Technical Data Information Report

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Document Title/Subject
Manual Water Level Measurements in Private Wells from January 1, 2015 through December 31, 2015.

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Data Description
Manual Water Level Measurements in Private Wells from January 1, 2015 through December 31, 2015. Data package includes Nye County's Regional Groundwater Elevation Database (RGED V. 6.0_030916.accdb) containing manual water level measurements taken in Private wells. Data package includes copies of field forms, hydrographs (available on request) and exported data from database. Exported data is posted to NCWD website as “rid8215.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
1/1/2015 – 12/31/2015

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
AC-CS2 – Measurements of 3.82 ft at 16:34 hrs, on 3/31/15; and 4.14 ft at 15:55 hrs, on 4/28/15 were censored. These measurements were taken by unqualified personnel as defined under section 2.2 of NCWD technical procedure 9.9 – Measurement of Groundwater Levels Using Electric Well Sounders.
AC-CS4 – Measurements of 3.69 ft at 17:52 hrs, on 3/31/15; and 3.60 ft at 12:40 hrs, on 4/28/15 were censored. These measurements were taken by unqualified personnel as defined under section 2.2 of NCWD technical procedure 9.9 – Measurement of Groundwater Levels Using Electric Well Sounders.
AC-CS6 – Measurements of 3.19 ft at 17:21 hrs, on 3/31/15; 3.12 ft at 14:57 hrs, on 4/28/15; 3.15 ft at 12:05 hrs, on 10/31/15; 3.21 ft at 12:54 hrs, on 11/24/15; and 3.21 ft at 10:56 hrs, on 12/16/15 were censored. These measurements were taken by unqualified personnel as defined under section 2.2 of NCWD technical procedure 9.9 – Measurement of Groundwater Levels Using Electric Well Sounders.
AC-CS7 – Measurements of 3.31 ft at 17:33 hrs, on 3/31/15; 3.07 ft at 14:43 hrs, on 4/28/15; 3.12 ft at 12:15 hrs, on 10/31/15; 3.13 ft at 12:44 hrs, on 11/24/15; and 3.10 ft at 11:08 hrs, on 12/16/15 were censored. These measurements were taken by unqualified personnel as defined under section 2.2 of

NCWD technical procedure 9.9 – Measurement of Groundwater Levels Using Electric Well Sounders.
AC-CS8 – Measurements of 3.57 ft at 17:45 hrs, on 3/31/15; 3.45 ft at 12:50 hrs, on 4/28/15; 3.53 ft at 12:25 hrs, on 10/31/15; 3.59 ft at 12:35 hrs, on 11/24/15; and 3.47 ft at 11:18 hrs, on 12/16/15 were censored. These measurements were taken by unqualified personnel as defined under section 2.2 of NCWD technical procedure 9.9 – Measurement of Groundwater Levels Using Electric Well Sounders.
AC-CS9 – Measurements of 3.41 ft on 3/31/15; 3.42 ft at 12:00 hrs, on 4/28/15; 3.36 ft at 12:46 hrs, on 10/31/15; 3.41 ft at 13:43 hrs, on 11/24/15; and 3.36 ft at 13:19 hrs, on 12/16/15 were censored. These measurements were taken by unqualified personnel as defined under section 2.2 of NCWD technical procedure 9.9 – Measurement of Groundwater Levels Using Electric Well Sounders.
AC-CS10 – Measurements of 3.21 ft on 3/31/15; 3.27 ft at 12:09 hrs, on 4/28/15; 2.95 ft at 12:52 hrs, on 10/31/15; 3.20 ft at 13:52 hrs, on 11/24/15; and 3.17 ft at 13:12 hrs, on 12/16/15 were censored. These measurements were taken by unqualified personnel as defined under section 2.2 of NCWD technical procedure 9.9 – Measurement of Groundwater Levels Using Electric Well Sounders.
AC-CS11 – Measurements of 3.95 ft on 3/31/15; 3.97 ft at 12:17 hrs, on 4/28/15; 3.85 ft at 12:57 hrs, on 10/31/15; 3.86 ft at 13:57 hrs, on 11/24/15; and 3.77 ft at 13:01 hrs, on 12/16/15 were censored. These measurements were taken by unqualified personnel as defined under section 2.2 of NCWD technical procedure 9.9 – Measurement of Groundwater Levels Using Electric Well Sounders.
AC-DVJ – Measurements of 3.34 ft at 13:30 hrs on 10/31/15; 3.28 ft at 9:30 hrs, on 11/24/15; and 3.25 ft at 9:41 hrs, on 12/16/15 were censored. These measurements were taken by unqualified personnel as defined under section 2.2 of NCWD technical procedure 9.9 – Measurement of Groundwater Levels Using Electric Well Sounders
Our Bar – Measurement of 56.76 ft on 7/7/15 at 12:19 hrs was censored. This measurement was above the expected trend and is believed to have been a miss read of the tape by the field technician.

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 145.91 ft on 5/14/15 at 10:30 hrs, and of 176.11 ft on 7/8/15 at 14:46 hrs are approximately 28 and 59 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.
AW70– Measurement of 125.24 ft on 9/17/15 at 14:45 hrs is approximately 0.5 ft lower than the hydrograph trend, but was not censored since no information is available that refutes the reading.
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 102.60 ft on 9/22/515 at 10:12 hrs, is several feet lower than the hydrograph trend, and is due to pumping as noted in the field comments.
Caas Well – Measurements of 71.10 ft on 7/6/15 at 08:17 hrs, is several feet lower than the hydrograph trend, and is due to pumping as noted in the field comments.
Harley – Measurements of 374.58 ft on 7/7/15 at 13:31 hrs, is approximately 3 ft lower than the hydrograph trend, and is 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.
Longstreet 2 – Measurements of 85.22 ft on 5/13/15 at 14:34 hrs, 85.25 ft on 7/8/15 at 12:32 hrs, and of 85.64 ft on 9/21/15 at 12:12 hrs are 10 or more feet lower than the hydrograph trend, but were not censored since they are due to pumping as noted in the field comments.
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)
Rubys Store Well – Measurements of 94.70 ft on 5/14/15 at 10:17 hrs, and of 95.44 ft on 9/21/15 at 13:12 hrs, are approximately 1 foot lower than the hydrograph trend, but were not censored since they are due to pumping as noted in the field comments.
Sanders Family Winery – Measurements of 79.77 ft on 5/11/15 at 13:38 hrs, is approximately 5 ft lower than the hydrograph trend, and is due to pumping as noted in the comments.
Utilities 8 R2014 – Measurements of 99.86 ft on 3/9/15 at 13:36 hrs, is approximately 13 ft higher than the hydrograph trend, and is due to the well having been shut off since 2/20/15 (17 days) as noted in the field comments. This is a community supply well, normally under constant pumping conditions, and this measurement may represents a fully recover “static” water level.
Veloz – Measurements of 7.68 ft on 9/17/15 at 11:30 hrs, is approximately 1.9 ft lower than the hydrograph trend, and is probably due to pumping as noted in the field comments.

Wells added to 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 have been measured by Nye County since 2/23/12 under a cooperative agreement with the USGS. These wells 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). USGS Site ID’s for these 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

Reactivated wells:
No wells were reactivated during the period of this submittal

Wells removed from the program:
AW64 – No water level measurements were able to be obtained after the 1/15/15 visit. It is believed that the well has “caved in”. This well has been replaced with the “Great Basin Drilling” well approximately 460 feet to the North (343°).
Mcdonalds Horse Farm – No water level measurements were able to be obtained after the 7/7/15 visit. It 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”.
Slack – This well was removed from the program at the request of the owner. No readings were taken in this well during the period of this submittal.

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