

OIL AND GAS DOCKET NO. 09-0266439

THE APPLICATION OF WFW PRODUCTION COMPANY, INC. FOR A PERMIT TO INJECT FLUID INTO A RESERVOIR PRODUCTIVE OF OIL OR GAS PURSUANT TO STATEWIDE RULE 46 IN THE J. FLEITMAN LEASE, WELL NO. 4, COOKE COUNTY REGULAR FIELD, COOKE COUNTY, TEXAS

HEARD BY: Richard D. Atkins, P.E. - Technical Examiner
James M. Doherty - Legal Examiner

APPEARANCES:

REPRESENTING:

APPLICANT:

Stephen Fenoglio
Kerry A. Pollard

WFW Production Company, Inc.

PROTESTANT:

Joe Sanders

Jack Dangelmayr

PROCEDURAL HISTORY

Application Filed:	March 16, 2010
Protest Received:	March 22, 2010
Request for Hearing:	June 16, 2010
Notice of Hearing:	September 7, 2010
Date of Hearing:	December 13, 2010
Proposal For Decision Issued:	January 18, 2011

EXAMINERS' REPORT AND PROPOSAL FOR DECISION

STATEMENT OF THE CASE

WFW Production Company, Inc. ("WFW") requests authority pursuant to Statewide Rule 46 to inject produced salt water into the Strawn formation in the J. Fleitman Lease, Well No. 4, Cooke County Regular Field, Cooke County, Texas.

Notice of the subject application was published in the *Muenster Enterprise*, a newspaper of general circulation in Cooke County, on March 5, 2010. Notice of the application was sent to the Cooke County Clerk, offset operators within ½ mile and the surface owners of the injection tract and adjacent tracts on February 26, 2010.

OIL AND GAS DOCKET NO. 09-0266439

The application was protested by Jack Dangelmayr who is an adjacent surface owner to the south of the J. Fleitman Lease.

DISCUSSION OF THE EVIDENCE

Applicant's Evidence

The proposed injection well is located in Cooke County approximately five miles northwest of the town of Muenster, Texas. WFW seeks authority to inject produced salt water into the productive Strawn formation in the J. Fleitman Lease, Well No. 4. The proposed injection interval is a Strawn Sand located between 2,150 feet and 2,168 feet. The proposed injection is for the purpose of disposing of lease produced salt water. The J. Fleitman Lease currently produces 4 BOPD and 42 BWPD and WFW has calculated that it can save approximately \$1,100 per month in salt water trucking and disposal costs. WFW requests a maximum injection volume of 150 BWPD and a maximum surface injection pressure of 500 psig.

The J. Fleitman Lease, Well No. 4, was drilled to a total depth of 3,507 feet and was completed in January 1992 through perforations from 2,555 feet to 2,560 feet. The well has 121 feet of 8 5/8" surface casing cemented to surface with 90 sacks and 3,485 feet of 4 1/2" production casing cemented to surface with 670 sacks. WFW proposes to plugback the well to 2,250 feet by setting a cast iron bridge plug and capping it with 10 sacks of cement. Injection will be into perforations from 2,150 feet to 2,168 feet through 2 3/8" tubing set on a packer at 2,100 feet (See attached WFW Exhibit No. 10 - Wellbore Diagram). The Texas Commission on Environmental Quality recommends that usable quality ground water be protected to a depth of 700 feet.

There are 10 wellbores located within a 1/4 mile radius of the proposed injection well. The 10 wells are classified as 3 producing, one injection and 6 plugged and abandoned. All of the wells are properly plugged or cased and cemented in such a manner to protect the fresh water resources and prevent the migration of fluids from the injection interval.

WFW's expert engineering witness submitted a pressure front calculation that showed the reservoir pressure 500 feet from the proposed injection well would be only 409 psi after 20 years of injection at 150 BWPD. The estimated pressure to raise a column of brine water to the base of usable quality water at 700 feet is 674 psi.

WFW stated that it would not consider adverse a requirement that WFW run a cement bond log to confirm the 4 1/2" production casing cement top and integrity. Additionally, WFW agreed to run annual mechanical integrity tests.

OIL AND GAS DOCKET NO. 09-0266439

Protestant's Evidence

Attorney Joe Sanders appeared at the hearing to represent the interests of Jack Dangelmayr and two other adjacent surface owners to the south and east of the J. Fleitman Lease. The protestants are primarily concerned that the proposed disposal well will pose a threat to their usable quality ground water.

Mr. Sanders submitted three letters of protest alleging previous water well contamination and a 1994 RRC Creed Complaint No. 9-94-4352. The complaint alleged possible ground water contamination in the area from injection into the offset P. Bindel Lease, Well No. 1D disposal well. Although the disposal well had passed all of its Mechanical Integrity Tests, WFW discontinued use of the disposal well and it was subsequently plugged by WFW in May 1998.

Applicant's Rebuttal Evidence

WFW submitted a complete copy of RRC Creed Complaint No. 9-94-4352 that contained all of the discussion and attachments that were not included in the protestants exhibit. In the full report, the aquifer contamination had been attributed to the J. Fleitman Lease, Well No. 1, disposal well operated by Texaco from 1945 through 1961. The well had 60 feet of 9 5/8" surface casing cemented to surface and 3,251 feet of 7" production casing cemented with 150 sacks. Remedial work on the well in 1961 discovered several large holes in the 7" production casing between the surface and 300 feet. The disposal well was shut-in until 1962 when it was converted to a producing well. At that time, 1,002 feet of 5 1/2" casing was run and cemented in the 7" casing to seal off the shallow holes in the 7" casing.

WFW is the current operator of the J. Fleitman Lease, Well No. 1, and a recent 24 hour shut-in fluid level test showed a fluid level at 1,980 feet. Since no remediation program was ever performed on the aquifer by Texaco, WFW opined that any contamination currently present in the aquifer is a direct result of Texaco's early disposal operations. WFW does not believe that there is any current ongoing contamination of the fresh water aquifer caused by its operations in the area.

EXAMINERS' OPINION

The examiners recommend that the application be approved. The proposed injection well is completed in a manner which will protect useable quality water resources and will confine the injected fluids to the injection interval. Use of the well for injection will result in the recovery of additional oil reserves produced by wells on the J. Fleitman Lease by providing a more economic means of saltwater disposal. Therefore, the approval of the application is in the public interest.

The examiners do not believe that there is any evidence of ongoing fresh water

OIL AND GAS DOCKET NO. 09-0266439

contamination caused by the applicant. WFW presented sufficient evidence to establish that all of the wells within the ¼ mile radius are properly plugged or cased and cemented in such a manner to protect the fresh water resources and prevent the migration of fluids from the injection interval.

FINDINGS OF FACT

1. Notice of this application and hearing was provided to all persons entitled to notice at least ten (10) days prior to the date of the hearing.
2. Notice of the subject application was published in the *Muenster Enterprise*, a newspaper of general circulation in Cooke County, on March 5, 2010. Notice of the application was sent to the Cooke County Clerk, offset operators within ½ mile and the surface owners of the injection tract and adjacent tracts on February 26, 2010.
3. The J. Fleitman Lease, Well No. 4, is cased and cemented in a manner to protect usable quality water.
 - a. The Texas Commission on Environmental Quality recommends that usable-quality water be protected to 700 feet in the area of the proposed well.
 - b. The well has 121 feet of 8 5/8" surface casing cemented to surface with 90 sacks.
 - c. WFW agreed to run a cement bond log to confirm the 4 ½" production casing cement top and integrity. Additionally, WFW agreed to run annual mechanical integrity tests.
4. Fluids injected into the J. Fleitman Lease, Well No. 4, will be confined to the injection interval.
 - a. The well has 3,485 feet of 4 ½" production casing cemented to surface with 670 sacks.
 - b. Injection will be into perforations in a Strawn Sand from 2,150 feet to 2,168 feet through 2 3/8" tubing set on a packer at 2,100 feet.
 - c. There are 10 wellbores located within a ¼ mile radius of the proposed injection well. All of the wells are properly plugged or cased and cemented in such a manner to protect the fresh water resources and prevent the migration of fluids from the injection interval.

OIL AND GAS DOCKET NO. 09-0266439

5. Use of the J. Fleitman Lease, Well No. 4, as an injection well is in the public interest.
 - a. The proposed injection is for the purpose of disposing of lease produced salt water.
 - b. Use of the well will provide a safe and economic means of disposal of produced saltwater on the subject lease.
 - c. Use of the well will save approximately \$1,100 per month in salt water trucking and disposal costs and will result in the recovery of additional oil reserves produced by wells on the J. Fleitman Lease.
 - d. Use of the proposed disposal well will eliminate the need for truck transportation of lease produced saltwater to off-lease disposal facilities.
6. WFW has an active P-5 Organization Report and a \$250,000 financial assurance bond on file with the Commission.

CONCLUSIONS OF LAW

1. Proper notice was issued in accordance with the applicable statutory and regulatory requirements.
2. All things have occurred to give the Railroad Commission jurisdiction to consider this matter.
3. The use or installation of the proposed injection well is in the public interest.
4. Approval of the application will not harm useable quality water resources, will not endanger oil, gas, or geothermal resources and will result in the further recovery of additional reserves from the Cooke County Regular Field.
5. WFW has made a satisfactory showing of financial responsibility to the extent required by Section 27.073 of the Texas Water Code.
6. WFW has met its burden of proof and satisfied the requirements of Chapter 27 of the Texas Water Code and the Railroad Commission's Statewide Rule 46.

OIL AND GAS DOCKET NO. 09-0266439

EXAMINERS' RECOMMENDATION

Based on the above findings of fact and conclusions of law, the examiners recommend that the application be approved as set out in the attached Final Order.

Respectfully submitted,

James M. Doherty
Legal Examiner

Richard D. Atkins, P.E.
Technical Examiner