

Results of Directional Survey

API number:	30-025-39529		
OGRID:		Operator:	YATES PETROLEUM CORPORATION
		Property:	CAPELLA BOP FEDERAL # 2H

surface	ULSTR:	P	08	T 21S	R 32E
				330 FSL	330 FEL

BH Loc	ULSTR:	A	08	T 21S	R 32E
12915 MD		8466.4	TVD	378 FNL	692 FEL
				4902 FSL	

Top Perf/OH	ULSTR:	P	08	T 21S	R 32E
8730 MD		8491.8	TVD	732 FSL	369 FEL

Bot Perf/OH	ULSTR:	A	08	T 21S	R 32E
12822 MD		8465.7	TVD	470 FNL	687 FEL
				4810 FSL	

	MD	N/S	E/W	VD
	8714	386.10	-38.10	8489.2
TOP PERFS/OH	8730	401.89	-39.03	8491.83
	8745	416.70	-39.90	8494.30
	12788	4445.60	-355.40	8465.50
BOT PERFS/OH	12822	4479.55	-357.17	8465.69
	12861	4518.50	-359.20	8465.90

NEXT TO LAST	12861	4518.50	-359.20	8465.90
LAST READING	12915	4572.40	-362.00	8466.40
TD	12915	4572.40	-362.00	8466.40

Surface Location	330 FS	330 FE
Projected BHL	4902 FS	692 FE
Location of		
Top Perfs/OH	732 FS	369 FE
Bottom Perfs/OH	4810 FS	687 FE

SUMMARY of Subsurface Locations

Surface Location	P-08-21S-32E	330 FS	330 FE	Vert. Depth
Top Perfs/OH	P-08-21S-32E	732 FS	369 FE	8491.83
Bottom Perfs/OH	A-08-21S-32E	4810 FS	687 FE	8465.69
Projected TD	A-08-21S-32E	4902 FS	692 FE	8466.40



PO Box 1370
Artesia, NM 88211-1370
(505) 748-1288

HOBBS OCD

NOV 15 2012

RECEIVED

September 28, 2012

Yates Petroleum Corporation
105 S. 4th
Artesia, NM 88211-1395

30-025-39529

RE: Capella BOP Federal #2H
330' FSL & 230' FEL
Sec. 8, T21S, R32E
Lea County, New Mexico

Dear Sir,

The attached is the Deviation Survey for the above captioned well.

Very truly yours,

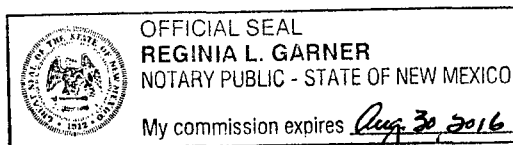

Eddie LaRue
Operations Manager

State of New Mexico }
County of Eddy }

SUR: P-8-21s-32e, 330/S & 330/E
BHL: A-8-21s-32e, 4902/S & 692/E
API # 30-025-39529

The foregoing was acknowledged before me this 28th day of September, 2012.


Regina L. Garner
Notary Public



Pason DataHub Deviation Survey

Well Dossier 1345771879 - CAPELLA BOP FEDERAL #2

#	Date	Depth	Deviation	Direction	TVD	Horiz
	8/26/2012	199	0.00	0.00	0.00	0.00
	8/27/2012	407	0.50	0.00	0.00	0.00
	8/27/2012	621	0.50	0.00	0.00	0.00
	8/28/2012	845	0.40	0.00	0.00	0.00
	8/29/2012	1025	0.70	0.00	0.00	0.00
	9/1/2012	1215	0.60	0.00	0.00	0.00
	9/1/2012	1468	0.10	0.00	0.00	0.00
	9/1/2012	1791	0.90	0.00	0.00	0.00
	9/1/2012	2109	0.20	0.00	0.00	0.00
	9/2/2012	2395	0.10	0.00	0.00	0.00
	9/2/2012	2708	0.80	0.00	0.00	0.00
	9/2/2012	3061	2.00	0.00	0.00	0.00
	9/3/2012	3125	2.30	0.00	0.00	0.00
	9/4/2012	3201	2.00	0.00	0.00	0.00
	9/4/2012	3297	2.00	0.00	0.00	0.00
	9/4/2012	3390	1.10	0.00	0.00	0.00
	9/4/2012	3508	1.50	0.00	0.00	0.00
	9/4/2012	3636	0.80	0.00	0.00	0.00
	9/5/2012	3763	1.60	0.00	0.00	0.00
	9/5/2012	3865	0.70	0.00	0.00	0.00
	9/5/2012	4046	0.80	0.00	0.00	0.00
	9/6/2012	4275	0.80	0.00	0.00	0.00
	9/10/2012	4587	0.70	0.00	0.00	0.00
	9/10/2012	4873	1.00	0.00	0.00	0.00
	9/10/2012	5190	0.80	0.00	0.00	0.00
	9/10/2012	5444	0.80	0.00	0.00	0.00
	9/11/2012	5734	0.40	0.00	0.00	0.00
	9/11/2012	6039	1.10	0.00	0.00	0.00
	9/11/2012	6364	0.30	0.00	0.00	0.00
	9/11/2012	6675	0.80	0.00	0.00	0.00
	9/12/2012	6964	1.40	0.00	0.00	0.00
	9/12/2012	7268	1.20	0.00	0.00	0.00
	9/13/2012	7583	1.50	0.00	0.00	0.00
	9/14/2012	7936	1.67	147.17	7935.10	0.00
	9/14/2012	7968	0.79	181.62	7967.00	0.00
	9/14/2012	7999	1.49	330.95	7998.19	43.59
	9/14/2012	8030	4.48	340.44	8029.15	42.05
	9/15/2012	8061	7.47	342.38	8039.00	38.92
	9/15/2012	8092	10.82	344.92	8090.00	34.10
	9/15/2012	8124	13.98	345.89	8121.00	27.34
	9/15/2012	8155	17.32	346.15	8151.00	19.09
	9/15/2012	8186	20.75	346.15	8180.00	9.11

# Date	Depth	Deviation	Direction	TVD	Horiz
9/15/2012	8217	24.45	347.47	8209.00	2.66
9/15/2012	8248	28.05	348.53	8281.00	16.25
9/15/2012	8279	31.83	349.23	8264.00	31.61
9/15/2012	8310	35.53	350.11	8290.00	48.71
9/15/2012	8341	39.39	350.55	8314.00	67.48
9/15/2012	8372	43.09	351.25	8337.95	87.84
9/15/2012	8403	46.78	353.01	8359.89	109.69
9/15/2012	8435	50.83	355.03	8380.96	133.76
9/15/2012	8466	55.31	356.44	8399.59	158.53
9/16/2012	8486	59.53	356.88	8415.74	183.80
9/16/2012	8527	63.40	357.05	8430.54	211.02
9/16/2012	8558	66.48	356.88	8443.67	239.08
9/16/2012	8589	69.03	356.61	8455.41	267.78
9/16/2012	8652	74.57	356.26	8475.00	327.00
9/16/2012	8683	77.21	356.26	8482.00	357.00
9/16/2012	8714	78.70	356.45	8489.00	387.00
9/16/2012	8745	82.39	356.70	8494.33	418.49
9/16/2012	8776	86.79	357.05	8497.25	449.34
9/18/2012	8801	88.81	357.14	8498.21	474.31
9/18/2012	8863	92.24	356.70	8497.64	536.29
9/18/2012	8956	91.89	356.96	8494.29	629.20
9/18/2012	9050	91.10	356.88	8491.00	723.00
9/18/2012	9143	90.48	357.49	8490.00	816.00
9/18/2012	9236	90.57	357.23	8489.71	909.06
9/18/2012	9329	91.19	355.82	8488.28	1002.03
9/19/2012	9422	92.51	355.12	8485.25	1094.98
9/19/2012	9515	91.80	354.68	8481.78	1187.90
9/19/2012	9614	91.45	354.94	8478.97	1286.85
9/19/2012	9704	91.63	355.29	8476.55	1376.82
9/19/2012	9798	91.71	356.00	8473.81	1470.78
9/19/2012	9891	92.07	355.91	8470.75	1563.73
9/19/2012	9985	91.80	355.03	8467.57	1657.67
9/19/2012	10078	90.92	354.77	8465.36	1750.64
9/19/2012	10121	90.66	354.68	8464.08	1843.62
9/20/2012	10264	90.40	355.30	8463.23	1936.61
9/20/2012	10357	89.96	355.56	8462.94	2029.60
9/20/2012	10450	89.96	356.09	8463.00	2122.60
9/20/2012	10544	90.84	355.03	8462.35	2216.60
9/20/2012	10637	90.84	355.38	8460.98	2309.59
9/20/2012	10731	91.71	354.77	8458.89	2403.56
9/21/2012	10825	89.87	354.50	8457.59	2497.53
9/21/2012	10918	88.02	354.50	8459.31	2590.49
9/21/2012	11011	87.76	354.68	8462.73	2683.42
9/21/2012	11105	88.20	354.33	8466.04	2777.34
9/21/2012	11198	88.99	354.86	8468.32	2870.30

#	Date	Depth	Deviation	Direction	TVD	Horiz
9/21/2012	11292	89.69	355.38	8469.41	2964.28	
9/21/2012	11385	89.34	356.09	8470.19	3057.28	
9/22/2012	11478	90.22	357.14	8470.55	3150.26	
9/22/2012	11572	89.78	357.32	8470.55	3244.23	
9/22/2012	11665	89.52	358.20	8471.12	3337.16	
9/22/2012	11759	90.04	357.32	8471.48	3431.09	
9/22/2012	11852	90.31	355.73	8471.20	3524.08	
9/22/2012	11947	90.22	356.26	8470.76	3619.07	
9/22/2012	12040	91.71	355.38	8469.19	3712.05	
9/23/2012	12135	90.92	354.68	8467.03	3806.02	
9/23/2012	12228	90.57	354.33	8465.81	3900.00	
9/24/2012	12321	90.26	353.71	8464.81	3992.96	
9/24/2012	12415	89.52	353.36	8464.00	4086.00	
9/24/2012	12508	89.96	353.98	8465.00	4179.00	
9/24/2012	12602	89.16	354.24	8465.00	4273.00	
9/24/2012	12695	90.57	354.33	8466.03	4366.77	
9/24/2012	12788	90.04	357.14	8465.53	4459.76	
9/24/2012	12861	89.43	356.96	8465.87	4532.74	
# EOF						

30-025-39529



Job Number: SVCO-121297

Company: Yates Petroleum Corporation

Lease/Well: CAPELLA BOP FEDERAL 2H

Location: Lea County, NM

Rig Name: Silver Oak #10

RKB: 17'

G.L. or M.S.L.: GL

State/Country: New Mexico/USA

Declination: 7.16°

Grid: East To Grid North

File name: F:\SURVEY\2012SU-1\YATES\CO\CAPELL-1\2H.SVY

Date/Time: 25-Sep-12 / 15:55

7900' M.D. (Rate Gyro)

SUR: P-8-21s-32e, 330/S & 330/E
 BHL: A-8-21s-32e, 4902/S & 692/E
 API # 30-025-39529

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WINSERVE SURVEY CALCULATIONS
 Minimum Curvature Method
 Vertical Section Plane 355.62
 Vertical Section Referenced to Wellhead
 Rectangular Coordinates Referenced to Wellhead

We hereby certify that our survey data from
 Surface MD to 7800 MD is, to the best of
 our knowledge a true and accurate account of the
 well bore.
 Joshua Smith 9/25/12
 MS Energy Services Date

Measured Depth FT	Incl Angle Deg	Drift Direction Deg	True Vertical Depth	N-S FT	E-W FT	Vertical Section FT	CLOSURE		Dogleg Severity Deg/100
							Distance FT	Direction Deg	
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
200.00	.33	187.56	200.00	-.57	-.08	-.56	.58	187.56	.16
400.00	.28	246.53	400.00	-1.34	-.60	-1.29	1.46	204.17	.15
600.00	.35	229.58	599.99	-1.93	-1.51	-1.81	2.45	218.14	.06
800.00	.36	234.11	799.99	-2.69	-2.49	-2.49	3.66	222.74	.01
1000.00	.49	252.23	999.98	-3.32	-3.81	-3.02	5.05	228.93	.09
1200.00	.67	279.97	1199.97	-3.38	-5.78	-2.93	6.69	239.67	.16
1400.00	.26	235.79	1399.97	-3.43	-7.30	-2.86	8.07	244.83	.26
1600.00	.27	274.61	1599.97	-3.65	-8.15	-3.02	8.93	245.87	.09
1800.00	.24	232.25	1799.96	-3.87	-8.95	-3.17	9.75	246.63	.09

Measured Depth FT	Incl Angle Deg	Drift Direction Deg	True Vertical Depth	N-S FT	E-W FT	Vertical Section FT	C L O S U R E		Dogleg Severity Deg/100
							Distance FT	Direction Deg	
2000.00	.21	353.40	1999.96	-3.76	-9.32	-3.04	10.05	248.03	.20
2200.00	.14	4.09	2199.96	-3.15	-9.35	-2.43	9.86	251.36	.04
2400.00	.33	98.02	2399.96	-2.99	-8.76	-2.31	9.26	251.16	.18
2600.00	1.26	101.29	2599.94	-3.50	-6.03	-3.03	6.97	239.88	.47
2800.00	1.83	103.02	2799.87	-4.65	-.77	-4.58	4.71	189.35	.29
3000.00	2.25	106.10	2999.74	-6.46	6.12	-6.91	8.90	136.55	.22
3200.00	2.08	120.97	3199.60	-9.41	13.00	-10.38	16.05	125.91	.29
3400.00	1.44	123.73	3399.50	-12.68	18.20	-14.03	22.18	124.85	.32
3600.00	1.09	129.40	3599.45	-15.28	21.76	-16.90	26.59	125.07	.19
3800.00	.95	120.99	3799.42	-17.34	24.66	-19.17	30.14	125.12	.10
4000.00	.63	132.58	3999.40	-18.94	26.89	-20.94	32.89	125.16	.18
4200.00	.43	132.30	4199.39	-20.19	28.25	-22.29	34.72	125.55	.10
4400.00	.30	134.95	4399.39	-21.06	29.18	-23.23	35.99	125.83	.07
4600.00	.22	122.32	4599.39	-21.64	29.87	-23.86	36.89	125.92	.05
4800.00	.10	246.62	4799.39	-21.91	30.04	-24.14	37.18	126.11	.14
5000.00	.24	191.90	4999.39	-22.39	29.79	-24.60	37.27	126.93	.10
5200.00	.12	208.06	5199.39	-22.99	29.60	-25.18	37.48	127.83	.06
5400.00	.33	193.88	5399.38	-23.73	29.37	-25.90	37.76	128.94	.11
5600.00	.51	228.30	5599.38	-24.88	28.57	-26.99	37.88	131.06	.15
5800.00	.47	231.69	5799.37	-25.98	27.26	-27.99	37.66	133.63	.02
6000.00	.48	231.63	5999.36	-27.01	25.96	-28.91	37.46	136.14	.01
6200.00	.47	233.99	6199.36	-28.01	24.64	-29.81	37.31	138.67	.01
6400.00	.48	228.29	6399.35	-29.05	23.35	-30.75	37.27	141.21	.02
6600.00	.50	206.26	6599.34	-30.39	22.34	-32.01	37.72	143.69	.09
6800.00	.47	216.91	6799.34	-31.83	21.46	-33.38	38.39	146.02	.05
7000.00	.70	217.83	6999.33	-33.45	20.21	-34.90	39.09	148.86	.12
7200.00	.70	234.21	7199.31	-35.13	18.47	-36.44	39.69	152.26	.10
7400.00	.96	240.18	7399.29	-36.68	16.03	-37.80	40.03	156.39	.14
7600.00	1.05	241.06	7599.26	-38.40	12.97	-39.28	40.53	161.33	.05

Measured Depth FT	Incl Angle Deg	Drift Direction Deg	True Vertical Depth	N-S FT	E-W FT	Vertical Section FT	C L O S U R E		Dogleg Severity Deg/100
							Distance FT	Direction Deg	
Last Survey Depth Recorded									
7800.00	.97	237.89	7799.23	-40.19	9.94	-40.83	41.40	166.11	.05



30-025-39529

Yates Petroleum Corp.

Lea County(NAD 83)

Capella BOP Federal

#2

OH

Design: OH

PathfinderX & Y Report

25 September, 2012

HOBBS OCD

NOV 15 2012

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SUR: P-8-21s-32e, 330/S & 330/E
BHL: A-8-21s-32e, 4902/S & 692/E
API # 30-025-39529

PATHFINDER®

A Schlumberger Company



Pathfinder
PathfinderX & Y Report

PATHFINDER
A Schlumberger Company

Company:	Yates Petroleum Corp.	Local Co-ordinate Reference:	Well #2
Project:	Lea County(NAD 83)	TVD Reference:	KB = 18 @ 3720.0usft (Silver Oak 10)
Site:	Capella BOP Federal	MD Reference:	KB = 18 @ 3720.0usft (Silver Oak 10)
Well:	#2	North Reference:	Grid
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	OH	Database:	EDM 5000.1 Single User Db

Project:	Lea County(NAD 83)		
Map System:	US State Plane 1983	System Datum:	Mean Sea Level
Geo Datum:	North American Datum 1983		
Map Zone:	New Mexico Eastern Zone		

Site		Capella BOP Federal			
Site Position:		Northing:	541,472.512 usft	Latitude:	32.486922
From:	Map	Easting:	739,901.064 usft	Longitude:	-103.689360
Position Uncertainty:	0.0 usft	Slot Radius:	13-3/16 "	Grid Convergence:	0.35 °

Well	#2					
Well Position	+N/-S	0.0 usft	Northing:	541,472.512 usft	Latitude:	32.486922
	+E/-W	0.0 usft	Easting:	739,901.064 usft	Longitude:	-103.689360
Position Uncertainty	0.0 usft		Wellhead Elevation:	usft	Ground Level:	3,702.0 usft

Wellbore	OH				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF200510	8/6/2012	7.51	60.41	48,686

Design:	OH			
Audit Notes:				
Version:	1.0	Phase:	ACTUAL	Tie On Depth: 0.0
Vertical Section:	Depth From (TVD) (usft)	+N/-S (usft)	+E/-W (usft)	Direction (°)
	0.0	0.0	0.0	355.62



Pathfinder PathfinderX & Y Report

PATHFINDER
A Schlumberger Company

Company:	Yates Petroleum Corp.	Local Co-ordinate Reference:	Well #2
Project:	Lea County(NAD 83)	TVD Reference:	KB = 18 @ 3720.0usft (Silver Oak 10)
Site:	Capella BOP Federal	MD Reference:	KB = 18 @ 3720.0usft (Silver Oak 10)
Well:	#2	North Reference:	Grid
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	OH	Database:	EDM 5000.1 Single User Db

Survey Program		Date	9/25/2012		
From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description	
200.0	7,800.0	Gyro #1 (OH)	CTG-SR-SS	Continuous gyro - surface ref. s/s	
7,936.0	12,915.0	MWD #1 (OH)	MWD	MWD - Standard	

MD (usft)	Inc (°)	Azi (azimuth) (°)	TVD (usft)	TVDSS (usft)	N/S (usft)	E/W (usft)	V. Sec (usft)	DLeg (°/100usft)	Northing (usft)	Easting (usft)
0.0	0.00	0.00	0.0	-3,720.0	0.0	0.0	0.0	0.00	541,472.51	739,901.06
200.0	0.33	187.56	200.0	-3,520.0	-0.6	-0.1	-0.6	0.16	541,471.94	739,900.99
400.0	0.28	246.53	400.0	-3,320.0	-1.3	-0.6	-1.3	0.15	541,471.18	739,900.46
600.0	0.35	229.58	600.0	-3,120.0	-1.9	-1.5	-1.8	0.06	541,470.58	739,899.55
800.0	0.36	234.11	800.0	-2,920.0	-2.7	-2.5	-2.5	0.01	541,469.82	739,898.58
1,000.0	0.49	252.23	1,000.0	-2,720.0	-3.3	-3.8	-3.0	0.09	541,469.19	739,897.25
1,200.0	0.67	279.97	1,200.0	-2,520.0	-3.4	-5.8	-2.9	0.16	541,469.13	739,895.29
1,400.0	0.26	235.79	1,400.0	-2,320.0	-3.4	-7.3	-2.9	0.26	541,469.08	739,893.76
1,600.0	0.27	274.61	1,600.0	-2,120.0	-3.6	-8.1	-3.0	0.09	541,468.86	739,892.92
1,800.0	0.24	232.25	1,800.0	-1,920.0	-3.9	-8.9	-3.2	0.09	541,468.64	739,892.11
2,000.0	0.21	353.40	2,000.0	-1,720.0	-3.8	-9.3	-3.0	0.20	541,468.75	739,891.74
2,200.0	0.14	4.09	2,200.0	-1,520.0	-3.2	-9.3	-2.4	0.04	541,469.36	739,891.72
2,400.0	0.33	98.02	2,400.0	-1,320.0	-3.0	-8.8	-2.3	0.18	541,469.52	739,892.30
2,600.0	1.26	101.29	2,599.9	-1,120.1	-3.5	-6.0	-3.0	0.47	541,469.01	739,895.03
2,800.0	1.83	103.02	2,799.9	-920.1	-4.7	-0.8	-4.6	0.29	541,467.86	739,900.30
3,000.0	2.25	106.10	2,999.7	-720.3	-6.5	6.1	-6.9	0.22	541,466.05	739,907.18
3,200.0	2.08	120.97	3,199.6	-520.4	-9.4	13.0	-10.4	0.29	541,463.10	739,914.07
3,400.0	1.44	123.73	3,399.5	-320.5	-12.7	18.2	-14.0	0.32	541,459.83	739,919.27
3,600.0	1.09	129.40	3,599.5	-120.5	-15.3	21.8	-16.9	0.19	541,457.23	739,922.83
3,800.0	0.95	120.99	3,799.4	79.4	-17.3	24.7	-19.2	0.10	541,455.17	739,925.72
4,000.0	0.63	132.58	3,999.4	279.4	-18.9	26.9	-20.9	0.18	541,453.57	739,927.95

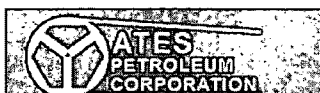


Pathfinder PathfinderX & Y Report

PATHFINDER
A Schlumberger Company

Company:	Yates Petroleum Corp.	Local Co-ordinate Reference:	Well #2
Project:	Lea County(NAD 83)	TVD Reference:	KB = 18 @ 3720.0usft (Silver Oak:10)
Site:	Capella BOP Federal	MD Reference:	KB = 18 @ 3720.0usft (Silver Oak:10)
Well:	#2	North Reference:	Grid
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	OH	Database:	EDM,5000.1 Single User.Db

Survey											
MD (usft)	Inc (°)	Azi (azimuth) (°)	TVD (usft)	TVDSS (usft)	N/S (usft)	E/W (usft)	V. Sec (usft)	DLeg (°/100usft)	Northing (usft)	Easting (usft)	
4,200.0	0.43	132.30	4,199.4	479.4	-20.2	28.3	-22.3	0.10	541,452.32	739,929.32	
4,400.0	0.30	134.95	4,399.4	679.4	-21.1	29.2	-23.2	0.07	541,451.45	739,930.24	
4,600.0	0.22	122.32	4,599.4	879.4	-21.6	29.9	-23.9	0.05	541,450.87	739,930.94	
4,800.0	0.10	246.62	4,799.4	1,079.4	-21.9	30.0	-24.1	0.14	541,450.60	739,931.10	
5,000.0	0.24	191.90	4,999.4	1,279.4	-22.4	29.8	-24.6	0.10	541,450.12	739,930.85	
5,200.0	0.12	208.06	5,199.4	1,479.4	-23.0	29.6	-25.2	0.06	541,449.52	739,930.67	
5,400.0	0.33	193.88	5,399.4	1,679.4	-23.7	29.4	-25.9	0.11	541,448.78	739,930.43	
5,600.0	0.51	228.30	5,599.4	1,879.4	-24.9	28.6	-27.0	0.15	541,447.63	739,929.63	
5,800.0	0.47	231.69	5,799.4	2,079.4	-26.0	27.3	-28.0	0.02	541,446.53	739,928.32	
6,000.0	0.48	231.63	5,999.4	2,279.4	-27.0	26.0	-28.9	0.01	541,445.50	739,927.02	
6,200.0	0.47	233.99	6,199.4	2,479.4	-28.0	24.6	-29.8	0.01	541,444.50	739,925.70	
6,400.0	0.48	228.29	6,399.4	2,679.4	-29.1	23.3	-30.8	0.02	541,443.46	739,924.41	
6,600.0	0.50	206.26	6,599.3	2,879.3	-30.4	22.3	-32.0	0.09	541,442.12	739,923.40	
6,800.0	0.47	216.91	6,799.3	3,079.3	-31.8	21.5	-33.4	0.05	541,440.68	739,922.52	
7,000.0	0.70	217.83	6,999.3	3,279.3	-33.5	20.2	-34.9	0.12	541,439.06	739,921.28	
7,200.0	0.70	234.21	7,199.3	3,479.3	-35.1	18.5	-36.4	0.10	541,437.38	739,919.54	
7,400.0	0.96	240.18	7,399.3	3,679.3	-36.7	16.0	-37.8	0.14	541,435.83	739,917.09	
7,600.0	1.05	241.06	7,599.3	3,879.3	-38.4	13.0	-39.3	0.05	541,434.11	739,914.04	
7,800.0	0.97	237.89	7,799.2	4,079.2	-40.2	9.9	-40.8	0.05	541,432.33	739,911.00	
7,936.0	1.67	147.17	7,935.2	4,215.2	-42.5	10.0	-43.1	1.43	541,430.05	739,911.10	
7,968.0	0.79	181.62	7,967.2	4,247.2	-43.1	10.3	-43.7	3.48	541,429.44	739,911.35	
7,999.0	1.49	330.95	7,998.2	4,278.2	-42.9	10.1	-43.6	7.12	541,429.57	739,911.14	
8,030.0	4.48	340.44	8,029.1	4,309.1	-41.4	9.5	-42.0	9.74	541,431.07	739,910.54	
KOP - 8030.0 MD, 8029.1 TVD, -41.4°N, 9.5°E											
8,061.0	7.47	342.38	8,060.0	4,340.0	-38.4	8.5	-38.9	9.67	541,434.13	739,909.53	
8,092.0	10.82	344.92	8,090.6	4,370.6	-33.7	7.1	-34.1	10.88	541,438.86	739,908.16	
8,124.0	13.98	345.89	8,121.8	4,401.8	-27.0	5.4	-27.3	9.90	541,445.51	739,906.44	



Pathfinder PathfinderX & Y Report

PATHFINDER
A Schlumberger Company

Company: Yates Petroleum Corp.
Project: Lea County(NAD 83)
Site: Capella BOP Federal
Well: #2
Wellbore: OH
Design: OH

Local Co-ordinate Reference:
TVD Reference:
MD Reference:
North Reference:
Survey Calculation Method:
Database:

Well #2
KB = 18 @ 3720.0usft (Silver Oak 10)
KB = 18 @ 3720.0usft (Silver Oak 10)
Grid
Minimum Curvature:
EDM 5000.1 Single User Db

Survey											
MD (usft)	Inc (°)	Azi (azimuth) (°)	TVD (usft)	TVDSS (usft)	N/S (usft)	E/W (usft)	V. Sec (usft)	DLeg (°/100usft)	Northing (usft)	Easting (usft)	
8,155.0	17.32	346.15	8,151.7	4,431.7	-18.9	3.4	-19.1	10.78	541,453.63	739,904.42	
8,186.0	20.75	346.51	8,181.0	4,461.0	-9.1	1.0	-9.1	11.07	541,463.45	739,902.03	
8,217.0	24.45	347.47	8,209.6	4,489.6	2.5	-1.7	2.7	11.99	541,475.06	739,899.36	
8,248.0	28.05	348.53	8,237.4	4,517.4	16.0	-4.5	16.3	11.71	541,488.47	739,896.51	
8,279.0	31.83	349.23	8,264.2	4,544.2	31.1	-7.5	31.6	12.25	541,503.65	739,893.54	
8,310.0	35.53	350.11	8,290.0	4,570.0	48.0	-10.6	48.7	12.04	541,520.56	739,890.46	
8,341.0	39.39	350.55	8,314.6	4,594.6	66.6	-13.8	67.5	12.48	541,539.14	739,887.30	
8,372.0	43.09	351.25	8,337.9	4,617.9	86.8	-17.0	87.8	12.03	541,559.32	739,884.07	
8,403.0	46.78	353.01	8,359.9	4,639.9	108.5	-20.0	109.7	12.56	541,581.00	739,881.08	
8,435.0	50.83	355.03	8,381.0	4,661.0	132.4	-22.5	133.8	13.52	541,604.94	739,878.59	
8,466.0	55.31	356.44	8,399.6	4,679.6	157.1	-24.3	158.5	14.90	541,629.65	739,876.76	
8,496.0	59.53	356.88	8,415.7	4,695.7	182.4	-25.8	183.8	14.12	541,654.88	739,875.29	
8,527.0	63.40	357.05	8,430.5	4,710.5	209.6	-27.2	211.0	12.49	541,682.07	739,873.84	
8,558.0	66.48	356.88	8,443.7	4,723.7	237.6	-28.7	239.1	9.95	541,710.11	739,872.36	
8,589.0	69.03	356.61	8,455.4	4,735.4	266.2	-30.3	267.8	8.27	541,738.75	739,870.73	
8,620.0	71.49	356.26	8,465.9	4,745.9	295.4	-32.2	297.0	8.01	541,767.87	739,868.91	
8,652.0	74.57	356.26	8,475.2	4,755.2	325.9	-34.1	327.6	9.62	541,798.41	739,866.92	
8,683.0	77.21	356.26	8,482.8	4,762.8	355.9	-36.1	357.6	8.52	541,828.41	739,864.96	
8,714.0	78.70	356.35	8,489.2	4,769.2	386.1	-38.1	387.9	4.81	541,858.66	739,863.00	
8,745.0	82.39	356.70	8,494.3	4,774.3	416.7	-39.9	418.5	11.96	541,889.18	739,861.15	
8,776.0	86.79	357.05	8,497.3	4,777.3	447.5	-41.6	449.3	14.24	541,919.99	739,859.47	
8,801.0	88.81	357.14	8,498.2	4,778.2	472.4	-42.9	474.3	8.09	541,944.94	739,858.20	
8,863.0	92.24	356.70	8,497.6	4,777.6	534.3	-46.2	536.3	5.58	542,006.83	739,854.87	
LP - 8863.0 MD, 8497.6 TVD, 534.3 N, -46.2 E											
8,956.0	91.89	356.96	8,494.3	4,774.3	627.1	-51.3	629.2	0.47	542,099.63	739,849.73	
9,050.0	91.10	356.88	8,491.8	4,771.8	721.0	-56.4	723.2	0.84	542,193.46	739,844.68	
9,143.0	90.48	357.49	8,490.6	4,770.6	813.8	-60.9	816.1	0.94	542,286.34	739,840.12	



Pathfinder PathfinderX & Y Report

PATHFINDER
A Schlumberger Company

Company:	Yates Petroleum Corp.	Local Co-ordinate Reference:	Well #2
Project:	Lea County(NAD 83)	TVD Reference:	KB = 18 @ 3720.0usft (Silver Oak 10)
Site:	Capella BOP Federal	MD Reference:	KB = 18 @ 3720.0usft (Silver Oak 10)
Well:	#2	North Reference:	Grid
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	OH	Database:	EDM 5000.1 Single User Db

Survey											
MD (usft)	Inc (°)	Azi (azimuth) (°)	TVD (usft)	TVDSS (usft)	N/S (usft)	E/W (usft)	V. Sec (usft)	DLeg (°/100usft)	Northing (usft)	Easting (usft)	
9,236.0	90.57	357.23	8,489.7	4,769.7	906.7	-65.2	909.1	0.30	542,379.24	739,835.83	
9,329.0	91.19	355.82	8,488.3	4,768.3	999.5	-70.9	1,002.0	1.66	542,472.05	739,830.20	
9,422.0	92.51	355.12	8,485.3	4,765.3	1,092.2	-78.2	1,095.0	1.61	542,564.71	739,822.86	
9,515.0	91.80	354.68	8,481.8	4,761.8	1,184.8	-86.5	1,187.9	0.90	542,657.28	739,814.59	
9,610.0	91.45	354.94	8,479.1	4,759.1	1,279.3	-95.1	1,282.9	0.46	542,751.85	739,806.00	
9,704.0	91.63	355.29	8,476.6	4,756.6	1,373.0	-103.1	1,376.8	0.42	542,845.47	739,798.00	
9,798.0	91.71	356.00	8,473.8	4,753.8	1,466.7	-110.2	1,470.8	0.76	542,939.16	739,790.87	
9,891.0	92.07	355.91	8,470.7	4,750.7	1,559.4	-116.8	1,563.7	0.40	543,031.88	739,784.31	
9,985.0	91.80	355.03	8,467.6	4,747.6	1,653.0	-124.2	1,657.7	0.98	543,125.53	739,776.89	
10,078.0	90.92	354.77	8,465.4	4,745.4	1,745.6	-132.4	1,750.6	0.99	543,218.14	739,768.63	
10,171.0	90.66	354.68	8,464.1	4,744.1	1,838.2	-141.0	1,843.6	0.30	543,310.73	739,760.08	
10,264.0	90.40	355.30	8,463.2	4,743.2	1,930.9	-149.1	1,936.6	0.72	543,403.37	739,751.96	
10,357.0	89.96	355.56	8,462.9	4,742.9	2,023.6	-156.5	2,029.6	0.55	543,496.08	739,744.55	
10,450.0	89.96	356.09	8,463.0	4,743.0	2,116.3	-163.3	2,122.6	0.57	543,588.83	739,737.78	
10,544.0	90.84	355.03	8,462.3	4,742.3	2,210.0	-170.6	2,216.6	1.47	543,682.54	739,730.50	
10,637.0	90.84	355.38	8,461.0	4,741.0	2,302.7	-178.3	2,309.6	0.38	543,775.21	739,722.73	
10,731.0	91.71	354.77	8,458.9	4,738.9	2,396.3	-186.4	2,403.6	1.13	543,868.84	739,714.66	
10,825.0	89.87	354.50	8,457.6	4,737.6	2,489.9	-195.2	2,497.5	1.98	543,962.41	739,705.87	
10,918.0	88.02	354.50	8,459.3	4,739.3	2,582.5	-204.1	2,590.5	1.99	544,054.96	739,696.96	
11,011.0	87.76	354.68	8,462.7	4,742.7	2,675.0	-212.9	2,683.4	0.34	544,147.49	739,688.20	
11,105.0	88.20	354.33	8,466.0	4,746.0	2,768.5	-221.9	2,777.3	0.60	544,241.00	739,679.20	
11,198.0	88.99	354.86	8,468.3	4,748.3	2,861.0	-230.6	2,870.3	1.02	544,333.55	739,670.44	
11,292.0	89.69	355.38	8,469.4	4,749.4	2,954.7	-238.6	2,964.3	0.93	544,427.21	739,662.45	
11,385.0	89.34	356.09	8,470.2	4,750.2	3,047.4	-245.5	3,057.3	0.85	544,519.94	739,655.53	
11,478.0	90.22	357.14	8,470.5	4,750.5	3,140.3	-251.0	3,150.3	1.47	544,612.78	739,650.04	
11,572.0	89.78	357.32	8,470.5	4,750.5	3,234.2	-255.6	3,244.2	0.51	544,706.67	739,645.50	
11,665.0	89.52	358.20	8,471.1	4,751.1	3,327.1	-259.2	3,337.2	0.99	544,799.60	739,641.86	



Pathfinder
PathfinderX & Y Report

PATHFINDER
A Schlumberger Company

Company: Yates Petroleum Corp.
Project: Lea County (NAD 83)
Site: Capella BOP Federal
Well: #2
Wellbore: OH
Design: OH

Local Co-ordinate Reference:
TVD Reference:
MD Reference:
North Reference:
Survey Calculation Method:
Database:

Well #2
KB = 18 @ 3720.0usft (Silver Oak 10)
KB = 18 @ 3720.0usft (Silver Oak 10)
Grid
Minimum Curvature
EDM 5000.1 Single User Db

Survey

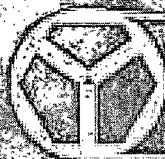
MD (usft)	Inc (°)	Azi (azimuth) (°)	TVD (usft)	TVDSS (usft)	N/S (usft)	E/W (usft)	V. Sec (usft)	DLeg (°/100usft)	Northing (usft)	Easting (usft)
11,759.0	90.04	357.32	8,471.5	4,751.5	3,421.0	-262.9	3,431.1	1.09	544,893.52	739,638.19
11,852.0	90.31	355.73	8,471.2	4,751.2	3,513.8	-268.5	3,524.1	1.73	544,986.35	739,632.55
11,947.0	90.22	356.26	8,470.8	4,750.8	3,608.6	-275.1	3,619.1	0.57	545,081.11	739,625.92
12,040.0	91.71	355.38	8,469.2	4,749.2	3,701.3	-281.9	3,712.1	1.86	545,173.85	739,619.14
12,134.0	90.92	354.68	8,467.0	4,747.0	3,795.0	-290.1	3,806.0	1.12	545,267.47	739,611.00
12,228.0	90.57	354.33	8,465.8	4,745.8	3,888.5	-299.1	3,900.0	0.53	545,361.03	739,602.00
12,321.0	90.66	353.71	8,464.8	4,744.8	3,981.0	-308.8	3,993.0	0.67	545,453.52	739,592.31
12,415.0	89.52	353.36	8,464.7	4,744.7	4,074.4	-319.3	4,086.9	1.27	545,546.92	739,581.72
12,508.0	89.96	353.98	8,465.1	4,745.1	4,166.8	-329.6	4,179.8	0.82	545,639.35	739,571.47
12,602.0	89.16	354.24	8,465.8	4,745.8	4,260.3	-339.2	4,273.8	0.89	545,732.85	739,561.83
12,695.0	90.57	354.33	8,466.0	4,746.0	4,352.9	-348.5	4,366.8	1.52	545,825.39	739,552.56
12,788.0	90.04	357.14	8,465.5	4,745.5	4,445.6	-355.4	4,459.8	3.07	545,918.12	739,545.65
12,861.0	89.43	356.96	8,465.9	4,745.9	4,518.5	-359.2	4,532.7	0.87	545,991.02	739,541.89
12,915.0	89.43	356.96	8,466.4	4,746.4	4,572.4	-362.0	4,586.7	0.00	546,044.94	739,539.03

FNL: 371', FEL:669', FWL:668' - PROJECTED BHL - 12915.0 'MD, 8466.4 'TVD, 4572.4 'N, -362.0 'E

Design Annotations

Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+N/-S (usft)	+E/-W (usft)	
8,030.0	8,029.1	-41.4	9.5	KOP - 8030.0 'MD, 8029.1 'TVD, -41.4 'N, 9.5 'E
8,863.0	8,497.6	534.3	-46.2	LP - 8863.0 'MD, 8497.6 'TVD, 534.3 'N, -46.2 'E
12,915.0	8,466.4	4,572.4	-362.0	FNL: 371', FEL:669', FWL:668'
12,915.0	8,466.4	4,572.4	-362.0	PROJECTED BHL - 12915.0 'MD, 8466.4 'TVD, 4572.4 'N, -362.0 'E

Checked By: _____ Approved By: _____ Date: _____



YATES
PETROLEUM
CORPORATION

PROJECT DETAILS: Lea County(NAD 83)
Geodetic System: US State Plane 1983
Datum: North American Datum 1983
Ellipsoid: GRS 1980
Zone: New Mexico Eastern Zone
System Datum: Mean Sea Level
Local North: Grid

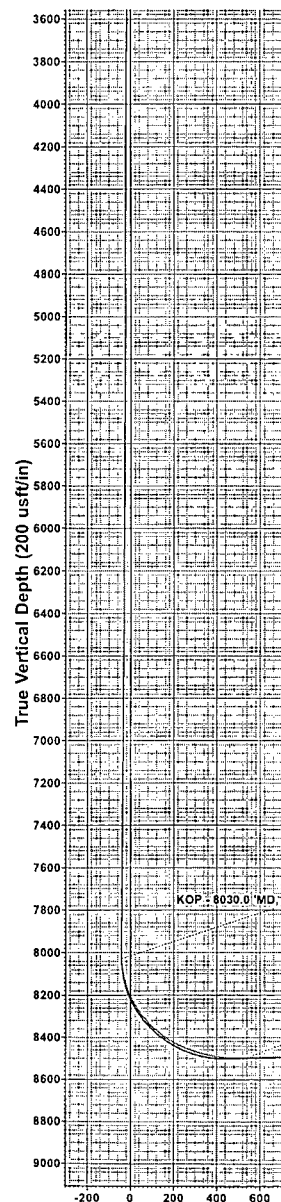


Azimuths to Grid North
True North: -0.35°
Magnetic North: 7.16°

Magnetic Field
Strength: 48685.9snT
Dip Angle: 60.41°
Date: 8/6/2012
Model: IGRF200510

PATHFINDER

A Schlumberger Company



Project: Lea County(NAD 83)
Site: Capella BOP Federal
Well: #2
Wellbore: OH
Plan: Post Gyro Plan #2 (#2/OH)

WELL DETAILS: #2

Ground Elevation: 3702.0
RKB Elevation: KB = 18 @ 3720.0usft (Silver Oak 10)
Rig Name: Silver Oak 10

+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Slot
0.0	0.0	541472.512	739901.064	32.486922	-103.689360	

WELLBORE TARGET DETAILS (MAP CO-ORDINATES)

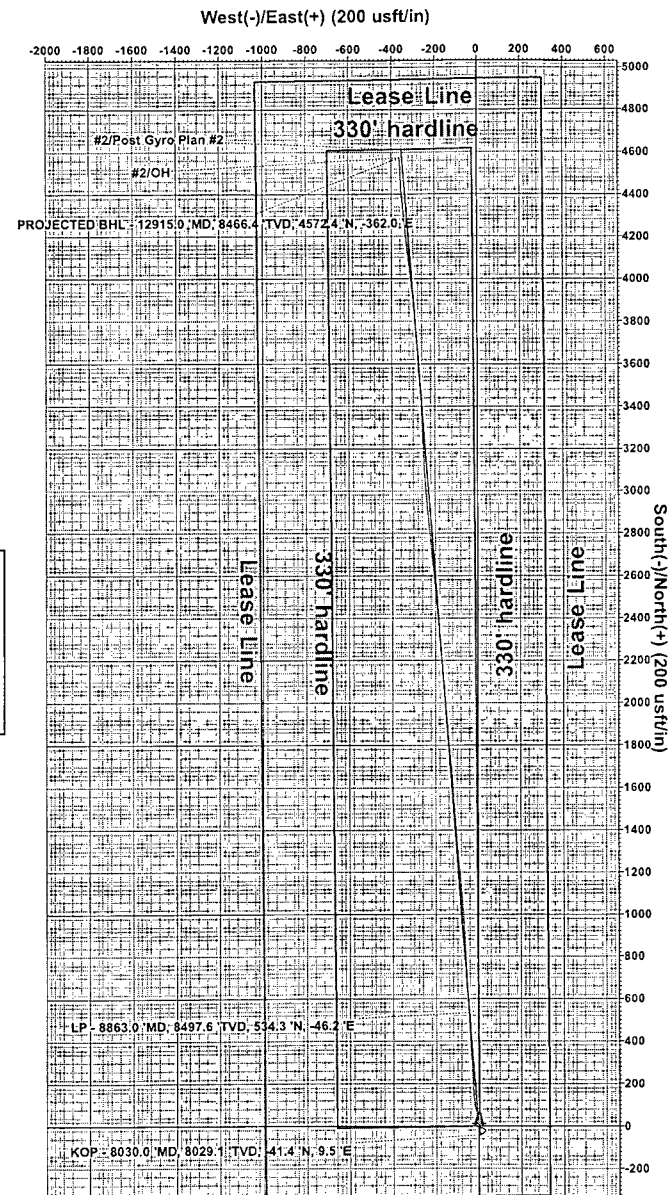
Name	TVD	+N/-S	+E/-W	Northing	Easting	Shape
PBHL(Capella BOP Federal #2)	8400.0	4611.2	-352.8	546083.665	739548.216	Point

SECTION DETAILS

Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	Dieg	TFace	VSect	Target
1	7800.0	0.97	237.89	7799.2	-40.2	9.9	0.00	0.00	-40.8	
2	8020.8	0.97	237.89	8020.0	-42.2	6.8	0.00	0.00	-42.6	
3	8786.1	91.39	355.67	8501.0	444.9	-37.5	12.00	117.76	446.4	
4	12965.5	91.39	355.67	8400.0	4611.2	-352.8	0.00	0.00	4624.6	PBHL(Capella BOP Federal #2)

EOW

Vertical Section at 355.62° (200 usft/in)



Plan: Post Gyro Plan #2 (#2/OH)

Created By: Sam Biffle Date: 8:41, September 25 2012

Checked: _____ Date: _____

True Vertical Depth
Lea County(NAD 83)
Datum: US State Plane 1983
Ellipsoid: GRS 1980
Zone: New Mexico Eastern Zone
System Datum: Mean Sea Level
Local North: Grid