

# NYE County NWRPO -Technical Data Report

RID No.	Transmitter	Org.	Receiver	Org.	Key word1	Title/Description
6582	Gilmore	Nye County NWRPO	QARC	Nye	3S, 4PB,	Isotope analyses from University of Waterloo's Environmental Isotope Lab (EIL) for EWDP groundwater samples collected from August 2003 to May 2004
Doc. Date	4/6/2005	General Doc. Type	QA Program Doc	Keyword2	EIL	
Entry Date	4/13/2005	Detailed Doc. Type	Data	Keyword3	Analyses	
Data Originator Preparer	M. E. Patton / K. Gilmore					
Title of Data	Isotope analyses for EWDP groundwater samples collected from August 2003 to May 2004					
Description of Data	Water geochemistry data from water samples obtained August 2003 through May 2004 during EWDP sampling events. Filename: "EILresults_QA2003-2004.xls." The following analyses were conducted by the University of Waterloo Environmental Isotope Lab (EIL): stable isotope ratio analysis (SIRA) of oxygen and hydrogen in water, SIRA of carbon in total dissolved inorganic carbon, SIRA of nitrogen and oxygen in nitrate, strontium, radiocarbon, and tritium. These analyses were conducted on samples collected at the following EWDP wells : NC-EWDP-22S, -27P, 16P, -28P, -4PB, -Washburn-1X, -18P, -10P, -22PA, -22PB, -23P, -7SC, -10S, -3S, -19IM1, -19IM2, -19D, -24P, -29P, -19PB, and -19P. Data package includes QA analyses reports and original lab reports.					
Data Collection Method	Groundwater was pumped to the ground surface with a Bennett pump (piston pump operated with compressed air) from wells NC-EWDP-4PB, -7SC, -10P, -16P, -18P, -19P, -19PB, -22PA, -22PB, -23P, -24P, -27P, -28P, and -29P; with a submersible impeller pump from wells NC-EWDP-3S, -10S, -19D, -19IM1, -19IM2 and -22S; and with a small diameter bladder pump from well NC-EWDP-Washburn-1X . The wells were purged and samples collected, processed, bottled, and shipped to the testing laboratory following standard methods documented in Nye County QA technical procedure TP-8.1 revision 2 and test plan TPN-11.1.					
Data Location(s)	NC-EWDP-4PB, -7SC, -10P, -16P, -18P, -19P, -19PB, -22PA, -22PB, -23P, -24P, -27P, -28P, -29P, -3S, -10S, -19D, -19IM1, -19IM2, -22S, and -Washburn-1X .					
Data Collection Period(s)	8/03 - 5/04					
Data Source(s)	University of Waterloo Environmental Isotope Lab. Refer to RIDs 6239 for field chemistry parameters and Scientific Notebooks # 145 & 155 for field notes.					
Data Censoring	None					
Data Processing	Analyses were performed by EIL and transmitted to NWRPO on hard copy lab reports and Excel spreadsheets. Data was evaluated by NWRPO personnel for compliance with quality assurance objectives according to technical procedure TP- 8.1 Rev 2.					
Data Limitations	With a few exceptions, analytical results for all chemical parameters of concern in all laboratory duplicate analyses met standard QC specifications. Relative percent difference values (RPDs) between the lab duplicate samples and the original samples obtained during this sampling phase are generally less than 30% (an acceptable value) for most analytes with exceptions as follows: <ul style="list-style-type: none"> <li>NC-EWDP-22S Zone 2 (GWS0036): SIRA of <sup>18</sup>O in NO<sub>3</sub> (RPD&gt;30).</li> <li>NC-EWDP-22S Zone 1 (GWS0037): SIRA of <sup>18</sup>O in NO<sub>3</sub> (RPD&gt;30).</li> <li>NC-EWDP-10P Deep (GWS0048): SIRA of <sup>18</sup>O in NO<sub>3</sub> (RPD&gt;30).</li> <li>NC-EWDP-19PB Shallow (GWS0080): SIRA of <sup>18</sup>O in NO<sub>3</sub> (RPD&gt;30).</li> </ul>					

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Relative percent difference values (RPDs) between the blind field duplicate samples (field QA sample) and the original samples obtained during this sampling phase are generally less than 30% (an acceptable value) for most analytes with two exceptions as follows:

- NC-EWDP-19PB Shallow (GWS0076 and GWS0080): SIRA of  $^{18}\text{O}$  in  $\text{NO}_3$  (RPD>30).
- NC-EWDP-22PB Shallow (GWS0051 and GWS0072): SIRA of  $^{18}\text{O}$  in  $\text{NO}_3$  (RPD>30).

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**Governing  
QA Docs.**

TP-8.1 Rev. 2; TPN-11.1 Rev. 0

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**Frequency  
of  
Transmittal**

As required by PI

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**Direct Questions  
About Data  
To-**

Nye County QA Records Specialist