



**Weatherford®**

Evaluation, Drilling & Intervention

10000 West County Rd. 116

P.O. Box 61028

Midland, TX USA 79711

Tel. (432) 561-8892 Fax (432) 561-8895

RAILROAD COMMISSION OF TEXAS  
Oil & Gas Division  
P.O. Drawer 12967  
Capitol Station  
Austin, TX 78711-2967

Date: August 12, 2013

Attention: Pam Johns

Re: ConocoPhillips  
Well: University BL 7131H  
RRC Lease/Gas ID No. N/A-  
UL, Survey A-  
Reagan County Texas


API# 42-383-38276

Enclosed, please find the survey performed on the referenced well by Precision Energy Services, Inc. (P-5 No. 676004), a Weatherford company. Other information required by your office is as follows


<u>Name &amp; Title Of Surveyor</u>	<u>Well Number</u>	<u>Surveyed Depths</u>	<u>Dates Performed</u>	<u>Type of Survey</u>
Derek Brown MWD Supervisor	1H ST00	6313 MD 12792 MD	7/11/2013 7/20/2013	Measurement While Drilling
Derek Brown MWD Supervisor	1H ST01	6244 MD 17765 MD	8/2/2013 8/12/2013	Measurement While Drilling

A certified plat on which the bottom-hole location is oriented both to the surface location and to the lease lines (or unit line in case of pooling) is attached to the survey report. If any other information is required, please contact the undersigned at the letterhead address and phone number.

Sincerely,

  
Jesse Aguilar  
MWD Ops. Coordinator

Cc: ConocoPhillips  
Attn: Jesus Cedeno  
600 N Dairy Ashford  
Houston, TX 77097

  
P.B.T.D  
m. 17700  
7478

**RAILROAD COMMISSION OF TEXAS  
OIL & GAS DIVISION**

PERMIT TO DRILL, DEEPEN, PLUG BACK, OR RE-ENTER ON A REGULAR OR ADMINISTRATIVE EXCEPTION LOCATION

PERMIT NUMBER <b>760016</b>	DATE PERMIT ISSUED OR AMENDED <b>Apr 08, 2013</b>	DISTRICT <b>* 7C</b>	
API NUMBER <b>42-383-38276</b>	FORM W-1 RECEIVED <b>Apr 03, 2013</b>	COUNTY <b>REAGAN</b>	
TYPE OF OPERATION <b>NEW DRILL</b>	WELLBORE PROFILE(S) <b>Horizontal</b>	ACRES <b>35457.36</b>	
OPERATOR <b>CONOCOPHILLIPS COMPANY</b>		172232 <b>NOTICE</b> This permit and any allowable assigned may be revoked if payment for fee(s) submitted to the Commission is not honored. District Office Telephone No: <b>(432) 684-5581</b>	
LEASE NAME <b>UNIVERSITY BL</b>		WELL NUMBER <b>7131H</b>	
LOCATION <b>11 miles SW direction from BIG LAKE</b>		TOTAL DEPTH <b>8000</b>	
Section, Block and/or Survey SECTION <b>◀ 22</b> BLOCK <b>◀ 7</b> ABSTRACT <b>◀</b> SURVEY <b>◀ UL</b>			
DISTANCE TO SURVEY LINES <b>440 ft. NORTH 296 ft. WEST</b>		DISTANCE TO NEAREST LEASE LINE <b>100 ft.</b>	
DISTANCE TO LEASE LINES <b>10998 ft. NORTH 10268 ft. EAST</b>		DISTANCE TO NEAREST WELL ON LEASE <b>See FIELD(s) Below</b>	
FIELD(s) and LIMITATIONS: <b>* SEE FIELD DISTRICT FOR REPORTING PURPOSES *</b>			
FIELD NAME LEASE NAME	ACRES NEAREST LEASE	DEPTH NEAREST WE	WELL # NEAREST WE
SPRABERRY (TREND AREA)	35457.36	7,900	7131H
UNIVERSITY BL	100	880	08
WELLBORE PROFILE(S) FOR FIELD: <b>Horizontal</b>			
RESTRICTIONS: Lateral: TH1 Penetration Point Location Lease Lines: 10998.0 F NORTH L 10268.0 F EAST L Terminus Location BH County: REAGAN Section: 10 Block: 7 Abstract: Survey: UL Lease Lines: 100.0 F NORTH L 10266.0 F EAST L Survey Lines: 100.0 F NORTH L 296.0 F WEST L			
THE FOLLOWING RESTRICTIONS APPLY TO ALL FIELDS This well shall be completed and produced in compliance with applicable special field or statewide spacing and density rules. If this well is to be used for brine mining, underground storage of liquid hydrocarbons in salt formations, or underground storage of gas in salt formations, a permit for that specific purpose must be obtained from Environmental Services prior to construction, including drilling, of the well in accordance with Statewide Rules 81, 95, and 97.			



# Weatherford RRCOT



Company: ConocoPhillips Date: 8/12/2013 Time: 07:56:30 Page: 1  
Field: Reagan Co, Texas (Nad 27) Co-ordinate(NE) Reference: Well: University BL 7131H, Grid North  
Site: University BL 7131H Vertical (TVD) Reference: SITE 2836.0  
Well: University BL 7131H Section (VS) Reference: Well (0.00N,0.00E,1.18Azi)  
Wellpath: ST00 Survey Calculation Method: Minimum Curvature Db: Sybase

Survey: Wft Svy Start Date: 7/15/2013  
Company: Weatherford Engineer: Russell W. Joyner  
Tool: MWD;MWD - Standard Tied-to: User Defined

Site: University BL 7131H

Site Position: Northing: 517284.20 ft Latitude: 31 4 58.009 N  
From: Map Easting: 1602738.00 ft Longitude: 101 36 8.774 W  
Position Uncertainty: 0.00 ft North Reference: Grid  
Ground Level: 2820.00 ft Grid Convergence: -0.65 deg

Well: University BL 7131H Slot Name:  
Well Position: +N/-S 0.00 ft Northing: 517284.20 ft Latitude: 31 4 58.009 N  
+E/-W 0.00 ft Easting: 1602738.00 ft Longitude: 101 36 8.774 W  
Position Uncertainty: 0.00 ft

Wellpath: ST00  
Current Datum: SITE Height 2836.00 ft  
Magnetic Data: 7/25/2013  
Field Strength: 47935 nT  
Vertical Section: Depth From (TVD) +N/-S  
ft ft  
0.00 0.00 0.00 1.18

## Survey

MD ft	Incl deg	Azlm deg	TVD ft	N/S ft	E/W ft	DLS deg/100ft	VS ft	ClsD ft	ClsA deg	Comment
944.00	0.81	237.92	943.93	-8.90	-3.64	0.00	-8.97	9.61	202.27	Tie On Gyrodata
1139.00	0.60	262.40	1138.92	-9.76	-5.82	0.19	-9.88	11.37	210.81	First Blue Star Svy
6235.00	0.70	184.90	6234.04	30.22	-37.66	0.02	29.44	48.29	308.74	Tie On Blue Star Svy
6313.00	0.74	207.36	6312.03	29.30	-37.93	0.36	28.51	47.93	307.68	First Wft Svy
6402.00	0.14	170.38	6401.03	28.68	-38.18	0.71	27.89	47.75	306.91	
6447.00	2.26	29.39	6446.02	29.40	-37.74	5.27	28.62	47.84	307.92	
6492.00	4.45	27.41	6490.94	31.72	-36.50	4.87	30.96	48.36	311.00	
6536.00	7.02	23.28	6534.72	35.71	-34.65	5.91	34.99	49.75	315.86	
6581.00	8.64	23.34	6579.30	41.34	-32.22	3.60	40.67	52.41	322.07	
6626.00	9.92	21.49	6623.71	48.05	-29.46	2.92	47.43	56.36	328.48	
6671.00	11.90	23.92	6667.89	55.90	-26.16	4.52	55.35	61.72	334.92	
6715.00	14.28	30.10	6710.75	64.74	-21.60	6.27	64.28	68.25	341.55	
6760.00	16.92	31.33	6754.09	75.14	-15.41	5.91	74.80	76.70	348.41	
6805.00	19.39	29.74	6796.84	87.22	-8.30	5.60	87.03	87.61	354.57	
6850.00	21.86	27.10	6838.96	101.17	-0.77	5.86	101.13	101.17	359.56	
6894.00	24.33	25.00	6879.43	116.67	6.79	5.92	116.79	116.87	3.33	
6939.00	26.84	23.52	6920.01	134.39	14.76	5.76	134.67	135.20	6.27	
6984.00	29.82	22.83	6959.62	154.03	23.16	6.66	154.47	155.76	8.55	
7029.00	32.50	23.88	6998.12	175.40	32.40	6.08	176.03	178.36	10.46	
7073.00	35.77	24.41	7034.54	197.92	42.50	7.46	198.75	202.43	12.12	
7118.00	38.55	23.17	7070.40	222.79	53.45	6.40	223.85	229.12	13.49	
7163.00	40.51	22.26	7105.10	249.21	64.51	4.54	250.49	257.43	14.51	
7207.00	43.62	20.17	7137.77	276.69	75.16	7.75	278.18	286.72	15.20	
7252.00	46.06	16.93	7169.68	306.77	85.23	7.43	308.46	318.39	15.53	
7297.00	49.25	14.10	7199.99	338.81	94.10	8.48	340.68	351.64	15.52	
7341.00	52.22	13.03	7227.83	371.93	102.09	7.01	373.95	385.68	15.35	
7386.00	54.83	12.64	7254.58	407.21	110.12	5.84	409.39	421.83	15.13	
7431.00	58.00	11.23	7279.47	443.88	117.87	7.51	446.21	459.26	14.87	
7476.00	60.38	8.94	7302.52	481.93	124.62	6.86	484.39	497.78	14.50	
7520.00	63.19	6.76	7323.32	520.33	129.91	7.74	522.89	536.30	14.02	



# Weatherford RRCOT



Company: ConocoPhillips	Date: 8/12/2013	Time: 07:56:30	Page: 2
Field: Reagan Co, Texas (Nad 27)	Co-ordinate(NE) Reference: Well: University BL 7131H, Grid North		
Site: University BL 7131H	Vertical (TVD) Reference: SITE 2836.0		
Well: University BL 7131H	Section (VS) Reference: Well (0.00N,0.00E,1.18Azi)		
Wellpath: ST00	Survey Calculation Method: Minimum Curvature	Db: Sybase	

## Survey

MD ft	Incl deg	Azim deg	TVD ft	N/S ft	E/W ft	DLS deg/100ft	VS ft	ClisD ft	ClisA deg	Comment
7565.00	66.43	5.85	7342.47	560.80	134.37	7.43	563.45	576.67	13.47	
7610.00	69.11	5.45	7359.50	602.25	138.47	6.01	604.97	617.96	12.95	
7655.00	71.93	4.71	7374.50	644.50	142.23	6.46	647.29	660.01	12.44	
7699.00	74.97	3.55	7387.03	686.56	145.26	7.36	689.41	701.76	11.95	
7744.00	76.80	1.73	7398.01	730.15	147.27	5.65	733.03	744.86	11.40	
7789.00	79.14	359.33	7407.39	774.16	147.67	7.37	777.03	788.11	10.80	
7833.00	81.27	356.76	7414.88	817.48	146.19	7.52	820.32	830.45	10.14	
7878.00	83.76	354.52	7420.74	861.96	142.80	7.41	864.72	873.71	9.41	
7923.00	85.86	352.65	7424.81	906.49	137.79	6.24	909.14	916.91	8.64	
7967.00	85.86	351.81	7427.98	949.98	131.85	1.90	952.49	959.08	7.90	
8012.00	85.80	351.02	7431.26	994.35	125.16	1.76	996.72	1002.20	7.17	
8057.00	85.93	351.20	7434.50	1038.70	118.22	0.49	1040.91	1045.40	6.49	
8102.00	88.46	352.56	7436.70	1083.19	111.87	6.38	1085.26	1088.95	5.90	
8146.00	89.38	355.13	7437.53	1126.92	107.16	6.20	1128.89	1132.01	5.43	
8236.00	89.88	0.19	7438.12	1216.82	103.48	5.65	1218.69	1221.21	4.86	
8325.00	89.63	3.82	7438.50	1305.75	106.60	4.09	1307.66	1310.09	4.67	
8415.00	89.63	0.67	7439.08	1395.66	110.12	3.50	1397.64	1400.00	4.51	
8504.00	89.69	359.29	7439.61	1484.66	110.09	1.55	1486.61	1488.74	4.24	
8594.00	89.81	358.45	7440.00	1574.64	108.31	0.94	1576.54	1578.36	3.93	
8683.00	89.81	359.02	7440.29	1663.62	106.35	0.64	1665.46	1667.01	3.66	
8772.00	89.75	357.72	7440.63	1752.58	103.82	1.46	1754.35	1755.65	3.39	
8862.00	89.57	357.75	7441.17	1842.51	100.26	0.20	1844.18	1845.23	3.11	
8951.00	89.88	359.64	7441.60	1931.48	98.23	2.15	1933.09	1933.98	2.91	
9041.00	89.51	358.16	7442.08	2021.46	96.51	1.70	2023.02	2023.76	2.73	
9130.00	89.94	356.91	7442.50	2110.37	92.68	1.49	2111.83	2112.41	2.51	
9220.00	89.94	354.95	7442.60	2200.14	86.29	2.18	2201.45	2201.83	2.25	
9309.00	89.69	355.24	7442.88	2288.82	78.68	0.43	2289.95	2290.17	1.97	
9399.00	90.19	355.91	7442.98	2378.55	71.74	0.93	2379.52	2379.63	1.73	
9488.00	90.00	357.20	7442.83	2467.38	66.39	1.47	2468.23	2468.28	1.54	
9578.00	89.94	359.24	7442.88	2557.34	63.59	2.27	2558.10	2558.13	1.42	
9667.00	89.44	359.97	7443.36	2646.33	62.98	0.99	2647.07	2647.08	1.36	
9757.00	90.00	2.24	7443.80	2736.31	64.72	2.60	2737.06	2737.07	1.35	
9846.00	90.00	2.50	7443.80	2825.23	68.40	0.29	2826.04	2826.06	1.39	
9936.00	89.94	3.21	7443.85	2915.12	72.88	0.79	2916.00	2916.03	1.43	
10025.00	89.94	4.08	7443.94	3003.94	78.54	0.98	3004.92	3004.96	1.50	
10115.00	89.88	2.68	7444.08	3093.78	83.84	1.56	3094.85	3094.91	1.55	
10204.00	89.69	2.61	7444.42	3182.68	87.95	0.23	3183.82	3183.90	1.58	
10294.00	89.57	2.80	7445.00	3272.58	92.20	0.25	3273.79	3273.88	1.61	
10384.00	88.95	2.20	7446.16	3362.49	96.12	0.96	3363.75	3363.86	1.64	
10473.00	89.14	1.69	7447.64	3451.42	99.14	0.61	3452.73	3452.85	1.65	
10562.00	89.81	1.70	7448.46	3540.38	101.78	0.75	3541.73	3541.84	1.65	
10652.00	89.75	3.22	7448.80	3630.29	105.64	1.69	3631.70	3631.83	1.67	
10741.00	89.51	3.23	7449.38	3719.15	110.65	0.27	3720.64	3720.80	1.70	
10831.00	89.69	2.67	7450.01	3809.03	115.28	0.65	3810.60	3810.77	1.73	
10921.00	90.12	3.31	7450.16	3898.91	119.97	0.86	3900.55	3900.75	1.76	
11010.00	88.95	2.10	7450.88	3987.80	124.17	1.89	3989.51	3989.73	1.78	
11100.00	89.57	1.35	7452.04	4077.75	126.88	1.08	4079.50	4079.72	1.78	
11189.00	90.00	2.90	7452.37	4166.69	130.18	1.81	4168.48	4168.72	1.79	
11279.00	89.32	1.58	7452.91	4256.61	133.70	1.65	4258.46	4258.71	1.80	
11369.00	89.01	359.78	7454.22	4346.59	134.77	2.03	4348.45	4348.68	1.78	
11458.00	89.69	359.59	7455.23	4435.59	134.28	0.79	4437.41	4437.62	1.73	
11548.00	89.94	2.14	7455.52	4525.57	135.64	2.85	4527.40	4527.60	1.72	



# Weatherford RRCOT



<b>Company:</b> ConocoPhillips	<b>Date:</b> 8/12/2013	<b>Time:</b> 07:56:30	<b>Page:</b> 3
<b>Field:</b> Reagan Co, Texas (Nad 27)	<b>Co-ordinate(NE) Reference:</b> Well: University BL 7131H, Grid North		
<b>Site:</b> University BL 7131H	<b>Vertical (TVD) Reference:</b> SITE 2836.0		
<b>Well:</b> University BL 7131H	<b>Section (VS) Reference:</b> Well (0.00N,0.00E,1.18Azi)		
<b>Wellpath:</b> ST00	<b>Survey Calculation Method:</b> Minimum Curvature <b>Db:</b> Sybase		

## Survey

MD ft	Incl deg	Azlm deg	TVD ft	N/S ft	E/W ft	DLS deg/100ft	VS ft	ClisD ft	ClisA deg	Comment
11637.00	90.12	4.26	7455.47	4614.42	140.60	2.39	4616.34	4616.57	1.75	
11727.00	90.43	5.74	7455.04	4704.08	148.45	1.68	4706.14	4706.42	1.81	
11816.00	89.88	1.32	7454.80	4792.89	153.93	5.00	4795.04	4795.36	1.84	
11906.00	89.63	1.25	7455.19	4882.86	155.94	0.29	4885.04	4885.35	1.83	
11996.00	90.00	2.99	7455.48	4972.80	159.27	1.98	4975.02	4975.35	1.83	
12086.00	89.69	0.03	7455.72	5062.76	161.64	3.31	5065.01	5065.34	1.83	
12184.00	90.49	359.25	7455.57	5160.75	161.03	1.14	5162.97	5163.26	1.79	
12273.00	90.56	0.69	7454.75	5249.75	160.98	1.62	5251.95	5252.21	1.76	
12363.00	89.88	1.29	7454.40	5339.73	162.54	1.01	5341.95	5342.20	1.74	
12452.00	89.88	0.65	7454.59	5428.72	164.04	0.72	5430.94	5431.20	1.73	
12542.00	89.38	358.59	7455.17	5518.71	163.45	2.36	5520.90	5521.13	1.70	
12631.00	89.32	355.47	7456.18	5607.57	158.84	3.51	5609.65	5609.82	1.62	
12705.20	89.48	357.00	7456.96	5681.61	153.97	2.08	5683.57	5683.69	1.55	Top Of Fish
12721.00	89.51	357.33	7457.10	5697.39	153.19	2.08	5699.33	5699.44	1.54	
12792.00	89.66	358.80	7457.62	5768.34	150.79	2.08	5770.22	5770.31	1.50	Last Wft Svy

## Annotation

MD ft	TVD ft	
944.00	943.93	Tie On Gyrodata
1139.00	1138.92	First Blue Star Svy
6235.00	6234.04	Tie On Blue Star Svy
12705.20	7456.96	Top Of Fish
6313.00	6312.03	First Wft Svy
12792.00	7457.62	Last Wft Svy



# Weatherford RRCOT



Company: ConocoPhillips Date: 8/12/2013 Time: 07:57:12 Page: 1  
Field: Reagan Co, Texas (Nad 27) Co-ordinate(NE) Reference: Well: University BL 7131H, Grid North  
Site: University BL 7131H Vertical (TVD) Reference: SITE 2836.0  
Well: University BL 7131H Section (VS) Reference: Well (0.00N,0.00E,1.18Azi)  
Wellpath: ST01 Survey Calculation Method: Minimum Curvature Db: Sybase

Survey: Wft Svy ST01 Start Date: 8/5/2013  
Company: Weatherford Engineer: Russell W. Joyner  
Tool: MWD;MWD - Standard Tied-to: User Defined

Site: University BL 7131H  
Site Position: Northing: 517284.20 ft Latitude: 31 4 58.009 N  
From: Map Easting: 1602738.00 ft Longitude: 101 36 8.774 W  
Position Uncertainty: 0.00 ft North Reference: Grid  
Ground Level: 2820.00 ft Grid Convergence: -0.65 deg

Well: University BL 7131H Slot Name:  
Well Position: +N-S 0.00 ft Northing: 517284.20 ft Latitude: 31 4 58.009 N  
+E-W 0.00 ft Easting: 1602738.00 ft Longitude: 101 36 8.774 W  
Position Uncertainty: 0.00 ft

Wellpath: ST01  
Current Datum: SITE Height 2836.00 ft Drilled From: ST00  
Magnetic Data: 7/22/2013 Tie-on Depth: 6235.00 ft  
Field Strength: 47936 nT Above System Datum: Mean Sea Level  
Vertical Section: Depth From (TVD) +N-S Declination: 6.32 deg  
ft +E-W Mag Dip Angle: 59.39 deg  
Direction  
deg  
0.00 0.00 0.00 1.18

## Survey

MD ft	Incl deg	Azim deg	TVD ft	N/S ft	E/W ft	DLS deg/100ft	VS ft	ClsD ft	ClsA deg	Comment
6190.00	0.50	199.70	6189.04	30.68	-37.57	0.00	29.90	48.51	309.23	Tie On Wft BlueStar First Wft Svy ST01
6244.00	0.99	341.62	6243.04	30.90	-37.80	2.63	30.12	48.82	309.27	
6309.00	3.54	3.67	6307.99	33.44	-37.85	4.07	32.65	50.50	311.46	
6354.00	5.10	10.11	6352.86	36.79	-37.41	3.63	36.01	52.47	314.53	
6398.00	8.53	11.72	6396.54	41.91	-36.40	7.81	41.16	55.51	319.03	
6443.00	10.77	10.23	6440.90	49.32	-34.98	5.01	48.59	60.46	324.66	
6488.00	12.37	9.60	6484.98	58.21	-33.43	3.57	57.51	67.13	330.14	
6532.00	14.65	10.50	6527.76	68.33	-31.63	5.20	67.67	75.29	335.16	
6577.00	16.94	10.50	6571.06	80.37	-29.39	5.09	79.75	85.58	339.91	
6622.00	19.16	8.32	6613.84	94.13	-27.13	5.16	93.55	97.96	343.92	
6666.00	21.29	5.85	6655.13	109.22	-25.27	5.21	108.68	112.11	346.97	
6711.00	23.54	4.18	6696.73	126.31	-23.78	5.20	125.80	128.53	349.34	
6756.00	25.66	4.10	6737.64	145.00	-22.43	4.71	144.50	146.72	351.21	
6800.00	27.81	4.41	6776.94	164.73	-20.96	4.90	164.27	166.06	352.75	
6845.00	29.99	4.77	6816.33	186.41	-19.22	4.86	185.98	187.40	354.11	
6890.00	32.22	5.50	6854.86	209.56	-17.13	5.03	209.17	210.26	355.33	
6934.00	34.55	6.12	6891.59	233.65	-14.68	5.35	233.30	234.11	356.41	
6979.00	37.15	6.99	6928.07	259.83	-11.66	5.89	259.53	260.09	357.43	
7024.00	39.59	7.78	6963.34	287.52	-8.07	5.53	287.30	287.64	358.39	
7069.00	42.36	7.89	6997.32	316.75	-4.04	6.16	316.60	316.78	359.27	
7114.00	44.85	7.57	7029.90	347.51	0.13	5.56	347.43	347.51	0.02	
7159.00	47.48	7.32	7061.06	379.69	4.33	5.86	379.70	379.71	0.65	
7203.00	50.18	6.97	7090.02	412.55	8.45	6.17	412.64	412.64	1.17	
7248.00	53.00	7.22	7117.98	447.54	12.80	6.28	447.71	447.72	1.64	
7293.00	55.61	7.78	7144.23	483.77	17.58	5.89	484.03	484.09	2.08	
7338.00	58.07	7.85	7168.85	521.09	22.70	5.47	521.44	521.58	2.49	
7382.00	60.42	7.80	7191.34	558.54	27.85	5.34	559.00	559.24	2.85	
7427.00	62.65	7.61	7212.79	597.74	33.15	4.97	598.30	598.66	3.17	
7472.00	64.86	7.16	7232.69	637.77	38.34	4.99	638.42	638.92	3.44	
7516.00	67.29	6.43	7250.53	677.70	43.09	5.73	678.45	679.07	3.64	



# Weatherford RRCOT



Company: ConocoPhillips  
Field: Reagan Co, Texas (Nad 27)  
Site: University BL 7131H  
Well: University BL 7131H  
Wellpath: ST01

Date: 8/12/2013 Time: 07:57:12 Page: 2  
Co-ordinate(NE) Reference: Well: University BL 7131H, Grid North  
Vertical (TVD) Reference: SITE 2838.0  
Section (VS) Reference: Well (0.00N,0.00E,1.18Azi)  
Survey Calculation Method: Minimum Curvature Db: Sybase

## Survey

MD ft	Incl deg	Azlm deg	TVD ft	N/S ft	E/W ft	DLS deg/100ft	VS ft	ClisD ft	ClisA deg	Comment
7561.00	69.03	5.46	7267.27	719.25	47.42	4.35	720.07	720.81	3.77	
7606.00	68.70	5.72	7283.50	761.02	51.50	0.91	761.92	762.76	3.87	
7651.00	69.27	5.75	7299.64	802.82	55.70	1.27	803.79	804.75	3.97	
7696.00	71.59	5.74	7314.71	845.00	59.95	5.16	846.06	847.12	4.06	
7741.00	73.70	5.02	7328.13	887.76	63.97	4.93	888.89	890.06	4.12	
7785.00	75.32	4.39	7339.88	930.02	67.45	3.93	931.21	932.46	4.15	
7830.00	76.79	3.80	7350.72	973.58	70.57	3.51	974.82	976.13	4.15	
7875.00	78.69	3.26	7360.28	1017.47	73.27	4.38	1018.76	1020.10	4.12	
7919.00	81.63	2.59	7367.80	1060.76	75.48	6.85	1062.09	1063.44	4.07	
7964.00	84.70	2.17	7373.15	1105.39	77.34	6.88	1106.75	1108.10	4.00	
8009.00	84.68	1.92	7377.32	1150.17	78.94	0.55	1151.55	1152.88	3.93	
8054.00	84.69	1.72	7381.49	1194.96	80.36	0.44	1196.36	1197.65	3.85	
8098.00	84.75	1.90	7385.54	1238.75	81.74	0.43	1240.17	1241.44	3.78	
8143.00	86.11	1.69	7389.12	1283.58	83.15	3.06	1285.02	1286.27	3.71	
8188.00	88.70	1.53	7391.16	1328.51	84.41	5.77	1329.97	1331.19	3.64	
8232.00	90.37	1.85	7391.52	1372.49	85.71	3.86	1373.96	1375.16	3.57	
8322.00	90.25	358.48	7391.03	1462.48	85.97	3.75	1463.94	1465.00	3.36	
8412.00	90.12	357.64	7390.74	1552.42	82.92	0.94	1553.80	1554.64	3.06	
8501.00	90.06	359.18	7390.60	1641.39	80.45	1.73	1642.69	1643.36	2.81	
8590.00	89.88	357.01	7390.64	1730.33	77.49	2.45	1731.56	1732.07	2.56	
8680.00	89.81	357.81	7390.89	1820.24	73.43	0.89	1821.36	1821.72	2.31	
8769.00	89.63	357.71	7391.32	1909.17	69.95	0.23	1910.20	1910.45	2.10	
8859.00	89.51	358.73	7392.00	1999.12	67.15	1.14	2000.08	2000.25	1.92	
8949.00	89.57	358.76	7392.72	2089.10	65.18	0.07	2090.00	2090.11	1.79	
9038.00	89.51	357.78	7393.44	2178.05	62.50	1.10	2178.88	2178.95	1.64	
9128.00	89.81	358.43	7393.97	2268.00	59.52	0.80	2268.75	2268.78	1.50	
9217.00	89.26	359.22	7394.69	2356.98	57.69	1.08	2357.67	2357.69	1.40	
9307.00	88.77	1.25	7396.24	2446.96	58.06	2.32	2447.64	2447.65	1.36	
9397.00	89.57	0.47	7397.54	2536.94	59.41	1.24	2537.62	2537.63	1.34	
9486.00	88.77	356.41	7398.83	2625.88	56.99	4.65	2626.49	2626.50	1.24	
9576.00	88.95	358.47	7400.62	2715.76	52.97	2.30	2716.28	2716.28	1.12	
9665.00	89.26	357.84	7402.01	2804.71	50.11	0.79	2805.14	2805.15	1.02	
9755.00	89.63	359.55	7402.89	2894.68	48.06	1.94	2895.05	2895.08	0.95	
9844.00	89.20	359.61	7403.79	2983.67	47.41	0.49	2984.01	2984.05	0.91	
9934.00	88.83	357.93	7405.34	3073.63	45.47	1.91	3073.92	3073.97	0.85	
10024.00	89.38	357.16	7406.75	3163.54	41.62	1.05	3163.72	3163.81	0.75	
10114.00	90.00	356.96	7407.23	3253.42	37.00	0.72	3253.49	3253.63	0.65	
10203.00	89.45	357.04	7407.66	3342.29	32.35	0.62	3342.25	3342.45	0.55	
10293.00	89.20	356.48	7408.72	3432.14	27.26	0.68	3431.98	3432.25	0.46	
10382.00	87.72	358.84	7411.11	3521.03	23.63	3.13	3520.77	3521.11	0.38	
10472.00	89.26	0.96	7413.49	3610.99	23.47	2.91	3610.71	3611.06	0.37	
10561.00	89.32	2.07	7414.59	3699.95	25.82	1.25	3699.70	3700.04	0.40	
10651.00	89.38	3.11	7415.61	3789.85	29.89	1.16	3789.66	3789.97	0.45	
10740.00	88.89	4.27	7416.95	3878.65	35.62	1.41	3878.56	3878.82	0.53	
10830.00	87.84	3.50	7419.52	3968.41	41.71	1.45	3968.43	3968.63	0.60	
10919.00	88.58	2.31	7422.30	4057.25	46.22	1.57	4057.34	4057.51	0.65	
11009.00	88.33	1.31	7424.73	4147.17	49.06	1.14	4147.30	4147.46	0.68	
11098.00	88.58	359.42	7427.13	4236.13	49.63	2.14	4236.26	4236.42	0.67	
11187.00	88.70	1.25	7429.24	4325.10	50.15	2.06	4325.22	4325.39	0.66	
11277.00	88.83	1.16	7431.18	4415.06	52.04	0.18	4415.20	4415.37	0.68	
11367.00	89.14	1.58	7432.77	4505.02	54.19	0.58	4505.18	4505.35	0.69	
11456.00	88.34	359.46	7434.73	4593.99	55.00	2.55	4594.15	4594.32	0.69	



# Weatherford RRCOT



Company: ConocoPhillips  
Field: Reagan Co, Texas (Nad 27)  
Site: University BL 7131H  
Well: University BL 7131H  
Wellpath: ST01

Date: 8/12/2013 Time: 07:57:12 Page: 3  
Co-ordinate(NE) Reference: Well: University BL 7131H, Grid North  
Vertical (TVD) Reference: SITE 2838.0  
Section (VS) Reference: Well (0.00N,0.00E,1.18Azi)  
Survey Calculation Method: Minimum Curvature Db: Sybase

## Survey

MD ft	Incl deg	Azlm deg	TVD ft	N/S ft	E/W ft	DLS deg/100ft	VS ft	ClsD ft	ClsA deg	Comment
11546.00	88.59	359.91	7437.14	4683.96	54.51	0.57	4684.08	4684.27	0.67	
11636.00	88.46	0.44	7439.46	4773.92	54.78	0.61	4774.04	4774.24	0.66	
11725.00	88.33	0.30	7441.95	4862.89	55.36	0.21	4863.00	4863.20	0.65	
11815.00	88.39	357.68	7444.53	4952.83	53.77	2.91	4952.89	4953.12	0.62	
11905.00	89.25	359.49	7446.38	5042.78	51.55	2.23	5042.77	5043.04	0.59	
11994.00	89.63	0.99	7447.25	5131.77	51.92	1.74	5131.75	5132.03	0.58	
12084.00	89.32	0.49	7448.08	5221.76	53.08	0.65	5221.74	5222.03	0.58	
12173.00	89.94	1.08	7448.65	5310.75	54.30	0.96	5310.74	5311.03	0.59	
12263.00	89.88	2.34	7448.79	5400.71	56.99	1.40	5400.73	5401.01	0.60	
12352.00	90.00	2.94	7448.89	5489.61	61.09	0.69	5489.70	5489.95	0.64	
12442.00	90.19	3.71	7448.74	5579.46	66.31	0.88	5579.64	5579.85	0.68	
12532.00	90.12	3.21	7448.49	5669.29	71.74	0.56	5669.57	5669.75	0.72	
12621.00	89.51	1.98	7448.78	5758.20	75.77	1.54	5758.54	5758.70	0.75	
12711.00	89.51	1.35	7449.55	5848.16	78.38	0.70	5848.53	5848.68	0.77	
12800.00	89.51	1.52	7450.31	5937.13	80.61	0.19	5937.53	5937.67	0.78	
12890.00	89.82	3.00	7450.84	6027.05	84.16	1.68	6027.51	6027.64	0.80	
12979.00	90.12	4.31	7450.88	6115.87	89.83	1.51	6116.42	6116.53	0.84	
13069.00	89.57	2.34	7451.13	6205.71	95.05	2.27	6206.35	6206.44	0.88	
13158.00	90.19	3.43	7451.31	6294.60	99.53	1.41	6295.31	6295.39	0.91	
13248.00	89.75	3.08	7451.36	6384.45	104.64	0.62	6385.25	6385.31	0.94	
13338.00	90.00	3.84	7451.56	6474.29	110.08	0.89	6475.18	6475.22	0.97	
13427.00	89.51	2.28	7451.94	6563.16	114.83	1.84	6564.13	6564.16	1.00	
13517.00	89.69	1.46	7452.57	6653.11	117.76	0.93	6654.12	6654.15	1.01	
13606.00	89.88	4.01	7452.90	6742.00	122.01	2.87	6743.08	6743.10	1.04	
13696.00	89.57	2.99	7453.33	6831.83	127.50	1.18	6833.00	6833.02	1.07	
13786.00	89.88	2.80	7453.76	6921.71	132.05	0.40	6922.96	6922.97	1.09	
13875.00	90.19	3.17	7453.71	7010.59	136.68	0.54	7011.92	7011.92	1.12	
13965.00	89.32	0.93	7454.09	7100.52	139.90	2.67	7101.90	7101.90	1.13	
14055.00	89.38	0.53	7455.12	7190.51	141.05	0.45	7191.89	7191.89	1.12	
14144.00	89.63	3.45	7455.88	7279.44	144.14	3.29	7280.87	7280.87	1.13	
14233.00	89.08	2.18	7456.89	7368.33	148.51	1.55	7369.82	7369.83	1.15	
14323.00	89.14	1.42	7458.28	7458.27	151.34	0.85	7459.81	7459.81	1.16	
14413.00	89.20	2.05	7459.59	7548.22	154.06	0.70	7549.79	7549.79	1.17	
14503.00	89.82	1.36	7460.36	7638.18	156.74	1.03	7639.79	7639.79	1.18	
14592.00	89.81	1.85	7460.65	7727.14	159.23	0.55	7728.78	7728.78	1.18	
14681.00	89.57	2.32	7461.13	7816.08	162.47	0.59	7817.77	7817.77	1.19	
14771.00	90.37	2.28	7461.17	7906.01	166.08	0.89	7907.75	7907.75	1.20	
14860.00	90.00	2.48	7460.89	7994.93	169.78	0.47	7996.73	7996.73	1.22	
14950.00	90.12	3.28	7460.79	8084.82	174.30	0.90	8086.69	8086.70	1.24	
15039.00	90.18	3.13	7460.56	8173.68	179.28	0.18	8175.64	8175.64	1.26	
15129.00	89.81	2.37	7460.57	8263.57	183.59	0.94	8265.60	8265.61	1.27	
15218.00	89.88	2.14	7460.81	8352.50	187.10	0.27	8354.58	8354.60	1.28	
15307.00	89.75	1.08	7461.10	8441.47	189.60	1.20	8443.58	8443.60	1.29	
15397.00	90.06	1.44	7461.24	8531.44	191.57	0.53	8533.58	8533.59	1.29	
15486.00	90.12	1.77	7461.10	8620.41	194.07	0.38	8622.58	8622.59	1.29	
15576.00	89.69	1.10	7461.25	8710.38	196.32	0.88	8712.58	8712.59	1.29	
15665.00	90.00	1.28	7461.49	8799.36	198.17	0.40	8801.58	8801.59	1.29	
15754.00	89.56	0.30	7461.84	8888.35	199.40	1.21	8890.57	8890.59	1.29	
15844.00	89.63	1.30	7462.47	8978.34	200.65	1.11	8980.57	8980.58	1.28	
15933.00	89.63	1.39	7463.05	9067.31	202.74	0.10	9069.56	9069.58	1.28	
16023.00	89.32	0.33	7463.87	9157.30	204.09	1.23	9159.56	9159.57	1.28	
16112.00	89.44	0.51	7464.84	9246.29	204.75	0.24	9248.54	9248.55	1.27	
16202.00	89.20	359.25	7465.90	9336.28	204.56	1.43	9338.51	9338.52	1.26	





# Weatherford RRCOT



<b>Company:</b> ConocoPhillips	<b>Date:</b> 8/12/2013	<b>Time:</b> 07:57:12	<b>Page:</b> 4
<b>Field:</b> Reagan Co, Texas (Nad 27)	<b>Co-ordinate(NE) Reference:</b> Well: University BL 7131H, Grid North		
<b>Site:</b> University BL 7131H	<b>Vertical (TVD) Reference:</b> SITE 2838.0		
<b>Well:</b> University BL 7131H	<b>Section (VS) Reference:</b> Well (0.00N,0.00E,1.18Azi)		
<b>Wellpath:</b> ST01	<b>Survey Calculation Method:</b> Minimum Curvature		
	<b>Db:</b> Sybase		

## Survey

MD ft	Incl deg	Azim deg	TVD ft	N/S ft	E/W ft	DLS deg/100ft	VS ft	ClsD ft	ClsA deg	Comment
16291.00	89.57	359.61	7466.86	9425.27	203.67	0.58	9427.47	9427.47	1.24	
16381.00	90.00	0.94	7467.20	9515.27	204.10	1.55	9517.45	9517.45	1.23	
16470.00	90.00	1.67	7467.20	9604.24	206.13	0.82	9606.45	9606.45	1.23	
16560.00	90.06	0.96	7467.15	9694.22	208.20	0.79	9696.45	9696.45	1.23	
16649.00	89.32	0.69	7467.63	9783.21	209.48	0.89	9785.45	9785.45	1.23	
16739.00	89.38	359.92	7468.65	9873.20	209.96	0.86	9875.43	9875.43	1.22	
16828.00	89.01	359.55	7469.90	9962.19	209.54	0.59	9964.39	9964.39	1.20	
16918.00	89.01	359.05	7471.46	10052.17	208.45	0.56	10054.33	10054.33	1.19	
17008.00	89.26	0.63	7472.82	10142.16	208.19	1.78	10144.29	10144.29	1.18	
17097.00	89.63	0.72	7473.68	10231.14	209.24	0.43	10233.28	10233.28	1.17	
17187.00	89.57	0.46	7474.31	10321.14	210.17	0.30	10323.28	10323.28	1.17	
17276.00	89.32	359.75	7475.17	10410.13	210.33	0.85	10412.26	10412.26	1.16	
17366.00	90.19	1.56	7475.55	10500.12	211.36	2.23	10502.25	10502.25	1.15	
17456.00	88.95	0.17	7476.23	10590.10	212.72	2.07	10592.24	10592.24	1.15	
17545.00	89.75	3.02	7477.24	10679.05	215.20	3.33	10681.22	10681.22	1.15	
17635.00	89.75	1.74	7477.63	10768.97	218.93	1.42	10771.20	10771.20	1.16	
17724.00	89.26	0.59	7478.40	10857.95	220.74	1.40	10860.19	10860.19	1.16	
17765.00	88.77	359.25	7479.11	10898.94	220.69	3.48	10901.18	10901.18	1.16	Last Wft Svy ST01
17793.00	88.77	359.25	7479.71	10926.93	220.32	0.00	10929.15	10929.16	1.16	Proj. To Bit

## Annotation

MD ft	TVD ft	
6190.00	6189.04	Tie On Wft BlueStar
6244.00	6243.04	First Wft Svy ST01
17765.00	7479.11	Last Wft Svy ST01
17793.00	7479.71	Proj. To Bit

