

NYE County NWRPO -Technical Data Report

RID No.	Transmitter	Org.	Receiver	Org.	Key word1	Title/Description
7160	Sampson	Nye County NWRPO	QARC	Nye	24PB	Thermal logging data collected in NC-EWDP-24PB from 6/20/06 to 6/24/06 using Sensornet Sentinel Distributed Temperature Sensor (DTS) equipment.
Doc. Date	6/24/2006	General Doc. Type	QA Program Doc	Keyword2	Thermal	
Entry Date	2/20/2007	Detailed Doc. Type	Data	Keyword3	Logging	
Data Originator Preparer	Judd Sampson, Levi Kryder					
Title of Data	Thermal logging data collected in NC-EWDP-24PB from 6/20/06 to 6/24/06 using Sensornet Sentinel Distributed Temperature Sensor (DTS) equipment.					
Description of Data	One cd containing temperature data (raw and processed) collected in NC-EWDP-24PB from 6/20/06 to 6/24/06 using Sensornet DTS equipment. Raw Sensornet data are in document description format (*.ddf) as well as *.tdf, *.txt, and *.tcd files, and processed data are in Excel spreadsheets (*.xls). Sensornet DTS configuration files are stored in *.cfg files.					
Data Collection Method	The fiber optic temperature sensing cable was installed below the water table in well NC-EWDP-24PB. The heater wire was installed on the outside of the well casing at the time the well was completed. The fiber optic cable connected into the Sentinel DTS unit, which continuously recorded temperature data along the length of the cable (every 1.16 feet). The heater wire was connected to a generator, which supplied power at 240 volts. After data collection started, data were "stacked" every 900 seconds, and each "stack" recorded as a temperature profile along the length of the cable (and the well) every 900 seconds. After in situ conditions were recorded by the Sentinel DTS, the heater wire was turned on and allowed to heat the well for approximately 47.5 hours. At that time the heater wire was turned off, and the well allowed to cool. Gross deflections from baseline temperature profile at specific depths may indicate a change in geology, well completion materials, or local flow features.					
Data Location(s)	NC-EWDP-24PB					
Data Collection Period(s)	6/20/06 to 6/24/06					
Data Source(s)	Sensornet Sentinel DTS S/N 20009; 1309-foot fiber optic cable. Supporting Data: Field Scientific Notebook #165, pages 42 to 46.					
Data Censoring	Negative length data associated with the Sentinel DTS raw data were removed upon import to the Excel spreadsheet.					
Data Processing	Data were imported into an Excel spreadsheet for ease of manipulation and for graphing.					
Data Limitations	In 24PB, the heater wire is installed on the outside of the piezometer casing, but the fiber optic cable is installed inside the casing. The casing being between the two may produce a "damping" effect on the temperature data. Data were collected in cooperation with Lawrence Berkeley National Laboratory.					
Governing QA Docs.	TPN-6.1 Rev. 0					
Frequency of Transmittal	As required by PI					
Direct Questions About Data To-	NWRPO QA Records Center					