



Ohio Administrative Code Rule 1501:14-4-01 Geological data report.

Effective: December 18, 2017

(A) Each application for a surface mining permit shall contain a geological data report, on forms prescribed by the chief, of the results of test borings for each mining area that the operator has conducted or otherwise has readily available. The location from which the test boring results are determined shall include the complete stratigraphic column to be affected and shall be shown on all maps. More than one test boring report may be required where necessary to adequately show the stratigraphic column in the mining area. The report shall include the following information for each stratum to be affected:

- (1) The thickness of each stratum of overburden, mineral or coal deposit as it occurs in its natural state, from the surface to at least five feet below the deepest level of mining;
- (2) The name and geologic description of each stratum; and
- (3) An identification of the strata to be produced.

(B) For those operations located in coal bearing regions of Ohio, each stratum to be excavated within the permit area, with the exception of topsoil, subsoil, limestone, and any other mineral to be produced, shall be designated as acid producing or non-acid producing. Strata designated as acid producing shall be handled in accordance with rule 1501:14-3-02 of the Administrative Code. Any strata designated as non-acid producing shall be analyzed by a competent commercial laboratory or its equivalent, as approved by the chief, for the pH and the calcium carbonate deficiency according to the following procedures:

- (1) For pH: The contents of all samples shall be reduced to such size as will permit the particles of the entire sample to pass through a 250 micron sieve, size 60 ASTM. All samples shall be tested by measuring the pH of a 2:1 soil (or pulverized rock) distilled water mixture, or a saturated paste of the soil using distilled water, with a glass electrode pH meter. The method used shall be described on an attachment to the test boring report; and



(2) For the calcium carbonate deficiency:

(a) Sulfur content: The content of all samples shall be reduced to such size as will permit the particles of the entire sample to pass through a 250 micron sieve, size 60 ASTM. Samples shall be analyzed for either total sulfur content or pyritic sulfur content by standard recognized analytical methods such as ASTM International methods of analyses for total sulfur content. The website for ASTM international is <http://www.astm.org>.

If samples are not fractionated to provide analyses of only pyritic sulfur content, analyses showing total sulfur content will be presumed to indicate pyritic sulfur content;

(b) Neutralization potential: The contents of all samples shall be reduced to such size as will permit the particles of the entire sample to pass through a 250 micron sieve, size 60 ASTM. Samples shall be analyzed by standard recognized analytical methods; and

(c) Calcium carbonate deficiency: Multiply the percentage of sulfur content by 31.24 and subtract from the product the total neutralization potential expressed in units of tons per thousand tons of material.

(C) Results of tests conducted in accordance with paragraph (B) of this rule shall be submitted with the geological data report.

(D) If test borings have not been conducted or are not readily available in an area that is being or has been mined, the information required in paragraphs (A) and (B) of this rule may be determined from an existing mining face where the strata to be affected are exposed.