

Reservoir Development

Drilling & Measurements (Extreme Engineering)

6724 Corporation Pkwy Suite 100

Fort Worth, TX 76126

Phone: (817) 717-1820

Fax: (817) 546-7551

30 015 40534

June 18, 2013

Occidental Permian Ltd

5 Greenway Plaza Suite 110

Houston, Texas 77046

Attention: Anthony Tschacher

Re:

CLIENT: OXY

WELL: Roo 22 State 12

FIELD: YESO

RIG: Savanna 415

COUNTY: Eddy

API NO: 30-015-40534

JOB NO: NM-OXY-0071

Enclosed, please find the original copy of the survey performed on the referenced well by Drilling & Measurements (formerly Extreme), a division of Schlumberger Technology Corporation (P-5 No. 754900).

Other information required by your office is as follows.

<u>Name & Title of Surveyor</u>	<u>Drainhole Number</u>	<u>Surveyed Depths</u>	<u>Dates Performed</u>	<u>Type of Survey</u>
Troy Miller FST-1	Roo 22 State 12 Original Hole	45.00 Ft to 4890.00 Ft	May 30, 2013 to June 2, 2013	SlimPulse

A plat of the bottom hole location is oriented both to the surface location and to the lease lines (or, until line in case of pooling), is attached to the survey report.

If any other information is required, please contact the undersigned at the above letterhead and phone number.

Sincerely,

Joseph Stewart
Field Service Manager

CC: OXY

Enclosures: [2]

County of Eddy

State of New Mexico

Reservoir Development

Drilling & Measurements (Extreme Engineering)

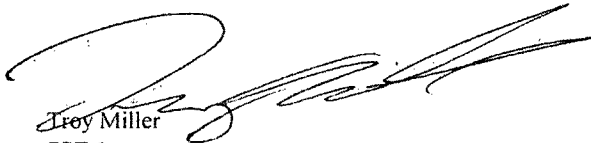
6724 Corporation Pkwy Suite 100

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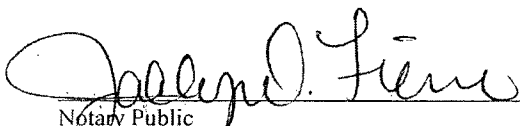
Fax: (817) 546-7551

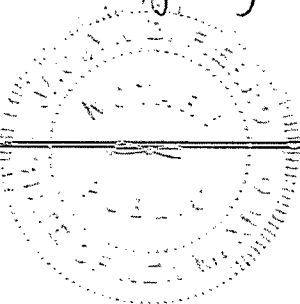
I, Troy Miller certify that; I am employed by Drilling & Measurements (formerly Extreme), a division of Schlumberger Technology Corporation; that I did on the day(s) of May 30, 2013 through June 02, 2013, conduct or supervise the taking of the SlimPulse surveys from a depth of 45.00 feet to a depth of 4890.00 feet; that the data is true, correct, complete and within the limitations of the tool as set forth by Drilling & Measurements, a division of Schlumberger Technology Corporation; that I am authorized and qualified to make this report; that this survey was conducted at the request of OXY for the Roo 22 State 12 Well (Original Hole) API No. 30-015-40534 in New Mexico; and that I have reviewed this report and find that it conforms to the principals and procedures as set forth by Drilling & Measurements, a division of Schlumberger Technology Corporation.


Troy Miller
FST-1

Before me, Jaclyn D. Ferro, on this day personally appeared Troy Duane Miller, known to me to be the person whose name is subscribed to the foregoing instrument and acknowledged to me that he/she executed the same for the purposes and consideration therein expressed.

Given under my hand and seal of office this 19th day of June, 2013 (year).


Notary Public
my Commission expires
July 18, 2015



Roo 22 State 12 MWD 0' to 4890' Survey Report

(Def Survey)

Report Date: June 02, 2013 - 04:42 PM
 Client: OXY
 Field: NM, Eddy (NAD27) 2011
 Structure / Slot: OXY (Roo 22 State 12) Savanna 415 / Roo 22 State 12
 Well: New Well
 Borehole: Original Hole
 UWI / API#: Unknown / 30-015-40534
 Survey Name: Roo 22 State 12 MWD 0' to 4890'
 Survey Date: June 02, 2013
 Tort / AHD / DD1 / ERD Ratio: 18.105' / 47.301 ft / 2.933 / 0.010
 Coordinate Reference System: NAD27 New Mexico State Plane, Eastern Zone, US Feet
 Location Lat / Long: N 32° 49' 17.40000", W 104° 9' 53.64000"
 Location Grid N/E Y/X: N 662614.014 NUS, E 551742.598 ftUS
 CRS Grid Convergence Angle: 0.09129503 °
 Grid Scale Factor: 0.99991216

Survey / DLS Computation: Minimum Curvature / Lubinski
 Vertical Section Azimuth: 0.000 ° (Grid North)
 Vertical Section Origin: 0.000 ft, 0.000 ft
 TVD Reference Datum: RKB
 TVD Reference Elevation: 3603.000 ft above MSL
 Seabed / Ground Elevation: 3587.000 ft above MSL
 Magnetic Declination: 8.089 °
 Total Field Strength: 48712.828 nT
 Magnetic Dip Angle: 60.588 °
 Declination Date: June 02, 2013
 Magnetic Declination Model: IGRF2010/IGRF-11
 North Reference: Grid North
 Grid Convergence Used: 0.091 °
 Total Corr Mag North->Grid North: 7.998 °
 Local Coord Referenced To: Structure Reference Point

Comments	MD (ft)	Incl (°)	Azim Grid (°)	TVD (ft)	VSEC (ft)	NS (ft)	EW (ft)	DLS (°/100ft)	Northing (ftUS)	Easting (ftUS)	Latitude (N/S ° ' ")	Longitude (E/W ° ' ")
Surface	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A	662614.01	551742.60	N 32 49 17.40	W 104 9 53.64
Begin MWD Surveys	45.53	0.62	182.86	45.53	-0.24	-0.24	0.07	1.36	662613.78	551742.67	N 32 49 17.40	W 104 9 53.64
	325.04	0.40	48.47	325.03	-1.03	-1.03	1.25	0.31	662612.98	551743.85	N 32 49 17.39	W 104 9 53.63
	421.23	0.48	318.34	421.22	-0.51	-0.51	1.23	0.65	662613.50	551743.83	N 32 49 17.39	W 104 9 53.63
	519.71	0.70	250.53	519.70	-0.40	-0.40	0.39	0.69	662613.61	551742.98	N 32 49 17.40	W 104 9 53.64
	611.80	0.82	241.74	611.78	-0.83	-0.83	-0.58	0.14	662613.19	551742.02	N 32 49 17.39	W 104 9 53.65
	704.37	0.62	239.66	704.35	-1.32	-1.32	-1.45	0.02	662612.70	551741.15	N 32 49 17.39	W 104 9 53.66
	794.41	0.79	244.95	794.38	-1.82	-1.82	-2.43	0.20	662612.19	551740.16	N 32 49 17.38	W 104 9 53.67
	884.12	0.48	251.54	884.08	-2.21	-2.21	-3.35	0.35	662611.81	551739.25	N 32 49 17.33	W 104 9 53.68
	1013.91	0.79	240.33	1013.86	-2.82	-2.82	-4.64	0.26	662611.19	551737.95	N 32 49 17.37	W 104 9 53.69
	1144.25	0.62	225.74	1144.20	-3.76	-3.76	-5.93	0.19	662610.28	551736.67	N 32 49 17.36	W 104 9 53.71
	1274.38	0.70	231.76	1274.32	-4.74	-4.74	-7.06	0.08	662609.27	551735.54	N 32 49 17.35	W 104 9 53.72
	1448.47	0.79	199.16	1448.39	-6.53	-6.53	-8.29	0.25	662607.48	551734.31	N 32 49 17.34	W 104 9 53.74
	1534.89	0.70	212.47	1534.81	-7.54	-7.54	-8.77	0.22	662606.47	551733.83	N 32 49 17.33	W 104 9 53.74
	1634.00	1.01	352.83	1633.91	-7.19	-7.19	-9.20	1.63	662606.83	551733.40	N 32 49 17.33	W 104 9 53.75
	1722.00	1.10	256.94	1721.90	-6.61	-6.61	-10.12	1.78	662607.41	551732.48	N 32 49 17.33	W 104 9 53.76
	1808.00	1.19	229.65	1807.68	-7.37	-7.37	-11.61	0.64	662606.64	551730.99	N 32 49 17.33	W 104 9 53.78
	1933.00	1.32	217.57	1932.85	-9.35	-9.35	-13.47	0.24	662604.66	551729.13	N 32 49 17.31	W 104 9 53.80
	2008.14	1.01	225.35	2007.98	-10.50	-10.50	-14.47	0.46	662603.51	551728.13	N 32 49 17.30	W 104 9 53.81
	2107.00	1.19	199.16	2106.82	-12.09	-12.09	-15.43	0.53	662601.93	551727.17	N 32 49 17.28	W 104 9 53.82
	2236.00	0.88	221.96	2235.80	-14.09	-14.09	-18.53	0.40	662599.93	551726.07	N 32 49 17.26	W 104 9 53.83
	2322.00	0.79	352.83	2321.80	-13.99	-13.99	-17.05	1.77	662600.02	551725.55	N 32 49 17.26	W 104 9 53.84
	2452.00	0.79	256.94	2451.79	-13.30	-13.30	-18.03	0.90	662600.71	551724.57	N 32 49 17.27	W 104 9 53.85
	2581.00	0.79	229.65	2580.78	-14.08	-14.08	-18.57	0.29	662599.93	551723.02	N 32 49 17.26	W 104 9 53.87
	2701.58	0.70	193.14	2701.35	-15.34	-15.34	-20.38	0.39	662598.68	551722.22	N 32 49 17.25	W 104 9 53.88
	2831.26	0.79	202.67	2831.02	-16.93	-16.93	-20.90	0.12	662597.08	551721.70	N 32 49 17.23	W 104 9 53.89
	2918.66	0.79	211.07	2918.41	-18.00	-18.00	-21.44	0.13	662596.01	551721.16	N 32 49 17.22	W 104 9 53.89
	3090.46	0.70	210.05	3090.19	-19.93	-19.93	-22.58	0.05	662594.09	551720.02	N 32 49 17.20	W 104 9 53.90
	3229.00	0.40	199.16	3228.73	-21.12	-21.12	-23.16	0.23	662592.90	551719.44	N 32 49 17.19	W 104 9 53.91
	3360.00	0.22	192.65	3359.72	-21.79	-21.79	-23.37	0.14	662592.22	551719.23	N 32 49 17.18	W 104 9 53.91
	3447.00	0.62	216.65	3446.72	-22.34	-22.34	-23.69	0.49	662591.68	551718.91	N 32 49 17.18	W 104 9 53.92
	3565.29	0.40	157.23	3565.01	-23.23	-23.23	-23.91	0.46	662590.79	551718.69	N 32 49 17.17	W 104 9 53.92
	3691.51	0.60	355.40	3691.22	-23.14	-23.14	-23.90	0.55	662590.58	551718.80	N 32 49 17.17	W 104 9 53.92
	3781.97	0.09	356.06	3781.89	-23.24	-23.24	-23.82	0.01	662590.78	551718.78	N 32 49 17.17	W 104 9 53.92
	3869.15	0.31	129.06	3868.87	-23.32	-23.32	-23.64	0.43	662590.70	551718.96	N 32 49 17.17	W 104 9 53.92
	3999.50	0.31	110.17	3999.21	-23.66	-23.66	-23.04	0.08	662590.35	551719.56	N 32 49 17.17	W 104 9 53.91
	4142.00	0.31	203.33	4141.71	-24.15	-24.15	-22.83	0.32	662589.67	551719.77	N 32 49 17.16	W 104 9 53.91
	4272.00	0.09	211.07	4271.71	-24.56	-24.56	-23.02	0.17	662589.46	551719.58	N 32 49 17.16	W 104 9 53.91
	4394.00	0.22	227.84	4393.71	-24.80	-24.80	-23.24	0.11	662589.22	551719.36	N 32 49 17.16	W 104 9 53.91
	4526.00	0.22	210.05	4525.71	-25.19	-25.19	-23.56	0.05	662588.83	551719.04	N 32 49 17.15	W 104 9 53.92
	4656.00	0.31	199.16	4655.71	-25.74	-25.74	-23.80	0.08	662588.28	551718.80	N 32 49 17.15	W 104 9 53.92
	4783.00	0.40	196.65	4782.71	-26.48	-26.48	-24.04	0.07	662587.53	551718.56	N 32 49 17.14	W 104 9 53.92
End MWD Surveys	4890.65	0.31	293.07	4890.36	-26.73	-26.73	-24.41	0.49	662587.29	551718.19	N 32 49 17.14	W 104 9 53.93

Survey Type: Def Survey

Survey Error Model: ISCSA Rev 0 "" 3-D 95.000% Confidence 2.7855 sigma
 Survey Program:

Description	MD From (ft)	MD To (ft)	EOU Freq (ft)	Survey Tool Type	Borehole / Survey
	0.000	16.000	Act Sins	SLB_MWD-STD-Depth Only	Original Hole / Roo 22 State 12 MWD 0' to 4890'
	16.000	16.000	Act Sins	SLB_MWD-STD-Depth Only	Original Hole / Roo 22 State 12 MWD 0' to 4890'
	16.000	4890.652	Act Sins	SLB_MWD-STD	Original Hole / Roo 22 State 12 MWD 0' to 4890'