4,634.00	2.50	131.00	4,632.72	-26.69	45.74	-26.68	0.14	-0.11	-2.00
4,728.00	2.50	130.50	4,726.63	-29.36	48.84	-29.36	0.02	0.00	-0.53
4,823.00	2.20	130.30	4,821.55	-31.89	51.81	-31.88	0.32	-0.32	-0.21
4,917.00	2.00	127.30	4,915.49	-34.05	54.49	-34.04	0.24	-0.21	-3.19
5,012.00	1.80	124.30	5,010.44	-35.89	57.04	-35.89	0.24	-0.21	-3.16

LEAM Drilling Systems

Survey Report

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Well:	Tomb Raider 12 Fed 213H	North Reference:	Grid
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	OH	Database:	LEAM Multi_User Db

Survey										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	
5,106.00	1.80	120.40	5,104.39	-37.47	59.54	-37.47	0.13	0.00	-4.15	
5,202.00	1.60	112.00	5,200.35	-38.74	62.08	-38.73	0.33	-0.21	-8.75	
5,303.00	1.40	117.10	5,301.31	-39.83	64.48	-39.82	0.24	-0.20	5.05	
5,390.00	1.20	123.20	5,388.29	-40.81	66.19	-40.81	0.28	-0.23	7.01	
5,493.00	1.10	121.30	5,491.27	-41.92	67.94	-41.91	0.10	-0.10	-1.84	
5,579.00	1.10	130.60	5,577.26	-42.88	69.27	-42.88	0.21	0.00	10.81	
5,663.00	1.10	130.10	5,661.24	-43.93	70.50	-43.92	0.01	0.00	-0.60	
5,760.00	0.90	135.70	5,758.22	-45.07	71.75	-45.06	0.23	-0.21	5.77	
5,864.00	0.80	119.70	5,862.21	-46.02	72.95	-46.01	0.25	-0.10	-15.38	
5,958.00	0.90	127.60	5,956.20	-46.79	74.10	-46.78	0.16	0.11	8.40	
6,048.00	0.88	122.55	6,046.19	-47.59	75.24	-47.59	0.09	-0.02	-5.61	
6,143.00	0.18	257.90	6,141.19	-48.02	75.71	-48.01	1.07	-0.74	142.47	
6,238.00	1.85	276.00	6,236.17	-47.89	74.04	-47.88	1.77	1.76	19.05	
6,333.00	3.69	278.46	6,331.06	-47.28	69.49	-47.27	1.94	1.94	2.59	
6,428.00	4.84	274.42	6,425.79	-46.52	62.47	-46.51	1.25	1.21	-4.25	
6,522.00	5.72	274.77	6,519.39	-45.82	53.85	-45.82	0.94	0.94	0.37	
6,617.00	6.42	276.88	6,613.86	-44.79	43.86	-44.79	0.77	0.74	2.22	
6,712.00	6.60	275.48	6,708.25	-43.64	33.15	-43.63	0.25	0.19	-1.47	
6,806.00	6.42	276.35	6,801.64	-42.54	22.55	-42.54	0.22	-0.19	0.93	
6,901.00	6.33	274.60	6,896.05	-41.53	12.05	-41.53	0.23	-0.09	-1.84	
6,996.00	6.60	271.61	6,990.45	-40.96	1.38	-40.96	0.45	0.28	-3.15	
7,091.00	6.16	271.61	7,084.86	-40.66	-9.18	-40.66	0.46	-0.46	0.00	
7,186.00	6.95	275.65	7,179.24	-39.95	-19.99	-39.96	0.96	0.83	4.25	
7,279.00	7.12	279.17	7,271.54	-38.48	-31.28	-38.48	0.50	0.18	3.78	
7,374.00	7.03	280.05	7,365.82	-36.53	-42.82	-36.53	0.15	-0.09	0.93	
7,469.00	7.03	281.45	7,460.10	-34.36	-54.24	-34.36	0.18	0.00	1.47	
7,563.00	6.95	280.92	7,553.40	-32.14	-65.46	-32.15	0.11	-0.09	-0.56	
7,658.00	6.77	281.10	7,647.72	-29.97	-76.60	-29.98	0.19	-0.19	0.19	
7,753.00	6.95	281.28	7,742.04	-27.77	-87.73	-27.78	0.19	0.19	0.19	
7,847.00	7.12	280.05	7,835.33	-25.64	-99.05	-25.65	0.24	0.18	-1.31	
7,941.00	6.77	279.87	7,928.64	-23.68	-110.24	-23.69	0.37	-0.37	-0.19	
8,035.00	7.12	279.52	8,021.96	-21.76	-121.44	-21.77	0.38	0.37	-0.37	
8,129.00	7.03	279.17	8,115.24	-19.88	-132.87	-19.89	0.11	-0.10	-0.37	
8,222.00	7.03	278.46	8,207.54	-18.14	-144.12	-18.15	0.09	0.00	-0.76	
8,317.00	6.95	277.94	8,301.83	-16.49	-155.56	-16.50	0.11	-0.08	-0.55	
8,412.00	6.24	279.34	8,396.20	-14.86	-166.35	-14.87	0.77	-0.75	1.47	
8,507.00	5.80	280.75	8,490.68	-13.12	-176.16	-13.14	0.49	-0.46	1.48	
8,602.00	5.10	274.95	8,585.25	-11.86	-185.08	-11.88	0.94	-0.74	-6.11	
8,696.00	4.57	273.01	8,678.92	-11.31	-192.98	-11.32	0.59	-0.56	-2.06	
8,791.00	4.48	271.43	8,773.62	-11.02	-200.47	-11.03	0.16	-0.09	-1.66	
8,886.00	5.28	267.92	8,868.28	-11.08	-208.55	-11.10	0.90	0.84	-3.69	
8,981.00	4.57	264.93	8,962.92	-11.57	-216.69	-11.59	0.79	-0.75	-3.15	
9,076.00	3.34	270.38	9,057.70	-11.89	-223.22	-11.91	1.35	-1.29	5.74	

LEAM Drilling Systems

Survey Report

Company:	Devon Energy	Local Co-ordinate Reference:	Well Tomb Raider 12 Fed 213H
Project:	Eddy County, NM (NAD-83)	TVD Reference:	3504.0' GE + 32' KB @ 3536.00usft
Site:	Tomb Raider 12 Fed	MD Reference:	3504.0' GE + 32' KB @ 3536.00usft
Well:	Tomb Raider 12 Fed 213H	North Reference:	Grid
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	OH	Database:	LEAM Multi_User Db

Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
9,170.00	2.73	276.35	9,151.56	-11.63	-228.19	-11.65	0.73	-0.65	6.35
9,264.00	2.90	279.34	9,245.45	-10.99	-232.76	-11.01	0.24	0.18	3.18
9,359.00	3.43	278.46	9,340.31	-10.18	-237.94	-10.20	0.56	0.56	-0.93
9,453.00	3.17	276.71	9,434.15	-9.47	-243.30	-9.49	0.30	-0.28	-1.86
9,546.00	3.43	274.24	9,527.00	-8.96	-248.63	-8.98	0.32	0.28	-2.66
9,640.00	3.43	267.92	9,620.83	-8.85	-254.24	-8.88	0.40	0.00	-6.72
9,671.00	3.43	263.52	9,651.77	-8.99	-256.09	-9.01	0.85	0.00	-14.19
9,743.00	2.73	297.62	9,723.67	-8.44	-259.75	-8.46	2.67	-0.97	47.36
9,790.00	5.63	4.95	9,770.57	-5.62	-260.55	-5.65	11.11	6.17	143.26
9,838.00	10.82	21.65	9,818.06	0.92	-258.68	0.89	11.79	10.81	34.79
9,885.00	16.53	24.11	9,863.71	11.13	-254.32	11.11	12.21	12.15	5.23
9,932.00	21.10	20.94	9,908.19	25.14	-248.56	25.12	9.96	9.72	-6.74
9,979.00	25.06	13.21	9,951.43	42.74	-243.26	42.72	10.59	8.43	-16.45
9,996.35	26.94	12.86	9,967.02	50.15	-241.54	50.13	10.85	10.81	-2.04
100' FSL HL Crossing @ 9996.35' MD									
10,027.00	30.25	12.33	9,993.93	64.47	-238.35	64.44	10.85	10.81	-1.72
10,074.00	35.26	12.51	10,033.45	89.29	-232.88	89.27	10.66	10.66	0.38
10,122.00	39.04	6.00	10,071.71	117.87	-228.29	117.85	11.35	7.88	-13.56
10,169.00	43.79	1.78	10,106.96	148.87	-226.24	148.85	11.72	10.11	-8.98
10,216.00	50.12	2.49	10,139.02	183.18	-224.95	183.16	13.51	13.47	1.51
10,263.00	54.96	1.43	10,167.60	220.45	-223.69	220.43	10.45	10.30	-2.26
10,311.00	61.29	2.14	10,192.93	261.17	-222.41	261.15	13.25	13.19	1.48
10,358.00	68.06	1.96	10,213.03	303.60	-220.89	303.58	14.41	14.40	-0.38
10,406.00	72.55	0.73	10,229.20	348.77	-219.84	348.75	9.66	9.35	-2.56
10,453.00	73.95	0.73	10,242.74	393.77	-219.26	393.75	2.98	2.98	0.00
10,500.00	75.97	0.38	10,254.94	439.16	-218.82	439.14	4.36	4.30	-0.74
10,547.00	78.79	0.03	10,265.21	485.02	-218.66	485.00	6.04	6.00	-0.74
10,595.00	80.20	0.20	10,273.96	532.21	-218.57	532.19	2.96	2.94	0.35
10,642.00	82.57	359.50	10,281.00	578.68	-218.69	578.66	5.25	5.04	-1.49
10,689.00	85.21	358.62	10,286.00	625.40	-219.46	625.38	5.92	5.62	-1.87
10,751.00	88.02	359.15	10,289.66	687.27	-220.66	687.25	4.61	4.53	0.85
10,812.00	89.69	358.97	10,290.88	748.25	-221.66	748.23	2.75	2.74	-0.30
10,906.00	90.40	358.97	10,290.81	842.23	-223.35	842.21	0.76	0.76	0.00
11,001.00	89.78	358.44	10,290.66	937.21	-225.50	937.19	0.86	-0.65	-0.56
11,095.00	89.34	358.62	10,291.38	1,031.18	-227.91	1,031.16	0.51	-0.47	0.19
11,189.00	91.54	359.15	10,290.66	1,125.15	-229.74	1,125.13	2.41	2.34	0.56
11,284.00	90.75	0.20	10,288.76	1,220.13	-230.28	1,220.11	1.38	-0.83	1.11
11,379.00	91.45	0.20	10,286.93	1,315.11	-229.95	1,315.09	0.74	0.74	0.00
11,473.00	93.39	1.43	10,282.97	1,409.01	-228.61	1,408.99	2.44	2.06	1.31
11,567.00	91.80	2.14	10,278.71	1,502.86	-225.68	1,502.84	1.85	-1.69	0.76
11,662.00	87.67	0.73	10,279.15	1,597.81	-223.31	1,597.79	4.59	-4.35	-1.48
11,756.00	87.05	0.55	10,283.48	1,691.70	-222.26	1,691.68	0.69	-0.66	-0.19
11,851.00	86.70	0.90	10,288.66	1,786.55	-221.06	1,786.53	0.52	-0.37	0.37
11,945.00	88.20	359.85	10,292.84	1,880.45	-220.44	1,880.43	1.95	1.60	-1.12

LEAM Drilling Systems

Survey Report

Company:	Devon Energy	Local Co-ordinate Reference:	Well Tomb Raider 12 Fed 213H
Project:	Eddy County, NM (NAD-83)	TVD Reference:	3504.0' GE + 32' KB @ 3536.00usft
Site:	Tomb Raider 12 Fed	MD Reference:	3504.0' GE + 32' KB @ 3536.00usft
Well:	Tomb Raider 12 Fed 213H	North Reference:	Grid
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	OH	Database:	LEAM Multi_User Db

Survey										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	
12,041.00	89.43	358.97	10,294.83	1,976.43	-221.43	1,976.41	1.58	1.28	-0.92	
12,135.00	89.60	0.20	10,295.62	2,070.42	-222.11	2,070.40	1.32	0.18	1.31	
12,230.00	88.72	359.67	10,297.01	2,165.41	-222.22	2,165.39	1.08	-0.93	-0.56	
12,324.00	90.13	0.03	10,297.96	2,259.40	-222.47	2,259.38	1.55	1.50	0.38	
12,419.00	89.16	358.80	10,298.55	2,354.39	-223.44	2,354.37	1.65	-1.02	-1.29	
12,513.00	90.66	358.80	10,298.69	2,448.37	-225.40	2,448.35	1.60	1.60	0.00	
12,608.00	91.98	359.15	10,296.50	2,543.32	-227.10	2,543.30	1.44	1.39	0.37	
12,702.00	89.43	358.80	10,295.35	2,637.29	-228.78	2,637.27	2.74	-2.71	-0.37	
12,796.00	90.40	359.50	10,295.49	2,731.28	-230.18	2,731.26	1.27	1.03	0.74	
12,891.00	88.99	359.50	10,295.99	2,826.27	-231.01	2,826.25	1.48	-1.48	0.00	
12,986.00	89.34	359.32	10,297.38	2,921.26	-231.99	2,921.24	0.41	0.37	-0.19	
13,081.00	89.96	359.67	10,297.96	3,016.25	-232.82	3,016.23	0.75	0.65	0.37	
13,175.00	90.57	0.03	10,297.52	3,110.25	-233.07	3,110.23	0.75	0.65	0.38	
13,271.00	91.98	0.20	10,295.39	3,206.22	-232.88	3,206.20	1.48	1.47	0.18	
13,365.00	90.13	359.85	10,293.66	3,300.20	-232.84	3,300.18	2.00	-1.97	-0.37	
13,459.00	88.02	0.03	10,295.17	3,394.19	-232.93	3,394.17	2.25	-2.24	0.19	
13,554.00	88.99	0.38	10,297.65	3,489.15	-232.59	3,489.13	1.09	1.02	0.37	
13,648.00	89.60	0.38	10,298.81	3,583.14	-231.97	3,583.12	0.65	0.65	0.00	
13,743.00	89.25	0.20	10,299.76	3,678.14	-231.49	3,678.12	0.41	-0.37	-0.19	
13,837.00	91.36	0.20	10,299.26	3,772.13	-231.16	3,772.11	2.24	2.24	0.00	
13,932.00	92.33	359.67	10,296.20	3,867.08	-231.27	3,867.06	1.16	1.02	-0.56	
14,027.00	90.13	359.32	10,294.16	3,962.05	-232.11	3,962.03	2.34	-2.32	-0.37	
14,122.00	91.19	359.32	10,293.07	4,057.03	-233.23	4,057.01	1.12	1.12	0.00	
14,216.00	89.52	359.85	10,292.49	4,151.02	-233.92	4,151.00	1.86	-1.78	0.56	
14,310.00	89.08	359.15	10,293.64	4,245.01	-234.74	4,244.99	0.88	-0.47	-0.74	
14,405.00	89.16	358.97	10,295.10	4,339.99	-236.29	4,339.97	0.21	0.08	-0.19	
14,502.00	89.34	358.80	10,296.36	4,436.96	-238.18	4,436.94	0.26	0.19	-0.18	
14,596.00	90.48	359.32	10,296.51	4,530.95	-239.72	4,530.93	1.33	1.21	0.55	
14,691.00	91.45	358.62	10,294.91	4,625.92	-241.43	4,625.90	1.26	1.02	-0.74	
14,785.00	93.12	358.09	10,291.16	4,719.80	-244.13	4,719.78	1.86	1.78	-0.56	
14,880.00	91.28	359.32	10,287.52	4,814.70	-246.27	4,814.68	2.33	-1.94	1.29	
14,974.00	88.81	0.73	10,287.44	4,908.69	-246.23	4,908.67	3.03	-2.63	1.50	
15,069.00	89.34	359.50	10,288.98	5,003.67	-246.04	5,003.65	1.41	0.56	-1.29	
15,163.00	91.10	359.85	10,288.62	5,097.67	-246.57	5,097.65	1.91	1.87	0.37	
15,191.30	91.60	359.55	10,287.95	5,125.96	-246.72	5,125.94	2.05	1.76	-1.06	
100' FNL HL Crossing @ 15191.30' MD										
15,213.00	91.98	359.32	10,287.27	5,147.65	-246.93	5,147.63	2.05	1.76	-1.06	
15,271.00	91.98	359.32	10,285.27	5,205.61	-247.62	5,205.59	0.00	0.00	0.00	
TD Projection										