

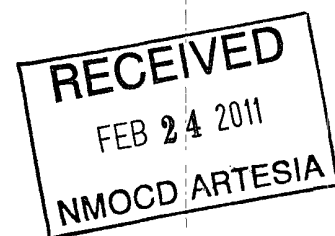


An Operating Unit of Smith International, Inc.

30-015-37786

DIRECTIONAL SURVEY REPORT

YATES PETROLEUM
CHEVRON "BOT" #5H - HORIZONTAL
EDDY COUNTY, NEW MEXICO



PREPARED BY: FRANCISCO SINISTERRA

Pathfinder Energy Services, Inc.
6213 W. Interstate 20 • Midland, TX • 79706
(432) 681-6000

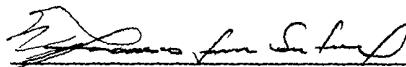
DIRECTIONAL SURVEY COMPANY REPORT:

1. NAME OF SURVEYING COMPANY: PATHFINDER ENERGY SERVICES
2. NAME OF PERSON(S) PERFORMING SURVEY:
A) SAM BIFFLE
3. POSITION OF SAID PERSON(S): (A-F) SURVEYORS (FIELD ENGINEERS)
4. DATE(S) ON WHICH SURVEY WAS PERFORMED: 05-27-10 TO 06-12-10
5. STATE IN WHICH SURVEY WAS PERFORMED: NEW MEXICO
6. LOCATION OF WELL: EDDY COUNTY, NM
7. TYPE OF SURVEY(S) PERFORMED: MWD
8. COMPLETE IDENTIFICATION OF WELL:

YATES PETROLEUM
CHEVRON "BOT" #5H - HORIZONTAL
EDDY COUNTY, NM
RIG: PATRIOT 5

9. SURVEY CERTIFIED FROM: 661 TO 12713 FEET MEASURED DEPTH.

THIS IS TO VERIFY THAT ATTACHED DOCUMENTS SHOWING THE WELL TO BE
DISPLACED AT 5329.55 FEET ON A BEARING OF 6.18 DEGREES FROM THE
CENTER OF THE ROTARY TABLE AT A PROJECTED BIT DEPTH OF 12772 FEET,
ARE TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE.



FRANCISCO SINISTERRA
MWD COORDINATOR

PathFinder Energy Services, Inc.

BHL Report

Page 01/01
Tie-in Date: 05/27/2010
Date Completed: 06/12/2010

YATES PETROLEUM CORPORATION
CHEVRON "BOT" #5H - HORIZONTAL
EDDY COUNTY, NEW MEXICO
Rig: PATRIOT 5
PathFinder Office Supervisor: FRANCISCO SINISTERRA
PathFinder Field Engineers: SAM BIFFLE

Survey Horiz. Reference: WELLHEAD
Ref Coordinates: LAT: 32.14.45.0661 N LON: 104.0.19.9620 W
GRID Reference: NAD83 new mexico east Transverse Mercator
Ref GRID Coord: X: 642676.1460 Y: 453328.9280
North Aligned To: GRID NORTH
Total Magnetic Correction: 7.74° EAST TO GRID
Vertical Section Plane: 6.39
Survey Vert. Reference: 27.00' Rotary Table To Ground
Altitude: 2952.00' Ground To MSL

Measured Depth	12772.00	(feet)
Inclination	91.71	(deg)
Azimuth	7.54	(deg)
True Vertical Depth	7628.92	(feet)
Vertical Section	5329.52	(feet)
Survey X cord	643250.02	(feet)
Survey Y cord	458627.50	(feet)
Survey Lat	32.26041182 N	(deg)
Survey Lon	104.00363615 W	(deg)
Rectangular Corr. N/S	5298.57 N	(feet)
Rectangular Corr. E/W	573.87 E	(feet)
Closure Distance	5329.55	(feet)
Direction of Closure	6.18	(deg)
Dogleg Severity	0.00	(deg/100ft)

Measured Depth (ft)	Incl (deg)	Drift Dir. (deg)	TVD (ft)	Course Length (ft)	Vertical Section (ft)	Rectangular Offsets (ft)	TOTAL Offsets (ft)	Closure Dist (ft)	DLS (dg/100ft)
TIE INTO SURFACE.									
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00@	0.00
THE FOLLOWING ARE MUTI SHOT ENERGY SERVICES GYRO SURVEYS.									
200.00	0.25	83.07	200.00	200.00	0.10	0.05 N	0.43 E	0.44@	0.12
400.00	0.25	74.29	400.00	200.00	0.37	0.22 N	1.29 E	1.31@	0.02
600.00	0.50	50.72	599.99	200.00	1.15	0.89 N	2.38 E	2.54@	0.14
THE FOLLOWING ARE PATHFINDER MWD SURVEYS.									
661.00	0.18	319.88	660.99	61.00	1.41	1.14 N	2.53 E	2.77@	0.88
849.00	1.32	265.30	848.97	188.00	1.20	1.18 N	0.18 E	1.20@	0.65
943.00	1.85	268.46	942.94	94.00	0.78	1.05 N	2.42 W	2.64@	0.57
1037.00	0.79	284.42	1036.91	94.00	0.66	1.18 N	4.56 W	4.71@	1.18
1226.00	0.62	52.24	1225.90	189.00	1.55	2.13 N	5.02 W	5.45@	0.67
1414.00	1.14	2.93	1413.88	188.00	4.13	4.62 N	4.12 W	6.19@	0.46
1508.00	1.14	6.06	1507.87	94.00	6.00	6.48 N	3.97 W	7.60@	0.07
1602.00	0.88	4.73	1601.85	94.00	7.65	8.13 N	3.81 W	8.98@	0.28
1696.00	0.97	356.58	1695.84	94.00	9.16	9.64 N	3.80 W	10.36@	0.17
1885.00	0.97	359.65	1884.81	189.00	12.33	12.84 N	3.90 W	13.42@	0.03
1979.00	0.88	346.46	1978.80	94.00	13.79	14.34 N	4.08 W	14.91@	0.25
2073.00	0.62	78.63	2072.79	94.00	14.63	15.14 N	3.75 W	15.60@	1.17
2167.00	1.06	106.37	2166.78	94.00	14.63	14.99 N	2.42 W	15.19@	0.62
2261.00	0.97	118.70	2260.77	94.00	14.18	14.37 N	0.88 W	14.39@	0.25
2355.00	1.67	107.52	2354.74	94.00	13.61	13.57 N	1.12 E	13.62@	0.79
2450.00	2.46	109.34	2449.68	95.00	12.89	12.48 N	4.36 E	13.22@	0.83
2544.00	1.85	142.69	2543.62	94.00	11.34	10.61 N	7.19 E	12.81@	1.45
2638.00	2.11	169.18	2637.56	94.00	8.59	7.70 N	8.43 E	11.42@	1.00
2717.00	1.85	178.79	2716.52	79.00	5.94	5.00 N	8.73 E	10.06@	0.53

PathFinder Energy Services, Inc.

Survey Report

YATES PETROLEUM CORPORATION
CHEVRON "BOT" #5H - HORIZONTAL
EDDY COUNTY, NEW MEXICO
RIG: PATRIOT 5

Page 02/05

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)
2914.00	1.41	186.14	2913.44	197.00	0.36	0.59 S	8.54 E	0.25
3008.00	1.58	182.62	3007.41	94.00	-2.09	3.04 S	8.36 E	0.21
3102.00	0.79	169.28	3101.38	94.00	-4.00	4.97 S	8.42 E	0.88
3290.00	0.79	154.38	3289.37	188.00	-6.34	7.41 S	9.22 E	0.11
3478.00	0.18	242.06	3477.36	188.00	-7.60	8.72 S	9.52 E	0.43
3666.00	0.26	248.63	3665.36	188.00	-7.97	9.01 S	8.86 E	0.04
3855.00	0.35	239.11	3854.36	189.00	-8.52	9.46 S	7.97 E	0.05
4044.00	0.26	253.67	4043.35	189.00	-9.03	9.88 S	7.06 E	0.06
4231.00	0.35	258.77	4230.35	187.00	-9.37	10.11 S	6.09 E	0.05
4420.00	0.26	257.28	4419.35	189.00	-9.69	10.32 S	5.11 E	0.05
4608.00	0.18	237.87	4607.35	188.00	-10.01	10.57 S	4.44 E	0.06
4797.00	0.35	207.91	4796.35	189.00	-10.73	11.24 S	3.92 E	0.11
4985.00	0.53	186.29	4984.34	188.00	-12.14	12.61 S	3.56 E	0.13
5173.00	0.88	180.26	5172.33	188.00	-14.44	14.92 S	3.45 E	0.19
5362.00	0.35	267.07	5361.32	189.00	-15.98	16.40 S	2.87 E	0.49
5550.00	0.44	223.83	5549.31	188.00	-16.64	16.95 S	1.80 E	0.16
5738.00	0.62	47.59	5737.31	188.00	-16.45	16.78 S	2.05 E	0.56
5926.00	0.70	93.82	5925.30	188.00	-15.63	16.17 S	3.95 E	0.28
6114.00	0.79	108.59	6113.28	188.00	-15.86	16.66 S	6.32 E	0.11
6302.00	0.70	36.80	6301.27	188.00	-15.14	16.16 S	8.24 E	0.47
6491.00	0.26	77.18	6490.26	189.00	-14.00	15.14 S	9.35 E	0.28
6679.00	2.20	355.94	6678.22	188.00	-10.31	11.44 S	9.51 E	1.16
6868.00	1.58	9.12	6867.11	189.00	-4.14	5.25 S	9.66 E	0.40
7056.00	0.70	36.64	7055.07	188.00	-0.56	1.77 S	10.76 E	0.54
7153.00	0.09	41.57	7152.07	97.00	0.01	1.24 S	11.16 E	0.63
7185.00	1.14	345.10	7184.07	32.00	0.33	0.91 S	11.10 E	3.42
7216.00	4.40	342.85	7215.03	31.00	1.71	0.52 N	10.67 E	10.52
7248.00	9.06	346.48	7246.80	32.00	5.20	4.15 N	9.72 E	14.62

PathFinder Energy Services, Inc.

Survey Report

YATES PETROLEUM CORPORATION
CHEVRON "BOT" #5H - HORIZONTAL
EDDY COUNTY, NEW MEXICO
RIG: PATRIOT 5

Page 03/05

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)
7279.00	13.72	348.27	7277.18	31.00	11.00	10.12 N 8.40 E	13.15@ 39.67	15.07
7310.00	17.50	353.34	7307.03	31.00	19.03	18.36 N 7.11 E	19.68@ 21.17	12.95
7341.00	20.58	357.14	7336.34	31.00	28.95	28.43 N 6.30 E	29.12@ 12.49	10.70
7373.00	23.74	1.67	7365.97	32.00	40.93	40.49 N 6.20 E	40.96@ 8.71	11.22
7404.00	27.87	5.26	7393.88	31.00	54.40	53.95 N 7.05 E	54.41@ 7.44	14.24
7435.00	32.18	6.33	7420.71	31.00	69.91	69.38 N 8.62 E	69.91@ 7.09	14.01
7466.00	36.49	7.07	7446.30	31.00	87.39	86.74 N 10.67 E	87.39@ 7.01	13.97
7498.00	40.71	7.84	7471.30	32.00	107.34	106.53 N 13.27 E	107.35@ 7.10	13.27
7529.00	44.58	8.24	7494.10	31.00	128.33	127.32 N 16.21 E	128.34@ 7.25	12.51
7561.00	48.36	8.48	7516.14	32.00	151.51	150.27 N 19.58 E	151.54@ 7.42	11.82
7592.00	52.14	8.30	7535.96	31.00	175.33	173.84 N 23.06 E	175.36@ 7.55	12.20
7623.00	56.19	7.36	7554.10	31.00	200.45	198.73 N 26.47 E	200.49@ 7.59	13.29
7654.00	59.44	6.47	7570.61	31.00	226.68	224.78 N 29.63 E	226.72@ 7.51	10.76
7686.00	62.08	5.55	7586.24	32.00	254.60	252.54 N 32.55 E	254.63@ 7.34	8.62
7717.00	65.77	6.16	7599.87	31.00	282.43	280.24 N 35.39 E	282.46@ 7.20	12.03
7749.00	70.00	6.85	7611.91	32.00	312.07	309.68 N 38.75 E	312.10@ 7.13	13.37
7780.00	74.22	7.79	7621.43	31.00	341.56	338.94 N 42.51 E	341.59@ 7.15	13.92
7808.00	76.94	8.45	7628.40	28.00	368.67	365.78 N 46.34 E	368.71@ 7.22	9.98
7839.00	79.40	8.78	7634.76	31.00	398.98	395.78 N 50.89 E	399.04@ 7.33	8.00
7870.00	80.81	8.61	7640.09	31.00	429.50	425.96 N 55.50 E	429.57@ 7.42	4.58
7933.00	84.33	7.93	7648.23	63.00	491.92	487.78 N 64.49 E	492.02@ 7.53	5.69
7996.00	86.09	7.51	7653.49	63.00	554.58	549.98 N 72.92 E	554.80@ 7.55	2.87
8027.00	87.76	6.93	7655.16	31.00	585.63	580.69 N 76.81 E	585.75@ 7.53	5.70
8122.00	91.98	6.13	7655.37	95.00	680.61	675.06 N 87.61 E	680.72@ 7.39	4.52
8216.00	92.33	6.27	7651.84	94.00	774.54	768.44 N 97.76 E	774.63@ 7.25	0.40
8310.00	92.07	6.65	7648.23	94.00	868.47	861.77 N 108.32 E	868.55@ 7.16	0.49
8404.00	90.40	7.02	7646.20	94.00	962.45	955.08 N 119.51 E	962.53@ 7.13	1.82
8498.00	90.75	7.36	7645.26	94.00	1056.43	1048.34 N 131.27 E	1056.52@ 7.14	0.52

PathFinder Energy Services, Inc. Survey Report

YATES PETROLEUM CORPORATION
CHEVRON "BOT" #5H - HORIZONTAL
EDDY COUNTY, NEW MEXICO
RIG: PATRIOT 5

Page 04/05

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)
8592.00	89.34	6.62	7645.18	94.00	1150.42	1141.63 N 142.71 E	1150.52@ 7.13	1.69
8686.00	89.78	6.77	7645.91	94.00	1244.42	1234.99 N 153.67 E	1244.51@ 7.09	0.49
8780.00	90.31	7.39	7645.83	94.00	1338.41	1328.27 N 165.26 E	1338.51@ 7.09	0.87
8874.00	88.90	6.28	7646.48	94.00	1432.40	1421.60 N 176.44 E	1432.51@ 7.08	1.91
8969.00	88.99	5.99	7648.23	95.00	1527.39	1516.04 N 186.59 E	1527.48@ 7.02	0.32
9063.00	89.69	6.29	7649.31	94.00	1621.38	1609.49 N 196.65 E	1621.46@ 6.97	0.81
9157.00	89.87	6.03	7649.67	94.00	1715.38	1702.95 N 206.73 E	1715.45@ 6.92	0.34
9251.00	89.96	5.16	7649.81	94.00	1809.37	1796.50 N 215.90 E	1809.43@ 6.85	0.93
9345.00	90.92	5.14	7649.09	94.00	1903.34	1890.12 N 224.34 E	1903.38@ 6.77	1.02
9440.00	90.13	5.31	7648.22	95.00	1998.32	1984.72 N 232.99 E	1998.35@ 6.70	0.85
9534.00	90.57	5.56	7647.65	94.00	2092.30	2078.29 N 241.89 E	2092.32@ 6.64	0.54
9628.00	91.19	6.32	7646.20	94.00	2186.29	2171.77 N 251.62 E	2186.30@ 6.61	1.04
9722.00	89.96	6.40	7645.26	94.00	2280.28	2265.19 N 262.03 E	2280.30@ 6.60	1.31
9817.00	89.96	6.40	7645.33	95.00	2375.28	2359.60 N 272.62 E	2375.29@ 6.59	0.00
9911.00	91.89	7.44	7643.81	94.00	2469.26	2452.90 N 283.94 E	2469.27@ 6.60	2.33
10005.00	90.84	7.60	7641.57	94.00	2563.21	2546.06 N 296.24 E	2563.24@ 6.64	1.13
10099.00	90.31	6.35	7640.63	94.00	2657.20	2639.36 N 307.65 E	2657.23@ 6.65	1.44
10193.00	89.16	5.86	7641.06	94.00	2751.20	2732.82 N 317.65 E	2751.22@ 6.63	1.33
10287.00	90.40	5.44	7641.42	94.00	2845.18	2826.36 N 326.90 E	2845.20@ 6.60	1.39
10381.00	88.46	5.93	7642.36	94.00	2939.17	2919.89 N 336.21 E	2939.18@ 6.57	2.13
10476.00	88.29	5.34	7645.05	95.00	3034.12	3014.39 N 345.54 E	3034.13@ 6.54	0.65
10570.00	89.60	4.12	7646.78	94.00	3128.06	3108.05 N 353.29 E	3128.07@ 6.48	1.90
10664.00	90.22	5.01	7646.93	94.00	3222.01	3201.75 N 360.77 E	3222.01@ 6.43	1.15
10758.00	90.84	5.32	7646.06	94.00	3315.99	3295.37 N 369.23 E	3315.99@ 6.39	0.74
10878.00	89.72	6.31	7645.47	120.00	3435.98	3414.74 N 381.39 E	3435.98@ 6.37	1.25
10972.00	89.89	5.27	7645.79	94.00	3529.97	3508.26 N 390.87 E	3529.97@ 6.36	1.12
11066.00	89.52	4.92	7646.28	94.00	3623.94	3601.89 N 399.22 E	3623.95@ 6.32	0.54
11160.00	90.22	5.10	7646.49	94.00	3717.92	3695.53 N 407.43 E	3717.92@ 6.29	0.77

PathFinder Energy Services, Inc. Survey Report

YATES PETROLEUM CORPORATION
CHEVRON "BOT" #5H - HORIZONTAL
EDDY COUNTY, NEW MEXICO
RIG: PATRIOT 5

Page 05/05

Measured Depth (ft)	Incl (deg)	Drift Dir. (deg)	TVD (ft)	Course Length (ft)	Vertical Section (ft)	Rectangular Offsets (ft)	TOTAL (ft)	Closure Dist Dir (ft) (deg)	DLS (dg/100ft)
11254.00	90.13	4.99	7646.20	94.00	3811.89	3789.17 N	415.69 E	3811.90@ 6.26	0.15
11348.00	90.75	5.03	7645.48	94.00	3905.86	3882.80 N	423.90 E	3905.87@ 6.23	0.66
11443.00	91.19	5.82	7643.87	95.00	4000.83	3977.36 N	432.88 E	4000.85@ 6.21	0.95
11537.00	90.75	4.97	7642.28	94.00	4094.80	4070.93 N	441.72 E	4094.83@ 6.19	1.02
11631.00	89.43	6.29	7642.13	94.00	4188.79	4164.47 N	450.94 E	4188.82@ 6.18	1.99
11726.00	89.96	6.30	7642.64	95.00	4283.79	4258.90 N	461.36 E	4283.82@ 6.18	0.56
11820.00	90.04	5.41	7642.64	94.00	4377.78	4352.41 N	470.95 E	4377.81@ 6.18	0.95
11916.00	90.40	6.02	7642.27	96.00	4473.77	4447.93 N	480.51 E	4473.81@ 6.17	0.74
12010.00	90.13	6.10	7641.84	94.00	4567.77	4541.40 N	490.43 E	4567.81@ 6.16	0.30
12104.00	90.57	5.50	7641.26	94.00	4661.76	4634.92 N	499.93 E	4661.80@ 6.16	0.79
12198.00	89.69	5.11	7641.05	94.00	4755.75	4728.52 N	508.62 E	4755.79@ 6.14	1.02
12292.00	90.84	5.74	7640.61	94.00	4849.73	4822.09 N	517.51 E	4849.78@ 6.13	1.39
12387.00	90.13	5.73	7639.81	95.00	4944.72	4916.61 N	527.00 E	4944.78@ 6.12	0.75
12481.00	92.04	6.71	7638.03	94.00	5038.70	5010.04 N	537.18 E	5038.75@ 6.12	2.28
12576.00	91.80	7.31	7634.85	95.00	5133.64	5104.27 N	548.77 E	5133.69@ 6.14	0.68
12670.00	91.71	7.19	7631.97	94.00	5227.58	5197.48 N	560.63 E	5227.63@ 6.16	0.16
12713.00	91.71	7.54	7630.69	43.00	5270.56	5240.10 N	566.14 E	5270.60@ 6.17	0.81
STRAIGHT LINE PROJECTION TO BIT @ 12772' MD.									
12772.00	91.71	7.54	7628.92	59.00	5329.52	5298.57 N	573.87 E	5329.55@ 6.18	0.00



ENERGY SERVICES

TIE-IN SURVEY INFORMATION SHEET

CLIENT INFORMATION

CLIENT:	YATES PETROLEUM		
LEASE / WELL No.:	CHEVRON "BOT" #5H	ORIGINAL WELLBORE	
WELL LOCATION:	EDDY COUNTY, NEW MEXICO		
COUNTY / STATE / COUNTRY:	EDDY	NEW MEXICO	USA
RIG:	PATRIOT 5		
API WELL No:	30-015-37786		
JOB No:	101010537 WT-WT		
P.O. / AFE No.	10-126-0		
DIRECTIONAL COMPANY:	PATHFINDER ENERGY SERVICES		

WELL SITE INFORMATION

TOTAL MAGNETIC CORRECTION (TMC):			
On Wall Plat:	7.74	LWD Calculated:	7.738
Agreed Upon:		7.74	
X =	642676.146000	Feet	Y =
453328.928000		Feet	
SITE LATITUDE:	32.245852 N	SITE LONGITUDE:	104.005545 W
GRID SYSTEM:	TRUE ☐ UTM ☐ LAMBERT ☒	ZONE:	NEW MEXICO EAST
PROPOSED DRIFT DIRECTION:	6.39		
KELLY BUSHING ELEVATION:	27		
ALTITUDE:	2978.5	Feet	WATER DEPTH:
		Feet	

TIE-IN SURVEY

MEASURED DEPTH:	0		
DRIFT ANGLE:	0		
DRIFT DIRECTION:	0		
TRUE VERTICAL DEPTH:	6.39		
VERTICAL SECTION:	0		
RECTANGULAR COORDINATE (N / S) :	0		
RECTANGULAR COORDINATE (E / W) :			
CLOSURE DISTANCE / DIRECTION:	0	0	
SURVEY CALCULATION METHOD:	AA ☐	MC ☐	RC ☐ BT ☐
SOURCE OF TIE-IN DATA (COMPANY):	SURFACE		
COPY OF TIE-IN SURVEY REPORT	☐ YES		☐ NO

WELL PLAN

KICKOFF DEPTH:	7160	TOTAL DEPTH:	12772
KICKOFF ANGLE:	0	MAX ANGLE:	90

PES Engineers:

**Signature of both field engineers required if applicable

Directional Driller:

DATE:

PathFinder Energy Services, Inc.

Magnetic & Grid Calculations

YATES PETROLEUM
CHEVRON "BOT" #5H
EDDY COUNTY, NEW MEXICO
Rig: PATRIOT 5

Wed May 26 10:11:29 2010

Coordinates

Latitude: 32.245852 N (32 deg. 14 min. 45.0661 sec.)
Longitude: 104.005545 W (-104 deg. 0 min. 19.9620 sec.)
Elevation: 2978.50 feet.
Calculation Date: May/26/2010

Magnetic Calculations

Model: IGRF2010
Dip Angle: 60.1566 degrees
Total Magnetic Field: 0.48689 gauss
Magnetic Declination: 7.914110 degrees
Horizontal Intensity: 0.242293 gauss
To Convert a Magnetic Dir. to a TRUE North Dir. Add 7.914110 Degr

Transverse Mercator Grid Calculations NAD83

Grid System: Transverse Mercator: new mexico east
Ellipsoid: GRS80
X: 642676.1460 feet
Y: 453328.9280 feet
True to Grid: (convergence) -0.174894 degrees
Magnetic to Grid: 7.739216 degrees
To Convert a Magnetic Dir. to a GRID dir. Add 7.739216 Degr.

PathFinder Energy Services, Inc.

Magnetic & Grid Calculations

YATES PETROLEUM CORPORATION
CHEVRON "BOT" #5H-ST01
BONE SPRINGS
Rig: PATRIOT 5

Sat Jun 12 09:08:32 2010

Coordinates

Latitude: 32.245852 N (32 deg. 14 min. 45.0661 sec.)
Longitude: 104.005545 W (-104 deg. 0 min. 19.9620 sec.)
Elevation: 2979.00 feet.
Calculation Date: May/27/2010

Magnetic Calculations

Model: IGRF2010
Dip Angle: 60.1565 degrees
Total Magnetic Field: 0.48689 gauss
Magnetic Declination: 7.913778 degrees
Horizontal Intensity: 0.242292 gauss
To Convert a Magnetic Dir. to a TRUE North Dir. Add 7.913778 Degr

Transverse Mercator Grid Calculations NAD83

Grid System: Transverse Mercator: new mexico east
Ellipsoid: GRS80
X: 642676.1460 feet
Y: 453328.9280 feet
True to Grid: (convergence) -0.174894 degrees
Magnetic to Grid: 7.738884 degrees
To Convert a Magnetic Dir. to a GRID dir. Add 7.738884 Degr.