



Manitoba Science, Technology, Energy and Mines  
Box 1359, 227 King St. West  
Virden, MB ROM 2CO  
Phone (204) 748-4260  
Fax (204) 748-2208

December 30, 2014

**Attn: Mr. Allan Gervin**

**RE: Battery Application for North Hargrave 16-25-12-27 W1M**

Highmark Exploration would like to apply for a permanent battery operating permit at location 16-25-12-27 W1M. Highmark will comply with all the regulations set out by the Manitoba Science, Technology, Energy and Mines.

Please review the following application.

75 (1) Battery scheduled startup date will be April/May 2014

- a) A cheque for \$1000 is attached.
- b) Highmark Exploration has been operating in the province of Manitoba for 1 year and is in good standing. Highmark Exploration has been operating in the province for 1 year and should be in good standing with the government. If a performance deposit is required, please inform the company of the amount and a cheque will be issued.
- c) Two copies of the survey plan of the battery location are attached.
- d) The names and addresses of all landowners and occupants within 1.5 km of the proposed site are listed in an attached document. A sample consultation letter and a summary of the consultations is also attached. Please note that most of the consent has been granted to Highmark from parties within the 1.5 km radius of consultation. The rest of the consultation is ongoing and will forward you a final report once all consent are obtained.
- e) There will be NO wells tied in to the battery at this time. All production will be all trucked in.
- f) An estimate of the production rates for oil, water and gas are as follows:

Estimated Oil Production	Estimated Water Production	Estimated Gas Production
200 m <sup>3</sup> /day	900 m <sup>3</sup> /day	1.6 E3m <sup>3</sup> /day

An estimate of the allocation of the gas volumes are as follows:

Used for fuel	Flared	Vented
0%	100%	0%

g) A copy of the representative gas analysis from wells in the area are attached.

h) The specifications of the process vessels to be used are as follows:

Equipment	Dimensions	Min. Flow	Max Flow	AOP	AOT
5-steel production tanks	750 bbl each				

- i) There will be no testing done at the battery at this time. All production will be trucked in. There is a provision to install testing facilities at a later time when Highmark continues the development of this field. Each well will be tested for a minimum 24 hour period at least once every three months, in order to comply with well testing regulations. Each well will be producing to its own production tanks on lease and gauged daily.
- j) Highmark proposes to flare gas from the production tanks. A vapour recovery system and flare stack will be utilized.
- k) i. Gas will be flared.  
ii. Production will be trucked from single well batteries to this battery. As such, gas entrained in the produced fluids will be minimal. Nothing else can be done at this time.  
iii. Gas will be flared to control off-lease odours.
- l) A copy of the air dispersion modelling is attached.
- m) Two copies of the plot drawing are attached.
- n) Two copies of schematic process flow diagram are attached.
- o) Repealed
- p) Highmark is currently evaluating converting an existing well to a disposal well for the battery. There is provision to install a disposal pump system in the battery. This will be utilized when Highmark obtains disposal license from the government. Initially, produced water will trucked to other facilities in the area.

If you have any additional questions, comments, or concerns please contact Erwin Sison (403) 608-6171.  
Thank you for your time.

Sincerely,



Erwin Sison, P.Eng.  
Vice President, Engineering  
Highmark Exploration