

30-025-39724
A-34-20s-38e, 110/N + 1310/E

OPERATOR: ConocoPhillips Company

WELL/LEASE: Warren 337

COUNTY: Lea Unit

RIG: 306

RECEIVED

AUG 27 2010

HOBBSOCD

STATE OF NEW MEXICO
DEVIATION REPORT

495	0.5
1000	0.7
1500	0.8
1540	0.16
1722	0.6
2265	0.8
2677	1.6
2897	0.4
3397	0.6
3710	1.2
4206	1.4
4753	0.4
5249	0.5
5740	1.4
6198	1.7
6723	2.3
7018	2.9

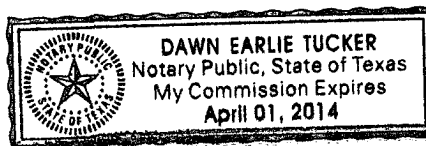
STATE OF TEXAS

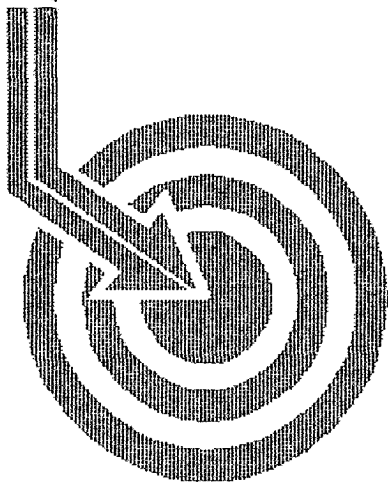
County Of Ector

BY: Andy Dale

The foregoing instrument was acknowledged before me on June 10, 2010, by
Andy Dale on behalf of Helmerich & Payne IDC.

Dawn Earlie Tucker
Notary Public for Ector County, Texas
My Commission Expires: 4-1-14





Scientific Drilling

RECEIVED

AUG 27 2010
HOBBSOCD

CONOCOPHILLIPS

Field: Warren Drinkard
Site: Lea County, NM
Well: Warren Unit #337
Wellpath: VH - Job #32K0610472
Survey: 06/25/10

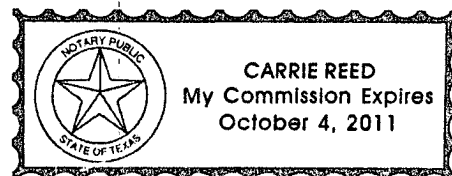
30-025-39724
A-34-20s-38e

This survey is correct to the best of my knowledge and is supported by actual field data.

Richard
Company Representative

Notarized this date 20th of July, 2010.

Carrie Reed
Notary Signature
County of Midland
State of Texas





Scientific
Drilling

Scientific Drilling International, Inc.

Survey Report

Company: CONOCOPHILLIPS
Field: Warren Drinkard
Site: Lea County, NM
Well: Warren Unit #337
Wellpath: VH - Job #32K0610472

Date: 6/30/2010 Time: 09:51:24 Page: 1
Co-ordinate(NE) Reference: Site: Lea County, NM, Grid North
Vertical (TVD) Reference: SITE 0.0
Section (VS) Reference: Well (0.00N,0.00E,296.64Azi)
Survey Calculation Method: Minimum Curvature Db: Sybase

Survey: 06/25/10
KSRG 0'-6965'

Start Date: 6/25/2010

Company: Scientific Drilling Internatio
Tool: MWD,MWD

Engineer: Garza w/Schlumberger
Tied-to: From Surface

Survey

MD ft	Incl deg	Azim deg	TVD ft	VS ft	N/S ft	E/W ft	DLS deg/100ft	ClsD ft	ClsA deg
0.0	0.00	359.35	0.0	0.0	0.0	0.0	0.00	0.0	0.00
100.0	0.33	302.31	100.0	0.3	0.2	-0.2	0.33	0.3	302.31
200.0	0.40	189.95	200.0	0.5	0.0	-0.5	0.61	0.5	266.24
300.0	0.59	227.71	300.0	0.6	-0.7	-1.0	0.37	1.2	233.69
400.0	0.68	241.19	400.0	1.1	-1.4	-1.9	0.17	2.3	234.28
500.0	0.78	299.29	500.0	2.1	-1.3	-3.0	0.71	3.3	246.40
600.0	0.88	303.95	600.0	3.5	-0.5	-4.2	0.12	4.3	262.60
700.0	0.71	305.19	700.0	4.9	0.2	-5.4	0.17	5.4	272.52
800.0	0.57	276.30	800.0	6.0	0.6	-6.4	0.35	6.4	275.80
900.0	0.56	325.44	900.0	6.9	1.1	-7.1	0.47	7.2	278.79
1000.0	0.59	323.41	999.9	7.8	1.9	-7.7	0.04	8.0	283.95
1100.0	0.72	305.69	1099.9	8.9	2.7	-8.6	0.24	9.0	287.53
1200.0	0.28	337.53	1199.9	9.7	3.3	-9.2	0.50	9.7	289.79
1300.0	0.32	349.93	1299.9	10.0	3.8	-9.3	0.08	10.0	292.20
1400.0	0.09	54.22	1399.9	10.1	4.1	-9.3	0.29	10.2	293.91
1500.0	0.21	161.29	1499.9	10.0	4.0	-9.2	0.25	10.0	293.52
1600.0	0.05	43.22	1599.9	9.8	3.8	-9.1	0.24	9.9	292.97
1700.0	0.21	109.40	1699.9	9.6	3.8	-8.9	0.20	9.7	293.28
1800.0	0.12	92.01	1799.9	9.4	3.8	-8.6	0.10	9.4	293.59
1900.0	0.14	101.21	1899.9	9.1	3.7	-8.4	0.03	9.2	294.00
2000.0	0.24	49.43	1999.9	8.9	3.8	-8.1	0.19	9.0	295.38
2100.0	0.65	74.07	2099.9	8.4	4.1	-7.4	0.44	8.5	299.22
2200.0	0.89	75.18	2199.9	7.4	4.5	-6.1	0.24	7.6	306.38
2300.0	1.00	83.89	2299.9	6.1	4.8	-4.5	0.18	6.5	316.90
2400.0	1.04	75.15	2399.9	4.7	5.1	-2.7	0.16	5.8	331.91
2500.0	1.00	76.48	2499.9	3.4	5.5	-1.0	0.05	5.6	349.79
2600.0	1.11	75.04	2599.9	2.0	6.0	0.8	0.11	6.0	7.49
2700.0	1.00	77.91	2699.8	0.6	6.4	2.6	0.12	6.9	21.86
2800.0	0.75	75.15	2799.8	-0.6	6.8	4.1	0.25	7.9	30.95
2900.0	0.53	66.09	2899.8	-1.4	7.1	5.1	0.24	8.8	35.67
3000.0	0.55	56.40	2999.8	-1.9	7.6	5.9	0.09	9.6	38.08
3100.0	0.28	43.77	3099.8	-2.2	8.0	6.5	0.28	10.3	39.05
3200.0	0.24	66.91	3199.8	-2.4	8.3	6.9	0.11	10.8	39.68
3300.0	0.10	77.23	3299.8	-2.6	8.4	7.1	0.14	11.0	40.45
3400.0	0.19	312.30	3399.8	-2.5	8.5	7.1	0.26	11.1	39.87
3500.0	0.48	268.08	3499.8	-2.0	8.6	6.6	0.37	10.8	37.34
3600.0	0.70	273.79	3599.8	-1.1	8.6	5.5	0.23	10.3	32.68
3700.0	0.85	265.00	3699.8	0.1	8.6	4.2	0.19	9.6	25.95
3800.0	0.84	272.86	3799.8	1.4	8.6	2.7	0.12	9.0	17.59
3900.0	0.92	271.53	3899.8	2.8	8.6	1.2	0.08	8.7	7.82
4000.0	1.00	282.39	3999.8	4.4	8.9	-0.5	0.20	8.9	356.98
4100.0	0.84	278.27	4099.7	5.9	9.1	-2.0	0.17	9.4	347.40
4200.0	0.79	277.84	4199.7	7.3	9.3	-3.5	0.05	10.0	339.72
4300.0	0.81	286.14	4299.7	8.6	9.6	-4.8	0.12	10.8	333.45
4400.0	0.86	284.25	4399.7	10.1	10.0	-6.2	0.06	11.8	328.16
4500.0	0.86	273.45	4499.7	11.5	10.2	-7.7	0.16	12.8	323.08
4600.0	0.88	284.66	4599.7	12.9	10.5	-9.2	0.17	13.9	318.77
4700.0	1.20	276.92	4699.7	14.7	10.8	-11.0	0.35	15.4	314.56
4800.0	1.06	283.81	4799.7	16.5	11.2	-12.9	0.19	17.1	310.83



Scientific Drilling International, Inc.

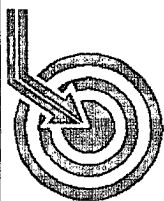
Survey Report

Company: CONOCOPHILLIPS
Field: Warren Drinkard
Site: Lea County, NM
Well: Warren Unit #337
Wellpath: VH - Job #32K0610472

Date: 6/30/2010 Time: 09:51:24 Page: 2
Co-ordinate(NE) Reference: Site: Lea County, NM, Grid North
Vertical (TVD) Reference: SITE 0.0
Section (VS) Reference: Well (0.00N,0.00E,296.64Azi)
Survey Calculation Method: Minimum Curvature Db: Sybase

Survey

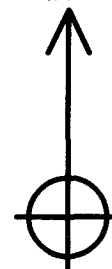
MD ft	Incl deg	Azim deg	TVD ft	VS ft	N/S ft	E/W ft	DLS deg/100ft	ClsD ft	ClsA deg
4900.0	0.88	288.84	4899.6	18.2	11.6	-14.5	0.20	18.6	308.65
5000.0	0.84	279.33	4999.6	19.7	12.0	-16.0	0.15	20.0	306.87
5100.0	0.96	275.70	5099.6	21.1	12.2	-17.5	0.13	21.4	304.80
5200.0	0.88	278.71	5199.6	22.7	12.4	-19.1	0.09	22.8	302.93
5300.0	0.97	283.31	5299.6	24.2	12.7	-20.7	0.12	24.3	301.51
5400.0	0.93	286.85	5399.6	25.8	13.1	-22.3	0.07	25.9	300.47
5500.0	0.87	284.62	5499.6	27.4	13.6	-23.8	0.07	27.4	299.64
5600.0	1.04	287.75	5599.6	29.0	14.0	-25.4	0.18	29.0	298.88
5700.0	0.88	287.30	5699.5	30.7	14.5	-27.0	0.16	30.7	298.27
5800.0	1.15	276.73	5799.5	32.4	14.9	-28.8	0.33	32.4	297.36
5900.0	1.01	283.67	5899.5	34.2	15.2	-30.6	0.19	34.2	296.42
6000.0	1.02	284.47	5999.5	35.9	15.6	-32.3	0.02	35.9	295.81
6100.0	0.97	279.75	6099.5	37.6	16.0	-34.0	0.10	37.6	295.19
6200.0	1.13	287.49	6199.5	39.4	16.4	-35.8	0.21	39.4	294.67
6300.0	1.04	287.24	6299.4	41.2	17.0	-37.6	0.09	41.3	294.33
6400.0	1.00	293.19	6399.4	43.0	17.6	-39.3	0.11	43.0	294.16
6500.0	1.40	293.25	6499.4	45.1	18.4	-41.2	0.40	45.1	294.12
6600.0	1.52	300.84	6599.4	47.6	19.6	-43.5	0.23	47.7	294.28
6700.0	1.79	304.60	6699.3	50.5	21.2	-45.9	0.29	50.5	294.77
6800.0	1.93	304.42	6799.3	53.7	23.0	-48.6	0.14	53.7	295.36
6900.0	1.86	309.84	6899.2	57.0	25.0	-51.2	0.19	57.0	296.03
6965.0	2.12	314.41	6964.2	59.1	26.5	-52.9	0.47	59.1	296.64



Scientific
Drilling

Field: Warren Drinkard
Site: Lea County, NM
Well: Warren Unit #337
Survey: 06/25/10

G/T/M



Azimuths to Grid North
True North: 0.00°
Magnetic North: 0.00°
Magnetic Field
Dip Angle: 0.00°
Date: 6/29/2010
Model: igrf2000

