



Gyrodata Incorporated  
3811 South County Road 1285  
Odessa, Texas 79765

432-561-8458  
Fax: 432-563-7982

May 17, 2012

**Railroad Commission of Texas  
Oil & Gas Division  
P.O. Box 12967  
Capitol Station  
Austin, Texas 78711**

Attn: Ms. Pamela Johns

**RE:  
Conoco Phillips  
University CP 5 #3001H  
Permit No. 733287  
UL, Block 5  
Spraberry (Trend Area)  
Crockett County, Texas  
API No. 42-105-41415**

Ms. Johns:

Enclosed, please find the original and one copy of the survey performed on the referenced well by Gyrodata, Inc (P-5 No. 339711). Other information required by your office is as follows:

Name & Title Of Surveyor	Drainhole Number	Surveyed Depths	Dates Performed	Type of Survey
Michael Hattar Surveyor	Original Hole	Surface' - 8115'	05/08/12	Rate Gyro Multishot

A certified plat on which the bottom hole location is oriented both to the surface location and to the lease lines (or unit lines in the 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,

Holly Walker  
Operations Assistant – Midland, TX

Enclosure

A Gyrodata Directional Survey

FINAL DEFINITIVE COPY

for

CONOCO PHILLIPS

Lease: UNIVERSITY CP5#3001 Well: H, 5" DRILLPIPE  
Location: PRECISION #522, CROCKETT COUNTY, TEXAS

Job Number: MD0512GDM306

Run Date: 08 May 2012

Surveyor: Michael Hattar

Calculation Method: MINIMUM CURVATURE

Survey surface coordinates obtained from: Well Plan/Plot

Survey Latitude: 31.067942 deg. N Longitude: 101.783375 deg. W

Azimuth Correction:

Gyro: 0.75000 deg to Grid North

Depth Reference: Rotary Table

Rotary Table Elevation: 18.00

Vertical Section Calculated from Well Head Location

Closure Calculated from Well Head Location

Horizontal Coordinates Calculated from Well Head Location

# A Gyrodata Directional Survey

CONOCO PHILLIPS

Lease: UNIVERSITY CP5#3001 Well: H, 5" DRILLPIPE

Location: PRECISION #522, CROCKETT COUNTY, TEXAS

Job Number: MD0512GDM306

MEASURED DEPTH feet	INCL deg.	AZIMUTH deg.	BORE HOLE BEARING deg. min.	DOGLEG SEVERITY deg./ 100 ft.	VERTICAL DEPTH feet	CLOSURE DIST. AZIMUTH feet deg.	HORIZONTAL COORDINATES feet
0.00	0.00	0.00	N 0 0 E	0.00	0.00	0.0 0.0	0.00 N 0.00 E
0 - 8115 FT. RATE GYROSCOPIC MULTISHOT SURVEY RUN INSIDE 5" DRILLPIPE							
ALL MEASURED DEPTHS AND COORDINATES REFERENCED TO PERCISION DRILLING RIG #522 R.K.B. HEIGHT OF 18 FT.							
74.00	0.14	170.05	S 9 57 E	0.19	74.00	0.1 170.1	0.09 S 0.02 E
168.60	0.18	169.62	S 10 23 E	0.04	168.60	0.4 169.9	0.35 S 0.06 E
263.20	0.21	185.12	S 5 7 W	0.06	263.20	0.7 173.7	0.67 S 0.07 E
357.80	0.35	217.95	S 37 57 W	0.22	357.80	1.1 186.4	1.07 S 0.12 W
452.40	0.37	251.38	S 71 23 W	0.22	452.40	1.5 202.8	1.39 S 0.59 W
547.00	0.33	257.20	S 77 12 W	0.06	546.99	1.9 216.3	1.55 S 1.14 W
641.60	0.24	279.09	N 80 55 W	0.15	641.59	2.3 225.4	1.58 S 1.60 W
736.20	0.32	290.97	N 69 2 W	0.10	736.19	2.5 234.6	1.45 S 2.05 W
830.80	0.40	263.37	S 83 22 W	0.20	830.79	3.0 241.9	1.40 S 2.62 W
925.40	0.49	240.83	S 60 50 W	0.21	925.39	3.7 243.7	1.63 S 3.30 W
1020.00	0.52	221.14	S 41 8 W	0.19	1019.98	4.5 241.3	2.15 S 3.94 W
1114.60	0.57	193.07	S 13 4 W	0.28	1114.58	5.2 235.8	2.94 S 4.33 W
1209.20	0.61	185.63	S 5 38 W	0.09	1209.17	5.9 229.0	3.90 S 4.48 W
1303.80	0.36	199.88	S 19 53 W	0.29	1303.77	6.6 224.7	4.68 S 4.63 W
1398.40	0.35	213.70	S 33 42 W	0.09	1398.37	7.1 223.3	5.20 S 4.89 W
1493.00	0.40	227.39	S 47 23 W	0.11	1492.97	7.8 223.1	5.66 S 5.30 W
1587.60	0.42	232.29	S 52 17 W	0.04	1587.57	8.4 223.6	6.10 S 5.81 W
1682.20	0.26	297.62	N 62 23 W	0.41	1682.16	8.8 225.3	6.21 S 6.28 W
1776.80	0.58	326.70	N 33 18 W	0.40	1776.76	8.8 229.7	5.71 S 6.73 W

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CONOCO PHILLIPS

Lease: UNIVERSITY CP5#3001 Well: H, 5" DRILLPIPE

Location: PRECISION #522, CROCKETT COUNTY, TEXAS

Job Number: MD0512GDM306

MEASURED DEPTH feet	I N C L deg.	AZIMUTH deg.	BORE HOLE BEARING deg. min.	DOGLEG SEVERITY deg./ 100 ft.	VERTICAL DEPTH feet	CLOSURE DIST. feet	AZIMUTH deg.	HORIZONTAL COORDINATES feet	
1871.40	0.68	332.19	N 27 49 W	0.12	1871.36	8.7	236.5	4.81 S	7.26 W
1966.00	0.60	345.31	N 14 41 W	0.18	1965.95	8.6	243.4	3.84 S	7.64 W
2060.60	0.39	350.63	N 9 22 W	0.23	2060.55	8.4	248.8	3.04 S	7.82 W
2155.20	0.32	21.14	N 21 8 E	0.21	2155.14	8.2	252.4	2.48 S	7.78 W
2249.80	0.42	31.67	N 31 40 E	0.13	2249.74	7.7	255.5	1.93 S	7.50 W
2344.40	0.46	25.33	N 25 20 E	0.07	2344.34	7.3	259.7	1.30 S	7.16 W
2439.00	0.43	17.91	N 17 55 E	0.07	2438.94	6.9	264.9	0.61 S	6.89 W
2533.60	0.41	30.69	N 30 41 E	0.10	2533.53	6.6	270.1	0.01 N	6.60 W
2628.20	0.23	23.17	N 23 10 E	0.19	2628.13	6.4	274.3	0.48 N	6.36 W
2722.80	0.06	181.86	S 1 52 W	0.30	2722.73	6.3	275.5	0.61 N	6.28 W
2817.40	0.23	180.43	S 0 26 W	0.18	2817.33	6.3	273.3	0.37 N	6.29 W
2912.00	0.42	172.88	S 7 7 E	0.21	2911.93	6.2	268.5	0.17 S	6.24 W
3006.60	0.26	208.90	S 28 54 W	0.27	3006.53	6.3	263.7	0.70 S	6.31 W
3101.20	0.45	237.51	S 57 31 W	0.27	3101.13	6.8	260.8	1.09 S	6.72 W
3195.80	0.41	241.76	S 61 46 W	0.05	3195.72	7.5	258.8	1.45 S	7.33 W
3290.40	0.53	255.81	S 75 49 W	0.17	3290.32	8.2	258.0	1.71 S	8.06 W
3385.00	0.66	247.18	S 67 11 W	0.17	3384.92	9.2	257.2	2.03 S	8.98 W
3479.60	0.63	243.44	S 63 26 W	0.05	3479.51	10.3	256.0	2.48 S	9.95 W
3574.20	0.50	249.68	S 69 41 W	0.15	3574.11	11.2	255.2	2.85 S	10.80 W
3668.80	0.32	240.43	S 60 26 W	0.20	3668.70	11.8	254.7	3.13 S	11.42 W
3763.40	0.23	239.83	S 59 50 W	0.10	3763.30	12.3	254.2	3.35 S	11.81 W

# A Gyrodata Directional Survey

CONOCO PHILLIPS

Lease: UNIVERSITY CP5#3001 Well: H, 5" DRILLPIPE

Location: PRECISION #522, CROCKETT COUNTY, TEXAS

Job Number: MD0512GDM306

MEASURED DEPTH feet	I N C L deg.	AZIMUTH deg.	BORE HOLE BEARING deg. min.	DOGLEG SEVERITY deg./ 100 ft.	VERTICAL DEPTH feet	CLOSURE DIST. AZIMUTH feet deg.	HORIZONTAL COORDINATES feet
3858.00	0.11	181.88	S 1 53 W	0.21	3857.90	12.5 253.5	3.54 S 11.98 W
3952.60	0.25	150.48	S 29 31 E	0.18	3952.50	12.5 252.2	3.81 S 11.88 W
4047.20	0.35	177.42	S 2 35 E	0.18	4047.10	12.5 250.0	4.28 S 11.77 W
4141.80	0.37	185.55	S 5 33 W	0.06	4141.70	12.8 247.5	4.87 S 11.78 W
4236.40	0.37	166.32	S 13 41 E	0.13	4236.30	13.0 245.0	5.47 S 11.74 W
4331.00	0.32	151.90	S 28 6 E	0.11	4330.89	13.0 242.5	6.00 S 11.54 W
4425.60	0.29	127.91	S 52 5 E	0.14	4425.49	12.9 240.4	6.38 S 11.23 W
4520.20	0.40	94.20	S 85 48 E	0.24	4520.09	12.6 238.5	6.55 S 10.71 W
4614.80	0.34	62.09	N 62 5 E	0.22	4614.69	12.0 237.5	6.44 S 10.14 W
4709.40	0.19	73.06	N 73 4 E	0.17	4709.29	11.6 237.2	6.27 S 9.74 W
4804.00	0.31	123.39	S 56 37 E	0.25	4803.89	11.3 235.8	6.36 S 9.37 W
4898.60	0.45	129.20	S 50 48 E	0.15	4898.49	11.1 232.8	6.74 S 8.87 W
4993.20	0.53	143.61	S 36 23 E	0.15	4993.08	11.1 228.7	7.33 S 8.32 W
5087.80	0.50	148.14	S 31 52 E	0.05	5087.68	11.2 224.3	8.03 S 7.85 W
5182.40	0.46	133.90	S 46 6 E	0.13	5182.28	11.3 220.4	8.64 S 7.36 W
5277.00	0.69	114.01	S 65 59 E	0.32	5276.87	11.2 215.7	9.14 S 6.56 W
5371.60	0.57	99.47	S 80 32 E	0.21	5371.46	11.0 210.6	9.45 S 5.58 W
5466.20	0.88	103.43	S 76 34 E	0.33	5466.06	10.6 204.4	9.69 S 4.41 W
5560.80	0.42	97.92	S 82 5 E	0.49	5560.65	10.5 198.7	9.91 S 3.36 W
5655.40	0.44	156.74	S 23 16 E	0.45	5655.25	10.7 195.6	10.29 S 2.87 W
5750.00	0.49	122.92	S 57 5 E	0.29	5749.85	11.1 192.4	10.84 S 2.39 W
5844.60	0.42	82.32	N 82 19 E	0.34	5844.44	11.1 188.8	11.02 S 1.70 W

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CONOCO PHILLIPS

Lease: UNIVERSITY CP5#3001 Well: H, 5" DRILLPIPE

Location: PRECISION #522, CROCKETT COUNTY, TEXAS

Job Number: MD0512GDM306

MEASURED DEPTH feet	I N C L deg.	AZIMUTH deg.	BORE HOLE BEARING deg. min.	DOGLEG SEVERITY deg./ 100 ft.	VERTICAL DEPTH feet	CLOSURE DIST. AZIMUTH feet deg.	HORIZONTAL COORDINATES feet
5939.20	0.40	72.43	N 72 26 E	0.08	5939.04	10.9 185.5	10.87 S 1.04 W
6033.80	0.30	89.74	N 89 44 E	0.15	6033.64	10.8 182.6	10.77 S 0.48 W
6128.40	0.42	13.67	N 13 40 E	0.48	6128.24	10.4 180.8	10.43 S 0.15 W
6223.00	0.45	15.51	N 15 31 E	0.03	6222.83	9.7 179.8	9.74 S 0.03 E
6317.60	0.43	96.04	S 83 58 E	0.60	6317.43	9.4 177.1	9.42 S 0.48 E
6412.20	0.60	125.66	S 54 20 E	0.33	6412.03	9.8 172.8	9.74 S 1.24 E
6506.80	0.41	167.30	S 12 42 E	0.42	6506.63	10.5 170.6	10.36 S 1.71 E
6601.40	0.09	93.99	S 86 1 E	0.42	6601.22	10.9 170.1	10.70 S 1.86 E
6696.00	0.31	354.07	N 5 56 W	0.36	6695.82	10.6 169.6	10.45 S 1.91 E
6790.60	0.16	145.32	S 34 41 E	0.48	6790.42	10.5 169.2	10.30 S 1.96 E
6885.20	0.47	143.71	S 36 17 E	0.33	6885.02	11.0 168.1	10.72 S 2.26 E
6979.80	0.45	136.20	S 43 48 E	0.07	6979.62	11.6 166.3	11.30 S 2.75 E
7074.40	0.68	138.11	S 41 53 E	0.24	7074.21	12.5 164.2	11.99 S 3.38 E
7169.00	0.61	138.58	S 41 25 E	0.07	7168.81	13.4 162.3	12.79 S 4.09 E
7263.60	0.65	147.02	S 32 59 E	0.11	7263.40	14.4 160.9	13.61 S 4.71 E
7358.20	0.87	149.31	S 30 41 E	0.23	7357.99	15.6 159.9	14.68 S 5.37 E
7452.80	1.17	155.44	S 24 34 E	0.34	7452.58	17.3 159.2	16.18 S 6.14 E
7547.40	1.63	160.92	S 19 5 E	0.51	7547.15	19.6 159.1	18.33 S 6.98 E
7642.00	1.96	161.57	S 18 26 E	0.35	7641.70	22.6 159.4	21.13 S 7.93 E
7736.60	2.46	155.98	S 24 1 E	0.57	7736.23	26.2 159.3	24.52 S 9.27 E
7831.20	3.42	154.45	S 25 33 E	1.02	7830.71	31.1 158.6	28.92 S 11.32 E
7925.80	4.62	152.15	S 27 51 E	1.28	7925.07	37.7 157.7	34.84 S 14.31 E

# A Gyrodata Directional Survey

CONOCO PHILLIPS

Lease: UNIVERSITY CP5#3001 Well: H, 5" DRILLPIPE

Location: PRECISION #522, CROCKETT COUNTY, TEXAS

Job Number: MD0512GDM306

MEASURED DEPTH feet	I N C L deg.	A Z I M U T H deg.	B O R E H O L E B E A R I N G deg. min.	D O G L E G S E V E R I T Y deg./ 100 ft.	V E R T I C A L D E P T H feet	C L O S U R E D I S T . A Z I M U T H feet deg.	H O R I Z O N T A L C O O R D I N A T E S feet
8020.40	5.59	150.07	S 29 56 E	1.04	8019.30	46.0 156.5	42.20 S 18.39 E
8115.00	6.54	155.00	S 25 0 E	1.14	8113.37	56.0 155.8	51.08 S 22.97 E

Final Station Closure: Distance: 56.00 ft Az: 155.79 deg.



Gyrodata Incorporated  
3811 South County Road 1285  
Odessa, Texas 79765

432-561-8458  
Fax: 432-563-7982

State of Texas  
County of Harris

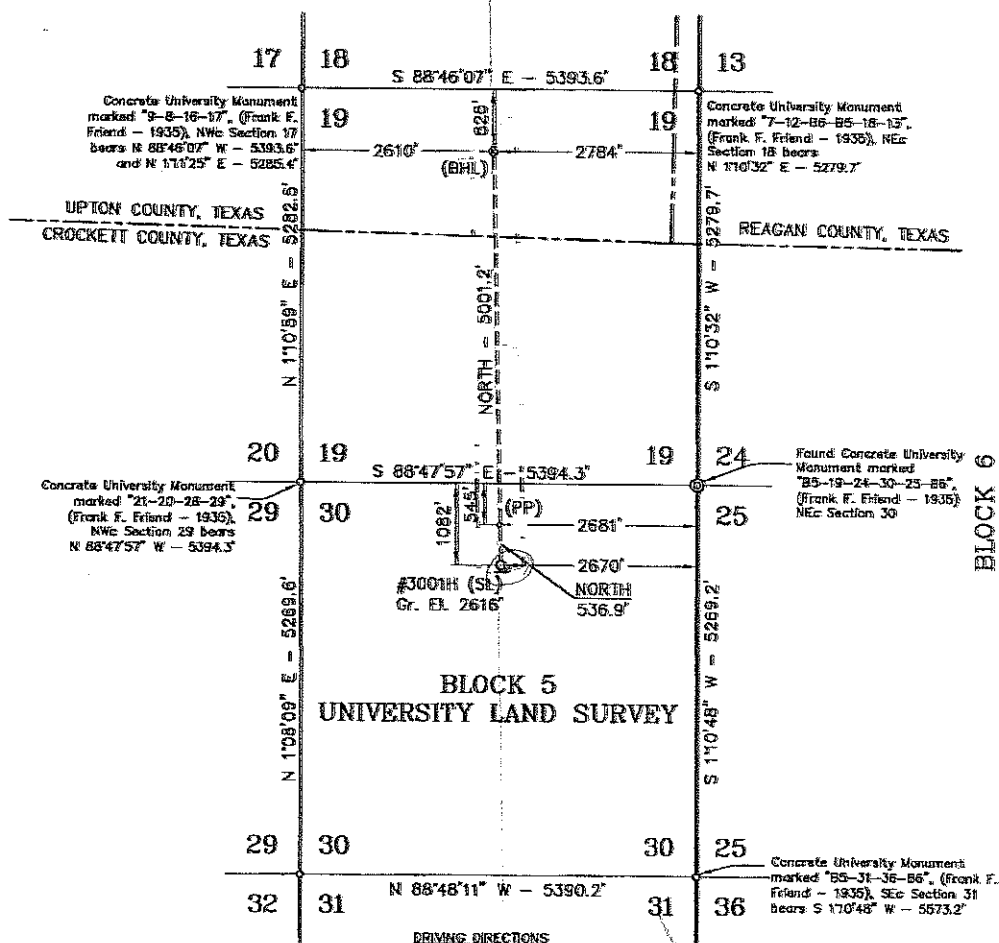
I, Frank Pawlik, certify that; I am employed by Gyrodata Inc.; that I am authorized and qualified to review the Rate Gyro Multishot survey from a depth of 6595 feet to a depth of 8115 feet conducted on the day(s) of 05/8/12 through 05/8/12; that this survey was conducted at the request of Conoco Phillips for the University CP 5 #3001H Well API No. 42-105-41415 in Crockett County, Texas; that the data is true, correct, complete, and within the limitations of the tool as set forth by Gyrodata Inc.; and that I have reviewed this report and find that it conforms to the principles and procedures as set forth by Gyrodata Inc.

A handwritten signature in cursive script, appearing to read "Frank Pawlik", written over a horizontal line.

Frank Pawlik  
District Manager – Midland, TX



GYRODATA BOTTOM HOLE LOCATION  
 56 FT @ 155.79 DEGREES OF  
 SURFACE LOCATION  
 MD 8115 TVD 8113.3'  
 SOUTH 57.08 EAST 22.97



**DRIVING DIRECTIONS**  
 From the intersection of Highway 349 and U.S. Highway 67 go Northeast on U.S. Highway 67 2.9 miles to County Road 220. Turn South (Right) and go 4.7 miles to a fork in the road. Turn Southeast (Left) and continue on County Road 220 (Maulke Road) and go 9.3 miles to an intersection. Turn Northeast (Left) and go 1.2 miles to an intersection. Turn East (Right) and go 0.7 miles to a point approximately 2900 feet to the North of the location.

Description	Plane Coordinates	Geodetic Coordinates	Geodetic Coordinates (NAD 83)
University CP 5 #3001H	X = 1,546,156.9	Latitude = 31°04'58.71" N	Latitude = 31°04'58.16" N
Surface Location	Y = 912,521.4	Longitude = 101°46'04.02" W	Longitude = 101°46'04.58" W
University CP 5 #3001H	X = 1,546,156.9	Latitude = 31°04'58.79" N	Latitude = 31°04'58.24" N
Penetration Point	Y = 513,059.2	Longitude = 101°46'09.34" W	Longitude = 101°46'09.90" W
University CP 5 #3001H	X = 1,546,156.9	Latitude = 31°04'58.54" N	Latitude = 31°04'58.99" N
Bottom Hole Location	Y = 516,056.2	Longitude = 101°46'08.83" W	Longitude = 101°46'09.38" W

Date Surveyed: January 24, 2012  
 Weather: Cool & Windy

The University CP 5 #3001H is located approximately 14 miles Southeast of Rankin, Texas.

#### NOTE:

- 1) Plane Coordinates and Bearings shown hereon are Lambert Grid and Conform to the "Texas Coordinate System", Texas Central Zone, North American Datum of 1927. Distances shown hereon are mean horizontal surface values.
- 2) Geodetic Coordinate unless otherwise shown hereon references the North American Datum of 1927, (Clarke Spheroid of 1866). Reference Station - "GUNNY" (CB0975)
- 3) See information filed in the office of this Surveyor which describes the reconstruction of this Section.

#### LEGEND

- - Denotes Proposed Well Location
- - Denotes Proposed Penetration Point
- ⊙ - Denotes Proposed Bottom Hole Location
- ⊗ - Denotes Found Monument (As Described)
- - Denotes Calculated Corner this Survey
- - Denotes Protraction Unit Line
- - Denotes County Line (Approx.)



I HEREBY CERTIFY THAT THIS PLAT WAS MADE FROM NOTES TAKEN IN THE FIELD IN A BONA FIDE SURVEY MADE UNDER MY SUPERVISION.

J. FRANK NEWMAN TEXAS R.P.L.S. No. 5011  
 MACOM McDONALD TEXAS R.P.L.S. No. 4388  
 R. CRAIG ALDERMAN TEXAS R.P.L.S. No. 5285

**WEST COMPANY**  
 of Midland, Inc.

110 W. LOUISIANA, STE. 110  
 MIDLAND TEXAS, 79701  
 (432) 687-0865 - (432) 687-0868 FAX

**ConocoPhillips**

Location of the  
**UNIVERSITY CP 5 #3001H**

Surface location: 1082' FNL & 2670' FEL, Section 30  
 Penetration Point: 545' FNL & 2681' FEL, Section 30  
 Bottom Hole Location: 826' FNL & 2610' FNL, Section 19  
 Block 5, University Land Survey  
 Crockett and Upton Counties, Texas

Drawn By: JCC	Date: January 30, 2012
Scale: 1" = 1000'	Field Book: 527 / 31-33
Revision Date: 1-31-2012	Quadrangle: Rankin SE
W.O. No: 2012-0163	Dwg. No.: L-2012-0163