



A GYRO TECHNOLOGIES INC. COMPANY

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

January 31, 2012

Devon Energy Production Company
20 North Broadway
Oklahoma City, OK 73102

Attn: Mark Cooper

Re: **Softshell 22 Fed 1H**

30-015-39727

Please find enclosed a copy of the survey from 0' to 4,253' 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 31st day of January, A.D., 2012, by Keith Havelka.



Laura Ballew
Notary Public, State of Texas



Company: Devon Energy
Lease/Well: Softshell 22 Fed/1H
Location: Sect 22, T 25 S, R 31 E
Rig Name: H&P 416

State/County: New Mexico/Eddy

Latitude: 32.12

GRID North is 0.30 Degrees East of True North

VS-Azi: 0.00 Degrees



RKB : 26.2 Feet Elevation=3363 Feet

DRILLOG HA GYRO SURVEY CALCULATIONS

Filename: softshell 22 fed 1h_ed.ut

Minimum Curvature Method

Report Date/Time: 1/31/2012 / 13:41

Vaughn Energy Services

Midland, TX

432-563-5444

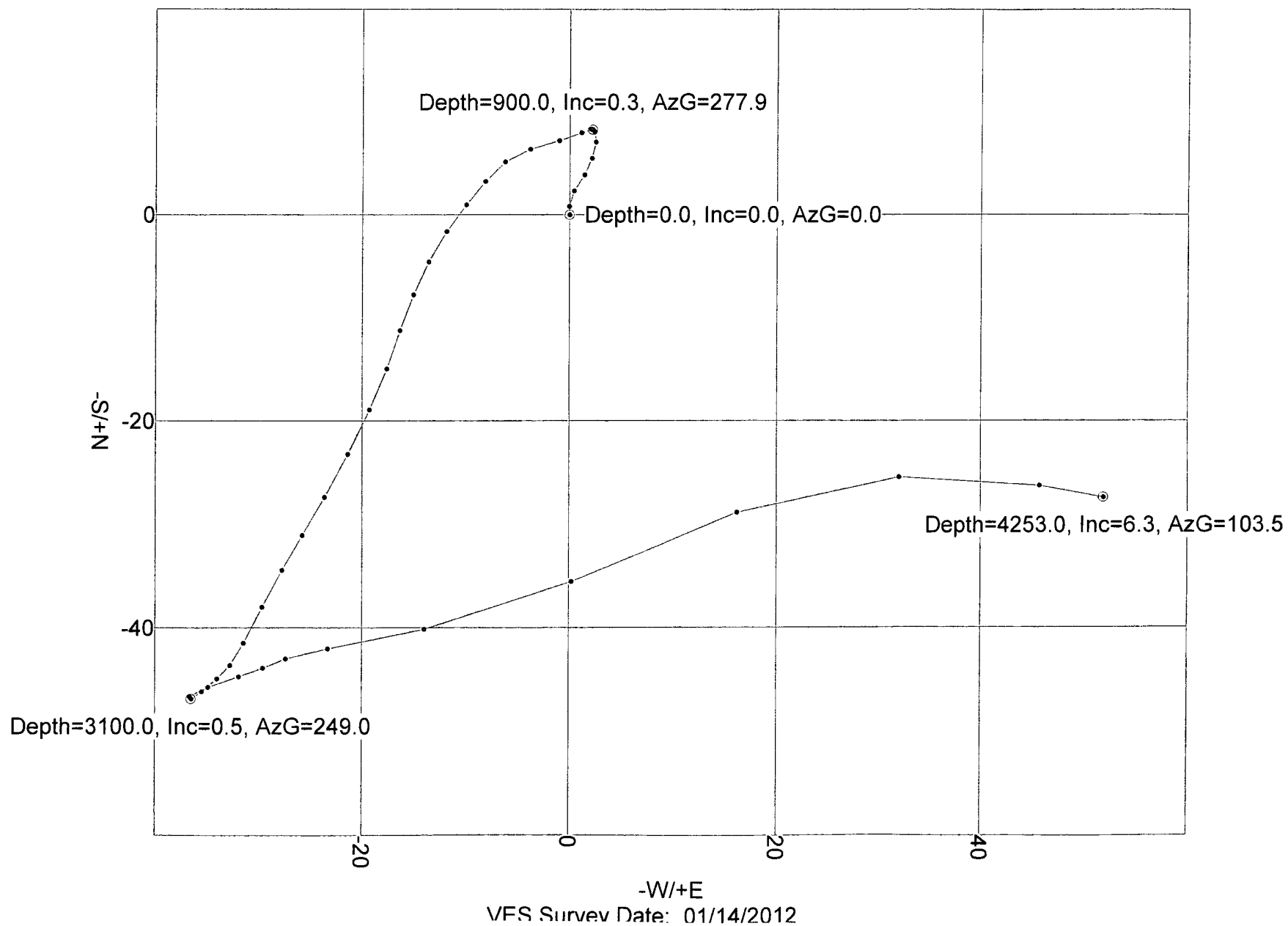
Surveyor: Zach Garcia

Softshell 22 Fed 1H / API 30-015-39727

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	0.93	355.25	100.00	0.81	-0.07	0.81	0.81	355.25	0.93
200.00	1.01	37.60	199.98	2.31	0.40	2.31	2.34	9.89	0.70
300.00	1.10	28.31	299.97	3.85	1.39	3.85	4.09	19.90	0.19
400.00	0.92	18.25	399.95	5.45	2.10	5.45	5.84	21.04	0.25
500.00	0.93	7.90	499.94	7.02	2.46	7.02	7.44	19.33	0.17
600.00	0.33	311.96	599.93	8.01	2.36	8.01	8.35	16.39	0.79
700.00	0.18	291.63	699.93	8.26	2.00	8.26	8.50	13.57	0.17
800.00	0.33	104.57	799.93	8.25	2.13	8.25	8.52	14.48	0.51
900.00	0.29	277.85	899.93	8.21	2.16	8.21	8.49	14.73	0.62
1000.00	1.00	247.68	999.92	7.92	1.10	7.92	7.99	7.92	0.76
1100.00	1.61	252.13	1099.90	7.15	-1.04	7.15	7.23	351.73	0.62
1200.00	1.72	255.21	1199.85	6.34	-3.83	6.34	7.40	328.90	0.14
1300.00	1.46	229.13	1299.82	5.12	-6.24	5.12	8.07	309.40	0.76
1400.00	1.62	221.05	1399.78	3.23	-8.13	3.23	8.74	291.65	0.27
1500.00	1.72	217.57	1499.74	0.97	-9.97	0.97	10.02	275.56	0.15
1600.00	1.97	214.79	1599.69	-1.63	-11.87	-1.63	11.98	262.17	0.26
1700.00	1.96	206.31	1699.63	-4.58	-13.61	-4.58	14.35	251.41	0.29
1800.00	2.07	203.01	1799.57	-7.77	-15.07	-7.77	16.96	242.71	0.16



Vaughn Energy Services
Midland, TX
432-563-5444
Surveyor: Zach Garcia
Softshell 22 Fed 1H / API 30-015-39727



Pathfinder

6213 WCF 112
Midland, Texas 79706
Tel: (432) 627-1647
Fax: (432) 637-1544



February 14, 2012

Devon Energy
20 N. Broadway
Oklahoma City, OK

RE: Devon Energy
Softshell 22 Fed #1H
API: 30-015-39727
Eddy County, NM
RIG: H&P 416
FIELD: Wolfcamp; Bone Spring
PES FILE NO.: 700005006-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 that reads "Steve Bibb".

STEVE BIBB
M/LWD Service Coordinator
PathFinder Energy Services

ML:sh



A Schlumberger Company

DIRECTIONAL SURVEY REPORT

DEVON ENERGY

SOFTSHELL 22 FED #1H

EDDY COUNTY, NEW MEXICO

PREPARED BY: STEVE BIBB

Pathfinder:

6213 WCR 112
Midland, Texas 79706
Tel: (432) 637-1647
Fax: (432) 637-1544



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: 01-15-12 TO 01-25-12
5. STATE IN WHICH SURVEY WAS PERFORMED: NEW MEXICO
6. LOCATION OF WELL: EDDY COUNTY
7. TYPE OF SURVEY(S) PERFORMED: GAMMA-RAY/AWR
8. COMPLETE IDENTIFICATION OF WELL:

DEVON ENERGY
SOFTSHELL 22 FED #1H
EDDY COUNTY, NM
RIG: H&P 416

9. SURVEY CERTIFIED FROM: 4405 TO 13657 FEET MEASURED DEPTH.

THIS IS TO VERIFY THAT ATTACHED DOCUMENTS SHOWING THE WELL TO BE
DISPLACED AT 4630.18 FEET ON A BEARING OF 179.95 DEGREES FROM THE
CENTER OF THE ROTARY TABLE AT A PROJECTED BIT DEPTH OF 13707 FEET,
ARE TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE.

A handwritten signature in black ink, appearing to read "Steve Bibb".

STEVE BIBB
M/LWD SERVICE COORDINATOR

PathFinder Energy Services, Inc.

BHL Report

Page 01/01
Tie-in Date: 01/14/2012
Date Completed: 01/25/2012

DEVON ENERGY PRODUCTION CO., L.P.
SOFTSHELL 22 FED #1H
Eddy COUNTY, NM
Rig:H&P 416
PathFinder Office Supervisor: Steve Bibb
PathFinder Field Engineers:Kirk Davis
Huey Sandifer
Todd Pisciotta

Survey Horiz. Reference:WELLHEAD
Ref Coordinates: LAT:32.7.19.8909 N LON:103.45.45.7244 W
GRID Reference:NAD83 new mexico east Transverse Mercator
Ref GRID Coor: X: 717992.9300 Y: 408657.2400
North Aligned To:GRID NORTH
Total Magnetic Correction: 7.29° EAST TO GRID
Vertical Section Plane: 179.71
Survey Vert. Reference: 26.00' Kelly Bushing To Ground
Altitude:3363.30' Ground To MSL

Measured Depth	13707.00	(feet)
Inclination	88.72	(deg)
Azimuth	179.93	(deg)
True Vertical Depth	9089.01	(feet)
Vertical Section	4630.14	(feet)
Survey X cord	717996.64	(feet)
Survey Y cord	404027.06	(feet)
Survey Lat	32.10946434 N	(deg)
Survey Lon	103.76276841 W	(deg)
Rectangular Corr. N/S	4630.18 S	(feet)
Rectangular Corr. E/W	3.71 E	(feet)
Closure Distance	4630.18	(feet)
Direction of Closure	179.95	(deg)
Dogleg Severity	0.00	(deg/100ft)

PathFinder Energy Services, Inc.

Survey Report

Page 01/06
Tie-in Date: 01/14/2012
Date Completed: 01/25/2012

DEVON ENERGY PRODUCTION CO., L.P.
SOFTSHELL 22 FED #1H
Eddy COUNTY, NM
Rig:H&P 416
PathFinder Office Supervisor: Steve Bibb
PathFinder Field Engineers: Kirk Davis
Huey Sandifer
Todd Pisciotta

Survey Horiz. Reference:WELLHEAD
Ref Coordinates: LAT:32.7.19.8909 N LON:103.45.45.7244 W
GRID Reference:NAD83 new mexico east Transverse Mercator
Ref GRID Coord: X: 717992.9300 Y: 408657.2400
North Aligned To:GRID NORTH
Total Magnetic Correction: 7.29° EAST TO GRID
Vertical Section Plane: 179.71
Survey Vert. Reference: 26.00' Kelly Bushing To Ground
Altitude:3363.30' 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		Closure		DLS
						Rectangular (ft)	Offsets (ft)	Dist (ft)	Dir (deg)	
THE FOLLOWING ARE VAUGHN ENERGY SERVICES GYRO SURVEYS.										
100.00	0.93	355.25	100.00	0.00	-0.79	0.79 N	0.06 W	0.79@	355.73	0.00
200.00	1.01	37.60	199.98	100.00	-2.29	2.29 N	0.41 E	2.33@	10.19	0.71
300.00	1.10	28.31	299.97	100.00	-3.83	3.84 N	1.40 E	4.09@	20.11	0.19
400.00	0.92	18.25	399.95	100.00	-5.43	5.44 N	2.11 E	5.84@	21.20	0.25
500.00	0.93	7.90	499.94	100.00	-7.00	7.01 N	2.47 E	7.43@	19.44	0.17
600.00	0.33	311.96	599.93	100.00	-7.99	8.01 N	2.37 E	8.35@	16.50	0.79
700.00	0.18	291.63	699.93	100.00	-8.25	8.26 N	2.01 E	8.50@	13.69	0.17
800.00	0.33	104.57	799.93	100.00	-8.23	8.24 N	2.14 E	8.52@	14.58	0.51
900.00	0.29	277.85	899.93	100.00	-8.19	8.20 N	2.17 E	8.49@	14.83	0.62
1000.00	1.00	247.68	999.92	100.00	-7.90	7.91 N	1.11 E	7.99@	8.02	0.76
1100.00	1.61	252.13	1099.90	100.00	-7.15	7.15 N	1.03 W	7.22@	351.80	0.62
1200.00	1.72	255.21	1199.86	100.00	-6.35	6.33 N	3.82 W	7.39@	328.91	0.14
1300.00	1.46	229.13	1299.82	100.00	-5.15	5.11 N	6.23 W	8.06@	309.37	0.76
1400.00	1.62	221.05	1399.78	100.00	-3.26	3.21 N	8.12 W	8.74@	291.59	0.27
1500.00	1.72	217.57	1499.74	100.00	-1.01	0.96 N	9.97 W	10.01@	275.50	0.14
1600.00	1.97	214.79	1599.69	100.00	1.58	1.64 S	11.86 W	11.98@	262.12	0.27
1700.00	1.96	206.31	1699.63	100.00	4.52	4.59 S	13.60 W	14.35@	251.37	0.29
1800.00	2.07	203.01	1799.57	100.00	7.71	7.78 S	15.07 W	16.96@	242.68	0.16
1900.00	2.17	198.08	1899.50	100.00	11.16	11.24 S	16.36 W	19.85@	235.50	0.21
2000.00	2.31	199.99	1999.42	100.00	14.85	14.94 S	17.64 W	23.11@	229.74	0.16
2100.00	2.65	205.38	2099.33	100.00	18.82	18.92 S	19.32 W	27.04@	225.59	0.41
2200.00	2.81	206.07	2199.22	100.00	23.10	23.21 S	21.38 W	31.56@	222.65	0.16
2300.00	2.59	211.26	2299.10	100.00	27.22	27.34 S	23.63 W	36.14@	220.84	0.33
2400.00	2.29	209.36	2399.01	100.00	30.89	31.02 S	25.79 W	40.33@	219.74	0.31
2500.00	2.18	211.24	2498.94	100.00	34.24	34.38 S	27.75 W	44.19@	218.91	0.13

PathFinder Energy Services, Inc.

Survey Report

DEVON ENERGY PRODUCTION CO., L.P.
SOFTSHELL 22 FED #1H
Eddy COUNTY, NM
RIG:H&P 416

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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)
2600.00	2.49	205.28	2598.85	100.00	37.82	37.97 S	29.67 W	48.19@	218.00	0.39
2700.00	2.04	208.87	2698.78	100.00	41.34	41.50 S	31.45 W	52.07@	217.16	0.47
2800.00	0.82	217.76	2798.74	100.00	43.46	43.62 S	32.75 W	54.55@	216.90	1.24
2900.00	1.25	228.65	2898.73	100.00	44.74	44.91 S	34.01 W	56.33@	217.14	0.47
3000.00	0.94	229.53	2998.71	100.00	45.98	46.16 S	35.45 W	58.20@	217.52	0.31
3100.00	0.48	248.98	3098.70	100.00	46.66	46.84 S	36.46 W	59.36@	217.90	0.51
3200.00	0.48	28.20	3198.70	100.00	46.44	46.62 S	36.66 W	59.31@	218.18	0.90
3300.00	1.92	71.78	3298.68	100.00	45.55	45.73 S	34.87 W	57.51@	217.32	1.61
3400.00	1.66	70.85	3398.63	100.00	44.57	44.73 S	31.91 W	54.95@	215.50	0.26
3500.00	1.18	68.59	3498.60	100.00	43.73	43.88 S	29.58 W	52.92@	213.99	0.48
3600.00	1.54	68.66	3598.57	100.00	42.88	43.02 S	27.37 W	50.99@	212.47	0.36
3700.00	3.28	79.48	3698.48	100.00	41.89	42.01 S	23.31 W	48.04@	209.02	1.79
3800.00	7.66	78.34	3798.00	100.00	40.06	40.14 S	13.96 W	42.49@	199.18	4.38
3900.00	9.60	66.87	3896.87	100.00	35.51	35.51 S	0.23 E	35.51@	179.62	2.58
4000.00	10.28	67.73	3995.36	100.00	28.94	28.86 S	16.16 E	33.07@	150.75	0.70
4100.00	8.64	89.84	4094.03	100.00	25.61	25.45 S	31.94 E	40.84@	128.55	3.96
4200.00	7.34	97.78	4193.06	100.00	26.53	26.29 S	45.78 E	52.79@	119.87	1.70
** TIED-IN TO VAUGHN ENERGY SERVICES GYRO SURVEYS AT 4253'MD.										
4253.00	6.28	103.50	4245.69	53.00	27.69	27.43 S	51.95 E	58.75@	117.83	2.37
THE FOLLOWING ARE PATHFINDER MWD SURVEYS.										
4405.00	5.01	112.17	4396.95	152.00	32.21	31.88 S	66.18 E	73.46@	115.72	1.00
4499.00	5.28	102.91	4490.58	94.00	34.77	34.39 S	74.20 E	81.78@	114.87	0.93
4594.00	6.24	94.05	4585.10	95.00	36.15	35.73 S	83.61 E	90.92@	113.14	1.37
4688.00	5.72	80.29	4678.59	94.00	35.77	35.30 S	93.32 E	99.78@	110.72	1.62
4783.00	5.98	58.93	4773.11	95.00	32.47	31.95 S	102.23 E	107.11@	107.36	2.29
4877.00	7.30	46.44	4866.48	94.00	25.87	25.31 S	110.75 E	113.61@	102.87	2.07
4971.00	7.30	11.24	4959.76	94.00	15.92	15.33 S	116.25 E	117.25@	97.51	4.69
5066.00	7.21	348.84	5054.02	95.00	4.15	3.56 S	116.27 E	116.32@	91.75	2.96
5160.00	7.65	337.12	5147.24	94.00	-7.42	7.99 N	112.69 E	112.98@	85.94	1.67

PathFinder Energy Services, Inc.

Survey Report

DEVON ENERGY PRODUCTION CO., L.P.
SOFTSHELL 22 FED #1H
Eddy COUNTY, NM
RIG:H&P 416

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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)
5255.00	7.91	337.69	5241.36	95.00	-19.32	19.87 N	107.75 E	109.57@	79.55	0.28
5350.00	6.68	334.99	5335.59	95.00	-30.40	30.92 N	102.94 E	107.48@	73.28	1.34
5444.00	6.51	333.88	5428.97	94.00	-40.16	40.66 N	98.28 E	106.36@	67.52	0.23
5539.00	6.77	330.97	5523.33	95.00	-49.92	50.39 N	93.19 E	105.94@	61.60	0.45
5633.00	6.77	332.78	5616.68	94.00	-59.72	60.16 N	87.97 E	106.57@	55.63	0.23
5728.00	7.12	334.31	5710.98	95.00	-70.03	70.45 N	82.85 E	108.76@	49.63	0.42
5822.00	6.07	337.24	5804.36	94.00	-79.88	80.28 N	78.41 E	112.22@	44.32	1.17
5917.00	5.54	337.81	5898.87	95.00	-88.78	89.16 N	74.73 E	116.34@	39.97	0.56
6012.00	5.72	338.01	5993.41	95.00	-97.43	97.80 N	71.23 E	120.98@	36.07	0.19
6106.00	5.45	338.40	6086.96	94.00	-105.95	106.29 N	67.83 E	126.09@	32.54	0.29
6201.00	5.45	341.12	6181.54	95.00	-114.42	114.75 N	64.71 E	131.74@	29.42	0.27
6295.00	5.28	341.07	6275.12	94.00	-122.75	123.07 N	61.86 E	137.74@	26.69	0.18
6390.00	5.01	342.50	6369.74	95.00	-130.86	131.16 N	59.20 E	143.90@	24.29	0.31
6485.00	5.72	345.54	6464.32	95.00	-139.41	139.70 N	56.77 E	150.79@	22.11	0.81
6579.00	6.24	350.32	6557.81	94.00	-148.99	149.27 N	54.74 E	158.99@	20.14	0.76
6674.00	5.28	345.10	6652.33	95.00	-158.32	158.59 N	52.74 E	167.13@	18.40	1.15
6769.00	3.78	356.97	6747.04	95.00	-165.68	165.94 N	51.46 E	173.73@	17.23	1.85
6863.00	3.17	345.92	6840.86	94.00	-171.29	171.55 N	50.66 E	178.88@	16.45	0.96
6958.00	4.48	343.28	6935.65	95.00	-177.40	177.65 N	48.95 E	184.28@	15.41	1.39
7052.00	3.34	336.25	7029.43	94.00	-183.44	183.68 N	46.79 E	189.54@	14.29	1.31
7147.00	3.61	341.93	7124.25	95.00	-188.82	189.05 N	44.75 E	194.28@	13.32	0.46
7242.00	3.69	334.08	7219.06	95.00	-194.43	194.65 N	42.49 E	199.23@	12.31	0.53
7336.00	3.52	332.44	7312.88	94.00	-199.72	199.92 N	39.83 E	203.85@	11.27	0.21
7431.00	3.61	323.87	7407.69	95.00	-204.74	204.93 N	36.72 E	208.19@	10.16	0.57
7525.00	3.08	320.10	7501.53	94.00	-209.08	209.25 N	33.35 E	211.89@	9.06	0.61
7620.00	2.99	337.36	7596.40	95.00	-213.34	213.50 N	30.76 E	215.70@	8.20	0.96
7714.00	2.46	338.44	7690.30	94.00	-217.49	217.64 N	29.08 E	219.57@	7.61	0.57
7809.00	1.67	339.37	7785.23	95.00	-220.69	220.83 N	27.84 E	222.58@	7.19	0.83

PathFinder Energy Services, Inc.

Survey Report

DEVON ENERGY PRODUCTION CO., L.P.
SOFTSHELL 22 FED #1H
Eddy COUNTY, NM
RIG:H&P 416

Page 04/06

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)
7904.00	2.64	339.61	7880.16	95.00	-224.04	224.18 N	26.59 E	225.75@	6.76	1.02
7998.00	3.69	308.66	7974.03	94.00	-227.97	228.09 N	23.47 E	229.30@	5.88	2.09
8093.00	2.37	330.82	8068.89	95.00	-231.61	231.72 N	20.13 E	232.59@	4.96	1.83
8188.00	2.55	321.77	8163.81	95.00	-235.00	235.09 N	17.86 E	235.77@	4.34	0.45
8282.00	1.76	308.31	8257.74	94.00	-237.55	237.63 N	15.44 E	238.13@	3.72	0.99
8377.00	2.02	294.86	8352.69	95.00	-239.17	239.24 N	12.77 E	239.58@	3.06	0.54
8470.00	1.41	271.18	8445.65	93.00	-239.90	239.95 N	10.14 E	240.17@	2.42	0.99
8501.00	3.08	211.94	8476.63	31.00	-239.20	239.25 N	9.32 E	239.44@	2.23	8.55
8533.00	6.24	197.76	8508.52	32.00	-236.82	236.87 N	8.33 E	237.01@	2.01	10.44
8567.00	11.52	198.11	8542.10	34.00	-231.84	231.88 N	6.71 E	231.97@	1.66	15.53
8596.00	13.98	194.93	8570.38	29.00	-225.71	225.74 N	4.91 E	225.79@	1.25	8.82
8627.00	16.88	199.12	8600.26	31.00	-217.85	217.87 N	2.47 E	217.88@	0.65	10.02
8659.00	21.19	202.91	8630.51	32.00	-208.15	208.15 N	1.30 W	208.15@	359.64	14.00
8690.00	24.09	203.36	8659.12	31.00	-197.20	197.17 N	6.00 W	197.27@	358.26	9.37
8722.00	27.17	198.93	8687.97	32.00	-184.32	184.26 N	10.96 W	184.59@	356.60	11.33
8753.00	29.72	192.90	8715.23	31.00	-170.15	170.07 N	14.97 W	170.73@	354.97	12.38
8785.00	31.30	187.79	8742.80	32.00	-154.19	154.10 N	17.87 W	155.13@	353.39	9.49
8816.00	34.82	181.86	8768.78	31.00	-137.36	137.27 N	19.25 W	138.61@	352.02	15.41
8848.00	36.84	181.20	8794.73	32.00	-118.64	118.54 N	19.75 W	120.18@	350.54	6.43
8880.00	38.51	180.87	8820.05	32.00	-99.09	98.99 N	20.10 W	101.01@	348.52	5.26
8911.00	39.13	179.71	8844.21	31.00	-79.66	79.56 N	20.19 W	82.08@	345.76	3.08
8941.00	39.39	179.58	8867.44	30.00	-60.67	60.57 N	20.08 W	63.81@	341.66	0.91
8974.00	41.42	177.71	8892.56	33.00	-39.29	39.19 N	19.56 W	43.80@	333.47	7.16
9006.00	44.23	179.47	8916.03	32.00	-17.55	17.45 N	19.04 W	25.82@	312.51	9.54
9037.00	47.04	181.40	8937.71	31.00	4.61	4.71 S	19.21 W	19.78@	256.23	10.10
9069.00	50.65	182.89	8958.76	32.00	28.68	28.78 S	20.12 W	35.12@	214.96	11.81
9100.00	54.08	184.65	8977.69	31.00	53.16	53.27 S	21.75 W	57.54@	202.21	11.94
9132.00	56.63	184.57	8995.88	32.00	79.39	79.51 S	23.86 W	83.01@	196.71	7.97

PathFinder Energy Services, Inc.

Survey Report

DEVON ENERGY PRODUCTION CO., L.P.
SOFTSHELL 22 FED #1H
Eddy COUNTY, NM
RIG:H&P 416

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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 (ft)	Dir (deg)	DLS (dg/100ft)
9163.00	58.92	181.84	9012.41	31.00	105.56	105.69 S	25.32 W	108.68@	193.47	10.49
9195.00	61.73	182.98	9028.25	32.00	133.33	133.46 S	26.49 W	136.07@	191.23	9.31
9226.00	64.72	184.39	9042.22	31.00	160.93	161.08 S	28.28 W	163.54@	189.96	10.46
9258.00	67.97	186.68	9055.06	32.00	190.08	190.24 S	31.11 W	192.77@	189.29	12.09
9289.00	71.40	187.03	9065.82	31.00	218.92	219.10 S	34.58 W	221.81@	188.97	11.12
9321.00	75.45	187.38	9074.94	32.00	249.33	249.52 S	38.43 W	252.47@	188.75	12.70
9355.00	80.72	187.99	9081.96	34.00	282.26	282.48 S	42.88 W	285.72@	188.63	15.60
9386.00	85.30	187.11	9085.73	31.00	312.73	312.98 S	46.92 W	316.47@	188.53	15.04
9510.00	90.84	182.20	9089.91	124.00	436.12	436.41 S	56.96 W	440.11@	187.44	5.97
9604.00	89.78	178.81	9089.40	94.00	530.09	530.39 S	57.79 W	533.53@	186.22	3.78
9699.00	88.99	176.71	9090.42	95.00	625.03	625.31 S	54.07 W	627.64@	184.94	2.36
9794.00	89.96	175.88	9091.29	95.00	719.85	720.10 S	47.94 W	721.70@	183.81	1.34
9888.00	91.10	175.04	9090.42	94.00	813.59	813.80 S	40.50 W	814.81@	182.85	1.51
9983.00	92.24	175.10	9087.65	95.00	908.23	908.41 S	32.34 W	908.98@	182.04	1.20
10077.00	92.95	176.27	9083.40	94.00	1001.90	1002.04 S	25.27 W	1002.36@	181.44	1.45
10172.00	91.36	176.71	9079.83	95.00	1096.68	1096.79 S	19.46 W	1096.97@	181.02	1.74
10266.00	89.52	176.90	9079.10	94.00	1190.55	1190.64 S	14.22 W	1190.73@	180.68	1.97
10361.00	91.45	177.88	9078.30	95.00	1285.47	1285.53 S	9.89 W	1285.57@	180.44	2.28
10455.00	89.87	178.83	9077.22	94.00	1379.43	1379.49 S	7.20 W	1379.50@	180.30	1.96
10550.00	90.22	178.95	9077.14	95.00	1474.42	1474.47 S	5.36 W	1474.48@	180.21	0.39
10645.00	89.25	178.30	9077.58	95.00	1569.40	1569.44 S	3.08 W	1569.44@	180.11	1.23
10739.00	87.41	178.80	9080.32	94.00	1663.34	1663.36 S	0.70 W	1663.36@	180.02	2.03
10834.00	88.29	179.03	9083.89	95.00	1758.26	1758.28 S	1.10 E	1758.28@	179.96	0.96
10928.00	89.16	179.55	9085.98	94.00	1852.23	1852.25 S	2.26 E	1852.25@	179.93	1.08
11023.00	90.31	180.42	9086.42	95.00	1947.23	1947.24 S	2.29 E	1947.24@	179.93	1.52
11118.00	88.81	180.35	9087.15	95.00	2042.22	2042.23 S	1.65 E	2042.24@	179.95	1.58
11212.00	89.87	180.61	9088.23	94.00	2136.20	2136.22 S	0.86 E	2136.22@	179.98	1.16
11307.00	88.37	179.16	9089.69	95.00	2231.18	2231.21 S	1.05 E	2231.21@	179.97	2.20

PathFinder Energy Services, Inc.

Survey Report

DEVON ENERGY PRODUCTION CO., L.P.
SOFTSHELL 22 FED #1H
Eddy COUNTY, NM
RIG:H&P 416

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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)
11402.00	88.81	179.41	9092.03	95.00	2326.15	2326.17 S	2.24 E	2326.17@	179.94	0.53
11496.00	89.52	180.04	9093.40	94.00	2420.14	2420.16 S	2.69 E	2420.16@	179.94	1.01
11591.00	89.96	180.31	9093.83	95.00	2515.14	2515.16 S	2.40 E	2515.16@	179.95	0.54
11685.00	90.66	180.87	9093.32	94.00	2609.12	2609.15 S	1.43 E	2609.15@	179.97	0.95
11780.00	91.71	179.77	9091.35	95.00	2704.09	2704.13 S	0.90 E	2704.13@	179.98	1.60
11875.00	91.71	178.60	9088.52	95.00	2799.05	2799.07 S	2.25 E	2799.07@	179.95	1.23
11969.00	93.21	179.09	9084.48	94.00	2892.95	2892.96 S	4.14 E	2892.97@	179.92	1.68
12064.00	91.36	178.31	9080.70	95.00	2987.85	2987.86 S	6.30 E	2987.86@	179.88	2.11
12159.00	89.16	179.03	9080.27	95.00	3082.83	3082.83 S	8.50 E	3082.84@	179.84	2.44
12253.00	90.04	178.92	9080.92	94.00	3176.82	3176.81 S	10.18 E	3176.82@	179.82	0.94
12348.00	90.92	179.14	9080.13	95.00	3271.81	3271.79 S	11.79 E	3271.81@	179.79	0.96
12442.00	89.08	178.67	9080.13	94.00	3365.79	3365.77 S	13.59 E	3365.79@	179.77	2.02
12537.00	90.31	178.75	9080.63	95.00	3460.78	3460.74 S	15.73 E	3460.78@	179.74	1.30
12632.00	89.69	180.04	9080.63	95.00	3555.77	3555.73 S	16.73 E	3555.77@	179.73	1.51
12726.00	90.40	180.41	9080.56	94.00	3649.77	3649.73 S	16.36 E	3649.77@	179.74	0.85
12821.00	91.98	180.67	9078.58	95.00	3744.73	3744.70 S	15.47 E	3744.74@	179.76	1.69
12915.00	91.36	181.02	9075.85	94.00	3838.67	3838.65 S	14.08 E	3838.68@	179.79	0.76
13010.00	91.45	181.91	9073.52	95.00	3933.60	3933.59 S	11.65 E	3933.61@	179.83	0.94
13105.00	90.57	182.21	9071.84	95.00	4028.50	4028.51 S	8.24 E	4028.52@	179.88	0.98
13199.00	87.76	181.65	9073.21	94.00	4122.41	4122.44 S	5.07 E	4122.44@	179.93	3.05
13294.00	88.11	179.96	9076.63	95.00	4217.33	4217.37 S	3.74 E	4217.37@	179.95	1.82
13389.00	88.11	179.87	9079.77	95.00	4312.28	4312.32 S	3.88 E	4312.32@	179.95	0.09
13483.00	88.37	180.26	9082.65	94.00	4406.23	4406.27 S	3.77 E	4406.27@	179.95	0.50
13578.00	88.02	179.97	9085.65	95.00	4501.18	4501.22 S	3.58 E	4501.22@	179.95	0.48
13657.00	88.72	179.93	9087.89	79.00	4580.15	4580.19 S	3.65 E	4580.19@	179.95	0.89
STRAIGHT LINE PROJECTION TO BIT @ 13707' MD.										
13707.00	88.72	179.93	9089.01	50.00	4630.14	4630.18 S	3.71 E	4630.18@	179.95	0.00

PathFinder Energy Services, Inc.

Survey Report

DEVON ENERGY PRODUCTION CO., L.P.
SOFTSHELL 22 FED #1H
Eddy COUNTY, NM
RIG:H&P 416

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**** 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.:	SOFTSHELL 22 FED	#1H	
WELL LOCATION:	EDDY COUNTY, NM		
COUNTY / STATE / COUNTRY:	EDDY	NM	USA
RIG:	H&P 416		
API WELL No:	30-015-39727		
JOB No:	700005006-WT-WT		
P.O. / AFE No.	159680		
DIRECTIONAL COMPANY:	PATHFINDER		

WELL SITE INFORMATION

TOTAL MAGNETIC CORRECTION (TMC):			
On Wall Plat:	7.37	LWD Calculated:	7.291326
		Agreed Upon:	7.291326
X =	717992.930000	Feet	Y = 408657.240000
			Feet
SITE LATITUDE:	32.122192 N	SITE LONGITUDE:	103.762701 W
GRID SYSTEM:	TRUE ☐ UTM ☒ LAMBERT ☐	ZONE:	NEW MEXICO EAST
PROPOSED DRIFT DIRECTION:	179.71		
KELLY BUSHING ELEVATION:	26		
ALTITUDE:	3363	Feet	WATER DEPTH: N/A
			Feet

TIE-IN SURVEY

MEASURED DEPTH:	4253		
DRIFT ANGLE:	6.28		
DRIFT DIRECTION:	103.5		
TRUE VERTICAL DEPTH:	4245.69		
VERTICAL SECTION:	-27.43 27.69		
RECTANGULAR COORDINATE (N / S) :	-27.53		
RECTANGULAR COORDINATE (E / W) :	51.95		
CLOSURE DISTANCE / DIRECTION:	58.75	117.84	
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:	8525.5	TOTAL DEPTH:	13733.3
KICKOFF ANGLE:	0	MAX ANGLE:	90

PES Engineers: KIRK DAVIS
HUEY SANDIFER

**Signature of both field engineers required if applicable

Directional Driller: MANUEL CERVANTES / BRYCE JONES

DATE: 13-Jan-2012



Company: DEVON
Well #: Softshell 22 fed 1h
County: Eddy
State: Texas
Grid Correction: 0.3

Date: 1/14/2012
Job Type: H.A. Gyro
Latitude: 32.12219
Longitude: -103.7627
Elevation: 3363.3

<u>Depth</u>	<u>Inc</u>	<u>AzG</u>	<u>N/-S</u>	<u>E/-W</u>	<u>TVD</u>	<u>DL</u>	<u>VS</u>	<u>CD</u>	<u>Cbrg</u>
100.00	0.93	355.25	0.81	-0.07	100.00	0.93	0.81	0.81	355.25
200.00	1.01	37.60	2.31	0.40	199.98	0.70	2.31	2.34	9.89
300.00	1.10	28.31	3.85	1.39	299.97	0.19	3.85	4.09	19.90
400.00	0.92	18.25	5.45	2.10	399.95	0.25	5.45	5.84	21.04
500.00	0.93	7.90	7.02	2.46	499.94	0.17	7.02	7.44	19.33
600.00	0.33	311.96	8.01	2.36	599.93	0.79	8.01	8.35	16.39
700.00	0.18	291.63	8.26	2.00	699.93	0.17	8.26	8.50	13.57
800.00	0.33	104.57	8.25	2.13	799.93	0.51	8.25	8.52	14.48
900.00	0.29	277.85	8.21	2.16	899.93	0.62	8.21	8.49	14.73
1000.00	1.00	247.68	7.92	1.10	999.92	0.76	7.92	7.99	7.92
1100.00	1.61	252.13	7.15	-1.04	1099.90	0.62	7.15	7.23	351.73
1200.00	1.72	255.21	6.34	-3.83	1199.85	0.14	6.34	7.40	328.90
1300.00	1.46	229.13	5.12	-6.24	1299.82	0.76	5.12	8.07	309.40
1400.00	1.62	221.05	3.23	-8.13	1399.78	0.27	3.23	8.74	291.65
1500.00	1.72	217.57	0.97	-9.97	1499.74	0.15	0.97	10.02	275.56
1600.00	1.97	214.79	-1.63	-11.87	1599.69	0.26	-1.63	11.98	262.17
1700.00	1.96	206.31	-4.58	-13.61	1699.63	0.29	-4.58	14.35	251.41
1800.00	2.07	203.01	-7.77	-15.07	1799.57	0.16	-7.77	16.96	242.71
1900.00	2.17	198.08	-11.24	-16.37	1899.50	0.21	-11.24	19.85	235.52
2000.00	2.31	199.99	-14.94	-17.64	1999.42	0.16	-14.94	23.12	229.74
2100.00	2.65	205.38	-18.93	-19.33	2099.33	0.41	-18.93	27.05	225.60
2200.00	2.81	206.07	-23.22	-21.39	2199.21	0.17	-23.22	31.57	222.66
2300.00	2.59	211.26	-27.35	-23.65	2299.10	0.33	-27.35	36.16	220.84
2400.00	2.29	209.36	-31.03	-25.80	2399.01	0.31	-31.03	40.35	219.74
2500.00	2.18	211.24	-34.39	-27.76	2498.94	0.13	-34.39	44.20	218.91
2600.00	2.49	205.28	-37.98	-29.67	2598.85	0.39	-37.98	48.19	218.00
2700.00	2.04	208.87	-41.50	-31.46	2698.78	0.47	-41.50	52.07	217.17
2800.00	0.82	217.76	-43.62	-32.76	2798.74	1.23	-43.62	54.55	216.90
2900.00	1.25	228.65	-44.92	-34.02	2898.73	0.47	-44.92	56.35	217.14
3000.00	0.94	229.53	-46.17	-35.47	2998.71	0.32	-46.17	58.22	217.53
3100.00	0.48	248.98	-46.85	-36.48	3098.70	0.51	-46.85	59.37	217.90
3200.00	0.48	28.20	-46.63	-36.67	3198.70	0.90	-46.63	59.32	218.18
3300.00	1.92	71.78	-45.73	-34.87	3298.67	1.61	-45.73	57.51	217.33
3400.00	1.66	70.85	-44.73	-31.91	3398.63	0.27	-44.73	54.95	215.50
3500.00	1.18	68.59	-43.88	-29.58	3498.59	0.48	-43.88	52.92	213.99
3600.00	1.54	68.66	-43.02	-27.37	3598.57	0.36	-43.02	50.99	212.47
3700.00	3.28	79.48	-42.01	-23.31	3698.47	1.79	-42.01	48.04	209.02
3800.00	7.66	78.34	-40.14	-13.97	3797.99	4.38	-40.14	42.50	199.19
3900.00	9.60	66.87	-35.52	0.23	3896.87	2.59	-35.52	35.52	179.63
4000.00	10.28	67.73	-28.86	16.16	3995.36	0.70	-28.86	33.07	150.75
4100.00	8.64	89.84	-25.45	31.94	4094.03	3.96	-25.45	40.84	128.55
4200.00	7.34	97.78	-26.30	45.78	4193.06	1.71	-26.30	52.80	119.87

4253.00 6.28 103.50 -27.43 51.95 4245.69 2.37 -27.43 58.75 117.84

Horizontal [Displacement is:
58.75 Feet @ 117.84 Degrees

Thank You,
Zach Garcia
Vaughn Energy Services



A Schlumberger Company

PathFinder Energy Services, Inc.

Magnetic & Grid Calculations

Devon Energy
Softshell 22 Fed #1H
Eddy County, NM
Rig:HP 416

Mon Jan 09 12:11:05 2012

Coordinates

Latitude: 32.122192 N (32 deg. 7 min. 19.8909 sec.)
Longitude: 103.762701 W (-103 deg. 45 min. 45.7244 sec.)
Elevation: 3389.30 feet.
Calculation Date: Jan/09/2012

Magnetic Calculations

Model: IGRF2010
Dip Angle: 60.0453 degrees
Total Magnetic Field: 0.48477 gauss
Magnetic Declination: 7.596096 degrees
Horizontal Intensity: 0.242053 gauss
To Convert a Magnetic Dir. to a TRUE North Dir. Add 7.596096 Degr

Transverse Mercator Grid Calculations NAD83

Grid System: Transverse Mercator: new mexico east
Ellipsoid: GRS80
X: 717992.9300 feet
Y: 408657.2400 feet
True to Grid: (convergence) -0.303428 degrees
Magnetic to Grid: 7.292668 degrees
To Convert a Magnetic Dir. to a GRID dir. Add 7.292668 Degr.

PathFinder Energy Services, Inc.

Magnetic & Grid Calculations

Rig: HP 416

Fri Jan 13 23:14:15 2012

*FIELD
CALCULATIONS*

Coordinates

Latitude: 32.122192 N (32 deg. 7 min. 19.8909 sec.)
Longitude: 103.762701 W (-103 deg. 45 min. 45.7244 sec.)
Elevation: 3389.30 feet.
Calculation Date: Jan/13/2012

Magnetic Calculations

Model: IGRF2010
Dip Angle: 60.0450 degrees
Total Magnetic Field: 0.48476 gauss
Magnetic Declination: 7.594754 degrees
Horizontal Intensity: 0.242050 gauss
To Convert a Magnetic Dir. to a TRUE North Dir. Add 7.594754 Degr.

Transverse Mercator Grid Calculations NAD83

Grid System: Transverse Mercator: new mexico east
Ellipsoid: GRS80
X: 717992.9300 feet
Y: 408657.2400 feet
True to Grid: (convergence) -0.303428 degrees
Magnetic to Grid: 7.291326 degrees
To Convert a Magnetic Dir. to a GRID dir. Add 7.291326 Degr.

PathFinder Energy Services, Inc.

Magnetic & Grid Calculations

Sun Jan 15 04:54:51 2012

Coordinates

Latitude: 32.122192 N (32 deg. 7 min. 19.8909 sec.)
Longitude: 103.762701 W (-103 deg. 45 min. 45.7244 sec.)
Elevation: 3389.30 feet.
Calculation Date: Jan/15/2012

Magnetic Calculations

Model: IGRF2010
Dip Angle: 60.0449 degrees
Total Magnetic Field: 0.48475 gauss
Magnetic Declination: 7.594083 degrees
Horizontal Intensity: 0.242048 gauss
To Convert a Magnetic Dir. to a TRUE North Dir. Add 7.594083 Degr

Transverse Mercator Grid Calculations NAD83

Grid System: Transverse Mercator: new mexico east
Ellipsoid: GRS80
X: 717992.9300 feet
Y: 408657.2400 feet
True to Grid: (convergence) -0.303428 degrees
Magnetic to Grid: 7.290655 degrees
To Convert a Magnetic Dir. to a GRID dir. Add 7.290655 Degr.