KEY ISSUES: Economic Waste

R37 Granted (Examiners recommended Denial/Granted by Commissioners)

May 12, 2000

District 8
Rule 37 Case No. 0223620

APPLICATION OF HAL J. RASMUSSEN OPERATING, INC. FOR AN EXCEPTION TO STATEWIDE RULE 37 TO RE-ENTER ITS NO. 1 WELL, APPALOOSA LEASE, C. C. GUNN (CANYON REEF) FIELD, HOWARD COUNTY, TEXAS

APPEARANCES:

FOR APPLICANT:	**APPLICANT:**
William Osborne - Attorney	Hal J. Rasmussen Operating, Inc.
Scott Briggs - Petroleum Engineer	" "
Jack Erwin - Geologist	" "
FOR PROTESTANT:	**PROTESTANT:**
George Neale - Attorney	Maguire Oil Company
Rick Johnston - Consulting Engineer	" " "

PROPOSAL FOR DECISION

PROCEDURAL HISTORY

APPLICATION FILED:	December 28, 1999
NOTICE OF HEARING:	March 3, 2000
HEARD BY:	Mark Helmueller - Hearings Examiner Thomas Richter - Technical Examiner
HEARING DATE :	April 10, 2000
TRANSCRIPT DATE:	April 17, 2000
PFD PREPARED BY:	Mark Helmueller - Hearings Examiner Thomas Richter - Technical Examiner
PFD CIRCULATION DATE:	May 12, 2000

Statement of the Case

Hal J. Rasmussen Operating, Inc. ("Rasmussen" or "Applicant"), seeks an exception to Statewide Rule 37 to re-enter Well #1 on the Appaloosa Lease to the C. C. Gunn (Canyon Reef) Field, Howard County, Texas. The applied-for field is subject to the Statewide Rule 37 spacing requirements of 467 feet minimum spacing to the nearest lease line and 1200 feet minimum spacing between wells. The subject lease is rectangular and locations regular to lease-lines are available. The proposed re-entry is into a plugged wellbore located 325 feet west of the east lease line.

The Appaloosa Lease (the "subject lease") comprises 80 acres as outlined on the plat attached to the Form W-1 (Application for Permit to Drill, Deepen, Plug Back, or Re-enter) submitted by Rasmussen on December 28, 1999. There are no other wells operating on the Appaloosa Lease. Accordingly, the proposed well would not be irregular as to between well spacing. The well was plugged and abandoned by the prior operator, Lakewood Operating, Ltd. and a Form W-3 was filed with the Commission on November 19, 1997.

Rasmussen's application is protested by Maguire Oil Company ("Maguire" or "Protestant"). Maguire is the operator on the adjacent Carpenter Lease to the east of Rasmussen's Appaloosa Lease. Maguire's wells are at locations regular to the lease lines.

Field/Case History

The C.C. Gunn (Canyon Reef) Field ("subject field") was discovered in October 1987 at approximately 7,530' subsurface depth. Special field rules were adopted by Order No. 8-91,625 effective February 29, 1988 that provide for minimum well spacing of 467'/1200' (leaseline/between well), 80 acre proration units and 100% acreage allocation formula.

Lakewood & Fullerton ("Lakewood") applied for and received an administrative Rule 37 exception for the Appalossa Well #1 in the subject field February 13, 1990 (Case No. 106,735). The well was located 325' from the nearest leaseline. Maguire Oil Company was listed as an offset and was given notice. The well was completed June 14, 1990 through perforations from 7,460' to 7,520' and potentialed at 143 BOPD, 131 MCFD and no water. Cumulative production is 199,000 BO and 352 MMCF of gas. The last production was in January 1996. In September 1996, Lakewood applied for a Rule 37 Exception permit to sidetrack and directionally drill the subject well to within 50' of the common leaseline with Maguire. Maguire protested the application which was subsequently withdrawn. Lakewood plugged the well October 27, 1997.

Maguire drilled and completed its Carpenter Well #1 on December 31, 1992 as an offset to the Lakewood well. This well potentialed in January 1993 at 275 BOPD, 366 MCFD and no water. Cumulative production is 261,000 BO and 352 MMCF of gas. The well currently produces 36 BOPD, 58 MCFD and 198 BWPD.

Rasmussen's Position and Evidence

Rasmussen's application seeks a Rule 37 exception to re-enter the Appaloosa #1 well in the

same field it was originally completed, the C. C. Gunn (Canyon Reef) Field. Because the wellbore was plugged by the prior operator and is located at an irregular 325-foot location to the lease-line, an exception to Rule 37 is required for the proposed re-entry.

In this area, hydrocarbon reservoir accumulations are the result of relatively small pinnacle reef structures with common underlying water aquifers. There are several pinnacle reef structures in the Canyon Reef Field. In this particular reef, there are three domal features with the subject well in the southern-most pinnacle feature. Rasmussen claimed that the northern two domal features were not in communication with the southern-most pinnacle feature. Log analysis cross section shows that the subject well lies on the western flank of the southern most reef structure. This particular reef structure had an original oil-water contact of 8,309' subsurface depth. Rasmussen did not estimate the current oil-water contact. There are 92.1 surface acres and 8,308.5 acre-feet in the this reef reservoir with an average height of 54 feet. This calculation assumes that the reef is 60% porous.

In the southern pinnacle feature, Rasmussen calculated there were originally 914,000 recoverable barrels of oil. A 45% recovery factor was used to reflect the efficiency of this water drive reservoir. Cumulative production from the four[1] wells that produced from this domal feature is 794,000 BO. Rasmussen therefore calculated the remaining recoverable reserves at 120,000 BO. The Maguire Carpenter Well #1 is the only current producing well in the southern pinnacle feature.

Rasmussen calculated the original recoverable oil-in-place underlying Maguire's Carpenter Lease at 606,000 BO. Cumulative production from the two wells that produced from this lease is 594,000 BO. Thus the remaining reserves are 11,900 BO. The calculations for Rasmussen's original recoverable oil-in-place underlying its Appaloosa lease estimated 308,000 BO. The cumulative production from the two wells that produced from this lease was 200,000 BO. Accordingly, Rasmussen calculated its remaining reserves at 108,000 BO. The reserve estimates assume a no flow boundary at the lease line.

Rasmussen based its application on both confiscation and waste theories. Under its confiscation argument, Rasmussen contended that the prior operator prematurely abandoned the subject-well. Rasmussen claims that it will suffer confiscation of its portion of the remaining reserves unless it is allowed to re-enter the wellbore.

In arguing that it was entitled to a Rule 37 exception to prevent waste, Rasmussen relied on the economic waste/existing wellbore doctrine as the basis for its application. Rasmussen proposes to install a high volume submersible pump on the well. Rasmussen believes that the well should produce between 50 to 100 bopd and recover an additional 15,000 to 20,000 barrels of residual oil that would not be recovered by the Maguire Carpenter #1 well. Rasmussen also estimates that the cost of drilling a new well would be $605,625. The estimated cost to re-enter the existing wellbore is $259,000. Rasmussen's petroleum geologist testified that a prudent operator would not drill the new well to recover the estimated 15,000 to 20,000 barrels of residual oil.

Finally, Rasmussen argued that it should not be penalized for the prior operator's compliance

[1] Besides the subject well that was plugged in 1997, two other wells have been plugged.

with the plugging requirements in Statewide Rule 14(b)(2). Rasmussen noted that if the well had not been plugged by the prior operator that no new permit would be required because it would be producing the well from the same fields specified in the original permit.

Maguire's Position and Evidence

Maguire is the offset operator of the Carpenter Lease located to the east of Rasmussen's Appaloosa Lease. Maguire currently has one well in production in the affected field: the Carpenter #1. Maguire contends that Rasmussen's exception location would drain substantial reserves from the Carpenter Lease. Maguire further argues that Rasmussen cannot advance a waste argument because its Carpenter #1 well is at the top of the structure in a water drive reservoir and therefore will recover any remaining hydrocarbons.

Maguire's petroleum engineer asserted that Rasmussen failed to show that a regular location would not provide Rasmussen with the opportunity to recover its fair share of any reserves from these fields. Maguire also argued that the mineral interest owners have already recovered more than their fair share of hydrocarbons

Maguire also contended that Rasmussen's calculation of recoverable reserves was both inaccurate and insufficient to support the application. Maguire's petroleum geologist provided a properly scaled reservoir map showing that a regular well location would lose only 15 to 20 feet in structural elevation as compared to the exception location. Based on this map, Maguire argued that drilling a well at a regular location would afford the mineral owners for the Appaloosa Lease a reasonable opportunity to recover their fair share of hydrocarbons.

Maguire's petroleum geologist further testified that the original production from the Appaloosa Well #1 allowed the mineral owners to recover more than their fair share of reserves from the Canyon Reef Field. Using Rasmussen's structure map, the Carpenter Lease contains 5500 acre-feet and the Appaloosa Lease contains 2800 acre-feet. This is approximately a one-third/two-third ratio. Maguire calculated the cumulative production without including the Chandler #1 well, which was carried in the Sara Mag Field on Commission records. This results in a cumulative production total of 461,000 BO. Maguire then argued that after applying the one-third/two third ratio, the mineral owners for the Appaloosa lease are ahead on their fair share by recovering 199,000 BO. The mineral owners for the Carpenter Lease are still behind using this ratio, because their cumulative recovery from the Canyon Reef Field totals 261,000 BO.

Maguire also argues that Rasmussen's claimed additional residual oil recovery of 20,000 BO applies at a regular location. An additional 20,000 to 40,000 BO would be recovered by drainage of Maguire's lease. Because the Carpenter Well #1 is the highest well on the structure in an efficient water drive reservoir, the well will recover any oil above the oil-water contact.

Finally, Maguire argued that the prior operator's compliance with the Commission's plugging requirements was irrelevant to the instant application. Maguire noted that Commission rules require a new exception for re-entry of a well which previously produced from an exception location.

Examiners' Opinion

The Commission may grant an exception to Rule 37 to prevent confiscation or to prevent waste. Rasmussen argues it is entitled to an exception under both the confiscation and waste doctrines.

I. Confiscation

To establish that it is entitled to an exception to Rule 37 to prevent confiscation, an applicant must show that absent the applied-for well, it will be denied a reasonable opportunity to recover its fair share of hydrocarbons currently in place under the lease, or its equivalent in kind. The applicant must satisfy a two-pronged test: 1) the applicant must show that it is not possible to recover its fair share of hydrocarbons currently in place by drilling a well at a regular location; and 2) the applicant must show that the proposed irregular location is reasonable. The applicant must also provide a calculation of the current reserves underlying its lease.

A. Calculation of Current Reserves

It is the basic right of every landowner or lessee to a fair and reasonable chance to recover the oil and gas under his property as recognized by the Texas Supreme Court in *Gulf Land Co. v. Atlantic Refining Co.*, 131 S.W.2d 73, 80 (Tex. 1939). Denial of that fair chance is confiscation within the meaning of Rule 37. *Id*. However, an applicant may not seek a Rule 37 exception to redress past drainage. *Railroad Commission v. Texas Company*, 298 S.W.2d 666, 668 (Tex.Civ.App. Austin - 1957, writ ref'd n.r.e.) Because an applicant cannot seek redress for past drainage, an applicant must provide evidence that it will not be afforded an opportunity to recover the reserves **currently** in place under its lease - this is its "fair share."

A calculation of the current recoverable reserves, when derived from an estimate of the original recoverable reserves in place, generally must take into account all sources of depletion. Rasmussen's calculations meet this standard by including all the cumulative production from the wells drilled in the Appaloosa Reef. While Maguire argued that the reserve calculations were legally insufficient, it did not contest Rasmussen's assumption that the Appaloosa Reef was not in communication with the two northern domal structures depicted in the structural maps submitted by both parties. Accordingly, an estimate of the original reserves, less the cumulative production for the Appaloosa Reef is an acceptable manner of calculating the current reserves.

However, Rasmussen's estimate of current reserves for the Appaloosa Reef is problematic because it is contradicted by the evidence of the current conditions. The primary concern here is the current oil-water contact line. In January 1996, the prior operator stopped producing the Appaloosa Well #1 as the well was producing substantially more water than hydrocarbons. This indicates that the well had encountered the oil-water contact transition zone. In other words, the water drive had pushed the recoverable oil to a structural elevation above the perforations in the Appaloosa well.

The current production of the Carpenter Well #1 is also an important fact to consider in determining the current recoverable reserves. The Carpenter well is presently producing more water

than oil. The Carpenter well is 50 feet higher on the structure than the Appaloosa well. This fact suggests that the oil-water contact zone in the Appaloosa Reef is currently higher than it was in January 1996 when the Appaloosa well was abandoned.

While the exact location of the oil-water contact line in the Appaloosa Reef cannot be precisely determined, it is clear from these facts that the remaining oil in the Appaloosa Reef is significantly less than Rasmussen's estimate. Accordingly, Rasmussen's calculation of its current recoverable reserves does not accurately depict the current oil in place underlying its lease. A proper current reserve calculation for Rasmussen's application must consider evidence of the current conditions in the Canyon Reef Field. The examiners' acknowledge that in some instances, the formulaic approach urged by Rasmussen - subtracting the cumulative production from the original estimate reserves - accurately reflects the current recoverable reserves. That explains why Rasmussen's approach is "legally" sufficient. However, as noted above, the evidence of the current conditions in the Appaloosa Reef undermines the result obtained from Rasmussen's current reserve calculation. Without a calculation of the current reserves which accounts for any evidence of the current conditions in the reservoir, it is impossible for Rasmussen to establish its fair share of hydrocarbons. This precludes Rasmussen from establishing that it will suffer confiscation. Accordingly, it cannot support its confiscation argument for an exception location.

B. <u>Availability of a Regular Location</u>

Rasmussen's application also fails to meet the first prong of the two part test for a Rule 37 exception to prevent confiscation. Rasmussen's petroleum geologist admitted that a regular location would allow recovery of hydrocarbons from its lease. Rasmussen originally argued that production would be limited due to a 50 to 60 foot loss of structural elevation between the exception location and a regular location. However, Maguire's petroleum geologist presented uncontested testimony that the structural map was not properly scaled. A properly scaled map indicated an estimated 15 to 20 foot downdip between the exception location and a regular location. Rasmussen did not establish that a 15 to 20 foot structural elevation change would significantly influence production at the exception location when compared to a regular location. The evidence suggests that because both locations would be below the existing oil column in the Appaloosa Reef, any difference in structural elevation between the two locations would have no effect on production.

C. <u>Reasonableness of the Proposed Irregular Location</u>

Finally, Rasmussen's application also fails to meet the second prong of the two part test for a Rule 37 exception to prevent confiscation as the proposed irregular location is not reasonable. A central theme of Rasmussen's application is that the prior operator abandoned the well too soon. The proposed re-entry would allegedly rectify this premature abandonment and allow the mineral interest owners for the Appaloosa lease a more complete recovery of the underlying hydrocarbons.

The Appaloosa #1 well was the first well in the Appaloosa Reef completed into the Canyon Reef Field. It was drilled in June 1990 and produced until January1996. It recovered 199,000 barrels of oil and 256,000 mcf of natural gas. Maguire did not complete the Carpenter #1 well until January 1993. The Appaloosa #1 well had a 2 ½ year head start over the Carpenter #1 well, but was

located lower on the structure. The Appaloosa #1 well was ultimately plugged and abandoned.

The production history of the Appaloosa well and the decision made by the prior operator to no longer produce the well contradict any assertion that the proposed irregular location is reasonable. The evidence suggests that the mineral interest owners had a reasonable opportunity to recover their fair share of hydrocarbons in the Canyon Reef Field. In fact, the mineral interest owners, through the actions of the prior operator, availed themselves of the opportunity to recover a substantial amount of reserves. In light of these facts, the proposed re-entry into the irregular location is not reasonable.

With respect to Rasmussen's claim that it is entitled to an exception to Rule 37 to re-enter Appaloosa Well #1, to prevent confiscation, Rasmussen: 1) failed to provide a calculation of current reserves based on evidence of the current condition of the Appaloosa Reef; 2) admitted that a well at a regular location would recover additional reserves from the Appaloosa Reef; 3) failed to prove any difference in productivity; and 4) failed to establish that the proposed re-entry into the irregular location was reasonable. Accordingly, Rasmussen's application for an exception to prevent confiscation is fatally defective.

II. Waste

Rasmussen also argued that a Rule 37 exception is necessary to prevent the waste of hydrocarbons. 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 conditions, hydrocarbons will be recovered by the well for which a permit is sought that would not be recovered by any existing well or by additional wells drilled at regular locations; and, 3) that the volume of otherwise unrecoverable hydrocarbons is substantial.

A. Unusual Condition/Economic Waste

Rasmussen claims that the unusual condition in the field is the existence of the Appaloosa Well #1 wellbore at the exception location. Rasmussen claims that the Commission should consider economic considerations as outlined in *Exxon Corp. v. Railroad Commission*, 571 S.W.2d 497 (Texas 1978), in determining whether the waste of hydrocarbons will occur. This theory is commonly referred to as economic waste.

Rasmussen's petroleum geologist testified without rebuttal that the estimated initial capital expenditure to drill a new well would cost $605,625.00. His further uncontested testimony established that the estimated cost to re-enter the existing wellbore would be $259,100.00. Rasmussen believes that it would recover between 40,000 and 60,000 barrels of oil from the total remaining reserves in the Appaloosa Reef. According to Rasmussen, re-entry of the existing wellbore would be profitable, but drilling a new well would not be economically feasible.

B. Recovery by Other Wells

The second element of the three part waste test is establishing that another well or a well at a regular location would not recover the same hydrocarbons which an applicant claims would be recovered at the exception location. Rasmussen's application fails to satisfy this element.

1. Physical Waste of Current Recoverable Reserves

In *Schlachter v. Railroad Commission*, 825 S.W. 2d 737 (Tex.App. - Austin 1992), the appellate court adopted a narrow interpretation of the *Exxon* decision urged by the Commission. *Schlachter* held that an application for a Rule 37 exception based on economic waste was properly denied where an existing well was capable of recovering any remaining reserves. In other words, economic evidence must show that an actual physical waste of oil will occur, not just the "economic waste" of an applicant's financial resources. This is applicable to the facts presented in this docket. It is undisputed that Maguire's Carpenter #1 Well is located near the structural top of the Canyon Reef Field. The parties also agree that the Canyon Reef Field is a water drive reservoir. It follows that the Carpenter #1 Well, due to its location at the top of a water drive reservoir, will produce the remaining recoverable oil in the Canyon Reef Field. There will be no physical waste of oil.

2. Recovery of Residual Oil

Rasmussen also presented evidence that it would equip the Appaloosa Well #1 with a high volume submersible pump. Rasmussen's petroleum geologist testified that the movement of large volumes of fluid would result in the production of 15,000 to 20,000 barrels of residual oil that would not be normally recovered. Rasmussen argued that the Maguire well, even if equipped with the same high volume submersible pump would not recover the same residual oil that the Appaloosa Well would recover as the scouring effect of the submersible pump is more pronounced in close proximity to the wellbore. In other words, a high volume pump on the Appaloosa well will recover residual oil underlying Rasmussen's lease that similar equipment on the Maguire well would not reach.

Even accepting Rasmussen's claim that the high volume pump will recover residual oil that normally would not be recovered, this does not justify an exception to re-enter the Appaloosa well. The high volume pumping plan was aptly compared to a secondary recovery plan, in that it would recover 15,000 to 20,000 barrels of residual oil that normally would not be produced. However, this argument applies to any location on the Appaloosa Lease, including regular locations. Further, allowing an exception permit at the present time would harm Maguire's correlative rights. In its own calculations, Rasmussen assumes that it will recover oil that would normally be produced by Maguire's Carpenter #1 Well. Accordingly, while Rasmussen's proposed production would have the salutary effect of producing additional reserves which normally would not be recovered, it would do so at the cost of Maguire's correlative rights.

C. <u>Substantial Volume</u>

The final element in determining whether a Rule 37 exception is necessary to prevent waste is the requirement that a substantial volume of hydrocarbons is otherwise unrecoverable. Rasmussen's application does not meet this requirement. As to the original oil column, the Carpenter #1 Well will recover any oil above the oil-water contact zone due to its structural elevation

in a water drive reservoir. While Rasmussen claims that the Appaloosa well would recover residual oil below the water contact that the Carpenter well would not recover if both were equipped with a high volume submersible pump, Rasmussen does not quantify the difference in the volume.[2] Absent an attempt to quantify the difference in recoverable residual oil in the two wells, it is impossible to determine if the actual physical waste of oil is substantial. Accordingly, even if Rasmussen could satisfy the other elements necessary to support its waste claim, the application would still fail.

With respect to Rasmussen's claim that it is entitled to an exception to Rule 37 to re-enter Appaloosa Well #1, to prevent waste, Rasmussen failed to prove physical waste will occur because Maguire's Carpenter #1 Well will recover any remaining oil and is capable of recovering residual oil as well. Finally, Rasmussen does not establish that it will recover a substantial volume of hydrocarbons that would not be recoverable by the Carpenter #1 Well.

III. Compliance by Prior Operator

Rasmussen also argued that it should not be penalized for Lakewood's compliance with the Commission's plugging requirements. Rasmussen noted that the current requested exception would not have been required but for Lakewood plugging the well.

While this argument may have an emotional appeal, it has no legal foundation. Commission rules require that for a re-entry into a plugged and abandoned well at an exception location that all offset operators and mineral interest owners receive notice and the opportunity to request a hearing. An offset operator who may have previously agreed to an exception location has the right to protest if a later request is required.

It should be further noted that Lakewood, the prior operator for this lease, actually sought a further exception permit to directionally drill the well closer to the common leaseline. Lakewood withdrew the application after a protest by Maguire. Lakewood then plugged the well. Finally, Rasmussen did not obtain its interest in the Appaloosa Lease until after the well was plugged. Rasmussen was aware that the Appaloosa Well #1 was plugged when it obtained its interest. It is not paying a penalty as it obtained its interest with knowledge that the well was plugged.

CONCLUSION

The evidence and legal authority presented establish that Rasmussen is not entitled to a Rule 37 exception in order to prevent confiscation or waste in the C.C. Gunn (Canyon Reef) Field.

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

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[2]Review of the structural map indicates that the Carpenter well is actually more centrally placed within the Appaloosa Reef structure than the Appaloosa well. Rasmussen's structural cross-section also suggests that the Carpenter well encounters a thicker section of the Appaloosa Reef than the Appaloosa well. This evidence indicates that the Carpenter well, if equipped with a high volume submersible pump could potentially recover a higher volume of residual oil than the Appaloosa well.

FINDINGS OF FACT

1. At least 10 days notice of this hearing was given to the designated operator, all lessees of record for tracts that have a designated operator, and all owners of unleased mineral interests for each affected tract adjacent to the Appaloosa Lease ("subject lease") and each tract nearer to the proposed well location than the prescribed minimum distance.

2. The application for an exception to Statewide Rule 37 was originally filed with the Commission by Hal J. Rasmussen Operating, Inc. ("Rasmussen") on Form W-1 (Application to Drill, Deepen, Plug Back or Re-enter) on December 28,1999.

3. Rasmussen seeks an exception to Statewide Rule 37 to re-enter Well #1 on the Appaloosa Lease to the C. C. Gunn (Canyon Reef) Field, Howard County, Texas. The applied for field is subject to the Statewide Rule 37 spacing requirements of 467 feet minimum spacing to the nearest lease line and 1200 feet minimum spacing between wells. The subject lease is rectangular and locations regular to lease-lines are available. The proposed re-entry is into a plugged wellbore located 325 feet west of the east lease line.

4. Lakewood & Fullerton ("Lakewood") applied for and received an administrative Rule 37 exception for the Appalossa Well #1 in the subject field February 13, 1990. Lakewood plugged the well October 27, 1997.

5. Rasmussen's application has been protested by Maguire Oil Company ("Maguire"). Maguire is the operator of an offset tract to the east of the subject lease.

6. The Canyon Reef Field is a water drive field in which production is primarily dependent on structural elevation as opposed to the thickness of the producing sands.

7. Rasmussen did not provide an accurate estimate of the current recoverable reserves underlying the subject lease in the Canyon Reef Field.

    a. Rasmussen estimated the current recoverable reserves by subtracting the cumulative production from all wells in the Appaloosa Reef from an estimate of the original recoverable reserves.

    b. Rasmussen failed to identify the oil-water contact line in the Appaloosa Reef.

    c. Current conditions suggest that subtracting the cumulative production from the Appaloosa Reef from the calculation of original reserves significantly overestimates the remaining hydrocarbons underlying the Appaloosa lease.

8. A properly scaled structural map shows a decrease in the structural elevation between the exception location and a regular location of 15 to 20 feet.

9. Rasmussen failed to establish that a decrease in structural elevation of 15 to 20 feet would influence production at the exception location when compared to a regular location.

10. The proposed irregular location is not reasonable.

11. Protestant Maguire is producing an offset well, the Carpenter #1, from the Canyon Reef Field at a regular location on its Carpenter Lease.

12. The Carpenter #1 well is located at or near the structure top in the Appaloosa Reef.

13. The Carpenter #1 well is capable of recovering any remaining hydrocarbons above the water contact in the Appaloosa Reef.

14. No physical waste of hydrocarbons will occur because the Carpenter #1 well would produce any remaining recoverable hydrocarbons due to its location at the top of structure in a water drive reservoir.

15. Rasmussen's proposed re-entry would equip the Appaloosa #1 well with a high volume submersible pump.

16. The Appaloosa #1 well would recover an estimated 15,000 to 20,000 barrels of residual oil from below the water contact through operation of the high volume submersible pump in the Canyon Reef Field.

17. The Carpenter #1 well would also recover residual oil through operation of a high volume submersible pump.

18. Operation of the high volume submersible pump would also allow Rasmussen to drain oil from under the Carpenter Lease which the Carpenter #1 well would produce due to its location at the top of structure in a water drive reservoir in addition to the recovery of any residual oil.

19. A denial of the application would protect the correlative rights of the offset operator.

20. No physical waste of any residual oil will occur because the Carpenter #1 well would produce any residual recoverable oil through operation of a high volume submersible pump.

CONCLUSIONS OF LAW

1. Proper notice of hearing was timely given to all persons legally entitled to notice.

2. All things have occurred to give the Commission jurisdiction to decide this matter.

3. Applicant failed to rebut the presumption that a well location regular to lease lines will allow

it to recover the reserves currently in place under the subject lease.

4. A well spacing rules exception is not required to give applicant a reasonable opportunity to recover its fair share of hydrocarbons from the C.C. Gunn (Canyon Reef) Field.

5. An exception to Statewide Rule 37 for a well at the applied for location is not necessary to prevent confiscation or waste.

RECOMMENDATION

The examiners recommend that the subject application be denied in its entirety in accordance with the attached final order.

Respectfully submitted,

_____	_____
Mark J. Helmueller	Thomas Richter, P.E.
Hearings Examiner	Technical Examiner