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NM OIL CONSERVATION
ARTESIA DISTRICT

FEB 22 2018

RECEIVED

I, Kevin Willard, certify that; I am employed by Gyrodata Inc.; that I am authorized and qualified to review the Gyroscopic Multishot survey from a depth of 0 feet to a depth of feet conducted on the day(s) of 08/14/2017; that this survey was conducted at the request OXY USA for the PALLADIUM MDP1 Well 5H No. 30-015-44294 in Eddy County, NM; that the data is true, correct, complete, and within the limitations of the tool as set forth by Gyrodata Inc.; and that I have reviewed this report and find that it conforms to the principles and procedures as set forth by Gyrodata Inc.

A handwritten signature in black ink, appearing to read "Kevin Willard", written over a horizontal line.

Kevin Willard
Operations Coordinator

FEB 22 2018

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A Gyrodata Directional Survey

FINAL DEFINITIVE COPY

for

OXY USA

Lease: Palladium MDP1 7-6 Fed Com Well: 5H, 17 1/2"
Location: Transcend Rig 1, Eddy County, New Mexico

Job Number: MD0817GDM593

Run Date: 13 Aug 2017

Report Generated: 02 Oct 2017 08:21

Surveyor: Craig Donald

Calculation Method: MINIMUM CURVATURE

Survey surface coordinates obtained from: Company Man

Survey Latitude: 32.225275 deg. N

Longitude: 103.809820 deg. W

Well Head Location -

From Local Horizontal Reference: N 0.00 ft. E 0.00 ft.

Azimuth Correction:

Gyro: -0.28000 deg to Grid North

Depth Reference: Rotary Table

Air Gap (RKB to Ground / RKB to MSL): 6.00

Ground Elevation (Ground to MSL / MSL to Mudline): 3525.40

Vertical Section Calculated from Well Head Location

Closure Calculated from Well Head Location

Horizontal Coordinates Calculated from Local Horizontal Reference

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MEASURED DEPTH feet	INCL deg.	AZIMUTH deg.	DOGLEG SEVERITY deg./ 100 ft.	VERTICAL DEPTH feet	CLOSURE DIST. feet	AZIMUTH deg.	HORIZONTAL COORDINATES feet
0.00	0.00	0.00	0.00	0.00	0.0	0.0	0.00 N 0.00 E
0 to 636.71 ft rate gyroscopic survey, inside of 5" drillpipe							
All measured depths and coordinates in reference to Transcend Rig 1, R.K.B height of 6.00 ft							

17.78	0.28	34.64	1.57	17.78	0.0	34.6	0.04 N 0.02 E
75.37	0.35	340.94	0.51	75.37	0.3	8.5	0.32 N 0.05 E
134.65	0.52	349.95	0.31	134.65	0.8	355.5	0.75 N 0.06 W
195.67	0.58	335.20	0.25	195.66	1.3	349.7	1.31 N 0.24 W
257.71	0.44	315.24	0.36	257.70	1.8	343.1	1.76 N 0.54 W
321.71	0.56	287.29	0.42	321.70	2.3	333.6	2.03 N 1.01 W
384.71	0.51	274.50	0.20	384.70	2.7	323.6	2.14 N 1.58 W
447.71	0.58	265.36	0.18	447.69	3.1	314.5	2.14 N 2.18 W
510.71	0.60	257.28	0.14	510.69	3.5	305.9	2.04 N 2.82 W
571.71	0.95	248.99	0.60	571.69	4.0	296.4	1.79 N 3.60 W
636.71	0.71	249.80	0.37	636.68	4.7	288.0	1.46 N 4.48 W

Final Station Closure: Distance: 4.71 ft Az: 287.99 deg.