

# Technical Data Information Report

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8240.00	Klenke	Nye County	QARC	Nye County	Private

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Document Title/Subject Manual Water Level Measurements in Private Wells from January 1, 2016 through December 31, 2016.

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Data Description Manual Water Level Measurements in Private Wells from January 1, 2016 through December 31, 2016. Data package includes Nye County's Regional Groundwater Elevation Database (RGED V. 6.0\_082917.accdb) containing manual water level measurements taken in Private Wells, from January 1, 2016, through December 31, 2016, field forms, hydrographs (available on request) and exported data from database. Data is posted to [www.nyecountywaterdistrict.net](http://www.nyecountywaterdistrict.net) and [www.nyecounty.net](http://www.nyecounty.net) as RID82470.zip.

Data Collection Method Manual water level measurement data collected using standardized electric water level sounders in accordance with NWRPO Work Plan -10 Rev. 0 (8/23/03), Groundwater Level Monitoring and Evaluation, NCWD Work Plan-10 Rev. 0 (3/16/15), Groundwater Level Monitoring and Evaluation, NWRPO Technical Procedure 9.9 Rev. 4 (8/6/09), Measurement of Groundwater Levels Using Electric Well Sounders, and NCWD Technical Procedure 9.9 Rev. 0 (3/16/15), Measurement of Groundwater Levels Using Electric Well Sounders.

Data Collection Location Various locations in Pahrump Valley, Amargosa Desert, Chicago Valley, Stewart Valley, and surrounding areas. Specific locations for each well are included in RGED V.6.0 and in RID 8182.

Data Collection Period 1/1/2016 to 12/31/2016

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 (Form TP-9.9 Rev 4, dated 8/6/09) or field scientific notebook (SNB); 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 RID 8182 containing updated GPS coordinates.

Data Censoring DV Junction Well – Measurements of 4.53 ft at 17.46 hrs, on 12/15/16 was censored. This measurement was found to be a singularity, and not substantiated by later measurements or backup data.

Data Processing Routinely, data processing consists of calculations made in the Access database (RGED V6.0 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 AC-CS1 – Water level readings have not been taken since 9/25/12 because a transducer has been installed in the piezometer tube. AC-CS2 – Water level readings have not been taken since 9/14/15 because a transducer has been installed in the piezometer tube. AC-CS3 – Water level readings have not been taken since 9/25/12 because a transducer has been installed in the piezometer tube. AC-CS4 – Water level readings have not been taken since 9/14/15 because a transducer has been installed in the piezometer tube. AC-CS5 – Water level readings have not been taken since 9/25/12 because a transducer has been installed in the piezometer tube.

AD-9a – Measurements of 151.13 ft on 3/14/16 at 15:20 hrs, 143.29 ft on 6/14/16 at 15:02 hrs, and 183.94 ft on 9/14/16 at 15:02 hrs are approximately 44, 37, and 67 feet lower than the hydrograph trend respectively, but were not censored since they are due to pumping as noted in the field comments. This well is also situated just beyond the outer edge of an irrigation pivot which is probably influencing the water levels in this well.

AW11 – The wellhead was cut down and a steel cap welded on some time before the 12/2/09 visit. The well was reactivated and a sounding port installed on 7/31/13. The well was subsequently given the new name of “AW11 - post capping” to reflect the new stickup, since the RGED database does not allow for the changing of the wellhead stickup for individual wells.

AW 64 – Readings are sporadic in this well since it is partially caved and water levels have declined to below the caved section. Readings are only possible when the water levels are at or near the yearly maximum. A new well was added to the program on 3/25/13 (Great Basin Drilling) - approximately 460 feet northwest) to replace this well when readings are no longer possible.

AW74 – This well (NDWR Log # 1933) is screened from 240 to 672 ft below ground surface and is believed to be tapping a deeper confined aquifer. This is evidenced by the water level in nearby well “Harrow Disk - post capping” located approximately 180 feet to the east, having a water level of approximately 53 feet lower than that in well “AW74”.

Basin Station – Measurements of 102.50 ft on 3/23/16 at 14:08 hrs, and 102.56 ft on 6/21/16 at 15:55 hrs, are 24 feet lower than the hydrograph trend, and are due to pumping as noted in the field comments.

Big South – Measurements of 67.75 ft on 6/20/16 at 12:35 hrs is approximately 1.8 ft lower than the hydrograph trend but is substantiated by later readings which are also lower somewhat lower than the previous long term trend.

Caas Well – Measurements of 73.10 ft on 6/20/16 at 08:52 hrs, and 84.80 ft on 9/12/16 at 08:20 hrs are 7 and 19 feet lower than the hydrograph trend, and are due to pumping as noted in the field comments.

Chicago – Well was worked over and possibly deepened between 5/21/14 and 7/10/14 and appears to still be recovering to undisturbed conditions (as of 10/4/16).

Franklin Dry/Franklin PVC Well –There currently exists an unresolved discrepancy (difference) of 2.73 ft between the measurement point elevations of well pair Franklin Dry/Franklin PVC Well. This elevation difference can physically be measured and in reality is only .01 ft (measured stickup of 1.57 ft for Franklin Dry, and 1.56 ft for Franklin PVC). The error is believed to be due to processing errors in GPS data and will be corrected at some future time.

Harley – Measurements of 374.64 ft on 6/21/16 at 12:41 hrs, and 374.74 ft on 9/13/16 at 12:50 hrs are approximately 3 ft lower than the hydrograph trend, and are due to pumping as noted in the comments.

Harrow Disk – The wellhead was cut down and a steel cap welded on some time before the 12/2/09 visit. The well was reactivated and a sounding port installed on 7/31/13. The well was subsequently given the new name of “Harrow Disk - post capping” to reflect the new stickup, since the RGED database does not allow for the changing of the wellhead stickup for individual wells.

Irene Fan – The wellhead was cut down and a steel cap welded on some time before the 12/2/09 visit. The well was reactivated and a sounding port installed on 7/31/13. The well was subsequently given the new name of “Irene Fan - post capping” to reflect the new stickup, since the RGED database does not allow for the changing of the wellhead stickup for individual wells.

Jeep Trail Well – Water level measurements for this well may contain slight errors since this well is uncased, and therefore the measurement point is difficult to locate with a high degree of accuracy.

Mound Spring (well) – This well is noted as having been a flowing artesian well since first being measured by the NWRPO Office on 2/27/04. Water table elevations for this time period are reported as equal to the measurement point elevation and therefore underestimate the true water table elevation (pressure head). Note: This well is not the same as the Mound Springs located on USGS Topographic Maps and is located 0.71 miles to the SE (154°).

NDOT South – Well experienced a rapid water level decline of 5.6 feet between 1/22/16 and 3/22/16 and has sustained this drop as indicated by later measurements. Well cap was not disturbed and indicates that drop was not due to pumping.

Old Spanish Trail – This well is noted as having become flowing artesian from 9/17/12 through the end of this report period (12/31/15). Water table elevations for this time period are reported as equal to the measurement point elevation and therefore underestimate the true water table elevation (pressure head) due to pumping as noted in the comments.

Sanders Family Winery – Measurements of 84.62 ft on 9/12/16 at 12:37 hrs, is approximately 9.7 ft lower than the hydrograph trend, and is

Trout Canyon – This well is completed in a carbonate rock aquifer and the water levels are not representative of alluvial aquifer heads.

#### Wells added to the program:

No wells were added during the period of this submittal.

#### Reactivated wells:

No wells were reactivated during the period of this submittal.

#### Wells removed from the program:

Former U.S. Geological Survey (USGS) Yucca Mountain Project Environmental Monitoring Program Wells J-11, J-12, J-13 (HTH-6), JF-1 (WT-15), JF-2a (P#1), and JF-3 were last measured by Nye County on 3/21/16. The USGS continues to measure water levels in these wells and USGS Site ID's for the wells

are J-11 (364706116170601), J-12 (364554116232401), J-13 (364828116234001), JF-1 (365116116233801), JF-2a (364938116252102) and JF-3 (364528116232201). 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](http://nevada.usgs.gov/doe_nv/levelsmap1.htm)

Gravel Pit– Well was abandoned and filled with concrete between 3/22/16 and 6/20/16.

Haystack– Well was abandoned and filled with concrete between 6/14/16 and 9/14/16.

McDonalds Horse Farm – Well was visited on 1/21/16 but no water level was obtainable and is believed that either the water level in this well has dropped below the depth of this well, or that the well has “caved in.” Well has been dropped from the WLMP program.

AW64 – Well was visited on 1/21/16, 6/20/16, and 9/12/16 but no water level was obtainable and is believed that either the water level in this well has dropped below the depth of this well, or that the well has “caved in.” Well has been dropped from the WLMP program. The well has been replaced with the “Great Basin Drilling” well approximately 460 feet to the North (343°).

Governing QA Docs: NCWD WP-10 Rev. 0, NCWD TP-9.9 Rev. 4

Frequency of Transmittal Biannually or as required by PI.

Direct Questions QA Records Center

About Data To: