

October 25, 2006

**OIL AND GAS DOCKET NO. 09-0247883**

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**THE APPLICATION OF TWJM SERVICES, GP, LLC FOR A COMMERCIAL PERMIT TO DISPOSE OF OIL AND GAS WASTE BY INJECTION INTO A POROUS FORMATION NOT PRODUCTIVE OF OIL OR GAS, GRANDVIEW SWD LEASE WELL NO. 1, IN THE NEWARK, EAST (BARNETT SHALE) FIELD, JOHNSON COUNTY, TEXAS**

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**HEARD BY:** Thomas H. Richter, P.E., Technical Examiner  
James M. Doherty, Hearings Examiner

**APPLICANT:**

Stephen Fenoglio, Attorney  
Kerry Pollard  
Johnny Matthews  
Joe Gonzales

**REPRESENTING:**

TWJM Services, GP, LLC

**PROTESTANTS:**

Joe T. Sanders II, Attorney  
Richard Fletcher

Richard Fletcher

**PROCEDURAL HISTORY**

Date of Application:	June 14, 2006
Date of Notice:	July 26, 2006
Date of Hearing:	September 18, 2006
Date of Transcript:	October 6, 2006
Date PFD Issued:	October 25, 2006

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

This is the application of TWJM Services, GP, LLC ("TWJM") to drill and complete a new well for disposal of saltwater and operate a commercial disposal facility. The saltwater will come from operators drilling and completing wells in the Barnett Shale trend area. The protestant, Richard Fletcher ("Fletcher"), is an offsetting surface owner and opposes the facility because of various highway and railroad safety concerns. Fletcher stated that he has no issue with the technical aspects and completion of the proposed well, but opposes the application as the proposed well is not in the public interest.

**DISCUSSION OF THE EVIDENCE**

**APPLICANT'S EVIDENCE**

The proposed disposal well facility will be located north of City of Grandview adjacent to IH-35 and US Hwy 81 in the ongoing Barnett Shale trend development play extending into the Johnson County area which is undergoing extensive drilling activities. Water fracture stimulation is an essential part of a well's completion program. In the rapid flow-back period after fracture stimulation, large volumes of "frac water" must be recovered and properly disposed of. The proposed disposal zone, the Ellenburger Formation, is a thick, uniform interval covering a very large area and is used by numerous other injection well operators for disposal.

The proposed disposal well, the Grandview SWD Lease Well No. 1, will be completed as follows:

- Surface casing (9-5/8") set at  $\pm 1820'$  and cemented from the casing shoe to the ground surface.
- Longstring casing (7") set at  $\pm 12,000'$  and cemented from the casing shoe to a depth of  $\pm 7,000'$  using 800 sacks of cement.

The top of the disposal zone, the Ellenburger Formation, is anticipated to occur at  $\pm 8,400'$  and the base is at  $\pm 12,000'$ .<sup>1</sup> The Ellenburger is a uniform blanket formation through this area that is a water-bearing zone that is thousands of feet in thickness. The injection tubing (4-1/2") will be set on a packer at  $\pm 8,350'$ . The proposed injection interval represents the entire Ellenburger Formation interval.<sup>2</sup> Pursuant to the Texas Commission on Environmental Quality, the interval from the land surface to 20 feet below the base of the Cenozoic-age beds must be protected and the base is estimated to occur at a depth of 1750 feet (TNRCC Letter dated March 15, 2006). See attached TWJM Ex. No. 9. There are five water wells within 1/4 mile of the subject well and all are completed no deeper than 250 feet (two are industrial wells for Barker Chemical Co. and three are domestic wells). The proposed maximum injection volume is 30,000 barrels per day and a maximum injection pressure of 4,000 psig.

According to the area well logs, a sufficient amount of impermeable shale interval extends from above the Ellenburger Formation, namely the thick, uniform and continuous Barnett Shale, which is a barrier to fluid migration.

There are no well completions, producing or plugged, within 1/4 mile of the subject well. Public records do indicate that a drilling permit has been issued for a horizontal well outside the 1/4 mile radius of review. All operators have been notified of the subject application within one-half mile.

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<sup>1</sup> The approximations are based on the log analysis of other area wells that have penetrated or drilled thru the Ellenburger.

<sup>2</sup> Perforations will be made of those selected zones which indicate high porosity and permeability after log analysis.

Currently there are  $\pm 5,000$  wells in the Newark, East (Barnett Shale) Field area. The drilling activity continues to expand into Johnson County. Each well is fracture stimulated using water and the flowback of this fracture fluid has to be disposed. The volume of water used for the fracture treatment can range up to  $\pm 35,000$  barrels for horizontal drainhole wells. It is essential that after a fracture stimulation treatment, there be nearby disposal sites capable of immediately taking the flowback frac water. Commercial disposal wells are needed in the subject area. Matthews Transportation, L.L.C. (owned by Matthews and wife) has a fleet of 24 tank trucks that are currently permitted for water hauling by the Commission.<sup>3</sup> Travel time to a disposal facility is an expense to an operator. Lengthy wait times that are commonly experienced at commercial disposal facilities because of the number of other trucks waiting to unload also is an expense to operators. Less travel time and wait time will reduce the overall completion expense for a new well and monthly lease operating expenses for associated produced saltwater disposal, which results in the recovery of additional reserves.

The subject facility will be unique as there will be four off load disposal bays so that 4 trucks can unload at the same time. The time to unload will be only 10 minutes for a complete turn around time of approximately 20 minutes per truck. The property will be sufficiently fenced and will be attended 24 hours a day seven days a week to prevent unauthorized dumping. All trucks can be communicated with to alert of problems which may cause a slow down at the site thus diverting them to an alternate commercial disposal facility. The facility is ideally located being adjacent to both IH-35W and US Hwy 81 on the east side and a railroad on the west side. A paved entrance currently exists but will be modified as a permit must be obtained from TxDot before operation may be commenced. This permitting process will be commenced if the Commission grants the proposed injection well and facility.

The Commission's Environmental staff has reviewed the application and did not state/voice any concerns or problem based on its administrative review.

The surface acreage (5.74 acre site) was purchased by Delton and Dolye Robertson, partners with Matthews in TWJM Services, GP, LLC. TWJM operates two other commercial saltwater disposal well facilities (one in Parker County and one in Somervell County both  $\pm 1.5$  hours for the proposed facility). TWJM Services, GP, LLC does have a current approved Form P-5 and posted sufficient financial assurance.

Notice was given to the affected persons, the County Clerk of Johnson County, all surface owners of adjoining tracts and all operators within one-half mile, the Texas General Land Office, and the Texas Department of Transportation. Notice of this application was published in the *Cleburne Times Review*, a newspaper of general circulation in Cleburne and Johnson Counties, on April 28, 2006.

## **PROTESTANT'S EVIDENCE**

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<sup>3</sup> TWJM Services was started by the Matthews Group in 2005 for the purpose of operating commercial disposal wells.

Fletcher asserts that the proposed facility is not in the public's interest because of traffic safety issues involving the IH-35W and US Hwy 81 interchanges and the potential adverse effects semi-truck traffic will impose on the traveling general public in this area north of the City of Grandview. Fletcher asserts he knows first hand as to the number of collisions that have occurred in this immediate area having been a Fire Department Captain for the Grandview Volunteer Fire Department. Fletcher owns a trucking company (12 semi-trucks that he uses in his sawdust/chip business) and excavating company adjacent and north of the proposed facility.

Specifically, the south exit ramp for IH-35W on to Hwy 81 is straight and cars exit at highway speed and the distance to the facility is very short for right turns into the facility (See attached TWJM Ex No. 4). Fletcher's own trucks exiting off IH-35W going south must proceed to the overpass turn and loop back around and come back across Hwy 81 to get to the entrance of his business. Likewise, trucks coming over the IH-35W overpass will have to cross the Hwy 81 traffic. Fletcher asserts that at an anticipated 100 trucks a day using the facility, this volume of semi-truck traffic operating 24/7 will only cause more congestion. Fletcher submits that the volunteer fire department as well as himself personally have complained on occasion to TxDOT to take measures to increase safety in this area.<sup>4</sup> Fletcher submits that TWJM should have performed a traffic study.

Fletcher asserts there have been three railroad derailments in the last 15 years in this area and two in the last 18 months. Two of the derailments have resulted with derailed train cars on the subject property. Richland Chambers Creek is in the vicinity and a derailment catastrophe that takes out the subject disposal well/facility well would have adverse effects.

Fletcher asserts that the Texas Water Code §27.051(b) states in part "... The Railroad Commission may grant an application in whole or part and may issue the permit if it finds, (1) that the use or the installation of the injection well is in the public interest.". Fletcher contends (1) the well and facility are not in the best public interest; (2) Saltwater is a corrosive material and traffic considerations must be taken into account; and (3) TWJM has failed to carry its burden of proof to show its applied-for facility is in the public interest.

### **EXAMINERS' OPINION**

The examiners recommend the application be approved pursuant to §27.051 of the Texas Water Code and Commission Statewide Rule 9. The proposed new commercial disposal well and facility will be completed in such a manner as to prevent the migration of injected fluids to zones other than the intended zone. The usable quality water above and below the ground surface will not be placed at risk of pollution or contamination.

The safe and proper disposal of produced saltwater in disposal wells such as the one proposed by TWJM serves the public interest. The production of hydrocarbons serves the public interest. Production from the Barnett Shale is obtained by fracing with large volumes of water and the frac water and well as water associated with the production of oil and gas must be disposed of

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<sup>4</sup> Fletcher stated that TxDot did install more reflectors and signage.

safely and prudently. The Commission's Rules concerning underground injection are premised to assure the protection of fresh water above and below the ground surface (well completion technique, proper cementing, proper plugging and saltwater handling). The Commission does not regulate the number of commercial disposal wells as the competitive nature of the system will dictate this.

The requirements and restrictions of a commercial disposal facility permit addresses concerns as to security and the surface handling of fluids. There is no evidence to indicate that the operation of the subject disposal well and facility will adversely impact the water quality of any nearby surface water or subsurface usable quality water.

The protestant's concerns over traffic safety or railroad safety are understandable. However, the Commission does not have jurisdictional authority for such matters as truck traffic/highway safety matters and railroad safety. These community concerns and issues fall under the jurisdiction of other state/federal agencies or county authorities. The examiners conclude that TWJM has met its burden of proof on the statutory issues the Commission is required to consider, including the public interest issue.

### **FINDINGS OF FACT**

1. Notice of this hearing was given to all persons required to be given notice by the provisions of Statewide Rule 9. Notice of this hearing was given to all affected persons, at least ten (10) days prior to the date of the hearing. Notice was given to the County Clerk of Johnson County, all surface owners of adjoining tracts and all operators within one-half mile, the Texas General Land Office, and the Texas Department of Transportation. Notice of this application was published in the *Cleburne Times Review*, a newspaper of general circulation in Cleburne and Johnson Counties, on April 28, 2006.
2. The proposed disposal well, the Grandview SWD Lease Well No. 1, will be completed as follows:
  - a. Surface casing (9-5/8") set at  $\pm 1820'$  and cemented from the casing shoe to the ground surface.
  - b. Longstring casing (7") set at  $\pm 12,000'$  and cemented from the casing shoe to a depth of  $\pm 7,000'$  with 800 sacks of cement.
3. The top of the disposal zone, the Ellenburger Formation which is a formation used for saltwater disposal in the area, is anticipated to occur at  $\pm 8,400'$  and the base is at  $\pm 12,000'$ .
  - a. The injection tubing (4-1/2") will be set on a packer at  $\pm 8,350'$ .
  - b. The proposed maximum injection volume is 30,000 barrels per day and a maximum injection pressure of 4,000 psig.

- c. The Texas Commission on Environmental Quality requires the interval from the land surface to 20 feet below the base of the Cetaceous-age beds must be protected and the base is estimated to occur at a depth of 1750 feet.
  - d. There is a sufficient impermeable shale interval that extends above the Ellenburger Formation, namely the thick Barnett Shale, which is a barrier to fluid migration.
4. There are no well completions, producing or plugged, within 1/4 mile of the subject well.
  5. The requirements and restrictions of a commercial disposal facility permit address concerns as to security and the surface handling of fluids. There is no evidence to indicate that the operation of the subject disposal well and facility will adversely impact the water quality of any nearby surface water or subsurface usable quality water.
  6. Use of the proposed disposal well is in the public interest because it will provide an economical means of disposing of produced salt water from completed wells in the rapidly expanding Barnett Shale Field Area, thereby increasing ultimate recovery from these wells and preventing waste. The safe and proper disposal of produced saltwater in disposal wells such as the one proposed by TWJM meets this need and thereby serves the public interest.
  7. TWJM Services, GP, LLC has a current approved Form P-5 and has posted sufficient financial assurance.

**CONCLUSIONS OF LAW**

1. Proper notice was timely given to all parties entitled to notice pursuant to applicable statutes and rules.
2. All things have occurred and have been accomplished to give the Commission jurisdiction in this case.
3. The use of the proposed disposal well will not endanger oil, gas, or geothermal resources or cause the pollution of surface water or fresh water strata.
4. The applicant has complied with the requirements for approval set forth in Statewide Rule 9 and the provisions of Sec. 27.051 of the Texas Water Code.
5. The use of the proposed disposal well is in the public interest pursuant to Sec 27.051 of the Texas Water Code.

**EXAMINERS' RECOMMENDATION**

Based on the above findings and conclusions, the examiners recommend that the application

of TWJM Services, GP, LLC to operate a commercial facility to dispose of field produced saltwater into the Grandview SWD Well No. 1 into a zone not productive of oil and gas in Johnson County be approved as set out in the attached Final Order.

Respectfully submitted,

Thomas H. Richter, P.E.  
Technical Hearings Examiner  
Office of General Counsel

James M. Doherty  
Hearings Examiner  
Office of General Counsel