

OCCIDENTAL PERMIAN LTD.

Empire
Eddy County, NM
Roo "22" State #5
VH - Job #32K0412440

Survey: Gyro

30-015-39497

SDI Standard Survey Report

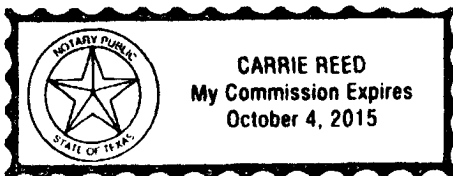
This survey is correct to the best of my knowledge and is supported by actual field data.



Notarized this date 14th of May, 2012.



Notary Signature
County of Midland
State of Texas

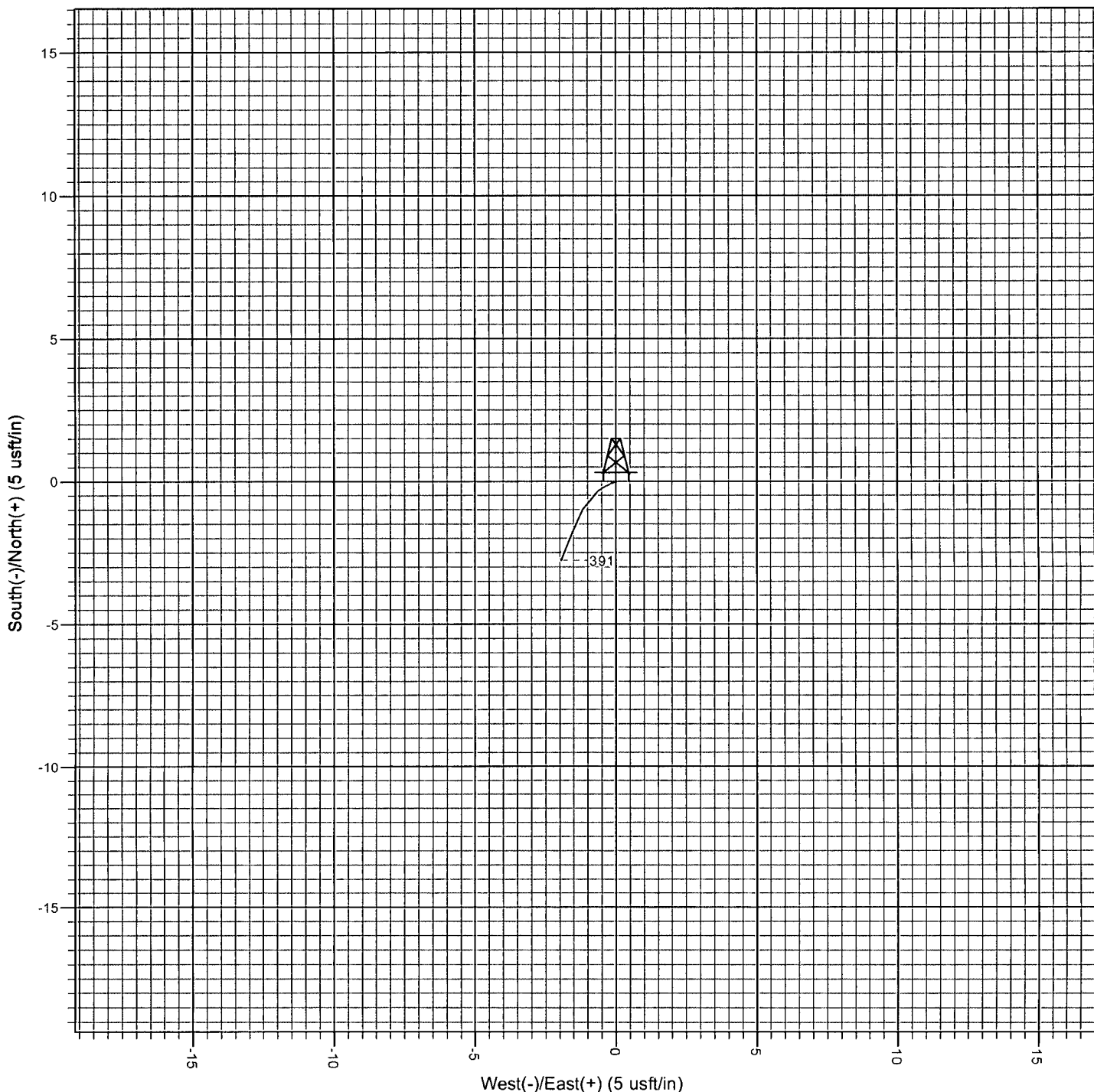




Project: Empire
Eddy County, NM
Well: Roo "22" State #5
Wellbore: VH - Job #32K0412440
Design: VH - Job #32K0412440

WELL DETAILS: Roo "22" State #5
WELL @ 0.00usft (Original Well Elev)
Ground Level: 0.00

+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Slot
0.00	0.00	662760.62	550303.72	32° 49' 18.873 N	104° 10' 10.499 W	



PROJECT DETAILS: Empire	SITE DETAILS: Eddy County, NM
Geodetic System: US State Plane 1927 (Exact solution)	Site Centre Latitude: 32° 49' 1.589 N
Datum: NAD 1927 (NADCON CONUS)	Longitude: 104° 10' 22.415 W
Ellipsoid: Clarke 1866	Positional Uncertainty: 0.00
Zone: New Mexico East 3001	Convergence: 0.09
System Datum: Mean Sea Level	Local North: Grid

Occidental Permian Ltd.
5 Greenway Plaza Suite 110
Houston Tx 77046

Date: May 24, 2012

Attention: Carlos Mercado
Jennifer Duarte

Re: Occidental Permian Ltd
Roo 22 State #5
Eddy County, New Mexico

Enclosed, please find the original survey performed on the referenced well by Savanna 415 using Weatherford's AMS tool. Other information required by your office is as follows:

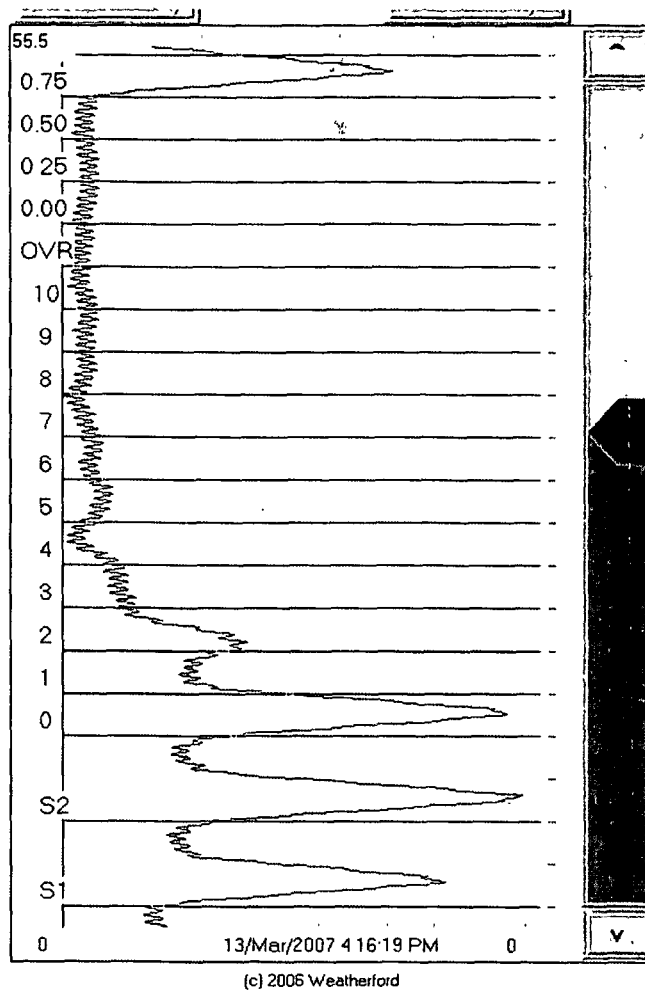
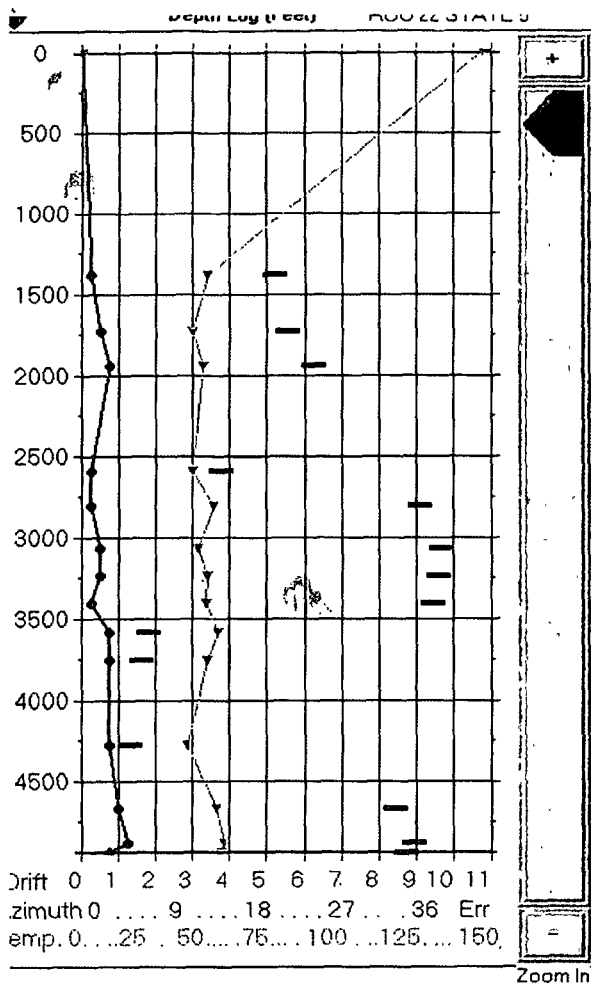
Name & Title Of Surveyor	Surveyed Depths	Dates Performed	Type of Survey
Savanna 415	1390' MD to 4950' MD	04/05/2012 04/10/2012	AMS Inc/Azim

On this, the 25 day of May, 2012, before me a notary public, the undersigned officer, personally appeared Rendon Wells known to me (or satisfactorily proven) to be the person whose name is subscribed to the within instrument, and acknowledged that he executed the same for the purposes therein contained.

In witness hereof, I hereunto set my hand and official seal.

Kaye L. Harrison
Notary Public





Temperature
 63

Azimuth (TRUE)
 314.8

Drift
 0.75

Depth (Feet)
 4950

IDLE

OPTION

Logging Program System Parameters

20/Apr/2012

Well Name ROO 22 STATE 5

Legal SubDivision ROO 22 STATE 5

AFE # 1140880

Creation Date 09/Mar/2007

Service Order # 4026113

CSS # WOL 3792

DMT # AMS-029

Battery # 402938301 /30

Pulser # 4C-8389

Transducer # STANDPIPE

Pump On Pressure 250

Baseline Pressure 0

Pulse Range 5000

Pressure Transducer Full Scale Pressure 5000

Apply ambient pressure to transducer and press Calibrate

13763

Calibrate

Filter Size 600

Declination 7.8

Azimuth Pulse Period 1500 mSec

Survey Duration 131 Sec

Time Till Autostart 30 Sec

Pump Off Time 120 Sec

Error Msg Timeout 300 Sec

Notes J PEARLMAN 04-15-12

Client Name OXY SAVANNA 415

File Size (KBytes) 11264

Acquisition Options

- ☒ A/D Enabled
- ☐ Wrap Data Continuously
- ☐ Automatic Filtering

RESTART

Depth Scale

- ☐ Meters
- ☒ Feet

Pressure Scale

- ☒ PSI
- ☐ kPascals
- ☐ BAR

CLR LOG

DOWNLOAD

Tool Type

- ☐ DMT 3500
- ☒ AMS 2000

CANCEL

OPTION

Time of Day (HR:MIN) 14:35

(c) 2005 Weatherford Canada Petroleum

F:\DMTData\ROO 22 STATE 5\ROO 22 STATE 5.txt

Depthlog Information

Data File Version: 14

Logfile created with DMT Surface Plotter Rev W2.01g

Legal Subdivision: ROO 22 STATE 5

Well Name: ROO 22 STATE 5

AFE Number: 1140880

Creation Date: 09/03/07 00:00:09

Number of Surveys: 15

Service Order Number: 4026113

CSS Number: WOL 3792

DMT Number: AMS-029

Battery Number: 402938301 /30DL

Pulser Number: 4C-8389

Client Name: OXY SAVANNA 415

Deepest Entry: 4950

Depth is measured in : FEET

Pulse Range: 5000 PSI

Baseline Pressure: 0 PSI

Full Scale Pressure: 5000 PSI

Client used: PSI

File Size (KBytes): 11264

Survey Comment: "J PEARLMAN 04-15-12"

Transducer Calibration Value: 13763 A/D Counts

Transducer Number: STANDPIPE

Pump Timeout Delay: 120

System Timeout Delay: 30

Tool Type: AMS 2000

Declination: 7.8

Azimuth Pulse Period: 1500

Azimuth Pulse Width: 500

Histogram Filter Size: 600

Hardware AtoD Rate: 1000 Samples/Sec

Software AtoD Usage Rate: 1000 Samples/Sec

Azimuth Error Codes

Azimuth > 360 is invalid angle or error code.

Error 420 -- MAG FP Number Overrange

Error 421 -- Missing Drift Start Bits

Error 422 -- Missing Drift Angle Bits

Error 423 -- Missing Drift Fraction Bits

Error 424 -- Multiple Drift Angle Bits

Error 425 -- Stuff Bit Error

Error 430 -- Missing Azimuth Stop bit..

Error 431 -- Missing Azimuth Start Bit.

Error 435 -- Parity Error.

Error 440 -- QFLEX Drift Angle too high.

Error 450 -- QFLEX EEROM Parity Error.

Error 460 -- Azimuth Angle too high.

Error 461 -- Temperature Value too high.

Date	Time	Depth	Drift	Azimuth[T]	Temperature	Record#
10/03/07	09:35:10	1390	0.25	188.8	48	9
10/03/07	13:18:10	1735	0.50	199.8	42	12
10/03/07	16:39:10	1950	0.75	224.8	46	14
11/03/07	06:10:11	2599	0.25	135.8	42	19
11/03/07	09:57:11	2815	0.25	328.8	50	21
11/03/07	15:23:11	3074	0.50	348.8	44	23
11/03/07	18:19:11	3244	0.50	345.8	48	25
11/03/07	21:32:11	3418	0.25	340.8	47	27
11/03/07	23:35:11	3590	0.75	65.8	52	28
12/03/07	01:44:12	3764	0.75	58.8	48	29
12/03/07	16:22:12	4284	0.75	48.8	40	36
13/03/07	05:56:13	4671	1.00	304.8	51	39
13/03/07	11:43:13	4883	1.25	322.8	54	41
13/03/07	16:10:13	0	0.00	410.0	151	42
13/03/07	16:16:13	4950	0.75	314.8	53	43