

NYE County NWRPO -Technical Data Report

RID No.	Transmitter	Org.	Receiver	Org.	Key word1	Title/Description
7300	Gilmore	Nye County NWRPO	QARC	Nye	10S	NC-EWDP-10S Westbay Data, 12/14/04 - 9/13/05

Doc. Date 8/12/2007 General Doc. Type QA Program Doc Keyword2 WB

Entry Date 8/13/2007 Detailed Doc. Type Data Keyword3 data

Data Originator Preparer Kathy Gilmore / Tom Buqo

Title of Data NC-EWDP-10S Westbay Data, 12/14/04 - 9/13/05

Description of Data One CD containing an Excel file "091305_10S QA.xls". This file contains atmospheric pressure, temperature, and calculated water elevations for zones 1 and 2; and temperature data for probes 1 and 2 for the period from 12/14/04 to 9/13/05 collected at Phase III EWDP-10S Westbay instrumented well. This data will be posted to the Nye County website (nyecounty.com) as "RID7300.xls".

Data Collection Method Westbay Mosdax datalogger and pressure and temperature probes.

Data Location(s) NC-EWDP-10S

Data Collection Period(s) 12/14/04 to 9/13/05

Data Source(s) Westbay dataloggers (Probe 0 - atmospheric): S/N 2693 from 12/14/04 to 5/3/05, S/N 2291 from 5/3/05 to 7/6/05, and S/N 2565 from 8/3/05 to 9/13/05; and two 250 psi probes: Probe 1 S/N 2613 and Probe 2 S/N 2610. Probe 1 depth = 682.13 ft; Probe 2 depth = 838.98 ft. Depths reflect measured values from the well ground surface to the subject measurement port.

Supporting Data: Original Westbay pressure and temperature data from 12/14/04 to 1/24/05 can be found in RID 6481 (MDL 2693), from 1/24/05 to 5/3/05 in RID 6604 (MDL 2693), from 5/3/05 to 5/23/05 in RID 6629 (MDL 2291), from 5/24/05 to 7/6/05 in RID 6670 (MDL 2291), and from 8/3/05 to 9/13/05 in RID 6712 (MDL 2565). Well completion diagram can be found in RID 5261, Westbay casing log completion in RID 4923, wellhead protection detail in RID 5456, manual water level measurements in RID 6360, and field notes in scientific notebook #155.

Data Censoring Data recorded by datalogger from 8/28/05 at 1439 hrs. to 9/13/05 are censored because of probe malfunction.

Data Processing The water elevation (ft, amsl [above mean sea level]) in a Westbay isolated zone is calculated from the pressure probe measurement (lb/ft²) below the water table by subtracting the atmospheric pressure measurement (lb/ft²) at the ground surface from the pressure measurement, dividing the result by the specific weight (lb/ft³) of water at 15 degrees Celsius, and adding to this result the elevation (ft, amsl) of the probe. This calculation is made prior to submitting a QA processed data file to the Quality Assurance Records Center (QARC).

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Data Limitations The following text contains additional information necessary for interpretation of the attached water elevation and temperature data. Time frames are listed for each activity. Certain activities, such as equipment testing or water sampling, may have impacted the data and the data analyzer should be aware of this.

Data logging was interrupted from 7/06/05 to 8/03/05 because the logger was disconnected on 7/06/05 at 1306 hrs., transported to NWRPO for calibration verification, and reinstalled on 8/02/05 at 1115 hrs. to perform a downhole calibration verification. Calibration verification was completed on 8/3/05 at 1239 hrs. at which time normal datalogging resumed.

Port depths used for water elevation calculations are directly measured values reflecting the distance between ground level and the measurement port and are reported in RID 5616 (accuracy = +/- 0.015% of the depth measured).

Accuracy of the downhole probe pressure is based on the probe pressure range: 250 psi probe = +/- 0.25 psi (approx. +/-0.58 ft).

Specific weight values used in calculations assume a uniform water temp of 15 ° C. Probe temperature accuracy = +/- 1° C. The elevations were not corrected for temperature or borehole deviation; temperature and deviation information are available in the geophysical logging suite for this well (RIDs: 4940, 5020, 5241, and 5416).

The water-level elevations presented must be considered approximate because of the potential error in the GPS-based elevation of the land surface at the well site which is believed to be on the order of +/- 1.75 ft. according to work performed by the Center for Nuclear Waste Regulatory Analyses. The potential error in the GPS-based elevations does not affect the depth to water nor the absolute change in water levels over time that may be calculated using the elevation datum for land surface. The potential error may, however, result in limitations in the use of these data for the calculation of hydraulic gradients between wells with the error induced in such calculations being inversely proportional to the distance between the two wells being used to perform the calculation, and directly proportional the differences in surveying and processing techniques if different surveys were conducted for the two wells.

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**Governing
QA Docs.** TP-9.2 Rev. 1 and 2; WP-10 Rev. 0

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**Frequency
of
Transmittal** Biannually

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**Direct Questions
About Data To-** NWRPO QA Records Center