NYE County NWRPO -Technical Data Report

RID No.	Transmitter	Org.	Receiver	Org.	Key word1	Title/Description
7161	Sampson	Nye County NWRPO	QARC	Nye	32P	Thermal logging data collected in NC-EWDP-32P from 6/29/06 to 7/3/06 using Sensornet Sentinel Distributed Temperature Sensor (DTS) equipment.

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Data Originator Preparer
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Title of Data
Thermal logging data collected in NC-EWDP-32P from 6/29/06 to 7/3/06 using Sensornet Sentinel Distributed Temperature Sensor (DTS) equipment.

Description of Data
One cd containing temperature data (raw and processed) collected in NC-EWDP-32P from 6/29/06 to 7/3/06 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-32P. 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 120 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 48 hours. At that time, the heater wire was turned off, and the well allowed to cool while data logging continued.

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-32P

Data Collection Period(s)
6/29/06 to 7/3/06

Data Source(s)
Sensornet Sentinel DTS S/N 20009; 1309-foot fiber optic cable.
Supporting Data: Field Scientific Notebook #165, pages 51 to 56.

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
Data were collected to evaluate the utility of the DTS method in existing wells

Governing QA Docs.
TPN-6.1 Rev. 0

Frequency of Transmittal
As required by PI

Direct Questions About Data To-
NWRPO QA Records Center