



MICHIGAN DEPARTMENT OF ENVIRONMENT, GREAT LAKES, AND ENERGY
Geologic Resources Management Division

**High Volume Hydraulic Fracturing Operations
Environmental Impact Assessment**

Required pursuant to Part 615 of Act 451 PA 1994, as amended. Attach additional pages as necessary.
Falsification of this information may result in fines and/or imprisonment.

A. Project Description

- 1. Applicant: _____
- 2. Well name and number: _____ Permit number: _____
- 3. Check all that apply: Application to drill and operate Application for change of well status
 Request for a large volume water withdrawal
- 4. Well pad information: Size _____ acres
Number of drilled oil/gas wells _____ Number of proposed oil/gas wells _____

B. High Volume Hydraulic Fracturing (>100,000 gallons carrier fluid(s))

- 1. Treatment type: _____
Primary carrier fluid: Water Other: _____ Total fluid volume: _____ gallons
Additional carrier fluid: Water Other: _____ Total fluid volume: _____ gallons
- 2. Water withdrawal volume: _____ gallons (If >3,000,000 gallons, complete Section C)
- 3. Provide map showing pad details and location of fresh water storage pit pursuant to R 324.1403 (2)
- 4. Available water sources exist within 1,320 feet of proposed oil/gas well Yes No
If yes, attach all available water source well logs within 1,320 feet of the oil/gas well surface location, and a supplemental plat map of all available water source locations within the 1,320 ft radius of the oil/gas well surface location. Conduct baseline sampling of up to 10 available water sources pursuant to R 324.1404.

C. Large Volume Water Withdrawal (>3,000,000 gallons water)

- 1. Water Withdrawal Assessment Tool (WWAT) completed. Date: _____
Results: _____ (Attach WWAT report; do not register proposed withdrawal)
- 2. Combined water withdrawal schedule and pumping rate: _____
Number of water withdrawal wells: _____ proposed existing

Well No./ID	Aquifer type	Casing depth (ft)	Total depth (ft)	Rate (GPM)	Schedule (hours/day)	Schedule (days/week)	Latitude	Longitude

3. Monitor well(s): Is a monitor well necessary per R 324.1403? Yes No

Well No./ID	Existing or proposed	Aquifer type	Casing depth (ft)	Total depth (ft)	Latitude	Longitude

4. Maps – attach supplemental plat(s) showing:

- a. location of monitor well(s) and water withdrawal well(s). Note whether existing or proposed.
- b. location of all recorded fresh water wells and reasonably identifiable fresh water wells within 1,320 feet of the water withdrawal location(s).
- c. proposed oil/gas well location, fresh water pit impoundment, containment location and dimensions.

5. Contingency plan provided per R 324.1402 (2) (d)? Yes (attach) No

If no is checked, explain why a contingency plan was not deemed necessary:

Certification

As a representative of the applicant, I am authorized to prepare this form and certify that the facts stated herein are true, accurate, and complete to the best of my knowledge.

Name: _____ Signature: _____

Email Address: _____ Date: _____

Instructions

Application to drill and operate: Submit via email to EGLE-GRMD-PermitApplications@Michigan.gov.

Application for change of well status: Submit to the GRMD Area Geologist and District Office email.

- Bay City: EGLE-GRMD-Records-Bay-City@Michigan.gov
- Cadillac: EGLE-GRMD-Records-Cadillac@Michigan.gov
- Gaylord: EGLE-GRMD-Records-Gaylord@Michigan.gov
- Kalamazoo: EGLE-GRMD-Records-Kalamazoo@Michigan.gov
- Lansing: EGLE-GRMD-Records-Lansing@Michigan.gov
- UP: EGLE-GRMD-Records-UP@Michigan.gov
- Warren: EGLE-GRMD-Records-Warren@Michigan.gov

People with disabilities may request this material in an alternate format by emailing EGLE-Accessibility@Michigan.gov or calling 800-662-9278.

EGLE does not discriminate on the basis of race, sex, religion, age, national origin, color, marital status, disability, political beliefs, height, weight, genetic information, or sexual orientation in the administration of any of its programs or activities, and prohibits intimidation and retaliation, as required by applicable laws and regulations.

This form and its contents are subject to the Freedom of Information Act and may be released to the public.