

**ENERGY RESOURCES CONSERVATION BOARD**

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**Calgary Alberta**

**TAQA NORTH LTD.**

**APPLICATION FOR GOOD PRODUCTION PRACTICE**

**HUXLEY FIELD**

**2011 ABERCB 016**

**Application No. 1642820**

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**DECISION**

The Energy Resources Conservation Board (ERCB/Board) has considered the recommendations made by the examiners, adopts the recommendations, and directs that Application No. 1642820 be approved.

Dated in Calgary, Alberta, on May 30, 2011.

**ENERGY RESOURCES CONSERVATION BOARD**

*<original signed by>*

Dan McFadyen  
Chairman



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## **1 RECOMMENDATION**

Having considered Application No. 1642820, noting that it meets ERCB requirements, and having received a withdrawal of the only objection, the examiners recommend cancellation of the scheduled public hearing and approval of Application No. 1642820.

## **2 APPLICATION**

Taqa North Ltd.(Taqa) applied, pursuant to Section 10.060 of the *Oil and Gas Conservation Regulations*, to produce oil from the Huxley Nisku D (Nisku D) Pool under Good Production Practice (GPP) status. The applicant proposes that GPP is the optimum depletion strategy for the Nisku D Pool and will not adversely affect conservation of the resource.

An objection to the application was filed by South Bay Resources Canada, ULC (South Bay). South Bay produces oil from the Nisku D Pool through its off-target well offsetting Taqa's producing well. South Bay opposed the granting of GPP status for the pool alleging that unrestricted oil production from Taqa's well would cause inequitable drainage of oil from South Bay's land and could lead to premature watering out of South Bay's well.

## **3 DISCUSSION**

The Board scheduled a public hearing in Calgary, Alberta to commence on March 22, 2011, before Board-appointed examiners B. C. Hubbard, P.Eng. (Presiding Member), D. B. Fairgrieve, P.Geol., and H. W. Knox, P.Eng.

On March 14, 2011, the ERCB received notification that the intervener, South Bay, was withdrawing its objection to the application. As there are no outstanding objections to the application, the examiners recommend that the hearing be cancelled.

Monthly production from the Nisku D Pool is currently restricted by the Maximum Rate Limitation (MRL) assigned for the pool. Under GPP status, wells in the pool would be allowed to produce, unrestricted by base allowable or Gas-Oil-Ratio penalties, but in accordance with good engineering practices, to optimize oil recovery from the pool.

Section 3.3 of *Directive 065: Resource Applications for Oil and Gas Reservoirs*, requires that an application for GPP status must demonstrate that removal of production rate controls will not negatively affect conservation of the remaining oil and associated gas in the pool. Relevant considerations are conservation of produced gas, feasibility of enhanced recovery, and whether accelerated production is an optimal depletion strategy.

In reviewing Taqa's application and supporting submissions, the examiners note that gas production from the pool is being conserved. Also, the examiners are satisfied that the Nisku D Pool does not appear to be a good candidate for enhanced recovery, noting Taqa's submission that an attempted waterflood in another Nisku pool in the area led to premature water breakthrough at producing wells in the pool. Further, the examiners are of the view that observed pressure decline in the Nisku D Pool suggests that the amount of recoverable oil remaining in the pool is not large.

In considering whether accelerated production from the Nisku D Pool would be an optimal depletion strategy, the examiners note that both Taqa and South Bay submitted data indicating the presence of an oil-water contact in the pool. Notwithstanding that South Bay withdrew its objection, its allegation that unrestricted production from Taqa's well could lead to premature watering out of South Bay's well resulted in the examiners requesting Taqa to provide additional information regarding the potential for increased production rates and drawdown to cause water coning in both producing wells in the pool, potentially having a negative impact on oil conservation. Although Taqa was not able to quantify the risk of coning water in the Nisku D Pool, nor the potential impact on oil recovery, the examiners note from Taqa's submissions that its well does not have a history of water production even though it has produced at higher rates than South Bay's well, which began to experience increasing water cuts shortly after the start of production. Based on the production history of the two wells, Taqa alleged that the water production observed in South Bay's well is not a result of water coning and that it does not expect water coning to occur at its well producing at GPP rates on a sustained basis. The examiners accept Taqa's conclusions with respect to water coning based on the production history to date of the Nisku D Pool. The examiners also note, however, that the Nisku D Pool is relatively new, and the longer term impact of underlying water on ultimate recovery is unknown. In the examiners' view, operation of the Nisku D Pool under GPP status would include careful attention by the operators to any effect of production practices on watercut and adjusting practices as necessary to optimize oil recovery. The examiners also note that if new information becomes available that indicates GPP status is not the optimal depletion strategy, the ERCB may replace GPP status with appropriate rate controls.

The examiners are satisfied that the application is complete with respect to the requirements of *Directive 065*. The examiners therefore recommend that Application No. 1642820 be approved.

Dated in Calgary, Alberta, on May 30, 2011.

## **ENERGY RESOURCES CONSERVATION BOARD**

*<original signed by>*

B. C. Hubbard, P.Eng.  
Presiding Member