

**Nearburg Exploration Company, L.L.C.**

Exploration and Production  
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Building 2, Suite 120  
Midland, Texas 79705  
432/686-8235  
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2005 MAR 25 AM 11 37

March 21, 2005

Engineering Bureau of the Oil Conservation Division  
New Mexico Energy, Minerals, and Natural Resources Department  
1220 South St. Francis Drive  
Santa Fe, New Mexico 87505

Re: Administrative Order SWD-967  
McKittrick 11 Federal SWD Well No. 5  
API No. 30-015-33611

Ladies and Gentlemen:

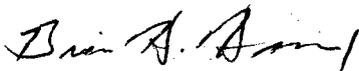
The above referenced administrative order requested that the following information be provided to the Engineering Bureau as preparation for injection into the McKittrick 11 Federal SWD Well No. 5.

1. The Cisco/Canyon open hole section from 8750-9257' MD (8383-8869' TVD) was swabbed tested from February 28 to March 1, 2005 and a representative formation water sample was obtained and analyzed by BJ Services (see attached water analysis for details).
2. The initial static fluid levels encountered each morning before swab testing were at 6500' MD, or 6235' TVD. The subsea pressure datum that Nearburg Producing Company has used in the McKittrick Hills Area of the Indian Basin Upper Penn Associated Field is at -3963' SS, or 7976' TVD in McKittrick 11 Federal SWD Well No. 5 (KB at 4013'). Thus, the Cisco/Canyon bottom hole pressure at datum in McKittrick 11 Federal SWD Well No. 5 is estimated from fluid levels to be:

$$765 \text{ psi} = (7976' \text{ TVD} \text{ minus } 6235' \text{ TVD}) \times 0.433 \text{ psi/ft} \times 1.015 \text{ specific gravity}$$

If you have any additional questions concerning the above data, please contact me at 432-686-8235 at extension 206.

Sincerely,



Brian H. Huzzey  
Senior Staff Engineer



# Water Analysis

Date: 3/2/2005

2401 Sivley, Artesia NM 88210  
 Phone (505) 746-3140 Fax (505) 746-2293

## Analyzed For

| Company  | Well Name           | County | State      |
|----------|---------------------|--------|------------|
| Nearburg | McKittrick 11 Fed 5 | Eddy   | New Mexico |

**Sample Source** **Sample #** **1**

**Formation** **Depth**

|                  |              |                 |                   |
|------------------|--------------|-----------------|-------------------|
| Specific Gravity | <b>1.015</b> | SG @ 60 °F      | <b>1.015</b>      |
| pH               | <b>6.60</b>  | Sulfides        | <b>Not Tested</b> |
| Temperature (°F) | <b>60</b>    | Reducing Agents | <b>Not Tested</b> |

## Cations

|                     |         |              |        |              |
|---------------------|---------|--------------|--------|--------------|
| Sodium (Calc)       | in Mg/L | <b>4,185</b> | in PPM | <b>4,123</b> |
| Calcium             | in Mg/L | <b>200</b>   | in PPM | <b>197</b>   |
| Magnesium           | in Mg/L | <b>24</b>    | in PPM | <b>24</b>    |
| Soluable Iron (FE2) | in Mg/L | <b>25.0</b>  | in PPM | <b>25</b>    |

## Anions

|                               |         |               |        |               |
|-------------------------------|---------|---------------|--------|---------------|
| Chlorides                     | in Mg/L | <b>5,333</b>  | in PPM | <b>5,255</b>  |
| Sulfates                      | in Mg/L | <b>2,000</b>  | in PPM | <b>1,970</b>  |
| Bicarbonates                  | in Mg/L | <b>127</b>    | in PPM | <b>125</b>    |
| Total Hardness (as CaCO3)     | in Mg/L | <b>600</b>    | in PPM | <b>591</b>    |
| Total Dissolved Solids (Calc) | in Mg/L | <b>11,894</b> | in PPM | <b>11,718</b> |
| Equivalent NaCl Concentration | in Mg/L | <b>10,631</b> | in PPM | <b>10,474</b> |

## Scaling Tendencies

\*Calcium Carbonate Index **25,376**

*Below 500,000 Remote / 500,000 - 1,000,000 Possible / Above 1,000,000 Probable*

\*Calcium Sulfate (Gyp) Index **400,000**

*Below 500,000 Remote / 500,000 - 10,000,00 Possible / Above 10,000,000 Probable*

**\*This Calculation is only an approximation and is only valid before treatment of a well or several weeks after treatment.**

## Remarks

Report # 1736