

Volume 6

Steady-State Hydraulic Head Data Set

Presentation to the Office of the Nevada State Engineer

Prepared by



SOUTHERN NEVADA
WATER AUTHORITY

June 2006

TABLE OF CONTENTS

List of Figures.....	iii
List of Plates.....	v
List of Tables	vii
List of Acronyms and Abbreviations	ix
1.0 Introduction.....	1-1
1.1 Purpose and Objective	1-1
1.2 General Approach.....	1-1
2.0 Data Compilation and Evaluation.....	2-1
2.1 Data Types	2-1
2.2 Methods of Measurement	2-2
2.2.1 Land-Surface Elevation	2-2
2.2.2 Depth to Water	2-2
2.3 Data Sources	2-2
2.3.1 Previously Published Studies	2-2
2.3.2 Electronic Data.....	2-4
2.3.2.1 U.S. Geological Survey	2-4
2.3.2.2 Nevada Division of Water Resources	2-4
2.3.2.3 Southern Nevada Water Authority	2-4
2.3.2.4 Utah Division of Water Rights	2-5
2.4 Data Set Creation	2-5
2.5 Data Evaluation.....	2-6
3.0 Water-Level Data Reduction	3-1
3.1 Perforated or Open Interval Determination	3-1
3.2 Water-Level Elevation Calculation	3-1
3.3 Identification of Unstable Water-Level Measurements	3-2
4.0 Data Analysis Methodology	4-1
4.1 Steady-State Hydraulic Head Determination	4-1
4.1.1 Mean Groundwater Elevations.....	4-1
4.1.2 Uncertainty Analysis	4-2
4.1.2.1 Site Location Accuracy	4-2
4.1.2.2 Depth-to-Water Accuracy	4-2
4.1.3 Hydraulic Head Variances	4-3
5.0 Steady-State Hydraulic Head Data Set.....	5-1
5.1 Data Set Summary	5-1
6.0 References.....	6-1



TABLE OF CONTENTS (CONTINUED)

Attachment A - Well and Spring Numbering System and Hydrographic Area Boundaries Used in this Evaluation

A.1.0	Well Numbering System.	A-1
A.1.1	Introduction.	A-1
A.1.2	Nevada Local Number	A-1
A.1.3	Utah Local Number	A-1
A.2.0	Hydrographic Area Boundaries	A-2
A.3.0	References.	A-2

Attachment B - Steady-State Hydraulic Head Data Set

B.1.0	Introduction.	B-1
-------	-----------------------	-----

LIST OF FIGURES

<i>NUMBER</i>	<i>TITLE</i>	<i>PAGE</i>
2-1	Flow Chart for Data Set Creation.	2-6
2-2	Spatial Distribution of Sites in the Model Area	2-7
3-1	Example Hydrograph Showing “Stable” and “Unstable” Trends	3-3



This Page Intentionally Left Blank

LIST OF PLATES

<i>NUMBER</i>	<i>TITLE</i>
1	Steady-State Mean Hydraulic Head Values in the Model Area Pocket



This Page Intentionally Left Blank

LIST OF TABLES

<i>NUMBER</i>	<i>TITLE</i>	<i>PAGE</i>
B.1-1	Steady-State Mean Hydraulic Head Data Set	B-2



This Page Intentionally Left Blank

LIST OF ACRONYMS AND ABBREVIATIONS

amsl	above mean sea level
bgs	below ground surface
DEM	Digital Elevation Model
ESRI	Environmental Systems Research Institute
ft	Foot (feet)
ft ²	Square Feet
GPS	Global Positioning System
GWSI	Groundwater Site Inventory
HA	Hydrographic Area
LVVWD	Las Vegas Valley Water District
NAD83	North American Datum of 1983
NAVD88	North American Vertical Datum of 1988
NDWR	Nevada Division of Water Resources
NWIS	National Water Information System
RASA	Regional Aquifer-Systems Analysis
SNWA	Southern Nevada Water Authority
UDWR	Utah Division of Water Rights
USAF	U.S. Air Force
USGS	U.S. Geological Survey
UTM	Universal Transverse Mercator



This Page Intentionally Left Blank

1.0 INTRODUCTION

1.1 Purpose and Objective

Hydraulic head data have a number of uses including the determination of aquifer properties, monitoring short-term and long-term changes in water levels, and determining the elevation of the water table for an unconfined aquifer (or the potentiometric surface for a confined aquifer). Hydraulic head data can also be used during the development of groundwater flow models. For example, hydraulic head data are used during groundwater flow model calibration, verification, and validation processes for comparison with water levels simulated by the model (IT, 1996). As a result, the purpose of this task was to evaluate depth-to-water data in the model area and provide a steady-state hydraulic head data set to assist with groundwater flow model development.

1.2 General Approach

The general approach for deriving the steady-state hydraulic head data set for the groundwater flow model includes the following steps:

- Compile information on the location of wells or test holes in the model area and associated depth-to-water data;
- Reduce the compiled data set into a subset of data representative of steady-state (i.e., predevelopment) conditions;
- Determine steady-state mean hydraulic head values for locations with appropriate data and evaluate uncertainties associated with the hydraulic head values;
- Prepare data sets for use in the steady-state groundwater flow model.



This Page Intentionally Left Blank

2.0 DATA COMPILATION AND EVALUATION

More than 4,000 depth-to-water measurements were compiled for 811 sites in the model area. The data were assembled from a variety of sources including published reports and studies and from databases or spreadsheets maintained by different agencies. In addition, well construction, site attribute information, and lithologic data 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 data evaluation.

2.1 Data Types

The types of data needed for this evaluation included general site information, depth-to-water data, well construction data, and lithologic or stratigraphic information. Site types were defined as a well (e.g., monitor, production, etc.) or test hole. 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, and
 - Type of site (i.e., well or test hole).
- **Depth-to-Water Data**
 - Date and time of measurement,
 - Depth-to-water measurement,
 - Method of depth-to-water measurement, and
 - Measurement method accuracy.
- **Well Construction Data**
 - Date completed,
 - Total depth,
 - Borehole and casing diameters, and
 - Open interval.



- **Lithologic/Stratigraphic Data**

- Well lithology, and
- Well stratigraphy.

Measurements of the land-surface elevation and depth to water are the most important pieces of information for calculating water-level elevations. As a result, a brief discussion on the methods of measurement for both parameters will be presented 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, or
- 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 means of measuring depth to water include:

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

2.3 Data Sources

The main sources of data used in this study include data obtained from previously published reports or studies and data obtained electronically (e.g., in databases and/or spreadsheets) from various sources.

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.

The Nevada state legislature, in 1960, authorized a special groundwater reconnaissance survey under the supervision of the State 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 of interest to this study. The specific valleys of interest to this study that had reports written for them and from which depth-to-water data were obtained include: Spring Valley (Rush and Kazmi, 1965), Snake Valley (Hood and Rush, 1965), Steptoe Valley (Eakin et al., 1967), Lake Valley (Rush and Eakin, 1963), Cave Valley (Eakin, 1962), and Dry Lake Valley (Eakin, 1963).

In the late 1970s and early 1980s, hydrogeologic evaluations associated with the MX missile-siting investigation were carried out by Ertec Western, Inc., or their subcontractors, for the U.S. Air Force (USAF) MX Missile Siting Program. These evaluations included 40 valleys in the Great Basin Region, including basins in east-central Nevada and western Utah. This program consisted of literature searches and field reconnaissance. Test drilling, aquifer testing, and the development of groundwater flow models to help in predicting potential impacts of pumping were conducted 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; 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 during 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 well location and depth-to-water data that was included in this study.

The USGS Hydrologic Atlas HA-694-B published by the USGS (Thomas et al., 1986) presents interpretations of basin-fill and regional (carbonate aquifer) flows in the Great Basin as part of the Regional Aquifer-System Analysis (RASA) program. Two maps were published, both at a scale of 1:1,000,000, showing potentiometric contour lines on a base map delineating bedrock and basin-fill. Data used to construct the potentiometric contours were similar to sources used in this study to the extent that they were available in the mid-1980s. Some water-level data for wells in the model area were obtained from these maps.

For some basins, data compiled during drilling and geophysical logging of oil exploration wells can also be used to augment potentiometric water-level data. For example, McKay and Kepper (1988) present initial shut-in pressures from which calculations of potentiometric head may be made. This type of data was included, when appropriate.

In the early to mid 1990s, the Las Vegas Valley Water District (LVVWD) published 17 reports as part of a “Cooperative Water Project” detailing investigations that were made for hydrographic areas in eastern and central Nevada. These reports were written to support groundwater applications filed in those valleys. The specific valleys of interest to this study that had reports written for them and from which depth-to-water data were obtained include: Spring Valley (Brothers et al., 1994), Snake Valley (Brothers et al., 1993a), Cave Valley (Brothers et al., 1993b), and Dry Lake Valley (Brothers et al., 1996).



2.3.2 Electronic Data

Electronic data in the form of databases or spreadsheets were obtained from various 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

The USGS maintains a database of water-resources 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 (USGS, 2005). The NWIS/GWSI data can be obtained from the USGS at the following 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 the following URL <http://water.nv.gov/Engineering/wlog/wlog.cfm> (NDWR, 2004). According to NDWR, the well log database contains a record of the wells drilled in Nevada since 1984. For some hydrographic areas (HA), however, earlier dated well logs are also present in the database. For example, there are driller's logs available for Spring Valley and Snake Valley that go back to 1948 and for Steptoe Valley that go back to 1945. The actual drillers' report, or log, for portions of the model area were also obtained in paper form from the Las Vegas office of the 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. The well log database, however, contains site location information, well construction information, and depth-to-water data. Since the beginning of this study, however, most of the NDWR drillers' logs can now be obtained directly 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, Southern Nevada Water Authority (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 the 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 program reported by Bunch and Harrill (1984). Miscellaneous water-level measurements from other published 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 (UDWR) 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 (UDWR, 2005). The UDWR data can be obtained from the following URL at <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 reports (listed above).

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](#). In the simplest sense, this process consisted of integrating site location and water-level data from various sources and reconciling the discrepancies between the different data sources. Common issues included: (1) site location uncertainty, (2) inaccurate location and elevation control data, and (3) differences between well names from older published reports and well names used in subsequent field data collection.

The majority of site locations and depth-to-water measurements used in this evaluation 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 from which data gaps 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 to be integrated into the water-level data set was the NDWR data. The NDWR data from the well-log database and the electronic drillers' logs were compared to the existing NWIS/GWSI data using ArcGIS® 9 from Environmental Systems Research Institute (ESRI). ArcGIS® 9 was used to plot the locations of wells and test holes from both data sources and overlay various types of digital maps, including USGS 1:100,000 scale topographic maps, digital elevation models (DEMs), hydrogeologic, geologic, and hill-shade maps. This comparison was performed to identify new locations to be added to the water-level data set, complete well records, 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 wells and depth-to-water data were added to the existing data set when identified.

This 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

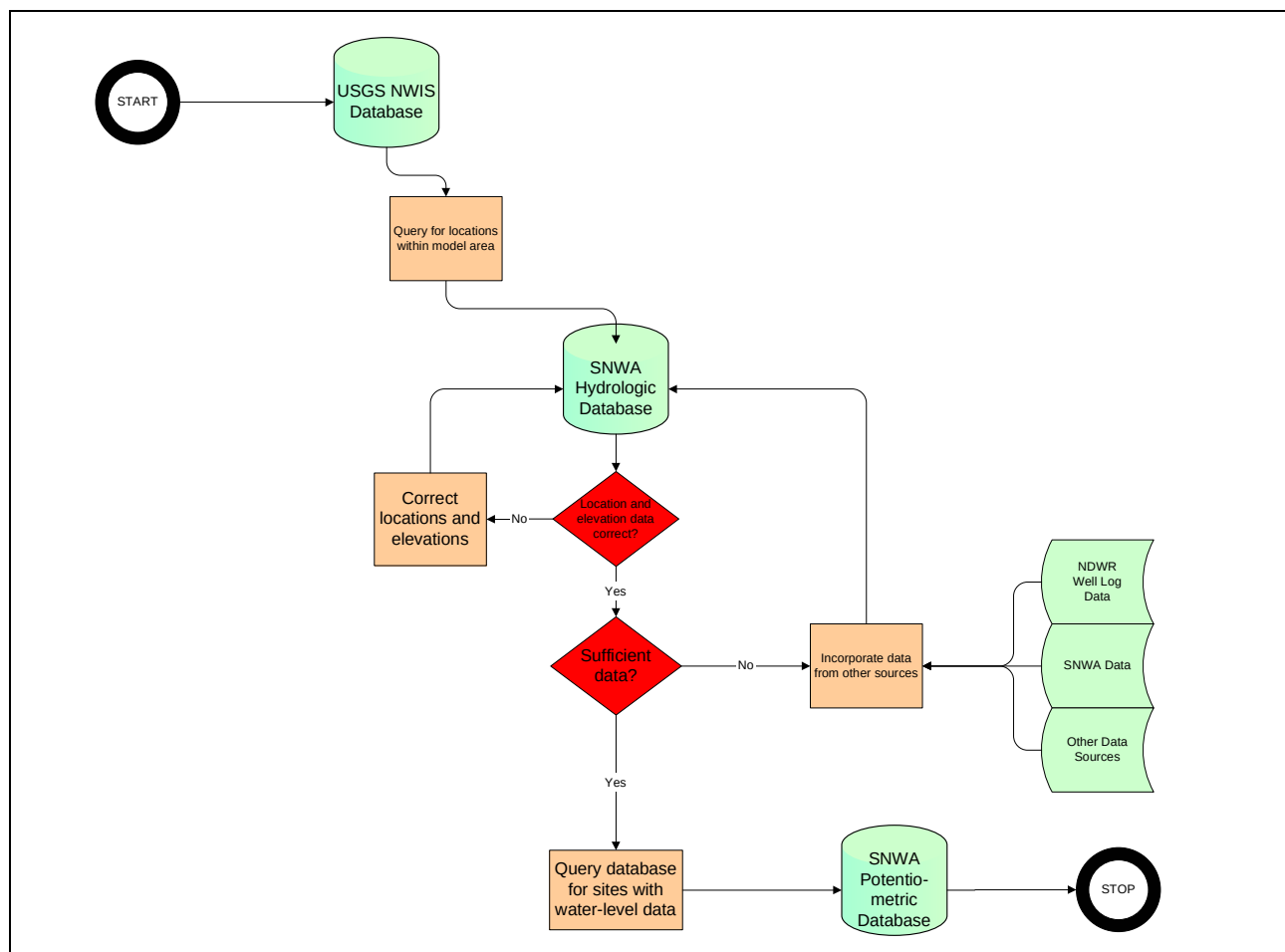


Figure 2-1
Flow Chart for Data Set Creation

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 directed to 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. [Attachment A](#) provides an explanation of the hydrographic area designations and sites names used in this report. The distribution and density of compiled sites can be seen in [Figure 2-2](#).

2.5 Data Evaluation

Every effort was made to exclude duplicate site locations and depth-to-water measurements from the data set during the data compilation phase. Unfortunately, not all duplicate information was excluded from 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.



After the data were compiled, an evaluation of the site locations and depth-to-water data were made 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 feet (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 have reported land-surface elevations. 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 water elevations 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 to the sites reported section-township-range information. This process also revealed wells that were not correctly located, which were then removed from the data set, or corrected with the data available.

3.0 WATER-LEVEL DATA REDUCTION

Prior to the analysis of the hydraulic head data, the compiled water-level data set needed to be reduced to a data set appropriate for steady-state analysis. This data reduction consisted of determining the perforated or open interval of a well, calculating water-level elevations from the depth-to-water data, and identifying unstable water-level measurements not representative of steady-state conditions.

3.1 Perforated or Open Interval Determination

Perforated or open intervals for wells were assigned based on well construction information obtained from the data sources listed in [Section 2.0](#). The term “open interval” refers to any type of opening through which water may freely flow from the rock formation into the well or borehole. Specific examples of open intervals include well screens, perforated casing, or an open borehole that is left uncased. The process of defining the perforated or open interval is described below.

Perforated or open intervals were assigned based on the well construction information and the overall depth of a well. The well construction information necessary for determining perforated or open intervals are 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 a well’s open interval are known, the perforated or open interval was assigned as those depths. If that information was not available, it was assumed that the perforated or open interval for a well was 50 ft-below ground surface (ft-bgs) to the total depth of the well. The typical sanitary seal depth based on Nevada state requirements is 50 ft-bgs. If a well’s total depth was less than 50 ft-bgs 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 necessary. The water-level elevations were calculated as the land-surface elevation (or reference point elevation) minus the depth-to-water measurement, as shown by the following equation:

$$H = LSE - DTW \quad (3-1)$$

where,

H = Water-level elevation or hydraulic head value (ft-above mean sea level [ft-amsl]),
 LSE = Land-surface elevation (ft-amsl),
 DTW = Depth to water (ft).



The water-level elevations are necessary to construct hydrographs that can be used for further data analysis and to calculate mean steady-state water-level elevations for a given site. The hydrographs are used to examine steady-state versus transient-state trends and to identify abnormal or inconsistent depth-to-water measurements that would not be suitable for inclusion into a steady-state hydraulic head data set (see [Section 3.3](#)).

3.3 Identification of Unstable Water-Level Measurements

To identify water-level measurements that are unstable and, therefore, not representative of predevelopment groundwater flow conditions, a temporal and spatial data analysis was performed for each site with four or more water-level measurements. For wells with less than 4 water-level measurements, it was assumed that all the measurements were representative of predevelopment groundwater flow conditions.

The identification of unstable water-level measurements consisted of constructing hydrographs for each well with four or more water-level measurements in the model area. The hydrographs were then reviewed to identify measurements that were considered unstable or abnormal. In general, a stable trend is defined as that part of a hydrograph that includes only cyclical variations about a mean value. [Figure 3-1](#) shows an example hydrograph where water-level measurements were identified as “not-consistent” with the “stable” part of the trend. The unstable 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 part of the stable trend”. The water-level measurements that were flagged as “inconsistent” were then excluded from further steady-state data analysis (i.e., mean hydraulic head calculations). Well where “unstable” measurements could be attributed to groundwater pumpage were flagged to indicate transient-state behavior.

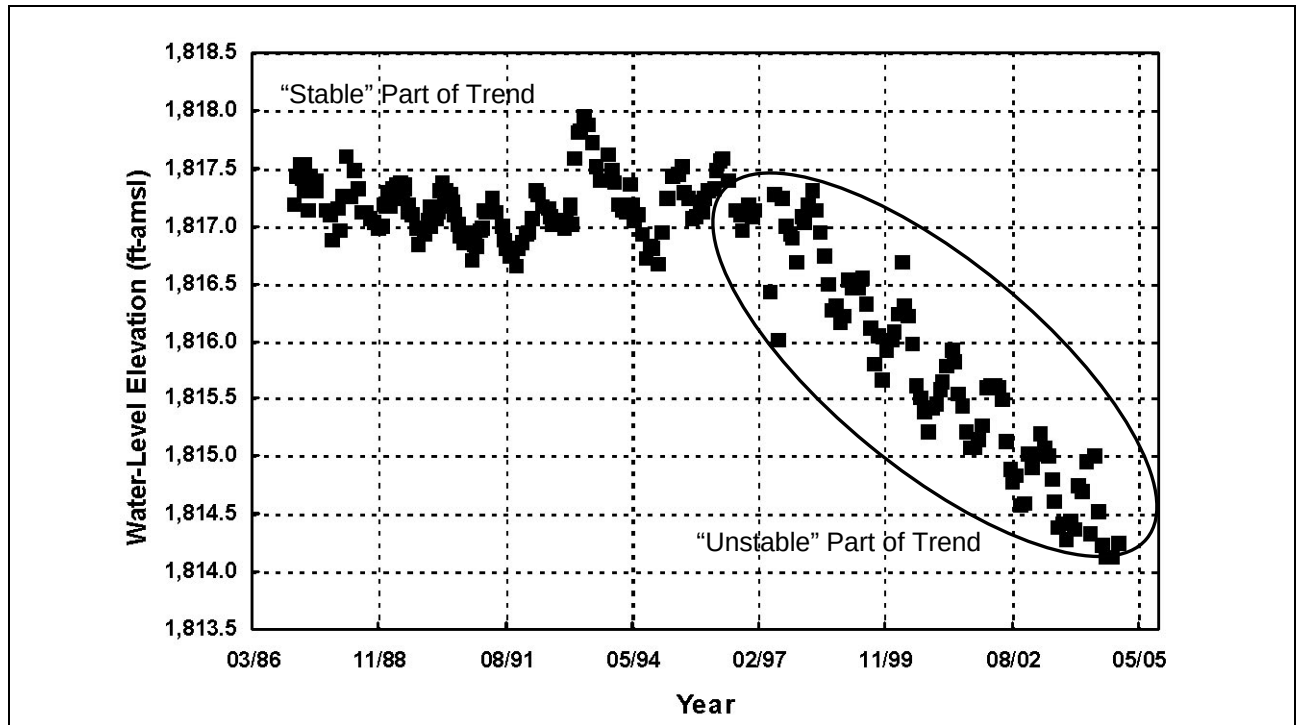


Figure 3-1
Example Hydrograph Showing "Stable" and "Unstable" Trends



This Page Intentionally Left Blank

4.0 DATA ANALYSIS METHODOLOGY

Analysis of the site location and water-level data for this study consisted of calculating mean steady-state hydraulic heads and evaluating the uncertainty associated with the steady-state hydraulic heads. The following sections discuss these analyses in greater detail.

4.1 Steady-State Hydraulic Head Determination

The method used to estimate the study area's predevelopment hydraulic heads is discussed in this section. Ideally, only predevelopment data (i.e., data before 1945) would be used to generate hydraulic head data for use in the 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 evaluation and reduction process. In general, the method consisted of calculating mean water-level elevations from the water-level elevation data not qualified as being inconsistent with the “stable” part of a given hydrograph (see [Section 3.3](#)). The uncertainty associated with the calculated mean water-level elevations was then evaluated.

4.1.1 Mean Groundwater Elevations

In order to prepare a water-level data set to calibrate a steady-state numerical groundwater flow model, it was necessary to determine each site's predevelopment hydraulic head value from the water-level data set. The process consisted of first excluding hydraulic head data from the compiled 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 a steady-state trend for a given site were also removed from the steady-state data set (see [Section 3.3](#)). Once the process of excluding non-representative data was complete, a steady-state mean hydraulic head value for each well was calculated as follows:

$$\bar{H} = \frac{\sum H_t}{n} \quad (4-1)$$

where,

- $\bar{H}$ = The mean hydraulic head value representative of steady-state conditions (ft-amsl),
- H_t = Hydraulic head value for a given time (t) in ft-amsl, and
- n = The number of water-level elevation measurements available over the period of record.



For sites with only one water-level elevation, that value was assumed to represent the steady-state hydraulic head for that site.

4.1.2 Uncertainty Analysis

An assessment of the uncertainty associated with the mean hydraulic head value for a given site was also made for this study. This assessment of uncertainty was based on a method described by IT Corporation (1996). The mean hydraulic head value is calculated from the land-surface elevation and the depth-to-water measurement. As a result, the uncertainty associated with a mean water-level elevation for a given site results from three main sources of error: the errors associated with (1) the location of the site, (2) the measurement error associated with each depth-to-water measurement, and (3) the reduction of the temporal water-level measurements to a mean value.

4.1.2.1 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 error is provided based on the method used to determine the location. For example, USGS horizontal location accuracies, where indicated, vary from $\pm 6,060$ to ± 1.01 ft. For sites obtained from other sources, location accuracies were also supplied by the originator of the data or estimated based on the assumption that a site's local description was accurate to the nearest quarter-quarter section. In those cases, it was assumed that the location accuracy was $\pm 1,320$ ft. If no accuracy measurement was available for a site, a default accuracy of $\pm 6,060$ ft was applied to the site. The potential variation in a site's location results in a vertical error on the hydraulic head estimate. This elevation error was estimated by buffering each site by its coordinate accuracy measurement. The average slope of the land surface within the buffered area was calculated using ESRI's ArcGIS® 9.0. This average slope was then multiplied by the original coordinate accuracy value. This resulted in a potential land-surface elevation error associated with the coordinate accuracy measurement of the location as shown by the following equation.

$$E_{Err} = Coord_{accy}(Slope) \quad (4-2)$$

where,

E_{Err} = Elevation error associated with coordinate accuracy (ft),
 $Coord_{accy}$ = Coordinate accuracy (ft), and
 $Slope$ = Average slope of the topography within buffered area (%).

4.1.2.2 Depth-to-Water Accuracy

Depth-to-water measurements in this report are reported in feet below ground surface (ft-bgs). In general, the accuracy of depth-to-water measurements is dependent 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, 1993). In general,

the error associated with measuring depth-to-water is, however, 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 presumably included within the other sources of error.

4.1.3 Hydraulic Head Variances

In order to quantify the accuracy of the mean hydraulic head values, estimates of the variances associated with the hydraulic head values, rather than errors, are used to weigh the hydraulic heads. As a result, a brief discussion of the variances is presented in this section.

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

$$\sigma_{H_{Total}}^2 = \sigma_{E_{err}}^2 + \sigma_{\bar{H}}^2 \quad (4-3)$$

where,

- $\sigma_{H_{Total}}^2$ = Total variance associated with the mean hydraulic head (ft²),
- $\sigma_{E_{err}}^2$ = Variance associated with the coordinate location (ft²),
- $\sigma_{\bar{H}}^2$ = Variance associated with calculating a mean hydraulic head (ft²).

An additional way to express the variance of the mean hydraulic head value obtained from multiple water-level elevations is the variance of the sample mean described by the following equation:

$$\sigma_{H_{Total}}^2 = \sigma_{E_{err}}^2 + \frac{\sigma_{\bar{H}}^2}{n} \quad (4-4)$$

where,

- $\sigma_{H_{Total}}^2$ = Total variance associated with the mean hydraulic head value (ft²),
- $\sigma_{E_{err}}^2$ = Variance associated with the coordinate location (ft²),
- $\sigma_{\bar{H}}^2$ = Variance of the mean head value (ft²), and
- n = Number of water-level 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 for the mean head value was defined as 100 ft². This variance was chosen because it represents a conservative estimate of the variance on the mean hydraulic head value. A 100 ft² variance is equivalent to an error of +/- 20 ft, or plus or minus two standard deviations, with a 95 percent confidence level.

The variance of the site location accuracy may be estimated assuming that the site location accuracy 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:

$$\sigma^2_{E_{err}} = \left(\frac{E_{err}}{2} \right)^2 \quad (4-5)$$

where,

$\sigma^2_{E_{err}}$ = Variance associated with the elevation error (ft²), and
 E_{err} = The land-surface elevation error associated with the coordinate accuracy measurement.

5.0 *STEADY-STATE HYDRAULIC HEAD DATA SET*

This section summarizes the steady-state hydraulic head data set and documents the structure of the data set compiled for the Clark, Lincoln, and White Pine Counties groundwater flow model. The steady-state hydraulic head data set can be seen in [Table B.1-1](#).

5.1 *Data Set Summary*

The mean steady-state hydraulic head was calculated for each well in the model area. 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. The model calibration data set can be seen in its entirety in [Table B.1-1](#).

The steady-state data set is organized by hydrographic area number and site name. Locations of wells are in UTM Zone 11 using the NAD83 datum. The altitude of the reference-point elevation is in feet above mean sea level (ft-amsl) referenced to the North American Vertical Datum of 1988 (NAVD88). 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.

The table contains basic information about a site including the site name, coordinates, land surface elevation, hole or well depths, and perforated or open interval. The table also documents the calculated mean steady-state hydraulic head values and uncertainties for a given well.

The steady-state hydraulic head data set contains the following columns along with their respective definitions:

1. Map ID - A unique identifier used to correlate a site found on [Plate 1](#) to a site in [Table B.1-1](#);
2. HA – Hydrographic area;
3. Site No – A unique identifier for every location. For sites obtained from the USGS, this number is the NWIS site identification number. For other sites, it is equivalent to the site name;
4. Site Name – A local site number based on the format used by the USGS for groundwater sites in Nevada and Utah. This format is based on the township, range, and section of a site (see [Attachment A](#));
5. UTM Northing – The northing coordinate for a site in UTM 11S NAD83 (m);
6. UTM Easting – The easting coordinate for a site in UTM 11S NAD83 (m);
7. Reference Point Elevation – The elevation of the reference point. For a majority of the sites in the data set, the elevation is the land surface elevation (ft-amsl);



8. Hole Depth - The drilled depth of the borehole (ft-bgs);
9. Well Depth - The depth of the completed well (ft-bgs);
10. Perforated or Open Interval - The depths to the top and bottom of open intervals in the well (ft-bgs);
11. No. of Records Used - The number of water-level elevation measurements used to calculate the mean hydraulic head value;
12. Minimum Elevation - The minimum water-level elevation for the site (ft-amsl);
13. Maximum Elevation - The maximum water-level elevation for the site (ft-amsl);
14. Mean Hydraulic Head - The mean water-level elevation for a site (ft-amsl);
15. Variance Coordinate Location - The variance associated with the coordinate location (ft²);
16. Variance Sample Mean - The variance of the sample mean (ft²);
17. Total Variance - The total variance assigned to the mean water-level elevation (ft²).

6.0 REFERENCES

ASTM, see American Society for Testing and Materials.

American Society for Testing and Materials D 4750-87 (93), 1993, Standard Test Method for Determining Subsurface Liquid Levels in a Borehole or Monitoring Well (Observation Well): American Society for Testing and Materials, 100 Barr Harbor Drive, West Conshohocken, PA. 19428.

Brothers, K., Buqo, T.S., and Tracy, J.V., 1993a, Hydrology and Steady State Groundwater Model of Snake Valley, East-Central Nevada, and West-Central Utah, Las Vegas Valley Water District, Cooperative Water Project, Report No. 9, 66 p.

Brothers, K., Buqo, T.S., Tracy, J.V., Stock, M., Bentley, C., Zdon, A., and Kepper, J., 1993b, Hydrology and Steady State Groundwater Model of Cave Valley, Lincoln and White Pine Counties, Nevada, Las Vegas Valley Water District, Cooperative Water Project, Report No. 11, 48 p.

Brothers, K., Bernholtz, A.J., Buqo, T.S., and Tracy, J.V., 1994, Hydrology and Steady State Ground-Water Model of Spring Valley, White Pine and Lincoln and Counties, Las Vegas Valley Water District, Cooperative Water Project, Report No. 13, 69 p.

Brothers, K., Katzer, T., and Johnson, M., 1996, Hydrology and Steady State Groundwater Model of Dry Lake and Delamar Valleys, Lincoln County, Nevada, Las Vegas Valley Water District, Cooperative Water Project, Report No. 16, 48 p.

Bunch, R.L., and Harrill, J.R., 1984, Compilation of Selected Hydrologic Data from the MX Missile-Siting Investigation, East-Central Nevada and Western Utah, U.S. Geological Survey Open-File Report 84-702, 123 p.

Eakin, T.E., 1962, Groundwater Appraisal of Cave Valley in Lincoln and White Pine Counties, Nevada, Groundwater Resources – Reconnaissance Series Report 13, U.S. Geological Survey in cooperation with the State of Nevada Department of Conservation and Natural Resources, 19 p.

Eakin, T.E., 1963, Groundwater Appraisal of Dry Lake and Delamar Valleys, Lincoln County, Nevada, Groundwater Resources – Reconnaissance Series Report 16, U.S. Geological Survey in cooperation with the State of Nevada Department of Conservation and Natural Resources, 25 p.



- Eakin, T.E., Hughes, J.L., and Moore, D.O., 1967, Water-Resources Appraisal of Steptoe Valley, White Pine and Elko Counties, Nevada, Groundwater Resources – Reconnaissance Series Report 42, U.S. Geological Survey in cooperation with the State of Nevada Department of Conservation and Natural Resources, 48 p.
- Ertec Western, Inc., 1981a, MX Siting Investigation, Water Resources Program, Results of Regional Carbonate Aquifer Testing, Coyote Spring Valley, Nevada, Report E-TR-57, prepared for the U.S. Department of the Air Force, Ballistic Missile Office, Norton Air Force Base, California, 65 p.
- Ertec Western, Inc., 1981b, MX Siting Investigation, Water Resources Program, Technical Summary Report Volume I, Report E-TR-52-I, prepared for the U.S. Department of the Air Force, Ballistic Missile Office, Norton Air Force Base, California, 97 p.
- Ertec Western, Inc., 1981c, MX Siting Investigation, Water Resources Program, Technical Summary Report Volume II, Report E-TR-52-II, prepared for the U.S. Department of the Air Force, Ballistic Missile Office, Norton Air Force Base, California, 286 p.
- Ertec Western, Inc., 1981d, MX Siting Investigation, Water Resources Program, Technical Summary Report Volume IIA, Report E-TR-52-II, prepared for the U.S. Department of the Air Force, Ballistic Missile Office, Norton Air Force Base, California, 41 p.
- Ertec Western, Inc., 1981e, MX Siting Investigation, Water Resources Program, Technical Summary Report Volume IIB, Report E-TR-52-II, prepared for the U.S. Department of the Air Force, Ballistic Missile Office, Norton Air Force Base, California, 131 p.
- Hood, J.W., and Rush, E.F, 1965, Water-Resources Appraisal of the Snake Valley Area, Utah and Nevada, Water Resources – Reconnaissance Series Report 34, U.S. Geological Survey in cooperation with the State of Nevada Department of Conservation and Natural Resources, 43 p.
- IT, see IT Corporation.
- IT Corporation, 1996, Underground Test Area Project, Phase I Data Analysis Task, Volume II: Potentiometric Data Documentation Package: Las Vegas, Nev., Report ITLV/10972-181, 268 p.
- McKay, A.W., and Kepper, J., 1988, Estimating Hydraulic Parameters Using Wildcat Oil and Gas Data: A Feasibility Study in East-Central Nevada, Desert Research Institute, Publication No. 41117, p. 48.
- NDWR, see Nevada Division of Water Resources.
- Nevada Division of Water Resources, 2004, Well log database available on the World Wide Web, accessed March 30, 2004, at URL <http://water.nv.gov/Engineering/wlog/wlog.cfm>.

Rush, E.F, and Eakin, T.E., 1963, Groundwater Appraisal of the Lake Valley in Lincoln and White Pine Counties, Nevada, Groundwater Resources – Reconnaissance Series Report 24, U.S. Geological Survey in cooperation with the State of Nevada Department of Conservation and Natural Resources, 29 p.

Rush, E.F, and Kazmi, S.A.T., 1965, Water Resources Appraisal of Spring Valley, White Pine and Lincoln Counties, Nevada, Groundwater Resources – Reconnaissance Series Report 33, U.S. Geological Survey in cooperation with the State of Nevada Department of Conservation and Natural Resources, 36 p.

Thomas, J.M., Mason, J.L., and Crabtree, J.D., 1986, Groundwater-levels in the Great Basin Region of Nevada, Utah, and Adjacent States, USGS Atlas HA-694-B, 1:100,000 scale, 2 plates.

Tumbusch, M.L., and Schaefer, D.H., 1996, Selected Hydrologic Data for and Location of MX Wells in East-Central and Southern Nevada, January 1980 Through May 1996, USGS Open-File Report 96-469.

UDWR, see Utah Division of Water Resources.

USGS, see U.S. Geological Survey.

U.S. Geological Survey, 2005, National Water Information System (NWISWeb) data available on the World Wide Web, accessed various dates in 2004 and 2005, at URL <http://waterdata.usgs.gov/nwis/>.

Utah Division of Water Resources, 2005, Well Drilling Database available on the World Wide Web, accessed various dates in 2005, at URL <http://nrwrt1.nr.state.ut.us/wellinfo/default.asp>.



This Page Intentionally Left Blank

Attachment A

Well and Spring Numbering System and Hydrographic Area Boundaries Used in this Evaluation

A.1.0 WELL NUMBERING SYSTEM

A.1.1 Introduction

Local numbers are used to describe well locations in this report using a system based on the Public Land Survey System that consists of a 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. When a site is in Nevada, a Nevada local number was assigned (USGS, 2002), and if a site was in Utah, a Utah local number was assigned (USGS, 2003). An explanation and example of both types can be found in the following sections.

A.1.2 Nevada Local Number

The first part of the Nevada local number 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

A.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-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 the letters as follows: A, northeast; B, northwest; C, southwest; and D, southeast.

Example: (C-28-10)29ADD



A.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.

A.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, E.F., 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.

USGS, see U.S. Geological Survey.

U.S. Geological Survey, 2002, Water Resources Data Nevada Water Year 2002, U.S. Geological Survey Water-Data Report NV-02-1.

U.S. Geological Survey, 2003, Water Resources Data Utah Water Year 2003, U.S. Geological Survey Water-Data Report UT-03-1.

Attachment B

Steady-State Hydraulic Head Data Set

B.1.0 INTRODUCTION

This attachment contains the steady-state hydraulic head data set produced for the Clark, Lincoln, and White Pine Counties groundwater flow model ([Table B.1-1](#)). There were 811 wells for which mean hydraulic head values and total variances were determined. The location of the wells and the calculated mean steady-state hydraulic heads can be seen on [Plate 1](#). The locations plotted on [Plate 1](#) can be reconciled to the data found in [Table B.1-1](#) by the map ID number that is found on both. Blank cells in the table indicate that no data was available for that record.



Table B.1-1
Steady-State Mean Hydraulic Head Data Set
(Page 1 of 24)

Map ID	HA	Site No	Site Name	UTM Northing (m)	UTM Easting (m)	Reference Point Elevation (ft-amsl)	Hole Depth (ft-bgs)	Well Depth (ft-bgs)	Perforated or Open Interval (ft-bgs)	No. of Records Used	Min. Elevation (ft-amsl)	Max Elevation (ft-amsl)	Mean Head (ft-amsl)	Variance Coordinate Location (ft²)	Variance Sample Mean (ft²)	Total Variance (ft²)
1	179	38552114503601	179 N12 E63 12AB 1 USGS - S Septoe MX Well	4,310,380	686,889	7,324.5	2,447	948	500-545/743-9 40	96	6,895.0	6,914.7	6,903.8	52,735	0.423	53.16
2	179	385535114461101	179 N12 E64 05DDAA1 USBLM	4,310,965	693,261	6,918.5		106	50-106	1	6,846.5	6,846.5	6,846.5	9,245	100	109.25
3	179	390001114473101	179 N12 E64 09D 1 USBLM	4,309,386	691,757	7,004.4	216	216	170-216	1	6,856.2	6,856.2	6,856.2	39,943,540	100	40,043.54
4	179	385157114482101	179 N12 E64 29DCDC1 USBLM	4,304,168	690,292	7,064.4	254	254	160-254	2	6,904.4	6,922.2	6,913.3	1,327	79,656	80.98
5	179	390128114495401	179 N13 E64 06BA 1 USGS-MX	4,321,634	687,994	6,819.3	200	200	175-195	9	6,774.7	6,801.3	6,788.0	248,092	6,853	254.95
6	179	390007114465601	179 N13 E64 09ACA 1 USBLM	4,319,324	691,973	6,754.3		216	80-140	2	6,606.1	6,608.3	6,607.2	8,892	1,145	10.04
7	179	179 N13 E64 11AD 1	179 N13 E64 11AD 1	4,319,811	695,197	6,855.7	310	310	255-310	1	6,600.7	6,600.7	6,600.7	287,038	100	387.04
8	179	385821114464301	179 N13 E64 22CBCA1 USBLM	4,316,064	692,365	6,792.4	202	202	50-202	4	6,616.4	6,650.1	6,626.6	4,760,048	61,988	4,822.04
9	179	179 N14 E63 13CB 1	179 N14 E63 13CB 1	4,327,328	685,742	7,214.7	600	600	365-580	1	6,954.7	6,954.7	6,954.7	49,686	100	149.69
10	179	179 N14 E63 14BB 1	179 N14 E63 14BB 1	4,328,140	683,944	7,758.4	440	400	200-400	1	7,638.4	7,638.4	7,638.4	346,407	100	446.41
11	179	390220114510401	179 N14 E63 36B 1	4,323,248	684,515	7,044.5				1	7,000.7	7,000.7	7,000.7	4,818,762	100	4,918.76
12	179	390649114491201	179 N14 E64 06AA 1 USGS-MX	4,331,512	688,287	6,697.3	200	200	177-197	7	6,561.3	6,565.5	6,563.2	347,809	0,385	348.19
13	179	179 N14 E64 12BD 1	179 N14 E64 12BD 1	4,329,644	695,689	6,834.9	400	400	340-400	1	6,509.9	6,509.9	6,509.9	554,857	100	654.86
14	179	390500114444901	179 N14 E64 14AA 1 USGS-MX	4,328,432	694,804	6,763.4	200	167	176-196	4	6,604.4	6,608.3	6,605.4	127,961	0,956	128.92
15	179	390442114462601	179 N14 E64 15BD 1 USGS-MX	4,327,944	692,532	6,648.3	150	150	127-147	6	6,597.3	6,599.5	6,598.2	56,618	0,115	56.73
16	179	390337114491201	179 N14 E64 19DADA1 USGS-MX	4,325,723	688,714	6,724.3	200	198	178-198	2	6,637.3	6,638.3	6,637.8	54,249	0,245	54.49
17	179	390232114433201	179 N14 E64 25DDCA1 Ely Honor Camp	4,323,916	696,769	6,863.9	490	490	295-315/340-3 75/440-485	1	6,603.9	6,603.9	6,603.9	3,353	100	103.35
18	179	390220114440101	179 N14 E64 36ACAB1 USBLM	4,323,382	696,421	6,844.4	284	274	230-274	4	6,618.9	6,699.4	6,642.9	8,423,330	367,748	8,791.08
19	179	179 N14 E65 08CD 1	179 N14 E65 08CD 1	4,328,936	698,879	7,209.6	773	773	50-773	1	6,734.6	6,734.6	6,734.6	43,734	100	143.73
20	179	390311114421401	179 N14 E65 29BC 1 USBLM	4,324,918	698,620	7,044.4	505	505	458-479	3	6,608.3	6,621.4	6,613.7	36,717,151	15,605	36,732.76
21	179	179 N15 E63 01BA 1	179 N15 E63 01BA 1	4,341,193	685,758	6,695.8	375	375	335-375	1	6,400.8	6,400.8	6,400.8	678,269	100	778.27
22	179	179 N15 E63 01BC 1	179 N15 E63 01BC 1	4,340,665	685,282	6,770.2	400	400	280-400	1	6,472.2	6,472.2	6,472.2	861,047	100	961.05
23	179	179 N15 E63 12DA 1	179 N15 E63 12DA 1	4,338,689	686,530	6,646.1	300	300	160-180/200-3 00	1	6,493.1	6,493.1	6,493.1	991,948	100	1,091.95
24	179	179 N15 E63 12DD 1	179 N15 E63 12DD 1	4,338,397	686,671	6,645.3	280	280	210-275	1	6,475.3	6,475.3	6,475.3	892,707	100	992.71
25	179	179 N15 E63 15DC 1	179 N15 E63 15DC 1	4,336,721	682,994	7,358.8	160	160	70-160	1	7,288.8	7,268.8	7,268.8	143,496	100	243.50
26	179	179 N15 E63 36BAC 1	179 N15 E63 36BAC 1	4,333,033	685,848	7,044.3				1	7,009.3	7,009.3	7,009.3	3,696,543	100	3,796.54
27	179	391100114492001	179 N15 E64 07ACCB1	4,339,179	687,695	6,539.2		200	50-200	83	6,497.4	6,509.0	6,502.6	19,236	0,071	19.31
28	179	391037114484601	179 N15 E64 08C 1	4,338,251	688,869	6,529.8	24	24		1	6,510.8	6,510.8	6,510.8	11,655,124	100	11,755.12
29	179	391009114481501	179 N15 E64 17BA 1	4,337,838	689,624	6,534.2	120	120	25-120	2	6,518.2	6,522.0	6,520.1	13,341,082	3,610	13,344.69

Table B.1-1
Steady-State Mean Hydraulic Head Data Set
 (Page 2 of 24)

Map ID	HA	Site No	Site Name	UTM Northing (m)	UTM Easting (m)	Reference Point Elevation (ft-amsl)	Hole Depth (ft-bgs)	Well Depth (ft-bgs)	Perforated or Open Interval (ft-bgs)	No. of Records Used	Min. Elevation (ft-amsl)	Max Elevation (ft-amsl)	Mean Head (ft-amsl)	Variance Coordinate Location (ft²)	Variance Sample Mean (ft²)	Total Variance (ft²)
30	179	179 N15 E64 17BA 2	179 N15 E64 17BA 2	4,338,108	689,006	6,564.2		120	50-120	1	6,558.2	6,558.2	6,558.2	364.321	100	464.32
31	179	391009114484301	179 N15 E64 17BC 1	4,337,821	688,952	6,564.2	203	193	25-187	3	6,548.2	6,558.2	6,553.5	12,835.009	8.425	12,843.43
32	179	390952114483701	179 N15 E64 17CD 1	4,337,301	689,108	6,544.2				1	6,529.0	6,529.0	6,529.0	13,062.570	100	13,162.57
33	179	391012114495801	179 N15 E64 18BA 1 USGS-MX	4,337,875	687,342	6,648.2	200	190	165-185	6	6,577.5	6,584.2	6,580.5	480.798	1,522	482.32
34	179	179 N15 E64 21CBC 1	179 N15 E64 21CBC 1	4,335,547	690,175	6,564.2				1	6,553.2	6,553.2	6,553.2	798.695	100	898.70
35	179	179 N15 E64 28DCD 1	179 N15 E64 28DCD 1	4,333,535	691,241	6,564.3				1	6,553.3	6,553.3	6,553.3	79.506	100	179.51
36	179	390652114465101	179 N15 E64 33DDDD1	4,331,813	691,788	6,569.3		18		1	6,561.0	6,561.0	6,561.0	5.164	100	105.16
37	179	390717114464401	179 N15 E64 34C 1	4,332,588	691,938	6,584.3		17		2	6,570.1	6,570.7	6,570.4	1,970.428	0.102	1,970.53
38	179	179 N15 E64 34C 2	179 N15 E64 34C 2	4,332,249	692,182	6,584.3		38		1	6,571.3	6,571.3	6,571.3	69.596	100	169.60
39	179	390714114455201	179 N15 E64 34DA 1 USGS-MX	4,332,401	693,096	6,648.3	150	150	50-150	6	6,570.3	6,575.7	6,572.9	99.375	0.534	99.91
40	179	390712114451701	179 N15 E64 35AC 1 USGS-MX	4,332,864	694,358	6,763.3		200	50-200	6	6,602.3	6,609.4	6,605.1	188.955	1.151	190.11
41	179	179 N15 E65 05DB 1	179 N15 E65 05DB 1	4,340,536	698,897	7,306.4	27	27	12-27	1	7,294.4	7,294.4	7,294.4	230.833	100	330.83
42	179	179 N15 E65 07BC 1	179 N15 E65 07BC 1	4,339,274	696,552	7,127.8	40	40	15-40	1	7,106.8	7,106.8	7,106.8	281.918	100	381.92
43	179	391715114574701	179 N16 E62 02A 1	4,350,651	675,600	6,744.1		338	50-338	1	6,689.1	6,689.1	6,689.1	2,101.663	100	2,201.66
44	179	179 N16 E62 02CC 1	179 N16 E62 02CC 1	4,349,282	675,080	6,809.7	1,143	1,136	335-1112	1	6,566.7	6,566.7	6,566.7	46.213	100	146.21
45	179	391618114565701	179 N16 E62 12CA 1	4,348,465	677,136	6,951.2	84	84	60-75	1	6,891.2	6,891.2	6,891.2	4,693.387	100	4,793.39
46	179	179 N16 E62 14BC 1	179 N16 E62 14BC 1	4,346,908	675,109	7,118.1	608	601	60-601	1	6,952.1	6,952.1	6,952.1	188.277	100	288.28
47	179	179 N16 E62 17AB 1	179 N16 E62 17AB 1	4,347,221	671,145	7,275.9	720	711	290-711	1	6,907.9	6,907.9	6,907.9	154.614	100	254.61
48	179	391700114501001	179 N16 E63 01B 1	4,350,443	686,561	6,274.1				56	6,198.6	6,218.2	6,207.1	3,320E-01	4,267E-01	7,59E-01
49	179	391656114502101	179 N16 E63 01BC 1	4,350,313	686,300	6,279.1				4	6,227.0	6,228.8	6,227.6	13.590	0.171	13.76
50	179	391656114502102	179 N16 E63 01BC 2	4,350,313	686,300	6,279.1	128	128	70-128	3	6,199.6	6,211.1	6,203.9	13.590	13.221	26.81
51	179	391654114502501	179 N16 E63 01BCDC1	4,350,249	686,206	6,281.1	130	130	70-130	3	6,219.1	6,228.0	6,224.9	0.392	8.493	8.89
52	179	391656114502201	179 N16 E63 01C 1	4,350,312	686,276	6,289.1		60	50-60	1	6,234.5	6,234.5	6,234.5	723.954	100	823.95
53	179	391713114505801	179 N16 E63 02A 1	4,350,816	685,401	6,204.1		96	50-96	1	6,154.1	6,154.1	6,154.1	1,986.601	100	2,086.60
54	179	391641114505601	179 N16 E63 02DBDD1	4,349,831	685,473	6,279.1	145	145	84-145	3	6,219.1	6,230.7	6,226.7	0.000	14.613	14.61
55	179	391631114505801	179 N16 E63 02DC 1	4,349,870	685,831	6,284.1	210	210	50-210	2	6,264.1	6,281.0	6,272.5	890.754	71.403	962.16
56	179	391636114505001	179 N16 E63 02DC 2	4,349,680	685,620	6,284.1	230	180	180-230	2	6,264.1	6,281.0	6,272.5	9.962	71.402	81.36
57	179	391634114505801	179 N16 E63 02DCAC1	4,349,614	685,430	6,286.1	220	220	180-220	1	6,276.1	6,276.1	6,276.1	0.324	100	100.32
58	179	391632114505701	179 N16 E63 02DCCA1	4,349,553	685,455	6,284.1	200	200	180-195	1	6,220.1	6,220.1	6,220.1	0.759	100	100.76
59	179	391632114505601	179 N16 E63 02DCCA2	4,349,553	685,479	6,284.1	165	165	50-165	1	6,274.1	6,274.1	6,274.1	0.274	100	100.27
60	179	391546114535501	179 N16 E63 09CC 1	4,348,034	681,223	7,432.6	260	258	5-258	1	7,406.6	7,406.6	7,406.6	8,196.840	100	8,296.84
61	179	391622114505801	179 N16 E63 11AB 1	4,349,244	685,439	6,304.1	120	120	60-120	2	6,244.1	6,246.9	6,245.5	82.078	1,932	84.01
62	179	391622114505802	179 N16 E63 11AB 2	4,349,244	685,439	6,304.1				5	6,298.3	6,301.5	6,299.5	82.078	0.298	82.38
63	179	391615114505901	179 N16 E63 11ABCC1 Valley View 2	4,349,027	685,420	6,304.1	121	120	60-120	1	6,274.1	6,274.1	6,274.1	1.139	100	101.14
64	179	391608114505601	179 N16 E63 11AC 1	4,348,813	685,497	6,304.1				8	6,296.2	6,300.1	6,298.5	98.371	0.254	98.62
65	179	391609114503801	179 N16 E63 11AD 1	4,348,854	685,928	6,304.1				8	6,290.6	6,295.1	6,292.9	10.709	0.379	11.09

Table B.1-1
Steady-State Mean Hydraulic Head Data Set
(Page 3 of 24)

Map ID	HA	Site No	Site Name	UTM Northing (m)	UTM Easting (m)	Reference Point Elevation (ft-amsl)	Hole Depth (ft-bgs)	Well Depth (ft-bgs)	Perforated or Open Interval (ft-bgs)	No. of Records Used	Min. Elevation (ft-amsl)	Max Elevation (ft-amsl)	Mean Head (ft-amsl)	Variance Coordinate Location (ft²)	Variance Sample Mean (ft²)	Total Variance (ft²)
66	179	391538114510401	179 N16 E63 11D 1	4,347,894	685,759	6,324.1	120	100	35-100	2	6,306.1	6,311.9	6,309.0	3,455.324	8.410	3,463.73
67	179	391555114503801	179 N16 E63 11DA 1	4,348,423	685,938	6,309.1				2	6,297.3	6,297.9	6,297.6	14,345	0.090	14.44
68	179	391558114504701	179 N16 E63 11DAB1	4,348,510	685,720	6,309.1	142	142	18-142	2	6,299.1	6,301.9	6,300.5	1,019	1.974	2.99
69	179	391542114503901	179 N16 E63 11DD 1	4,348,021	685,923	6,314.1	127	127	25-127	8	6,302.8	6,304.8	6,304.0	13,184	0.049	13.23
70	179	391624114502501	179 N16 E63 12B 1	4,348,926	686,358	6,219.1		22		2	6,205.5	6,205.8	6,205.7	2,016.423	0.020	2,016.44
71	179	391546114501701	179 N16 E63 12CC 1	4,348,157	686,448	6,319.1	210	210	50-210	8	6,316.3	6,318.9	6,318.2	10,511	0.115	10.63
72	179	391527114494601	179 N16 E63 13A 1	4,347,589	687,205	6,348.3		24		1	6,331.2	6,331.2	6,331.2	7,530.630	100	7,630.63
73	179	391523114504601	179 N16 E63 14A 1	4,347,431	685,770	6,344.1		128		1	6,320.6	6,320.6	6,320.6	4,379.157	100	4,479.16
74	179	391527114505001	179 N16 E63 14AB 1	4,347,553	685,671	6,344.1				8	6,315.8	6,320.6	6,317.7	100,384	0.314	100.70
75	179	391527114505002	179 N16 E63 14AB 2	4,347,553	685,671	6,344.1				8	6,319.3	6,325.2	6,322.7	100,384	0.387	100.77
76	179	391531114510101	179 N16 E63 14ABD 1	4,347,459	685,625	6,244.1	130	130	50-130	34	6,219.3	6,222.5	6,220.8	19,436	0.021	19.46
77	179	391515114514101	179 N16 E63 15ADAD1 White Pine County	4,347,154	684,457	6,434.1	230	230	90-230	2	6,356.1	6,358.9	6,357.5	1,055	1.932	2.99
78	179	391548114524301	179 N16 E63 15B 1	4,346,977	683,526	6,504.1		10		2	6,498.1	6,498.1	6,498.1	42,029.018	0.000	42,029.02
79	179	391519114523101	179 N16 E63 15BCAA1 City of Elly	4,347,249	683,256	6,394.1	225	225	52-225	6	6,342.1	6,362.0	6,356.9	4,773	9.306	14.08
80	179	391459114515401	179 N16 E63 15DAB1 City of Elly	4,346,653	684,157	6,481.1	400	400	140-395	3	6,350.4	6,355.3	6,353.6	1,044	2.580	3.62
81	179	391454114515601	179 N16 E63 15DC 1	4,346,498	684,113	6,504.1				6	6,334.6	6,348.7	6,342.8	238,795	3.469	242.26
82	179	391509114532101	179 N16 E63 16CAAA1	4,346,912	682,064	6,564.1	256	256	176-256	3	6,414.1	6,429.8	6,424.4	0,810	26,176	26.99
83	179	391449114534401	179 N16 E63 16CCAB1 City of Elly	4,346,283	681,527	6,438.1	300	300	120-300	2	6,398.1	6,404.2	6,401.2	15,948	9.242	25.19
84	179	391529114543601	179 N16 E63 17A 1 Pine County School	4,347,130	680,812	7,253.4		64		2	7,240.4	7,243.4	7,241.9	8,185.870	2,250	8,188.12
85	179	391419114520301	179 N16 E63 22ACDB1	4,345,415	683,970	6,546.2	325	325	165-320	3	6,389.5	6,391.2	6,390.4	1,908	0.244	2.15
86	179	391438114512501	179 N16 E63 23BBAD1	4,346,022	684,868	6,428.1	174	174	114-174	2	6,320.3	6,323.1	6,321.7	0,319	2,045	2.36
87	179	391301114515701	179 N16 E63 27DCDA1	4,343,013	684,171	6,724.2	430	430	350-370/390-430	1	6,374.2	6,374.2	6,374.2	10,537	100	110.54
88	179	179 N16 E63 28BA 1	179 N16 E63 28BA 1	4,344,227	681,983	6,746.8	405	405	200-385	1	6,546.8	6,546.8	6,546.8	87,958	100	187.96
89	179	391251114511901	179 N16 E63 35BACB1	4,342,726	685,090	6,635.2	350	350	205-300	2	6,400.0	6,430.2	6,415.1	2,250	227,557	229.81
90	179	391634114484901	179 N16 E64 06CBDC1 USBLM	4,349,688	688,521	6,411.2	306	306	270-306	6	6,134.5	6,149.8	6,140.5	21,267	4,512	25.78
91	179	392233115034301	179 N17 E61 01B 1	4,355,662	667,400	7,068.4		375	260-375	1	6,788.4	6,788.4	6,788.4	9,132.899	100	9,232.90
92	179	392055115021501	179 N17 E62 07CDBD1 USBLM	4,357,292	669,032	6,944.3				3	6,652.8	6,653.8	6,653.2	1,466E+00	8,218E-02	1,55E+00
93	179	391903115021701	179 N17 E62 30A 1	4,353,290	669,430	6,964.3				1	6,903.9	6,903.9	6,903.9	41,904.874	100	42,004.87
94	179	391749114584601	179 N17 E62 34BDDA1	4,351,667	674,163	6,764.1	48	48	30-48	3	6,726.1	6,732.6	6,730.2	6,161	4,126	10.29
95	179	392228114494901	179 N17 E63 01AB 1	4,360,567	686,821	6,119.0	120	120	50-120	1	6,099.3	6,099.3	6,099.3	4,413	100	104.41
96	179	392218114495201	179 N17 E63 01AC 1	4,360,257	686,757	6,119.0				4	6,098.0	6,102.3	6,100.6	2,563	0.832	3.40
97	179	392210114500401	179 N17 E63 01ACCC1	4,360,004	686,476	6,122.0	130	130	23-130	3	6,082.0	6,102.9	6,095.2	0,041	43,686	43.73
98	179	392210114503801	179 N17 E63 01BCCC1	4,359,984	685,662	6,124.0	119	119	30-118	2	6,097.2	6,099.0	6,098.1	5,876E-04	8,100E-01	8.11E-01
99	179	392131114551401	179 N17 E63 07ABAD1	4,358,627	679,085	6,329.1	300	300	35-260	3	6,295.3	6,305.1	6,300.3	1,678	7,932	9.61

Table B.1-1
Steady-State Mean Hydraulic Head Data Set
 (Page 4 of 24)

Map ID	HA	Site No	Site Name	UTM Northing (m)	UTM Easting (m)	Reference Point Elevation (ft-amsl)	Hole Depth (ft-bgs)	Well Depth (ft-bgs)	Perforated or Open Interval (ft-bgs)	No. of Records Used	Min. Elevation (ft-amsl)	Max Elevation (ft-amsl)	Mean Head (ft-amsl)	Variance Coordinate Location (ft²)	Variance Sample Mean (ft²)	Total Variance (ft²)
100	179	392112114550501	179 N17 E63 07ADCD1	4,358,046	679,314	6,314.0	200	200	35-200	1	6,295.4	6,295.4	6,295.4	0.547	100	100.55
101	179	392111114492301	179 N17 E63 07CBB 1	4,358,208	687,501	6,139.0				1	6,107.2	6,107.2	6,107.2	7.941	100	107.94
102	179	392029114494901	179 N17 E63 13AC 1	4,358,898	686,910	6,159.0	200	200	38-195	6	6,088.9	6,097.2	6,093.3	7.855	2,663	10.52
103	179	391957114512701	179 N17 E63 14CCDD1	4,355,856	684,587	6,179.0	185	195	70-180	3	6,099.0	6,117.6	6,107.5	0.000	29,329	29.33
104	179	392036114515901	179 N17 E63 15AAC1	4,357,040	683,792	6,168.0	121	121	60-121	8	6,099.2	6,107.1	6,104.3	6,173E-02	1.141E+00	1.20E+00
105	179	392030114522101	179 N17 E63 15BC 1	4,358,843	683,270	6,194.0	175	175	92-175	5	6,125.1	6,126.5	6,126.0	9.962	0.063	10.03
106	179	392017114514701	179 N17 E63 15DA 1	4,358,461	684,093	6,174.0	120	120	50-120	5	6,112.5	6,114.4	6,113.5	20.110	0.137	20.25
107	179	391949114525001	179 N17 E63 21AADB1	4,355,562	682,605	6,224.0	176	176	96-176	1	6,108.0	6,108.0	6,108.0	0.468	100	100.47
108	179	391948114523001	179 N17 E63 22BACB1	4,355,543	683,085	6,204.0	102	102	82-102	4	6,125.9	6,126.5	6,126.2	8.851E-01	1.563E-02	9.01E-01
109	179	391950114495201	179 N17 E63 24A 1	4,355,057	687,313	6,204.1		73	50-73	1	6,135.1	6,135.1	6,135.1	1.072.844	100	1,172.84
110	179	391922114502801	179 N17 E63 24D 1	4,354,481	686,440	6,201.6		84	50-84	2	6,121.2	6,121.2	6,121.2	348.375	0.000	348.37
111	179	391814114493301	179 N17 E63 25DDDC1	4,352,745	687,393	6,229.1	150	150	90-150	3	6,137.1	6,164.5	6,150.0	0.322	62.910	63.23
112	179	391751114505301	179 N17 E63 35DA 1 Ely Airport	4,351,188	685,464	6,254.1		78	50-78	5	6,199.4	6,219.0	6,206.5	1,017.986	15.404	1,033.39
113	179	391751114494201	179 N17 E63 36AD 1	4,352,031	687,194	6,244.1				16	6,180.0	6,183.1	6,181.1	3,314E-03	5.881E-02	6.21E-02
114	179	391821114501701	179 N17 E63 36B 1	4,352,203	686,639	6,244.1				1	6,243.3	6,243.3	6,243.3	698.101	100	798.10
115	179	392242114482101	179 N17 E64 05B 1	4,360,315	689,150	6,204.0		25		4	6,187.5	6,187.8	6,187.7	6,963.268	0.004	6,963.27
116	179	392242114484801	179 N17 E64 06A 1	4,360,210	688,626	6,104.0		16		1	6,080.9	6,080.9	6,080.9	2,283.225	100	2,383.22
117	179	392210114485901	179 N17 E64 06ACCC1 Mormon Church/State of NV	4,360,041	688,031	6,118.0	128	128	20-128	6	6,099.0	6,101.9	6,100.3	2,500E-01	1.577E-01	4.08E-01
118	179	392210114484801	179 N17 E64 06BC 1	4,360,035	687,792	6,119.0	121	121	28-115	6	6,093.9	6,105.7	6,099.1	357.482	3,422	360.90
119	179	392205114490101	179 N17 E64 06CA 1	4,359,886	687,987	6,119.0	120	120	30-120	8	6,089.0	6,100.7	6,097.5	9,930	2,532	12.46
120	179	392212114484801	179 N17 E64 06D 1 Mormon Church	4,359,284	688,600	6,126.2				1	6,106.2	6,106.2	6,106.2	2,694.015	100	2,794.01
121	179	392152114484301	179 N17 E64 06DC 1	4,359,496	688,428	6,119.0	100	100	44-100	9	6,086.0	6,102.6	6,096.6	5.858	4,122	9.78
122	179	392139114482501	179 N17 E64 07AA 1	4,359,105	688,868	6,129.0	155	155	140-152	8	6,089.0	6,110.0	6,104.7	5,658	7,243	12.90
123	179	392116114485801	179 N17 E64 07ACCC1 Mormon Church/State of NV	4,358,377	688,096	6,135.0	183	183	37-177	10	6,089.6	6,111.0	6,103.9	0.000	4,442	4.44
124	179	392128114482601	179 N17 E64 07AD 1	4,358,765	688,853	6,129.0	124	124	30-124	8	6,094.4	6,105.6	6,099.8	8.373	1,938	10.31
125	179	392117114491901	179 N17 E64 07BCC 1	4,358,396	687,592	6,139.0	150	150	50-150	1	6,107.5	6,107.5	6,107.5	2,710	100	102.71
126	179	392131114492101	179 N17 E64 07CBAB1	4,358,271	687,547	6,139.0	138	138	50-138	2	6,098.0	6,108.3	6,103.2	0.103	26,574	26.68
127	179	392049114493101	179 N17 E64 07CCCC1	4,357,525	687,326	6,149.0	100	100	40-100	3	6,100.3	6,104.7	6,102.7	0.000E+00	1.664E+00	1.66E+00
128	179	392115114482501	179 N17 E64 07DA 1	4,358,365	688,886	6,139.0				5	6,097.0	6,106.1	6,101.9	6,024	3,531	9.55
129	179	392149114480401	179 N17 E64 08B 1 NV Northern Railroad Co	4,358,695	689,764	6,179.6		30		4	6,152.8	6,153.3	6,153.0	41,719.002	0.015	41,719.02
130	179	392157114474501	179 N17 E64 08BA 1	4,358,703	690,076	6,154.1		204	40-108	3	6,107.4	6,120.1	6,113.2	84,999.420	13,743	85,013.16
131	179	392141114480901	179 N17 E64 08BB 1	4,359,176	689,250	6,124.0		685		3	6,077.3	6,103.3	6,090.2	46,203	56,343	102.55
132	179	392051114483701	179 N17 E64 18A 1	4,356,799	689,164	6,154.1		65	50-65	1	6,092.9	6,092.9	6,092.9	22,450.078	100	22,550.08
133	179	392033114484201	179 N17 E64 18AC 1	4,357,060	688,511	6,154.1				7	6,107.8	6,122.5	6,115.3	8.141	6,607	14.75

Table B.1-1
Steady-State Mean Hydraulic Head Data Set
(Page 5 of 24)

Map ID	HA	Site No	Site Name	UTM Northing (m)	UTM Easting (m)	Reference Point Elevation (ft-amsl)	Hole Depth (ft-bgs)	Well Depth (ft-bgs)	Perforated or Open Interval (ft-bgs)	No. of Records Used	Min. Elevation (ft-amsl)	Max Elevation (ft-amsl)	Mean Head (ft-amsl)	Variance Coordinate Location (ft²)	Variance Sample Mean (ft²)	Total Variance (ft²)
134	179	391964114485801	179 N17 E64 19BA 1	4,355,849	688,157	6,174.1				6	6,116.7	6,122.9	6,120.0	6,659	0.894	7.55
135	179	391932114491101	179 N17 E64 19BDC1	4,355,163	687,862	6,184.1	130	130	60-130	3	6,114.1	6,130.8	6,122.6	0,000	23,352	23.35
136	179	392036114475901	179 N17 E64 19CA 1	4,354,800	688,182	6,189.1	108	108	87-102	2	6,110.8	6,121.1	6,115.9	7,269.984	26,677	7,296.66
137	179	391852114490201	179 N17 E64 30BADC1	4,353,935	688,107	6,206.1	134	134	80-130	2	6,126.1	6,146.1	6,136.1	0,569	100,200	100.77
138	179	391808114491601	179 N17 E64 31B 1	4,351,841	688,253	6,281.8				7	6,218.3	6,220.5	6,219.7	12,965.785	0,093	12,965.88
139	179	179 N18 E61 34 1	179 N18 E61 34 1	4,360,824	684,000	7,479.3	471	471	430-471	1	7,049.3	7,049.3	7,049.3	2,945.428	100	3,045.43
140	179	392343114570601	179 N18 E62 25CCA 1 USBLM	4,362,635	676,312	6,514.1		175	50-175	3	6,361.6	6,366.4	6,364.1	1,012	1,960	2,97
141	179	392343114563501	179 N18 E62 25D 1	4,361,860	677,478	6,500.3		175	50-175	1	6,352.6	6,352.6	6,352.6	21,347.139	100	21,447.14
142	179	392428114494901	179 N18 E63 25A 1	4,363,472	687,039	6,090.0		10		1	6,083.0	6,083.0	6,083.0	7,572.759	100	7,672.76
143	179	392408114494101	179 N18 E63 25A 2	4,363,655	686,939	6,090.0		15		2	6,078.3	6,083.5	6,080.9	9,619.902	6,708	9,626.61
144	179	392418114494701	179 N18 E63 25ABA 1	4,363,960	686,788	6,094.0		58	50-58	2	6,072.7	6,080.8	6,076.8	1,332	16,281	17.61
145	179	392349114502801	179 N18 E63 25D 1	4,362,134	686,544	6,103.1				1	6,096.7	6,096.7	6,096.7	8,136.599	100	8,236.60
146	179	392348114495001	179 N18 E63 25DB 1	4,363,033	686,738	6,104.0				1	6,091.9	6,091.9	6,091.9	85,219	100	185.22
147	179	392329114495201	179 N18 E63 25DCCC1	4,362,446	686,704	6,102.0	130	130	14-125	10	6,098.0	6,098.6	6,098.2	0,000E+00	3,958E-03	3,96E-03
148	179	392329114492701	179 N18 E63 25DDD 1	4,362,461	687,303	6,102.0	10	10		3	6,097.0	6,098.9	6,097.8	1,632E-03	3,342E-01	3,36E-01
149	179	392339114494401	179 N18 E63 36A 1	4,361,835	686,935	6,204.0		130	50-130	1	6,195.9	6,195.9	6,195.9	3,241.446	100	3,341.45
150	179	392330114501701	179 N18 E63 36B 1	4,361,825	686,528	6,204.0	19	19		1	6,188.9	6,188.9	6,188.9	6,643.391	100	6,743.39
151	179	392254114501401	179 N18 E63 36CC 1	4,360,623	686,557	6,124.0	102	102	18-102	5	6,103.6	6,113.4	6,109.5	1,750.945	3,822	1,754.77
152	179	392257114495001	179 N18 E63 36DB 1	4,361,461	686,776	6,109.0	120	120	32-120	6	6,097.8	6,100.0	6,099.3	5,005	0,107	5.11
153	179	392743114453201	179 N18 E64 03ACAA1	4,369,722	692,796	6,294.1	310	310	230-310	2	6,074.1	6,074.1	6,074.1	24,274.450	0,000	24,274.45
154	179	392721114493001	179 N18 E64 06CC 1 NV Northern Railroad Co	4,368,870	687,004	6,090.0				2	6,087.0	6,087.0	6,087.0	1,527.794	0,000	1,527.79
155	179	392303114491601	179 N18 E64 31D 1	4,360,902	687,891	6,104.0	14	14		1	6,090.9	6,090.9	6,090.9	468.039	100	568.04
156	179	179 N18 E65 10B 1	179 N18 E65 10B 1	4,368,852	702,266	8,020.9	36	36	18-36	1	7,996.9	7,996.9	7,996.9	305.669	100	405.67
157	179	392517114420901	179 N18 E65 18DCC1	4,366,050	697,697	7,146.2	550	424	50-424	2	7,050.2	7,066.1	7,058.2	9,080	62,806	71.89
158	179	179 N18 E65 19CC 1	179 N18 E65 19CC 1	4,364,373	697,261	7,120.0	315	315	295-315	1	7,028.0	7,028.0	7,028.0	992.363	100	1,092.36
159	179	395412115302101	179 N19 E63 12A 1 USGS	4,377,979	686,044	6,031.1	915	915	540-915	34	6,014.2	6,017.3	6,016.0	2,706E-01	1,492E-02	2,85E-01
160	179	392949114541901	179 N19 E63 20DB 1	4,374,011	680,044	6,044.1	200	200	40-190	28	6,027.5	6,030.5	6,029.0	1,298E+00	1,523E-02	1,31E+00
161	179	392950114542201	179 N19 E63 20DBD 1	4,374,041	679,972	6,034.1	175	175	40-170	57	6,018.0	6,029.1	6,027.8	2,576	0,049	2.62
162	179	393032114495501	179 N19 E63 24A 1 NV Northern Railroad Co	4,374,482	686,893	6,104.1		51		2	6,054.7	6,056.3	6,055.5	1,023.795	0,640	1,024.44
163	179	392847114513601	179 N19 E63 26CCB 1	4,372,191	683,984	6,059.1	260	260	20-260	5	6,011.4	6,018.0	6,014.7	1,603	1,135	2.74
164	179	392843114530801	179 N19 E63 28CD 1	4,371,813	681,004	6,029.1	122	122	21-122	60	6,016.2	6,023.1	6,021.1	4,579E-01	3,269E-02	4,91E-01
165	179	393033114481101	179 N19 E64 17CC 1	4,375,577	688,802	6,156.1				2	6,037.4	6,039.8	6,036.6	43.765	1,440	45.20
166	179	179 N19 E64 17DBD 1	179 N19 E64 17DBD 1	4,375,606	689,984	6,189.9	6,100			1	6,328.0	6,328.0	6,328.0	59.181	100	159.18
167	179	393040114472801	179 N19 E64 17DBD1 USBLM	4,375,548	690,117	6,188.1	184	168	50-168	3	6,044.1	6,058.0	6,052.0	0,604	17,149	17.75
168	179	392952114433401	179 N19 E64 25A 1	4,373,625	695,878	6,604.1	30	30	10-25	2	6,599.1	6,599.1	6,599.1	4,541.035	0,000	4,541.03
169	179	392911114425301	179 N19 E64 25ADAD1	4,373,238	696,461	6,516.1	198	68	35-76	2	6,501.1	6,509.3	6,505.2	0,489	16,728	17.22

Table B.1-1
Steady-State Mean Hydraulic Head Data Set
(Page 6 of 24)

Map ID	HA	Site No	Site Name	UTM Northing (m)	UTM Easting (m)	Reference Point Elevation (ft-amsl)	Hole Depth (ft-bgs)	Well Depth (ft-bgs)	Perforated or Open Interval (ft-bgs)	No. of Records Used	Min. Elevation (ft-amsl)	Max Elevation (ft-amsl)	Mean Head (ft-amsl)	Variance Coordinate Location (ft²)	Variance Sample Mean (ft²)	Total Variance (ft²)
170	179	392836114481201	179 N19 E64 32BB 1	4,371,970	688,866	6,174.0				1	6,168.2	6,168.2	6,168.2	26.637	100	126.64
171	179	179 N19 E65 06 1	179 N19 E65 06 1	4,379,844	696,899	7,213.5				1	6,497.0	6,497.0	6,497.0	442.160	100	542.16
172	179	179 N19 E65 34CD 1	179 N19 E65 34CD 1	4,371,103	702,183	7,740.9	200	200	190-200	1	7,695.9	7,695.9	7,695.9	481.004	100	581.00
173	179	179 N20 E63 14 DC 1	179 N20 E63 14 DC 1	4,385,006	684,639	6,044.4	207	207	80-200	1	5,959.4	5,959.4	5,959.4	147.637	100	247.64
174	179	179 N20 E63 20BB 1	179 N20 E63 20BB 1	4,384,524	678,994	6,454.1	400	400	370-400	1	6,084.1	6,084.1	6,084.1	1,474.468	100	1,574.47
175	179	179 N20 E64 03BD 1	179 N20 E64 03BD 1	4,384,264	692,004	6,095.8	410	300	160-290	1	5,977.8	5,977.8	5,977.8	199.115	100	299.11
176	179	393814114483701	179 N20 E64 06A 1	4,388,953	688,237	5,959.6	52	52	50-52	1	5,962.5	5,962.5	5,962.5	768.648	100	868.65
177	179	393721114485901	179 N20 E64 07B 1	4,387,482	687,366	5,989.0	25	25		1	5,981.6	5,981.6	5,981.6	816.411	100	916.41
178	179	393702114480401	179 N20 E64 08BC 1	4,387,575	688,676	5,971.0				3	5,967.1	5,969.9	5,968.5	0.000E+00	6,408E-01	6,41E-01
179	179	393647114461101	179 N20 E64 09DADC1 USBLM	4,387,179	691,382	6,073.0	140	140	60-140	4	5,973.0	6,004.5	5,995.4	1.273	56.097	57.37
180	179	393538114463801	179 N20 E64 16CDDD1	4,385,036	690,791	6,064.0	305	305	90-300	5	6,003.6	6,006.9	6,005.7	5.754	0.417	6.17
181	179	393514114472801	179 N20 E64 17DDDA1	4,384,266	689,616	6,037.0	158	158	78-98/118-158	7	5,997.8	6,006.7	6,003.0	5,157E-01	1.301E+00	1.82E+00
182	179	393525114473101	179 N20 E64 20A 1	4,384,604	689,536	6,004.0	158	158	50-158	1	5,964.8	5,964.8	5,964.8	1,002.577	100	1,102.58
183	179	393518114481101	179 N20 E64 20BC 1	4,384,365	688,587	6,000.0	181	181	17-181	5	5,981.5	5,986.3	5,983.3	25.147	0.909	26.06
184	179	393517114470301	179 N20 E64 21BC 1	4,384,374	690,210	6,049.0				7	6,003.1	6,017.2	6,013.3	32.853	3.442	36.29
185	179	393343114473101	179 N20 E64 32B 1	4,381,371	689,783	6,004.0				2	5,991.6	5,991.8	5,991.7	1,137.301	0.010	1,137.31
186	179	393315114473901	179 N20 E64 32C 1 USGS - Test Well 1	4,380,656	689,586	6,041.0	97	97	50-97	1	6,031.0	6,031.0	6,031.0	1,045.235	100	1,145.24
187	179	393310114475001	179 N20 E64 32C 2 USGS	4,380,430	689,185	6,041.0	122	122	20-120	386	6,024.7	6,034.9	6,029.5	4,504E-01	1.538E-02	4.66E-01
188	179	393310114475003	179 N20 E64 32C 3 USGS	4,380,430	689,185	6,041.0		97	50-97	5	6,027.6	6,029.2	6,028.8	4,504E-01	9.191E-02	5.42E-01
189	179	393310114475002	179 N20 E64 32C 5 USGS	4,380,430	689,185	6,041.0				87	6,022.7	6,028.9	6,025.1	4,504E-01	9.079E-03	4.60E-01
190	179	394058114481501	179 N21 E63 13C 1	4,394,845	688,236	6,004.0	47	47		1	5,992.0	5,992.0	5,992.0	5,715.133	100	5,815.13
191	179	394055114475001	179 N21 E63 13D 1	4,394,768	688,833	6,004.0		12		1	5,995.1	5,995.1	5,995.1	2,703.459	100	2,803.46
192	179	394019114484801	179 N21 E63 23A 1	4,393,624	687,479	6,064.1	30	30		1	6,040.7	6,040.7	6,040.7	16,241.412	100	16,341.41
193	179	394016114484201	179 N21 E63 24CB 1	4,393,535	687,624	6,008.1	220	220	20-220	18	5,974.6	5,987.9	5,986.0	12,568.652	0.487	12,569.14
194	179	394007114472001	179 N21 E63 25A 1	4,392,249	689,301	5,959.0		13		1	5,950.1	5,950.1	5,950.1	1,563.530	100	1,663.53
195	179	393951114475401	179 N21 E63 25AB 1	4,392,792	688,787	5,967.0				1	5,957.0	5,957.0	5,957.0	24.894	100	124.89
196	179	393939114473901	179 N21 E63 25C 1 NV Northern Railroad Co	4,391,309	688,704	6,064.0	10	10		1	6,058.0	6,058.0	6,058.0	1,713.116	100	1,813.12
197	179	393943114483701	179 N21 E63 26AD 1	4,392,520	687,768	6,064.0				6	5,976.5	5,982.1	5,978.5	155.588	0.875	156.46
198	179	393850114491301	179 N21 E63 35ACBB1	4,390,865	686,950	6,024.0	300	300	50-295	7	5,974.5	5,982.9	5,979.4	1.645	1.323	2.97
199	179	179 N21 E64 14AC 1	179 N21 E64 14AC 1	4,395,457	696,635	6,655.9	200	200	180-200	1	6,605.9	6,605.9	6,605.9	56.115	100	156.12
200	179	394101114455101	179 N21 E64 17DCBB1	4,395,023	691,664	6,031.0	300	300	60-300	24	5,969.2	5,973.2	5,971.8	5,150E-01	4,708E-02	5,62E-01
201	179	179 N21 E64 18DA 1	179 N21 E64 18DA 1	4,395,255	690,775	5,984.9	366	366	40-366	1	5,954.9	5,954.9	5,954.9	114.037	100	214.04
202	179	394031114465601	179 N21 E64 19BDAD1	4,394,059	690,138	5,965.0	200	200	20-180	6	5,948.2	5,953.0	5,950.8	12.425	0.546	12.97
203	179	394020114472001	179 N21 E64 19CB 1	4,393,706	689,575	5,950.0				6	5,945.4	5,948.0	5,946.8	22.871	0.124	23.00



Table B.1-1
Steady-State Mean Hydraulic Head Data Set
(Page 7 of 24)

Map ID	HA	Site No	Site Name	UTM Northing (m)	UTM Easting (m)	Reference Point Elevation (ft-amsl)	Hole Depth (ft-bgs)	Well Depth (ft-bgs)	Perforated or Open Interval (ft-bgs)	No. of Records Used	Min. Elevation (ft-amsl)	Max Elevation (ft-amsl)	Mean Head (ft-amsl)	Variance Coordinate Location (ft²)	Variance Sample Mean (ft²)	Total Variance (ft²)
204	179	394018114463001	179 N21 E64 19DA 1	4,393,674	690,768	5,991.0				6	5,985.6	5,971.0	5,969.0	48,849	0.797	49.65
205	179	394031114461401	179 N21 E64 20BC 1	4,394,084	691,139	6,008.0				3	5,958.9	5,961.0	5,960.2	51,931	0.414	52.35
206	179	394031114461402	179 N21 E64 20BC 2	4,394,084	691,139	6,008.0				3	5,985.7	5,970.0	5,967.9	51,931	1.543	53.47
207	179	394032114454901	179 N21 E64 20BD 1	4,394,130	691,734	6,031.0				5	5,969.2	5,977.7	5,973.7	52,223	1.866	54.09
208	179	393938114461301	179 N21 E64 29BC 1	4,392,450	691,203	6,024.0	212	212	150-206	7	5,976.4	5,979.0	5,978.2	49,985	0.126	50.11
209	179	393936114461901	179 N21 E64 29BCDB1	4,392,385	691,062	6,034.0				18	5,995.5	5,997.1	5,996.1	5,466E-01	1.059E-02	5.57E-01
210	179	393939114455001	179 N21 E64 29BDAD1	4,392,495	691,751	6,054.0	240	240	70-235	3	5,980.6	5,986.0	5,983.4	20,634	2.434	23.07
211	179	393944114465901	179 N21 E64 30BADD1	4,392,608	690,103	5,978.0	250	250	20-250	7	5,988.0	5,965.6	5,962.1	1,420,777	0.868	1,421.64
212	179	393857114471501	179 N21 E64 30C 1	4,391,150	689,757	6,004.0	8	8		1	6,001.1	6,001.1	6,001.1	1,239,646	100	1,339.65
213	179	393907114465601	179 N21 E64 30DCDC1	4,391,469	690,202	5,988.0				6	5,978.7	5,985.2	5,982.6	37,369	1.221	38.59
214	179	393833114463101	179 N21 E64 31DA 1	4,390,436	690,824	6,024.0	200	200	0-125	7	6,003.0	6,009.4	6,006.1	41,004	1.127	42.13
215	179	394751114442901	179 N22 E64 04DCCC1	4,407,692	693,233	6,090.0	150	150	50-150	1	5,951.5	5,951.5	5,951.5	0.022	100	100.02
216	179	179 N22 E64 22CD 1	179 N22 E64 22CD 1	4,403,061	694,627	6,181.3	300	300	50-300	1	5,961.3	5,961.3	5,961.3	339,075	100	439.08
217	179	395234114580701	179 N23 E62 09CA 1 USBLM	4,415,973	673,645	6,631.2	320	320	280-315	1	6,346.2	6,346.2	6,346.2	7,002	100	107.00
218	179	395334114490801	179 N23 E63 02B 1 Cherry Creek St	4,417,755	686,414	5,883.2		100	50-100	1	5,881.2	5,881.2	5,881.2	32,795	100	132.80
219	179	179 N23 E63 06AA 1	179 N23 E63 06AA 1	4,418,575	680,738	6,121.0	400	400	200-400	1	5,909.0	5,909.0	5,909.0	1,072,942	100	1,172.94
220	179	179 N23 E63 16BA 1	179 N23 E63 16BA 1	4,415,426	683,203	5,922.9	140	120	40-120	1	5,897.9	5,897.9	5,897.9	23,660	100	123.66
221	179	395059114481801	179 N23 E63 24BC 1	4,413,374	687,710	5,893.0				1	5,887.0	5,887.0	5,887.0	0.000	100	100.00
222	179	395058114481701	179 N23 E63 24BCDB1 USBLM	4,413,344	687,734	5,890.0				1	5,884.0	5,884.0	5,884.0	0.000	100	100.00
223	179	395218114465201	179 N23 E64 07CD 1	4,415,861	689,693	5,886.0	6	6		47	5,883.9	5,885.8	5,885.0	2,997E-01	4.311E-03	3.04E-01
224	179	395119114451501	179 N23 E64 20AAAB1 White Pine Power Project	4,414,099	692,044	5,975.0	995	995	350-370/380-400/415-475	61	5,881.2	5,886.1	5,884.5	2,227	0.017	2.24
225	179	395116114451601	179 N23 E64 20AAAC1 White Pine Power Project	4,414,006	692,022	5,975.0	460	460	355-455	60	5,881.9	5,884.7	5,883.3	1,075E+00	7.629E-03	1.08E+00
226	179	395120114452801	179 N23 E64 20AB 1 White Pine Power Project	4,414,122	691,734	5,959.0	455	455	155-170/225-235/375-450	60	5,887.4	5,890.2	5,888.9	9,042E-01	7.444E-03	9.12E-01
227	179	395041114462801	179 N23 E64 20BCC1	4,412,671	690,462	5,919.0				1	5,914.4	5,914.4	5,914.4	898,003	100	998.00
228	179	395117114442601	179 N23 E64 21B 1	4,412,975	693,236	6,004.0	7	7		1	6,000.8	6,000.8	6,000.8	11,214,492	100	11,314.49
229	179	395850114484001	179 N24 E63 02D 1	4,426,740	686,716	5,983.0	485	485	50-485	1	5,884.0	5,884.0	5,884.0	9,799,040	100	9,899.04
230	179	395730114485601	179 N24 E63 13BBB1	4,424,913	687,711	5,904.0	16	16		4	5,870.4	5,874.2	5,872.3	3,734E-03	6.123E-01	6.16E-01
231	179	395713114480601	179 N24 E63 13BBB2	4,424,913	687,711	5,883.0				1	5,874.1	5,874.1	5,874.1	0.004	100	100.00
232	179	395447114371301	179 N24 E63 33A 1	4,419,633	683,707	5,904.0	40	40		1	5,865.4	5,865.4	5,865.4	3,698,112	100	3,798.11
233	179	395443114512301	179 N24 E63 33BA 1	4,420,174	683,147	5,942.0				4	5,903.4	5,908.6	5,907.0	2,662	1.490	4.15
234	179	395847114433901	179 N24 E64 03CBAB1	4,427,971	693,973	5,860.0				3	5,845.0	5,853.5	5,850.5	2,227	7.754	9.98
235	179	395655114433101	179 N24 E64 15CAA 1	4,424,522	694,251	5,903.0	65	65	50-65	5	5,863.0	5,869.6	5,867.7	3,765E-01	1.476E+00	1.85E+00
236	179	395654114442601	179 N24 E64 16C 1	4,423,841	692,962	5,904.0	65	65	50-65	1	5,888.9	5,868.9	5,868.9	544,336	100	644.34
237	179	395529114445701	179 N24 E64 29B 1 USBLM	4,421,818	692,277	5,904.0	12	12		1	5,899.0	5,899.0	5,899.0	452,438	100	552.44

Table B.1-1
Steady-State Mean Hydraulic Head Data Set
 (Page 8 of 24)

Map ID	HA	Site No	Site Name	UTM Northing (m)	UTM Easting (m)	Reference Point Elevation (ft-amsl)	Hole Depth (ft-bgs)	Well Depth (ft-bgs)	Perforated or Open Interval (ft-bgs)	No. of Records Used	Min. Elevation (ft-amsl)	Max Elevation (ft-amsl)	Mean Head (ft-amsl)	Variance Coordinate Location (ft²)	Variance Sample Mean (ft²)	Total Variance (ft²)
238	179	395740114383601	179 N24 E65 17AADC1 USBLM	4,426,091	701,216	6,730.1	21	21	18-20	1	6,720.1	6,720.1	6,720.1	0.436	100	100.44
239	179	179 N24 E65 30DC 1	179 N24 E65 30DC 1	4,421,947	699,686	6,737.6	180	180	100-180	1	6,717.6	6,717.6	6,717.6	53.670	100	153.67
240	179	400043114481501	179 N25 E63 28A 1	4,431,092	686,799	6,217.1	34	34		1	6,189.6	6,189.6	6,189.6	2,225,679	100	2,325.68
241	179	400435114453301	179 N25 E64 05BAA 1	4,438,633	690,999	5,909.0	130	130	50-130	1	5,902.2	5,902.2	5,902.2	3,372	100	103.37
242	179	4004146114450201	179 N25 E64 20B 1 NV Northern Railroad Co	4,433,490	691,389	5,903.9	12	12		1	5,896.9	5,896.9	5,896.9	5,524,339	100	5,624.34
243	179	400015114463601	179 N25 E64 30CD 1	4,430,239	689,715	5,892.9				1	5,888.8	5,888.8	5,888.8	4,463,777	100	4,563.78
244	179	400413114375601	179 N25 E65 04CA 1	4,438,235	701,843	5,900.8	200	200	60-200	7	5,840.8	5,852.9	5,847.1	73,702	2,147	75.85
245	179	400411114372201	179 N25 E65 04DA 1	4,438,194	702,650	5,925.8				2	5,856.0	5,856.5	5,856.3	73,789	0,063	73.85
246	179	400438114384101	179 N25 E65 05B 1	4,438,412	700,392	5,875.6	460	460	15-450	1	5,860.6	5,860.6	5,860.6	1,930,284	100	2,030.28
247	179	400423114392301	179 N25 E65 05BACC1	4,438,488	699,773	5,857.8	260	260	20-250	2	5,847.8	5,850.8	5,849.3	0.531	2,250	2.78
248	179	400408114382901	179 N25 E65 05DA 1	4,438,060	701,065	5,884.8				5	5,835.3	5,847.2	5,840.9	57,994	5,897	63.89
249	179	400344114383401	179 N25 E65 08AAD1	4,437,316	700,966	5,896.8	450	450	344-450	4	5,839.4	5,856.8	5,846.0	0.013	14,141	14.15
250	179	400024114393101	179 N25 E65 31A 1	4,430,120	699,543	6,125.4	220	140	50-140	1	6,075.4	6,075.4	6,075.4	36,023,736	100	36,123.74
251	179	400032114395601	179 N25 E65 31B 1	4,431,056	698,735	5,927.0	62	62	50-62	1	5,879.4	5,879.4	5,879.4	16,559,598	100	16,659.60
252	179	400016114401601	179 N25 E65 31BDD1	4,430,839	698,717	5,974.9	235	235	155-235	48	5,867.4	5,870.6	5,868.8	2,102	0.024	2.13
253	179	400546114445701	179 N26 E64 28D 1	4,439,801	690,827	5,909.0	250	170	30-160	2	5,882.0	5,885.5	5,885.2	61,431,605	10,465	61,442.07
254	179	179 N26 E65 01CC 1	179 N26 E65 01CC 1	4,447,013	704,687	5,943.5	170	170	150-170	1	5,860.5	5,860.5	5,860.5	227,835	100	327.83
255	179	400753114374601	179 N26 E65 15 1	4,444,461	701,582	5,803.8	200	200	50-200	1	5,745.8	5,745.8	5,745.8	1,304,481	100	1,404.48
256	179	400714114384801	179 N26 E65 21AAAA1	4,443,679	701,200	5,880.8	280	280	35-276	7	5,839.7	5,846.0	5,843.8	1,250E-05	6,635E-01	6.64E-01
257	179	400714114384801	179 N26 E65 21BAAA1	4,443,783	700,463	5,872.8	300	300	30-300	6	5,841.9	5,852.8	5,846.1	3,407	2,171	5.58
258	179	400650114384701	179 N26 E65 21CAAA1	4,443,044	700,506	5,872.8	320	320	20-320	7	5,848.5	5,850.2	5,849.2	14,403	0.047	14.45
259	179	400650114381201	179 N26 E65 21DAAA1	4,443,066	701,335	5,880.8	300	300	40-300	7	5,846.8	5,855.2	5,851.3	9,288	1,324	10.61
260	179	400544114352201	179 N26 E65 25C 1	4,440,636	705,073	5,964.8				1	5,834.7	5,834.7	5,834.7	4,557,384	100	4,657.38
261	179	400605114373801	179 N26 E65 27BDAD1	4,441,700	702,177	5,888.8	300	300	40-300	7	5,843.7	5,850.3	5,846.0	18,949	0.637	19.59
262	179	400546114373801	179 N26 E65 27CADD1 Hudson Oil	4,441,114	702,193	5,888.8	670	670	170-670	7	5,842.8	5,853.8	5,847.7	3,959	2,258	6.22
263	179	400616114381201	179 N26 E65 28AAD1	4,442,017	701,363	5,872.8				6	5,837.0	5,842.9	5,841.2	2,786	0.765	3.55
264	179	400625114384801	179 N26 E65 28BAAA1 Hudson Oil	4,442,272	700,503	5,863.8	910	910	170-270/347-910	6	5,840.5	5,844.6	5,842.1	8,055	0.351	8.41
265	179	400626114392101	179 N26 E65 29AAAA1 Hudson Oil	4,442,282	699,721	5,855.8	1,000	1,000	180-310/410-1000	6	5,839.4	5,842.9	5,841.6	4,162	0.295	4.46
266	179	400454114393801	179 N26 E65 32D 1	4,439,435	699,393	5,851.8	260	260	20-250	5	5,841.8	5,843.8	5,843.0	1,269,696	0.149	1,269.85
267	179	400530114381401	179 N26 E65 33AAAA1	4,440,598	701,353	5,872.8	300	300	50-300	7	5,843.6	5,851.1	5,847.3	2,957	1,269	4.23
268	179	400533114384701	179 N26 E65 33BAAA1	4,440,669	700,569	5,863.8	300	300	60-300	7	5,845.8	5,849.5	5,847.5	2,050	0.228	2.28
269	179	400507114384701	179 N26 E65 33CAAA1	4,439,868	700,590	5,863.8	481	481	27-481	2	5,836.8	5,851.6	5,844.2	6,337	54,760	61.10
270	179	400507114381201	179 N26 E65 33DAAA1	4,439,890	701,419	5,872.8	300	300	20-300	7	5,844.7	5,858.0	5,851.1	13,092	3,627	16.72
271	179	400509114374001	179 N26 E65 34BDDD1	4,439,971	702,176	5,888.8	440	440	40-440	2	5,839.6	5,853.8	5,846.7	7,912	50,410	58.32
272	179	400504114373101	179 N26 E65 34DABA1	4,439,823	702,393	5,900.8		894	50-894	55	5,842.7	5,847.7	5,845.4	5,179E-01	2,715E-02	5.45E-01

Table B.1-1
Steady-State Mean Hydraulic Head Data Set
(Page 9 of 24)

Map ID	HA	Site No	Site Name	UTM Northing (m)	UTM Easting (m)	Reference Point Elevation (ft-amsl)	Hole Depth (ft-bgs)	Well Depth (ft-bgs)	Perforated or Open Interval (ft-bgs)	No. of Records Used	Min. Elevation (ft-amsl)	Max Elevation (ft-amsl)	Mean Head (ft-amsl)	Variance Coordinate Location (ft²)	Variance Sample Mean (ft²)	Total Variance (ft²)
273	179	400446114371501	179 N26 E65 34DDDD1 Hudson Oil	4,439,278	702,787	5,900.8		327	50-327	63	5,844.9	5,850.8	5,847.9	5,041E-01	2,781E-02	5,32E-01
274	179	400525114363401	179 N26 E65 35BAAA1	4,440,507	703,726	5,925.8	255	255	20-255	5	5,844.7	5,847.3	5,846.4	9,181E-02	1,969E-01	2,89E-01
275	179	179 N26 E66 03 1	179 N26 E66 03 1	4,448,020	711,729	6,669.2	200	192	140-190	1	6,534.2	6,534.2	6,534.2	130.371	100	230.37
276	179	179 N26 E66 17 BC 1	179 N26 E66 17 BC 1	4,444,895	707,957	6,032.3	192	192	125-189	1	5,895.3	5,895.3	5,895.3	289.054	100	389.05
277	179	401102114414101	179 N27 E64 25D 1 NV Northern Railroad Co	4,450,196	695,536	5,851.8		60	50-60	2	5,837.5	5,841.8	5,839.7	1,675.699	4,558	1,680.26
278	179	179 N27 E65 09DB 1	179 N27 E65 09DB 1	4,455,541	700,482	6,284.6	460			1	5,834.6	5,834.6	5,834.6	1,310.990	100	1,410.99
279	179	401041114394501	179 N27 E65 29C 1	4,449,843	698,574	5,876.8				1	5,819.5	5,819.5	5,819.5	3,813.235	100	3,913.24
280	179	179 N28 E64 04DD 1	179 N28 E64 04DD 1	4,466,624	690,849	5,845.0	265	265	20-265	1	5,825.0	5,825.0	5,825.0	1,039.908	100	1,139.91
281	179	179 N28 E64 05AA 1	179 N28 E64 05AA 1	4,467,821	689,180	5,945.4	240	236	15-236	1	5,936.0	5,936.0	5,936.0	195.961	100	295.96
282	179	401822114414901	179 N28 E64 13ADB01	4,464,269	695,643	5,793.7		200	50-200	1	5,635.5	5,635.5	5,635.5	1,463	100	101.46
283	179	401601114443401	179 N28 E64 27CDB 1	4,459,821	691,859	5,794.7	300	300	0-40	2	5,786.1	5,789.7	5,787.9	3,002	3,222	6.22
284	179	401559114444401	179 N28 E64 34BABB1 Currie School	4,459,753	691,624	5,804.9	275	275	59-275	1	5,794.9	5,794.9	5,794.9	0.548	100	100.55
285	179	179 N28 E64 36DA 1	179 N28 E64 36DA 1	4,458,786	695,999	5,990.6	402	402	342-402	1	5,644.6	5,644.6	5,644.6	3,013.154	100	3,113.15
286	180	180 N06 E64 18CC 1	180 N06 E64 18CC 1 Sidehill Pass Well	4,249,221	688,678	5,975.2				4	5,816.1	5,817.4	5,817.0	2,321E-01	8,782E-02	3,20E-01
287	180	180 N07 E63 13DB 1	180 N07 E63 13DB 1	4,259,662	687,817	6,014.4	250	250	200-240	1	5,834.4	5,834.4	5,834.4	0.967	100	100.97
288	180	382822114515301	180 N07 E63 14AB 1 USGS-MX	4,260,043	685,674	6,011.9	460	273	200-263	2	5,780.9	5,788.7	5,784.8	6,555	15,210	21.77
289	180	382822114515302	180 N07 E63 14AB 2 USGS-MX	4,260,043	685,674	6,011.9	460	422	380-422	1	5,780.9	5,780.9	5,780.9	6,555	100	106.56
290	180	382810114521501	180 N07 E63 14ADB1 USAF	4,260,043	685,674	6,012.9	460	269	50-269	5	5,782.9	5,793.3	5,790.0	0.049	3,679	3.73
291	180	382810114521502	180 N07 E63 14ADB2 USAF	4,260,043	685,674	6,012.9	460	418	50-418	3	5,782.9	5,791.6	5,787.9	0.049	6,601	6.65
292	180	382807114521001	180 N07 E63 14BADD1 USGS-MX (Cave Valley)	4,259,954	685,797	6,011.9	460	460	210-250/375-435	72	5,782.9	5,793.1	5,790.3	7,457E-03	4,780E-02	5,53E-02
293	180	382747114525701	180 N07 E63 15DBAD1 USBLM	4,259,311	684,672	6,025.9				3	5,792.9	5,797.4	5,794.8	0.785	1,845	2.63
294	180	180 N07 E63 27CD 1	180 N07 E63 27CD 1	4,255,971	684,288	5,988.3	245	245	200-240	1	5,831.3	5,831.3	5,831.3	1.656	100	101.66
295	180	180 N07 E63 27DD 1	180 N07 E63 27DD 1	4,255,990	685,088	5,988.3	290	290	240-280	1	5,820.3	5,820.3	5,820.3	1.396	100	101.40
296	180	180 N07 E63 27DD 2	180 N07 E63 27DD 2	4,255,990	685,088	5,988.3	320	320	260-300	1	5,805.3	5,805.3	5,805.3	1.396	100	101.40
297	180	180 N07 E63 33D 1	180 N07 E63 33D 1	4,254,561	683,325	5,981.7	300	300	198-300	1	5,789.7	5,789.7	5,789.7	1.523	100	101.52
298	180	382640114492801	180 N07 E64 19 1 Gulf Oil Corp	4,257,364	689,787	6,004.9	265	265	240-265	2	5,784.9	5,789.9	5,787.4	4.994	6,250	11.24
299	180	383458114473601	180 N08 E64 04ABDD1 USBLM	4,272,813	692,206	6,224.0	200	200	160-200	6	6,064.0	6,093.3	6,084.6	0.199	18,818	19.02
300	180	383307114471001	180 N08 E64 15BCBC1 USBLM	4,269,374	692,846	6,163.0				3	5,883.0	5,900.4	5,891.4	18.426	25,253	43.68
301	180	383056114501501	180 N08 E64 30CDBC1 USBLM	4,265,229	688,462	6,087.0	352	352	50-352	9	5,749.0	5,772.2	5,761.0	9.202	5,097	14.30
302	180	383501114504801	180 N09 E63 01A 1	4,283,005	687,559	6,536.3				1	6,534.3	6,534.3	6,534.3	30,059.445	100	30,159.45

Table B.1-1
Steady-State Mean Hydraulic Head Data Set
 (Page 10 of 24)

Map ID	HA	Site No	Site Name	UTM Northing (m)	UTM Easting (m)	Reference Point Elevation (ft-amsl)	Hole Depth (ft-bgs)	Well Depth (ft-bgs)	Perforated or Open Interval (ft-bgs)	No. of Records Used	Min. Elevation (ft-amsl)	Max Elevation (ft-amsl)	Mean Head (ft-amsl)	Variance Coordinate Location (ft²)	Variance Sample Mean (ft²)	Total Variance (ft²)
303	180	383632114465801	180 N09 E64 27BCDD1 USBLM	4,275,700	692,983	6,414.2	315	315	277-315	7	6,156.2	6,191.4	6,180.9	126.765	20.547	147.31
304	180	384207114505601	180 N10 E63 25A 1	4,285,891	686,984	6,604.1		20		6	6,584.1	6,593.3	6,587.4	50,492.247	2.111	50,494.36
305	180	180 N10 E64 06BD 1	180 N10 E64 06BD 1 Robbers Roost Well	4,292,295	688,337	6,848.0				3	6,698.7	6,708.3	6,705.0	4,238.322	9.919	4,248.24
306	180	180 N11 E63 25DD 1	180 N11 E63 25DD 1	4,294,728	687,670	6,987.0	140	140	100-140	1	6,896.0	6,896.0	6,896.0	48.025	100	148.02
307	180	180W501M	180W501M	4,273,716	688,048	6,457.0	1,215	1,212	787.8-1191.8	1	5,407.1	5,407.1	5,407.1	2,493.370	100	2,593.37
308	180	180W902M	180W902M	4,248,363	689,805	5,987.0	917	903	195.5-882.3	1	5,849.1	5,849.1	5,849.1	5,803.156	100	5,903.16
309	181	381256114500701	181 N04 E64 07DC 1 USGS-MX (Muleshoe Valley)	4,232,096	689,481	5,533.8	1,253	1,190	1050-1190	42	5,277.0	5,280.0	5,279.3	333.272	0.006	333.28
310	181	381256114500702	181 N04 E64 07DC 2 USGS-MX	4,232,282	689,526	5,538.8	1,253	672	50-672	4	5,288.8	5,270.2	5,269.4	300.559	0.081	300.64
311	181	381256114500703	181 N04 E64 07DC 3 USGS-MX	4,232,282	689,526	5,538.8	1,253	1,134	50-1134	2	5,274.8	5,285.5	5,280.1	300.559	28.623	329.18
312	181	181 N05 E65 34DC 1	181 N05 E65 34DC 1	4,235,544	703,684	6,600.0	28	28	10-28	1	6,590.0	6,590.0	6,590.0	338.832	100	438.83
313	181	181 N05 E65 35BA 1	181 N05 E65 35BA 1	4,236,789	704,865	6,642.1	35	22	12-22	1	6,630.1	6,630.1	6,630.1	210.447	100	310.45
314	183	382016114355901	183 N05 E66 02BDA 1	4,246,013	709,709	5,964.0	560	560	200-560	2	5,844.0	5,877.0	5,860.5	15,715	272.085	287.80
315	183	183 N05 E66 03AD 1	183 N05 E66 03AD 1	4,244,655	713,694	5,966.0		500	50-500	1	5,859.0	5,859.0	5,859.0	1,427	100	101.43
316	183	183 N05 E66 04DA 1	183 N05 E66 04DA 1	4,244,160	711,969	5,983.4	370	370	160-370	1	5,865.4	5,865.4	5,865.4	40.817	100	140.82
317	183	38194114362801	183 N05 E66 06ADA1	4,244,916	709,033	6,100.0	360	360	135-145/230-2 50/320-330	1	6,020.0	6,020.0	6,020.0	0.878	100	100.88
318	183	183 N05 E66 10DD 1	183 N05 E66 10DD 1	4,242,260	713,648	5,985.0	336	336	156-336	1	5,865.0	5,865.0	5,865.0	19.496	100	119.50
319	183	183 N05 E66 11AA 1	183 N05 E66 11AA 1	4,243,475	715,244	5,989.7	365	365	160-365	1	5,869.7	5,869.7	5,869.7	35.914	100	135.91
320	183	183 N05 E66 14AC 1	183 N05 E66 14AC 1	4,241,509	714,989	5,989.0		225	50-225	1	5,844.0	5,844.0	5,844.0	49.036	100	149.04
321	183	183 N05 E66 14BD 1	183 N05 E66 14BD 1	4,241,496	714,582	5,984.0		146	50-146	1	5,846.0	5,846.0	5,846.0	13.612	100	113.61
322	183	381739114323501	183 N05 E66 14BDAC1 USBLM	4,241,546	714,639	5,984.0		218	50-218	2	5,842.2	5,844.5	5,843.4	1,110.889	1.334	1,112.22
323	183	38191114235101	183 N05 E68 06C 1	4,244,507	727,030	6,584.4		35		2	6,550.4	6,554.4	6,552.4	1,427.638	4.000	1,431.64
324	183	382440114380701	183 N06 E65 01BCA 1 USBLM	4,254,071	706,393	6,001.9	250	250	100-250	2	5,905.7	5,911.9	5,908.8	282.795	9.672	292.47
325	183	382242114382001	183 N06 E65 13CBBB1 USBLM	4,250,426	706,171	6,156.9				1	5,900.3	5,900.3	5,900.3	198.016	100	298.02
326	183	183 N06 E65 14DA 1	183 N06 E65 14DA 1	4,250,870	705,807	6,117.8		152	50-152	1	6,017.8	6,017.8	6,017.8	1,289.571	100	1,389.57
327	183	382409114354201	183 N06 E66 08B 1 USBLM - Grassy Well	4,253,207	709,935	5,933.9		95	50-95	1	5,881.8	5,881.8	5,881.8	9.740	100	109.74
328	183	183 N06 E66 10BD 1	183 N06 E66 10BD 1	4,252,893	713,269	5,942.7	500	500	200-500	2	5,838.7	5,856.7	5,847.7	5.459	81.000	86.46
329	183	183 N06 E66 16DAC 1	183 N06 E66 16DAC 1	4,250,532	712,534	5,959.0				1	5,544.0	5,544.0	5,544.0	44.330	100	144.33
330	183	382216114370001	183 N06 E66 19B 1	4,249,674	708,133	5,993.9		233	50-233	1	5,897.5	5,897.5	5,897.5	5,217.924	100	5,317.92
331	183	382212114370401	183 N06 E66 19CBB1 USBLM	4,249,549	708,063	5,969.9	240	240	125-220	3	5,836.3	5,879.9	5,862.3	1.506	175.774	177.28
332	183	382218114332401	183 N06 E66 22B 1	4,249,873	713,374	5,934.0		450	50-450	20	5,824.8	5,837.9	5,831.9	264.749	0.714	265.46
333	183	183 N06 E66 22BA 1	183 N06 E66 22BA 1	4,249,864	713,482	5,964.0		410	50-410	1	5,863.0	5,863.0	5,863.0	19.032	100	119.03



Table B.1-1
Steady-State Mean Hydraulic Head Data Set
(Page 11 of 24)

Map ID	HA	Site No	Site Name	UTM Northing (m)	UTM Easting (m)	Reference Point Elevation (ft-amsl)	Hole Depth (ft-bgs)	Well Depth (ft-bgs)	Perforated or Open Interval (ft-bgs)	No. of Records Used	Min. Elevation (ft-amsl)	Max Elevation (ft-amsl)	Mean Head (ft-amsl)	Variance Coordinate Location (ft²)	Variance Sample Mean (ft²)	Total Variance (ft²)
334	183	183 N06 E66 27BA 1	183 N06 E66 27BA 1	4,248,256	713,462	5,959.0	180	180	120-180	1	5,839.0	5,839.0	5,839.0	8.665	100	108.66
335	183	183 N06 E66 27BD 1	183 N06 E66 27BD 1	4,247,845	713,538	5,959.0	541	541	50-541	1	5,857.0	5,857.0	5,857.0	5.155	100	105.15
336	183	183 N06 E66 27DD 1	183 N06 E66 27DD 1	4,247,071	714,368	5,969.0	476	476	50-476	1	5,860.0	5,860.0	5,860.0	5.996	100	106.00
337	183	183 N06 E66 29BB 1	183 N06 E66 29BB 1	4,248,167	709,908	5,966.9	450	450	50-450	1	5,850.9	5,850.9	5,850.9	20.980	100	120.98
338	183	183 N06 E66 29BD 1	183 N06 E66 29BD 1	4,247,784	710,198	5,968.7	421	421	122-421	1	5,850.7	5,850.7	5,850.7	35.598	100	135.60
339	183	183 N06 E66 30AA 1	183 N06 E66 30AA 1	4,248,161	709,498	5,968.9	242	242	50-242	1	5,833.9	5,833.9	5,833.9	52.612	100	152.61
340	183	183 N06 E66 30AB 1	183 N06 E66 30AB 1	4,248,153	709,044	5,984.0	420	420	50-420	1	5,858.0	5,858.0	5,858.0	92.218	100	192.22
341	183	183 N06 E66 30BC 1	183 N06 E66 30BC 1	4,247,706	708,157	6,034.0	320	320	50-320	1	5,829.0	5,829.0	5,829.0	240.355	100	340.36
342	183	38210114371401	183 N06 E66 30CBCB1 USBLM	4,247,353	707,853	6,071.0	224	224	182-224	5	5,857.8	5,948.6	5,902.3	57.879	369.088	426.97
343	183	183 N06 E66 32BC 1	183 N06 E66 32BC 1	4,246,145	709,962	6,036.0	175	175	50-175	1	5,891.0	5,891.0	5,891.0	106.961	100	206.96
344	183	382014114355701	183 N06 E66 32CBBB1 New Pony Springs Well	4,245,953	709,760	6,039.0				1	5,857.5	5,857.5	5,857.5	0.333	100	100.33
345	183	183 N06 E66 33BA 1	183 N06 E66 33BA 1	4,246,562	711,833	5,967.6	370	370	170-370	1	5,857.6	5,857.6	5,857.6	10.246	100	110.25
346	183	381947114331201	183 N06 E66 34AAA1	4,245,226	713,788	5,954.0	170	170	120-170	2	5,818.8	5,850.0	5,834.4	0.005	243.672	243.68
347	183	183 N06 E66 34DA 1	183 N06 E66 34DA 1	4,245,871	714,398	5,974.0	500	500	50-500	1	5,867.0	5,867.0	5,867.0	9.870	100	109.87
348	183	382003114322501	183 N06 E66 35C 1 USBLM - Pony Springs Well	4,245,749	714,916	5,977.1	161	161	50-161	23	5,835.8	5,846.6	5,843.2	3.047E-01	3.237E-01	6.28E-01
349	183	183 N06 E66 35D 1	183 N06 E66 35D 1	4,245,709	715,804	5,994.0	161	161	50-161	1	5,864.0	5,864.0	5,864.0	53.961	100	153.96
350	183	381956114314401	183 N06 E66 35DDBD1 USBLM	4,245,560	715,918	5,994.8				1	5,860.6	5,860.6	5,860.6	8.446	100	108.45
351	183	183 N06 E67 05B 1	183 N06 E67 05B 1	4,254,667	719,599	6,054.1	324	324	50-324	1	5,860.1	5,860.1	5,860.1	92.218	100	192.22
352	183	382245114300901	183 N06 E67 18CBAD1 USBLM	4,250,832	718,084	6,084.0				11	5,869.0	5,876.1	5,873.7	14.750	0.483	15.23
353	183	381953114244801	183 N06 E67 36CCC 1	4,245,744	726,023	6,526.3	210	210	50-210	1	6,503.9	6,503.9	6,503.9	50.630	100	150.63
354	183	183 N06 E68 09 1	183 N06 E68 09 1	4,253,091	731,596	7,232.4	385	385	21-385	1	7,210.9	7,210.9	7,210.9	98.141	100	198.14
355	183	382336114210301	183 N06 E68 09CAC 1	4,252,774	731,289	7,190.5	37	37	17-35	1	7,188.5	7,188.5	7,188.5	398.810	100	498.81
356	183	183 N07 E65 09 1	183 N07 E65 09 1	4,261,649	701,940	6,224.0	220	220	50-220	1	6,077.0	6,077.0	6,077.0	660.511	100	760.51
357	183	183 N07 E65 11CC 1	183 N07 E65 11CC 1	4,261,398	704,604	6,046.9	220	220	147-210	1	5,899.9	5,899.9	5,899.9	142.392	100	242.39
358	183	392732114383101	183 N07 E65 14DD 1	4,259,359	705,675	5,962.9	300	300	40-300	2	5,921.7	5,922.9	5,922.3	1.373E+00	3.600E-01	1.73E+00
359	183	382732114383101	183 N07 E65 14DD 2 USBLM	4,259,359	705,675	5,962.9	300	266	50-266	15	5,915.5	5,922.9	5,918.6	1.373E+00	3.983E-01	1.77E+00
360	183	183 N07 E65 17D 1	183 N07 E65 17D 1	4,259,596	700,785	6,364.1	229	229	50-229	1	6,152.1	6,152.1	6,152.1	4.251.223	100	4.351.22
361	183	183 N07 E65 17DA 1	183 N07 E65 17DA 1	4,259,800	700,984	6,343.5	264	264	50-264	1	6,143.5	6,143.5	6,143.5	2.809.488	100	2.909.49
362	183	382757114414301	183 N07 E65 17DAA 1 USBLM	4,260,012	701,001	6,320.0	230	230	50-230	3	6,130.5	6,142.6	6,135.0	103.084	14.438	117.52
363	183	183 N07 E65 23A 1	183 N07 E65 23A 1	4,258,925	705,620	5,941.9	276	276	50-276	1	5,866.9	5,866.9	5,866.9	834.528	100	934.53
364	183	382712114381001	183 N07 E65 23D 1 USBLM - John Dutch Well	4,258,755	706,200	5,953.9	30	30		14	5,925.8	5,929.9	5,928.4	30.133.037	0.064	30.133.10
365	183	183 N07 E65 35 1	183 N07 E65 35 1	4,255,495	705,386	6,213.5	250	250	100-250	1	6,123.5	6,123.5	6,123.5	138.948	100	238.95
366	183	382935114363801	183 N07 E66 06BCD 1 USBLM	4,263,425	707,850	5,925.0	71	71	50-71	2	5,895.6	5,900.2	5,897.9	0.434	5.244	5.68

Table B.1-1
Steady-State Mean Hydraulic Head Data Set
(Page 12 of 24)

Map ID	HA	Site No	Site Name	UTM Northing (m)	UTM Easting (m)	Reference Point Elevation (ft-amsl)	Hole Depth (ft-bgs)	Well Depth (ft-bgs)	Perforated or Open Interval (ft-bgs)	No. of Records Used	Min. Elevation (ft-amsl)	Max Elevation (ft-amsl)	Mean Head (ft-amsl)	Variance Coordinate Location (ft²)	Variance Sample Mean (ft²)	Total Variance (ft²)
367	183	382753114341301	183 N07 E66 16DC 1 USGS-MX (Lake Valley)	4,260,690	711,777	5,919.0		97	50-97	53	5,888.2	5,902.0	5,899.6	2,948E-02	1,213E-02	4.16E-02
368	183	183 N07 E66 21AA 1	183 N07 E66 21AA 1	4,259,341	712,303	5,927.8	12,750		50-12750	1	5,773.8	5,773.8	5,773.8	3.366	100	103.37
369	183	183 N07 E66 33BD 1	183 N07 E66 33BD 1	4,256,120	711,631	5,936.3	232	232	79-232	1	5,877.3	5,877.3	5,877.3	5.245	100	105.25
370	183	382513114312001	183 N07 E66 36C 1 USBLM - Mustang Well	4,255,348	716,238	5,944.0		126	50-126	1	5,835.2	5,835.2	5,835.2	270.698	100	370.70
371	183	382946114301201	183 N07 E67 06B 1	4,264,484	717,544	6,104.0	872	872	50-872	1	6,088.0	6,088.0	6,088.0	16,210.535	100	16,310.54
372	183	382702114283801	183 N07 E67 20C 1	4,258,801	719,566	6,047.9		180	50-180	1	5,879.5	5,879.5	5,879.5	2,205.711	100	2,305.71
373	183	382738114265801	183 N07 E67 21A 1 USBLM - Fortin Well	4,259,795	722,062	6,179.0		307	50-307	1	5,887.0	5,887.0	5,887.0	7,946.403	100	8,046.40
374	183	183 N07 E67 27CA 1	183 N07 E67 27CA 1	4,257,568	722,973	6,244.3	505	389	200-382	1	6,052.3	6,052.3	6,052.3	346.652	100	446.65
375	183	183 N08 E65 02AC 1	183 N08 E65 02AC 1	4,273,216	705,065	5,954.0		150	50-150	1	5,919.0	5,919.0	5,919.0	175.287	100	275.29
376	183	383502114383201	183 N08 E65 02D 1 NDOT - Patterson Pass	4,272,924	705,375	5,979.0		130	50-130	60	5,941.1	5,947.1	5,945.6	6,401E-02	3,278E-02	9.68E-02
377	183	183 N08 E65 10CC 1	183 N08 E65 10CC 1	4,271,036	702,687	6,177.4	383	383	243-383	1	5,947.4	5,947.4	5,947.4	749.128	100	849.13
378	183	383406114373001	183 N08 E65 12DBA 1 USBLM	4,271,543	706,840	5,922.1	69	45		2	5,888.5	5,900.5	5,899.5	8,355E-03	9,900E-01	9.98E-01
379	183	183 N08 E65 23DC 1	183 N08 E65 23DC 1	4,267,954	705,237	5,967.1	183	183	84-184	1	5,883.1	5,883.1	5,883.1	221.897	100	321.90
380	183	383112114384201	183 N08 E65 26DC 1 USBLM	4,266,134	705,235	5,951.0				1	5,910.3	5,910.3	5,910.3	26.273	100	126.27
381	183	383032114404901	183 N08 E65 33DBD 1 USBLM	4,264,511	702,076	6,208.0		325	50-325	3	5,910.7	5,914.4	5,912.0	129.393	1,408	130.80
382	183	183 N08 E65 35AD 1	183 N08 E65 35AD 1	4,265,165	705,678	5,954.0		200	50-200	1	5,899.0	5,899.0	5,899.0	37.756	100	137.76
383	183	183 N08 E66 09DB 1	183 N08 E66 09DB 1	4,271,405	711,560	5,936.8	244	244	54-244	1	5,886.8	5,886.8	5,886.8	5.397	100	105.40
384	183	383411114334001	183 N08 E66 10BCAC 1 USBLM	4,271,843	712,403	5,961.8	217	217	117-217	1	5,887.8	5,887.8	5,887.8	11.568	100	111.57
385	183	383121114331001	183 N08 E66 27BDD 1 USBLM	4,266,952	712,920	5,926.0		55	50-55	2	5,881.0	5,881.5	5,881.3	1,886E-01	6,250E-02	2.51E-01
386	183	383041114313101	183 N08 E66 36CB 1 USGS-MX	4,265,453	715,699	5,939.0	101	101	50-101	3	5,854.0	5,883.0	5,870.4	2,096.111	73.444	2,169.56
387	183	384046114373001	183 N09 E65 01A 1	4,283,215	706,054	5,984.0		165	50-165	5	5,945.6	5,947.9	5,946.6	9,602.079	0.197	9,602.28
388	183	183 N09 E65 01A 2	183 N09 E65 01A 2	4,283,251	706,642	5,944.0		128	50-128	1	5,906.0	5,906.0	5,906.0	92.344	100	192.34
389	183	183 N09 E65 01BA 1	183 N09 E65 01BA 1	4,283,448	706,045	5,984.0		597	50-597	1	5,969.0	5,969.0	5,969.0	615.179	100	715.18
390	183	183 N09 E65 01BD 1	183 N09 E65 01BD 1	4,283,027	706,058	5,984.0		55	50-55	1	5,949.0	5,949.0	5,949.0	658.815	100	758.82
391	183	183 N09 E65 13B 1	183 N09 E65 13B 1	4,279,987	705,924	5,955.7		57	50-57	1	5,939.7	5,939.7	5,939.7	319.909	100	419.91
392	183	183 N09 E65 25CB 1	183 N09 E65 25CB 1	4,276,421	705,794	5,928.8	635	635	15-630	1	5,920.8	5,920.8	5,920.8	4.601	100	104.60
393	183	183 N09 E65 26AA 1	183 N09 E65 26AA 1	4,277,181	705,363	5,936.8	100	100	55-100	1	5,926.8	5,926.8	5,926.8	175.637	100	275.64
394	183	183 N09 E65 35AB 1	183 N09 E65 35AB 1	4,275,568	705,017	5,934.0	580	580	84-580	1	5,910.7	5,910.7	5,910.7	343.954	100	443.95
395	183	183 N09 E66 04A 1	183 N09 E66 04A 1	4,283,356	711,437	5,934.0	53	53	50-53	1	5,897.0	5,897.0	5,897.0	13.807	100	113.81
396	183	383744114322801	183 N09 E66 23BDB 1 USBLM	4,278,456	713,970	6,087.0				1	5,888.7	5,888.7	5,888.7	56.050	100	156.05



Table B.1-1
Steady-State Mean Hydraulic Head Data Set
(Page 13 of 24)

Map ID	HA	Site No	Site Name	UTM Northing (m)	UTM Easting (m)	Reference Point Elevation (ft-amsl)	Hole Depth (ft-bgs)	Well Depth (ft-bgs)	Perforated or Open Interval (ft-bgs)	No. of Records Used	Min. Elevation (ft-amsl)	Max Elevation (ft-amsl)	Mean Head (ft-amsl)	Variance Coordinate Location (ft²)	Variance Sample Mean (ft²)	Total Variance (ft²)
397	183	383622114330801	183 N09 E66 27DCCA1 USBLM	4,275,902	713,070	5,983.1	143	143	93-143	1	5,893.1	5,893.1	5,893.1	10,825	100	110.82
398	183	183 N09 E66 31DB 1	183 N09 E66 31DB 1	4,274,912	708,278	5,927.6	129	130	89-129	1	5,838.6	5,838.6	5,838.6	1,304	100	101.30
399	183	384338114380001	183 N10 E65 13CBDA1 USBLM	4,289,158	705,659	6,221.1				1	5,910.8	5,910.8	5,910.8	59,115	100	159.11
400	183	384120114372401	183 N10 E65 36D 1	4,284,307	706,558	5,984.0		165	50-165	3	5,958.1	5,959.7	5,959.1	5,148,120	0.249	5,148.37
401	183	183 N10 E65 36DA 1	183 N10 E65 36DA 1	4,284,274	706,813	5,944.0		843	50-843	1	5,934.0	5,934.0	5,934.0	99,584	100	199.58
402	183	384529114335601	183 N10 E66 09ABAA1 USBLM	4,291,862	711,121	6,054.1				2	5,875.7	5,877.8	5,876.7	19,615	1,102	20.72
403	183	384343114355201	183 N10 E66 17A 1 USBLM - Twisselman	4,289,964	709,335	6,024.0		125	50-125	1	5,925.0	5,925.0	5,925.0	1,967,739	100	2,067.74
404	183	384324114355401	183 N10 E66 17CCAC1 USBLM	4,288,806	708,713	6,027.0	165	125	50-125	3	5,925.5	5,927.8	5,926.9	1,723,163	0.500	1,723.66
405	183	183 N10 E66 22BB 1	183 N10 E66 22BB 1	4,288,449	711,526	6,072.3	173	173	90-173	1	6,042.3	6,042.3	6,042.3	307,981	100	407.98
406	183	384143114363301	183 N10 E66 31A 1	4,284,928	707,896	5,969.0		46		1	5,936.0	5,936.0	5,936.0	1,098,803	100	1,198.80
407	183	183 N10 E66 31AB 1	183 N10 E66 31AB 1	4,285,125	707,954	5,944.0		690	50-690	1	5,926.0	5,926.0	5,926.0	98,664	100	198.66
408	183	384131114363601	183 N10 E66 31BAAA1 USBLM	4,285,296	707,789	5,963.0				2	5,934.1	5,935.8	5,934.9	1,425	0.722	2.15
409	183	183 N10 E66 31BB 1	183 N10 E66 31BB 1	4,285,127	707,174	5,965.6	468	468	90-410	1	5,905.6	5,905.6	5,905.6	202,106	100	302.11
410	183	183 N10 E66 34BB 1	183 N10 E66 34BB 1	4,285,206	711,970	6,034.0		110	50-110	1	5,924.0	5,924.0	5,924.0	482,654	100	582.65
411	183	384125114334501	183 N10 E66 34BBBC1 USBLM	4,285,220	711,926	6,028.0				1	5,909.4	5,909.4	5,909.4	53,989	100	153.99
412	184	383351114180201	184 N08 E68 14A 1 USBLM	4,271,379	734,461	6,142.4	495	495	50-495	6	5,723.9	5,735.4	5,732.8	3,723,953	3,199	3,727.15
413	184	383704114225001	184 N09 E68 30AAAB1 USGS-MX (Spring Valley S.)	4,277,638	727,886	6,014.0	700	679	559-679	63	5,786.8	5,788.8	5,788.2	1,701E+00	5,234E-03	1,71E+00
414	184	383707114231201	184 N09 E68 30AB 1 USGS-MX	4,277,687	727,449	6,029.0	700	699	50-699	2	5,799.0	5,800.0	5,799.5	62,861	0.250	63.11
415	184	383707114231202	184 N09 E68 30AB 2 USGS-MX	4,277,687	727,449	6,029.0	700	700	50-700	3	5,810.0	5,811.7	5,811.1	62,861	0.312	63.17
416	184	384448114300901	184 N10 E67 07BA 1 USGS	4,291,619	716,975	5,884.0	200	200	50-200	3	5,798.5	5,800.0	5,799.2	1,068E+00	1,944E-01	1,26E+00
417	184	384331114261001	184 N10 E67 15DA 1 USGS	4,289,404	722,812	5,863.9	200	200	50-200	1	5,797.8	5,797.8	5,797.8	0,606	100	100.61
418	184	384403114272301	184 N10 E67 16AABA1 USBLM	4,290,342	721,021	5,834.0	54	54	50-54	9	5,788.5	5,793.9	5,791.8	6,431E-01	4,262E-01	1,07E+00
419	184	384310114261401	184 N10 E67 22AA 1 USGS-MX (Spring V Central)	4,286,754	722,733	5,892.9		100	50-100	47	5,826.9	5,828.1	5,827.5	65,941	0.002	65.94
420	184	384254114252801	184 N10 E67 23ACBD1	4,286,292	723,858	5,871.9				3	5,775.5	5,778.4	5,777.0	3,137E-01	7,017E-01	1,02E+00
421	184	384216114260001	184 N10 E67 26BB 1 USGS-MX	4,287,099	723,118	5,948.0	200	200	50-200	6	5,852.5	5,936.0	5,901.6	88,323	229,155	317.48
422	184	184 N10 E68 30DD 1	184 N10 E68 30DD 1	4,286,020	727,785	5,930.4				6	5,773.4	5,774.8	5,774.1	148,601	0.058	148.66
423	184	384039114232701	184 N10 E68 31CD 1 USGS-MX	4,284,213	726,900	5,910.0		150	50-150	13	5,789.0	5,790.6	5,790.1	12,461	0.030	12.49
424	184	184 N10 E68 36DA 1	184 N10 E68 36DA 1	4,284,975	735,813	6,515.9	468	410	90-410	1	6,455.9	6,455.9	6,455.9	2,610,249	100	2,710.25

Table B.1-1
Steady-State Mean Hydraulic Head Data Set
(Page 14 of 24)

Map ID	HA	Site No	Site Name	UTM Northing (m)	UTM Easting (m)	Reference Point Elevation (ft-amsl)	Hole Depth (ft-bgs)	Well Depth (ft-bgs)	Perforated or Open Interval (ft-bgs)	No. of Records Used	Min. Elevation (ft-amsl)	Max Elevation (ft-amsl)	Mean Head (ft-amsl)	Variance Coordinate Location (ft²)	Variance Sample Mean (ft²)	Total Variance (ft²)
425	184	385108114302602	184 N11 E66 01AABB2	4,303,323	716,245	5,794.0	30	30		5	5,791.5	5,792.2	5,791.9	2,537	0.014	2.55
426	184	384831114314301	184 N11 E66 23AB 1 USGS-MX	4,298,432	714,519	5,844.0	102	102	50-102	14	5,796.0	5,798.4	5,796.7	114,618	0.029	114.65
427	184	384818114314201	184 N11 E66 24A 1	4,298,059	715,568	5,787.9		28		3	5,770.0	5,770.8	5,770.5	1,254,626	0.063	1,254.69
428	184	384814114305101	184 N11 E66 24BDAC1	4,297,942	715,788	5,778.5		18		8	5,760.7	5,764.5	5,762.9	3,966E-01	2.136E-01	6.10E-01
429	184	184 N11 E66 24D 1	184 N11 E66 24D 1	4,297,376	716,366	5,769.0		28		1	5,750.0	5,750.0	5,750.0	0.453	100	100.45
430	184	384620114313601	184 N11 E66 35DBAC1	4,294,398	714,797	5,789.0	240	240	220-240	2	5,794.2	5,796.6	5,795.4	3,515E-01	1.440E+00	1.79E+00
431	184	384620114313602	184 N11 E66 35DBAC2	4,294,398	714,797	5,789.0		12		4	5,784.4	5,786.8	5,785.6	3,515E-01	3.705E-01	7.22E-01
432	184	384917114245801	184 N11 E67 13B 1 USBLM	4,300,144	725,069	5,804.0		15		1	5,797.0	5,797.0	5,797.0	738,703	100	838.70
433	184	184 N11 E67 13DC 1	184 N11 E67 13DC 1	4,298,995	725,824	5,780.0				1	5,770.0	5,770.0	5,770.0	48,483	100	148.48
434	184	384745114224401	184 N11 E68 19DCDC1 USGS-MX (Spring Valley)	4,297,254	727,590	5,910.1	200	200	50-200	4	5,815.5	5,817.0	5,816.2	292,041	0.096	292.14
435	184	384604114234301	184 N11 E68 31C 1 USBLM	4,294,404	726,982	5,874.0	80	80	50-80	1	5,802.8	5,802.8	5,802.8	81,519	100	181.52
436	184	384558114230501	184 N11 E68 31DCDC1 USBLM	4,294,033	727,175	5,853.0	260	260	50-260	1	5,782.9	5,782.9	5,782.9	0.320	100	100.32
437	184	184 N12 E66 21CD 1	184 N12 E66 21CD 1	4,306,564	710,561	6,397.3	631	633	597-613	1	5,833.3	5,833.3	5,833.3	940,661	100	1,040.66
438	184	385613114250401	184 N12 E67 02ACBA1 USBLM	4,312,880	723,719	5,781.1	441	441	421-441	3	5,802.4	5,829.1	5,814.2	1,367	61,810	63.18
439	184	385623114272501	184 N12 E67 03B 1 USGS	4,313,009	721,739	5,774.0		30		3	5,766.0	5,770.1	5,768.3	366,707	1,448	368.15
440	184	385526114290701	184 N12 E67 08A 1	4,311,550	719,225	5,764.2		45		1	5,744.2	5,744.2	5,744.2	155,840	100	255.84
441	184	184 N12 E67 11A 1	184 N12 E67 11A 1	4,311,293	724,080	5,804.1		21		1	5,792.1	5,792.1	5,792.1	387,609	100	487.61
442	184	184 N12 E67 11A 2	184 N12 E67 11A 2	4,311,306	724,078	5,804.1		10		1	5,788.1	5,798.1	5,798.1	400,448	100	500.45
443	184	385504114240801	184 N12 E67 12CAAD1	4,310,792	725,177	5,886.1	190	182	20-182	4	5,850.1	5,860.8	5,855.7	91,967	4,941	96.91
444	184	184 N12 E67 12D 1	184 N12 E67 12D 1	4,310,532	725,719	5,924.1		300	50-300	1	5,910.1	5,910.1	5,910.1	1,033,108	100	1,133.11
445	184	184 N12 E67 12D 2	184 N12 E67 12D 2	4,310,546	725,717	5,924.1		21		1	5,910.1	5,910.1	5,910.1	1,033,108	100	1,133.11
446	184	184 N12 E67 12D 3	184 N12 E67 12D 3	4,310,559	725,717	5,944.1	185	169	68-158	1	5,894.1	5,894.1	5,894.1	1,033,108	100	1,133.11
447	184	385433114242501	184 N12 E67 13A 1	4,309,504	725,454	5,904.1	80	80	12-80	1	5,896.1	5,896.1	5,896.1	11,727,201	100	11,827.20
448	184	184 N12 E67 13DD 1	184 N12 E67 13DD 1	4,308,728	725,971	5,894.1		220	50-220	1	5,850.1	5,850.1	5,850.1	567,678	100	667.68
449	184	184 N12 E67 20BD 1	184 N12 E67 20BD 1	4,307,621	718,828	5,754.0	140	99	20-99	1	5,739.0	5,739.0	5,739.0	0.000	100	100.00
450	184	385348114243301	184 N12 E67 24BBB 1	4,308,493	724,615	5,784.0	155	155	93-138	1	5,795.4	5,795.4	5,795.4	7,137	100	107.14
451	184	385314114250901	184 N12 E67 24C 1	4,307,668	724,904	5,874.0	300	300	50-300	1	5,831.0	5,831.0	5,831.0	5,479,390	100	5,579.39
452	184	385259114240701	184 N12 E67 24CDD1	4,306,970	725,334	5,847.0	300	260	0-260	4	5,821.0	5,827.7	5,824.6	3,710	1,972	5.68
453	184	385315114233501	184 N12 E67 24DAD 1	4,307,515	726,042	5,924.1				1	5,866.8	5,866.8	5,866.8	3,071	100	103.07
454	184	385259114234901	184 N12 E67 24DCD 1	4,307,012	725,718	5,904.1	370	300	100-290	2	5,826.1	5,841.3	5,833.7	4,254	57,760	62.01
455	184	184 N12 E67 26AA 1	184 N12 E67 26AA 1	4,306,662	724,410	5,784.0				1	5,765.0	5,765.0	5,765.0	166,317	100	266.32
456	184	385251114272701	184 N12 E67 27B 1	4,306,167	722,004	5,754.0	30	30	11-30	1	5,741.0	5,741.0	5,741.0	50,271	100	150.27
457	184	184 N12 E67 31DD 1	184 N12 E67 31DD 1	4,303,662	718,022	5,759.0		456	50-456	1	5,744.0	5,744.0	5,744.0	0.418	100	100.42



Table B.1-1
Steady-State Mean Hydraulic Head Data Set
(Page 15 of 24)

Map ID	HA	Site No	Site Name	UTM Northing (m)	UTM Easting (m)	Reference Point Elevation (ft-amsl)	Hole Depth (ft-bgs)	Well Depth (ft-bgs)	Perforated or Open Interval (ft-bgs)	No. of Records Used	Min. Elevation (ft-amsl)	Max Elevation (ft-amsl)	Mean Head (ft-amsl)	Variance Coordinate Location (ft²)	Variance Sample Mean (ft²)	Total Variance (ft²)
458	184	390127114350101	184 N13 E66 05ACAB1	4,322,229	709,109	6,478.3	45	45	20-40	3	6,451.8	6,463.3	6,455.7	9,316	14,273	23.59
459	184	390032114281901	184 N13 E67 08ACAB1	4,320,794	718,752	5,774.0	45	45		9	5,761.6	5,762.8	5,762.1	1,429E+00	1,493E-02	1,44E+00
460	184	385928114264901	184 N13 E67 15CBBB1	4,318,883	721,044	5,864.0				1	5,780.4	5,780.4	5,780.4	0.802	100	100.80
461	184	385915114261901	184 N13 E67 15CDA1	4,318,502	721,778	5,884.1	272	272	100-268	1	5,780.7	5,780.7	5,780.7	1.151	100	101.15
462	184	385915114261902	184 N13 E67 15CDA2	4,318,502	721,778	5,884.1	487	487	100-487	1	5,781.8	5,781.8	5,781.8	1.151	100	101.15
463	184	385903114261701	184 N13 E67 15CDD1	4,318,134	721,836	5,869.1	550	550	80-550	2	5,783.7	5,815.1	5,795.4	1,307	245,549	246.86
464	184	184 N13 E67 15D 1	184 N13 E67 15D 1	4,318,523	722,249	5,950.0	290			1	5,877.0	5,877.0	5,877.0	373,958	100	473.96
465	184	184 N13 E67 15D 2	184 N13 E67 15D 2	4,318,523	722,249	5,900.0				1	5,840.0	5,840.0	5,840.0	373,958	100	473.96
466	184	385906114260501	184 N13 E67 15DCDC1	4,318,234	722,122	5,890.1	160	160	50-160	4	5,795.0	5,799.2	5,796.6	5,444E-01	8,210E-01	1,37E+00
467	184	184 N13 E67 16DC 1	184 N13 E67 16DC 1	4,318,272	720,422	5,925.0				1	5,853.0	5,853.0	5,853.0	52,230	100	152.23
468	184	385949114291801	184 N13 E67 17D 1 USBLM	4,318,972	718,706	5,774.1	120			1	5,720.8	5,720.8	5,720.8	1,506,550	100	1,606.55
469	184	385927114281501	184 N13 E67 17DBAA1	4,318,794	718,976	5,779.0				2	5,776.8	5,777.0	5,776.9	1,644E-01	6,400E-03	1,71E-01
470	184	385920114294001	184 N13 E67 18DCAB1 Majorwoods Windmill	4,318,402	717,060	5,854.1	120	120	50-120	2	5,802.8	5,803.0	5,802.9	6,175E-01	9,025E-03	6,26E-01
471	184	385911114264901	184 N13 E67 22A 1	4,317,976	721,720	5,854.1				1	5,784.1	5,784.1	5,784.1	4,643,700	100	4,743.70
472	184	184 N13 E67 22AD 1	184 N13 E67 22AD 1	4,317,535	722,489	5,860.0				1	5,800.0	5,800.0	5,800.0	208,537	100	308.54
473	184	385849114258901	184 N13 E67 22ADBB1	4,317,714	722,281	5,869.1	300	300	50-90/200-300	1	5,796.9	5,796.9	5,796.9	1,040	100	101.04
474	184	385852114261701	184 N13 E67 22BADD1	4,317,795	721,846	5,859.1	500	500	90-485	3	5,781.1	5,801.1	5,781.6	1,183	35,446	36.63
475	184	385902114264801	184 N13 E67 22BBB1	4,318,082	721,091	5,844.0				1	5,785.2	5,785.2	5,785.2	0,563	100	100.56
476	184	184 N13 E67 22D 1	184 N13 E67 22D 1	4,316,903	722,299	5,830.0	63	63	40-60	1	5,805.0	5,805.0	5,805.0	145,241	100	245.24
477	184	385757114251601	184 N13 E67 26BADC1	4,316,078	723,339	5,864.1	300	300	94-248/248-300	4	5,791.3	5,816.1	5,801.3	1,825	27,544	29.37
478	184	184 N13 E67 26BD 1	184 N13 E67 26BD 1	4,315,936	723,315	5,818.0				1	5,790.0	5,790.0	5,790.0	307,750	100	407.75
479	184	385723114250801	184 N13 E67 26DCCB1	4,315,098	723,584	5,854.1	300	300	94-300	3	5,806.1	5,807.7	5,806.6	8,899E-01	2,669E-01	1,16E+00
480	184	385627114292101	184 N13 E67 31DDCC1	4,313,201	717,565	5,792.1				5	5,762.9	5,772.2	5,768.1	0,945	2,426	3.37
481	184	385659114280301	184 N13 E67 33D 1 USBLM	4,314,003	720,868	5,774.0		30		2	5,765.7	5,768.0	5,766.9	408,448	1,322	409.77
482	184	385636114265501	184 N13 E67 33DDA 1	4,313,576	721,049	5,774.0	6	6		1	5,772.6	5,772.6	5,772.6	0,217	100	100.22
483	184	184 N13 E67 34AA 1	184 N13 E67 34AA 1	4,314,694	722,560	5,780.0				1	5,766.0	5,766.0	5,766.0	33,503	100	133.50
484	184	385715114254501	184 N13 E67 34AAAA1	4,314,826	722,700	5,809.1	916	916	50-916	4	5,806.5	5,806.8	5,806.7	1,799E-01	4,017E-03	1,84E-01
485	184	390417114302701	184 N14 E66 24AABB1 USBLM	4,327,648	715,555	5,842.0	27	27		3	5,816.7	5,816.8	5,816.7	1,193E-01	1,244E-03	1,21E-01
486	184	390352114305401	184 N14 E66 24BDD1 USGS-MX (Spring Valley N.)	4,326,859	714,927	5,844.0		160	50-160	3	5,808.0	5,808.1	5,808.0	71,550	0,002	71.55
487	184	390315114304701	184 N14 E66 25BADD1 USBLM	4,325,723	715,126	5,842.0	61	61	50-61	4	5,818.0	5,822.8	5,819.6	8,511	1,284	9.80
488	184	184 N14 E66 34CD 1	184 N14 E66 34CD 1	4,322,897	711,828	6,160.0				1	5,822.0	5,822.0	5,822.0	496,176	100	596.18
489	184	390448114274401	184 N14 E67 15C 1	4,328,008	721,558	5,894.3		600	50-600	1	5,882.3	5,882.3	5,882.3	29,100,607	100	29,200.61
490	184	184 N14 E67 16DD 2	184 N14 E67 16DD 2	4,328,008	720,529	5,774.0		200	50-200	1	5,744.0	5,744.0	5,744.0	387,869	100	487.87
491	184	184 N14 E67 21DC 1	184 N14 E67 21DC 1	4,326,376	720,168	5,754.0		154	50-154	1	5,721.0	5,721.0	5,721.0	67,954	100	167.95

Table B.1-1
Steady-State Mean Hydraulic Head Data Set
 (Page 16 of 24)

Map ID	HA	Site No	Site Name	UTM Northing (m)	UTM Easting (m)	Reference Point Elevation (ft-amsl)	Hole Depth (ft-bgs)	Well Depth (ft-bgs)	Perforated or Open Interval (ft-bgs)	No. of Records Used	Min. Elevation (ft-amsl)	Max Elevation (ft-amsl)	Mean Head (ft-amsl)	Variance Coordinate Location (ft²)	Variance Sample Mean (ft²)	Total Variance (ft²)
492	184	390330114264401	184 N14 E67 22CCCA1	4,328,409	720,953	5,794.0	238	238	60-235	3	5,730.0	5,737.4	5,734.6	6,730	5,280	12.01
493	184	390336114272701	184 N14 E67 27B 1	4,325,794	721,019	5,828.2	16	16		1	5,816.0	5,816.0	5,816.0	20,022.533	100	20,122.53
494	184	390940114302001	184 N15 E66 13D 1	4,337,611	715,449	5,764.0		82	50-82	23	5,739.8	5,755.9	5,745.6	2,871	0.702	3.57
495	184	390952114214401	184 N15 E66 14DBBD1	4,338,331	727,825	6,537.7	168	168	87-168	2	6,511.5	6,513.7	6,512.6	2,796E-01	1.254E+00	1.53E+00
496	184	390940114314801	184 N15 E66 24B 1 USGS	4,337,587	714,561	5,841.4		82	50-82	5	5,818.1	5,826.3	5,821.9	11,479.151	1.742	11,480.89
497	184	390802114303001	184 N15 E66 25DADC1 White Pine Power Project	4,334,583	715,292	5,849.0	470	470	290-390/450-465	3	5,798.0	5,819.9	5,811.8	1.761	48,285	50.05
498	184	390807114304101	184 N15 E66 25DBCB1 White Pine Power Project	4,334,730	715,024	5,859.0	210	178	53-173	1	5,812.3	5,812.3	5,812.3	1.393	100	101.39
499	184	390802114303901	184 N15 E66 25DBCC1 White Pine Power Project	4,334,577	715,076	5,862.0	1,005	580	170-570	1	5,811.2	5,811.2	5,811.2	1.055	100	101.06
500	184	391123114245001	184 N15 E67 02DA 1 USGS-MX	4,341,009	723,280	5,772.9	185	185	50-185	1	5,622.9	5,622.9	5,622.9	10,581.928	100	10,681.93
501	184	391135114244701	184 N15 E67 02DACB1 USAF	4,341,381	723,341	5,783.9	185	185	50-185	4	5,603.9	5,633.5	5,625.5	4.179	52,136	56.32
502	184	390936114305801	184 N15 E67 19B 1	4,336,763	716,025	5,723.5	83	83	11-44	2	5,714.5	5,716.5	5,715.5	4,006.472	1,000	4,007.47
503	184	390803114251001	184 N15 E67 26CA 1 USGS-MX	4,334,817	722,567	5,663.7		200	50-200	9	5,624.3	5,638.7	5,628.7	127,961	2,566	130.53
504	184	184 N15 E67 35BD 1	184 N15 E67 35BD 1	4,333,730	722,777	5,774.4		200	50-200	1	5,751.4	5,751.4	5,751.4	1,030.564	100	1,130.56
505	184	184 N15 E68 17DD 1	184 N15 E68 17DD 1	4,337,693	728,132	6,812.2	265	265	201-265	1	6,645.2	6,645.2	6,645.2	125,297	100	225.30
506	184	184 N16 E66 26A 1	184 N16 E66 26A 1	4,344,801	714,703	5,950.0		260	50-260	1	5,720.0	5,720.0	5,720.0	548,037	100	648.04
507	184	391224114293601	184 N16 E66 36DBAD1 USBLM - CLEVE CREEK WELL	4,342,689	716,361	5,862.0				4	5,646.3	5,653.9	5,651.0	0.018	3,127	3.14
508	184	184 N16 E67 02BC 1	184 N16 E67 02BC 1	4,351,231	723,229	5,610.6	140	140	60-140	1	5,585.6	5,585.6	5,585.6	202,294	100	302.29
509	184	184 N16 E67 03A 1	184 N16 E67 03A 1	4,351,424	722,655	5,583.9	16	16		1	5,580.9	5,580.9	5,580.9	52,230	100	152.23
510	184	391713114244701	184 N16 E67 03AAAA1	4,351,771	723,044	5,589.9	317	187	167-187	5	5,584.9	5,586.9	5,585.9	3,008E-01	1,004E-01	4,01E-01
511	184	184 N16 E67 11AB 1	184 N16 E67 11AB 1	4,350,046	724,070	5,635.0				1	5,600.0	5,600.0	5,600.0	159,244	100	259.24
512	184	391524114300801	184 N16 E67 18A 1	4,347,886	717,685	5,598.3		16		2	5,587.1	5,593.3	5,591.2	3,458.887	16,810	3,475.70
513	184	391327114255901	184 N16 E67 27D 1	4,343,860	721,542	5,597.7		16		2	5,587.7	5,590.7	5,589.2	818,143	2,250	820.39
514	184	391308114245101	184 N16 E67 27DADD1 USBLM	4,344,245	723,164	5,617.4	13	13		6	5,605.3	5,609.7	5,607.6	3,467E-01	3,618E-01	7,09E-01
515	184	392028114290301	184 N17 E67 18BCCA1 USBLM	4,357,641	716,742	5,623.9	125	125	65-125	1	5,602.9	5,602.9	5,602.9	6,670	100	106.67
516	184	391908114270801	184 N17 E67 28A 1 USBLM	4,354,634	720,637	5,563.9		29		1	5,541.8	5,541.8	5,541.8	33,844	100	133.84
517	184	391835114282001	184 N17 E67 30AC 1	4,354,186	717,869	5,579.0	15	15		2	5,570.0	5,576.6	5,573.3	5,492.855	10,890	5,503.75
518	184	392238114222801	184 N17 E68 06A 1 USBLM	4,361,357	726,938	5,573.9		31		1	5,550.2	5,550.2	5,550.2	4,228.095	100	4,328.09
519	184	392234114222801	184 N17 E68 06D 1 USGS	4,359,261	727,023	5,573.8		28		6	5,544.6	5,551.2	5,548.7	4,945.788	0,976	4,946.76
520	184	392137114222801	184 N17 E68 07AB 1	4,359,940	727,003	5,561.8	31	30		4	5,532.6	5,542.0	5,536.7	0.033	4,540	4.57



Table B.1-1
Steady-State Mean Hydraulic Head Data Set
(Page 17 of 24)

Map ID	HA	Site No	Site Name	UTM Northing (m)	UTM Easting (m)	Reference Point Elevation (ft-amsl)	Hole Depth (ft-bgs)	Well Depth (ft-bgs)	Perforated or Open Interval (ft-bgs)	No. of Records Used	Min. Elevation (ft-amsl)	Max Elevation (ft-amsl)	Mean Head (ft-amsl)	Variance Coordinate Location (ft²)	Variance Sample Mean (ft²)	Total Variance (ft²)
521	184	392750114310601	184 N18 E66 01B 1	4,370,756	714,534	5,636.0	68	68	52-67	1	5,616.0	5,616.0	5,616.0	8,092.928	100	8,192.93
522	184	184 N18 E66 02A 1	184 N18 E66 02A 1	4,370,522	714,052	5,705.7	60	60	50-60	1	5,674.7	5,674.7	5,674.7	600.858	100	700.86
523	184	184 N18 E66 24DC 1	184 N18 E66 24DC 1	4,364,678	715,684	5,616.6	98	80	60-80	1	5,556.6	5,556.6	5,556.6	437.454	100	537.45
524	184	184 N18 E66 25A 2	184 N18 E66 25A 2	4,364,117	715,825	5,620.7	190	160	140-160	1	5,594.7	5,594.7	5,594.7	532.086	100	632.09
525	184	392729114241101	184 N18 E67 01C 1	4,370,846	724,268	5,590.9	45	45		1	5,532.0	5,532.0	5,532.0	2,439.273	100	2,539.27
526	184	392703114230501	184 N18 E67 01CCAA1	4,369,928	724,534	5,590.9	42	42		3	5,554.8	5,556.4	5,555.7	1,009E-01	2,357E-01	3,37E-01
527	184	184 N18 E68 31A 1	184 N18 E68 31A 1	4,362,806	727,135	5,595.0	465	465	50-465	1	5,537.0	5,537.0	5,537.0	311.932	100	411.93
528	184	184 N18 E68 31A 2	184 N18 E68 31A 2	4,362,806	727,135	5,595.0	80	80	50-80	1	5,550.0	5,550.0	5,550.0	311.932	100	411.93
529	184	393211114320701	184 N19 E66 11B 1	4,378,169	712,561	5,762.4	400	400	50-400	1	5,721.6	5,721.6	5,721.6	22,595.591	100	22,695.59
530	184	393055114310001	184 N19 E66 14AB 1	4,377,300	713,292	5,703.9	815	805	239-770	5	5,653.9	5,662.6	5,658.2	0.017	3,310	3.33
531	184	393059114221501	184 N19 E67 13AAAC1	4,377,545	725,389	5,617.9	53	53	50-53	7	5,586.2	5,571.6	5,569.0	1,518E-02	3,802E-01	3,95E-01
532	184	184 N20 E66 13AB 1	184 N20 E66 13AB 1	4,386,972	715,087	5,770.9	907	296	135-296	3	5,635.9	5,645.9	5,641.6	28.792	8,769	37.56
533	184	393729114265401	184 N20 E67 08D 1	4,388,619	719,886	5,783.9	280	280	50-280	5	5,601.4	5,606.9	5,605.2	161.181	0,934	162.11
534	184	184 N20 E67 25BD 1	184 N20 E67 25BD 1	4,383,568	724,400	5,720.0		123	50-123	1	5,576.0	5,576.0	5,576.0	120.613	100	220.61
535	184	184 N20 E67 26A 2	184 N20 E67 26A 2	4,383,760	723,403	5,700.0	130	130	50-130	4	5,588.0	5,593.4	5,590.2	1,397E-01	1,664E+00	1,80E+00
536	184	393442114231801	184 N20 E67 26ABBD1 USBLM	4,383,964	723,291	5,708.8	30	29		1	6,039.6	6,039.6	6,039.6	28,822.158	100	28,922.16
537	184	394333114311001	184 N21 E66 04B 2	4,400,261	712,524	6,056.3				1	6,861.7	6,861.7	6,861.7	974.002	100	1,074.00
538	184	395314114373101	184 N23 E65 10D 1	4,417,131	704,234	6,926.7		140	50-140	1	6,580.0	6,580.0	6,580.0	1,440.203	100	1,540.20
539	184	395234114363601	184 N23 E65 14C 1	4,415,988	705,580	6,704.0		23		1	6,505.5	6,505.5	6,505.5	12,064.276	100	12,164.28
540	184	395321114344001	184 N23 E66 07C 1	4,417,531	708,764	6,521.3		30		1	6,483.7	6,483.7	6,483.7	31,937.050	100	32,037.05
541	184	395200114341201	184 N23 E66 19A 1	4,415,055	709,616	6,503.7		104	30-87	3	6,328.0	6,337.0	6,333.0	0.239	7,007	7.25
542	184	394949114331801	184 N23 E66 31AB 1	4,411,771	709,159	6,354.0		49		1	6,354.0	6,354.0	6,354.0	46.034	100	146.03
543	184	184 N23 E66 31B 1	184 N23 E66 31B 1	4,411,814	708,579	6,370.0		96	30-87	1	6,348.0	6,348.0	6,348.0	60,369.817	100	60,469.82
544	184	394942114342001	184 N23 E66 31C 1	4,410,927	708,754	6,374.0		211	179-211	1	6,586.8	6,586.8	6,586.8	369.631	100	469.63
545	184	184 N24 E66 31CB 1	184 N24 E66 31CB 1	4,420,817	708,166	6,726.8		350	50-350	2	5,484.0	5,488.8	5,488.8	1,448	5,929	7.38
546	185	394422114205201	185 N22 E67 36DBAC1 USBLM	4,402,194	727,194	5,778.8	175	175		2	5,568.7	5,573.8	5,571.2	7,575	6,708	14.28
547	185	395433114173701	185 N23 E68 04B 1 USBLM	4,420,610	730,729	5,683.8				1	5,505.1	5,505.1	5,505.1	1,230	100	101.23
548	185	395106114150601	185 N23 E68 23DDBB1 USBLM	4,414,900	735,048	5,768.6				3	5,519.9	5,528.4	5,525.3	0.018	7,400	7.42
549	185	395245114125901	185 N23 E69 07DCBD1 GOSHUTE RESERVATION	4,418,032	737,896	5,803.9				1	5,706.6	5,706.6	5,706.6	806.174	100	906.17
550	185	185 N24 E68 17 1	185 N24 E68 17 1	4,428,449	729,449	5,962.6	285	285	245-283	3	5,520.9	5,530.8	5,528.8	0.011	9,046	9.06
551	185	395750114112201	185 N24 E69 17AAAA1 GOSHUTE RESERVATION	4,427,527	739,820	5,849.9				2	5,519.4	5,531.4	5,525.4	1,309	36,060	37.37
552	185	395608114123601	185 N24 E69 19DDCD1 Goshute Reservation	4,424,323	738,322	5,744.9		252	50-252	1	5,525.7	5,525.7	5,525.7	33,007.186	100	33,107.19
553	185	400110114154101	185 N25 E68 26B 1 USBLM	4,433,383	732,865	5,903.9	448	448	412 to 448	1	4,336.4	4,336.4	4,336.4	0.138	100	100.14
554	195	395518113432801	(C-10-17)/26d0c- 1	4,424,192	779,877	4,338.4	217	217	50-217	1	4,336.4	4,336.4	4,336.4			

Table B.1-1
Steady-State Mean Hydraulic Head Data Set
 (Page 18 of 24)

Map ID	HA	Site No	Site Name	UTM Northing (m)	UTM Easting (m)	Reference Point Elevation (ft-amsl)	Hole Depth (ft-bgs)	Well Depth (ft-bgs)	Perforated or Open Interval (ft-bgs)	No. of Records Used	Min. Elevation (ft-amsl)	Max Elevation (ft-amsl)	Mean Head (ft-amsl)	Variance Coordinate Location (ft²)	Variance Sample Mean (ft²)	Total Variance (ft²)
555	195	394915113434001	(C-11-15)30dcb-1	4,415,087	792,994	4,379.3		112	50-112	1	4,348.3	4,348.3	4,348.3	178.976	100	278.98
556	195	(C-11-16) 6CC	(C-11-16) 6CC	4,420,963	782,330	4,353.4		20		1	4,333.4	4,333.4	4,333.4	7.868	100	107.87
557	195	(C-11-16)24DD	(C-11-16)24DD	4,416,327	792,138	4,348.3		201	50-201	1	4,324.3	4,324.3	4,324.3	54.447	100	154.45
558	195	394905113354101	(C-11-16)36cdb-1	4,413,104	791,405	4,336.3	150	147	50-147	24	4,433.6	4,433.9	4,433.7	32.305	0.001	32.31
559	195	395343113423801	(C-11-17) 1bdc- 1	4,421,460	781,166	4,333.4		221	50-221	2	4,328.4	4,329.4	4,328.9	3.124	0.250	3.37
560	195	395343113423902	(C-11-17) 1bdc- 2	4,421,305	781,148	4,333.4				4	4,329.9	4,331.8	4,330.6	4.266	0.193	4.46
561	195	395353113424201	(C-11-17) 1bdc- 3	4,421,611	781,065	4,343.4	506	506	50-506	1	4,323.4	4,323.4	4,323.4	3.454	100	103.45
562	195	395319113431201	(C-11-17)11aaa- 1	4,420,536	780,391	4,383.4		480	50-480	5	4,340.4	4,344.7	4,341.7	2,194.342	0.667	2,195.01
563	195	395259113422901	(C-11-17)12aac- 1	4,419,957	781,436	4,353.4		135	50-135	8	4,330.7	4,333.8	4,331.7	42.834	0.193	43.03
564	195	395259113430401	(C-11-17)12cbb- 1	4,419,927	780,604	4,393.4				6	4,347.4	4,348.3	4,347.8	8.772	0.020	8.79
565	195	395058113462001	(C-11-17)21cca- 1	4,418,025	776,082	4,318.5	200	195	50-195	2	4,636.6	4,638.5	4,637.6	567.553	0.902	568.46
566	195	394414113442701	(C-12-17)34aac- 1	4,403,664	779,222	4,595.0				4	4,519.3	4,524.4	4,521.8	91.967	1.097	93.06
567	195	394346113435501	(C-12-17)35cac- 1	4,402,828	780,016	4,594.0	100	97	50-97	22	4,502.0	4,503.7	4,502.8	8.877	0.009	8.89
568	195	(C-13-16)6C 1	(C-13-16)6C 1	4,401,286	783,152	4,680.1	252	252	222-252	1	4,480.1	4,480.1	4,480.1	181.991	100	281.99
569	195	(C-13-18)13ACC	(C-13-18)13ACC	4,398,021	772,422	4,683.5		129	50-129	1	4,668.5	4,668.5	4,668.5	66.331	100	166.33
570	195	(C-13-18)13BCC	(C-13-18)13BCC	4,398,002	771,566	4,723.5		218	50-218	1	4,661.5	4,661.5	4,661.5	515.771	100	615.77
571	195	394133113493901	(C-13-18)13cac- 1	4,398,433	771,970	4,704.9				4	4,701.3	4,704.4	4,703.0	41.004	0.537	41.54
572	195	394127113494200	(C-13-18)13cba- 1	4,398,245	771,905	4,701.5		505	50-505	1	4,695.5	4,695.5	4,695.5	24.945	100	124.94
573	195	(C-13-18)14CCD	(C-13-18)14CCD	4,397,182	770,223	4,723.5				1	4,669.5	4,669.5	4,669.5	252.791	100	352.79
574	195	(C-13-18)14DDB	(C-13-18)14DDB	4,397,525	771,104	4,723.5		148	50-148	1	4,682.5	4,682.5	4,682.5	445.776	100	545.78
575	195	(C-13-18)14DDC	(C-13-18)14DDC	4,397,186	771,192	4,723.5		75	50-75	1	4,705.5	4,705.5	4,705.5	191.003	100	291.00
576	195	(C-13-18)22ACC	(C-13-18)22ACC	4,396,271	769,260	4,773.6		82	50-82	1	4,762.6	4,762.6	4,762.6	198.556	100	298.56
577	195	(C-13-18)22CAA	(C-13-18)22CAA	4,396,122	768,956	4,773.6		127	50-127	1	4,745.6	4,745.6	4,745.6	156.425	100	256.43
578	195	(C-13-18)22CBB	(C-13-18)22CBB	4,396,081	768,388	4,803.6		44		1	4,788.6	4,788.6	4,788.6	270.945	100	370.94
579	195	(C-13-18)23AAB 1	(C-13-18)23AAB 1	4,397,007	771,160	4,703.5		300	50-300	1	4,686.5	4,686.5	4,686.5	116.161	100	216.16
580	195	394049113501101	(C-13-18)23aab- 2	4,397,049	771,255	4,703.5				31	4,697.6	4,701.2	4,698.9	13.019	0.023	13.04
581	195	393904113485101	(C-13-18)250dd- 1	4,393,878	773,277	4,803.5	200	197	50-197	2	4,702.1	4,704.5	4,703.3	38.583	1.440	40.02
582	195	(C-13-18)27ADB	(C-13-18)27ADB	4,394,866	769,642	4,723.5		103	50-103	1	4,721.5	4,721.5	4,721.5	47.478	100	147.48
583	195	(C-13-18)27CDD	(C-13-18)27CDD	4,393,783	769,080	4,733.5		107	50-107	1	4,721.5	4,721.5	4,721.5	14.153	100	114.15
584	195	(C-13-18)27DCC	(C-13-18)27DCC	4,393,791	769,337	4,731.5		40		1	4,721.5	4,721.5	4,721.5	14.302	100	114.30
585	195	393900113530001	(C-13-18)28ccc- 1	4,393,546	767,345	4,823.6		36		1	4,792.6	4,792.6	4,792.6	83.134	100	183.13
586	195	393920113522000	(C-13-18)28daa- 1	4,394,196	768,277	4,762.9		120	50-120	1	4,731.9	4,731.9	4,731.9	10.154	100	110.15
587	195	393928113522601	(C-13-18)28daab- 1	4,394,438	768,125	4,783.6		120	50-120	10	4,758.4	4,759.6	4,759.2	12.675	0.013	12.69
588	195	(C-13-18)28DCC	(C-13-18)28DCC	4,393,766	767,725	4,783.6		104	50-104	1	4,775.6	4,775.6	4,775.6	237.702	100	337.70
589	195	(C-13-18)33BCD	(C-13-18)33BCD	4,392,819	767,291	4,803.6		63	50-63	1	4,770.6	4,770.6	4,770.6	452.770	100	552.77
590	195	(C-13-18)33CCC	(C-13-18)33CCC	4,392,011	766,981	4,803.6		30		1	4,796.6	4,796.6	4,796.6	303.826	100	403.83
591	195	393814113522601	(C-13-18)33ddc- 1	4,392,156	768,205	4,763.6		158	50-158	86	4,748.4	4,755.4	4,753.0	2,066E-01	2.200E-02	2.29E-01
592	195	(C-13-18)34BCC	(C-13-18)34BCC	4,392,882	768,599	4,748.6		112	50-112	1	4,737.6	4,737.6	4,737.6	21.773	100	121.77
593	195	393801113520601	(C-13-18)34ccc- 1	4,391,772	768,696	4,750.5		147	50-147	74	4,746.6	4,750.9	4,749.4	2.547	0.010	2.56

Table B.1-1
Steady-State Mean Hydraulic Head Data Set
(Page 19 of 24)

Map ID	HA	Site No	Site Name	UTM Northing (m)	UTM Easting (m)	Reference Point Elevation (ft-amsl)	Hole Depth (ft-bgs)	Well Depth (ft-bgs)	Perforated or Open Interval (ft-bgs)	No. of Records Used	Min. Elevation (ft-amsl)	Max Elevation (ft-amsl)	Mean Head (ft-amsl)	Variance Coordinate Location (ft²)	Variance Sample Mean (ft²)	Total Variance (ft²)
594	195	(C-13-18)34CDD	(C-13-18)34CDD	4,392,934	769,172	4,733.5		300	50-300	1	4,720.5	4,720.5	4,720.5	33.886	100	133.89
595	195	393807113513500	(C-13-18)34dccc-1	4,391,983	769,429	4,734.5		300	50-300	1	4,732.5	4,732.5	4,732.5	3.741	100	103.74
596	195	393745113511501	(C-14-18)3ddc-7	4,391,321	769,929	4,743.5		120	50-120	1	4,749.5	4,749.5	4,749.5	8.668	100	108.67
597	195	(C-14-18)4ACA	(C-14-18)4ACA	4,391,320	767,979	4,783.6		96	50-96	1	4,763.6	4,763.6	4,763.6	103.441	100	203.44
598	195	(C-14-18)4ADC	(C-14-18)4ADC	4,390,985	768,148	4,758.6		118	50-118	1	4,756.6	4,756.6	4,756.6	36.629	100	136.63
599	195	(C-14-18)4BDB	(C-14-18)4BDB	4,391,275	767,306	4,783.6		70	50-70	1	4,770.6	4,770.6	4,770.6	247.364	100	347.36
600	195	(C-14-18)4DBB	(C-14-18)4DBB	4,390,738	767,813	4,783.6		70	50-70	1	4,770.6	4,770.6	4,770.6	157.914	100	257.91
601	195	(C-14-18)5C	(C-14-18)5C	4,390,267	765,654	4,823.6		70	50-70	1	4,763.6	4,763.6	4,763.6	424.574	100	524.57
602	195	(C-14-18)5CCC	(C-14-18)5CCC	4,389,907	765,410	4,833.6		85	50-85	1	4,777.6	4,777.6	4,777.6	568.622	100	668.62
603	195	(C-14-18)8ACC	(C-14-18)8ACC	4,389,114	766,250	4,798.6		105	50-105	1	4,787.6	4,787.6	4,787.6	126.630	100	226.63
604	195	(C-14-18)8CCC	(C-14-18)8CCC	4,388,279	765,448	4,821.6		67	50-67	1	4,796.6	4,796.6	4,796.6	140.508	100	240.51
605	195	(C-14-18)9CBC	(C-14-18)9CBC	4,388,703	767,047	4,793.6		64	50-64	1	4,785.6	4,785.6	4,785.6	120.758	100	220.76
606	195	393603113532801	(C-14-18)17aaa-1	4,388,065	766,867	4,798.6		101	50-101	1	4,780.6	4,780.6	4,780.6	23.946	100	123.95
607	195	(C-14-18)17ACC	(C-14-18)17ACC	4,387,522	766,341	4,815.9		72	50-72	1	4,797.9	4,797.9	4,797.9	170.773	100	270.77
608	195	393522113550001	(C-14-18)18dccc-1	4,386,725	764,715	4,873.6	101	98	50-98	4	4,795.6	4,796.3	4,795.9	29.967	0.025	29.99
609	195	393345113503201	(C-14-18)26dccc-1	4,383,956	771,215	4,963.6	200	196	50-196	28	4,794.6	4,795.0	4,795.0	42.768	0.001	42.77
610	195	393420113511401	(C-14-18)27baaa-1	4,385,000	770,175	4,843.5	101	98	50-98	2	4,786.6	4,787.5	4,787.1	33.201	0.203	33.40
611	195	39311113574601	(C-15-19)11bccc-1	4,379,035	761,010	4,973.7	101	96	50-96	28	4,883.9	4,886.7	4,885.5	82.353	0.027	82.38
612	195	393118113562001	(C-15-19)12bccc-1	4,379,136	763,063	4,873.6	101	98	50-98	2	4,822.6	4,823.2	4,822.9	34.672	0.093	34.77
613	195	392622113513601	(C-16-18)10baaa-1	4,370,242	770,164	4,973.6	200	197	50-197	2	4,808.6	4,808.7	4,808.7	70.105	0.006	70.11
614	195	39231113504201	(C-16-18)26cbba-1	4,364,582	771,655	4,883.6	101	98	50-98	21	4,841.4	4,842.6	4,841.8	66.599	0.004	66.60
615	195	(C-16-19)4ADD 1	(C-16-19)4ADD 1	4,370,876	759,569	4,938.0		33		1	4,908.0	4,908.0	4,908.0	87.958	100	187.96
616	195	392709113594901	(C-16-19)4bba-1	4,371,290	759,327	5,003.7	101	98	50-98	5	4,937.4	4,938.6	4,938.2	23.162	0.052	23.21
617	195	392500114001201	(C-16-19)17bba-1	4,367,293	757,910	5,013.7	150	147	50-147	1	4,891.7	4,891.7	4,891.7	6,403.568	100	6,503.57
618	195	392310114005001	(C-16-19)29cb-1	4,363,871	757,113	5,003.7	200	197	50-197	1	4,921.7	4,921.7	4,921.7	9,901.285	100	10,001.28
619	195	391825113501501	(C-17-18)26baa-1	4,355,601	772,616	4,873.5		101	50-101	1	4,834.5	4,834.5	4,834.5	2,394.585	100	2,494.59
620	195	392141113585601	(C-17-19)4add-2	4,361,218	759,933	4,883.7		760	50-760	6	4,874.1	4,883.6	4,881.9	15.715	2.433	18.15
621	195	392135113592801	(C-17-19)4bdd-1	4,361,007	759,173	4,913.7	101	98	50-98	2	4,836.9	4,838.7	4,837.8	38.834	0.757	39.59
622	195	(C-17-19)5CC	(C-17-19)5CC	4,360,279	757,024	5,053.7		100	50-100	1	5,004.7	5,004.7	5,004.7	172.849	100	272.85
623	195	392126114002501	(C-17-19)5dc-1	4,360,684	757,818	5,023.7	100	97	50-97	1	4,973.2	4,973.2	4,973.2	4,044.922	100	4,144.92
624	195	391842114011501	(C-17-19)19dd-1	4,355,588	756,788	5,063.7	200	198	50-198	1	4,941.9	4,941.9	4,941.9	11,067.377	100	11,167.38
625	195	(C-18-18)10AAD	(C-18-18)10AAD	4,350,631	771,512	4,923.6		51	50-51	1	4,873.6	4,873.6	4,873.6	355.059	100	455.06
626	195	391538113510901	(C-18-18)10aadb-1	4,350,406	771,502	4,943.6	51	51	50-51	1	4,893.4	4,893.4	4,893.4	49.026	100	149.03
627	195	(C-18-18)31ADB	(C-18-18)31ADB	4,343,743	767,094	4,973.6		100	50-100	1	4,901.6	4,901.6	4,901.6	288.157	100	388.16
628	195	391205113543401	(C-18-18)31adba-1	4,343,669	766,812	4,973.6	100	97	50-97	20	4,893.1	4,895.0	4,894.3	35.570	0.017	35.59
629	195	(C-18-19)20ABD	(C-18-19)20ABD	4,346,968	758,467	5,013.6		100	50-100	1	4,979.6	4,979.6	4,979.6	186.470	100	286.47
630	195	391340114004001	(C-18-19)20ba-1	4,346,303	757,934	5,013.9	100	97	50-97	1	4,979.3	4,979.3	4,979.3	9,028.952	100	9,128.95
631	195	391326113595801	(C-18-19)20bad-1	4,345,905	758,956	4,963.6		100	50-100	6	4,945.8	4,950.1	4,948.1	13.628	0.885	14.31
632	195	391322114000001	(C-18-19)20badd-1	4,345,780	758,912	4,974.1		90	50-90	11	4,950.1	4,955.5	4,951.3	48.426	0.238	48.66
633	195	(C-18-19)21CBC	(C-18-19)21CBC	4,346,126	759,030	4,953.6				1	4,929.6	4,929.6	4,929.6	121.339	100	221.34

Table B.1-1
Steady-State Mean Hydraulic Head Data Set
 (Page 20 of 24)

Map ID	HA	Site No	Site Name	UTM Northing (m)	UTM Easting (m)	Reference Point Elevation (ft-amsl)	Hole Depth (ft-bgs)	Well Depth (ft-bgs)	Perforated or Open Interval (ft-bgs)	No. of Records Used	Min. Elevation (ft-amsl)	Max Elevation (ft-amsl)	Mean Head (ft-amsl)	Variance Coordinate Location (ft²)	Variance Sample Mean (ft²)	Total Variance (ft²)
634	195	(C-18-19)23ACC	(C-18-19)23ACC	4,346,707	763,098	4,933.6		130	50-130	1	4,905.6	4,905.6	4,905.6	35.835	100	135.83
635	195	391251114000001	(C-18-19)28bcc-1	4,344,824	758,943	4,973.6				44	4,925.6	4,964.5	4,956.5	17.106	0.772	17.88
636	195	(C-19-19)14ACD	(C-19-19)14ACD	4,338,577	763,652	4,928.6		77	50-77	1	4,917.6	4,917.6	4,917.6	147.316	100	247.32
637	195	(C-19-19)14ADC	(C-19-19)14ADC	4,338,579	763,747	4,928.6		99	50-99	1	4,915.6	4,915.6	4,915.6	172.849	100	272.85
638	195	(C-19-19)14DCC	(C-19-19)14DCC	4,337,765	763,472	4,933.6		59	50-59	1	4,915.6	4,915.6	4,915.6	96.837	100	196.84
639	195	(C-19-19)14DCD	(C-19-19)14DCD	4,337,783	763,682	4,933.6		65	50-65	1	4,921.6	4,921.6	4,921.6	346.161	100	446.16
640	195	390842113565801	(C-19-19)23abd-1	4,337,292	763,568	4,938.6	115	115	50-115	1	4,923.6	4,923.6	4,923.6	14.193	100	114.19
641	195	(C-19-19)23ACD	(C-19-19)23ACD	4,336,957	763,686	4,938.6		98	50-98	1	4,923.6	4,923.6	4,923.6	198.742	100	298.74
642	195	390830113572001	(C-19-19)23bcd-1	4,336,904	763,052	4,938.6	110	109	50-109	1	4,925.6	4,925.6	4,925.6	16.118	100	116.12
643	195	(C-19-19)23DCD	(C-19-19)23DCD	4,336,136	763,734	4,943.6		80	50-80	1	4,929.6	4,929.6	4,929.6	210.064	100	310.06
644	195	(C-19-19)23DDB	(C-19-19)23DDB	4,335,389	763,894	4,953.6		155	50-155	1	4,939.6	4,939.6	4,939.6	424.846	100	524.85
645	195	390758113565501	(C-19-19)26aba-1	4,335,946	763,756	4,948.6		1,005	50-1105	41	4,933.1	4,933.7	4,933.4	15.795	0.001	15.80
646	195	(C-19-19)26BBA	(C-19-19)26BBA	4,335,871	762,911	4,948.6		200	50-200	1	4,936.6	4,936.6	4,936.6	87.834	100	187.83
647	195	390735113571501	(C-19-19)26bcd-1	4,335,213	763,229	4,948.6				70	4,935.9	4,937.0	4,936.5	12.230	0.002	12.23
648	195	(C-19-19)29ABD	(C-19-19)29ABD	4,335,541	758,816	4,972.6		65	50-65	1	4,957.6	4,957.6	4,957.6	29.936	100	129.94
649	195	(C-19-19)34ABA	(C-19-19)34ABA	4,334,217	762,142	4,958.6		118	50-118	1	4,943.6	4,943.6	4,943.6	35.598	100	135.60
650	195	390655113580301	(C-19-19)34abd-1	4,333,941	762,117	4,963.6				1	4,949.6	4,949.6	4,949.6	4.256	100	104.26
651	195	(C-19-19)34ADB	(C-19-19)34ADB	4,333,890	762,274	4,963.6		110	50-110	1	4,955.6	4,955.6	4,955.6	55.131	100	155.13
652	195	(C-19-19)34ADD	(C-19-19)34ADD	4,333,657	762,511	4,963.6		406	50-406	1	4,956.6	4,956.6	4,956.6	70.590	100	170.59
653	195	(C-19-19)34DAA	(C-19-19)34DAA	4,333,451	762,525	4,968.6				1	4,953.6	4,953.6	4,953.6	67.954	100	167.95
654	195	390629113575801	(C-19-19)34dac-1	4,333,143	762,264	4,983.6		82	50-82	1	4,977.6	4,977.6	4,977.6	10.874	100	110.87
655	195	(C-19-19)34DDB	(C-19-19)34DDB	4,333,116	762,298	4,973.6				1	4,958.6	4,958.6	4,958.6	70.037	100	170.04
656	195	(C-19-19)34DDD	(C-19-19)34DDD	4,332,849	762,570	4,973.6				1	4,958.6	4,958.6	4,958.6	45.587	100	145.59
657	195	(C-19-19)35ACC	(C-19-19)35ACC	4,333,711	763,593	4,973.6		40		1	4,957.6	4,957.6	4,957.6	159.411	100	259.41
658	195	(C-19-19)35ACD	(C-19-19)35ACD	4,333,718	763,823	4,973.6		70	50-70	1	4,954.6	4,954.6	4,954.6	100.773	100	200.77
659	195	(C-19-19)35BDD	(C-19-19)35BDD	4,333,698	763,387	4,973.6		45		1	4,964.6	4,964.6	4,964.6	175.987	100	275.99
660	195	(C-19-19)35CAC	(C-19-19)35CAC	4,333,243	763,116	4,983.6		110	50-110	1	4,963.6	4,963.6	4,963.6	122.213	100	222.21
661	195	(C-19-19)35CAD	(C-19-19)35CAD	4,333,250	763,335	4,985.6		100	50-100	1	4,957.6	4,957.6	4,957.6	172.849	100	272.85
662	195	(C-19-19)35CDC	(C-19-19)35CDC	4,332,868	763,138	4,978.6		72	50-72	1	4,953.6	4,953.6	4,953.6	129.318	100	229.32
663	195	(C-19-19)35CDD	(C-19-19)35CDD	4,332,880	763,358	4,983.6				1	4,966.6	4,966.6	4,966.6	140.351	100	240.35
664	195	390617113571601	(C-19-19)35cdd-1	4,332,807	763,286	4,983.6		500	50-500	4	4,972.1	4,972.5	4,972.3	32.853	0.011	32.86
665	195	(C-19-19)35DBC	(C-19-19)35DBC	4,332,263	763,612	4,978.6		45		1	4,958.6	4,958.6	4,958.6	145.878	100	245.88
666	195	(C-19-19)35DCB	(C-19-19)35DCB	4,333,140	763,612	4,978.6		49		1	4,957.6	4,957.6	4,957.6	142.077	100	242.08
667	195	390626113570401	(C-19-19)35dcb-1	4,333,094	763,565	4,983.6	180	180	50-180	1	4,961.6	4,961.6	4,961.6	78.191	100	178.19
668	195	(C-19-19)35DCC	(C-19-19)35DCC	4,332,880	763,610	4,983.6		74	50-74	1	4,975.6	4,975.6	4,975.6	82.956	100	182.96
669	195	390617113571901	(C-19-19)35dcd-1	4,332,804	763,214	4,983.6				4	4,962.2	4,962.2	4,962.2	31.791	0.009	31.80
670	195	(C-19-19)35DCD 2	(C-19-19)35DCD 2	4,332,878	763,829	4,978.6				1	4,967.6	4,967.6	4,967.6	51.280	100	151.28
671	195	390629113560301	(C-19-19)36cda-1	4,333,236	765,027	5,023.6	100	97	50-97	22	4,944.6	4,958.1	4,953.7	109.170	0.338	109.51



Table B.1-1
Steady-State Mean Hydraulic Head Data Set
(Page 21 of 24)

Map ID	HA	Site No	Site Name	UTM Northing (m)	UTM Easting (m)	Reference Point Elevation (ft-amsl)	Hole Depth (ft-bgs)	Well Depth (ft-bgs)	Perforated or Open Interval (ft-bgs)	No. of Records Used	Min. Elevation (ft-amsl)	Max Elevation (ft-amsl)	Mean Head (ft-amsl)	Variance Coordinate Location (ft ²)	Variance Sample Mean (ft ²)	Total Variance (ft ²)
672	195	(C-20-17)9C 1	(C-20-17)9C 1 Little Valley Well	4,330,727	780,009	5,489.3	760			2	4,899.3	4,904.3	4,896.8	196,331	56,250	252.58
673	195	390329113525101	(C-20-18)21bab- 1	4,327,843	769,830	5,123.6	168	159	50-159	2	4,971.6	5,070.8	5,021.2	52,699	2462,641	2,515.34
674	195	390141113532901	(C-20-18)32abd- 1	4,324,481	769,031	5,022.6	100	97	50-97	8	4,987.7	4,988.0	4,987.8	2,250	0,001	2.25
675	195	(C-20-19) 1BC 2	(C-20-19) 1BC 2	4,332,151	764,549	4,983.6		375	50-375	1	4,961.6	4,961.6	4,961.6	149,407	100	249.41
676	195	390600114021501	(C-20-19) 6bc - 1	4,332,045	756,119	5,083.7	101	98	50-98	1	5,079.0	5,079.0	5,079.0	4,492,163	100	4,592.16
677	195	390600113591501	(C-20-19) 6bcc- 1	4,332,187	760,444	4,986.5		200	50-200	1	5,003.5	5,003.5	5,003.5	4,091	100	104.09
678	195	390530113590001	(C-20-19) 7bbd- 1	4,331,274	760,835	5,006.8		280	50-280	1	5,010.8	5,010.8	5,010.8	8,923	100	108.92
679	195	390513113553801	(C-20-19)12aab- 1	4,330,913	765,707	5,038.6	150	148	50-148	2	5,018.2	5,022.6	5,020.4	102,521	4,818	107.34
680	195	390415113571300	(C-20-19)14bad- 1	4,329,047	763,484	5,004.6		102	50-102	1	4,979.6	4,979.6	4,979.6	45,179	100	145.18
681	195	(C-20-19)14BBC	(C-20-19)14BBC	4,329,050	762,946	5,003.6		100	50-100	1	4,991.6	4,991.6	4,991.6	128,718	100	228.72
682	195	390416113573801	(C-20-19)14bbc- 1	4,329,058	762,882	4,998.6		135	50-135	8	4,983.2	4,983.7	4,983.4	77,300	0,003	77.30
683	195	(C-20-19)14BDA	(C-20-19)14BDA	4,328,982	763,419	5,007.6				1	4,984.6	4,984.6	4,984.6	144,923	100	244.92
684	195	(C-20-19)15BBD	(C-20-19)15BBD	4,328,947	761,590	5,008.6				1	4,987.6	4,987.6	4,987.6	143,180	100	243.18
685	195	(C-20-19)15BBC	(C-20-19)15BBC	4,328,610	761,360	5,013.6		132	50-132	1	4,990.6	4,990.6	4,990.6	99,190	100	199.19
686	195	390404113584301	(C-20-19)15bcc- 1	4,328,636	761,332	5,013.6		126	50-126	1	4,990.6	4,990.6	4,990.6	179,439	100	189.432
687	195	(C-20-19)15BDB	(C-20-19)15BDB	4,328,873	761,684	5,008.6		52	50-52	1	4,989.6	4,989.6	4,989.6	179,330	100	279.33
688	195	(C-20-19)15CAA	(C-20-19)15CAA	4,328,455	761,890	5,008.6		56	50-56	1	4,995.6	4,995.6	4,995.6	72,713	100	172.71
689	195	(C-20-19)15CBA	(C-20-19)15CBA	4,328,436	761,590	5,013.6		60	50-60	1	4,995.6	4,995.6	4,995.6	107,234	100	207.23
690	195	(C-20-19)15CCC	(C-20-19)15CCC	4,327,849	761,407	5,028.6		75	50-75	1	5,008.6	5,008.6	5,008.6	117,159	100	217.16
691	195	(C-20-19)16BDC	(C-20-19)16BDC	4,328,608	760,084	5,028.6		40		1	5,013.6	5,013.6	5,013.6	73,843	100	173.84
692	195	390243114012201	(C-20-19)19dcd- 1	4,326,012	757,592	5,112.0				44	5,070.3	5,075.3	5,072.7	25,605	0,059	25.66
693	195	390312113591701	(C-20-19)21acc- 1	4,327,005	760,568	5,031.6		68	50-68	13	5,004.3	5,007.2	5,004.7	2,372	0,045	2.42
694	195	(C-20-19)21B	(C-20-19)21B	4,327,262	760,069	5,042.7		66	50-66	1	5,022.7	5,022.7	5,022.7	82,956	100	182.96
695	195	(C-20-19)21BCC	(C-20-19)21BCC	4,326,972	759,769	5,033.7		64	50-64	1	5,005.7	5,005.7	5,005.7	76,129	100	176.13
696	195	(C-20-19)30ABD	(C-20-19)30ABD	4,325,600	757,555	5,103.7		100	50-100	1	5,067.7	5,067.7	5,067.7	167,853	100	267.85
697	195	(C-20-20) 1DBB	(C-20-20) 1DBB	4,331,448	755,711	5,101.7				1	5,067.7	5,067.7	5,067.7	153,304	100	253.30
698	195	390500114024501	(C-20-20)12acc- 1	4,330,171	755,459	5,123.7		300	50-300	15	5,101.0	5,104.7	5,102.6	57,649	0,082	57.73
699	195	390000113341501	(C-21-17) 8dccc- 1	4,321,681	779,170	5,082.5	316		50-316	1	4,858.5	4,858.5	4,858.5	5,084	100	105.08
700	195	(C-21-18)10CDD 1	(C-21-18)10CDD 1	4,321,437	772,153	5,047.5	66		50-66	1	4,982.5	4,982.5	4,982.5	82,116	100	182.12
701	195	(C-21-18)12CCD 1	(C-21-18)12CCD 1	4,321,548	774,986	5,053.0	205		50-205	1	4,948.0	4,948.0	4,948.0	92,598	100	192.60
702	195	(C-21-18)17AD 1	(C-21-18)17AD 1 USBLM	4,320,651	769,552	5,028.0	166		50-166	1	4,976.0	4,976.0	4,976.0	175,987	100	275.99
703	195	385917113531201	(C-21-18)17dacc- 1	4,320,055	769,592	5,063.6	100	97	50-97	2	4,984.4	4,985.5	4,985.5	33,056	1,254	34.31
704	195	(C-21-18)32ABD 1	(C-21-18)32ABD 1	4,316,092	769,445	5,020.0				1	4,984.5	4,984.5	4,984.5	394,396	100	494.40
705	195	385921113593501	(C-21-19)16cbd- 1	4,319,868	760,371	5,123.6	100	97	50-97	2	5,033.6	5,035.1	5,034.4	1,343E+00	5,402E-01	1.88E+00
706	195	385835113584501	(C-21-19)21dacc- 1	4,318,490	761,621	5,128.6	100	97	50-97	1	5,037.1	5,037.1	5,037.1	8,344	100	108.34
707	195	385650114010601	(C-21-19)31acd- 1	4,315,140	758,333	5,223.6	400		50-400	1	5,181.6	5,181.6	5,181.6	1,658	100	101.66
708	195	(C-21-19)31CCA 1	(C-21-19)31CCA 1	4,314,722	757,401	5,225.0				1	5,183.0	5,183.0	5,183.0	217,397	100	317.40
709	195	(C-21-19)31D	(C-21-19)31D	4,314,861	758,275	5,213.7		80	50-80	1	5,183.7	5,183.7	5,183.7	73,616	100	173.62
710	195	(C-21-19)31DDC	(C-21-19)31DDC	4,314,571	758,378	5,218.7		651	50-651	1	5,157.7	5,157.7	5,157.7	85,622	100	185.62

Table B.1-1
Steady-State Mean Hydraulic Head Data Set
 (Page 22 of 24)

Map ID	HA	Site No	Site Name	UTM Northing (m)	UTM Easting (m)	Reference Point Elevation (ft-amsl)	Hole Depth (ft-bgs)	Well Depth (ft-bgs)	Perforated or Open Interval (ft-bgs)	No. of Records Used	Min. Elevation (ft-amsl)	Max Elevation (ft-amsl)	Mean Head (ft-amsl)	Variance Coordinate Location (ft²)	Variance Sample Mean (ft²)	Total Variance (ft²)
711	195	385617114013801	(C-22-19) 6bac- 2	4,314,098	757,596	5,258.7		167	50-167	8	5,219.4	5,229.6	5,222.3	57,879	1,336	59.22
712	195	385607114015601	(C-22-19) 6bcc- 1	4,313,775	757,172	5,279.7		120	50-120	7	5,226.2	5,236.0	5,228.5	21,235	1,757	22.99
713	195	385602114013501	(C-22-19) 6bdc- 1	4,313,638	757,683	5,260.6		250	50-250	1	5,202.6	5,202.6	5,202.6	29,034	100	129.03
714	195	(C-22-19)31CB 1	(C-22-19)31CB 1	4,305,221	757,643	5,560.0				1	5,373.0	5,373.0	5,373.0	1,131,663	100	1,231.66
715	195	(C-22-19)6aad	(C-22-19)6aad	4,314,199	758,673	5,236.7	170		50-170	1	5,196.7	5,196.7	5,196.7	302,760	100	402.76
716	195	(C-22-19)6bbb	(C-22-19)6bbb	4,314,364	757,160	5,276.4	120		100-120	1	5,213.4	5,213.4	5,213.4	251,225	100	351.23
717	195	(C-22-19)6bbd 1	(C-22-19)6bbd1	4,314,077	757,390	5,276.3	162		130-160	1	5,203.8	5,203.8	5,203.8	283,923	100	383.92
718	195	(C-22-19)6bca2	(C-22-19)6bca2	4,313,968	757,513	5,273.5	108		35-95	1	5,248.5	5,248.5	5,248.5	316,840	100	416.84
719	195	(C-22-19)6bca3	(C-22-19)6bca3	4,313,968	757,513	5,273.5	100			1	5,222.5	5,222.5	5,222.5	316,840	100	416.84
720	195	(C-22-19)6bca4	(C-22-19)6bca4	4,313,928	757,516	5,275.7	111		51-97	1	5,224.7	5,224.7	5,224.7	315,063	100	415.06
721	195	(C-22-19)6ccb	(C-22-19)6ccb	4,313,042	757,207	5,310.7	162		130-160	1	5,240.2	5,240.2	5,240.2	374,423	100	474.42
722	195	(C-22-19)6ccd	(C-22-19)6ccd	4,313,853	757,590	5,273.5	105		40-100	1	5,227.5	5,227.5	5,227.5	430,563	100	530.56
723	195	(C-22-19)6dab1	(C-22-19)6dab1	4,313,593	758,479	5,244.0	300		40-200	1	5,186.0	5,186.0	5,186.0	578,403	100	678.40
724	195	(C-22-19)6dab2	(C-22-19)6dab2	4,313,593	758,479	5,244.0	290		60-250	1	5,174.0	5,174.0	5,174.0	578,403	100	678.40
725	195	385620114020901	(C-22-20) 1aab- 1	4,314,166	756,846	5,263.7	333	333	50-333	1	5,233.7	5,233.7	5,233.7	111,291	100	211.29
726	195	385623114021501	(C-22-20) 1aba- 1	4,314,254	756,699	5,262.7		135	50-135	5	5,220.0	5,223.6	5,221.8	133,854	0.353	134.21
727	195	385600114024001	(C-22-20) 1bdc- 1	4,313,525	756,120	5,323.7	281		50-281	1	5,271.7	5,271.7	5,271.7	182,077	100	282.08
728	195	(C-22-20)1AAC 1	(C-22-20)1AAC 1	4,314,075	756,882	5,270.0				1	5,210.0	5,210.0	5,210.0	216,814	100	316.81
729	195	(C-22-20)1AAD 1	(C-22-20)1AAD 1	4,314,081	757,087	5,270.0				1	5,207.0	5,207.0	5,207.0	221,307	100	321.31
730	195	(C-22-20)1DAA 1	(C-22-20)1DAA 1	4,313,449	757,110	5,299.0				1	5,224.0	5,224.0	5,224.0	245,085	100	345.09
731	195	384936113592301	(C-23-19) 9acdb- 1	4,301,840	761,255	5,403.8				7	5,396.2	5,396.6	5,396.4	48,673	0.004	48.68
732	195	384943113583801	(C-23-19) 9dad- 1	4,302,092	762,333	5,483.8	100	95	50-95	1	5,415.3	5,415.3	5,415.3	45,077	100	145.08
733	195	(C-23-19)1OCA 1	(C-23-19)1OCA 1	4,302,137	762,985	5,528.1				1	5,459.1	5,459.1	5,459.1	573,037	100	673.04
734	195	(C-23-19)1ODD 1	(C-23-19)1ODD 1	4,301,755	763,839	5,590.0				1	5,427.0	5,427.0	5,427.0	431,950	100	531.95
735	195	384936113572901	(C-23-19)10dda- 1	4,301,932	764,005	5,603.8	200	190	50-190	1	5,440.2	5,440.2	5,440.2	41,490	100	141.49
736	195	(C-23-19)13AAB 1	(C-23-19)13AAB 1	4,301,572	766,981	5,930.0	540			1	5,454.0	5,454.0	5,454.0	922,932	100	1,022.93
737	195	384818114002801	(C-23-19)20bac- 1	4,299,384	759,766	5,403.8		415	50-415	64	5,384.9	5,390.6	5,388.0	54,958	0.018	54.98
738	195	384900114003001	(C-23-19)20bac- 2	4,300,677	759,675	5,413.8		40		1	5,388.8	5,398.8	5,398.8	9,740	100	109.74
739	195	384815114003701	(C-23-19)20bcd- 1	4,299,284	759,552	5,413.8		135	50-135	36	5,397.5	5,402.7	5,399.2	225,107	0.038	225.14
740	195	(C-23-19)20BDB 1	(C-23-19)20BDB 1	4,299,308	759,723	5,410.0				1	5,392.0	5,392.0	5,392.0	302,217	100	402.22
741	195	(C-23-19)20DBC 1	(C-23-19)20DBC 1	4,298,681	760,160	5,415.0				1	5,399.0	5,399.0	5,399.0	93,107	100	193.11
742	195	(C-23-19)22B 1	(C-23-19)22B 1	4,299,517	762,863	5,482.6				1	5,434.6	5,434.6	5,434.6	284,583	100	384.58
743	195	384807113582001	(C-23-19)22bcd- 1	4,299,146	762,866	5,463.8	50	50		1	5,414.9	5,414.9	5,414.9	53,324	100	153.32
744	195	(C-23-19)24DCC 1	(C-23-19)24DCC 1	4,298,527	766,667	5,834.2	472			1	5,379.2	5,379.2	5,379.2	902,990	100	1,002.99
745	195	(C-23-19)28CB 1	(C-23-19)28CB 1	4,297,199	761,128	5,450.0				1	5,410.0	5,410.0	5,410.0	118,736	100	218.74
746	195	384712113594001	(C-23-19)28cbb- 1	4,297,387	760,991	5,456.5	100	95	50-95	1	5,416.6	5,416.6	5,416.6	6,620	100	106.62
747	195	(C-23-19)8D 1	(C-23-19)8D 1	4,301,822	760,385	5,400.0	40		0-40	1	5,397.0	5,397.0	5,397.0	109,019	100	209.02
748	195	384514113573601	(C-24-19) 3cad- 1	4,293,848	764,105	5,573.8	200	197	50-197	8	5,445.5	5,449.4	5,448.1	16,774	0.180	16.95
749	195	(C-24-19) 3DBA	(C-24-19) 3DBA	4,294,056	764,312	5,561.8		172	50-172	1	5,423.8	5,423.8	5,423.8	120,613	100	220.61



Table B.1-1
Steady-State Mean Hydraulic Head Data Set
(Page 23 of 24)

Map ID	HA	Site No	Site Name	UTM Northing (m)	UTM Easting (m)	Reference Point Elevation (ft-amsl)	Hole Depth (ft-bgs)	Well Depth (ft-bgs)	Perforated or Open Interval (ft-bgs)	No. of Records Used	Min. Elevation (ft-amsl)	Max Elevation (ft-amsl)	Mean Head (ft-amsl)	Variance Coordinate Location (ft²)	Variance Sample Mean (ft²)	Total Variance (ft²)
750	195	384563113582401	(C-24-19) 4aab- 1	4,295,012	762,906	5,533.0	100	95	50-95	1	5,451.3	5,451.3	5,451.3	19,347	100	119.35
751	195	(C-24-19)32ad	(C-24-19)32ad	4,286,066	761,710	6,266.5	4,800			1	5,496.5	5,496.5	5,496.5	8,968.090	100	9,068.09
752	195	384047113593301	(C-24-19)32bhd- 1	4,285,522	761,550	6,379.1	7,025		50-7025	1	5,629.1	5,629.1	5,629.1	10,026	100	110.03
753	195	(C-24-19)32dd	(C-24-19)32dd	4,285,357	761,711	6,381.6	1,390			1	5,611.6	5,611.6	5,611.6	4,970.250	100	5,070.25
754	195	(C-24-19)3DA 1	(C-24-19)3DA 1	4,293,886	764,704	5,570.0				1	5,444.0	5,444.0	5,444.0	118,736	100	218.74
755	195	(C-24-19)4AA 1	(C-24-19)4AA 1	4,294,835	763,042	5,530.0				1	5,448.0	5,448.0	5,448.0	114,460	100	214.46
756	195	383559114072701	195 N09HE70 33AC 1 USGS-MX	4,285,792	749,784	5,653.9	101	101	50-101	2	5,576.9	5,578.9	5,577.9	11,407.842	1,000	11,408.84
757	195	384517114054001	195 N10 E70 11D 1	4,293,244	753,151	5,503.9	100	100	50-100	1	5,494.9	5,494.9	5,494.9	4,801.949	100	4,901.95
758	195	384541114050501	195 N10 E70 12B 1	4,294,248	753,651	5,493.9	80	80	29-38/42-47/62-65	1	5,479.9	5,479.9	5,479.9	5,533.351	100	5,633.35
759	195	195 N10 E70 24AB 1	195 N10 E70 24AB 1	4,291,291	755,776	5,479.4	400	400	300-400	1	5,451.4	5,451.4	5,451.4	162,593	100	262.59
760	195	195 N10 E70 25AB 1	195 N10 E70 25AB 1	4,289,565	755,831	5,529.9	625	605	100-180/180-400/400-605	1	5,522.9	5,522.9	5,522.9	643,322	100	743.32
761	195	384236114042701	195 N10 E70 25D 1	4,288,450	754,755	5,528.9	70	70	11-32/40-41/50-54	1	5,521.9	5,521.9	5,521.9	5,104,731	100	5,204.73
762	195	195 N10 E70 29DD 1	195 N10 E70 29DD 1	4,287,899	749,041	5,692.3	68	68	8-62	1	5,686.3	5,686.3	5,686.3	1,996,481	100	2,096.48
763	195	384702114041601	195 N11 E70 35AD 1 USGS-MX (Snake V. Small)	4,296,862	754,340	5,581.9		101	50-101	56	5,511.9	5,513.2	5,512.9	162,466	0,001	162.47
764	195	384714114051001	195 N11 E70 35BA 1 USGS-MX (Hamlin Valley N.)	4,297,191	755,025	5,663.9		200	50-200	44	5,521.7	5,523.0	5,522.1	382,146	0,003	382.15
765	195	384702114034101	195 N11 E70 36BD 1 USGS-MX	4,296,889	755,185	5,548.8		101	50-101	14	5,481.8	5,482.9	5,482.6	187,569	0,009	187.58
766	195	195 N12 E70 34 1	195 N12 E70 34 1	4,306,161	751,701	6,246.2	120	120	104-109	1	6,194.2	6,194.2	6,194.2	2,549,240	100	2,649.24
767	195	390126114115701	195 N13 E69 11A 1	4,322,743	743,131	6,304.0	29	29	4-29	1	6,279.0	6,279.0	6,279.0	2,675,176	100	2,775.18
768	195	195 N13 E69 11ABC 1	195 N13 E69 11ABC 1	4,322,537	742,674	6,400.0				1	6,315.0	6,315.0	6,315.0	296,963	100	396.96
769	195	390028114110401	195 N13 E69 12CCDB1	4,321,404	743,726	6,204.0	150	150	70-150	2	6,139.0	6,163.3	6,151.2	10,403	147,137	157.54
770	195	195 N13 E70 04CDC 1	195 N13 E70 04CDC 1	4,323,121	748,763	5,300.0				1	5,272.0	5,272.0	5,272.0	1,638,452	100	1,738.45
771	195	390156114073201	195 N13 E70 04D 1	4,323,734	749,167	5,303.8	153	147	50-145	2	5,259.8	5,273.6	5,266.7	15,872,825	47,610	15,920.43
772	195	390126114075901	195 N13 E70 09B 1 Ranger Station	4,322,629	748,384	5,353.8	88	88	80-85	1	5,335.8	5,335.8	5,335.8	32,077,992	100	32,177.99
773	195	195 N13 E70 09BDD 1	195 N13 E70 09BDD 1	4,322,311	748,982	5,300.0				1	5,284.0	5,284.0	5,284.0	602,477	100	702.48
774	195	390102114080301	195 N13 E70 09C 1	4,322,205	748,614	5,353.8	84	84	50-84	2	5,302.8	5,317.4	5,310.1	28,238,719	53,290	28,292.01
775	195	195 N13 E70 09CA 1	195 N13 E70 09CA 1	4,321,995	748,889	5,300.0				1	5,272.0	5,272.0	5,272.0	831,480	100	931.48
776	195	390005114080601	195 N13 E70 16C 1	4,320,847	748,632	5,403.8	154	154	110-153	1	5,364.8	5,364.8	5,364.8	27,029,925	100	27,129.92
777	195	195 N13 E70 16CC 1	195 N13 E70 16CC 1	4,319,988	748,546	5,470.0				1	5,417.0	5,417.0	5,417.0	1,485,640	100	1,585.64
778	195	195 N13 E70 16DB 1	195 N13 E70 16DB 1	4,320,411	749,332	5,360.0				1	5,310.0	5,310.0	5,310.0	736,178	100	836.18
779	195	195 N13 E70 30AA 1	195 N13 E70 30AA 1	4,317,925	746,580	6,013.5	400	300	60-300	1	5,979.5	5,979.5	5,979.5	124,412	100	224.41
780	195	195 N13 E70 33 1	195 N13 E70 33 1	4,315,785	749,236	5,955.4	80	80	70-75	1	5,890.4	5,890.4	5,890.4	4,208,299	100	4,308.30
781	195	385757114045801	195 N13 E70 35A 1 USBLM - State Hwy Well	4,316,638	753,103	5,333.8	158	155	50-158	2	5,234.3	5,236.8	5,235.5	19,842,864	1,563	19,844.43
782	195	385941114032901	195 N13 E71 19B 1 USBLM	4,319,789	755,121	5,163.7	82	80	68-75	2	5,138.7	5,142.2	5,140.5	4,099,060	3,063	4,102.12

Table B.1-1
Steady-State Mean Hydraulic Head Data Set
 (Page 24 of 24)

Map ID	HA	Site No	Site Name	UTM Northing (m)	UTM Easting (m)	Reference Point Elevation (ft-amsl)	Hole Depth (ft-bgs)	Well Depth (ft-bgs)	Perforated or Open Interval (ft-bgs)	No. of Records Used	Min. Elevation (ft-amsl)	Max Elevation (ft-amsl)	Mean Head (ft-amsl)	Variance Coordinate Location (ft²)	Variance Sample Mean (ft²)	Total Variance (ft²)
783	195	195 N14 E69 13CD 1	195 N14 E69 13CD 1	4,329,501	743,844	5,702.9	291	291	40-180/200-260	1	5,680.9	5,680.9	5,680.9	1,643.800	100	1,743.80
784	195	39045411411101	195 N14 E69 24A 1	4,328,972	743,949	5,683.9	70	70	45-70	1	5,656.9	5,656.9	5,656.9	32,864.215	100	32,964.21
785	195	195 N14 E69 24BDD 1	195 N14 E69 24BDD 1	4,328,612	743,977	5,650.0				1	5,618.0	5,618.0	5,618.0	1,330.178	100	1,430.18
786	195	195 N14 E69 24DAB 1	195 N14 E69 24DAB 1	4,328,410	744,631	5,600.0				1	5,588.0	5,588.0	5,588.0	956.925	100	1,056.92
787	195	390543114081801	195 N14 E70 08DC 1 USGS-MX (Snake Valley S.)	4,331,241	747,414	5,548.1	100	79	50-79	5	5,492.1	5,494.8	5,493.6	308.845	0.245	309.09
788	195	195 N14 E70 20 1	195 N14 E70 20 1	4,328,580	747,283	5,420.0				1	5,367.0	5,367.0	5,367.0	483.903	100	583.90
789	195	390337114065301	195 N14 E70 27C 1 USBLM	4,326,483	750,187	5,303.8	130	130	110-130	2	5,214.6	5,217.8	5,216.2	3,983.491	2.560	3,986.05
790	195	390252114102101	195 N14 E70 31C 1	4,325,335	745,097	5,623.9	65	65	45-65	1	5,598.9	5,598.9	5,598.9	74,596.829	100	74,696.83
791	195	390812114033601	195 N15 E70 25DD 1 USGS-MX (Snake Valley N.)	4,336,051	754,041	5,071.7		94	50-94	6	5,060.5	5,061.1	5,060.8	145.795	0.013	145.81
792	195	393047114124001	195 N19 E69 15C 1	4,377,038	740,345	7,184.2	28	28	16-26	1	7,175.2	7,175.2	7,175.2	1,241.780	100	1,341.78
793	196	(C-30-19)21CAB	(C-30-19)21CAB	4,230,553	764,508	6,325.0				1	6,155.0	6,155.0	6,155.0	1,163.861	100	1,263.86
794	196	(C-31-19)20CD 1	(C-31-19)20CD 1	4,219,780	763,079	6,723.2	665	665	625-665	1	6,159.2	6,159.2	6,159.2	530.565	100	630.57
795	196	(C-32-19)21ABA 1	(C-32-19)21ABA 1	4,211,459	765,524	6,740.0				1	6,723.0	6,723.0	6,723.0	217.592	100	317.59
796	196	(C-32-19)21ABA 2	(C-32-19)21ABA 2	4,211,459	765,524	6,740.0				1	6,682.0	6,682.0	6,682.0	217.592	100	317.59
797	196	(C-32-19)22DCB	(C-32-19)22DCB	4,210,277	766,966	6,640.0	407	8		1	6,305.0	6,305.0	6,305.0	152.162	100	252.16
798	196	(C-32-19)27ACC	(C-32-19)27ACC	4,209,271	766,984	6,650.0				1	6,235.0	6,235.0	6,235.0	176.337	100	276.34
799	196	195 N10 E69 08BB 1	195 N10 E69 08BB 1	4,293,212	738,145	7,461.5	200	200	102-200	1	7,376.5	7,376.5	7,376.5	300.613	100	400.61
800	196	196 N06 E68 13A 1	196 N06 E68 13A 1	4,252,012	736,921	8,026.7	495	484	420-484	1	7,606.7	7,606.7	7,606.7	357.550	100	457.55
801	196	38325114134901	196 N08 E69 15B 1	4,271,290	741,829	5,715.5		110	50-110	3	5,638.5	5,641.5	5,640.2	3,595.645	0.778	3,596.42
802	196	383023114115301	196 N08 E69 35DC 1 USGS-MX	4,265,716	744,253	5,778.6	480	475	50-480	3	5,620.6	5,622.6	5,621.2	1,250E-01	4.338E-01	5.59E-01
803	196	383023114115302	196 N08 E69 35DC 2 USGS-MX (Hamlin Valley S.)	4,265,716	744,253	5,778.6	435	435	50-435	8	5,605.9	5,606.7	5,606.2	1,250E-01	1.387E-02	1.39E-01
804	196	383047114110001	196 N08 E69 36A 1 USBLM - Rosencran Well	4,266,575	746,094	5,761.8	225	225	200-218	1	5,609.5	5,609.5	5,609.5	666.445	100	766.45
805	196	196 N08 E69 36AAA 1	196 N08 E69 36AAA 1	4,267,010	746,086	5,748.3		480	50-480	1	5,603.3	5,603.3	5,603.3	55.131	100	155.13
806	196	383533114102901	196 N08 E70 06B 1 USBLM - Monument Well	4,275,263	746,626	5,673.9	164	164	111-115/152-164	2	5,582.9	5,585.9	5,584.4	972.111	2.250	974.36
807	196	383252114075101	196 N08 E70 21A 1	4,270,511	750,602	5,713.9		153	50-153	2	5,585.9	5,591.9	5,588.9	3,735.055	9.000	3,744.06
808	196	196 N09 E70 14CAB 1	196 N09 E70 14CAB 1	4,280,879	752,645	5,606.5				1	5,579.5	5,579.5	5,579.5	96.578	100	196.58
809	196	383545114070101	196 N09 E70 34D 1	4,275,700	751,723	5,693.9	200	217	195-199	2	5,583.9	5,584.4	5,584.4	2,572.742	0.250	2,572.99
810	196	196 N09 E70 35 1	196 N09 E70 35 1	4,276,153	753,380	5,736.2	165	165	120-165	1	5,626.2	5,626.2	5,626.2	232.239	100	332.24
811	196	196 N09 E71 06A 1	196 N09 E71 06A 1	4,284,704	756,345	5,720.0				1	5,521.0	5,521.0	5,521.0	670.044	100	770.04



This Page Intentionally Left Blank

Plate

