



Ohio Administrative Code Rule 3745-535-820 Groundwater detection monitoring.

Effective: [March 1, 2026](#)

(A) The owner or operator shall document the detection monitoring program in a plan that includes at a minimum a description of the following:

(1) A groundwater monitoring system in accordance with rule 3475-535-805 of the Administrative Code.

(2) Sampling and analysis procedures, including an appropriate statistical method, in accordance with rules 3745-535-810 and 3745-535-815 of the Administrative Code.

(3) Detection monitoring procedures, including monitoring frequency and a parameter list, in accordance with paragraph (B) of this rule and rule 3745-535-825 of the Administrative Code.

(B) The owner or operator shall monitor the groundwater monitoring system and determine the concentration or value of the parameters in accordance with the following:

(1) For monitoring wells screened within the uppermost aquifer system beneath the facility, parameters 1 through 66 contained in rule 3745-535-801 of the Administrative Code or the alternative parameter list approved in accordance with paragraphs (A) or (B) of rule 3745-535-825 of the Administrative Code.

(2) For monitoring wells screened in a significant zone of saturation beneath the facility, parameters 18, 25, 33, 61, and 63 through 66, contained in rule 3745-535-801 of the Administrative Code or the alternate parameter list approved in accordance with paragraph (A) to (C) of rule 3745-535-825 of the Administrative Code.

(3) Except as specified in paragraph (B)(3)(d) of this rule, establish background by collecting the following samples and fulfill the statistical analysis provisions contained in rule 3745-535-815 of the Administrative Code:



- (a) During the initial one hundred and eighty days a minimum of four independent samples from each background and downgradient monitoring well.
- (b) After collection of the initial four samples pursuant to paragraph (B)(3)(a) of this rule, a minimum of four additional, independent samples from each background and downgradient monitoring well on a quarterly sampling schedule until a minimum total of eight independent samples are collected.
- (c) After collecting the eight or more independent samples from each monitoring well as described in paragraphs (B)(3)(a) and (B)(3)(b) of this rule, statistically analyze the parameters listed in paragraph (B)(1) of this rule.
- (d) The owner or operator of a facility with an existing groundwater monitoring system may use existing data to meet the provisions of paragraphs (B)(3)(a) to (B)(3)(c) of this rule, provided the information complies with rules 3745-535-810 and 3745-535-815 of the Administrative Code and is made available upon request by Ohio EPA.
- (4) Collect and analyze the samples at a minimum semiannually beginning not later than two years after initiating statistical background data collection in accordance with paragraph (B)(3) of this rule and continuing during subsequent semiannual sampling events.
- (5) Not later than two years after initiating background sampling in accordance with paragraph (B)(3) of this rule, commence sampling semiannually as follows:
- (a) Collect and analyze a minimum of one sample from each background and downgradient monitoring well in accordance with paragraphs (B)(1) and (B)(2) of this rule.
- (b) Statistically analyze the results from the monitoring wells beginning with the results from the first monitoring event collected pursuant to paragraph (B)(5)(a) of this rule and semiannually thereafter, for the parameters and locations as specified in paragraphs (B)(1) and (B)(2) of this rule.
- (c) At least annually, collect and analyze one sample from all monitoring wells for the parameters



contained in rule 3745-535-801 of the Administrative Code or the alternative parameter list approved in accordance with paragraphs (A) through (C) of rule 3745-535-825 of the Administrative Code, unless an alternate frequency has been approved in accordance with paragraph (D) of rule 3745-535-825 of the Administrative Code.

(d) Field analyze at least one sample from each well in the monitoring system per sampling event for parameters 67 through 69 and 76 in rule 3745-535-801 of the Administrative Code.

(6) If a new monitoring well or replacement monitoring well is to be added to an existing monitoring system, statistically analyze the groundwater analytical data from the monitoring well in accordance with paragraph (B)(3) of this rule.

(C) Not later than seventy-five days after collecting a sample from a well that yields a statistically significant increase over background, the owner or operator shall submit a written notification to Ohio EPA that indicates which wells and parameters that have statistically triggered in accordance with the monitoring requirements contained in paragraphs (B)(1) and (B)(2) of this rule.

(D) Not later than one hundred twenty days after collecting a sample from a well that yields a statistically significant increase over background, the owner or operator may submit a report to Ohio EPA demonstrating a false positive in accordance with either of the following:

(1) Using the "1 of M" resampling method to demonstrate that the statistically significant increase over background was a false positive, as long as the method is protective of human health and safety and the environment and documented in the statistical analysis plan pursuant to paragraph (A) of rule 3745-535-815 of the Administrative Code. If the owner or operator successfully demonstrates that the statistically significant increase over background was a false positive, then the owner or operator may return to detection monitoring in accordance with paragraph (B) of this rule.

(2) Demonstrate that the statistically significant increase over background resulted from a source other than the facility, an error in the sampling, analysis, or statistical evaluation, or from natural variation in groundwater quality. Upon notification by the director that the report does not successfully demonstrate that the statistically significant increase over background resulted from a source other than the facility, an error in the sampling, analysis, or statistical evaluation, or from



AUTHENTICATED,
OHIO LEGISLATIVE SERVICE
COMMISSION
DOCUMENT #511415

natural variation in groundwater quality, the owner or operator shall comply with rule 3745-535-830 of the Administrative Code.