

RULE 37 CASE NO. 0237175
District 08

**APPLICATION OF SUNDAY CORPORATION FOR AN EXCEPTION TO STATEWIDE
RULE 37 FOR THE BARROW LEASE, WELL NO. 1, ELLU (HOLT) AND WILDCAT
FIELDS, ECTOR COUNTY, TEXAS**

APPEARANCES:

FOR APPLICANT:

James Bostic
Bobby M. Greenwood
Ted Coughran

APPLICANT:

Sunday Corporation

FOR PROTESTANTS:

John Soule
Kenneth E. Lake
Dan Kennedy
Arthur M. O'Neal

PROTESTANTS:

Devon Energy Production Company, LP

Jamie Nielson
Ed Runyan
Ed Runyan, Jr.

Texon Oil Company, Inc.

PROPOSAL FOR DECISION

PROCEDURAL HISTORY

APPLICATION FILED:

November 19, 2003

HEARING DATE:

May 4, 2004

HEARD BY:

James M. Doherty, Hearings Examiner

Thomas H. Richter, P.E., Technical Examiner

TRANSCRIPT DATE:

May 16, 2004

PFD CIRCULATION DATE:

July 14, 2004

STATEMENT OF THE CASE

Sunday Corporation (“Sunday”) requests an exception to Statewide Rule 37 to drill Well No. 1 on the Barrow Lease (“subject tract”) in the Ellu (Holt) and Wildcat Fields, Ector County, Texas. A plat showing the proposed well location is attached to this proposal for decision as Appendix 1. The Ellu (Holt) Field (“subject field”) was discovered on August 14, 1974, at a depth of 5,473 feet. Field rules for the subject field provide for 330' lease line and 933' between well spacing. A Rule 37 exception for Sunday’s proposed location is required because the location is 75' from the south line (“FSL”) and 75' from the east line (“FEL”) of Sunday’s 159.78-acre Barrow Lease. At the hearing, Sunday stated that it was amending its proposal to drill the proposed well to a depth of 5,600'.

The application is protested by Devon Energy Production Company, LP (“Devon”), the operator of an offset tract to the south of the Sunday Barrow Lease, and Texon Oil Company, Inc. (“Texon”), the operator of an offset tract to the east of the Sunday Barrow Lease.

POSITIONS OF THE PARTIES

(a) Sunday Corporation

Sunday contends that a Rule 37 exception for the proposed location of Well No. 1 on the Barrow Lease is necessary to prevent waste and confiscation. It asserts that granting of the requested exception is necessary to prevent waste because: (1) the drive mechanism in the Ellu (Holt) Field is an active water drive; (2) 3-D seismic data discloses that there are three localized structural “highs” in the subject field, one of which is, in part, beneath Sunday’s Barrow Lease; (3) the three structural “highs” are separate sources of hydrocarbons, separated by the oil-water contact; (4) no well presently produces from the structural “high” beneath Sunday’s Barrow Lease; and (5) near the top of the structural “high” beneath Sunday’s Barrow Lease, a substantial amount of oil is trapped that cannot be recovered by any well currently producing from the subject field or by any future well drilled at a regular location. Sunday contends further that the requested Rule 37 exception is necessary to prevent confiscation because there is recoverable oil in the subject field beneath Sunday’s Barrow Lease that cannot be recovered from a regular location on the Lease.

(b) Devon/Texon

Devon and Texon contend that if a well is drilled at Sunday’s proposed Rule 37 location, the well will produce from the same common source of supply as the three existing producing wells in the Ellu (Holt) Field. They dispute Sunday’s contention that the three structural “highs” interpreted from Sunday’s 3-D seismic are separated by the oil-water contact, and believe that the drive mechanism for the subject field

is a water expansion drive rather than an active water drive.

Devon and Texon assert further that even if there is a separate localized structural “high” in the area of Sunday’s Barrow Lease, most of the oil that would be recovered by a well at Sunday’s proposed Rule 37 location would come from Devon’s and Texon’s leases. They contend that there is a regular location on Sunday’s Barrow Lease, and a well drilled at this regular location would prevent any confiscation. Devon and Texon also argue that no substantial amount of hydrocarbons would be left unrecovered by a well drilled at the regular location on Sunday’s Barrow Lease.

For these reasons, Devon and Texon contend that Sunday failed to prove that the granting of the requested Rule 37 exception is necessary to prevent waste or confiscation.

DISCUSSION OF THE EVIDENCE

(a) Sunday Corporation

From 3-D seismic data, Sunday has interpreted three separate structural “highs” in the Ellu (Holt) Field, with closures at a subsea depth of minus 2,430'. Sunday referred to these structural “highs” as the “Texon A-1 Structure,” the “Sunday Structure,” and the “[Devon] Gist Structure.” It is Sunday’s interpretation that these are post-depositional or syndepositional structural features that exist as “undulations” along the edge of the Clearfork shelf break.

The “Sunday Structure” is interpreted by Sunday’s structural map to underlie the extreme southeast portion of Sunday’s Barrow Lease as well as portions of the offsetting leases of Devon and Texon. The Texon Barrow A-1 produces from the “Texon A-1 Structure,” and the Devon Gist 32-2 and Devon Gist 32-4 wells produce from the “[Devon] Gist Structure.” Although Sunday’s proposed Rule 37 well would produce from the same correlative interval as the three wells currently producing from the subject field, it is Sunday’s interpretation that no wells are currently producing from the “Sunday Structure.” A copy of Sunday Exhibit No. 4 depicting the aerial extent of the three structural “highs” interpreted by Sunday is attached to this proposal for decision as Appendix 2. A copy of Sunday Exhibit No. 3, being Sunday’s conceptual depiction or “schematic cross section” of the Ellu (Holt) Field, is attached to this proposal for decision as Appendix 3.

Sunday believes that the drive mechanism in the subject field is a strong water drive. It bases its interpretation that the three structural “highs” in the Ellu (Holt) Field have a base at a subsea depth of minus 2,430' on an assumption that the water level in the field is at, or slightly up dip from, the Dillard No. 1 well which is just to the northeast of the “Sunday Structure.” The Dillard No. 1 well encountered the Holt at a subsea depth of minus 2,436' and watered-out after producing 62,000 barrels of oil. In addition, the Arco Gist 32-1 Well to the southwest of the “Sunday Structure” at a subsea depth of minus 2,475' and the

Burns No. 1 Well to the west of the “Texon A-1 Structure” at a subsea depth of minus 2,484' came in low and wet. The Texon A-1 Well has its lowest perforation at minus 2,440' and is producing water, leading Sunday to conclude that, barring coning as an explanation, water at that location is at minus 2,440' at least.

Based on data from the Devon Gist 32-4 Well, Sunday believes that the original oil-water contact in the subject field was at a subsea depth somewhere around minus 2,440'-2,444'. However, the deepest perforation in the Devon Gist 32-2 Well is at a subsea depth of minus 2,444', and this well is not producing any water. If the oil-water contact should be at a subsea depth of minus 2,450', the three structural “highs” interpreted by Sunday would be connected rather than separated. Even in that event, Sunday believes that it would be necessary to have a well at the highest structural position to maximize recovery. The three structural “highs” in the field would be separated by an oil-water contact at a subsea depth of anything less than minus 2,450'.

Sunday's structural map shows that Sunday expects to encounter the top of the Holt from its proposed Rule 37 location at a subsea depth of minus 2,407'. Sunday's 3-D seismic shows that Sunday's proposed Rule 37 location is near the highest structural point of the Holt reflector, higher than either the Texon Barrow A-1 Well or the Devon Gist 32-2 Well. Sunday's structural map prepared from 3-D seismic shows a minus 2,400' subsea contour and that there is an irregular location on the Devon Gist Lease which is structurally higher than Sunday's proposed Rule 37 location, although Devon has not drilled a well there.

Regular locations on the Texon and Devon leases from which the “Sunday Structure” could be encountered are down dip from Sunday's proposed Rule 37 location. Sunday's structural map shows that wells at these regular locations would encounter the Holt at about minus 2,420' subsea. There is a regular location on Sunday's Barrow Lease from which the “Sunday Structure” could be encountered, but Sunday does not believe it is a good location. This regular location falls on the minus 2,430' subsea contour on Sunday's structural map, which is 23' low to the point at which a well at the proposed Rule 37 location is projected to encounter the Holt.

Cumulative production from the 3 producing wells in the Ellu (Holt) Field as of January 2004, and from the Dillard No. 1 Well which was abandoned in March 1986, is 772,626 barrels of oil. According to volumetric calculations of Sunday's consulting geophysicist, who assumed average porosity of 18% and a recovery factor of 50%, recoverable reserves beneath the three structural “highs” in the subject field are as follows: “[Devon] Gist Structure” - 754,077 BO; “Texon A-1 Structure” - 198,102 BO; and “Sunday Structure” - 196,898 BO. Sunday's geophysicist used an average porosity of 18% because that was the best porosity he observed from logs for the Devon Gist Lease wells. A 50% recovery factor was assumed on the premise that the drive mechanism in the subject field is a strong water drive.

Sunday's geophysicist also estimated recoveries for wells at regular locations on the Sunday Barrow Lease and on adjacent leases of Devon and Texon, concluding that a well at Sunday's proposed Rule 37 location would recover 150,000 barrels more than wells at these regular locations. However, the

estimated recoveries for wells at regular locations were said to be only “representational values” and adopted a methodology that drastically understated acreage that would be drained by the wells.

Sunday did not present evidence establishing the amount of currently recoverable reserves in the subject field beneath the Sunday Barrow Lease. Its geophysicist estimated that about one-third of the “Sunday Structure” is beneath the Sunday Barrow Lease and that a majority of the oil that would be recovered by Sunday’s proposed Rule 37 well would come from the adjacent leases of Devon and Texon.

Sunday expects to complete its proposed Rule 37 well in the Ellu (Holt) Field. It included the Wildcat Field in its application so that it would be covered if, in drilling to the Holt, it encounters a part of the Holt formation not considered to be within the Ellu (Holt) Field. Sunday would be satisfied with an exception permit for the Wildcat Field limited to a wildcat completion in the Holt at the depth of the Ellu (Holt) Field.

(b) Devon

From an arbitrary seismic cross-line drawn through the Devon Gist 32-2 and Sunday’s proposed Rule 37 location, a geophysicist for Devon concluded that the top of the Holt is fairly flat in the area of the proposed Rule 37 location. A regular location on Sunday’s Barrow Lease 330' from FSL and 330' FEL is, according to Sunday’s seismic, 23' low to the Rule 37 location. However, an irregular location 250' FSL and 250' FEL of the Sunday Barrow Lease is only 3' low to the proposed Rule 37 location.

Devon’s geologist analyzed open hole logs for five area wells and concluded that average porosity for the Ellu (Holt) Field is 8%, as contrasted with 18% used by Sunday’s geophysicist for the purpose of his volumetric calculations. Using a 6% porosity cut-off, Devon’s geologist believes that there is 25' of thickness in the Holt at the regular location on Sunday’s Barrow Lease.

One of the older wells in the Ellu (Holt) Field, the Steakley No. 1, had its lowest perforation at a subsea depth of minus 2,465' and came in water free. Devon’s geologist thus concluded that the original oil-water contact in the field was at a subsea depth of at least minus 2,465'. Because the Devon Gist 32-2 Well has its lowest perforation at a subsea depth of minus 2,444' and is producing no water, Devon’s geologist estimates that the current oil-water contact is around minus 2,450'. If this is the case, all three of the producing wells in the subject field are producing from a common reservoir and common/connected oil column, and Sunday’s proposed Rule 37 well would compete for at least some of the same oil. Devon’s geologist acknowledged that the Texon Barrow A-1 Well encountered the Holt at a subsea depth of minus 2,411' (with a lowest perforation at minus 2,440') and produces water, and the Dillard No. 1 with a lowest perforation at minus 2,442' watered-out, but attributed this to coning rather than the location of the oil-water contact.

From a production plot for the Devon Gist Lease wells, Devon’s reservoir engineer concluded that production of fluids by wells on the Lease has declined with time. At times, water production has been higher than oil production, but is now less than oil production, indicating that the water cut has dropped.

In a field with an active water drive, an increase in the water cut would be expected. This reservoir engineer believes that the drive mechanism for the subject field is a water expansion drive, but whether the drive mechanism is an active water drive, partial water drive, or water expansion drive, the optimum location for a well is at the top of the structure.

Devon's reservoir engineer made volumetric calculations to determine the volume of recoverable oil beneath the Sunday Barrow Lease and the adjacent Devon and Texon leases in the area of the "Sunday Structure" as interpreted on Sunday's structural map. For this purpose, an average porosity for the subject field of 8% was used, based on the open hole log analysis of five area wells made by Devon's geologist. A 35% recovery factor was used, as contrasted with the 50% assumed by Sunday's geophysicist, because of Devon's position that a 35% recovery factor is more representative of a reservoir with water expansion drive.

Using the same 25% water saturation used by Sunday's geologist and a reservoir volume factor of 1.0, Devon's reservoir engineer calculated oil in place of 452 barrels per acre foot. Assuming a recovery factor of 35%, the recoverable oil in place beneath the "Sunday Structure" is 73,000 barrels. Because the structure is a dome-like structure according to Sunday's interpretation, Devon's reservoir engineer also calculated recoverable oil in the structure above various subsea depths. According to these calculations, assuming a top of the Holt at minus 2,400', there are 35,000 barrels of recoverable oil above minus 2,430', 13,000 barrels of recoverable oil above minus 2,420', and 3,400 barrels of recoverable oil above minus 2,410'. Assuming a top of the Holt at minus 2,407' [as per Sunday's estimate of where its proposed Rule 37 well will encounter the Holt], Devon's reservoir engineer calculated that: (1) a well drilled at the regular location on Sunday's Barrow Lease 330' FSL and 330' FEL encountering the Holt at minus 2,430' subsea would leave unrecovered less than 10.7 to 32.7 MBO; (2) a well drilled on Sunday's Barrow Lease 300' FSL and 300' FEL encountering the Holt at minus 2,420' subsea would leave unrecovered less than 10.7 MBO; and (3) a well drilled on Sunday's Barrow Lease 250' FSL and 250' FEL encountering the Holt at minus 2,410' subsea would leave unrecovered less than 1.1 MBO.

Devon's reservoir engineer calculated recoverable oil in the "Sunday Structure" for each of the affected Sunday, Devon, and Texon leases as follows: (1) Devon Gist Lease - 27,000 BO; (2) Texon Barrow Lease - 23,000 BO; and (3) Sunday Barrow Lease - 23,000 BO. He calculated further that a well drilled at Sunday's proposed Rule 37 location would recover all 73,000 BO, 31% of which would come from Sunday's Barrow Lease and 69% of which would come from Devon's and Texon's leases.

(c) Texon

Texon's petroleum engineer believes that the drive mechanism in the subject field is a water expansion drive. He bases this opinion on the fact that there has been pressure depletion in the field and the fact that there has been no significant water production by the producing wells in the field. He concluded further that there is no aquifer beneath the Holt reservoir.

An April 21, 1995, Drill Stem Test Report on the Texon A-1 Well reported a final shut-in pressure

of 2,238 psi. Texon's petroleum engineer calculated original reservoir pressure for the Ellu (Holt) Field at 2,806 psi, which is in close agreement with original reservoir pressure of 2,791 psi for the adjoining Johnson (Holt) Field. Texon believes that the fact that pressure in the Texon A-1 Well was depleted by about 600 psi from original reservoir pressure is evidence that the well was connected to other wells in the field and that the drive mechanism for the subject field is not a strong water drive as contended by Sunday.¹ However, whether the drive mechanism is water drive or water expansion, the best wells in the field will be located at the top of the local structural highs in the reservoir.

Texon does not believe that Sunday's seismic data is reliable. The Burns No. 1 Well, to the west of the "Texon A-1 Structure", was drilled by another operator on the basis of this seismic and was a dry hole. The Texon A-2 Well was also drilled based on this seismic, and it too was a dry hole.

Texon's petroleum engineer concluded that a well drilled at a regular location on Sunday's Barrow Lease would be a good well, particularly since it would be in an area where pressure has not been depleted as much as other areas of the field where producing wells are located. However, a structure map representing a 1995 interpretation by Texon's petroleum engineer showed that a well drilled at a regular location on Sunday's Barrow Lease would be a dry hole and a well drilled at Sunday's proposed Rule 37 location would also be a dry hole. Texon does not believe that a well at Sunday's proposed Rule 37 location is necessary to produce the reserves beneath Sunday's Barrow Lease or necessary to prevent waste.

EXAMINERS' OPINION

If a substantial amount of oil will be produced by the proposed Rule 37 well that otherwise would ultimately be lost, a permit to drill the well may be justified under Rule 37 to prevent waste. *Hawkins v. Texas Co.*, 209 S.W.2d 338, 343 (Tex. 1948). An applicant seeking an exception to Rule 37 based on waste must show that: (1) unusual conditions, different from conditions in adjacent parts of the field, exist under the tract for which the exception is sought; (2) as a result of these unusual conditions, oil will be recovered by the well for which the exception is sought that would not be recovered by any existing well or by an additional well drilled at a regular location; and (3) the amount of otherwise unrecoverable oil is substantial.

Although Devon and Texon challenge Sunday's interpretation that the three structural "highs" in the Ellu (Holt) Field are *separated* by an oil-water contact at a subsea depth around minus 2,430', the basic interpretation from Sunday's seismic that the three structural "highs" exist has not been directly disputed. An "unusual condition" exists beneath Sunday's Barrow Lease in the form of a localized structural high formed by undulations at the edge of the Clearfork shelf break, where oil is trapped in a reservoir with a

¹ The examiners have officially noticed that in Oil & Gas Docket No. 08-0209553, The Application of Texon Oil Company, Inc. to Consider Amending the Field Rules for the Ellu (Holt) Field, Ector County, Texas, the Examiner's Report and Recommendation recites that initial reservoir pressure in the Ellu (Holt) Field in 1974 was approximately 2,344 psi. (See Examiner's Report and Recommendation dated August 24, 1995.)

drive mechanism that makes drilling a well high on structure essential to maximize recovery. No well is presently drilled on the structural high designated for the purposes of this hearing as the “Sunday Structure,” and Devon and Texon have not made the claim that any of the producing wells in the Ellu (Holt) Field are capable of draining all of the recoverable oil from the “Sunday Structure”. The entirety of the evidence suggests that the “Sunday Structure” is a source of supply now separated from the “Texon A-1 Structure” and the “[Devon] Gist Structure” by an oil-water contact at less than minus 2,450' subsea.² Sunday’s proposed Rule 37 location is near the apex of the “Sunday Structure,” and all parties have agreed that a well drilled at the highest point on structure will maximize recovery of oil, whether the drive mechanism for the Ellu (Holt) Field is a strong water drive, partial water drive, or water expansion drive.³

While Devon and Texon have argued that Sunday could make a “good” well at a regular location of Sunday’s Barrow Lease 330' FSL and 330' FEL, it does not appear to be disputed that a well at this regular location would not recover all or any substantial portion of the oil up dip of minus 2,430' subsea, where the regularly located well would encounter the Holt. Devon estimated that such a well would leave unrecovered about 35.0 MBO of recoverable oil in the “Sunday Structure” assuming a top of the Holt at minus 2,400' or about 10.7 to 32.7 MBO assuming a top of the Holt at minus 2,407'.

The evidence shows that there are regular locations on the Devon and Texon leases where wells would encounter the “Sunday Structure,” but these locations are also down dip from Sunday’s proposed Rule 37 location, and it does not appear that wells drilled there would be capable of recovering oil up dip. Sunday’s structural map shows that these regular locations would encounter the Holt at about minus 2,420' subsea, 13' low to Sunday’s proposed Rule 37 location, and Devon estimates that there are 13.0 MBO of recoverable oil in the “Sunday Structure” above minus 2,420', assuming a 35% recovery factor.

Devon argues that the amount of oil that would be left in the ground by wells drilled at regular locations is not “substantial,” when compared to Devon’s estimate that ultimate recovery from the Ellu (Holt) Field will be about 1,000 MBO. The examiners disagree. The subject field has been under production for 30 years. Assuming that Devon’s reliance on a recovery factor of 35% is more appropriate than the 50% relied upon by Sunday, the remaining recoverable oil in the “Sunday Structure” is 73 MBO. The 32.7 to 35.0 MBO that Devon concedes could be left unrecovered by a well at a regular location on Sunday’s Barrow Lease is “substantial” in relation to the remaining recoverable oil in the “Sunday Structure” and in the field as a whole. *Humble Oil & Refining Co. v. Turnbow*, 133 S.W.2d 191, 193 (Tex. Civ. App. - Austin 1939, writ ref’d).

² The examiners have officially noticed that in Oil & Gas Docket No. 08-0209553; The Application of Texon Oil Company, Inc. to Consider Amending the Field Rules for the Ellu (Holt) Field, Ector County, Texas, the Examiner’s Report and Recommendation recited that “The eastern and western limits [of the field] are defined by an oil-water contact at -2,445' subsea.” (See Examiner’s Report and Recommendation dated August 25, 1995.)

³ The examiners have officially noticed that in Oil & Gas Docket No. 08-0209553; The Application of Texon Oil Company, Inc. to Consider Amending the Field Rules for the Ellu (Holt) Field, Ector County, Texas, the Examiner’s Report and Recommendation recited that “The reservoir mechanics are influenced by a fairly effective edge-water drive . . .”. (See Examiner’s Report and Recommendation dated August 24, 1995.)

Devon also argues that a less irregular location on Sunday's Barrow Lease 250' FSL and 250' FEL would encounter the Holt at minus 2,410' subsea, only 3' low to the proposed Rule 37 location, and, assuming a 35% recovery factor, would leave unrecovered only 3,400 barrels of recoverable oil assuming the top of the Holt is at minus 2,400' or only 1,100 barrels of recoverable oil assuming the top of the Holt is at minus 2,407'. Devon thus concludes that if a Rule 37 exception permit is granted in order to prevent waste, it should be for a well at this less irregular location. This argument suggests that Sunday should be foreclosed from placing its Rule 37 well at the highest structural position on its lease, in the interest of protecting the correlative rights of the offset operators.

Approval of Sunday's Rule 37 location as proposed will maximize recovery and prevent the waste of recoverable oil. Devon and Texon have not drilled a well on their leases on the structural high referred to for the purpose of this case as the "Sunday Structure". Approval of a less irregular location 250' FSL and 250' FEL would afford only minimal correlative rights protection. Under Devon's analysis, a well on Sunday's Barrow Lease 250' FSL and 250' FEL would recover only 1,100 barrels less than a well at the proposed Rule 37 location. In these circumstances, the examiners conclude that maximizing recovery and preventing waste by approval of Sunday's proposed Rule 37 location outweighs the minimal benefit to the correlative rights of Devon and Texon that would result from approval of a less irregular location.

The Sunday application should be granted because the proposed Rule 37 well is necessary to prevent waste, provided that the exception permit for the Wildcat Field is limited to a wildcat completion in the Holt at the depth of the Ellu (Holt) Field. Because the requested Rule 37 exception is necessary to prevent waste, it is not necessary to discuss Sunday's claim that an exception is also necessary to prevent confiscation.

Based on the record in this case, the examiners recommend adoption of the following Findings of Fact and Conclusions of Law.

FINDINGS OF FACT

1. At least ten (10) days notice was sent to all affected persons, who, for tracts closer to the proposed well than the greater of one-half ($\frac{1}{2}$) of the prescribed minimum between well spacing distance or the minimum lease line spacing distance, included the designated operator, all lessees of record for tracts that have no designated operator, and all owners of record of unleased mineral interests.
2. Sunday Corporation ("Sunday") seeks an exception to Statewide Rule 37 for its Barrow Lease, Well No. 1, Ellu (Holt) and Wildcat Fields, Ector County, Texas. Sunday anticipates that its proposed well will be completed in the Ellu (Holt) Field, but requests a Rule 37 exception for the Wildcat Field also to cover the possibility that in drilling to the depth of the Ellu (Holt) Field, it may encounter another part of the Holt.

3. The discovery date for the Ellu (Holt) Field was August 14, 1974. Field rules for this field provide for 330' lease line and 933' between well spacing.
4. Sunday proposes to drill Well No. 1 at a location 75' from the south line ("FSL") and 75' from the east line ("FEL") of the 159.78-acre Barrow Lease.
5. The Sunday application is protested by Devon Energy Production Company, LP ("Devon"), the operator of an offset tract to the south of the Sunday Barrow Lease, and Texon Oil Company ("Texon"), the operator of an offset tract to the east of the Sunday Barrow Lease.
6. In the Ellu (Holt) Field, there are three separate structural highs: the "Texon A-1 Structure," the "Sunday Structure," and the "[Devon] Gist Structure". These are post-depositional or syndepositional dome-like structural features that exist as undulations along the edge of the Clearfork shelf break.
7. The "Sunday Structure" underlies the extreme southeast portion of Sunday's Barrow Lease as well as portions of the offsetting leases of Devon and Texon. The Texon Barrow A-1 Well is drilled on the "Texon A-1 Structure," and the Devon Gist 32-2 and Devon Gist 32-4 Wells are drilled on the "[Devon] Gist Structure". These are the only three wells presently producing from the Ellu (Holt) Field. There is no existing well drilled on the "Sunday Structure".
8. The drive mechanism for the Ellu (Holt) Field is either water drive or water expansion drive. In either case, wells drilled at the highest structural position will achieve the maximum recovery of reserves.
9. The Dillard No. 1 Well, just to the northeast of the "Sunday Structure," encountered the Holt at a subsea depth of minus 2,436' and watered-out after producing only 62,000 barrels of oil. The Arco Gist 32-1 Well to the southwest of the "Sunday Structure," at a subsea depth of minus 2,475' and the Burns No. 1 Well to the west of the "Texon A-1 Structure" at a subsea depth of minus 2,484' came in low and wet. The Texon Barrow A-1 Well has its deepest perforation at a subsea depth of minus 2,440' and is producing water. The Devon Gist 32-2 Well has its deepest perforation at a subsea depth of minus 2,444' and is not producing any water. The oil-water contact in the subject field in the area of the "Sunday Structure" is now most likely at a subsea depth of less than minus 2,450', causing the "Texon A-1 Structure," the "Sunday Structure," and the "[Devon] Gist Structure" to be separate sources of supply.
10. Sunday's Barrow Lease, Well No. 1 will encounter the Holt at a subsea depth of minus 2,407', near the apex of the "Sunday Structure". The proposed well will be higher on structure than currently producing wells in the subject field. The Devon Gist 32-2 Well encountered the Holt at minus 2,422'. The Devon Gist 32-4 Well encountered the Holt at minus 2,417'. The Texon Barrow A-1 Well encountered the Holt at minus 2,411'.
11. A well drilled at a regular location on Sunday's Barrow Lease 330' FSL and 330' FEL would encounter the Holt "Sunday Structure" at a subsea depth of minus 2,430', 23' low to a well at

Sunday's proposed Rule 37 location. Wells at regular locations on the Texon Barrow Lease and the Devon Gist Lease would encounter the Holt "Sunday Structure" at a subsea depth of about minus 2,420'.

12. Cumulative production from the Ellu (Holt) Field as of January 2004, was 772,626 BO. Ultimate recovery from the field will be about 1,000,000 BO. The amount of currently recoverable oil in the Holt "Sunday Structure" is at least 73,000 BO. Of this total amount, about 23,000 BO are beneath the Sunday Barrow Lease, about 23,000 BO are beneath the Texon Barrow Lease, and about 27,000 BO are beneath the Devon Gist Lease.
13. In the Holt "Sunday Structure," based on a top of the Holt at minus 2,400' subsea, there are at least 35,000 barrels of recoverable oil above minus 2,430' subsea, at least 13,000 barrels of recoverable oil above minus 2,420', and at least 3,400 barrels of recoverable oil above minus 2,410'.
14. A well at a regular location on Sunday's Barrow Lease 330' FSL and 330' FEL would leave unrecovered from the Holt "Sunday Structure" about 32,700 barrels of recoverable oil that could be recovered by Sunday's proposed Rule 37 well. Wells that might be drilled at regular locations on the Devon Gist Lease and the Texon Barrow Lease to encounter the Holt "Sunday Structure" would leave unrecovered the recoverable oil in the "Sunday Structure" above a subsea depth of minus 2,420'.
15. The currently producing wells in the Ellu (Holt) Field are incapable of recovering a substantial amount of the recoverable oil in the Holt "Sunday Structure" that will be recovered by Sunday's proposed Rule 37 well.
 - a. The structural features from which these wells produce are most likely separate sources of supply from the "Sunday Structure," separated by the oil-water contact in the field.
 - b. All of these wells are low on structure relative to the top of the Holt "Sunday Structure" and the point at which Sunday's proposed Rule 37 well would encounter the Holt "Sunday Structure".
 - c. The Texon Barrow A-1 Well currently is being pumped only two hours per day to limit water production.
16. Unusual subsurface conditions exist beneath Sunday's Barrow Lease in the form of a localized structural high where oil is trapped and unrecoverable by wells drilled at down dip regular locations.
17. Due to unusual subsurface conditions existing beneath Sunday's Barrow Lease, Sunday's proposed Rule 37 well will recover a substantial amount of recoverable oil that will not be recovered by any existing well or by additional wells drilled at regular locations.

CONCLUSIONS OF LAW

1. Proper notice of hearing was timely issued by the Railroad Commission to appropriate persons legally entitled to notice.
2. All things necessary to the Commission attaining jurisdiction over the subject matter and the parties in this hearing have been performed.
3. The granting of an exception to Statewide Rule 37 to Sunday Corporation to drill its Barrow Lease, Well No. 1 in the Ellu (Holt) and Wildcat Fields is necessary to prevent waste of hydrocarbons.

RECOMMENDATION

The examiners recommend that the application of Sunday Corporation for an exception to Statewide Rule 37 to drill its Barrow Lease, Well No. 1 in the Ellu (Holt) and Wildcat Fields be granted, provided that the exception permit for the Wildcat Field shall be for a wildcat completion in the Holt at the depth of the Ellu (Holt) Field. The examiners recommend further that the attached final order be entered.

Respectfully submitted,

James M. Doherty
Hearings Examiner

Thomas H. Richter, P.E.
Technical Examiner

