

May 28, 2010

OIL AND GAS DOCKET NO. 01-0264721

APPLICATION OF 21ST FOX ENERGY TEXAS, INC., TO CONSIDER AN EXCEPTION TO STATEWIDE RULE 21 TO ALLOW PRODUCTION BY SWABBING OF WELL NOS. 3, 4, 5, A2, A10, A12, B8 AND B10 ON THE KNOPP, EDNA MAE (06252) LEASE, TAYLOR-INA FIELD, MEDINA COUNTY, TEXAS

APPEARANCES:

For Applicant 21st Fox Energy Texas, Inc.:

Ed Banaszek, Jr.

Adam Morriss

PROPOSAL FOR DECISION

PROCEDURAL HISTORY

DATE OF REQUEST FOR ACTION:	March 31, 2003
NOTICE OF HEARING:	April 15, 2010
DATE CASE HEARD:	May 10, 2010
HEARD BY:	Mark Helmueller, Hearings Examiner
PFD PREPARED BY:	Mark Helmueller, Hearings Examiner Richard Atkins, Technical Examiner
PFD CIRCULATION DATE:	May 28, 2010

STATEMENT OF THE CASE

21st Fox Energy Texas, Inc. (hereinafter "21st Fox") has applied for an exception to Statewide Rule 21 for Well Nos. 3, 4, 5, A2, A10, A12, B8 and B10 on the Knopp, Edna Mae (06252) Lease, Taylor-Ina Field, Medina County, Texas (hereinafter "Knopp Lease" and/or "subject wells") to allow it to produce the eight wells by regularly swabbing them with a mobile swabbing unit. The examiners recommend that 21st Fox's application be granted as to Well Nos. 3, 4, and 5, but denied as to Well Nos. A2, A10, A12, B8 and B10. These five wells are cased with a single string of 4" Schedule 40 polyvinyl chloride (PVC) pipe and it has not be shown that they are cased and cemented in a manner to protect usable quality surface and subsurface waters as required under Statewide Rule 21(k)(1)(B)(v).

SUMMARY OF EVIDENCE

Official Notice was taken of the following printouts of reports from the Commission's mainframe database: 1) 21st Fox's most recent Commission Form P-5 (Organization Report) filings; 2) Commission Form P-4 (Producer's Transportation Authority and Certificate of Compliance) filings for the Knopp Lease; 3) Oil Lease Ledger Status Inquiries for the Knopp Lease showing the monthly oil allowable, reported monthly production and disposition of production from January 1993 through February 2010; 4) On-Schedule Leases, Wells, Wellbores By Operator Records for 21st Fox; and, 5) P-4 Certificate of Compliance Certified Letter/Cancellation/Reissue Inquiries for the Knopp Lease. Official Notice was also taken of Commission Form W-15s (Cementing Report) filed with the completion paperwork for Well Nos. 3, 4, 5, A2, A10, A12, B8 and B10 on the Knopp Lease.

21st Fox first filed an Organization Report with the Commission in 2008 and filed its most recent Organization Report in July 2009. 21st Fox is currently listed as the operator of only the Knopp Lease. There are 14 wells on the Knopp Lease with a total depth of 9,878 feet. 21st Fox submitted a \$50,000.00 cash deposit as its financial assurance at the time it filed its most recent Organization Report.

21st Fox was recognized as the operator of the Knopp Lease when the Commission approved a Form P-4 on October 22, 2008. 21st Fox also presented testimony that it has a lease with the mineral interest owners. 21st Fox acquired the Knopp Lease to determine whether a horizontal well would be economically feasible in the Taylor-Ina Field. It has drilled one well which it intends to test within the next 30 days.

21st Fox described the 13 wells on the Knopp Lease at the time of its acquisition as "legacy wells" drilled by the prior operator. Well Nos. 3, 4, and 5 were drilled in 1980. These wells are cased with a single string of 4 ½" steel casing set at a depth of approximately 600 to 650 feet with cement circulated to the surface. The Texas Commission on Environmental Quality (TCEQ) identified fresh water in the area to be protected to a depth of 200 feet below the surface.

Well Nos. A2, A10, A12, B8 and B10 on the Knopp Lease were drilled between 1987 and 1988. The Commission Form W-2 (Oil Well Potential Test, Completion or Recompletion Report) indicates that these five wells are cased with a single string of 4" Schedule 40 polyvinyl chloride (PVC) pipe set a depth of 225 feet with cement circulated to the surface. The W-2 forms identify the producing interval in the wells as between 225 and 350 feet. The W-15 forms report cement volumes consistent with casing set to a depth of 225 feet.

Based on its drilling of Well No. 1, and the information received from the prior operator, 21st Fox was concerned that the completion reports for Well Nos. A2, A10, A12, B8 and B10 were inaccurate. 21st Fox therefore ran well logs on Well A2 and Well A12 to determine how the wells

were completed. The well logs indicated that PVC casing had been set to the total depth of the well between 600-650 feet, not 225 feet as indicated in the W-2 completion data. This also brought into question the presence of cement behind the PVC casing based on the volume of cement reported on the Form W-15. 21st Fox also determined that a mechanical integrity test of the well could not be run without potentially causing a failure of the PVC casing. Finally, because PVC casing is invisible to sonic vibrations, 21st Fox could not run a standard cement bond log on the wells to determine whether cement was circulated from the total depth of the well to the surface.

In evaluating whether the PVC wells could be restored to production, 21st Fox first investigated equipping the wells with downhole pumps. Unfortunately, the pressures created by pumping operations would potentially damage and fracture the PVC pipe, which eliminated pumping production as an option. 21st Fox then evaluated whether the wells could be produced by swabbing. Tests indicated that the wells would produce approximately 1.5 to 2 bopd.

Testimony was provided to describe the process of swabbing a well. Upon arriving at each well, the swabber first removes the cap on the wellhead. The swabbing unit is lowered over the well and then hooked up to the wellbore. A swabbing cup, with a weight bar attached below it, is lowered by a retractable cable until it reaches the top of the fluid level in the well. The cable is then retracted. As the cable is retracted, the swabbing cup forms a seal against the casing, thereby forcing any fluid to the surface. Any fluid raised by this process is carried into a tank on the back of the swabbing truck by a tank hose. When swabbing is completed, the unit is disconnected and the cap is reinstalled. After the tank on the swabbing truck is filled, the swabber proceeds to the tank battery, pumps the fluids into a storage tank and records the increased fluid level.

21st Fox does not intend to produce the wells by swabbing indefinitely. The legacy wells will be plugged as 21st Fox drilled new wells if its horizontal well program proves to be successful. There is no history of any Enforcement actions against 21st Fox for violations of Commission rules.

AUTHORITY

Statewide Rule 21(k) provides in pertinent part:

Swabbing, bailing, or air jetting of wells is prohibited as a production method for wells unless the Commission has after notice and hearing, granted an exception to this subsection. The Commission shall give notice of the hearing at least 10 days prior to the date of the hearing.

(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.

EXAMINERS' OPINION

An operator must present evidence addressing the six issues outlined in Rule 21(k)(1)(B) to meet the minimum requirements for an exception to produce a well by swabbing. The operator must show: 1) the method of production; 2) the production accounting method; 3) that the exception is necessary to prevent waste or protect correlative rights; 4) that wellhead control is sufficient to prevent releases from the well; 5) that the production method for the well is safe and will not result in pollution; and 6) that it has good faith claim of a right to operate the well. Additionally, Rule 21(k)(2) delineates several potentially relevant factors to the Commission's consideration of an application under Rule 21.

The evidence shows 21st Fox met the mandatory requirements of Rule 21(k)(1) for Well Nos. 3, 4, and 5, and, on balance the applicable discretionary elements of Rule 21(k)(2) warrant

granting authority to produce these three wells by swabbing. However, because 21st Fox cannot show that the PVC cased wells are cased and cemented in a manner to protect usable quality water, it cannot satisfy the requirements of Statewide Rule 21(k)(1)(B)(v) for Well Nos. A2, A10, A12, B8 and B10.

21st Fox Meets the Requirements Necessary to Produce Wells 3, 4, & 5 by Swabbing.

The examiners believe that 21st Fox's application satisfies the six mandatory requirements under Statewide Rule 21(k)(1)(B) as to Well Nos. 3, 4, & 5. Proper notice was provided to the parties pursuant to Rule 21(k)(1)(A). The swabbing procedure was outlined as required by Rule 21(k)(1)(B)(i). 21st Fox also showed that production would be properly accounted for under Commission rules as required under Rule 21(k)(1)(B)(ii). As to the requirement that swabbing will prevent waste or protect correlative rights, 21st Fox estimates that the three wells will each produce 1.5 to 2 bopd based on several well tests. Wellhead control is sufficient to prevent releases from the well as required by Rule 21(k)(1)(B)(iv). Further, the wells are equipped with standard steel casing and are cemented from the total depth to the surface which minimizes any threat of pollution to usable quality water as required by Rule 21(k)(1)(B)(v). Finally, 21st Fox has a good faith claim of the right to operate the Knopp Lease as required by Rule 21(k)(1)(B)(vi).

The evidence also supports granting 21st Fox authority to produce Well Nos. 3, 4, & 5 on the Knopp Lease by swabbing based on several discretionary issues which the Commission may consider under Statewide Rule 21(k)(2).¹ Under Rule 21(k)(2)(B) the estimated monthly production for the three wells would be between 135 - 180 barrels of oil, an amount which is greater than the total amount reported produced in any given month from all of the wells on the Knopp Lease since January 1993. Under Rule 21(k)(2)(C) all oil is transferred to the on-lease tank battery after the wells have been swabbed. Further, historical production volumes indicate that pumping the wells would be impracticable under Rule 21(k)(2)(E). Additionally, under Rule 21(k)(2)(D), 21st Fox has posted a cash deposit of \$50,000.00, an amount which would cover the estimated costs of plugging the recently drilled well and all 13 of the legacy wells on the Knopp Lease. Finally, under Rule 21(k)(2)(G), there is no history of Enforcement actions associated with 21st Fox's physical operations, and 21st Fox has an acceptable record of compliance.

The Knopp Wells Equipped with PVC Casing Do Not Meet the Mandatory Requirements for Production by Swabbing.

As noted above, Statewide Rule 21(k)(1)(B)(v) sets a mandatory requirement for permitting swabbing as a production method that "no pollution of usable quality water or safety hazard will result from either the proposed production method or the condition of the well." In this case, 21st Fox could not provide evidence to satisfy this requirement for Well Nos. A2, A10, A12, B8 and B10

¹ It appears that neither the provisions relating to mechanical integrity tests set in Rule 21(k)(2)(A) nor the provisions relating to hydrogen sulfide reservoirs set in Rule 21(k)(2)(F) are applicable in this case.

on the Knopp Lease because they are equipped with 4" Schedule 40 PVC pipe to their total depth, and the cementing records are not consistent with well logs indicating PVC pipe set at depths of 600 feet and greater.

The record indicates that usable quality water resources must be protected from potential pollution to a depth of 200 feet on the Knopp Lease. In order to satisfy this requirement for any well, Statewide Rule 13 requires that steel casing be cemented in the well that has been pressure tested to the maximum pressure to which the pipe will be subjected. There is no provision in Statewide Rule 13 allowing wells to be cased with PVC pipe. It is unclear from the record why the original completion paperwork was validated over 20 years ago, but there was no evidence presented that a specific exception to the requirements of Statewide Rule 13 was requested or granted for the PVC equipped wells.

21st Fox indicated that it could not equip the PVC wells for pumping production, because the pump pressures could fracture the PVC pipe. Additionally, 21st Fox' determined that Well Nos. A2, A10, A12, B8 and B10 are equipped differently than indicated in the completion reports filed with the Commission. The completion reports indicate only 250 feet of PVC casing was set with cement circulated to the surface. However, the depth of the producing interval is between 600-650 feet, not 225 feet as indicated in the W-2 completion data. Further, the well logs run on Well Nos. A2 and A12 confirm that 4" casing was set to the total depth of the well, not 250 feet. Finally, the volume and sufficiency of cement behind pipe cannot be confirmed as it is calculated on the basis of the 250 feet of pipe, not 600-650 feet of pipe.

Because the reported completions of Well Nos. A2, A10, A12, B8 and B10 are not reliable, the presence of cement behind pipe to a depth necessary to protect usable quality water cannot be confirmed. Further, the PVC material used as casing in the wells is subject to breakage from normal pumping pressures or even the performance of a mechanical integrity test. Therefore, it is not possible from the evidence in the record to conclude that production by swabbing will not pose a threat of pollution to usable quality water during swabbing operations based on the condition of the five PVC cased wells as required by Statewide Rule 21(k)(1)(B)(v). Accordingly, the examiners recommend that the application to allow production by swabbing of Well Nos. A2, A10, A12, B8 and B10 on the Knopp Lease be denied.

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

FINDINGS OF FACT

1. 21st Fox Energy Texas, Inc. (“Applicant” or “21st Fox”) has applied for authority to produce 8 wells on its Knopp, Edna Mae (06252) Lease, Taylor-Ina Field, Medina County, Texas (hereinafter “Knopp Lease” and/or “subject wells”) by regularly swabbing the wells with a mobile swabbing unit.
2. Applicant and all other affected parties identified by the applicant, were given at least 10 days notice of this proceeding at the addresses provided by applicant. 21st Fox appeared at the hearing and presented evidence in support of the application.
3. 21st Fox first filed an Organization Report with the Commission in 2008 and filed its most recent Organization Report in July 2009. 21st Fox is currently listed as the operator of only the Knopp Lease. There are 14 wells on the Knopp Lease with a total depth of 9,878 feet. 21st Fox submitted a \$50,000.00 cash deposit as its financial assurance at the time it filed its most recent Organization Report.
4. 21st Fox was recognized as the operator of the Knopp Lease when the Commission approved a Form P-4 (Producer’s Transportation Authority and Certificate of Compliance) on October 22, 2008.
5. 21st Fox also presented testimony that it has a lease with the mineral interest owners. 21st Fox acquired the Knopp Lease to determine whether a horizontal well would be economically feasible in the Taylor-Ina Field. It has drilled one well which it intends to test within the next 30 days.
6. All 14 wells on the subject lease are completed in the Taylor-Ina Field.
7. The Texas Commission on Environmental Quality has determined that usable quality fresh water in the area is present to a depth of 200 feet below the surface.
8. An exception to produce Well Nos. 3, 4, and 5 on the Knopp Lease by swabbing is necessary to prevent waste.
 - A. Well Nos. 3, 4, and 5 on the Knopp Lease were drilled in 1980.
 - B. Well Nos. 3, 4, and 5 on the Knopp Lease are cased with a single string of 4 ½” steel casing set at a depth of approximately 600 to 650 feet with cement circulated to the surface.
 - C. Well Nos. 3, 4, and 5 on the Knopp Lease are equipped with wellhead control sufficient to prevent releases from the well.

- D. Well tests indicate that each well will produce between 1.5 to 2 bopd.
 - E. Total monthly production of the Knopp Lease by swabbing these three wells will be between 130 and 180 barrels of oil, an amount which will exceed the amount of monthly reported production from all wells on the Knopp Lease since January 1993.
 - F. All oil is transferred to the on-lease tank battery after the wells are swabbed.
 - G. Historical production volumes indicate that pumping the wells would be impracticable.
9. Well Nos. A2, A10, A12, B8 and B10 are not cased and cemented in a manner which will prevent potential pollution of usable quality surface and subsurface water.
- A. Well Nos. A2, A10, A12, B8 and B10 on the Knopp Lease were drilled between 1987 and 1988.
 - B. The Commission Form W-2s (Oil Well Potential Test, Completion or Recompletion Report) indicates that these five wells are cased with a single string of 4" Schedule 40 polyvinyl chloride (PVC) pipe set a depth of 225 feet with cement circulated to the surface.
 - C. The W-2 forms Well Nos. A2, A10, A12, B8 and B10 identify the producing interval as between 225 and 350 feet. However, the depth of the producing interval as reported for Well Nos. 3, 4, and 5 is between 600-650 feet, not 225 feet.
 - D. Well logs run on Well Nos. A2 and A12 confirm that 4" casing was set to the total depth of the well, not 250 feet.
 - E. The W-15 forms (Cementing Report) report cement volumes consistent with casing set to a depth of 225 feet.
 - F. The volume of cement behind pipe cannot be confirmed as it is calculated on the W-15 forms on the basis of the 250 feet of pipe, not 600-650 feet of pipe.
 - G. Well Nos. A2, A10, A12, B8 and B10 cannot be equipped for pumping production, because the pump pressures could fracture the PVC casing.
 - H. Well Nos. A2, A10, A12, B8 and B10 cannot be subject to a mechanical integrity test without potentially fracturing the PVC casing.
 - I. Well Nos. A2, A10, A12, B8 and B10 are equipped differently than indicated in the completion reports filed with the Commission.

10. 21st Fox has no history of outstanding violations of Commission rules.

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. 21st Fox's application satisfies the mandatory requirements for an exception to Statewide Rule 21 to continue to produce Well Nos. 3, 4, and 5 on the Knopp Lease by swabbing.
 - A. 21st Fox will produce Well Nos. 3, 4, and 5 on the Knopp Lease with a mobile swabbing truck.
 - B. Any fluids produced will be transferred to the tank battery on the lease.
 - C. An exception to produce the wells on the Knopp Lease by swabbing is necessary to prevent waste of a significant volume of oil.
 - D. The wellhead control for each well is sufficient to prevent releases.
 - E. The proposed production method will not pollute usable quality water as the wells are equipped with 4 ½" steel casing which is cemented to the surface.
 - F. 21st Fox has a good faith claim of the right to operate the wells on the Knopp Lease as confirmed by the lease entered into with the current mineral interest owner.
4. 21st Fox's application satisfies four of the applicable discretionary issues which the Commission may consider with ruling on a request for an exception to Statewide Rule 21 to produce Well Nos. 3, 4, and 5 on the Knopp Lease by swabbing.
 - A. Well tests indicate that each well will produce between 1.5 to 2 bopd. Based on these tests total monthly production of the Knopp Lease by swabbing these three wells will be between 130 and 180 barrels of oil, an amount which will exceed the amount of monthly reported production from all wells on the Knopp Lease since January 1993.
 - B. All oil is transferred to the on-lease tank battery after the wells are swabbed.
 - C. Historical production volumes indicate that pumping production of the wells would

be impracticable.

- D. 21st Fox has posted a cash deposit which exceeds the total estimated cost of plugging all of the wells for which it is currently listed as the operator.
 - E. 21st Fox has no history of outstanding violations of Commission rules.
5. 21st Fox application for an exception to produce by swabbing does not satisfy all of the mandatory requirements under Statewide Rule 21 for Well Nos. A2, A10, A12, B8 and B10 as the wells are not cased and cemented in a manner which will prevent potential pollution of usable quality surface and subsurface water.

RECOMMENDATION

The examiners recommend that 21st Fox Energy Texas, Inc.'s application be granted to allow it to produce by swabbing Well Nos. 3, 4, and 5, on the Knopp, Edna Mae (06252) Lease, in accordance with the attached final order. With respect to Well Nos. A2, A10, A12, B8 and B10 on the Knopp, Edna Mae (06252) Lease, the examiners recommend the application to produce these five wells by swabbing be denied.

Respectfully submitted,

Mark J. Helmueller
Hearings Examiner

Richard Atkins
Technical Examiner