



**Minister of
Agriculture and Resource Development**

Legislative Building
WINNIPEG, MANITOBA, CANADA
R3C 0V8

MINISTERIAL ORDER

**Subsection 116(2)
THE OIL AND GAS ACT**

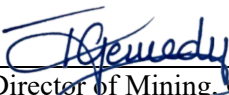
WATERFLOOD ORDER NO. 89

**Pertaining to Waterflood Operations
in Sinclair Unit No. 23**

- 1.0 The Unit Operator shall conduct waterflood operations by injecting water into the Daly Sinclair Bakken Torquay Pool underlying Sinclair Unit No. 23 ("the Unit") through the wells listed in Schedule A. The Director may approve the conversion of additional wells in the Unit to water injection.
- 1.1 Every injection well shall be completed as approved under Section 47 of the Drilling and Production Regulation ("the Regulation").
- 1.2 The maximum wellhead pressure at which water may be injected is 8 300 kPa.
- 1.3 The Director may, from time to time, establish a maximum or minimum rate at which water may be injected into a well.
- 1.4 The annulus of each injection well shall be pressure tested in accordance with Section 50 of the Regulation.
- 2.0 The Unit Operator shall conduct an annual survey to determine the level and distribution of reservoir pressure in the Unit. A summary of the results of any pressure surveys conducted during the year are to be included in the annual waterflood progress report required under Section 73 of the Regulation.
- 2.1 The frequency of pressure surveys may be reduced where the Director is satisfied that more frequent surveys will not assist the Unit Operator in monitoring the effectiveness of the waterflood.
- 2.2 The Unit Operator is responsible for monitoring the effectiveness of the waterflood and for collecting such reservoir data and other information as is necessary to evaluate and optimize waterflood performance.

- 2.3 The Unit Operator shall advise the Petroleum Branch of the suspension of water injection at any well, any indication of channelling or breakthrough of injected water to a producing well or out of zone and any other detrimental effects that may be attributable to the waterflood operations.
- 3.0 The Unit Operator shall file a report of production or injection for each well in the Unit in accordance with Section 120 of the Regulation.
- 4.0 The Unit Operator shall file an annual waterflood progress report in accordance with Section 73 of the Regulation.
- 5.0 Only Swan River formation source water is approved to be injected into the Unit. Any other sources of water must be approved by the Petroleum Branch prior to injection.

December 11, 2022
Date



Director of Mining, Oil and Gas for
Minister Agriculture and Resource Development

SCHEDULE A

WATERFLOOD ORDER NO. 89

SINCLAIR UNIT NO. 23

WATER INJECTION WELLS

WELL NAME	LSD	SEC	TWP	RGE
Sinclair Unit No. 23 HZNTL WIW	16	19	08	29