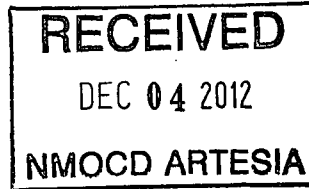


Pathfinder

6213 WCR. 112
Midland, Texas. 79706-3725, USA
Tel. (432) 687-1647
Fax (432) 687-1544



PATHFINDER
A Schlumberger Company

October 3, 2012

Devon Energy
20 N. Broadway
Oklahoma City, OK

30-015-40331

RE: Devon Energy
Bellatrix 28 Federal Com #1H
API: 30-015-40331
Eddy County, NM
RIG: H&P 300
FIELD: Hackberry; Bone Spring (West)
PES FILE NO.: 12MLD0311

To whom it may concern:

We hereby certify that the enclosed Original Field Survey Data contained in this report represents to the best of our knowledge, a true and accurate survey of the well at the time the survey was run.

DIRECTIONAL SURVEY DATA
1 – Original survey report
2 – Survey report copies

We appreciate the opportunity to work with you and we look forward to your business support. If you have any questions, I can be reached at (432) 687-1647

Sincerely,

A handwritten signature in black ink, appearing to read "M. Mitcham".

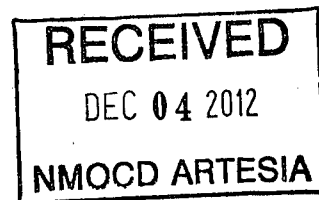
MARCUS MITCHAM
M/LWD Service Coordinator
PathFinder Energy Services

ML:sh



A GYRO TECHNOLOGIES INC. COMPANY

PO Box 261021
Corpus Christi, Texas 78426
(361) 767-0602 • (800) 606-GYRO • Fax (361) 767-0612



August 2, 2012

30-015-40331

Devon Energy Production Company
333 West Sheridan Ave
Oklahoma City, Oklahoma 73102-5010

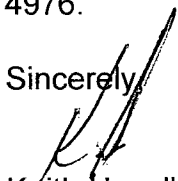
Attn: Mark Cooper

Re: **Bellatrix 28 Federal 1H**

Please find enclosed a copy of the survey from 0' to 8,433' ran on the above referenced well.

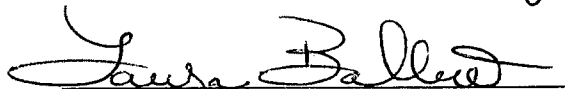
If I can be of any further service, please do not hesitate to call me at 800-606-4976.

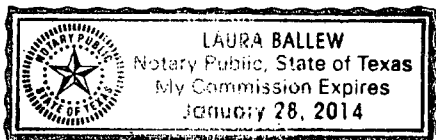
Sincerely,


Keith Havelka
Operations

STATE OF TEXAS §
 §
COUNTY OF NUECES §

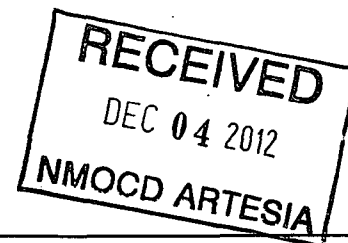
This instrument was acknowledged before me on the 17th day of August, A.D., 2012, by Keith Havelka.


Laura Ballew
Notary Public, State of Texas





Company: Devon Energy Production Co., LP
 Lease/Well: Bellatrix 28 Federal/1H
 Location: SEC29 T19S R31E
 Rig Name: H&P 300
 State/County: New Mexico/Eddy
 Latitude: 32.64
 GRID North is 0.24 Degrees East of True North
 VS-Azi: 0.00 Degrees



Depth Reference : RKB= 26.2 Feet

DRILLOG HA GYRO SURVEY CALCULATIONS

Filename: ...rix 28 fed #1h_gyro survey.ut

Minimum Curvature Method

Report Date/Time: 8/2/2012 / 10:17

Vaughn Energy Services

Gardendale, TX

(432) 563-5444

Surveyor: Colby Ware

Bellatrix 28 Federal 1H / API 30-015-40331

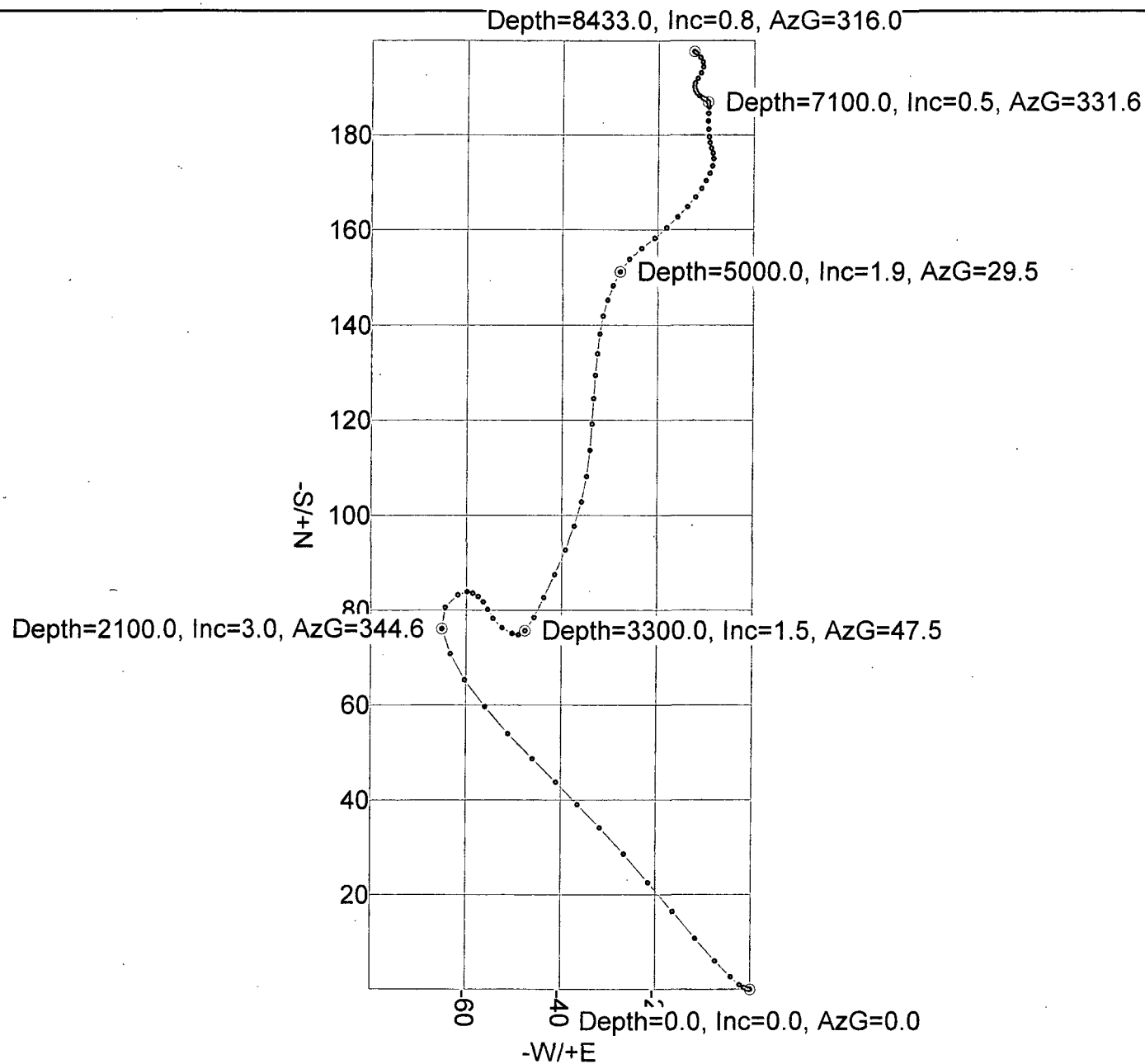
Measured Depth FT	Incl Angle Deg	Drift Direction Deg	TVD FT	+N/-S FT	+E/-W FT	Vertical Section FT	Closure Distance FT	Closure Direction Deg	Dogleg Severity Deg/100
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	****
100.00	0.12	270.58	100.00	0.00	-0.10	0.00	0.10	270.58	0.12
200.00	0.13	281.33	200.00	0.03	-0.32	0.03	0.32	274.46	0.03
300.00	0.15	284.70	300.00	0.08	-0.56	0.08	0.57	278.22	0.02
400.00	0.17	288.06	400.00	0.16	-0.83	0.16	0.84	280.91	0.02
500.00	0.48	297.78	500.00	0.40	-1.34	0.40	1.40	286.66	0.32
600.00	0.80	307.49	599.99	1.02	-2.26	1.02	2.48	294.27	0.33
700.00	2.07	312.42	699.96	2.66	-4.15	2.66	4.93	302.70	1.28
800.00	3.35	317.35	799.84	6.03	-7.46	6.03	9.59	308.95	1.30
900.00	3.95	319.83	899.64	10.81	-11.66	10.81	15.90	312.83	0.62
1000.00	4.55	320.32	999.37	16.49	-16.41	16.49	23.26	315.14	0.60
1100.00	4.54	320.08	1099.05	22.58	-21.48	22.58	31.16	316.42	0.02
1200.00	4.54	319.84	1198.74	28.63	-26.57	28.63	39.06	317.14	0.02
1300.00	4.13	315.15	1298.45	34.21	-31.66	34.21	46.61	317.22	0.54
1400.00	3.69	316.38	1398.22	39.09	-36.42	39.09	53.43	317.03	0.44
1500.00	3.85	315.73	1498.00	43.83	-40.99	43.83	60.01	316.92	0.16
1600.00	4.16	313.75	1597.76	48.75	-45.96	48.75	66.99	316.69	0.34
1700.00	4.32	318.01	1697.48	54.06	-51.10	54.06	74.39	316.61	0.35
1800.00	4.28	320.58	1797.20	59.74	-55.99	59.74	81.88	316.86	0.20

measured Depth FT	incl Angle Deg	Unit Direction Deg	TVD FT	+N/-S FT	+E/-W FT	Vertical Section FT	Closure Distance FT	Closure Direction Deg	Dogleg Severity Deg/100
1900.00	3.86	325.03	1896.95	65.38	-60.29	65.38	88.93	317.32	0.53
2000.00	3.35	338.08	1996.75	70.85	-63.31	70.85	95.01	318.22	0.96
2100.00	3.04	344.63	2096.60	76.11	-65.10	76.11	100.16	319.46	0.48
2200.00	2.72	34.29	2196.49	80.63	-64.46	80.63	103.23	321.36	2.43
2300.00	1.71	63.68	2296.41	83.25	-61.79	83.25	103.68	323.42	1.49
2400.00	0.69	93.07	2396.39	83.88	-59.86	83.88	103.05	324.49	1.16
2500.00	0.76	111.93	2496.38	83.60	-58.64	83.60	102.12	324.95	0.25
2600.00	0.82	130.80	2596.37	82.89	-57.49	82.89	100.87	325.26	0.27
2700.00	0.97	142.18	2696.36	81.75	-56.42	81.75	99.33	325.39	0.23
2800.00	1.12	153.56	2796.35	80.21	-55.47	80.21	97.52	325.33	0.25
2900.00	1.42	145.56	2896.32	78.31	-54.33	78.31	95.32	325.25	0.36
3000.00	1.73	127.56	2996.28	76.37	-52.43	76.37	92.63	325.53	0.58
3100.00	1.11	108.10	3096.25	75.14	-50.32	75.14	90.43	326.19	0.78
3200.00	0.48	88.64	3196.24	74.85	-48.98	74.85	89.46	326.80	0.67
3300.00	1.46	47.54	3296.23	75.73	-47.63	75.73	89.46	327.83	1.15
3400.00	2.45	26.45	3396.17	78.50	-45.73	78.50	90.85	329.78	1.21
3500.00	2.86	25.45	3496.06	82.67	-43.70	82.67	93.51	332.14	0.41
3600.00	3.27	24.45	3595.92	87.52	-41.45	87.52	96.84	334.66	0.41
3700.00	3.15	21.39	3695.76	92.67	-39.27	92.67	100.65	337.03	0.21
3800.00	3.04	20.33	3795.62	97.72	-37.35	97.72	104.61	339.08	0.13
3900.00	3.11	12.77	3895.47	102.85	-35.83	102.85	108.91	340.79	0.41
4000.00	3.18	9.21	3995.32	108.23	-34.79	108.23	113.68	342.18	0.21
4100.00	3.18	5.14	4095.17	113.72	-34.09	113.72	118.72	343.31	0.23
4200.00	3.17	3.07	4195.02	119.24	-33.70	119.24	123.91	344.22	0.11
4300.00	2.95	3.58	4294.87	124.57	-33.39	124.57	128.97	345.00	0.23
4400.00	2.72	5.10	4394.75	129.50	-33.02	129.50	133.64	345.70	0.24
4500.00	2.50	5.65	4494.65	134.03	-32.59	134.03	137.94	346.33	0.22
4600.00	2.28	7.20	4594.56	138.18	-32.13	138.18	141.86	346.91	0.23
4700.00	2.09	13.12	4694.49	141.93	-31.46	141.93	145.37	347.50	0.30
4800.00	1.90	19.05	4794.43	145.27	-30.51	145.27	148.44	348.14	0.28
4900.00	1.88	24.30	4894.37	148.33	-29.30	148.33	151.19	348.83	0.17
5000.00	1.85	29.55	4994.32	151.23	-27.82	151.23	153.77	349.57	0.17
5100.00	1.93	41.61	5094.27	153.89	-25.91	153.89	156.06	350.44	0.40
5200.00	2.00	53.68	5194.21	156.18	-23.39	156.18	157.92	351.48	0.42
5300.00	1.93	49.81	5294.15	158.30	-20.69	158.30	159.65	352.55	0.15
5400.00	1.86	46.95	5394.09	160.50	-18.22	160.50	161.53	353.52	0.12
5500.00	1.76	44.01	5494.04	162.72	-15.96	162.72	163.50	354.40	0.14
5600.00	1.66	42.08	5594.00	164.90	-13.92	164.90	165.48	355.17	0.12
5700.00	1.39	36.81	5693.96	166.94	-12.23	166.94	167.39	355.81	0.30

measured Depth FT	inci Angle Deg	Unit Direction Deg	TVD FT	+N/-S FT	+E/-W FT	Vertical Section FT	Closure Distance FT	Closure Direction Deg	Dogleg Severity Deg/100
5800.00	1.12	31.54	5793.94	168.75	-10.99	168.75	169.11	356.28	0.29
5900.00	1.05	28.67	5893.92	170.39	-10.03	170.39	170.68	356.63	0.09
6000.00	0.97	25.80	5993.91	171.95	-9.23	171.95	172.20	356.93	0.09
6100.00	0.93	10.88	6093.89	173.51	-8.71	173.51	173.73	357.13	0.25
6200.00	0.83	3.75	6193.88	175.03	-8.51	175.03	175.23	357.22	0.15
6300.00	0.59	339.33	6293.87	176.23	-8.64	176.23	176.44	357.19	0.38
6400.00	0.67	344.09	6393.87	177.27	-8.98	177.27	177.49	357.10	0.10
6500.00	0.71	348.77	6493.86	178.43	-9.26	178.43	178.67	357.03	0.07
6600.00	0.70	353.80	6593.85	179.65	-9.45	179.65	179.90	356.99	0.06
6700.00	1.09	356.68	6693.84	181.21	-9.57	181.21	181.46	356.98	0.39
6800.00	0.90	357.98	6793.83	182.95	-9.65	182.95	183.20	356.98	0.19
6900.00	0.97	2.88	6893.81	184.58	-9.63	184.58	184.83	357.01	0.10
7000.00	0.65	7.81	6993.80	185.98	-9.52	185.98	186.23	357.07	0.33
7100.00	0.53	331.60	7093.80	186.95	-9.66	186.95	187.20	357.04	0.38
7200.00	0.42	295.38	7193.79	187.52	-10.21	187.52	187.80	356.88	0.31
7300.00	0.45	297.76	7293.79	187.86	-10.89	187.86	188.17	356.68	0.04
7400.00	0.49	310.15	7393.79	188.31	-11.56	188.31	188.67	356.49	0.11
7500.00	0.42	324.89	7493.78	188.89	-12.10	188.89	189.28	356.34	0.13
7600.00	0.36	339.63	7593.78	189.49	-12.42	189.49	189.90	356.25	0.12
7700.00	0.46	350.36	7693.78	190.19	-12.60	190.19	190.60	356.21	0.12
7800.00	0.56	27.10	7793.78	191.02	-12.45	191.02	191.42	356.27	0.33
7900.00	0.70	31.48	7893.77	191.97	-11.90	191.97	192.34	356.45	0.15
8000.00	0.85	29.86	7993.76	193.14	-11.21	193.14	193.47	356.68	0.15
8100.00	0.70	7.03	8093.75	194.39	-10.77	194.39	194.69	356.83	0.34
8200.00	0.56	342.20	8193.75	195.47	-10.84	195.47	195.77	356.83	0.31
8300.00	0.69	324.78	8293.74	196.43	-11.34	196.43	196.75	356.70	0.23
8400.00	0.83	307.36	8393.73	197.36	-12.26	197.36	197.74	356.45	0.27
8433.00	0.85	316.01	8426.73	197.68	-12.62	197.68	198.08	356.35	0.39



Vaughn Energy Services
Gardendale, TX
(432) 563-5444
Surveyor: Colby Ware
Bellatrix 28 Federal 1H / API 30-015-40331

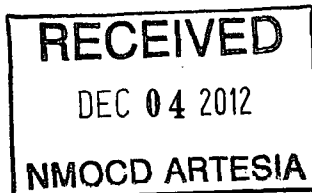


VES Survey Date: 07/27/2012



A Schlumberger Company

DIRECTIONAL SURVEY REPORT



DEVON ENERGY

BELLATRIX 28 FEDERAL COM #1H

EDDY COUNTY, NEW MEXICO

PREPARED BY: MARCUS MITCHAM

Pathfinder

6213 WCR. 112
Midland, Texas. 79706-3725, USA
Tel. (432) 687-1647
Fax (432) 687-1544



DIRECTIONAL SURVEY COMPANY REPORT:

1. NAME OF SURVEYING COMPANY: PATHFINDER ENERGY SERVICES
2. NAME OF PERSON(S) PERFORMING SURVEY:
A) HUEY SANDIFER
3. POSITION OF SAID PERSON(S): (A-F) SURVEYORS (FIELD ENGINEERS)
4. DATE(S) ON WHICH SURVEY WAS PERFORMED: 7/28/12 TO 8/05/12
5. STATE IN WHICH SURVEY WAS PERFORMED: NEW MEXICO
6. LOCATION OF WELL: EDDY COUNTY
7. TYPE OF SURVEY(S) PERFORMED: GAMMA-RAY
8. COMPLETE IDENTIFICATION OF WELL:

DEVON ENERGY
BELLATRIX 28 FEDERAL COM #1H
EDDY COUNTY, NM
RIG: H&P 300
9. SURVEY CERTIFIED FROM: 8,493 TO 14,507 FEET MEASURED DEPTH.

THIS IS TO VERIFY THAT ATTACHED DOCUMENTS SHOWING THE WELL TO BE
DISPLACED AT 5,745.55 FEET ON A BEARING OF 84.44 DEGREES FROM THE
CENTER OF THE ROTARY TABLE AT A PROJECTED BIT DEPTH OF 14,582 FEET,
ARE TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE.



MARCUS MITCHAM
M/LWD SERVICE COORDINATOR

PathFinder Energy Services, Inc.

BHL Report

Page 01/01
Tie-in Date: 07/28/2012
Date Completed: 08/05/2012

DEVON ENERGY PRODUCTION COMPANY LP
BELLATRIX 28 FED COM #1H / API# 30-015-40331
EDDY COUNTY, NM
Rig:H&P 300
PathFinder Office Supervisor: JUAN ALCOCER
PathFinder Field Engineers:H SANDIFER
E LEE

Survey Horiz. Reference:WELLHEAD
Ref Coordinates: LAT:32.38.10.0474 N LON:103.53.7.3494 W
GRID Reference:NAD83 new mexico east Transverse Mercator
Ref GRID Coord: X: 679232.6200 Y: 595443.6100
North Aligned To:GRID NORTH
Total Magnetic Correction: 7.38°EAST TO GRID
Vertical Section Plane: 84.45
Survey Vert. Reference: 26.00' Rotary Table To Ground
Altitude:3488.10' Ground To MSL

Measured Depth	14582.00	(feet)
Inclination	90.48	(deg)
Azimuth	88.24	(deg)
True Vertical Depth	9057.57	(feet)
Vertical Section	5745.55	(feet)
Survey X cord	684951.15	(feet)
Survey Y cord	596000.24	(feet)
Survey Lat	32.63758662 N	(deg)
Survey Lon	103.86679051 W	(deg)
Rectangular Corr. N/S	556.63 N	(feet)
Rectangular Corr. E/W	5718.53 E	(feet)
Closure Distance	5745.55	(feet)
Direction of Closure	84.44	(deg)
Dogleg Severity	0.00	(deg/100ft)

PathFinder Energy Services, Inc.

Survey Report

DEVON ENERGY PRODUCTION COMPANY LP
 BELLATRIX 28 FED COM #1H / API# 30-015-40331
 EDDY COUNTY, NM
 Rig:H&P 300
 PathFinder Office Supervisor: JUAN ALCOCER
 PathFinder Field Engineers: H SANDIFER
 E LEE

Survey Horiz. Reference:WELLHEAD
 Ref Coordinates: LAT:32.38.10.0474 N LON:103.53.7.3494 W
 GRID Reference:NAD83 new mexico east Transverse Mercator
 Ref GRID Coord: X: 679232.6200 Y: 595443.6100
 North Aligned To:GRID NORTH
 Total Magnetic Correction: 7.38°EAST TO GRID
 Vertical Section Plane: 84.45
 Survey Vert. Reference: 26.00' Rotary Table To Ground
 Altitude:3488.10' Ground To MSL

Survey Calculations by RX5 V6.04A using Minimum Curvature

Measured Depth (ft)	Incl (deg)	Drift Dir. (deg)	TVD (ft)	Course Length (ft)	Vertical Section (ft)	TOTAL Rectangular Offsets (ft) (ft)		Closure Dist Dir (ft) (deg)		DLS (dg/100ft)
THE FOLLOWING ARE VAUGHN ENERGY SERVICES GYRO SURVEYS.										
100.00	0.12	270.58	100.00	0.00	-0.10	0.00 N	0.10 W	0.10@	270.93	0.00
200.00	0.13	281.33	200.00	100.00	-0.31	0.02 N	0.32 W	0.32@	274.52	0.03
300.00	0.15	284.70	300.00	100.00	-0.54	0.08 N	0.55 W	0.56@	278.27	0.02
400.00	0.17	288.06	400.00	100.00	-0.80	0.16 N	0.82 W	0.84@	281.01	0.02
500.00	0.48	297.78	500.00	100.00	-1.29	0.40 N	1.33 W	1.39@	286.74	0.31
600.00	0.80	307.49	600.00	100.00	-2.15	1.02 N	2.26 W	2.48@	294.34	0.34
700.00	2.07	312.42	699.96	100.00	-3.87	2.66 N	4.14 W	4.93@	302.73	1.27
800.00	3.35	317.35	799.85	100.00	-6.84	6.03 N	7.46 W	9.59@	308.97	1.30
900.00	3.95	319.83	899.64	100.00	-10.56	10.81 N	11.66 W	15.90@	312.84	0.62
1000.00	4.55	320.32	999.37	100.00	-14.74	16.50 N	16.41 W	23.27@	315.15	0.60
1100.00	4.54	320.08	1099.05	100.00	-19.20	22.59 N	21.49 W	31.17@	316.43	0.02
1200.00	4.54	319.84	1198.74	100.00	-23.68	28.65 N	26.58 W	39.08@	317.14	0.02
1300.00	4.13	315.15	1298.46	100.00	-28.21	34.22 N	31.67 W	46.63@	317.22	0.54
1400.00	3.69	316.38	1398.22	100.00	-32.48	39.11 N	36.43 W	53.44@	317.03	0.45
1500.00	3.85	315.73	1498.01	100.00	-36.56	43.84 N	40.99 W	60.02@	316.92	0.17
1600.00	4.16	313.75	1597.76	100.00	-41.03	48.75 N	45.96 W	67.00@	316.69	0.34
1700.00	4.32	318.01	1697.49	100.00	-45.63	54.06 N	51.10 W	74.39@	316.61	0.35
1800.00	4.28	320.58	1797.21	100.00	-49.95	59.74 N	55.99 W	81.87@	316.86	0.20
1900.00	3.86	325.03	1896.95	100.00	-53.68	65.38 N	60.28 W	88.93@	317.32	0.53
2000.00	3.35	338.08	1996.76	100.00	-56.16	70.85 N	63.30 W	95.01@	318.22	0.96
2100.00	3.04	344.63	2096.60	100.00	-57.43	76.12 N	65.10 W	100.16@	319.46	0.48
2200.00	2.72	34.29	2196.49	100.00	-56.36	80.64 N	64.46 W	103.24@	321.36	2.44
2300.00	1.71	63.68	2296.42	100.00	-53.45	83.26 N	61.79 W	103.68@	323.42	1.49
2400.00	0.69	93.07	2396.40	100.00	-51.46	83.89 N	59.85 W	103.05@	324.49	1.16
2500.00	0.76	111.93	2496.39	100.00	-50.27	83.61 N	58.63 W	102.12@	324.96	0.25

PathFinder Energy Services, Inc.

Survey Report

DEVON ENERGY PRODUCTION COMPANY LP
BELLATRIX 28 FED COM #1H / API# 30-015-40331
EDDY COUNTY, NM
RIG:H&P 300

Page 02/07

Measured Depth (ft)	Incl (deg)	Drift Dir. (deg)	TVD (ft)	Course Length (ft)	Vertical Section (ft)	TOTAL Rectangular Offsets (ft) (ft)		Closure Dist Dir (ft) (deg)		DLS (dg/100ft)
2600.00	0.82	130.80	2596.38	100.00	-49.19	82.89 N	57.48 W	100.87@	325.26	0.27
2700.00	0.97	142.18	2696.37	100.00	-48.25	81.76 N	56.42 W	99.33@	325.39	0.23
2800.00	1.12	153.56	2796.35	100.00	-47.44	80.21 N	55.46 W	97.52@	325.34	0.25
2900.00	1.42	145.56	2896.32	100.00	-46.50	78.32 N	54.33 W	95.31@	325.25	0.35
3000.00	1.73	127.56	2996.29	100.00	-44.80	76.37 N	52.43 W	92.64@	325.53	0.58
3100.00	1.11	108.10	3096.26	100.00	-42.81	75.15 N	50.31 W	90.44@	326.20	0.78
3200.00	0.48	88.64	3196.25	100.00	-41.50	74.86 N	48.97 W	89.46@	326.81	0.68
3300.00	1.46	47.54	3296.23	100.00	-40.07	75.73 N	47.61 W	89.46@	327.84	1.14
3400.00	2.45	26.45	3396.17	100.00	-37.91	78.50 N	45.72 W	90.85@	329.78	1.21
3500.00	2.86	25.45	3496.07	100.00	-35.50	82.67 N	43.70 W	93.51@	332.14	0.41
3600.00	3.27	24.45	3595.92	100.00	-32.79	87.52 N	41.45 W	96.84@	334.66	0.41
3700.00	3.15	21.39	3695.77	100.00	-30.12	92.67 N	39.26 W	100.65@	337.04	0.21
3800.00	3.04	20.33	3795.62	100.00	-27.71	97.72 N	37.34 W	104.61@	339.09	0.12
3900.00	3.11	12.77	3895.48	100.00	-25.70	102.85 N	35.82 W	108.91@	340.80	0.41
4000.00	3.18	9.21	3995.33	100.00	-24.14	108.23 N	34.77 W	113.68@	342.19	0.21
4100.00	3.18	5.14	4095.17	100.00	-22.92	113.74 N	34.08 W	118.73@	343.32	0.23
4200.00	3.17	3.07	4195.02	100.00	-21.99	119.26 N	33.69 W	123.92@	344.23	0.12
4300.00	2.95	3.58	4294.88	100.00	-21.17	124.59 N	33.38 W	128.98@	345.00	0.22
4400.00	2.72	5.10	4394.75	100.00	-20.32	129.52 N	33.01 W	133.66@	345.70	0.24
4500.00	2.50	5.65	4494.65	100.00	-19.46	134.05 N	32.58 W	137.96@	346.34	0.22
4600.00	2.28	7.20	4594.56	100.00	-18.60	138.20 N	32.12 W	141.88@	346.92	0.23
4700.00	2.09	13.12	4694.49	100.00	-17.58	141.95 N	31.45 W	145.39@	347.51	0.30
4800.00	1.90	19.05	4794.43	100.00	-16.30	145.29 N	30.50 W	148.46@	348.15	0.28
4900.00	1.88	24.30	4894.38	100.00	-14.80	148.35 N	29.28 W	151.21@	348.83	0.17
5000.00	1.85	29.55	4994.32	100.00	-13.05	151.25 N	27.81 W	153.79@	349.58	0.17
5100.00	1.93	41.61	5094.27	100.00	-10.89	153.91 N	25.90 W	156.08@	350.45	0.41
5200.00	2.00	53.68	5194.21	100.00	-8.15	156.21 N	23.37 W	157.94@	351.49	0.42
5300.00	1.93	49.81	5294.15	100.00	-5.27	158.33 N	20.68 W	159.67@	352.56	0.15

PathFinder Energy Services, Inc.

Survey Report

DEVON ENERGY PRODUCTION COMPANY LP
 BELLATRIX 28 FED COM #1H / API# 30-015-40331
 EDDY COUNTY, NM
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Measured Depth (ft)	Incl (deg)	Drift Dir. (deg)	TVD (ft)	Course Length (ft)	Vertical Section (ft)	TOTAL Rectangular Offsets (ft) (ft)	Closure Dist Dir (ft) (deg)	DLS (dg/100ft)
5400.00	1.86	46.95	5394.10	100.00	-2.60	160.52 N 18.21 W	161.55@ 353.53	0.12
5500.00	1.76	44.01	5494.05	100.00	-0.14	162.73 N 15.95 W	163.51@ 354.40	0.14
5600.00	1.66	42.08	5594.00	100.00	2.10	164.91 N 13.92 W	165.50@ 355.18	0.12
5700.00	1.39	36.81	5693.97	100.00	3.99	166.96 N 12.22 W	167.41@ 355.81	0.30
5800.00	1.12	31.54	5793.94	100.00	5.39	168.76 N 10.98 W	169.12@ 356.28	0.29
5900.00	1.05	28.67	5893.93	100.00	6.50	170.40 N 10.03 W	170.69@ 356.63	0.09
6000.00	0.97	25.80	5993.91	100.00	7.45	171.97 N 9.22 W	172.21@ 356.93	0.09
6100.00	0.93	10.88	6093.90	100.00	8.12	173.52 N 8.70 W	173.74@ 357.13	0.25
6200.00	0.83	3.75	6193.88	100.00	8.47	175.04 N 8.50 W	175.25@ 357.22	0.15
6300.00	0.59	339.33	6293.88	100.00	8.45	176.25 N 8.63 W	176.46@ 357.20	0.38
6400.00	0.67	344.09	6393.87	100.00	8.21	177.29 N 8.98 W	177.52@ 357.10	0.10
6500.00	0.71	348.77	6493.86	100.00	8.05	178.46 N 9.26 W	178.70@ 357.03	0.07
6600.00	0.70	353.80	6593.86	100.00	7.98	179.68 N 9.44 W	179.93@ 356.99	0.06
6700.00	1.09	356.68	6693.84	100.00	8.01	181.23 N 9.57 W	181.49@ 356.98	0.39
6800.00	0.90	357.98	6793.83	100.00	8.09	182.97 N 9.65 W	183.22@ 356.98	0.19
6900.00	0.97	2.88	6893.81	100.00	8.27	184.60 N 9.63 W	184.85@ 357.01	0.11
7000.00	0.65	7.81	6993.81	100.00	8.52	186.01 N 9.51 W	186.25@ 357.07	0.33
7100.00	0.53	331.60	7093.80	100.00	8.47	186.98 N 9.66 W	187.22@ 357.04	0.38
7200.00	0.42	295.38	7193.80	100.00	7.98	187.54 N 10.21 W	187.82@ 356.88	0.31
7300.00	0.45	297.76	7293.79	100.00	7.34	187.88 N 10.89 W	188.19@ 356.68	0.03
7400.00	0.49	310.15	7393.79	100.00	6.71	188.34 N 11.56 W	188.69@ 356.49	0.11
7500.00	0.42	324.89	7493.79	100.00	6.23	188.91 N 12.10 W	189.30@ 356.34	0.14
7600.00	0.36	339.63	7593.79	100.00	5.97	189.51 N 12.42 W	189.91@ 356.25	0.12
7700.00	0.46	350.36	7693.78	100.00	5.86	190.20 N 12.60 W	190.61@ 356.21	0.13
7800.00	0.56	27.10	7793.78	100.00	6.09	191.03 N 12.44 W	191.43@ 356.27	0.34
7900.00	0.70	31.48	7893.77	100.00	6.73	191.98 N 11.90 W	192.35@ 356.45	0.15
8000.00	0.85	29.86	7993.76	100.00	7.52	193.15 N 11.21 W	193.47@ 356.68	0.15
8100.00	0.70	7.03	8093.75	100.00	8.09	194.40 N 10.77 W	194.70@ 356.83	0.34

PathFinder Energy Services, Inc.

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Measured Depth (ft)	Incl (deg)	Drift Dir. (deg)	TVD (ft)	Course Length (ft)	Vertical Section (ft)	TOTAL Rectangular Offsets (ft) (ft)		Closure Dist Dir (ft) (deg)		DLS (dg/100ft)
8200.00	0.56	342.20	8193.75	100.00	8.12	195.47 N	10.84 W	195.77@	356.83	0.30
8300.00	0.69	324.78	8293.74	100.00	7.71	196.43 N	11.34 W	196.75@	356.70	0.23
8400.00	0.83	307.36	8393.73	100.00	6.88	197.36 N	12.26 W	197.74@	356.45	0.27
** TIED INTO VAUGHN ENERGY SERVICES GYRO SURVEY AT 8433'WD.										
8433.00	0.85	316.01	8426.73	33.00	6.56	197.68 N	12.62 W	198.08@	356.35	0.39
THE FOLLOWING ARE PATHFINDER MWD SURVEYS.										
8493.00	5.28	65.48	8486.65	60.00	8.89	199.15 N	10.42 W	199.42@	357.01	9.37
8524.00	10.55	68.02	8517.34	31.00	12.97	200.80 N	6.48 W	200.91@	358.15	17.03
8556.00	15.92	70.49	8548.48	32.00	20.04	203.37 N	0.38 E	203.37@	0.11	16.87
8587.00	19.52	71.28	8578.01	31.00	29.21	206.45 N	9.29 E	206.66@	2.58	11.64
8619.00	22.42	68.82	8607.88	32.00	40.30	210.37 N	20.05 E	211.32@	5.44	9.47
8650.00	24.80	66.88	8636.29	31.00	52.19	215.06 N	31.54 E	217.36@	8.34	8.08
8682.00	25.68	65.83	8665.23	32.00	65.16	220.53 N	44.04 E	224.89@	11.29	3.09
8713.00	25.59	65.04	8693.18	31.00	77.84	226.11 N	56.24 E	233.00@	13.97	1.14
8745.00	25.76	64.95	8722.02	32.00	90.91	231.97 N	68.80 E	241.96@	16.52	0.54
8777.00	27.87	65.39	8750.58	32.00	104.54	238.03 N	81.90 E	251.73@	18.99	6.62
8808.00	31.66	65.12	8777.48	31.00	119.07	244.47 N	95.88 E	262.60@	21.41	12.23
8840.00	36.05	66.97	8804.05	32.00	135.98	251.69 N	112.17 E	275.56@	24.02	14.09
8871.00	38.95	68.29	8828.64	31.00	154.05	258.87 N	129.62 E	289.51@	26.60	9.71
8903.00	41.68	68.02	8853.04	32.00	173.92	266.57 N	148.83 E	305.31@	29.18	8.55
8935.00	43.00	67.50	8876.69	32.00	194.56	274.73 N	168.78 E	322.43@	31.56	4.27
8966.00	45.55	67.76	8898.89	31.00	215.27	282.97 N	188.79 E	340.16@	33.71	8.25
8998.00	47.66	67.41	8920.87	32.00	237.53	291.83 N	210.29 E	359.70@	35.78	6.64
9029.00	50.03	67.41	8941.27	31.00	259.84	300.80 N	231.84 E	379.77@	37.62	7.65
9061.00	53.11	68.64	8961.16	32.00	283.88	310.17 N	255.08 E	401.59@	39.43	10.09
9092.00	57.68	70.13	8978.76	31.00	308.52	319.14 N	278.96 E	423.88@	41.16	15.26
9124.00	61.64	70.66	8994.92	32.00	335.30	328.41 N	304.97 E	448.17@	42.88	12.46
9155.00	65.25	71.28	9008.78	31.00	362.26	337.44 N	331.18 E	472.81@	44.46	11.78
9187.00	67.27	71.63	9021.66	32.00	390.80	346.76 N	358.95 E	499.09@	45.99	6.39

PathFinder Energy Services, Inc.

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Measured Depth (ft)	Incl (deg)	Drift Dir. (deg)	TVD (ft)	Course Length (ft)	Vertical Section (ft)	TOTAL Rectangular Offsets		Closure Dist Dir (ft) (deg)		DLS (dg/100ft)
9218.00	70.70	71.01	9032.78	31.00	418.98	356.03 N	386.36 E	525.39@	47.34	11.22
9250.00	74.74	70.84	9042.28	32.00	448.68	366.01 N	415.23 E	553.52@	48.60	12.64
9281.00	79.05	68.90	9049.31	31.00	477.89	376.40 N	443.57 E	581.75@	49.68	15.18
9313.00	82.39	66.79	9054.47	32.00	508.15	388.31 N	472.81 E	611.83@	50.60	12.30
9344.00	85.47	66.27	9057.74	31.00	537.48	400.59 N	501.08 E	641.53@	51.36	10.07
9439.00	91.71	67.50	9060.08	95.00	627.98	437.85 N	588.39 E	733.43@	53.34	6.69
9534.00	92.07	71.98	9056.95	95.00	719.79	470.72 N	677.44 E	824.93@	55.21	4.73
9628.00	91.45	78.66	9054.06	94.00	812.50	494.52 N	768.27 E	913.67@	57.23	7.13
9723.00	90.22	82.09	9052.67	95.00	907.23	510.40 N	861.91 E	1001.70@	59.37	3.84
9818.00	90.40	85.34	9052.16	95.00	1002.21	520.80 N	956.33 E	1088.94@	61.43	3.43
9912.00	89.25	88.33	9052.44	94.00	1096.12	525.99 N	1050.17 E	1174.53@	63.40	3.41
10007.00	88.99	87.98	9053.90	95.00	1190.91	529.04 N	1145.11 E	1261.41@	65.20	0.46
10101.00	88.99	88.50	9055.56	94.00	1284.69	531.93 N	1239.05 E	1348.41@	66.77	0.55
10196.00	88.81	88.59	9057.38	95.00	1379.43	534.34 N	1334.00 E	1437.04@	68.17	0.21
10290.00	88.99	89.12	9059.19	94.00	1473.13	536.22 N	1427.97 E	1525.33@	69.42	0.60
10385.00	88.90	89.29	9060.94	95.00	1567.79	537.54 N	1522.94 E	1615.02@	70.56	0.20
10479.00	89.34	89.38	9062.38	94.00	1661.44	538.63 N	1616.92 E	1704.28@	71.58	0.48
10574.00	89.43	89.56	9063.40	95.00	1756.07	539.51 N	1711.91 E	1794.91@	72.51	0.21
10668.00	89.87	89.29	9063.98	94.00	1849.71	540.45 N	1805.91 E	1885.04@	73.34	0.55
10762.00	90.31	89.38	9063.83	94.00	1943.37	541.54 N	1899.90 E	1975.57@	74.09	0.48
10857.00	90.13	89.03	9063.46	95.00	2038.04	542.86 N	1994.89 E	2067.43@	74.78	0.41
10952.00	90.57	89.47	9062.88	95.00	2132.71	544.10 N	2089.88 E	2159.55@	75.41	0.65
11046.00	90.75	90.00	9061.80	94.00	2226.30	544.54 N	2183.87 E	2250.74@	76.00	0.60
11140.00	90.66	90.00	9060.64	94.00	2319.85	544.54 N	2277.86 E	2342.05@	76.56	0.10
11235.00	90.75	90.17	9059.47	95.00	2414.39	544.40 N	2372.86 E	2434.51@	77.08	0.20
11330.00	91.01	90.09	9058.02	95.00	2508.91	544.18 N	2467.85 E	2527.13@	77.56	0.29
11424.00	90.75	90.61	9056.57	94.00	2602.40	543.61 N	2561.83 E	2618.87@	78.02	0.62
11519.00	90.92	90.70	9055.19	95.00	2696.83	542.52 N	2656.82 E	2711.64@	78.46	0.20

PathFinder Energy Services, Inc.

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11613.00	90.31	90.17	9054.18	94.00	2790.31	541.81 N	2750.81 E	2803.66@	78.86	0.86
11708.00	90.40	89.73	9053.59	95.00	2884.87	541.89 N	2845.81 E	2896.94@	79.22	0.47
11803.00	89.96	89.47	9053.29	95.00	2979.49	542.55 N	2940.80 E	2990.43@	79.55	0.54
11897.00	88.99	89.56	9054.15	94.00	3073.12	543.35 N	3034.79 E	3083.05@	79.85	1.04
11992.00	88.90	89.12	9055.90	95.00	3167.76	544.44 N	3129.77 E	3176.77@	80.13	0.47
12087.00	88.20	89.38	9058.31	95.00	3262.39	545.69 N	3224.73 E	3270.58@	80.40	0.79
12181.00	88.99	88.68	9060.61	94.00	3356.06	547.28 N	3318.69 E	3363.51@	80.64	1.12
12276.00	90.13	88.68	9061.34	95.00	3450.80	549.47 N	3413.66 E	3457.60@	80.86	1.20
12370.00	90.75	87.80	9060.62	94.00	3544.59	552.35 N	3507.61 E	3550.84@	81.05	1.15
12465.00	90.57	89.03	9059.52	95.00	3639.35	554.98 N	3602.57 E	3645.06@	81.24	1.31
12559.00	91.01	88.59	9058.23	94.00	3733.07	556.93 N	3696.54 E	3738.26@	81.43	0.66
12654.00	91.28	88.68	9056.33	95.00	3827.80	559.20 N	3791.49 E	3832.51@	81.61	0.30
12749.00	91.36	88.94	9054.14	95.00	3922.50	561.17 N	3886.45 E	3926.75@	81.78	0.29
12843.00	91.01	90.26	9052.20	94.00	4016.10	561.82 N	3980.42 E	4019.88@	81.97	1.45
12938.00	90.22	91.14	9051.18	95.00	4110.53	560.66 N	4075.41 E	4113.79@	82.17	1.25
13032.00	88.90	92.11	9051.90	94.00	4203.78	558.00 N	4169.36 E	4206.54@	82.38	1.74
13127.00	89.25	91.67	9053.43	95.00	4297.97	554.87 N	4264.30 E	4300.25@	82.59	0.59
13222.00	88.64	92.19	9055.18	95.00	4392.15	551.67 N	4359.23 E	4394.00@	82.79	0.84
13316.00	88.90	91.93	9057.20	94.00	4485.30	548.29 N	4453.14 E	4486.77@	82.98	0.39
13411.00	88.81	91.58	9059.10	95.00	4579.51	545.38 N	4548.08 E	4580.66@	83.16	0.38
13505.00	89.25	91.05	9060.69	94.00	4672.82	543.22 N	4642.04 E	4673.72@	83.33	0.73
13600.00	89.16	90.70	9062.01	95.00	4767.21	541.77 N	4737.02 E	4767.90@	83.48	0.38
13695.00	89.52	90.17	9063.10	95.00	4861.69	541.05 N	4832.01 E	4862.21@	83.61	0.67
13789.00	88.81	90.35	9064.47	94.00	4955.19	540.62 N	4926.00 E	4955.58@	83.74	0.78
13884.00	88.37	90.17	9066.81	95.00	5049.68	540.19 N	5020.97 E	5049.95@	83.86	0.50
13978.00	89.16	89.91	9068.84	94.00	5143.21	540.13 N	5114.95 E	5143.39@	83.97	0.89
14073.00	90.66	88.94	9068.99	95.00	5237.85	541.08 N	5209.94 E	5237.96@	84.07	1.88
14167.00	90.66	87.98	9067.90	94.00	5331.61	543.61 N	5303.90 E	5331.68@	84.15	1.02

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Survey Report

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14262.00	92.15	88.24	9065.57	95.00	5426.38	546.74 N	5398.82 E	5426.43@	84.22	1.59
14356.00	92.59	87.71	9061.69	94.00	5520.13	550.06 N	5492.68 E	5520.15@	84.28	0.73
14451.00	90.84	88.85	9058.84	95.00	5614.86	552.91 N	5587.58 E	5614.87@	84.35	2.20
14507.00	90.48	88.24	9058.20	56.00	5670.72	554.33 N	5643.56 E	5670.72@	84.39	1.26
STRAIGHT LINE PROJECTION TO BIT DEPTH AT 14582' MD.										
14582.00	90.48	88.24	9057.57	75.00	5745.55	556.63 N	5718.53 E	5745.55@	84.44	0.00

** The survey data at tie-in point was furnished by a recognized survey company and entered as submitted. Survey stations above the tie-in point represent recalculated data by PathFinder Energy Services, Inc. and may reflect minor changes due to rounding differences between survey programs. Only survey stations taken by qualified PathFinder personnel are subject to certification.



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TIE-IN SURVEY INFORMATION SHEET

CLIENT INFORMATION

CLIENT:	DEVON ENERGY PRODUCTION CO., LP		
LEASE / WELL No.:	BELLATRIX 28 FED COM	#1H	
WELL LOCATION:	EDDY COUNTY, NEW MEXICO		
COUNTY / STATE / COUNTRY:	EDDY	NM	USA
RIG:	H&P 300		
API WELL No:	30-015-40331		
JOB No:	12MLD0311		
P.O. / AFE No.			
DIRECTIONAL COMPANY:	PATHFINDER		

WELL SITE INFORMATION

TOTAL MAGNETIC CORRECTION (TMC):			
On Wall Plat:	7.43	LWD Calculated:	7.38
		Agreed Upon:	7.38
X =	679232.620000	Feet	Y = 595443.610000
			Feet
SITE LATITUDE:	32.636124	SITE LONGITUDE:	-103.885375
GRID SYSTEM:	TRUE ☐ UTM ☐ LAMBERT ☒	ZONE:	NEW MEXICO EAST
PROPOSED DRIFT DIRECTION:	84.45		
KELLY BUSHING ELEVATION:	26		
ALTITUDE:	3488.1	Feet	WATER DEPTH:
			Feet

TIE-IN SURVEY

MEASURED DEPTH:	8433		
DRIFT ANGLE:	0.85		
DRIFT DIRECTION:	316.01		
TRUE VERTICAL DEPTH:	8426.73		
VERTICAL SECTION:	197.68		
RECTANGULAR COORDINATE (N / S) :	197.68		
RECTANGULAR COORDINATE (E / W) :	-12.62		
CLOSURE DISTANCE / DIRECTION:	198.08	356.35	
SURVEY CALCULATION METHOD:	AA ☐	MC ☒	RC ☐ BT ☐
SOURCE OF TIE-IN DATA (COMPANY):	VAUGHN ENERGY SERVICES		
COPY OF TIE-IN SURVEY REPORT	☒ YES ☐ NO		

WELL PLAN

KICKOFF DEPTH:	8501	TOTAL DEPTH:	14624.1
KICKOFF ANGLE:	0	MAX ANGLE:	90

PES Engineers:

H SANDIFER

**Signature of both field engineers required if applicable

E LEE

Directional Driller: Cole Beaubien

DATE: 27-Jul-2012



Company: Devon Energy

Rig: HP 300

Latitude: 32.636

Longitude: -103.885

API # 30-015-40331

Date: 7/27/12

Well: Bellatrix 28 Fed #1H

Location: SEC29 T19S R31E

Grid Correction: -0.24

RKB: 26.2 Feet

Surveyor: Colby Ware

VS: N/A

Field copy only not definitive.

Depth	Inc	AzG	N/S	E/W	TVD	DL	VS	GD	Gbrg
0	0.00	0.00	0.00	0.00	0.00	****	0.00	0.00	0.00
100	0.12	270.58	0.00	-0.10	100.00	0.12	0.00	0.10	270.58
200	0.13	281.33	0.03	-0.32	200.00	0.03	0.03	0.32	274.46
300	0.15	284.70	0.08	-0.56	300.00	0.02	0.08	0.57	278.22
400	0.17	288.06	0.16	-0.83	400.00	0.02	0.16	0.84	280.91
500	0.48	297.78	0.40	-1.34	500.00	0.32	0.40	1.40	286.66
600	0.80	307.49	1.02	-2.26	599.99	0.33	1.02	2.48	294.27
700	2.07	312.42	2.66	-4.15	699.96	1.28	2.66	4.93	302.70
800	3.35	317.35	6.03	-7.46	799.84	1.30	6.03	9.59	308.95
900	3.95	319.83	10.81	-11.66	899.64	0.62	10.81	15.90	312.83
1000	4.55	320.32	16.49	-16.41	999.37	0.60	16.49	23.26	315.14
1100	4.54	320.08	22.58	-21.48	1099.05	0.02	22.58	31.16	316.42
1200	4.54	319.84	28.63	-26.57	1198.74	0.02	28.63	39.06	317.14
1300	4.13	315.15	34.21	-31.66	1298.45	0.54	34.21	46.61	317.22
1400	3.69	316.38	39.09	-36.42	1398.22	0.44	39.09	53.43	317.03
1500	3.85	315.73	43.83	-40.99	1498.00	0.16	43.83	60.01	316.92
1600	4.16	313.75	48.75	-45.96	1597.76	0.34	48.75	66.99	316.69
1700	4.32	318.01	54.06	-51.10	1697.48	0.35	54.06	74.39	316.61
1800	4.28	320.58	59.74	-55.99	1797.20	0.20	59.74	81.88	316.86
1900	3.86	325.03	65.38	-60.29	1896.95	0.53	65.38	88.93	317.32
2000	3.35	338.08	70.85	-63.31	1996.75	0.96	70.85	95.01	318.22
2100	3.04	344.63	76.11	-65.10	2096.60	0.48	76.11	100.16	319.46
2200	2.72	34.29	80.63	-64.46	2196.49	2.43	80.63	103.23	321.36
2300	1.71	63.68	83.25	-61.79	2296.41	1.49	83.25	103.68	323.42
2400	0.69	93.07	83.88	-59.86	2396.39	1.16	83.88	103.05	324.49
2500	0.76	111.93	83.60	-58.64	2496.38	0.25	83.60	102.12	324.95
2600	0.82	130.80	82.89	-57.49	2596.37	0.27	82.89	100.87	325.26
2700	0.97	142.18	81.75	-56.42	2696.36	0.23	81.75	99.33	325.39
2800	1.12	153.56	80.21	-55.47	2796.35	0.25	80.21	97.52	325.33
2900	1.42	145.56	78.31	-54.33	2896.32	0.36	78.31	95.32	325.25
3000	1.73	127.56	76.37	-52.43	2996.28	0.58	76.37	92.63	325.53
3100	1.11	108.10	75.14	-50.32	3096.25	0.78	75.14	90.43	326.19
3200	0.48	88.64	74.85	-48.98	3196.24	0.67	74.85	89.46	326.80
3300	1.46	47.54	75.73	-47.63	3296.23	1.15	75.73	89.46	327.83
3400	2.45	26.45	78.50	-45.73	3396.17	1.21	78.50	90.85	329.78
3500	2.86	25.45	82.67	-43.70	3496.06	0.41	82.67	93.51	332.14
3600	3.27	24.45	87.52	-41.45	3595.92	0.41	87.52	96.84	334.66
3700	3.15	21.39	92.67	-39.27	3695.76	0.21	92.67	100.65	337.03
3800	3.04	20.33	97.72	-37.35	3795.62	0.13	97.72	104.61	339.08
3900	3.11	12.77	102.85	-35.83	3895.47	0.41	102.85	108.91	340.79

4000	3.18	9.21	108.23	-34.79	3995.32	0.21	108.23	113.68	342.18
4100	3.18	5.14	113.72	-34.09	4095.17	0.23	113.72	118.72	343.31
4200	3.17	3.07	119.24	-33.70	4195.02	0.11	119.24	123.91	344.22
4300	2.95	3.58	124.57	-33.39	4294.87	0.23	124.57	128.97	345.00
4400	2.72	5.10	129.50	-33.02	4394.75	0.24	129.50	133.64	345.70
4500	2.50	5.65	134.03	-32.59	4494.65	0.22	134.03	137.94	346.33
4600	2.28	7.20	138.18	-32.13	4594.56	0.23	138.18	141.86	346.91
4700	2.09	13.12	141.93	-31.46	4694.49	0.30	141.93	145.37	347.50
4800	1.90	19.05	145.27	-30.51	4794.43	0.28	145.27	148.44	348.14
4900	1.88	24.30	148.33	-29.30	4894.37	0.17	148.33	151.19	348.83
5000	1.85	29.55	151.23	-27.82	4994.32	0.17	151.23	153.77	349.57
5100	1.93	41.61	153.89	-25.91	5094.27	0.40	153.89	156.06	350.44
5200	2.00	53.68	156.18	-23.39	5194.21	0.42	156.18	157.92	351.48
5300	1.93	49.81	158.30	-20.69	5294.15	0.15	158.30	159.65	352.55
5400	1.86	46.95	160.50	-18.22	5394.09	0.12	160.50	161.53	353.52
5500	1.76	44.01	162.72	-15.96	5494.04	0.14	162.72	163.50	354.40
5600	1.66	42.08	164.90	-13.92	5594.00	0.12	164.90	165.48	355.17
5700	1.39	36.81	166.94	-12.23	5693.96	0.30	166.94	167.39	355.81
5800	1.12	31.54	168.75	-10.99	5793.94	0.29	168.75	169.11	356.28
5900	1.05	28.67	170.39	-10.03	5893.92	0.09	170.39	170.68	356.63
6000	0.97	25.80	171.95	-9.23	5993.91	0.09	171.95	172.20	356.93
6100	0.93	10.88	173.51	-8.71	6093.89	0.25	173.51	173.73	357.13
6200	0.83	3.75	175.03	-8.51	6193.88	0.15	175.03	175.23	357.22
6300	0.59	339.33	176.23	-8.64	6293.87	0.38	176.23	176.44	357.19
6400	0.67	344.09	177.27	-8.98	6393.87	0.10	177.27	177.49	357.10
6500	0.71	348.77	178.43	-9.26	6493.86	0.07	178.43	178.67	357.03
6600	0.70	353.80	179.65	-9.45	6593.85	0.06	179.65	179.90	356.99
6700	1.09	356.68	181.21	-9.57	6693.84	0.39	181.21	181.46	356.98
6800	0.90	357.98	182.95	-9.65	6793.83	0.19	182.95	183.20	356.98
6900	0.97	2.88	184.58	-9.63	6893.81	0.10	184.58	184.83	357.01
7000	0.65	7.81	185.98	-9.52	6993.80	0.33	185.98	186.23	357.07
7100	0.53	331.60	186.95	-9.66	7093.80	0.38	186.95	187.20	357.04
7200	0.42	295.38	187.52	-10.21	7193.79	0.31	187.52	187.80	356.88
7300	0.45	297.76	187.86	-10.89	7293.79	0.04	187.86	188.17	356.68
7400	0.49	310.15	188.31	-11.56	7393.79	0.11	188.31	188.67	356.49
7500	0.42	324.89	188.89	-12.10	7493.78	0.13	188.89	189.28	356.34
7600	0.36	339.63	189.49	-12.42	7593.78	0.12	189.49	189.90	356.25
7700	0.46	350.36	190.19	-12.60	7693.78	0.12	190.19	190.60	356.21
7800	0.56	27.10	191.02	-12.45	7793.78	0.33	191.02	191.42	356.27
7900	0.70	31.48	191.97	-11.90	7893.77	0.15	191.97	192.34	356.45
8000	0.85	29.86	193.14	-11.21	7993.76	0.15	193.14	193.47	356.68
8100	0.70	7.03	194.39	-10.77	8093.75	0.34	194.39	194.69	356.83
8200	0.56	342.20	195.47	-10.84	8193.75	0.31	195.47	195.77	356.83
8300	0.69	324.78	196.43	-11.34	8293.74	0.23	196.43	196.75	356.70
8400	0.83	307.36	197.36	-12.26	8393.73	0.27	197.36	197.74	356.45
8433	0.85	316.01	197.68	-12.62	8426.73	0.39	197.68	198.08	356.35

HORIZONTAL DISPLACEMENT IS
198.08 FEET AT 356.35 DEGREES



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PathFinder Energy Services, Inc. Magnetic & Grid Calculations

Devon Energy Production Co., L.P.
Bellatrix "28" Fed Com #1H
Eddy County, New Mexico
Rig:HP #300

Fri Jul 06 16:32:48 2012

Coordinates

Latitude: 32.636124 N (32 deg. 38 min. 10.0474 sec.)
Longitude: 103.885375 W (-103 deg. 53 min. 7.3494 sec.)
Elevation: 3514.10 feet.
Calculation Date: Jul/06/2012

Magnetic Calculations

Model: IGRF2010
Dip Angle: 60.4882 degrees
Total Magnetic Field: 0.48724 gauss
Magnetic Declination: 7.631855 degrees
Horizontal Intensity: 0.240013 gauss
To Convert a Magnetic Dir. to a TRUE North Dir. Add 7.631855 Degr

Transverse Mercator Grid Calculations NAD83

Grid System: Transverse Mercator: new mexico east
Ellipsoid: GRS80
X: 679232.6200 feet
Y: 595443.6100 feet
True to Grid: (convergence) -0.241588 degrees
Magnetic to Grid: 7.390266 degrees
To Convert a Magnetic Dir. to a GRID dir. Add 7.390266 Degr.

PathFinder Energy Services, Inc.

Magnetic & Grid Calculations

DEVON ENERGY PRODUCTION COMPANY LP
BELLATRIX 28 FED COM #1H
HACKBERRY

FIELD CALCULATIONS

Fri Jul 27 20:45:04 2012

Coordinates

Latitude: 32.636124 N (32 deg. 38 min. 10.0474 sec.)
Longitude: 103.885375 W (-103 deg. 53 min. 7.3494 sec.)
Elevation: 3514.10 feet.
Calculation Date: Jul/27/2012

Magnetic Calculations

Model: IGRF2010
Dip Angle: 60.4868 degrees
Total Magnetic Field: 0.48718 gauss
Magnetic Declination: 7.624781 degrees
Horizontal Intensity: 0.239996 gauss

To Convert a Magnetic Dir. to a TRUE North Dir. Add 7.624781 Degr

Transverse Mercator Grid Calculations NAD83

Grid System: Transverse Mercator: new mexico east
Ellipsoid: GRS80
X: 679232.6200 feet
Y: 595443.6100 feet
True to Grid: (convergence) -0.241588 degrees
Magnetic to Grid: 7.383193 degrees

To Convert a Magnetic Dir. to a GRID dir. Add 7.383193 Degr.