

**THE APPLICATION OF SANDALWOOD EXPLORATION, LP FOR A NEW FIELD DESIGNATION AND ADOPTING FIELD RULES FOR THE RACCOON BEND (UWX CONS. FBC) FIELD, AUSTIN COUNTY, TEXAS**

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**HEARD BY:** Andres J. Trevino, P.E. - Technical Examiner

**DATE OF HEARING:** May 11, 2010

**APPEARANCES:**

**REPRESENTING:**

Doug Dashiell  
David Swenson  
Michael Francisco

Sandalwood Exploration, LP

**EXAMINER'S REPORT AND RECOMMENDATION**

**STATEMENT OF THE CASE**

Sandalwood Exploration, LP ("Sandalwood") requests a new field designation for the Raccoon Bend (UWX Cons. FBC) Field and that the following Field Rules be adopted for the Raccoon Bend (UWX Cons. FBC) Field:

1. Designation of the field as the entire combined correlative interval from 6,302 feet (TVD) as shown on the gamma ray log of the Raccoon Bend UWX Oil Unit No. 4, Well No. 1, to 7,355 feet (TVD) as shown on the gamma ray log of the Raccoon Bend Oil Unit No. 27, Well No. 1, W. C. White Survey, A-101, Austin County, Texas;
2. 200'-400' well spacing with 40 acre units;
3. Allocation based on 95% potential and 5% per well, MER allowable of 325 BOPD for the Raccoon Bend UWX Oil Unit No.4, Well No. 1 and cancellation of accrued over production.

This application was unopposed and the examiner recommends approval of the requested new field designation, adoption of Field Rules and a MER allowable of 325 BOPD for the Raccoon Bend UWX Oil Unit No. 4, Well No. 1.

**DISCUSSION OF THE EVIDENCE**

The Raccoon Bend (UWX Cons. FBC) Field was discovered in February 2010 upon completion of the Raccoon Bend UWX Oil Unit No. 4, Well No. 1, by Sandalwood Exploration, LP. The well is perforated in a Wilcox Sand between 6,360 feet (TVD) and 6,505 feet (TVD) and potentialized flowing on a 14/64" choke at the rate of 194 BOPD, 255 MCFGPD and 0 BWPD with a 820 psi flowing tubing pressure.

Sandalwood requests that a new field be designated as the Raccoon Bend (UWX Cons. FBC) Field. The proposed correlative interval is the entire combined interval from 6,302 feet (TVD) as shown on the log of the Sandalwood Exploration, LP - Raccoon Bend UWX Oil Unit No.4, Well No. 1 (API No. 42-015-30991), to 7,355 feet (TVD) as shown on the log of the Sandalwood Exploration, LP - Raccoon Bend Oil Unit No. 27, Well No. 1 (API No. 42-015-30952), W. C. White Survey, A-101, Austin County, Texas.

A new field designation is appropriate as there are no wells in this fault block within 2.5 miles of the discovery well. This field is located over a known salt dome and was discovered based on 3-D seismic data, which shows the discovery well to be in a separate fault block from the previous four wells that were drilled and completed by Sandalwood. Three wells located approximately 500 feet to the west produce from Fault Block A and one well located approximately 1,700 feet to the south produces from Fault Block B. The proposed new field is in Fault Block C and includes numerous Upper Wilcox sands which are potentially productive. Within the 2.5 mile radius, twenty other wells penetrated the Upper Wilcox sands but did not produce from the correlative interval and are fault separated. Approximately 330 other shallow wells did not penetrate the correlative interval.

Sandalwood submitted a cross section depicting a well in Fault Block A and the discovery well in Fault Block C. All of the sands within the proposed correlative interval are Wilcox sands with similar reservoir and fluid properties. Formation tests indicate similar pressures in the various sands. It is estimated that incremental oil can be recovered as a result of commingling the Upper Wilcox sands, as this will result in a lower combined economic limit. Single completions in many of the separate Wilcox sands within the correlative interval would not be economic.

Sandalwood requests a 200'-400' spacing rule be adopted for the Raccoon Bend (UWX Cons. FBC) Field in conjunction with 40 acre drilling units. This spacing will allow flexibility in locating wells at optimum locations in this fault block. Wells in the field are directionally drilled to encounter the most individual productive sands in this highly faulted area.

Sandalwood requests an MER allowable of 325 BOPD for the Raccoon Bend UWX Oil Unit No.4, Well No. 1. During April and May 2010, Sandalwood tested the well at various rates to determine sensitivity. The results of the test are summarized as follows:

<u>choke size</u>	<u>oil rate</u>	<u>gas rate</u>	<u>gas-oil ratio</u>	<u>FTP</u>
10/64"	209 BOPD	160 MCFD	765 cuft/bbl	743 psi
11/64"	255 BOPD	204 MCFD	803 cuft/bbl	733 psi
12/64"	284 BOPD	230 MCFD	810 cuft/bbl	725 psi
13/64"	314 BOPD	338 MCFD	1,080 cuft/bbl	725 psi
14/64"	333 BOPD	350 MCFD	1,052 cuft/bbl	733 psi
15/64"	352 BOPD	348 MCFD	989 cuft/bbl	718 psi

The producing gas-oil ratio show slight rate sensitivity. It is slightly lower at the lower rate of production. The highest daily test rate was 352 BOPD and 348 MCFD. When the well was allowed to stabilize at the highest rate the GOR began to trend downward indicating the GOR was also stabilizing and not increasing. Sandalwood requests any accrued over production be cancelled for the lease.

Sandalwood proposes a two-factor allocation formula based on 95% potential and 5% per well. A two factor allocation formula is necessary to meet statutory requirements.

### **FINDINGS OF FACT**

1. Notice of this hearing was given to all persons entitled to notice and there were no protests.
2. The Raccoon Bend (UWX Cons. FBC) Field was discovered in February 2010 upon completion of the Raccoon Bend UWX Oil Unit No. 4, Well No. 1, by Sandalwood Exploration, LP.
3. The well is perforated in a Wilcox Sand between 6,360 feet (TVD) and 6,505 feet (TVD) and potentialized flowing on a 14/64" choke at the rate of 194 BOPD, 255 MCFGPD and 0 BWPD with a 820 psi flowing tubing pressure.
4. The consolidated Raccoon Bend (UWX Cons. FBC) Field should be designated as the entire combined interval from 6,302 feet (TVD) as shown on the gamma ray log of the Sandalwood Exploration, LP - Raccoon Bend UWX Oil Unit No.4, Well No. 1 (API No. 42-015-30991), to 7,355 feet (TVD) as shown on the gamma ray log of the Sandalwood Exploration, LP - Raccoon Bend Oil Unit No. 27, Well No. 1 (API No. 42-015-30952), W. C. White Survey, A-101, Austin County, Texas.
5. A new field designation is appropriate as there are no wells in this fault block within 2.5 miles of the discovery well.

- a. This field is located over a known salt dome and was discovered based on 3-D seismic data, which shows the discovery well to be in a separate fault block from the previous four wells that were drilled and completed by Sandalwood.
  - b. The proposed new field is in Fault Block C and includes numerous Upper Wilcox sands which are potentially productive.
  - c. Three wells located approximately 500 feet to the west produce from Fault Block A and one well located approximately 1,700 feet to the south produces from Fault Block B.
  - d. Within the 2.5 mile radius, twenty other wells penetrated the Upper Wilcox sands but did not produce from the correlative interval and are fault isolated. Approximately 330 other shallow wells did not penetrate the correlative interval.
6. The various Upper Wilcox sands within the proposed correlative interval have similar reservoir and fluid properties. Single completions in many of the separate Wilcox sands within the correlative interval would not be economic.
  7. The proposed well spacing of 200'-400' will provide flexibility in developing this field, which is in a highly faulted area.
  8. Variable rate testing of the Bellville ISD Well No. 1 indicates that producing at rates of up to 325 BOPD will not cause waste.
    - a. The average maximum oil rate was 352 BOPD on a 15/64" choke.
    - b. The GOR stayed fairly constant ranging from 800 to 1,000 cuft/bbl
    - c. The flowing tubing pressure increased from 718 psi to 743 psi when the well was choked back to produce at the allowable rate.
  9. Allocation based on 95% acreage and 5% per well will meet statutory requirements for combining multiple intervals into a single field.

**CONCLUSIONS OF LAW**

1. Proper notice of this hearing was given to all persons legally entitled to notice.
2. All things have occurred or been accomplished to give the Railroad Commission jurisdiction in this matter.
3. Approval of a new field designation for the Raccoon Bend (UWX Cons. FBC) Field, adoption of Field Rules and a MER allowable of 325 BOPD for the Raccoon Bend UWX Oil Unit No. 4, Well No. 1 will prevent waste, protect correlative rights and promote development of the field.

**EXAMINER'S RECOMMENDATION**

Based on the above findings of fact and conclusions of law, the examiner recommends that a new field be designated as the Raccoon Bend (UWX Cons. FBC) Field, a MER allowable of 325 BOPD for the Raccoon Bend UWX Oil Unit No. 4, Well No. 1 and that Field Rules be adopted for the new field, as requested by Sandalwood.

Respectfully submitted,

Andres J. Trevino, P.E.  
Technical Examiner