

**RULE 37 CASE NOS. 0211377, 0211378, 0211379 AND 0211821 CONSOLIDATED WITH COMPLAINT**

---

**APPLICATION OF SHAMROCK OIL CO. FOR RULE 37 EXCEPTIONS FOR ITS WELL NOS. 20, 21, 22, AND 23, WILSON, OLLIE LEASE, RACCOON BEND (GUTOWSKY) (GRAWUNDER) (COCKFIELD LOWER) (COCKFIELD UPPER) (COCKFIELD) (PAINE) (WOODLEY) AND (WILSON) FIELDS, AUSTIN COUNTY, TEXAS CONSOLIDATED WITH THE COMPLAINT OF EXXON CORPORATION THAT THE RULE 37 EXCEPTION PERMIT ISSUED ADMINISTRATIVELY TO SHAMROCK OIL CO. FOR ITS OLLIE WILSON WELL NO. 22 SHOULD BE CANCELLED**

---

**APPEARANCES:**

**FOR APPLICANT:**

Robert W. Milam

**APPLICANT:**

Shamrock Oil Co.

**FOR PROTESTANT:**

Tim George (attorney)  
Robert E. Dreyling

**PROTESTANT:**

Exxon Corporation

**PROCEDURAL HISTORY**

<b>APPLICATIONS FILED:</b>	January 25, 1996
<b>AMENDED APPLICATIONS FILED:</b>	March 25, 1996
<b>COMPLAINT FILED:</b>	April 25, 1996
<b>NOTICES OF HEARING:</b>	April 26, 1996
<b>CONSOLIDATED HEARING DATE:</b>	May 17, 1996
<b>TRANSCRIPT RECEIVED:</b>	June 10, 1996
<b>PFD CIRCULATION DATE:</b>	May 2, 1997
<b>HEARD BY:</b>	Mickey R. Olmstead, Hearings Examiner Donna K. Chandler, P.E., Technical Examiner

**STATEMENT OF THE CASE**

Shamrock Oil Co. ("Shamrock" or "applicant") proposes to drill its Ollie Wilson ("subject lease") Well Nos. 20, 21, and 22, 150 feet from Exxon's lease line. Shamrock proposes to drill its Well No. 23 only 50 feet from Exxon's lease line. Field rules for the Raccoon Bend (Gutowsky) Field ("subject field") require 330 feet lease-line spacing and 933 feet between-well spacing on 20-acre density. The proposed wells also require between-well spacing exceptions because they are closer than 933 feet to each other and the five Shamrock wells currently producing from the subject field on the subject lease.

Shamrock requested Rule 37 exceptions for eight different fields in the Raccoon Bend area. However, the only evidence presented at hearing was for the Gutowsky Sand Field. Therefore, the examiners recommend that all applications for the remaining fields be denied.

The subject lease is a long narrow tract, approximately 6,700 feet by 850 feet (see Shamrock Exhibit No. 1 attached hereto as Exhibit A for reference). Exxon offsets the subject lease to the northeast, southeast, and southwest. The subject lease contains only 127.5 acres, and Shamrock has not requested an exception to Statewide Rule 38. Therefore, any exception permit granted must contain a Code H non-concurrent production restriction for all wells in excess of the six permitted by the field rules.

Shamrock alleges that the subject lease contains many fault blocks which compartmentalize the Gutowsky Sand reservoir, thus requiring tightly spaced locations to maximize oil recovery. Accordingly, Shamrock is claiming both waste and confiscation of the reserves underlying its Ollie Wilson Lease to support its requests for Rule 37 exceptions.

Exxon timely filed letters protesting all four of Shamrock's exception applications. Exxon's letter protesting Shamrock's Well No. 22 in Case No. 0211821 correctly identified the applicant, well number, lease name and specific fields; but it referenced the wrong case number, i.e. the same case number as that for Well No. 21. Apparently because of the mistaken case number, Exxon's letter protesting Well No. 22 was misfiled and the application for Well No. 22 was approved administratively on April 8, 1996. On April 25, 1996, Exxon filed its Complaint requesting that the permit be cancelled and that the application be scheduled for hearing. The Notice of Hearing states that if the Commission determines that the referenced permit should be cancelled, then the hearing will proceed to consider the application for a spacing exception permit for Well No. 22. Evidence was in fact presented at the hearing regarding the requested exception location for Shamrock's Well No. 22 in the subject field.

Shamrock's representative testified that Shamrock had not relied on the administratively granted exception permit to its detriment. Because of said testimony and because the applicant could have reasonably ascertained that all four applications were being protested instead of just three of the four applications with one application being protested twice, the examiners recommend that Exxon's Complaint be granted and that the administratively granted permit be cancelled and that Shamrock's exception application for Well No. 22 be considered on its merits.

### **DISCUSSION OF THE EVIDENCE**

It is undisputed that the subject field underlying the subject lease is extensively faulted and that recoverable reserves exist therein. Shamrock's expert witness testified that the subject field is a combination-drive reservoir, consisting of primarily pressure depletion but possibly having a small water-drive component. However, Shamrock presented no evidence of Shamrock's fair share of the recoverable reserves or what the wells would produce at regular locations versus the proposed exception locations. The only evidence of recoverable oil reserves presented by Shamrock was of reserves in the drainage area of each proposed location; however, the actual drainage areas themselves were not provided.

Additionally, it is undisputed that the subject field dips to the southwest. However, again, Shamrock presented no evidence of the quantified difference in recoveries at the regular versus the proposed exception locations based on the subject field's structure. Likewise, Shamrock presented no evidence that the subject lease was being drained or that it would not receive its fair share of the underlying recoverable reserves from

its existing five wells. Therefore, Shamrock's confiscation claims fail, and it is limited to its claims and evidence of waste.

Shamrock's primary argument for the necessity of drilling 50 to 150 feet from Exxon's lease line is that Shamrock chose to run its primary seismic line only 50 feet from its southwestern lease line. Because it has very limited well control, Shamrock claims that it must drill as close as possible to its seismic line to minimize the risk of missing the small individual fault blocks.

However, an operator cannot choose to run its seismic line within a Rule 37 distance from a lease line and then bootstrap its way to an exception based on the seismic line location. When Shamrock chose to run its seismic line 50 feet from Exxon's lease line, Shamrock assumed the risk that Exxon might protest its applications and that the Commission would disallow its drilling that close to Exxon's lease line. The Commission rarely permits locations 50 feet from lease lines without comprehensive technical evidence that it is justified. If Shamrock is truly concerned with minimizing its risks, its remedy is to rerun a seismic line at a regular distance from its lease lines.

Exxon protested all requested lease-line exceptions, but did not protest the between-well spacing exception requests. Exxon did not present any direct case in protest.

#### **Proposed Well No. 20**

The requested location for proposed Well No. 20 is 150 feet from the northeast lease line and 200 feet from the southeast lease line, both lease lines being offset by Exxon. The requested location is also approximately 660 feet from Shamrock's Ollie Wilson Well No. 6, which is producing in the same subject field, while the field rules require 933 feet between-well spacing. Therefore, Shamrock requires a Rule 37 exception for between-well spacing as well, even if its proposed Well No. 20 is moved to a regular lease-line location.

The undisputed evidence is that Well No. 6 is fault-separated from proposed Well No. 20, thus preventing the possibility of damaging the reservoir with excessive wells. Additionally, Shamrock's expert witness testified that Shamrock must locate Well No. 20 as far away from the fault as possible (and thus closer to Exxon's two lease lines) because it does not have sufficient seismic data to pinpoint the fault's location, and thus avoid drilling the same fault block that contains Well No. 6.

Such reasoning does not support a Rule 37 spacing exception. As previously noted, Shamrock presented absolutely no evidence of net drainage or fair share analysis to support its claim of confiscation. Likewise, applicant presented no evidence that proposed Well No. 20 is located in such a limited access fault block that waste will result without the exception. In fact, the limited evidence presented indicates that a well at a regular location on Exxon's lease to the northeast can recover all of the reserves in Well No. 20's proposed drainage area because of the reservoir's water-drive component. Thus, Shamrock's application for the proposed Well No. 20 exception location should be denied.

#### **Proposed Well No. 21**

The requested location for proposed Well No. 21 is 150 feet from Shamrock's southwest lease line. The requested location is also approximately 330 feet from Shamrock's Ollie Wilson Well No. 1 and 660 feet from Shamrock's Ollie Wilson Well No. 19, which are producing from the same field. Consequently,

Shamrock requires an exception for both between-well and lease-line spacing for proposed Well No. 21.

The undisputed evidence is that proposed Well No. 21 is fault-separated from Well No. 1 and Well No. 19. Additionally, Shamrock's expert witness testified that proposed Well No. 21 is fault-separated to the northeast from the rest of the subject field. Thus, Well No. 21 will be the only well in this small isolated fault block. Although there is no well control within this separate fault block, Shamrock's expert testified that the down-dip oil-water contact line is located approximately at the lease line and that approximately 15,000 barrels of recoverable oil are within the drainage area of proposed Well No. 21.

As previously noted, Shamrock's primary argument for locating Well No. 21 only 150 feet from Exxon's lease line is its allegation that it must drill as close as possible to its seismic line to minimize the risk of missing the small individual fault block (which seismic line it unilaterally chose to run 50 feet from Exxon's lease). Shamrock presented no other evidence for requiring such proximity to Exxon's lease, and in fact, a more regular lease-line location would be up-dip structurally on this isolated fault block.

The limited evidence presented by Shamrock indicates that a regular lease-line location is available to Shamrock which is no closer to the bordering faults than the proposed location. Because of the reservoir's water-drive component, Shamrock's proposed down-dip location will actually cause the waste of hydrocarbons that could be recovered from a lease-line regular, up-structure location. Therefore, Shamrock's application for a Rule 37 exception for proposed Well No. 21 should be granted at a regular lease-line location, 330 feet from its southwest lease line, to prevent waste.

### **Proposed Well No. 22**

The requested location for proposed Well No. 22 is 150 feet from Shamrock's southwest lease line. The requested location is also approximately 375 feet from Shamrock's Ollie Wilson Well No. 15 and 550 feet from Shamrock's Ollie Wilson Well No. 19, which are producing from the same field. Thus, Shamrock requires an exception for both between-well and lease-line spacing for proposed Well No. 22.

The undisputed evidence is that proposed Well No. 22 is fault-separated from both Well Nos. 15 and 19. Additionally, Shamrock's expert witness testified that Well No. 22's fault block is fault-separated to the northeast from the rest of the subject field and that the oil-water contact line exists down-dip to the southwest at approximately the lease line location. Shamrock's expert further testified that approximately 20,000 barrels of recoverable oil are within the drainage area of proposed Well No. 22.

Again, Shamrock's only contention for needing to be 150 feet from Exxon's lease line is that it wants to be as close to its seismic line as possible to minimize the risk of missing the small isolated fault block. Such reasoning does not support a Rule 37 spacing exception. Regular lease-line locations exist on this fault block that are the same or a greater distance from the bordering faults than the proposed exception location.

As with proposed Well No. 21, a regular lease-line location will be structurally higher and further away from the oil-water contact than the proposed exception location. Because of the reservoir's water-drive component, Shamrock's proposed down-dip location will cause the waste of oil that could be recovered from a lease-line regular, up-dip location. Accordingly, Shamrock's application for a Rule 37 exception for proposed Well No. 22 should be granted at a regular lease-line location, 330 feet from its southwest lease line, to prevent waste.

**Proposed Well No. 23**

The requested location for proposed Well No. 23 is only 50 feet from Shamrock's southwest lease line. The requested location is also approximately 660 feet from Shamrock's Ollie Wilson Well No. 15, 275 feet from Well No. 19, and 300 feet from proposed Well No. 22. As a result, Shamrock requires an exception for both between-well and lease-line spacing for proposed Well No. 23.

The undisputed evidence is that proposed Well No. 23 is fault-separated from Well Nos. 15, 19, and 22, and is also fault-separated to the northeast from the rest of the subject field, with the oil-water contact line to the southwest. Once more, Shamrock desires to drill proposed Well No. 23 only 50 feet from Exxon's lease line so that it may stay as close to its seismic data and as far away from the bordering faults as possible. No regular locations exist on this very small isolated fault block, which according to Shamrock's evidence contains only 8,500 barrels of recoverable reserves.

It is also undisputed that waste of some amount of oil will occur if a well is not drilled in this extremely small isolated fault block. The shape of the subject lease combined with the numerous faults and fault blocks in the subject field constitute an unusual subsurface condition, different from conditions in adjacent parts of the field. However, the remaining issue is whether 8,500 barrels of recoverable oil constitute a "substantial" amount as required by Statewide Rule 37 for a spacing exception premised on waste. If Shamrock is entitled to a spacing exception to prevent waste of the estimated 8,500 barrels of recoverable reserves, then an exception location 100 feet northeast of and up-dip to Exxon's lease line is no closer to the boundary faults and will provide the applicant with a better opportunity to recover the 8,500 because of the reservoir's water-drive component.

**EXAMINERS' OPINION**

Exceptions to Statewide Rule 37 may be granted to prevent waste or to protect correlative rights. To obtain an exception to Statewide Rule 37 to protect correlative rights, the applicant must show: (1) that it is not possible for the applicant to recover its fair share by placing the wells at any regular locations; and (2) that the proposed irregular locations are reasonable. As noted above, Shamrock presented no evidence of any fair share analysis or of any net drainage from under the subject lease. Therefore, it is possible that Shamrock will recover its fair share of reserves from the subject field with its existing wells. Moreover, the only evidence presented regarding the reasonableness of the proposed locations were the seismic line Shamrock chose to run 50 feet from Exxon's lease line and Shamrock's desire to drill as close to said seismic line as possible. Again, such reasoning does not support a Rule 37 spacing exception, and Shamrock's confiscation claims must therefore fail.

An applicant seeking an exception to Rule 37 based on waste must establish three elements: (1) that unusual conditions, different from conditions in adjacent parts of the field, exist under the tract for which the exception is sought; (2) that, as a result of these unusual conditions, hydrocarbons will be recovered by the well for which the permit is sought that would not be recovered by any existing well or by additional wells drilled at regular locations, whether on or off the applicant's tract; and (3) that the volume of otherwise unrecoverable hydrocarbons is substantial.

All of the fault-separated individual fault blocks in which Shamrock seeks to drill can be produced from regular lease-line locations, except for proposed Well No. 23. In fact, because of the partial water drive, the proposed wells must be drilled structurally higher than Shamrock's proposed locations to recover the majority of the isolated oil and thus better prevent waste. However, all of the proposed wells, even after being moved to regular or more regular lease-line locations, still require exceptions for between-well spacing. Without the exceptions, the current reserves under the subject lease cannot be recovered.

There is no question but that the shape of the subject lease combined with the extensively faulted and compartmentalized area of the Gutowsky Sand underneath the subject lease constitute an unusual condition, different from conditions in adjacent parts of the field. As a result of this unusual condition, hydrocarbons can be recovered from exception locations that would not be recovered by any existing wells or by additional wells drilled at regular between-well spacing locations, whether on or off the applicant's tract. Therefore, proposed Well Nos. 21, 22, and 23 are entitled to exceptions for between-well spacing based on waste because the undisputed fault separation between wells alleviates the necessity for the between-well spacing rule, i.e. to prevent the damaging of the reservoir or offsetting wells.

The only issue remaining is whether the volumes to be recovered from the individual fault blocks are "substantial". The undisputed evidence indicates that proposed Well Nos. 21, 22, and 23 will recover approximately 15,000, 20,000 and 8,500 barrels of oil, respectively. It was held that 25,000 to 30,000 barrels of oil constitute a substantial amount of oil for purposes of Rule 37 in *Humble Oil and Refining v. Turnbow*, 133 S.W.2d 191, 193 (Tex. Civ. App.--Austin 1939, *writ ref'd*) cited with approval in *Hawkins v. Texas Co.*, 209 S.W.2d 338, 343-44 (Tex. 1948). Whether the current estimated reserve figures each constitute a substantial amount is uncertain; however, it is certain that said amounts cannot be recovered by any existing wells or any future wells drilled at regular locations, whether on or off the applicant's tract. Additionally, the evidence indicates that the proposed wells would drain little, if any, of Exxon's lease because of the oil-water contact lines near the lease line. Therefore, it appears that no harm would result if Shamrock's applications for the proposed wells were granted at lease-line regular, and more regular, locations.

In summary, the examiners recommend that Shamrock's exception applications be granted for proposed Well Nos. 21 and 22 at lease-line regular locations 330 feet from its southwest lease line, and for proposed Well No. 23 at a lease-line exception location 100 feet from its southwest lease line. The examiners recommend that Shamrock's exception application for proposed Well No. 20 be denied *in toto* because waste was not proven for said well.

### **FINDINGS OF FACT**

1. Notice of the hearing was given at least 10 days prior to the hearing to all designated operators, lessees of record for tracts that have no designated operator, and owners of record of unleased mineral interests for each adjacent tract and each tract nearer to the well than the prescribed minimum lease-line spacing distance.
2. Shamrock Oil Co. ("Shamrock" or "applicant") applied on Forms W-1 for permits to drill Well Nos. 20 through 23 on its 127.5 acre Ollie Wilson Lease ("subject lease"). Applicant applied to drill its proposed wells in the Raccoon Bend (Gutowsky) (Grawunder) (Cockfield Lower) (Cockfield Upper) (Cockfield) (Paine) (Woodley) and (Wilson) Fields, in Austin County, Texas.
3. The only evidence presented at hearing was for the Raccoon Bend (Gutowsky) Field. Field rules for

the Raccoon Bend (Gutowsky) Field ("subject field") require 330 feet lease-line spacing and 933 feet between-well spacing on 20-acre density.

4. The subject lease is a long narrow tract of regular size and shape, approximately 6,700 feet by 850 feet. Exxon offsets the subject lease to the northeast, southeast, and southwest.
5. Shamrock Oil Co. proposes to drill its Ollie Wilson Well Nos. 20, 21, and 22, 150 feet from its southwest lease line. Shamrock proposes to drill its Well No. 23 only 50 feet from its southwest lease line.
6. The proposed wells require Rule 37 exceptions for between-well spacing because they are closer than 933 feet to each other and the five wells currently producing in the subject field.
7. Exxon protested all four of Shamrock's exception applications. Exxon's letter protesting Well No. 22 was misfiled and the application for Well No. 22 was approved administratively on April 8, 1996.
8. On April 25, 1996, Exxon filed its Complaint requesting that the permit be cancelled and that the application be scheduled for hearing. Shamrock did not rely on the administratively granted exception permit to its detriment.
9. Exxon did not protest Shamrock's exception applications for between-well spacing.
10. The subject field underlying the subject lease is extensively faulted and contains many fault blocks which compartmentalize the Gutowsky Sand reservoir.
11. Shamrock presented no evidence of its fair share of the recoverable reserves, or what the wells would produce at regular locations versus the proposed exception locations.
12. Shamrock unilaterally chose to run its primary seismic line only 50 feet from its southwestern lease line. Shamrock presented no other evidence for needing to be so close to Exxon's lease lines, other than that it must drill as close as possible to its seismic line to minimize the risk of missing the small individual fault blocks.
13. The shape of the subject lease combined with the numerous faults and fault blocks in the subject field constitute unusual subsurface conditions different from conditions in adjacent parts of the field, except for the southeastern-most section of the lease.
14. Applicant has no interest in tracts offsetting the subject lease.
15. All of the proposed well locations are fault-separated from each other and the five wells currently producing in the subject field.
16. All of the fault-separated individual fault blocks in which Shamrock seeks to drill can be penetrated higher on structure than the applied-for locations, except for proposed Well No. 20. Because of the partial water drive in the Raccoon Bend (Gutowsky) Field, failure to drill wells at the highest possible structural location will prevent effective drainage of the reservoir.
17. Recoverable oil reserves in the drainage areas of the proposed well locations are estimated to be: 20,000 BO for Well No. 20; 15,000 BO for Well No. 21; 20,000 BO for Well No. 22; and 8,500 BO

for Well No. 23.

18. The recoverable reserves attributed to proposed Well No. 20 can be produced from a regular location on an offsetting tract due to the partial water drive within the subject field.
19. The subject lease contains only 127.5 acres, and Shamrock did not request an exception to Statewide Rule 38. Therefore, any exception permit granted must contain a nonconcurrent production restriction for all wells in excess of the six permitted by the field rules.
20. If exceptions to Statewide Rule 37 for proposed Well Nos. 21, 22, and 23 in the subject field are not granted, the current reserves under the subject lease cannot be recovered.

### **CONCLUSIONS OF LAW**

1. Proper notice of hearing was timely given to all persons legally entitled to notice.
2. All things have occurred or have been done that are necessary to give the Commission jurisdiction to decide this matter.
3. Applicant's administratively granted exception permit for its Ollie Wilson Well No. 22 was improperly granted.
4. Applicant failed to prove that exceptions to the Rule 37 spacing requirements are necessary to prevent waste or confiscation of the hydrocarbons underlying the Ollie Wilson Lease in the Raccoon Bend (Grawunder) (Cockfield) (Paine) (Woodley) and (Wilson) Fields.
5. Applicant failed to prove that exceptions to the Rule 37 spacing requirements are necessary to prevent confiscation of the hydrocarbons underlying the Ollie Wilson Lease in the Raccoon Bend (Gutowsky) Field.
6. Granting the applied-for exception locations for proposed Well Nos. 21, 22, and 23 may cause waste.
7. Exceptions to Statewide Rule 37 for proposed Well Nos. 21, 22, and 23 in the Raccoon Bend (Gutowsky) Field at the recommended locations are necessary to prevent waste of the hydrocarbons underlying the Ollie Wilson Lease in the subject field.
8. Applicant must file amended Forms W-1 and certified plats for proposed Well Nos. 21 and 22 evidencing that the proposed locations are 330 feet from applicant's southwest lease line.



**RECOMMENDATION**

The examiners recommend that the above findings of fact and conclusions of law be adopted and that the applications of Shamrock Oil Co. for exceptions to Statewide Rule 37 be granted in part and denied in part in accordance with the attached Final Order.

Respectfully submitted,

Mickey R. Olmstead  
Hearings Examiner

Donna K. Chandler, P.E.  
Technical Examiner