



RAILROAD COMMISSION OF TEXAS

HEARINGS DIVISION

OIL AND GAS DOCKET NO. 7B-0278212

**THE APPLICATION OF L R OPERATING CO. FOR COMMERCIAL DISPOSAL
AUTHORITY PURSUANT TO STATEWIDE RULE 9 FOR THE J B RAGLE LEASE, WELL
NO. 5, PALO PINTO COUNTY REGULAR FIELD, PALO PINTO COUNTY, TEXAS**

HEARD BY: Richard D. Atkins, P.E. - Technical Examiner
Randall Collins - Legal Examiner

APPEARANCES:

REPRESENTING:

APPLICANT:

Jamie Nielson
Steve Towns
Nguyen Bao Ngoc
Louis Ragle
Kay Ragle
Mitchell Ragle

L R Operating Co.

Gary Giles

G&F Oil, Inc.

PROTESTANTS:

Doug Dashiell
Kaveh Khorzad
Mike Lasley
Toby Lasley
Nancy T. Richards
Stuart Richards
David Richards
John Russell Paige

Rio Roca Ranch and Little Keechi Ranch

PROCEDURAL HISTORY

Application Filed:	June 15, 2012
Protest Received:	June 26, 2012
Request for Hearing:	August 28, 2012
Notice of Hearing:	September 20, 2012
Hearing Held:	November 28, 2012
Transcript Received:	December 7, 2012
Proposal for Decision Issued:	January 25, 2013

EXAMINERS' REPORT AND PROPOSAL FOR DECISION**STATEMENT OF THE CASE**

L R Operating Co. ("L R") requests commercial disposal authority pursuant to Statewide Rule 9 for the J B Ragle Lease, Well No. 5, Palo Pinto County Regular Field, Palo Pinto County, Texas.

Notice of the subject application was published in the *Mineral Wells Index*, a newspaper of general circulation in Palo Pinto County, on June 19, 2012. Notice of the application was sent to the Palo Pinto County Clerk, offset operators within 1/2 mile and the surface owners of the disposal tract and each tract which adjoins the disposal tract on June 13, 2012.

The application is protested by surface owners adjacent and close to the tract on which the proposed disposal well is located.

DISCUSSION OF THE EVIDENCE**Applicant's Evidence**

The J B Ragle Lease, Well No. 5, and the proposed disposal facility are located on a 210 acre tract that is adjacent to, and south of, FM 4. The tract is situated in a rural area approximately three miles southwest of the town of Graford, Texas. L R plans to convert to injection a shut-in dry hole that was completed in January 2012. The well has 8 5/8" surface casing set at 212 feet that is cemented to the surface with 150 sacks of cement. The well has 5 1/2" production casing set at 1,320 feet that is cemented to the surface with 300 sacks of cement. The well will be equipped with 2 7/8" tubing and packer set at 890 feet (See attached L R Exhibit No. 17 - Wellbore Diagram).

The proposed L R facility is located in the northern portion of Palo Pinto County. There are two active commercial and three active private disposal wells in northern Palo Pinto County within a 10 mile radius of the proposed facility. All of the existing disposal

wells inject into the Strawn formation. The proposed disposal interval is the Strawn formation which contains the Buttran Sand between 940 feet and 1,300 feet. The interval is suitable for disposal and is used for disposal in the other area wells. There is no Buttran Sand formation production located within 5 miles of the proposed disposal well. L R requests authority to dispose of a maximum of 5,000 barrels of saltwater per day with a maximum surface injection pressure of 470 psig.

The Commission Groundwater Advisory Unit ("GAU") recommends that usable-quality groundwater be protected to a depth of 200 feet below the land surface. The base of the underground source of drinking water ("USDW") is 575 feet. L R submitted a GAU letter dated June 4, 2012, which states that injection into the proposed injection interval will not harm usable-quality groundwater. Additionally, a cement bond log confirms that the 5 1/2" production casing is cemented to the surface and that there is over 300 feet of impervious shale zones between the base of the USDW and the proposed disposal interval, which will serve to prevent the migration of injected fluids out of the Buttran Sand formation.

There is one Ellenburger formation producing well, operated by G&F Oil, Inc., located within the 1/4 mile radius of review for the proposed disposal well. Additionally, there are two producing and two plugged wells in other deeper formations located within the 1/2 mile radius of review for the proposed disposal well. All of the wells are properly cased and cemented to protect useable-quality groundwater zones and all of the wells have a top of cement behind the production casing below the proposed disposal interval. The president of G&F Oil, Inc., which is the operator of the only well located within the 1/4 mile radius of review, appeared in support of the application.

L R owns K&R Tank Trucks ("K&R"), and operates one of the commercial disposal facilities in the area. L R stated that K&R has been in business for over twenty years and its existing facility is, at or near, capacity and has wait times. K&R hauls produced saltwater from approximately 80 leases in the area and has to send its trucks two or three times per week, to the towns of Mineral Wells or Graham for disposal. The one way trip distance is 15 and 25 miles, respectively. L R contends that the use of the proposed disposal well will reduce travel time and miles traveled by its waste hauling trucks, resulting in reduced costs to operators.

The Marble Falls formation development core area encompasses most of northern Palo Pinto County. L R submitted a map depicting numerous permitted and completed Marble Falls formation horizontal wells within a seven mile radius of the proposed disposal well. With the large number of permitted locations, L R opined that the Marble Falls formation trend wells will produce significant volumes of produced water. L R believes that additional disposal facilities are necessary to accommodate the Marble Falls formation development that is ongoing in this part of Palo Pinto County.

The Facility

The area surrounding the proposed injection facility is rural ranching and farming land. Access to the disposal facility will be off of FM 4, which is a paved two lane public highway. At an average injection rate of 5,000 BWPD, there will be approximately 40 trucks per day accessing the facility. The facility will have a circular driveway and will be of sufficient size to allow trucks access without having to wait on the highway. The surface facility will be manned during the hours of operation. A firewall will be constructed around the entire facility to contain any spilled fluids. The tanks will be equipped with high water level switches to prevent overflows. Additionally, the facility will comply with all of the permit conditions required by the Commission staff.

L R submits that it has the expertise to build and manage the proposed facility. L R has a current approved Form P-5 (Organization Report), a posted \$25,000 financial assurance bond and no pending Commission enforcement actions.

Protestants' Evidence

The protestants are surface owners adjacent to the proposed disposal tract. They believe that the application for the proposed commercial disposal well and facility should be denied. Collectively, the testimony and statements in opposition to the facility assert that the proposed commercial disposal facility will have adverse effects on traffic safety, property values and the quality of life in and around this area of FM 4.

The protestant's hydro-geologist submitted a USGS Topographic Map showing the location of the proposed disposal well. The hydro-geologist opined that any spill from the proposed surface facility would flow into Elm Creek which flows into Keechi Creek which flows into the Brazos River. As a result, any spill could potentially contaminate the entire Brazos River watershed.

The protestant's also submitted plugging reports or completion reports on five wells located within the one-half mile area of review. All of the wells are properly cased and cemented to protect useable-quality groundwater zones and all of the wells have a top of cement behind the production casing below the proposed disposal interval. The protestants are concerned that the injected fluids will not be contained within the proposed disposal interval and could potentially contaminate the useable-quality groundwater.

EXAMINERS' OPINION

The examiners recommend that the application for commercial disposal authority be approved. L R has established:

1. The freshwater resources (surface and sub-surface) will be adequately protected from pollution;

2. The proposed injection well will not endanger or injure any oil, gas, or mineral formations;
3. The proposed injection is in the public interest; and
4. The applicant has made a satisfactory showing of financial responsibility, as required under Texas statutes and Commission regulatory requirements.

The well is completed in a manner which will protect usable-quality groundwater resources and injected fluids will be confined to the injection interval. The proposed disposal well has 8 5/8" surface casing set at 212 feet that is cemented to the surface with 150 sacks of cement. The well has 5 1/2" production casing set at 1,320 feet that is cemented to the surface with 300 sacks of cement. The well will be equipped with 2 7/8" tubing and packer set at 890 feet. A cement bond log confirms that the 5 1/2" production casing is cemented to the surface and that there is over 300 feet of impervious shale zones between the base of the USDW and the proposed disposal interval, which will serve to prevent the migration of injected fluids out of the Buttran Sand formation.

There is one Ellenburger formation producing well located within the one-quarter mile radius of review and there are two producing and two plugged wells in other deeper formations located within the one-half mile radius of review for the proposed disposal well. All of the wells are properly cased and cemented to protect useable-quality groundwater zones and all of the wells have a top of cement behind the production casing below the proposed disposal interval. The president of G&F Oil, Inc., which is the operator of the only well located within the 1/4 mile radius of review, appeared in support of the application. Finally, if an offset operator does report increased bradenhead pressure in a nearby producing well, then the Commission has the ability to suspend or cancel L R's permit for failure to confine the injected fluids to the approved interval.

Additionally, the proposed L R facility is located in the northern portion of Palo Pinto County. There are two active commercial and three active private disposal wells in northern Palo Pinto County within a 10 mile radius of the proposed facility. All of the existing disposal wells inject into the Strawn formation. The proposed disposal interval is the Strawn formation which contains the Buttran Sand between 940 feet and 1,300 feet. The interval is suitable for disposal and is used for disposal in the other area wells. There is no Buttran Sand formation production located within 5 miles of the proposed disposal well.

Approval of the application is in the public interest. The Marble Falls formation development core area encompasses all of northern Palo Pinto County. L R has shown that the proposed disposal well is necessary to provide needed capacity for disposal of produced water from numerous Marble Falls formation wells to be drilled and produced within northern Palo Pinto County. The proposed disposal well is closer to the most recently permitted wells than any other commercial disposal well and the existing

commercial disposal wells in the area have a limited capacity with some wait times. Use of the proposed disposal well will reduce travel time and miles traveled by the waste haulers, resulting in reduced disposal costs to operators. The reduced disposal costs will lower the economic limit of the producing wells and, thereby, ultimately increase total production.

The surface facility will be newly constructed and is of sufficient size to accommodate trucks hauling water to the facility without backing up onto the highway that provides access to the facility. Compliance with permit conditions will minimize the risk of spills at the facility and will prevent the migration of any spills that occur, thereby protecting both ground and surface water.

FINDINGS OF FACT

1. Notice of the application and hearing was provided to all persons entitled to notice. Notice of the application was sent to the Palo Pinto County Clerk, offset operators within 1/2 mile and the surface owners of the disposal tract and each tract which adjoins the disposal tract on June 13, 2012.
2. Notice of the subject application was published in the *Mineral Wells Index*, a newspaper of general circulation in Palo Pinto County, on June 19, 2012.
3. The proposed injection into the J B Ragle Lease, Well No. 5, will not endanger useable-quality groundwater.
 - a. The Commission Groundwater Advisory Unit ("GAU") recommends that usable-quality ground water be protected to a depth of 200 feet below the land surface.
 - b. The well has 8 5/8" surface casing set at 212 feet that is cemented to the surface with 150 sacks of cement.
 - c. There is over 300 feet of impervious shale zones between the base of the USDW and the proposed disposal interval, which will serve to prevent the migration of injected fluids out of the Buttran Sand formation.
4. The proposed injection into the J B Ragle Lease, Well No. 5, will not endanger production from other oil, gas or mineral bearing formations.
 - a. The well has 5 1/2" production casing set at 1,320 feet that is cemented to the surface with 300 sacks of cement. A cement bond log confirms that the 5 1/2" production casing is cemented to the surface.

- b. The well will be equipped with 2 7/8" tubing and packer set at 890 feet.
 - c. There is one Ellenburger formation producing well located within the one-quarter mile radius of review and there are two producing and two plugged wells in other deeper formations located within the one-half mile radius of review for the proposed disposal well. All of the wells are properly cased and cemented to protect useable-quality groundwater zones and all of the wells have a top of cement behind the production casing below the proposed disposal interval.
 - d. The president of G&F Oil, Inc., which is the operator of the only well located within the 1/4 mile radius of review, appeared in support of the application.
 - e. There are two active commercial and three active private disposal wells in northern Palo Pinto County within a 10 mile radius of the proposed facility. All of the existing disposal wells inject into the Strawn formation.
5. Use of the J B Ragle Lease, Well No. 5, as commercial disposal well is in the public interest because it will reduce hauling distances and will provide needed commercial disposal capacity for wells to be drilled, completed and produced in the area of the proposed facility.
- a. The Marble Falls formation development core area encompasses all of northern Palo Pinto County.
 - b. The Marble Falls formation trend wells will produce significant volumes of produced water and additional disposal facilities are necessary to accommodate the Marble Falls formation development that is expected in northern Palo Pinto County.
 - c. The proposed disposal well is closer to a vast majority of recently permitted wells than any other commercial disposal well and the existing commercial disposal wells in the area have a limited capacity with some wait times.
 - d. K&R Tank Trucks ("K&R") operates one of the commercial disposal facilities in the area. K&R has been in business for over twenty years and its existing facility is, at or near, capacity and has wait times.
 - e. K&R hauls produced saltwater from approximately 80 leases in the area and has to send its trucks two or three times per week, to the towns of Mineral Wells or Graham for disposal. The one way trip distance is 15 and 25 miles, respectively.

- f. Use of the proposed disposal well will reduce travel time and miles traveled by the K&R waste haulers, resulting in reduced disposal costs to operators.
 - g. The reduced disposal costs will lower the economic limit of the producing wells and, thereby, ultimately increase total production.
6. L R Operating Co. has a current approved Form P-5 (Organization Report), a posted \$25,000 financial assurance bond and no pending Commission enforcement actions.

CONCLUSIONS OF LAW

- 1. Proper notice was issued in accordance with the applicable statutory and regulatory requirements.
- 2. All things necessary to give the Railroad Commission jurisdiction to consider this matter have occurred.
- 3. Approval of the application will not harm useable quality water resources, will not endanger oil, gas, or geothermal resources, will promote further development in this area of Palo Pinto County and is in the public interest pursuant to Sec. 27.051 of the Texas Water Code.
- 4. L R Operating Co. has met its burden of proof and its application satisfies the requirements of Chapter 27 of the Texas Water Code and the Railroad Commission's Statewide Rule 9.

EXAMINERS' RECOMMENDATION

Based on the above findings of fact and conclusions of law, the examiners recommend that the Commission approve the application of L R Operating Co. for commercial disposal authority pursuant to Statewide Rule 9 for the J B Ragle Lease, Well No. 5, as set out in the attached Final Order.

Respectfully submitted,


Richard D. Atkins, P.E.
Technical Examiner


Randall Collins
Legal Examiner