



Scientific Drilling International, Inc.
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30-015-45471

NM OIL CONSERVATION
ARTESIA DISTRICT

FEB 21 2019

RECEIVED

State of New Mexico
County of Eddy

I, Calvin Searcy, certify that; I am employed by Scientific Drilling International; that I did on the day(s) of 01/04/2019 through 01/14/2019 conduct or supervise the taking of a MWD survey from a depth of 145 feet to a depth of 13777 feet; that the data is true, correct, complete and within the limitations of the tool as set forth by Scientific Drilling International; that I am authorized and qualified to make this report; that this survey was conducted at the request of WPX Energy for the Bloodhound 15-23-27 Fee 401H Well, API# 30-015-45471 in Eddy County, New Mexico; and that I have reviewed this report and find that it conforms to the principals and procedures as set forth by Scientific Drilling International.


Field Technician

WPX Energy

Eddy County, New Mexico (NAD 83)

Bloodhound 15-23-27 Fee Pad

Bloodhound 15-23-27 Fee 401H

Wellbore #1

Design: Actual

WPX Final Survey Report

21 January, 2019

Scientific Drilling, Int'l
WPX Final Survey Report

Company:	WPX Energy	Local Co-ordinate Reference:	Well Bloodhound 15-23-27 Fee 401H
Project:	Eddy County, New Mexico (NAD 83)	TVD Reference:	GL 3115 + KB 26 = @ 3141.00usft (HP 265)
Site:	Bloodhound 15-23-27 Fee Pad	MD Reference:	GL 3115 + KB 26 = @ 3141.00usft (HP 265)
Well:	Bloodhound 15-23-27 Fee 401H	North Reference:	Grid
Wellbore:	Wellbore #1	Survey Calculation Method:	Minimum Curvature
Design:	Actual	Database:	Midland District

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

Site Bloodhound 15-23-27 Fee Pad			
Site Position:		Northing:	475,996.80 usft
From:	Map	Easting:	591,505.10 usft
Position Uncertainty:	0.00 usft	Slot Radius:	13-3/16 "
		Latitude:	32.308484
		Longitude:	-104.170950
		Grid Convergence:	0.09 "

Well Bloodhound 15-23-27 Fee 401H						
Well Position	+N-S	0.00 usft	Northing:	475,996.80 usft	Latitude:	32.308484
	+E-W	0.00 usft	Easting:	591,505.10 usft	Longitude:	-104.170950
Position Uncertainty		0.00 usft	Wellhead Elevation:	0.00 usft	Ground Level:	3,115.00 usft

Wellbore Wellbore #1					
Magnetics	Model Name	Sample Date	Declination	Dip Angle	Field Strength
			(°)	(°)	(nT)
	HDGM	1/3/2019	7.27	60.03	47,925

Design Actual					
Audit Notes:					
Version:	1.0	Phase:	ACTUAL	Tie On Depth:	0.00
Vertical Section:	Depth From (TVD)	+N-S	+E-W	Direction	
	(usft)	(usft)	(usft)	(bearing)	
	0.00	0.00	0.00	269.34	

Scientific Drilling, Intl
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Wellbore: Wellbore #1
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North Reference: Grid
Survey Calculation Method: Minimum Curvature
Database: Midland District

Survey Program Date 1/21/2019

From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description
145.00	317.00	SDI MWD - Surface (Wellbore #1)	MWD+HRGM	OWSG MWD + HRGM
422.00	8,448.00	SDI MWD - Intermediate (Wellbore #1)	MWD+HRGM	OWSG MWD + HRGM
8,547.00	9,369.00	SDI MWD - Curve (Wellbore #1)	MWD+HRGM	OWSG MWD + HRGM
9,511.00	13,851.00	SDI MWD - Lateral (Wellbore #1)	MWD+HRGM	OWSG MWD + HRGM

Survey

MD (usft)	Inc (°)	Azi (azimuth) (bearing)	TVD (usft)	N/S (usft)	E/W (usft)	V. Sec (usft)	Closure Distance (usft)	Closure Azimuth (bearing)	Northing (usft)	Easting (usft)
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	475,996.80	591,505.10
145.00	0.40	335.52	145.00	0.46	-0.21	0.20	0.51	335.52	475,997.26	591,504.89
238.00	0.78	5.89	237.99	1.39	-0.28	0.26	1.41	348.61	475,998.19	591,504.82
317.00	1.63	14.49	316.98	3.01	0.06	-0.09	3.01	1.09	475,999.81	591,505.16
422.00	1.89	10.69	421.93	6.16	0.75	-0.82	6.20	6.96	476,002.86	591,505.85
518.00	1.91	13.39	517.87	9.27	1.42	-1.52	9.38	8.69	476,006.07	591,506.52
610.00	1.92	9.58	609.82	12.28	2.03	-2.17	12.45	9.38	476,009.08	591,507.13
703.00	1.54	15.02	702.78	15.02	2.61	-2.78	15.25	9.86	476,011.82	591,507.71
795.00	1.58	14.63	794.75	17.44	3.25	-3.45	17.74	10.56	476,014.24	591,508.35
888.00	1.25	13.87	887.72	19.67	3.82	-4.04	20.04	10.99	476,016.47	591,508.92
980.00	1.15	18.31	979.70	21.52	4.35	-4.60	21.95	11.43	476,018.32	591,509.45
1,073.00	0.92	26.86	1,072.68	23.07	4.98	-5.24	23.60	12.18	476,019.87	591,510.08
1,165.00	1.17	30.57	1,164.67	24.54	5.79	-6.07	25.21	13.28	476,021.34	591,510.89
1,257.00	0.34	92.93	1,256.66	25.33	6.54	-6.83	26.16	14.48	476,022.13	591,511.64
1,349.00	1.26	165.43	1,348.65	24.34	7.07	-7.35	25.35	16.19	476,021.14	591,512.17
1,443.00	1.79	139.31	1,442.62	22.23	8.29	-8.54	23.72	20.44	476,019.03	591,513.39
1,538.00	2.42	122.46	1,537.55	20.03	10.95	-11.18	22.82	28.66	476,016.83	591,516.05
1,632.00	1.34	144.26	1,631.50	18.07	13.26	-13.47	22.41	36.28	476,014.87	591,518.36
1,727.00	1.28	161.89	1,726.48	16.16	14.24	-14.43	21.54	41.39	476,012.96	591,519.34
1,822.00	1.65	138.33	1,821.45	14.13	15.48	-15.64	20.86	47.81	476,010.93	591,520.58

Scientific Drilling, Intl
WPX Final Survey Report

Company: WPX Energy
Project: Eddy County, New Mexico (NAD 83)
Site: Bloodhound 15-23-27 Fee Pad
Well: Bloodhound 15-23-27 Fee 401H
Wellbore: Wellbore #1
Design: Actual

Local Co-ordinate Reference: Well Bloodhound 15-23-27 Fee 401H
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MD Reference: GL 3115 + KB 26 = @ 3141.00usft (HP 265)
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Database: Midland District

Survey

MD (usft)	Inc (")	Azi (azimuth) (bearing)	TVD (usft)	N/S (usft)	E/W (usft)	V. Sec (usft)	Closure Distance (usft)	Closure Azimuth (bearing)	Northing (usft)	Easting (usft)
1,916.00	1.92	127.80	1,915.40	12.15	17.62	-17.76	21.41	55.41	476,008.95	591,522.72
2,011.00	2.01	118.87	2,010.35	10.37	20.34	-20.46	22.83	62.98	476,007.17	591,525.44
2,106.00	1.59	122.45	2,105.30	8.86	22.91	-23.01	24.57	68.86	476,005.66	591,528.01
2,184.00	1.46	120.67	2,183.28	8.05	24.23	-24.32	25.53	71.81	476,004.85	591,529.33
2,358.00	1.47	102.70	2,357.22	6.24	28.78	-28.85	29.45	77.76	476,003.04	591,533.88
2,389.00	1.81	115.15	2,388.20	5.95	29.61	-29.68	30.20	78.64	476,002.75	591,534.71
2,484.00	4.70	144.03	2,483.05	2.16	33.26	-33.28	33.33	86.28	475,998.96	591,538.36
2,579.00	7.95	149.89	2,577.46	-6.68	38.84	-38.76	39.41	99.75	475,990.12	591,543.94
2,673.00	9.37	157.91	2,670.39	-19.39	44.98	-44.75	48.98	113.32	475,977.41	591,550.08
2,768.00	8.70	158.46	2,764.21	-33.24	50.52	-50.14	60.48	123.34	475,963.56	591,555.62
2,863.00	8.77	158.29	2,858.10	-46.85	55.84	-55.30	72.76	129.88	475,950.15	591,560.94
2,957.00	7.94	156.98	2,951.11	-59.28	61.03	-60.34	85.08	134.17	475,937.52	591,566.13
3,052.00	7.48	152.96	3,045.25	-70.83	66.41	-65.59	97.09	136.85	475,925.87	591,571.51
3,147.00	9.97	159.40	3,139.14	-84.04	72.11	-71.14	110.74	139.37	475,912.76	591,577.21
3,242.00	10.21	158.16	3,232.67	-99.55	78.14	-76.99	126.56	141.87	475,897.25	591,583.24
3,336.00	9.95	154.53	3,325.22	-114.62	84.73	-83.41	142.54	143.53	475,882.18	591,589.83
3,431.00	9.56	155.46	3,418.85	-129.20	91.54	-90.04	158.34	144.68	475,867.60	591,596.64
3,526.00	11.13	162.78	3,512.31	-145.14	97.53	-95.85	174.86	146.10	475,851.66	591,602.63
3,621.00	10.80	161.92	3,605.57	-162.36	103.01	-101.13	192.28	147.61	475,834.44	591,608.11
3,715.00	10.27	162.07	3,697.99	-178.70	108.32	-106.25	208.97	148.78	475,818.10	591,613.42
3,810.00	10.31	161.60	3,791.48	-194.83	113.81	-111.36	225.53	149.75	475,801.97	591,618.71
3,904.00	10.36	160.64	3,883.93	-210.78	119.07	-116.63	242.09	150.54	475,786.02	591,624.17
3,999.00	10.59	159.01	3,977.35	-226.99	125.02	-122.40	259.15	151.15	475,769.81	591,630.12
4,094.00	10.31	160.47	4,070.78	-243.16	130.99	-128.18	276.20	151.69	475,753.64	591,636.09
4,188.00	7.33	164.43	4,163.65	-256.86	135.42	-132.45	290.37	152.20	475,739.94	591,640.52
4,283.00	7.10	164.02	4,257.90	-268.34	138.66	-135.56	302.05	152.67	475,728.46	591,643.76
4,378.00	6.52	165.66	4,352.23	-279.21	141.81	-138.39	313.07	153.11	475,717.59	591,646.71

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Database: Midland District

Survey											
MD (usft)	Inc (°)	Azi (azimuth) (bearing)	TVD (usft)	N/S (usft)	E/W (usft)	V. Sec (usft)	Closure Distance (usft)	Closure Azimuth (bearing)	Northing (usft)	Easting (usft)	
4,472.00	6.15	164.63	4,445.66	-289.24	144.27	-140.93	323.22	153.49	475,707.56	591,649.37	
4,567.00	7.15	157.42	4,540.02	-299.61	147.89	-144.43	334.12	153.73	475,697.19	591,652.99	
4,662.00	7.09	157.50	4,634.29	-310.46	152.40	-148.81	345.87	153.86	475,686.32	591,657.50	
4,757.00	6.65	159.01	4,728.60	-321.03	156.61	-152.91	357.20	153.99	475,675.77	591,661.71	
4,851.00	7.45	149.53	4,821.90	-331.37	161.65	-157.83	368.70	154.00	475,665.43	591,666.75	
4,946.00	8.58	149.15	4,915.97	-342.76	168.41	-164.45	381.90	153.83	475,654.04	591,673.51	
5,041.00	8.10	150.51	5,009.96	-354.67	175.34	-171.24	395.65	153.69	475,642.13	591,680.44	
5,135.00	8.05	151.52	5,103.03	-366.22	181.74	-177.51	408.84	153.61	475,630.58	591,686.84	
5,230.00	7.52	151.57	5,197.15	-377.53	187.87	-183.51	421.70	153.54	475,619.27	591,692.97	
5,325.00	8.12	149.87	5,291.27	-388.80	194.20	-189.71	434.60	153.48	475,608.00	591,699.30	
5,419.00	8.77	148.16	5,384.25	-400.63	201.31	-196.68	448.37	153.32	475,596.17	591,706.41	
5,514.00	7.78	147.58	5,478.26	-412.21	208.58	-203.82	461.98	153.16	475,584.59	591,713.66	
5,608.00	7.79	148.86	5,571.39	-423.04	215.28	-210.40	474.67	153.03	475,573.76	591,720.38	
5,703.00	8.52	151.31	5,665.43	-434.72	221.99	-216.97	488.12	152.95	475,562.08	591,727.09	
5,798.00	8.11	153.14	5,759.43	-446.87	228.40	-223.24	501.86	152.93	475,549.93	591,733.50	
5,892.00	7.21	152.22	5,852.59	-458.01	234.14	-228.85	514.39	152.92	475,538.79	591,739.24	
5,987.00	6.61	153.56	5,946.90	-468.18	239.36	-233.95	525.82	152.92	475,528.62	591,744.46	
6,081.00	5.87	155.49	6,040.35	-477.40	243.76	-238.24	536.03	152.95	475,519.40	591,748.86	
6,176.00	6.28	152.42	6,134.81	-486.42	248.18	-242.56	546.08	152.97	475,510.38	591,753.28	
6,270.00	8.35	149.25	6,228.04	-496.85	254.05	-248.31	558.03	152.92	475,499.95	591,759.15	
6,365.00	7.86	151.25	6,322.09	-508.47	260.70	-254.83	571.41	152.85	475,488.33	591,765.80	
6,460.00	7.19	151.01	6,416.28	-519.36	266.71	-260.71	583.84	152.82	475,477.44	591,771.81	
6,554.00	6.84	149.10	6,509.57	-529.31	272.43	-266.32	595.31	152.77	475,467.49	591,777.53	
6,649.00	8.11	147.71	6,603.76	-539.83	278.92	-272.68	607.83	152.68	475,458.97	591,784.02	
6,743.00	7.34	145.60	6,696.91	-550.39	285.85	-279.49	620.20	152.55	475,446.41	591,790.95	
6,838.00	6.68	145.42	6,791.20	-559.95	292.42	-285.95	631.70	152.43	475,438.85	591,797.52	
6,933.00	7.03	145.68	6,885.52	-569.30	298.83	-292.25	642.96	152.30	475,427.50	591,803.93	

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Wellbore: Wellbore #1
Design: Actual

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North Reference: Grid
Survey Calculation Method: Minimum Curvature
Database: Midland District

Survey											
MD (usft)	Inc (°)	Azi (azimuth) (bearing)	TVD (usft)	N/S (usft)	E/W (usft)	V. Sec (usft)	Closure Distance (usft)	Closure Azimuth (bearing)	Northing (usft)	Easting (usft)	
7,027.00	6.88	144.48	6,978.83	-578.63	305.35	-298.66	654.26	152.18	475,418.17	591,810.45	
7,122.00	8.49	150.47	7,072.97	-589.37	312.11	-305.30	666.91	152.10	475,407.43	591,817.21	
7,217.00	6.73	144.35	7,167.13	-599.99	318.81	-311.88	679.43	152.02	475,396.81	591,823.91	
7,311.00	6.29	141.72	7,260.53	-608.51	325.21	-318.18	689.96	151.88	475,388.29	591,830.31	
7,408.00	7.90	155.58	7,354.80	-618.54	331.13	-323.99	701.50	151.84	475,378.26	591,836.23	
7,501.00	7.68	158.60	7,448.93	-630.40	336.15	-328.87	714.42	151.93	475,366.40	591,841.25	
7,595.00	6.39	159.84	7,542.22	-641.15	340.26	-332.85	725.84	152.04	475,355.65	591,845.36	
7,690.00	6.37	165.55	7,636.63	-651.21	343.42	-335.89	736.21	152.19	475,345.59	591,848.52	
7,785.00	5.91	169.74	7,731.09	-661.12	345.60	-337.96	746.01	152.40	475,335.68	591,850.70	
7,880.00	8.15	177.34	7,825.37	-672.67	346.79	-339.02	756.80	152.73	475,324.13	591,851.89	
7,974.00	8.81	170.34	7,918.34	-686.42	348.30	-340.37	769.73	153.10	475,310.38	591,853.40	
8,069.00	7.45	185.62	8,012.39	-699.56	351.05	-342.97	782.70	153.35	475,297.24	591,856.15	
8,164.00	6.70	167.50	8,106.66	-710.93	353.78	-345.57	794.10	153.54	475,285.87	591,858.88	
8,258.00	9.08	170.32	8,199.77	-723.60	358.22	-347.86	806.53	153.79	475,273.20	591,861.32	
8,353.00	8.18	174.35	8,293.69	-737.72	358.14	-349.62	820.06	154.10	475,259.08	591,863.24	
8,448.00	6.76	177.78	8,387.88	-750.03	359.03	-350.36	831.53	154.42	475,246.77	591,864.13	
8,547.00	6.46	185.88	8,486.23	-761.39	358.68	-349.89	841.65	154.78	475,235.41	591,863.78	
8,641.00	17.04	189.91	8,578.14	-779.68	353.43	-344.43	856.03	155.61	475,217.14	591,858.53	
8,736.00	27.54	208.14	8,665.94	-812.21	338.29	-328.91	879.84	157.39	475,184.59	591,843.39	
8,831.00	39.42	219.18	8,745.11	-855.15	308.74	-298.87	909.18	160.15	475,141.85	591,813.84	
8,925.00	44.93	236.66	8,814.99	-896.70	281.96	-251.61	934.18	163.72	475,100.10	591,767.06	
9,020.00	47.83	254.48	8,880.80	-924.69	199.74	-189.07	946.01	167.81	475,072.11	591,704.84	
9,115.00	49.13	273.34	8,944.09	-932.05	129.60	-118.86	941.02	172.08	475,064.75	591,634.70	
FTP Actual 9115' MD											
9,145.46	51.73	277.47	8,963.50	-929.82	106.24	-95.52	935.87	173.48	475,066.98	591,611.34	
BloHou401H FTP											
9,209.00	57.56	285.17	9,000.28	-919.55	55.53	-44.94	921.22	178.54	475,077.25	591,580.63	

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Wellbore: Wellbore #1
Design: Actual

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Survey										
MD (usft)	Inc (°)	Azi (azimuth) (bearing)	TVD (usft)	N/S (usft)	E/W (usft)	V. Sec (usft)	Closure Distance (usft)	Closure Azimuth (bearing)	Northing (usft)	Easting (usft)
9,304.00	69.25	287.81	9,042.74	-895.38	-25.74	36.05	895.75	181.65	475,101.42	591,479.36
9,369.00	76.99	283.68	9,061.61	-878.57	-85.58	95.67	882.72	185.56	475,118.23	591,419.54
9,511.00	84.42	272.11	9,084.61	-859.52	-224.04	233.93	888.24	194.61	475,137.28	591,281.06
9,606.00	90.03	271.18	9,089.20	-856.80	-318.85	328.70	914.20	200.41	475,140.00	591,188.25
9,701.00	90.20	270.71	9,089.01	-855.23	-413.84	423.66	950.09	205.82	475,141.57	591,091.26
9,795.00	90.17	270.46	9,088.71	-854.27	-507.83	517.64	993.82	210.73	475,142.53	590,997.27
9,890.00	90.07	270.47	9,088.51	-853.50	-602.83	612.82	1,044.92	215.23	475,143.30	590,902.27
9,985.00	90.10	270.28	9,088.37	-852.68	-697.83	707.61	1,101.98	219.29	475,143.92	590,807.27
10,080.00	90.20	270.61	9,088.12	-852.14	-792.82	802.59	1,163.92	222.93	475,144.66	590,712.28
10,175.00	90.03	270.31	9,087.93	-851.38	-887.82	897.57	1,230.07	226.20	475,145.42	590,617.28
10,269.00	90.23	270.19	9,087.72	-850.97	-981.82	991.56	1,299.27	229.08	475,145.83	590,523.28
10,364.00	90.98	270.66	9,086.71	-850.28	-1,076.81	1,086.53	1,372.03	231.71	475,146.54	590,428.29
10,459.00	91.99	270.76	9,084.25	-849.08	-1,171.77	1,181.47	1,447.06	234.07	475,147.72	590,333.33
10,554.00	91.65	270.79	9,080.99	-847.80	-1,266.71	1,276.39	1,524.24	236.21	475,148.00	590,238.39
10,648.00	90.47	270.75	9,079.00	-846.54	-1,360.67	1,370.33	1,602.52	238.11	475,150.26	590,144.43
10,743.00	90.07	270.85	9,078.55	-845.21	-1,455.66	1,465.30	1,683.25	239.86	475,151.59	590,049.44
10,838.00	90.47	271.00	9,078.11	-843.68	-1,550.65	1,560.27	1,765.31	241.45	475,153.12	589,954.45
10,932.00	91.28	270.90	9,076.67	-842.12	-1,644.63	1,654.22	1,847.69	242.89	475,154.68	589,860.47
11,027.00	90.40	268.55	9,075.28	-842.57	-1,739.61	1,749.20	1,932.92	244.16	475,154.23	589,765.49
11,122.00	90.77	268.54	9,074.31	-844.99	-1,834.57	1,844.18	2,019.81	245.27	475,151.81	589,670.53
11,217.00	88.96	268.28	9,074.53	-847.62	-1,929.53	1,939.17	2,107.50	246.28	475,149.18	589,575.57
11,311.00	88.83	267.43	9,076.34	-851.14	-2,023.45	2,033.12	2,195.17	247.19	475,145.66	589,481.65
11,406.00	88.96	267.87	9,078.18	-855.03	-2,118.35	2,128.06	2,284.40	248.02	475,141.77	589,386.75
11,500.00	89.56	267.43	9,079.39	-858.89	-2,212.26	2,222.01	2,373.14	248.78	475,137.91	589,292.84
11,595.00	89.09	267.01	9,080.51	-863.50	-2,307.14	2,316.93	2,463.44	249.48	475,133.30	589,197.96
11,690.00	89.93	266.88	9,081.32	-868.56	-2,402.00	2,411.85	2,554.21	250.12	475,128.24	589,103.10
11,785.00	92.48	267.85	9,079.32	-872.92	-2,496.87	2,506.76	2,645.06	250.73	475,123.88	589,008.23

Scientific Drilling, Intl
WPX Final Survey Report

Company: WPX Energy
Project: Eddy County, New Mexico (NAD 83)
Site: Bloodhound 15-23-27 Fee Pad
Well: Bloodhound 15-23-27 Fee 401H
Wellbore: Wellbore #1
Design: Actual

Local Co-ordinate Reference: Well Bloodhound 15-23-27 Fee 401H
TVD Reference: GL 3115 + KB 26 = @ 3141.00usft (HP 265)
MD Reference: GL 3115 + KB 28 = @ 3141.00usft (HP 265)
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Database: Midland District

Survey

MD (usft)	Inc (°)	Azi (azimuth) (bearing)	TVD (usft)	N/S (usft)	E/W (usft)	V. Sec (usft)	Closure Distance (usft)	Closure Azimuth (bearing)	Northing (usft)	Easting (usft)
11,880.00	92.02	267.99	9,075.60	-876.37	-2,591.74	2,601.66	2,735.89	251.32	475,120.43	588,913.36
11,975.00	91.24	268.25	9,072.89	-879.49	-2,686.65	2,696.60	2,826.93	251.87	475,117.31	588,818.45
12,070.00	90.50	269.29	9,071.45	-881.52	-2,781.61	2,791.58	2,917.95	252.42	475,115.28	588,723.49
12,164.00	89.50	269.02	9,071.45	-882.91	-2,875.60	2,885.58	3,008.09	252.93	475,113.89	588,629.50
12,258.00	89.33	268.66	9,072.42	-884.83	-2,970.57	2,980.57	3,099.56	253.41	475,111.97	588,534.53
12,354.00	88.79	268.24	9,073.98	-887.40	-3,065.53	3,075.54	3,191.38	253.86	475,109.40	588,439.57
12,449.00	89.19	267.97	9,075.65	-890.54	-3,160.46	3,170.51	3,283.53	254.26	475,106.26	588,344.64
12,544.00	90.87	268.92	9,075.60	-893.12	-3,255.42	3,265.49	3,375.71	254.66	475,103.68	588,249.68
12,639.00	91.34	269.85	9,073.77	-894.14	-3,350.40	3,360.47	3,467.66	255.06	475,102.66	588,154.70
12,733.00	90.47	269.64	9,072.29	-894.56	-3,444.38	3,454.46	3,558.65	255.44	475,102.24	588,060.72
12,828.00	92.15	270.01	9,070.12	-894.85	-3,539.35	3,549.43	3,650.72	255.81	475,101.95	587,965.75
12,923.00	92.25	270.71	9,066.47	-894.25	-3,634.28	3,644.34	3,742.68	256.18	475,102.55	587,870.82
13,018.00	90.84	270.65	9,063.91	-893.13	-3,729.24	3,739.28	3,834.69	256.53	475,103.67	587,775.86
13,112.00	91.07	269.85	9,062.34	-892.72	-3,823.22	3,833.25	3,926.06	256.86	475,104.08	587,681.88
13,207.00	91.98	269.90	9,059.81	-892.92	-3,918.19	3,928.21	4,018.64	257.16	475,103.88	587,586.91
13,302.00	92.01	270.84	9,056.50	-892.31	-4,013.13	4,023.14	4,111.13	257.46	475,104.49	587,491.97
13,397.00	91.11	269.95	9,053.92	-891.66	-4,108.09	4,118.09	4,203.74	257.75	475,105.14	587,397.01
13,491.00	90.34	270.22	9,052.73	-891.52	-4,202.08	4,212.07	4,295.61	258.02	475,105.28	587,303.02
13,586.00	90.54	269.85	9,052.00	-891.46	-4,297.08	4,307.06	4,388.57	258.28	475,105.34	587,208.02
13,681.00	91.78	269.75	9,050.08	-891.79	-4,392.05	4,402.03	4,481.68	258.52	475,105.01	587,113.05
13,750.47	92.48	269.64	9,047.49	-892.16	-4,461.47	4,471.45	4,549.80	258.69	475,104.64	587,043.63
LTP Actual 13750.47' MD - BloHou401H LTP										
13,777.00	92.75	269.60	9,046.28	-892.33	-4,487.98	4,497.96	4,575.83	258.75	475,104.47	587,017.12
SDI MWD										
13,850.19	92.75	269.60	9,042.77	-892.84	-4,561.08	4,571.06	4,647.64	258.92	475,103.96	586,944.02
BloHou401H BHL										
13,851.00	92.75	269.60	9,042.73	-892.85	-4,561.89	4,571.87	4,648.44	258.93	475,103.95	586,943.21
Bit Projection										

Scientific Drilling, Intl
WPX Final Survey Report

Company: WPX Energy
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Site: Bloodhound 15-23-27 Fee Pad
Well: Bloodhound 15-23-27 Fee 401H
Wellbore: Wellbore #1
Design: Actual

Local Co-ordinate Reference: Well Bloodhound 15-23-27 Fee 401H
TVD Reference: GL 3115 + KB 28 = @ 3141.00usft (HP 265)
MD Reference: GL 3115 + KB 26 = @ 3141.00usft (HP 265)
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Database: Midland District

Survey

MD (usft)	Inc (°)	Azi (azimuth) (bearing)	TVD (usft)	N/S (usft)	E/W (usft)	V. Sec (usft)	Closure Distance (usft)	Closure Azimuth (bearing)	Northing (usft)	Easting (usft)
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Design Annotations

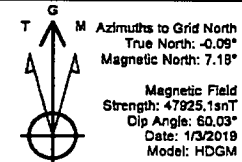
Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+N/-S (usft)	+E/-W (usft)	
9,115.00	8,944.09	-932.05	129.60	FTP Actual 9115' MD
13,750.47	9,047.49	-892.16	-4,481.47	LTP Actual 13750.47' MD
13,777.00	9,046.28	-892.33	-4,487.98	SDI MWD
13,851.00	9,042.73	-892.85	-4,561.89	Bit Projection

Checked By: _____ Approved By: _____ Date: _____

Bloodhound 15-23-27 Fee 401H
Eddy County, New Mexico (NAD 83)
Northing: 475996.80
Easting: 591505.10
Actual

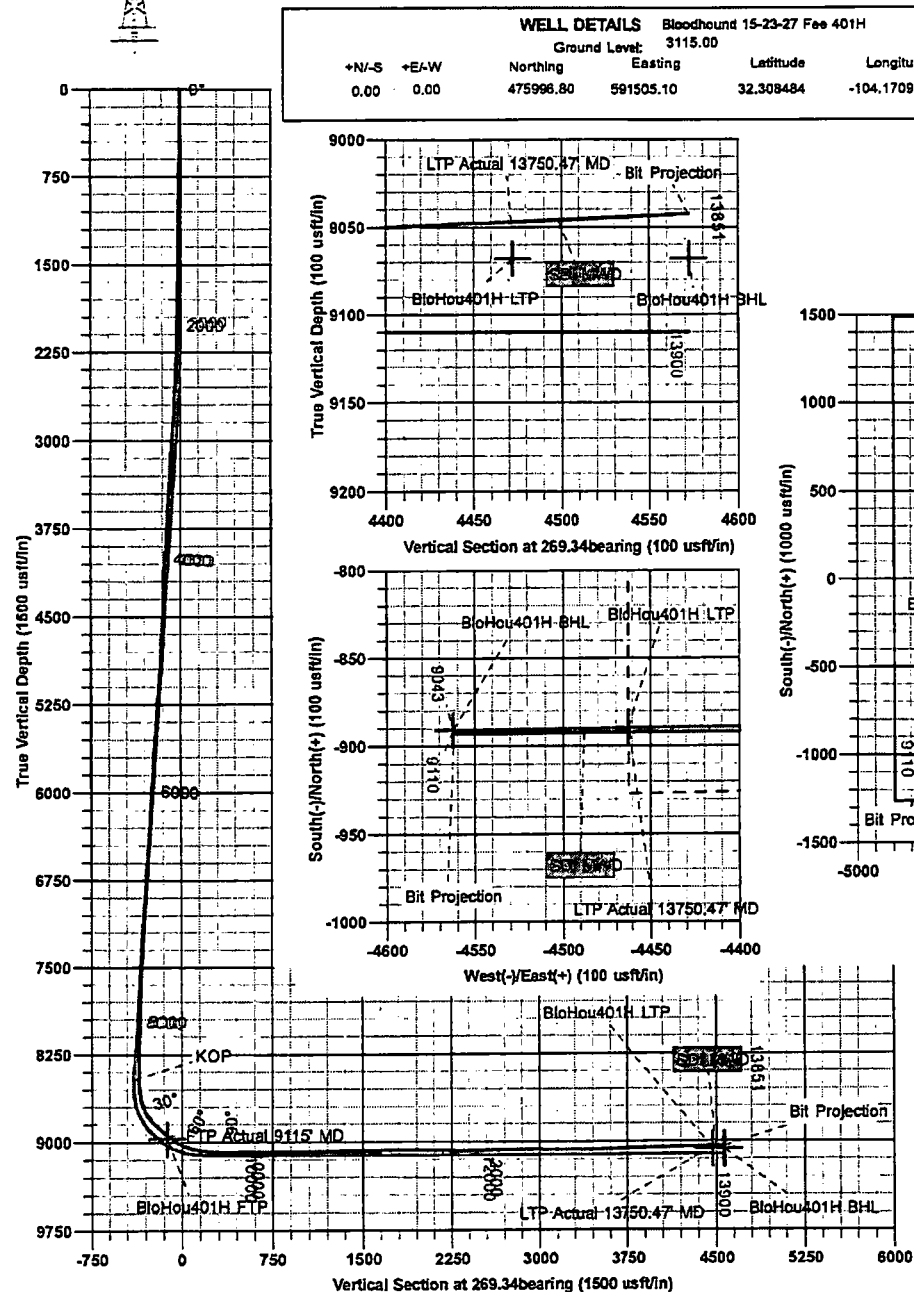


TVD	MD	Annotation
8944.09	9115.00	FTP Actual 9115' MD
9047.49	13750.47	LTP Actual 13750.47' MD
9048.28	13777.00	SDI MWD
9042.73	13851.00	Bit Projection

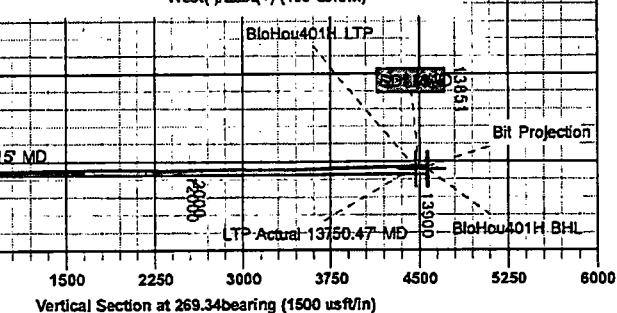
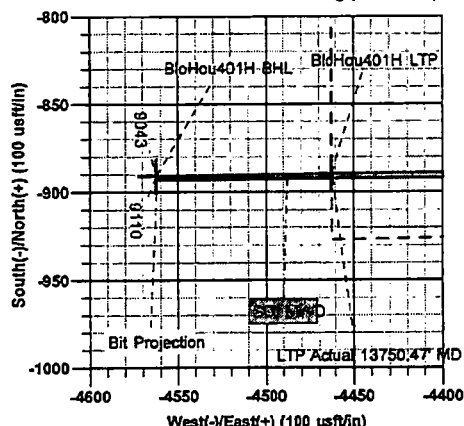
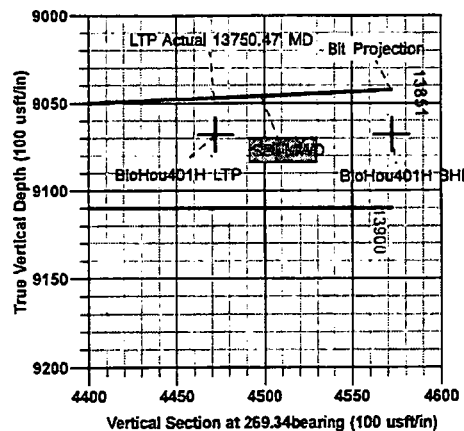


GL 3115 + KB 26 = @ 3141.00usft (HP 265)
GL @ 3115.00

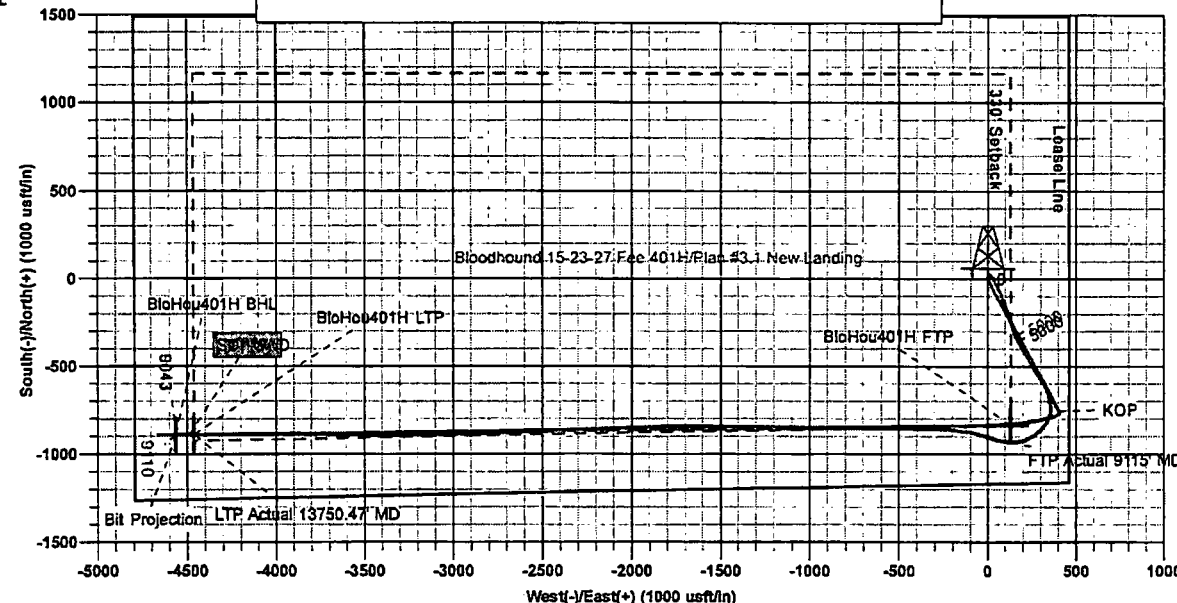
To convert a Magnetic Direction to a Grid Direction, Add 7.18°
To convert a True Direction to a Grid Direction, Subtract 0.09°



WELL DETAILS Bloodhound 15-23-27 Fee 401H				
Ground Level: 3115.00				
+N/-S	+E/-W	Northing	Easting	Latitude
0.00	0.00	475996.80	591505.10	32.308484
Longitude				
-104.170950				



MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VSect
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2279.00	0.00	0.00	2279.00	0.00	0.00	0.00	0.00	0.00
2685.02	8.12	151.82	2683.66	-25.32	13.57	2.00	151.82	-13.27
8564.78	8.12	151.82	8504.47	-757.39	405.82	0.00	0.00	-397.07
9502.21	90.00	269.34	9110.00	-840.56	-165.00	10.00	117.29	174.67
13899.80	90.00	269.34	9110.00	-891.00	-4562.30	0.00	0.00	4572.26



Bailey Fellows
10:44, January 21 2019

Scientific Drilling
325 S. Faudree Rd.
Odessa, TX 79765