

Technical Data Information Report

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8039.00	Klenke	Nye County NWRPO	QARC	Nye County NWRPO	Water Levels

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Document Title/Subject Manual Water Level Measurements in Private Wells for period January 1, 2011 through December 31, 2011.

Data Originator/Preparer John Klenke

Data Description This data package includes Nye County's Regional Groundwater Elevation Database (RGED V.5.0.mdb) containing manual water level measurements made in private wells (non-EWDP) January 1, 2011 through December 2011, field forms, hydrographs (available upon request), and export data from the database, "Export Pahump Data 123111.xlsx" and Export Amargosa Data 123111.xlsx". Only the export files will be posted on the website. Files posted as rid8039.zip.

Data Collection Method Manual water level measurement data collected using calibrated electric water level sounders in accordance with Work Plan 10, Rev. 0, Groundwater Level Monitoring and Evaluation, and Technical Procedure 9.9, Rev. 4, Measurement of Groundwater Levels Using Electric Well Sounders.

Data Collection Location Various locations in Pahump Valley, Amargosa Desert, Chicago Valley, Death Valley, and Stewart Valley. Specific locations for each well are included in RGED V5.0 and in RIDs 5281 and 6398.

Data Collection Period 1/1/2011 - 12/31/2011

Data Sources 1) NWRPO derived latitude and longitude for well location and elevation data for ground elevation; 2) Depth to groundwater measured with electric water level sounders as recorded on the NWRPO Water Level Measurement Field Form or field scientific notebook; 3) Wellhead diagrams as established with engineers steel tape and recorded in scientific notebook showing casing type, diameter, and measuring point stickup above land surface.
Supporting Data: NWRPO Water Level Measurement Field Forms (TP-9.9 REV1-REV3), field scientific notebooks, and RIDs 5281 6398, 7792 containing updated GPS coordinates.

Data Censoring Basin Station – Measurement of 102.58 ft on 8/22/11 at 11:17 hrs was censored. Filed notes did not indicate that the well was pumping at the time of the measurement, and technician wasn't able to verify.

Data Processing Routinely, data processing consists of calculations made in the Access database (RGED V.5.0 accdb) and exports made from the database to MS Excel. Additionally, data are evaluated through the use of hydrographs to determine whether anomalous data exist. Anomalous data are investigated (through scientific notebooks, earthquake records, etc.) to determine the source of the anomaly. If the anomaly cannot be explained, the data are censored.

Data Limitations AVSTP – Measurement of 304.20 ft on 10/24/11 at 15:11 hrs is questionable since it is approximately 1 ft lower than expected from the hydrograph trend. The measurement point was not censored; since no information is available that refutes this reading, and may actually indicate pumping of a nearby well, and/or a drop in the water table locally (similar to drops seen previously (RID 7925, on 1/27/09 and 3/16/09).
AW64 – Water level measurements cannot be obtained in this well approximately 81 ft below the measurement point (water table elevation of 2542 ft). The well is believed to be caved below this level, and water level measurements may not be representative (in equilibrium) of the localized potentiometric surface.
Crystal Fire – Measurement of 31.50 ft on 8/23/11 at 16:11 hrs is questionable since it is approximately 0.5 ft lower than expected from the hydrograph trend. The measurement point was not censored; since no information is available that refutes this reading, and may actually indicate pumping of a nearby well, and/or a drop in the water table locally (similar to drops seen previously (RID 7925, 12/14/05 to 11/16/07).

Donna – Measurement of 78.00 ft on 6/27/11 at 16:02 hrs is questionable since it is approximately 2.5 ft higher than expected from the hydrograph trend. The measurement point was not censored; since no information is available that refutes this reading.

DV Junction Well – Water level measurements cannot be obtained in this well approximately 3.8 ft below the measurement point (water table elevation of 2038 ft). The well is caved below this level, and water level measurements may not be representative (in equilibrium) of the localized potentiometric surface.

HWWT Gravel Pit – Measurement of 118.57 ft on 4/6/11 at 14:24 hrs is questionable since it is approximately 2.5 ft lower than expected from the hydrograph trend. The measurement point was not censored; since no information is available that refutes this reading.

NDOT – Measurement of 410.93 ft on 2/28/11 at 09:22 hrs is questionable since it is approximately 4 ft higher than expected from the hydrograph trend. The measurement point was not censored; since no information is available that refutes this reading.

Quarterhorse – Measurements of 62.34 ft on 8/23/11 at 16:14 hrs (approximately 3 ft higher than expected), and 62.04 ft on 10/26/11 at 11:24 hrs (approximately 1.5 ft higher than expected) are questionably higher than expected from the hydrograph trend. The measurement point was not censored; since no information is available that refutes this reading, and may actually indicate a rise in the water table locally.

Wells added to the program:

Wells AC-CS1, AC-CS2, AC-CS3, AC-CS4, AC-CS5, AC-CS6, AC-CS7, AC-CS8, AC-CS9, AC-CS10, and AC-CS11 were added to the program on 6/10/10. These piezometers are being measured by the Amargosa Conservancy (AC), with the data being supplied to Nye County. DV Junction Well is also being measured by the AC.

Former U.S. Geological Survey (USGS) Yucca Mountain Project Environmental Monitoring Program Wells AD-3a (Gauging Station), AD-5 (Power 04), AD-7a, AD-9a, AD-12 (Ash Meadows Gauging Station), AD-14 (DV Junction Well), and RV-1, are being measured by Nye County under a cooperative agreement with the USGS. Wells AD-7a, AD-9a, and RV-1 were not previously on the Nye County Water Level Measurements Program, and therefore have not been located by Nye County, but have been converted from the NAD27 to NAD83 Datum. The reported location and elevation of these wells are from the USGS Geographic Watershed Information System (GWIS). Site ID's for these wells can be found in the comment column of the data spreadsheets of RID 7925. More information for all of these wells can be found either on the USGS NWIS website at: <http://nwis.waterdata.usgs.gov/usa/nwis/gwlevels> or the USGS/DOE Cooperative Studies in Nevada website at: http://nevada.usgs.gov/doe_nv/levelsmap1.htm

Wells removed from the program:

Measurements in Franklin Dry (USGS site ID 362525116274301) and Franklin PVC Well (USGS site ID 362525116274302) have temporarily been suspended since the installation of transducers by the USGS on 9/15/10. The transducers are anticipated to be in place for a period of about two years.

AW11 – The last water level taken in this well was 9/23/09, just prior to the well being capped. Hopefully, measurements will resume at some time in the future, when arrangements can be made to install a sounding port in the cap.

Farm 1B – The last water level measurement was taken was on 2/28/11. The owner has pulled the casing, and is currently in the process abandoning this well.

Forum Group – The last water level taken in this well was 6/15/10. Several attempts to obtain water level measurements have been made since this time, but without success. Hopefully, the obstruction near the surface can be cleared at some point in the future.

Harrow Disk – The last water level taken in this well was 9/23/09, just prior to the well being capped. Hopefully, measurements will resume at some time in the future, when arrangements can be made to install a sounding port in the cap.

Irene Fan – The last water level taken in this well was 9/23/09, just prior to the well being capped. Hopefully, measurements will resume at some time in the future, when arrangements can be made to install a sounding port in the cap.

Susan Moore – This well was removed from the program on 4/6/11, due to difficulty in obtaining water level measurements, and limited access to the well.

Governing QA Docs:	WP-10, Rev. 0, TP-9.9, Rev. 4
Frequency of Transmittal	Biannually or as required by PI and approved by Geoscience Manager
Direct Questions About Data To:	NWRPO QA Records Center