

February 1, 2004

Oil & Gas Docket Nos. 01-0234789, et al.

CONSOLIDATED APPLICATIONS OF CALTEX ENERGY CO. FOR EXCEPTIONS TO STATEWIDE RULE 21 TO PRODUCE BY SWABBING, BAILING, OR JETTING, 260 WELLS ON 45 LEASES, LULING-BRANYON FIELD, CALDWELL COUNTY, TEXAS.

APPEARANCES:

John G. Soule
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Caltex Energy Co.
“ ”

Jerry Kelley

Observer

CONSOLIDATED PROPOSAL FOR DECISION

PROCEDURAL HISTORY

APPLICATIONS FILED:	March 31, 2003
NOTICES OF HEARING ISSUED:	December 9, 2003
HEARINGS HELD:	December 20, 2003 & January 15, 2004
HEARD BY:	Scott Petry, Hearings Examiner Thomas Richter, Technical Examiner
PFD PREPARED BY	Mark Helmueller, Hearings Examiner Thomas Richter, Technical Examiner
RECORD CLOSED:	November 8, 2004
PFD CIRCULATED:	February 1, 2005

INTRODUCTION

This consolidated proposal for decision involves 45 applications of Caltex Energy Co. (“Caltex”) for exceptions to Statewide Rule 21 to produce by swabbing 260 wells on 45 leases in the Luling-Branyon Field, Caldwell County, Texas. Appendix 1 to this proposal for decision identifies the applications by docket number, lease name, RRC Lease identification number and the number of wells on the lease. It is the examiners’ recommendation that the Commission grant temporary authority for production by swabbing for a period of not more than 18 months and subject to specified conditions detailed in the proposed Final Order.

STATEMENT OF THE CASE

The 45 applications discussed in this proposal for decision are those remaining from 55 applications involving Caltex leases and wells in the Luling-Branyon Field which were originally heard on December 20, 2003 and January 15, 2004. Caltex appeared and presented evidence at both hearings. No person appeared in opposition to the applications. The record was held open until November 8, 2004, to allow Caltex additional time to submit several categories of late-filed exhibits including: 1) documentation of Caltex's good faith claim of a current right to operate the involved leases; 2) Caltex's written response to memoranda prepared by the Field Operations section of the Oil and Gas Division which were included in the hearing files for each of the involved dockets; and 3) the most recent production reports for the wells and leases at issue.

For the purpose of giving notice of the applications here involved, Caltex made an effort to furnish the Commission with accurate addresses for surface owners and mineral owners of the affected tracts. Because there are some mineral owners for which Caltex did not have a current address, Caltex published notice of these applications for four consecutive weeks in a newspaper having general circulation in Caldwell County. Caltex also corresponded with affected surface and mineral owners to inform them about the present applications.

Applications in ten dockets were dismissed after they were withdrawn by Caltex on September 24, 2004 because Caltex could not provide evidence of a continuing good faith claim of the right to operate. An Order of Dismissal was entered on October 26, 2004 in Oil & Gas Docket Nos. 01-0235152, 01-0235154, 01-0235164, 01-0235165, 01-0235167, 01-0235169, 01-0235170, 01-0236134, 01-0236139, and 01-0236146: *Applications of Caltex Energy Co. for Exceptions to Statewide Rule 21 to Produce by Swabbing Various Wells on the Callihan, W. M. (00995), Patton, J. O. (01115), Callihan, W. M. (03717), Callihan, W. M. -A- (03808), Callihan, W.M. -A- (06371), Brown, Guy (06526), Callihan, M. W. -B- (10664), Brown, T. R. (01862), Etheridge -A- (01037), and Callihan, M. W. (06360) Leases, Luling-Branyon Field, Caldwell County, Texas.*

The examiners recommend that temporary swabbing authority be granted to Caltex for no more than 18 months. This temporary authority will be subject to conditions set forth in the respective Final Order for each docket, including, where applicable, the requirement that wells pass a fluid level test, that production is properly reported, and that Caltex complies with all applicable Commission rules in its operations. Additionally, the examiners recommend that the applications for swabbing authority be dismissed for the Sallie Clark (01134) Lease, Well No. 1SD, and the Maggie Moore (01033) Lease, Well No. 8A as the wells have been plugged. Caltex has agreed to withdraw the portions of its applications related to these two wells.

BACKGROUND

Effective October 2, 2002, the Commission adopted amendments to Statewide Rule 21 which prohibit swabbing as a production method for wells unless the Commission has, after notice and hearing, granted an exception to Statewide Rule 21. Statewide Rule 21(k)(1) and (2) set the mandatory and discretionary issues considered by the Commission for exceptions allowing swabbing as a production method:

(1) An operator seeking an exception to allow swabbing, bailing, or air jetting of a well shall:

(A) provide the Commission with the names and mailing addresses of the mineral interest owners of record and surface owners of record of the lease on which a well for which an exception is sought is located;

(B) present evidence at the hearing establishing:

(i) the method of production proposed;

(ii) that any production is properly accounted for pursuant to §3.26 of this title (relating to Separating Devices, Tanks, and Surface Commingling of Oil);

(iii) that the proposed exception is necessary to prevent waste or protect correlative rights;

(iv) that wellhead control is sufficient to prevent releases from the well;

(v) that no pollution of usable quality water or safety hazard will result from either the proposed production method or the condition of the well; and

(vi) that the operator possesses a continuing good faith claim to the right to operate the well.

(2) In addition to the information set out in paragraph (1) of this subsection, factors that the Commission may consider in ruling on a request for an exception include:

(A) whether the well has passed a mechanical integrity test within the preceding 12 months;

(B) the estimated monthly and cumulative production from the well if the requested exception is granted;

(C) whether production will be into an on-lease tank battery or a mobile tank;

(D) the adequacy of the financial assurance provided by the operator to assure that the well will be timely and properly plugged;

(E) whether production volume, fine sands in the reservoir, or other factors render pumping of the well impracticable;

(F) whether the reservoir from which the well produces contains hydrogen sulfide; and

(G) the operator's history of compliance with Commission rules.

On March 31, 2003, Caltex filed applications with the Commission requesting approval to produce virtually all of its leases and wells by swabbing. To date, the Commission has entered two

Final Orders. In Oil & Gas Docket No. 01-0234805: *Application of Caltex Energy Co. to Consider An Exception to Statewide Rule 21 to Allow Production By Swabbing, Bailing, or Jetting on the B. P. Rollert (01141) Lease, Various Wells, Luling-Branyon Field, Caldwell County, Texas*, the Commission approved temporary authority for Caltex to produce by swabbing 89 wells on the Rollert Lease for a period of 18 months, subject to certain conditions. Similarly in Oil & Gas Docket Nos. 01-0234543, et al: *Applications of Caltex Energy Co. for Exceptions to Statewide Rule 21 to Produce by Swabbing, Bailing or Jetting, Wells on 36 Leases, Staples, Dale McBride, Buchanan, Dunlap, Darst Creek (Buda), Tenney Creek, Spiller and Lytton Springs Fields, Caldwell and Guadalupe Counties, Texas*, the Commission approved Caltex's applications for permanent swabbing authority for 11 leases; approved Caltex's applications for swabbing authority for a period of 18 months on 12 leases; and dismissed Caltex's applications on 13 leases after Caltex withdrew them because it was unable to establish a continuing right to operate those leases

MATTERS OFFICIALLY NOTICED

At the request of Caltex, the examiners have officially noticed the evidence, proposals for decision and/or Commission Orders in the following dockets:

Oil & Gas Docket No. 01-0234805: *Application of Caltex Energy Co. to Consider An Exception to Statewide Rule 21 to Allow Production By Swabbing, Bailing, or Jetting on the B. P. Rollert (01141) Lease, Various Wells, Luling-Branyon Field, Caldwell County, Texas* ("Rollert docket");

Oil & Gas Docket No. 01-0236621: *Application of Caltex Energy Co. for Temporary Authority to Produce Various Leases By Swabbing Pending Decisions By The Commission on Pending Applications for Statewide Rule 21 Exceptions, Caldwell, Guadalupe, Wilson, Frio, Atascosa, Medina, La Salle, and Dimmit Counties, Texas* ("Caltex Temporary Authority docket");

Oil & Gas Docket Nos. 01-0234784 Et Al., *Applications of Caltex Energy Co. for Exceptions to Statewide Rule 21 to Produce by Swabbing 320 Wells on 96 Leases in the Salt Flat and Salt Flat, West Fields, Caldwell County, Texas* ("Salt Flat dockets");

Oil & Gas Docket Nos. 01-0234543, et al: *Applications of Caltex Energy Co. for Exceptions to Statewide Rule 21 to Produce by Swabbing Wells on 36 Leases in the Staples, Dale McBride, Buchanan, Dunlap, Darst Creek (Buda), Tenney Creek, Spiller, and Lytton Springs Fields, Caldwell and Guadalupe Counties, Texas* ("Seven Fields docket").

In addition, the examiners have officially noticed: (1) Commission production records reflecting production of oil or gas on the leases involved in this proceeding, as reported to the Commission by

Caltex; and, (2) memoranda and recommendations of Field Operations contained in each of the Commission's files relating to the applications involved in this proceeding.

DISCUSSION OF THE EVIDENCE

Organization Information

Caltex is a Texas General Partnership, and first filed a P-5 Organization Report with the Commission on April 13, 1998. The examiners have officially noticed Commission "On Schedule Leases, Wells, Wellbores By Operator" records indicating that as of December 10, 2004, Caltex was the operator of 279 leases and 1,254 wells with total depth of 2,939,712 feet. Caltex filed its most recent organization report with the Commission on March 31, 2004. Greg Christofferson is identified as a general partner in the company.

Proposed Production Method and Proper Accounting

Caltex uses swabbing as a means of production for virtually all of its wells, and presented evidence of its basic method of operation in the *Rollert* docket. When swabbing a well, the swabber first closes the valve on any attached gas line and then disconnects the gas line. The cap on the well is removed and the swabbing unit is then hooked up to the wellbore. A swabbing cup, with a weight bar attached below it, is lowered by cable until it reaches the top of the fluid level in the well. The swabber records the fluid level depth, and then lowers the cup until it is just above the uppermost perforations in the wellbore. The cable is then retracted. During this process, the swabbing cup forms a seal against the casing, thereby forcing any fluid to the surface as the swabbing cup is retracted on the cable. Any fluid raised by this process is carried into a tank on the swabbing truck by a hose. When swabbing is completed, the hook up is disconnected.

After the tank on Caltex's swabbing truck is filled, the swabber proceeds to a tank battery, pumps the fluids into a storage tank and records the increased fluid level. Caltex has obtained permits to commingle its production from several leases, and accounts for the production from each individual lease as outlined in the provisions of the commingling permits. Caltex is still working out some of the issues associated with allocating commingled production, as it stated when it filed amended production reports for production between July 2004 and September 2004.

Waste and Correlative Rights

Caltex asserts that if it is denied the authority to produce the wells by swabbing, that it will be forced to plug them because any attempt to produce the wells on pump will result in a net loss even if one does not take into account the capital expenditure required to reequip the wells. Caltex believes plugging the wells will result in the waste of any oil that could be recovered by swabbing. Caltex also believes that the correlative rights of the mineral interest owners are protected by swabbing production where operators on offsetting leases are producing reserves from the same field.

Caltex estimates that in the Luling-Branyon Field there are remaining recoverable reserves of

4180 barrels of oil in place per acre. Assuming that each well drains 2 acres, as assumed by the unit size in the field rules, Caltex estimates that over the next 12 years, each well will recover 7.1% of the remaining reserves underlying the 2 acres of effective drainage.¹ Using these estimates, Caltex calculates that swabbing will recover approximately an additional 153,000 barrels of oil which would not be recovered if the wells were plugged.

Wellhead Control

Caltex asserts that all of its wells are equipped with wellhead assemblies to maintain surface control. At the hearing, Caltex represented that the only release of gas from a well occurs when the wellhead is removed for swabbing operations. However, in 29 of Caltex pending 45 applications, memoranda in the file from the Field Operations Section of the Oil & Gas Division report that a total of 159 wells were venting gas to atmosphere, generally through partially open valves. Because Caltex's presentation contradicted the observations of Commission Field personnel, Caltex was provided the opportunity to respond. In response, Caltex asserts: 1) venting is not opposed by Field Operations or the District Office in the absence of a complaint; 2) venting poses no hazard to public safety as it relieves pressure build up and the concentration of hazardous levels of hydrogen sulfide gas; and 3) venting will be discontinued within 12 months as Caltex equips all of the wells for gas production.

Pollution and Safety Hazards

Caltex believes that swabbing as a method of production does not present a risk of pollution if done properly. Caltex admits that some oil may drip on the ground during operations, but contends that its swabbers immediately remediate any spill. Caltex asserts that because fluid levels are at least 1,000 feet below fresh water zones that swabbing operations pose no threat of contamination of usable quality water. Caltex relies on its notation of the top of fluid taken during swabbing operations to estimate the fluid level in each well.

Good Faith Claim

Caltex initially asserted that it possessed a good faith claim of a continuing right to operate for all of the properties at issue in its applications. Caltex argued it could prove its claim either directly through a valid lease, revivor or ratification or indirectly by virtue of the fact that the mineral interest owners were provided with notice of the application, and were not protesting or appearing at the hearing. Caltex was advised that it could not indirectly infer that a good faith claim existed by the lack of any protest to its application and was provided the opportunity to submit copies of the actual documents to directly prove its claim of a continuing right to operate. Caltex submitted as late-filed exhibits copies of new leases or revivors for all but ten applications. As previously noted, Caltex withdrew the applications where it was unable to submit documentation of a current right to operate.

Mechanical Integrity Tests

¹This calculates out to the recovery of approximately 600 barrels of oil per well over the next 12 years or approximately 4 barrels per month.

Caltex did not submit any mechanical integrity tests for any of the wells which are the subject of these applications. Additionally, no mechanical integrity testing has been recommended for any of the leases and wells in these applications by Field Operations or the District Office. Caltex asserts that no testing should be required for any of its wells, and notes that the costs of performing mechanical integrity tests are prohibitive, often exceeding the estimated plugging cost for the well tested.

Estimated Production Amounts

Caltex contends that the average monthly production rate for the 258 wells when they were last produced by pumping, was an overall average of 7.5 barrels of oil per month per well. Caltex believes that production by swabbing will yield 70% of the pumping production, or 5.5 barrels per month.

Commission production records as summarized in Appendix 2 show that in the twelve month period before Caltex acquired the leases at issue in these applications, the total cumulative production was 12,542 barrels of oil or 4.04 barrels of oil per month per well. In the 12 months after Caltex acquired the leases, it reported total cumulative production of 1,728 barrels of oil or .55 barrels of oil per well per month.

As previously noted, in December 2003, Caltex was granted temporary authority to produce by swabbing all of its wells. For the leases at issue in these applications, from January 2004 through June 2004, Caltex reported total cumulative production of 817 barrels of oil or .52 barrels of oil per well per month. From July 2004 through September 2004, Caltex reports cumulative production of 1027 barrels or 1.31 barrels of oil per well per month. Both Commission records and Caltex records show that in 2004, the highest producing wells at issue in these applications averaged 2.98 barrels of oil per month.²

Financial Assurance

Caltex has filed blanket financial assurance pursuant to Texas Natural Resources Code §91.1042 and Statewide Rule 78(g)(1)(B) in the form of a \$250,000 letter of credit, the minimum amount required based on the number of wells Caltex operates. If Caltex filed financial assurance based on the total depth of all of its wells in the amount of \$2.00 per foot as provided for by Texas Natural Resources Code §91.1041 and Statewide Rule 78(g)(1)(A), it would be required to file financial assurance in the amount of \$5,879,424.

Caltex does not believe there should be any concern about its ability to plug its wells, unless the Commission decides to deny its applications for exceptions to Statewide Rule 21, in which case plugging the wells with State funds may be necessary. Assuming that it is permitted to continue to swab its wells, Caltex expects to generate sufficient revenues to cover its operating costs and well plugging costs.

In support of its applications in the *Seven Fields* docket, Caltex represented that it would

²These wells are on the H.A. Terrell (03942) Lease which produced 188 barrels of oil from 14 wells over 9 months.

establish an internal plugging account which would be funded by deposits equal to 5% of its net revenue after royalties and taxes. Assuming a rate of return of 6% on the funds deposited in the escrow account, Caltex estimates that the available funds in the account in 12 years will be \$212,209.66. This estimate presumes production levels, prices and the other assumptions in Caltex business model which is discussed below.

Practicality of Pumping Operations

Caltex believes that pumping production of the wells affected by these applications is not economically feasible. Using average monthly production, decline curves and average estimated operating costs, Caltex calculates that pumping operations over the next 12 years and four months would result in a negative cash flow of \$2.6 million.

Caltex compares the estimated net loss from pumping operations to its evaluation of an estimated positive net cash flow of approximately \$835,000 from swabbing operations over the same period. Caltex makes several assumptions in arriving at its estimated positive net cash flow for swabbing operations as discussed below.

The first assumption made by Caltex was that the wells would produce by swabbing an average of four barrels of oil per month for a “starting” oil rate of 4 barrels per month for each well. Caltex believes that this is a reasonable and conservative assumption for at least two reasons: (1) Caltex calculated that for the 31 leases it was authorized to swab from October 2002 to November 2003, the wells produced an overall “average” of 4.12 barrels of oil per month; and (2) in Caltex’s experience, production by swabbing can achieve about 70% of the rate of production by pumping, and 70% of the average monthly rate of oil production of the involved wells during the last year the wells were on pump is 5.5 barrels of oil per month. Caltex further advises that achieving the 4 barrel per month rate was limited by the lack of commingling authority.

A second assumption made by Caltex was that the oil production decline rate by swabbing for the involved wells would be 0.0%. Caltex relied on testimony of a consulting petroleum engineer in the *Rollert* docket and an additional report by a second consulting engineer in support of its claim that the 0.0% oil production decline rate is reasonable because slower production of oil by swabbing does not deplete a reservoir as rapidly as does production by pumping.

A third assumption made by Caltex was that gas will be produced by the involved wells at the same rate as was experienced in the last calendar year of gas production when the wells were on pump with a decline rate of 5.6% per year. This decline rate is the same as used by Caltex’s consulting petroleum engineer for similar studies in the *Rollert* docket. Because only some of the involved wells currently are hooked-up for gas production, Caltex phased in gas production over a period of 24 months for the purpose of its study. When the 258 wells are hooked-up for gas production, Caltex projected that the wells collectively will produce at a starting rate of 2,062 MCF of gas per month.

A fourth assumption made by Caltex was that after all of its wells are hooked up for gas

production by November 2005 through the end of its study period in March 2016, oil and gas prices would be constant at \$19.75 per barrel and \$2.12 per mcf. These assumptions were first advanced by Caltex's consulting petroleum engineer for a similar study in the *Rollert* docket.

A fifth assumption made by Caltex was that its direct overhead cost for swabbing each well is approximately \$25.00 dollars per month over the study period³.

A sixth assumption made by Caltex was that it will cost Caltex an average of \$3,200 per well to plug the 260 wells involved here, or a total of \$832,000.

Based on these assumptions, Caltex calculates that in 12 years and four months of operations, it will achieve a positive net cash flow, after plugging costs, of approximately \$810,000.⁴

Hydrogen Sulfide

All of the wells swabbed by Caltex in these dockets produce from a reservoir containing hydrogen sulfide. Caltex swabbers are H₂S certified and wear monitors on their belts. Swabbers take the precaution of checking wind direction and approaching H₂S wells from the upwind side. During swabbing operations, any H₂S associated gas in the well is captured and circulated to a vent mounted on the top of the swabbing truck. If a well is hooked up to a gas flow line, gas production is metered and sold. Production of the gas precludes pressure build up of H₂S gas within the wellbore which might be released during swabbing operations.

History of Compliance

Within the past four years, Caltex was required to reimburse the Commission for the State funding plugging of one well, and entered into two agreed orders to resolve violations of Statewide Rule 14(b)(2). With respect to the reimbursement docket, in Oil & Gas Docket No. 01-0223541, Well No. 9 on the Cartwright, A. M. -B- (02829) Lease was plugged with State funds, when Caltex failed to plug the well as required. Caltex reimbursed the Oil Field Clean Up Fund for these plugging expenses on January 7, 2000.

With respect to the agreed orders, in Oil & Gas Docket No. 01-0226631, Caltex was the subject of an Agreed Order dated June 21, 2001, pursuant to which Caltex agreed to pay an administrative penalty for violations of Statewide Rule 14(b)(2) on the Bailey -B- (07202) Lease, Well No. 1 and the Bailey "C" (08660) Lease, Well No. 1, and agreed also to place the wells into compliance. In Oil & Gas

³ Based on assumed operating cost of \$40.00 per hour and assumed production/truck time of 0.61 hours per well, i.e., 0.61 hours x \$40.00 per hour = \$24.40 per month. This figure was rounded up to \$25.00 to include an estimated lease maintenance expense of \$800.00 which was presented as a cumulative figure for all of its leases. Caltex also assumed that monthly severance tax would be incurred at a rate of 4.6%, and a constant ad valorem taxes of \$138 dollars per month would be incurred.

⁴ Based on an estimated cumulative discounted net cash flow of \$3115.67 per well and 260 wells, i.e., \$3115.67 x 260 = \$810,074.20

Docket No. 01-0227812, Caltex was the subject of another Agreed Order dated December 4, 2001, pursuant to which Caltex agreed to pay an administrative penalty for violations of Statewide Rule 14(b)(2) on the Bethany (07429) Lease, Well Nos. 1, 2, 3, 4, and 5, and agreed also to place the wells into compliance.

According to Caltex's Managing General Partner, there have been no further violations of Commission rules relating to plugging of wells that led to formal enforcement orders against Caltex since he assumed day-to-day management of the company. However, as previously noted, inspections conducted by the District Office reported several violations of Commission Statewide Rules 3, 13 and 36. Caltex asserts that the violations of Statewide Rule 3 were all corrected, and that the violations of Statewide Rules 13 and 36 relating to the venting of hydrogen sulfide gas have been tacitly approved unless a complaint is received.

EXAMINERS' OPINION

Statewide Rule 21 sets forth both mandatory requirements and discretionary considerations in evaluating an application to use swabbing as a production method for a well. The examiners conclude, based on the evidence presented by the applicant in this uncontested proceeding, that Caltex's applications satisfy the mandatory requirements set forth in Statewide Rule 21 for approval of its applications. However, the examiners also observe that Caltex's presentation addressing three of the six mandatory requirements raise significant questions concerning whether actual swabbing operations will: 1) prevent waste or protect correlative rights; 2) prevent releases from the wells; and 3) result in a safety hazard. These concerns support a recommendation that swabbing authority be granted temporarily for the next 18 months subject to the conditions set forth in the proposed Final Order.

The examiners also believe that limiting the swabbing authority at this time is also warranted when considering the seven discretionary factors that the Commission may weigh in considering an exception to allow production by swabbing. In all seven discretionary considerations, the examiners have identified areas of concern with respect to Caltex's proposed swabbing operations. These additional areas of concern support the recommended limitations on swabbing authority in the proposed Final Order.

Mandatory Requirements

Statewide Rule 21 provides that an operator seeking an exception to the rule prohibiting swabbing as a production method *must* present evidence establishing: (1) the method of production proposed; (2) that any production is properly accounted for pursuant to Statewide Rule 26 (relating to Separating Devices, Tanks, and Surface Commingling of Oil); (3) that the proposed exception is necessary to prevent waste or protect correlative rights; (4) that wellhead control is sufficient to prevent releases from the well; (5) that no pollution of usable quality water or safety hazard will result from either the proposed production method or the condition of the well; and (6) that the operator possesses a continuing good faith claim to the right to operate the well.

(A) The Method of Production Proposed: Caltex proposes to produce the wells involved in this proceeding by swabbing. There is sufficient evidence of the type of equipment and procedures used

by Caltex for this purpose to support the applications.

(B) Proper Accounting for Production: This mandatory consideration applies to the requirements of Statewide Rule 26 relating to Separating Devices, Tanks, and Surface Commingling of Oil. Caltex has applied for and obtained surface commingling permits for all of the leases involved in these applications. Any oil produced by swabbing wells on a lease is moved by the Caltex swabbing truck to the tank battery specified in the permit and is measured and allocated in accordance with the surface commingling permit. There is nothing in the evidence to suggest that Caltex does not, or will not, properly account for production by swabbing on the leases that are the subject of this proceeding. However, the examiners note that Caltex still appears to be ironing out the wrinkles as seen by the amended production reports it filed for the months of July 2004 through September 2004. Accordingly, the proposed Final Order reiterates the requirement that Caltex properly account for any production.

(C) Waste and Correlative Rights: Caltex has presented sufficient evidence to support its claim that swabbing will result in the prevention of waste through the testimony of expert consultants concerning the reservoir characteristics and anticipated estimated recovery based on production by swabbing. However, the expert testimony is not supported by the most recent production history, and the examiners believe that this is a further basis for limiting the authority to produce by swabbing to 18 months. Additionally, the examiners believe that Caltex has not presented sufficient evidence to establish that production by swabbing is necessary to protect correlative rights.

From October 2002 through November 2003, Caltex had interim authority to swab 31 of the 45 leases involved in this proceeding. Caltex's evidence shows that swabbing produced an overall average of 4.12 barrels per month per well. Caltex also submitted evidence showing that its swabbing operations will allow for production in this field at approximately 70% of the last pumping production. Caltex's analysis shows that the last pumping production was an overall average per well of 7.5 barrels of oil per month. Assuming Caltex's conclusion on the 70% in potential swabbing production is correct, swabbing operations should yield approximately 5.5 barrels of oil per well each month.

Caltex has applied an overall per well average of 4.0 barrels of oil per month to arrive at an estimate of the total amount of reserves it will recover from these wells through March 2015. Caltex estimates the remaining recoverable reserves in the Luling-Branyon Field are 4180 barrels of oil in place per acre. Assuming that each well drains 2 acres, as provided by the unit size in the field rules, Caltex estimates that over the next 12 years, each well will recover 7.1% of the remaining reserves underlying the 2 acres of effective drainage. Caltex calculates that swabbing will recover approximately an additional 154,000 barrels of oil which would be wasted if the wells were plugged.

It reasonably may be inferred from this evidence that there are additional recoverable reserves in the subject field that can be produced by Caltex through use of swabbing as a method of production. The subject wells are no longer equipped for production by pumping, and reequipping the wells for pumping production does not appear to be economical. The examiners conclude that granting of the requested Statewide Rule 21 exceptions may prevent waste of hydrocarbons. However, the examiners suspect that the actual production amounts will be significantly lower than Caltex's estimates, especially in light of the production history for the wells in 2004, where the overall per well average is .78 barrels of oil per month which is only 20% of Caltex estimate and only 6% of the last pumping production.

Based on this data, the viability of Caltex's analysis appears to have some serious questions.⁵ However, the possibility that Caltex will not restore production to the level it estimates is not a basis for denying it the **opportunity** to prove its assertions are correct.

Finally, Caltex asserted that swabbing authority is necessary to protect its correlative rights because operators of wells on adjacent lease would be allowed to produce their wells, potentially draining reserves from Caltex's properties. Caltex offered no evidence that offsetting production is draining reserves from its properties which would be produced by swabbing. Further, Caltex's position ignores a central premise behind any claim that a permit is necessary to protect correlative rights; i.e., that protection of correlative rights addresses the opportunity to recover the fair share of reserves underlying the property. There is no evidence that Caltex is being denied such an opportunity. Caltex may at any time, reequip the wells for pumping production where competition for reserves is present. Accordingly, the examiners reject this argument as a basis for granting Caltex swabbing authority.

(D) Wellhead Control: Caltex presented evidence that all of its wells have wellheads. The evidence on this issue is not specific, but there is no particular reason to conclude that the subject wells are not sufficiently *equipped* to prevent releases from the wells. Whether wellhead control has been consistently maintained is, however, another question. While stating in every instance that Field Operations had no objection to consideration of the involved leases and wells for the granting of Statewide Rule 21 exceptions, the memoranda of Field Operations contained in the Commission's files relating to the applications at issue reported that District Office inspections found 159 wells on 29 leases venting gas to the atmosphere, typically from slightly opened valves. This is a matter of special concern because it reasonably appears from the reports that it was sour gas that was being vented.

In its written response to the Field Operations memoranda, Caltex stated that in the subject fields, virtually all wells are vented if not hooked up for gas production and that such venting did not pose a threat to the environment or public safety. Caltex further asserts that any venting will be temporary as it now equipping all of its wells to recover the gas which is currently being vented. Finally, Caltex suggests based on its conversations with Field Operations and District Office personnel that the venting of H₂S gas only becomes an issue of concern if a complaint is filed.

The examiners disagree with Caltex on this point because Statewide Rule 36(c)(8) provides that venting of H₂S gas is allowed only if permission of the Commission is obtained upon a showing that venting will not pose an unreasonable risk of harm to the public. There is no record that permission for the venting of H₂S gas has been granted to Caltex. At the very least, the Commission memoranda and Caltex's own position suggest that Caltex is deliberately venting gas on the subject leases.

It is mandatory that an applicant for an exception to Statewide Rule 21 present evidence establishing that "wellhead control is sufficient to prevent releases from the well." Arguably, where

⁵ If the most recent per well overall average of production of .78 barrels of oil per month is applied to the 260 wells in this docket through the March 2015 date used in Caltex' analysis, the total amount of oil produced would be 29,812 barrels. As noted in the discussion of production under discretionary considerations, the average cost of swabbing each well per month is approximately \$25.00. Accordingly, if production remains at current levels even swabbing operations would result in a net loss if one assumes that the current high oil prices continue over the next 12 years.

there is evidence that H₂S gas has been deliberately vented to the atmosphere from wells on the applicant's leases, the applications for exceptions on the leases where gas was vented should be denied.

Of the 45 applications discussed in this proposal for decision, 29 involve leases where 159 wells were observed venting H₂S gas. However, the evidence concerning venting is contained only in memoranda, and no Commission representative appeared at the hearing to explain the memoranda or object to Caltex's applications. In fact, the memoranda advise that Field Operations does not object to consideration of the leases for the granting of exceptions to Statewide Rule 21.

In the absence of any objection, and as an alternative to denial of these applications, the examiners recommend approval, subject to the condition that all venting cease immediately and that the permits for these 29 leases shall expire 18 months from the date of the Commission's Final Order unless Caltex submits evidence that it has equipped each well for gas production.

(E) Pollution and Safety Hazards: The evidence presented by Caltex tends to show that swabbing the subject wells will not result in pollution of usable quality water or a safety hazard. Caltex stated that the fluid levels in the subject wells are more than 1,000 feet below fresh water zones. Swabbing as conducted by Caltex does not inherently present a threat of oil spills. A minor amount of oil may drip to the ground when the swab truck operator unhooks from the well, but it is Caltex's practice to remediate this small amount of spillage on the spot.

On the other hand, the memoranda of Field Operations concerning recent inspections of the subject leases raise some concerns regarding safety hazards. The reports of H₂S gas venting to the atmosphere as discussed above is a safety concern specifically addressed by Commission rules. The concerns related to this issue will be addressed in the previously discussed recommended restrictions to the proposed Final Order granting temporary authority.

(F) Good Faith Claim: The applicant for exceptions to Statewide Rule 21 must present evidence establishing that the applicant possesses a continuing good faith claim to the right to operate the wells proposed to be produced by swabbing, bailing, or jetting. Statewide Rule 21 does not define "good faith claim," but Statewide Rule 14 does. Pursuant to Statewide Rule 14(a)(1)(E), "good faith claim" means "A factually supported claim based on a recognized legal theory to a continuing possessory right in a mineral estate, such as evidence of a currently valid oil and gas lease or a recorded deed conveying a fee interest in the mineral estate." Caltex presented sufficient evidence that it holds a currently valid oil and gas lease with respect to all of the leases involved in this proceeding.

Discretionary Considerations

Pursuant to Statewide Rule 21, the Commission *may* consider: (1) whether the wells for which exceptions are sought have passed a mechanical integrity test within the preceding 12 months; (2) the estimated monthly and cumulative production from the wells if the requested exceptions are granted; (3) whether production will be into an on-lease tank battery or a mobile tank; (4) the adequacy of the financial assurance provided by the operator to assure that the wells will be timely and properly plugged; (5) whether production volume, fine sands in the reservoir, or other factors render pumping of the wells impracticable; (6) whether the reservoir from which the well produces contains hydrogen

sulfide; and (7) the operator's history of compliance with Commission rules.

(A) Mechanical Integrity Testing: Caltex presented no evidence that any of the subject wells have passed a mechanical integrity test within the last 12 months. Accordingly, there is no evidence to indicate that this discretionary factor supports Caltex's applications. Additionally, the examiners have not identified any H-15 problems with the affected wells, there is no evidence that any of the wells have failed fluid level tests and there is no recommendation by Field Operations or District Office that any of the wells be required to pass mechanical integrity tests. Accordingly, the examiners do not believe that Caltex's applications should be conditioned on any well passing a mechanical integrity test.

(B) Monthly and Cumulative Production: Caltex estimated that the affected wells will produce by swabbing an average of four barrels of oil per month per well and that, collectively, the 258 wells will produce 640 barrels of oil per month. Caltex projected that when the 258 wells are hooked-up for gas production, the wells collectively will produce at a starting rate of 2,062 MCF of gas per month and that gas production will have an annual decline rate of 5.6%.

The examiners have doubts about the reliability of these estimates. Caltex's primary explanation for lower than estimated production has been that it lacked surface commingling authority which hindered the efficiency of its operations. However, Caltex now possesses surface commingling authority, having obtained such authority no later than June 2004. Accordingly, one would expect that production levels at or near Caltex's estimate of 4 barrels per well per month would be seen beginning in July 2004.

In fact, Commission production records do not show an increase to the estimated production levels beginning in July 2004. From January 2004 through June 2004, Caltex reported total cumulative production of 817 barrels of oil or .45 barrels of oil per well per month for the wells involved in these applications. From July 2004 through September 2004, Caltex reports cumulative production of 1027 barrels or 1.31 barrels of oil per well per month. The overall estimated production per well is only .78 barrels per month, approximately 20% of Caltex's "conservative" estimate. Coupled with Caltex estimate that it costs \$25.00 each month to swab its wells, it appears likely to the examiners that Caltex's operations would result in a net loss if production continues at current levels. Accordingly, the examiners do not believe that consideration of cumulative and monthly production of oil supports the applications. However, because this is a discretionary issue, the examiners do not recommend denial of the applications based on this issue.

Similar to the oil production estimates, the examiners doubt the reliability of the estimates for the production of natural gas. Caltex estimates that the affected wells will produce at a starting rate of 2,062 MCF of gas per month is based on what the wells produced during the last full calendar year when the wells were *pumping*. The examiners doubt that this is a reliable method for projecting initial gas production, because it is unrealistic to conclude that wells being swabbed as a method of production will produce the same amount of gas as pumping wells.

This can be specifically seen in reviewing production records for the wells on the Rollert, B. P. (01141) Lease. The examiners have officially noticed Commission production records showing that during the last full calendar year (2001) when the Rollert wells were pumping, the wells produced

28,122 MCF of gas. During 2003, Caltex produced 15,974 MCF of gas from the same wells. Through September 2004, Caltex reportedly produced 9,345 MCF of gas. These production figures are not consistent with the assumption that the wells will produce gas at the same level regardless of whether the wells are on pump or are swabbed. Accordingly, as with the oil production figures, the examiners do not believe that consideration of Caltex's estimated cumulative and monthly production of gas supports granting the applications. However, because this is a discretionary issue, the examiners do not recommend denial of the applications based on this issue.

(C) Production Into Tanks: Caltex uses a mobile swabbing truck to swab its wells. Any fluid produced from the wells by swabbing is carried into a tank on the back of the swabbing truck by a tank hose. Because of all the leases now have surface commingling permits, the swabbing truck unloads into the tank battery authorized in the permit.

The only area of concern on this issue is previously addressed in the discussion concerning the proper accounting for production. As previously noted, Caltex still appears to be ironing out the wrinkles in this area based on the amended production reports it filed for the months of June 2004 through August 2004. However, because Caltex unloads the mobile tank on the swabbing truck into an authorized tank battery, the examiners believe that the evidence on this issue, on balance, supports granting temporary authority as recommended in the proposed Final Order.

(D) Adequacy of Financial Assurance: Caltex has filed financial assurance with the Commission in the form of a \$250,000 letter of credit. This is the minimum amount of financial assurance required by law for an operator of more than 99 wells. As of December 10, 2004, Caltex operated a total of 1,254 wells having total depth of 2,939,712 feet. Thus, Caltex has financial assurance in the amount of \$199.36 per well and \$0.085 per foot. As previously noted, Caltex's own estimates assume an average plugging cost of \$3,200.00. If Caltex's financial assurance is considered the only source of funds for the plugging of wells, the examiners believe that Caltex does not have adequate financial assurance to assure that its wells will be timely and adequately plugged. Additionally, the examiners are unable to determine whether Caltex will be able to plug the wells out of its operating revenue and through the proposed internal plugging account, because the reliability of Caltex's revenue and internal plugging account projections is not established.

(E) Practicality of Pumping Wells: Caltex asserts that it is not economically practical to produce the wells by pumping. While the 258 wells involved here appear to have produced considerably more oil when they were pumping, the analysis prepared by Caltex shows that pumping production would result in a net loss based on Caltex's estimates of the costs of production. There are several other factors which complicate this issue. Approximately half of the wells obtained by Caltex were stripped of all equipment when they were acquired. Additionally, many of the wells which were equipped were neglected and the equipment was in disrepair. It is unlikely that the estimated production from the wells even at pumping levels would support the cost of new equipment.

Caltex's argument presumes that the Commission will consider an economic analysis as a basis for showing that pumping production is impracticable even though Statewide Rule 21 (k)(2)(E) does not mention economic analysis as a factor to be considered in showing that pumping a well would be impracticable. As seen by the serious questions associated with Caltex's economic analysis and several

flawed assumptions Caltex relies on, the examiners do not believe that such an economic analysis is sufficient to show that pumping production would be impracticable.

(F) Hydrogen Sulfide: Hydrocarbons in the reservoirs from which the subject wells produce contain hydrogen sulfide. Caltex's swabbing truck operators are H₂S certified and wear H₂S monitors on their belts. During swabbing operations, any H₂S associated gas is captured and circulated to a vent mounted on the top of the swabbing truck. Caltex's swabbing truck operators appear to be properly trained and equipped to deal with the threat presented by H₂S gas. Nonetheless, the instances observed during inspections of wells deliberately venting gas to the atmosphere through open valves, and Caltex's response that venting is tacitly approved unless a complaint is made are matters for concern. Accordingly, the examiners do not believe that consideration of Caltex's safety precautions during swabbing operations alone supports granting the applications due to the companion issue of deliberate venting of hydrogen sulfide gas when operations are not occurring. However, because this is a discretionary issue and the venting of hydrogen sulfide gas is prohibited under the terms and conditions of the proposed Final Order, the examiners do not recommend denial of the applications.

(G) History of Compliance: Caltex was the subject of three enforcement dockets in the 1999-2001 era relating to Rule 14(b)(2) violations. Caltex either reimbursed the State for the plugging of the wells involved or entered into agreed orders pursuant to which Caltex paid a penalty and plugged the wells. There have been no similar enforcement proceedings against Caltex from 2002 to the present.

The lease inspections suggest that violations of Statewide Rules 13 and 36 were observed in Caltex's practice of deliberately leaving valves open to vent hydrogen sulfide gas to the atmosphere. As previously noted the examiners do not agree with Caltex's argument that the venting is not a violation of Commission rules, but the restrictions in the Final Order precluding venting will address these violations. In light of the past and current violations, the examiners do not believe that Caltex's history of compliance can be cited as a positive factor for granting the applications.

Conclusion

Based on all of the factors that the Commission must, or in its discretion may, consider, the examiners have concluded that those applications for exceptions to Statewide Rule 21 should be approved, subject to conditions set forth in the attached final order.

The examiners recommend adoption of the following Findings of Fact and Conclusions of Law.

FINDINGS OF FACT

1. At least ten (10) days notice of the hearing in these dockets was sent to all parties entitled to notice, and notice was published for four consecutive weeks in newspapers of general circulation in Caldwell and Guadalupe Counties, Texas.
2. Caltex Energy Co. (“Caltex”) is a Texas General Partnership, and first filed a P-5 Organization Report with the Commission on April 13, 1998. The Commission’s “On Schedule Leases, Wells, Wellbores By Operator” records indicate that as of December 10, 2004, Caltex was the operator of 279 leases and 1,254 wells with total depth of 2,939,712 feet. Caltex filed its most recent organization report with the Commission on March 31, 2004. Greg Christofferson is identified as a general partner in the company.
3. Caltex has filed blanket financial assurance pursuant to Texas Natural Resources Code §91.1042 and Statewide Rule 78(g)(1)(B) in the form of a \$250,000 letter of credit, the minimum amount required based on the number of wells Caltex operates. If Caltex filed financial assurance based on the total depth of all of its wells in the amount of \$2.00 per foot as provided for by Texas Natural Resources Code §91.1041 and Statewide Rule 78(g)(1)(A), it would be required to file financial assurance in the amount of \$5,879,424.
4. Caltex requests that the Commission grant exceptions to Statewide Rule 21 to permit Caltex to produce 258 wells on 45 leases by swabbing as a method of production. Appendix 1 to this proposal for decision identifies the Caltex applications by docket number, lease name and number, and well numbers, and is adopted and incorporated into this finding by reference.
5. Caltex requests that its applications for exceptions to Statewide Rule 21 for the Sallie Clark (01134) Lease, Well No. 1SD, and the Maggie Moore (01033) Lease, Well No. 8A be dismissed as the two wells have been plugged.
6. The Commission recently has granted Caltex surface commingling authority with respect to all of the leases involved in these dockets.
 - a. Oil produced by Caltex from swabbing wells on a lease that has surface commingling authority is moved by Caltex’s swabbing truck to a tank battery authorized in the surface commingling permit and is properly allocated to the lease from which it was produced according to the terms of the permit.
 - b. All oil produced by Caltex from swabbing of wells on the involved leases is properly accounted for pursuant to Statewide Rule 26 (relating to Separating Devices, Tanks, and Surface Commingling of Oil).
7. The granting of the requested exceptions to Statewide Rule 21 will enable Caltex to produce hydrocarbons that otherwise would not likely be recovered.
 - a. During the last full year that prior operators produced these wells by pumping, the wells produced an average of 7.5 barrels of oil per well per month,.

- b. Appendix 2 to this proposal for decision identifies the Caltex applications by docket number, lease name and number, month of acquisition by Caltex and number of wells. Appendix 2 further provides summaries of the total production for each lease in the 12 month period prior to Caltex's acquisition, in the 12 month period after Caltex's acquisition, and in 2004 as reported to the Commission. Appendix 2 is adopted and incorporated into this finding by reference.
- b. All of the subject wells have been stripped of equipment, and the wells are no longer equipped to be produced by pumping.
- c. In the twelve month period before Caltex acquired the leases at issue in these applications, the total reported cumulative production was 12,542 barrels of oil, or 4.04 barrels of oil per month per well.
- d. In the twelve month period after Caltex acquired the leases at issue in these applications, it reported total cumulative production of 1,728 barrels of oil or .55 barrels of oil per well per month.
- e. In 2004, Caltex reported total cumulative production of 1,844 barrels of oil or .78 barrels of oil per well per month.
 - i. From January 2004 through June 2004, Caltex reported total cumulative production of 817 barrels of oil or .52 barrels of oil per well per month.
 - ii. From July 2004 through September 2004, Caltex reported total cumulative production of 1023 barrels or 1.31 barrels of oil per well per month.
 - iii. In 2004, Caltex highest producing wells are on the H.A. Terrell (03942) Lease based on reported production of 188 barrels of oil from 14 wells, an average of 2.98 barrels per well per month.
- d. If the requested exceptions to Statewide Rule 21 are granted, Caltex estimates that on the average, the involved wells will produce at least four barrels of oil per well per month. Also, if the wells are equipped for gas production and sales, Caltex estimates that the involved wells will produce up to 2,062 MCF of gas per month.
- e. Based on calculations of a petroleum engineer that the Austin Chalk and Buda formations in the area contain 4180 barrels of remaining recoverable oil in place per acre. For each well with 2 acres of effective drainage, Caltex calculates that swabbing will recover 7.1% of the remaining reserves, or approximately 600 barrels of oil, through March 2015. Caltex estimates that the cumulative recovery through March 2015 from the 258 wells for which it is requesting swabbing authority will be approximately 153,000 barrels of oil.

8. All of the involved wells are equipped with wellheads to maintain surface control. During recent District Office inspections, 159 wells on 29 of the involved leases were observed to be venting hydrogen sulfide gas to the atmosphere in violation of Commission Statewide Rules 13 and 36.
9. Granting of the requested exceptions to Statewide Rule 21 subject to conditions requiring monitoring of the involved leases for proper wellhead surface control and for compliance with the identification or H₂S sign requirements of Statewide Rules 3 and 36 will not result in pollution of usable quality water or safety hazard.
 - a. Caltex's swabbing of the involved wells will not result in any significant oil spillage. Minor amounts of oil that may drip to the ground when the swab truck operator unhooks from the well is promptly cleaned-up by the operator before he leaves the well.
 - b. Fluid levels in the involved wells are generally more than 1,000 feet below usable quality water zones as reported by Caltex from its swabbing operations.
 - c. Caltex's swab truck operators are H₂S certified and wear H₂S monitors on their belts. During swabbing operations, any H₂S associated gas is captured and circulated to a vent mounted on the top of the swabbing truck.
 - d. Proper monitoring by Caltex of wellhead surface control is a condition to the granting of exceptions to Statewide Rule 21, is necessary to ensure there is no reoccurrence of the venting of gas to the atmosphere as observed on these leases during recent District Office inspections.
 - e. Mechanical integrity testing is not required as a condition to the granting of exceptions to Statewide Rule 21
10. Caltex has currently effective mineral leases with one or more mineral owners.
11. Caltex intends to plug its wells as necessary out of operating revenues, and estimates that its plugging costs will average \$3,200.00 per well. Caltex has agreed to establish an internal plugging reserve account and deposit to the account 5% of its revenues, after the deduction of royalties and taxes to assure that Caltex's wells will be plugged as required by Commission Rule Statewide 14.
12. Caltex has a history of prior violations of Commission rules as evidenced by Commission orders in Oil & Gas Docket Nos. 01-0223541, 01-0226631, and 01-0227812.
 - a. As to Oil & Gas Docket No. 01-0223541, Caltex reimbursed the Commission for plugging a Caltex well with State funds.
 - b. As to Oil & Gas Docket Nos. 01-0226631 and 01-0227812, Caltex complied with the Commissions orders by paying a penalty and plugging the involved wells.

- c. There have been no similar enforcement orders against Caltex from 2002 to the present.

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. Caltex has a good faith claim of a current right to operate the leases and wells.
4. Approval of the exceptions to Statewide Rule 21 [16 TEX. ADMIN. CODE §3.21] requested by Caltex will prevent the waste of hydrocarbons.
5. Caltex presented sufficient evidence to justify the granting of exceptions to Statewide Rule 21 subject to the conditions set forth in the Final Order.
6. Pursuant to Caltex's withdrawal of its applications to produce the Sallie Clark (01134) Lease, Well No. 1SD and the Maggie Moore (01033) Lease, Well No. 8A due to the plugging of these two wells, Caltex's applications solely as to these two wells should be dismissed.

RECOMMENDATION

The examiners recommend that the applications be approved subject to conditions set forth in the attached Final Order and the dismissal of the applications as to the Sallie Clark (01134) Lease, Well No. 1SD and the Maggie Moore (01033) Lease, Well No. 8A due to the plugging of these two wells.

Respectfully submitted,

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Hearings Examiner

Thomas H. Richter
Technical Examiner