

# NYE County NWRPO -Technical Data Report

RID No.	Transmitter	Org.	Receiver	Org.	Key word1	Title/Description
6401	Gilmore	Nye County	QARC	Nye	22S	EWDP-22S Westbay Data, 12/18/03 - 5/18/04
Doc. Date	10/18/2004	General Doc. Type	QA Program Doc	Keyword2	WB	
Entry Date	10/19/2004	Detailed Doc. Type	Data	Keyword3	Data	
Data Originator	Kathy Gilmore					
Preparer						
Title of Data	EWDP-22S Westbay Data, 12/18/03 - 5/18/04					
Description of Data	One CD containing an Excel file "051804_22S QA.xls". This file contains probe pressure data for atmospheric pressure for probe 0, calculated water elevations for zones 1, 2, 3 and 4, and temperature data for probes 0, 1, 2, 3 and 4 for the period from 12/18/03 to 5/18/04 collected at Phase III EWDP-22S Westbay instrumented well.					
Data Collection Method	Westbay Mosdax Datalogger and pressure and temperature probes.					
Data Location(s)	NC-EWDP-22S					
Data Collection Period(s)	12/18/03 to 5/18/04					
Data Source(s)	From 12/18/03 to 4/22/04, Westbay datalogger SN 2554 (Probe 0 - atmospheric) and three 250 psi probes: Probe 1 SN 2612, Probe 2 SN 2519, and Probe 3 SN 2615; and one 1000 psi probe: Probe 4 SN 2619. From 4/22/04 to 5/18/04, Westbay datalogger SN 2295 (Probe 0 - atmospheric) and three 250 psi probes: Probe 1 SN 2612, Probe 2 SN 2519, and Probe 3 SN 2615; and one 1000 psi probe: Probe 4 SN 2619.					
	Probe 1 depth = 560.09 ft    Probe 2 depth = 743.08 ft    Probe 3 depth = 960.55 ft    Probe 4 depth = 1148.46 ft					
	Depths reflect measured values from the well ground surface to the subject measurement port. Original Westbay pressure and temperature data can be found in RIDs 6041, 6076, 6141, 6222, and 6240; Well Completion Diagram in RID 5264; Wellhead Protection Detail in RID 5457; Manual Water Level Measurements in RID 6360; Summary Westbay Casing Log in RID 5547; and Scientific Notebook #155 in RID 6350 for field notes.					
Data Censoring	A single temperature data record for the atmospheric probe and Probes 1, 2, 3, and 4 was censored for 4/22/04 8:00 because of an anomaly on the data plot that corresponds with the end of the data gap.					
Data Processing	The water elevation (ft, amsl [above mean sea level]) in a Westbay isolated zone is calculated from the pressure probe measurement (lb/ft^2) below the water table by subtracting the atmospheric pressure measurement (lb/ft^2) at the ground surface from the pressure measurement, dividing the result by the specific weight (lb/ft^3) 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).					
Data Limitations	EWDP-22S Westbay data limitations (data collection period 12/18/03 to 5/18/04). 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.					
	4/21/04 7:56 - 4/22/04 8:00 - data gap due to downhole field verification of probes.					

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4/28/04 10:20 through 4/28/04 17:00 - An observed peak in the water levels in Probes 1, 2, 3, and 4 occurred during this 8 hr, 40 min period of time. Two factors have been identified that may be contributory: 1) a sharp decrease in barometric pressure; and 2) the effects of a minor earthquake in Mono Valley, California (4/27/04 at 7:12 am, Lat 28.0519, Long -118.8120, Magnitude 3.57). Precipitation records for selected stations indicate no rainfall at Tonopah between April 18 and April 30, at Mercury Desert Rock during the month of April, or Las Vegas McCarren Airport between April 4 and April 30. However, more localized precipitation over Buckboard Mesa or Fortymile Wash.

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), 1000 psi probe = +/-1.0 psi (approx. +/-2.31 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: 4615, 5024 and 5412).

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 to 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, WP-10 Rev. 0

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Frequency  
of  
Transmittal Biannually

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Direct Questions  
About Data  
To- Nye County QA Records Center