THE APPLICATION OF LONGBRANCH ENERGY, LP FOR COMMERCIAL DISPOSAL AUTHORITY PURSUANT TO STATEWIDE RULE 9 FOR THE PINE GROVE SWD LEASE, WELL NO. 5V, PINE GROVE (CVL "B" LIME) FIELD, SAN AUGUSTINE COUNTY, TEXAS

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

James M. Doherty - Legal Examiner

APPEARANCES: REPRESENTING:

APPLICANT:

George Neale Longbranch Energy, LP

Rick Johnston Darin Borders James Flournoy Rex Kirkley

Steven Eaves R & S Trucking, LLC

PROTESTANTS:

Keith DuBose Estate Betty Jones and the DuBose Estate

E. H. Marshall, Jr. Self

Robert A. and Nina Barnett Selves

Alvin and Ann Bridges Selves

PROCEDURAL HISTORY

Application Filed: December 28, 2009

Protest Received:
Request for Hearing:
Notice of Hearing:
Hearing Held:
Transcript Received:
Proposal for Decision Issued:

April 8, 2010
April 19, 2010
May 11, 2010
July 1, 2010
July 6, 2010
August 13, 2010

EXAMINERS' REPORT AND PROPOSAL FOR DECISION

STATEMENT OF THE CASE

Longbranch Energy, LP ("Longbranch") requests commercial disposal authority pursuant to Statewide Rule 9 for the Pine Grove SWD Lease, Well No. 5V, Pine Grove (CVL "B" Lime) Field, San Augustine County, Texas.

Notice of the subject application was published in the *San Augustine Tribune*, a newspaper of general circulation in San Augustine County, on April 1, 2010. Notice of the application was sent to the San Augustine County Clerk, offset operators within ½ mile and to the surface owners of each tract which adjoins the disposal tract on December 9, 2009.

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

DISCUSSION OF THE EVIDENCE

Applicant's Evidence

The Pine Grove SWD Lease, Well No. 5V, was drilled to a total depth of 9,079 feet and plugged and abandoned as a dry hole in July 2007. The well is located on a 20 acre tract adjacent to and south of State Highway 103. County Road 4305 intersects State Highway 103 and runs along the west side of the disposal tract. The tract is large, relatively flat and open and is situated 9 miles southeast of the city of San Augustine, Texas.

Longbranch plans to re-enter the well and drill it out down to a cement plug located at 6,100 feet. The well has 9 \(^{5}\epsilon\) surface casing set at 1,548 feet that is cemented to the surface with 560 sacks of cement. Longbranch proposes to run new 7" production casing to 6,100 feet and cement it with 605 sacks of cement. The calculated top of cement is estimated to be at 2,750 feet. The well will be equipped with new 4 \(^{1}\epsilon\) tubing and packer set at 4,800 feet (See attached Longbranch Exhibit No. 5 - Wellbore Diagram).

The proposed disposal interval is located in the Fredricksburg formation between 4,870 feet and 5,980 feet. Longbranch originally requested authority to dispose of a maximum of 30,000 barrels of salt water and RCRA exempt waste per day with a maximum injection pressure of 2,400 psig. At the hearing, Longbranch reduced its requested maximum volume from 30,000 barrels per day to 15,000 barrels per day with an average injection volume expected to be approximately 5,000 barrels per day.

The Texas Commission on Environmental Quality ("TCEQ") recommends that usable-quality ground water be protected to a depth of 1,400 feet below the land surface. There is over 2,000 feet of impermeable shale and clay between the top of the proposed injection interval at 4,870 feet and the base of usable quality water at 1,400 feet.

Longbranch submitted a TCEQ letter dated June 30, 2010, which stated that injection into the proposed injection interval will not harm usable quality water.

There are no wells located within the ½ mile radius of review for the proposed disposal well. The nearest wellbore that penetrates the proposed disposal interval is a shut-in Cotton Valley/Haynesville horizontal well that is completed at a depth of approximately 12,400 feet. The well is located approximately one mile to the east and is properly cased and cemented.

There are only 3 permitted commercial disposal wells in San Augustine County. Two of the disposal wells are located in the northern portion of the county. The ETX Fluid Solutions - Ironosa SWD Lease, Well No.1, has been permitted but not drilled. The Common Disposal - Common SWD Lease, Well No.1, accepts salt water from salt water haulers and is running at capacity most of the time. The disposal well located in the southern portion of the county, the Radius Operating - Eastex SWD Lease, Well No. 1, is currently severed and inactive. The proposed Longbranch facility is centrally located in San Augustine County.

Longbranch submitted production plots for all wells in all fields in San Augustine, Nacogdoches and Shelby Counties. The plots showed that since 2007 the well count had increased from 10 to 100 wells in San Augustine County, from 600 to 1,500 wells in Nacogdoches County and from 150 to 600 wells in Shelby County. Longbranch also submitted a paper that was written by the Bureau of Economic Geology and published in World Oil. The paper discussed the Haynesville development and stated that the core area encompassed the northern part of San Augustine County. Longbranch believes that additional disposal facilities are necessary to accommodate the Haynesville development that is expected in this part of the county.

Longbranch submitted a letter from Double O Operating which operates two disposal facilities and 25 trucks. The letter verified that most of the disposal facilities in San Augustine, Nacogdoches and Shelby Counties were operating, at or near capacity, and that Double O had a need for additional disposal capacity in San Augustine County.

In addition, Mr. Steven Eaves, a partner in R & S Trucking, stated that his company operates 21 vacuum trucks which service San Augustine, Nacogdoches and Shelby Counties. Mr. Eaves confirmed the several hour wait times at the existing Common SWD facility. In addition, the proposed facility would eliminate approximately 80 to 100 miles of round trip hauling distance for its trucks that operate in this area of the county when the Common SWD is full.

The Facility

The area surrounding the proposed injection facility is rural ranching and farming land. Access to the disposal facility will be off of State Highway 103 which is a paved two lane public highway. Although the disposal tract has access to County Road 4305, Longbranch stated that it plans to close that access point and only enter and exit the facility

off of State Highway 103. The surface facility will comply with all permit conditions requested by the Commission staff. At an average injection rate of 5,000 BWPD, there will be approximately 40 trucks per day accessing the facility. The facility will be of sufficient size to allow trucks access without having to wait on the highway and can accommodate up to 25 trucks.

Longbranch submitted a Traffic Analysis Study for the proposed saltwater disposal site. The study showed that 1,850 vehicles currently travel State Highway 103 on a daily basis. It was estimated that the traffic generated by the proposed disposal facility on State Highway 103 will increase by 7% and will have little impact on the roadway. Longbranch has already applied for and received a permit from TxDOT for the construction of entrance and exit driveways to State Highway 103. The sight distance for the entrance driveway is approximately 1,015 feet to the east and 1,281 feet to the west. The sight distance for the exit driveway is approximately 880 feet to the east and 656 feet to the west.

Longbranch currently operates two commercial disposal wells and submits that it has the expertise to build and manage the proposed facility. Longbranch has a current approved Form P-5 (Organization Report), a posted \$50,000 financial assurance bond and no pending Commission enforcement actions.

Protestants' Evidence

The protestants are surface owners across County Road 4305 adjacent to the proposed disposal site. They are primarily concerned that the facility will pose a threat to their usable water quality and that the presence of the facility will decrease their property values. They are also concerned that a spill could contaminate the surface water, as drainage from the facility would eventually flow into Caney and Chinquapin Creeks. They are also worried about traffic safety, as a result of the increased number of trucks on the road going to the facility. In addition, they are concerned that noise, dust and fumes from the facility will affect their quality of life.

The protestants acknowledged that they have recently leased their properties for oil and gas drilling. They stated that seismic crews were already working in the area and felt that it was only a matter of time before drilling operations would be commencing on their lands.

EXAMINERS' OPINION

The examiners recommend approval of the application for commercial disposal authority. Although the Pine Grove SWD Lease, Well No. 5V, was originally drilled and plugged in 2007, it will be re-entered and re-conditioned with new casing, cement, tubing and packer. Injected fluids will be confined to the injection interval by over 2,000 feet of impermeable shale and clay between the top of the injection interval and the base of usable quality water and by over 7,000 feet of impermeable rock below the injection interval and

above the shallowest production. Finally, there are no wellbores in the $\frac{1}{2}$ mile area of review and only one shut-in horizontal well within one mile.

Approval of the application is in the public interest. The Haynesville development core area encompasses the northern part of San Augustine County and disposal wells are the best means for disposing of produced frac and salt water. Longbranch has shown that the proposed disposal well is necessary to provide needed capacity for disposal of produced water from numerous wells drilled and produced within a 15 mile radius of the Pine Grove SWD Lease, Well No. 5V. The well is closer to a vast majority of recently permitted wells than any other commercial disposal well and the only existing commercial disposal well in San Augustine County has a limited capacity.

Because the proposed injection well will be closer to the point of production, use of the well for disposal of produced water will reduce traffic and use of public highways for hauling produced water to a disposal site. Based on Longbranch's testimony, the examiners recommend that access to the proposed disposal facility be limited to State Highway 103, a paved public highway, and not from County Road 4305. The surface facility will be newly constructed and is of sufficient size to accommodate trucks hauling water to the facility without creating a traffic hazard on 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 this application and hearing was provided to all persons entitled to notice. Notice of the subject application was published in the *San Augustine Tribune*, a newspaper of general circulation in San Augustine County, on April 1, 2010.
- 2. Notice of the application was sent to the San Augustine County Clerk, offset operators within ½ mile and to the surface owners of each tract which adjoins the disposal tract on December 9, 2009.
- 3. The proposed injection into the Pine Grove SWD Lease, Well No. 5V, will not endanger useable quality water.
 - a. The TCEQ recommends that usable-quality ground water be protected to a depth of 1,400 feet below the land surface.
 - b. The Pine Grove SWD Lease, Well No. 5V, was drilled to a total depth of 9,079 feet and plugged and abandoned as a dry hole in July 2007.
 - c. The well has 9 %" surface casing set at 1,548 feet that is cemented to the surface with 560 sacks of cement.

- d. There is over 2,000 feet of impermeable shale and clay between the top of the proposed injection interval at 4,870 feet and the base of usable quality water at 1,400 feet.
- 4. The proposed injection into the Pine Grove SWD Lease, Well No. 5V, will not endanger production from other oil, gas or mineral bearing formations.
 - a. Longbranch plans to re-enter the well and drill it out down to a cement plug located at 6,100 feet.
 - b. Longbranch proposes to run new 7" production casing to 6,100 feet and cement it with 605 sacks of cement. The calculated top of cement is estimated to be at 2,750 feet.
 - c. The well will be equipped with new 4 ½" tubing and packer set at 4,800 feet.
 - d. There are no wells located within the ½ mile radius of review for the proposed disposal well.
 - e. The nearest wellbore that penetrates the proposed disposal interval is a shut-in Cotton Valley/Haynesville horizontal well that is completed at a depth of approximately 12,400 feet. The well is located approximately one mile to the east and is properly cased and cemented.
 - f. There is over 7,000 feet of impermeable rock below the injection interval and above the shallowest production.
- 5. Use of the Pine Grove SWD Lease, Well No. 5V, as a commercial disposal well is in the public interest because it will reduce hauling distances and will provide needed commercial disposal capacity for wells being drilled, completed and produced in the area of the proposed facility.
 - a. The Common SWD Lease, Well No.1, is the only active disposal well in San Augustine County and is running at capacity most of the time.
 - b. There are several hour wait times at the existing Common SWD facility.
 - c. The proposed facility would eliminate approximately 80 to 100 miles of round trip hauling distance for trucks that operate in this area of the county when the Common SWD is full.

- d. Since 2007, the well counts have increased from 10 to 100 wells in San Augustine County, from 600 to 1,500 wells in Nacogdoches County and from 150 to 600 wells in Shelby County.
- e. The Haynesville development core area encompasses the northern part of San Augustine County.
- 6. Use of the Pine Grove SWD Lease, Well No. 5V, for commercial disposal of produced salt water will not create a traffic safety hazard.
 - a. Access to the proposed disposal facility is from State Highway 103, a public paved highway.
 - b. The surface facility is of sufficient size to ensure saltwater haulers using the site for disposal will not have to form a line on the highway at the entrance to the facility.
 - c. A traffic study showed that 1,850 vehicles currently travel State Highway 103 on a daily basis. It was estimated that the traffic generated by the proposed disposal facility on State Highway 103 will increase by 7% and will have little impact on the roadway.
 - d. The highway on either side of the entrance and exit driveways of the facility is straight for a sufficient distance to ensure adequate visibility of trucks entering and existing the facility by drivers of other vehicles using the highway.
 - e. Access to the proposed disposal facility will be limited to State Highway 103, a paved public highway. The injection permit will contain a condition to prohibit access from County Road 4305.
- 7. Longbranch has a current approved Form P-5 (Organization Report) and has posted a \$50,000 financial assurance bond.

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 San Augustine County and is in the public interest pursuant to Sec. 27.051 of the Texas Water Code.

4. Longbranch Energy, LP 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 application of Longbranch Energy, LP for commercial disposal authority in its Pine Grove SWD Lease, Well No. 5V, be approved, as set out in the attached Final Order.

Respectfully submitted,

Richard D. Atkins, P.E. Technical Examiner

James M. Doherty Legal Examiner