STATE OF MICHIGAN
DEPARTMENT OF ENVIRONMENTAL QUALITY

ORDER OF THE SUPERVISOR OF WELLS

IN THE MATTER OF:

THE PETITION OF WEST BAY EXPLORATION COMPANY FOR AN ORDER FROM THE SUPERVISOR OF WELLS FOR AN EXCEPTION TO THE NO FLARE ORDER PROVISIONS OF SPECIAL ORDER NO. 3-71 IN MILFORD TOWNSHIP, OAKLAND COUNTY, MICHIGAN.	) ORDER NO. 06-2015

OPINION AND ORDER

This case involves the Petition of West Bay Exploration Company (Petitioner). The Petitioner drilled and completed an oil and gas well (Kensington Metroparks 1-31) in the Guelph Dolomite Formation. The Petitioner asserts it is not economically feasible to re-construct pipeline and associated facilities to provide a gas market connection. Under Special Order No. 3-71, as amended, any Guelph Dolomite well in Oakland County not having a gas market connection shall be closed in until a market connection is achieved or an exception is granted. The Petitioner seeks an Order from the Supervisor of Wells (Supervisor) authorizing it to flare up to 100 thousand cubic feet (MCF) of gas per day at the Kensington Metroparks 1-31 well (Permit Number 54360), as an exception to Special Order No. 3-71, as amended. The 160-acre drilling unit for the Kensington Metroparks 1-31 well consists of the NE 1/4 of Section 31, T2N, R7E, Milford Township, Oakland County, Michigan.

Jurisdiction

The development of oil and gas in this state is regulated under Part 615, Supervisor of Wells, of the Natural Resources and Environmental Protection Act, 1994 PA 451, as amended, MCL 324.61501 *et seq*. The purpose of Part 615 is to foster the orderly development and production of the oil and gas resources of this state while preventing waste. MCL 324.61502. To that end, the Supervisor may issue orders necessary to enforce rules promulgated under Part 615. MCL 324.61506(a). Part 615 provides that a

person shall not commit waste in the production of oil or gas. MCL 324.61504. Waste includes the unnecessary or excessive loss of gas. MCL 324.61501. Special Order No. 3-71, as amended, provides for a public hearing upon filing of a petition to resolve factors of exception. The evidentiary hearing is governed by the applicable provisions of the Administrative Procedures Act, 1969 PA 306, as amended, MCL 24.201 *et seq*. See 1996 MR 9, R 324.1203. The evidentiary hearing in this matter was held on November 19, 2015.

FINDINGS OF FACT

The Administrative Law Judge determined the Notice of Hearing was properly served and published. One timely Answer in opposition to the Petition was filed by Mr. David and Mrs. Lynda Hollens, owners of property adjacent to the production facility servicing the Kensington Metroparks 1-31 well. The Hollens cited concerns with excessive noise, odor, and light from the flare at the facility as the basis for their objection to the Petition. The Hollens did not appear at the hearing and the Supervisor designated the hearing to be an evidentiary hearing pursuant to R 324.1205(1)(b) and directed evidence be presented in the form of oral testimony.

The Petitioner specifically requests that the Supervisor issue an Order that authorizes an exception to the no flare provisions of Special Order No. 3-71, as amended, allowing it to flare up to 100 MCF of gas per day at the Kensington Metroparks 1-31 well. Petitioner is the operator of the Kensington Metropark 1-31 well, which was completed as an oil and gas well in the Guelph Dolomite Formation. In support of its case, the Petitioner offered the testimony of Mr. Timothy J. Brock, President of Brock Engineering, LLC; and Mr. Timothy Baker, Vice President Operations and Engineering, West Bay Exploration Company. Mr. Brock was recognized as an expert in petroleum engineering and Mr. Baker as an expert in oil and gas operations and petroleum engineering.

Mr. Brock testified the Kensington Metroparks 1-31 well is in the late depletion stage of production. He prepared a production decline curve for the Kensington Metroparks 1-31 well (Exhibit B-1) which indicates the estimated remaining oil to be recovered is

6.41 thousand barrels.

Based on his material balance calculations, Mr. Brock estimated the reservoir initially had 945,000 barrels of oil and 759,000 MCF of gas in place. Recovery to date has been 43 percent of the original oil in place and 92 percent of the original gas in place. Mr. Brock testified that while the well is nearly depleted in pressure, well testing indicates it still has significant deliverability and may produce additional oil commercially if it has appropriately set production allowables.

Petitioner conducted flow tests on the Kensington Metroparks 1-31 well from December 1, 2014, through April 30, 2015. Mr. Brock prepared a daily plot of the oil, gas and water production and casing pressure for the Kensington Metroparks 1-31 well (Exhibit C-1) during this test period. Based on information gathered during the test period, Mr. Brock concluded that while the well is capable of producing oil, it cannot do so at its current no-flare rate of 40 MCF per day.

Mr. Brock testified the gas sales connection to the well was terminated by Consumers Power in 2011. Mr. Baker explained that contractual limits in the gas sales agreement pertaining to limits on BTU's in the gas resulted in the Petitioner losing access to the pipeline. Mr. Brock reviewed the viability of re-connecting the well and marketing the gas. After reviewing the costs associated with re-initiating gas sales, necessary facility upgrades, and operating expenses; compared to the revenue generated from gas sales, he concluded it would take eight to ten years for Petitioner to recoup its costs, assuming the well produced at an assumed rate, with no decline and without any change in operational cost or product prices.

It is Mr. Brock's opinion that initiation of gas sales is uneconomic and would result in waste and premature abandonment of the well. It is also his opinion that if the well is allowed to flare up to a maximum 100 MCF per day, additional remaining oil could be economically produced.

In response to the concerns raised by Mr. and Mrs. Hollens regarding noise, odor, and light, Mr. Baker testified the Petitioner has taken operational steps to reduce noise levels and light from its flare at the facility for the Kensington Metroparks 1-31 well. He indicated that when gas sales were terminated, the compressors had been removed, which

significantly reduced noise at the facility. Mr. Baker testified odor detection and notification devices had been installed and in the fall of 2014, the flare stack had been renovated with a shield and secondary containment (Exhibit E), reducing light at the facility. He indicated the new flare design should actually be quieter than the previous design given lower differential pressure allowed by additional holes and the shielding effect afforded by the flare design.

I find that the Petitioner has taken adequate measures to reduce noise, odor, and light at the facility for the Kensington Metroparks 1-31 well. I further find that flaring of up to 100 MCF of gas from the Kensington Metroparks 1-31 well will not cause waste.

CONCLUSIONS OF LAW

Based on the findings of fact, I conclude, as a matter of law:

1. Exceptions to the no flare provisions of Special Order No. 3-71, as amended, may be granted by the Supervisor after a hearing upon his option or by petition in a contested case.

2. The Supervisor has jurisdiction over the subject matter and the persons interested therein.

3. Due notice of the time, place, and purpose of the hearing was given as required by law and all interested persons were afforded an opportunity to be heard. 1996 MR 9, R 324.1204.

DETERMINATION AND ORDER

Based on the Findings of Fact and Conclusions of Law, the Supervisor determines that the Petitioner's request for an exception to the no flare provisions of Special Order No. 3-71, as amended, is granted for the Kensington Metroparks 1-31 well.

NOW, THEREFORE, IT IS ORDERED:

1. The Petitioner is granted an exception to the no flare provisions of Special Order No. 3-71, as amended, and is authorized to produce and flare up to 100 MCF of gas per day from the Kensington Metroparks 1-31 well.

2. The Petitioner shall submit to the Supervisor on a monthly basis, a report of the volume of flared gas, and oil and water production.

3. The Petitioner shall not remove the flare stack as long as the Kensington Metroparks 1-31 well continues to produce.

4. The Petitioner shall maintain an automatic shut-off device at the Kensington Metroparks 1-31 well flare for the purpose of shutting off the gas stream in the event of a flare outage.

5. The Supervisor retains jurisdiction in this matter.

6. This Order shall be effective immediately.

DATED: Dec. 30, 2015

HAROLD R. FITCH
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