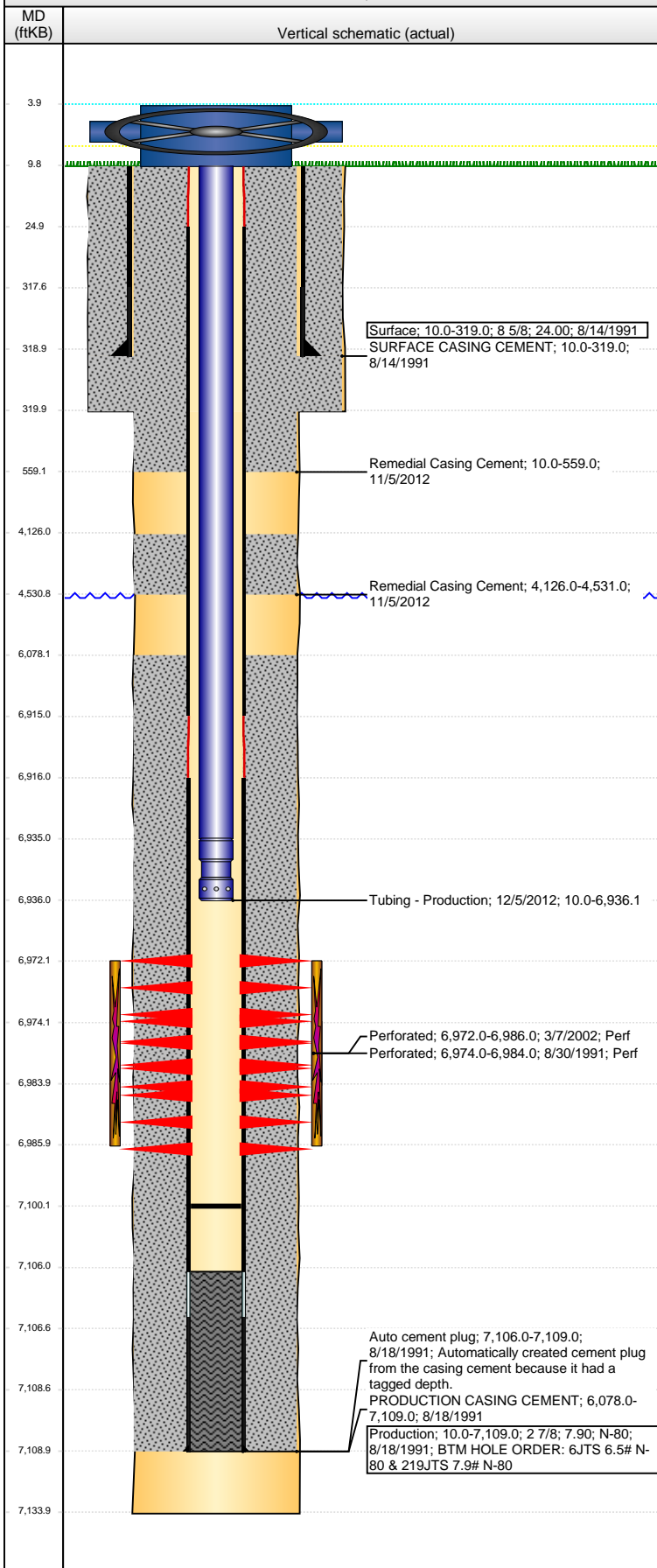


**Well Name: LORENZ F22-02**

VERTICAL - ORIGINAL HOLE, 1/7/2014 3:08:58 PM



## Well Header

|  |                               |                        |                         |
|--|-------------------------------|------------------------|-------------------------|
| API<br>05-123-15139                    | Business Unit<br>WATTENBERG   | District<br>15         | Well Config<br>VERTICAL |
| Original KB Elevation (ft)<br>4,633.00 | KB - GL / MSL (ftKB)<br>10.00 | Spud Date<br>8/25/1991 | P & A Date              |
| Comment                                |                               |                        |                         |

## Directions To Well

HWY 34 & RD 45, SOUTH 0.1, WEST (THROUGH DOUBLE GREEN GATES, NORTH SIDE OF DITCH) 2/10, SOUTH 1/10 & WEST INTO.

## Congressional Location

|           |           |           |           |         |          |             |       |             |
|-----------|-----------|-----------|-----------|---------|----------|-------------|-------|-------------|
| Quarter 1 | Quarter 2 | Quarter 3 | Quarter 4 | Section | Township | Twnshp N... | Range | Rng E/W Dir |
|           |           | NW        | NE        | 22      | 5        | N           | 65    | W           |

## Bottom Hole Location

|                           |                  |                         |                  |
|---------------------------|------------------|-------------------------|------------------|
| North-South Distance (ft) | From N or S Line | East-West Distance (ft) | From E or W Line |
|                           |                  |                         |                  |

## Plug Back Total Depths

| Date       | Depth (ftKB) | Method         | Com                                 |
|------------|--------------|----------------|-------------------------------------|
| 8/18/1991  | 7,106.0      | CASING TALLY   | FLOAT COLLAR                        |
| 8/30/1991  | 6,991.0      | CASED HOLE LOG | DEPTH LOGGER ON CBL                 |
| 11/23/2010 | 7,102.0      | TUBING TALLY   | CLEAN OUT SAND AFTER CODELL TRIFRAC |
| 12/5/2012  | 7,100.0      |                |                                     |

## Wellbore Sections

| Section Des | Size (in) | Act Top, MD (ftKB) | Act Btm, MD (ftKB) |
|-------------|-----------|--------------------|--------------------|
| SURFACE     | 12 1/4    | 10.0               | 320.0              |
| PRODUCTION  | 7 7/8     | 320.0              | 7,134.0            |

## Zone Statuses

| Zone Name | Status Date | Status | Job   |
|-----------|-------------|--------|---|
| CODELL    | 9/7/1991    | PR     | DRILLING/COMPLETION - ORIGINAL, 8/14/1991 00:00 |
| CODELL    | 3/21/2002   | PR     | RE-FRAC, 3/6/2002 00:00                         |
| CODELL    | 3/1/2011    | PR     | TRI-FRAC, 10/25/2010 06:30                      |

## Casing Strings

### Surface, 319.0ftKB

| Casing Description | Run Date  | OD (in) | Wt/Len (l...) | Grade | Top, MD (ft...) | MD (ftKB) |
|--------------------|-----------|---------|---------------|-------|-----------------|-----------|
| Surface            | 8/14/1991 | 8 5/8   | 24.00         |       | 10.0            | 319.0     |

### Production, 7,109.0ftKB

| Casing Description | Run Date  | OD (in) | Wt/Len (l...) | Grade | Top, MD (ft...) | MD (ftKB) |
|--------------------|-----------|---------|---------------|-------|-----------------|-----------|
| Production         | 8/18/1991 | 2 7/8   | 7.90          | N-80  | 10.0            | 7,109.0   |

## Cement

| Description              | Top Depth (ftKB) | Bottom Depth (ftKB) |
|--------------------------|------------------|---------------------|
| SURFACE CASING CEMENT    | 10.0             | 319.0               |
| PRODUCTION CASING CEMENT | 6,078.0          | 7,109.0             |
| Remedial Casing Cement   | 10.0             | 559.0               |
| Remedial Casing Cement   | 4,126.0          | 4,531.0             |

## Tubing Components

| Item Des            | OD (in) | Wt (lb/ft) | Grade | Jts | Len (ft) | Btm (ftKB) | Btm (TVD) (ftKB) |
|---------------------|---------|------------|-------|-----|----------|------------|------------------|
| Tubing              | 1.66    | 2.30       | J-55  | 213 | 6,924.92 | 6,934.9    |                  |
| Notched Seat Nipple | 1.66    |            | J-55  | 1   | 1.20     | 6,936.1    |                  |

## Perforation Data

| Zone                  | Bnch/St g | Entered Shot Total | Top (ftKB) | Btm (ftKB) | Date      |
|-----------------------|-----------|--------------------|------------|------------|-----------|
| CODELL, ORIGINAL HOLE |           | 56                 | 6,972.00   | 6,986.00   | 3/7/2002  |
| CODELL, ORIGINAL HOLE |           | 40                 | 6,974.00   | 6,984.00   | 8/30/1991 |

## Stimulations & Treatments

| Date                | Zone                  | Primary Job Type               |
|---------------------|-----------------------|--------------------------------|
| 8/31/1991           | CODELL, ORIGINAL HOLE | DRILLING/COMPLETION - ORIGINAL |
| Technical Result    |                       |                                |
| Tech Result Details |                       |                                |
| Tech Result Note    |                       |                                |
| Comment             |                       |                                |
| Date                | Zone                  | Primary Job Type               |
| 3/20/2002           | CODELL, ORIGINAL HOLE | RE-FRAC                        |
| Technical Result    |                       |                                |
| Tech Result Details |                       |                                |
| Tech Result Note    |                       |                                |
| Comment             |                       |                                |

**Well Name: LORENZ F22-02**

VERTICAL - ORIGINAL HOLE, 1/7/2014 3:09:00 PM

## Stimulations & Treatments

|                             |  |                              |
|-----------------------------|--|------------------------------|
| Date<br>11/9/2010           | Zone<br>CODELL, ORIGINAL HOLE            | Primary Job Type<br>TRI-FRAC |
| Technical Result<br>Success | Tech Result Details<br>According to Plan | Tech Result Note             |

Comment  
(CODELL TF) ISIP 3091, 5 MIN 1950. HAD GEL LOADING AND CLAYCARE PUMP ISSUES FOR ABOUT 10-15 MINUTES. HAD TO SWITCH CLAYCARE PUMP TO FIX PROBLEMS. PERSONNEL ERROR DURING TOTE SWITCHING CAUSED GEL LOADING TO EFFECT VISC DURING RAMP STAGE. GEL LOADING & CLAYCARE PUMP ISSUES DID NOT REQUIRE THE JOB TO BE SHUT DOWN. JOB WENT WELL WITH NO OTHER ISSUES TO REPORT. AVERAGES: VISC 26.7, PH 10.26, TEMP 72.70, NOLTE -0.02. POST ISIP 3201, 5 MIN 2775.

## Other In Hole

| Run Date | Des | OD (in) | Top (ftKB) | Btm (ftKB) |
|----------|-----|---------|------------|------------|
|          |     |         |            |            |

## Logs

| Date      | Type                | Top, MD (ftKB) | Btm, MD (ftKB) |
|-----------|---------------------|----------------|----------------|
| 8/18/1991 | COMPENSATED DENSITY | 3,900.0        | 7,115.0        |
| 8/18/1991 | INDUCTION           | 3,900.0        | 4,500.0        |
| 8/30/1991 | CEMENT BOND         | 5,980.0        | 6,982.0        |
| 6/14/2012 | GYRO                | 100.0          | 6,980.0        |
| 11/6/2012 | CBL/CCL/GR          | 319.0          | 4,999.0        |

