



Company: Devon Energy
 Lease/Well: Beetle Juice 19 Fed /3
 Location: Sec 18 Town 19S Range 31E
 Rig Name: H&P 300
 State/County: New Mexico/Eddy
 Latitude: 32.66
 GRID North is 0.23 Degrees East of True North
 VS-Azi: 170.94 Degrees



30-015-39231

Depth Reference : RKB 26.2

DRILLOG HA GYRO SURVEY CALCULATIONS

Filename: ...juice 19 fed #3 ha gyro_ed.ut

Minimum Curvature Method

Report Date/Time: 2/1/2012 / 10:59

Vaughn Energy Services

Fort Worth, Texas

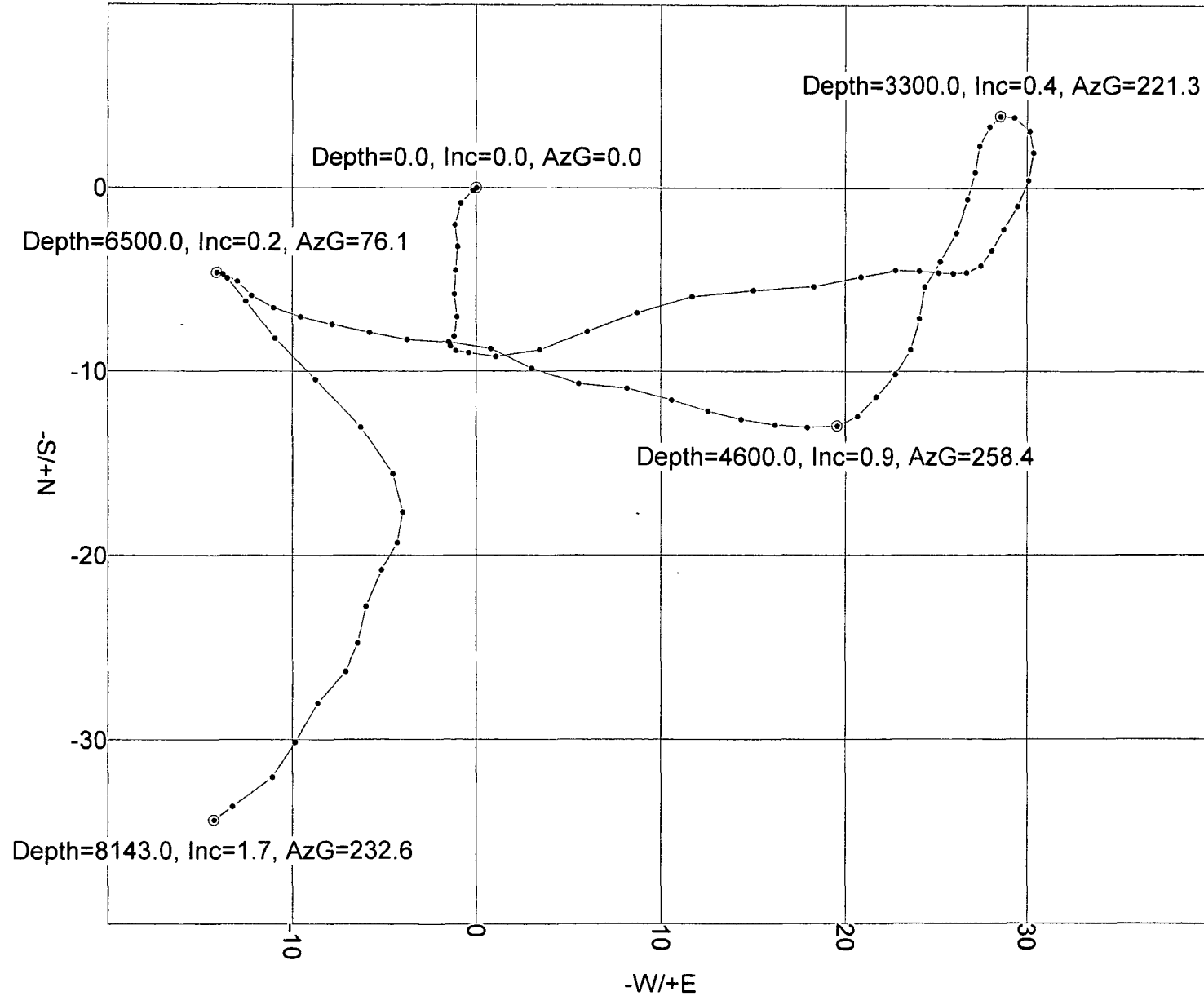
817-741-3610

Surveyor: Troy Hardin

Beetle Juice 19 Fed 3 / API 30-015-39231

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	0.27	232.88	100.00	-0.14	-0.19	0.11	0.24	232.88	0.27
200.00	0.80	220.64	199.99	-0.82	-0.84	0.68	1.17	225.60	0.54
300.00	0.77	170.36	299.99	-2.02	-1.18	1.81	2.34	210.34	0.67
400.00	0.59	175.61	399.98	-3.19	-1.03	2.99	3.35	197.85	0.20
500.00	0.90	190.36	499.97	-4.48	-1.13	4.24	4.62	194.18	0.37
600.00	0.61	170.67	599.96	-5.78	-1.19	5.52	5.90	191.61	0.39
700.00	0.81	175.83	699.95	-7.01	-1.05	6.76	7.09	188.52	0.21
800.00	0.49	212.02	799.95	-8.08	-1.23	7.78	8.17	188.63	0.51
900.00	0.21	168.94	899.95	-8.62	-1.42	8.29	8.73	189.34	0.37
1000.00	0.30	104.13	999.95	-8.86	-1.13	8.57	8.93	187.27	0.28
1100.00	0.51	97.72	1099.94	-8.98	-0.44	8.80	8.99	182.81	0.21
1200.00	1.19	98.11	1199.93	-9.19	1.03	9.24	9.25	173.61	0.69
1300.00	1.64	68.81	1299.90	-8.82	3.40	9.24	9.45	158.94	0.84
1400.00	1.54	68.65	1399.86	-7.81	5.98	8.66	9.84	142.55	0.10
1500.00	1.78	69.57	1499.82	-6.78	8.69	8.06	11.02	127.95	0.24
1600.00	1.81	77.28	1599.77	-5.89	11.69	7.66	13.09	116.75	0.24
1700.00	2.03	90.33	1699.72	-5.55	15.00	7.85	15.99	110.32	0.49
1800.00	1.73	81.54	1799.66	-5.34	18.26	8.15	19.02	106.31	0.42

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
1900.00	1.28	74.72	1899.63	-4.83	20.82	8.04	21.38	103.05	0.48
2000.00	0.97	85.70	1999.61	-4.47	22.75	7.99	23.18	101.11	0.37
2100.00	0.54	102.81	2099.60	-4.51	24.05	8.24	24.47	100.61	0.49
2200.00	0.70	89.33	2199.59	-4.60	25.12	8.50	25.53	100.39	0.21
2300.00	0.24	101.76	2299.59	-4.64	25.93	8.67	26.34	100.14	0.46
2400.00	0.61	80.51	2399.59	-4.60	26.66	8.74	27.06	99.78	0.39
2500.00	0.45	42.24	2499.58	-4.22	27.45	8.49	27.77	98.73	0.38
2600.00	0.74	30.61	2599.58	-3.37	28.04	7.75	28.25	96.86	0.31
2700.00	0.77	29.86	2699.57	-2.24	28.71	6.73	28.79	94.45	0.03
2800.00	0.90	32.89	2799.56	-0.99	29.47	5.62	29.49	91.93	0.14
2900.00	0.88	12.74	2899.55	0.42	30.07	4.32	30.07	89.20	0.31
3000.00	0.87	7.08	2999.54	1.92	30.33	2.88	30.39	86.37	0.09
3100.00	0.59	325.54	3099.53	3.11	30.13	1.68	30.29	84.11	0.58
3200.00	0.73	299.03	3199.52	3.84	29.29	0.82	29.54	82.53	0.33
3300.00	0.36	221.29	3299.52	3.91	28.53	0.63	28.79	82.19	0.74
3400.00	0.58	231.12	3399.51	3.36	27.93	1.08	28.13	83.13	0.23
3500.00	0.88	192.55	3499.51	2.30	27.37	2.04	27.47	85.20	0.56
3600.00	0.80	185.53	3599.50	0.86	27.14	3.43	27.15	88.19	0.13
3700.00	0.99	204.36	3699.48	-0.63	26.71	4.83	26.72	91.35	0.35
3800.00	1.21	194.65	3799.47	-2.44	26.09	6.52	26.20	95.34	0.28
3900.00	0.92	228.82	3899.45	-3.99	25.22	7.91	25.53	98.99	0.68
4000.00	1.01	195.94	3999.44	-5.37	24.37	9.14	24.95	102.42	0.55
4100.00	1.02	183.88	4099.42	-7.10	24.07	10.80	25.09	106.43	0.21
4200.00	1.07	208.23	4199.40	-8.81	23.57	12.41	25.16	110.49	0.44
4300.00	0.75	216.88	4299.39	-10.15	22.73	13.60	24.90	114.06	0.35
4400.00	1.11	224.06	4399.38	-11.37	21.67	14.64	24.47	117.69	0.39
4500.00	0.58	223.79	4499.37	-12.44	20.64	15.53	24.10	121.07	0.53
4600.00	0.88	258.40	4599.36	-12.96	19.54	15.87	23.44	123.55	0.52
4700.00	1.02	275.70	4699.35	-13.02	17.90	15.68	22.14	126.03	0.32
4800.00	0.99	272.61	4799.33	-12.89	16.16	15.28	20.67	128.59	0.06
4900.00	1.15	284.89	4899.31	-12.60	14.33	14.70	19.08	131.32	0.28
5000.00	0.97	283.43	4999.30	-12.14	12.54	13.97	17.45	134.09	0.18
5100.00	1.40	289.38	5099.27	-11.54	10.56	13.06	15.65	137.54	0.44
5200.00	1.47	280.27	5199.24	-10.91	8.15	12.06	13.62	143.24	0.24
5300.00	1.56	271.15	5299.21	-10.65	5.52	11.39	12.00	152.59	0.25
5400.00	1.64	303.75	5399.17	-9.83	2.98	10.18	10.27	163.15	0.90
5500.00	1.24	285.55	5499.14	-8.75	0.75	8.76	8.78	175.09	0.60
5600.00	1.42	273.04	5599.11	-8.40	-1.52	8.05	8.53	190.28	0.34
5700.00	1.16	274.76	5699.09	-8.25	-3.77	7.55	9.07	204.55	0.26



PATHFINDER[®]

A Schlumberger Company

DIRECTIONAL SURVEY REPORT

DEVON ENERGY

BEETLE JUICE 19 FED #3H

EDDY COUNTY, NEW MEXICO

PREPARED BY: STEVE BIBB

Pathfinder

6213 WCR 112
Midland, Texas 79706
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) JEREMY HOLMES
3. POSITION OF SAID PERSON(S): (A-F) SURVEYORS (FIELD ENGINEERS)
4. DATE(S) ON WHICH SURVEY WAS PERFORMED: 01-19-12 TO 01-27-12
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
BEETLE JUICE 19 FED #3H
EDDY COUNTY, NM
RIG: H&P 300
9. SURVEY CERTIFIED FROM: 8163 TO 13365 FEET MEASURED DEPTH.

THIS IS TO VERIFY THAT ATTACHED DOCUMENTS SHOWING THE WELL TO BE DISPLACED AT 4771.48 FEET ON A BEARING OF 171.28 DEGREES FROM THE CENTER OF THE ROTARY TABLE AT A PROJECTED BIT DEPTH OF 13430 FEET, ARE TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE.

A handwritten signature in black ink that reads "Steve Bibb".

STEVE BIBB
M/LWD SERVICE COORDINATOR

PathFinder Energy Services, Inc.

BHL Report

Page 01/01
Tie-in Date: 01/18/2012
Date Completed: 01/27/2012

DEVON ENERGY CORPORATION
BEETLEJUICE 19 FED #3H
EDDY COUNTY, NM
Rig:H&P 300
PathFinder Office Supervisor: STEVE BIBB
PathFinder Field Engineers:JEREMY HOLMES
ROLDAN DIAZ

Survey Horiz. Reference:WELLHEAD
Ref Coordinates: LAT:32.39.8.8928 N LON:103.54.43.5160 W
GRID Reference:NAD83 new mexico east Transverse Mercator
Ref GRID Coord: X: 670985.9200 Y: 601356.7800
North Aligned To:GRID NORTH
Total Magnetic Correction: 7.48° EAST TO GRID
Vertical Section Plane: 170.94
Survey Vert. Reference: 26.00' Rotary Table To Ground
Altitude:3397.00' Ground To MSL

Measured Depth	13430.00	(feet)
Inclination	91.45	(deg)
Azimuth	180.53	(deg)
True Vertical Depth	8842.68	(feet)
Vertical Section	4771.40	(feet)
Survey X cord	671709.58	(feet)
Survey Y cord	596640.48	(feet)
Survey Lat	32.63949887 N	(deg)
Survey Lon	103.90979766 W	(deg)
Rectangular Corr. N/S	4716.29 S	(feet)
Rectangular Corr. E/W	723.68 E	(feet)
Closure Distance	4771.48	(feet)
Direction of Closure	171.28	(deg)
Dogleg Severity	0.00	(deg/100ft)

PathFinder Energy Services, Inc.

Survey Report

DEVON ENERGY CORPORATION
 BEETLEJUICE 19 FED #3H
 EDDY COUNTY, NM
 Rig:H&P 300
 PathFinder Office Supervisor: STEVE BIBB
 PathFinder Field Engineers: JEREMY HOLMES
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Survey Horiz. Reference:WELLHEAD
 Ref Coordinates: LAT:32.39.8.8928 N LON:103.54.43.5160 W
 GRID Reference:NAD83 new mexico east Transverse Mercator
 Ref GRID Coord: X: 670985.9200 Y: 601356.7800
 North Aligned To:GRID NORTH
 Total Magnetic Correction: 7.48° EAST TO GRID
 Vertical Section Plane: 170.94
 Survey Vert. Reference: 26.00' Rotary Table To Ground
 Altitude:3397.00' Ground To MSL

Survey Calculations by RX5 V6.03E using Minimum Curvature

Measured Depth (ft)	Incl (deg)	Drift Dir. (deg)	TVD (ft)	Course Length (ft)	Vertical Section (ft)	TOTAL Rectangular Offsets		Closure Dist Dir		DLS (dg/100ft)
						(ft)	(ft)	(ft)	(deg)	
THE FOLLOWING ARE VAUGHN ENERGY SERVICES GYRO SURVEYS.										
100.00	0.27	232.88	100.00	0.00	0.11	0.14 S	0.18 W	0.23@	233.23	0.00
200.00	0.80	220.64	199.99	100.00	0.67	0.81 S	0.83 W	1.16@	225.60	0.54
300.00	0.77	170.36	299.98	100.00	1.79	2.00 S	1.17 W	2.32@	210.29	0.67
400.00	0.59	175.61	399.98	100.00	2.98	3.18 S	1.02 W	3.34@	197.75	0.19
500.00	0.90	190.36	499.97	100.00	4.23	4.46 S	1.12 W	4.60@	194.08	0.36
600.00	0.61	170.67	599.96	100.00	5.50	5.76 S	1.17 W	5.88@	191.52	0.39
700.00	0.81	175.83	699.95	100.00	6.74	6.99 S	1.04 W	7.07@	188.43	0.21
800.00	0.49	212.02	799.94	100.00	7.77	8.06 S	1.21 W	8.15@	188.55	0.50
900.00	0.21	168.94	899.94	100.00	8.27	8.60 S	1.40 W	8.72@	189.27	0.37
1000.00	0.30	104.13	999.94	100.00	8.56	8.85 S	1.11 W	8.92@	187.18	0.28
1100.00	0.51	97.72	1099.94	100.00	8.79	8.97 S	0.42 W	8.98@	182.68	0.21
1200.00	1.19	98.11	1199.93	100.00	9.23	9.18 S	1.05 E	9.24@	173.47	0.68
1300.00	1.64	68.81	1299.90	100.00	9.23	8.80 S	3.41 E	9.44@	158.82	0.84
1400.00	1.54	68.65	1399.86	100.00	8.65	7.80 S	6.00 E	9.84@	142.44	0.10
1500.00	1.78	69.57	1499.82	100.00	8.05	6.77 S	8.70 E	11.03@	127.86	0.24
1600.00	1.81	77.28	1599.77	100.00	7.65	5.88 S	11.70 E	13.09@	116.67	0.24
1700.00	2.03	90.33	1699.71	100.00	7.83	5.54 S	15.01 E	16.00@	110.25	0.49
1800.00	1.73	81.54	1799.66	100.00	8.14	5.33 S	18.28 E	19.04@	106.25	0.42
1900.00	1.28	74.72	1899.62	100.00	8.03	4.81 S	20.85 E	21.39@	103.00	0.48
2000.00	0.97	85.70	1999.61	100.00	7.98	4.45 S	22.77 E	23.20@	101.07	0.38
2100.00	0.54	102.81	2099.60	100.00	8.23	4.49 S	24.07 E	24.49@	100.58	0.48
2200.00	0.70	89.33	2199.59	100.00	8.49	4.59 S	25.14 E	25.56@	100.35	0.21
2300.00	0.24	101.76	2299.59	100.00	8.66	4.63 S	25.96 E	26.37@	100.11	0.47
2400.00	0.61	80.51	2399.58	100.00	8.73	4.58 S	26.69 E	27.08@	99.74	0.40
2500.00	0.45	42.24	2499.58	100.00	8.48	4.20 S	27.48 E	27.80@	98.70	0.38

PathFinder Energy Services, Inc.

Survey Report

DEVON ENERGY CORPORATION
 BEETLEJUICE 19 FED #3H
 EDDY COUNTY, NM
 RIG:H&P 300

Measured Depth (ft)	Incl (deg)	Drift Dir. (deg)	TVD (ft)	Course Length (ft)	Vertical Section (ft)	TOTAL Rectangular Offsets		Closure Dist Dir		DLS (dg/100ft)
						(ft)	(ft)	(ft)	(deg)	
2600.00	0.74	30.61	2599.57	100.00	7.74	3.36 S	28.07 E	28.27@	96.82	0.31
2700.00	0.77	29.86	2699.57	100.00	6.72	2.22 S	28.73 E	28.82@	94.42	0.03
2800.00	0.90	32.89	2799.56	100.00	5.61	0.98 S	29.49 E	29.51@	91.90	0.14
2900.00	0.88	12.74	2899.54	100.00	4.31	0.43 N	30.09 E	30.09@	89.18	0.31
3000.00	0.87	7.08	2999.53	100.00	2.87	1.93 N	30.35 E	30.41@	86.35	0.09
3100.00	0.59	325.54	3099.52	100.00	1.68	3.11 N	30.16 E	30.32@	84.11	0.58
3200.00	0.73	299.03	3199.52	100.00	0.82	3.85 N	29.31 E	29.56@	82.52	0.33
3300.00	0.36	221.29	3299.51	100.00	0.62	3.92 N	28.54 E	28.81@	82.18	0.74
3400.00	0.58	231.12	3399.51	100.00	1.08	3.37 N	27.94 E	28.14@	83.13	0.23
3500.00	0.88	192.55	3499.50	100.00	2.04	2.30 N	27.38 E	27.48@	85.20	0.56
3600.00	0.80	185.53	3599.49	100.00	3.43	0.85 N	27.15 E	27.16@	88.20	0.13
3700.00	0.99	204.36	3699.48	100.00	4.83	0.63 S	26.72 E	26.73@	91.35	0.35
3800.00	1.21	194.65	3799.46	100.00	6.52	2.44 S	26.10 E	26.21@	95.33	0.29
3900.00	0.92	228.82	3899.45	100.00	7.91	3.99 S	25.23 E	25.54@	98.98	0.68
4000.00	1.01	195.94	3999.43	100.00	9.14	5.36 S	24.38 E	24.96@	102.41	0.55
4100.00	1.02	183.88	4099.42	100.00	10.80	7.10 S	24.08 E	25.10@	106.43	0.21
4200.00	1.07	208.23	4199.40	100.00	12.41	8.81 S	23.58 E	25.17@	110.49	0.44
4300.00	0.75	216.88	4299.39	100.00	13.61	10.16 S	22.74 E	24.91@	114.06	0.35
4400.00	1.11	224.06	4399.37	100.00	14.65	11.37 S	21.68 E	24.48@	117.69	0.38
4500.00	0.58	223.79	4499.36	100.00	15.53	12.44 S	20.65 E	24.11@	121.05	0.53
4600.00	0.88	258.40	4599.36	100.00	15.87	12.96 S	19.55 E	23.45@	123.53	0.52
4700.00	1.02	275.70	4699.34	100.00	15.68	13.02 S	17.91 E	22.15@	126.02	0.32
4800.00	0.99	272.61	4799.33	100.00	15.28	12.89 S	16.16 E	20.68@	128.58	0.06
4900.00	1.15	284.89	4899.31	100.00	14.70	12.60 S	14.33 E	19.08@	131.32	0.28
5000.00	0.97	283.43	4999.29	100.00	13.97	12.14 S	12.54 E	17.45@	134.08	0.18
5100.00	1.40	289.38	5099.27	100.00	13.06	11.54 S	10.56 E	15.64@	137.53	0.45
5200.00	1.47	280.27	5199.24	100.00	12.05	10.91 S	8.15 E	13.61@	143.24	0.24
5300.00	1.56	271.15	5299.20	100.00	11.39	10.65 S	5.52 E	12.00@	152.58	0.26

PathFinder Energy Services, Inc.

Survey Report

DEVON ENERGY CORPORATION
 BEETLEJUICE 19 FED #3H
 EDDY COUNTY, NM
 RIG:H&P 300

Measured Depth (ft)	Incl (deg)	Drift Dir. (deg)	TVD (ft)	Course Length (ft)	Vertical Section (ft)	TOTAL Rectangular Offsets		Closure Dist Dir		DLS (dg/100ft)
						(ft)	(ft)	(ft)	(deg)	
5400.00	1.64	303.75	5399.17	100.00	10.17	9.83 S	2.97 E	10.27@	163.16	0.90
5500.00	1.24	285.55	5499.14	100.00	8.75	8.74 S	0.74 E	8.77@	175.15	0.60
5600.00	1.42	273.04	5599.11	100.00	8.04	8.39 S	1.54 W	8.53@	190.39	0.34
5700.00	1.16	274.76	5699.08	100.00	7.54	8.24 S	3.78 W	9.07@	204.67	0.26
5800.00	1.24	286.00	5799.06	100.00	6.84	7.86 S	5.83 W	9.78@	216.59	0.25
5900.00	1.12	277.72	5899.04	100.00	6.10	7.43 S	7.84 W	10.80@	226.56	0.21
6000.00	0.91	291.54	5999.03	100.00	5.41	7.00 S	9.55 W	11.84@	233.74	0.32
6100.00	0.89	286.25	6099.01	100.00	4.68	6.49 S	11.03 W	12.80@	239.52	0.09
6200.00	0.73	312.92	6199.00	100.00	3.84	5.84 S	12.24 W	13.57@	244.49	0.41
6300.00	0.53	317.37	6299.00	100.00	2.95	5.07 S	13.02 W	13.98@	248.73	0.21
6400.00	0.54	275.99	6398.99	100.00	2.45	4.68 S	13.81 W	14.58@	251.28	0.38
6500.00	0.17	76.07	6498.99	100.00	2.31	4.59 S	14.13 W	14.86@	251.99	0.70
6600.00	0.61	129.41	6598.99	100.00	2.70	4.90 S	13.58 W	14.43@	250.16	0.53
6700.00	1.25	146.64	6698.98	100.00	4.09	6.15 S	12.56 W	13.99@	243.93	0.69
6800.00	1.71	138.56	6798.94	100.00	6.35	8.18 S	10.98 W	13.69@	233.32	0.50
6900.00	1.92	132.91	6898.89	100.00	8.92	10.43 S	8.76 W	13.63@	220.02	0.28
7000.00	2.18	139.36	6998.83	100.00	11.86	13.02 S	6.30 W	14.46@	205.81	0.35
7100.00	1.37	155.28	7098.78	100.00	14.64	15.55 S	4.56 W	16.20@	196.34	0.94
7200.00	1.15	178.11	7198.76	100.00	16.78	17.64 S	4.03 W	18.09@	192.86	0.54
7300.00	0.84	206.87	7298.74	100.00	18.37	19.29 S	4.32 W	19.77@	192.63	0.58
7400.00	1.11	212.31	7398.73	100.00	19.69	20.77 S	5.17 W	21.40@	193.99	0.28
7500.00	1.37	195.51	7498.70	100.00	21.51	22.74 S	6.01 W	23.52@	194.81	0.44
7600.00	0.99	188.08	7598.68	100.00	23.42	24.74 S	6.45 W	25.57@	194.61	0.41
7700.00	1.02	218.67	7698.67	100.00	24.84	26.29 S	7.13 W	27.24@	195.17	0.53
7800.00	1.60	223.99	7798.64	100.00	26.28	27.99 S	8.65 W	29.30@	197.18	0.59
7900.00	1.33	192.63	7898.61	100.00	28.20	30.13 S	9.88 W	31.71@	198.15	0.83
8000.00	1.43	233.00	7998.58	100.00	29.86	32.01 S	11.13 W	33.89@	199.17	0.96
8100.00	1.65	234.36	8098.55	100.00	31.09	33.60 S	13.29 W	36.14@	201.59	0.22

PathFinder Energy Services, Inc.

Survey Report

DEVON ENERGY CORPORATION
 BEETLEJUICE 19 FED #3H
 EDDY COUNTY, NM
 RIG:H&P 300

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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)
** TIED INTO VAUGHN ENERGY SERVICES GYRO SURVEY @ 8143'MD.										
8143.00	1.65	232.62	8141.53	43.00	31.66	34.34 S	14.29 W	37.19@	202.59	0.12
THE FOLLOWING ARE PATHFINDER MWD SURVEYS.										
8163.00	1.14	195.29	8161.52	20.00	31.98	34.71 S	14.57 W	37.64@	202.77	5.08
8194.00	3.96	145.90	8192.49	31.00	33.23	35.89 S	14.05 W	38.54@	201.38	10.75
8226.00	8.00	138.60	8224.31	32.00	36.11	38.48 S	11.96 W	40.29@	197.27	12.82
8257.00	11.87	137.20	8254.84	31.00	40.59	42.44 S	8.37 W	43.25@	191.15	12.51
8289.00	14.95	136.85	8285.97	32.00	46.75	47.86 S	3.31 W	47.98@	183.95	9.63
8320.00	17.59	136.05	8315.72	31.00	53.90	54.15 S	2.68 E	54.22@	177.16	8.55
8352.00	19.43	136.32	8346.07	32.00	62.25	61.49 S	9.71 E	62.25@	171.02	5.76
8384.00	21.37	136.93	8376.06	32.00	71.46	69.59 S	17.37 E	71.73@	165.98	6.10
8415.00	22.77	138.43	8404.79	31.00	81.20	78.21 S	25.21 E	82.17@	162.13	4.87
8447.00	24.80	140.36	8434.07	32.00	92.20	88.01 S	33.60 E	94.21@	159.10	6.79
8478.00	27.08	141.68	8461.94	31.00	103.96	98.56 S	42.13 E	107.18@	156.86	7.59
8510.00	29.55	142.21	8490.11	32.00	117.24	110.51 S	51.48 E	121.91@	155.02	7.76
8541.00	32.36	141.68	8516.69	31.00	131.18	123.06 S	61.31 E	137.49@	153.52	9.11
8573.00	34.65	140.62	8543.37	32.00	146.50	136.81 S	72.39 E	154.78@	152.12	7.39
8604.00	37.64	138.87	8568.41	31.00	162.14	150.76 S	84.21 E	172.68@	150.81	10.20
8636.00	40.27	136.85	8593.29	32.00	178.99	165.67 S	97.72 E	192.34@	149.47	9.13
8667.00	43.26	136.67	8616.41	31.00	196.07	180.71 S	111.86 E	212.53@	148.24	9.65
8699.00	45.99	137.28	8639.18	32.00	214.71	197.14 S	127.19 E	234.61@	147.17	8.64
8730.00	49.07	138.87	8660.11	31.00	233.92	214.15 S	142.46 E	257.21@	146.37	10.63
8762.00	52.06	140.45	8680.44	32.00	255.04	232.99 S	158.45 E	281.77@	145.78	10.09
8793.00	55.66	141.33	8698.72	31.00	276.71	252.42 S	174.24 E	306.72@	145.38	11.84
8825.00	58.12	141.68	8716.19	32.00	300.05	273.40 S	190.92 E	333.46@	145.07	7.74
8857.00	61.47	141.41	8732.29	32.00	324.14	295.05 S	208.12 E	361.07@	144.80	10.49
8888.00	65.95	141.15	8746.02	31.00	348.29	316.73 S	225.50 E	388.80@	144.55	14.47
8920.00	70.17	141.94	8757.97	32.00	374.14	339.97 S	243.95 E	418.44@	144.34	13.38

PathFinder Energy Services, Inc.

Survey Report

DEVON ENERGY CORPORATION
 BEETLEJUICE 19 FED #3H
 EDDY COUNTY, NM
 RIG:H&P 300

Measured Depth (ft)	Incl (deg)	Drift Dir. (deg)	TVD (ft)	Course Length (ft)	Vertical Section (ft)	TOTAL Rectangular Offsets		Closure Dist Dir		DLS (dg/100ft)
						(ft)	(ft)	(ft)	(deg)	
8951.00	73.60	142.73	8767.61	31.00	400.01	363.29 S	261.95 E	447.88@	144.21	11.33
8983.00	77.21	143.26	8775.67	32.00	427.36	388.02 S	280.59 E	478.84@	144.13	11.40
9014.00	80.72	143.61	8781.60	31.00	454.34	412.45 S	298.71 E	509.26@	144.09	11.38
9046.00	84.50	143.26	8785.72	32.00	482.48	437.93 S	317.61 E	540.98@	144.05	11.86
9140.00	89.34	139.48	8790.77	94.00	564.08	511.22 S	376.19 E	634.72@	143.65	6.53
9186.00	89.69	141.77	8791.16	46.00	603.79	546.78 S	405.37 E	680.65@	143.45	5.04
9281.00	90.92	145.11	8790.65	95.00	688.04	623.07 S	461.95 E	775.64@	143.45	3.75
9375.00	90.57	148.27	8789.43	94.00	773.73	701.61 S	513.56 E	869.48@	143.80	3.38
9470.00	89.96	151.79	8788.99	95.00	862.45	783.89 S	561.01 E	963.96@	144.41	3.76
9564.00	88.46	157.15	8790.29	94.00	952.55	868.67 S	601.50 E	1056.60@	145.30	5.92
9659.00	87.67	161.28	8793.50	95.00	1045.50	957.42 S	635.19 E	1148.96@	146.44	4.42
9753.00	86.97	163.65	8797.89	94.00	1138.36	1046.95 S	663.47 E	1239.47@	147.64	2.63
9848.00	86.88	167.69	8802.99	95.00	1232.80	1138.84 S	686.95 E	1329.98@	148.90	4.25
9943.00	86.79	171.47	8808.24	95.00	1327.61	1232.11 S	704.10 E	1419.10@	150.25	3.97
10037.00	89.08	174.29	8811.63	94.00	1421.48	1325.31 S	715.74 E	1506.23@	151.63	3.86
10133.00	89.08	177.80	8813.17	96.00	1517.08	1421.06 S	722.36 E	1594.11@	153.05	3.66
10226.00	89.52	179.65	8814.30	93.00	1609.21	1514.02 S	724.43 E	1678.41@	154.43	2.05
10321.00	89.16	180.18	8815.40	95.00	1703.04	1609.01 S	724.57 E	1764.63@	155.76	0.67
10415.00	88.46	181.05	8817.35	94.00	1795.68	1702.99 S	723.56 E	1850.33@	156.98	1.19
10510.00	88.72	180.44	8819.69	95.00	1889.26	1797.95 S	722.33 E	1937.62@	158.11	0.70
10604.00	91.28	179.74	8819.69	94.00	1982.06	1891.94 S	722.18 E	2025.09@	159.11	2.82
10699.00	91.01	179.65	8817.79	95.00	2075.93	1986.92 S	722.68 E	2114.27@	160.01	0.30
10793.00	90.66	180.44	8816.42	94.00	2168.74	2080.91 S	722.61 E	2202.81@	160.85	0.92
10888.00	90.40	181.41	8815.54	95.00	2262.29	2175.89 S	721.08 E	2292.26@	161.67	1.06
10983.00	89.16	180.35	8815.91	95.00	2355.86	2270.88 S	719.62 E	2382.17@	162.42	1.72
11077.00	88.81	181.14	8817.57	94.00	2448.47	2364.85 S	718.40 E	2471.56@	163.10	0.92
11172.00	87.58	179.82	8820.56	95.00	2542.11	2459.80 S	717.60 E	2562.34@	163.74	1.90
11266.00	87.05	179.82	8824.97	94.00	2634.88	2553.69 S	717.90 E	2652.68@	164.30	0.56

PathFinder Energy Services, Inc.

Survey Report

DEVON ENERGY CORPORATION
 BEETLEJUICE 19 FED #3H
 EDDY COUNTY, NM
 RIG:H&P 300

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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		DLS (dg/100ft)
						(ft)	(ft)	(ft)	(deg)	
11361.00	87.23	180.70	8829.71	95.00	2728.51	2648.57 S	717.46 E	2744.03@	164.84	0.94
11456.00	86.97	179.74	8834.51	95.00	2822.14	2743.45 S	717.10 E	2835.62@	165.35	1.05
11550.00	88.99	178.77	8837.83	94.00	2915.09	2837.38 S	718.32 E	2926.89@	165.79	2.38
11644.00	90.22	178.42	8838.47	94.00	3008.25	2931.35 S	720.63 E	3018.62@	166.19	1.36
11739.00	90.66	179.30	8837.75	95.00	3102.34	3026.32 S	722.52 E	3111.38@	166.57	1.04
11833.00	90.57	179.91	8836.74	94.00	3195.26	3120.32 S	723.17 E	3203.02@	166.95	0.66
11928.00	90.57	180.79	8835.79	95.00	3288.98	3215.31 S	722.58 E	3295.50@	167.33	0.93
12023.00	89.08	180.18	8836.08	95.00	3382.66	3310.30 S	721.78 E	3388.08@	167.70	1.69
12117.00	88.55	179.82	8838.03	94.00	3475.47	3404.28 S	721.78 E	3479.96@	168.03	0.68
12212.00	88.37	180.79	8840.58	95.00	3569.17	3499.24 S	721.28 E	3572.81@	168.35	1.04
12306.00	88.29	180.35	8843.32	94.00	3661.80	3593.20 S	720.34 E	3664.69@	168.66	0.48
12401.00	88.30	180.09	8846.14	95.00	3755.52	3688.16 S	719.98 E	3757.77@	168.95	0.27
12495.00	88.11	180.97	8849.09	94.00	3848.16	3782.11 S	719.11 E	3849.86@	169.23	0.96
12590.00	88.11	181.32	8852.22	95.00	3941.60	3877.03 S	717.21 E	3942.81@	169.52	0.37
12685.00	87.93	182.37	8855.50	95.00	4034.83	3971.93 S	714.15 E	4035.62@	169.81	1.12
12779.00	88.37	180.00	8858.54	94.00	4127.28	4065.85 S	712.21 E	4127.76@	170.06	2.56
12874.00	89.69	178.15	8860.15	95.00	4221.30	4160.82 S	713.74 E	4221.59@	170.27	2.39
12968.00	94.26	176.92	8856.91	94.00	4314.60	4254.65 S	717.78 E	4314.77@	170.42	5.03
13063.00	91.80	178.51	8851.89	95.00	4408.79	4349.43 S	721.56 E	4408.88@	170.58	3.08
13158.00	91.45	179.12	8849.19	95.00	4502.86	4444.37 S	723.53 E	4502.88@	170.75	0.74
13252.00	91.28	179.82	8846.95	94.00	4595.79	4538.34 S	724.40 E	4595.79@	170.93	0.77
13347.00	91.36	180.18	8844.77	95.00	4689.58	4633.31 S	724.40 E	4689.60@	171.11	0.39
13365.00	91.45	180.53	8844.32	18.00	4707.33	4651.31 S	724.28 E	4707.36@	171.15	2.01
STRAIGHT LINE PROJECTION TO BIT @ 13430'MD (8842.68'TVD).										
13430.00	91.45	180.53	8842.68	65.00	4771.40	4716.29 S	723.68 E	4771.48@	171.28	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.



A Schlumberger Company

TIE-IN SURVEY INFORMATION SHEET

CLIENT INFORMATION

CLIENT:	Devon Energy		
LEASE / WELL No.:	Beetlejuice 19 Fed	3H	
WELL LOCATION:	Eddy County		
COUNTY / STATE / COUNTRY:	Eddy	NM	USA
RIG:	H & P 300		
API WELL No:	30-015-39231		
JOB No:	700005065-WT-WT		
P.O. / AFE No.	157340		
DIRECTIONAL COMPANY:	PES		

WELL SITE INFORMATION

TOTAL MAGNETIC CORRECTION (TMC):			
On Wall Plat:	7.47	LWD Calculated:	7.47
X =	670985.920000	Feet	Y = 601356.780000
			Feet
SITE LATITUDE:	32.652470 N	SITE LONGITUDE:	103.912088 W
GRID SYSTEM:	TRUE <input type="checkbox"/> UTM <input checked="" type="checkbox"/>	LAMBERT <input type="checkbox"/>	ZONE: New Mexico East
PROPOSED DRIFT DIRECTION:	170.94		
KELLY BUSHING ELEVATION:	3423 26.00'		
ALTITUDE:	3397	Feet	WATER DEPTH: N/A
			Feet

TIE-IN SURVEY

MEASURED DEPTH:	8143'		
DRIFT ANGLE:	1.65		
DRIFT DIRECTION:	232.62		
TRUE VERTICAL DEPTH:	8141.53		
VERTICAL SECTION:	31.66		
RECTANGULAR COORDINATE (N / S) :	-34.34		
RECTANGULAR COORDINATE (E / W) :	-14.29		
CLOSURE DISTANCE / DIRECTION:	37.19	202.58	
SURVEY CALCULATION METHOD:	AA <input type="checkbox"/>	MC <input checked="" type="checkbox"/>	RC <input type="checkbox"/> BT <input type="checkbox"/>
SOURCE OF TIE-IN DATA (COMPANY):	VAUGHN ENERGY SERVICES		
COPY OF TIE-IN SURVEY REPORT	<input checked="" type="checkbox"/> YES		<input type="checkbox"/> NO

WELL PLAN

KICKOFF DEPTH:	8178	TOTAL DEPTH:	13430
KICKOFF ANGLE:	0	MAX ANGLE:	94.26

PES Engineers: J.HOLMES
R.DIAZ

**Signature of both field engineers required if applicable

Directional Driller: JORDAN WILLIAMS

DATE: 19-Jan-2012



Company: Devon Energy
 Lease/Well: Beetle Juice 19 Fed /#3
 Location: Sec 18 Town 19S Range 31E
 Rig Name: H&P 300
 State/County: Texas/Eddy
 Latitude: 32.66, Longitude: -103.92
 GRID North is 0.23 Degrees East of True North
 VS-Azi: 170.94 Degrees



FIELD COPY ONLY (NOT DEFINITIVE)

Depth Reference : RKB 26.2

DRILLOG HA GYRO SURVEY CALCULATIONS

Filename: ...juice 19 fed #3 ha gyro_ed.ut

Minimum Curvature Method

Report Date/Time: 1/18/2012 / 16:41

Vaughn Energy Services

Fort Worth, Texas

817-741-3610

Troy Hardin

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	0.27	232.88	100.00	-0.14	-0.19	0.11	0.24	232.88	0.27
200.00	0.80	220.64	199.99	-0.82	-0.84	0.68	1.17	225.60	0.54
300.00	0.77	170.36	299.99	-2.02	-1.18	1.81	2.34	210.34	0.67
400.00	0.59	175.61	399.98	-3.19	-1.03	2.99	3.35	197.85	0.20
500.00	0.90	190.36	499.97	-4.48	-1.13	4.24	4.62	194.18	0.37
600.00	0.61	170.67	599.96	-5.78	-1.19	5.52	5.90	191.61	0.39
700.00	0.81	175.83	699.95	-7.01	-1.05	6.76	7.09	188.52	0.21
800.00	0.49	212.02	799.95	-8.08	-1.23	7.78	8.17	188.63	0.51
900.00	0.21	168.94	899.95	-8.62	-1.42	8.29	8.73	189.34	0.37
1000.00	0.30	104.13	999.95	-8.86	-1.13	8.57	8.93	187.27	0.28
1100.00	0.51	97.72	1099.94	-8.98	-0.44	8.80	8.99	182.81	0.21
1200.00	1.19	98.11	1199.93	-9.19	1.03	9.24	9.25	173.61	0.69
1300.00	1.64	68.81	1299.90	-8.82	3.40	9.24	9.45	158.94	0.84
1400.00	1.54	68.65	1399.86	-7.81	5.98	8.66	9.84	142.55	0.10
1500.00	1.78	69.57	1499.82	-6.78	8.69	8.06	11.02	127.95	0.24
1600.00	1.81	77.28	1599.77	-5.89	11.69	7.66	13.09	116.75	0.24
1700.00	2.03	90.33	1699.72	-5.55	15.00	7.85	15.99	110.32	0.49
1800.00	1.73	81.54	1799.66	-5.34	18.26	8.15	19.02	106.31	0.42
1900.00	1.28	74.72	1899.63	-4.83	20.82	8.04	21.38	103.05	0.48
2000.00	0.97	85.70	1999.61	-4.47	22.75	7.99	23.18	101.11	0.37
2100.00	0.54	102.81	2099.60	-4.51	24.05	8.24	24.47	100.61	0.49
2200.00	0.70	89.33	2199.59	-4.60	25.12	8.50	25.53	100.39	0.21
2300.00	0.24	101.76	2299.59	-4.64	25.93	8.67	26.34	100.14	0.46
2400.00	0.61	80.51	2399.59	-4.60	26.66	8.74	27.06	99.78	0.39
2500.00	0.45	42.24	2499.58	-4.22	27.45	8.49	27.77	98.73	0.38
2600.00	0.74	30.61	2599.58	-3.37	28.04	7.75	28.25	96.86	0.31
2700.00	0.77	29.86	2699.57	-2.24	28.71	6.73	28.79	94.45	0.03
2800.00	0.90	32.89	2799.56	-0.99	29.47	5.62	29.49	91.93	0.14
2900.00	0.88	12.74	2899.55	0.42	30.07	4.32	30.07	89.20	0.31
3000.00	0.87	7.08	2999.54	1.92	30.33	2.88	30.39	86.37	0.09
3100.00	0.59	325.54	3099.53	3.11	30.13	1.68	30.29	84.11	0.58

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
3200.00	0.73	299.03	3199.52	3.84	29.29	0.82	29.54	82.53	0.33
3300.00	0.36	221.29	3299.52	3.91	28.53	0.63	28.79	82.19	0.74
3400.00	0.58	231.12	3399.51	3.36	27.93	1.08	28.13	83.13	0.23
3500.00	0.88	192.55	3499.51	2.30	27.37	2.04	27.47	85.20	0.56
3600.00	0.80	185.53	3599.50	0.86	27.14	3.43	27.15	88.19	0.13
3700.00	0.99	204.36	3699.48	-0.63	26.71	4.83	26.72	91.35	0.35
3800.00	1.21	194.65	3799.47	-2.44	26.09	6.52	26.20	95.34	0.28
3900.00	0.92	228.82	3899.45	-3.99	25.22	7.91	25.53	98.99	0.68
4000.00	1.01	195.94	3999.44	-5.37	24.37	9.14	24.95	102.42	0.55
4100.00	1.02	183.88	4099.42	-7.10	24.07	10.80	25.09	106.43	0.21
4200.00	1.07	208.23	4199.40	-8.81	23.57	12.41	25.16	110.49	0.44
4300.00	0.75	216.88	4299.39	-10.15	22.73	13.60	24.90	114.06	0.35
4400.00	1.11	224.06	4399.38	-11.37	21.67	14.64	24.47	117.69	0.39
4500.00	0.58	223.79	4499.37	-12.44	20.64	15.53	24.10	121.07	0.53
4600.00	0.88	258.40	4599.36	-12.96	19.54	15.87	23.44	123.55	0.52
4700.00	1.02	275.70	4699.35	-13.02	17.90	15.68	22.14	126.03	0.32
4800.00	0.99	272.61	4799.33	-12.89	16.16	15.28	20.67	128.59	0.06
4900.00	1.15	284.89	4899.31	-12.60	14.33	14.70	19.08	131.32	0.28
5000.00	0.97	283.43	4999.30	-12.14	12.54	13.97	17.45	134.09	0.18
5100.00	1.40	289.38	5099.27	-11.54	10.56	13.06	15.65	137.54	0.44
5200.00	1.47	280.27	5199.24	-10.91	8.15	12.06	13.62	143.24	0.24
5300.00	1.56	271.15	5299.21	-10.65	5.52	11.39	12.00	152.59	0.25
5400.00	1.64	303.75	5399.17	-9.83	2.98	10.18	10.27	163.15	0.90
5500.00	1.24	285.55	5499.14	-8.75	0.75	8.76	8.78	175.09	0.60
5600.00	1.42	273.04	5599.11	-8.40	-1.52	8.05	8.53	190.28	0.34
5700.00	1.16	274.76	5699.09	-8.25	-3.77	7.55	9.07	204.55	0.26
5800.00	1.24	286.00	5799.07	-7.86	-5.82	6.85	9.78	216.52	0.25
5900.00	1.12	277.72	5899.05	-7.43	-7.84	6.10	10.80	226.52	0.21
6000.00	0.91	291.54	5999.03	-7.01	-9.55	5.42	11.84	233.71	0.33
6100.00	0.89	286.25	6099.02	-6.50	-11.02	4.69	12.80	239.46	0.09
6200.00	0.73	312.92	6199.01	-5.85	-12.23	3.85	13.56	244.43	0.40
6300.00	0.53	317.37	6299.00	-5.08	-13.01	2.97	13.97	248.68	0.21
6400.00	0.54	275.99	6399.00	-4.69	-13.79	2.46	14.57	251.22	0.38
6500.00	0.17	76.07	6499.00	-4.60	-14.12	2.32	14.85	251.94	0.71
6600.00	0.61	129.41	6598.99	-4.91	-13.56	2.71	14.42	250.10	0.53
6700.00	1.25	146.64	6698.98	-6.16	-12.55	4.10	13.97	243.86	0.68
6800.00	1.71	138.56	6798.95	-8.18	-10.96	6.35	13.68	233.26	0.51
6900.00	1.92	132.91	6898.90	-10.44	-8.75	8.93	13.62	219.95	0.28
7000.00	2.18	139.36	6998.83	-13.03	-6.28	11.88	14.46	205.73	0.35
7100.00	1.37	155.28	7098.79	-15.56	-4.54	14.65	16.21	196.26	0.94
7200.00	1.15	178.11	7198.76	-17.64	-4.01	16.79	18.09	192.79	0.54
7300.00	0.84	206.87	7298.75	-19.30	-4.30	18.38	19.77	192.57	0.58
7400.00	1.11	212.31	7398.73	-20.77	-5.15	19.70	21.40	193.94	0.29
7500.00	1.37	195.51	7498.71	-22.74	-5.99	21.51	23.52	194.76	0.44
7600.00	0.99	188.08	7598.69	-24.75	-6.43	23.42	25.57	194.57	0.41
7700.00	1.02	218.67	7698.67	-26.29	-7.11	24.84	27.24	195.13	0.53
7800.00	1.60	223.99	7798.65	-27.99	-8.63	26.28	29.29	197.14	0.60
7900.00	1.33	192.63	7898.62	-30.12	-9.86	28.20	31.70	198.12	0.83
8000.00	1.43	233.00	7998.59	-32.01	-11.11	29.86	33.88	199.14	0.96
8100.00	1.65	234.36	8098.55	-33.60	-13.28	31.09	36.13	201.57	0.22
8143.00	1.65	232.62	8141.53	-34.34	-14.28	31.66	37.19	202.58	0.12

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
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HORIZONTAL DISPLACEMENT IS
37.19 FEET AT 202.58 DEGREES



A Schlumberger Company

PathFinder Energy Services, Inc.

Magnetic & Grid Calculations

Devon Energy
Beetlejuice 19 Fed #3H
Eddy County, NM
Rig:HP 300

Fri Jan 13 15:57:09 2012

Coordinates

Latitude: 32.652470 N (32 deg. 39 min. 8.8928 sec.)
Longitude: 103.912088 W (-103 deg. 54 min. 43.5160 sec.)
Elevation: 3423.00 feet.
Calculation Date: Jan/13/2012

Magnetic Calculations

Model: IGRF2010
Dip Angle: 60.5105 degrees
Total Magnetic Field: 0.48779 gauss
Magnetic Declination: 7.704051 degrees
Horizontal Intensity: 0.240120 gauss
To Convert a Magnetic Dir. to a TRUE North Dir. Add 7.704051 Degr

Transverse Mercator Grid Calculations NAD83

Grid System: Transverse Mercator: new mexico east
Ellipsoid: GRS80
X: 670985.9200 feet
Y: 601356.7800 feet
True to Grid: (convergence) -0.227283 degrees
Magnetic to Grid: 7.476768 degrees

To Convert a Magnetic Dir. to a GRID dir. Add 7.476768 Degr.

PathFinder Energy Services, Inc.

Magnetic & Grid Calculations

DEVON ENERGY CORPORATION
BEETLEJUICE 19 FED #3H
HACKBERRY, BONE SPRINGS, NW
Rig:HP 300

FIELD CALCULATION

Wed Jan 18 21:40:49 2012

Coordinates

Latitude: 32.652470 N (32 deg. 39 min. 8.8928 sec.)
Longitude: 103.912088 W (-103 deg. 54 min. 43.5160 sec.)
Elevation: 3423.00 feet.
Calculation Date: Jan/18/2012

Magnetic Calculations

Model: IGRF2010
Dip Angle: 60.5102 degrees
Total Magnetic Field: 0.48777 gauss
Magnetic Declination: 7.702369 degrees
Horizontal Intensity: 0.240116 gauss
To Convert a Magnetic Dir. to a TRUE North Dir. Add 7.702369 Degs

Transverse Mercator Grid Calculations NAD83

Grid System: Transverse Mercator: new mexico east
Ellipsoid: GRS80
X: 670985.9200 feet
Y: 601356.7800 feet
True to Grid: (convergence) -0.227283 degrees
Magnetic to Grid: 7.475087 degrees
To Convert a Magnetic Dir. to a GRID dir. Add 7.475087 Degs.

Pathfinder

6213 WCR 112
Midland Texas 79706
Tel: (432) 687-1647
Fax: (432) 687-1544



February 14, 2012

Devon Energy
20 N. Broadway
Oklahoma City, OK

RE: Devon Energy
Beetle Juice 19 FED #3H
API: 30-015-39231
Eddy County, NM
RIG: H&P 300
FIELD: Hackberry; Bone Spring, NW
PES FILE NO.: 700005065-WT-WT

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 "Steve Bibb".

STEVE BIBB
M/LWD Service Coordinator
PathFinder Energy Services

ML:sh