Water Sciences Laboratory Analytical Report

Nebraska Water Center , a part of the
Robert B. Daugherty Water for Food Global Institute at the University of Nebraska
e: dsnow1.unl.edu | p: 1 402.472.7539 | f: 1 402.472.9599 | c: 1 402.304.3748

Results Reported To:

Jessica Gray
Eastern Research Group, Inc.
14555 Avion Parkway Suite 200
Chantilly, VA 20151
(703) 633-1625
jessica.gray@erg.com

Project: **ERG CSD GROUNDWATER SAMPLING**
Sampled By: Juan Rogers
Received: 05/03/2018
Received By: David Cassada
Batch: **W18206**

Protocol: 12_02_11_01
Nitrogen and Oxygen Isotopes using azide reduction and Trace gas Preconcentrator Method
Protocol Reference:
McIlvin, Matthew R Altabet, Mark A (2005) Chemical conversion of nitrate and nitrite to nitrous oxide for nitrogen and oxygen isotopic analysis in freshwater and seawater. *Anal. Chem.*, 77, 5589-5595.

**** *Results of Analysis* ****

Lab ID	Sample ID	Collection Date	δ15N-NO3 (‰)	δ18O-NO3 (‰)	Analysis Date
18-1865	D5A	05/02/2018	-0.684	+1.22	05/23/2018
18-1867	D5B	05/02/2018	-8.93	-4.10	06/06/2018
18-1868	D6A	05/02/2018	-0.828	-2.95	05/23/2018
18-1869	D6B	05/02/2018	-2.70	-0.508	05/23/2018
18-1870	D7A	05/02/2018	-2.62	+1.53	05/23/2018
18-1871	D7B	05/02/2018	-4.99	-3.17	05/23/2018
18-1872	D8A	05/02/2018	+8.24	+4.86	06/06/2018
18-1873	D8B	05/02/2018	+0.232	+2.27	05/23/2018
18-1874	D9A	05/02/2018	-1.65	+1.23	05/23/2018
18-1875	D9B	05/02/2018	+2.72	+1.35	05/23/2018
18-1876	D10A	05/02/2018	-6.75	-3.01	06/06/2018
18-1877	D10B	05/02/2018	-1.72	+0.082	05/23/2018
18-1878	D11A	05/02/2018	+1.96	+5.26	05/23/2018
18-1879	D11B	05/02/2018	+5.06	+2.47	05/24/2018
18-1880	E1A	05/02/2018	+3.35	+6.17	05/24/2018
18-1881	E1B	05/02/2018	+6.84	+5.39	05/24/2018
18-1882	E2A	05/02/2018	+2.63	+6.36	05/24/2018
18-1883	E2B	05/02/2018	+1.89	-0.204	05/24/2018
18-1884	E3A	05/02/2018	-0.027	+1.74	05/24/2018
18-1885	E3B	05/02/2018	+0.684	+1.59	05/24/2018
18-1886	E4A	05/02/2018	+3.69	+5.12	05/24/2018
18-1887	E4B	05/02/2018	-0.840	+4.71	05/24/2018
18-1888	E5A	05/02/2018	+1.29	+4.91	05/24/2018
18-1889	E5B	05/02/2018	+2.59	+5.44	05/24/2018
18-1890	E6A	05/02/2018	-6.39	+3.20	05/24/2018
18-1891	E6B	05/02/2018	-2.48	+4.47	05/24/2018
18-1892	E7A	05/02/2018	+3.76	+7.91	05/24/2018
18-1893	E7B	05/02/2018	-4.23	-2.39	05/24/2018

$$\delta\,(‰) = \frac{R_{sample} - R_{standard}}{R_{standard}} x1000$$

Rstandard: D/H= 0.00015575, 18O/16=0.0020052; Standard Mean Ocean Water; 15N/14N=0.0036765 Atmospheric Nitrogen

Results Approved: 7/9/2018 Daniel D. Snow, Laboratory Director