



DRILLING INC. Oil Well Drilling Contractor

Post Office Box 160 Artesia, New Mexico 88211-0160 Office (505) 748-8704 Fax (505) 748-8719

30-015-38973

March 5, 2012

COG Operating, LLC
550 W. Texas, Suite 1300
Midland, Texas 79701

Re: Empire St. SWD " 8 " # 1
Sec. 8, T-17-S, R-29-E
Eddy County, New Mexico

Attn: John Coffman

The following is a Deviation Survey on the referenced well in Eddy County, New Mexico:

74' - 1°	1348' - 0.5°	3210' - 1°	5609' - 1.25°	7989' - 1.25°
230' - 0.5°	1680' - 1.25°	3679' - 0.5°	6103' - 1.25°	8296' - 1.5°
480' - 1°	2146' - 0.75°	4175' - 0.25°	6574' - 1°	
772' - 0.75°	2335' - 1°	4645' - 1°	7047' - 1°	
1085' - 1°	2739' - 0.75°	5140' - 0.5°	7497' - 1°	

NM OIL CONSERVATION
ARTESIA DISTRICT
JUL 23 2015
RECEIVED

Sincerely,

Gary W. Chappell
Contracts Manager

STATE OF NEW MEXICO)
)
COUNTY OF EDDY)

The foregoing was acknowledged before me this 5th day of March, 2012 by Gary W. Chappell.

NOTARY PUBLIC

