

Oilfield Services, Central U.S. Land
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)

Schlumberger

HOBBS OCD
NOV 07 2018
RECEIVED

July 30, 2018

OXY USA INC.
5 Greenway Plaza, Suite 110
Houston, TX 77046

Re:

17, 24S, 32E, Lea NM
32.21089 -103.69350

CLIENT: OXY USA INC.
WELL: Mesa Verde BS Unit 3
FIELD: Mesa Verde Bone Springs

RIG: H&P 639
COUNTY: Lea
API NO: 30-025-44183
JOB NO: 18MLD2980

Enclosed, please find the original copy of the survey performed on the referenced well by Drilling & Measurements, 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>
Perry Hawks FE	Mesa Verde BS Unit 3 Original Hole	1056.00 Ft to 19264.00 Ft	May 14, 2018 to June 26, 2018	TelePacer SlimPulse

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

Cody Nelms
Field Service Manager

Oilfield Services, Central U.S. Land
Schlumberger Drilling and Measurements
Drilling Group
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7220 W I-H 20
Midland, Texas 79706
Phone : (432) 742-5400 (Main)
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Schlumberger

Well Reference:
17, 24S, 32E, Lea NM
32.21089 -103.69350

I, Perry Hawks certify that; I am employed by Drilling & Measurements, a division of Schlumberger Technology Corporation; that I did on the day(s) of May 14, 2018 through June 26, 2018, conduct or supervise the taking of the TelePacer & SlimPulse surveys from a depth of 1056.00 feet to a depth of 19264.00 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 Mesa Verde BS Unit 3 Well (Original Hole) API No. 30-025-44183 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
Perry Hawks
FE

Subscribed and Sworn to before me this 30th day of July (month) 2018 (yr)

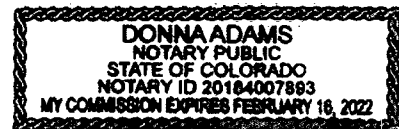
My Commission expires:

2-16-2022

Donna Adams
Notary Public

Adams County Colorado
(County State)

(signature)



Schlumberger

OXY

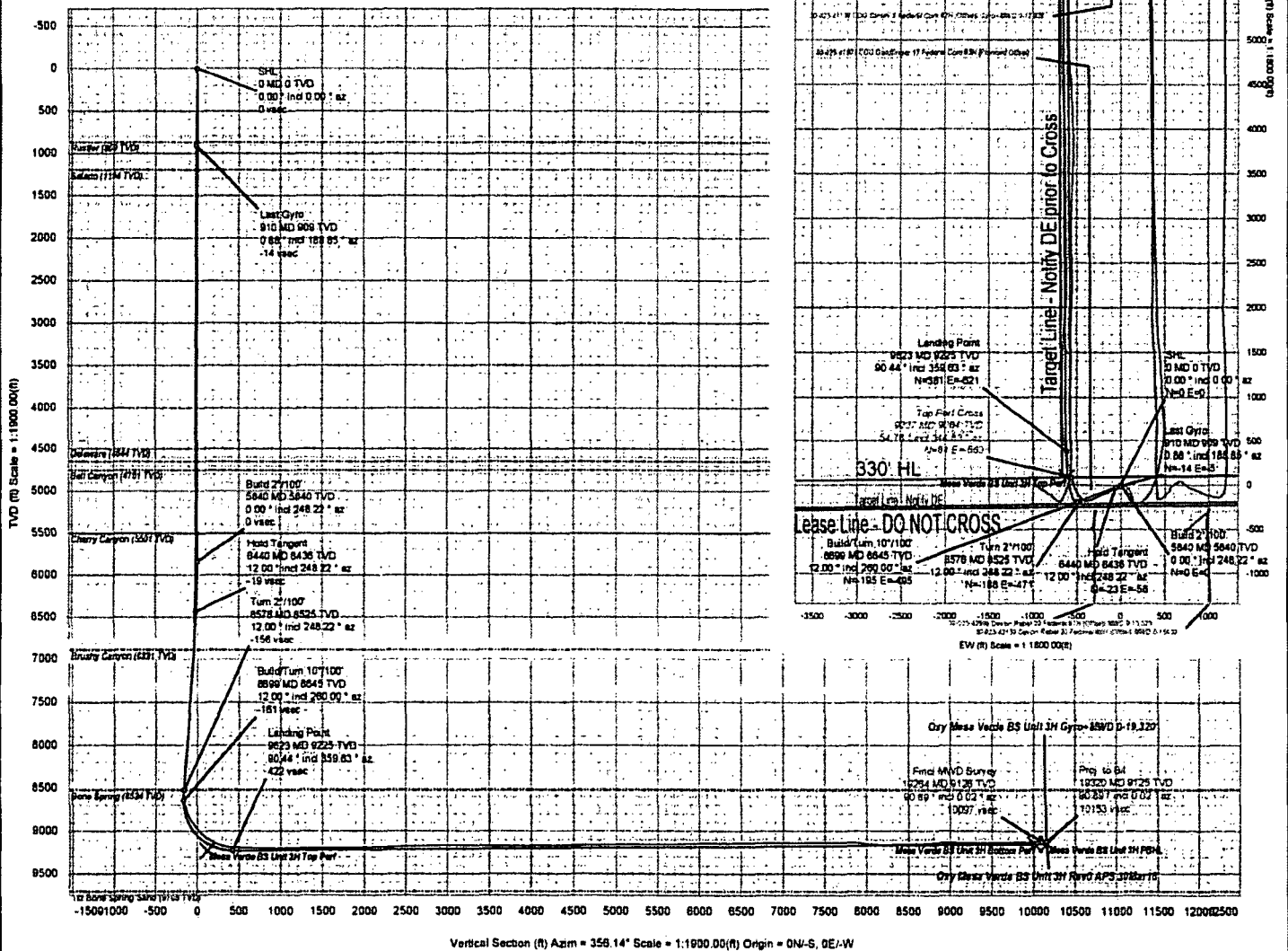
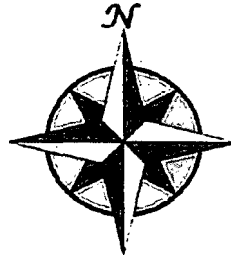


Borehole:	Well:	Field:	Structure:
Original Borehole	Oxy Mesa Verde BS Unit 3H	NM Lea County (NAD 83)	Oxy Mesa Verde BS Unit 3H

Gravity & Magnetic Parameters	Surface Location	Miscellaneous
Model: MOG 2018 Dip: 63.81° Date: 08-Jun-2018	NAD83 New Mexico State Plane, Eastern Zone, US Feet	Oxy Mesa Verde BS Unit 3H TVD Ref: RKB=26.5' (184.2h above MSL)
MagDec: 6.811° PS: 47896.100-T Gravity PS: 996.432mg (R 20468 Gauss)	Let: N 32.13 38.31 Northing: 441048.88913 Orig Conv: 0.3411°	Plan: Oxy Mesa Verde BS Unit 3H Revd APS 30Mar18
	Lon: W 102.41 38.81 Easting: 732321.84015 Scale Fact: 0.99993234	

Grid
True
Mag

Grid North
Tot Corr (M->G 6.470°)
Mag Dec (6.811°)
Grid Conv (0.341°)





Oxy Mesa Verde BS Unit 3H Gyro+MWD 0-19,320' Survey Geodetic Report

(Def Survey)

Report Date: June 27, 2018 - 12:35 PM
 Client: OXY
 Field: NM Lee County (NAD 83)
 Structure / Slot: Oxy Mesa Verde BS Unit 3H / Oxy Mesa Verde BS Unit 3H
 Well: Oxy Mesa Verde BS Unit 3H
 Borehole: Original Borehole
 UWI / API#: Unknown / 30-025-44183
 Survey Name: Oxy Mesa Verde BS Unit 3H Gyro+MWD 0-19,320'
 Survey Date: June 08, 2018
 Tort / AND / DDI / ERD Ratio: 247.720' / 10837.648 ft / 8.751 / 1.178
 Coordinate Reference System: NAD83 New Mexico State Plane, Eastern Zone, US Feet
 Location Lat / Long: N 32° 12' 39.21437", W 103° 41' 36.60955"
 Location Grid N/E Y/X: N 441045.880 NUS, E 739223.840 NUS
 CRS Grid Convergence Angle: 0.3411°
 Grid Scale Factor: 0.99995394
 Version / Patch: 2.10.720.0

Survey / DLS Computation: Minimum Curvature / Lubinski
 Vertical Section Azimuth: 356.136° (Grid North)
 Vertical Section Origin: 0 000 ft, 0 000 ft
 TVD Reference Datum: RKB=26.5'
 TVD Reference Elevation: 3584.200 ft above MSL
 Seabed / Ground Elevation: 3557.700 ft above MSL
 Magnetic Declination: 6.811°
 Total Gravity Field Strength: 998.4322mgm (9.80665 Based)
 Gravity Model: GARM
 Total Magnetic Field Strength: 47998.106 nT
 Magnetic Dip Angle: 59.920°
 Declination Date: June 08, 2018
 Magnetic Declination Model: HDGM 2018
 North Reference: Grid North
 Grid Convergence Used: 0.3411°
 Total Corr Mag North→Grid North: 6.4703°
 Local Coord Referenced To: Well Head

Comments	MD (ft)	Incl (°)	Azimuth (°)	TVD (ft)	VSEC (ft)	NS (ft)	EW (ft)	DLS (ft/100ft)	Northings (NUS)	Easting (EUS)	Latitude (N/S ° ' ")	Longitude (E/W ° ' ")
RKB	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A	441045.88	739223.84	32 12 39.21	W 103 41 36.61
SHL	26.50	0.00	0.00	26.50	0.00	0.00	0.00	0.00	441045.88	739223.84	32 12 39.21	W 103 41 36.61
	68.50	0.38	189.57	68.50	-0.14	-0.14	-0.02	0.90	441045.74	739223.82	32 12 39.21	W 103 41 36.61
	155.50	0.71	202.81	155.50	-0.90	-0.92	-0.28	0.40	441044.96	739223.56	32 12 39.21	W 103 41 36.61
	246.50	1.18	204.73	246.48	-2.22	-2.29	-0.89	0.52	441043.59	739222.95	32 12 39.19	W 103 41 36.62
	341.50	1.40	198.10	341.46	-4.16	-4.28	-1.68	0.28	441041.60	739222.18	32 12 39.17	W 103 41 36.63
	435.50	1.18	202.11	435.44	-6.08	-6.27	-2.38	0.25	441039.61	739221.48	32 12 39.15	W 103 41 36.64
	529.50	1.13	199.81	529.42	-7.81	-8.04	-3.06	0.07	441037.84	739220.78	32 12 39.14	W 103 41 36.65
	623.50	0.94	202.33	623.40	-9.35	-9.62	-3.67	0.21	441036.26	739220.17	32 12 39.12	W 103 41 36.65
	717.50	1.01	202.49	717.39	-10.79	-11.10	-4.28	0.07	441034.78	739219.56	32 12 39.10	W 103 41 36.68
	812.50	1.08	200.33	812.37	-12.36	-12.72	-4.91	0.08	441033.17	739218.93	32 12 39.09	W 103 41 36.67
Lost Gyro	909.50	0.88	186.85	909.36	-13.92	-14.31	-5.34	0.29	441031.57	739218.50	32 12 39.07	W 103 41 36.67
	1058.00	0.13	113.22	1058.85	-15.09	-15.49	-5.36	0.59	441030.40	739218.22	32 12 39.08	W 103 41 36.67
	1147.00	0.18	55.24	1146.85	-15.07	-15.45	-5.16	0.16	441030.43	739218.68	32 12 39.08	W 103 41 36.67
	1328.00	0.11	151.22	1328.85	-15.10	-15.46	-4.87	0.11	441030.42	739218.87	32 12 39.08	W 103 41 36.67
	1417.00	0.06	95.57	1416.85	-15.18	-15.54	-4.78	0.10	441030.34	739219.06	32 12 39.08	W 103 41 36.67
	1507.00	0.13	297.75	1506.85	-15.14	-15.50	-4.63	0.21	441030.38	739219.01	32 12 39.08	W 103 41 36.67
	1598.00	0.13	101.48	1597.85	-15.11	-15.47	-4.62	0.28	441030.41	739219.02	32 12 39.08	W 103 41 36.67
	1692.00	0.11	82.87	1691.85	-15.14	-15.48	-4.62	0.05	441030.40	739219.22	32 12 39.08	W 103 41 36.68
	1786.00	0.13	157.01	1785.85	-15.23	-15.57	-4.49	0.15	441030.31	739219.35	32 12 39.08	W 103 41 36.68
	1880.00	0.08	285.28	1879.85	-15.31	-15.65	-4.51	0.20	441030.23	739219.33	32 12 39.08	W 103 41 36.68
	1974.00	0.13	286.35	1973.85	-15.28	-15.64	-4.68	0.08	441030.24	739219.18	32 12 39.08	W 103 41 36.67
	2068.00	0.06	113.27	2067.85	-15.30	-15.66	-4.75	0.20	441030.22	739219.09	32 12 39.08	W 103 41 36.67
	2256.00	0.11	65.94	2255.85	-15.29	-15.62	-4.47	0.04	441030.20	739219.35	32 12 39.08	W 103 41 36.68
	2350.00	0.08	274.65	2349.85	-15.26	-15.58	-4.57	0.07	441030.18	739219.37	32 12 39.08	W 103 41 36.68
	2537.00	0.08	185.91	2536.85	-15.35	-15.70	-4.57	0.07	441030.18	739219.27	32 12 39.08	W 103 41 36.68
	2728.00	0.08	223.75	2728.85	-15.57	-15.92	-4.63	0.04	441030.01	739219.28	32 12 39.08	W 103 41 36.68
	2915.00	0.13	47.17	2914.85	-15.53	-15.87	-4.56	0.11	441030.01	739219.37	32 12 39.08	W 103 41 36.68
	3104.00	0.08	318.78	3103.85	-15.32	-15.65	-4.46	0.08	441030.23	739219.37	32 12 39.08	W 103 41 36.68
	3198.00	0.08	142.89	3197.85	-15.32	-15.66	-4.46	0.13	441030.22	739219.36	32 12 39.08	W 103 41 36.68
	3293.00	0.08	286.54	3292.85	-15.34	-15.68	-4.50	0.12	441030.20	739219.34	32 12 39.08	W 103 41 36.68
	3388.00	0.13	82.13	3387.85	-15.32	-15.65	-4.44	0.20	441030.23	739219.40	32 12 39.08	W 103 41 36.68
	3577.00	0.20	125.57	3576.85	-15.51	-15.82	-3.96	0.07	441030.07	739219.68	32 12 39.08	W 103 41 36.68
	3768.00	0.11	245.47	3768.85	-15.79	-16.08	-3.85	0.14	441029.80	739219.99	32 12 39.08	W 103 41 36.68
	3860.00	0.32	182.93	3859.85	-16.08	-16.38	-3.95	0.30	441029.50	739219.89	32 12 39.05	W 103 41 36.68
	4050.00	0.08	107.17	4049.85	-16.64	-16.94	-3.88	0.16	441028.94	739219.96	32 12 39.05	W 103 41 36.68
	4144.00	0.20	282.64	4143.85	-16.87	-16.98	-4.00	0.27	441028.50	739219.84	32 12 39.05	W 103 41 36.68
	4334.00	0.13	187.99	4333.85	-16.90	-17.23	-4.28	0.13	441028.85	739219.56	32 12 39.04	W 103 41 36.68
	4523.00	0.34	293.59	4522.84	-16.86	-17.22	-4.75	0.23	441028.87	739219.09	32 12 39.04	W 103 41 36.67
	4818.00	0.23	222.02	4817.84	-16.86	-17.24	-5.14	0.36	441028.84	739218.70	32 12 39.04	W 103 41 36.67
	4807.00	0.06	18.41	4806.84	-17.03	-17.43	-5.36	0.15	441028.45	739218.48	32 12 39.04	W 103 41 36.67
	4902.00	0.13	348.16	4901.84	-16.86	-17.28	-5.37	0.09	441028.80	739218.47	32 12 39.04	W 103 41 36.67
	4996.00	0.13	298.37	4995.84	-16.72	-17.13	-5.48	0.12	441028.75	739218.36	32 12 39.05	W 103 41 36.67
	5186.00	0.13	3.57	5185.84	-16.40	-16.82	-5.68	0.08	441029.05	739218.18	32 12 39.05	W 103 41 36.68
	5280.00	0.13	255.13	5279.84	-16.31	-16.74	-5.78	0.22	441029.14	739218.08	32 12 39.05	W 103 41 36.68
	5470.00	0.13	167.48	5469.84	-16.57	-17.00	-5.92	0.09	441028.88	739217.82	32 12 39.05	W 103 41 36.68
	5564.00	0.08	317.75	5563.84	-16.82	-17.06	-5.94	0.22	441028.82	739217.80	32 12 39.05	W 103 41 36.68
	5659.00	0.48	244.30	5658.84	-16.71	-17.18	-6.33	0.47	441028.71	739217.81	32 12 39.04	W 103 41 36.68
	5754.00	0.95	244.06	5753.83	-17.15	-17.69	-7.38	0.52	441028.20	739218.46	32 12 39.04	W 103 41 36.70
	5848.00	1.66	250.78	5847.81	-17.80	-18.47	-9.37	0.77	441027.41	739214.47	32 12 39.03	W 103 41 36.72
	5943.00	2.50	247.53	5942.74	-18.83	-19.72	-12.58	0.89	441028.16	739211.26	32 12 39.02	W 103 41 36.76
	6036.00	3.20	248.92	6035.83	-20.27	-21.47	-16.97	0.74	441024.42	739206.87	32 12 39.00	W 103 41 36.81
	6133.00	3.62	247.41	6132.46	-22.02	-23.57	-22.21	0.45	441022.31	739201.63	32 12 38.98	W 103 41 36.87
	6227.00	3.85	249.57	6226.25	-23.90	-25.84	-27.99	0.38	441020.04	739195.85	32 12 38.96	W 103 41 36.94
	6322.00	4.28	248.23	6321.01	-25.91	-28.29	-34.33	0.34	441017.59	739189.51	32 12 38.94	W 103 41 37.01
	6416.00	4.63	247.70	6414.73	-28.19	-31.03	-41.08	0.40	441014.86	739182.78	32 12 38.91	W 103 41 37.09
	6511.00	5.32	248.59	6509.37	-30.73	-34.09	-48.73	0.73	441011.79	739175.11	32 12 38.88	W 103 41 37.18
	6606.00	6.01	250.40	6603.90	-33.40	-37.38	-57.52	0.75	441008.52	739168.33	32 12 38.85	W 103 41 37.28
	6700.00	6.40	248.35	6697.35	-36.34	-40.95	-67.02	0.48	441004.83	739156.82	32 12 38.81	W 103 41 37.39
	6795.00	7.31	247.61	6791.67	-39.88	-45.20	-77.53	0.86	441000.68	739146.31	32 12 38.77	W 103 41 37.52
	6890.00	8.04	246.85	6885.82	-43.99	-50.12	-89.23	0.78	440995.78	739134.62	32 12 38.72	W 103 41 37.85
	6985.00	9.01	245.40	6979.77	-48.62	-55.83	-102.10	1.05	440990.06	739121.74	32 12 38.67	W 103 41 37.80
	7079.00	8.98	243.20	7072.81	-54.28	-62.20	-115.34	0.37	440983.68	739108.50	32 12 38.61	W 103 41 37.86
	7174.00	9.98	242.96	7168.33	-60.38	-69.24	-129.22	0.95	440978.64	739094.63	32 12 38.54	W 103 41 38.12
	7269.00	10.95	246.30	7259.77	-66.55	-76.28	-144.87	1.51	440969.60	739078.98	32 12 38.47	W 103 41 38.30
	7363.00	11.89	242.30	7351.91	-73.00	-84.09	-161.74	1.81	440961.80	739062.11	32 12 38.39	W 103 41 38.50
	7458.00	11.98	241.88	7444.85	-81.00	-92.28	-179.10	0.13	440952.60	739044.75	32 12 38.30	W 103 41 38.70
	7553.00	12.18	249.73	7537.76	-87.88	-101.40	-197.19	0.74	440944.48	739028.66	32 12 38.22	W 103 41 38.91
	7647.00	11.50	248.70	7629.76	-93.49	-108.24	-215.23	0.78	440937.64	739008.62	32 12 38.18	W 103 41 39.12
	7742.00	11.80	244.78	7722.83	-99.81	-115.75	-232.69	0.83	440930.13	738991.62	32 12 38.00	W 103 41 39.33
	7837.00	11.92	242.47	7815.84	-107.22	-124.36	-250.03	0.80	440921.63	738973.62	32 12 37.91	W 103 41 39.53
	7931.00	11.88	242.37	7807.85	-114.95	-133.26	-267.07	0.26	440912.63	738956.78	32 12 37.91	W 103 41 39.73
	8026.00	11.88	243.27	8009.85	-122.83	-142.11	-284.32	0.29	440903.73	738939.53	32 12 37.82	W 103 4

Comments	MD (")	Incl (°)	Azim Grid (°)	TVD (")	VSEC (")	NS (")	EW (")	DLS ("/100ft)	Northing (ftUS)	Easting (ftUS)	Latitude (N/S ° ' ")	Longitude (E/W ° ' ")
	8733.00	19.55	298.55	8892.93	-148.26	-176.87	-418.62	13.65	440889.02	738805.24	N 32 12 37.49 W 103 41 41.48	
	8828.00	28.12	311.89	8779.81	-123.64	-154.27	-449.32	10.61	440891.62	738774.54	N 32 12 37.71 W 103 41 41.85	
	8923.00	35.49	321.55	8690.54	-84.82	-117.65	-483.21	9.41	440926.24	738740.58	N 32 12 38.08 W 103 41 42.24	
	9017.00	40.29	334.58	8634.82	-33.98	-68.72	-513.29	9.90	440977.18	738710.58	N 32 12 38.56 W 103 41 42.59	
	9112.00	46.03	342.91	8604.15	-27.87	-48.20	-536.56	8.50	441037.68	738687.31	N 32 12 39.16 W 103 41 42.85	
	9207.00	52.13	344.63	8566.35	-98.07	-60.70	-556.86	6.96	441106.57	738667.31	N 32 12 39.85 W 103 41 43.08	
	9302.00	60.47	345.23	8519.01	-175.53	-136.95	-577.07	8.79	441182.82	738646.80	N 32 12 40.60 W 103 41 43.32	
	9396.00	70.01	345.10	8458.34	-259.23	-219.37	-599.91	10.13	441265.94	738624.98	N 32 12 41.42 W 103 41 43.56	
	9490.00	80.74	347.39	8422.04	-348.70	-307.59	-620.48	11.85	441353.45	738603.41	N 32 12 42.29 W 103 41 43.81	
	9585.00	88.42	354.16	8381.01	-442.74	-409.82	-635.66	10.79	441446.98	738588.31	N 32 12 43.22 W 103 41 43.98	
	9622.00	88.52	354.17	8392.00	-479.71	-437.62	-639.32	0.27	441483.48	738594.55	N 32 12 43.58 W 103 41 44.02	
	9733.00	86.58	354.34	8394.83	-590.61	-546.02	-650.43	0.16	441593.88	738573.44	N 32 12 44.68 W 103 41 44.14	
	9827.00	86.69	355.05	8387.09	-684.55	-641.59	-659.12	0.77	441687.44	738564.75	N 32 12 45.60 W 103 41 44.24	
	9922.00	86.62	357.44	8398.49	-779.54	-736.37	-665.34	2.70	441782.22	738555.94	N 32 12 46.54 W 103 41 44.30	
	10016.00	86.38	358.13	8399.31	-873.49	-830.30	-668.67	0.78	441876.14	738554.90	N 32 12 47.47 W 103 41 44.34	
	10111.00	90.07	357.89	8389.76	-968.44	-926.24	-672.19	0.74	441971.08	738551.69	N 32 12 48.41 W 103 41 44.37	
	10204.00	86.38	359.88	8399.40	-1061.32	-1018.22	-673.49	2.06	442064.05	738549.96	N 32 12 49.33 W 103 41 44.38	
	10298.00	86.93	0.64	8399.14	-1155.08	-1112.22	-673.49	0.94	442158.04	738550.38	N 32 12 50.26 W 103 41 44.37	
	10391.00	86.86	358.61	8399.31	-1247.90	-1205.21	-674.10	2.16	442251.03	738549.78	N 32 12 51.18 W 103 41 44.37	
	10484.00	91.86	2.58	8397.92	-1340.58	-1298.17	-673.13	4.76	442343.99	738550.74	N 32 12 52.16 W 103 41 44.35	
	10578.00	90.07	3.08	8396.34	-1433.93	-1302.04	-668.49	1.98	442437.85	738555.38	N 32 12 53.03 W 103 41 44.26	
	10671.00	90.21	3.46	8396.11	-1528.21	-1484.89	-663.19	0.44	442530.70	738560.68	N 32 12 53.95 W 103 41 44.23	
	10765.00	90.87	3.50	8395.88	-1619.43	-1578.71	-657.48	0.15	442624.52	738566.39	N 32 12 54.87 W 103 41 44.15	
	10858.00	90.03	3.70	8395.15	-1711.64	-1671.53	-651.64	0.85	442717.33	738572.23	N 32 12 55.79 W 103 41 44.08	
	10952.00	91.10	3.77	8393.58	-1804.80	-1765.31	-645.52	0.30	442811.11	738578.35	N 32 12 56.72 W 103 41 44.00	
	11049.00	91.69	3.78	8391.20	-1900.91	-1862.07	-639.14	0.81	442907.86	738584.74	N 32 12 57.68 W 103 41 43.92	
	11143.00	91.20	3.23	8388.83	-1994.11	-1955.87	-633.39	0.78	443001.85	738590.48	N 32 12 58.60 W 103 41 43.85	
	11230.00	91.65	3.08	8384.18	-2179.85	-2142.53	-623.10	0.25	443188.30	738600.77	N 32 13 0.45 W 103 41 43.71	
	11320.00	359.28	8381.78	-2272.24	-2235.46	-2210.20	-621.20	4.12	443281.23	738602.87	N 32 13 1.37 W 103 41 43.69	
	11423.00	91.34	1.22	8378.62	-2365.67	-2329.43	-620.81	2.08	443375.19	738603.96	N 32 13 2.30 W 103 41 43.67	
	11517.00	91.38	1.22	8378.62	-2458.70	-2422.39	-620.37	2.04	443468.16	738603.50	N 32 13 3.22 W 103 41 43.66	
	11610.00	91.31	359.32	8377.34	-2552.52	-2516.37	-621.30	0.25	443561.13	738602.87	N 32 13 4.18 W 103 41 43.68	
	11704.00	91.27	359.55	8375.22	-2618.37	-2602.18	-623.18	0.17	443654.07	738600.69	N 32 13 5.99 W 103 41 43.68	
	11800.00	91.10	359.29	8371.38	-2708.17	-2702.32	-624.22	0.61	443748.07	738599.85	N 32 13 6.83 W 103 41 43.68	
	11895.00	91.65	359.46	8369.10	-2802.99	-2797.28	-625.19	0.67	443843.03	738598.68	N 32 13 7.86 W 103 41 43.69	
	12070.00	91.03	359.36	8366.90	-2892.81	-2891.25	-626.43	0.89	443938.99	738597.44	N 32 13 8.80 W 103 41 43.69	
	12174.00	90.21	359.14	8365.87	-3021.67	-2986.24	-626.36	0.94	444031.97	738596.51	N 32 13 9.74 W 103 41 43.70	
	12269.00	89.55	359.74	8366.07	-3116.51	-3081.23	-626.04	0.39	444126.96	738595.76	N 32 13 10.67 W 103 41 43.70	
	12363.00	89.35	359.43	8366.97	-3210.33	-3175.22	-626.11	0.70	444220.95	738594.83	N 32 13 11.51 W 103 41 43.71	
	12449.00	89.86	359.12	8367.56	-3295.20	-3260.22	-626.11	0.26	444306.94	738593.16	N 32 13 12.55 W 103 41 43.72	
	12533.00	89.76	358.85	8368.60	-3400.06	-3459.19	-622.38	0.36	444394.92	738591.01	N 32 13 13.48 W 103 41 43.73	
	12647.00	89.76	358.85	8368.60	-3493.94	-3459.19	-622.38	0.75	444480.84	738589.10	N 32 13 14.42 W 103 41 43.74	
	12742.00	89.38	359.45	8369.31	-3588.80	-3554.17	-623.77	0.40	444569.88	738587.89	N 32 13 15.29 W 103 41 43.75	
	12831.00	90.10	359.21	8370.17	-3777.51	-3743.16	-637.34	0.30	444659.88	738586.53	N 32 13 16.28 W 103 41 43.76	
	13026.00	90.38	359.14	8369.77	-3872.37	-3838.15	-637.34	0.74	444748.82	738585.01	N 32 13 17.23 W 103 41 43.78	
	13121.00	91.07	359.03	8368.57	-3967.24	-3933.13	-638.86	0.82	444838.84	738583.91	N 32 13 18.17 W 103 41 43.77	
	13309.00	90.65	357.54	8365.75	-4155.08	-4121.01	-644.49	2.03	444928.82	738582.79	N 32 13 19.03 W 103 41 43.83	
	13404.00	89.72	355.85	8365.44	-4250.07	-4215.85	-649.96	1.62	445018.84	738581.53	N 32 13 20.07 W 103 41 43.88	
	13499.00	91.00	356.70	8364.84	-4345.06	-4310.85	-656.13	1.62	445108.84	738580.29	N 32 13 21.01 W 103 41 43.95	
	13687.00	90.58	356.53	8362.25	-4533.04	-4498.30	-667.23	0.24	445198.84	738579.04	N 32 13 22.06 W 103 41 44.08	
	13782.00	90.82	356.12	8361.25	-4628.01	-4593.19	-671.67	1.67	445288.84	738577.79	N 32 13 23.07 W 103 41 44.11	
	13876.00	90.83	356.36	8360.07	-4721.94	-4687.14	-674.55	0.34	445378.79	738576.54	N 32 13 24.06 W 103 41 44.14	
	13970.00	90.68	357.74	8358.82	-4815.88	-4781.07	-677.75	0.58	445468.74	738575.29	N 32 13 25.03 W 103 41 44.17	
	14064.00	91.27	357.09	8357.21	-4909.82	-4874.99	-681.28	0.67	445558.69	738574.02	N 32 13 26.06 W 103 41 44.20	
	14253.00	90.69	358.86	8353.98	-5098.64	-5063.89	-686.45	0.55	445648.64	738572.75	N 32 13 27.08 W 103 41 44.25	
	14348.00	89.35	358.22	8353.95	-5193.52	-5158.88	-689.04	1.46	445738.59	738571.48	N 32 13 28.03 W 103 41 44.26	
	14442.00	90.28	358.80	8354.25	-5287.35	-5252.87	-689.84	1.17	445828.54	738570.21	N 32 13 29.03 W 103 41 44.26	
	14537.00	89.59	0.36	8354.36	-5382.12	-5347.07	-688.71	0.94	445918.49	738568.94	N 32 13 30.03 W 103 41 44.28	
	14726.00	90.24	358.51	8354.64	-5570.80	-5536.85	-690.57	1.04	446008.44	738567.67	N 32 13 31.04 W 103 41 44.26	
	14820.00	89.79	359.14	8354.61	-5664.70	-5630.83	-692.50	0.82	446098.39	738566.40	N 32 13 32.07 W 103 41 44.28	
	14914.00	90.30	0.35	8352.08	-5758.48	-5724.78	-692.62	3.95	446188.34	738565.13	N 32 13 33.09 W 103 41 44.28	
	15009.00	91.34	0.19	8348.23	-5853.13	-5819.69	-692.47	2.07	446278.29	738563.86	N 32 13 34.07 W 103 41 44.27	
	15201.00	90.34	1.25	8345.42	-6044.49	-6011.65	-690.06	0.76	446368.24	738562.59	N 32 13 35.04 W 103 41 44.23	
	15390.00	90.45	1.79	8344.11	-6232.65	-6200.58	-685.25	0.29	446458.19	738561.32	N 32 13 36.04 W 103 41 44.15	
	15579.00	90.48	0.54	8342.58	-6420.91	-6389.53	-681.20	0.66	446548.14	738560.05	N 32 13 37.04 W 103 41 44.10	
	15768.00	90.21	359.81	8341.44	-6609.46	-6578.53	-680.96	0.51	446638.09	738558.78	N 32 13 38.03 W 103 41 44.08	
	15862.00	90.69	359.88	8340.70	-6703.28	-6702.52	-681.54	0.52	446728.04	738557.51	N 32 13 39.03 W 103 41 44.08	
	16051.00	90.31	358.74	8339.06	-6892.00	-6861.49	-684.15	0.54	446817.99	738556.24	N 32 13 40.03 W 103 41 44.10	
	16239.00	90.38	1.36	8337.82	-7079.54	-7049.47	-683.98	1.39	446907.94	738554.98	N 32 13 41.03 W 103 41 44.08	
	16334.00	90.52	359.90	8337.18	-7174.25	-7144.46	-682.94	1.34	446997.89	738553.71	N 32 13 42.03 W 103 41 44.06	
	16523.00	90.31	359.44	8335.81	-7362.88	-7332.45	-684.03	0.27	447087.84	738552.44	N 32 13 43.03 W 103 41 44.06	
	16618.00	90.10	359.40	8335.47	-7457.72	-7428.45	-684.99	0.23	447177.79	738551.17	N 32 13 44.03 W 103 41 44.07	
	16713.00	90.41	357.74	8335.05	-7552.58	-7523.44	-685.82	0.39	447267.74	738549.90	N 32 13 45.03 W 103 41 44.07	
	16807.00	90.31	357.09	8334.45	-7646.39	-7617.44	-686.46	0.11	447357.69	738548.63	N 32 13 46.03 W 103 41 44.07	
	16902.00	92.48	0.07	8332.14	-7741.15	-7712.41	-686.73	2.33	447447.64	738547.36	N 32 13 47.03 W 103 41 44.07	
	17091.00	84.56	358.26	8337.02	-7835.94	-7801.17	-686.58	4.27	447537.59	738546.09	N 32 13 48.03 W 103 41 44.08	

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 ° ' ")
Description	Part	MD From (ft)	MD To (ft)	EDU 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 Mesa Verde BS Unit 3H Gyro+MWD 0-19.320'				
	1	26.500	26.500	Act Sns	30.000	30.000	NAL_NSG+MSHOT-Depth Only	Original Borehole / Oxy Mesa Verde BS Unit 3H Gyro+MWD 0-19.320'				
	1	26.500	909.500	Act Sns	30.000	30.000	NAL_NSG+MSHOT	Original Borehole / Oxy Mesa Verde BS Unit 3H Gyro+MWD 0-19.320'				
	1	909.500	19320.000	Act Sns	30.000	30.000	NAL_MWD_PLUS_0.5_DEG	Original Borehole / Oxy Mesa Verde BS Unit 3H Gyro+MWD 0-				

...Oxy Mesa Verde BS Unit 3H\Original Borehole\Oxy Mesa Verde BS Unit 3H Gyro+MWD 0-19.320'

OXY USA Inc.
Mesa Verde BS Unit 3H
API No. 30-025-44183

