

OIL AND GAS DOCKET NO. 09-0254545

THE APPLICATION OF GUIDANCE OIL DEVELOPERS TO INJECT FLUID INTO A RESERVOIR PRODUCTIVE OF OIL OR GAS, J. & J. WAGGONER LEASE, WELL NO. 4, WICHITA COUNTY REGULAR FIELD, WICHITA COUNTY, TEXAS

HEARD BY: Andres J. Trevino, Technical Examiner
Mark J. Helmueller, Legal Examiner

PFD ISSUED BY: Richard D. Atkins, P.E. - Technical Examiner
Mark J. Helmueller, Legal Examiner

APPEARANCES:

APPLICANT:

Raymond Lunsford

REPRESENTING:

Guidance Oil Developers

COMMISSION STAFF:

Fernando DeLeon

RRC Technical Permitting

PROCEDURAL HISTORY

Date of Application:	September 28, 2007
Date of Notice:	December 12, 2007
Date of Hearing:	January 7, 2008
Record Closed:	January 7, 2008
Proposal For Decision Issued:	February 4, 2009

EXAMINERS' REPORT AND PROPOSAL FOR DECISION

STATEMENT OF THE CASE

On October 26, 2007, the Commission administratively denied an injection permit to Guidance Oil Developers ("Guidance") pursuant to Statewide Rule 46 for the J. & J. Waggoner Lease, Well No. 4. On November 13, 2007, Guidance requested that a hearing be held to consider the subject application.

Commission staff appeared at the hearing and recommended denial of the application. The examiners also recommend that the application be denied.

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DISCUSSION OF THE EVIDENCE

APPLICANT'S EVIDENCE

Guidance seeks authority to inject produced salt water into the productive Cisco formation in the J. & J. Waggoner Lease, Well No. 4, at a depth of 680 feet. The proposed injection is for the purpose of disposing produced salt water. Guidance plans to inject a maximum of 30 BWPD with a maximum injection pressure of 330 psi. The produced salt water will come from three producing wells on the subject lease. The proposed injection well was initially drilled and completed as a producing well.

Well No. 4 was drilled in November 1958 to a total depth of 730 feet. The well has 4½" casing set at 730 feet and was cemented with 50 sacks of cement. The top of cement is at 570 feet as determined from a cement bond log run in August 2007 (See attached Wellbore Diagram). The Texas Commission on Environmental Quality recommends that usable-quality ground water be protected to a depth of 60 feet. The proposed injection will be through 2⅝" tubing set above the proposed injection interval at approximately 600 feet.

There are 37 wellbores within the ¼ mile radius of review. Most of these wells have no drilling, completion, cementing or plugging records and are of unknown status. Guidance submitted pressure front calculations to show that the proposed injection at 330 psi will not cause an increase in pressure sufficient to raise a column of fluid up to the depth of the base of fresh water in any well within ¼ mile of the proposed injection well. The calculations assume injection into the well for 20 years.

Notice of the application was published in *The Archer County News*, a newspaper of general circulation in Wichita County, on September 27, 2007. A copy of the application was mailed on September 27, 2007 to the Wichita County Clerk's Office, the surface owner and all offsetting operators within ½ mile.

Guidance has an active Organization Report and a \$50,000 financial assurance bond on file with the Commission. Guidance has no pending enforcement actions at the Commission.

COMMISSION STAFF'S EVIDENCE

Commission staff stated that RRC District 9 has a long history of water breakout from the proposed injection interval averaging approximately 24 incidents per year. As a result, staff is concerned that the proposed well does not meet minimum state or federal injection standards.

Commission staff stated that The Texas Commission on Environmental Quality recommends that usable-quality ground water be protected to a depth of 60 feet and Statewide Rule 13 requires that cement be circulated to surface in any well completed

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without surface casing. However, Well No. 4 does not have any surface casing set and the top of cement behind the 4 ½" production casing is only at 570 feet. In addition, the overall quality of the cement bonding is poor.

Commission staff noted that Well No. 4 also does not comply with Statewide Rule 46 which requires that the injection packer be set at least 200 feet below the top of cement. Since there is only 110 feet of limited quality cement to affect isolation of the injected fluids, Well No. 4 does not satisfy this requirement.

Finally, Commission staff noted that there are 37 wellbores within the ¼ mile radius of review and most of the wells are of unknown status. Commission staff disputed the applicant's pressure front calculations and asserted that they were not relevant. The calculations used very optimistic parameters, which results in the most lenient interpretation. For example, the calculations assumed an infinite reservoir and 30 feet of net pay when the proposed injection well only had 6 feet of pay.

EXAMINERS' OPINION

The examiners recommend that this application be denied. Guidance did not meet its burden of proof in showing that the proposed injection well would not cause pollution of surface water or fresh water strata and that disposal fluids will be confined to the proposed disposal interval. Well No. 4 is not cased and cemented to comply with Statewide Rule 13 or 46 and there are 37 wellbores within the ¼ mile radius of review which most have no drilling, completion, cementing or plugging records and are of unknown status. Any of these wells could be a potential conduit for injected fluids to contaminate surface and subsurface usable quality water.

The examiners recommend that the application be denied and that the Commission adopt the following Findings of Fact and Conclusions of Law.

FINDINGS OF FACT

1. Guidance Oil Developers gave notice of this application and hearing to all persons entitled to notice pursuant to Statewide Rule 46. A copy of the application was mailed on September 27, 2007 to the Wichita County Clerk's Office, the surface owner and all offsetting operators within ½ mile.
2. Notice of the application was published in *The Archer County News*, a newspaper of general circulation in Wichita County, on September 27, 2007.
3. Guidance seeks authority to inject produced salt water into the productive Cisco formation in the J. & J. Waggoner Lease, Well No. 4, at a depth of 680 feet. This well was initially drilled and completed as a Cisco producing well.

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4. Guidance failed to show that the proposed injection would be confined within the proposed injection interval.
 - a. Well No. 4 does not comply with Statewide Rule 13 as it does not have any surface casing set and the top of cement behind the 4 ½” production casing is only at 570 feet. In addition, the overall quality of the cement bonding is poor.
 - b. Well No. 4 does not comply with Statewide Rule 46 since there is only 110 feet of limited quality cement to affect isolation of the injected fluid.
 - c. There are 37 wellbores within the ¼ mile radius of review. Most of these wells have no drilling, completion, cementing or plugging records and are of unknown status. Any of these wells could be a potential conduit for injected fluids to contaminate surface and subsurface usable quality water.

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. Guidance has not satisfied the requirements of Chapter 27 of the Texas Water Code and the Railroad Commission's Statewide Rule 46 for the injection of produced water into the J. & J. Waggoner Lease, Well No. 4.
 - a. Guidance failed to show that the use of the proposed injection Well No. 4 would not cause pollution of surface water or fresh water strata as required under Texas Water Code §27.051(b)(3).
 - b. Guidance did not meet its burden of proof in showing that injected fluids will be confined to the proposed injection interval as required under Texas Water Code §27.051(b)(2).

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EXAMINERS' RECOMMENDATION

Based on the above findings of fact and conclusions of law, the examiners recommend that the application of Guidance Oil Developers for authority to inject fluid into its J. & J. Waggoner Lease, Well No. 4, be denied.

Respectfully submitted,

Richard D. Atkins, P.E.
Technical Examiner

Mark J. Helmueller
Hearings Examiner