OIL AND GAS DOCKET NO. 08-0268909

THE APPLICATION OF QUANTUM RESOURCES MANAGEMENT, LLC TO FOR AN EXCEPTION TO STATEWIDE RULE 13 FOR THE NEAL, JAMES LEASE WELL NO. 1H, COYANOSA (MISS. 10475) FIELD, PECOS COUNTY, TEXAS

HEARD BY: Andres J. Trevino P.E., Technical Examiner
Christopher S. Hotchkiss - Legal Examiner

HEARING DATE: February 2, 2011

APPLICANT:	**REPRESENTING:**
Tim George James Clark	Quantum Resources Management, LLC

EXAMINER'S REPORT AND RECOMMENDATION

STATEMENT OF THE CASE

Quantum Resources Management, LLC requests that its James Neal Well No. 1H in the Coyanosa (Miss. 10475) Field be determined to be compliant with Statewide Rule 13 or in the alternative be granted an exception to Statewide Rule 13. Quantum requests that it not be required to squeeze additional cement behind a liner, above the productive interval. Quantum further requests that all over production be cancelled for the well.

This application was unprotested and the examiners recommend approval of the requested exception to Statewide Rule 13.

DISCUSSION OF THE EVIDENCE

The James Neal Well No. 1H was drilled by Encore Operating, LP on August 11, 2009 as a horizontal well in the Coyanosa (Miss. 10475) Field. The Coyanosa (Miss. 10475) Field is a non associated gas field discovered in 1966 at a depth of 10,475 feet. All wells are vertical wells with the exception of the subject well and another well operated by Quantum Resources. The James Neal Well No. 1H was completed as a marginal gas well. The G-1 filed shows an initial potential of 637 MCFPD and 60 BCPD. Current production from the well is approximately 200 MCFPD, 25 BCPD and 10 BWPD. Cumulative production from the well is 98.7 MMCF and 12,707 BC. Quantum Resources acquired the well from Encore Operating through a property acquisition.

Quantum Resources received a letter dated November 29, 2010 from the Commission's proration department informing them the well was over produced because the well did not have an allowable as the well was not compliant with Statewide Rule 13.

The James Neal Well No. 1H has 2,203 feet of 13⅜"surface casing with cement circulated from the casing shoe to the ground surface. The Texas Commission on Environmental Quality recommends that usable-quality ground water be protected to a depth 2,100 feet. A 9⅝" intermediate casing string is set at a depth of 9,444 feet. The intermediate string has cement circulated to surface. A 7" production casing is set from 9,139 feet to 10,379 feet. The 7" production casing has cement circulated to surface. An un-cemented liner is set from 10,074 feet to the terminus point in the horizontal section of the well at a depth of 13,898 feet.

The top of the Mississippian Lime (productive interval) is found at a depth of approximately 11,000 feet in this well. The first perforations in the Mississippian Lime are located at a depth of 11,040 feet to 11,130 feet. The horizontal section from 11,619 feet to 13,689 feet is perforated for production. The interval in the wellbore from 11,000 feet (top of the Mississippian Lime) to 10,379 feet is not cemented. Two formations are found adjacent to the uncemented liner, the Atoka Detrital carbonate and the Barnett Shale. Both formations are unproductive in this area and are considered of low permeability.

Quantum Resources does not believe it should be required to perform additional cement remedial work such as a cement squeeze above the Mississippian Lime to get an allowable. Quantum Resources believes a cement squeeze is unnecessary as there is no chance of crossflow from productive intervals to unproductive intervals. All productive intervals above 10,379 feet are isolated with cement to surface. All water zones are also isolated with cement behind the casing. Quantum Resources fears that squeezing cement below the casing shoe at a depth of 10,379 feet may cause the perforations a 11,040 become "squeezed off". Reserves will be lost as it is unlikely Quantum Resources will reperforate the interval to reestablish production in this marginal well.

EXAMINERS OPINION

The examiners recommend that the exception to Statewide Rule 13 be granted. All productive intervals above 10,379 feet to surface are isolated with cement behind the casing. The formations immediately above the productive interval are shales or a shaley limestone that are of very low permeability and are unproductive in the area. Performing a remedial cement squeeze below the casing shoe at 10,379 feet is unnecessary as cross flow will not occur therefore no benefit will be gained by cementing these tight, unproductive formations. Additionally, performing a remedial cement operation risks the well as anytime a well is reentered and tools are lowered and raised within the 11,000 foot well can result in damage occuring to the well, tools and/or equipment. Performing a remedial cement squeeze risks cementing off perforations below 11,000 feet which could cause a loss of reserves as it is unlikely the perforations will be reperforated.

FINDINGS OF FACT

1. Notice of this hearing was given to all persons entitled to notice at least ten (10) days prior to the hearing.

2. The James Neal Well No. 1H is a horizontal well completed in the Coyanosa (Miss. 10475) Field. The Coyanosa (Miss. 10475) Field is a non associated gas field discovered in 1966 at a depth of 10,475 feet.

3. The James Neal Well No. 1H was completed as a marginal gas well. The G-1 filed shows an initial potential of 637 MCFPD and 60 BCPD. Current production from the well is approximately 200 MCFPD, 25 BCPD and 10 BWPD. Cumulative production from the well is 98.7 MMCF and 12,707 BC.

4. The James Neal Well No. 1H was drilled by Encore Operating, LP on August 11, 2009 as a horizontal well drilled to a measured depth of 13,898 feet.

    a. The James Neal Well No. 1H has 2,203 feet of 13⅜”surface casing with cement circulated from the casing shoe to the ground surface. The Texas Commission on Environmental Quality recommends that usable-quality ground water be protected to a depth 2,100 feet.

    b. The James Neal Well No. 1H has 9⅝" intermediate casing string is set at a depth of 9,444 feet with cement circulated to surface.

    c. The James Neal Well No. 1H has 7" production casing is set from 9,139 feet to 10,379 feet with cement circulated to surface.

    d. The James Neal Well No. 1H has an un-cemented liner is set from 10,074 feet to the terminus point in the horizontal section of the well at a depth of 13,898 feet.

5. Quantum Resources received a letter dated November 29, 2010 from the Commission’s proration department informing them the well was over produced because the well did not have an allowable as the well was not compliant.

6. The top of the Mississippian Lime (productive interval) is found at a depth of approximately 11,000 feet in this well. The horizontal section from 11,619 feet to 13,689 feet is perforated for production.

7. The interval in the wellbore from 11,000 feet (top of the Mississippian Lime) to 10,379 feet is not cemented.

8. Two formations are found adjacent to the uncemented liner, the Atoka Detrital carbonate and the Barnett Shale. Both formations are unproductive in this area and are considered of low permeability.

9. All productive intervals above 10,379 feet are isolated with cement to surface. All water zones are also isolated with cement behind the casing.

10. Performing a remedial cement squeeze below the casing shoe at 10,379 feet is unnecessary as cross flow will not occur therefore no benefit will be gained by cementing these tight, unproductive formations.

11. Performing a remedial cement squeeze risks cementing off perforations below 11,000 feet which will cause a loss of reserves as it is unlikely the perforations will be reperforated

CONCLUSIONS OF LAW

1. Proper notice was timely given to all parties entitled to notice pursuant to applicable statutes and rules.

2. All things have occurred and have been accomplished to give the Commission jurisdiction in this case.

3. Approval of the requested exception to Rule 13 for the James Neal Well No. 1H will not cause waste or harm correlative rights.

EXAMINER'S RECOMMENDATION

It is recommended that Quantum Resources Management, LLC be granted an exception to Rule 13 for its James Neal Well No. 1H. Quantum is not required to perform a remedial cement squeeze below the casing shoe at 10,379 feet of the well in order to receive an assignment of an allowable, assuming all other required completion papers have been properly filed.

Respectfully submitted,

Andres J. Trevino P.E.
Technical Examiner

Christopher S. Hotchkiss
Hearings Examiner