Volume 4

Water-Level Data Compilation and Evaluation for Clark, Lincoln, and White Pine Counties Groundwater Development Project

January 2008

PREFACE

This report was prepared by the Southern Nevada Water Authority. The U.S. Geological Survey served as technical advisor to the Bureau of Land Management in the review of this report.

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ACRONYMS

BLM	Bureau of Land Management
DRI	Desert Research Institute
ET	evapotranspiration
GPS	Global Positioning System
GSLDFS	Great Salt Lake Desert Flow System
GWSI	Groundwater Site Inventory
HA	hydrographic area
HGU	hydrogeologic unit
LVVWD	Las Vegas Valley Water District
MVFS	Meadow Valley Flow System
NAD83	North American Datum of 1983
NDWR	Nevada Division of Water Resources
NWIS	National Water Information System
RASA	Regional Aquifer-System Analysis
SNWA	Southern Nevada Water Authority
URL	uniform resource locator
USAF	U.S. Air Force
USGS	U.S. Geological Survey
UTM	Universal Transverse Mercator
WRFS	White River Flow System

ABBREVIATIONS

afy	acre-feet per year
amsl	above mean sea level
bgs	below ground surface
cfs	cubic feet per second
ft	foot
gpm	gallons per minute
m	meter
mi	mile

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1.0 INTRODUCTION

This report describes water-level data compilation and analysis for an area of east-central and southeastern Nevada and adjacent western Utah. The report includes a description of data compilation and evaluation, data reduction, data analysis methodology, and results.

1.1 Project Background

The Clark, Lincoln and White Pine Counties Groundwater Development Project (hereafter referred to as the Project) proposes to develop unused groundwater resources within selected basins of eastern Nevada where Southern Nevada Water Authority (SNWA) holds groundwater rights and applications. These basins include Coyote Spring, Delamar, Dry Lake, Cave, Spring, and Snake valleys (hereafter referred to as the Project Basins), and are depicted in Figure 1-1.

In 2004, SNWA applied to the Bureau of Land Management (BLM) for issuance of rights of way to construct Project facilities, most of which will be located on public lands administered by the BLM. These facilities include groundwater production wells, water conveyance facilities, water storage and regulating reservoirs, and power facilities. BLM issuance of these rights of way to construct, maintain, and operate these facilities requires a federal action for which the National Environmental Policy Act and Endangered Species Act must be considered. BLM has determined that preparation of an Environmental Impact Statement is required to assess the potential environmental effects that may result from permitting the rights of way, including the potential indirect effects of the proposed groundwater development. This report was prepared in support of that assessment.

1.2 Regional Groundwater Flow Systems

The regional groundwater flow system prevailing within the study area and vicinity is composed of multiple hydrographic basins, also called valleys. In many of the northern valleys, evapotranspiration (ET) is the principal source of groundwater discharge. However, the valleys that are in the central-southern part of the system, have a significant amount of groundwater discharge as subsurface outflow through the carbonate aquifer. Although numerous structural features (Dettinger et al., 1995; SNWA, 2003a) compartmentalize different parts of the carbonate aquifer system, the hydraulic connectivity of the valleys is believed to be expansive. A set of hydraulically connected valleys forms a flow system. A single valley that is not hydraulically connected to another valley can form its own flow system. Several flow systems, as defined by Harrill et al. (1988), and by Nichols (2000), occur within the study area and vicinity. The primary flow systems of interest to this project are: the White River, Goshute Valley, Great Salt Lake Desert, and Meadow Valley Wash Flow systems.

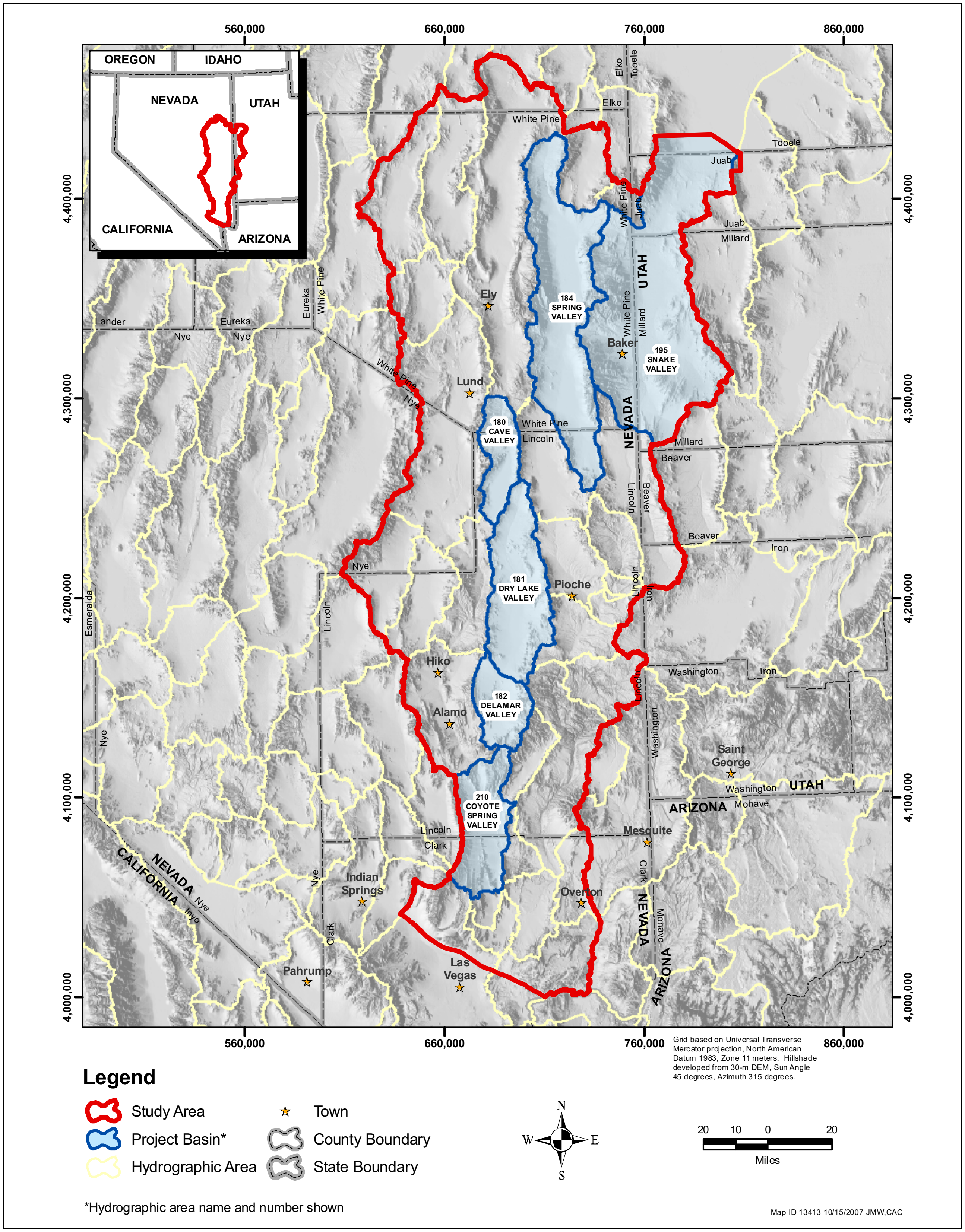

Figure 1-1
Location of Project Basins

1.3 Purpose and Scope

The purpose of this study is to develop a comprehensive and updated water-level database. This work will support both on going assessments of water development potential in several basins in which the SNWA has pending water-rights applications, and more specifically, the water-level database will be used to support the development of a three-dimensional finite-element groundwater flow model of the study area. SNWA attempted to accomplish several objectives in this effort including:

- Characterize hydraulic heads within aquifers in the study area for evaluation of conceptual flow paths and gradients.
- Prepare data sets from which a numerical groundwater flow model may be calibrated, including interpretations of steady-state water levels and identification of non-steady-state conditions that might be present in the study area.
- Characterize depths to water for use in reviewing groundwater discharge by ET.

1.4 Document Organization

This document consists of the following sections and appendices:

- Section 1.0 provides a description of the project background, description of regional flow systems, the purpose and scope of this study, and an overview of the structure of this report.
- Section 2.0 documents the data compilation and evaluation phase of this study.
- Section 3.0 discusses the reduction of the compiled data.
- Section 4.0 discusses the data analysis methodology.
- Section 5.0 documents the results and interpretations of this study for the hydrographic areas (HA) in the study area.
- Section 6.0 summarizes the interpretations and major findings in this study.
- Section 7.0 provides a list of references cited in this report.
- Appendix A contains the water-level data set used to create the basin-fill composite water-level maps, the depth-to-water maps, and the regional water-level elevation maps.
- Appendix B contains the hydrographs constructed for wells that had ten or more depth-to-water measurements.
- Appendix C contains the basin-fill composite water-level maps constructed for this study based on the data in Appendix A.

- Appendix D contains the depth-to-water maps for hydrographic areas with shallow depths to water and groundwater discharge by ET.

- Appendix E contains the regional carbonate-rock water-level contour map.

- Appendix F provides an explanation for the well and spring numbering system used throughout this report.

2.0 DATA COMPILATION AND EVALUATION

Approximately 17,000 individual depth-to-water measurements were compiled for 1,719 groundwater sites in the study area. The data were assembled from a variety of sources including published and unpublished reports, and from databases or spreadsheets maintained by different agencies. In addition to the site location and depth-to-water data, well construction and lithologic information were also compiled for each site, if available. This section discusses the types of data collected, methods of measurement, sources of data, data set creation, and evaluation of the compiled data.

2.1 Data Types

The types of data needed for this evaluation were general site information, depth-to-water data, well construction data, and lithologic and/or stratigraphic information. Site types were defined as a well (e.g., monitor or production), test hole, borehole, or spring. Specific types of data compiled for this study included:

- **Site Information**
  - Site identifier
  - Site location (i.e., Universal Transverse Mercator [UTM] coordinates)
  - Location accuracy
  - Land-surface elevation
  - Land-surface accuracy
  - Type of site (i.e., well or spring)
- **Depth-to-Water Data**
  - Date and time of measurement
  - Depth-to-water measurement
  - Method of depth-to-water measurement
  - Measurement method accuracy
- **Well Construction Data**
  - Date completed
  - Total depth
  - Borehole and casing diameters
  - Open interval

- **Lithologic/Stratigraphic Data**

  - Well lithology
  - Well stratigraphy

Measurements of the land-surface elevation and depth to water are the parameters needed to calculate water-level elevations. Therefore, a brief di scussion of the methods of measur ement for both parameters is given in the following section.

2.2 Methods of Measurement

2.2.1 Land-Surface Elevation

Land-surface elevations (or reference point elevations) for a given site can be obtained using a variety of different methods. These methods include, but are not limited to:

- An altimeter
- A Global Positioning System (GPS)
- A level or other surveying method
- Interpolating elevations from a topographic map
- Using reported elevations from other sources.

2.2.2 Depth to Water

Depth-to-water measurements can also be measured or estimated by a variety of different means. The most common methods of measuring depth to water include:

- Steel tapes
- Electric tapes
- Pressure gages
- Airline measurements.

2.3 Data Sources

The main sources of site location and depth-to-water data used in this study are previously published and unpublished reports and various providers of electronic data (e.g., databases and/or spreadsheets), as described in the following sections.

2.3.1 Previously Published Studies

Many investigators have published interpretations of groundwater levels in the study area, both on a regional scale and on smaller basin scales. This section describes several of the most pertinent studies applicable to this study.

In 1960, the Nevada Legislature authorized a special groundwater reconnaissance survey under supervision of the Department of Conservation and Natural Resources and in cooperation with the U.S. Geological Survey (USGS). This survey produced 57 reports covering all of the valleys in Nevada where development opportunities existed and where limited groundwater information was available. These reports were called “Ground-Water Resources-Reconnaissance Reports”, and many were written for valleys applicable to this study. The valleys of interest to this study for which reports were written and from which site location or depth-to-water data were obtained include Long Valley (Eakin, 1961); Cave Valley (Eakin, 1962); Dry Lake and Delamar valleys (Eakin, 1963a); Garden and Coal valleys (Eakin, 1963b); Pahranagat and Pahroc valleys (Eakin, 1963c); Lake Valley (Rush and Eakin, 1963); Coyote Spring Valley, Kane Spring Valley, and Muddy River Springs Area (Eakin, 1964); Meadow Valley Area (Rush, 1964); Spring Valley (Rush and Kazmi, 1965); Snake Valley Area (Hood and Rush, 1965); Steptoe Valley (Eakin et al., 1967); Butte Valley (Glancy, 1968); and the Lower Moapa-Lake Mead Area (Rush, 1968).

In the late 1970s and early 1980s, hydrogeologic evaluations were carried out by Ertec Western, Inc., or its subcontractors, for the U.S. Air Force’s (USAF) MX missile-siting program. These evaluations addressed 40 valleys in the Great Basin Region, including basins in east-central Nevada and western Utah that fall within the study area. This program consisted of literature searches and field reconnaissance. Test drilling, aquifer testing, and the development of groundwater flow models to help predict potential impacts of pumping were performed in some valleys (Bunch and Harrill, 1984). These studies have been documented in numerous reports including those by Ertec Western, Inc. (1981a, 1981b, 1981c, 1981d, and 1981e). The USGS also published Open-File Reports 84-702 and 96-469 that dealt with the MX missile-siting program (Bunch and Harrill, 1984; Tumbusch and Schaefer, 1996). Many of the basins studied for the MX missile-siting project are also applicable to this study. Some of these reports including Bunch and Harrill (1984) and Ertec Western, Inc. (1981e) contained site location and depth-to-water data that are included in this study.

The USGS Hydrologic Atlas HA–694-B (Thomas et al., 1986) presents groundwater levels for both basin-fill deposits and consolidated rocks of the carbonate-rock province in the Great Basin Region of Nevada, Utah, and adjacent states as part of the Regional Aquifer-System Analysis (RASA) program. Two maps were published, both at a scale of 1:1,000,000, showing water-level contours for basin-fill deposits and consolidated rocks, respectively. Data used to construct the water-level contours were similar to sources used in this study to the extent that they were available in the mid-1980s.

The USGS also produced Hydrologic Atlas HA-694-C as part of the Great Basin RASA program (Harrill et al., 1988). This publication delineated regional flow systems within the Great Basin Region. A map at a scale of 1:1,000,000 presented interpretations of flow direction and magnitude across hydrographic area boundaries for both the basin-fill and consolidated rocks in the Great Basin.

In the early to mid-1990s, the Las Vegas Valley Water District (LVVWD) published 17 reports as part of a “Cooperative Water Project”, which detailed investigations made for hydrographic areas in eastern and central Nevada. These reports were written to support groundwater applications filed by LVVWD in those valleys. The specific valleys of interest to this study for which reports were written and from which site location or depth-to-water data were obtained include Coyote Spring Valley (Buqo et al., 1992); Coal and Garden valleys (Brothers et al., 1993a); Snake Valley (Brothers et al., 1993b); Pahroc Valley (Drici et al., 1993); Cave Valley (Brothers et al., 1993c); Spring Valley (Brothers et al., 1994); and Dry Lake and Delamar valleys (Brothers et al., 1996).

In addition to the above mentioned USGS studies, Chapter C of USGS Professional Paper 1628 (Nichols, 2000) defines groundwater budgets and regional flow for east-central Nevada basins, many of which are included in the study area for this report.

In 2001, LVVWD published the report titled "Water Resources and Ground-Water Modeling in the White River and Meadow Valley Flow Systems" (LVVWD, 2001). This report documented the regional hydrology and geology of the White River Flow System (WRFS) and the Meadow Valley Flow System (MVFS). It also estimated groundwater and surface water budgets and simulated potential impacts on the regional groundwater and surface water resources in the flow systems from development of the LVVWD groundwater applications in Coyote Spring Valley.

2.3.2 Electronic Data

Electronic data in the form of databases or spreadsheets were obtained from numerous sources. The following sections discuss the main sources of electronic data and the types of electronic data available.

2.3.2.1 U.S. Geological Survey

USGS maintains a database of hydrologic data for approximately 1.5 million sites across the United States, Puerto Rico, and Guam. The database is known as the National Water Information System/Groundwater Site Inventory (NWIS/GWSI). The database contains surface water, groundwater, and water-quality data. The types of data obtained from the NWIS/GWSI database for this study included site location and depth-to-water data. The NWIS/GWSI data can be obtained from the USGS on the World Wide Web at the uniform resource locator (URL) http://waterdata.usgs.gov/nwis.

2.3.2.2 Nevada Division of Water Resources

The Nevada Division of Water Resources (NDWR) maintains a database of wells drilled in the State of Nevada. The data is available both online and as a separate Microsoft Access® well log database at URL http://water.nv.gov/Engineering/wlog/wlog.cfm. According to NDWR, the well log database contains a record of the wells drilled in Nevada since 1984. For some hydrographic areas, however, earlier dated well logs are also present in the database. For example, there are driller's logs available for Spring and Snake valleys from 1948 and for Steptoe Valley from 1945. The well log database contains site location information, well construction information, and depth-to-water data. Copies of the original driller's report, or log, for portions of the study area were also obtained in paper form from the Las Vegas office of NDWR and converted to electronic documents. These copies were obtained because they contain lithologic information about a borehole that the well log database does not include. Since the start of this study, however, electronic copies of the original driller's logs are now available from the NDWR website at URL http://water.nv.gov/Engineering/wlog/wlog.cfm.

2.3.2.3 Southern Nevada Water Authority

Over the past 15 years, SNWA has actively measured depth to water in many of the basins in the study area. Additionally, over the past decade, SNWA has cooperated with USGS through joint funding agreements for regional water-level monitoring and reporting. Data collected under these programs have also been incorporated into the NWIS/GWSI database. The SNWA data set contains annual water-level measurements collected by SNWA staff, some data compiled from published USGS-NDWR Ground-Water Resources-Reconnaissance Reports, and water-level data reported for the MX missile-siting program reported by Bunch and Harrill (1984). Miscellaneous water-level measurements from other published and unpublished reports were also added to the SNWA data set when appropriate.

2.3.2.4 Utah Division of Water Rights

The Utah Division of Water Rights also makes available a well drilling database for wells drilled in the State of Utah. This data is only available online and not as a separate downloadable database. The Utah Division of Water Rights data can be obtained at URL http://nrwrt1.nr.state.ut.us/wellinfo/default.asp. The types of data available include site location information, well construction information, lithology, and depth-to-water data.

The three primary sources of electronic data for this study were (1) the USGS NWIS/GWSI database, (2) the NDWR well-log database, and (3) SNWA's internal database that includes annual water-level measurements and measurements compiled from other miscellaneous reports.

2.4 Data Set Creation

The process used to compile the water-level data set for this study is summarized in this section and is shown diagrammatically in Figure 2-1. Generally, the process consisted of integrating site location and water-level data from various sources and reconciling the discrepancies between the various data sources. Common issues included (1) site location uncertainty, (2) inaccurate location and elevation control data, (3) discrepancies in well names and identifiers between older published and records of subsequent field data collection, (4) duplicate site locations and depth-to-water measurements.

The majority of the site locations and depth-to-water measurements used in this study were obtained from the NWIS/GWSI database maintained by the USGS. Because of its extensive spatial coverage and relatively comprehensive data set, the NWIS/GWSI database served as the starting point for this evaluation and in which an initial set of missing data were identified. The other sources of data were used to supplement the NWIS/GWSI database and to fill in missing data, when available.

The second major source of depth-to-water data for this study's water-level data set was the NDWR data. The NDWR data from the well log database and the electronic driller's logs were compared to the existing NWIS/GWSI data using ArcGIS® 9.1 from Environmental Systems Research Institute. ArcGIS® 9 was used to plot the locations of wells and test holes from both NDWR and NWIS/GWSI data sources and overlay various types of digital maps, including USGS 1:100,000-scale topographic maps, digital elevation models, hydrogeologic, geologic, and hill-shade maps. This comparison was

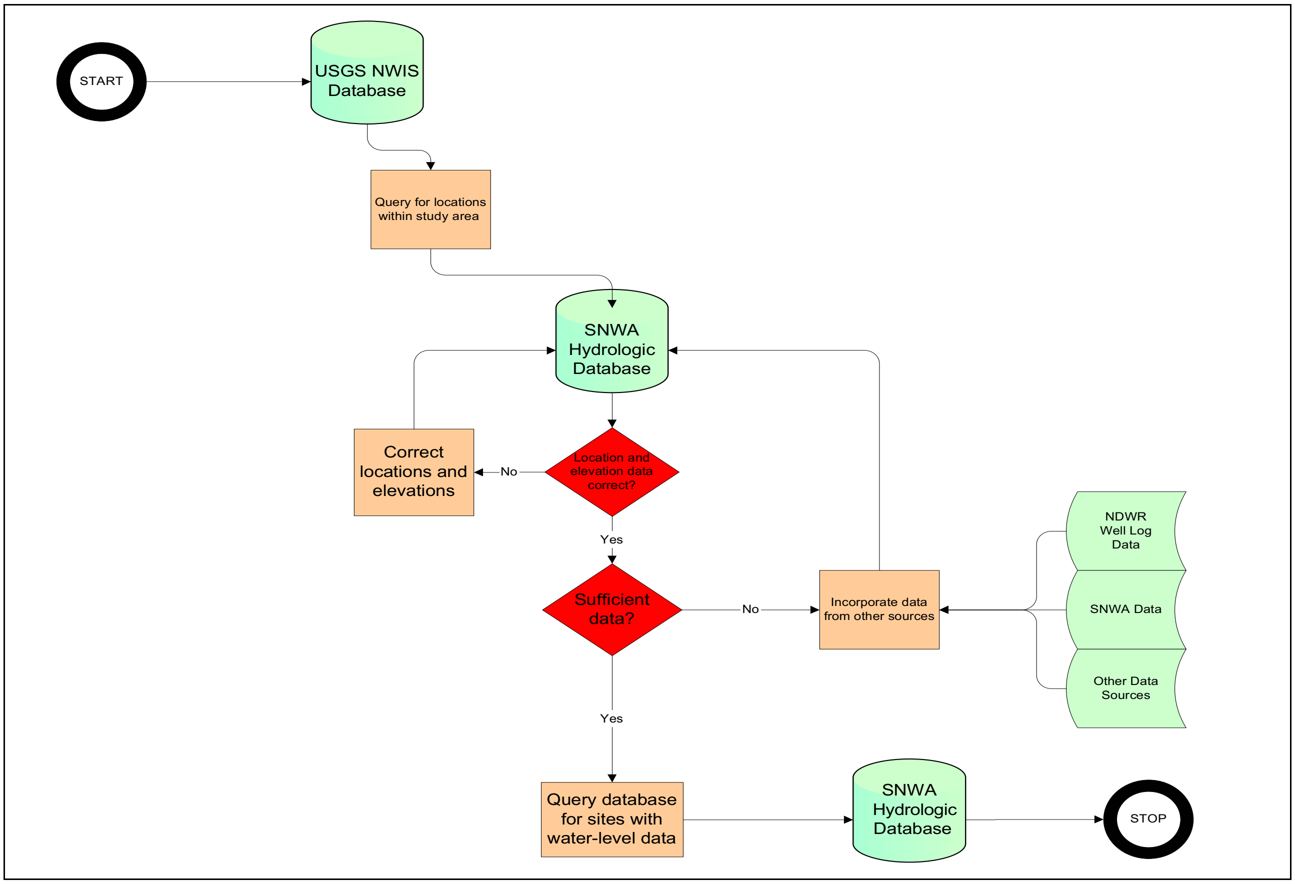

Figure 2-1
Flow Chart for Data Set Creation

performed to identify new locations to be added to the water-level data set, supplement incomplete USGS data, and verify location and elevation data. The NDWR data were added to the existing NWIS/GWSI data set for areas of interest with sparse data.

The next major source of depth-to-water data to be integrated into the water-level data set was SNWA's internal data set of site locations and depth-to-water measurements. This data was also compared to the existing data set using ArcGIS® 9. New sites and depth-to-water data were added to the existing data set when identified.

In addition to the compiled depth-to-water data, spring locations were also added to the existing data set. The added springs were generally large, valley floor locations that represented either the local basin-fill or regional carbonate-rock aquifer systems. Regional springs were identified for this study based on information contained in Volume 3. The determination was based on the reported temperature classification and geologic summary for a given spring found in Volume 3, Appendix A. These springs were added to provide representation of the water-level heads found in the local valley fill or regional carbonate-rock aquifer system. Mountain-block springs were not used to help construct water-level contours, as it is assumed that these springs represent localized watershed springs, not regional flow.

The general process of integrating water-level data from various sources and reconciling the discrepancies between the different data sources was repeated for each additional source of depth-to-water data. Specifically, each potentially new site location or depth-to-water data was compared to the existing data set and added if it was not a duplicate site or depth-to-water measurement. The focus of this effort was on areas of interest with sparse data.

Once all of the available data were obtained for the study area, it was organized by hydrographic area and site name in a Microsoft Access® 2000 database. Appendix F provides an explanation of the site name and hydrographic area designations used in this report.

2.5 Data Evaluation

After compilation of the site location and depth-to-water data, the compiled data were evaluated to check for duplicate data, inconsistencies in a site's reported land-surface elevation in comparison to a DEM, and inconsistencies in a site's data in comparison to data for the surrounding area. These evaluations are discussed in the following paragraphs.

Every effort was made to exclude duplicate site locations and depth-to-water measurements from the data set during the data compilation phase. Nevertheless, there were instances in which duplicate site locations or depth-to-water data made it into the compiled data set. During the data evaluation phase, duplicate site locations and depth-to-water measurements were identified and removed from the compiled data set. This was done by plotting well locations and inspecting each well's physical location and depth-to-water measurements in a systematic way to check for duplicate data.

In addition to checking for duplicate data, an evaluation was made of the reported land-surface elevation for each site to check for inconsistencies. For instance, the reported land-surface elevations for the sites were compared to land-surface elevations obtained from a 7.5-minute DEM for those locations to note any significant inconsistencies. For the purpose of this evaluation, a difference of 100 ft between the reported elevation and the DEM elevation was considered a significant inconsistency. The 7.5-minute DEM was also used to supply land-surface elevations for sites that did not otherwise have a reported land-surface elevation already found in the compiled data set. This process revealed numerous sites that were not plotting in the correct location or were not consistent with surrounding locations. As a result, there were numerous locations that were either removed from the data set, or corrected, if the available data allowed.

In addition, for wells that appeared to have discrepancies with surrounding data (e.g., inconsistent depth-to-water measurements with nearby sites, geology on the well log not consistent with location, well locations not consistent with legal descriptions, etc.), a comparison of the plotting location was made with respect to the section, township, and range information reported for the site. This process also revealed wells that were not correctly located, which were then removed from the data set, or corrected, if the available data allowed.

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3.0 DATA REDUCTION

Prior to the analysis of the compiled water-level data, the water-level data set was reduced to a data set appropriate for analysis. This data reduction consisted of determining the effective open interval of a well, calculating water-level elevations from the depth-to-water data, identifying outlier and non-steady-state water-level measurements, and determining the hydrogeologic unit (HGU) in which a given well is completed.

3.1 Effective Open Interval Determination

Effective open intervals for wells were assigned based on the well construction information obtained from the data sources listed in Section 2.0. The term "effective open interval" refers to the largest interval of a well that is open to the formation. Specific examples of intervals include well screens, perforated casing, or an open borehole that is left uncased. The process of defining an effective open interval for a well is described below.

Effective open intervals were assigned based on the known well construction information. The well construction information necessary for determining an effective open interval is the top and bottom depths of any open intervals, if available, and the total depth of the well. If the top and bottom depths of an open interval are known, the effective open interval for a well was defined as those top and bottom depths. If open interval information was not available for a given well but the total depth of the well was known, it was assumed that the perforated or open interval for the well was 50 ft-bgs to the total depth of the well. This assumption was made because the typical sanitary seal depth for wells based on Nevada state requirements is 50 ft-bgs (Turnipseed, 1990), and the total depth provides a lower bound for the interval. If a well's total depth was unknown and open interval information was not available, then a perforated or open interval was not assigned for that well.

3.2 Water-Level Elevation Calculation

For each individual depth-to-water measurement, a corresponding water-level elevation was calculated as the land-surface elevation (or reference point elevation) minus the depth-to-water measurement, as shown by the following equation:

$$H = LSE - DTW \qquad (3\text{-}1)$$

where,

H = Water-level elevation or hydraulic head value (ft-amsl)
LSE = Land-surface elevation (ft-amsl)
DTW = Depth to water (ft)

The water-level elevations are necessary for the creation of the water-level elevation contour maps and to construct hydrographs that can be used for additional data analysis including the calculation of mean steady-state water-level elevations for a given site. The hydrographs are used to examine steady-state trends and to identify abnormal or inconsistent depth-to-water measurements that would be unsuitable for inclusion into a steady-state hydraulic head data set (see Section 3.3).

3.3 Identification of Outlier or Non-Steady-State Water-Level Measurements

For the purpose of this study, "steady state" was defined as there being no trend in the available water-level elevations for a well other than natural fluctuations. "Transient conditions", or non-steady state, were defined as water-level elevations collected during pumping or elevations affected by pumping. To identify water-level measurements that are outliers, or non-steady state, and, therefore, not representative of predevelopment groundwater flow conditions, a temporal and spatial data analysis was performed for each site with ten or more water-level measurements. For wells with less than ten water-level measurements, it could not be determined which measurements represented steady state; therefore, all measurements were included for completeness and qualified.

The identification of non-steady-state water-level measurements consisted of constructing hydrographs for each well with ten or more water-level measurements in the study area. The hydrographs were reviewed to identify outlier and non-steady-state data. Figure 3-1 shows an example hydrograph where water-level measurements were identified as "not-consistent" with the steady-state part of the trend. The non-steady-state measurements were flagged in the compiled data set, and an additional flag was assigned to those measurements, documenting the inconsistency. For example, individual depth-to-water measurements might be flagged as being "anomalously low", "anomalously high", or as "not representative of steady-state or predevelopment conditions". Anomalously low or high measurements were defined as the water level being lower or higher in magnitude than equivalent data at the same site. The water-level measurements that were flagged as "inconsistent" were then excluded from further steady-state data analysis (i.e., mean hydraulic head calculations). Wells having non-steady-state measurements that could be attributed to groundwater pumping were flagged to indicate transient-state behavior.

3.4 Hydrogeologic Unit Assignment

In addition to assigning effective open intervals, it was necessary to evaluate the HGUs in which a given well is completed (see Volume 1). This evaluation was necessary so that each hydraulic head value could be assigned to a specific HGU. This segregation of hydraulic heads was critical for the construction of both the basin-fill composite water-level maps and the carbonate-rock water-level maps.

Hydrogeologic units were assigned in the following manner. First, if lithologic or stratigraphic information was available for a given site, the representative HGU was assigned based on the penetrated lithology and total depth of the well. If lithologic information was not available for a well, HGUs were assigned by plotting the well location on a hydrogeologic map and assuming that the HGU at the well's surface location represents the HGU penetrated by the well. It should be noted that a well may penetrate multiple HGUs if it is very deep and contains a large open interval.

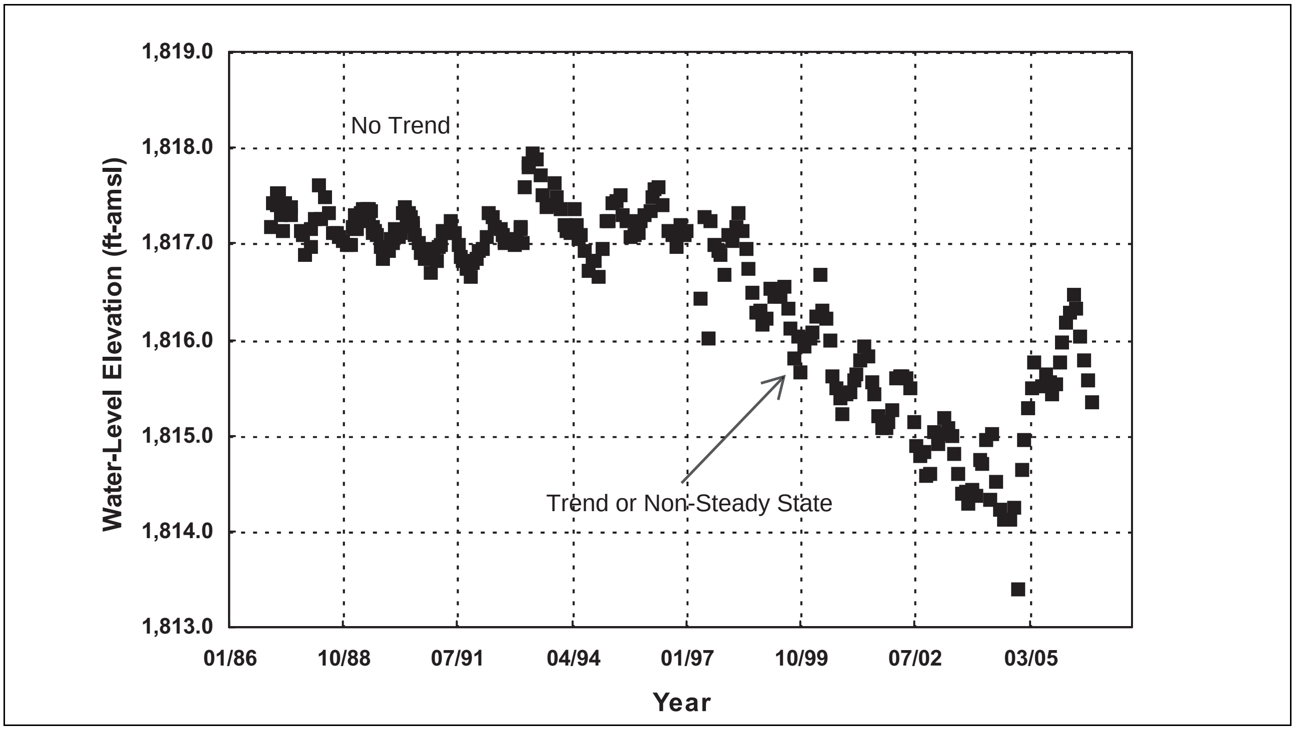

Figure 3-1
Hydrograph for Well 219 S14 E65 21AC 1 EH-4 Illustrating Steady-State and Transient Non-Steady-State Conditions

Approximately 94 percent of the wells in the compiled data set, however, represent basin-fill well completions. For the purposes of this study , the following HGUs from Volume 1 were grouped together and represented basin-fill materials:

- Quaternary playa deposits
- Quaternary and Tertiary basalts and andesites
- Quaternary and Tertiary sediments
- Tertiary volcanic rocks
- older Tertiary and Cretaceous sediments.

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4.0 DATA ANALYSIS METHODOLOGY

Analysis of the site location and water-level data for this study consisted of (1) calculating mean steady-state hydraulic heads and evaluating the uncertainty associated with the steady-state hydraulic heads, and (2) using the mean steady-state hydraulic heads to summarize the predevelopment groundwater conditions in the study area by creating basin-fill composite water-level maps, depth-to-water maps in phreatophyte areas, and a water-level contour map of well and spring locations that penetrate the carbonate-rock aquifer system. The following sections discuss these efforts in greater detail.

4.1 Steady-State Hydraulic Heads

The method used to estimate the predevelopment steady-state water-level elevations within the study area is discussed in this section. Ideally, only predevelopment data should be used to generate a hydraulic head data set for use in a groundwater flow model. Unfortunately, there is not enough predevelopment data to define natural steady-state conditions over the entire study area. As a result, the whole period of record for a given site was used in the data reduction and analysis process. This was done because the period of record for the wells in the study area is highly variable. For example, approximately 60% of the wells in the compiled data set had only one depth-to-water measurement. These measurements spanned a 94 year period from 1912 to 2006. For wells with more than one measurement, the period of record is also highly variable. For example, one well may have a relatively large number of measurements, but all the measurements for the well were obtained in the 1990's. Another well may also have a relatively large number of measurements, but the measurements were obtained from 1950 to 2000. This inconsistency in the overall period of record for the study area required the inclusion of all of the available data. In general, the method of estimating predevelopment water-level elevations consisted of calculating a mean water-level elevation for each well in the study area from the water-level elevation data considered representative of steady-state conditions (see Section 3.3). The uncertainty associated with the mean water-level elevations was then also evaluated (see Section 4.1.2).

4.1.1 Mean Groundwater Elevations

To prepare a water-level data set for use in the calibration of a steady-state numerical groundwater flow model, it was necessary to determine the predevelopment hydraulic head value from the water-level data for each site. This process consisted of first excluding hydraulic head data from the complied data set that were not considered representative of steady-state conditions. Data that were not considered representative of steady-state conditions included water-level elevation data qualified as "pumping," "recently pumping," or "a nearby site is pumping." Other data considered abnormal or inconsistent with the steady-state conditions for a given site were also removed from the data set.

Once the process of excluding non-representative data was completed, a mean steady-state hydraulic head value for a given site was calculated as follows:

$$\overline{H} = \frac{\sum H_t}{n} \qquad \text{(Eq. 4-1)}$$

where,

$\overline{H}$	=	Mean hydraulic head value representative of steady-state conditions (ft-amsl)
H_t	=	Hydraulic head value for a given time (ft-amsl)
n	=	Number of water-level elevation measurements available for the period of record.

For sites with only one water-level elevation, that value was assumed to represent the steady-state value for that site. In addition, for springs that were included in the compiled data set, the land-surface elevation of the location was used as an approximate steady-state hydraulic head value.

4.1.2 Uncertainty Analysis

An assessment of the uncertainty associated with the mean hydraulic head value for a given site was also completed for this study. This assessment of uncertainty was based on methods documented by IT Corporation (1996) and D'Agnese et al. (2002). A mean hydraulic head value for a site is derived from the land-surface elevation and the average water-level elevation measurement. As a result, the uncertainty associated with a mean water-level elevation for a given site results from four main sources of error: (1) the error associated with estimating the land-surface elevation, (2) the error associated with the location of a site, (3) the error associated with measuring the depth to water, and (4) the error associated with reducing multiple water-level measurements to a mean value (i.e., water-level variability).

4.1.2.1 Land-Surface Elevation Accuracy

Land-surface elevations in this report are reported in feet above mean sea level. Land-surface elevations derived from the NWIS/GWSI database have a range of reported accuracies. In general, the accuracy of land-surface elevations interpolated from the contours on topographic maps is plus or minus one-half of the contour interval. Since most topographic maps have a 40 ft contour interval, a default minimum accuracy of 20 ft was assigned to NWIS/GWSI locations when their reported method of measurement was listed as "Interpolated from map." When NWIS/GWSI reported a land-surface elevation accuracy greater than 20 ft regardless of the method of measurement, the reported accuracy was maintained as reported. When NWIS/GWSI reported surveyed or GPS-derived land-surface elevations, the accuracies were maintained as reported.

Land-surface elevations for NDWR well locations or for wells sited from digital topographic maps were derived from a 7.5-minute topographic DEM obtained from the National Elevation Dataset. The 7.5-minute DEM elevations have a maximum permitted vertical root mean square error of 15 m, or approximately 50 ft (USGS, 1993). As a result, NDWR well locations were assigned a land-surface elevation accuracy of 50 ft.

For other sources of information, the accuracy of the land-surface measurement was maintained from the original source of data, if available. If no accuracy measurement was available for a land-surface elevation, a default accuracy of 100 ft was applied to the measurement.

4.1.2.2 Site Location Accuracy

Site location coordinates in this report are reported in meters using the UTM Zone 11 grid system using the North American Datum of 1983 (NAD83). For sites obtained from the USGS database, an estimate of the location accuracy is provided based on the method used to determine the coordinates. For example, USGS horizontal location accuracies, where documented, vary from ± 6,060 ft to ± 1.01 ft. For sites obtained from other data sources, location accuracies were also either supplied by the originator of the data or estimated based on the assumption that a site's local number (see Appendix F) was accurate to the nearest quarter-quarter section. In those cases, it was assumed that the location accuracy was ± 1,320 ft. If no accuracy measurement was available for a site, a default accuracy of ± 6,060 ft was applied to the site.

The potential variation in a site's physical location (i.e., the *x* and *y* coordinates) introduces additional land-surface elevation error to the hydraulic head estimate because the correct land-surface elevation cannot be obtained if the site is not accurately located. This potential error increases if a site is located in an area with a large amount of vertical relief (D'Agnese et al., 2002). This potential error was estimated by determining the slope of the land-surface at each site using ArcGIS® 9.1. The horizontal site location error was converted to an additional vertical error using the following equation:

$$Z = CA \times \tan\theta \qquad \text{(Eq. 4-2)}$$

where,

Z	=	Vertical error due to horizontal site-location accuracy (ft)
CA	=	Coordinate accuracy (ft)
θ	=	Land-surface slope at the site location (°).

4.1.2.3 Depth-to-Water Accuracy

Depth-to-water measurements in this report are reported in feet below ground surface. In general, the accuracy of a depth-to-water measurement depends on the method of measurement. For example, depth-to-water measurements taken in relatively shallow wells with steel-tapes or calibrated electric-tapes are accurate to the nearest hundredth of a foot (ASTM D 4750-87, 1993). In general, the error associated with measuring depths to water is relatively small compared to the other sources of error. As a result, the individual depth-to-water measurement accuracies are not explicitly quantified in this study, since this error is relatively small compared to the other sources of error.

4.1.2.4 Water-Level Variability

The water level in a well or borehole can vary due to a number of natural factors including seasonal fluctuations, daily barometric changes, or climatic factors. The variability of reducing multiple water-level measurements to a mean value was quantified by determining the variance of the mean value.

4.1.3 Hydraulic Head Variances

To quantify the overall accuracy of the mean hydraulic head measurements, estimates of the variances associated with the hydraulic head values, rather than errors, are used to assign weights to the hydraulic head values. A brief discussion of the variances follows.

As mentioned previously, a hydraulic head value is derived from a land-surface elevation and a depth-to-water measurement, which are independent variables. As a result, the total variance for the mean hydraulic head value may be expressed as the sum of the variances of three independent variables as shown in the equation:

$$\sigma^2_{H_{Total}} = \sigma^2_{LSE} + \sigma^2_{Z} + \sigma^2_{\bar{H}} \qquad \text{(Eq. 4-3)}$$

where,

$\sigma^2_{H_{Total}}$ = Total variance associated with the mean hydraulic head (ft^2)

σ^2_{LSE} = Variance associated with the land-surface elevation accuracy (ft^2)

σ^2_{Z} = Variance associated with the vertical error due to horizontal site-location accuracy (ft^2)

$\sigma^2_{\bar{H}}$ = Variance associated with calculating the mean hydraulic head measurement (ft^2).

An alternate way to express the variance of the mean hydraulic head value obtained from multiple depth-to-water measurements is the variance of the sample mean described by the following equation:

$$\sigma^2_{H_{Total}} = \sigma^2_{LSE} + \sigma^2_{Z} + \frac{\sigma^2_{\bar{H}}}{n} \qquad \text{(Eq. 4-4)}$$

where,

$\sigma^2_{H_{Total}}$ = Total variance associated with the mean hydraulic head (ft^2)

σ^2_{LSE} = Variance associated with the land-surface elevation accuracy (ft^2)

σ^2_{Z} = Variance associated with the vertical error due to horizontal site location accuracy (ft^2)

$\sigma^2_{\bar{H}}$ = Variance of the mean depth-to-water measurement (ft^2)

n = Number of depth-to-water measurements used to calculate the mean.

For sites having only one depth-to-water measurement, it is impossible to calculate a variance for the mean hydraulic head value. In those instances, the variance of the sample mean was defined as 17 ft^2. This variance of the sample mean was used for sites with only one depth-to-water measurement because the average variance of the sample mean for the entire study area was 17 ft^2. A variance of 17 ft^2 is equivalent to an estimated error of ± 8.2 ft, or plus or minus two standard deviations, with a 95 percent confidence level.

The variance of the land-surface elevation may be estimated from the land-surface accuracy, assuming that the land-surface accuracy represents the error on the estimate with a 95 percent confidence level and is, therefore, equal to two standard deviations. If this assumption holds true, the variance associated with the land-surface elevation is estimated by the following equation:

$$\sigma^2_{LSE} = \left(\frac{LSE_{acc}}{2}\right)^2 \quad \text{(Eq. 4-5)}$$

where,

σ^2_{LSE} = Variance associated with the land-surface elevation (ft^2)
LSE_{acc} = Accuracy of the land-surface elevation measurement (ft).

In a similar manner, the variance of the vertical error due to horizontal site-location accuracy may be estimated, assuming that the vertical error represents the error on the estimate with a 95 percent confidence level and is, therefore, also equal to two standard deviations. If true, the variance associated with the site-location accuracy is estimated by the following equation:

$$\sigma^2 Z = \left(\frac{Z}{2}\right)^2 \quad \text{(Eq. 4-6)}$$

where,

σ^2_Z = Variance associated with the vertical error due to horizontal site location accuracy (ft^2)
Z = Vertical error due to the horizontal site location accuracy (ft).

4.1.4 Steady-State Data Set

The steady-state water-level data set is organized by hydrographic area number and station name. Locations of wells are in UTM Zone 11 using the NAD83. The altitude of the land-surface elevation or reference point elevation is in feet above mean sea level referenced to the North American Vertical Datum of 1988. For most locations, the reference point elevation represents the land-surface elevation. For some surveyed locations, the value represents the elevation of the measuring point.

Well depths are in feet below ground surface. Well depth is reported in some data sources such as the NDWR well log database. However, in some instances, the data regarding completed well depth was not provided in the original source of the data (e.g., some of the NWIS/GWSI data points). In some cases, the drilled depth of the bore hole was reported and assumed to represent the completed well depth. Approximately 75 percent of the locations in the data set contain well depths.

The mean depth to water and mean water-level elevation for a given site are presented in the steady-state data set. Depth-to-water measurements that were qualified as "pumping", "recently pumping", or showing non-steady-state conditions were excluded from the mean value calculation. Many well locations (e.g., NDWR and other sources) contain only one depth-to-water measurement. In those cases, the single value is reported as the mean value. In addition, not every location contains a mean depth-to-water measurement. For example, a dry well does not have a mean depth-to-water measurement. Dry wells, flowing wells, and springs were flagged with greater-than or less-than qualifiers, with "less than" signifying no water table found within the well's total depth and "greater than" signifying (for flowing wells and springs) the water table is above land surface at that particular location. The resultant data set is provided in Table A.2-1 in Appendix A.

4.2 Characterization of Predevelopment Groundwater Conditions

The characterization of predevelopment groundwater conditions consisted of creating basin-fill composite water-level maps, creating depth-to-water maps in phreatophyte areas, and creating a carbonate-rock water-level contour map that includes well and spring locations that penetrate the regional carbonate-rock aquifer system. The characterization of predevelopment groundwater conditions in the study area was complicated due to the lack of a consistent temporal distribution of measurements in the study area. For example, water levels range from 1912 to 2006 for the most recent water-level measurement. For the purpose of this study, predevelopment groundwater conditions in the study area were examined using the mean water-level elevation values determined as calibration targets for the groundwater flow model. Due to the fact that there has been relatively limited groundwater development in most areas of the study area, it was felt that the steady-state hydraulic heads were analogous to predevelopment conditions. It is noted, however, that significant pumping occurs in Steptoe, Snake, Lake, and Panaca valleys.

For hydrographic areas in the study area, it has been observed that different aquifer systems commonly exist including unconfined shallow basin-fill aquifers, deeper confined basin-fill aquifers, volcanic aquifers, and underlying confined carbonate-rock aquifers (Plume and Carlton, 1988; Prudic et al., 1993). Most wells in the study area are completed in the shallowest aquifers, although some deeper exploration wells can be found throughout the study area as a result of the USAF's MX missile-siting program in the late 1970s and early 1980s (Ertec Western, Inc., 1981a; Bunch and Harrill, 1984) and other exploratory programs.

For most hydrographic areas in the study area, no differentiation of water-level elevations could be detected that indicated aquifer systems with distinctly different hydraulic heads. There are a few exceptions, which are noted in Section 5.0. This lack of differentiation is likely the result of several factors, including (1) the general accuracy of the data set, (2) most wells are completed in the shallow aquifer, or (3) the water-level elevation differences between the aquifers are generally less than 100 ft. As a result, it was determined that this study would focus on both the basin-fill aquifer system and the regional carbonate-rock aquifer system.

4.2.1 Basin-Fill Composite Water-Level Maps

If there was a sufficient amount of data to construct a water-level contour map for a given hydrographic area, the water-level contour map was created from the mean hydraulic head values calculated as calibration targets for the groundwater flow model. Water-level data used in the development of the water-level contour maps consisted of water-level elevations from 1,755 wells and 83 spring heads in the study area. The groundwater data used to construct the composite water-level maps are provided in Table A.2-1 in Appendix A. The water-level contour maps for each hydrographic area in the study area are found in Appendix C and discussed in Section 5.0.

The basin-fill composite water-level maps likely represent groundwater conditions that would be found today in the hydrographic areas within the study area. For a given hydrographic area, the basin-fill water-level data set may represent more than one aquifer system (e.g., shallow versus confined). The available data are limited such that differentiating individual aquifers within the basin-fill was not accomplished. From this perspective, the basin-fill water-level contour maps should be viewed as composite water-level maps. For hydrographic areas with valley-floor springs, the spring locations were also plotted with the assumption that the water elevation for the spring was greater than the land-surface elevation at that location, but only by a few feet (within the accuracy of the data set). The water-level contours were drafted by hand at 100-ft intervals for most basins. The contours incorporated several factors including geologic structures, topography, and data point reliability. The 100-ft contour intervals were based on the quantity and inferred quality of the data set. Contour lines are dashed where uncertain or inferred. The drafted water-level contour lines were then transferred to digital base maps that included the well or spring location and the water-level elevation for each point (Appendix C). Several basins did not have a sufficient number of data points to support construction of reliable water-level contours (e.g., Jakes Valley or Kane Springs Valley). Contours are not presented for those hydrographic areas.

It should be pointed out that upon close examination of the basin-fill water-level elevation contour maps, it is common to find data points located in close proximity to each other that have relatively different water-level elevations. This can be due to geologic structures, different lithology, differences in well construction, penetration of different aquifer systems, differing dates of measurement, and the inherent error within the data set. Contour lines may not fit the data points exactly, but are drawn to reflect the general nature of the water-table surface, including considerations of geology and topography.

4.2.2 Depth-to-Water Maps in Phreatophyte Areas

Depth-to-water maps were prepared for those hydrographic areas in the study area generally containing over 300 acres of phreatophytes. The depth-to-water maps were based on the same data set used for creating the water-level elevation contour maps. The depth-to-water maps, however, used each measurement site's mean depth-to-water value instead of the mean water-level elevation. The groundwater data used to construct the depth-to-water contour maps can be found in Table A.2-1 in Appendix A. The depth-to-water contour maps that were created for this study are found in Appendix D and discussed in Section 5.0.

The depth-to-water maps likely represent the groundwater conditions that would be found today in the hydrographic areas with large phreatophyte areas. For hydrographic areas with valley-floor springs, the spring locations were also plotted with the assumption that the depth to water in those areas was 0 ft (within the accuracy of the data set). The depth-to-water maps presented in Appendix D were created by hand-contouring the depth-to-water data at 50-ft contours for most of the hydrographic areas. Contour lines are dashed where uncertain or inferred. The depth-to-water contours incorporated several factors including geologic structures, topography, and data point reliability.

4.2.3 Regional Carbonate-Rock Water-Level Contour Map

The last step in characterizing predevelopment groundwater conditions in the study area was to create a regional carbonate-rock water-level contour map that depicts the water-level elevations for wells or heads for springs for the carbonate-rock aquifer. The groundwater data used to construct the regional carbonate-rock water-level contour map can be found in Table A.2-1 in Appendix A. The regional carbonate-rock water-level contour map is provided in Appendix E and discussed in Section 5.0.

The water-level contour map was constructed by plotting the well and spring locations that are known to penetrate or emanate from the regional carbonate-rock aquifer. Water-level data used in the development of the regional carbonate-rock water-level map consisted of water-level elevations from 109 wells and 19 spring heads in the study area. Contour lines for the regional carbonate-rock aquifer system were hand drafted at 500-ft intervals for the entire study area. The contours incorporated several factors including geologic structures, topography, data point reliability, and the extent of the carbonate-rock aquifer in the study area. The 500-ft contour intervals were based on the quantity and inferred quality of the data set. Contour lines are dashed where uncertain or inferred. Previous investigations by Thomas et al. (1986), Bedinger and Harrill (2004), Prudic et al. (1995), and Wilson (2007) were used as guides to supplement the limited amount of data in the study area.

5.0 RESULTS

This section presents the results and interpretations of the compiled data set regarding predevelopment groundwater conditions within the study area. Due to the number of the figures and the length of the water-level data set, the interpretative work products for this task can be found in the appendices of this report. The appendices and their contents are as follows:

- Appendix A contains the water-level data set and a description of the fields found in the data set. This data set was used to construct the water-level contour maps, the depth-to-water maps, and the regional carbonate-rock water-level contour map found in Appendix C to Appendix E.

- Appendix B contains the hydrographs that were constructed for the wells with ten or more depth-to-water measurements in the study area.

- Appendix C contains the composite basin-fill water-level contour maps.

- Appendix D contains the phreatophyte area depth-to-water contour maps.

- Appendix E contains the regional carbonate-rock water-level contour map.

- Appendix F contains an explanation of the well and spring numbering system and the hydrographic area boundaries used in this report.

This section of the report is organized in the following manner. Each hydrographic area in the study area is discussed within the context of its local groundwater flow system, with the hydrographic area number designation indicated in the heading. The hydrographic area number is important in distinguishing basins with similar names (e.g., Spring Valley is the name for both HA 184 and HA 201, each of which is within the study area but also substantially differs from the other as to geology and hydrogeology). Water-level data and hydraulic gradients are discussed for each aquifer system in each hydrographic area with adequate water-level data. The flow systems in the study area are discussed in the following order: White River, Goshute, Great Salt Lake Desert, and Meadow Valley Wash. Table 5-1 presents an overview of the water-level data for each hydrographic area in the study area.

5.1 White River Flow System

The WRFS is the most continuous flow system in east-central Nevada. It begins in Long Valley, west of Ely, Nevada, and continues southward toward the Colorado River. The flow system includes Long Valley, Jakes Valley, White River Valley, Cave Valley, Dry Lake and Delamar valleys, Pahroc Valley,

Table 5-1
Summary of Water-Level Data for Wells (by Aquifer Type) and Springs in the Study Area
(Page 1 of 3)

HA Name and Number	Total	Basin-Fill		Carbonate		Volcanic		Other		Springs	Valley Floor Phreatophyte or Playa Discharge Areas	Existing Groundwater Development
		No. of Locations	Avg. Water-Level Elevation	No. of Locations	Avg. Water-Level Elevation	No. of Locations	Avg. Water-Level Elevation	No. of Locations	Avg. Water-Level Elevation	No. of Locations		
Long (175)	44	41	6,084	1	6,118	1	6,025	0	-	1	Yes (northern)	Minor
Jakes (174)	10	7	6,506	0	-	1	6,921	0	-	2	No	No
White River (207)	209	173	5,453	7	5,491	7	6,036	0	-	22	Yes	Yes
Cave (180)	29	22	6,039	5	5,723	0	-	0	-	2	Yes (southern area perched groundwater?)	Minor
Dry Lake (181)	27	17	4,768	2	4,415	4	6,272	0	-	4	No	No
Delamar (182)	7	4	3,847	0	-	2	3,628	0	-	1	No	No
Pahroc (208)	14	13	4,646	0	-	1	Dry	0	-	0	No	No
Garden (172)	39	30	5,193	4	6,204	2	6,163	0	-	3	Yes	No
Coal (171)	17	13	5,056	3	4,627	1	6,004	0	-	0	No	No
Pahranagat (209)	81	69	3,615	4	3,894	1	Dry	0	-	7	Yes	Yes
Coyote Spring (210)	27	14	2,243	12	1,880	1	2,246	0	-	0	Minor	Yes
Kane Spring (206)	4	1	3,537	2	1,883	0	-	0	-	1	No	No
Muddy River Springs Area (219)	52	39	1,766	6	1,813	0	-	0	-	7	Yes	Yes

Table 5-1
Summary of Water-Level Data for Wells (by Aquifer Type) and Springs in the Study Area
(Page 2 of 3)

HA Name and Number	Total	Basin-Fill		Carbonate		Volcanic		Other		Springs	Valley Floor Phreatophyte or Playa Discharge Areas	Existing Groundwater Development
		No. of Locations	Avg. Water-Level Elevation	No. of Locations	Avg. Water-Level Elevation	No. of Locations	Avg. Water-Level Elevation	No. of Locations	Avg. Water-Level Elevation	No. of Locations		
Hidden (217)	2	1	1,818	1	1,846	0	-	0	-	0	No	No
Garnet (216)	30	11	1,856	18	1,816	0	-	1	1,868	0	No	Yes
California Wash (218)	29	22	1,704	7	1,815	0	-	0	-	0	Yes	Yes
Lower Moapa (220)	52	49	1,354	1	1,563	0	-	2	2,157	0	Yes	Yes
Black Mountains (215)	45	29	1,499	6	1,821	1	1046	7	1,768	2	No	Yes
Butte (178B)	42	35	6,284	3	6,803	0	-	1	6,995	3	Yes	Minor
Steptoe (179)	304	277	6,194	9	6,881	3	6489	0	-	15	Yes	Yes
Spring (184)	180	159	5,800	9	5,951	0	-	0	-	12	Yes	Yes
Tippett (185)	12	9	5,543	0	-	0	-	0	-	3	Yes	No
Hamlin (196)	23	22	6,037	0	-	1	6159	0	-	0	Yes	No
Snake (195)	299	282	5,044	5	5,584	1	5979	0	-	11	Yes	Yes
Lake (183)	107	100	5,920	0	-	4	6613	0	-	3	Yes	Yes
Patterson (202)	71	60	5,683	3	5,439	8	6578	0	-	0	Minor	Yes

Table 5-1
Summary of Water-Level Data for Wells (by Aquifer Type) and Springs in the Study Area
(Page 3 of 3)

HA Name and Number	Total	Basin-Fill		Carbonate		Volcanic		Other		Springs	Valley Floor Phreatophyte or Playa Discharge Areas	Existing Groundwater Development
		No. of Locations	Avg. Water-Level Elevation	No. of Locations	Avg. Water-Level Elevation	No. of Locations	Avg. Water-Level Elevation	No. of Locations	Avg. Water-Level Elevation	No. of Locations		
Spring (201)	24	18	6,010	0	-	6	5,847	0	-	0	Yes	Yes
Eagle (200)	24	23	5,548	0	-	1	5,412	0	-	0	Minor	Yes
Rose (199)	8	8	5,446	0	-	0	-	0	-	0	Minor	Yes
Dry (198)	24	24	5,245	0	-	0	-	0	-	0	Minor	Yes
Panaca (203)	38	34	4,810	1	5,334	2	4,603	0	-	1	Yes	Yes
Clover (204)	23	17	5,374	0	-	5	5,292	0	-	1	Minor	Yes
Lower Meadow Valley Wash (205)	79	77	2,371	0	-	2	3,873	0	-	0	Yes	Yes

Garden and Coal valleys, Pahranagat Valley, Coyote Spring Valley, Kane Springs Valley, Muddy Rivers Springs Area, Hidden and Garnet valleys, California Wash, Lower Moapa, and the Black Mountains Area hydrographic areas.

5.1.1 Long Valley (HA 175)

Basin-Fill Aquifer

Driller's logs for wells in Long Valley indicate that the basin fill is composed of sands, silts, clays, and gravels. These logs and subsequent references to NDWR driller's logs in this Chapter can be found at the URL provided in Section 2.3.2.2. The driller's logs also show well yields on the order of 50 to over 200 gpm in some areas.

Depths to water in Long Valley range from near ground surface in the vicinity of the Long Valley Slough, in the upper part of township 22 north and range 58 east, to greater than 200 ft-bgs at the southern end of the valley (see Figure D.1-1). It can be seen from the figure that for most of the valley depths to water are generally less than 100 ft-bgs. Water-level elevations for wells located on the valley floor range from less than 6,000 ft-amsl in the southeast portion of the valley to almost 6,200 ft-amsl in the northeast portion of the valley. These water-level elevations indicate that a general north-to-south hydraulic gradient of approximately 7 ft/mi exists in Long Valley (Figure C.1-1).

Carbonate-Rock Aquifer

Only one well in the compiled data set was identified as penetrating the carbonate-rock aquifer in Long Valley (see Figure E.1-1). According to driller's information obtained from the Nevada Oil and Gas Well Database obtained from the Nevada Bureau of Mines and Geology (NBMG, 2004), the well penetrated basin-fill materials to 1,050 ft-bgs, volcanics to 2,710 ft-bgs, Pennsylvanian carbonate rocks to 2,918 ft-bgs, Chainman shale to 4,536 ft-bgs, Joana limestone to 5,070 ft-bgs, Pilot shale to 5,910 ft-bgs, and Guilmette limestone to 6,563 ft-bgs. The estimated water-level elevation for the well based on recovery during a drill-stem test was 6,118 ft-amsl. This water-level elevation is approximately 500 ft higher than those measured for carbonate-rock wells in White River Valley, suggesting a north-to-south gradient toward White River Valley.

Water-Level Trends

There is little long-term historical water-level data in Long Valley for interpretation of water-level trends. There were no wells in the complied data set in Long Valley with more than ten depth-to-water measurements. As a result, no hydrographs were constructed for wells in Long Valley.

5.1.2 Jakes Valley (HA 174)

Basin-Fill Aquifer

Water-level data in Jakes Valley are sparse, with only 10 identified depth-to-water measurement sites or spring locations. Depth-to-water measurements vary from 18 to 176 ft-bgs (see Appendix A). The wells with depth-to-water measurements are located near the mountain-front edges and are not believed to be representative of the depth to water on the main valley floor. In fact, the two known wells on the valley floor are dry wells with hole depths exceeding 150 ft-bgs. Figure C.1-2 shows that there are no definitive water-level elevations located on the valley floor. As a result, water-level contours have not been constructed for Jakes Valley.

Carbonate-Rock Aquifer

No wells in Jakes Valley were identified as penetrating carbonate-rock aquifer. Therefore, no discussion is presented for the carbonate-rock aquifer system.

Water-Level Trends

There are no wells in Jakes Valley with a sufficient number of water-level measurements to support construction of hydrographs.

5.1.3 White River Valley (HA 207)

Based on the compiled site location data for White River Valley, well depths tend to be less than 200 to 300 ft deep, with approximately 25 percent of the wells less than 100 ft in depth. Information from NDWR driller's logs for basin-fill wells in White River Valley indicates that most wells penetrate interbedded sand and clay strata, with some reporting shallow limestone in the northern part of the basin as well as north of the town of Lund. Occasionally, volcanic tuff was noted in the logs. Well 207 N08 E61 27DDBA2 USGS-MX was drilled to 1,300 ft-bgs in the south-central portion of White River Valley. This well encountered alluvium with considerable clay content to the total depth of the well.

Most of the basin-fill aquifer system in White River Valley appears to be confined to semi-confined with perhaps a shallow unconfined system. Petroleum exploration holes in White River Valley provide data on depths of basin-fill and underlying rocks and some data regarding potentiometric heads in bedrock beneath the valley. In addition, spring water-level elevations (based on the land-surface elevation at the spring) are integrated into the water-level data set for the alluvial wells in the valley.

Basin-Fill Aquifer

Depths to water in White River Valley range from approximately land surface to over 500 ft-bgs. The depths to water are relatively shallow beneath the central valley floor of White River Valley. In fact, Figure D.1-2 reveals that most depths to water along the main axis of the valley floor are typically less than 50 ft-bgs. Depths to water tend to increase toward the east and west margins of the valley as one approaches the mountain block, and at the far northern portion of the valley. Water-level elevations in White River Valley range from approximately 6,200 ft-amsl in the northern portion of the valley to approximately 5,000 ft-amsl in the southern portion of the valley. Inspection of the water-level contours in Figure C.1-3 shows that a general north-to-south hydraulic gradient of approximately 12 ft/mi exists in White River Valley for wells completed in the basin-fill.

Carbonate-Rock Aquifer

Water-level elevations for carbonate-rock wells in White River Valley range from approximately 5,800 ft-amsl in the northern portion of the valley to approximately 5,100 ft-amsl in the southern portion of the valley. These water-level elevations suggest a north-to-south groundwater exists in White River Valley. Regional spring elevations are also included on the regional carbonate-rock water-level map (see Figure E.1-1). Maxey and Eakin (1949) observed that certain valley-floor springs in White River Valley have noticeably elevated potentiometric water levels versus nearby alluvial wells. This results in the groundwater from the regional carbonate-rock aquifer discharging into the basin-fill system. This can be observed in the vicinity of the town of Preston by Arnoldson Spring, Nicholas Spring, Cold Spring, and Preston Big Springs. Maxey and Eakin (1949) stated that the water issuing from these springs is under artesian head and postulated that the discharge from these springs is from the underlying bedrock aquifer. Maxey and Eakin (1949) further postulated that the spring conduits are enclosed by relatively impermeable sediments providing a mechanism for the discharge of water from the carbonate-rock aquifer to the land surface. Elevated water-level elevations are not evident near valley-fringe springs (i.e., the east side of the basin) such as Hardy, Emigrant, Butterfield, or Flag. This could be masked, however, as a result of steeper water-level gradients near the edge of the valley floor.

Water-Level Trends

In general, hydrographs for the basin-fill wells show a small amount of variation (5 to 10 ft) in the water-level elevations over the past 50 to 60 years. These variations can likely be attributed to the natural variability of the system (see Appendix B). Figure 5-1 shows that water-level elevations fluctuate within a range of approximately 10 ft near the town of Lund. These water-level elevations likely show the influence of groundwater pumping for irrigation in the surrounding area.

5.1.4 Cave Valley (HA 180)

NDWR driller's logs for wells in Cave Valley suggest that the basin fill is composed of mostly sand and gravel with significant cemented strata in the northern portion of the valley and interbedded sands and clay in the southern portion of the valley. Lithology reported on a limited number of well logs suggests that the northern portion of Cave Valley may have unconfined to semi-confined aquifer conditions, while the southern portion may be confined to semi-confined. Well 180 N07 E63 14BADD1 USGS-MX [Cave Valley], on the southwestern side of the valley, encountered carbonate rock at 265 ft-bgs and was hydraulically tested at 225 gpm with 118 ft of drawdown after 210 hours. Petroleum exploration drilling in Cave Valley provides additional geologic information to several thousand feet in depth. The SNWA installed two monitor wells in Cave Valley in 2005 (180W501M and 180W902M). The wells were drilled to 1,215 and 915 ft-bgs, respectively, and both wells penetrated the carbonate-rock aquifer. Well 180W501M was drilled in the central portion of Cave Valley, while well 180W902M was drilled in the south-east portion of the valley near Sidehill Pass.

Basin-Fill Aquifer

Depths to water in Cave Valley range from near ground surface in parts of northern Cave Valley (i.e., near Cave Spring and Parker Station) to greater than 200 ft-bgs in the southern portion of Cave Valley (see Figure D.1-3). Depths to water in the vicinity of the south playa are in excess of

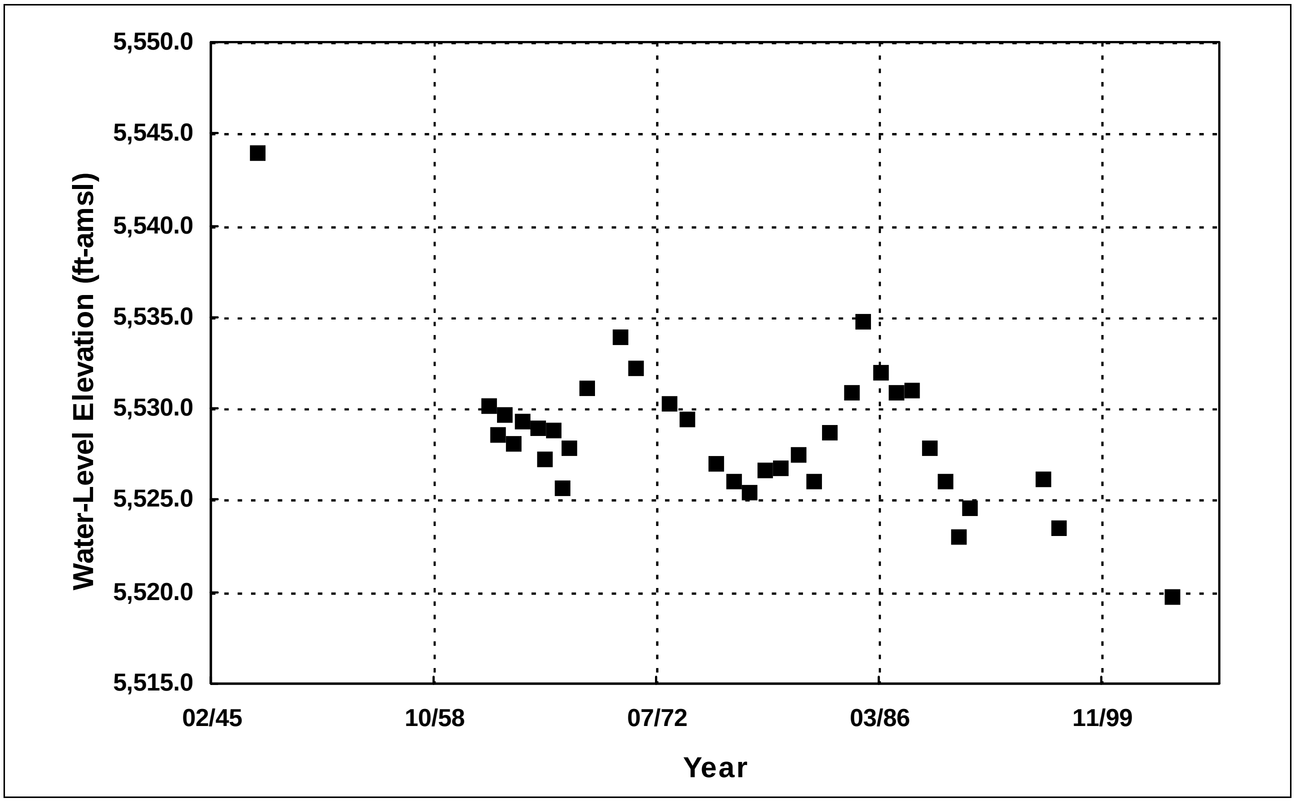

Figure 5-1
Historical Water-Level Elevations at 207 N12 E62 18DDAA1 USGS Well 24

150 ft-bgs. The limited amount of data near the playa suggests that the stand of phreatophytes in the southern portion of the valley subsists on a perched water table. Water-level elevations in Cave Valley range from approximately 7,000 ft-amsl in the far northern portion of Cave Valley to approximately 5,800 ft-amsl in the southern portion of Cave Valley (see Figure C.1-4). Based on these water-level elevations, it appears that Cave Valley has a north-to-south hydraulic gradient of approximately 48 ft/mi.

Carbonate-Rock Aquifer

Water-level elevations for wells that penetrate the regional carbonate-rock aquifer in Cave Valley range from approximately 5,400 ft-amsl for well 180W501M in the central portion of Cave Valley to approximately 5,800 ft-amsl for well 180W902M in the southern portion of Cave Valley. The depth to water for well 180W501M is approximately 1,050 ft-bgs, and during construction it was estimated that the well produced between 3 to 5 gpm. These water-level elevations are generally higher by approximately 200 to 600 ft than the water-level elevations for carbonate-rock wells found in the central and southern portions of White River Valley, and approximately 1,200 ft higher than water-level elevations in Dry Lake Valley (see Figure E.1-1). From these water-levels elevations, it appears that there is a south-to-north hydraulic gradient for wells that penetrate the carbonate-rock aquifer in Cave Valley. According to Volume 1, however, Cave Valley consists of two distinct but connected portions, separated by the oblique-slip fault at Shingle Pass. This is likely the cause for the discrepancy between the water-level elevations for the carbonate-rock aquifer wells in the central and southern portions of Cave Valley. The data also suggest an east-to-west hydraulic gradient exists between Cave Valley and White River Valley consistent with data presented by Harrill et al. (1988).

Water-Level Trends

The Cave Valley MX well (i.e., 180 N07 E63 14B ADD1 USGS-MX [Cave Valley]), located in the south-central portion of the valley, has shown a subtly rising water-level trend since the early 1980s, with about a 10-ft increase in the overall water-level elevation for the well (Figure 5-2). This well was identified as penetrating the carbonate-rock aquifer. Inspection of the other hydrographs for Cave Valley found in Appendix B show a similar type of increasing trend. The other wells for which hydrographs were constructed were identified as penetrating basin-fill materials.

5.1.5 Dry Lake Valley (HA 181) and Delamar Valley (HA 182)

Driller's logs and available gravity data indicate that carbonate bedrock underlies the northwest part of Dry Lake Valley at a relatively shallow depth. For example, the North Dry Lake MX well (i.e., 181 N03 E63 27CAA 1 USGS-MX [N. Dry Lake]) was drilled to 2,395 ft-bgs and encountered alluvium to 195 ft-bgs, a thin stratum of volcanic rock to 340 ft-bgs, and limestone to the total depth of the well. The Muleshoe Valley MX well (i.e., 181 N04 E64 07DC 1 USGS-MX [Muleshoe Valley]), in the northern part of Dry Lake Valley, encountered sand and gravels to 1,253 ft-bgs. This well is reported to have been pumped at 50 gpm for 144 hours resulting in 316 ft of drawdown. The South Dry Lake MX well (i.e., 181 S03 E64 12AC 1 USGS-MX [S. Dry Lake Well]) was completed to 1,010 ft-bgs and encountered interbedded sands, gravels, and clay. This well is noted as being tested at 500 gpm for 70 hours with 41 ft of drawdown. Some cemented sand strata are also reported in driller's logs in southern Dry Lake Valley. Based on a limited number of well logs, it appears that unconfined aquifer conditions exist in northern Dry Lake Valley, while semi-confined to confined conditions exist in the south.

Only six wells are incorporated into the compiled data set for Delamar Valley, including two MX wells. The lithology reported on driller's logs indicates the presence of interbedded sands, gravels, and clay, with a considerable quantity of clay noted in the logs to 1,210 ft-bgs. The Delamar MX well (i.e., 182 S 06 E63 12AD 1 USGS-MX [Delamar Well]) is reported to have been pumped for 128.5 hours at a rate of 85 gpm with 62 ft of drawdown.

In 2005, the SNWA installed two monitor wells in Dry Lake Valley and two monitor wells in Delamar Valley. Of the two monitor wells drilled in Dry Lake Valley, one penetrated the basin-fill aquifer system (181W909M), while the other well penetrated the carbonate-rock aquifer system (181M-1). The two wells installed by the SNWA in Delamar Valley (182M-1 and 182W906M) were drilled to 1,345 and 1,735 ft-bgs, respectively. Both wells penetrated volcanic rocks.

Basin-Fill Aquifer

Water-level data are sparse in these two basins with depths to water on the main axis of the valley floor generally in the range of 200 to 500 ft-bgs in Dry Lake Valley and depths exceeding 800 ft-bgs in Delamar Valley (see Appendix A). Figure C.1-5 shows that the water-level elevations range from approximately 5,500 ft-amsl in the northern portion of Dry Lake Valley to approximately 4,300 ft-amsl in the southern portion of Dry Lake Valley for wells completed in the basin-fill.

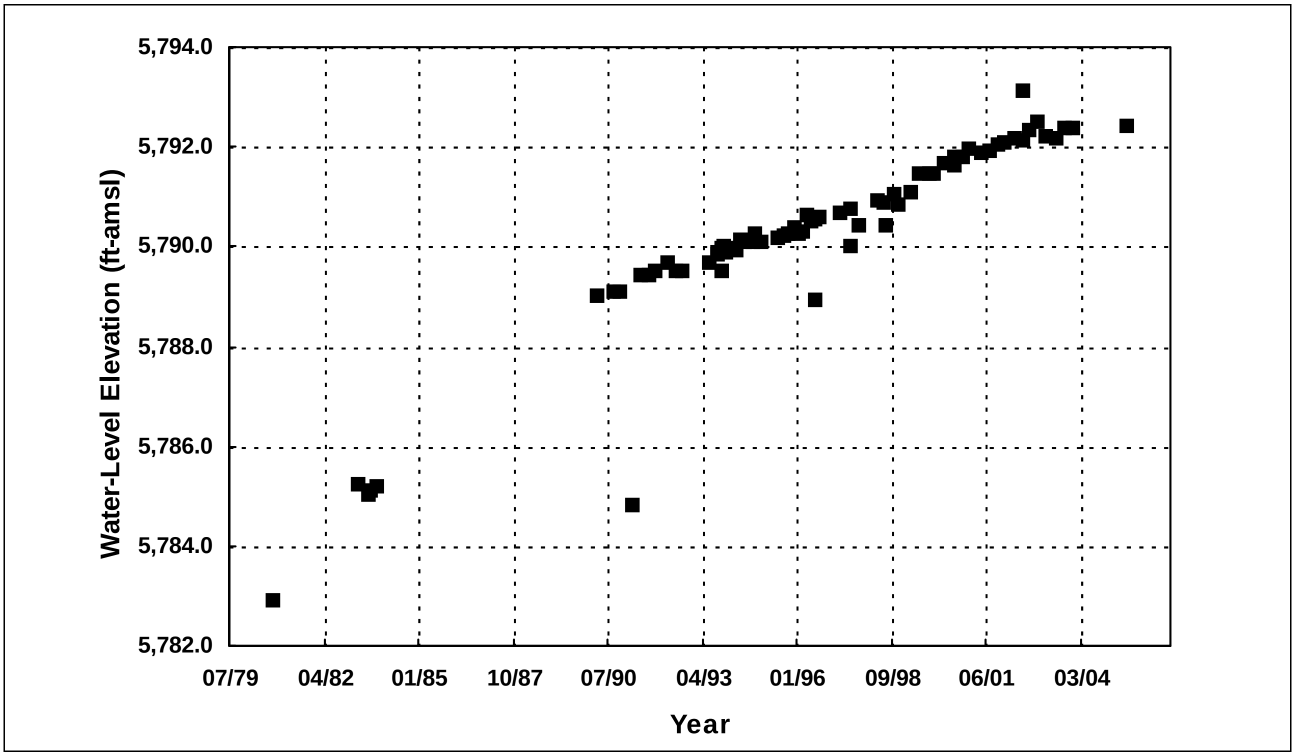

Figure 5-2
Historical Water-Level Elevations at 180 N07 E63 14BADD1 USGS-MX (Cave Valley)

Water-level elevations are approximately 3,850 ft-amsl in the central portion of Delamar Valley. The water-level elevations and composite water-level contours shown on Figure C.1-5 indicate that there is a north-to-south groundwater gradient for these two basins. Based on the available water-level elevations in Dry Lake and Delamar valleys, the hydraulic gradient from the central portion of one valley to the other is approximately 13 ft/mi.

Carbonate-Rock Aquifer

Two wells in the compiled data set were identified as penetrating the carbonate-rock aquifer. Both wells are located on the west side of Dry Lake Valley (see Figure E.1-1). It can be seen from the figure that the water-level elevations for the two wells range from 4,541 to 4,288 ft-amsl. These water-level elevations are approximately 1,300 to 1,500 ft lower in elevation than carbonate-rock water levels in Cave Valley to the north, and 650 to 900 ft higher in elevation than carbonate-rock water levels in Pahranagat Valley.

Water-Level Trends

Water-level fluctuations in Dry Lake Valley and Delamar Valley appear to show a slight upward trend over the past 25 years that is similar to the trend observed for Cave Valley. The water-level variations can likely be attributed to climatic variability, as there is little to no groundwater development in these two basins. For example, Burbey (1997) stated that development of Delamar Valley has been limited to livestock grazing as the depths to water are prohibitive for other economic activities. Figure 5-3 shows that water-level elevations for the USGS-MX (North Dry Lake Well) have increased approximately 5 ft from 1986 to the present. This well was identified as penetrating the

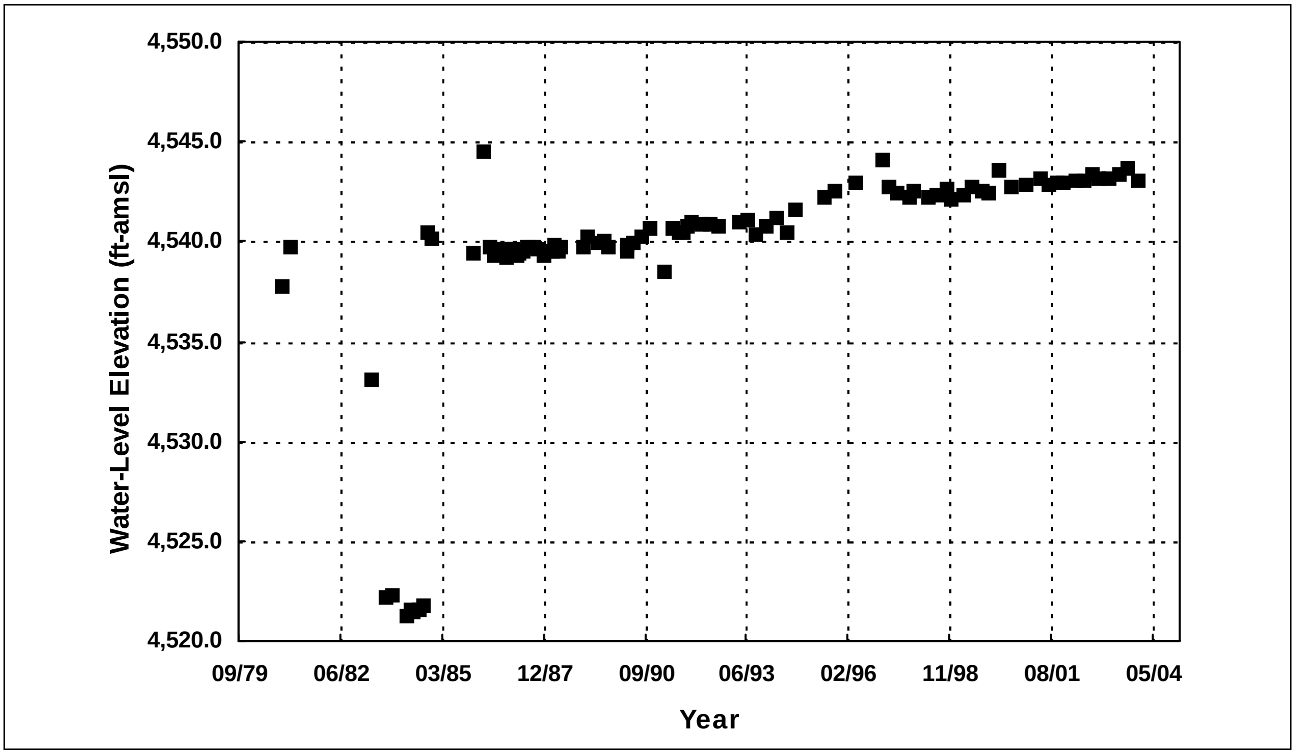

Figure 5-3
Historical Water-Level Elevations at 181 N03 E63 27CAA 1 USGS-MX (N. Dry Lake)

carbonate-rock aquifer. The other wells for which hydrographs were constructed were identified as penetrating the basin-fill aquifer system. The other hydrographs are provided in Appendix B.

5.1.6 Pahroc Valley (HA 208)

Basin-Fill Aquifer

Site location and depth-to-water data are sparse in Pahroc Valley, with only 14 well and spring locations distributed mostly in the northern portion of the basin. Depths to water in Pahroc Valley range from approximately 80 ft-bgs in the far northwest portion of the valley to over 250 ft-bgs in the rest of the valley (see Figure D.1-4). Figure C.1-5 shows that water-level elevations for wells completed in the basin-fill aquifer range from approximately 5,000 ft-amsl in the northwest portion of Pahroc Valley to approximately 3,900 ft-amsl in the far southern portion of the valley. These water-level elevations and contours indicate that an overall north-to-south hydraulic gradient exists in Pahroc Valley.

Carbonate-Rock Aquifer

No wells in Pahroc Valley were identified as penetrating the carbonate-rock aquifer. As a result, no discussion on the carbonate-rock aquifer is presented.

Water-Level Trends

Only one well in Pahroc Valley had more than ten water-level measurements. In general, the hydrograph shows that the water-level elevations have varied approximately 5 ft for the last 5 years of the period of record for the well. The well was identified as penetrating basin-fill materials. The hydrograph for this well is provided in Appendix B.

5.1.7 Garden Valley (HA 172) and Coal Valley (HA 171)

Basin-Fill Aquifer

Depths to water for wells completed in the basin-fill in Garden Valley range from approximately 10 ft-bgs in the northern portion of the valley to almost 500 ft-bgs in the far southern portion of the valley. Depths to water in Coal Valley range from approximately 250 ft-bgs in the northern portion of the valley to over 800 ft-bgs in the south-central portion of the valley for wells located on the valley floor (see Table A.2-1). Inspection of Figure C.1-6 reveals that water-level elevations in Garden Valley range from approximately 5,400 ft-amsl in the northern portion of the valley to approximately 5,000 ft-amsl in the central and southern portions of the valley. It can also be seen from the figure that there is a slight northward-trending hydraulic gradient from the southern portion of Garden Valley to the central portion of the valley. Although approximately 55 well or spring locations are present in the current database for these two basins, data are noticeably lacking on the eastern side of Coal Valley and the southern portion of Garden Valley (Figure C.1-6 and Appendix A). As a result, no water-level contours were constructed for Coal Valley.

Carbonate-Rock Aquifer

Several wells in Garden and Coal valleys were identified as penetrating the carbonate-rock aquifer. The water-level elevations for carbonate-rock wells range from approximately 6,300 ft-amsl to approximately 4,300 ft-amsl. The highest water-level elevations can be found in the western portion of Garden Valley, while the lower water-level elevations can be found in north-central Coal Valley. Based on the water-level elevations for these two hydrographic areas, it appears that a west-to-east hydraulic gradient exists from Garden Valley to Coal Valley through the Golden Gate Range that separates these two basins (see Figure E.1-1).

Water-Level Trends

Six hydrographs were created for wells in these two hydrographic areas. Two of the hydrographs were for wells identified as penetrating the carbonate-rock aquifer, while the rest were identified as penetrating the basin-fill aquifer system. The hydrographs for all the wells can be seen in Appendix B. Several of the hydrographs indicate a subtle increase in water-level elevation over the past 35 years, on the order of about 5 ft. For example, the hydrograph for the USGS-MX well in Garden Valley (Figure 5-4), which was completed in the basin-fill aquifer, and the hydrograph for the USGS-MX in Coal Valley (Figure 5-5), which was completed in the carbonate-rock aquifer, show that water-level elevations have increased approximately 5 ft for both wells.

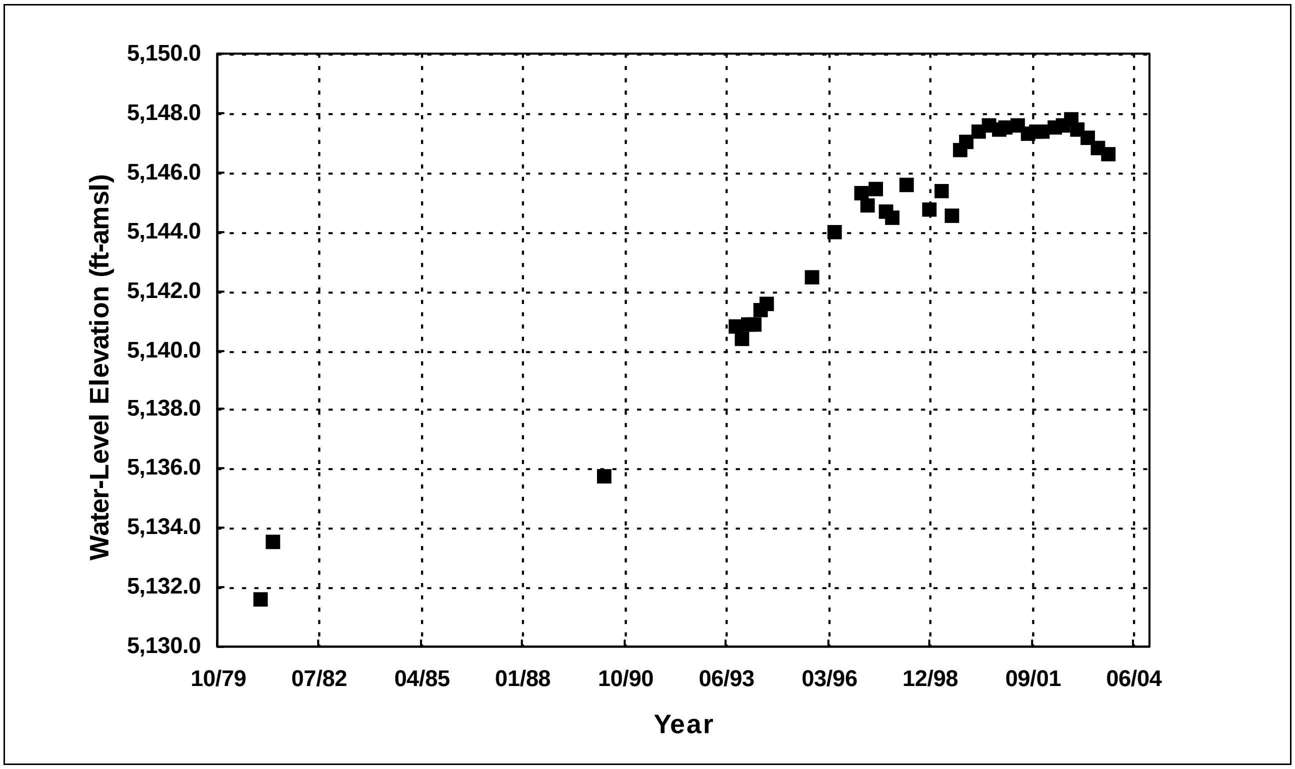

Figure 5-4
Historical Water-Level Elevations at 172 N02 E57 22BBC 1 USGS-MX (Garden Valley)

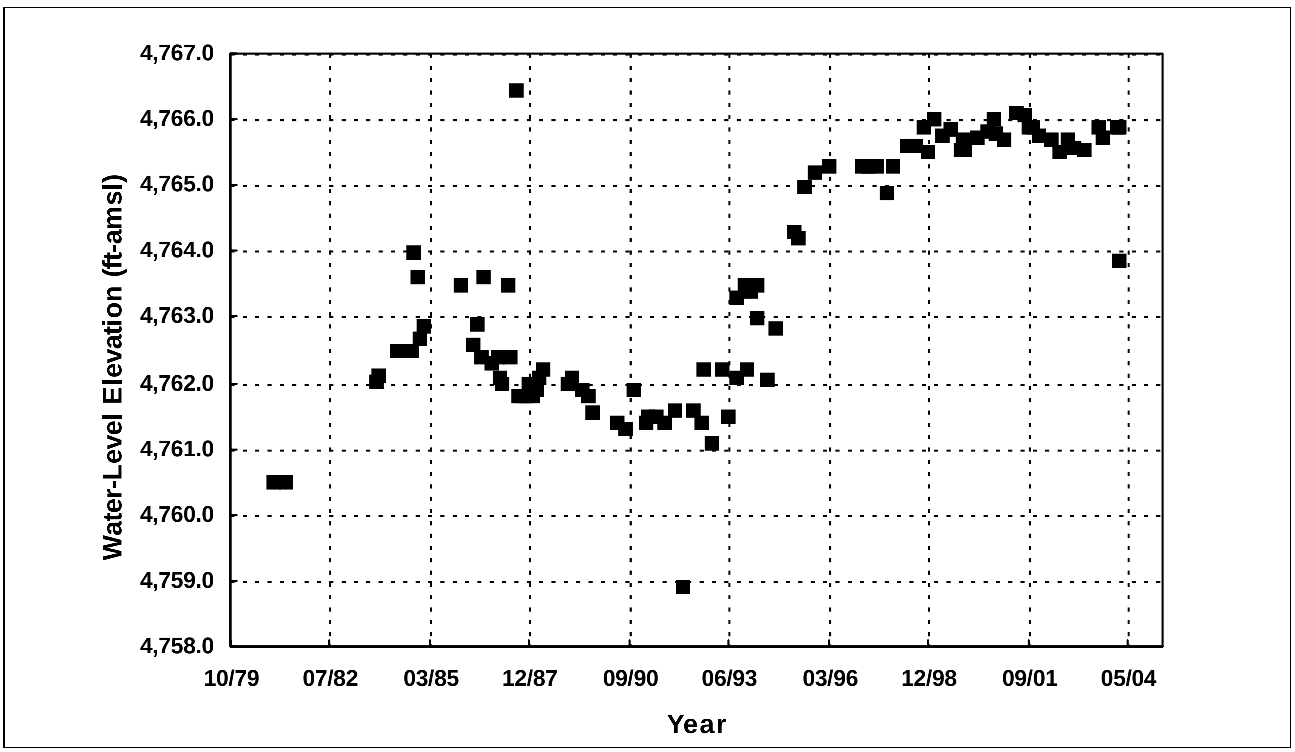

Figure 5-5
Historical Water-Level Elevations at 172 N03 E59 10BD 1 USGS-MX (Coal Valley Well)

5.1.8 Pahranagat Valley (HA 209)

Approximately 81 well or spring locations in Pahranagat Valley are included in the compiled data set, with most being completed in alluvium and less than 300 ft in depth (Appendix A). A few wells on the eastern and northernmost portions of the valley are considerably deeper, including a few exceeding 1,000 ft-bgs. Production rates are generally in the few tens of gallons per minute, with a few wells noted in the 400 to 800 gpm range. Lithology documented on the driller's reports indicates that the basin fill is predominantly sand and gravels with some interbedded clay and cemented sands. The aquifer system is likely unconfined to semi-confined in nature based on the reported lithology.

The SNWA installed one monitor well in Pahranagat Valley in 2005. The well, 209M-1, was drilled to a total depth of 1,616 ft-bgs. The well was slotted from 1,273 to 1,595 ft-bgs and penetrated carbonate rock.

Basin-Fill Aquifer

Figure D.1-5 shows that depths to water in Pahranagat Valley are relatively shallow near the main axis of the valley floor. The depths to water are typically within 50 ft of land surface where significant phreatophytes, cultivated lands, and lakes or ponds exist. Depths to water at upland areas on the northeast and east side of the Pahranagat Valley (i.e., Eightmile Valley and Sixmile Flat, respectively) are considerably deeper, generally greater than 500 ft-bgs. Inspection of Figure C.1-7 reveals that water-level elevations along the main axis of the valley range from approximately 3,900 ft-amsl in the far northern portion of the valley to approximately 3,100 ft-amsl in the southern portion of the valley. The water-level elevations indicate that a north-to-south hydraulic gradient exists in the basin-fill aquifer system. The hydraulic gradient for Pahranagat Valley is approximately 19 ft/mi southward. Water-level elevations and groundwater flow directions for both Sixmile Flat and Eightmile Valley on the eastern side of Pahranagat Valley are less defined than those on the main axis of the valley floor. Based on the limited data, however, it appears that water-level elevations in these two areas are higher than the water-level elevations on the main valley floor.

Carbonate-Rock Aquifer

Water-level elevations for wells that penetrate the regional carbonate-rock aquifer range from approximately 4,000 ft-amsl in the far northern portion of the valley to approximately 3,600 ft-amsl in Sixmile Flat. There are no other wells known to penetrate the regional carbonate-rock aquifer in the southern portion of the valley. There are, however, several springs in Pahranagat Valley that are known to discharge groundwater from the regional carbonate-rock aquifer. The springs of regional significance include Hiko, Crystal, and Ash with a reported combined discharge rate of 35 cfs, or 25,000 afy (Eakin, 1963c) (Figure E.1-1). While subject to debate, the source of water for these springs is likely subsurface inflow from Pahroc Valley, and perhaps Coal Valley, based on apparent water-level gradients. This interpretation is consistent with work by Thomas et al. (1986) and Thomas et al. (2001). Harrill et al. (1988) also suggested that subsurface inflow may enter Pahranagat Valley from Delamar Valley. These springs are located on the valley floor or at the edge of the mountain block and have land-surface elevations that range from approximately 3,800 ft-amsl to approximately 3,622 ft-amsl. Using these land-surface elevations as surrogates for the water-level elevation of the regional carbonate-rock aquifer and the wells, there appears to be a regional groundwater gradient from north to south in Pahranagat Valley.

Water-Level Trends

Long-term water-level data for wells in Pahranagat Valley indicate fluctuations on the order of 20 to 30 ft in the central and southern portions of the valley, with more extreme variations (e.g., >100 ft) in the northernmost portion of the valley likely due to agricultural pumping (Appendix B). For example, Figure 5-6 shows that water-level elevations decreased approximately 90 ft from 1968 to 1994 but have recovered approximately 60 ft for the last 4 years of the period of record for the well. The well was identified as penetrating the basin-fill aquifer. Only one well with sufficient data to support construction of a hydrograph was identified as penetrating the carbonate-rock aquifer. Inspection of the hydrograph found in Appendix B reveals that water-level elevations for well 209 S03 E60 13DACD1 have also decreased approximately 20 ft over the period of record for the well. The remaining hydrographs for wells in Pahranagat Valley reveal consistent declines for wells in the northern portion of the valley and undefined trends for wells in the central and southern portions of the valley.

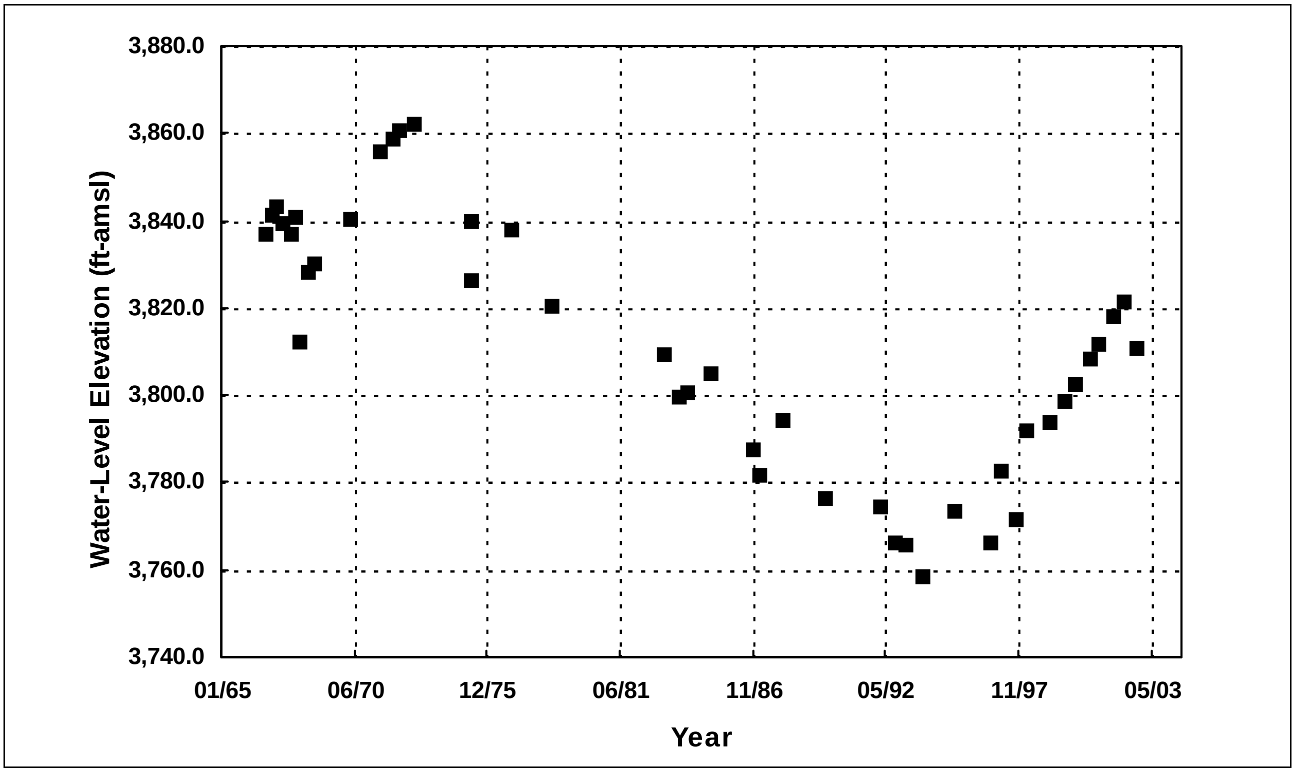

Figure 5-6
Historical Water-Level Elevations at 209 S03 E60 35DABD1

5.1.9 Coyote Spring Valley (HA 210)

Coyote Spring Valley contains several monitor wells completed in the early and mid-1980s as part of the MX missile-siting program and by the USGS, including test well MX-4, MX-5, CE-VF-1, and CE-VF-2. Wells MX-4, MX-5, and CE-VF-2 are completed in the carbonate-rock aquifer (Ertec Western, Inc., 1981a; Berger et al., 1988). SNWA installed eight monitor wells in and near the valley in 2003. In addition, many wells in Coyote Spring Valley and down gradient in the Muddy River

Springs Area have recently been surveyed for precise location and land-surface elevations by SNWA (SNWA, 2003b).

Basin-Fill Aquifer

Depths to water in the basin-fill aquifer system generally range between 300 and 600 ft-bgs in Coyote Spring Valley. Depths to water in the vicinity of Coyote Spring, however, approach land surface in that localized area (see Figure C.1-8). Eakin (1964) postulated that Coyote Spring, prior to development, derived its flow from a semi-perched water-bearing zone in the older valley fill that received recharge from precipitation in the Sheep Range to the west. Eakin (1964) estimated "not more than a few hundred" acre-feet per year of ET from phreatophytes near Coyote Spring. It can be seen from Figure C.1-8 that water-level elevations along the main drainage channel of the valley range from approximately 2,300 ft-amsl in the northern portion of the valley to approximately 1,800 ft-amsl in the southeast portion of the valley. This suggests that a general southeastward groundwater gradient off of the Sheep Range into the Muddy River Springs hydrographic area exists in the valley (Figure C.1-8). The higher water-level elevations for the wells that are near Coyote Spring are likely the result of either inflow into Coyote Spring Valley from Kane Springs Valley or the result of the semi-perched water-bearing zone identified by Eakin (1964). Current data are not sufficient to generate water-level elevation contours for the basin-fill aquifer system.

Inspection of the driller's logs for the basin-fill wells in Coyote Spring Valley show typical alluvial materials including sandy clays, gravel-boulders, and sands and gravels.

Carbonate-Rock Aquifer

Water-level elevations for wells penetrating the carbonate-rock aquifer range from approximately 2,200 ft-amsl in the northern portion of the valley to approximately 1,800 ft-amsl near the hydrographic divide with the Muddy River Springs Area. These water-level elevations suggest that a north-to-south hydraulic gradient generally coincident with Pahranagat Wash exists in the regional carbonate-rock aquifer in this area. Water-level gradients in the carbonate-rock aquifer become very flat near the center of the valley and extending southeast to the Muddy River Springs Area (Figure E.1-1).

Water-Level Trends

Water levels for wells completed in the carbonate-rock aquifer in the east-central part of Coyote Spring Valley near the Muddy River Springs Area declined approximately 1.5 to 2.5 ft beginning in early 1999. For example, Figure 5-7 and Figure 5-8, for wells CE-VF-2 and USGS-MX CE-DT-4, respectively, show that water-level elevations declined approximately 1.5 to 2.5 ft. These declining water-level elevations have been interpreted to be the result of climatic factors (i.e., the regional drought starting in 1999) or pumping from the carbonate-rock aquifer at the Arrow Canyon well in the Muddy Rivers Springs Area (Smith et al., 2004). It can be seen from the figures, however, that a recovery of the water-level elevations began in late 2004 and early 2005. Inspection of the hydrographs for wells 210 S10 E62 25AD 1 CSVM-3, 210 S13 E63 11BC 1 CSVM-6, and 210 S13 E63 26AAAA1 USGS-MX CE-DT-5 found in Appendix B reveals a similar water-level increase for the wells beginning in late 2004. Several of the hydrographs in Appendix B, however, have shown an

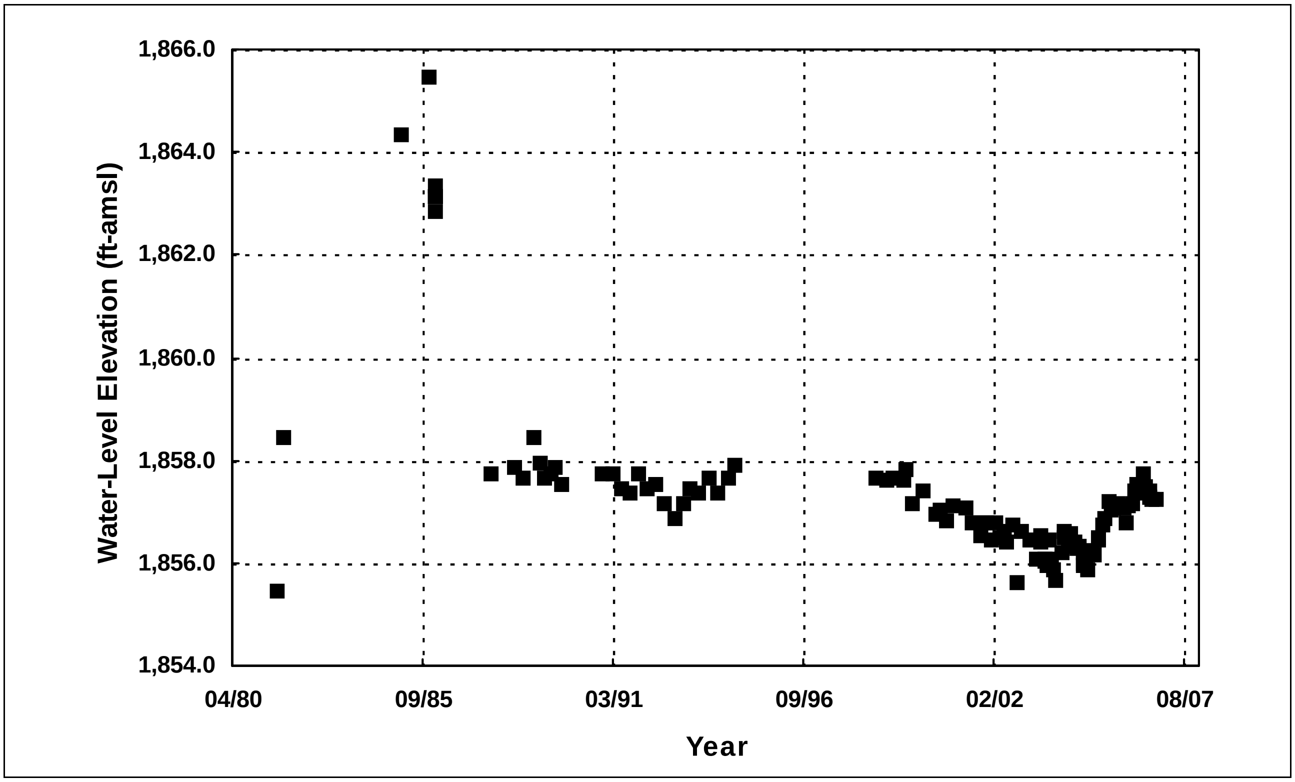

Figure 5-7
Historical Water-Level Elevations at 210 S12 E63 29DABC1 USGS-MX CE-VF-2

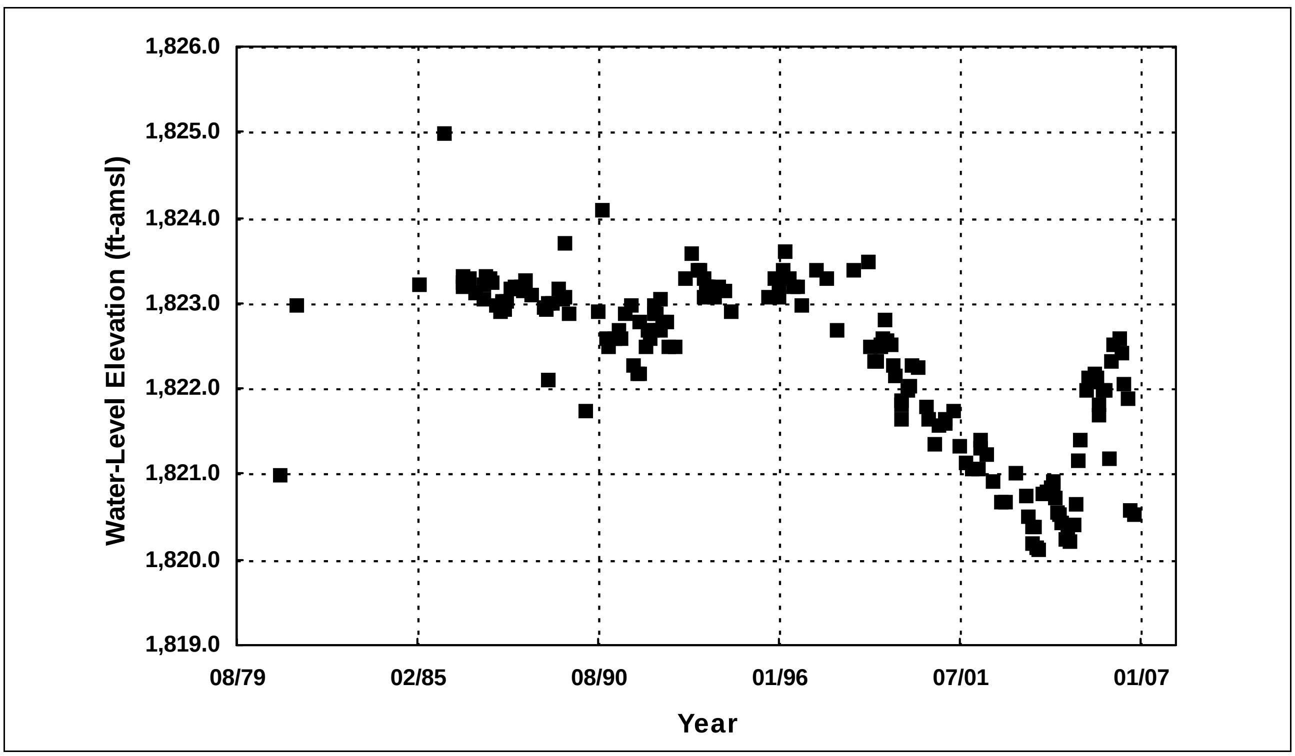

Figure 5-8
Historical Water-Level Elevations at 210 S13 E63 23DDDC1 USGS-MX CE-DT-4

observable decline in water-level elevations beginning in early-to-mid 2006 including 210 S13 E63 11BC 1 CSVM-6, 210 S13 E63 25AD 1 CSVM-1, and 210 S15 E63 03BB 1 CSVM-2.

Piezometers in the east-central portion of the valley (i.e., CE-VF-1 and CE-VF-2) indicate that the basin-fill aquifer has water levels approximately 61 ft higher than the potentiometric water level in the underlying carbonate-rock aquifer (downward gradient), at least for the east-central part of the valley.

5.1.10 Kane Springs Valley (HA 206)

Basin-Fill Aquifer

Inspection of the driller's log (NDWR Log Number 65548) for the only reported basin-fill well in Kane Springs Valley showed typical basin-fill lithology. The well penetrated soils and gravels to 8 ft-bgs, cemented gravel to 55 ft-bgs, cemented gravel boulders to 85 ft-bgs, and layers of cemented gravel and clay to 200 ft-bgs.

Figure C.1-8 shows the location of the only identified basin-fill well in Kane Springs Valley. The well had a depth-to-water measurement of 55 ft-bgs in 1968. Eakin (1964) concluded that groundwater depths in Kane Springs Valley are generally greater than 50 ft-bgs because of the lack of phreatophyte vegetation on the valley floor. There is some phreatophyte vegetation, however, near several springs. These springs are generally located at the mountain block and alluvial fan interface. There is also a riparian zone along parts of Kane Springs Wash that probably receives flow from infrequent ephemeral runoff. The depth-to-water measurement for Kane Springs Valley has a corresponding water-level elevation of 3,537 ft-amsl. This water-level elevation is approximately 1,000 higher than the water-level elevations for wells completed in the basin fill in Coyote Spring Valley. This suggests that groundwater flows southwestward along the main axis of the valley into Coyote Spring Valley.

Carbonate-Rock Aquifer

Two carbonate-rock wells were drilled in Kane Springs Valley in 2005 by the Vidler Water Company Inc. (see Figure E.1-1). Well 206 S11 E64 06CA1 KPW-1 was drilled to a total depth of 2,013 ft-bgs. The well penetrated carbonate-rock from 219 ft-bgs to the total depth of the well. The depth to water in the production well at the completion of drilling activities was 992.7 ft-bgs. The corresponding water-level elevation for the well was 1,881 ft-amsl. Well 206 S11 E64 06CD 1 KMW-1 was drilled to a total depth of 2,017 ft-bgs and penetrated carbonate-rock from 265 ft-bgs to the total depth of the well. The monitor well had a depth to water of 988.88 in July 2007. This depth to water corresponds to a water-level elevation of 1,884.37 ft-amsl. These water-level elevations are approximately 10 ft higher in elevation than the closest carbonate-rock water-level elevation in Coyote Spring Valley (i.e., 210 S11 E63 13CB 1 CSVM-4). The water-level elevations are also approximately 60 ft higher in elevation than the carbonate-rock water-level elevations farther to the south in Coyote Spring Valley. Based on the limited data, it appears that there is a groundwater gradient from Kane Springs Valley to Coyote Spring Valley of approximately 2 ft/mi.

Water-Level Trends

Both the basin-fill and carbonate rock wells in Kane Springs Valley have less than 10 depth-to-water measurements in the compiled data set. As a result, there is not a sufficient amount of data for investigating water-level trends in the valley.

5.1.11 Muddy River Springs Area (HA 219)

Basin-Fill Aquifer

Depths to water in the basin-fill aquifer range from approximately 350 ft-bgs in the northwest portion of the valley near Coyote Spring Valley to land surface near the Muddy River Springs in southeast portion of the valley (see Figure D.1-6). The depths to water in the basin fill are generally shallow near the Muddy River Springs, as they are being fed by the spring flow. Eakin (1964) stated that groundwater in the basin fill is supplied largely by return flow from the springs or by subsurface seepage from the springs. Water-level elevations in the Muddy River Springs Area range from approximately 1,815 ft-amsl near the Muddy River Springs to approximately 1,700 ft-amsl near the hydrographic boundary with California Wash. Based on the water-level elevations and the water-level contours shown on Figure C.1-9, groundwater flows toward the Muddy River and generally to the southeast along the course of the river into the California Wash hydrographic area. The hydraulic gradient is approximately 25 ft/mi in the south east portion of the hydrographic area.

Carbonate-Rock Aquifer

Water-level elevations for wells that penetrate the regional carbonate-rock aquifer in the Muddy River Springs Area range from 1,819 ft-amsl to 1,795 ft-amsl (see Figure E.1-1). The water-level elevations are extremely flat with very little elevation change over the entire valley. Using the land-surface elevation of the springs as a surrogate for the hydraulic head in the carbonate-rock aquifer, there is a definite decrease in the water-level elevations from the northwest to the southeast toward the California Wash hydrographic area.

Water-Level Trends

Water-level trends in the Muddy River Springs Area are similar to those seen in Coyote Spring Valley. For example, water-levels for carbonate-rock aquifer wells near the Muddy Springs declined approximately two to three ft beginning in late 1998. This can be observed in Figure 5-9 and Figure 5-10 for wells EH-4 and EH-5B, respectively. Both figures show a declining water-level trend beginning around 1998. Prior to this decline, water-level trends in both wells were relatively constant and showed little variation. It can also been from the two figures that water levels have increased 1.5 to 2 ft since early 2005. Several hydrographs for wells in the Muddy River Springs Area also show an increasing water-level trend beginning in late 2004 until spring 2006 including wells 210 S13 E64 31DAAD1 USGS CSV-1 and 219 S14 E64 33DB 1 UMVM-1. After that, both wells show water-level elevations declining about a foot. A number of wells in the Muddy River Springs hydrographic area are used by the Nevada Power Company as production water wells. Hydrographs for these wells show periods of pumping versus non-pumping. For example, well 219 S14 E65 15BB 1 LDS East in Appendix B shows pumping versus non-pumping periods.

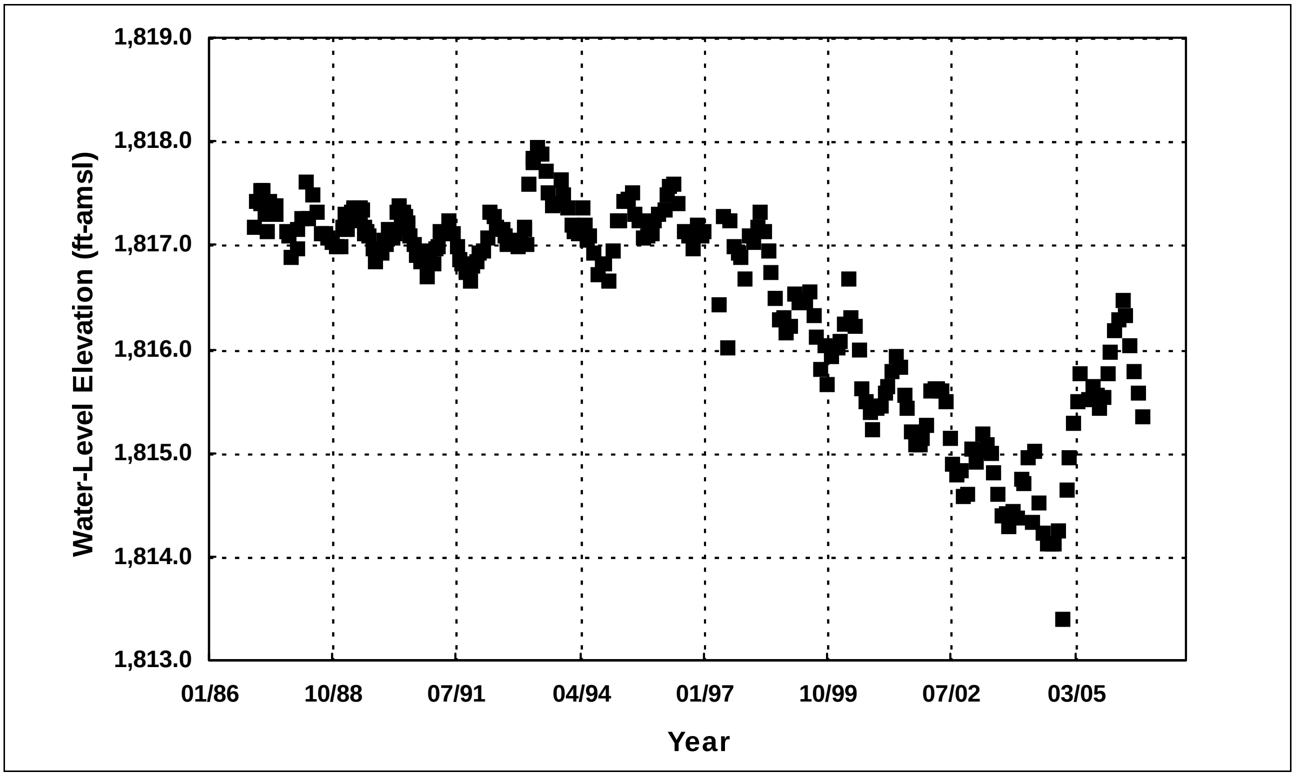

Figure 5-9
Historical Water-Level Elevations at 219 S14 E65 21AC 1 EH-4

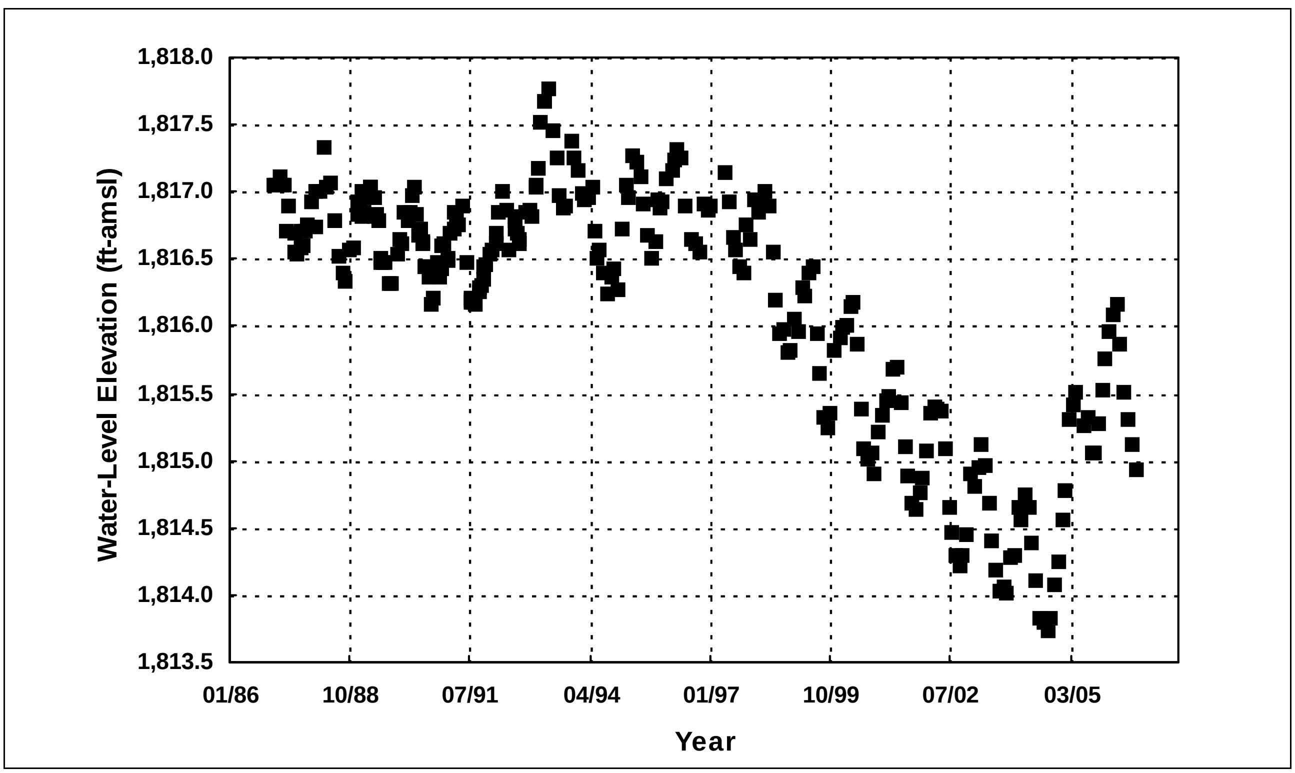

Figure 5-10
Historical Water-Level Elevations at 219 S14 E65 08BD 2 EH-5B

5.1.12 Hidden Valley (HA 217) and Garnet Valley (HA 216)

Basin-Fill Aquifer

Depths to water in Hidden and Garnet valleys range from approximately 800 ft-bgs in Hidden Valley to less than 200 ft-bgs in Garnet Valley (see Appendix A). These depths to water preclude ET of groundwater by phreatophytes in these basins. The water-level elevation for basin-fill well 217 S16 E63 09DDAB1 USBLM SH V-1 in Hidden Valley is 1,818 ft-amsl. The HGU assignment for this well was based on the plotting location of the well. There is some debate, however, as to whether this well is completed in basin-fill materials or carbonate rock. For example, Berger et al. (1988) stated that the drilling history and well construction for this well are unknown, while Johnson et al. (2001) postulated that the well may be representative of the carbonate-rock aquifer.

Inspection of Figure C.1-10 shows that groundwater levels throughout Garnet Valley are nearly flat at an elevation of approximately 1,810 to 1,820 ft-amsl, especially on the eastern side of Garnet Valley and north of Black Mountains Area. The water-level elevations suggest a very slight gradient off of the mountain ranges onto the main valley floor. Due to the lack of data on the main valley floor of Garnet Valley and having only one depth-to-water measurement for Hidden Valley, no water-level contours were created for these two basins.

Carbonate-Rock Aquifer

Water-level elevations in Hidden and Garnet valleys for wells completed in the carbonate-rock aquifer range from 1,846 ft-amsl in Hidden Valley to 1,812 ft-amsl on the northeastern side of Garnet Valley (see Figure E.1-1). The figure also shows that water-level elevations are approximately 1,820 ft-amsl in the southern portion of Garnet Valley. These water-level elevations suggest that a hydraulic gradient exists from Hidden Valley to Garnet Valley.

Water-Level Trends

A number of wells in Hidden and Garnet valleys have sufficient water-level data to support the construction of hydrographs. The hydrographs for Hidden and Garnet valleys show both declining and increasing water-level trends. The water-level declines are on the order of 1.5 to 2.5 ft beginning around 1998. For example, Figure 5-11 shows a minor decline in water-level elevations from approximately 1,814 ft-amsl in 1998 to approximately 1,812 ft-amsl in late 2004 for the Garnet Well. Other wells including wells 216 S17 E63 32 AA 1 (GV-1), 216 S18 E63 04CB 1 (GW-PW-MW1), and 216 S18 E63 05DB 1 (GV-PW-MW2) show increasing water-level trends on the order of 3 to 4 ft. The hydrographs for Hidden and Garnet Valleys can be seen in Appendix B.

5.1.13 California Wash (HA 218)

Basin-Fill Aquifer

Inspection of the driller's logs for wells in California Wash reveal that the basin fill is composed of sands and gravels, clays, silts, and cemented gravels to various depths. In addition, wells closer to the Muddy River tended to have more fine-grained materials noted on the driller's logs.

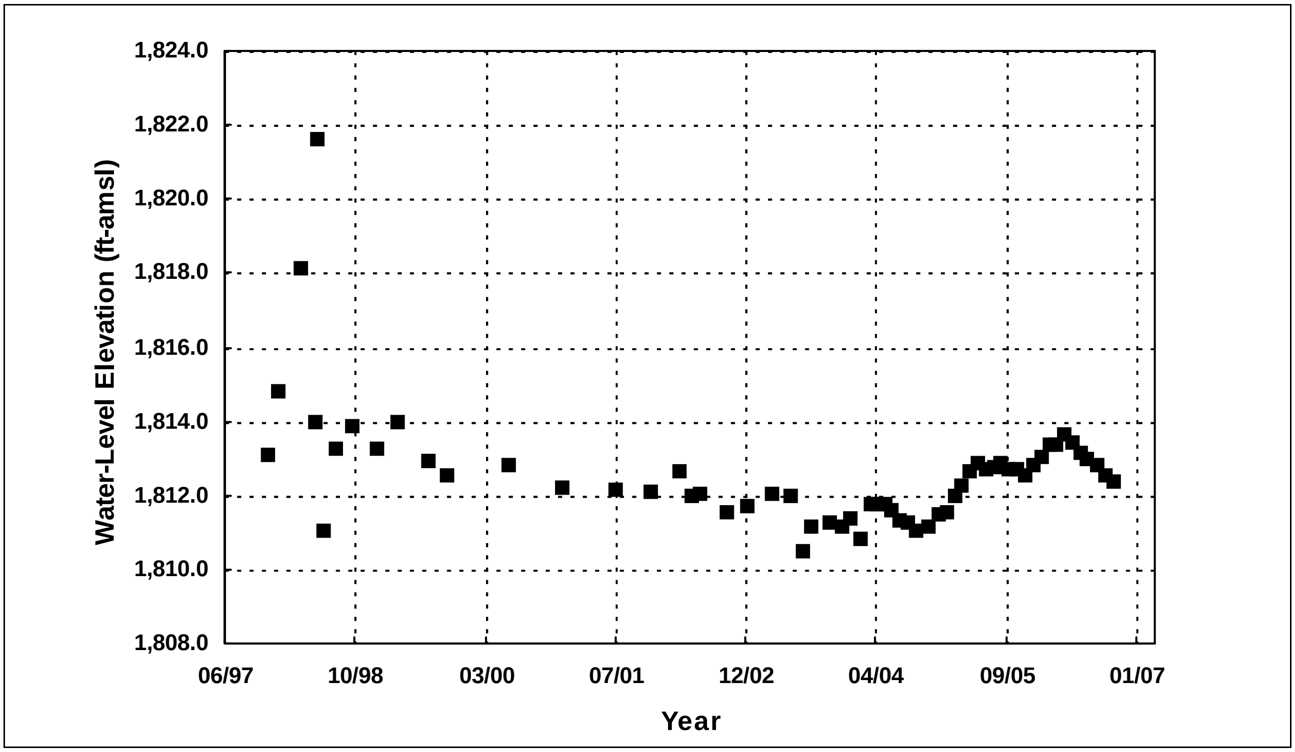

Figure 5-11
Historical Water-Level Elevations at 216 S17 E64 21CC 1 Garnet

Depths to water in California Wash generally range from 200 to greater than 800 ft-bgs, except in the vicinity of the Muddy River where the depths to water are within 25 ft of land surface (see Figure D.1-6). Depths to water are greatest in the southern portion of the valley and approximately 300 ft-bgs near the central portion of the valley. Water-level elevations for basin-fill wells range from approximately 2,000 ft-amsl in the southwest portion of California Wash to approximately 1,600 ft-amsl in the northeast portion of the hydrographic area near Moapa, Nevada (Figure C.1-11). These water-level elevations indicate that there is a northeast trending groundwater gradient of approximately 25 ft/mi in the direction of the Muddy River (Figure C.1-11).

Carbonate-Rock Aquifer

Water-level elevations for carbonate-rock wells in California Wash ranged from 1,812 to 1,818 ft-amsl. Differences among the water-level elevations for carbonate-rock wells in California Wash are very small, and it is difficult to discern a hydraulic gradient for the majority of the valley (see Figure E.1-1). The water-level elevation for the only known carbonate-rock well in Lower Moapa Valley, however, is 1,563 ft-amsl. This is an elevation difference of approximately 250 ft between the two valleys.

Water-Level Trends

Few wells with long historical records exist in the California Wash hydrographic area. Only one well in the hydrographic area has more than ten depth-to-water measurements. The well (218 S16 E65 33ACAA1 USBLM) shows an increase of approximately 30 ft in water-level elevation from 1946 to 1990.

5.1.14 Lower Moapa Valley (HA 220)

Basin-Fill Aquifer

Numerous driller's logs exist for basin-fill wells in the Lower Moapa Valley hydrographic area. These logs reveal that most wells penetrate sands, clays, gravels, and silts to their total drilled depth. In addition, the logs revealed that most wells produced at least 20 gpm of water with drawdowns from 20 to over 100 ft. One well (i.e., 220 S15 E66 01DCCA1) was noted as producing 830 gpm of water.

The Muddy River cuts through the center of the Lower Moapa Valley hydrographic area en route to the Overton Arm of Lake Mead on the hydrographic area's southeast border. As a result, depths to water in the hydrographic area range from land surface to 165 ft-bgs. It can be seen from Figure D.1-6 that the depth to water is within 25 ft of land surface along the drainage of the Muddy River for most of the hydrographic area and only increases closer to the mountain block at the northern portion of the valley. Water-level elevations for basin-fill wells range from approximately 1,500 ft-amsl in the northwest part of the hydrographic area near the town of Glendale to approximately 1,200 ft-amsl in the southeast part of the valley near Lake Mead. These water-level elevations indicate that a southeast gradient of approximately 27 ft/mi exists within the valley as groundwater flows toward Lake Mead (see Figure C.1-12).

Carbonate-Rock Aquifer

Only one well in the Lower Moapa Valley hydrographic area is known to penetrate the regional carbonate-rock aquifer. The well 220 S14 E67 31DACD1 EH-7 was drilled in 1986 to a total depth of 620 ft-bgs. The well encountered alluvium to 15 ft-bgs; sand, silt, and clay to 177 ft-bgs; limestone to 395 ft-bgs; and mudstones and shales to 620 ft-bgs. The reported open interval of the well is from 285 to 400 ft-bgs. The open interval of the well suggests that any water-level elevation from the well would be a composite from both the regional carbonate-rock aquifer and the Cretaceous to Triassic siliciclastic rocks found deeper in the well. The water-level elevation for the well is 1,563 ft-amsl. This is the lowest water-level elevation for a well penetrating the carbonate-rock aquifer in the entire WRFS (see Figure E.1-1).

Water-Level Trends

While numerous wells exist in Lower Moapa Valley, very few have long historical records. Most of the wells in the valley are near the Muddy River and the agricultural areas in the center of the valley. Figure 5-12 shows the historical water-level elevations for well 220 S14 E67 31DACD1, situated approximately 1.5 mi from agricultural areas in the north-central part of the valley. It can be seen from the figure that the water-level elevations have declined approximately 2 ft since 1986. These fluctuations can likely be attributed to agricultural groundwater pumping.

5.1.15 Black Mountains Area (HA 215)

Basin-Fill Aquifer

Depths to water for basin-fill wells in the Black Mountains Area vary considerably depending on the location in the hydrographic area. For example, depths to water range from 14 ft-bgs east of the

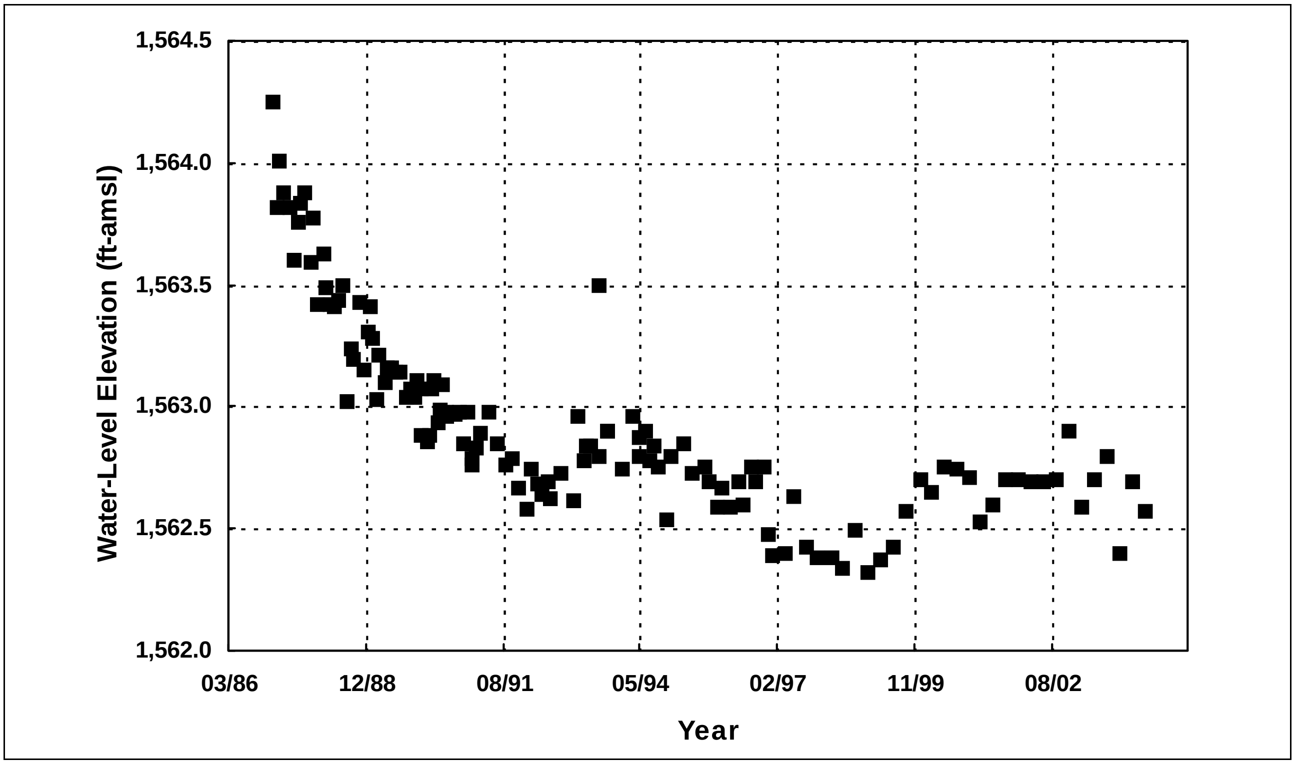

Figure 5-12
Historical Water-Level Elevations at 220 S14 E67 31DACD1

Nellis Air Force Base to approximately 180 ft-bgs near Government Wash. Depths to water on the west side of the hydrographic area are also relatively shallow near the Las Vegas Wash and by the Las Vegas Bay of Lake Mead. Depths to water on the east side of the hydrographic area can be substantially deeper than on the west side of the hydrographic area. For example, depths to water for wells in the Valley of Fire State Park are greater than 300 ft-bgs. Water-level elevations for basin-fill wells also vary depending on location in the hydrographic area (see Figure C.1-13). For example, in the western portion of the valley, the water-level elevations range from approximately 2,100 ft-amsl to approximately 1,200 ft-amsl near Lake Mead. These water-level elevations indicate that a north-to-south hydraulic gradient exists in this portion of the hydrographic area. In the northeast part of the Black Mountains Area, the water-level elevations for basin-fill wells range from 1,800 ft-amsl to approximately 1,200 ft-amsl near Lake Mead. In this portion of the hydrographic area, the water-level elevations indicate that a west-to-east hydraulic gradient exists.

Carbonate-Rock Aquifer

Several wells in the Black Mountains Area hydrographic area are known to penetrate the regional carbonate-rock aquifer. The wells are located in the northwest portion of the hydrographic area near the hydrographic area boundary with Garnet Valley. In addition, two springs (i.e., Blue Point and Rogers) that discharge groundwater from carbonate rocks are also present in the hydrographic area near the eastern portion of the hydrographic area by Lake Mead (see Figure E.1-1). The water-level elevations for the wells range from 1,815 to 1,830 ft-amsl, while the assumed water-level elevations for the springs range from 1,550 to 1,594 ft-amsl.

Water-Level Trends

Hydrographs for monitoring wells completed in the regional carbonate aquifer in the northwest part of the Black Mountains Area show cyclical variations of approximately 3 ft. These variations can be seen on Figure 5-13 and Figure 5-14. It can be seen from the figures that both wells appear to be exhibiting the same general shape and timing of fluctuations. The two wells are less than 0.5 mi apart. Inspection of the remaining hydrographs for the Black Mountains Area in Appendix B reveals several wells with increasing or relatively consistent trends, including wells BM-ONCO-1, BM-ONCO-2, and USBR LG004. Inspection of Table A.2-1 reveals that wells BM-ONCO-1 and BM-ONCO-2 are completed in clastics, while well USBR LG004 is completed in basin-fill materials.

5.2 Goshute Flow System

The Goshute Valley Flow System begins in the Butte Valley South and Steptoe Valley hydrographic areas and extends northward to the Goshute Valley hydrographic area. Butte Valley South and Steptoe Valley are discussed here because they are adjacent to the WRFS and the Great Salt Lake Desert Flow System (GSLDFS) and within the hydrologic study area.

5.2.1 Butte Valley (Southern Part) (HA 178B)

Basin-Fill Aquifer

Depths to water on the valley floor in Butte Valley South generally range from near land surface to approximately 100 ft-bgs (see Figure D.1-7). It can be seen from the figure that the depths to water are shallowest in the northern portion of the valley near the low alluvial divide that separates Butte Valley South from Butte Valley North. The depths to water also generally increase toward the mountains. Phreatophytes occupy northern portions of the valley floor and areas along the axis of the central valley floor (Glancy, 1968; Nichols, 2000). In the southern portion of Butte Valley South, the depths to water approach 100 ft-bgs, with some depths higher up on the alluvial fans approaching 200 ft-bgs. Water-level elevations in Butte Valley South range from approximately 6,100 to 6,300 ft-amsl for wells located on the valley floor (Figure C.1-14). The composite water-level contours drawn for Butte Valley South indicate that groundwater flows toward the central portion of the valley off of the higher-elevation alluvial fans near the mountain block and slightly southward toward the playa in the south-central portion of the basin.

Carbonate-Rock Aquifer

Two wells in Butte Valley South have been identified as penetrating the carbonate-rock aquifer. These wells are on the east side of the valley near the Cherry Creek Range (see Figure E.1-1). One well (i.e., 178B N23 E61 13 1) was identified as being a carbonate-rock well based solely on its plotting location and the surficial geology at that location. The other well (i.e., 178B N23 E61 02CB 1) was identified as a carbonate-rock well based on the driller's log for the well. The driller's log reported alluvium to 60 ft-bgs, fractured rock to 61 ft-bgs, and rock with fractures to 220 ft-bgs. The assumption was made that the "rock" listed in the driller's log was carbonate rock based on the lithology of the surrounding mountain ranges. The water-level elevations for the two wells are

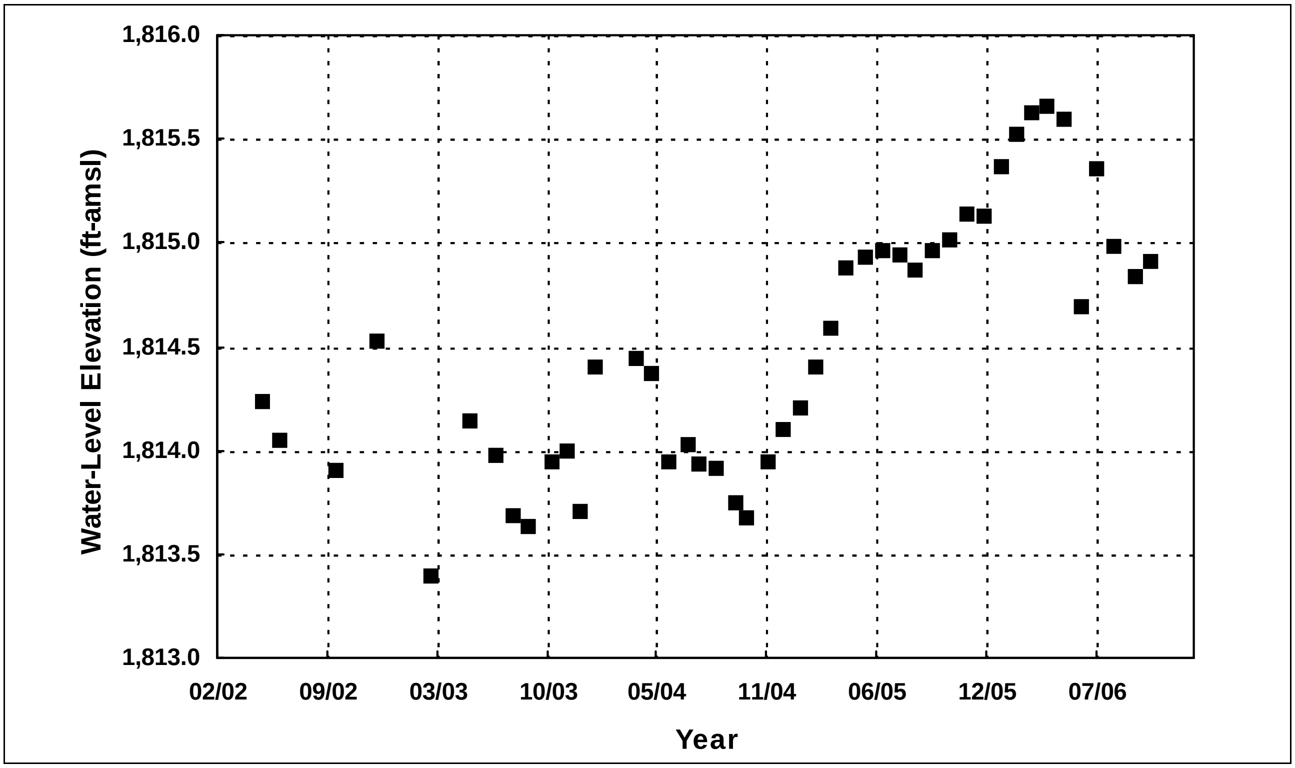

Figure 5-13
Historical Water-Level Elevations at 215 S19 E63 13AA 1 BM-DL-1

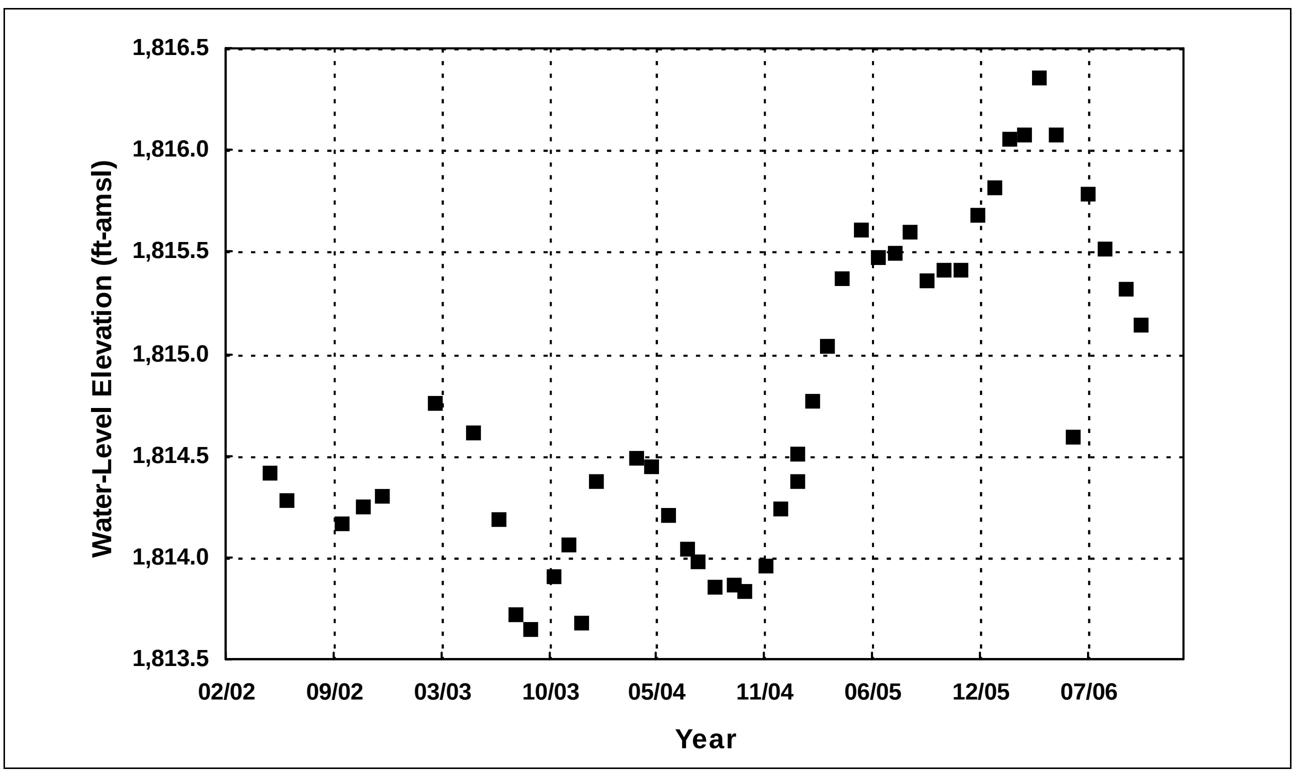

Figure 5-14
Historical Water-Level Elevations at 215 S19 E63 13AB 1 BM-DL-2

similar to the water-level elevations for other carbonate-rock wells in surrounding valleys including Steptoe Valley and Long Valley.

Water-Level Trends

Only one well in Butte Valley South has a well documented long-term period of record. The well is situated in the central part of the valley, and the period of record extends from the late 1940s to 2002. Figure 5-15 shows that the well has had a relatively consistent water-level trend for almost the entire period of record with only one anomalous value.

5.2.2 Steptoe Valley (HA 179)

Basin-Fill Aquifer

Depth to water contours and water-level elevation contours for Steptoe Valley are defined by approximately 300 well or spring locations compiled by this study (see Appendix A). Based on the number of well logs filed with the NDWR, however, at least two to three times this number of wells actually exist in the Steptoe Valley. Not every well from the NDWR well log database was used for this study because wells were added only to augment the existing data and fill data gaps where little to no data exists. Wells in Steptoe Valley are typically domestic wells less than 400 ft in depth and with well diameters of 6 in. The wells are also reported to produce in the range of several tens of gallons per minute. Some driller's logs have reported water production of several hundreds of gallons per minute. Some large-diameter or deep wells, predominately drilled by mining interests or for groundwater testing purposes (e.g., the MX missile-siting program or White Pine Power projects), have reported production capacities up to 3,500 gpm. Lithology from driller's logs indicates a mix of sand, gravel, and clay strata, and confined to semi-confined aquifer conditions are likely for most of the deeper wells in the basin fill.

Depths to water in Steptoe Valley can be highly variable depending on the location in the valley. For example, it can be seen from Figure D.1-8 that depths to water range from approximately land surface in certain areas to over 450 ft-bgs. It can be seen from the figure, however, that most depths to water tend to be less than 50 ft-bgs along the main axis of the valley. In fact, in certain areas of the valley, the depths to water are less than 25 ft-bgs (see Figure D.1-8). Figure C.1-15 shows that water-level elevations for wells completed in the basin fill in Steptoe Valley range from approximately 6,900 ft-amsl in the far southern portion of the valley to approximately 5,700 ft-amsl in the far northern portion of Steptoe Valley. It can also be seen from Figure C.1-15 that water-level elevations for wells in the basin fill tend to be higher near the mountain ranges than on the valley floor.

There are also two sub-valleys in Steptoe Valley including Copper Flat and Smith Valley, near the town of Ely, that have water-level elevation contours that are drawn separately from the contours constructed for the main axis of the valley. Both of these areas have water-level elevations that are higher on the west end of the sub-valley and lower in the east, closer to the main valley floor. Based on the water-level elevations and contour lines, there is an overall south-to-north hydraulic gradient of approximately 12 ft/mi in Steptoe Valley, with groundwater flowing off the higher elevation alluvial fans down to the central axis of the valley and then northward.

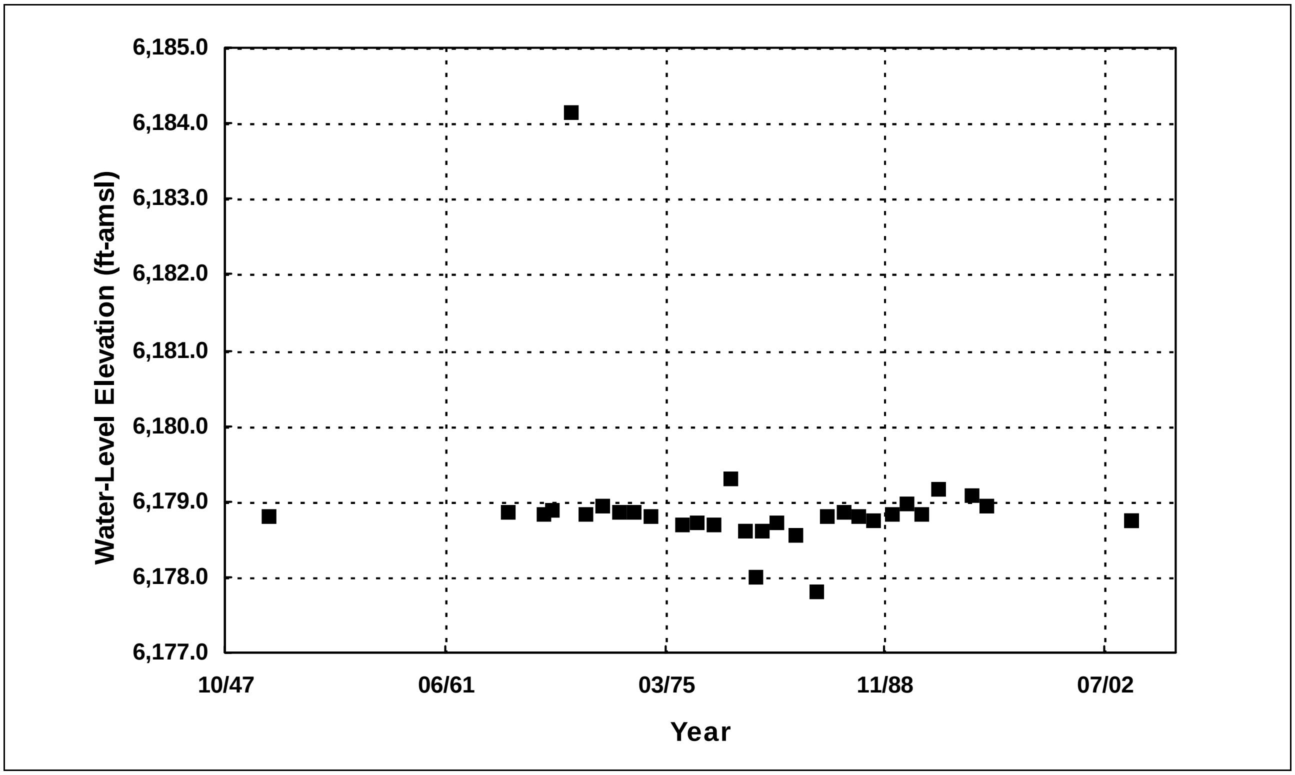

Figure 5-15
Historical Water-Level Elevations at 178B N22 E60 26DABB1

Carbonate-Rock Aquifer

Water-level elevations for the 11 carbonate-rock wells or regional springs in Steptoe Valley range from approximately 6,000 to 7,600 ft-amsl. It can be seen from Figure E.1-1 that, in general, water-level elevations for carbonate-rock wells and regional springs tend to decrease in elevation to the north. This suggests that there is a south-to-north hydraulic gradient present in the regional carbonate-rock aquifer in this area.

Water-Level Trends

Steptoe Valley has numerous wells with long periods of record for hydrograph analysis. Inspection of the hydrographs constructed for Steptoe Valley revealed that there is no consistent trend for the valley as a whole (see Appendix B for Steptoe Valley hydrographs). Both increasing and decreasing water-level trends are present in Steptoe Valley. These trends are extremely dependent on location and, specifically, closeness to agricultural, municipal, mining, or industrial areas. Water levels for some locations in the southern third of Steptoe Valley have exhibited a declining trend over the past 10 years in the range of 20 to 50 ft, which is likely due to agricultural pumping. For example, Figure 5-16 shows that the water level for well 179 N16 E64 06CBDC1 USBLM, northeast of the town of Ely and close to agricultural areas, had a steadily decreasing water-level trend of approximately 50 ft between the early 1980s and the early 1990s. Another well located in the same general area (179 N17 E63 22BACB1), however, exhibited a steadily increasing water-level trend, with a difference of approximately 20 ft, for the last part of the well's period of record (Figure 5-17). Another two wells located in the east-central portion of the valley that are also close to agricultural

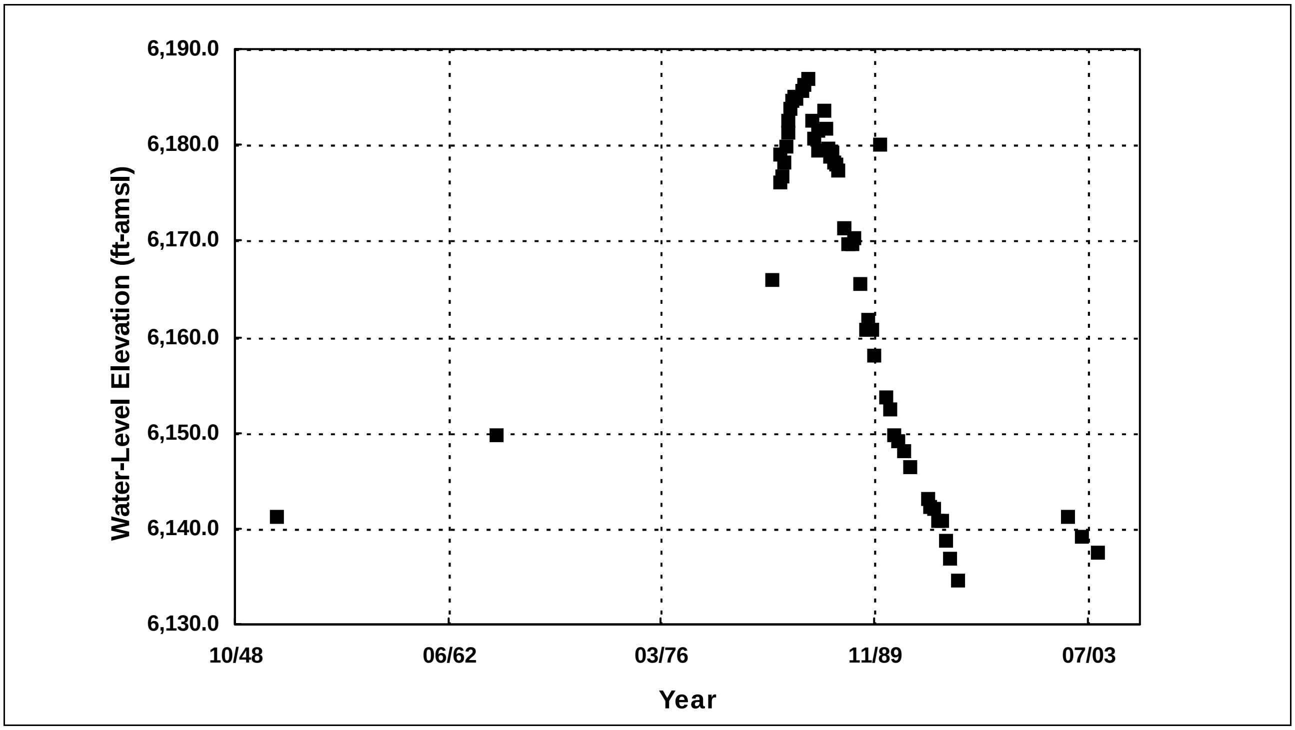

Figure 5-16
Historical Water-Level Elevations at 179 N16 E64 06CBDC1 USBLM

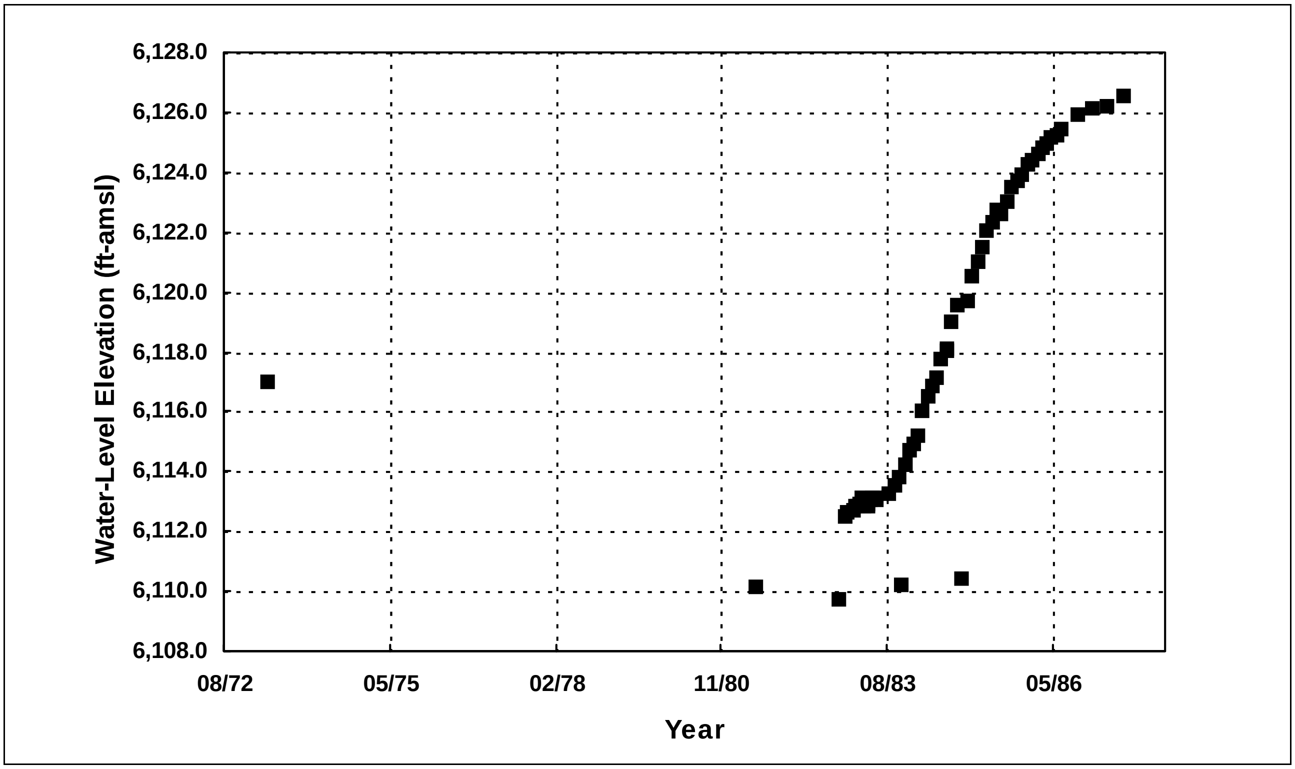

Figure 5-17
Historical Water-Level Elevations at 179 N17 E63 22BACB1

areas have shown minor fluctuations (i.e., ± 10 ft) in their water-level elevations for their periods of record (Figures 5-18 and 5-19). Water-level elevations in the central and northern third of the valley show a generally constant or slightly increasing trend over the past 30 years (Figures 5-20 and 5-21).

5.3 Great Salt Lake Desert Flow System

The southern part of the GSLDFS begins in Spring and Hamlin valleys. It continues northward through Snake and Tippett valleys to the Great Salt Lake Desert. Hydrographic areas investigated for this study include Spring, Hamlin, and Snake valleys. The outflow of groundwater to the north from Snake Valley into the Great Salt Lake Desert hydrographic area, however, is not included because the Project involves only that valley's southern portion.

5.3.1 Spring Valley (HA 184)

Most wells in Spring Valley are relatively shallow, less than 300 ft in depth, with about a third less than 100 ft in depth. Two wells, however, have depths greater than 900 ft in depth. Production rates from large-diameter wells reported on the driller's logs are in the range of a few hundred to 2,000 gpm. Most lithologic descriptions reported on the drillers' logs contain references to interbedded sands, gravels, and clays. These descriptions support the characterization of the basin-fill sediments described by previous investigators including Rush and Kazmi (1965). The lithology of the basin-fill and the flowing wells that can be found in the southern half of the valley (e.g., the flowing wells near The Cedars) suggest that the primary aquifers are confined or semi-confined. A shallow unconfined aquifer is also likely to exist.

Basin-Fill Aquifer

Groundwater occurs at shallow depths throughout most of Spring Valley. For example, depths to water in Spring Valley range from above ground surface (i.e., flowing wells) to depths over 400 ft-bgs. It can be seen from Figure D.1-9 that depths to water in Spring Valley are shallow over much of the central valley floor, and there are a number of ponds, small playa lakes, and springs in the central portion of the valley. Depths to water are greatest on the alluvial fans and increase to over 400 ft-bgs in the southernmost portion of the valley east of the Fortification Range. Figure C.1-16 shows that water-level elevations in Spring Valley range from approximately 6,600 ft-amsl in the northernmost portion of the valley to approximately 5,500 ft-amsl in the central portion of the valley near Yelland Dry Lake. The figure also shows that water-level elevations in the southern portion of the valley near the topographic divide with Hamlin Valley are approximately 5,700 ft-amsl. The water-level elevations and contour lines shown on Figure C.1-16 indicate that there is a north-to-south hydraulic gradient in the northern portion of the valley and a south-to-north hydraulic gradient in the southern portion of the valley. The hydraulic gradient for the northern portion of the valley is approximately 25 to 30 ft/mi to the south, while the hydraulic gradient in the southern portion of the valley is approximately 5 ft/mi to the north. These gradients suggest that groundwater flows from both the northern and southern portions of the valley toward the central portion of the valley. The water-level contours on Figure C.1-16 also show that a groundwater divide exists within the southern portion of the valley, north and west of the Limestone Hills near the topographic divide with Hamlin Valley.

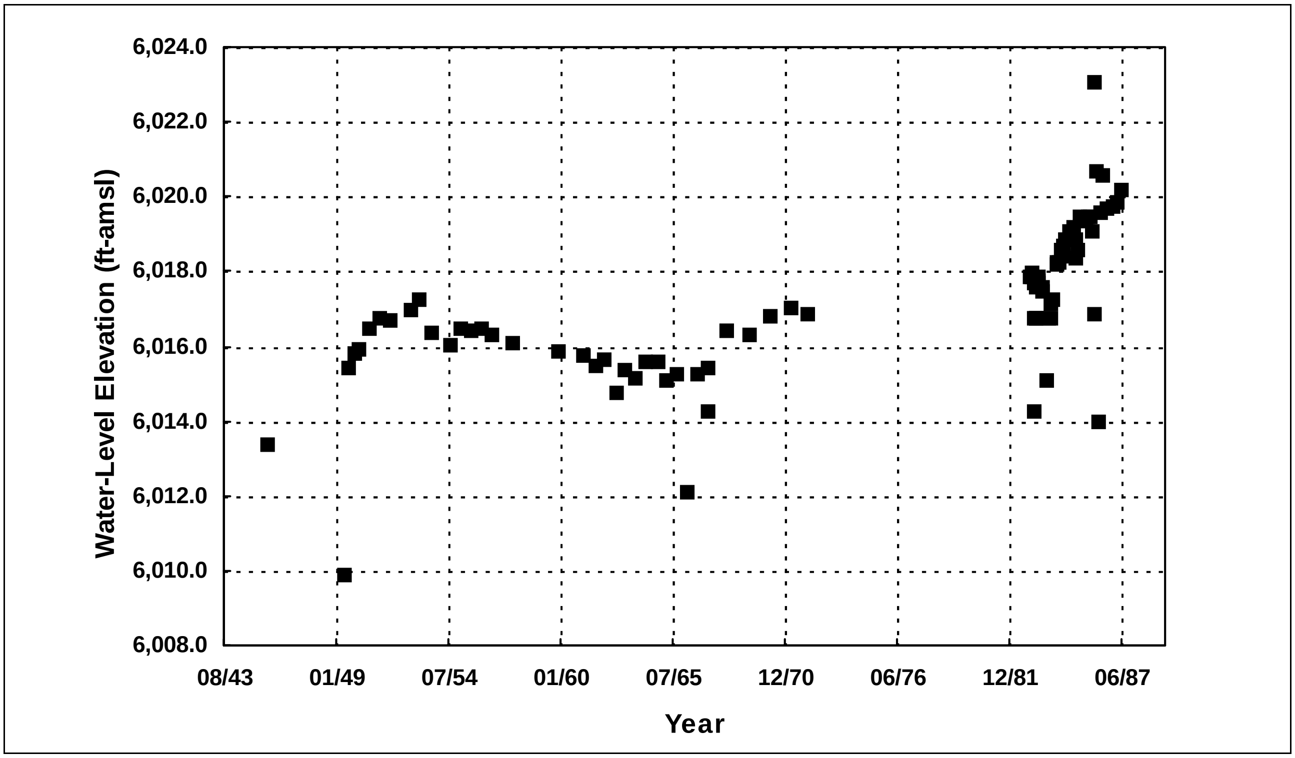

Figure 5-18
Historical Water-Level Elevations at 179 N19 E63 12A 1 USGS

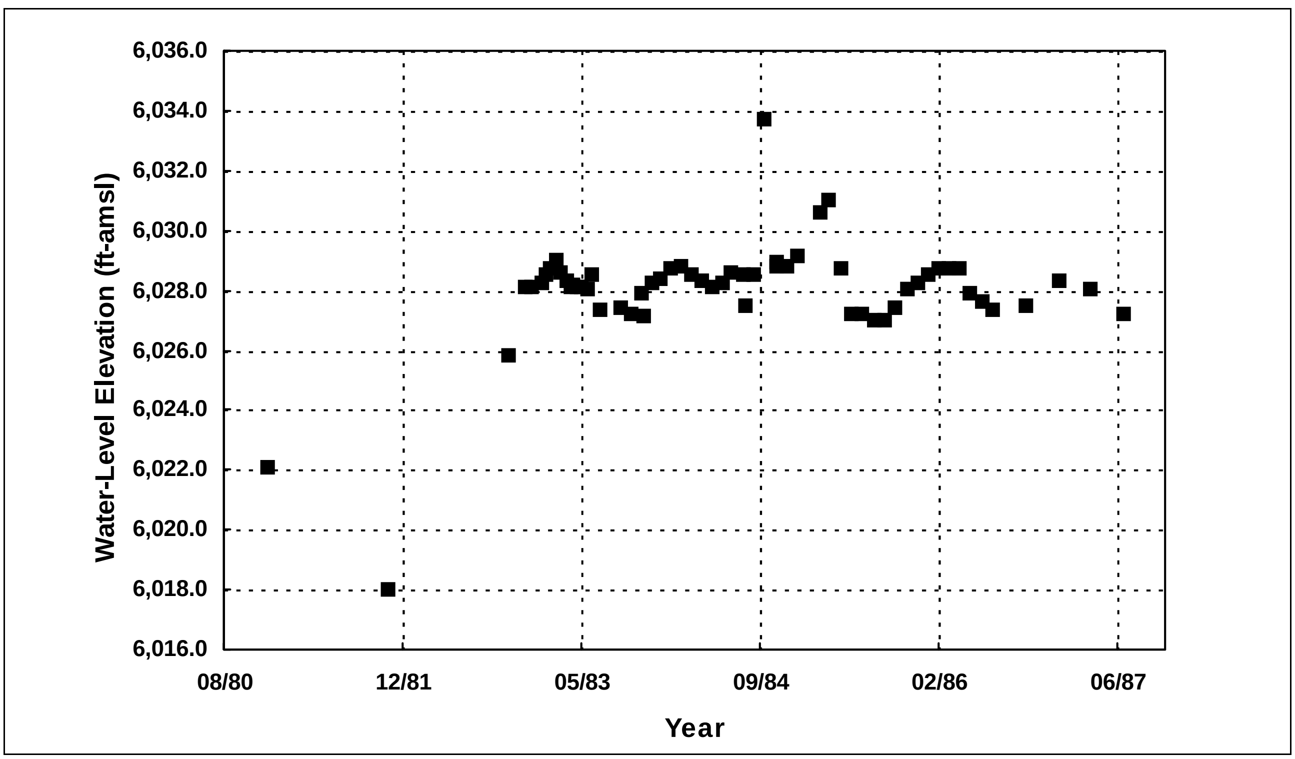

Figure 5-19
Historical Water-Level Elevations at 179 N19 E63 20DBD 1

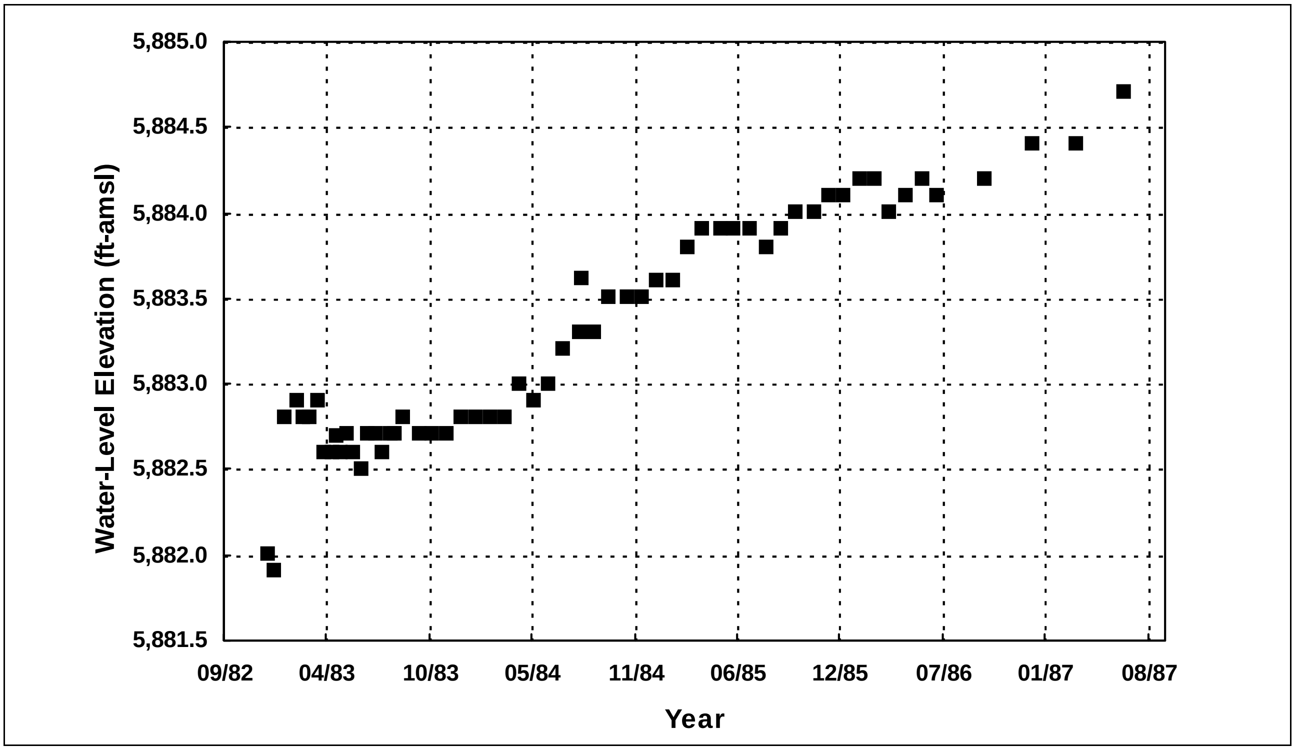

Figure 5-20
Historical Water-Level Elevations at 179 N23 E64 20AAAC1 White Pine Power Project

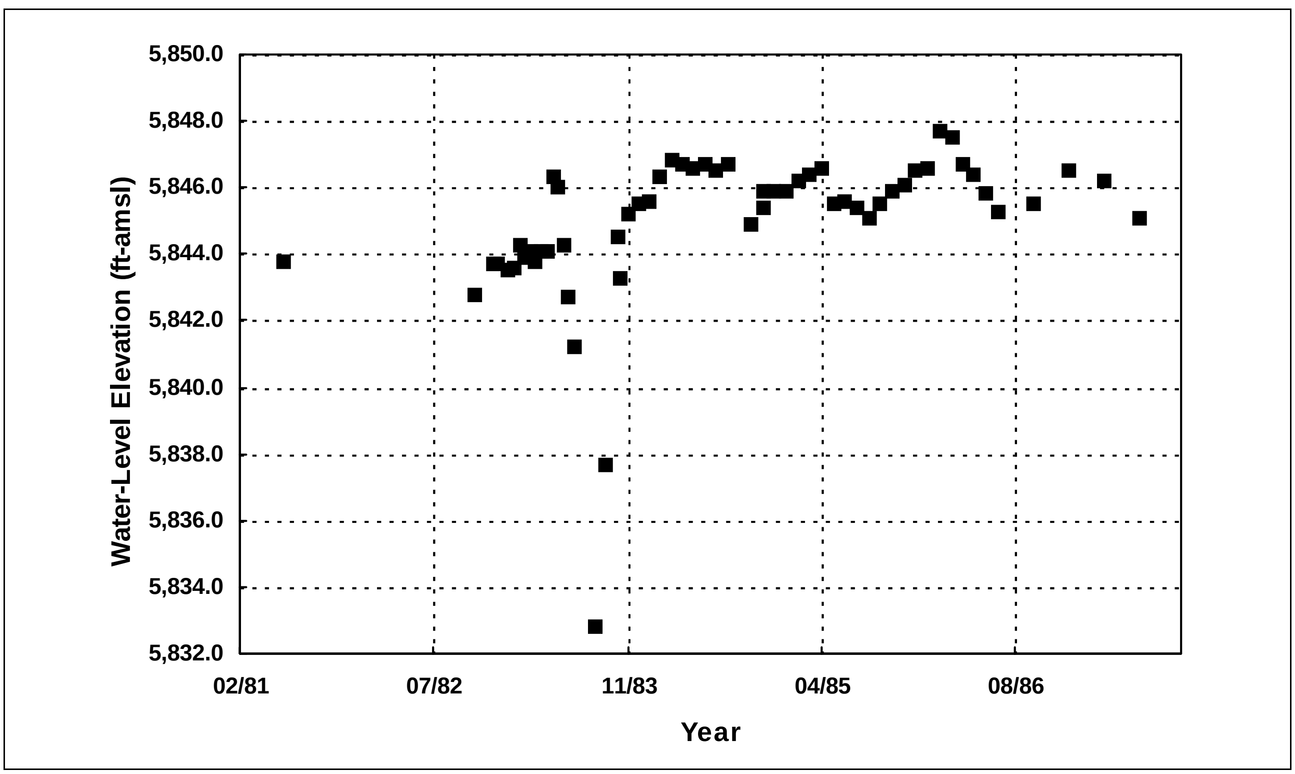

Figure 5-21
Historical Water-Level Elevations at 179 N26 E65 34DABA1

Carbonate-Rock Aquifer

Prior to 2006, there were three wells in Spring Valley known, or assumed, to be completed in carbonate rocks. The wells were identified based on driller's logs and their location relative to carbonate-rock outcroppings. All three wells are located south of U.S. Highway 50 along the mountain range fronts as shown on Figure E.1-1. The water-level elevations for the three wells range from approximately 5,800 to 6,600 ft-amsl. Well 184 N15 E68 17DD 1, located on the east side of the valley near Sacramento Pass, has a water-level elevation of 6,645 ft-amsl and may be influenced by the underlying clastic rocks, which act as a lower confining unit. Well 184 N12 E66 05ACAB1, located near the intersection of U.S. Highways 50 and 93, has a water-level elevation of 6,456 ft-amsl. This well is assumed to be completed in carbonate rocks based on the driller's log that indicates a borehole penetration of "hard lime" from 20 to 40 ft-bgs. The third well, 184 N12 E66 21CD 1, is located in the southern portion of the valley and has a water-level elevation of 5,833 ft-amsl.

The SNWA installed seven wells in Spring Valley in 2006 and 2007 as part of an exploratory drilling program. Six of the wells were completed in the carbonate-rock aquifer. The six wells consisted of a test well and a monitoring well pair at three locations in southern Spring Valley (i.e., 184W105/184W506M, 184W103/184W504M, and 184W101/184W502M). The preliminary water-level elevations for the three sites are shown on Figure E.1-1. The northernmost SNWA sites had carbonate-rock water-level elevations of 5,787 and 5,788 ft-amsl, while the middle SNWA sites had carbonate-rock water-level elevations of 5,819 and 5,813 ft-amsl. The southernmost SNWA sites near Hamlin Valley had carbonate-rock water-level elevations of 5,706 and 5,709 ft-amsl. From the available data shown on Figure E.1-1, it appears that the water-level elevations decrease from 6,645 ft-amsl in the middle portion of Spring Valley to approximately 5,700 ft-amsl in the southern portion of Spring Valley.

Water-Level Trends

There are a number of wells in Spring Valley that have more than ten depth-to-water measurements. The hydrographs for these wells are provided in Appendix B. In general, the hydrographs that were constructed for wells in Spring Valley reveal that water-level trends are dependent on spatial location and proximity to agricultural areas. For example, well 184 N09 E68 30AAAB1 USGS-MX (Spring Valley S.), in the southern portion of Spring Valley, has shown an increase in water-level elevations since the early 1980s (Figure 5-22). This well is not near agricultural areas and there are no groundwater production wells in the vicinity. Well 184 N11 E68 19DCDC1 USGS-MX (Spring Valley), however, is approximately 12 mi farther north of the previous well, and shows a decrease in water-level elevations of approximately 7 ft over the past 15 years (Figure 5-23). This well is still in the southern portion of Spring Valley, but is within 2 mi of an agricultural area. It can be seen from the figure, however, that approximately 3 ft of the water-level decline appears to be coincident with the region-wide drought beginning in late 1998. The figure also shows that water-level elevations have increased approximately 5 ft since the middle of 2006 after a year of above-normal precipitation in 2005. Water-level elevations for wells in the northern portion of Spring Valley have shown relatively consistent water-level trends. For example, Figure 5-24 shows that water-level elevations for well 184 N19 E67 13AAAC1 have varied by approximately 6 ft over the last 60 years. Inspection of all the hydrographs for Spring Valley in Appendix B reveals that most hydrographs show

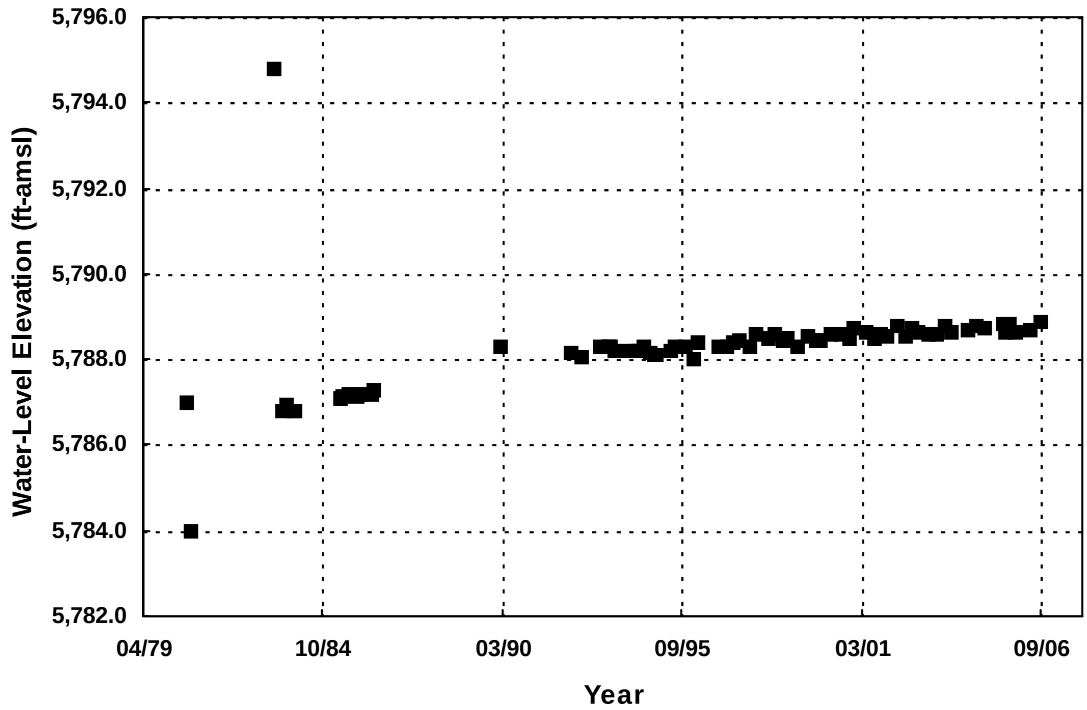

Figure 5-22
Historical Water-Level Elevations at 184 N09 E68 30AAAB1 USGS-MX (Spring Valley)

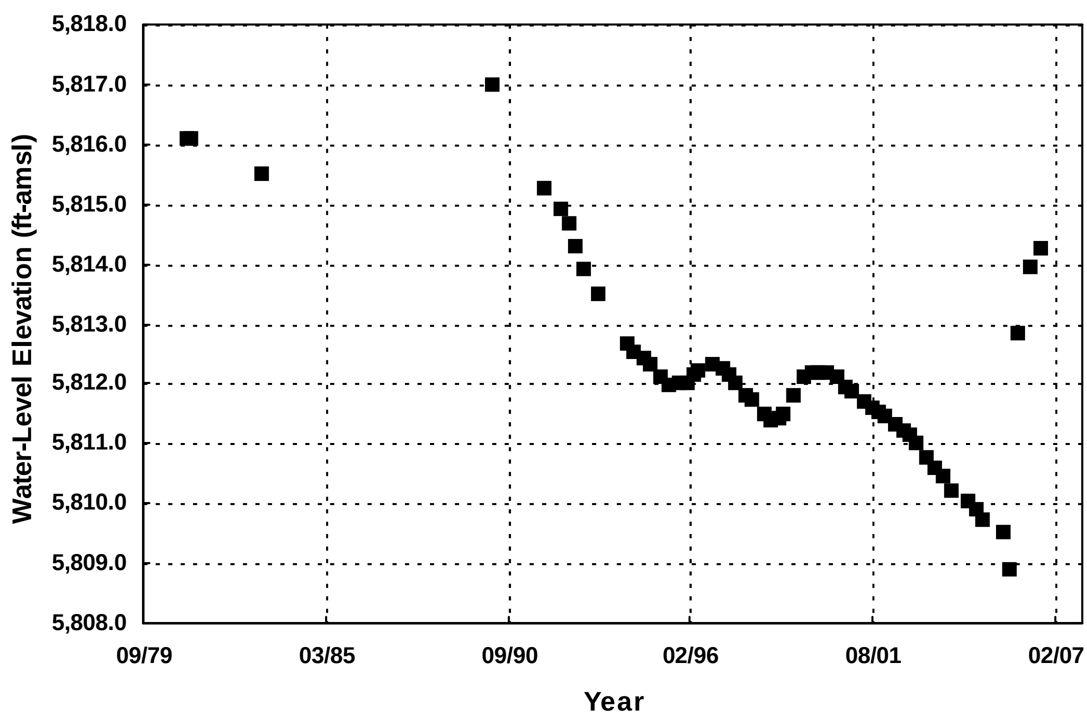

Figure 5-23
Historical Water-Level Elevations at 184 N11 E68 19DCDC 1 USGS-MX (Spring Valley)

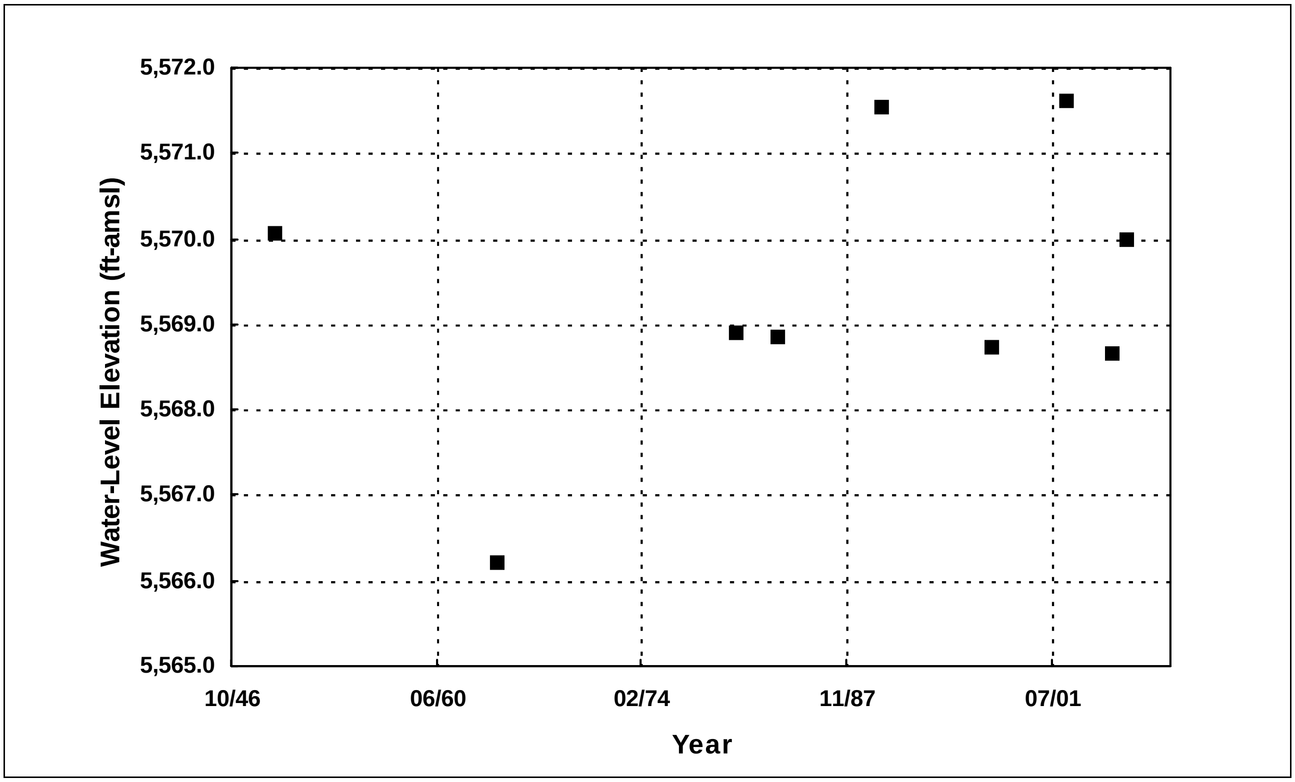

Figure 5-24
Historical Water-Level Elevations at 184 N19 E67 13AAAC1

variations of 5 to 10 ft over the period of record for a given well. These changes may be related to changes in hydrologic conditions and measurement accuracy rather than anthropogenic effects.

5.3.2 Tippett Valley (HA 185)

Basin-Fill Aquifer

Depths to water in Tippett Valley range from 113 to 378 ft-bgs (see Appendix A). The depths to water on the main valley floor are typically between 113 to less than 300 ft-bgs. The deepest wells are located in the northernmost and southernmost portions of the valley near the alluvial fan and mountain block interfaces. Water-level elevations for Tippett Valley range from approximately 5,500 ft-amsl in the eastern and southern portions of the valley to approximately 5,700 ft-amsl in the northwest portion of the valley (see Figure C.1-17). The water-level contours for Tippett Valley suggest that groundwater flows from the mountain fronts toward the central valley floor and then northeastward toward the Great Salt Lake Desert hydrographic area.

Carbonate-Rock Aquifer

No wells in Tippett Valley were identified as penetrating the carbonate-rock aquifer. As a result, no discussion on the carbonate-rock aquifer is presented.

Water-Level Trends

No wells in Tippett Valley hydrographic area had a sufficient number of water-level measurements to evaluate temporal variations.

5.3.3 Hamlin Valley (HA 196), Nevada and Utah

Basin-Fill Aquifer

Inspection of the driller's logs for basin-fill wells in Hamlin Valley indicated that the wells penetrate cemented gravels, sandy clays, and sands and gravels. In addition, one well in Hamlin Valley penetrated gray volcanics to 100 ft-bgs, clay and gray volcanics to 110 ft-bgs, and volcanic materials to the total depth of the well based on the driller's log (see Figure C.1-18).

Depths to water in Hamlin Valley for basin-fill wells range from near land surface to over 500 ft-bgs (see Figure D.1-10). Depths to water are shallowest in the northern portion of the valley near the hydrographic boundary with Snake Valley and deepest in the southernmost portion of the valley. Figure C.1-18 shows that water-level elevations in Hamlin Valley range from approximately 6,200 ft-amsl in the southernmost portion of Hamlin Valley to approximately 5,600 ft-amsl in the northeast portion of the valley for wells located on the valley floor. It can be seen from the water-level elevations and the contours on Figure D.1-10 that a south-to-north hydraulic gradient of approximately 16 ft/mi exists in Hamlin Valley.

Carbonate-Rock Aquifer

No wells in Hamlin Valley were identified as penetrating the carbonate-rock aquifer. As a result, no discussion on the carbonate aquifer is presented.

Water-Level Trends

Only one well in the Hamlin Valley hydrographic area had a sufficient number of water-level measurements to support construction of a hydrograph. Figure 5-25 shows the historical water-level measurements for well 196 N08 E69 35DC 2 USGS-MX (Hamlin Valley S.). The well is located in the northern portion of the hydrographic area, due east of the Limestone Hills. The hydrograph shows that historical water-level measurements for the well have varied by approximately 5 ft over the period of record for the well. It can be seen from the hydrograph that the water-level measurements have declined 5 ft since approximately 1998, coincident with drought conditions experienced during that time period.

5.3.4 Snake Valley (HA 195), Nevada and Utah

Snake Valley is the largest basin in the study area and is shared by both Nevada and Utah. Over 250 well and spring locations have been compiled for this basin (see Appendix A). Even with the relatively large amount of data in Snake Valley, this basin still has some of the most complicated water-level contour interpretations for basins in the study area, particularly with regard to outflows through carbonate bedrock.

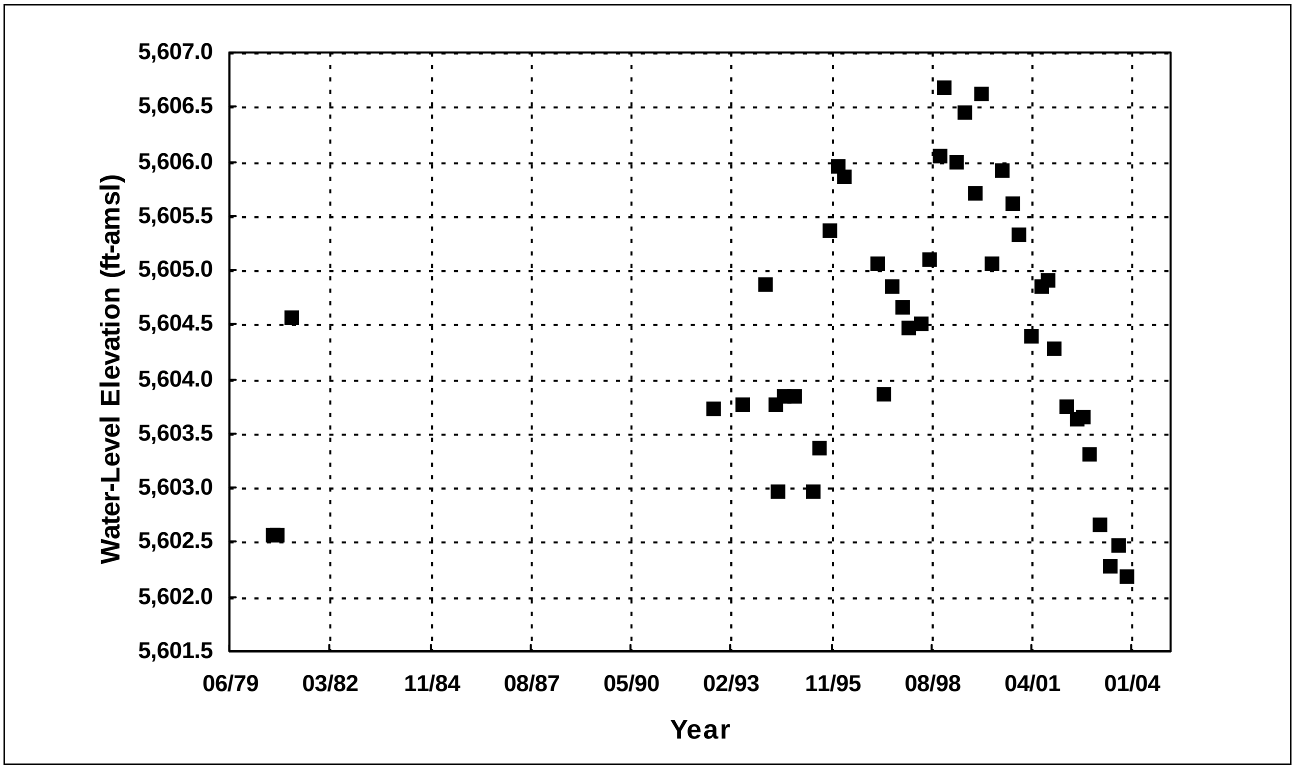

Figure 5-25
Historical Water-Level Elevations at 196 N08 E69 35DC 2 USGS-MX (Hamlin Valley S.)

Basin-Fill Aquifer

According to Ertec Western Inc. (1981c), the valley-fill deposits in Snake Valley consist of clay, silt, and sand in lacustrine areas in the center of the valley, and gravels and sands in the alluvial fan deposits along the valley margins. Groundwater production data that was reported on the NDWR driller's logs for wells in Snake Valley range from 20 gpm to a reported production rate of 950 gpm for one well in the southernmost portion of Snake Valley. Based on the lithology of the basin-fill wells and numerous springs and flowing wells in Snake Valley, groundwater occurs under both confined and unconfined conditions.

Depths to water in Snake Valley for basin-fill wells range from above land surface to greater than 500 ft-bgs. Areas of shallow groundwater can be found throughout the valley, especially along the main axis of the valley from the town of Baker in the south to Partoun and Trout Creek in the north (see Figure D.1-11). Depths to water tend to increase along the valley margins closer to the mountain ranges surrounding the valley. Depths to water are greatest on the east side of the valley and in the southernmost portion of the valley near the Burbank Hills. Figure C.1-19 shows that water-level elevations for wells located on the valley floor range from approximately 5,500 ft-amsl in the southern portion of the valley to approximately 4,300 ft-amsl in the northernmost portion of the valley. It can also be seen from the figure that water-level elevations are higher closer to the surrounding mountain ranges than on the valley floor. The water-level elevations and composite water-level contours indicate that there is a south-to-north hydraulic gradient of approximately 11 ft/mi in the valley in the direction of the Great Salt Lake Desert hydrographic area.

Carbonate-Rock Aquifer

A number of wells in Snake Valley are known to penetrate the carbonate-rock aquifer including several oil wells in the southern portion of the valley. The water-level elevations for the carbonate-rock wells and regional springs used for control range from approximately 5,000 to 6,200 ft-amsl (see Figure E.1-1). It can be seen from the figure that the carbonate-rock water-level elevations and spring heads decrease toward the north and northeast suggesting a northeastward groundwater gradient.

Water-Level Trends

Numerous wells exist in Snake Valley with sufficient data to support construction of water-level hydrographs. The hydrographs constructed for Snake Valley represent the basin-fill aquifer only and do not necessarily reflect trends in the carbonate-rock aquifer. This discussion only focuses on a few select wells to illustrate general observations in the northern, central, and southern portions of Snake Valley. In general, inspection of the hydrographs reveals that water-level elevations vary with time and spatial location within Snake Valley. For example, the hydrographs in Appendix B show that the maximum water-level fluctuations in Snake Valley range from 40 to 50 ft, with most wells commonly having water-level fluctuations less than 10 ft. A subtle upward trend over the past 7 decades can also be observed at some locations, while others have no particular trend or a decreasing trend (see Appendix B for all of the constructed hydrographs for Snake Valley). Figure 5-26 shows that water-level elevations for well (C-11-17)12cbb-1 in the northern portion of Snake Valley near the town of Callao have varied on the order of 10 ft since the mid 1980s. There are numerous agricultural areas near the town of Callao, suggesting that the water-level fluctuations could be attributed to pumping for irrigation. Hood and Rush (1965) stated, however, that the flow of Basin and Thomas creeks is diverted and used in those areas. Water levels in this area, or any area of significant perennial streamflow, can be affected by the availability of surface waters and supplemental groundwater production. The proportion of either, however, cannot be determined due the limitations of the available data. As a result, it is difficult to determine the exact cause for the observed fluctuations.

Another well in the northernmost portion of Snake Valley is well (C-11-16)36cdb-1 (Figure 5-27). This well is approximately 7 mi southeast of the previous well and shows very little change in water-level elevations over the past 25 years. This well is not near any current agricultural area. Another area of significant agriculture is in the central portion of Snake Valley near the community of Eskdale. Wells near this area also show similar water-level variations (i.e., in magnitude) as those in the northern portion of Snake Valley. For example, Figure 5-28 shows that water-level elevations have varied approximately 8 ft for the period of record for well (C-19-19)26aba-1. It can also be seen from the figure that there has been a subtly declining water-level trend for the well since approximately 1985. This well is also located in close proximity to agricultural areas.

Finally, Figure 5-29 shows an increasing water-level trend for the entire period of record for well (C-23-19)9cdb-1. This well is located in the southern portion of Snake Valley approximately 4 mi south of Pruess Lake. It is also located near current agricultural areas. Overall, water-level trends in Snake Valley can be attributed to temporal variations in hydrologic conditions.

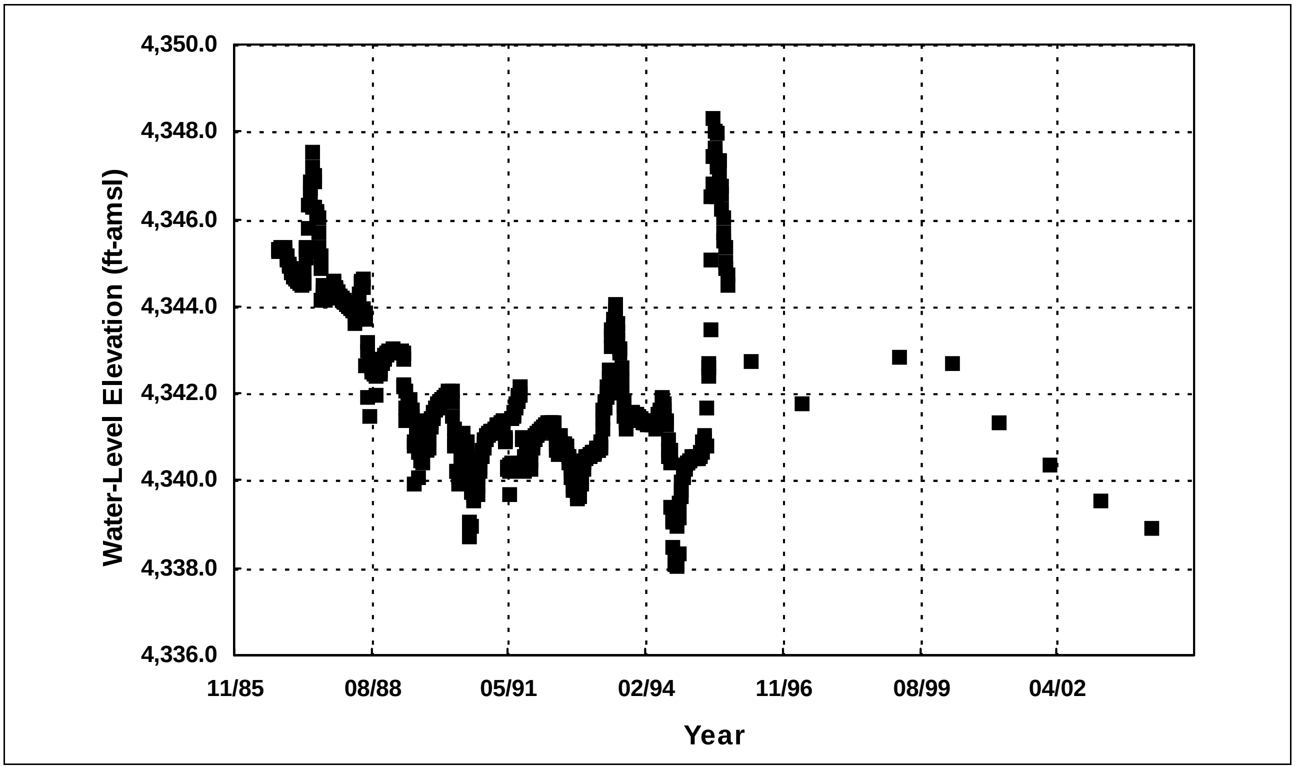

Figure 5-26
Historical Water-Level Elevations at (C-11-17)12cbb-1

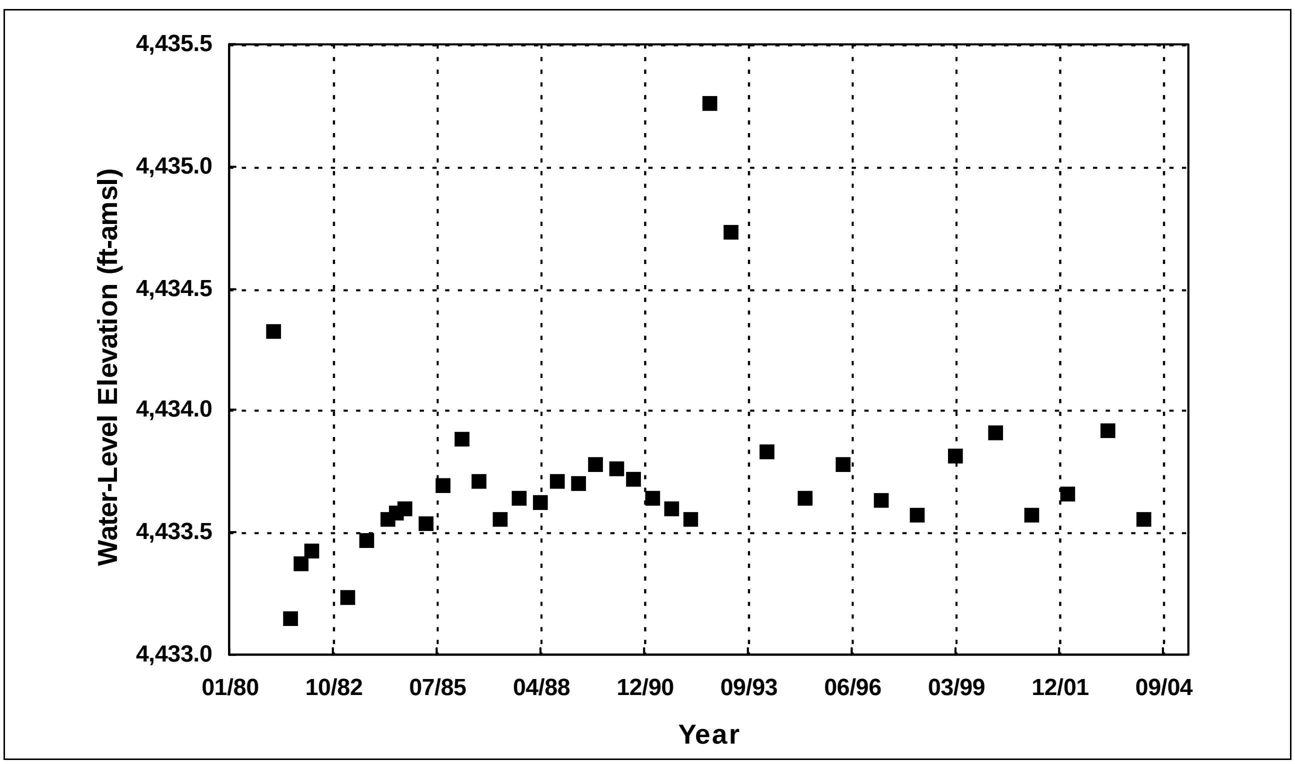

Figure 5-27
Historical Water-Level Elevations at (C-11-16)36cdb-1

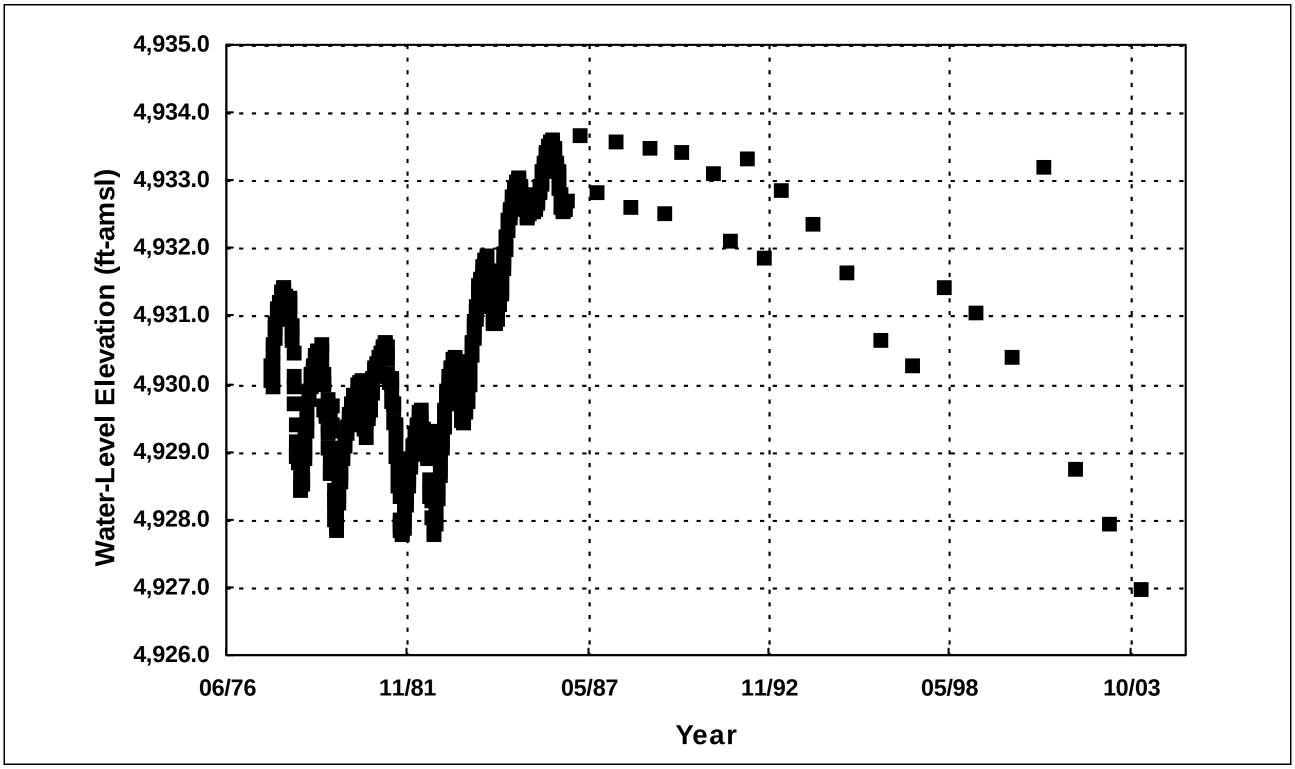

Figure 5-28
Historical Water-Level Elevations at (C-19-19)26aba-1

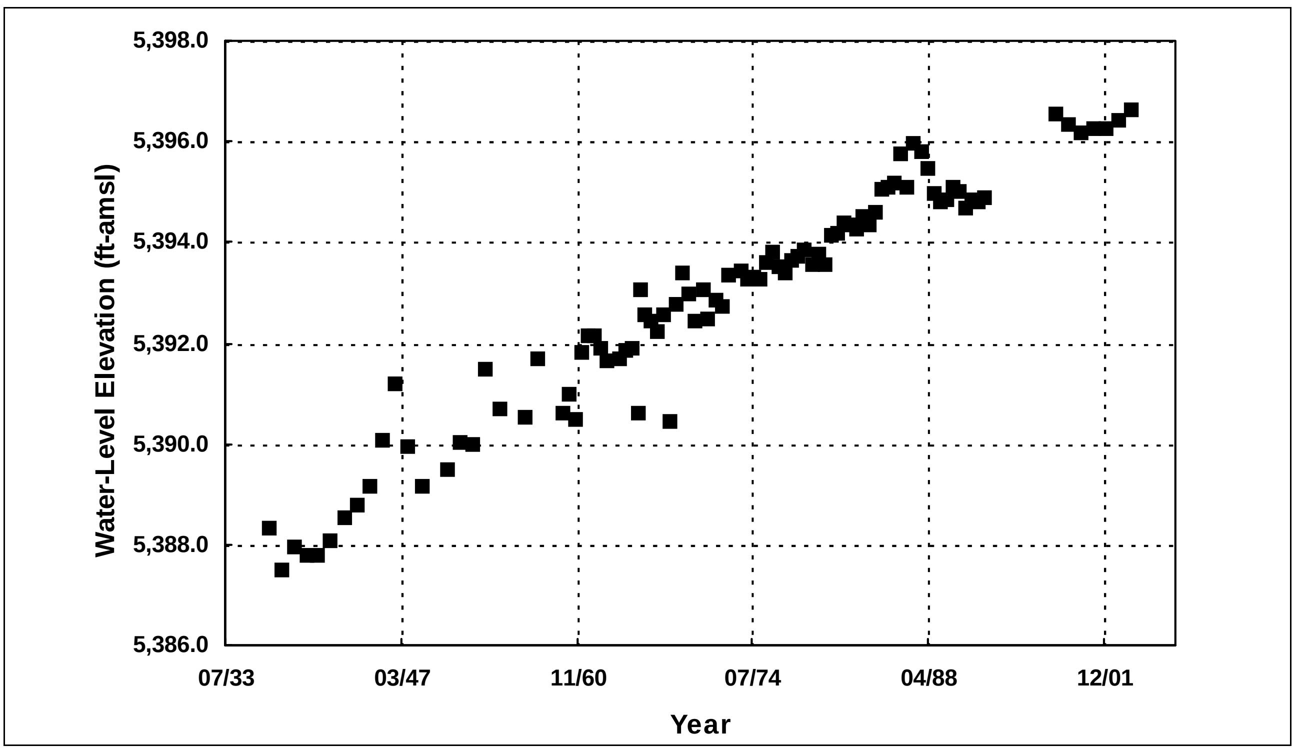

Figure 5-29
Historical Water-Level Elevations at (C-23-19) 9cdb- 1

5.4 Meadow Valley Flow System

The MVFS is a tributary of the WRFS and, ultimately, the Colorado River. It begins in Lake Valley in the north and ends with Lower Meadow Valley Wash in the south. The hydrographic areas that make-up the MVFS include Lake Valley, Patterson Valley, Spring Valley, Eagle Valley, Rose Valley, Dry Valley, Panaca and Clover valleys, and Lower Meadow Valley Wash.

5.4.1 Lake Valley (HA 183)

Basin-Fill Aquifer

Lake Valley is the northernmost valley within the Meadow Valley Wash Flow System. Ertec Western Inc. (1981c) states that the basin-fill materials in Lake Valley are composed of fluvial and lacustrine deposits in addition to partly consolidated pyroclastic deposits of welded tuff. Inspection of the driller's logs for basin-fill wells in Lake Valley support this assessment. The penetrated lithology of the wells include silts, clays, sands, and gravels. In addition, several wells reported volcanic materials or lava ash. Inspection of the driller's logs also revealed that well production yields in Lake Valley generally ranged from 20 to 300 gpm, with one well (i.e., 183 N06 E66 10BD 1) reporting 1,000 gpm with 26 ft of drawdown after 24 hours of pumping.

Depths to water in Lake Valley range from near land surface to approximately 300 ft-bgs in some areas. In the central and northern valley floor, the depths to water are generally less than 50 ft-bgs and tend to support groundwater discharge by phreatophytes (Figure D.1-12). It can be seen from the figure that the depths to water in Lake Valley increase toward the south near the topographic boundary with Patterson Valley and in the far north near the boundary with Spring Valley. Figure C.1-20 shows that water-level elevations for wells located on the valley floor range from approximately 5,900 ft-amsl in the northernmost portion of the valley to approximately 5,850 ft-amsl in the southernmost portion of the valley near the boundary with Patterson Valley. It can also be seen from the figure that water-level elevations are higher closer to the surrounding mountain ranges to the west and east of the valley. The composite water-level contours on Figure C.1-20 show that there is an overall north-to-south hydraulic gradient of approximately 3 ft/mi in the valley.

Carbonate-Rock Aquifer

No wells were identified as penetrating the carbonate-rock aquifer in Lake Valley. As a result, no discussion on the carbonate-rock aquifer is presented.

Water-Level Trends

Nine wells in Lake Valley had a sufficient number of water-level measurements to support creating hydrographs. The water-level hydrographs in Lake Valley show differing trends depending on the proximity to agricultural areas (see Appendix B). For example, a declining trend can be seen in Figure 5-30 that began in the early 1990s in the south-central part of the basin. In general, water-level elevations have declined approximately 10 to 20 ft in some areas. This trend is likely caused by groundwater pumping for agricultural uses.

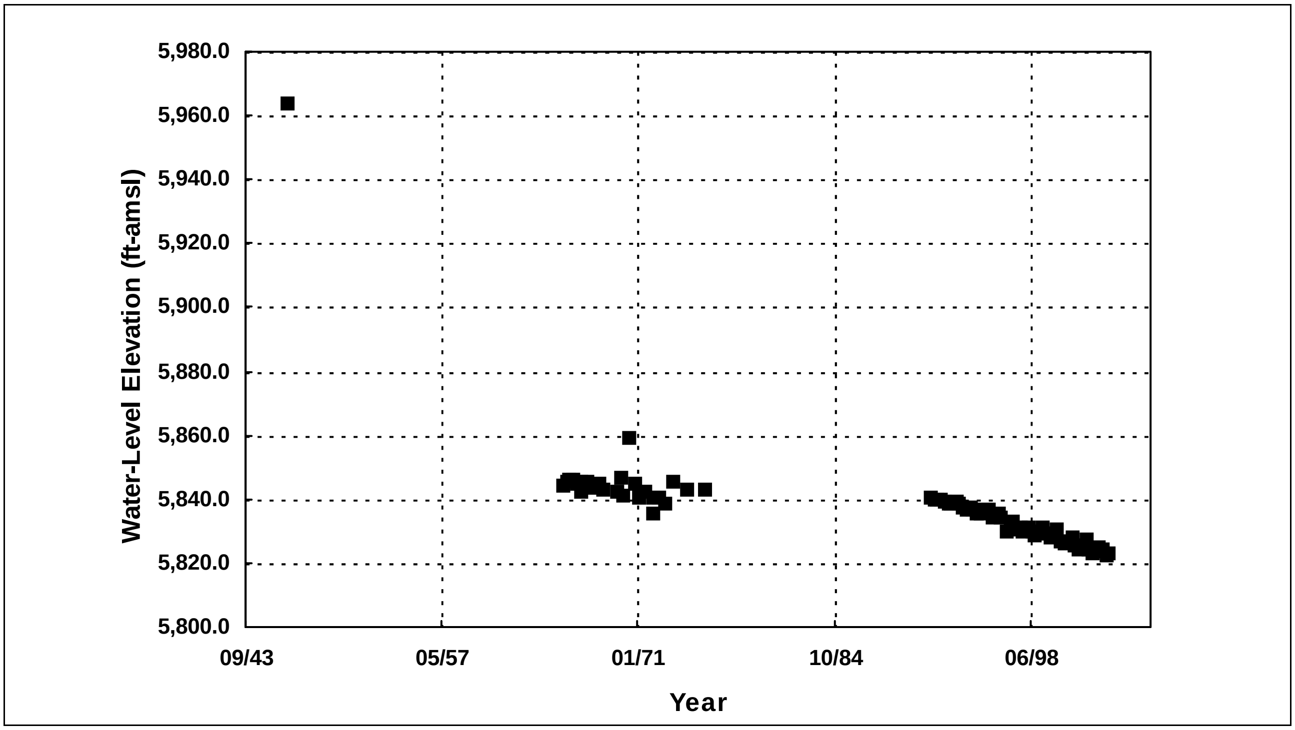

Figure 5-30
Historical Water-Level Elevations at 183 N06 E66 35C 1 USBLM - Pony Springs Well

5.4.2 Patterson Valley (HA 202)

Basin-Fill Aquifer

Depths to water in Patterson Valley range from near land surface to over 600 ft-bgs in some areas. Shallow depths to water, generally within 50 ft of land surface, can be found in the southern portion of Patterson Valley along the Patterson Wash (Appendix A). According to Rush (1964), phreatophytes occupy an area of only 80 acres in Patterson Valley. Depths to water in Patterson Valley tend to increase in the northern portion of the valley and closer to the mountain ranges surrounding the valley. Figure C.1-21 shows that water-level elevations range from approximately 5,700 ft-amsl in the northernmost portion of Patterson Valley to approximately 5,300 ft-amsl in the southern portion of the valley. It can also be seen from the figure that the water-level elevations are higher along the mountain front ranges than in the main valley axis. The composite water-level contours shown on the figure indicate that there is an overall north-to-south hydraulic gradient of approximately 20 ft/mi in Patterson Valley. The data also indicate that groundwater flows from the mountain fronts toward Patterson Wash then southward to Meadow Valley Wash and intersecting at the confluence of Panaca and Dry Valleys.

Carbonate-Rock Aquifer

Three wells in Patterson Valley were identified as carbonate-rock wells. The water-level elevations for the wells range from 5,146 to 5,679 ft-amsl. The carbonate-rock wells are located on the western side of Patterson Valley along the Bristol Range and in the southern portion of the valley near the hydrographic divide with Panaca Valley (see Figure E.1-1). The water-level elevations for the carbonate-rock wells in Patterson Valley appear to decrease toward the south, and the southernmost carbonate-rock well in Patterson Valley is approximately 400 ft higher in elevation the regional spring head in Panaca Valley suggesting a southerly groundwater gradient in this portion of the study area.

Water-Level Trends

Few wells in Patterson Valley have sufficient water-level measurements to support construction of hydrographs. The hydrographs for wells in Patterson Valley can be seen in Appendix B. In general, the hydrographs for the Patterson Valley hydrographic area show relatively consistent water-level elevations with variations on the order of 10 ft. For example, well 202 N02 E67 35BCD1 USGS-MX had a maximum water-level elevation change of approximately 10 ft over its entire period of record.

5.4.3 Spring (HA 201), Eagle (HA 200), Rose (HA 199), and Dry Valleys (HA 198)

Basin-Fill Aquifer

The headwaters of Meadow Valley Wash begin in the Spring Valley (HA 201) hydrographic area. This wash continues into Eagle, Rose, and Dry valleys before entering Panaca Valley and then to the Lower Meadow Valley Wash hydrographic area. Figure D.1-13 shows that depths to water for these basins are generally within 50 ft of land surface and that along portions of the wash groundwater depths are less than 20 ft-bgs. Phreatophytes and evapotranspiration are likely in these areas of shallow groundwater. It can be seen from the figure that depths to water increase away from the main channel of the wash. Figure C.1-22 shows that groundwater data for wells completed in the basin fill are available along the narrow incised valley floor for these four basins. It can be seen from the figure that water-level elevations are approximately 6,200 ft-amsl in Spring Valley, approximately 5,500 ft-amsl in Eagle Valley, approximately 5,400 ft-amsl in Rose Valley, and decrease to approximately 5,000 ft-amsl in the southern part of Dry Valley along the Meadow Valley Wash. These water-level elevations and the constructed composite water-level contours generally support groundwater flow toward and along the stream system. Specific reaches of the stream that are gaining or losing cannot be discerned given groundwater-level data only. It is generally assumed, however, that the Meadow Valley Wash is a gaining stream system through these basins.

Carbonate-Rock Aquifer

Wells that penetrate the carbonate-rock aquifer are not present in the Spring (HA 201), Eagle, Rose, or Dry hydrographic areas. According to Rush (1964), carbonate rocks are present in some of the mountain areas and may underlie some of the valleys at depth. As a result, no discussion on the carbonate-rock aquifer is presented.

Water-Level Trends

Few wells exist in Spring Valley, Eagle Valley, or Rose Valley that have sufficient data to support construction of hydrographs. Dry Valley, however, does have five wells that have more than 10 individual depth-to-water measurements. In general, water-level elevations fluctuate within a range of approximately 15 ft. The hydrographs for these wells are provided in Appendix B.

5.4.4 Panaca (HA 203) and Clover (HA 204)

Basin-Fill Aquifer

Most wells in Panaca and Clover valleys are shallow, ranging from less than 100 ft to approximately 500 ft in depth (Appendix A). Depths to water along the upper part of Meadow Valley Wash and Clover Creek vary from near ground surface near the stream channels to generally within 250 ft of ground surface (Figure D.1-14). Depths to water increase in both hydrographic areas as the distance from the Meadow Valley Wash or Clover Creek increases. It can be seen from Figure D.1-14 that the greatest depths to water are found in the northeast portion of Clover Valley. Figure C.1-23 shows that water-level elevations for wells located on the valley floor range from approximately 4,900 ft-amsl in the northeast portion of Panaca Valley along Meadow Valley Wash to approximately 4,400 ft-amsl in the southwest portion of Panaca Valley. The water-level contours for Panaca Valley show that a northeast-to-southwest hydraulic gradient of approximately 20 ft/mi exists in Panaca Valley along the Meadow Valley Wash.

Clover Valley is within the Caliente caldera complex (Volume 1) and has a limited amount of basin fill and no underlying carbonate-rock aquifer over most of the valley. Therefore, since the volcanic rocks are not basin fill in this valley, but are instead the underlying bedrock, basin-fill water-level contours were not constructed for Clover Valley. The water-level elevations shown on Figure C.1-23 and the numerous springs that can be found along Clover Creek suggest that groundwater is flowing to and along the creek, which eventually discharges into Meadow Valley Wash.

Carbonate-Rock Aquifer

Only one well and one spring were identified as penetrating the regional carbonate-rock aquifer in these two hydrographic areas. Rush (1964) noted, however, that a few wells tap artesian flowing conditions and at some locations water chemistry suggests a mix of regional (carbonate) and local water sources. Rush (1964) also interpreted Panaca Spring (see Figure E.1-1) to be a major discharge location for groundwater derived from both Panaca Valley and up-gradient Patterson Valley. He indicated that the discharge from the spring is from inter-basin flow through the carbonate rocks (Rush, 1964). Using the land-surface elevation of the spring as a surrogate for the hydraulic head, the hydraulic head for Panaca Spring is approximately 4,800 ft-amsl. This water-level elevation is approximately 400 ft lower in elevation than carbonate-rock wells in Patterson Valley to the north.

Water-Level Trends

Twelve wells in Panaca Valley had a sufficient number of water-level measurements to support creation of hydrographs. These hydrographs are provided in Appendix B. In general, a downward trend over time in water-level elevation can be observed on some hydrographs for Panaca Valley. The hydrographs show a potential decline on the order of 10 to 20 ft over the past six decades. For example, Figure 5-31 shows a water-level decline of approximately 15 to 20 ft over the last 50 years for well 203 S02 E68 08B 5 USGS - Panaca Valley. This well is located next to an agricultural area. While none of the depth-to-water measurements were qualified as pumping measurements for this well, it appears likely that the water-level elevations less than 4,795 ft-amsl might, at the very least, be impacted by pumping. If these measurements were excluded from the hydrograph, the apparent water-level decline for the well would be on the order of 10 ft. A downward trend in water-level

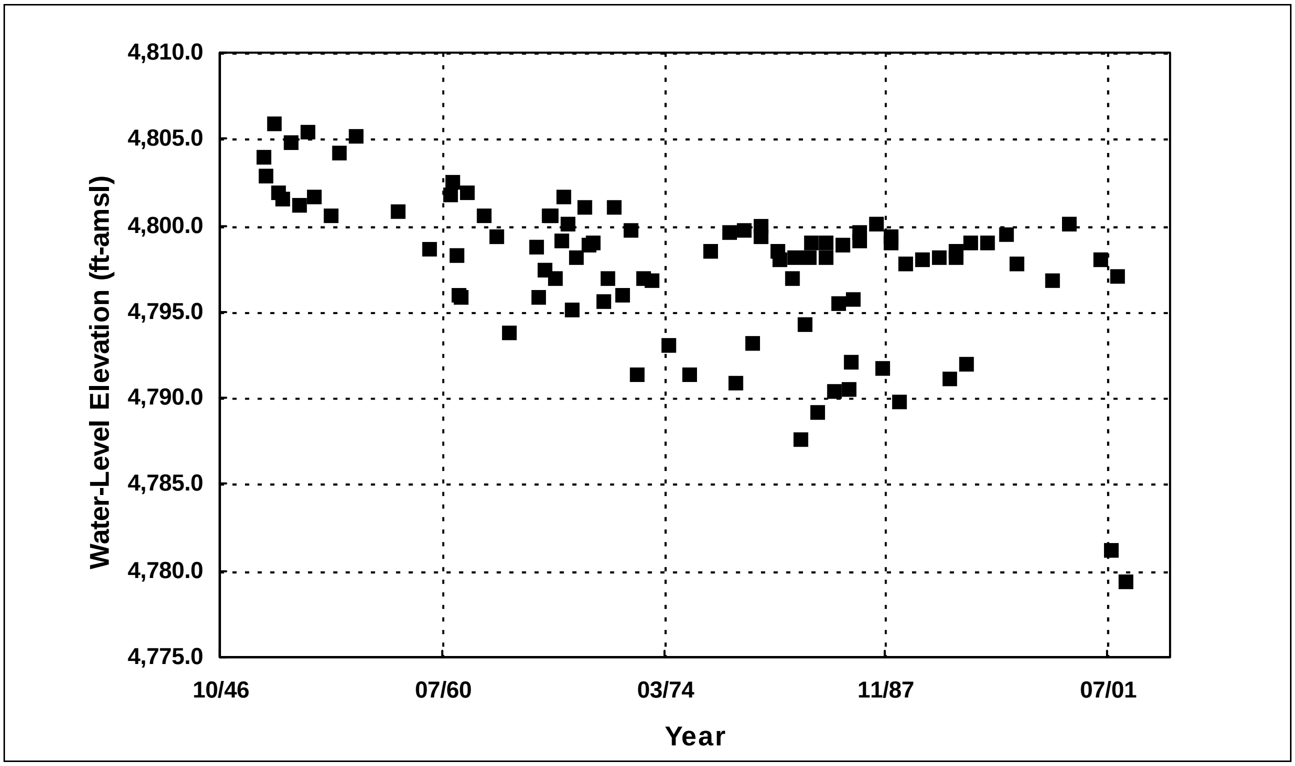

Figure 5-31
Historical Water-Level Elevations at 203 S02 E68 08B 5 USGS - Panaca Valley

elevations for Panaca Valley was also observed by Rush (1964), who suggested that this was a result of agricultural pumping. Rush (1964) stated that agriculture started in the area in latter part of the 19th century by use of Panaca Spring and flow in Meadow Valley Wash. He also stated that the first irrigation well was drilled in 1940, and since then many irrigation wells have been drilled in the area. In fact, Rush (1964) stated that the local decline of groundwater levels in Panaca Valley indicates that the amount of groundwater in storage is decreasing because the total discharge is larger than the recharge in the area.

5.4.5 Lower Meadow Valley Wash (HA 205)

Basin-Fill Aquifer

Depths to water in the Lower Meadow Valley Wash hydrographic area range from near land surface to over 150 ft-bgs. Inspection of Figure D.1-15 shows that depths to water are shallow within the flood plain of the wash, generally within 50 ft of ground surface. The figure also shows that the flood plain broadens in the southern portion of the valley near the hydrographic area boundary with Lower Moapa Valley. The depths to water tend to increase with distance from the main channel of the wash. Figure C.1-24 shows that water-level elevations range from approximately 4,400 ft-amsl in the northeastern most part of Lower Meadow Valley Wash to approximately 1,500 ft-amsl in the southernmost portion of the hydrographic area. The basin-fill water-level elevation contours in Figure C.1-24 show that groundwater gradients exist in Lower Meadow Valley Wash from the topographically high areas toward the center of Lower Meadow Valley Wash, along the actual wash, and then southward toward the Muddy River, which forms the southern tip of the basin.

Carbonate-Rock Aquifer

No wells or springs were identified as penetrating or issuing from the regional carbonate-rock aquifer in the Lower Meadow Valley Wash hydrographic area. As a result, no discussion of the carbonate-rock aquifer is presented.

Water-Level Trends

Numerous wells exist in Lower Meadow Valley Wash that have a sufficient number of water-level measurements to support construction of hydrographs. This section will present a select few to illustrate the general observable trends in the hydrographic area. The remainder of the hydrographs are provided in Appendix B.

In general, inspection of the hydrographs for Lower Meadow Valley Wash reveals that water-level elevations vary based on spatial location and closeness to agricultural or industrial areas that use significant quantities of groundwater. It can be seen from the hydrographs that the maximum water-level elevation variation is within a range of approximately 25 ft. Figure 5-32 shows the historical water-level elevations for well 205 S04 E67 18N1 in the northernmost portion of the hydrographic area. It can be seen from the figure that water-level elevations have increased approximately 15 ft over a 35-year period. This well is located southwest of the town of Caliente and is close to agricultural areas. Figure 5-33 shows the historical water-level elevations for well 205 S09 E67 14B 1 in the central part of the Lower Meadow Valley Wash hydrographic area. The figure shows a declining water-level trend on the order of approximately 5 to 7 ft over the well's period of record. In the southernmost portion of the valley, numerous monitor wells show similar water-level recovery trends as a result of the decline in groundwater pumping supplying the Reid Gardner power facility near the town of Moapa. For example, Figure 5-34 shows that water-level elevations have shown a steady increase from approximately 1,500 ft-amsl to approximately 1,519 ft-amsl since 1988. These hydrographs show that water-level fluctuations are present in Lower Meadow Valley Wash and can be the result of various factors including groundwater pumping, climatic fluctuations, or groundwater recharge.

5.5 Summary of Water-Level Trends

Hydrographs for the study area (Appendix B) indicate that a vast majority of the study area can be considered to be in a state of hydrologic equilibrium, with only natural groundwater level fluctuations being observed over time. These fluctuations are typically within a range of less than 5 ft over a time span of several decades in the carbonate-rock aquifer and within a range of several feet to perhaps 20 ft over several decades in the basin-fill aquifers.

At times, these trends appear out-of-sync with climate trends, such as the subtle upward trends observed in Cave and Dry Lake valleys. These upward trends can be explained, however, by attenuation of longer-term, multi-decade climatic trends, versus a more typical, less attenuated response to shorter-duration climate trends.

At a few locations, declining water-level trends can be observed that are attributed to groundwater pumping. These trends, which are observed in basin-fill aquifers, tend to produce "dog leg" hydrographs where a steady water-level trend suddenly transitions to a steady and progressively

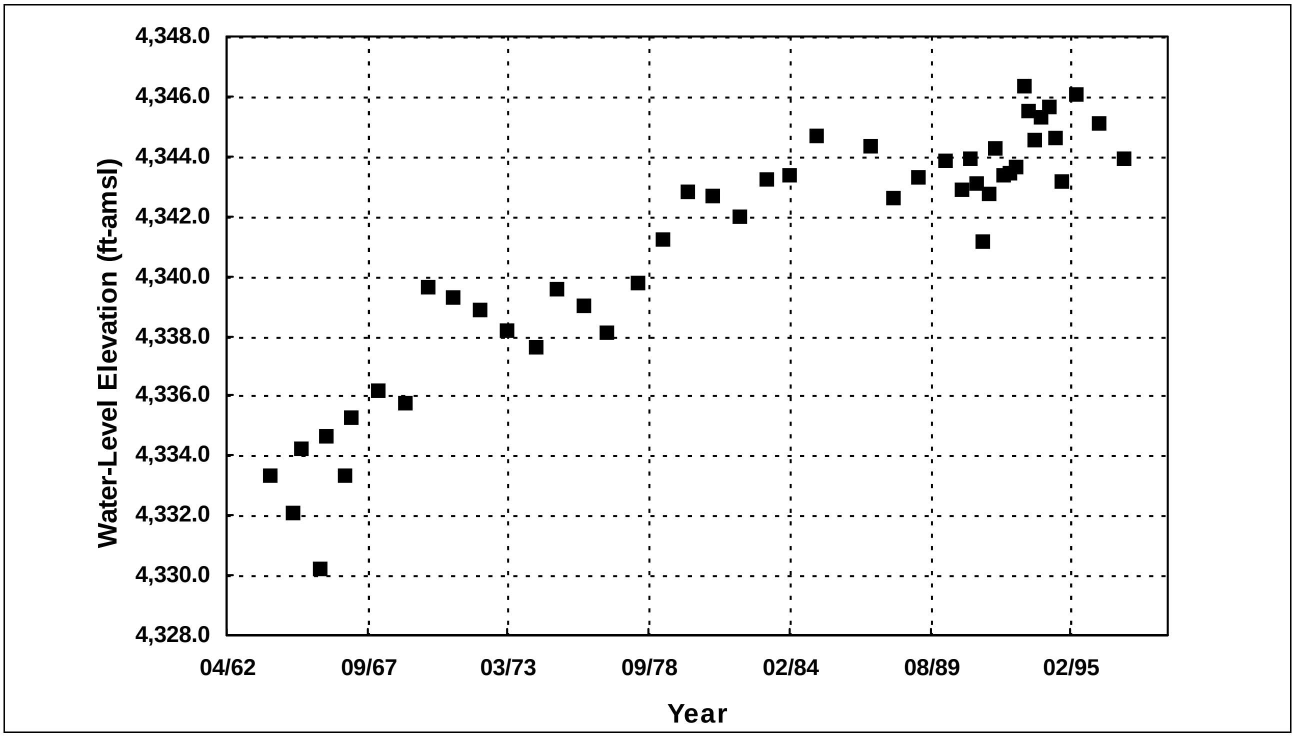

Figure 5-32
Historical Water-Level Elevations at 205 S04 E67 18B 1

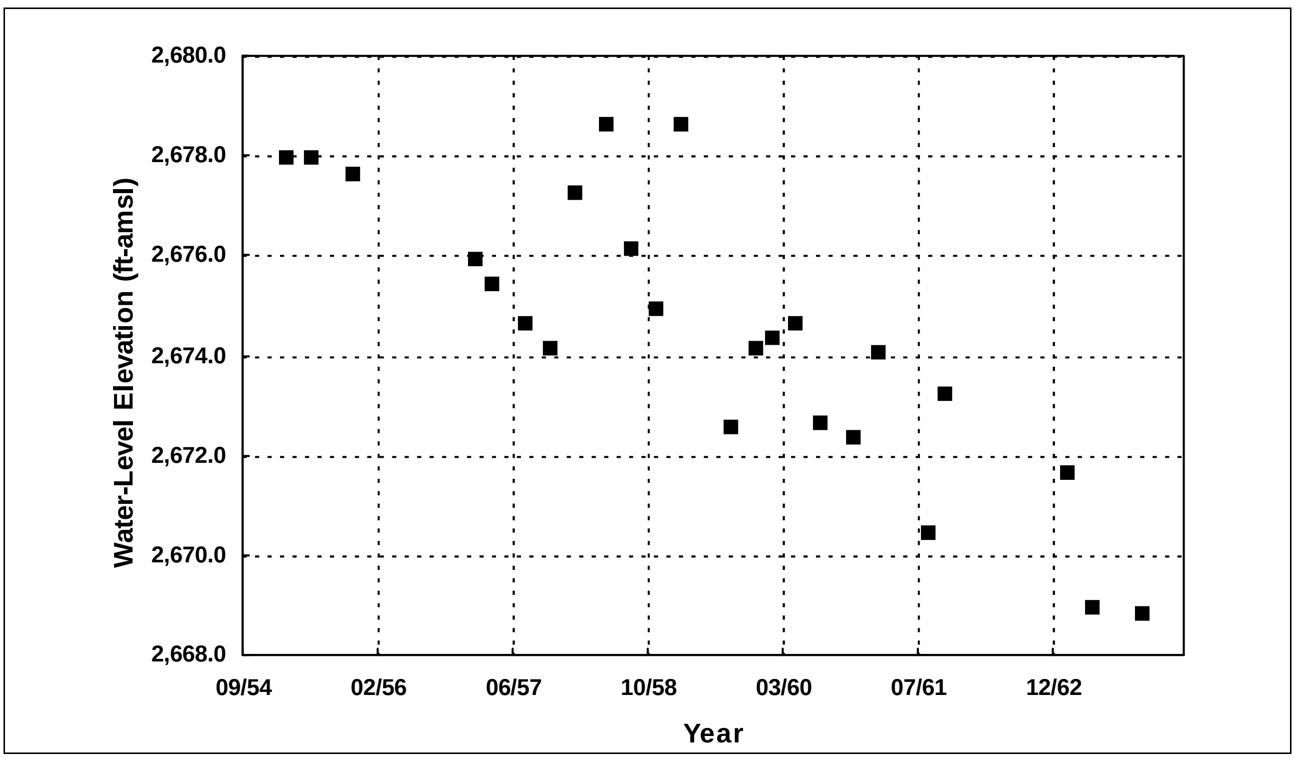

Figure 5-33
Historical Water-Level Elevations at 205 S09 E67 11B 1

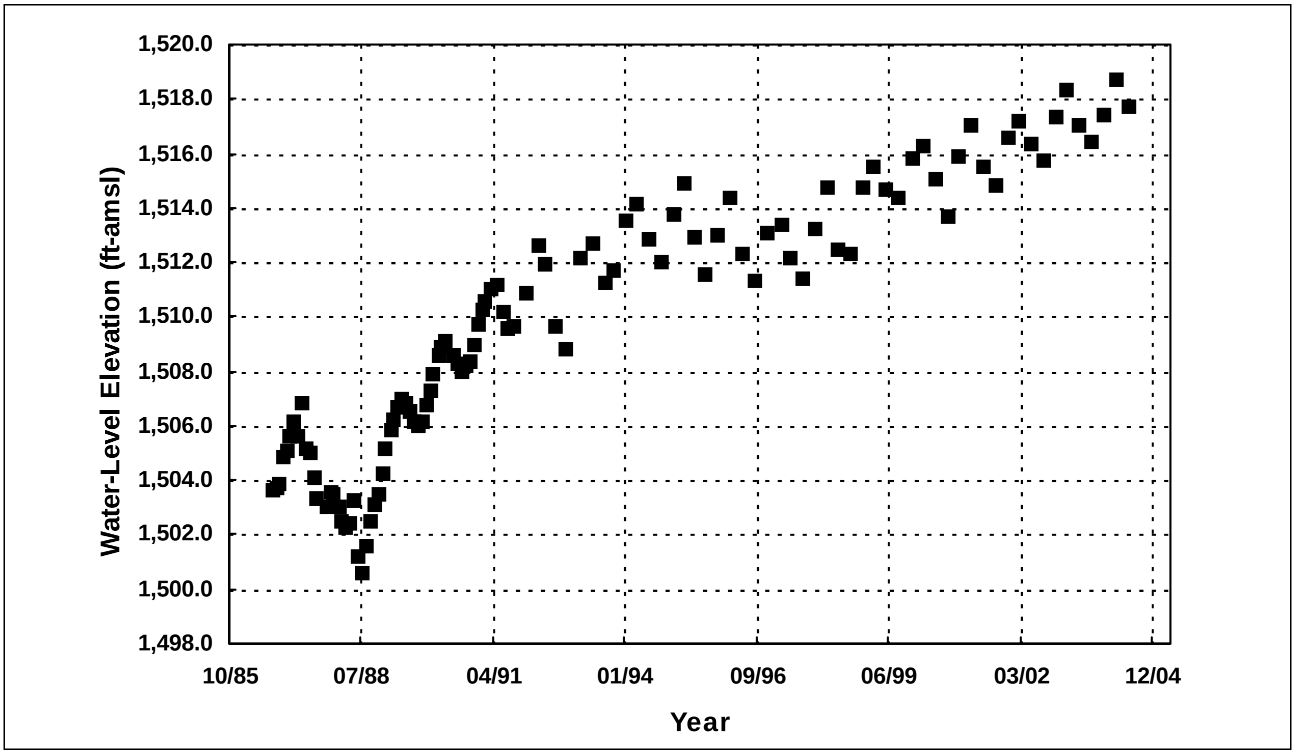

Figure 5-34
Historical Water-Level Elevations at 205 S14 E66 34AD 1 TH-31

declining slope. The most pronounced pumping effects in the study area are observed in northern Pahranagat Valley, where 30 to 40 ft of consistent water-level decline is observed since the mid-1970s, and in southern Steptoe Valley, where over 50 ft of water-level decline is observed in the past two decades. These trends are observed in local settings near production wells and are not typically regional in nature.

Declining water-level trends, ranging from 5 to 20 ft over the past two decades, may also be attributed to localized agricultural pumping in southern Lake Valley, southern Snake Valley, Panaca Valley, and central Spring Valley.

During the past decade, a 2 to 3 ft declining water-level trend has been observed in carbonate-rock wells in the Muddy Rivers Springs Area and central Coyote Spring Valley. The factors driving this decline are a subject of debate and may be related to localized pumping from the carbonate-rock aquifer in the area. This trend, however, can also be attributed in part, to an undefined degree, to long-term drought conditions in the region beginning in 1998 (Smith et al., 2004).

5.6 Vertical Hydraulic Gradients

Data regarding vertical hydraulic gradients are very limited in the study area. Table 5-2 presents hydraulic gradient observations between the carbonate-rock aquifer and basin-fill aquifers for wells or springs that are relatively close to each other. In some cases, the reported carbonate-rock or basin-fill values represent the calculated mean water-level elevation, while in other cases the value is the only reported water-level elevation or spring head for a given site. In general, this type of

Table 5-2
Vertical Gradient Observations between Carbonate-Rock and Basin-Fill Aquifers in the Same Hydrographic Area

Carbonate-Rock Site	Carbonate-Rock Aquifer Elevation (ft-amsl)	Basin-Fill Site	Basin-Fill Water Elevation (ft-amsl)	Hydraulic Head Differential (ft)	Apparent Flow Direction
Long Valley					
175 N22 E58 34AD 1 (oil & gas exploratory well)	6,118	175 N22 E58 34AADA1	6,059	59	Upward
Cave Valley					
180 N07 E63 14BADB2 USAF	5,788	180 N07 E63 14BADB1 USAF	5,790	-2	Downward
Steptoe Valley					
179 N19 E64 17DDB 1 (oil & gas exploratory well)	6,328	179 N19 E64 17DDBD1 USBLM	6,052	276	Upward
White River Valley					
207 N12 E61 12BDAD1 Cold Springs	>5,653	207 N12 E61 12D 1	5,561	>92	Upward
207 N06 E61 18AADA1 NDW - Hot Creek Spring	>5,229	207 N06 E61 06CC 1	5,186	>43	Upward
207 N09 E61 32DABC1 Moorman Spring	>5,299	207 N09 E61 16C 1	5,288	>11	Upward
Pahranagat Valley					
209 S04 E60 14DBAB1 Hiko Spring	>3,878	209 S04 E60 23BBCA 1	3,848	>30	Upward
Crystal Springs nr Hiko, NV	>3,803	209 S05 E60 10ABCD2	3,804	< -1	Downward
Coyote Spring Valley					
210 S12 E63 29DABC1 USGS-MX CE-VF-2	1,857	210 S12 E63 29ADCC1 USGS-MX CE-VF-1	1,918	-61	Downward
210 S10 E62 25AD 1 CSVM-3	2,207	210 S10 E62 25CB 1 CSVM-7	2,246	-39	Downward
Muddy River Springs Area					
219 S14 E65 08BD 2 EH-5B	1,817	219 S14 E65 08BD 3 Lewis North	1,813	4	Upward
Warm Springs Confl at Iverson Flume	>1,757	219 S14 E65 22AA 1 Perkins Old	1,703	>54	Upward

comparison should be done with data from similar time frames and distinct open intervals; however, the lack of consistent periods of record and known well completions for wells in the study area makes this difficult. Using the available data, however, provides, at the least, for an approximation of vertical gradients in the study area.

Although vertical gradient data in the study area are sparse, it has been an observation throughout eastern and southern Nevada that water levels in the confined carbonate-rock aquifer system tend to be within 100 ft of overlying basin-fill water levels, and, more commonly, only a few tens of feet of difference are recognized (Winograd and Thordarson, 1975; Burbey, 1997). Data presented in Table 5-2 support this hypothesis for most of the study area, but with a few notable exceptions. For instance, Table 5-2 reveals that oil exploration drilling wells suggest a 300-ft upward hydraulic head differential in Steptoe Valley.

An attempt was also made to investigate vertical gradients within the basin-fill aquifers found in the study area. The data, however, are insufficient or too limited to discern vertical gradients within the basin fill. Many basins appear to have no significant hydraulic head differentials in the basin fill, though data at deeper levels are sparse. Data from Garden and Coal valleys suggest downward gradients, while mild upward gradients are interpreted in northern Spring Valley (HA 184), northern Dry Lake Valley, and Patterson Valley. None of the basins have adequate data to make basin-wide interpretations regarding vertical gradients within basin-fill aquifers.

6.0 SUMMARY

A comprehensive site location and water-level database has been compiled in support of a three-dimensional conceptualization of the flow systems underlying portions of Clark, Lincoln, and White Pine counties, Nevada. This database represents the most comprehensive water-level data set assembled for the study area's 33 basins. The database was prepared using several data sources including, but not limited to, the USGS NWIS/GWSI database, the NDWR well log database, SNWA water-level measurements, and various published and unpublished reports from several sources.

The compiled data set is organized in a spreadsheet format by hydrographic area and then station name. Basin-fill contour maps for each hydrographic area in the study area have been prepared when the available data allowed (see Appendix C). Depth-to-water maps for basins with shallow groundwater conditions have also been generated for use in the investigation of groundwater discharge by ET (Appendix D). Water-level elevations, spring heads, and carbonate-rock water-level contours are also presented for the carbonate-rock aquifer system (see Figure E.1-1). Hydrographs representing changes in water levels over time are contained in Appendix B.

In many cases, contouring of the composite water-level data has confirmed or refined previous interpretations of groundwater gradients. In some cases, it has added additional support to flow paths postulated by other investigators with limited water-level data. In a few cases, water-level data in this study may support interpretations that differ from previous published works.

In valleys where depths to water are relatively shallow over large portions of the valley floor, the basin-fill aquifers are generally observed to be hydraulically closed systems. Groundwater in the alluvial systems flows toward the central portions of the basins, sometimes concentrating at playas. Examples of this type of system are Spring, Snake, Steptoe, and Butte South valleys. Some basins, such as northern Cave Valley, northwestern Coyote Spring Valley, and northern Long Valley, have regionally small areas of shallow groundwater in the basin fill; these areas are commonly related to the discharge of springs along fault structures.

In the review of the compiled water-level data, only a few areas of perched groundwater have been identified. For example, the northeastern side of Snake Valley, southern Cave Valley, and northwestern Coyote Spring Valley likely have perched groundwater. Other cases of perched groundwater are likely to exist on a small scale in some basins. These areas may be characterized by localized areas of phreatophyte vegetation where regional depths to water are greater than 100 ft-bgs.

Hydrographs indicate that a vast majority of the study area can be considered to be in hydrologic equilibrium, with only a few localized areas of interpreted pumping effects. For example, pumping effects can be seen in northern Pahranagat Valley, southern Steptoe Valley, and Panaca Valley. In addition, possible observations of minor drawdown can be seen in southern Spring Valley, southern Snake Valley, and southern Lake Valley.

Influences of inter-basin groundwater flow in the regional carbonate-rock aquifer can be observed throughout the study area, including basins such as Jakes Valley that receive notable recharge but have no in-basin groundwater discharge. Other examples include Snake Valley, where groundwater outflow through the Confusion Range to Tule Valley is interpreted, and similarly groundwater outflow from Garden Valley to Coal Valley. Classic examples of regional flow through the carbonate-rock aquifer are observed within the study area in Pahranagat Valley and Muddy Rivers Springs Area, where springs discharge large volumes of constant-rate flows in comparatively dry basins.

Another observation that is consistent with previous work in the regional carbonate-rock flow system is, where the pertinent data exist, the potentiometric head in the carbonate-rock aquifer is observed to be similar to water levels found in basin-fill aquifer systems (Winograd and Thorardson, 1975; Burbey, 1997). This observation supports an interpretation that hydraulic communication exists between the basin-fill and regional carbonate-rock aquifer flow systems. The largest observed potentiometric head differentials in the study area are in White River Valley, where springs such as Preston Big Springs, Nicholas Spring, and Hot Creek Springs have potentiometric heads in the range of 50 to 100 ft greater than the surrounding basin-fill aquifer.

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Appendix A

Site Location and Water-Level Data Set

A.1.0 INTRODUCTION

This appendix presents the steady-state water-level data set (Table A.2-1) that fulfills one of the purposes of this report. This data set was used to construct the basin-fill composite water-level maps found in Appendix C, the depth-to-groundwater maps found in Appendix D, and the regional carbonate-rock water-level contour map in found in Appendix E.

Table A.2-1 also includes data for additional wells or springs that were used as supplemental control for the water-level contour maps and depth-to-water maps. Those data are signified by the letter ‘N’ in the table’s first column.

Section A.2.0 describes the meanings of the columns of data presented in Table A.2-1.

A.2.0 STEADY-STATE WATER-LEVEL DATA SET

Table A.2-1 is organized by hydrographic area number and then by the station name. The table contains basic information about a site including the site name, coordinates, land-surface elevation, well depth, and perforated intervals. The table also contains more specific types of information including the mean depth-to-water value, the mean water-level elevation value, and the uncertainty measures determined for this study. There were 1,976 individual wells or springs used in the construction of the maps found in Appendix C, Appendix D, and Appendix E.

The steady-state water-level data set contains the following fields along with their respective definitions:

1. SS Well – A flag used to denote whether the site is part of the steady-state water-level data set or was used as additional control on water-level contours. A ‘Y’ in the column indicates that the site was part of the steady-state data set, while a ‘N’ in the column indicates that the site was not part of the steady-state data set.

2. HA – The hydrographic area number that the site is located in.

3. Site No. – A unique identifier for every location.

4. Station Name – A common site name for the site based on the township, range, and section of the site (see Appendix F for further clarification).

5. UTM Northing (m) – The northing coordinate for a site in UTM 11S NAD83.

6. UTM Easting (m) – The easting coordinate for a site in UTM 11S NAD83.
7. Reference Pt. Elev – The elevation of the reference point. For a majority of the sites in the data set, the elevation is the elevation of the land surface.
8. Site Type – A general classification for the type of site for each location in the data set. The site types are Basin Fill, Carbonate Well, Volcanic, Clastic, Spring, or Regional-Spring.
9. HGU – The assigned hydrogeologic unit for each site.
10. Well Depth (ft-bgs) – The well depth, in ft-bgs.
11. Open Interval – The open interval of the well, in ft-bgs.
12. Excluded Data Flag – A flag used to denote when water-level measurements were excluded from a well's period of record in the calculation of mean water-level measurements.
13. No. of Meas. – The number of measurements used to determine the mean depth to water or water-level elevation.
14. POR-Start Date – The start date of the period of record for the given site.
15. POR-End Date – The end date of the period of record for the given site.
16. Mean Depth to Water – The mean depth-to-water measurement determined for the steady-state water-level data set, in ft-bgs.
17. Q Elev – A qualifier for the Mean Elev. column. The qualifier applies only to dry wells or springs. The qualifier is used to denote whether the value in the Mean Elev column is greater or less than the reported value.
18. Mean Elev – The mean water-level elevation determined for the steady-state water-level data set. If the site was a dry hole or a spring, the value represents the assumed water-level elevation for the site.
19. V. Sample Mean (ft^2) – The variance of the sample mean, in ft^2.
20. V. of Vertical Error (ft^2) – The variance associated with the vertical error due to horizontal site location accuracy, in ft^2.
21. V. Land Surface (ft^2) – The variance associated with the land-surface elevation accuracy, in ft^2.
22. Total Var (ft^2) – The total variance associated with the mean hydraulic head, in ft^2.

Table A.2-1
Steady-State Water-Level Data Set and Additional Wells or Springs Used for Control
(Page 1 of 55)

SS Well	HA	Site No.	Station Name	UTM N (m)	UTM E (m)	Ref. Pt. Elev. (ft-amsl)	Site Type	HGU	Well Depth (ft-bgs)	Open Interval (ft-bgs)	Excluded Data Flag	No. of Meas.	POR-Start Date	POR-End Date	Mean DTW (ft-bgs)	Q Elev.	Mean Elev. (ft-amsl)	V. Sample Mean (ft^2)	V. of Vertical Error (ft^2)	V. Land Surface (ft^2)	Total Var (ft^2)
Y	171	375547115244201	171 N01 E58 24 1 Baseline Canyon Federal 2	4,199,316.22	644,925.08	4,935.4	Carbonate Well	MOc	1560	911-1560	Y	16	08/23/99	12/17/03	128.6	-	4,806.8	0.011880182	0.0140	100	1.0003E+02
N	171	375349115151501	171 N01 E60 33CC 1 USGS-MX	4,195,811.33	653,424.11	4,993.4	Basin Fill	QTs	200	50-200	-	-	-	-	-	<	4,793.4	-	-	-	-
N	171	380114115202801	171 N02 E59 22B 1 Well (Report R18)	4,209,865.72	645,607.66	5,025.0	Basin Fill	QTs	25	-	-	-	-	-	-	<	5,025.0	-	-	-	-
Y	171	171 N02 E60 19CA 1	171 N02 E60 19CA 1	4,209,322.56	650,712.89	4996.86	Carbonate Well	MOc	7706	50-7706	-	1	-	-	685.86		4311	17	0.5066821	625	6.4251E+02
N	171	380823115173901	171 N03 E59 12AA 1 USGS-MX	4,222,685.50	649,413.17	5,083.4	Basin Fill	QTs	200	50-200	-	-	-	-	-	<	4,883.4	-	-	-	-
Y	171	380823115173902	171 N03 E59 12AA 2 USGS-MX	4,222,685.50	649,413.17	5,090.4	Basin Fill	QTs	354	50-354	-	2	08/27/93	09/14/93	247.5	-	4,842.9	0.09	0.2348	100	1.0032E+02
Y	171	380536115195102	171 N03 E59 27AD 2 USGS-MX	4,217,479.49	646,292.12	5,013.4	Basin Fill	QTs	-	50-334	-	5	08/29/93	09/21/94	287.3	-	4,726.1	0.130744001	1.0341	100	1.0116E+02
N	171	171 N03 E59 27AD 1	171 N03 E59 27AD 1	4,217,743.52	646,567.20	5,043.4	Basin Fill	QTs	-	-	-	-	-	-	-	<	5,043.4	-	-	-	-
N	171	374947115203801	171 S01 E59 27CA 1 USGS-MX	4,188,208.30	645,667.07	5,023.4	Basin Fill	QTs	200	50-200	-	-	-	-	-	<	4,823.4	-	-	-	-
N	171	171 S01 E59 33CC 1	171 S01 E59 33CC 1	4,186,109.43	643,424.50	5,243.4	Basin Fill	QTs	-	-	-	-	-	-	-	<	5,243.4	-	-	-	-
Y	171	374856115205402	171 S01 E59 34CB 1 USGS-MX	4,186,629.44	645,303.70	5,103.4	Basin Fill	QTs	1452	50-1452	-	1	06/08/81	06/08/81	862.0	-	4,241.4	17	65.4721	2,500	2.5825E+03
Y	171	374844115202601	171 S01 E59 34CB 2 USGS-MX	4,186,271.70	645,994.94	5,103.4	Basin Fill	QTs	1340	50-1340	-	1	06/08/81	06/08/81	845.0	-	4,258.4	17	5,047.6192	2,500	7.5646E+03
Y	171	380301115252901	171 S02 E58 11A 1 USBLM	4,183,981.29	638,352.94	5,762.5	Basin Fill	QTs	188	50-188	-	1	05/08/63	05/08/63	100.6	-	5,661.9	17	355,522.2512	625	3.5616E+05
Y	171	374716115253801	171 S02 E58 11A 2 USBLM	4,183,427.32	638,411.19	6,115.1	Volcanic	Tv	188	50-188	-	2	05/08/63	03/11/85	110.9	-	6,004.2	0.608400002	3,107,671.9031	625	3.1083E+06
Y	171	171 S02 E58 12BB 1	171 S02 E58 12BB 1	4,184,026.93	638,638.89	5,732.4	Basin Fill	QTs	-	-	-	1	05/15/80	05/15/80	108.0	-	5,624.4	17	13,311.9195	625	1.3954E+04
Y	171	171 S02 E58 14CB 1	171 S02 E58 14CB 1	4,181,655.00	637,511.00	6,169.7	Basin Fill	QTs	270	200-270	-	1	07/15/64	07/15/64	135.0	-	6,034.7	17	10,206.4116	625	1.0848E+04
Y	171	380758115204601	172 N03 E59 10BD 1 USGS-MX (Coal Valley Well)	4,222,367.68	645,498.08	5,563.5	Carbonate Well	QTs, MOc	1837	50-1837	Y	102	12/08/80	03/09/04	799.9	-	4,763.6	0.031248021	68.4423	100	1.6847E+02
Y	172	172 N01 E57 20 1	172 N01 E57 20 1	4,199,425.10	623,463.03	6,203.7	Carbonate Well	MOc	-	-	-	1	05/15/80	05/15/80	188.0	-	6,015.7	17	8,582.3019	625	9.2243E+03
Y	172	172 N02 E56 11AA 1	172 N02 E56 11AA 1	4,212,595.50	619,074.00	6,163.1	Volcanic	Tv	58	18-58	-	1	02/15/89	02/15/89	8.0	-	6,155.1	17	45.6155	625	6.8762E+02
N	172	380124115391101	172 N02 E56 23B 1 Spring	4,209,252.63	618,147.27	6,286.0	Spring	-	-	-	-	-	-	-	-	>	6,286.0	-	-	-	-
N	172	380300115364201	172 N02 E57 07 1 Spring	4,212,265.06	621,736.14	5,968.0	Spring	-	-	-	-	-	-	-	-	>	5,968.0	-	-	-	-
Y	172	380132115333502	172 N02 E57 22BA 2 USGS-MX	4,209,622.24	626,336.03	5,570.0	Basin Fill	QTs	1100	1000-1080	-	3	12/12/80	04/12/93	427.6	-	5,142.4	8.49333333	76.6962	625	7.1019E+02
Y	172	380132115333501	172 N02 E57 22BBC 1 USGS-MX (Garden Valley)	4,209,680.49	626,115.65	5,553.6	Basin Fill	QTs	970	50-970	-	37	12/12/80	09/24/03	409.2	-	5,144.4	0.436606907	97.6897	100	1.9813E+02
Y	172	172 N02 E57 27CA 1	172 N02 E57 27CA 1	4,207,249.00	626,397.13	5,522.1	Basin Fill	QTs	399	198-399	-	1	03/15/86	03/15/86	364.0	-	5,158.1	17	84.5263	625	7.2653E+02
Y	172	380348115265001	172 N02 E58 03AA 1 USGS-MX	4,214,972.74	636,904.15	5,203.5	Basin Fill	QTs	200	50-200	-	5	10/01/80	03/20/90	139.8	-	5,063.7	1.983536	26.7423	100	1.2873E+02
Y	172	172 N02 E58 14C 1	172 N02 E58 14C 1	4,210,513.32	637,519.29	5,153.5	Basin Fill	QTs	-	-	-	1	05/15/80	05/15/80	114.0	-	5,039.5	17	0.0000	625	6.4200E+02
Y	172	172 N02 E58 14CB 1	172 N02 E58 14CB 1	4,210,569.00	637,197.56	5,161.0	Basin Fill	QTs	300	100-300	-	1	04/15/00	04/15/00	118.0	-	5,043.0	17	4.3570	625	6.4636E+02
Y	172	172 N02 E58 15DB 1	172 N02 E58 15DB 1	4,210,586.00	636,392.50	5,177.4	Basin Fill	QTs	281	200-281	-	1	08/15/00	08/15/00	130.0	-	5,047.4	17	25.8578	625	6.6786E+02
Y	172	172 N03 E57 10BA 1	172 N03 E57 10BA 1	4,222,352.50	626,187.56	6,899.0	Carbonate Well	MOc	1837	118-1837	-	1	01/15/81	01/15/81	603.0	-	6,296.0	17	142,593.3240	625	1.4324E+05
Y	172	172 N03 E57 15CC 1	172 N03 E57 15CC 1	4,219,541.00	625,817.06	6,303.3	Carbonate Well	MOc	73	53-73	-	1	04/15/93	04/15/93	45.0	-	6,258.3	17	36,598.6568	625	3.7241E+04
Y	172	172 N03 E57 15DC 1	172 N03 E57 15DC 1	4,219,553.50	626,620.69	6,311.8	Carbonate Well	MOc	125	105-125	-	1	08/15/02	08/15/02	67.0	-	6,244.8	17	151,639.3154	625	1.5228E+05
Y	172	380643115344201	172 N03 E57 16C 1	4,219,893.89	624,691.20	6,203.7	Volcanic	QTs, Tv	92	43-92	-	1	05/09/63	05/09/63	32.1	-	6,171.6	17	11,130.4056	100	1.1247E+04
Y	172	380835115242601	172 N03 E58 01DA 1 USGS-MX	4,223,997.83	640,015.01	5,203.5	Basin Fill	QTs	100	50-100	Y	19	10/01/80	09/21/94	84.9	-	5,118.6	0.063598953	21.9157	100	1.2198E+02

Table A.2-1
Steady-State Water-Level Data Set and Additional Wells or Springs Used for Control
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SS Well	HA	Site No.	Station Name	UTM N (m)	UTM E (m)	Ref. Pt. Elev. (ft-amsl)	Site Type	HGU	Well Depth (ft-bgs)	Open Interval (ft-bgs)	Excluded Data Flag	No. of Meas.	POR-Start Date	POR-End Date	Mean DTW (ft-bgs)	Q Elev.	Mean Elev. (ft-amsl)	V. Sample Mean (ft^2)	V. of Vertical Error (ft^2)	V. Land Surface (ft^2)	Total Var (ft^2)
Y	172	380718115270101	172 N03 E58 15B 1	4,220,941.71	636,170.63	5,303.6	Basin Fill	QTs	260	235-260	Y	1	05/15/80	05/15/80	221.0	-	5,082.6	17	1,729.6942	100	1.8467E+03
Y	172	380740115275001	172 N03 E58 15D 1	4,221,099.84	634,560.54	5,310.6	Basin Fill	QTs	260	235-260	-	2	01/20/60	03/13/85	231.5	-	5,079.1	12.25	5,086.7090	100	5.1990E+03
Y	172	380646115235001	172 N03 E59 18BB 1 USGS-MX	4,220,980.96	640,286.13	5,203.5	Basin Fill	QTs	200	50-200	-	6	10/01/80	09/04/91	151.8	-	5,051.7	0.42601611	41.7595	1,600	1.6422E+03
Y	172	381127115263501	172 N04 E58 22DB 1 USGS-MX	4,228,127.15	636,269.33	5,523.6	Basin Fill	QTs	100	50-100	-	1	03/15/81	03/15/81	153.0	-	5,370.6	17	3,863.1122	2,500	6.3801E+03
Y	172	381127115263502	172 N04 E58 22DB 2 USGS-MX	4,228,127.15	636,269.33	5,523.6	Basin Fill	QTs	398	50-398	-	5	09/14/93	09/21/94	184.1	-	5,339.5	0.029599999	1.0731	100	1.0110E+02
Y	172	381107115251901	172 N04 E58 23D 1 Well (Report R18)	4,227,542.00	638,128.70	5,403.5	Basin Fill	QTs	-	-	-	2	01/02/00	05/15/80	15.3	-	5,388.2	0.490000002	6,323.1838	625	6.9487E+03
Y	172	381123115252001	172 N04 E58 26ABA 1 USBLM	4,228,034.77	638,096.00	5,341.5	Basin Fill	QTs	20	-	-	1	03/20/90	03/20/90	12.0	-	5,329.5	17	268.7316	100	3.8573E+02
N	172	380942115274201	172 N04 E58 33DB 1 USGS-MX	4,224,863.47	634,693.04	5,603.6	Basin Fill	QTs	200	50-200	-	-	-	-	-	<	5,403.6	-	-	-	-
Y	172	380942115274202	172 N04 E58 33DB 2 USGS-MX	4,224,863.47	634,693.04	5,523.6	Basin Fill	QTs	400	50-400	-	5	09/14/93	09/21/94	393.0	-	5,130.6	0.089976002	3.2925	100	1.0338E+02
Y	172	380959115242401	172 N04 E58 36A 1 USBLM - Lund (Report 18)	4,225,468.97	639,502.79	5,223.4	Basin Fill	QTs	-	-	-	1	05/09/63	05/09/63	24.3	-	5,199.1	17	456.2930	625	1.0983E+03
Y	172	381000115240001	172 N04 E58 36A 2 USBLM - Garden Valley	4,225,874.70	639,787.95	5,220.5	Basin Fill	QTs	27	-	Y	42	05/09/63	04/11/96	23.5	-	5,197.0	0.061684183	53.0498	100	1.5311E+02
Y	172	172 N04 E58 36A 1	172 N04 E58 36A 1	4,226,053.11	639,765.90	5,223.4	Basin Fill	QTs	-	-	-	1	05/15/80	05/15/80	22.8	-	5,200.6	17	0.9827	625	6.4298E+02
Y	172	381339115225501	172 N04 E59 06D 1	4,232,989.82	641,149.00	5,320.0	Basin Fill	QTs	200	50-200	-	2	05/09/63	05/15/80	8.9	-	5,311.1	0.009999994	1,355.9434	625	1.9810E+03
Y	172	172 N04 E59 08B 1	172 N04 E59 08B 1	4,232,533.75	642,057.75	5,303.5	Basin Fill	QTs	80	50-80	-	1	05/15/80	05/15/80	10.0	-	5,293.5	17	71.8993	625	7.1390E+02
Y	172	172 N04 E59 08B 2	172 N04 E59 08B 2	4,232,533.75	642,057.75	5,303.5	Basin Fill	QTs	-	-	-	1	05/15/80	05/15/80	12.0	-	5,291.5	17	71.8993	625	7.1390E+02
Y	172	380937115233401	172 N04 E59 30CD 1 USGS-MX	4,226,722.92	640,698.24	5,243.5	Basin Fill	QTs	100	50-100	-	4	10/01/80	03/12/85	69.5	-	5,174.0	30.43835833	5,877.8044	100	6.0082E+03
Y	172	381457115232901	172 N05 E59 31CAA 1 USGS-MX	4,235,261.86	640,598.85	5,482.5	Basin Fill	QTs	200	50-200	-	16	10/01/80	09/21/94	111.9	-	5,370.7	0.070513725	169.0897	1,600	1.7692E+03
Y	172	375742115223001	172 N05 E59 32C 1	4,234,516.36	642,046.45	5,303.5	Basin Fill	QTs	-	-	-	1	02/27/48	02/27/48	8.0	-	5,295.5	17	2,683.0133	100	2.8000E+03
Y	172	381437115214901	172 N05 E59 32D 1	4,234,465.85	642,679.54	5,355.0	Basin Fill	QTs	-	-	-	2	05/09/63	05/15/80	58.4	-	5,296.7	0.422500007	2,642.9628	625	3.2684E+03
N	172	172 N20 E57 08CD 1	172 N20 E57 08CD 1 Unnamed Spring	4,211,621.60	622,935.89	5,837.0	Spring	-	-	-	-	-	-	-	-	>	5,837.0	-	-	-	-
Y	172	375348115324301	172 S01 E57 02BB 1	4,195,340.71	627,827.17	5,549.5	Basin Fill	QTs	500	480-500	-	2	02/21/44	03/12/85	468.9	-	5,080.6	357.21	1,523.0860	100	1.9803E+03
Y	172	375207115330501	172 S01 E57 03A 1	4,195,177.49	627,243.36	5,563.6	Basin Fill	QTs	620	50-620	-	1	06/15/80	06/15/80	489.0	-	5,074.6	17	4,477.2096	625	5.1192E+03
Y	172	381829115221601	207 N04 E59 08BCC 1	4,232,182.80	641,771.24	5,282.5	Basin Fill	QTs	14	-	-	2	03/12/85	03/20/90	4.8	-	5,277.7	2.449225001	0.5248	625	6.2797E+02
Y	174	390809115134801	174 N14 E60 04DBD 1 USBLM	4,333,333.57	652,904.82	6,699.5	Basin Fill	QTs	-	-	-	1	03/22/90	03/22/90	118.5	-	6,581.0	17	79.6826	625	7.2168E+02
N	174	391556115163901	174 N16 E59 12DB 1 USGS-MX	4,347,651.62	648,525.41	6,304.2	Basin Fill	QTs	101	50-101	-	-	-	-	-	<	6,123.2	-	-	-	-
N	174	391209115133301	174 N16 E60 33CD 1 USGS-MX	4,340,739.55	653,120.22	6,369.0	Basin Fill	QTs	161	50-161	-	-	-	-	-	<	6,208.0	-	-	-	-
Y	174	174 N17 E59 03 1	174 N17 E59 03 1	4,359,086.00	644,860.25	6,578.2	Basin Fill	QTs	32	25-30	-	1	10/15/50	10/15/50	20.0	-	6,558.2	17	2,156.8093	625	2.7988E+03
Y	174	174 N17 E59 09 1	174 N17 E59 09 1	4,357,453.00	643,286.44	6,608.1	Basin Fill	QTs	252	210-252	-	1	04/15/61	04/15/61	176.0	-	6,432.1	17	1,943.7478	625	2.5857E+03
Y	174	174 N17 E59 10BA 1	174 N17 E59 10BA 1	4,358,064.50	644,663.81	6,547.2	Basin Fill	QTs	202	180-202	-	1	05/15/52	05/15/52	175.0	-	6,372.2	17	299.9520	625	9.4195E+02
N	174	174 N18 E59 10CA 1	174 N18 E59 10CA 1 Indian Springs	4,366,998.91	644,645.27	6,730.3	Spring	-	-	-	-	-	-	-	-	>	6,730.3	-	-	-	-
N	174	174 N18 E59 15BB 1	174 N18 E59 15BB 1 Sammy Spring	4,366,453.37	644,270.65	6,641.6	Spring	-	-	-	-	-	-	-	-	>	6,641.6	-	-	-	-
Y	174	392617115115801	174 N18 E60 10DAA 1 USBLM	4,366,928.02	654,878.22	6,602.2	Basin Fill	QTs	-	-	-	1	03/22/90	03/22/90	17.7	-	6,584.5	17	82.5218	100	1.9952E+02

Table A.2-1
Steady-State Water-Level Data Set and Additional Wells or Springs Used for Control
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SS Well	HA	Site No.	Station Name	UTM N (m)	UTM E (m)	Ref. Pt. Elev. (ft-amsl)	Site Type	HGU	Well Depth (ft-bgs)	Open Interval (ft-bgs)	Excluded Data Flag	No. of Meas.	POR-Start Date	POR-End Date	Mean DTW (ft-bgs)	Q Elev.	Mean Elev. (ft-amsl)	V. Sample Mean (ft^2)	V. of Vertical Error (ft^2)	V. Land Surface (ft^2)	Total Var (ft^2)
Y	174	174 N19 E60 21CB 1	174 N19 E60 21CB 1	4,373,618.54	651,950.41	7,084.4	Volcanic	Tv	190	50-190	-	1	11/15/80	11/15/80	163.0	-	6,921.4	17	710.0776	2,500	3.2271E+03
Y	175	393252115251701	175 N19 E58 03ADAA1 USBLM	4,378,747.95	635,563.14	6,326.1	Basin Fill	QTs	344	314-339	-	3	04/16/64	07/26/05	289.5	-	6,036.7	188.8597	1.4988	100	2.9036E+02
Y	175	175 N20 E58 08C 3	175 N20 E58 08C 3	4,386,011.45	631,223.15	6,132.7	Basin Fill	QTs	225	50-225	-	1	02/15/61	02/15/61	90.0	-	6,042.7	17	0.0000	2,500	2.5170E+03
Y	175	393658115281601	175 N20 E58 08CABC1 USBLM	4,386,258.47	631,161.60	6,129.0	Basin Fill	QTs	170	110-170	-	3	08/15/52	04/19/83	91.4	-	6,037.6	0.034544441	0.0000	100	1.0003E+02
Y	175	393624115244601	175 N20 E58 14BDAB1	4,385,328.53	636,317.93	6,149.0	Basin Fill	QTs	135	50-135	-	7	01/13/48	07/26/05	116.3	-	6,032.7	0.274640135	0.0011	100	1.0028E+02
Y	175	393510115274801	175 N20 E58 20DBDA1 USBLM	4,382,940.15	631,886.21	6,191.8	Basin Fill	QTs	233	197-227	-	4	04/30/64	07/26/05	167.8	-	6,023.9	7.208941663	0.3012	100	1.0751E+02
Y	175	175 N20 E58 34 1	175 N20 E58 34 1	4,380,063.35	634,915.28	6,270.5	Basin Fill	QTs	344	314-339	-	1	04/15/64	04/15/64	262.0	-	6,008.5	17	7.8694	625	6.4987E+02
Y	175	175 N20 E59 19 1	175 N20 E59 19 1	4,383,404.19	639,690.52	6,201.5	Basin Fill	QTs	323.16	263-323	-	1	01/15/64	01/15/64	270.0	-	5,931.5	17	15.4605	625	6.5746E+02
Y	175	175 N20 E59 29CB 1	175 N20 E59 29CB 1	4,381,627.47	640,690.54	6,254.1	Basin Fill	QTs	323	50-323	-	1	01/15/64	01/15/64	270.0	-	5,984.1	17	98.6257	2,500	2.6156E+03
Y	175	393425115215301	175 N20 E59 30DADA1	4,381,702.16	640,380.33	6,227.9	Basin Fill	QTs	-	-	-	3	04/19/83	07/27/04	247.8	-	5,980.1	3.017777777	0.6717	100	1.0369E+02
Y	175	175 N21 E57 24DC 1	175 N21 E57 24DC 1	4,392,508.00	628,695.75	6,304.8	Volcanic	QTs, Tv	700	380-700	-	1	10/15/91	10/15/91	280.0	-	6,024.8	17	151.4783	625	7.9348E+02
Y	175	175 N21 E57 26DD 1	175 N21 E57 26DD 1	4,390,884.50	627,507.19	6,417.9	Basin Fill	QTs	38	28-38	-	1	11/15/89	11/15/89	28.0	-	6,389.9	17	2,179.5914	625	2.8216E+03
Y	175	394138115283601	175 N21 E58 07C 1	4,395,827.84	629,878.95	6,309.7	Basin Fill	QTs	13	-	-	1	10/17/57	10/17/57	10.0	-	6,299.7	17	51,659.7285	625	5.2302E+04
Y	175	394218115253301	175 N21 E58 10DBBB1	4,396,191.50	634,875.40	6,103.0	Basin Fill	QTs	120	80-120	-	2	01/01/63	04/19/83	54.0	-	6,049.0	36.18022499	0.0000	100	1.3618E+02
Y	175	394117115275801	175 N21 E58 17CA 1 USGS-MX	4,394,250.96	631,454.39	6,155.0	Basin Fill	QTs	200	50-200	-	1	01/01/81	01/01/81	103.0	-	6,052.0	17	2,677.7480	100	2.7947E+03
Y	175	394024115263401	175 N21 E58 21DB 1 USGS-MX	4,392,651.37	633,483.71	6,106.0	Basin Fill	QTs	150	50-150	-	3	01/01/81	10/01/91	55.4	-	6,050.6	0.669733336	0.0000	625	6.2567E+02
Y	175	393956115232701	175 N21 E58 25BA 1 USGS-MX	4,391,866.74	637,954.64	6,109.1	Basin Fill	QTs	150	50-150	-	1	01/01/81	01/01/81	77.0	-	6,032.1	17	0.0000	100	1.1700E+02
Y	175	393824115281601	175 N21 E58 32CCCC1	4,388,909.91	631,116.46	6,112.0	Basin Fill	QTs	105	80-105	-	4	05/11/51	04/19/83	74.8	-	6,037.2	3.020941665	0.4016	100	1.0342E+02
Y	175	393840115241801	175 N21 E58 35B 1	4,390,340.28	635,988.77	6,109.7	Basin Fill	QTs	79	50-79	-	2	10/17/57	11/15/80	68.2	-	6,041.5	0.038024999	0.0000	625	6.2504E+02
Y	175	394121115214301	175 N21 E59 18DAAC1	4,394,532.21	640,384.98	6,103.1	Basin Fill	QTs	-	-	-	4	10/18/57	04/24/84	88.2	-	6,014.9	0.177466668	0.0000	100	1.0018E+02
Y	175	393848115221701	175 N21 E59 31CABA1	4,389,800.30	639,660.70	6,188.5	Basin Fill	QTs	201	180-201	-	4	05/20/51	04/24/84	170.2	-	6,018.3	0.013339584	2.5829	100	1.0260E+02
Y	175	175 N22 E58 01CD 1	175 N22 E58 01CD 1	4,406,821.50	637,781.25	6,112.9	Basin Fill	QTs	200	100-200	-	1	11/15/95	11/15/95	23.0	-	6,089.9	17	0.0000	625	6.4200E+02
Y	175	394703115261801	175 N22 E58 21A 1	4,404,959.68	633,650.55	6,114.0	Basin Fill	QTs	125	80-125	-	2	05/23/51	04/20/83	50.0	-	6,064.0	100.2001	0.0806	100	2.0028E+02
Y	175	175 N22 E58 21AD 1	175 N22 E58 21AD 1 McBrides Long Valley Well	4,402,753.73	633,765.48	6,106.4	Basin Fill	QTs	125	80-125	-	2	01/13/48	11/15/80	39.7	-	6,066.7	0.112224996	0.0000	625	6.2511E+02
Y	175	175 N22 E58 28CC 1	175 N22 E58 28CC 1	4,400,315.00	632,588.69	6,164.6	Basin Fill	QTs	350	240-260/280-350	-	1	07/15/85	07/15/85	135.0	-	6,029.6	17	115.2110	625	7.5721E+02
Y	175	175 N22 E58 32DD 1	175 N22 E58 32DD 1	4,398,777.13	632,265.16	6,179.1	Basin Fill	QTs	209	102-209	-	1	03/15/81	03/15/81	120.0	-	6,059.1	17	89.8659	625	7.3187E+02
Y	175	394418115250301	175 N22 E58 34AADA1	4,399,903.83	635,524.53	6,109.0	Basin Fill	QTs	-	-	-	3	04/19/83	07/26/05	50.0	-	6,059.1	0.011774997	0.0446	100	1.0006E+02
Y	175	175 N22 E58 34AD 1	175 N22 E58 34AD 1	4,399,705.77	635,574.94	6,109.7	Carbonate Well	MOc	-	50-6563	-	1	-	-	0.0	-	6,118.0	17	0.0000	625	6.4200E+02
Y	175	394340115252501	175 N22 E58 34DC 1 USGS-MX	4,399,063.41	635,086.91	6,110.0	Basin Fill	QTs	150	50-150	-	5	01/01/81	07/26/05	48.7	-	6,061.3	0.130696	0.0000	625	6.2513E+02
Y	175	394740115184601	175 N22 E59 10BDAA1	4,406,295.57	644,381.19	6,139.2	Basin Fill	QTs	123	50-123	-	3	10/17/57	04/21/83	22.7	-	6,116.4	0.045733336	0.4250	100	1.0047E+02
Y	175	394617115183401	175 N22 E59 15DC 1 USGS-MX	4,403,741.90	644,714.93	6,173.0	Basin Fill	QTs	200	50-200	-	2	01/01/81	10/02/91	44.8	-	6,128.2	0.028900005	737.9502	625	1.3630E+03
Y	175	394519115194501	175 N22 E59 28ABBA1	4,401,921.97	643,059.03	6,106.1	Basin Fill	QTs	71	50-71	-	3	10/18/57	04/21/83	63.2	-	6,042.9	0.11914444	0.1755	100	1.0029E+02
Y	175	394343115213301	175 N22 E59 32CCCB1 USGS-MX	4,398,914.62	640,543.06	6,101.1	Basin Fill	QTs	203	50-203	-	3	01/01/81	04/24/84	70.2	-	6,030.9	0.006944441	0.0000	100	1.0001E+02
Y	175	175 N22 E59 33BA 1	175 N22 E59 33BA 1	4,400,034.50	642,737.06	6,194.7	Basin Fill	QTs	250	200-245	-	1	12/15/97	12/15/97	162.0	-	6,032.7	17	3,592.4700	625	4.2345E+03
Y	175	175 N23 E57 13DD 1	175 N23 E57 13DD 1	4,413,214.25	628,539.33	6,598.5	Basin Fill	QTs	270	255-270	-	2	09/15/51	11/15/80	234.5	-	6,364.0	0.25	663.4286	625	1.2887E+03

Table A.2-1
Steady-State Water-Level Data Set and Additional Wells or Springs Used for Control
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SS Well	HA	Site No.	Station Name	UTM N (m)	UTM E (m)	Ref. Pt. Elev. (ft-amsl)	Site Type	HGU	Well Depth (ft-bgs)	Open Interval (ft-bgs)	Excluded Data Flag	No. of Meas.	POR-Start Date	POR-End Date	Mean DTW (ft-bgs)	Q Elev.	Mean Elev. (ft-amsl)	V. Sample Mean (ft^2)	V. of Vertical Error (ft^2)	V. Land Surface (ft^2)	Total Var (ft^2)
N	175	175 N23 E58 25CC 1	175 N23 E58 25CC 1 Long Valley Spring	4,410,157.95	637,327.74	6,131.5	Spring	-	-	-	-	-	-	-	-	>	6,131.5	-	-	-	-
Y	175	395013115252801	175 N23 E58 27CA 1 USGS-MX	4,410,803.49	634,499.63	6,238.0	Basin Fill	QTs	150	50-150	-	5	01/01/81	10/01/91	105.9	-	6,132.1	0.248944	90.7023	1,600	1.6910E+03
Y	175	175 N23 E58 27DD 1	175 N23 E58 27DD 1	4,410,046.50	635,297.69	6,181.8	Basin Fill	QTs	140	100-140	-	1	08/15/96	08/15/96	76.0	-	6,105.8	17	46.0620	625	6.8806E+02
Y	175	175 N23 E58 34AD 1	175 N23 E58 34AD 1	4,409,392.67	635,326.40	6,165.7	Basin Fill	QTs	-	-	-	1	11/15/80	11/15/80	58.0	-	6,107.7	17	22.7237	2,500	2.5397E+03
Y	175	395327115213101	175 N23 E59 06CD 1 USGS-MX	4,416,776.21	639,075.03	6,238.0	Basin Fill	QTs	150	50-150	-	4	01/01/81	10/01/91	72.3	-	6,165.7	0.085172919	95.5891	1,600	1.6957E+03
Y	175	395154115201701	175 N23 E59 16CD 1 USGS-MX	4,413,448.18	642,582.31	6,238.1	Basin Fill	QTs	150	50-150	-	4	01/01/81	10/02/91	61.7	-	6,176.4	0.04756667	63.2620	1,600	1.6633E+03
Y	175	175 N23 E59 28AC 1	175 N23 E59 28AC 1	4,410,988.50	643,008.63	6,211.9	Basin Fill	QTs	285	80-120/230-250/2 60-280	-	1	04/15/89	04/15/89	65.0	-	6,146.9	17	696.3049	625	1.3383E+03
Y	175	395845115161901	175 N24 E59 01DC 1 USGS-MX	4,426,899.41	647,622.55	6,239.1	Basin Fill	QTs	150	50-150	-	4	01/01/81	10/01/91	103.2	-	6,135.9	0.097656248	5.0540	1,600	1.6052E+03
Y	175	395535115184601	175 N24 E59 27AB 1 USGS-MX	4,421,372.05	644,072.82	6,238.1	Basin Fill	QTs	151	50-151	-	4	01/01/81	08/05/03	57.2	-	6,180.9	0.377116665	15.0741	1,600	1.6155E+03
N	175	400303115134501	175 N25 E60 17AA 1 USGS-MX	4,434,892.39	650,975.68	6,394.0	Basin Fill	QTs	201	50-205	-	-	-	-	-	<	6,193.0	-	-	-	-
N	178B	401001114592301	178A N27 E62 33C 1 Twin Springs	4,448,625.87	671,209.71	6,369.6	Spring	-	-	-	-	-	-	-	-	>	6,369.6	-	-	-	-
Y	178B	178B N19 E61 26DAD 1	178B N19 E61 26DAD 1	4,372,717.75	666,033.12	7,004.3	Basin Fill	QTs	-	-	-	1	11/15/80	11/15/80	46.0	-	6,958.3	17	1,223.5705	2,500	3.7406E+03
Y	178B	178B N20 E61 06DA 1	178B N20 E61 06DA 1 White Sage Well	4,388,285.87	659,308.82	6,348.9	Basin Fill	QTs	-	-	-	2	08/15/67	11/15/80	151.5	-	6,197.5	0.291600004	61.5323	625	6.8682E+02
Y	178B	393746115083901	178B N20 E61 06DACA1	4,388,484.61	669,273.79	6,362.1	Basin Fill	QTs	-	-	-	4	06/26/58	08/13/02	153.1	-	6,209.0	0.957483336	0.0166	0.25	1.2241E+00
Y	178B	393540115041101	178B N20 E61 14D 1 Gulf Oil Corp	4,384,517.08	665,670.68	6,244.1	Basin Fill	QTs	105	85-105	-	2	12/01/65	11/15/80	65.5	-	6,178.6	0.25	0.0000	100	1.0025E+02
Y	178B	178B N20 E61 23AC1	178B N20 E61 23AC1	4,383,900.33	665,581.64	6,280.3	Carbonate Well	PPPc	-	-	-	1	-	-	48.3	-	6,232	17	2.9793E-06	625	6.4200E+02
Y	178B	178B N20 E61 32AA 1	178B N20 E61 32AA 1	4,380,873.00	661,093.19	6,384.5	Basin Fill	QTs	330	180-310	-	1	11/15/93	11/15/93	180.0	-	6,204.5	17	398.2357	625	1.0402E+03
Y	178B	393338115013001	178B N20 E62 32BCAA1 USAF	4,380,839.06	669,593.79	6,354.2	Basin Fill	QTs	200	50-200	-	3	01/01/81	04/20/83	141.4	-	6,212.7	0.088233335	4.9712	100	1.0506E+02
Y	178B	394232115092701	178B N21 E60 12AB 1 USGS-MX	4,397,369.27	657,841.99	6,275.0	Basin Fill	QTs	197	50-197	-	2	01/01/81	10/09/91	88.9	-	6,186.1	0.004900001	73.1503	625	6.9816E+02
Y	178B	394213115093101	178B N21 E60 12ACA 1 USAF	4,396,473.68	657,788.92	6,224.0	Basin Fill	QTs	200	50-200	-	1	04/20/83	04/20/83	89.4	-	6,134.6	17	0.6486	625	6.4265E+02
Y	178B	394227115083701	178B N21 E61 06C 1	4,396,956.79	658,779.63	6,174.0	Basin Fill	QTs	-	-	-	2	08/17/67	11/15/80	68.9	-	6,105.1	4.515624993	1,864.3118	100	1.9688E+03
Y	178B	394248115081101	178B N21 E61 06DABB1 USAF	4,397,592.18	659,671.78	6,184.0	Basin Fill	QTs	-	50-150	-	1	04/20/83	04/20/83	80.3	-	6,103.7	17	0.1990	625	6.4220E+02
Y	178B	394232115081101	178B N21 E61 07AC 1 USGS-MX	4,396,942.69	661,067.13	6,274.0	Basin Fill	QTs	139	50-139	-	3	01/01/81	07/26/05	79.5	-	6,194.5	0.067899999	131.5907	625	7.5666E+02
Y	178B	394215115083801	178B N21 E61 07BAC 1	4,396,561.39	659,049.88	6,164.0	Basin Fill	QTs	-	-	-	3	06/26/58	04/20/83	66.3	-	6,097.7	0.057377779	0.0915	625	6.2515E+02
Y	178B	394020115043001	178B N21 E61 22AA 1 USGS-MX	4,394,033.82	666,419.47	6,270.0	Basin Fill	QTs	175	50-175	-	4	01/01/81	07/26/05	55.5	-	6,214.5	0.628541666	0.6304	625	6.2626E+02
Y	178B	393926115085201	178B N21 E61 30BD 1 USGS-MX	4,391,353.75	659,300.72	6,303.3	Basin Fill	QTs	186	50-186	-	2	01/01/81	10/10/91	136.6	-	6,166.7	0.193599992	10.3989	625	6.3559E+02
Y	178B	393807115080301	178B N21 E61 33DC 1 USGS-MX	4,389,526.22	661,890.29	6,279.0	Basin Fill	QTs	193	50-193	-	3	01/01/81	10/09/91	77.3	-	6,201.8	0.085477779	0.3940	100	1.0048E+02
Y	178B	178B N21 E62 09BC 1	178B N21 E62 09BC 1	4,397,061.35	673,407.58	7,004.4	Basin Fill	QTs	434	50-434	-	1	06/15/78	06/15/78	171.0	-	6,833.4	17	1,882.6341	2,500	4.3996E+03
Y	178B	394709115124501	178B N22 E60 09DB 1 USGS-MX	4,406,644.38	652,821.03	6,238.0	Basin Fill	QTs	160	50-160	-	3	01/01/81	10/02/91	48.7	-	6,189.4	0.57524444	0.0000	1,600	1.6006E+03
Y	178B	394507115102501	178B N22 E60 26DABB1	4,401,838.15	656,154.90	6,244.0	Basin Fill	QTs	129	50-129	Y	31	06/26/50	04/12/04	65.2	-	6,178.8	0.002494595	0.0159	100	1.0002E+02
Y	178B	394747115084801	178B N22 E61 06CCD 1	4,406,792.71	658,599.93	6,241.4	Basin Fill	QTs	185	50-185	-	2	06/26/58	04/20/83	40.6	-	6,200.8	4.305624999	0.0504	625	6.2936E+02

Table A.2-1
Steady-State Water-Level Data Set and Additional Wells or Springs Used for Control
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SS Well	HA	Site No.	Station Name	UTM N (m)	UTM E (m)	Ref. Pt. Elev. (ft-amsl)	Site Type	HGU	Well Depth (ft-bgs)	Open Interval (ft-bgs)	Excluded Data Flag	No. of Meas.	POR-Start Date	POR-End Date	Mean DTW (ft-bgs)	Q Elev.	Mean Elev. (ft-amsl)	V. Sample Mean (ft^2)	V. of Vertical Error (ft^2)	V. Land Surface (ft^2)	Total Var (ft^2)
Y	178B	178B N22 E61 21BC 1	178B N22 E61 21BC 1	4,403,313.71	663,600.40	7,004.2	Clastic	Ms	-	-	-	1	11/15/80	11/15/80	9.0	-	6,995.2	17	24,010.1140	2,500	2.6527E+04
Y	178B	394355115053301	178B N22 E61 33 1	4,399,732.52	663,175.97	6,694.1	Basin Fill	QTs	12.3	-	-	1	07/08/58	07/08/58	10.5	-	6,683.6	17	274,547.2990	100	2.7466E+05
Y	178B	395123115120401	178B N23 E60 22BAA 1 USBLM	4,413,942.33	653,545.41	6,274.1	Basin Fill	QTs	105	50-105	-	4	07/10/66	07/26/05	55.3	-	6,218.8	0.122841666	152.7996	625	7.7792E+02
Y	178B	178B N23 E61 02CB 1	178B N23 E61 02CB 1	4,417,438.00	666,030.63	6,626.9	Carbonate Well	MOc	220	50-220	-	1	05/15/88	05/15/88	60.0	-	6,566.9	17	2,940.1116	625	3.5821E+03
Y	178B	178B N23 E61 04CC 1	178B N23 E61 04CC 1	4,416,923.00	662,168.31	6,250.8	Basin Fill	QTs	300	168-300	-	1	07/15/88	07/15/88	70.0	-	6,180.8	17	0.0000	625	6.4200E+02
Y	178B	395228115062401	178B N23 E61 07D 1	4,415,541.23	661,780.66	6,246.9	Basin Fill	QTs	40	-	-	1	08/16/67	08/16/67	27.4	-	6,219.5	17	9.6716	625	6.5167E+02
Y	178B	395211115054301	178B N23 E61 08DDCA1 USGS-MX	4,415,024.92	662,826.64	6,342.1	Basin Fill	QTs	145	50-145	-	2	01/01/81	04/18/83	104.5	-	6,237.6	0.291600004	8.6278	0.25	9.1694E+00
Y	178B	395146115014201	178B N23 E61 13 1	4,414,368.86	668,141.86	7,619.4	Carbonate Well	MOc	10	-	-	1	-	-	10.0	-	7,609.4	17	3,851,218.0297	100	3.8513E+06
Y	178B	178B N23 E61 31CDD 1	178B N23 E61 31CDD 1	4,408,788.36	659,629.10	6,255.1	Basin Fill	QTs	13	-	-	1	11/15/80	11/15/80	11.0	-	6,244.1	17	42.6512	2,500	2.5597E+03
N	178B	395434115131101	178B N24 E60 33B 1 USBLM	4,419,203.65	651,548.64	7,619.2	Basin Fill	QTs	420	50-420	-	-	-	-	-	<	7,199.2	-	-	-	-
Y	178B	178B N24 E60 33BC 1	178B N24 E60 33BC 1	4,419,354.57	651,538.92	6,860.1	Basin Fill	QTs	105	50-105	-	1	07/15/66	07/15/66	55.0	-	6,805.1	17	18,963.5241	625	1.9606E+04
Y	178B	395827115050801	178B N24 E61 04DD 1 USGS-MX	4,426,781.20	664,426.96	6,247.0	Basin Fill	QTs	201	50-201	-	1	01/01/81	01/01/81	14.0	-	6,233.0	17	0.0000	625	6.4200E+02
Y	178B	395853115075101	178B N24 E61 06DA 1 USGS-MX	4,427,238.88	661,308.19	6,402.1	Basin Fill	QTs	177	50-177	-	3	01/01/81	10/08/91	77.5	-	6,324.6	0.058877773	256.3161	1,600	1.8564E+03
Y	178B	178B N24 E61 14C 1	178B N24 E61 14C 1	4,423,823.08	666,824.47	6,304.1	Basin Fill	QTs	-	-	-	1	11/15/80	11/15/80	24.0	-	6,280.1	17	0.0032	2,500	2.5170E+03
Y	178B	395645115025901	178B N24 E61 14CCAB1	4,423,557.21	666,538.57	6,296.1	Basin Fill	QTs	125	50-125	-	3	06/26/58	04/20/83	53.2	-	6,242.9	0.379599998	0.3398	0.25	9.6935E-01
Y	178B	400248114592901	178B N25 E62 17BBDC1	4,434,860.41	671,270.23	6,324.0	Basin Fill	QTs	-	-	-	3	07/09/58	11/15/80	8.4	-	6,315.7	0.508344445	2.4590	625	6.2797E+02
Y	178B	400557115055701	178B N26 E61 28CA 1 USGS-MX	4,440,602.88	661,640.46	6,402.0	Basin Fill	QTs	148	50-148	-	3	01/01/81	10/12/91	136.9	-	6,265.1	0.344811115	34.4891	1,600	1.6348E+03
N	178B	400714114581301	178B N26 E62 15C 1 Spring	4,443,951.08	671,003.18	6,292.4	Spring	-	-	-	-	-	-	-	-	>	6,292.4	-	-	-	-
Y	178B	400708115015501	178B N26 E62 19BBD 1 USAF	4,442,799.93	667,632.97	6,294.0	Basin Fill	QTs	201	50-201	-	2	01/01/81	04/18/83	33.4	-	6,260.6	0.184900008	38.9560	100	1.3914E+02
Y	178B	400653114580801	178B N26 E62 22A 1	4,442,444.79	672,425.45	6,394.0	Basin Fill	QTs	-	-	-	1	08/18/67	08/18/67	15.3	-	6,378.8	17	12,595.8348	100	1.2713E+04
N	178B	400438114591901	178B N26 E62 33D 1 Spring	4,438,831.14	671,615.71	6,309.4	Spring	-	-	-	-	-	-	-	-	>	6,309.4	-	-	-	-
Y	179	385521114503601	179 N12 E63 12AB 1 USGS - S Steptoe MX Well	4,310,379.74	686,889.31	7,324.5	Carbonate Well	PPPc	948	500-545/743-940	Y	96	10/13/80	12/16/03	420.7	-	6,903.8	0.422864082	2,769.0788	400	3.1695E+03
Y	179	385535114461101	179 N12 E64 05DDAA1 USBLM	4,310,964.94	693,260.96	6,918.5	Basin Fill	QTs	106	50-106	Y	1	06/15/80	06/15/80	72.0	-	6,846.5	17	7.9509	100	1.2495E+02
Y	179	390001114473101	179 N12 E64 09D 1 USBLM	4,309,385.90	691,757.09	7,004.4	Basin Fill	QTs	216	170-216	-	1	07/29/65	07/29/65	148.2	-	6,856.2	17	66,200.3969	100	6.6317E+04
Y	179	385157114482101	179 N12 E64 29DCDC1 USBLM	4,304,168.19	690,291.93	7,064.4	Basin Fill	QTs	254	160-254	-	2	07/19/60	08/21/84	151.1	-	6,913.3	79.65562499	1.2741	100	1.8093E+02
N	179	390048114442901	179 N13 E64 01CC 1 USGS-MX	4,320,675.10	695,478.02	6,884.4	Basin Fill	QTs	200	50-200	-	-	-	-	-	<	6,684.4	-	-	-	-
Y	179	390128114495401	179 N13 E64 06BA 1 USGS-MX	4,321,634.22	687,994.31	6,819.3	Basin Fill	QTs	200	175-195	-	9	11/01/80	03/15/94	31.3	-	6,788.0	6.852631793	53.3477	1,600	1.6602E+03
Y	179	390007114465601	179 N13 E64 09ACA 1 USBLM	4,319,324.10	691,973.01	6,754.3	Basin Fill	QTs	216	80-140	-	2	07/29/65	08/21/84	147.1	-	6,607.2	1.144899994	2.2977	100	1.0344E+02
Y	179	179 N13 E64 11AD 1	179 N13 E64 11AD 1	4,319,811.10	695,196.93	6,855.7	Basin Fill	QTs	310	255-310	-	1	05/15/65	05/15/65	255.0	-	6,600.7	17	146.2720	625	7.8827E+02
Y	179	385821114464301	179 N13 E64 22CBCA1 USBLM	4,316,063.80	692,365.49	6,792.4	Basin Fill	QTs	202	50-202	-	4	07/29/65	04/21/85	165.7	-	6,626.6	61.98808958	2,747.9831	100	2.9100E+03
Y	179	179 N14 E63 13CB 1	179 N14 E63 13CB 1	4,327,328.24	685,742.44	7,214.7	Volcanic	TJi	600	365-580	-	1	04/15/82	04/15/82	260.0	-	6,954.7	17	5,475.7746	625	6.1178E+03
Y	179	179 N14 E63 14BB 1	179 N14 E63 14BB 1	4,328,140.00	683,943.88	7,758.4	Carbonate Well	PPPc, TJi	400	200-400	-	1	04/15/83	04/15/83	120.0	-	7,638.4	17	15,299.4490	625	1.5941E+04

Table A.2-1
Steady-State Water-Level Data Set and Additional Wells or Springs Used for Control
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SS Well	HA	Site No.	Station Name	UTM N (m)	UTM E (m)	Ref. Pt. Elev. (ft-amsl)	Site Type	HGU	Well Depth (ft-bgs)	Open Interval (ft-bgs)	Excluded Data Flag	No. of Meas.	POR-Start Date	POR-End Date	Mean DTW (ft-bgs)	Q Elev.	Mean Elev. (ft-amsl)	V. Sample Mean (ft^2)	V. of Vertical Error (ft^2)	V. Land Surface (ft^2)	Total Var (ft^2)
Y	179	390220114510401	179 N14 E63 36B 1	4,323,248.47	684,515.45	7,044.5	Basin Fill	QTs	-	-	-	1	07/29/65	07/29/65	43.8	-	7,000.7	17	72,175.8979	2,500	7.4693E+04
Y	179	390649114491201	179 N14 E64 06AA 1 USGS-MX	4,331,512.44	688,286.85	6,697.3	Basin Fill	QTs	200	177-197	-	7	11/01/80	09/27/91	134.0	-	6,563.2	0.384618365	585.0948	1,600	2.1855E+03
Y	179	179 N14 E64 12BD 1	179 N14 E64 12BD 1	4,329,643.92	695,688.86	6,834.9	Basin Fill	QTs	400	340-400	-	1	04/15/65	04/15/65	325.0	-	6,509.9	17	470.3252	625	1.1123E+03
Y	179	390500114444901	179 N14 E64 14AA 1 USGS-MX	4,328,432.34	694,804.38	6,763.4	Basin Fill	QTs	167	176-196	-	4	01/01/81	09/27/91	158.0	-	6,605.4	0.955883334	210.0503	1,600	1.8110E+03
Y	179	390442114462601	179 N14 E64 15BD 1 USGS-MX	4,327,944.44	692,532.17	6,648.3	Basin Fill	QTs	150	127-147	-	7	11/01/80	10/04/84	52.7	-	6,595.7	6.624974832	54.3744	1,600	1.6610E+03
Y	179	390337114491201	179 N14 E64 19DADA1 USGS-MX	4,325,723.31	688,714.32	6,724.3	Basin Fill	QTs	198	178-198	-	2	01/01/81	03/03/81	86.5	-	6,637.8	0.245025001	25.5909	100	1.2584E+02
Y	179	390232114433201	179 N14 E64 25DDCA1 Ely Honor Camp	4,323,915.59	696,768.89	6,863.9	Basin Fill	QTs	490	295-315/340-375/ 440-485	-	1	06/21/84	06/21/84	260.0	-	6,603.9	17	2.9259	625	6.4493E+02
Y	179	390220114440101	179 N14 E64 36ACAB1 USBLM	4,323,382.46	696,421.30	6,844.4	Basin Fill	QTs	274	230-274	-	4	05/20/54	04/21/85	201.5	-	6,642.9	367.7475833	67,454.2493	100	6.7922E+04
Y	179	179 N14 E65 08CD 1	179 N14 E65 08CD 1	4,328,935.50	698,879.31	7,209.6	Basin Fill	QTs	773	50-773	-	1	05/15/90	05/15/90	475.0	-	6,734.6	17	4,911.4615	625	5.5535E+03
Y	179	390311114421401	179 N14 E65 29BC 1 USBLM	4,324,918.47	698,620.15	7,044.4	Basin Fill	QTs	505	458-479	-	3	05/19/64	06/15/80	430.7	-	6,613.7	15.60534444	56,770.1702	400	5.7186E+04
Y	179	179 N15 E63 01BA 1	179 N15 E63 01BA 1	4,341,192.63	685,758.00	6,695.8	Basin Fill	QTs	375	335-375	-	1	01/15/75	01/15/75	295.0	-	6,400.8	17	386.5060	625	1.0285E+03
Y	179	179 N15 E63 01BC 1	179 N15 E63 01BC 1	4,340,664.50	685,282.44	6,770.2	Basin Fill	QTs	400	280-400	-	1	11/15/03	11/15/03	298.0	-	6,472.2	17	944.7411	625	1.5867E+03
Y	179	179 N15 E63 12DA 1	179 N15 E63 12DA 1	4,338,689.00	686,529.81	6,646.1	Basin Fill	QTs	300	160-180/200-300	-	1	03/15/96	03/15/96	153.0	-	6,493.1	17	617.2332	625	1.2592E+03
Y	179	179 N15 E63 12DD 1	179 N15 E63 12DD 1	4,338,397.43	686,671.47	6,645.3	Basin Fill	QTs	280	210-275	-	1	11/15/75	11/15/75	170.0	-	6,475.3	17	714.5736	625	1.3566E+03
Y	179	179 N15 E63 15DC 1	179 N15 E63 15DC 1	4,336,720.80	682,993.97	7,358.8	Basin Fill	QTs	160	70-160	-	1	11/15/75	11/15/75	90.0	-	7,268.8	17	29,983.1343	625	3.0625E+04
Y	179	179 N15 E63 36BAC 1	179 N15 E63 36BAC 1	4,333,032.71	685,848.14	7,044.3	Basin Fill	QTs	-	-	-	1	06/15/80	06/15/80	35.0	-	7,009.3	17	2,200.8648	2,500	4.7179E+03
Y	179	391100114492001	179 N15 E64 07ACCB1	4,339,179.35	687,694.53	6,539.2	Basin Fill	QTs	200	50-200	Y	83	04/01/48	04/01/04	36.7	-	6,502.6	0.071410331	25.8772	100	1.2595E+02
Y	179	391037114484601	179 N15 E64 08C 1	4,338,251.33	688,869.40	6,529.8	Basin Fill	QTs	24	-	-	1	08/17/18	08/17/18	19.0	-	6,510.8	17	2,040.1552	625	2.6822E+03
Y	179	391009114481501	179 N15 E64 17BA 1	4,337,837.67	689,623.82	6,534.2	Basin Fill	QTs	120	25-120	-	2	08/15/60	07/29/65	14.1	-	6,520.1	3.609999992	76,943.3498	100	7.7047E+04
Y	179	179 N15 E64 17BA 2	179 N15 E64 17BA 2	4,338,107.50	689,006.43	6,564.2	Basin Fill	QTs	120	50-120	-	1	06/15/80	06/15/80	6.0	-	6,558.2	17	7.0207	2,500	2.5240E+03
Y	179	391009114484301	179 N15 E64 17BC 1	4,337,821.43	688,951.81	6,564.2	Basin Fill	QTs	193	25-187	-	3	02/09/61	06/15/80	10.7	-	6,553.5	8.425344444	630.6290	100	7.3905E+02
Y	179	390952114483701	179 N15 E64 17CD 1	4,337,300.78	689,108.49	6,544.2	Basin Fill	QTs	-	-	-	1	07/29/65	07/29/65	15.2	-	6,529.0	17	15,770.2156	100	1.5887E+04
Y	179	391012114495801	179 N15 E64 18BA 1 USGS-MX	4,337,875.29	687,341.59	6,648.2	Basin Fill	QTs	190	165-185	-	6	01/01/81	03/15/94	67.7	-	6,580.5	1.521531112	394.6320	1,600	1.9962E+03
Y	179	179 N15 E64 21CBC 1	179 N15 E64 21CBC 1	4,335,546.70	690,174.88	6,564.2	Basin Fill	QTs	-	-	-	1	06/15/80	06/15/80	11.0	-	6,553.2	17	5,254.6727	2,500	7.7717E+03
Y	179	179 N15 E64 28DCD 1	179 N15 E64 28DCD 1	4,333,535.13	691,241.25	6,564.3	Basin Fill	QTs	-	-	-	1	06/15/80	06/15/80	11.0	-	6,553.3	17	1.1262	2,500	2.5181E+03
Y	179	390652114465101	179 N15 E64 33DDDD1	4,331,813.16	691,788.41	6,569.3	Basin Fill	QTs	18	-	-	1	06/12/84	06/12/84	8.3	-	6,561.0	17	3.9065	100	1.2091E+02
Y	179	390717114464401	179 N15 E64 34C 1	4,332,588.04	691,937.69	6,584.3	Basin Fill	QTs	17	-	-	2	08/16/18	07/29/65	13.9	-	6,570.4	0.102399997	1,225.9645	100	1.3261E+03
Y	179	179 N15 E64 34C 2	179 N15 E64 34C 2	4,332,249.17	692,181.99	6,584.3	Basin Fill	QTs	38	-	-	1	07/15/65	07/15/65	13.0	-	6,571.3	17	41.0632	2,500	2.5581E+03
Y	179	390714114455201	179 N15 E64 34DA 1 USGS-MX	4,332,400.51	693,095.78	6,648.3	Basin Fill	QTs	150	50-150	-	6	11/01/80	09/28/91	75.4	-	6,572.9	0.533691114	112.3090	1,600	1.7128E+03
Y	179	390712114451701	179 N15 E64 35AC 1 USGS-MX	4,332,863.57	694,357.99	6,763.3	Basin Fill	QTs	200	50-200	-	6	01/01/80	09/27/91	158.2	-	6,605.1	1.151051663	312.7605	1,600	1.9139E+03
Y	179	179 N15 E65 05DB 1	179 N15 E65 05DB 1	4,340,536.00	698,897.31	7,306.4	Basin Fill	QTs	27	12-27	-	1	08/15/92	08/15/92	12.0	-	7,294.4	17	37,733.2155	625	3.8375E+04
Y	179	179 N15 E65 07BC 1	179 N15 E65 07BC 1	4,339,273.50	696,552.19	7,127.8	Basin Fill	QTs	40	15-40	-	1	08/15/92	08/15/92	21.0	-	7,106.8	17	33,968.3634	625	3.4610E+04
Y	179	391715114574701	179 N16 E62 02A 1	4,350,650.89	675,600.41	6,744.1	Basin Fill	QTs	338	50-338	-	1	09/15/18	09/15/18	55.0	-	6,689.1	17	144,720.8756	2,500	1.4724E+05
Y	179	179 N16 E62 02CC 1	179 N16 E62 02CC 1	4,349,282.00	675,079.75	6,809.7	Carbonate Well	PPPc, Ms	1136	335-1112	-	1	11/15/91	11/15/91	243.0	-	6,566.7	17	527.0742	625	1.1691E+03
Y	179	391618114565701	179 N16 E62 12CA 1	4,348,464.69	677,136.31	6,951.2	Carbonate Well	QTs, PPPc	84	60-75	-	1	10/03/56	10/03/56	60.0	-	6,891.2	17	668,219.4281	625	6.6886E+05

Table A.2-1
Steady-State Water-Level Data Set and Additional Wells or Springs Used for Control
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SS Well	HA	Site No.	Station Name	UTM N (m)	UTM E (m)	Ref. Pt. Elev. (ft-amsl)	Site Type	HGU	Well Depth (ft-bgs)	Open Interval (ft-bgs)	Excluded Data Flag	No. of Meas.	POR-Start Date	POR-End Date	Mean DTW (ft-bgs)	Q Elev.	Mean Elev. (ft-amsl)	V. Sample Mean (ft^2)	V. of Vertical Error (ft^2)	V. Land Surface (ft^2)	Total Var (ft^2)
Y	179	179 N16 E62 14BC 1	179 N16 E62 14BC 1	4,346,907.50	675,109.06	7,118.1	Carbonate Well	PPPc	601	60-601	-	1	06/15/97	06/15/97	166.0	-	6,952.1	17	12,812.9701	625	1.3455E+04
Y	179	179 N16 E62 17AB 1	179 N16 E62 17AB 1	4,347,220.50	671,145.13	7,275.9	Carbonate Well	PPPc	711	290-711	-	1	09/15/97	09/15/97	368.0	-	6,907.9	17	11,808.8331	625	1.2451E+04
Y	179	391700114501001	179 N16 E63 01B 1	4,350,442.67	686,561.03	6,274.1	Basin Fill	QTs	-	-	-	56	10/03/48	04/24/73	67.0	-	6,207.1	0.426692969	0.3479	100	1.0077E+02
Y	179	391656114502101	179 N16 E63 01BC 1	4,350,313.05	686,300.39	6,279.1	Basin Fill	QTs	-	-	-	4	11/02/83	10/06/88	51.5	-	6,227.6	0.170625001	28.4134	100	1.2858E+02
Y	179	391656114502102	179 N16 E63 01BC 2	4,350,313.05	686,300.39	6,279.1	Basin Fill	QTs	128	70-128	-	3	03/22/74	10/20/82	75.2	-	6,203.9	13.22111111	28.4134	100	1.4163E+02
Y	179	391654114502501	179 N16 E63 01BCDC1	4,350,249.09	686,206.02	6,281.1	Basin Fill	QTs	130	70-130	-	3	05/31/71	10/04/84	56.2	-	6,224.9	8.493144443	0.1409	100	1.0863E+02
Y	179	391656114502201	179 N16 E63 01C 1	4,350,312.47	686,276.42	6,289.1	Basin Fill	QTs	60	50-60	-	1	07/29/65	07/29/65	54.6	-	6,234.5	17	251.4172	100	3.6842E+02
Y	179	391713114505801	179 N16 E63 02A 1	4,350,816.05	685,401.35	6,204.1	Basin Fill	QTs	96	50-96	-	1	06/10/55	06/10/55	50.0	-	6,154.1	17	348.6133	2,500	2.8656E+03
Y	179	391641114505601	179 N16 E63 02DBDD1	4,349,830.59	685,472.73	6,279.1	Basin Fill	QTs	145	84-145	-	3	03/07/70	10/04/84	52.4	-	6,226.7	14.61314444	0.0000	100	1.1461E+02
Y	179	391631114505801	179 N16 E63 02DC 1	4,349,869.98	685,831.46	6,284.1	Basin Fill	QTs	210	50-210	-	2	09/08/63	07/29/65	11.6	-	6,272.5	71.4025	0.0000	100	1.7140E+02
Y	179	391636114505001	179 N16 E63 02DC 2	4,349,679.86	685,620.20	6,284.1	Basin Fill	QTs	180	180-230	-	2	09/08/63	07/29/65	11.6	-	6,272.5	71.4025	0.0000	100	1.7140E+02
Y	179	391634114505801	179 N16 E63 02DCAC1	4,349,613.64	685,429.93	6,286.1	Basin Fill	QTs	220	180-220	-	1	08/20/63	08/20/63	10.0	-	6,276.1	17	0.3401	100	1.1734E+02
Y	179	391632114505701	179 N16 E63 02DCCA1	4,349,552.54	685,455.36	6,284.1	Basin Fill	QTs	200	180-195	-	1	04/30/75	04/30/75	64.0	-	6,220.1	17	0.5627	100	1.1756E+02
Y	179	391632114505601	179 N16 E63 02DCCA2	4,349,553.11	685,479.32	6,284.1	Basin Fill	QTs	165	50-165	-	1	08/31/63	08/31/63	10.0	-	6,274.1	17	0.2392	100	1.1724E+02
Y	179	391546114535501	179 N16 E63 09CC 1	4,348,034.12	681,222.77	7,432.6	Basin Fill	QTs	258	5-258	-	1	11/30/63	11/30/63	26.0	-	7,406.6	17	480,043.1271	625	4.8069E+05
N	179	391609114514601	179 N16 E63 10ADAC1 City of Ely	4,348,815.61	684,297.89	6,318.1	Basin Fill	QTs	260	90-260	-	-	-	-	-	>	6,318.1	-	-	-	-
Y	179	391622114505801	179 N16 E63 11AB 1	4,349,243.67	685,438.74	6,304.1	Basin Fill	QTs	120	60-120	-	2	01/01/52	07/29/65	58.6	-	6,245.5	1.932100005	203.5755	100	3.0551E+02
Y	179	391622114505802	179 N16 E63 11AB 2	4,349,243.67	685,438.74	6,304.1	Basin Fill	QTs	-	-	-	5	11/07/84	10/06/88	4.6	-	6,299.5	0.298399998	203.5755	100	3.0387E+02
Y	179	391615114505901	179 N16 E63 11ABCC1 Valley View 2	4,349,027.28	685,419.91	6,304.1	Basin Fill	QTs	120	60-120	-	1	10/19/90	10/19/90	30.0	-	6,274.1	17	1.0528	100	1.1805E+02
Y	179	391608114505601	179 N16 E63 11AC 1	4,348,813.20	685,496.93	6,304.1	Basin Fill	QTs	-	-	-	8	11/01/81	10/06/88	5.6	-	6,298.5	0.253928571	52.4627	100	1.5272E+02
Y	179	391609114503801	179 N16 E63 11AD 1	4,348,854.30	685,927.58	6,304.1	Basin Fill	QTs	-	-	-	8	11/01/81	10/06/88	11.2	-	6,292.9	0.378839287	9.1917	100	1.0957E+02
Y	179	391538114510401	179 N16 E63 11D 1	4,347,893.97	685,758.60	6,324.1	Basin Fill	QTs	100	35-100	-	2	02/14/48	07/29/65	15.1	-	6,309.0	8.410000004	112.3565	100	2.2077E+02
Y	179	391555114503801	179 N16 E63 11DA 1	4,348,422.66	685,937.86	6,309.1	Basin Fill	QTs	-	-	-	2	11/01/81	10/19/82	11.5	-	6,297.6	0.090000004	0.0000	100	1.0009E+02
Y	179	391558114504701	179 N16 E63 11DABB1	4,348,510.02	685,719.96	6,309.1	Basin Fill	QTs	142	18-142	-	2	03/22/74	04/20/83	8.6	-	6,300.5	1.974024996	0.6692	100	1.0264E+02
Y	179	391542114503901	179 N16 E63 11DD 1	4,348,021.29	685,923.46	6,314.1	Basin Fill	QTs	127	25-127	-	8	12/12/75	10/06/88	10.1	-	6,304.0	0.049285716	15.5418	100	1.1559E+02
Y	179	391624114502501	179 N16 E63 12B 1	4,348,926.25	686,357.51	6,219.1	Basin Fill	QTs	22	-	-	2	09/10/18	07/29/65	13.4	-	6,205.7	0.019599989	1,635.8917	2,500	4.1359E+03
Y	179	391546114501701	179 N16 E63 12CC 1	4,348,157.18	686,447.82	6,319.1	Basin Fill	QTs	210	50-210	-	9	07/11/70	10/06/88	2.2	-	6,317.0	1.603919755	16.5937	100	1.1820E+02
Y	179	391527114494601	179 N16 E63 13A 1	4,347,589.18	687,204.87	6,348.3	Basin Fill	QTs	24	-	-	1	09/09/18	09/09/18	17.1	-	6,331.2	17	22,188.1597	625	2.2830E+04
Y	179	391523114504601	179 N16 E63 14A 1	4,347,431.50	685,769.62	6,344.1	Basin Fill	QTs	128	50-128	-	1	07/29/65	07/29/65	23.6	-	6,320.6	17	2,844.8627	225	3.0869E+03
Y	179	391527114505001	179 N16 E63 14AB 1	4,347,552.55	685,670.79	6,344.1	Basin Fill	QTs	-	-	-	8	11/01/81	10/06/88	26.4	-	6,317.7	0.314263394	46.2444	100	1.4656E+02
Y	179	391527114505002	179 N16 E63 14AB 2	4,347,552.55	685,670.79	6,344.1	Basin Fill	QTs	-	-	-	8	11/01/81	10/06/88	21.4	-	6,322.7	0.386584823	46.2444	100	1.4663E+02
Y	179	391531114510101	179 N16 E63 14ABD 1	4,347,458.91	685,625.05	6,244.1	Basin Fill	QTs	130	50-130	-	44	09/20/18	07/30/65	24.0	-	6,220.1	0.081739943	27.8796	225	2.5296E+02
Y	179	391515114514101	179 N16 E63 15ADAD1 White Pine County	4,347,153.60	684,457.07	6,434.1	Basin Fill	QTs	230	90-230	-	2	07/25/73	04/19/83	76.6	-	6,357.5	1.932099998	0.9659	100	1.0290E+02
Y	179	391548114524301	179 N16 E63 15B 1	4,346,977.42	683,525.83	6,504.1	Basin Fill	QTs	10	-	-	2	01/02/00	01/01/18	6.0	-	6,498.1	0	11,560.1753	2,500	1.4060E+04
Y	179	391519114523101	179 N16 E63 15BCAA1 City of Ely	4,347,248.68	683,255.62	6,394.1	Basin Fill	QTs	225	52-225	-	6	03/08/61	10/06/88	37.2	-	6,356.9	9.305957777	4.8165	100	1.1412E+02
Y	179	391459114515401	179 N16 E63 15DACB1 City of Ely	4,346,652.95	684,157.10	6,481.1	Basin Fill	QTs	400	140-395	-	3	06/23/66	10/10/84	127.5	-	6,353.6	2.580433332	1.1482	625	6.2873E+02
Y	179	391454114515601	179 N16 E63 15DC 1	4,346,497.67	684,112.77	6,504.1	Basin Fill	QTs	-	-	-	6	11/01/81	11/06/86	161.3	-	6,342.8	3.468944444	331.6464	100	4.3512E+02
Y	179	391509114532101	179 N16 E63 16CAAA1	4,346,912.34	682,064.28	6,564.1	Basin Fill	QTs	256	176-256	-	3	11/17/75	10/10/84	139.8	-	6,424.4	26.17617778	88.8324	100	2.1501E+02

Table A.2-1
Steady-State Water-Level Data Set and Additional Wells or Springs Used for Control
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SS Well	HA	Site No.	Station Name	UTM N (m)	UTM E (m)	Ref. Pt. Elev. (ft-amsl)	Site Type	HGU	Well Depth (ft-bgs)	Open Interval (ft-bgs)	Excluded Data Flag	No. of Meas.	POR-Start Date	POR-End Date	Mean DTW (ft-bgs)	Q Elev.	Mean Elev. (ft-amsl)	V. Sample Mean (ft^2)	V. of Vertical Error (ft^2)	V. Land Surface (ft^2)	Total Var (ft^2)
Y	179	391449114534401	179 N16 E63 16CCAB1 City of Ely	4,346,282.89	681,527.28	6,438.1	Basin Fill	QTs	300	120-300	-	2	05/08/61	04/19/83	37.0	-	6,401.2	9.241599999	18.0203	100	1.2726E+02
Y	179	391529114543601	179 N16 E63 17A 1 White Pine County School	4,347,130.02	680,812.04	7,253.4	Carbonate Well	MOc	64	50-64	-	2	08/22/56	07/30/65	11.5	-	7,241.9	2.250000007	1,241,227.1204	625	1.2419E+06
Y	179	391419114520301	179 N16 E63 22ACDB1	4,345,414.63	683,970.39	6,546.2	Basin Fill	QTs	325	165-320	-	3	05/17/66	10/04/84	155.8	-	6,390.4	0.24404444	2.0318	100	1.0228E+02
Y	179	391438114512501	179 N16 E63 23BBAD1	4,346,021.92	684,867.62	6,428.1	Basin Fill	QTs	174	114-174	-	2	04/26/76	04/20/83	106.4	-	6,321.7	2.044900008	0.6104	100	1.0266E+02
Y	179	391301114515701	179 N16 E63 27DCDA1	4,343,013.28	684,170.90	6,724.2	Basin Fill	QTs	430	350-370/390-430	-	1	05/20/96	05/20/96	350.0	-	6,374.2	17	11.2292	100	1.2823E+02
Y	179	179 N16 E63 28BA 1	179 N16 E63 28BA 1	4,344,227.00	681,982.94	6,746.8	Basin Fill	QTs	405	200-385	-	1	06/15/92	06/15/92	200.0	-	6,546.8	17	28,057.8602	625	2.8700E+04
Y	179	391251114511901	179 N16 E63 35BACB1	4,342,726.49	685,089.61	6,635.2	Basin Fill	QTs	350	205-300	Y	2	09/29/71	04/20/83	220.1	-	6,415.1	227.557225	2.6494	100	3.3021E+02
Y	179	391634114484901	179 N16 E64 06CBDC1 USBLM	4,349,687.74	688,521.26	6,411.2	Basin Fill	QTs	306	270-306	Y	56	06/10/51	04/13/04	245.1	-	6,166.1	5.266385681	20.7159	100	1.2598E+02
Y	179	392233115034301	179 N17 E61 01B 1	4,359,662.15	667,400.41	7,068.4	Basin Fill	QTs	375	260-375	-	1	08/15/56	08/15/56	280.0	-	6,788.4	17	6,037.0694	625	6.6791E+03
Y	179	392055115021501	179 N17 E62 07CDBD1 USBLM	4,357,291.56	669,032.08	6,944.3	Basin Fill	QTs	-	-	-	3	08/01/65	12/03/84	291.1	-	6,653.2	0.082177775	1.4285	100	1.0151E+02
Y	179	391903115021701	179 N17 E62 30A 1	4,353,290.37	669,430.49	6,964.3	Basin Fill	QTs	-	-	-	1	07/30/65	07/30/65	60.4	-	6,903.9	17	40,071.4413	2,500	4.2588E+04
Y	179	391749114584601	179 N17 E62 34BDDA1	4,351,667.41	674,163.40	6,764.1	Basin Fill	QTs	48	30-48	-	3	10/13/75	10/10/84	34.0	-	6,730.2	4.125744439	6.5901	100	1.1072E+02
Y	179	392228114494901	179 N17 E63 01ABB 1	4,360,567.33	686,821.38	6,119.0	Basin Fill	QTs	120	50-120	-	1	08/01/84	08/01/84	19.8	-	6,099.3	17	1.3768	100	1.1838E+02
Y	179	392218114495201	179 N17 E63 01AC 1	4,360,257.29	686,756.99	6,119.0	Basin Fill	QTs	-	-	-	4	11/01/81	11/06/84	18.4	-	6,100.6	0.832291668	0.0279	100	1.0086E+02
Y	179	392210114500401	179 N17 E63 01ACCC1	4,360,003.75	686,475.76	6,122.0	Basin Fill	QTs	130	23-130	-	3	07/03/63	08/01/84	26.8	-	6,095.2	43.68574445	0.0286	100	1.4371E+02
Y	179	392210114503801	179 N17 E63 01BCCC1	4,359,984.28	685,662.07	6,124.0	Basin Fill	QTs	119	30-118	-	9	05/30/63	10/06/88	20.0	-	6,104.0	1.734766666	0.0003	100	1.0174E+02
Y	179	392131114551401	179 N17 E63 07ABAD1	4,358,626.96	679,084.62	6,329.1	Basin Fill	QTs	300	35-260	Y	2	07/29/64	08/01/84	26.3	-	6,302.8	5.221225001	1.1739	100	1.0640E+02
Y	179	392112114550501	179 N17 E63 07ADCD1	4,358,046.13	679,313.53	6,314.0	Basin Fill	QTs	200	35-200	Y	1	08/01/84	08/01/84	18.6	-	6,295.4	17	53.0417	100	1.7004E+02
Y	179	392111114492301	179 N17 E63 07CBB 1	4,358,208.30	687,500.80	6,139.0	Basin Fill	QTs	-	-	-	1	08/01/84	08/01/84	31.9	-	6,107.2	17	13.9854	100	1.3099E+02
Y	179	392029114494901	179 N17 E63 13AC 1	4,356,898.41	686,909.54	6,159.0	Basin Fill	QTs	200	38-195	-	7	09/15/66	10/06/88	59.6	-	6,099.4	39.08306123	0.0008	100	1.3908E+02
Y	179	391957114512701	179 N17 E63 14CCDD1	4,355,855.83	684,586.68	6,179.0	Basin Fill	QTs	185	70-180	-	3	08/24/67	08/01/84	71.5	-	6,107.5	29.32861111	0.0000	100	1.2933E+02
Y	179	392036114515901	179 N17 E63 15AACC1	4,357,040.13	683,792.08	6,168.0	Basin Fill	QTs	121	60-121	-	9	04/22/72	10/06/88	63.0	-	6,105.0	1.442044444	0.0815	100	1.0152E+02
Y	179	392030114522101	179 N17 E63 15BC 1	4,356,842.72	683,269.73	6,194.0	Basin Fill	QTs	175	92-175	-	9	11/18/72	10/06/88	74.6	-	6,119.4	9.666666667	1.1310	100	1.1080E+02
Y	179	392017114514701	179 N17 E63 15DA 1	4,356,461.12	684,093.20	6,174.0	Basin Fill	QTs	120	50-120	-	8	06/05/75	10/06/88	63.6	-	6,110.4	2.652142856	70.8339	100	1.7349E+02
Y	179	391949114525001	179 N17 E63 21AADB1	4,355,562.33	682,605.10	6,224.0	Basin Fill	QTs	176	96-176	-	1	06/21/96	06/21/96	116.0	-	6,108.0	17	0.4849	100	1.1748E+02
Y	179	391948114523001	179 N17 E63 22BACB1	4,355,542.74	683,084.71	6,204.0	Basin Fill	QTs	102	82-102	Y	4	10/05/86	07/02/87	77.8	-	6,126.2	0.015625	0.7923	100	1.0081E+02
Y	179	391950114495201	179 N17 E63 24A 1	4,355,057.18	687,313.17	6,204.1	Basin Fill	QTs	73	50-73	-	1	08/26/18	08/26/18	69.0	-	6,135.1	17	1,310.3798	2,500	3.8274E+03
Y	179	391922114502801	179 N17 E63 24D 1	4,354,480.96	686,440.41	6,201.6	Basin Fill	QTs	84	50-84	-	2	07/30/18	08/26/18	80.4	-	6,121.2	0	1,064.2732	625	1.6893E+03
Y	179	391814114493301	179 N17 E63 25DDDC1	4,352,745.44	687,392.74	6,229.1	Basin Fill	QTs	150	90-150	-	3	03/04/78	08/01/84	79.1	-	6,150.0	62.91027778	0.3512	100	1.6326E+02
Y	179	391751114505301	179 N17 E63 35DA 1 Ely Airport	4,351,187.74	685,464.44	6,254.1	Basin Fill	QTs	78	50-78	-	5	07/30/65	11/07/84	47.6	-	6,206.5	15.403736	432.2728	100	5.4768E+02
Y	179	391751114494201	179 N17 E63 36AD 1	4,352,031.14	687,194.18	6,244.1	Basin Fill	QTs	-	-	Y	16	05/08/84	08/06/85	63.0	-	6,181.1	0.058809896	0.0100	100	1.0007E+02
Y	179	391821114501701	179 N17 E63 36B 1	4,352,202.91	686,638.75	6,244.1	Basin Fill	QTs	-	-	-	1	07/30/65	07/30/65	0.8	-	6,243.3	17	1,268.1895	100	1.3852E+03
Y	179	392242114482101	179 N17 E64 05B 1	4,360,315.16	689,150.10	6,204.0	Basin Fill	QTs	25	-	-	4	03/27/18	06/25/18	16.4	-	6,187.7	0.003958335	133.0305	2,500	2.6330E+03
Y	179	392242114484801	179 N17 E64 06A 1	4,360,209.88	688,625.88	6,104.0	Basin Fill	QTs	16	-	-	1	07/30/65	07/30/65	23.1	-	6,080.9	17	2,086.9202	2,500	4.6039E+03
Y	179	392210114485901	179 N17 E64 06ACCC1 Mormon Church/State of NV	4,360,041.23	688,031.32	6,118.0	Basin Fill	QTs	128	20-128	Y	9	07/12/63	10/06/88	19.8	-	6,098.2	1.025555555	0.3987	100	1.0142E+02
Y	179	392210114484801	179 N17 E64 06BC 1	4,360,035.45	687,792.00	6,119.0	Basin Fill	QTs	121	28-115	-	6	06/01/64	11/05/84	19.9	-	6,099.1	3.421833332	0.0698	100	1.0349E+02
Y	179	392205114490101	179 N17 E64 06CA 1	4,359,885.92	687,987.18	6,119.0	Basin Fill	QTs	120	30-120	-	8	02/21/70	10/06/88	21.5	-	6,097.5	2.532142856	3.6724	100	1.0620E+02
Y	179	392212114484801	179 N17 E64 06D 1 Mormon Church	4,359,283.77	688,600.45	6,126.2	Basin Fill	QTs	-	-	-	1	07/30/65	07/30/65	20.0	-	6,106.2	17	344.2221	625	9.8622E+02

Table A.2-1
Steady-State Water-Level Data Set and Additional Wells or Springs Used for Control
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SS Well	HA	Site No.	Station Name	UTM N (m)	UTM E (m)	Ref. Pt. Elev. (ft-amsl)	Site Type	HGU	Well Depth (ft-bgs)	Open Interval (ft-bgs)	Excluded Data Flag	No. of Meas.	POR-Start Date	POR-End Date	Mean DTW (ft-bgs)	Q Elev.	Mean Elev. (ft-amsl)	V. Sample Mean (ft^2)	V. of Vertical Error (ft^2)	V. Land Surface (ft^2)	Total Var (ft^2)
Y	179	392152114484301	179 N17 E64 06DC 1	4,359,495.53	688,427.68	6,119.0	Basin Fill	QTs	100	44-100	-	9	04/26/66	10/06/88	22.4	-	6,096.6	4.121512345	0.2253	100	1.0435E+02
Y	179	392139114482501	179 N17 E64 07AA 1	4,359,105.17	688,868.23	6,129.0	Basin Fill	QTs	155	140-152	-	8	12/19/68	10/06/88	24.3	-	6,104.7	7.243214285	0.1609	100	1.0740E+02
Y	179	392116114485801	179 N17 E64 07ACCC1 Mormon Church/State of NV	4,358,376.91	688,095.53	6,135.0	Basin Fill	QTs	183	37-177	-	10	08/27/71	10/06/88	31.1	-	6,103.9	4.442122779	0.0000	100	1.0444E+02
Y	179	392128114482601	179 N17 E64 07AD 1	4,358,765.44	688,852.52	6,129.0	Basin Fill	QTs	124	30-124	-	8	05/17/75	10/06/88	29.2	-	6,099.8	1.937857144	0.6862	100	1.0262E+02
Y	179	392117114491901	179 N17 E64 07BCC 1	4,358,395.60	687,592.09	6,139.0	Basin Fill	QTs	150	50-150	-	1	08/01/84	08/01/84	31.6	-	6,107.5	17	0.0000	100	1.1700E+02
Y	179	392113114492101	179 N17 E64 07CBAB1	4,358,271.12	687,547.20	6,139.0	Basin Fill	QTs	138	50-138	Y	2	10/15/81	08/01/84	35.8	-	6,103.2	26.574025	0.0072	100	1.2658E+02
Y	179	392049114493101	179 N17 E64 07CCCC1	4,357,525.40	687,325.64	6,149.0	Basin Fill	QTs	100	40-100	-	3	09/23/77	08/01/84	46.4	-	6,102.7	1.66413334	0.0000	100	1.0166E+02
Y	179	392115114482501	179 N17 E64 07DA 1	4,358,365.21	688,886.19	6,139.0	Basin Fill	QTs	-	-	-	5	11/01/81	11/24/87	37.1	-	6,101.9	3.530599999	1.9318	100	1.0546E+02
Y	179	392149114480401	179 N17 E64 08B 1 NV Northern Railroad Co	4,358,695.10	689,764.34	6,179.6	Basin Fill	QTs	30	-	-	4	03/27/18	08/26/18	26.6	-	6,153.0	0.015000001	22,137.4389	625	2.2762E+04
Y	179	392157114474501	179 N17 E64 08BA 1	4,358,702.70	690,075.51	6,154.1	Basin Fill	QTs	204	40-108	-	3	03/20/63	11/02/83	40.9	-	6,113.2	13.74333333	38,585.8334	225	3.8825E+04
Y	179	392141114480901	179 N17 E64 08BB 1	4,359,176.14	689,249.67	6,124.0	Basin Fill	QTs	-	-	-	3	11/01/81	11/06/84	33.8	-	6,090.2	56.34333333	0.2721	100	1.5662E+02
Y	179	392051114483701	179 N17 E64 18A 1	4,356,798.64	689,163.79	6,154.1	Basin Fill	QTs	65	50-65	-	1	07/30/65	07/30/65	61.1	-	6,092.9	17	45,829.5794	100	4.5947E+04
Y	179	392033114484201	179 N17 E64 18AC 1	4,357,060.44	688,510.63	6,154.1	Basin Fill	QTs	-	-	-	7	11/01/81	11/24/87	38.8	-	6,115.3	6.606870749	21.6952	100	1.2830E+02
Y	179	391954114485801	179 N17 E64 19BA 1	4,355,848.75	688,156.64	6,174.1	Basin Fill	QTs	-	-	-	6	11/02/83	10/06/88	54.1	-	6,120.0	0.894444446	2.9131	100	1.0381E+02
Y	179	391932114491101	179 N17 E64 19BDCC1	4,355,162.94	687,861.73	6,184.1	Basin Fill	QTs	130	60-130	-	3	09/14/78	08/01/84	61.5	-	6,122.6	23.35163333	0.0057	100	1.2336E+02
Y	179	392036114475901	179 N17 E64 19CA 1	4,354,800.48	688,181.96	6,189.1	Basin Fill	QTs	108	87-102	-	2	05/07/64	07/30/65	73.2	-	6,115.9	26.677225	0.0045	100	1.2668E+02
Y	179	391852114490201	179 N17 E64 30BADC1	4,353,934.91	688,107.02	6,206.1	Basin Fill	QTs	134	80-130	-	2	04/26/63	08/01/84	70.0	-	6,136.1	100.2001	0.4816	100	2.0068E+02
Y	179	391808114491601	179 N17 E64 31B 1	4,351,840.69	688,253.46	6,281.8	Basin Fill	QTs	-	-	-	7	09/10/17	08/26/18	62.1	-	6,219.7	0.092857144	22,027.7876	625	2.2653E+04
Y	179	179 N18 E61 34 1	179 N18 E61 34 1	4,360,823.50	664,000.13	7,479.3	Basin Fill	QTs	471	430-471	-	1	02/15/51	02/15/51	430.0	-	7,049.3	17	1,159.6554	625	1.8017E+03
N	179	392643114582801	179 N18 E62 03D 1 Spring	4,368,761.43	674,203.05	6,992.6	Spring	-	-	-	-	-	-	-	-	>	6,992.6	-	-	-	-
Y	179	392343114570601	179 N18 E62 25CCA 1 USBLM	4,362,635.38	676,311.51	6,514.1	Basin Fill	QTs	175	50-175	-	3	07/30/65	08/09/84	150.1	-	6,364.1	1.960233334	0.7482	100	1.0271E+02
Y	179	392343114563501	179 N18 E62 25D 1	4,361,859.90	677,478.12	6,500.3	Basin Fill	QTs	175	50-175	-	1	07/30/65	07/30/65	147.7	-	6,352.6	17	8,705.7358	625	9.3477E+03
Y	179	392428114494901	179 N18 E63 25A 1	4,363,472.39	687,038.79	6,090.0	Basin Fill	QTs	10	-	-	1	07/23/18	07/23/18	7.0	-	6,083.0	17	83.1719	625	7.2517E+02
Y	179	392408114494101	179 N18 E63 25A 2	4,363,655.08	686,938.62	6,090.0	Basin Fill	QTs	15	-	-	2	07/23/18	07/28/65	9.1	-	6,080.9	6.708099999	0.0000	625	6.3171E+02
Y	179	392418114494701	179 N18 E63 25ABA 1	4,363,959.94	686,787.68	6,094.0	Basin Fill	QTs	58	50-58	-	2	04/18/83	08/09/84	17.3	-	6,076.8	16.281225	1.3199	100	1.1760E+02
Y	179	392349114502801	179 N18 E63 25D 1	4,362,134.00	686,544.33	6,103.1	Basin Fill	QTs	-	-	-	1	07/28/65	07/28/65	6.4	-	6,096.7	17	0.0000	625	6.4200E+02
Y	179	392348114495001	179 N18 E63 25DB 1	4,363,033.29	686,738.16	6,104.0	Basin Fill	QTs	-	-	-	1	11/02/83	11/02/83	12.1	-	6,091.9	17	4.1006	100	1.2110E+02
Y	179	392329114495201	179 N18 E63 25DCCC1	4,362,446.34	686,704.40	6,102.0	Basin Fill	QTs	130	14-125	Y	55	02/18/45	10/06/88	5.3	-	6,096.8	0.043731297	0.0002	100	1.0004E+02
Y	179	392329114492701	179 N18 E63 25DDD 1	4,362,460.73	687,302.51	6,102.0	Basin Fill	QTs	10	-	-	3	07/01/49	08/09/84	4.2	-	6,097.8	0.334211118	0.0014	100	1.0034E+02
Y	179	392339114494401	179 N18 E63 36A 1	4,361,834.88	686,934.56	6,204.0	Basin Fill	QTs	130	50-130	-	1	07/28/65	07/28/65	8.1	-	6,195.9	17	0.0001	2,500	2.5170E+03
Y	179	392330114501701	179 N18 E63 36B 1	4,361,825.11	686,527.80	6,204.0	Basin Fill	QTs	19	-	-	1	07/27/18	07/27/18	15.1	-	6,188.9	17	149.4962	2,500	2.6665E+03
Y	179	392254114501401	179 N18 E63 36CC 1	4,360,622.67	686,556.68	6,124.0	Basin Fill	QTs	102	18-102	-	5	05/20/61	11/06/86	14.5	-	6,109.5	3.8216	331.4536	100	4.3528E+02
Y	179	392257114495001	179 N18 E63 36DB 1	4,361,460.87	686,775.97	6,109.0	Basin Fill	QTs	120	32-120	-	7	03/23/65	10/06/88	10.5	-	6,098.6	0.646054423	0.0000	100	1.0065E+02
Y	179	392743114453201	179 N18 E64 03ACAA1	4,369,721.66	692,795.56	6,294.1	Basin Fill	QTs	310	230-310	-	2	10/30/58	07/28/65	220.0	-	6,074.1	0.000100002	1,955.7631	100	2.0558E+03
N	179	392715114452201	179 N18 E64 03DB 1 School House Spring	4,369,572.25	692,990.61	6,298.8	Spring	-	-	-	-	-	-	-	-	>	6,298.8	-	-	-	-
Y	179	392721114493001	179 N18 E64 06CC 1 NV Northern Railroad Co	4,368,870.24	687,004.37	6,090.0	Basin Fill	QTs	-	-	-	2	01/01/18	06/15/18	3.0	-	6,087.0	0	684.6676	625	1.3097E+03
Y	179	392303114491601	179 N18 E64 31D 1	4,360,901.60	687,890.80	6,104.0	Basin Fill	QTs	14	-	-	1	07/28/65	07/28/65	13.1	-	6,090.9	17	32.0314	100	1.4903E+02
Y	179	179 N18 E65 10B 1	179 N18 E65 10B 1	4,368,852.00	702,266.13	8,020.9	Basin Fill	QTs	36	18-36	-	1	09/15/67	09/15/67	24.0	-	7,996.9	17	24,211.1509	625	2.4853E+04
Y	179	392517114420901	179 N18 E65 18DCDC1	4,366,050.32	697,696.64	7,146.2	Basin Fill	QTs	424	50-424	-	2	08/02/63	10/04/84	88.1	-	7,058.2	62.80562499	9.0727	100	1.7188E+02

Table A.2-1
Steady-State Water-Level Data Set and Additional Wells or Springs Used for Control
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SS Well	HA	Site No.	Station Name	UTM N (m)	UTM E (m)	Ref. Pt. Elev. (ft-amsl)	Site Type	HGU	Well Depth (ft-bgs)	Open Interval (ft-bgs)	Excluded Data Flag	No. of Meas.	POR-Start Date	POR-End Date	Mean DTW (ft-bgs)	Q Elev.	Mean Elev. (ft-amsl)	V. Sample Mean (ft^2)	V. of Vertical Error (ft^2)	V. Land Surface (ft^2)	Total Var (ft^2)
Y	179	179 N18 E65 19CC 1	179 N18 E65 19CC 1	4,364,373.00	697,260.63	7,120.0	Basin Fill	QTs	315	295-315	-	1	05/15/00	05/15/00	92.0	-	7,028.0	17	338.2298	625	9.8023E+02
N	179	179 N19 E62 34BB 1	179 N19 E62 34BB 1 Smith Spring	4,371,763.22	672,896.70	7,239.0	Spring	-	-	-	-	-	-	-	-	>	7,239.0	-	-	-	-
Y	179	395412115302101	179 N19 E63 12A 1 USGS	4,377,978.63	686,043.84	6,031.1	Basin Fill	QTs	915	540-915	Y	82	09/29/49	07/02/87	13.7	-	6,017.4	0.030902562	0.4375	100	1.0047E+02
N	179	179 N19 E63 20BA 1	179 N19 E63 20BA 1 Grass Springs	4,374,812.11	679,473.54	6,096.7	Spring	-	-	-	-	-	-	-	-	>	6,096.7	-	-	-	-
Y	179	392949114541901	179 N19 E63 20DB 1	4,374,011.35	680,044.38	6,044.1	Basin Fill	QTs	200	40-190	Y	28	11/22/76	11/05/84	15.1	-	6,029.0	0.015228396	0.4392	100	1.0045E+02
Y	179	392950114542201	179 N19 E63 20DBD 1	4,374,040.52	679,972.00	6,034.1	Basin Fill	QTs	175	40-170	Y	54	12/07/82	07/02/87	6.0	-	6,028.1	0.006219736	2.6680	100	1.0267E+02
Y	179	393032114495501	179 N19 E63 24A 1 NV Northern Railroad Co	4,374,482.20	686,892.81	6,104.1	Basin Fill	QTs	51	50-51	-	2	04/10/18	08/24/18	48.6	-	6,055.5	0.640000001	2,527.8540	100	2.6285E+03
Y	179	392847114513601	179 N19 E63 26CCB 1	4,372,191.35	683,983.55	6,059.1	Basin Fill	QTs	260	20-260	Y	5	04/09/77	11/05/84	44.3	-	6,014.7	1.135095996	1.4064	100	1.0254E+02
Y	179	392843114530801	179 N19 E63 28CD 1	4,371,812.65	681,004.01	6,029.1	Basin Fill	QTs	122	21-122	Y	58	10/20/82	07/02/87	7.8	-	6,021.3	0.021061759	0.4115	100	1.0043E+02
N	179	179 N19 E63 33BA 1	179 N19 E63 33BA 1 Clark Spring	4,371,055.23	681,456.34	6,069.6	Spring	-	-	-	-	-	-	-	-	>	6,069.6	-	-	-	-
N	179	179 N19 E63 33DA 1	179 N19 E63 33DA 1 Bennett Spring	4,370,909.12	681,988.56	6,084.3	Spring	-	-	-	-	-	-	-	-	>	6,084.3	-	-	-	-
Y	179	393033114481101	179 N19 E64 17CC 1	4,375,577.45	688,802.10	6,156.1	Basin Fill	QTs	-	-	-	2	11/02/83	11/05/84	117.5	-	6,038.6	1.439999998	51.8803	100	1.5332E+02
Y	179	179 N19 E64 17DDB 1	179 N19 E64 17DDB 1	4,375,605.84	689,984.02	6,189.9	Carbonate Well	MOc	-	50-6100	-	1	-	-	0.0	-	6,328.0	17	66.1220	625	7.0812E+02
Y	179	393040114472801	179 N19 E64 17DDBD1 USBLM	4,375,547.98	690,117.24	6,188.1	Basin Fill	QTs	168	50-168	-	3	11/28/66	08/02/84	136.0	-	6,052.0	17.1489	0.4884	100	1.1764E+02
Y	179	179 N19 E64 24DA 1	179 N19 E64 24DA 1	4,374,366.47	696,321.66	7269.99	Carbonate Well	MOc	-	-	-	1	-	-	772.99	-	6497	17	91,958.30764	625	9.2600E+04
Y	179	392952114433401	179 N19 E64 25A 1	4,373,624.60	695,877.89	6,604.1	Basin Fill	QTs	30	10-25	-	2	06/09/49	10/09/49	5.0	-	6,599.1	0	613,482.8678	2,500	6.1598E+05
Y	179	392911114425301	179 N19 E64 25ADAD1	4,373,238.33	696,461.44	6,516.1	Basin Fill	QTs	68	35-76	Y	2	05/18/66	08/09/84	10.9	-	6,505.2	16.7281	0.3202	100	1.1705E+02
Y	179	392836114481201	179 N19 E64 32BB 1	4,371,969.52	688,866.22	6,174.0	Basin Fill	QTs	-	-	-	1	11/01/81	11/01/81	5.8	-	6,168.2	17	1.3397	100	1.1834E+02
Y	179	179 N19 E65 34CD 1	179 N19 E65 34CD 1	4,371,102.50	702,183.44	7,740.9	Basin Fill	QTs	200	190-200	-	1	05/15/01	05/15/01	45.0	-	7,695.9	17	45,902.1374	625	4.6544E+04
Y	179	179 N20 E63 14 DC 1	179 N20 E63 14 DC 1	4,385,005.84	684,638.65	6,044.4	Basin Fill	QTs	207	80-200	-	1	05/15/69	05/15/69	85.0	-	5,959.4	17	102.8104	625	7.4481E+02
Y	179	179 N20 E63 20BB 1	179 N20 E63 20BB 1	4,384,524.42	678,993.79	6,454.1	Basin Fill	QTs	400	370-400	-	1	05/15/68	05/15/68	370.0	-	6,084.1	17	1,913.6237	625	2.5556E+03
Y	179	179 N20 E64 03BD 1	179 N20 E64 03BD 1	4,389,263.56	692,004.26	6,095.8	Basin Fill	QTs	300	160-290	-	1	04/15/66	04/15/66	118.0	-	5,977.8	17	206.6523	625	8.4865E+02
Y	179	393814114483701	179 N20 E64 06A 1	4,388,952.86	688,236.58	5,959.6	Basin Fill	QTs	52	50-52	-	1	07/07/49	07/07/49	-2.9	-	5,962.5	17	4,370.4285	625	5.0124E+03
Y	179	393721114485901	179 N20 E64 07B 1	4,387,481.64	687,365.81	5,989.0	Basin Fill	QTs	25	-	-	1	07/30/65	07/30/65	7.5	-	5,981.6	17	196.7538	2,500	2.7138E+03
Y	179	393702114480401	179 N20 E64 08BC 1	4,387,575.32	688,675.90	5,971.0	Basin Fill	QTs	-	-	-	3	04/20/60	08/02/84	2.5	-	5,968.5	0.640633338	0.0000	100	1.0064E+02
Y	179	393647114461101	179 N20 E64 09DACD1 USBLM	4,387,179.25	691,382.09	6,073.0	Basin Fill	QTs	140	60-140	-	4	09/08/71	08/02/84	77.6	-	5,995.4	56.09675625	1.3216	100	1.5742E+02
Y	179	393538114463801	179 N20 E64 16CDDD1	4,385,035.86	690,790.83	6,064.0	Basin Fill	QTs	305	90-300	-	6	03/15/67	11/07/86	62.8	-	6,001.2	20.02094444	10.1249	100	1.3015E+02
Y	179	393514114472801	179 N20 E64 17DDDA1	4,384,266.47	689,616.28	6,037.0	Basin Fill	QTs	158	78-98/118-158	-	7	10/01/65	11/05/84	34.0	-	6,003.0	1.301406802	0.5002	100	1.0180E+02
Y	179	393525114473101	179 N20 E64 20A 1	4,384,603.87	689,536.39	6,004.0	Basin Fill	QTs	158	50-158	-	1	10/01/65	10/01/65	39.3	-	5,964.8	17	1,250.7681	100	1.3678E+03
Y	179	393518114481101	179 N20 E64 20BC 1	4,384,364.66	688,587.42	6,000.0	Basin Fill	QTs	181	17-181	-	6	12/01/77	11/07/86	17.3	-	5,982.8	0.908499997	32.8557	100	1.3376E+02
Y	179	393517114470301	179 N20 E64 21BC 1	4,384,373.64	690,210.44	6,049.0	Basin Fill	QTs	-	-	-	7	10/19/82	11/07/86	35.7	-	6,013.3	3.441899999	5.7799	100	1.0922E+02
Y	179	393343114473101	179 N20 E64 32B 1	4,381,370.57	689,782.99	6,004.0	Basin Fill	QTs	-	-	-	2	05/15/18	08/25/18	12.3	-	5,991.7	0.009999998	1,516.0579	2,500	4.0161E+03
Y	179	393315114473901	179 N20 E64 32C 1 USGS - Test Well 1	4,380,656.15	689,585.60	6,041.0	Basin Fill	QTs	97	50-97	-	1	07/31/65	07/31/65	10.1	-	6,031.0	17	1,424.9910	100	1.5420E+03
Y	179	393310114475001	179 N20 E64 32C 2 USGS	4,380,430.37	689,185.13	6,041.0	Basin Fill	QTs	122	20-120	-	386	06/24/18	10/07/02	11.6	-	6,029.5	0.015380151	0.4035	100	1.0042E+02
Y	179	393310114475003	179 N20 E64 32C 3 USGS	4,380,430.37	689,185.13	6,041.0	Basin Fill	QTs	97	50-97	-	5	03/26/64	03/22/67	12.3	-	6,028.8	0.091906	0.4035	100	1.0050E+02
Y	179	393310114475002	179 N20 E64 32C 5 USGS	4,380,430.37	689,185.13	6,041.0	Basin Fill	QTs	-	-	-	87	01/02/36	12/26/72	15.9	-	6,025.1	0.009079305	0.4035	100	1.0041E+02
N	179	179 N21 E63 12DC 1	179 N21 E63 12DC 1 Cold Spring	4,396,433.61	688,747.68	5,957.8	Spring	-	-	-	-	-	-	-	-	>	5,957.8	-	-	-	-

Table A.2-1
Steady-State Water-Level Data Set and Additional Wells or Springs Used for Control
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SS Well	HA	Site No.	Station Name	UTM N (m)	UTM E (m)	Ref. Pt. Elev. (ft-amsl)	Site Type	HGU	Well Depth (ft-bgs)	Open Interval (ft-bgs)	Excluded Data Flag	No. of Meas.	POR-Start Date	POR-End Date	Mean DTW (ft-bgs)	Q Elev.	Mean Elev. (ft-amsl)	V. Sample Mean (ft^2)	V. of Vertical Error (ft^2)	V. Land Surface (ft^2)	Total Var (ft^2)
Y	179	394058114481501	179 N21 E63 13C 1	4,394,845.40	688,235.51	6,004.0	Basin Fill	QTs	47	-	-	1	07/15/18	07/15/18	12.0	-	5,992.0	17	3,073.9348	2,500	5.5909E+03
Y	179	394055114475001	179 N21 E63 13D 1	4,394,767.50	688,833.38	6,004.0	Basin Fill	QTs	11.5	-	-	1	07/07/49	07/07/49	8.9	-	5,995.1	17	1,239.8428	2,500	3.7568E+03
Y	179	394019114484801	179 N21 E63 23A 1	4,393,623.71	687,478.61	6,064.1	Basin Fill	QTs	30	-	-	1	07/30/65	07/30/65	23.4	-	6,040.7	17	24,280.6436	2,500	2.6798E+04
Y	179	394016114484201	179 N21 E63 24CB 1	4,393,534.70	687,623.85	6,008.1	Basin Fill	QTs	220	20-220	Y	16	10/19/82	11/05/84	21.2	-	5,986.8	0.013559897	8,966.7265	100	9.0667E+03
Y	179	394007114472001	179 N21 E63 25A 1	4,392,249.17	689,300.62	5,959.0	Basin Fill	QTs	13	-	-	1	07/11/49	07/11/49	8.9	-	5,950.1	17	3.0040	100	1.2000E+02
Y	179	393951114475401	179 N21 E63 25AB 1	4,392,791.87	688,786.54	5,967.0	Basin Fill	QTs	-	-	-	1	11/05/84	11/05/84	10.0	-	5,957.0	17	35.1057	100	1.5211E+02
N	179	179 N21 E63 25BA 1	179 N21 E63 25BA 1 Monte Neva Hot Springs	4,393,119.27	688,116.21	6,011.3	Spring-Regional	-	-	-	-	-	-	-	-	>	6,011.3	-	-	-	-
Y	179	393939114473901	179 N21 E63 25C 1 NV Northern Railroad Co	4,391,308.97	688,703.66	6,064.0	Basin Fill	QTs	10	-	-	1	01/01/18	01/01/18	6.0	-	6,058.0	17	0.2991	2,500	2.5173E+03
Y	179	393943114483701	179 N21 E63 26AD 1	4,392,520.14	687,767.84	6,064.0	Basin Fill	QTs	-	-	-	6	11/01/81	11/07/86	85.5	-	5,978.5	0.875333334	57.3231	100	1.5820E+02
Y	179	393850114491301	179 N21 E63 35ACBB1	4,390,865.11	686,949.61	6,024.0	Basin Fill	QTs	300	50-295	-	7	08/01/68	11/05/84	44.6	-	5,979.4	1.322923128	1.2522	100	1.0258E+02
Y	179	179 N21 E64 14AC 1	179 N21 E64 14AC 1	4,395,457.00	696,635.31	6,655.9	Basin Fill	QTs	200	180-200	-	1	03/15/97	03/15/97	50.0	-	6,605.9	17	7,529.5572	625	8.1716E+03
Y	179	394101114455101	179 N21 E64 17DCBB1	4,395,022.66	691,663.89	6,031.0	Basin Fill	QTs	300	60-300	-	24	04/30/72	06/19/86	59.3	-	5,971.8	0.047083144	0.5042	100	1.0055E+02
Y	179	179 N21 E64 18DA 1	179 N21 E64 18DA 1	4,395,255.40	690,774.90	5,984.9	Basin Fill	QTs	366	40-366	-	1	10/15/73	10/15/73	30.0	-	5,954.9	17	152.8090	625	7.9481E+02
Y	179	394031114465601	179 N21 E64 19BDAD1	4,394,059.23	690,138.21	5,965.0	Basin Fill	QTs	200	20-180	-	6	01/01/73	11/07/86	14.2	-	5,950.8	0.545611111	4.6442	100	1.0519E+02
Y	179	394020114472001	179 N21 E64 19CB 1	4,393,705.95	689,574.73	5,950.0	Basin Fill	QTs	-	-	-	6	11/01/81	11/07/86	3.2	-	5,946.8	0.12427778	41.9364	100	1.4206E+02
Y	179	394018114463001	179 N21 E64 19DA 1	4,393,673.73	690,767.65	5,991.0	Basin Fill	QTs	-	-	-	6	11/01/81	11/07/86	22.0	-	5,969.0	0.796944441	53.2776	100	1.5407E+02
Y	179	394031114461401	179 N21 E64 20BC 1	4,394,084.03	691,138.93	6,008.0	Basin Fill	QTs	-	-	-	3	11/05/84	11/07/86	47.8	-	5,960.2	0.414444447	40.2380	100	1.4065E+02
Y	179	394031114461402	179 N21 E64 20BC 2	4,394,084.03	691,138.93	6,008.0	Basin Fill	QTs	-	-	-	3	11/05/84	11/07/86	40.1	-	5,967.9	1.543333332	40.2380	100	1.4178E+02
Y	179	394032114454901	179 N21 E64 20BD 1	4,394,129.68	691,733.86	6,031.0	Basin Fill	QTs	-	-	-	5	10/19/82	11/07/86	57.3	-	5,973.7	1.865599999	68.6595	100	1.7053E+02
Y	179	393938114461301	179 N21 E64 29BC 1	4,392,450.49	691,203.41	6,024.0	Basin Fill	QTs	212	150-206	-	7	05/19/67	11/07/86	45.9	-	5,978.2	0.125646257	44.1992	100	1.4432E+02
Y	179	393936114461901	179 N21 E64 29BCDB1	4,392,385.27	691,061.93	6,034.0	Basin Fill	QTs	-	-	Y	57	12/07/82	07/02/87	40.0	-	5,994.0	0.084422679	0.6092	100	1.0069E+02
Y	179	393939114455001	179 N21 E64 29BDAD1	4,392,494.96	691,750.77	6,054.0	Basin Fill	QTs	240	70-235	-	3	05/06/68	10/19/82	70.6	-	5,983.4	2.434444441	17.9843	100	1.2042E+02
Y	179	393944114465901	179 N21 E64 30BADD1	4,392,608.30	690,102.55	5,978.0	Basin Fill	QTs	250	20-250	-	7	01/16/69	11/05/84	16.0	-	5,962.1	0.867673472	1,804.5317	100	1.9054E+03
Y	179	393857114471501	179 N21 E64 30C 1	4,391,149.77	689,757.00	6,004.0	Basin Fill	QTs	8	-	-	1	07/14/49	07/14/49	2.9	-	6,001.1	17	1,670.4389	2,500	4.1874E+03
Y	179	393907114465601	179 N21 E64 30DCDC1	4,391,469.28	690,202.25	5,988.0	Basin Fill	QTs	-	-	-	6	11/01/81	11/07/86	5.5	-	5,982.6	1.221111113	16.5977	100	1.1782E+02
Y	179	393833114463101	179 N21 E64 31DA 1	4,390,435.69	690,824.11	6,024.0	Basin Fill	QTs	200	0-125	-	7	03/07/67	11/07/86	18.0	-	6,006.1	1.127074829	7.5353	100	1.0866E+02
N	179	179 N22 E63 35AD 1	179 N22 E63 35AD 1 Cow Trim Spring	4,400,350.00	688,200.00	5,975.1	Spring	-	-	-	-	-	-	-	-	>	5,975.1	-	-	-	-
Y	179	394751114442901	179 N22 E64 04DCCC1	4,407,692.31	693,232.63	6,090.0	Basin Fill	QTs	150	50-150	Y	1	08/14/02	08/14/02	138.5	-	5,951.5	17	0.0205	100	1.1702E+02
Y	179	179 N22 E64 22CD 1	179 N22 E64 22CD 1	4,403,061.42	694,626.92	6,181.3	Basin Fill	QTs	300	50-300	-	1	03/15/73	03/15/73	220.0	-	5,961.3	17	500.6889	625	1.1427E+03
Y	179	395234114580701	179 N23 E62 09CA 1 USBLM	4,415,972.67	673,644.69	6,631.2	Basin Fill	QTs	320	280-315	-	1	09/15/67	09/15/67	285.0	-	6,346.2	17	5.1240	100	1.2212E+02
Y	179	395334114490801	179 N23 E63 02B 1 Cherry Creek St	4,417,754.58	686,413.74	5,883.2	Basin Fill	QTs	100	50-100	-	1	07/29/65	07/29/65	2.0	-	5,881.2	17	0.0082	625	6.4201E+02
Y	179	179 N23 E63 06AA 1	179 N23 E63 06AA 1	4,418,574.50	680,737.94	6,121.0	Basin Fill	QTs	400	200-400	-	1	10/15/96	10/15/96	212.0	-	5,909.0	17	459.4652	625	1.1015E+03
Y	179	179 N23 E63 16BA 1	179 N23 E63 16BA 1	4,415,426.25	683,202.94	5,922.9	Basin Fill	QTs	120	40-120	-	1	07/15/79	07/15/79	25.0	-	5,897.9	17	44.7130	625	6.8671E+02
Y	179	395059114481801	179 N23 E63 24BC 1	4,413,374.44	687,709.71	5,893.0	Basin Fill	QTs	-	-	-	1	11/12/81	11/12/81	6.0	-	5,887.0	17	0.0000	100	1.1700E+02
Y	179	395058114481701	179 N23 E63 24BCDB1 USBLM	4,413,344.19	687,734.22	5,890.0	Basin Fill	QTs	-	-	-	1	11/12/81	11/12/81	6.0	-	5,884.0	17	0.0000	100	1.1700E+02
Y	179	395218114465201	179 N23 E64 07CD 1	4,415,860.78	689,693.17	5,886.0	Basin Fill	QTs	6	-	-	60	12/07/82	07/02/87	1.6	-	5,884.4	0.027401945	0.1360	100	1.0016E+02
Y	179	395119114451501	179 N23 E64 20AAAB1 White Pine Power Project	4,414,099.17	692,043.54	5,975.0	Basin Fill	QTs	995	350-370/380-400/ 415-475	Y	59	08/23/82	07/02/87	90.4	-	5,884.6	0.014616093	2.1392	100	1.0215E+02

Table A.2-1
Steady-State Water-Level Data Set and Additional Wells or Springs Used for Control
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SS Well	HA	Site No.	Station Name	UTM N (m)	UTM E (m)	Ref. Pt. Elev. (ft-amsl)	Site Type	HGU	Well Depth (ft-bgs)	Open Interval (ft-bgs)	Excluded Data Flag	No. of Meas.	POR-Start Date	POR-End Date	Mean DTW (ft-bgs)	Q Elev.	Mean Elev. (ft-amsl)	V. Sample Mean (ft^2)	V. of Vertical Error (ft^2)	V. Land Surface (ft^2)	Total Var (ft^2)
Y	179	395116114451601	179 N23 E64 20AAAC1 White Pine Power Project	4,414,006.07	692,022.11	5,975.0	Basin Fill	QTs	460	355-455	-	60	12/07/82	07/02/87	91.7	-	5,883.3	0.00762901	1.3573	100	1.0136E+02
Y	179	395120114452801	179 N23 E64 20AB 1 White Pine Power Project	4,414,122.25	691,733.81	5,959.0	Basin Fill	QTs	455	155-170/225-235/ 375-450	-	60	12/07/82	07/02/87	70.1	-	5,888.9	0.007443757	1.2416	100	1.0125E+02
Y	179	395041114462801	179 N23 E64 20BCCC1	4,412,671.21	690,462.08	5,919.0	Basin Fill	QTs	-	-	-	1	07/29/65	07/29/65	4.6	-	5,914.4	17	514.6703	100	6.3167E+02
Y	179	395117114442601	179 N23 E64 21B 1	4,413,974.94	693,235.67	6,004.0	Basin Fill	QTs	6.5	-	-	1	07/14/49	07/14/49	3.2	-	6,000.8	17	18,907.1947	2,500	2.1424E+04
N	179	179 N24 E62 36BC 1	179 N24 E62 36BC 1 Cherry Spring	4,419,718.23	677,842.17	6,801.0	Spring-Regional	-	-	-	-	-	-	-	-	>	6,801.0	-	-	-	-
N	179	179 N24 E63 02AB 1	179 N24 E63 02AB 1 Madelina Spring	4,428,551.42	686,534.29	6,070.0	Spring	-	-	-	-	-	-	-	-	>	6,070.0	-	-	-	-
Y	179	395850114484001	179 N24 E63 02D 1	4,426,740.06	686,716.40	5,904.0	Basin Fill	QTs	485	50-485	-	1	01/01/18	01/01/18	20.0	-	5,884.0	17	11,421.1307	2,500	1.3938E+04
Y	179	395730114485601	179 N24 E63 13BBBB1	4,424,913.33	687,710.99	5,883.0	Basin Fill	QTs	16	-	Y	4	04/20/60	10/07/84	10.6	-	5,872.3	0.612256251	0.0439	100	1.0066E+02
Y	179	395713114480601	179 N24 E63 13BBBB2	4,424,913.33	687,710.99	5,883.0	Basin Fill	QTs	-	-	-	1	10/07/84	10/07/84	8.9	-	5,874.1	17	0.0439	100	1.1704E+02
Y	179	395447114371301	179 N24 E63 33A 1	4,419,632.60	683,706.66	5,904.0	Basin Fill	QTs	40	-	-	1	07/29/65	07/29/65	38.6	-	5,865.4	17	1,560.0068	100	1.6770E+03
Y	179	395443114512301	179 N24 E63 33BA 1	4,420,174.48	683,147.15	5,942.0	Basin Fill	QTs	-	-	-	4	07/12/49	04/21/83	35.0	-	5,907.0	1.489758335	2.7199	100	1.0421E+02
Y	179	395847114433901	179 N24 E64 03CBAB1	4,427,970.59	693,973.29	5,860.0	Basin Fill	QTs	-	-	-	3	11/01/81	10/19/82	9.4	-	5,850.5	7.754444444	7.8031	100	1.1556E+02
Y	179	395655114433101	179 N24 E64 15CAA 1	4,424,521.97	694,251.15	5,903.0	Basin Fill	QTs	65	50-65	-	5	07/08/48	08/14/02	35.3	-	5,867.7	1.475830001	0.6653	100	1.0214E+02
Y	179	395654114442601	179 N24 E64 16C 1	4,423,841.28	692,962.25	5,904.0	Basin Fill	QTs	65	50-65	-	1	07/30/65	07/30/65	35.1	-	5,868.9	17	211.8604	2,500	2.7289E+03
Y	179	395529114445701	179 N24 E64 29B 1 USBLM	4,421,818.44	692,277.04	5,904.0	Basin Fill	QTs	12	-	-	1	07/30/65	07/30/65	4.9	-	5,899.0	17	16.6990	2,500	2.5337E+03
Y	179	395740114383601	179 N24 E65 17AADC1 USBLM	4,426,091.30	701,215.67	6,730.1	Basin Fill	QTs	21	18-20	-	1	08/17/48	08/17/48	10.0	-	6,720.1	17	41.9850	100	1.5899E+02
Y	179	179 N24 E65 30DC 1	179 N24 E65 30DC 1	4,421,947.00	699,685.81	6,737.6	Volcanic	Tv	180	100-180	-	1	07/15/03	07/15/03	20.0	-	6,717.6	17	2,662.5003	625	3.3045E+03
Y	179	400043114481501	179 N25 E63 26A 1	4,431,092.35	686,799.40	6,217.1	Basin Fill	QTs	34	-	-	1	08/08/18	08/08/18	27.5	-	6,189.6	17	15,581.4602	625	1.6223E+04
Y	179	400435114453301	179 N25 E64 05BAA 1	4,438,632.53	690,998.98	5,909.0	Basin Fill	QTs	130	50-130	-	1	04/21/83	04/21/83	6.7	-	5,902.2	17	3.6280	100	1.2063E+02
Y	179	400146114450201	179 N25 E64 20B 1 NV Northern Railroad Co	4,433,489.71	691,389.38	5,903.9	Basin Fill	QTs	12	-	-	1	08/08/18	08/08/18	7.0	-	5,896.9	17	2,660.7664	2,500	5.1778E+03
Y	179	400015114463601	179 N25 E64 30CD 1	4,430,238.94	689,715.30	5,892.9	Basin Fill	QTs	-	-	-	1	07/29/65	07/29/65	4.1	-	5,888.8	17	3,690.2019	100	3.8072E+03
Y	179	400413114375601	179 N25 E65 04CA 1	4,438,234.58	701,842.64	5,900.8	Basin Fill	QTs	200	60-200	-	7	05/22/67	11/07/86	53.7	-	5,847.1	2.147074831	23.3854	100	1.2553E+02
Y	179	400411114372201	179 N25 E65 04DA 1	4,438,194.39	702,649.76	5,925.8	Basin Fill	QTs	-	-	-	2	11/05/84	11/21/85	69.6	-	5,856.3	0.0625	152.6626	100	2.5273E+02
Y	179	400438114384101	179 N25 E65 05B 1	4,438,412.09	700,391.79	5,875.6	Basin Fill	QTs	460	15-450	-	1	10/12/66	10/12/66	15.0	-	5,860.6	17	1,182.5503	625	1.8246E+03
Y	179	400423114392301	179 N25 E65 05BACC1	4,438,488.35	699,773.43	5,857.8	Basin Fill	QTs	260	20-250	-	2	09/16/66	04/21/83	8.5	-	5,849.3	2.25	0.2798	100	1.0253E+02
Y	179	400408114382901	179 N25 E65 05DA 1	4,438,059.65	701,064.93	5,884.8	Basin Fill	QTs	-	-	-	5	11/01/81	11/07/86	43.8	-	5,840.9	5.8966	312.3953	100	4.1829E+02
Y	179	400344114383401	179 N25 E65 08AADD1	4,437,316.46	700,966.08	5,896.8	Basin Fill	QTs	450	344-450	-	4	05/01/66	11/05/84	50.8	-	5,846.0	14.140625	0.0130	100	1.1415E+02
Y	179	400024114393101	179 N25 E65 31A 1	4,430,120.24	699,542.82	6,125.4	Basin Fill	QTs	140	50-140	-	1	01/27/51	01/27/51	50.0	-	6,075.4	17	39,281.6182	625	3.9924E+04
Y	179	400032114395601	179 N25 E65 31B 1	4,431,055.64	698,735.21	5,927.0	Basin Fill	QTs	62	50-62	-	1	07/28/65	07/28/65	47.6	-	5,879.4	17	21,415.6706	625	2.2058E+04
Y	179	400016114401601	179 N25 E65 31BBDD1	4,430,839.17	698,717.13	5,974.9	Basin Fill	QTs	235	155-235	Y	48	10/19/82	11/05/86	106.1	-	5,868.8	0.023887023	3.1727	100	1.0320E+02
Y	179	400546114445701	179 N26 E64 28D 1	4,439,800.68	690,827.34	5,909.0	Basin Fill	QTs	170	30-160	-	2	05/30/49	07/29/65	23.8	-	5,885.2	10.46522499	28,080.9012	272	2.8364E+04
Y	179	179 N26 E65 01CC 1	179 N26 E65 01CC 1	4,447,013.00	704,687.25	5,943.5	Basin Fill	QTs	170	150-170	-	1	08/15/90	08/15/90	83.0	-	5,860.5	17	1,274.5022	625	1.9165E+03
Y	179	400753114374601	179 N26 E65 15 1	4,444,460.78	701,582.06	5,803.8	Basin Fill	QTs	200	50-200	-	1	03/15/67	03/15/67	58.0	-	5,745.8	17	7.2750	2,500	2.5243E+03
Y	179	400710114381701	179 N26 E65 21AAAA1	4,443,679.21	701,200.14	5,880.8	Basin Fill	QTs	280	35-276	-	7	04/18/67	11/05/84	37.0	-	5,843.8	0.663498641	0.0024	100	1.0067E+02
Y	179	400714114384801	179 N26 E65 21BAAA1	4,443,783.06	700,462.99	5,872.8	Basin Fill	QTs	300	30-300	-	6	04/27/67	11/07/86	26.7	-	5,846.1	2.1705	7.3914	100	1.0956E+02
Y	179	400650114384701	179 N26 E65 21CAAA1	4,443,043.66	700,506.24	5,872.8	Basin Fill	QTs	320	20-320	-	7	05/17/68	11/07/86	23.6	-	5,849.2	0.047006803	19.3526	100	1.1940E+02
Y	179	400650114381201	179 N26 E65 21DAAA1	4,443,065.64	701,334.90	5,880.8	Basin Fill	QTs	300	40-300	-	7	05/04/68	11/07/86	29.5	-	5,851.3	1.323537415	19.4801	100	1.2080E+02
Y	179	400544114352201	179 N26 E65 25C 1	4,440,635.60	705,073.06	5,964.8	Basin Fill	QTs	-	-	-	1	07/28/65	07/28/65	130.1	-	5,834.7	17	7,807.9032	100	7.9249E+03

Table A.2-1
Steady-State Water-Level Data Set and Additional Wells or Springs Used for Control
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SS Well	HA	Site No.	Station Name	UTM N (m)	UTM E (m)	Ref. Pt. Elev. (ft-amsl)	Site Type	HGU	Well Depth (ft-bgs)	Open Interval (ft-bgs)	Excluded Data Flag	No. of Meas.	POR-Start Date	POR-End Date	Mean DTW (ft-bgs)	Q Elev.	Mean Elev. (ft-amsl)	V. Sample Mean (ft^2)	V. of Vertical Error (ft^2)	V. Land Surface (ft^2)	Total Var (ft^2)
Y	179	400605114373801	179 N26 E65 27BDAD1	4,441,699.50	702,176.90	5,888.8	Basin Fill	QTs	300	40-300	-	7	04/13/67	11/07/86	42.8	-	5,846.0	0.637482993	15.5048	100	1.1614E+02
Y	179	400546114373801	179 N26 E65 27CADD1 Hudson Oil	4,441,113.63	702,192.56	5,888.8	Basin Fill	QTs	670	170-670	-	7	05/12/68	11/07/86	41.1	-	5,847.7	2.258299321	7.1505	100	1.0941E+02
Y	179	400616114381201	179 N26 E65 28AADD1	4,442,017.23	701,362.79	5,872.8	Basin Fill	QTs	-	-	-	6	11/01/81	11/07/86	31.6	-	5,841.2	0.765333336	0.0000	100	1.0077E+02
Y	179	400625114384801	179 N26 E65 28BAAA1 Hudson Oil	4,442,272.14	700,503.00	5,863.8	Basin Fill	QTs	910	170-270/ 347-910	-	7	06/04/68	11/07/86	25.2	-	5,838.6	12.30176871	5.4639	100	1.1777E+02
Y	179	400626114392101	179 N26 E65 29AAAA1 Hudson Oil	4,442,282.34	699,720.81	5,855.8	Basin Fill	QTs	1000	180-310/ 410-1000	-	7	05/24/68	11/07/86	18.8	-	5,837.0	20.80510204	7.7686	100	1.2857E+02
Y	179	400454114393801	179 N26 E65 32D 1	4,439,434.90	699,392.94	5,851.8	Basin Fill	QTs	260	20-250	-	5	09/16/66	11/07/86	8.8	-	5,843.0	0.149	1,760.7109	100	1.8609E+03
Y	179	400530114381401	179 N26 E65 33AAAA1	4,440,597.56	701,353.12	5,872.8	Basin Fill	QTs	300	50-300	-	7	03/01/67	11/07/86	25.5	-	5,847.3	1.269455783	0.0001	100	1.0127E+02
Y	179	400533114384701	179 N26 E65 33BAAA1	4,440,669.35	700,569.11	5,863.8	Basin Fill	QTs	300	60-300	-	7	03/10/67	11/07/86	16.2	-	5,847.5	0.22802721	0.0237	100	1.0025E+02
Y	179	400507114384701	179 N26 E65 33CAAA1	4,439,867.62	700,590.35	5,863.8	Basin Fill	QTs	481	27-481	-	2	07/01/68	10/19/82	19.6	-	5,844.2	54.76	0.6499	100	1.5541E+02
Y	179	400507114381201	179 N26 E65 33DAAA1	4,439,889.60	701,419.35	5,872.8	Basin Fill	QTs	300	20-300	-	7	06/08/68	11/07/86	21.7	-	5,851.1	3.626870748	6.8188	100	1.1045E+02
Y	179	400509114374001	179 N26 E65 34BDDD1	4,439,971.44	702,175.62	5,888.8	Basin Fill	QTs	440	40-440	-	2	10/20/67	11/03/83	42.1	-	5,846.7	50.41	5.0878	100	1.5550E+02
Y	179	400504114373101	179 N26 E65 34DABA1	4,439,822.95	702,392.90	5,900.8	Basin Fill	QTs	894	50-894	Y	55	06/15/81	07/02/87	55.4	-	5,845.4	0.02715127	0.1583	100	1.0019E+02
Y	179	400446114371501	179 N26 E65 34DDDD1 Hudson Oil	4,439,278.07	702,786.73	5,900.8	Basin Fill	QTs	327	50-327	Y	63	06/15/81	07/02/87	52.9	-	5,847.9	0.027814433	0.4266	100	1.0045E+02
Y	179	400525114363401	179 N26 E65 35BAAA1	4,440,506.66	703,725.59	5,925.8	Basin Fill	QTs	255	20-255	-	7	03/21/67	11/05/84	80.7	-	5,845.1	18.19628775	0.0442	100	1.1824E+02
Y	179	179 N26 E66 03 1	179 N26 E66 03 1	4,448,019.58	711,729.09	6,669.2	Basin Fill	QTs	192	140-190	-	1	02/15/51	02/15/51	135.0	-	6,534.2	17	15,974.3296	625	1.6616E+04
Y	179	179 N26 E66 17 BC 1	179 N26 E66 17 BC 1	4,444,894.94	707,956.52	6,032.3	Basin Fill	QTs	192	125-189	-	1	03/15/63	03/15/63	137.0	-	5,895.3	17	376.8541	625	1.0189E+03
N	179	179 N27 E64 06BC 1	179 N27 E64 06BC 1 Willow Spring	4,457,626.15	686,615.51	6,000.0	Spring	-	-	-	-	-	-	-	-	>	6,000.0	-	-	-	-
Y	179	401102114414101	179 N27 E64 25D 1 NV Northern Railroad Co	4,450,195.65	695,535.60	5,851.8	Basin Fill	QTs	60	50-60	-	2	08/09/18	07/28/65	12.1	-	5,839.7	4.558224998	5,778.1846	100	5.8827E+03
N	179	401007114442101	179 N27 E64 34DC 3	4,448,912.92	692,444.09	5,942.8	Basin Fill	QTs	350	20-350	-	-	-	-	-	>	5,942.8	-	-	-	-
N	179	400954114442401	179 N27 E64 34DCC 1	4,448,510.25	692,383.35	5,948.7	Basin Fill	QTs	331	13-331	-	-	-	-	-	>	5,948.7	-	-	-	-
Y	179	179 N27 E65 09DB 1	179 N27 E65 09DB 1	4,455,540.50	700,482.38	6,284.6	Basin Fill	QTs	-	No casing in hole	-	1	03/15/88	03/15/88	450.0	-	5,834.6	17	748.2238	625	1.3902E+03
Y	179	401041114394501	179 N27 E65 29C 1	4,449,842.92	698,574.46	5,876.8	Basin Fill	QTs	-	-	-	1	07/28/65	07/28/65	57.3	-	5,819.5	17	7,785.5340	272	8.0748E+03
N	179	401518114485101	179 N28 E63 36 2 Currie Gardens Spring	4,458,527.11	685,433.73	6,092.5	Spring	-	-	-	-	-	-	-	-	>	6,092.5	-	-	-	-
N	179	179 N28 E63 36AA 1	179 N28 E63 36AA 1 Thompson Springs	4,459,463.17	686,205.98	5,975.0	Spring	-	-	-	-	-	-	-	-	>	5,975.0	-	-	-	-
Y	179	179 N28 E64 04DD 1	179 N28 E64 04DD 1	4,466,623.99	690,848.96	5,845.0	Basin Fill	QTs	265	20-265	-	1	10/15/74	10/15/74	20.0	-	5,825.0	17	455.7807	625	1.0978E+03
Y	179	179 N28 E64 05AA 1	179 N28 E64 05AA 1	4,467,820.80	689,180.12	5,945.4	Basin Fill	QTs	236	15-236	-	1	06/15/71	06/15/71	9.4	-	5,936.0	17	74.9167	625	7.1692E+02
Y	179	401822114414901	179 N28 E64 13ADBD1	4,464,269.03	695,643.32	5,793.7	Basin Fill	QTs	200	50-200	-	1	03/08/85	03/08/85	158.3	-	5,635.5	17	1.4665	100	1.1847E+02
N	179	179 N28 E64 21AB 1	179 N28 E64 21AB 1 Mustang Springs	4,462,938.28	690,558.65	5,800.0	Spring	-	-	-	-	-	-	-	-	>	5,800.0	-	-	-	-
Y	179	401601114443401	179 N28 E64 27CDB 1	4,459,820.84	691,858.76	5,794.7	Basin Fill	QTs	300	0-40	-	2	04/21/83	08/08/84	6.8	-	5,787.9	3.222025	2.8773	100	1.0610E+02
Y	179	401559114444401	179 N28 E64 34BABB1 Currie School	4,459,753.16	691,624.11	5,804.9	Volcanic	Tv	275	59-275	-	1	03/31/59	03/31/59	10.0	-	5,794.9	17	0.4316	625	6.4243E+02
Y	179	179 N28 E64 36DA 1	179 N28 E64 36DA 1	4,458,786.00	695,998.69	5,990.6	Basin Fill	QTs	402	342-402	-	1	04/15/88	04/15/88	346.0	-	5,644.6	17	981.6657	625	1.6237E+03
Y	180	382223114502501	180 N06 E64 18CC 1 Sidehill Pass Well	4,249,220.68	688,678.34	5,975.2	Basin Fill	QTs	-	-	-	4	07/12/98	07/25/05	158.2	-	5,817.0	0.087816663	0.0294	625	6.2512E+02
Y	180	180 N07 E63 13DB 1	180 N07 E63 13DB 1	4,259,661.50	687,816.63	6,014.4	Basin Fill	QTs	250	200-240	-	1	12/15/95	12/15/95	180.0	-	5,834.4	17	0.0000	625	6.4200E+02
Y	180	382822114515301	180 N07 E63 14AB 1 USGS-MX	4,260,043.46	685,673.72	6,011.9	Basin Fill	QTs	273	200-263	-	2	10/25/80	03/15/94	227.1	-	5,784.8	15.20999999	6.0732	100	1.2128E+02
Y	180	382822114515302	180 N07 E63 14AB 2 USGS-MX	4,260,043.46	685,673.72	6,011.9	Carbonate Well	PPPc	422	380-422	-	1	10/25/80	10/25/80	231.0	-	5,780.9	17	6.0732	100	1.2307E+02

Table A.2-1
Steady-State Water-Level Data Set and Additional Wells or Springs Used for Control
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SS Well	HA	Site No.	Station Name	UTM N (m)	UTM E (m)	Ref. Pt. Elev. (ft-amsl)	Site Type	HGU	Well Depth (ft-bgs)	Open Interval (ft-bgs)	Excluded Data Flag	No. of Meas.	POR-Start Date	POR-End Date	Mean DTW (ft-bgs)	Q Elev.	Mean Elev. (ft-amsl)	V. Sample Mean (ft^2)	V. of Vertical Error (ft^2)	V. Land Surface (ft^2)	Total Var (ft^2)
Y	180	382810114521501	180 N07 E63 14BADB1 USAF	4,260,043.46	685,673.72	6,012.9	Basin Fill	QTs	269	50-269	-	5	09/23/80	07/26/04	222.9	-	5,790.0	3.679044001	0.0607	100	1.0374E+02
Y	180	382810114521502	180 N07 E63 14BADB2 USAF	4,260,043.46	685,673.72	6,012.9	Carbonate Well	PPPc	418	50-418	-	3	09/23/80	07/15/02	225.1	-	5,787.9	6.601211114	0.0607	100	1.0666E+02
Y	180	382807114521001	180 N07 E63 14BADD1 USGS-MX (Cave Valley)	4,259,953.81	685,797.03	6,011.9	Carbonate Well	PPPc	460	210-250/ 375-435	Y	72	10/25/80	07/25/05	221.6	-	5,790.3	0.047797541	0.0058	100	1.0005E+02
Y	180	382747114525701	180 N07 E63 15DBAD1 USBLM	4,259,311.00	684,672.09	6,025.9	Basin Fill	QTs	-	-	Y	3	03/01/80	03/21/90	231.1	-	5,794.8	1.844844447	0.7555	100	1.0260E+02
Y	180	180 N07 E63 27CD 1	180 N07 E63 27CD 1	4,255,971.00	684,287.88	5,988.3	Basin Fill	QTs	245	200-240	-	1	05/15/98	05/15/98	157.0	-	5,831.3	17	0.0001	625	6.4200E+02
Y	180	180 N07 E63 27DD 1	180 N07 E63 27DD 1	4,255,989.50	685,088.06	5,988.3	Basin Fill	QTs	290	240-280	-	1	05/15/98	05/15/98	168.0	-	5,820.3	17	0.0028	625	6.4200E+02
Y	180	180 N07 E63 27DD 2	180 N07 E63 27DD 2	4,255,989.50	685,088.06	5,988.3	Basin Fill	QTs	320	260-300	-	1	07/15/98	07/15/98	183.0	-	5,805.3	17	0.0028	625	6.4200E+02
Y	180	180 N07 E63 33D 1	180 N07 E63 33D 1	4,254,561.00	683,325.31	5,981.7	Basin Fill	QTs	300	198-300	-	1	01/15/00	01/15/00	192.0	-	5,789.7	17	0.0000	625	6.4200E+02
Y	180	382640114492801	180 N07 E64 19 1 Gulf Oil Corp	4,257,363.70	689,786.75	6,004.9	Basin Fill	QTs	265	240-265	-	2	04/16/66	03/15/80	217.5	-	5,787.4	6.25	24.3778	100	1.3063E+02
Y	180	383458114473601	180 N08 E64 04ABDD1 USBLM	4,272,812.87	692,205.73	6,224.0	Basin Fill	QTs	200	160-200	-	6	07/20/65	07/14/97	139.4	-	6,084.6	18.81787778	0.2133	0.25	1.9281E+01
Y	180	383307114471001	180 N08 E64 15BCBC1 USBLM	4,269,373.60	692,845.50	6,163.0	Basin Fill	QTs	-	-	Y	3	03/01/80	07/26/04	271.6	-	5,891.4	25.25307777	32.2251	100	1.5748E+02
Y	180	383056114501501	180 N08 E64 30CDBC1 USBLM	4,265,228.55	688,461.85	6,087.0	Basin Fill	QTs	352	50-352	Y	9	08/11/43	07/11/99	325.9	-	5,761.0	5.097402162	8.8770	100	1.1397E+02
Y	180	383501114504801	180 N09 E63 01A 1	4,283,004.62	687,559.50	6,536.3	Basin Fill	QTs	-	-	-	1	10/16/62	10/16/62	2.0	-	6,534.3	17	3,156.7486	625	3.7987E+03
N	180	180 N09 E64 05DD 1	180 N09 E64 05DD 1	4,281,491.50	690,636.29	6,610.9	Basin Fill	QTs	150	No casing in hole	-	-	-	-	-	<	6,460.9	-	-	-	-
N	180	180 N09 E64 06BDD 1	180 N09 E64 06BDD 1	4,282,138.15	688,313.46	6,494.1	Basin Fill	QTs	-	-	-	-	-	-	-	>	6,494.1	-	-	-	-
N	180	383828114474501	180 N09 E64 16ACB 1 Cave Spring	4,279,248.89	691,760.58	6,488.3	Spring	-	-	-	-	-	-	-	-	>	6,488.3	-	-	-	-
N	180	383852114492601	180 N09 E64 18AA 1 USGS-MX	4,279,930.45	689,300.96	6,444.1	Basin Fill	QTs	101	50-101	-	-	-	-	-	<	6,343.1	-	-	-	-
N	180	383746114482101	180 N09 E64 20AD 1 USGS-MX	4,277,933.27	690,921.10	6,340.0	Basin Fill	QTs	200	50-200	-	-	-	-	-	>	6,140.0	-	-	-	-
Y	180	383632114465801	180 N09 E64 27BCDD1 USBLM	4,275,700.27	692,983.43	6,414.2	Basin Fill	QTs	315	277-315	-	7	06/08/64	07/26/04	233.3	-	6,180.9	20.54748776	59.5682	100	1.8012E+02
Y	180	384207114505601	180 N10 E63 25A 1	4,285,890.53	686,983.96	6,604.1	Basin Fill	QTs	20	-	Y	6	07/15/58	07/26/05	16.7	-	6,587.4	2.111302777	277,136.5799	100	2.7724E+05
Y	180	384534114495301	180 N10 E64 06BD 1 Robbers Roost Well	4,292,294.73	688,337.32	6,848.0	Basin Fill	QTs	-	-	Y	3	04/15/90	07/26/05	143.0	-	6,705.0	9.919011106	2,793.3650	625	3.4283E+03
Y	180	180 N11 E63 25DD 1	180 N11 E63 25DD 1	4,294,728.00	687,669.56	6,987.0	Basin Fill	QTs	140	100-140	-	1	04/15/98	04/15/98	91.0	-	6,896.0	17	5,099.4588	625	5.7415E+03
N	180	382458114474301	180 S07 E64 33 1 Sidehill Spring	4,254,279.90	692,407.73	6,530.7	Spring	-	-	-	-	-	-	-	-	>	6,530.7	-	-	-	-
Y	180	180W501M	180W501M	4,273,716.00	688,048.00	6,457.0	Carbonate Well	MOc	1212.25	787.8-1191.8	-	1	12/22/05	12/22/05	1,049.9	-	5,407.1	17	1,851.3096	625	2.4933E+03
Y	180	180W902M	180W902M	4,248,363.00	689,805.00	5,987.0	Carbonate Well	MOc	903.16	195.5-882.3	-	1	12/22/05	12/22/05	137.9	-	5,849.1	17	3,810.0748	625	4.4521E+03
Y	181	375624114444501	181 N01 E62 24ABB 1 USBLM	4,201,548.37	698,010.02	4,695.4	Basin Fill	QTs	515	400-515	-	4	01/01/59	07/01/99	398.8	-	4,296.6	7.102866666	121.5328	100	2.2864E+02
Y	181	181 N01 E65 02AA 1	181 N01 E65 02AA 1	4,206,411.47	706,528.56	5,662.7	Volcanic	Tv	-	-	-	1	06/15/60	06/15/60	10.0	-	5,652.7	17	3,954.1364	625	4.5961E+03
N	181	181 N02 E63 13CA 1	181 N02 E63 13CA 1 Coyote Spring	4,211,513.09	687,692.60	5,223.6	Spring	-	-	-	-	-	-	-	-	>	5,223.6	-	-	-	-
Y	181	380336114473501	181 N02 E64 03B 1 USBLM	4,215,350.85	693,123.79	4,972.0	Basin Fill	QTs	742	702-742	-	1	07/15/63	07/15/63	664.0	-	4,308.0	17	135.8816	625	7.7788E+02
N	181	380336114441101	181 N02 E65 06B 1	4,215,757.38	698,755.62	5,079.5	Basin Fill	QTs	-	50-376	-	-	-	-	-	<	4,703.5	-	-	-	-
Y	181	380531114534201	181 N03 E63 27CAA 1 USGS-MX (N. Dry Lake)	4,218,102.65	684,518.60	5,390.7	Carbonate Well	MOc	2395	No perforations	Y	81	11/21/80	12/17/03	849.6	-	4,541.1	0.039719167	995.3426	625	1.6204E+03
Y	181	380616114494101	181 N03 E64 20BD 1 USBLM - Coyote Well	4,220,368.32	690,486.41	5,070.5	Basin Fill	QTs	380	50-380	Y	5	04/28/94	08/04/03	269.9	-	4,800.6	0.106133999	22.0346	100	1.2214E+02

Table A.2-1
Steady-State Water-Level Data Set and Additional Wells or Springs Used for Control
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SS Well	HA	Site No.	Station Name	UTM N (m)	UTM E (m)	Ref. Pt. Elev. (ft-amsl)	Site Type	HGU	Well Depth (ft-bgs)	Open Interval (ft-bgs)	Excluded Data Flag	No. of Meas.	POR-Start Date	POR-End Date	Mean DTW (ft-bgs)	Q Elev.	Mean Elev. (ft-amsl)	V. Sample Mean (ft^2)	V. of Vertical Error (ft^2)	V. Land Surface (ft^2)	Total Var (ft^2)
Y	181	380550114412301	181 N03 E65 21D 1 Bristol Well	4,219,921.11	702,610.10	5,463.8	Basin Fill	QTs	80	20-80	Y	8	11/26/62	07/25/05	18.3	-	5,445.4	0.641430133	166.0230	100	2.6666E+02
Y	181	181 N03 E65 22 1	181 N03 E65 22 1	4,220,162.97	703,866.65	5,593.3	Basin Fill	QTs	240	60-240	-	1	01/15/66	01/15/66	3.0	-	5,590.3	17	1,522.1084	625	2.1641E+03
Y	181	381256114500701	181 N04 E64 07DC 1 USGS-MX (Muleshoe Valley)	4,232,095.82	689,481.49	5,533.8	Basin Fill	QTs	1190	1050-1190	Y	42	04/17/83	07/25/05	254.5	-	5,279.3	0.005909287	384.5249	100	4.8453E+02
Y	181	381256114500702	181 N04 E64 07DC 2 USGS-MX	4,232,281.92	689,525.80	5,538.8	Basin Fill	QTs	672	50-672	-	5	07/02/81	08/27/03	268.3	-	5,270.5	1.206616	148.9865	100	2.5019E+02
Y	181	381256114500703	181 N04 E64 07DC 3 USGS-MX	4,232,281.92	689,525.80	5,538.8	Basin Fill	QTs	1134	50-1134	-	2	09/05/81	03/10/90	258.7	-	5,280.1	28.62250001	148.9865	100	2.7761E+02
N	181	381358114412201	181 N04 E65 04DBD 1 Little Field Spring	4,233,949.00	701,112.00	6,150.0	Spring	-	-	-	-	-	-	-	-	>	6,150.0	-	-	-	-
Y	181	181 N04 E65 26DC 1	181 N04 E65 26DC 1	4,227,428.50	705,540.13	6,318.5	Volcanic	Tv	81	60-80	-	1	10/15/54	10/15/54	50.4	-	6,268.1	17	41,146.7540	625	4.1789E+04
N	181	381029114430701	181 N04 E65 29CB 1 Spring	4,227,795.00	699,080.00	6,089.9	Spring	-	-	-	-	-	-	-	-	>	6,089.9	-	-	-	-
N	181	381736114454501	181 N05 E64 14B 1	4,241,288.03	694,711.27	5,670.4	Basin Fill	QTs	-	50-239.5	-	-	-	-	-	<	5,430.9	-	-	-	-
N	181	381506114421801	181 N05 E65 32AD 1 Spring	4,236,201.00	700,888.00	6,178.0	Spring	-	-	-	-	-	-	-	-	>	6,178.0	-	-	-	-
Y	181	181 N05 E65 34DC 1	181 N05 E65 34DC 1	4,235,544.00	703,683.76	6,548.7	Volcanic	Tv	28	10-28	-	1	05/01/72	05/01/72	10.0	-	6,538.7	17	12,124.6647	625	1.2767E+04
Y	181	181 N05 E65 35BA 1	181 N05 E65 35BA 1	4,236,788.50	704,865.06	6,642.1	Volcanic	Tv	22	12-22	-	1	07/15/72	07/15/72	12.0	-	6,630.1	17	21,877.4517	625	2.2519E+04
Y	181	374536114443001	181 S02 E65 19CA 1	4,181,582.70	698,859.44	4,671.9	Basin Fill	QTs	156	50-156	-	3	04/16/83	04/28/94	44.4	-	4,627.5	8.212811111	92.6332	625	7.2585E+02
Y	181	374215114453101	181 S03 E64 12AC 1 USGS-MX(S. Dry Lake Well)	4,175,351.05	697,514.93	4,643.2	Basin Fill	QTs	1000	600-970	Y	63	04/27/80	07/25/05	394.2	-	4,249.1	0.002945607	122.7473	100	2.2275E+02
Y	181	374215114453102	181 S03 E64 12AC 2 USGS-MX	4,175,351.05	697,514.93	4,643.2	Basin Fill	QTs	1300	1270-1290	-	7	01/26/80	10/27/03	382.7	-	4,260.5	0.02957347	122.7473	100	2.2278E+02
Y	181	374215114453103	181 S03 E64 12AC 3 USGS-MX	4,175,351.05	697,514.93	4,643.2	Basin Fill	QTs	798	768-788	-	4	01/26/80	03/10/90	382.7	-	4,260.5	0.055806249	122.7473	100	2.2280E+02
N	181	181 S03 E64 27DD 1	181 S03 E64 27DD 1	4,169,611.75	694,895.74	4,739.3	Basin Fill	QTs	832	50-832	-	-	-	-	-	<	3,907.3	-	-	-	-
N	181	181 S04 E64 07BD 2	181 S04 E64 07BD 2 Wally 2	4,165,275.84	689,522.16	4,812.4	Basin Fill	QTs	-	50-1000	-	-	-	-	-	<	3,812.4	-	-	-	-
Y	181	181M-1	181M-1	4,198,181.00	688,537.00	4,966.0	Carbonate Well	MOc	1471.6	764.6-1471.4	-	1	01/09/06	01/09/06	677.9	-	4,288.1	17	935.2567	625	1.5773E+03
Y	181	181W909M	181W909M	4,174,479.00	698,688.00	4,804.0	Basin Fill	QTs	1260.25	637.35-1239.65	-	1	01/09/06	01/09/06	494.9	-	4,309.1	17	808.2231	625	1.4502E+03
N	182	182 S04 E63 23DD 1	182 S04 E63 23DD 1	4,161,289.30	687,040.90	4,838.3	Basin Fill	QTs	61	50-61	-	-	-	-	-	<	4,777.3	-	-	-	-
N	182	182 S04 E63 24CD 1	182 S04 E63 24CD 1	4,161,329.26	687,849.75	4,857.3	Basin Fill	QTs	360	50-360	-	-	-	-	-	<	4,497.3	-	-	-	-
N	182	182 S05 E64 02CB 1	182 S05 E64 02CB 1 Grassy Spring	4,157,193.29	695,123.83	5,786.2	Spring	-	-	-	-	-	-	-	-	>	5,786.2	-	-	-	-
Y	182	372639114520901	182 S06 E63 12AD 1 USGS-MX (Delamar Well)	4,146,272.90	688,421.88	4,713.2	Basin Fill	QTs	1195	920-980/ 1040-1180	Y	30	05/10/80	07/25/05	863.5	-	3,849.6	0.030764065	111.2119	100	2.1124E+02
Y	182	372639114520902	182 S06 E63 12ADBD2 USGS-MX	4,146,272.90	688,421.88	4,713.2	Basin Fill	QTs	981	540-630/ 816-847/ 877-940/950-971	-	3	02/24/80	04/01/81	868.3	-	3,844.9	1.77777778	27.8030	100	1.2958E+02
Y	182	182M-1	182M-1	4,135,306.00	680,874.00	4,582.0	Volcanic	Tv	1321	1000-1300	-	1	01/09/06	01/09/06	827.6	-	3,754.4	17	114.9748	625	7.5697E+02
Y	182	182W906M	182W906M	4,133,299.00	690,078.00	4,802.0	Volcanic	Tv	1701.89	1274.41-1676.59	-	1	01/09/06	01/09/06	1,300.1	-	3,501.9	17	248.4839	625	8.9048E+02
Y	183	382016114355901	183 N05 E66 02BDA 1	4,246,013.10	709,709.44	5,964.0	Basin Fill	QTs	560	200-560	-	2	12/20/72	03/12/85	103.5	-	5,860.5	272.085025	13.5337	100	3.8562E+02
Y	183	183 N05 E66 03AD 1	183 N05 E66 03AD 1	4,244,654.78	713,694.42	5,966.0	Basin Fill	QTs	500	50-500	-	1	01/15/66	01/15/66	107.0	-	5,859.0	17	1.9982	2,500	2.5190E+03
Y	183	183 N05 E66 04DA 1	183 N05 E66 04DA 1	4,244,159.50	711,969.31	5,983.4	Basin Fill	QTs	370	160-370	-	1	07/15/95	07/15/95	118.0	-	5,865.4	17	10.2879	625	6.5229E+02
Y	183	381941114362801	183 N05 E66 06AADA1	4,244,915.85	709,033.23	6,100.0	Volcanic	Tv	360	135-145/ 230-250/ 320-330	-	1	09/10/97	09/10/97	80.0	-	6,020.0	17	0.8441	100	1.1784E+02
Y	183	183 N05 E66 10DD 1	183 N05 E66 10DD 1	4,242,260.00	713,647.94	5,985.0	Basin Fill	QTs	336	156-336	-	1	07/15/95	07/15/95	120.0	-	5,865.0	17	9.9008	625	6.5190E+02
Y	183	183 N05 E66 11AA 1	183 N05 E66 11AA 1	4,243,475.00	715,244.38	5,989.7	Basin Fill	QTs	365	160-365	-	1	07/15/95	07/15/95	120.0	-	5,869.7	17	34.7610	625	6.7676E+02

Table A.2-1
Steady-State Water-Level Data Set and Additional Wells or Springs Used for Control
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SS Well	HA	Site No.	Station Name	UTM N (m)	UTM E (m)	Ref. Pt. Elev. (ft-amsl)	Site Type	HGU	Well Depth (ft-bgs)	Open Interval (ft-bgs)	Excluded Data Flag	No. of Meas.	POR-Start Date	POR-End Date	Mean DTW (ft-bgs)	Q Elev.	Mean Elev. (ft-amsl)	V. Sample Mean (ft^2)	V. of Vertical Error (ft^2)	V. Land Surface (ft^2)	Total Var (ft^2)
Y	183	183 N05 E66 14AC 1	183 N05 E66 14AC 1	4,241,508.83	714,988.66	5,989.0	Basin Fill	QTs	225	50-225	-	1	04/15/55	04/15/55	145.0	-	5,844.0	17	60.2128	2,500	2.5772E+03
Y	183	183 N05 E66 14BD 1	183 N05 E66 14BD 1	4,241,495.83	714,581.75	5,984.0	Basin Fill	QTs	146	50-146	-	1	07/15/63	07/15/63	138.0	-	5,846.0	17	59.1336	2,500	2.5761E+03
Y	183	381739114323501	183 N05 E66 14BDAC1 USBLM	4,241,546.18	714,639.34	5,984.0	Basin Fill	QTs	218	50-218	-	2	07/18/63	03/24/90	140.7	-	5,843.4	1.334025003	2,885.2253	100	2.9866E+03
Y	183	381911114235101	183 N05 E68 06C 1	4,244,507.40	727,029.51	6,584.4	Basin Fill	QTs	35	-	-	2	09/06/63	09/15/63	32.0	-	6,552.4	4	14,987.7014	100	1.5092E+04
Y	183	382440114380701	183 N06 E65 01BCA 1 USBLM	4,254,071.34	706,392.80	6,001.9	Basin Fill	QTs	250	100-250	-	2	01/10/68	03/24/90	93.1	-	5,908.8	9.672100015	203.6373	100	3.1331E+02
Y	183	382242114382001	183 N06 E65 13CBBB1 USBLM	4,250,425.60	706,170.59	6,156.9	Basin Fill	QTs	-	-	-	1	03/24/90	03/24/90	256.6	-	5,900.3	17	229.5515	100	3.4655E+02
Y	183	183 N06 E65 14DA 1	183 N06 E65 14DA 1	4,250,870.14	705,807.42	6,117.8	Basin Fill	QTs	152	50-152	-	1	03/15/67	03/15/67	100.0	-	6,017.8	17	395.2927	2,500	2.9123E+03
N	183	382123114371501	183 N06 E65 25AA 1 USGS-MX	4,248,030.76	707,810.80	6,044.0	Basin Fill	QTs	200	50-200	-	-	-	-	-	<	5,844.0	-	-	-	-
Y	183	382409114354201	183 N06 E66 08B 1 USBLM - Grassy Well	4,253,206.67	709,934.99	5,933.9	Basin Fill	QTs	95	50-95	-	1	08/06/63	08/06/63	52.1	-	5,881.8	17	0.3635	100	1.1736E+02
Y	183	183 N06 E66 10BD 1	183 N06 E66 10BD 1	4,252,893.00	713,269.25	5,942.7	Basin Fill	QTs	500	200-500	-	2	08/15/76	09/15/76	95.0	-	5,847.7	81.00000001	1.3394	625	7.0734E+02
Y	183	382216114370001	183 N06 E66 19B 1	4,249,674.02	708,132.73	5,993.9	Basin Fill	QTs	233	50-233	-	1	08/06/63	08/06/63	96.4	-	5,897.5	17	2,011.5167	100	2.1285E+03
Y	183	382212114370401	183 N06 E66 19BCBB1 USBLM	4,249,548.82	708,063.11	5,969.9	Basin Fill	QTs	240	125-220	-	3	06/22/59	03/24/90	107.6	-	5,862.3	175.7744445	1.1117	0.25	1.7714E+02
Y	183	382218114332401	183 N06 E66 22B 1	4,249,872.81	713,373.55	5,934.0	Basin Fill	QTs	450	50-450	Y	20	06/01/62	03/03/82	102.1	-	5,831.9	0.714428672	120.4754	100	2.2119E+02
Y	183	183 N06 E66 22BA 1	183 N06 E66 22BA 1	4,249,863.53	713,481.60	5,964.0	Basin Fill	QTs	410	50-410	-	1	06/15/62	06/15/62	101.0	-	5,863.0	17	31.4124	2,500	2.5484E+03
Y	183	183 N06 E66 27BA 1	183 N06 E66 27BA 1	4,248,255.58	713,462.10	5,959.0	Basin Fill	QTs	180	120-180	-	1	08/15/72	08/15/72	120.0	-	5,839.0	17	6.2761	625	6.4828E+02
Y	183	183 N06 E66 27BD 1	183 N06 E66 27BD 1	4,247,844.58	713,537.55	5,959.0	Basin Fill	QTs	541	50-541	-	1	11/15/64	11/15/64	102.0	-	5,857.0	17	3.2856	2,500	2.5203E+03
Y	183	183 N06 E66 27DD 1	183 N06 E66 27DD 1	4,247,070.60	714,367.54	5,969.0	Basin Fill	QTs	476	50-476	-	1	01/15/67	01/15/67	109.0	-	5,860.0	17	11.6725	2,500	2.5287E+03
Y	183	183 N06 E66 29BB 1	183 N06 E66 29BB 1	4,248,166.72	709,907.73	5,966.9	Basin Fill	QTs	450	50-450	-	1	03/15/67	03/15/67	116.0	-	5,850.9	17	20.2157	2,500	2.5372E+03
Y	183	183 N06 E66 29BD 1	183 N06 E66 29BD 1	4,247,784.00	710,197.88	5,968.7	Basin Fill	QTs	421	122-421	-	1	01/15/66	01/15/66	118.0	-	5,850.7	17	14.3531	625	6.5635E+02
Y	183	183 N06 E66 30AA 1	183 N06 E66 30AA 1	4,248,160.71	709,497.84	5,968.9	Basin Fill	QTs	242	50-242	-	1	11/15/71	11/15/71	135.0	-	5,833.9	17	38.8935	2,500	2.5559E+03
Y	183	183 N06 E66 30AB 1	183 N06 E66 30AB 1	4,248,153.21	709,043.52	5,984.0	Basin Fill	QTs	420	50-420	-	1	12/15/64	12/15/64	126.0	-	5,858.0	17	43.3575	2,500	2.5604E+03
Y	183	183 N06 E66 30BC 1	183 N06 E66 30BC 1	4,247,706.07	708,157.15	6,034.0	Basin Fill	QTs	320	50-320	-	1	08/15/69	08/15/69	205.0	-	5,829.0	17	241.1898	2,500	2.7582E+03
Y	183	382101114371401	183 N06 E66 30CBCB1 USBLM	4,247,353.17	707,852.56	6,071.0	Basin Fill	QTs	224	182-224	-	5	06/15/65	03/24/90	168.7	-	5,902.3	369.088	49.3024	100	5.1839E+02
Y	183	183 N06 E66 32BC 1	183 N06 E66 32BC 1	4,246,145.16	709,961.77	6,036.0	Basin Fill	QTs	175	50-175	-	1	04/15/59	04/15/59	145.0	-	5,891.0	17	69.7847	2,500	2.5868E+03
Y	183	382014114355701	183 N06 E66 32CBBB1 New Pony Springs Well	4,245,952.71	709,759.61	6,039.0	Basin Fill	QTs	-	-	Y	1	05/25/83	05/25/83	181.5	-	5,857.5	17	0.2701	0.25	1.7520E+01
Y	183	183 N06 E66 33BA 1	183 N06 E66 33BA 1	4,246,562.00	711,833.31	5,967.6	Basin Fill	QTs	370	170-370	-	1	07/15/95	07/15/95	110.0	-	5,857.6	17	5.5144	625	6.4751E+02
Y	183	381947114331201	183 N06 E66 34AAAA1	4,245,225.53	713,788.19	5,954.0	Basin Fill	QTs	170	120-170	-	2	05/06/69	09/11/03	119.6	-	5,834.4	243.6721	0.0034	100	3.4368E+02
Y	183	183 N06 E66 34DA 1	183 N06 E66 34DA 1	4,245,871.16	714,397.82	5,974.0	Basin Fill	QTs	500	50-500	-	1	01/15/66	01/15/66	107.0	-	5,867.0	17	29.6749	2,500	2.5467E+03
Y	183	382003114322501	183 N06 E66 35C 1 USBLM - Pony Springs Well	4,245,749.10	714,916.44	5,977.1	Basin Fill	QTs	161	50-161	Y	23	11/17/65	10/02/75	133.9	-	5,843.2	0.323708248	0.3373	625	6.2566E+02
Y	183	183 N06 E66 35D 1	183 N06 E66 35D 1	4,245,709.11	715,803.77	5,994.0	Basin Fill	QTs	161	50-161	-	1	07/15/63	07/15/63	130.0	-	5,864.0	17	3.6671	2,500	2.5207E+03
Y	183	381956114314401	183 N06 E66 35DDBD1 USBLM	4,245,559.88	715,917.81	5,994.8	Basin Fill	QTs	-	-	-	1	03/24/90	03/24/90	134.2	-	5,860.6	17	2.7378	625	6.4474E+02
Y	183	183 N06 E67 05B 1	183 N06 E67 05B 1	4,254,667.18	719,598.55	6,054.1	Basin Fill	QTs	324	50-324	-	1	01/15/66	01/15/66	194.0	-	5,860.1	17	229.9308	2,500	2.7469E+03
Y	183	382245114300901	183 N06 E67 18CBAD1 USBLM	4,250,831.90	718,083.78	6,084.0	Basin Fill	QTs	-	-	-	11	07/15/63	03/24/90	210.3	-	5,873.7	0.483034215	16.7062	100	1.1719E+02
Y	183	381953114244801	183 N06 E67 36CCC 1	4,245,744.09	726,022.56	6,526.3	Basin Fill	QTs	210	50-210	-	1	03/13/85	03/13/85	22.4	-	6,503.9	17	55.3304	100	1.7233E+02
Y	183	183 N06 E68 09 1	183 N06 E68 09 1	4,253,091.00	731,595.75	7,232.4	Volcanic	Tv	385	21-385	-	1	06/15/55	06/15/55	21.5	-	7,210.9	17	1,349.0769	625	1.9911E+03

Table A.2-1
Steady-State Water-Level Data Set and Additional Wells or Springs Used for Control
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SS Well	HA	Site No.	Station Name	UTM N (m)	UTM E (m)	Ref. Pt. Elev. (ft-amsl)	Site Type	HGU	Well Depth (ft-bgs)	Open Interval (ft-bgs)	Excluded Data Flag	No. of Meas.	POR-Start Date	POR-End Date	Mean DTW (ft-bgs)	Q Elev.	Mean Elev. (ft-amsl)	V. Sample Mean (ft^2)	V. of Vertical Error (ft^2)	V. Land Surface (ft^2)	Total Var (ft^2)
Y	183	382336114210301	183 N06 E68 09CAC 1	4,252,773.89	731,289.20	7,190.5	Volcanic	QTs, Tv	37	17-35	-	1	07/04/77	07/04/77	22.0	-	7,168.5	17	316.0242	100	4.3302E+02
Y	183	183 N07 E65 09 1	183 N07 E65 09 1	4,261,649.47	701,939.69	6,224.0	Basin Fill	QTs	220	50-220	-	1	01/15/67	01/15/67	147.0	-	6,077.0	17	583.8881	2,500	3.1009E+03
Y	183	183 N07 E65 11CC 1	183 N07 E65 11CC 1	4,261,398.00	704,604.19	6,046.9	Basin Fill	QTs	220	147-210	-	1	06/15/67	06/15/67	147.0	-	5,899.9	17	148.1432	625	7.9014E+02
Y	183	392732114383101	183 N07 E65 14DD 1	4,259,358.77	705,674.92	5,962.9	Basin Fill	QTs	301	40-300	-	2	07/03/59	05/18/83	40.6	-	5,922.3	0.360000007	0.8417	0.25	1.4517E+00
Y	183	382732114383101	183 N07 E65 14DD 2 USBLM	4,259,358.77	705,674.92	5,962.9	Basin Fill	QTs	266	50-266	Y	15	07/03/59	03/23/90	44.3	-	5,918.6	0.398257586	0.8417	0.25	1.4900E+00
Y	183	183 N07 E65 17D 1	183 N07 E65 17D 1	4,259,596.10	700,784.64	6,364.1	Basin Fill	QTs	229	50-229	-	1	08/15/63	08/15/63	212.0	-	6,152.1	17	185.2995	2,500	2.7023E+03
Y	183	183 N07 E65 17DA 1	183 N07 E65 17DA 1	4,259,800.04	700,983.56	6,343.5	Basin Fill	QTs	264	50-264	-	1	06/15/66	06/15/66	200.0	-	6,143.5	17	3,039.4717	2,500	5.5565E+03
Y	183	382757114414301	183 N07 E65 17DAA 1 USBLM	4,260,011.64	701,001.41	6,320.0	Basin Fill	QTs	230	50-230	-	3	03/23/90	07/25/05	185.1	-	6,135.0	14.43803333	5.9278	100	1.2037E+02
Y	183	183 N07 E65 23A 1	183 N07 E65 23A 1	4,258,925.27	705,619.68	5,941.9	Basin Fill	QTs	276	50-276	-	1	12/15/67	12/15/67	75.0	-	5,866.9	17	5.1923	2,500	2.5222E+03
Y	183	382712114381001	183 N07 E65 23D 1 USBLM - John Dutch Well	4,258,755.25	706,199.81	5,953.9	Basin Fill	QTs	30	-	Y	15	08/06/63	10/01/75	25.2	-	5,928.7	0.128121587	1,014.9201	100	1.1150E+03
Y	183	183 N07 E65 35 1	183 N07 E65 35 1	4,255,495.00	705,385.56	6,213.5	Basin Fill	QTs	250	100-250	-	1	01/15/68	01/15/68	90.0	-	6,123.5	17	7,065.4079	625	7.7074E+03
Y	183	382935114363801	183 N07 E66 06BCD 1 USBLM	4,263,425.09	707,849.79	5,925.0	Basin Fill	QTs	71	50-71	-	2	08/05/63	03/23/90	27.1	-	5,897.9	5.244099997	0.0064	100	1.0525E+02
Y	183	382753114341301	183 N07 E66 16DC 1 USGS-MX (Lake Valley)	4,260,689.63	711,777.01	5,919.0	Basin Fill	QTs	97	50-97	Y	50	11/14/91	12/17/03	19.6	-	5,899.4	0.005923609	0.0000	100	1.0001E+02
Y	183	183 N07 E66 33BD 1	183 N07 E66 33BD 1	4,256,120.00	711,630.56	5,936.3	Basin Fill	QTs	232	79-232	-	1	07/15/68	07/15/68	59.0	-	5,877.3	17	6.8333	625	6.4883E+02
Y	183	382513114312001	183 N07 E66 36C 1 USBLM - Mustang Well	4,255,348.00	716,238.13	5,944.0	Basin Fill	QTs	126	50-126	-	1	07/18/63	07/18/63	108.8	-	5,835.2	17	343.9878	100	4.6099E+02
Y	183	382946114301201	183 N07 E67 06B 1	4,264,484.28	717,543.88	6,104.0	Basin Fill	QTs	872	50-872	-	1	02/01/55	02/01/55	16.0	-	6,088.0	17	9,204.6454	100	9.3216E+03
Y	183	382702114283801	183 N07 E67 20C 1	4,258,800.97	719,566.17	6,047.9	Basin Fill	QTs	180	50-180	-	1	07/17/63	07/17/63	168.4	-	5,879.5	17	3,080.5389	625	3.7225E+03
Y	183	382738114265801	183 N07 E67 21A 1 USBLM - Fortifin Well	4,259,795.14	722,062.01	6,179.0	Basin Fill	QTs	307	50-307	-	1	07/18/63	07/18/63	292.0	-	5,887.0	17	7,230.2148	100	7.3472E+03
Y	183	183 N07 E67 27CA 1	183 N07 E67 27CA 1	4,257,568.00	722,972.94	6,244.3	Volcanic	Tv	389	200-382	-	1	09/15/65	09/15/65	192.0	-	6,052.3	17	154.2771	625	7.9628E+02
Y	183	183 N08 E65 02AC 1	183 N08 E65 02AC 1	4,273,215.51	705,065.09	5,954.0	Basin Fill	QTs	150	50-150	-	1	05/15/60	05/15/60	35.0	-	5,919.0	17	220.4298	2,500	2.7374E+03
Y	183	383502114383201	183 N08 E65 02D 1 NDOT - Patterson Pass	4,272,924.38	705,375.45	5,979.0	Basin Fill	QTs	130	50-130	Y	54	07/15/63	12/17/03	33.5	-	5,945.6	0.040011573	0.0474	2,500	2.5001E+03
Y	183	183 N08 E65 10CC 1	183 N08 E65 10CC 1	4,271,035.50	702,687.00	6,177.4	Basin Fill	QTs	383	243-383	-	1	07/15/65	07/15/65	230.0	-	5,947.4	17	873.3524	625	1.5154E+03
Y	183	383406114373001	183 N08 E65 12DBA 1 USBLM	4,271,543.07	706,839.93	5,922.1	Basin Fill	QTs	45	-	-	2	07/18/63	05/18/83	22.6	-	5,899.5	0.990024999	0.0095	0.25	1.2495E+00
Y	183	183 N08 E65 23DC 1	183 N08 E65 23DC 1	4,267,954.00	705,236.50	5,967.1	Basin Fill	QTs	183	84-184	-	1	06/15/00	06/15/00	84.0	-	5,883.1	17	176.0833	625	8.1808E+02
Y	183	383112114384201	183 N08 E65 26DC 1 USBLM	4,266,134.10	705,234.70	5,951.0	Basin Fill	QTs	-	-	-	1	03/23/90	03/23/90	40.7	-	5,910.3	17	44.0365	100	1.6104E+02
Y	183	383032114404901	183 N08 E65 33DBD 1 USBLM	4,264,511.46	702,076.49	6,208.0	Basin Fill	QTs	325	50-325	-	3	05/06/63	03/23/90	296.0	-	5,912.0	1.407777776	167.1505	100	2.6856E+02
Y	183	183 N08 E65 35AD 1	183 N08 E65 35AD 1	4,265,164.64	705,678.44	5,954.0	Basin Fill	QTs	200	50-200	-	1	01/15/68	01/15/68	55.0	-	5,899.0	17	21.8416	2,500	2.5388E+03
Y	183	183 N08 E66 09DB 1	183 N08 E66 09DB 1	4,271,404.50	711,560.36	5,936.8	Basin Fill	QTs	244	54-244	-	1	01/15/87	01/15/87	50.0	-	5,886.8	17	1.8727	625	6.4387E+02
Y	183	383411114334001	183 N08 E66 10BCAC1 USBLM	4,271,843.08	712,402.82	5,961.8	Basin Fill	QTs	217	117-217	-	1	06/15/68	06/15/68	74.0	-	5,887.8	17	8.9675	625	6.5097E+02
N	183	383423114314601	183 N08 E66 11AD 1 USGS-MX	4,272,286.79	715,152.14	6,084.1	Basin Fill	QTs	200	50-200	-	-	-	-	-	<	5,884.1	-	-	-	-
N	183	383423114323601	183 N08 E66 11BC 1 USGS-MX	4,272,254.31	713,941.98	6,044.0	Basin Fill	QTs	101	50-101	-	-	-	-	-	<	5,943.0	-	-	-	-
Y	183	383121114331001	183 N08 E66 27BDDB1 USBLM	4,266,951.62	712,920.45	5,926.0	Basin Fill	QTs	55	50-55	-	2	07/18/63	03/23/90	44.8	-	5,881.3	0.0625	0.1858	100	1.0025E+02
Y	183	383041114313101	183 N08 E66 36CB 1 USGS-MX	4,265,452.54	715,699.49	5,939.0	Basin Fill	QTs	101	50-101	-	3	11/15/79	01/01/81	68.7	-	5,870.4	73.44444444	65.8819	100	2.3933E+02

Table A.2-1
Steady-State Water-Level Data Set and Additional Wells or Springs Used for Control
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SS Well	HA	Site No.	Station Name	UTM N (m)	UTM E (m)	Ref. Pt. Elev. (ft-amsl)	Site Type	HGU	Well Depth (ft-bgs)	Open Interval (ft-bgs)	Excluded Data Flag	No. of Meas.	POR-Start Date	POR-End Date	Mean DTW (ft-bgs)	Q Elev.	Mean Elev. (ft-amsl)	V. Sample Mean (ft^2)	V. of Vertical Error (ft^2)	V. Land Surface (ft^2)	Total Var (ft^2)
Y	183	384046114373001	183 N09 E65 01A 1	4,283,214.63	706,054.06	5,984.0	Basin Fill	QTs	165	50-165	-	5	04/16/48	07/18/63	37.4	-	5,946.6	0.197000002	18,097.8588	100	1.8198E+04
Y	183	183 N09 E65 01A 2	183 N09 E65 01A 2	4,283,251.07	706,642.23	5,944.0	Basin Fill	QTs	128	50-128	-	1	07/15/63	07/15/63	38.0	-	5,906.0	17	40.4518	2,500	2.5575E+03
Y	183	183 N09 E65 01BA 1	183 N09 E65 01BA 1	4,283,447.60	706,045.09	5,994.0	Basin Fill	QTs	597	50-597	-	1	01/15/67	01/15/67	25.0	-	5,969.0	17	637.6608	2,500	3.1547E+03
Y	183	183 N09 E65 01BD 1	183 N09 E65 01BD 1	4,283,026.82	706,057.68	5,984.0	Basin Fill	QTs	55	50-55	-	1	06/15/61	06/15/61	35.0	-	5,949.0	17	860.3692	2,500	3.3774E+03
N	183	183 N09 E65 12AC 1	183 N09 E65 12AC 1 Big Spring	4,281,368.32	706,508.56	5,931.8	Spring	-	-	-	-	-	-	-	-	>	5,931.8	-	-	-	-
Y	183	183 N09 E65 13B 1	183 N09 E65 13B 1	4,279,986.51	705,923.63	5,955.7	Basin Fill	QTs	57	50-57	-	1	07/15/63	07/15/63	16.0	-	5,939.7	17	237.7681	2,500	2.7548E+03
N	183	183 N09 E65 13BA 1	183 N09 E65 13BA 1	4,280,164.87	706,084.74	5,942.5	Basin Fill	QTs	56	0-56	-	-	-	-	-	>	5,942.5	-	-	-	-
N	183	183 N09 E65 13BD 1	183 N09 E65 13BD 1	4,279,795.28	706,139.07	5,954.0	Basin Fill	QTs	52	50-52	-	-	-	-	-	>	5,954.0	-	-	-	-
N	183	183 N09 E65 13CC 1	183 N09 E65 13CC 1	4,278,965.00	705,749.35	5,944.0	Basin Fill	QTs	330	50-330	-	-	-	-	-	>	5,944.0	-	-	-	-
N	183	183 N09 E65 23AA 1	183 N09 E65 23AA 1 Wambolt Springs	4,278,674.56	705,543.39	5,949.8	Spring	-	-	-	-	-	-	-	-	>	5,949.8	-	-	-	-
Y	183	183 N09 E65 25CB 1	183 N09 E65 25CB 1	4,276,421.00	705,793.94	5,928.8	Basin Fill	QTs	635	15-630	-	1	08/15/67	08/15/67	8.0	-	5,920.8	17	5.3339	625	6.4733E+02
Y	183	183 N09 E65 26AA 1	183 N09 E65 26AA 1	4,277,181.00	705,362.88	5,936.8	Basin Fill	QTs	100	55-100	-	1	09/15/72	09/15/72	10.0	-	5,926.8	17	282.5516	625	9.2455E+02
Y	183	183 N09 E65 35AB 1	183 N09 E65 35AB 1	4,275,568.00	705,017.06	5,952.7	Basin Fill	QTs	580	84-580	-	1	06/15/65	06/15/65	42.0	-	5,910.7	17	1,135.6825	625	1.7777E+03
Y	183	183 N09 E66 04A 1	183 N09 E66 04A 1	4,283,356.18	711,436.51	5,934.0	Basin Fill	QTs	53	50-53	-	1	07/15/63	07/15/63	37.0	-	5,897.0	17	22.9056	2,500	2.5399E+03
Y	183	383744114322801	183 N09 E66 23BDBB1 USBLM	4,278,456.13	713,969.59	6,087.0	Basin Fill	QTs	-	-	-	1	03/23/90	03/23/90	218.4	-	5,868.7	17	56.4071	100	1.7341E+02
Y	183	383622114330801	183 N09 E66 27DCCA1 USBLM	4,275,902.27	713,069.68	5,983.1	Basin Fill	QTs	143	93-143	-	1	09/15/79	09/15/79	90.0	-	5,893.1	17	15.7328	625	6.5773E+02
Y	183	183 N09 E66 31DB 1	183 N09 E66 31DB 1	4,274,912.00	708,278.00	5,927.6	Basin Fill	QTs	130	89-129	-	1	11/15/80	11/15/80	89.0	-	5,838.6	17	0.5084	625	6.4251E+02
Y	183	384338114380001	183 N10 E65 13CBDA1 USBLM	4,289,158.39	705,658.60	6,221.1	Basin Fill	QTs	-	-	-	1	03/23/90	03/23/90	310.3	-	5,910.8	17	40.8967	100	1.5790E+02
N	183	383953114005801	183 N10 E65 34CDAD1 Geyser Spring	4,283,844.93	702,966.56	6,484.2	Spring	-	-	-	-	-	-	-	-	>	6,484.2	-	-	-	-
Y	183	384120114372401	183 N10 E65 36D 1	4,284,307.40	706,557.79	5,984.0	Basin Fill	QTs	165	50-165	-	3	04/19/47	07/17/63	24.9	-	5,959.1	0.249377784	2,841.6041	100	2.9419E+03
Y	183	183 N10 E65 36DA 1	183 N10 E65 36DA 1	4,284,274.03	706,813.34	5,944.0	Basin Fill	QTs	843	50-843	-	1	10/15/65	10/15/65	10.0	-	5,934.0	17	129.6024	2,500	2.6466E+03
Y	183	384529114335601	183 N10 E66 09ABAA1 USBLM	4,291,862.15	711,121.16	6,054.1	Basin Fill	QTs	-	-	-	3	07/16/63	08/15/06	176.8	-	5,877.3	0.692399999	12.7441	100	1.1344E+02
Y	183	384343114355201	183 N10 E66 17A 1 USBLM - Twissleman	4,289,963.84	709,335.01	6,024.0	Basin Fill	QTs	125	50-125	-	1	07/15/63	07/15/63	99.0	-	5,925.0	17	2,693.8063	2,500	5.2108E+03
Y	183	384324114355401	183 N10 E66 17CCAC1 USBLM	4,288,806.04	708,712.91	6,027.0	Basin Fill	QTs	125	50-125	-	3	07/16/63	03/23/90	100.1	-	5,926.9	0.500077774	845.8269	0.25	8.4658E+02
Y	183	183 N10 E66 22BB 1	183 N10 E66 22BB 1	4,288,448.50	711,526.00	6,072.3	Basin Fill	QTs	173	90-173	-	1	12/15/80	12/15/80	30.0	-	6,042.3	17	355.3564	625	9.9736E+02
Y	183	384143114363301	183 N10 E66 31A 1	4,284,928.38	707,895.78	5,969.0	Basin Fill	QTs	46	-	-	1	07/15/63	07/15/63	33.0	-	5,936.0	17	489.6845	100	6.0668E+02
Y	183	183 N10 E66 31AB 1	183 N10 E66 31AB 1	4,285,125.37	707,953.81	5,944.0	Basin Fill	QTs	690	50-690	-	1	05/15/67	05/15/67	18.0	-	5,926.0	17	515.9076	2,500	3.0329E+03
Y	183	384131114363601	183 N10 E66 31BAAA1 USBLM	4,285,295.78	707,789.45	5,963.0	Basin Fill	QTs	-	-	-	2	04/22/83	03/23/90	28.1	-	5,934.9	0.722499996	1.3626	0.25	2.3351E+00
Y	183	183 N10 E66 31BB 1	183 N10 E66 31BB 1	4,285,126.77	707,173.91	5,965.6	Basin Fill	QTs	468	90-410	-	1	05/15/65	05/15/65	60.0	-	5,905.6	17	165.7507	625	8.0775E+02
Y	183	183 N10 E66 34BB 1	183 N10 E66 34BB 1	4,285,205.69	711,969.56	6,034.0	Basin Fill	QTs	110	50-110	-	1	06/15/66	06/15/66	110.0	-	5,924.0	17	608.9017	2,500	3.1259E+03
Y	183	384125114334501	183 N10 E66 34BBBC1 USBLM	4,285,219.71	711,926.21	6,028.0	Basin Fill	QTs	-	-	-	1	03/23/90	03/23/90	118.6	-	5,909.4	17	42.5455	100	1.5955E+02
N	183	384048114335001	183 N10 E66 34CD 1 USGS-MX	4,284,075.79	711,835.75	5,964.0	Basin Fill	QTs	101	50-101	-	-	-	-	-	<	5,863.0	-	-	-	-
N	183	384048114333101	183 N10 E66 34DC 1 USGS-MX	4,284,144.49	710,851.88	6,142.4	Basin Fill	QTs	101	50-101	-	-	-	-	-	<	5,942.4	-	-	-	-
Y	184	383351114180201	184 N08 E68 14A 1 USBLM	4,271,379.25	734,460.53	6,142.4	Basin Fill	QTs	495	50-495	-	8	07/15/64	08/14/06	409.0	-	5,733.4	1.884883704	1,835.1464	625	2.4620E+03

Table A.2-1
Steady-State Water-Level Data Set and Additional Wells or Springs Used for Control
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SS Well	HA	Site No.	Station Name	UTM N (m)	UTM E (m)	Ref. Pt. Elev. (ft-amsl)	Site Type	HGU	Well Depth (ft-bgs)	Open Interval (ft-bgs)	Excluded Data Flag	No. of Meas.	POR-Start Date	POR-End Date	Mean DTW (ft-bgs)	Q Elev.	Mean Elev. (ft-amsl)	V. Sample Mean (ft^2)	V. of Vertical Error (ft^2)	V. Land Surface (ft^2)	Total Var (ft^2)
N	184	383720114205701	184 N09 E68 21DC 1 USGS-MX	4,278,181.67	730,702.47	5,934.0	Basin Fill	QTs	96	50-96	-	-	-	-	-	<	5,834.0	-	-	-	-
Y	184	383704114225001	184 N09 E68 30AAAB1 USGS-MX (Spring Valley S.)	4,277,637.96	727,885.78	6,014.0	Basin Fill	QTs	679	559-679	Y	71	08/07/80	08/15/06	225.8	-	5,788.2	0.004649959	1.3015	100	1.0131E+02
Y	184	383707114231201	184 N09 E68 30AB 1 USGS-MX	4,277,687.21	727,448.62	6,029.0	Basin Fill	QTs	699	50-699	-	2	09/01/80	09/22/80	229.5	-	5,799.5	0.25	45.0130	10,000	1.0045E+04
Y	184	383707114231202	184 N09 E68 30AB 2 USGS-MX	4,277,687.21	727,448.62	6,029.0	Basin Fill	QTs	700	50-700	-	3	09/22/80	07/16/96	217.9	-	5,811.1	0.311944442	45.0130	10,000	1.0045E+04
Y	184	384448114300901	184 N10 E67 07BA 1 USGS	4,291,618.73	716,974.79	5,884.0	Basin Fill	QTs	200	50-200	-	3	07/01/80	04/20/83	84.8	-	5,799.2	0.194444448	0.9773	100	1.0117E+02
Y	184	384331114261001	184 N10 E67 15DA 1 USGS	4,289,404.41	722,811.89	5,863.9	Basin Fill	QTs	200	50-200	-	1	04/20/83	04/20/83	66.2	-	5,797.8	17	0.6206	100	1.1762E+02
Y	184	384403114272301	184 N10 E67 16AABA1 USBLM	4,290,341.77	721,021.36	5,834.0	Basin Fill	QTs	54	50-54	-	12	04/22/60	08/15/06	42.1	-	5,792.0	0.257530049	0.4927	625	6.2575E+02
Y	184	384310114261401	184 N10 E67 22AA 1 USGS-MX (Spring V Central)	4,288,754.26	722,733.41	5,892.9	Basin Fill	QTs	100	50-100	Y	56	07/01/80	08/15/06	65.5	-	5,827.4	0.003986614	64.2092	1,600	1.6642E+03
Y	184	384254114252801	184 N10 E67 23ACBD1	4,288,292.18	723,858.38	5,871.9	Basin Fill	QTs	-	-	-	4	04/20/83	08/15/06	94.6	-	5,777.4	0.518966665	0.2975	0.25	1.0664E+00
Y	184	384216114260001	184 N10 E67 26BB 1 USGS-MX	4,287,098.91	723,118.24	5,948.0	Basin Fill	QTs	200	50-200	-	6	07/01/80	09/29/91	46.4	-	5,901.6	229.1546028	66.8612	100	3.9602E+02
Y	184	384143114225101	184 N10 E68 30DD 1	4,286,019.70	727,785.32	5,930.4	Basin Fill	QTs	-	-	-	7	06/01/80	08/15/06	156.2	-	5,774.2	0.045403402	231.5940	625	8.5664E+02
Y	184	384039114232701	184 N10 E68 31CD 1 USGS-MX	4,284,212.83	726,899.78	5,910.0	Basin Fill	QTs	150	50-150	Y	14	07/01/80	08/15/06	119.8	-	5,790.2	0.033724843	47.1893	1,600	1.6472E+03
Y	184	184 N10 E68 36DA 1	184 N10 E68 36DA 1	4,284,974.83	735,813.28	6,515.9	Basin Fill	QTs	410	90-410	-	1	03/01/65	03/01/65	60.0	-	6,455.9	17	126.5942	625	7.6859E+02
Y	184	385108114302602	184 N11 E66 01AABB2	4,303,322.93	716,244.73	5,794.0	Basin Fill	QTs	30	-	-	5	04/20/83	07/27/04	2.1	-	5,791.9	0.013544	2.4667	100	1.0248E+02
N	184	384849114330701	184 N11 E66 15CA 1 USGS-MX	4,298,932.51	712,478.08	6,021.5	Basin Fill	QTs	200	50-200	-	-	-	-	-	<	5,821.5	-	-	-	-
Y	184	384831114314301	184 N11 E66 23AB 1 USGS-MX	4,298,432.13	714,519.33	5,844.0	Basin Fill	QTs	102	50-102	-	17	07/01/80	08/15/06	47.2	-	5,796.8	0.021791263	152.1600	1,600	1.7522E+03
Y	184	384818114314201	184 N11 E66 24A 1	4,298,059.48	715,567.55	5,787.9	Basin Fill	QTs	28	-	-	3	08/24/49	07/16/63	17.4	-	5,770.5	0.063333336	1,024.1611	625	1.6492E+03
Y	184	384814114305101	184 N11 E66 24BDAC1	4,297,942.06	715,788.02	5,778.5	Basin Fill	QTs	18	-	-	9	08/24/49	12/18/05	15.3	-	5,763.2	0.225205864	0.3904	625	6.2562E+02
Y	184	184 N11 E66 24D 1	184 N11 E66 24D 1	4,297,376.32	716,365.90	5,769.0	Basin Fill	QTs	28	-	-	1	06/15/80	06/15/80	19.0	-	5,750.0	17	1.5891	2,500	2.5186E+03
Y	184	384620114313601	184 N11 E66 35DBAC1	4,294,398.01	714,797.49	5,789.0	Basin Fill	QTs	240	220-240	-	4	04/20/83	05/10/06	-5.2	-	5,794.2	2.225572916	0.3877	100	1.0261E+02
Y	184	384620114313602	184 N11 E66 35DBAC2	4,294,398.01	714,797.49	5,789.0	Basin Fill	QTs	12	-	-	7	04/22/60	05/10/06	2.9	-	5,786.1	0.218842176	0.3877	100	1.0061E+02
N	184	184 N11 E67 01BC 1	184 N11 E67 01BC 1	4,303,023.32	724,909.37	5,794.0	Basin Fill	QTs	54	50-54	-	-	-	-	-	>	5,794.0	-	-	-	-
N	184	385038114243801	184 N11 E67 01C 1	4,302,311.59	725,345.69	5,806.8	Basin Fill	QTs	55	50-55	-	-	-	-	-	>	5,806.8	-	-	-	-
N	184	184 N11 E67 01C 1	184 N11 E67 01C 1	4,302,433.76	725,127.97	5,824.0	Basin Fill	QTs	353	50-353	-	-	-	-	-	>	5,824.0	-	-	-	-
Y	184	384917114245801	184 N11 E67 13B 1 USBLM	4,300,143.84	725,069.41	5,804.0	Basin Fill	QTs	15	-	-	1	01/01/35	01/01/35	7.0	-	5,797.0	17	1,216.8717	100	1.3339E+03
Y	184	184 N11 E67 13DC 1	184 N11 E67 13DC 1	4,298,994.70	725,824.21	5,784.0	Basin Fill	QTs	-	-	-	1	09/01/64	09/01/64	10.0	-	5,774.0	17	14.3573	625	6.5636E+02
N	184	184 N11 E67 23DA 1	184 N11 E67 23DA 1 Blind Spring	4,297,976.82	724,791.69	5,772.7	Spring	-	-	-	-	-	-	-	-	>	5,772.7	-	-	-	-
N	184	385026114205701	184 N11 E68 04C 1 Swallow Spring	4,302,614.00	729,503.00	6,294.3	Spring	-	-	-	-	-	-	-	-	>	6,294.3	-	-	-	-
N	184	385033114215601	184 N11 E68 05CA 1 Spring	4,302,589.12	728,571.52	6,084.2	Spring	-	-	-	-	-	-	-	-	>	6,084.2	-	-	-	-
Y	184	384745114224401	184 N11 E68 19DCDC1 USGS-MX (Spring Valley)	4,297,253.62	727,590.43	5,910.1	Basin Fill	QTs	200	50-200	-	58	01/01/81	08/16/06	97.9	-	5,812.2	0.048227688	239.8486	1,600	1.8399E+03
Y	184	384604114234301	184 N11 E68 31C 1 USBLM	4,294,404.37	726,982.10	5,842.1	Basin Fill	QTs	80	50-80	-	1	07/15/64	07/15/64	71.2	-	5,770.9	17	63.0402	625	7.0504E+02
Y	184	384558114230501	184 N11 E68 31CDCD1 USBLM	4,294,032.74	727,175.47	5,853.0	Basin Fill	QTs	260	50-260	-	1	03/08/90	03/08/90	70.1	-	5,782.9	17	0.3149	100	1.1731E+02
Y	184	184 N12 E66 21CD 1	184 N12 E66 21CD 1	4,306,563.50	710,561.25	6,397.3	Carbonate Well	PPPc	633	597-613	-	1	09/15/66	09/15/66	564.0	-	5,833.3	17	323.0139	625	9.6501E+02

Table A.2-1
Steady-State Water-Level Data Set and Additional Wells or Springs Used for Control
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SS Well	HA	Site No.	Station Name	UTM N (m)	UTM E (m)	Ref. Pt. Elev. (ft-amsl)	Site Type	HGU	Well Depth (ft-bgs)	Open Interval (ft-bgs)	Excluded Data Flag	No. of Meas.	POR-Start Date	POR-End Date	Mean DTW (ft-bgs)	Q Elev.	Mean Elev. (ft-amsl)	V. Sample Mean (ft^2)	V. of Vertical Error (ft^2)	V. Land Surface (ft^2)	Total Var (ft^2)
N	184	184 N12 E67 02A	184 N12 E67 02A	4,312,920.09	724,031.41	5,804.1	Basin Fill	QTs	-	-	-	-	-	-	-	>	5,804.1	-	-	-	-
N	184	184 N12 E67 02A 1	184 N12 E67 02A 1	4,312,920.09	724,031.41	5,804.1	Basin Fill	QTs	-	-	-	-	-	-	-	>	5,804.1	-	-	-	-
N	184	184 N12 E67 02A 2	184 N12 E67 02A 2	4,312,920.09	724,031.41	5,804.1	Basin Fill	QTs	-	-	-	-	-	-	-	>	5,804.1	-	-	-	-
N	184	184 N12 E67 02A 3	184 N12 E67 02A 3	4,312,920.09	724,031.41	5,804.1	Basin Fill	QTs	-	-	-	-	-	-	-	>	5,804.1	-	-	-	-
N	184	184 N12 E67 02A 4	184 N12 E67 02A 4	4,312,920.09	724,031.41	5,804.1	Basin Fill	QTs	-	-	-	-	-	-	-	>	5,804.1	-	-	-	-
N	184	184 N12 E67 02A 5	184 N12 E67 02A 5	4,312,920.09	724,031.41	5,804.1	Basin Fill	QTs	-	-	-	-	-	-	-	>	5,804.1	-	-	-	-
N	184	184 N12 E67 02AB 1	184 N12 E67 02AB 1 Cedars	4,312,910.59	723,712.30	5,783.4	Spring	-	-	-	-	-	-	-	-	>	5,783.4	-	-	-	-
N	184	385622114250001	184 N12 E67 02ABA 1	4,313,222.32	723,829.97	5,804.1	Basin Fill	QTs	-	-	-	-	-	-	-	>	5,804.1	-	-	-	-
N	184	385617114245901	184 N12 E67 02ABD 1	4,313,068.84	723,858.44	5,814.1	Basin Fill	QTs	-	-	-	-	-	-	-	>	5,814.1	-	-	-	-
Y	184	385613114250401	184 N12 E67 02ACBA1 USBLM	4,312,879.76	723,719.18	5,781.1	Basin Fill	QTs	441	421-441	-	5	10/24/71	05/10/06	-25.0	-	5,806.1	43.0264	2.6438	100	1.4567E+02
Y	184	385623114272501	184 N12 E67 03B 1 USGS	4,313,009.05	721,739.39	5,774.0	Basin Fill	QTs	30	-	-	3	08/15/53	12/13/69	5.7	-	5,768.3	1.447777785	38.0709	100	1.3952E+02
Y	184	385526114290701	184 N12 E67 08A 1	4,311,550.38	719,225.44	5,764.2	Basin Fill	QTs	45	-	-	1	01/01/35	01/01/35	20.0	-	5,744.2	17	367.8352	625	1.0098E+03
Y	184	184 N12 E67 11A 1	184 N12 E67 11A 1	4,311,293.11	724,080.14	5,804.1	Basin Fill	QTs	21.3	-	-	1	08/15/49	08/15/49	12.0	-	5,792.1	17	208.8386	2,500	2.7258E+03
Y	184	184 N12 E67 11A 2	184 N12 E67 11A 2	4,311,306.47	724,077.91	5,804.1	Basin Fill	QTs	10	-	-	1	08/18/49	08/18/49	6.0	-	5,798.1	17	205.5060	2,500	2.7225E+03
Y	184	385504114240801	184 N12 E67 12CAAD1	4,310,792.13	725,176.52	5,886.1	Basin Fill	QTs	182	20-182	-	4	07/08/76	03/07/90	30.4	-	5,855.7	4.940572917	104.7548	100	2.0970E+02
Y	184	184 N12 E67 12D 1	184 N12 E67 12D 1	4,310,532.47	725,718.70	5,924.1	Basin Fill	QTs	300	50-300	-	1	08/15/49	08/15/49	14.0	-	5,910.1	17	624.1482	2,500	3.1411E+03
Y	184	184 N12 E67 12D 2	184 N12 E67 12D 2	4,310,545.67	725,716.51	5,924.1	Basin Fill	QTs	21	-	-	1	08/15/49	08/15/49	14.0	-	5,910.1	17	701.7534	2,500	3.2188E+03
Y	184	184 N12 E67 12D 3	184 N12 E67 12D 3	4,310,558.86	725,716.51	5,944.1	Basin Fill	QTs	169	68-158	-	1	07/15/59	07/15/59	50.0	-	5,894.1	17	782.9826	2,500	3.3000E+03
Y	184	385433114242501	184 N12 E67 13A 1	4,309,504.10	725,454.35	5,904.1	Basin Fill	QTs	80	12-80	-	1	10/10/55	10/10/55	8.0	-	5,896.1	17	7,301.8201	100	7.4188E+03
N	184	385435114250601	184 N12 E67 13B 1	4,309,697.97	724,677.29	5,804.1	Basin Fill	QTs	220	200-220	-	-	-	-	-	>	5,804.1	-	-	-	-
Y	184	184 N12 E67 13DD 1	184 N12 E67 13DD 1	4,308,727.52	725,970.72	5,894.1	Basin Fill	QTs	220	88-192	-	1	06/15/80	06/15/80	44.0	-	5,850.1	17	562.0864	2,500	3.0791E+03
N	184	184 N12 E67 18AD 1	184 N12 E67 18AD 1 North Spring	4,309,388.28	717,767.63	5,763.2	Spring	-	-	-	-	-	-	-	-	>	5,763.2	-	-	-	-
Y	184	184 N12 E67 20BD 1	184 N12 E67 20BD 1	4,307,621.00	718,828.06	5,754.0	Basin Fill	QTs	99	20-99	-	1	06/15/79	06/15/79	15.0	-	5,739.0	17	0.0000	625	6.4200E+02
Y	184	385348114243301	184 N12 E67 24BBB 1	4,308,492.81	724,615.12	5,784.0	Basin Fill	QTs	155	93-138	-	1	04/20/83	04/20/83	-11.4	-	5,795.4	17	5.3081	100	1.2231E+02
Y	184	385314114250901	184 N12 E67 24C 1	4,307,667.92	724,903.82	5,854.0	Basin Fill	QTs	-	50-300	-	1	07/15/60	07/15/60	23.0	-	5,831.0	17	5,032.8540	100	5.1499E+03
Y	184	385259114240701	184 N12 E67 24CDDD1	4,306,970.46	725,333.67	5,847.0	Basin Fill	QTs	260	0-260	-	4	07/15/60	03/08/90	22.4	-	5,824.6	1.971756247	3.4755	100	1.0545E+02
Y	184	385315114233501	184 N12 E67 24DAD 1	4,307,515.22	726,041.67	5,924.1	Basin Fill	QTs	-	-	-	1	04/19/83	04/19/83	57.3	-	5,866.8	17	3.3822	100	1.2038E+02
Y	184	385259114234901	184 N12 E67 24DCD 1	4,307,012.28	725,718.39	5,904.1	Basin Fill	QTs	300	100-290	-	2	07/15/76	04/19/83	70.4	-	5,833.7	57.76000001	4.3782	100	1.6214E+02
Y	184	184 N12 E67 26AA 1	184 N12 E67 26AA 1	4,306,661.81	724,410.31	5,784.0	Basin Fill	QTs	-	-	-	1	06/15/80	06/15/80	19.0	-	5,765.0	17	278.8287	2,500	2.7958E+03
N	184	184 N12 E67 26AC 1	184 N12 E67 26AC 1 The Seep	4,306,336.89	723,833.10	5,760.5	Spring	-	-	-	-	-	-	-	-	>	5,760.5	-	-	-	-
Y	184	385251114272701	184 N12 E67 27B 1	4,306,166.65	722,003.82	5,754.0	Basin Fill	QTs	30	11-30	-	1	10/13/55	10/13/55	13.0	-	5,741.0	17	61.2619	100	1.7826E+02
Y	184	184 N12 E67 31DD 1	184 N12 E67 31DD 1	4,303,662.00	718,021.58	5,759.0	Basin Fill	QTs	456	50-456	-	1	04/15/64	04/15/64	15.0	-	5,744.0	17	1.0100	2,500	2.5180E+03
Y	184	390127114350101	184 N13 E66 05ACAB1	4,322,228.55	709,108.62	6,478.3	Carbonate Well	Cc	45	20-40	-	3	10/05/55	03/05/90	22.6	-	6,455.7	14.27284444	7.9874	256	2.7826E+02
N	184	385913114310401	184 N13 E66 13CCAA1 USGS-MX	4,318,250.71	714,921.33	5,982.1	Basin Fill	QTs	132	50-132	-	-	-	-	-	<	5,841.1	-	-	-	-
N	184	385835114332701	184 N13 E66 22DBAA1	4,316,986.06	711,511.73	6,280.7	Basin Fill	QTs	-	-	-	-	-	-	-	<	6,280.7	-	-	-	-
Y	184	390032114281901	184 N13 E67 08ACAB1	4,320,793.65	718,751.92	5,774.0	Basin Fill	QTs	45	-	Y	50	12/29/47	07/03/90	13.4	-	5,760.7	0.017869613	1.8132	100	1.0183E+02
Y	184	385928114264901	184 N13 E67 15CBBB1	4,318,882.90	721,044.48	5,864.0	Basin Fill	QTs	-	-	-	1	04/20/83	04/20/83	83.6	-	5,780.4	17	0.6795	100	1.1768E+02
Y	184	385915114261901	184 N13 E67 15CDAA1	4,318,502.40	721,777.64	5,884.1	Basin Fill	QTs	272	100-268	-	1	04/20/83	04/20/83	103.4	-	5,780.7	17	1.4121	100	1.1841E+02
Y	184	385915114261902	184 N13 E67 15CDAA2	4,318,502.40	721,777.64	5,884.1	Basin Fill	QTs	487	100-487	-	1	04/20/83	04/20/83	102.3	-	5,781.8	17	1.4121	100	1.1841E+02
Y	184	385903114261701	184 N13 E67 15CDDD1	4,318,133.77	721,836.18	5,869.1	Basin Fill	QTs	550	80-550	-	2	01/23/68	04/20/83	69.7	-	5,799.4	245.5489	1.3837	100	3.4693E+02

Table A.2-1
Steady-State Water-Level Data Set and Additional Wells or Springs Used for Control
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SS Well	HA	Site No.	Station Name	UTM N (m)	UTM E (m)	Ref. Pt. Elev. (ft-amsl)	Site Type	HGU	Well Depth (ft-bgs)	Open Interval (ft-bgs)	Excluded Data Flag	No. of Meas.	POR-Start Date	POR-End Date	Mean DTW (ft-bgs)	Q Elev.	Mean Elev. (ft-amsl)	V. Sample Mean (ft^2)	V. of Vertical Error (ft^2)	V. Land Surface (ft^2)	Total Var (ft^2)
Y	184	184 N13 E67 15D 1	184 N13 E67 15D 1	4,318,522.81	722,249.36	5,954.1	Basin Fill	QTs	-	50-290	-	1	11/01/64	11/01/64	73.0	-	5,881.1	17	340.9709	625	9.8297E+02
Y	184	184 N13 E67 15D 2	184 N13 E67 15D 2	4,318,522.81	722,249.36	5,904.1	Basin Fill	QTs	-	50-65	-	1	08/01/49	08/01/49	60.0	-	5,844.1	17	340.9709	625	9.8297E+02
Y	184	385906114260501	184 N13 E67 15DCDC1 USGS-MX	4,318,234.40	722,122.34	5,890.1	Basin Fill	QTs	160	50-160	-	4	07/01/80	04/20/83	93.5	-	5,796.6	0.821006248	0.5929	100	1.0141E+02
Y	184	184 N13 E67 16DC 1	184 N13 E67 16DC 1	4,318,272.29	720,421.61	5,821.1	Basin Fill	QTs	-	-	-	1	07/01/71	07/01/71	72.0	-	5,749.1	17	57.5685	625	6.9957E+02
Y	184	385949114291801	184 N13 E67 17D 1 USBLM	4,318,971.94	718,706.21	5,774.1	Basin Fill	QTs	-	50-20	-	1	04/22/60	04/22/60	53.3	-	5,720.8	17	1,580.6498	100	1.6976E+03
Y	184	385927114281501	184 N13 E67 17DBAA1	4,318,794.30	718,976.02	5,779.0	Basin Fill	QTs	-	-	-	2	04/22/60	04/20/83	2.1	-	5,776.9	0.0064	0.1845	100	1.0019E+02
Y	184	385920114294001	184 N13 E67 18DCAB1 Majorwoods Windmill	4,318,401.91	717,060.41	5,854.1	Basin Fill	QTs	120	50-120	Y	49	07/18/91	08/16/06	52.0	-	5,802.1	0.002891009	0.5619	100	1.0056E+02
Y	184	385911114264901	184 N13 E67 22A 1	4,317,976.22	721,720.20	5,854.1	Basin Fill	QTs	-	-	-	1	04/22/60	04/22/60	70.0	-	5,784.1	17	2,083.2430	100	2.2002E+03
Y	184	184 N13 E67 22AD 1	184 N13 E67 22AD 1	4,317,534.84	722,489.29	5,864.1	Basin Fill	QTs	-	-	-	1	02/01/72	02/01/72	60.0	-	5,804.1	17	99.0121	625	7.4101E+02
Y	184	385849114255901	184 N13 E67 22ADBB1	4,317,714.32	722,281.50	5,869.1	Basin Fill	QTs	300	50-90/200-300	-	1	04/20/83	04/20/83	72.2	-	5,796.9	17	1.0294	100	1.1803E+02
Y	184	385852114261701	184 N13 E67 22BADD1	4,317,794.62	721,845.73	5,859.1	Basin Fill	QTs	500	90-485	-	3	01/01/68	04/20/83	69.5	-	5,789.6	35.44551111	1.2133	100	1.3666E+02
Y	184	385902114264801	184 N13 E67 22BBBB1	4,318,081.98	721,091.06	5,844.0	Basin Fill	QTs	-	-	-	1	04/20/83	04/20/83	58.9	-	5,785.2	17	0.5254	100	1.1753E+02
Y	184	184 N13 E67 22D 1	184 N13 E67 22D 1	4,316,903.24	722,298.76	5,834.1	Basin Fill	QTs	63	40-60	-	1	08/01/49	08/01/49	25.0	-	5,809.1	17	134.4509	625	7.7645E+02
Y	184	385757114251601	184 N13 E67 26BADC1	4,316,078.01	723,339.45	5,864.1	Basin Fill	QTs	300	94-248/248-300	-	4	06/04/67	03/07/90	62.8	-	5,801.3	27.54406667	2.3675	100	1.2991E+02
Y	184	184 N13 E67 26BD 1	184 N13 E67 26BD 1	4,315,936.43	723,314.96	5,822.1	Basin Fill	QTs	-	-	-	1	12/01/64	12/01/64	28.0	-	5,794.1	17	658.7433	625	1.3007E+03
Y	184	385723114250801	184 N13 E67 26DCCB1	4,315,097.56	723,584.03	5,854.1	Basin Fill	QTs	300	94-300	-	3	06/04/62	04/20/83	47.5	-	5,806.6	0.266944442	0.8609	100	1.0113E+02
Y	184	385627114292101	184 N13 E67 31DDCC1	4,313,201.45	717,565.06	5,792.1	Basin Fill	QTs	-	-	-	4	04/22/60	12/18/05	24.4	-	5,767.6	3.503072916	0.6135	100	1.0412E+02
Y	184	385659114280301	184 N13 E67 33D 1 USBLM	4,314,002.84	720,868.12	5,774.0	Basin Fill	QTs	30	-	-	2	04/22/60	06/01/80	7.2	-	5,766.9	1.322499994	5,548.1012	100	5.6494E+03
Y	184	385636114265501	184 N13 E67 33DDA 1	4,313,575.92	721,048.74	5,774.0	Basin Fill	QTs	6	-	-	10	06/01/80	08/16/06	6.7	-	5,767.3	0.801815666	0.2249	100	1.0103E+02
N	184	385714114264001	184 N13 E67 34A 1	4,314,713.55	722,004.72	5,784.1	Basin Fill	QTs	-	-	-	-	-	-	-	>	5,784.1	-	-	-	-
Y	184	184 N13 E67 34AA 1	184 N13 E67 34AA 1	4,314,694.41	722,559.86	5,784.1	Basin Fill	QTs	-	-	-	1	07/01/66	07/01/66	14.0	-	5,770.1	17	41.2409	625	6.8324E+02
Y	184	385715114254501	184 N13 E67 34AAAA1	4,314,825.72	722,700.26	5,809.1	Basin Fill	QTs	916	50-916	-	4	04/19/83	11/09/83	2.4	-	5,806.7	0.004016665	0.2174	100	1.0022E+02
N	184	385651114252601	184 N13 E67 34ADDD1	4,314,098.71	723,178.61	5,799.1	Basin Fill	QTs	-	-	-	-	-	-	-	>	5,799.1	-	-	-	-
N	184	385655114261301	184 N13 E67 35C 1 USBLM	4,314,000.78	722,988.62	5,804.1	Basin Fill	QTs	-	-	-	-	-	-	-	>	5,804.1	-	-	-	-
N	184	385655114254201	184 N13 E67 35D 1 USBLM	4,313,710.17	723,623.37	5,834.1	Basin Fill	QTs	396	50-396	-	-	-	-	-	>	5,834.1	-	-	-	-
Y	184	390417114302701	184 N14 E66 24AABB1 USBLM	4,327,647.69	715,554.73	5,842.0	Basin Fill	QTs	27	-	Y	3	08/15/49	04/21/83	25.2	-	5,816.7	0.001244446	0.1774	0.25	4.2861E-01
Y	184	390352114305401	184 N14 E66 24BDDD1 USGS-MX (Spring Valley N.)	4,326,859.16	714,926.89	5,844.0	Basin Fill	QTs	160	50-160	Y	61	09/28/91	08/14/06	37.3	-	5,806.7	0.009642558	88.0947	1,600	1.6881E+03
Y	184	390315114304701	184 N14 E66 25BADD1 USBLM	4,325,722.99	715,126.38	5,842.0	Basin Fill	QTs	61	50-61	-	4	08/15/44	03/06/90	22.5	-	5,819.6	1.284383334	8.1141	0.25	9.6485E+00
Y	184	184 N14 E66 34CD 1	184 N14 E66 34CD 1	4,322,897.19	711,827.91	6,164.1	Basin Fill	QTs	-	-	-	1	06/01/80	06/01/80	338.0	-	5,826.1	17	290.1191	625	9.3212E+02
N	184	184 N14 E67 04DB 1	184 N14 E67 04DB 1 Layton Spring	4,331,794.14	720,204.10	5,698.0	Spring	-	-	-	-	-	-	-	-	>	5,698.0	-	-	-	-
N	184	390556114303901	184 N14 E67 07D 1 UNR Agricultural Exp Sta	4,329,530.66	716,705.42	5,854.0	Basin Fill	QTs	340	50-340	-	-	-	-	-	>	5,854.0	-	-	-	-
Y	184	390448114274401	184 N14 E67 15C 1	4,327,999.85	721,558.19	5,894.3	Basin Fill	QTs	600	50-600	-	1	04/22/60	04/22/60	12.0	-	5,882.3	17	29,068.3551	625	2.9710E+04
Y	184	184 N14 E67 16DD 1	184 N14 E67 16DD 1 QUEEN CITY	4,327,834.83	720,417.21	5,763.1	Basin Fill	QTs	-	-	-	4	07/15/96	07/16/99	42.1	-	5,721.0	0.01475	287.7670	625	9.1278E+02
Y	184	184 N14 E67 16DD 2	184 N14 E67 16DD 2	4,328,008.39	720,529.45	5,774.0	Basin Fill	QTs	200	50-200	-	1	09/15/70	09/15/70	30.0	-	5,744.0	17	279.2047	2,500	2.7962E+03
Y	184	184 N14 E67 21DC 1	184 N14 E67 21DC 1	4,326,376.37	720,167.75	5,754.0	Basin Fill	QTs	154	50-154	-	1	05/15/68	05/15/68	33.0	-	5,721.0	17	10.6832	2,500	2.5277E+03

Table A.2-1
Steady-State Water-Level Data Set and Additional Wells or Springs Used for Control
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SS Well	HA	Site No.	Station Name	UTM N (m)	UTM E (m)	Ref. Pt. Elev. (ft-amsl)	Site Type	HGU	Well Depth (ft-bgs)	Open Interval (ft-bgs)	Excluded Data Flag	No. of Meas.	POR-Start Date	POR-End Date	Mean DTW (ft-bgs)	Q Elev.	Mean Elev. (ft-amsl)	V. Sample Mean (ft^2)	V. of Vertical Error (ft^2)	V. Land Surface (ft^2)	Total Var (ft^2)
Y	184	390330114264401	184 N14 E67 22CCCA1	4,326,409.14	720,953.48	5,794.0	Basin Fill	QTs	238	60-235	-	3	08/01/69	03/07/90	59.5	-	5,734.6	5.280177779	6.8046	100	1.1208E+02
Y	184	390336114272701	184 N14 E67 27B 1	4,325,793.86	721,018.89	5,828.2	Basin Fill	QTs	16	-	-	1	08/22/49	08/22/49	12.2	-	5,816.0	17	12,094.9491	625	1.2737E+04
N	184	184 N14 E67 32AC 1	184 N14 E67 32AC 1 Willard Springs	4,323,976.17	718,690.65	5,758.9	Spring	-	-	-	-	-	-	-	-	>	5,758.9	-	-	-	-
Y	184	390940114302001	184 N15 E66 13D 1	4,337,610.93	715,449.28	5,764.0	Basin Fill	QTs	82	50-82	-	23	09/10/52	03/17/92	18.4	-	5,745.6	0.702076181	2.9188	100	1.0362E+02
Y	184	390952114214401	184 N15 E66 14DBBD1	4,338,331.46	727,824.75	6,537.7	Basin Fill	QTs	168	87-168	-	3	06/29/99	08/15/06	27.2	-	6,510.5	4.800177779	30.7777	625	6.6058E+02
Y	184	390940114314801	184 N15 E66 24B 1 USGS	4,337,586.52	714,561.11	5,841.4	Basin Fill	QTs	82	50-82	-	5	09/14/47	11/11/64	19.6	-	5,821.9	1.741599998	8,663.5102	625	9.2903E+03
Y	184	390802114303001	184 N15 E66 25DADC1 White Pine Power Project	4,334,582.82	715,292.25	5,849.0	Basin Fill	QTs	470	290-390/450-465	-	3	08/17/82	03/07/90	37.2	-	5,811.8	48.2853	1.6627	100	1.4995E+02
Y	184	390807114304101	184 N15 E66 25DBCB1 White Pine Power Project	4,334,729.73	715,023.86	5,859.0	Basin Fill	QTs	178	53-173	-	1	04/21/83	04/21/83	46.7	-	5,812.3	17	1.1423	100	1.1814E+02
Y	184	390802114303901	184 N15 E66 25DBCC1 White Pine Power Project	4,334,576.89	715,076.11	5,862.0	Basin Fill	QTs	580	170-570	-	1	09/02/82	09/02/82	50.8	-	5,811.2	17	1.2552	100	1.1826E+02
Y	184	391123114245001	184 N15 E67 02DA 1 USGS-MX	4,341,008.55	723,280.06	5,772.9	Basin Fill	QTs	185	50-185	-	1	07/01/80	07/01/80	150.0	-	5,622.9	17	15,002.9850	625	1.5645E+04
Y	184	391135114244701	184 N15 E67 02DACB1 USAF	4,341,380.59	723,341.48	5,783.9	Basin Fill	QTs	185	50-185	-	4	07/01/80	04/21/83	158.4	-	5,625.5	52.13626667	4.4756	400	4.5661E+02
Y	184	390936114305801	184 N15 E67 19B 1	4,336,762.83	716,025.18	5,723.5	Basin Fill	QTs	83	11-44	-	2	09/30/47	06/15/80	8.0	-	5,715.5	1	2,860.6003	625	3.4866E+03
Y	184	390803114251001	184 N15 E67 26CA 1 USGS-MX	4,334,816.86	722,567.44	5,663.7	Basin Fill	QTs	200	50-200	-	12	01/01/81	08/15/06	36.0	-	5,627.7	1.691548485	45.9896	625	6.7268E+02
N	184	184 N15 E67 26CA 1	184 N15 E67 26CA 1	4,334,906.77	722,765.17	5,686.3	Basin Fill	QTs	200	50-200	-	-	-	-	-	>	5,686.3	-	-	-	-
N	184	184 N15 E67 29DB 1	184 N15 E67 29DB 1 South Bastian Spring	4,334,864.78	718,387.70	5,660.3	Spring	-	-	-	-	-	-	-	-	>	5,660.3	-	-	-	-
Y	184	184 N15 E67 35BD 1	184 N15 E67 35BD 1	4,333,729.64	722,776.85	5,774.4	Basin Fill	QTs	200	50-200	-	1	03/15/81	03/15/81	23.0	-	5,751.4	17	411.7824	2,500	2.9288E+03
Y	184	184 N15 E68 17DD 1	184 N15 E68 17DD 1	4,337,692.50	728,131.63	6,812.2	Carbonate Well	MOc	265	201-265	-	1	06/15/99	06/15/99	167.0	-	6,645.2	17	6,574.8140	625	7.2168E+03
Y	184	184 N16 E66 26A 1	184 N16 E66 26A 1	4,344,800.57	714,703.02	5,950.0	Basin Fill	QTs	260	50-260	-	1	12/01/64	12/01/64	230.0	-	5,720.0	17	537.0680	625	1.1791E+03
Y	184	391224114293601	184 N16 E66 36DBAD1 USBLM - CLEVE CREEK WELL	4,342,689.47	716,361.20	5,862.0	Basin Fill	QTs	-	-	-	8	03/07/90	08/14/06	209.0	-	5,653.0	1.230549106	0.0180	100	1.0125E+02
Y	184	184 N16 E67 02BC 1	184 N16 E67 02BC 1	4,351,231.29	723,228.90	5,610.6	Basin Fill	QTs	140	60-140	-	1	06/15/83	06/15/83	25.0	-	5,585.6	17	296.1117	625	9.3811E+02
Y	184	184 N16 E67 03A 1	184 N16 E67 03A 1	4,351,423.80	722,654.79	5,583.9	Basin Fill	QTs	16	-	-	1	05/15/49	05/15/49	3.0	-	5,580.9	17	281.3516	2,500	2.7984E+03
Y	184	391713114244701	184 N16 E67 03AAAA1	4,351,771.19	723,044.48	5,589.9	Basin Fill	QTs	187	167-187	-	5	08/01/49	03/07/90	4.0	-	5,585.9	0.1004	0.3810	100	1.0048E+02
N	184	184 N16 E67 04DA 1	184 N16 E67 04DA 1	4,350,768.97	721,241.58	5,569.0	Basin Fill	QTs	-	-	-	-	-	-	-	>	5,569.0	-	-	-	-
Y	184	184 N16 E67 11AB 1	184 N16 E67 11AB 1	4,350,046.35	724,069.54	5,638.9	Basin Fill	QTs	-	-	-	1	05/01/73	05/01/73	35.0	-	5,603.9	17	118.0597	625	7.6006E+02
Y	184	391524114300801	184 N16 E67 18A 1	4,347,886.07	717,685.38	5,598.3	Basin Fill	QTs	16	-	Y	2	08/15/49	06/30/05	11.1	-	5,587.2	0.004900001	1,816.9429	625	2.4419E+03
Y	184	391327114255901	184 N16 E67 27D 1	4,343,859.72	721,542.31	5,597.7	Basin Fill	QTs	16	-	-	2	07/15/64	06/01/80	8.5	-	5,589.2	2.250000004	325.4668	625	9.5272E+02
Y	184	391308114245101	184 N16 E67 27DADD1 USBLM	4,344,245.27	723,163.65	5,617.4	Basin Fill	QTs	13	-	Y	8	04/21/83	08/15/06	9.4	-	5,607.9	0.080996206	0.2413	625	6.2532E+02
N	184	184 N17 E67 08BC 1	184 N17 E67 08BC 1	4,359,133.90	718,177.74	5,573.9	Basin Fill	QTs	-	-	-	-	-	-	-	>	5,573.9	-	-	-	-
Y	184	392028114290301	184 N17 E67 18BCAA1	4,357,641.32	716,742.10	5,623.9	Basin Fill	QTs	125	65-125	-	1	06/03/96	06/03/96	21.0	-	5,602.9	17	4.2788	100	1.2128E+02
N	184	184 N17 E67 25CD 1	184 N17 E67 25CD 1 South Millick Spring	4,353,598.54	725,201.14	5,592.6	Spring	-	-	-	-	-	-	-	-	>	5,592.6	-	-	-	-
N	184	184 N17 E67 25DB 1	184 N17 E67 25DB 1 North Millick Spring	4,353,981.31	725,759.71	5,590.1	Spring	-	-	-	-	-	-	-	-	>	5,590.1	-	-	-	-
Y	184	391908114270801	184 N17 E67 28A 1 USBLM	4,354,634.17	720,637.25	5,563.9	Basin Fill	QTs	29	-	-	1	02/18/49	02/18/49	22.1	-	5,541.8	17	107.6259	100	2.2463E+02
Y	184	391835114282001	184 N17 E67 30AC 1	4,354,185.96	717,869.13	5,579.0	Basin Fill	QTs	15	-	-	2	08/18/49	04/21/83	5.7	-	5,573.3	10.89	785.5632	625	1.4215E+03
N	184	184 N17 E67 30CB 1	184 N17 E67 30CB 1	4,353,861.91	716,697.81	5,718.0	Basin Fill	QTs	100	50-100	-	-	-	-	-	>	5,718.0	-	-	-	-

Table A.2-1
Steady-State Water-Level Data Set and Additional Wells or Springs Used for Control
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SS Well	HA	Site No.	Station Name	UTM N (m)	UTM E (m)	Ref. Pt. Elev. (ft-amsl)	Site Type	HGU	Well Depth (ft-bgs)	Open Interval (ft-bgs)	Excluded Data Flag	No. of Meas.	POR-Start Date	POR-End Date	Mean DTW (ft-bgs)	Q Elev.	Mean Elev. (ft-amsl)	V. Sample Mean (ft^2)	V. of Vertical Error (ft^2)	V. Land Surface (ft^2)	Total Var (ft^2)
Y	184	392238114222801	184 N17 E68 06A 1 USBLM	4,361,357.43	726,937.66	5,573.9	Basin Fill	QTs	31	-	-	1	08/16/49	08/16/49	23.7	-	5,550.2	17	236.2974	100	3.5330E+02
Y	184	392234114222801	184 N17 E68 06D 1 USGS	4,359,261.44	727,022.82	5,573.8	Basin Fill	QTs	28	-	-	7	08/05/48	08/15/06	25.2	-	5,548.7	0.702719047	1,904.3060	100	2.0050E+03
Y	184	392137114222801	184 N17 E68 07AB 1	4,359,939.78	727,003.03	5,561.8	Basin Fill	QTs	30	-	-	4	08/16/49	03/06/90	25.2	-	5,536.7	4.539691664	0.0952	100	1.0463E+02
Y	184	392750114310601	184 N18 E66 01B 1	4,370,755.83	714,534.40	5,636.0	Basin Fill	QTs	68	52-67	-	1	07/11/53	07/11/53	20.0	-	5,616.0	17	6,942.5084	625	7.5845E+03
Y	184	184 N18 E66 02A 1	184 N18 E66 02A 1	4,370,522.44	714,052.48	5,705.7	Basin Fill	QTs	60	50-60	-	1	10/01/62	10/01/62	31.0	-	5,674.7	17	1,001.9196	625	1.6439E+03
Y	184	184 N18 E66 24DC 1	184 N18 E66 24DC 1	4,364,678.00	715,684.06	5,616.6	Basin Fill	QTs	80	60-80	-	1	11/15/48	11/15/48	60.0	-	5,556.6	17	2,139.6319	625	2.7816E+03
Y	184	184 N18 E66 25A 2	184 N18 E66 25A 2	4,364,116.53	715,824.56	5,620.7	Basin Fill	QTs	160	140-160	-	1	07/01/50	07/01/50	26.0	-	5,594.7	17	495.0398	625	1.1370E+03
Y	184	392729114241101	184 N18 E67 01C 1	4,370,846.34	724,268.00	5,590.9	Basin Fill	QTs	45	-	-	1	07/16/64	07/16/64	58.9	-	5,532.0	17	180.1230	625	8.2212E+02
Y	184	392703114230501	184 N18 E67 01CCAA1	4,369,928.24	724,533.81	5,590.9	Basin Fill	QTs	42	-	Y	6	07/15/96	08/15/06	36.2	-	5,554.7	0.900636113	0.1053	100	1.0101E+02
Y	184	184 N18 E68 31A 1	184 N18 E68 31A 1	4,362,806.23	727,135.12	5,595.0	Basin Fill	QTs	465	50-465	-	1	03/01/61	03/01/61	58.0	-	5,537.0	17	372.2442	625	1.0142E+03
Y	184	184 N18 E68 31A 2	184 N18 E68 31A 2	4,362,806.23	727,135.12	5,595.0	Basin Fill	QTs	80	50-80	-	1	03/01/49	03/01/49	45.0	-	5,550.0	17	372.2442	625	1.0142E+03
Y	184	393211114320701	184 N19 E66 11B 1	4,378,168.71	712,560.59	5,762.4	Basin Fill	QTs	400	50-400	-	1	04/22/60	04/22/60	40.8	-	5,721.6	17	17,379.5057	625	1.8022E+04
Y	184	393055114310001	184 N19 E66 14AB 1	4,377,300.06	713,291.71	5,703.9	Basin Fill	QTs	805	239-770	-	5	09/01/72	08/14/02	45.7	-	5,658.2	3.309664	0.0160	100	1.0333E+02
Y	184	393059114221501	184 N19 E67 13AAAC1	4,377,544.63	725,388.63	5,617.9	Basin Fill	QTs	53	50-53	Y	8	08/16/49	08/15/06	48.8	-	5,569.1	0.30035692	0.0175	100	1.0032E+02
Y	184	184 N20 E66 13AB 1	184 N20 E66 13AB 1	4,386,972.41	715,086.86	5,770.9	Basin Fill	QTs	296	135-296	-	4	06/15/66	08/15/06	127.9	-	5,643.0	6.407972916	20.5869	625	6.5199E+02
Y	184	393729114265401	184 N20 E67 08D 1	4,388,618.80	719,886.08	5,783.9	Basin Fill	QTs	280	50-280	-	8	04/22/60	08/15/06	178.5	-	5,605.3	0.342807143	0.8808	100	1.0122E+02
Y	184	184 N20 E67 25BD 1	184 N20 E67 25BD 1	4,383,567.52	724,400.23	5,723.8	Basin Fill	QTs	-	-	-	1	06/01/80	06/01/80	144.0	-	5,579.8	17	24.5079	625	6.6651E+02
Y	184	184 N20 E67 26A 2	184 N20 E67 26A 2	4,383,759.97	723,403.31	5,703.8	Basin Fill	QTs	123	50-123	-	1	07/01/64	07/01/64	121.0	-	5,582.8	17	32.4686	625	6.7447E+02
Y	184	393442114231801	184 N20 E67 26ABBD1 USBLM	4,383,964.29	723,290.71	5,708.8	Basin Fill	QTs	130	50-130	Y	7	04/21/83	08/15/06	118.6	-	5,590.2	0.500484353	0.1421	100	1.0064E+02
Y	184	394333114311001	184 N21 E66 04B 2	4,400,261.42	712,523.54	6,056.3	Basin Fill	QTs	29	-	-	1	04/21/83	04/21/83	16.7	-	6,039.6	17	23,119.3590	625	2.3761E+04
N	184	184 N21 E66 15BC 1	184 N21 E66 15BC 1 Willow Spring	4,397,068.21	713,829.97	5,986.3	Spring	-	-	-	-	-	-	-	-	>	5,986.3	-	-	-	-
Y	184	395314114373101	184 N23 E65 10D 1	4,417,130.64	704,233.78	6,926.7	Basin Fill	QTs	-	-	-	1	04/22/60	04/22/60	65.0	-	6,861.7	17	10,372.8162	625	1.1015E+04
Y	184	395234114363601	184 N23 E65 14C 1	4,415,987.65	705,579.74	6,704.0	Basin Fill	QTs	140	50-140	-	1	05/31/77	05/31/77	124.0	-	6,580.0	17	1,312.4224	625	1.9544E+03
Y	184	395321114344001	184 N23 E66 07C 1	4,417,530.88	708,763.78	6,521.3	Basin Fill	QTs	23	-	-	1	08/19/49	08/19/49	15.8	-	6,505.5	17	27,025.3560	625	2.7667E+04
Y	184	395200114341201	184 N23 E66 19A 1	4,415,054.75	709,616.26	6,503.7	Basin Fill	QTs	30	-	-	1	08/19/49	08/19/49	20.0	-	6,483.7	17	36,023.2177	625	3.6665E+04
Y	184	394949114331801	184 N23 E66 31AB 1	4,411,771.32	709,159.11	6,354.0	Basin Fill	QTs	104	30-87	-	3	08/01/49	04/21/83	21.0	-	6,333.0	7.006711112	0.1809	2,500	2.5072E+03
N	184	394949114331802	184 N23 E66 31AB 2	4,411,771.32	709,159.11	6,354.0	Basin Fill	QTs	-	-	-	-	-	-	-	>	6,354.0	-	-	-	-
Y	184	184 N23 E66 31B 1	184 N23 E66 31B 1	4,411,813.81	708,578.83	6,374.0	Basin Fill	QTs	49	-	-	1	08/01/49	08/01/49	16.0	-	6,358.0	17	24,004.3399	625	2.4646E+04
N	184	184 N23 E66 31B 2	184 N23 E66 31B 2	4,411,813.81	708,578.83	6,374.0	Basin Fill	QTs	1040	50-1040	-	-	-	-	-	>	6,374.0	-	-	-	-
Y	184	394942114342001	184 N23 E66 31C 1	4,410,927.09	708,753.88	6,374.0	Basin Fill	QTs	95.7	30-87	-	1	06/04/53	06/04/53	26.0	-	6,348.0	17	73,142.2127	100	7.3259E+04
Y	184	184 N24 E66 31CB 1	184 N24 E66 31CB 1	4,420,817.10	708,165.62	6,726.8	Basin Fill	QTs	211	179-211	-	1	09/15/66	09/15/66	140.0	-	6,586.8	17	254.6359	625	8.9664E+02
Y	184	184W101	184W101	4,281,860.74	733,300.89	6,185.5	Carbonate Well	MOc	1,748.8	796-1,728	-	3	05/15/07	10/24/07	479.6	-	5,705.9	0.0361	1,338.4117	625	1.9634E+03
Y	184	184W103	184W103	4,293,483.29	713,702.97	5,910.3	Carbonate Well	PPPc	1,016.7	295.9-996	-	5	01/23/07	10/23/07	97.3	-	5,813.0	0.013566	953.4688	625	1.5785E+03
Y	184	184W105	184W105	4,306,009.73	713,996.84	5,996.2	Carbonate Well	PPPc	1,135.5	420-1,114	Y	6	12/05/06	10/23/07	208.2	-	5,787.9	0.0027427	406.3962	625	1.0314E+03
Y	184	184W502M	184W502M	4,281,908.52	733,301.24	6,187.9	Carbonate Well	MOc	1,800.0	494.51-1,778.54	-	4	05/15/07	10/24/07	479.2	-	5,708.7	0.444873	841.0822	625	1.4665E+03
Y	184	184W504M	184W504M	4,293,504.2	713,654.58	5,918.7	Carbonate Well	PPPc	1,020.0	308.94-998.93	-	7	12/05/06	10/23/07	99.9	-	5,818.8	0.1752190	919.4181	625	1.5446E+03
Y	184	184W506M	184W506M	4,306,008.25	713,942.19	6,002.2	Carbonate Well	PPPc	1,140.3	427.3-1,120	-	7	12/05/06	10/23/07	214.9	-	5,787.3	0.00401292	1,277.7483	625	1.9028E+03
Y	185	394422114205201	185 N22 E67 36DBAC1 USBLM	4,402,193.96	727,193.94	5,778.8	Basin Fill	QTs	350	50-350	-	2	12/07/56	08/02/84	292.4	-	5,486.4	5.929225005	1.4087	100	1.0734E+02
N	185	185 N23 E67 14BA 1	185 N23 E67 14BA 1 Tippett Springs	4,417,397.03	724,688.16	6,227.7	Spring	-	-	-	-	-	-	-	-	>	6,227.7	-	-	-	-

Table A.2-1
Steady-State Water-Level Data Set and Additional Wells or Springs Used for Control
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SS Well	HA	Site No.	Station Name	UTM N (m)	UTM E (m)	Ref. Pt. Elev. (ft-amsl)	Site Type	HGU	Well Depth (ft-bgs)	Open Interval (ft-bgs)	Excluded Data Flag	No. of Meas.	POR-Start Date	POR-End Date	Mean DTW (ft-bgs)	Q Elev.	Mean Elev. (ft-amsl)	V. Sample Mean (ft^2)	V. of Vertical Error (ft^2)	V. Land Surface (ft^2)	Total Var (ft^2)
N	185	185 N23 E67 26CA 1	185 N23 E67 26CA 1 Blind Spring	4,413,388.58	724,926.28	5,848.4	Spring	-	-	-	-	-	-	-	-	>	5,848.4	-	-	-	-
Y	185	395433114173701	185 N23 E68 04B 1 USBLM	4,420,610.05	730,728.60	5,673.2	Basin Fill	QTs	175	50-175	-	2	05/10/63	10/22/69	112.6	-	5,560.6	6.708100002	69.4743	625	7.0118E+02
Y	185	395106114150601	185 N23 E68 23DDBB1 USBLM	4,414,899.89	735,048.26	5,768.6	Basin Fill	QTs	-	-	-	1	08/02/84	08/02/84	263.5	-	5,505.1	17	1.0723	625	6.4307E+02
Y	185	395245114125901	185 N23 E69 07DCBD1 GOSHUTE RESERVATION	4,418,031.77	737,896.38	5,803.9	Basin Fill	QTs	-	-	-	3	10/22/69	08/14/02	278.6	-	5,525.3	7.400133342	0.0125	100	1.0741E+02
Y	185	185 N24 E68 17 1	185 N24 E68 17 1	4,426,448.50	729,449.00	5,962.6	Basin Fill	QTs	285	245-283	-	1	05/15/65	05/15/65	256.0	-	5,706.6	17	796.5609	625	1.4386E+03
Y	185	395750114112201	185 N24 E69 17AAAA1 GOSHUTE RESERVATION	4,427,526.55	739,820.38	5,849.9	Basin Fill	QTs	-	-	-	3	10/22/69	08/14/02	323.1	-	5,526.8	9.04581111	0.0095	100	1.0906E+02
Y	185	395608114123601	185 N24 E69 19DDCD1 Goshute Reservation	4,424,322.89	738,322.40	5,744.9	Basin Fill	QTs	252	50-252	-	2	10/22/69	08/02/84	219.5	-	5,525.4	36.060025	1.2780	100	1.3734E+02
Y	185	400110114154101	185 N25 E68 26B 1 USBLM	4,433,382.78	732,864.88	5,903.9	Basin Fill	QTs	448	412-448	-	1	10/22/69	10/22/69	378.2	-	5,525.7	17	5,550.6294	100	5.6676E+03
Y	185	395606114094401	253 N24 E69 27BAAB1 Goshute Reservation	4,424,390.04	742,407.48	5,790.5	Basin Fill	QTs	-	-	-	2	10/22/69	08/02/84	262.0	-	5,528.5	14.1376	1.6030	625	6.4074E+02
N	185	395915114024601	253 N24 E70 03A 1 Spring Creek Spring	4,430,540.48	752,137.45	5,516.2	Spring	-	-	-	-	-	-	-	-	>	5,516.2	-	-	-	-
Y	195	395518113432801	(C-10-17)26ddc- 1	4,424,192.14	779,876.55	4,338.4	Basin Fill	QTs	217	50-217	-	1	05/20/89	05/20/89	2.0	-	4,336.4	17	0.1135	100	1.1711E+02
Y	195	394915113343001	(C-11-15)30dcb- 1	4,415,087.43	792,994.14	4,379.3	Basin Fill	QTs	112	50-112	-	1	11/01/39	11/01/39	31.0	-	4,348.3	17	41.5497	625	6.8355E+02
N	195	(C-11-16) 6CBC 1	(C-11-16) 6CBC 1	4,421,346.61	782,272.84	4,349.4	Basin Fill	QTs	90	50-90	-	-	-	-	-	>	4,349.4	-	-	-	-
Y	195	(C-11-16) 6CC	(C-11-16) 6CC	4,420,963.43	782,329.96	4,353.4	Basin Fill	QTs	20	-	-	1	11/15/54	11/15/54	20.0	-	4,333.4	17	3.6684	2,500	2.5207E+03
Y	195	(C-11-16)24DD	(C-11-16)24DD	4,416,326.92	792,138.12	4,348.3	Basin Fill	QTs	201	50-201	-	1	07/15/80	07/15/80	24.0	-	4,324.3	17	15.4860	2,500	2.5325E+03
Y	195	394905113354101	(C-11-16)36cdb- 1	4,413,104.42	791,404.73	4,436.3	Basin Fill	QTs	147	50-147	Y	34	08/23/81	03/10/04	2.7	-	4,433.6	0.000857987	14.9619	625	6.3996E+02
Y	195	395343113423801	(C-11-17) 1bdc- 1	4,421,460.37	781,166.19	4,333.4	Basin Fill	QTs	221	50-221	-	2	11/01/38	10/15/64	4.5	-	4,328.9	0.250000004	2.6502	100	1.0290E+02
Y	195	395343113423902	(C-11-17) 1bdc- 2	4,421,305.30	781,148.12	4,333.4	Basin Fill	QTs	-	-	Y	4	09/20/84	03/03/87	2.7	-	4,330.6	0.192541666	5.7138	100	1.0591E+02
Y	195	395353113424201	(C-11-17) 1bdc- 3	4,421,611.03	781,065.47	4,343.4	Basin Fill	QTs	506	50-506	-	1	09/15/81	09/15/81	20.0	-	4,323.4	17	3.0748	100	1.2007E+02
Y	195	395319113431201	(C-11-17)11aaa- 1	4,420,536.31	780,391.41	4,383.4	Basin Fill	QTs	480	50-480	Y	5	03/28/84	03/03/87	41.7	-	4,341.7	0.666674	657.9301	625	1.2836E+03
Y	195	395259113422901	(C-11-17)12acc- 1	4,419,957.13	781,435.73	4,353.4	Basin Fill	QTs	135	50-135	Y	8	09/07/83	03/24/88	21.7	-	4,331.7	0.193364062	53.1817	100	1.5338E+02
Y	195	395259113430401	(C-11-17)12cbb- 1	4,419,926.51	780,604.16	4,393.4	Basin Fill	QTs	-	-	Y	6	06/15/95	07/19/95	45.6	-	4,347.8	0.019577779	7.7245	100	1.0774E+02
Y	195	395058113462001	(C-11-17)21cca- 1	4,416,025.25	776,082.27	4,818.5	Basin Fill	QTs	195	50-195	-	2	03/15/81	08/23/81	181.0	-	4,637.6	0.9025	171.2966	100	2.7220E+02
N	195	394702113394301	(C-12-16)17aab- 1	4,409,094.15	785,791.10	4,518.5	Basin Fill	QTs	146	50-146	-	-	-	-	-	<	4,368.5	-	-	-	-
N	195	394840113423001	(C-12-17) 1abc- 1	4,411,969.05	781,706.30	4,623.5	Basin Fill	QTs	157	50-157	-	-	-	-	-	<	4,463.5	-	-	-	-
Y	195	394414113442701	(C-12-17)34aac- 1	4,403,664.13	779,222.43	4,595.0	Basin Fill	QTs	-	-	-	36	03/12/80	03/10/04	78.0	-	4,516.9	0.190446955	494.4806	625	1.1197E+03
Y	195	394346113435501	(C-12-17)35cac- 1	4,402,828.45	780,015.84	4,594.0	Basin Fill	QTs	97	50-97	-	26	03/15/81	04/06/93	91.6	-	4,502.5	0.040838917	13.5110	625	6.3855E+02
Y	195	(C-13-16)6C 1	(C-13-16)6C 1	4,401,286.23	783,151.53	4,680.1	Basin Fill	QTs	252	222-252	-	2	10/20/62	10/04/06	198.2	-	4,481.9	3.186225001	103.4131	625	7.3160E+02
N	195	394306113423501	(C-13-17) 1bd - 1	4,401,664.69	781,966.15	4,639.3	Basin Fill	QTs	97	50-97	-	-	-	-	-	<	4,639.3	-	-	-	-
Y	195	(C-13-18)13ACC	(C-13-18)13ACC	4,398,021.49	772,421.70	4,683.5	Basin Fill	QTs	129	50-129	-	1	12/15/55	12/15/55	15.0	-	4,668.5	17	87.8735	2,500	2.6049E+03
Y	195	(C-13-18)13BCC	(C-13-18)13BCC	4,398,002.25	771,566.23	4,723.5	Basin Fill	QTs	218	50-218	-	1	05/15/57	05/15/57	62.0	-	4,661.5	17	254.9443	2,500	2.7719E+03
Y	195	394133113493901	(C-13-18)13cac- 1	4,398,432.52	771,969.77	4,704.9	Basin Fill	QTs	-	-	Y	4	09/05/85	03/03/87	1.9	-	4,703.0	0.536906251	34.5896	625	6.6013E+02
Y	195	394127113494200	(C-13-18)13cba- 1	4,398,244.97	771,904.85	4,701.5	Basin Fill	QTs	505	50-505	-	1	07/01/73	07/01/73	6.0	-	4,695.5	17	20.3741	100	1.3737E+02
N	195	(C-13-18)13D	(C-13-18)13D	4,397,583.07	772,699.73	4,683.5	Basin Fill	QTs	400	50-400	-	-	-	-	-	>	4,683.5	-	-	-	-
N	195	394143113505401	(C-13-18)14bba- 1	4,398,677.87	770,172.08	4,883.6	Basin Fill	QTs	98	50-98	-	-	-	-	-	<	4,782.6	-	-	-	-
Y	195	(C-13-18)14CCD	(C-13-18)14CCD	4,397,182.01	770,223.16	4,723.5	Basin Fill	QTs	-	-	-	1	08/15/79	08/15/79	54.0	-	4,669.5	17	48.8382	2,500	2.5658E+03
Y	195	(C-13-18)14DDB	(C-13-18)14DDB	4,397,525.38	771,103.61	4,723.5	Basin Fill	QTs	148	50-148	-	1	05/15/57	05/15/57	41.0	-	4,682.5	17	536.4258	2,500	3.0534E+03

Table A.2-1
Steady-State Water-Level Data Set and Additional Wells or Springs Used for Control
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SS Well	HA	Site No.	Station Name	UTM N (m)	UTM E (m)	Ref. Pt. Elev. (ft-amsl)	Site Type	HGU	Well Depth (ft-bgs)	Open Interval (ft-bgs)	Excluded Data Flag	No. of Meas.	POR-Start Date	POR-End Date	Mean DTW (ft-bgs)	Q Elev.	Mean Elev. (ft-amsl)	V. Sample Mean (ft^2)	V. of Vertical Error (ft^2)	V. Land Surface (ft^2)	Total Var (ft^2)
Y	195	(C-13-18)14DDC	(C-13-18)14DDC	4,397,186.41	771,191.65	4,723.5	Basin Fill	QTs	75	50-75	-	1	11/15/54	11/15/54	18.0	-	4,705.5	17	174.9027	2,500	2.6919E+03
Y	195	(C-13-18)22ACC	(C-13-18)22ACC	4,396,270.55	769,259.96	4,773.6	Basin Fill	QTs	82	50-82	-	1	08/15/79	08/15/79	11.0	-	4,762.6	17	257.1485	2,500	2.7741E+03
Y	195	(C-13-18)22CAA	(C-13-18)22CAA	4,396,122.42	768,956.43	4,773.6	Basin Fill	QTs	127	50-127	-	1	03/15/53	03/15/53	28.0	-	4,745.6	17	81.1536	2,500	2.5982E+03
Y	195	(C-13-18)22CBB	(C-13-18)22CBB	4,396,081.14	768,388.22	4,803.6	Basin Fill	QTs	44	-	-	1	03/15/53	03/15/53	15.0	-	4,788.6	17	376.2213	2,500	2.8932E+03
Y	195	(C-13-18)23AAB 1	(C-13-18)23AAB 1	4,397,007.32	771,159.57	4,703.5	Basin Fill	QTs	300	50-300	-	1	11/15/38	11/15/38	17.0	-	4,686.5	17	20.8944	2,500	2.5379E+03
Y	195	394049113501101	(C-13-18)23aab- 2	4,397,048.72	771,255.27	4,703.5	Basin Fill	QTs	-	-	Y	31	09/18/41	03/24/88	4.7	-	4,698.9	0.028607673	10.2352	100	1.1026E+02
Y	195	393904113485101	(C-13-18)25ddd- 1	4,393,878.31	773,276.62	4,803.5	Basin Fill	QTs	197	50-197	-	2	03/15/81	08/23/81	100.2	-	4,703.3	1.439999998	67.0850	100	1.6853E+02
Y	195	(C-13-18)27ADB	(C-13-18)27ADB	4,394,866.19	769,642.06	4,723.5	Basin Fill	QTs	103	50-103	-	1	08/15/51	08/15/51	2.0	-	4,721.5	17	54.2204	2,500	2.5712E+03
Y	195	(C-13-18)27CDD	(C-13-18)27CDD	4,393,783.32	769,080.29	4,733.5	Basin Fill	QTs	107	50-107	-	1	09/15/58	09/15/58	12.0	-	4,721.5	17	0.0000	2,500	2.5170E+03
Y	195	(C-13-18)27DCC	(C-13-18)27DCC	4,393,790.95	769,337.03	4,731.5	Basin Fill	QTs	40	-	-	1	09/15/63	09/15/63	10.0	-	4,721.5	17	4.7510	2,500	2.5218E+03
Y	195	393900113530001	(C-13-18)28ccc- 1	4,393,546.45	767,345.07	4,823.6	Basin Fill	QTs	36	-	-	1	-	-	31.0	-	4,792.6	17	33.0170	100	1.5002E+02
Y	195	393920113522000	(C-13-18)28da - 1	4,394,196.38	768,277.12	4,762.9	Basin Fill	QTs	120	50-120	-	1	06/15/64	06/15/64	31.0	-	4,731.9	17	15.5472	625	6.5755E+02
Y	195	393928113522601	(C-13-18)28dab- 1	4,394,438.10	768,125.48	4,783.6	Basin Fill	QTs	120	50-120	Y	47	03/06/73	03/10/04	28.7	-	4,754.9	0.1518871	15.5311	100	1.1568E+02
Y	195	(C-13-18)28DCC	(C-13-18)28DCC	4,393,765.53	767,725.44	4,783.6	Basin Fill	QTs	104	50-104	-	1	09/15/58	09/15/58	8.0	-	4,775.6	17	488.7163	2,500	3.0057E+03
Y	195	(C-13-18)33BCD	(C-13-18)33BCD	4,392,818.84	767,290.59	4,803.6	Basin Fill	QTs	63	50-63	-	1	09/15/53	09/15/53	33.0	-	4,770.6	17	460.1447	2,500	2.9771E+03
Y	195	(C-13-18)33CCC	(C-13-18)33CCC	4,392,011.05	766,981.47	4,803.6	Basin Fill	QTs	30	-	-	1	06/15/59	06/15/59	7.0	-	4,796.6	17	271.5694	2,500	2.7886E+03
Y	195	393814113522601	(C-13-18)33ddc- 1	4,392,156.13	768,205.00	4,763.6	Basin Fill	QTs	158	50-158	Y	83	11/07/50	03/10/04	10.6	-	4,753.0	0.023466062	0.1230	100	1.0015E+02
Y	195	(C-13-18)34BCC	(C-13-18)34BCC	4,392,882.02	768,599.31	4,748.6	Basin Fill	QTs	112	50-112	-	1	08/15/79	08/15/79	11.0	-	4,737.6	17	6.7002	2,500	2.5237E+03
Y	195	393801113520601	(C-13-18)34ccc- 1	4,391,771.90	768,695.87	4,750.5	Basin Fill	QTs	147	50-147	Y	72	10/08/51	03/29/00	1.2	-	4,749.4	0.010271675	2.1769	100	1.0219E+02
Y	195	(C-13-18)34CDD	(C-13-18)34CDD	4,392,933.92	769,172.43	4,733.5	Basin Fill	QTs	300	50-300	-	1	08/15/79	08/15/79	13.0	-	4,720.5	17	102.8572	2,500	2.6199E+03
N	195	(C-13-18)34DCC	(C-13-18)34DCC	4,392,112.59	769,495.10	4,733.5	Basin Fill	QTs	300	50-300	-	-	-	-	-	>	4,733.5	-	-	-	-
Y	195	393807113513500	(C-13-18)34dcc- 1	4,391,982.76	769,428.58	4,734.5	Basin Fill	QTs	300	50-300	-	1	02/01/71	02/01/71	2.0	-	4,732.5	17	0.1036	625	6.4210E+02
N	195	(C-13-18)35C	(C-13-18)35C	4,392,491.66	770,600.74	4,733.5	Basin Fill	QTs	140	50-140	-	-	-	-	-	>	4,733.5	-	-	-	-
N	195	(C-14-18) 3CD 1	(C-14-18) 3CD 1	4,390,092.21	769,094.43	4,753.5	Basin Fill	QTs	125	50-125	-	-	-	-	-	>	4,753.5	-	-	-	-
N	195	(C-14-18) 3CD 2	(C-14-18) 3CD 2	4,390,105.62	769,094.43	4,753.5	Basin Fill	QTs	165	50-165	-	-	-	-	-	>	4,753.5	-	-	-	-
N	195	(C-14-18) 3CDA	(C-14-18) 3CDA	4,390,282.60	769,164.15	4,753.5	Basin Fill	QTs	165	50-165	-	-	-	-	-	>	4,753.5	-	-	-	-
N	195	(C-14-18) 3CDB	(C-14-18) 3CDB	4,390,282.60	769,016.66	4,753.5	Basin Fill	QTs	165	50-165	-	-	-	-	-	>	4,753.5	-	-	-	-
N	195	(C-14-18) 3DCC	(C-14-18) 3DCC	4,390,038.58	769,437.67	4,753.5	Basin Fill	QTs	130	50-130	-	-	-	-	-	>	4,753.5	-	-	-	-
N	195	(C-14-18) 3DDC 1	(C-14-18) 3DDC 1	4,390,062.71	769,740.70	4,742.5	Basin Fill	QTs	120	50-120	-	-	-	-	-	>	4,742.5	-	-	-	-
N	195	(C-14-18) 3DDC 2	(C-14-18) 3DDC 2	4,390,076.12	769,738.01	4,742.5	Basin Fill	QTs	120	50-120	-	-	-	-	-	>	4,742.5	-	-	-	-
N	195	(C-14-18) 3DDC 3	(C-14-18) 3DDC 3	4,390,089.53	769,738.01	4,742.5	Basin Fill	QTs	140	50-140	-	-	-	-	-	>	4,742.5	-	-	-	-
N	195	(C-14-18) 3DDC 4	(C-14-18) 3DDC 4	4,390,108.30	769,740.70	4,742.5	Basin Fill	QTs	120	50-120	-	-	-	-	-	>	4,742.5	-	-	-	-
Y	195	393745113511501	(C-14-18) 3ddc- 7	4,391,321.03	769,929.26	4,743.5	Basin Fill	QTs	120	50-120	-	1	10/01/49	10/01/49	-6.0	-	4,749.5	17	17.4613	100	1.3446E+02
Y	195	(C-14-18) 4ACA	(C-14-18) 4ACA	4,391,320.38	767,978.88	4,783.6	Basin Fill	QTs	96	50-96	-	1	03/15/75	03/15/75	20.0	-	4,763.6	17	77.0067	2,500	2.5940E+03
Y	195	(C-14-18) 4ADC	(C-14-18) 4ADC	4,390,985.18	768,147.82	4,758.6	Basin Fill	QTs	118	50-118	-	1	06/15/65	06/15/65	2.0	-	4,756.6	17	4.4099	2,500	2.5214E+03
Y	195	(C-14-18) 4BDB	(C-14-18) 4BDB	4,391,274.80	767,305.80	4,783.6	Basin Fill	QTs	70	50-70	-	1	07/15/52	07/15/52	13.0	-	4,770.6	17	15.6845	2,500	2.5327E+03
Y	195	(C-14-18) 4DBB	(C-14-18) 4DBB	4,390,738.48	767,812.62	4,783.6	Basin Fill	QTs	70	50-70	-	1	11/15/50	11/15/50	13.0	-	4,770.6	17	28.4632	2,500	2.5455E+03
N	195	(C-14-18) 4DCC	(C-14-18) 4DCC	4,390,019.81	767,863.57	4,788.6	Basin Fill	QTs	205	50-205	-	-	-	-	-	>	4,788.6	-	-	-	-
Y	195	(C-14-18) 5C	(C-14-18) 5C	4,390,266.51	765,653.93	4,823.6	Basin Fill	QTs	70	50-70	-	1	-	-	60.0	-	4,763.6	17	193.5896	2,500	2.7106E+03
Y	195	(C-14-18) 5CCC	(C-14-18) 5CCC	4,389,907.18	765,409.91	4,833.6	Basin Fill	QTs	85	50-85	-	1	08/15/79	08/15/79	56.0	-	4,777.6	17	1,078.3473	2,500	3.5953E+03
Y	195	(C-14-18) 8ACC	(C-14-18) 8ACC	4,389,113.88	766,250.49	4,798.6	Basin Fill	QTs	105	50-105	-	1	07/15/59	07/15/59	11.0	-	4,787.6	17	72.4018	2,500	2.5894E+03
Y	195	(C-14-18) 8CCC	(C-14-18) 8CCC	4,388,278.62	765,448.40	4,821.6	Basin Fill	QTs	67	50-67	-	1	04/15/54	04/15/54	25.0	-	4,796.6	17	89.9358	2,500	2.6069E+03

Table A.2-1
Steady-State Water-Level Data Set and Additional Wells or Springs Used for Control
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SS Well	HA	Site No.	Station Name	UTM N (m)	UTM E (m)	Ref. Pt. Elev. (ft-amsl)	Site Type	HGU	Well Depth (ft-bgs)	Open Interval (ft-bgs)	Excluded Data Flag	No. of Meas.	POR-Start Date	POR-End Date	Mean DTW (ft-bgs)	Q Elev.	Mean Elev. (ft-amsl)	V. Sample Mean (ft^2)	V. of Vertical Error (ft^2)	V. Land Surface (ft^2)	Total Var (ft^2)
Y	195	(C-14-18) 9CBC	(C-14-18) 9CBC	4,388,703.30	767,047.20	4,793.6	Basin Fill	QTs	64	50-64	-	1	06/15/53	06/15/53	8.0	-	4,785.6	17	200.8507	2,500	2.7179E+03
Y	195	393603113532801	(C-14-18)17aaa- 1	4,388,065.18	766,866.63	4,798.6	Basin Fill	QTs	101	50-101	-	1	12/10/74	12/10/74	18.0	-	4,780.6	17	10.0262	400	4.2703E+02
Y	195	(C-14-18)17ACC	(C-14-18)17ACC	4,387,521.92	766,341.27	4,815.9	Basin Fill	QTs	72	50-72	-	1	06/15/53	06/15/53	18.0	-	4,797.9	17	43.6896	2,500	2.5607E+03
Y	195	393522113550001	(C-14-18)18dcc- 1	4,386,725.22	764,715.31	4,873.6	Basin Fill	QTs	98	50-98	-	4	03/15/81	03/15/82	77.7	-	4,795.9	0.024825003	62.6263	100	1.6265E+02
Y	195	393345113503201	(C-14-18)26dbc- 1	4,383,956.17	771,214.88	4,963.6	Basin Fill	QTs	196	50-196	-	29	03/15/81	10/04/06	168.6	-	4,795.0	0.001154773	35.6081	100	1.3561E+02
Y	195	393420113511401	(C-14-18)27aaa- 1	4,385,000.29	770,174.58	4,843.5	Basin Fill	QTs	98	50-98	-	2	03/15/81	08/23/81	56.5	-	4,787.1	0.202500001	31.1835	100	1.3139E+02
N	195	(C-15-18)11CD 1	(C-15-18)11CD 1 USBLM Confusion Well	4,378,801.11	771,200.19	5,164.0	Basin Fill	QTs	-	50-485	-	-	-	-	-	<	4,679.0	-	-	-	-
Y	195	393117113574601	(C-15-19)11bcc- 1	4,379,035.43	761,009.92	4,973.7	Basin Fill	QTs	96	50-96	-	28	03/15/81	03/29/95	88.2	-	4,885.5	0.027174565	10.5636	100	1.1059E+02
Y	195	393118113562001	(C-15-19)12bdc- 1	4,379,135.88	763,062.81	4,873.6	Basin Fill	QTs	98	50-98	-	2	03/15/81	08/23/81	50.7	-	4,822.9	0.093024995	50.5201	100	1.5061E+02
N	195	(C-15-19)31CB 1	(C-15-19)31CBC-S1Warm Springs	4,371,944.87	754,811.81	5,252.0	Spring-Regional	-	-	-	-	-	-	-	-	>	5,252.0	-	-	-	-
Y	195	392622113513601	(C-16-18)10baa- 1	4,370,242.02	770,163.93	4,973.6	Basin Fill	QTs	197	50-197	-	2	03/15/81	08/24/81	164.9	-	4,808.7	0.0064	71.8535	100	1.7186E+02
N	195	392411113514301	(C-16-18)22cab-S1	4,366,196.64	770,137.20	4,806.5	Spring	-	-	-	-	-	-	-	-	>	4,806.5	-	-	-	-
Y	195	392317113504201	(C-16-18)26cba- 1	4,364,582.41	771,654.81	4,883.6	Basin Fill	QTs	98	50-98	-	24	03/15/81	10/04/06	41.9	-	4,841.7	0.007955186	102.6271	100	2.0264E+02
Y	195	(C-16-19) 4ADD 1	(C-16-19) 4ADD 1	4,370,875.84	759,569.15	4,938.0	Basin Fill	QTs	33	-	-	1	09/15/40	09/15/40	30.0	-	4,908.0	17	0.0618	2,500	2.5171E+03
Y	195	392709113594901	(C-16-19) 4bba- 1	4,371,289.52	758,327.50	5,003.7	Basin Fill	QTs	98	50-98	-	31	03/15/81	03/07/01	69.2	-	4,934.4	0.187752251	14.7010	100	1.1489E+02
Y	195	392500114001201	(C-16-19)17dba- 1	4,367,293.43	757,909.89	5,013.7	Basin Fill	QTs	147	50-147	-	1	08/27/81	08/27/81	122.0	-	4,891.7	17	3,505.8837	625	4.1479E+03
Y	195	392310114005001	(C-16-19)29cb - 1	4,363,871.39	757,113.31	5,003.7	Basin Fill	QTs	197	50-197	-	1	08/27/81	08/27/81	82.0	-	4,921.7	17	23,620.3901	625	2.4262E+04
N	195	(C-16-19)2BA 1	(C-16-19)2BA 1 Cold Spring	4,371,701.61	761,945.02	4,859.6	Spring	-	-	-	-	-	-	-	-	>	4,859.6	-	-	-	-
N	195	(C-17-18) 1DA	(C-17-18) 1DA	4,361,393.25	774,386.82	5,018.6	Basin Fill	QTs	160	50-160	-	-	-	-	-	<	4,858.6	-	-	-	-
Y	195	391825113501501	(C-17-18)26ab - 1	4,355,600.85	772,616.29	4,873.5	Basin Fill	QTs	101	50-101	-	1	03/15/81	03/15/81	39.0	-	4,834.5	17	209.9204	100	3.2692E+02
Y	195	392141113585601	(C-17-19) 4add- 2	4,361,217.79	759,933.01	4,883.7	Basin Fill	QTs	760	50-760	Y	5	11/16/60	03/08/63	0.2	-	4,883.4	0.024014	12.1229	100	1.1215E+02
Y	195	392135113592801	(C-17-19) 4bdd- 1	4,361,007.19	759,173.17	4,913.7	Basin Fill	QTs	98	50-98	-	2	03/15/81	08/27/81	75.9	-	4,837.8	0.756900001	66.1580	100	1.6691E+02
Y	195	(C-17-19) 5CC	(C-17-19) 5CC	4,360,278.70	757,024.16	5,053.7	Basin Fill	QTs	100	50-100	-	1	03/15/81	03/15/81	49.0	-	5,004.7	17	120.3361	2,500	2.6373E+03
Y	195	392126114002501	(C-17-19) 5dc - 1	4,360,684.31	757,817.91	5,023.7	Basin Fill	QTs	97	50-97	-	1	08/27/81	08/27/81	50.5	-	4,973.2	17	3,892.1036	625	4.5341E+03
Y	195	391842114011501	(C-17-19)19dd - 1	4,355,587.77	756,787.76	5,063.7	Basin Fill	QTs	198	50-198	-	1	08/27/81	08/27/81	121.7	-	4,941.9	17	4,986.5052	625	5.6285E+03
Y	195	(C-18-18)10AAD	(C-18-18)10AAD	4,350,631.24	771,511.81	4,923.6	Basin Fill	QTs	51	50-51	-	1	03/15/81	03/15/81	50.0	-	4,873.6	17	178.7494	2,500	2.6957E+03
Y	195	391538113510901	(C-18-18)10adb- 1	4,350,406.10	771,501.94	4,943.6	Basin Fill	QTs	51	50-51	-	1	08/24/81	08/24/81	50.2	-	4,893.4	17	55.3509	100	1.7235E+02
N	195	(C-18-18)16BA 1	(C-18-18)16BA 1 Knoll Springs	4,349,037.27	769,355.63	4,866.0	Spring	-	-	-	-	-	-	-	-	>	4,866.0	-	-	-	-
Y	195	(C-18-18)31ADB	(C-18-18)31ADB	4,343,743.09	767,094.41	4,973.6	Basin Fill	QTs	100	50-100	-	1	03/15/81	03/15/81	72.0	-	4,901.6	17	266.2300	2,500	2.7832E+03
Y	195	391205113543401	(C-18-18)31adb- 1	4,343,668.76	766,811.86	4,973.6	Basin Fill	QTs	97	50-97	-	20	08/24/81	09/04/03	79.3	-	4,894.3	0.016590987	1.1390	100	1.0116E+02
N	195	(C-18-18)3CC 1	(C-18-18)3CC 1 North Knoll Spring	4,351,046.56	770,374.43	4,875.2	Spring	-	-	-	-	-	-	-	-	>	4,875.2	-	-	-	-
Y	195	(C-18-19)20ABD	(C-18-19)20ABD	4,346,968.27	758,467.03	5,013.6	Basin Fill	QTs	100	50-100	-	1	03/15/81	03/15/81	34.0	-	4,979.6	17	321.7779	2,500	2.8388E+03
Y	195	391340114004001	(C-18-19)20ca - 1	4,346,303.33	757,933.94	5,013.9	Basin Fill	QTs	97	50-97	-	1	08/26/81	08/26/81	34.6	-	4,979.3	17	4,136.0781	625	4.7781E+03
Y	195	391326113595801	(C-18-19)20dad- 1	4,345,904.96	758,955.57	4,963.6	Basin Fill	QTs	100	50-100	Y	75	11/30/37	03/06/01	24.9	-	4,938.7	0.231450895	27.3820	100	1.2761E+02
Y	195	391322114000001	(C-18-19)20ddd- 1	4,345,780.03	758,911.69	4,974.1	Basin Fill	QTs	90	50-90	Y	89	11/30/37	03/10/04	26.7	-	4,947.3	0.111153629	9.0736	625	6.3418E+02
N	195	(C-18-19)20DDD 2	(C-18-19)20DDD 2	4,345,790.20	758,804.58	4,968.6	Basin Fill	QTs	560	50-560	-	-	-	-	-	>	4,968.6	-	-	-	-
Y	195	(C-18-19)21CBC	(C-18-19)21CBC	4,346,125.51	759,030.36	4,953.6	Basin Fill	QTs	-	-	-	1	08/15/79	08/15/79	24.0	-	4,929.6	17	408.6790	2,500	2.9257E+03
N	195	(C-18-19)21CCC	(C-18-19)21CCC	4,345,772.31	759,037.07	4,973.6	Basin Fill	QTs	600	50-600	-	-	-	-	-	>	4,973.6	-	-	-	-
Y	195	(C-18-19)23ACC	(C-18-19)23ACC	4,346,706.73	763,098.41	4,933.6	Basin Fill	QTs	130	50-130	-	1	12/15/51	12/15/51	28.0	-	4,905.6	17	5.2448	2,500	2.5222E+03
Y	195	391251114000001	(C-18-19)28bcc- 1	4,344,824.14	758,943.35	4,973.6	Basin Fill	QTs	-	-	Y	46	03/06/73	03/10/04	19.3	-	4,954.3	1.647722614	21.9494	100	1.2360E+02

Table A.2-1
Steady-State Water-Level Data Set and Additional Wells or Springs Used for Control
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SS Well	HA	Site No.	Station Name	UTM N (m)	UTM E (m)	Ref. Pt. Elev. (ft-amsl)	Site Type	HGU	Well Depth (ft-bgs)	Open Interval (ft-bgs)	Excluded Data Flag	No. of Meas.	POR-Start Date	POR-End Date	Mean DTW (ft-bgs)	Q Elev.	Mean Elev. (ft-amsl)	V. Sample Mean (ft^2)	V. of Vertical Error (ft^2)	V. Land Surface (ft^2)	Total Var (ft^2)
N	195	391128113534501	(C-19-18) 5abb- 1	4,342,568.04	768,026.61	5,103.6	Basin Fill	QTs	196	50-196	-	-	-	-	-	<	4,903.6	-	-	-	-
Y	195	(C-19-19)14ACD	(C-19-19)14ACD	4,338,576.87	763,652.41	4,928.6	Basin Fill	QTs	77	50-77	-	1	07/15/61	07/15/61	11.0	-	4,917.6	17	75.7821	2,500	2.5928E+03
Y	195	(C-19-19)14ADC	(C-19-19)14ADC	4,338,579.13	763,747.37	4,928.6	Basin Fill	QTs	99	50-99	-	1	03/15/66	03/15/66	13.0	-	4,915.6	17	41.7908	2,500	2.5588E+03
Y	195	(C-19-19)14DCC	(C-19-19)14DCC	4,337,765.13	763,471.52	4,933.6	Basin Fill	QTs	59	50-59	-	1	04/15/66	04/15/66	18.0	-	4,915.6	17	58.1215	2,500	2.5751E+03
Y	195	(C-19-19)14DCD	(C-19-19)14DCD	4,337,783.21	763,681.80	4,933.6	Basin Fill	QTs	65	50-65	-	1	08/15/57	08/15/57	12.0	-	4,921.6	17	99.1301	2,500	2.6161E+03
Y	195	390842113565801	(C-19-19)23abd- 1	4,337,292.16	763,567.68	4,938.6	Basin Fill	QTs	115	50-115	-	1	12/04/81	12/04/81	15.0	-	4,923.6	17	11.4807	100	1.2848E+02
Y	195	(C-19-19)23ACD	(C-19-19)23ACD	4,336,956.78	763,686.32	4,938.6	Basin Fill	QTs	98	50-98	-	1	05/15/64	05/15/64	15.0	-	4,923.6	17	153.4410	2,500	2.6704E+03
Y	195	390830113572001	(C-19-19)23bdc- 1	4,336,904.39	763,051.85	4,938.6	Basin Fill	QTs	109	50-109	-	1	10/12/65	10/12/65	13.0	-	4,925.6	17	20.0029	100	1.3700E+02
Y	195	(C-19-19)23DCD	(C-19-19)23DCD	4,336,135.99	763,733.81	4,943.6	Basin Fill	QTs	80	50-80	-	1	06/15/56	06/15/56	14.0	-	4,929.6	17	39.9524	2,500	2.5570E+03
Y	195	(C-19-19)23DDB	(C-19-19)23DDB	4,336,389.23	763,894.35	4,953.6	Basin Fill	QTs	155	50-155	-	1	03/15/61	03/15/61	14.0	-	4,939.6	17	536.0648	2,500	3.0531E+03
Y	195	390758113565501	(C-19-19)26aba- 1	4,335,946.18	763,756.19	4,948.6	Basin Fill	QTs	1005	50-1105	Y	657	10/05/77	03/10/04	18.0	-	4,930.5	0.003703101	2.1164	100	1.0212E+02
Y	195	(C-19-19)26BBA	(C-19-19)26BBA	4,335,871.44	762,910.76	4,948.6	Basin Fill	QTs	200	50-200	-	1	03/15/78	03/15/78	12.0	-	4,936.6	17	86.6945	2,500	2.6037E+03
Y	195	390735113571501	(C-19-19)26bdd- 1	4,335,212.53	763,228.85	4,948.6	Basin Fill	QTs	-	-	Y	70	03/20/76	04/05/77	12.1	-	4,936.5	0.002218635	14.9105	100	1.1491E+02
Y	195	(C-19-19)29ABD	(C-19-19)29ABD	4,335,541.36	758,815.74	4,972.6	Basin Fill	QTs	65	50-65	-	1	04/15/67	04/15/67	15.0	-	4,957.6	17	17.4131	2,500	2.5344E+03
N	195	(C-19-19)31CC	(C-19-19)31CC	4,332,734.13	756,319.59	5,063.7	Basin Fill	QTs	101	50-101	-	-	-	-	-	>	5,063.7	-	-	-	-
Y	195	(C-19-19)34ABA	(C-19-19)34ABA	4,334,217.43	762,142.43	4,958.6	Basin Fill	QTs	118	50-118	-	1	08/15/79	08/15/79	15.0	-	4,943.6	17	0.8708	2,500	2.5179E+03
Y	195	390655113580301	(C-19-19)34abd- 1	4,333,940.52	762,117.23	4,963.6	Basin Fill	QTs	-	-	-	1	08/01/79	08/01/79	14.0	-	4,949.6	17	0.9029	100	1.1790E+02
Y	195	(C-19-19)34ADB	(C-19-19)34ADB	4,333,889.56	762,273.58	4,963.6	Basin Fill	QTs	110	50-110	-	1	02/15/60	02/15/60	8.0	-	4,955.6	17	0.8378	2,500	2.5178E+03
Y	195	(C-19-19)34ADD	(C-19-19)34ADD	4,333,656.67	762,510.99	4,963.6	Basin Fill	QTs	406	50-406	-	1	10/15/45	10/15/45	7.0	-	4,956.6	17	158.7086	2,500	2.6757E+03
Y	195	(C-19-19)34DAA	(C-19-19)34DAA	4,333,450.91	762,524.56	4,968.6	Basin Fill	QTs	-	-	-	1	08/15/79	08/15/79	15.0	-	4,953.6	17	55.0570	2,500	2.5721E+03
Y	195	390629113575801	(C-19-19)34dac- 1	4,333,142.83	762,264.13	4,983.6	Basin Fill	QTs	82	50-82	-	1	03/15/60	03/15/60	6.0	-	4,977.6	17	5.0720	100	1.2207E+02
Y	195	(C-19-19)34DDB	(C-19-19)34DDB	4,333,116.26	762,298.45	4,973.6	Basin Fill	QTs	-	-	-	1	08/15/79	08/15/79	15.0	-	4,958.6	17	65.6511	2,500	2.5827E+03
Y	195	(C-19-19)34DDD	(C-19-19)34DDD	4,332,849.45	762,569.78	4,973.6	Basin Fill	QTs	-	-	-	1	08/15/79	08/15/79	15.0	-	4,958.6	17	7.1199	2,500	2.5241E+03
Y	195	(C-19-19)35ACC	(C-19-19)35ACC	4,333,710.94	763,592.71	4,973.6	Basin Fill	QTs	40	-	-	1	12/15/57	12/15/57	16.0	-	4,957.6	17	44.0622	2,500	2.5611E+03
Y	195	(C-19-19)35ACD	(C-19-19)35ACD	4,333,717.72	763,823.35	4,973.6	Basin Fill	QTs	70	50-70	-	1	05/15/58	05/15/58	19.0	-	4,954.6	17	83.4609	2,500	2.6005E+03
Y	195	(C-19-19)35BDD	(C-19-19)35BDD	4,333,697.78	763,386.83	4,973.6	Basin Fill	QTs	45	-	-	1	08/15/55	08/15/55	9.0	-	4,964.6	17	467.6182	2,500	2.9846E+03
Y	195	(C-19-19)35CAC	(C-19-19)35CAC	4,333,242.88	763,115.62	4,983.6	Basin Fill	QTs	110	50-110	-	1	08/15/79	08/15/79	20.0	-	4,963.6	17	127.0987	2,500	2.6441E+03
Y	195	(C-19-19)35CAD	(C-19-19)35CAD	4,333,249.67	763,334.95	4,965.6	Basin Fill	QTs	100	50-100	-	1	03/15/59	03/15/59	8.0	-	4,957.6	17	236.2780	2,500	2.7533E+03
Y	195	(C-19-19)35CDC	(C-19-19)35CDC	4,332,867.54	763,138.23	4,978.6	Basin Fill	QTs	72	50-72	-	1	11/15/77	11/15/77	25.0	-	4,953.6	17	517.0137	2,500	3.0340E+03
Y	195	(C-19-19)35CDD	(C-19-19)35CDD	4,332,879.92	763,358.29	4,983.6	Basin Fill	QTs	-	-	-	1	08/15/79	08/15/79	17.0	-	4,966.6	17	248.6901	2,500	2.7657E+03
Y	195	390617113571601	(C-19-19)35cdd- 1	4,332,806.63	763,285.59	4,983.6	Basin Fill	QTs	500	50-500	Y	12	03/07/72	03/13/80	12.5	-	4,971.1	0.141389584	27.1818	100	1.2732E+02
Y	195	(C-19-19)35DBC	(C-19-19)35DBC	4,333,262.93	763,612.25	4,978.6	Basin Fill	QTs	45	-	-	1	07/15/55	07/15/55	20.0	-	4,958.6	17	64.5580	2,500	2.5816E+03
Y	195	(C-19-19)35DCB	(C-19-19)35DCB	4,333,140.12	763,612.25	4,978.6	Basin Fill	QTs	49	-	-	1	08/15/56	08/15/56	21.0	-	4,957.6	17	95.7333	2,500	2.6127E+03
Y	195	390626113570401	(C-19-19)35dcb- 1	4,333,093.82	763,564.57	4,983.6	Basin Fill	QTs	180	50-180	-	1	03/01/77	03/01/77	22.0	-	4,961.6	17	18.8784	400	4.3588E+02
Y	195	(C-19-19)35DCC	(C-19-19)35DCC	4,332,879.92	763,610.16	4,983.6	Basin Fill	QTs	74	50-74	-	1	05/15/61	05/15/61	8.0	-	4,975.6	17	214.8533	2,500	2.7319E+03
Y	195	390617113571901	(C-19-19)35dcd- 1	4,332,804.22	763,213.51	4,983.6	Basin Fill	QTs	-	-	-	29	11/15/64	03/10/04	22.8	-	4,960.8	0.054503177	2.8992	100	1.0295E+02
Y	195	(C-19-19)35DCD 2	(C-19-19)35DCD 2	4,332,877.84	763,828.73	4,978.6	Basin Fill	QTs	-	-	-	1	02/15/65	02/15/65	11.0	-	4,967.6	17	0.0176	2,500	2.5170E+03
Y	195	390629113560301	(C-19-19)36cda- 1	4,333,235.69	765,026.93	5,023.6	Basin Fill	QTs	97	50-97	Y	23	03/15/81	10/03/06	70.1	-	4,953.5	0.336814968	94.8989	100	1.9524E+02
N	195	(C-19-20)24CB 1	(C-19-20)24CB 1 Caine Spring	4,336,185.72	755,137.91	5,031.8	Spring	-	-	-	-	-	-	-	-	>	5,031.8	-	-	-	-
Y	195	(C-20-17)9C 1	(C-20-17)9C 1 Little Valley Well	4,330,726.97	780,009.49	5,489.3	Basin Fill	QTs	-	50-760	-	2	10/15/41	10/15/41	592.5	-	4,896.8	56.25	88.1106	625	7.6936E+02
Y	195	390329113525101	(C-20-18)21bab- 1	4,327,842.60	769,830.34	5,123.6	Basin Fill	QTs	159	50-159	-	2	03/15/81	08/24/81	102.4	-	5,021.2	2462.640625	29.5535	100	2.5922E+03

Table A.2-1
Steady-State Water-Level Data Set and Additional Wells or Springs Used for Control
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SS Well	HA	Site No.	Station Name	UTM N (m)	UTM E (m)	Ref. Pt. Elev. (ft-amsl)	Site Type	HGU	Well Depth (ft-bgs)	Open Interval (ft-bgs)	Excluded Data Flag	No. of Meas.	POR-Start Date	POR-End Date	Mean DTW (ft-bgs)	Q Elev.	Mean Elev. (ft-amsl)	V. Sample Mean (ft^2)	V. of Vertical Error (ft^2)	V. Land Surface (ft^2)	Total Var (ft^2)
N	195	(C-20-18)21BC	(C-20-18)21BC	4,327,400.98	769,535.91	5,123.6	Basin Fill	QTs	100	50-100	-	-	-	-	-	<	5,023.6	-	-	-	-
Y	195	390141113532901	(C-20-18)32abd- 1	4,324,481.15	769,030.67	5,022.6	Basin Fill	QTs	97	50-97	-	23	03/15/81	10/03/06	35.8	-	4,986.8	0.045914968	6.6380	100	1.0668E+02
Y	195	(C-20-19) 1BC 2	(C-20-19) 1BC 2	4,332,151.00	764,548.98	4,993.6	Basin Fill	QTs	375	50-375	-	1	07/15/39	07/15/39	32.0	-	4,961.6	17	224.0397	2,500	2.7410E+03
N	195	(C-20-19) 1BCC	(C-20-19) 1BCC	4,332,023.79	764,450.04	4,993.6	Basin Fill	QTs	-	-	-	-	-	-	-	>	4,993.6	-	-	-	-
Y	195	390600114021501	(C-20-19) 6bc - 1	4,332,044.68	756,119.15	5,083.7	Basin Fill	QTs	98	50-98	-	1	08/26/81	08/26/81	4.7	-	5,079.0	17	6,156.3970	625	6.7984E+03
Y	195	390600113591501	(C-20-19) 6bcc- 1	4,332,187.02	760,443.98	4,996.5	Basin Fill	QTs	200	50-200	-	1	10/01/36	10/01/36	-7.0	-	5,003.5	17	10.2254	625	6.5223E+02
N	195	(C-20-19) 6CBC	(C-20-19) 6CBC	4,331,288.79	756,310.92	5,063.7	Basin Fill	QTs	-	-	-	-	-	-	-	>	5,063.7	-	-	-	-
N	195	(C-20-19) 6DCC	(C-20-19) 6DCC	4,330,977.83	757,187.26	5,045.7	Basin Fill	QTs	280	50-280	-	-	-	-	-	>	5,045.7	-	-	-	-
N	195	(C-20-19) 7AAB	(C-20-19) 7AAB	4,330,706.41	757,510.41	5,038.7	Basin Fill	QTs	569	50-569	-	-	-	-	-	>	5,038.7	-	-	-	-
Y	195	390530113590001	(C-20-19) 7bbd- 1	4,331,273.97	760,835.12	5,006.8	Basin Fill	QTs	280	50-280	-	1	11/01/36	11/01/36	-4.0	-	5,010.8	17	27.2866	625	6.6929E+02
N	195	(C-20-19) 7BCB	(C-20-19) 7BCB	4,330,233.31	756,343.42	5,083.7	Basin Fill	QTs	281	50-281	-	-	-	-	-	>	5,083.7	-	-	-	-
N	195	(C-20-19) 7C	(C-20-19) 7C	4,329,587.79	756,637.80	5,081.7	Basin Fill	QTs	575	50-575	-	-	-	-	-	<	4,506.7	-	-	-	-
Y	195	390513113553801	(C-20-19)12aab- 1	4,330,912.57	765,706.88	5,038.6	Basin Fill	QTs	148	50-148	-	2	03/15/81	08/24/81	18.2	-	5,020.4	4.818025004	47.9624	100	1.5278E+02
Y	195	390415113571300	(C-20-19)14bad- 1	4,329,047.24	763,483.89	5,004.6	Basin Fill	QTs	102	50-102	-	1	03/01/71	03/01/71	25.0	-	4,979.6	17	21.9970	100	1.3900E+02
Y	195	(C-20-19)14BBC	(C-20-19)14BBC	4,329,049.71	762,945.85	5,003.6	Basin Fill	QTs	100	50-100	-	1	04/15/52	04/15/52	12.0	-	4,991.6	17	193.5387	2,500	2.7105E+03
Y	195	390416113573801	(C-20-19)14bbc- 1	4,329,057.94	762,881.94	4,998.6	Basin Fill	QTs	135	50-135	-	35	03/13/80	03/10/04	16.7	-	4,981.9	0.091202377	48.4329	100	1.4852E+02
Y	195	(C-20-19)14BDA	(C-20-19)14BDA	4,328,982.42	763,418.95	5,007.6	Basin Fill	QTs	-	-	-	1	08/15/79	08/15/79	23.0	-	4,984.6	17	222.1433	2,500	2.7391E+03
Y	195	(C-20-19)15BBD	(C-20-19)15BBD	4,328,946.68	761,589.62	5,008.6	Basin Fill	QTs	-	-	-	1	08/15/79	08/15/79	21.0	-	4,987.6	17	310.4614	2,500	2.8275E+03
Y	195	(C-20-19)15BCC	(C-20-19)15BCC	4,328,610.25	761,360.42	5,013.6	Basin Fill	QTs	132	50-132	-	1	06/15/77	06/15/77	23.0	-	4,990.6	17	212.8824	2,500	2.7299E+03
Y	195	390404113584301	(C-20-19)15bcc- 1	4,328,635.81	761,331.85	5,013.6	Basin Fill	QTs	126	50-126	-	1	08/04/74	08/04/74	23.0	-	4,990.6	17	3,550.8833	400	3.9679E+03
Y	195	(C-20-19)15BDB	(C-20-19)15BDB	4,328,873.08	761,684.24	5,008.6	Basin Fill	QTs	52	50-52	-	1	10/15/50	10/15/50	19.0	-	4,989.6	17	102.6416	2,500	2.6196E+03
Y	195	(C-20-19)15CAA	(C-20-19)15CAA	4,328,454.65	761,890.30	5,008.6	Basin Fill	QTs	56	50-56	-	1	10/15/50	10/15/50	13.0	-	4,995.6	17	68.8857	2,500	2.5859E+03
Y	195	(C-20-19)15CBA	(C-20-19)15CBA	4,328,435.73	761,589.62	5,013.6	Basin Fill	QTs	60	50-60	-	1	12/15/60	12/15/60	18.0	-	4,995.6	17	77.9487	2,500	2.5949E+03
Y	195	(C-20-19)15CCC	(C-20-19)15CCC	4,327,849.08	761,406.68	5,028.6	Basin Fill	QTs	75	50-75	-	1	05/15/52	05/15/52	20.0	-	5,008.6	17	39.0557	2,500	2.5561E+03
Y	195	(C-20-19)16BDC	(C-20-19)16BDC	4,328,608.15	760,084.10	5,028.6	Basin Fill	QTs	40	-	-	1	09/15/42	09/15/42	15.0	-	5,013.6	17	112.7166	2,500	2.6297E+03
Y	195	390243114012201	(C-20-19)19dcd- 1	4,326,012.07	757,591.70	5,112.0	Basin Fill	QTs	-	-	Y	40	09/10/75	10/04/06	39.1	-	5,072.9	0.060863076	9.6457	625	6.3471E+02
N	195	(C-20-19)21AAB	(C-20-19)21AAB	4,327,579.93	760,916.76	5,023.6	Basin Fill	QTs	67	50-67	-	-	-	-	-	<	4,956.6	-	-	-	-
Y	195	390312113591701	(C-20-19)21acc- 1	4,327,005.29	760,567.74	5,031.6	Basin Fill	QTs	68	50-68	Y	66	03/08/63	03/10/04	29.5	-	5,002.1	0.06086118	2.9082	100	1.0297E+02
Y	195	(C-20-19)21B	(C-20-19)21B	4,327,262.43	760,069.38	5,042.7	Basin Fill	QTs	66	50-66	-	1	-	-	20.0	-	5,022.7	17	20.7329	2,500	2.5377E+03
Y	195	(C-20-19)21BCC	(C-20-19)21BCC	4,326,972.26	759,768.69	5,033.7	Basin Fill	QTs	64	50-64	-	1	05/15/75	05/15/75	28.0	-	5,005.7	17	46.9276	2,500	2.5639E+03
Y	195	(C-20-19)30ABD	(C-20-19)30ABD	4,325,600.26	757,554.57	5,103.7	Basin Fill	QTs	100	50-100	-	1	05/15/56	05/15/56	36.0	-	5,067.7	17	187.5088	2,500	2.7045E+03
Y	195	(C-20-20) 1DBB	(C-20-20) 1DBB	4,331,448.32	755,711.49	5,101.7	Basin Fill	QTs	-	-	-	1	08/15/79	08/15/79	34.0	-	5,067.7	17	32.0786	2,500	2.5491E+03
Y	195	390500114024501	(C-20-20)12acc- 1	4,330,171.17	755,458.55	5,123.7	Basin Fill	QTs	300	50-300	Y	44	11/15/71	03/10/04	25.7	-	5,098.0	0.38301342	81.7780	100	1.8216E+02
Y	195	390000113341501	(C-21-17) 8dcc- 1	4,321,680.72	779,169.98	5,082.5	Basin Fill	QTs	-	50-316	-	1	07/15/35	07/15/35	224.0	-	4,858.5	17	0.0480	625	6.4205E+02
Y	195	(C-21-18)10CDD 1	(C-21-18)10CDD 1	4,321,437.22	772,152.71	5,047.5	Basin Fill	QTs	-	50-66	-	1	-	-	65.0	-	4,982.5	17	72.0337	625	7.1403E+02
Y	195	(C-21-18)12CCD 1	(C-21-18)12CCD 1	4,321,547.90	774,986.18	5,053.0	Basin Fill	QTs	-	50-205	-	2	10/03/06	10/03/06	108.4	-	4,944.6	11.458225	246.4370	625	8.8290E+02
Y	195	(C-21-18)17AD 1	(C-21-18)17AD 1 USBLM	4,320,651.37	769,551.67	5,028.0	Basin Fill	QTs	-	50-166	-	2	10/03/06	10/03/06	54.8	-	4,973.2	7.672900002	323.9755	625	9.5665E+02
Y	195	385917113531201	(C-21-18)17dac- 1	4,320,054.99	769,591.59	5,063.6	Basin Fill	QTs	97	50-97	-	2	03/15/81	08/24/81	78.1	-	4,985.5	1.2544	29.4542	100	1.3071E+02
N	195	(C-21-18)20DAB	(C-21-18)20DAB	4,318,710.71	769,476.11	5,253.7	Basin Fill	QTs	200	50-200	-	-	-	-	-	<	5,053.7	-	-	-	-
Y	195	(C-21-18)32ABD 1	(C-21-18)32ABD 1	4,316,091.73	769,445.19	5,023.8	Carbonate Well	PPPc	-	-	-	1	09/25/91	09/25/91	35.5	-	4,988.2	17	29,155.8785	625	2.9798E+04
Y	195	385921113593501	(C-21-19)16cbd- 1	4,319,868.33	760,370.56	5,123.6	Basin Fill	QTs	97	50-97	-	2	03/15/81	08/25/81	89.3	-	5,034.4	0.540225003	5.8995	100	1.0644E+02
N	195	(C-21-19)21AD	(C-21-19)21AD	4,318,800.02	761,624.08	5,123.6	Basin Fill	QTs	100	50-100	-	-	-	-	-	<	5,023.6	-	-	-	-

Table A.2-1
Steady-State Water-Level Data Set and Additional Wells or Springs Used for Control
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SS Well	HA	Site No.	Station Name	UTM N (m)	UTM E (m)	Ref. Pt. Elev. (ft-amsl)	Site Type	HGU	Well Depth (ft-bgs)	Open Interval (ft-bgs)	Excluded Data Flag	No. of Meas.	POR-Start Date	POR-End Date	Mean DTW (ft-bgs)	Q Elev.	Mean Elev. (ft-amsl)	V. Sample Mean (ft^2)	V. of Vertical Error (ft^2)	V. Land Surface (ft^2)	Total Var (ft^2)
Y	195	385835113584501	(C-21-19)21daa- 1	4,318,489.83	761,620.87	5,128.6	Basin Fill	QTs	97	50-97	-	1	08/25/81	08/25/81	91.5	-	5,037.1	17	2.0932	100	1.1909E+02
Y	195	385650114010601	(C-21-19)31acd- 1	4,315,140.41	758,333.18	5,223.6	Basin Fill	QTs	400	50-400	-	1	07/15/51	07/15/51	42.0	-	5,181.6	17	0.0000	2,500	2.5170E+03
Y	195	(C-21-19)31CCA 1	(C-21-19)31CCA 1	4,314,722.14	757,401.30	5,228.7	Basin Fill	QTs	-	-	-	1	07/15/51	07/15/51	42.0	-	5,186.7	17	76.9077	625	7.1891E+02
Y	195	(C-21-19)31D	(C-21-19)31D	4,314,861.45	758,275.34	5,213.7	Basin Fill	QTs	80	50-80	-	1	-	-	30.0	-	5,183.7	17	12.3687	2,500	2.5294E+03
Y	195	(C-21-19)31DDC	(C-21-19)31DDC	4,314,570.82	758,377.92	5,218.7	Basin Fill	QTs	651	50-651	-	1	10/15/57	10/15/57	61.0	-	5,157.7	17	6.9731	2,500	2.5240E+03
N	195	(C-22-16)19B 1	(C-22-16)19B 1	4,310,001.68	786,989.80	5,315.4	Basin Fill	QTs	-	50-680	-	-	-	-	-	<	4,635.4	-	-	-	-
N	195	(C-22-16)20	(C-22-16)20	4,309,740.06	789,102.78	5,343.7	Basin Fill	QTs	100	50-100	-	-	-	-	-	<	5,243.7	-	-	-	-
N	195	(C-22-16)7CCC 1	(C-22-16)7CCC 1	4,312,302.65	786,700.53	5,262.9	Basin Fill	QTs	-	50-550	-	-	-	-	-	<	4,712.9	-	-	-	-
Y	195	385617114013801	(C-22-19) 6bac- 2	4,314,097.72	757,595.90	5,258.7	Basin Fill	QTs	167	50-167	Y	70	11/08/50	03/10/04	50.3	-	5,208.4	0.725260527	55.0471	100	1.5577E+02
Y	195	385607114015601	(C-22-19) 6bcc- 1	4,313,775.25	757,172.46	5,279.7	Basin Fill	QTs	120	50-120	Y	79	10/01/34	03/10/04	66.4	-	5,213.3	0.808666407	23.7514	100	1.2456E+02
Y	195	385602114013501	(C-22-19) 6bdc- 1	4,313,637.60	757,683.23	5,260.6	Basin Fill	QTs	250	50-250	-	1	08/24/76	08/24/76	58.0	-	5,202.6	17	24.1022	625	6.6610E+02
Y	195	(C-22-19)31CB 1	(C-22-19)31CB 1	4,305,221.28	757,643.01	5,563.8	Basin Fill	QTs	-	-	-	1	03/15/81	03/15/81	187.0	-	5,376.8	17	1,385.1857	625	2.0272E+03
N	195	(C-22-19)33BB 1	(C-22-19)33BB 1 Clay Spring	4,306,146.75	760,875.11	5,446.0	Spring	-	-	-	-	-	-	-	-	>	5,446.0	-	-	-	-
Y	195	(C-22-19)6aad	(C-22-19)6aad	4,314,198.80	758,672.61	5,236.7	Basin Fill	QTs	-	50-170	-	1	-	-	40.0	-	5,196.7	17	26.3232	625	6.6832E+02
Y	195	(C-22-19)6bbb	(C-22-19)6bbb	4,314,363.76	757,160.46	5,276.4	Basin Fill	QTs	-	100-120	-	1	-	-	63.0	-	5,213.4	17	261.7956	625	9.0380E+02
Y	195	(C-22-19)6bbd 1	(C-22-19)6bbd1	4,314,077.41	757,389.81	5,276.3	Basin Fill	QTs	-	130-160	-	1	-	-	72.5	-	5,203.8	17	285.3952	625	9.2740E+02
Y	195	(C-22-19)6bca2	(C-22-19)6bca2	4,313,967.94	757,513.09	5,273.5	Basin Fill	QTs	-	35-95	-	1	-	-	25.0	-	5,248.5	17	211.8547	625	8.5385E+02
Y	195	(C-22-19)6bca3	(C-22-19)6bca3	4,313,967.94	757,513.09	5,273.5	Basin Fill	QTs	-	50-100	-	1	-	-	51.0	-	5,222.5	17	211.8547	625	8.5385E+02
Y	195	(C-22-19)6bca4	(C-22-19)6bca4	4,313,928.40	757,515.70	5,275.7	Basin Fill	QTs	-	51-97	-	1	-	-	51.0	-	5,224.7	17	211.1392	625	8.5314E+02
Y	195	(C-22-19)6ccb	(C-22-19)6ccb	4,313,041.94	757,207.49	5,310.7	Basin Fill	QTs	-	130-160	-	1	-	-	70.5	-	5,240.2	17	322.9539	625	9.6495E+02
Y	195	(C-22-19)6ccd	(C-22-19)6ccd	4,312,853.31	757,589.53	5,273.5	Basin Fill	QTs	-	40-100	-	1	-	-	46.0	-	5,227.5	17	610.4464	625	1.2524E+03
Y	195	(C-22-19)6dab1	(C-22-19)6dab1	4,313,593.03	758,478.89	5,244.0	Basin Fill	QTs	-	40-200	-	1	-	-	58.0	-	5,186.0	17	744.2913	625	1.3863E+03
Y	195	(C-22-19)6dab2	(C-22-19)6dab2	4,313,593.03	758,478.89	5,244.0	Basin Fill	QTs	-	60-250	-	1	-	-	70.0	-	5,174.0	17	744.2913	625	1.3863E+03
Y	195	385620114020901	(C-22-20) 1aab- 1	4,314,165.90	756,846.35	5,283.7	Basin Fill	QTs	333	50-333	-	1	10/30/74	10/30/74	50.0	-	5,233.7	17	3.4289	400	4.2043E+02
Y	195	385623114021501	(C-22-20) 1aba- 1	4,314,253.70	756,698.83	5,282.7	Basin Fill	QTs	135	50-135	-	37	03/10/76	03/10/04	67.7	-	5,214.9	0.491555698	38.6485	100	1.3914E+02
Y	195	385600114024001	(C-22-20) 1bdc- 1	4,313,524.97	756,119.83	5,323.7	Basin Fill	QTs	281	50-281	-	1	04/22/82	04/22/82	52.0	-	5,271.7	17	178.6648	100	2.9566E+02
Y	195	(C-22-20)1AAC 1	(C-22-20)1AAC 1	4,314,075.42	756,881.87	5,273.7	Basin Fill	QTs	-	-	-	1	05/15/44	05/15/44	60.0	-	5,213.7	17	113.0254	625	7.5503E+02
Y	195	(C-22-20)1AAD 1	(C-22-20)1AAD 1	4,314,081.27	757,086.67	5,273.7	Basin Fill	QTs	-	-	-	1	06/15/48	06/15/48	63.0	-	5,210.7	17	76.5223	625	7.1852E+02
Y	195	(C-22-20)1DAA 1	(C-22-20)1DAA 1	4,313,449.30	757,110.08	5,299.0	Basin Fill	QTs	-	-	-	1	07/15/39	07/15/39	75.0	-	5,224.0	17	65.1965	625	7.0720E+02
N	195	(C-22-20)24DD	(C-22-20)24DD	4,308,073.61	757,140.07	5,563.8	Basin Fill	QTs	101	50-101	-	-	-	-	-	<	5,462.8	-	-	-	-
N	195	(C-23-19) 7CD	(C-23-19) 7CD	4,301,629.48	758,089.12	5,483.8	Basin Fill	QTs	101	50-101	-	-	-	-	-	<	5,382.8	-	-	-	-
Y	195	384936113592301	(C-23-19) 9cdb- 1	4,301,840.38	761,255.10	5,403.8	Basin Fill	QTs	-	-	-	93	11/16/36	03/10/04	11.0	-	5,392.8	0.059270854	50.4192	100	1.5048E+02
Y	195	384943113583801	(C-23-19) 9dad- 1	4,302,092.06	762,333.34	5,483.8	Basin Fill	QTs	95	50-95	-	1	08/26/81	08/26/81	68.5	-	5,415.3	17	16.3753	100	1.3338E+02
Y	195	(C-23-19)10CA 1	(C-23-19)10CA 1	4,302,136.77	762,985.37	5,528.1	Basin Fill	QTs	-	-	-	1	03/15/81	03/15/81	69.0	-	5,459.1	17	922.4989	625	1.5645E+03
Y	195	(C-23-19)10DD 1	(C-23-19)10DD 1	4,301,755.47	763,839.47	5,593.8	Basin Fill	QTs	-	-	-	1	03/15/81	03/15/81	163.0	-	5,430.8	17	1,232.7592	625	1.8748E+03
Y	195	384936113572901	(C-23-19)10dda- 1	4,301,931.52	764,004.76	5,603.8	Basin Fill	QTs	190	50-190	-	1	08/26/81	08/26/81	163.6	-	5,440.2	17	149.5709	100	2.6657E+02
Y	195	(C-23-19)13AAB 1	(C-23-19)13AAB 1	4,301,572.45	766,981.32	5,933.9	Basin Fill	QTs	-	50-540	-	1	-	-	476.0	-	5,457.9	17	722.8521	625	1.3649E+03
Y	195	384818114002801	(C-23-19)20bac- 1	4,299,383.88	759,766.13	5,403.8	Basin Fill	QTs	415	50-415	Y	59	11/08/50	03/28/90	15.8	-	5,388.0	0.018840948	33.7413	100	1.3376E+02
Y	195	384900114003001	(C-23-19)20bac- 2	4,300,677.30	759,675.45	5,413.8	Basin Fill	QTs	40	-	-	1	11/01/50	11/01/50	15.0	-	5,398.8	17	2.5775	100	1.1958E+02
Y	195	384815114003701	(C-23-19)20bcd- 1	4,299,284.28	759,552.02	5,413.8	Basin Fill	QTs	135	50-135	-	36	03/13/80	03/10/04	14.6	-	5,399.2	0.038163834	275.3689	100	3.7541E+02
Y	195	(C-23-19)20BDB 1	(C-23-19)20BDB 1	4,299,307.61	759,723.35	5,413.8	Basin Fill	QTs	-	-	-	1	08/15/79	08/15/79	18.0	-	5,395.8	17	735.9796	625	1.3780E+03
Y	195	(C-23-19)20DBC 1	(C-23-19)20DBC 1	4,298,680.86	760,160.43	5,418.8	Basin Fill	QTs	-	-	-	1	08/15/79	08/15/79	16.0	-	5,402.8	17	74.9049	625	7.1690E+02

Table A.2-1
Steady-State Water-Level Data Set and Additional Wells or Springs Used for Control
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SS Well	HA	Site No.	Station Name	UTM N (m)	UTM E (m)	Ref. Pt. Elev. (ft-amsl)	Site Type	HGU	Well Depth (ft-bgs)	Open Interval (ft-bgs)	Excluded Data Flag	No. of Meas.	POR-Start Date	POR-End Date	Mean DTW (ft-bgs)	Q Elev.	Mean Elev. (ft-amsl)	V. Sample Mean (ft^2)	V. of Vertical Error (ft^2)	V. Land Surface (ft^2)	Total Var (ft^2)
Y	195	(C-23-19)22B 1	(C-23-19)22B 1	4,299,516.53	762,862.60	5,482.6	Basin Fill	QTs	-	-	-	1	03/15/81	03/15/81	48.0	-	5,434.6	17	167.4764	625	8.0948E+02
Y	195	384807113582001	(C-23-19)22bcd- 1	4,299,146.48	762,865.61	5,463.8	Basin Fill	QTs	50	-	-	1	08/26/81	08/26/81	48.9	-	5,414.9	17	70.9205	100	1.8792E+02
Y	195	(C-23-19)24DCC 1	(C-23-19)24DCC 1	4,298,526.92	766,667.08	5,834.2	Basin Fill	QTs	-	50-472	-	1	06/15/39	06/15/39	455.0	-	5,379.2	17	731.2363	625	1.3732E+03
Y	195	(C-23-19)28CB 1	(C-23-19)28CB 1	4,297,199.33	761,127.84	5,453.8	Basin Fill	QTs	-	-	-	1	03/15/81	03/15/81	40.0	-	5,413.8	17	105.4865	625	7.4749E+02
Y	195	384712113594001	(C-23-19)28cbb- 1	4,297,386.95	760,991.16	5,456.5	Basin Fill	QTs	95	50-95	-	1	08/26/81	08/26/81	40.0	-	5,416.6	17	0.1535	625	6.4215E+02
Y	195	(C-23-19)8D 1	(C-23-19)8D 1	4,301,821.96	760,385.02	5,403.8	Basin Fill	QTs	-	0-40	-	1	05/15/76	05/15/76	3.0	-	5,400.8	17	186.8995	625	8.2890E+02
N	195	(C-24-18)20BCC 1	(C-24-18)20BCC 1	4,289,383.07	769,942.12	5,781.6	Basin Fill	QTs	-	50-360	-	-	-	-	-	<	5,421.6	-	-	-	-
N	195	(C-24-18)27A 1	(C-24-18)27A 1	4,288,239.52	774,390.42	5,876.7	Basin Fill	QTs	-	50-500	-	-	-	-	-	<	5,376.7	-	-	-	-
N	195	(C-24-18)29B 1	(C-24-18)29B 1	4,288,124.12	770,277.84	5,854.0	Basin Fill	QTs	-	50-936	-	-	-	-	-	<	4,918.0	-	-	-	-
Y	195	384514113573601	(C-24-19) 3cad- 1	4,293,847.65	764,104.69	5,573.8	Basin Fill	QTs	197	50-197	-	8	08/26/81	09/10/87	125.7	-	5,448.1	0.180063392	33.8570	100	1.3404E+02
Y	195	(C-24-19) 3DBA	(C-24-19) 3DBA	4,294,055.66	764,312.48	5,561.8	Basin Fill	QTs	172	50-172	-	1	10/15/58	10/15/58	138.0	-	5,423.8	17	160.7784	2,500	2.6778E+03
Y	195	384553113582401	(C-24-19) 4aab- 1	4,295,011.69	762,905.95	5,533.0	Basin Fill	QTs	95	50-95	-	1	08/26/81	08/26/81	81.8	-	5,451.3	17	22.1213	625	6.6412E+02
Y	195	(C-24-19)32ad	(C-24-19)32ad	4,286,065.85	761,710.15	6,266.5	Carbonate Well	MOc	-	50-4800	-	1	-	-	770.0	-	5,496.5	17	1,081.3747	625	1.7234E+03
Y	195	384047113593301	(C-24-19)32dbd- 1	4,285,521.92	761,550.33	6,379.1	Carbonate Well	MOc	-	50-7025	-	1	03/21/69	03/21/69	750.0	-	5,629.1	17	562.5191	100	6.7952E+02
Y	195	(C-24-19)32dd	(C-24-19)32dd	4,285,356.94	761,710.80	6,381.6	Carbonate Well	MOc	-	50-1390	-	1	-	-	770.0	-	5,611.6	17	3,359.1213	625	4.0011E+03
Y	195	(C-24-19)3DA 1	(C-24-19)3DA 1	4,293,886.46	764,704.26	5,573.8	Basin Fill	QTs	-	-	-	1	03/15/81	03/15/81	126.0	-	5,447.8	17	86.2781	625	7.2828E+02
Y	195	(C-24-19)4AA 1	(C-24-19)4AA 1	4,294,835.43	763,041.88	5,533.8	Basin Fill	QTs	-	-	-	1	03/15/81	03/15/81	82.0	-	5,451.8	17	156.2723	625	7.9827E+02
N	195	195 N09 E70 34DB 1	195 N09 E70 34DB 1 South Little Springs	4,285,351.60	751,340.96	5,578.0	Spring	-	-	-	-	-	-	-	-	>	5,578.0	-	-	-	-
Y	195	383559114072701	195 N09HE70 33AC 1 USGS-MX	4,285,792.39	749,783.87	5,653.9	Basin Fill	QTs	101	50-101	-	2	07/01/80	01/01/81	76.0	-	5,577.9	1	10,415.3983	100	1.0516E+04
Y	195	384517114054001	195 N10 E70 11D 1	4,293,244.16	753,151.09	5,503.9	Basin Fill	QTs	100	50-100	-	1	07/19/53	07/19/53	9.0	-	5,494.9	17	535.1571	100	6.5216E+02
Y	195	384541114050501	195 N10 E70 12B 1	4,294,247.71	753,650.76	5,493.9	Basin Fill	QTs	80	29-38/42-47/ 62-65	-	1	07/24/53	07/24/53	14.0	-	5,479.9	17	2,603.8697	100	2.7209E+03
Y	195	195 N10 E70 24AB 1	195 N10 E70 24AB 1	4,291,291.00	755,775.94	5,479.4	Basin Fill	QTs	400	300-400	-	1	04/15/97	04/15/97	28.0	-	5,451.4	17	12.6215	625	6.5462E+02
Y	195	195 N10 E70 25AB 1	195 N10 E70 25AB 1	4,289,564.50	755,831.44	5,529.9	Basin Fill	QTs	605	100-180/180-400/ 400-605	-	1	06/15/97	06/15/97	7.0	-	5,522.9	17	960.4340	625	1.6024E+03
Y	195	384236114042701	195 N10 E70 25D 1	4,288,449.80	754,754.83	5,528.9	Basin Fill	QTs	70	11-32/40-41/ 50-54	-	1	08/03/53	08/03/53	7.0	-	5,521.9	17	965.5047	100	1.0825E+03
Y	195	195 N10 E70 29DD 1	195 N10 E70 29DD 1	4,287,898.50	749,040.69	5,692.3	Basin Fill	QTs	68	8-62	-	1	07/15/53	07/15/53	6.0	-	5,686.3	17	2,463.8782	625	3.1059E+03
N	195	384152114075001	195 N10 E70 33ACBB1 Big Spring	4,287,140.65	749,475.53	5,571.9	Spring	-	-	-	-	-	-	-	-	>	5,571.9	-	-	-	-
N	195	195 N10 E70 34DC 1	195 N10 E70 34DC 1 North Little Springs	4,286,210.51	751,096.16	5,568.6	Spring	-	-	-	-	-	-	-	-	>	5,568.6	-	-	-	-
Y	195	384702114041601	195 N11 E70 35AD 1 USGS-MX (Snake V. Small)	4,296,862.34	754,340.32	5,581.9	Basin Fill	QTs	101	50-101	-	59	01/01/81	10/03/06	69.0	-	5,512.9	0.001169135	181.0078	1,600	1.7810E+03
Y	195	384714114051001	195 N11 E70 35BA 1 USGS-MX (Hamlin Valley N.)	4,297,190.69	753,025.29	5,663.9	Basin Fill	QTs	200	50-200	Y	45	09/26/91	10/03/06	141.8	-	5,522.1	0.003290467	751.7333	1,600	2.3517E+03
Y	195	384702114034101	195 N11 E70 36BD 1 USGS-MX	4,296,889.45	755,185.00	5,548.8	Basin Fill	QTs	101	50-101	-	15	09/01/80	10/03/06	66.3	-	5,482.5	0.011516064	368.5714	1,600	1.9686E+03
N	195	385450114032301	195 N12 E70 13AC 1 USGS-MX	4,311,333.13	755,153.95	5,523.8	Basin Fill	QTs	200	50-200	-	-	-	-	-	<	5,323.8	-	-	-	-
N	195	385434114063901	195 N12 E70 15CB 1 Spring Creek Spring	4,310,688.72	750,448.00	6,124.0	Spring-Regional	-	-	-	-	-	-	-	-	>	6124.0	-	-	-	-
Y	195	195 N12 E70 34 1	195 N12 E70 34 1	4,306,160.50	751,701.44	6,246.2	Carbonate Well	MOc	120	104-109	-	1	06/15/97	06/15/97	52.0	-	6,194.2	17	9,049.6535	625	9.6917E+03
Y	195	390126114115701	195 N13 E69 11A 1	4,322,743.15	743,131.11	6,304.0	Basin Fill	QTs	29	4-29	-	1	04/30/58	04/30/58	25.0	-	6,279.0	17	263,482.6100	100	2.6360E+05
Y	195	195 N13 E69 11ABC 1	195 N13 E69 11ABC 1	4,322,537.33	742,674.24	6,404.1	Basin Fill	QTs	-	-	-	1	04/15/74	04/15/74	85.0	-	6,319.1	17	14,843.3698	625	1.5485E+04
Y	195	390028114110401	195 N13 E69 12CCDB1	4,321,403.60	743,726.35	6,204.0	Basin Fill	QTs	150	70-150	-	2	12/28/93	09/08/03	52.9	-	6,151.2	147.1369	11.6705	100	2.5881E+02

Table A.2-1
Steady-State Water-Level Data Set and Additional Wells or Springs Used for Control
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SS Well	HA	Site No.	Station Name	UTM N (m)	UTM E (m)	Ref. Pt. Elev. (ft-amsl)	Site Type	HGU	Well Depth (ft-bgs)	Open Interval (ft-bgs)	Excluded Data Flag	No. of Meas.	POR-Start Date	POR-End Date	Mean DTW (ft-bgs)	Q Elev.	Mean Elev. (ft-amsl)	V. Sample Mean (ft^2)	V. of Vertical Error (ft^2)	V. Land Surface (ft^2)	Total Var (ft^2)
N	195	390156114062201	195 N13 E70 03D 1	4,323,635.28	750,903.82	5,273.8	Basin Fill	QTs	204	204-470	-	-	-	-	-	>	5,273.8	-	-	-	-
Y	195	195 N13 E70 04CDC 1	195 N13 E70 04CDC 1	4,323,121.48	748,763.27	5,303.8	Basin Fill	QTs	-	-	-	1	08/15/79	08/15/79	28.0	-	5,275.8	17	789.8414	625	1.4318E+03
Y	195	390156114073201	195 N13 E70 04D 1	4,323,734.40	749,167.20	5,303.8	Basin Fill	QTs	147	50-145	-	2	05/11/52	04/04/90	37.1	-	5,266.7	47.61	511.7281	100	6.5934E+02
Y	195	390126114075901	195 N13 E70 09B 1 Ranger Station	4,322,629.38	748,383.54	5,353.8	Basin Fill	QTs	88	80-85	-	1	07/30/58	07/30/58	18.0	-	5,335.8	17	43,648.7638	100	4.3766E+04
Y	195	195 N13 E70 09BDD 1	195 N13 E70 09BDD 1	4,322,310.93	748,982.38	5,303.8	Basin Fill	QTs	-	-	-	1	08/15/79	08/15/79	16.0	-	5,287.8	17	806.9725	625	1.4490E+03
Y	195	390102114080301	195 N13 E70 09C 1	4,322,204.54	748,613.66	5,353.8	Basin Fill	QTs	84	50-84	-	2	07/11/52	04/04/90	43.7	-	5,310.1	53.29	28,850.5716	100	2.9004E+04
Y	195	195 N13 E70 09CA 1	195 N13 E70 09CA 1	4,321,995.14	748,889.36	5,303.8	Basin Fill	QTs	-	-	-	1	-	-	28.0	-	5,275.8	17	373.8938	625	1.0159E+03
N	195	390135114063401	195 N13 E70 10A 1	4,322,917.67	750,661.84	5,223.8	Basin Fill	QTs	104	50-70	-	-	-	-	-	>	5,223.8	-	-	-	-
N	195	195 N13 E70 10CAD 1	195 N13 E70 10CAD 1	4,321,948.84	750,599.70	5,232.8	Basin Fill	QTs	-	-	-	-	-	-	-	>	5,232.8	-	-	-	-
N	195	390011114055601	195 N13 E70 14C 1	4,320,704.46	751,912.48	5,187.0	Basin Fill	QTs	415	50-415	-	-	-	-	-	>	5,187.0	-	-	-	-
N	195	195 N13 E70 14CC 1	195 N13 E70 14CC 1	4,320,094.03	751,756.19	5,238.0	Basin Fill	QTs	245	182-188	-	-	-	-	-	>	5,238.0	-	-	-	-
N	195	195 N13 E70 14CCA 1	195 N13 E70 14CCA 1	4,320,185.08	751,846.73	5,231.8	Basin Fill	QTs	-	-	-	-	-	-	-	>	5,231.8	-	-	-	-
Y	195	390005114080601	195 N13 E70 16C 1	4,320,847.14	748,632.44	5,403.8	Basin Fill	QTs	154	110-153	-	1	05/06/53	05/06/53	39.0	-	5,364.8	17	66,011.6423	100	6.6129E+04
Y	195	195 N13 E70 16CC 1	195 N13 E70 16CC 1	4,319,987.67	748,545.86	5,473.9	Basin Fill	QTs	-	-	-	1	03/15/74	03/15/74	53.0	-	5,420.9	17	607.2751	625	1.2493E+03
Y	195	195 N13 E70 16DB 1	195 N13 E70 16DB 1	4,320,411.22	749,331.63	5,363.8	Basin Fill	QTs	-	-	-	1	08/15/48	08/15/48	50.0	-	5,313.8	17	2,048.2259	625	2.6902E+03
Y	195	195 N13 E70 30AA 1	195 N13 E70 30AA 1	4,317,924.95	746,580.06	6,013.5	Volcanic	TJi	300	60-300	-	1	10/15/03	10/15/03	34.0	-	5,979.5	17	4,383.0885	625	5.0251E+03
Y	195	195 N13 E70 33 1	195 N13 E70 33 1	4,315,785.10	749,236.21	5,955.4	Basin Fill	QTs	80	70-75	-	1	11/15/66	11/15/66	65.0	-	5,890.4	17	1,909.5156	625	2.5515E+03
Y	195	385757114045801	195 N13 E70 35A 1 USBLM - State Hwy Well	4,316,637.61	753,102.83	5,333.8	Basin Fill	QTs	155	50-158	-	2	12/15/47	04/04/90	98.3	-	5,235.5	1.5625	17,785.3467	100	1.7887E+04
Y	195	385941114032901	195 N13 E71 19B 1 USBLM	4,319,789.18	755,121.49	5,163.7	Basin Fill	QTs	80	68-75	-	2	10/24/47	04/04/90	23.3	-	5,140.5	3.0625	5,842.7556	100	5.9458E+03
Y	195	195 N14 E69 13CD 1	195 N14 E69 13CD 1	4,329,500.63	743,843.97	5,702.9	Basin Fill	QTs	291	40-180/200-260	-	1	03/15/67	03/15/67	22.0	-	5,680.9	17	2,012.2394	625	2.6542E+03
Y	195	390454114111101	195 N14 E69 24A 1	4,328,971.85	743,949.00	5,683.9	Basin Fill	QTs	70	45-70	-	1	05/07/58	05/07/58	27.0	-	5,656.9	17	10,955.2793	100	1.1072E+04
Y	195	195 N14 E69 24BDD 1	195 N14 E69 24BDD 1	4,328,611.78	743,976.79	5,653.9	Basin Fill	QTs	-	-	-	1	08/15/79	08/15/79	32.0	-	5,621.9	17	2,287.7779	625	2.9298E+03
Y	195	195 N14 E69 24DAB 1	195 N14 E69 24DAB 1	4,328,410.09	744,631.44	5,603.9	Basin Fill	QTs	-	-	-	1	08/15/79	08/15/79	12.0	-	5,591.9	17	527.0486	625	1.1690E+03
Y	195	390543114081801	195 N14 E70 08DC 1 USGS-MX (Snake Valley S.)	4,331,240.71	747,414.05	5,548.1	Basin Fill	QTs	79	50-79	-	50	01/01/81	10/04/06	59.9	-	5,488.2	0.127188089	448.2102	625	1.0733E+03
Y	195	195 N14 E70 20 1	195 N14 E70 20 1	4,328,580.48	747,282.84	5,423.8	Basin Fill	QTs	-	-	-	1	03/15/74	03/15/74	53.0	-	5,370.8	17	517.4086	625	1.1594E+03
Y	195	390337114065301	195 N14 E70 27C 1 USBLM	4,326,482.84	750,187.23	5,303.8	Basin Fill	QTs	130	110-130	-	2	07/30/51	04/04/90	87.6	-	5,216.2	2.560000006	5,609.8349	100	5.7124E+03
Y	195	390252114102101	195 N14 E70 31C 1	4,325,334.86	745,096.86	5,623.9	Basin Fill	QTs	65	45-65	-	1	10/14/50	10/14/50	25.0	-	5,598.9	17	64,985.4745	100	6.5102E+04
Y	195	390812114033601	195 N15 E70 25DD 1 USGS-MX (Snake Valley N.)	4,336,051.47	754,041.09	5,071.7	Basin Fill	QTs	94	50-94	-	51	01/01/81	10/04/06	12.8	-	5,058.9	0.022007134	127.3790	1,600	1.7274E+03
Y	195	393047114124001	195 N19 E69 15C 1	4,377,038.27	740,345.12	7,184.2	Basin Fill	QTs	28	16-26	-	1	07/18/53	07/18/53	9.0	-	7,175.2	17	34,572.4774	100	3.4689E+04
Y	196	(C-30-19)21CAB	(C-30-19)21CAB	4,230,553.48	764,507.66	6,329.2	Basin Fill	QTs	-	-	-	1	-	-	170.0	-	6,159.2	17	4,081.6823	625	4.7237E+03
Y	196	(C-31-19)20CD 1	(C-31-19)20CD 1	4,219,780.06	763,079.31	6,723.2	Volcanic	Tv	665	625-665	-	1	03/10/99	03/10/99	564.0	-	6,159.2	17	169.5912	625	8.1159E+02
N	196	(C-32-19)10BBA 1	(C-32-19)10BBA 1	4,214,714.42	766,174.29	6,632.4	Basin Fill	QTs	-	-	-	-	-	-	-	>	6,632.4	-	-	-	-
Y	196	(C-32-19)21ABA 1	(C-32-19)21ABA1	4,211,459.02	765,524.28	6,744.4	Basin Fill	QTs	-	-	-	1	11/15/62	11/15/62	17.0	-	6,727.4	17	89.6612	625	7.3166E+02
Y	196	(C-32-19)21ABA 2	(C-32-19)21ABA2	4,211,459.02	765,524.28	6,744.4	Basin Fill	QTs	-	-	-	1	11/15/62	11/15/62	58.0	-	6,686.4	17	89.6612	625	7.3166E+02
Y	196	(C-32-19)22DCB	(C-32-19)22DCB	4,210,277.01	766,965.56	6,644.4	Basin Fill	QTs	8	50-407	-	1	12/15/64	12/15/64	335.0	-	6,309.4	17	29.9886	625	6.7199E+02
N	196	(C-32-19)25AAA 1	(C-32-19)25AAA 1	4,209,958.60	770,650.35	6,523.0	Basin Fill	QTs	-	-	-	-	-	-	-	<	6,483.0	-	-	-	-
Y	196	(C-32-19)27ACC	(C-32-19)27ACC	4,209,271.07	766,984.29	6,654.4	Basin Fill	QTs	-	-	-	1	09/15/72	09/15/72	415.0	-	6,239.4	17	170.4693	625	8.1247E+02
Y	196	195 N10 E69 08BB 1	195 N10 E69 08BB 1	4,293,212.00	738,144.56	7,461.5	Basin Fill	QTs	200	102-200	-	1	05/15/66	05/15/66	85.0	-	7,376.5	17	34,791.1553	625	3.5433E+04
Y	196	196 N06 E68 13A 1	196 N06 E68 13A 1	4,252,012.00	736,921.44	8,026.7	Basin Fill	QTs	484	420-484	-	1	01/15/57	01/15/57	420.0	-	7,606.7	17	34,149.8598	625	3.4792E+04

Table A.2-1
Steady-State Water-Level Data Set and Additional Wells or Springs Used for Control
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SS Well	HA	Site No.	Station Name	UTM N (m)	UTM E (m)	Ref. Pt. Elev. (ft-amsl)	Site Type	HGU	Well Depth (ft-bgs)	Open Interval (ft-bgs)	Excluded Data Flag	No. of Meas.	POR-Start Date	POR-End Date	Mean DTW (ft-bgs)	Q Elev.	Mean Elev. (ft-amsl)	V. Sample Mean (ft^2)	V. of Vertical Error (ft^2)	V. Land Surface (ft^2)	Total Var (ft^2)
N	196	383404114135201	196 N08 E69 09DA 1 USGS-MX	4,272,442.54	741,164.43	5,742.3	Basin Fill	QTs	100	50-100	-	-	-	-	-	<	5,642.3	-	-	-	-
Y	196	383325114134901	196 N08 E69 15B 1	4,271,289.96	741,829.21	5,715.5	Basin Fill	QTs	110	50-110	-	3	07/15/64	07/15/79	75.3	-	5,640.2	0.777777778	1,737.3884	625	2.3632E+03
Y	196	383023114115301	196 N08 E69 35DC 1 USGS-MX	4,265,716.33	744,252.73	5,778.6	Basin Fill	QTs	475	50-480	-	4	09/14/80	08/14/06	156.4	-	5,622.2	1.146422916	0.3749	625	6.2652E+02
Y	196	383023114115302	196 N08 E69 35DC 2 USGS-MX (Hamlin Valley S.)	4,265,716.33	744,252.73	5,778.6	Basin Fill	QTs	435	50-435	-	44	08/07/80	12/16/03	174.1	-	5,604.4	0.035256645	0.3749	625	6.2541E+02
Y	196	383047114110001	196 N08 E69 36A 1 USBLM - Rosencran Well	4,266,574.98	746,093.58	5,761.8	Basin Fill	QTs	225	200-218	-	2	03/18/47	08/14/06	151.7	-	5,610.0	0.308024999	1,053.4731	625	1.6788E+03
Y	196	196 N08 E69 36AAA 1	196 N08 E69 36AAA 1	4,267,010.31	746,086.11	5,748.3	Basin Fill	QTs	480	50-480	-	1	08/15/79	08/15/79	145.0	-	5,603.3	17	237.0365	625	8.7904E+02
Y	196	383533114102901	196 N08 E70 06B 1 USBLM - Monument Well	4,275,263.04	746,625.82	5,673.9	Basin Fill	QTs	164	111-115/152-164	-	3	08/18/47	08/14/06	89.7	-	5,584.2	0.790000002	3.6037	100	1.0439E+02
Y	196	383252114075101	196 N08 E70 21A 1	4,270,510.62	750,601.75	5,713.9	Basin Fill	QTs	153	50-153	-	2	11/03/64	05/15/79	125.0	-	5,588.9	9.000000004	368.5428	100	4.7754E+02
N	196	383548114150101	196 N09 E69 32DA 1 USGS-MX	4,275,598.71	739,398.18	5,953.9	Basin Fill	QTs	200	50-200	-	-	-	-	-	<	5,753.9	-	-	-	-
Y	196	196 N09 E70 14CAB 1	196 N09 E70 14CAB 1	4,280,879.30	752,645.00	5,606.5	Basin Fill	QTs	-	-	-	1	07/15/79	07/15/79	27.0	-	5,579.5	17	121.8181	625	7.6382E+02
Y	196	383545114070101	196 N09 E70 34D 1	4,275,699.72	751,722.94	5,693.9	Basin Fill	QTs	217	195-199	-	2	08/18/47	08/15/79	109.5	-	5,584.4	0.25	316.4281	100	4.1668E+02
Y	196	196 N09 E70 35 1	196 N09 E70 35 1	4,276,153.00	753,379.88	5,736.2	Basin Fill	QTs	165	120-165	-	1	02/15/51	02/15/51	110.0	-	5,626.2	17	367.9173	625	1.0099E+03
Y	196	196 N09 E71 06A 1	196 N09 E71 06A 1	4,284,704.07	756,345.15	5,723.9	Basin Fill	QTs	-	-	-	1	07/15/79	07/15/79	199.0	-	5,524.9	17	608.9995	625	1.2510E+03
Y	198	375404114175301	198 N01 E59 31CBBD1	4,198,279.44	737,491.56	5,233.7	Basin Fill	QTs	180	90-180	-	1	05/29/03	05/29/03	92.0	-	5,141.7	17	8.9702	100	1.2597E+02
Y	198	198 N01 E68 36CC 1	198 N01 E68 36CC 1	4,197,682.00	736,041.88	5,258.8	Basin Fill	QTs	180	60-180	-	1	04/15/03	04/15/03	120.0	-	5,138.8	17	818.3647	625	1.4604E+03
Y	198	375324114171301	198 N01 E69 31C 1	4,197,749.73	737,311.32	5,193.7	Basin Fill	QTs	120	50-120	Y	4	03/21/85	03/27/86	28.1	-	5,165.6	0.837166669	26,803.6900	100	2.6905E+04
Y	198	375356114161801	198 N01 E69 31CAC 1	4,198,100.40	739,819.48	5,265.8	Basin Fill	QTs	110	50-110	-	11	02/09/68	03/12/85	54.9	-	5,210.9	13.31856017	36.0825	100	1.4940E+02
Y	198	198 N01 E69 32BB 1	198 N01 E69 32BB 1	4,199,008.50	739,230.56	5,221.0	Basin Fill	QTs	195	45-195	-	1	05/15/81	05/15/81	42.0	-	5,179.0	17	133.9158	625	7.7592E+02
Y	198	375412114163801	198 N01 E69 32BCC 1	4,198,579.37	739,316.51	5,234.8	Basin Fill	QTs	-	-	-	1	03/12/85	03/12/85	53.4	-	5,181.3	17	12.6669	100	1.2967E+02
Y	198	375406114171901	198 N01 E69 32CAA 1	4,198,365.20	738,320.33	5,188.8	Basin Fill	QTs	-	-	-	14	02/09/68	03/12/85	88.7	-	5,100.0	50.77677896	13.6187	100	1.6440E+02
Y	198	375125114181101	198 S01 E68 12D 1 Civilian Conservation Corp	4,194,557.40	735,740.44	5,118.5	Basin Fill	QTs	76	50-76	-	1	10/26/63	10/26/63	29.2	-	5,089.3	17	640,052.6570	625	6.4069E+05
Y	198	198 S01 E69 02 1	198 S01 E69 02 1	4,196,935.50	743,228.25	5,489.4	Basin Fill	QTs	71	52-71	-	1	07/15/47	07/15/47	34.0	-	5,455.4	17	3,355.1548	625	3.9972E+03
Y	198	198 S01 E69 02 2	198 S01 E69 02 2	4,196,935.50	743,228.25	5,489.4	Basin Fill	QTs	45	18-45	-	1	07/15/47	07/15/47	21.0	-	5,468.4	17	3,355.1548	625	3.9972E+03
Y	198	375302114173401	198 S01 E69 06A 1	4,197,243.06	736,861.39	5,183.7	Basin Fill	QTs	124	40-124	Y	12	10/01/62	09/30/75	26.2	-	5,157.5	0.749411301	12,432.9023	100	1.2534E+04
Y	198	198 S01 E69 06BC 1	198 S01 E69 06BC 1	4,196,915.50	736,210.63	5,223.1	Basin Fill	QTs	127	50-127	-	1	10/15/81	10/15/81	25.0	-	5,198.1	17	291.0326	625	9.3303E+02
Y	198	375237114175701	198 S01 E69 06C 1	4,196,238.94	736,279.03	5,193.7	Basin Fill	QTs	-	-	-	1	10/26/63	10/26/63	21.1	-	5,172.6	17	2,324.6905	100	2.4417E+03
Y	198	375234114173701	198 S01 E69 06D 1	4,196,254.45	736,816.59	5,193.7	Basin Fill	QTs	100	50-100	-	1	10/01/52	10/01/52	17.0	-	5,176.7	17	6,524.0842	100	6.6411E+03
Y	198	375310114175701	198 S01 E69 06DAC 1	4,196,611.93	737,442.08	5,158.7	Basin Fill	QTs	96	16-96	-	2	09/30/52	03/12/85	11.9	-	5,146.8	25.8064	595.5983	100	7.2140E+02
Y	198	375324114181601	198 S01 E69 06DBD 1	4,197,030.08	736,965.35	5,158.7	Basin Fill	QTs	96	28-96	-	2	08/08/54	03/12/85	8.2	-	5,150.6	14.82250001	9.1495	100	1.2397E+02
Y	198	375209114173001	198 S01 E69 07A 1	4,195,464.23	737,230.74	5,173.7	Basin Fill	QTs	100	50-100	Y	8	12/01/63	12/19/72	13.8	-	5,159.9	0.193496429	22,187.4307	100	2.2288E+04
Y	198	198 S01 E69 07BD 1	198 S01 E69 07BD 1	4,195,355.50	736,671.38	5,135.6	Basin Fill	QTs	91	9-91	-	1	08/15/48	08/15/48	9.0	-	5,126.6	17	36.7707	625	6.7877E+02
Y	198	375218114183401	198 S01 E69 07CD 1	4,194,982.78	736,584.28	5,118.7	Basin Fill	QTs	79	30-74	-	2	11/07/64	03/12/85	12.6	-	5,106.1	154.380625	1.0266	100	2.5541E+02
Y	198	198 S01 E69 16CD 1	198 S01 E69 16CD 1	4,193,105.50	739,941.13	5,589.7	Basin Fill	QTs	48	26-48	-	1	10/15/54	10/15/54	26.0	-	5,563.7	17	2,156.1282	625	2.7981E+03
Y	198	198 S01 E69 21DB 1	198 S01 E69 21DB 1	4,191,945.50	740,366.56	5,530.3	Basin Fill	QTs	250	60-250	-	1	12/15/96	12/15/96	31.0	-	5,499.3	17	8,084.8904	625	8.7269E+03
Y	198	198 S01 E69 29AB 1	198 S01 E69 29AB 1	4,191,128.50	738,799.81	5,431.1	Basin Fill	QTs	313	290-313	-	1	05/15/40	05/15/40	263.0	-	5,168.1	17	3,086.7829	625	3.7288E+03
Y	198	375349114172901	198 S01 E69 32CDB 1	4,197,834.06	738,091.29	5,187.7	Basin Fill	QTs	-	-	-	1	03/12/85	03/12/85	19.0	-	5,168.8	17	178.4689	100	2.9547E+02
Y	198	198 S01 E69 35DB 1	198 S01 E69 35DB 1	4,188,958.00	743,685.06	5,996.6	Basin Fill	QTs	81	60-81	-	1	07/15/76	07/15/76	32.5	-	5,964.1	17	1,126.2160	625	1.7682E+03
Y	199	199 N01 E69 16CB 1	199 N01 E69 16CB 1	4,203,062.00	740,676.06	5,822.2	Basin Fill	QTs	105	50-70	-	1	04/15/75	04/15/75	26.0	-	5,796.2	17	36,577.0812	625	3.7219E+04

Table A.2-1
Steady-State Water-Level Data Set and Additional Wells or Springs Used for Control
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SS Well	HA	Site No.	Station Name	UTM N (m)	UTM E (m)	Ref. Pt. Elev. (ft-amsl)	Site Type	HGU	Well Depth (ft-bgs)	Open Interval (ft-bgs)	Excluded Data Flag	No. of Meas.	POR-Start Date	POR-End Date	Mean DTW (ft-bgs)	Q Elev.	Mean Elev. (ft-amsl)	V. Sample Mean (ft^2)	V. of Vertical Error (ft^2)	V. Land Surface (ft^2)	Total Var (ft^2)
Y	199	375555114143701	199 N01 E69 21A 1	4,202,286.63	741,578.65	5,390.0	Basin Fill	QTs	119	16-115	-	1	10/25/63	10/25/63	21.1	-	5,368.9	17	13,920.9067	625	1.4563E+04
Y	199	199 N01 E69 21AA 1	199 N01 E69 21AA 1	4,202,296.00	741,896.06	5,570.1	Basin Fill	QTs	112	12-112	-	1	04/15/59	04/15/59	12.5	-	5,557.6	17	103,232.4837	625	1.0387E+05
Y	199	199 N01 E69 21AB 1	199 N01 E69 21AB 1	4,202,283.50	741,481.00	5,379.9	Basin Fill	QTs	110	12-110	-	1	07/15/63	07/15/63	24.0	-	5,355.9	17	74.7717	625	7.1677E+02
Y	199	199 N01 E69 21AB 2	199 N01 E69 21AB 2	4,202,284.50	741,505.38	5,379.9	Basin Fill	QTs	106	86-106	-	1	02/15/70	02/15/70	24.0	-	5,355.9	17	161.5469	625	8.0355E+02
Y	199	199 N01 E69 21AC 1	199 N01 E69 21AC 1	4,201,883.00	741,492.81	5,368.2	Basin Fill	QTs	207	40-208	-	1	11/15/64	11/15/64	9.0	-	5,359.2	17	23.3040	625	6.6530E+02
Y	199	199 N01 E69 21BA 1	199 N01 E69 21BA 1	4,202,272.00	741,090.31	5,454.8	Basin Fill	QTs	100	50-100	-	1	08/15/85	08/15/85	36.0	-	5,418.8	17	54,423.7282	625	5.5066E+04
Y	199	199 N01 E69 21DB 1	199 N01 E69 21DB 1	4,201,483.00	741,529.06	5,360.4	Basin Fill	QTs	120	16-120	-	1	06/15/64	06/15/64	8.0	-	5,352.4	17	70.2399	625	7.1224E+02
Y	200	200 N01 E69 02AB 1	200 N01 E69 02AB 1	4,206,595.50	744,333.69	5,565.8	Basin Fill	QTs	99	50-99	-	1	06/15/73	06/15/73	37.0	-	5,528.8	17	1,630.0021	625	2.2720E+03
Y	200	375850114125301	200 N01 E69 02ABA 1	4,207,312.02	744,556.51	5,584.0	Basin Fill	QTs	20	-	-	1	03/11/85	03/11/85	41.8	-	5,542.2	17	2,464.1703	625	3.1062E+03
Y	200	200 N01 E69 02CA 1	200 N01 E69 02CA 1	4,206,374.00	744,144.94	5,531.6	Basin Fill	QTs	135	78-98/118-135	-	1	12/15/98	12/15/98	62.0	-	5,469.6	17	333.0374	625	9.7504E+02
Y	200	200 N01 E69 02CD 1	200 N01 E69 02CD 1	4,205,972.50	744,132.50	5,537.5	Basin Fill	QTs	134	94-134	-	1	07/15/00	07/15/00	24.0	-	5,513.5	17	991.7811	625	1.6338E+03
Y	200	200 N01 E69 02DC 1	200 N01 E69 02DC 1	4,205,984.00	744,523.00	5,598.9	Basin Fill	QTs	68	44-68	-	1	05/15/50	05/15/50	23.0	-	5,575.9	17	2,081.5169	625	2.7235E+03
Y	200	200 N01 E69 10AD 1	200 N01 E69 10AD 1	4,205,147.50	743,375.31	5,503.3	Basin Fill	QTs	104	12-104	-	1	10/15/48	10/15/48	8.3	-	5,495.0	17	984.4179	625	1.6264E+03
Y	200	375726114132701	200 N01 E69 10ADD 1	4,204,697.65	743,804.05	5,486.0	Basin Fill	QTs	104	12-104	-	2	10/13/48	03/11/85	6.2	-	5,479.7	3.097600002	6.4420	100	1.0954E+02
Y	200	375731114133001	200 N01 E69 10ADD 2	4,204,849.61	743,726.23	5,486.0	Basin Fill	QTs	107	36-107	-	2	07/09/58	03/11/85	6.9	-	5,479.1	1.210000005	791.5671	100	8.9278E+02
Y	200	375704114132901	200 N01 E69 10D 1	4,204,353.44	743,643.29	5,491.4	Basin Fill	QTs	107	50-107	-	1	10/25/63	10/25/63	8.0	-	5,483.4	17	4,034.3060	625	4.6763E+03
Y	200	200 N01 E69 10DB 1	200 N01 E69 10DB 1	4,204,735.00	742,996.69	5,565.2	Basin Fill	QTs	74	54-74	-	1	12/15/96	12/15/96	16.0	-	5,549.2	17	12,499.4341	625	1.3141E+04
Y	200	200 N01 E69 10DC 1	200 N01 E69 10DC 1	4,204,334.50	743,008.56	5,471.3	Basin Fill	QTs	80	55-80	-	1	12/15/96	12/15/96	21.0	-	5,450.3	17	610.2954	625	1.2523E+03
Y	200	375710114134301	200 N01 E69 10DDBC1	4,204,192.76	743,428.16	5,474.9	Basin Fill	QTs	119	20-119	-	2	11/16/63	03/11/85	11.5	-	5,463.5	0.302499998	34.0591	100	1.3436E+02
Y	200	200 N01 E69 11BC 1	200 N01 E69 11BC 1	4,205,159.00	743,765.81	5,501.2	Basin Fill	QTs	115	62-115	-	1	03/15/03	03/15/03	14.0	-	5,487.2	17	854.3044	625	1.4963E+03
Y	200	200 N01 E69 14 1	200 N01 E69 14 1	4,203,389.50	744,429.50	5,652.5	Basin Fill	QTs	80	52-76	-	1	03/15/65	03/15/65	55.0	-	5,597.5	17	7,621.6500	625	8.2637E+03
Y	200	200 N01 E69 15BD 1	200 N01 E69 15BD 1	4,203,521.50	742,641.81	5,468.8	Volcanic	Tv	114	74-114	-	1	09/15/99	09/15/99	57.0	-	5,411.8	17	1,377.1760	625	2.0192E+03
Y	200	375927114125301	200 N02 E69 35ACD 1	4,208,452.66	744,522.36	5,602.0	Basin Fill	QTs	86	50-86	-	2	07/12/75	03/11/85	23.8	-	5,578.2	66.9124	2,363.6078	100	2.5305E+03
Y	200	200 N02 E69 35BC 1	200 N02 E69 35BC 1	4,208,396.00	743,669.31	5,813.8	Basin Fill	QTs	95	57-95	-	1	10/15/81	10/15/81	50.0	-	5,763.8	17	3,715.4604	625	4.3575E+03
Y	200	200 N02 E69 35BC 2	200 N02 E69 35BC 2	4,208,395.50	743,644.94	5,821.1	Basin Fill	QTs	67	27-67	-	1	12/15/70	12/15/70	32.5	-	5,788.6	17	4,740.3294	625	5.3823E+03
Y	200	200 N02 E69 35CA 1	200 N02 E69 35CA 1	4,207,975.50	744,048.19	5,678.8	Basin Fill	QTs	114	70-114	-	1	05/15/81	05/15/81	70.0	-	5,608.8	17	5,837.3536	625	6.4794E+03
Y	200	200 N02 E69 35CD 1	200 N02 E69 35CD 1	4,207,575.50	744,084.56	5,611.9	Basin Fill	QTs	105	50-105	-	1	08/15/79	08/15/79	28.0	-	5,583.9	17	5,671.4662	625	6.3135E+03
Y	200	200 N02 E69 35DA 1	200 N02 E69 35DA 1	4,208,000.50	744,877.81	5,642.2	Basin Fill	QTs, Tv	140	90-140	-	1	05/15/87	05/15/87	79.0	-	5,563.2	17	20,356.8852	625	2.0999E+04
Y	200	200 N02 E69 35DB 1	200 N02 E69 35DB 1	4,207,988.50	744,487.44	5,591.5	Basin Fill	QTs	125	105-125	-	1	04/15/97	04/15/97	55.0	-	5,536.5	17	688.0929	625	1.3301E+03
Y	200	200 N02 E69 35DC 1	200 N02 E69 35DC 1	4,207,586.50	744,450.63	5,576.4	Basin Fill	QTs	80	60-80	-	1	08/15/64	08/15/64	59.0	-	5,517.4	17	237.2359	625	8.7924E+02
Y	200	375906114125001	200 N02 E69 35DCA 1	4,207,807.47	744,614.97	5,593.8	Basin Fill	QTs	79	50-79	-	2	04/26/46	03/11/85	46.6	-	5,547.2	0.324900005	79.6185	625	7.0494E+02
Y	201	380128114120401	201 N02 E69 24BA 1 NV Division of State Parks	4,212,218.82	745,605.67	5,964.1	Volcanic	QTs, Tv	127	63-127	-	2	03/25/58	03/25/68	55.0	-	5,909.1	0	51,949.2315	400	5.2349E+04
Y	201	380057114121701	201 N02 E69 24BBC 1 NV Division of State Parks	4,211,253.58	745,317.37	5,740.7	Volcanic	Tv	127	63-127	-	2	03/25/68	03/13/85	52.7	-	5,688.1	5.522500005	4,058.2256	625	4.6887E+03
Y	201	380120114120701	201 N02 E69 24BDBA1	4,211,969.99	745,539.92	5,774.1	Volcanic	Tv	80	59-80	-	2	04/08/98	09/11/03	30.6	-	5,743.5	21.390625	42.2727	100	1.6366E+02
Y	201	380359114100101	201 N02 E70 05BA 1	4,216,964.89	748,463.48	5,904.1	Basin Fill	QTs	70	30-70	-	1	04/25/66	04/25/66	11.0	-	5,893.1	17	3,837.0069	400	4.2540E+03
Y	201	201 N02 E70 05CB 1	201 N02 E70 05CB 1	4,216,282.50	748,337.94	5,867.4	Basin Fill	QTs	40	20-40	-	1	08/15/64	08/15/64	6.0	-	5,861.4	17	91.0939	625	7.3309E+02
Y	201	380106114104601	201 N02 E70 07DC 1 Eagle Dam Ranger Station	4,214,142.83	747,491.56	5,863.7	Volcanic	Tv	-	-	-	1	03/13/85	03/13/85	11.8	-	5,851.9	17	368.6184	625	1.0106E+03
Y	201	380108114101701	201 N02 E70 08BBC 1	4,215,187.94	748,205.94	5,859.6	Basin Fill	QTs	8	-	-	1	03/13/85	03/13/85	3.1	-	5,856.5	17	57.4675	625	6.9947E+02
Y	201	201 N02 E70 18BB 1	201 N02 E70 18BB 1	4,213,797.00	746,778.44	6,047.9	Volcanic	Tv	85	65-85	-	1	06/15/95	06/15/95	16.0	-	6,031.9	17	35,186.1298	625	3.5828E+04

Table A.2-1
Steady-State Water-Level Data Set and Additional Wells or Springs Used for Control
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SS Well	HA	Site No.	Station Name	UTM N (m)	UTM E (m)	Ref. Pt. Elev. (ft-amsl)	Site Type	HGU	Well Depth (ft-bgs)	Open Interval (ft-bgs)	Excluded Data Flag	No. of Meas.	POR-Start Date	POR-End Date	Mean DTW (ft-bgs)	Q Elev.	Mean Elev. (ft-amsl)	V. Sample Mean (ft^2)	V. of Vertical Error (ft^2)	V. Land Surface (ft^2)	Total Var (ft^2)
Y	201	380055114110801	201 N02 E70 18CBA 1	4,213,018.35	746,856.56	5,875.6	Volcanic	Tv	17	-	-	1	03/13/85	03/13/85	15.0	-	5,860.6	17	14,405.5682	625	1.5048E+04
Y	201	380846114093601	201 N03 E70 05DBA 1 White Rock Seeding Well	4,225,831.53	748,801.99	6,112.2	Basin Fill	QTs	110	50-110	-	1	03/14/85	03/14/85	72.0	-	6,040.2	17	16.4245	100	1.3342E+02
Y	201	201 N03 E70 06CB 1	201 N03 E70 06CB 1	4,225,822.00	746,462.75	6,087.7	Basin Fill	QTs	400	120-400	-	1	01/15/65	01/15/65	99.0	-	5,988.7	17	4,714.8024	625	5.3568E+03
Y	201	380750114102501	201 N03 E70 07A 1	4,225,058.16	747,728.92	6,122.9	Basin Fill	QTs	30	-	-	1	01/01/46	01/01/46	8.0	-	6,114.9	17	310,917.9153	625	3.1156E+05
Y	201	380809114104101	201 N03 E70 07ACA 1	4,224,642.53	747,254.12	6,003.1	Basin Fill	QTs	9	-	-	1	03/14/85	03/14/85	2.4	-	6,000.7	17	22.0339	100	1.3903E+02
Y	201	380750114104201	201 N03 E70 07B 1	4,224,862.05	747,369.30	6,074.1	Basin Fill	QTs	-	-	-	1	10/25/63	10/25/63	7.1	-	6,067.0	17	148,018.4198	100	1.4814E+05
Y	201	380720114102501	201 N03 E70 07D 1	4,223,922.65	747,934.16	6,054.1	Basin Fill	QTs	96	13-96	-	1	09/01/48	09/01/48	47.0	-	6,007.1	17	2,643.8015	100	2.7608E+03
Y	201	380752114102701	201 N03 E70 07DAA 1	4,224,128.81	747,611.01	5,999.1	Basin Fill	QTs	8	-	-	1	03/14/85	03/14/85	4.7	-	5,994.4	17	108.3940	100	2.2539E+02
Y	201	380732114101301	201 N03 E70 17BBBA1	4,223,522.61	747,970.75	5,996.1	Basin Fill	QTs	74	50-74	-	1	03/14/85	03/14/85	17.6	-	5,978.5	17	11.5615	100	1.2856E+02
Y	201	380132114091601	201 N03 E70 20ADA 1 USBLM	4,221,479.94	749,417.23	5,975.4	Basin Fill	QTs	77	50-77	-	2	10/25/63	03/13/85	35.9	-	5,939.5	142.3249	180.1197	625	9.4744E+02
Y	201	380541114091001	201 N03 E70 20D 1 USBLM	4,220,757.43	749,118.75	5,945.7	Basin Fill	QTs	77	50-77	-	1	10/25/63	10/25/63	51.0	-	5,894.7	17	138.6124	625	7.8061E+02
Y	201	380131114095501	201 N03 E70 32BDB 1	4,218,238.62	748,456.99	5,897.9	Basin Fill	QTs	7	-	-	1	03/13/85	03/13/85	0.9	-	5,896.9	17	678.4704	625	1.3205E+03
Y	201	381157114120001	201 N04 E69 13B 1 USBLM	4,232,695.28	745,182.65	6,305.1	Basin Fill	QTs	206	50-206	-	1	10/25/63	10/25/63	175.3	-	6,129.8	17	6,768.0078	625	7.4100E+03
Y	201	381221114121601	201 N04 E69 13CBA 1	4,232,341.44	744,706.36	6,257.2	Basin Fill	QTs	-	-	-	1	03/14/85	03/14/85	2.3	-	6,254.9	17	27.1259	100	1.4413E+02
Y	201	380934114111301	201 N04 E69 36A 1	4,227,764.19	746,403.78	6,204.1	Basin Fill	QTs	106	50-106	-	1	10/25/63	10/25/63	69.8	-	6,134.3	17	978,842.8530	100	9.7896E+05
Y	201	381008114111901	201 N04 E70 06BBB 1 Buck Wash Well	4,228,283.13	746,217.50	6,137.1	Basin Fill	QTs	-	-	-	1	03/14/85	03/14/85	5.6	-	6,131.6	17	263.8332	100	3.8083E+02
Y	202	202 N01 E66 02AD 1	202 N01 E66 02AD 1	4,206,075.50	715,993.38	6,209.1	Basin Fill	QTs	800	680-800	-	1	09/15/96	09/15/96	670.0	-	5,539.1	17	1,205.9895	625	1.8480E+03
Y	202	202 N01 E66 02AD 2	202 N01 E66 02AD 2	4,206,075.50	715,993.38	6,209.1	Basin Fill	QTs	800	680-800	-	1	02/15/97	02/15/97	670.0	-	5,539.1	17	1,205.9895	625	1.8480E+03
Y	202	375838114294601	202 N01 E67 08BAB 1 USGS-MX	4,205,072.88	720,049.73	5,923.8	Basin Fill	QTs	193	175-193	-	2	07/01/80	03/04/81	177.5	-	5,746.3	42.25	36.5213	100	1.7877E+02
Y	202	375700114254801	202 N01 E67 12CAAC1 PIO 1	4,204,082.12	726,696.22	5,484.8	Basin Fill	QTs	525	362-525	-	1	05/22/86	05/22/86	229.0	-	5,255.8	17	7.7056	100	1.2471E+02
Y	202	375728114251401	202 N01 E67 12CDA 1 Well (Report B07)	4,204,263.03	726,544.62	5,484.8	Basin Fill	QTs	530	50-530	-	1	09/09/46	09/09/46	141.6	-	5,343.2	17	40.9573	100	1.5796E+02
Y	202	375733114245101	202 N01 E67 12DAC 1 Pioche Municipal Well	4,204,432.74	727,101.75	5,465.0	Basin Fill	QTs	595	264-284/400-595	Y	14	08/21/65	09/22/94	94.1	-	5,370.9	0.277108164	6.8795	625	6.3216E+02
Y	202	375653114265101	202 N01 E67 15ADD 1	4,203,118.86	724,206.53	5,759.1	Basin Fill	QTs	563	50-563	-	2	03/01/63	03/15/63	368.0	-	5,391.1	0	164.6832	625	7.8968E+02
Y	202	202 N01 E67 22AB1	202 N01 E67 22AB1	4,201,687.75	723,854.03	5,971.3	Carbonate Well	CC	-	-	-	1	-	-	825.3	-	5,146	17	5,571.7686	625	6.2138E+03
Y	202	202 N01 E68 07AC 1	202 N01 E68 07AC 1	4,204,893.50	732,511.75	5,624.0	Basin Fill	QTs, Tv	570	206-570	-	1	03/15/91	03/15/91	176.0	-	5,448.0	17	50.6198	625	6.9262E+02
Y	202	202 N01 E69 07CA 1	202 N01 E69 07CA 1	4,204,674.81	737,731.60	5,835.4	Basin Fill	QTs, Tv	118	60-100	-	1	12/15/03	12/15/03	20.0	-	5,815.4	17	14,498.2165	625	1.5140E+04
N	202	380152114314901	202 N02 E66 13CA 1 USGS-MX	4,212,139.87	716,687.11	5,923.7	Basin Fill	QTs	200	50-200	-	-	-	-	-	<	5,723.7	-	-	-	-
Y	202	380015114312501	202 N02 E66 25DAB 1 USBLM	4,209,165.24	717,351.95	5,923.8	Basin Fill	QTs	400	50-400	-	3	04/12/46	04/05/90	350.9	-	5,573.0	3.329011109	87.5868	100	1.9092E+02
Y	202	202 N02 E67 12DA 1	202 N02 E67 12DA 1	4,214,057.00	727,053.81	5,863.1	Basin Fill	QTs	600	280-600	-	1	09/15/86	09/15/86	101.0	-	5,762.1	17	381.3414	625	1.0233E+03
N	202	380219114254701	202 N02 E67 14AA 1 USGS-MX	4,213,211.49	725,491.29	5,723.8	Basin Fill	QTs	100	50-100	-	-	-	-	-	<	5,623.8	-	-	-	-
Y	202	380156114282101	202 N02 E67 16CAA 1 USBLM 8-mile Well	4,212,399.49	721,755.72	5,577.7	Basin Fill	QTs	52	30-52	-	4	04/12/46	04/06/90	20.9	-	5,556.9	0.375722917	35.9825	100	1.3636E+02
Y	202	202 N02 E67 16CC 1	202 N02 E67 16CC 1	4,211,857.50	721,111.56	5,600.1	Basin Fill	QTs	200	50-200	-	1	09/15/78	09/15/78	45.0	-	5,555.1	17	204.2118	625	8.4621E+02
Y	202	202 N02 E67 16CC 2	202 N02 E67 16CC 2	4,211,857.50	721,111.56	5,600.1	Basin Fill	QTs	102	50-102	-	1	04/15/83	04/15/83	48.0	-	5,552.1	17	204.2118	625	8.4621E+02
Y	202	380139114284301	202 N02 E67 16CCB 1	4,211,860.86	721,233.47	5,593.7	Basin Fill	QTs	450	50-450	-	3	06/15/83	04/06/90	42.3	-	5,551.5	1.357344442	37.8031	100	1.3916E+02

Table A.2-1
Steady-State Water-Level Data Set and Additional Wells or Springs Used for Control
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SS Well	HA	Site No.	Station Name	UTM N (m)	UTM E (m)	Ref. Pt. Elev. (ft-amsl)	Site Type	HGU	Well Depth (ft-bgs)	Open Interval (ft-bgs)	Excluded Data Flag	No. of Meas.	POR-Start Date	POR-End Date	Mean DTW (ft-bgs)	Q Elev.	Mean Elev. (ft-amsl)	V. Sample Mean (ft^2)	V. of Vertical Error (ft^2)	V. Land Surface (ft^2)	Total Var (ft^2)
Y	202	202 N02 E67 16CD 1	202 N02 E67 16CD 1	4,211,868.00	721,501.75	5,587.3	Basin Fill	QTs	460	50-460	-	1	03/15/91	03/15/91	21.0	-	5,566.3	17	98.5055	625	7.4051E+02
Y	202	380117114273201	202 N02 E67 16D 1 Eight mile Well	4,212,100.50	722,105.50	5,583.7	Basin Fill	QTs	48	-	-	1	10/24/63	10/24/63	22.2	-	5,561.5	17	79.5751	100	1.9658E+02
N	202	380206114305801	202 N02 E67 18BC 1 USGS-MX	4,212,604.58	717,919.17	5,803.7	Basin Fill	QTs	100	50-100	-	-	-	-	-	<	5,703.7	-	-	-	-
Y	202	202 N02 E67 21AA 1	202 N02 E67 21AA 1	4,211,489.50	722,317.38	5,563.7	Basin Fill	QTs	440	110-440	-	1	03/15/98	03/15/98	20.0	-	5,543.7	17	44.8712	625	6.8687E+02
Y	202	202 N02 E67 21BB 1	202 N02 E67 21BB 1	4,211,457.00	721,122.44	5,609.1	Basin Fill	QTs	450	200-450	-	1	06/15/83	06/15/83	42.0	-	5,567.1	17	386.2227	625	1.0282E+03
Y	202	202 N02 E67 22BB 1	202 N02 E67 22BB 1	4,211,500.00	722,707.56	5,560.3	Basin Fill	QTs	157	60-155	-	1	02/15/99	02/15/99	53.0	-	5,507.3	17	99.6437	625	7.4164E+02
Y	202	202 N02 E67 22BD 1	202 N02 E67 22BD 1	4,211,110.50	723,133.13	5,554.4	Basin Fill	QTs	700	100-700	-	1	06/15/01	06/15/01	28.0	-	5,526.4	17	592.0787	625	1.2341E+03
Y	202	202 N02 E67 22BD 2	202 N02 E67 22BD 2	4,211,110.00	723,108.69	5,552.8	Basin Fill	QTs	130	60-130	-	1	08/15/95	08/15/95	48.0	-	5,504.8	17	363.0960	625	1.0051E+03
Y	202	202 N02 E67 22CB 1	202 N02 E67 22CB 1	4,210,698.50	722,729.44	5,553.5	Basin Fill	QTs	420	100-420	-	1	05/15/98	05/15/98	18.0	-	5,535.5	17	92.7369	625	7.3474E+02
Y	202	380042114264401	202 N02 E67 22DDD 1	4,210,182.93	724,183.65	5,536.7	Basin Fill	QTs	100	25-100	-	3	01/29/71	04/06/90	23.3	-	5,513.5	0.145900001	42.3989	100	1.4254E+02
N	202	202 N02 E67 24BA 1	202 N02 E67 24BA 1	4,211,592.10	726,345.92	5,703.8	Basin Fill	QTs	190	50-190	-	-	-	-	-	<	5,513.8	-	-	-	-
Y	202	202 N02 E67 26CC 1	202 N02 E67 26CC 1	4,208,707.50	724,370.69	5,539.3	Basin Fill	QTs	148	100-148	-	1	06/15/03	06/15/03	59.0	-	5,480.3	17	215.6021	625	8.5760E+02
Y	202	202 N02 E67 27A 1	202 N02 E67 27A 1	4,209,715.50	723,800.83	5,538.7	Basin Fill	QTs	89	50-89	-	1	07/15/76	07/15/76	38.0	-	5,500.7	17	32.0561	2,500	2.5491E+03
Y	202	380035114265101	202 N02 E67 27AA 1	4,209,962.45	724,018.82	5,534.7	Basin Fill	QTs	100	25-100	-	1	01/29/71	01/29/71	24.0	-	5,510.7	17	17.6202	625	6.5962E+02
Y	202	375928114263501	202 N02 E67 35BCD 1 USGS-MX	4,207,907.75	724,465.87	5,523.7	Basin Fill	QTs	139	126-139	-	5	07/01/80	04/06/90	57.7	-	5,466.0	2.843164001	32.2582	100	1.3510E+02
Y	202	202 N02 E67 35CD 1	202 N02 E67 35CD 1	4,207,114.50	724,780.75	5,510.1	Basin Fill	QTs	136	56-76/96-136	-	1	03/15/89	03/15/89	45.0	-	5,465.1	17	39.5242	625	6.8152E+02
Y	202	202 N02 E68 05CD 1	202 N02 E68 05CD 1	4,215,327.50	729,458.00	6,003.9	Basin Fill	QTs	170	50-170	-	1	07/15/98	07/15/98	6.0	-	5,997.9	17	3,119.0104	625	3.7610E+03
N	202	380258114240801	202 N02 E68 07BD 1 USGS-MX	4,214,480.85	727,871.52	5,893.9	Basin Fill	QTs	203	50-203	-	-	-	-	-	<	5,690.9	-	-	-	-
Y	202	380013114200001	202 N02 E68 27A 1 USBLM	4,210,143.72	732,704.12	5,983.9	Basin Fill	QTs	40	-	-	1	12/01/37	12/01/37	16.0	-	5,967.9	17	1,375.7055	100	1.4927E+03
Y	202	380024114203001	202 N02 E68 27ADB 1 USBLM	4,209,883.67	733,321.87	5,943.9	Volcanic	Tv	30	15-30	-	3	01/07/38	04/06/90	16.3	-	5,927.6	1.382499999	77.9296	100	1.7931E+02
N	202	202 N02 E68 7BD 1	202 N02 E68 7BD 1	4,214,250.17	718,229.08	5,893.7	Basin Fill	QTs	203	50-203	-	-	-	-	-	<	5,690.7	-	-	-	-
Y	202	380809114314401	202 N03 E66 02D 1 USBLM	4,224,753.65	715,401.44	5,729.9	Basin Fill	QTs	139	50-140	-	2	11/15/37	10/23/63	91.2	-	5,638.7	1.440000001	9,714.4878	100	9.8159E+03
N	202	380747114345101	202 N03 E66 08A 1 USBLM	4,223,895.27	710,555.50	5,895.2	Basin Fill	QTs	220	50-220	-	-	-	-	-	<	5,675.2	-	-	-	-
Y	202	380803114354301	202 N03 E66 08DAB 1	4,223,426.90	710,685.08	5,872.0	Basin Fill	QTs	303	228-303	-	3	10/02/53	04/05/90	215.9	-	5,656.1	11.03221111	8.7880	100	1.1982E+02
Y	202	380834114324201	202 N03 E66 11ABB 1 USBLM Patterson Wash Well	4,224,498.03	715,067.11	5,750.9	Basin Fill	QTs	140	50-140	-	4	11/09/37	04/05/90	83.1	-	5,667.8	66.8264	224.2640	100	3.9109E+02
Y	202	380700114342101	202 N03 E66 15CBC 1	4,221,536.85	712,732.57	5,776.9	Basin Fill	QTs	131	50-131	-	2	03/16/85	04/05/90	115.2	-	5,661.7	1.464099996	8.6295	100	1.1009E+02
Y	202	202 N03 E66 20 1	202 N03 E66 20 1	4,220,274.17	710,230.58	6,144.5	Carbonate Well	MOc	-	-	-	1	-	-	652.5	-	5,492.0	17	4,675.2107	625	5.3172E+03
Y	202	380546114312701	202 N03 E66 23D 1 Fifteen mile Well	4,219,912.48	714,310.83	5,653.8	Basin Fill	QTs	87	50-87	-	1	10/23/63	10/23/63	41.9	-	5,611.9	17	2,106.4611	100	2.2235E+03
Y	202	380608114322601	202 N03 E66 23DAC 1 USBLM 15-mile Well	4,220,007.60	715,575.95	5,677.8	Basin Fill	QTs	116	50-116	-	14	04/12/46	09/22/94	39.3	-	5,638.5	0.099921545	10.0238	100	1.1012E+02
Y	202	202 N03 E66 28 1	202 N03 E66 28 1	4,218,726.35	711,857.77	6,156.8	Carbonate Well	MOc	-	-	-	1	-	-	477.8	-	5,679.0	17	2,767.7137	625	3.4097E+03
Y	202	380845114275601	202 N03 E67 04B 1 USBLM	4,225,767.93	721,001.97	6,044.1	Basin Fill	QTs	382	340-382	-	1	01/01/58	01/01/58	340.0	-	5,704.1	17	4,644.9985	100	4.7620E+03
Y	202	380905114292201	202 N03 E67 05ACD 1 USBLM	4,225,584.06	719,910.69	5,978.0	Basin Fill	QTs	382	50-382	-	3	12/09/66	04/05/90	333.0	-	5,645.1	90.82617778	29.6398	100	2.2047E+02
Y	202	202 N03 E67 11BC 1	202 N03 E67 11BC 1	4,224,062.00	724,045.63	6,086.5	Basin Fill	QTs	100	56-98	-	1	10/15/01	10/15/01	18.0	-	6,068.5	17	152.2443	625	7.9424E+02
Y	202	380640114304101	202 N03 E67 19BA 1 USGS-MX	4,221,062.26	718,107.39	5,761.9	Basin Fill	QTs	188	50-188	-	2	01/01/81	11/14/91	145.8	-	5,616.1	1.537600003	79.2473	1,600	1.6808E+03

Table A.2-1
Steady-State Water-Level Data Set and Additional Wells or Springs Used for Control
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SS Well	HA	Site No.	Station Name	UTM N (m)	UTM E (m)	Ref. Pt. Elev. (ft-amsl)	Site Type	HGU	Well Depth (ft-bgs)	Open Interval (ft-bgs)	Excluded Data Flag	No. of Meas.	POR-Start Date	POR-End Date	Mean DTW (ft-bgs)	Q Elev.	Mean Elev. (ft-amsl)	V. Sample Mean (ft^2)	V. of Vertical Error (ft^2)	V. Land Surface (ft^2)	Total Var (ft^2)
Y	202	202 N03 E67 20CD 1	202 N03 E67 20CD 1	4,219,902.50	719,723.13	5,805.8	Basin Fill	QTs	300	180-300	-	1	10/15/99	10/15/99	183.0	-	5,622.8	17	481.7083	625	1.1237E+03
Y	202	380626114264001	202 N03 E67 23BCC 1 USBLM	4,220,790.20	723,989.53	5,954.0	Basin Fill	QTs	395	50-395	-	2	03/12/42	03/14/85	367.2	-	5,586.8	0.722500008	5.6130	100	1.0634E+02
Y	202	202 N04 E66 02A 1	202 N04 E66 02A 1	4,235,265.15	715,196.42	5,904.0	Basin Fill	QTs	301	50-301	-	1	03/15/53	03/15/53	195.0	-	5,709.0	17	166.8724	2,500	2.6839E+03
Y	202	381359114324501	202 N04 E66 02CAD 1 USBLM	4,234,514.96	714,728.68	5,920.0	Basin Fill	QTs	34	34-260	-	1	10/06/37	10/06/37	230.0	-	5,690.0	17	59.2208	100	1.7622E+02
Y	202	381225114323301	202 N04 E66 14DBA 1 USBLM	4,231,624.91	715,097.42	5,872.0	Basin Fill	QTs	286	230-256	-	3	07/22/58	04/05/90	168.3	-	5,703.7	2.700277776	62.7100	100	1.6541E+02
Y	202	202 N04 E66 35AC 1	202 N04 E66 35AC 1	4,227,078.42	715,150.89	5,779.0	Basin Fill	QTs	144	50-144	-	1	07/15/63	07/15/63	123.0	-	5,656.0	17	226.0002	2,500	2.7430E+03
Y	202	202 N04 E67 02 1	202 N04 E67 02 1	4,235,364.50	724,439.31	6,868.2	Basin Fill	QTs	26	12-26	-	1	07/15/72	07/15/72	12.5	-	6,855.7	17	1,640.9435	625	2.2829E+03
Y	202	202 N04 E67 02 2	202 N04 E67 02 2	4,235,364.50	724,439.31	6,868.2	Basin Fill	QTs	8	2-8	-	1	06/15/72	06/15/72	2.0	-	6,866.2	17	1,640.9435	625	2.2829E+03
Y	202	202 N04 E67 02 3	202 N04 E67 02 3	4,235,364.50	724,439.31	6,868.2	Basin Fill	QTs	25	15-25	-	1	07/15/72	07/15/72	15.0	-	6,853.2	17	1,640.9435	625	2.2829E+03
Y	202	202 N04 E67 02AC 1	202 N04 E67 02AC 1	4,235,585.50	724,627.88	7,025.8	Volcanic	Tv	135	75-135	-	1	06/15/96	06/15/96	62.0	-	6,963.8	17	20,341.3179	625	2.0983E+04
Y	202	202 N04 E67 02BB 1	202 N04 E67 02BB 1	4,235,964.00	723,814.38	6,711.8	Volcanic	Tv	140	100-140	-	1	06/15/88	06/15/88	20.0	-	6,691.8	17	3,085.1922	625	3.7272E+03
Y	202	202 N04 E67 02D 1	202 N04 E67 02D 1	4,234,974.50	724,839.44	6,930.8	Volcanic	Tv	14	7-14	-	1	11/15/72	11/15/72	4.0	-	6,926.8	17	2,585.9892	625	3.2280E+03
Y	202	381259114304301	202 N04 E67 07CD 1	4,232,744.51	717,745.09	6,052.1	Basin Fill	QTs	180	30-180	-	1	10/27/75	10/27/75	30.0	-	6,022.1	17	398.9253	100	5.1593E+02
Y	202	202 N05 E65 25DD 1	202 N05 E65 25DD 1	4,237,244.48	707,273.56	6,494.4	Volcanic	Tv	240	140-240	-	1	12/15/03	12/15/03	59.4	-	6,435.0	17	1,476.0690	625	2.1181E+03
Y	202	202 N05 E65 36AA 1	202 N05 E65 36AA 1	4,236,913.50	707,343.00	6,477.8	Volcanic	Tv	160	80-160	-	1	07/15/03	07/15/03	31.0	-	6,446.8	17	1,958.6777	625	2.6007E+03
Y	202	202 N05 E65 36AA 2	202 N05 E65 36AA 2	4,236,913.50	707,343.00	6,477.8	Volcanic	Tv	110	60-110	-	1	04/15/03	04/15/03	26.0	-	6,451.8	17	1,958.6777	625	2.6007E+03
Y	202	381440114323301	202 N05 E66 35DC 1 Dodge Well	4,235,786.62	714,986.94	5,942.0	Basin Fill	QTs	300	200-296	-	1	03/26/53	03/26/53	200.0	-	5,742.0	17	3,997.7971	625	4.6398E+03
Y	202	381440114323401	202 N05 E66 35DCC 1	4,235,785.97	714,962.62	5,938.0	Basin Fill	QTs	296	200-296	-	3	03/26/53	04/05/90	195.6	-	5,742.4	6.176177783	23.4905	100	1.2967E+02
Y	202	381520114262901	202 N05 E67 35BCB 1	4,237,259.67	723,802.89	6,784.4	Volcanic	Tv	20	7-20	-	3	12/16/66	04/05/90	2.0	-	6,782.3	0.253677782	107.4218	100	2.0768E+02
Y	203	203 N01 E67 32AA1	203 N01 E67 32AA1	4,198,658.30	721,270.09	5,938.3	Carbonate Well	CC	-	-	-	1	-	-	604.3		5,334.0	17	1,950.4430	625	2.5924E+03
Y	203	203 S01 E68 05CC 1	203 S01 E68 05CC 1	4,195,917.00	728,193.88	5,878.7	Basin Fill	QTs	192	40-192	-	1	04/15/80	04/15/80	30.0	-	5,848.7	17	55,054.3662	625	5.5696E+04
Y	203	203 S01 E68 07BD 1	203 S01 E68 07BD 1	4,195,082.00	726,994.38	5,557.3	Basin Fill	QTs	120	16-120	-	1	12/15/59	12/15/59	11.0	-	5,546.3	17	1,702.8296	625	2.3448E+03
Y	203	374911114222301	203 S01 E68 28C 1	4,189,745.73	729,246.53	4,903.6	Basin Fill	QTs	154	50-154	Y	77	03/01/46	10/14/02	50.4	-	4,853.1	0.256932362	64,071.3879	100	6.4172E+04
Y	203	374829114225301	203 S01 E68 32D 1	4,188,521.71	728,497.46	4,813.5	Basin Fill	QTs	75	50-75	-	1	12/04/63	12/04/63	39.4	-	4,774.1	17	21,026.7391	100	2.1144E+04
Y	203	374910114231001	203 S01 E68 33B 1	4,188,980.54	729,463.66	4,787.6	Basin Fill	QTs	120	60-80	Y	37	04/25/46	03/20/96	37.7	-	4,749.8	0.206661915	2.1639	100	1.0237E+02
Y	203	374827114221901	203 S01 E68 33C 1	4,187,705.01	731,286.18	4,984.6	Basin Fill	QTs	106	50-106	-	1	12/04/63	12/04/63	14.1	-	4,970.5	17	69,909.4863	625	7.0551E+04
Y	203	203 S02 E67 05AB 1	203 S02 E67 05AB 1	4,187,321.00	719,523.13	5,128.7	Basin Fill	QTs	100	0-100	-	1	02/15/80	02/15/80	12.0	-	5,116.7	17	840.5662	625	1.4826E+03
Y	203	374509114250901	203 S02 E67 24D 1	4,181,982.54	725,176.46	4,703.5	Basin Fill	QTs	-	-	-	59	11/16/67	10/14/02	40.0	-	4,663.5	0.371451147	20.3764	100	1.2075E+02
Y	203	374416114253301	203 S02 E67 25C 1	4,180,422.55	724,533.16	4,653.5	Basin Fill	QTs	135	50-135	-	1	02/01/61	02/01/61	27.5	-	4,626.0	17	25,747.0734	100	2.5864E+04
Y	203	374441114252801	203 S02 E67 25DABB1	4,180,609.54	726,855.37	4,662.5	Basin Fill	QTs	-	-	Y	61	07/20/66	10/14/02	28.8	-	4,633.7	0.160019242	3,115.4787	625	3.7406E+03
Y	203	374411114261401	203 S02 E67 26D 1	4,180,208.98	723,485.55	4,653.5	Basin Fill	QTs	115	50-115	-	1	12/01/60	12/01/60	29.0	-	4,624.5	17	2,419.0871	100	2.5361E+03
Y	203	374400114260701	203 S02 E67 35A 1	4,179,723.07	723,768.21	4,653.5	Basin Fill	QTs	193	50-193	-	64	07/20/66	10/14/02	33.4	-	4,620.1	0.186242504	18,570.1928	100	1.8670E+04
N	203	374827114225101	203 S02 E68 04BADD1 Panaca Spring	4,187,657.00	730,624.00	4,799.0	Spring-Regional	-	-	-	-	-	-	-	-	>	4,799.0	-	-	-	-
Y	203	374802114225701	203 S02 E68 05A 1	4,187,661.28	728,619.28	4,793.5	Basin Fill	QTs	160	50-160	-	1	07/01/59	07/01/59	3.9	-	4,789.6	17	57,835.8220	100	5.7953E+04
Y	203	374810114232001	203 S02 E68 05B 1	4,187,425.80	727,915.97	4,803.5	Basin Fill	QTs	-	-	-	14	12/30/47	02/21/63	4.4	-	4,799.2	0.497099685	256,242.5359	100	2.5634E+05
Y	203	374750114235801	203 S02 E68 05CDDB1	4,186,496.69	728,896.47	4,736.5	Basin Fill	QTs	-	-	-	1	04/09/83	04/09/83	17.0	-	4,719.5	17	0.1352	100	1.1714E+02
Y	203	374750114235802	203 S02 E68 05CDDB2	4,186,496.69	728,896.47	4,736.5	Basin Fill	QTs	180	84-180	-	1	04/09/83	04/09/83	17.0	-	4,719.5	17	0.1352	100	1.1714E+02
Y	203	374737114240501	203 S02 E68 06D 1	4,186,715.86	726,785.06	4,913.1	Basin Fill	QTs	100	20-100	-	1	05/01/62	05/01/62	3.3	-	4,909.8	17	24,652.5603	625	2.5295E+04

Table A.2-1
Steady-State Water-Level Data Set and Additional Wells or Springs Used for Control
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SS Well	HA	Site No.	Station Name	UTM N (m)	UTM E (m)	Ref. Pt. Elev. (ft-amsl)	Site Type	HGU	Well Depth (ft-bgs)	Open Interval (ft-bgs)	Excluded Data Flag	No. of Meas.	POR-Start Date	POR-End Date	Mean DTW (ft-bgs)	Q Elev.	Mean Elev. (ft-amsl)	V. Sample Mean (ft^2)	V. of Vertical Error (ft^2)	V. Land Surface (ft^2)	Total Var (ft^2)
Y	203	374704114235101	203 S02 E68 07A 1 Mormon Church	4,185,618.24	727,256.04	4,824.7	Basin Fill	QTs	135	50-135	-	1	12/05/63	12/05/63	20.6	-	4,804.1	17	1,580.6077	625	2.2226E+03
Y	203	374648114235401	203 S02 E68 07D 3	4,185,112.86	726,829.26	4,821.3	Basin Fill	QTs	105	50-105	-	1	02/21/63	02/21/63	16.8	-	4,804.5	17	9,591.6492	625	1.0234E+04
Y	203	374750114242001	203 S02 E68 08B 5 USGS - Panaca Valley	4,185,974.93	727,882.73	4,816.6	Basin Fill	QTs	110	75-78/85-88/ 91-95/105-110	-	95	06/28/49	10/14/02	19.0	-	4,797.6	0.2180275	229,582.6299	625	2.3021E+05
Y	203	374656114232401	203 S02 E68 08C 1	4,185,514.56	727,968.93	4,718.5	Basin Fill	QTs	-	-	-	14	09/19/49	02/21/63	10.2	-	4,708.3	0.264348038	607,249.4324	100	6.0735E+05
Y	203	374634114233401	203 S02 E68 17B 1	4,184,552.16	727,750.73	4,713.5	Basin Fill	QTs	154	12-152	-	1	11/01/55	11/01/55	2.2	-	4,711.3	17	1,285.7089	100	1.4027E+03
Y	203	374601114240501	203 S02 E68 18D 1	4,183,513.28	726,995.81	4,703.5	Basin Fill	QTs	170	50-170	-	1	01/01/52	01/01/52	4.4	-	4,699.1	17	8,377.3888	100	8.4944E+03
Y	203	374536114241501	203 S02 E68 19A 1	4,182,519.41	726,753.77	4,698.5	Basin Fill	QTs	165	50-165	-	1	06/01/61	06/01/61	8.0	-	4,690.5	17	30,622.9376	100	3.0740E+04
Y	203	203 S02 E68 21BA 1	203 S02 E68 21BA 1	4,182,965.00	730,586.69	4,788.9	Basin Fill	QTs	220	50-220	-	1	03/15/98	03/15/98	67.0	-	4,721.9	17	347.8937	625	9.8989E+02
Y	203	203 S02 E69 05DB 1	203 S02 E69 05DB 1	4,187,182.50	738,914.50	5,583.2	Basin Fill	QTs	111	71-111	-	1	03/15/97	03/15/97	65.0	-	5,518.2	17	1,633.0488	625	2.2750E+03
Y	203	374807114180401	203 S02 E69 06B 1 USBLM	4,187,890.37	736,715.24	5,453.7	Basin Fill	QTs	300	50-300	-	1	12/03/63	12/03/63	200.0	-	5,253.7	17	6,937.5783	100	7.0546E+03
Y	203	374317114265801	203 S03 E67 02A 1	4,177,959.78	724,722.78	4,608.4	Basin Fill	QTs	225	50-225	-	20	02/24/62	03/20/97	22.9	-	4,585.6	0.058893106	242.5750	100	3.4263E+02
Y	203	374243114261401	203 S03 E67 02D 1	4,176,854.23	723,772.54	4,618.4	Basin Fill	QTs	158	50-158	-	43	04/01/58	10/14/02	21.1	-	4,597.4	0.132675747	125,654.7018	100	1.2575E+05
Y	203	374215114262401	203 S03 E67 11A 1	4,176,263.89	723,616.99	4,603.4	Basin Fill	QTs	184	44-184	-	18	04/01/63	09/30/75	15.3	-	4,588.1	0.091289416	12,535.4367	100	1.2636E+04
Y	203	374124114270001	203 S03 E67 14ACAB1	4,174,475.08	724,768.66	4,586.0	Basin Fill	QTs	158	98-118/138-158	-	1	09/18/98	09/18/98	50.0	-	4,536.0	17	2.8515	625	6.4485E+02
Y	203	374034114274601	203 S03 E67 22B 1	4,172,969.01	721,548.52	4,603.4	Volcanic	Tv	175	50-175	Y	44	03/16/63	10/14/02	-0.1	-	4,603.5	0.088132408	215,243.9441	100	2.1534E+05
N	203	373919114290401	203 S03 E67 28C 1	4,170,423.06	719,777.29	4,553.5	Volcanic	Tv	118	50-118	-	-	-	-	-	>	4,553.5	-	-	-	-
Y	203	203 S03 E67 34AD 1	203 S03 E67 34AD 1	4,169,633.00	723,673.88	4,927.2	Basin Fill	QTs	307	50-307	-	1	05/15/95	05/15/95	203.0	-	4,724.2	17	490.4017	625	1.1324E+03
Y	203	203 S04 E67 05 1	203 S04 E67 05 1	4,167,711.50	719,898.38	4,430.4	Basin Fill	QTs	118	67-118	-	1	07/15/78	07/15/78	8.0	-	4,422.4	17	419.2257	625	1.0612E+03
Y	203	203 S04 E67 05CD 1	203 S04 E67 05CD 1	4,167,120.00	719,693.31	4,427.7	Basin Fill	QTs	58	12-58	-	1	11/15/48	11/15/48	22.0	-	4,405.7	17	142.6608	625	7.8466E+02
Y	204	204 S03 E70 26DC 1	204 S03 E70 26DC 1	4,171,245.25	753,850.56	5,962.7	Basin Fill	QTs	282	261-276	-	1	06/15/97	06/15/97	248.0	-	5,714.7	17	356.1331	625	9.9813E+02
Y	204	204 S03 E70 26DD 1	204 S03 E70 26DD 1	4,171,258.00	754,267.25	5,957.6	Basin Fill	QTs	320	304-314	-	1	07/15/97	07/15/97	285.0	-	5,672.6	17	693.8607	625	1.3359E+03
Y	204	204 S03 E70 36BB 1	204 S03 E70 36BB 1	4,170,869.25	754,671.81	5,965.5	Basin Fill	QTs	305	285-300	-	1	06/15/97	06/15/97	260.0	-	5,705.5	17	721.7805	625	1.3638E+03
Y	204	204 S03 E70 36BC 1	204 S03 E70 36BC 1	4,170,468.50	754,684.13	5,927.3	Basin Fill	QTs	242	221-236	-	1	06/15/97	06/15/97	205.0	-	5,722.3	17	997.7632	625	1.6398E+03
Y	204	373834114054801	204 S03 E71 31CBBA1 USBLM	4,170,141.78	756,092.83	5,952.2	Basin Fill	QTs	262	50-262	-	1	03/12/85	03/12/85	207.7	-	5,744.4	17	35.8978	100	1.5290E+02
N	204	373647114304201	204 S04 E67 08A 1 Caliente Mineral Hot Spr	4,166,758.45	719,724.89	4,545.4	Spring	-	-	-	-	-	-	-	-	>	4,545.4	-	-	-	-
Y	204	373704114285601	204 S04 E67 09AD 1	4,166,383.51	722,142.17	4,554.8	Volcanic	QTs	110	29-110	-	2	03/07/68	04/03/90	27.9	-	4,526.9	1.210000005	85,908.7699	625	8.6535E+04
Y	204	373704114294601	204 S04 E67 09BC 1	4,166,350.67	720,916.12	4,423.3	Basin Fill	QTs	52	26-52	-	2	09/14/70	04/03/90	14.1	-	4,409.2	15.6025	1,292.7928	100	1.4084E+03
Y	204	373659114293201	204 S04 E67 09BDBD1	4,166,205.71	721,263.55	4,424.3	Basin Fill	QTs	52	26-52	-	2	09/14/70	03/14/85	6.3	-	4,418.0	13.8384	15.7615	100	1.2960E+02
Y	204	373639114241201	204 S04 E68 08C 1 Caliente Public Utilities	4,165,802.67	729,127.60	4,661.4	Basin Fill	QTs	185	90-185	-	1	11/29/52	11/29/52	8.0	-	4,653.4	17	1,505.7630	100	1.6228E+03
Y	204	373355114152301	204 S04 E69 27CDCB1 USBLM	4,161,116.28	742,248.79	5,641.9	Basin Fill	QTs	250	50-250	-	1	03/14/85	03/14/85	227.2	-	5,414.7	17	2.1245	100	1.1912E+02
Y	204	373626114075001	204 S04 E70 11CCDD1 USBLM	4,166,103.76	753,222.82	5,793.1	Basin Fill	QTs	197	175-197	-	2	05/11/51	03/14/85	170.9	-	5,622.2	16.6464	2.5714	100	1.1922E+02
Y	204	373637114071101	204 S04 E70 11D 1	4,166,485.01	754,585.85	5,884.2	Basin Fill	Tv	197	50-197	-	1	05/01/51	05/01/51	175.0	-	5,709.2	17	17,092.8855	100	1.7210E+04
Y	204	373324114095301	204 S04 E70 33BD 1 LA & Salt Lake Railroad	4,160,401.45	750,375.61	5,549.9	Volcanic	QTs, Tv	499	37-465	-	1	05/09/43	05/09/43	10.0	-	5,539.9	17	135.9555	100	2.5296E+02
Y	204	373324114095601	204 S04 E70 33CAB 1 LA & Salt Lake Railroad	4,160,399.22	750,301.98	5,549.9	Volcanic	QTs, Tv	499	37-465	-	2	05/09/43	03/14/85	8.1	-	5,541.8	3.534400001	4,375.0544	100	4.4786E+03
Y	204	373154114230301	204 S05 E68 09B 1 USBLM	4,157,179.58	729,660.87	5,603.7	Basin Fill	QTs	200	148-200	-	1	01/01/63	01/01/63	155.0	-	5,448.7	17	62,442.8289	100	6.2560E+04
Y	204	373135114140301	204 S05 E69 11D 1	4,156,844.46	743,872.53	5,381.3	Volcanic	Tv	127	77-127	-	1	10/01/62	10/01/62	82.0	-	5,299.3	17	632,981.2107	625	6.3362E+05

Table A.2-1
Steady-State Water-Level Data Set and Additional Wells or Springs Used for Control
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SS Well	HA	Site No.	Station Name	UTM N (m)	UTM E (m)	Ref. Pt. Elev. (ft-amsl)	Site Type	HGU	Well Depth (ft-bgs)	Open Interval (ft-bgs)	Excluded Data Flag	No. of Meas.	POR-Start Date	POR-End Date	Mean DTW (ft-bgs)	Q Elev.	Mean Elev. (ft-amsl)	V. Sample Mean (ft^2)	V. of Vertical Error (ft^2)	V. Land Surface (ft^2)	Total Var (ft^2)
Y	204	373049114150701	204 S05 E69 15ADDD1	4,155,394.04	742,809.16	5,352.8	Basin Fill	QTs	40	22-40	-	2	09/11/59	03/14/85	12.7	-	5,340.1	1.7689	1.3449	100	1.0311E+02
Y	204	204 S05 E69 16BD 1	204 S05 E69 16BD 1	4,155,661.50	740,343.63	5,397.6	Basin Fill	QTs	80	10-80	-	1	08/15/72	08/15/72	11.0	-	5,386.6	17	12,668.1872	625	1.3310E+04
Y	204	204 S05 E70 06DD 1	204 S05 E70 06DD 1	4,158,339.25	747,464.88	5,465.2	Basin Fill	QTs	157	117-157	-	1	07/15/92	07/15/92	60.0	-	5,405.2	17	386.2597	625	1.0283E+03
Y	204	372820114121901	204 S05 E70 31ACBD1 USBLM	4,150,922.64	747,070.99	5,558.8	Basin Fill	QTs	199	153-193	-	2	06/30/54	03/14/85	110.2	-	5,448.6	4.840000004	56.6067	100	1.6145E+02
Y	204	204 S06 E69 07D 1	204 S06 E69 07D 1	4,146,862.50	737,965.56	5,842.2	Basin Fill	QTs	348	300-340	-	1	10/15/54	10/15/54	299.0	-	5,543.2	17	1,185.7592	625	1.8278E+03
Y	204	372637114162201	204 S06 E69 09ADB 1 USBLM	4,147,572.25	741,192.48	5,751.8	Volcanic	QTs	-	-	-	1	03/14/85	03/14/85	201.5	-	5,550.3	17	92.8166	100	2.0982E+02
Y	205	373649114310201	204 S04 E67 07DAAA1 City of Caliente Well 10	4,165,838.77	719,064.74	4,393.3	Basin Fill	QTs	165	50-160	-	2	03/18/70	03/13/85	13.9	-	4,379.4	4.431025002	0.0000	100	1.0443E+02
Y	205	373650114310001	204 S04 E67 07DAAA2 City of Caliente Well 9	4,165,870.89	719,112.97	4,393.3	Basin Fill	QTs	160	50-160	-	1	03/18/70	03/18/70	16.0	-	4,377.3	17	1.3326	100	1.1833E+02
Y	205	373649114305701	204 S04 E67 08CBBB1 City of Caliente Well 8	4,165,842.01	719,187.35	4,393.3	Basin Fill	QTs	195	72-192	-	1	03/05/66	03/05/66	18.0	-	4,375.3	17	9.6231	100	1.2662E+02
Y	205	373708114320701	205 S04 E66 12AADC1	4,166,382.44	717,455.39	4,503.3	Basin Fill	QTs	391	306-326/346-366/ 386-406	-	1	08/15/98	08/15/98	153.0	-	4,350.3	17	2.5577	100	1.1956E+02
Y	205	373543114321101	205 S04 E66 13DDAD1	4,163,759.71	717,426.08	4,323.3	Basin Fill	QTs	200	48-200	-	3	10/31/74	04/03/90	3.7	-	4,319.6	4.581111112	0.0932	100	1.0467E+02
Y	205	373520114313301	205 S04 E66 24A 1	4,163,026.19	717,190.94	4,355.0	Basin Fill	QTs	95	4-95	-	1	04/01/52	04/01/52	4.0	-	4,351.0	17	10,086.1628	625	1.0728E+04
Y	205	373521114321501	205 S04 E66 24AD 1	4,163,078.98	717,345.76	4,323.3	Basin Fill	QTs	190	20-190	-	2	04/16/75	04/03/90	3.9	-	4,319.4	0.359999996	417.5628	100	5.1792E+02
Y	205	373431114320401	205 S04 E66 25B 1	4,161,415.37	716,418.92	4,324.0	Basin Fill	QTs	108	15-107	-	1	06/01/49	06/01/49	15.0	-	4,309.0	17	149.8166	625	7.9182E+02
Y	205	373629114314801	205 S04 E66 25BD 1	4,161,217.10	716,624.46	4,362.3	Basin Fill	QTs	121	50-121	-	1	04/03/90	04/03/90	54.8	-	4,307.5	17	17,868.4646	625	1.8510E+04
Y	205	373645114301201	205 S04 E67 07D 1 Caliente Public Utilities	4,165,474.58	718,728.95	4,375.7	Basin Fill	QTs	190	50-190	-	1	12/01/53	12/01/53	14.2	-	4,361.5	17	190.8522	625	8.3285E+02
Y	205	373656114300501	205 S04 E67 08B 1 Caliente Public Utilities	4,166,305.77	719,514.71	4,403.0	Basin Fill	QTs	185	50-185	-	1	11/01/52	11/01/52	8.0	-	4,395.0	17	155.9781	625	7.9798E+02
Y	205	373621114304201	205 S04 E67 18A 1	4,164,997.87	717,589.92	4,388.3	Volcanic	Tv	90	50-92	-	1	03/01/49	03/01/49	23.5	-	4,364.8	17	335,671.6058	100	3.3579E+05
Y	205	373627114315301	205 S04 E67 18B 1	4,164,669.56	717,944.83	4,356.5	Basin Fill	QTs	165	50-165	-	48	12/05/63	03/20/97	15.5	-	4,341.0	0.357160535	667.1327	625	1.2925E+03
Y	205	373612114314101	205 S04 E67 18BD 1	4,164,672.99	718,138.40	4,353.3	Basin Fill	QTs	197	50-197	-	1	04/05/90	04/05/90	8.9	-	4,344.4	17	446.7743	100	5.6377E+02
Y	205	373236114343101	205 S05 E66 02BCBD1	4,157,906.03	714,140.92	4,173.4	Basin Fill	QTs	200	51-200	-	1	03/13/85	03/13/85	9.6	-	4,163.8	17	53.6918	100	1.7069E+02
Y	205	205 S05 E66 35BA 1	205 S05 E66 35BA 1	4,150,517.00	714,675.56	3,973.9	Basin Fill	QTs	96	56-96	-	1	07/15/94	07/15/94	54.0	-	3,919.9	17	1,930.6544	625	2.5727E+03
Y	205	372109114320401	205 S07 E67 07CA 1 Union Pacific Railroad	4,136,823.65	718,303.45	3,403.1	Volcanic	QTs	-	-	-	1	04/04/90	04/04/90	22.0	-	3,381.1	17	6,889.4628	100	7.0065E+03
Y	205	371951114295801	205 S07 E67 20A 1	4,134,311.92	720,664.92	3,300.0	Basin Fill	QTs	120	28-112	-	1	11/01/61	11/01/61	21.0	-	3,279.0	17	597.8206	625	1.2398E+03
Y	205	371928114300001	205 S07 E67 21C 1	4,133,534.90	721,490.43	3,287.3	Basin Fill	QTs	115	50-115	-	15	02/20/65	03/30/94	14.5	-	3,272.8	0.390291873	832.8926	625	1.4583E+03
Y	205	371926114300801	205 S07 E67 21CBBD1	4,133,723.84	721,242.00	3,285.2	Basin Fill	QTs	115	28-115	-	2	09/03/62	03/13/85	16.7	-	3,268.4	10.6276	16.6730	100	1.2730E+02
Y	205	205 S09 E67 09CA 1	205 S09 E67 09CA 1	4,107,921.50	721,799.06	2,539.5	Basin Fill	QTs	106	21-106	-	1	05/15/74	05/15/74	14.0	-	2,525.5	17	9.0759	625	6.5108E+02
Y	205	371116114274601	205 S09 E67 11B 1	4,118,528.94	724,012.49	2,722.7	Basin Fill	QTs	150	50-150	-	24	03/01/55	11/01/63	48.3	-	2,674.5	0.331194897	2,891.6237	100	2.9920E+03
Y	205	371058114282201	205 S09 E67 11BC 1	4,118,134.81	724,269.79	2,699.7	Basin Fill	QTs	150	68-150	-	2	11/06/61	04/04/90	48.0	-	2,651.7	9	27.5204	100	1.3652E+02
Y	205	371016114281501	205 S09 E67 14B 1	4,116,751.71	724,454.80	2,660.7	Basin Fill	QTs	48	-	-	21	09/09/61	02/26/76	34.9	-	2,625.8	0.143037098	5.1919	625	6.3033E+02
Y	205	371012114280302	205 S09 E67 14BDBA2	4,116,729.45	724,776.29	2,672.7	Basin Fill	QTs	55	50-55	Y	15	01/21/77	03/20/97	30.0	-	2,642.7	0.696966666	112.8635	100	2.1356E+02
Y	205	370934114281801	205 S09 E67 14CCDC1	4,115,548.27	724,437.52	2,642.7	Basin Fill	QTs	104	50-104	Y	1	03/13/85	03/13/85	15.7	-	2,627.0	17	0.1332	100	1.1713E+02
Y	205	370925114285301	205 S09 E67 22AB 1	4,115,247.87	723,581.41	2,714.6	Basin Fill	QTs	13	-	-	1	04/04/90	04/04/90	11.7	-	2,702.9	17	666.6090	625	1.3086E+03
Y	205	370853114285401	205 S09 E67 22DBCD1	4,114,260.89	723,582.92	2,635.6	Basin Fill	QTs	28	-	Y	1	03/11/85	03/11/85	9.0	-	2,626.6	17	3.6862	100	1.2069E+02
Y	205	370846114285201	205 S09 E67 22DC 1 Union Pacific Railroad	4,114,046.43	723,638.00	2,630.6	Basin Fill	QTs	13	-	-	3	02/12/57	04/04/90	10.2	-	2,620.4	0.3025	68.0013	100	1.6830E+02
Y	205	370809114283501	205 S09 E67 27DABD1	4,112,917.11	724,087.83	2,623.6	Basin Fill	QTs	90	50-90	Y	1	03/11/85	03/11/85	2.6	-	2,621.0	17	1.8560	100	1.1886E+02

Table A.2-1
Steady-State Water-Level Data Set and Additional Wells or Springs Used for Control
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SS Well	HA	Site No.	Station Name	UTM N (m)	UTM E (m)	Ref. Pt. Elev. (ft-amsl)	Site Type	HGU	Well Depth (ft-bgs)	Open Interval (ft-bgs)	Excluded Data Flag	No. of Meas.	POR-Start Date	POR-End Date	Mean DTW (ft-bgs)	Q Elev.	Mean Elev. (ft-amsl)	V. Sample Mean (ft^2)	V. of Vertical Error (ft^2)	V. Land Surface (ft^2)	Total Var (ft^2)
Y	205	370745114275601	205 S09 E67 34B 1	4,111,939.30	723,274.07	2,603.9	Basin Fill	QTs	90	50-90	-	1	02/01/64	02/01/64	15.0	-	2,588.9	17	445.5411	625	1.0875E+03
Y	205	370647114292401	205 S10 E67 03BB 1 Union Pacific Railroad	4,110,357.53	722,945.43	2,590.6	Basin Fill	QTs	-	-	-	1	04/05/90	04/05/90	19.1	-	2,571.5	17	959.3336	100	1.0763E+03
Y	205	365500114393601	205 S12 E65 12ABCB1	4,087,931.37	708,280.76	1,967.3	Basin Fill	QTs	120	100-120	-	2	06/01/63	03/11/85	20.6	-	1,946.7	1.959999999	11.3225	100	1.1328E+02
Y	205	365424114395101	205 S12 E65 13B 2 USGS	4,085,982.97	708,056.07	1,932.3	Basin Fill	QTs	18	-	-	27	06/16/55	02/05/70	12.7	-	1,919.5	0.021691432	0.0000	100	1.0002E+02
Y	205	365429114394701	205 S12 E65 13BACA1	4,086,260.36	708,049.28	1,952.3	Basin Fill	QTs	105	85-105	-	4	12/01/62	03/30/90	8.0	-	1,944.3	1.261666667	0.4276	100	1.0169E+02
Y	205	365253114395901	205 S12 E65 24BC 1 Union Pacific Railroad	4,084,252.13	707,900.23	1,907.3	Basin Fill	QTs	89	50-89	-	1	04/05/90	04/05/90	15.3	-	1,892.0	17	434.3106	100	5.5131E+02
Y	205	365137114400401	205 S12 E65 25CD 1	4,081,906.68	707,833.68	1,847.2	Basin Fill	QTs	62	50-62	-	2	03/11/85	03/29/90	15.9	-	1,831.4	0.027225	178.6090	100	2.7864E+02
Y	205	205 S12 E66 04BD 1	205 S12 E66 04BD 1	4,089,309.75	712,877.38	2,724.4	Basin Fill	QTs	65	40-65	-	1	11/15/70	11/15/70	40.0	-	2,684.4	17	1,379.8636	625	2.0219E+03
Y	205	205 S13 E65 01AD 1	205 S13 E65 01AD 1	4,079,342.00	708,887.94	1,794.0	Basin Fill	QTs	170	100-170	-	1	08/15/95	08/15/95	55.0	-	1,739.0	17	499.8590	625	1.1419E+03
Y	205	364854114390901	205 S13 E66 07CC 1 Union Pacific Railroad	4,076,916.25	709,319.37	1,762.2	Basin Fill	QTs	360	320-360	Y	1	07/10/80	07/10/80	50.0	-	1,712.2	17	40.4631	100	1.5746E+02
Y	205	364907114393601	205 S13 E66 07DB 1	4,077,470.53	710,062.93	1,782.2	Basin Fill	QTs	112	50-112	-	1	04/02/90	04/02/90	79.3	-	1,702.9	17	185.4004	100	3.0240E+02
Y	205	364910114383801	205 S13 E66 18B 1	4,076,226.27	710,105.12	1,772.2	Basin Fill	QTs	88	50-88	-	1	04/01/63	04/01/63	58.0	-	1,714.2	17	3,293.7172	100	3.4107E+03
Y	205	364751114384501	205 S13 E66 19ABC 1	4,074,989.17	709,961.99	1,720.2	Basin Fill	QTs	89	65-89	-	2	09/07/65	03/11/85	61.8	-	1,658.4	0.030625	10.6881	100	1.1072E+02
Y	205	364759114391701	205 S13 E66 19ABCC1	4,074,906.91	709,981.64	1,718.3	Basin Fill	QTs	90	10-85	-	2	01/01/76	04/05/90	53.4	-	1,664.9	179.56	198.6544	625	1.0032E+03
Y	205	364747114395301	205 S13 E66 19BA 1	4,075,040.93	709,733.90	1,738.9	Basin Fill	QTs	88	60-88	-	3	04/23/63	04/05/90	62.2	-	1,676.7	6.173333333	868.1550	625	1.4993E+03
Y	205	364750114384901	205 S13 E66 19BAA 1	4,074,955.91	709,863.59	1,732.2	Basin Fill	QTs	-	-	-	1	04/06/90	04/06/90	83.3	-	1,648.9	17	141.9932	100	2.5899E+02
Y	205	364613114371701	205 S13 E66 29DD 1	4,072,022.70	712,218.47	1,717.2	Basin Fill	QTs	58	50-58	-	1	04/06/90	04/06/90	57.0	-	1,660.2	17	100.0471	100	2.1705E+02
Y	205	364520114371801	205 S13 E66 32DD 1	4,070,388.57	712,234.29	1,662.2	Basin Fill	QTs	-	-	-	1	04/06/90	04/06/90	48.3	-	1,613.9	17	219.0949	100	3.3609E+02
Y	205	364321114351001	205 S14 E66 15A 1 USGS	4,066,800.36	715,501.38	1,676.6	Basin Fill	QTs	30	-	Y	28	05/10/61	03/11/81	18.5	-	1,658.1	0.139992423	176.3729	625	8.0151E+02
Y	205	205 S14 E66 15CB 1	205 S14 E66 15CB 1	4,065,998.25	714,255.19	1,586.4	Basin Fill	QTs	134	80-120	-	1	03/15/88	03/15/88	30.0	-	1,556.4	17	89.1561	625	7.3116E+02
Y	205	364151114362001	205 S14 E66 21DD 1	4,063,982.88	713,833.81	1,602.2	Basin Fill	QTs	79	50-79	-	1	04/06/90	04/06/90	44.0	-	1,558.2	17	279.3268	100	3.9633E+02
Y	205	364220114355701	205 S14 E66 22BC 1	4,064,890.97	714,382.30	1,592.2	Basin Fill	QTs	99	30-99	-	2	03/01/69	03/15/69	20.0	-	1,572.2	0	54.2990	100	1.5430E+02
Y	205	364207114353901	205 S14 E66 22DBB 1	4,064,501.53	714,839.09	1,567.2	Basin Fill	QTs	80	50-80	-	1	03/10/85	03/10/85	28.0	-	1,539.2	17	0.0000	100	1.1700E+02
Y	205	364200114352501	205 S14 E66 22DBD 1	4,064,294.51	715,191.98	1,562.2	Basin Fill	QTs	-	-	-	1	04/06/90	04/06/90	41.0	-	1,521.2	17	8.4791	100	1.2548E+02
Y	205	NPC-5 Old	205 S14 E66 22DC 1 NPC-5 Old	4,064,184.90	715,288.02	1,562.4	Basin Fill	QTs	-	-	Y	7	03/17/05	09/20/06	29.6	-	1,532.8	0.094106803	39.1754	100	1.3927E+02
Y	205	364133114334401	205 S14 E66 25D 1 NV Pwr Co (Report 27 P1)	4,062,732.65	718,629.65	1,684.7	Basin Fill	QTs	480	50-480	-	1	10/01/62	10/01/62	17.0	-	1,667.7	17	7,407.8465	625	8.0498E+03
Y	205	NPC-4A	205 S14 E66 26CA 1 NPC-4A	4,062,677.94	716,556.85	1,559.5	Basin Fill	QTs	-	-	Y	7	03/17/05	09/20/06	4.6	-	1,554.8	0.187608163	22.3311	100	1.2252E+02
Y	205	TH-12	205 S14 E66 26CA 2 TH-12	4,062,679.69	716,321.98	1,552.7	Basin Fill	QTs	204	104-204	Y	8	12/18/04	09/20/06	25.8	-	1,526.9	0.252242857	23.5694	100	1.2382E+02
Y	205	205 S14 E66 26CC 1	205 S14 E66 26CC 1	4,062,431.75	715,934.38	1,553.5	Basin Fill	QTs	174	100-160	-	1	02/15/87	02/15/87	30.0	-	1,523.5	17	323.0005	625	9.6500E+02
Y	205	364138114351301	205 S14 E66 27AA 1	4,063,623.94	715,506.88	1,542.2	Basin Fill	QTs	139	100-141	Y	1	01/05/72	01/05/72	31.0	-	1,511.2	17	21.5393	400	4.3854E+02
Y	205	364125114353001	205 S14 E66 27AC 1	4,063,212.65	715,094.97	1,609.4	Basin Fill	QTs	160	40-160	Y	1	09/13/74	09/13/74	22.0	-	1,587.4	17	33.4284	625	6.7543E+02
Y	205	364125114353002	205 S14 E66 27AC 2	4,063,212.65	715,094.97	1,609.4	Basin Fill	QTs	181	75-181	-	2	12/28/71	03/29/90	36.7	-	1,572.7	75.69	33.4284	625	7.3412E+02
Y	205	364125114353003	205 S14 E66 27AC 3	4,063,212.65	715,094.97	1,609.4	Basin Fill	QTs	255	135-255	Y	1	12/25/71	12/25/71	64.0	-	1,545.4	17	33.4284	625	6.7543E+02
Y	205	364138114354601	205 S14 E66 27BA 1	4,063,603.36	714,687.75	1,572.2	Basin Fill	QTs	200	100-200	-	2	11/07/71	03/29/90	37.6	-	1,534.6	92.16	308.2920	100	5.0045E+02
Y	205	TH-31	205 S14 E66 34AD 1 TH-31	4,061,638.28	715,626.17	1,546.8	Basin Fill	QTs	104	64-104	Y	8	12/18/04	09/20/06	26.7	-	1,520.2	0.134713393	16.5911	100	1.1673E+02
Y	205	EH-6	205 S14 E66 35AA 1 EH-6	4,062,264.52	717,057.85	1,568.9	Basin Fill	QTs	140	40-140	Y	7	03/17/05	09/20/06	31.0	-	1,537.9	0.045951701	73.4636	100	1.7351E+02
Y	205	364041114342801	205 S14 E66 35ABCD1	4,061,895.36	716,668.33	1,532.2	Basin Fill	QTs	205	50-205	-	2	03/10/85	03/29/90	34.1	-	1,498.1	15.8404	0.3335	100	1.1617E+02
Y	205	TH-8	205 S14 E66 35AC 1 TH-8	4,061,853.94	716,648.33	1,541.4	Basin Fill	QTs	44	24-44	Y	6	03/17/05	09/20/06	20.4	-	1,521.0	0.155811111	5.2321	100	1.0539E+02
Y	205	EH-8A	205 S14 E66 35CA 1 EH-8A	4,061,395.15	716,453.33	1,531.0	Basin Fill	QTs	-	-	Y	8	12/18/04	09/20/06	14.5	-	1,516.5	0.242401562	0.0018	100	1.0024E+02

Table A.2-1
Steady-State Water-Level Data Set and Additional Wells or Springs Used for Control
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SS Well	HA	Site No.	Station Name	UTM N (m)	UTM E (m)	Ref. Pt. Elev. (ft-amsl)	Site Type	HGU	Well Depth (ft-bgs)	Open Interval (ft-bgs)	Excluded Data Flag	No. of Meas.	POR-Start Date	POR-End Date	Mean DTW (ft-bgs)	Q Elev.	Mean Elev. (ft-amsl)	V. Sample Mean (ft^2)	V. of Vertical Error (ft^2)	V. Land Surface (ft^2)	Total Var (ft^2)
Y	205	EH-8B	205 S14 E66 35CA 2 EH-8B	4,061,395.15	716,453.33	1,531.0	Basin Fill	QTs	-	-	Y	7	03/17/05	09/20/06	16.1	-	1,515.0	0.066687755	0.0018	100	1.0007E+02
Y	205	364014114344901	205 S14 E66 35CACC1	4,061,050.02	716,167.93	1,527.2	Basin Fill	QTs	110	74-110	-	3	05/01/82	04/06/90	30.9	-	1,496.3	24.31693333	0.0505	100	1.2437E+02
Y	205	364016114343601	205 S14 E66 35CAD 1	4,061,119.80	716,489.17	1,527.2	Basin Fill	QTs	146	50-146	-	1	04/06/90	04/06/90	23.1	-	1,504.1	17	0.2457	100	1.1725E+02
Y	205	MV-2	205 S14 E66 35CC 1 MV-2	4,061,036.90	716,091.67	1,537.6	Basin Fill	QTs	480	100-200/220-480	-	1	08/15/62	08/15/62	17.0	-	1,520.6	17	12.1586	625	6.5416E+02
Y	205	364100114334801	205 S14 E66 35D 1	4,060,645.52	717,246.56	1,492.2	Basin Fill	QTs	118	50-118	-	1	11/18/63	11/18/63	19.9	-	1,472.3	17	1,947.2813	100	2.0643E+03
Y	205	TH-35	205 S14 E66 35DA 1 TH-35	4,061,094.50	717,055.33	1,531.3	Basin Fill	QTs	-	62-88	Y	5	09/21/05	09/20/06	13.5	-	1,517.8	0.551946	2.1079	100	1.0266E+02
Y	205	364010114340501	205 S14 E66 35DDAB1	4,060,954.36	717,263.58	1,532.2	Basin Fill	QTs	98	65-88	Y	36	03/12/48	01/13/72	24.2	-	1,508.0	4.748217202	0.2389	100	1.0499E+02
Y	205	364053114334501	205 S15 E66 02BB 1	4,060,397.14	715,960.79	1,552.2	Basin Fill	QTs	114	50-114	-	1	01/01/47	01/01/47	12.0	-	1,540.2	17	1,373.8507	100	1.4909E+03
Y	205	MV-3	205 S15 E66 02BC 1 MV-3	4,060,204.75	716,112.65	1,544.5	Basin Fill	QTs	198	50-198	-	1	02/15/80	02/15/80	33.0	-	1,511.5	17	94.8991	625	7.3690E+02
Y	205	363956114350501	205 S15 E66 03AAAD1	4,060,485.23	715,784.65	1,542.2	Basin Fill	QTs	100	50-100	Y	1	03/28/90	03/28/90	31.3	-	1,510.9	17	0.0724	100	1.1707E+02
Y	206	206 S08 E65 35AD 1	206 S08 E65 35AD 1	4,120,914.50	706,358.81	3,592.2	Basin Fill	QTs	200	50-200	-	1	01/15/68	01/15/68	55.0	-	3,537.2	17	152.3973	625	7.9440E+02
N	206	206 S08 E66 07 1	206 S08 E66 07 1 Boulder Spring (Diversion)	4,127,006.25	708,420.45	4,067.5	Spring	-	-	-	-	-	-	-	-	>	4,067.5	-	-	-	-
Y	206	206 S11 E64 06CA1	206 S11 E64 06CA1 KPW-1	4,098,897	689,902.77	2,873.35	Carbonate Well	MOc	2,012	1,020-1,840/1882 -2002	-	1	11/15/05	11/15/05	992.7	-	1,880.7	17	907.6414	625	1.5496E+03
Y	206	206 S11 E64 06CD1	206 S11 E64 06CD1 KMW-1	4,098,863	689,882.51	2,873.25	Carbonate Well	MOc	1,920	1,100-1,120/ 1,320-1,340/ 1,500-1,520/ 1,740-1,760/ 1,880-1,900	-	4	04/26/07	07/09/07	988.8	-	1,884.5	0.0025562	510.9043	625	1.1359E+03
Y	207	207 N04 E60 02AA 1	207 N04 E60 02AA 1	4,234,246.50	657,444.88	5,124.3	Basin Fill	QTs	780	302-660/665-765	-	1	05/15/92	05/15/92	183.0	-	4,941.3	17	19.6722	625	6.6167E+02
Y	207	207 N04 E60 02AA 2	207 N04 E60 02AA 2	4,233,760.51	657,880.83	5,133.5	Basin Fill	QTs	403	50-403	-	1	07/15/79	07/15/79	70.0	-	5,063.5	17	45.9029	2,500	2.5629E+03
N	207	381234115105601	207 N04 E60 13AD 1 USGS-MX	4,230,608.86	659,072.78	5,213.5	Basin Fill	QTs	165	50-165	-	-	-	-	-	<	5,048.5	-	-	-	-
Y	207	373614115083701	207 N04 E61 16D 1	4,230,089.36	663,949.76	5,140.4	Basin Fill	QTs	-	-	-	1	05/10/63	05/10/63	84.0	-	5,056.4	17	25,451.8773	625	2.6094E+04
Y	207	207 N05 E59 10CA 1	207 N05 E59 10CA 1	4,241,111.50	645,332.19	5,481.6	Basin Fill	QTs	112	20-112	-	1	06/15/60	06/15/60	18.0	-	5,463.6	17	185.4909	625	8.2749E+02
Y	207	381941115131801	207 N05 E60 03ABBA1 USGS-MX	4,243,703.71	655,366.13	5,168.5	Basin Fill	QTs	202	50-202	-	8	11/01/80	09/21/94	48.0	-	5,120.5	0.000350002	0.2062	100	1.0021E+02
Y	207	207 N05 E60 10CA 1	207 N05 E60 10CA 1	4,241,007.68	655,328.71	5,153.5	Basin Fill	QTs	125	50-125	-	1	07/15/79	07/15/79	58.0	-	5,095.5	17	56.7608	2,500	2.5738E+03
Y	207	381613115110101	207 N05 E60 24CDDA1	4,237,388.29	658,842.50	5,103.6	Basin Fill	QTs	10	-	-	3	03/13/85	07/25/05	3.7	-	5,099.9	1.201344447	17.2225	100	1.1842E+02
Y	207	207 N05 E61 31CB 1	207 N05 E61 31CB 1	4,234,215.09	660,305.67	5,103.6	Basin Fill	QTs	100	50-100	-	2	07/15/79	07/25/05	15.5	-	5,088.1	20.475625	145.3626	2,500	2.6658E+03
N	207	382151115164501	207 N06 E60 19CA 1 USGS-MX	4,247,615.52	650,265.03	5,363.5	Basin Fill	QTs	200	50-200	-	-	-	-	-	<	5,163.5	-	-	-	-
Y	207	207 N06 E60 20AD 1	207 N06 E60 20AD 1	4,247,831.57	652,995.91	5,273.5	Basin Fill	QTs	160	50-160	-	1	07/15/79	07/15/79	90.0	-	5,183.5	17	42.3289	2,500	2.5593E+03
Y	207	207 N06 E60 21A 1	207 N06 E60 21A 1	4,248,060.52	654,414.33	5,243.5	Basin Fill	QTs	-	-	-	1	07/15/79	07/15/79	89.0	-	5,154.5	17	12.8449	2,500	2.5298E+03
Y	207	382211115133801	207 N06 E60 22BBBC1 USBLM	4,248,321.28	654,961.66	5,203.5	Basin Fill	QTs	100	50-100	-	2	03/12/85	03/09/90	92.9	-	5,110.6	9.394225005	6.6569	2,500	2.5161E+03
N	207	382105115104801	207 N06 E60 25BDAD1 Moon River Springs	4,246,393.35	658,884.12	5,223.5	Spring	-	-	-	-	-	-	-	-	>	5,223.5	-	-	-	-
N	207	207 N06 E60 36BB 1	207 N06 E60 36BB 1 Camp Spring	4,245,202.53	658,357.11	5,181.2	Spring	-	-	-	-	-	-	-	-	>	5,181.2	-	-	-	-
Y	207	207 N06 E61 06BB 1	207 N06 E61 06BB 1	4,253,190.63	659,865.75	5,223.6	Basin Fill	QTs	456	50-456	-	1	07/15/79	07/15/79	39.0	-	5,184.6	17	8.5375	2,500	2.5255E+03
Y	207	207 N06 E61 06CC 1	207 N06 E61 06CC 1	4,252,240.00	659,812.38	5,218.9	Basin Fill	QTs	6	6-513	-	1	07/15/66	07/15/66	33.1	-	5,185.8	17	21.1678	625	6.6317E+02
Y	207	207 N06 E61 09CCB 1	207 N06 E61 09CCB 1	4,250,517.11	663,010.63	5,218.6	Basin Fill	QTs	400	50-400	-	1	07/15/79	07/15/79	5.0	-	5,213.6	17	22.3220	2,500	2.5393E+03
N	207	382259115090801	207 N06 E61 18AADA1 NDW - Hot Creek Spring	4,249,925.78	661,290.47	5,228.6	Spring-Regional	-	-	-	-	-	-	-	-	>	5,228.6	-	-	-	-
Y	207	382111115055901	207 N06 E61 27AADC1 USGS-MX	4,246,691.88	666,042.08	5,213.6	Basin Fill	QTs	96	50-96	-	11	09/01/80	09/21/94	71.0	-	5,142.7	0.540878677	9.9589	100	1.1050E+02

Table A.2-1
Steady-State Water-Level Data Set and Additional Wells or Springs Used for Control
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SS Well	HA	Site No.	Station Name	UTM N (m)	UTM E (m)	Ref. Pt. Elev. (ft-amsl)	Site Type	HGU	Well Depth (ft-bgs)	Open Interval (ft-bgs)	Excluded Data Flag	No. of Meas.	POR-Start Date	POR-End Date	Mean DTW (ft-bgs)	Q Elev.	Mean Elev. (ft-amsl)	V. Sample Mean (ft^2)	V. of Vertical Error (ft^2)	V. Land Surface (ft^2)	Total Var (ft^2)
Y	207	207 N06 E61 27DD 1	207 N06 E61 27DD 1	4,245,663.19	666,041.89	5,203.6	Basin Fill	QTs	250	50-250	-	1	06/15/70	06/15/70	98.0	-	5,105.6	17	110.8763	2,500	2.6279E+03
Y	207	207 N06 E61 28DA1	207 N06 E61 28DA1	4,245,971.20	664,334.22	5,195.4	Carbonate Well	PPPc	-	-	-	1	-	-	53.4	-	5,142.0	17	5.8327	625	6.4783E+02
Y	207	207 N06 E61 31AA 1	207 N06 E61 31AA 1	4,245,451.50	661,137.13	5,142.5	Basin Fill	QTs	152	70-152	-	1	03/15/01	03/15/01	27.0	-	5,115.5	17	278.9407	625	9.2094E+02
Y	207	207 N06 E61 32BA 1	207 N06 E61 32BA 1	4,245,178.74	662,019.09	5,148.6	Basin Fill	QTs	50	-	-	1	03/15/79	03/15/79	18.0	-	5,130.6	17	16.5422	2,500	2.5335E+03
Y	207	207 N06 E61 33D 1	207 N06 E61 33D 1	4,244,203.47	664,250.71	5,206.6	Basin Fill	QTs	200	50-200	-	1	08/15/79	08/15/79	100.0	-	5,106.6	17	86.5492	2,500	2.6035E+03
Y	207	207 N06 E62 07AB1	207 N06 E62 07AB1	4,251,495.49	670,125.82	5,284.0	Carbonate Well	PPPc	-	-	-	1	-	-	200.0	-	5,084.0	17	76.0572	625	7.1806E+02
Y	207	207 N06 E62 07CD 1	207 N06 E62 07CD 1	4,250,846.00	670,034.38	5,284.1	Basin Fill	QTs	117	40-117	-	1	05/15/68	05/15/68	25.0	-	5,259.1	17	72.7499	625	7.1475E+02
Y	207	207 N06 E62 31AD 1	207 N06 E62 31AD 1	4,244,902.76	670,826.97	5,433.8	Basin Fill	QTs	250	50-250	-	1	07/15/79	07/15/79	145.0	-	5,288.8	17	254.7407	2,500	2.7717E+03
Y	207	382005115023701	207 N06 E62 31ADD 1	4,244,821.64	670,987.42	5,453.8	Basin Fill	QTs	300	50-300	-	2	03/13/85	03/09/90	121.9	-	5,331.9	0.511225	42.1257	100	1.4264E+02
Y	207	382627115160201	207 N07 E60 30AACD1 USBLM	4,256,142.62	651,148.91	5,583.6	Basin Fill	QTs	433	50-433	-	1	03/09/90	03/09/90	404.7	-	5,179.0	17	26.9024	100	1.4390E+02
Y	207	207 N07 E61 04DAC 1	207 N07 E61 04DAC 1	4,262,047.82	664,001.36	5,243.7	Basin Fill	QTs	-	-	-	1	07/15/79	07/15/79	38.0	-	5,205.7	17	14.1428	2,500	2.5311E+03
Y	207	382942115070201	207 N07 E61 04DDBA1 USGS-MX	4,261,948.41	664,127.81	5,248.7	Basin Fill	QTs	162	50-162	-	2	01/01/81	09/05/91	38.0	-	5,210.7	0.000224993	0.0186	100	1.0002E+02
Y	207	207 N07 E61 07DD 1	207 N07 E61 07DD 1	4,260,101.24	660,917.20	5,248.6	Basin Fill	QTs	100	50-100	-	1	07/15/79	07/15/79	13.0	-	5,235.6	17	1.4129	2,500	2.5184E+03
Y	207	207 N07 E61 11AC1	207 N07 E61 11AC1	4,260,940.25	666,829.07	5,239.9	Carbonate Well	PPPc	-	-	-	1	-	-	28.9	-	5211	17	39.0982	625	6.8110E+02
Y	207	382718115094901	207 N07 E61 19BDDC1 USGS-MX	4,257,489.35	660,168.92	5,248.6	Basin Fill	QTs	101	50-101	-	5	11/01/80	09/04/91	49.1	-	5,199.5	0.059383999	0.3627	100	1.0042E+02
Y	207	207 N07 E61 36CC 1	207 N07 E61 36CC 1	4,253,734.23	667,912.38	5,186.6	Basin Fill	QTs	110	50-110	-	1	01/15/03	01/15/03	16.0	-	5,170.6	17	532.0598	625	1.1741E+03
Y	207	207 N07 E61 36CCD 1	207 N07 E61 36CCD 1	4,253,623.38	668,003.02	5,183.7	Basin Fill	QTs	79	50-79	-	1	07/15/79	07/15/79	19.0	-	5,164.7	17	453.0894	2,500	2.9701E+03
Y	207	207 N07 E61 36DD 1	207 N07 E61 36DD 1	4,253,752.86	669,104.72	5,203.7	Basin Fill	QTs	100	50-100	-	1	08/15/70	08/15/70	9.0	-	5,194.7	17	10.4453	2,500	2.5274E+03
Y	207	382946115005401	207 N07 E62 04BDAC1 Gulf Oil Corp	4,262,721.66	673,031.32	5,355.8	Basin Fill	QTs	125	50-125	-	1	03/22/90	03/22/90	83.6	-	5,272.2	17	56.5781	100	1.7358E+02
Y	207	207 N07 E62 21AC 1	207 N07 E62 21AC 1	4,258,165.50	673,420.56	5,327.2	Basin Fill	QTs	55	30-55	-	1	10/15/01	10/15/01	35.0	-	5,292.2	17	789.3904	625	1.4314E+03
N	207	382624115004001	207 N07 E62 28ABDC1 Butterfield Spring	4,256,471.81	673,529.85	5,323.8	Spring	-	-	-	-	-	-	-	-	>	5,323.8	-	-	-	-
N	207	382526115011401	207 N07 E62 33BCAB1 Flag Spring 1	4,254,696.46	672,718.97	5,293.8	Spring	-	-	-	-	-	-	-	-	>	5,293.8	-	-	-	-
N	207	382522115012001	207 N07 E62 33BCCB1 Flag Spring 2	4,254,570.03	672,576.12	5,285.0	Spring	-	-	-	-	-	-	-	-	>	5,285.0	-	-	-	-
N	207	382517115012001	207 N07 E62 33BCCC1 Flag Spring 3	4,254,415.90	672,579.43	5,293.8	Spring	-	-	-	-	-	-	-	-	>	5,293.8	-	-	-	-
Y	207	207 N08 E60 21A 1	207 N08 E60 21A 1	4,267,403.48	654,128.24	5,493.7	Basin Fill	QTs	-	-	-	1	07/15/79	07/15/79	500.0	-	4,993.7	17	212.5382	2,500	2.7295E+03
Y	207	383154115101501	207 N08 E60 24DD 1 USBLM	4,266,385.37	659,361.67	5,265.6	Basin Fill	QTs	80	50-75	-	3	12/02/65	03/22/90	36.3	-	5,229.3	3.515344444	2.7905	100	1.0631E+02
Y	207	383114115123401	207 N08 E60 27D 1 USBLM	4,265,086.04	656,019.86	5,343.7	Basin Fill	QTs	134	50-134	-	2	07/15/79	03/22/90	116.6	-	5,227.0	0.126025006	31.3188	100	1.3144E+02
Y	207	381451115132301	207 N08 E60 28A 1	4,266,033.98	654,015.01	5,503.7	Basin Fill	QTs	142	50-142	-	2	02/15/48	02/27/48	115.1	-	5,388.6	1.209999993	19,214.6682	100	1.9316E+04
Y	207	207 N08 E61 19CCC 1	207 N08 E61 19CCC 1	4,266,405.57	659,470.51	5,264.6	Basin Fill	QTs	-	-	-	1	08/15/79	08/15/79	0.0	-	5,264.6	17	6.8641	2,500	2.5239E+03
Y	207	207 N08 E61 21AC1	207 N08 E61 21AC1	4,267,177.36	663,621.41	5,267.6	Carbonate Well	MOc	-	-	-	1	-	-	26.6	-	5,241.0	17	199.5065	625	8.4151E+02
Y	207	207 N08 E61 27CD 1	207 N08 E61 27CD 1	4,264,973.37	664,848.16	5,261.7	Basin Fill	QTs	490	50-490	-	1	08/15/79	08/15/79	40.0	-	5,221.7	17	1.2409	2,500	2.5182E+03
Y	207	383113115061201	207 N08 E61 27DDBA1 USGS-MX	4,265,125.05	665,637.72	5,233.7	Basin Fill	QTs	230	150-225	-	5	12/19/79	08/05/03	40.3	-	5,193.4	0.574186001	0.6323	100	1.0121E+02
Y	207	383113115061202	207 N08 E61 27DDBA2 USGS-MX	4,265,125.05	665,637.72	5,233.7	Basin Fill	QTs	410	340-400	-	6	12/19/79	07/26/04	40.0	-	5,193.7	0.428598332	0.6323	100	1.0106E+02
Y	207	383109115055801	207 N08 E61 33DA 1 Gulf Oil Corp	4,265,124.55	665,613.50	5,230.0	Basin Fill	QTs	72	40-72	-	3	10/30/68	03/22/90	35.1	-	5,194.9	0.005877776	69.8415	625	6.9485E+02
Y	207	207 N08 E62 17CD 1	207 N08 E62 17CD 1	4,268,300.06	671,231.06	5,423.8	Basin Fill	QTs	210	50-210	-	1	07/15/79	07/15/79	135.0	-	5,288.8	17	154.3709	2,500	2.6714E+03

Table A.2-1
Steady-State Water-Level Data Set and Additional Wells or Springs Used for Control
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SS Well	HA	Site No.	Station Name	UTM N (m)	UTM E (m)	Ref. Pt. Elev. (ft-amsl)	Site Type	HGU	Well Depth (ft-bgs)	Open Interval (ft-bgs)	Excluded Data Flag	No. of Meas.	POR-Start Date	POR-End Date	Mean DTW (ft-bgs)	Q Elev.	Mean Elev. (ft-amsl)	V. Sample Mean (ft^2)	V. of Vertical Error (ft^2)	V. Land Surface (ft^2)	Total Var (ft^2)
Y	207	207 N08 E62 19BA 1	207 N08 E62 19BA 1	4,267,867.97	669,616.33	5,343.8	Basin Fill	QTs	416	50-416	-	1	07/15/79	07/15/79	91.0	-	5,252.8	17	43.1614	2,500	2.5602E+03
N	207	383139115002601	207 N08 E62 28AD 1 USGS-MX	4,266,219.74	673,634.21	5,533.8	Basin Fill	QTs	198	50-198	-	-	-	-	-	<	5,333.8	-	-	-	-
Y	207	207 N08 E62 30CCB 1	207 N08 E62 30CCB 1	4,265,131.55	669,165.27	5,279.8	Basin Fill	QTs	101	50-101	-	1	07/15/79	07/15/79	65.0	-	5,214.8	17	25.5724	2,500	2.5426E+03
Y	207	383133115030201	207 N08 E62 30CD 1 USGS-MX	4,265,208.73	669,633.85	5,288.8	Basin Fill	QTs	101	50-101	Y	17	09/01/80	09/21/94	65.0	-	5,223.8	0.254652551	41.8897	1,225	1.2671E+03
N	207	383223114560501	207 N08 E63 19 1 Shingle Spring	4,267,715.62	679,924.29	6,434.1	Spring	-	-	-	-	-	-	-	-	>	6,434.1	-	-	-	-
Y	207	383544115173401	207 N09 E59 36 1	4,273,270.60	648,599.85	6,162.1	Volcanic	Tv	44	-	-	2	08/15/79	03/22/90	33.0	-	6,129.1	0.001225002	94.9686	625	7.1997E+02
Y	207	382347115101901	207 N09 E60 01A 1	4,281,735.24	658,490.35	5,352.7	Basin Fill	QTs	40	-	-	2	02/27/48	07/15/79	38.1	-	5,314.6	3.763600003	9.9019	625	6.3867E+02
Y	207	207 N09 E60 15D 1	207 N09 E60 15D 1	4,277,951.03	655,542.34	5,508.7	Basin Fill	QTs	-	-	-	1	07/15/79	07/15/79	195.0	-	5,313.7	17	147.5713	2,500	2.6646E+03
Y	207	383806115122601	207 N09 E60 23BC 1 USBLM	4,277,790.09	655,965.78	5,503.7	Basin Fill	QTs	228	178-228	-	2	10/06/68	03/22/90	181.5	-	5,322.2	131.446225	32.4715	625	7.8892E+02
Y	207	383712115142201	207 N09 E60 29A 1 USBLM	4,276,071.10	653,192.87	5,703.8	Basin Fill	QTs	142	82-137	-	2	08/24/65	03/22/90	84.7	-	5,619.1	215.355625	226.3100	100	5.4167E+02
Y	207	384034115051801	207 N09 E61 02BA 1	4,282,561.60	666,219.68	5,329.8	Basin Fill	QTs	-	-	-	1	03/23/90	03/23/90	2.4	-	5,327.4	17	0.0000	100	1.1700E+02
Y	207	382432115095801	207 N09 E61 07BCCC1	4,280,043.29	659,186.37	5,343.7	Basin Fill	QTs	43	-	Y	25	02/27/48	04/08/97	30.2	-	5,313.5	0.023714973	1.8276	100	1.0185E+02
N	207	383809115042601	207 N09 E61 13C 1 West Emigrant Spring	4,278,118.06	667,570.19	5,353.9	Spring	-	-	-	-	-	-	-	-	>	5,353.9	-	-	-	-
N	207	207 N09 E61 13CB 1	207 N09 E61 13CB 1 Hardy Springs NW	4,278,196.00	667,352.00	5,348.9	Spring	-	-	-	-	-	-	-	-	>	5,348.9	-	-	-	-
Y	207	207 N09 E61 16C 1	207 N09 E61 16C 1	4,278,080.58	662,766.29	5,311.7	Basin Fill	QTs	-	-	-	1	07/15/79	07/15/79	24.0	-	5,287.7	17	59.9231	2,500	2.5769E+03
N	207	383540115081801	207 N09 E61 32DABC1 Moorman Spring	4,273,439.82	662,053.02	5,298.7	Spring-Regional	-	-	-	-	-	-	-	-	>	5,298.7	-	-	-	-
N	207	383726115025101	207 N09 E62 19DB 1 Emigrant Springs	4,276,841.12	669,895.48	5,479.0	Spring	-	-	-	-	-	-	-	-	>	5,479.0	-	-	-	-
Y	207	384502115111801	207 N10 E60 01CC 1 USGS-MX	4,290,646.28	657,356.51	5,499.8	Basin Fill	QTs	197	50-197	-	3	11/01/80	09/05/91	180.4	-	5,319.3	1.242544444	47.9309	1,225	1.2742E+03
Y	207	382811115043601	207 N10 E60 13C 1	4,287,619.51	657,126.47	5,393.0	Basin Fill	QTs	-	-	-	2	02/15/48	02/27/48	47.6	-	5,345.4	6.734024994	821.7241	625	1.4535E+03
Y	207	207 N10 E60 24ACD 1	207 N10 E60 24ACD 1	4,286,592.36	658,467.47	5,364.7	Basin Fill	QTs	-	-	-	1	07/15/79	07/15/79	17.0	-	5,347.7	17	5.5344	2,500	2.5225E+03
Y	207	382719115035101	207 N10 E60 24D 1 USBLM	4,286,703.32	657,579.49	5,377.7	Basin Fill	QTs	79	50-79	-	2	02/27/48	03/22/90	48.2	-	5,329.6	45.5625	16.1874	100	1.6175E+02
Y	207	384060115134401	207 N10 E60 33DA 1 USGS-MX	4,283,394.65	653,970.83	5,456.7	Basin Fill	QTs	200	50-200	-	3	11/01/80	09/05/91	128.6	-	5,328.1	0.190677777	62.4800	1,225	1.2877E+03
Y	207	382613115043301	207 N10 E60 36B 1	4,283,778.15	657,806.57	5,359.9	Basin Fill	QTs	-	-	-	1	10/08/47	10/08/47	4.8	-	5,355.1	17	280.3701	625	9.2237E+02
Y	207	207 N10 E60 36B 1	207 N10 E60 36B 1	4,283,653.74	657,841.20	5,359.7	Basin Fill	QTs	-	-	-	1	07/15/79	07/15/79	50.0	-	5,309.7	17	14.0865	2,500	2.5311E+03
Y	207	384058115110701	207 N10 E60 36D 1	4,283,129.83	657,771.06	5,359.7	Basin Fill	QTs	-	-	-	2	07/15/79	03/21/90	41.5	-	5,318.2	0.265224993	6.7060	100	1.0697E+02
Y	207	207 N10 E61 05DDC 1	207 N10 E61 05DDC 1	4,290,636.36	661,717.24	5,416.8	Basin Fill	QTs	-	-	-	1	07/15/79	07/15/79	31.0	-	5,385.8	17	12.1756	2,500	2.5292E+03
Y	207	207 N10 E61 07AAB 1	207 N10 E61 07AAB 1	4,290,405.46	660,090.73	5,403.8	Basin Fill	QTs	-	-	-	1	07/15/79	07/15/79	96.0	-	5,307.8	17	86.0483	2,500	2.6030E+03
Y	207	207 N10 E61 07AB 1	207 N10 E61 07AB 1	4,290,304.63	659,816.37	5,415.4	Basin Fill	QTs	100	50-100	-	1	08/15/66	08/15/66	92.0	-	5,323.4	17	66.6882	625	7.0869E+02
Y	207	207 N10 E61 07BBB 1	207 N10 E61 07BBB 1	4,290,385.42	659,008.71	5,434.7	Basin Fill	QTs	-	-	-	1	07/15/79	07/15/79	113.0	-	5,321.7	17	23.5086	2,500	2.5405E+03
Y	207	382902115044401	207 N10 E61 11D 1	4,289,742.78	665,997.34	5,403.8	Basin Fill	QTs	-	-	-	1	10/08/47	10/08/47	4.8	-	5,399.1	17	754.0222	100	8.7102E+02
Y	207	207 N10 E61 11DC 1	207 N10 E61 11DC 1	4,289,203.22	666,342.35	5,379.8	Basin Fill	QTs	127	50-127	-	1	10/15/47	10/15/47	4.0	-	5,375.8	17	57.1022	2,500	2.5741E+03
Y	207	384323115041801	207 N10 E61 13CD 1 USGS-MX	4,287,801.76	667,559.99	5,383.9	Basin Fill	QTs	51	50-51	-	3	07/15/80	01/01/81	42.3	-	5,341.5	0.777777779	2,082.0909	100	2.1829E+03
Y	207	207 N10 E61 20A 1	207 N10 E61 20A 1	4,286,918.97	661,713.74	5,369.8	Basin Fill	QTs	-	-	-	1	07/15/79	07/15/79	22.0	-	5,347.8	17	90.4545	2,500	2.6075E+03
Y	207	384304115074001	207 N10 E61 21AB 1	4,287,114.71	662,693.61	5,369.5	Basin Fill	QTs	-	-	-	2	07/15/79	03/21/90	21.7	-	5,347.8	0.112225004	1.4605	625	6.2657E+02
Y	207	382659115054101	207 N10 E61 26B 1	4,285,655.48	665,212.61	5,403.8	Basin Fill	QTs	-	-	-	1	10/16/47	10/16/47	8.9	-	5,394.9	17	344.9034	100	4.6190E+02

Table A.2-1
Steady-State Water-Level Data Set and Additional Wells or Springs Used for Control
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SS Well	HA	Site No.	Station Name	UTM N (m)	UTM E (m)	Ref. Pt. Elev. (ft-amsl)	Site Type	HGU	Well Depth (ft-bgs)	Open Interval (ft-bgs)	Excluded Data Flag	No. of Meas.	POR-Start Date	POR-End Date	Mean DTW (ft-bgs)	Q Elev.	Mean Elev. (ft-amsl)	V. Sample Mean (ft^2)	V. of Vertical Error (ft^2)	V. Land Surface (ft^2)	Total Var (ft^2)
Y	207	384149115082501	207 N10 E61 29BD 1	4,284,780.55	661,653.70	5,351.8	Basin Fill	QTs	53	50-53	-	1	03/21/90	03/21/90	17.8	-	5,333.9	17	13.6039	100	1.3060E+02
Y	207	382615115060201	207 N10 E61 34A 1	4,283,980.32	664,739.76	5,403.8	Basin Fill	QTs	-	-	-	2	10/15/47	10/16/47	5.0	-	5,398.8	1.060900006	0.0001	100	1.0106E+02
Y	207	384517115003901	207 N10 E62 04DB 1 USBLM	4,291,429.34	672,772.61	5,664.0	Basin Fill	QTs	155	105-155	-	3	10/11/68	03/21/90	93.5	-	5,570.5	17.17293334	127.4959	100	2.4467E+02
N	207	207 N10 E62 06CB 1	207 N10 E62 06CB 1 Ruppes Boghole	4,291,154.29	668,880.34	5,454.0	Spring	-	-	-	-	-	-	-	-	>	5,454.0	-	-	-	-
Y	207	207 N10 E62 17AAD 1	207 N10 E62 17AAD 1	4,288,802.48	671,712.33	5,766.0	Basin Fill	QTs	-	-	-	1	07/15/79	07/15/79	259.0	-	5,507.0	17	487.0809	2,500	3.0041E+03
Y	207	384228115011201	207 N10 E62 17ADD 1 USBLM	4,286,202.21	672,088.65	5,766.1	Basin Fill	QTs	-	-	-	2	08/21/84	03/21/90	251.9	-	5,514.2	1.357225001	1,192.7446	100	1.2941E+03
Y	207	384304115023201	207 N10 E62 19AD 1	4,287,270.43	670,132.48	5,633.9	Basin Fill	QTs	-	-	-	2	07/15/79	03/23/90	148.2	-	5,485.8	0.705599997	304.3227	100	4.0503E+02
N	207	207 N10 E62 19CC 1	207 N10 E62 19CC 1 Blind Spring	4,285,968.65	668,723.64	5,465.2	Spring	-	-	-	-	-	-	-	-	>	5,465.2	-	-	-	-
N	207	207 N10 E62 31BC 1	207 N10 E62 31BC 1 Dee Gee Spring	4,283,761.77	668,767.25	5,440.0	Spring	-	-	-	-	-	-	-	-	>	5,440.0	-	-	-	-
Y	207	207 N10 E62 31CB1	207 N10 E62 31CB1	4,283,215.63	668,789.30	5,497.2	Carbonate Well	MOc	-	-	-	1	-	-	12.2	-	5,485.0	17	2,166.0723	625	2.8081E+03
Y	207	385142115055501	207 N11 E61 01AB 1 Bird Scat Well	4,301,768.33	668,005.71	5,534.0	Basin Fill	QTs	-	-	-	2	07/26/04	07/25/05	32.1	-	5,501.9	0.002499998	4.1088	625	6.2911E+02
Y	207	207 N11 E61 04CAA 1	207 N11 E61 04CAA 1	4,301,005.16	662,855.87	5,583.9	Basin Fill	QTs	90	50-90	-	1	07/15/79	07/15/79	21.0	-	5,562.9	17	68.6218	2,500	2.5856E+03
Y	207	383318115070001	207 N11 E61 16D 1	4,296,961.49	663,119.53	5,463.8	Basin Fill	QTs	82	50-82	-	1	02/26/48	02/26/48	27.6	-	5,436.2	17	297.9301	100	4.1493E+02
Y	207	207 N11 E61 16D 1	207 N11 E61 16D 1	4,297,418.49	663,396.87	5,473.8	Basin Fill	QTs	82	50-82	-	1	07/15/79	07/15/79	4.0	-	5,469.8	17	6.6405	2,500	2.5236E+03
Y	207	384739115064701	207 N11 E61 16DDA 1 USBLM	4,295,618.51	663,798.82	5,446.8	Basin Fill	QTs	-	-	-	1	08/22/84	08/22/84	28.4	-	5,418.4	17	1.9459	625	6.4395E+02
Y	207	384309115045901	207 N11 E61 23AA 1	4,287,349.38	666,578.86	5,364.9	Basin Fill	QTs	-	-	-	1	03/21/90	03/21/90	2.9	-	5,362.0	17	4.7203	100	1.2172E+02
Y	207	207 N11 E61 25B 1	207 N11 E61 25B 1	4,295,054.10	667,544.58	5,443.8	Basin Fill	QTs	-	-	-	1	07/15/79	07/15/79	15.0	-	5,428.8	17	4.8420	2,500	2.5218E+03
Y	207	384713115034801	207 N11 E61 25BC 1 USBLM	4,294,907.39	668,134.44	5,430.9	Basin Fill	QTs	-	-	-	1	03/23/90	03/23/90	6.5	-	5,424.4	17	4.9453	625	6.4695E+02
Y	207	207 N11 E61 25BC 1	207 N11 E61 25BC 1 wilson meadows west	4,294,892.63	667,382.63	5,443.9	Basin Fill	QTs	-	-	-	2	08/07/03	07/26/04	16.1	-	5,427.8	0.025600005	0.5157	625	6.2554E+02
Y	207	207 N11 E61 27ABA 1	207 N11 E61 27ABA 1	4,295,354.66	664,959.78	5,443.8	Basin Fill	QTs	-	-	-	1	07/15/79	07/15/79	12.0	-	5,431.8	17	12.7981	2,500	2.5298E+03
Y	207	384729115062501	207 N11 E61 27BA 1 USGS-MX	4,295,321.21	664,335.99	5,440.8	Basin Fill	QTs	161	50-161	-	2	01/01/81	09/05/91	12.6	-	5,428.2	0.180625003	4.8058	1,225	1.2300E+03
Y	207	383122115083701	207 N11 E61 32B 1	4,293,335.70	660,910.10	5,437.0	Basin Fill	QTs	48	-	-	2	10/29/47	07/15/79	41.3	-	5,395.7	2.890000001	332.1312	625	9.6002E+02
Y	207	384615115045801	207 N11 E61 35ACC 1	4,293,083.76	666,482.91	5,420.8	Basin Fill	QTs	-	-	-	1	08/22/84	08/22/84	11.2	-	5,409.6	17	8.7455	100	1.2575E+02
Y	207	384640115045001	207 N11 E61 35ACCD1 Public Domain Well 25	4,293,083.76	666,482.91	5,420.8	Basin Fill	QTs	44	-	Y	49	09/18/53	07/25/05	10.7	-	5,410.2	0.071586364	8.7455	100	1.0882E+02
Y	207	383049115044901	207 N11 E61 35D 1	4,292,708.26	666,225.16	5,403.8	Basin Fill	QTs	171	50-171	-	2	02/15/45	07/15/79	14.5	-	5,389.4	0.302500002	0.1185	100	1.0042E+02
N	207	385158115000401	207 N11 E62 04AABA1 Lund Spring	4,302,019.10	673,265.69	5,607.8	Spring	-	-	-	-	-	-	-	-	>	5,607.8	-	-	-	-
Y	207	384925115002301	207 N11 E62 04AB 1	4,301,837.30	672,863.61	5,583.0	Basin Fill	QTs	298	79-298	-	2	10/04/66	08/22/84	65.1	-	5,517.9	34.869025	528.9528	625	1.1888E+03
Y	207	384938115002301	207 N11 E62 04AB 2	4,301,837.30	672,863.61	5,583.0	Basin Fill	QTs	150	50-150	-	1	08/22/84	08/22/84	34.4	-	5,548.6	17	528.9528	625	1.1710E+03
Y	207	384919115004901	207 N11 E62 04B 2 Lund Cemetery	4,301,612.51	672,281.82	5,563.9	Basin Fill	QTs	98	45-98	-	3	02/20/61	03/21/90	44.1	-	5,519.8	9.625677778	451.4812	625	1.0861E+03
Y	207	384927115005901	207 N11 E62 04BB 1	4,301,806.44	672,061.44	5,531.8	Basin Fill	QTs	200	20-200	-	2	05/06/52	08/21/84	18.1	-	5,513.7	15.1321	152.2982	625	7.9243E+02
Y	207	207 N11 E62 04BBC 1	207 N11 E62 04BBC 1	4,301,706.46	671,992.85	5,534.9	Basin Fill	QTs	55	50-55	-	1	08/15/79	08/15/79	22.0	-	5,512.9	17	473.8049	2,500	2.9908E+03
Y	207	383513115023501	207 N11 E62 06D 1	4,300,745.75	669,881.56	5,494.9	Basin Fill	QTs	12	-	-	2	10/08/47	07/15/79	1.8	-	5,493.1	0.032399993	5.7418	625	6.3077E+02
Y	207	383501115030401	207 N11 E62 07B 1	4,300,105.37	665,997.88	5,492.9	Basin Fill	QTs	-	-	-	1	09/09/47	09/09/47	18.4	-	5,474.5	17	567.5990	100	6.8460E+02
Y	207	384748115014801	207 N11 E62 08BDD 1	4,296,048.26	671,006.67	5,487.9	Basin Fill	QTs	-	-	-	2	08/21/84	03/21/90	7.5	-	5,480.4	0.342225	3.9437	100	1.0429E+02
Y	207	384738115015801	207 N11 E62 17CC 1	4,295,734.79	670,772.05	5,463.9	Basin Fill	QTs	52	20-52	-	1	03/15/61	03/15/61	25.0	-	5,438.9	17	4.6371	100	1.2164E+02

Table A.2-1
Steady-State Water-Level Data Set and Additional Wells or Springs Used for Control
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SS Well	HA	Site No.	Station Name	UTM N (m)	UTM E (m)	Ref. Pt. Elev. (ft-amsl)	Site Type	HGU	Well Depth (ft-bgs)	Open Interval (ft-bgs)	Excluded Data Flag	No. of Meas.	POR-Start Date	POR-End Date	Mean DTW (ft-bgs)	Q Elev.	Mean Elev. (ft-amsl)	V. Sample Mean (ft^2)	V. of Vertical Error (ft^2)	V. Land Surface (ft^2)	Total Var (ft^2)
Y	207	207 N11 E62 19C 1	207 N11 E62 19C 1	4,295,895.66	669,147.56	5,445.9	Basin Fill	QTs	-	-	-	1	01/15/48	01/15/48	7.0	-	5,438.9	17	1.5600	2,500	2.5186E+03
Y	207	384735115010801	207 N11 E62 20AD 1	4,295,668.38	671,980.38	5,533.9	Basin Fill	QTs	100	50-100	-	4	12/30/76	03/21/90	37.9	-	5,496.0	1.537650003	135.8290	100	2.3737E+02
Y	207	207 N11 E62 20BBC 1	207 N11 E62 20BBC 1	4,296,777.30	670,490.66	5,458.9	Basin Fill	QTs	6	-	-	1	08/15/79	08/15/79	6.0	-	5,452.9	17	37.4397	2,500	2.5544E+03
N	207	207 N11 E62 21BC 1	207 N11 E62 21BC 1 Unnamed Spring	4,296,638.44	672,012.08	5,541.0	Spring	-	-	-	-	-	-	-	-	>	5,541.0	-	-	-	-
Y	207	207 N11 E62 28A 1	207 N11 E62 28A 1	4,295,174.32	673,215.12	5,642.9	Basin Fill	QTs	43	-	-	1	07/15/79	07/15/79	43.0	-	5,599.9	17	741.6576	2,500	3.2587E+03
Y	207	207 N11 E62 28AAB 1	207 N11 E62 28AAB 1	4,295,474.88	673,295.27	5,653.9	Basin Fill	QTs	10	-	-	1	08/15/79	08/15/79	7.0	-	5,646.9	17	353.0365	2,500	2.8700E+03
Y	207	383100115002401	207 N11 E62 33D 1	4,292,722.52	672,672.04	5,504.0	Basin Fill	QTs	128	50-128	-	1	10/15/48	10/15/48	7.0	-	5,497.0	17	2,518.4794	100	2.6355E+03
Y	207	384549115000801	207 N11 E62 33DD 1	4,292,432.14	673,499.39	5,665.0	Basin Fill	QTs	255	68-80/110-120	-	3	09/30/66	03/22/90	33.5	-	5,631.5	12.33843334	2,503.5530	100	2.6159E+03
Y	207	385524115105801	207 N12 E60 01CC 1	4,309,830.57	657,457.79	6,064.1	Volcanic	Tv	76	76-558	-	2	08/22/84	03/20/90	11.1	-	6,053.0	6.027025007	65.6571	100	1.7168E+02
Y	207	207 N12 E60 09AD 1	207 N12 E60 09AD 1	4,309,139.00	653,664.75	6,264.5	Volcanic	Tv	203	101-203	-	1	09/15/99	09/15/99	20.0	-	6,244.5	17	142.8305	625	7.8483E+02
Y	207	383957115111901	207 N12 E60 11A 1	4,309,411.12	656,526.52	6,140.8	Volcanic	Tv	20.5	-	-	1	12/01/47	12/01/47	16.1	-	6,124.7	17	26,237.7395	625	2.6880E+04
Y	207	385201115154501	207 N12 E60 22CC 1 USBLM	4,305,157.67	654,248.52	6,263.9	Basin Fill	QTs	200	160-200	-	2	12/02/56	03/20/90	120.9	-	6,143.0	17.2225	43.2063	625	6.8543E+02
Y	207	385226115124201	207 N12 E60 27ACBD1 USBLM	4,304,293.69	655,060.82	6,241.2	Basin Fill	QTs	325	130-325	Y	19	12/24/57	03/25/97	108.3	-	6,132.9	0.738852785	0.0341	100	1.0077E+02
Y	207	385531115033501	207 N12 E61 01DDB 1	4,310,266.39	668,121.79	5,663.9	Basin Fill	QTs	220	105-218	-	3	10/16/66	03/20/90	93.8	-	5,570.1	5.370711111	51.4148	100	1.5679E+02
N	207	385540115045701	207 N12 E61 02ACAB1 Preston Big Spring	4,311,152.96	666,296.17	5,732.2	Spring	-	-	-	-	-	-	-	-	>	5,732.2	-	-	-	-
Y	207	207 N12 E61 06DD 1	207 N12 E61 06DD 1	4,310,130.00	660,077.75	6,435.8	Basin Fill	QTs	127	87-127	-	1	12/15/76	12/15/76	60.0	-	6,375.8	17	9,574.9018	625	1.0217E+04
Y	207	207 N12 E61 11AC 1	207 N12 E61 11AC 1	4,309,366.61	666,247.66	5,683.8	Basin Fill	QTs	395	115-215/235-255/ 275-295/315-335/ 355-395	-	1	12/15/03	12/15/03	135.0	-	5,548.8	17	5,482.5367	625	6.1245E+03
N	207	385507114574801	207 N12 E61 12BDAD1 Cold Springs	4,309,453.56	667,609.00	5,653.2	Spring	-	-	-	-	-	-	-	-	>	5,653.2	-	-	-	-
Y	207	383929115035101	207 N12 E61 12D 1	4,308,934.10	667,836.91	5,621.9	Basin Fill	QTs	69.5	50-69.5	-	1	10/28/47	10/28/47	60.5	-	5,561.4	17	13,396.5768	100	1.3514E+04
Y	207	385447115033601	207 N12 E61 12DAC 1	4,308,909.42	668,126.60	5,635.9	Basin Fill	QTs	158	50-158	-	2	08/21/84	03/20/90	65.8	-	5,570.1	0.011024997	2.9153	100	1.0293E+02
N	207	385530115044601	207 N12 E61 12DBDD1 Nicholas Spring	4,308,847.24	668,103.81	5,634.9	Spring	-	-	-	-	-	-	-	-	>	5,634.9	-	-	-	-
N	207	385539115045702	207 N12 E61 12DCCD1 Spring (Preston Irr)	4,308,473.21	667,918.99	5,624.8	Spring	-	-	-	-	-	-	-	-	>	5,624.8	-	-	-	-
Y	207	383914115034901	207 N12 E61 13A 1	4,308,259.97	668,044.01	5,616.1	Basin Fill	QTs	72	50-72	-	1	11/24/47	11/24/47	62.2	-	5,553.9	17	1,715.9275	625	2.3579E+03
Y	207	385414115033401	207 N12 E61 13A 2	4,307,893.10	668,196.40	5,610.9	Basin Fill	QTs	-	-	-	2	08/16/84	03/20/90	68.7	-	5,542.2	4.040100001	307.4463	100	4.1149E+02
Y	207	383835115042501	207 N12 E61 13D 1	4,307,427.62	668,061.70	5,606.0	Basin Fill	QTs	184	50-184	-	1	12/12/47	12/12/47	58.3	-	5,547.7	17	375.6068	625	1.0176E+03
Y	207	385049115055101	207 N12 E61 34ADB 1 USBLM	4,301,503.80	665,027.92	5,551.9	Basin Fill	QTs	-	-	-	3	06/15/47	03/20/90	60.4	-	5,491.4	2.034977777	8.3984	100	1.1043E+02
Y	207	384020115012201	207 N12 E62 05D 1	4,310,486.26	671,176.91	5,642.7	Basin Fill	QTs	1300	50-1300	-	1	03/29/48	03/29/48	60.0	-	5,582.7	17	717.9190	625	1.3599E+03
Y	207	385612115025601	207 N12 E62 06BABD1	4,311,550.40	669,033.95	5,673.9	Basin Fill	QTs	161	80-161	-	1	05/01/01	05/01/01	126.0	-	5,547.9	17	0.1623	100	1.1716E+02
Y	207	207 N12 E62 10CDA 1	207 N12 E62 10CDA 1	4,308,908.50	673,765.50	5,700.9	Basin Fill	QTs	220	180-220	-	1	06/15/66	06/15/66	180.0	-	5,520.9	17	417.5561	625	1.0596E+03
Y	207	385430115011801	207 N12 E62 17AAB 1	4,308,456.81	671,461.87	5,608.9	Basin Fill	QTs	360	85-360	-	3	04/11/66	03/20/90	73.9	-	5,535.1	4.411633333	28.7327	100	1.3314E+02
Y	207	385412115012701	207 N12 E62 17ACA 1	4,307,897.19	671,257.10	5,600.9	Basin Fill	QTs	74	54-74	-	3	12/21/47	03/20/90	61.4	-	5,539.5	25.85143334	5.4652	100	1.3132E+02
Y	207	385411115012801	207 N12 E62 17ACAD1	4,307,877.14	671,306.95	5,600.9	Basin Fill	QTs	119	89-119	-	2	01/14/92	08/15/02	79.5	-	5,521.4	72.675625	0.0021	100	1.7268E+02
Y	207	385348115015001	207 N12 E62 17CDBD1	4,307,145.32	670,719.02	5,591.9	Basin Fill	QTs	110	69-110	-	2	05/05/99	09/04/03	70.9	-	5,521.0	47.61	0.0713	100	1.4768E+02
Y	207	385355115012401	207 N12 E62 17DBD 1	4,307,374.67	671,340.73	5,592.9	Basin Fill	QTs	95	57-95	-	3	06/15/47	08/15/84	59.9	-	5,533.0	21.61	3.7231	100	1.2533E+02
Y	207	385349115022201	207 N12 E62 18D 2	4,307,159.52	669,947.42	5,581.9	Basin Fill	QTs	-	-	-	1	08/16/84	08/16/84	49.4	-	5,532.5	17	219.1498	100	3.3615E+02
Y	207	385350115022201	207 N12 E62 18DD 1	4,307,190.35	669,946.76	5,581.9	Basin Fill	QTs	-	-	-	1	08/16/84	08/16/84	49.4	-	5,532.5	17	5.2131	100	1.2221E+02

Table A.2-1
Steady-State Water-Level Data Set and Additional Wells or Springs Used for Control
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SS Well	HA	Site No.	Station Name	UTM N (m)	UTM E (m)	Ref. Pt. Elev. (ft-amsl)	Site Type	HGU	Well Depth (ft-bgs)	Open Interval (ft-bgs)	Excluded Data Flag	No. of Meas.	POR-Start Date	POR-End Date	Mean DTW (ft-bgs)	Q Elev.	Mean Elev. (ft-amsl)	V. Sample Mean (ft^2)	V. of Vertical Error (ft^2)	V. Land Surface (ft^2)	Total Var (ft^2)
Y	207	385400115024001	207 N12 E62 18DDAA1 USGS Well 24	4,307,132.32	670,116.72	5,578.9	Basin Fill	QTs	105	No perforations	Y	34	12/18/47	04/12/04	50.2	-	5,528.7	0.489991884	1.3947	100	1.0188E+02
Y	207	383816115032301	207 N12 E62 19B 1	4,306,604.99	668,537.16	5,577.9	Basin Fill	QTs	54	50-54	-	1	07/17/47	07/17/47	42.6	-	5,535.3	17	427.2868	100	5.4429E+02
Y	207	383818115021701	207 N12 E62 20B 1	4,306,704.87	670,318.75	5,564.5	Basin Fill	QTs	32	-	-	1	03/30/48	03/30/48	30.8	-	5,533.7	17	652.1905	100	7.6919E+02
Y	207	383743115020901	207 N12 E62 20C 1	4,305,755.96	670,652.58	5,553.9	Basin Fill	QTs	31	-	-	1	03/30/48	03/30/48	30.7	-	5,523.3	17	17.8571	100	1.3486E+02
Y	207	385120115031901	207 N12 E62 20CCC 1	4,302,536.73	668,672.08	5,558.9	Basin Fill	QTs	-	-	-	2	08/15/84	03/20/90	31.4	-	5,527.5	11.323225	6.7775	100	1.1810E+02
Y	207	383743115012701	207 N12 E62 20D 1	4,305,586.12	671,355.39	5,560.1	Basin Fill	QTs	34	-	-	1	07/17/47	07/17/47	23.9	-	5,536.2	17	570.0680	100	6.8707E+02
Y	207	385120115022301	207 N12 E62 20DDD 1	4,302,565.62	670,022.02	5,564.9	Basin Fill	QTs	182	50-182	-	2	08/15/84	03/20/90	33.5	-	5,531.4	13.7641	2.5414	100	1.1631E+02
Y	207	385134115014701	207 N12 E62 21CAD 1	4,303,015.89	670,880.51	5,603.9	Basin Fill	QTs	375	70-375	-	3	07/01/73	03/20/90	75.3	-	5,528.6	25.53934445	1.8482	100	1.2739E+02
Y	207	207 N12 E62 28BB 1	207 N12 E62 28BB 1	4,305,052.68	671,972.81	5,579.9	Basin Fill	QTs	207	50-207	-	1	01/15/64	01/15/64	40.0	-	5,539.9	17	38.8382	2,500	2.5558E+03
Y	207	383723115022201	207 N12 E62 29B 1	4,304,853.63	670,286.30	5,556.4	Basin Fill	QTs	112	50-112	-	1	07/17/47	07/17/47	25.8	-	5,530.6	17	292.3357	100	4.0934E+02
Y	207	207 N12 E62 29BB 1	207 N12 E62 29BB 1	4,305,012.61	670,369.83	5,563.9	Basin Fill	QTs	200	50-200	-	1	02/15/77	02/15/77	30.0	-	5,533.9	17	12.5287	2,500	2.5295E+03
Y	207	207 N12 E62 30AB 1	207 N12 E62 30AB 1	4,304,992.57	669,568.34	5,563.9	Basin Fill	QTs	196	50-196	-	1	04/15/74	04/15/74	42.0	-	5,521.9	17	26.0160	2,500	2.5430E+03
Y	207	383723115032301	207 N12 E62 30B 1	4,304,576.00	668,845.64	5,562.3	Basin Fill	QTs	-	-	-	1	09/09/47	09/09/47	37.3	-	5,525.0	17	257.6284	100	3.7463E+02
Y	207	383656115031701	207 N12 E62 30C 1	4,303,805.28	668,862.08	5,543.9	Basin Fill	QTs	50	-	-	1	09/30/47	09/30/47	21.9	-	5,522.0	17	152.5044	100	2.6950E+02
Y	207	383658115023801	207 N12 E62 30D 1	4,303,757.05	669,490.05	5,535.6	Basin Fill	QTs	-	-	-	1	07/16/47	07/16/47	15.1	-	5,520.5	17	306.5241	100	4.2352E+02
Y	207	207 N12 E62 31AA 1	207 N12 E62 31AA 1	4,303,389.59	670,029.20	5,523.9	Basin Fill	QTs	116	50-116	-	1	05/15/48	05/15/48	10.0	-	5,513.9	17	5.5923	2,500	2.5226E+03
Y	207	385055115025501	207 N12 E62 31BAC 1	4,301,778.36	669,267.10	5,533.9	Basin Fill	QTs	105	50-105	-	2	08/16/84	03/20/90	21.3	-	5,512.6	5.382400002	0.2749	100	1.0566E+02
Y	207	383607115023801	207 N12 E62 31D 1	4,302,586.09	669,539.22	5,520.9	Basin Fill	QTs	178	50-178	-	1	02/18/48	02/18/48	11.9	-	5,509.0	17	546.2835	100	6.6328E+02
Y	207	383642115012201	207 N12 E62 32A 1	4,303,546.22	671,158.43	5,534.6	Basin Fill	QTs	-	-	-	1	12/12/47	12/12/47	4.6	-	5,530.0	17	151.2825	100	2.6828E+02
Y	207	385058115010901	207 N12 E62 32AAD 1	4,301,925.91	671,820.55	5,532.9	Basin Fill	QTs	-	-	-	2	08/16/84	03/20/90	11.6	-	5,521.4	8.381024994	18.4736	100	1.2685E+02
Y	207	385056115014101	207 N12 E62 32BDA 1	4,301,847.56	671,050.43	5,528.9	Basin Fill	QTs	120	40-120	-	3	12/01/51	03/20/90	11.4	-	5,517.5	5.766577774	1.4737	100	1.0724E+02
Y	207	383638115001701	207 N12 E62 33A 1	4,303,461.72	672,944.74	5,598.0	Basin Fill	QTs	48	-	-	1	11/06/47	11/06/47	40.5	-	5,557.5	17	12,198.2773	100	1.2315E+04
Y	207	385101115002401	207 N12 E62 33ABD 1	4,302,042.03	672,903.38	5,588.9	Basin Fill	QTs	770	40-770	-	3	10/25/66	03/20/90	25.6	-	5,563.3	3.921633333	96.0557	100	1.9998E+02
Y	207	385130115002701	207 N12 E62 33ACCD1 Lund Intermediate School	4,302,934.48	672,811.56	5,563.9	Basin Fill	QTs	126	86-126	-	1	02/27/89	02/27/89	12.0	-	5,551.9	17	1.5089	100	1.1851E+02
Y	207	385037115001501	207 N12 E62 33ADC 1	4,302,934.77	673,132.47	5,598.2	Basin Fill	QTs	34	-	-	2	08/22/84	03/20/90	29.7	-	5,568.5	3.822024997	966.5572	625	1.5954E+03
Y	207	383638115010602	207 N12 E62 33B 1	4,303,502.87	672,003.38	5,531.4	Basin Fill	QTs	-	-	-	1	09/30/47	09/30/47	6.7	-	5,524.7	17	947.5758	100	1.0646E+03
Y	207	383605115004801	207 N12 E62 33D 1	4,302,352.42	672,993.08	5,566.7	Basin Fill	QTs	-	-	-	2	07/23/47	06/15/75	20.8	-	5,546.0	7.5625	51,538.0702	625	5.2171E+04
Y	207	390127115155301	207 N13 E60 06AA 1	4,320,882.58	650,140.25	6,529.3	Basin Fill	QTs	-	-	-	2	08/22/84	03/19/90	41.2	-	6,488.1	55.95039999	532.5929	100	6.8854E+02
Y	207	385733115120501	207 N13 E60 26CBA 1	4,313,775.36	655,765.79	6,091.2	Basin Fill	QTs	212	50-212	-	3	07/10/61	03/19/90	6.7	-	6,084.5	2.873677777	18.7376	100	1.2161E+02
Y	207	207 N13 E60 26DA 1	207 N13 E60 26DA 1	4,313,646.26	656,846.59	6,104.1	Basin Fill	QTs	107	50-107	-	1	07/15/78	07/15/78	12.0	-	6,092.1	17	128.3554	2,500	2.6454E+03
Y	207	385954115071901	207 N13 E61 09D 2	4,318,261.16	662,560.25	6,039.0	Volcanic	Tv	153	34-150	-	3	01/01/63	03/20/90	36.2	-	6,002.8	0.404399998	2,243.4876	100	2.3439E+03
N	207	207 N13 E61 17BC 1	207 N13 E61 17BC 1 Badger Hole Spring	4,317,218.74	660,498.55	6,141.9	Spring	-	-	-	-	-	-	-	-	>	6,141.9	-	-	-	-
Y	207	385801115043701	207 N13 E61 23DD 1	4,314,858.97	666,531.11	5,778.9	Basin Fill	Tv	225	50-225	-	2	08/21/84	03/20/90	5.6	-	5,773.3	0.921599999	11.2783	100	1.1220E+02
Y	207	384236115025101	207 N13 E61 25A 1 USBLM	4,314,486.28	667,863.37	5,750.6	Basin Fill	QTs	36.5	-	-	1	03/29/48	03/29/48	35.1	-	5,715.5	17	1,205.6602	625	1.8477E+03
Y	207	207 N13 E61 31BD 1	207 N13 E61 31BD 1	4,312,425.00	659,188.31	5,965.5	Volcanic	QTs, Tv	163	82-163	-	1	11/15/99	11/15/99	43.0	-	5,922.5	17	402.9397	625	1.0449E+03
Y	207	207 N13 E61 32BA 1	207 N13 E61 32BA 1	4,312,898.18	660,874.72	5,850.6	Basin Fill	Tv	80	50-78	-	1	07/15/61	07/15/61	35.0	-	5,815.6	17	163.8552	625	8.0586E+02
Y	207	207 N13 E62 10DD 1	207 N13 E62 10DD 1	4,318,325.55	674,553.83	6,084.0	Basin Fill	QTs	401	321-395	-	1	07/15/65	07/15/65	321.0	-	5,763.0	17	599.8594	625	1.2419E+03
Y	207	207 N13 E62 29BA 1	207 N13 E62 29BA 1	4,314,631.62	670,590.32	5,756.3	Basin Fill	QTs	160	50-160	-	1	12/15/79	12/15/79	55.0	-	5,701.3	17	75.4069	625	7.1741E+02

Table A.2-1
Steady-State Water-Level Data Set and Additional Wells or Springs Used for Control
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SS Well	HA	Site No.	Station Name	UTM N (m)	UTM E (m)	Ref. Pt. Elev. (ft-amsl)	Site Type	HGU	Well Depth (ft-bgs)	Open Interval (ft-bgs)	Excluded Data Flag	No. of Meas.	POR-Start Date	POR-End Date	Mean DTW (ft-bgs)	Q Elev.	Mean Elev. (ft-amsl)	V. Sample Mean (ft^2)	V. of Vertical Error (ft^2)	V. Land Surface (ft^2)	Total Var (ft^2)
Y	207	385636115012201	207 N13 E62 32DA 1 USGS-MX	4,312,339.08	671,281.26	5,712.9	Basin Fill	QTs	200	50-200	-	2	01/01/81	09/05/91	158.4	-	5,554.5	0.330624998	74.7839	1,225	1.3001E+03
Y	207	207 N14 E60 01CD1	207 N14 E60 01CD1	4,329,548.41	657,562.51	6,430.3	Carbonate Well	MOc	-	-	-	1	-	-	621.3	-	5,809.0	17	2,834.9149	625	3.4770E+03
Y	207	207 N14 E60 04AB 1	207 N14 E60 04AB 1	4,329,699.38	652,991.22	6,802.8	Basin Fill	QTs	150	100-150	-	1	12/15/69	12/15/69	120.0	-	6,682.8	17	514.8244	625	1.1568E+03
Y	207	207 N14 E61 09C 1	207 N14 E61 09C 1	4,328,123.27	662,143.77	6,304.1	Basin Fill	QTs	365	50-365	-	1	06/15/38	06/15/38	350.0	-	5,954.1	17	3,997.6116	2,500	6.5146E+03
Y	207	390452115072401	207 N14 E61 10CCDB1 USBLM	4,327,954.20	663,561.94	6,063.9	Basin Fill	QTs	365	50-365	-	4	03/22/90	07/30/04	273.6	-	5,790.4	0.017008334	43.2976	625	6.6831E+02
Y	207	390235115060101	207 N14 E61 27C 1	4,323,263.52	664,333.04	5,954.0	Volcanic	Tv	318	190-318	Y	2	06/24/58	03/19/90	178.7	-	5,775.3	1.742400002	5,185.3619	100	5.2871E+03
N	207	390222115030501	207 N14 E62 31B 1 USBLM	4,321,496.19	668,267.41	6,004.0	Basin Fill	QTs	185	50-185	-	-	-	-	-	<	5,819.0	-	-	-	-
Y	207	207 N16 E61 23CA 1	207 N16 E61 23CA 1	4,344,670.00	665,875.75	6,941.1	Basin Fill	QTs	1020	970-1010	-	1	09/15/96	09/15/96	400.0	-	6,541.1	17	6,523.9942	625	7.1660E+03
Y	207	207 N16 E62 20CB 1	207 N16 E62 20CB 1	4,344,798.00	670,382.63	6,864.2	Carbonate Well	PPPc	485	435-475	-	1	09/15/96	09/15/96	400.0	-	6,464.2	17	1,075.3983	625	1.7174E+03
Y	207	207 N16 E62 30CC 1	207 N16 E62 30CC 1	4,342,758.50	668,795.56	6,688.2	Basin Fill	QTs	797	756-776	-	1	09/15/95	09/15/95	535.0	-	6,153.2	17	453.7145	625	1.0957E+03
Y	208	208 N01 E62 14DD 1	208 N01 E62 14DD 1	4,201,133.00	677,208.69	4,914.7	Basin Fill	QTs	1042	800-1042	-	1	09/15/80	09/15/80	690.0	-	4,224.7	17	10,849.9208	625	1.1492E+04
N	208	374451114575801	208 N02 E63 31B 1	4,207,036.34	679,228.65	6,003.4	Basin Fill	QTs	800	50-800	-	-	-	-	-	<	5,203.4	-	-	-	-
Y	208	374218115031501	208 N03 E62 08C 1 USBLM	4,222,072.76	671,468.22	5,063.5	Basin Fill	QTs	-	-	-	1	05/01/63	05/01/63	216.5	-	4,847.0	17	122,520.1375	625	1.2316E+05
Y	208	208 N03 E62 17AB 1	208 N03 E62 17AB 1	4,221,499.00	672,040.63	5,053.4	Basin Fill	QTs	350	150-350	-	1	03/15/74	03/15/74	252.0	-	4,801.4	17	109.0811	625	7.5108E+02
Y	208	380736115023501	208 N03 E62 17B 1 USBLM	4,221,671.56	671,452.32	5,039.5	Basin Fill	QTs	205	50-205	-	2	05/01/63	05/01/63	217.0	-	4,822.5	0.25	104.2343	100	2.0448E+02
Y	208	208 N03 E62 27 1	208 N03 E62 27 1	4,217,767.00	674,898.19	4,975.9	Basin Fill	QTs	357	320-357	-	1	08/15/58	08/15/58	260.0	-	4,715.9	17	2,123.2571	625	2.7653E+03
Y	208	380450114594201	208 N03 E62 35B 1 USBLM	4,216,644.64	675,775.48	4,979.3	Basin Fill	QTs	270	50-270	-	16	05/08/63	09/21/94	255.5	-	4,723.8	3.036025182	43.9495	625	6.7199E+02
Y	208	373924115003101	208 N03 E62 35B 2 USBLM	4,216,557.95	676,045.48	4,955.6	Basin Fill	QTs	-	-	-	1	05/08/63	05/08/63	251.8	-	4,703.8	17	1,137.2321	625	1.7792E+03
Y	208	380505114593501	208 N03 E62 35BBB 1 USBLM	4,217,110.69	675,936.03	4,960.5	Basin Fill	QTs	315	50-315	-	2	05/08/63	03/09/85	251.7	-	4,708.8	1.1664	0.1487	100	1.0132E+02
Y	208	208 N03 E62 35BBB 2	208 N03 E62 35BBB 2 Pahroc MX	4,217,087.50	675,845.10	4,965.5	Basin Fill	QTs	-	-	-	1	07/26/04	07/26/04	267.8	-	4,697.7	17	4,386.5230	625	5.0285E+03
Y	208	380914115044101	208 N04 E61 36C 1 USBLM	4,224,628.19	668,321.58	5,043.5	Basin Fill	QTs	-	-	-	2	07/23/00	07/23/00	79.4	-	4,964.1	112.890625	79.2701	100	2.9216E+02
N	208	208 N05 E62 33BB 1	208 N05 E62 33BB 1	4,236,070.56	672,336.00	5,627.2	Basin Fill	QTs	400	No casing in hole	-	-	-	-	-	<	5,627.2	-	-	-	-
N	208	374631115121901	208 S02 E60 01D 1 Well (Report R21)	4,185,247.11	658,906.45	4,003.2	Volcanic	Tv	302	50-302	-	-	-	-	-	<	3,701.2	-	-	-	-
Y	208	374525115061801	208 S02 E61 23D 2	4,180,532.61	666,856.21	4,258.1	Basin Fill	QTs	480	50-480	-	3	03/10/85	08/25/03	361.1	-	3,897.0	134.0122333	564.2470	100	7.9826E+02
Y	209	374058115113501	209 S03 E60 13DACD1	4,172,123.48	659,264.58	4,060.1	Carbonate Well	MOc	479	213-479	Y	14	05/17/66	08/25/03	193.8	-	3,866.3	6.163274293	0.0011	0.25	6.4143E+00
Y	209	374041115114501	209 S03 E60 24A 1	4,171,501.84	659,245.19	4,003.1	Basin Fill	QTs	1157	50-1157	-	1	04/01/63	04/01/63	187.0	-	3,816.1	17	801.0257	100	9.1803E+02
Y	209	373954115114501	209 S03 E60 25A 1	4,169,718.62	659,180.96	4,012.6	Basin Fill	QTs	563	128-563	-	1	03/25/52	03/25/52	139.3	-	3,873.2	17	42.6109	625	6.8461E+02
Y	209	373808115124301	209 S03 E60 35DABD1	4,166,877.92	657,691.38	3,993.1	Basin Fill	QTs	-	-	Y	42	10/25/66	10/22/02	181.9	-	3,811.2	20.84683971	1.1589	100	1.2201E+02
Y	209	209 S03 E61 22BB 1	209 S03 E61 22BB 1	4,171,853.50	664,605.50	5,004.8	Carbonate Well	MOc	1427	35-1427	-	1	06/15/65	06/15/65	860.0	-	4,144.8	17	4,383.7439	625	5.0257E+03
N	209	209 S03 E62 25AB 1	209 S03 E62 25AB 1 Pahroc Spring	4,170,480.70	678,090.60	5,403.4	Spring	-	-	-	-	-	-	-	-	>	5,403.4	-	-	-	-
Y	209	373806115125102	209 S04 E60 02A 2	4,166,453.81	657,634.14	3,965.4	Basin Fill	QTs	255	50-255	Y	13	03/23/73	12/21/92	158.4	-	3,807.0	89.99464823	1,414.6479	625	2.1296E+03
Y	209	373803115124601	209 S04 E60 02AABC1	4,166,722.41	657,620.78	3,951.1	Basin Fill	QTs	-	-	Y	46	10/25/66	06/24/03	158.6	-	3,792.6	31.81227479	2.4490	100	1.3426E+02
Y	209	373731115125101	209 S04 E60 02DBDC1	4,165,733.77	657,516.99	3,925.1	Basin Fill	QTs	-	-	-	46	10/25/66	06/24/03	51.0	-	3,874.1	0.30936925	0.2144	0.25	7.7379E-01
Y	209	209 S04 E60 04DC 1	209 S04 E60 04DC 1	4,165,550.50	654,332.25	4,184.3	Basin Fill	QTs	199	50-199	-	1	06/15/49	06/15/49	47.0	-	4,137.3	17	3,779.0489	625	4.4210E+03
Y	209	373713115125101	209 S04 E60 11A 1	4,164,832.61	657,670.83	3,919.2	Basin Fill	QTs	105	50-105	-	1	02/19/48	02/19/48	29.7	-	3,889.5	17	54.9477	625	6.9695E+02
Y	209	373628115132801	209 S04 E60 11CCCA1	4,163,774.82	656,646.66	3,903.1	Basin Fill	QTs	193	50-193	-	27	08/06/77	03/18/99	77.0	-	3,826.1	1.405773515	0.7586	100	1.0216E+02

Table A.2-1
Steady-State Water-Level Data Set and Additional Wells or Springs Used for Control
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SS Well	HA	Site No.	Station Name	UTM N (m)	UTM E (m)	Ref. Pt. Elev. (ft-amsl)	Site Type	HGU	Well Depth (ft-bgs)	Open Interval (ft-bgs)	Excluded Data Flag	No. of Meas.	POR-Start Date	POR-End Date	Mean DTW (ft-bgs)	Q Elev.	Mean Elev. (ft-amsl)	V. Sample Mean (ft^2)	V. of Vertical Error (ft^2)	V. Land Surface (ft^2)	Total Var (ft^2)
Y	209	373531115123201	209 S04 E60 14BBBB1	4,163,529.92	656,544.10	3,915.1	Basin Fill	QTs	400	50-400	Y	13	09/30/60	01/07/99	64.5	-	3,850.6	6.877354438	0.0212	0.25	7.1485E+00
N	209	373554115125201	209 S04 E60 14DBAB1 Hiko Spring	4,162,743.62	657,549.38	3,878.1	Spring-Regional	-	-	-	-	-	-	-	-	>	3,878.1	-	-	-	-
Y	209	373523115133001	209 S04 E60 23BBCA1	4,161,770.48	656,635.51	3,870.1	Basin Fill	QTs	192	40-192	-	1	03/13/90	03/13/90	22.1	-	3,848.0	17	10.2755	100	1.2728E+02
Y	209	373453115131401	209 S04 E60 23CBBB1 NV Division of Wildlife	4,161,103.36	656,630.57	3,861.8	Basin Fill	QTs	100	50-100	-	1	05/07/49	05/07/49	24.0	-	3,837.8	17	504.5089	625	1.1465E+03
Y	209	373500115133301	209 S04 E60 23CBBC1 NV Division of Wildlife	4,161,084.17	656,569.71	3,868.1	Basin Fill	QTs	385	50-385	-	2	03/13/90	01/07/99	24.6	-	3,843.5	2.371599998	0.0237	100	1.0240E+02
Y	209	373330115142002	209 S04 E60 34A 2	4,158,264.60	655,474.43	3,893.4	Basin Fill	QTs	96	50-96	Y	8	09/15/55	02/27/89	63.7	-	3,829.7	2.276599777	9.9858	625	6.3726E+02
Y	209	373339115134901	209 S04 E60 34AB 1	4,158,566.61	655,962.12	3,864.8	Basin Fill	QTs	-	-	-	1	04/01/63	04/01/63	63.0	-	3,801.8	17	370.9639	625	1.0130E+03
Y	209	373330115135101	209 S04 E60 34AD 1	4,158,169.73	656,388.76	3,843.6	Basin Fill	QTs	112	50-112	-	1	04/02/63	04/02/63	38.8	-	3,804.8	17	205.2465	625	8.4725E+02
Y	209	373803115050501	209 S04 E61 01AACB1	4,166,945.46	668,921.29	4,524.7	Basin Fill	QTs	700	50-700	Y	2	06/01/80	04/05/90	592.7	-	3,932.0	8593.29	0.3626	625	9.2187E+03
N	209	209 S04 E61 09AC 1	209 S04 E61 09AC 1	4,164,804.14	663,897.46	4,463.1	Basin Fill	QTs	-	50-300	-	-	-	-	-	<	4,163.1	-	-	-	-
Y	209	209 S04 E61 15DB 1	209 S04 E61 15DB 1	4,162,822.72	665,518.08	4,378.1	Basin Fill	QTs	-	-	-	1	02/01/77	02/01/77	670.0	-	3,708.1	17	8.3509	625	6.5035E+02
Y	209	209 S04 E61 20DA1	209 S04 E61 20DA1	4,161,057.46	662,730.40	4,248.5	Carbonate Well	MOc	-	-	-	1	-	-	605.5	-	3,643	17	150.367755	625	7.9237E+02
N	209	209 S04 E61 22CA 1	209 S04 E61 22CA 1	4,161,199.19	665,126.52	4,303.1	Basin Fill	QTs	-	50-310	-	-	-	-	-	<	3,993.1	-	-	-	-
N	209	209 S04 E61 23AD 1	209 S04 E61 23AD 1	4,161,690.51	667,563.59	4,473.2	Basin Fill	QTs	-	50-160	-	-	-	-	-	<	4,313.2	-	-	-	-
Y	209	209 S04 E61 28CAC 1	209 S04 E61 28CAC 1	4,159,506.82	663,414.66	4,233.1	Basin Fill	QTs	1314	50-1314	-	1	09/01/68	09/01/68	595.0	-	3,638.1	17	181.1906	625	8.2319E+02
Y	209	373405115090001	209 S04 E61 28CD 1	4,159,505.47	663,311.69	4,233.1	Basin Fill	QTs	1314	1200-1300	-	5	10/19/68	10/28/03	588.0	-	3,645.1	3.091710001	36.5099	0.25	3.9852E+01
N	209	209 S04 E62 07DD 1	209 S04 E62 07DD 1	4,164,174.87	670,740.20	4,643.2	Basin Fill	QTs	104	50-104	-	-	-	-	-	<	4,539.2	-	-	-	-
N	209	209 S04 E62 09DD 1	209 S04 E62 09DD 1	4,164,252.38	673,993.13	4,903.3	Basin Fill	QTs	410	50-410	-	-	-	-	-	<	4,493.3	-	-	-	-
N	209	209 S04 E62 09DD 2	209 S04 E62 09DD 2	4,164,265.80	673,993.13	4,923.3	Basin Fill	QTs	240	50-240	-	-	-	-	-	<	4,683.3	-	-	-	-
Y	209	373215115165801	209 S05 E60 05CCCB1	4,155,861.09	651,648.50	4,168.1	Basin Fill	QTs	400	50-400	-	2	04/05/90	08/26/99	273.0	-	3,895.1	8672.265625	1.3821	100	8.7736E+03
N	209	09415590	209 S05 E60 10 1 Crystal Spring nr Hiko, NV	4,155,348.60	656,167.52	3,803.0	Spring-Regional	-	-	-	-	-	-	-	-	>	3,803.0	-	-	-	-
Y	209	373202115141301	209 S05 E60 10ABCA1	4,155,550.62	655,746.04	3,838.0	Basin Fill	QTs	105	50-105	-	2	07/01/77	04/05/90	32.0	-	3,806.0	0	0.0042	100	1.0000E+02
Y	209	373158115141601	209 S05 E60 10ABCC1	4,155,430.90	655,625.76	3,841.0	Basin Fill	QTs	140	50-140	-	1	01/01/88	01/01/88	30.0	-	3,811.0	17	1.1934	100	1.1819E+02
Y	209	373158115141001	209 S05 E60 10ABCD2	4,155,433.66	655,773.04	3,834.0	Basin Fill	QTs	100	50-100	-	1	03/13/90	03/13/90	30.0	-	3,804.0	17	0.3923	100	1.1739E+02
Y	209	373157115135101	209 S05 E60 10BABB1	4,155,763.50	655,275.77	3,870.0	Basin Fill	QTs	114	50-114	-	2	09/15/53	03/14/90	64.2	-	3,805.8	0.042025	1.0667	100	1.0111E+02
Y	209	373202115142301	209 S05 E60 10BADB1	4,155,550.97	655,451.64	3,856.0	Basin Fill	QTs	219	50-219	-	1	03/14/90	03/14/90	43.1	-	3,812.9	17	1.0761	100	1.1808E+02
Y	209	373113115130401	209 S05 E60 11DBBA1	4,154,933.54	657,390.87	3,830.5	Basin Fill	QTs	145	50-145	-	1	04/05/90	04/05/90	68.5	-	3,762.0	17	973.3738	625	1.6154E+03
Y	209	373043115134901	209 S05 E60 14CB 1	4,153,131.77	656,332.01	3,845.2	Basin Fill	QTs	64.5	50-64.5	-	1	12/07/60	12/07/60	8.6	-	3,836.6	17	5,671.9520	625	6.3140E+03
Y	209	372956115122401	209 S05 E60 24BC 1	4,152,330.72	657,992.88	3,710.6	Basin Fill	QTs	25	-	-	1	02/19/48	02/19/48	12.8	-	3,697.8	17	555.0393	625	1.1970E+03
N	209	372857115124001	209 S05 E60 26DAD 1 Brownie Spring	4,149,896.81	658,088.28	3,694.8	Spring	-	-	-	-	-	-	-	-	>	3,694.8	-	-	-	-
N	209	209 S05 E61 09BD 1	209 S05 E61 09BD 1	4,155,425.95	663,608.11	4,413.1	Basin Fill	QTs	25	-	-	-	-	-	-	<	4,388.1	-	-	-	-
N	209	209 S05 E61 16CB 1	209 S05 E61 16CB 1	4,153,398.47	663,240.03	4,428.1	Volcanic	Tv	30	-	-	-	-	-	-	<	4,398.1	-	-	-	-
N	209	372749115113401	209 S06 E61 06BBBB1 Ash Springs	4,147,833.80	659,847.91	3,622.0	Spring-Regional	-	-	-	-	-	-	-	-	>	3,622.0	-	-	-	-
Y	209	209 S06 E61 07DB 1	209 S06 E61 07DB 1	4,145,297.00	661,002.94	3,656.8	Basin Fill	QTs	123	63-123	-	1	09/15/94	09/15/94	27.0	-	3,629.8	17	3,433.8449	625	4.0758E+03
Y	209	372500115104002	209 S06 E61 18DC 2	4,143,425.43	661,481.77	3,602.0	Basin Fill	QTs	41	-	-	47	12/07/60	03/19/97	9.4	-	3,592.6	0.040258104	11.2391	625	6.3628E+02
Y	209	372431115110901	209 S06 E61 19CDBC1	4,141,741.17	660,481.35	3,572.9	Basin Fill	QTs	151	131-151	-	2	07/27/96	09/10/03	86.6	-	3,486.3	0.3364	13.4729	100	1.1381E+02
Y	209	372354115054801	209 S06 E61 29CC 1 NDOT	4,140,015.02	661,871.52	3,496.4	Basin Fill	QTs	192	50-192	-	1	04/02/63	04/02/63	15.5	-	3,480.9	17	3,537.9168	625	4.1799E+03
Y	209	372417115104701	209 S06 E61 30AA 1	4,141,519.32	661,764.65	3,532.9	Basin Fill	QTs	-	-	-	1	04/03/63	04/03/63	7.3	-	3,525.6	17	86,298.7277	100	8.6416E+04

Table A.2-1
Steady-State Water-Level Data Set and Additional Wells or Springs Used for Control
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SS Well	HA	Site No.	Station Name	UTM N (m)	UTM E (m)	Ref. Pt. Elev. (ft-amsl)	Site Type	HGU	Well Depth (ft-bgs)	Open Interval (ft-bgs)	Excluded Data Flag	No. of Meas.	POR-Start Date	POR-End Date	Mean DTW (ft-bgs)	Q Elev.	Mean Elev. (ft-amsl)	V. Sample Mean (ft^2)	V. of Vertical Error (ft^2)	V. Land Surface (ft^2)	Total Var (ft^2)
Y	209	372411115105201	209 S06 E61 30ACCB1	4,140,792.85	660,868.59	3,560.9	Basin Fill	QTs	36	30-46	-	1	04/03/63	04/03/63	19.3	-	3,541.6	17	15.4248	100	1.3242E+02
Y	209	372339115104201	209 S06 E61 30DCAC1	4,140,151.30	661,176.17	3,542.9	Basin Fill	QTs	260	50-260	-	1	10/01/88	10/01/88	30.0	-	3,512.9	17	3.7809	100	1.2078E+02
Y	209	372341115104801	209 S06 E61 30DCBA1	4,140,210.09	661,027.41	3,542.9	Basin Fill	QTs	250	50-250	-	1	01/01/87	01/01/87	37.0	-	3,505.9	17	2.2028	100	1.1920E+02
Y	209	372345115083201	209 S06 E61 32AC 1	4,139,436.86	662,493.92	3,504.9	Basin Fill	QTs	44	-	-	1	04/04/63	04/04/63	22.4	-	3,482.5	17	55,958.4329	100	5.6075E+04
Y	209	372318115100201	209 S06 E61 32BA 1	4,139,530.28	662,541.32	3,525.9	Basin Fill	QTs	64	50-64	-	1	05/01/49	05/01/49	16.0	-	3,509.9	17	86,891.1995	625	8.7533E+04
Y	209	372248115101001	209 S06 E61 32CD 1 Alamo Irrigation Company	4,138,414.37	662,306.84	3,467.5	Basin Fill	QTs	97	50-97	-	3	04/04/63	01/07/99	44.1	-	3,423.4	427.3008111	0.0004	625	1.0523E+03
Y	209	372240115095101	209 S06 E61 32DC 1	4,138,367.71	663,006.86	3,468.6	Basin Fill	QTs	65	50-65	-	1	09/30/48	09/30/48	9.0	-	3,459.6	17	1,796.9192	625	2.4389E+03
Y	209	372247115093501	209 S06 E61 32DCAA1	4,138,580.58	662,855.07	3,470.9	Basin Fill	QTs	68	50-68	-	1	04/01/90	04/01/90	18.0	-	3,452.9	17	11.7685	100	1.2877E+02
Y	209	372257115100701	209 S06 E61 32DD 1	4,138,526.17	663,225.23	3,474.9	Basin Fill	QTs	185	36-56	-	1	04/03/63	04/03/63	51.7	-	3,423.2	17	123,891.3755	100	1.2401E+05
Y	209	372208115094601	209 S07 E61 05AD 1	4,138,002.69	663,260.07	3,467.9	Basin Fill	QTs	-	-	-	1	04/03/63	04/03/63	8.2	-	3,459.7	17	6,491.0790	100	6.6081E+03
Y	209	372151115103101	209 S07 E61 05CDBC1 City of Alamo	4,136,824.70	662,143.60	3,482.9	Basin Fill	QTs	64	50-64	-	1	08/13/46	08/13/46	30.0	-	3,452.9	17	0.0174	100	1.1702E+02
Y	209	372159115095101	209 S07 E61 05DC 1	4,136,981.15	662,126.01	3,489.2	Basin Fill	QTs	-	-	-	1	03/24/55	03/24/55	10.5	-	3,478.6	17	792.1727	625	1.4342E+03
Y	209	372132115095101	209 S07 E61 08AC 1	4,136,270.00	662,949.36	3,494.8	Basin Fill	QTs	70	10-70	-	1	12/15/54	12/15/54	7.0	-	3,487.8	17	691,701.2311	625	6.9234E+05
Y	209	372115115095401	209 S07 E61 08CAAD1	4,135,651.18	662,505.31	3,442.9	Basin Fill	QTs	44	-	-	2	05/14/49	12/29/98	15.5	-	3,427.4	0.2809	0.0084	100	1.0029E+02
Y	209	372005115084501	209 S07 E61 21AA 1	4,133,500.53	664,800.69	3,410.9	Basin Fill	QTs	70	50-70	-	1	02/18/47	02/18/47	11.1	-	3,399.8	17	57,389.8155	100	5.7507E+04
Y	209	372003115085301	209 S07 E61 21AC 1	4,133,059.36	664,316.93	3,439.9	Basin Fill	QTs	40	20-40	-	1	04/04/63	04/04/63	18.6	-	3,421.3	17	7,576.7049	100	7.6937E+03
N	209	209 S07 E61 21DA 1	209 S07 E61 21DA 1 Grove Spring	4,132,301.46	664,632.63	3,395.2	Spring	-	-	-	-	-	-	-	-	>	3,395.2	-	-	-	-
Y	209	209 S07 E61 27BA 1	209 S07 E61 27BA 1	4,131,666.50	665,600.25	3,440.3	Basin Fill	QTs	75	55-75	-	1	08/15/92	08/15/92	48.0	-	3,392.3	17	1,636.8355	625	2.2788E+03
Y	209	209 S07 E61 32AD 1	209 S07 E61 32AD 1	4,129,584.75	663,227.44	3,759.8	Basin Fill	QTs	260	140-260	-	1	01/15/73	01/15/73	140.0	-	3,619.8	17	22,713.5079	625	2.3356E+04
Y	209	209 S07 E61 34 1	209 S07 E61 34 1	4,129,420.00	665,817.19	3,352.7	Basin Fill	QTs	350	120-320	-	1	06/15/62	06/15/62	9.0	-	3,343.7	17	0.0000	625	6.4200E+02
Y	209	209 S07 E62 20AA 1	209 S07 E62 20AA 1	4,133,415.50	672,804.63	4,099.2	Basin Fill	QTs	695	600-695	-	2	01/15/81	06/24/03	605.7	-	3,493.5	27.8784	565.7396	625	1.2186E+03
Y	209	371711115071501	209 S08 E61 02BC 1	4,127,922.83	666,512.01	3,346.8	Basin Fill	QTs	350	50-350	-	1	04/05/63	04/05/63	12.9	-	3,333.9	17	3,194.3152	100	3.3113E+03
Y	209	371640115072001	209 S08 E61 02C 1	4,127,525.21	666,719.49	3,346.5	Basin Fill	QTs	92	50-92	-	50	03/25/52	03/02/99	24.3	-	3,322.2	0.49769698	0.0044	625	6.2550E+02
Y	209	371700115072601	209 S08 E61 02CB 1	4,127,523.63	666,593.85	3,346.8	Basin Fill	QTs	92	50-92	-	1	02/25/62	02/25/62	21.1	-	3,325.7	17	3,109.9374	100	3.2269E+03
Y	209	371707115071301	209 S08 E61 03ADCA1 USFWS	4,128,170.38	666,556.36	3,356.8	Basin Fill	QTs	164	50-164	-	1	04/04/90	04/04/90	12.2	-	3,344.7	17	0.4339	100	1.1743E+02
Y	209	371626115074201	209 S08 E61 10AD 1	4,125,887.69	666,503.17	3,339.8	Basin Fill	QTs	69	50-69	-	1	04/05/63	04/05/63	31.0	-	3,308.8	17	8,470.0754	100	8.5871E+03
Y	209	371607115071101	209 S08 E61 10ADDA1 NV Division of Wildlife	4,126,358.29	666,662.86	3,317.8	Basin Fill	QTs	100	50-100	-	1	03/13/90	03/13/90	20.0	-	3,297.8	17	0.0124	100	1.1701E+02
N	209	209 S08 E61 23BABD 1	209 S08 E61 23BABD 1 Solar Panel Spring	4,123,643.39	667,261.49	3,238.3	Spring	-	-	-	-	-	-	-	-	>	3,238.3	-	-	-	-
Y	209	371418115055101	209 S08 E61 24DC 1	4,122,366.57	669,327.08	3,198.8	Basin Fill	QTs	-	-	-	1	02/25/62	02/25/62	3.4	-	3,195.4	17	93.6522	625	7.3565E+02
Y	209	371243115050601	209 S08 E62 31CAAB1	4,119,824.52	670,560.60	3,195.8	Basin Fill	QTs	64	50-64	-	3	05/10/63	12/29/98	21.8	-	3,174.0	0.466711112	0.0101	100	1.0048E+02
Y	209	209M-1	209M-1	4,168,166.00	677,377.00	5,123.0	Carbonate Well	MOc	1615.5	1273-1595	-	1	01/19/06	01/19/06	1,200.9	-	3,922.1	17	2,079.8075	625	2.7218E+03
Y	210	370457114595401	210 S10 E62 14A 1	4,105,307.77	677,855.57	2,682.3	Basin Fill	QTs	510	50-510	-	1	01/01/76	01/01/76	416.0	-	2,266.3	17	826.8272	625	1.4688E+03
N	210	210 S10 E62 24B 1	210 S10 E62 24B 1	4,104,360.72	679,289.23	2,687.5	Basin Fill	QTs	231	50-231	-	-	-	-	-	<	2,456.5	-	-	-	-
Y	210	210 S10 E62 25 1	210 S10 E62 25 1	4,102,094.00	678,986.06	2,617.4	Basin Fill	QTs	500	460-500	-	1	07/15/77	07/15/77	360.0	-	2,257.4	17	0.0000	625	6.4200E+02
Y	210	210 S10 E62 25AD 1	210 S10 E62 25AD 1 CSVM-3	4,102,599.52	679,319.38	2,650.7	Carbonate Well	MOc	1200	380-1180	-	43	05/29/03	11/17/06	443.9	-	2,206.8	0.001740591	0.1508	0.00180625	1.5432E-01
Y	210	210 S10 E62 25CB 1	210 S10 E62 25CB 1 CSVM-7	4,101,967.98	678,233.62	2,692.2	Volcanic	QTs	607	565-607	-	31	12/17/03	11/17/06	446.1	-	2,246.1	0.001444086	0.0425	0.00180625	4.5706E-02
Y	210	210 S11 E62 04AB 1	210 S11 E62 04AB 1	4,099,315.00	674,372.13	3,070.8	Basin Fill	QTs	145	115-145	-	1	12/15/70	12/15/70	101.0	-	2,969.8	17	2,890.9353	625	3.5329E+03
Y	210	210 S11 E62 13DB 1	210 S11 E62 13DB 1	4,095,664.14	679,288.36	2,542.4	Basin Fill	QTs	-	-	-	1	-	-	14.0	-	2,528.4	17	66.4095	625	7.0841E+02

Table A.2-1
Steady-State Water-Level Data Set and Additional Wells or Springs Used for Control
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SS Well	HA	Site No.	Station Name	UTM N (m)	UTM E (m)	Ref. Pt. Elev. (ft-amsl)	Site Type	HGU	Well Depth (ft-bgs)	Open Interval (ft-bgs)	Excluded Data Flag	No. of Meas.	POR-Start Date	POR-End Date	Mean DTW (ft-bgs)	Q Elev.	Mean Elev. (ft-amsl)	V. Sample Mean (ft^2)	V. of Vertical Error (ft^2)	V. Land Surface (ft^2)	Total Var (ft^2)
Y	210	365926114591301	210 S11 E62 13DBCB1	4,095,713.37	679,071.65	2,522.4	Basin Fill	QTs	100	83-100	-	1	06/24/70	06/24/70	37.0	-	2,485.4	17	90.3136	100	2.0731E+02
Y	210	365834114590001	210 S11 E62 24DBAD1	4,094,150.85	679,399.07	2,492.4	Basin Fill	QTs	140	50-140	-	1	03/14/85	03/14/85	89.4	-	2,403.0	17	0.2807	100	1.1728E+02
Y	210	210 S11 E62 27DD 1	210 S11 E62 27DD 1	4,091,958.50	676,453.75	2,776.0	Basin Fill	QTs	80	65-80	-	1	12/19/96	12/19/96	72.0	-	2,704.0	17	1,479.2605	625	2.1213E+03
Y	210	210 S11 E63 13CB 1	210 S11 E63 13CB 1 CSVM-4	4,095,970.64	688,086.47	2,842.4	Carbonate Well	MOc	1600	800-1580	-	44	07/10/03	11/17/06	968.0	-	1,874.4	0.004698543	0.0117	0.00225625	1.8680E-02
Y	210	365232114554401	210 S12 E63 29ADCC1 USGS-MX CE-VF-1	4,083,038.00	683,024.83	2,468.3	Basin Fill	QTs	714	620-714	-	88	11/22/80	11/17/06	550.4	-	1,917.9	0.019059998	0.0002	0.00180625	2.1034E-02
Y	210	365231114564302	210 S12 E63 29ADCC2 USGS-MX	4,083,002.37	683,055.84	2,466.6	Basin Fill	QTs	570	470-560	-	3	11/22/80	02/06/86	543.8	-	1,922.8	2.614444444	49.8859	0.0025	5.2503E+01
Y	210	365227114554401	210 S12 E63 29DABC1 USGS-MX CE-VF-2	4,082,892.14	683,007.13	2,468.4	Carbonate Well	MOc	860	860-1221	-	112	07/11/81	11/17/06	611.0	-	1,857.4	0.027475482	0.0004	0.00198025	2.9817E-02
Y	210	365008114541101	210 S13 E63 11BACD1 USBLM (Dutch Flat)	4,078,687.00	686,980.19	2,229.2	Basin Fill	QTs	170	50-170	-	72	07/19/81	11/17/06	164.8	-	2,064.4	0.008470734	0.0000	0.00198025	1.0460E-02
Y	210	210 S13 E63 11BC 1	210 S13 E63 11BC 1 CSVM-6	4,078,333.43	686,453.32	2,251.7	Carbonate Well	MOc	1160	420-1160	-	52	03/28/03	11/17/06	433.0	-	1,818.7	0.012698825	0.1225	0.00198025	1.3717E-01
Y	210	CSI-2	210 S13 E63 14CD 1 CSI-2	4,075,780.62	687,082.73	2,209.2	Carbonate Well	MOc	1015.1	523.8-644/ 684.1-844.4/ 884.5-1004.7	-	5	09/30/05	06/15/06	388.4	-	1,820.8	0.020214	0.0678	6	6.3381E+00
Y	210	CSI-1	210 S13 E63 22DC 1 CSI-1	4,074,459.15	686,043.07	2,266.1	Carbonate Well	MOc	920	520-600/640-760/ 800-880	-	1	05/30/05	05/30/05	439.1	-	1,827.0	17	0.0579	6	2.3308E+01
Y	210	364743114533101	210 S13 E63 23DDDC1 USGS-MX CE-DT-4	4,074,276.91	688,003.20	2,175.0	Carbonate Well	MOc	669	50-669	Y	95	12/12/80	10/27/98	352.0	-	1,823.0	0.002245218	0.0003	0.00616225	8.6652E-03
Y	210	210 S13 E63 25AD 1	210 S13 E63 25AD 1 CSVM-1	4,073,793.35	688,602.30	2,160.6	Carbonate Well	MOc	1040	320-1020	-	49	03/20/03	11/17/06	339.5	-	1,821.1	0.013625908	0.0000	0.00198025	1.5606E-02
Y	210	364726114525501	210 S13 E63 25BDAA1	4,073,725.80	688,909.78	2,161.3	Basin Fill	QTs	267	247-267	-	1	05/04/44	05/04/44	332.0	-	1,829.3	17	0.0017	100	1.1700E+02
Y	210	364741114532801	210 S13 E63 26AAAA1 USGS-MX CE-DT-5	4,074,219.34	688,084.03	2,172.9	Carbonate Well	MOc	121	121-628	Y	35	05/06/81	05/29/98	350.0	-	1,822.9	0.016375006	0.0000	0.00366025	2.0081E-02
Y	210	210 S13 E63 26AB 1	210 S13 E63 26AB 1 CSV-RW2	4,074,082.07	687,862.28	2,200.1	Carbonate Well	MOc	710	460-700	-	21	03/05/02	09/20/06	381.1	-	1,818.9	0.027910544	0.0009	0.00697225	3.5783E-02
Y	210	210 S14 E62 01AA 1	210 S14 E62 01AA 1 CSVM-5	4,068,773.98	680,294.98	3,130.7	Carbonate Well	MOc	1780	1020-1760	-	43	02/18/03	11/17/06	1,086.2	-	2,044.5	0.009205331	0.0927	0.00180625	1.0371E-01
Y	210	364352114544701	210 S14 E63 10 1	4,067,069.43	686,277.22	2,317.5	Basin Fill	QTs	353	247-267	-	1	05/04/44	05/04/44	332.0	-	1,985.5	17	172.6987	1,600	1.7897E+03
Y	210	364127114553001	210 S14 E63 28ACDC1 USGS CSV-3	4,062,583.28	685,222.23	2,415.9	Basin Fill	QTs	780	50-780	-	97	12/20/85	11/17/06	591.8	-	1,824.1	0.014578241	0.0000	0.00180625	1.6434E-02
Y	210	210 S15 E63 03BB 1	210 S15 E63 03BB 1 CSVM-2	4,059,369.53	685,625.47	2,572.7	Carbonate Well	MOc	1400	720-1380	-	48	03/05/03	11/17/06	748.9	-	1,823.8	0.017978513	0.1041	0.001681	1.2380E-01
Y	215	360545114563401	212 S21 E63 28ACA 1 USBR LG006	3,996,532.88	685,125.92	1,477.3	Basin Fill	QTs	40.8	38.76-40.76	-	4	04/29/71	03/11/78	7.1	-	1,470.1	28.02943958	31.2685	625	6.8430E+02
Y	215	360644114563801	212 S21 E63 28ACA 2 USBR LG007	3,996,558.93	684,900.15	1,487.3	Basin Fill	QTs	134	90-95	-	31	04/29/71	03/11/78	12.0	-	1,475.3	1.310646687	1.4234	0.0025	2.7366E+00
Y	215	MV-8	215 S17 E66H 31AA 1 MV-8	4,034,784.39	719,443.02	2,236.5	Clastic	KTRs	500	330-488	-	1	04/15/78	04/15/78	336.0	-	1,900.5	17	254.6892	625	8.9669E+02
Y	215	FW-1	215 S17 E66H 31CD 1 FW-1	4,033,540.87	719,050.90	2,358.3	Clastic	KTRs	1141	780-1140	-	1	01/15/85	01/15/85	570.0	-	1,788.3	17	772.4106	625	1.4144E+03
Y	215	362541114281701	215 S17 E67 26BDCA1 NV Division of State Parks	4,034,394.62	726,608.78	1,692.2	Clastic	KTRs	100	60-100	-	2	01/16/65	03/13/85	22.2	-	1,670.0	121.771225	10.2260	100	2.3200E+02
Y	215	362553114322701	215 S17 E67 30ABB 1 NV Division of State Parks	4,034,603.35	720,372.40	2,152.3	Clastic	KTRs	400	325-400	-	4	10/16/72	10/14/76	315.5	-	1,836.8	143.4166667	94.5626	100	3.3798E+02
Y	215	362556114322401	215 S17 E67 30ABB 2 NV Division of State Parks	4,034,697.71	720,444.77	2,132.3	Clastic	KTRs	500	330-488	Y	7	11/27/90	06/15/92	363.8	-	1,768.5	0.416170068	31.2717	100	1.3169E+02
Y	215	362531114320001	215 S17 E67 30DAAB1 Valley of Fire State Park	4,033,942.50	721,062.24	2,097.3	Basin Fill	QTs	-	50-380	-	7	03/29/93	09/12/94	308.1	-	1,789.3	0.006970748	54.7586	100	1.5477E+02
Y	215	362534114321901	215 S17 E67 30DBA 1 NV Division of State Parks	4,034,022.88	720,586.60	2,152.3	Basin Fill	QTs	-	-	-	1	03/14/85	03/14/85	310.7	-	1,841.6	17	27.8889	100	1.4489E+02
Y	215	362805114214501	215 S17 E68 23AB 1 USNPS	4,036,360.96	736,675.00	1,309.0	Basin Fill	QTs	143	133-143	-	1	01/01/64	01/01/64	97.5	-	1,211.5	17	75,966.4497	625	7.6608E+04
N	215	362239114263501	215 S18 E67 12DDAD1 USNPS - Rogers Spring	4,028,820.88	729,273.94	1,594.0	Spring-Regional	-	-	-	-	-	-	-	-	>	1,594.0	-	-	-	-

Table A.2-1
Steady-State Water-Level Data Set and Additional Wells or Springs Used for Control
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SS Well	HA	Site No.	Station Name	UTM N (m)	UTM E (m)	Ref. Pt. Elev. (ft-amsl)	Site Type	HGU	Well Depth (ft-bgs)	Open Interval (ft-bgs)	Excluded Data Flag	No. of Meas.	POR-Start Date	POR-End Date	Mean DTW (ft-bgs)	Q Elev.	Mean Elev. (ft-amsl)	V. Sample Mean (ft^2)	V. of Vertical Error (ft^2)	V. Land Surface (ft^2)	Total Var (ft^2)
N	215	362321114255601	215 S18 E68 07ABB 2 Blue Point Springs	4,030,172.60	730,235.65	1,549.5	Spring-Regional	-	-	-	-	-	-	-	-	>	1,549.5	-	-	-	-
Y	215	BM-DL-1	215 S19 E63 13AA 1 BM-DL-1	4,019,493.11	689,926.24	2,467.9	Carbonate Well	MOc	1400	780-1360	-	46	05/17/02	11/22/06	653.4	-	1,814.5	0.008951948	0.0006	0.002116	1.1680E-02
Y	215	BM-DL-2	215 S19 E63 13AB 1 BM-DL-2	4,019,590.98	689,269.55	2,487.6	Carbonate Well	MOc	1800	940-1780	-	49	05/17/02	11/22/06	672.7	-	1,814.8	0.012335688	0.0018	0.002401	1.6532E-02
Y	215	EGV-3	215 S19 E63 13DA 1 EGV-3	4,018,999.91	689,856.70	2,437.1	Carbonate Well	MOc	955	702-955	-	1	12/15/91	12/15/91	608.0	-	1,829.1	17	0.2215	625	6.4222E+02
Y	215	EBM-4	215 S19 E63 13DA 2 EBM-4	4,018,827.89	689,782.50	2,419.5	Carbonate Well	MOc	1129	608-708/ 735-1129	-	1	12/15/91	12/15/91	593.0	-	1,826.5	17	4.5965	625	6.4660E+02
Y	215	361736114531601	215 S19 E63 13DCAA1 EBM-3	4,018,549.54	689,600.55	2,388.4	Carbonate Well	MOc	900	540-900	-	9	04/19/93	02/20/04	574.9	-	1,813.5	4.409371605	5.1991	0.0025	9.6110E+00
Y	215	EBP-2	215 S19 E63 13DD 1 EBP-2	4,018,603.54	689,628.53	2,404.9	Carbonate Well	MOc	1214	755-1214	-	1	06/15/90	06/15/90	575.0	-	1,829.9	17	4.0819	625	6.4608E+02
Y	215	362003114341101	215 S19 E66 01ABBB1	4,023,750.93	718,053.77	2,202.3	Basin Fill	QTs	68	50-68	-	1	03/13/85	03/13/85	61.0	-	2,141.3	17	102.1149	100	2.1911E+02
Y	215	361945114272401	215 S19 E68 06 1 USNPS	4,021,388.89	730,469.15	1,302.1	Basin Fill	QTs	177	118-168	-	1	01/01/56	01/01/56	125.0	-	1,177.1	17	33,686.0113	100	3.3803E+04
Y	215	361954114265801	215 S19 E68 06 2 USNPS	4,021,388.89	730,469.15	1,302.1	Basin Fill	QTs	300	50-300	-	1	01/01/56	01/01/56	83.0	-	1,219.1	17	33,686.0113	100	3.3803E+04
Y	215	BM-SITTON	215 S20 E63 01DA 1 BM-SITTON	4,012,199.67	690,138.11	1,935.4	Basin Fill	QTs	200	No casing in hole	-	1	11/15/67	11/15/67	44.0	-	1,891.4	17	118.2616	625	7.6026E+02
Y	215	361530114532301	215 S20 E63 01DB 1	4,012,382.94	689,585.34	1,932.3	Basin Fill	QTs	240	No casing in hole	-	1	10/18/58	10/18/58	40.0	-	1,892.3	17	2,941.1540	625	3.5832E+03
Y	215	215 S20 E63 04 1	215 S20 E63 04 1	4,012,492.25	684,637.44	2,198.9	Basin Fill	QTs	99	79-99	-	1	02/15/94	02/15/94	77.0	-	2,121.9	17	1,162.6303	625	1.8046E+03
Y	215	361403114510001	215 S20 E64 05DDBD1	4,012,060.33	693,139.48	1,922.3	Basin Fill	QTs	162	50-162	-	1	03/12/85	03/12/85	155.3	-	1,767.0	17	47.0017	100	1.6400E+02
Y	215	361322114512801	215 S20 E64 08CAAB1	4,010,781.38	692,468.33	1,807.3	Basin Fill	QTs	920	320-920	-	2	05/10/80	03/12/85	118.3	-	1,689.0	349.69	0.9628	100	4.5065E+02
Y	215	361349114524401	215 S20 E64 18CB 1	4,009,164.67	690,455.06	1,772.3	Basin Fill	QTs	-	50-240	-	1	11/06/58	11/06/58	40.0	-	1,732.3	17	2,369.1704	100	2.4862E+03
Y	215	BM-LIGHTFOOT-2	215 S20 E64 18CB 1 BM-LIGHTFOOT-2	4,008,972.56	690,608.22	1,754.6	Basin Fill	QTs	130	No casing in hole	-	1	10/15/58	10/15/58	20.0	-	1,734.6	17	86.4711	625	7.2847E+02
Y	215	BM-LIGHTFOOT-3	215 S20 E64 18DB 1 BM-LIGHTFOOT-3	4,009,170.62	691,203.57	1,783.5	Basin Fill	QTs	146	No casing in hole	-	1	09/15/58	09/15/58	14.0	-	1,769.5	17	229.0241	625	8.7102E+02
Y	215	361044114505601	215 S20 E64 29DADB1	4,005,930.04	693,375.51	1,502.2	Basin Fill	QTs	490	370-490	-	1	10/29/94	10/29/94	180.0	-	1,322.2	17	2.2358	100	1.1924E+02
Y	215	BM-HEISEN-2	215 S20 E64 29DD 1 BM-HEISEN-2	4,005,736.71	693,478.46	1,505.3	Basin Fill	QTs	320	260-320	-	1	11/15/88	11/15/88	150.0	-	1,355.3	17	3,150.8322	625	3.7928E+03
Y	215	BM-HEISEN-1	215 S20 E64 32AA 1 BM-HEISEN-1	4,005,336.10	693,487.34	1,483.4	Basin Fill	QTs	440	390-440	-	1	08/15/88	08/15/88	155.0	-	1,328.4	17	2,486.7243	625	3.1287E+03
Y	215	BM-MARTIN	215 S20 E64 32AA 2 BM-MARTIN	4,005,336.10	693,487.34	1,483.4	Basin Fill	QTs	490	370-490	-	1	10/15/94	10/15/94	180.0	-	1,303.4	17	2,486.7243	625	3.1287E+03
Y	215	BM-ONCO-2	215 S20 E65 08CD 1 BM-ONCO-2	4,010,721.80	702,054.48	2,098.2	Clastic	KTRs	1570	1445-1575	-	30	05/21/02	10/31/06	397.5	-	1,700.7	0.054452203	0.0001	0.00429025	5.8865E-02
Y	215	BM-ONCO-1	215 S20 E65 08DD 1 BM-ONCO-1	4,010,747.95	702,650.42	2,055.8	Clastic	KTRs	1280	440-1280	-	31	05/21/02	10/31/06	342.5	-	1,713.3	0.003346972	0.0058	0.00455625	1.3728E-02
Y	215	215 S21 E63 02 1	215 S21 E63 02 1	4,002,814.25	687,643.25	1,675.6	Basin Fill	QTs	30	10-30	-	1	12/15/96	12/15/96	20.0	-	1,655.6	17	923.7670	625	1.5658E+03
Y	215	360714114542501	215 S21 E63 14DBD 1 USBR LG004	3,999,344.39	688,293.23	1,315.4	Basin Fill	QTs	47.3	42-47	-	22	04/29/71	04/04/80	7.9	-	1,307.5	0.554992178	5.7131	625	6.3127E+02
Y	215	360713114542501	215 S21 E63 14DBD 2 USBR LG005	3,999,313.57	688,293.90	1,315.3	Basin Fill	QTs	95.7	95-99	-	23	04/29/71	03/04/80	8.2	-	1,307.0	0.455074961	10.3349	625	6.3579E+02
Y	215	215 S21 E64 07D 1	215 S21 E64 07D 1	4,001,108.25	691,431.56	1,311.4	Basin Fill	QTs	60	50-60	-	1	12/15/51	12/15/51	7.0	-	1,304.4	17	1,834.0484	625	2.4760E+03
Y	215	360725114494301	215 S21 E64 21CC 1	3,997,403.71	695,391.13	1,225.6	Basin Fill	QTs	550	297-360	-	1	01/01/58	01/01/58	272.0	-	953.6	17	705,914.1500	625	7.0656E+05
Y	215	360938114434101	215 S21 E65 09DB 1 USNPS	4,001,617.01	704,351.02	1,302.2	Basin Fill	QTs	200	50-200	-	1	10/12/67	10/12/67	105.0	-	1,197.2	17	3,580.6202	100	3.6976E+03
Y	215	215 S21 E65 16CD 1	215 S21 E65 16CD 1	3,999,711.75	704,620.81	1,204.3	Basin Fill	QTs	200	125-160/175-180	-	1	04/15/95	04/15/95	90.0	-	1,114.3	17	4.9650	625	6.4697E+02
Y	215	215 S22 E64 03DB 1	215 S22 E64 03DB 1	3,993,956.75	697,045.19	1,255.8	Basin Fill	QTs	71	6-71	-	1	07/15/97	07/15/97	17.1	-	1,238.7	17	293.3599	625	9.3536E+02
Y	215	360345114482001	215 S22 E64 14CC 1 USNPS	3,990,399.10	697,876.55	1,302.3	Basin Fill	QTs	200	104-200	-	1	01/01/55	01/01/55	135.0	-	1,167.3	17	25,627.7730	100	2.5745E+04

Table A.2-1
Steady-State Water-Level Data Set and Additional Wells or Springs Used for Control
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SS Well	HA	Site No.	Station Name	UTM N (m)	UTM E (m)	Ref. Pt. Elev. (ft-amsl)	Site Type	HGU	Well Depth (ft-bgs)	Open Interval (ft-bgs)	Excluded Data Flag	No. of Meas.	POR-Start Date	POR-End Date	Mean DTW (ft-bgs)	Q Elev.	Mean Elev. (ft-amsl)	V. Sample Mean (ft^2)	V. of Vertical Error (ft^2)	V. Land Surface (ft^2)	Total Var (ft^2)
Y	215	215 S22 E64 25CC 1	215 S22 E64 25CC 1	3,987,291.00	699,499.94	1,719.4	Volcanic	Tv	788	693-788	-	1	10/15/80	10/15/80	673.0	-	1,046.4	17	12,697.9324	625	1.3340E+04
Y	216	Paiutes-M3	216 S16 E64 19DB 1 PAIUTES-M3	4,044,301.60	691,535.88	2,237.7	Carbonate Well	MOc	670	630-670	-	1	10/15/00	10/15/00	422.0	-	1,815.7	17	0.0170	0.001681	1.7019E+01
Y	216	GV-1	216 S17 E63 32AA 1 GV-1	4,034,143.07	682,983.45	2,691.1	Carbonate Well	MOc	1400	1040-1380/1140-1180/1240-1280/ 1340-1380	-	46	06/18/02	11/22/06	880.3	-	1,810.9	0.020819388	0.0007	0.00180625	2.3348E-02
Y	216	362846114495501	216 S17 E64 09DD 1 CRYSTAL WELL 2	4,039,284.30	694,146.36	2,068.5	Carbonate Well	MOc	565	510-560	-	21	07/20/00	09/20/06	256.9	-	1,811.6	0.018293764	42.2132	100	1.4223E+02
Y	216	216 S17 E64 10CC 1	216 S17 E64 10CC 1 Crystal Well 1	4,039,716.04	694,389.11	2,072.7	Carbonate Well	MOc	497	442-492	-	24	08/24/00	09/20/06	259.6	-	1,813.1	0.020288647	16.7907	100	1.1681E+02
Y	216	216 S17 E64 21CB 1	216 S17 E64 21CB 1 GV-RW1	4,036,645.42	692,927.74	2,069.2	Carbonate Well	MOc	833	553-833	-	24	06/14/01	06/20/06	257.1	-	1,812.1	0.069294203	0.0001	0.001681	7.1056E-02
Y	216	362723114505401	216 S17 E64 21CBBD1	4,036,717.48	692,739.86	2,072.3	Carbonate Well	MOc	575	510-575	Y	1	06/12/58	06/12/58	260.0	-	1,812.3	17	1.6937	100	1.1869E+02
Y	216	362717114504901	216 S17 E64 21CBDB1	4,036,535.38	692,868.46	2,097.3	Basin Fill	QTs	550	297-360	Y	1	04/24/58	04/24/58	272.0	-	1,825.3	17	1.2011	100	1.1820E+02
Y	216	Garnet	216 S17 E64 21CC 1 Garnet	4,036,386.56	693,046.38	2,096.7	Basin Fill	QTs	-	50-500	Y	60	11/28/97	11/22/06	284.1	-	1,812.6	0.045579418	0.0003	0.00180625	4.7643E-02
Y	216	362814114505301	216 S17 E64 21DB 1 Union Pacific Railroad	4,036,664.64	693,805.83	2,174.2	Basin Fill	QTs	461	50-461	-	1	01/01/12	01/01/12	284.0	-	1,890.2	17	6,703.0610	625	7.3451E+03
Y	216	CW-Pehlen	216 S17 E64 35BA 1 CW-Pehlen	4,034,341.50	696,754.63	2,287.0	Basin Fill	QTs	532	500-532	-	1	07/15/51	07/15/51	160.0	-	2,127.0	17	1,316.7604	625	1.9588E+03
Y	216	GV-PW-MW1	216 S18 E63 04CB 1 GV-PW-MW1	4,031,729.81	683,459.99	2,502.3	Carbonate Well	MOc	1500	900-1500	Y	45	06/18/02	11/22/06	688.7	-	1,813.6	0.02132382	0.0027	0.00570025	2.9766E-02
Y	216	362507114572701	216 S18 E63 05AADB1	4,032,318.44	683,114.63	2,567.9	Carbonate Well	MOc	1979	1197-1979	Y	37	12/13/02	10/19/06	754.3	-	1,813.6	0.030102934	0.0004	0.00198025	3.2447E-02
Y	216	GV-PW-WS1	216 S18 E63 05DA 1 GV-PW-WS1	4,031,433.99	683,006.52	2,497.9	Carbonate Well	MOc	2000	1240-1980	-	1	07/15/02	07/15/02	684.0	-	1,813.9	17	0.2867	625	6.4229E+02
Y	216	GV-PW-MW2	216 S18 E63 05DB 1 GV-PW-MW2	4,031,488.43	682,652.44	2,525.0	Carbonate Well	MOc	1500	940-1500	Y	42	06/18/02	11/22/06	712.3	-	1,812.7	0.038070112	0.0004	0.003136	4.1572E-02
Y	216	362329114541401	216 S18 E63 14AAA 1	4,029,396.47	687,917.41	2,172.4	Basin Fill	QTs	500	350-500	-	1	07/22/71	07/22/71	338.0	-	1,834.4	17	9.2521	100	1.2625E+02
Y	216	362417114525601	216 S18 E63 14BBDA1	4,029,146.34	686,920.29	2,207.2	Basin Fill	QTs	-	-	-	1	03/11/85	03/11/85	391.9	-	1,815.2	17	61.2863	625	7.0329E+02
Y	216	GV-DUKE-WS1	216 S18 E63 15AA 1 GV-DUKE-WS1	4,029,177.57	686,197.45	2,247.8	Carbonate Well	MOc	685	537-685	-	36	12/13/02	11/22/06	430.5	-	1,817.3	0.040028701	95.4565	625	7.2050E+02
Y	216	GV-DUKE-WS2	216 S18 E63 15AA 2 GV-DUKE-WS2	4,029,177.31	686,184.99	2,248.8	Carbonate Well	MOc	1965	877-1944	Y	39	09/26/02	11/22/06	431.5	-	1,817.4	0.01716975	92.5570	625	7.1757E+02
Y	216	GV-KERR	216 S18 E63 16BA 1 GV-KERR	4,028,990.60	683,838.37	2,404.6	Carbonate Well	MOc	1145	700-1145	-	1	02/15/90	02/15/90	578.0	-	1,826.6	17	452.4402	625	1.0944E+03
Y	216	GV-USLIME1	216 S18 E63 23DC 1 GV-CHEMICAL LIME	4,026,563.99	687,748.03	2,286.5	Carbonate Well	MOc	860	540-840	-	1	06/15/99	06/15/99	471.0	-	1,815.5	17	1,901.3095	625	2.5433E+03
Y	216	GV-2	216 S18 E63 27AC 1 GV-2	4,025,689.62	686,226.52	2,423.9	Carbonate Well	MOc	1232	852-1232	-	44	06/19/02	11/22/06	607.0	-	1,816.9	0.01617895	0.0002	0.002401	1.8735E-02
Y	216	EBA-1	216 S18 E63 34AD 1 EBA-1	4,024,107.99	686,513.03	2,427.0	Carbonate Well	MOc	1200	50-1200	-	1	10/15/92	10/15/92	606.0	-	1,821.0	17	974.8596	625	1.6169E+03
Y	216	362531114524201	216 S18 E64 07BB 1	4,030,864.15	690,178.60	2,047.4	Basin Fill	QTs	793	50-793	-	1	11/29/56	11/29/56	226.4	-	1,821.0	17	85.7644	100	2.0276E+02
Y	216	362318114545801	216 S18 E64 07BBDA1	4,030,880.22	690,090.47	2,070.0	Basin Fill	QTs	497	250-490	-	3	09/13/63	03/11/85	237.6	-	1,832.4	39.17361111	45.2563	625	7.0943E+02
Y	216	362417114525602	216 S18 E64 07BBDA2	4,030,918.13	689,828.46	2,057.4	Basin Fill	QTs	450	50-450	-	2	03/11/85	04/10/90	239.0	-	1,818.3	0.429025	0.4052	100	1.0083E+02
Y	216	GV-NDOT	216 S18 E64 07BC 1 GV-NDOT	4,030,729.10	690,107.00	2,066.4	Basin Fill	QTs	500	350-500	-	1	09/15/72	09/15/72	240.0	-	1,826.4	17	22.4280	625	6.6443E+02
Y	216	GV-GSC-1	216 S18 E64 09BB 1 GV-GSC-1	4,031,201.41	693,336.57	2,293.4	Basin Fill	QTs	725	480-725	-	1	03/15/87	03/15/87	485.0	-	1,808.4	17	212,627.7489	625	2.1327E+05
Y	216	GV-ET-1	216 S18 E64 18DC 1 GV-ET-1	4,028,343.46	690,981.98	2,321.4	Clastic	KTRs	560	440-560	-	1	03/15/89	03/15/89	453.0	-	1,868.4	17	407,729.0917	625	4.0837E+05
Y	216	GV-SSD-1	216 S18 E64 19CD 1 GV-SSD-1	4,026,731.55	690,593.60	2,450.1	Carbonate Well	MOc	1500	1040-1480	-	1	06/15/96	06/15/96	645.0	-	1,805.1	17	1,948.5956	625	2.5906E+03
Y	216	GV-SSD-2	216 S18 E64 20BA 1 GV-SSD-2	4,027,568.55	692,195.89	2,449.2	Carbonate Well	MOc	940	640-920	-	1	06/15/97	06/15/97	610.0	-	1,839.2	17	782.7194	625	1.4247E+03

Table A.2-1
Steady-State Water-Level Data Set and Additional Wells or Springs Used for Control
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SS Well	HA	Site No.	Station Name	UTM N (m)	UTM E (m)	Ref. Pt. Elev. (ft-amsl)	Site Type	HGU	Well Depth (ft-bgs)	Open Interval (ft-bgs)	Excluded Data Flag	No. of Meas.	POR-Start Date	POR-End Date	Mean DTW (ft-bgs)	Q Elev.	Mean Elev. (ft-amsl)	V. Sample Mean (ft^2)	V. of Vertical Error (ft^2)	V. Land Surface (ft^2)	Total Var (ft^2)
Y	217	363308114553001	217 S16 E63 09DDAB1 USBLM SHV-1	4,047,255.75	685,751.04	2,650.3	Basin Fill	QTs	920	45-920	-	43	12/30/85	06/24/04	831.9	-	1,818.4	0.007284478	0.0000	0.00225625	9.5407E-03
Y	217	217 S17 E63 21DC 1	217 S17 E63 21DC 1	4,035,392.75	684,324.38	2,727.6	Carbonate Well	MOc	1434	1434-2480	-	1	06/15/00	06/15/00	882.0	-	1,845.6	17	3,365.6243	625	4.0076E+03
Y	218	362732114435301	218 S11 E65 21BDAD1 Valley of Fire State Park	4,037,235.32	703,214.90	2,138.3	Basin Fill	QTs	-	50-275	-	7	03/29/93	06/16/94	226.0	-	1,912.4	0.003631973	10.2763	100	1.1028E+02
Y	218	364106114401401	218 S14 E65 25CDBB1	4,062,452.78	708,059.49	1,657.2	Basin Fill	QTs	175	75-175	-	2	03/15/85	03/29/90	8.7	-	1,648.5	0.04	1.1716	100	1.0121E+02
Y	218	364106114401402	218 S14 E65 25CDBB2	4,062,452.78	708,059.49	1,657.2	Basin Fill	QTs	58	10-58	-	3	03/16/71	03/29/90	9.5	-	1,647.7	0.0829	1.1716	100	1.0125E+02
Y	218	364047114393101	218 S14 E65 36BA 1	4,061,893.19	709,141.24	1,642.2	Basin Fill	QTs	139	90-139	-	1	03/28/76	03/28/76	12.0	-	1,630.2	17	852.0201	100	9.6902E+02
Y	218	364044114395801	218 S14 E65 36BADA1	4,061,784.39	708,473.17	1,639.2	Basin Fill	QTs	90	55-90	-	2	03/15/85	03/29/90	7.6	-	1,631.6	0.828100001	0.2547	100	1.0108E+02
Y	218	PAIUTES-M1	218 S15 E65 09DD 1 PAIUTES-M1	4,057,109.14	704,517.16	1,898.1	Carbonate Well	MOc	400	360-400	-	1	10/15/00	10/15/00	80.0	-	1,818.1	17	0.0014	0.00330625	1.7005E+01
Y	218	363803114414601	218 S15 E65 15AAC 1 Nevada Power Company	4,056,757.47	705,911.04	1,872.2	Basin Fill	QTs	-	-	-	1	03/30/90	03/30/90	53.2	-	1,819.0	17	3.2655	225	2.4527E+02
Y	218	MV-4	218 S15 E66 02CA 1 MV-4	4,059,814.74	716,544.85	1,514.0	Basin Fill	QTs	150	No casing in hole	-	1	-	-	10.0	-	1,504.0	17	786.6036	625	1.4286E+03
Y	218	364104114362301	218 S15 E66 04AA 1	4,059,820.23	713,863.19	1,582.2	Basin Fill	QTs	178	50-178	-	1	01/01/50	01/01/50	0.0	-	1,582.2	17	6,982.5483	100	7.0995E+03
Y	218	364051114384501	218 S15 E66 06 1	4,059,332.25	710,346.77	1,582.2	Basin Fill	QTs	100	50-100	-	1	01/01/50	01/01/50	1.0	-	1,581.2	17	205.7616	100	3.2276E+02
Y	218	363902114384401	218 S15 E66 07AB 1 Nevada Power Company	4,058,685.63	710,387.48	1,747.2	Basin Fill	QTs	1000	660-1000	-	1	03/30/90	03/30/90	167.2	-	1,580.0	17	4.5859	225	2.4659E+02
Y	218	363902114384402	218 S15 E66 07AB 2 Nevada Power Company	4,058,685.63	710,387.48	1,745.2	Basin Fill	QTs	-	-	-	1	03/30/90	03/30/90	164.8	-	1,580.4	17	4.5859	225	2.4659E+02
Y	218	363900114364601	218 S15 E66 09BADB1	4,058,696.45	713,319.64	1,577.2	Basin Fill	QTs	61	30-61	Y	2	09/29/50	03/28/90	7.2	-	1,570.0	0.022499999	15.5589	100	1.1558E+02
Y	218	363427114472301	218 S16 E64 02ABCD1 TH-2	4,049,916.20	697,684.10	2,340.6	Carbonate Well	MOc	-	50-1200	-	1	08/21/00	08/21/00	526.0	-	1,814.6	17	0.0023	0.0025	1.7005E+01
Y	218	PAIUTES-ECP3	218 S16 E64 15AA 1 PAIUTES-ECP3	4,046,984.36	696,713.64	2,243.1	Carbonate Well	MOc	74	74-1500	-	1	10/15/00	10/15/00	429.0	-	1,814.1	17	0.0084	0.00330625	1.7012E+01
Y	218	363245114480501	218 S16 E64 15AADD1 ECP-2	4,046,742.16	696,722.98	2,228.3	Carbonate Well	MOc	139	139-1228	-	1	08/21/00	08/21/00	416.5	-	1,811.9	17	0.0000	0.00198025	1.7002E+01
Y	218	PAIUTES-ECP1	218 S16 E64 15AD 1 PAIUTES-ECP1	4,046,589.80	696,729.17	2,233.8	Carbonate Well	MOc	1125	600-701/ 701-1125	-	1	07/15/00	07/15/00	414.0	-	1,819.8	17	0.0000	0.00570025	1.7006E+01
Y	218	363147114474601	218 S16 E64 23BDBB1 TH-1	4,044,959.39	697,234.16	2,167.7	Carbonate Well	MOc	-	50-1100	-	1	08/21/00	08/21/00	354.4	-	1,813.3	17	2.7061	0.0025	1.9709E+01
Y	218	PAIUTES-M2	218 S16 E64 34CC 1 PAIUTES-M2	4,040,875.94	695,835.93	2,108.5	Carbonate Well	MOc	680	640-680	-	1	10/15/00	10/15/00	297.0	-	1,811.5	17	0.0001	0.00455625	1.7005E+01
Y	218	218 S16 E65 31AA 1	218 S16 E65 31AA 1	4,042,255.75	701,652.56	2,003.3	Basin Fill	QTs	600	400-600	-	1	02/15/00	02/15/00	324.0	-	1,679.3	17	48.2422	625	6.9024E+02
Y	218	218 S16 E65 32AB 1	218 S16 E65 32AB 1	4,042,283.75	702,846.94	1,990.6	Basin Fill	QTs	600	400-600	-	1	08/15/99	08/15/99	328.0	-	1,662.6	17	19.9224	625	6.6192E+02
Y	218	CW-CLARK	218 S16 E65 33AA 1 CW-CLARK	4,042,130.03	704,617.78	1,983.3	Basin Fill	QTs	568	460-568	-	1	07/15/92	07/15/92	321.0	-	1,662.3	17	35.2573	625	6.7726E+02
Y	218	363010114424701	218 S16 E65 33ACAA1 USBLM	4,042,143.54	704,742.39	1,980.3	Basin Fill	QTs	400	360-400	-	12	02/11/49	09/14/92	317.6	-	1,662.7	6.780122917	1.5302	100	1.0831E+02
Y	218	218 S17 E65 10DA 1	218 S17 E65 10DA 1	4,038,769.50	705,495.06	2,094.8	Basin Fill	QTs	426	192-363	-	1	07/15/01	07/15/01	378.0	-	1,716.8	17	95.6699	625	7.3767E+02
Y	218	CW-HALL	218 S17 E65 17DD 1 CW-HALL	4,038,214.96	702,045.76	2,108.6	Basin Fill	QTs	-	50-1550	-	1	10/15/67	10/15/67	212.0	-	1,896.6	17	0.5569	625	6.4256E+02
Y	218	CW-JONES	218 S17 E65 21DC 1 CW-JONES	4,036,270.54	703,286.87	2,177.1	Basin Fill	QTs	300	255-300	-	1	12/15/66	12/15/66	258.0	-	1,919.1	17	144.6876	625	7.8669E+02
Y	218	362529114455101	218 S17 E65 31DBCD1	4,033,376.00	700,365.10	2,282.4	Basin Fill	QTs	258	50-258	-	2	10/20/48	03/12/85	237.7	-	2,044.6	0.075625	0.2163	100	1.0029E+02
Y	218	362136114465001	218 S18 E64 25AACC1	4,026,161.48	699,060.87	2,597.4	Basin Fill	QTs	860	50-860	-	2	06/17/49	03/12/85	802.5	-	1,794.9	506.25	0.0073	100	6.0626E+02
Y	218	362310114461601	218 S18 E65 18CC 1 USBLM	4,028,273.16	699,710.47	2,592.4	Basin Fill	QTs	860	No casing in hole	-	1	01/01/49	01/01/49	825.0	-	1,767.4	17	3,445.0385	100	3.5620E+03
Y	219	364601114514301	210 S13 E64 31DAAD1 USGS CSV-1	4,071,630.40	691,378.02	2,160.3	Basin Fill	QTs	765	645-765	Y	28	11/11/85	09/08/94	345.8	-	1,814.4	0.003209089	0.0000	0.00180625	5.0218E-03

Table A.2-1
Steady-State Water-Level Data Set and Additional Wells or Springs Used for Control
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SS Well	HA	Site No.	Station Name	UTM N (m)	UTM E (m)	Ref. Pt. Elev. (ft-amsl)	Site Type	HGU	Well Depth (ft-bgs)	Open Interval (ft-bgs)	Excluded Data Flag	No. of Meas.	POR-Start Date	POR-End Date	Mean DTW (ft-bgs)	Q Elev.	Mean Elev. (ft-amsl)	V. Sample Mean (ft^2)	V. of Vertical Error (ft^2)	V. Land Surface (ft^2)	Total Var (ft^2)
Y	219	364210114405002	218 S14 E65 23AC 1	4,064,403.60	707,118.10	1,702.2	Basin Fill	QTs	82	53-77	-	1	06/18/63	06/18/63	2.4	-	1,699.8	17	0.0163	100	1.1702E+02
Y	219	364212114403901	218 S14 E65 23DAAB1	4,064,471.85	707,389.62	1,707.2	Basin Fill	QTs	65	50-65	-	2	03/15/85	03/29/90	9.9	-	1,697.3	3.276099999	0.2506	100	1.0353E+02
Y	219	364146114403901	218 S14 E65 26AAAB1	4,063,670.52	707,409.04	1,702.2	Basin Fill	QTs	70	50-70	-	1	03/15/85	03/15/85	7.0	-	1,695.1	17	1.7240	100	1.1872E+02
Y	219	364406114442802	219 N14 E65 08BDAA2	4,067,849.43	701,623.42	1,837.2	Basin Fill	QTs	44	-	-	9	06/15/49	06/08/63	23.3	-	1,813.9	1.287533642	0.5110	100	1.0180E+02
Y	219	364604114471301	219 S13 E64 35ACAA1 USGS-MX CE-DT-6	4,071,381.16	697,482.47	2,277.9	Carbonate Well	MOc	325	325-937	Y	68	06/03/81	11/01/02	462.3	-	1,815.6	2.55517401	0.0007	0.00330625	2.5591E+00
Y	219	364650114432001	219 S13 E65 28BDAC1 USGS CSV-2	4,072,966.77	703,217.11	2,188.7	Carbonate Well	MOc	95	95-478	-	163	02/06/85	06/24/04	393.8	-	1,794.9	0.009488029	0.0041	0.00330625	1.6880E-02
Y	219	UMVM-1	219 S14 E64 33DB 1 UMVM-1	4,070,247.53	694,304.67	2,061.9	Carbonate Well	MOc	1780	960-1760	-	43	07/15/03	11/17/06	245.0	-	1,816.9	0.016399212	0.0645	0.002116	8.3064E-02
Y	219	ARROW CANYON	219 S14 E65 07AD 1 ARROW CANYON	4,067,755.24	701,103.80	1,860.7	Carbonate Well	MOc	565	205-565	-	1	01/15/91	01/15/91	45.0	-	1,815.7	17	770.7278	0.005625	7.8773E+02
Y	219	364418114441201	219 S14 E65 08ABBD1	4,068,229.14	702,076.88	1,828.7	Basin Fill	QTs	57	42-54	-	220	04/19/88	09/20/06	32.2	-	1,796.5	0.084723132	0.0004	0.029584	1.1472E-01
Y	219	364412114441601	219 S14 E65 08ABCC1 Nevada Power Company	4,068,041.38	701,916.74	1,837.2	Basin Fill	QTs	80	27-78	-	1	08/18/67	08/18/67	25.0	-	1,812.2	17	4.9681	100	1.2197E+02
Y	219	364412114440801	219 S14 E65 08ABDC1 Nevada Power Company	4,068,046.07	702,115.21	1,820.2	Basin Fill	QTs	70	23-67	-	1	09/05/67	09/05/67	19.0	-	1,801.2	17	0.0013	100	1.1700E+02
Y	219	LEWIS 2	219 S14 E65 08AC 1 LEWIS 2	4,067,921.33	702,339.43	1,825.5	Basin Fill	QTs	66	20-66	-	1	07/15/59	07/15/59	16.0	-	1,809.5	17	0.0000	0.004096	1.7004E+01
Y	219	364408114440201	219 S14 E65 08ACAA1 Nevada Power Company	4,067,926.31	702,266.96	1,832.2	Basin Fill	QTs	100	35-100	-	1	06/22/72	06/22/72	32.0	-	1,800.2	17	0.3499	100	1.1735E+02
Y	219	LDS WEST	219 S14 E65 08AD 1 LDS WEST	4,067,083.33	702,746.30	1,807.3	Basin Fill	QTs	80	10-80	Y	219	04/18/88	09/20/06	24.1	-	1,783.2	0.207050179	0.0000	0.02235025	2.2940E-01
Y	219	364352114440301	219 S14 E65 08BD 1	4,067,811.67	701,759.11	1,842.7	Basin Fill	QTs	-	-	-	1	09/19/53	09/19/53	23.8	-	1,818.9	17	34.5234	625	6.7652E+02
Y	219	EH-5B	219 S14 E65 08BD 2 EH-5B	4,067,619.13	701,568.81	1,844.8	Carbonate Well	MOc	264	164-264	Y	177	01/23/87	07/14/98	28.0	-	1,816.8	0.000561131	0.0016	0.00570025	7.8852E-03
Y	219	LEWIS NORTH	219 S14 E65 08BD 3 LEWIS NORTH	4,067,871.66	701,588.62	1,844.7	Basin Fill	QTs	71	28-68	Y	172	05/29/86	05/15/98	31.9	-	1,812.8	0.002700805	0.0002	0.00429025	7.1960E-03
Y	219	364406114441701	219 S14 E65 08BDAA1	4,067,855.87	701,896.30	1,837.2	Basin Fill	QTs	65	18-64	-	2	05/15/62	03/13/85	20.7	-	1,816.5	7.1289	0.4508	100	1.0758E+02
Y	219	364402114442801	219 S14 E65 08BDBD1 DRI	4,067,726.15	701,626.33	1,857.2	Basin Fill	QTs	-	-	-	1	08/01/80	08/01/80	32.0	-	1,825.2	17	1.4586	100	1.1846E+02
Y	219	LEWIS SOUTH	219 S14 E65 08DA 1 LEWIS SOUTH	4,067,265.89	702,737.16	1,809.6	Basin Fill	QTs	90	30-90	-	264	01/23/87	09/20/06	17.1	-	1,792.5	0.037192903	0.0000	0.00330625	4.0547E-02
Y	219	364346114434701	219 S14 E65 08DADD1 DRI	4,067,257.08	702,655.16	1,812.2	Basin Fill	QTs	-	-	-	1	09/01/81	09/01/81	23.1	-	1,789.1	17	0.4314	100	1.1743E+02
Y	219	364352114440801	219 S14 E65 08DBAC1	4,067,429.67	702,129.78	1,827.2	Basin Fill	QTs	52	24-52	-	2	06/07/50	03/13/85	22.2	-	1,805.0	0.5041	0.6110	100	1.0112E+02
Y	219	364354114440701	219 S14 E65 08DBBA1 Nevada Power Company	4,067,491.89	702,153.13	1,833.2	Basin Fill	QTs	93	38-88	-	2	05/06/69	03/13/85	23.8	-	1,809.4	1.525225	0.3693	100	1.0189E+02
Y	219	364358114441401	219 S14 E65 08DBBD2 Nevada Power Company	4,067,611.07	701,976.54	1,826.2	Basin Fill	QTs	97	38-88	-	2	04/12/69	03/13/85	23.4	-	1,802.8	2.576025	0.0000	100	1.0258E+02
Y	219	364335114442401	219 S14 E65 09CC 1	4,066,926.32	703,010.52	1,804.1	Basin Fill	QTs	75	50-75	-	1	03/08/61	03/08/61	21.0	-	1,783.1	17	8,505.5137	625	9.1475E+03
Y	219	364338114434501	219 S14 E65 09CCCB1	4,067,011.72	702,710.61	1,812.2	Basin Fill	QTs	80	10-80	-	2	11/26/68	03/13/85	15.9	-	1,796.3	0.0196	0.2223	100	1.0024E+02
Y	219	364340114430301	219 S14 E65 09DCAC1	4,067,110.69	703,760.82	1,797.2	Basin Fill	QTs	98	58-98	-	1	10/11/98	10/11/98	26.0	-	1,771.2	17	0.4445	100	1.1744E+02
Y	219	364335114431601	219 S14 E65 09DD 1	4,066,953.49	704,151.84	1,782.3	Basin Fill	QTs	65	50-65	-	1	07/15/59	07/15/59	10.0	-	1,772.3	17	10,265.3698	625	1.0907E+04
Y	219	ABBOTT	219 S14 E65 14CD 1 ABBOTT	4,065,656.58	706,442.92	1,712.1	Basin Fill	QTs	100	30-100	-	290	12/31/86	09/20/06	10.8	-	1,701.3	0.040231783	0.0001	0.01600225	5.6310E-02
Y	219	364318114422101	219 S14 E65 15BB 1	4,066,445.00	704,809.45	1,759.9	Basin Fill	QTs	80	50-80	-	1	06/08/63	06/08/63	18.9	-	1,741.0	17	2,032.9425	625	2.6749E+03
Y	219	LDS EAST	219 S14 E65 15BB 1 LDS EAST	4,066,594.23	704,479.00	1,752.6	Basin Fill	QTs	195	Casing not perforated	Y	150	04/19/88	04/17/06	6.8	-	1,745.8	0.002068009	0.0000	0.00697225	9.0452E-03
Y	219	364322114423101	219 S14 E65 15BBC 1	4,066,562.31	704,558.37	1,802.2	Basin Fill	QTs	80	50-80	-	3	02/17/65	03/22/69	2.3	-	1,799.8	0.643611111	0.5037	100	1.0115E+02
Y	219	364323114423901	219 S14 E65 15BBCB1	4,066,588.38	704,359.16	1,757.2	Basin Fill	QTs	80	50-80	Y	21	07/13/48	10/17/54	3.0	-	1,754.2	0.003635782	10.0230	100	1.1003E+02
N	219	364309114430601	219 S14 E65 16AA 1	4,066,140.92	703,699.48	1,773.8	Basin Fill	QTs	80	50-80	-	-	-	-	-	>	1,773.8	-	-	-	-

Table A.2-1
Steady-State Water-Level Data Set and Additional Wells or Springs Used for Control
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SS Well	HA	Site No.	Station Name	UTM N (m)	UTM E (m)	Ref. Pt. Elev. (ft-amsl)	Site Type	HGU	Well Depth (ft-bgs)	Open Interval (ft-bgs)	Excluded Data Flag	No. of Meas.	POR-Start Date	POR-End Date	Mean DTW (ft-bgs)	Q Elev.	Mean Elev. (ft-amsl)	V. Sample Mean (ft^2)	V. of Vertical Error (ft^2)	V. Land Surface (ft^2)	Total Var (ft^2)
Y	219	LDS CENTRAL	219 S14 E65 16AA 1 LDS CENTRAL	4,066,543.63	704,113.99	1,762.2	Basin Fill	QTs	106	15-106	Y	127	04/19/88	04/17/06	2.7	-	1,759.5	0.003558915	0.0005	0.018496	2.2525E-02
Y	219	EH-4	219 S14 E65 21AC 1 EH-4	4,064,736.40	703,929.29	1,933.9	Carbonate Well	MOc	285	185-285	Y	167	01/23/87	07/14/98	116.8	-	1,817.1	0.00042038	0.0132	0.0155025	2.9099E-02
Y	219	PERKINS OLD	219 S14 E65 22AA 1 PERKINS OLD	4,065,223.37	705,637.32	1,728.5	Basin Fill	QTs	70	27-48	-	232	07/10/89	09/20/06	25.3	-	1,703.2	0.10674788	0.0000	0.02325625	1.3004E-01
Y	219	PERKINS PRODUCTION	219 S14 E65 22AA 2 PERKINS PRODUCTION	4,065,206.06	705,692.99	1,734.9	Basin Fill	QTs	-	-	Y	241	05/18/88	09/20/06	27.9	-	1,707.0	0.187806146	22.9921	100	1.2318E+02
Y	219	364238114410401	219 S14 E65 23ABBB1	4,065,258.17	706,749.80	1,712.2	Basin Fill	QTs	44	-	Y	302	06/15/48	11/19/87	4.0	-	1,708.2	0.015517176	0.5211	100	1.0054E+02
Y	219	364216114413101	219 S14 E65 23BA 1	4,065,116.51	706,642.39	1,721.3	Basin Fill	QTs	50	-	-	1	03/08/61	03/08/61	3.4	-	1,718.0	17	10.7197	625	6.5272E+02
Y	219	364156114413101	219 S14 E65 23BB 1	4,065,026.23	706,084.95	1,719.3	Basin Fill	QTs	60	50-60	Y	232	12/13/51	01/14/99	12.6	-	1,706.8	0.055048443	15,792.6822	625	1.6418E+04
Y	219	364239114413501	219 S14 E65 23BBBB1	4,065,270.41	705,979.75	1,732.2	Basin Fill	QTs	80	50-80	-	1	01/22/58	01/22/58	8.2	-	1,724.0	17	0.4877	100	1.1749E+02
Y	219	364239114413602	219 S14 E65 23BBBB2 Nevada Power Company	4,065,080.00	706,030.77	1,715.8	Basin Fill	QTs	115	30-80/85-115	-	1	05/20/76	05/20/76	10.0	-	1,705.8	17	29.3947	100	1.4639E+02
N	219	219 S14 E65 16DB 1	Baldwin Spring Box	4,066,270.00	703,257.00	1,800.2	Spring-Regional	-	-	-	-	-	-	-	-	>	1,800.2	-	-	-	-
Y	219	Behmer-MW	Behmer-MW	4,065,280.17	706,030.73	1,717.9	Basin Fill	QTs	-	-	Y	228	09/12/88	09/20/06	16.3	-	1,701.6	0.083816044	0.0000	0.00275625	8.6580E-02
N	219	219 S14 E65 16DD 1	Jones Spring Box	4,065,660.81	703,713.69	1,787.1	Spring-Regional	-	-	-	-	-	-	-	-	>	1,787.1	-	-	-	-
N	219	09415900	Muddy Spring at LDS Farm nr Moapa, NV	4,066,347.66	704,018.16	1,747.5	Spring-Regional	-	-	-	-	-	-	-	-	>	1,747.5	-	-	-	-
N	219	09415908	PEDERSON EAST SPRING NR MOAPA, NV	4,065,062.69	703,965.28	1,802.2	Spring-Regional	-	-	-	-	-	-	-	-	>	1,802.2	-	-	-	-
N	219	09415910	Pederson Spring near Moapa, Nevada	4,065,088.51	704,008.07	1,810.8	Spring-Regional	-	-	-	-	-	-	-	-	>	1,810.8	-	-	-	-
N	219	09415927	WARM SPRINGS CONFL AT IVERSON FLUME NR MOAPA, NV	4,065,301.37	704,571.15	1,757.3	Spring-Regional	-	-	-	-	-	-	-	-	>	1,757.3	-	-	-	-
N	219	09415920	Warm Springs West nr, Moapa, NV	4,065,272.24	704,210.79	1,772.2	Spring	-	-	-	-	-	-	-	-	>	1,772.2	-	-	-	-
Y	220	364014114315301	220 S14 E67 31DACD1	4,060,989.99	720,660.03	1,680.0	Carbonate Well	MOc	440	285-400	Y	140	01/23/87	09/20/06	117.1	-	1,562.9	0.001022593	230.5319	100	3.3053E+02
Y	220	MV-6	220 S15 E66 01DB 1 MV-6	4,059,868.29	718,655.53	1,591.3	Basin Fill	QTs	200	20-200	-	1	01/15/75	01/15/75	14.0	-	1,577.3	17	101.1410	625	7.4314E+02
Y	220	363910114331201	220 S15 E66 01DCCA1	4,059,138.59	718,626.73	1,507.2	Basin Fill	QTs	170	20-170	-	1	05/31/60	05/31/60	12.0	-	1,495.2	17	8.8430	100	1.2584E+02
Y	220	363908114330101	220 S15 E66 01DDCC1	4,059,083.95	718,901.51	1,497.6	Basin Fill	QTs	40	-	-	1	03/15/85	03/15/85	19.7	-	1,478.0	17	14.7348	625	6.5673E+02
Y	220	220 S15 E67 01BB 1	220 S15 E67 01BB 1	4,060,537.25	727,337.75	1,704.0	Basin Fill	QTs	105	50-105	-	1	09/15/99	09/15/99	10.0	-	1,694.0	17	164.8208	625	8.0682E+02
Y	220	363901114320901	220 S15 E67 07AB 1	4,058,901.27	720,198.50	1,642.2	Basin Fill	QTs	88	0-88	-	1	05/21/50	05/21/50	18.5	-	1,623.7	17	3,207.4395	400	3.6244E+03
Y	220	MV-9	220 S15 E67 07BD 1 MV-9	4,058,477.16	719,734.69	1,539.9	Basin Fill	QTs	135	105-135	-	1	01/15/75	01/15/75	40.0	-	1,499.9	17	45.0634	625	6.8706E+02
Y	220	MV-11	220 S15 E67 07CA 1 MV-11	4,058,266.55	719,938.88	1,507.4	Basin Fill	QTs	260	260-400	-	1	12/15/59	12/15/59	30.0	-	1,477.4	17	12,289.3353	625	1.2931E+04
Y	220	363832114323801	220 S15 E67 07CBD 1	4,057,988.99	719,501.11	1,502.2	Basin Fill	QTs	-	-	-	2	03/14/85	03/28/90	21.6	-	1,480.6	0.1225	12.7325	100	1.1286E+02
Y	220	MV-10	220 S15 E67 07CD 1 MV-10	4,057,675.85	719,755.22	1,496.1	Basin Fill	QTs	135	105-135	-	1	01/15/75	01/15/75	40.0	-	1,456.1	17	62,216.9587	625	6.2859E+04
Y	220	MV-16	220 S15 E67 15AC 1 MV-16	4,057,139.45	725,237.21	1,466.1	Basin Fill	QTs	275	240-275	-	1	07/15/80	07/15/80	47.0	-	1,419.1	17	981.8188	625	1.6238E+03
Y	220	MV-13	220 S15 E67 15CC 1 MV-13	4,056,317.31	724,463.29	1,430.8	Basin Fill	QTs	160	100-160	-	1	02/15/97	02/15/97	35.0	-	1,395.8	17	5.1540	625	6.4715E+02
Y	220	MV-12	220 S15 E67 16AA 1 MV-12	4,057,508.26	724,009.62	1,499.7	Basin Fill	QTs	423	360-420	-	1	11/15/85	11/15/85	165.0	-	1,334.7	17	345.0467	625	9.8705E+02
Y	220	363714114285901	220 S15 E67 22ABCB1	4,055,725.94	725,003.90	1,402.1	Basin Fill	QTs	153	50-153	-	1	03/14/85	03/14/85	17.0	-	1,385.2	17	0.3292	100	1.1733E+02
Y	220	MV-17	220 S15 E67 22AC 1 MV-17	4,055,537.46	725,304.14	1,414.8	Basin Fill	QTs	126	50-125	-	1	08/15/66	08/15/66	17.0	-	1,397.8	17	71.7046	625	7.1370E+02
Y	220	MV-19	220 S15 E67 22AD 1 MV-19	4,055,547.90	725,701.70	1,446.5	Basin Fill	QTs	86	19-81	-	1	07/15/58	07/15/58	5.0	-	1,441.5	17	80.5918	625	7.2259E+02
Y	220	363715114292901	220 S15 E67 22BBCB1 Moapa Valley Water Dist	4,055,737.26	724,257.72	1,412.1	Basin Fill	QTs	154	No perforations	-	1	04/10/67	04/10/67	22.0	-	1,390.1	17	0.0985	100	1.1710E+02
Y	220	363715114292902	220 S15 E67 22BBCB2 Moapa Valley Water Dist	4,055,737.26	724,257.72	1,412.1	Basin Fill	QTs	162	50-163	-	1	05/25/67	05/25/67	22.0	-	1,390.1	17	0.0985	100	1.1710E+02

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Steady-State Water-Level Data Set and Additional Wells or Springs Used for Control
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SS Well	HA	Site No.	Station Name	UTM N (m)	UTM E (m)	Ref. Pt. Elev. (ft-amsl)	Site Type	HGU	Well Depth (ft-bgs)	Open Interval (ft-bgs)	Excluded Data Flag	No. of Meas.	POR-Start Date	POR-End Date	Mean DTW (ft-bgs)	Q Elev.	Mean Elev. (ft-amsl)	V. Sample Mean (ft^2)	V. of Vertical Error (ft^2)	V. Land Surface (ft^2)	Total Var (ft^2)
Y	220	MV-15	220 S15 E67 22BD 1 MV-15	4,055,336.22	724,687.91	1,409.6	Basin Fill	QTs	120	80-107	-	1	11/15/57	11/15/57	21.0	-	1,388.6	17	14.3472	625	6.5635E+02
Y	220	MV-22	220 S15 E67 26BB 1 MV-22	4,054,356.91	726,155.69	1,427.4	Basin Fill	QTs	120	70-120	-	1	09/15/71	09/15/71	65.0	-	1,362.4	17	72.9311	625	7.1493E+02
Y	220	363602114282401	220 S15 E67 26CBBB1 Logandale Cemetery	4,053,529.67	725,931.90	1,382.1	Basin Fill	QTs	100	30-50	-	1	11/21/57	11/21/57	22.0	-	1,360.1	17	0.4490	100	1.1745E+02
Y	220	MV-18	220 S15 E67 27DC 1 MV-18	4,053,134.04	725,392.08	1,375.3	Basin Fill	QTs	120	60-120	-	1	08/15/73	08/15/73	20.0	-	1,355.3	17	4,121.1648	625	4.7632E+03
Y	220	363531114284801	220 S15 E67 34AAB 1	4,052,558.53	725,360.50	1,357.1	Basin Fill	QTs	140	67-140	-	2	12/11/66	03/14/85	7.2	-	1,349.9	1.3924	0.1074	100	1.0150E+02
Y	220	363655114285501	220 S15 E67 34AB 1	4,052,307.40	725,192.99	1,362.1	Basin Fill	QTs	87	50-87	-	1	05/10/50	05/10/50	8.5	-	1,353.6	17	327.7320	100	4.4473E+02
Y	220	MV-21	220 S15 E67 34AD 1 MV-21	4,052,343.81	725,835.59	1,366.8	Basin Fill	QTs	150	68-150	-	1	07/15/67	07/15/67	10.0	-	1,356.8	17	0.0380	625	6.4204E+02
Y	220	MV-31	220 S15 E67 35AA 1 MV-31	4,052,787.06	727,440.51	1,418.0	Basin Fill	QTs	152	129-148	-	1	07/15/82	07/15/82	85.0	-	1,333.0	17	144.2240	625	7.8622E+02
Y	220	MV-35	220 S15 E67 36CB 1 MV-35	4,051,996.93	727,884.23	1,396.1	Basin Fill	QTs	120	80-120	-	1	07/15/83	07/15/83	70.0	-	1,326.1	17	388.0787	625	1.0301E+03
Y	220	MV-1	220 S16 E66 22CC 1 MV-1	4,044,388.75	715,067.17	2,672.7	Clastic	KTRs	118	98-118	-	1	04/15/83	04/15/83	21.0	-	2,651.7	17	1,910.9715	625	2.5530E+03
Y	220	363528114270301	220 S16 E67 01BC 1	4,050,615.10	728,197.02	1,357.0	Basin Fill	QTs	-	-	-	1	11/10/67	11/10/67	8.5	-	1,348.5	17	154.1263	625	7.9613E+02
Y	220	MV-37	220 S16 E67 01BD 1 MV-37	4,050,806.70	728,363.55	1,367.6	Basin Fill	QTs	328	80-325	-	1	02/15/78	02/15/78	61.0	-	1,306.6	17	188.3891	625	8.3039E+02
Y	220	363419114271901	220 S16 E67 01CBBB1	4,050,397.75	727,631.39	1,312.1	Basin Fill	QTs	96	90-94	-	4	11/09/49	03/14/85	7.9	-	1,304.2	0.658158333	0.0944	100	1.0075E+02
Y	220	MV-26	220 S16 E67 02BA 1 MV-26	4,050,763.30	726,722.93	1,314.5	Basin Fill	QTs	140	120-140	-	1	02/15/76	02/15/76	12.0	-	1,302.5	17	0.0000	625	6.4200E+02
Y	220	MV-23	220 S16 E67 02BC 1 MV-23	4,050,351.51	726,310.82	1,314.5	Basin Fill	QTs	140	122-135	-	1	02/15/76	02/15/76	12.0	-	1,302.5	17	0.0000	625	6.4200E+02
Y	220	MV-27	220 S16 E67 02BD 1 MV-27	4,050,362.64	726,733.50	1,314.5	Basin Fill	QTs	143	63-143	-	1	08/15/72	08/15/72	25.0	-	1,289.5	17	0.0000	625	6.4200E+02
Y	220	MV-28	220 S16 E67 02CA 1 MV-28	4,049,961.98	726,744.06	1,314.5	Basin Fill	QTs	140	67-140	-	1	12/15/66	12/15/66	6.0	-	1,308.5	17	0.0005	625	6.4200E+02
Y	220	MV-29	220 S16 E67 02DB 1 MV-29	4,050,182.92	726,937.23	1,314.5	Basin Fill	QTs	130	50-130	-	1	03/15/67	03/15/67	12.0	-	1,302.5	17	0.0080	625	6.4201E+02
Y	220	MV-32	220 S16 E67 11AA 1 MV-32	4,049,182.31	727,585.60	1,295.3	Basin Fill	QTs	150	115-128	-	1	03/15/76	03/15/76	7.0	-	1,288.3	17	21.2364	625	6.6324E+02
Y	220	MV-30	220 S16 E67 11AB 1 MV-30	4,049,171.81	727,187.83	1,304.4	Basin Fill	QTs	135	35-135	-	1	05/15/73	05/15/73	3.0	-	1,301.4	17	2.6322	625	6.4463E+02
Y	220	MV-36	220 S16 E67 12BC 1 MV-36	4,048,792.84	728,018.87	1,285.0	Basin Fill	QTs	104	60-100	-	1	04/15/77	04/15/77	18.0	-	1,267.0	17	17.3190	625	6.5932E+02
Y	220	MV-38	220 S16 E67 12CA 1 MV-38	4,048,403.39	728,452.26	1,275.1	Basin Fill	QTs	104	74-104	-	1	04/15/77	04/15/77	20.0	-	1,255.1	17	67.9985	625	7.1000E+02
Y	220	MV-34	220 S16 E67 12CC 1 MV-34	4,048,013.05	727,691.24	1,286.9	Basin Fill	QTs	220	20-200	-	1	03/15/78	03/15/78	6.0	-	1,280.9	17	0.0218	625	6.4202E+02
Y	220	MV-39	220 S16 E67 12DB 1 MV-39	4,048,593.52	728,646.26	1,273.6	Basin Fill	QTs	120	64-120	-	1	05/15/71	05/15/71	2.0	-	1,271.6	17	20.7510	625	6.6275E+02
Y	220	MV-40	220 S16 E67 13AD 1 MV-40	4,047,593.04	729,294.93	1,249.9	Basin Fill	QTs	145	90-140	-	1	03/15/88	03/15/88	6.0	-	1,243.9	17	92.5719	625	7.3457E+02
Y	220	ACEVEDO	220 S16 E67 24DA 1 ACEVEDO	4,045,279.15	729,267.91	1,273.1	Basin Fill	QTs	230	90-230	-	1	10/15/99	10/15/99	26.0	-	1,247.1	17	1,607.0154	625	2.2490E+03
Y	220	MV-41	220 S16 E68 07CB 1 MV-41	4,048,435.81	729,670.66	1,314.9	Basin Fill	QTs	240	40-100	-	1	02/15/75	02/15/75	10.0	-	1,304.9	17	2,533.7905	625	3.1758E+03
Y	220	363315114260501	220 S16 E68 07CBC 1	4,048,474.11	729,523.82	1,282.1	Basin Fill	QTs	85	50-85	-	2	01/01/50	03/14/85	9.9	-	1,272.2	0.8281	994.0793	100	1.0949E+03
Y	220	MV-43	220 S16 E68 20DB 1 MV-43	4,045,443.84	731,965.86	1,279.5	Basin Fill	QTs	220	220-300	-	1	06/15/56	06/15/56	83.0	-	1,196.5	17	418.9071	625	1.0609E+03
Y	220	MV-44	220 S16 E68 29DB 1 MV-44	4,043,841.07	732,009.02	1,212.7	Basin Fill	QTs	106	60-106	-	1	02/15/54	02/15/54	67.0	-	1,145.7	17	60.1311	625	7.0213E+02
Y	220	363103114254801	220 S16 E68 30BADC1	4,044,417.02	730,055.25	1,252.1	Basin Fill	QTs	96	50-96	-	1	01/01/50	01/01/50	23.0	-	1,229.1	17	0.1715	100	1.1717E+02
Y	220	363102114254801	220 S16 E68 30BDAB1	4,044,386.20	730,056.07	1,252.1	Basin Fill	QTs	75	60-75	-	2	02/08/48	03/14/85	21.4	-	1,230.7	2.4336	1.1161	100	1.0355E+02
Y	220	363102114254802	220 S16 E68 30BDAB2	4,044,386.20	730,056.07	1,252.1	Basin Fill	QTs	100	40-47	-	2	05/25/76	03/14/85	21.6	-	1,230.6	2.1025	1.1161	100	1.0322E+02
Y	220	MV-25	220 S17 E67 11BA 1 MV-25	4,039,442.95	726,672.31	1,836.7	Clastic	KTRs	525	260-520	-	1	03/15/88	03/15/88	174.0	-	1,662.7	17	9,634.5199	625	1.0277E+04

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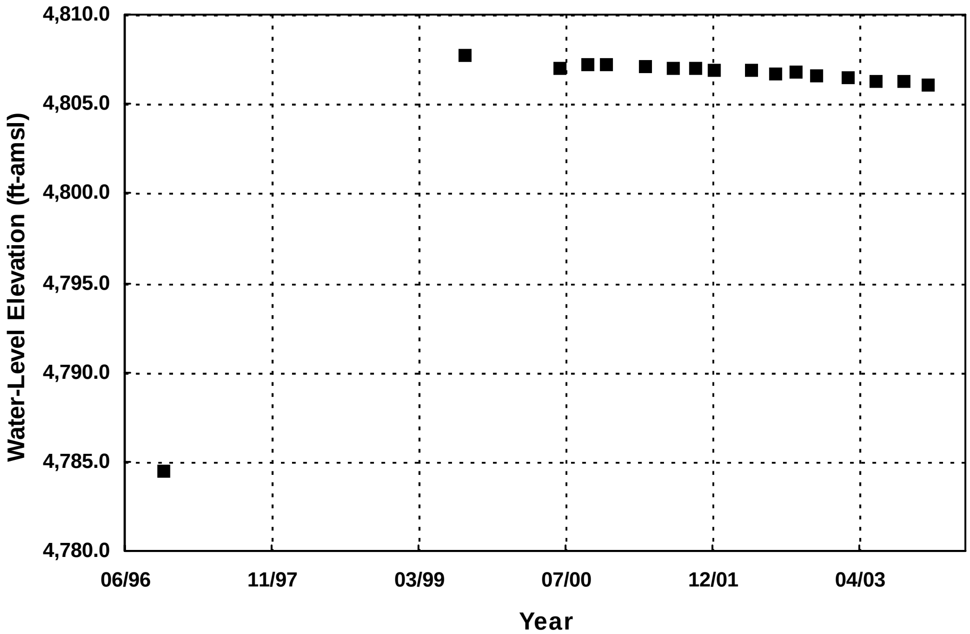
Appendix B

Hydrographs for Wells in the Project Area

B.1.0 INTRODUCTION

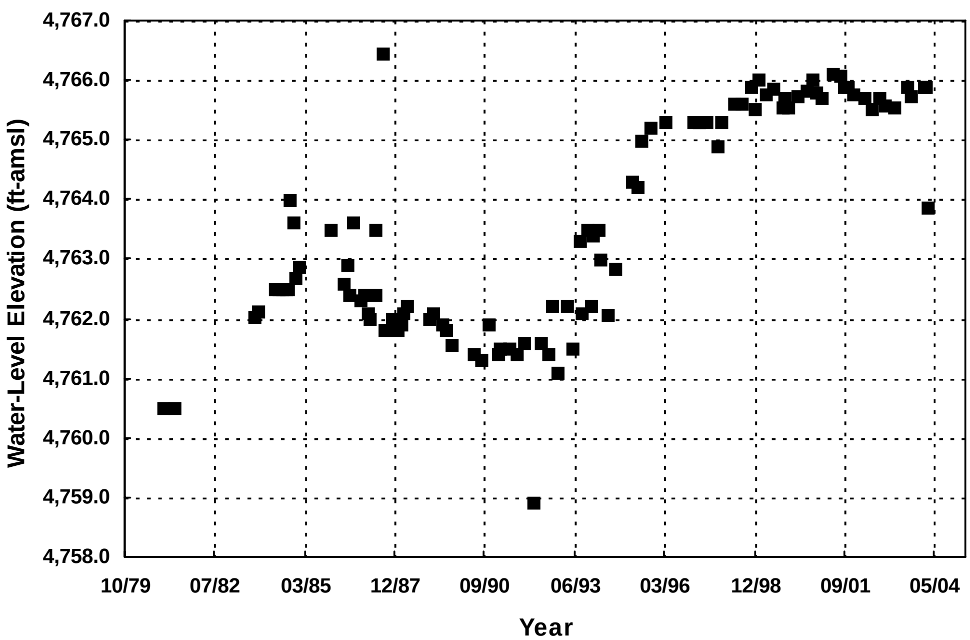
This appendix contains the hydrographs that were constructed for wells in the study area. Hydrographs were constructed for wells that had ten or more depth-to-water measurements. The hydrographs are organized numerically by hydrographic area number and then alphabetically by station name. The following is a list of the hydrographic area numbers along with their respective names:

- 171 - Coal Valley
- 172 - Garden Valley
- 175 - Long Valley
- 178B - Butte Valley (Southern Part)
- 179 - Steptoe Valley
- 180 - Cave Valley
- 181 - Dry Lake Valley
- 182 - Delamar Valley
- 183 - Lake Valley
- 184 - Spring Valley
- 195 - Snake Valley
- 196 - Hamlin Valley
- 198 - Dry Valley
- 202 - Patterson Valley
- 203 - Panaca Valley
- 205 - Lower Meadow Valley Wash
- 207 - White River Valley
- 208 - Pahroc Valley
- 209 - Pahranagat Valley
- 210 - Coyote Spring Valley
- 215 - Black Mountains Area
- 216 - Garnet Valley
- 217 - Hidden Valley
- 218 - California Wash
- 219 - Muddy Rivers Springs Area
- 220 - Lower Moapa Valley



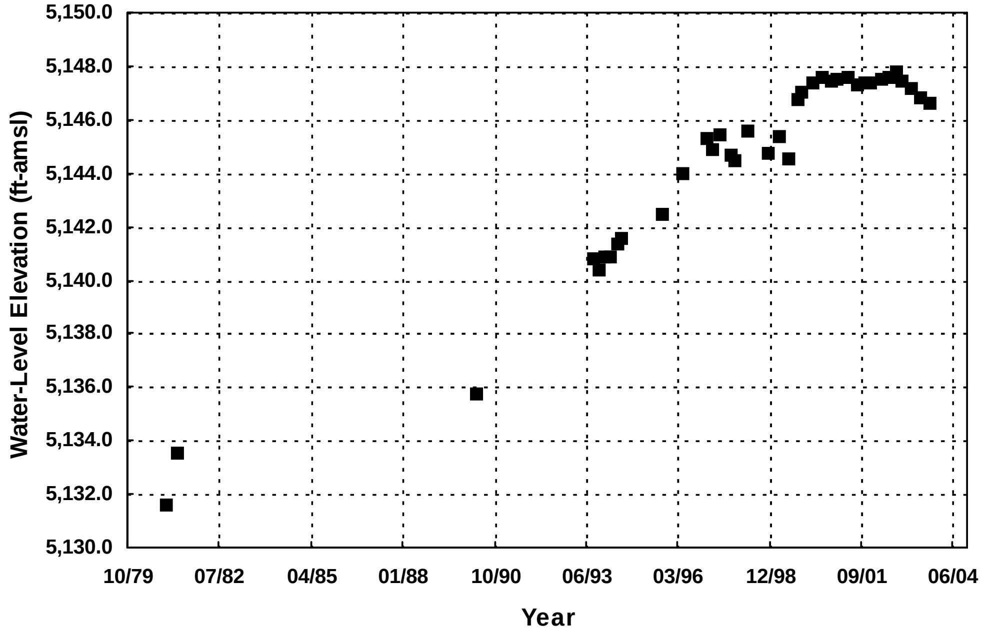
Basin Name: Coal Valley
Aquifer Type: Carbonate Well
Land Surface (ft-amsl): 4935.4
Well Depth (ft-bgs): 1560

Historical Water-Level Elevations at
171 N01 E58 24 1 Baseline Canyon Federal 2



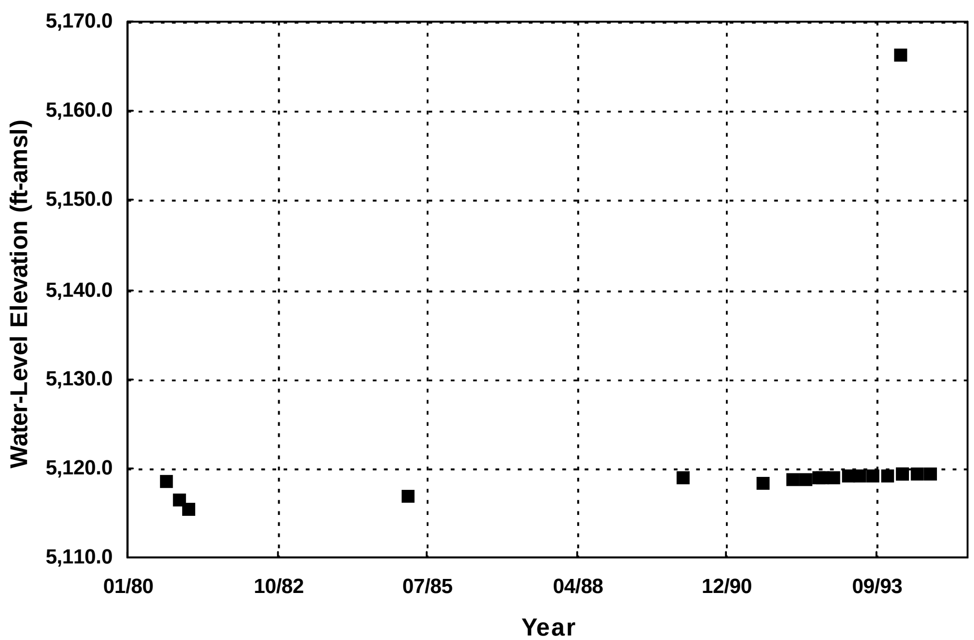
Basin Name: Coal Valley
Aquifer Type: Carbonate Well
Land Surface (ft-amsl): 5563.5
Well Depth (ft-bgs): 1837

Historical Water-Level Elevations at
172 N03 E59 10BD 1 USGS-MX (Coal Valley Well)



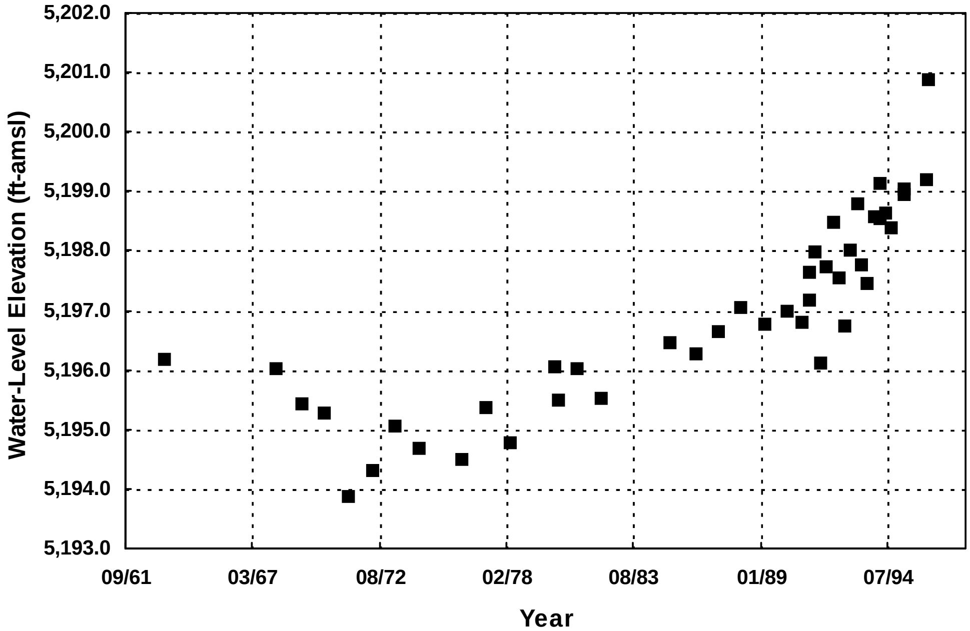
Basin Name:	**Garden Valley**	**Land Surface (ft-amsl):**	**5553.6**
Aquifer Type:	**Basin Fill**	**Well Depth (ft-bgs):**	**970**

Historical Water-Level Elevations at
172 N02 E57 22BBC 1 USGS-MX (Garden Valley)



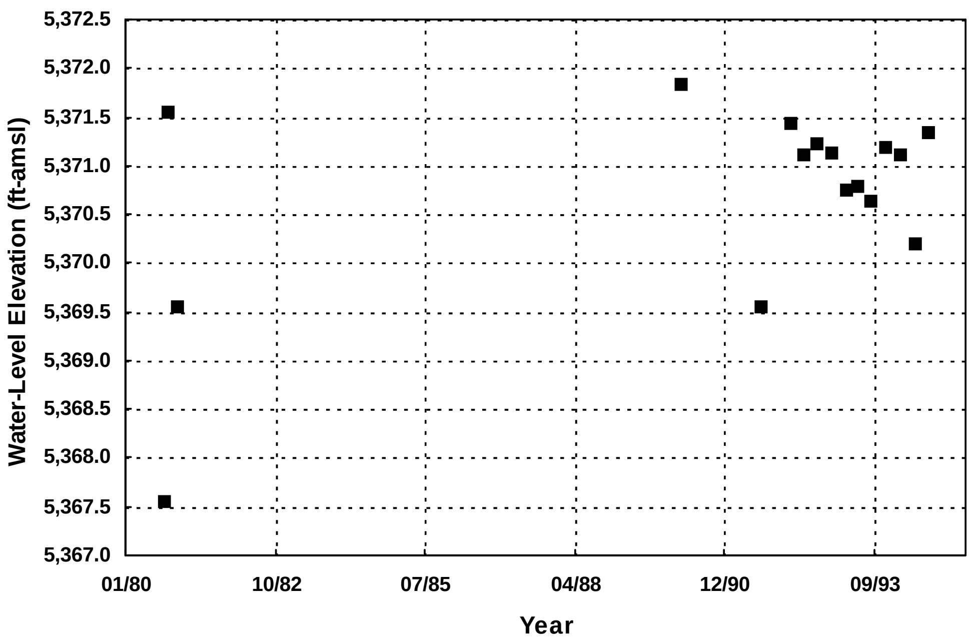
Basin Name:	**Garden Valley**	**Land Surface (ft-amsl):**	**5203.5**
Aquifer Type:	**Basin Fill**	**Well Depth (ft-bgs):**	**100**

Historical Water-Level Elevations at
172 N03 E58 01DA 1 USGS-MX



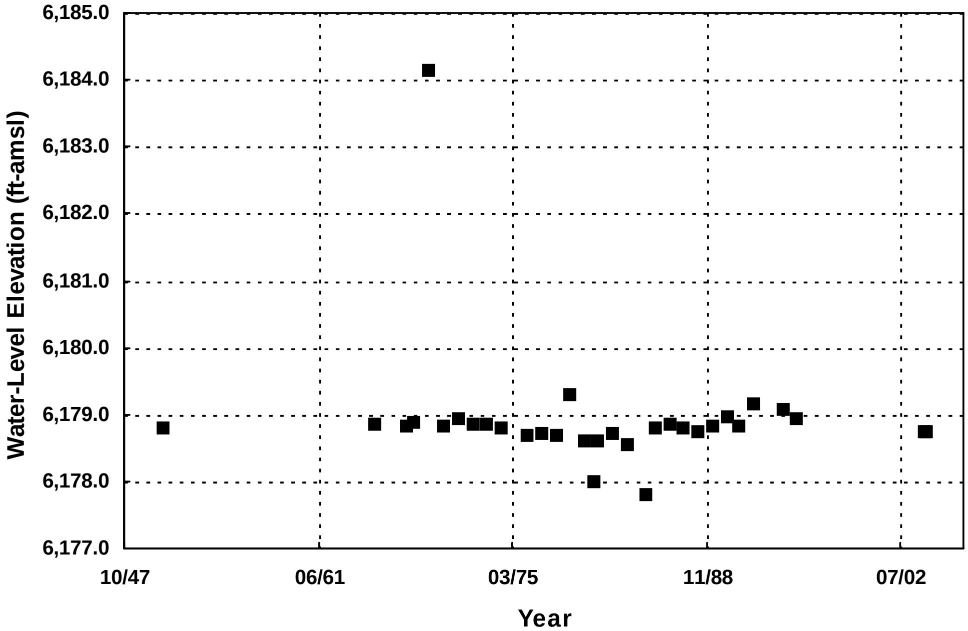
Basin Name:	**Garden Valley**	**Land Surface (ft-amsl):**	**5220.5**
Aquifer Type:	**Basin Fill**	**Well Depth (ft-bgs):**	**27**

Historical Water-Level Elevations at
172 N04 E58 36A 2 USBLM - Garden Valley



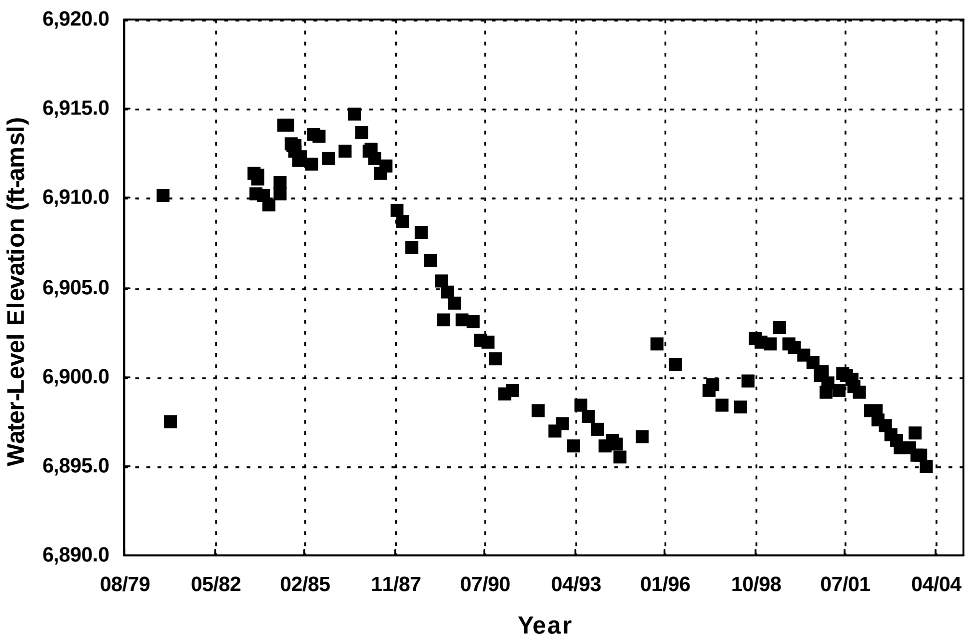
Basin Name:	**Garden Valley**	**Land Surface (ft-amsl):**	**5482.5**
Aquifer Type:	**Basin Fill**	**Well Depth (ft-bgs):**	**200**

Historical Water-Level Elevations at
172 N05 E59 31CAA 1 USGS-MX



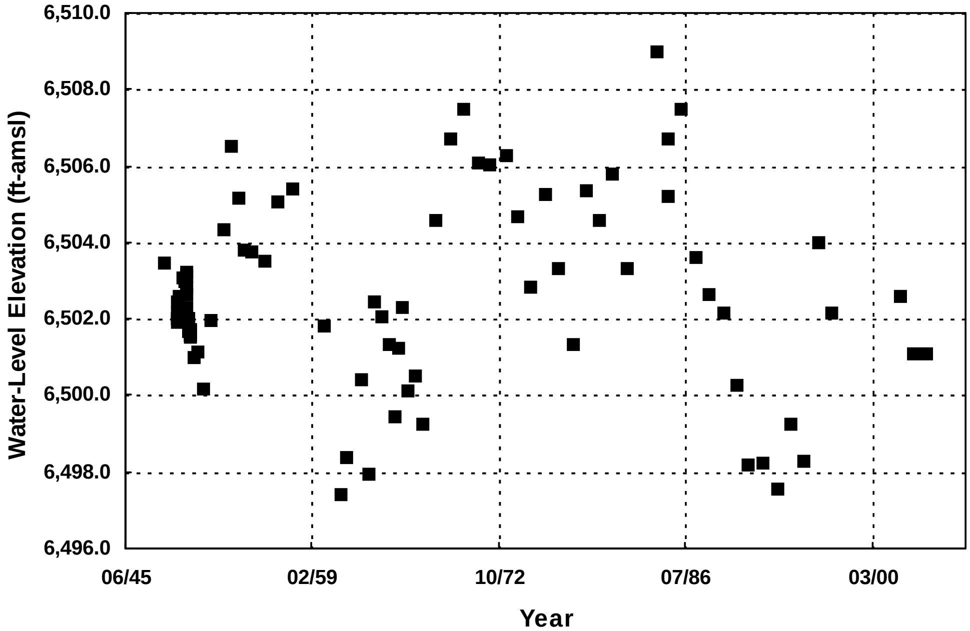
Basin Name:	**Butte Valley**	**Land Surface (ft-amsl):**	**6244**
Aquifer Type:	**Basin Fill**	**Well Depth (ft-bgs):**	**129**

Historical Water-Level Elevations at
178B N22 E60 26DABB1



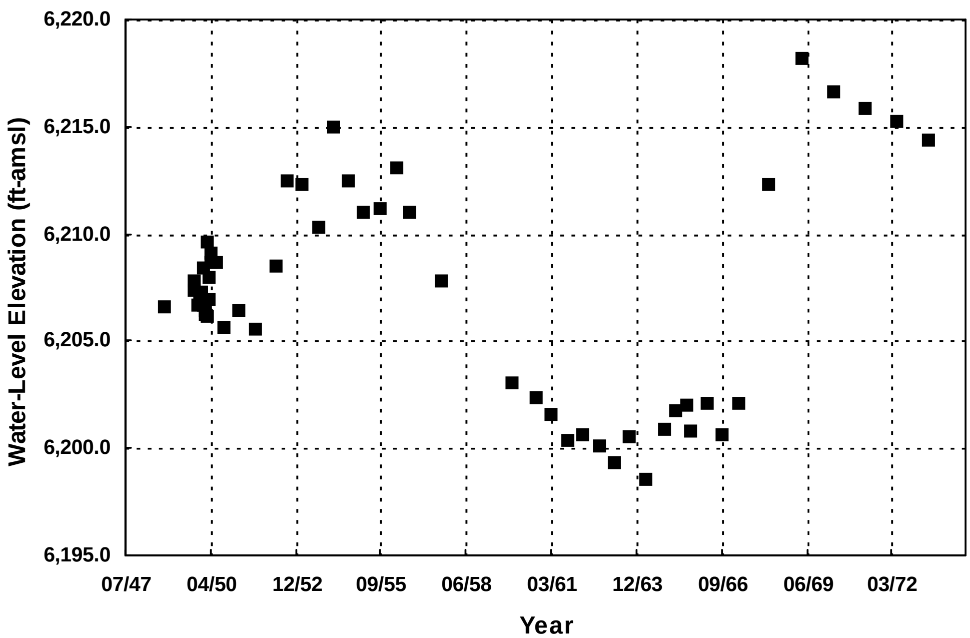
Basin Name:	**Steptoe Valley**	**Land Surface (ft-amsl):**	**7324.5**
Aquifer Type:	**Carbonate Well**	**Well Depth (ft-bgs):**	**948**

Historical Water-Level Elevations at
179 N12 E63 12AB 1 USGS - S Steptoe MX Well



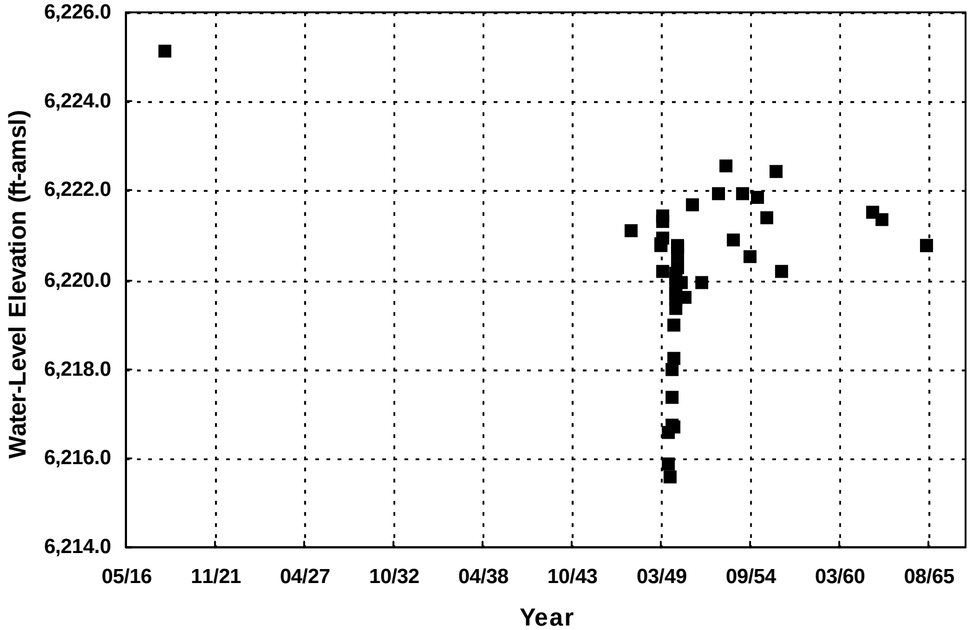
Basin Name:	**Steptoe Valley**	**Land Surface (ft-amsl):**	**6539.2**
Aquifer Type:	**Basin Fill**	**Well Depth (ft-bgs):**	**200**

Historical Water-Level Elevations at
179 N15 E64 07ACCB1



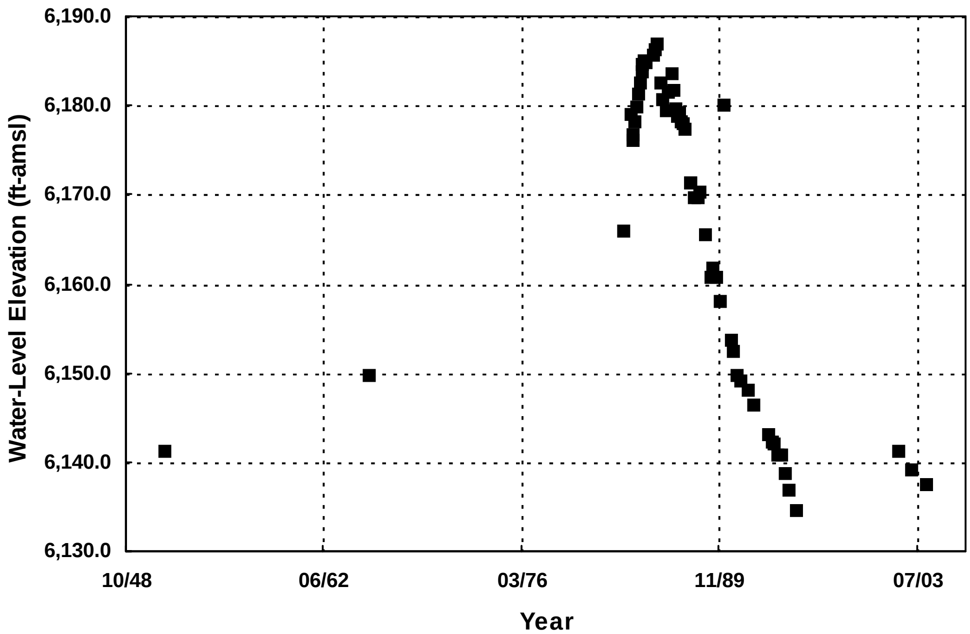
Basin Name:	**Steptoe Valley**	**Land Surface (ft-amsl):**	**6274.1**
Aquifer Type:	**Basin Fill**	**Well Depth (ft-bgs):**	

Historical Water-Level Elevations at
179 N16 E63 01B 1



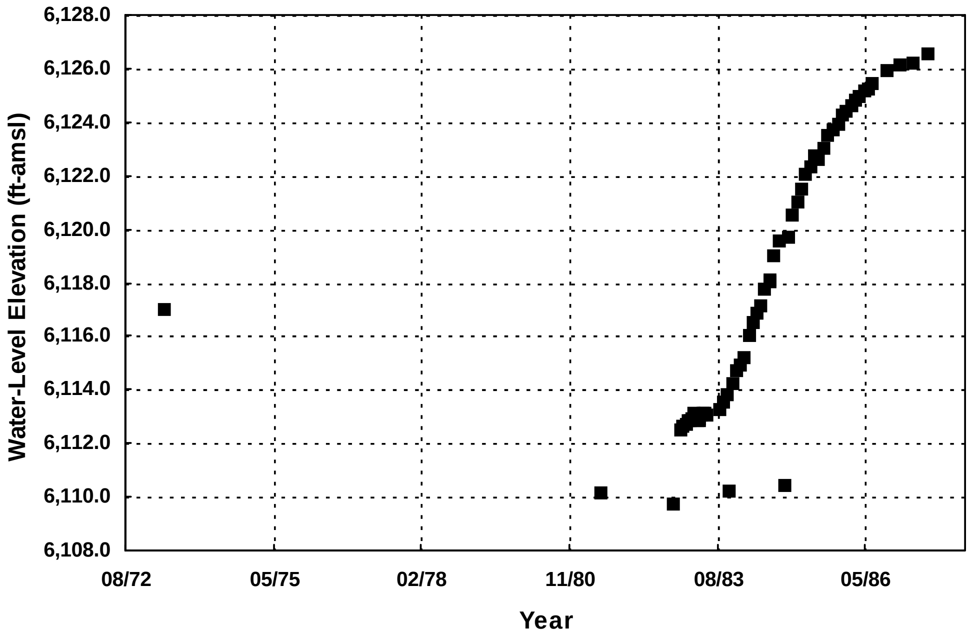
Basin Name: Steptoe Valley | **Land Surface (ft-amsl):** 6244.1
Aquifer Type: Basin Fill | **Well Depth (ft-bgs):** 130

Historical Water-Level Elevations at
179 N16 E63 14ABD 1



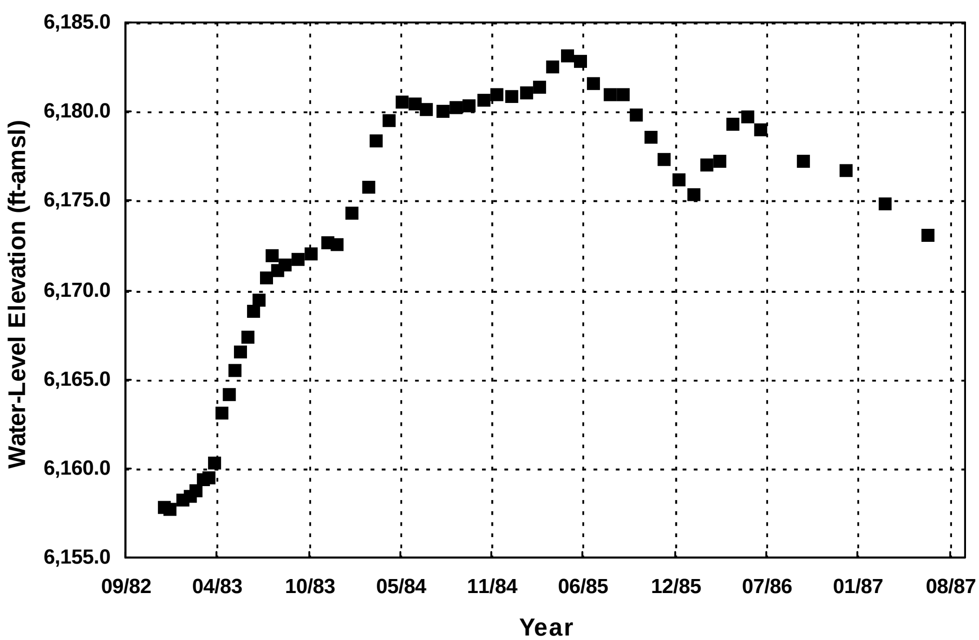
Basin Name: Steptoe Valley | **Land Surface (ft-amsl):** 6411.2
Aquifer Type: Basin Fill | **Well Depth (ft-bgs):** 306

Historical Water-Level Elevations at
179 N16 E64 06CBDC1 USBLM



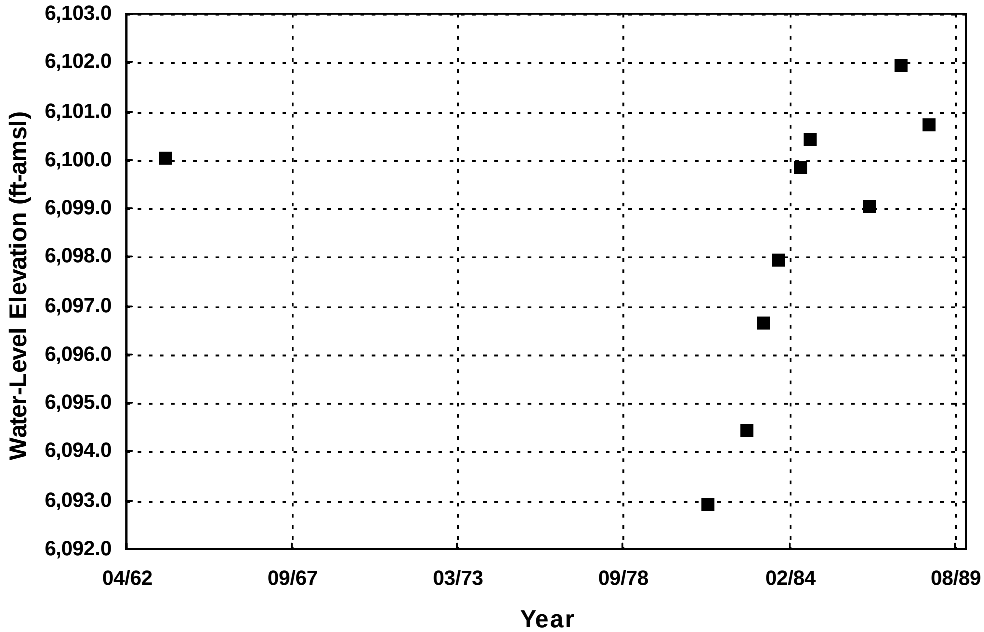
Basin Name:	**Steptoe Valley**	**Land Surface (ft-amsl):**	**6204.0**
Aquifer Type:	**Basin Fill**	**Well Depth (ft-bgs):**	**102**

Historical Water-Level Elevations at
179 N17 E63 22BACB1



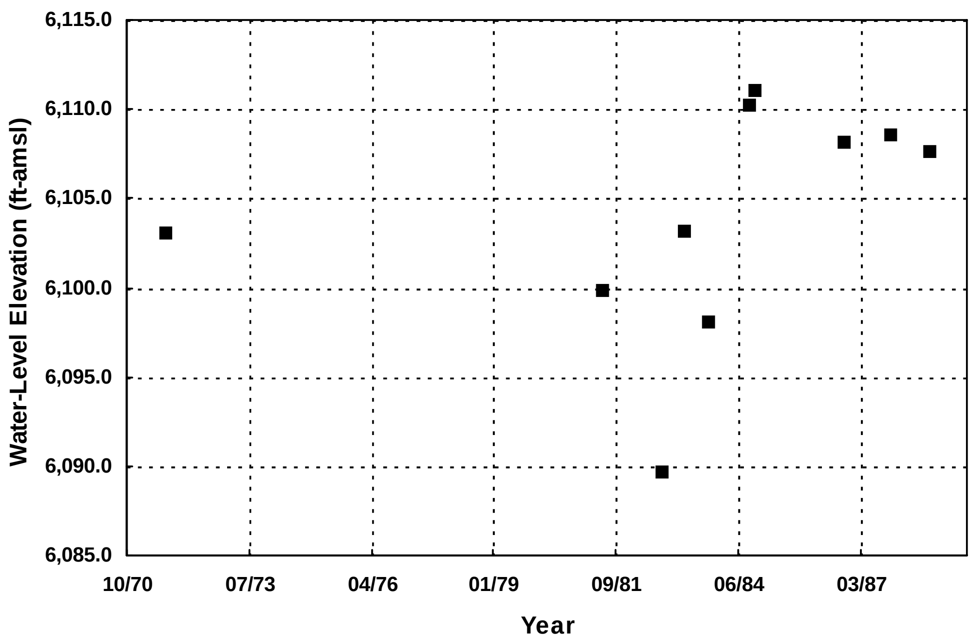
Basin Name:	**Steptoe Valley**	**Land Surface (ft-amsl):**	**6244.1**
Aquifer Type:	**Basin Fill**	**Well Depth (ft-bgs):**	

Historical Water-Level Elevations at
179 N17 E63 36AD 1



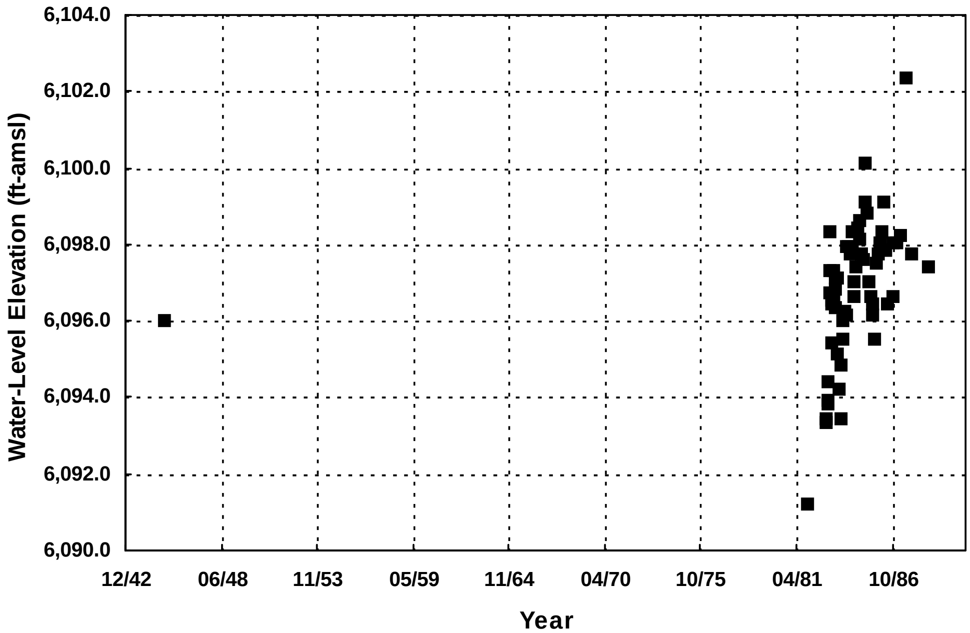
Basin Name:	**Steptoe Valley**	**Land Surface (ft-amsl):**	**6118.0**
Aquifer Type:	**Basin Fill**	**Well Depth (ft-bgs):**	**128**

Historical Water-Level Elevations at
179 N17 E64 06ACCC1 Mormon Church/State of NV



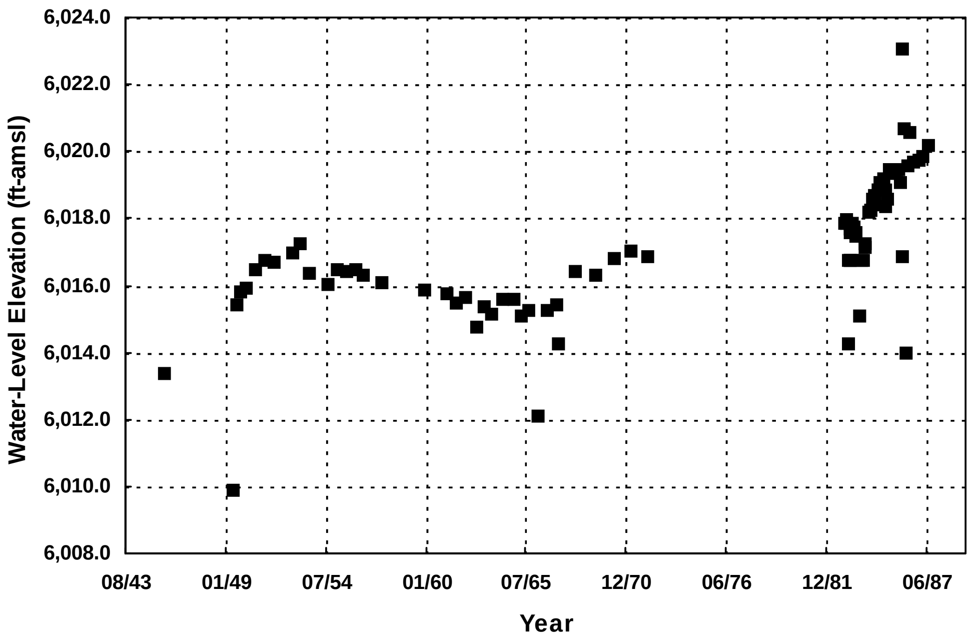
Basin Name:	**Steptoe Valley**	**Land Surface (ft-amsl):**	**6135.0**
Aquifer Type:	**Basin Fill**	**Well Depth (ft-bgs):**	**183**

Historical Water-Level Elevations at
179 N17 E64 07ACCC1 Mormon Church/State of NV



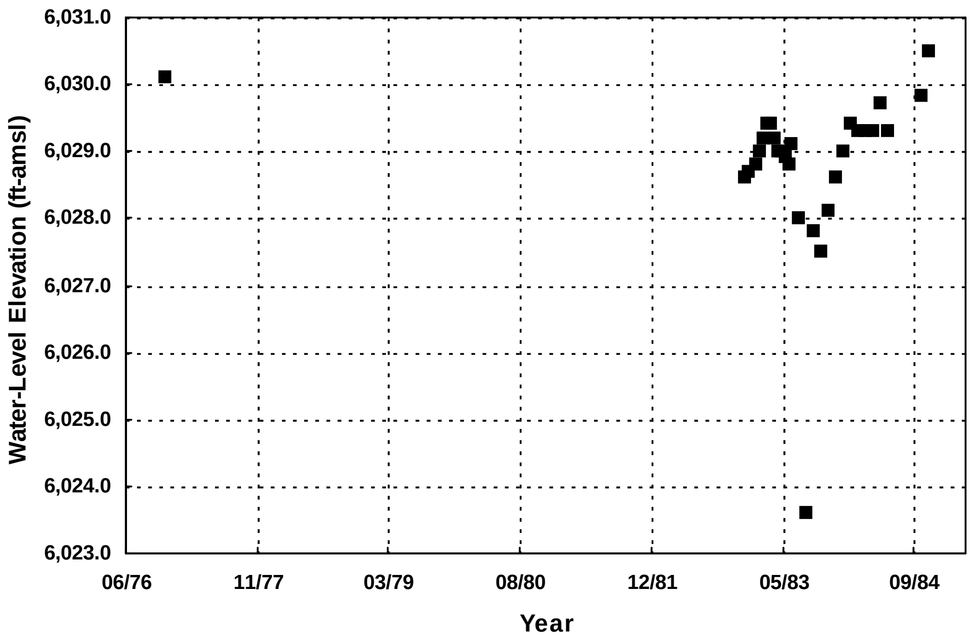
Basin Name:	**Steptoe Valley**	**Land Surface (ft-amsl):**	**6102.0**
Aquifer Type:	**Basin Fill**	**Well Depth (ft-bgs):**	**130**

Historical Water-Level Elevations at
179 N18 E63 25DCCC1



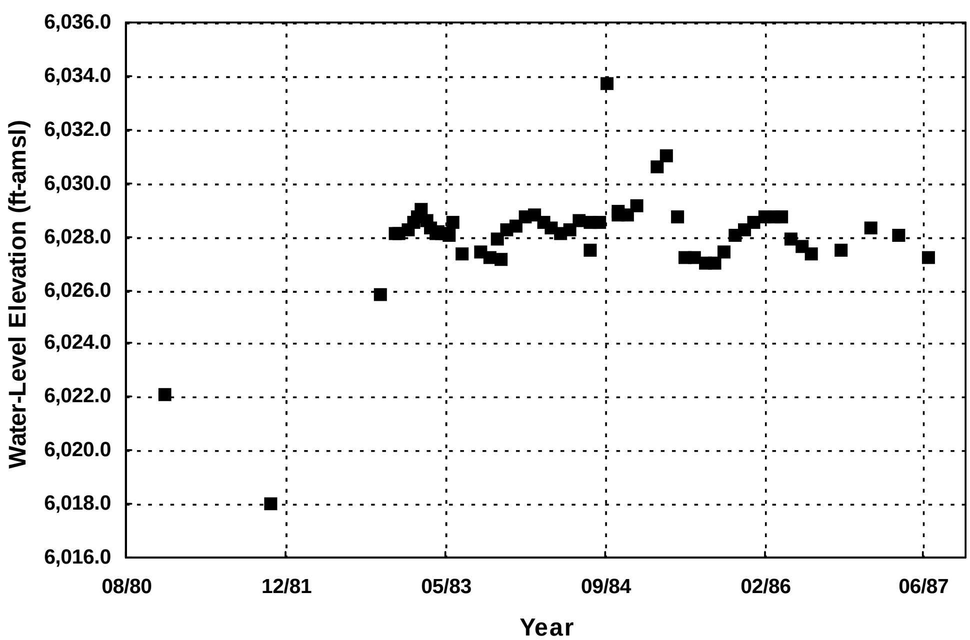
Basin Name:	**Steptoe Valley**	**Land Surface (ft-amsl):**	**6031.1**
Aquifer Type:	**Basin Fill**	**Well Depth (ft-bgs):**	**915**

Historical Water-Level Elevations at
179 N19 E63 12A 1 USGS



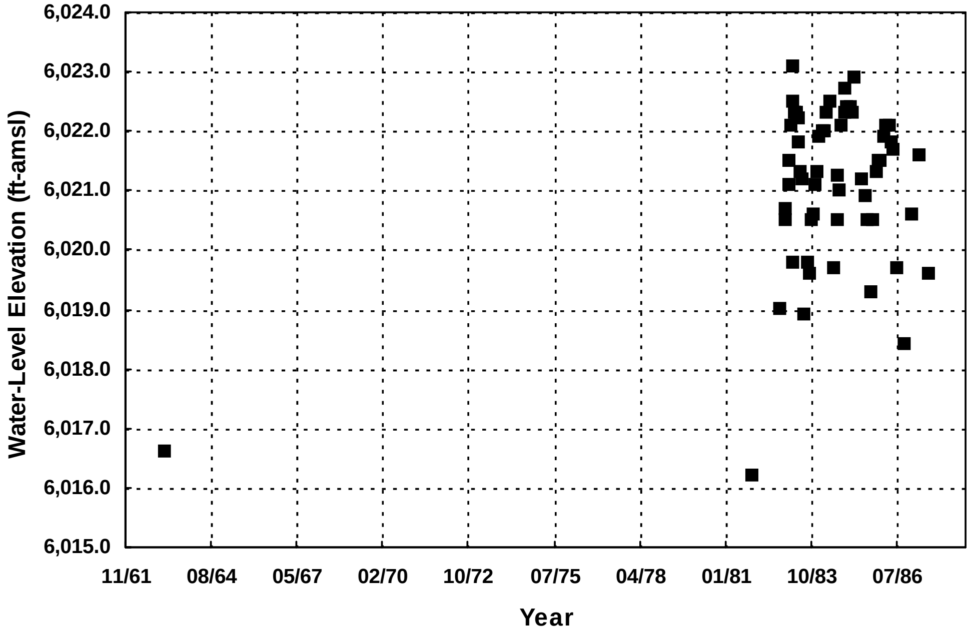
Basin Name:	**Steptoe Valley**	**Land Surface (ft-amsl):**	**6044.1**
Aquifer Type:	**Basin Fill**	**Well Depth (ft-bgs):**	**200**

Historical Water-Level Elevations at
179 N19 E63 20DB 1



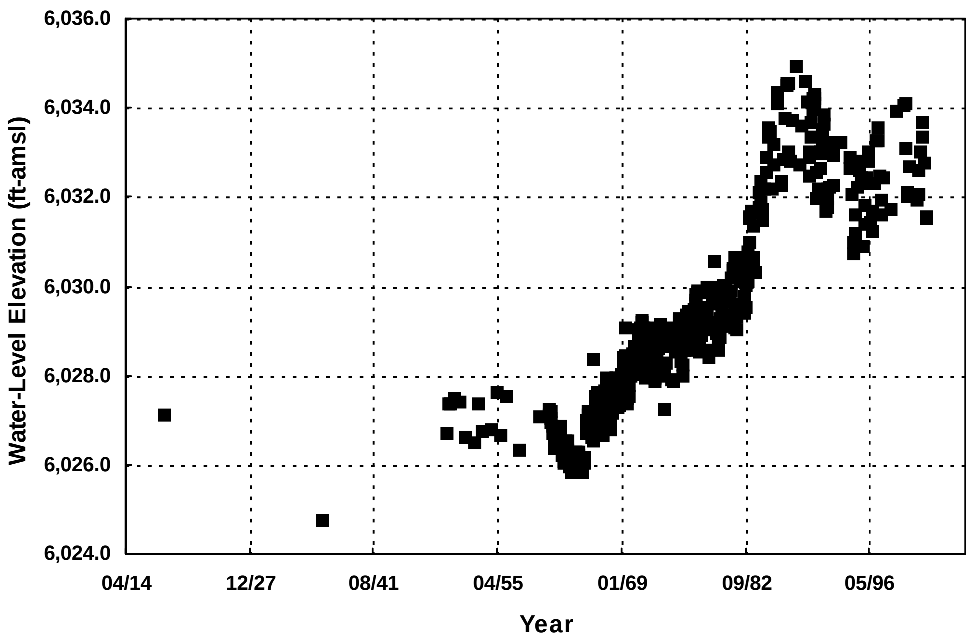
Basin Name:	**Steptoe Valley**	**Land Surface (ft-amsl):**	**6034.1**
Aquifer Type:	**Basin Fill**	**Well Depth (ft-bgs):**	**175**

Historical Water-Level Elevations at
179 N19 E63 20DBD 1



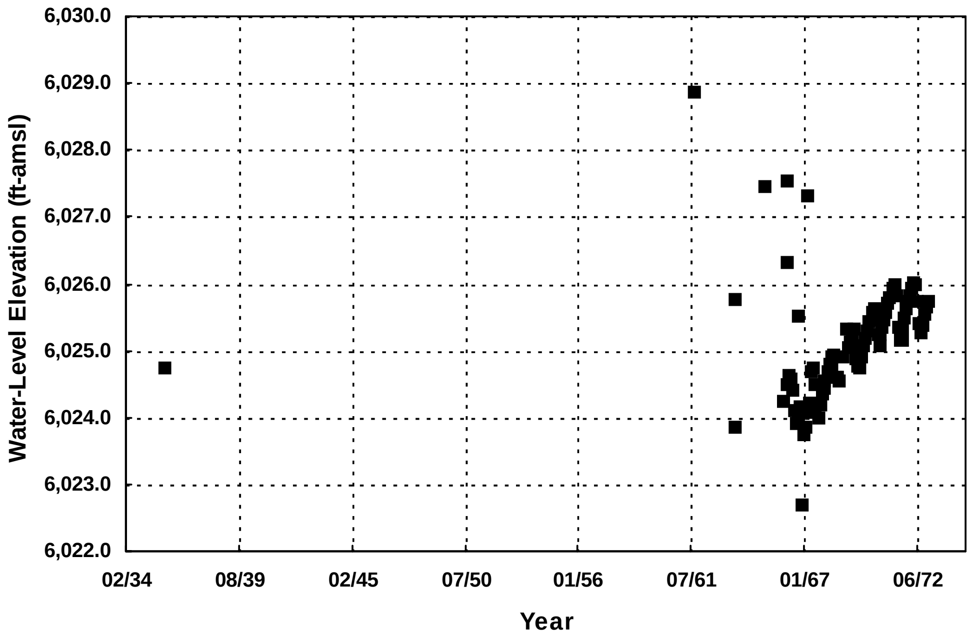
Basin Name:	**Steptoe Valley**	**Land Surface (ft-amsl):**	**6029.1**
Aquifer Type:	**Basin Fill**	**Well Depth (ft-bgs):**	**122**

Historical Water-Level Elevations at
179 N19 E63 28CD 1



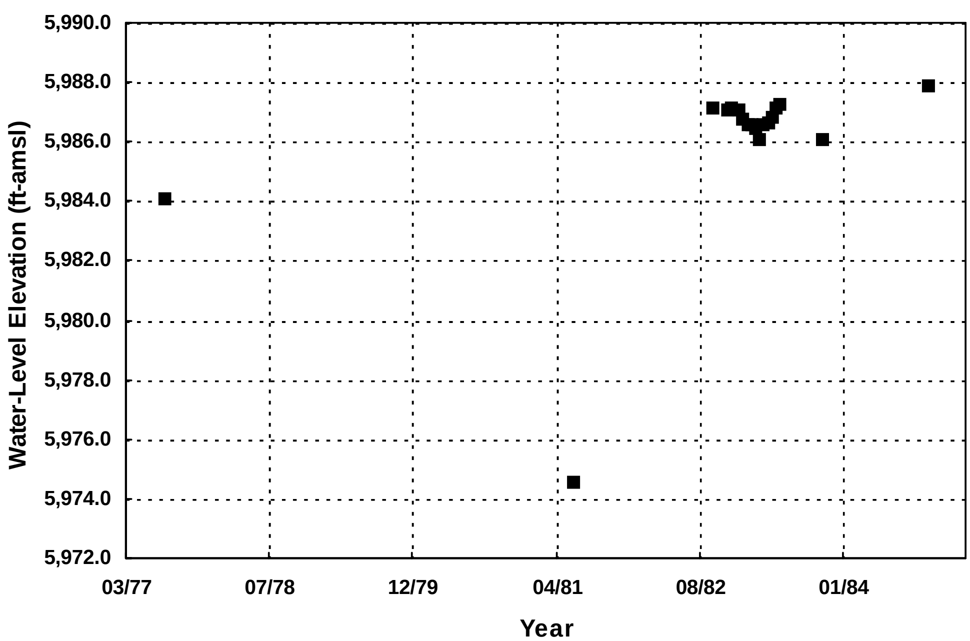
Basin Name:	**Steptoe Valley**	**Land Surface (ft-amsl):**	**6041.0**
Aquifer Type:	**Basin Fill**	**Well Depth (ft-bgs):**	**122**

Historical Water-Level Elevations at
179 N20 E64 32C 2 USGS



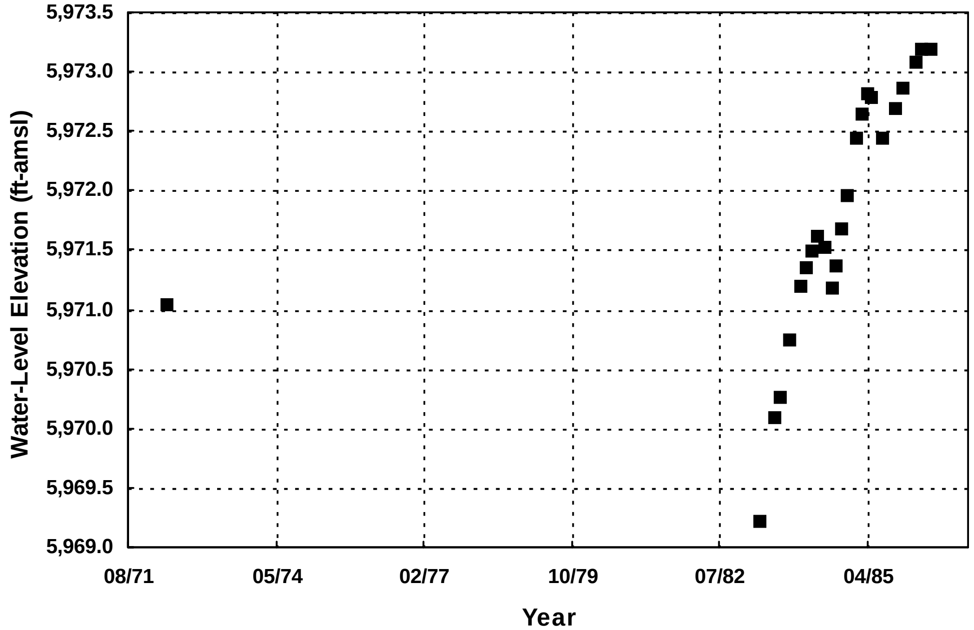
Basin Name: Steptoe Valley
Aquifer Type: Basin Fill
Land Surface (ft-amsl): 6041.0
Well Depth (ft-bgs):

Historical Water-Level Elevations at
179 N20 E64 32C 5 USGS



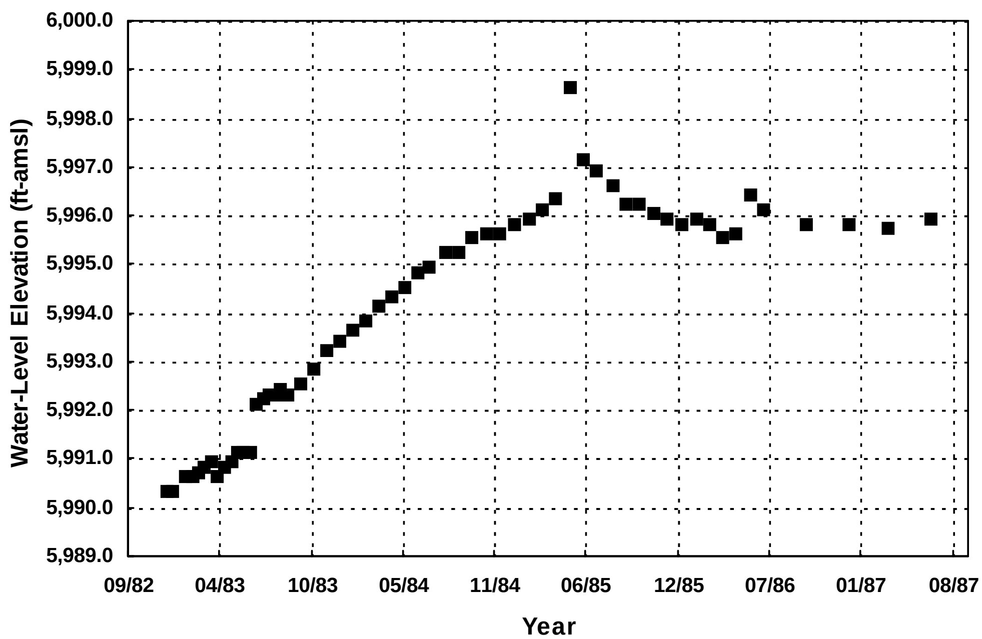
Basin Name: Steptoe Valley
Aquifer Type: Basin Fill
Land Surface (ft-amsl): 6008.1
Well Depth (ft-bgs): 220

Historical Water-Level Elevations at
179 N21 E63 24CB 1



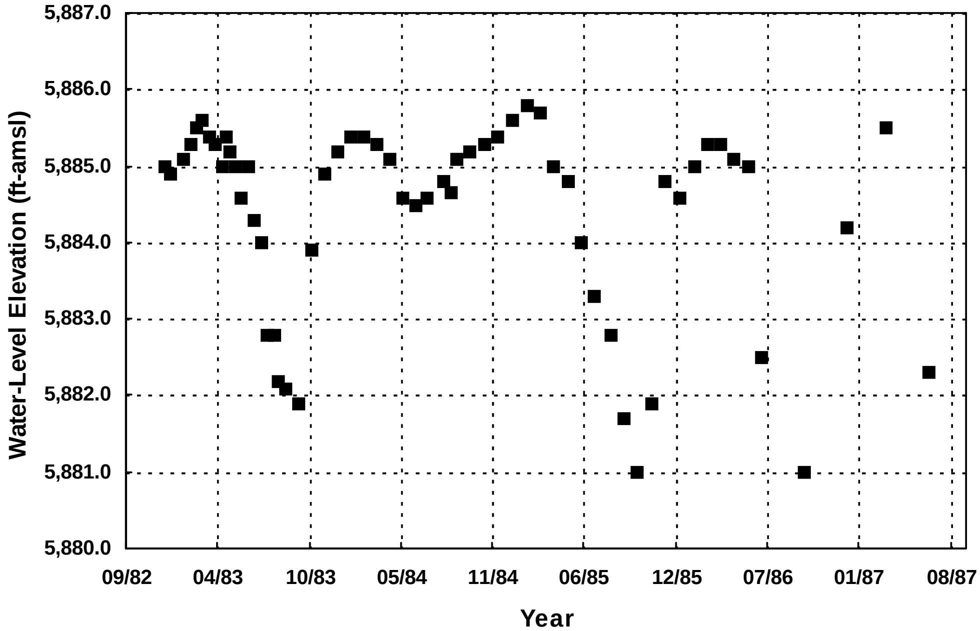
Basin Name:	**Steptoe Valley**	**Land Surface (ft-amsl):**	**6031.0**
Aquifer Type:	**Basin Fill**	**Well Depth (ft-bgs):**	**300**

Historical Water-Level Elevations at
179 N21 E64 17DCBB1



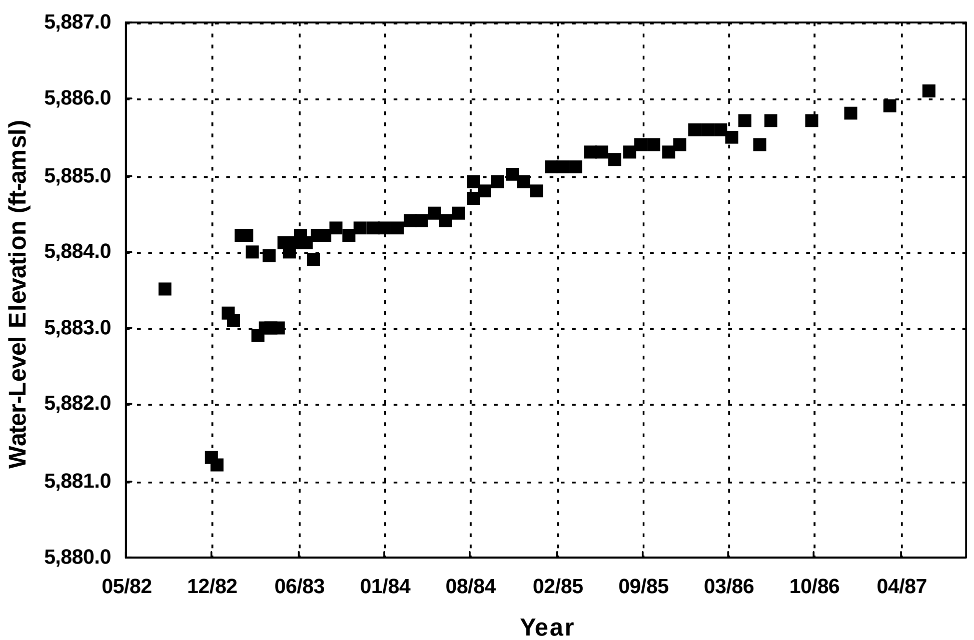
Basin Name:	**Steptoe Valley**	**Land Surface (ft-amsl):**	**6034.0**
Aquifer Type:	**Basin Fill**	**Well Depth (ft-bgs):**	

Historical Water-Level Elevations at
179 N21 E64 29BCDB1



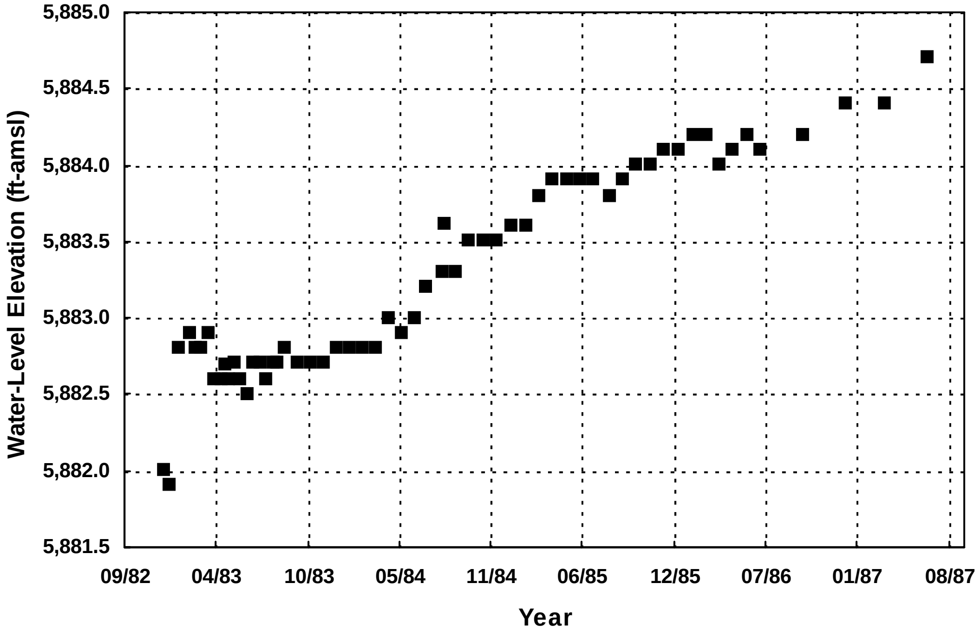
Basin Name: Steptoe Valley
Aquifer Type: Basin Fill
Land Surface (ft-amsl): 5886
Well Depth (ft-bgs): 6

Historical Water-Level Elevations at
179 N23 E64 07CD 1



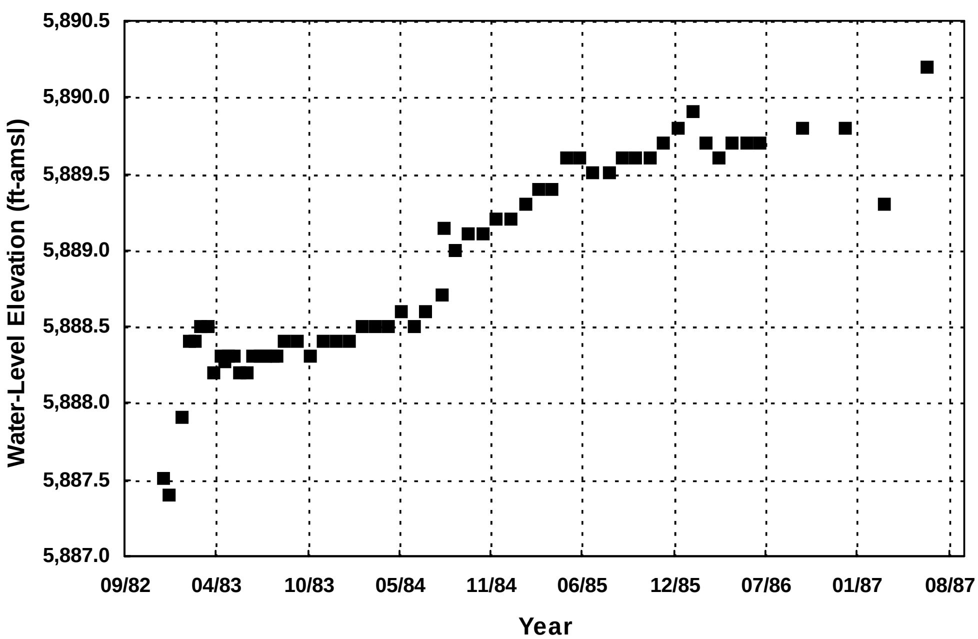
Basin Name: Steptoe Valley
Aquifer Type: Basin Fill
Land Surface (ft-amsl): 5975.0
Well Depth (ft-bgs): 995

Historical Water-Level Elevations at
179 N23 E64 20AAAB1 White Pine Power Project



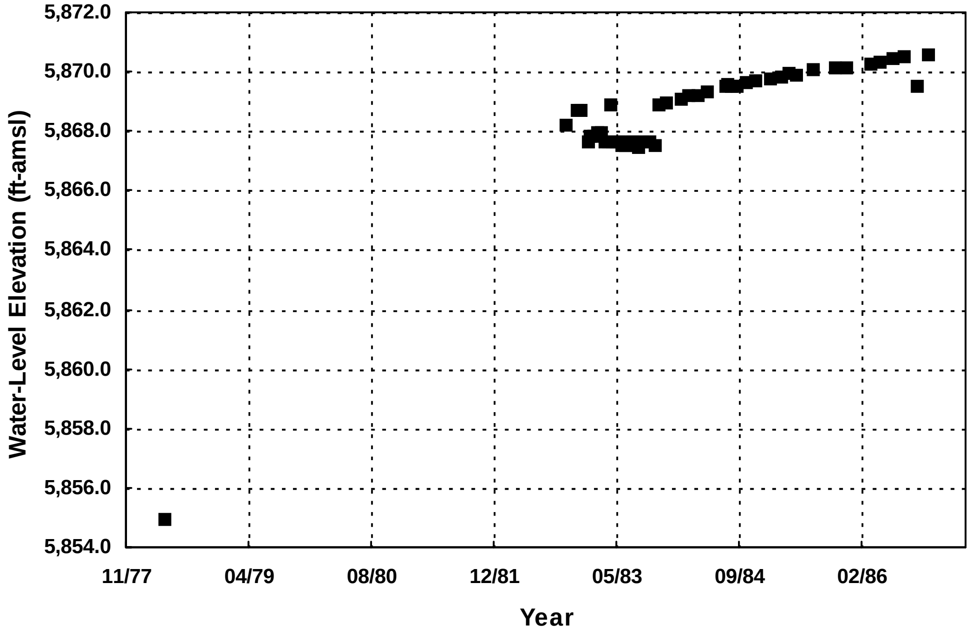
Basin Name:	**Steptoe Valley**	**Land Surface (ft-amsl):**	**5975.0**
Aquifer Type:	**Basin Fill**	**Well Depth (ft-bgs):**	**460**

Historical Water-Level Elevations at
179 N23 E64 20AAAC1 White Pine Power Project



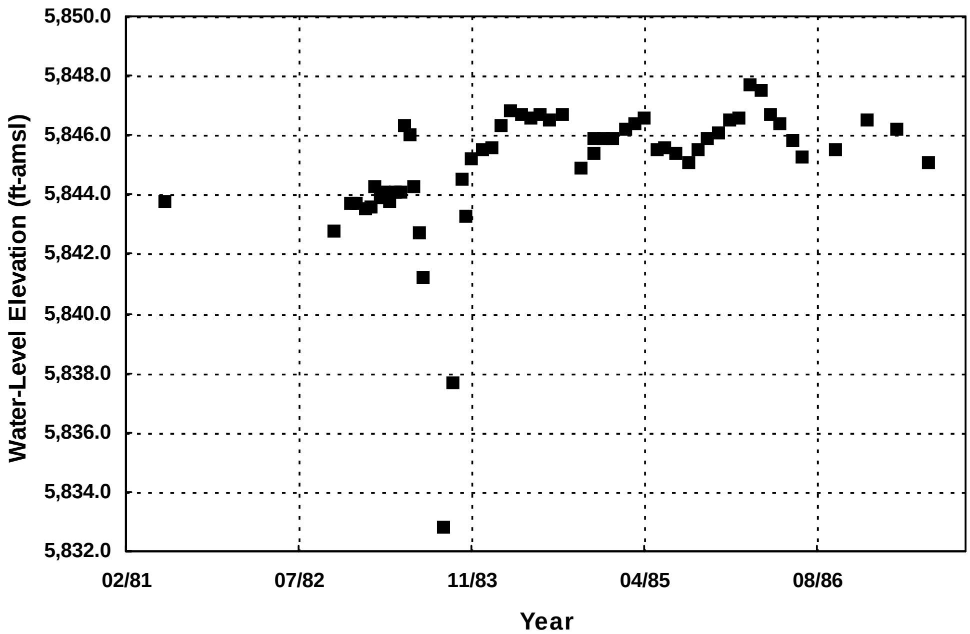
Basin Name:	**Steptoe Valley**	**Land Surface (ft-amsl):**	**5959.0**
Aquifer Type:	**Basin Fill**	**Well Depth (ft-bgs):**	**455**

Historical Water-Level Elevations at
179 N23 E64 20AB 1 White Pine Power Project



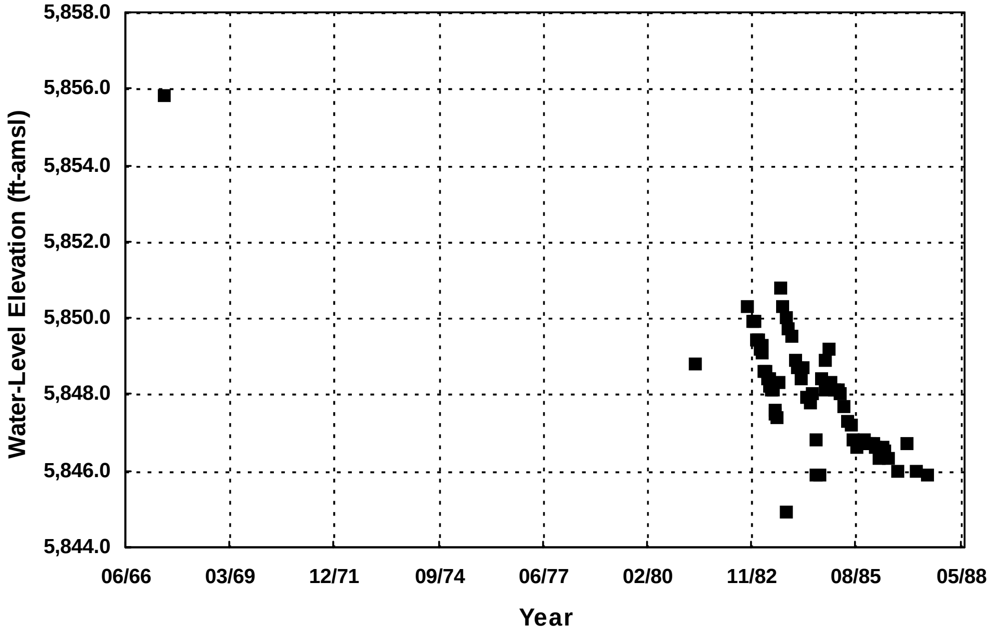
Basin Name: Steptoe Valley **Land Surface (ft-amsl):** 5974.9
Aquifer Type: Basin Fill **Well Depth (ft-bgs):** 235

Historical Water-Level Elevations at
179 N25 E65 31BBDD1



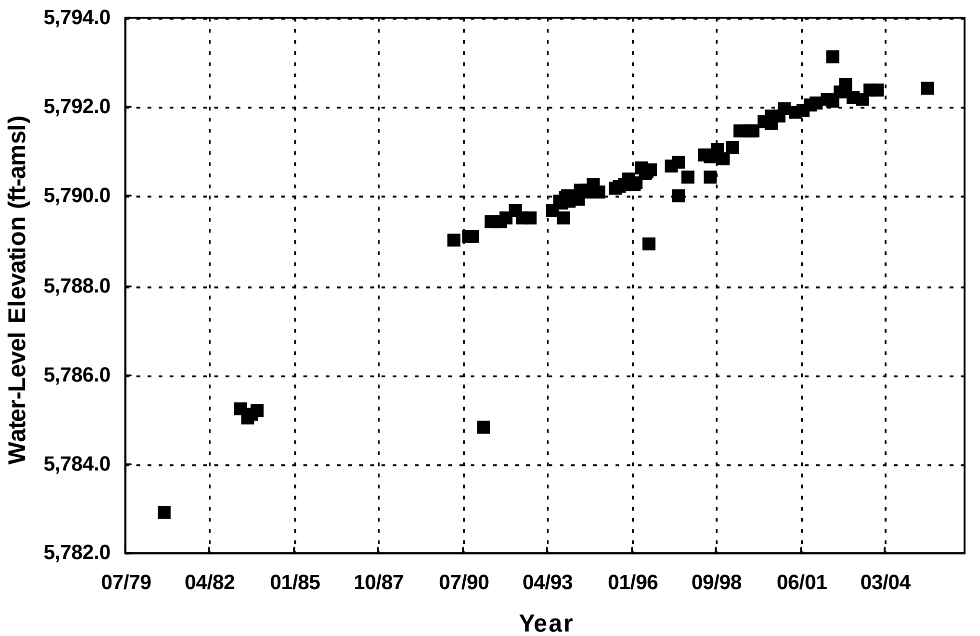
Basin Name: Steptoe Valley **Land Surface (ft-amsl):** 5900.8
Aquifer Type: Basin Fill **Well Depth (ft-bgs):** 894

Historical Water-Level Elevations at
179 N26 E65 34DABA1



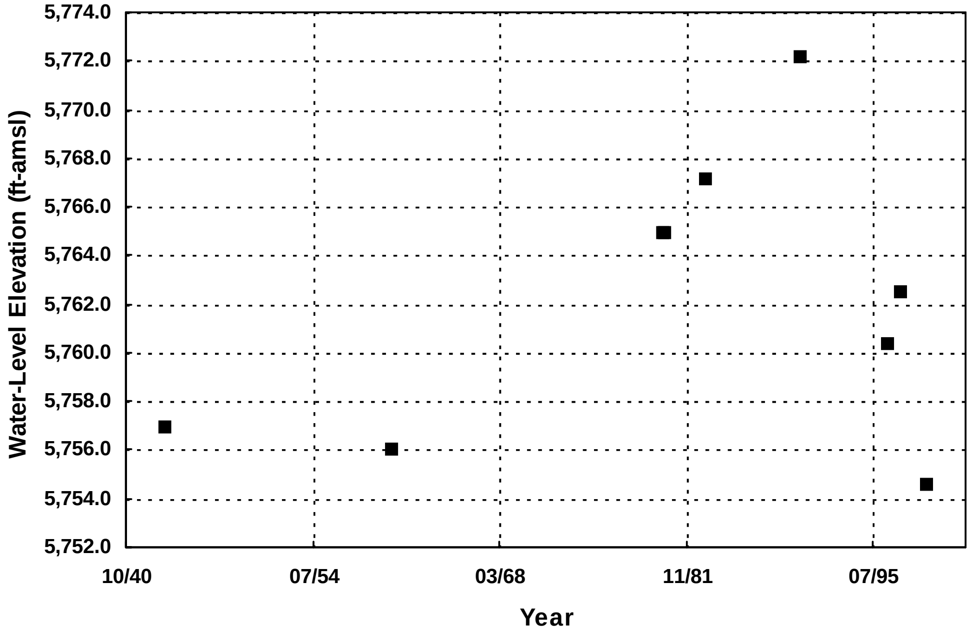
Basin Name:	**Steptoe Valley**	**Land Surface (ft-amsl):**	**5900.8**
Aquifer Type:	**Basin Fill**	**Well Depth (ft-bgs):**	**327**

Historical Water-Level Elevations at
179 N26 E65 34DDDD1 Hudson Oil



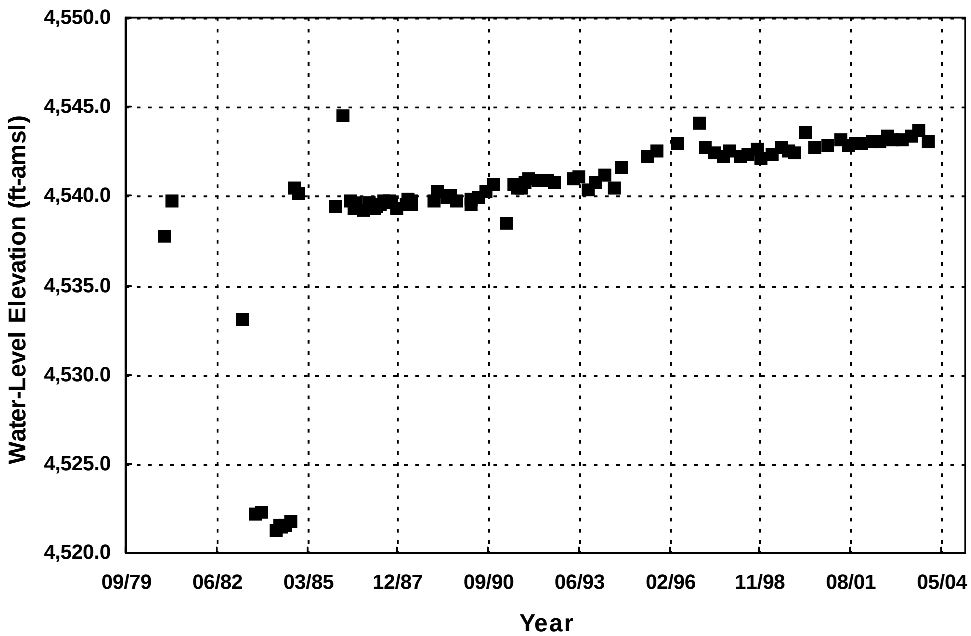
Basin Name:	**Cave Valley**	**Land Surface (ft-amsl):**	**6011.9**
Aquifer Type:	**Carbonate Well**	**Well Depth (ft-bgs):**	**460**

Historical Water-Level Elevations at
180 N07 E63 14BADD1 USGS-MX (Cave Valley)



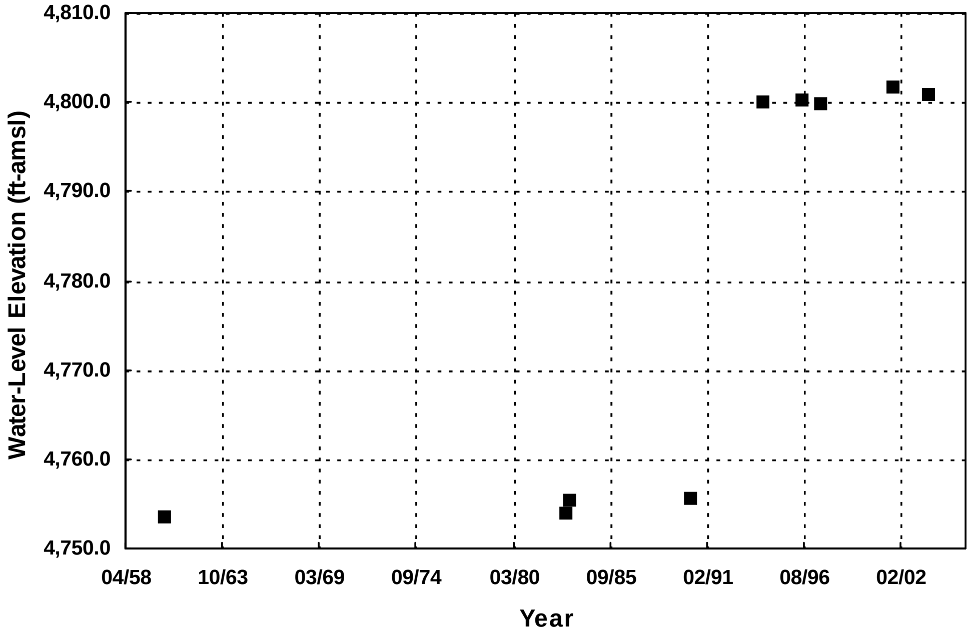
Basin Name:	**Cave Valley**	**Land Surface (ft-amsl):**	**6087**
Aquifer Type:	**Basin Fill**	**Well Depth (ft-bgs):**	**352**

Historical Water-Level Elevations at
180 N08 E64 30CDBC1 USBLM



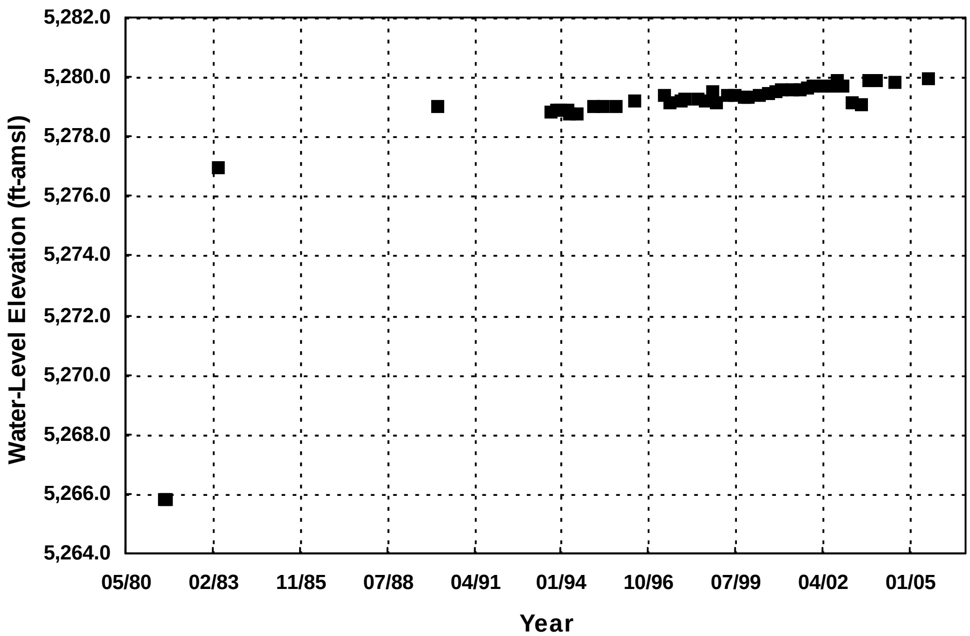
Basin Name:	**Dry Lake Valley**	**Land Surface (ft-amsl):**	**5390.7**
Aquifer Type:	**Carbonate Well**	**Well Depth (ft-bgs):**	**2395**

Historical Water-Level Elevations at
181 N03 E63 27CAA 1 USGS-MX (N. Dry Lake)



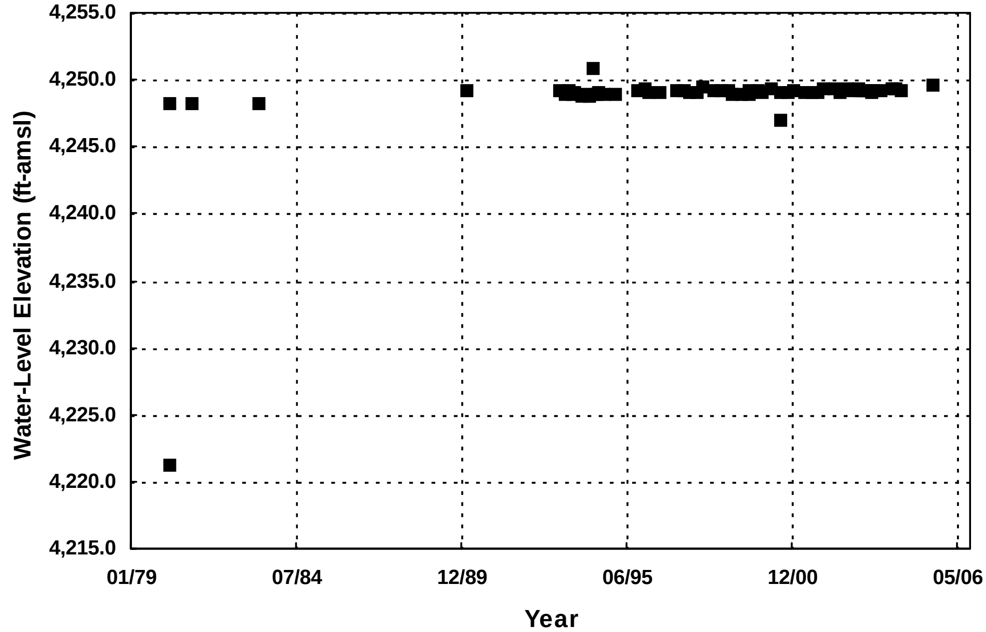
Basin Name:	**Dry Lake Valley**	**Land Surface (ft-amsl):**	**5070.5**
Aquifer Type:	**Basin Fill**	**Well Depth (ft-bgs):**	**380**

Historical Water-Level Elevations at
181 N03 E64 20BD 1 USBLM - Coyote Well



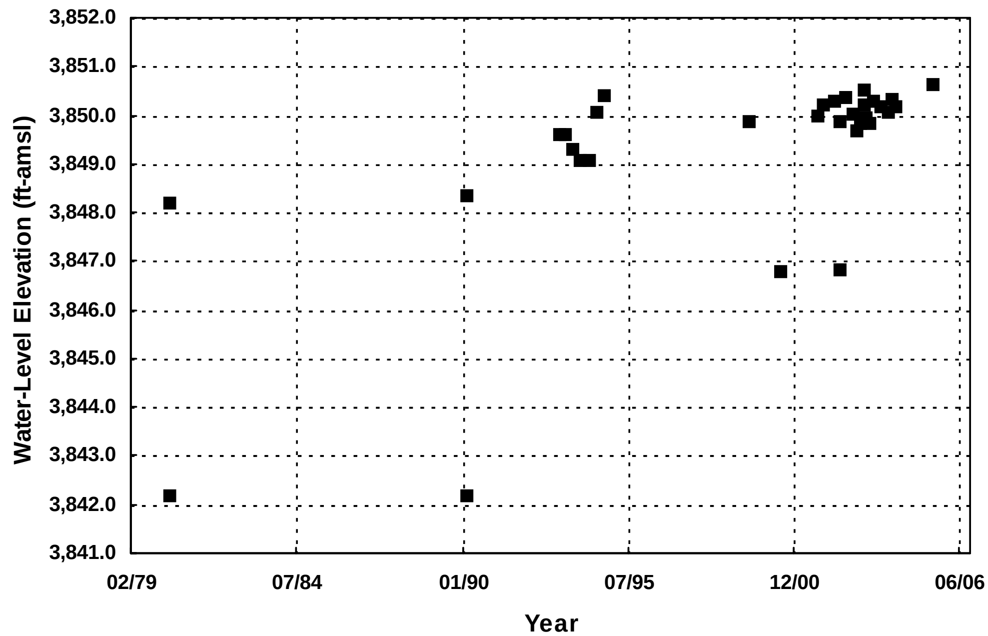
Basin Name:	**Dry Lake Valley**	**Land Surface (ft-amsl):**	**5533.8**
Aquifer Type:	**Basin Fill**	**Well Depth (ft-bgs):**	**1190**

Historical Water-Level Elevations at
181 N04 E64 07DC 1 USGS-MX (Muleshoe Valley)



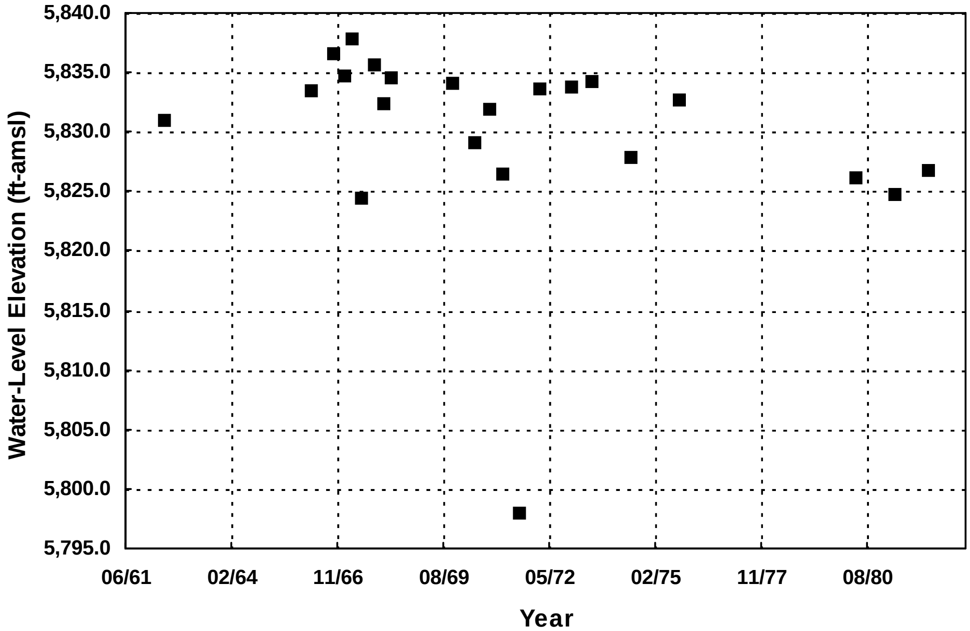
Basin Name:	**Dry Lake Valley**	**Land Surface (ft-amsl):**	**4643.2**
Aquifer Type:	**Basin Fill**	**Well Depth (ft-bgs):**	**1000**

Historical Water-Level Elevations at
181 S03 E64 12AC 1 USGS-MX(S. Dry Lake Well)



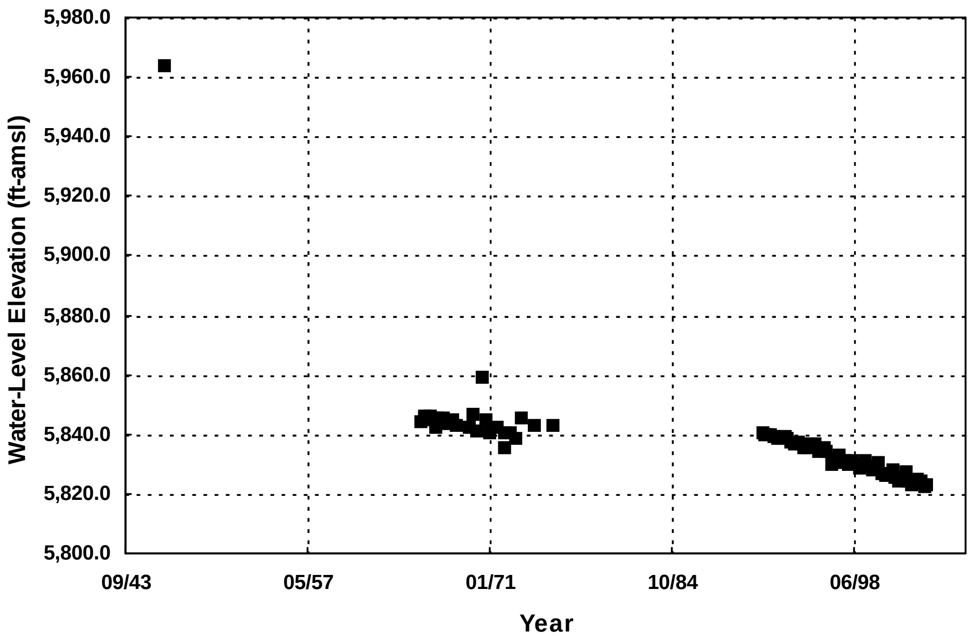
Basin Name:	**Delamar Valley**	**Land Surface (ft-amsl):**	**4713.2**
Aquifer Type:	**Basin Fill**	**Well Depth (ft-bgs):**	**1195**

Historical Water-Level Elevations at
182 S06 E63 12AD 1 USGS-MX (Delamar Well)



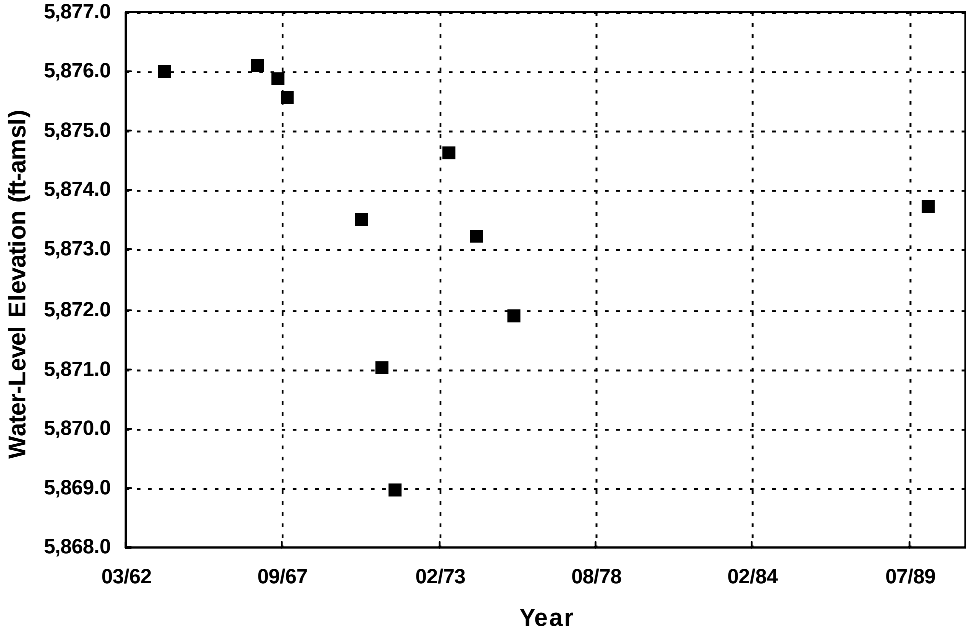
Basin Name: Lake Valley
Aquifer Type: Basin Fill
Land Surface (ft-amsl): 5934
Well Depth (ft-bgs): 450

Historical Water-Level Elevations at
183 N06 E66 22B 1



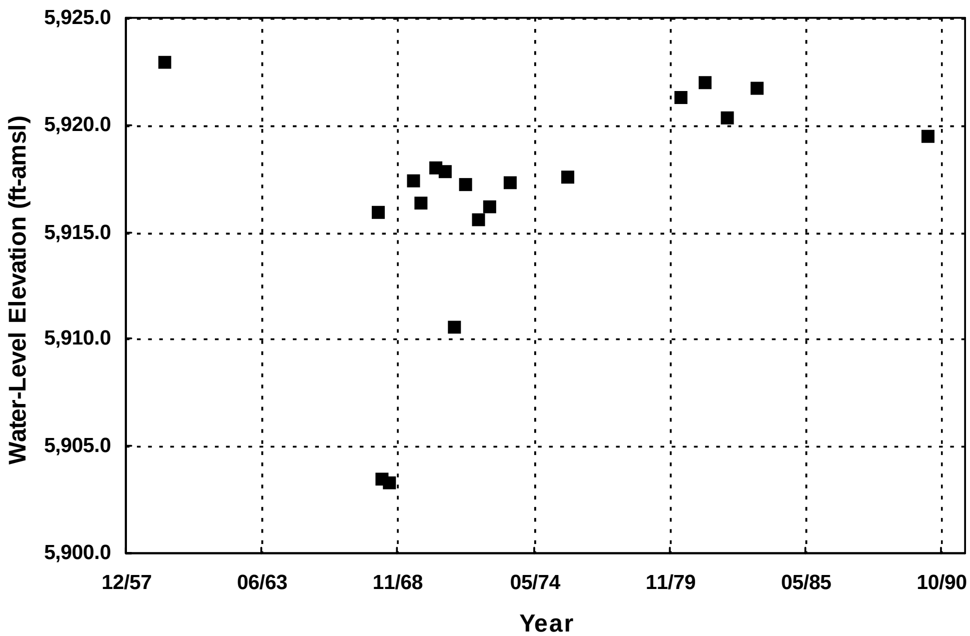
Basin Name: Lake Valley
Aquifer Type: Basin Fill
Land Surface (ft-amsl): 5977.1
Well Depth (ft-bgs): 161

Historical Water-Level Elevations at
183 N06 E66 35C 1 USBLM - Pony Springs Well



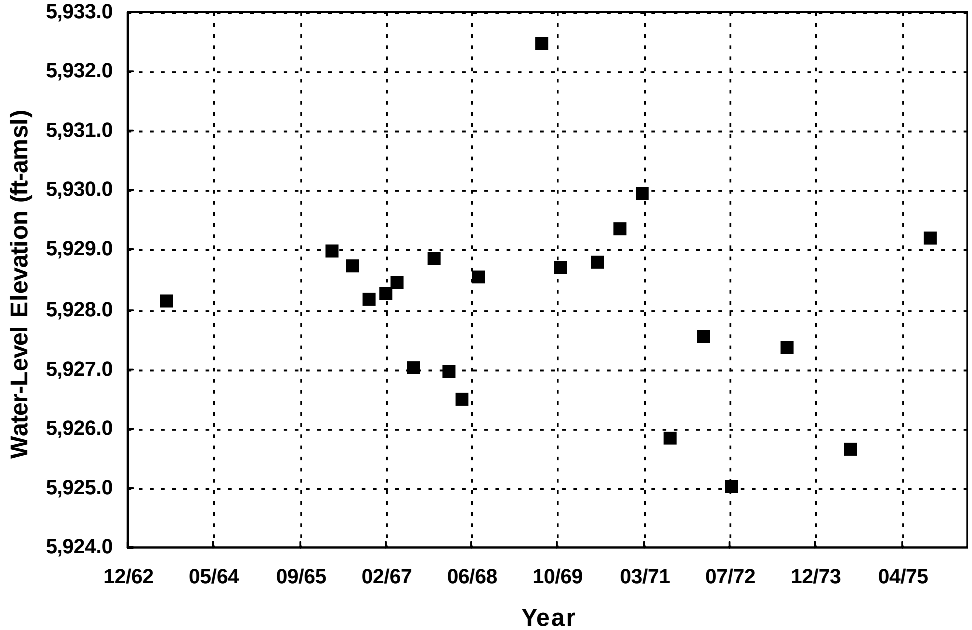
Basin Name: **Lake Valley** **Land Surface (ft-amsl):** **6084.0**
Aquifer Type: **Basin Fill** **Well Depth (ft-bgs):**

Historical Water-Level Elevations at
183 N06 E67 18CBAD1 USBLM



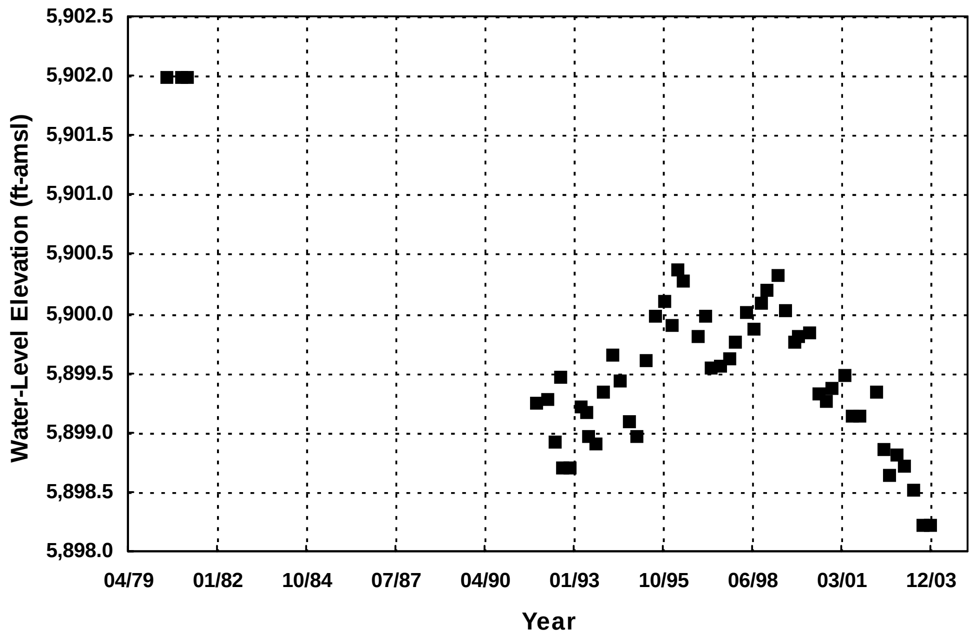
Basin Name: **Lake Valley** **Land Surface (ft-amsl):** **5962.9**
Aquifer Type: **Basin Fill** **Well Depth (ft-bgs):** **266**

Historical Water-Level Elevations at
183 N07 E65 14DD 2 USBLM



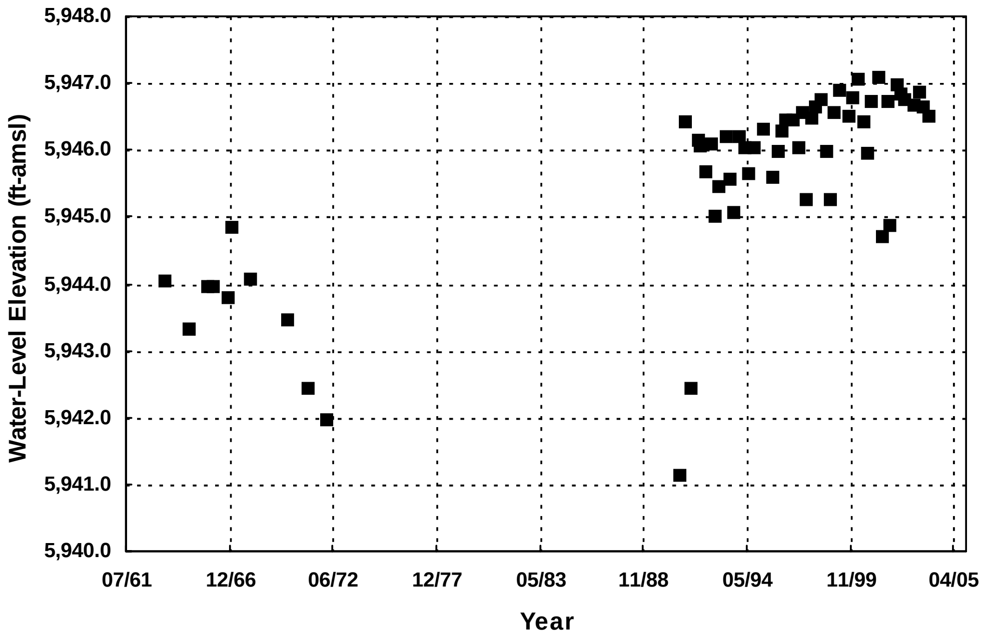
Basin Name:	**Lake Valley**	**Land Surface (ft-amsl):**	**5953.9**
Aquifer Type:	**Basin Fill**	**Well Depth (ft-bgs):**	**30**

Historical Water-Level Elevations at
183 N07 E65 23D 1 USBLM - John Dutch Well



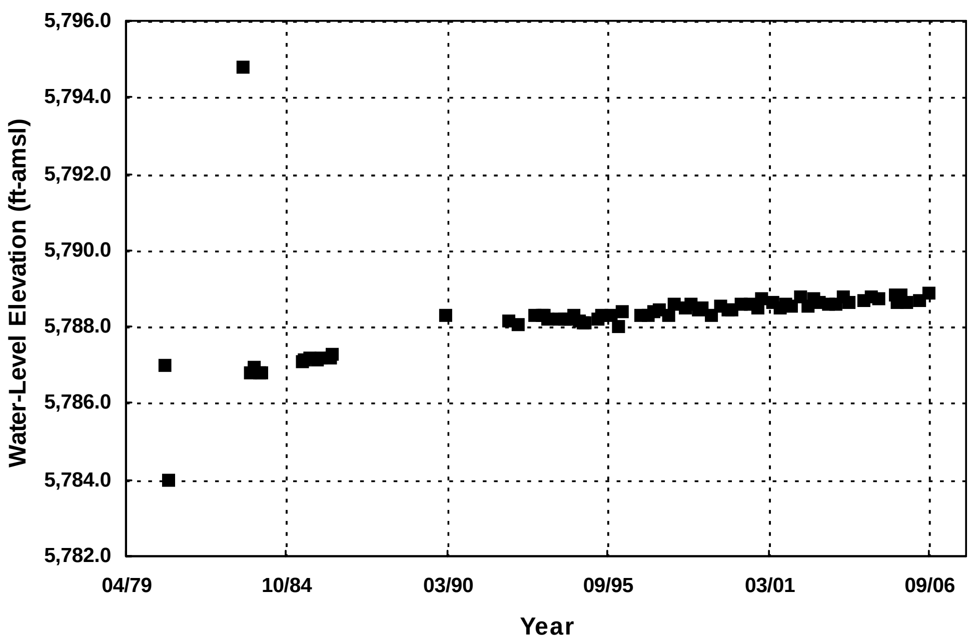
Basin Name:	**Lake Valley**	**Land Surface (ft-amsl):**	**5919**
Aquifer Type:	**Basin Fill**	**Well Depth (ft-bgs):**	**97**

Historical Water-Level Elevations at
183 N07 E66 16DC 1 USGS-MX (Lake Valley)



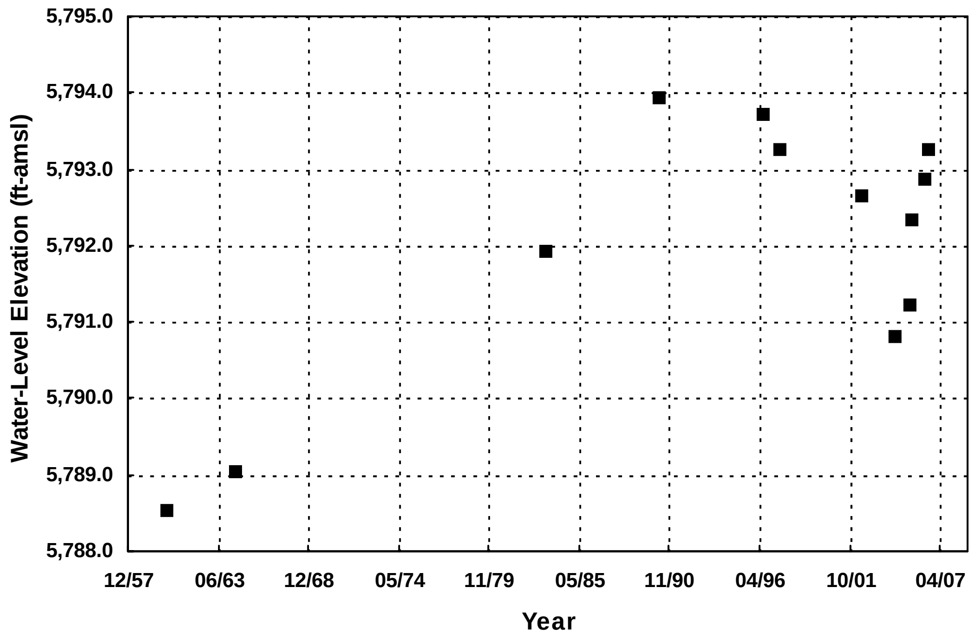
Basin Name:	Lake Valley	Land Surface (ft-amsl):	5979.0
Aquifer Type:	Basin Fill	Well Depth (ft-bgs):	130

Historical Water-Level Elevations at
183 N08 E65 02D 1 NDOT - Patterson Pass



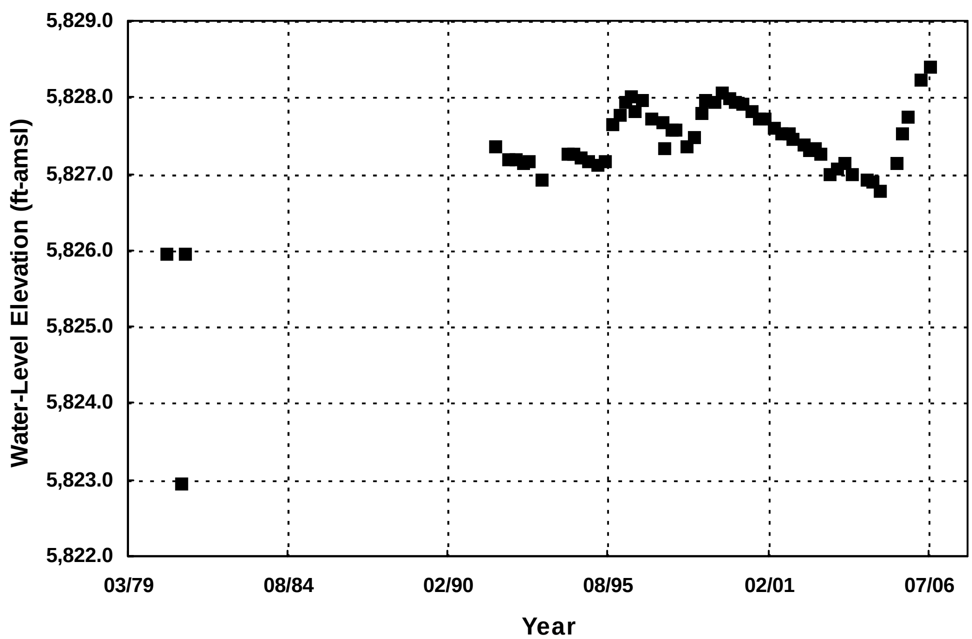
Basin Name:	Spring Valley	Land Surface (ft-amsl):	6014
Aquifer Type:	Basin Fill	Well Depth (ft-bgs):	679

Historical Water-Level Elevations at
184 N09 E68 30AAAB1 USGS-MX (Spring Valley S.)



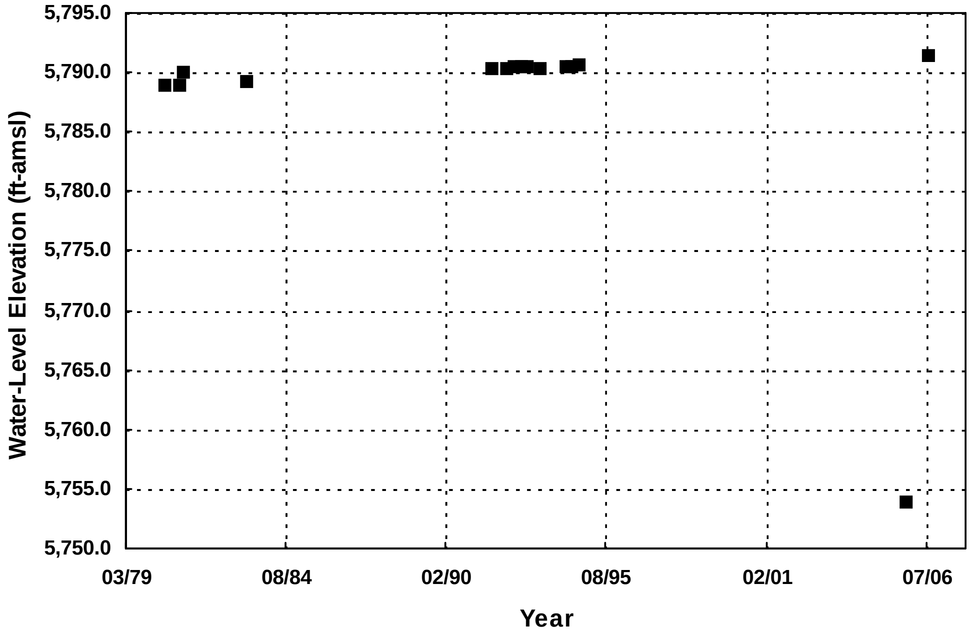
Basin Name:	**Spring Valley**	**Land Surface (ft-amsl):**	**5834.0**
Aquifer Type:	**Basin Fill**	**Well Depth (ft-bgs):**	**54**

Historical Water-Level Elevations at
184 N10 E67 16AABA1 USBLM



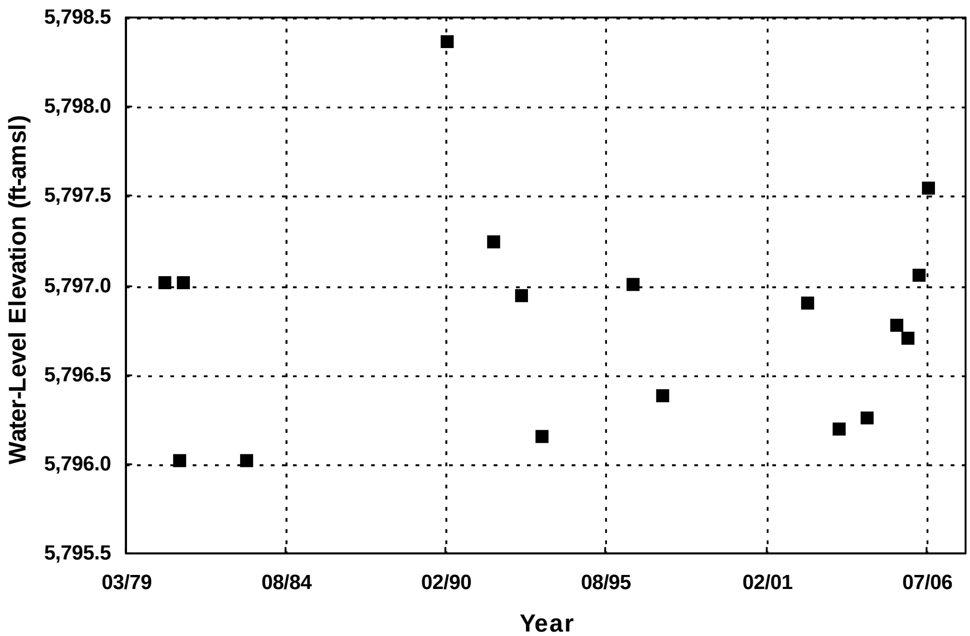
Basin Name:	**Spring Valley**	**Land Surface (ft-amsl):**	**5892.9**
Aquifer Type:	**Basin Fill**	**Well Depth (ft-bgs):**	**100**

Historical Water-Level Elevations at
184 N10 E67 22AA 1 USGS-MX (Spring V Central)



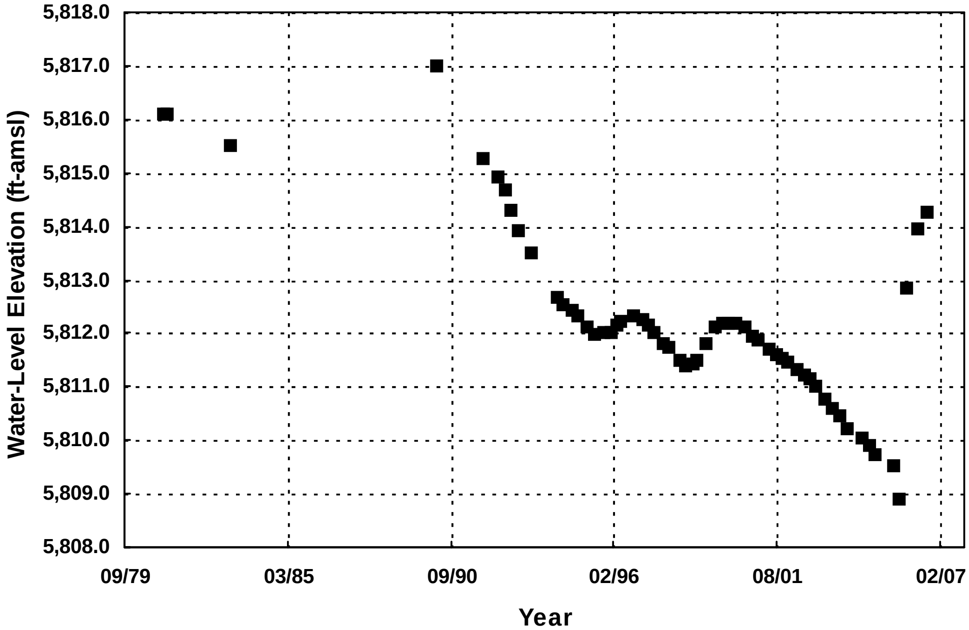
Basin Name:	**Spring Valley**	**Land Surface (ft-amsl):**	**5910**
Aquifer Type:	**Basin Fill**	**Well Depth (ft-bgs):**	**150**

Historical Water-Level Elevations at
184 N10 E68 31CD 1 USGS-MX



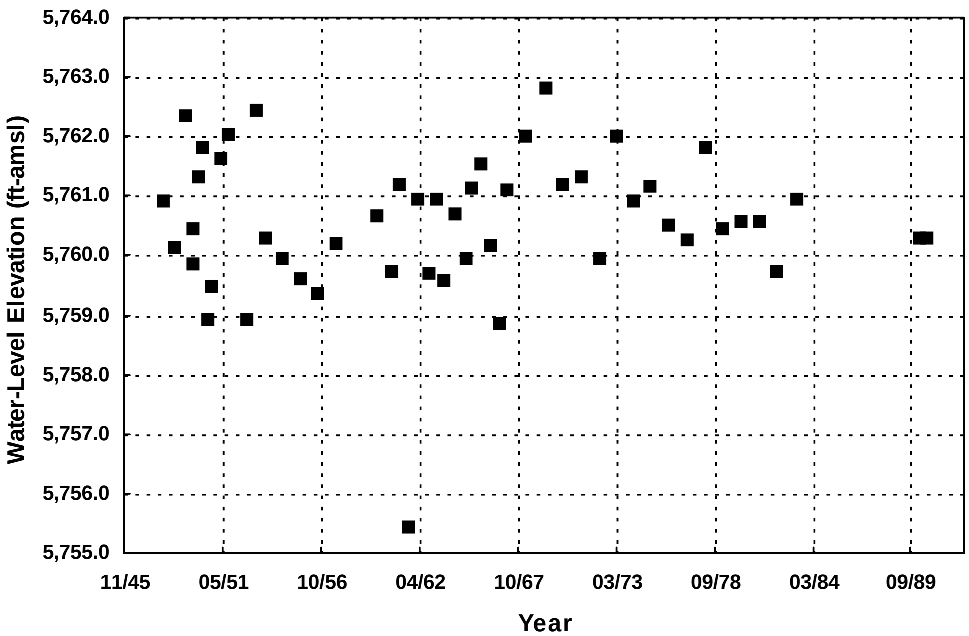
Basin Name:	**Spring Valley**	**Land Surface (ft-amsl):**	**5844.0**
Aquifer Type:	**Basin Fill**	**Well Depth (ft-bgs):**	**102**

Historical Water-Level Elevations at
184 N11 E66 23AB 1 USGS-MX



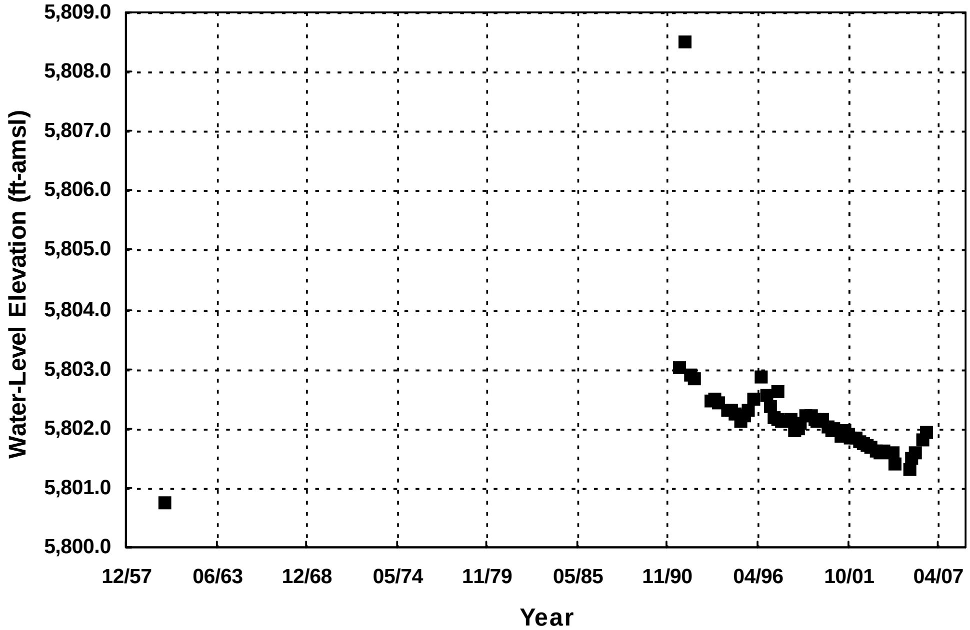
Basin Name: Spring Valley
Aquifer Type: Basin Fill
Land Surface (ft-amsl): 5910.1
Well Depth (ft-bgs): 200

Historical Water-Level Elevations at
184 N11 E68 19DCDC1 USGS-MX (Spring Valley)



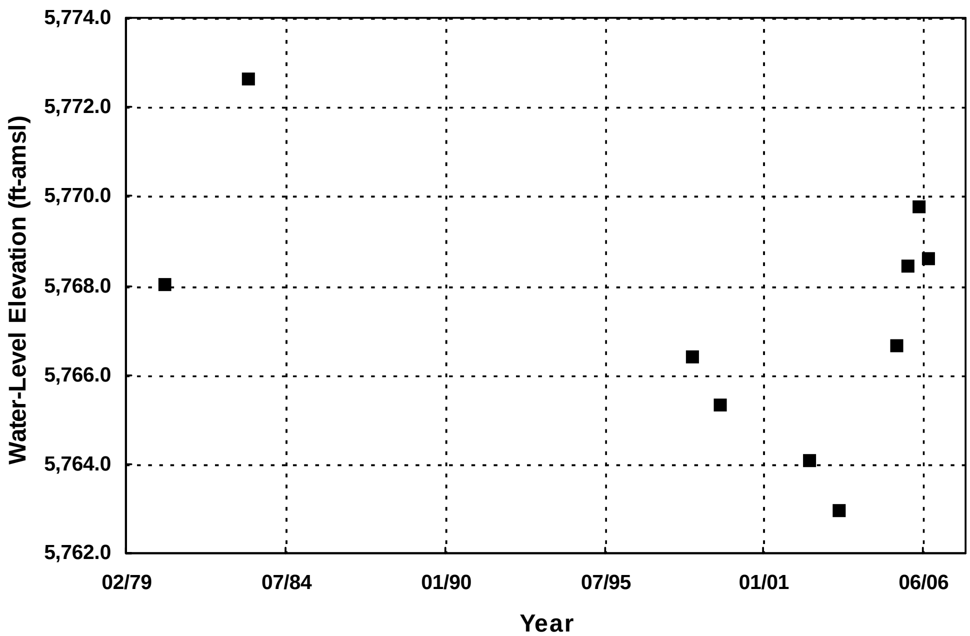
Basin Name: Spring Valley
Aquifer Type: Basin Fill
Land Surface (ft-amsl): 5774.0
Well Depth (ft-bgs): 45

Historical Water-Level Elevations at
184 N13 E67 08ACAB1



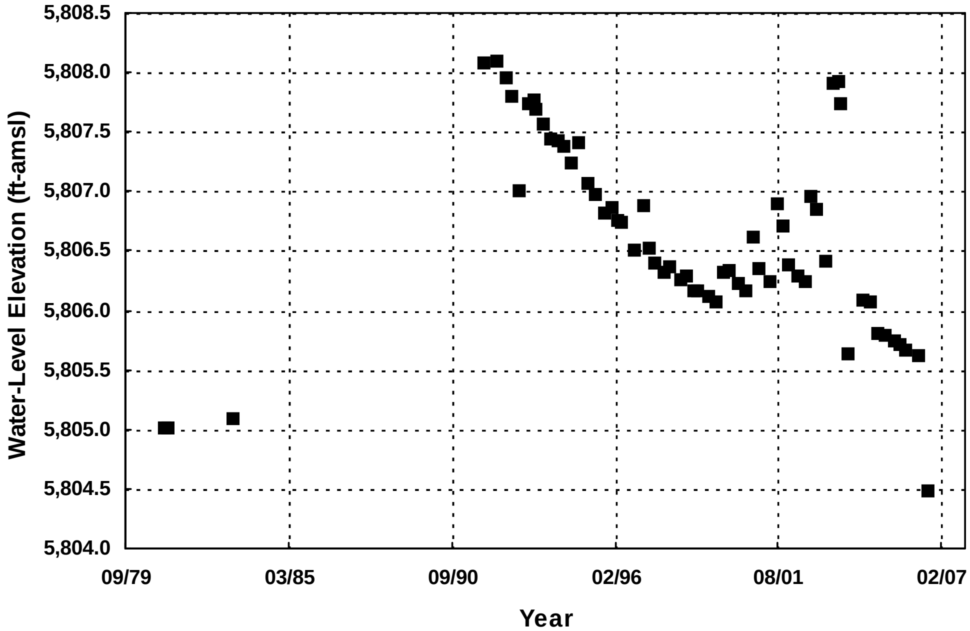
Basin Name: **Spring Valley** **Land Surface (ft-amsl):** **5854.1**
Aquifer Type: **Basin Fill** **Well Depth (ft-bgs):** **120**

Historical Water-Level Elevations at
184 N13 E67 18DCAB1 Majorwoods Windmill



Basin Name: **Spring Valley** **Land Surface (ft-amsl):** **5774.0**
Aquifer Type: **Basin Fill** **Well Depth (ft-bgs):** **6**

Historical Water-Level Elevations at
184 N13 E67 33DDA 1



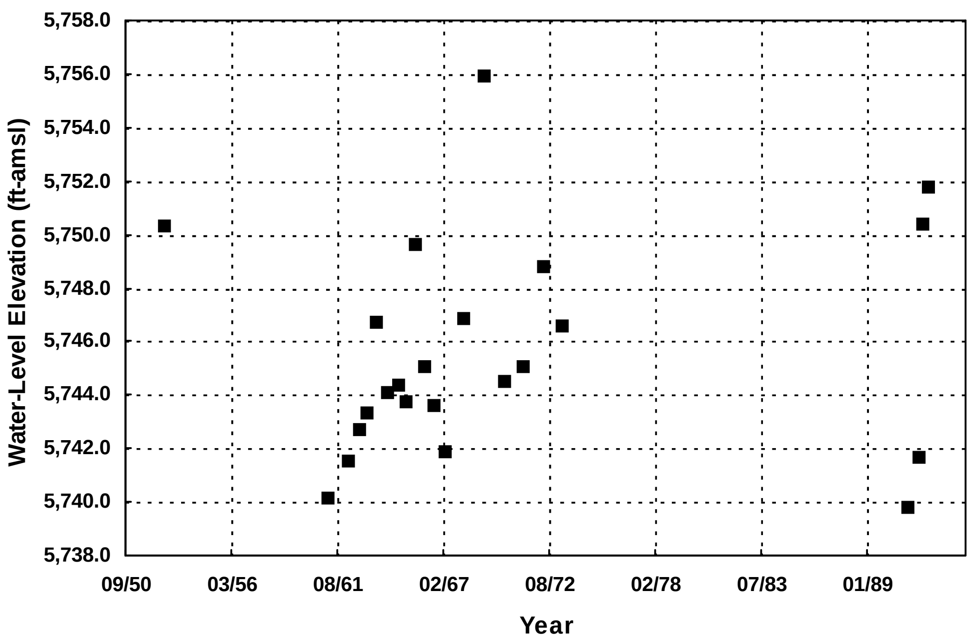
Basin Name: Spring Valley

Aquifer Type: Basin Fill

Land Surface (ft-amsl): 5844.0

Well Depth (ft-bgs): 160

Historical Water-Level Elevations at
184 N14 E66 24BDDD1 USGS-MX (Spring Valley N.)



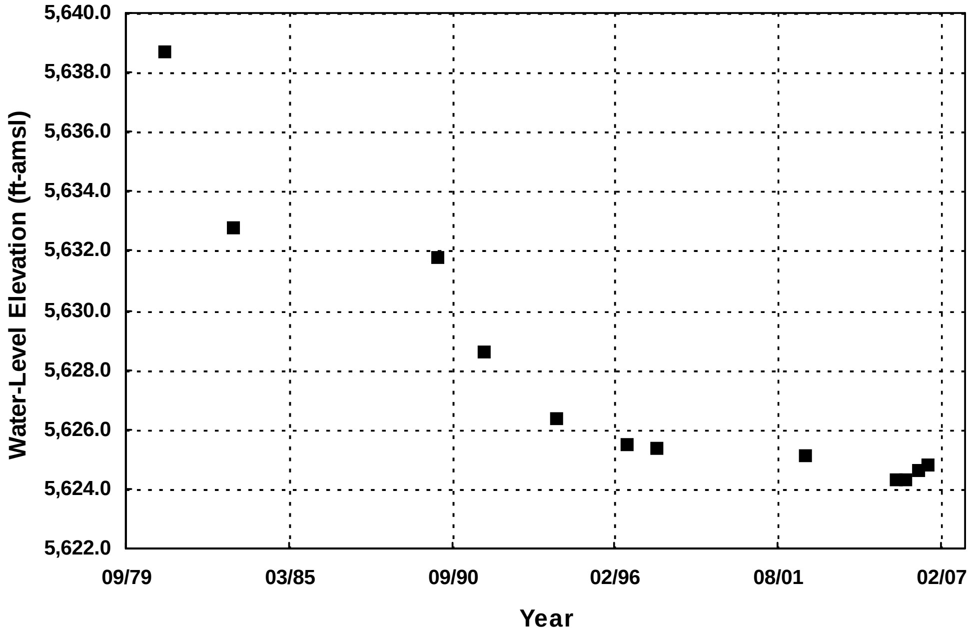
Basin Name: Spring Valley

Aquifer Type: Basin Fill

Land Surface (ft-amsl): 5764

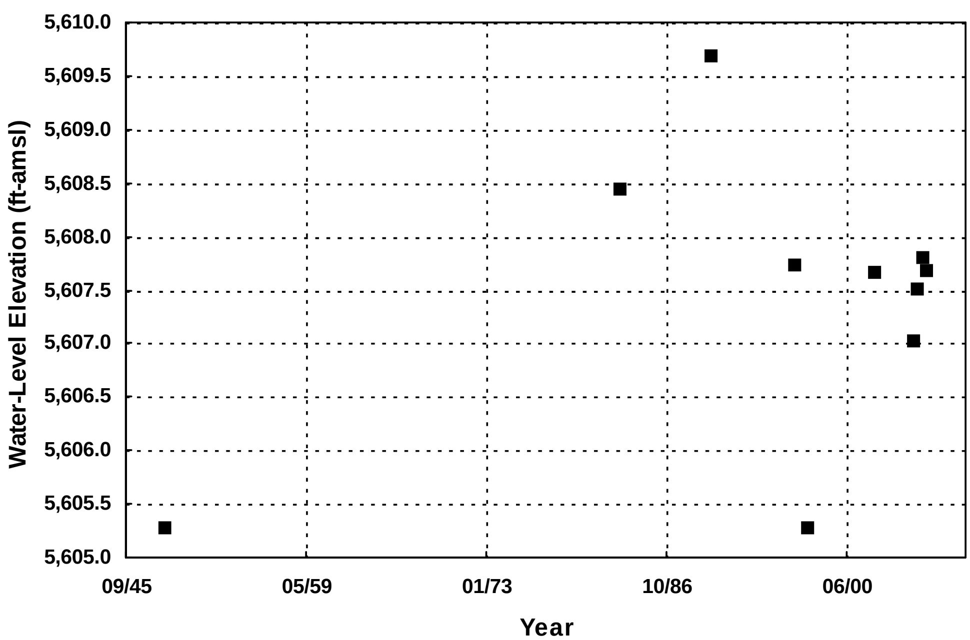
Well Depth (ft-bgs): 82

Historical Water-Level Elevations at
184 N15 E66 13D 1



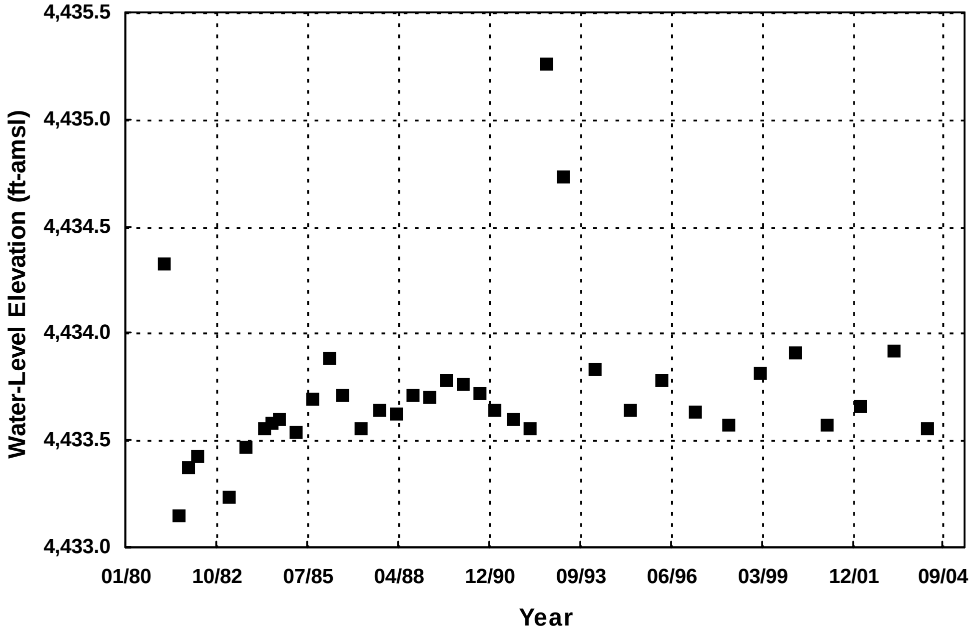
Basin Name: Spring Valley
Aquifer Type: Basin Fill
Land Surface (ft-amsl): 5663.7
Well Depth (ft-bgs): 200

Historical Water-Level Elevations at
184 N15 E67 26CA 1 USGS-MX



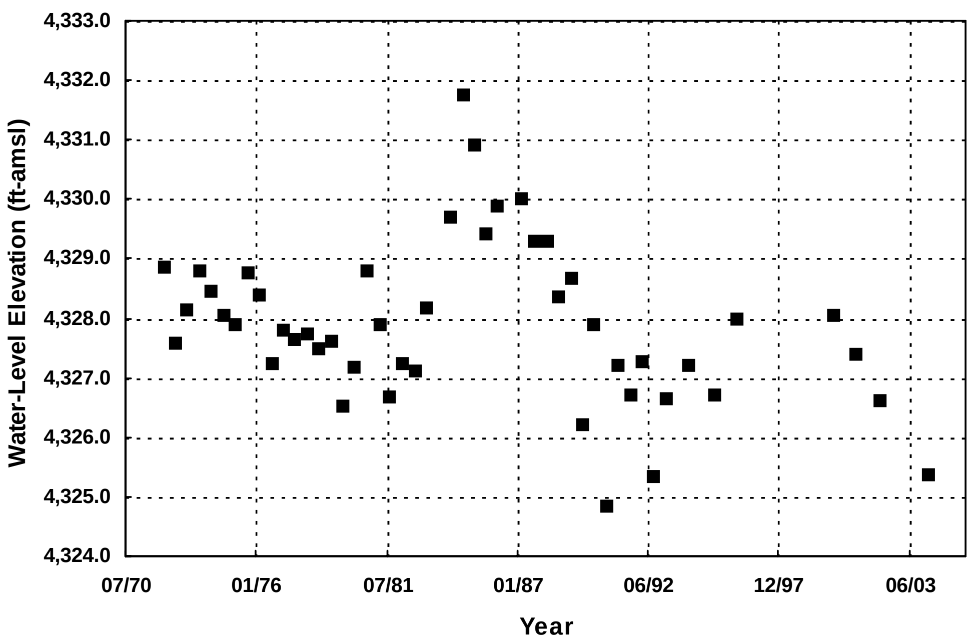
Basin Name: Spring Valley
Aquifer Type: Basin Fill
Land Surface (ft-amsl): 5617.4
Well Depth (ft-bgs): 13

Historical Water-Level Elevations at
184 N16 E67 27DADD1 USBLM



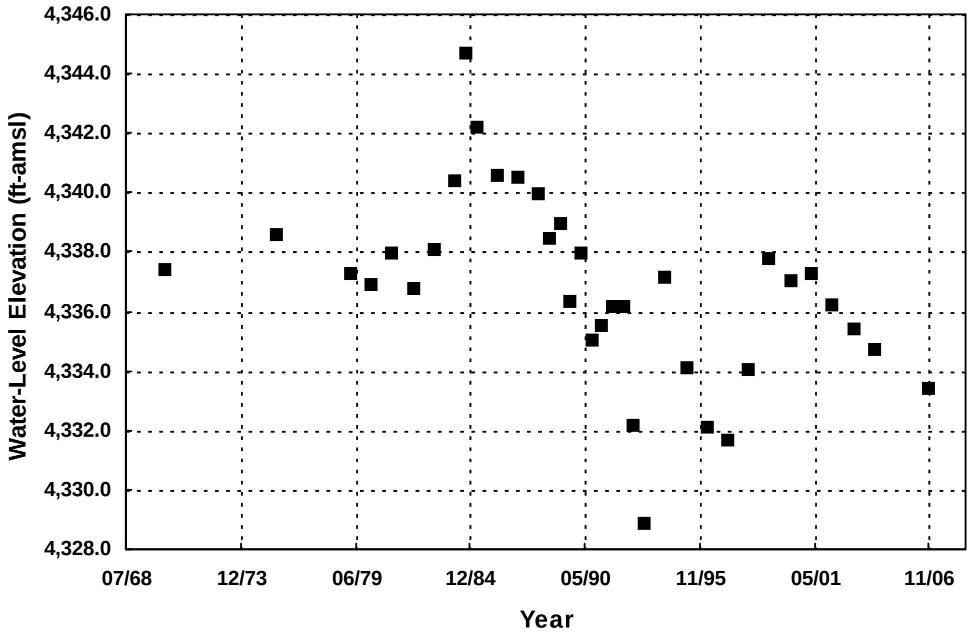
Basin Name:	**Snake Valley**	**Land Surface (ft-amsl):**	**4436.3**
Aquifer Type:	**Basin Fill**	**Well Depth (ft-bgs):**	**147**

Historical Water-Level Elevations at (C-11-16)36cdb- 1



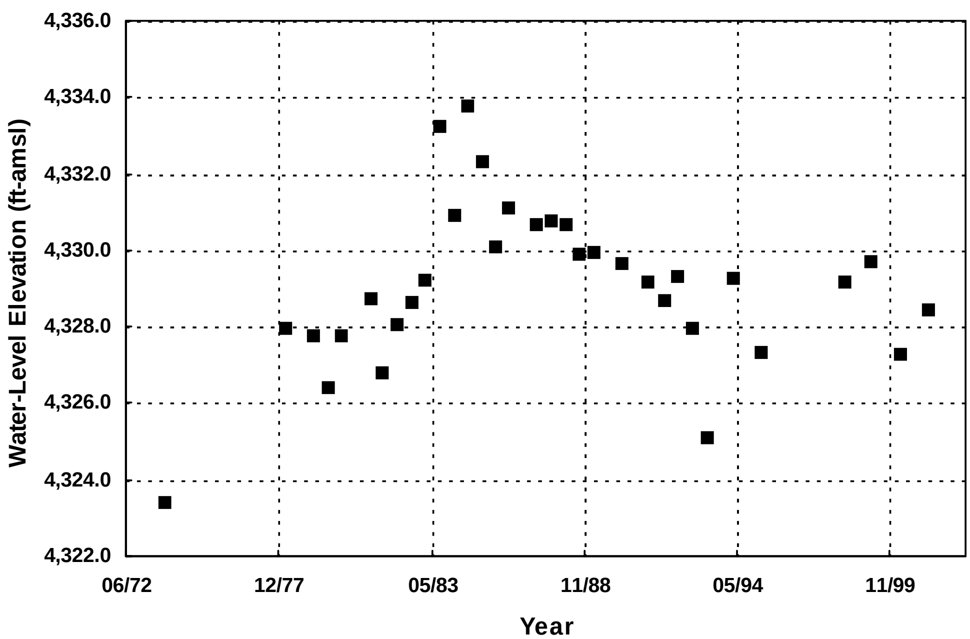
Basin Name:	**Snake Valley**	**Land Surface (ft-amsl):**	**4333.4**
Aquifer Type:	**Basin Fill**	**Well Depth (ft-bgs):**	

Historical Water-Level Elevations at (C-11-17) 1bdc- 2



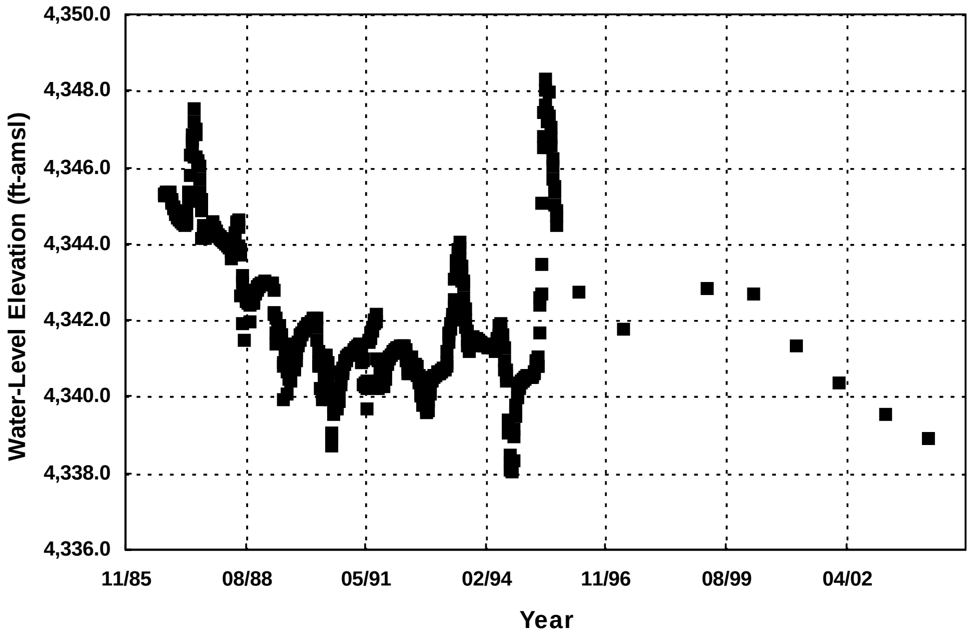
Basin Name: Snake Valley
Aquifer Type: Basin Fill
Land Surface (ft-amsl): 4383.4
Well Depth (ft-bgs): 480

Historical Water-Level Elevations at
(C-11-17)11aaa- 1



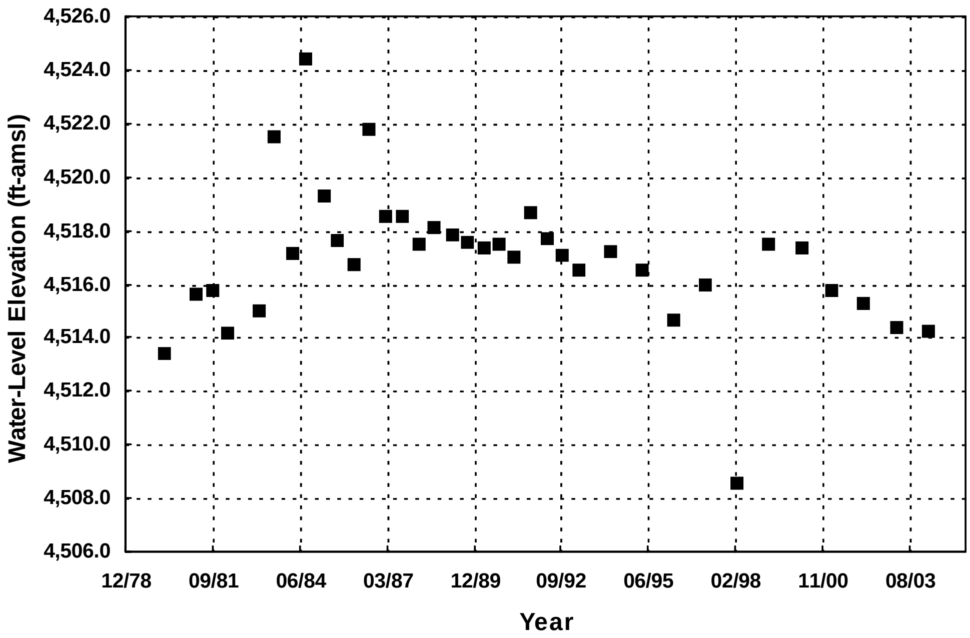
Basin Name: Snake Valley
Aquifer Type: Basin Fill
Land Surface (ft-amsl): 4353.4
Well Depth (ft-bgs): 135

Historical Water-Level Elevations at
(C-11-17)12acc- 1



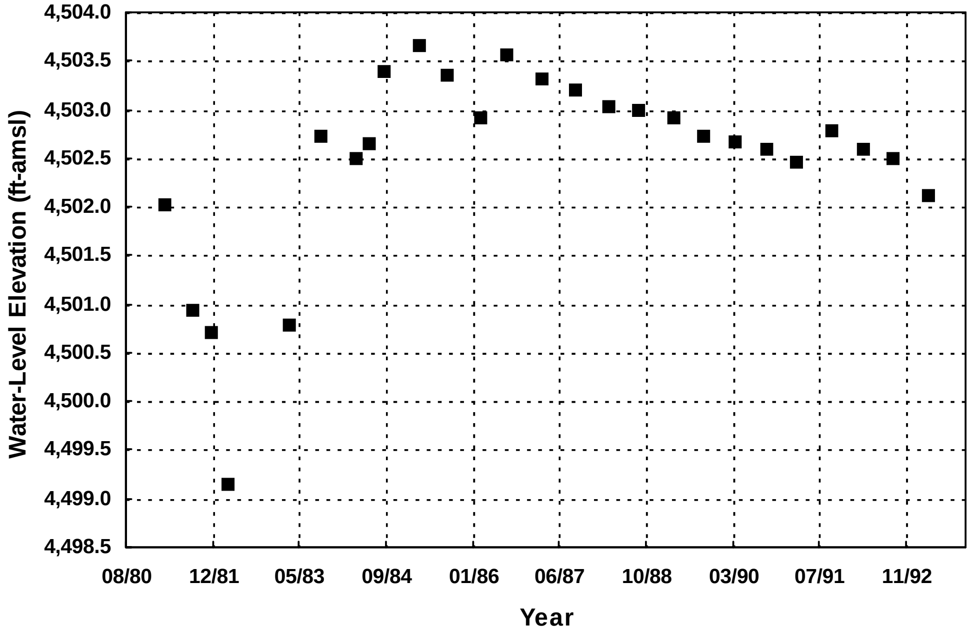
Basin Name:	**Snake Valley**	**Land Surface (ft-amsl):**	**4393.4**
Aquifer Type:	**Basin Fill**	**Well Depth (ft-bgs):**	

Historical Water-Level Elevations at (C-11-17)12cbb- 1



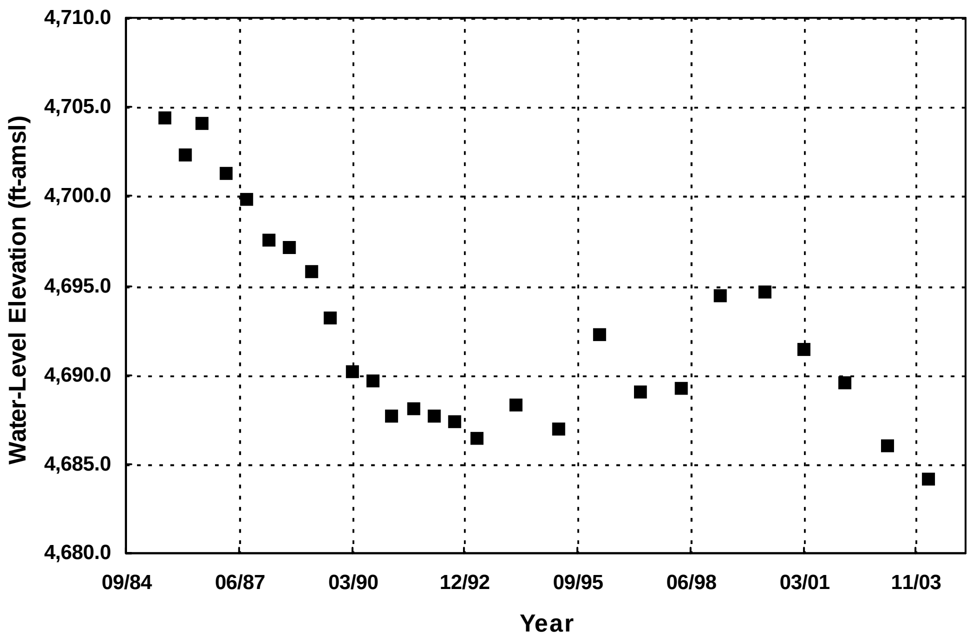
Basin Name:	**Snake Valley**	**Land Surface (ft-amsl):**	**4595**
Aquifer Type:	**Basin Fill**	**Well Depth (ft-bgs):**	

Historical Water-Level Elevations at (C-12-17)34aac- 1



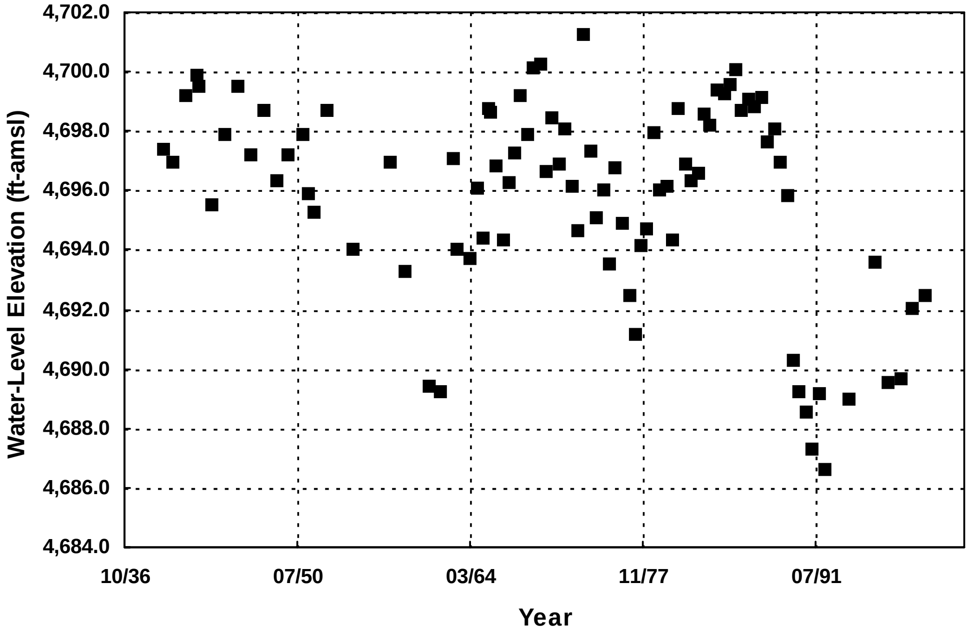
Basin Name:	**Snake Valley**	**Land Surface (ft-amsl):**	**4594.0**
Aquifer Type:	**Basin Fill**	**Well Depth (ft-bgs):**	**97**

Historical Water-Level Elevations at
(C-12-17)35cac- 1



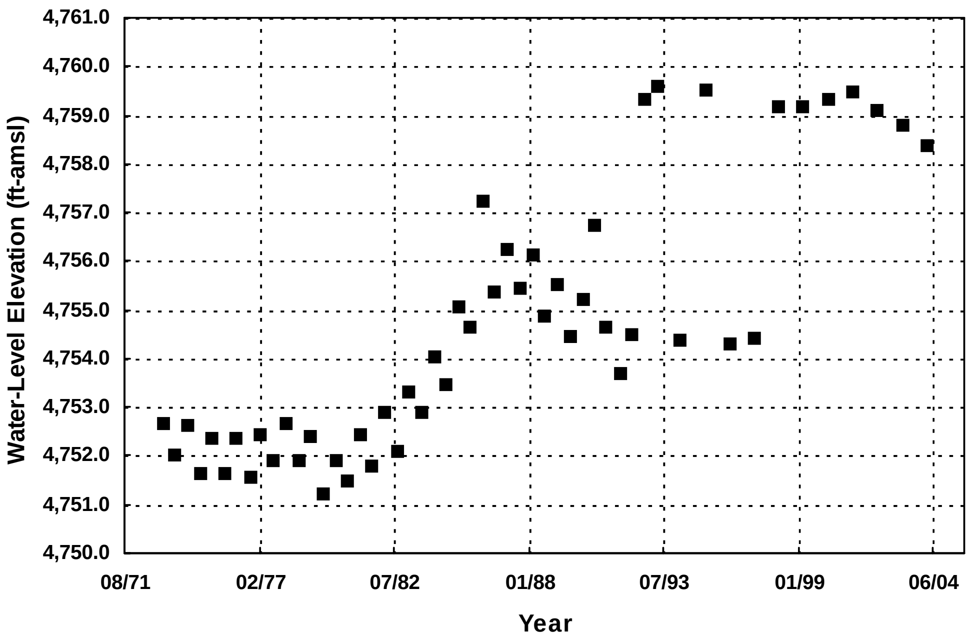
Basin Name:	**Snake Valley**	**Land Surface (ft-amsl):**	**4704.9**
Aquifer Type:	**Basin Fill**	**Well Depth (ft-bgs):**	

Historical Water-Level Elevations at
(C-13-18)13cac- 1



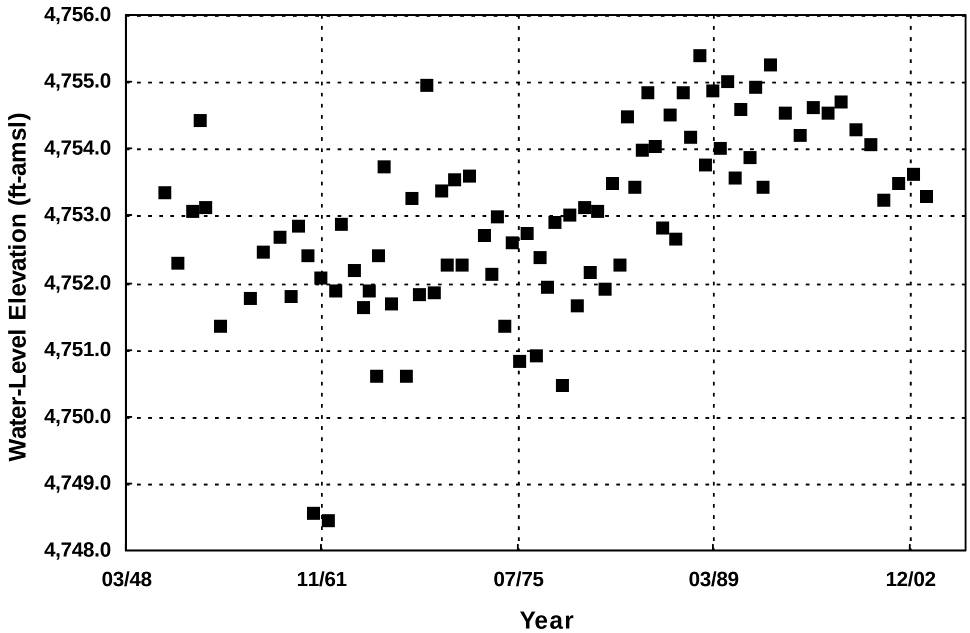
Basin Name: Snake Valley
Aquifer Type: Basin Fill
Land Surface (ft-amsl): 4703.5
Well Depth (ft-bgs):

Historical Water-Level Elevations at (C-13-18)23aab- 2



Basin Name: Snake Valley
Aquifer Type: Basin Fill
Land Surface (ft-amsl): 4783.6
Well Depth (ft-bgs): 120

Historical Water-Level Elevations at (C-13-18)28dab- 1



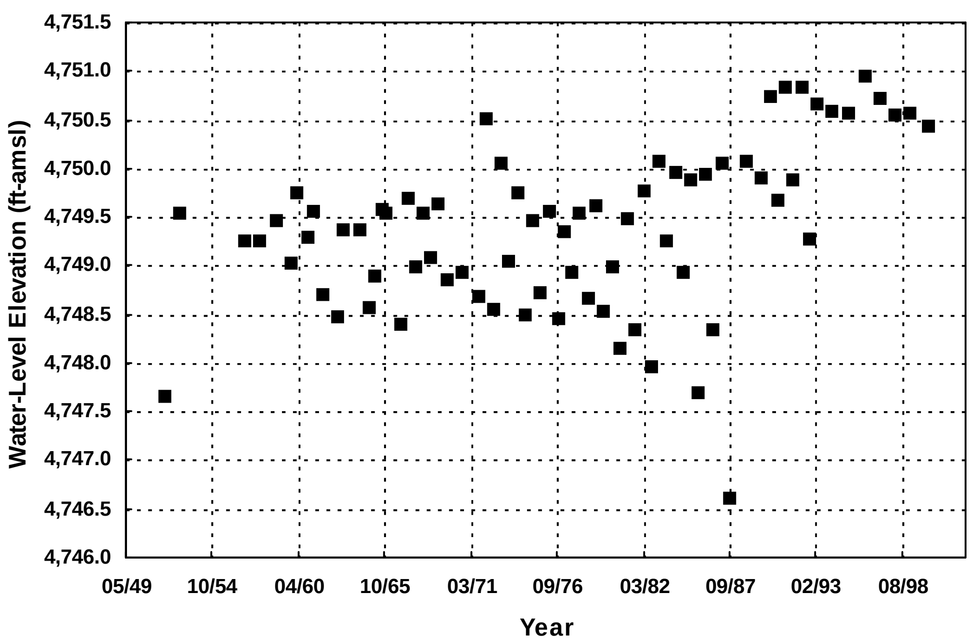
Basin Name: Snake Valley

Aquifer Type: Basin Fill

Land Surface (ft-amsl): 4763.6

Well Depth (ft-bgs): 158

Historical Water-Level Elevations at (C-13-18)33ddc- 1



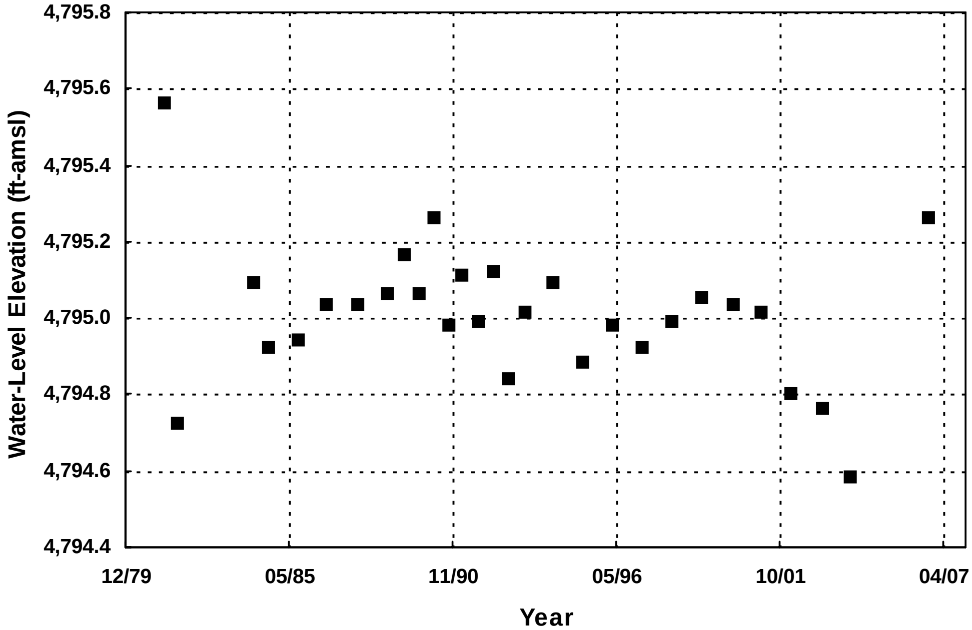
Basin Name: Snake Valley

Aquifer Type: Basin Fill

Land Surface (ft-amsl): 4750.5

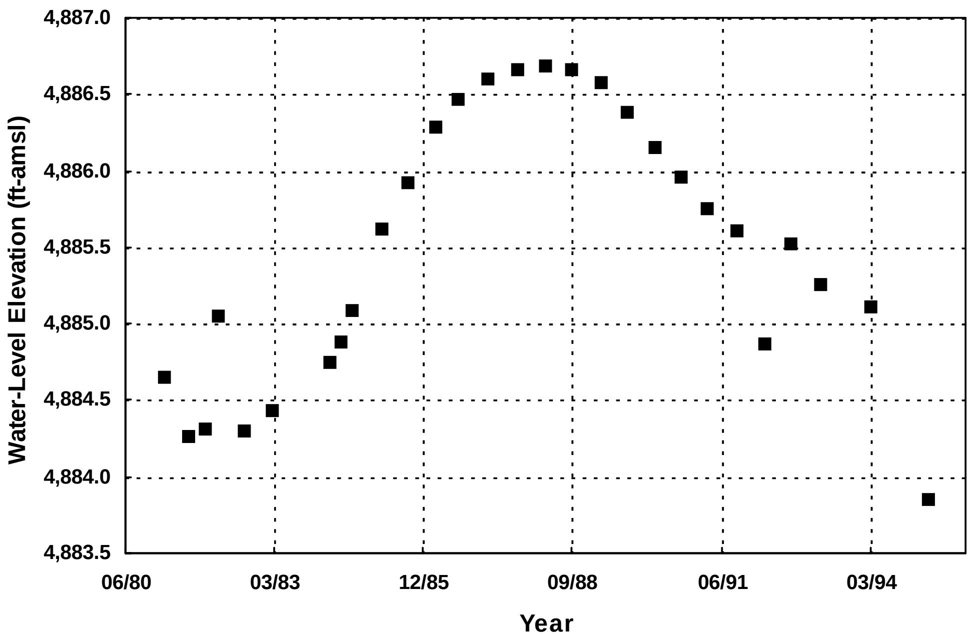
Well Depth (ft-bgs): 147

Historical Water-Level Elevations at (C-13-18)34ccc- 1



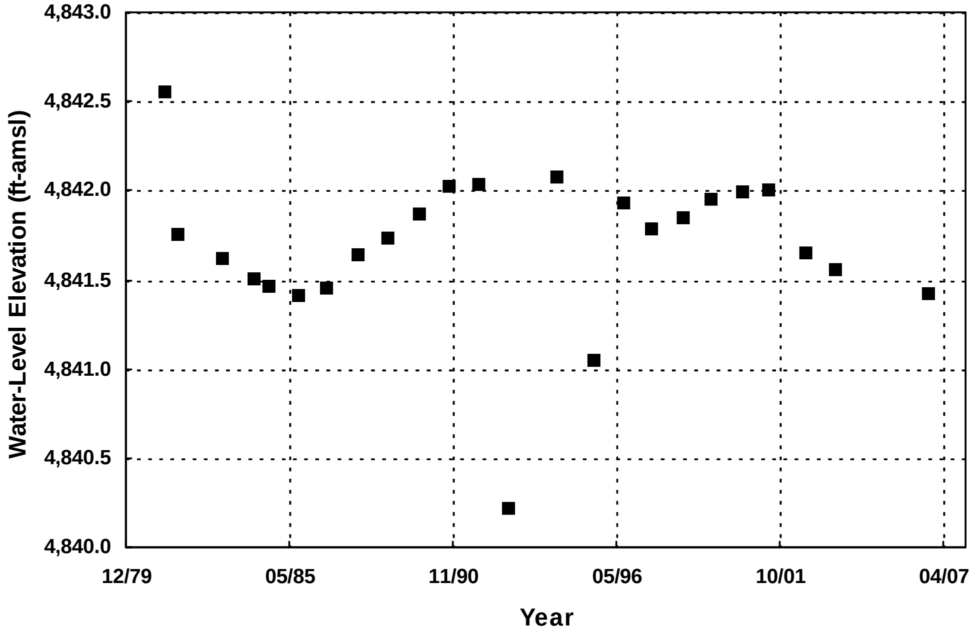
Basin Name:	**Snake Valley**	**Land Surface (ft-amsl):**	**4963.6**
Aquifer Type:	**Basin Fill**	**Well Depth (ft-bgs):**	**196**

Historical Water-Level Elevations at (C-14-18)26dbc- 1



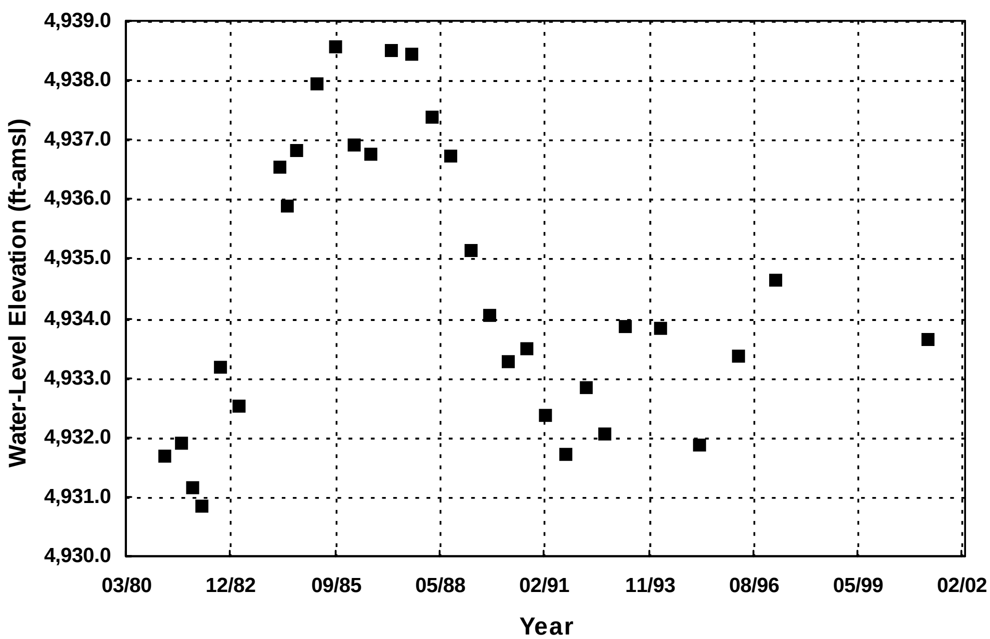
Basin Name:	**Snake Valley**	**Land Surface (ft-amsl):**	**4973.7**
Aquifer Type:	**Basin Fill**	**Well Depth (ft-bgs):**	**96**

Historical Water-Level Elevations at (C-15-19)11bcc- 1



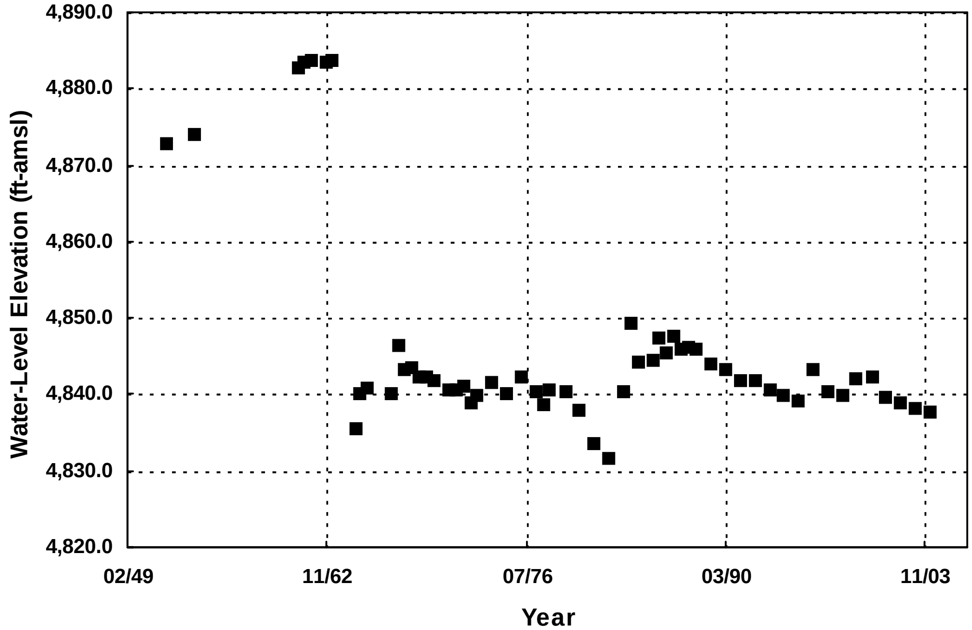
Basin Name:	**Snake Valley**	**Land Surface (ft-amsl):**	**4883.6**
Aquifer Type:	**Basin Fill**	**Well Depth (ft-bgs):**	**98**

Historical Water-Level Elevations at
(C-16-18)26cba- 1



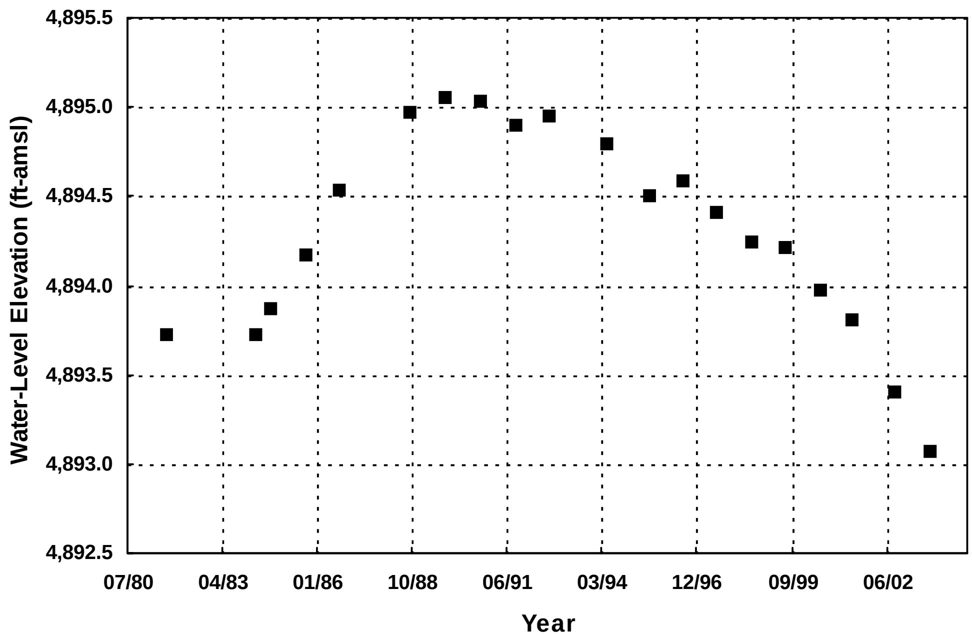
Basin Name:	**Snake Valley**	**Land Surface (ft-amsl):**	**5003.7**
Aquifer Type:	**Basin Fill**	**Well Depth (ft-bgs):**	**98**

Historical Water-Level Elevations at
(C-16-19) 4bba- 1



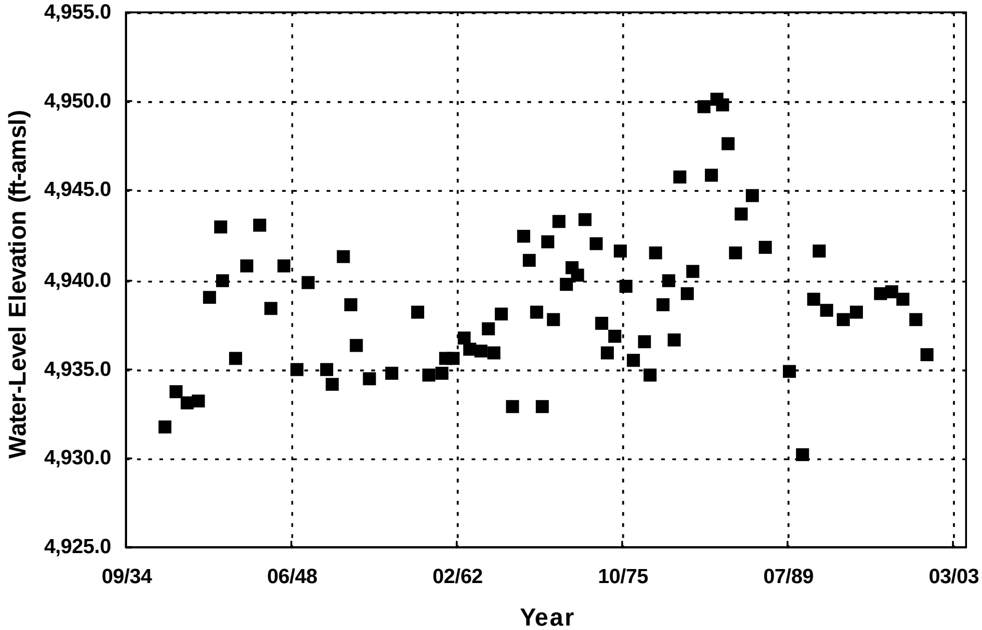
Basin Name: Snake Valley
Aquifer Type: Basin Fill
Land Surface (ft-amsl): 4883.7
Well Depth (ft-bgs): 760

Historical Water-Level Elevations at (C-17-19) 4add- 2



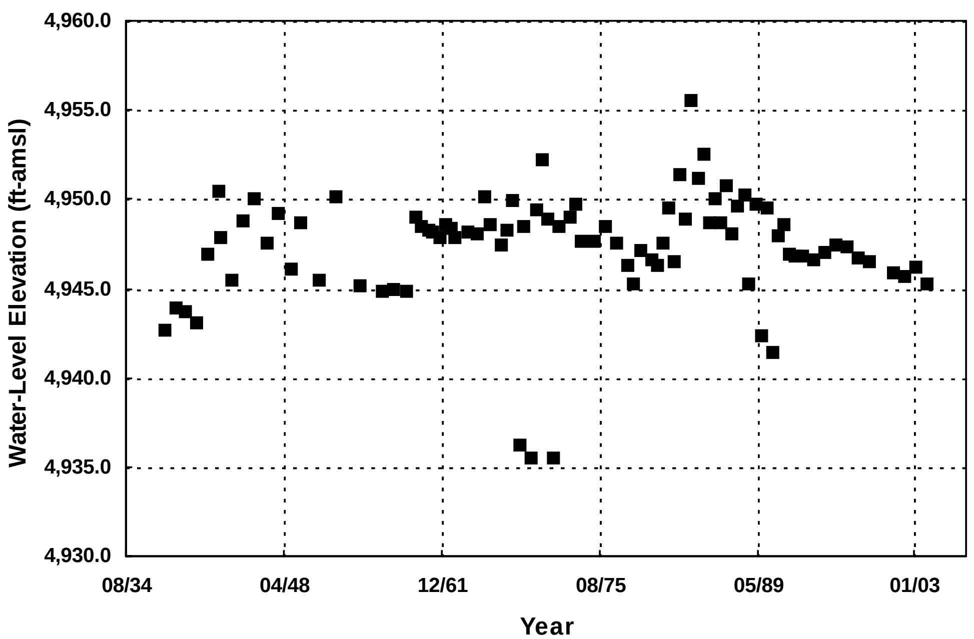
Basin Name: Snake Valley
Aquifer Type: Basin Fill
Land Surface (ft-amsl): 4973.6
Well Depth (ft-bgs): 97

Historical Water-Level Elevations at (C-18-18)31adb- 1



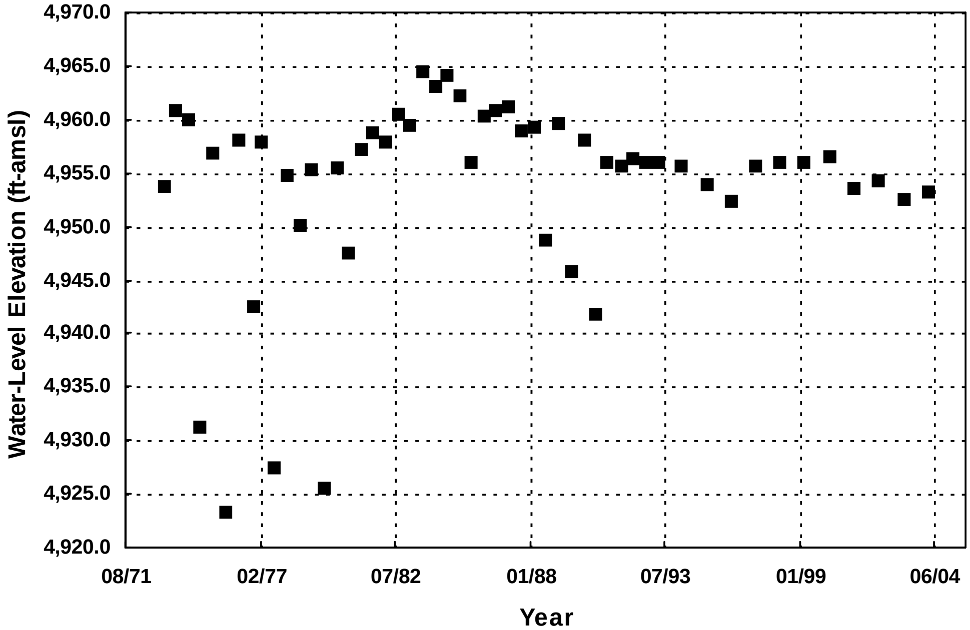
Basin Name: Snake Valley
Aquifer Type: Basin Fill
Land Surface (ft-amsl): 4963.6
Well Depth (ft-bgs): 100

Historical Water-Level Elevations at (C-18-19)20dad- 1



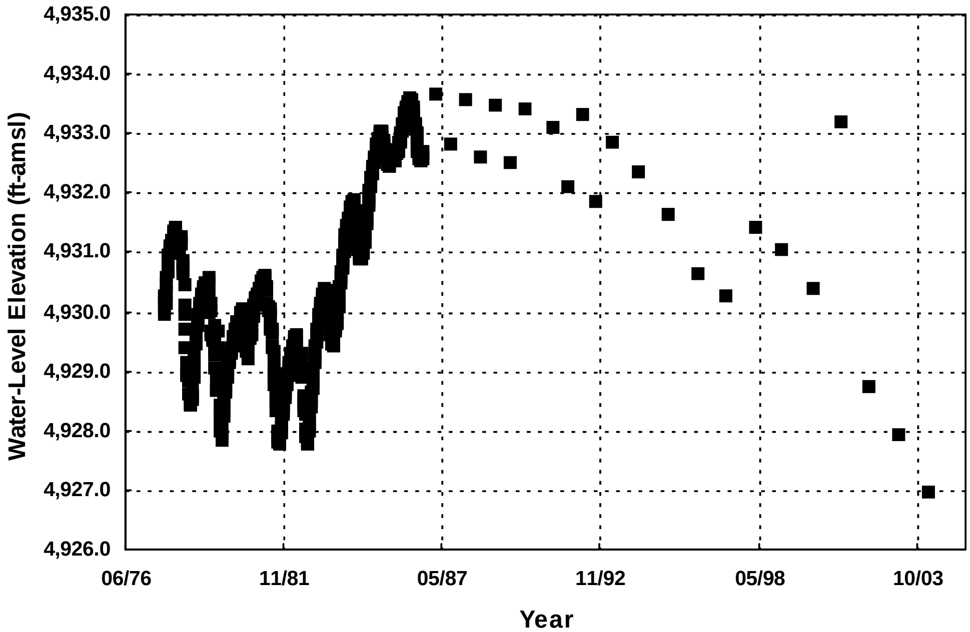
Basin Name: Snake Valley
Aquifer Type: Basin Fill
Land Surface (ft-amsl): 4974.1
Well Depth (ft-bgs): 90

Historical Water-Level Elevations at (C-18-19)20ddd- 1



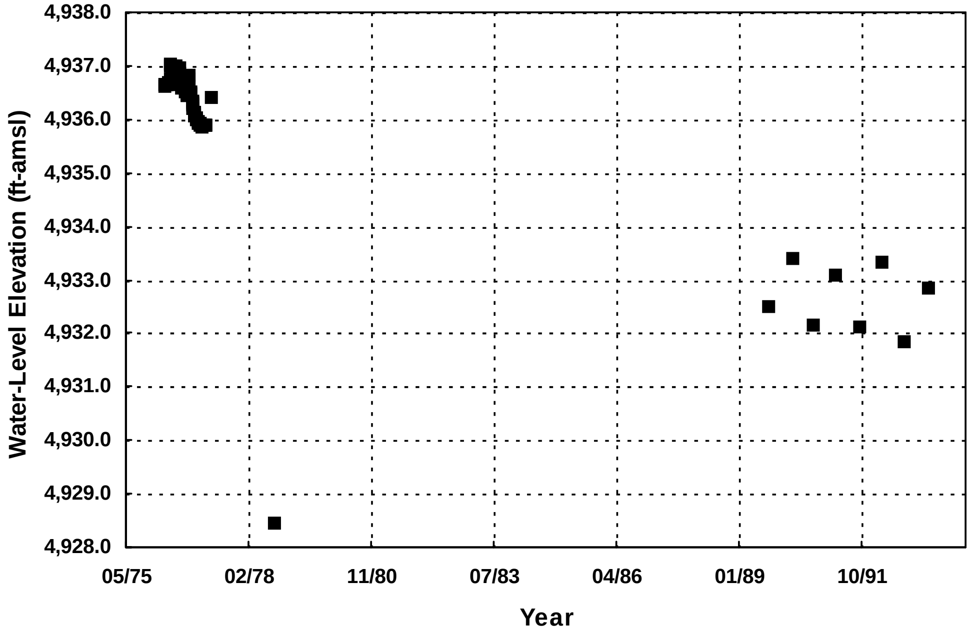
Basin Name:	**Snake Valley**	**Land Surface (ft-amsl):**	**4973.6**
Aquifer Type:	**Basin Fill**	**Well Depth (ft-bgs):**	

Historical Water-Level Elevations at (C-18-19)28bcc- 1



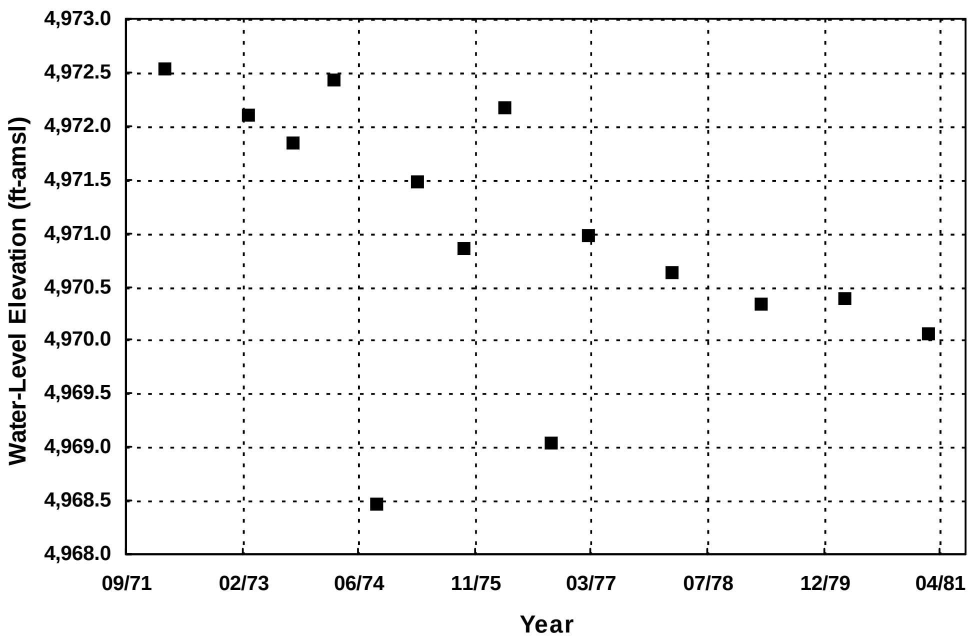
Basin Name:	**Snake Valley**	**Land Surface (ft-amsl):**	**4948.6**
Aquifer Type:	**Basin Fill**	**Well Depth (ft-bgs):**	**1005**

Historical Water-Level Elevations at (C-19-19)26aba- 1



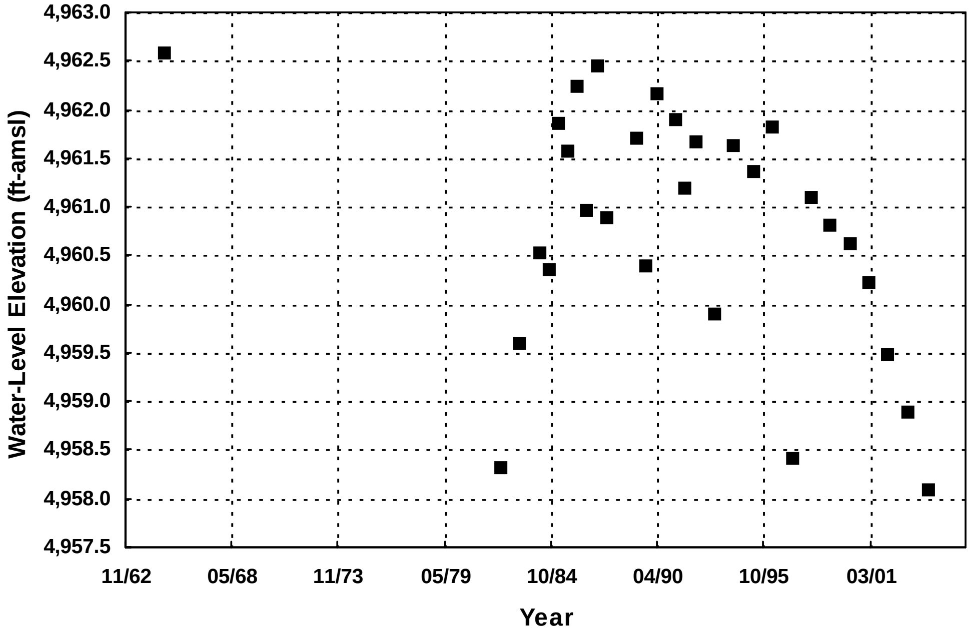
Basin Name:	**Snake Valley**	**Land Surface (ft-amsl):**	**4948.6**
Aquifer Type:	**Basin Fill**	**Well Depth (ft-bgs):**	

Historical Water-Level Elevations at
(C-19-19)26bdd- 1



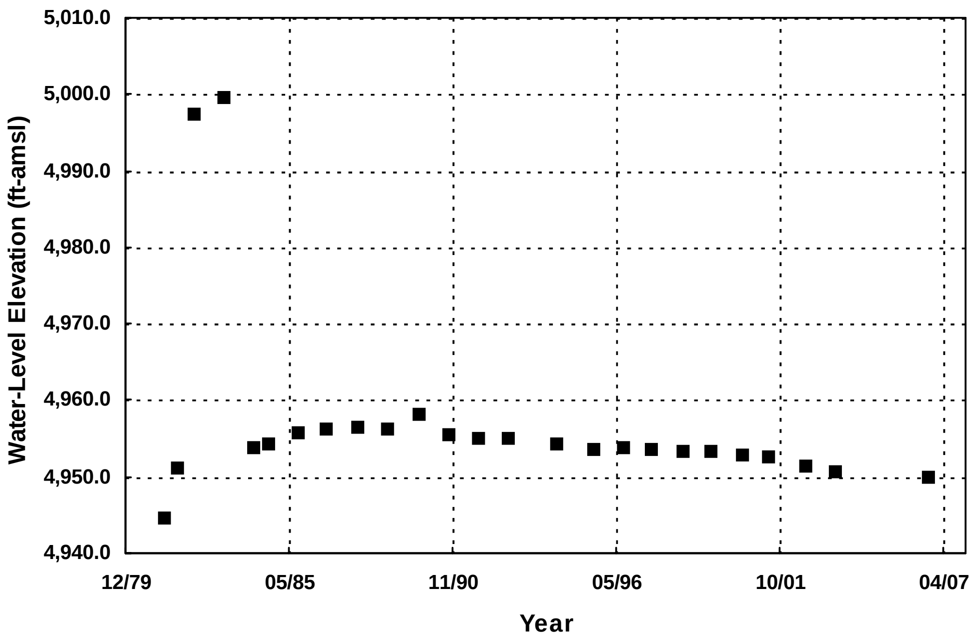
Basin Name:	**Snake Valley**	**Land Surface (ft-amsl):**	**4983.6**
Aquifer Type:	**Basin Fill**	**Well Depth (ft-bgs):**	**500**

Historical Water-Level Elevations at
(C-19-19)35cdd- 1



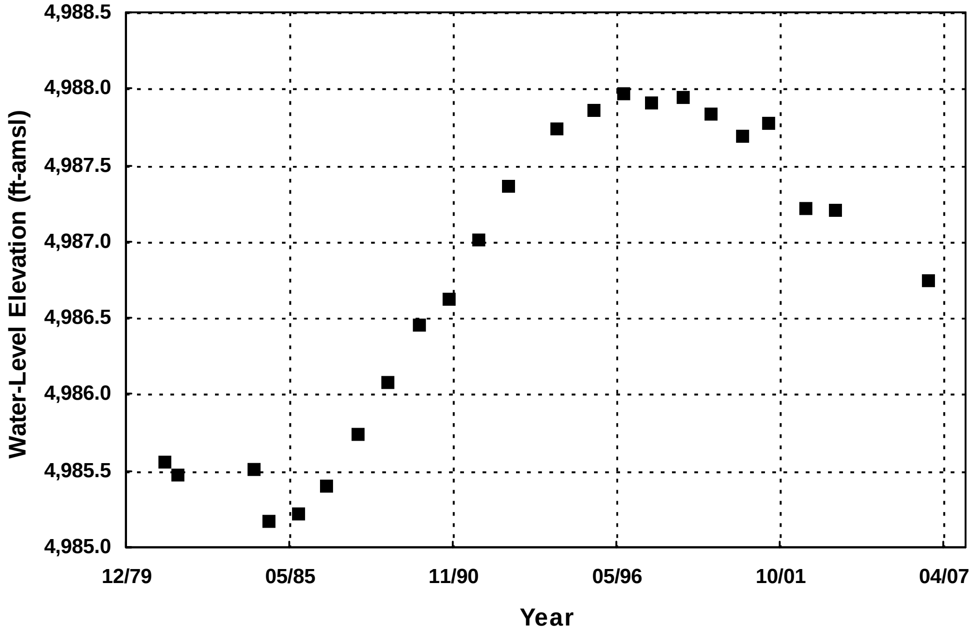
Basin Name:	**Snake Valley**	**Land Surface (ft-amsl):**	**4983.6**
Aquifer Type:	**Basin Fill**	**Well Depth (ft-bgs):**	

Historical Water-Level Elevations at
(C-19-19)35dcd- 1



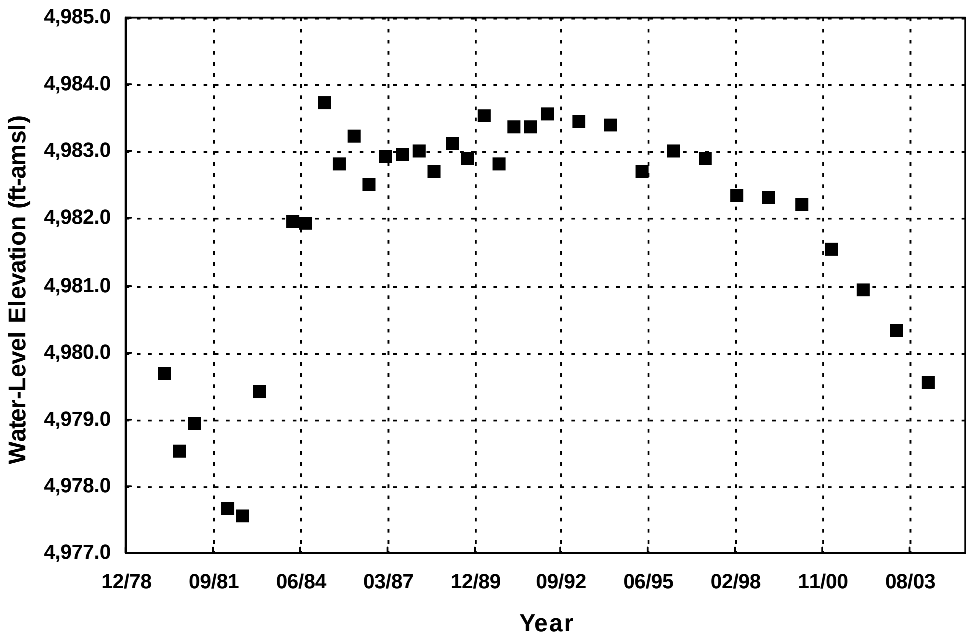
Basin Name:	**Snake Valley**	**Land Surface (ft-amsl):**	**5023.6**
Aquifer Type:	**Basin Fill**	**Well Depth (ft-bgs):**	**97**

Historical Water-Level Elevations at
(C-19-19)36cda- 1



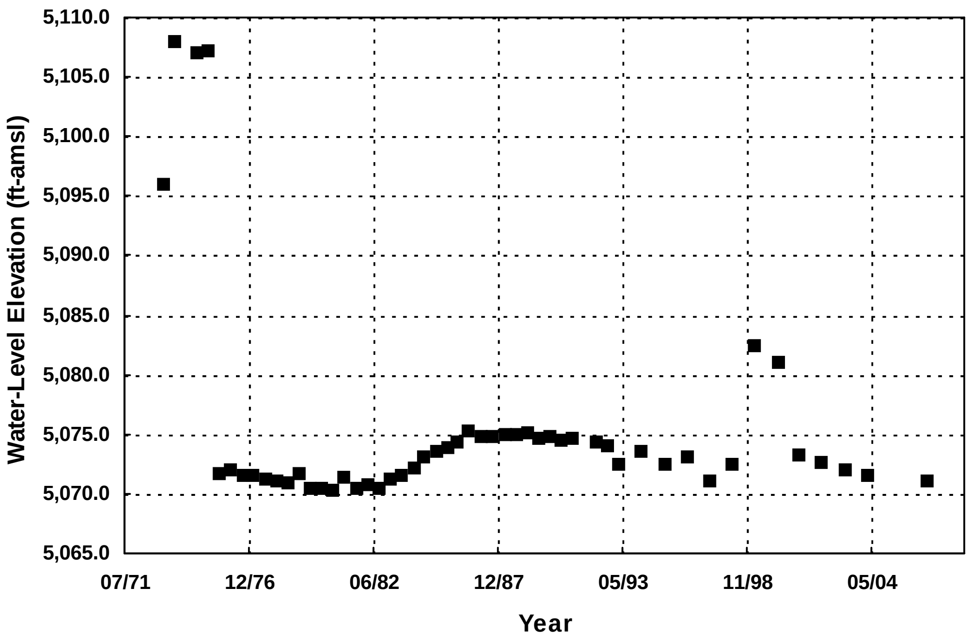
Basin Name:	**Snake Valley**	**Land Surface (ft-amsl):**	**5022.6**
Aquifer Type:	**Basin Fill**	**Well Depth (ft-bgs):**	**97**

Historical Water-Level Elevations at
(C-20-18)32abd- 1



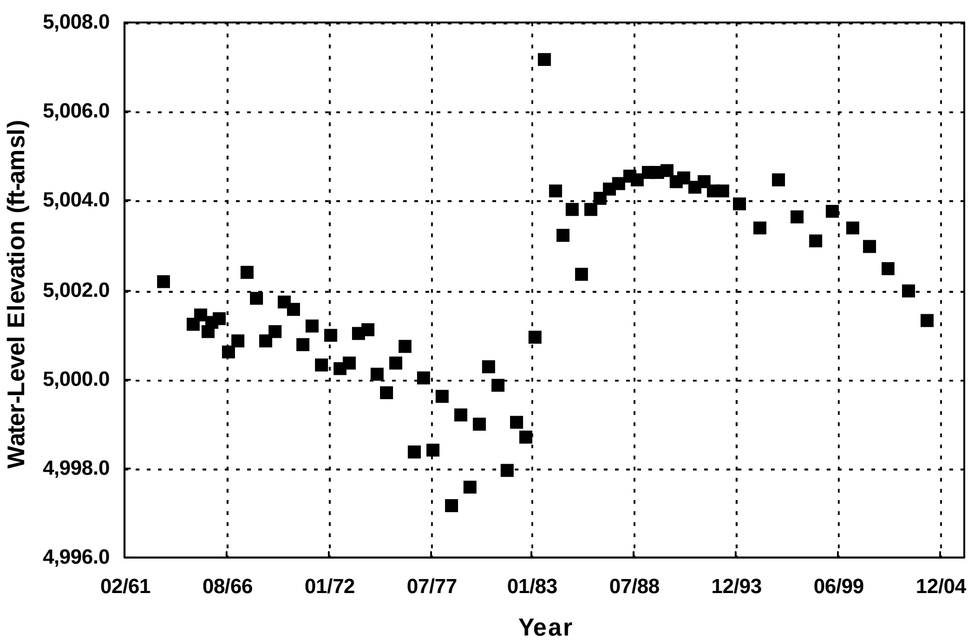
Basin Name:	**Snake Valley**	**Land Surface (ft-amsl):**	**4998.6**
Aquifer Type:	**Basin Fill**	**Well Depth (ft-bgs):**	**135**

Historical Water-Level Elevations at
(C-20-19)14bbc- 1



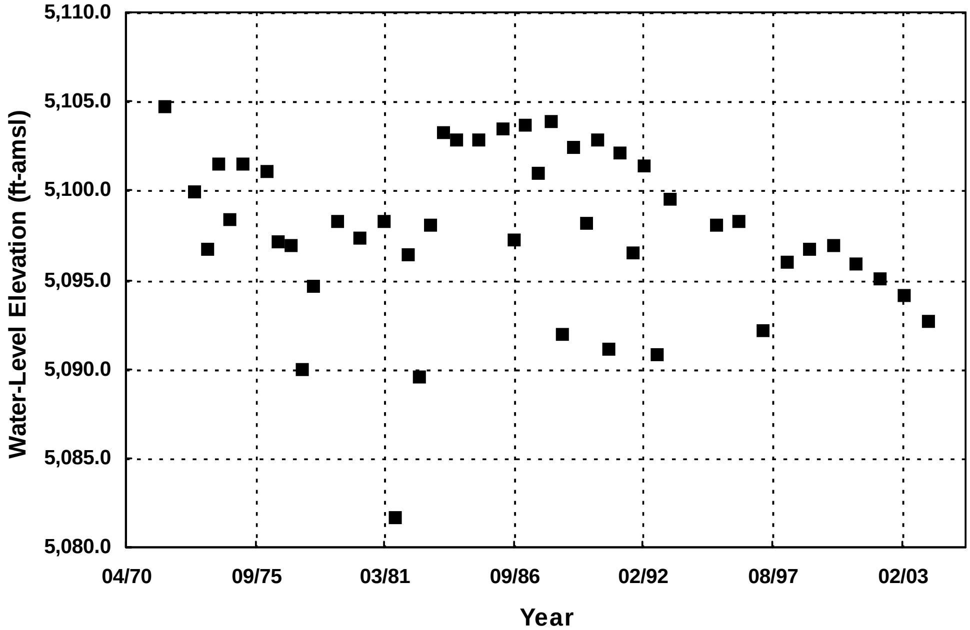
Basin Name:	**Snake Valley**	**Land Surface (ft-amsl):**	**5112**
Aquifer Type:	**Basin Fill**	**Well Depth (ft-bgs):**	

Historical Water-Level Elevations at
(C-20-19)19dcd- 1



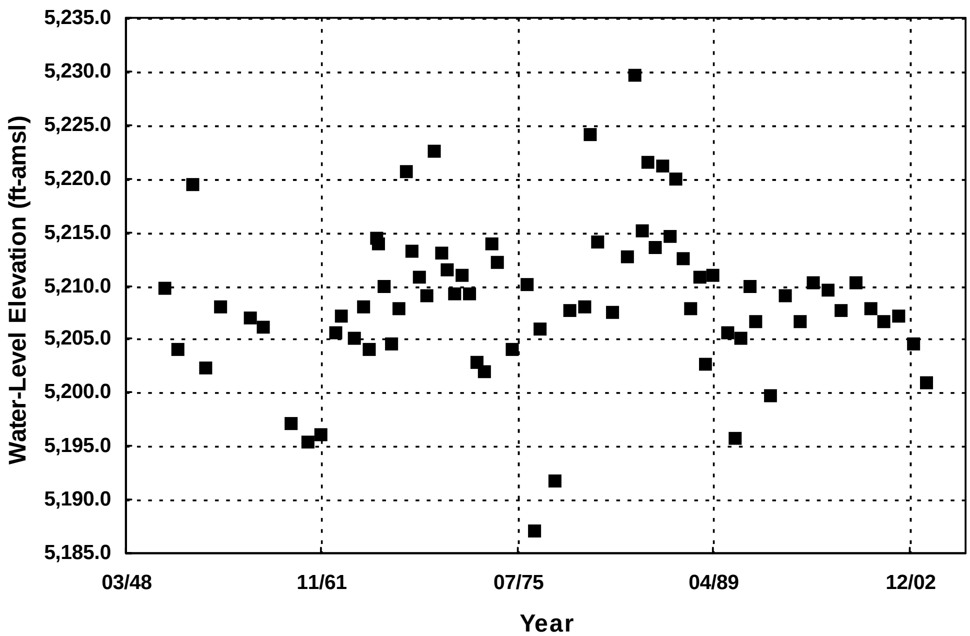
Basin Name:	**Snake Valley**	**Land Surface (ft-amsl):**	**5031.6**
Aquifer Type:	**Basin Fill**	**Well Depth (ft-bgs):**	**68**

Historical Water-Level Elevations at
(C-20-19)21acc- 1



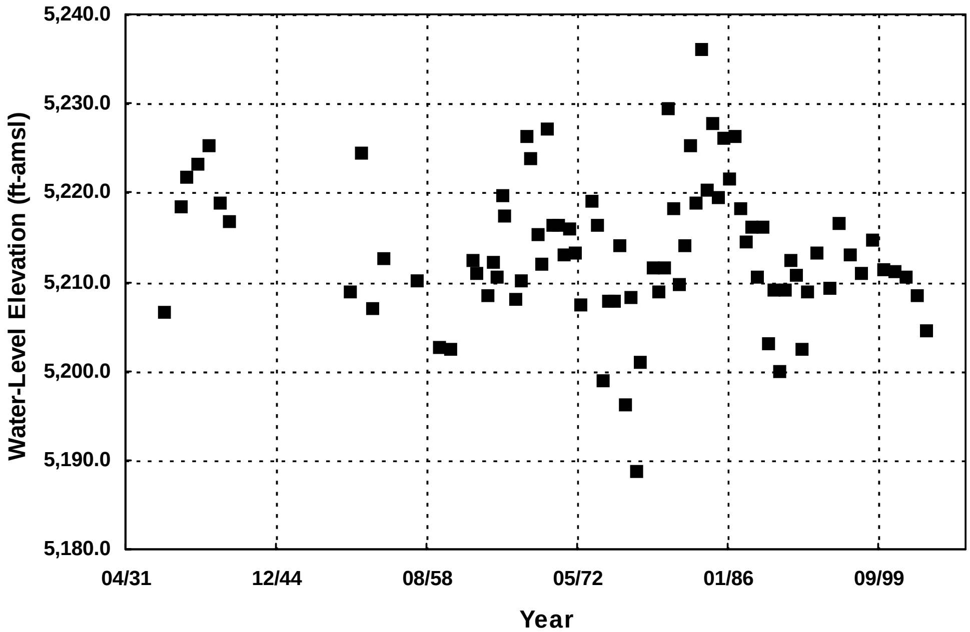
Basin Name:	**Snake Valley**	**Land Surface (ft-amsl):**	**5123.7**
Aquifer Type:	**Basin Fill**	**Well Depth (ft-bgs):**	**300**

Historical Water-Level Elevations at
(C-20-20)12acc- 1



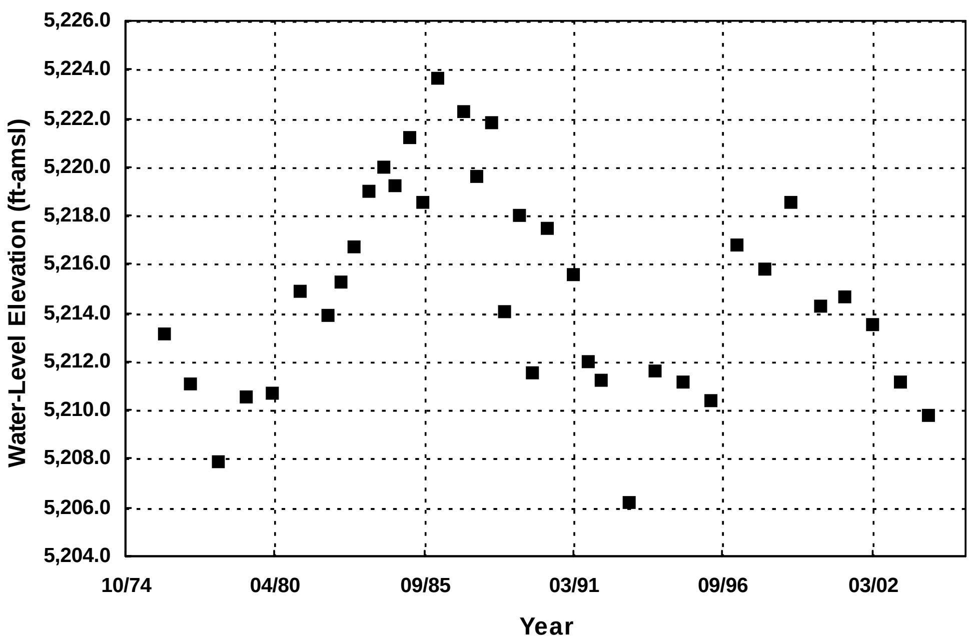
Basin Name:	**Snake Valley**	**Land Surface (ft-amsl):**	**5258.7**
Aquifer Type:	**Basin Fill**	**Well Depth (ft-bgs):**	**167**

Historical Water-Level Elevations at
(C-22-19) 6bac- 2



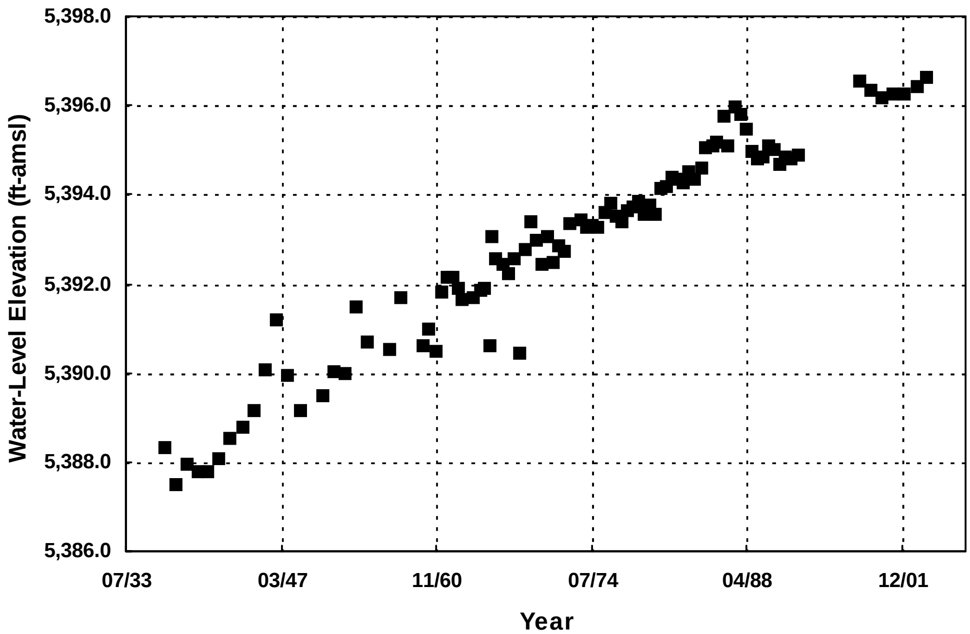
Basin Name: Snake Valley
Aquifer Type: Basin Fill
Land Surface (ft-amsl): 5279.7
Well Depth (ft-bgs): 120

Historical Water-Level Elevations at (C-22-19) 6bcc- 1



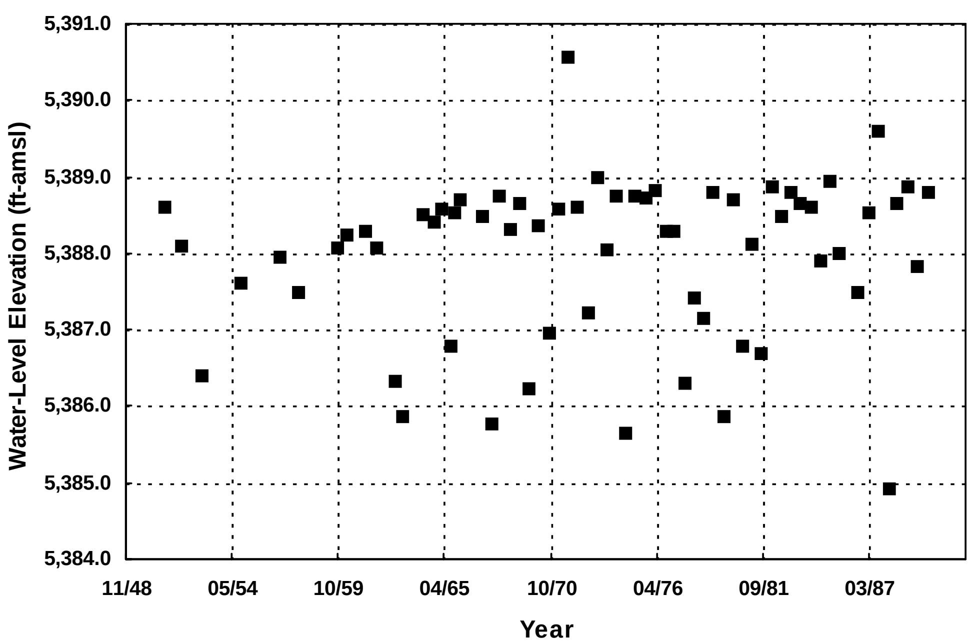
Basin Name: Snake Valley
Aquifer Type: Basin Fill
Land Surface (ft-amsl): 5282.7
Well Depth (ft-bgs): 135

Historical Water-Level Elevations at (C-22-20) 1aba- 1



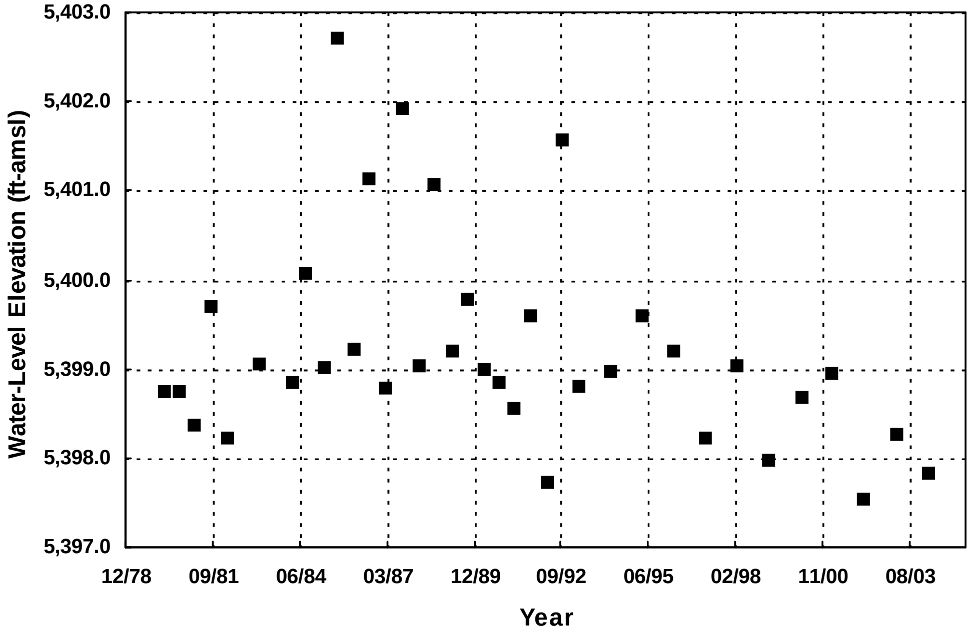
Basin Name: Snake Valley
Aquifer Type: Basin Fill
Land Surface (ft-amsl): 5403.8
Well Depth (ft-bgs):

Historical Water-Level Elevations at
(C-23-19) 9cdb- 1



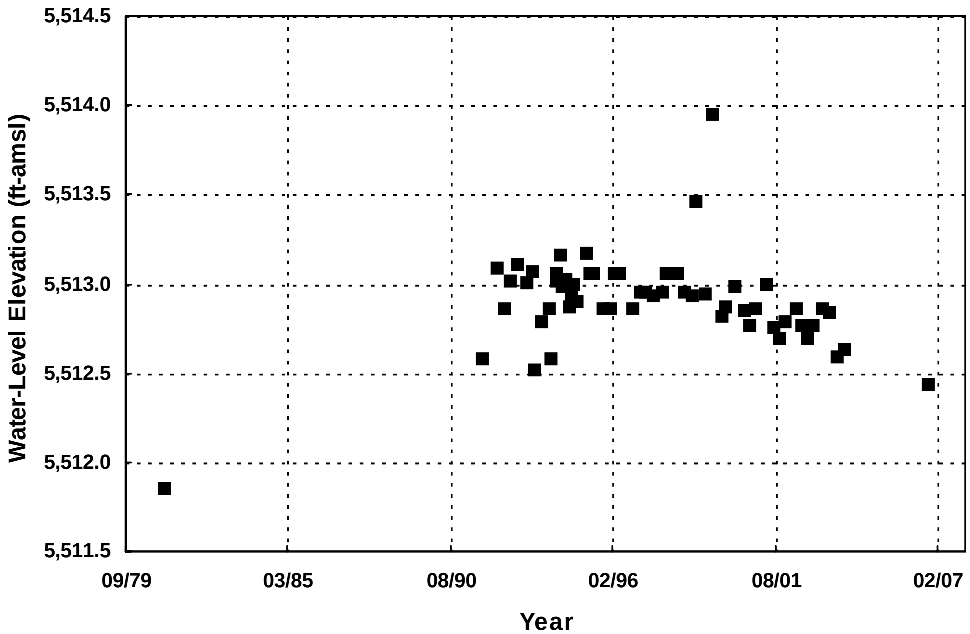
Basin Name: Snake Valley
Aquifer Type: Basin Fill
Land Surface (ft-amsl): 5403.8
Well Depth (ft-bgs): 415

Historical Water-Level Elevations at
(C-23-19)20bac- 1



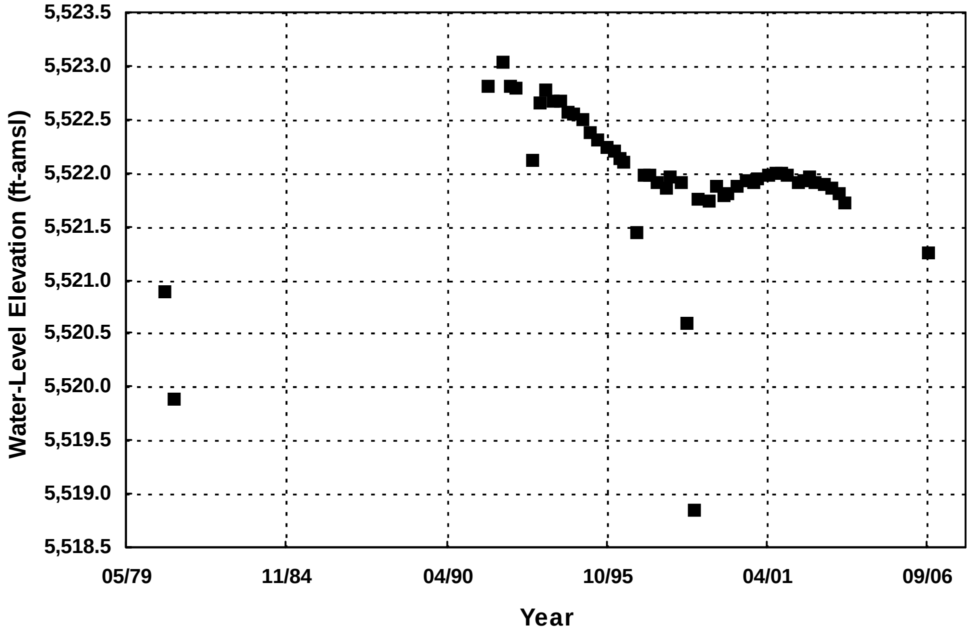
Basin Name:	**Snake Valley**	**Land Surface (ft-amsl):**	**5413.8**
Aquifer Type:	**Basin Fill**	**Well Depth (ft-bgs):**	**135**

Historical Water-Level Elevations at
(C-23-19)20bcd- 1



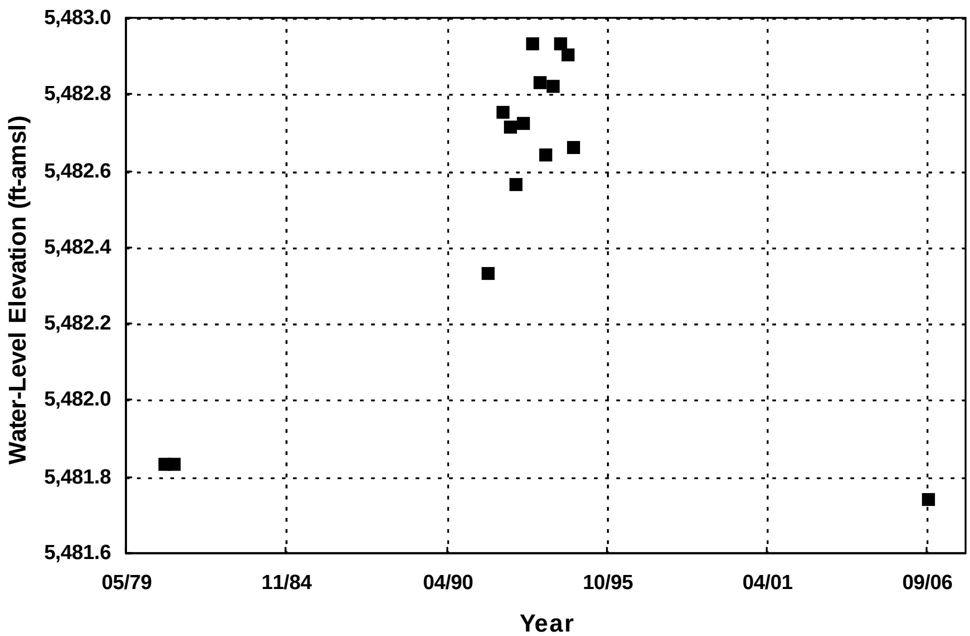
Basin Name:	**Snake Valley**	**Land Surface (ft-amsl):**	**5581.9**
Aquifer Type:	**Basin Fill**	**Well Depth (ft-bgs):**	**101**

Historical Water-Level Elevations at
195 N11 E70 35AD 1 USGS-MX (Snake V. Small)



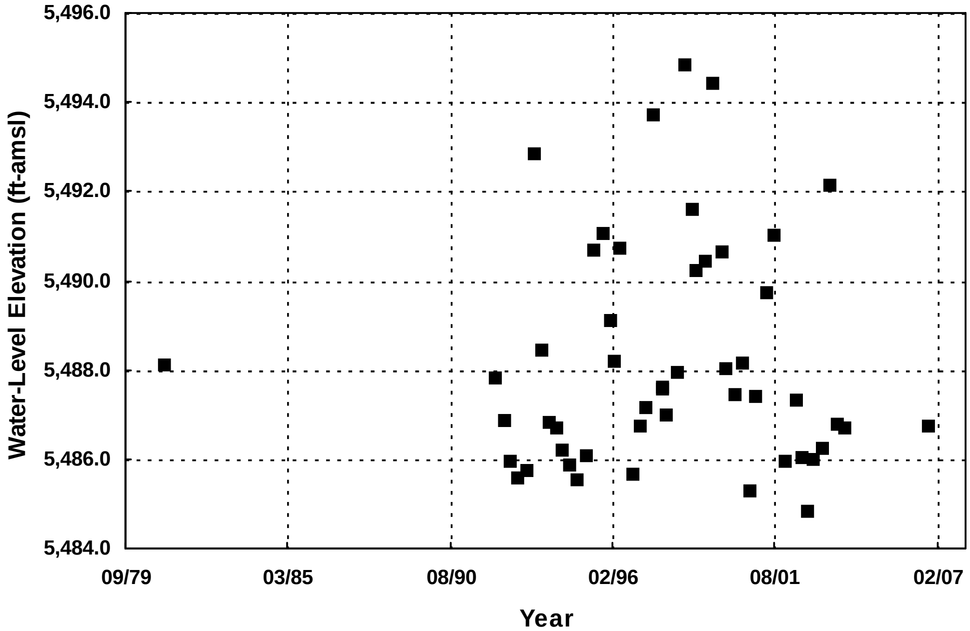
Basin Name:	**Snake Valley**	**Land Surface (ft-amsl):**	**5663.9**
Aquifer Type:	**Basin Fill**	**Well Depth (ft-bgs):**	**200**

Historical Water-Level Elevations at
195 N11 E70 35BA 1 USGS-MX (Hamlin Valley N.)



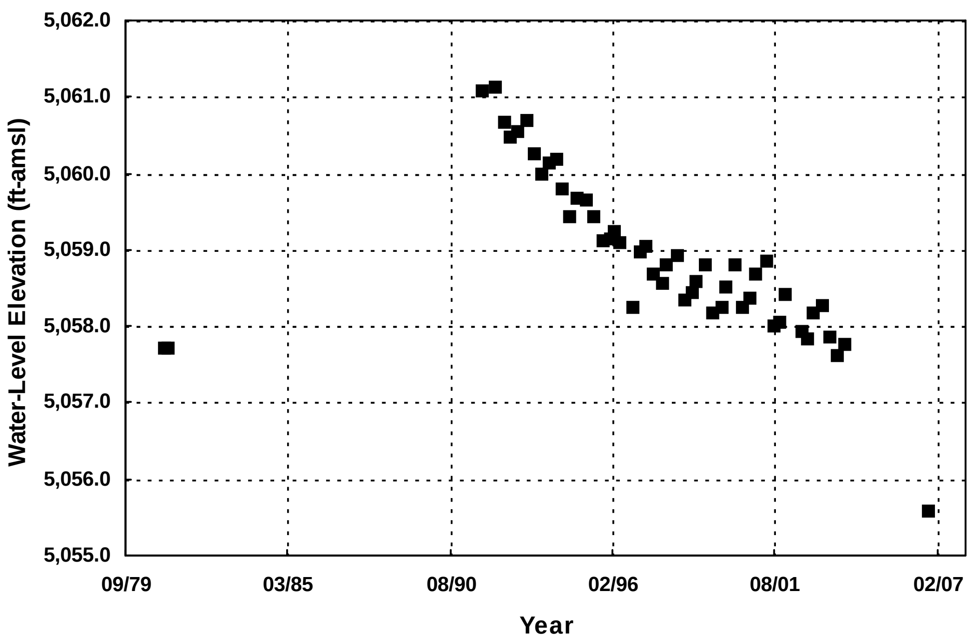
Basin Name:	**Snake Valley**	**Land Surface (ft-amsl):**	**5548.8**
Aquifer Type:	**Basin Fill**	**Well Depth (ft-bgs):**	**101**

Historical Water-Level Elevations at
195 N11 E70 36BD 1 USGS-MX



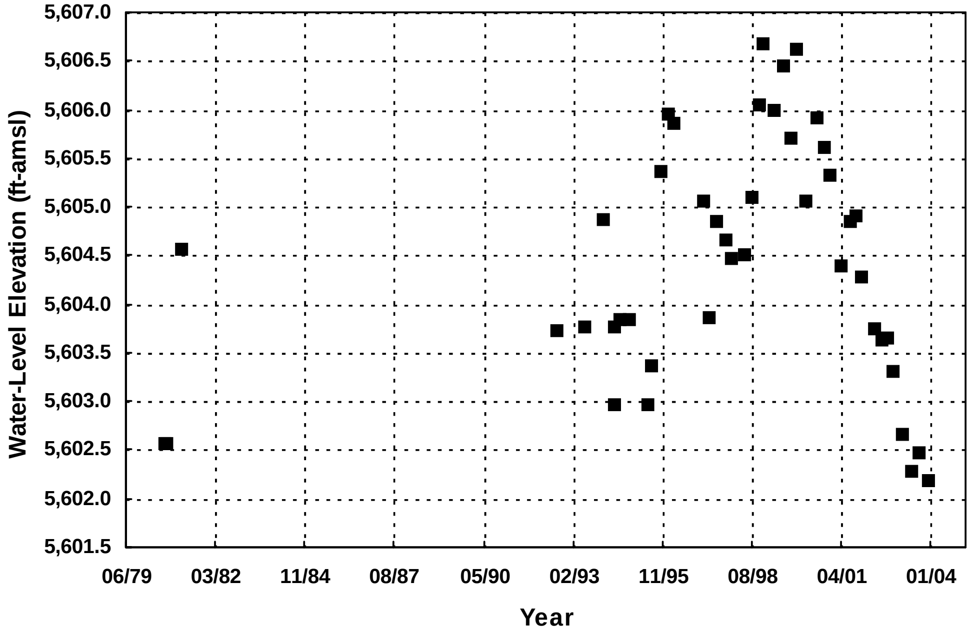
Basin Name:	**Snake Valley**	**Land Surface (ft-amsl):**	**5548.1**
Aquifer Type:	**Basin Fill**	**Well Depth (ft-bgs):**	**79**

Historical Water-Level Elevations at
195 N14 E70 08DC 1 USGS-MX (Snake Valley S.)



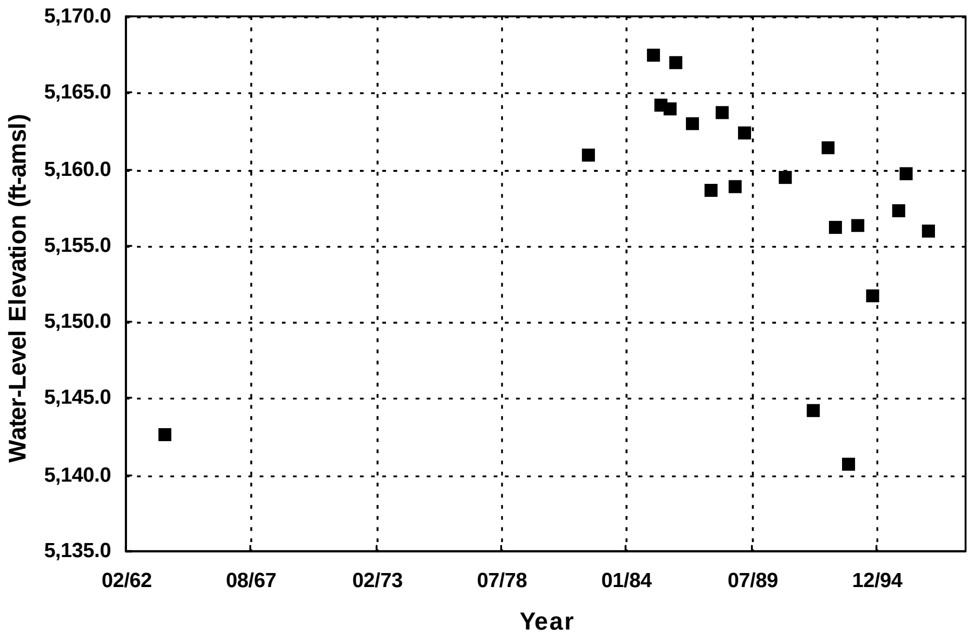
Basin Name:	**Snake Valley**	**Land Surface (ft-amsl):**	**5071.7**
Aquifer Type:	**Basin Fill**	**Well Depth (ft-bgs):**	**94**

Historical Water-Level Elevations at
195 N15 E70 25DD 1 USGS-MX (Snake Valley N.)



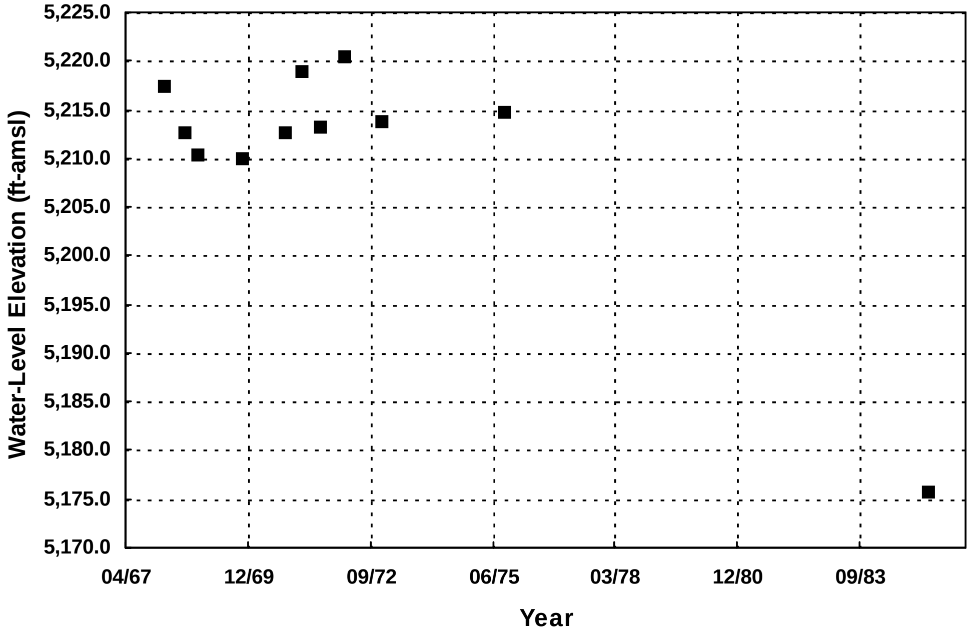
Basin Name:	**Hamlin Valley**	**Land Surface (ft-amsl):**	**5778.6**
Aquifer Type:	**Basin Fill**	**Well Depth (ft-bgs):**	**435**

Historical Water-Level Elevations at
196 N08 E69 35DC 2 USGS-MX (Hamlin Valley S.)



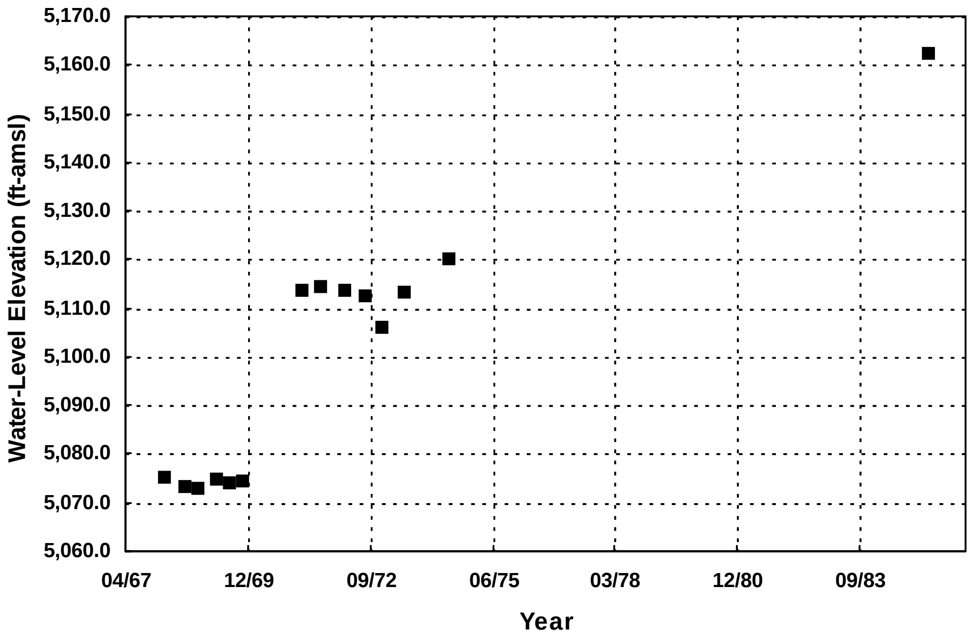
Basin Name:	**Dry Valley**	**Land Surface (ft-amsl):**	**5193.7**
Aquifer Type:	**Basin Fill**	**Well Depth (ft-bgs):**	**120**

Historical Water-Level Elevations at
198 N01 E69 31C 1



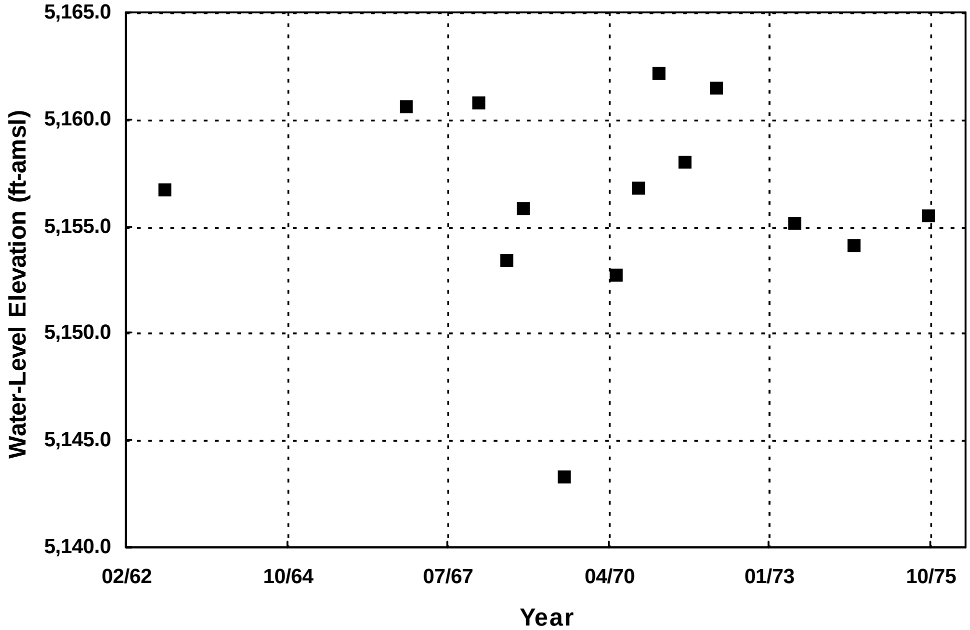
Basin Name:	**Dry Valley**	**Land Surface (ft-amsl):**	**5265.8**
Aquifer Type:	**Basin Fill**	**Well Depth (ft-bgs):**	**110**

Historical Water-Level Elevations at
198 N01 E69 31CAC 1



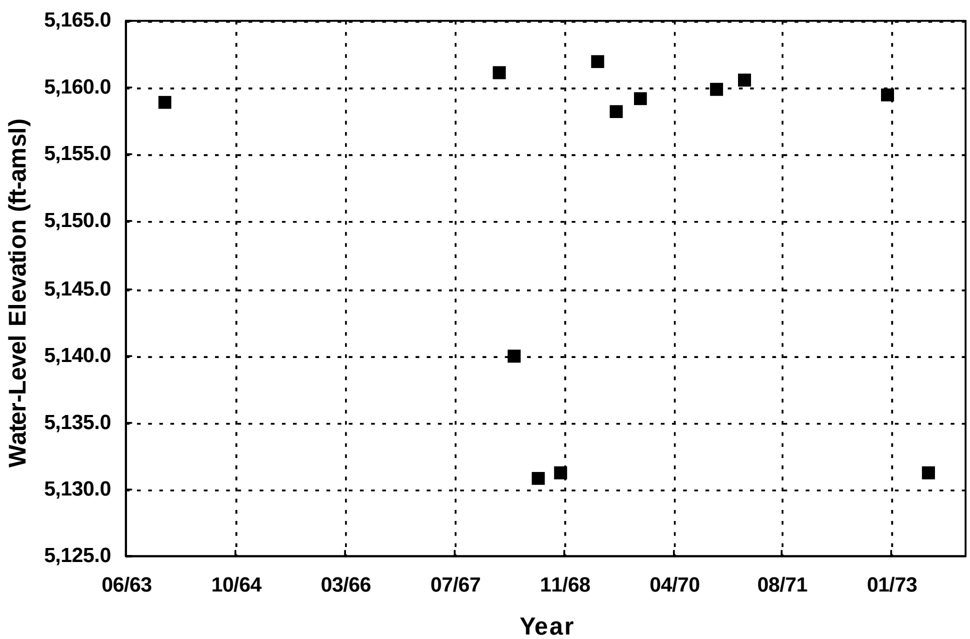
Basin Name:	**Dry Valley**	**Land Surface (ft-amsl):**	**5188.8**
Aquifer Type:	**Basin Fill**	**Well Depth (ft-bgs):**	

Historical Water-Level Elevations at
198 N01 E69 32CAA 1



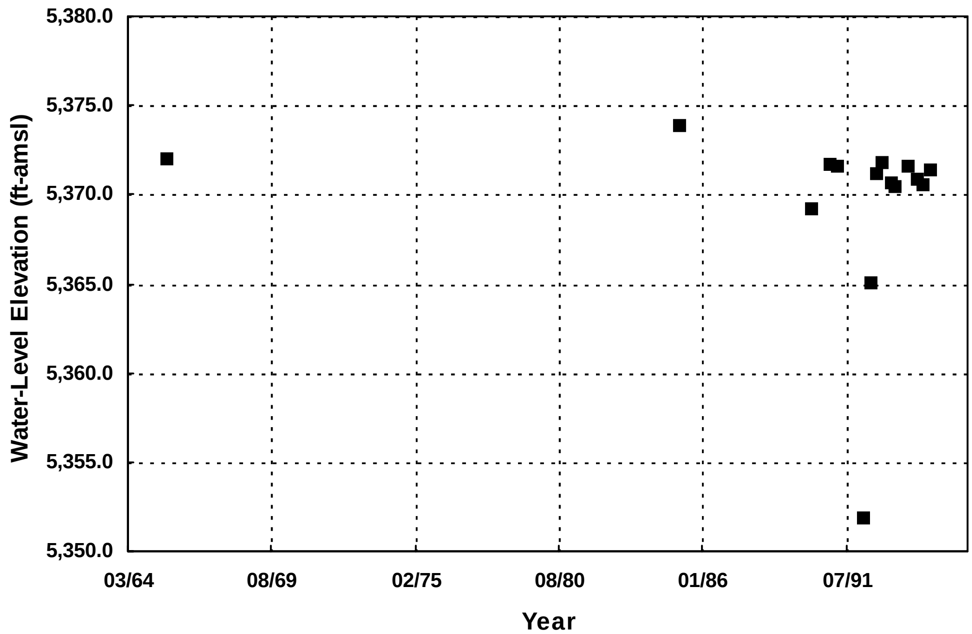
Basin Name: **Dry Valley** **Land Surface (ft-amsl):** **5183.7**
Aquifer Type: **Basin Fill** **Well Depth (ft-bgs):** **124**

Historical Water-Level Elevations at
198 S01 E69 06A 1



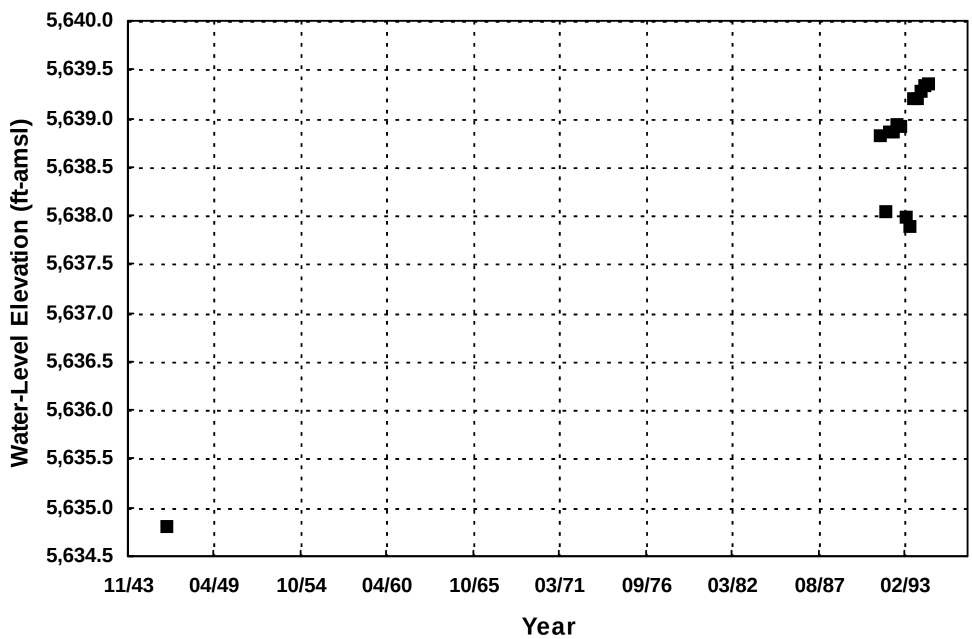
Basin Name: **Dry Valley** **Land Surface (ft-amsl):** **5173.7**
Aquifer Type: **Basin Fill** **Well Depth (ft-bgs):** **100**

Historical Water-Level Elevations at
198 S01 E69 07A 1



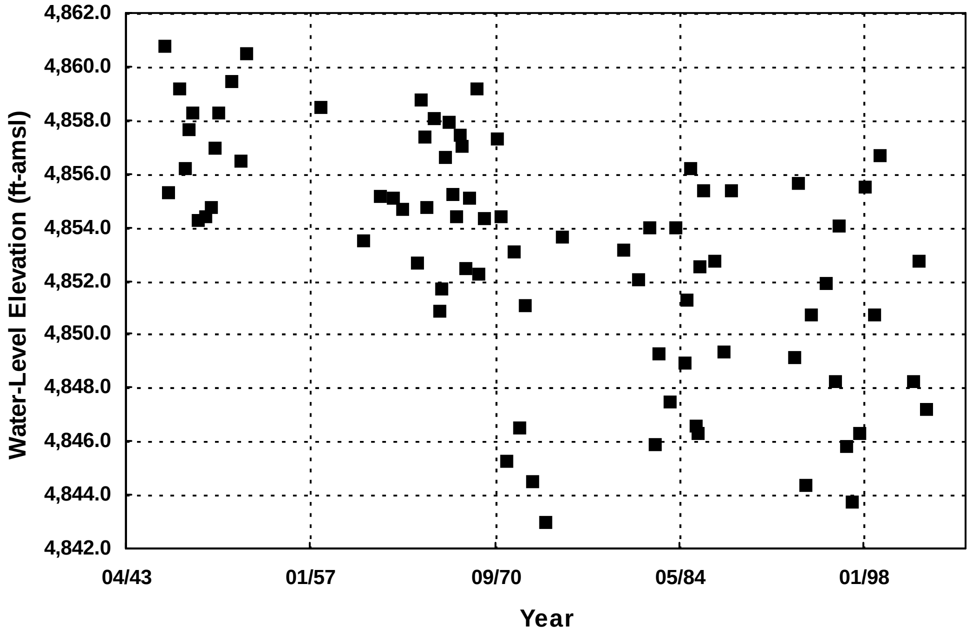
Basin Name:	**Patterson Valley**	**Land Surface (ft-amsl):**	**5465**
Aquifer Type:	**Basin Fill**	**Well Depth (ft-bgs):**	**595**

Historical Water-Level Elevations at
202 N01 E67 12DAC 1 Pioche Municipal Well



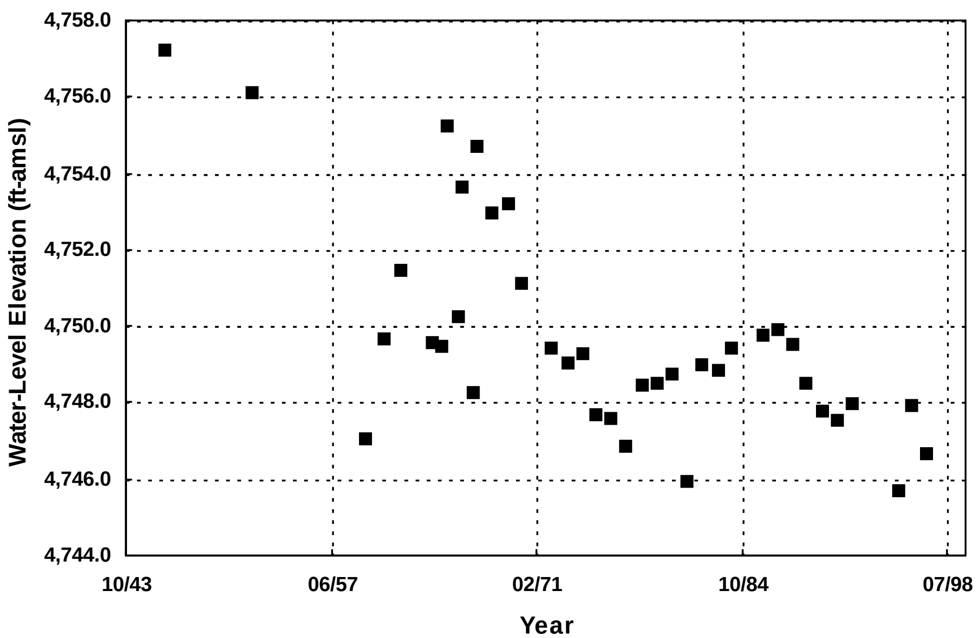
Basin Name:	**Patterson Valley**	**Land Surface (ft-amsl):**	**5677.8**
Aquifer Type:	**Basin Fill**	**Well Depth (ft-bgs):**	**116**

Historical Water-Level Elevations at
202 N03 E66 23DAC 1 USBLM 15-mile Well



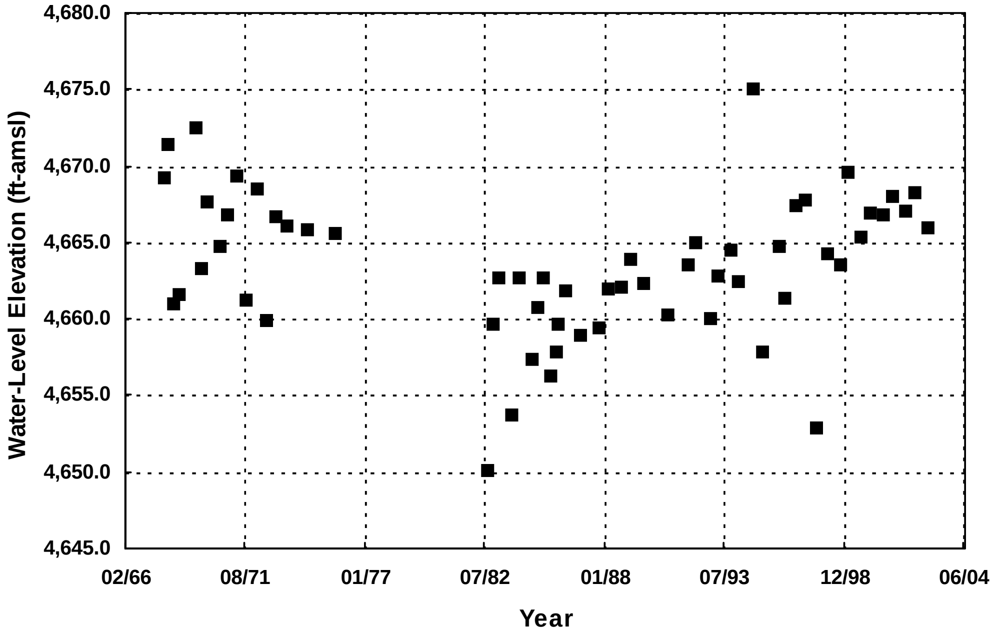
Basin Name:	**Panaca Valley**	**Land Surface (ft-amsl):**	**4903.6**
Aquifer Type:	**Basin Fill**	**Well Depth (ft-bgs):**	**154**

Historical Water-Level Elevations at
203 S01 E68 28C 1



Basin Name:	**Panaca Valley**	**Land Surface (ft-amsl):**	**4787.6**
Aquifer Type:	**Basin Fill**	**Well Depth (ft-bgs):**	**120**

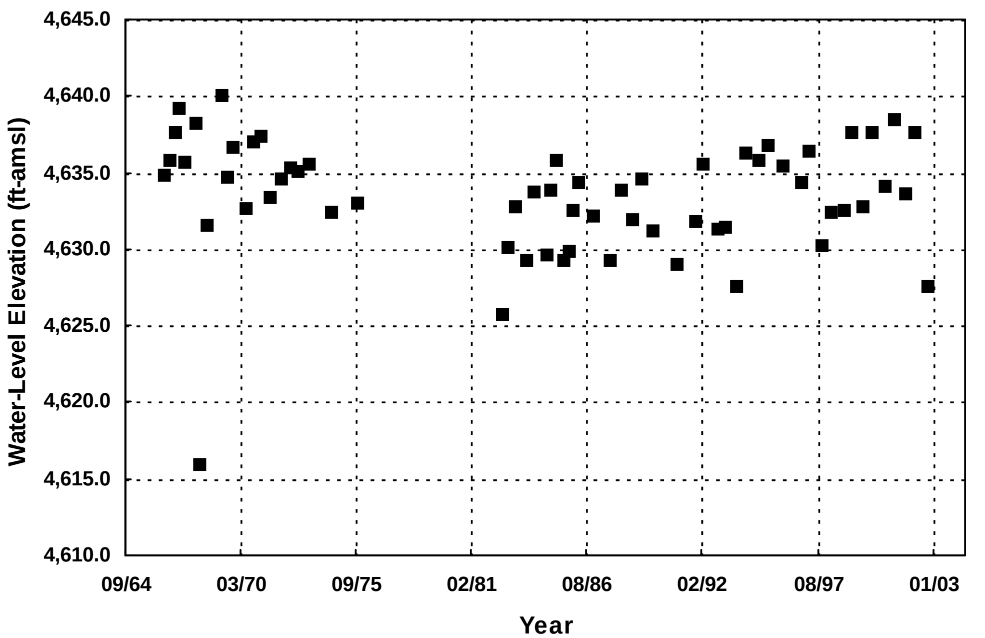
Historical Water-Level Elevations at
203 S01 E68 33B 1



Basin Name: Panaca Valley | **Land Surface (ft-amsl):** 4703.5

Aquifer Type: Basin Fill | **Well Depth (ft-bgs):**

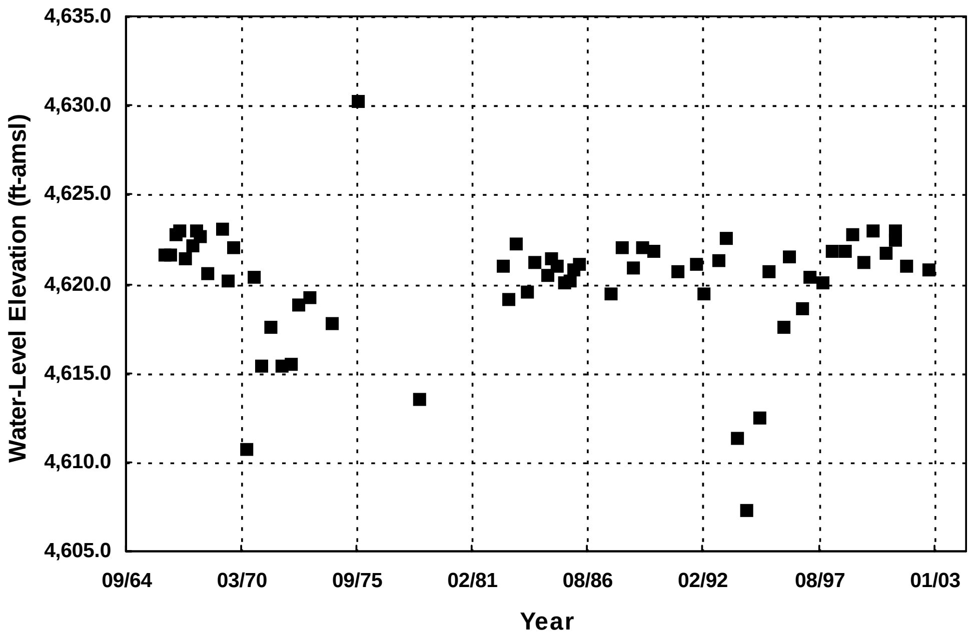
Historical Water-Level Elevations at
203 S02 E67 24D 1



Basin Name: Panaca Valley | **Land Surface (ft-amsl):** 4662.5

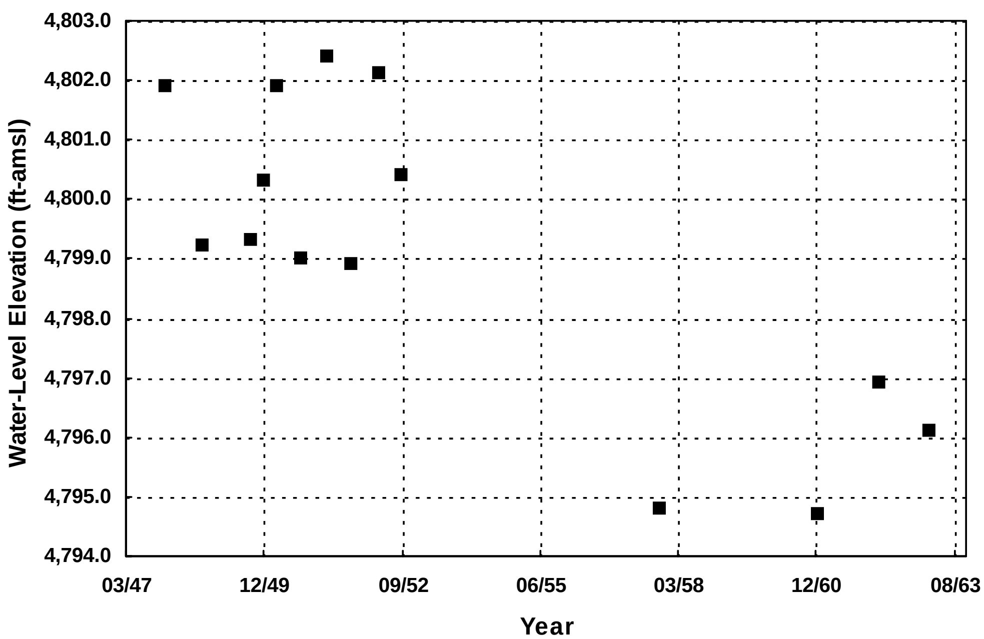
Aquifer Type: Basin Fill | **Well Depth (ft-bgs):**

Historical Water-Level Elevations at
203 S02 E67 25DABB1



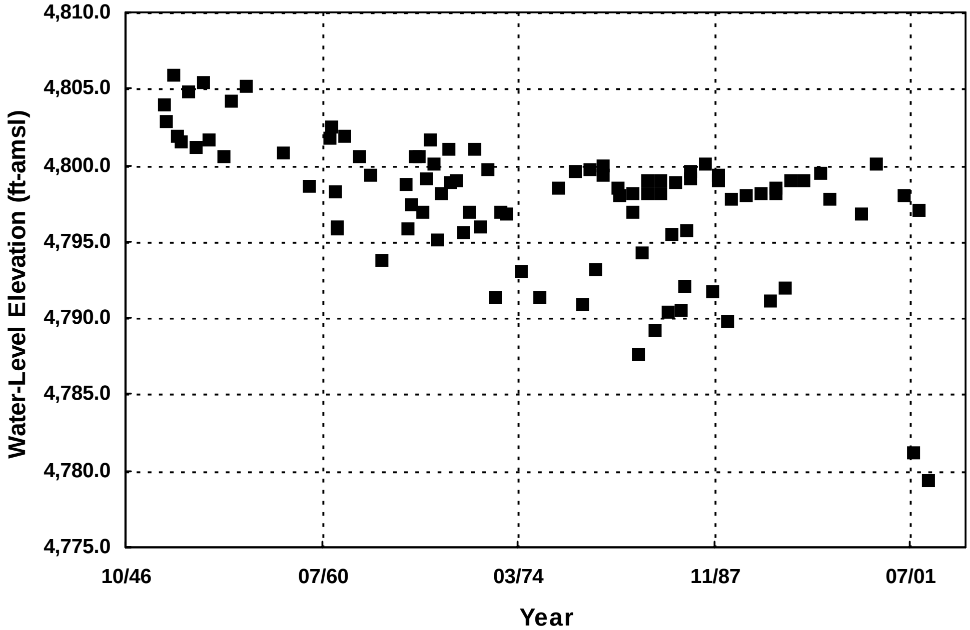
Basin Name: Panaca Valley
Aquifer Type: Basin Fill
Land Surface (ft-amsl): 4653.5
Well Depth (ft-bgs): 193

Historical Water-Level Elevations at
203 S02 E67 35A 1



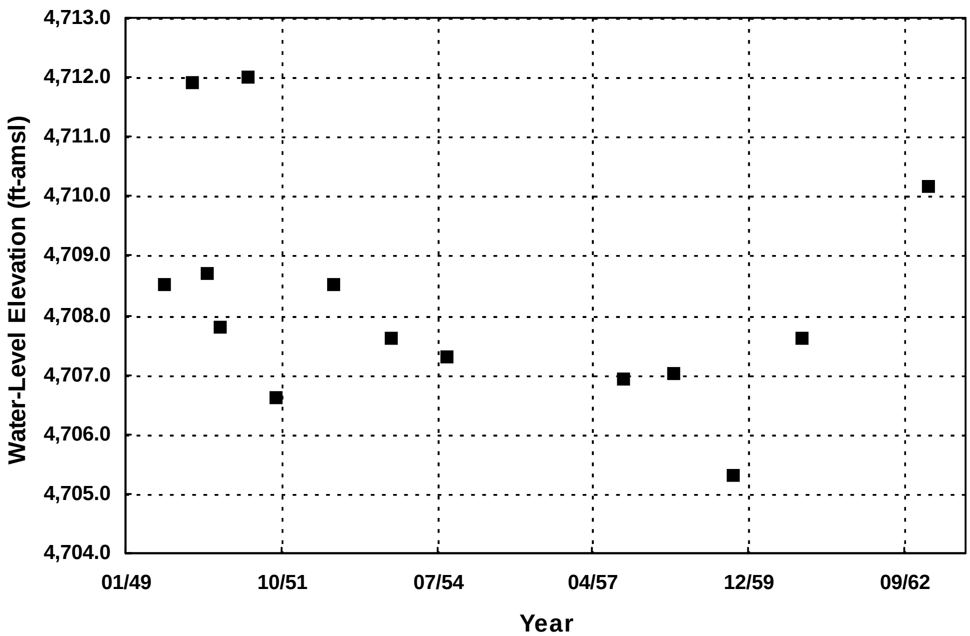
Basin Name: Panaca Valley
Aquifer Type: Basin Fill
Land Surface (ft-amsl): 4803.5
Well Depth (ft-bgs):

Historical Water-Level Elevations at
203 S02 E68 05B 1



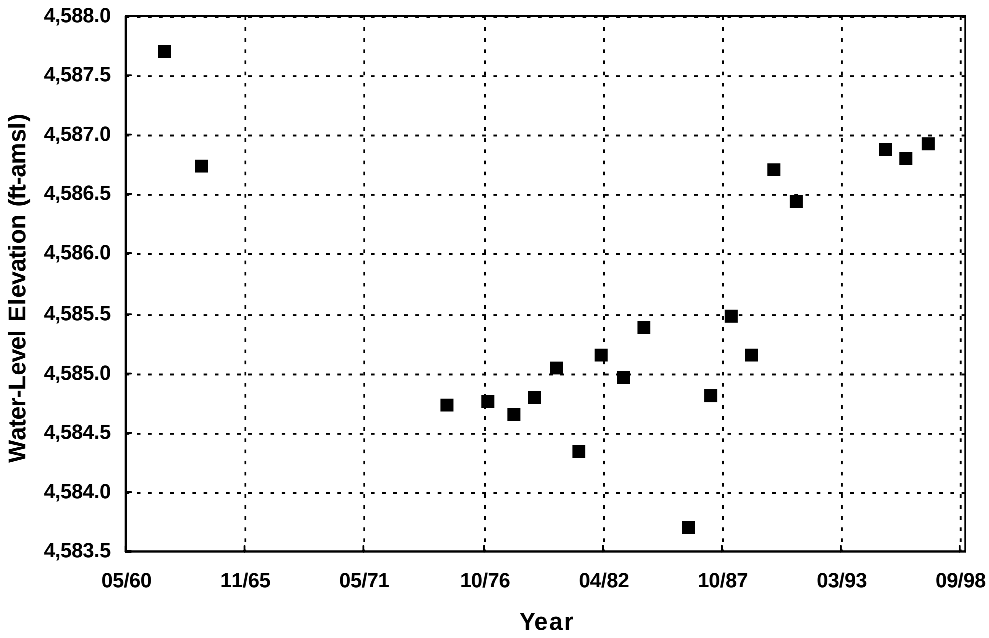
Basin Name:	**Panaca Valley**	**Land Surface (ft-amsl):**	**4816.6**
Aquifer Type:	**Basin Fill**	**Well Depth (ft-bgs):**	**110**

Historical Water-Level Elevations at
203 S02 E68 08B 5 USGS - Panaca Valley



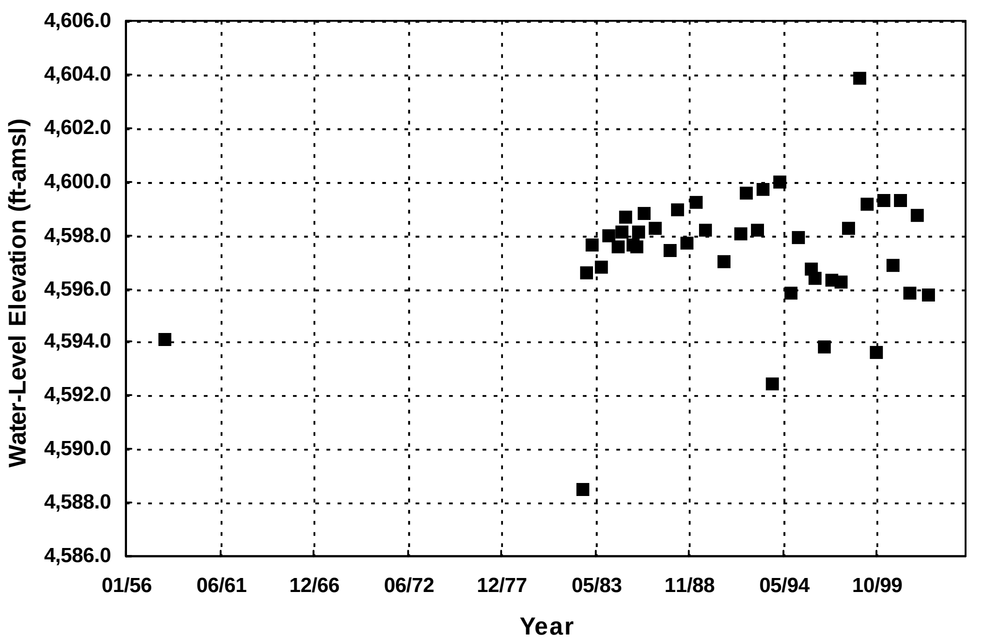
Basin Name:	**Panaca Valley**	**Land Surface (ft-amsl):**	**4718.5**
Aquifer Type:	**Basin Fill**	**Well Depth (ft-bgs):**	

Historical Water-Level Elevations at
203 S02 E68 08C 1



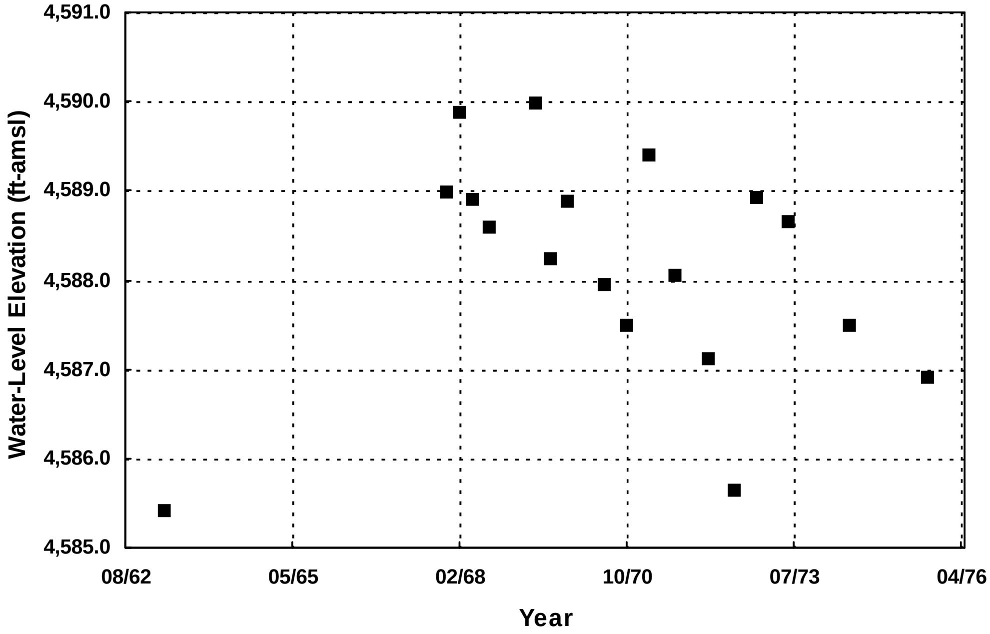
Basin Name:	**Panaca Valley**	**Land Surface (ft-amsl):**	**4608.4**
Aquifer Type:	**Basin Fill**	**Well Depth (ft-bgs):**	**225**

Historical Water-Level Elevations at
203 S03 E67 02A 1



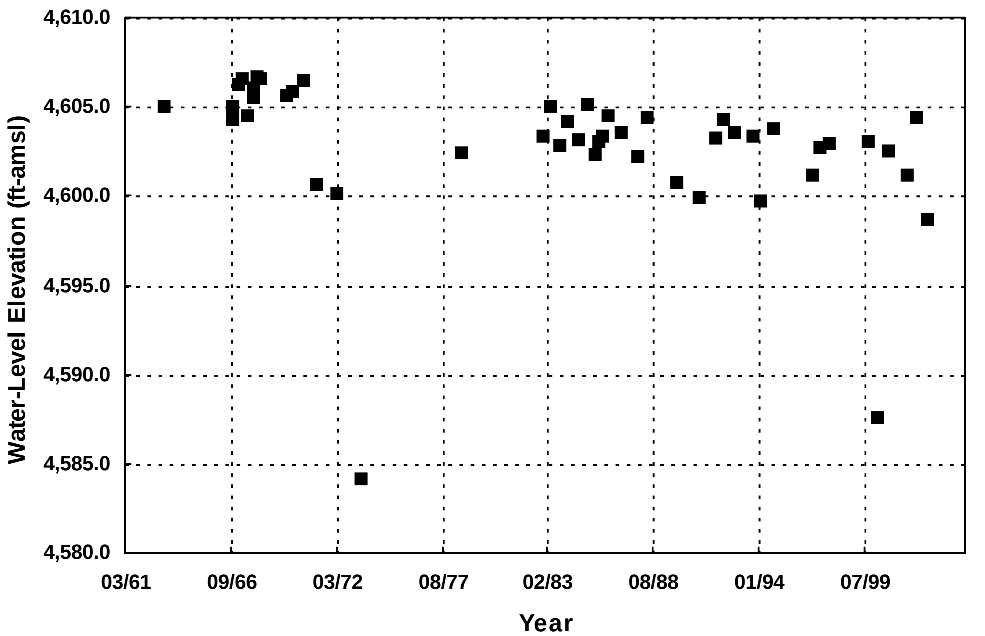
Basin Name:	**Panaca Valley**	**Land Surface (ft-amsl):**	**4618.4**
Aquifer Type:	**Basin Fill**	**Well Depth (ft-bgs):**	**158**

Historical Water-Level Elevations at
203 S03 E67 02D 1



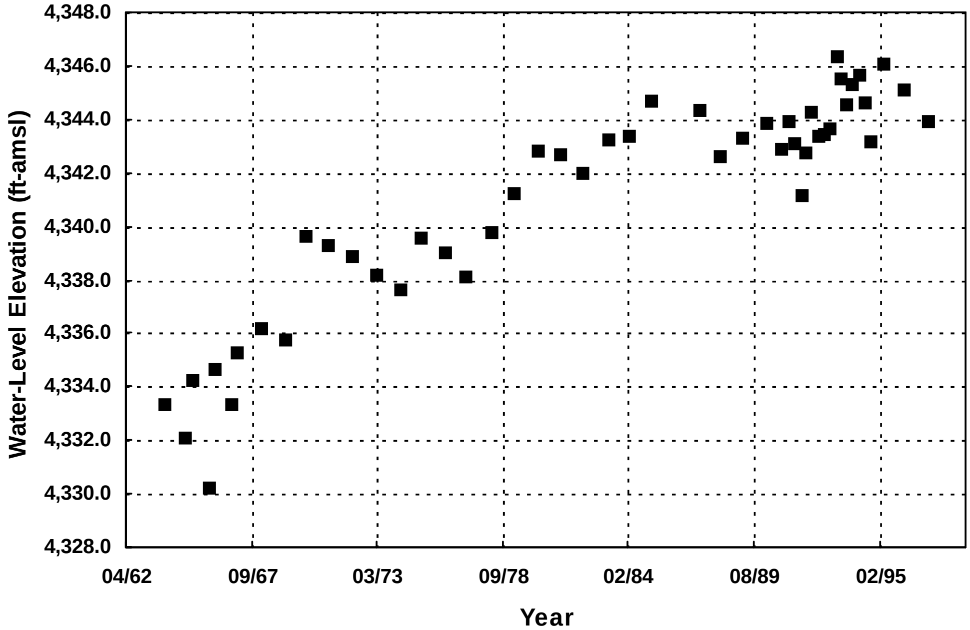
Basin Name:	**Panaca Valley**	**Land Surface (ft-amsl):**	**4603.4**
Aquifer Type:	**Basin Fill**	**Well Depth (ft-bgs):**	**184**

Historical Water-Level Elevations at
203 S03 E67 11A 1



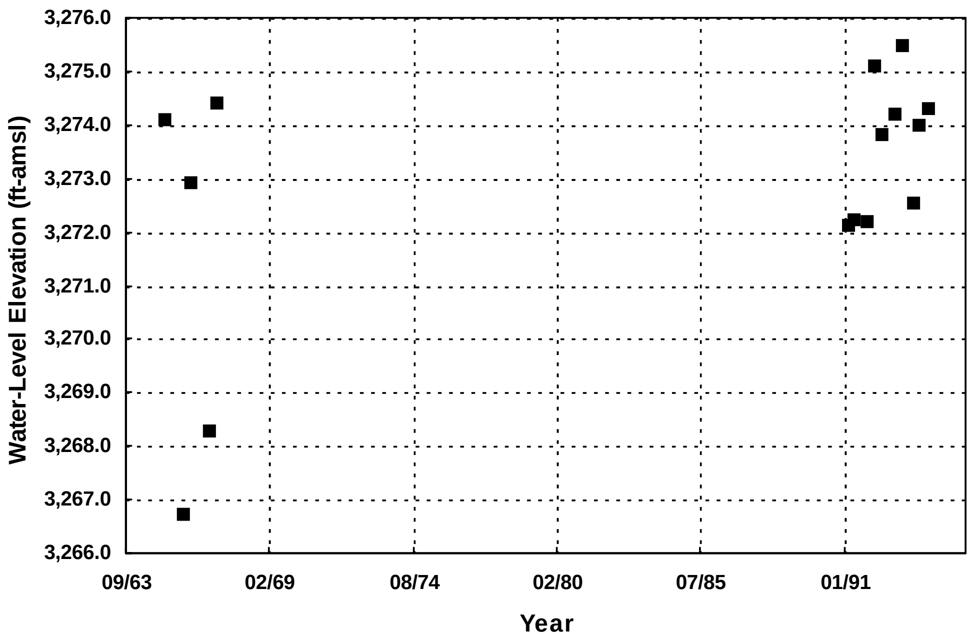
Basin Name:	**Panaca Valley**	**Land Surface (ft-amsl):**	**4603.4**
Aquifer Type:	**Volcanic**	**Well Depth (ft-bgs):**	**175**

Historical Water-Level Elevations at
203 S03 E67 22B 1



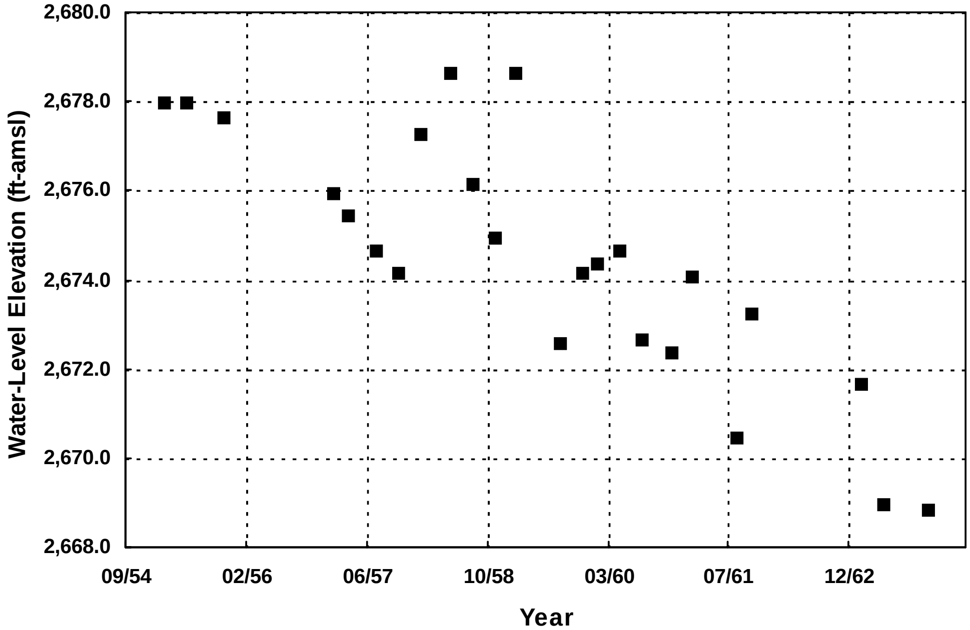
Basin Name: **Lower Meadow Valley Wash** **Land Surface (ft-amsl):** **4356.5**
Aquifer Type: **Basin Fill** **Well Depth (ft-bgs):** **165**

Historical Water-Level Elevations at
205 S04 E67 18B 1



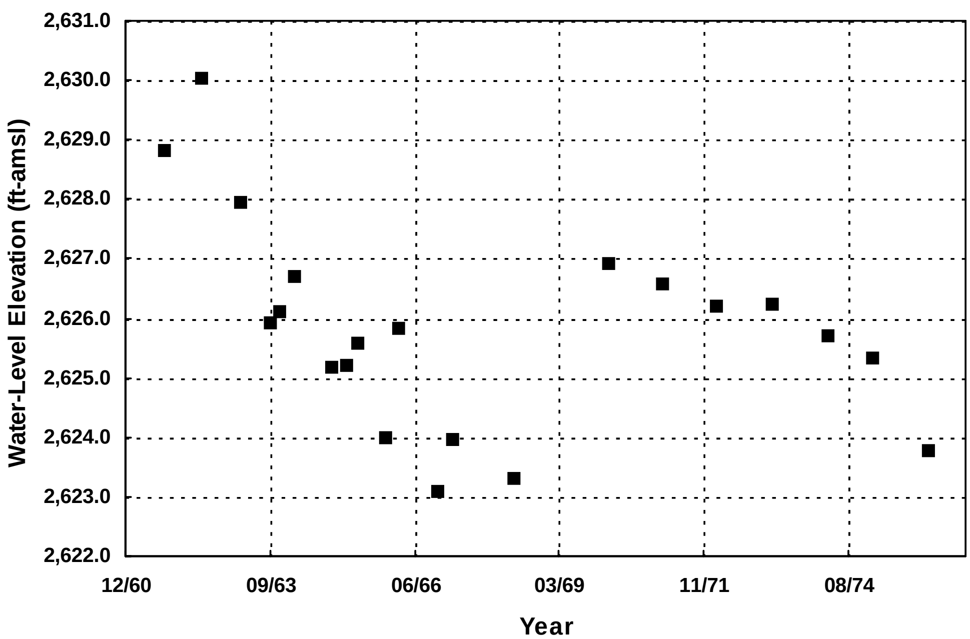
Basin Name: **Lower Meadow Valley Wash** **Land Surface (ft-amsl):** **3287.3**
Aquifer Type: **Basin Fill** **Well Depth (ft-bgs):** **115**

Historical Water-Level Elevations at
205 S07 E67 21C 1



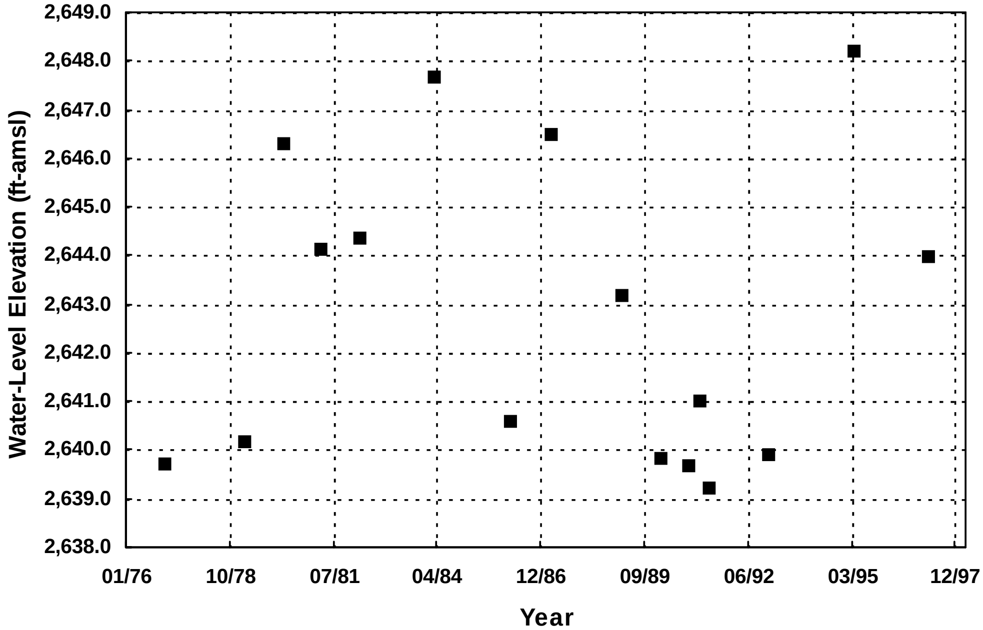
Basin Name: Lower Meadow Valley Wash
Aquifer Type: Basin Fill
Land Surface (ft-amsl): 2722.7
Well Depth (ft-bgs): 150

Historical Water-Level Elevations at
205 S09 E67 11B 1



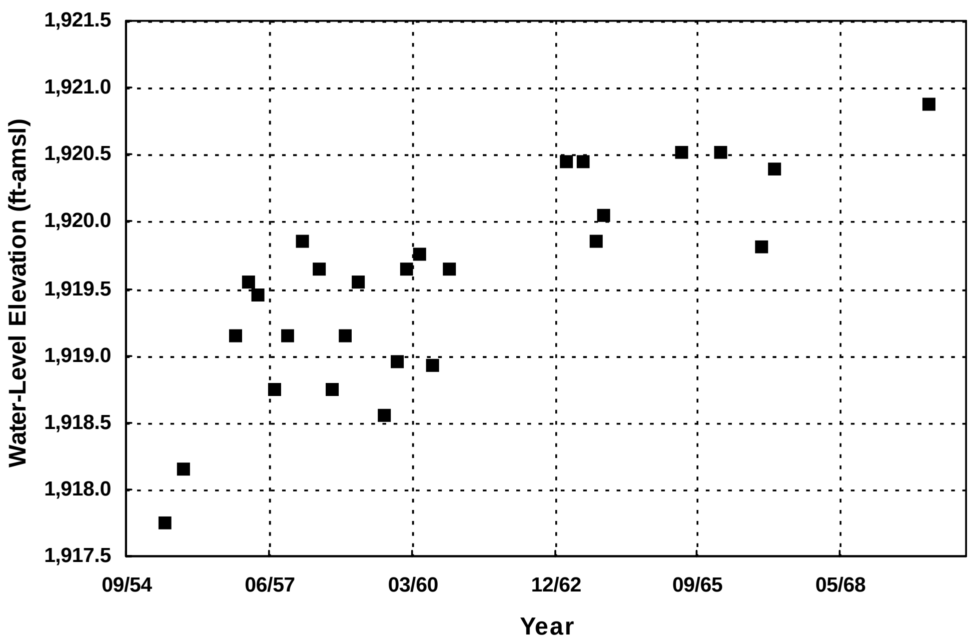
Basin Name: Lower Meadow Valley Wash
Aquifer Type: Basin Fill
Land Surface (ft-amsl): 2660.7
Well Depth (ft-bgs): 48

Historical Water-Level Elevations at
205 S09 E67 14B 1



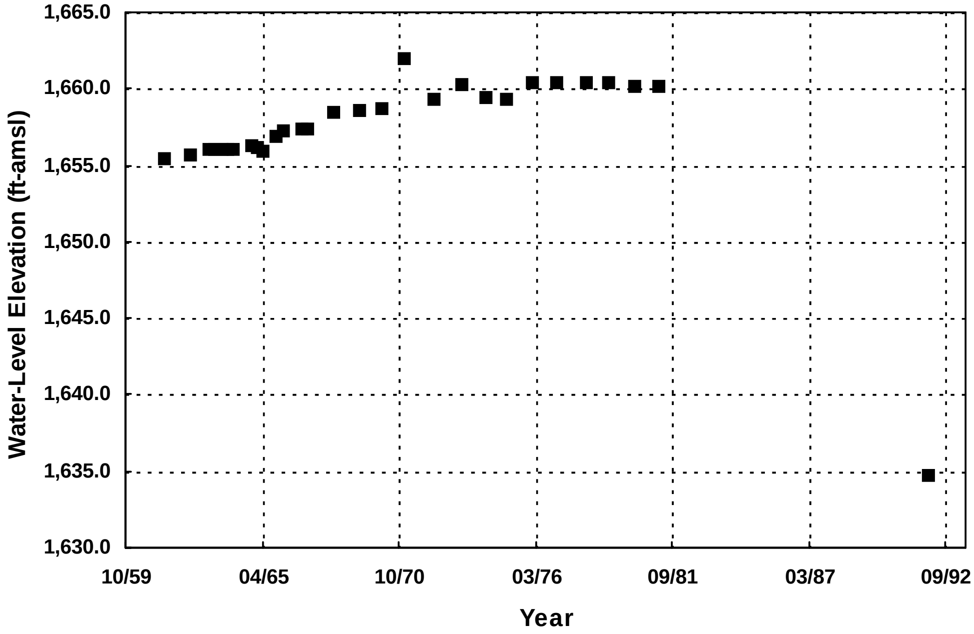
Basin Name:	**Lower Meadow Valley Wash**	**Land Surface (ft-amsl):**	**2672.7**
Aquifer Type:	**Basin Fill**	**Well Depth (ft-bgs):**	**55**

Historical Water-Level Elevations at
205 S09 E67 14BDBA2



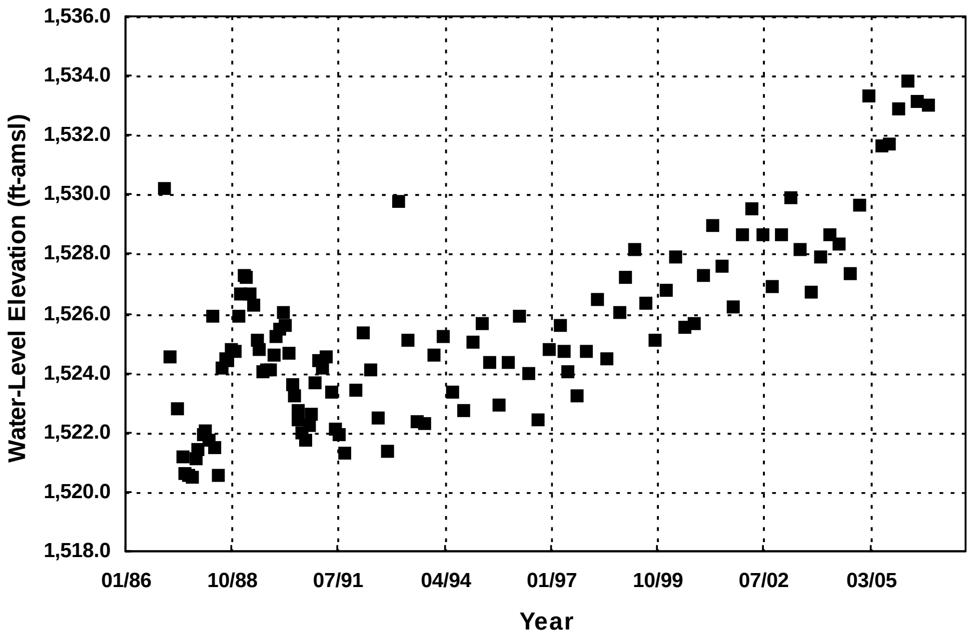
Basin Name:	**Lower Meadow Valley Wash**	**Land Surface (ft-amsl):**	**1932.3**
Aquifer Type:	**Basin Fill**	**Well Depth (ft-bgs):**	**18**

Historical Water-Level Elevations at
205 S12 E65 13B 2 USGS



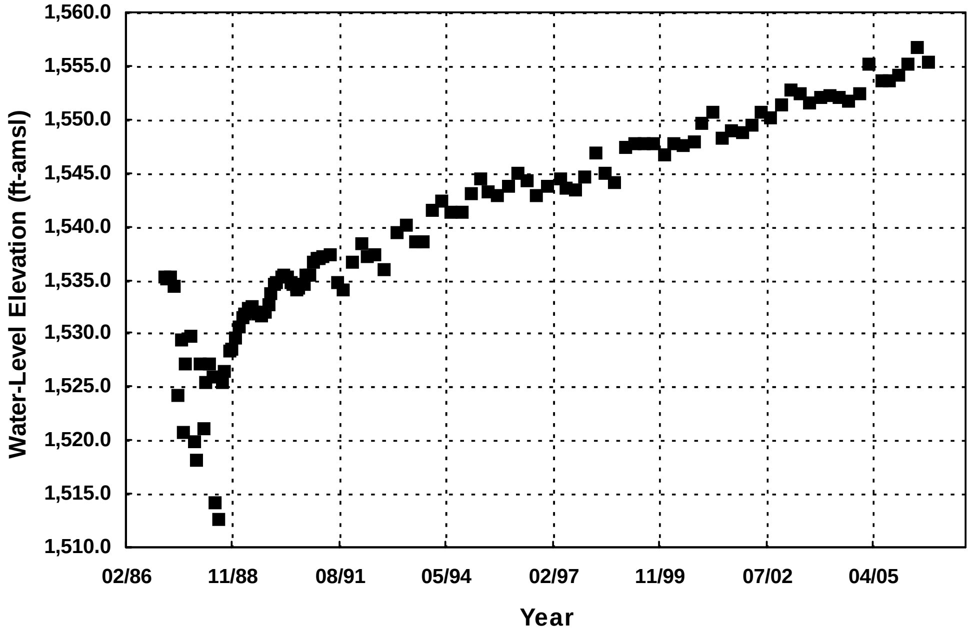
Basin Name:	**Lower Meadow Valley Wash**	**Land Surface (ft-amsl):**	**1676.6**
Aquifer Type:	**Basin Fill**	**Well Depth (ft-bgs):**	**30**

Historical Water-Level Elevations at
205 S14 E66 15A 1 USGS



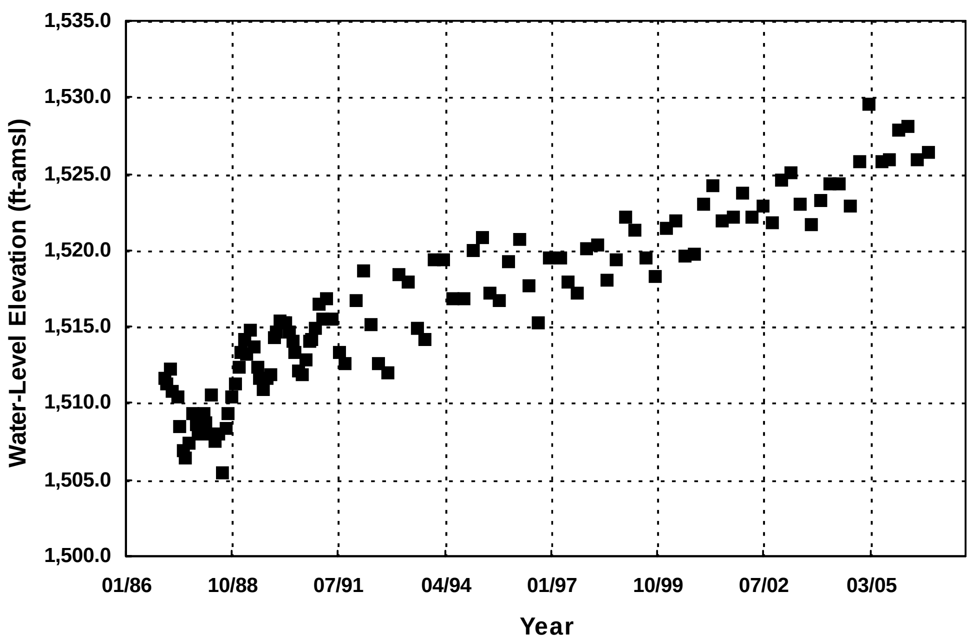
Basin Name:	**Lower Meadow Valley Wash**	**Land Surface (ft-amsl):**	**1562.4**
Aquifer Type:	**Basin Fill**	**Well Depth (ft-bgs):**	

Historical Water-Level Elevations at
205 S14 E66 22DC 1 NPC-5 Old



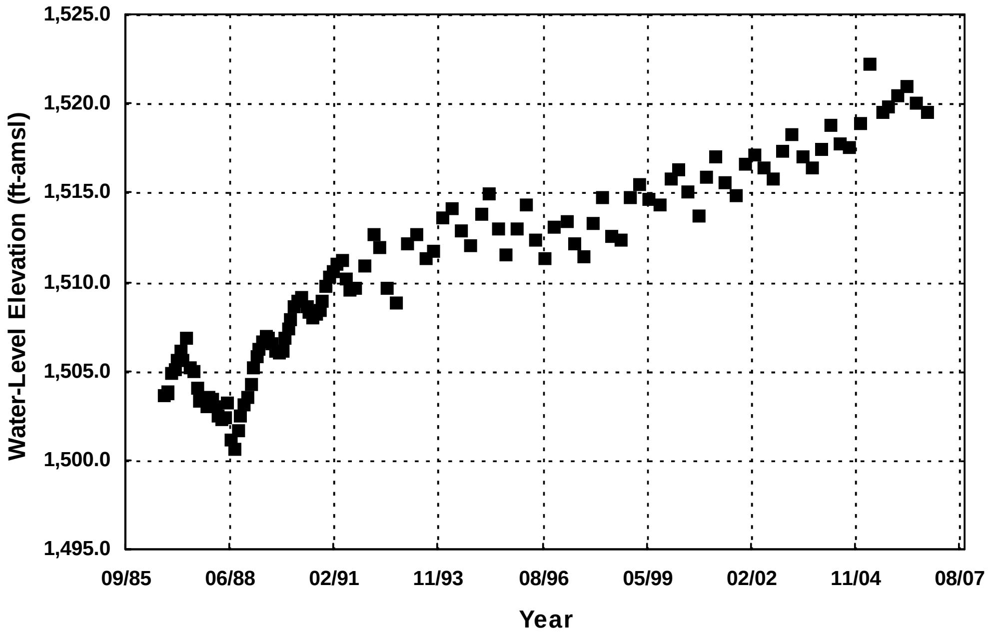
Basin Name:	**Lower Meadow Valley Wash**	**Land Surface (ft-amsl):**	**1559.5**
Aquifer Type:	**Basin Fill**	**Well Depth (ft-bgs):**	

Historical Water-Level Elevations at
205 S14 E66 26CA 1 NPC-4A



Basin Name:	**Lower Meadow Valley Wash**	**Land Surface (ft-amsl):**	**1552.7**
Aquifer Type:	**Basin Fill**	**Well Depth (ft-bgs):**	**204**

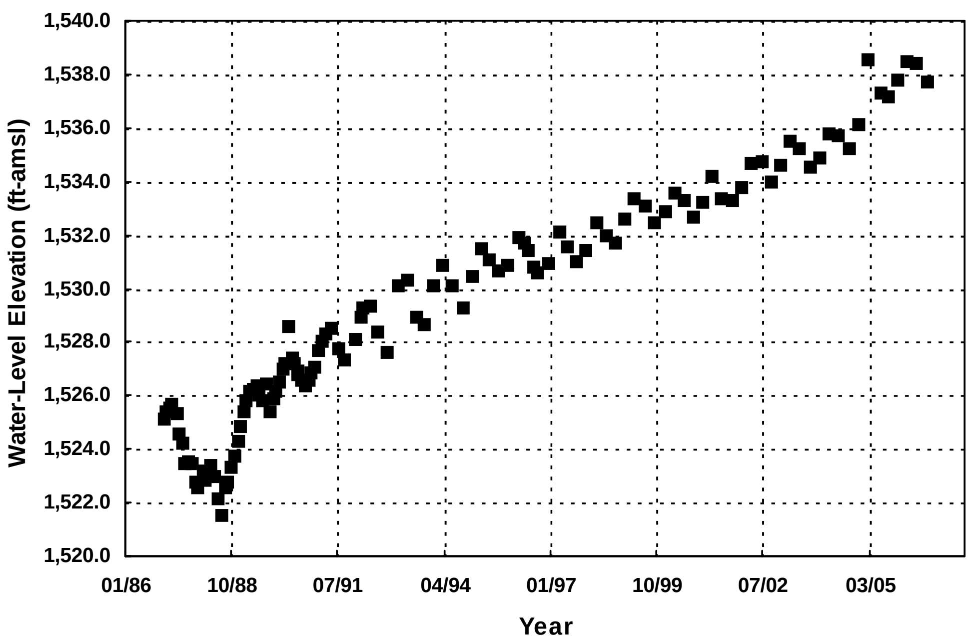
Historical Water-Level Elevations at
205 S14 E66 26CA 2 TH-12



Basin Name: Lower Meadow Valley Wash — **Land Surface (ft-amsl):** 1546.8

Aquifer Type: Basin Fill — **Well Depth (ft-bgs):** 104

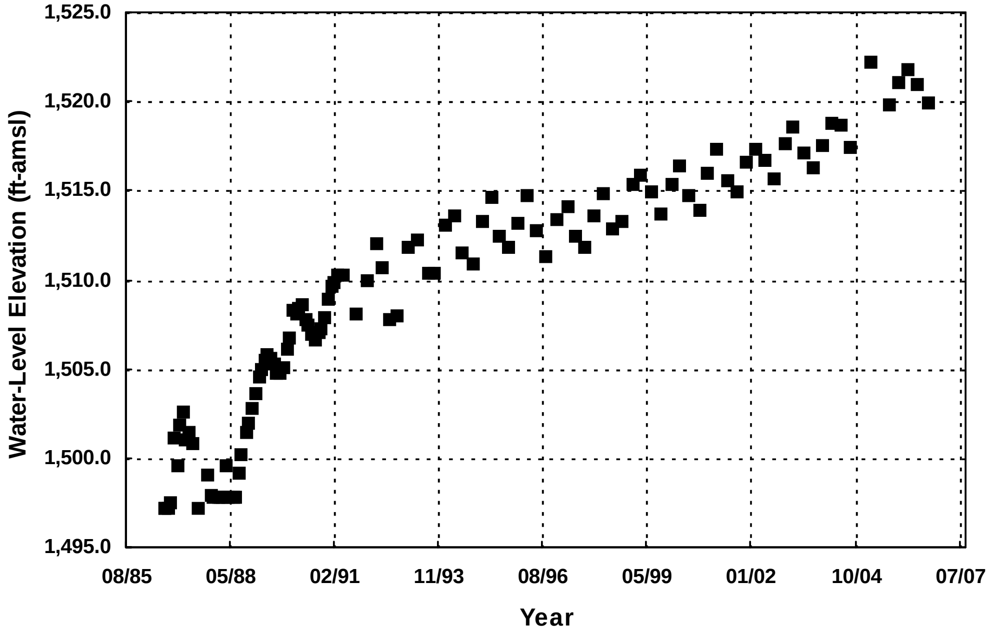
Historical Water-Level Elevations at
205 S14 E66 34AD 1 TH-31



Basin Name: Lower Meadow Valley Wash — **Land Surface (ft-amsl):** 1568.9

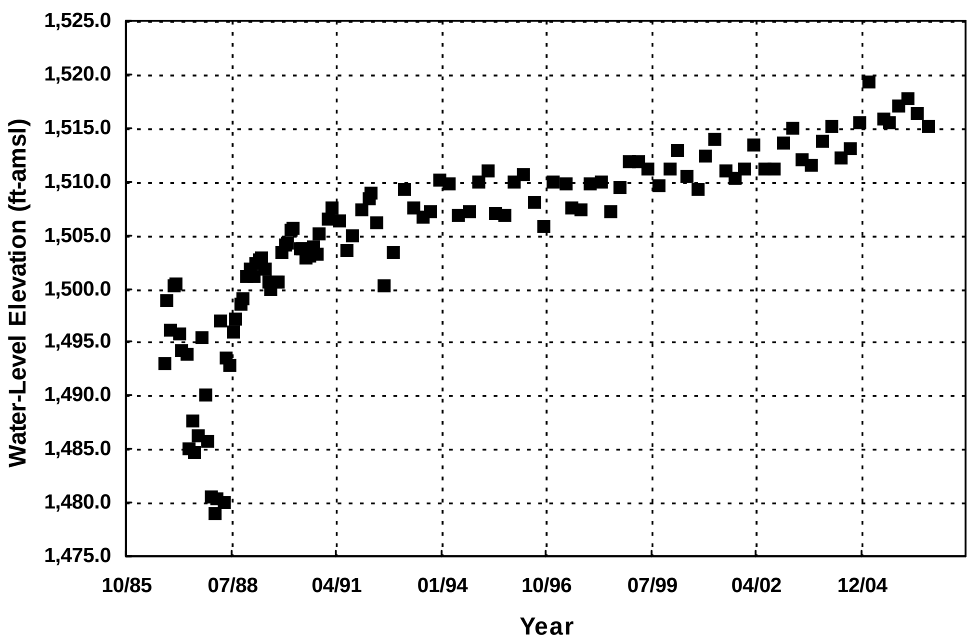
Aquifer Type: Basin Fill — **Well Depth (ft-bgs):** 140

Historical Water-Level Elevations at
205 S14 E66 35AA 1 EH-6



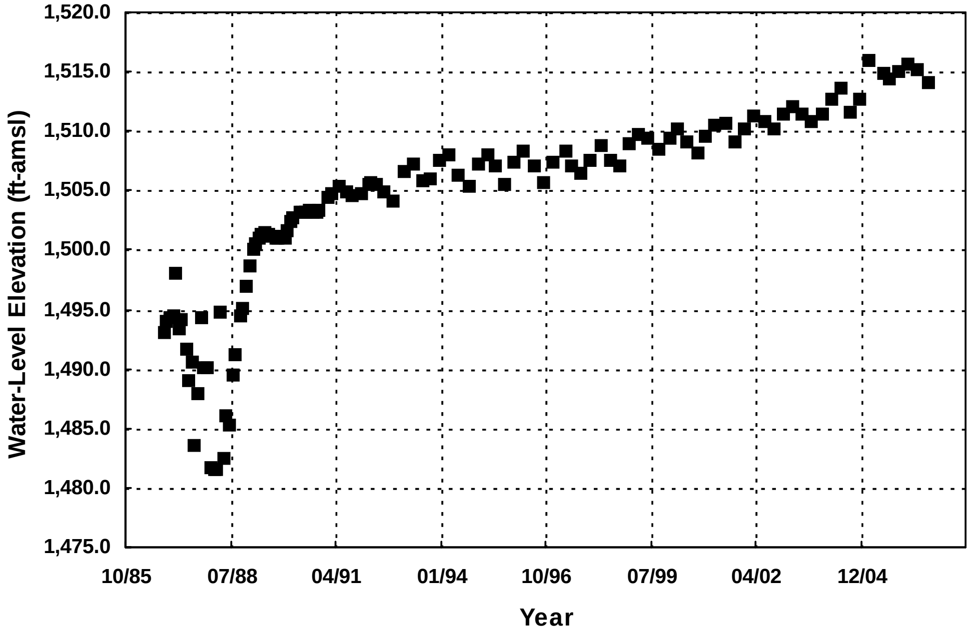
Basin Name: **Lower Meadow Valley Wash** **Land Surface (ft-amsl):** **1541.4**
Aquifer Type: **Basin Fill** **Well Depth (ft-bgs):** **44**

Historical Water-Level Elevations at
205 S14 E66 35AC 1 TH-8



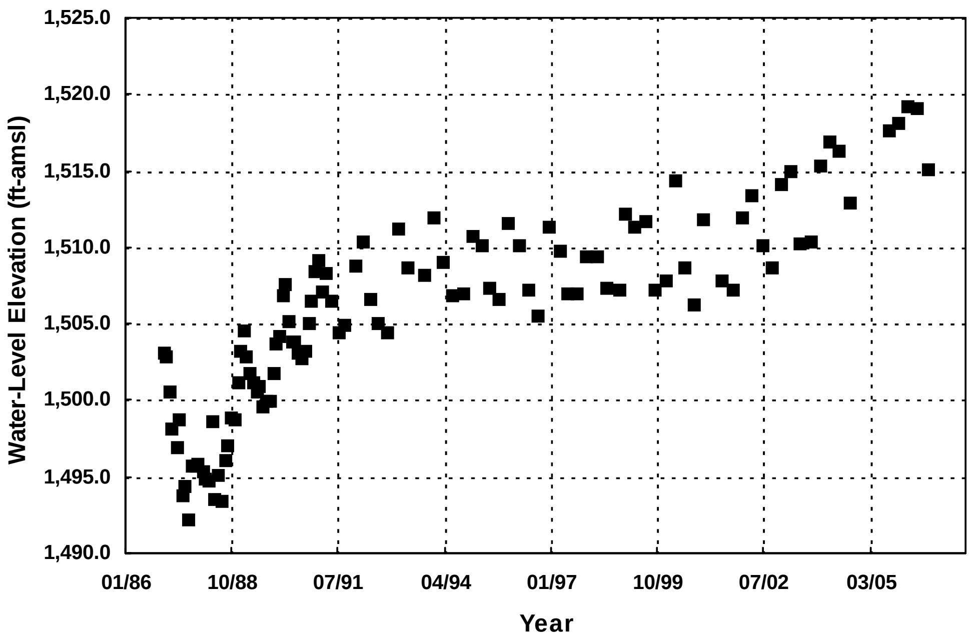
Basin Name: **Lower Meadow Valley Wash** **Land Surface (ft-amsl):** **1531.0**
Aquifer Type: **Basin Fill** **Well Depth (ft-bgs):**

Historical Water-Level Elevations at
205 S14 E66 35CA 1 EH-8A



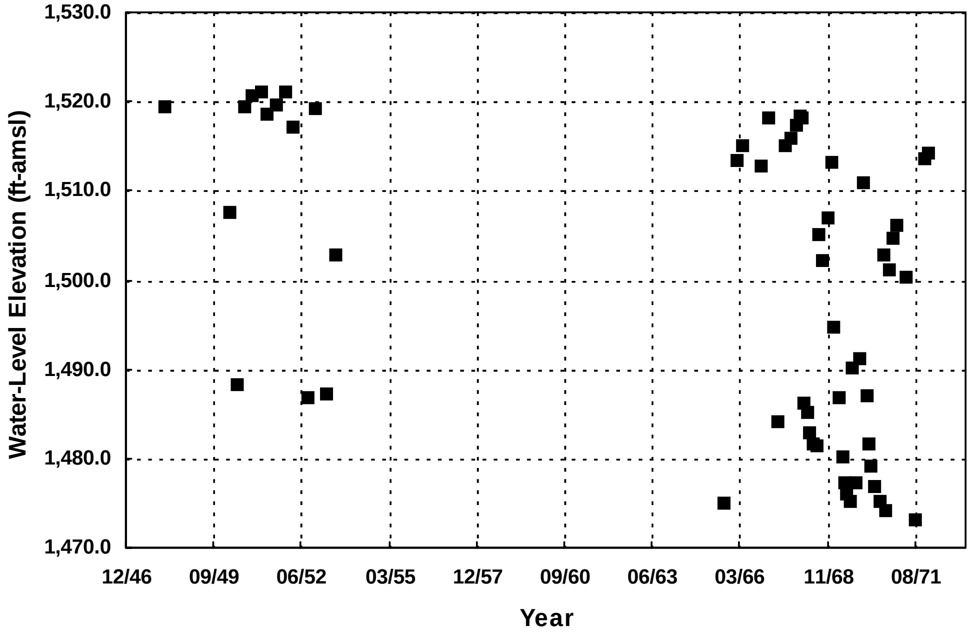
Basin Name:	**Lower Meadow Valley Wash**	**Land Surface (ft-amsl):**	**1531.0**
Aquifer Type:	**Basin Fill**	**Well Depth (ft-bgs):**	

Historical Water-Level Elevations at
205 S14 E66 35CA 2 EH-8B



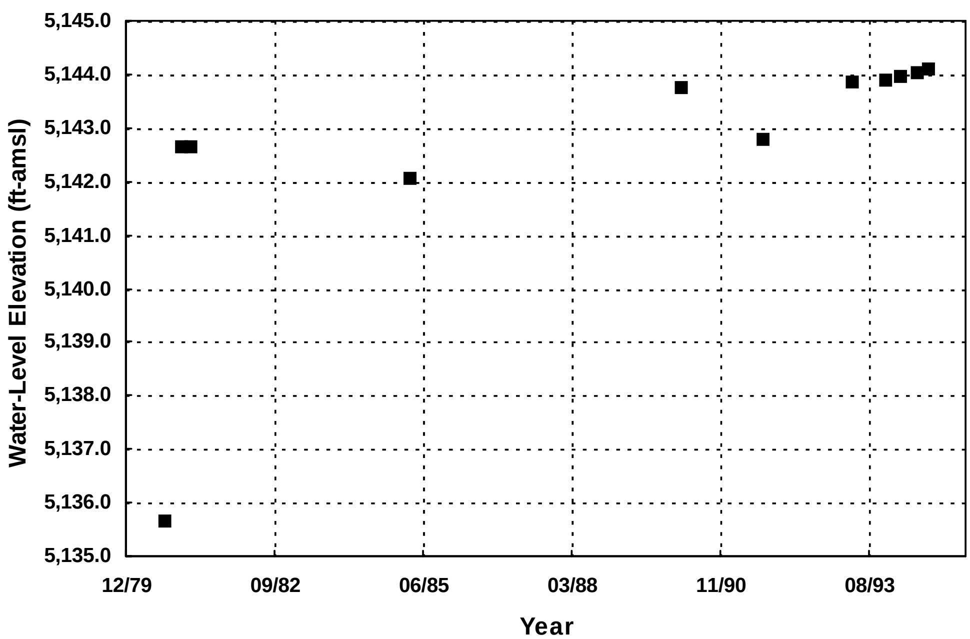
Basin Name:	**Lower Meadow Valley Wash**	**Land Surface (ft-amsl):**	**1531.3**
Aquifer Type:	**Basin Fill**	**Well Depth (ft-bgs):**	

Historical Water-Level Elevations at
205 S14 E66 35DA 1 TH-35



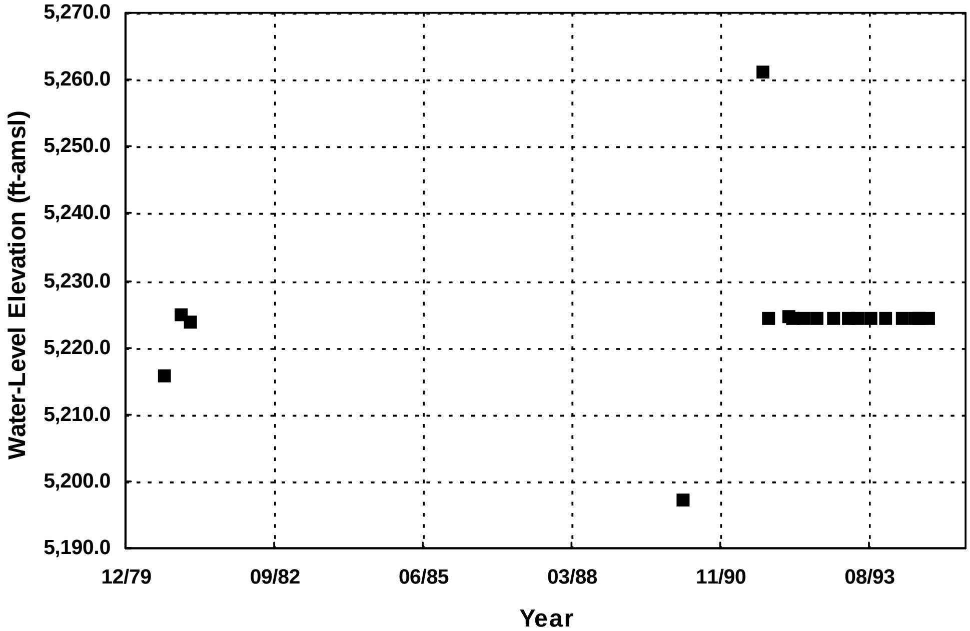
Basin Name:	**Lower Meadow Valley Wash**	**Land Surface (ft-amsl):**	**1532.2**
Aquifer Type:	**Basin Fill**	**Well Depth (ft-bgs):**	**98**

Historical Water-Level Elevations at
205 S14 E66 35DDAB1



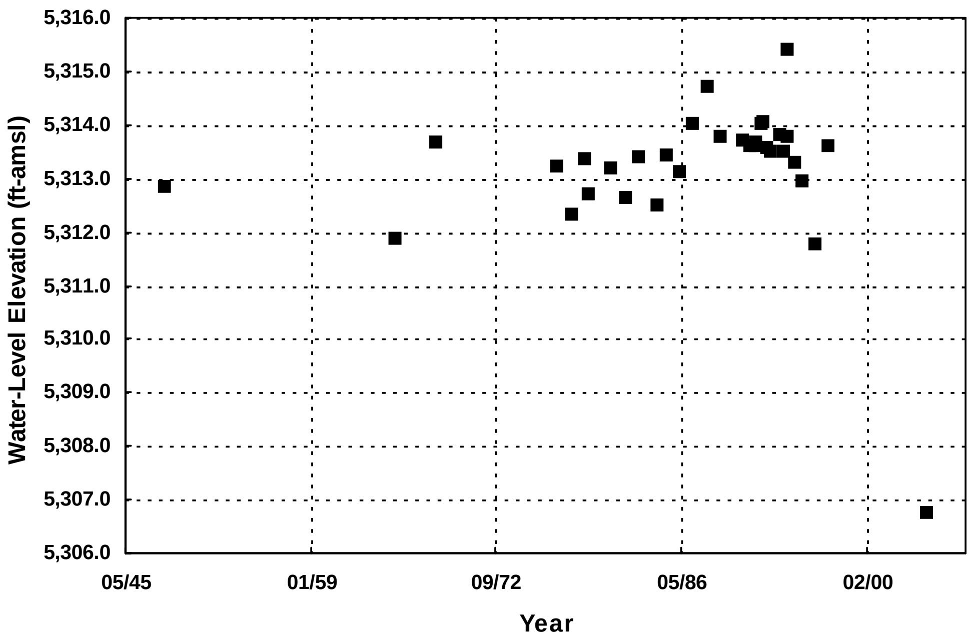
Basin Name:	**White River Valley**	**Land Surface (ft-amsl):**	**5213.6**
Aquifer Type:	**Basin Fill**	**Well Depth (ft-bgs):**	**96**

Historical Water-Level Elevations at
207 N06 E61 27AADC1 USGS-MX



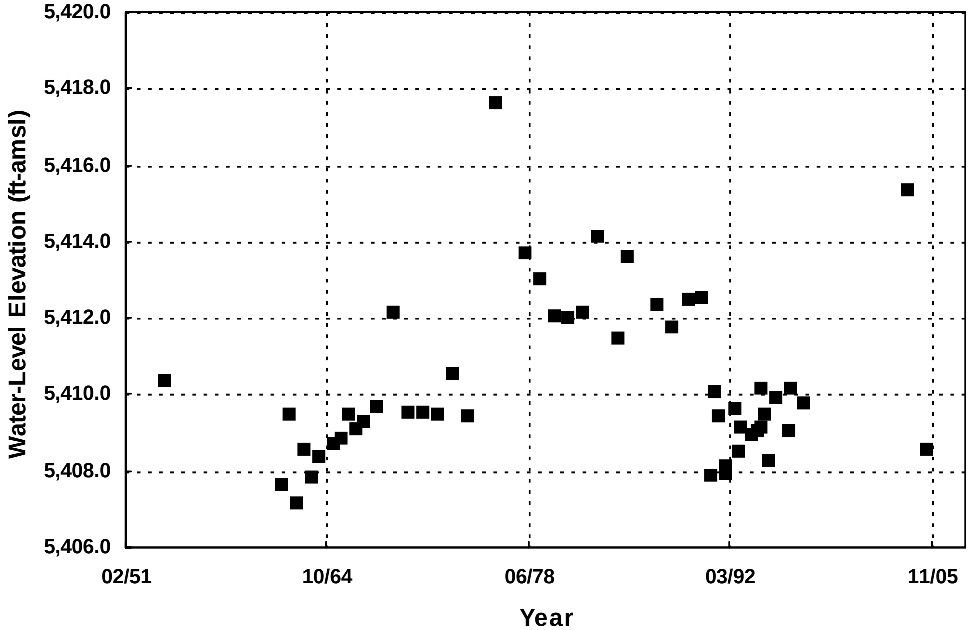
Basin Name:	**White River Valley**	**Land Surface (ft-amsl):**	**5288.8**
Aquifer Type:	**Basin Fill**	**Well Depth (ft-bgs):**	**101**

Historical Water-Level Elevations at
207 N08 E62 30CD 1 USGS-MX



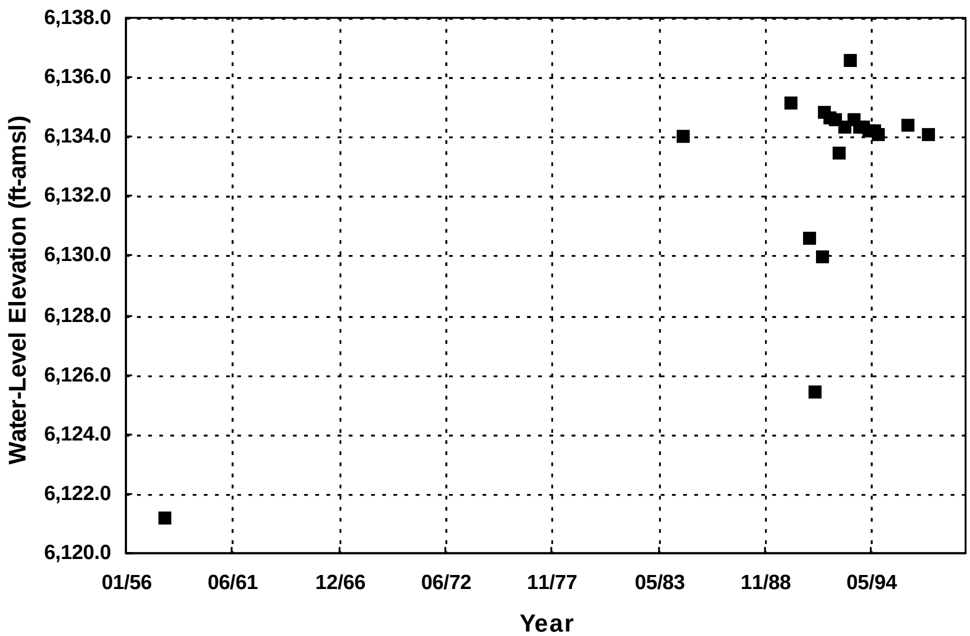
Basin Name:	**White River Valley**	**Land Surface (ft-amsl):**	**5343.7**
Aquifer Type:	**Basin Fill**	**Well Depth (ft-bgs):**	**43**

Historical Water-Level Elevations at
207 N09 E61 07BCCC1



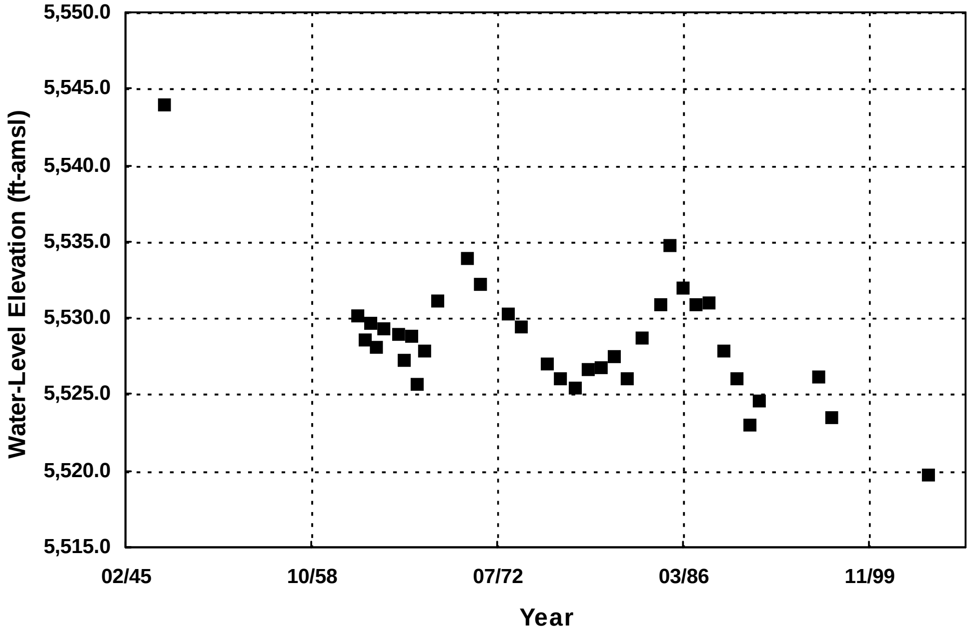
Basin Name:	**White River Valley**	**Land Surface (ft-amsl):**	**5420.8**
Aquifer Type:	**Basin Fill**	**Well Depth (ft-bgs):**	**44**

Historical Water-Level Elevations at
207 N11 E61 35ACCD1 Public Domain Well 25



Basin Name:	**White River Valley**	**Land Surface (ft-amsl):**	**6241.2**
Aquifer Type:	**Basin Fill**	**Well Depth (ft-bgs):**	**325**

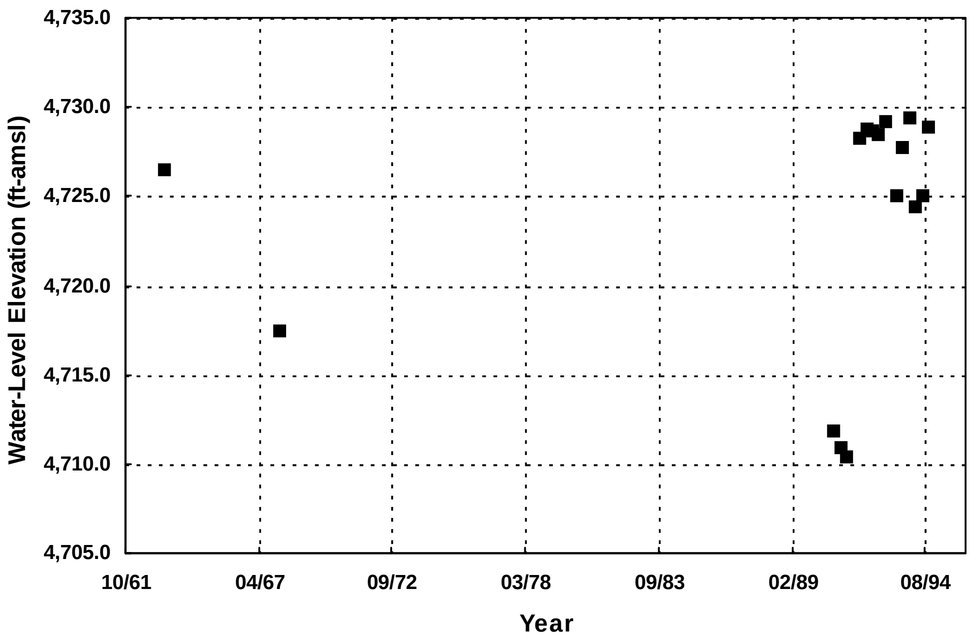
Historical Water-Level Elevations at
207 N12 E60 27ACBD1 USBLM



Basin Name: White River Valley | **Land Surface (ft-amsl):** 5578.9

Aquifer Type: Basin Fill | **Well Depth (ft-bgs):** 105

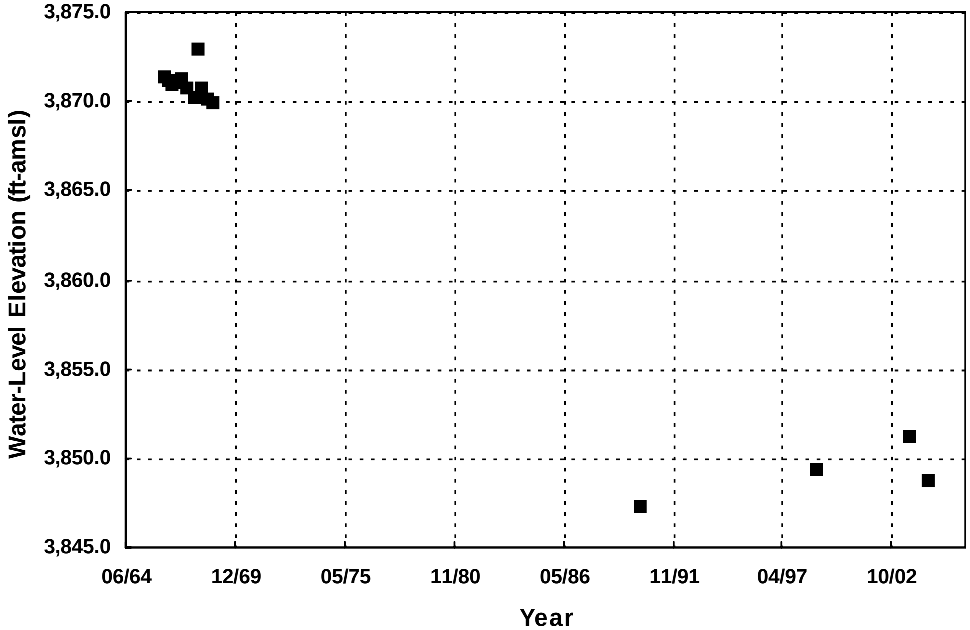
Historical Water-Level Elevations at
207 N12 E62 18DDAA1 USGS Well 24



Basin Name: Pahroc Valley | **Land Surface (ft-amsl):** 4979.3

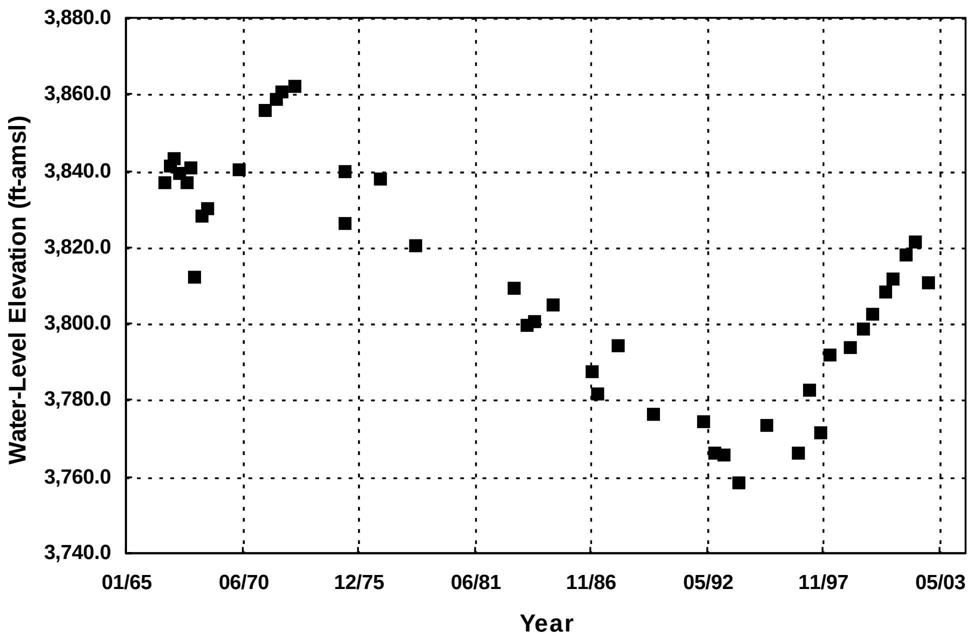
Aquifer Type: Basin Fill | **Well Depth (ft-bgs):** 270

Historical Water-Level Elevations at
208 N03 E62 35B 1 USBLM



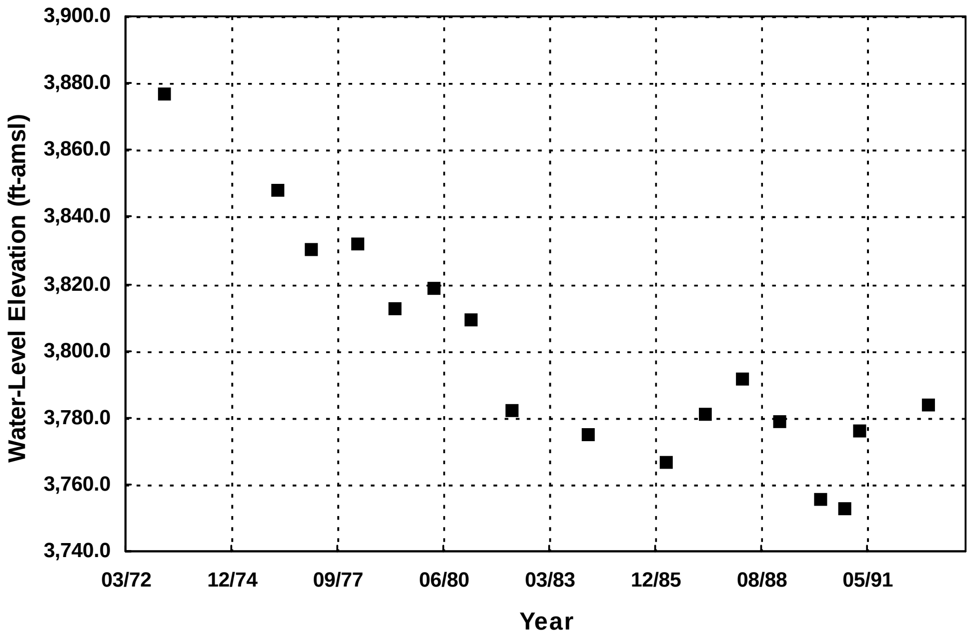
Basin Name:	**Pahranagat Valley**	**Land Surface (ft-amsl):**	**4060.1**
Aquifer Type:	**Carbonate Well**	**Well Depth (ft-bgs):**	**479**

Historical Water-Level Elevations at
209 S03 E60 13DACD1



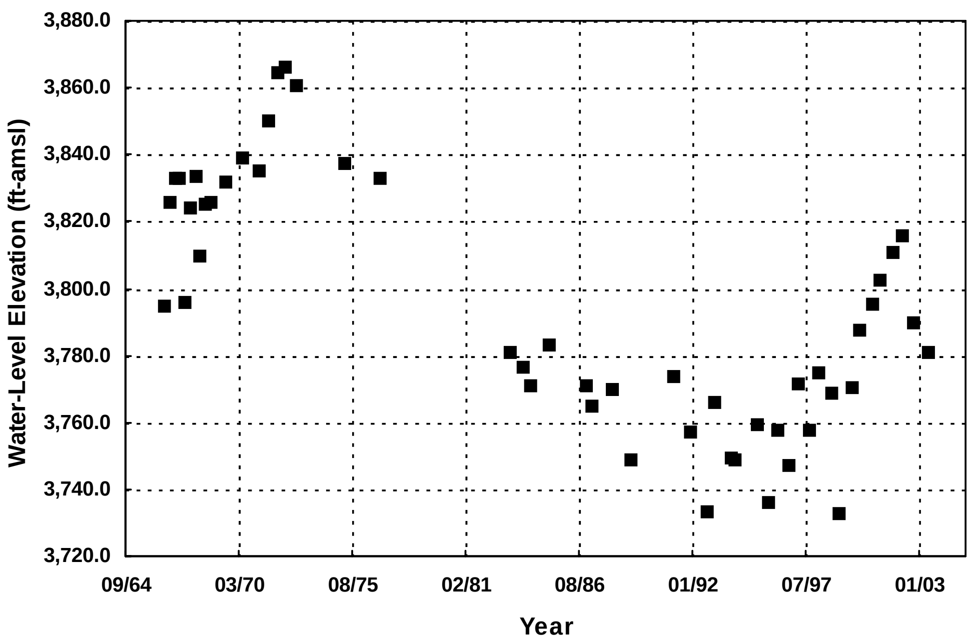
Basin Name:	**Pahranagat Valley**	**Land Surface (ft-amsl):**	**3993.1**
Aquifer Type:	**Basin Fill**	**Well Depth (ft-bgs):**	

Historical Water-Level Elevations at
209 S03 E60 35DABD1



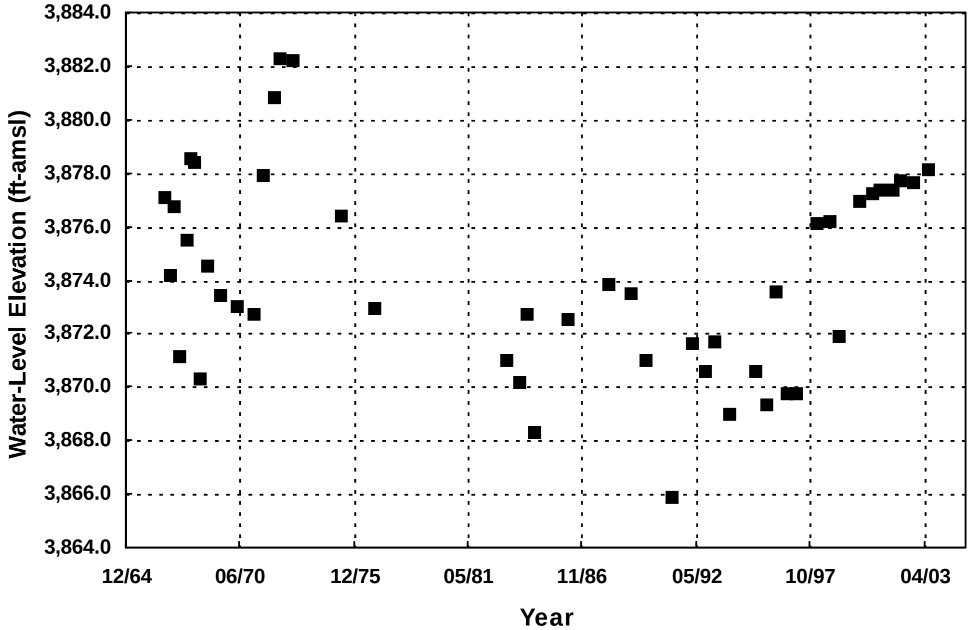
Basin Name: Pahranagat Valley
Aquifer Type: Basin Fill
Land Surface (ft-amsl): 3965.4
Well Depth (ft-bgs): 255

Historical Water-Level Elevations at
209 S04 E60 02A 2



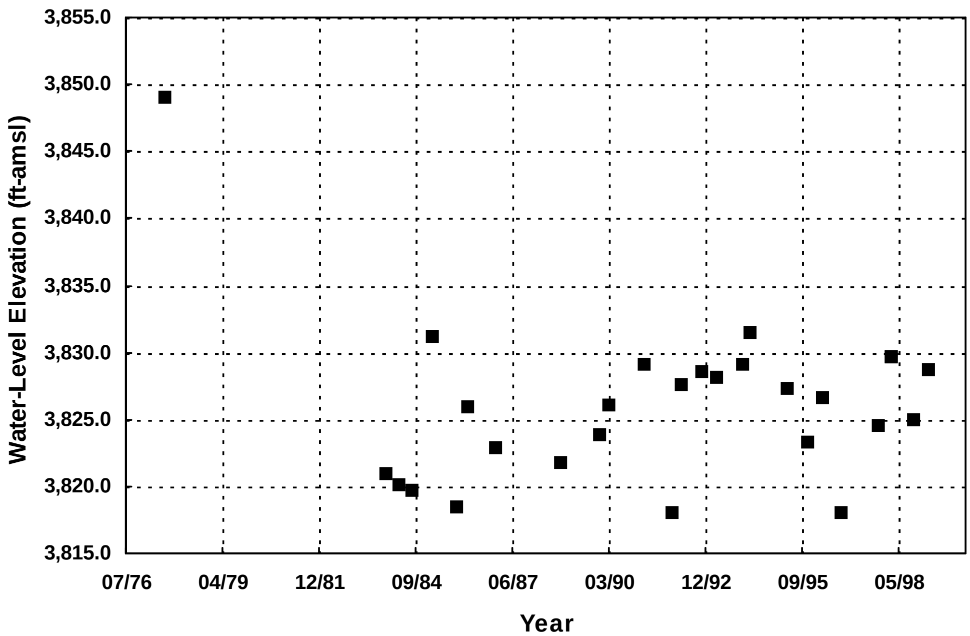
Basin Name: Pahranagat Valley
Aquifer Type: Basin Fill
Land Surface (ft-amsl): 3951.1
Well Depth (ft-bgs):

Historical Water-Level Elevations at
209 S04 E60 02AABC1



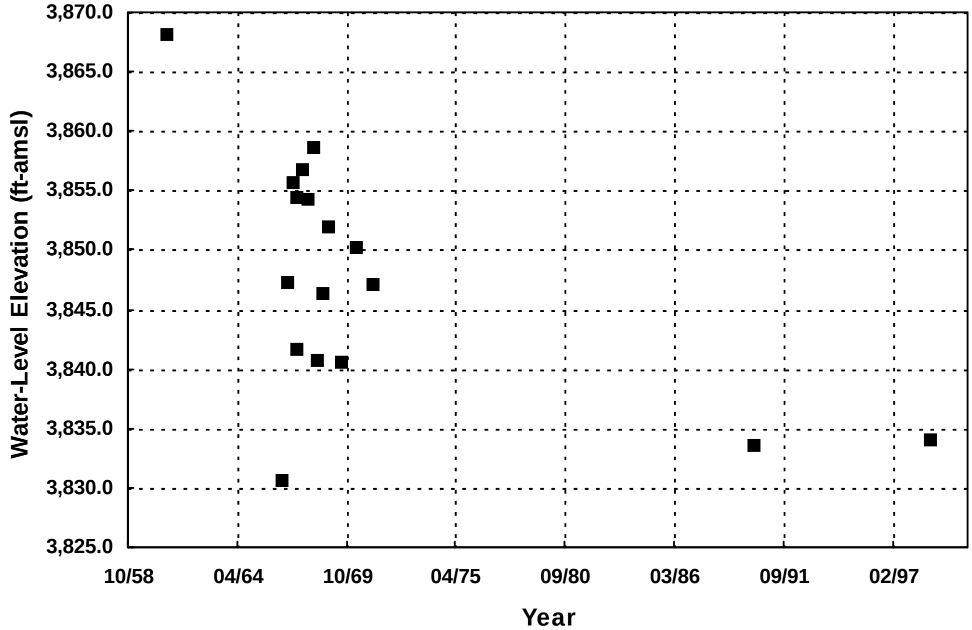
Basin Name:	**Pahranagat Valley**	**Land Surface (ft-amsl):**	**3925.1**
Aquifer Type:	**Basin Fill**	**Well Depth (ft-bgs):**	

Historical Water-Level Elevations at
209 S04 E60 02DBDC1



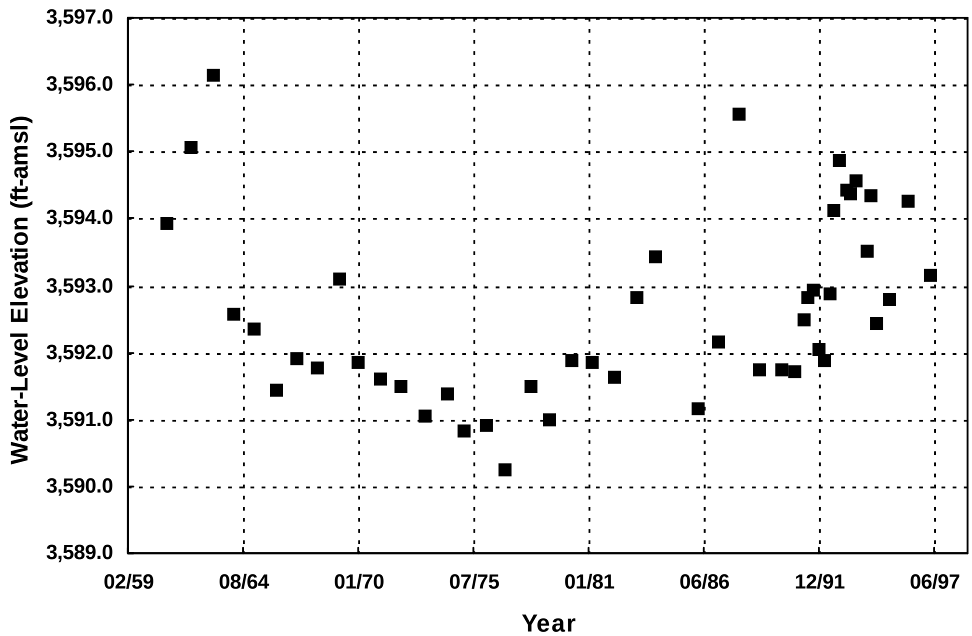
Basin Name:	**Pahranagat Valley**	**Land Surface (ft-amsl):**	**3903.1**
Aquifer Type:	**Basin Fill**	**Well Depth (ft-bgs):**	**193**

Historical Water-Level Elevations at
209 S04 E60 11CCCA1



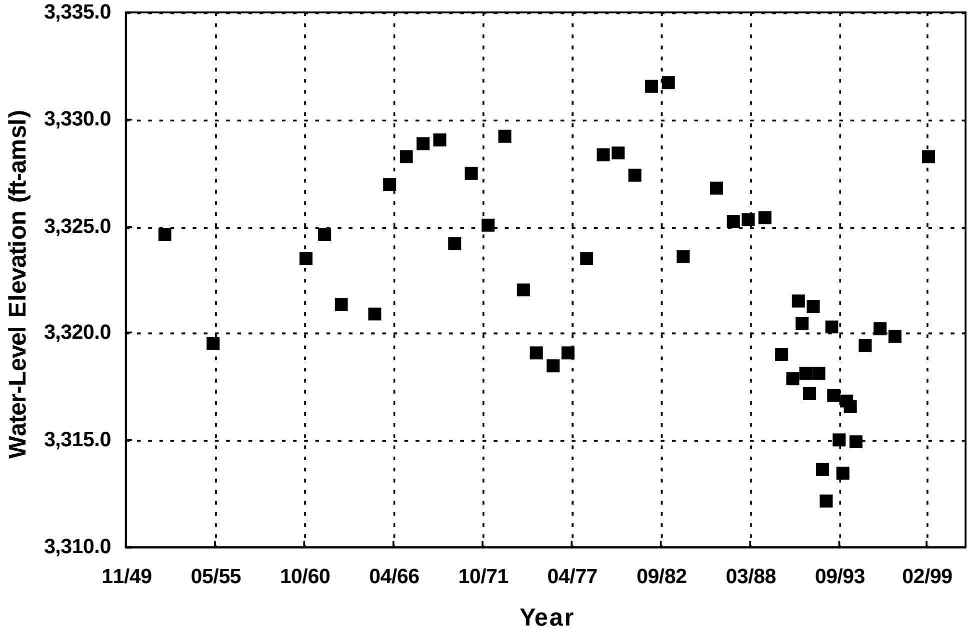
Basin Name:	**Pahranagat Valley**	**Land Surface (ft-amsl):**	**3915.1**
Aquifer Type:	**Basin Fill**	**Well Depth (ft-bgs):**	**400**

Historical Water-Level Elevations at
209 S04 E60 14BBBB1



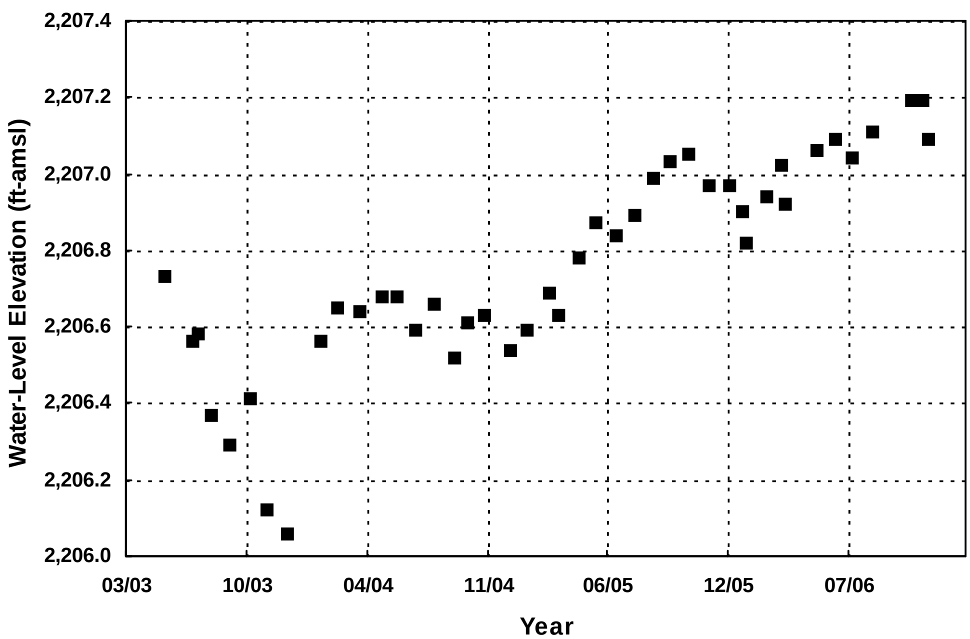
Basin Name:	**Pahranagat Valley**	**Land Surface (ft-amsl):**	**3602**
Aquifer Type:	**Basin Fill**	**Well Depth (ft-bgs):**	**41**

Historical Water-Level Elevations at
209 S06 E61 18DC 2



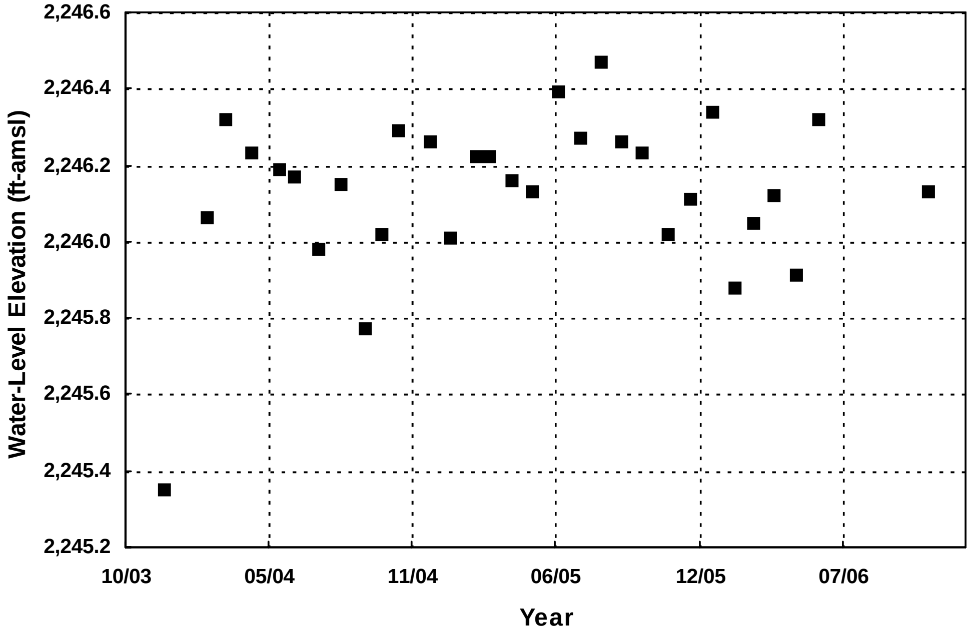
Basin Name:	**Pahranagat Valley**	**Land Surface (ft-amsl):**	**3346.5**
Aquifer Type:	**Basin Fill**	**Well Depth (ft-bgs):**	**92**

Historical Water-Level Elevations at
209 S08 E61 02C 1



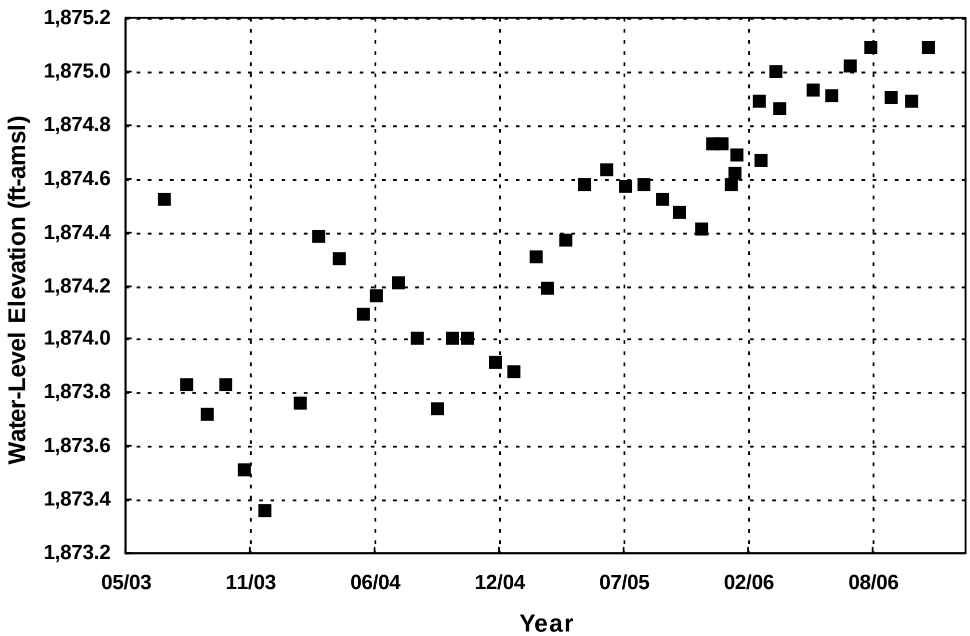
Basin Name:	**Coyote Spring Valley**	**Land Surface (ft-amsl):**	**2650.7**
Aquifer Type:	**Carbonate Well**	**Well Depth (ft-bgs):**	**1200**

Historical Water-Level Elevations at
210 S10 E62 25AD 1 CSVM-3



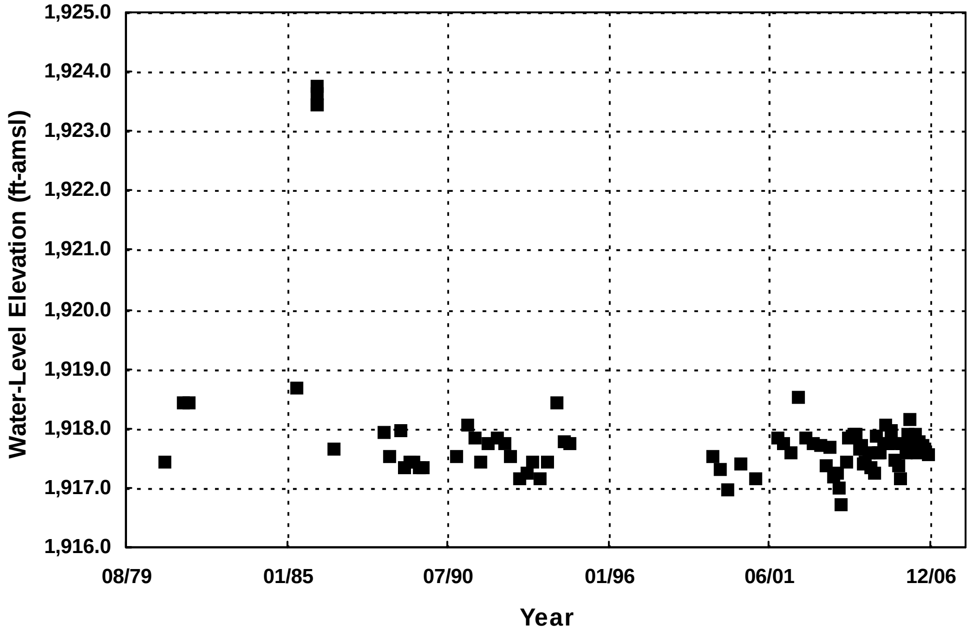
Basin Name: Coyote Spring Valley
Aquifer Type: Volcanic
Land Surface (ft-amsl): 2692.2
Well Depth (ft-bgs): 607

Historical Water-Level Elevations at
210 S10 E62 25CB 1 CSVM-7



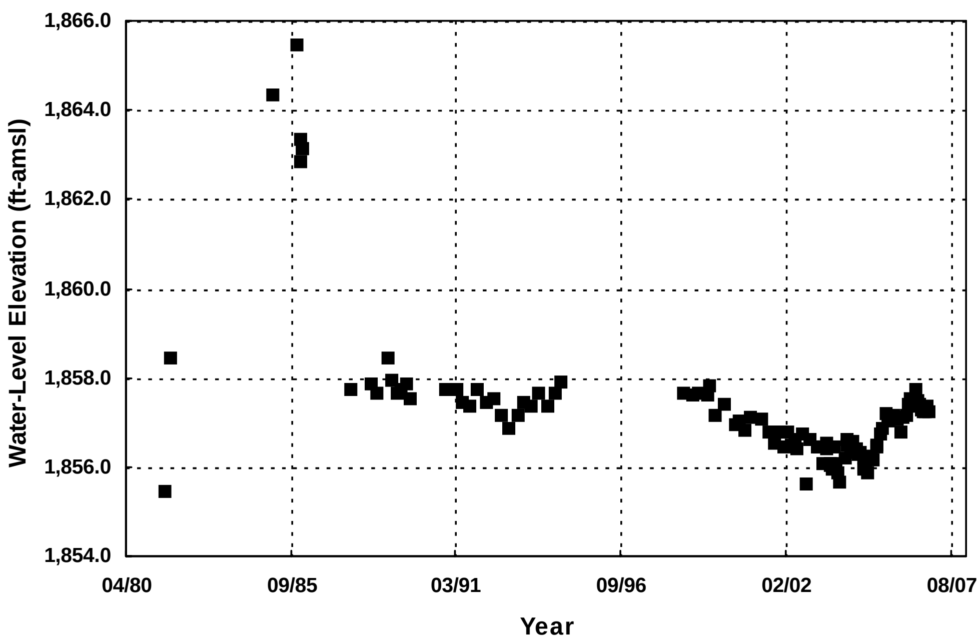
Basin Name: Coyote Spring Valley
Aquifer Type: Carbonate Well
Land Surface (ft-amsl): 2842.4
Well Depth (ft-bgs): 1600

Historical Water-Level Elevations at
210 S11 E63 13CB 1 CSVM-4



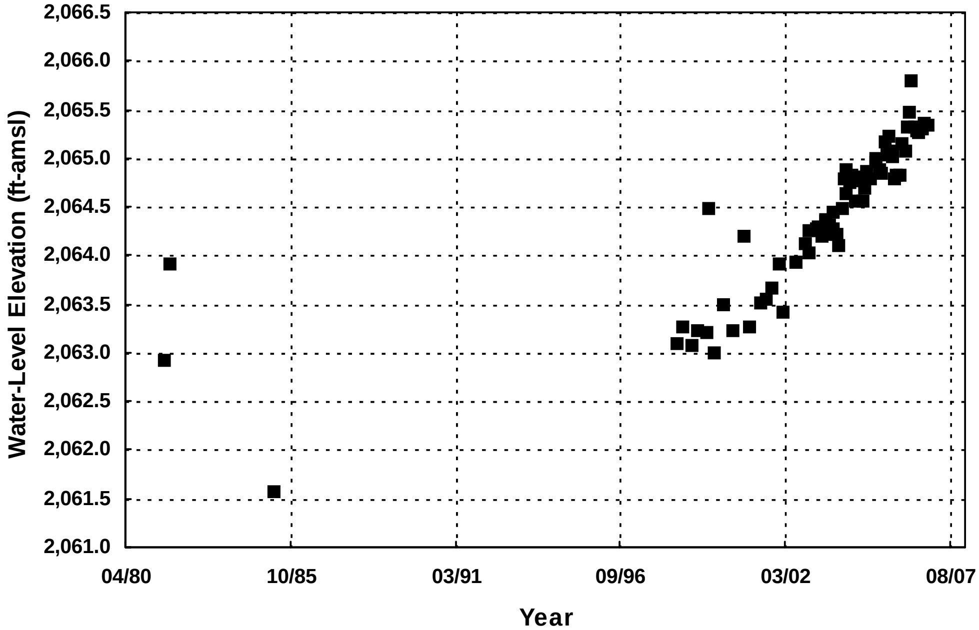
Basin Name:	**Coyote Spring Valley**	**Land Surface (ft-amsl):**	**2468.3**
Aquifer Type:	**Basin Fill**	**Well Depth (ft-bgs):**	**714**

Historical Water-Level Elevations at
210 S12 E63 29ADCC1 USGS-MX CE-VF-1



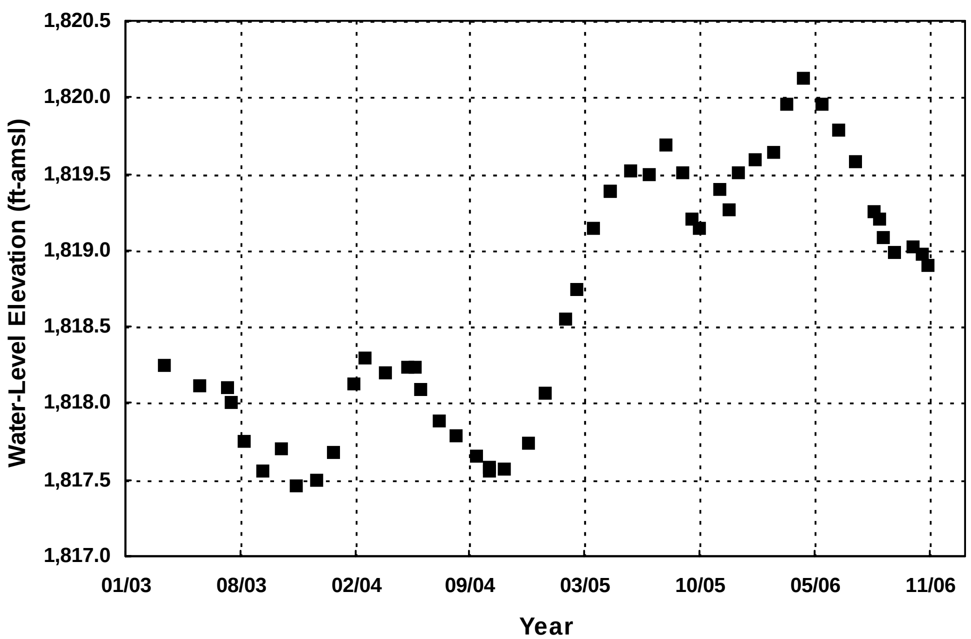
Basin Name:	**Coyote Spring Valley**	**Land Surface (ft-amsl):**	**2468.4**
Aquifer Type:	**Carbonate Well**	**Well Depth (ft-bgs):**	**860**

Historical Water-Level Elevations at
210 S12 E63 29DABC1 USGS-MX CE-VF-2



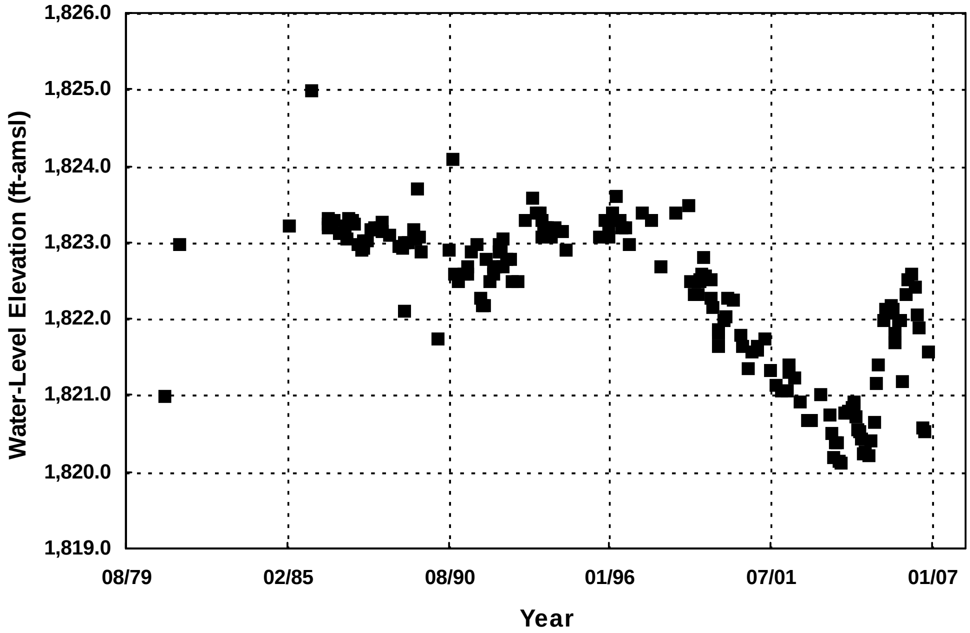
Basin Name:	**Coyote Spring Valley**	**Land Surface (ft-amsl):**	**2229.2**
Aquifer Type:	**Basin Fill**	**Well Depth (ft-bgs):**	**170**

Historical Water-Level Elevations at
210 S13 E63 11BACD1 USBLM (Dutch Flat)



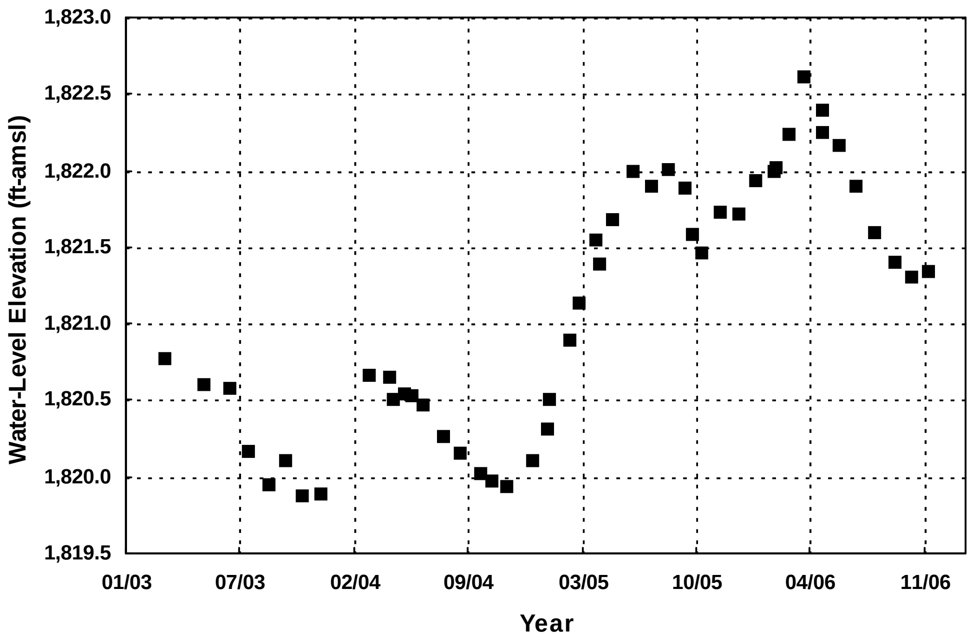
Basin Name:	**Coyote Spring Valley**	**Land Surface (ft-amsl):**	**2251.7**
Aquifer Type:	**Carbonate Well**	**Well Depth (ft-bgs):**	**1160**

Historical Water-Level Elevations at
210 S13 E63 11BC 1 CSVM-6



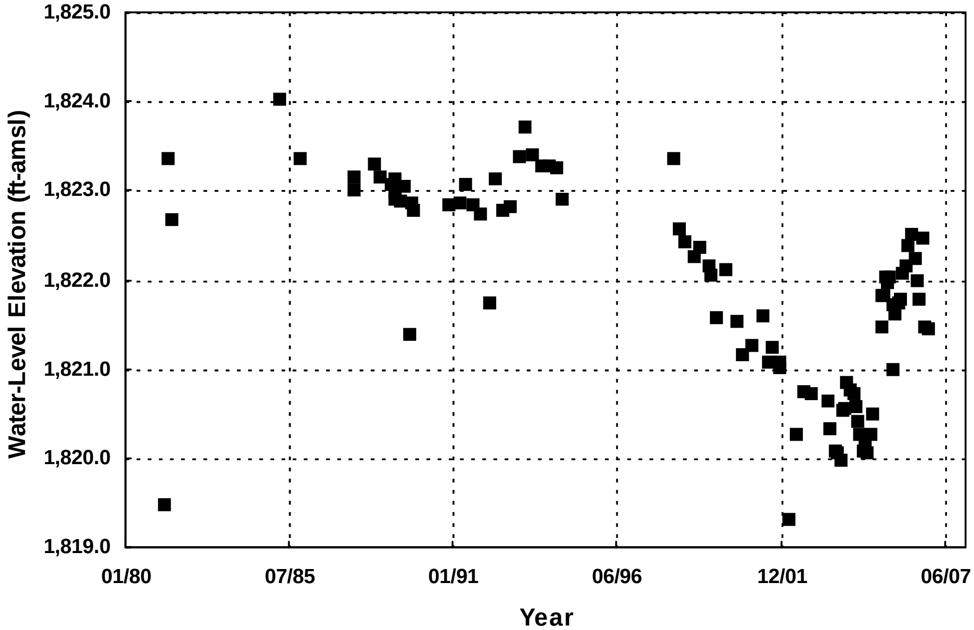
Basin Name:	**Coyote Spring Valley**	**Land Surface (ft-amsl):**	**2175**
Aquifer Type:	**Carbonate Well**	**Well Depth (ft-bgs):**	**669**

Historical Water-Level Elevations at
210 S13 E63 23DDDC1 USGS-MX CE-DT-4



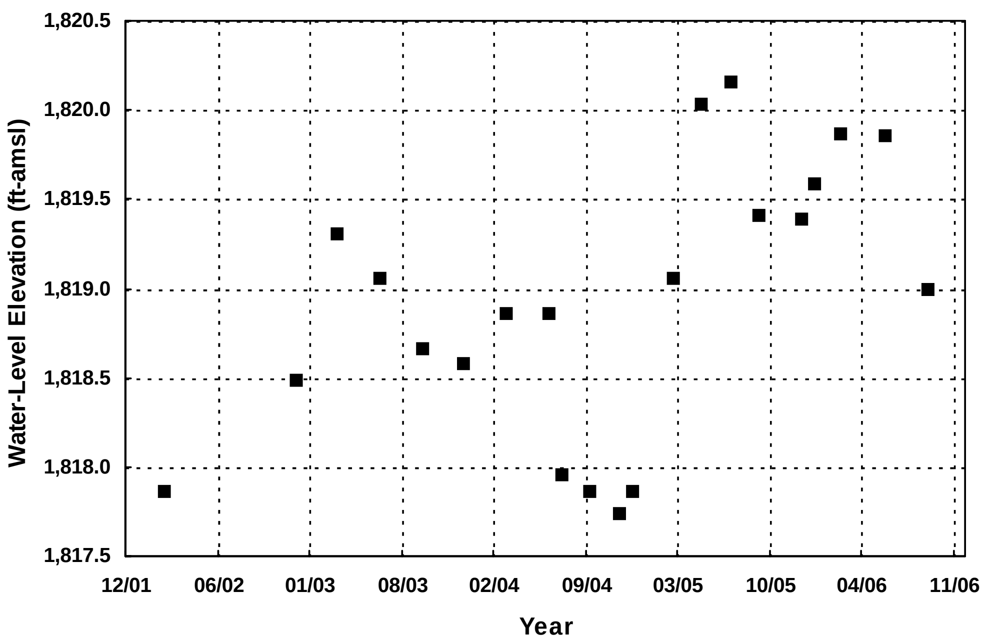
Basin Name:	**Coyote Spring Valley**	**Land Surface (ft-amsl):**	**2160.6**
Aquifer Type:	**Carbonate Well**	**Well Depth (ft-bgs):**	**1040**

Historical Water-Level Elevations at
210 S13 E63 25AD 1 CSVM-1



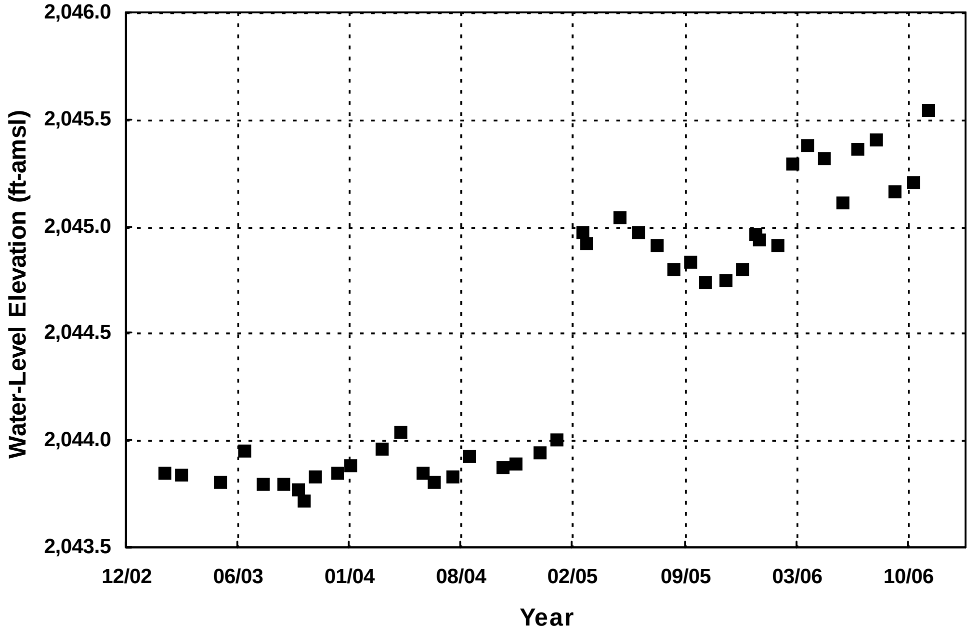
Basin Name:	Coyote Spring Valley	Land Surface (ft-amsl):	2172.9
Aquifer Type:	Carbonate Well	Well Depth (ft-bgs):	121

Historical Water-Level Elevations at
210 S13 E63 26AAAA1 USGS-MX CE-DT-5



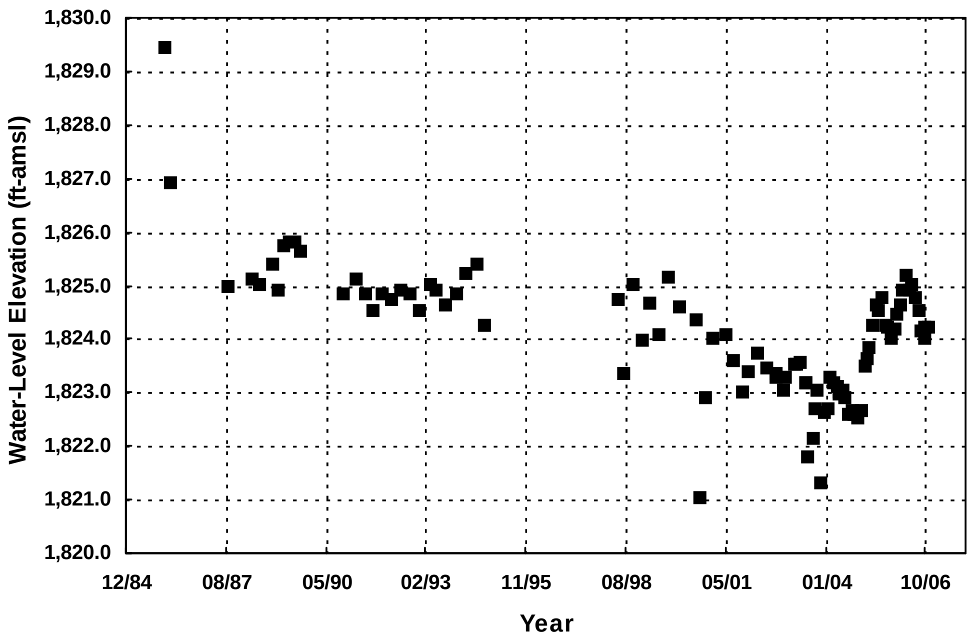
Basin Name:	Coyote Spring Valley	Land Surface (ft-amsl):	2200.1
Aquifer Type:	Carbonate Well	Well Depth (ft-bgs):	710

Historical Water-Level Elevations at
210 S13 E63 26AB 1 CSV-RW2



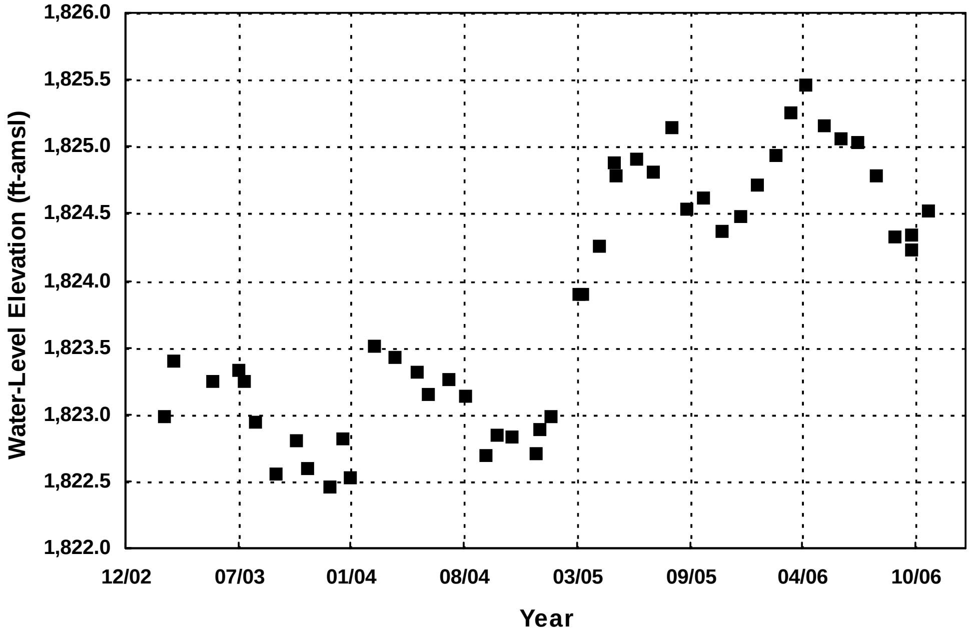
Basin Name:	**Coyote Spring Valley**	**Land Surface (ft-amsl):**	**3130.7**
Aquifer Type:	**Carbonate Well**	**Well Depth (ft-bgs):**	**1780**

Historical Water-Level Elevations at
210 S14 E62 01AA 1 CSVM-5



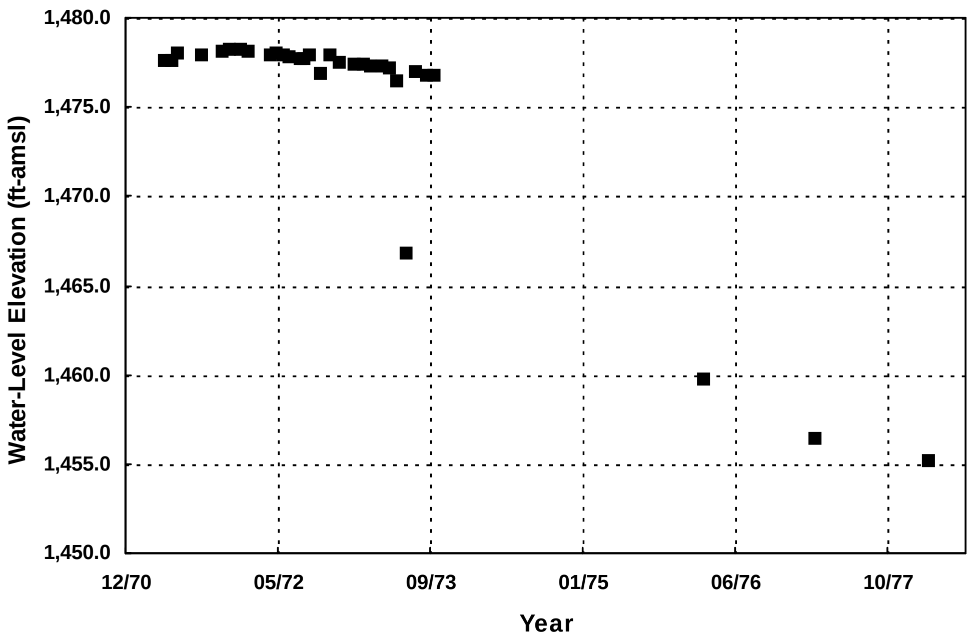
Basin Name:	**Coyote Spring Valley**	**Land Surface (ft-amsl):**	**2415.9**
Aquifer Type:	**Basin Fill**	**Well Depth (ft-bgs):**	**780**

Historical Water-Level Elevations at
210 S14 E63 28ACDC1 USGS CSV-3



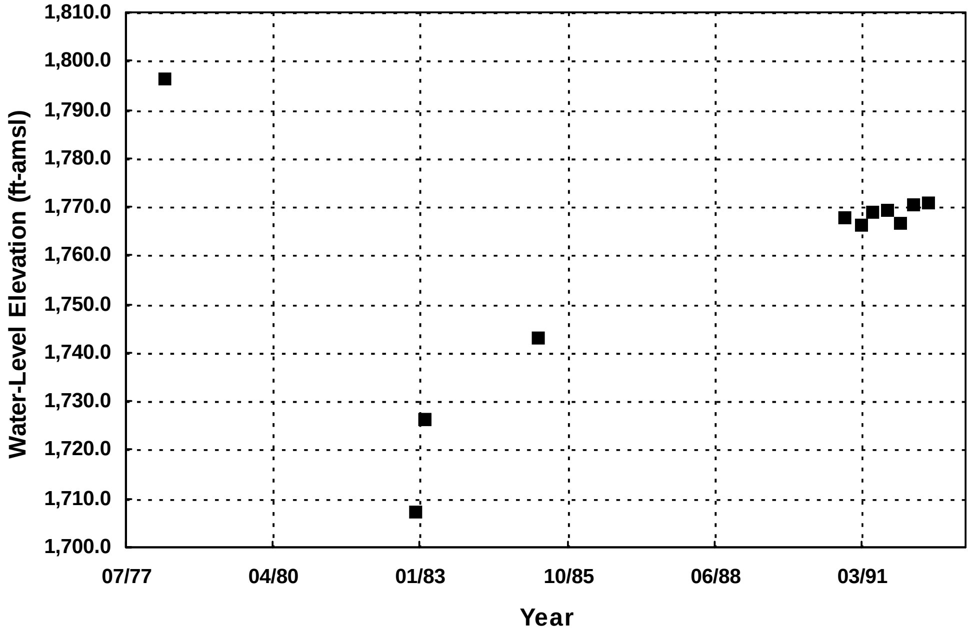
Basin Name:	**Coyote Spring Valley**	**Land Surface (ft-amsl):**	**2572.7**
Aquifer Type:	**Carbonate Well**	**Well Depth (ft-bgs):**	**1400**

Historical Water-Level Elevations at
210 S15 E63 03BB 1 CSVM-2



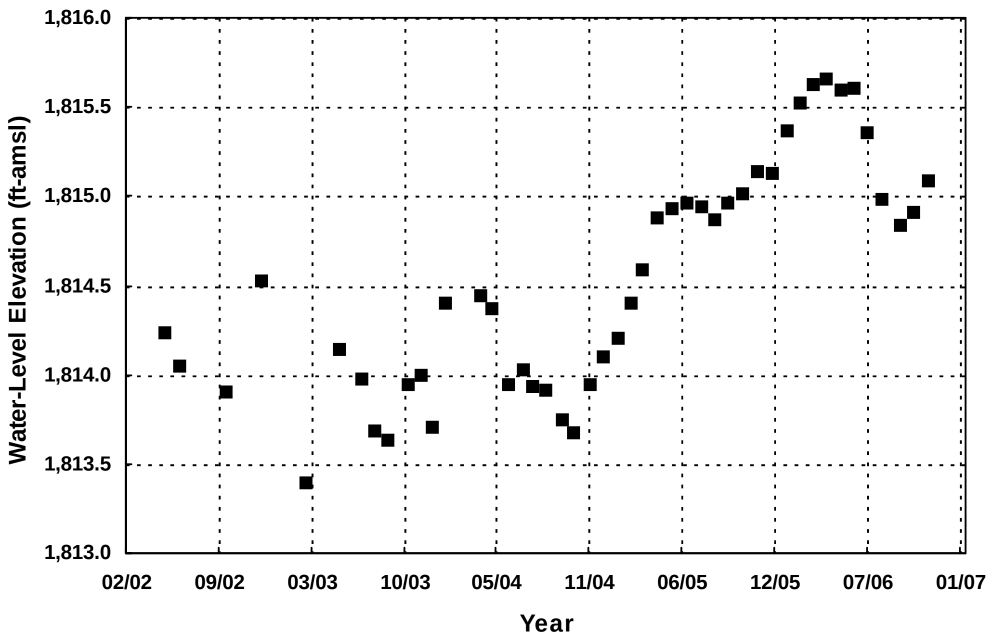
Basin Name:	**Black Mountains Area**	**Land Surface (ft-amsl):**	**1487.3**
Aquifer Type:	**Basin Fill**	**Well Depth (ft-bgs):**	**134**

Historical Water-Level Elevations at
212 S21 E63 28ACA 2 USBR LG007



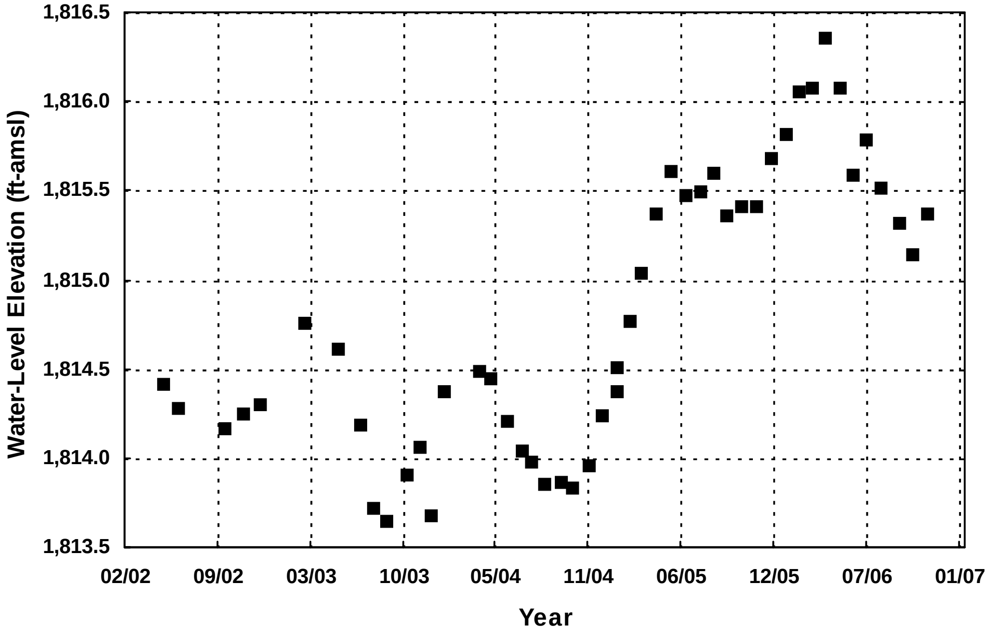
Basin Name: **Black Mountains Area** **Land Surface (ft-amsl):** **2132.3**
Aquifer Type: **Clastic** **Well Depth (ft-bgs):** **500**

Historical Water-Level Elevations at
215 S17 E67 30ABB 2 NV Division of State Parks



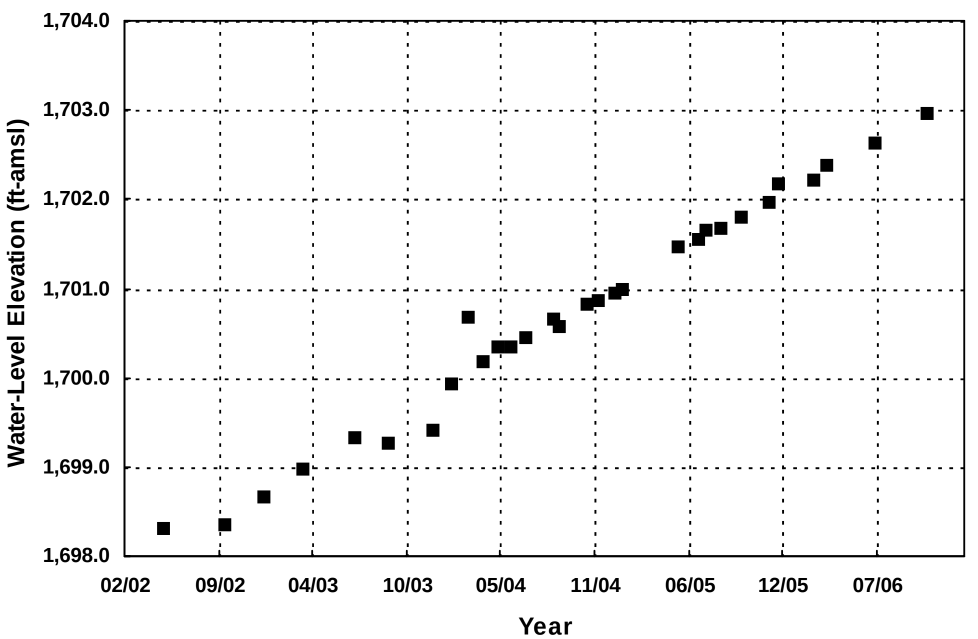
Basin Name: **Black Mountains Area** **Land Surface (ft-amsl):** **2467.9**
Aquifer Type: **Carbonate Well** **Well Depth (ft-bgs):** **1400**

Historical Water-Level Elevations at
215 S19 E63 13AA 1 BM-DL-1



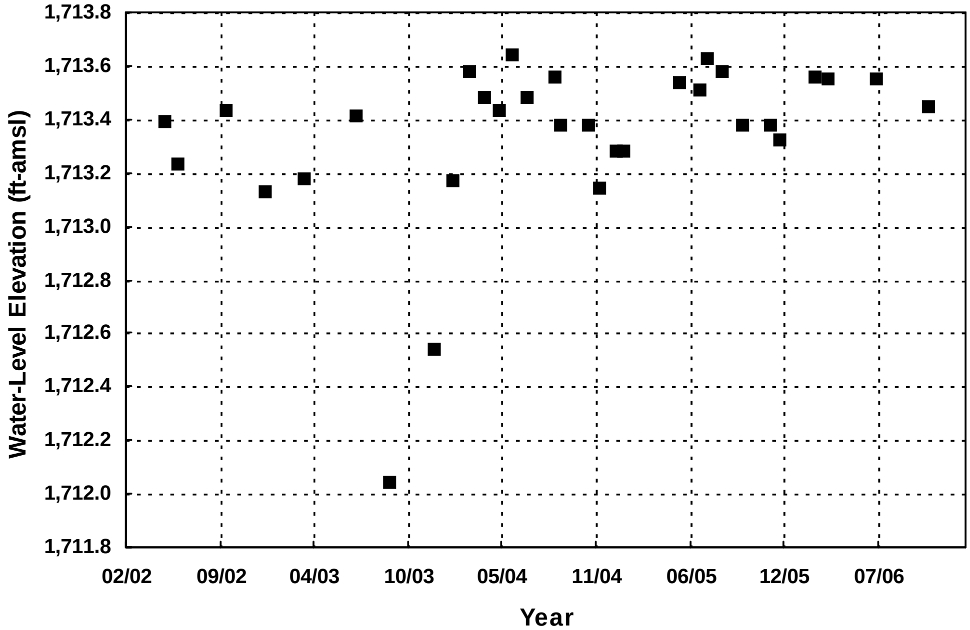
Basin Name:	**Black Mountains Area**	**Land Surface (ft-amsl):**	**2487.6**
Aquifer Type:	**Carbonate Well**	**Well Depth (ft-bgs):**	**1800**

Historical Water-Level Elevations at
215 S19 E63 13AB 1 BM-DL-2



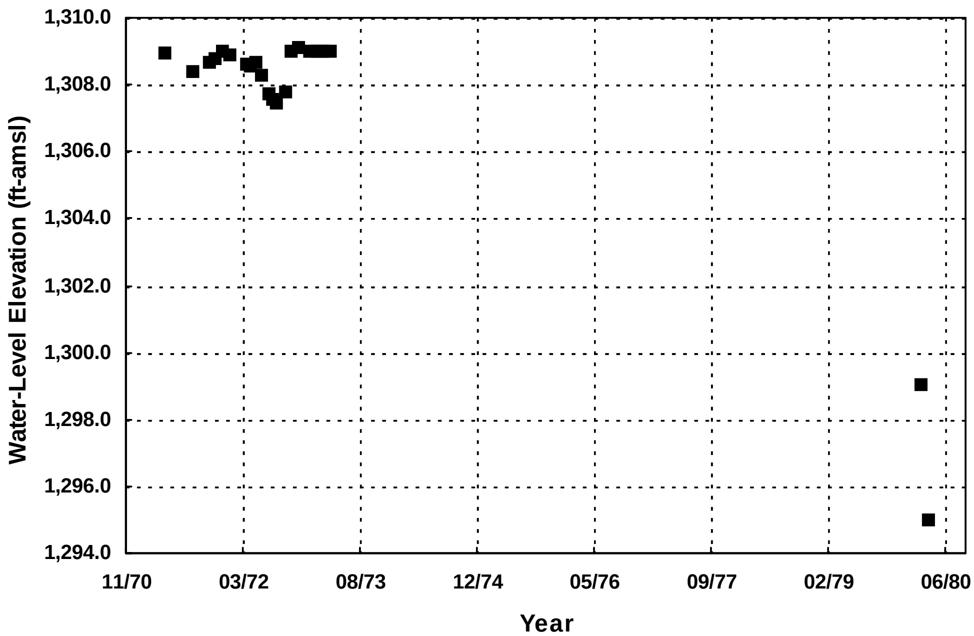
Basin Name:	**Black Mountains Area**	**Land Surface (ft-amsl):**	**2098.2**
Aquifer Type:	**Clastic**	**Well Depth (ft-bgs):**	**1570**

Historical Water-Level Elevations at
215 S20 E65 08CD 1 BM-ONCO-2



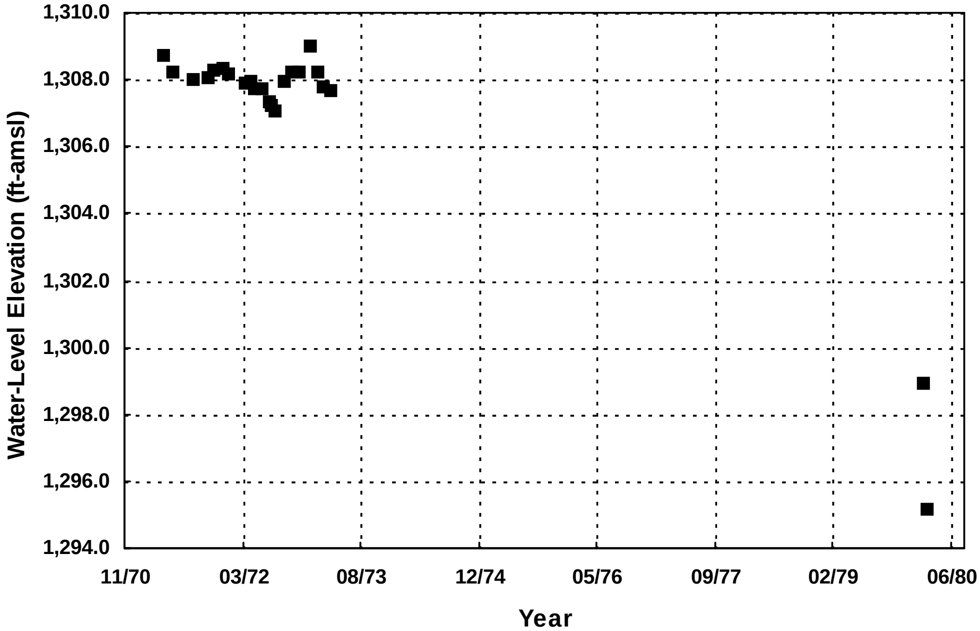
Basin Name: Black Mountains Area
Aquifer Type: Clastic
Land Surface (ft-amsl): 2055.8
Well Depth (ft-bgs): 1280

Historical Water-Level Elevations at
215 S20 E65 08DD 1 BM-ONCO-1



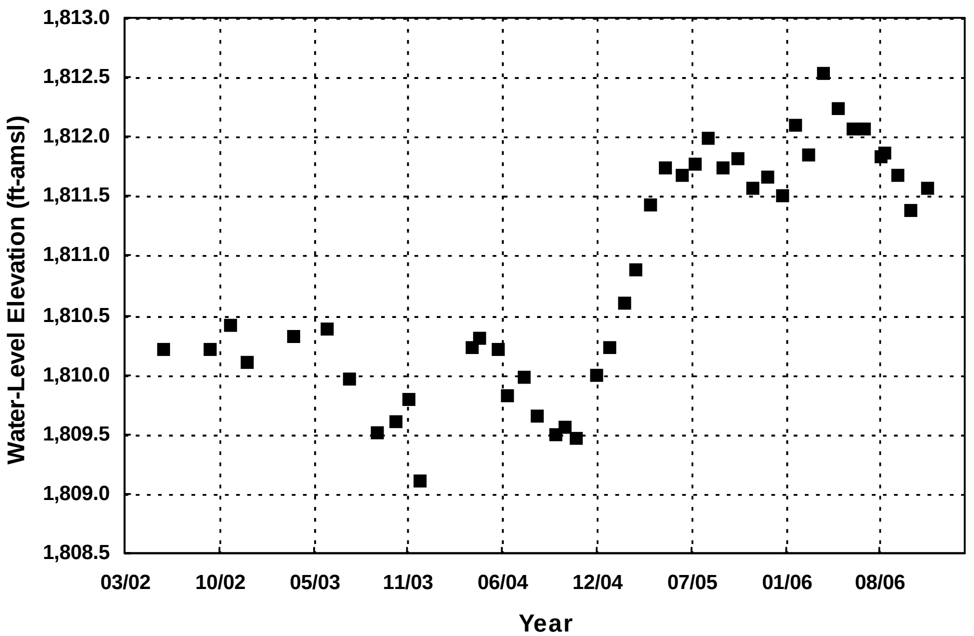
Basin Name: Black Mountains Area
Aquifer Type: Basin Fill
Land Surface (ft-amsl): 1315.4
Well Depth (ft-bgs): 47.3

Historical Water-Level Elevations at
215 S21 E63 14DBD 1 USBR LG004



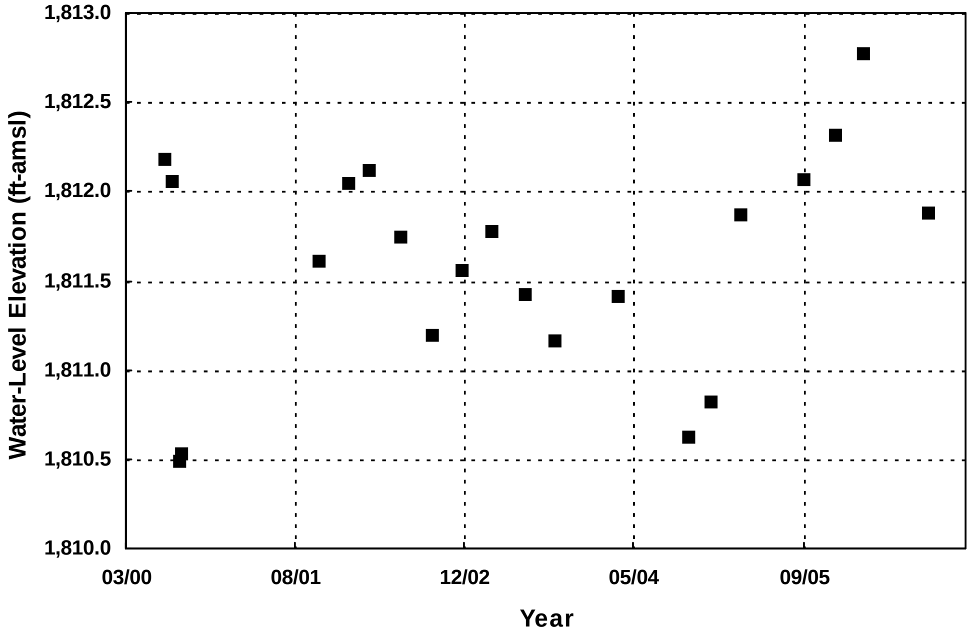
Basin Name:	**Black Mountains Area**	**Land Surface (ft-amsl):**	**1315.3**
Aquifer Type:	**Basin Fill**	**Well Depth (ft-bgs):**	**95.7**

Historical Water-Level Elevations at
215 S21 E63 14DBD 2 USBR LG005



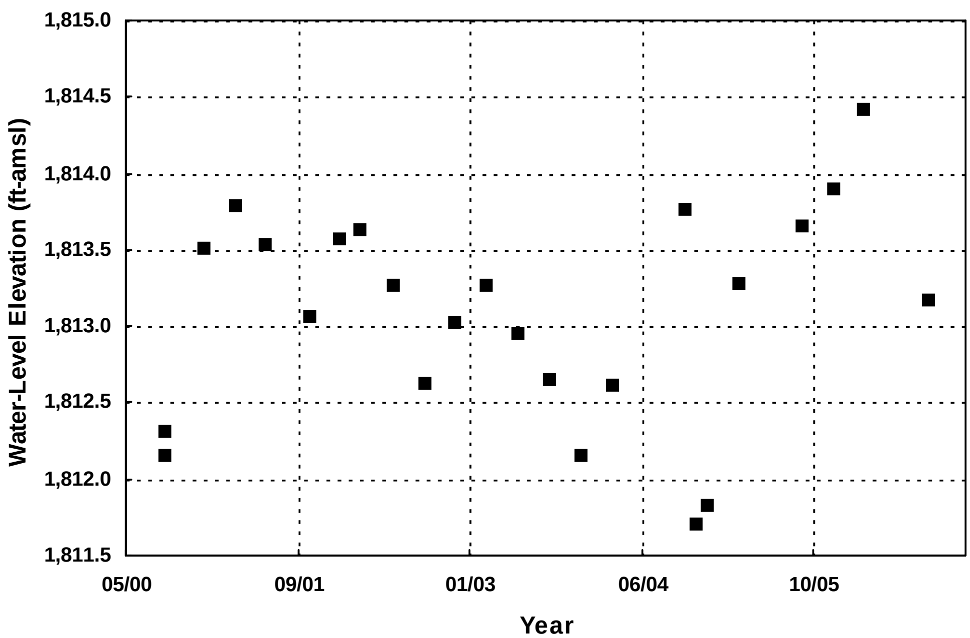
Basin Name:	**Garnet Valley**	**Land Surface (ft-amsl):**	**2691.1**
Aquifer Type:	**Carbonate Well**	**Well Depth (ft-bgs):**	**1400**

Historical Water-Level Elevations at
216 S17 E63 32AA 1 GV-1



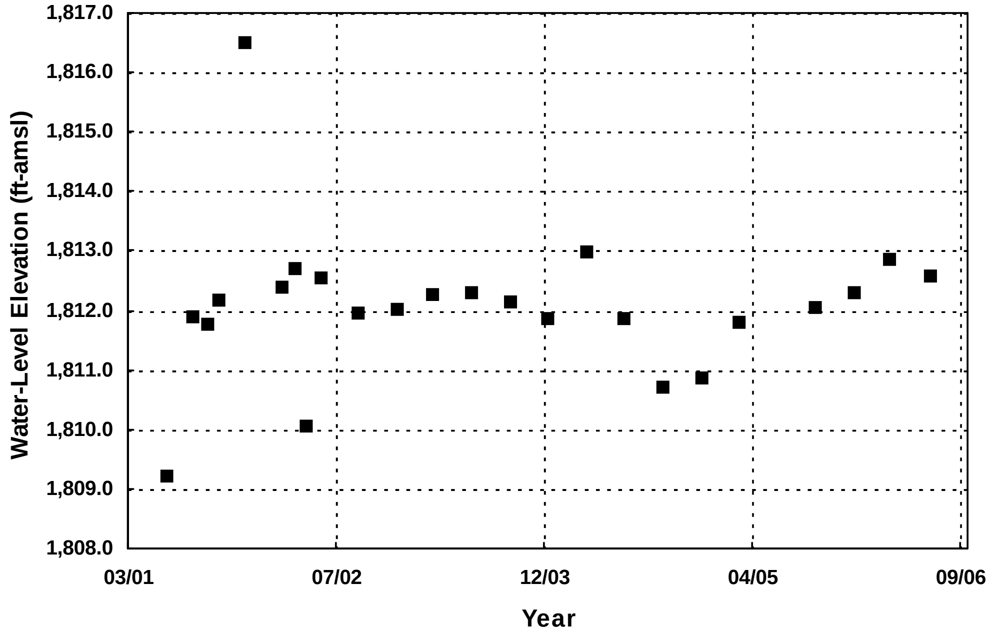
Basin Name:	**Garnet Valley**	**Land Surface (ft-amsl):**	**2068.5**
Aquifer Type:	**Carbonate Well**	**Well Depth (ft-bgs):**	**565**

Historical Water-Level Elevations at
216 S17 E64 09DD 1 CRYSTAL WELL 2



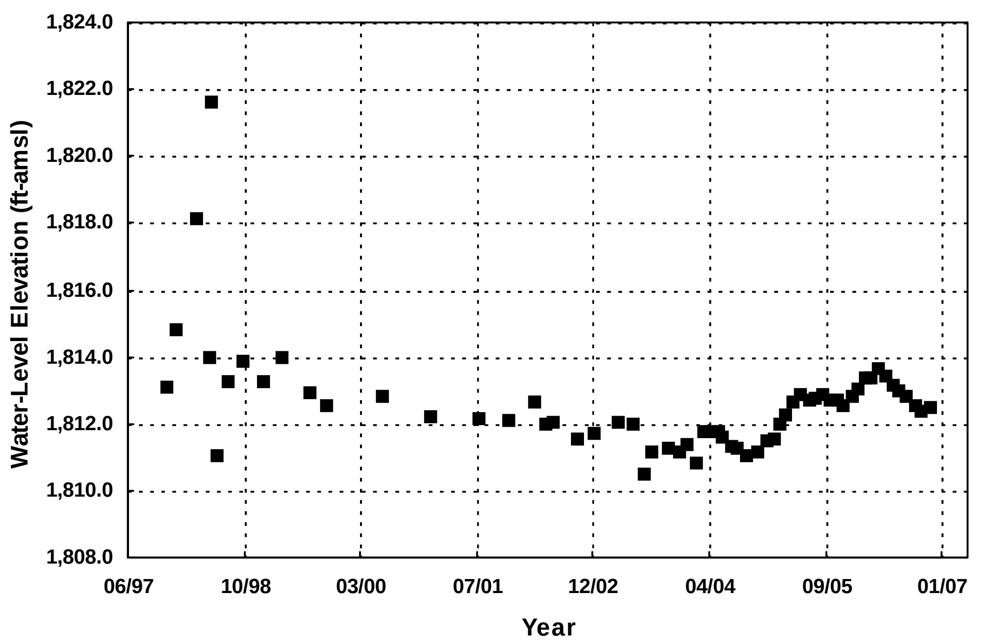
Basin Name:	**Garnet Valley**	**Land Surface (ft-amsl):**	**2072.7**
Aquifer Type:	**Carbonate Well**	**Well Depth (ft-bgs):**	**497**

Historical Water-Level Elevations at
216 S17 E64 10CC 1 Crystal Well 1



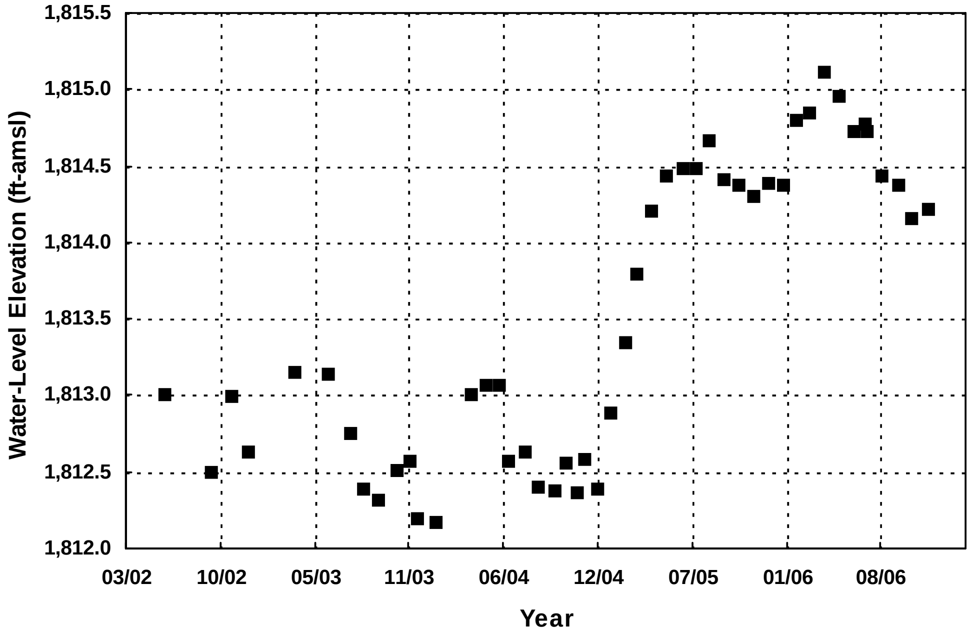
Basin Name:	Garnet Valley	Land Surface (ft-amsl):	2069.2
Aquifer Type:	Carbonate Well	Well Depth (ft-bgs):	833

Historical Water-Level Elevations at
216 S17 E64 21CB 1 GV-RW1



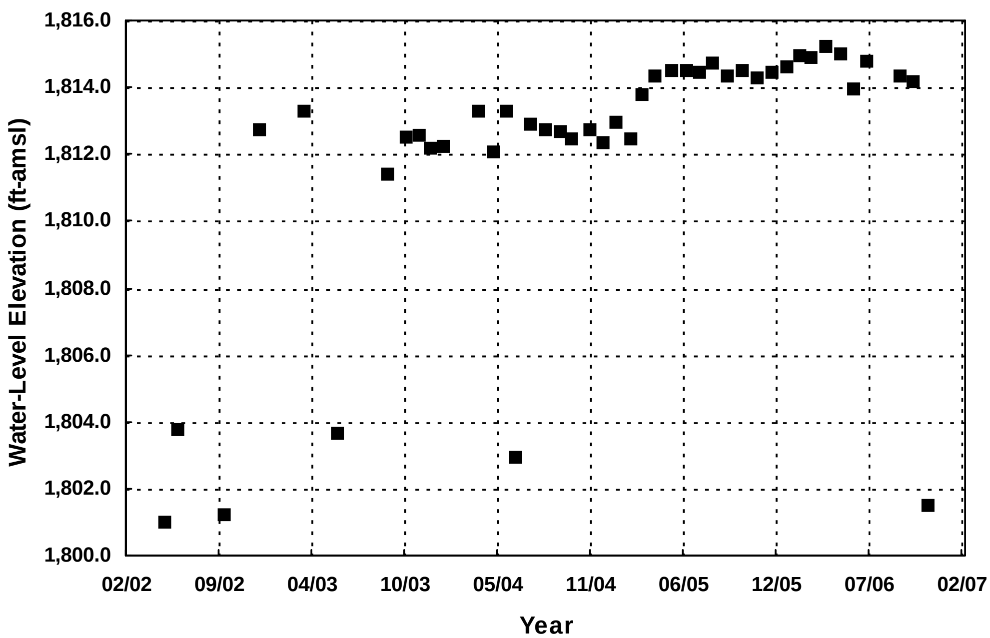
Basin Name:	Garnet Valley	Land Surface (ft-amsl):	2096.7
Aquifer Type:	Basin Fill	Well Depth (ft-bgs):	

Historical Water-Level Elevations at
216 S17 E64 21CC 1 Garnet



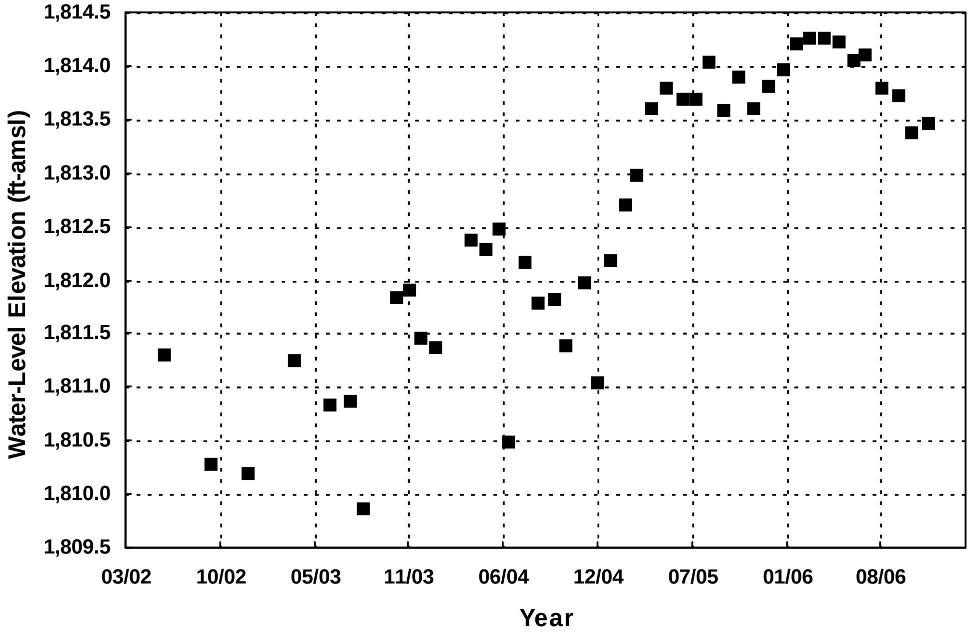
Basin Name:	**Garnet Valley**	**Land Surface (ft-amsl):**	**2502.3**
Aquifer Type:	**Carbonate Well**	**Well Depth (ft-bgs):**	**1500**

Historical Water-Level Elevations at
216 S18 E63 04CB 1 GV-PW-MW1



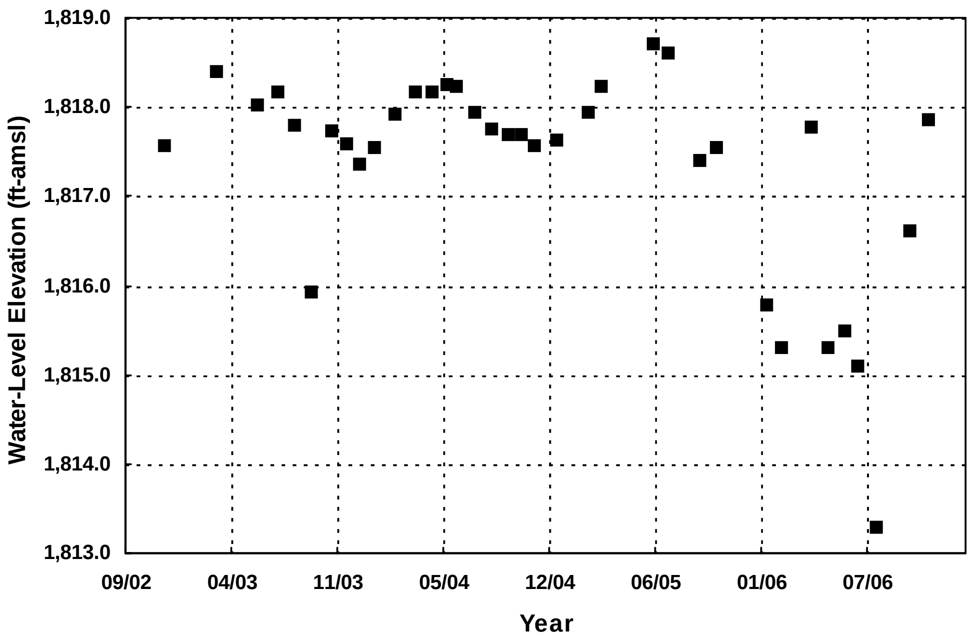
Basin Name:	**Garnet Valley**	**Land Surface (ft-amsl):**	**2567.9**
Aquifer Type:	**Carbonate Well**	**Well Depth (ft-bgs):**	**1979**

Historical Water-Level Elevations at
216 S18 E63 05AADB1



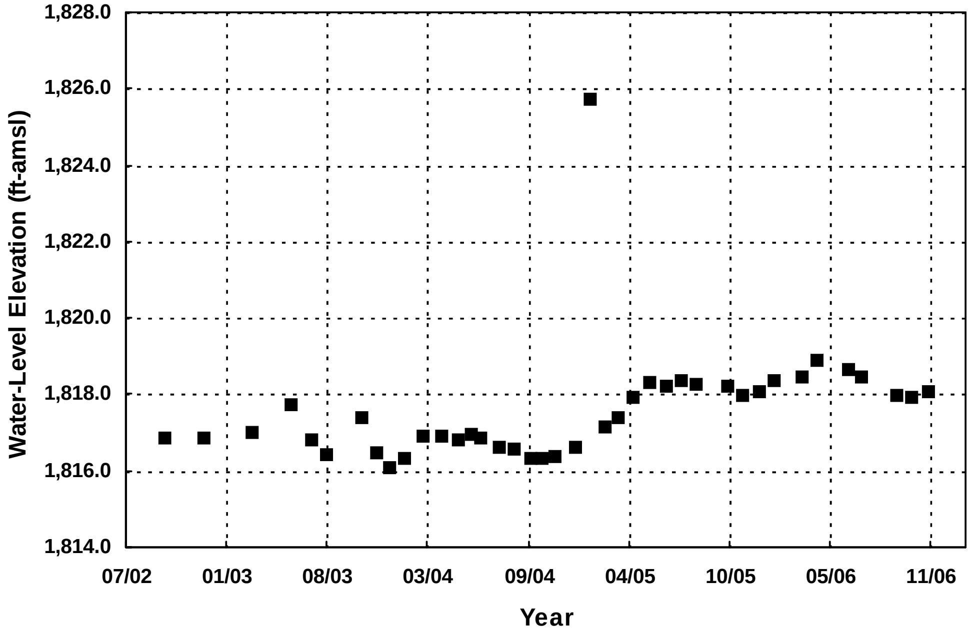
Basin Name:	**Garnet Valley**	**Land Surface (ft-amsl):**	**2525.0**
Aquifer Type:	**Carbonate Well**	**Well Depth (ft-bgs):**	**1500**

Historical Water-Level Elevations at
216 S18 E63 05DB 1 GV-PW-MW2



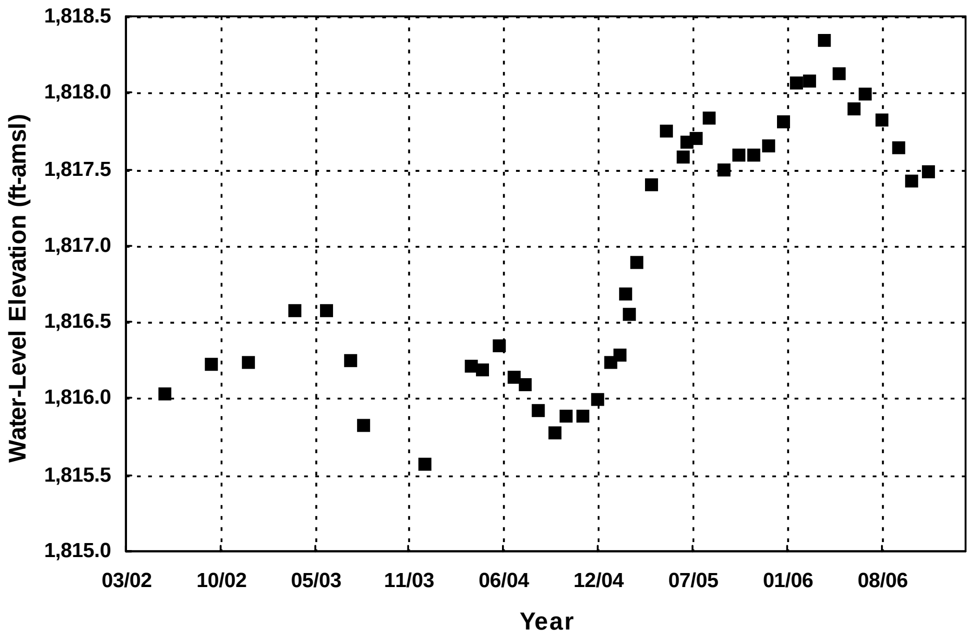
Basin Name:	**Garnet Valley**	**Land Surface (ft-amsl):**	**2247.8**
Aquifer Type:	**Carbonate Well**	**Well Depth (ft-bgs):**	**685**

Historical Water-Level Elevations at
216 S18 E63 15AA 1 GV-DUKE-WS1



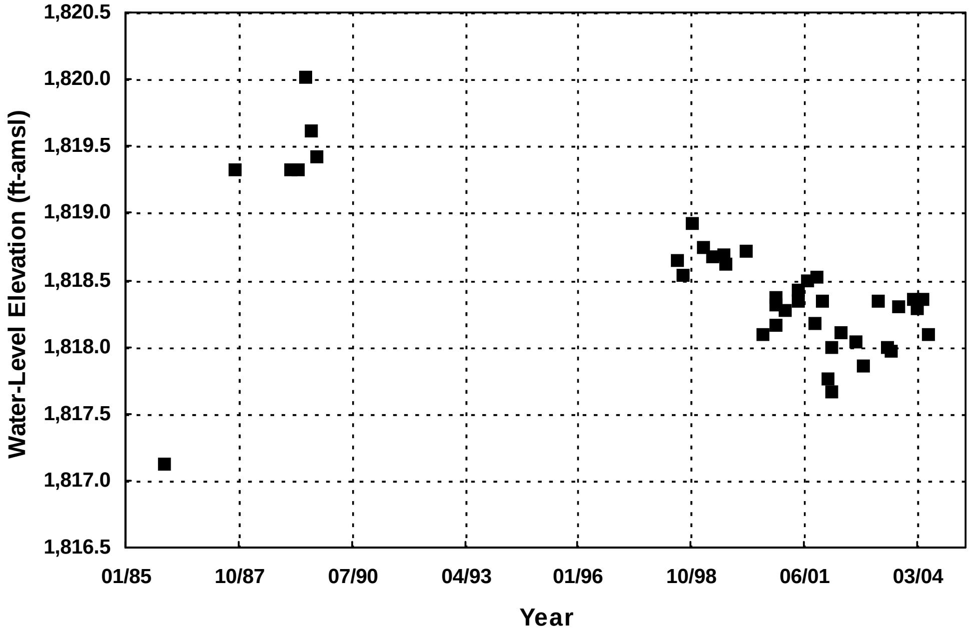
Basin Name: Garnet Valley
Aquifer Type: Carbonate Well
Land Surface (ft-amsl): 2248.8
Well Depth (ft-bgs): 1965

Historical Water-Level Elevations at
216 S18 E63 15AA 2 GV-DUKE-WS2



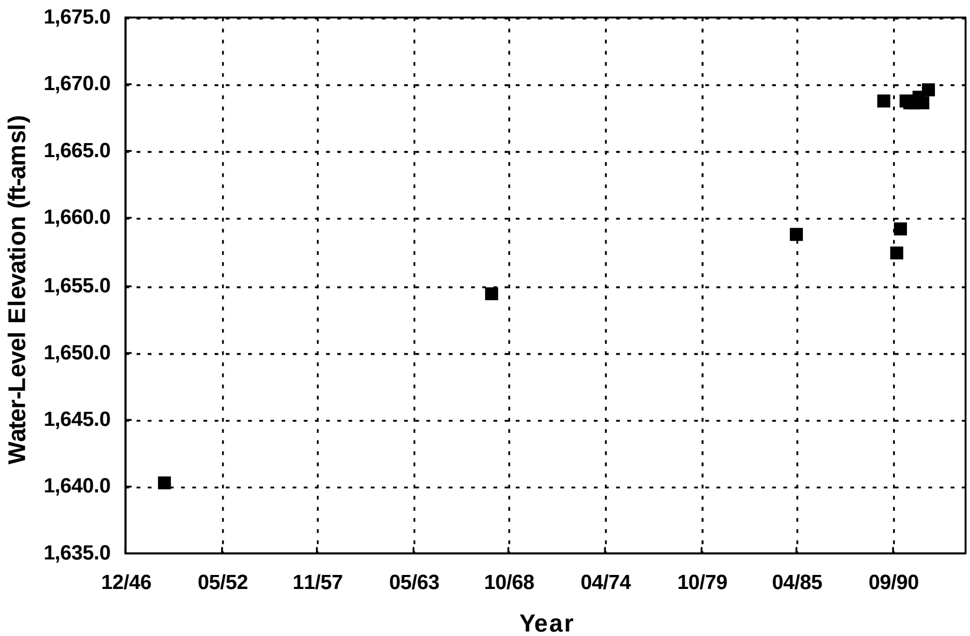
Basin Name: Garnet Valley
Aquifer Type: Carbonate Well
Land Surface (ft-amsl): 2423.9
Well Depth (ft-bgs): 1232

Historical Water-Level Elevations at
216 S18 E63 27AC 1 GV-2



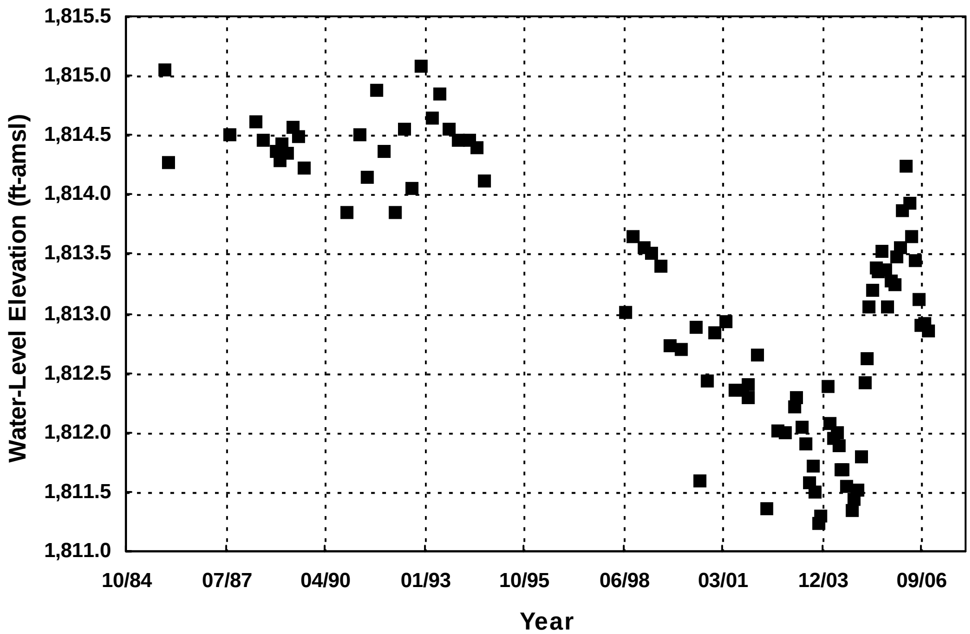
Basin Name:	**Hidden Valley**	**Land Surface (ft-amsl):**	**2650.3**
Aquifer Type:	**Basin Fill**	**Well Depth (ft-bgs):**	**920**

Historical Water-Level Elevations at
217 S16 E63 09DDAB1 USBLM SHV-1



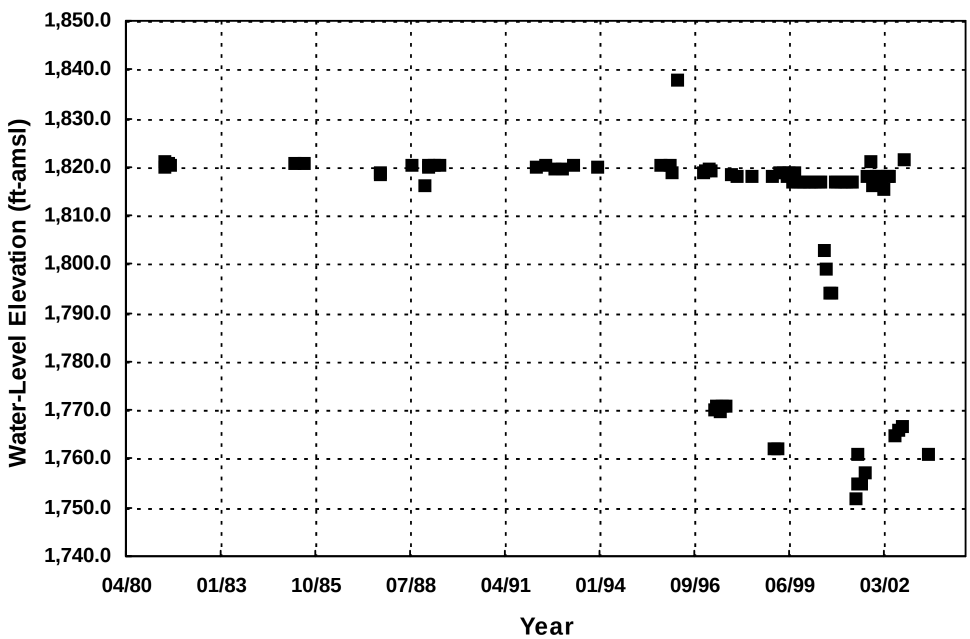
Basin Name:	**California Wash**	**Land Surface (ft-amsl):**	**1980.3**
Aquifer Type:	**Basin Fill**	**Well Depth (ft-bgs):**	**400**

Historical Water-Level Elevations at
218 S16 E65 33ACAA1 USBLM



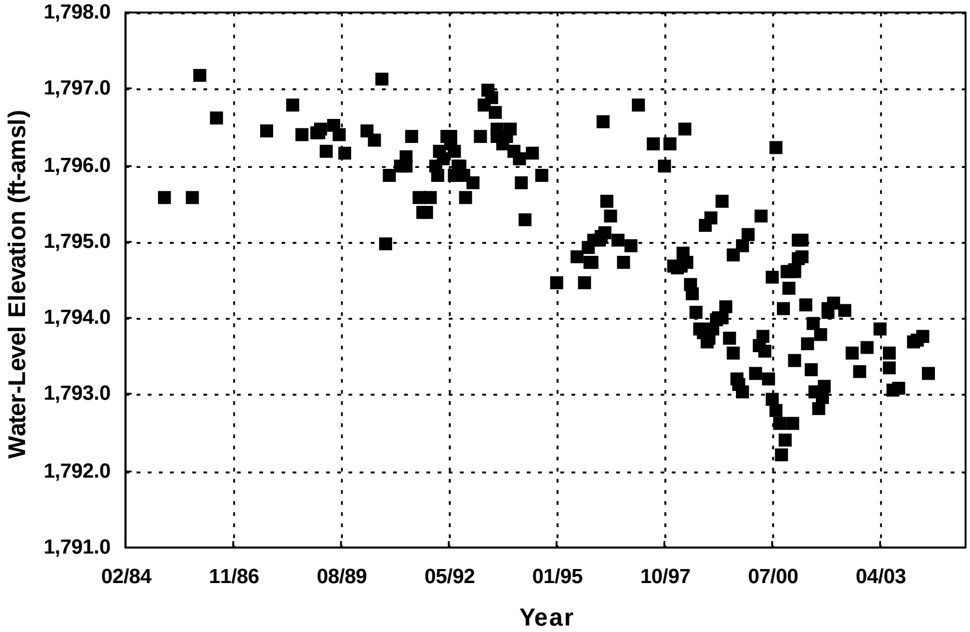
Basin Name:	**Muddy River Springs Area**	**Land Surface (ft-amsl):**	**2160.3**
Aquifer Type:	**Basin Fill**	**Well Depth (ft-bgs):**	**765**

Historical Water-Level Elevations at
210 S13 E64 31DAAD1 USGS CSV-1



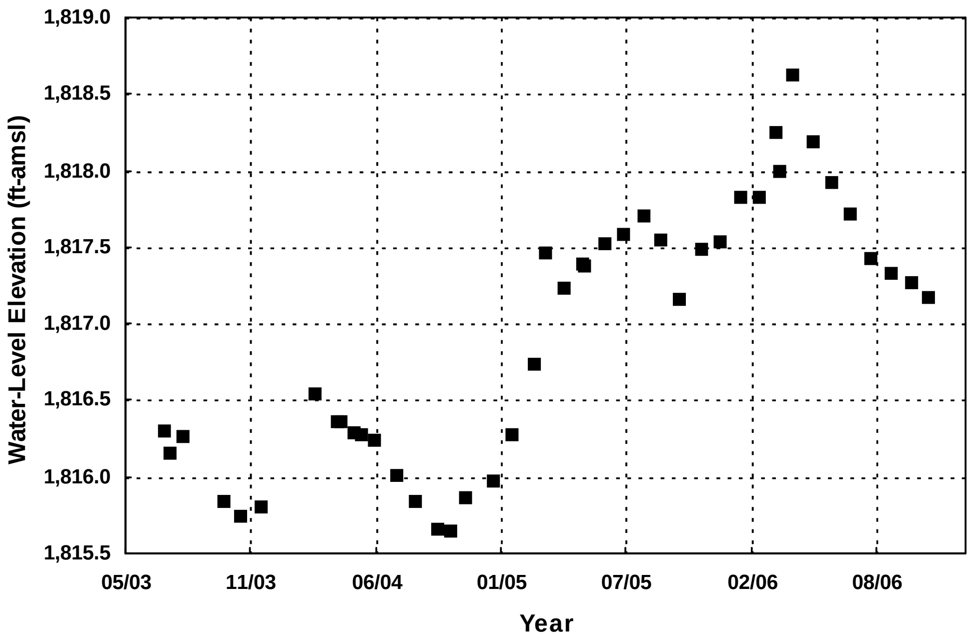
Basin Name:	**Muddy River Springs Area**	**Land Surface (ft-amsl):**	**2277.9**
Aquifer Type:	**Carbonate Well**	**Well Depth (ft-bgs):**	**325**

Historical Water-Level Elevations at
219 S13 E64 35ACAA1 USGS-MX CE-DT-6



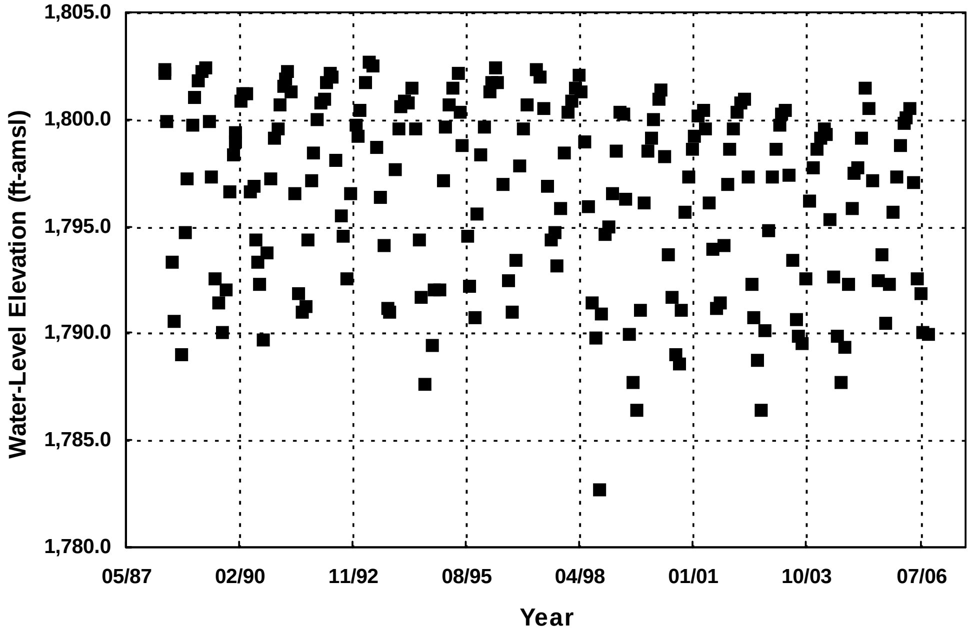
Basin Name:	**Muddy River Springs Area**	**Land Surface (ft-amsl):**	**2188.7**
Aquifer Type:	**Carbonate Well**	**Well Depth (ft-bgs):**	**95**

Historical Water-Level Elevations at
219 S13 E65 28BDAC1 USGS CSV-2



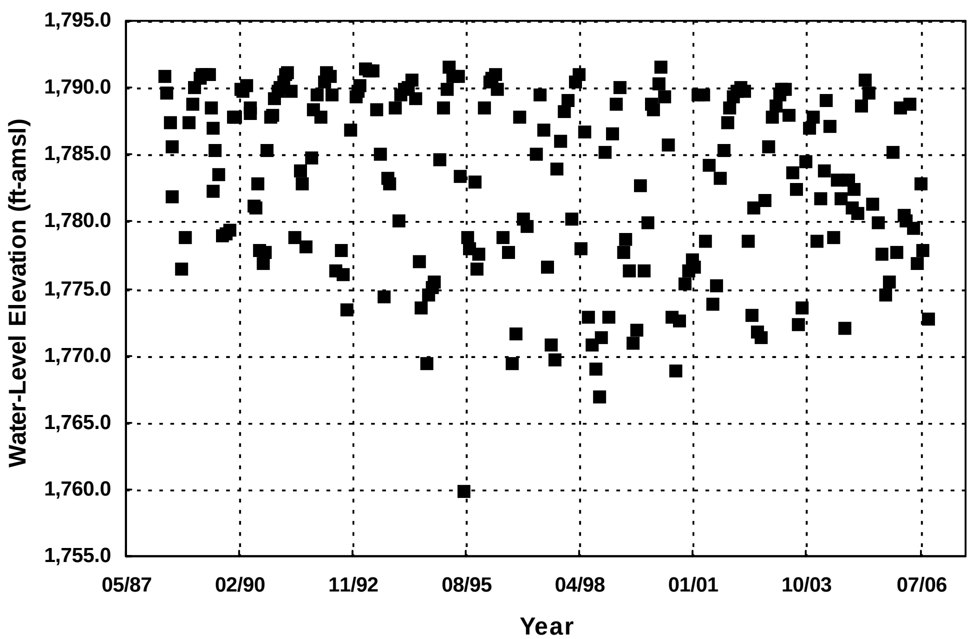
Basin Name:	**Muddy River Springs Area**	**Land Surface (ft-amsl):**	**2061.9**
Aquifer Type:	**Carbonate Well**	**Well Depth (ft-bgs):**	**1780**

Historical Water-Level Elevations at
219 S14 E64 33DB 1 UMVM-1



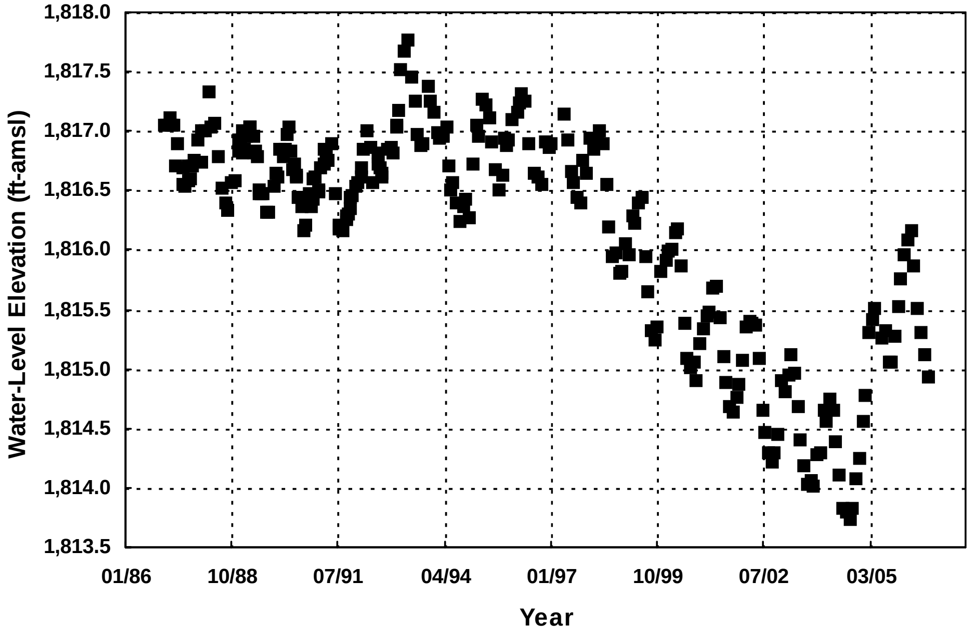
Basin Name:	**Muddy River Springs Area**	**Land Surface (ft-amsl):**	**1828.7**
Aquifer Type:	**Basin Fill**	**Well Depth (ft-bgs):**	**57**

Historical Water-Level Elevations at
219 S14 E65 08ABBD1



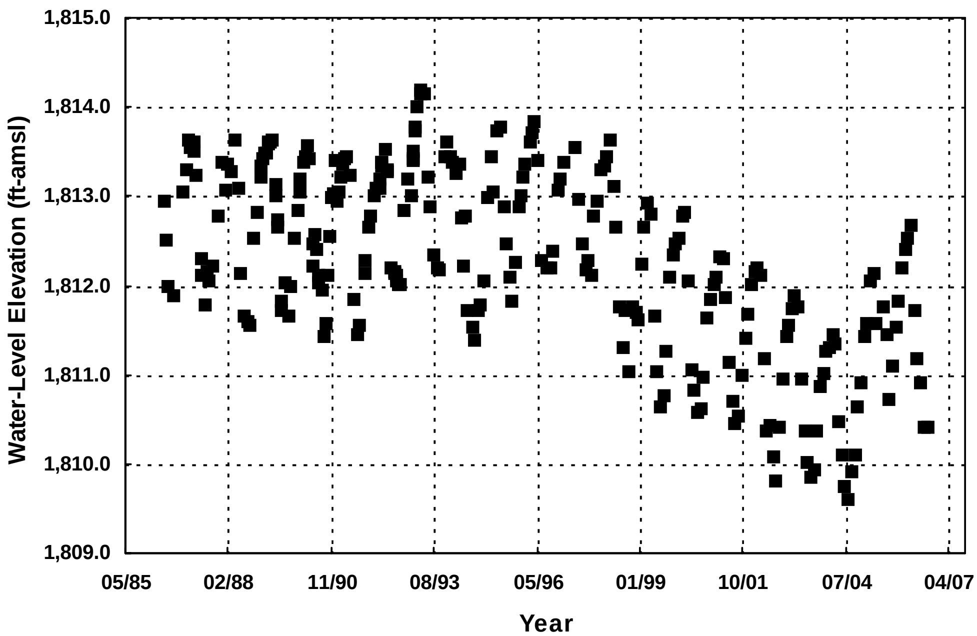
Basin Name:	**Muddy River Springs Area**	**Land Surface (ft-amsl):**	**1807.3**
Aquifer Type:	**Basin Fill**	**Well Depth (ft-bgs):**	**80**

Historical Water-Level Elevations at
219 S14 E65 08AD 1 LDS WEST



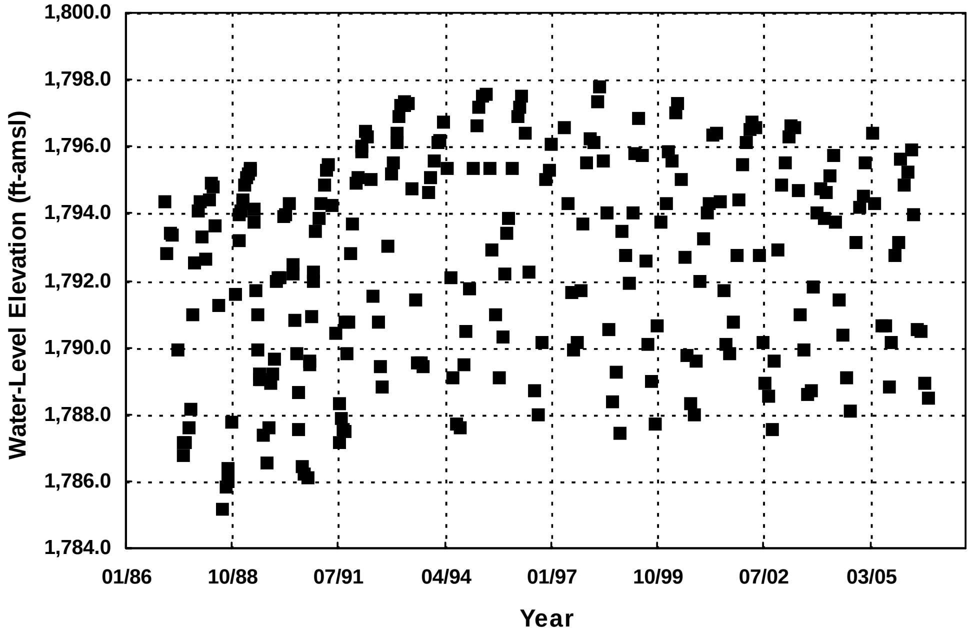
Basin Name:	**Muddy River Springs Area**	**Land Surface (ft-amsl):**	**1844.8**
Aquifer Type:	**Carbonate Well**	**Well Depth (ft-bgs):**	**264**

Historical Water-Level Elevations at
219 S14 E65 08BD 2 EH-5B



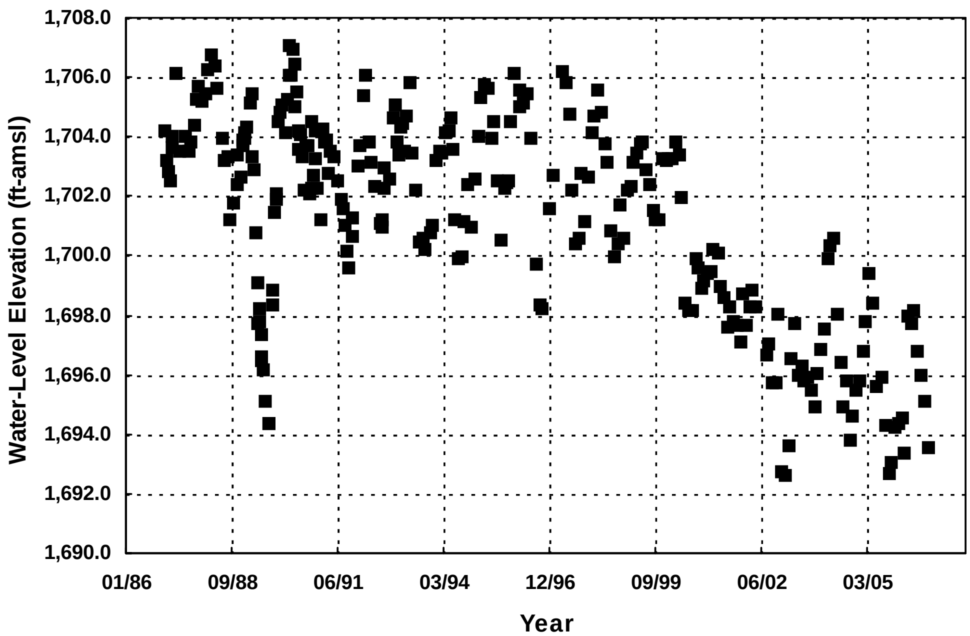
Basin Name:	**Muddy River Springs Area**	**Land Surface (ft-amsl):**	**1844.7**
Aquifer Type:	**Basin Fill**	**Well Depth (ft-bgs):**	**71**

Historical Water-Level Elevations at
219 S14 E65 08BD 3 LEWIS NORTH



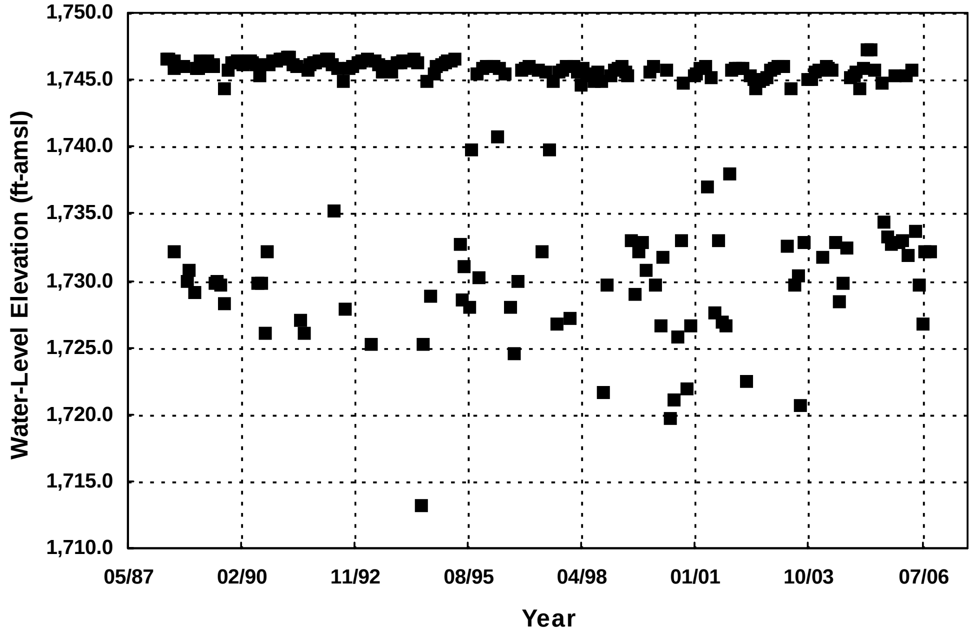
Basin Name:	**Muddy River Springs Area**	**Land Surface (ft-amsl):**	**1809.6**
Aquifer Type:	**Basin Fill**	**Well Depth (ft-bgs):**	**90**

Historical Water-Level Elevations at
219 S14 E65 08DA 1 LEWIS SOUTH



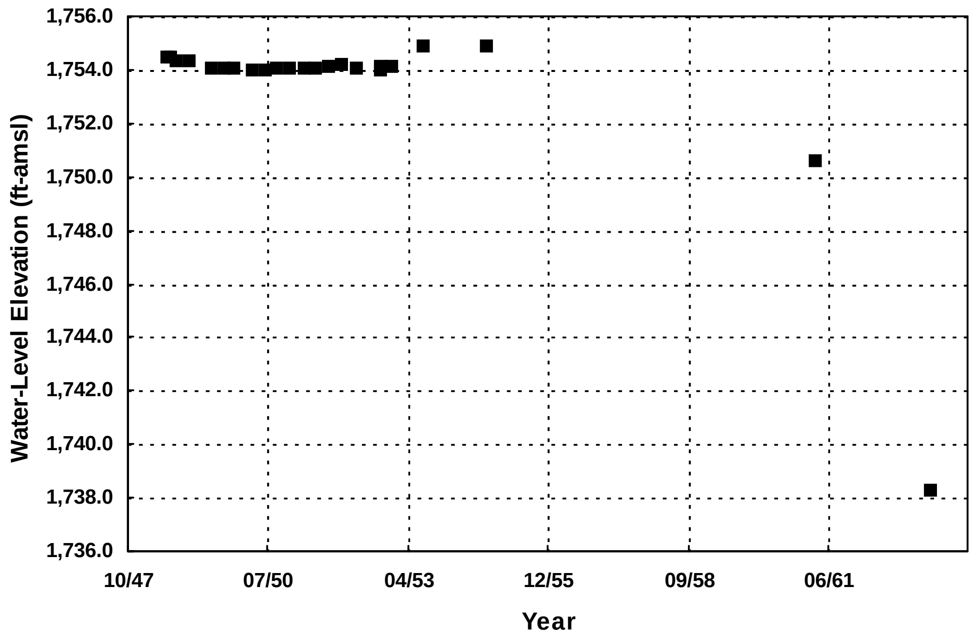
Basin Name:	**Muddy River Springs Area**	**Land Surface (ft-amsl):**	**1712.1**
Aquifer Type:	**Basin Fill**	**Well Depth (ft-bgs):**	**100**

Historical Water-Level Elevations at
219 S14 E65 14CD 1 ABBOTT



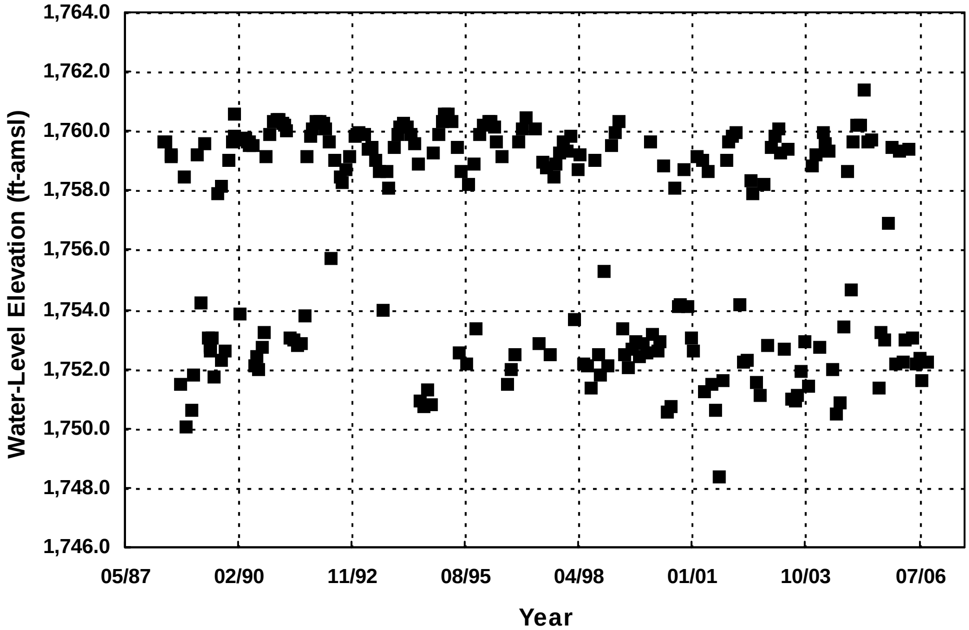
Basin Name:	**Muddy River Springs Area**	**Land Surface (ft-amsl):**	**1752.6**
Aquifer Type:	**Basin Fill**	**Well Depth (ft-bgs):**	**195**

Historical Water-Level Elevations at
219 S14 E65 15BB 1 LDS EAST



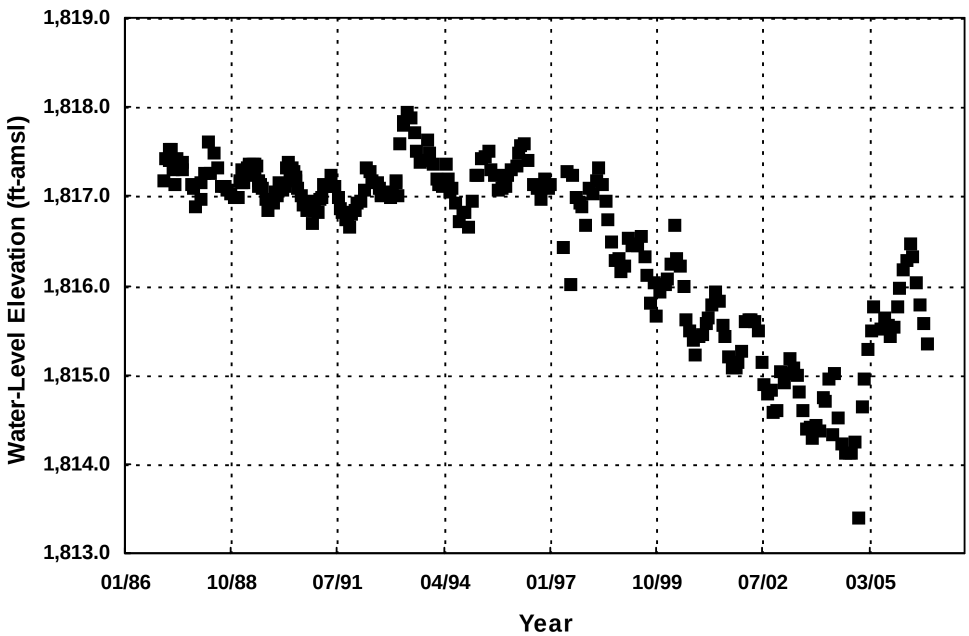
Basin Name:	**Muddy River Springs Area**	**Land Surface (ft-amsl):**	**1757.2**
Aquifer Type:	**Basin Fill**	**Well Depth (ft-bgs):**	**80**

Historical Water-Level Elevations at
219 S14 E65 15BBCB1



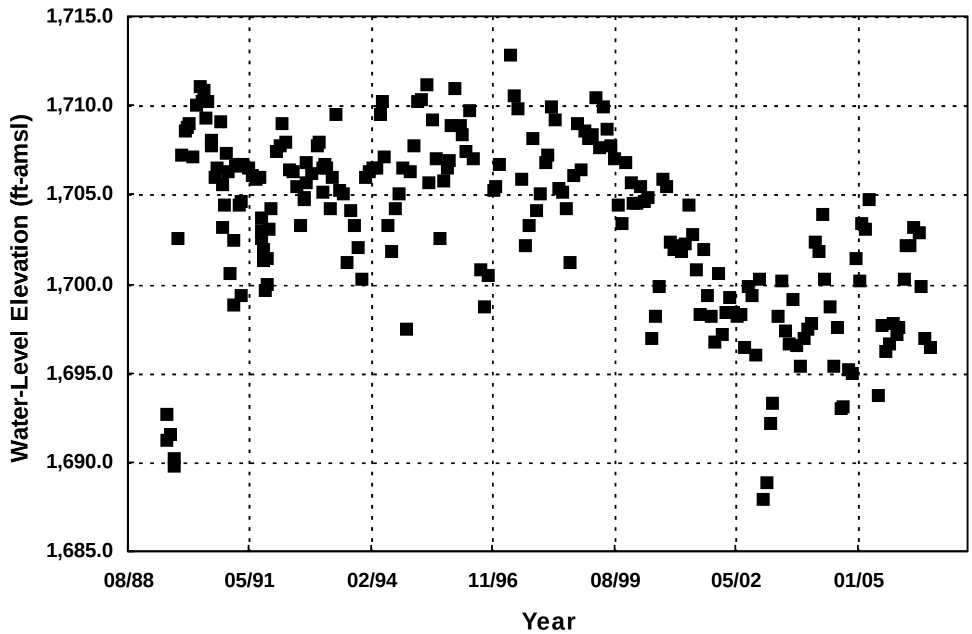
Basin Name:	**Muddy River Springs Area**	**Land Surface (ft-amsl):**	**1762.2**
Aquifer Type:	**Basin Fill**	**Well Depth (ft-bgs):**	**106**

Historical Water-Level Elevations at
219 S14 E65 16AA 1 LDS CENTRAL



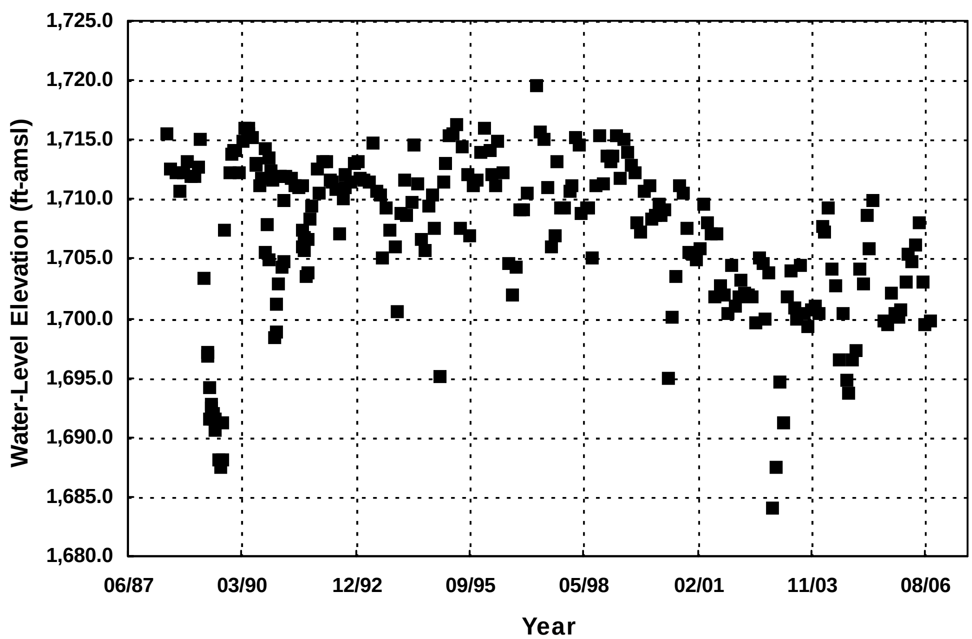
Basin Name:	**Muddy River Springs Area**	**Land Surface (ft-amsl):**	**1933.9**
Aquifer Type:	**Carbonate Well**	**Well Depth (ft-bgs):**	**285**

Historical Water-Level Elevations at
219 S14 E65 21AC 1 EH-4



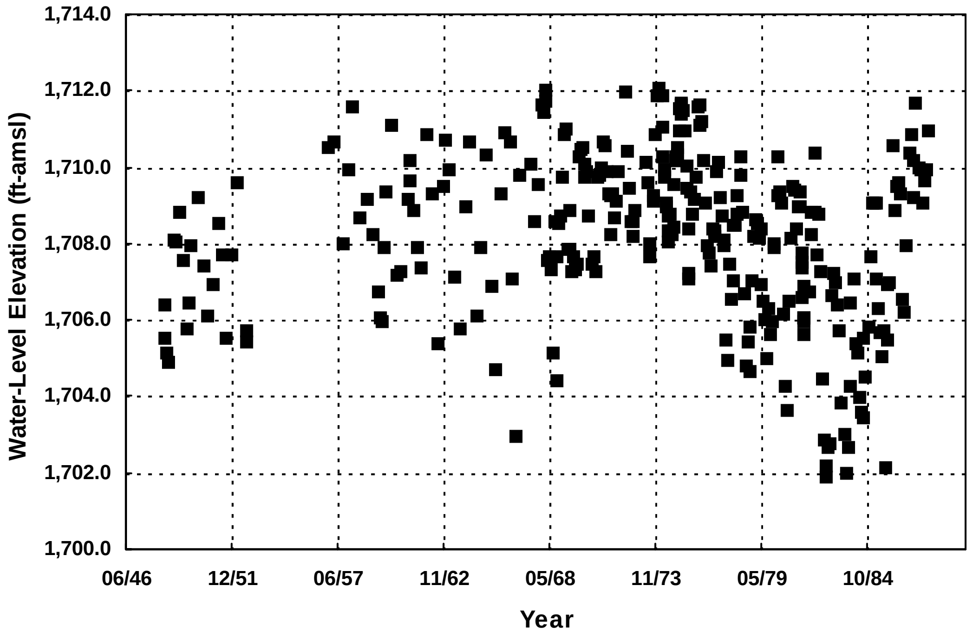
Basin Name:	**Muddy River Springs Area**	**Land Surface (ft-amsl):**	**1728.5**
Aquifer Type:	**Basin Fill**	**Well Depth (ft-bgs):**	**70**

Historical Water-Level Elevations at
219 S14 E65 22AA 1 PERKINS OLD



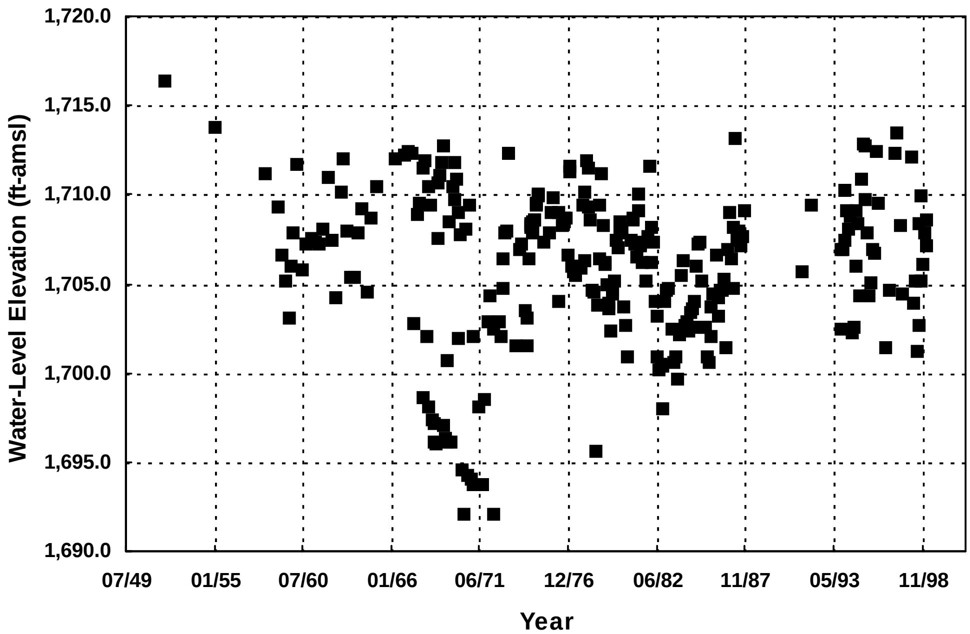
Basin Name:	**Muddy River Springs Area**	**Land Surface (ft-amsl):**	**1734.9**
Aquifer Type:	**Basin Fill**	**Well Depth (ft-bgs):**	

Historical Water-Level Elevations at
219 S14 E65 22AA 2 PERKINS PRODUCTION



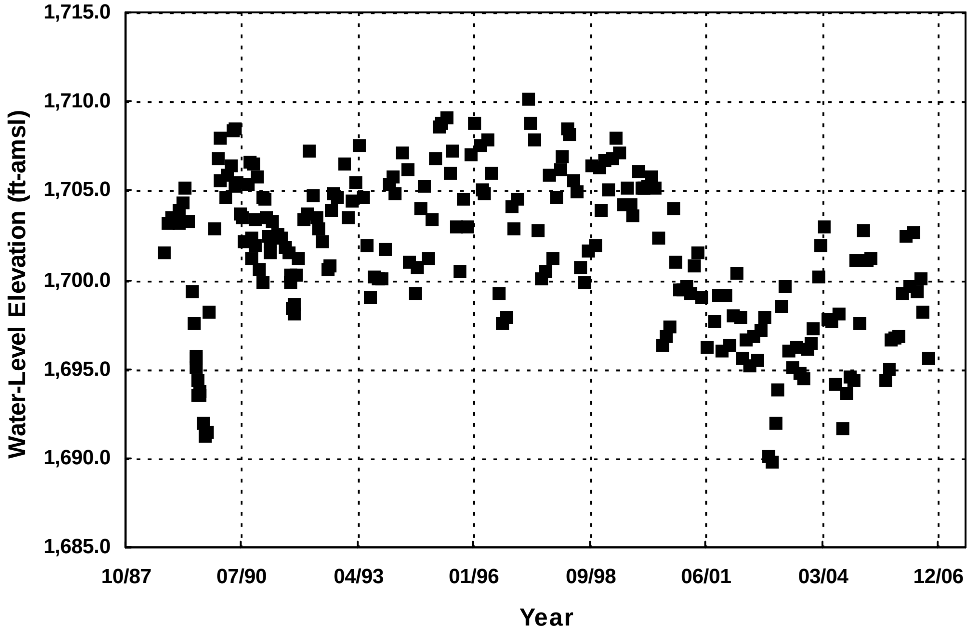
Basin Name:	**Muddy River Springs Area**	**Land Surface (ft-amsl):**	**1712.2**
Aquifer Type:	**Basin Fill**	**Well Depth (ft-bgs):**	**44**

Historical Water-Level Elevations at
219 S14 E65 23ABBB1



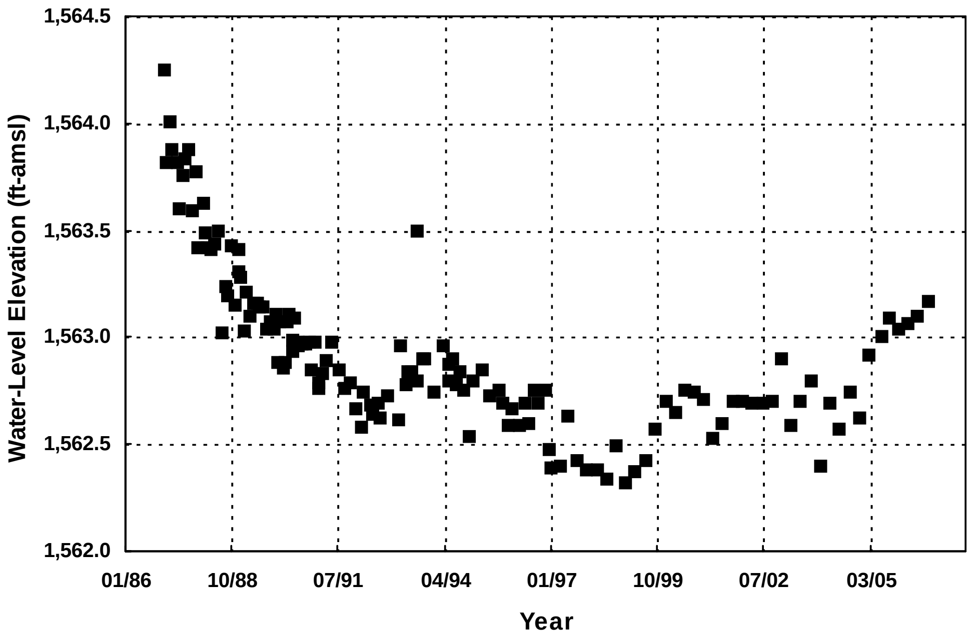
Basin Name:	**Muddy River Springs Area**	**Land Surface (ft-amsl):**	**1719.3**
Aquifer Type:	**Basin Fill**	**Well Depth (ft-bgs):**	**60**

Historical Water-Level Elevations at
219 S14 E65 23BB 1



Basin Name:	**Muddy River Springs Area**	**Land Surface (ft-amsl):**	**1717.9**
Aquifer Type:	**Basin Fill**	**Well Depth (ft-bgs):**	

Historical Water-Level Elevations at
Behmer-MW



Basin Name:	**Lower Moapa Valley**	**Land Surface (ft-amsl):**	**1680**
Aquifer Type:	**Carbonate Well**	**Well Depth (ft-bgs):**	**440**

Historical Water-Level Elevations at
220 S14 E67 31DACD1

Appendix C

Basin-Fill Composite Water-Level Maps

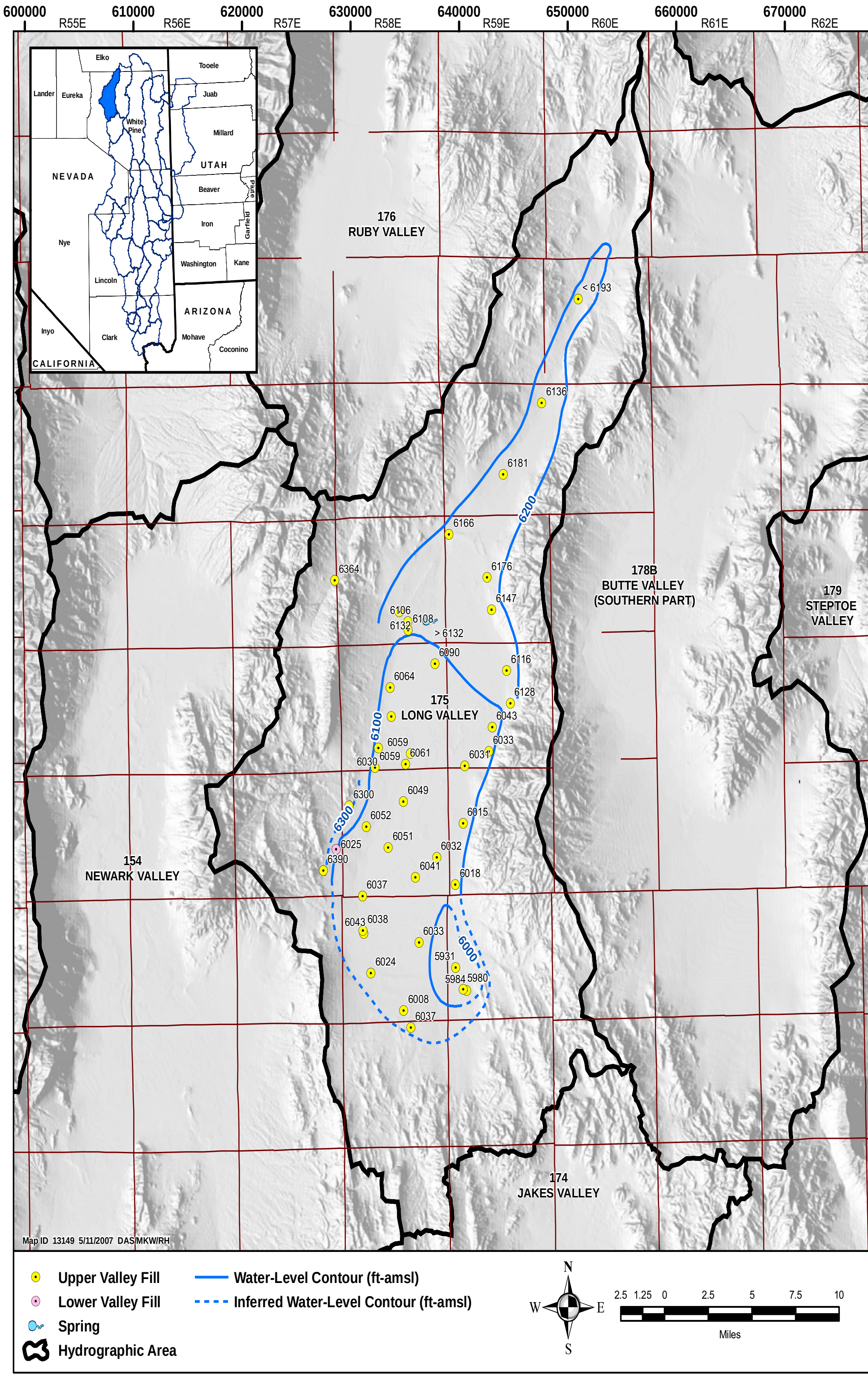


Figure C.1-1
Long Valley Basin-Fill Composite Water-Level Map

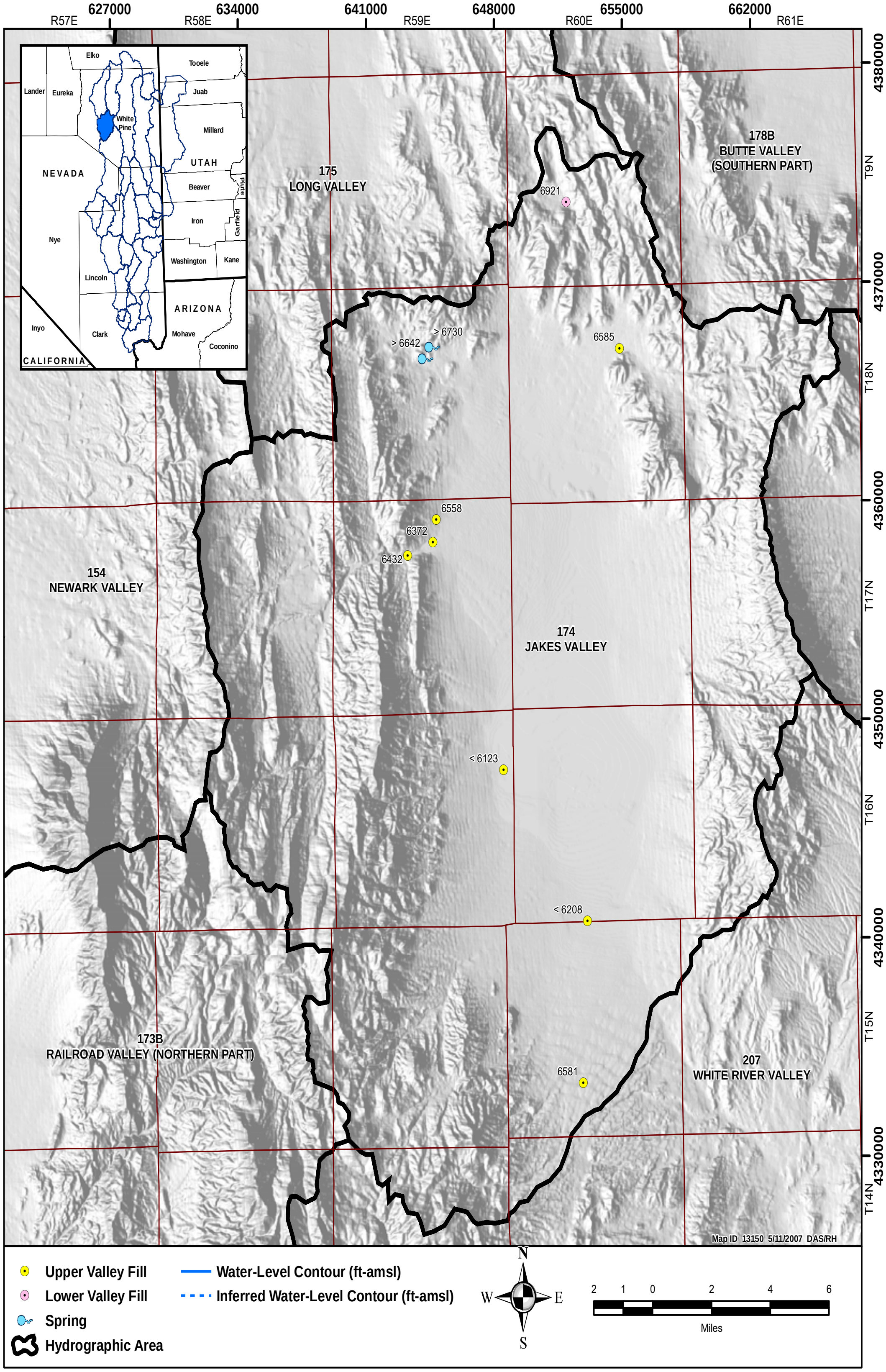


Figure C.1-2
Jakes Valley Basin-Fill Composite Water-Level Map

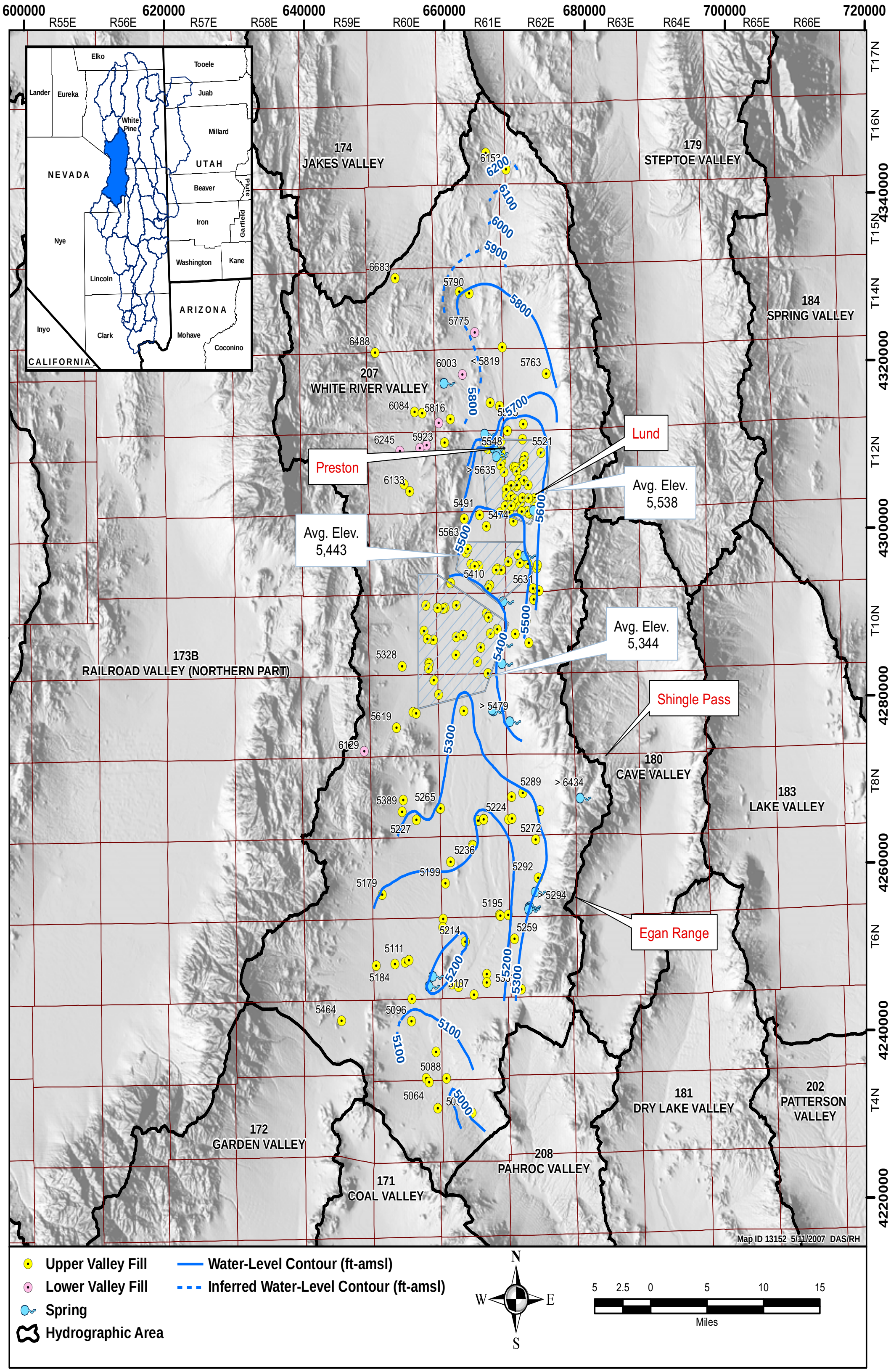


Figure C.1-3
White River Valley Basin-Fill Composite Water-Level Map

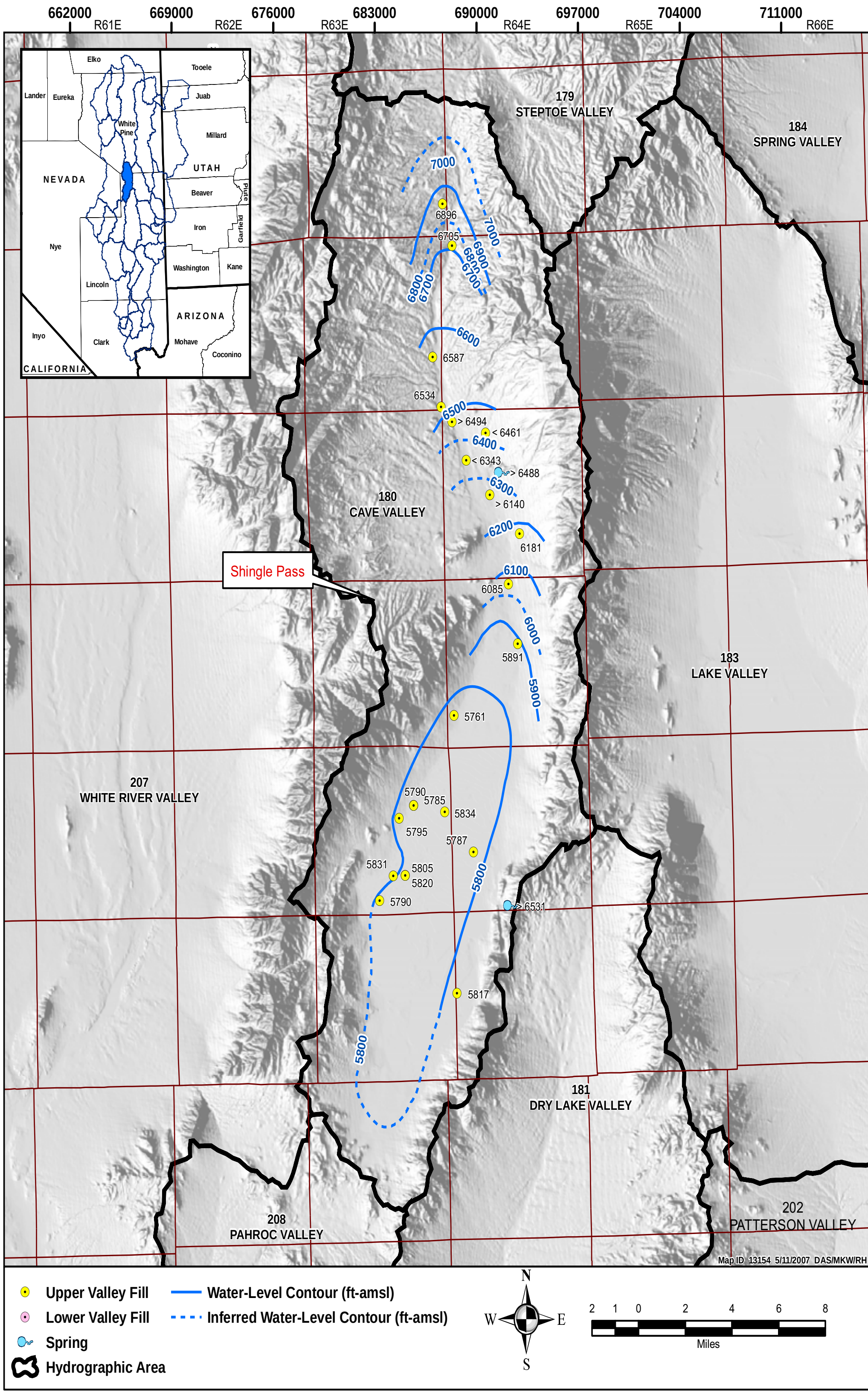


Figure C.1-4
Cave Valley Basin-Fill Composite Water-Level Map

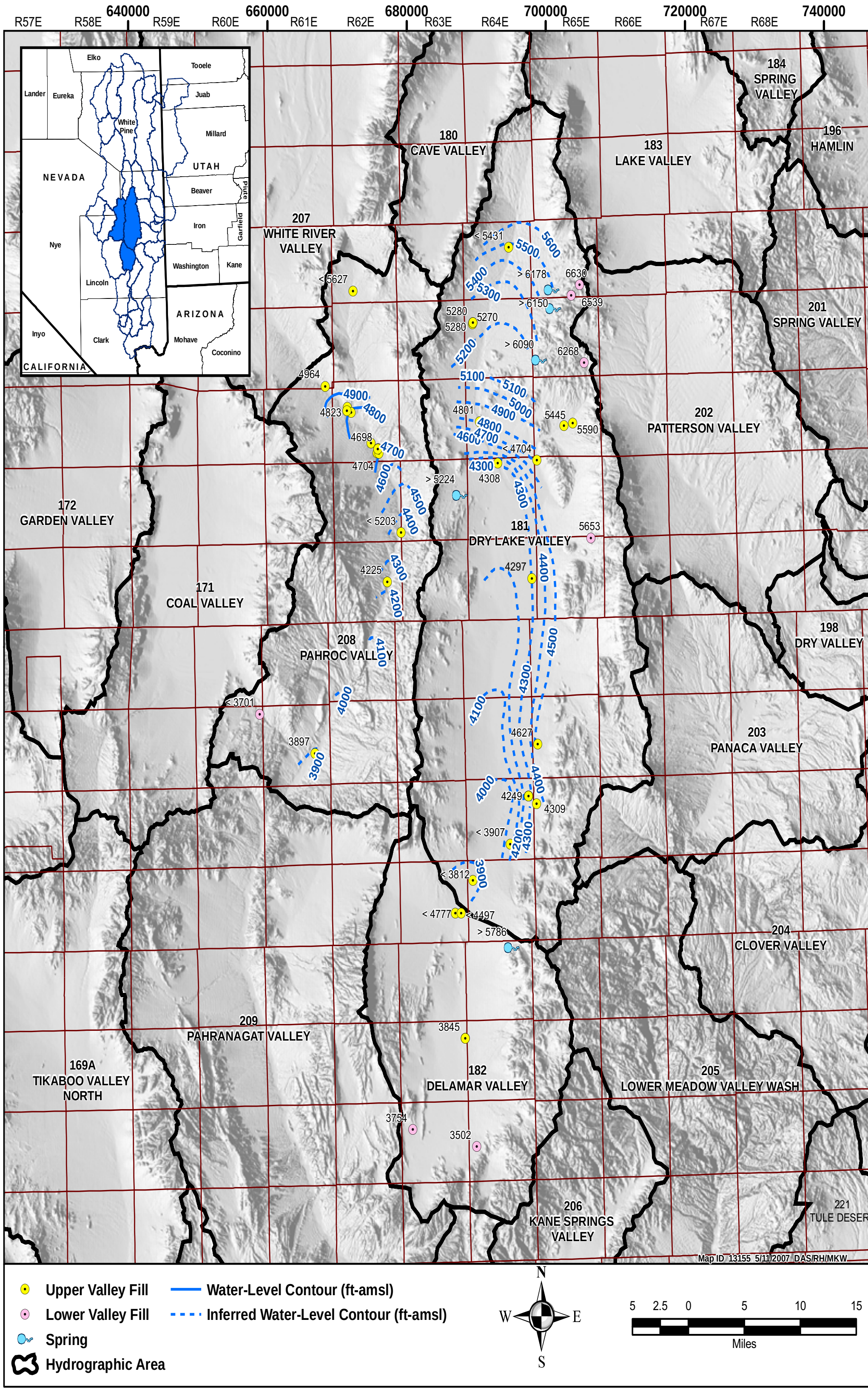


Figure C.1-5
Dry Lake, Delamar, and Pahroc Valleys Basin-Fill Composite Water-Level Map

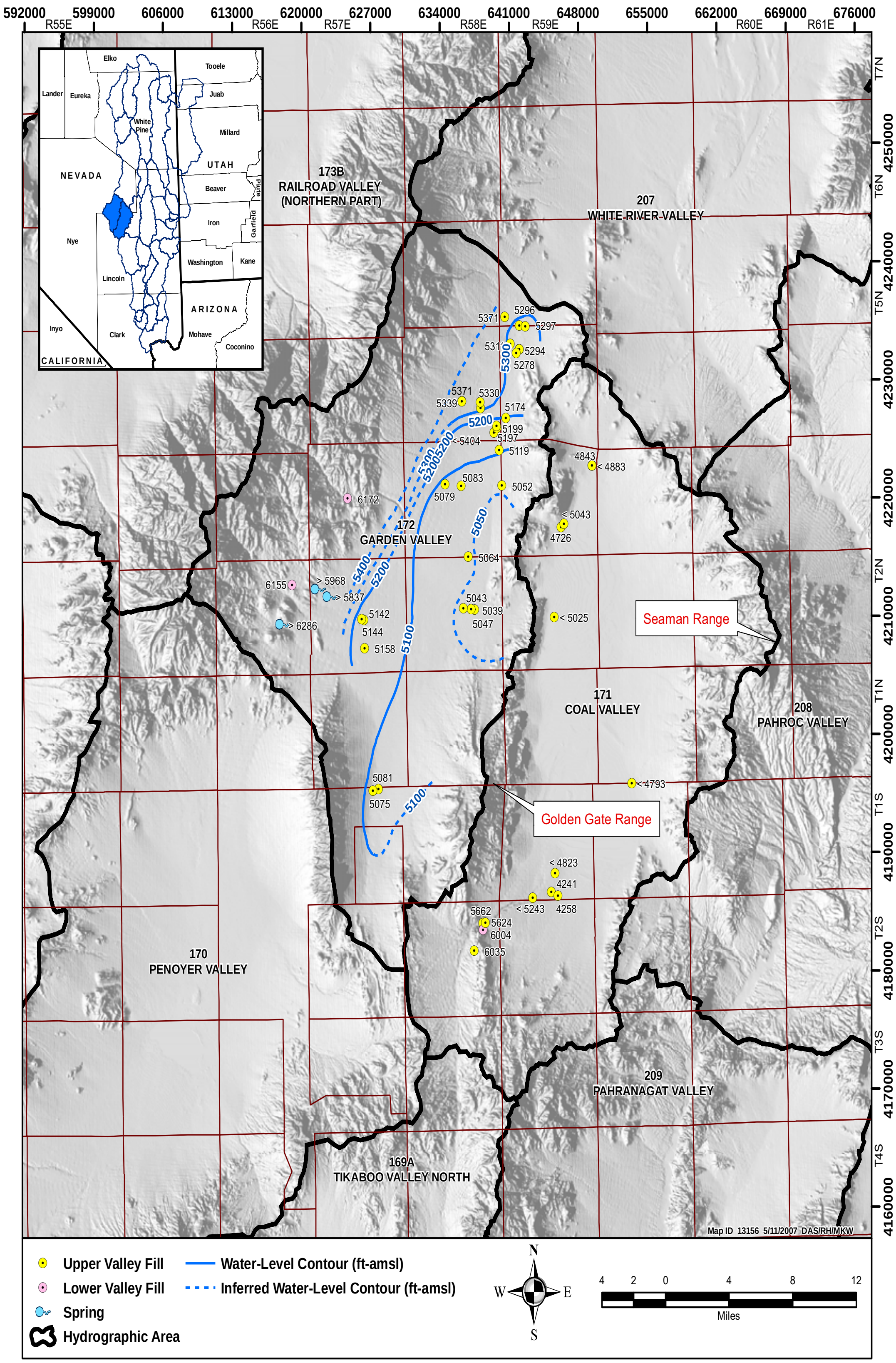


Figure C.1-6
Garden and Coal Valleys Basin-Fill Composite Water-Level Map

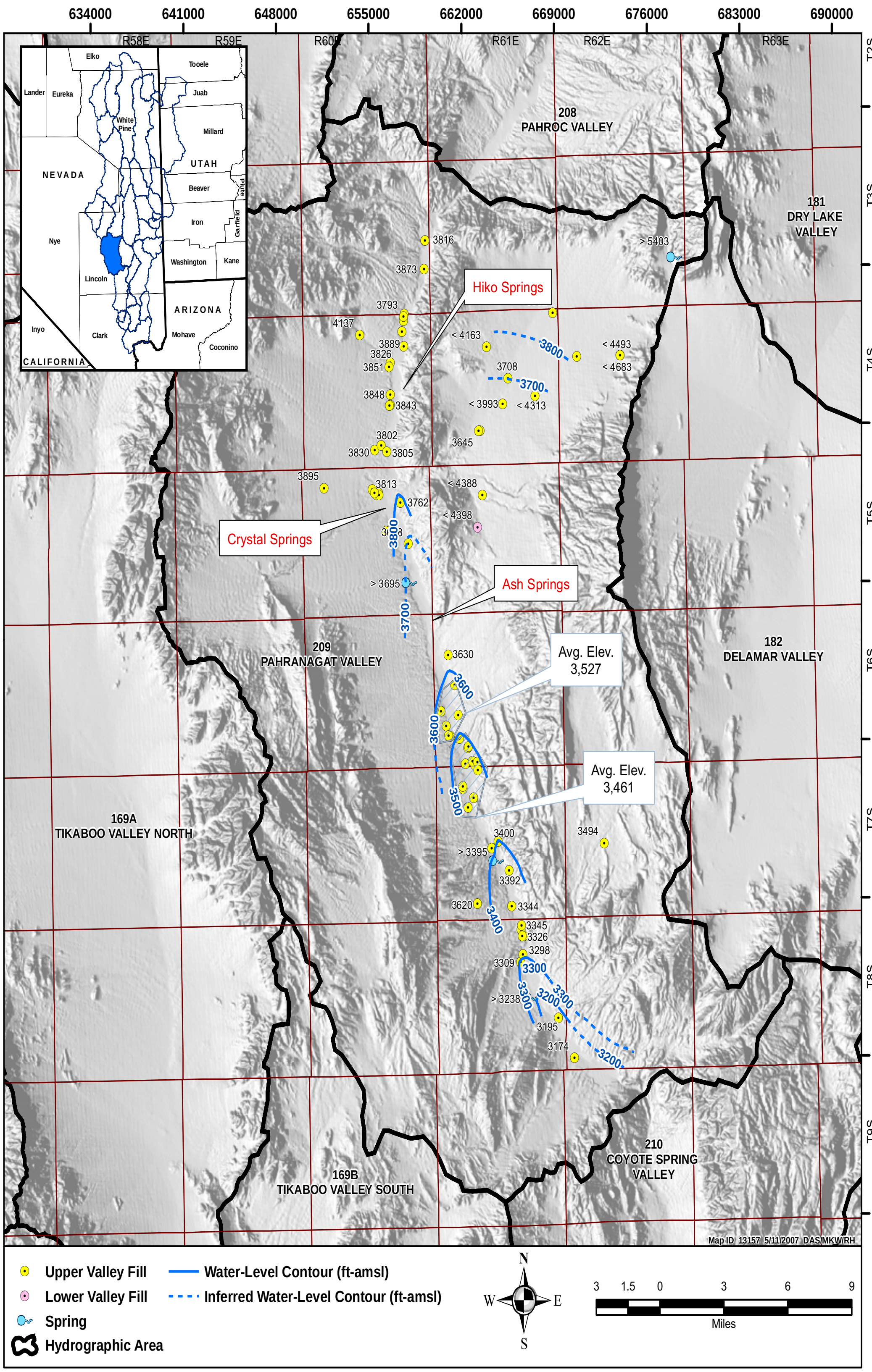


Figure C.1-7
Pahranagat Valley Basin-Fill Composite Water-Level Map

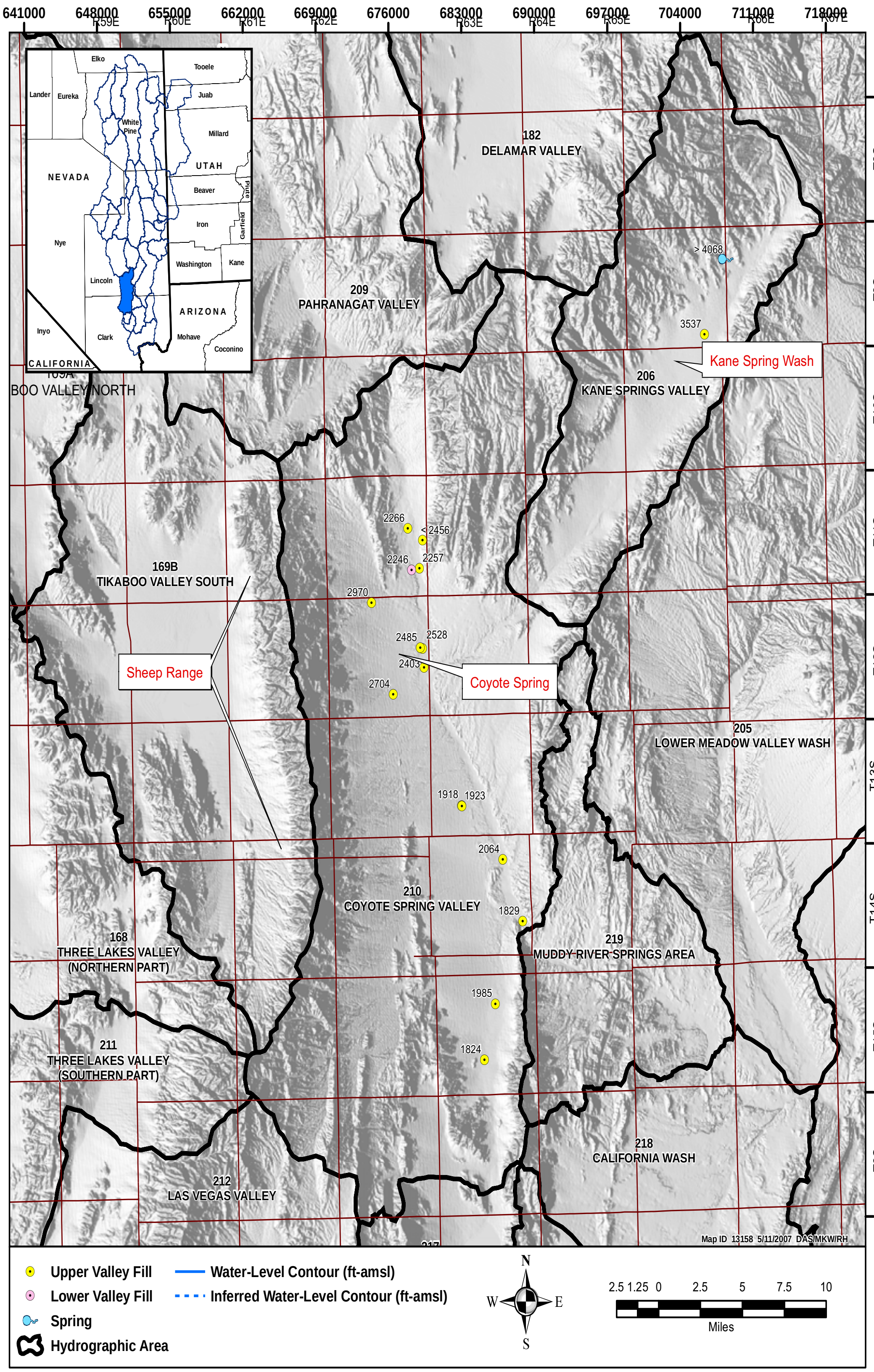


Figure C.1-8
Coyote Spring and Kane Springs Valleys Basin-Fill Composite Water-Level Map

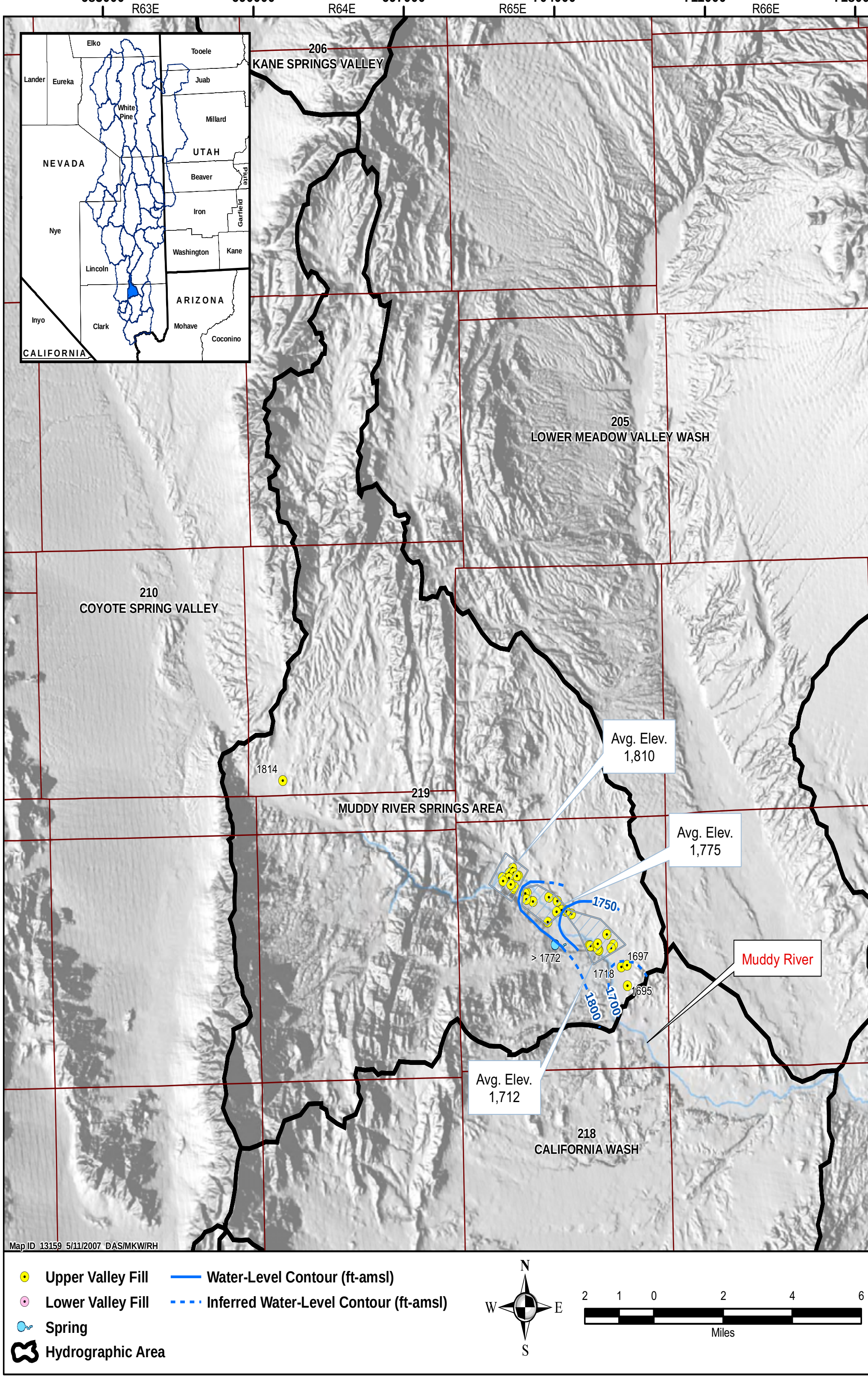


Figure C.1-9
Muddy River Springs Area Basin-Fill Composite Water-Level Map

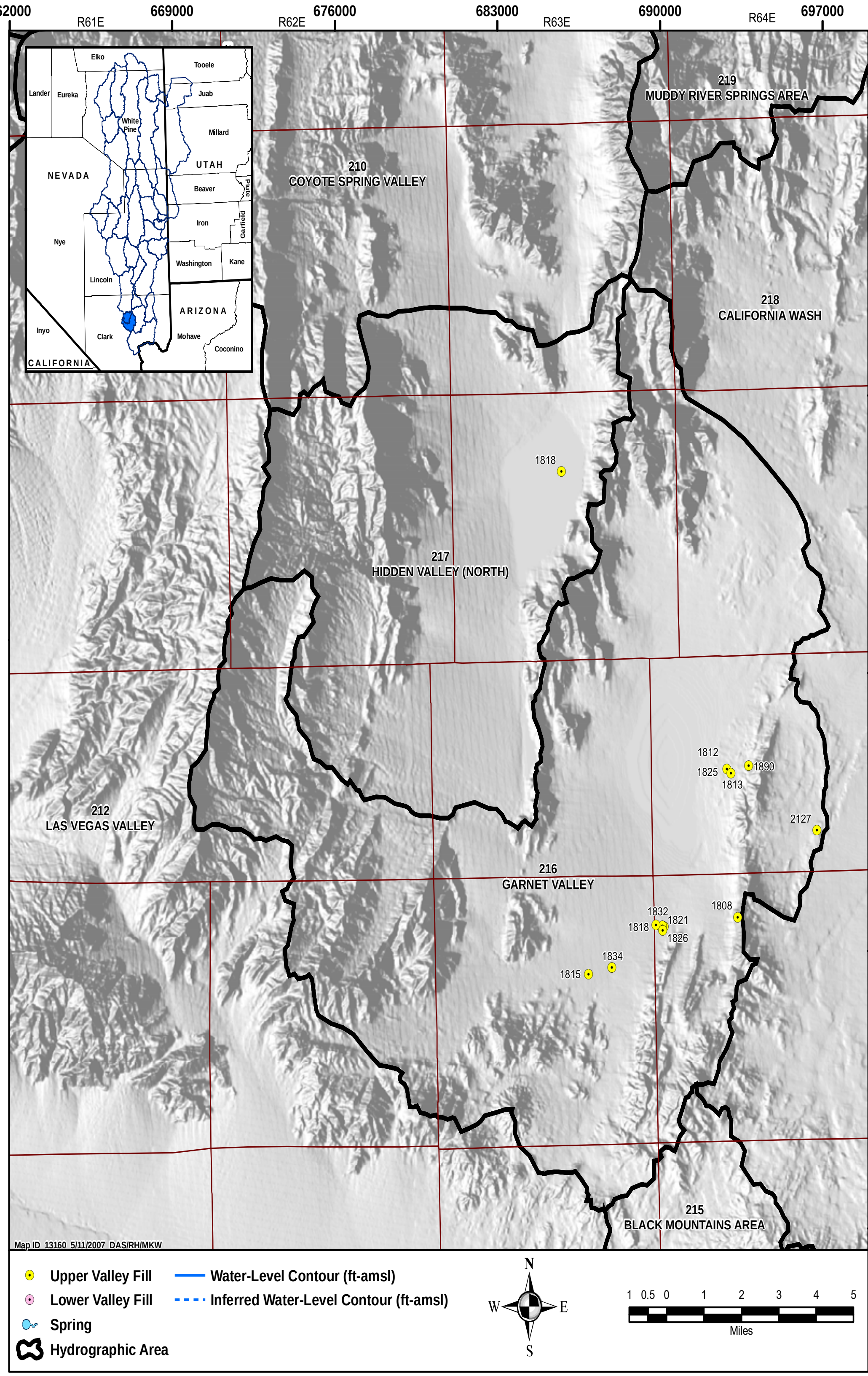


Figure C.1-10
Hidden and Garnet Valleys Basin-Fill Composite Water-Level Map

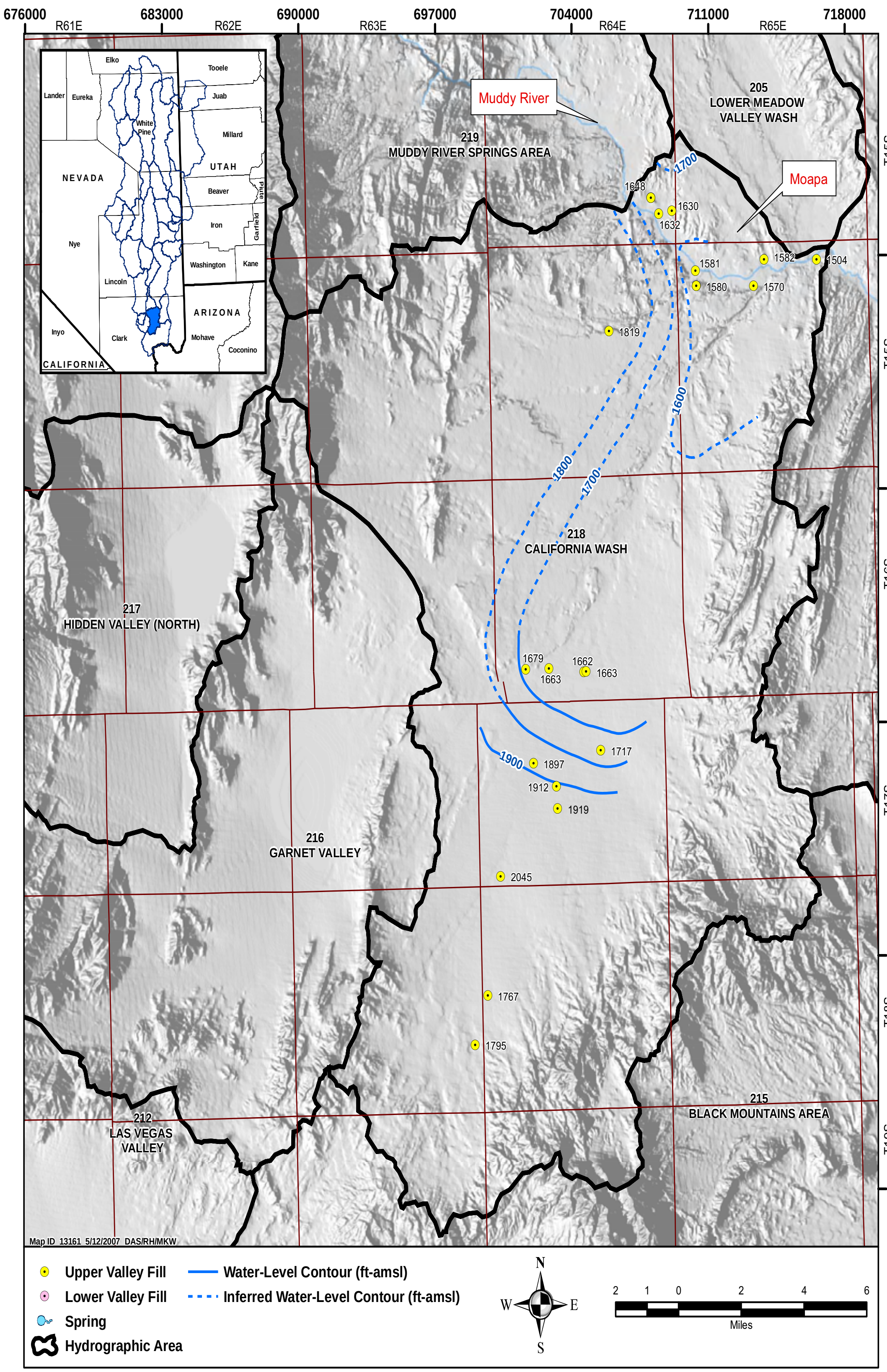


Figure C.1-11
California Wash Basin-Fill Composite Water-Level Map

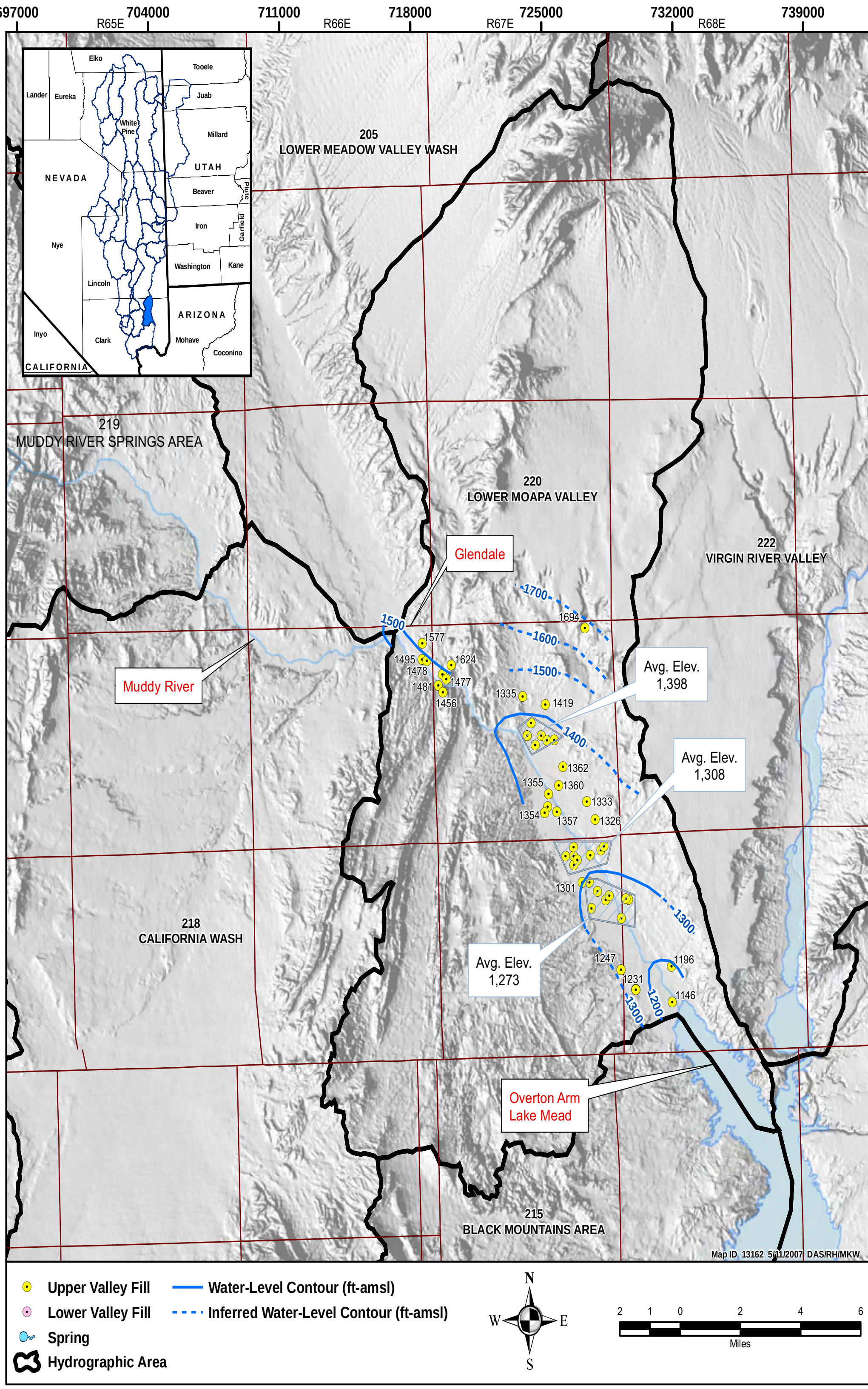


Figure C.1-12
Lower Moapa Valley Basin-Fill Composite Water-Level Map

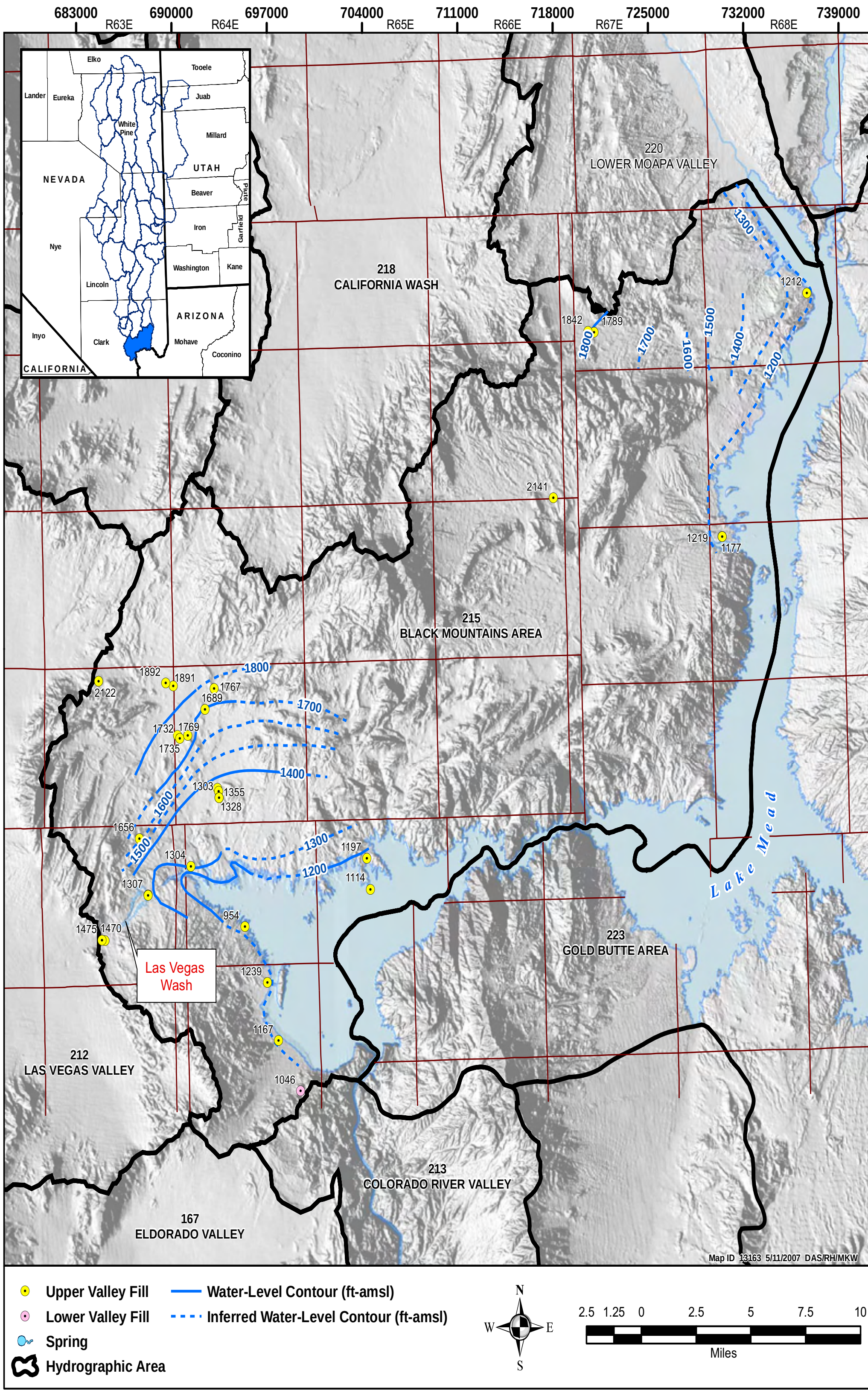


Figure C.1-13
Black Mountains Area Basin-Fill Composite Water-Level Map

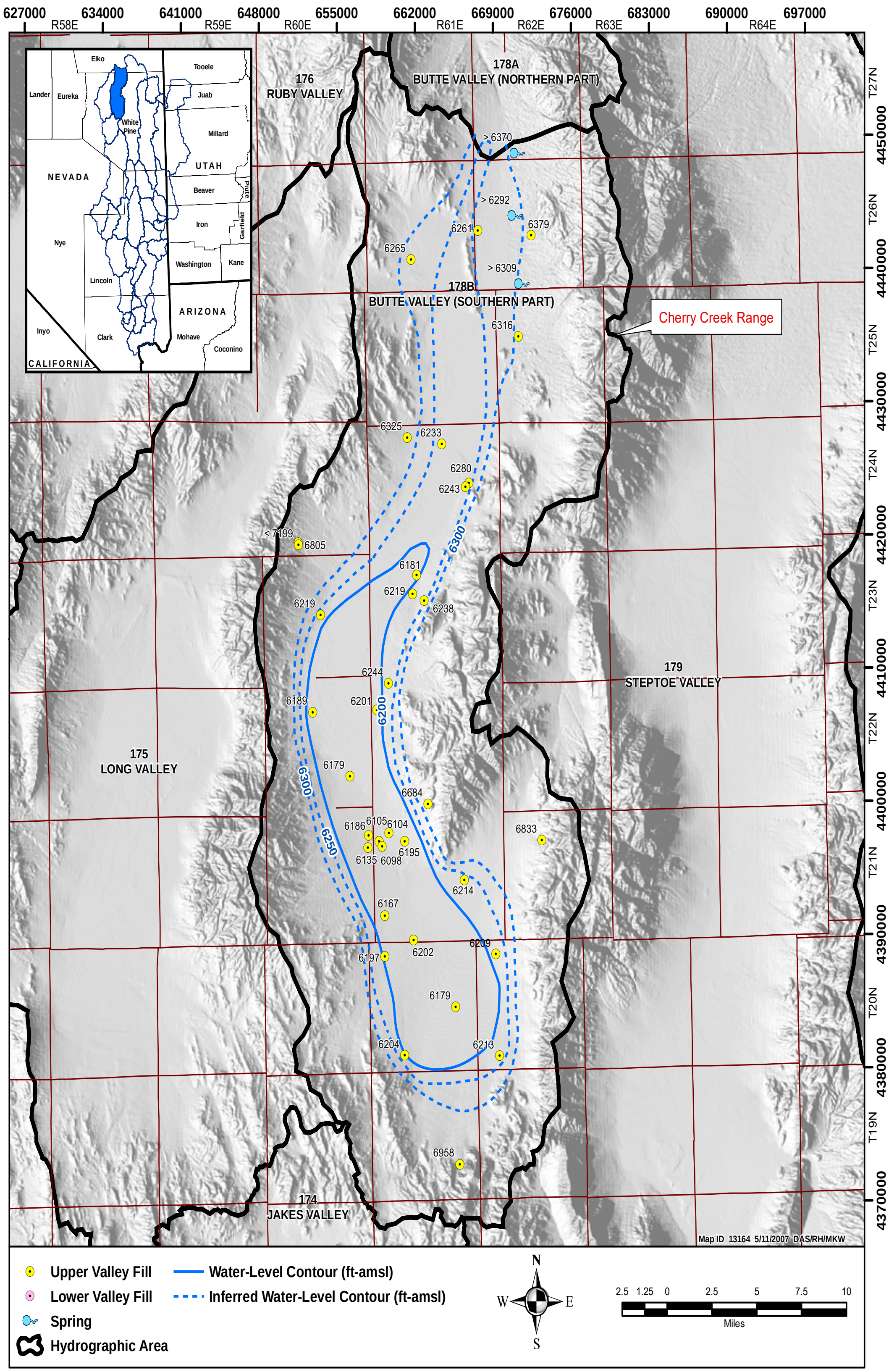


Figure C.1-14
Butte Valley (Southern Part) Basin-Fill Composite Water-Level Map

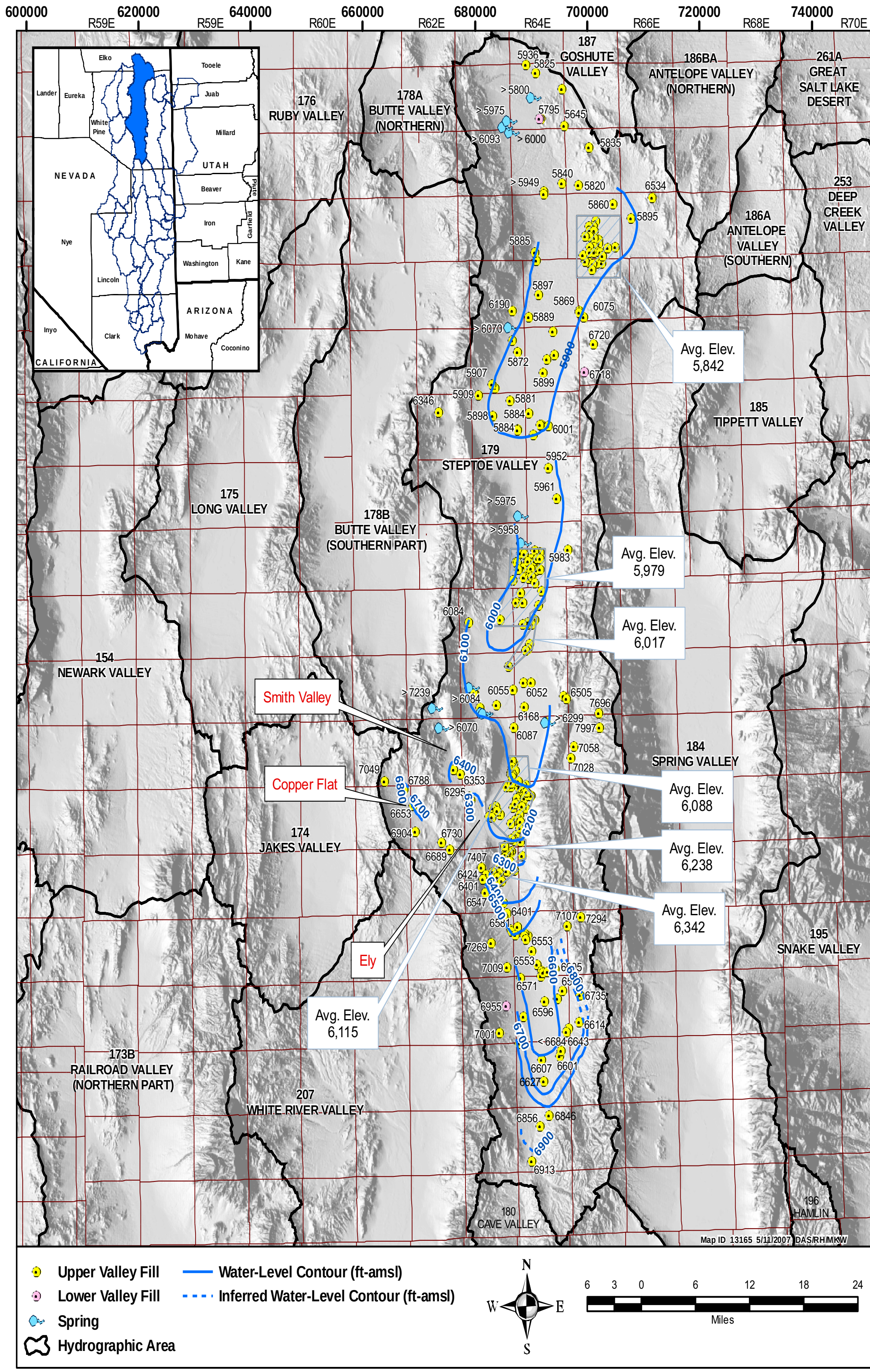


Figure C.1-15
Steptoe Valley Basin-Fill Composite Water-Level Map

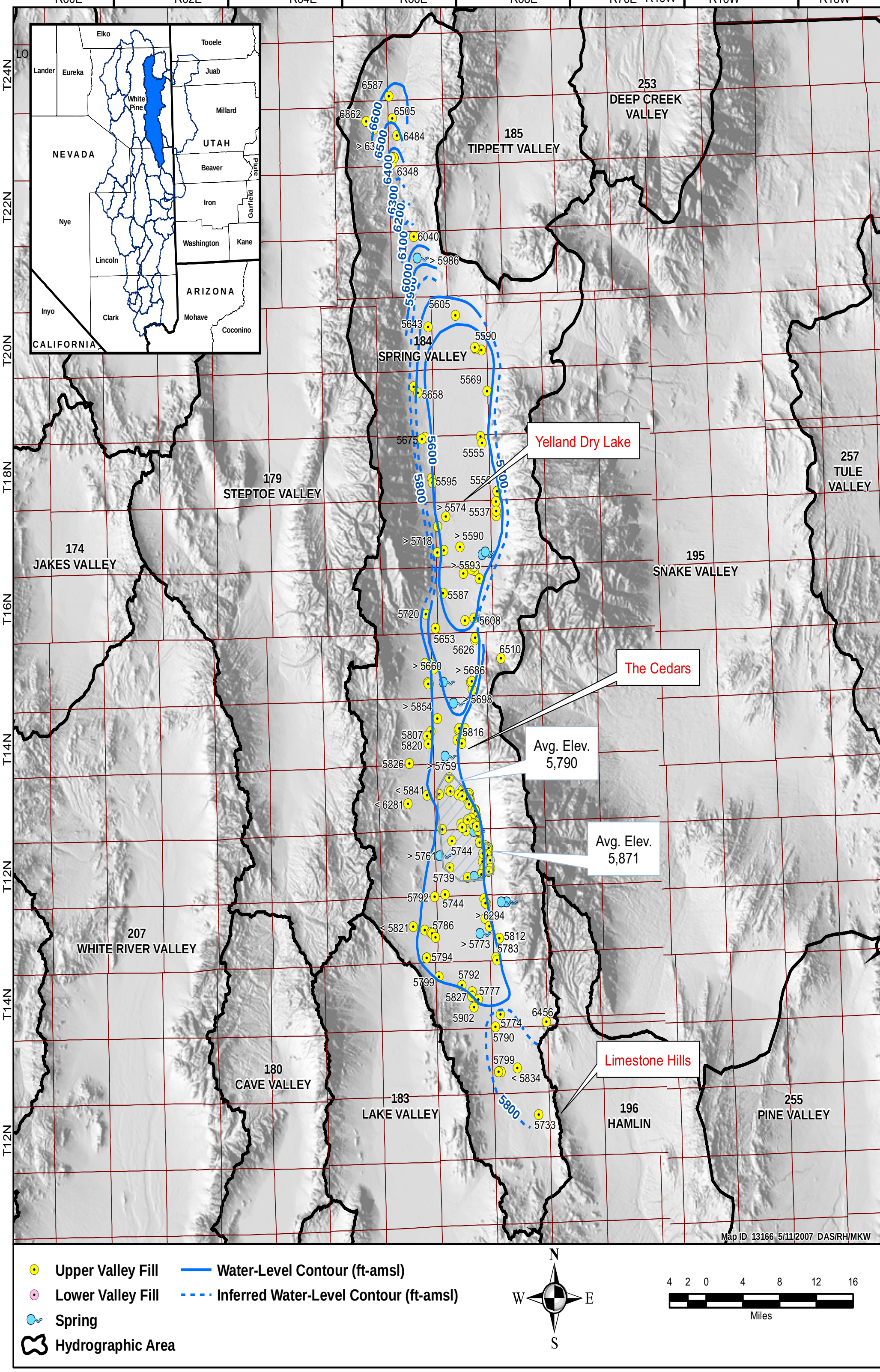


Figure C.1-16
Spring Valley (HA 184) Basin-Fill Composite Water-Level Map

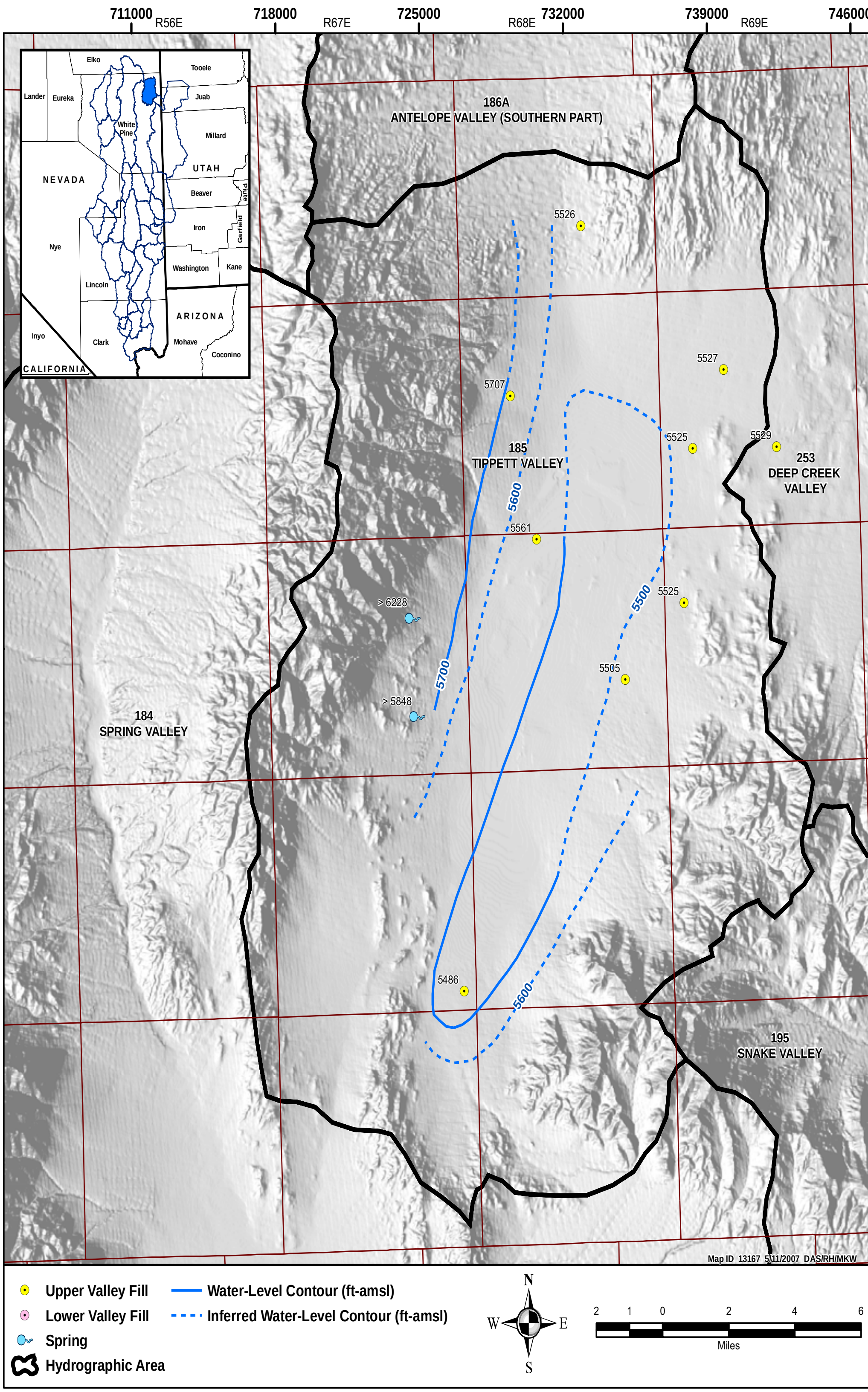


Figure C.1-17
Tippett Valley Basin-Fill Composite Water-Level Map

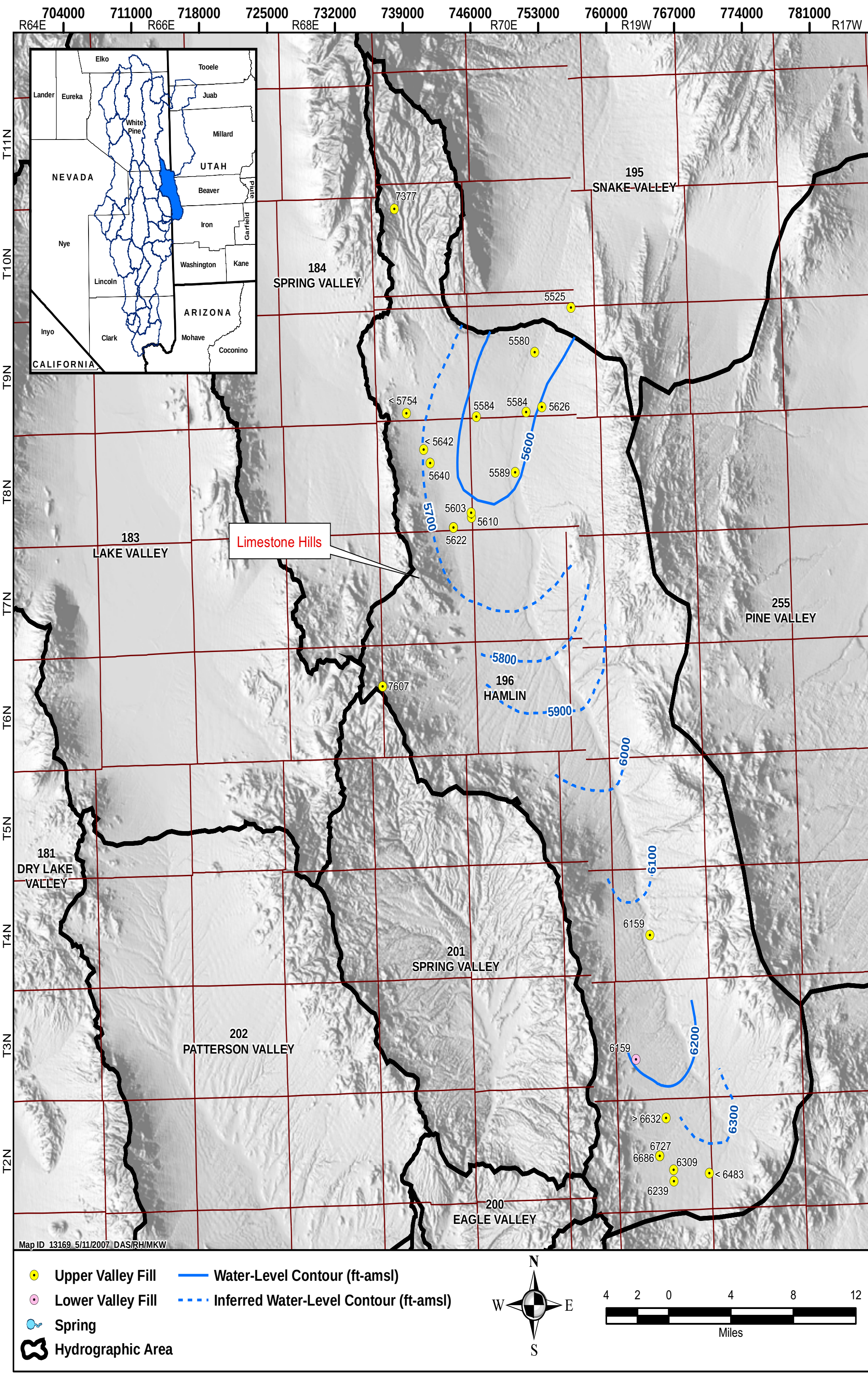


Figure C.1-18
Hamlin Valley Basin-Fill Composite Water-Level Map

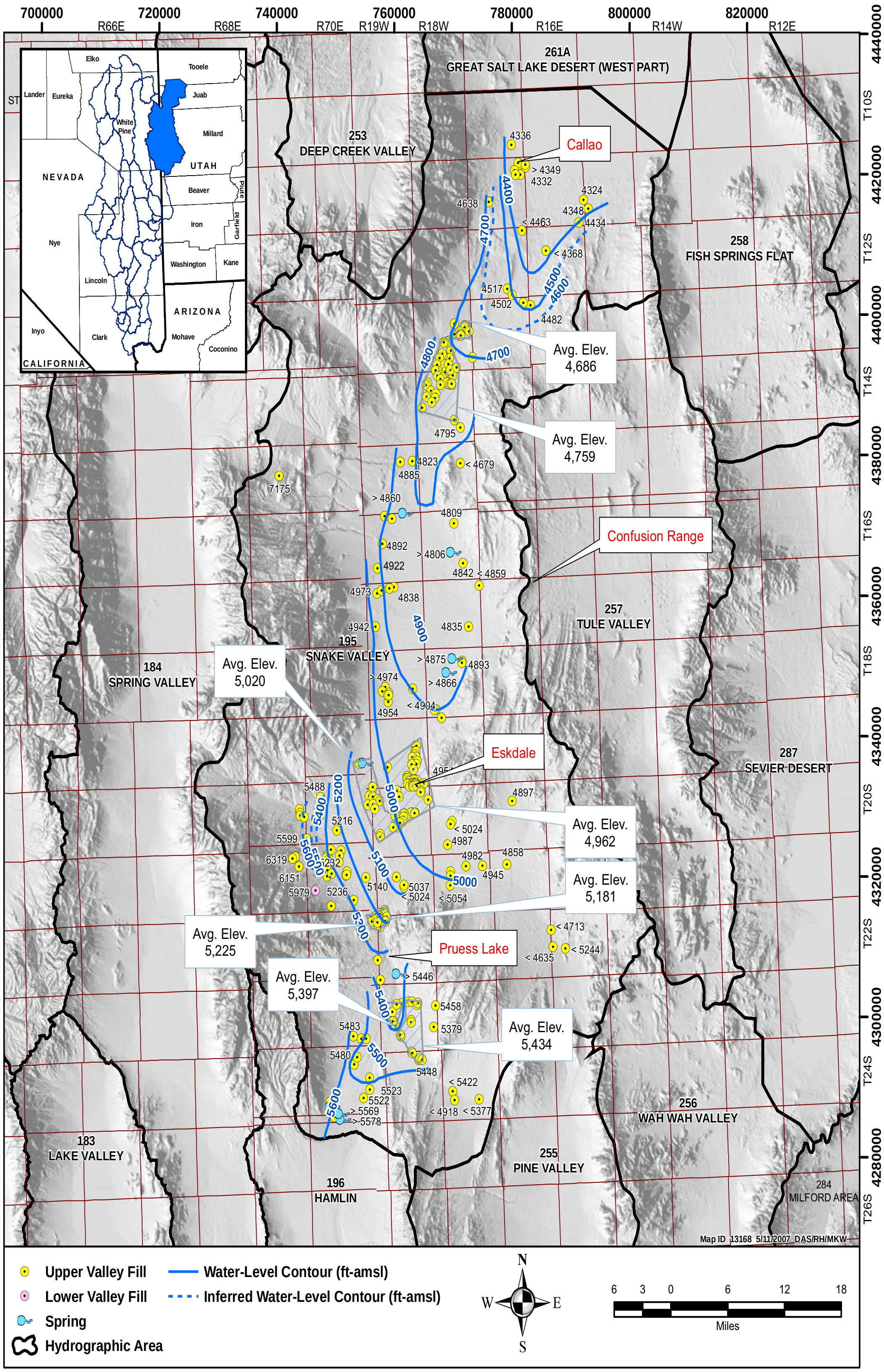


Figure C.1-19
Snake Valley Basin-Fill Composite Water-Level Map

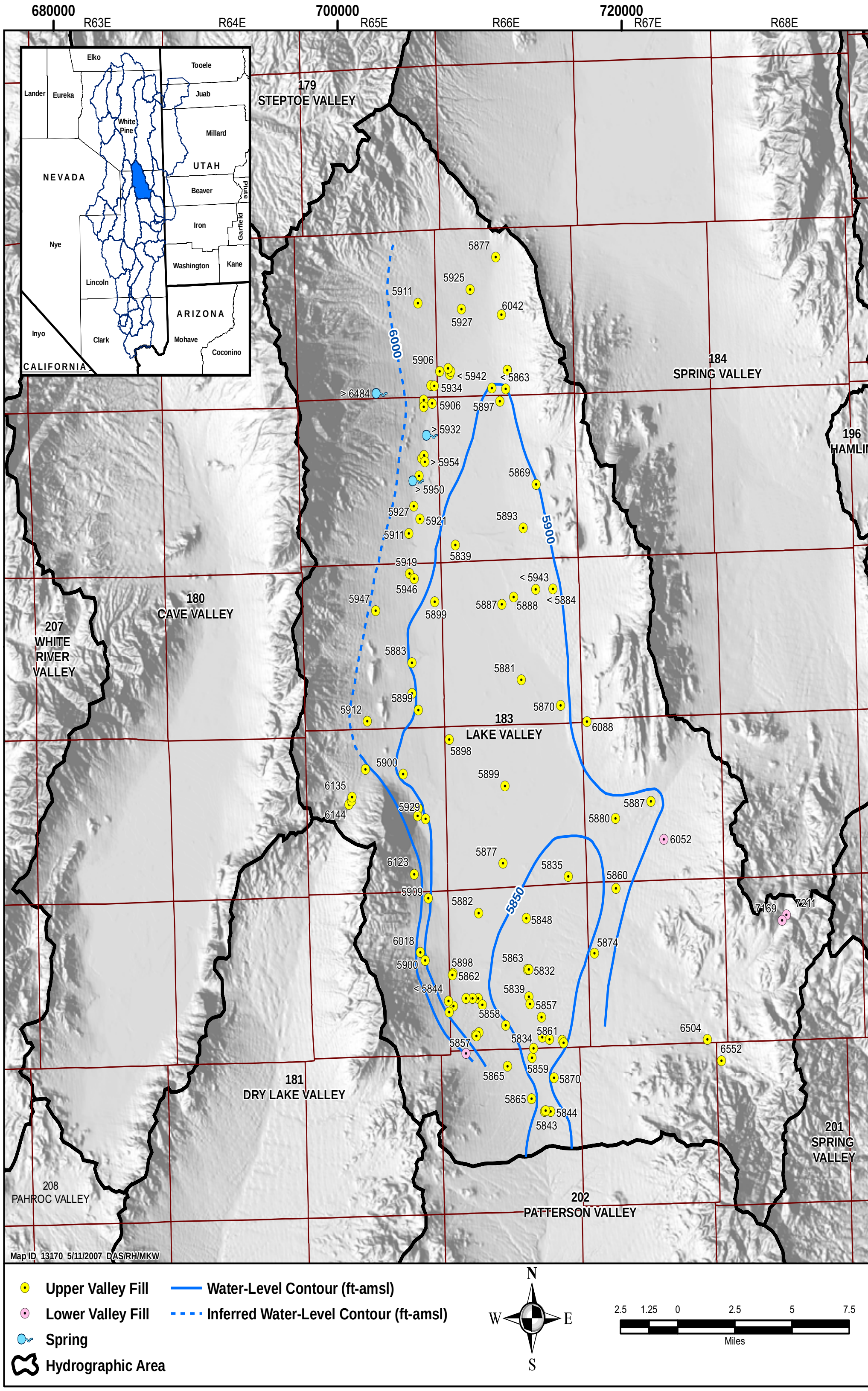


Figure C.1-20
Lake Valley Basin-Fill Composite Water-Level Map

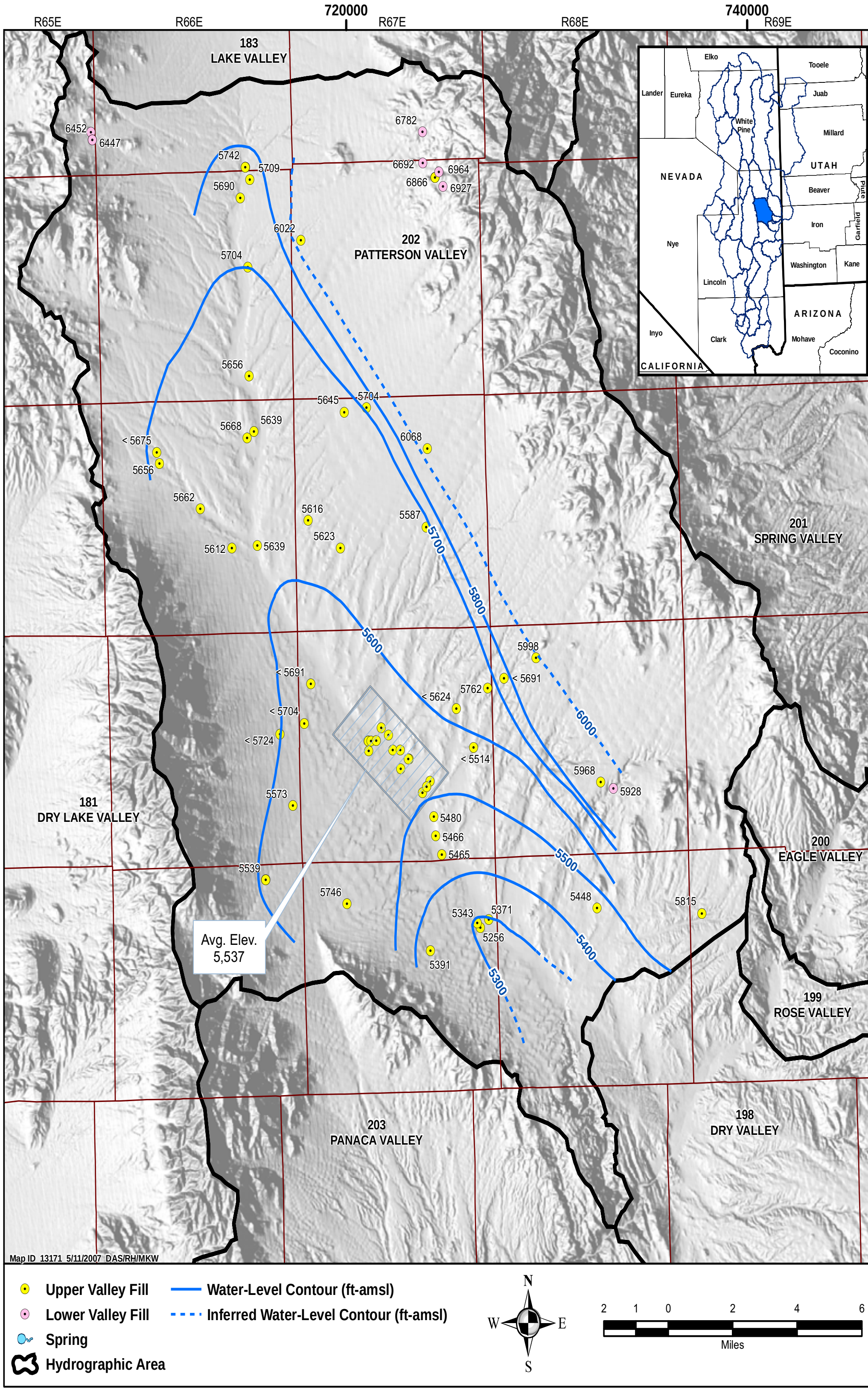


Figure C.1-21
Patterson Valley Basin-Fill Composite Water-Level Map

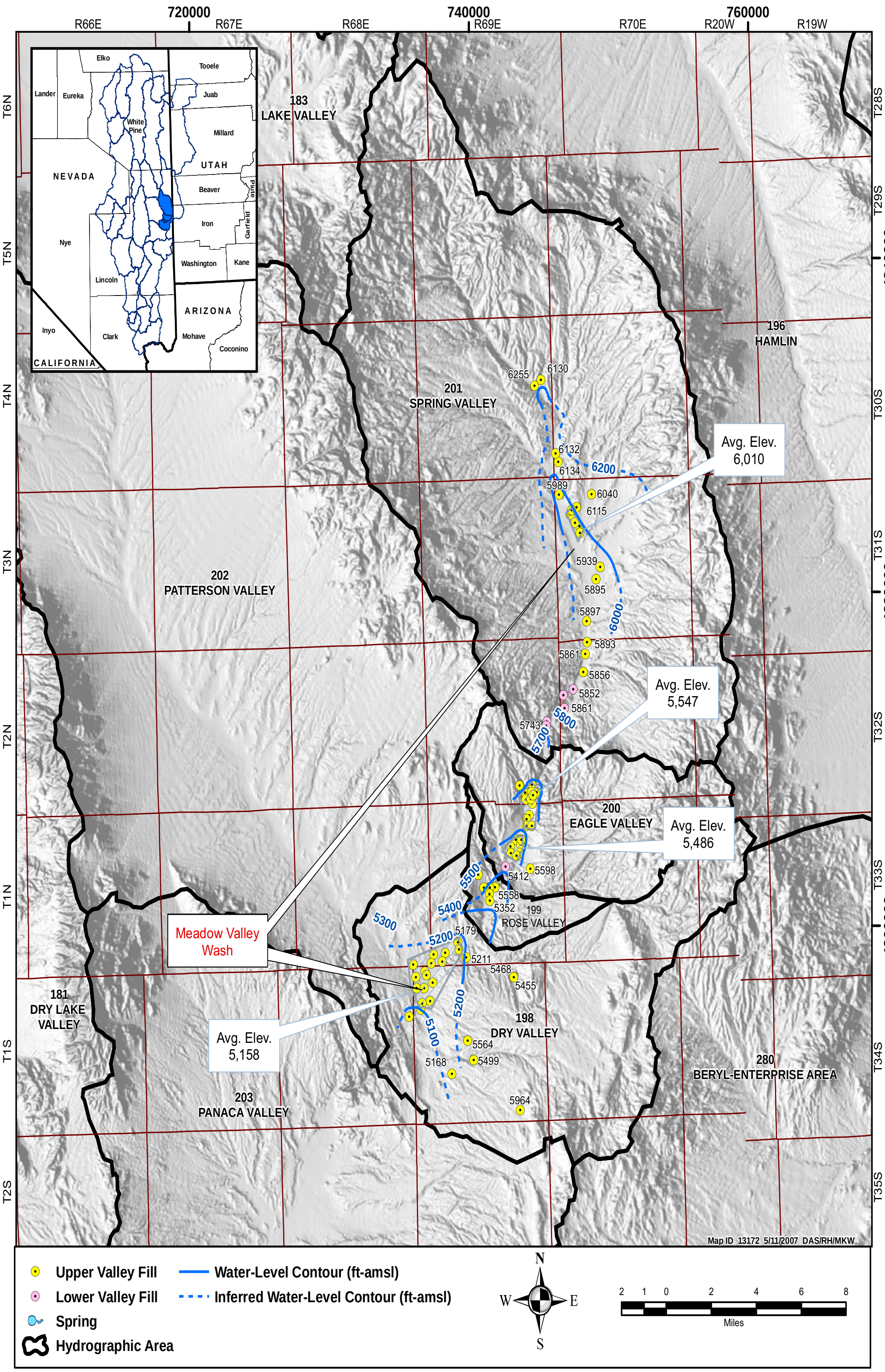


Figure C.1-22
Spring (HA 201), Eagle, Rose, and Dry Valleys Basin-Fill Composite Water-Level Map

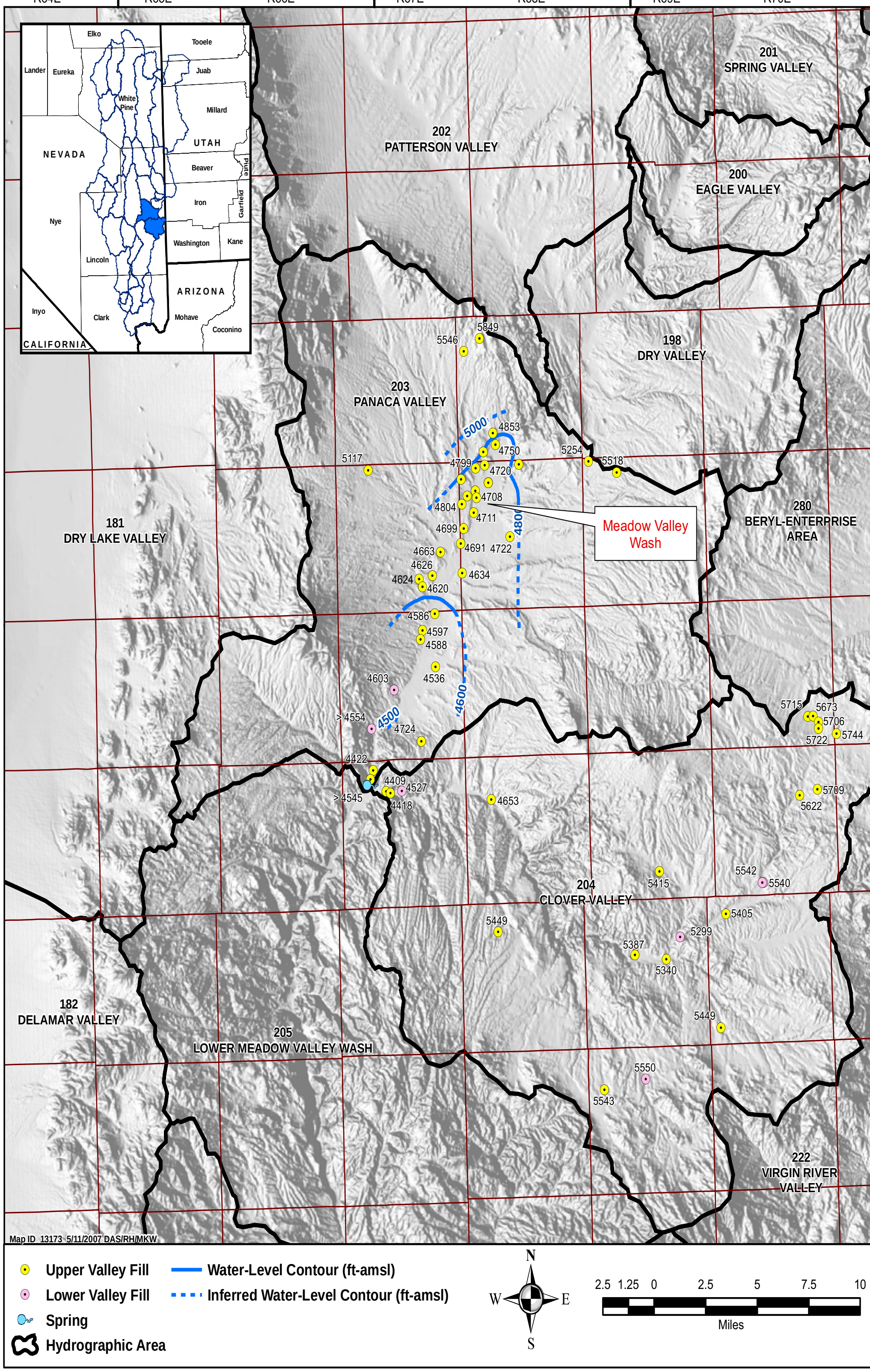


Figure C.1-23
Panaca and Clover Valleys Basin-Fill Composite Water-Level Map

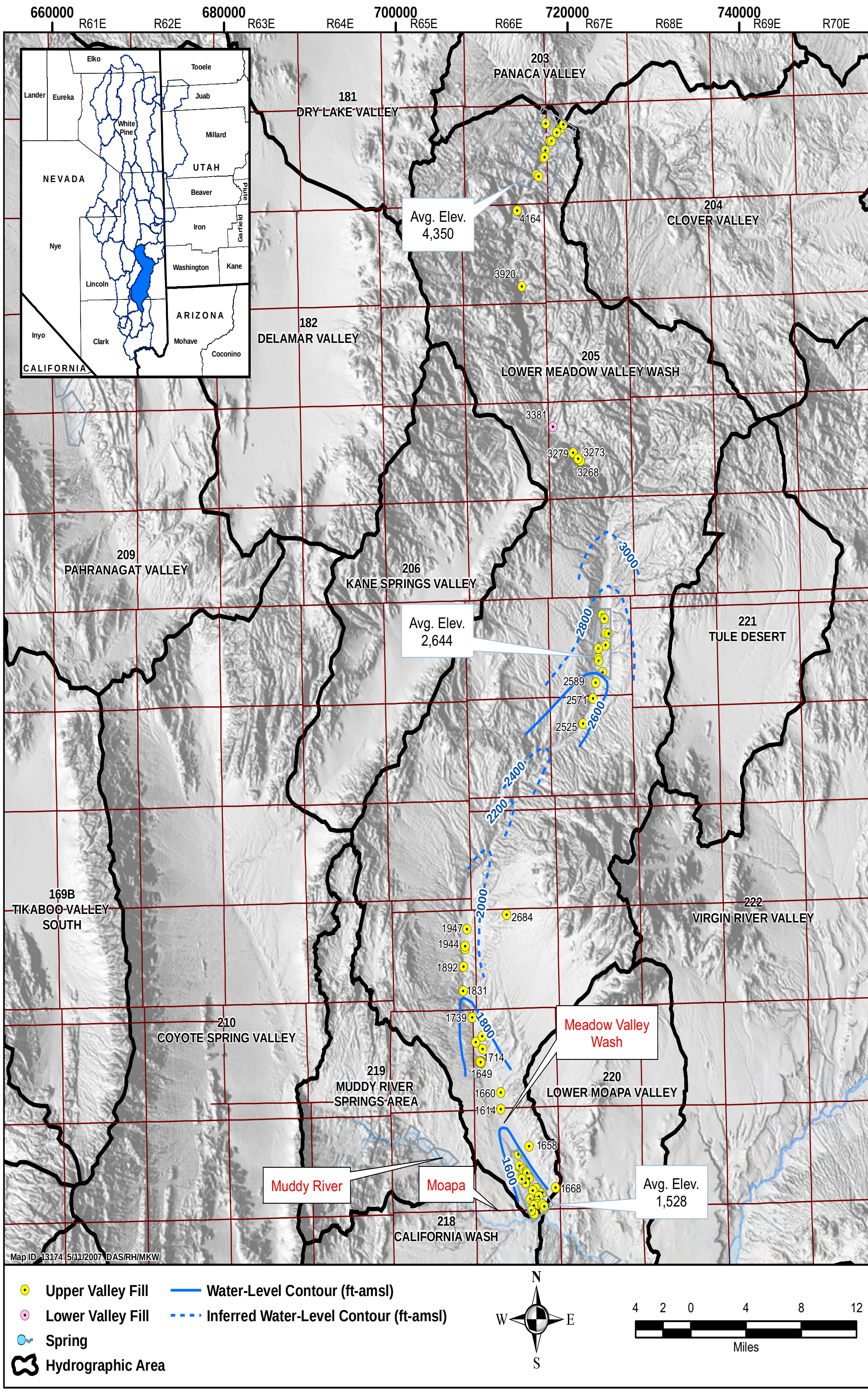


Figure C.1-24
Lower Meadow Valley Wash Basin-Fill Composite Water-Level Map

Appendix D

Depth to Groundwater Maps

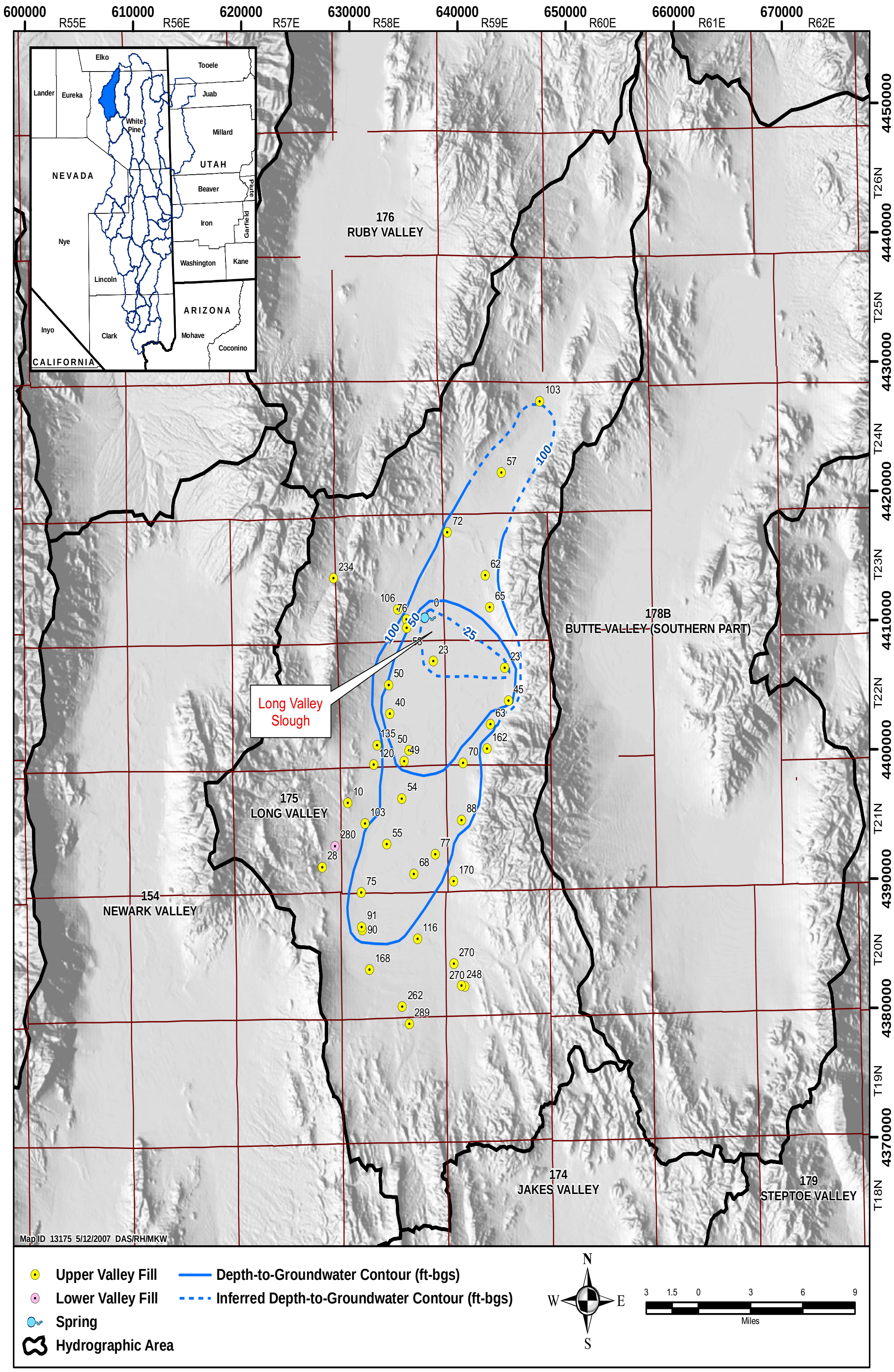


Figure D.1-1
Long Valley Depth to Groundwater

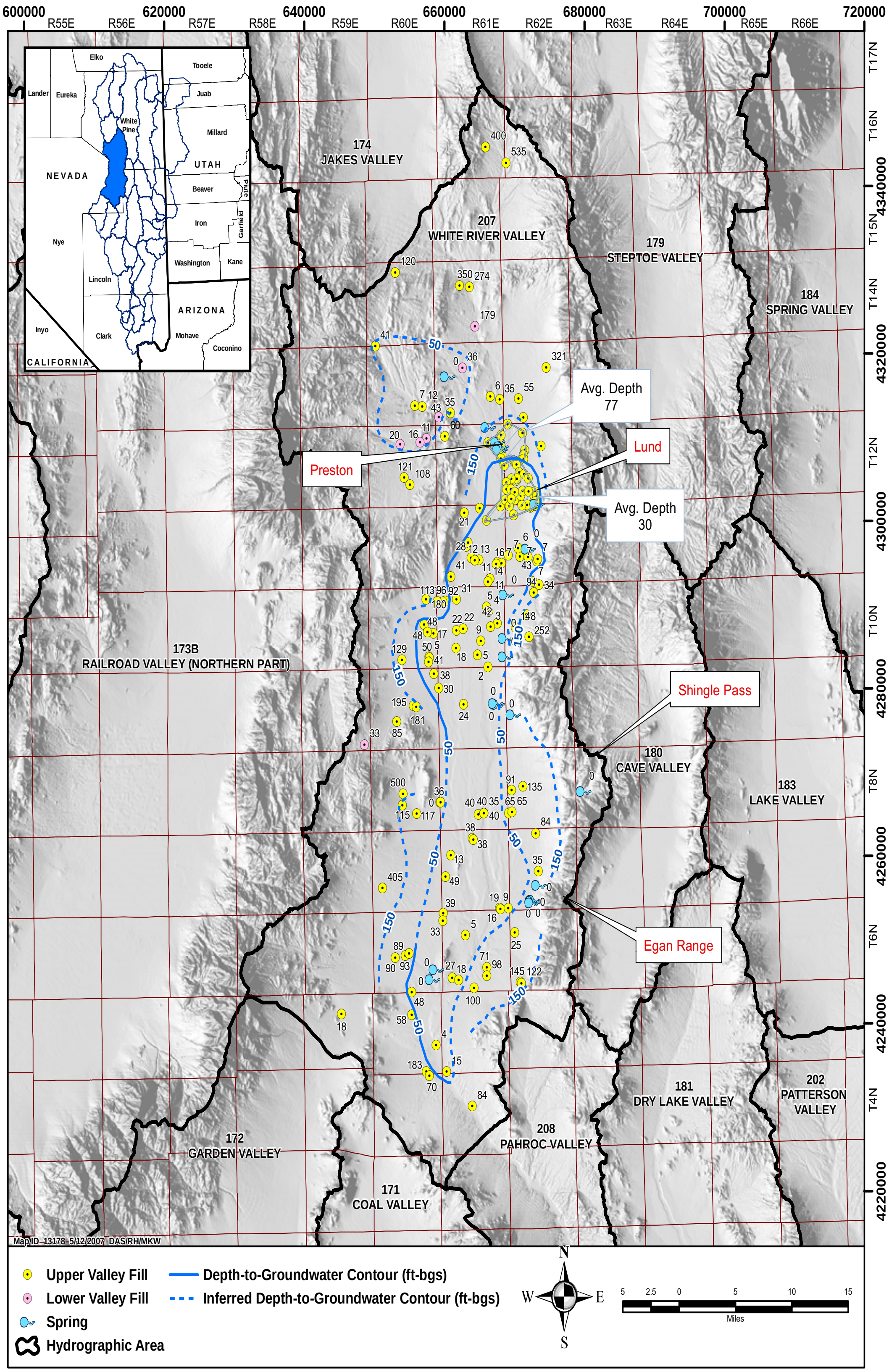


Figure D.1-2
White River Valley Depth to Groundwater

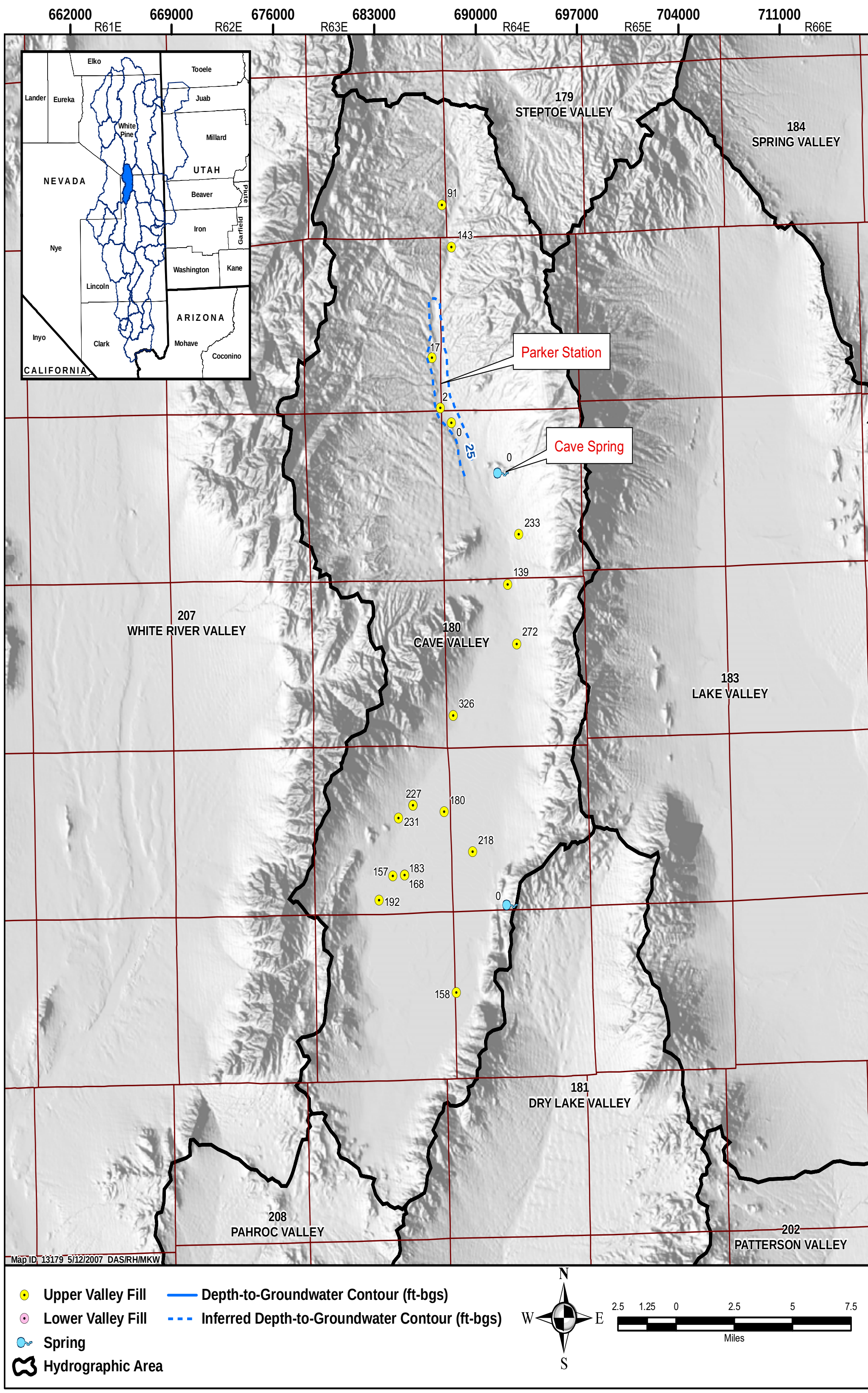


Figure D.1-3
Cave Valley Depth to Groundwater

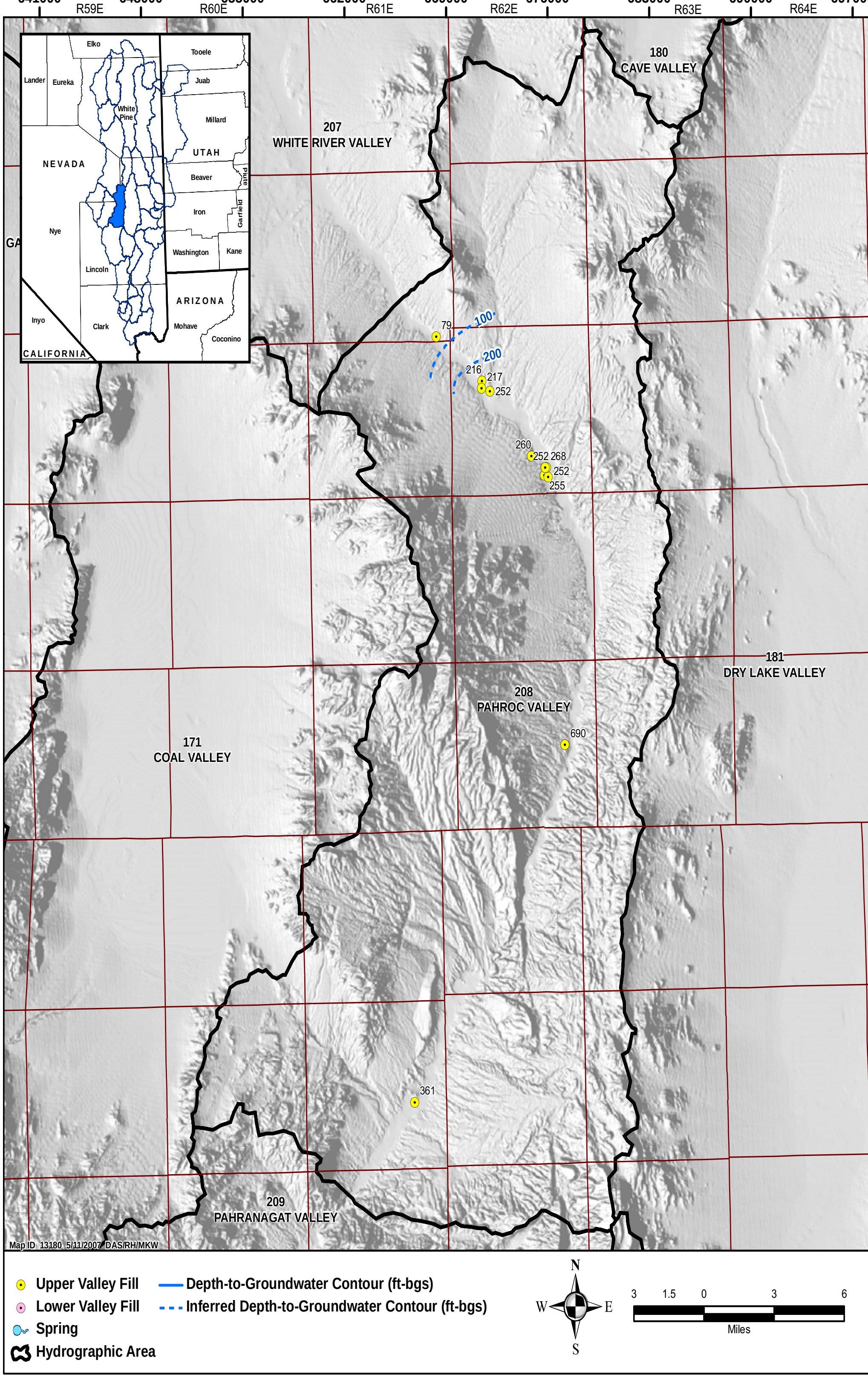


Figure D.1-4
Pahroc Valley Depth to Groundwater

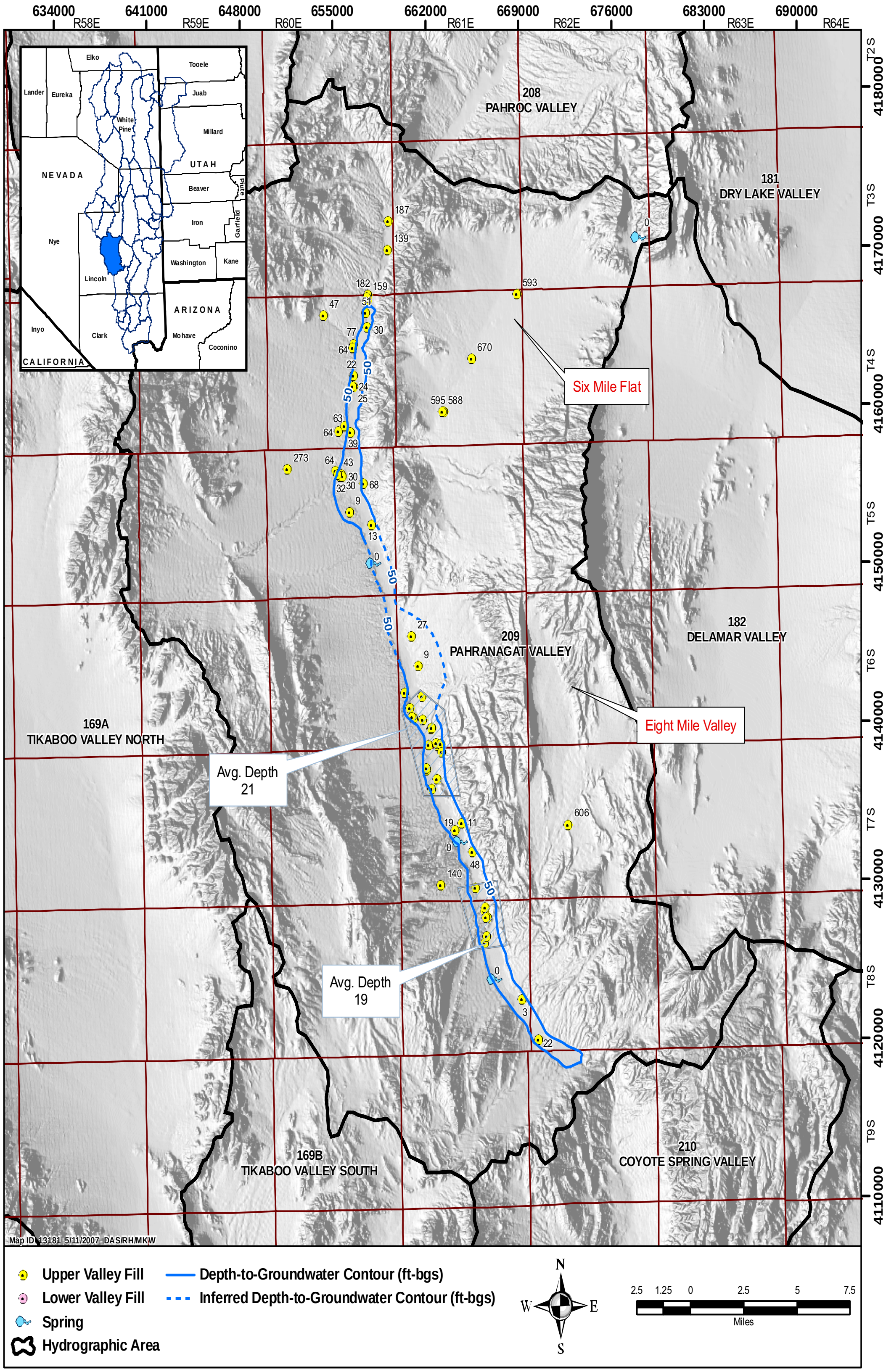


Figure D.1-5
Pahranagat Valley Depth to Groundwater

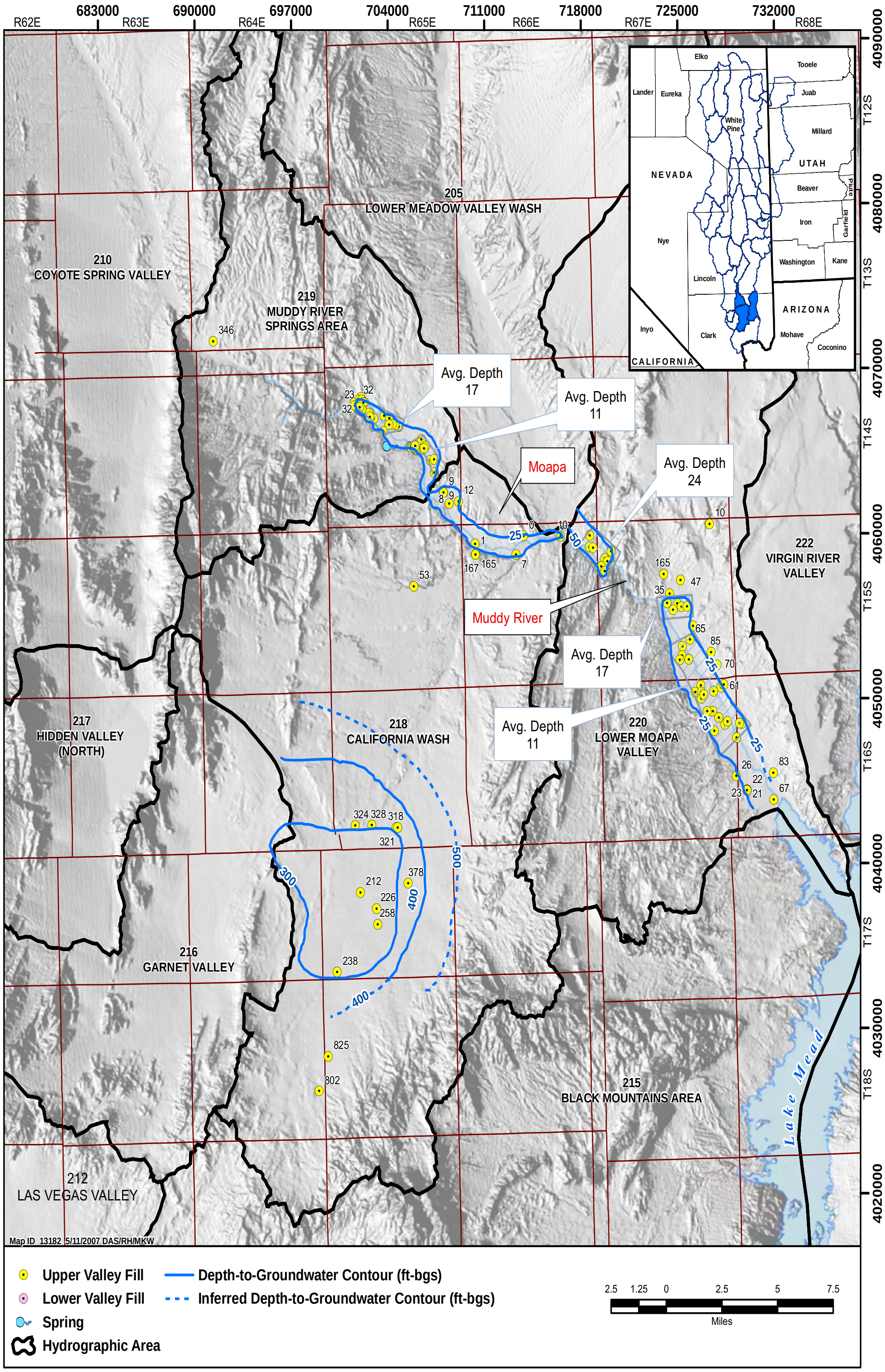


Figure D.1-6
Muddy River, California Wash, and Lower Moapa Valleys Depth to Groundwater

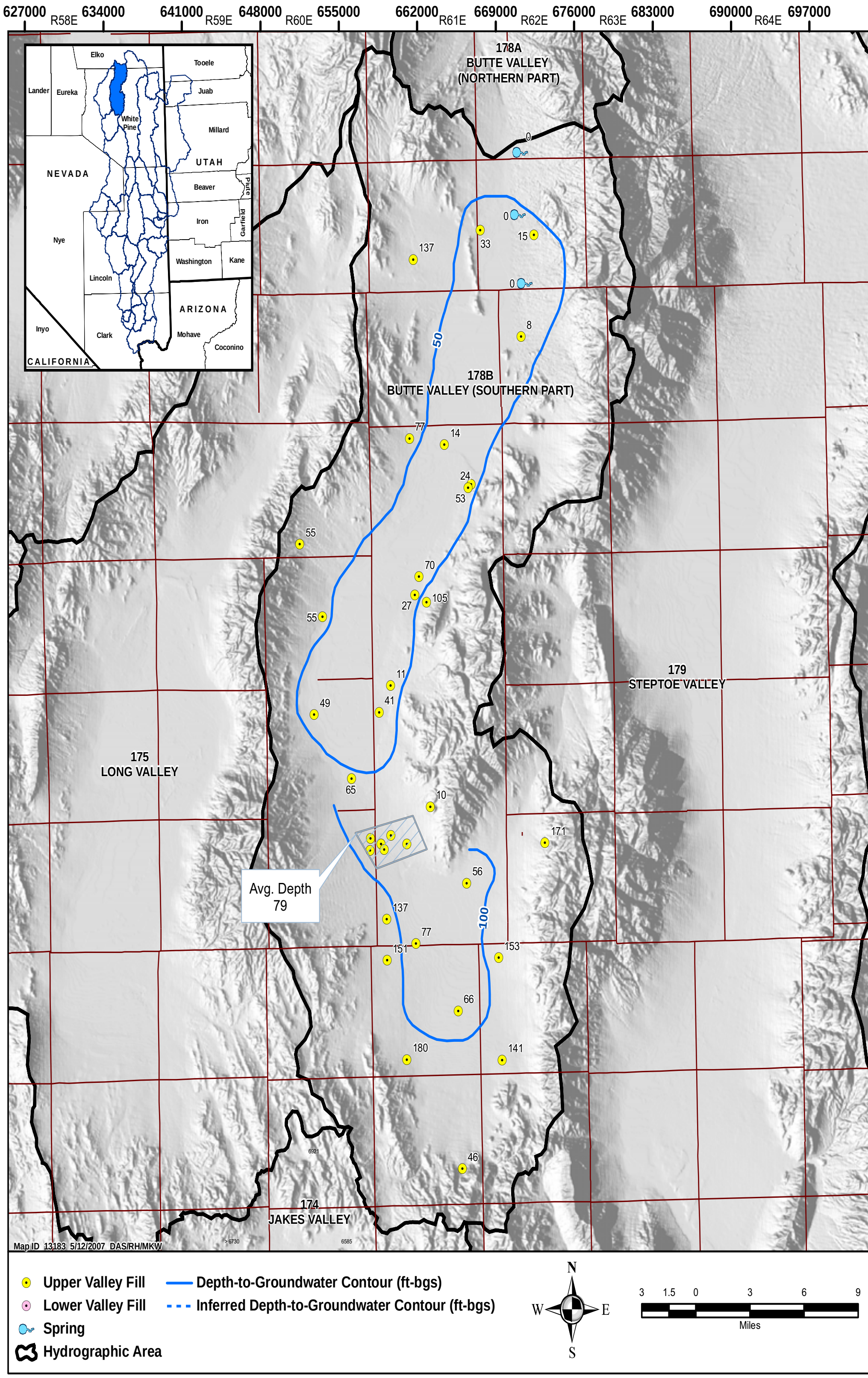


Figure D.1-7
Butte Valley South Depth to Groundwater

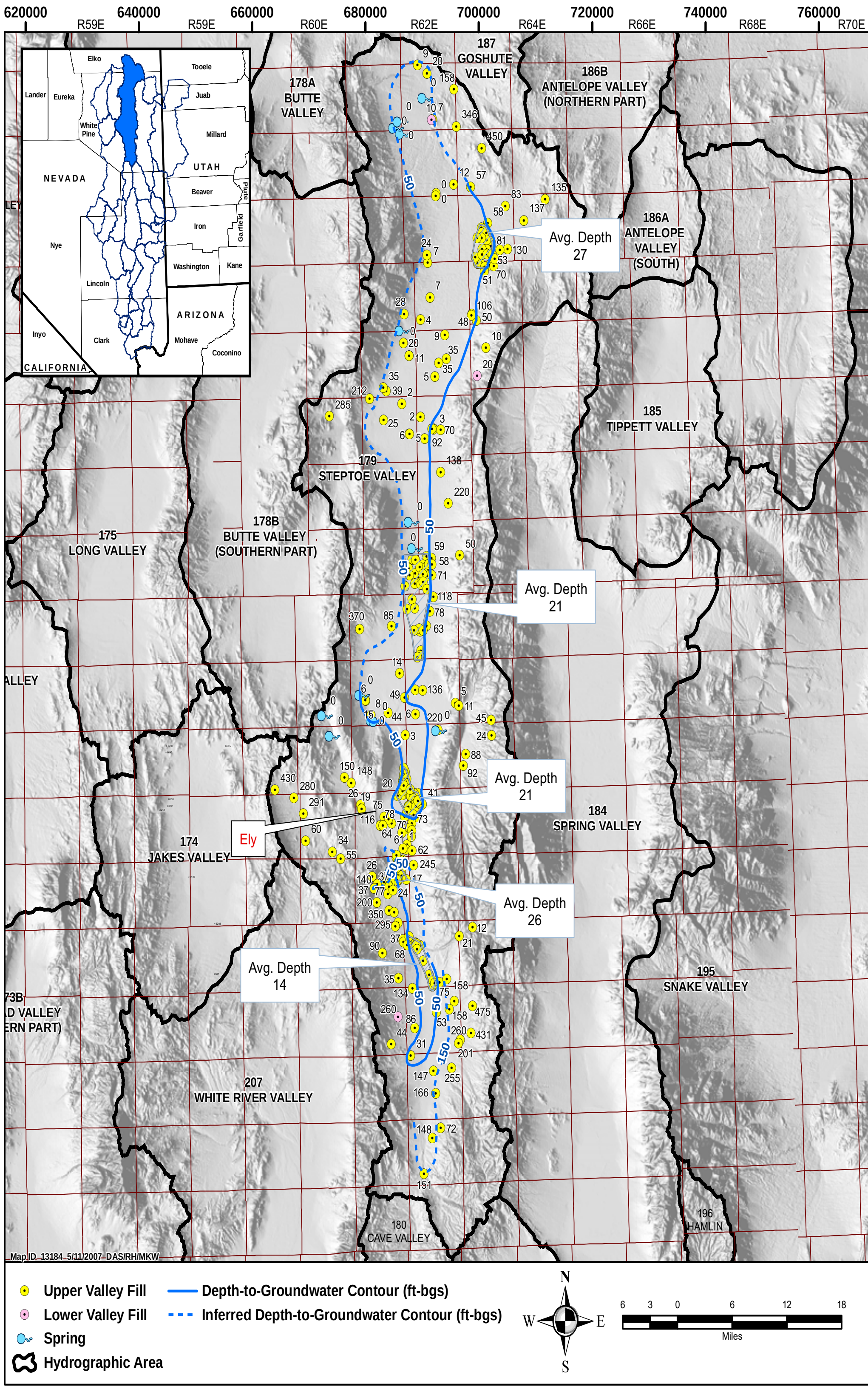


Figure D.1-8
Steptoe Valley Depth to Groundwater

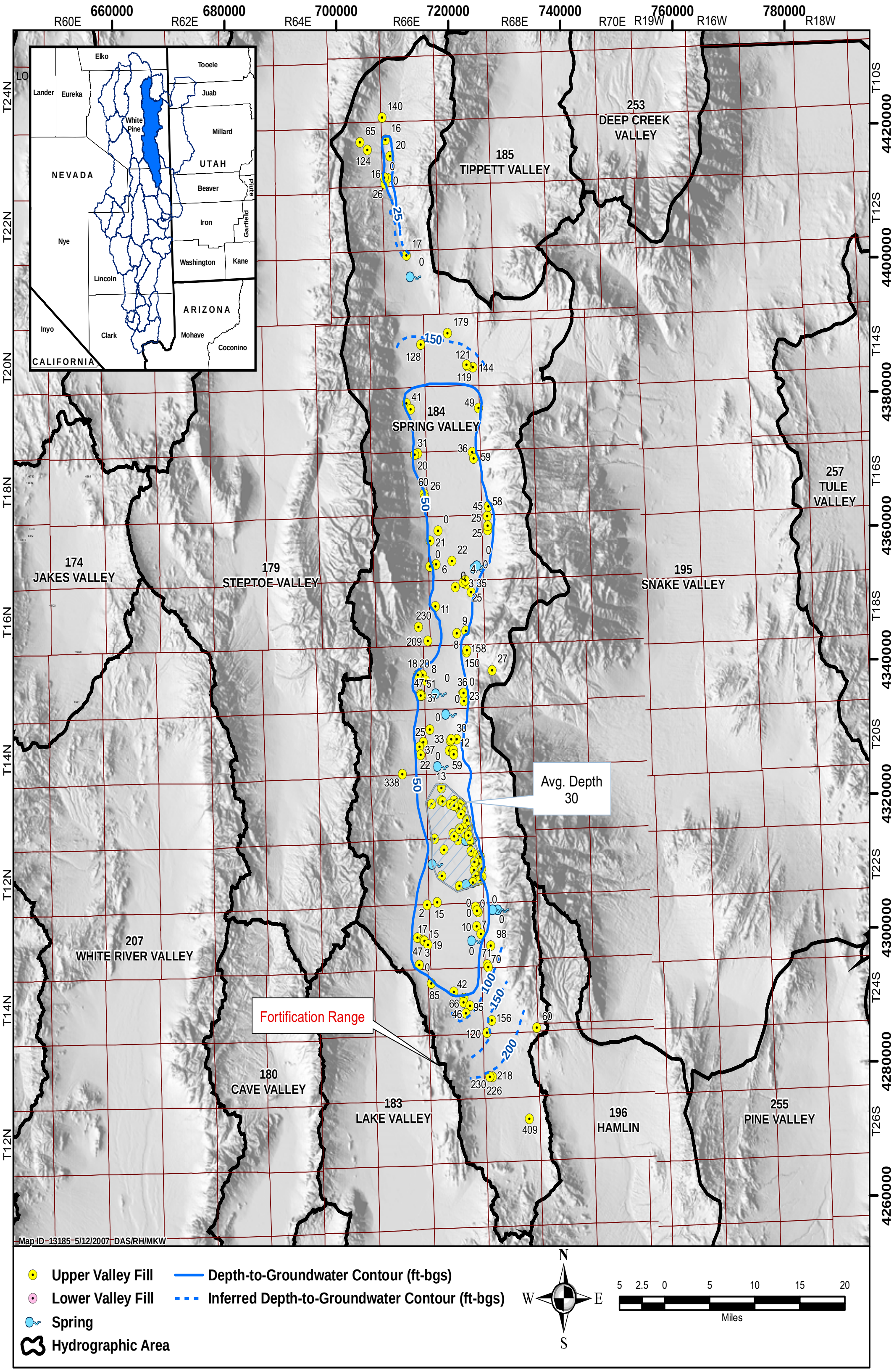


Figure D.1-9
Spring Valley (HA 184) Depth to Groundwater

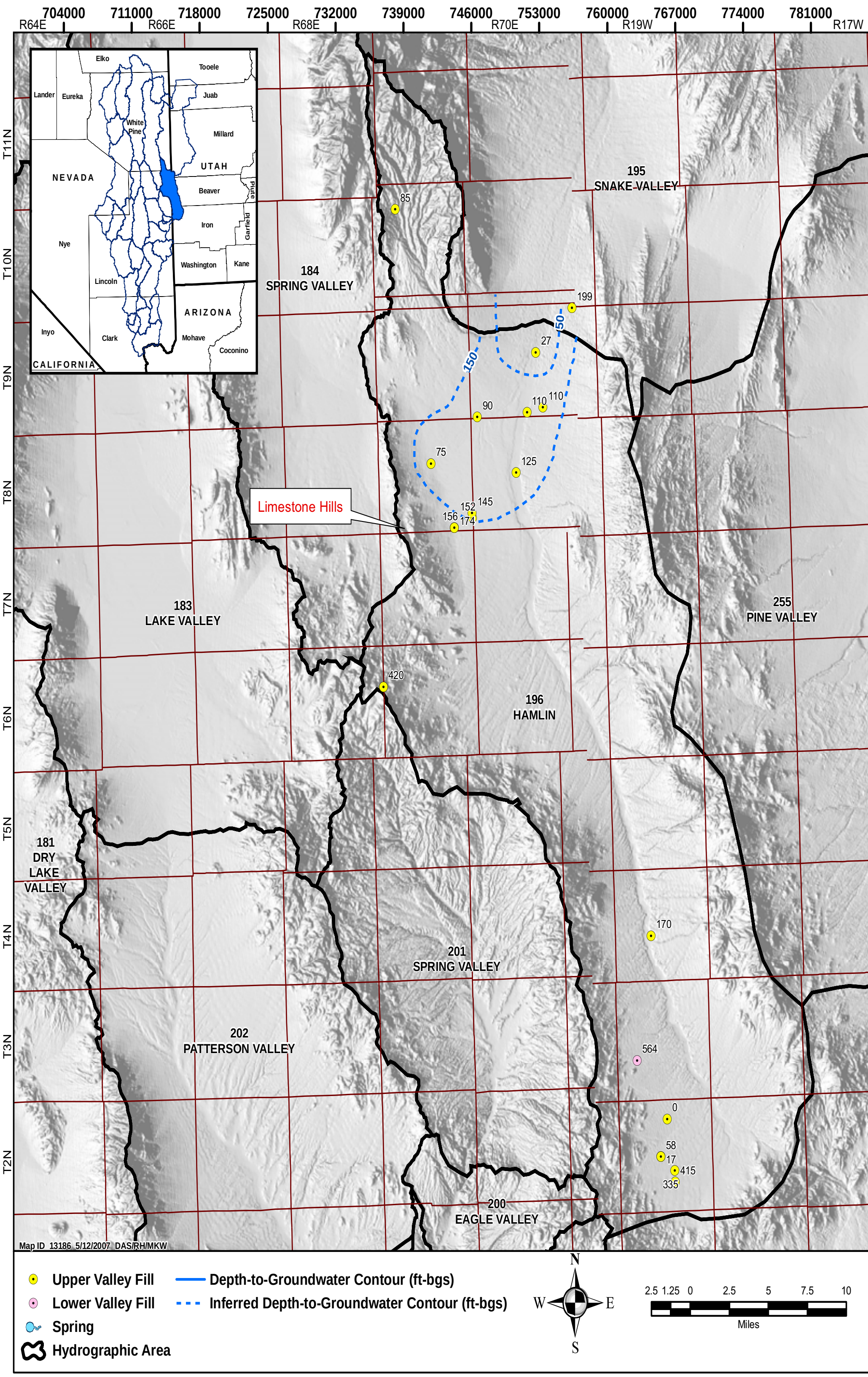


Figure D.1-10
Hamlin Valley Depth to Groundwater

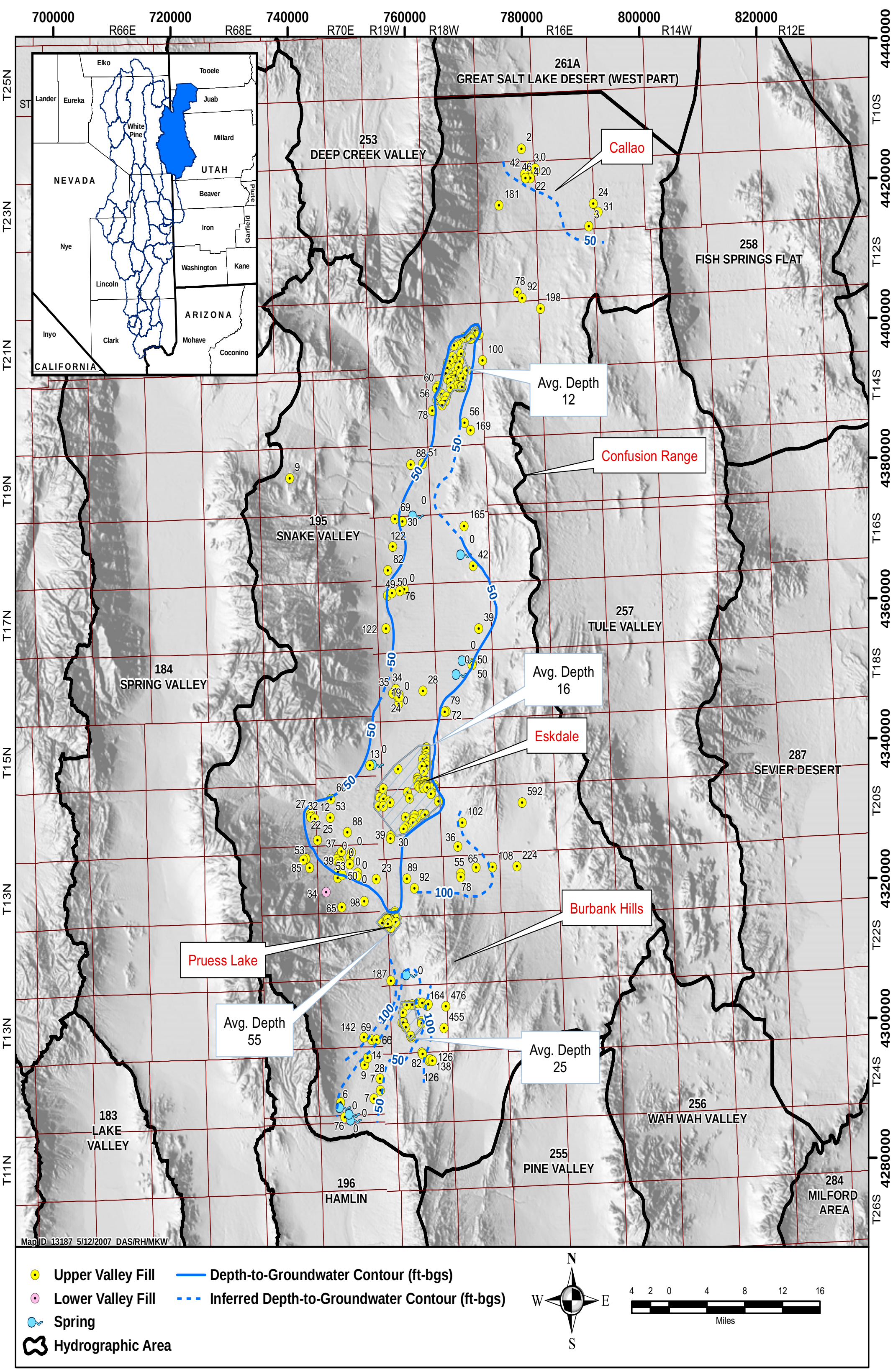


Figure D.1-11
Snake Valley Depth to Groundwater

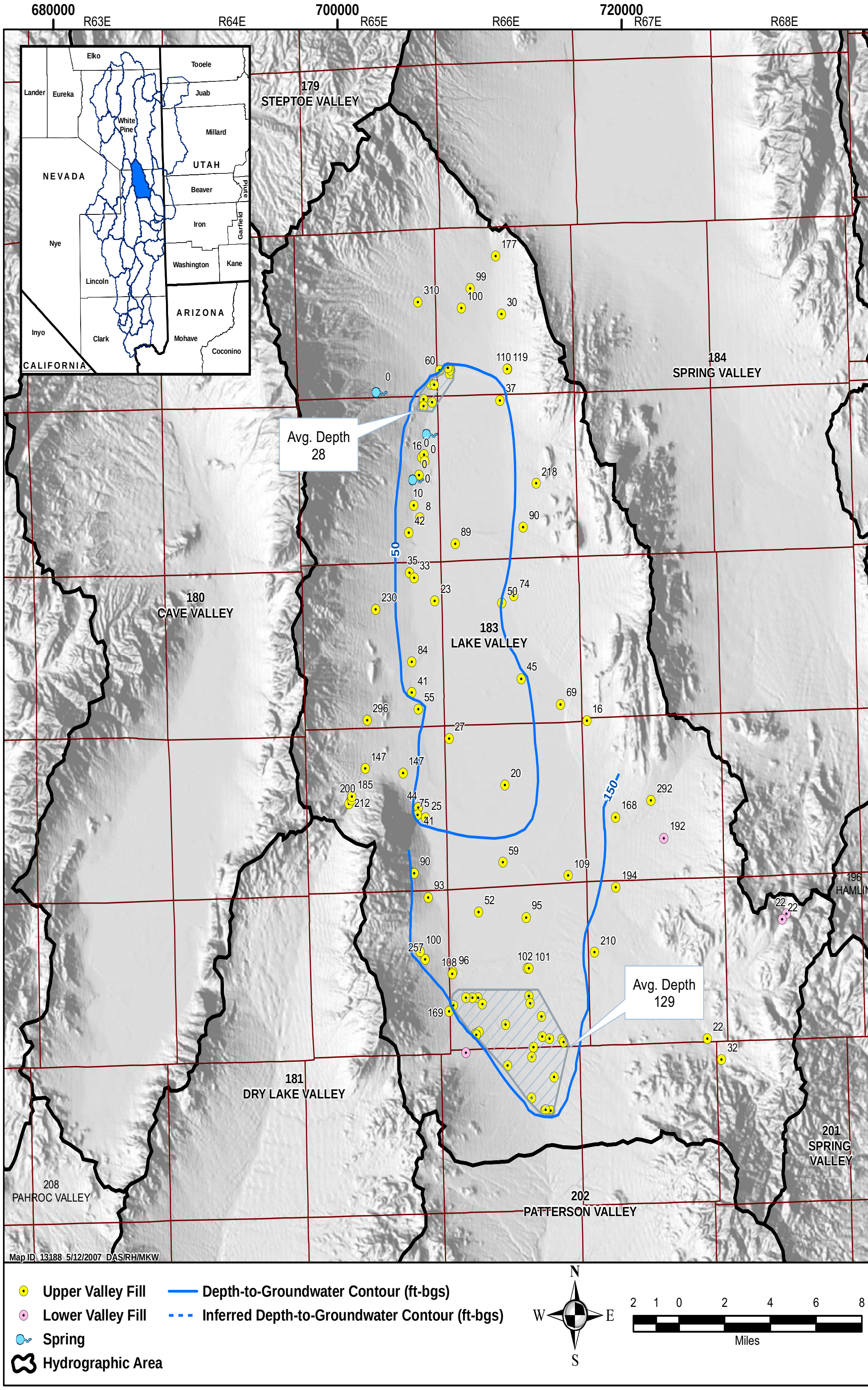


Figure D.1-12
Lake Valley Depth to Groundwater

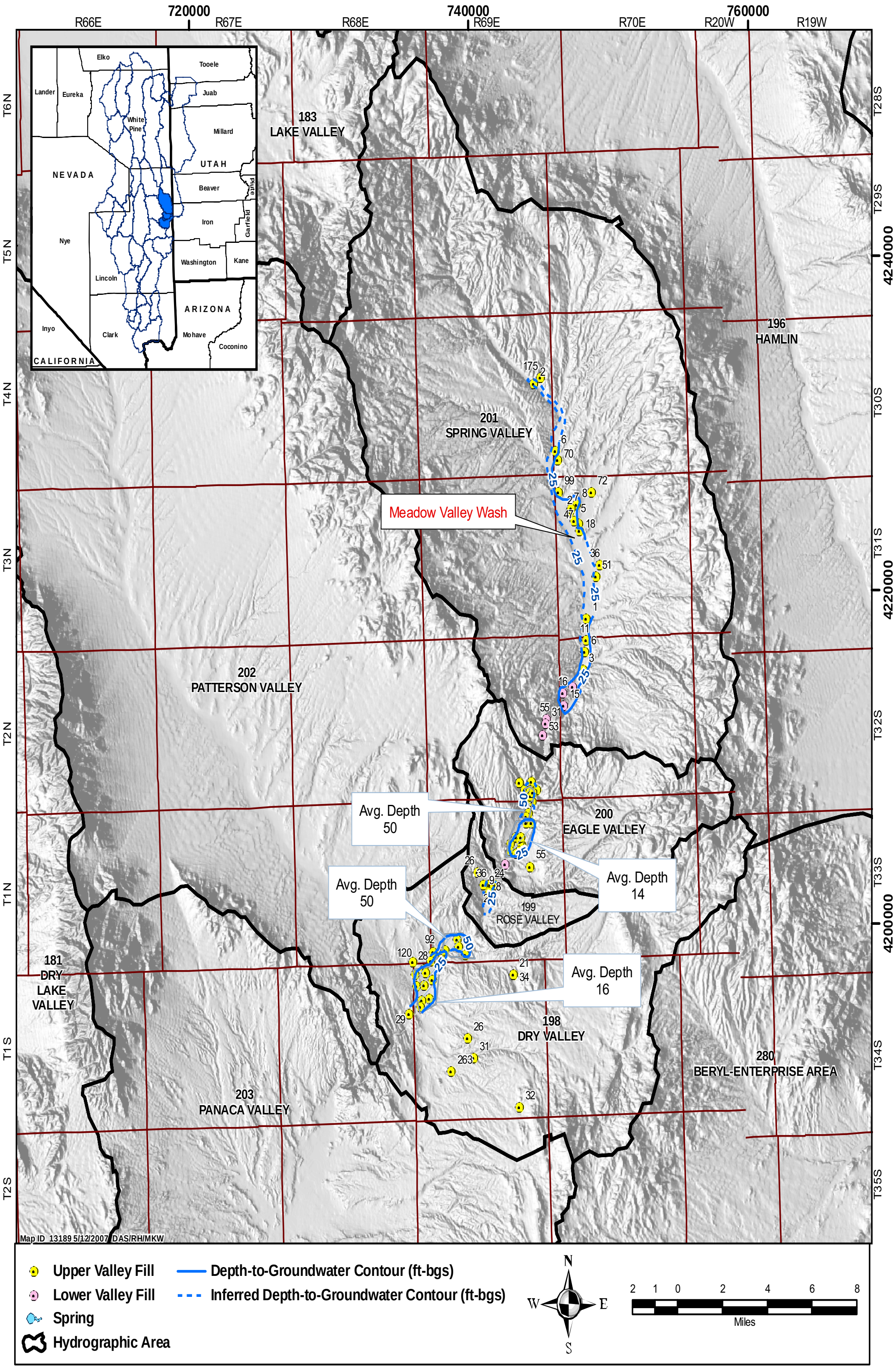


Figure D.1-13
Spring (HA 201), Eagle, Rose, and Dry Valleys Depth to Groundwater

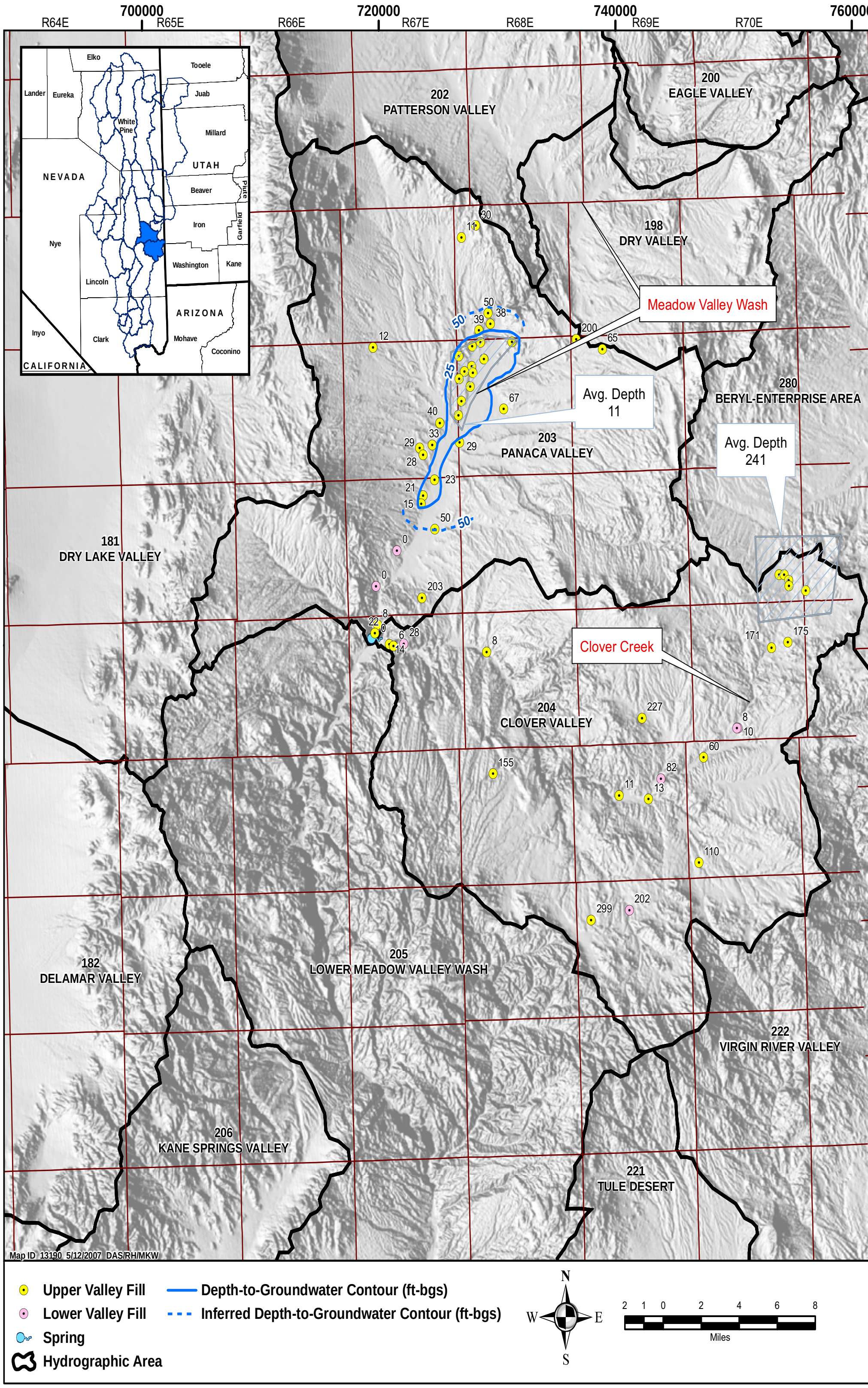


Figure D.1-14
Panaca and Clover Valleys Depth to Groundwater

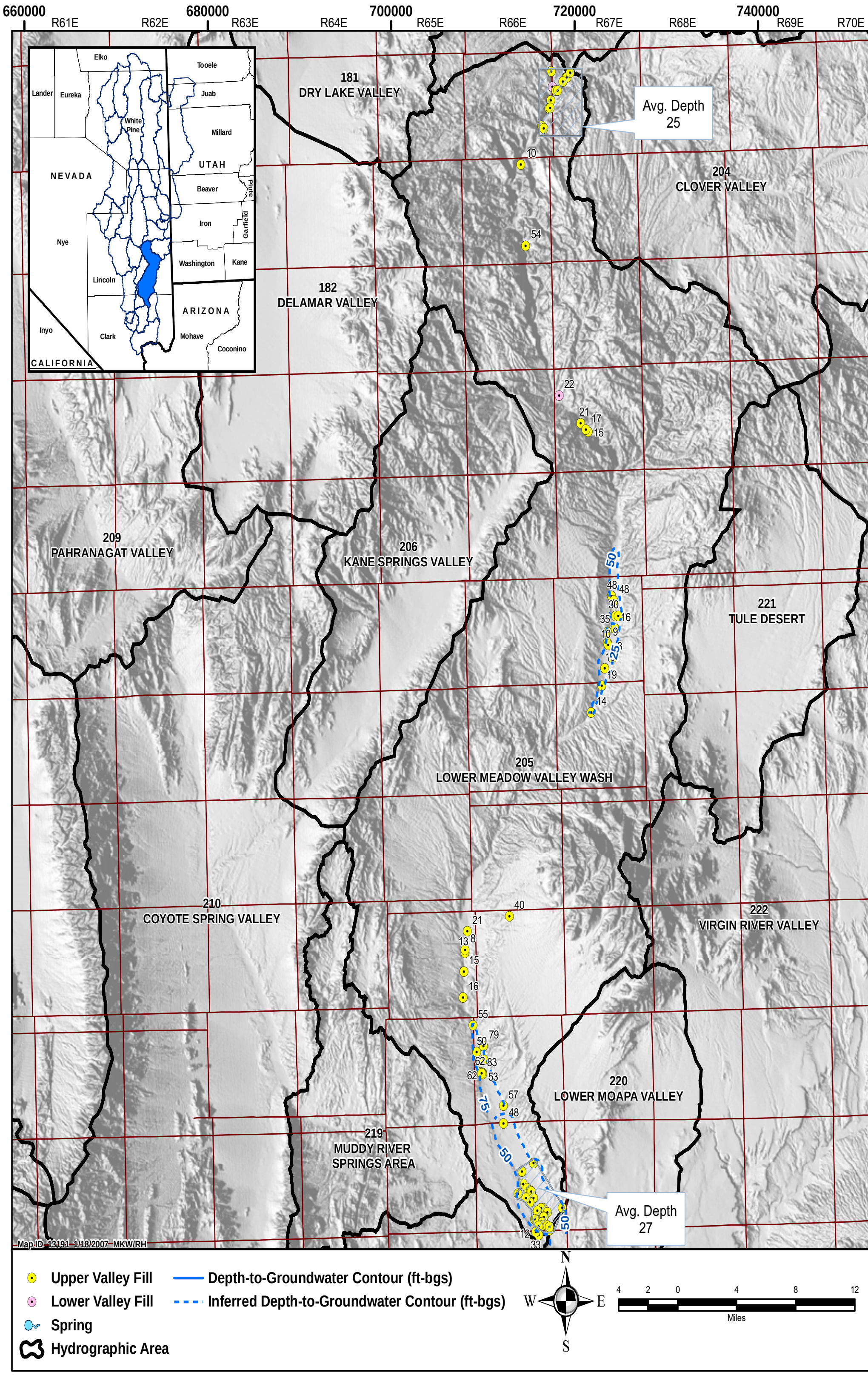


Figure D.1-15
Lower Meadow Valley Wash Depth to Groundwater

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Appendix E

Carbonate-Rock Aquifer Water-Level Map

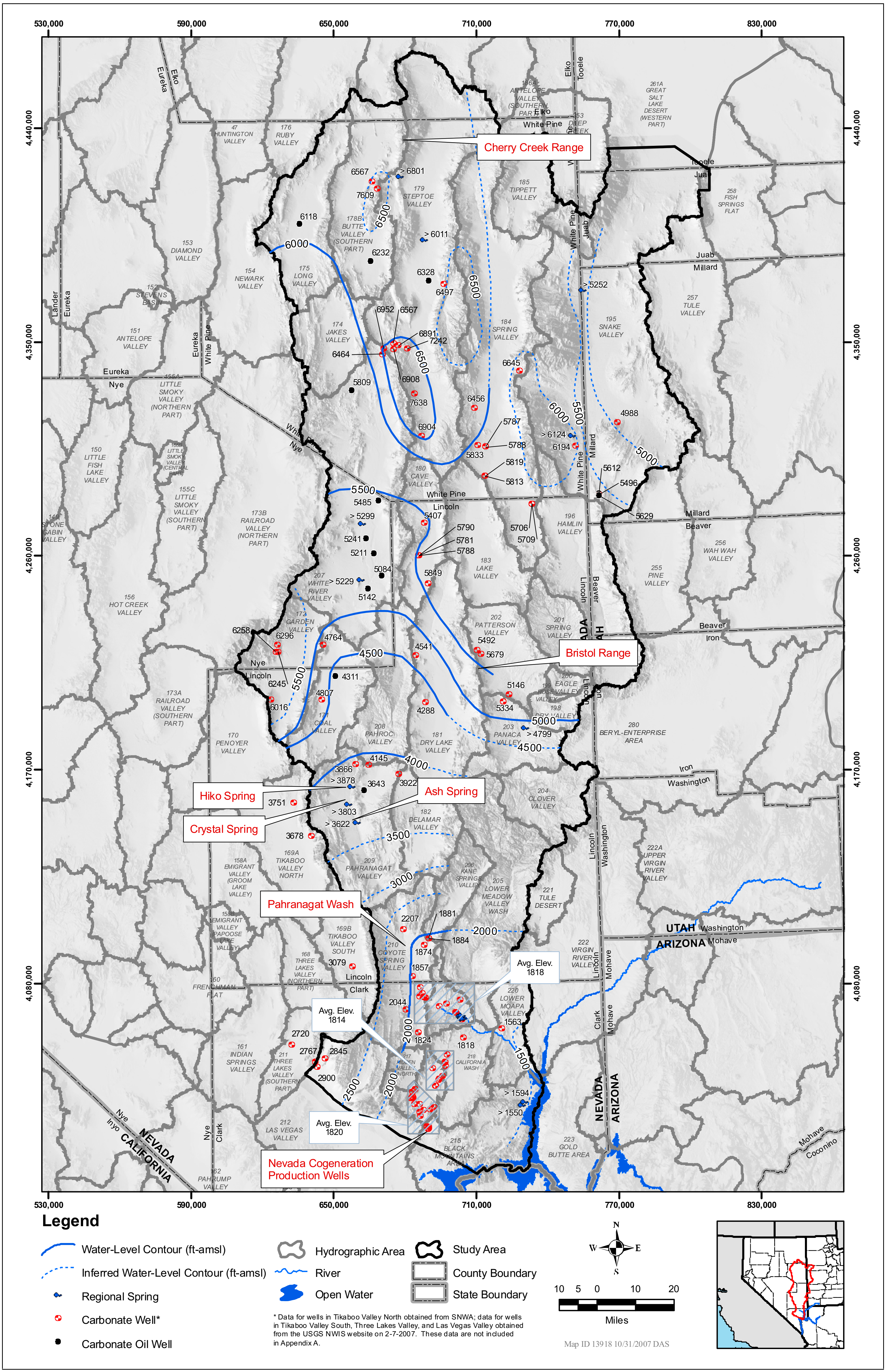

Figure E.1-1
Carbonate-Rock Aquifer Water-Level Map

Appendix F

Well and Spring Numbering System and Hydrographic Area Boundaries

F.1.0 WELL AND SPRING NUMBERING SYSTEM

F.1.1 Introduction

This report uses Local Numbers to describe both well and spring locations, based on the Public Land Survey System that consists of Township, Range, Section, and subdivisions of a section. This study covers areas in both Nevada and Utah. Both states, however, have a slightly different means of locating wells and springs. When a site is in Nevada, a Nevada local number was assigned, and for a site in Utah, a Utah local number was assigned. An example of both methods can be found below.

F.1.2 Nevada Local Number

The first part of the Local Number in Nevada is based on the hydrographic area number as defined by Rush (1968). This is followed by the Township, Range, and Section numbers followed by a sequence of up to four letters (A, B, C, D). In Nevada, all references of Township and Range are related to the Mount Diablo Base Line and Meridian. Townships are described as either north or south of the Mount Diablo Base Line and Ranges are described as east or west of the Mount Diablo Meridian. Every Range in Nevada is east of the Mount Diablo Meridian. The Section number follows the Township and Range. Lastly, the Section number is followed by up to four letters indicating the quarter section, quarter-quarter section, quarter-quarter-quarter section, and quarter-quarter-quarter-quarter section. The quarters are designated by the letters as follows: A, northeast; B, northwest; C, southwest; and D, southeast.

Example: 209 N05 E64 26AACC

F.1.3 Utah Local Number

The first part of the Local Number in Utah is based on the four quadrants that Utah is divided into by the intersection of the Salt Lake Base Line and the Salt Lake Meridian. These are labeled by capital letters A to D, in a counter clockwise direction starting in the northeast corner of the state. This is followed by the Township and Range that the site is located in. The number after the parentheses indicates the Section and is followed by up to three letters indicating the quarter section, quarter-quarter section, and the quarter-quarter-quarter section. The quarters are designated by lowercase letters as follows: A, northeast; B, northwest; C, southwest; and D, southeast.

Example: (C-28-10)29ADD

F.2.0 HYDROGRAPHIC AREA BOUNDARIES

The hydrographic area boundaries used in this report are those that were cooperatively agreed upon by the USGS and the NDWR for water planning and management purposes in Nevada. The complete listing of Nevada's 256 Hydrographic Areas and Sub-Areas can be found on the Nevada Division of Water Planning's *Water Words Dictionary* website (NDWR, 2005). Some minor differences are present in boundaries published by other sources.

F.3.0 REFERENCES

NDWR, see Nevada Division of Water Resources.

Nevada Division of Water Resources, 2005, Nevada Division of Water Planning's, Water Words Dictionary, Dictionary as accessed at http://water.nv.gov/Water%20planning/dict-1/ww-index.htm during 2005 to 2006.

Rush, F.E., 1968, Index of Hydrographic Areas – Water Resources-Information Series Report 6, U.S. Geological Survey in cooperation with the State of Nevada Department of Conservation and Natural Resources, 38 p.