



VLT

An Operating Unit of Smith International, Inc.

30.015.35614

DIRECTIONAL SURVEY REPORT

BOPCO, L.P.

POKER LAKE UNIT # 265H

EDDY COUNTY, NEW MEXICO

PREPARED BY: FRANCISCO SINISTERRA

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

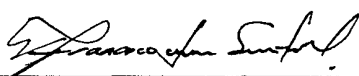
A handwritten signature, likely of Francisco Sinisterra, is located in the bottom right corner of the page.

DIRECTIONAL SURVEY COMPANY REPORT:

1. NAME OF SURVEYING COMPANY: PATHFINDER ENERGY SERVICES
2. NAME OF PERSON(S) PERFORMING SURVEY:
A) RAFAEL DONARUMMA
3. POSITION OF SAID PERSON(S): (A-F) SURVEYORS (FIELD ENGINEERS)
4. DATE(S) ON WHICH SURVEY WAS PERFORMED: 04/17/09 TO 05/16/09
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:

BOPCO, L.P.
POKER LAKE UNIT # 265H
EDDY COUNTY, NM
RIG: HELMERICH & PAYNE, INC. # 317
9. SURVEY CERTIFIED FROM: 7704 TO 14690 FEET MEASURED DEPTH.

THIS IS TO VERIFY THAT ATTACHED DOCUMENTS SHOWING THE WELL TO BE DISPLACED AT 6682.55 FEET ON A BEARING OF 90.38 DEGREES FROM THE CENTER OF THE ROTARY TABLE AT A PROJECTED BIT DEPTH OF 14769 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: 04/25/2009
Date Completed: 05/16/2009

BOPCO, L.P.
POKER LAKE UNIT #265H
EDDY COUNTY, NM
Rig:HELMERICH & PAYNE #317
PathFinder Office Supervisor: FRANCISCO SINISTERRA
PathFinder Field Engineers:J.FALLIN
H.DONARUMMA

Survey Horiz. Reference:WELLHEAD
Ref Coordinates: LAT:32.14.27.8729 N LON:103.55.36.8208 W
GRID Reference:NAD27 new mexico east Transverse Mercator
Ref GRID Coord: X: 625663.5240 Y: 451659.6640
North Aligned To:GRID NORTH
Total Magnetic Correction: 7.78° EAST TO GRID
Vertical Section Plane: 89.46
Survey Vert. Reference: 25.00' Rotary Table To Ground
Altitude:3191.00' Ground To MSL

Measured Depth	14769.00	(feet)
Inclination	88.64	(deg)
Azimuth	90.97	(deg)
True Vertical Depth	8373.95	(feet)
Vertical Section	6681.68	(feet)
Survey X cord	632345.92	(feet)
Survey Y cord	451615.13	(feet)
Survey Lat	32.24088200 N	(deg)
Survey Lon	103.90528258 W	(deg)
Rectangular Corr. N/S	44.54 S	(feet)
Rectangular Corr. E/W	6682.40 E	(feet)
Closure Distance	6682.55	(feet)
Direction of Closure	90.38	(deg)
Dogleg Severity	0.00	(deg/100ft)

PathFinder Energy Services, Inc.

Survey Report

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Reference:NAD27 new mexico east Transverse Mercator
Ref GRID Coor: X: 625663.5240 Y: 451659.6640
North Aligned To:GRID NORTH
Total Magnetic Correction: 7.78° EAST TO GRID
Vertical Section Plane: 89.46
Survey Vert. Reference: 25.00' Rotary Table To Ground
Altitude:3191.00' Ground To MSL

Survey Calculations by RX5 V5.11i 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 (ft)	Dir (deg)	DLS (dg/100ft)
TIE IN TO SCIENTIFIC GYRO SURVEY @ 7690' MD										
7690.00	1.43	77.61	7689.43	0.00	2.60	58.42 S	3.15 E	58.50@	176.91	0.00
THE FOLLOWING ARE PATHFINDER MWD SURVEYS										
7704.00	1.06	62.46	7703.43	14.00	2.89	58.32 S	3.44 E	58.42@	176.63	3.52
7766.00	5.98	73.94	7765.29	62.00	6.51	57.16 S	7.05 E	57.60@	172.97	7.98
7797.00	10.20	75.83	7795.98	31.00	10.74	56.04 S	11.26 E	57.17@	168.64	13.64
7829.00	14.16	80.16	7827.25	32.00	17.36	54.68 S	17.87 E	57.53@	161.90	12.69
7861.00	15.30	84.32	7858.20	32.00	25.42	53.59 S	25.93 E	59.54@	154.18	4.86
7892.00	16.62	83.30	7888.00	31.00	33.91	52.67 S	34.40 E	62.91@	146.85	4.35
7923.00	18.55	82.53	7917.55	31.00	43.21	51.51 S	43.70 E	67.55@	139.69	6.27
7955.00	21.46	84.02	7947.62	32.00	54.09	50.24 S	54.57 E	74.17@	132.64	9.23
7986.00	23.30	86.33	7976.28	31.00	65.86	49.26 S	66.33 E	82.62@	126.60	6.58
8018.00	24.89	89.15	8005.50	32.00	78.91	48.75 S	79.38 E	93.15@	121.56	6.13
8049.00	27.61	90.95	8033.30	31.00	92.62	48.78 S	93.09 E	105.09@	117.65	9.14
8081.00	30.25	90.11	8061.30	32.00	108.10	48.91 S	108.56 E	119.07@	114.25	8.35
8112.00	32.36	87.83	8087.79	31.00	124.20	48.62 S	124.66 E	133.81@	111.30	7.80
8144.00	34.38	84.26	8114.51	32.00	141.76	47.39 S	142.21 E	149.90@	108.43	8.80
8175.00	36.93	82.53	8139.70	31.00	159.73	45.30 S	160.16 E	166.44@	105.79	8.85
8207.00	39.75	83.89	8164.80	32.00	179.46	42.96 S	179.87 E	184.93@	103.43	9.20
8238.00	42.82	85.54	8188.09	31.00	199.84	41.09 S	200.23 E	204.41@	101.60	10.51
8269.00	46.69	86.17	8210.10	31.00	221.62	39.51 S	222.00 E	225.49@	100.09	12.57
8301.00	51.62	85.97	8231.02	32.00	245.77	37.85 S	246.14 E	249.03@	98.74	15.41
8332.00	57.33	85.34	8249.03	31.00	270.94	35.94 S	271.29 E	273.66@	97.55	18.49
8364.00	62.70	84.79	8265.01	32.00	298.56	33.55 S	298.89 E	300.77@	96.40	16.85
8395.00	68.06	84.67	8277.92	31.00	326.64	30.96 S	326.94 E	328.41@	95.41	17.29
8427.00	72.98	84.85	8288.59	32.00	356.69	28.21 S	356.98 E	358.09@	94.52	15.38

PathFinder Energy Services, Inc.

Survey Report

BOPCO, L.P.
POKER LAKE UNIT #265H
EDDY COUNTY, NM
RIG:HELMERICH & PAYNE #317

Page 02/07

Measured Depth (ft)	Incl (deg)	Drift Dir. (deg)	TVD (ft)	Course Length (ft)	Vertical Section (ft)	TOTAL Rectangular Offsets (ft) (ft)		Closure Dist Dir (ft) (deg)		DLS (dg/100ft)
8458.00	78.26	84.94	8296.29	31.00	386.62	25.54 S	386.88 E	387.72@	93.78	17.03
8540.00	89.16	83.42	8305.26	82.00	467.65	17.27 S	467.84 E	468.15@	92.11	13.42
8634.00	90.13	83.37	8305.84	94.00	561.12	6.46 S	561.21 E	561.25@	90.66	1.03
8665.00	90.92	83.24	8305.56	31.00	591.94	2.85 S	592.00 E	592.00@	90.28	2.58
8697.00	92.15	82.88	8304.70	32.00	623.73	1.02 N	623.75 E	623.75@	89.91	4.00
8761.00	92.07	82.42	8302.34	64.00	687.24	9.20 N	687.18 E	687.24@	89.23	0.73
8855.00	91.01	83.88	8299.82	94.00	780.63	20.41 N	780.47 E	780.74@	88.50	1.92
8951.00	91.19	84.17	8297.97	96.00	876.18	30.40 N	875.93 E	876.46@	88.01	0.36
9046.00	91.10	84.36	8296.08	95.00	970.77	39.89 N	970.44 E	971.26@	87.65	0.22
9140.00	86.61	85.67	8297.95	94.00	1064.44	48.05 N	1064.04 E	1065.12@	87.41	4.98
9235.00	86.35	85.53	8303.79	95.00	1159.05	55.33 N	1158.58 E	1159.90@	87.27	0.31
9330.00	88.29	85.79	8308.23	95.00	1253.73	62.51 N	1253.20 E	1254.76@	87.14	2.06
9425.00	89.34	85.79	8310.19	95.00	1348.52	69.48 N	1347.92 E	1349.71@	87.05	1.11
9520.00	89.25	85.16	8311.36	95.00	1443.28	76.98 N	1442.62 E	1444.67@	86.95	0.67
9615.00	90.04	83.94	8311.95	95.00	1537.93	86.00 N	1537.18 E	1539.59@	86.80	1.53
9711.00	90.66	84.02	8311.36	96.00	1633.48	96.07 N	1632.65 E	1635.48@	86.63	0.65
9837.00	91.19	85.62	8309.33	126.00	1759.05	107.44 N	1758.12 E	1761.40@	86.50	1.34
9932.00	89.16	86.56	8309.04	95.00	1853.88	113.92 N	1852.89 E	1856.39@	86.48	2.35
10028.00	92.42	87.41	8307.72	96.00	1949.77	118.97 N	1948.73 E	1952.36@	86.51	3.51
10122.00	93.30	87.61	8303.03	94.00	2043.60	123.04 N	2042.53 E	2046.23@	86.55	0.96
10218.00	92.59	88.82	8298.09	96.00	2139.44	126.03 N	2138.35 E	2142.06@	86.63	1.46
10313.00	91.45	89.40	8294.75	95.00	2234.38	127.50 N	2233.28 E	2236.91@	86.73	1.35
10408.00	90.40	89.16	8293.21	95.00	2329.37	128.70 N	2328.26 E	2331.81@	86.84	1.13
10503.00	89.87	90.70	8292.99	95.00	2424.36	128.81 N	2423.25 E	2426.67@	86.96	1.71
10598.00	87.67	91.14	8295.03	95.00	2519.30	127.29 N	2518.21 E	2521.43@	87.11	2.36
10693.00	85.82	90.62	8300.42	95.00	2614.11	125.83 N	2613.04 E	2616.07@	87.24	2.02

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Survey Report

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Page 03/07

Measured Depth (ft)	Incl (deg)	Drift Dir. (deg)	TVD (ft)	Course Length (ft)	Vertical Section (ft)	TOTAL Rectangular Offsets (ft) (ft)		Closure Dist Dir (ft) (deg)		DLS (dg/100ft)
10788.00	89.52	91.06	8304.28	95.00	2708.99	124.44 N	2707.94 E	2710.80@	87.37	3.92
10883.00	92.24	90.86	8302.82	95.00	2803.94	122.85 N	2802.91 E	2805.60@	87.49	2.87
10978.00	91.63	90.90	8299.62	95.00	2898.86	121.39 N	2897.84 E	2900.38@	87.60	0.64
11073.00	92.95	90.32	8295.82	95.00	2993.76	120.38 N	2992.76 E	2995.18@	87.70	1.52
11168.00	92.24	90.44	8291.52	95.00	3088.65	119.75 N	3087.66 E	3089.98@	87.78	0.76
11263.00	91.63	91.42	8288.31	95.00	3183.56	118.21 N	3182.59 E	3184.78@	87.87	1.21
11358.00	90.57	91.77	8286.49	95.00	3278.48	115.57 N	3277.53 E	3279.57@	87.98	1.18
11453.00	88.55	91.44	8287.22	95.00	3373.40	112.91 N	3372.49 E	3374.38@	88.08	2.16
11548.00	90.31	90.84	8288.16	95.00	3468.35	111.02 N	3467.46 E	3469.24@	88.17	1.96
11580.00	90.84	90.79	8287.84	32.00	3500.34	110.56 N	3499.45 E	3501.20@	88.19	1.66
11611.00	89.34	90.63	8287.79	31.00	3531.33	110.18 N	3530.45 E	3532.17@	88.21	4.87
11642.00	88.20	90.71	8288.46	31.00	3562.32	109.81 N	3561.44 E	3563.13@	88.23	3.69
11674.00	88.46	90.98	8289.39	32.00	3594.29	109.34 N	3593.42 E	3595.09@	88.26	1.17
11706.00	88.90	90.25	8290.13	32.00	3626.28	109.00 N	3625.41 E	3627.05@	88.28	2.66
11737.00	88.55	89.56	8290.82	31.00	3657.27	109.05 N	3656.40 E	3658.03@	88.29	2.50
11769.00	88.90	89.44	8291.53	32.00	3689.26	109.33 N	3688.40 E	3690.02@	88.30	1.16
11800.00	87.41	90.38	8292.53	31.00	3720.24	109.38 N	3719.38 E	3720.99@	88.32	5.68
11832.00	87.58	90.27	8293.93	32.00	3752.21	109.20 N	3751.35 E	3752.94@	88.33	0.63
11864.00	87.05	89.66	8295.43	32.00	3784.17	109.22 N	3783.31 E	3784.89@	88.35	2.52
11895.00	86.70	88.81	8297.11	31.00	3815.13	109.63 N	3814.26 E	3815.84@	88.35	2.96
11927.00	87.85	90.61	8298.64	32.00	3847.09	109.79 N	3846.22 E	3847.79@	88.36	6.67
11959.00	89.34	93.10	8299.42	32.00	3879.05	108.76 N	3878.19 E	3879.72@	88.39	9.07
11990.00	89.16	94.62	8299.83	31.00	3909.95	106.67 N	3909.12 E	3910.58@	88.44	4.94
12021.00	88.90	92.73	8300.35	31.00	3940.86	104.68 N	3940.05 E	3941.44@	88.48	6.15
12053.00	86.79	92.36	8301.56	32.00	3972.79	103.26 N	3972.00 E	3973.34@	88.51	6.69
12085.00	86.79	92.27	8303.35	32.00	4004.70	101.97 N	4003.92 E	4005.22@	88.54	0.28

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Survey Report

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EDDY COUNTY, NM
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Page 04/07

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12116.00	86.88	92.52	8305.06	31.00	4035.61	100.68 N	4034.84 E	4036.10@	88.57	0.86
12148.00	86.97	92.30	8306.78	32.00	4067.53	99.33 N	4066.77 E	4067.98@	88.60	0.74
12180.00	87.67	93.00	8308.27	32.00	4099.44	97.86 N	4098.70 E	4099.87@	88.63	3.09
12211.00	88.20	93.31	8309.39	31.00	4130.36	96.15 N	4129.63 E	4130.75@	88.67	1.98
12243.00	88.55	93.43	8310.30	32.00	4162.27	94.27 N	4161.56 E	4162.63@	88.70	1.16
12275.00	89.60	93.89	8310.81	32.00	4194.18	92.23 N	4193.49 E	4194.51@	88.74	3.58
12307.00	90.40	94.55	8310.81	32.00	4226.07	89.87 N	4225.41 E	4226.36@	88.78	3.24
12333.00	90.57	94.95	8310.59	26.00	4251.96	87.72 N	4251.32 E	4252.22@	88.82	1.67
12364.00	90.40	94.74	8310.33	31.00	4282.82	85.10 N	4282.21 E	4283.05@	88.86	0.87
12396.00	90.40	94.29	8310.11	32.00	4314.69	82.58 N	4314.11 E	4314.90@	88.90	1.41
12428.00	90.48	94.21	8309.86	32.00	4346.58	80.21 N	4346.02 E	4346.76@	88.94	0.35
12459.00	88.99	94.43	8310.00	31.00	4377.47	77.88 N	4376.93 E	4377.62@	88.98	4.86
12491.00	89.16	94.36	8310.52	32.00	4409.34	75.43 N	4408.83 E	4409.47@	89.02	0.57
12522.00	89.87	94.45	8310.78	31.00	4440.23	73.04 N	4439.74 E	4440.34@	89.06	2.31
12554.00	89.78	94.31	8310.88	32.00	4472.11	70.60 N	4471.64 E	4472.20@	89.10	0.52
12586.00	90.04	94.17	8310.93	32.00	4504.00	68.23 N	4503.55 E	4504.07@	89.13	0.92
12617.00	90.04	94.42	8310.91	31.00	4534.89	65.91 N	4534.47 E	4534.95@	89.17	0.81
12649.00	90.31	94.27	8310.81	32.00	4566.77	63.49 N	4566.38 E	4566.82@	89.20	0.97
12681.00	89.87	93.54	8310.76	32.00	4598.67	61.31 N	4598.30 E	4598.71@	89.24	2.66
12712.00	88.99	93.94	8311.07	31.00	4629.59	59.29 N	4629.23 E	4629.61@	89.27	3.12
12743.00	87.58	93.32	8312.00	31.00	4660.49	57.33 N	4660.16 E	4660.51@	89.30	4.97
12775.00	88.11	93.38	8313.20	32.00	4692.39	55.46 N	4692.08 E	4692.41@	89.32	1.67
12807.00	88.81	93.42	8314.06	32.00	4724.31	53.56 N	4724.01 E	4724.31@	89.35	2.19
12838.00	88.90	93.56	8314.68	31.00	4755.22	51.67 N	4754.95 E	4755.23@	89.38	0.54
12870.00	88.64	93.74	8315.37	32.00	4787.13	49.64 N	4786.87 E	4787.13@	89.41	0.99
12902.00	88.46	93.56	8316.18	32.00	4819.03	47.60 N	4818.80 E	4819.03@	89.43	0.79

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Page 05/07

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12933.00	88.90	93.69	8316.89	31.00	4849.94	45.64 N	4849.73 E	4849.94@	89.46	1.48
12965.00	88.99	93.82	8317.48	32.00	4881.85	43.55 N	4881.65 E	4881.85@	89.49	0.49
12997.00	89.08	93.63	8318.02	32.00	4913.76	41.47 N	4913.58 E	4913.76@	89.52	0.66
13034.00	88.37	92.69	8318.84	37.00	4950.67	39.43 N	4950.52 E	4950.67@	89.54	3.18
13065.00	88.29	93.12	8319.75	31.00	4981.60	37.86 N	4981.46 E	4981.61@	89.56	1.41
13097.00	88.29	92.91	8320.70	32.00	5013.52	36.17 N	5013.41 E	5013.54@	89.59	0.66
13129.00	88.11	93.22	8321.71	32.00	5045.44	34.46 N	5045.34 E	5045.46@	89.61	1.12
13161.00	88.02	93.25	8322.79	32.00	5077.36	32.66 N	5077.27 E	5077.38@	89.63	0.30
13192.00	87.93	93.27	8323.88	31.00	5108.27	30.90 N	5108.21 E	5108.30@	89.65	0.30
13223.00	88.29	93.63	8324.90	31.00	5139.18	29.03 N	5139.13 E	5139.21@	89.68	1.64
13255.00	88.29	93.45	8325.86	32.00	5171.08	27.06 N	5171.06 E	5171.13@	89.70	0.56
13286.00	88.20	93.30	8326.81	31.00	5201.99	25.23 N	5201.99 E	5202.05@	89.72	0.56
13318.00	88.20	93.22	8327.81	32.00	5233.91	23.42 N	5233.92 E	5233.97@	89.74	0.25
13349.00	88.02	93.03	8328.84	31.00	5264.83	21.73 N	5264.86 E	5264.90@	89.76	0.84
13381.00	88.11	93.04	8329.92	32.00	5296.75	20.03 N	5296.79 E	5296.83@	89.78	0.28
13413.00	87.85	93.37	8331.04	32.00	5328.66	18.25 N	5328.72 E	5328.76@	89.80	1.31
13444.00	87.93	92.98	8332.19	31.00	5359.57	16.53 N	5359.66 E	5359.68@	89.82	1.28
13476.00	87.93	93.10	8333.34	32.00	5391.49	14.83 N	5391.59 E	5391.61@	89.84	0.38
13508.00	87.93	93.23	8334.50	32.00	5423.40	13.07 N	5423.52 E	5423.54@	89.86	0.41
13539.00	87.93	92.73	8335.62	31.00	5454.32	11.46 N	5454.46 E	5454.47@	89.88	1.61
13571.00	87.85	93.10	8336.80	32.00	5486.24	9.83 N	5486.40 E	5486.40@	89.90	1.18
13603.00	87.58	92.99	8338.07	32.00	5518.16	8.13 N	5518.32 E	5518.33@	89.92	0.91
13634.00	87.76	93.64	8339.33	31.00	5549.06	6.34 N	5549.25 E	5549.25@	89.93	2.17
13666.00	87.41	93.75	8340.68	32.00	5580.94	4.28 N	5581.15 E	5581.15@	89.96	1.15
13698.00	87.14	93.32	8342.20	32.00	5612.83	2.31 N	5613.05 E	5613.06@	89.98	1.59
13729.00	86.97	92.91	8343.79	31.00	5643.72	0.63 N	5643.97 E	5643.97@	89.99	1.43

PathFinder Energy Services, Inc.

Survey Report

BOPCO, L.P.
POKER LAKE UNIT #265H
EDDY COUNTY, NM
RIG:HELMERICH & PAYNE #317

Page 06/07

Measured Depth (ft)	Incl (deg)	Drift Dir. (deg)	TVD (ft)	Course Length (ft)	Vertical Section (ft)	TOTAL Rectangular Offsets (ft) (ft)		Closure Dist Dir (ft) (deg)		DLS (dg/100ft)
13761.00	86.97	92.88	8345.49	32.00	5675.62	0.99 S	5675.88 E	5675.88@	90.01	0.09
13793.00	87.58	92.97	8347.01	32.00	5707.53	2.62 S	5707.80 E	5707.81@	90.03	1.93
13825.00	87.67	95.29	8348.33	32.00	5739.39	4.92 S	5739.69 E	5739.69@	90.05	7.25
13857.00	88.02	92.78	8349.54	32.00	5771.26	7.17 S	5771.59 E	5771.59@	90.07	7.91
13888.00	88.11	93.09	8350.58	31.00	5802.19	8.76 S	5802.53 E	5802.54@	90.09	1.04
13920.00	87.67	92.53	8351.76	32.00	5834.11	10.32 S	5834.47 E	5834.48@	90.10	2.22
13951.00	88.20	92.76	8352.88	31.00	5865.04	11.75 S	5865.41 E	5865.43@	90.11	1.86
13983.00	89.16	93.33	8353.62	32.00	5896.97	13.45 S	5897.36 E	5897.38@	90.13	3.49
14015.00	89.43	93.28	8354.01	32.00	5928.90	15.30 S	5929.31 E	5929.33@	90.15	0.86
14047.00	89.52	93.55	8354.30	32.00	5960.82	17.20 S	5961.25 E	5961.27@	90.17	0.89
14078.00	89.08	93.15	8354.68	31.00	5991.75	19.01 S	5992.19 E	5992.22@	90.18	1.92
14110.00	88.46	93.31	8355.37	32.00	6023.67	20.82 S	6024.13 E	6024.17@	90.20	2.00
14142.00	88.20	93.08	8356.30	32.00	6055.59	22.60 S	6056.07 E	6056.11@	90.21	1.08
14174.00	88.29	92.75	8357.28	32.00	6087.52	24.23 S	6088.01 E	6088.06@	90.23	1.07
14205.00	88.11	92.81	8358.25	31.00	6118.45	25.73 S	6118.96 E	6119.02@	90.24	0.61
14237.00	87.85	92.49	8359.38	32.00	6150.38	27.21 S	6150.91 E	6150.97@	90.25	1.29
14268.00	88.02	92.32	8360.50	31.00	6181.32	28.51 S	6181.86 E	6181.93@	90.26	0.78
14300.00	88.02	92.31	8361.61	32.00	6213.26	29.80 S	6213.82 E	6213.89@	90.27	0.03
14332.00	87.93	92.29	8362.74	32.00	6245.20	31.08 S	6245.77 E	6245.85@	90.29	0.29
14364.00	88.02	92.08	8363.87	32.00	6277.14	32.30 S	6277.73 E	6277.81@	90.29	0.71
14395.00	88.37	92.31	8364.84	31.00	6308.09	33.49 S	6308.69 E	6308.78@	90.30	1.35
14427.00	88.29	92.21	8365.78	32.00	6340.04	34.75 S	6340.65 E	6340.74@	90.31	0.40
14458.00	88.37	92.24	8366.68	31.00	6370.99	35.95 S	6371.61 E	6371.71@	90.32	0.28
14490.00	88.37	92.22	8367.59	32.00	6402.94	37.20 S	6403.57 E	6403.68@	90.33	0.06
14522.00	88.46	91.87	8368.47	32.00	6434.90	38.34 S	6435.54 E	6435.66@	90.34	1.13
14553.00	88.64	92.05	8369.26	31.00	6465.86	39.40 S	6466.51 E	6466.63@	90.35	0.82

PathFinder Energy Services, Inc.

Survey Report

BOPCO, L.P.
POKER LAKE UNIT #265H
EDDY COUNTY, NM
RIG:HELMERICH & PAYNE #317

Page 07/07

Measured Depth (ft)	Incl (deg)	Drift Dir. (deg)	TVD (ft)	Course Length (ft)	Vertical Section (ft)	TOTAL Rectangular Offsets		Closure Dist Dir		DLS
						(ft)	(ft)	(ft)	(deg)	(dg/100ft)
14585.00	88.99	91.93	8369.92	32.00	6497.82	40.51 S	6498.49 E	6498.61@	90.36	1.16
14616.00	88.81	91.53	8370.52	31.00	6528.79	41.45 S	6529.47 E	6529.60@	90.36	1.41
14648.00	88.90	91.42	8371.16	32.00	6560.76	42.27 S	6561.45 E	6561.59@	90.37	0.44
14680.00	88.64	91.23	8371.84	32.00	6592.74	43.01 S	6593.44 E	6593.58@	90.37	1.01
14690.00	88.64	90.97	8372.08	10.00	6602.73	43.20 S	6603.43 E	6603.57@	90.37	2.60
STRAIGHT LINE PROJECTION TO BIT @ 14769' MD										
14769.00	88.64	90.97	8373.95	79.00	6681.68	44.54 S	6682.40 E	6682.55@	90.38	0.00

615.46 752
7342.40 702

ENERGY SERVICES

TIE-IN SURVEY INFORMATION SHEET

CLIENT INFORMATION

CLIENT:	BOPCO, L.P.		
LEASE / WELL No.:	POKER LAKE	UNIT #256H	
WELL LOCATION:	EDDY COUNTY		
COUNTY / STATE / COUNTRY:	EDDY	NEW MEXICO	U.S.A.
RIG:	H & P 317		
API WELL No:	30-015-35614		
JOB No:	101008417-WT-WT		
P.O. / AFE No.	24315		
DIRECTIONAL COMPANY:	PATHFINDER ENERGY		

WELL SITE INFORMATION

TOTAL MAGNETIC CORRECTION (TMC):			
On Wall Plat:	7.92	LWD Calculated:	7.779167 Agreed Upon: 7.779167
X =	625663.524000	Feet	Y = 451659.664000 Feet
SITE LATITUDE:	32.241076 N	SITE LONGITUDE:	103.926895 W
GRID SYSTEM:	TRUE ☐ UTM ☐ LAMBERT ☒ ZONE: NEW MEXICO EAST		
PROPOSED DRIFT DIRECTION:	89.45		
KELLY BUSHING ELEVATION:	35 Feet		
ALTITUDE:	3191	Feet	WATER DEPTH: 0 Feet

TIE-IN SURVEY

MEASURED DEPTH:	7690
DRIFT ANGLE:	1.43
DRIFT DIRECTION:	77.61
TRUE VERTICAL DEPTH:	7689.43
VERTICAL SECTION:	2.6
RECTANGULAR COORDINATE (N / S) :	-58.42
RECTANGULAR COORDINATE (E / W) :	3.15
CLOSURE DISTANCE / DIRECTION:	
SURVEY CALCULATION METHOD:	AA ☐ MC ☒ RC ☐ BT ☐
SOURCE OF TIE-IN DATA (COMPANY):	PATHFINDER ENERGY
COPY OF TIE-IN SURVEY REPORT	☒ YES ☐ NO

WELL PLAN

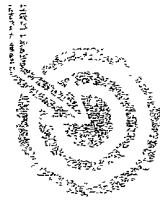
KICKOFF DEPTH:	7793.5	TOTAL DEPTH:	12368.87
KICKOFF ANGLE:	0	MAX ANGLE:	89.1

PES Engineers: JUSTIN FALLIN

**Signature of both field engineers required if applicable

Directional Driller: P.A. GONZALEZ /JESSE CALVERT

DATE: _____



Scientific Drilling

Gyroscopic Survey Report
for
B.A.S.S.

Well Location	EDDY COUNTY, NEW MEXICO
Well Name	POKER LAKE UNIT #265H
Rig Name	H & P #317
Survey Date	4/24/2009
Latitude	32.24 deg
North Reference	Grid North
Grid Correction	0.15 deg
Depth Reference	R.K.B.
Calculation Method	Minimum Curvature
Section (VS) Ref	0.00N (ft), 0.00E (ft), 89.45Azim (deg)
Definitive Survey	FINAL SURVEY
Operator	LEO GARZA

Comments



Well Name:		POKER LAKE UNIT #265H							
Survey:		FINAL SURVEY							
Survey Date:		4/24/2009							
MD	Inc	Azim	TVD	VS	Northing	Easting	DLS	Closure Distance	Closure Angle
ft	deg	deg	ft	ft	ft	ft	deg/100ft	ft	deg
0.00	0.00	0.00	0.00	0.00	0.00	0.00	Invalid	0.00	0.00
100.00	0.25	321.48	100.00	-0.13	0.17	-0.13	0.25	0.21	321.48
200.00	0.35	3.89	200.00	-0.24	0.64	-0.25	0.24	0.69	339.05
300.00	0.19	351.70	300.00	-0.24	1.12	-0.25	0.17	1.14	347.40
400.00	0.22	358.43	400.00	-0.26	1.48	-0.28	0.04	1.50	349.30
500.00	0.39	245.18	500.00	-0.58	1.53	-0.59	0.52	1.64	338.85
600.00	0.53	226.86	599.99	-1.23	1.07	-1.24	0.20	1.64	310.94
700.00	0.33	231.12	699.99	-1.79	0.57	-1.80	0.20	1.89	287.68
800.00	0.49	224.22	799.99	-2.33	0.08	-2.33	0.16	2.33	272.05
900.00	0.43	215.40	899.98	-2.85	-0.53	-2.84	0.09	2.89	259.43
1000.00	0.45	193.61	999.98	-3.16	-1.21	-3.15	0.17	3.38	248.93
1100.00	0.52	191.08	1099.98	-3.35	-2.04	-3.33	0.08	3.91	238.54
1200.00	0.48	195.38	1199.97	-3.56	-2.89	-3.53	0.06	4.56	230.71
1300.00	0.59	216.42	1299.97	-3.98	-3.71	-3.95	0.22	5.42	226.80
1400.00	0.69	219.25	1399.96	-4.68	-4.59	-4.63	0.10	6.52	225.29
1500.00	0.80	221.80	1499.95	-5.53	-5.57	-5.47	0.11	7.81	224.52
1600.00	1.00	233.17	1599.94	-6.70	-6.61	-6.63	0.27	9.36	225.12
1700.00	0.97	244.74	1699.93	-8.17	-7.49	-8.10	0.20	11.03	227.23
1800.00	0.95	244.32	1799.91	-9.69	-8.21	-9.61	0.02	12.64	229.49
1900.00	1.06	241.47	1899.90	-11.26	-9.01	-11.17	0.12	14.35	231.11
2000.00	0.75	232.01	1999.89	-12.59	-9.86	-12.50	0.34	15.92	231.74
2100.00	0.20	146.22	2099.88	-13.02	-10.41	-12.92	0.76	16.59	231.14
2200.00	0.30	135.29	2199.88	-12.74	-10.74	-12.63	0.11	16.58	229.63
2300.00	0.38	138.13	2299.88	-12.34	-11.17	-12.23	0.08	16.56	227.60
2400.00	0.50	151.57	2399.88	-11.92	-11.80	-11.80	0.16	16.69	225.01
2500.00	0.72	167.92	2499.87	-11.59	-12.80	-11.46	0.28	17.18	221.84
2600.00	0.93	149.63	2599.86	-11.06	-14.11	-10.92	0.33	17.85	217.74
2700.00	1.24	115.84	2699.84	-9.69	-15.28	-9.54	0.70	18.01	211.98
2800.00	1.28	114.66	2799.82	-7.71	-16.22	-7.55	0.05	17.89	204.97
2900.00	0.82	129.11	2899.80	-6.15	-17.14	-5.98	0.53	18.15	199.24
3000.00	0.84	128.98	2999.79	-5.03	-18.05	-4.86	0.02	18.69	195.06
3100.00	0.84	118.92	3099.78	-3.82	-18.87	-3.64	0.15	19.21	190.93
3200.00	1.37	123.72	3199.76	-2.20	-19.88	-2.01	0.53	19.98	185.77
3300.00	0.96	131.95	3299.74	-0.60	-21.10	-0.40	0.44	21.11	181.07
3400.00	0.56	190.84	3399.73	-0.08	-22.15	0.14	0.82	22.15	179.65
3500.00	0.76	187.16	3499.73	-0.26	-23.28	-0.04	0.20	23.28	180.10
3600.00	0.77	195.76	3599.72	-0.54	-24.59	-0.30	0.12	24.59	180.71
3700.00	0.72	183.48	3699.71	-0.77	-25.87	-0.53	0.17	25.87	181.16
3800.00	0.68	207.89	3799.70	-1.10	-27.02	-0.84	0.30	27.03	181.79



Well Name: POKER LAKE UNIT #265H
Survey: FINAL SURVEY
Survey Date: 4/24/2009

MD	Inc	Azim	TVD	VS	Northing	Easting	DLS	Closure Distance	Closure Angle
ft	deg	deg	ft	ft	ft	ft	deg/100ft	ft	deg
7690.00	1.43	77.61	7689.43	2.59	-58.42	3.15	0.27	58.50	176.91

PathFinder Energy Services, Inc.

Magnetic & Grid Calculations

BOPCO, L.P.
POKER LAKE UNIT # 265H
EDDY COUNTY, NEW MEXICO
Rig:HP #317

Thu May 21 15:52:02 2009

Coordinates

Latitude: 32.241076 N (32 deg. 14 min. 27.8729 sec.)
Longitude: 103.926895 W (-103 deg. 55 min. 36.8208 sec.)
Elevation: 3191.00 feet.
Calculation Date: Apr/06/2009

Magnetic Calculations

Model: IGRF2005
Dip Angle: 60.2094 degrees
Total Magnetic Field: 0.48835 gauss
Magnetic Declination: 7.999563 degrees
Horizontal Intensity: 0.242630 gauss
To Convert a Magnetic Dir. to a TRUE North Dir. Add 7.999563 Degr

Transverse Mercator Grid Calculations NAD27

Grid System: Transverse Mercator: new mexico east
Ellipsoid: Clarke 1866
X: 625663.5240 feet
Y: 451659.6640 feet
True to Grid: (convergence) -0.216831 degrees
Magnetic to Grid: 7.782733 degrees
To Convert a Magnetic Dir. to a GRID dir. Add 7.782733 Degr.