



# RAILROAD COMMISSION OF TEXAS

## HEARINGS DIVISION

**OIL AND GAS DOCKET NO. 7C-0286667**

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**THE APPLICATION OF RBD GROUP, LLC PURSUANT TO STATEWIDE RULE 9 FOR THE SIEG 2 SWD LEASE, WELL NO. 1, SPRABERRY (TREND AREA) FIELD, REAGAN COUNTY, TEXAS**

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**HEARD BY:** Karl Caldwell - Technical Examiner  
Terry Johnson - Legal Examiner

### PROCEDURAL HISTORY

Application Filed:	January 8, 2104
Protest Received:	August 28, 2013
Request for Hearing:	September 30, 2013
Notice of Hearing:	February 20, 2014
Hearing Held:	March 14, 2014
Transcript Received:	March 25, 2014
Proposal for Decision Issued:	October 30, 2014

### **APPEARANCES:**

#### **APPLICANT:**

George Neale (Attorney)  
Rick Johnston (Consulting Engineering)  
C. DeWitt Walcott (Manager)

### **REPRESENTING:**

RBD Group, LLC

#### **PROTESTANTS:**

Richard Brantley (Associate Director)  
James Buice (Geologist)

University Lands

### EXAMINERS' REPORT AND PROPOSAL FOR DECISION

### STATEMENT OF THE CASE

RBD Group, LLC ("RBD") requests commercial disposal authority pursuant to Statewide Rule 9<sup>1</sup> for the Sieg 2 SWD Lease, Well No. 1, Spraberry (Trend Area) Field,

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<sup>1</sup> 16 Tex. Admin. Code § 3.9 (Disposal Wells)

Reagan County, Texas ("RBD Well No. 1"). Notice of the application was published in the *Big Lake Wildcat*, a newspaper of general circulation in Reagan County, Texas, on August 8, 2013. Notice of the application was sent to the Reagan County Clerk, the owner of the surface tract of the proposed disposal well, owners of surface tracts adjacent to the proposed disposal well location, and offset operators within a one-half mile radius.<sup>2</sup>

The application is protested by University Lands, an adjacent land owner. University Lands, under the direction of the Office of Business Affairs, The University of Texas Systems, is responsible for managing the Permanent University Fund lands and the Trust Minerals.

### DISCUSSION OF THE EVIDENCE

#### Applicant's Evidence (RBD)

The proposed location of the disposal well is the Sieg 2 SWD Lease, a 6.62 acre tract located approximately 12 miles southwest of Big Lake, Reagan County, Texas. The proposed location for the RBD Well No. 1 is 100 feet from the east line and 332 feet from the north line of Section 2, Georgetown Railroad Company, Abstract 946. The area surrounding the proposed disposal well location is a rural setting, approximately five or six miles from main roads. The proposed location would be off of Lone Wolf Road, in an area comprised of oilfield activity. Lone Wolf Road has an easement of 90 feet to 100 feet and is fenced in all the way from Highway 67 to the proposed facility location. Produced water generated west of Big Lake is currently hauled through the Big Lake area. The proposed disposal well location would reduce the truck traffic at the intersection of Highway 67 and 132.

The proposed well construction for the RBD Well No.1 is as follows (Attachment 1):

- The well will be drilled to a total depth (TD) of 4,200 feet.
- 9 5/8-inch, 36 lb. per foot, surface casing will be set at 800 feet inside a 12 1/4-inch hole and cementing in place with an estimated 250 sacks of Class C cement, circulated back to surface.
- 7-inch, 23 lb. per foot, long string of casing will be set to a depth of 4,200 feet inside an 8 3/4-inch hole and cemented in place with 550 sacks of Class H cement, with cement circulated to surface.
- 4 1/2-inch tubing will be run inside the 7-inch casing and a packer will be set on the end of the tubing at 3,100 feet.

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<sup>2</sup> 16 Tex. Admin. Code § 3.9(5) (Notice and Opportunity for Hearing)

- RBD is requesting a permitted disposal interval from 3,200 feet to 4,150 feet in the San Andres formation.
- The maximum daily injection volume will be 25,000 barrels per day (bpd).
- The maximum surface injection pressure will be 1,600 pounds per square inch (psi).
- RBD requests authority for the disposal of commercial salt water and RCRA<sup>3</sup> exempt wastes.

The Commission's Groundwater Advisory Unit (GAU) identifies the base of usable-quality water (BUQW) at a depth of 750 feet from the land surface at the proposed RBD disposal well location which must be protected. The proposed surface casing program will set 9 5/8-inch surface casing to a depth of 800 feet and circulate cement to surface to isolate and protect the BUQW. The Commission has identified the base of the usable source of drinking water (USDW) to occur at a depth of 1,150 feet at the proposed disposal well location. The proposed injection interval from 3,200 feet to 4,150 feet would inject fluid below the base of the USDW.

There are no open wellbores within a one-quarter mile radius of the proposed disposal well location. Drilling permits have been issued for two horizontal wells to be drilled in the surrounding area. The well plans indicate that the terminus points of the wells will be within a one-quarter mile radius, but the surface location of both wells are expected to be outside of the one-quarter mile radius. These two horizontal wells are targeting the Spraberry (Trend Area) Field, estimated to be at a depth between 6,000 feet and 8,000 feet in this area, which is greater than 1,800 feet below the proposed disposal interval. EP Energy E&P Company, LP ("EP") has permitted the two proposed horizontal wells. EP was included on the service list for the hearing, and did not attend the hearing in protest.

A four well log cross-section was constructed to show the suitability of the disposal interval and confinement of fluids. Two of the well logs in the cross-section were located within a one-mile radius of the proposed location for RBD Well No. 1, while the other two well logs were located within a two-mile radius of the proposed location of RBD Well No. 1. RBD's expert engineering witness identified more than 250 feet of shale below the base of the proposed disposal interval. Above the disposal interval are salt anhydrite sections. RBD's expert engineering witness stated that the shale interval below the disposal interval and the salt anhydrite intervals above the disposal interval will act as barriers that will prevent fluids from migrating out of the disposal interval.

Commission records show one active commercial disposal well within a ten mile radius of the proposed disposal well location, the GulfTex Energy University Lands SWD Lease, Well No. D-2 ("Well No. D-2"). This well is permitted for a maximum volume of

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<sup>3</sup> Resource Conservation and Recovery Act: Examples of RCRA exempt oil and gas waste includes produced water, drilling fluids, hydraulic fracturing flow back fluids, rig wash and workover wastes.

3,000 bpd, injecting into an interval from 3,000 feet to 3,500 feet. RBD's expert engineering witness stated that Well No. D-2 is designed to dispose of piped-in fluids only. RBD's expert engineering witness argued that the proposed RBD Well No.1 would be the only commercial saltwater disposal well within a ten mile radius that would accommodate commercial saltwater disposal trucks. RBD's expert engineering witness testified that there is a need for additional disposal capacity in the area. There are 200 producing wells and numerous drilling rigs within a ten mile radius of the proposed location of RBD Well No. 1.

RBD is an active P-5 operator with the Commission and has a \$25,000 letter of credit on file with the Commission as financial assurance.

### **Protestant's Evidence (University Lands)**

Extensive oilfield activity is conducted on properties owned by University Lands, including the operation of an estimated ten to twenty saltwater disposal wells. University Lands has three different contractual arrangements for saltwater disposal with the salt water disposal well operators:

- (1) a single operator (lessee) disposing of on-lease (University Lands) water;
- (2) water disposal of University Lands water from multiple tracts;
- (3) disposal of University Lands water and non-University Lands water.

University Lands requires operators on its leases to enter into a contract if the operator is requesting to commingle water from multiple oil and gas leases for disposal since the operator does not own the surface rights. University Lands witness stated that "at the point that water leaves the contiguous oil and gas boundary" (the operator) needs to obtain a contract from us."<sup>4</sup> According to University Lands, at 150 feet<sup>5</sup> from the property line, the location of RBD's commercial disposal well is too close to its property and injectate from RBD's operations will migrate to University Lands' sub-surface.

University Lands also argued that the San Andres interval is too shallow for injection and suggested the deeper Ellenburger Formation as more suitable for RBD's proposed operations. In support of this position, University Lands' witness stated that water deeper than 800 feet in this area is "very good" water. However, University Lands acknowledges that it has previously allowed producing wells on its property to be converted into disposal wells which inject into the San Andres Formation. University Lands draws a distinction between these wells and RBD's commercial disposal well, asserting that only water which has been generated on-lease, and wells that have been converted from producing wells

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<sup>4</sup> Testimony of James Buice, Tr. 44-45.

<sup>5</sup> RBD's expert engineering witness testified that the distance from the proposed disposal well location to the property line is 100 feet.

to disposal wells have been allowed to inject into the San Andres formation on University Lands' property.

Finally, University Lands contends that RBD could not operate under the applied-for permit because RBD does not have road access to the proposed site. The county road does not extend to the proposed disposal well location.

**Applicant's Rebuttal Testimony**

C. DeWitt Walcott, RBD's manager, testified that RBD consulted with an attorney as well as with Reagan County authorities regarding access to the county road. Reagan County officials have indicated to Mr. Walcott that the road is maintained up to the gate of the proposed disposal well location.

In response to University Lands' claim of subsurface trespass, Mr. Walcott stated that with the exception of some Grierson leases, all oilfield activity in the vicinity of the proposed disposal well occurs on University Land leases and the water injected into the proposed RBD Well No. 1 will have been produced from University Lands strata.

**EXAMINERS' OPINION**

The examiners recommend that the application for commercial disposal authority pursuant to Statewide Rule 9 for the Sieg 2 SWD Lease, Well No. 1, Spraberry (Trend Area) Field, Reagan County, Texas, be approved.

Pursuant to Texas Water Code § 27.051(b), the Commission has authority to permit disposal and injection wells if it finds:

- (1) that the use or installation of the injection well is in the public interest;
- (2) that the use or installation of the injection well will not endanger or injure any oil, gas, or other mineral formation;
- (3) that, with proper safeguards, both ground and surface fresh water can be adequately protected from pollution; and
- (4) that the applicant has made a satisfactory showing of financial responsibility if required by Section 27.073 of this code.

In the examiners' opinion, RBD has adequately demonstrated that the proposed disposal well satisfies these four requirements. In contrast, University Lands has failed to rebut RBD's evidence.

**Public Interest**

In the examiners opinion, RBD has adequately demonstrated that the use or installation of the injection well would be in the public interest<sup>6</sup> as there is a need for commercial disposal capacity in the area. RBD Exhibit No. 16 identifies more than twenty-five active wells within a two and one-half mile radius of the proposed disposal well. RBD's evidence indicates that there are 200 producing wells within a ten mile radius of the proposed location. RBD Exhibit No. 11 shows that there are numerous active drilling rigs in the area surrounding the proposed disposal well location. There is only one active commercial disposal well within a ten-mile radius of the proposed RBD Well No. 1, which is permitted to dispose of a maximum volume of 3,000 bpd, injecting into an interval between 3,000 feet and 3,500 feet.

**Endanger or Injure Any Oil, Gas, or Other Mineral Formation**

The use or installation of the injection well will not endanger or injure any oil, gas, or other mineral formation. The Form W-14 application (RBD Exhibit No. 1) identifies the following productive oil and gas zones and depths within a two mile radius of the proposed disposal well location:

- Grayburg (2,450 feet)
- Wichita Albany (2,784 feet)
- Queen (2,788 feet)
- Spraberry (5,794 feet)
- Wolfcamp (7,440 feet)
- Strawn (8,606 feet)
- Devonian (8,705 feet)
- Fusselman (9,264 feet).

There are no active producing wells within a one-quarter mile radius of the proposed disposal well location. Two drilling permits for horizontal wells have been issued within a one-quarter mile radius of the proposed disposal well. The terminus points of both wells will enter the one-quarter mile radius, but the surface location of both wells are expected to be outside of the one-quarter mile radius. These two horizontal wells are permitted in the Spraberry (Trend Area) Field, estimated to be more than 1,800 feet deeper than the proposed disposal interval.

**Adequate Protection of Ground and Surface Fresh Water**

With proper safeguards, both ground and surface fresh water will be adequately protected from pollution. The Commission's GAU identifies the BUQW at a depth of 750 feet from the land surface. The proposed surface casing program will set 9 5/8-inch

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<sup>6</sup> Texas Water Code 27.051(b)'s "public interest" finding is limited to matters related to oil and gas production, and does not include issues such as traffic safety and road conditions.

surface casing to a depth of 800 feet and circulate cement to the surface to isolate and protect the BUQW.

The Commission has identified the base of the USDW at the proposed disposal well location to occur at a depth of 1,150 feet. The proposed disposal interval from 3,200 feet to 4,150 feet will inject fluid below the base of the USDW. There are no open wellbores within a one-quarter mile radius of the proposed disposal well location that penetrate the proposed injection interval. Mr. Walcott stated that RBD will be adhered to all provisions set forth by the Commission's Oil and Gas Division, Technical Permitting Group, to prevent pollution from activities associated with the surface facility.

RBD's expert engineering witness identified more than 250 feet of shale below the base of the proposed injection interval and salt anhydrite intervals above the proposed injection interval that will act as barriers preventing the injected fluids from escaping the permitted injection interval.

### **Financial Responsibility**

The examiners conclude that RBD has made a satisfactory showing of financial responsibility as required by Section 27.073 of the Texas Water Code. RBD submits that it has the expertise to build and manage the proposed well. RBD has a current approved Form P-5 (Organization Report) and a \$25,000 cash deposit for financial assurance. There is no evidence to suggest any current active enforcement matters involving RBD.

### **University Lands' Rebuttal Evidence**

University Lands' main concerns are: (1) the relatively shallow depth of the proposed injection interval; (2) the proximity of the well to University Lands property which may lead to a subsurface trespass; and (3) road access to the proposed disposal well location.

The injection interval will be into the San Andres Formation at a depth between 3,200 feet and 4,150 feet from the land surface. During the hearing, University Lands' witness stated that disposal wells located on University Lands' property inject into the San Andres Formation. University Lands' witness testified that University Lands have started to look at deeper intervals for injection and would prefer that RBD inject into the Ellenburger Formation.

The Commission has determined that the San Andres Formation is not over-pressured in Upton and Reagan Counties, at the present time. The San Andres Formation is approved for disposal, provided applications meet the requirements of Statewide Rule 9 and Chapter 27 of the Texas Water Code.

University Lands has failed to demonstrate how injectate from RBD's operations will threaten ground or surface fresh water, or otherwise endanger or injure any oil, gas, or

other mineral formation. Further, University Lands' failed to rebut the applicant's evidence regarding whether Reagan County will maintain a road to the proposed facility.

### FINDINGS OF FACT

1. RBD requests commercial disposal authority pursuant to Statewide Rule 9 for the Sieg 2 SWD Lease, Well No. 1, Spraberry (Trend Area) Field, Reagan County, Texas.
2. Notice of the RBD's application was published in the *Big Lake Wildcat*, a newspaper of general circulation in Reagan County, Texas on August 8, 2013.
3. Notice of the application was sent to the Reagan County Clerk, the owner of the surface tract of the proposed disposal well, all landowners of all tracts adjacent to the proposed disposal well location, and all offset operators within a one-half mile radius.
4. With proper safeguards, both ground and surface fresh water can be adequately protected from pollution.
  - a. The Commission's GAU recommends that useable-quality water be protected from the land surface to a depth of 750 feet. In conformity with this recommendation:
    - i. The well will have 9 5/8-inch, 36 lb. per foot, surface casing set at 800 feet inside a 12 1/4-inch hole and cementing in place with an estimated 250 sacks of Class C cement, circulated back to surface. This is 50 feet deeper than the BUQW;
    - ii. 7-inch, 23 lb. per foot, long string of casing will be set to a depth of 4,200 feet inside an 8 3/4-inch hole and cemented in place with 550 sacks of Class H cement, with cement circulated to surface;
    - iii. 4 1/2-inch tubing will be run inside the 7-inch casing and a packer will be set on the end of the tubing at 3,100 feet;
    - iv. Injected fluids will be confined to the San Andres Formation with a permitted interval from 3,200 feet to 4,150 feet;
    - v. There are no wellbores within a one-quarter mile radius of the proposed disposal well location that penetrate the proposed disposal interval;

- vi. The maximum surface injection pressure will be 1,600 psi;
  - vii. The maximum daily injection volume will be 25,000 bpd.
5. The use or installation of the disposal well will not endanger or injure oil, gas, or other mineral formation.
- a. Injected fluids will be confined to the San Andres Formation with a permitted interval from 3,200 feet to 4,150 feet;
  - b. There are no active producing wells within a one-quarter mile radius of the proposed disposal well location;
6. The use or installation of the injection well is in the public interest as there is a need for commercial disposal capacity in the area.
7. RBD has made a satisfactory showing of financial responsibility.

**CONCLUSIONS OF LAW**

- 1. Resolution of the subject application is a matter committed to the jurisdiction of the Railroad Commission of Texas. TEX. NAT. RES. CODE § 81.051.
- 2. All notice requirements have been satisfied. 16 TEX. ADMIN. CODE § 3.9.
- 3. The proposed fluid disposal operations will not cause the pollution of freshwater strata and will not endanger oil, gas or geothermal resources. 16 TEX. ADMIN. CODE § 3.9.
- 4. RBD Group, LLC. 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 RBD Group, LLC. for commercial disposal authority pursuant to Statewide Rule 9 for the Sieg 2 SWD Lease, Well No. 1, Spraberry (Trend Area) Field, Reagan County, Texas, be approved, as set out in the attached Final Order.

Respectfully submitted,



Karl Caldwell  
Technical Examiner

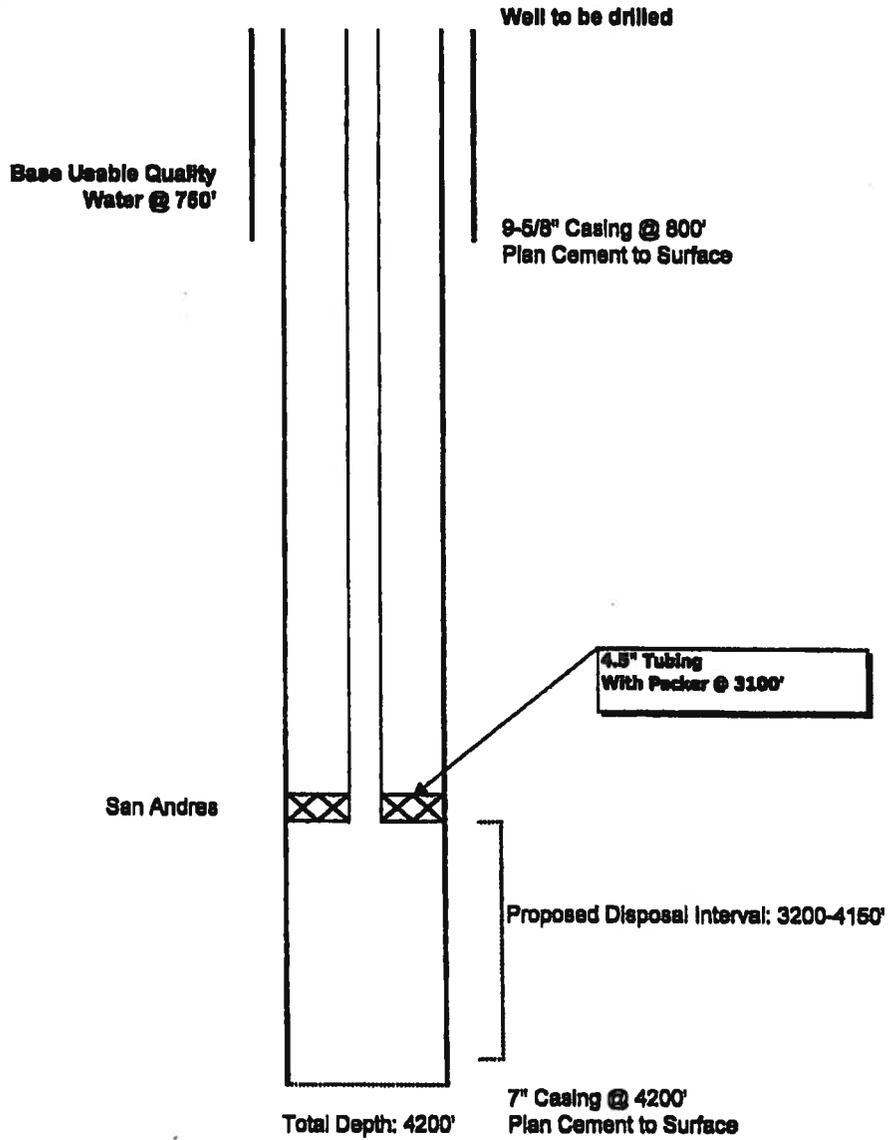


Terry Johnson  
Legal Examiner

Attachment 1

**Sleg 2 SWD # 1**  
**(API # 42-383-\_\_\_\_\_)**  
**RBD Group, LLC**  
**Reagan County, Texas**

**Proposed SWD Configuration**



**Exhibit No. 2**  
**O & G Dkt. No. 7C-0286667**  
**Date: March 14, 2014**  
**RBD Group, L.L.C.**