

**Reservoir Development**

Drilling & Measurements (Extreme Engineering)
6724 Corporation Pkwy Suite 100
Fort Worth, TX 76126
Phone: (817) 717-1820
Fax: (817) 546-7551

30-015-40535

November 20, 2012

Occidental Permian Ltd
5 Greenway Plaza Suite 110
Houston, Texas 77046

Attention: Anthony T Tschacher

Re:

CLIENT: Occidental Permian Ltd
WELL: Roo 22 State #13
FIELD: Permian Basin
RIG: Savanna 415
COUNTY: Eddy
API NO: 0
JOB NO: NM-OXY-0018

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>
John McDonough FST-2	Roo 22 State #13 Original Hole	175.00 Ft to 4659.00 Ft	July 23, 2012 to October 18, 2012	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,

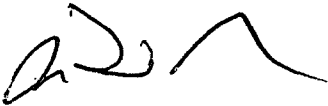
Mike Johns
Field Service Manager

CC: Occidental Permian Ltd
Enclosures: [2]
County of Eddy
State of New Mexico

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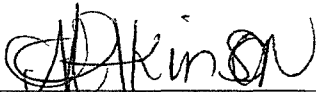
I, John McDonough certify that; I am employed by Drilling & Measurements (formerly Extreme), a division of Schlumberger Technology Corporation; that I did on the day(s) of July 23, 2012 through October 18, 2012, conduct or supervise the taking of the SlimPulse surveys from a depth of 175.00 feet to a depth of 4659.00 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 Occidental Permian Ltd for the Roo 22 State #13 Well (Original Hole) API No. 0 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.



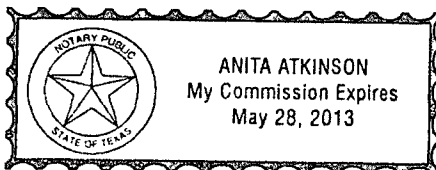
John McDonough
FST-2

Before me, Anita Atkinson, on this day personally appeared John McDonough, 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 20th day of NOV, 2012 (year).



Notary Public



NM-OXY-0018 Roo 22 State 13 MWD 0' to 4659' Survey Report

(Def Survey)

Report Date: November 20, 2012 - 03:03 PM
 Client: OXY
 Structure / Slot: Eddy (NAO27) 2011
 Well: OXY (Roo 22 State 13) Savanna 415 / Roo 22 State 13
 Borehole: Roo 22 State 13
 UTM / API# : Original Hole
 Survey Name: Ummow / 25015-0536
 Survey Date: Roo 22 State 13 MWD 0' to 4659'
 Tor / MWD / DD / ERD Ratio: October 18, 2012
 Coordinate Reference System: 7.012 / 1.41481 N / 2.464 / 0.009
 Location Lat / Long: NAO27 Universal Transverse Mercator Zone 13 North, US Feet
 Location Grid NE VK: N 32° 49' 29.6400" W 104° 9' 54.3600"
 CRS Grid Convergence Angle: N 11915566.129 NUS, E 185981.909 NUS
 Grid Scale Factor: 0.45260008 *
 Grid Scale Factor: 0.999753

Survey / DLS Computation: Minimum Curvature / Lubinski
 Vertical Section Alignment: 0.000 * (Grid North)
 Vertical Section Origin: 0.000 ft, 0.000 ft
 TWD Reference Datum: RYR
 TWD Reference Elevation: 3253.000 ft above Unknown
 Staked / Ground Elevation: 3071.000 ft above Unknown
 Magnetic Declination: 7.332
 Total Field Strength: 48/62.244 nT
 Magnetic Dip Angle: 60.539
 Declination Date: October 18, 2012
 Magnetic Declination Model: BGSN 2011
 North Reference: Grid North
 Grid Convergence Used: 0.092 *
 Total Cor Mag North -> Grid North: 7.040 *
 Local Coord Referenced To: Well Head

Comments	MD (ft)	Incl (°)	Atm Grid (°)	TWD (ft)	VSEC (ft)	NS (ft)	EW (ft)	DLS (ft/1000)	Northing (NUS)	Eastng (EUS)	Latitude (NAD 83)	Longitude (WGS 84)
Surface	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A	11915596.73	189881.50	N 32° 49' 28.65" W 104° 9' 54.36"	
Begin MWD	175.00	0.72	15.58	175.00	1.06	1.06	0.30	0.41	11915596.79	189881.20	N 32° 49' 28.65" W 104° 9' 54.36"	
Surveys	291.18	0.62	11.75	291.17	2.38	2.38	0.62	0.09	11915598.51	189881.53	N 32° 49' 28.66" W 104° 9' 54.35"	
	346.47	0.31	332.16	346.46	2.80	2.80	0.61	0.78	11915598.83	189881.52	N 32° 49' 28.67" W 104° 9' 54.35"	
	501.16	0.31	250.95	501.14	3.04	3.04	0.02	0.26	11915598.16	189881.83	N 32° 49' 28.67" W 104° 9' 54.36"	
	657.60	0.31	220.45	657.88	2.58	2.58	-0.66	0.10	11915598.70	189881.26	N 32° 49' 28.67" W 104° 9' 54.37"	
	840.41	0.40	218.43	840.38	1.70	1.70	-1.37	0.05	11915597.83	189881.54	N 32° 49' 28.66" W 104° 9' 54.38"	
	1037.55	0.40	243.52	1037.52	0.85	0.85	-2.42	0.08	11915596.98	189880.48	N 32° 49' 28.64" W 104° 9' 54.39"	
	1211.94	0.40	217.02	1211.91	0.10	0.10	-3.33	0.11	11915596.22	189880.58	N 32° 49' 28.64" W 104° 9' 54.40"	
	1385.28	0.48	218.03	1385.25	-0.96	-0.96	-4.14	0.05	11915596.17	189880.77	N 32° 49' 28.63" W 104° 9' 54.41"	
	1559.24	0.70	228.12	1559.19	-2.08	-2.08	-5.50	0.18	11915594.05	189880.41	N 32° 49' 28.62" W 104° 9' 54.42"	
	1770.08	1.01	240.75	1770.01	-3.65	-3.65	-8.23	0.15	11915592.48	189880.68	N 32° 49' 28.60" W 104° 9' 54.46"	
	1943.25	1.01	241.45	1943.16	-5.12	-5.12	-10.80	0.01	11915591.81	189880.01	N 32° 49' 28.59" W 104° 9' 54.49"	
	2073.42	0.88	237.63	2073.31	-6.20	-6.20	-12.75	0.11	11915592.83	189879.16	N 32° 49' 28.58" W 104° 9' 54.51"	
	2113.37	0.88	236.53	2113.26	-6.55	-6.55	-13.28	0.03	11915592.58	189879.82	N 32° 49' 28.58" W 104° 9' 54.52"	
	2282.42	0.88	244.22	2282.28	-7.81	-7.81	-15.52	0.07	11915592.32	189878.39	N 32° 49' 28.56" W 104° 9' 54.54"	
	2459.18	0.79	250.33	2459.02	-8.81	-8.81	-17.89	0.07	11915591.22	189878.02	N 32° 49' 28.55" W 104° 9' 54.57"	
	2636.43	0.40	248.64	2636.32	-8.44	-8.44	-19.62	0.25	11915590.69	189878.29	N 32° 49' 28.55" W 104° 9' 54.59"	
	2806.43	0.40	248.53	2806.38	-8.35	-8.35	-20.55	0.08	11915590.48	189878.16	N 32° 49' 28.55" W 104° 9' 54.60"	
	3007.07	0.48	269.36	3003.89	-8.74	-8.74	-22.09	0.04	11915590.40	189878.83	N 32° 49' 28.55" W 104° 9' 54.62"	
	3175.62	0.48	258.02	3175.44	-9.89	-9.89	-23.49	0.06	11915590.24	189878.43	N 32° 49' 28.54" W 104° 9' 54.64"	
	3382.83	0.48	224.73	3382.74	-10.51	-10.51	-24.80	0.10	11915590.15	189878.42	N 32° 49' 28.54" W 104° 9' 54.65"	
	3536.55	0.48	202.65	3536.36	-11.60	-11.60	-26.77	0.15	11915590.04	189878.15	N 32° 49' 28.53" W 104° 9' 54.65"	
	3710.40	0.22	251.03	3710.20	-12.38	-12.38	-26.36	0.21	11915590.75	189878.58	N 32° 49' 28.52" W 104° 9' 54.67"	
	3883.78	0.31	270.15	3883.60	-12.48	-12.48	-27.15	0.07	11915590.65	189878.77	N 32° 49' 28.52" W 104° 9' 54.68"	
	4057.71	0.22	206.34	4057.51	-12.78	-12.78	-27.77	0.17	11915590.35	189878.15	N 32° 49' 28.52" W 104° 9' 54.69"	
	4229.76	0.88	218.56	4229.55	-14.11	-14.11	-28.74	0.39	11915590.22	189878.18	N 32° 49' 28.50" W 104° 9' 54.70"	
	4485.40	0.31	274.32	4485.18	-15.60	-15.60	-30.65	0.29	11915590.54	189878.27	N 32° 49' 28.49" W 104° 9' 54.72"	
End MWD Surveys	4659.19	0.22	240.05	4659.86	-15.73	-15.73	-31.41	0.10	11915590.41	189878.51	N 32° 49' 28.49" W 104° 9' 54.73"	

Survey Type: Def Survey

Survey Error Model: ISOWSA Rev 0 --- 3-D 95.000% Confidence 2.7955 sigma

Survey Program:

Description

MD From

MD To

EOU Freq

Survey Tool Type

Borehole / Survey

MD From	MD To	EOU Freq	Survey Tool Type	Borehole / Survey
0.000	16.000	Act Sns	SLB, MWD-STD-Depth Only	Original Hole / Roo 22 State 13 MWD 0' to 4659'
16.000	16.000	Act Sns	SLB, MWD-STD-Depth Only	Original Hole / Roo 22 State 13 MWD 0' to 4659'
16.000	4659.186	Act Sns	SLB, MWD-STD	Original Hole / Roo 22 State 13 MWD 0' to 4659'