

# NYE County NWRPO -Technical Data Report

RID No.	Transmitter	Org.	Receiver	Org.	Key word1	Title/Description
5354	Downing	Nye	QARC	Nye	EWDP I	Manual Water Level Data for EWDP Phase I Wells Revision 4 (supersedes Revision 3 in RID 4449)

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 Doc. Date 11/22/2002    General Doc. Type QA Program Doc    Keyword2 mwl  
 Entry Date 11/25/2002    Detailed Doc. Type Data    Keyword3 Data

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**Preparer**  
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**Title of Data** Manual Water Level Data for EWDP Phase I Wells Revision 4 (supersedes Revision 3 in RID 4449)

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**Description of Data** The measuring point for EWDP-1DX (pre-completion) March 1999 was incorrect in the Revision 3 dataset. It has been corrected in this revision. Compilation of manual water level measurements collected at Phase I wells and boreholes. Data is in Excel format "Phase I waterlevel revision 4.xls" and each well is an individual sheet in the Excel spreadsheet.

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**Data Collection Method** Periodic manual water levels taken with electric sounders, recorded to nearest 0.1'.

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**Data Location(s)** Early Warning Drilling Program (EWDP) wells - Phase I: NC-EWDP-1DX (pre-completion), 1DX (deep piezometer), 1DX (shallow piezometer), 1S, 2D, 3S, 3D, 5S, 9SX and Washburn 1X.

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**Data Collection Period(s)** 12/3/98 to 5/2/01

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**Data Source(s)** Field measurements of depth to water, YMP M&O GPS derived location and elevation surveys, wellhead measurements and engineers steel tape, conversions from feet to meters and calculated water table elevations using MS Excel.

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**Data Censoring** Data from well NC-EWDP-5S beyond April 28, 1999 have been sequestered. The well casing (2" PVC) collapsed after developing the well with swabbing.

A single data record from NC-EWDP-1DX (shallow piezometer) on August 27, 1999 is anomalous. The value was not subsequently reproduced and, therefore, is suspect.

Data from EWDP-9SX sampling events (5/99, 11/99 and 5/00) with the sampling ports open less than 15 min. are considered suspect since the minimum time for equilibration is 15 min. and typically should be longer to ensure stability in the zone.

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**Data Processing** Compiling data from scientific notebooks into spreadsheets and conversion of English units to metric units using arithmetic calculations.

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**Data Limitations** This data set represents periodic depth to water measurements taken with electric well sounders.

Accuracy of electric sounders used for this data set is not defined. The data was collected using the methods described in the "National Handbook of Recommended Methods for Water Data Acquisition, USGS, Reston, VA, 1977." The data set includes several replicate measurements taken with Nye County sounders and USGS steel tape or calibrated electric sounders. The replicate measurements agree to within less than 0.1'. Empirically, the accuracy of the Nye County electric sounders as compared with the USGS steel tape and electric sounders is  $\pm 0.1'$ .

A wellhead diagram is included for each well or borehole (except NC-EWDP-2DB) that includes elevation of the current ground level or well pad and elevation of well casings. The wellhead diagrams also include the elevation of original ground level datum from which depth control during drilling and well installation is based. Other information including conductor casing, surface casing, protective casing and Westbay casings are

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shown if applicable.

Location and elevation surveys were provided through the M&O contractor and the data is included in the header information and wellhead diagram. (See RID 4118 for survey data.) Information on access to the well site and notes specific to the data gathered from the well or borehole is given in the header.

For each record of depth to water measurement, the following fields are maintained:

- a) Date of depth to water measurement.
- b) Zone within well measured where applicable (i.e. multiple completion wells).
- c) Measuring point elevation as indicated in the wellhead diagram.
- d) Depth to water in feet and converted to meters.
- e) Elevation of groundwater calculated by subtracting depth to water from the elevation of the well casing or measuring point elevation.
- f) The method or sounder used for the measurement.
- g) The initials of the person taking the measurement.
- h) Comments pertinent to the individual measurement.

Data in this submittal may include data on first occurrence of water while drilling, measurements during drilling and measurements before and after well completion and development. These depth to water measurements are affected by the ongoing operations and may not represent measurements to the piezometric surface. Subsequent to these operations, the wells or boreholes stabilized and depth to water measurements better represent the piezometric surface measured. Following is list of dates for each well or borehole beyond which operations at the site had ceased and depth to water measurements represents a stabilized condition.

Well ID	Date of first stabilized depth to water measurement
NC-EWDP-1DX (Pre-completion)	January 7, 1999 (see comments on hole depth)
NC-EWDP-1DX (Shallow)	Not applicable
NC-EWDP-1DX (Deep)	Not applicable
NC-EWDP-1S	February 5, 1999
NC-EWDP-2D	January 15, 1999
NC-EWDP-3S	March 6, 1999
NC-EWDP-9SX	January 14, 1999
NC-EWDP-5S	Not applicable
NC-Washburn-1X	January 16, 1998

The wells NC-EWDP-1S, 3S and 9SX have Westbay multiport instrument string casings installed. Depth to water measurement can be obtained only when the instrument strings are removed and the sample port for each zone is opened. In general, depth to water measurements for each port is obtained during water sampling of the well. Well completion diagrams are available on the Nye County website ([www.nyecounty.com](http://www.nyecounty.com)) for completed wells and include data on borehole depth.

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**Governing  
QA Docs.** National Handbook of Recommended Methods for Water Data Acquisition, USGS, Reston, VA, 1977

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**Frequency  
of  
Transmittal** Biannually

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**Direct Questions  
About Data  
To-** Nye County QA Records Center