



An Operating Unit of Smith International, Inc.

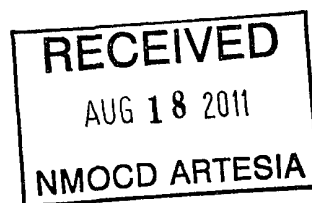
DIRECTIONAL SURVEY REPORT

30-015-38333

DEVON ENERGY

TURQUOISE PWU 27 #1H

EDDY COUNTY, NEW MEXICO



PREPARED BY: FRANCISCO SINISTERRA

Pathfinder

6213 W Interstate 20
Midland, Texas 79706
Tel 432 687 1644
Fax 432 687 1544

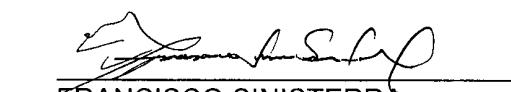


DIRECTIONAL SURVEY COMPANY REPORT:

1. NAME OF SURVEYING COMPANY: PATHFINDER ENERGY SERVICES
2. NAME OF PERSON(S) PERFORMING SURVEY:
A) JESUS BARRAZA
3. POSITION OF SAID PERSON(S): (A-F) SURVEYORS (FIELD ENGINEERS)
4. DATE(S) ON WHICH SURVEY WAS PERFORMED: 05-03-11 TO 05-09-11
5. STATE IN WHICH SURVEY WAS PERFORMED: NEW MEXICO
6. LOCATION OF WELL: EDDY COUNTY
7. TYPE OF SURVEY(S) PERFORMED: MWD
8. COMPLETE IDENTIFICATION OF WELL:

DEVON ENERGY
TURQUOISE PWU 27 #1H
EDDY COUNTY, NM
RIG: H&P 300
9. SURVEY CERTIFIED FROM: 7392 TO 12266 FEET MEASURED DEPTH.

THIS IS TO VERIFY THAT ATTACHED DOCUMENTS SHOWING THE WELL TO BE
DISPLACED AT 4630.5 FEET ON A BEARING OF 83.97 DEGREES FROM THE
CENTER OF THE ROTARY TABLE AT A PROJECTED BIT DEPTH OF 12345 FEET,
ARE TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE.



FRANCISCO SINISTERRA
M/LWD SERVICE COORDINATOR

PathFinder Energy Services, Inc.

BHL Report

Page 01/01
Tie-in Date: 05/03/2011
Date Completed: 05/09/2011

DEVON ENERGY CORPORATION
TURQUOISE PWU 27 #1H
EDDY COUNTY, NM
Rig:H & P 300
PathFinder Office Supervisor: FRANCISCO SINISTERRA
PathFinder Field Engineers:JESUS BARRAZA
ALEX DUCATE

Survey Horiz. Reference:WELLHEAD
Ref Coordinates: LAT:32.38.11.5743 N LON:104.4.12.6612 W
GRID Reference:NAD83 new mexico east Transverse Mercator
Ref GRID Coord: X: 622342.2800 Y: 595407.5100
North Aligned To:GRID NORTH
Total Magnetic Correction: 7.72° EAST TO GRID
Vertical Section Plane: 84.01
Survey Vert. Reference: 25.00' Rotary Table To Ground
Altitude:3339.50' Ground To MSL

Measured Depth	12345.00	(feet)
Inclination	86.09	(deg)
Azimuth	82.80	(deg)
True Vertical Depth	8095.17	(feet)
Vertical Section	4630.50	(feet)
Survey X cord	626947.13	(feet)
Survey Y cord	595894.28	(feet)
Survey Lat	32.63785415 N	(deg)
Survey Lon	104.05522051 W	(deg)
Rectangular Corr. N/S	486.77 N	(feet)
Rectangular Corr. E/W	4604.85 E	(feet)
Closure Distance	4630.50	(feet)
Direction of Closure	83.97	(deg)
Dogleg Severity	0.00	(deg/100ft)

PathFinder Energy Services, Inc.

Survey Report

DEVON ENERGY CORPORATION

TURQUOISE PWU 27 #1H

EDDY COUNTY, NM

Rig:H & P 300

PathFinder Office Supervisor: FRANCISCO SINISTERRA

PathFinder Field Engineers: JESUS BARRAZA

ALEX DUCATE

Survey Horiz. Reference:WELLHEAD

Ref Coordinates: LAT:32.38.11.5743 N LON:104.4.12.6612 W

GRID Reference:NAD83 new mexico east Transverse Mercator

Ref GRID Coord: X: 622342.2800 Y: 595407.5100

North Aligned To:GRID NORTH

Total Magnetic Correction: 7.72° EAST TO GRID

Vertical Section Plane: 84.01

Survey Vert. Reference: 25.00' Rotary Table To Ground

Altitude:3339.50' 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 (ft) (ft)		Closure Dist Dir (ft) (deg)		DLS (dg/100ft)
THE FOLLOWING ARE SCIENTIFIC DRILLING GYRO SURVEYS.										
0.00	0.00	0.00	-0.01	0.00	0.00	0.03 N	0.00 W	0.03@	358.94	0.00
100.00	0.46	132.90	99.99	100.00	0.27	0.25 S	0.29 E	0.38@	130.05	0.46
200.00	0.49	112.50	199.99	100.00	0.91	0.68 S	0.98 E	1.20@	124.83	0.17
300.00	0.80	94.26	299.98	100.00	1.97	0.90 S	2.07 E	2.26@	113.44	0.37
400.00	0.82	86.33	399.97	100.00	3.37	0.91 S	3.48 E	3.60@	104.56	0.11
500.00	0.95	90.92	499.96	100.00	4.91	0.87 S	5.03 E	5.10@	99.85	0.15
600.00	0.91	79.88	599.95	100.00	6.52	0.75 S	6.64 E	6.68@	96.42	0.18
700.00	1.03	88.05	699.93	100.00	8.21	0.58 S	8.32 E	8.34@	93.96	0.18
800.00	1.19	83.68	799.91	100.00	10.15	0.43 S	10.25 E	10.26@	92.41	0.18
900.00	1.27	84.35	899.89	100.00	12.29	0.21 S	12.38 E	12.38@	90.96	0.08
1000.00	1.56	79.65	999.86	100.00	14.76	0.15 N	14.82 E	14.83@	89.44	0.31
1100.00	2.32	85.01	1099.80	100.00	18.14	0.57 N	18.18 E	18.19@	88.22	0.78
1200.00	2.57	86.65	1199.71	100.00	22.40	0.87 N	22.44 E	22.45@	87.77	0.26
1300.00	2.01	80.22	1299.63	100.00	26.39	1.30 N	26.40 E	26.43@	87.18	0.61
1400.00	1.72	81.18	1399.58	100.00	29.64	1.83 N	29.61 E	29.67@	86.46	0.29
1500.00	1.39	78.10	1499.54	100.00	32.35	2.31 N	32.28 E	32.37@	85.91	0.34
1600.00	1.05	73.01	1599.52	100.00	34.45	2.83 N	34.35 E	34.46@	85.29	0.36
1700.00	0.87	70.99	1699.50	100.00	36.09	3.34 N	35.94 E	36.09@	84.69	0.18
1800.00	0.91	72.07	1799.49	100.00	37.61	3.83 N	37.41 E	37.61@	84.15	0.04
1900.00	0.41	60.02	1899.49	100.00	38.71	4.26 N	38.48 E	38.71@	83.69	0.52
2000.00	0.46	48.50	1999.48	100.00	39.37	4.70 N	39.09 E	39.37@	83.14	0.10
2100.00	0.33	43.97	2099.48	100.00	39.91	5.18 N	39.59 E	39.93@	82.55	0.13
2200.00	0.28	44.19	2199.48	100.00	40.32	5.56 N	39.96 E	40.34@	82.08	0.05
2300.00	0.36	34.11	2299.48	100.00	40.71	5.99 N	40.31 E	40.75@	81.54	0.10
2400.00	0.26	25.71	2399.48	100.00	41.03	6.46 N	40.58 E	41.09@	80.96	0.11

PathFinder Energy Services, Inc.

Survey Report

DEVON ENERGY CORPORATION
TURQUOISE PWU 27 #1H
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)		Closure Dist Dir (ft) (deg)		DLS (dg/100ft)
2500.00	0.33	27.16	2499.47	100.00	41.31	6.92 N	40.81 E	41.39@	80.38	0.07
2600.00	0.37	4.88	2599.47	100.00	41.53	7.50 N	40.97 E	41.65@	79.63	0.14
2700.00	0.32	348.04	2699.47	100.00	41.56	8.09 N	40.94 E	41.73@	78.82	0.11
2800.00	0.33	321.44	2799.47	100.00	41.38	8.59 N	40.70 E	41.60@	78.08	0.15
2900.00	0.50	308.05	2899.47	100.00	40.91	9.08 N	40.18 E	41.19@	77.26	0.19
3000.00	0.46	302.81	2999.46	100.00	40.28	9.57 N	39.50 E	40.64@	76.38	0.06
3100.00	0.50	281.20	3099.46	100.00	39.55	9.87 N	38.73 E	39.97@	75.70	0.18
3200.00	0.73	279.06	3199.45	100.00	38.52	10.06 N	37.68 E	38.99@	75.05	0.23
3300.00	0.58	262.97	3299.45	100.00	37.40	10.10 N	36.54 E	37.91@	74.55	0.24
3400.00	0.58	260.17	3399.44	100.00	36.39	9.95 N	35.54 E	36.91@	74.36	0.03
3500.00	0.58	260.10	3499.44	100.00	35.38	9.78 N	34.55 E	35.90@	74.20	0.00
3600.00	0.56	270.33	3599.43	100.00	34.39	9.69 N	33.56 E	34.93@	73.89	0.10
3700.00	0.62	273.12	3699.43	100.00	33.37	9.72 N	32.53 E	33.95@	73.36	0.07
3800.00	0.53	290.01	3799.42	100.00	32.42	9.91 N	31.55 E	33.07@	72.56	0.19
3900.00	0.54	285.07	3899.42	100.00	31.56	10.19 N	30.66 E	32.31@	71.62	0.05
4000.00	0.56	283.99	3999.41	100.00	30.66	10.43 N	29.74 E	31.51@	70.67	0.02
4100.00	0.54	292.22	4099.41	100.00	29.79	10.73 N	28.83 E	30.76@	69.58	0.08
4200.00	0.61	301.78	4199.40	100.00	28.95	11.19 N	27.94 E	30.09@	68.18	0.12
4300.00	0.78	348.74	4299.40	100.00	28.47	12.14 N	27.35 E	29.92@	66.07	0.57
4400.00	1.09	13.24	4399.38	100.00	28.72	13.73 N	27.44 E	30.68@	63.42	0.50
4500.00	1.02	23.21	4499.37	100.00	29.47	15.47 N	28.00 E	31.99@	61.08	0.20
4600.00	1.72	3.43	4599.34	100.00	30.15	17.79 N	28.45 E	33.55@	57.98	0.83
4700.00	2.10	359.64	4699.28	100.00	30.57	21.12 N	28.52 E	35.49@	53.48	0.40
4800.00	2.92	356.38	4799.19	100.00	30.86	25.49 N	28.35 E	38.13@	48.04	0.83
4900.00	2.98	353.11	4899.05	100.00	30.92	30.62 N	27.88 E	41.41@	42.32	0.18
5000.00	2.68	347.32	4998.93	100.00	30.61	35.48 N	27.05 E	44.62@	37.33	0.41
5100.00	2.63	344.90	5098.82	100.00	29.97	39.97 N	25.94 E	47.65@	32.98	0.12
5200.00	2.56	342.27	5198.72	100.00	29.15	44.32 N	24.66 E	50.72@	29.10	0.14

PathFinder Energy Services, Inc.

Survey Report

DEVON ENERGY CORPORATION
TURQUOISE PWU 27 #1H
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)
5300.00	1.93	340.44	5298.64	100.00	28.31	48.03 N	23.42 E	53.44@	26.00	0.63
5400.00	2.30	340.12	5398.58	100.00	27.43	51.50 N	22.17 E	56.07@	23.29	0.37
5500.00	2.32	341.67	5498.50	100.00	26.51	55.31 N	20.86 E	59.11@	20.66	0.07
5600.00	2.47	342.54	5598.41	100.00	25.65	59.29 N	19.57 E	62.44@	18.27	0.15
5700.00	2.77	337.73	5698.30	100.00	24.55	63.58 N	18.01 E	66.08@	15.82	0.37
5800.00	2.87	330.22	5798.18	100.00	22.86	67.99 N	15.85 E	69.81@	13.12	0.38
5900.00	3.00	327.61	5898.05	100.00	20.69	72.37 N	13.21 E	73.57@	10.34	0.19
6000.00	3.25	327.04	5997.90	100.00	18.24	76.96 N	10.26 E	77.64@	7.60	0.25
6100.00	3.41	325.98	6097.73	100.00	15.55	81.80 N	7.06 E	82.11@	4.93	0.17
6200.00	3.76	312.95	6197.54	100.00	12.00	86.50 N	2.99 E	86.55@	1.98	0.88
6300.00	3.79	312.53	6297.32	100.00	7.66	90.97 N	1.84 W	90.99@	358.84	0.04
6400.00	3.21	313.55	6397.14	100.00	3.65	95.13 N	6.31 W	95.34@	356.21	0.58
6500.00	2.69	309.00	6497.00	100.00	0.18	98.54 N	10.16 W	99.06@	354.11	0.57
6600.00	2.18	301.04	6596.91	100.00	-3.00	101.00 N	13.61 W	101.91@	352.32	0.61
6700.00	1.44	310.57	6696.86	100.00	-5.38	102.80 N	16.20 W	104.06@	351.04	0.80
6800.00	1.12	312.22	6796.84	100.00	-6.90	104.27 N	17.88 W	105.79@	350.27	0.32
6900.00	0.61	240.19	6896.83	100.00	-8.04	104.66 N	19.06 W	106.38@	349.68	1.10
7000.00	0.38	193.23	6996.82	100.00	-8.63	104.07 N	19.60 W	105.90@	349.33	0.45
7100.00	0.43	209.14	7096.82	100.00	-8.96	103.42 N	19.86 W	105.31@	349.13	0.12
7200.00	0.98	153.75	7196.81	100.00	-8.88	102.33 N	19.66 W	104.20@	349.12	0.82
** TIE IN TO SCIENTIFIC DRILLING GYRO SURVEY AT 7300'MD.										
7300.00	1.06	132.21	7296.80	100.00	-7.96	100.94 N	18.60 W	102.64@	349.56	0.39
THE FOLLOWING ARE PATHFINDER MWD SURVEYS.										
7392.00	6.68	113.56	7388.55	92.00	-2.74	98.23 N	13.06 W	99.09@	352.43	6.18
7423.00	8.35	100.01	7419.29	31.00	0.99	97.12 N	9.19 W	97.55@	354.59	7.82
7455.00	9.94	98.91	7450.88	32.00	5.90	96.28 N	4.17 W	96.37@	357.52	5.00
7486.00	12.93	91.69	7481.26	31.00	11.92	95.77 N	1.94 E	95.79@	1.16	10.68
7518.00	16.18	84.85	7512.24	32.00	19.93	96.06 N	9.96 E	96.58@	5.92	11.47

PathFinder Energy Services, Inc.

Survey Report

DEVON ENERGY CORPORATION
TURQUOISE PWU 27 #1H
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)
7549.00	19.26	79.61	7541.76	31.00	29.35	97.37 N	19.29 E	99.26@	11.21	11.18
7581.00	22.86	79.97	7571.62	32.00	40.82	99.41 N	30.61 E	104.01@	17.11	11.26
7612.00	25.94	81.86	7599.85	31.00	53.60	101.42 N	43.25 E	110.25@	23.10	10.25
7642.00	28.31	83.08	7626.55	30.00	67.27	103.20 N	56.81 E	117.81@	28.83	8.11
7674.00	30.78	83.65	7654.38	32.00	83.05	105.02 N	72.49 E	127.61@	34.61	7.77
7705.00	33.24	84.33	7680.67	31.00	99.48	106.74 N	88.83 E	138.86@	39.77	8.02
7738.00	35.17	84.93	7707.96	33.00	118.03	108.47 N	107.30 E	152.57@	44.69	5.94
7770.00	37.28	85.04	7733.77	32.00	136.94	110.13 N	126.13 E	167.44@	48.88	6.60
7801.00	40.01	85.56	7757.98	31.00	156.29	111.71 N	145.43 E	183.38@	52.47	8.87
7833.00	43.44	86.78	7781.86	32.00	177.57	113.12 N	166.67 E	201.44@	55.83	11.01
7864.00	47.57	87.88	7803.59	31.00	199.64	114.15 N	188.76 E	220.59@	58.84	13.56
7896.00	51.62	88.76	7824.32	32.00	223.93	114.85 N	213.11 E	242.09@	61.88	12.83
7927.00	53.90	88.59	7843.08	31.00	248.53	115.43 N	237.78 E	264.31@	64.11	7.37
7959.00	55.84	87.47	7861.49	32.00	274.63	116.33 N	263.93 E	288.43@	66.21	6.70
7990.00	57.86	86.13	7878.45	31.00	300.55	117.78 N	289.84 E	312.86@	67.89	7.45
8019.00	61.47	85.49	7893.09	29.00	325.56	119.61 N	314.80 E	336.76@	69.20	12.59
8139.00	70.43	85.49	7941.94	120.00	435.00	128.22 N	423.93 E	442.90@	73.17	7.47
8170.00	72.28	85.30	7951.86	31.00	464.36	130.58 N	453.21 E	471.65@	73.93	6.00
8202.00	74.13	85.33	7961.10	32.00	494.99	133.08 N	483.74 E	501.71@	74.62	5.78
8233.00	75.36	85.88	7969.26	31.00	524.88	135.37 N	513.56 E	531.10@	75.23	4.32
8265.00	77.03	86.58	7976.89	32.00	555.93	137.41 N	544.57 E	561.64@	75.84	5.63
8296.00	78.88	87.32	7983.36	31.00	586.21	139.03 N	574.84 E	591.41@	76.40	6.41
8359.00	83.27	87.46	7993.13	63.00	648.32	141.86 N	637.00 E	652.60@	77.45	6.97
8391.00	85.21	87.51	7996.35	32.00	680.10	143.26 N	668.80 E	683.97@	77.91	6.07
8485.00	88.55	88.32	8001.46	94.00	773.73	146.67 N	762.59 E	776.57@	79.11	3.66
8579.00	88.11	86.52	8004.20	94.00	867.52	150.90 N	856.45 E	869.64@	80.01	1.97
8674.00	88.11	86.23	8007.33	95.00	962.39	156.90 N	951.21 E	964.06@	80.63	0.31
8768.00	87.85	86.56	8010.65	94.00	1056.25	162.81 N	1044.96 E	1057.57@	81.14	0.45

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Survey Report

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TURQUOISE PWU 27 #1H
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)
8863.00	88.64	85.71	8013.56	95.00	1151.14	169.21 N	1139.70 E	1152.19@	81.56	1.22
8957.00	89.78	85.09	8014.85	94.00	1245.10	176.75 N	1233.39 E	1245.99@	81.84	1.38
9051.00	89.52	83.73	8015.43	94.00	1339.09	185.90 N	1326.94 E	1339.90@	82.02	1.47
9146.00	89.16	83.66	8016.52	95.00	1434.08	196.34 N	1421.36 E	1434.85@	82.14	0.39
9240.00	89.34	83.53	8017.75	94.00	1528.07	206.82 N	1514.76 E	1528.82@	82.23	0.24
9334.00	89.52	82.17	8018.69	94.00	1622.05	218.52 N	1608.02 E	1622.80@	82.26	1.46
9429.00	88.81	82.52	8020.07	95.00	1717.00	231.17 N	1702.17 E	1717.79@	82.27	0.83
9523.00	89.16	81.81	8021.74	94.00	1810.93	243.99 N	1795.27 E	1811.78@	82.26	0.84
9618.00	88.11	83.61	8024.00	95.00	1905.88	256.04 N	1889.47 E	1906.74@	82.28	2.19
9712.00	87.67	85.76	8027.46	94.00	1999.80	264.74 N	1983.00 E	2000.59@	82.40	2.33
9806.00	87.67	85.17	8031.28	94.00	2093.69	272.16 N	2076.63 E	2094.39@	82.53	0.63
9901.00	88.29	86.62	8034.63	95.00	2188.58	278.96 N	2171.32 E	2189.17@	82.68	1.66
9995.00	88.20	86.33	8037.51	94.00	2282.45	284.74 N	2265.10 E	2282.93@	82.84	0.32
10090.00	87.67	86.16	8040.93	95.00	2377.31	290.95 N	2359.83 E	2377.70@	82.97	0.59
10185.00	87.58	86.09	8044.87	95.00	2472.17	297.37 N	2454.54 E	2472.48@	83.09	0.12
10279.00	88.46	86.01	8048.12	94.00	2566.05	303.84 N	2548.25 E	2566.30@	83.20	0.94
10374.00	89.16	84.81	8050.09	95.00	2661.00	311.44 N	2642.93 E	2661.21@	83.28	1.46
10469.00	89.16	84.61	8051.48	95.00	2755.98	320.20 N	2737.51 E	2756.18@	83.33	0.21
10563.00	89.08	83.83	8052.93	94.00	2849.97	329.66 N	2831.02 E	2850.15@	83.36	0.83
10658.00	89.08	82.79	8054.45	95.00	2944.95	340.73 N	2925.36 E	2945.14@	83.36	1.09
10752.00	88.90	83.77	8056.11	94.00	3038.92	351.73 N	3018.70 E	3039.12@	83.35	1.06
10847.00	89.16	84.34	8057.72	95.00	3133.91	361.57 N	3113.18 E	3134.10@	83.38	0.66
10941.00	89.34	85.25	8058.95	94.00	3227.89	370.09 N	3206.78 E	3228.07@	83.42	0.99
11036.00	89.08	87.08	8060.26	95.00	3322.81	376.45 N	3301.55 E	3322.95@	83.50	1.95
11131.00	89.25	87.58	8061.64	95.00	3417.64	380.87 N	3396.44 E	3417.73@	83.60	0.56
11225.00	89.52	87.54	8062.65	94.00	3511.46	384.87 N	3490.35 E	3511.50@	83.71	0.29
11320.00	89.16	86.40	8063.75	95.00	3606.32	389.89 N	3585.21 E	3606.35@	83.79	1.26
11415.00	89.43	85.71	8064.91	95.00	3701.25	396.43 N	3679.98 E	3701.27@	83.85	0.78

PathFinder Energy Services, Inc.

Survey Report

DEVON ENERGY CORPORATION
TURQUOISE PWU 27 #1H
EDDY COUNTY, NM
RIG:H & P 300

Page 06/06

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)
11509.00	88.99	85.15	8066.21	94.00	3795.21	403.92 N	3773.67 E	3795.22@	83.89	0.76
11604.00	88.64	85.16	8068.18	95.00	3890.18	411.94 N	3868.31 E	3890.18@	83.92	0.37
11698.00	88.29	85.02	8070.69	94.00	3984.12	419.98 N	3961.93 E	3984.13@	83.95	0.40
11793.00	87.41	84.85	8074.26	95.00	4079.04	428.36 N	4056.49 E	4079.05@	83.97	0.94
11887.00	88.72	84.68	8077.43	94.00	4172.98	436.93 N	4150.04 E	4172.98@	83.99	1.41
11982.00	89.25	84.51	8079.11	95.00	4267.96	445.88 N	4244.61 E	4267.96@	84.00	0.59
12077.00	88.64	83.94	8080.86	95.00	4362.94	455.44 N	4339.11 E	4362.94@	84.01	0.88
12171.00	87.23	83.58	8084.25	94.00	4456.88	465.65 N	4432.49 E	4456.88@	84.00	1.55
12266.00	86.09	82.80	8089.78	95.00	4551.70	476.89 N	4526.65 E	4551.71@	83.99	1.45
STRAIGHT LINE PROJECTION TO BIT DEPTH AT 12345' MD.										
12345.00	86.09	82.80	8095.17	79.00	4630.50	486.77 N	4604.85 E	4630.50@	83.97	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.:	TURQUOISE PWU 27	1H	
WELL LOCATION:	EDDY COUNTY, NEW MEXICO		
COUNTY / STATE / COUNTRY:	EDDY	NM	USA
RIG:	H & P 300		
API WELL No:	30-015-38333		
JOB No:	700002319-WT-WT		
P.O. / AFE No.	158217		
DIRECTIONAL COMPANY:	PES		

WELL SITE INFORMATION

TOTAL MAGNETIC CORRECTION (TMC):			
On Wall Plat:	7.71	LWD Calculated:	7.72
		Agreed Upon:	7.72
X =	622342.280000	Feet	Y = 595407.510000
			Feet
SITE LATITUDE:	32.636548	SITE LONGITUDE:	104.070184
GRID SYSTEM:	TRUE ☐ UTM ☒ LAMBERT ☐	ZONE:	NEW MEXICO EAST
PROPOSED DRIFT DIRECTION:	84.01		
KELLY BUSHING ELEVATION:	25'		
ALTITUDE:	3339.5	Feet	WATER DEPTH:
			N/A
			Feet

TIE-IN SURVEY

MEASURED DEPTH:	7300'		
DRIFT ANGLE:	1.06		
DRIFT DIRECTION:	132.21		
TRUE VERTICAL DEPTH:	7296.8		
VERTICAL SECTION:	-7.97		
RECTANGULAR COORDINATE (N / S) :	100.94		
RECTANGULAR COORDINATE (E / W) :	-18.6		
CLOSURE DISTANCE / DIRECTION:	102.64	349.56	
SURVEY CALCULATION METHOD:	AA ☐	MC ☒	RC ☐ BT ☐
SOURCE OF TIE-IN DATA (COMPANY):	SCIENTIFIC DRILLING		
COPY OF TIE-IN SURVEY REPORT	☒ YES		☐ NO

WELL PLAN

KICKOFF DEPTH:	7360'	TOTAL DEPTH:	12436.12'
KICKOFF ANGLE:	2	MAX ANGLE:	90

PES Engineers:

**Signature of both field engineers required if applicable

Directional Driller:

DATE: 1-May-2011



A Schlumberger Company **PathFinder Energy Services, Inc.**
Magnetic & Grid Calculations

DEVON ENERGY
TURQUOISE PWU 27 #1H
EDDY COUNTY
Rig:HP 300

Wed Apr 27 11:18:16 2011

Coordinates

Latitude: 32.636548 N (32 deg. 38 min. 11.5743 sec.)
Longitude: 104.070184 W (-104 deg. 4 min. 12.6612 sec.)
Elevation: 3364.50 feet.
Calculation Date: Apr/27/2011

Magnetic Calculations

Model: IGRF2010
Dip Angle: 60.4856 degrees
Total Magnetic Field: 0.48823 gauss
Magnetic Declination: 7.862550 degrees
Horizontal Intensity: 0.240523 gauss
To Convert a Magnetic Dir. to a TRUE North Dir. Add 7.862550 Degr

Transverse Mercator Grid Calculations NAD83

Grid System: Transverse Mercator: new mexico east
Ellipsoid: GRS80
X: 622342.2800 feet
Y: 595407.5100 feet
True to Grid: (convergence) -0.141919 degrees
Magnetic to Grid: 7.720631 degrees
To Convert a Magnetic Dir. to a GRID dir. Add 7.720631 Degr.

PathFinder Energy Services, Inc.

Magnetic & Grid Calculations

DEVON ENERGY
TURQUOISE PWU 27#1H
EDDY COUNTY
Rig: H_P 300

field calculated

Sun May 01 23:04:50 2011

Coordinates

Latitude: 32.636548 N (32 deg. 38 min. 11.5743 sec.)
Longitude: 104.070184 W (-104 deg. 4 min. 12.6612 sec.)
Elevation: 3364.50 feet.
Calculation Date: May/01/2011

Magnetic Calculations

Model: IGRF2010
Dip Angle: 60.4853 degrees
Total Magnetic Field: 0.48822 gauss
Magnetic Declination: 7.861215 degrees
Horizontal Intensity: 0.240519 gauss
To Convert a Magnetic Dir. to a TRUE North Dir. Add 7.861215 Degr

Transverse Mercator Grid Calculations NAD83

Grid System: Transverse Mercator: new mexico east
Ellipsoid: GRS80
X: 622342.2800 feet
Y: 595407.5100 feet
True to Grid: (convergence) -0.141919 degrees
Magnetic to Grid: 7.719296 degrees
To Convert a Magnetic Dir. to a GRID dir. Add 7.719296 Degr.

Pathfinder

6213 W Interstate 20
Midland, Texas 79706
Tel: 432 687 1647
Fax 432 687 1544

PATHFINDER
A Schlumberger Company

May 16, 2011

Devon Energy
20 N. Broadway
Oklahoma City, OK

RE: Devon Energy
Turquoise PWU 27 #1H
API: 30-015-38333
Eddy County, NM
RIG: H&P 300
FIELD: Parkway West; Bone Spring
PES FILE NO.: 700002319-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,


FRANCISCO SINISTERRA
M/LWD Service Coordinator
PathFinder Energy Services

ML:sh