

## Ohio EPA – Division of Drinking and Ground Waters (DDAGW)

### INSTRUCTIONS FOR REPORTING NITRATE AND NITRITE ANALYTICAL RESULTS

March 2011

These instructions provide information about reporting nitrate and nitrite analytical results to Ohio EPA's DDAGW. If you have questions, please contact Wendy Sheeran at (614) 644-2752.

#### SECTION 1: Analytical Information

The following table lists Maximum Contaminant Levels (MCLs), reporting limits, preservatives and maximum holding times. Any sample that exceeds a MCL must be reported to Ohio EPA by the end of the next business day. All other samples must be reported by the tenth day following the month in which the analysis was completed.

Analyte	MCL	Ohio EPA Reporting Limit*	Preservative	Maximum Holding Time
Nitrate	10 mg/L	0.5 mg/L	4°C	48 hours (14 days if chlorinated)
Nitrite	1 mg/L	0.1 mg/L	4°C	48 hours
Nitrate-Nitrite	10 mg/L	0.5 mg/L	H <sub>2</sub> SO <sub>4</sub>	28 days

\*The reporting limit is value at and above which a laboratory is required to quantify a contaminant. Laboratories should report according to these reporting limits or their analytical capability if lower.

#### SECTION 2: Reporting Instructions

Reporting of nitrate and nitrite analytical results involves using one or more of the following analyte codes: nitrate-nitrite combined (1038), nitrate (1040), and nitrite (1041). Instructions on the appropriate use of these codes are given below based on the sample preservation and analytical method used. Examples are provided using an Excel spreadsheet format.

#### **UNACIDIFIED SAMPLE USING NON-CADMIUM REDUCTION METHOD**

(EPA 300.0, SM 4110-B, SM 4500 NO[3]D, or SM 4500-NO[2]-B)

Enter the nitrate value (1040) and/or nitrite (1041) value(s) **as analyzed**.

Analyte Code*	Analysis Completion Date	Analysis Completion Time	Data Quality*	Data Quality Reason	Analysis Method Code	Less Than Indicator	Result	Result Unit Code
1040  NITRATE	02/07/2011		Accepted		300.0		2.38	MG/L
1041  NITRITE	02/07/2011		Accepted		300.0	<	0.1	MG/L

#### **ACIDIFIED SAMPLE AND/OR SAMPLE RUN BY CADMIUM REDUCTION METHOD**

(EPA 353.2, SM 4500 NO[3]-E, or SM 4500 NO[3]-F)

Analytical results for samples that are acidified or analyzed by a cadmium reduction method represent a nitrate-nitrite combined total since individual nitrate or nitrite species cannot be identified. If a separate nitrite analysis is run, a nitrate value can be obtained by subtracting the nitrite result from the combined nitrate-nitrite result. Otherwise, the nitrate value is assumed to equal the combined nitrate-nitrite result. An assumed nitrite value may be reported if the combined nitrate-nitrite result is less than or equal to 0.1 mg/L.

**If nitrite was analyzed separately:**

1. Enter the nitrate-nitrite combined value (1038) **as analyzed**.
2. Enter the value for nitrite (1041) **as analyzed**.
3. Enter the value for nitrate (1040) as follows:
  - a. If the nitrate-nitrite combined value (1038) is a detection, subtract the nitrite value (1041) from the nitrate-nitrite combined value, and enter the difference as the value for nitrate (1040). A non-detection for nitrite counts as zero.

Analyte Code*	Analysis Completion Date	Analysis Completion Time	Data Quality*	Data Quality Reason	Analysis Method Code	Less Than Indicator	Result	Result Unit Code
1038  NITRATE-NITRITE	02/07/2011		Accepted		353.2		1.68	MG/L
1040  NITRATE	02/07/2011		Accepted		353.2		1.53	MG/L
1041  NITRITE	02/07/2011		Accepted		353.2		0.15	MG/L

- b. If the nitrate-nitrite combined value (1038) is a non-detection, enter this result as the value for nitrate (1040).

Analyte Code*	Analysis Completion Date	Analysis Completion Time	Data Quality*	Data Quality Reason	Analysis Method Code	Less Than Indicator	Result	Result Unit Code
1038  NITRATE-NITRITE	02/07/2011		Accepted		353.2	<	0.5	MG/L
1040  NITRATE	02/07/2011		Accepted		353.2	<	0.5	MG/L
1041  NITRITE	02/07/2011		Accepted		353.2		0.02	MG/L

**If nitrite was not analyzed separately:**

1. Enter the nitrate-nitrite combined value (1038) **as analyzed**.
2. Enter the nitrate-nitrite combined result as the value for nitrate (1040).
3. An assumed nitrite value (1041) may be entered depending on the nitrate-nitrite result as follows:
  - a) If the nitrate-nitrite value (1038) is a non-detection less than or equal to 0.1 mg/L, enter this result as the value for nitrite (1041).

Analyte Code*	Analysis Completion Date	Analysis Completion Time	Data Quality*	Data Quality Reason	Analysis Method Code	Less Than Indicator	Result	Result Unit Code
1038  NITRATE-NITRITE	02/07/2011		Accepted		353.2	<	0.1	MG/L
1040  NITRATE	02/07/2011		Accepted		353.2	<	0.1	MG/L
1041  NITRITE	02/07/2011		Accepted		353.2	<	0.1	MG/L

- b) If nitrate-nitrite result (1038) is a detection less than or equal to 0.1 mg/L, enter a less than (<) sign and this result as the value for nitrite (1041).

Analyte Code*	Analysis Completion Date	Analysis Completion Time	Data Quality*	Data Quality Reason	Analysis Method Code	Less Than Indicator	Result	Result Unit Code
1038  NITRATE-NITRITE	02/07/2011		Accepted		353.2		0.1	MG/L
1040  NITRATE	02/07/2011		Accepted		353.2		0.1	MG/L
1041  NITRITE	02/07/2011		Accepted		353.2	<	0.1	MG/L

- c) If the nitrate-nitrite combined result (1038) is higher than 0.1 mg/L, do not enter a value for nitrite.

Analyte Code*	Analysis Completion Date	Analysis Completion Time	Data Quality*	Data Quality Reason	Analysis Method Code	Less Than Indicator	Result	Result Unit Code
1038  NITRATE-NITRITE	02/07/2011		Accepted		353.2	<	0.5	MG/L
1040  NITRATE	02/07/2011		Accepted		353.2	<	0.5	MG/L