Schlumberger

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

January 22, 2013

Occidental Permian Ltd
5 Greenway Plaza Suite 110
Houston, Texas77046

Attention: Anthony T Tschacher

Re:

CLIENT:	OXY
WELL:	GOVERNMENT AB FEDERAL #013
FIELD:	Bone Springs
RIG:	HP 344
COUNTY:	EDDY
API NO:	30-015-40920
JOB NO:	NM-OXY-0037

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.

Name & Title of Surveyor	Drainhole Number	Surveyed Depths	Dates Performed	Type of Survey
MICHAEL PUTNAM FST	GOVERNMENT AB FEDERAL #013 Original Hole	267.00 Ft to 6652.00 Ft	January 11, 2013 to January 22, 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,

MIKE JOHNS
Field Service Manager

CC: OXY
Enclosures: [2]
County of EDDY
State of New Mexico

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I, MICHAEL PUTNAM certify that; I am employed by Drilling & Measurements (formerly Extreme), a division of Schlumberg Technology Corporation; that I did on the day(s) of January 11, 2013 through January 22, 2013, conduct or supervise the taking of th SlimPulse surveys from a depth of 267.00 feet to a depth of 6652.00 feet; that the data is true, correct, complete and within th limitations of the tool as set forth by Drilling & Measurements, a division of Schlumberger Technology Corporation; that I a authorized and qualified to make this report; that this survey was conducted at the request of OXY for the GOVERNMENT A FEDERAL #013 Well (Original Hole) API No. 30-015-40920 in New Mexico; and that I have reviewed this report and find that conforms to the principals and procedures as set forth by Drilling & Measurements, a division of Schlumberger Technolo Corporation.

MICHAEL PUTNAM
FST

Before me, Annette Briones, on this day personally appeared Michael Putnam, 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 25th day of January, 2013 (year).

Notary Public

OFFICIAL SEAL
ANNETTE BRIONES
NOTARY PUBLIC STATE OF NEW MEXICO
My commission expires: 12/01/15

GOVERNMENT AB FEDERAL #013 MWD 0' to 6652' Survey Report

(Def Survey)

Report Date:	January 22, 2013 - 04:00 AM	**Survey / DLS Computation:**	Minimum Curvature / Lubinski
Client:	OXY	**Vertical Section Azimuth:**	0.000 ° (Grid North)
Field:	NM, Eddy (NAD27) 2011	**Vertical Section Origin:**	0.000 ft, 0.000 ft
Structure / Slot:	OXY (GOVERNMENT AB FEDERAL #013) HP 344 / GOVERNMENT AB FEDERAL #013	**TVD Reference Datum:**	RKB
Well:	GOVERNMENT AB FEDERAL #013	**TVD Reference Elevation:**	3301.500 ft above MSL
Borehole:	Original Hole	**Seabed / Ground Elevation:**	3285.000 ft above MSL
UWI / API#:	Unknown / 30-015-40920	**Magnetic Declination:**	7.855 °
Survey Name:	GOVERNMENT AB FEDERAL #013 MWD 0' to 6652'	**Total Field Strength:**	48568.729 nT
Survey Date:	January 22, 2013	**Magnetic Dip Angle:**	60.344 °
Tort / AHD / DDI / ERD Ratio:	19.897 ° / 173.106 ft / 3.537 / 0.026	**Declination Date:**	January 22, 2013
Coordinate Reference System:	NAD27 New Mexico State Plane, Eastern Zone, US Feet	**Magnetic Declination Model:**	BGGM 2012
Location Lat / Long:	N 32° 35' 22.92000", W 104° 9' 29.16000"	**North Reference:**	Grid North
Location Grid N/E Y/X:	N 578289.000 ftUS, E 553970.910 ftUS	**Grid Convergence Used:**	0.094 °
CRS Grid Convergence Angle:	0.09438427 °	**Total Corr Mag North->Grid North:**	7.761 °
Grid Scale Factor:	0.99991243	**Local Coord Referenced To:**	Well Head

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	578289.00	553970.91	N 32 35 22.92	W 104 9 29.16
Begin MWD Surveys												
	267.00	0.62	266.56	266.99	-0.09	-0.09	-1.44	0.23	578288.91	553969.47	N 32 35 22.92	W 104 9 29.18
	357.00	2.29	330.06	356.97	1.44	1.44	-2.03	2.32	578290.44	553968.09	N 32 35 22.93	W 104 9 29.19
	597.00	1.40	353.74	596.84	8.51	8.51	-5.54	0.48	578297.51	553965.37	N 32 35 23.00	W 104 9 29.22
	688.00	1.50	357.25	687.81	10.81	10.81	-5.72	0.15	578299.81	553965.19	N 32 35 23.03	W 104 9 29.23
	814.00	1.10	356.64	813.78	13.66	13.66	-5.87	0.32	578302.66	553965.04	N 32 35 23.06	W 104 9 29.23
	918.00	1.00	355.93	917.76	15.56	15.56	-5.99	0.10	578304.56	553964.92	N 32 35 23.07	W 104 9 29.23
	1008.00	1.10	357.25	1007.75	17.21	17.21	-6.09	0.11	578306.21	553964.82	N 32 35 23.09	W 104 9 29.23
	1098.00	1.10	350.18	1097.73	18.92	18.92	-6.28	0.15	578307.92	553964.64	N 32 35 23.11	W 104 9 29.23
	1188.00	1.00	342.97	1187.72	20.53	20.53	-6.65	0.18	578309.52	553964.26	N 32 35 23.12	W 104 9 29.24
	1278.00	1.20	350.66	1277.70	22.21	22.21	-7.04	0.28	578311.20	553963.87	N 32 35 23.14	W 104 9 29.24
	1369.00	1.00	356.24	1368.68	23.94	23.94	-7.24	0.25	578312.94	553963.67	N 32 35 23.16	W 104 9 29.24
	1459.00	1.20	357.08	1458.67	25.66	25.66	-7.34	0.22	578314.66	553963.57	N 32 35 23.17	W 104 9 29.25
	1549.00	1.30	347.67	1548.65	27.60	27.60	-7.61	0.25	578316.60	553963.30	N 32 35 23.19	W 104 9 29.25
	1639.00	1.00	345.26	1638.63	29.36	29.36	-8.03	0.34	578318.36	553962.88	N 32 35 23.21	W 104 9 29.25
	1729.00	1.10	345.26	1728.61	30.95	30.95	-8.45	0.11	578319.95	553962.47	N 32 35 23.23	W 104 9 29.26
	1819.00	1.30	346.66	1818.59	32.78	32.78	-8.90	0.22	578321.78	553962.01	N 32 35 23.24	W 104 9 29.26
	1909.00	1.20	355.38	1908.57	34.72	34.72	-9.21	0.24	578323.71	553961.70	N 32 35 23.26	W 104 9 29.27
	1986.00	1.19	349.96	1985.55	36.31	36.31	-9.42	0.15	578325.30	553961.49	N 32 35 23.28	W 104 9 29.27
	2089.00	1.40	357.34	2088.53	38.62	38.62	-9.66	0.26	578327.61	553961.25	N 32 35 23.30	W 104 9 29.27
	2179.00	1.20	344.06	2178.50	40.62	40.62	-9.97	0.40	578329.62	553960.94	N 32 35 23.32	W 104 9 29.28
	2270.00	1.30	357.56	2269.48	42.57	42.57	-10.28	0.34	578331.57	553960.63	N 32 35 23.34	W 104 9 29.28
	2361.00	1.30	353.46	2360.46	44.63	44.63	-10.44	0.10	578333.62	553960.47	N 32 35 23.36	W 104 9 29.28
	2405.00	1.41	353.04	2404.45	45.66	45.66	-10.56	0.25	578334.65	553960.35	N 32 35 23.37	W 104 9 29.28
	2517.00	1.40	347.85	2516.41	48.36	48.36	-11.02	0.11	578337.36	553959.89	N 32 35 23.40	W 104 9 29.29
	2591.00	1.50	344.86	2590.39	50.18	50.18	-11.46	0.17	578339.18	553959.45	N 32 35 23.42	W 104 9 29.29
	2766.00	1.50	344.47	2765.33	54.60	54.60	-12.67	0.01	578343.60	553958.24	N 32 35 23.46	W 104 9 29.31
	2856.00	1.41	343.94	2855.30	56.80	56.80	-13.29	0.10	578345.79	553957.62	N 32 35 23.48	W 104 9 29.31
	2946.00	1.20	348.96	2945.28	58.78	58.78	-13.81	0.25	578347.78	553957.10	N 32 35 23.50	W 104 9 29.32
	3112.00	1.41	347.68	3111.23	62.47	62.47	-14.64	0.13	578351.47	553956.27	N 32 35 23.54	W 104 9 29.33
	3202.00	1.19	343.55	3201.21	64.45	64.45	-15.14	0.27	578353.44	553955.77	N 32 35 23.56	W 104 9 29.34
	3292.00	1.30	341.66	3291.19	66.31	66.31	-15.73	0.13	578355.31	553955.18	N 32 35 23.58	W 104 9 29.34
	3383.00	1.49	335.68	3382.16	68.37	68.37	-16.54	0.26	578357.37	553954.37	N 32 35 23.60	W 104 9 29.35
	3473.00	1.58	335.37	3472.13	70.57	70.57	-17.54	0.10	578359.56	553953.37	N 32 35 23.62	W 104 9 29.36
	3563.00	1.80	331.45	3562.09	72.94	72.94	-18.73	0.28	578361.93	553952.18	N 32 35 23.64	W 104 9 29.38
	3653.00	2.02	325.97	3652.04	75.49	75.49	-20.29	0.32	578364.49	553950.62	N 32 35 23.67	W 104 9 29.40
	3834.00	2.02	327.77	3832.93	80.83	80.83	-23.78	0.04	578369.83	553947.13	N 32 35 23.72	W 104 9 29.44
	4014.00	2.81	324.78	4012.77	87.12	87.12	-28.02	0.44	578376.11	553942.90	N 32 35 23.78	W 104 9 29.49
	4194.00	2.42	334.14	4192.58	94.15	94.15	-32.22	0.32	578383.14	553938.69	N 32 35 23.85	W 104 9 29.53
	4374.00	1.71	341.75	4372.46	100.12	100.12	-34.72	0.42	578389.11	553936.20	N 32 35 23.91	W 104 9 29.56
	4555.00	1.89	338.58	4553.37	105.46	105.46	-36.65	0.11	578394.45	553934.26	N 32 35 23.96	W 104 9 29.59
	4736.00	1.89	356.38	4734.28	111.22	111.22	-37.93	0.32	578400.21	553932.98	N 32 35 24.02	W 104 9 29.60
	4916.00	2.02	358.45	4914.17	117.35	117.35	-38.21	0.08	578406.34	553932.71	N 32 35 24.08	W 104 9 29.60
	5096.00	2.50	7.06	5094.03	124.42	124.42	-37.81	0.33	578413.41	553933.11	N 32 35 24.15	W 104 9 29.60
	5276.00	2.02	338.85	5273.90	131.27	131.27	-38.47	0.66	578420.26	553932.44	N 32 35 24.22	W 104 9 29.61
	5457.00	2.42	334.67	5454.76	137.70	137.70	-41.26	0.24	578426.69	553929.66	N 32 35 24.28	W 104 9 29.64
	5637.00	2.29	331.86	5634.61	144.31	144.31	-44.58	0.10	578433.30	553926.34	N 32 35 24.35	W 104 9 29.68
	5818.00	1.19	290.68	5815.53	148.16	148.16	-48.04	0.88	578437.15	553922.87	N 32 35 24.39	W 104 9 29.72
	5998.00	1.19	156.08	5995.51	147.11	147.11	-49.03	1.22	578436.10	553921.88	N 32 35 24.38	W 104 9 29.73
	6178.00	0.88	168.07	6175.48	144.05	144.05	-47.99	0.21	578433.04	553922.92	N 32 35 24.35	W 104 9 29.72
	6358.00	0.88	171.28	6355.46	141.33	141.33	-47.49	0.03	578430.32	553923.42	N 32 35 24.32	W 104 9 29.71
	6539.00	0.79	179.85	6536.44	138.71	138.71	-47.28	0.08	578427.70	553923.63	N 32 35 24.29	W 104 9 29.71
End MWD Surveys	6652.00	0.88	184.38	6649.43	137.07	137.07	-47.34	0.10	578426.05	553923.57	N 32 35 24.28	W 104 9 29.71

Survey Type: Def Survey

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

Survey Program:

Description	MD From (ft)	MD To (ft)	EOU Freq (ft)	Survey Tool Type	Borehole / Survey
	0.000	16.500	Act Stns	SLB_MWD-STD-Depth Only	Original Hole / GOVERNMENT AB FEDERAL #013 MWD 0' to 6652'
	16.500	16.500	Act Stns	SLB_MWD-STD-Depth Only	Original Hole / GOVERNMENT AB FEDERAL #013 MWD 0' to 6652'

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 ° ' ")
		16.500	6652.000	Act Stns		SLB_MWD-STD		Original Hole / GOVERNMENT AB FEDERAL #013 MWD 0' to 6652'				