

NM OIL CONSERVATION

ARTESIA DISTRICT

NOV 09 2017 **Schlumberger**

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)

Fax : (432) 742-5606 (Shared)

RECEIVED

Well Reference:

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.

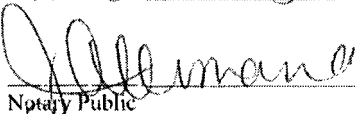
By
Jose Vargas
FE



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
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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 Client: OXY Field: NM Eddy County (NAD 83) Structure / Slot: Oxy Palladium MDP1 7-6 Federal Com 6H / Oxy Palladium MDP1 7-6 Federal Com 6H Well: Oxy Palladium MDP1 7-6 Federal Com 6H Borehole: Original Borehole UWI / API#: Unknown / Unknown Survey Name: Oxy Palladium MDP1 7-6 Federal Com 6H Gyro+MWD 0-20,095' Survey Date: August 17, 2017 Tort / AHD / DDI / ERD Ratio: 253.472' / 10659.881 ft / 8.732' / 1.060 Coordinate Reference System: NAD83 New Mexico State Plane, Eastern Zone, US Feet Location Lat / Long: N 32° 13' 31.43359", W 103° 48' 36.74598" Location Grid N/E Y/X: N 448127.470 fU.S., E 703103.370 fU.S. CRS Grid Convergence Angle: 0.2790° Grid Scale Factor: 0.99993906 Version / Patch: 2.10.544.0	Survey / DLS Computation: Minimum Curvature / Lubinski Vertical Section Azimuth: 0.490° (Grid North) Vertical Section Origin: 0.000 ft, 0.000 ft TVD Reference Datum: RKB=26.5' TVD Reference Elevation: 3551.900 ft above MSL Seabed / Ground Elevation: 3525.400 ft above MSL Magnetic Declination: 6.969° Total Gravity Field Strength: 998.4289mgn (9.80665 Based) Gravity Model: GARM Total Magnetic Field Strength: 48098.842 nT Magnetic Dip Angle: 59.995° Declination Date: August 30, 2017 Magnetic Declination Model: HDGM 2017 North Reference: Grid North Grid Convergence Used: 0.2790° Total Corr Mag North->Grid North: 6.6903° Local Coord Referenced To: Well Head	
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Comments	MD (ft)	Incl (°)	Azlm Grid (°)	TVD (ft)	VSEC (ft)	NS (ft)	EW (ft)	DLS (°/100ft)	Northing (ft)	Easting (ft)	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	703089.12	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	0.90	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	-12.80	-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 31.28	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	-21.68	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	703097.55	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	446085.48	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
	6268.00	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	10.82	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	703124.78	N 32 13 30.58	W 103 48 36.50
	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	

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 ° ' ")
	7936.00	0.27	182.98	7933.40	-86.06	-86.26	23.00	0.26	446041.21	703128.37	N 32 13 30.58 W	103 48 36.48
	8031.00	0.21	204.11	8028.40	-86.43	-86.63	22.98	0.19	446040.84	703128.36	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	703128.26	N 32 13 30.57 W	103 48 36.48
	8315.00	0.43	192.68	8312.39	-88.25	-88.45	22.87	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	703128.34	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	703128.68	N 32 13 30.49 W	103 48 36.46
	8692.00	8.61	183.50	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	180.90	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	182.70	8875.39	-132.61	-132.93	37.49	0.61	445994.54	703140.85	N 32 13 30.12 W	103 48 36.32
	8978.00	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
	9262.00	13.98	155.43	9255.59	-221.24	-221.74	57.39	2.96	445905.74	703160.75	N 32 13 29.24 W	103 48 36.09
	9377.00	13.68	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	445868.39	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	445804.84	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	445832.12	703234.56	N 32 13 29.49 W	103 48 35.23
	9754.00	27.17	357.66	9714.53	-157.32	-158.46	133.01	9.61	445869.02	703236.37	N 32 13 29.66 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	65.58	349.56	9907.09	40.78	39.90	102.67	12.56	446167.37	703206.03	N 32 13 31.72 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
	10489.00	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	703202.84	N 32 13 36.87 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 38.60 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 41.80 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	2.60	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	100.58	0.56	448097.09	703203.92	N 32 13 50.92 W	103 48 35.46
	12072.00	90.17	0.58	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	2248.51	2247.67	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 4.90 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	3772.22	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	3869.20	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	0.86	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	72.36	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
	15291.00	89.21	0.60	10027.98	5280.47	5280.04	72.82	0.51	451407.18	703176.19	N 32 14 23.68 W	103 48 35.60
	15386.00	89.00	0.71	10029.46	5375.46	5375.03	73.91	0.25	451502.16	703177.27	N 32 14 24.62 W	103 48 35.58
	15480.00	89.14	0.12	10030.99	5469.45	5469.01	74.59	0.65	451596.14	703177.95	N 32 14 25.55 W	103 48 35.57
	15570.00	89.55	1.09	10032.02	5559.44	5559.00	75.54	1.17	451686.12	703178.90	N 32 14 26.44 W	103 48 35.55
	15664.00	88.73	5.98	10033.43	5653.27	5652.78	81.33	5.27	451779.90	703184.70	N 32 14 27.36 W	103 48 35.48
	15759.00	88.59	6.93	10035.65	5747.73	5747.15	92.01	1.51	451874.26	703195.37	N 32 14 28.30 W	103 48 35.35
	15853.00	88.69	3.63	10037.88	5841.36	5840.71	100.66	3.01	451967.82	70		

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 ° ' '')
	20009.00	89.48	359.87	10058.32	9996.25	9995.82	92.99	0.20	456122.68	703196.35	N 32 15 10.34	W 103 48 35.10
Final MWD	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
Survey												
Proj. to bit	20095.00	89.93	359.85	10058.60	10082.25	10081.82	92.77	0.00	456208.68	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