

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

30-015-44386

October 18, 2018

OXY USA WTP LP
5 Greenway Plaza, Suite 110
Houston, TX 77046

NM OIL CONSERVATION
ARTESIA DISTRICT

JAN 22 2019

RECEIVED

Re:

4, 19S, 29E, Eddy NM
32.69390 104.08640

CLIENT: OXY USA WTP LP
WELL: Turkey Track 4-3 State 32H
FIELD: Turkey Track Bone Spring

RIG: H&P 639
COUNTY: Eddy
API NO: 30-015-44386
JOB NO: 18MLD1163

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	Turkey Track 4-3 State 32H Original Hole	222.00 Ft to 19063.00 Ft	August 28, 2018 to September 23, 2018	SlimPulse Third Party Corrected

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

Blake Jones
Field Service Manager

Schlumberger-Private

Oilfield Services, Central U.S. Land
Schlumberger Drilling and Measurements
Drilling Group
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7220 W I-H 20
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Schlumberger

Well Reference:

4, 19S, 29E, Eddy NM
32.69390 104.08640

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 August 28, 2018 through September 23, 2018, conduct or supervise the taking of the SlimPulse & Third Party Corrected surveys from a depth of 222.00 feet to a depth of 19063.00 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 WTP LP for the Turkey Track 4-3 State 32H Well (Original Hole) API No. 30-015-44386 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 19th day of October (month) 2018 (yr)

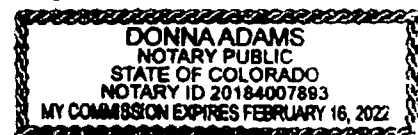
My Commission expires:

2-16-2022

D. Adams
Notary Public

Adams County Colorado
(County State)

(signature)



Oxy Turkey Track 4-3 State 32H MWD IFR 0-19109' MD Survey Geodetic
Report
(Bat Survey)
30-015-44386

[illegible]

	MD	Incl	Azim Grid	TVD	VSEC	NS	EW	CLS	North	East	Latitude	Longitude
	(ft)	(°)	(°)	(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(N/S)	(E/W)
KOP Actual	7676.00	17.18	217.08	7818.75	-333.21	-283.83	-336.45	1.68	015992.88	016000.30	N 32 41 33.45 W 104 5 15.60	
	7673.00	16.87	219.01	7808.83	-348.49	-305.42	-373.43	0.80	015971.10	015981.27	N 32 41 35.19 W 104 5 15.60	
	8058.00	17.02	219.43	7807.53	-364.18	-325.74	-390.84	0.39	015949.78	015959.95	N 32 41 34.97 W 104 5 15.60	
	8162.00	16.37	205.95	8057.83	-376.53	-349.28	-405.39	4.17	015927.24	015937.41	N 32 41 34.75 W 104 5 15.67	
	8264.00	12.30	204.00	8167.08	-384.08	-387.68	-414.01	4.89	015905.87	015916.04	N 32 41 34.57 W 104 5 15.67	
	8258.00	12.17	204.87	8178.79	-384.86	-387.87	-415.08	1.48	015908.85	015918.84	N 32 41 34.58 W 104 5 15.68	
	8351.00	17.68	190.58	8270.53	-389.98	-393.43	-421.93	7.08	015883.09	015893.26	N 32 41 34.32 W 104 5 15.67	
	8446.00	24.65	159.72	8358.48	-383.40	-428.08	-417.88	13.11	015850.47	015860.64	N 32 41 33.99 W 104 5 15.62	
	8540.00	28.96	146.31	8444.36	-382.19	-461.79	-399.41	6.88	015814.74	015824.91	N 32 41 33.64 W 104 5 15.60	
	8635.00	28.51	126.82	8529.37	-330.87	-462.42	-370.39	9.30	015784.12	015794.29	N 32 41 33.34 W 104 5 15.57	
	8730.00	39.08	124.08	8609.08	-286.70	-521.95	-328.39	13.31	015754.58	015764.75	N 32 41 33.04 W 104 5 15.57	
	8825.00	51.34	119.57	8679.89	-228.83	-557.17	-271.09	13.33	015719.37	015729.54	N 32 41 32.69 W 104 5 15.57	
	8919.00	66.77	113.01	8724.12	-182.14	-582.41	-188.92	17.46	015684.13	015694.30	N 32 41 32.69 W 104 5 15.57	
	9014.00	77.49	106.75	8753.28	-83.11	-622.95	-114.02	12.90	015653.59	015663.76	N 32 41 32.04 W 104 5 12.87	
	9128.00	60.33	100.11	8778.21	45.32	-648.88	-5.28	6.23	015627.66	015637.83	N 32 41 31.78 W 104 5 11.30	
	9202.00	61.43	100.38	8788.94	118.02	-681.88	66.62	1.53	015614.87	015625.04	N 32 41 31.65 W 104 5 10.46	
	9298.00	64.58	98.53	8798.38	210.95	-677.20	158.64	3.89	015589.35	015599.52	N 32 41 31.49 W 104 5 9.38	
	9389.00	67.78	96.42	8804.58	303.80	-689.26	250.63	4.09	015567.29	015577.46	N 32 41 31.27 W 104 5 8.30	
	9451.00	68.35	95.72	8808.68	385.54	-695.82	312.25	1.48	015540.73	015550.90	N 32 41 31.31 W 104 5 7.58	
	9545.00	68.07	94.14	8809.82	459.49	-703.89	405.85	1.71	015527.66	015537.83	N 32 41 31.22 W 104 5 6.40	
	9634.00	68.04	93.12	8812.78	552.42	-709.78	498.81	1.10	015508.79	015518.96	N 32 41 31.18 W 104 5 5.40	
	9625.00	68.17	89.85	8816.98	739.05	-714.78	585.41	1.07	015491.77	015501.94	N 32 41 31.11 W 104 5 4.22	
	9918.00	89.28	88.98	8821.84	831.85	-713.88	672.02	7.54	015462.66	015472.83	N 32 41 31.12 W 104 5 2.13	
	10104.00	90.82	102.78	8823.84	1017.12	-732.68	762.92	7.54	015433.58	015443.75	N 32 41 30.83 W 104 5 0.87	
	10230.00	88.83	101.89	8824.24	1141.88	-739.54	844.06	1.68	015417.01	015427.18	N 32 41 30.63 W 104 5 0.63	
	10323.00	87.45	98.48	8827.33	1238.57	-774.51	1179.78	5.84	015392.05	015402.22	N 32 41 30.46 W 104 5 0.63	
	10420.00	86.88	95.86	8828.88	1331.46	-779.81	1274.57	8.04	015377.01	015387.18	N 32 41 30.46 W 104 5 0.63	
	10515.00	82.08	84.82	8829.81	1425.61	-774.69	1369.39	5.40	015359.82	015369.99	N 32 41 30.46 W 104 5 0.63	
	10608.00	82.30	82.02	8831.03	1517.78	-763.78	1462.87	2.78	015342.76	015352.93	N 32 41 30.46 W 104 5 0.62	
	10704.00	90.44	81.07	8830.78	1610.32	-749.69	1558.81	2.20	015326.78	015336.95	N 32 41 30.46 W 104 5 0.62	
	10798.00	88.00	83.00	8832.05	1703.07	-736.64	1650.87	3.27	015319.92	015329.09	N 32 41 30.46 W 104 5 0.62	
	10893.00	88.35	83.24	8832.05	1795.19	-725.38	1743.95	0.45	015303.47	015313.64	N 32 41 30.46 W 104 5 0.63	
	10988.00	88.28	87.28	8832.04	1888.90	-717.54	1836.58	4.25	015287.01	015297.18	N 32 41 30.46 W 104 5 0.62	
	11083.00	87.80	88.84	8831.09	1983.25	-714.32	1929.45	1.72	015270.53	015280.70	N 32 41 30.46 W 104 5 0.63	
	11177.00	87.35	89.78	8834.90	2078.78	-713.17	2022.38	1.01	015254.05	015264.22	N 32 41 30.46 W 104 5 0.62	
	11272.00	87.79	90.52	8838.77	2171.44	-713.41	2122.29	0.84	015237.57	015247.74	N 32 41 30.46 W 104 5 0.62	
	11368.00	87.82	91.89	8842.61	2267.21	-715.42	2218.18	1.44	015221.09	015231.26	N 32 41 30.46 W 104 5 0.62	
	11463.00	88.00	93.28	8846.24	2362.08	-719.71	2313.02	1.82	015204.61	015214.78	N 32 41 30.46 W 104 5 0.62	
	11557.00	88.83	92.43	8848.84	2458.01	-724.39	2408.88	1.28	015188.13	015198.30	N 32 41 30.46 W 104 5 0.62	
	11652.00	88.76	92.63	8850.84	2554.93	-728.59	2501.75	0.24	015171.65	015181.82	N 32 41 30.46 W 104 5 0.62	
11747.00	88.14	93.14	8852.58	2643.88	-733.39	2598.61	0.63	015155.18	015165.35	N 32 41 30.46 W 104 5 0.62		
11842.00	89.89	92.56	8853.55	2740.84	-738.11	2691.49	0.84	015138.70	015148.87	N 32 41 30.46 W 104 5 0.62		
11937.00	89.79	92.89	8853.98	2835.79	-742.47	2784.36	1.68	015122.22	015132.39	N 32 41 30.46 W 104 5 0.62		
12032.00	90.03	91.11	8854.13	2930.69	-745.82	2877.23	0.42	015105.74	015115.91	N 32 41 30.46 W 104 5 0.62		
12221.00	89.72	90.38	8854.34	3119.20	-748.07	3070.31	0.68	015089.26	015099.43	N 32 41 30.46 W 104 5 0.62		
12316.00	89.59	91.00	8854.15	3214.08	-749.22	3163.30	0.84	015072.78	015082.95	N 32 41 30.46 W 104 5 0.62		
12411.00	89.83	90.15	8853.81	3308.85	-750.17	3256.29	0.80	015056.30	015066.47	N 32 41 30.46 W 104 5 0.62		
12506.00	89.85	91.72	8853.01	3403.68	-751.72	3349.24	1.63	015039.82	015049.99	N 32 41 30.46 W 104 5 0.62		
12601.00	89.65	90.89	8852.20	3497.50	-753.70	3442.14	1.38	015023.34	015033.51	N 32 41 30.46 W 104 5 0.62		
12696.00	89.62	90.41	8851.08	3587.05	-755.52	3535.07	0.17	015006.86	015017.03	N 32 41 30.46 W 104 5 0.62		
12885.00	89.93	91.09	8850.29	3781.85	-756.73	3734.22	0.68	014990.38	015000.55	N 32 41 30.46 W 104 5 0.62		
13074.00	90.31	90.04	8849.89	3970.40	-758.53	3823.21	0.57	014973.90	014984.07	N 32 41 30.46 W 104 5 0.62		
13264.00	90.03	91.09	8849.33	4159.96	-760.40	4113.20	0.57	014957.42	014967.59	N 32 41 30.46 W 104 5 0.62		
13454.00	90.24	92.46	8849.09	4259.84	-763.50	4213.15	1.39	014940.94	014951.11	N 32 41 30.46 W 104 5 0.62		
13644.00	89.35	93.36	8848.43	4359.81	-768.27	4307.02	1.35	014924.46	014934.63	N 32 41 30.46 W 104 5 0.62		
13834.00	89.87	91.82	8849.35	4542.70	-770.88	4495.81	0.83	014907.98	014918.15	N 32 41 30.46 W 104 5 0.62		
14024.00	90.63	90.58	8848.82	4732.38	-781.12	4683.76	0.79	014891.50	014901.67	N 32 41 30.46 W 104 5 0.62		
14214.00	90.63	90.81	8847.46	4826.18	-782.28	4779.75	0.24	014875.02	014885.19	N 32 41 30.46 W 104 5 0.62		
14402.00	90.69	90.83	8846.35	4920.87	-783.43	4874.73	0.19	014858.54	014868.71	N 32 41 30.46 W 104 5 0.62		
14515.00	90.52	91.07	8845.35	5109.58	-788.29	5063.70	0.25	014842.06	014852.23	N 32 41 30.46 W 104 5 0.62		
14604.00	90.68	89.08	8842.07	5298.00	-788.47	5252.68	1.08	014825.58	014835.75	N 32 41 30.46 W 104 5 0.62		
14698.00	90.62	88.31	8840.88	5391.59	-785.14	5346.66	0.61	014809.10	014819.27	N 32 41 30.46 W 104 5 0.62		
14811.00	89.72	88.59	8840.44	5485.17	-783.59	5441.64	1.06	014792.62	014802.79	N 32 41 30.46 W 104 5 0.62		
14906.00	89.88	88.89	8840.33	5578.61	-781.48	5536.62	0.82	014776.14	014786.31	N 32 41 30.46 W 104 5 0.62		
15001.00	89.35	87.68	8841.25	5656.68	-771.47	5631.60	1.44	014759.66	014769.83	N 32 41 30.46 W 104 5 0.62		
15096.00	89.93	88.44	8841.84	5849.87	-764.87	5821.56	1.06	014743.18	014753.35	N 32 41 30.46 W 104 5 0.62		
15191.00	89.38	87.28	8842.62	6044.03	-758.87	6003.08	1.69	014726.70	014736.87	N 32 41 30.46 W 104 5 0.62		
15286.00	89.89	88.68	8843.19	6138.43	-758.47	6096.02	1.31	014710.2.22				

Comments	MD (ft)	Incl (°)	Azim Grid (°)	TVD (ft)	VSIC (ft)	NS (ft)	EW (ft)	DLS (ft/100ft)	Northing (ft)	Easting (ft)	Latitude (N/S ° ' '')	Longitude (E/W ° ' '')
Proj to BR	19109.00	88.33	90.74	8918.28	9982.82	-749.27	9934.51	0.00	815527.28	627240.32	N 32 41 30.54 W 104 3 14.76	

Survey Type: Def Survey

Survey Error Model: ISCWSA Rev 0 *** 3-D 93.000% Confidence 2.7955 sigma
Survey Program:

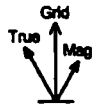
Description	Part	MD From (ft)	MD To (ft)	EOU Freq (ft)	Hole Size Casing Diameter (in)	Survey Tool Type	Borehole / Survey
	1	0.000	26.500	1/99.425	30.000	ZERO	Original Borehole / Dry Turkey
	1	26.500	26.500	Act Size	30.000	ZERO	Track 4-3 State 32H MWD IFR 0-
	1	26.500	19109.000	Act Size	30.000	ZERO	Original Borehole / Dry Turkey
	1	26.500	19109.000	Act Size	30.000	ZERO	Track 4-3 State 32H MWD IFR 0-

Schlumberger**OXY**

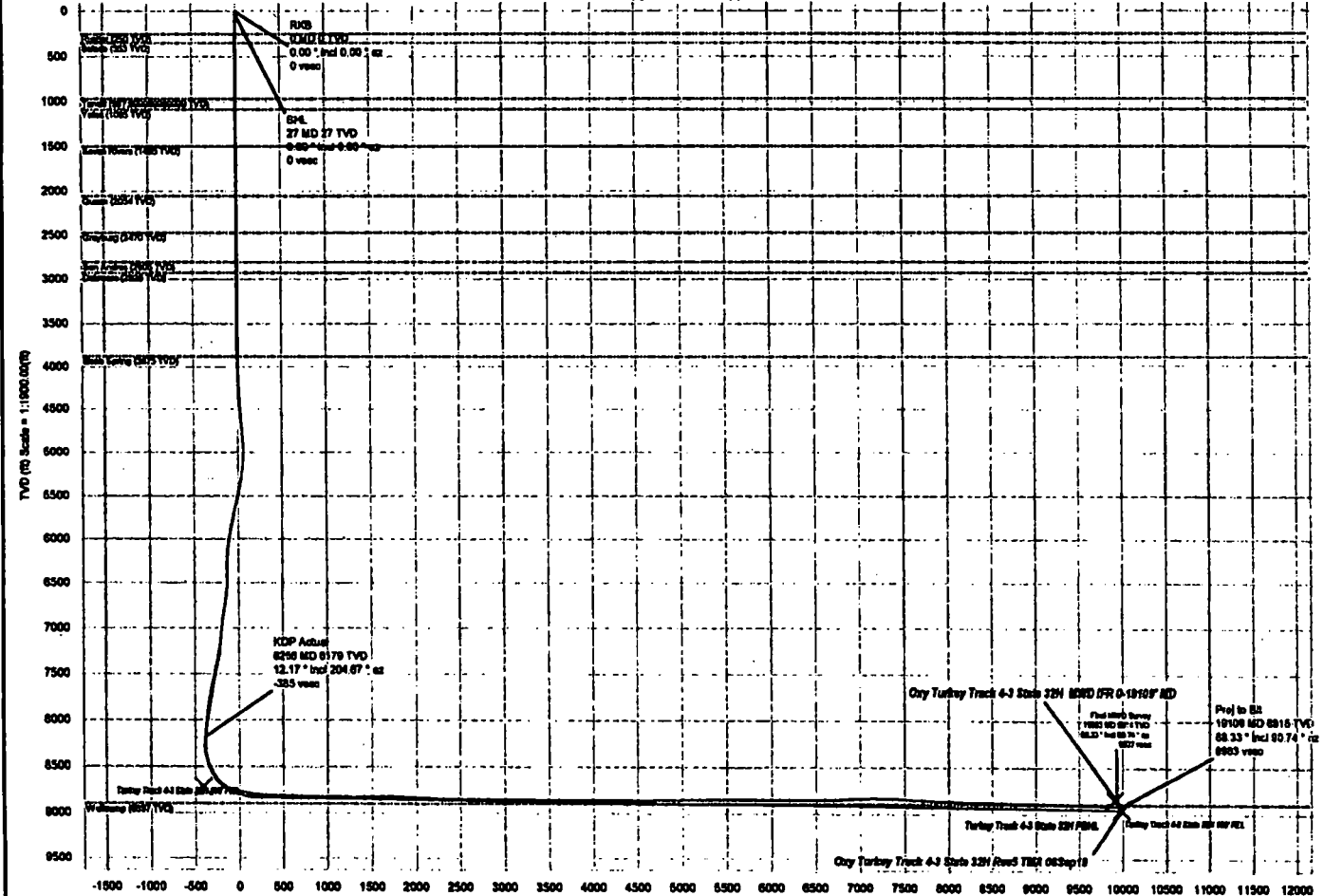
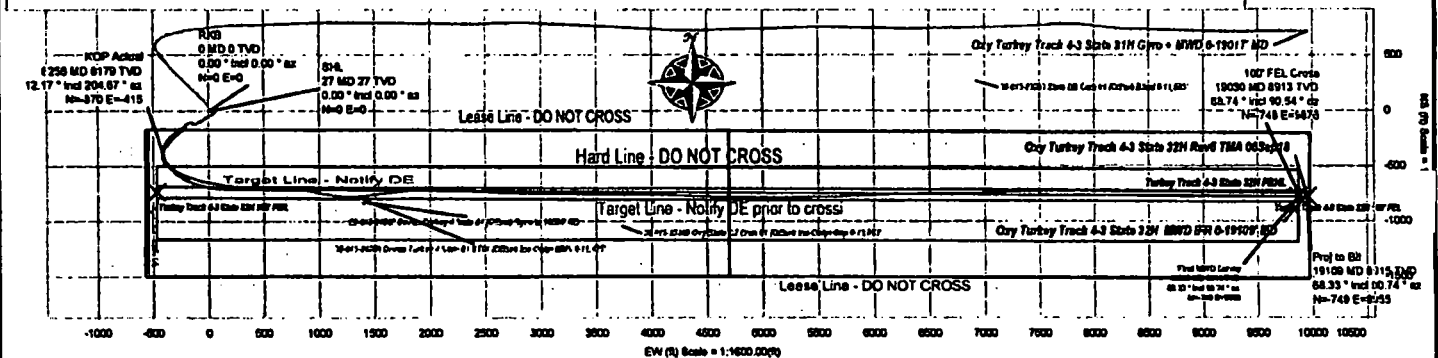
Borehole:		Well:		Field:		Structure:	
Original Borehole		Oxy Turkey Track 4-3 State 32H		NM Eddy County (NAD 83)		Oxy Turkey Track 4-3 State 32H	
Gravity & Magnetic Parameters				Surface Location		Miscellaneous	
Model: MOG8018	Qp: 66.429°	Date: 08-Sep-2018	NAD83 Near Mexico State Plains, Eastern Zone, US Feet		Stat: Oxy Turkey Track 4-3 State 32H		TVD Ref: RKB=26.5' (26.5' above BSL)
MagDec: 7.37°	PS: 48291.522mT	Gravity PS: 988.118m/s (0.0005 Secs)	Lat: N 32 41 38.58	Longitude: 91 27 54.230E	Grid Zone: 6123P	Plan: Oxy Turkey Track 4-3 State 32H	MWD IPR: 0-19107 MD
			Long: W 104 6 11.22	Easting: 417286.476E	Scale Fact: 0.9999157		

Critical Points

Critical Point	MD	DNCL	ASBL	TVD	VEEC	N(°)E(-)	EP(MH)	CLS
	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
SHL	26.50	0.00	0.00	26.50	0.00	0.00	0.00	0.00
KOP Actual	8256.00	12.17	204.67	8176.78	-384.98	-389.97	-416.08	1.49
100' FEL Cross	19030.00	68.74	90.54	8913.10	9903.83	-748.32	9875.54	0.32
Final MWD Survey	19083.00	68.33	90.74	8913.04	9936.74	-748.68	9908.53	1.49
Proj to Bt	19109.00	68.33	90.74	8915.28	9952.62	-749.27	9954.51	0.00



Grid North
Tot Corr (M→G 7.246°)
Mag Dec (7.37°)
Grid Conv (0.133°)



Vertical Section (ft) Azim = 94.47° Scale = 1:1800.00 (ft) Origin = ONW-S, DEJ-W