

Schlumberger Drilling and Measurements
Drilling Group
Geo Market Area: South West Texas Basin
7220 W I-H 20
Midland, Texas 79706
Phone : (432) 742-5400 (Main)
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Schlumberger

NM OIL CONSERVATION
ARTESIA DISTRICT

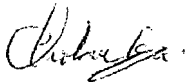
FEB 22 2018

Well Reference:

RECEIVED

I, Jose Vargas certify that; I am employed by Drilling & Measurements, a division of Schlumberger Technology Corporation; that I did on the day(s) of September 05, 2017 through September 18, 2017, conduct or supervise the taking of the SlimPulse surveys from a depth of 7840.00 feet to a depth of 20053.00 feet referenced to driller's depth; 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 USA Inc. for the Palladium MDP1 7-6 Federal Com 6H Well (Original Hole) API No. 30-015-44293 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.

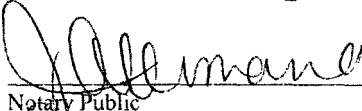
By
Jose Vargas
FE



Subscribed and Sworn to before me this 3rd day of October (month) 2017 (yr)

My Commission expires:

12-20-2020



Notary Public

Adams County Colorado
(County State)

JENNIFER ALLEMAND
(signature) Notary Public
State of Colorado
Notary ID # 20164047962
My Commission Expires 12-20-2020

FEB 22 2018



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Schlumberger

Oxy Palladium MDP1 7-6 Federal Com 6H Gyro+MWD 0-20,095' Survey
Geodetic Report
(Def Survey)

Report Date:	September 18, 2017 - 11 28 AM	Survey / DLS Computation:	Minimum Curvature / Lubinski
Client:	OXY	Vertical Section Azimuth:	0.490 ° (Grid North)
Field:	NM Eddy County (NAD 83)	Vertical Section Origin:	0.000 ft. 0.000 ft
Structure / Slot:	Oxy Palladium MDP1 7-6 Federal Com 6H / Oxy Palladium MDP1 7-6 Federal Com 6H	TVD Reference Datum:	RKB=26.5'
Well:	Oxy Palladium MDP1 7-6 Federal Com 6H	TVD Reference Elevation:	3551.900 ft above MSL
Borehole:	Original Borehole	Seabed / Ground Elevation:	3525.400 ft above MSL
UWI / API#:	Unknown / Unknown	Magnetic Declination:	6.969 °
Survey Name:	Oxy Palladium MDP1 7-6 Federal Com 6H Gyro+MWD 0-20,095'	Total Gravity Field Strength:	998.4289mgn (9.80665 Based)
Survey Date:	August 17, 2017	Gravity Model:	GARM
Tort / AHD / DDI / ERD Ratio:	253.472 ° / 10659.681 ft / 6.732 / 1.060	Total Magnetic Field Strength:	48098.642 nT
Coordinate Reference System:	NAD83 New Mexico State Plane, Eastern Zone, US Feet	Magnetic Dip Angle:	59.995 °
Location Lat / Long:	N 32° 13' 31.43359", W 103° 48' 36.74598"	Declination Date:	August 30, 2017
Location Grid N/E Y/X:	N 446127.470 ftUS, E 703103.370 ftUS	Magnetic Declination Model:	HDGM 2017
CRS Grid Convergence Angle:	0.2790 °	North Reference:	Grid North
Grid Scale Factor:	0.99993906	Grid Convergence Used:	0.2790 °
Version / Patch:	2.10.544.0	Total Corr Mag North->Grid North:	6.6903 °
		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 ° ' ")
SHL	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A	446127.47	703103.37	N 32 13 31.43	W 103 48 36.75
	38.28	0.18	171.48	38.28	-0.06	-0.06	0.01	0.47	446127.41	703103.38	N 32 13 31.43	W 103 48 36.75
	95.87	0.31	230.92	95.87	-0.25	-0.25	-0.10	0.47	446127.22	703103.27	N 32 13 31.43	W 103 48 36.75
	155.15	0.45	258.18	155.15	-0.40	-0.40	-0.45	0.38	446127.07	703102.92	N 32 13 31.43	W 103 48 36.75
	216.17	0.54	272.39	216.17	-0.44	-0.43	-0.97	0.25	446127.04	703102.40	N 32 13 31.43	W 103 48 36.76
	278.21	0.62	279.67	278.20	-0.38	-0.36	-1.60	0.18	446127.11	703101.77	N 32 13 31.43	W 103 48 36.76
	342.21	0.65	282.58	342.20	-0.25	-0.23	-2.29	0.07	446127.24	703101.08	N 32 13 31.43	W 103 48 36.77
	405.21	0.86	263.90	405.19	-0.23	-0.20	-3.11	0.51	446127.27	703100.26	N 32 13 31.43	W 103 48 36.78
	468.21	1.10	254.46	468.18	-0.45	-0.41	-4.16	0.46	446127.06	703099.21	N 32 13 31.43	W 103 48 36.79
	531.21	0.95	253.23	531.17	-0.77	-0.72	-5.25	0.24	446126.75	703098.12	N 32 13 31.43	W 103 48 36.81
	592.21	0.80	264.58	592.17	-0.96	-0.91	-6.15	0.37	446126.56	703097.22	N 32 13 31.42	W 103 48 36.82
	658.21	0.67	260.81	658.16	-1.08	-1.02	-6.99	0.21	446126.45	703096.38	N 32 13 31.42	W 103 48 36.83
	681.00	0.45	186.08	680.95	-1.19	-1.13	-7.13	3.08	446126.34	703096.24	N 32 13 31.42	W 103 48 36.83
	802.00	0.45	256.44	801.95	-1.78	-1.71	-7.65	0.43	446125.76	703095.72	N 32 13 31.42	W 103 48 36.84
	927.00	0.69	245.70	926.94	-2.21	-2.13	-8.81	0.21	446125.34	703094.56	N 32 13 31.41	W 103 48 36.85
	1019.00	0.68	228.25	1018.94	-2.81	-2.73	-9.72	0.23	446124.74	703093.65	N 32 13 31.41	W 103 48 36.86
	1111.00	0.78	229.60	1110.93	-3.59	-3.50	-10.61	0.11	446123.97	703092.76	N 32 13 31.40	W 103 48 36.87
	1204.00	0.83	224.45	1203.92	-4.49	-4.39	-11.56	0.09	446123.08	703091.81	N 32 13 31.39	W 103 48 36.88
	1296.00	0.90	217.92	1295.91	-5.54	-5.43	-12.47	0.13	446122.04	703090.90	N 32 13 31.38	W 103 48 36.89
	1388.00	0.80	211.89	1387.90	-6.66	-6.55	-13.25	0.15	446120.92	703090.12	N 32 13 31.37	W 103 48 36.90
	1572.00	0.68	211.21	1571.88	-8.70	-8.57	-14.50	0.07	446118.90	703088.87	N 32 13 31.35	W 103 48 36.92
	1757.00	0.73	227.37	1756.87	-10.45	-10.31	-15.93	0.11	446117.16	703087.44	N 32 13 31.33	W 103 48 36.93
	1882.00	0.41	21.73	1881.87	-10.57	-10.43	-16.35	0.89	446117.04	703087.02	N 32 13 31.33	W 103 48 36.94
	1976.00	0.75	223.59	1975.86	-10.71	-10.57	-16.65	1.21	446116.90	703086.72	N 32 13 31.33	W 103 48 36.94
	2071.00	0.99	233.97	2070.85	-11.65	-11.50	-17.75	0.30	446115.97	703085.62	N 32 13 31.32	W 103 48 36.95
	2165.00	0.95	233.58	2164.84	-12.60	-12.44	-19.03	0.04	446115.03	703084.34	N 32 13 31.31	W 103 48 36.97
	2260.00	1.00	234.20	2259.83	-13.57	-13.39	-20.34	0.05	446114.08	703083.03	N 32 13 31.30	W 103 48 36.98
	2355.00	0.60	227.26	2354.82	-14.40	-14.21	-21.37	0.43	446113.26	703082.00	N 32 13 31.29	W 103 48 37.00
	2450.00	0.23	177.13	2449.81	-14.93	-14.74	-21.73	0.51	446112.73	703081.64	N 32 13 31.29	W 103 48 37.00
	2544.00	0.30	199.47	2543.81	-15.35	-15.16	-21.80	0.13	446112.31	703081.57	N 32 13 31.28	W 103 48 37.00
	2638.00	0.38	178.50	2637.81	-15.89	-15.71	-21.88	0.16	446111.76	703081.49	N 32 13 31.28	W 103 48 37.00
	2732.00	0.45	166.79	2731.81	-16.56	-16.38	-21.78	0.12	446111.09	703081.59	N 32 13 31.27	W 103 48 37.00
	2826.00	0.40	172.20	2825.81	-17.25	-17.06	-21.66	0.07	446110.41	703081.72	N 32 13 31.27	W 103 48 37.00
	2921.00	0.67	163.25	2920.80	-18.11	-17.92	-21.45	0.30	446109.55	703081.92	N 32 13 31.26	W 103 48 37.00
	3015.00	0.58	135.08	3014.80	-18.96	-18.79	-20.96	0.34	446108.69	703082.42	N 32 13 31.25	W 103 48 36.99
	3109.00	0.52	138.98	3108.79	-19.62	-19.44	-20.34	0.08	446108.03	703083.03	N 32 13 31.24	W 103 48 36.98
	3204.00	0.63	141.90	3203.79	-20.35	-20.18	-19.73	0.12	446107.29	703083.64	N 32 13 31.23	W 103 48 36.98
	3392.00	0.78	143.15	3391.77	-22.17	-22.02	-18.33	0.08	446105.45	703085.04	N 32 13 31.22	W 103 48 36.96
	3486.00	0.90	128.95	3485.76	-23.14	-22.99	-17.37	0.25	446104.48	703086.00	N 32 13 31.21	W 103 48 36.95
	3580.00	1.63	112.74	3579.74	-24.11	-23.98	-15.56	0.86	446103.50	703087.81	N 32 13 31.20	W 103 48 36.93
	3675.00	2.32	122.70	3674.68	-25.64	-25.54	-12.70	0.81	446101.94	703090.67	N 32 13 31.18	W 103 48 36.90
	3863.00	1.29	123.83	3862.59	-28.84	-28.77	-7.74	0.55	446098.70	703095.63	N 32 13 31.15	W 103 48 36.84
	3958.00	2.09	139.31	3957.55	-30.73	-30.68	-5.72	0.96	446096.79	703097.65	N 32 13 31.13	W 103 48 36.81
	4052.00	2.17	153.54	4051.48	-33.60	-33.57	-3.81	0.57	446093.90	703099.56	N 32 13 31.10	W 103 48 36.79
	4146.00	1.74	159.76	4145.43	-36.52	-36.50	-2.53	0.51	446090.97	703100.85	N 32 13 31.07	W 103 48 36.78
	4241.00	1.86	160.26	4240.38	-39.32	-39.31	-1.51	0.13	446088.16	703101.86	N 32 13 31.04	W 103 48 36.77
	4299.00	1.66	161.20	4298.35	-41.00	-40.99	-0.92	0.35	446086.48	703102.45	N 32 13 31.03	W 103 48 36.76
	4473.00	2.27	161.11	4472.25	-46.63	-46.64	1.01	0.35	446080.84	703104.38	N 32 13 30.97	W 103 48 36.74
	4568.00	3.20	158.28	4567.14	-50.86	-50.88	2.60	0.99	446076.59	703105.97	N 32 13 30.93	W 103 48 36.72
	4662.00	4.18	161.44	4660.94	-56.52	-56.56	4.66	1.06	446070.91	703108.03	N 32 13 30.87	W 103 48 36.69
	4756.00	4.72	161.96	4754.66	-63.43	-63.49	6.95	0.58	446063.98	703110.32	N 32 13 30.81	W 103 48 36.67
	4851.00	5.15	160.27	4849.31	-71.13	-71.22	9.60	0.48	446056.25	703112.97	N 32 13 30.73	W 103 48 36.64
	5040.00	4.70	151.45	5037.61	-85.86	-86.01	16.17	0.47	446041.47	703119.53	N 32 13 30.58	W 103 48 36.56
	5134.00	2.20	126.56	5131.44	-90.29	-90.46	19.46	3.04	446037.01	703122.82	N 32 13 30.54	W 103 48 36.52
	5228.00	0.13	59.18	5225.42	-91.30	-91.48	21.00	2.29	446035.99	703124.37	N 32 13 30.53	W 103 48 36.51
	5323.00	0.06	262.81	5320.42	-91.25	-91.44	21.04	0.20	446036.04	703124.41	N 32 13 30.53	W 103 48 36.51
	5417.00	0.06	121.34	5414.42	-91.28	-91.47	21.03	0.12	446036.01	703124.40	N 32 13 30.53	W 103 48 36.51
	5511.00	0.06	341.16	5508.42	-91.26	-91.45	21.06	0.12	446036.03	703124.43	N 32 13 30.53	W 103 48 36.51
	5605.00	0.06	198.85	5602.42	-91.26	-91.45	21.03	0.12	446036.03	703124.40	N 32 13 30.53	W 103 48 36.51
	5699.00	0.06	17.02	5696.42	-91.26	-91.45	21.03	0.13	446036.03	703124.39	N 32 13 30.53	W 103 48 36.51
	5793.00	0.06	256.05	5790.42	-91.23	-91.41	20.99	0.11	446036.06	703124.36	N 32 13 30.53	W 103 48 36.51
	5888.00	0.06	8.20	5885.42	-91.19	-91.37	20.95	0.10	446036.10	703124.32	N 32 13 30.53	W 103 48 36.51
	5982.00	0.06	36.30	5979.42	-91.10	-91.29	20.99	0.03	446036.19	703124.36	N 32 13 30.53	W 103 48 36.51
	6171.00	0.24	3.32	6168.41	-90.63	-90.81	21.07	0.10	446036.67	703124.44	N 32 13 30.53	W 103 48 36.51
	6266.00	0.24	0.85	6263.41	-90.23	-90.41	21.08	0.01	446037.06	703124.45	N 32 13 30.54	W 103 48 36.51
	6360.00	0.23	320.31	6357.41	-89.89	-90.07	20.97	0.17	446037.40	703124.33	N 32 13 30.54	W 103 48 36.51
	6455.00	0.23	0.24	6452.41	-89.55	-89.73	20.85	0.17	446037.74	703124.21	N 32 13 30.54	W 103 48 36.51
	6549.00	0.35	10.62	6546.41	-89.08	-89.26	20.90	0.14	446038.21	703124.27	N 32 13 30.55	W 103 48 36.51
	6738.00	0.43	14.12	6735.41	-87.82	-88.01	21.18	0.04	446039.47	703124.55	N 32 13 30.56	W 103 48 36.50
	6927.00	0.35	358.91	6924.40	-86.56	-86.74	21.34	0.07	446040.73	703124.71	N 32 13 30.57	W 103 48 36.50
	7115.00	0.17	11.95	7112.40	-85.71	-85.90	21.39	0.10	446041.58	703124.76	N 32 13 30.58	W 103 48 36.50

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 ° ' ")
	7210.00	0.11	43.75	7207.40	-85.50	-85.69	21.48	0.10	446041.78	703124.85	N 32 13 30.58 W 103 48 36.50	
	7399.00	0.16	91.80	7396.40	-85.38	-85.57	21.87	0.06	446041.91	703125.24	N 32 13 30.59 W 103 48 36.50	
	7493.00	0.18	76.01	7490.40	-85.34	-85.54	22.14	0.05	446041.94	703125.51	N 32 13 30.59 W 103 48 36.49	
	7587.00	0.13	131.52	7584.40	-85.38	-85.57	22.37	0.16	446041.90	703125.73	N 32 13 30.59 W 103 48 36.49	
	7682.00	0.11	133.68	7679.40	-85.51	-85.71	22.51	0.02	446041.77	703125.88	N 32 13 30.58 W 103 48 36.49	
	7776.00	0.24	142.09	7773.40	-85.73	-85.92	22.70	0.14	446041.55	703126.07	N 32 13 30.58 W 103 48 36.49	
	7840.00	0.11	95.64	7837.40	-85.84	-86.04	22.84	0.29	446041.44	703126.21	N 32 13 30.58 W 103 48 36.48	
	7936.00	0.27	162.98	7933.40	-86.06	-86.26	23.00	0.26	446041.21	703126.37	N 32 13 30.58 W 103 48 36.48	
	8031.00	0.21	204.11	8028.40	-86.43	-86.63	22.99	0.19	446040.84	703126.36	N 32 13 30.58 W 103 48 36.48	
	8125.00	0.39	185.85	8122.40	-86.91	-87.11	22.89	0.21	446040.37	703126.26	N 32 13 30.57 W 103 48 36.48	
	8315.00	0.43	192.68	8312.39	-88.25	-88.45	22.67	0.03	446039.03	703126.04	N 32 13 30.56 W 103 48 36.49	
	8409.00	0.27	227.14	8406.39	-88.75	-88.94	22.43	0.27	446038.53	703125.80	N 32 13 30.55 W 103 48 36.49	
	8503.00	1.52	145.50	8500.38	-89.92	-90.12	22.97	1.60	446037.35	703126.34	N 32 13 30.54 W 103 48 36.48	
	8598.00	5.52	159.41	8595.18	-95.22	-95.44	25.29	4.27	446032.04	703128.66	N 32 13 30.49 W 103 48 36.46	
	8692.00	8.61	163.50	8688.46	-106.17	-106.42	28.88	3.33	446021.06	703132.25	N 32 13 30.38 W 103 48 36.42	
	8787.00	8.27	160.90	8782.43	-119.41	-119.70	33.14	0.54	446007.78	703136.51	N 32 13 30.25 W 103 48 36.37	
	8881.00	8.78	162.70	8875.39	-132.61	-132.93	37.49	0.81	445994.54	703140.85	N 32 13 30.12 W 103 48 36.32	
	8976.00	11.02	171.23	8968.97	-148.48	-148.83	41.03	2.81	445978.65	703144.39	N 32 13 29.96 W 103 48 36.28	
	9070.00	15.01	171.32	9060.54	-169.37	-169.75	44.23	4.24	445957.73	703147.60	N 32 13 29.75 W 103 48 36.24	
	9165.00	15.04	168.64	9152.29	-193.58	-194.00	48.52	0.73	445933.48	703151.89	N 32 13 29.51 W 103 48 36.19	
	9282.00	13.98	155.43	9265.59	-221.24	-221.74	57.39	2.96	445905.74	703160.75	N 32 13 29.24 W 103 48 36.09	
	9377.00	13.66	120.38	9358.00	-237.26	-237.88	71.86	8.69	445889.60	703175.23	N 32 13 29.08 W 103 48 35.92	
	9471.00	17.84	72.20	9448.82	-238.27	-239.10	95.25	14.13	445888.39	703198.62	N 32 13 29.06 W 103 48 35.85	
	9566.00	18.96	39.19	9539.20	-221.62	-222.64	118.92	10.89	445904.84	703222.29	N 32 13 29.22 W 103 48 35.37	
	9660.00	19.38	9.60	9628.20	-194.24	-195.37	131.20	10.24	445932.12	703234.56	N 32 13 29.49 W 103 48 35.23	
	9754.00	27.17	357.86	9714.53	-157.32	-158.46	130.01	9.61	445969.02	703236.37	N 32 13 29.86 W 103 48 35.21	
	9849.00	38.66	353.60	9794.16	-106.02	-107.12	128.87	12.33	446020.35	703232.24	N 32 13 30.37 W 103 48 35.25	
	9943.00	53.65	348.65	9859.11	-39.42	-40.43	118.09	16.38	446087.04	703221.45	N 32 13 31.03 W 103 48 35.37	
	10038.00	65.56	349.56	9907.09	40.78	39.90	102.67	12.56	446167.37	703206.03	N 32 13 31.82 W 103 48 35.55	
	10133.00	75.96	358.06	9938.40	129.66	128.87	93.23	13.82	446256.33	703196.59	N 32 13 32.70 W 103 48 35.65	
	10228.00	82.16	1.18	9956.42	222.87	222.08	92.64	7.28	446349.54	703196.00	N 32 13 33.63 W 103 48 35.66	
	10281.00	83.17	0.89	9963.19	275.43	274.64	93.59	1.98	446402.09	703196.95	N 32 13 34.15 W 103 48 35.64	
	10469.00	88.31	1.44	9977.15	462.84	462.02	97.40	2.75	446589.46	703200.76	N 32 13 36.00 W 103 48 35.59	
	10563.00	89.59	0.85	9978.87	556.81	555.98	99.28	1.50	446683.42	703202.64	N 32 13 36.93 W 103 48 35.56	
	10658.00	89.90	359.46	9979.30	651.81	650.98	99.53	1.50	446778.41	703202.90	N 32 13 37.87 W 103 48 35.55	
	10752.00	89.35	359.39	9979.91	745.79	744.97	98.59	0.59	446872.40	703201.96	N 32 13 38.80 W 103 48 35.56	
	10846.00	89.24	0.08	9981.07	839.77	838.96	98.16	0.74	446966.38	703201.52	N 32 13 39.73 W 103 48 35.56	
	10940.00	89.31	0.74	9982.26	933.76	932.95	98.83	0.71	447060.36	703202.19	N 32 13 40.66 W 103 48 35.54	
	11035.00	89.21	0.90	9983.48	1028.75	1027.94	100.19	0.20	447155.34	703203.55	N 32 13 41.60 W 103 48 35.52	
	11129.00	89.42	359.74	9984.61	1122.75	1121.93	100.71	1.25	447249.32	703204.08	N 32 13 42.53 W 103 48 35.51	
	11223.00	90.14	358.44	9984.97	1216.71	1215.91	99.22	1.58	447343.30	703202.58	N 32 13 43.46 W 103 48 35.52	
	11317.00	89.17	358.87	9985.54	1310.66	1309.88	97.01	1.13	447437.27	703200.38	N 32 13 44.39 W 103 48 35.54	
	11506.00	89.07	359.81	9988.44	1499.60	1498.84	94.84	0.50	447626.22	703198.20	N 32 13 46.26 W 103 48 35.56	
	11600.00	89.17	0.09	9989.88	1593.59	1592.83	94.76	0.32	447720.20	703198.12	N 32 13 47.19 W 103 48 35.55	
	11695.00	89.07	0.18	9991.34	1688.57	1687.82	94.98	0.14	447815.19	703198.34	N 32 13 48.13 W 103 48 35.54	
	11789.00	91.27	1.25	9991.06	1782.56	1781.81	96.15	2.80	447909.16	703199.52	N 32 13 49.06 W 103 48 35.53	
	11883.00	90.21	1.34	9989.85	1876.55	1875.77	98.28	1.13	448003.13	703201.64	N 32 13 49.99 W 103 48 35.50	
	11977.00	89.69	1.44	9989.93	1970.53	1969.75	100.56	0.56	448097.09	703203.92	N 32 13 50.92 W 103 48 35.46	
	12072.00	90.17	1.07	9990.05	2065.52	2064.72	102.64	0.64	448192.06	703206.00	N 32 13 51.86 W 103 48 35.43	
	12166.00	90.21	0.58	9989.73	2159.52	2158.71	103.99	0.52	448286.05	703207.35	N 32 13 52.79 W 103 48 35.41	
	12355.00	90.41	1.60	9988.71	2348.51	2347.67	107.59	0.55	448474.99	703210.95	N 32 13 54.66 W 103 48 35.36	
	12450.00	90.28	0.83	9988.14	2443.50	2442.65	109.60	0.82	448569.96	703212.96	N 32 13 55.60 W 103 48 35.33	
	12544.00	90.28	1.38	9987.68	2537.49	2536.63	111.41	0.59	448663.94	703214.78	N 32 13 56.53 W 103 48 35.31	
	12733.00	90.10	0.42	9987.05	2726.48	2725.60	114.38	0.52	448852.90	703217.74	N 32 13 58.40 W 103 48 35.26	
	12827.00	89.04	359.95	9987.76	2820.48	2819.60	114.69	1.23	448946.89	703218.05	N 32 13 59.33 W 103 48 35.25	
	12922.00	89.28	0.74	9989.15	2915.46	2914.59	115.26	0.87	449041.87	703218.62	N 32 14 0.27 W 103 48 35.24	
	13016.00	89.24	1.34	9990.37	3009.45	3008.56	116.96	0.64	449135.84	703220.33	N 32 14 1.20 W 103 48 35.21	
	13111.00	89.21	1.91	9991.65	3104.42	3103.51	119.66	0.60	449230.79	703223.02	N 32 14 2.14 W 103 48 35.18	
	13205.00	89.69	1.81	9992.55	3198.39	3197.46	122.71	0.52	449324.73	703226.07	N 32 14 3.07 W 103 48 35.14	
	13299.00	88.80	1.32	9993.79	3292.37	3291.42	125.27	1.08	449418.68	703228.64	N 32 14 4.00 W 103 48 35.10	
	13393.00	89.04	1.44	9995.56	3386.34	3385.37	127.54	0.29	449512.63	703230.90	N 32 14 4.93 W 103 48 35.07	
	13487.00	89.52	1.67	9996.74	3480.31	3479.33	130.09	0.57	449606.58	703233.45	N 32 14 5.86 W 103 48 35.03	
	13582.00	88.69	1.24	9998.23	3575.29	3574.29	132.50	0.98	449701.53	703235.86	N 32 14 6.79 W 103 48 35.00	
	13780.00	88.69	1.23	10002.76	3773.22	3772.19	136.77	0.01	449899.42	703240.13	N 32 14 8.75 W 103 48 34.94	
	13876.00	89.48	0.82	10004.29	3868.16	3868.16	138.48	0.93	449995.39	703241.85	N 32 14 9.70 W 103 48 34.91	
	13970.00	90.28	356.44	10004.49	3963.13	3962.11	136.24	4.74	450089.33	703239.60	N 32 14 10.63 W 103 48 34.94	
	14159.00	88.79	352.08	10006.02	4150.96	4150.10	117.34	2.44	450277.31	703220.70	N 32 14 12.49 W 103 48 35.14	
	14253.00	88.42	353.35	10008.31	4244.06	4243.32	105.43	1.41	450370.52	703208.79	N 32 14 13.42 W 103 48 35.28	
	14348.00	88.90	355.62	10010.53	4338.51	4337.84	96.30	2.44	450465.04	703199.66	N 32 14 14.35 W 103 48 35.38	
	14537.00	88.73	357.79	10014.44	4527.04	4526.48	85.44	1.15	450653.66	703188.80	N 32 14 16.22 W 103 48 35.49	
	14631.00	89.14	356.60	10016.19	4620.87	4620.35	80.84	1.34	450747.53	703184.20	N 32 14 17.15 W 103 48 35.54	
	14726.00	88.79	357.53	10017.90	4715.69	4715.21	75.98	1.05	450842.38	703179.34	N 32 14 18.09 W 103 48 35.59	
	14820.00	89.28	359.45	10019.49	4809.61	4809.16	73.50	2.11	450936.32	703176.86	N 32 14 19.02 W 103 48 35.62	
	14914.00	88.93	0.83	10020.95	4903.59	4903.14	73.73	1.51	451030.30	703177.09	N 32 14 19.95 W 103 48 35.61	
	15008.00	88.83	0.22	10022.79	4997.58	4997.12	74.59	0.66	451124.28	703177.95	N 32 14 20.88 W 103 48 35.59	
	15102.00	88.93	358.28	10024.63	5091.53	5091.09	73.36	2.07	451218.24	703176.72	N 32 14 21.81 W 103 48 35.60	
	15197.00	88.90	0.24	10026.43	5186.49	5186.06	72.13	2.06	451313.20	703175.50	N 32 14 22.75 W 103 48 35.61	

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 ° ' ")
	18026.00	90.07	359.55	10049.92	8013.77	8013.05	118.12	0.04	454140.02	703221.48	N 32 14 50.72	W 103 48 34.92
	18120.00	90.07	358.69	10049.81	8107.74	8107.04	116.68	0.91	454234.00	703220.04	N 32 14 51.65	W 103 48 34.93
	18214.00	90.28	359.81	10049.52	8201.72	8201.03	115.45	1.21	454327.98	703218.81	N 32 14 52.58	W 103 48 34.94
	18309.00	90.96	359.71	10048.49	8296.70	8296.02	115.05	0.72	454422.97	703218.41	N 32 14 53.52	W 103 48 34.94
	18403.00	89.66	359.45	10047.99	8390.69	8390.02	114.36	1.41	454516.96	703217.72	N 32 14 54.45	W 103 48 34.94
	18592.00	89.69	359.42	10049.06	8579.65	8579.00	112.50	0.02	454705.93	703215.96	N 32 14 56.32	W 103 48 34.95
	18686.00	89.66	358.85	10049.59	8673.62	8672.99	111.08	0.61	454799.92	703214.44	N 32 14 57.25	W 103 48 34.96
	18875.00	89.72	359.24	10050.61	8862.56	8861.96	107.93	0.21	454988.87	703211.29	N 32 14 59.12	W 103 48 34.99
	18970.00	89.72	359.02	10051.08	8957.53	8956.95	106.49	0.23	455083.86	703209.85	N 32 15 0.06	W 103 48 35.00
	19064.00	89.72	359.27	10051.54	9051.51	9050.94	105.08	0.27	455177.84	703208.45	N 32 15 0.99	W 103 48 35.01
	19253.00	89.35	359.31	10053.07	9240.46	9239.92	102.74	0.20	455366.81	703206.10	N 32 15 2.86	W 103 48 35.03
	19442.00	90.00	359.19	10054.14	9429.41	9428.90	100.27	0.35	455555.77	703203.63	N 32 15 4.73	W 103 48 35.04
	19631.00	89.69	358.93	10054.66	9618.35	9617.87	97.17	0.21	455744.73	703200.53	N 32 15 6.60	W 103 48 35.07
	19820.00	89.31	359.26	10056.30	9807.29	9806.84	94.18	0.27	455933.69	703197.55	N 32 15 8.47	W 103 48 35.09
	19914.00	89.38	359.71	10057.38	9901.26	9900.83	93.34	0.48	456027.68	703196.70	N 32 15 9.40	W 103 48 35.10
	20009.00	89.48	359.87	10058.32	9996.25	9995.82	92.99	0.20	456122.66	703196.35	N 32 15 10.34	W 103 48 35.10
Final MWD Survey	20053.00	89.93	359.85	10058.55	10040.25	10039.82	92.88	1.02	456166.66	703196.25	N 32 15 10.77	W 103 48 35.10
Proj. to bit	20095.00	89.93	359.85	10058.60	10082.25	10081.82	92.77	0.00	456208.66	703196.14	N 32 15 11.19	W 103 48 35.09

Survey Type: Def Survey

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

Description	Part	MD From (ft)	MD To (ft)	EOU Freq (ft)	Hole Size	Casing Diameter (in)	Survey Tool Type	Borehole / Survey
	1	0.000	26.500	1/98.425	30.000	30.000	NAL_NSG+MSHOT-Depth Only	Original Borehole / Oxy Palladium MDP1 7-6 Federal Com 6H Gyro+MWD 0-20,095'
	1	26.500	26.500	Act Stns	30.000	30.000	NAL_NSG+MSHOT-Depth Only	Original Borehole / Oxy Palladium MDP1 7-6 Federal Com 6H Gyro+MWD 0-20,095'
	1	26.500	658.210	Act Stns	30.000	30.000	NAL_NSG+MSHOT	Original Borehole / Oxy Palladium MDP1 7-6 Federal Com 6H
	1	658.210	20095.000	Act Stns	30.000	30.000	NAL_MWD_PLUS_0.5_DEG	Original Borehole / Oxy Palladium MDP1 7-6 Federal Com 6H

Schlumberger**OXY****Borehole:****Original Borehole****Well:****Oxy Palladium MDP1 7-6 Federal Com 6H****Field:****NM Eddy County (NAD 83)****Structure:****Oxy Palladium MDP1 7-6 Federal Com 6H****Gravity & Magnetic Parameters**Model: HDGM 2017
MagDec: 6.969°

Dip: 53.395°

P5: 43098.642T

Date: 30-Aug-2017

Gravity P5: 998.429mg (9.80665 Based)

Surface Location

NAD83 New Mexico State Plane, Eastern Zone, US Feet

Lat: N 32 13 31.43

Long: W 103 48 36.75

Northing: 446127.47

Easting: 703103.37

VSec Azimuth: 0.43

Microseismic Parameters

Shot: MDP1 7-6 Federal Com 6H P506

Plan: Oxy Palladium MDP1 7-6 Federal Com 6H REV0 LBN 01Aug17

TVD Ref: RKB=26.5' (55.5' 26' above MSL)

Scale Fact: 0.9999396

Surface Location

Northing: 446127.47

Easting: 703103.37

Latitude: N 32 13 31.43

Longitude: W 103 48 36.75

VSec Azimuth: 0.43

Target Description**Grid Coord**

Target Name	Shape	Dimension	Latitude	Longitude	Northing	Easting	TVD	VSec
Palladium MDP1 7-6 Federal Com 6H Lateral Target Window 50' Left/Right	Rectangle	10054.00 x 100.00	N 32 14 21.64	W 103 48 35.25	451201.76	703207.56	-1200.00	5075.33
Oxy Palladium MDP1 7-6 Federal Com 6H Section Line	Polyline	N/A	N 32 13 31.43	W 103 48 37.10	446127.32	703073.37	3551.90	-0.41
Oxy Palladium MDP1 7-6 Federal Com 6H 50' FSL	Polyline	N/A	N 32 13 31.43	W 103 48 37.10	446127.32	703073.37	3551.90	-0.41
Oxy Palladium MDP1 7-6 Federal Com 6H 330'340' HL	Polyline	N/A	N 32 13 31.43	W 103 48 37.10	446127.32	703073.37	3551.90	-0.41
Oxy Palladium MDP1 7-6 Federal Com 6H Lease Line	Polyline	N/A	N 32 13 31.43	W 103 48 37.10	446127.32	703073.37	3551.90	-0.41
Palladium MDP1 7-6 Federal Com 6H P506	Point	N/A	N 32 15 11.33	W 103 48 35.17	455228.47	703159.77	9932.00	10102.01
Palladium MDP1 7-6 Federal Com 6H Bottom Pier	Point	N/A	N 32 15 9.50	W 103 48 35.17	455228.47	703159.33	9932.00	9943.31
Palladium MDP1 7-6 Federal Com 6H Top Pier	Point	N/A	N 32 13 31.90	W 103 48 35.32	446175.06	703225.34	9932.00	48.65

Critical Point	MD	INCL	AZIM	TVD	VSEC	N(+)/S(-)	E(+)/W(-)	DLS
SHL	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rustler	603.00	0.00	160.00	603.00	0.00	0.00	0.00	0.00
Sabalo	962.00	0.00	160.00	962.00	0.00	0.00	0.00	0.00
Cable	2756.00	0.00	160.00	2756.00	0.00	0.00	0.00	0.00
Delaware	4282.00	0.00	160.00	4282.00	0.00	0.00	0.00	0.00
ICP	4300.00	0.00	160.00	4300.00	0.00	0.00	0.00	0.00
Bel Canyon	4336.00	0.00	160.00	4336.00	0.00	0.00	0.00	0.00
Cherry Canyon	5026.00	0.00	160.00	5026.00	0.00	0.00	0.00	0.00
Brady Canyon	6531.00	0.00	160.00	6531.00	0.00	0.00	0.00	0.00
Build 27130	7675.00	0.00	160.00	7675.00	0.00	0.00	0.00	0.00
Bone Spring	8142.37	9.34	160.00	8142.37	-35.59	35.70	12.39	2.00
Hole Target	8175.00	10.00	160.00	8175.00	-40.77	40.90	14.93	2.00
Build/Turn 10/1100	9046.87	10.00	160.00	9046.87	-231.39	232.12	84.48	0.00
Build/Turn 10/1100	9660.01	45.00	3.00	9660.01	-71.53	72.53	112.82	10.00
Leasing Pier	10340.91	90.00	359.80	10340.91	354.39	333.27	123.78	10.00
Palladium MDP1 7-6 Federal Com 6H	20109.23	90.00	359.80	20109.23	354.39	333.27	123.78	10.00
MD Camp	N/A	N/A	N/A	11519.00	10102.01	30101.04	86.41	0.00

