

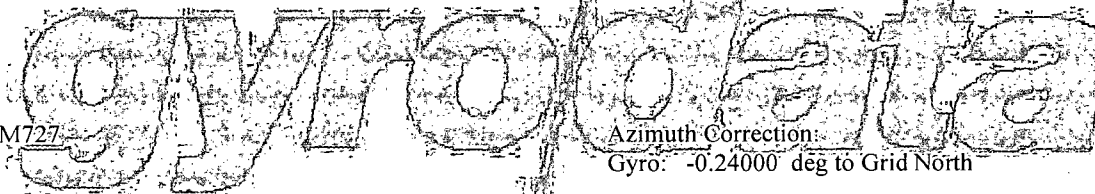
A Gyrodata Directional Survey

FINAL DEFINITIVE COPY

for

BOPCO, LP

Lease: BIG EDDY UNIT D19 Well: 34H, 8" DRILL COLLARS
Location: INDEPENDENCE RIG #202, EDDY COUNTY, NEW MEXICO



Job Number: MD0714GDM727

Run Date: 19 Jul 2014

Report Generated: 23 Jul 2014 02:13

Azimuth Correction:
Gyro: -0.24000 deg to Grid North

Depth Reference: Rotary Table

Surveyor: Brandon Murphy, Jason Solomon

Calculation Method: MINIMUM CURVATURE

Survey surface coordinates obtained from: Company Man
Survey Latitude: 32.457262 deg. N Longitude: 103.879087 deg. W

Air Gap (RKB to Ground / RKB to MSL): 26.00

Vertical Section Calculated from Well Head Location

Closure Calculated from Well Head Location

Horizontal Coordinates Calculated from Well Head Location

30-015-42008

NM OIL CONSERVATION
ARTESIA DISTRICT

NOV 24 2014

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Lease: BIG EDDY UNIT Well: D19, 8" DRILL COLLARS

Location: INDEPENDENCE RIG #202, EDDY COUNTY, NEW MEXICO

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MEASURED DEPTH feet	INCL deg.	AZIMUTH deg.	DOGLEG SEVERITY deg./ 100 ft.	VERTICAL DEPTH feet	CLOSURE DIST. AZIMUTH feet 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 385 FT. RATE GYROSCOPIC MULTISHOT DROP RUN INSIDE 8" DRILL COLLARS						
ALL MEASURED DEPTHS AND COORDINATES REFERENCED TO INDEPENDENCE DRILLING #202 RKB 26 FT.						
115.00	0.65	275.09	0.57	115.00	0.7 275.1	0.06 N 0.65 W
205.00	0.86	273.51	0.23	204.99	1.8 274.5	0.14 N 1.83 W
295.00	0.27	268.98	0.65	294.98	2.7 273.8	0.18 N 2.72 W
385.00	0.17	280.13	0.13	384.98	3.1 273.8	0.20 N 3.06 W

Final Station Closure: Distance: 3.07 ft. Az: 273.76 deg.

