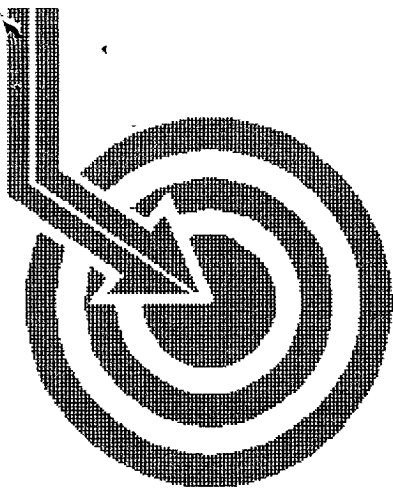
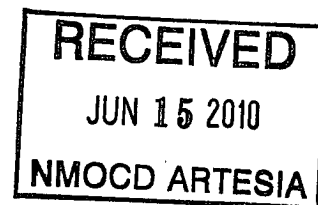
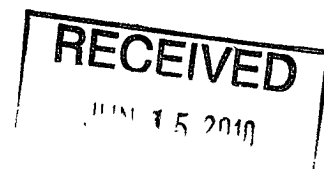


30 015 37341



Scientific Drilling



OCCIDENTAL PERMIAN LTD.

Field: Livingston Ridge, Delaware
Site: Eddy County, NM
Well: Federal 23 #16
Wellpath: VH - Job #32K0110050
Survey: 01/22/10

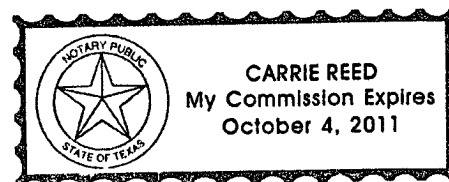
MR

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

Richard
Company Representative

Notorized this date 16th of February, 2010.

Carrie Reed
Notary Signature
County of Midland
State of Texas





Scientific
Drilling

Scientific Drilling International, Inc.

Survey Report

Company: OCCIDENTAL PERMIAN LTD.
Field: Livingston Ridge, Delaware
Site: Eddy County, NM
Well: Federal 23 #16
Wellpath: VH - Job #32K0110050

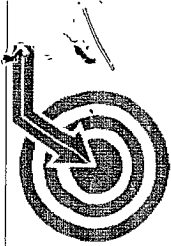
Date: 1/28/2010 Time: 22:09:55 Page: 1
Co-ordinate(NE) Reference: Site: Eddy County, NM, Grid North
Vertical (TVD) Reference: SITE 0:0
Section (VS) Reference: Well (0.00N,0.00E,278.73Azi)
Survey Calculation Method: Minimum Curvature Db: Sybase

Survey: 01/22/10
KSRG 0'-804'
Company: Scientific Drilling Internatio
Tool: Keeper, Keeper Surface Readout

Start Date: 1/22/2010
Engineer: Melendez w/Gray
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	359.68	0.0	0.0	0.0	0.0	0.00	0.0	0.00
100.0	0.58	231.58	100.0	0.3	-0.3	-0.4	0.58	0.5	231.58
200.0	0.59	227.56	200.0	1.0	-1.0	-1.2	0.04	1.5	230.22
300.0	0.55	242.52	300.0	1.7	-1.5	-2.0	0.15	2.5	232.01
400.0	0.37	250.55	400.0	2.4	-1.9	-2.7	0.19	3.3	235.32
500.0	0.40	237.07	500.0	2.9	-2.2	-3.3	0.10	4.0	236.70
600.0	0.34	249.46	600.0	3.5	-2.5	-3.9	0.10	4.6	237.55
700.0	0.44	249.00	700.0	4.1	-2.7	-4.5	0.10	5.3	239.05
800.0	0.56	238.47	800.0	4.8	-3.1	-5.3	0.15	6.1	239.62
804.0	0.30	277.59	804.0	4.8	-3.1	-5.3	9.45	6.2	239.68



Scientific
Drilling

Field: Livingston Ridge, Delaware
Site: Eddy County, NM
Well: Federal 23 #16
Survey: 01/22/10



Azimuths to Grid North
True North 0.00°
Magnetic North 0.00°
Magnetic Field
Dip Angle 0.00°
Date 1/28/2010
Model igrf2000

West(-)/East(+) [1ft/in]

