

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) 476-3462

State of New Mexico
Energy, Minerals & Natural Resources Department
OIL CONSERVATION DIVISION
1220 South St. Francis Dr.
Santa Fe, NM 87505

RECEIVED

MAR 11 2020

Form C-102

Revised August 1, 2011

Copy to appropriate

District Office

☒ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

¹ API Number 30-015-46095		² Pool Code 98123		³ Pool Name WC-015 G-08 S233102C;WOLFCAMP	
⁴ Property Code 322867		⁵ Property Name TOMB RAIDER 12-1 FED			⁶ Well Number 611H
⁷ OGRID No. 6137		⁸ Operator Name DEVON ENERGY PRODUCTION COMPANY, L.P.			⁹ Elevation 3488.3

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
M	12	23 S	31 E		250	SOUTH	200	WEST	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
D	1	23 S	31 E		24	NORTH	447	WEST	EDDY

¹² Dedicated Acres	¹³ Joint or Infill	¹⁴ Consolidation Code	¹⁵ Order No.
640			

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.

" 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. <i>Jenny Harms</i> 3-2-2020 Signature Date JENNY HARMS Printed Name JENNY.HARMS@DVN.COM E-mail Address		" 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. FEBRUARY 26, 2020 Date of Survey <i>Almon P. Jaramillo</i> Signature and Seal of Professional Surveyor Certificate Number: 12799 JARAMILLO, ALMON P. NO. 6672	
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RW 3-24-20

Intent ☐ As Drilled ☒

API #
30-015-46095

Operator Name:
DEVON ENERGY PRODUCTION
COMPANY, L.P.

Property Name:
TOMB RAIDER 12-1 FED

Well Number
611H

Kick Off Point (KOP)

UL	Section	Township	Range	Lot	Feet	From N/S	Feet	From E/W	County
M	12	23S	31E		73	SOUTH	369	WEST	EDDY
Latitude					Longitude			NAD	
32.3119005					103.7388335			83	

First Take Point (FTP)

UL	Section	Township	Range	Lot	Feet	From N/S	Feet	From E/W	County
M	12	23S	31E		572	SOUTH	388	WEST	EDDY
Latitude					Longitude			NAD	
32.3132713					103.7387717			83	

Last Take Point (LTP)

UL	Section	Township	Range	Lot	Feet	From N/S	Feet	From E/W	County
D	1	23S	31E	4	159	NORTH	437	WEST	EDDY
Latitude					Longitude			NAD	
32.3402858					103.7386406			83	

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

no

Is this well an infill well?

yes

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



Final MWD Survey Certification

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EMNRD-OCDARTESIA

County, State: Eddy County, New Mexico

Client: Devon Energy

Well Name: Tomb Raider 12-1 Fed 611H

API No: 30-015-46095

Start Date: September 1st, 2019

End Date: September 22nd, 2019

Measure Start Depth: 181.00'

Measured End Depth: 21,859.00'

Vertical Section from SHL to TD: 0.75° Azm

I, Jason Turner, MWD Coordinator, hereby certify that; I am employed by Newsco International Energy Services, Inc. and we conducted or supervised the taking of these open hole MWD surveys at the request of this client. This data is true, correct, complete and within the limitations of the tool as set forth by Newsco International Energy Services, Inc. I am authorized and qualified to make this report and have reviewed this report and find that it conforms to the principals and procedures as set forth by Newsco International Energy Services, Inc.

Date: 01/29/2020

Sign: *Jason Turner*

12029 Brittmoore Park Drive, Houston, Texas US 77041

O: 832.924.4020 www.newsco-drilling.com



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EMNRD-OCDARTESIA

Devon Energy

Eddy County, NM (N83-NME)

Tomb Raider

Tomb Raider 12-1 Fed 611H

30-015-46095

611H

Survey: Survey #1

Standard Survey Report

29 January, 2020





Survey Report



Company:	Devon Energy	Local Co-ordinate Reference:	Well Tomb Raider12-1 Fed 611H
Project:	Eddy County, NM (N83-NME)	TVD Reference:	3488.3+23.5 @ 3511.80usft (Cactus 168)
Site:	Tomb Raider	MD Reference:	3488.3+23.5 @ 3511.80usft (Cactus 168)
Well:	Tomb Raider 12-1 Fed 611H	North Reference:	Grid
Wellbore:	611H	Survey Calculation Method:	Minimum Curvature
Design:	Surveys	Database:	EDM 5000.15 Single User Db

Project	Eddy County, NM (N83-NME)		
Map System:	US State Plane 1983	System Datum:	Mean Sea Level
Geo Datum:	North American Datum 1983		
Map Zone:	New Mexico Eastern Zone		

Site	Tomb Raider		
Site Position:		Northing:	487,995.06 usft
From:	Map	Easting:	726,704.85 usft
Position Uncertainty:	0.00 usft	Slot Radius:	13-3/16 "
		Latitude:	32° 20' 24.511 N
		Longitude:	103° 43' 59.266 W
		Grid Convergence:	0.32 °

Well:	Tomb Raider 12-1 Fed 611H		
Well Position	+N/-S	0.00 usft	Northing: 477,887.14 usft
	+E/-W	0.00 usft	Easting: 724,830.43 usft
Position Uncertainty	0.00 usft	Wellhead Elevation:	usft
		Latitude:	32° 18' 44.593 N
		Longitude:	103° 44' 21.767 W
		Ground Level:	3,488.30 usft

Wellbore	611H		
Magnetics	Model Name	Sample Date	Declination
			(°)
	IGRF2015	07/09/19	6.82
			Dip Angle (°)
			60.09
			Field Strength (nT)
			47,760.52

Design	Surveys		
Audit Notes:			
Version:	1.0	Phase:	ACTUAL
Tie On Depth:	0.00		
Vertical Section:	Depth From (TVD)	+N/-S	+E/-W
	(usft)	(usft)	(usft)
	0.00	0.00	0.00
			Direction (°)
			0.75

Survey Program	Date 01/29/20		
From	To	Survey (Wellbore)	Tool Name
(usft)	(usft)		
181.00	21,909.00	Survey #1 (611H)	MWD
			Description
			OWSG MWD - Standard

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	
181.00	0.80	140.50	180.99	-0.98	0.80	-0.96	0.44	0.44	0.00	
272.00	0.90	141.10	271.98	-2.02	1.66	-2.00	0.11	0.11	0.66	
364.00	0.80	143.70	363.97	-3.10	2.49	-3.07	0.12	-0.11	2.83	
456.00	0.60	155.40	455.97	-4.06	3.07	-4.02	0.27	-0.22	12.72	
548.00	0.50	162.40	547.96	-4.88	3.39	-4.83	0.13	-0.11	7.61	
639.00	0.40	177.90	638.96	-5.57	3.52	-5.53	0.17	-0.11	17.03	
730.00	0.40	184.60	729.96	-6.21	3.51	-6.16	0.05	0.00	7.36	
877.00	0.20	184.00	876.96	-6.97	3.45	-6.93	0.14	-0.14	-0.41	
968.00	0.30	222.70	967.95	-7.31	3.28	-7.27	0.21	0.11	42.53	



Survey Report



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Site:	Tomb Raider	MD Reference:	3488.3+23.5 @ 3511.80usft (Cactus 168)
Well:	Tomb Raider 12-1 Fed 611H	North Reference:	Grid
Wellbore:	611H	Survey Calculation Method:	Minimum Curvature
Design:	Surveys	Database:	EDM 5000.15 Single 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)
1,060.00	0.20	329.90	1,059.95	-7.35	3.04	-7.31	0.44	-0.11	116.52
1,151.00	0.30	256.10	1,150.95	-7.27	2.72	-7.23	0.34	0.11	-81.10
1,243.00	0.40	269.10	1,242.95	-7.33	2.17	-7.30	0.14	0.11	14.13
1,335.00	0.50	288.40	1,334.95	-7.21	1.47	-7.19	0.20	0.11	20.98
1,426.00	0.60	291.70	1,425.95	-6.91	0.65	-6.90	0.12	0.11	3.63
1,520.00	0.70	288.80	1,519.94	-6.54	-0.35	-6.54	0.11	0.11	-3.09
1,613.00	0.80	288.20	1,612.93	-6.15	-1.51	-6.17	0.11	0.11	-0.65
1,708.00	0.70	292.10	1,707.92	-5.73	-2.67	-5.76	0.12	-0.11	4.11
1,802.00	0.70	289.00	1,801.92	-5.32	-3.75	-5.37	0.04	0.00	-3.30
1,896.00	0.60	289.40	1,895.91	-4.97	-4.76	-5.04	0.11	-0.11	0.43
1,989.00	0.70	286.30	1,988.90	-4.65	-5.76	-4.73	0.11	0.11	-3.33
2,083.00	0.60	281.10	2,082.90	-4.40	-6.80	-4.49	0.12	-0.11	-5.53
2,178.00	0.50	280.00	2,177.89	-4.23	-7.69	-4.33	0.11	-0.11	-1.16
2,272.00	0.50	274.90	2,271.89	-4.12	-8.50	-4.23	0.05	0.00	-5.43
2,366.00	0.60	268.00	2,365.89	-4.11	-9.40	-4.23	0.13	0.11	-7.34
2,460.00	0.50	261.40	2,459.88	-4.18	-10.30	-4.32	0.13	-0.11	-7.02
2,555.00	0.70	260.50	2,554.88	-4.34	-11.28	-4.49	0.21	0.21	-0.95
2,650.00	0.80	262.00	2,649.87	-4.53	-12.51	-4.69	0.11	0.11	1.58
2,743.00	0.80	264.60	2,742.86	-4.68	-13.80	-4.86	0.04	0.00	2.80
2,838.00	0.80	271.00	2,837.85	-4.73	-15.13	-4.93	0.09	0.00	6.74
2,932.00	0.90	285.50	2,931.84	-4.52	-16.49	-4.74	0.25	0.11	15.43
3,027.00	1.10	94.00	3,026.83	-4.39	-16.30	-4.60	2.09	0.21	177.37
3,122.00	1.10	131.40	3,121.82	-5.05	-14.71	-5.25	0.74	0.00	39.37
3,215.00	1.00	119.40	3,214.80	-6.04	-13.33	-6.22	0.26	-0.11	-12.90
3,310.00	0.90	131.70	3,309.79	-6.95	-12.05	-7.10	0.24	-0.11	12.95
3,404.00	0.80	136.80	3,403.78	-7.92	-11.05	-8.06	0.13	-0.11	5.43
3,499.00	0.70	135.70	3,498.77	-8.81	-10.19	-8.95	0.11	-0.11	-1.16
3,593.00	1.00	134.50	3,592.76	-9.80	-9.21	-9.92	0.32	0.32	-1.28
3,687.00	1.80	137.20	3,686.73	-11.46	-7.62	-11.56	0.85	0.85	2.87
3,781.00	3.00	142.30	3,780.65	-14.49	-5.11	-14.55	1.30	1.28	5.43
3,876.00	2.80	113.60	3,875.53	-17.38	-1.47	-17.40	1.53	-0.21	-30.21
3,970.00	2.90	117.30	3,969.41	-19.39	2.75	-19.36	0.22	0.11	3.94
4,065.00	3.60	127.30	4,064.26	-22.30	7.26	-22.21	0.95	0.74	10.53
4,159.00	4.20	133.00	4,158.04	-26.44	12.12	-26.28	0.76	0.64	6.06
4,254.00	4.40	129.20	4,252.78	-31.12	17.49	-30.88	0.37	0.21	-4.00
4,349.00	4.00	124.80	4,347.52	-35.31	23.04	-35.01	0.54	-0.42	-4.63
4,444.00	3.70	120.10	4,442.31	-38.74	28.41	-38.36	0.46	-0.32	-4.95
4,539.00	3.30	116.70	4,537.13	-41.50	33.51	-41.06	0.47	-0.42	-3.58
4,633.00	3.10	116.50	4,630.98	-43.85	38.20	-43.35	0.21	-0.21	-0.21
4,728.00	3.10	113.20	4,725.84	-46.01	42.86	-45.45	0.19	0.00	-3.47
4,822.00	2.90	110.00	4,819.72	-47.83	47.43	-47.20	0.28	-0.21	-3.40
4,916.00	2.60	109.50	4,913.61	-49.35	51.67	-48.67	0.32	-0.32	-0.53
5,011.00	3.60	125.20	5,008.47	-51.79	56.14	-51.05	1.37	1.05	16.53
5,105.00	3.90	127.10	5,102.27	-55.42	61.10	-54.62	0.35	0.32	2.02



Survey Report



Company:	Devon Energy	Local Co-ordinate Reference:	Well Tomb Raider12-1 Fed 611H
Project:	Eddy County, NM (N83-NME)	TVD Reference:	3488.3+23.5 @ 3511.80usft (Cactus 168)
Site:	Tomb Raider	MD Reference:	3488.3+23.5 @ 3511.80usft (Cactus 168)
Well:	Tomb Raider 12-1 Fed 611H	North Reference:	Grid
Wellbore:	611H	Survey Calculation Method:	Minimum Curvature
Design:	Surveys	Database:	EDM 5000.15 Single 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)
5,200.00	3.60	126.00	5,197.06	-59.12	66.09	-58.25	0.32	-0.32	-1.16
5,294.00	3.20	124.70	5,290.90	-62.35	70.64	-61.42	0.43	-0.43	-1.38
5,389.00	2.70	120.10	5,385.77	-64.98	74.75	-64.00	0.58	-0.53	-4.84
5,483.00	2.40	112.90	5,479.68	-66.86	78.48	-65.83	0.47	-0.32	-7.66
5,577.00	3.90	131.40	5,573.54	-69.74	82.69	-68.65	1.91	1.60	19.68
5,672.00	3.60	132.20	5,668.33	-73.88	87.32	-72.73	0.32	-0.32	0.84
5,766.00	3.20	130.70	5,762.17	-77.57	91.50	-76.37	0.44	-0.43	-1.60
5,861.00	2.90	130.80	5,857.03	-80.87	95.33	-79.62	0.32	-0.32	0.11
5,955.00	2.60	126.20	5,950.93	-83.68	98.85	-82.39	0.40	-0.32	-4.89
6,050.00	2.50	124.70	6,045.83	-86.13	102.29	-84.79	0.13	-0.11	-1.58
6,145.00	2.30	118.60	6,140.75	-88.23	105.67	-86.84	0.34	-0.21	-6.42
6,240.00	3.80	121.40	6,235.61	-90.78	110.03	-89.34	1.59	1.58	2.95
6,334.00	3.60	121.30	6,329.41	-93.94	115.21	-92.42	0.21	-0.21	-0.11
6,428.00	3.40	124.80	6,423.24	-97.06	120.02	-95.48	0.31	-0.21	3.72
6,522.00	3.30	123.50	6,517.08	-100.14	124.57	-98.51	0.13	-0.11	-1.38
6,615.00	3.20	120.80	6,609.93	-102.95	129.03	-101.26	0.20	-0.11	-2.90
6,710.00	2.60	120.30	6,704.81	-105.40	133.17	-103.65	0.63	-0.63	-0.53
6,804.00	2.70	118.20	6,798.71	-107.52	136.96	-105.72	0.15	0.11	-2.23
6,898.00	2.60	113.60	6,892.61	-109.42	140.86	-107.57	0.25	-0.11	-4.89
6,992.00	4.70	117.20	6,986.41	-112.03	146.24	-110.11	2.25	2.23	3.83
7,087.00	4.40	116.70	7,081.11	-115.45	152.96	-113.44	0.32	-0.32	-0.53
7,181.00	4.10	115.90	7,174.85	-118.54	159.20	-116.45	0.33	-0.32	-0.85
7,275.00	3.90	114.50	7,268.62	-121.33	165.13	-119.16	0.24	-0.21	-1.49
7,369.00	3.60	114.30	7,362.42	-123.87	170.73	-121.63	0.32	-0.32	-0.21
7,464.00	3.10	117.40	7,457.26	-126.28	175.73	-123.97	0.56	-0.53	3.26
7,558.00	2.60	120.50	7,551.14	-128.53	179.83	-126.17	0.56	-0.53	3.30
7,652.00	2.50	122.00	7,645.05	-130.70	183.40	-128.29	0.13	-0.11	1.60
7,748.00	2.20	125.90	7,740.97	-132.89	186.67	-130.44	0.35	-0.31	4.06
7,842.00	2.00	124.30	7,834.91	-134.87	189.49	-132.39	0.22	-0.21	-1.70
7,938.00	1.80	128.60	7,930.85	-136.76	192.05	-134.24	0.26	-0.21	4.48
8,033.00	1.70	128.30	8,025.81	-138.56	194.32	-136.01	0.11	-0.11	-0.32
8,128.00	1.60	131.80	8,120.77	-140.32	196.42	-137.74	0.15	-0.11	3.68
8,223.00	1.50	134.10	8,215.73	-142.07	198.30	-139.47	0.12	-0.11	2.42
8,318.00	1.40	133.40	8,310.70	-143.73	200.03	-141.11	0.11	-0.11	-0.74
8,412.00	1.10	142.40	8,404.68	-145.23	201.42	-142.59	0.38	-0.32	9.57
8,507.00	1.10	157.10	8,499.66	-146.80	202.33	-144.14	0.30	0.00	15.47
8,603.00	1.00	147.60	8,595.65	-148.35	203.14	-145.69	0.21	-0.10	-9.90
8,698.00	0.70	151.90	8,690.64	-149.56	203.85	-146.89	0.32	-0.32	4.53
8,792.00	1.00	170.90	8,784.63	-150.88	204.25	-148.20	0.43	0.32	20.21
8,886.00	0.60	237.30	8,878.62	-151.96	203.97	-149.28	1.00	-0.43	70.64
8,980.00	1.00	287.60	8,972.61	-151.97	202.77	-149.31	0.82	0.43	53.51
9,074.00	0.80	294.90	9,066.60	-151.45	201.40	-148.81	0.24	-0.21	7.77
9,168.00	1.10	280.40	9,160.59	-151.01	199.91	-148.39	0.41	0.32	-15.43

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Wellbore:	611H	Survey Calculation Method:	Minimum Curvature
Design:	Surveys	Database:	EDM 5000.15 Single 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)
9,263.00	1.10	279.10	9,255.57	-150.70	198.12	-148.10	0.03	0.00	-1.37
9,357.00	1.10	276.80	9,349.55	-150.45	196.33	-147.88	0.05	0.00	-2.45
9,452.00	0.90	248.60	9,444.54	-150.62	194.73	-148.06	0.55	-0.21	-29.68
9,548.00	0.80	233.10	9,540.53	-151.29	193.49	-148.76	0.26	-0.10	-16.15
9,642.00	1.20	217.90	9,634.51	-152.46	192.36	-149.94	0.51	0.43	-16.17
9,736.00	1.00	217.40	9,728.50	-153.89	191.26	-151.38	0.21	-0.21	-0.53
9,831.00	1.20	226.50	9,823.48	-155.24	190.03	-152.74	0.28	0.21	9.58
9,926.00	1.40	238.60	9,918.45	-156.53	188.32	-154.05	0.36	0.21	12.74
10,020.00	1.30	245.70	10,012.43	-157.56	186.37	-155.12	0.21	-0.11	7.55
10,114.00	1.70	227.30	10,106.40	-158.95	184.37	-156.53	0.66	0.43	-19.57
10,208.00	1.80	238.20	10,200.35	-160.67	182.09	-158.28	0.37	0.11	11.60
10,302.00	1.90	238.40	10,294.30	-162.27	179.51	-159.91	0.11	0.11	0.21
10,398.00	0.90	235.40	10,390.27	-163.53	177.54	-161.20	1.04	-1.04	-3.13
10,492.00	0.90	223.20	10,484.26	-164.48	176.42	-162.17	0.20	0.00	-12.98
10,586.00	0.80	204.30	10,578.25	-165.62	175.65	-163.31	0.31	-0.11	-20.11
10,681.00	0.70	218.90	10,673.24	-166.68	175.01	-164.38	0.23	-0.11	15.37
10,776.00	0.70	224.20	10,768.24	-167.54	174.24	-165.26	0.07	0.00	5.58
10,870.00	1.00	209.50	10,862.23	-168.67	173.44	-166.39	0.39	0.32	-15.64
10,964.00	1.90	203.70	10,956.20	-170.81	172.41	-168.55	0.97	0.96	-6.17
11,059.00	1.90	204.20	11,051.14	-173.69	171.13	-171.44	0.02	0.00	0.53
11,096.00	1.70	206.40	11,088.13	-174.74	170.63	-172.50	0.57	-0.54	5.95
11,182.00	1.30	220.30	11,174.10	-176.63	169.43	-174.40	0.63	-0.47	16.16
11,276.00	9.10	3.60	11,267.74	-170.00	169.21	-167.78	10.82	8.30	152.45
11,370.00	25.00	355.20	11,357.33	-142.61	168.01	-140.41	17.07	16.91	-8.94
11,417.00	32.70	356.70	11,398.47	-120.01	166.44	-117.82	16.45	16.38	3.19
11,464.00	37.20	0.80	11,436.99	-93.11	165.91	-90.93	10.80	9.57	8.72
11,511.00	42.10	2.50	11,473.16	-63.14	166.80	-60.96	10.68	10.43	3.62
11,558.00	45.50	2.90	11,507.08	-30.65	168.33	-28.45	7.26	7.23	0.85
11,605.00	49.20	3.90	11,538.92	3.85	170.39	6.07	8.03	7.87	2.13
11,652.00	51.60	4.00	11,568.88	39.97	172.89	42.23	5.11	5.11	0.21
11,699.00	51.20	4.00	11,598.20	76.62	175.45	78.90	0.85	-0.85	0.00
11,747.00	56.10	3.10	11,626.64	115.19	177.83	117.50	10.32	10.21	-1.88
11,794.00	59.30	2.40	11,651.75	154.87	179.73	157.20	6.92	6.81	-1.49
11,841.00	60.80	1.80	11,675.22	195.56	181.22	197.91	3.38	3.19	-1.28
11,888.00	62.30	2.20	11,697.61	236.86	182.67	239.22	3.28	3.19	0.85
11,936.00	64.90	2.80	11,718.95	279.81	184.55	282.19	5.53	5.42	1.25
11,983.00	68.10	1.40	11,737.69	322.87	186.12	325.27	7.34	6.81	-2.98
12,030.00	72.20	359.50	11,753.64	367.07	186.46	369.47	9.52	8.72	-4.04
12,077.00	74.30	359.60	11,767.19	412.07	186.10	414.46	4.47	4.47	0.21
12,123.00	78.70	1.10	11,777.92	456.78	186.38	459.18	10.08	9.57	3.26
12,170.00	84.70	359.70	11,784.71	503.27	186.70	505.66	13.10	12.77	-2.98
12,218.00	91.10	358.20	11,786.46	551.20	185.82	553.58	13.69	13.33	-3.13
12,312.00	91.90	357.50	11,784.00	645.10	182.30	647.43	1.13	0.85	-0.74



Survey Report



Company:	Devon Energy	Local Co-ordinate Reference:	Well Tomb Raider12-1 Fed 611H
Project:	Eddy County, NM (N83-NME)	TVD Reference:	3488.3+23.5 @ 3511.80usft (Cactus 168)
Site:	Tomb Raider	MD Reference:	3488.3+23.5 @ 3511.80usft (Cactus 168)
Well:	Tomb Raider 12-1 Fed 611H	North Reference:	Grid
Wellbore:	611H	Survey Calculation Method:	Minimum Curvature
Design:	Surveys	Database:	EDM 5000.15 Single 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)
12,406.00	91.90	0.40	11,780.89	739.03	180.57	741.32	3.08	0.00	3.09
12,500.00	89.30	0.50	11,779.90	833.01	181.31	835.30	2.77	-2.77	0.11
12,595.00	88.60	359.10	11,781.64	927.99	180.98	930.27	1.65	-0.74	-1.47
12,689.00	91.20	359.60	11,781.81	1,021.97	179.92	1,024.24	2.82	2.77	0.53
12,784.00	91.00	359.10	11,779.98	1,116.95	178.84	1,119.19	0.57	-0.21	-0.53
12,878.00	91.40	358.60	11,778.01	1,210.91	176.95	1,213.12	0.68	0.43	-0.53
12,973.00	90.40	2.00	11,776.52	1,305.88	177.45	1,308.09	3.73	-1.05	3.58
13,067.00	91.80	1.50	11,774.72	1,399.82	180.32	1,402.05	1.58	1.49	-0.53
13,162.00	90.20	2.60	11,773.06	1,494.74	183.72	1,497.01	2.04	-1.68	1.16
13,256.00	88.50	2.50	11,774.13	1,588.64	187.90	1,590.95	1.81	-1.81	-0.11
13,350.00	87.10	1.70	11,777.73	1,682.50	191.34	1,684.86	1.72	-1.49	-0.85
13,444.00	88.50	1.00	11,781.34	1,776.40	193.55	1,778.78	1.66	1.49	-0.74
13,538.00	89.90	359.10	11,782.66	1,870.39	193.64	1,872.76	2.51	1.49	-2.02
13,631.00	90.00	359.00	11,782.74	1,963.37	192.09	1,965.71	0.15	0.11	-0.11
13,726.00	90.40	358.80	11,782.41	2,058.36	190.27	2,060.66	0.47	0.42	-0.21
13,819.00	89.90	357.60	11,782.16	2,151.31	187.35	2,153.57	1.40	-0.54	-1.29
13,913.00	90.10	357.00	11,782.16	2,245.20	182.92	2,247.40	0.67	0.21	-0.64
14,007.00	90.00	356.30	11,782.08	2,339.04	177.43	2,341.16	0.75	-0.11	-0.74
14,101.00	90.10	356.20	11,782.00	2,432.84	171.28	2,434.87	0.15	0.11	-0.11
14,195.00	92.40	358.40	11,779.95	2,526.70	166.85	2,528.66	3.39	2.45	2.34
14,289.00	92.40	359.60	11,776.01	2,620.60	165.21	2,622.54	1.28	0.00	1.28
14,383.00	91.30	1.90	11,772.98	2,714.54	166.44	2,716.48	2.71	-1.17	2.45
14,477.00	91.10	3.20	11,771.01	2,808.42	170.63	2,810.41	1.40	-0.21	1.38
14,572.00	88.60	3.20	11,771.26	2,903.27	175.93	2,905.32	2.63	-2.63	0.00
14,665.00	89.20	2.90	11,773.04	2,996.12	180.88	2,998.22	0.72	0.65	-0.32
14,759.00	89.40	2.90	11,774.19	3,089.99	185.63	3,092.15	0.21	0.21	0.00
14,853.00	88.30	2.40	11,776.08	3,183.87	189.98	3,186.08	1.29	-1.17	-0.53
14,976.00	86.70	1.60	11,781.44	3,306.67	194.26	3,308.93	1.45	-1.30	-0.65
15,070.00	88.90	0.50	11,785.05	3,400.58	195.99	3,402.85	2.62	2.34	-1.17
15,164.00	89.30	1.20	11,786.53	3,494.56	197.38	3,496.84	0.86	0.43	0.74
15,259.00	90.00	359.00	11,787.11	3,589.55	197.55	3,591.82	2.43	0.74	-2.32
15,352.00	89.20	358.40	11,787.76	3,682.52	195.44	3,684.76	1.08	-0.86	-0.65
15,446.00	91.00	358.00	11,787.59	3,776.47	192.48	3,778.66	1.96	1.91	-0.43
15,540.00	90.80	357.80	11,786.11	3,870.40	189.04	3,872.53	0.30	-0.21	-0.21
15,634.00	91.50	357.30	11,784.23	3,964.29	185.02	3,966.37	0.92	0.74	-0.53
15,728.00	91.30	356.80	11,781.93	4,058.14	180.19	4,060.14	0.57	-0.21	-0.53
15,822.00	89.40	358.70	11,781.36	4,152.05	176.50	4,154.00	2.86	-2.02	2.02
15,916.00	89.80	358.50	11,782.01	4,246.02	174.20	4,247.94	0.48	0.43	-0.21
16,010.00	92.10	359.90	11,780.46	4,339.99	172.89	4,341.88	2.86	2.45	1.49
16,104.00	91.60	359.60	11,777.42	4,433.94	172.48	4,435.82	0.62	-0.53	-0.32
16,197.00	89.00	359.80	11,776.93	4,526.93	171.99	4,528.79	2.80	-2.80	0.22
16,292.00	90.00	0.40	11,777.76	4,621.93	172.16	4,623.78	1.23	1.05	0.63
16,385.00	91.70	0.40	11,776.38	4,714.91	172.80	4,716.76	1.83	1.83	0.00
16,481.00	90.60	359.70	11,774.46	4,810.89	172.89	4,812.74	1.36	-1.15	-0.73



Survey Report



Company:	Devon Energy	Local Co-ordinate Reference:	Well Tomb Raider12-1 Fed 611H
Project:	Eddy County, NM (N83-NME)	TVD Reference:	3488.3+23.5 @ 3511.80usft (Cactus 168)
Site:	Tomb Raider	MD Reference:	3488.3+23.5 @ 3511.80usft (Cactus 168)
Well:	Tomb Raider 12-1 Fed 611H	North Reference:	Grid
Wellbore:	611H	Survey Calculation Method:	Minimum Curvature
Design:	Surveys	Database:	EDM 5000.15 Single 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)
16,575.00	89.00	359.20	11,774.78	4,904.88	171.99	4,906.71	1.78	-1.70	-0.53
16,670.00	90.00	359.10	11,775.61	4,999.87	170.58	5,001.67	1.06	1.05	-0.11
16,764.00	91.40	359.20	11,774.47	5,093.85	169.18	5,095.62	1.49	1.49	0.11
16,857.00	89.10	359.10	11,774.06	5,186.83	167.80	5,188.58	2.48	-2.47	-0.11
16,951.00	90.50	359.70	11,774.39	5,280.82	166.82	5,282.55	1.62	1.49	0.64
17,044.00	88.70	0.40	11,775.04	5,373.81	166.90	5,375.53	2.08	-1.94	0.75
17,139.00	88.40	0.40	11,777.44	5,468.78	167.56	5,470.50	0.32	-0.32	0.00
17,233.00	89.10	1.00	11,779.49	5,562.75	168.71	5,564.48	0.98	0.74	0.64
17,328.00	89.70	1.30	11,780.49	5,657.73	170.62	5,659.47	0.71	0.63	0.32
17,422.00	88.50	0.20	11,781.96	5,751.70	171.85	5,753.46	1.73	-1.28	-1.17
17,517.00	91.30	1.30	11,782.13	5,846.68	173.09	5,848.44	3.17	2.95	1.16
17,612.00	91.70	0.80	11,779.64	5,941.63	174.83	5,943.41	0.67	0.42	-0.53
17,707.00	91.20	1.80	11,777.24	6,036.58	176.99	6,038.37	1.18	-0.53	1.05
17,801.00	90.60	359.60	11,775.76	6,130.55	178.13	6,132.36	2.43	-0.64	-2.34
17,896.00	92.20	0.00	11,773.44	6,225.52	177.80	6,227.31	1.74	1.68	0.42
17,990.00	90.10	359.40	11,771.55	6,319.49	177.31	6,321.27	2.32	-2.23	-0.64
18,085.00	90.50	358.20	11,771.06	6,414.47	175.32	6,416.21	1.33	0.42	-1.26
18,180.00	87.70	358.20	11,772.55	6,509.40	172.34	6,511.10	2.95	-2.95	0.00
18,275.00	90.20	359.00	11,774.29	6,604.35	170.02	6,606.01	2.76	2.63	0.84
18,369.00	87.80	358.30	11,775.93	6,698.30	167.80	6,699.92	2.66	-2.55	-0.74
18,465.00	87.40	357.90	11,779.95	6,794.16	164.62	6,795.73	0.59	-0.42	-0.42
18,559.00	88.70	359.00	11,783.15	6,888.07	162.08	6,889.60	1.81	1.38	1.17
18,652.00	90.50	358.60	11,783.80	6,981.05	160.13	6,982.54	1.98	1.94	-0.43
18,747.00	88.30	357.50	11,784.79	7,075.98	156.90	7,077.42	2.59	-2.32	-1.16
18,842.00	90.10	357.40	11,786.12	7,170.87	152.68	7,172.25	1.90	1.89	-0.11
18,936.00	90.10	357.40	11,785.95	7,264.77	148.41	7,266.09	0.00	0.00	0.00
19,031.00	88.80	356.60	11,786.87	7,359.64	143.44	7,360.88	1.61	-1.37	-0.84
19,126.00	88.70	358.90	11,788.94	7,454.53	139.71	7,455.72	2.42	-0.11	2.42
19,219.00	88.60	358.10	11,791.13	7,547.48	137.28	7,548.63	0.87	-0.11	-0.86
19,314.00	89.30	358.10	11,792.87	7,642.41	134.13	7,643.51	0.74	0.74	0.00
19,408.00	89.20	358.20	11,794.10	7,736.35	131.10	7,737.40	0.15	-0.11	0.11
19,503.00	90.50	359.50	11,794.35	7,831.33	129.19	7,832.35	1.94	1.37	1.37
19,596.00	91.40	359.90	11,792.81	7,924.31	128.70	7,925.32	1.06	0.97	0.43
19,690.00	89.20	0.80	11,792.32	8,018.30	129.28	8,019.31	2.53	-2.34	0.96
19,784.00	88.90	0.30	11,793.87	8,112.28	130.18	8,113.29	0.62	-0.32	-0.53
19,878.00	87.80	359.20	11,796.58	8,206.24	129.77	8,207.24	1.65	-1.17	-1.17
19,972.00	89.20	0.70	11,799.04	8,300.20	129.69	8,301.19	2.18	1.49	1.60
20,066.00	88.70	0.30	11,800.76	8,394.18	130.51	8,395.17	0.68	-0.53	-0.43
20,160.00	91.80	1.80	11,800.35	8,488.15	132.23	8,489.16	3.66	3.30	1.60
20,254.00	92.70	1.80	11,796.66	8,582.03	135.18	8,583.07	0.96	0.96	0.00
20,348.00	89.40	1.40	11,794.94	8,675.97	137.80	8,677.03	3.54	-3.51	-0.43
20,442.00	88.80	0.70	11,796.42	8,769.94	139.53	8,771.01	0.98	-0.64	-0.74
20,536.00	92.10	2.30	11,795.68	8,863.89	141.99	8,864.99	3.90	3.51	1.70



Survey Report



Company:	Devon Energy	Local Co-ordinate Reference:	Well Tomb Raider 12-1 Fed 611H
Project:	Eddy County, NM (N83-NME)	TVD Reference:	3488.3+23.5 @ 3511.80usft (Cactus 168)
Site:	Tomb Raider	MD Reference:	3488.3+23.5 @ 3511.80usft (Cactus 168)
Well:	Tomb Raider 12-1 Fed 611H	North Reference:	Grid
Wellbore:	611H	Survey Calculation Method:	Minimum Curvature
Design:	Surveys	Database:	EDM 5000.15 Single 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)
20,630.00	92.70	2.50	11,791.74	8,957.72	145.92	8,958.86	0.67	0.64	0.21
20,724.00	90.30	1.50	11,789.28	9,051.63	149.20	9,052.80	2.77	-2.55	-1.06
20,819.00	90.00	1.00	11,789.03	9,146.60	151.27	9,147.80	0.61	-0.32	-0.53
20,914.00	89.10	0.40	11,789.78	9,241.59	152.43	9,242.79	1.14	-0.95	-0.63
21,008.00	88.20	0.00	11,791.99	9,335.56	152.76	9,336.76	1.05	-0.96	-0.43
21,103.00	89.20	0.70	11,794.15	9,430.54	153.34	9,431.73	1.28	1.05	0.74
21,197.00	89.30	0.40	11,795.38	9,524.52	154.24	9,525.72	0.34	0.11	-0.32
21,291.00	87.40	359.60	11,798.09	9,618.48	154.24	9,619.67	2.19	-2.02	-0.85
21,387.00	88.60	0.90	11,801.44	9,714.42	154.66	9,715.61	1.84	1.25	1.35
21,481.00	89.40	1.10	11,803.08	9,808.39	156.30	9,809.59	0.88	0.85	0.21
21,576.00	90.50	2.10	11,803.16	9,903.35	158.95	9,904.58	1.56	1.16	1.05
21,670.00	90.70	2.80	11,802.18	9,997.25	162.97	9,998.53	0.77	0.21	0.74
21,764.00	90.70	3.50	11,801.03	10,091.11	168.14	10,092.44	0.74	0.00	0.74
21,859.00	91.00	3.80	11,799.62	10,185.90	174.18	10,187.31	0.45	0.32	0.32
Last Survey - 21859.00' MD, 11799.62' TVD									
21,909.00	91.30	3.90	11,798.62	10,235.78	177.54	10,237.22	0.63	0.60	0.20
PTB									

Survey Annotations									
Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates							
		+N/-S (usft)	+E/-W (usft)						
21,859.00	11,799.62	10,185.90	174.18	Last Survey - 21859.00' MD, 11799.62' TVD					
21,909.00	11,798.62	10,235.78	177.54	PTB					