

Order Designating a Special Project in the North Montney Seismic Monitoring and Mitigation Area

Order #25-90-002

1. Definitions

1.1. The following definitions apply in this Order:

“**hydraulic fracturing operations**” means hydraulic fracturing operations involving horizontal, multi-stage fracturing in a well targeting the Montney or Doig formations and located wholly within the NMSMMA as defined in this Order;

“**induced seismicity pre-assessment**” means a document that provides an outline of hydraulic fracturing operations, target formations, well trajectories, seismic history, seismic monitoring plan and mitigation plan, in the form published by the Regulator, as replaced or amended from time to time

“**innovative method**” means hydraulic fracturing operations as defined in this Order;

“**magnitude**” means the magnitude of a seismic event as recorded by a seismic array monitored by a well permit holder or reported to the well permit holder by any source available including the Regulator, and in the event of any difference, means the magnitude reported to the well permit holder by the Regulator;

“**North Montney Seismic Monitoring and Mitigation Area**” or “**NMSMMA**” means the area identified in Appendix I of this Order;

“**notice of operation**” means a notice of operation that includes hydraulic fracturing operations as defined in this Order;

“**Regulator**” means the British Columbia Energy Regulator;

“**well permit holder**” means a holder of a permit that includes permission to drill or operate a well wholly located within the NMSMMA as defined in this Order.

2. Designation

2.1. The Regulator makes this Order designating an innovative method of carrying out certain energy resource activities and related activities as a special project under section 75(1)(c) of the Energy Resource Activities Act in the area identified in Appendix I of this Order, subject to conditions stated in section 3 of this Order.

3. Conditions

3.1. Under section 75(2) of the Energy Resource Activities Act, the Regulator specifies the following.

3.2. Pre-Operation Requirements

3.2.1. Prior to conducting hydraulic fracturing operations on or after February 13, 2025, a well permit holder must:

- (a) prepare and submit to the Regulator an induced seismicity pre-assessment with each notice of operation; and
- (b) notify the Regulator via email not less than 24 hours and not more than 72 hours before hydraulic fracturing operations begin on a common drilling pad

3.3. Active Hydraulic Fracturing Operations Requirements

- 3.3.1. During hydraulic fracturing operations, a well permit holder must, in accordance with applicable guidance published by the Regulator and as amended or replaced from time to time:
 - (a) ensure that ground motion monitoring is conducted within 5km of the well bore trajectories from the common drilling pad;
 - (b) ensure that continuous monitoring is conducted using a seismic array providing real-time seismicity readings; and
 - (c) maintain complete records of seismic events and ground motion monitoring data, for production on request by the Regulator.
- 3.4. Seismic Thresholds During Hydraulic Fracturing Operations
 - 3.4.1. If a seismic event with a magnitude of 2.50 or greater is identified within a 5 km radius of the well bore trajectory, the well permit holder must notify the Regulator via email as soon as practicable and in any event, within 24 hours.
 - 3.4.2. If a seismic event with a magnitude of 3.00 to 3.99 is identified within a 5 km radius of the well bore trajectory and hydraulic fracturing operations at the common drilling pad are identified as responsible for the seismic event, the well permit holder must initiate its mitigation plan as outlined in its induced seismicity pre-assessment and take action accordingly.
 - 3.4.3. If a seismic event with a magnitude of 4.00 or greater is identified within a 5 km radius of the well bore trajectory, the well permit holder must immediately suspend hydraulic fracturing operations on the common drilling pad and notify the Regulator immediately via phone.
 - 3.4.4. Hydraulic fracturing operations suspended under 3.4.3 may continue once the well permit holder has received written permission from the Regulator to resume hydraulic fracturing operations.
 - 3.4.5. If a well permit holder resumes hydraulic fracturing operations pursuant to 3.4.4 and a seismic event with a magnitude of 3.70 or greater is subsequently identified within a 5 km radius of the well bore trajectory, the well permit holder must immediately suspend hydraulic fracturing operations on the common drilling pad and notify the Regulator immediately via phone.
 - 3.4.6. Hydraulic fracturing operations suspended under 3.4.5 may continue once the well permit holder has received written permission from the Regulator to resume hydraulic fracturing operations.
 - 3.4.7. The well permit holder must ensure that any operations to reduce reservoir pressure during the applicable suspension period(s) in 3.4.3 or 3.4.5 are not undertaken except with written permission from the Regulator.
- 3.5. Post-Operation Requirements
 - 3.5.1. Within 30 days of concluding hydraulic fracturing operations, a well permit holder must submit to the Regulator a ground motion monitoring report in accordance with the Regulator's published Guidance for Ground Motion Monitoring and Submission, or its equivalent, as replaced or amended from time to time.

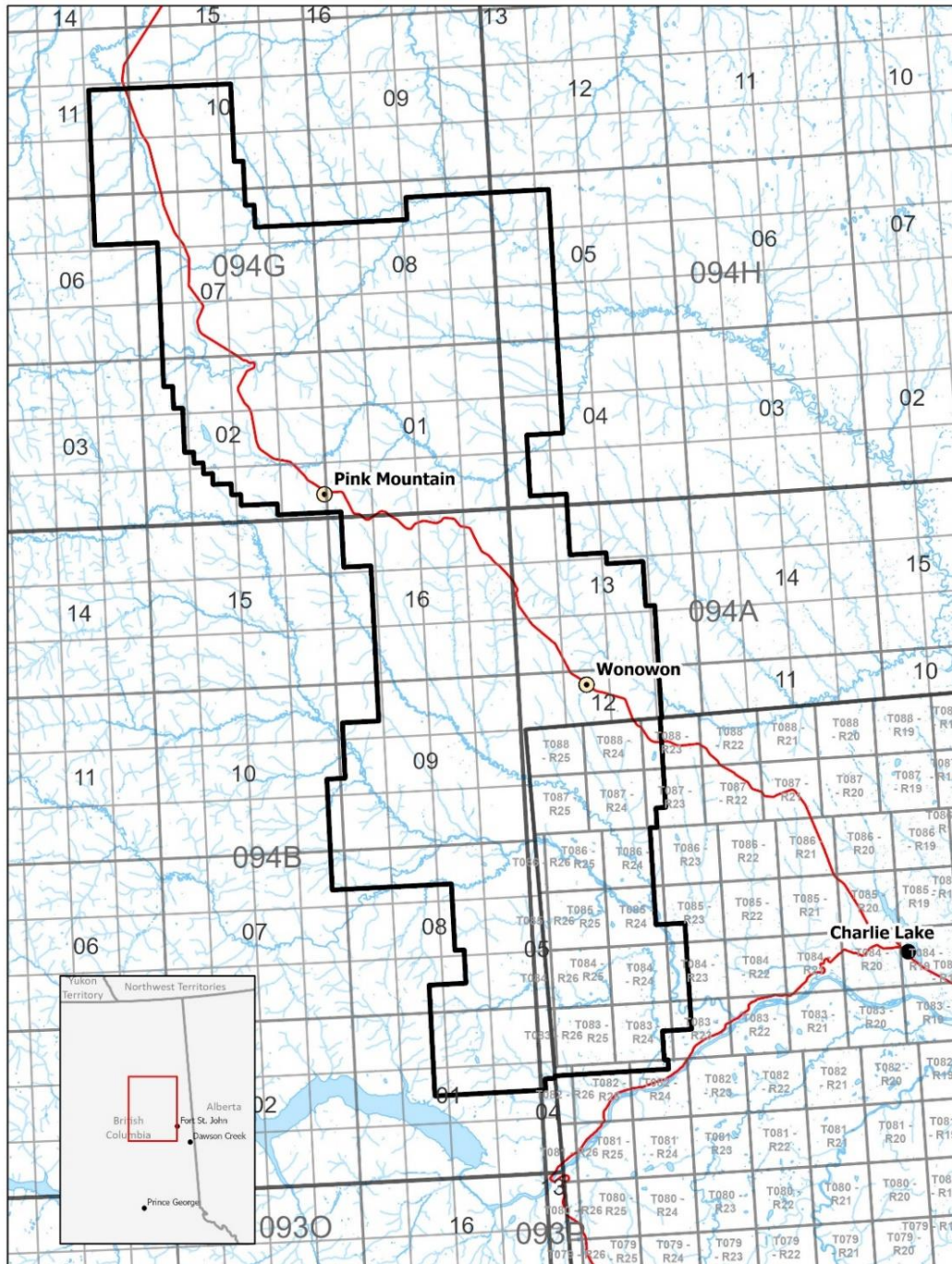


Richard Slocomb
Vice President, Environmental & Subsurface Resource Management
BC Energy Regulator

DATED AT the City of Victoria, in the Province of British Columbia, this 13th day of February, 2025

Appendix I

North Montney Seismic Monitoring and Mitigation Area (NMSMMA) The NMSMMA is located in the Wonowon-Pink Mountain region of northeast British Columbia as outlined on the map below and identified in the schedule following.



Map Legend: North Montney Seismic Monitoring and Mitigation Area (NMSMMA) Outline —

NMSMMA Schedule:

In this schedule "TWP " refers to "township ", "RGE " refers to "range ", "SEC " refers to "section ", "W6M" refers to "west of the sixth meridian ", "NTS " refers to "National Topographic System ", "BLK " refers to "block " and "F " refers to fractional.

NTS 094-A-04	BLK E Units 60, 70, 78F-80, 88F-90, 98F-100; BLK L Units 08F-10, 18F-20, 28F-30, 38F-40, 48F-50, 58F-60, 68F-70, 78F-80, 88F-90, 98F-100
NTS 094-A-05	BLK D Units 08F-10, 18F-20, 28F-30, 38F-40, 48F-50, 58F-60, 68F-70, 78F-80, 88F-90, 98F-100; BLK E Units 08F-10, 18F-20, 28F-30, 38F-40, 48F-50, 58F-60, 68F-70, 79F-80, 89F-90, 99F-100; BLK L Units 09F, 10, 19F, 20, 29F, 30, 39F-40, 49F-50
NTS 094-A-12	BLK D Units 09F, 10, 19F, 20, 29F, 30, 39F, 40, 49F, 50, 59F, 60, 69F, 70, 79F, 80, 89F, 90, 99F, 100; BLK E Units 09F, 10, 19F, 20, 29F, 30, 39F, 40, 49F, 50, 59F, 60, 69F, 70, 79F, 80, 89F, 90, 99F, 100; BLK I Units 10F, 20, 30, 40, 50, 60, 70, 80, 90, 100; BLK J Units 01F, 02F, 03F, 04F, 05F, 06F, 07F, 08F, 09F, 10F, 11-100; BLK K Units 01F, 02F, 03F, 04F, 05F, 06F, 07F, 08F, 09F, 10F, 11-100; BLK L Units 01F, 02F, 03F, 04F, 05F, 06F, 07F, 08F, 09F, 10F, 11-100;
NTS 094-A-13	BLK A Units 10, 20, 30, 40, 50, 60, 70, 80, 90, 100; BLK B Units 01-100; BLK C Units 01-100; BLK D Units 01-100; BLK F Units 01-100; BLK G Units 01-10, 12-20, 22-30, 32-40, 42-50, 52-60, 62-70, 72-80, 82-90; BLK H Unit 10; BLK J Unit 10; BLK K Units 01-10, 18-20, 28-30, 38-40, 48-50, 58-60, 68-70, 78-80, 88-90, 98-100; BLK L Units 01-100
NTS 094-B-01	BLK F Units 51-53, 61-63, 71-73, 81-83, 91-93; BLK G Units 51-100; BLK H Units 51-100; BLK I Units 01-100; BLK J Units 01-100; BLK K Units 01-03, 11-13, 21-23, 31-33, 41-43, 51-53, 61-63, 71-73, 81-83, 91-9.
NTS 094-B-07	BLK I Units 31-33, 41-43, 51-53, 61-63, 71-73, 81-83, 91-93
NTS 094-B-08	BLK A Units 01-100; BLK B Units 01-55, 61-65, 71-75, 81-85, 91-95; BLK C Units 01-03, 11-13, 21-23, 31-33, 41-43 BLK G Units 01-05, 11-17, 21-27, 31-37, 41-47, 51-57, 61-67, 71-77, 81-87, 91-97; BLK H Units 01-100; BLK I Units 01-100; BLK J Units 01-7, 11-17, 21-27, 31-100; BLK K Units 31-100; BLK L Units 31-100
NTS 094-B-09	BLK A Units 01-100; BLK B Units 01-100; BLK C Units 01-100; BLK D Units 01-100; BLK E Units 01-39, 41-49, 51-59, 61-69, 71-79, 81-89, 91-99; BLK F Units 01-100; BLK G Units 01-100; BLK H Units 01-100; BLK I Units 01-100; BLK J Units 01-100; BLK K Units 01-100; BLK L Units 01-09, 11-19, 21-29, 31, 41, 51, 61, 71, 81, 91
NTS 094-B-10	BLK A Units 01-03, 11-13, 21-23, 31-33, 41-43, 51-53, 61-63, 71-73, 81-83, 91-93; BLK H Units 01-03, 11-13, 21-23
NTS 094-B-16	BLK A Units 01-100; BLK B Units 01-100; BLK C Units 01-100; BLK D Units 01, 11, 21, 31, 41, 51, 61, 71, 81, 91; BLK E Units 01, 11, 21, 31, 41, 51, 61, 71, 81, 91; BLK F Units 01-100; BLK G Units 01-100; BLK H Units 01-100 BLK I Units 01-100; BLK J Units 01-100; BLK K Units 01-100; BLK L Units 01, 11-17, 21-27, 31-37, 41-47, 51-57, 61-67, 71-77, 81-87, 91-97
NTS 94-G-01	BLK A Units 01-100; BLK B Units 01-100; BLK C Units 01-100; BLK D Units 01-07, 11-100; BLK E Units 01-100; BLK F Units 01-100; BLK G Units 01-100; BLK H Units 01-100; BLK I Units 01-100; BLK J Units 01-100; BLK K Units 01-100; BLK L Units 01-100
NTS 94-G-02	BLK A Units 11-100; BLK B Units 11, 21, 31-39, 41-49, 51-100; BLK C Units 51, 61, 71-75, 81-85, 91-97; BLK E Units 31, 41, 51, 61, 71, 81, 91; BLK F Units 01-07, 11-19, 21-29, 31-100; BLK G Units 01-100; BLK H Units 01-100; BLK I Units 01-100; BLK J Units 01-100; BLK K Units 01-100; BLK L Units 01, 11-13, 21-23, 31-33, 41-43, 51-55, 61-65, 71-75, 81-85, 91-95
NTS 94-G-06	BLK I Units 11-19, 21-29, 31-39, 41-49, 51-59, 61-69, 71-79, 81-89, 91-99
NTS 94-G-07	BLK A Units 01-100; BLK B Units 01-100; BLK C Units 01-100; BLK D Units 01-05, 11-15, 21-25, 31-35, 41-45, 51-55, 61-65, 71-75, 81-85, 91-95; BLK E Units 01-05, 11-13, 21-23, 31-33, 41-43, 51-55, 61-65, 71-75, 81-85, 91-95; BLK F Units 01-100; BLK G Units 01-100; BLK H Units 01-100; BLK I Units 01-30; BLK J Units 01-30, 34-40, 44-50, 54-60, 64-70, 76-80, 86-90, 96-100; BLK K Units 01-100; BLK L Units 01-05, 11-100
NTS 94-G-08	BLK A Units 01-100; BLK B Units 01-100; BLK C Units 01-100; BLK D Units 01-07, 11-100; BLK E Units 01-100; BLK F Units 01-100; BLK G Units 01-100; BLK H Units 01-100; BLK I Units 01-70; BLK J Units 01-39, 41-49, 51-59, 61-69, 71-79; BLK K Units 01-30; BLK L Units 01-30
NTS 94-G-10	BLK B Units 06-10, 16-20, 26-30, 36-40, 46-50, 58-60, 68-70, 78-80, 88-90, 98-100; BLK C Units 01-100; BLK D Units 01-100; BLK E Units 01-100; BLK F Units 01-100; BLK G Units 07-10, 17-20, 27-30, 37-40, 47-50, 57-60, 67-70, 77-80, 87-90
NTS 94-G-11	BLK A Units 01-09, 11-19, 21-29, 31-39, 41-49, 51-59, 61-69, 71-79, 81-89, 91-99; BLK H Units 11-19, 21-29, 31-39, 41-49, 51-59, 61-69, 71-79, 81-89
NTS 094-H-04	BLK C Units 08-10, 18-20; BLK D Units 01-20, 26-100; BLK E Units 06-10, 16-20, 26-30, 31-100; BLK F Units 38-40, 48-50, 58-60, 68-70, 78-80, 88-90, 98-100; BLK K Units 08-10, 18-20, 28-30, 38-40, 48-50, 58-60, 68-70, 78-80, 88-90, 98-100; BLK L Units 01-100

NTS 094-H-05 **BLK C Units** 08-10, 18-20, 28-30, 38-40, 48-50, 58-60, 68-70, 78-80, 88-90, 98-100; **BLK D Units** 01-100; **BLK E Units** 01-100; **BLK F Units** 08-10, 18-20, 28-30, 38-40, 48-50, 58-60, 68-70, 78-80, 88-90, 98-100; **BLK K Units** 08-10, 18-20, 28-30, 38-40, 48-50, 58-60, 68-70; **BLK L Units** 01-70

TWP 082 RGE 24W6M	SEC 31-34
TWP 082 RGE 25W6M	SEC 31-36
TWP 082 RGE 26W6M	SEC 35F, 36
TWP 083 RGE 23W6M	SEC 19, 20, 29-32
TWP 083 RGE 24W6M	SEC 02-11, 14-36
TWP 083 RGE 25W6M	SEC 01-36
TWP 083 RGE 26W6M	SEC 01F, 12F, 13F, 24F, 25 F, 36F
TWP 084 RGE 23W6M	SEC 05-08, 17-20, 29-32
TWP 084 RGE 24W6M	SEC 1-36
TWP 084 RGE 25W6M	SEC 1-36
TWP 084 RGE 26W6M	SEC 01F, 12F, 13F, 24F, 25F, 36F
TWP 085 RGE 24W6M	SEC 01-12, 14-23, 26-35
TWP 085 RGE 25W6M	SEC 01-36
TWP 085 RGE 26W6M	SEC 01F, 12F, 13 F, 24 F, 25 F, 36F
TWP 086 RGE 24W6M	SEC 02-11, 14-23, 26-35
TWP 086 RGE 25W6M	SEC 01-36
TWP 086 RGE 26W6M	SEC 01F, 12F, 13 F, 24 F, 25 F, 36F
TWP 087 RGE 23W6M	SEC 06, 07, 17, 18, 19, 20, 29, 30, 31, 32
TWP 087 RGE 24W6M	SEC 01-36
TWP 087 RGE 25W6M	SEC 01-05, 06F, 07F, 08-17, 18F, 19F, 20-29, 30F, 31F, 32-36
TWP 088 RGE 23W6M	SEC 05, 06, 07, 08, 19, 20, 29,30, 31F, 32F
TWP 088 RGE 24W6M	SEC 01-30, 31F, 32F, 33F, 34F, 35F, 36F
TWP 088 RGE 25W6M	SEC 01-34, 35F, 36F