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SOUTHERN NEVADA WATER AUTHORITY

Water Resources Division

2012 Spring Valley Hydrologic Monitoring, Management, and Mitigation Plan Status and Data Report

March 2013

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Submitted to the
Nevada State Engineer and the
Spring Valley Stipulation
Executive Committee

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ACRONYMS

BLM	Bureau of Land Management
BWG	Biological Work Group
CPB	Corporation of the Presiding Bishop of the Church of Jesus Christ of Latter-Day Saints
DOI	U.S. Department of the Interior
EC	Executive Committee
GBNP	Great Basin National Park
HA	hydrographic area
MOU	Memorandum of Understanding
NDWR	Nevada Division of Water Resources
NSE	Nevada State Engineer
NWIS	National Water Information System
SNPLMA	Southern Nevada Public Lands Management Act
SNWA	Southern Nevada Water Authority
SVMM	Spring Valley Monitoring and Mitigation
TRP	Technical Review Panel
USGS	U.S. Geological Survey
UTM	Universal Transverse Mercator
WY	water year

ABBREVIATIONS

°C	degrees Celsius
afy	acre-feet per year
amsl	above mean sea level
bgs	below ground surface
cfs	cubic feet per second
ft	foot
gpm	gallons per minute
in.	inch
m	meter
mi	mile
mi^2	square mile

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1.0 INTRODUCTION

This report was prepared by the Southern Nevada Water Authority (SNWA) in satisfaction of monitoring and reporting requirements set forth in the *Hydrologic Monitoring and Mitigation Plan for Spring Valley (Hydrographic Area 184)* (SVMM Plan) (SNWA, 20011a). The location of Spring Valley is presented in Figure 1-1. The report provides the Nevada State Engineer (NSE) hydrologic data collected in 2012 and the current status of each element of the SVMM plan. The hydrologic data contained in this report were submitted to the NSE in electronic format.

This report also satisfies the hydrologic data reporting requirements of the U.S. Department of the Interior (DOI) and SNWA Stipulation Agreement. The SVMM Plan contains all the hydrologic monitoring elements of the Stipulation Agreement as well as monitoring required by the NSE that relate to existing non-federal water-rights.

This is the sixth annual status and data report in a series of reports associated with the Spring Valley hydrologic monitoring, management and mitigation program. The reports document historic hydrologic conditions and plan status since 2007 (SNWA, 2008, 2009b, 2010, 2011b, and 2012).

1.1 Background

On September 8, 2006, prior to the NSE hearing for applications 54003 through 54020, a Stipulation for Withdrawal of Protests (Stipulation, 2006) was established between SNWA and DOI on behalf of the Bureau of Indian Affairs, the Bureau of Land Management (BLM), the National Park Service, and the U.S. Fish and Wildlife Service (USFWS) (collectively known as the DOI Bureaus). Exhibits A and B of the Stipulation require the development of biologic and hydrologic monitoring plans. As part of the Stipulation, an Executive Committee (EC) was established to oversee the implementation of the agreement. The hydrologic Technical Review Panel (TRP), composed of technical expert representatives of parties to the stipulation, was established to develop and oversee implementation of the monitoring and mitigation plan, review program data, and modify the monitoring plan, if necessary. A Biological Working Group (BWG) was also establish to oversee the development and implementation of the biological monitoring plan.

On April 16, 2007, SNWA was granted groundwater rights in Spring Valley hydrographic area (HA) 184 for municipal and domestic purposes under permits 54003 through 54015, inclusive, as well as 54019 and 54020. Ruling 5726 required the development of biologic and hydrologic monitoring plans. The hydrologic SVMM plan associated with this ruling was approved by the NSE on February 9, 2009.

Since the issuance of Ruling 5726, an opinion by the Nevada Supreme Court concluded that the NSE must re-notice SNWA's original groundwater applications and reopen the protest period (Great Basin

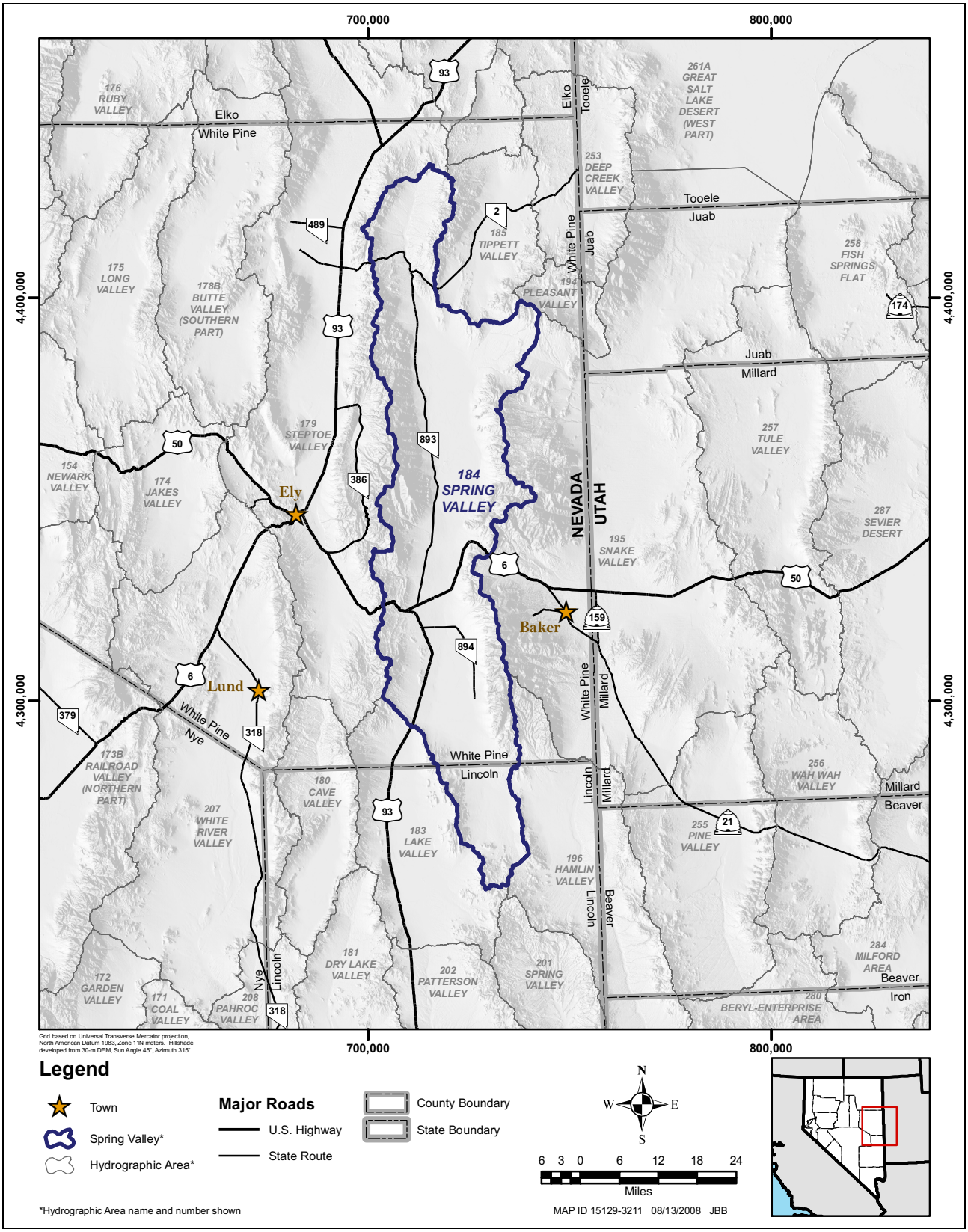

Figure 1-1
Spring Valley Hydrographic Area 184

Water Network, et. al. v. NSE, et. al., June 17, 2010) (NSC, 2010). A second hearing was held by the NSE in regard to the water-right applications in September through November, 2011. On March 22, 2012, the NSE issued Ruling 6164 granting SNWA Spring Valley Application Numbers 54003 through 54015, and 54019 and 54020. Ruling 6164 also approved the SNWA Hydrologic Monitoring and Mitigation Plan for Spring Valley and required annual data reports be submitted to the NSE. This report is submitted for the purpose of meeting the Stipulation reporting requirements as well as the reporting requirements under Ruling 6164.

On September 15, 2011, a Stipulation for Withdrawal of Protests (Stipulation, 2011) was established between SNWA and the United States Forest Service (USFS). The SNWA/USFS Stipulation required the hydrologic monitoring and water chemistry sampling of two additional spring locations in Spring Valley with biological monitoring at one of the sites. SNWA and USFS have selected the locations and are proceeding with the access permit application.

1.2 Major Activities Performed in 2012

Major activities associated with the SVMM Plan performed in 2012 were as follows:

- Continued the implementation of the SVMM Plan including data collection efforts and maintenance of the monitoring network.
- Worked with USFS to identify two spring monitoring sites to fulfill requirements of SNWA/USFS Stipulation Agreement and initiate the access application.
- Maintained the SNWA data-exchange web site accessible by the NSE, EC, TRP, and BWG. The web site contains project reports, monitoring network attributes, and hydrologic data.
- Worked cooperatively with the TRP to obtain updates on the Southern Nevada Public Lands Management Act (SNPLMA) Round 8 hydrologic study in and around the Great Basin National Park (GBNP). The study includes well installations and surface water groundwater interaction studies at the GBNP and near Big Springs.
- Provided technical assistance to the Biological Working Group (BWG) with implementation of the Biological Monitoring Plan.
- Held a joint TRP-BWG field trip in Spring, 2012 to visit selected hydrologic and biological monitoring sites and provide an update of project activities.

1.3 Report Scope

Section 2.0 presents the status and data collected for each major element of the SVMM Plan. Section 3.0 discusses the planned activities for 2013, and Section 4.0 provides a list of references. Lastly, Appendix A through Appendix F present tables and graphs of the various data discussed in the report.

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2.0 SVMM PLAN STATUS AND DATA

The current status of each major element of the SVMM Plan is presented in this section. Hydrologic data collected in 2012 associated with monitoring groundwater conditions, spring and stream discharge, precipitation, and water-chemistry are presented. No aquifer testing was performed on program wells during 2012.

2.1 Monitoring Well Network

The SVMM Plan identifies the specific number and distribution of monitor wells to meet program objectives. Existing wells along with appropriate new well locations were selected through consensus of the TRP and/or NSE and incorporated into the monitoring network.

The monitor well network, including current and future program wells, is presented in Figure 2-1. Each well-identification number on the figure includes a Q or C designation for quarterly or continuous measurement frequency.

The plan elements which have been implemented are summarized below:

- The selection of 25 existing wells by the TRP. Groundwater level monitoring frequency of the wells consist of 15 locations monitored continuously (one hour intervals) and 10 monitored quarterly.

- Installation of two monitor wells southeast of Shoshone Ponds (SPR7024M and SPR7024M2). Monitoring frequency of the two wells are continuous.

- Installation of four monitor wells associated with Cleveland Ranch (SPR7029M, SPR7029M2, SPR7030M and SPR7030M2). Groundwater level measurement frequency is quarterly.

- Groundwater level monitoring of all SNWA exploratory wells in the program area at a minimum quarterly measurement frequency.

- Installation of shallow piezometers near 12 springs in spring valley. Continuous monitoring is performed at 11 locations. The piezometers are discussed in Section 2.3.

Additional elements of the well network are planned for future implementation:

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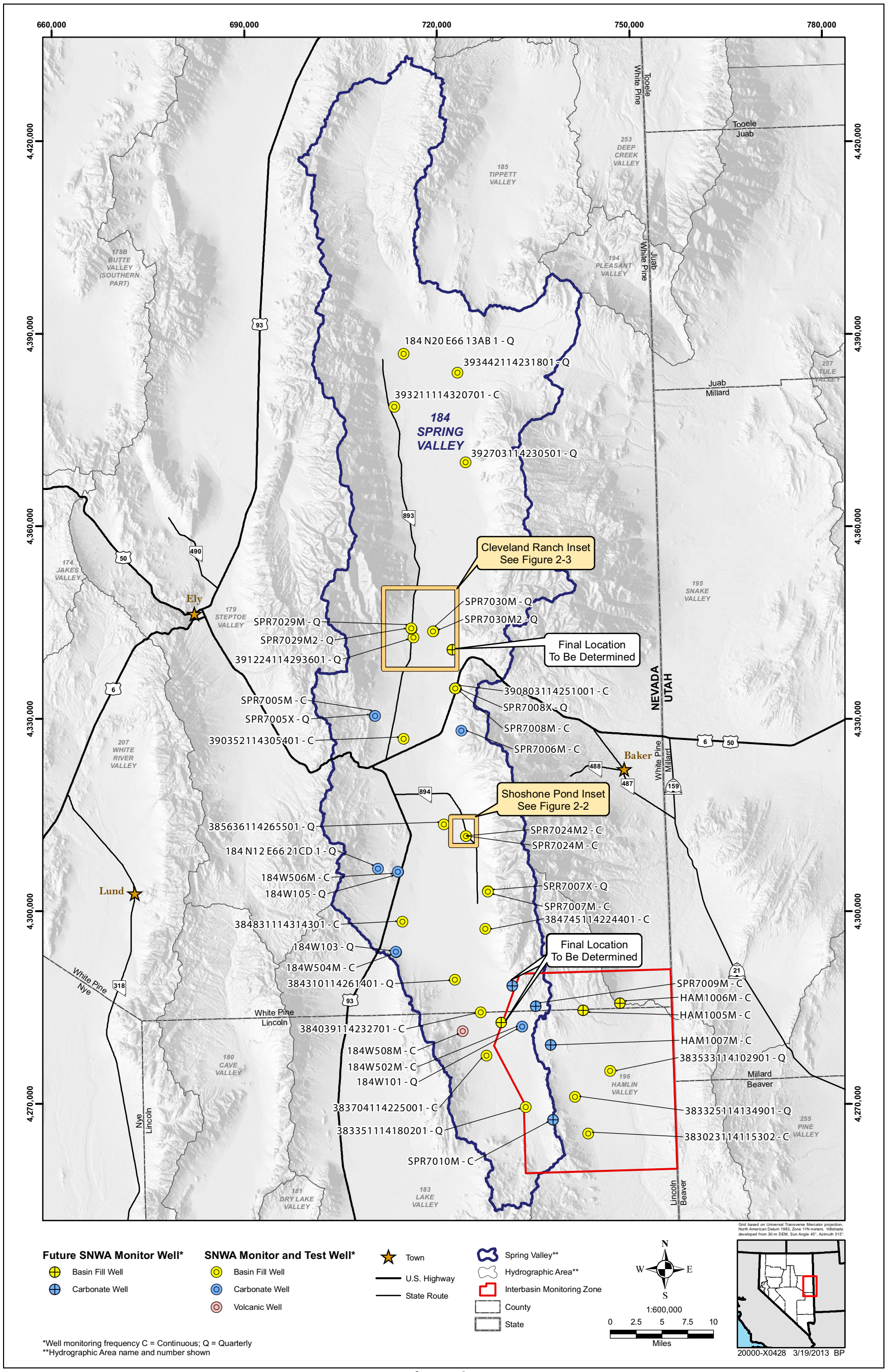

Figure 2-1
Spring Valley Monitor Well Network

- Installation of five additional monitor wells in the Interbasin Monitoring Zone (Zone) to evaluate groundwater conditions between Spring, Hamlin, and Snake Valleys. The locations have been identified by the TRP and right-of way access approved by BLM.

- Installation of two near-zone monitor wells between the two closest production sites and the Interbasin Monitoring Zone (Zone), as described in Section 2.1.3.2. Well locations and completion specifications will be selected in consensus with the TRP and NSE after the production well configuration is determined.

- Installation of one carbonate or basin-fill monitor well located one mile north of the northern most production well on the east side of the valley. The well location will be selected after the production well configuration is determined.

- Groundwater level monitoring of all future project production wells will be on a continuous basis.

An attribute table of all program monitor wells including well-construction attribute information, location coordinates, ground-surface elevation, completion hydrogeologic unit, and monitoring frequency is presented in Table 2-1. A professional-grade survey of location coordinates and ground-surface and top-of-casing measuring-point elevations was performed for each well in the network.

2.1.1 Well Network Hydrologic Data

The periodic water-level data collected in 2012 for each monitor well are presented in Appendix A. Historic water-level data are also presented on hydrographs for the wells which are not continuously monitored. Appendix B presents the 2012 daily mean values derived from continuous data collection at wells where continuous groundwater-level data collection is required. Hydrographs present both periodic and continuous data for 2012 and all historical data. Some of the early historical data collected prior to establishment of the SNWA monitoring program at certain well locations are approximate or are omitted because of the uncertainty associated with collection methods and procedures, or variations in the reference point used for the measurement at the time of collection.

2.1.2 Current Well Network

The current well network consists of monitoring at exploratory and production wells, the existing well network (as specified in the SVMM Plan), two monitor wells near Shoshone Ponds, and wells associated with monitoring at the Cleveland Ranch. Details regarding the current well network are provided in the following sections.

2.1.2.1 Exploratory- and Production-Well Monitoring

The SVMM Plan states that SNWA shall record discharge and groundwater levels in all completed SNWA production wells on a continuous basis and quarterly measurements of groundwater levels in

Table 2-1
Spring Valley Monitor Well Network (Arranged from North to South)
(Page 1 of 2)

SNWA Site Number	NDWR Station Local Number[b]	Location		Surface[c] Elevation (ft amsl)	Completion Date	Drill Depth (ft bgs)	Well Depth (ft bgs)	Well Casing Diameter (in.)	Screened Interval (ft bgs)	Open Interval	Aquifer	Monitoring Frequency
		UTM[a] Northing (m)	UTM[a] Easting (m)									
184 N20 E66 13AB 1	184 N20 E66 13BADA1	4,386,884.19	714,871.84	5,774.93	6/26/1966	907	296	16	135 to 296	---	Basin Fill	Quarterly
393442114231801	184 N20 E67 26ABBD1	4,383,955.15	723,240.35	5,708.77	Unknown	130	130	6	---	50 to 130	Basin Fill	Quarterly
393211114320701	184 N19 E66 11B 1	4,378,627.03	713,381.69	5,698.43	4/22/1960	---	400	---	---	50 to 400	Basin Fill	Continuous
392703114230501	184 N18 E67 01CCAA1	4,369,956.56	724,523.82	5,587.78	1934-36?	45	42	38	---	---	Basin Fill	Quarterly
SPR7029M2	184 N16 E66 25DBCA1	4,344,123.42	716,052.20	5,876.66	4/18/2011	437	422.6	12	382.14 to 422.1	360 to 430	Basin Fill	Quarterly
SPR7029M	184 N16 E66 25DBCD1	4,344,090.03	716,054.99	5,876.83	4/29/2011	275	260.34	4	219.75 to 260.04	213 to 261.75	Basin Fill	Quarterly
SPR7030M	184 N16 E67 32ABAB1	4,343,631.40	719,460.97	5,617.15	2/19/2011	98	96.67	4	53.67 to 96.37	53.67 to 98	Basin Fill	Quarterly
SPR7030M2	184 N16 E67 32ABAB2	4,343,620.29	719,454.00	5,617.79	2/11/2011	240	236.42	4	194.17 to 236.12	173.8 to 237	Basin Fill	Quarterly
391224114293601	184 N16 E66 36DBAD1	4,342,683.25	716,362.90	5,870.25	Unknown	---	---	---	---	---	Basin Fill	Quarterly
390803114251001	184 N15 E67 26CA 1	4,334,740.47	722,963.02	5,727.21	Unknown	---	200	2	---	50 to 200	Basin Fill	Continuous
SPR7008X	---	4,334,727.66	722,847.72	5,702.99	11/27/2007	970	960	20	240 to 940	102 to 970	Basin-Fill	Quarterly
SPR7008M	184 N15 E67 26CDAB1	4,334,702.61	722,865.27	5,704.86	7/25/2007	960	946	8	226 to 926	54 to 960	Basin Fill	Continuous
SPR7005X	---	4,330,506.86	710,356.78	6,397.56	4/11/2008	1,395	1,350	20	669 to 1,330	511 to 1,395	Carbonate	Quarterly
SPR7005M	184 N14 E66 09ABCA1	4,330,471.51	710,372.44	6,395.68	7/10/2007	1,412	1,404	8	663 to 1,383	439 to 1,412	Carbonate	Continuous
SPR7006M	---	4,328,163.49	723,872.61	6,525.18	9/20/2007	1,720	1,701	8	980 to 1,680	167 to 1,720	Carbonate	Continuous
390352114305401	184 N14 E66 24BDDD1	4,326,894.19	714,873.84	5,846.04	1980	---	160	2	---	50 to 160	Basin Fill	Continuous
385636114265501	184 N13 E67 33DDA 1	4,313,590.54	721,086.82	5,769.73	Unknown	---	---	36	---	---	Basin Fill	Quarterly
SPR7024M2	184 N12 E67 01CCCD2	4,311,765.99	724,560.80	5,863.08	3/27/2011	720	699.38	4	661.13 to 669.08	650.08 to 720	Basin Fill	Continuous
SPR7024M	184 N12 E67 01CCCD1	4,311,753.95	724,554.55	5,861.10	3/30/2011	260	249.76	4	209.3 to 249.46	200.5 to 260	Basin Fill	Continuous
184 N12 E66 21CD 1	184 N12 E66 21DCCB1	4,306,700.53	710,871.15	6,370.31	9/13/1966	631	631	6	3 to 631	3 to 631	Carbonate	Quarterly
184W506M	184 N12 E66 26BADC1	4,306,214.21	713,939.81	6,014.04	10/19/2006	1,160	1,140	8	430 to 1,120	80 to 1,160	Carbonate	Continuous
184W105	---	4,306,176.07	713,991.23	6,007.30	11/7/2006	1,160	1,135	20	418 to 1,114	60 to 1,160	Carbonate	Quarterly
SPR7007X	---	4,303,152.00	727,946.17	6,017.53	1/24/2008	1,040	1,020	20	299 to 1,000	155 to 1,040	Basin-Fill	Quarterly
SPR7007M	184 N11 E68 05BCBC1	4,303,146.59	727,976.03	6,017.73	8/17/2007	1,040	1,020	8	300 to 1,000	101 to 1,040	Basin Fill	Continuous
384831114314301	184 N11 E66 23AB 1	4,298,411.13	714,633.01	5,842.94	Unknown	102	102	2	---	50 to 102	Basin Fill	Continuous

Table 2-1
Spring Valley Monitor Well Network (Arranged from North to South)
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SNWA Site Number	NDWR Station Local Number[b]	Location		Surface[c] Elevation (ft amsl)	Completion Date	Drill Depth (ft bgs)	Well Depth (ft bgs)	Well Casing Diameter (in.)	Screened Interval (ft bgs)	Open Interval	Aquifer	Monitoring Frequency
		UTM[a] Northing (m)	UTM[a] Easting (m)									
384745114224401	184 N11 E68 19DCDC1	4,297,304.22	727,554.19	5,900.18	Unknown	200	200	2	---	50 to 200	Basin Fill	Continuous
184W504M	184 N11 E66 35CCCC1	4,293,712.49	713,647.12	5,900.11	11/17/2006	1,040	1,020	8	309 to 999	61 to 1,040	Carbonate	Continuous
184W103	---	4,293,693.03	713,697.74	5,899.06	12/6/2006	1,046	1,017	20	296 to 996	60 to 1,046	Carbonate	Quarterly
384310114261401	184 N10 E67 22AA 1	4,289,331.34	722,826.33	5,853.54	Unknown	---	100	2	---	50 to 100	Basin Fill	Quarterly
384039114232701	184 N10 E68 31CD 1	4,284,275.68	726,871.51	5,896.49	Unknown	---	150	2	---	50 to 150	Basin Fill	Continuous
184W502M	184 N09 E68 11BDBD1	4,282,116.35	733,294.42	6,189.72	1/25/2007	1,828	1,799	8	495 to 1,779	58 to 1,828	Carbonate	Continuous
184W101	---	4,282,062.02	733,297.65	6,190.90	2/24/2007	1,760	1,749	20	796 to 1,728	135 to 1,760	Carbonate	Quarterly
184W508M	184 N09 E67 11DBCD1	4,281,308.68	724,070.89	6,056.19	12/15/2006	1,180	1,160	8	376 to 1,140	241 to 1,180	Volcanic	Continuous
383704114225001	184 N09 E68 30AAAB1	4,277,594.57	727,759.99	6,002.52	8/7/1980	700	679	11	559 to 679	50 to 700	Basin Fill	Continuous
383533114102901	196 N08 E70 06B 1	4,275,166.91	747,014.36	5,676.76	7/22/1947	---	164	6	111 to 115/ 152 to 164	---	Basin Fill	Quarterly
383325114134901	196 N08 E69 15B 1	4,271,103.41	741,539.28	5,729.98	Unknown	---	110	6	---	50 to 110	Basin Fill	Quarterly
383351114180201	184 N08 E68 14A 1	4,269,504.76	733,845.43	6,184.22	Unknown	---	495	6	50 to 495	50 to 495	Basin Fill	Quarterly
383023114115302	196 N08 E69 35DC 2	4,265,403.02	743,597.36	5,837.67	8/7/1980	520	435	2	320 to 420	35 to 520	Basin Fill	Continuous
HAM1005M	196 N10 E69 02 BBA 1	4,284,588[d]	742,819[d]	6,397[d]	Future	---	---	---	---	---	Basin Fill	Continuous
HAM1006M	196 N95 E70 32 AAD 1	4,285,699[d]	748,554[d]	5,797[d]	Future	---	---	---	---	---	Basin Fill	Continuous
SPR7009M	184 N10 E68 36 ACC 1	4,285,242[d]	735,445[d]	6,494[d]	Future	---	---	---	---	---	Carbonate	Continuous
HAM1007M	196 N09 E69 20 BCB 1	4,279,203[d]	737,774[d]	6,025[d]	Future	---	---	---	---	---	Carbonate	Continuous
SPR7010M	184 N08 E69 29 CBB 1	4,267,545[d]	738,113[d]	6,458[d]	Future	---	---	---	---	---	Carbonate	Continuous
Near Zone Well 1	---	---[e]	---[e]	---[e]	Future	---	---	---	---	---	Carbonate	Continuous
Near Zone Well 2	---	---[e]	---[e]	---[e]	Future	---	---	---	---	---	Basin Fill	Continuous
Northeast Well	---	---[e]	---[e]	---[e]	Future	---	---	---	---	--	---[e]	Continuous

[a]Universal Transverse Mercator, North American Datum, 1983, Zone 11.
[b]Station Local Numbers provided by the Nevada Department of Water Resources.
[c]Elevations are North American Vertical Datum of 1988 (NAVD88).
[d]Coordinates and Elevation are approximate and will be updated upon a professional survey of the well location.
[e]To be determined.

all SNWA exploratory wells. SNWA does not currently have any production wells associated with this project; however, continuous measurements will be collected from all future production wells.

Fourteen test and exploratory wells were installed by SNWA in Spring Valley between 2006 and 2008 (SNWA, 2009a). Eight of the wells were instrumented with continuous monitoring equipment and incorporated into the monitoring network. Water levels at the other six locations, which are 24 in. diameter test wells located near exploratory wells are measured quarterly.

2.1.2.2 Existing-Well Monitoring Network

The SVMM Plan states that SNWA shall monitor groundwater levels quarterly in 10 representative existing monitor wells and continuously in 15 representative existing monitor wells in the Spring Valley and Hamlin Valley HAs at locations agreed upon by the TRP and NSE.

In 2007, the TRP, in consultation with the NSE, selected 25 wells to include in the existing-well monitoring network. Wells were selected based upon integrity of construction, spatial distribution, and completion information. Wells included in the network are completed in carbonate-rock, volcanic, and basin-fill aquifers. Well ownership and access of the sites are discussed in SNWA, (2012).

The Cleve Creek Well (site number 391224114293601), as agreed to by the TRP and NSE, has been replaced with new paired shallow and deeper monitor wells, SPR7029M and SPR7029M2, located approximately 1 mi to the north of the existing Cleve Creek Well. The construction details of the existing Cleve Creek well are not available and the new monitor wells provide higher-quality data as well as better information on the lithologic and hydrogeologic characteristics of the basin-fill aquifer including vertical hydraulic gradient. Hydrologic data is still being collected from both locations until a comparison of the record can be established and the Cleve Creek Well measurements will be discontinued with consensus approval of the NSE and TRP. SPR7029M and SPR7029M2 were completed in April 2011 and are discussed further in Section 2.1.2.4.

2.1.2.3 Two Monitor Wells near Shoshone Ponds

The SVMM Plan states that SNWA shall construct and equip two monitor wells between of Shoshone Ponds and the nearest production site. The locations for these new wells, SPR7024M and SPR7024M2, were selected with consensus of the TRP and NSE southeast of Shoshone Pond outside the Area of Critical Environmental Concern. The well locations are presented in Figure 2-2. The wells were completed in March, 2011 in the basin-fill aquifer to depths of 260 and 720 ft bgs, respectively.

2.1.2.4 Cleveland Ranch Hydrologic Monitoring

Monitoring locations in the vicinity of Cleveland Ranch consist of two spring and five groundwater monitoring sites. These include a flume and shallow piezometer at the North Cleveland Spring, a flume and two monitor wells near the South Cleveland Ranch Spring and two monitor wells west of Cleveland Ranch. The gage and well locations were selected in consensus with the NSE and The

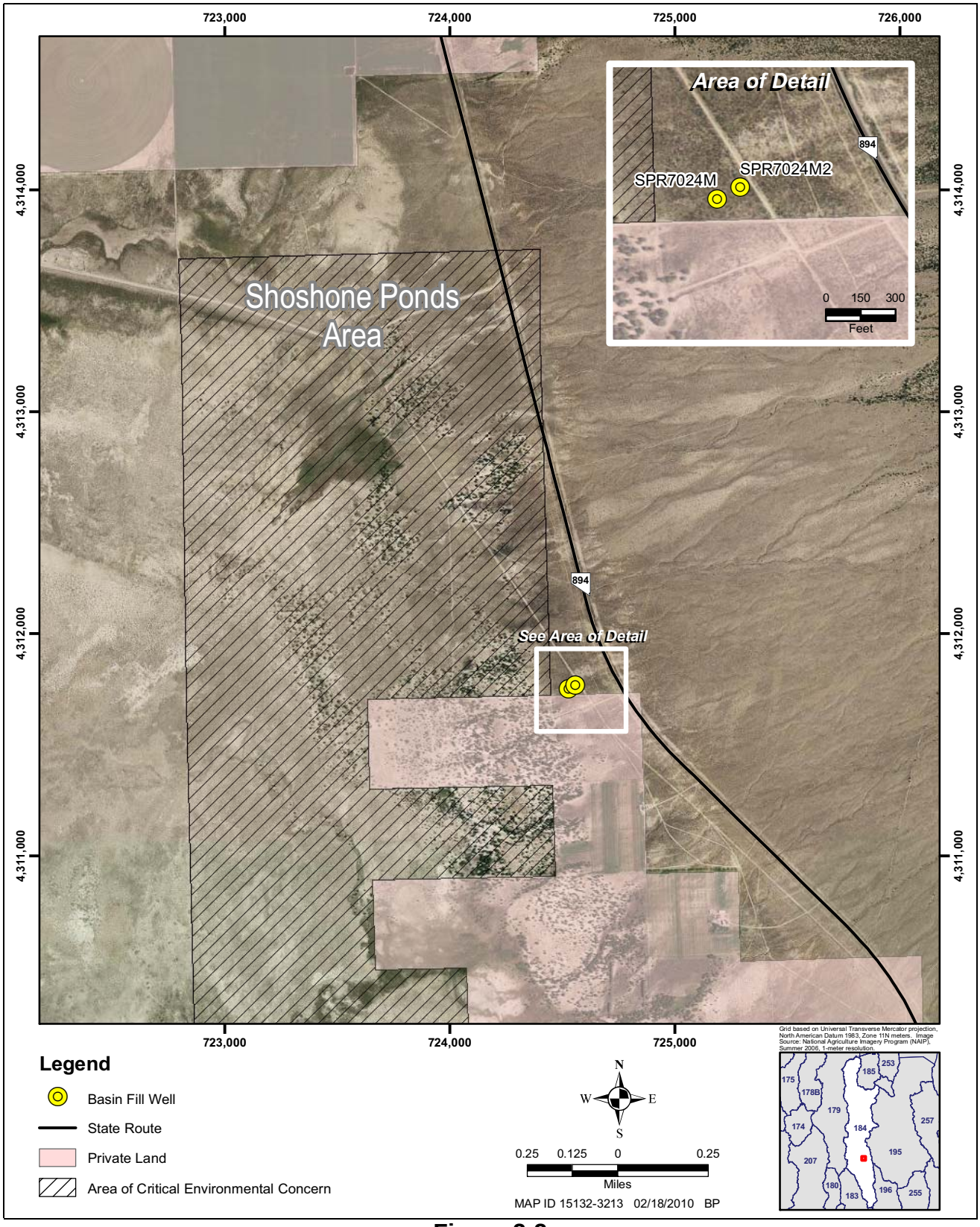

Figure 2-2
Location of Monitor Wells near Shoshone Ponds

Corporation of the Presiding Bishop of the Church of Jesus Christ of Latter-Day Saints (CPB). Monitoring locations are presented in Figure 2-3. The two spring discharge monitoring sites are discussed in Section 2.3.

Two monitor wells, SPR7030M and SPR7030M2, located near the South Cleveland Spring were completed in February 2011 in separate confined units at depths of 98 and 240 ft bgs, respectively. Both wells encountered flowing artesian conditions. Two additional clustered shallow and deep monitor wells, SPR7029M and SPR7029M2, were completed in April, 2011 in the basin-fill aquifer at depths of 275 and 437 ft bgs, respectively. The objective of the clustered wells is to determine and monitor changes of the vertical hydraulic gradient and compare groundwater elevations with discharge at the south spring.

2.1.3 Future Monitor Wells

The SVMM Plan requires the installation of new monitor wells at specific locations. New monitor well locations and specifications not yet determined will be developed with the consensus of the NSE and TRP. This section presents a description and the current status of the new wells.

2.1.3.1 Interbasin Monitoring Zone Network

The Stipulation Agreement established the Zone and requires data collection intended to characterize the hydraulic gradient from Spring Valley to Snake Valley via Hamlin Valley. In the fall of 2007, the TRP selected six wells to comprise the Zone network as part of the monitoring program. The wells include carbonate monitor well 184W502M, which was installed in 2006, and five additional future well locations. The future locations include three carbonate and two basin-fill wells. The locations of these future well sites and Zone boundaries are presented in Figure 2-1. In addition to these future wells, there are four other existing basin-fill wells located within the Zone which are part of the program and monitored quarterly.

Right-of-way applications for the SNWA well sites in the Zone were submitted in 2007 and were approved by BLM in late 2009. Construction of the five new wells is delayed until the project is approved for construction. Wells will be installed to meet monitoring timeframe requirements ahead of groundwater withdrawals as required by the Stipulation and SVMM Plan. No target date for Zone well installations has been set as of the date of this report. After well construction, a short-term aquifer test will be performed, and water-chemistry samples will be collected. The wells will then be equipped with datalogger and pressure transducer to collect continuous water-level data. A professional survey of location coordinates, ground-surface elevation, and top-of-casing measuring-point elevations will also be performed after completion.

2.1.3.2 Two Monitor Wells between the Zone and Closest Production Well

The SVMM Plan states that SNWA shall construct and equip two monitor wells in conjunction with the construction of two SNWA production wells in Spring Valley that are closest to the Zone boundary, unless alternative sites are recommended by the TRP and approved by the EC and NSE.

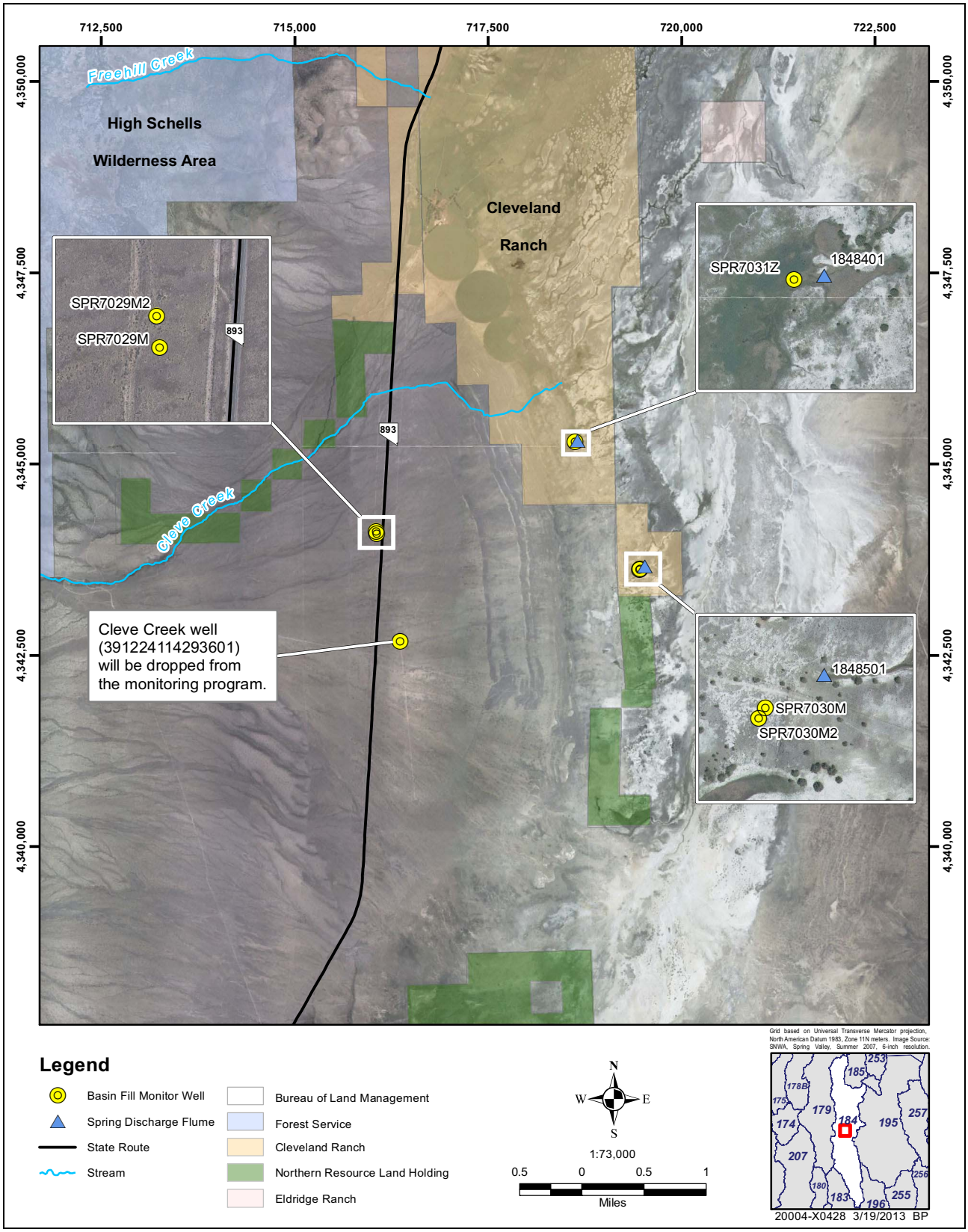

Figure 2-3
Monitoring Locations Associated with Cleveland Ranch

Well locations and hydrogeologic unit in which the monitor wells will be completed will be determined after the location of the production wells closest to the Zone are identified. After installation, the monitor wells will be equipped with dataloggers and pressure transducers to collect continuous water-level data.

2.2 Aquifer Testing

The SVMM Plan requires that two constant-rate tests be performed in Spring Valley, at the closest production well completed in basin-fill and carbonate-rock aquifers nearest to the Zone. To date, seven 72- to 120-hour constant-rate tests have been performed on SNWA test and irrigation wells in Spring Valley. Test summaries and results have been reported in previous annual reports and the specific reports associated with each well test. A summary of parameters and results for the tests are summarized in SNWA, (2012). Aquifer tests are planned for future carbonate and basin-fill production wells closest to the Zone once they are completed.

2.3 Spring Monitoring Network

The spring monitoring network is spatially distributed across Spring Valley and includes locations on the valley floor, mountain-block, and range-front areas. Spring monitoring locations are presented on Figure 2-4. The springs are monitored using periodic or continuous discharge measurements, spring pool elevations, and/or spring piezometers.

The SVMM Plan states that SNWA shall install, equip, and maintain a piezometer near 12 spring locations. In 2007, the TRP, in conjunction with the BWG and NSE, reviewed and conducted a field visit to potential spring monitoring locations. At that time, the group agreed to add an additional spring to the network for a total of 13 spring locations. Later, the NSE required Turnley Spring and two springs located on Cleveland Ranch to be added to the network for discharge monitoring.

Currently, a total of 16 representative springs located in Spring Valley comprise the spring monitoring network. Of the 16 springs, 11 sites have continuous monitoring of water levels at associated piezometers. Four locations are monitored for discharge only and one location, the North Cleveland Ranch Spring, is monitored quarterly for discharge and piezometer groundwater level. Location and construction attribute information of the 12 piezometers are presented in Table 2-2. Spring discharge monitoring locations are presented on Table 2-3. Springs with staff plates installed to monitor pool elevations are presented in Table 2-4.

Eleven piezometers utilized in the spring network were installed in 2010 and equipped in 2011 with integrated datalogger and pressure transducer instrumentation to collect continuous water-level data. One piezometer (SPR7007Z) located on SNWA property at Minerva Spring was installed in 2008. A professional survey of location coordinates, ground-surface, and top-of-casing measuring-point elevation was performed for each piezometer. Continuous groundwater level data from the piezometers is presented in Appendix C.

On the Cleveland Ranch, a shallow piezometer (SPR7031Z) and a flume were installed in March 2011 in the immediate vicinity of two small springs located in the southwest part of Section 20, T16,

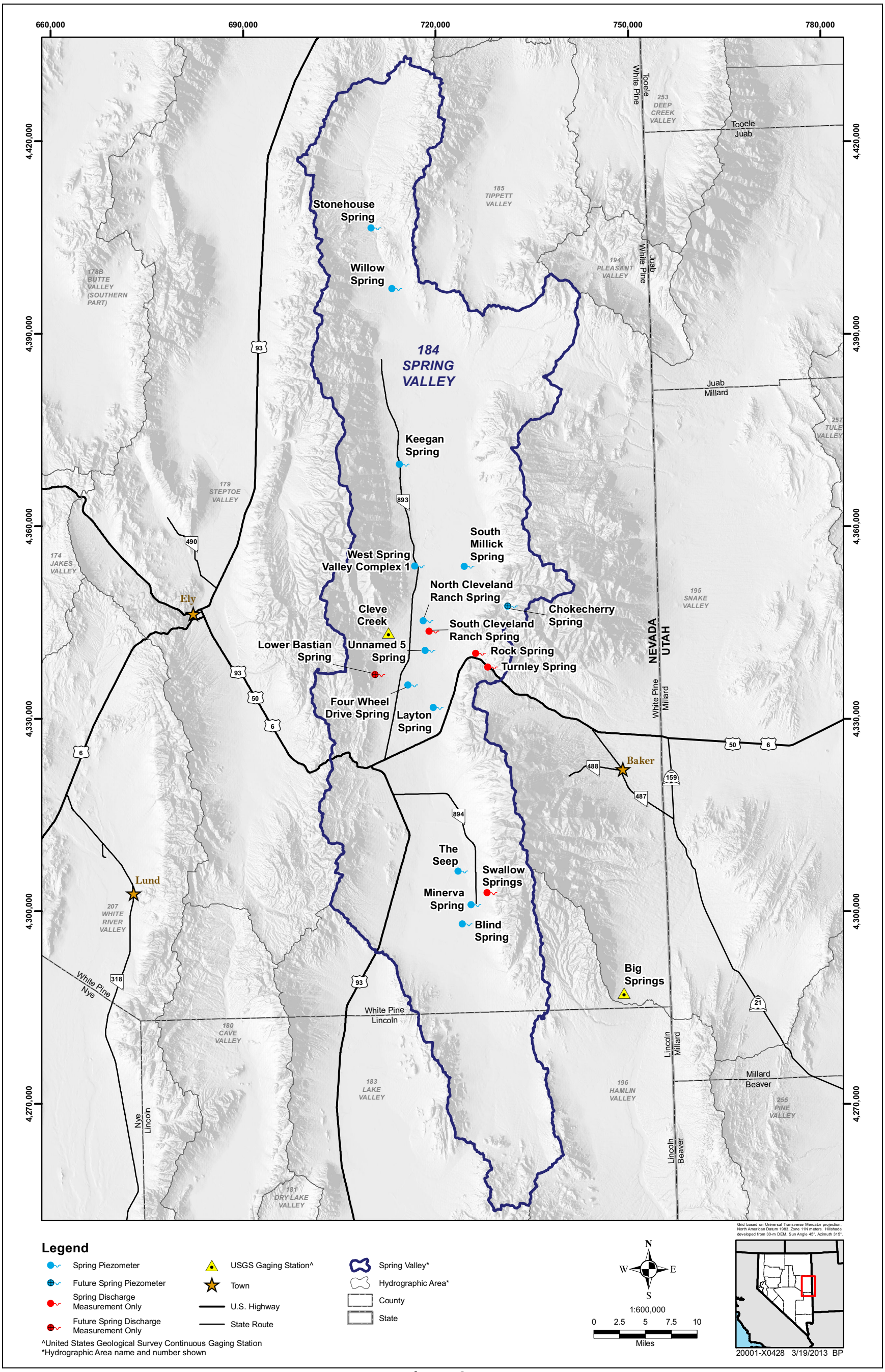

Figure 2-4
Spring and Stream Hydrologic Monitoring Locations

Table 2-2
Spring Piezometer Location and Completion Information

Site Number	Associated Spring	Location[a]		Surface[b] Elevation (ft amsl)	Completion Date	Drill Depth (ft bgs)	Well Depth (ft bgs)	Well Diameter (in.)	Open Interval (ft bgs)	Screened Interval (ft bgs)	Aquifer
		UTM Northing (m)	UTM Easting (m)								
SPR7007Z	Minerva Spring	4,301,057.50	726,134.41	5,828.66	1/18/2008	35	31	4	12 to 31.3	16 to 31	Basin Fill
SPR7011Z	Blind Spring	4,297,998.80	724,727.36	5,769.71	5/6/2010	31.3	31.3	2	13 to 31.3	16.1 to 31.1	Basin Fill
SPR7012Z	4WD Spring	4,335,263.36	716,235.95	5,756.22	5/8/2010	25	25	2	4 to 25	9.8 to 24.8	Basin Fill
SPR7014Z	The Seep	4,306,272.49	724,093.39	5,778.54	5/7/2010	31	30.7	2	6 to 30.7	15.5 to 30.5	Basin Fill
SPR7015Z	West Spring Valley Complex	4,353,816.21	717,284.37	5,602.90	5/8/2010	40	38.2	2	8 to 38.2	23 to 38	Basin Fill
SPR7016Z	Unnamed Spring 5	4,340,637.10	718,885.72	5,645.67	5/4/2010	35	32	2	15 to 32.0	16.8 to 31.8	Basin Fill
SPR7018Z	S. Millick Spring	4,353,623.95	725,156.47	5,587.16	5/4/2010	31	25.2	2	8 to 25.2	10 to 25	Basin Fill
SPR7019Z	Layton Spring	4,331,753.27	720,064.21	5,686.63	5/7/2010	35.3	35.3	2	9 to 35.3	20.1 to 35.1	Basin Fill
SPR7020Z	Stonehouse Spring	4,406,416.78	710,617.88	6,264.62	5/5/2010	9.3	9.3	2	2 to 9.3	4.1 to 9.1	Basin Fill
SPR7021Z	Keegan Spring	4,369,693.31	714,898.91	5,613.12	5/8/2010	20.7	20.7	2	4 to 20.7	5.5 to 20.5	Basin Fill
SPR7022Z	Willow Spring	4,397,090.42	713,752.68	5,987.54	5/5/2010	35	33.5	2	7 to 33.5	18.3 to 33.3	Basin Fill
SPR7031Z	North Cleveland Ranch Spring	4,345,295.85	718,622.45	5,637.32	3/3/2011	11.5	10.3	2	4 to 10.3	5 to 10	Basin Fill

[a]All coordinates are Universal Transverse Mercator, North American Datum, 1983, Zone 11.
[b]Elevations are North American Vertical Datum of 1988 (NAVD88).

Table 2-3
Spring Discharge Monitoring Locations

Site Number	Spring Name	Location[a]		Physiographic Setting
		UTM Northing (m)	UTM Easting (m)	
1848401	Cleveland Ranch Spring North	4,345,297	718,646	Basin Fill/Valley Floor
1848501	Cleveland Ranch Spring South	4,343,655	719,532	Basin Fill/Valley Floor
1845501	Willow Spring	4,397,069	713,756	Basin Fill/Valley Floor
1845702	South Millick Spring	4,353,754	725,031	Basin Fill/Valley Floor
1845901	Layton Spring	4,331,794	720,204	Basin Fill/Valley Floor
1846201	Swallow Springs	4,302,920	728,597	Basin Fill/Range Front
1847101	Keegan Spring	4,369,664	715,050	Basin Fill/Fan Margin
1847301	Rock Spring	4,340,204	726,798	Carbonate/Mountain Block
1848001	Turnley Spring	4,338,050	728,695	Carbonate/Mountain Block

[a]Coordinates are approximate. All coordinates are Universal Transverse Mercator, North American Datum, 1983, Zone 11.

Table 2-4
Staff Plates Locations

Site Number	Spring Name	Location[a]		Elevation[b]
		UTM Northing (m)	UTM Easting (m)	
1846401	Blind Spring	4,298,001.24	724,711.44	---
1847001	Four Wheel Drive Spring	4,335,264.12	716,242.93	---
1847501	The Seep	4,306,283.33	724,074.65	---
1845702	South Millick Spring	4,353,656.91	725,127.28	5,578.24

[a]Coordinates are approximate. All coordinates are Universal Transverse Mercator, North American Datum, 1983, Zone 11.
[b]Elevations are North American Vertical Datum of 1988 (NADV88).

R67E. The purpose of these monitoring sites are to measure shallow groundwater levels and discharge associated with these springs. A flume to measure the discharge of the South Cleveland Spring was installed earlier late 2010. Discharge data from South and North Cleveland Ranch Springs are presented in Appendix C.

Turnley, Rock, and Swallow springs are monitored for discharge only due to hydrogeologic conditions at the sites. Rock and Swallow spring discharges are monitored continuously. The water year (WY) 2012 mean-daily discharge values for Rock and Swallow spring monitoring stations are presented in Appendix C along with the associated hydrographs.

Discharge measurements are also being performed at four other spring locations where measuring of flow is physically possible. These springs are Layton, South Millick, Keegan, and Willow. Hydrologic and field water-quality data collected at Swallow, Layton, South Millick, Keegan, Willow, Rock, and Turnley springs are presented in Appendix C.

2.4 Stream Discharge Measurements

This section presents the current status and data associated with the stream monitoring program at Cleve Creek, Big Springs, and the Big Springs Creek - Lake Creek Complex.

2.4.1 Discharge Sites at Big Springs Creek and Cleve Creek

The SVMM Plan states that a discharge monitoring site shall be operated and maintained on Big Springs and Cleve Creeks. The gaging stations are identified as Cleve Creek near Ely, Nevada, in Spring Valley USGS Station Number 10243700 and the north and south channels of Big Springs Creek near Baker, Nevada in Snake Valley USGS Station numbers 102432241 and 10243224. The station locations are presented in Table 2-5 and Figure 2-4. Throughout the year, SNWA also conducted miscellaneous stream discharge measurements at the sites. These data were provided to the USGS for inclusion into the station records.

Data collected in 2012 from these locations are presented in Appendix D. All USGS data from 2012 are considered preliminary. The continuous discharge data for 2012 are presented in hydrographs with miscellaneous discharge-measurement data and mean daily-discharge data for the entire period of record. Discharge data are also available through the National Water Information System (USGS, 2013).

Table 2-5
Cleve Creek and Big Springs Monitoring Locations

Station Number	Station Name	Basin Number	Stream Number	Location[a]		Watershed (mi^2)
				UTM Northing (m)	UTM Easting (m)	
1841611	Cleve Creek near Ely	184	18416	4,343,423	712,669	32.0
1951901	Big Springs at Gaging Station	195	19519	4,287,293	749,422	N/A

[a]All coordinates are Universal Transverse Mercator, North American Datum, 1983, Zone 11.
N/A = Not applicable

2.4.1.1 Cleve Creek

Cleve Creek is located on the eastern slope of the Schell Creek Range. Stream flow is measured by the Cleve Creek near the Ely, Nevada, gaging station. The drainage area encompasses approximately 32 mi^2, making it the largest drainage area in Spring Valley. The USGS has maintained the gaging station intermittently since 1914. The complete period of record of Cleve Creek follows: June 1914 to December 1916; October 1959 to September 1967; October 1976 to September 1981; December

1982 to September 1987; and March 1990 through the present year (2013). A crest-stage partial record exists for the station from October 1967 to September 1976 (USGS, 2013).

The mean annual discharge over the period of record is 10.4 cfs, and the minimum and maximum mean annual discharges were 5.15 cfs in 1960 and 22.2 cfs in 1984. The WY 2012 mean annual discharge was 8.95 cfs, which is 86 percent of the mean annual discharge over the period of record (USGS, 2013).

2.4.1.2 Big Springs Creek

Big Springs Creek is located at the base of the eastern slope of the southern Snake Range, approximately 17 mi south of Garrison, Utah. Miscellaneous discharge measurements have been collected since 1972. In early 2005, the USGS, in cooperation with SNWA and NDWR, installed gaging stations at Big Springs. The records are published as Station Number10243224 Big Springs Creek South Channel near Baker, Nevada, and Station Number 102432241 Big Springs Creek North Channel near Baker, Nevada. The USGS has maintained these stations since 2005 (USGS, 2013).

The mean annual discharge for Big Springs South Channel is 5.72 cfs, approximately 95 percent of the period of record mean annual discharge of 6.01 cfs. The following statistics were calculated from the period of record WY 2005 through present: period of record mean annual discharge 6.01 cfs; minimum annual discharge 5.72 during water year 2012; and maximum annual discharge of 6.36 cfs recorded in WY 2007 (USGS 2013).

The annual mean discharge for Big Springs North Channel of 3.87 cfs was reported by the USGS for WY 2012, approximately 101 percent of the period of record mean annual discharge of 3.81 cfs. USGS reports the following statistics for the period of record WY 2006 through present: mean annual discharge 3.81 cfs; minimum annual discharge 3.63 cfs during water year 2011; and maximum annual discharge of 4.00 cfs reported in water year 2006 (USGS 2013).

2.4.2 Synoptic-Discharge Study of Big Springs and Lake Creeks

The SVMM Plan states that SNWA shall collect, or fund the collection of, at least two sets of synoptic-discharge measurements for the Big Springs Creek surface-water system from the spring orifice to Preuss Lake. Data would be collected during irrigation and non-irrigation seasons at least 1 year prior to groundwater withdrawals by SNWA. The collection would be repeated every 5 years after withdrawals begin. No target date has been determined for this task. The Utah Geologic Survey (UGS) currently operates gages on the creek near Stateline and Clay springs. The study area and current USGS and UGS gaging stations are presented in Figure 2-5.

The SVMM Plan states that SNWA shall work with the TRP to collect data to investigate the relationship between discharge at Big Springs and hydraulic head in the basin-fill and regional carbonate-rock aquifers. This task will be accomplished using hydrologic and water-chemistry data collected from Big Springs, future SNWA monitor wells, and results from USGS and USG studies of the area.

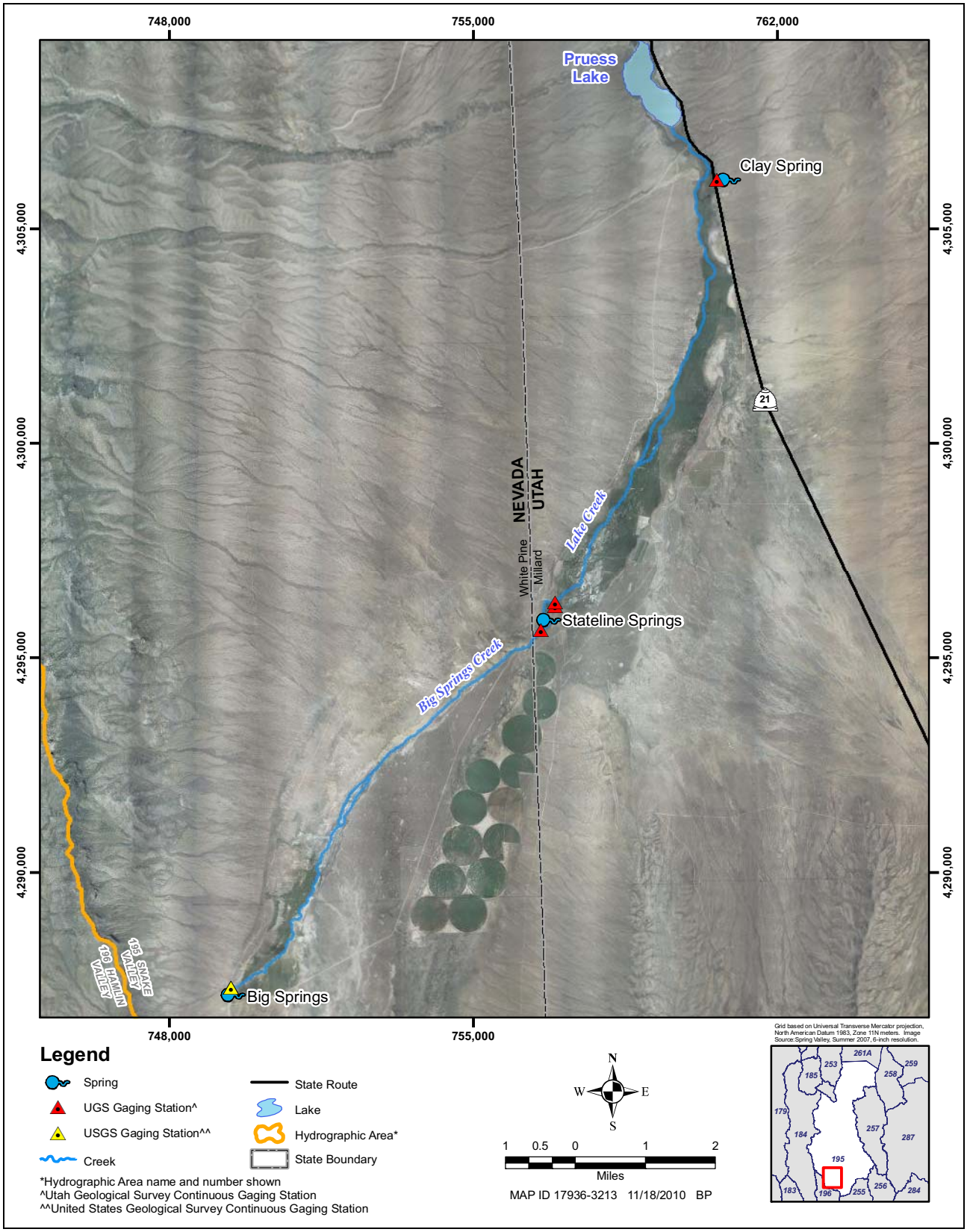

Figure 2-5
Big Springs Synoptic-Discharge Measurement Study Area, Snake Valley

2.5 Precipitation Station Network

The precipitation information presented in the annual report was expanded this year to include data from other regional and recently installed precipitation stations. Thirty-five established precipitation stations located on the valley floors and margins of 9 hydrographic basins in eastern Nevada and western Utah provide regional precipitation data. Data for these stations were compiled from the Western Regional Climate Center (WRCC), the National Resource Conservation Service (NRCS), the Nevada Division of Water Resources (NDWR), the USGS, and the Nevada Climate-Ecohydrological Assessment Network (NevCAN) project. The precipitation network stations are listed in Table 2-6 and presented on Figure 2-6.

Reported monthly data collected in 2012 from the regional stations are presented in Appendix E. Reported 2012 precipitation data and period of record statistics for data collected by the USGS and the NDWR at high-altitude stations are also presented in Appendix E.

Data sources for precipitation information presented in this report are as follows:

- NDWR, (2013)
- USGS data is cited from USGS National Water Information System (USGS, 2013)
- SNOTEL data is cited from U.S. Department of Agriculture (USDA) NRCS (USDA, 2013)
- National Weather Service data is cited from WRCC (WRCC, 2013)
- NevCAN data is cited from the WRCC (WRCC, 2013)

2.6 Water-Chemistry-Sampling Program

The Stipulation Agreement for Spring Valley requires that three rounds of water-chemistry sampling at 40 locations be completed within 5 years from the approval date of the agreement which was September 8, 2006. The Spring Valley hydrologic monitoring networks include new monitor wells which would not have been installed in time to meet the water-chemistry sampling requirements set forth in the agreements. The TRP held a conference call on March 31, 2010 to discuss the water-chemistry sampling programs required by the SVMM Plan.

Therefore, the TRP recommended that the water-chemistry sampling program be modified to proceed with the collection and analysis of water-chemistry samples at 35 locations which were selected by the TRP in 2010. By consensus of the TRP and NSE, the remainder of the water-chemistry program will be postponed until after the five new Zone monitor wells specified in the SVMM Plan have been installed. SNWA will complete the final two rounds of water-chemistry sampling within 2 years after installing the five Zone wells. The program will consist of the collection of water-chemistry samples from the five new Zone wells, followed by two rounds of sample collection 6 months apart at the 35 locations sampled in the first round and the five Zone wells (a total of 40 sites per sampling event as originally specified in the SVMM Plan). The sample sites and parameters may be modified by the TRP based upon results of previous sampling rounds.

Table 2-6
High-Altitude and Regional Precipitation Monitoring Station Locations
(Page 1 of 2)

Source	Station Number	Station Name	Location[a]		Elevation[b] (ft amsl)	Physiography	State	Collection Method	Collection Equipment[c]	Owner
			UTM Northing (m)	UTM Easting (m)						
NDWR	RP1790101	Schellborne	4,408,811	701,240	7,580	Schell Creek Range	NV	Physical	BG	NDWR
NDWR	RP1790102	Connors	4,323,531	703,651	7,740	Schell Creek Range	NV	Physical	BG	NDWR
NDWR	RP1830101	Mt. Wilson	4,254,245	731,613	7,370	Wilson Creek Range	NV	Physical	BG	NDWR
WRCC	RP1790201	Lages	4,437,512	703,405	5,960	Steptoe Valley	NV	Continuous	WRG	Unknown
WRCC	RP1790202	McGill	4,365,043	691,693	6,270	Duck Creek Range Alluvial Fan	NV	Continuous	Unknown	Unknown
WRCC	RP1790203	Ely WBO	4,351,755	685,692	6,262	Steptoe Valley	NV	Continuous	Unknown	Unknown
WRCC	RP1940201	Cedar Pass	4,404,623	742,797	7,185	Deep Creek Range	NV	Continuous	TB	BLM
WRCC	RP1950201	Callao	4,421,802	781,034	4,342	Snake Valley	UT	Continuous	Unknown	Unknown
WRCC	RP1950202	Partoun	4,391,420	767,275	4,780	Snake Valley	UT	Continuous	Unknown	Unknown
WRCC	RP1950203	Eskdale	4,333,158	763,441	4,980	Snake Valley	UT	Continuous	Unknown	Unknown
WRCC	RP1950204	Mather	4,322,845	736,146	9,268	Snake Range	NV	Continuous	TB	NPS
WRCC	RP1950205	Great Basin NP	4,321,069	740,678	6,850	Snake Range	NV	Continuous	WRG	Unknown
WRCC	RP1950206	Baker Flat	4,320,676	740,955	6,840	Snake Range	NV	Continuous	TB	NPS
WRCC	RP2530201	Clifton Flat	4,444,924	766,286	6,384	Deep Creek Range	UT	Continuous	TB	BLM
WRCC	RP2530202	Ibapah	4,436,297	756,954	5,279	Deep Creek Valley	UT	Continuous	Unknown	Unknown
WRCC	RP2570201	Tule Valley-RAWS	4,361,854	811,546	5,200	Middle Range Alluvial Fan	UT	Continuous	TB	BLM
WRCC	RP2580201	Fish Springs Refuge	4,416,211	808,238	4,357	Fish Springs Range Alluvial Fan	UT	Continuous	Unknown	Unknown
NRCS	RP1790301	Bird Creek	4,371,201	702,158	10,510	Schell Creek Range	NV	Continuous	PXD	NRCS
NRCS	RP1790302	Berry Creek	4,354,627	705,457	9,100	Schell Creek Range	NV	Continuous	PXD	NRCS
NRCS	RP1840301	Kalamazoo	4,380,489	703,349	7,965	Schell Creek Range	NV	Continuous	PXD	NRCS
NRCS	RP1840302	Cave Mountain	4,337,978	705,904	7,900	Schell Creek Range	NV	Continuous	PXD	NRCS
NRCS	RP1840303	Wheeler Peak	4,322,052	732,318	10,147	Snake Range	NV	Continuous	PXD	NRCS
NRCS	RP2530301	Goshute	4,430,959	756,137	5,470	Deep Creek Valley	UT	Continuous	TB	NRCS
NRCS	RP2550301	Hals Canyon	4,276,291	783,074	5,250	Pine Valley	UT	Continuous	TB	NRCS
NRCS	RP2570301	Tule Valley-SCAN	4,349,385	805,536	4,583	Tule Valley	UT	Continuous	TB	NRCS
USGS	RP1840401	Mount Washington	4,309,377	732,764	10,440	Snake Range	NV	Physical	BG	USGS
USGS	RP1840402	Cave Mountain	4,337,545	706,107	10,650	Schell Creek Range	NV	Physical	BG	USGS

Table 2-6
High-Altitude and Regional Precipitation Monitoring Station Locations
(Page 2 of 2)

Source	Station Number	Station Name	Location[a]		Elevation[b] (ft amsl)	Physiography	State	Collection Method	Collection Equipment[c]	Owner
			UTM Northing (m)	UTM Easting (m)						
USGS	RP1950401	Unnamed Peak Northwest of Mount Moriah	4,355,938	737,691	9,300	Snake Range	NV	Physical	BG	USGS
NevCAN	RP1840501	Subalpine (west)	4,309,801	733,354	11,005	Snake Range	NV	Continuous	WRG	DRI/UNLV/UNR
NevCAN	RP1840502	Montane (west)	4,307,955	731,455	9,250	Snake Range	NV	Continuous	WRG	DRI/UNLV/UNR
NevCAN	RP1840503	Pinyon-Juniper (west)	4,308,155	729,833	5,000	Snake Range	NV	Continuous	WRG	DRI/UNLV/UNR
NevCAN	RP1840504	Sagebrush (west)	4,311,711	724,716	5,880	Spring Valley	NV	Continuous	WRG	DRI/UNLV/UNR
NevCAN	RP1950501	Subalpine (east)	4,321,331	732,965	10,108	Snake Range	NV	Continuous	WRG	DRI/UNLV/UNR
NevCAN	RP1950502	Sagebrush (east)	4,322,852	744,451	6,035	Snake Valley	NV	Continuous	WRG	DRI/UNLV/UNR
NevCAN	RP1950503	Salt Desert (east)	4,325,056	754,589	5,000	Snake Valley	NV	Continuous	WRG	DRI/UNLV/UNR

[a]All coordinates are Universal Transverse Mercator, North American Datum, 1983, Zone 11.

[b]Elevations are North American Vertical Datum of 1988 (NAVD88).

[c]Collection Equipment: BG = Bulk storage gage; TB = Tipping Bucket; WRG = Weighing Rain Gage; PXD = Pressure Transducer

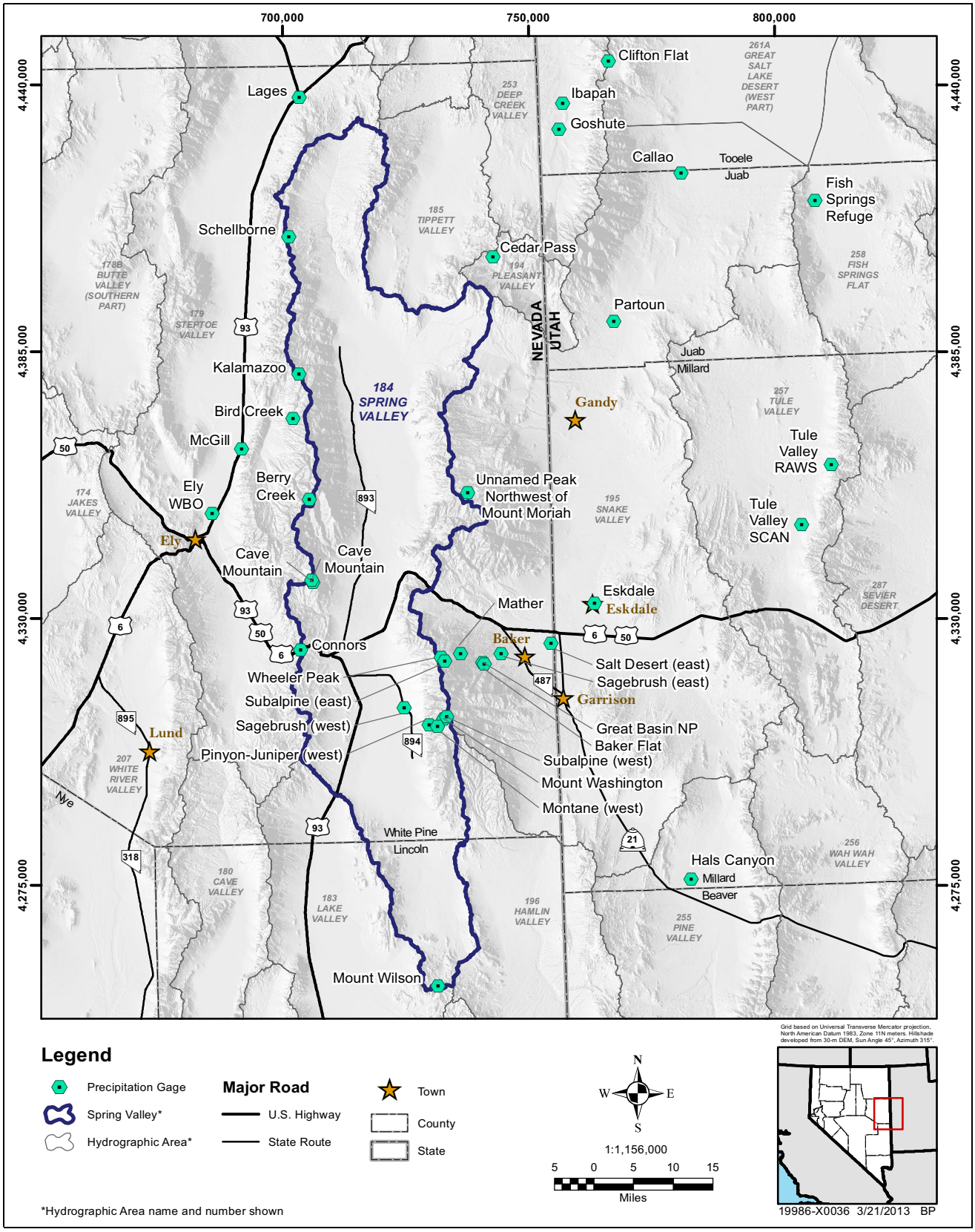

Figure 2-6
Precipitation Station Locations

The spring, stream, and well sampling locations and results from the 2010 to 2011 sampling event, along with historic water chemistry results, were presented in SNWA, (2012). Isotope results for well SPR7029M were not received from the laboratory in time to be presented in the last annual report. These results are presented in Appendix F.

2.7 Reporting

A data-exchange web site accessible by the NSE, EC, TRP, and BWG members was created in April 2008. The data-exchange web site is used to distribute SVMM Plan monitoring data to the TRP within 90 days of collection. Data will also be submitted directly to the NSE on a quarterly basis in electronic format.

2.8 Proposed Schedule of Groundwater Withdrawals

No groundwater production is scheduled for the next 2 years with the exception of short-term well development and performance testing and aquifer testing of any new wells drilled during this time-frame. The duration of well-performance tests is typically one day, and the duration of constant-rate aquifer testing is typically less than one week.

3.0 ANTICIPATED 2013 SNWA SVMM PLAN ACTIVITIES

SNWA will continue to work with NSE and TRP participants to implement the SVMM Plan. Anticipated SVMM Plan activities in 2013 are summarized below. Some activities are contingent upon property access or NSE approval and/or TRP consensus.

- Continue to collect required quarterly and continuous water-level measurements at specified locations throughout 2013. Data will be reported quarterly to the other TRP members through the SNWA data-exchange web site. Data will be submitted to NSE in an approved electronic format and included in the annual data report to be submitted in March 2014.

- Coordinate activities and provide technical assistance to the BWG as requested including evaluation of spring hydrologic data.

- Work with USFS to obtain right-of-way access for installation of hydrologic monitoring instrumentation at Lower Bastian and Chokecherry Springs.

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Appendix A

Periodic Water-Level Measurement Data from the Spring Valley Monitor Well Network

Table A-1
Periodic Water-Level Measurement Data from the Spring Valley Monitor Well Network
(Page 1 of 9)

Site Number	Station Local Number[a]	Well Depth (ft bgs)	Surface Elevation (ft amsl)	Water Level			
				Date	Depth to Water (ft bgs)	Well Status[b]	Measurement Method[c]
184W101	---	1,749	6,190.90	1/4/2012	480.61	S	T
				2/16/2012	480.78	S	T
				4/4/2012	480.83	S	T
				5/9/2012	481.25	S	T
				7/9/2012	481.67	S	T
				8/8/2012	481.74	S	T
				10/3/2012	482.04	S	T
				11/13/2012	482.42	S	T
184W103	---	1,017	5,899.06	1/4/2012	98.80	S	T
				2/13/2012	98.58	S	T
				4/4/2012	98.63	S	T
				5/9/2012	98.59	S	T
				7/9/2012	98.54	S	T
				8/6/2012	98.55	S	T
				10/3/2012	98.56	S	T
				11/13/2012	98.58	S	T
184W105	---	1,135	6,007.30	1/4/2012	208.89	S	T
				2/13/2012	208.78	S	T
				4/2/2012	208.80	S	T
				5/8/2012	208.83	S	T
				7/11/2012	208.81	S	T
				8/6/2012	208.79	S	T
				10/3/2012	208.82	S	T
				11/13/2012	208.90	S	T
SPR7006M	---	1,700	6,525.18	1/4/2012	767.31	S	T
				2/15/2012	767.22	S	T
				4/3/2012	767.40	S	T
				5/7/2012	767.68	S	T
				7/10/2012	768.20	S	T
				8/8/2012	768.52	S	T
				10/2/2012	769.37	S	T
				11/13/2012	769.95	S	T

Table A-1
Periodic Water-Level Measurement Data from the Spring Valley Monitor Well Network
(Page 2 of 9)

Site Number	Station Local Number[a]	Well Depth (ft bgs)	Surface Elevation (ft amsl)	Water Level			
				Date	Depth to Water (ft bgs)	Well Status[b]	Measurement Method[c]
SPR7008X	---	960	5,702.99	1/3/2012	11.55	S	S
				2/15/2012	11.43	S	S
				4/3/2012	11.33	S	S
				5/7/2012	11.39	S	S
				7/10/2012	11.58	S	S
				8/8/2012	11.90	S	T
				10/2/2012	11.88	S	T
				11/13/2012	12.06	S	T
SPR7005X	---	1,350	6,397.56	1/3/2012	492.61	S	T
				2/14/2012	492.72	S	T
				4/2/2012	492.92	S	T
				5/7/2012	492.80	S	T
				7/11/2012	492.68	S	T
				8/7/2012	492.5	S	T
				10/2/2012	492.35	S	T
				11/12/2012	492.42	S	T
SPR7007X	---	1,020	6,017.53	1/4/2012	143.54	S	T
				2/15/2012	146.43	S	T
				4/4/2012	149.76	S	T
				5/9/2012	150.84	S	T
				7/9/2012	150.15	S	S
				8/8/2012	151.21	S	T
				9/5/2012	152.18	S	T
				10/3/2012	153.19	S	T
				11/12/2012	154.60	S	T
SPR7029M	184 N16 E66 25DBCD1	260	5,876.83	1/3/2012	215.26	S	T
				2/14/2012	215.17	S	T
				4/3/2012	215.35	S	T
				5/8/2012	215.55	S	T
				7/10/2012	216.08	S	T
				8/7/2012	217.00	S	T
				10/2/2012	217.79	S	T

Table A-1
Periodic Water-Level Measurement Data from the Spring Valley Monitor Well Network
(Page 3 of 9)

Site Number	Station Local Number[a]	Well Depth (ft bgs)	Surface Elevation (ft amsl)	Water Level			
				Date	Depth to Water (ft bgs)	Well Status[b]	Measurement Method[c]
SPR7029M2	184 N16 E66 25DBCA1	423	5,876.65	1/3/2012	214.95	S	T
				1/3/2012	214.91	S	T
				2/14/2012	214.53	S	T
				4/3/2012	215.04	S	T
				5/8/2012	215.25	S	T
				7/10/2012	215.76	S	T
				8/7/2012	216.69	S	T
				10/2/2012	217.51	S	T
				11/12/2012	217.17	S	T
SPR7030M	184 N16 E67 32ABAB1	98	5,617.15	1/3/2012	-29.45	S	G
				1/11/2012	-29.56	S	G
				2/14/2012	-29.50	S	G
				4/3/2012	-29.79	S	G
				5/8/2012	-29.68	S	G
				7/10/2012	-29.30	S	G
				8/7/2012	-28.54	S	G
				10/2/2012	-28.24	S	G
				11/5/2012	-28.29	S	G
				11/6/2012	-28.30	S	G
				11/12/2012	-28.32	S	G
SPR7030M2	184 N16 E67 32ABAB2	236	5,617.79	1/3/2012	-39.71	S	G
				1/11/2012	-39.25	S	G
				2/14/2012	-38.79	S	G
				4/3/2012	-38.56	S	G
				5/8/2012	-39.25	S	G
				7/10/2012	-37.73	S	G
				8/7/2012	-36.77	S	G
				10/2/2012	-36.23	S	G
				11/5/2012	-36.29	S	G
				11/6/2012	-36.42	S	G
				11/12/2012	-36.41	S	G

Table A-1
Periodic Water-Level Measurement Data from the Spring Valley Monitor Well Network
(Page 4 of 9)

Site Number	Station Local Number[a]	Well Depth (ft bgs)	Surface Elevation (ft amsl)	Water Level			
				Date	Depth to Water (ft bgs)	Well Status[b]	Measurement Method[c]
383704114225001[d]	184 N09 E68 30AAAB1	679	6,002.52	1/4/2012	224.96	S	T
				2/16/2012	225.11	S	T
				4/4/2012	224.85	S	T
				5/9/2012	224.88	S	T
				7/9/2012	224.88	S	T
				8/8/2012	224.84	S	T
				10/3/2012	224.81	S	T
				11/13/2012	224.81	S	T
384039114232701[d]	184 N10 E68 31CD 1	150	5,896.49	1/4/2012	118.33	S	T
				1/10/2012	118.45	S	T
				2/16/2012	118.28	S	T
				4/4/2012	118.25	S	T
				5/9/2012	118.27	S	T
				5/22/2012	118.29	S	T
				5/22/2012	118.22	S	T
				7/9/2012	118.23	S	T
				7/9/2012	118.28	S	T
				8/8/2012	118.25	S	T
				10/3/2012	118.21	S	T
				11/13/2012	118.22	S	T
384831114314301[d]	184 N11 E66 23AB 1	102	5,842.94	1/10/2012	47.37	S	T
				2/13/2012	47.28	S	T
				4/2/2012	47.30	S	T
				5/9/2012	47.27	S	T
				7/11/2012	47.27	S	T
				8/6/2012	47.26	S	T
				10/1/2012	47.27	S	T
				11/13/2012	47.31	S	T
384745114224401[d]	184 N11 E68 19DCDC1	200	5,900.18	1/4/2012	98.77	S	T
				2/15/2012	98.56	S	T
				4/4/2012	98.40	S	T
				5/9/2012	98.33	S	T
				7/9/2012	98.26	S	T
				8/8/2012	98.29	S	T
				10/3/2012	98.38	S	T
				11/12/2012	98.46	S	T

Table A-1
Periodic Water-Level Measurement Data from the Spring Valley Monitor Well Network
(Page 5 of 9)

Site Number	Station Local Number[a]	Well Depth (ft bgs)	Surface Elevation (ft amsl)	Water Level			
				Date	Depth to Water (ft bgs)	Well Status[b]	Measurement Method[c]
390352114305401[d]	184 N14 E66 24BDDD1	160	5,846.04	1/3/2012	38.84	S	T
				1/10/2012	39.00	S	T
				2/14/2012	38.82	S	T
				4/2/2012	38.80	S	T
				5/7/2012	38.76	S	T
				7/11/2012	38.81	S	T
				8/7/2012	38.86	S	T
				10/2/2012	38.90	S	T
				11/12/2012	38.81	S	T
390803114251001[d]	184 N15 E67 26CA 1	200	5,727.21	1/3/2012	39.52	S	T
				2/15/2012	39.44	S	T
				4/3/2012	39.27	S	T
				5/7/2012	39.24	S	T
				7/10/2012	39.14	S	T
				8/8/2012	39.13	S	T
				10/2/2012	39.17	S	T
				11/13/2012	39.21	S	T
393211114320701[d]	184 N19 E66 11B 1	400	5,698.43	1/3/2012	37.16	S	T
				2/14/2012	37.61	S	T
				4/3/2012	37.00	S	T
				5/8/2012	36.38	S	T
				7/10/2012	39.01	S	T
				8/7/2012	39.53	S	T
				9/5/2012	40.06	S	T
				10/2/2012	39.08	S	T
				11/13/2012	38.50	S	T
383023114115302[d]	196 N08 E69 35DC 2	435	5,837.67	1/4/2012	173.25	S	T
				2/15/2012	173.03	S	T
				4/4/2012	173.30	S	T
				5/7/2012	173.36	S	T
				7/9/2012	173.14	S	T
				8/7/2012	173.27	S	T
				10/3/2012	173.46	S	T
				11/13/2012	173.71	S	T
184W502M[d]	184 N09 E68 11BDBD1	1,799	6,189.72	1/4/2012	479.69	S	T
				2/16/2012	479.90	S	T
				4/4/2012	479.86	S	T

Table A-1
Periodic Water-Level Measurement Data from the Spring Valley Monitor Well Network
(Page 6 of 9)

Site Number	Station Local Number[a]	Well Depth (ft bgs)	Surface Elevation (ft amsl)	Water Level			
				Date	Depth to Water (ft bgs)	Well Status[b]	Measurement Method[c]
184W502M[d]	184 N09 E68 11BDBD1	1,799	6,189.72	5/9/2012	480.22	S	T
				7/9/2012	480.53	S	T
				8/8/2012	480.64	S	T
				10/3/2012	480.93	S	T
				11/13/2012	481.37	S	T
184W504M[d]	184 N11 E66 35CCCC1	1,020	5,900.11	1/4/2012	100.22	S	T
				2/13/2012	100.03	S	T
				4/4/2012	100.29	S	T
				5/9/2012	100.25	S	T
				7/9/2012	100.23	S	T
				8/6/2012	100.26	S	T
				10/3/2012	100.26	S	T
				11/13/2012	100.32	S	T
184W506M[d]	184 N12 E66 26BADC1	1,140	6,014.04	1/4/2012	215.55	S	T
				1/23/2012	215.46	S	T
				2/13/2012	215.40	S	T
				4/2/2012	215.46	S	T
				5/8/2012	215.45	S	T
				7/11/2012	215.44	S	T
				8/6/2012	215.41	S	T
				10/3/2012	215.44	S	T
				11/13/2012	215.65	S	T
184W508M[d]	184 N09 E67 11DBCD1	1,160	6,056.19	1/4/2012	276.83	S	T
				2/16/2012	276.86	S	T
				4/4/2012	276.53	S	T
				5/9/2012	276.57	S	T
				7/9/2012	276.53	S	T
				8/8/2012	276.46	S	T
				10/3/2012	276.34	S	T
				11/13/2012	276.49	S	T
SPR7007M[d]	184 N11 E68 05BCBC1	1,020	6,017.73	1/4/2012	143.70	S	T
				2/15/2012	146.64	S	T
				4/4/2012	149.5	S	T
				5/9/2012	150.67	S	T
				7/9/2012	150.34	S	T
				8/8/2012	151.35	S	T
				9/5/2012	152.40	S	T

Table A-1
Periodic Water-Level Measurement Data from the Spring Valley Monitor Well Network
(Page 7 of 9)

Site Number	Station Local Number[a]	Well Depth (ft bgs)	Surface Elevation (ft amsl)	Water Level			
				Date	Depth to Water (ft bgs)	Well Status[b]	Measurement Method[c]
SPR7007M[d]	184 N11 E68 05BCBC1	1,020	6,017.73	10/3/2012	153.40	S	T
				11/12/2012	154.81	S	T
SPR7005M[d]	184 N14 E66 09ABCA1	1,404	6,395.68	1/3/2012	490.72	S	T
				2/14/2012	490.81	S	T
				4/2/2012	491.00	S	T
				5/7/2012	490.96	S	T
				7/11/2012	490.76	S	T
				8/7/2012	490.61	S	T
				10/2/2012	490.44	S	T
				11/12/2012	490.53	S	T
SPR7008M[d]	184 N15 E67 26CDAB1	946	5,704.86	1/3/2012	12.69	S	T
				2/15/2012	12.64	S	T
				4/3/2012	12.52	S	T
				5/7/2012	12.62	S	T
				7/10/2012	12.79	S	T
				8/8/2012	12.91	S	T
				10/2/2012	13.11	S	T
				11/13/2012	13.26	S	T
383351114180201	184 N08 E68 14A 1	495	6,184.22	2/16/2012	406.69	S	T
				5/7/2012	406.45	S	T
				8/8/2012	406.39	S	T
				11/13/2012	406.40	S	T
384310114261401	184 N10 E67 22AA 1	100	5,853.54	2/16/2012	65.20	S	T
				5/9/2012	65.10	S	T
				8/8/2012	65.10	S	T
				11/13/2012	65.13	S	T
184 N12 E66 21CD 1	184 N12 E66 21DCCB1	631	6,370.31	2/13/2012	567.96	S	T
				8/6/2012	568.72	S	T
				11/13/2012	569.05	S	T
385636114265501	184 N13 E67 33DDA 1	---	5,769.73	2/13/2012	7.92	S	T
				5/9/2012	7.56	S	T
				8/6/2012	8.53	S	T
				11/12/2012	8.65	S	T

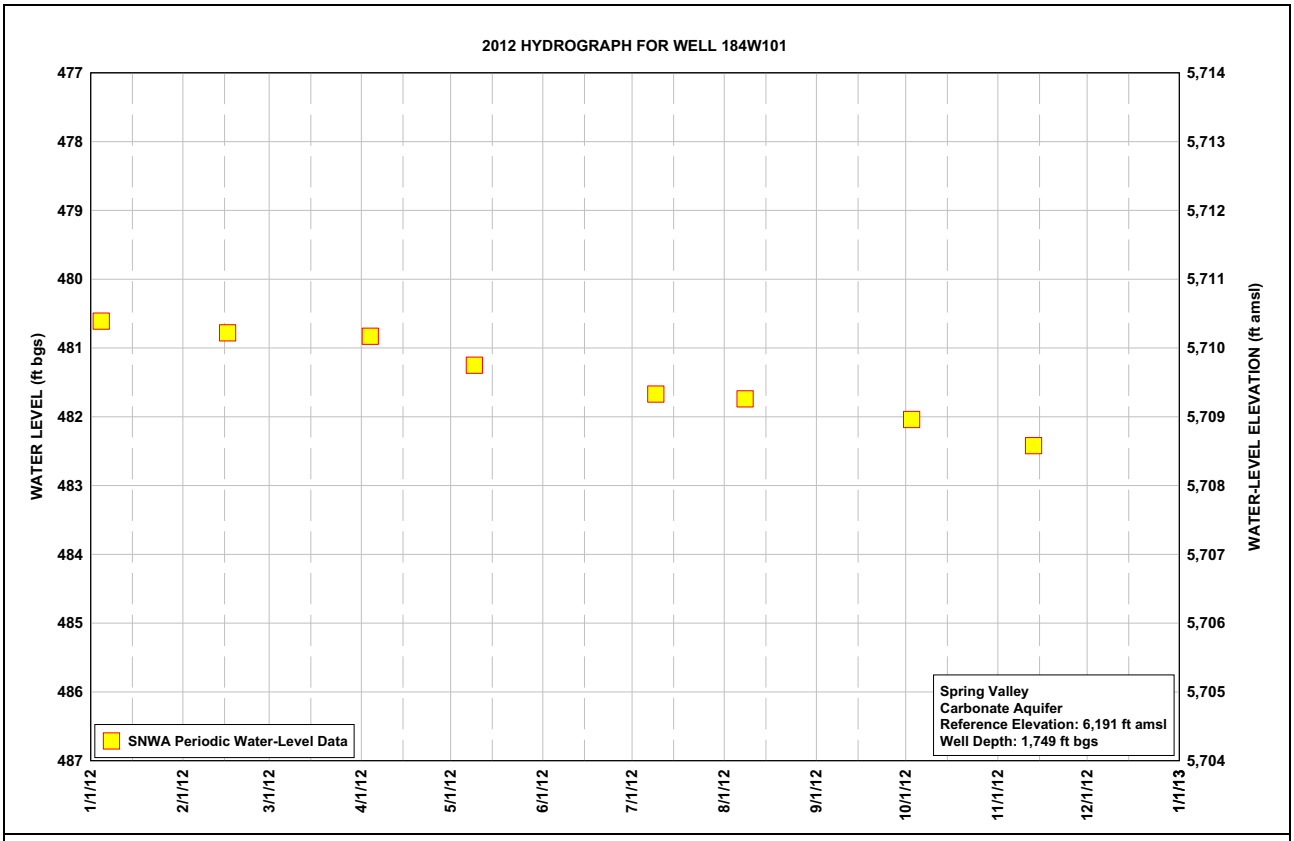
Table A-1
Periodic Water-Level Measurement Data from the Spring Valley Monitor Well Network
(Page 8 of 9)

Site Number	Station Local Number[a]	Well Depth (ft bgs)	Surface Elevation (ft amsl)	Water Level			
				Date	Depth to Water (ft bgs)	Well Status[b]	Measurement Method[c]
391224114293601[e]	184 N16 E66 36DBAD1	---	5,870.25	2/14/2012	206.79	P	T
				5/8/2012	206.99	S	T
				9/5/2012	208.82	S	T
				10/2/2012	209.07	S	T
				11/12/2012	208.93	S	T
392703114230501	184 N18 E67 01CCAA1	42	5,587.78	2/15/2012	34.91	S	T
				5/8/2012	34.60	S	T
				8/7/2012	35.26	S	T
				11/13/2012	40.21	P	T
184 N20 E66 13AB 1	184 N20 E66 13BADA1	296	5,774.93	2/15/2012	124.03	S	T
				5/8/2012	124.73	S	T
				8/7/2012	126.80	S	T
				11/13/2012	127.30	S	T
393442114231801	184 N20 E67 26ABBD1	130	5,708.77	5/8/2012	118.45	S	T
				8/7/2012	118.34	S	T
				11/13/2012	118.38	S	T
383325114134901	196 N08 E69 15B 1	110	5,729.98	1/4/2012	70.07	S	T
				2/15/2012	69.92	S	T
				5/7/2012	69.77	S	T
				8/7/2012	70.25	S	T
				11/13/2012	70.12	S	T
383533114102901	196 N08 E70 06B 1	164	5,676.76	2/15/2012	89.63	S	T
				5/7/2012	89.68	S	T
				8/7/2012	89.66	S	T
				11/13/2012	90.62	S	T
SPR7024M[d]	184 N12 E67 01CCCD1	250	5,861.10	1/4/2012	17.05	S	T
				2/15/2012	16.60	S	T
				4/3/2012	16.24	S	T
				5/9/2012	16.56	S	T
				7/9/2012	17.97	S	T
				8/6/2012	18.58	S	T
				10/3/2012	19.90	S	T
				11/12/2012	20.11	S	T

Table A-1
Periodic Water-Level Measurement Data from the Spring Valley Monitor Well Network
(Page 9 of 9)

Site Number	Station Local Number[a]	Well Depth (ft bgs)	Surface Elevation (ft amsl)	Water Level			
				Date	Depth to Water (ft bgs)	Well Status[b]	Measurement Method[c]
SPR7024M2[d]	184 N12 E67 01CCCD2	699	5,863.08	1/4/2012	8.73	S	T
				2/15/2012	8.02	S	T
				4/3/2012	7.69	S	T
				5/9/2012	9.08	S	T
				7/9/2012	11.97	S	T
				10/3/2012	14.36	S	T
				11/12/2012	13.82	S	T
				1/4/2012	70.07	S	T

[a]Station Local Numbers provided by the Nevada Department of Water Resources.
[b]S = Static conditions, P = Pumping or recently pumping conditions, D = Dry
[c]T = Electric tape measurement, S = Steel tape measurement, G = Pressure gage
[d]2011 and historical hydrographs with periodic and continuous data are presented in Appendix B.
[e]The Cleve Creek well will be replaced by SPR7029M, SPR7029M2, or both.
Note: SNWA tape calibration program started in August 2008.


2012 HYDROGRAPH FOR WELL 184W101
WATER LEVEL (ft bgs)
WATER-LEVEL ELEVATION (ft amsl)
477
478
479
480
481
482
483
484
485
486
487
5,714
5,713
5,712
5,711
5,710
5,709
5,708
5,707
5,706
5,705
5,704
1/1/12
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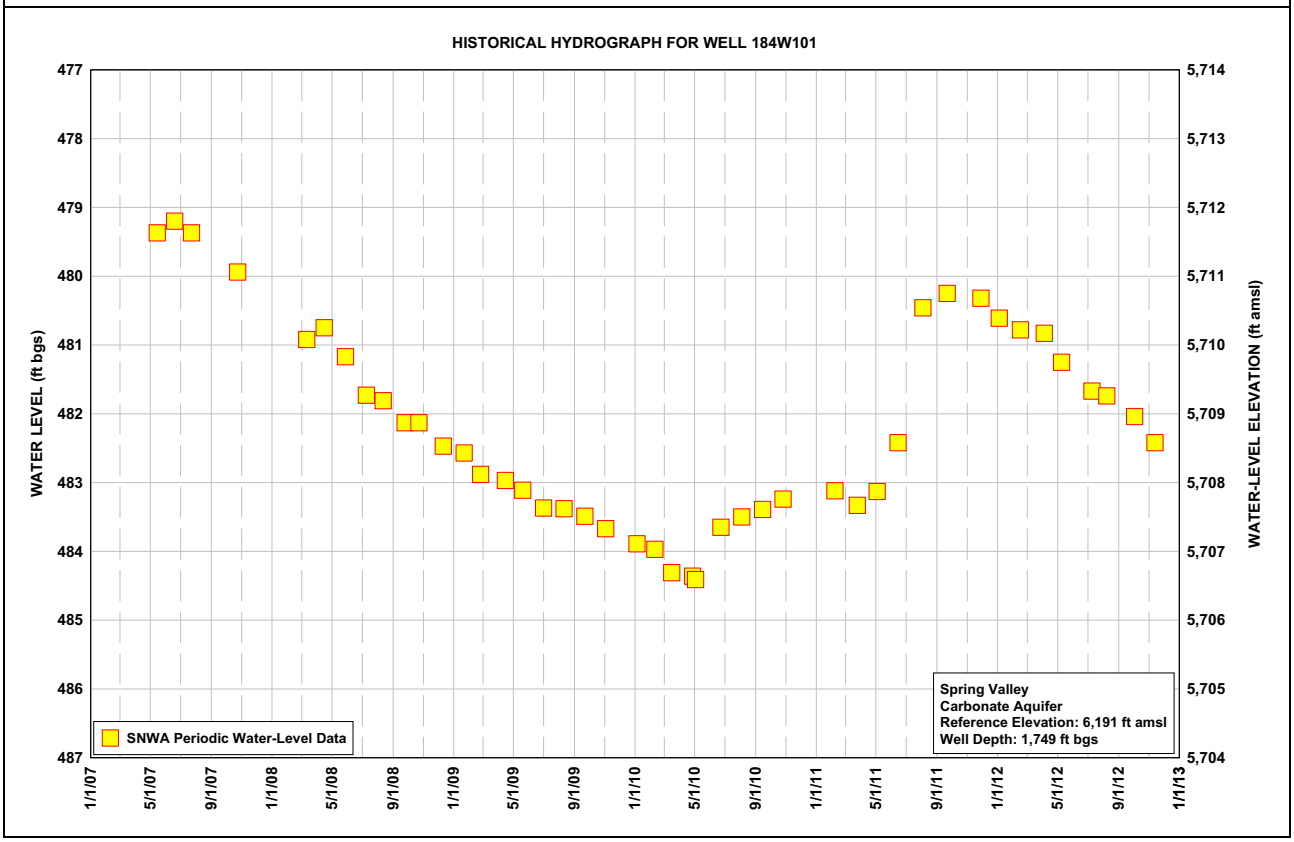
4/1/12
5/1/12
6/1/12
7/1/12
8/1/12
9/1/12
10/1/12
11/1/12
12/1/12
1/1/13
SNWA Periodic Water-Level Data
Spring Valley
Carbonate Aquifer
Reference Elevation: 6,191 ft amsl
Well Depth: 1,749 ft bgs


HISTORICAL HYDROGRAPH FOR WELL 184W101
WATER LEVEL (ft bgs)
WATER-LEVEL ELEVATION (ft amsl)
477
478
479
480
481
482
483
484
485
486
487
5,714
5,713
5,712
5,711
5,710
5,709
5,708
5,707
5,706
5,705
5,704
1/1/07
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1/1/08
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5/1/09
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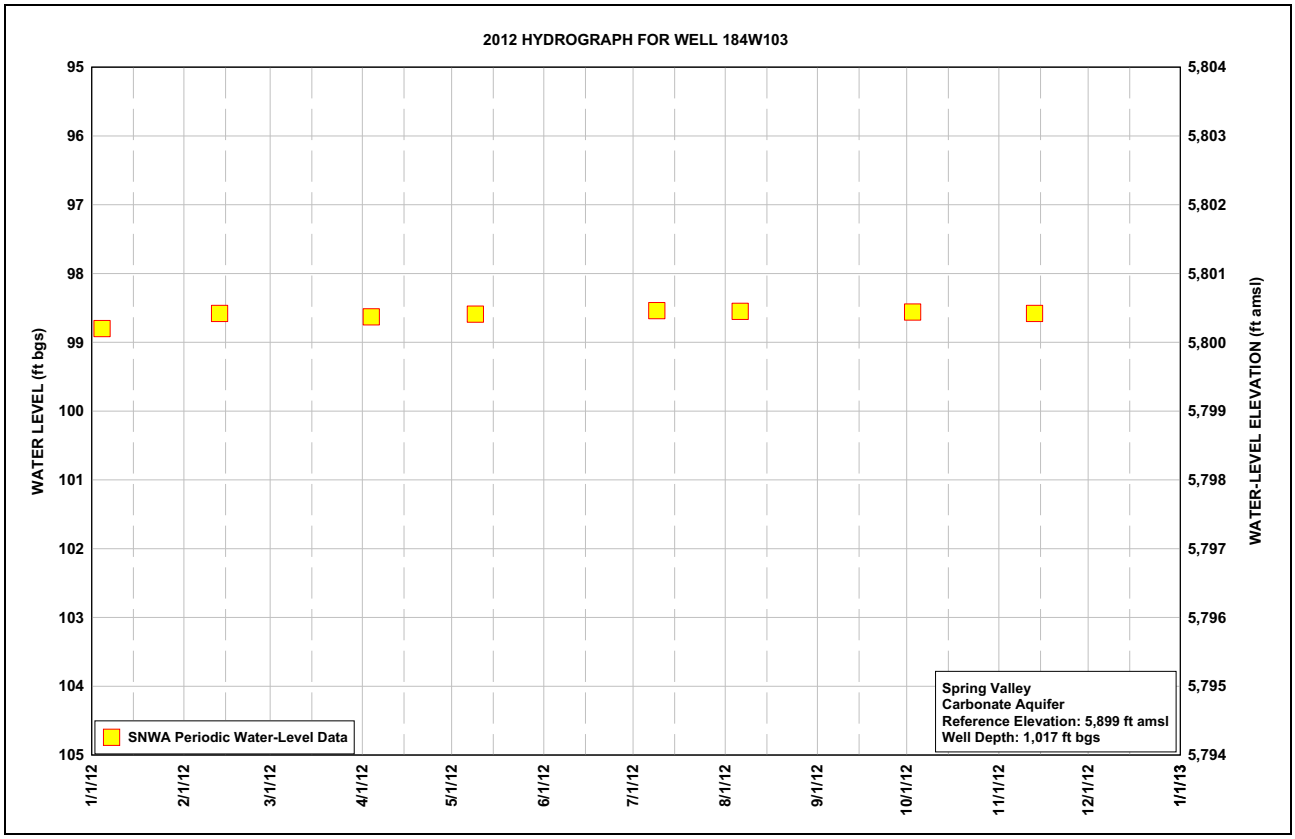
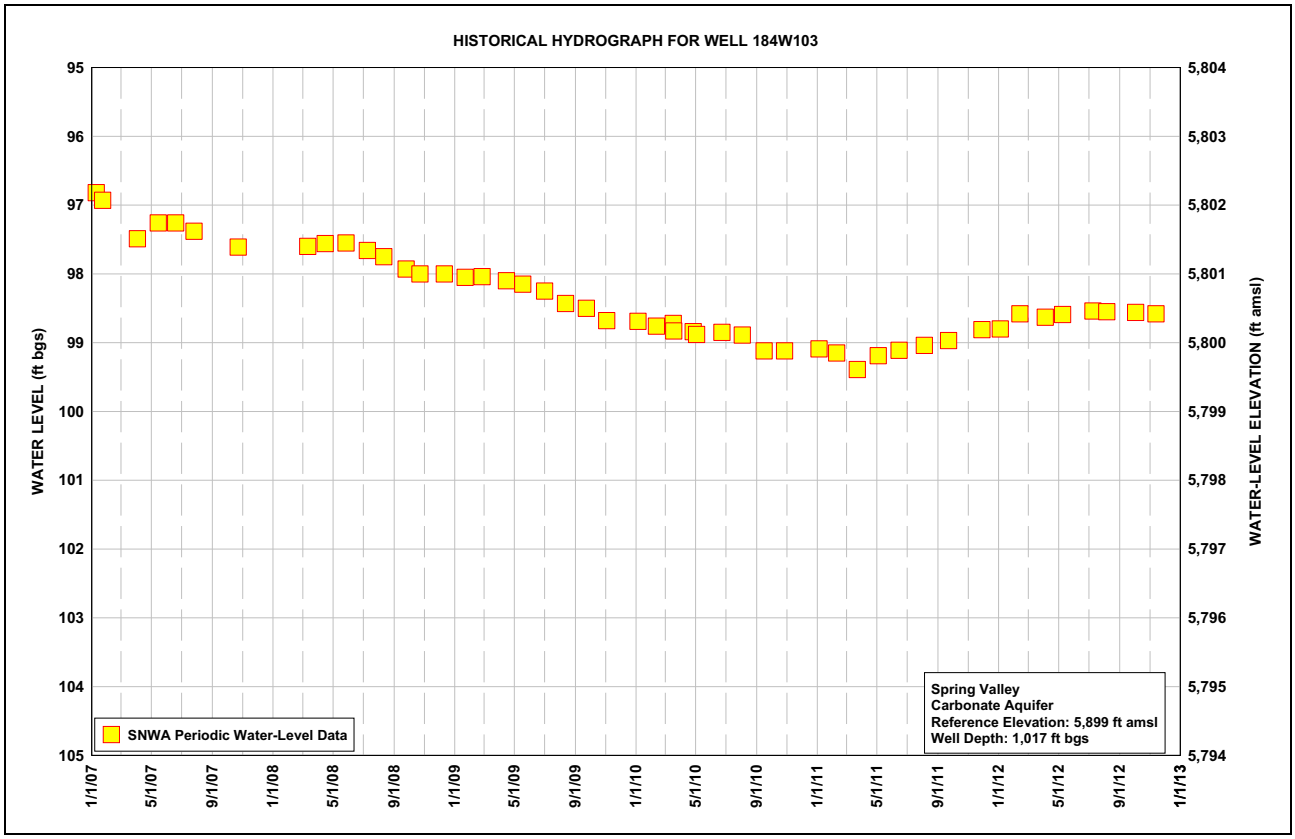
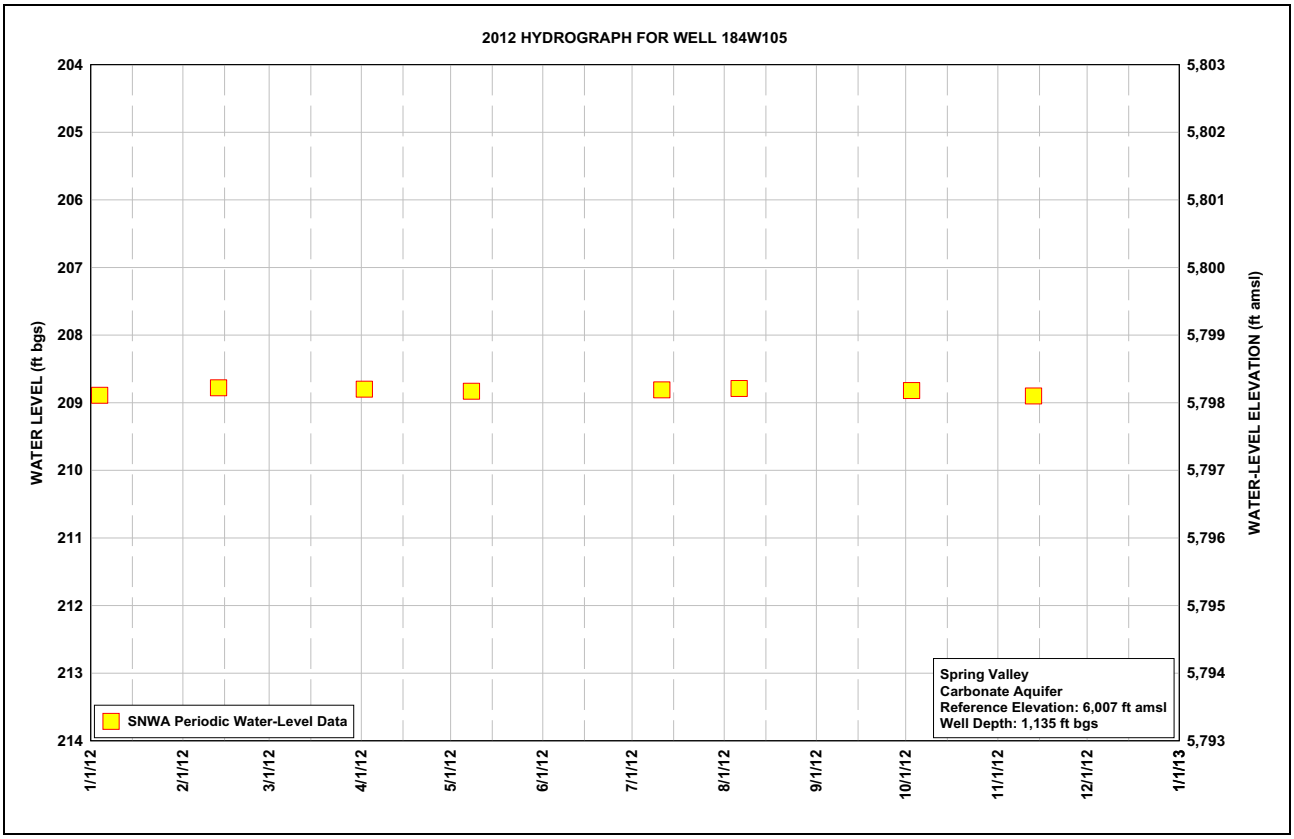
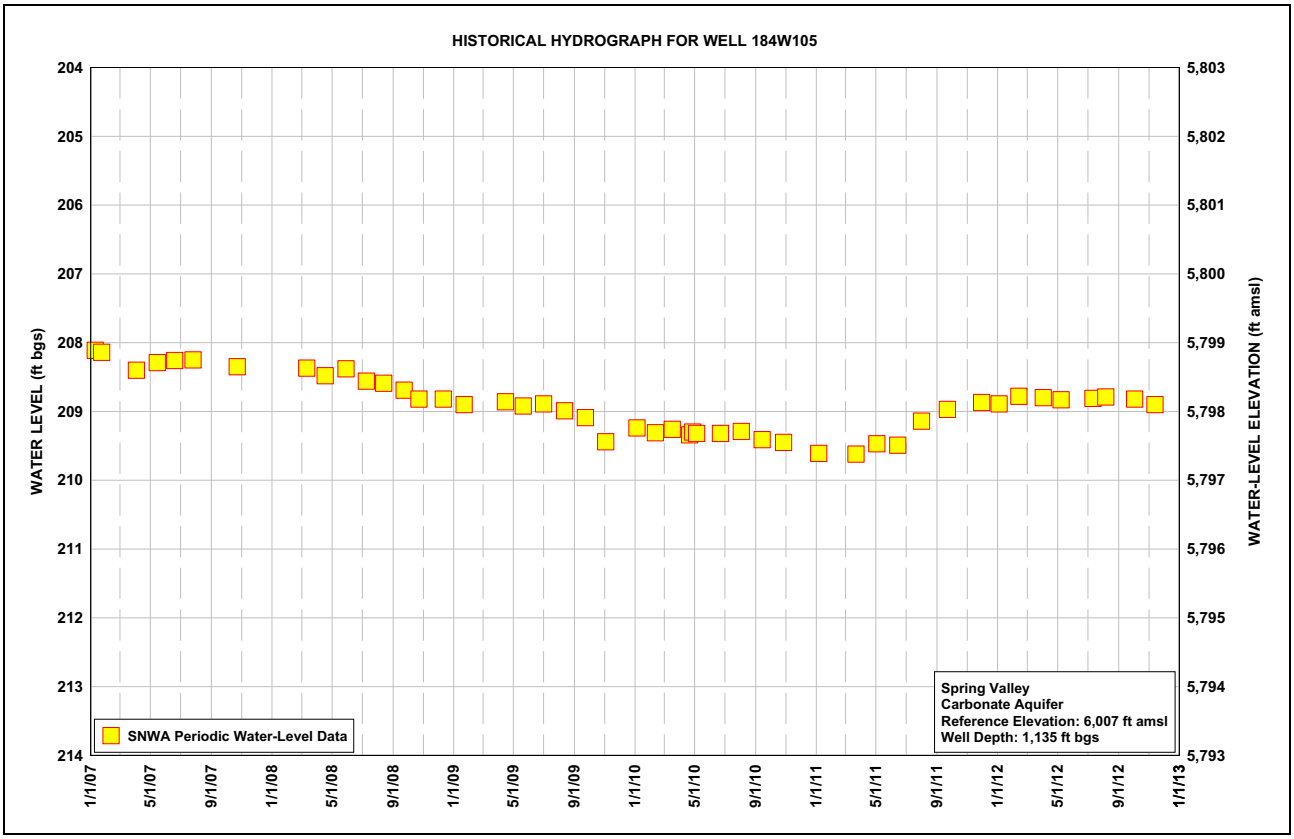
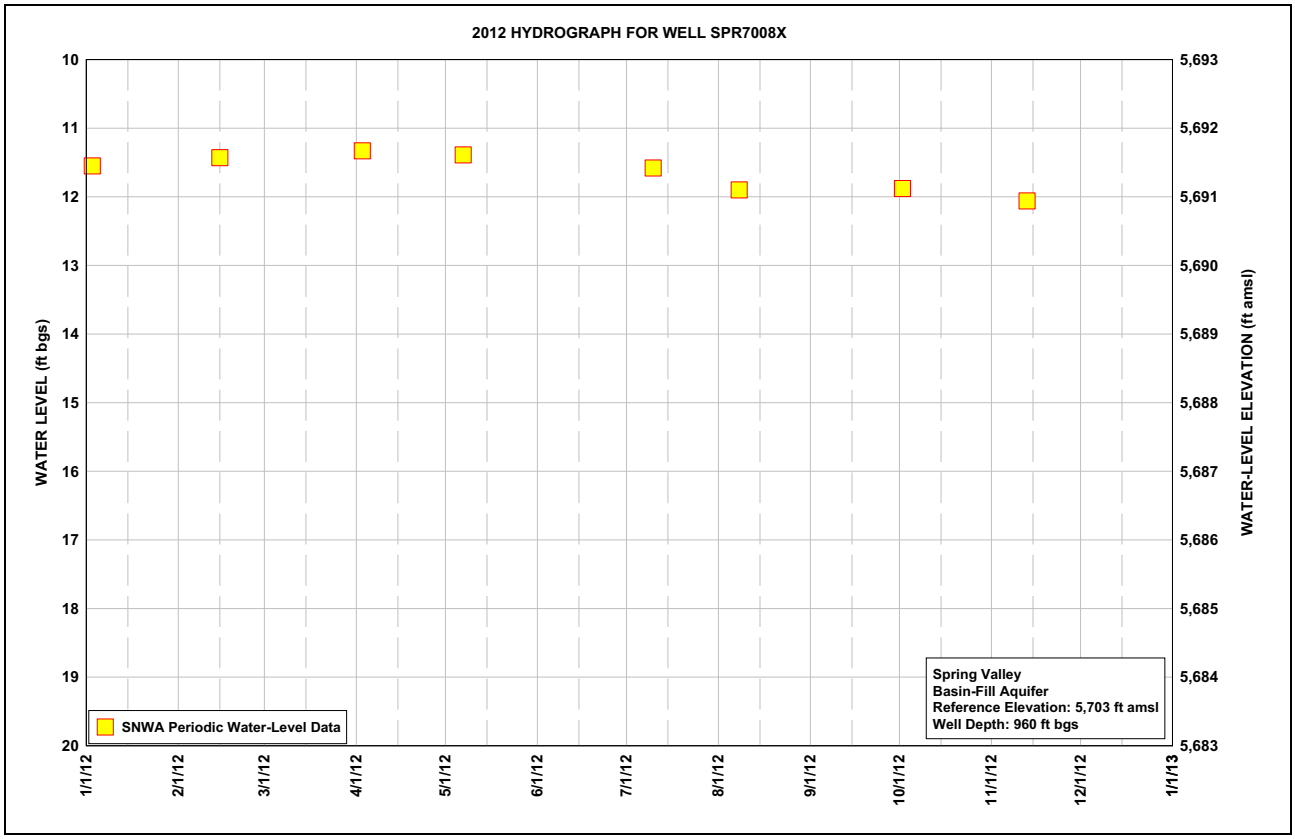
9/1/10
1/1/11
5/1/11
9/1/11
1/1/12
5/1/12
9/1/12
1/1/13
SNWA Periodic Water-Level Data
Spring Valley
Carbonate Aquifer
Reference Elevation: 6,191 ft amsl
Well Depth: 1,749 ft bgs

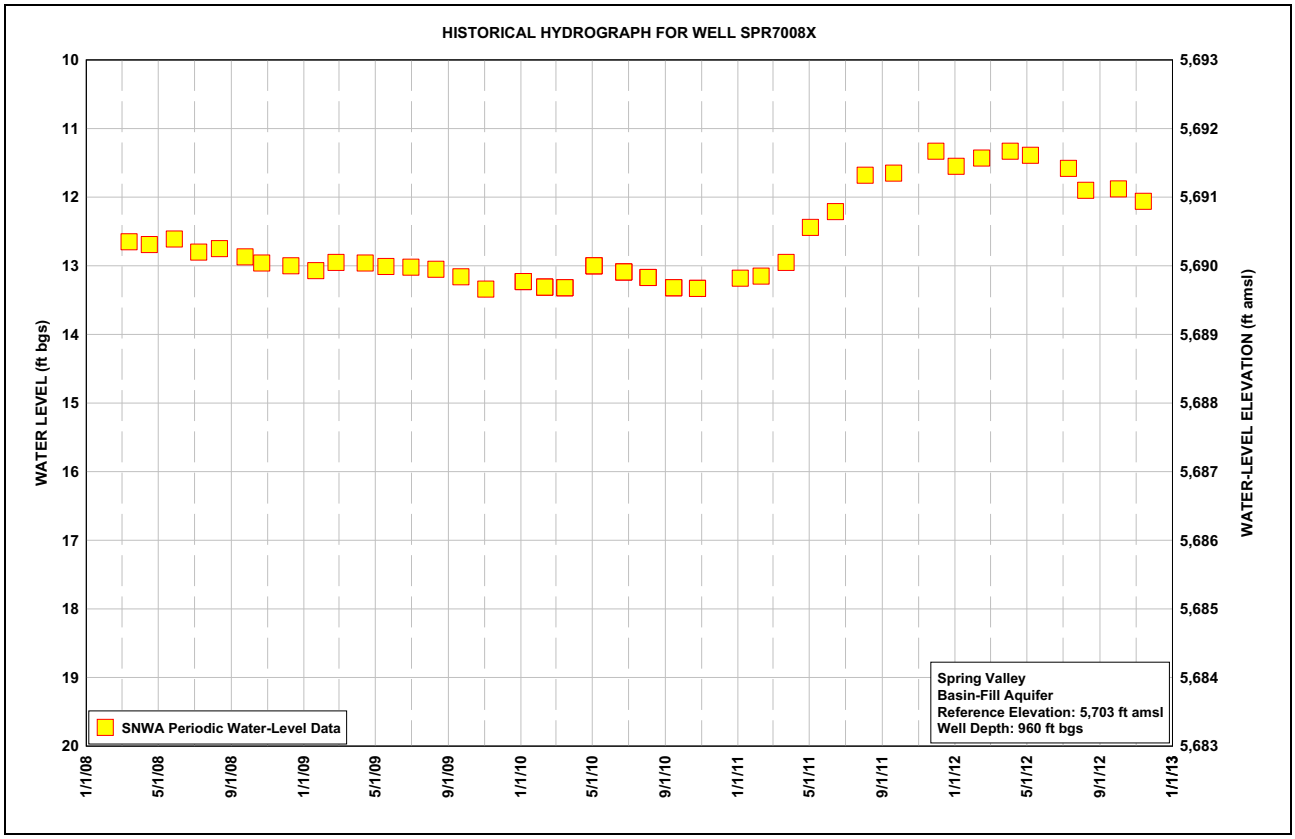

2012 HYDROGRAPH FOR WELL 184W103
WATER LEVEL (ft bgs)
WATER-LEVEL ELEVATION (ft amsl)
95
96
97
98
99
100
101
102
103
104
105
5,804
5,803
5,802
5,801
5,800
5,799
5,798
5,797
5,796
5,795
5,794
1/1/12
2/1/12
3/1/12
4/1/12
5/1/12
6/1/12
7/1/12
8/1/12
9/1/12
10/1/12
11/1/12
12/1/12
1/1/13
SNWA Periodic Water-Level Data
Spring Valley
Carbonate Aquifer
Reference Elevation: 5,899 ft amsl
Well Depth: 1,017 ft bgs


HISTORICAL HYDROGRAPH FOR WELL 184W103
WATER LEVEL (ft bgs)
WATER-LEVEL ELEVATION (ft amsl)
95
96
97
98
99
100
101
102
103
104
105
5,804
5,803
5,802
5,801
5,800
5,799
5,798
5,797
5,796
5,795
5,794
1/1/07
5/1/07
9/1/07
1/1/08
5/1/08
9/1/08
1/1/09
5/1/09
9/1/09
1/1/10
5/1/10
9/1/10
1/1/11
5/1/11
9/1/11
1/1/12
5/1/12
9/1/12
1/1/13
SNWA Periodic Water-Level Data
Spring Valley
Carbonate Aquifer
Reference Elevation: 5,899 ft amsl
Well Depth: 1,017 ft bgs


2012 HYDROGRAPH FOR WELL 184W105
WATER LEVEL (ft bgs)
WATER-LEVEL ELEVATION (ft amsl)
204
205
206
207
208
209
210
211
212
213
214
5,803
5,802
5,801
5,800
5,799
5,798
5,797
5,796
5,795
5,794
5,793
1/1/12
2/1/12
3/1/12
4/1/12
5/1/12
6/1/12
7/1/12
8/1/12
9/1/12
10/1/12
11/1/12
12/1/12
1/1/13
SNWA Periodic Water-Level Data
Spring Valley
Carbonate Aquifer
Reference Elevation: 6,007 ft amsl
Well Depth: 1,135 ft bgs


HISTORICAL HYDROGRAPH FOR WELL 184W105
WATER LEVEL (ft bgs)
WATER-LEVEL ELEVATION (ft amsl)
204
205
206
207
208
209
210
211
212
213
214
5,803
5,802
5,801
5,800
5,799
5,798
5,797
5,796
5,795
5,794
5,793
1/1/07
5/1/07
9/1/07
1/1/08
5/1/08
9/1/08
1/1/09
5/1/09
9/1/09
1/1/10
5/1/10
9/1/10
1/1/11
5/1/11
9/1/11
1/1/12
5/1/12
9/1/12
1/1/13
SNWA Periodic Water-Level Data
Spring Valley
Carbonate Aquifer
Reference Elevation: 6,007 ft amsl
Well Depth: 1,135 ft bgs


2012 HYDROGRAPH FOR WELL SPR7008X
WATER LEVEL (ft bgs)
WATER-LEVEL ELEVATION (ft amsl)
10
11
12
13
14
15
16
17
18
19
20
5,693
5,692
5,691
5,690
5,689
5,688
5,687
5,686
5,685
5,684
5,683
1/1/12
2/1/12
3/1/12
4/1/12
5/1/12
6/1/12
7/1/12
8/1/12
9/1/12
10/1/12
11/1/12
12/1/12
1/1/13
SNWA Periodic Water-Level Data
Spring Valley
Basin-Fill Aquifer
Reference Elevation: 5,703 ft amsl
Well Depth: 960 ft bgs


HISTORICAL HYDROGRAPH FOR WELL SPR7008X
WATER LEVEL (ft bgs)
WATER-LEVEL ELEVATION (ft amsl)
10
11
12
13
14
15
16
17
18
19
20
5,693
5,692
5,691
5,690
5,689
5,688
5,687
5,686
5,685
5,684
5,683
1/1/08
5/1/08
9/1/08
1/1/09
5/1/09
9/1/09
1/1/10
5/1/10
9/1/10
1/1/11
5/1/11
9/1/11
1/1/12
5/1/12
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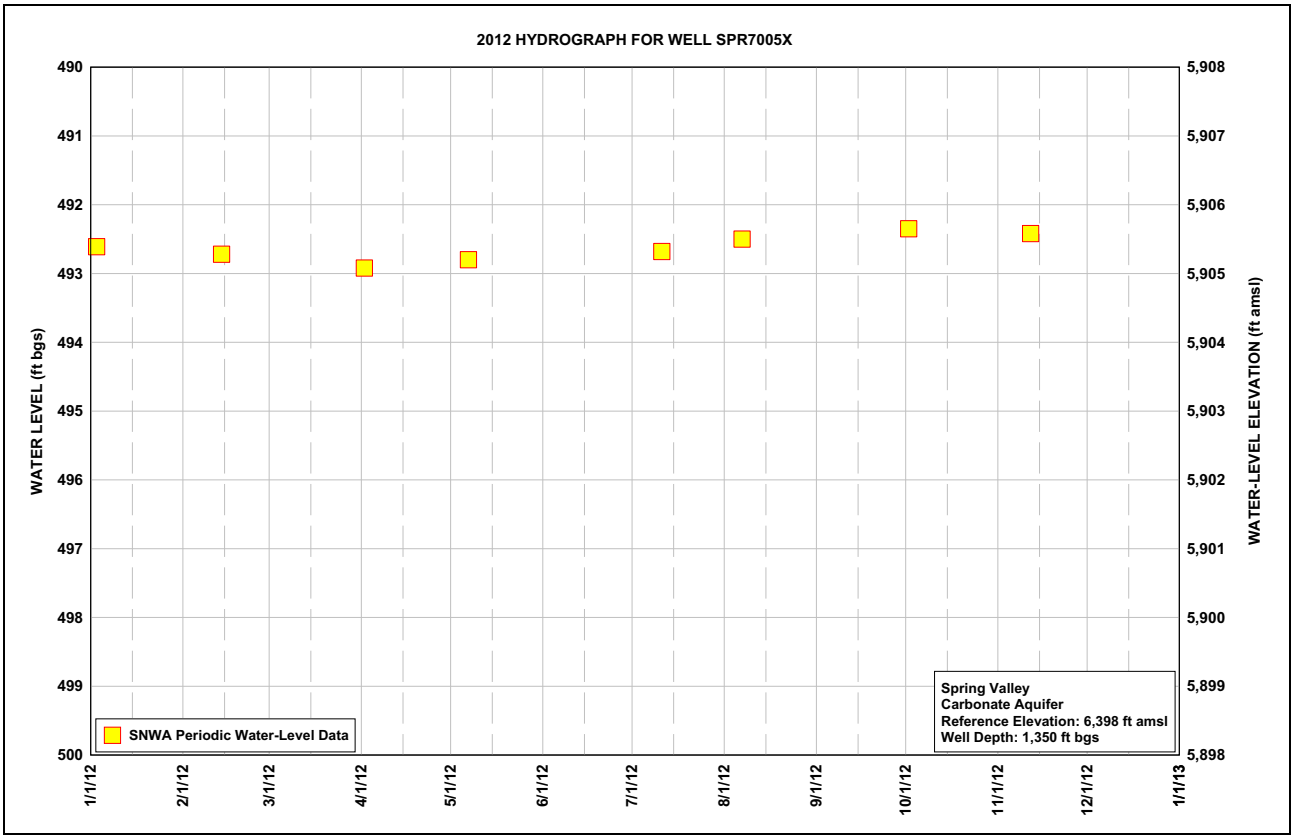
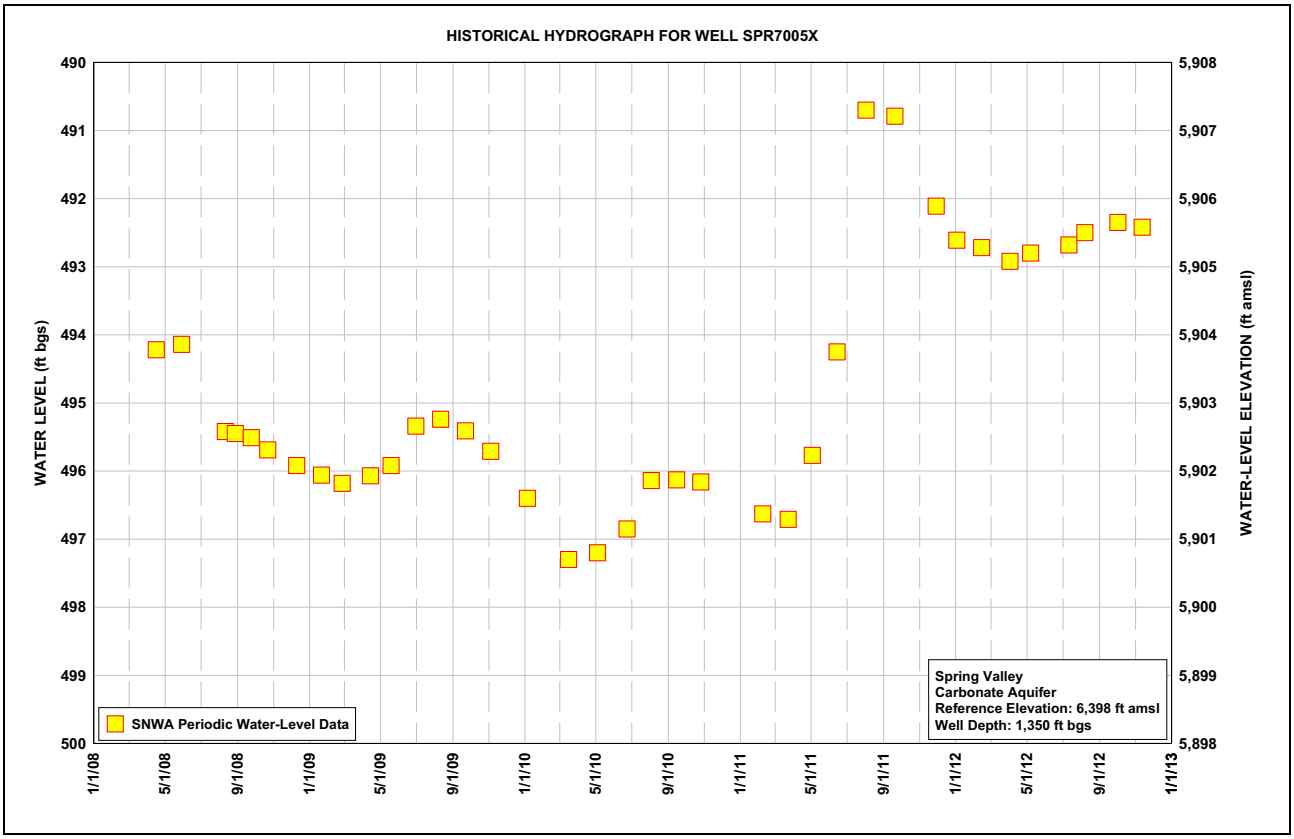
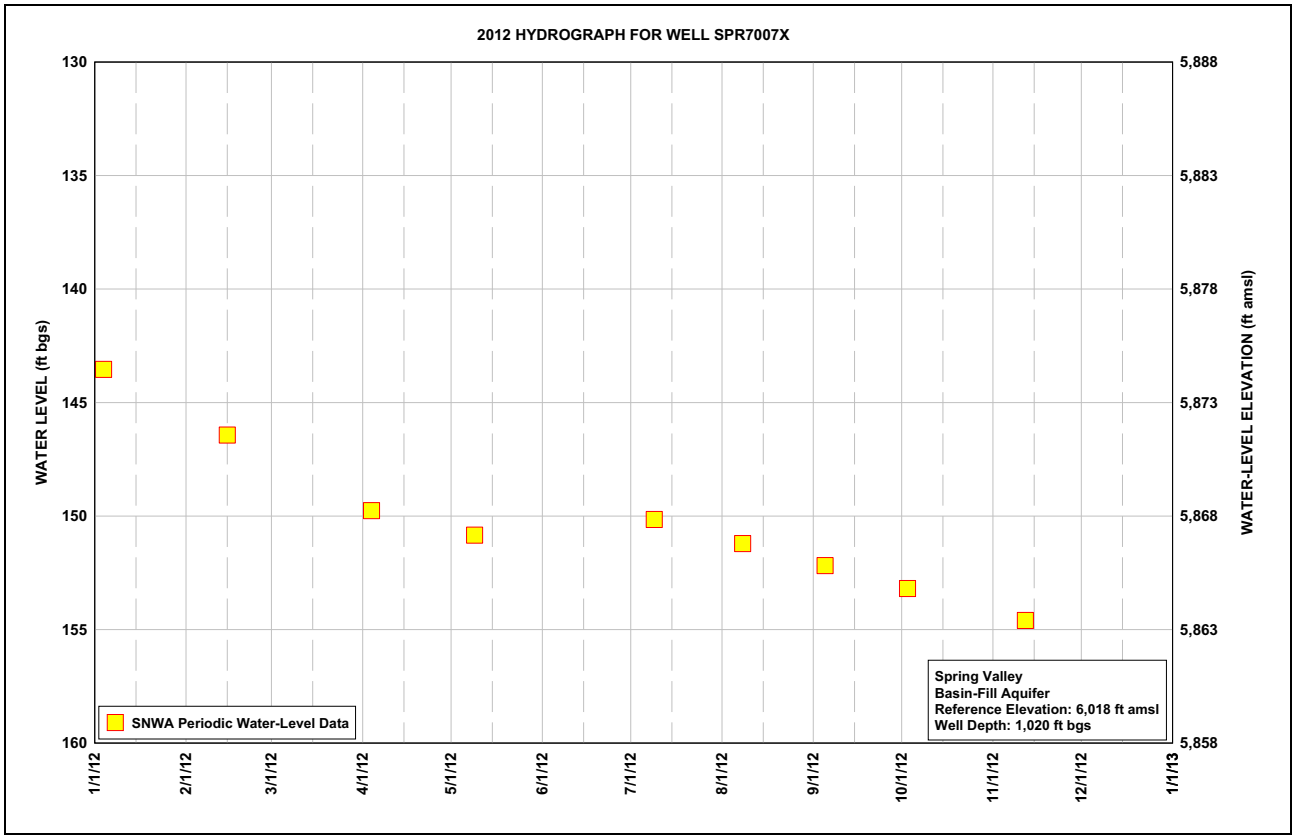
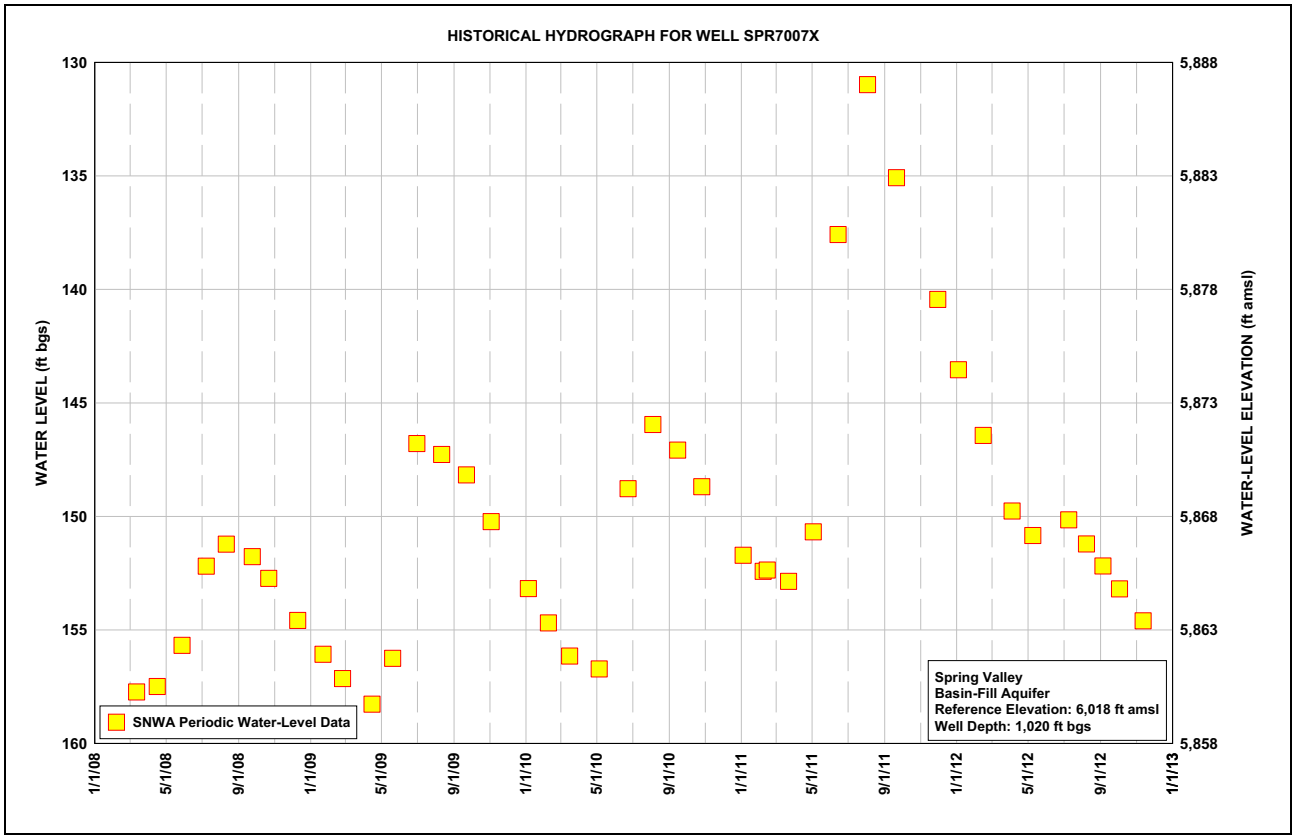
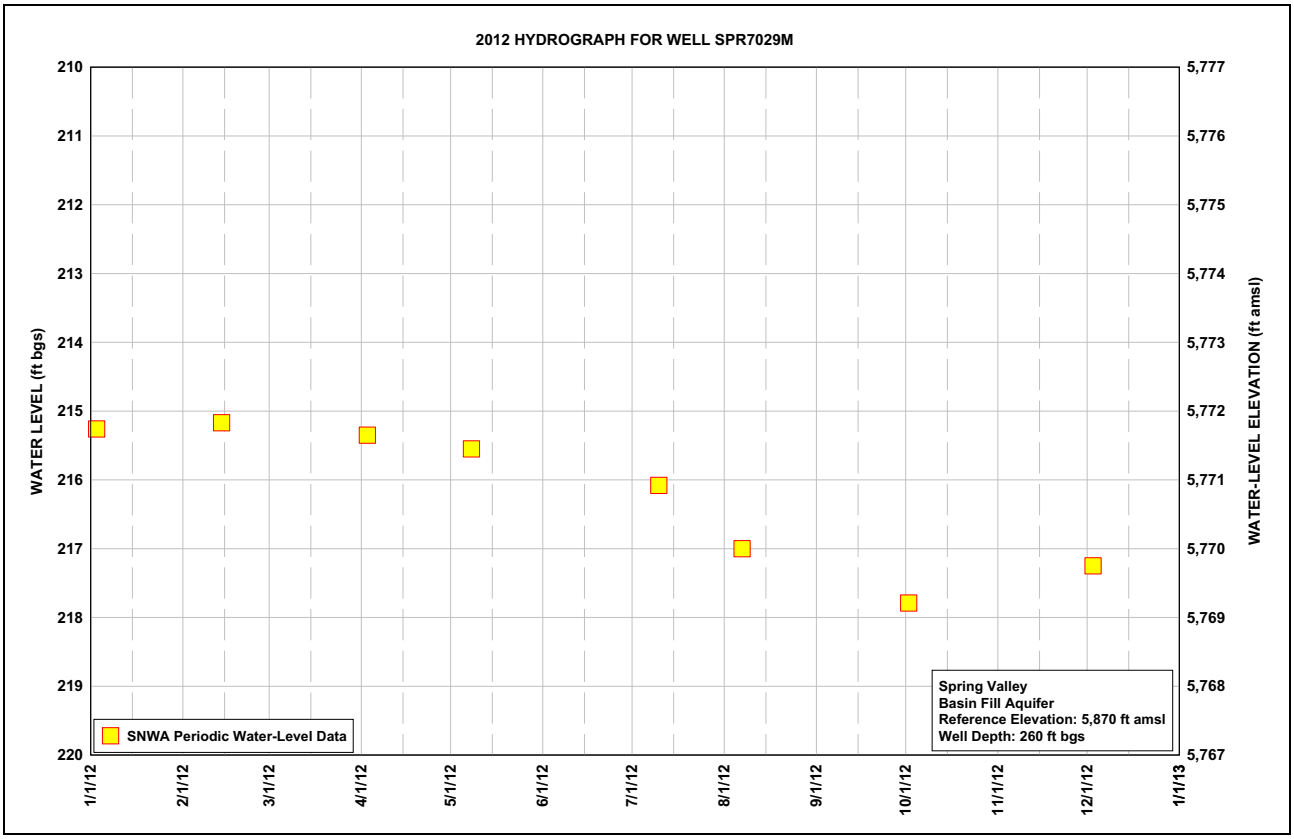
1/1/13
SNWA Periodic Water-Level Data
Spring Valley
Basin-Fill Aquifer
Reference Elevation: 5,703 ft amsl
Well Depth: 960 ft bgs

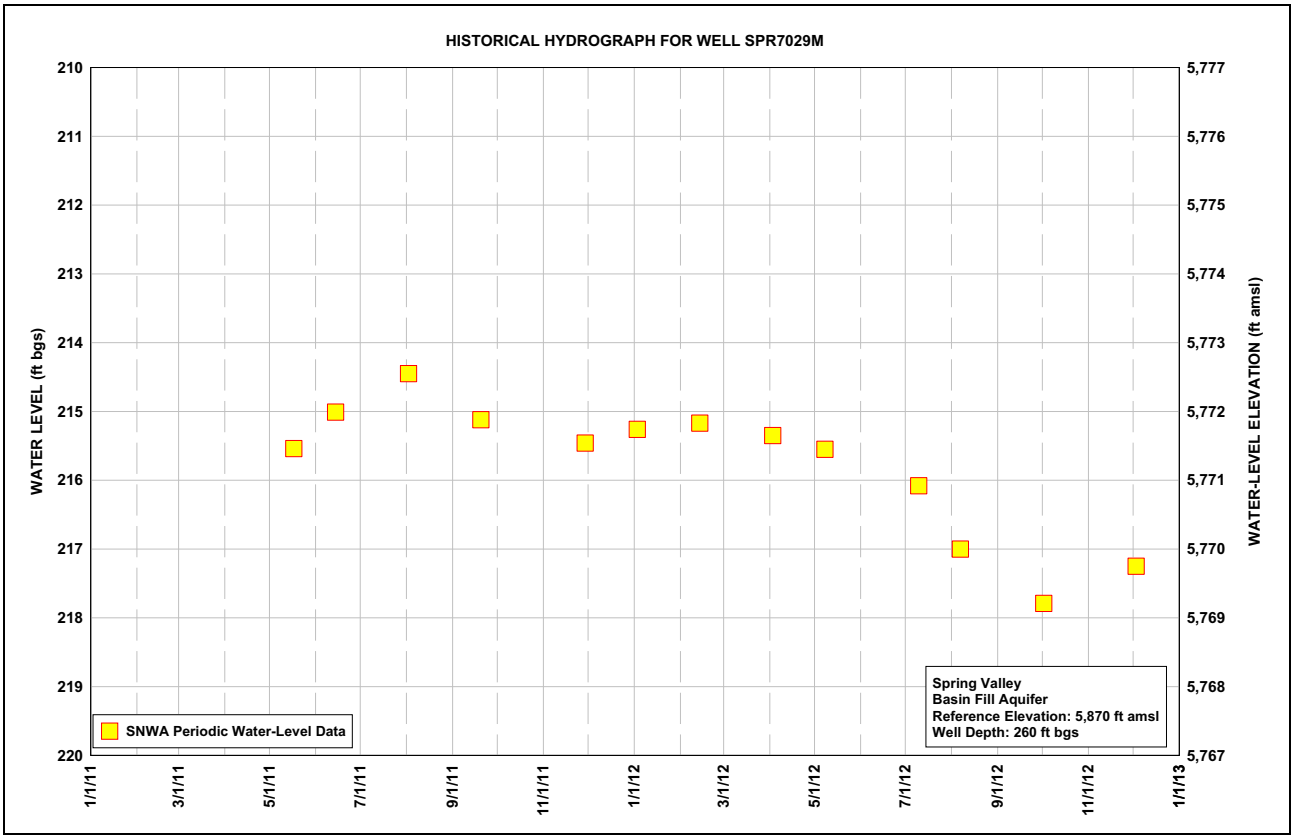

2012 HYDROGRAPH FOR WELL SPR7005X
WATER LEVEL (ft bgs)
WATER-LEVEL ELEVATION (ft amsl)
490
491
492
493
494
495
496
497
498
499
500
5,908
5,907
5,906
5,905
5,904
5,903
5,902
5,901
5,900
5,899
5,898
1/1/12
2/1/12
3/1/12
4/1/12
5/1/12
6/1/12
7/1/12
8/1/12
9/1/12
10/1/12
11/1/12
12/1/12
1/1/13
SNWA Periodic Water-Level Data
Spring Valley
Carbonate Aquifer
Reference Elevation: 6,398 ft amsl
Well Depth: 1,350 ft bgs

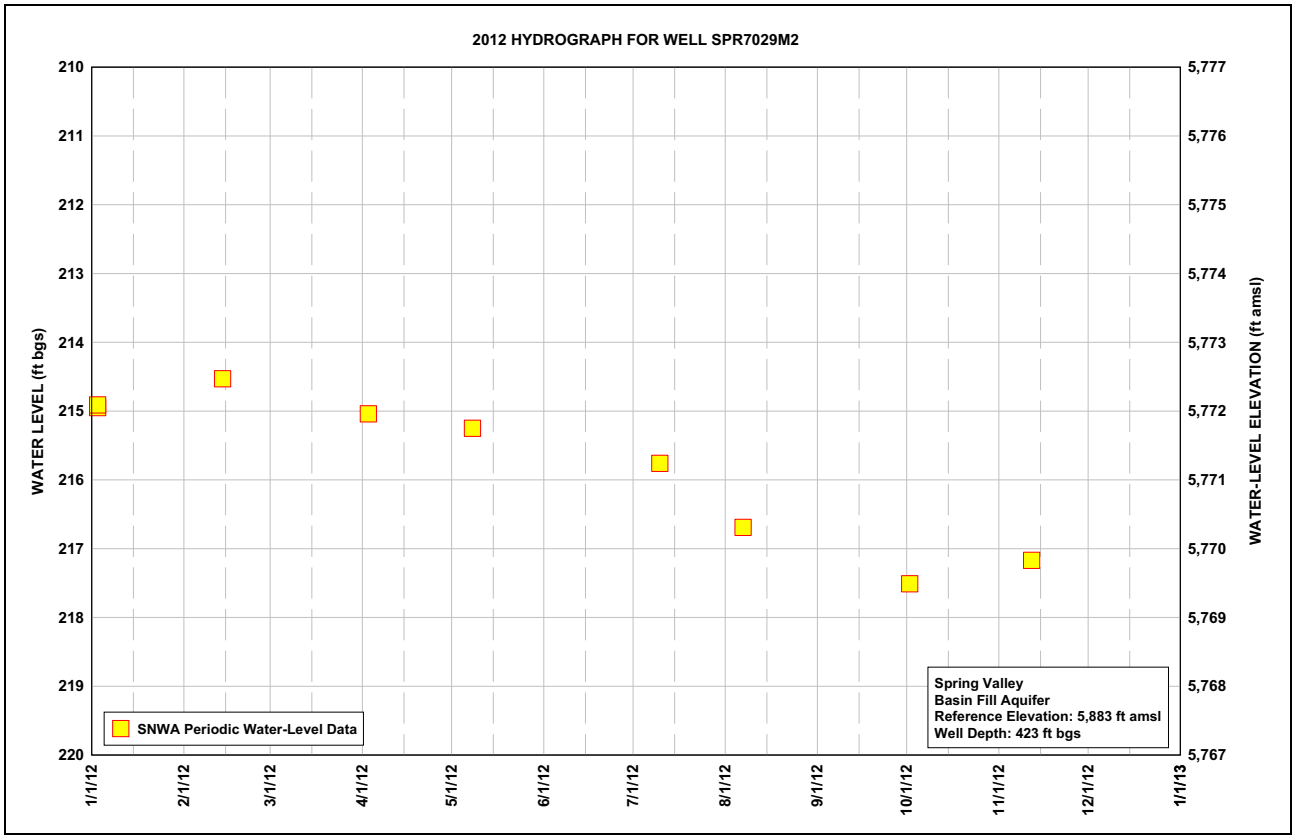

HISTORICAL HYDROGRAPH FOR WELL SPR7005X
WATER LEVEL (ft bgs)
WATER-LEVEL ELEVATION (ft amsl)
490
491
492
493
494
495
496
497
498
499
500
5,908
5,907
5,906
5,905
5,904
5,903
5,902
5,901
5,900
5,899
5,898
1/1/08
5/1/08
9/1/08
1/1/09
5/1/09
9/1/09
1/1/10
5/1/10
9/1/10
1/1/11
5/1/11
9/1/11
1/1/12
5/1/12
9/1/12
1/1/13
SNWA Periodic Water-Level Data
Spring Valley
Carbonate Aquifer
Reference Elevation: 6,398 ft amsl
Well Depth: 1,350 ft bgs

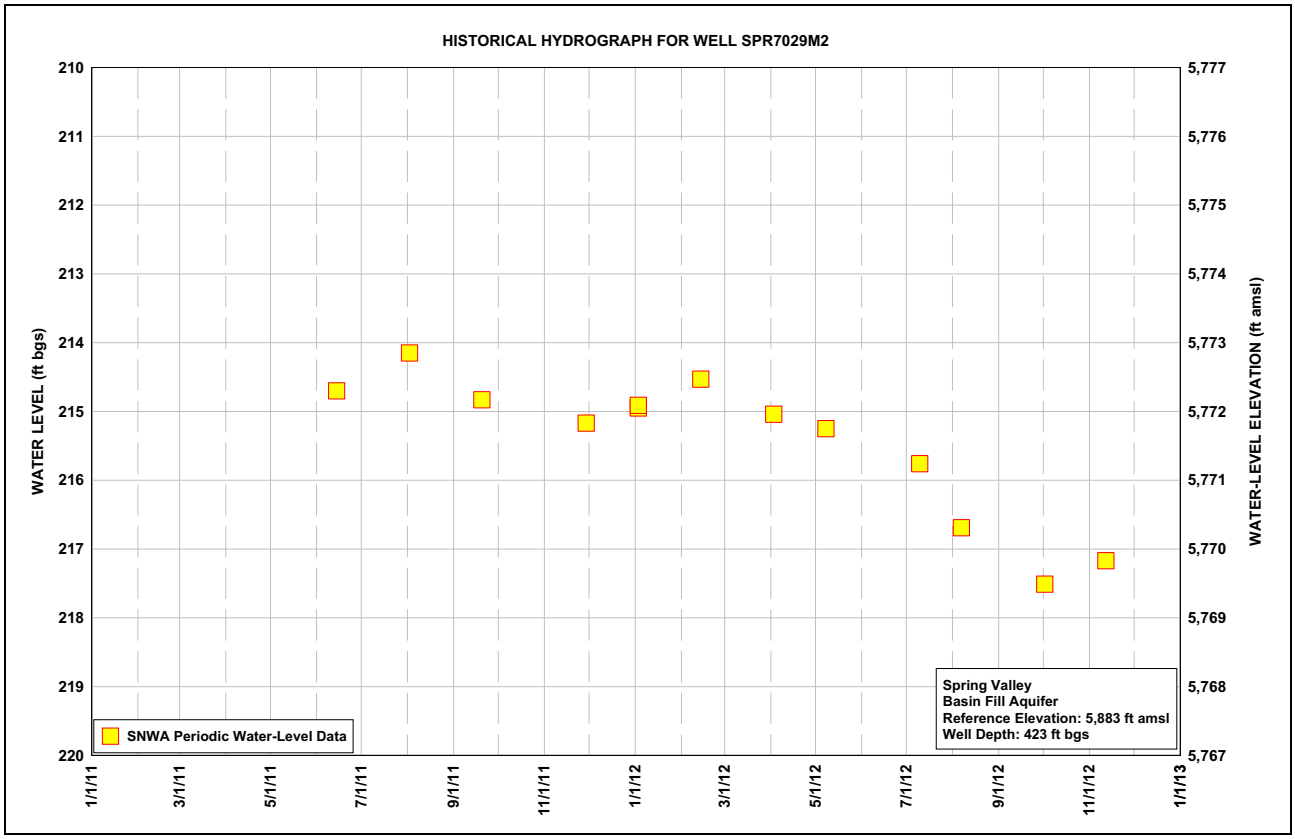

2012 HYDROGRAPH FOR WELL SPR7007X
WATER LEVEL (ft bgs)
WATER-LEVEL ELEVATION (ft amsl)
130
135
140
145
150
155
160
5,888
5,883
5,878
5,873
5,868
5,863
5,858
1/1/12
2/1/12
3/1/12
4/1/12
5/1/12
6/1/12
7/1/12
8/1/12
9/1/12
10/1/12
11/1/12
12/1/12
1/1/13
SNWA Periodic Water-Level Data
Spring Valley
Basin-Fill Aquifer
Reference Elevation: 6,018 ft amsl
Well Depth: 1,020 ft bgs

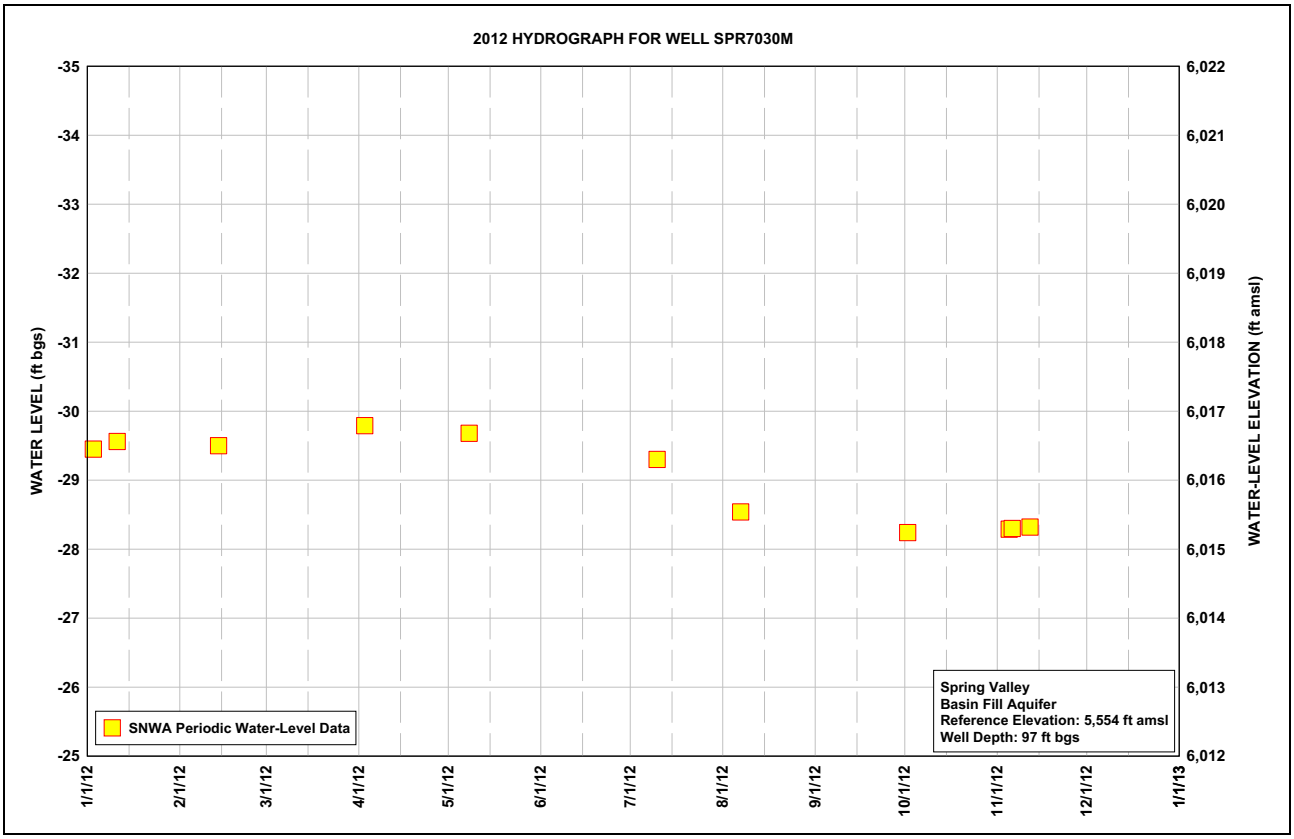

HISTORICAL HYDROGRAPH FOR WELL SPR7007X
WATER LEVEL (ft bgs)
WATER-LEVEL ELEVATION (ft amsl)
130
135
140
145
150
155
160
5,888
5,883
5,878
5,873
5,868
5,863
5,858
1/1/08
5/1/08
9/1/08
1/1/09
5/1/09
9/1/09
1/1/10
5/1/10
9/1/10
1/1/11
5/1/11
9/1/11
1/1/12
5/1/12
9/1/12
1/1/13
SNWA Periodic Water-Level Data
Spring Valley
Basin-Fill Aquifer
Reference Elevation: 6,018 ft amsl
Well Depth: 1,020 ft bgs

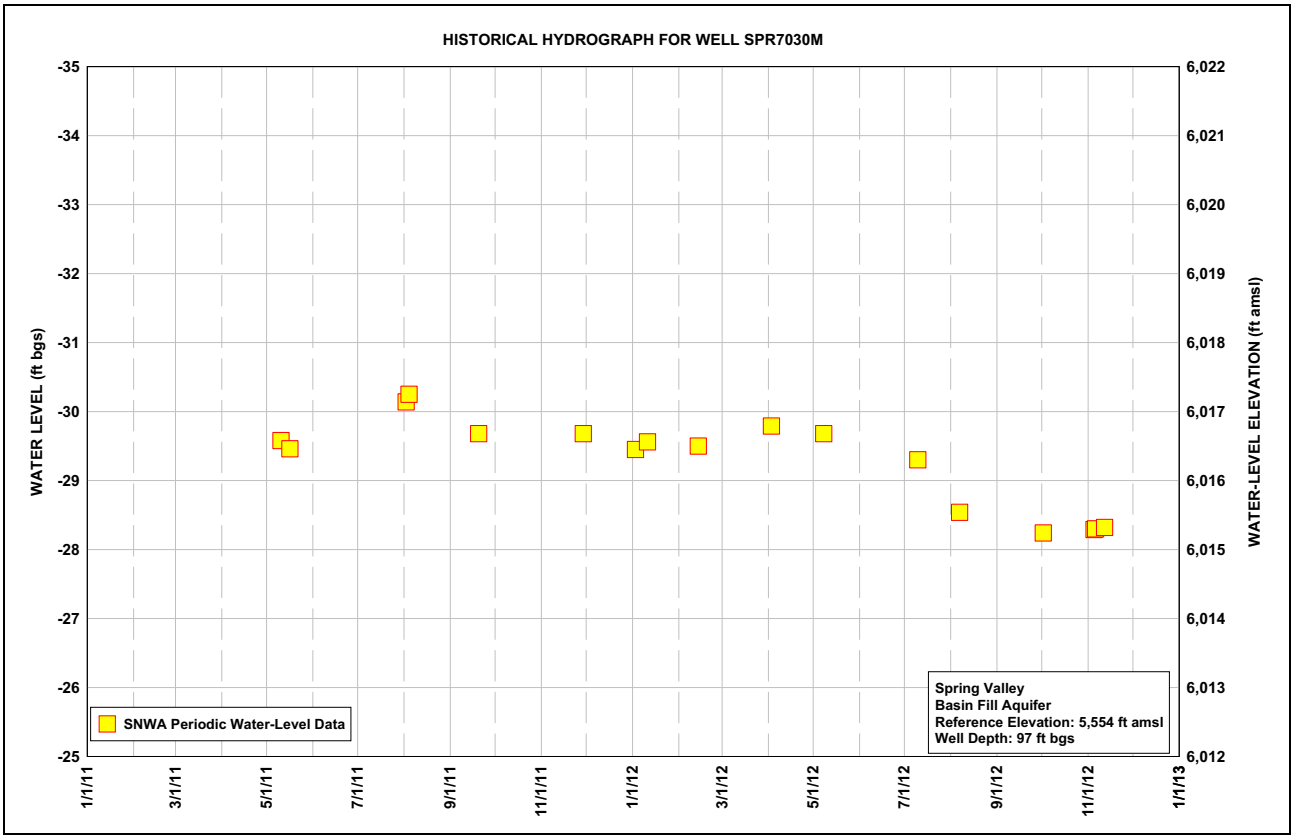

2012 HYDROGRAPH FOR WELL SPR7029M
WATER LEVEL (ft bgs)
WATER-LEVEL ELEVATION (ft amsl)
210
211
212
213
214
215
216
217
218
219
220
5,777
5,776
5,775
5,774
5,773
5,772
5,771
5,770
5,769
5,768
5,767
1/1/12
2/1/12
3/1/12
4/1/12
5/1/12
6/1/12
7/1/12
8/1/12
9/1/12
10/1/12
11/1/12
12/1/12
1/1/13
SNWA Periodic Water-Level Data
Spring Valley
Basin Fill Aquifer
Reference Elevation: 5,870 ft amsl
Well Depth: 260 ft bgs


HISTORICAL HYDROGRAPH FOR WELL SPR7029M
WATER LEVEL (ft bgs)
WATER-LEVEL ELEVATION (ft amsl)
210
211
212
213
214
215
216
217
218
219
220
5,777
5,776
5,775
5,774
5,773
5,772
5,771
5,770
5,769
5,768
5,767
1/1/11
3/1/11
5/1/11
7/1/11
9/1/11
11/1/11
1/1/12
3/1/12
5/1/12
7/1/12
9/1/12
11/1/12
1/1/13
SNWA Periodic Water-Level Data
Spring Valley
Basin Fill Aquifer
Reference Elevation: 5,870 ft amsl
Well Depth: 260 ft bgs


2012 HYDROGRAPH FOR WELL SPR7029M2
WATER LEVEL (ft bgs)
WATER-LEVEL ELEVATION (ft amsl)
210
211
212
213
214
215
216
217
218
219
220
5,777
5,776
5,775
5,774
5,773
5,772
5,771
5,770
5,769
5,768
5,767
1/1/12
2/1/12
3/1/12
4/1/12
5/1/12
6/1/12
7/1/12
8/1/12
9/1/12
10/1/12
11/1/12
12/1/12
1/1/13
SNWA Periodic Water-Level Data
Spring Valley
Basin Fill Aquifer
Reference Elevation: 5,883 ft amsl
Well Depth: 423 ft bgs


HISTORICAL HYDROGRAPH FOR WELL SPR7029M2
WATER LEVEL (ft bgs)
WATER-LEVEL ELEVATION (ft amsl)
210
211
212
213
214
215
216
217
218
219
220
5,777
5,776
5,775
5,774
5,773
5,772
5,771
5,770
5,769
5,768
5,767
1/1/11
3/1/11
5/1/11
7/1/11
9/1/11
11/1/11
1/1/12
3/1/12
5/1/12
7/1/12
9/1/12
11/1/12
1/1/13
SNWA Periodic Water-Level Data
Spring Valley
Basin Fill Aquifer
Reference Elevation: 5,883 ft amsl
Well Depth: 423 ft bgs


2012 HYDROGRAPH FOR WELL SPR7030M
WATER LEVEL (ft bgs)
WATER-LEVEL ELEVATION (ft amsl)
-35
-34
-33
-32
-31
-30
-29
-28
-27
-26
-25
6,022
6,021
6,020
6,019
6,018
6,017
6,016
6,015
6,014
6,013
6,012
1/1/12
2/1/12
3/1/12
4/1/12
5/1/12
6/1/12
7/1/12
8/1/12
9/1/12
10/1/12
11/1/12
12/1/12
1/1/13
SNWA Periodic Water-Level Data
Spring Valley
Basin Fill Aquifer
Reference Elevation: 5,554 ft amsl
Well Depth: 97 ft bgs


HISTORICAL HYDROGRAPH FOR WELL SPR7030M
WATER LEVEL (ft bgs)
WATER-LEVEL ELEVATION (ft amsl)
-35
-34
-33
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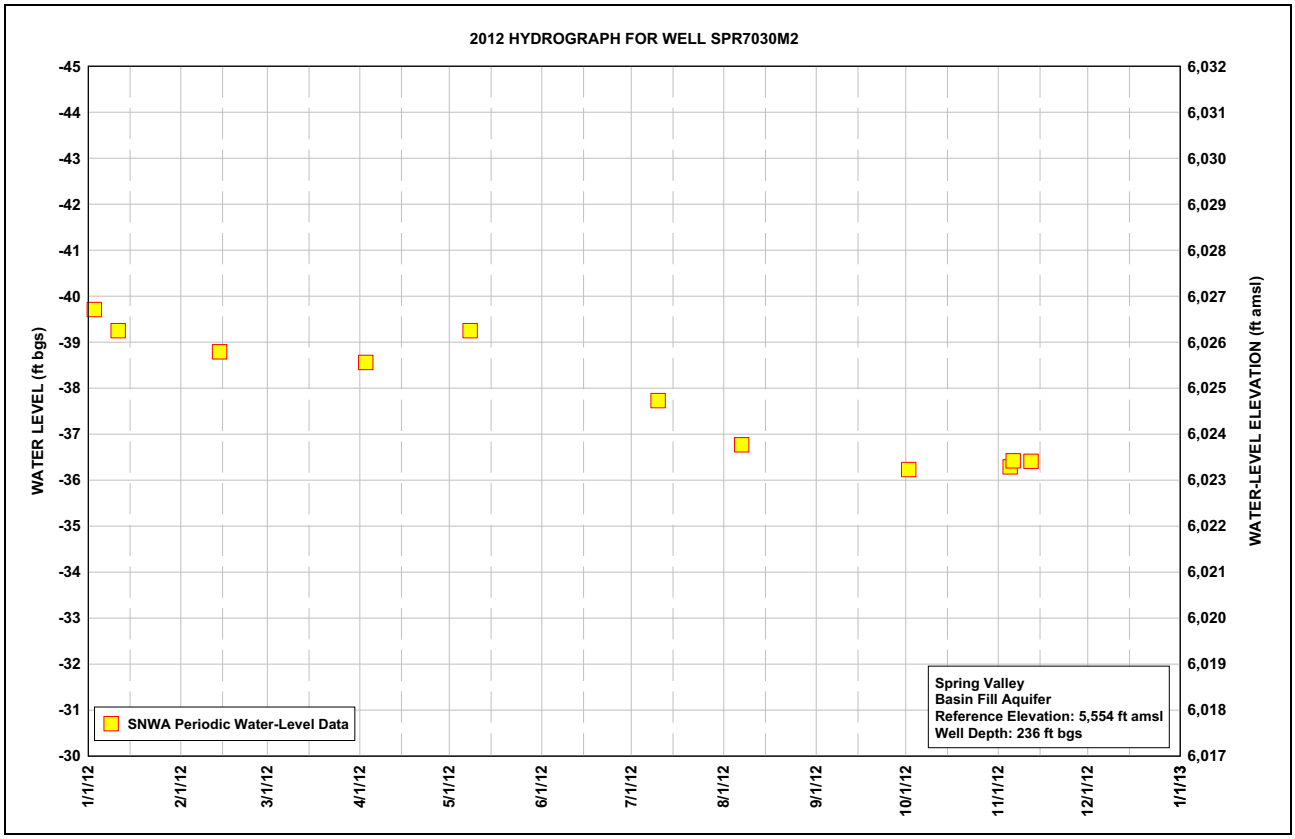
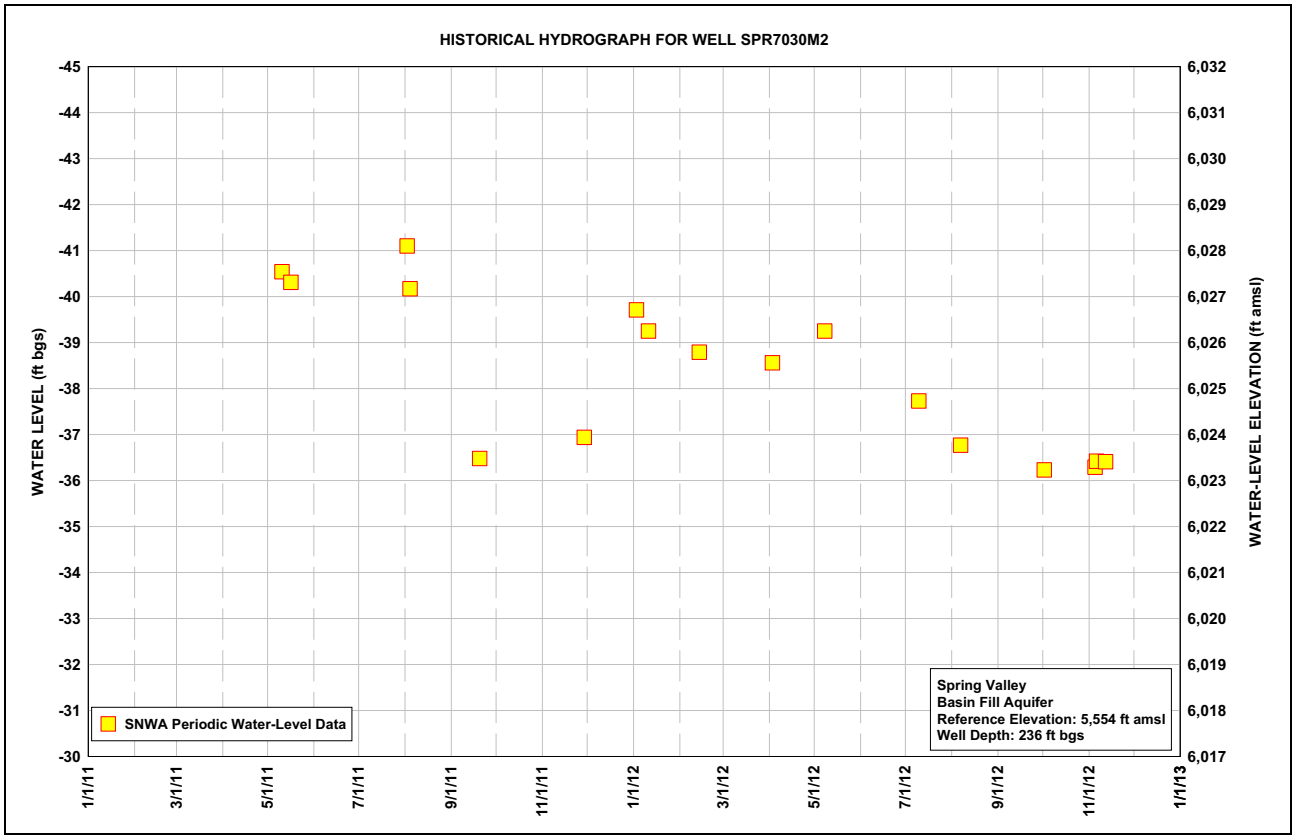
-30
-29
-28
-27
-26
-25
6,022
6,021
6,020
6,019
6,018
6,017
6,016
6,015
6,014
6,013
6,012
1/1/11
3/1/11
5/1/11
7/1/11
9/1/11
11/1/11
1/1/12
3/1/12
5/1/12
7/1/12
9/1/12
11/1/12
1/1/13
SNWA Periodic Water-Level Data
Spring Valley
Basin Fill Aquifer
Reference Elevation: 5,554 ft amsl
Well Depth: 97 ft bgs


2012 HYDROGRAPH FOR WELL SPR7030M2
WATER LEVEL (ft bgs)
WATER-LEVEL ELEVATION (ft amsl)
-45
-44
-43
-42
-41
-40
-39
-38
-37
-36
-35
-34
-33
-32
-31
-30
6,032
6,031
6,030
6,029
6,028
6,027
6,026
6,025
6,024
6,023
6,022
6,021
6,020
6,019
6,018
6,017
1/1/12
2/1/12
3/1/12
4/1/12
5/1/12
6/1/12
7/1/12
8/1/12
9/1/12
10/1/12
11/1/12
12/1/12
1/1/13
SNWA Periodic Water-Level Data
Spring Valley
Basin Fill Aquifer
Reference Elevation: 5,554 ft amsl
Well Depth: 236 ft bgs


HISTORICAL HYDROGRAPH FOR WELL SPR7030M2
WATER LEVEL (ft bgs)
WATER-LEVEL ELEVATION (ft amsl)
-45
-44
-43
-42
-41
-40
-39
-38
-37
-36
-35
-34
-33
-32
-31
-30
6,032
6,031
6,030
6,029
6,028
6,027
6,026
6,025
6,024
6,023
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6,021
6,020
6,019
6,018
6,017
1/1/11
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11/1/11
1/1/12
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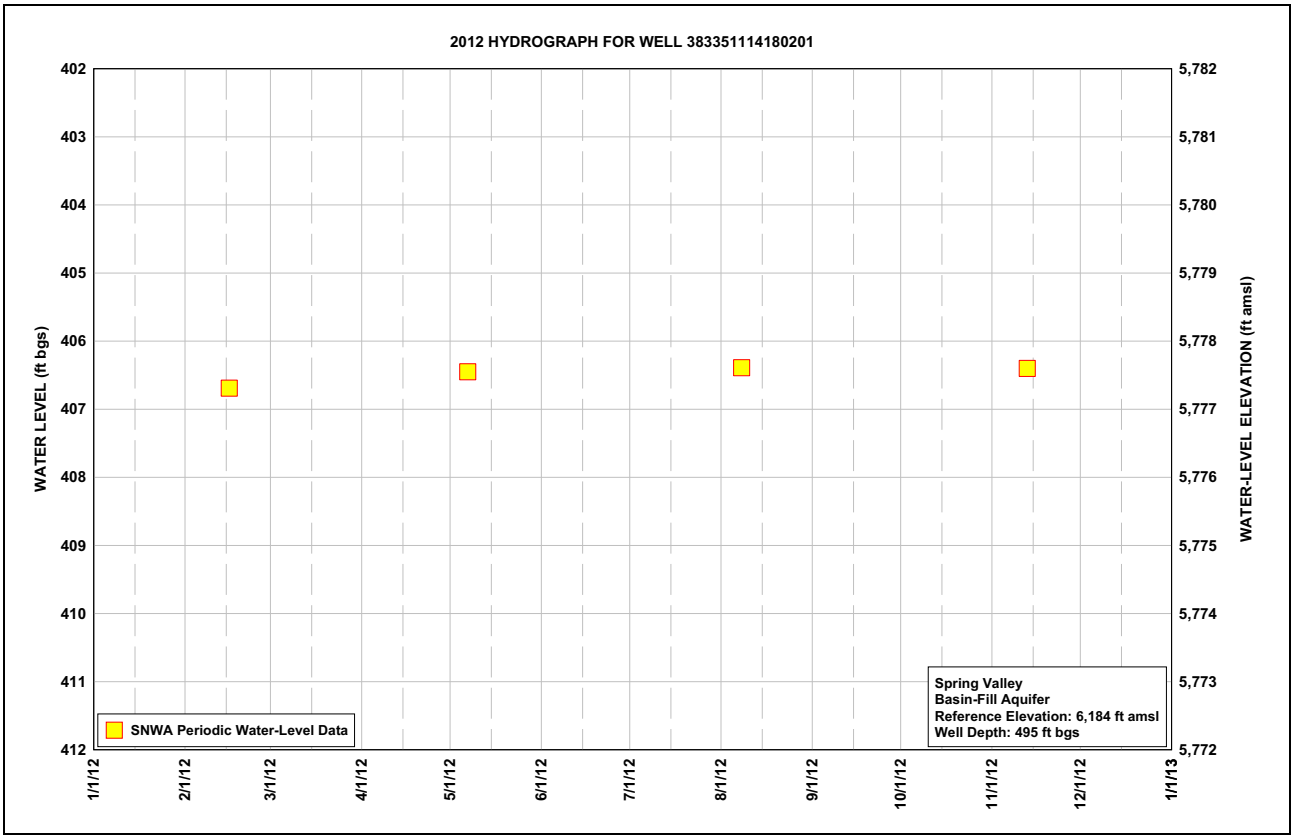
5/1/12
7/1/12
9/1/12
11/1/12
1/1/13
SNWA Periodic Water-Level Data
Spring Valley
Basin Fill Aquifer
Reference Elevation: 5,554 ft amsl
Well Depth: 236 ft bgs


2012 HYDROGRAPH FOR WELL 383351114180201
WATER LEVEL (ft bgs)
WATER-LEVEL ELEVATION (ft amsl)
402
403
404
405
406
407
408
409
410
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412
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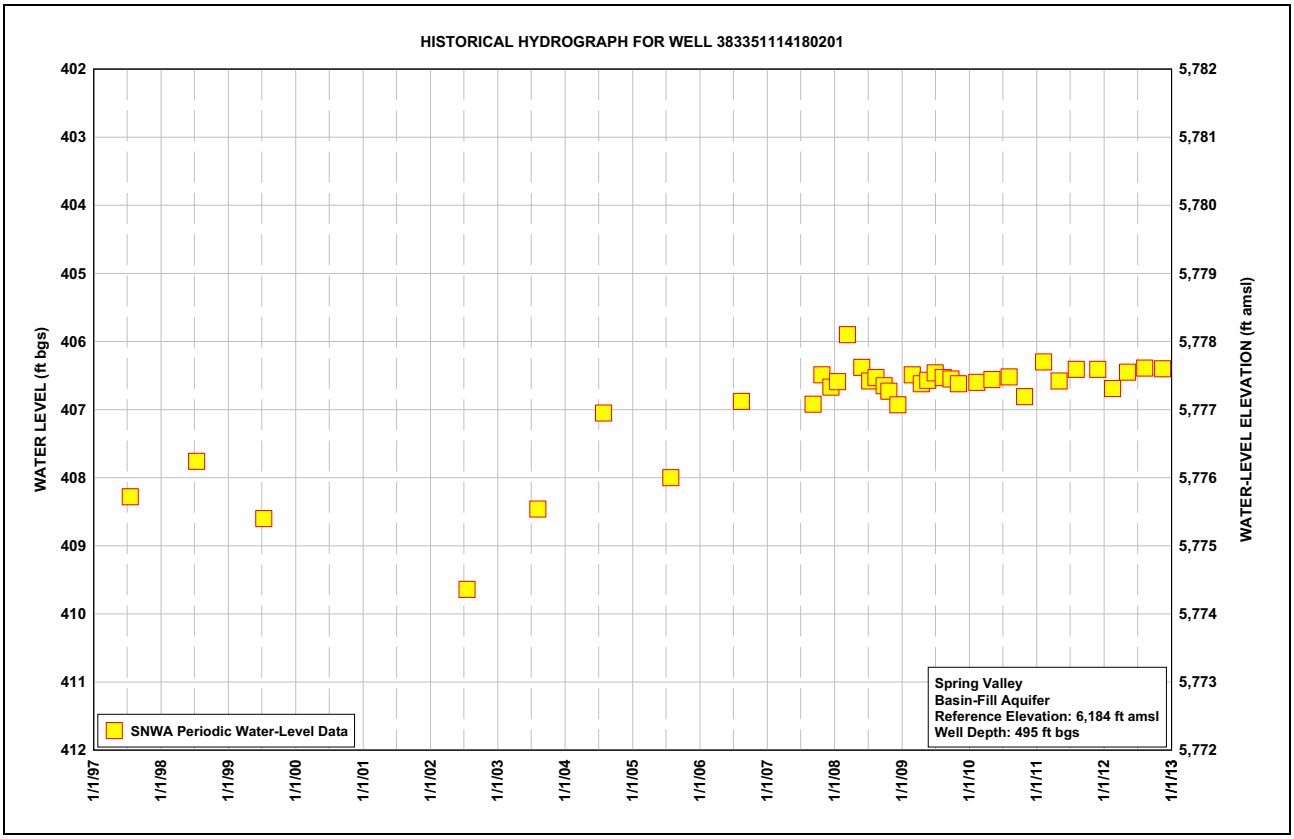
5,781
5,780
5,779
5,778
5,777
5,776
5,775
5,774
5,773
5,772
1/1/12
2/1/12
3/1/12
4/1/12
5/1/12
6/1/12
7/1/12
8/1/12
9/1/12
10/1/12
11/1/12
12/1/12
1/1/13
SNWA Periodic Water-Level Data
Spring Valley
Basin-Fill Aquifer
Reference Elevation: 6,184 ft amsl
Well Depth: 495 ft bgs


HISTORICAL HYDROGRAPH FOR WELL 383351114180201
WATER LEVEL (ft bgs)
WATER-LEVEL ELEVATION (ft amsl)
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403
404
405
406
407
408
409
410
411
412
5,782
5,781
5,780
5,779
5,778
5,777
5,776
5,775
5,774
5,773
5,772
1/1/97
1/1/98
1/1/99
1/1/00
1/1/01
1/1/02
1/1/03
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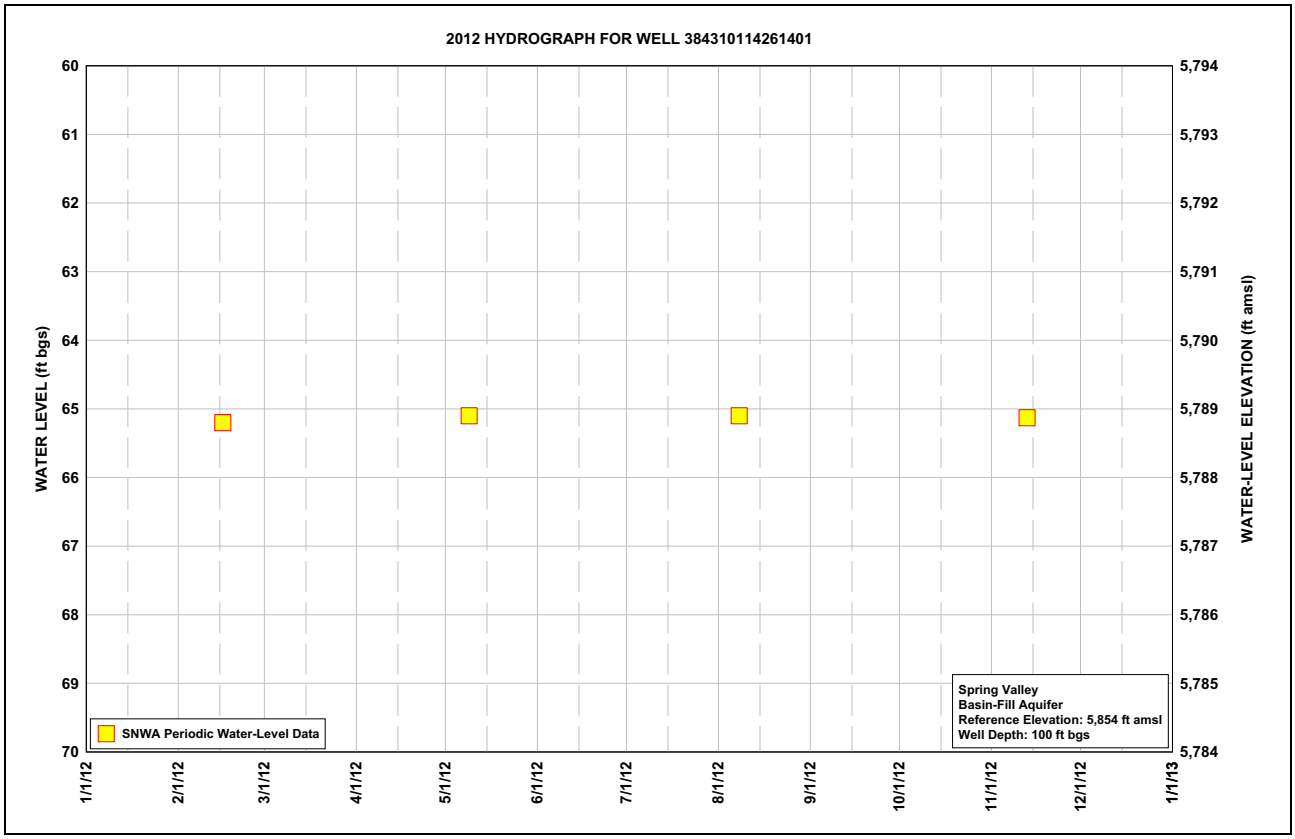
1/1/05
1/1/06
1/1/07
1/1/08
1/1/09
1/1/10
1/1/11
1/1/12
1/1/13
SNWA Periodic Water-Level Data
Spring Valley
Basin-Fill Aquifer
Reference Elevation: 6,184 ft amsl
Well Depth: 495 ft bgs


2012 HYDROGRAPH FOR WELL 384310114261401
WATER LEVEL (ft bgs)
WATER-LEVEL ELEVATION (ft amsl)
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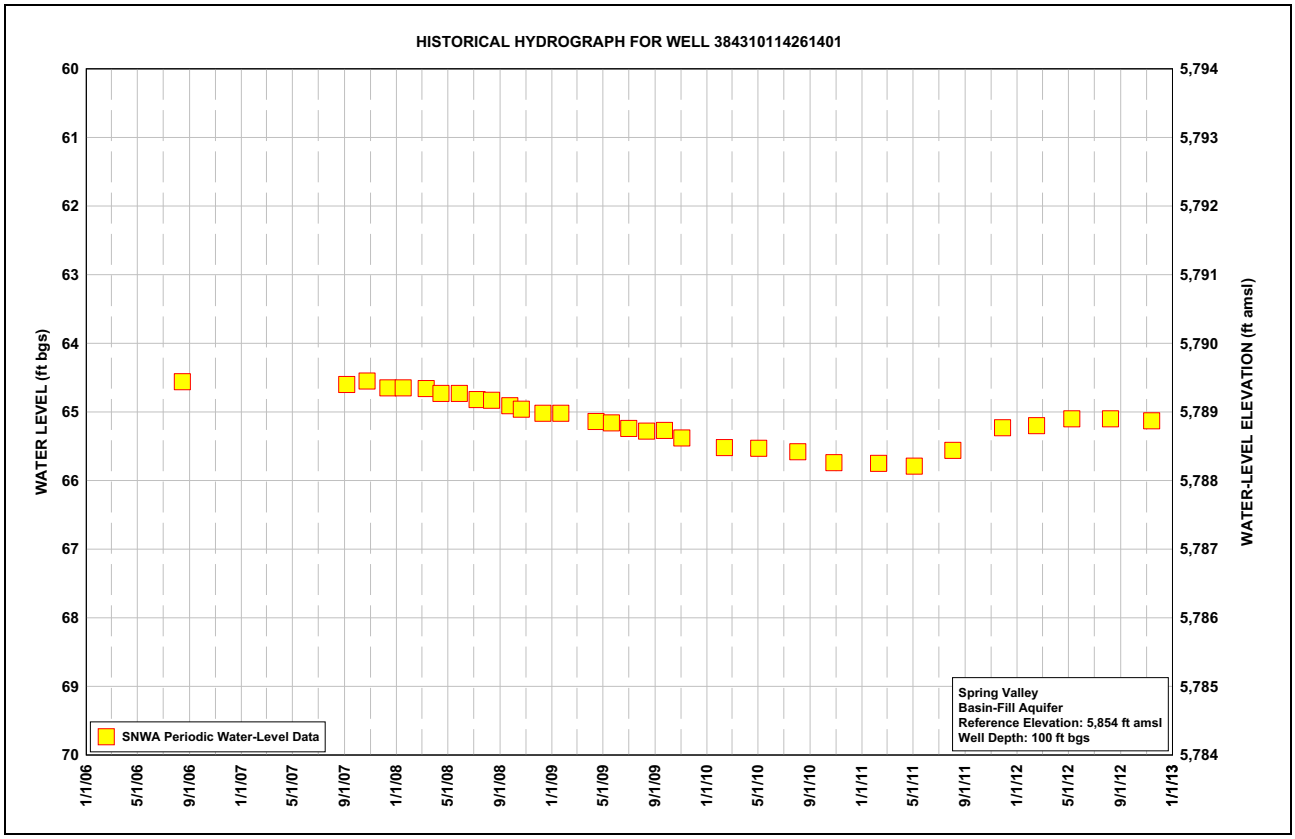
61
62
63
64
65
66
67
68
69
70
5,794
5,793
5,792
5,791
5,790
5,789
5,788
5,787
5,786
5,785
5,784
1/1/12
2/1/12
3/1/12
4/1/12
5/1/12
6/1/12
7/1/12
8/1/12
9/1/12
10/1/12
11/1/12
12/1/12
1/1/13
SNWA Periodic Water-Level Data
Spring Valley
Basin-Fill Aquifer
Reference Elevation: 5,854 ft amsl
Well Depth: 100 ft bgs


HISTORICAL HYDROGRAPH FOR WELL 384310114261401
WATER LEVEL (ft bgs)
WATER-LEVEL ELEVATION (ft amsl)
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61
62
63
64
65
66
67
68
69
70
5,794
5,793
5,792
5,791
5,790
5,789
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5,787
5,786
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5,784
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9/1/07
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9/1/08
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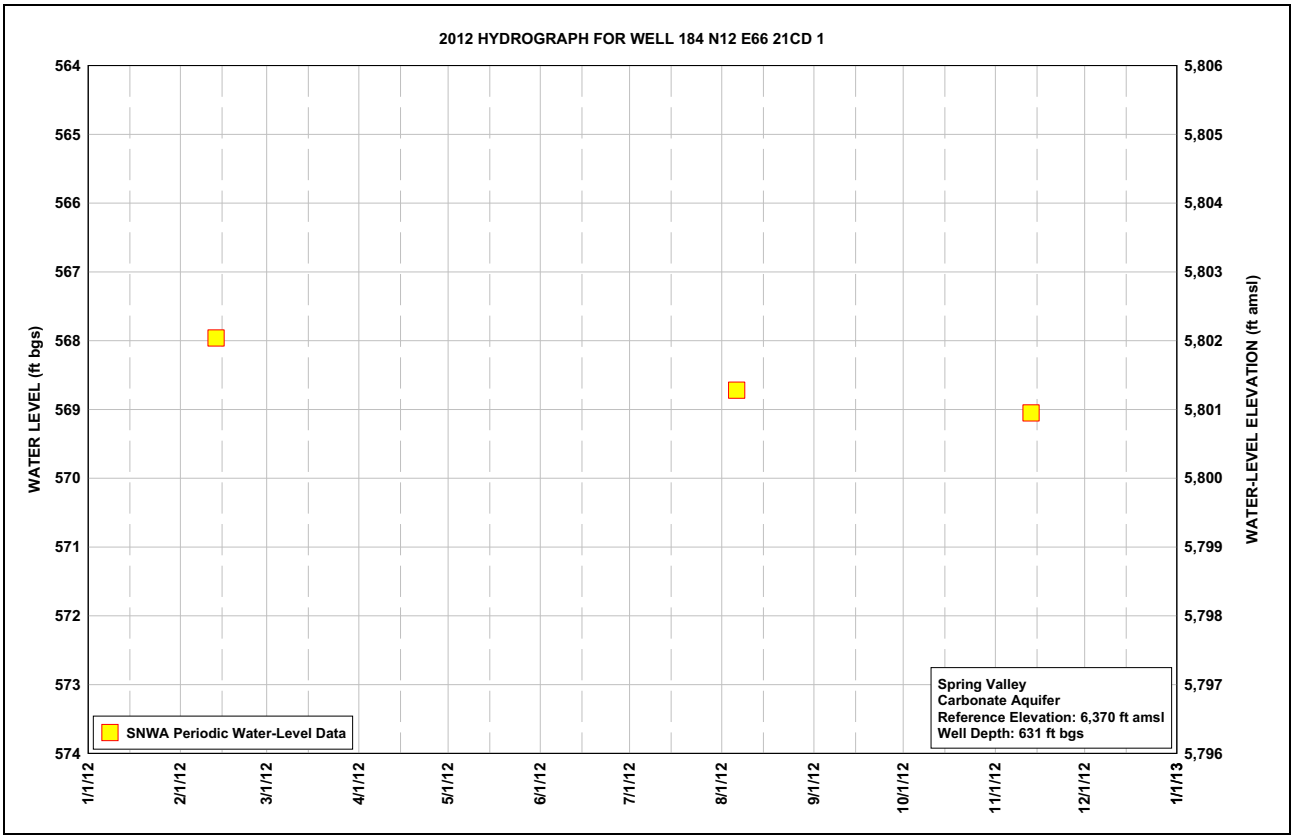
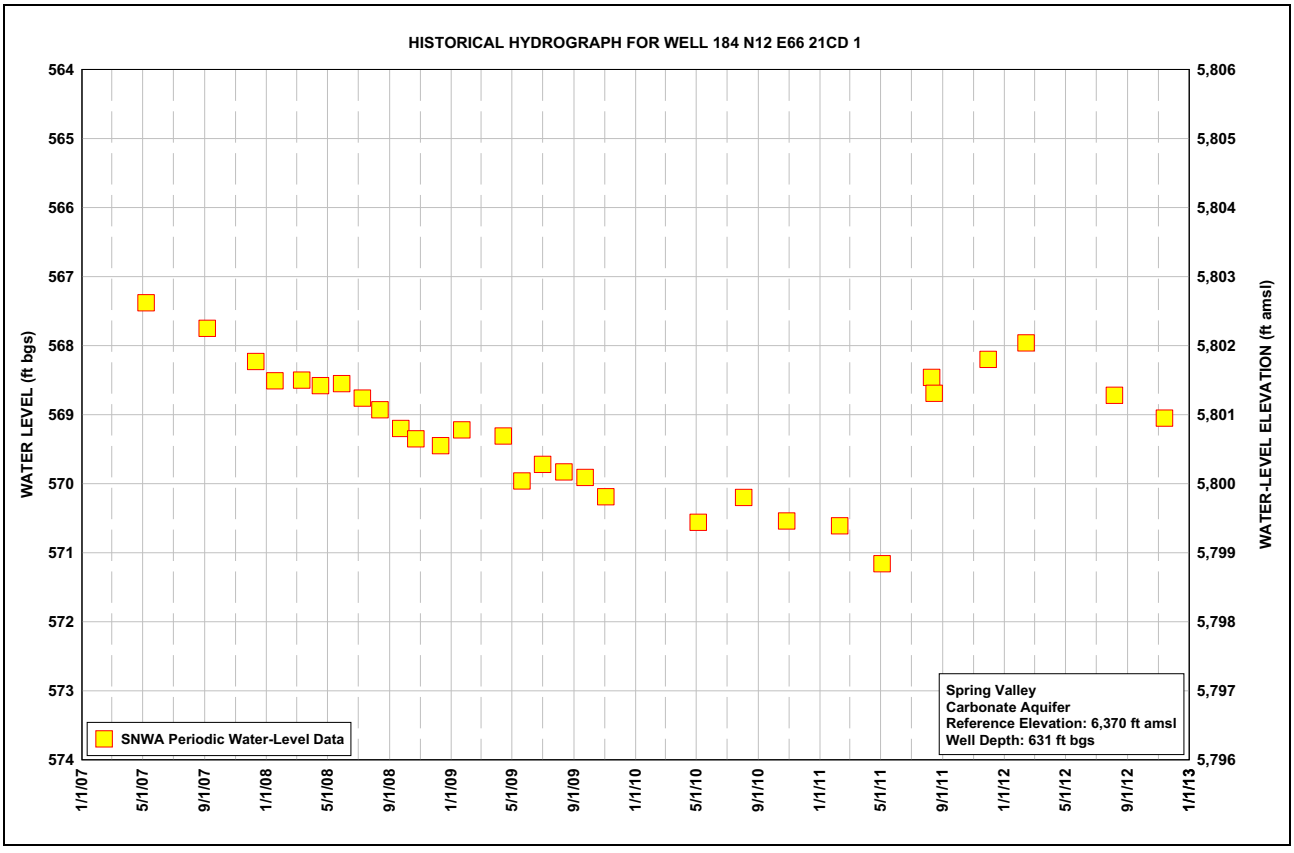
5/1/09
9/1/09
1/1/10
5/1/10
9/1/10
1/1/11
5/1/11
9/1/11
1/1/12
5/1/12
9/1/12
1/1/13
SNWA Periodic Water-Level Data
Spring Valley
Basin-Fill Aquifer
Reference Elevation: 5,854 ft amsl
Well Depth: 100 ft bgs


2012 HYDROGRAPH FOR WELL 184 N12 E66 21CD 1
WATER LEVEL (ft bgs)
WATER-LEVEL ELEVATION (ft amsl)
564
565
566
567
568
569
570
571
572
573
574
5,806
5,805
5,804
5,803
5,802
5,801
5,800
5,799
5,798
5,797
5,796
1/1/12
2/1/12
3/1/12
4/1/12
5/1/12
6/1/12
7/1/12
8/1/12
9/1/12
10/1/12
11/1/12
12/1/12
1/1/13
SNWA Periodic Water-Level Data
Spring Valley
Carbonate Aquifer
Reference Elevation: 6,370 ft amsl
Well Depth: 631 ft bgs


HISTORICAL HYDROGRAPH FOR WELL 184 N12 E66 21CD 1
WATER LEVEL (ft bgs)
WATER-LEVEL ELEVATION (ft amsl)
564
565
566
567
568
569
570
571
572
573
574
5,806
5,805
5,804
5,803
5,802
5,801
5,800
5,799
5,798
5,797
5,796
1/1/07
5/1/07
9/1/07
1/1/08
5/1/08
9/1/08
1/1/09
5/1/09
9/1/09
1/1/10
5/1/10
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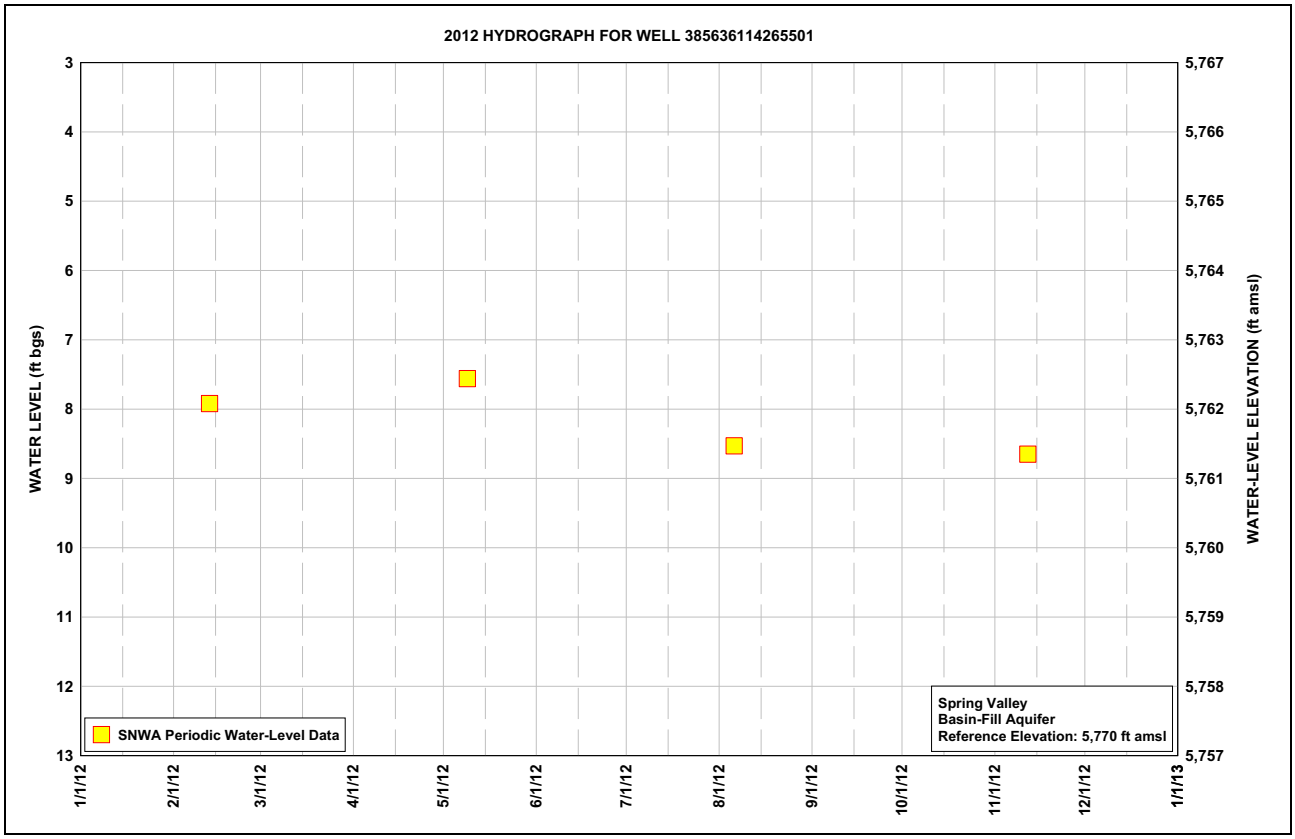
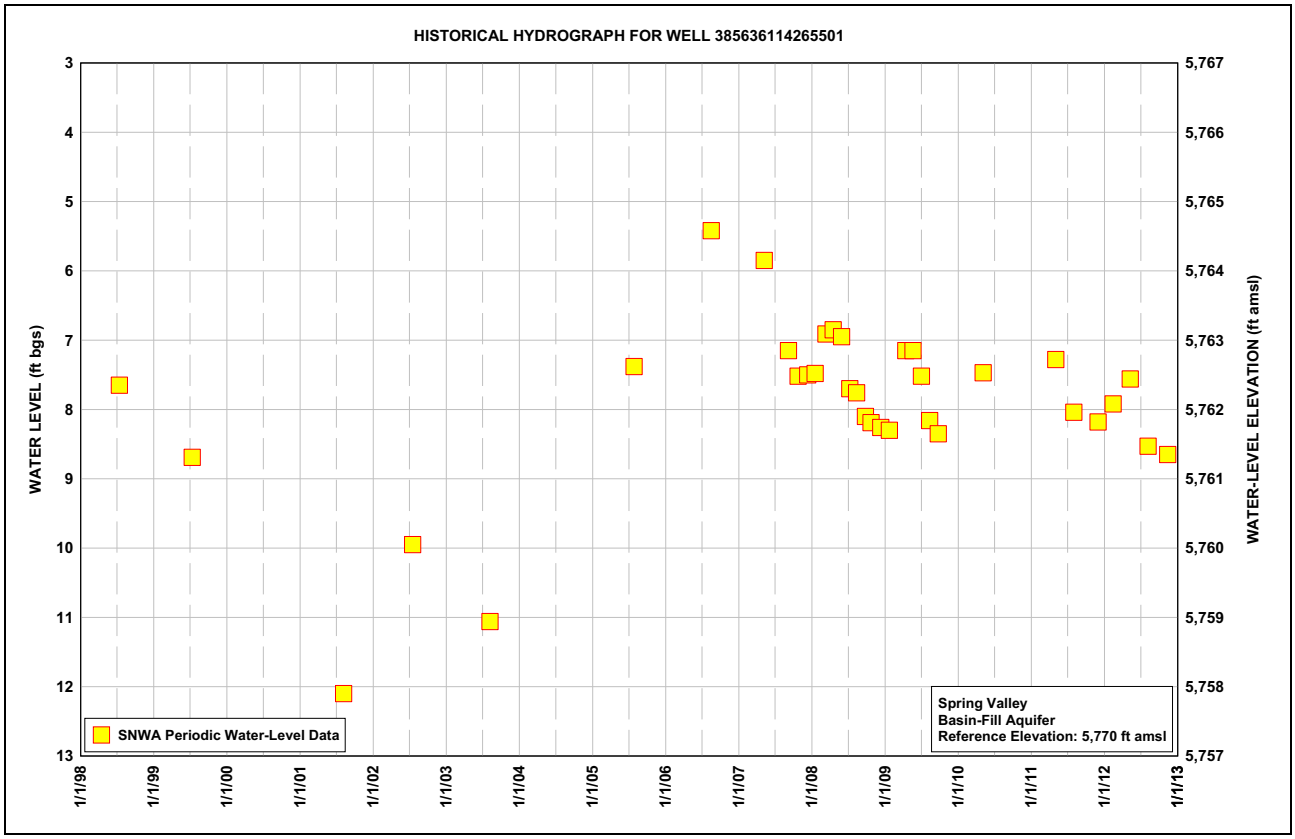
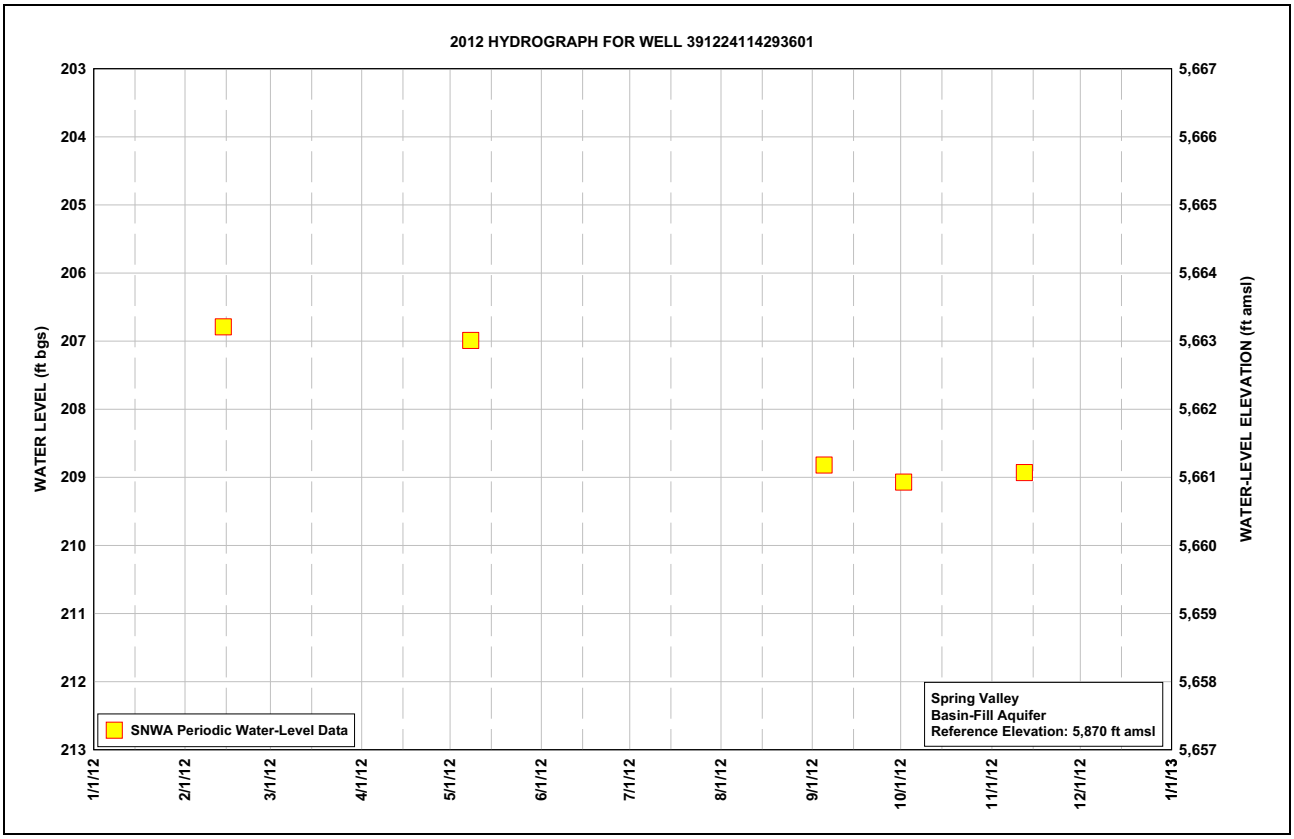
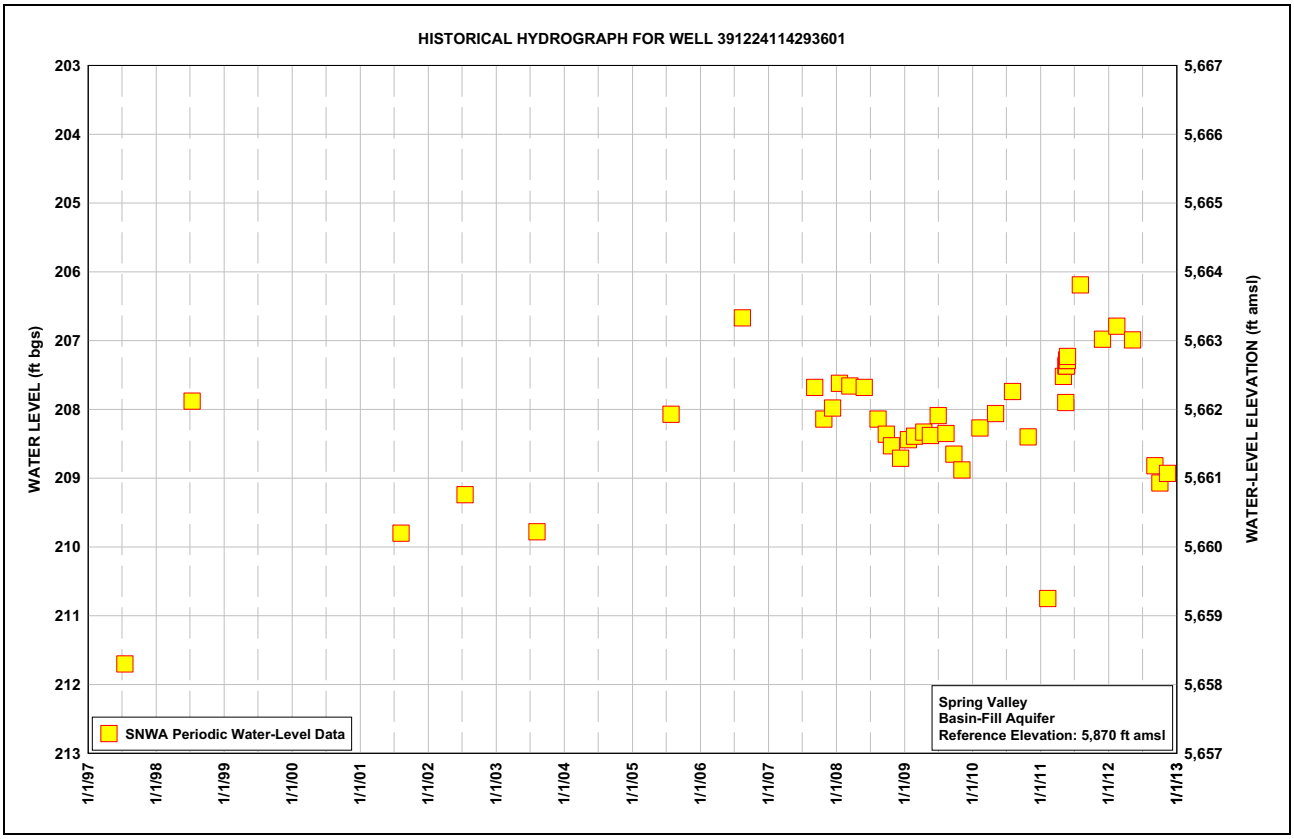
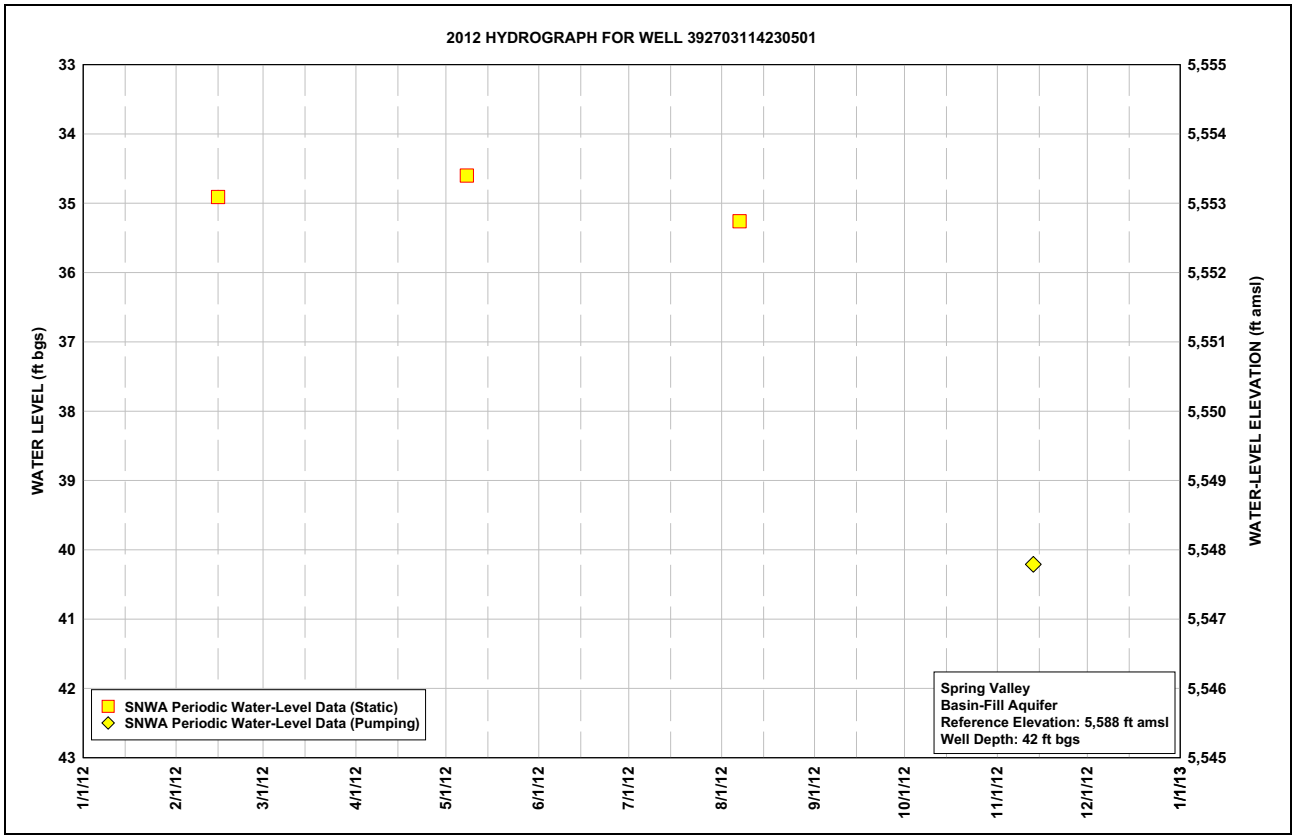
1/1/11
5/1/11
9/1/11
1/1/12
5/1/12
9/1/12
1/1/13
SNWA Periodic Water-Level Data
Spring Valley
Carbonate Aquifer
Reference Elevation: 6,370 ft amsl
Well Depth: 631 ft bgs

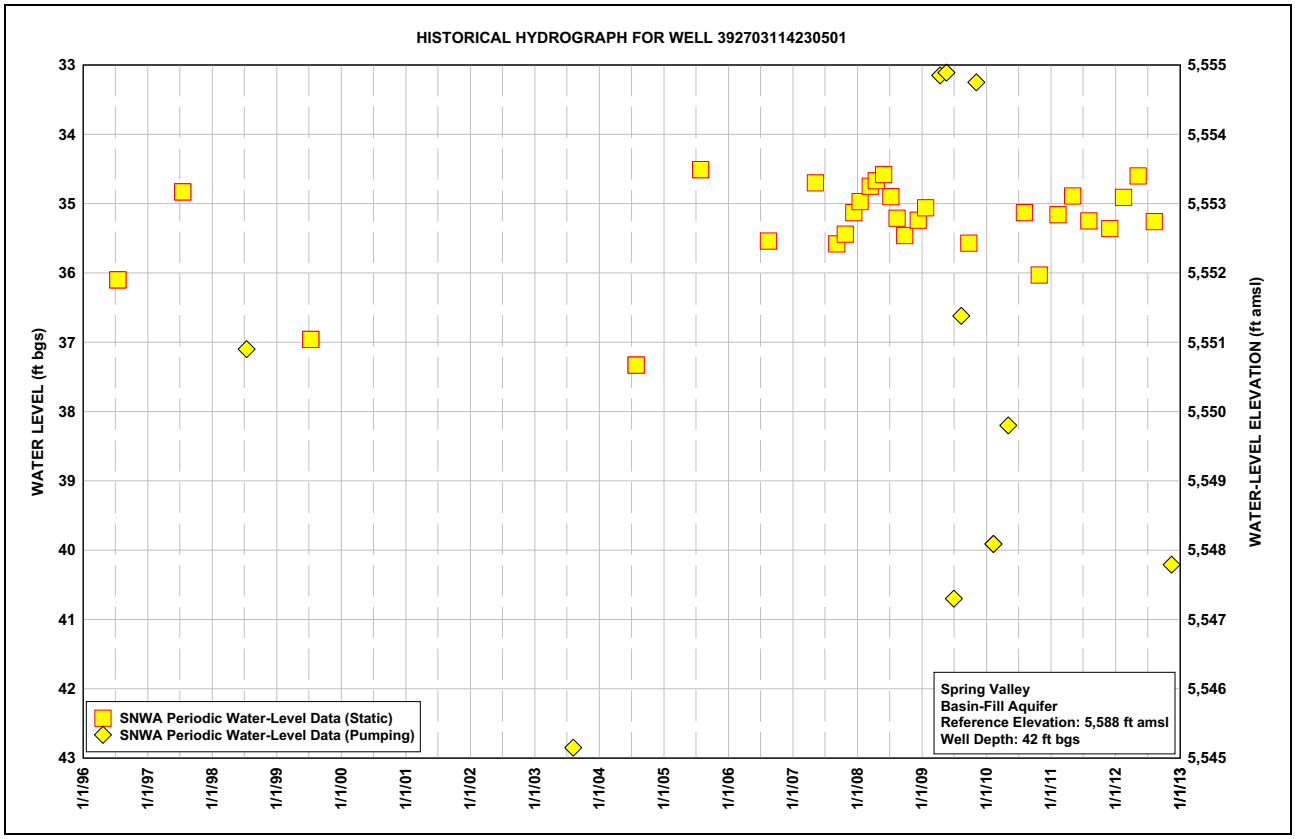

2012 HYDROGRAPH FOR WELL 385636114265501
WATER LEVEL (ft bgs)
WATER-LEVEL ELEVATION (ft amsl)
3
4
5
6
7
8
9
10
11
12
13
5,767
5,766
5,765
5,764
5,763
5,762
5,761
5,760
5,759
5,758
5,757
1/1/12
2/1/12
3/1/12
4/1/12
5/1/12
6/1/12
7/1/12
8/1/12
9/1/12
10/1/12
11/1/12
12/1/12
1/1/13
SNWA Periodic Water-Level Data
Spring Valley
Basin-Fill Aquifer
Reference Elevation: 5,770 ft amsl


HISTORICAL HYDROGRAPH FOR WELL 385636114265501
WATER LEVEL (ft bgs)
WATER-LEVEL ELEVATION (ft amsl)
3
4
5
6
7
8
9
10
11
12
13
5,767
5,766
5,765
5,764
5,763
5,762
5,761
5,760
5,759
5,758
5,757
1/1/98
1/1/99
1/1/00
1/1/01
1/1/02
1/1/03
1/1/04
1/1/05
1/1/06
1/1/07
1/1/08
1/1/09
1/1/10
1/1/11
1/1/12
1/1/13
SNWA Periodic Water-Level Data
Spring Valley
Basin-Fill Aquifer
Reference Elevation: 5,770 ft amsl


2012 HYDROGRAPH FOR WELL 391224114293601
WATER LEVEL (ft bgs)
WATER-LEVEL ELEVATION (ft amsl)
203
204
205
206
207
208
209
210
211
212
213
5,667
5,666
5,665
5,664
5,663
5,662
5,661
5,660
5,659
5,658
5,657
1/1/12
2/1/12
3/1/12
4/1/12
5/1/12
6/1/12
7/1/12
8/1/12
9/1/12
10/1/12
11/1/12
12/1/12
1/1/13
SNWA Periodic Water-Level Data
Spring Valley
Basin-Fill Aquifer
Reference Elevation: 5,870 ft amsl


HISTORICAL HYDROGRAPH FOR WELL 391224114293601
WATER LEVEL (ft bgs)
WATER-LEVEL ELEVATION (ft amsl)
203
204
205
206
207
208
209
210
211
212
213
5,667
5,666
5,665
5,664
5,663
5,662
5,661
5,660
5,659
5,658
5,657
1/1/97
1/1/98
1/1/99
1/1/00
1/1/01
1/1/02
1/1/03
1/1/04
1/1/05
1/1/06
1/1/07
1/1/08
1/1/09
1/1/10
1/1/11
1/1/12
1/1/13
SNWA Periodic Water-Level Data
Spring Valley
Basin-Fill Aquifer
Reference Elevation: 5,870 ft amsl


2012 HYDROGRAPH FOR WELL 392703114230501
WATER LEVEL (ft bgs)
WATER-LEVEL ELEVATION (ft amsl)
33
34
35
36
37
38
39
40
41
42
43
5,555
5,554
5,553
5,552
5,551
5,550
5,549
5,548
5,547
5,546
5,545
1/1/12
2/1/12
3/1/12
4/1/12
5/1/12
6/1/12
7/1/12
8/1/12
9/1/12
10/1/12
11/1/12
12/1/12
1/1/13
SNWA Periodic Water-Level Data (Static)
SNWA Periodic Water-Level Data (Pumping)
Spring Valley
Basin-Fill Aquifer
Reference Elevation: 5,588 ft amsl
Well Depth: 42 ft bgs


HISTORICAL HYDROGRAPH FOR WELL 392703114230501
WATER LEVEL (ft bgs)
WATER-LEVEL ELEVATION (ft amsl)
33
34
35
36
37
38
39
40
41
42
43
5,555
5,554
5,553
5,552
5,551
5,550
5,549
5,548
5,547
5,546
5,545
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1/1/02
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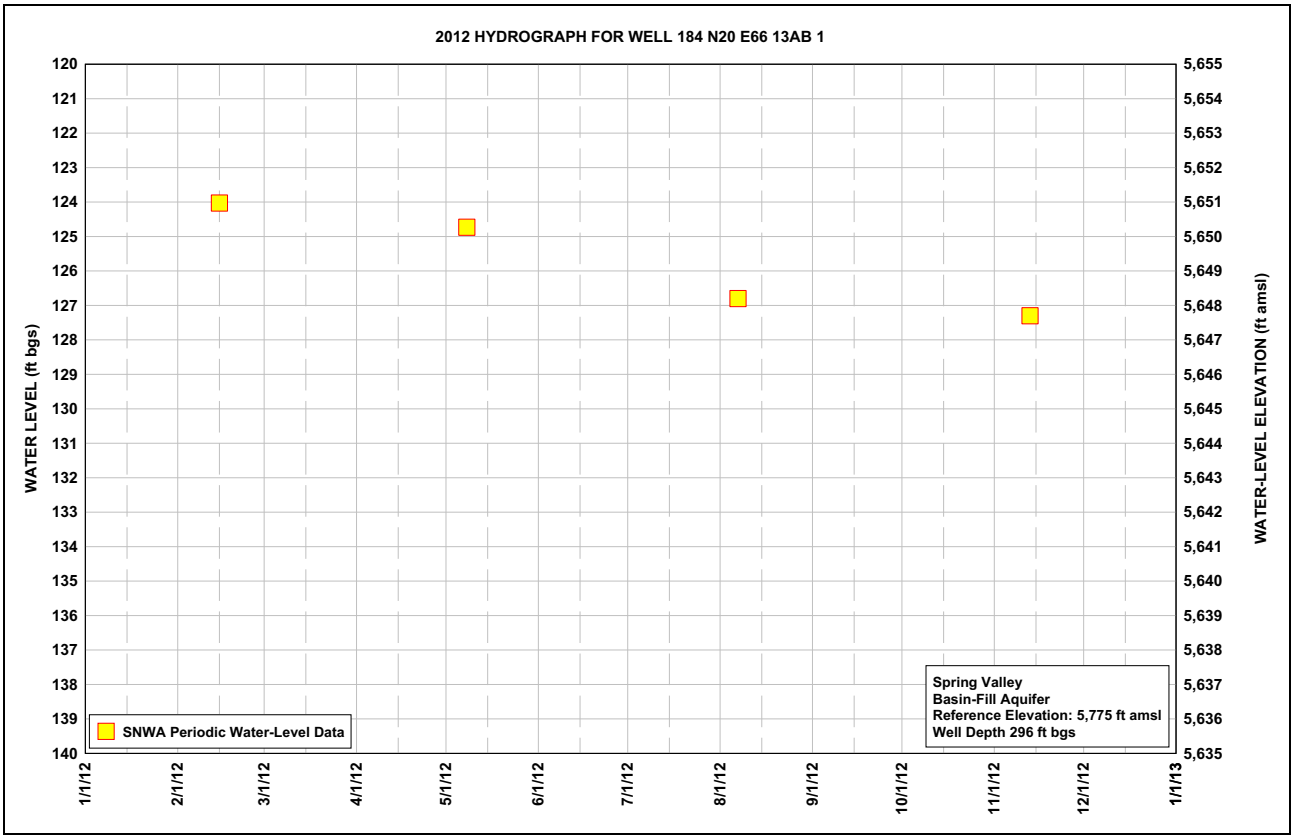
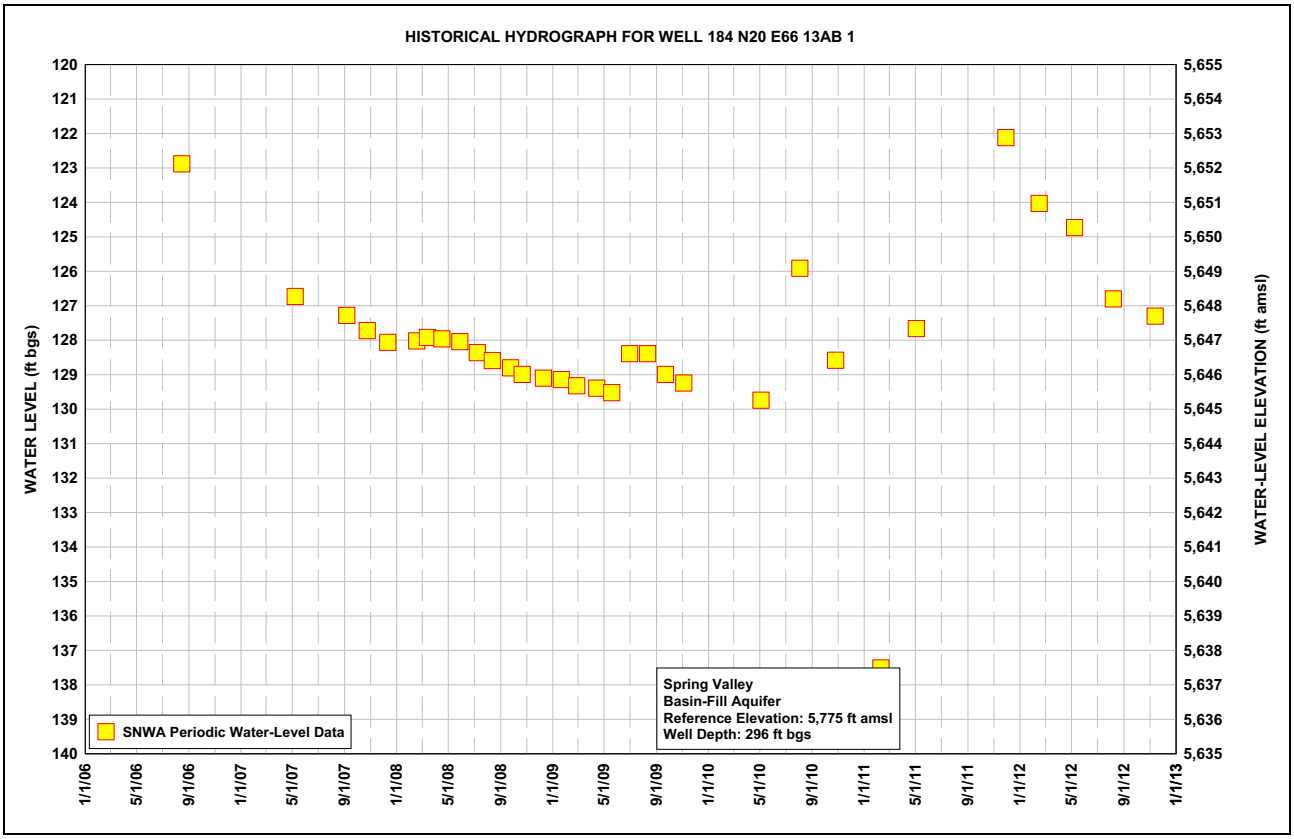
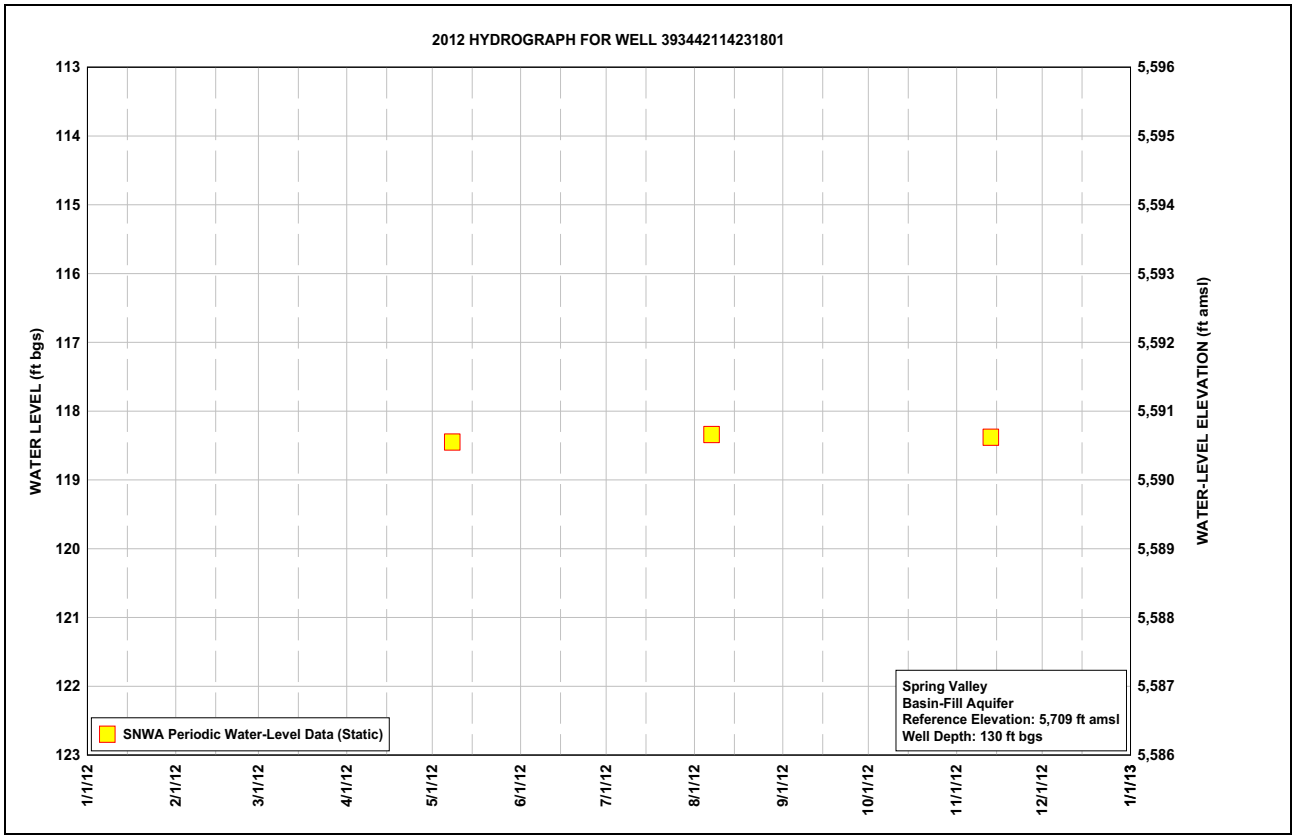
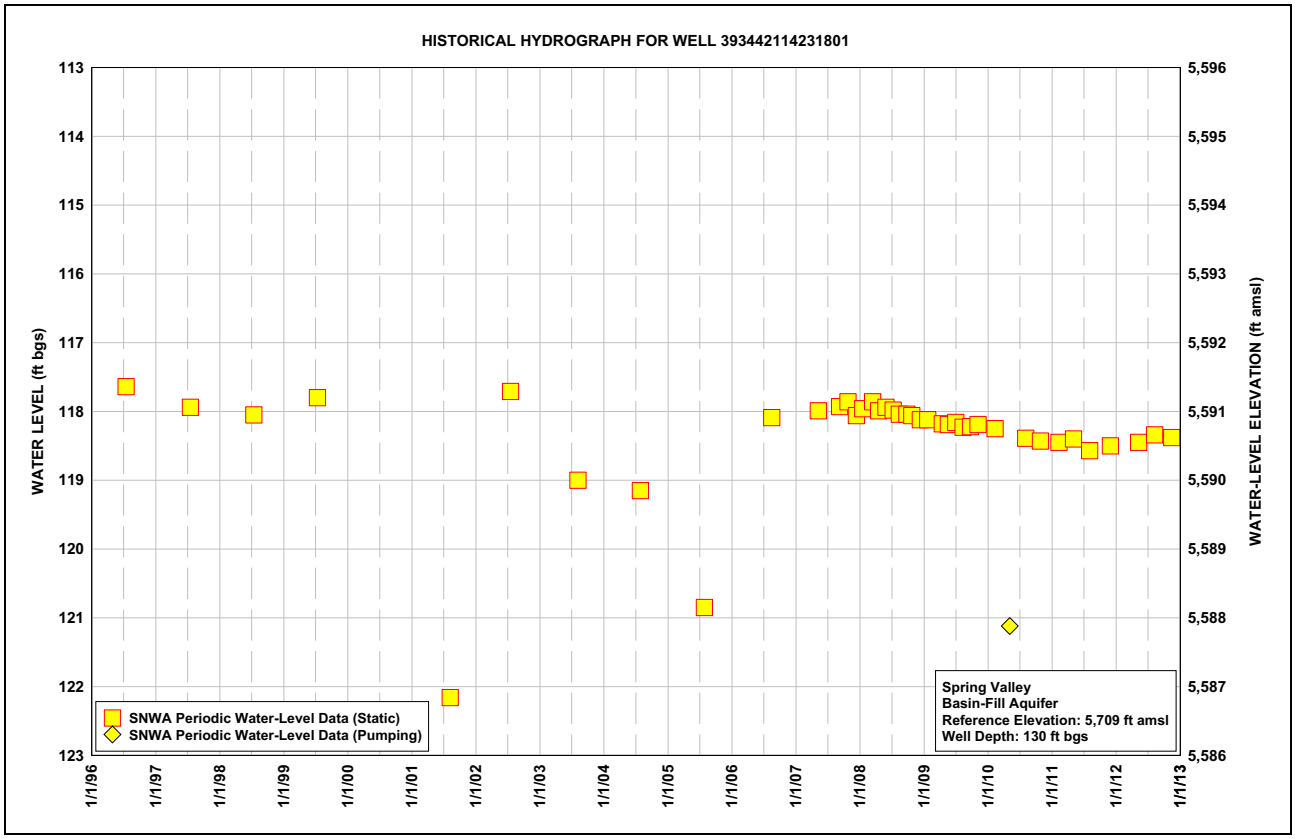
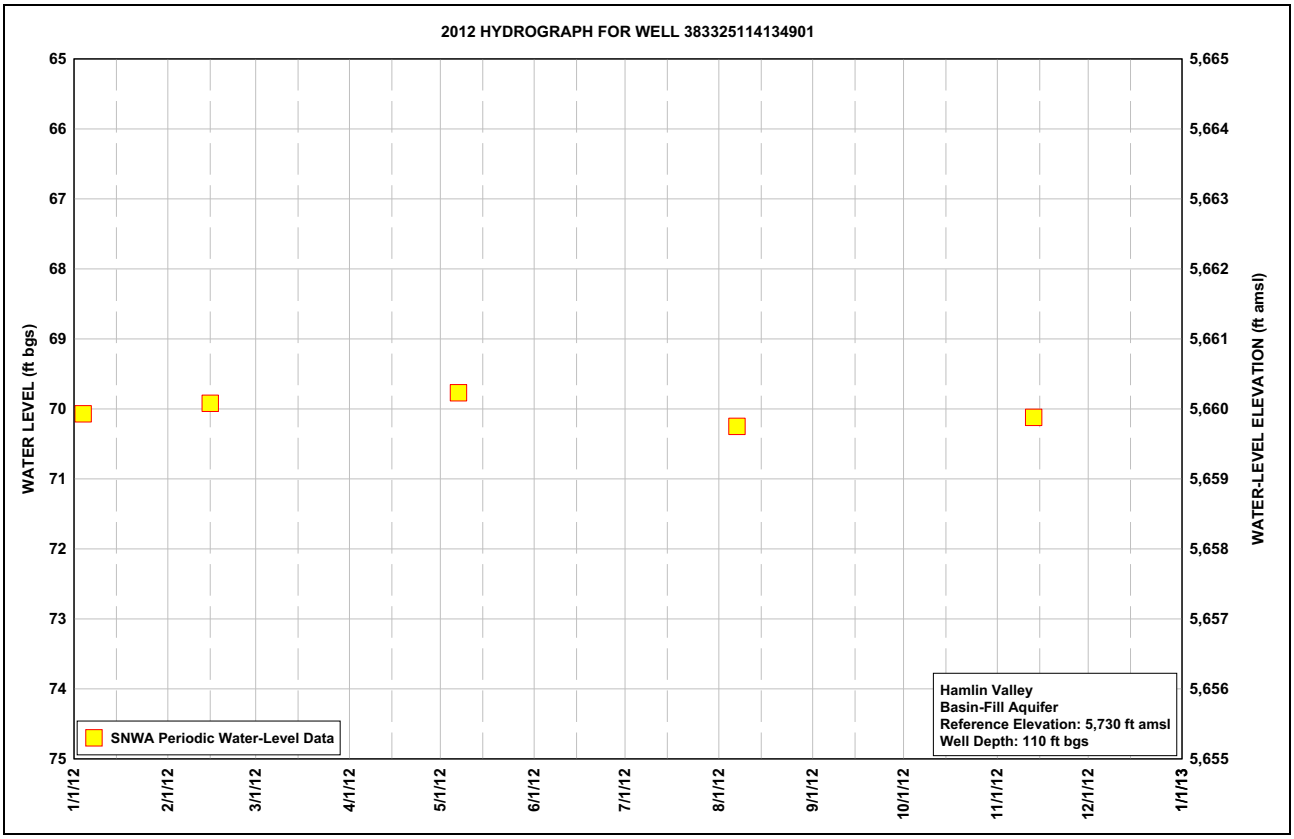
1/1/05
1/1/06
1/1/07
1/1/08
1/1/09
1/1/10
1/1/11
1/1/12
1/1/13
SNWA Periodic Water-Level Data (Static)
SNWA Periodic Water-Level Data (Pumping)
Spring Valley
Basin-Fill Aquifer
Reference Elevation: 5,588 ft amsl
Well Depth: 42 ft bgs

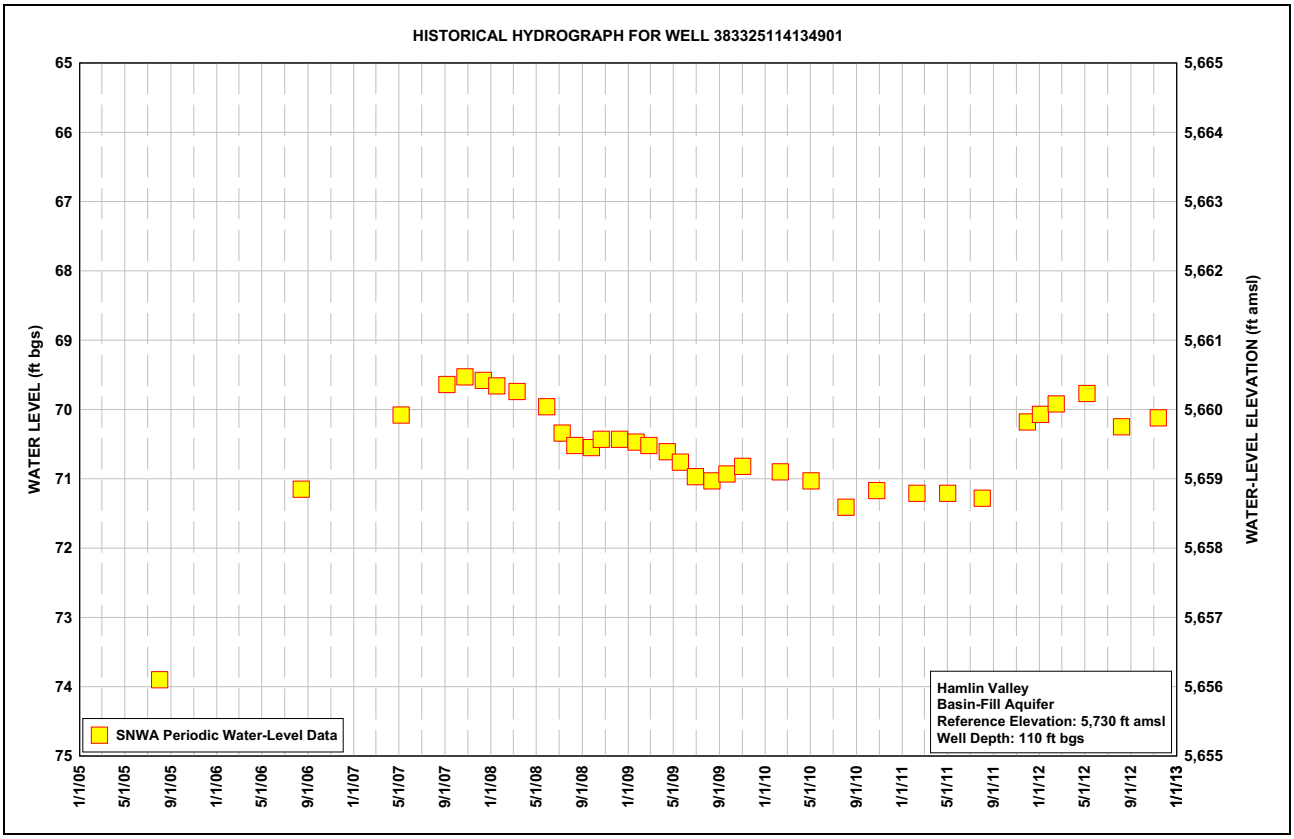

2012 HYDROGRAPH FOR WELL 184 N20 E66 13AB 1
WATER LEVEL (ft bgs)
WATER-LEVEL ELEVATION (ft amsl)
120 121 122 123 124 125 126 127 128 129 130 131 132 133 134 135 136 137 138 139 140
5,655 5,654 5,653 5,652 5,651 5,650 5,649 5,648 5,647 5,646 5,645 5,644 5,643 5,642 5,641 5,640 5,639 5,638 5,637 5,636 5,635
1/1/12 2/1/12 3/1/12 4/1/12 5/1/12 6/1/12 7/1/12 8/1/12 9/1/12 10/1/12 11/1/12 12/1/12 1/1/13
SNWA Periodic Water-Level Data
Spring Valley
Basin-Fill Aquifer
Reference Elevation: 5,775 ft amsl
Well Depth 296 ft bgs


HISTORICAL HYDROGRAPH FOR WELL 184 N20 E66 13AB 1
WATER LEVEL (ft bgs)
WATER-LEVEL ELEVATION (ft amsl)
120 121 122 123 124 125 126 127 128 129 130 131 132 133 134 135 136 137 138 139 140
5,655 5,654 5,653 5,652 5,651 5,650 5,649 5,648 5,647 5,646 5,645 5,644 5,643 5,642 5,641 5,640 5,639 5,638 5,637 5,636 5,635
1/1/06 5/1/06 9/1/06 1/1/07 5/1/07 9/1/07 1/1/08 5/1/08 9/1/08 1/1/09 5/1/09 9/1/09 1/1/10 5/1/10 9/1/10 1/1/11 5/1/11 9/1/11 1/1/12 5/1/12 9/1/12 1/1/13
SNWA Periodic Water-Level Data
Spring Valley
Basin-Fill Aquifer
Reference Elevation: 5,775 ft amsl
Well Depth: 296 ft bgs


2012 HYDROGRAPH FOR WELL 393442114231801
WATER LEVEL (ft bgs)
WATER-LEVEL ELEVATION (ft amsl)
113
114
115
116
117
118
119
120
121
122
123
5,596
5,595
5,594
5,593
5,592
5,591
5,590
5,589
5,588
5,587
5,586
1/1/12
2/1/12
3/1/12
4/1/12
5/1/12
6/1/12
7/1/12
8/1/12
9/1/12
10/1/12
11/1/12
12/1/12
1/1/13
SNWA Periodic Water-Level Data (Static)
Spring Valley
Basin-Fill Aquifer
Reference Elevation: 5,709 ft amsl
Well Depth: 130 ft bgs


HISTORICAL HYDROGRAPH FOR WELL 393442114231801
WATER LEVEL (ft bgs)
WATER-LEVEL ELEVATION (ft amsl)
113
114
115
116
117
118
119
120
121
122
123
5,596
5,595
5,594
5,593
5,592
5,591
5,590
5,589
5,588
5,587
5,586
1/1/96
1/1/97
1/1/98
1/1/99
1/1/00
1/1/01
1/1/02
1/1/03
1/1/04
1/1/05
1/1/06
1/1/07
1/1/08
1/1/09
1/1/10
1/1/11
1/1/12
1/1/13
SNWA Periodic Water-Level Data (Static)
SNWA Periodic Water-Level Data (Pumping)
Spring Valley
Basin-Fill Aquifer
Reference Elevation: 5,709 ft amsl
Well Depth: 130 ft bgs


2012 HYDROGRAPH FOR WELL 383325114134901
WATER LEVEL (ft bgs)
WATER-LEVEL ELEVATION (ft amsl)
65
66
67
68
69
70
71
72
73
74
75
5,665
5,664
5,663
5,662
5,661
5,660
5,659
5,658
5,657
5,656
5,655
1/1/12
2/1/12
3/1/12
4/1/12
5/1/12
6/1/12
7/1/12
8/1/12
9/1/12
10/1/12
11/1/12
12/1/12
1/1/13
SNWA Periodic Water-Level Data
Hamlin Valley
Basin-Fill Aquifer
Reference Elevation: 5,730 ft amsl
Well Depth: 110 ft bgs


HISTORICAL HYDROGRAPH FOR WELL 383325114134901
WATER LEVEL (ft bgs)
WATER-LEVEL ELEVATION (ft amsl)
65
66
67
68
69
70
71
72
73
74
75
5,665
5,664
5,663
5,662
5,661
5,660
5,659
5,658
5,657
5,656
5,655
1/1/05
5/1/05
9/1/05
1/1/06
5/1/06
9/1/06
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9/1/07
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5/1/08
9/1/08
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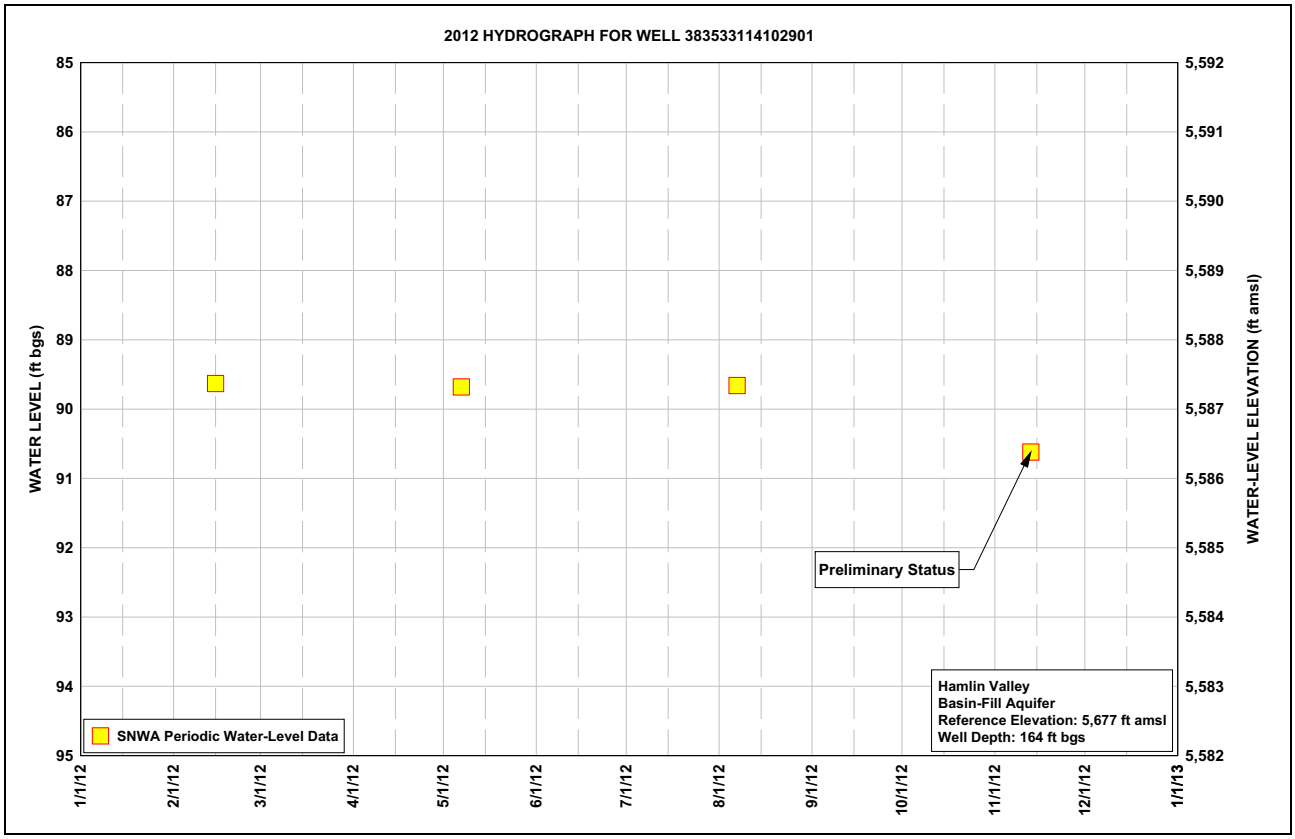
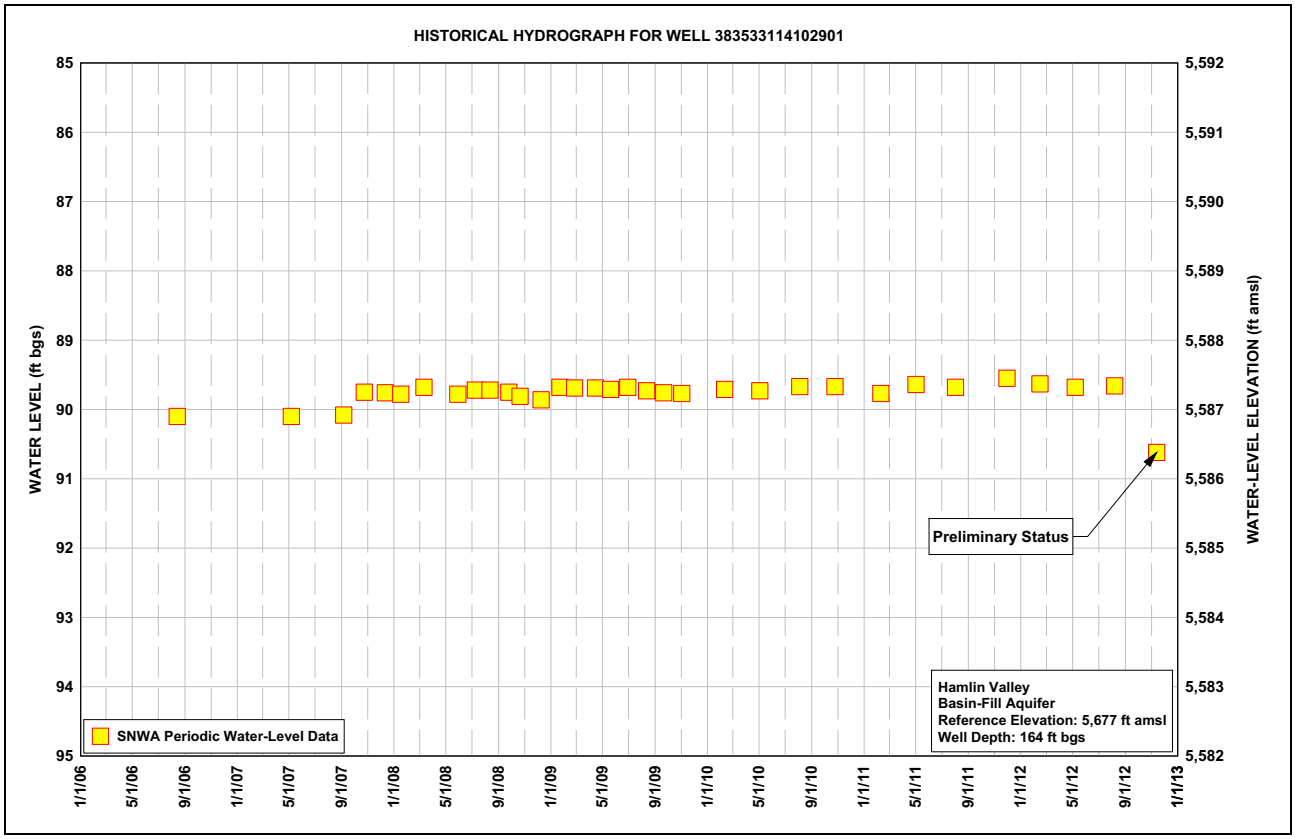
5/1/10
9/1/10
1/1/11
5/1/11
9/1/11
1/1/12
5/1/12
9/1/12
1/1/13
SNWA Periodic Water-Level Data
Hamlin Valley
Basin-Fill Aquifer
Reference Elevation: 5,730 ft amsl
Well Depth: 110 ft bgs


2012 HYDROGRAPH FOR WELL 383533114102901
WATER LEVEL (ft bgs)
WATER-LEVEL ELEVATION (ft amsl)
85
86
87
88
89
90
91
92
93
94
95
5,592
5,591
5,590
5,589
5,588
5,587
5,586
5,585
5,584
5,583
5,582
1/1/12
2/1/12
3/1/12
4/1/12
5/1/12
6/1/12
7/1/12
8/1/12
9/1/12
10/1/12
11/1/12
12/1/12
1/1/13
Preliminary Status
SNWA Periodic Water-Level Data
Hamlin Valley
Basin-Fill Aquifer
Reference Elevation: 5,677 ft amsl
Well Depth: 164 ft bgs


HISTORICAL HYDROGRAPH FOR WELL 383533114102901
WATER LEVEL (ft bgs)
WATER-LEVEL ELEVATION (ft amsl)
85
86
87
88
89
90
91
92
93
94
95
5,592
5,591
5,590
5,589
5,588
5,587
5,586
5,585
5,584
5,583
5,582
1/1/06
5/1/06
9/1/06
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9/1/10
1/1/11
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9/1/11
1/1/12
5/1/12
9/1/12
1/1/13
Preliminary Status
SNWA Periodic Water-Level Data
Hamlin Valley
Basin-Fill Aquifer
Reference Elevation: 5,677 ft amsl
Well Depth: 164 ft bgs

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Appendix B

Continuous Water-Level Measurement Data from the Spring Valley Existing-Well Monitoring Network

B.1.0 MONITORING PROGRAM WELLS WITH CONTINUOUS TRANSDUCER DATA

Continuous data collection was performed in 2012 for the following monitor wells:

- 383704114225001
- 384039114232701
- 384831114314301
- 384745114224401
- 390352114305401
- 390803114251001
- 393211114320701
- 383023114115302
- 184W502M
- 184W504M
- 184W506M
- 184W508M
- SPR7006M
- SPR7007M
- SPR7005M
- SPR7008M
- SPR7024M
- SPR7024M2

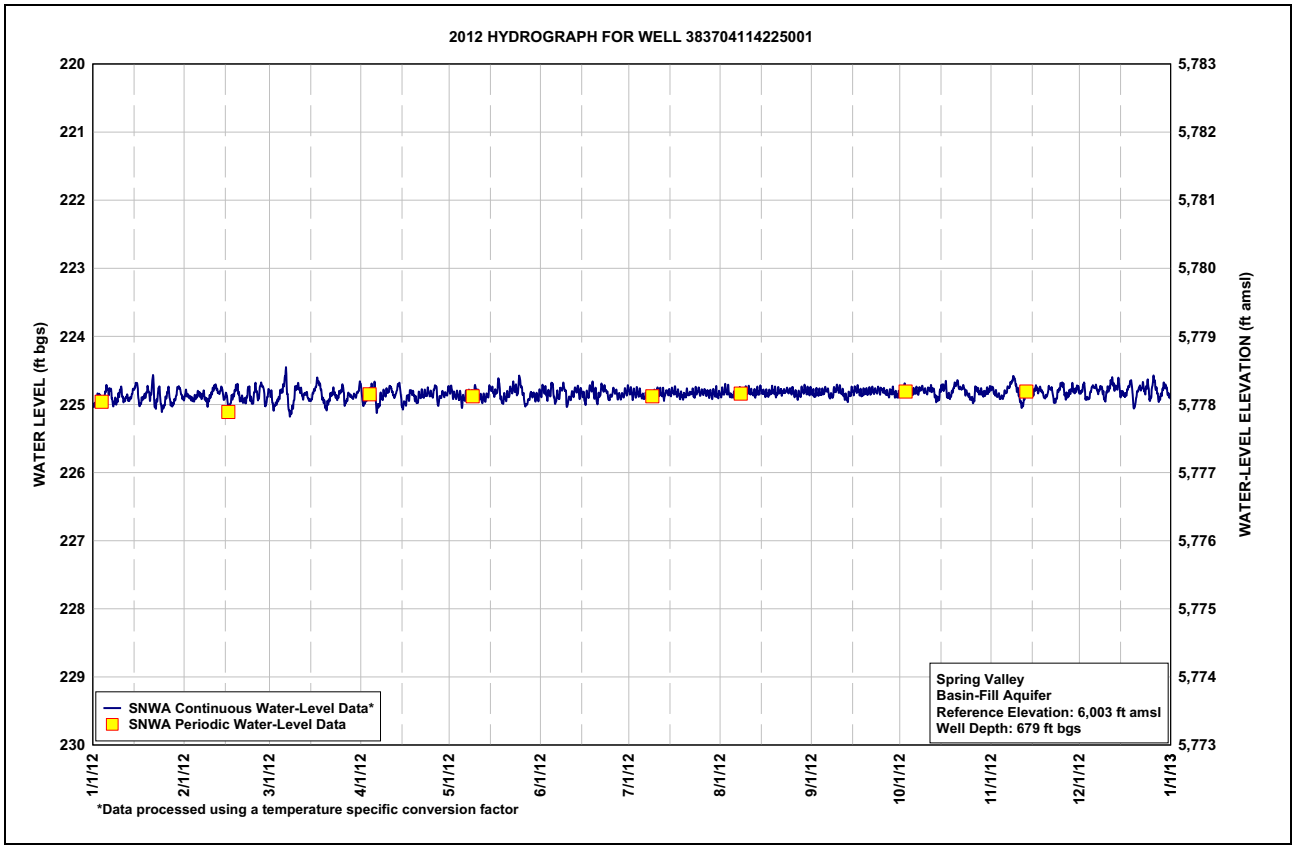
For these sites, the graphs are shown below and include historical data and data collected in 2012. Continuous data have been corrected for temperature and line stretch. Additional data processing, including barometric pressure corrections, may be applied in the future.

Table B-1
Spring Valley Well 383704114225001, Calendar Year 2012
Water-Level Data, Daily Mean Values

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1	225.00	224.85	224.86	224.90	224.77	224.80	224.80	224.83	224.83	224.81	224.77	224.81
2	224.89	224.88	225.03	224.95	224.86	224.79	224.85	224.80	224.84	224.75	224.84	224.72
3	224.90	224.91	224.97	224.86	224.86	224.87	224.83	224.80	224.83	224.80	224.87	224.91
4	224.93	224.91	224.86	224.77	224.87	224.79	224.84	224.87	224.83	224.81	224.90	224.89
5	224.79	224.86	224.76	224.78	224.95	224.84	224.88	224.87	224.80	224.82	224.85	224.74
6	224.79	224.86	224.61	225.03	224.89	224.90	224.89	224.87	224.81	224.80	224.79	224.75
7	224.90	224.86	225.03	224.95	224.85	224.85	224.86	224.81	224.88	224.81	224.71	224.80
8	224.96	224.94	225.09	224.87	224.87	224.75	224.86	224.84	224.83	224.77	224.62	224.75
9	224.91	224.92	224.87	224.83	224.80	224.84	224.83	224.81	224.77	224.80	224.72	224.92
10	224.80	224.82	224.74	224.79	224.80	224.95	224.81	224.81	224.79	224.80	224.87	224.81
11	224.92	224.74	224.79	224.79	224.90	224.87	224.83	224.83	224.82	224.77	225.00	224.72
12	224.89	224.81	224.87	224.87	224.91	224.82	224.85	224.84	224.89	224.81	224.88	224.69
13	224.92	224.78	224.85	224.75	224.90	224.78	224.84	224.82	224.89	224.91	224.83	224.75
14	224.82	224.89	224.93	224.83	224.81	224.83	224.82	224.79	224.82	224.86	224.80	224.70
15	224.72	224.90	224.88	225.01	224.78	224.87	224.82	224.82	224.80	224.75	224.83	224.83
16	224.88	225.02	224.76	224.94	224.83	224.91	224.80	224.84	224.78	224.74	224.77	224.86
17	224.95	224.88	224.66	224.86	224.73	224.82	224.84	224.84	224.82	224.88	224.78	224.77
18	224.89	224.78	224.80	224.83	224.87	224.75	224.87	224.80	224.83	224.85	224.82	224.68
19	224.80	224.82	224.96	224.91	224.92	224.85	224.88	224.82	224.82	224.74	224.89	225.03
20	224.86	224.92	225.02	224.91	224.89	224.92	224.84	224.82	224.81	224.69	224.78	224.86
21	224.73	224.94	224.90	224.86	224.83	224.80	224.85	224.82	224.80	224.76	224.77	224.76
22	224.99	224.84	224.82	224.86	224.76	224.77	224.82	224.81	224.81	224.75	224.94	224.75
23	224.81	224.87	224.87	224.83	224.78	224.82	224.84	224.80	224.79	224.82	224.86	224.79
24	225.04	224.91	224.86	224.84	224.73	224.90	224.80	224.81	224.79	224.88	224.74	224.75
25	224.96	224.79	224.77	224.85	224.74	224.83	224.83	224.81	224.80	224.93	224.72	224.85
26	224.81	224.84	224.92	224.77	224.93	224.81	224.82	224.85	224.83	224.85	224.86	224.65
27	224.97	224.72	224.90	224.95	224.97	224.87	224.84	224.87	224.84	224.79	224.84	224.84
28	224.97	224.94	224.87	224.86	224.87	224.88	224.85	224.82	224.80	224.82	224.78	224.90
29	224.83	224.85	224.88	224.85	224.86	224.84	224.85	224.78	224.85	224.84	224.80	224.76
30	224.77	---	224.86	224.80	224.89	224.80	224.83	224.81	224.86	224.81	224.75	224.75
31	224.90	---	224.74	---	224.87	---	224.85	224.81	---	224.78	---	224.86
Max	225.04	225.02	225.09	225.03	224.97	224.95	224.89	224.87	224.89	224.93	225.00	225.03
Min	224.72	224.72	224.61	224.75	224.73	224.75	224.80	224.78	224.77	224.69	224.62	224.65

Year 2012 Statistics: **Year Max 225.09 Year Min 224.61**

Note: Water level in ft bgs


2012 HYDROGRAPH FOR WELL 383704114225001
WATER LEVEL (ft bgs)
WATER-LEVEL ELEVATION (ft amsl)
220
221
222
223
224
225
226
227
228
229
230
5,783
5,782
5,781
5,780
5,779
5,778
5,777
5,776
5,775
5,774
5,773
1/1/12
2/1/12
3/1/12
4/1/12
5/1/12
6/1/12
7/1/12
8/1/12
9/1/12
10/1/12
11/1/12
12/1/12
1/1/13
SNWA Continuous Water-Level Data*
SNWA Periodic Water-Level Data
Spring Valley
Basin-Fill Aquifer
Reference Elevation: 6,003 ft amsl
Well Depth: 679 ft bgs
*Data processed using a temperature specific conversion factor

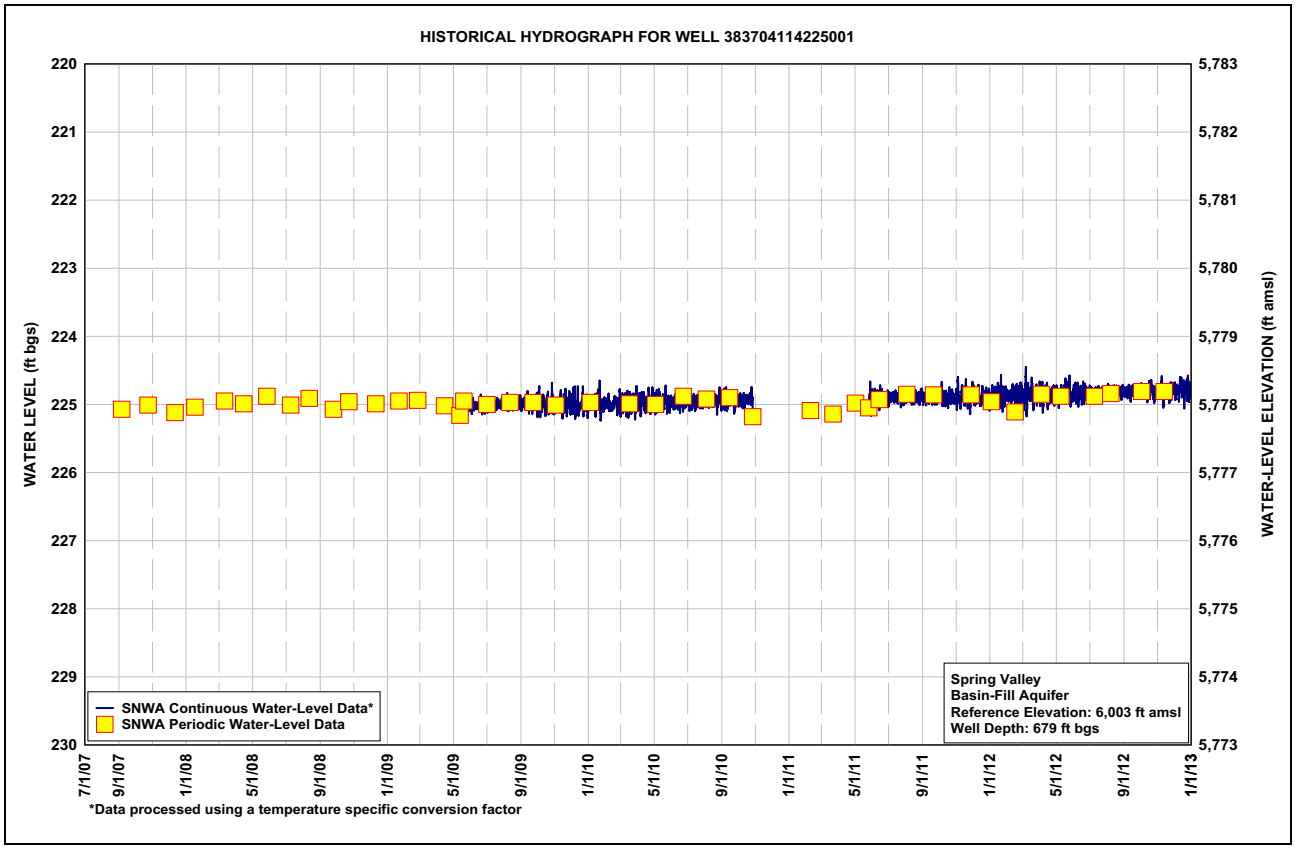

HISTORICAL HYDROGRAPH FOR WELL 383704114225001
WATER LEVEL (ft bgs)
WATER-LEVEL ELEVATION (ft amsl)
220
221
222
223
224
225
226
227
228
229
230
5,783
5,782
5,781
5,780
5,779
5,778
5,777
5,776
5,775
5,774
5,773
7/1/07
9/1/07
1/1/08
5/1/08
9/1/08
1/1/09
5/1/09
9/1/09
1/1/10
5/1/10
9/1/10
1/1/11
5/1/11
9/1/11
1/1/12
5/1/12
9/1/12
1/1/13
SNWA Continuous Water-Level Data*
SNWA Periodic Water-Level Data
Spring Valley
Basin-Fill Aquifer
Reference Elevation: 6,003 ft amsl
Well Depth: 679 ft bgs
*Data processed using a temperature specific conversion factor

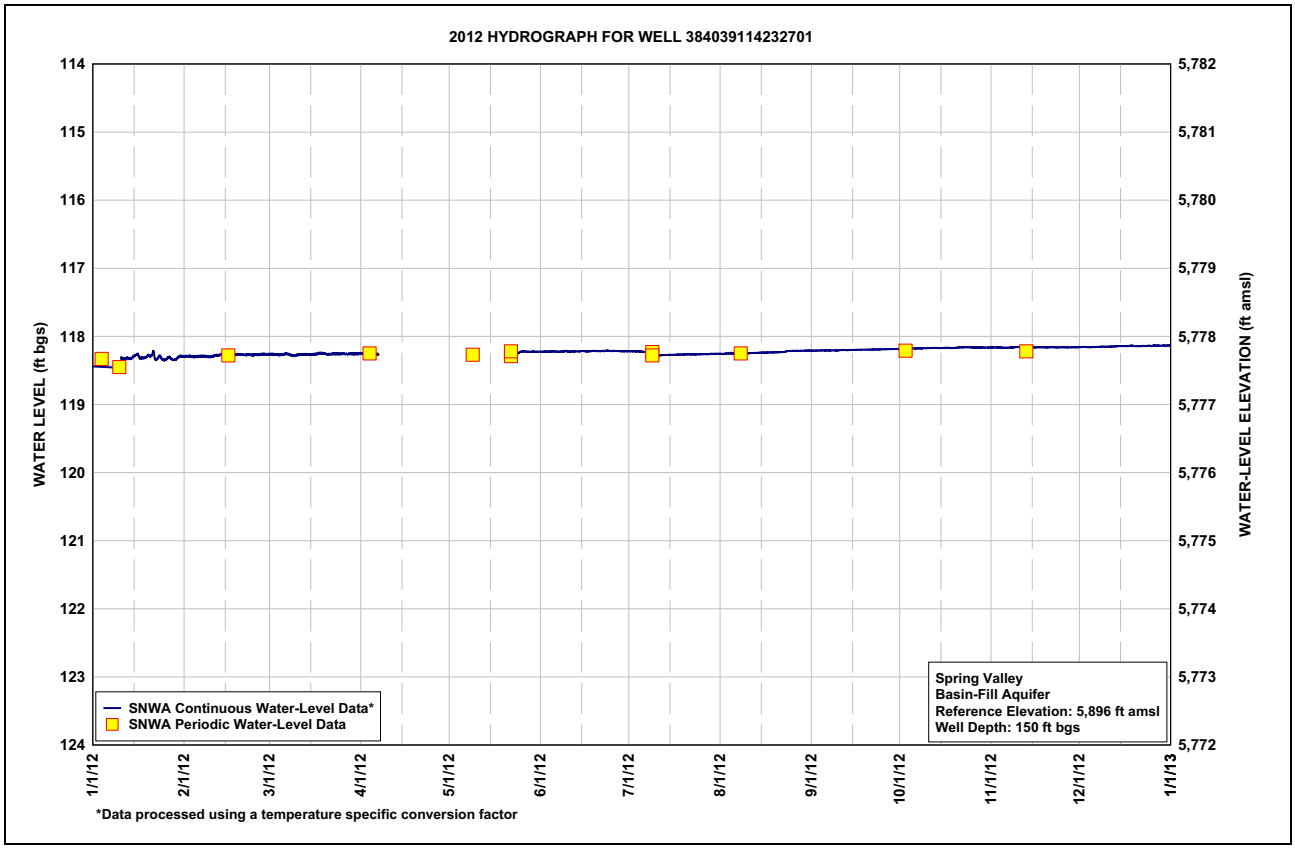
Table B-2
Spring Valley Well 384039114232701, Calendar Year 2012
Water-Level Data, Daily Mean Values

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1	---[a]	118.29	118.26	118.26	---[a]	118.22	118.22	118.26	118.21	118.19	118.16	118.16
2	---[a]	118.29	118.27	118.26	---[a]	118.22	118.22	118.25	118.21	118.18	118.16	118.16
3	---[a]	118.30	118.27	118.26	---[a]	118.22	118.22	118.25	118.21	118.18	118.16	118.16
4	---[a]	118.30	118.27	118.25	---[a]	118.22	118.22	118.25	118.21	118.18	118.17	118.16
5	---[a]	118.30	118.27	118.25	---[a]	118.22	118.22	118.25	118.21	118.18	118.17	118.16
6	---[a]	118.29	118.26	118.26	---[a]	118.22	118.23	118.25	118.20	118.18	118.17	118.16
7	---[a]	118.29	118.26	---[b]	---[a]	118.22	118.23	118.25	118.21	118.18	118.17	118.16
8	---[a]	118.29	118.28	---[a]	---[a]	118.22	118.23	118.25	118.21	118.17	118.16	118.15
9	---[a]	118.30	118.28	---[a]	---[a]	118.22	118.25	118.25	118.20	118.17	118.16	118.15
10	---[b]	118.30	118.27	---[a]	---[a]	118.22	118.28	118.25	118.20	118.17	118.16	118.15
11	118.33	118.28	118.27	---[a]	---[a]	118.22	118.28	118.24	118.20	118.17	118.16	118.15
12	118.32	118.28	118.27	---[a]	---[a]	118.22	118.28	118.24	118.20	118.17	118.16	118.15
13	118.33	118.27	118.27	---[a]	---[a]	118.22	118.27	118.24	118.20	118.17	118.16	118.15
14	118.31	118.27	118.27	---[a]	---[a]	118.22	118.27	118.24	118.20	118.17	118.16	118.14
15	118.28	118.27	118.27	---[a]	---[a]	118.22	118.27	118.24	118.20	118.17	118.16	118.14
16	118.28	118.28	118.26	---[a]	---[a]	118.22	118.27	118.24	118.20	118.17	118.16	118.14
17	118.32	118.27	118.25	---[a]	---[a]	118.22	118.27	118.24	118.20	118.17	118.16	118.14
18	118.32	118.27	118.25	---[a]	---[a]	118.22	118.27	118.23	118.20	118.17	118.16	118.14
19	118.29	118.27	118.25	---[a]	---[a]	118.21	118.27	118.23	118.20	118.17	118.16	118.14
20	118.29	118.27	118.26	---[a]	---[a]	118.22	118.26	118.23	118.20	118.16	118.16	118.14
21	118.25	118.27	118.26	---[a]	---[a]	118.22	118.26	118.23	118.19	118.16	118.16	118.14
22	118.34	118.27	118.26	---[a]	118.28	118.21	118.26	118.23	118.19	118.16	118.16	118.14
23	118.30	118.27	118.26	---[a]	118.26	118.21	118.26	118.22	118.19	118.16	118.16	118.14
24	118.33	118.27	118.26	---[a]	118.25	118.21	118.26	118.22	118.19	118.16	118.16	118.14
25	118.34	118.27	118.26	---[a]	118.22	118.21	118.26	118.21	118.19	118.16	118.16	118.14
26	118.32	118.27	118.26	---[a]	118.22	118.21	118.26	118.21	118.19	118.16	118.16	118.13
27	118.32	118.26	118.26	---[a]	118.22	118.22	118.26	118.21	118.19	118.16	118.16	118.13
28	118.35	118.26	118.26	---[a]	118.23	118.22	118.26	118.21	118.19	118.16	118.16	118.14
29	118.33	118.26	118.26	---[a]	118.22	118.22	118.26	118.21	118.19	118.16	118.16	118.14
30	118.30	---	118.26	---[a]	118.23	118.22	118.26	118.21	118.19	118.16	118.16	118.13
31	118.30	---	118.26	---	118.23	---	118.26	118.21	---	118.16	---	118.13
Max	118.35	118.30	118.28	118.26	118.28	118.22	118.28	118.26	118.21	118.19	118.17	118.16
Min	118.25	118.26	118.25	118.25	118.22	118.21	118.22	118.21	118.19	118.16	118.16	118.13

Year 2012 Statistics: **Year Max 118.35; Year Min 118.13**

Note: Water level in ft bgs

[a]No data available due to data logger malfunction.
[b]Insufficient data points to report a daily average.


2012 HYDROGRAPH FOR WELL 384039114232701
WATER LEVEL (ft bgs)
WATER-LEVEL ELEVATION (ft amsl)
114
115
116
117
118
119
120
121
122
123
124
5,782
5,781
5,780
5,779
5,778
5,777
5,776
5,775
5,774
5,773
5,772
1/1/12
2/1/12
3/1/12
4/1/12
5/1/12
6/1/12
7/1/12
8/1/12
9/1/12
10/1/12
11/1/12
12/1/12
1/1/13
SNWA Continuous Water-Level Data*
SNWA Periodic Water-Level Data
Spring Valley
Basin-Fill Aquifer
Reference Elevation: 5,896 ft amsl
Well Depth: 150 ft bgs
*Data processed using a temperature specific conversion factor

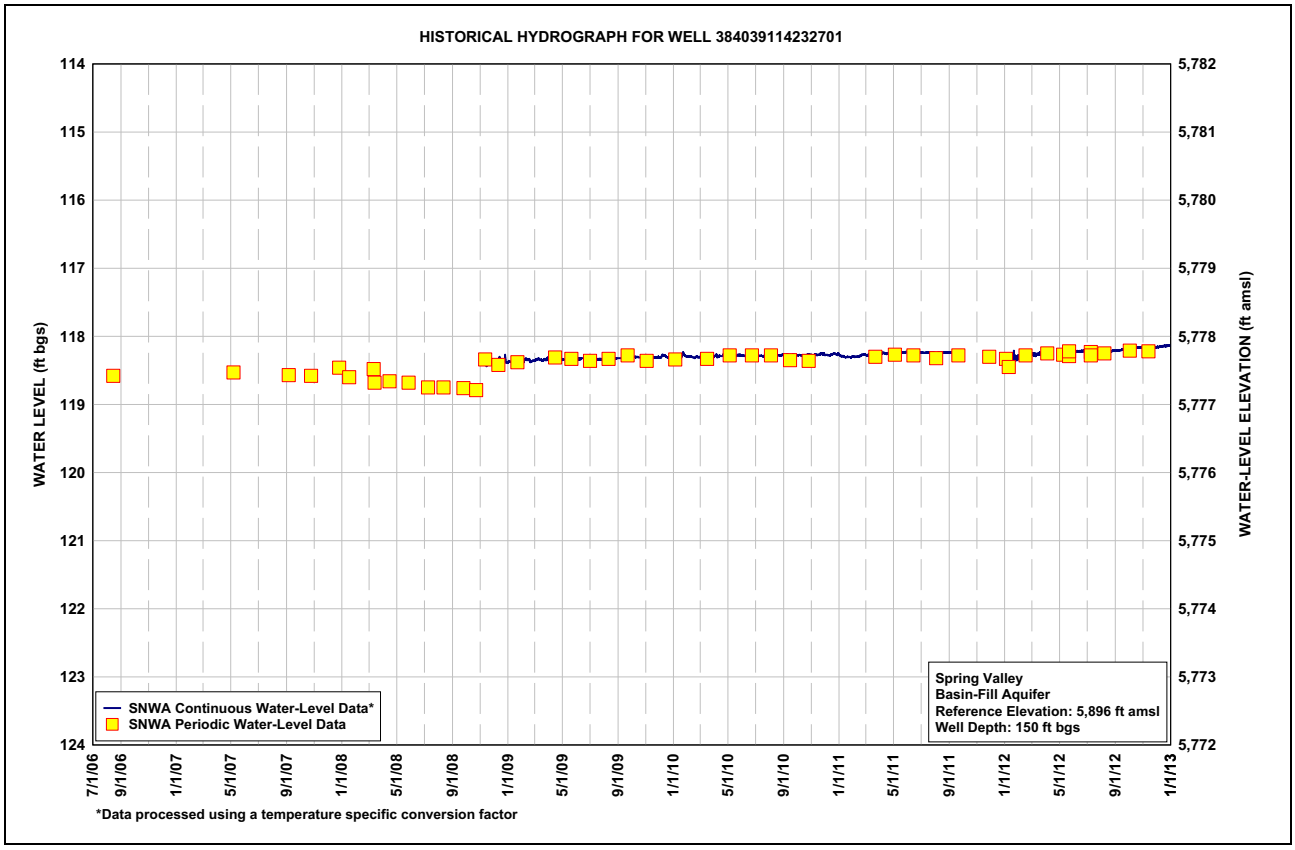

HISTORICAL HYDROGRAPH FOR WELL 384039114232701
WATER LEVEL (ft bgs)
WATER-LEVEL ELEVATION (ft amsl)
114
115
116
117
118
119
120
121
122
123
124
5,782
5,781
5,780
5,779
5,778
5,777
5,776
5,775
5,774
5,773
5,772
7/1/06
9/1/06
1/1/07
5/1/07
9/1/07
1/1/08
5/1/08
9/1/08
1/1/09
5/1/09
9/1/09
1/1/10
5/1/10
9/1/10
1/1/11
5/1/11
9/1/11
1/1/12
5/1/12
9/1/12
1/1/13
SNWA Continuous Water-Level Data*
SNWA Periodic Water-Level Data
Spring Valley
Basin-Fill Aquifer
Reference Elevation: 5,896 ft amsl
Well Depth: 150 ft bgs
*Data processed using a temperature specific conversion factor

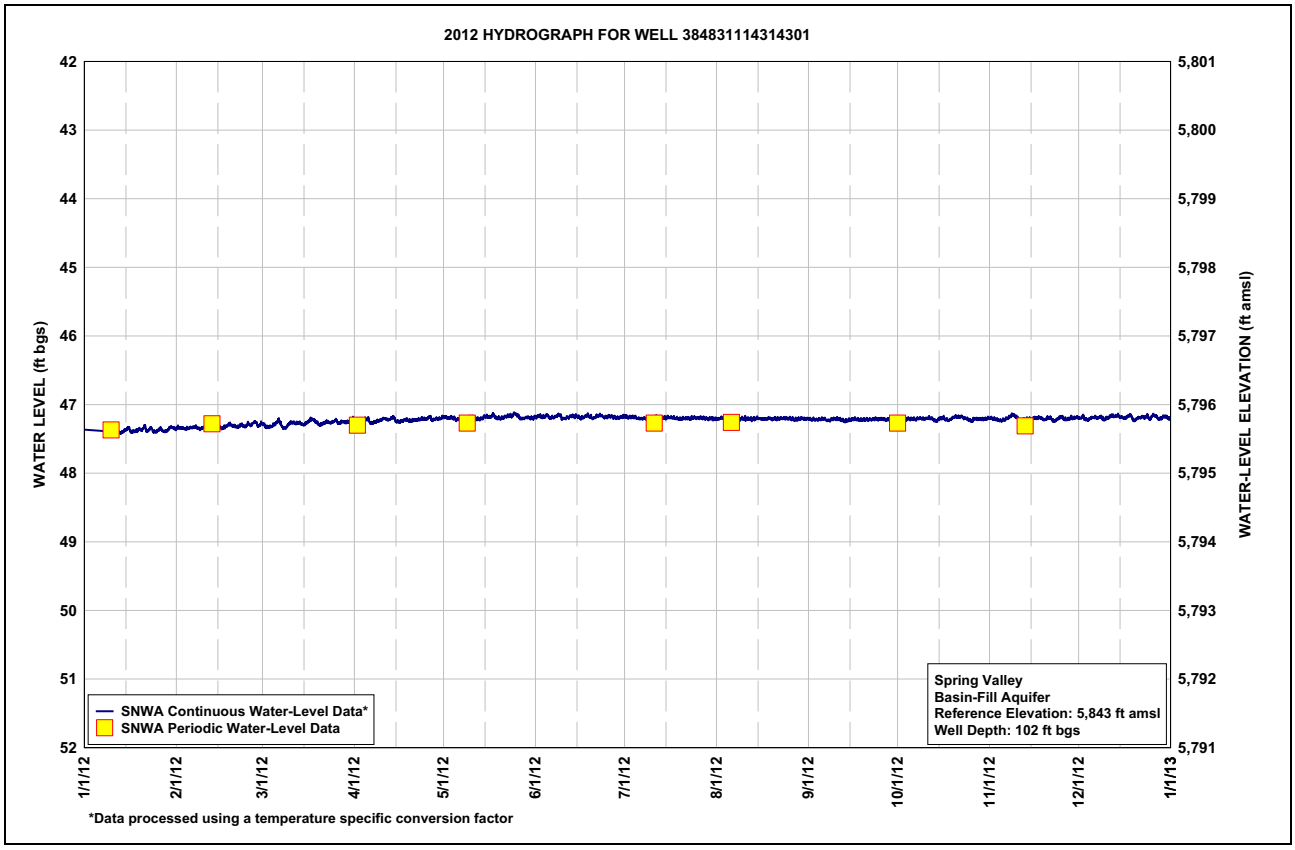
Table B-3
Spring Valley Well 384831114314301, Calendar Year 2012
Water-Level Data, Daily Mean Values

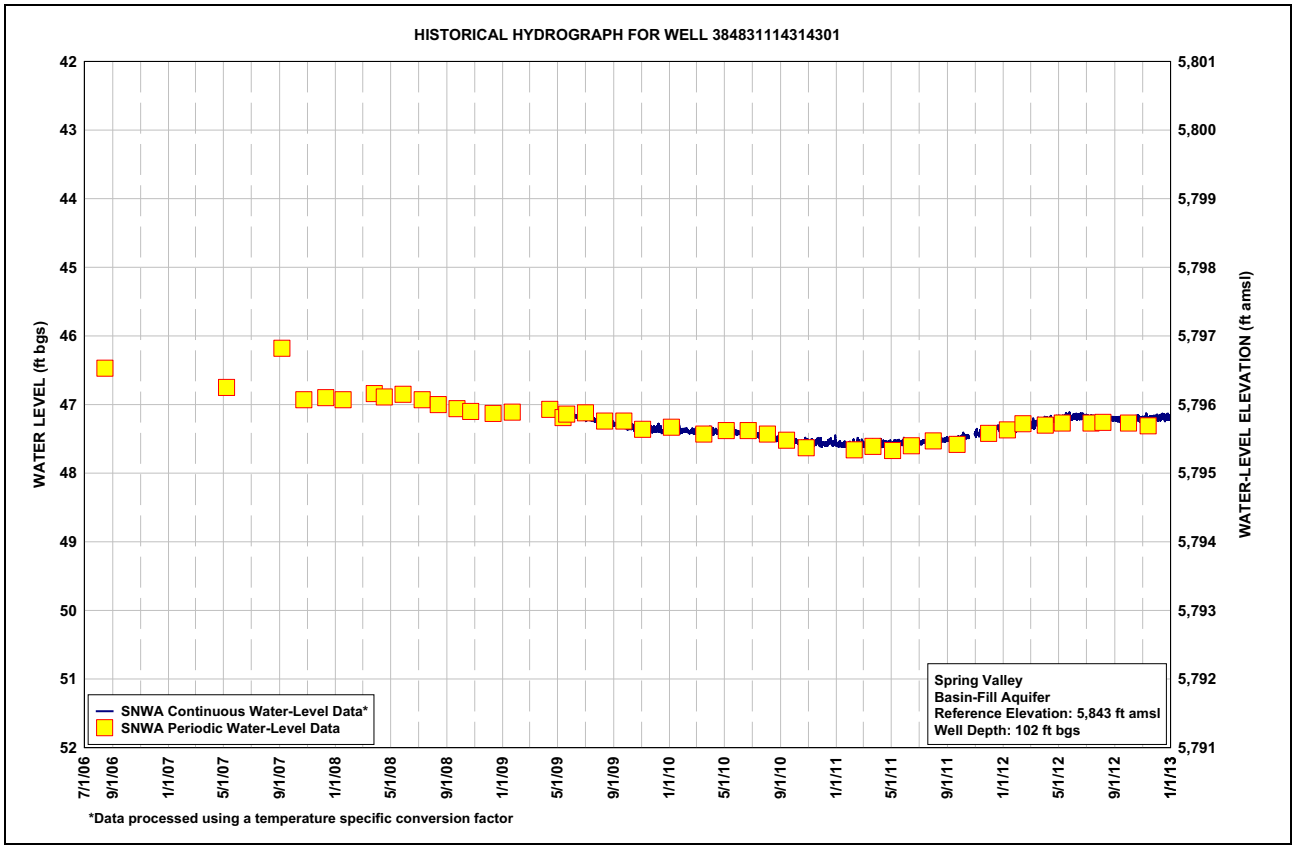
	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1	---[a]	47.34	47.29	47.25	47.18	47.18	47.18	47.21	47.21	47.22	47.20	47.20
2	---[a]	47.34	47.33	47.26	47.19	47.17	47.19	47.20	47.22	47.20	47.21	47.18
3	---[a]	47.35	47.33	47.24	47.19	47.18	47.18	47.20	47.22	47.21	47.22	47.22
4	---[a]	47.35	47.31	47.22	47.20	47.16	47.19	47.21	47.22	47.21	47.23	47.22
5	---[a]	47.34	47.27	47.22	47.22	47.18	47.20	47.22	47.21	47.21	47.23	47.19
6	---[a]	47.33	47.24	47.27	47.21	47.19	47.21	47.22	47.21	47.21	47.21	47.19
7	---[a]	47.33	47.31	47.26	47.20	47.18	47.20	47.21	47.23	47.21	47.19	47.20
8	---[a]	47.35	47.34	47.24	47.20	47.16	47.20	47.21	47.22	47.20	47.16	47.18
9	---[a]	47.35	47.30	47.23	47.19	47.17	47.20	47.20	47.21	47.21	47.17	47.21
10	---[b]	47.33	47.27	47.21	47.18	47.20	47.19	47.20	47.21	47.21	47.20	47.20
11	47.41	47.30	47.26	47.21	47.20	47.19	47.19	47.21	47.21	47.20	47.24	47.18
12	47.41	47.31	47.27	47.22	47.21	47.18	47.20	47.21	47.23	47.21	47.23	47.16
13	47.41	47.29	47.27	47.20	47.21	47.17	47.19	47.21	47.24	47.23	47.22	47.17
14	47.38	47.31	47.29	47.21	47.19	47.17	47.19	47.20	47.23	47.23	47.21	47.17
15	47.35	47.32	47.28	47.25	47.18	47.18	47.19	47.21	47.22	47.20	47.21	47.19
16	47.38	47.35	47.25	47.25	47.18	47.19	47.19	47.21	47.21	47.20	47.20	47.20
17	47.39	47.33	47.22	47.23	47.16	47.18	47.19	47.21	47.22	47.22	47.19	47.18
18	47.38	47.30	47.24	47.22	47.19	47.16	47.20	47.20	47.22	47.22	47.20	47.16
19	47.36	47.30	47.27	47.24	47.20	47.18	47.21	47.21	47.22	47.20	47.22	47.23
20	47.36	47.31	47.29	47.24	47.20	47.20	47.21	47.21	47.22	47.18	47.20	47.21
21	47.34	47.33	47.28	47.22	47.19	47.18	47.20	47.21	47.22	47.18	47.20	47.19
22	47.38	47.31	47.26	47.22	47.17	47.16	47.20	47.21	47.22	47.17	47.23	47.18
23	47.35	47.31	47.26	47.21	47.17	47.17	47.20	47.20	47.21	47.19	47.23	47.19
24	47.40	47.31	47.26	47.21	47.15	47.19	47.19	47.20	47.21	47.21	47.20	47.18
25	47.39	47.28	47.23	47.21	47.15	47.18	47.20	47.20	47.21	47.23	47.19	47.19
26	47.36	47.29	47.26	47.19	47.18	47.17	47.20	47.21	47.22	47.22	47.21	47.16
27	47.39	47.26	47.26	47.22	47.20	47.19	47.20	47.22	47.22	47.21	47.21	47.19
28	47.39	47.30	47.26	47.21	47.20	47.20	47.20	47.21	47.22	47.21	47.20	47.21
29	47.36	47.28	47.26	47.21	47.19	47.19	47.21	47.20	47.23	47.21	47.20	47.18
30	47.33	---	47.25	47.19	47.20	47.18	47.21	47.21	47.23	47.21	47.19	47.18
31	47.35	---	47.22	---	47.19	---	47.21	47.21	---	47.20	---	47.21
Max	47.41	47.35	47.34	47.27	47.22	47.20	47.21	47.22	47.24	47.23	47.24	47.23
Min	47.33	47.26	47.22	47.19	47.15	47.16	47.18	47.20	47.21	47.17	47.16	47.16

Year 2012 Statistics: **Year Max 47.41; Year Min 47.15**

Note: Water level in ft bgs

[a]No data available due to data logger malfunction.
[b]Insufficient data points to report a daily average.


2012 HYDROGRAPH FOR WELL 384831114314301
WATER LEVEL (ft bgs)
WATER-LEVEL ELEVATION (ft amsl)
42
43
44
45
46
47
48
49
50
51
52
5,801
5,800
5,799
5,798
5,797
5,796
5,795
5,794
5,793
5,792
5,791
1/1/12
2/1/12
3/1/12
4/1/12
5/1/12
6/1/12
7/1/12
8/1/12
9/1/12
10/1/12
11/1/12
12/1/12
1/1/13
SNWA Continuous Water-Level Data*
SNWA Periodic Water-Level Data
Spring Valley
Basin-Fill Aquifer
Reference Elevation: 5,843 ft amsl
Well Depth: 102 ft bgs
*Data processed using a temperature specific conversion factor


HISTORICAL HYDROGRAPH FOR WELL 384831114314301
WATER LEVEL (ft bgs)
WATER-LEVEL ELEVATION (ft amsl)
42
43
44
45
46
47
48
49
50
51
52
5,801
5,800
5,799
5,798
5,797
5,796
5,795
5,794
5,793
5,792
5,791
7/1/06
9/1/06
1/1/07
5/1/07
9/1/07
1/1/08
5/1/08
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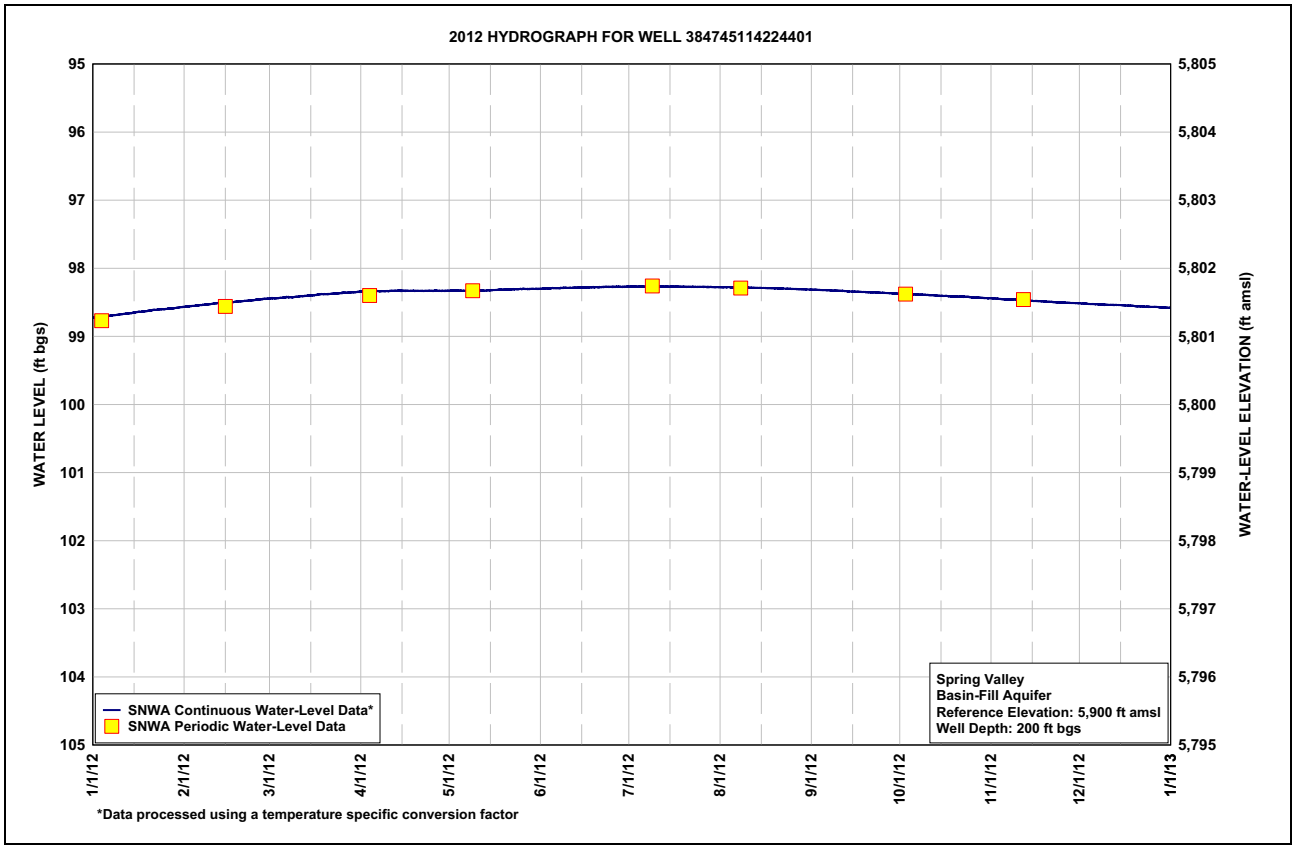
5/1/10
9/1/10
1/1/11
5/1/11
9/1/11
1/1/12
5/1/12
9/1/12
1/1/13
SNWA Continuous Water-Level Data*
SNWA Periodic Water-Level Data
Spring Valley
Basin-Fill Aquifer
Reference Elevation: 5,843 ft amsl
Well Depth: 102 ft bgs
*Data processed using a temperature specific conversion factor

Table B-4
Spring Valley Well 384745114224401, Calendar Year 2012
Water-Level Data, Daily Mean Values

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1	98.72	98.56	98.44	98.34	98.33	98.30	98.27	98.28	98.31	98.38	98.44	98.52
2	98.72	98.56	98.44	98.34	98.33	98.30	98.27	98.28	98.32	98.38	98.44	98.52
3	98.71	98.56	98.44	98.34	98.33	98.30	98.27	98.28	98.32	98.38	98.45	98.52
4	98.71	98.55	98.44	98.33	98.33	98.29	98.27	98.28	98.32	98.38	98.45	98.53
5	98.71	98.55	98.43	98.33	98.33	98.29	98.27	98.28	98.32	98.38	98.46	98.53
6	98.70	98.54	98.43	98.33	98.33	98.29	98.27	98.28	98.32	98.38	98.46	98.53
7	98.69	98.54	98.42	98.34	98.33	98.29	98.27	98.28	98.33	98.39	98.46	98.53
8	98.69	98.53	98.42	98.34	98.33	98.29	98.27	98.28	98.33	98.39	98.46	98.53
9	98.68	98.53	98.42	98.34	98.33	98.29	98.27	98.28	98.33	98.39	98.46	98.53
10	98.68	98.52	98.42	98.33	98.33	98.29	98.27	98.28	98.33	98.39	98.46	98.54
11	98.67	98.52	98.41	98.33	98.33	98.29	98.27	98.29	98.33	98.39	98.47	98.54
12	98.67	98.51	98.41	98.33	98.33	98.29	98.27	98.29	98.33	98.40	98.47	98.54
13	98.66	98.51	98.40	98.33	98.33	98.28	98.27	98.29	98.34	98.40	98.48	98.54
14	98.65	98.50	98.40	98.33	98.32	98.28	98.27	98.29	98.34	98.40	98.48	98.54
15	98.65	98.50	98.40	98.33	98.32	98.28	98.27	98.29	98.34	98.41	98.48	98.54
16	98.64	98.50	98.39	98.33	98.32	98.28	98.27	98.29	98.34	98.41	98.48	98.55
17	98.64	98.50	98.39	98.33	98.32	98.28	98.27	98.29	98.35	98.41	98.48	98.55
18	98.63	98.49	98.38	98.33	98.31	98.28	98.27	98.29	98.35	98.41	98.49	98.55
19	98.63	98.49	98.38	98.33	98.31	98.28	98.27	98.29	98.35	98.41	98.49	98.55
20	98.62	98.48	98.38	98.33	98.31	98.28	98.27	98.30	98.35	98.41	98.49	98.56
21	98.61	98.48	98.38	98.33	98.31	98.28	98.27	98.30	98.35	98.42	98.49	98.56
22	98.61	98.48	98.37	98.33	98.31	98.27	98.27	98.30	98.36	98.42	98.50	98.56
23	98.60	98.47	98.37	98.33	98.31	98.27	98.27	98.30	98.36	98.42	98.50	98.56
24	98.60	98.47	98.37	98.33	98.31	98.27	98.27	98.30	98.36	98.42	98.50	98.56
25	98.60	98.46	98.36	98.33	98.30	98.27	98.27	98.30	98.36	98.43	98.50	98.57
26	98.59	98.46	98.36	98.33	98.30	98.27	98.27	98.30	98.36	98.43	98.51	98.57
27	98.59	98.45	98.36	98.33	98.30	98.27	98.28	98.31	98.37	98.43	98.51	98.57
28	98.59	98.45	98.35	98.33	98.30	98.27	98.27	98.31	98.37	98.43	98.51	98.57
29	98.58	98.45	98.35	98.33	98.30	98.27	98.28	98.31	98.37	98.44	98.51	98.58
30	98.57	---	98.35	98.33	98.30	98.27	98.28	98.31	98.37	98.44	98.51	98.58
31	98.57	---	98.34	---	98.30	---	98.28	98.31	---	98.44	---	98.58
Max	98.72	98.56	98.44	98.34	98.33	98.30	98.28	98.31	98.37	98.44	98.51	98.58
Min	98.57	98.45	98.34	98.33	98.30	98.27	98.27	98.28	98.31	98.38	98.44	98.52

Year 2012 Statistics: **Year Max 98.72; Year Min 98.27**

Note: Water level in ft bgs


2012 HYDROGRAPH FOR WELL 384745114224401
WATER LEVEL (ft bgs)
WATER-LEVEL ELEVATION (ft amsl)
95
96
97
98
99
100
101
102
103
104
105
5,805
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5,803
5,802
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5,799
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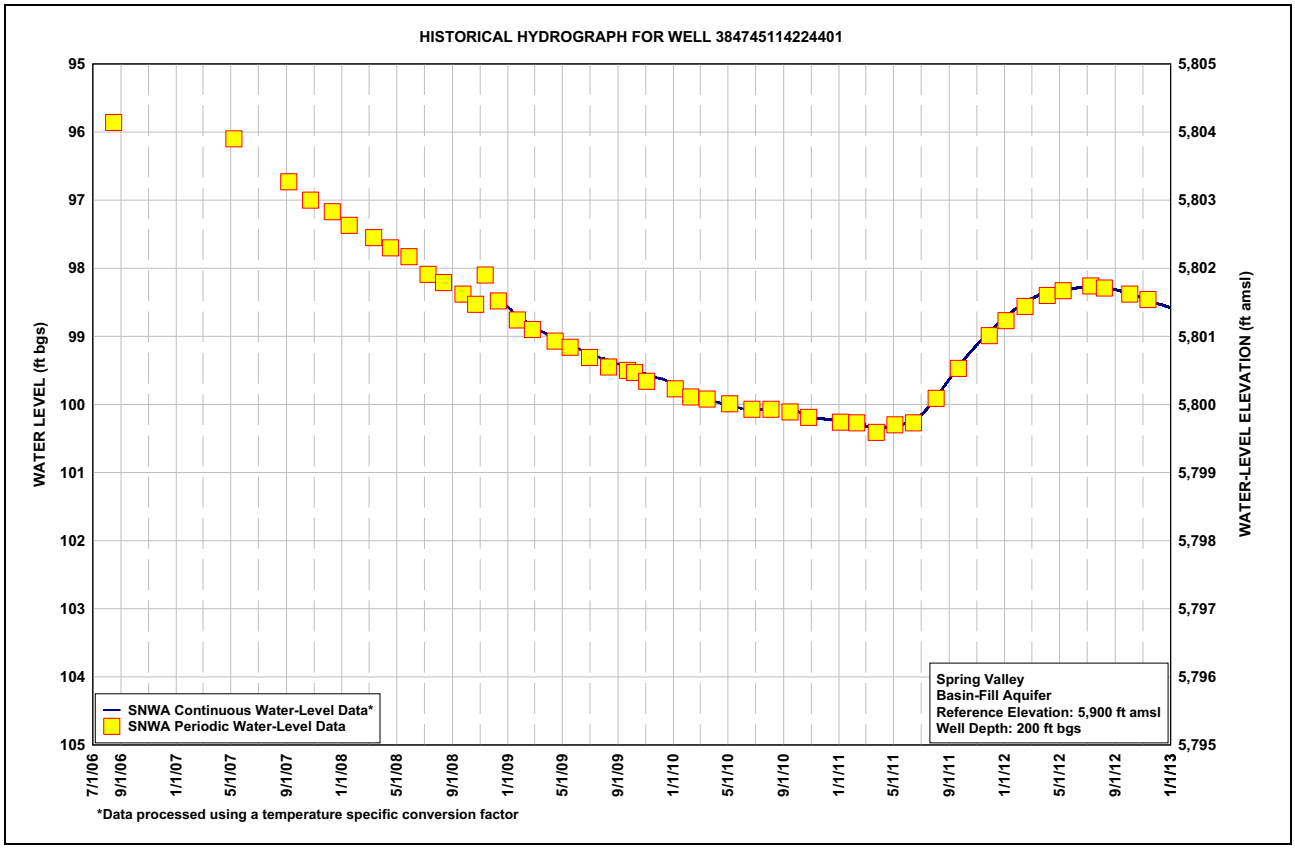
9/1/12
10/1/12
11/1/12
12/1/12
1/1/13
SNWA Continuous Water-Level Data*
SNWA Periodic Water-Level Data
Spring Valley
Basin-Fill Aquifer
Reference Elevation: 5,900 ft amsl
Well Depth: 200 ft bgs
*Data processed using a temperature specific conversion factor


HISTORICAL HYDROGRAPH FOR WELL 384745114224401
WATER LEVEL (ft bgs)
WATER-LEVEL ELEVATION (ft amsl)
95
96
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5/1/12
9/1/12
1/1/13
SNWA Continuous Water-Level Data*
SNWA Periodic Water-Level Data
Spring Valley
Basin-Fill Aquifer
Reference Elevation: 5,900 ft amsl
Well Depth: 200 ft bgs
*Data processed using a temperature specific conversion factor

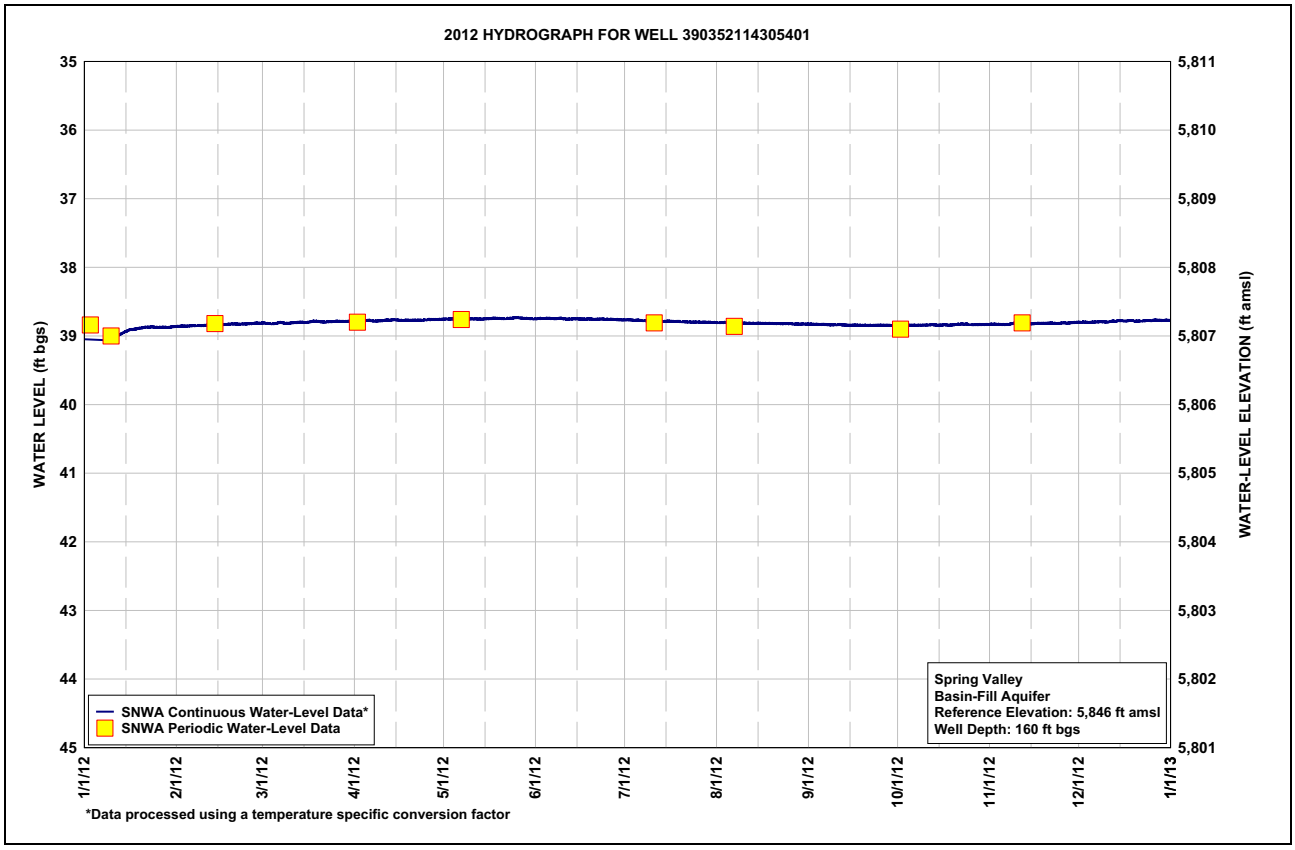
Table B-5
Spring Valley Well 390352114305401, Calendar Year 2012
Water-Level Data, Daily Mean Values

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1	---[a]	38.86	38.81	38.78	38.75	38.75	38.77	38.81	38.83	38.85	38.83	38.80
2	---[a]	38.86	38.82	38.78	38.76	38.75	38.77	38.81	38.83	38.85	38.83	38.80
3	---[a]	38.86	38.82	38.78	38.75	38.75	38.77	38.81	38.83	38.85	38.83	38.80
4	---[a]	38.86	38.83	38.78	38.76	38.75	38.77	38.81	38.84	38.85	38.84	38.80
5	---[a]	38.86	38.82	38.78	38.76	38.74	38.77	38.81	38.83	38.85	38.84	38.80
6	---[a]	38.85	38.81	38.78	38.76	38.75	38.78	38.81	38.84	38.84	38.84	38.80
7	---[a]	38.85	38.80	38.78	38.76	38.75	38.78	38.81	38.84	38.85	38.83	38.80
8	---[a]	38.85	38.82	38.78	38.76	38.75	38.78	38.81	38.84	38.85	38.82	38.79
9	---[a]	38.85	38.82	38.78	38.75	38.75	38.78	38.82	38.84	38.84	38.82	38.80
10	---[b]	38.85	38.81	38.78	38.75	38.75	38.78	38.81	38.84	38.84	38.81	38.80
11	39.03	38.84	38.81	38.77	38.75	38.76	38.78	38.82	38.84	38.84	38.82	38.79
12	38.99	38.84	38.81	38.77	38.75	38.76	38.78	38.82	38.84	38.84	38.82	38.79
13	38.97	38.83	38.80	38.77	38.75	38.75	38.79	38.82	38.84	38.84	38.83	38.79
14	38.95	38.83	38.80	38.77	38.75	38.75	38.79	38.82	38.85	38.85	38.82	38.78
15	38.93	38.83	38.81	38.77	38.75	38.75	38.79	38.82	38.85	38.84	38.82	38.78
16	38.91	38.83	38.80	38.77	38.75	38.75	38.79	38.82	38.85	38.84	38.82	38.78
17	38.91	38.84	38.79	38.78	38.75	38.76	38.79	38.82	38.85	38.84	38.82	38.78
18	38.90	38.83	38.78	38.77	38.74	38.76	38.79	38.82	38.85	38.84	38.82	38.78
19	38.89	38.83	38.79	38.77	38.75	38.75	38.79	38.82	38.85	38.84	38.82	38.78
20	38.88	38.83	38.79	38.77	38.75	38.76	38.80	38.82	38.85	38.84	38.82	38.79
21	38.87	38.83	38.80	38.77	38.75	38.76	38.80	38.82	38.85	38.83	38.81	38.79
22	38.87	38.83	38.80	38.77	38.75	38.76	38.80	38.82	38.85	38.83	38.82	38.78
23	38.87	38.83	38.79	38.77	38.74	38.75	38.80	38.82	38.85	38.83	38.82	38.78
24	38.87	38.83	38.80	38.77	38.74	38.76	38.80	38.82	38.85	38.83	38.82	38.78
25	38.88	38.82	38.79	38.77	38.74	38.76	38.80	38.82	38.85	38.84	38.81	38.78
26	38.88	38.82	38.79	38.76	38.74	38.76	38.80	38.83	38.85	38.84	38.81	38.77
27	38.87	38.82	38.79	38.76	38.74	38.76	38.80	38.83	38.85	38.84	38.81	38.77
28	38.88	38.81	38.79	38.76	38.75	38.76	38.80	38.83	38.85	38.84	38.81	38.78
29	38.88	38.82	38.79	38.76	38.75	38.76	38.80	38.83	38.85	38.84	38.81	38.78
30	38.87	---	38.79	38.76	38.75	38.77	38.81	38.83	38.85	38.84	38.80	38.77
31	38.87	---	38.78	---	38.75	---	38.80	38.83	---	38.84	---	38.77
Max	39.03	38.86	38.83	38.78	38.76	38.77	38.81	38.83	38.85	38.85	38.84	38.80
Min	38.87	38.81	38.78	38.76	38.74	38.74	38.77	38.81	38.83	38.83	38.80	38.77

Year 2012 Statistics: **Year Max 39.03; Year Min 38.74**

Note: Water level in ft bgs

[a]No data available due to data logger malfunction.
[b]Insufficient data points to report a daily average.


2012 HYDROGRAPH FOR WELL 390352114305401
WATER LEVEL (ft bgs)
WATER-LEVEL ELEVATION (ft amsl)
35
36
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41
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43
44
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5,811
5,810
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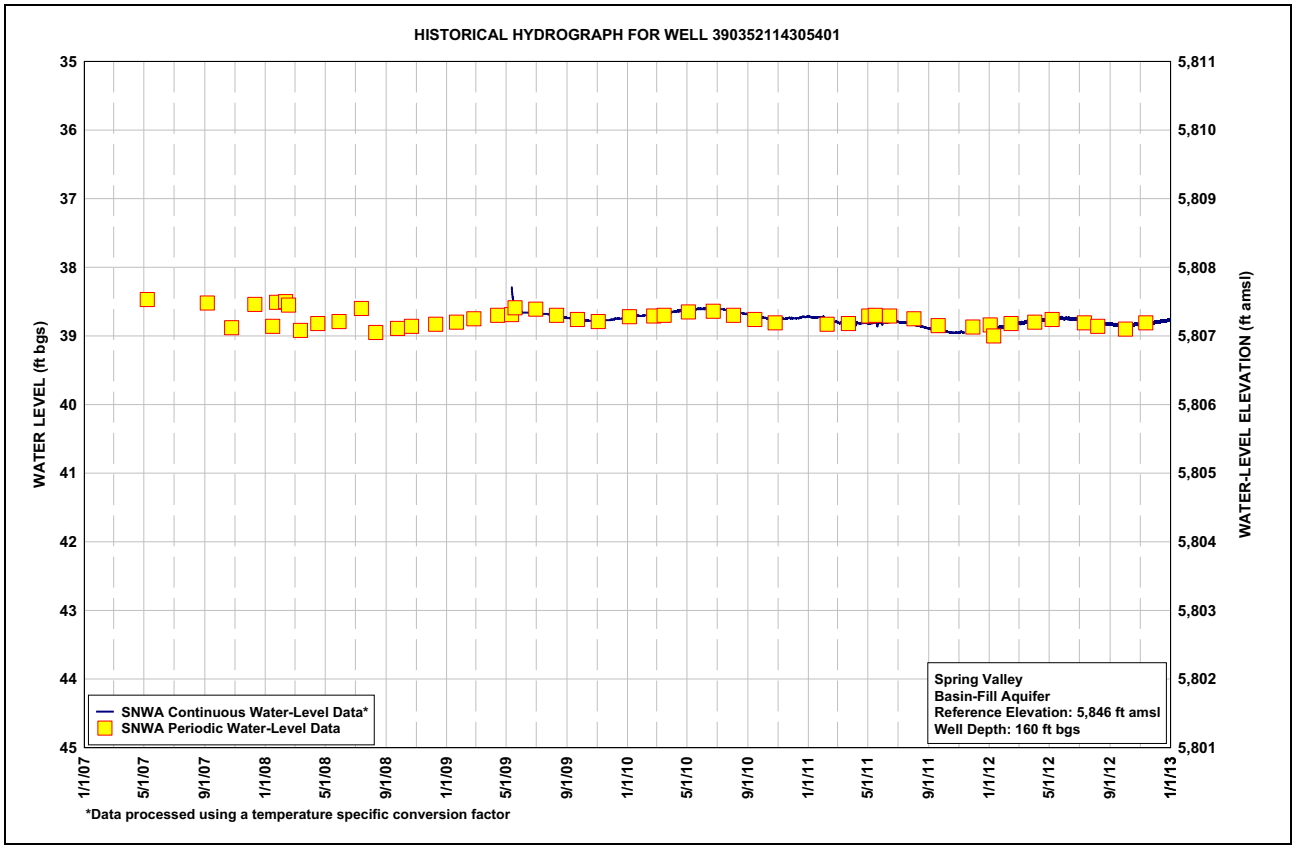
10/1/12
11/1/12
12/1/12
1/1/13
SNWA Continuous Water-Level Data*
SNWA Periodic Water-Level Data
Spring Valley
Basin-Fill Aquifer
Reference Elevation: 5,846 ft amsl
Well Depth: 160 ft bgs
*Data processed using a temperature specific conversion factor


HISTORICAL HYDROGRAPH FOR WELL 390352114305401
WATER LEVEL (ft bgs)
WATER-LEVEL ELEVATION (ft amsl)
35
36
37
38
39
40
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42
43
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5,811
5,810
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5/1/10
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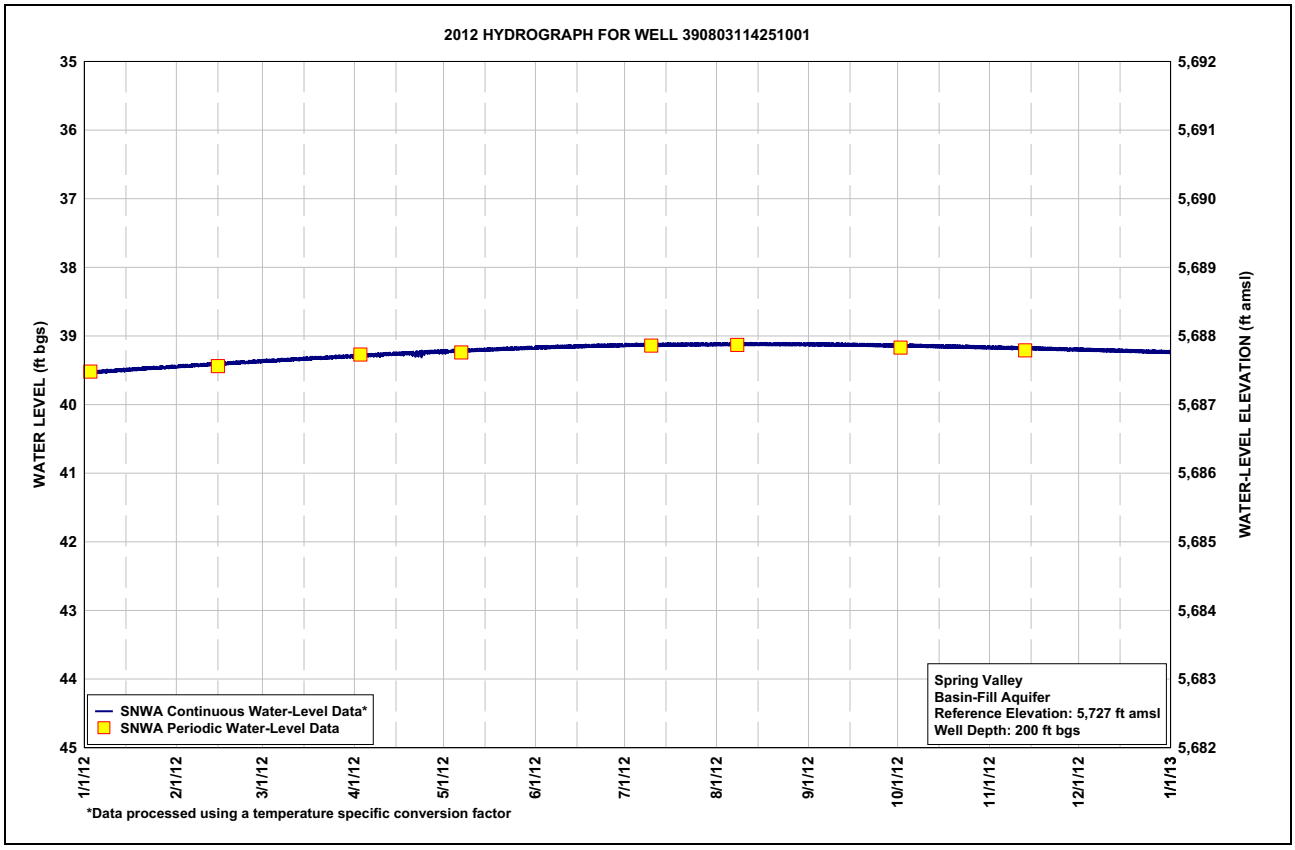
9/1/12
1/1/13
SNWA Continuous Water-Level Data*
SNWA Periodic Water-Level Data
Spring Valley
Basin-Fill Aquifer
Reference Elevation: 5,846 ft amsl
Well Depth: 160 ft bgs
*Data processed using a temperature specific conversion factor

Table B-6
Spring Valley Well 390803114251001, Calendar Year 2012
Water-Level Data, Daily Mean Values

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1	39.54	39.45	39.37	39.29	39.23	39.17	39.14	39.13	39.13	39.15	39.18	39.20
2	39.54	39.44	39.37	39.30	39.23	39.17	39.14	39.13	39.13	39.15	39.17	39.20
3	39.53	39.44	39.37	39.29	39.23	39.17	39.14	39.13	39.13	39.15	39.18	39.21
4	39.53	39.44	39.36	39.29	39.22	39.17	39.14	39.13	39.13	39.15	39.17	39.21
5	39.53	39.44	39.36	39.28	39.22	39.17	39.14	39.13	39.13	39.14	39.18	39.21
6	39.53	39.43	39.35	39.29	39.22	39.16	39.14	39.13	39.12	39.15	39.18	39.21
7	39.52	39.43	39.35	39.29	39.22	39.17	39.13	39.12	39.13	39.15	39.18	39.21
8	39.52	39.43	39.35	39.28	39.22	39.16	39.14	39.12	39.13	39.15	39.18	39.21
9	39.51	39.43	39.35	39.28	39.21	39.16	39.13	39.13	39.13	39.16	39.18	39.22
10	39.52	39.42	39.35	39.27	39.21	39.16	39.14	39.12	39.13	39.15	39.18	39.22
11	39.51	39.42	39.34	39.27	39.21	39.16	39.13	39.13	39.13	39.15	39.19	39.22
12	39.50	39.42	39.34	39.27	39.21	39.16	39.14	39.12	39.14	39.15	39.18	39.21
13	39.50	39.41	39.34	39.27	39.21	39.16	39.14	39.12	39.14	39.16	39.19	39.22
14	39.50	39.41	39.34	39.27	39.21	39.16	39.13	39.12	39.13	39.15	39.19	39.22
15	39.50	39.41	39.33	39.26	39.21	39.16	39.13	39.13	39.14	39.16	39.19	39.22
16	39.49	39.41	39.34	39.26	39.20	39.15	39.13	39.12	39.13	39.16	39.18	39.23
17	39.49	39.40	39.33	39.26	39.20	39.15	39.13	39.12	39.14	39.16	39.19	39.22
18	39.49	39.40	39.33	39.26	39.20	39.16	39.13	39.13	39.14	39.15	39.19	39.23
19	39.49	39.40	39.33	39.25	39.20	39.15	39.13	39.12	39.13	39.16	39.19	39.22
20	39.48	39.40	39.32	39.26	39.20	39.15	39.13	39.13	39.14	39.16	39.20	39.23
21	39.48	39.39	39.33	39.26	39.20	39.15	39.13	39.13	39.14	39.16	39.19	39.23
22	39.47	39.39	39.32	39.26	39.19	39.15	39.13	39.13	39.14	39.16	39.19	39.23
23	39.47	39.39	39.32	39.25	39.19	39.15	39.13	39.12	39.14	39.17	39.20	39.23
24	39.47	39.39	39.31	39.25	39.19	39.15	39.13	39.13	39.14	39.16	39.20	39.23
25	39.47	39.39	39.31	39.24	39.18	39.15	39.13	39.13	39.14	39.17	39.20	39.23
26	39.47	39.38	39.31	39.24	39.19	39.14	39.13	39.13	39.14	39.17	39.20	39.23
27	39.46	39.38	39.31	39.23	39.18	39.14	39.13	39.13	39.14	39.17	39.20	39.24
28	39.46	39.38	39.30	39.23	39.18	39.15	39.13	39.12	39.14	39.17	39.20	39.24
29	39.46	39.38	39.30	39.24	39.18	39.14	39.13	39.13	39.14	39.17	39.20	39.24
30	39.45	---	39.30	39.23	39.18	39.14	39.13	39.13	39.15	39.17	39.20	39.24
31	39.46	---	39.30	---	39.18	---	39.12	39.13	---	39.17	---	39.24
Max	39.54	39.45	39.37	39.30	39.23	39.17	39.14	39.13	39.15	39.17	39.20	39.24
Min	39.45	39.38	39.30	39.23	39.18	39.14	39.12	39.12	39.12	39.14	39.17	39.20

Year 2012 Statistics: **Year Max 39.54; Year Min 39.12**

Note: Water level in ft bgs


2012 HYDROGRAPH FOR WELL 390803114251001
WATER LEVEL (ft bgs)
WATER-LEVEL ELEVATION (ft amsl)
35
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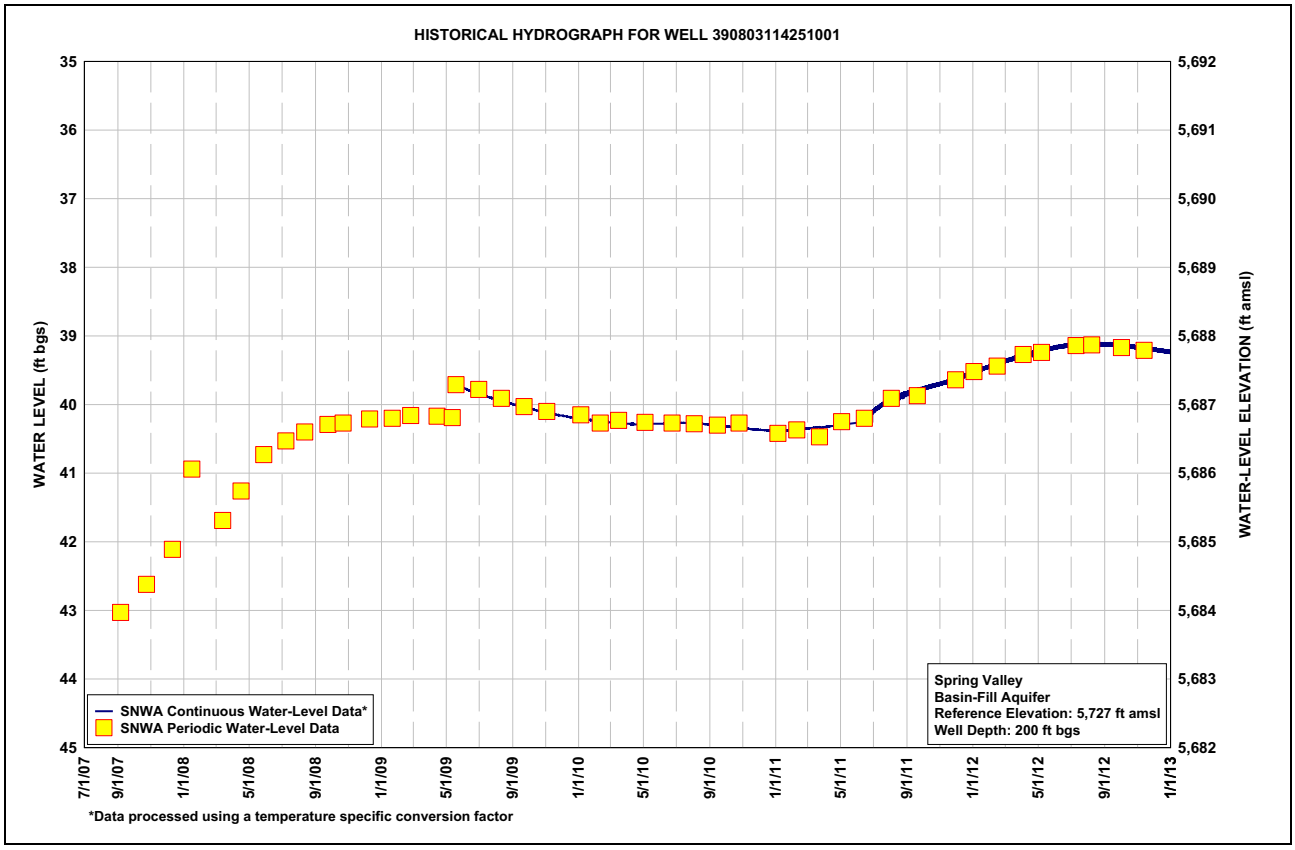
SNWA Continuous Water-Level Data*
SNWA Periodic Water-Level Data
Spring Valley
Basin-Fill Aquifer
Reference Elevation: 5,727 ft amsl
Well Depth: 200 ft bgs
*Data processed using a temperature specific conversion factor


HISTORICAL HYDROGRAPH FOR WELL 390803114251001
WATER LEVEL (ft bgs)
WATER-LEVEL ELEVATION (ft amsl)
35
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5,692
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9/1/10
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9/1/12
1/1/13
SNWA Continuous Water-Level Data*
SNWA Periodic Water-Level Data
Spring Valley
Basin-Fill Aquifer
Reference Elevation: 5,727 ft amsl
Well Depth: 200 ft bgs
*Data processed using a temperature specific conversion factor

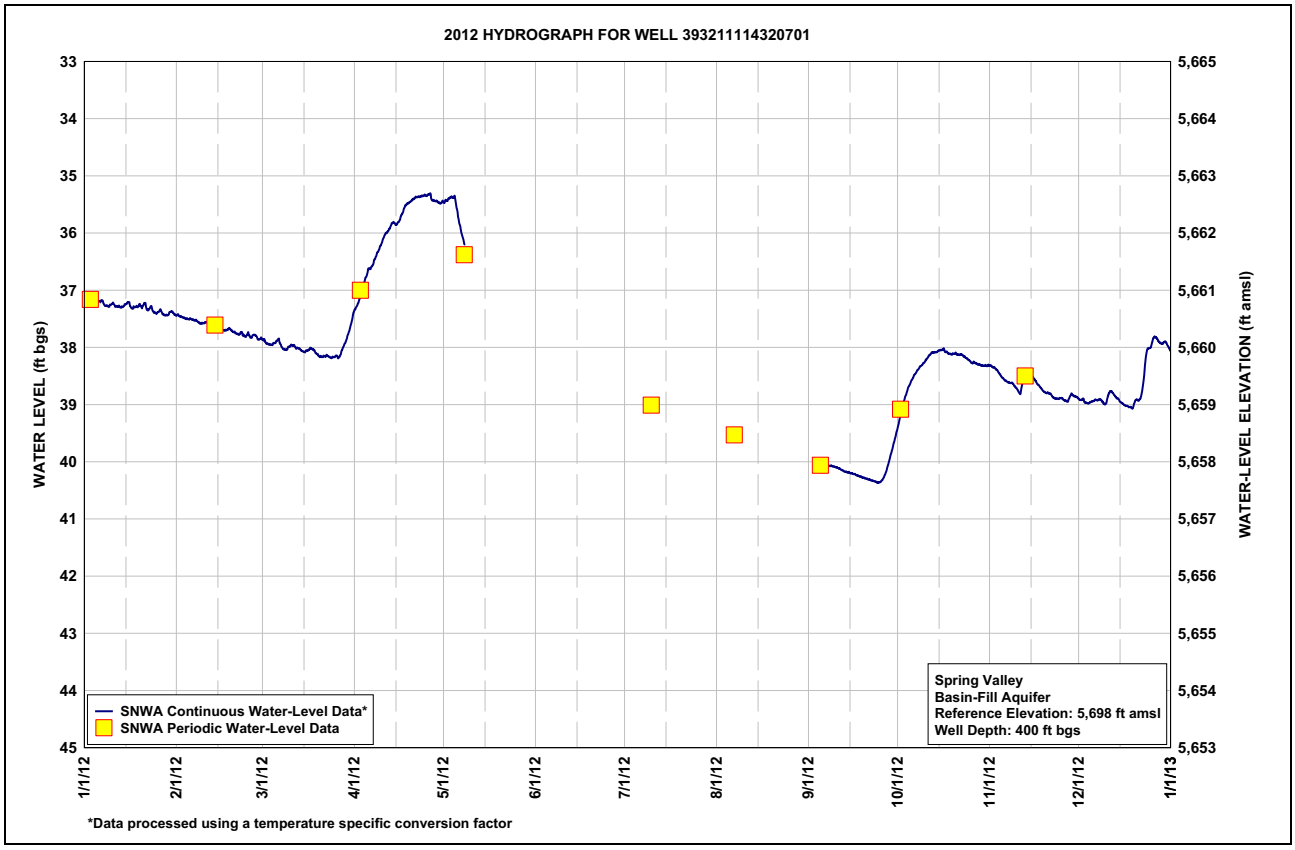
Table B-7
Spring Valley Well 393211114320701, Calendar Year 2012
Water-Level Data, Daily Mean Values

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1	37.24	37.44	37.87	37.31	35.45	---[b]	---[b]	---[b]	---[b]	39.30	38.32	38.92
2	37.22	37.46	37.93	37.19	35.42	---[b]	---[b]	---[b]	---[b]	39.07	38.35	38.91
3	37.23	37.48	37.95	37.02	35.38	---[b]	---[b]	---[b]	---[b]	38.88	38.40	38.97
4	37.25	37.50	37.94	36.83	35.37	---[b]	---[b]	---[b]	---[b]	38.73	38.47	38.97
5	37.20	37.50	37.91	36.68	35.58	---[b]	---[b]	---[b]	40.02	38.61	38.54	38.95
6	37.19	37.52	37.88	36.61	35.86	---[b]	---[b]	---[b]	40.03	38.50	38.59	38.92
7	37.23	37.53	37.99	36.51	36.08	---[b]	---[b]	---[b]	40.06	38.42	38.61	38.92
8	37.27	37.56	38.04	36.38	---[a]	---[b]	---[b]	---[b]	40.07	38.35	38.62	38.92
9	37.27	37.58	38.02	36.26	---[b]	---[b]	---[b]	---[b]	40.08	38.29	38.68	38.98
10	37.24	37.57	37.97	36.13	---[b]	---[b]	---[b]	---[b]	40.10	38.23	38.75	38.93
11	37.28	37.56	37.97	36.02	---[b]	---[b]	---[b]	---[b]	40.12	38.15	38.76	38.79
12	37.28	37.58	38.01	35.95	---[b]	---[b]	---[b]	---[b]	40.15	38.10	38.56	38.80
13	37.30	37.59	38.03	35.85	---[b]	---[b]	---[b]	---[b]	40.18	38.09	38.46	38.86
14	37.26	37.62	38.07	35.83	---[b]	---[b]	---[b]	---[b]	40.19	38.07	38.44	38.91
15	37.22	37.65	38.07	35.83	---[b]	---[b]	---[b]	---[b]	40.20	38.05	38.51	38.97
16	37.27	37.70	38.04	35.73	---[b]	---[b]	---[b]	---[b]	40.22	38.04	38.59	39.01
17	37.31	37.70	38.02	35.61	---[b]	---[b]	---[b]	---[b]	40.24	38.08	38.66	39.03
18	37.29	37.68	38.06	35.50	---[b]	---[b]	---[b]	---[b]	40.26	38.11	38.72	39.05
19	37.27	37.70	38.12	35.47	---[b]	---[b]	---[b]	---[b]	40.28	38.11	38.78	39.02
20	37.28	37.73	38.16	35.42	---[b]	---[b]	---[b]	---[b]	40.30	38.11	38.80	38.92
21	37.25	37.76	38.16	35.38	---[b]	---[b]	---[b]	---[b]	40.31	38.13	38.82	38.91
22	37.34	37.75	38.15	35.37	---[b]	---[b]	---[b]	---[b]	40.33	38.13	38.87	38.73
23	37.30	37.78	38.16	35.36	---[b]	---[b]	---[b]	---[b]	40.35	38.16	38.90	38.27
24	37.38	37.80	38.18	35.34	---[b]	---[b]	---[b]	---[b]	40.36	38.20	38.89	38.02
25	37.40	37.78	38.16	35.34	---[b]	---[b]	---[b]	---[b]	40.34	38.25	38.90	37.96
26	37.36	37.81	38.17	35.34	---[b]	---[b]	---[b]	---[b]	40.26	38.27	38.93	37.83
27	37.42	37.79	38.09	35.43	---[b]	---[b]	---[b]	---[b]	40.11	38.28	38.92	37.85
28	37.44	37.85	37.96	35.44	---[b]	---[b]	---[b]	---[b]	39.92	38.30	38.83	37.92
29	37.41	37.85	37.83	35.47	---[b]	---[b]	---[b]	---[b]	39.72	38.32	38.85	37.92
30	37.38	---	37.66	35.46	---[b]	---[b]	---[b]	---[b]	39.52	38.32	38.87	37.92
31	37.43	---	37.44	---	---[b]	---	---[b]	---[b]	---	38.32	---	38.01
Max	37.44	37.85	38.18	37.31	36.08	---	---	---	40.36	39.30	38.93	39.05
Min	37.19	37.44	37.44	35.34	35.37	---	---	---	39.52	38.04	38.32	37.83

Year 2012 Statistics: **Year Max 40.36; Year Min 35.34**

Note: Water level in ft bgs

[a]Insufficient data points to report a daily average.
[b]No data available due to data logger malfunction.


2012 HYDROGRAPH FOR WELL 393211114320701
WATER LEVEL (ft bgs)
WATER-LEVEL ELEVATION (ft amsl)
33
34
35
36
37
38
39
40
41
42
43
44
45
5,665
5,664
5,663
5,662
5,661
5,660
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5/1/12
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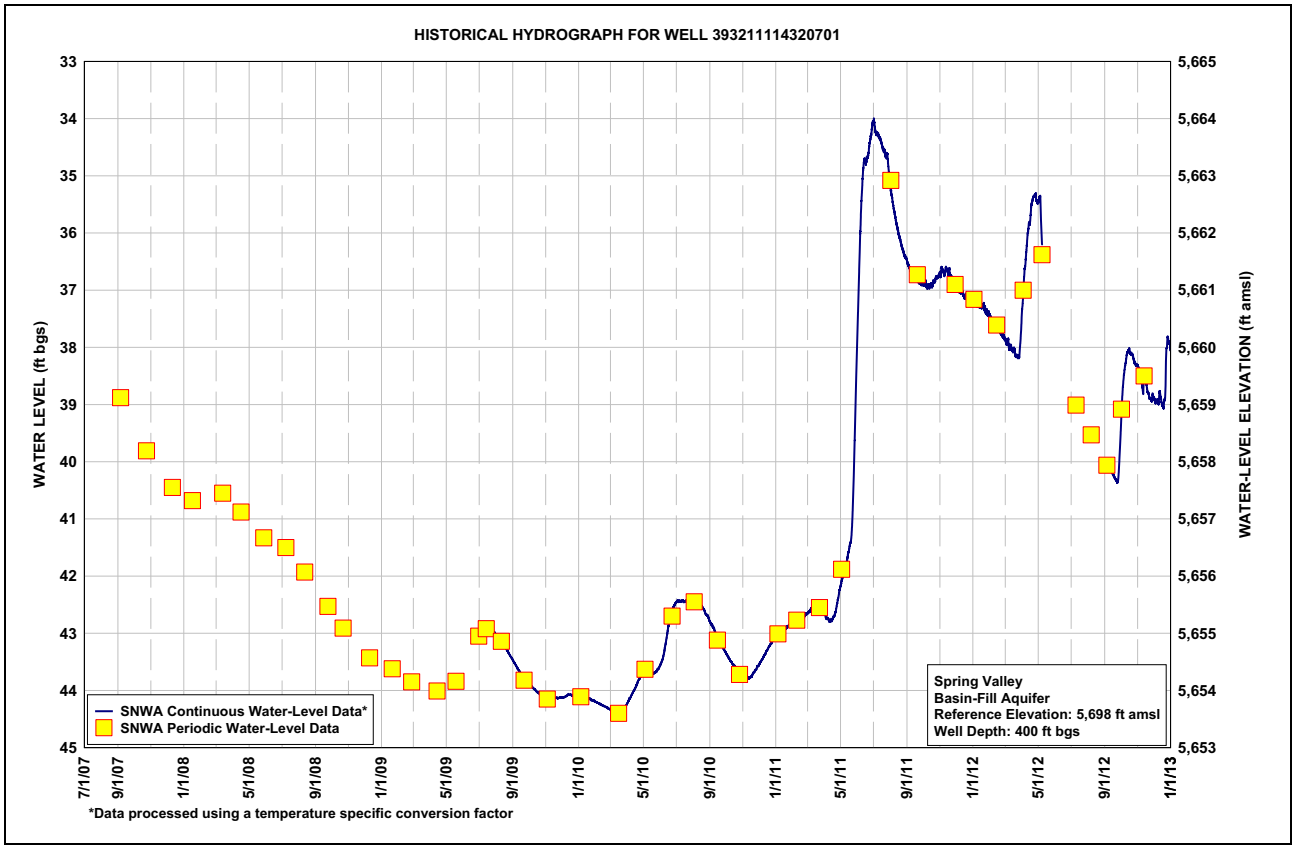
10/1/12
11/1/12
12/1/12
1/1/13
SNWA Continuous Water-Level Data*
SNWA Periodic Water-Level Data
Spring Valley
Basin-Fill Aquifer
Reference Elevation: 5,698 ft amsl
Well Depth: 400 ft bgs
*Data processed using a temperature specific conversion factor


HISTORICAL HYDROGRAPH FOR WELL 393211114320701
WATER LEVEL (ft bgs)
WATER-LEVEL ELEVATION (ft amsl)
33
34
35
36
37
38
39
40
41
42
43
44
45
5,665
5,664
5,663
5,662
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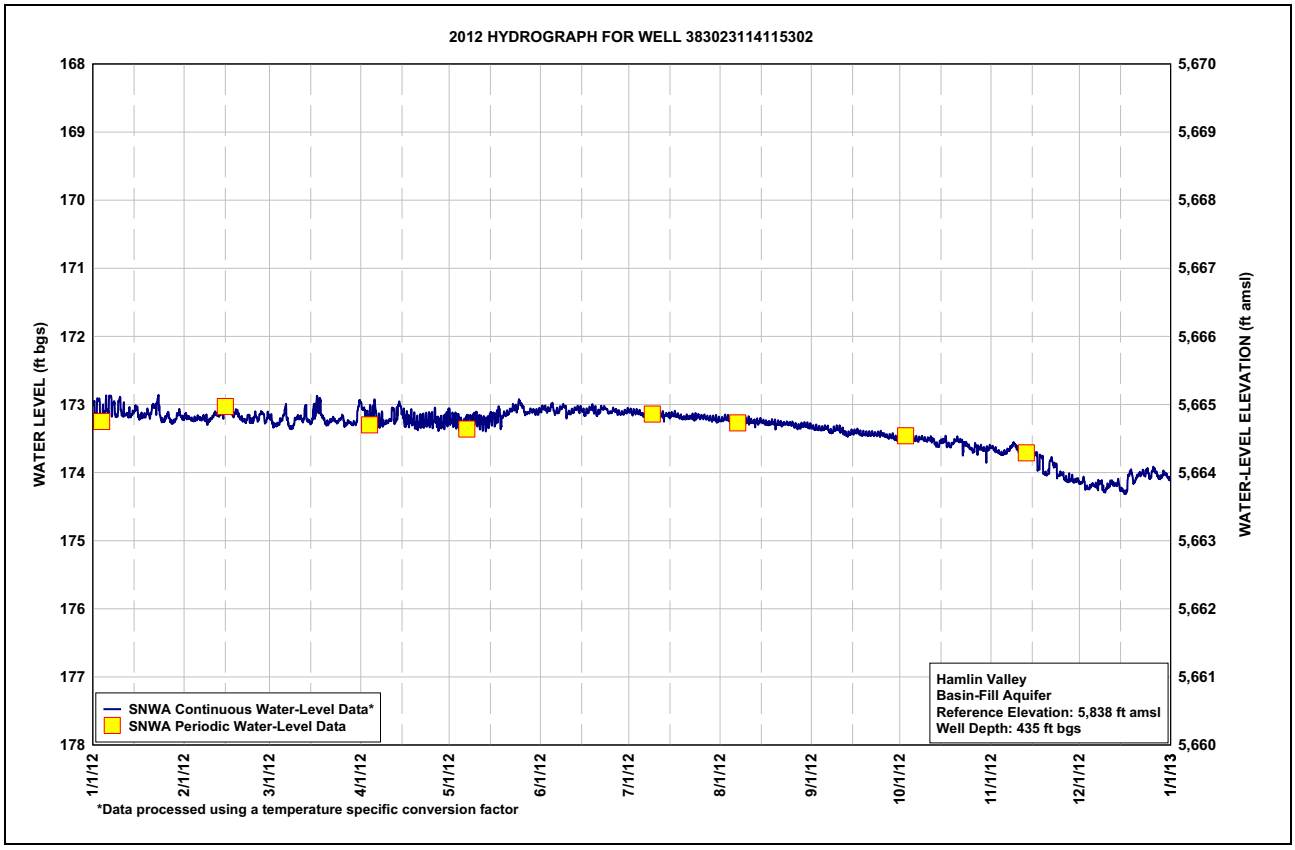
9/1/09
1/1/10
5/1/10
9/1/10
1/1/11
5/1/11
9/1/11
1/1/12
5/1/12
9/1/12
1/1/13
SNWA Continuous Water-Level Data*
SNWA Periodic Water-Level Data
Spring Valley
Basin-Fill Aquifer
Reference Elevation: 5,698 ft amsl
Well Depth: 400 ft bgs
*Data processed using a temperature specific conversion factor

Table B-8
Hamlin Valley Well 383023114115302, Calendar Year 2012
Water-Level Data, Daily Mean Values

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1	173.06	173.17	173.20	173.05	173.21	173.07	173.09	173.22	173.34	173.49	173.63	174.15
2	173.01	173.19	173.30	173.18	173.25	173.06	173.12	173.20	173.34	173.46	173.67	174.12
3	173.08	173.22	173.30	173.19	173.25	173.08	173.11	173.20	173.35	173.49	173.70	174.23
4	173.14	173.22	173.25	173.14	173.26	173.04	173.12	173.25	173.36	173.49	173.73	174.22
5	173.06	173.20	173.19	173.05	173.33	173.07	173.15	173.25	173.35	173.51	173.71	174.18
6	172.98	173.21	173.10	173.25	173.27	173.10	173.16	173.26	173.35	173.51	173.69	174.19
7	172.99	173.20	173.29	173.24	173.23	173.08	173.15	173.24	173.40	173.51	173.65	174.17
8	173.07	173.24	173.34	173.23	173.22	173.03	173.16	173.26	173.38	173.49	173.58	174.14
9	173.07	173.24	173.26	173.27	173.20	173.08	173.15	173.24	173.35	173.52	173.62	174.27
10	173.03	173.19	173.19	173.24	173.20	173.13	173.14	173.24	173.36	173.52	173.69	174.22
11	173.12	173.14	173.20	173.14	173.23	173.11	173.15	173.25	173.38	173.51	173.78	174.17
12	173.15	173.16	173.21	173.20	173.25	173.08	173.16	173.27	173.42	173.53	173.75	174.16
13	173.17	173.13	173.12	173.09	173.27	173.06	173.15	173.26	173.44	173.59	173.74	174.18
14	173.13	173.07	173.25	173.03	173.22	173.08	173.15	173.24	173.41	173.58	173.73	174.17
15	173.06	172.98	173.20	173.17	173.18	173.10	173.15	173.26	173.41	173.53	173.75	174.25
16	173.15	173.03	173.07	173.24	173.20	173.12	173.15	173.27	173.40	173.53	173.72	174.29
17	173.18	173.09	173.01	173.25	173.12	173.08	173.16	173.28	173.42	173.60	173.87	174.08
18	173.17	173.11	173.07	173.22	173.22	173.04	173.18	173.27	173.43	173.60	173.78	174.00
19	173.12	173.15	173.22	173.27	173.15	173.09	173.20	173.28	173.43	173.54	174.02	174.14
20	173.15	173.21	173.28	173.27	173.14	173.13	173.19	173.28	173.44	173.51	174.01	174.07
21	173.03	173.24	173.25	173.26	173.10	173.07	173.19	173.29	173.43	173.54	173.82	174.03
22	173.02	173.19	173.22	173.25	173.06	173.06	173.19	173.28	173.44	173.59	173.89	174.01
23	173.02	173.22	173.25	173.24	173.06	173.08	173.19	173.28	173.43	173.58	174.03	174.02
24	173.22	173.22	173.24	173.22	173.00	173.12	173.17	173.29	173.44	173.62	174.03	174.01
25	173.22	173.17	173.19	173.23	173.01	173.09	173.19	173.29	173.44	173.67	174.03	174.03
26	173.15	173.19	173.28	173.19	173.09	173.09	173.19	173.32	173.46	173.63	174.10	173.96
27	173.24	173.13	173.27	173.28	173.12	173.12	173.20	173.33	173.47	173.63	174.11	174.04
28	173.25	173.23	173.27	173.28	173.10	173.13	173.21	173.32	173.47	173.64	174.11	174.08
29	173.18	173.18	173.28	173.23	173.09	173.12	173.21	173.30	173.50	173.66	174.13	174.03
30	173.14	---	173.23	173.16	173.12	173.10	173.22	173.31	173.51	173.67	174.12	174.02
31	173.20	---	172.99	---	173.10	---	173.23	173.32	---	173.64	---	174.08
Max	173.25	173.24	173.34	173.28	173.33	173.13	173.23	173.33	173.51	173.67	174.13	174.29
Min	172.98	172.98	172.99	173.03	173.00	173.03	173.09	173.20	173.34	173.46	173.58	173.96

Year 2012 Statistics: **Year Max 174.29; Year Min 172.98**

Note: Water level in ft bgs


2012 HYDROGRAPH FOR WELL 383023114115302
WATER LEVEL (ft bgs)
WATER-LEVEL ELEVATION (ft amsl)
168
169
170
171
172
173
174
175
176
177
178
5,670
5,669
5,668
5,667
5,666
5,665
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1/1/12
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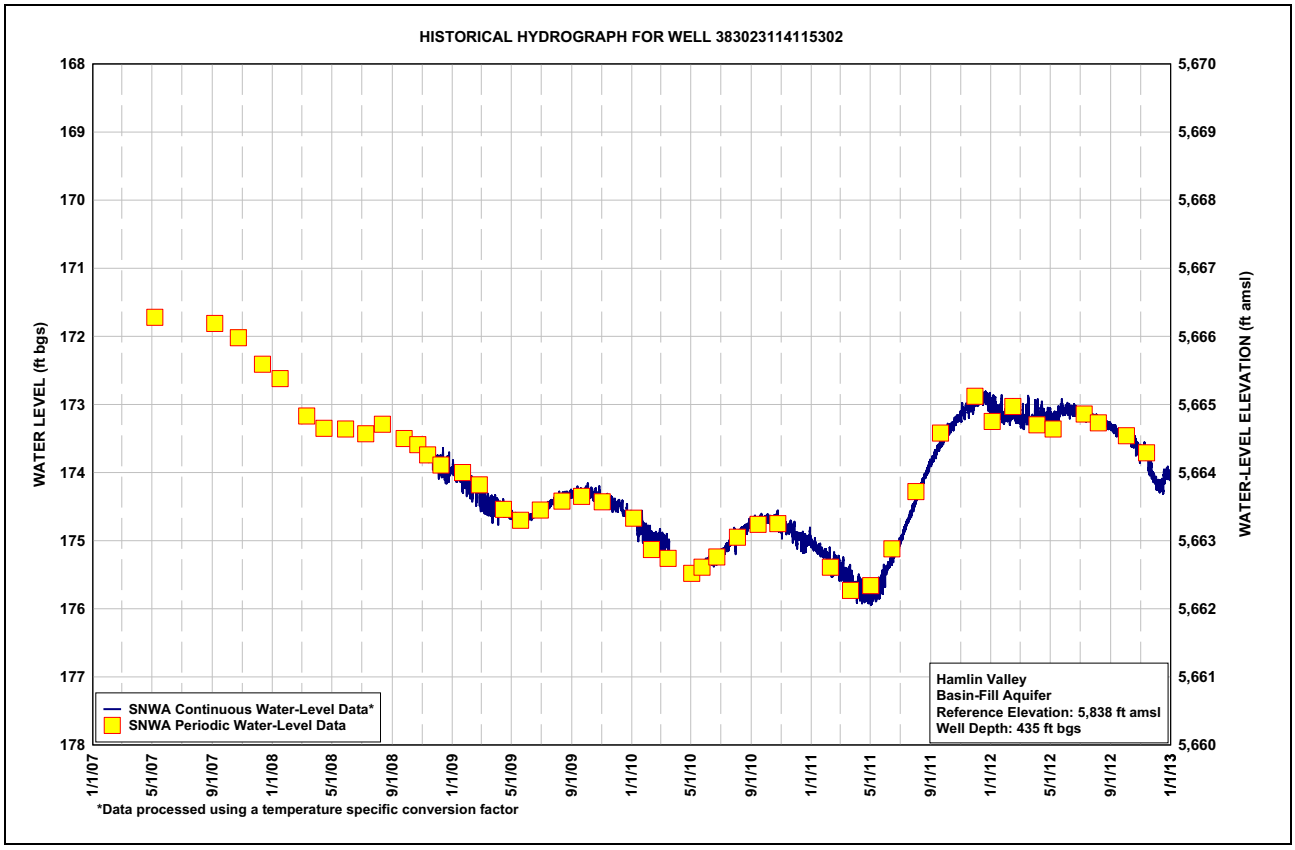
5/1/12
6/1/12
7/1/12
8/1/12
9/1/12
10/1/12
11/1/12
12/1/12
1/1/13
SNWA Continuous Water-Level Data*
SNWA Periodic Water-Level Data
Hamlin Valley
Basin-Fill Aquifer
Reference Elevation: 5,838 ft amsl
Well Depth: 435 ft bgs
*Data processed using a temperature specific conversion factor


HISTORICAL HYDROGRAPH FOR WELL 383023114115302
WATER LEVEL (ft bgs)
WATER-LEVEL ELEVATION (ft amsl)
168
169
170
171
172
173
174
175
176
177
178
5,670
5,669
5,668
5,667
5,666
5,665
5,664
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5/1/08
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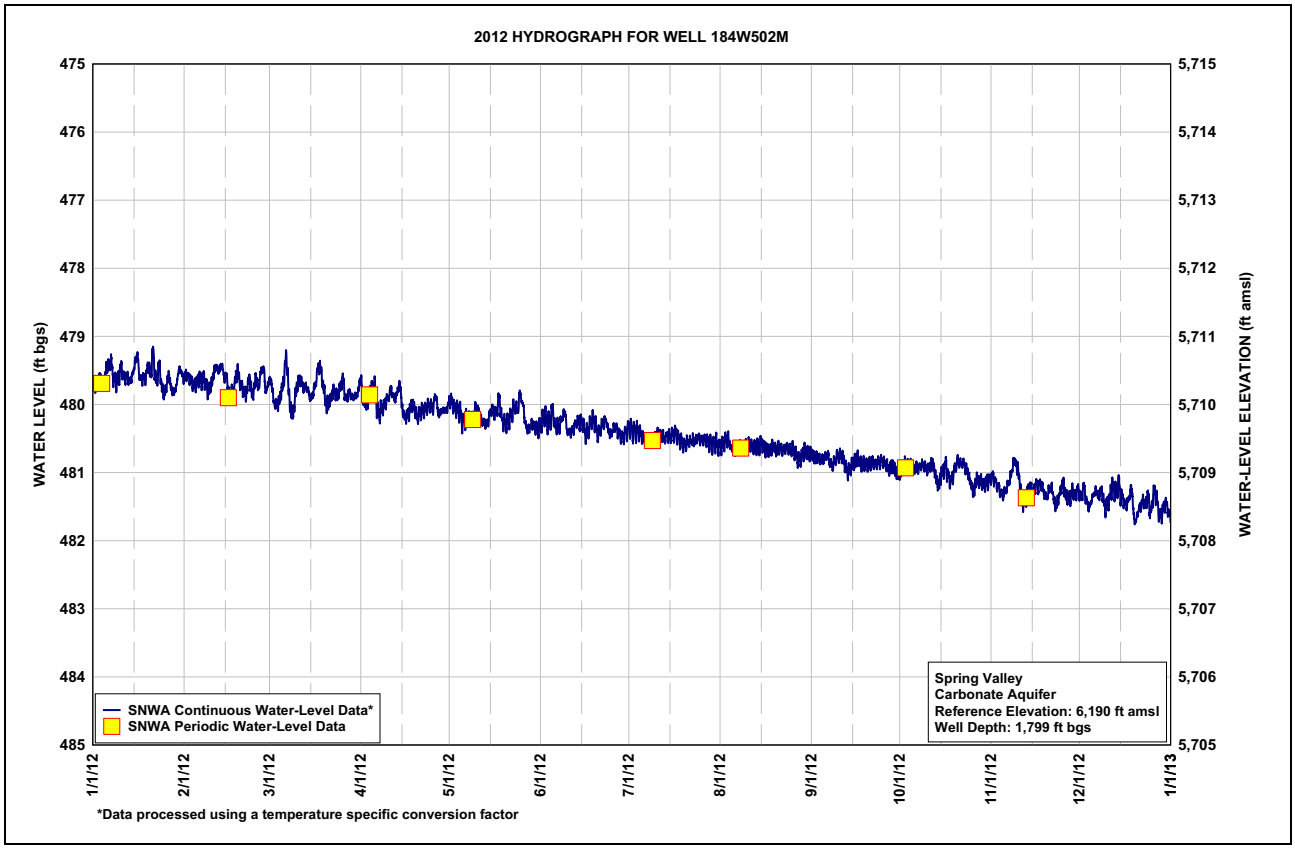
5/1/10
9/1/10
1/1/11
5/1/11
9/1/11
1/1/12
5/1/12
9/1/12
1/1/13
SNWA Continuous Water-Level Data*
SNWA Periodic Water-Level Data
Hamlin Valley
Basin-Fill Aquifer
Reference Elevation: 5,838 ft amsl
Well Depth: 435 ft bgs
*Data processed using a temperature specific conversion factor

Table B-9
Spring Valley Well 184W502M Calendar Year 2012
Water-Level Data, Daily Mean Values

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1	479.76	479.59	479.69	479.79	479.95	480.24	480.34	480.59	480.75	480.98	481.06	481.32
2	479.67	479.60	479.95	479.98	480.02	480.17	480.40	480.55	480.78	480.88	481.13	481.24
3	479.63	479.66	480.01	479.94	480.07	480.25	480.40	480.52	480.79	480.88	481.22	481.44
4	479.69	479.71	479.91	479.80	480.10	480.20	480.41	480.60	480.81	480.91	481.31	481.49
5	479.51	479.66	479.72	479.74	480.24	480.19	480.48	480.65	480.79	480.94	481.30	481.36
6	479.42	479.63	479.40	480.03	480.23	480.33	480.53	480.70	480.76	480.93	481.22	481.29
7	479.47	479.62	479.76	480.12	480.18	480.31	480.52	480.63	480.87	480.94	481.08	481.34
8	479.64	479.73	480.09	480.04	480.19	480.19	480.52	480.64	480.87	480.90	480.89	481.31
9	479.65	479.78	479.97	479.97	480.11	480.21	480.49	480.63	480.78	480.93	480.88	481.47
10	479.50	479.66	479.71	479.88	480.06	480.41	480.44	480.59	480.76	480.94	481.07	481.45
11	479.59	479.49	479.66	479.82	480.17	480.39	480.44	480.61	480.79	480.90	481.37	481.33
12	479.61	479.49	479.75	479.91	480.26	480.33	480.47	480.64	480.89	480.93	481.39	481.23
13	479.65	479.47	479.75	479.80	480.28	480.24	480.49	480.63	480.98	481.09	481.31	481.25
14	479.56	479.57	479.86	479.81	480.19	480.26	480.45	480.60	480.91	481.13	481.25	481.21
15	479.37	479.64	479.88	480.12	480.08	480.31	480.46	480.61	480.86	480.98	481.26	481.36
16	479.43	479.87	479.72	480.18	480.12	480.43	480.43	480.65	480.81	480.91	481.18	481.46
17	479.63	479.79	479.49	480.10	480.01	480.35	480.47	480.68	480.84	481.05	481.18	481.43
18	479.61	479.63	479.53	480.02	480.08	480.22	480.52	480.64	480.87	481.10	481.24	481.28
19	479.50	479.58	479.79	480.10	480.26	480.28	480.58	480.64	480.88	480.97	481.36	481.61
20	479.51	479.73	480.00	480.16	480.27	480.43	480.57	480.66	480.88	480.86	481.30	481.66
21	479.31	479.83	479.94	480.10	480.23	480.34	480.56	480.66	480.86	480.87	481.24	481.52
22	479.61	479.74	479.83	480.08	480.10	480.26	480.53	480.67	480.87	480.87	481.43	481.43
23	479.48	479.71	479.84	480.03	480.06	480.28	480.54	480.64	480.86	480.95	481.45	481.46
24	479.74	479.82	479.82	480.03	480.01	480.41	480.49	480.65	480.84	481.06	481.29	481.41
25	479.81	479.65	479.68	480.04	479.92	480.39	480.51	480.66	480.85	481.22	481.19	481.51
26	479.63	479.69	479.80	479.91	480.15	480.35	480.52	480.72	480.89	481.21	481.34	481.31
27	479.74	479.50	479.87	480.13	480.36	480.41	480.53	480.80	480.94	481.11	481.37	481.46
28	479.81	479.69	479.86	480.10	480.34	480.48	480.56	480.78	480.92	481.13	481.30	481.62
29	479.68	479.71	479.89	480.09	480.29	480.44	480.59	480.70	480.97	481.17	481.31	481.52
30	479.50	---	479.88	480.04	480.34	480.37	480.58	480.71	481.02	481.15	481.26	481.47
31	479.59	---	479.72	---	480.33	---	480.60	480.72	---	481.11	---	481.61
Max	479.81	479.87	480.09	480.18	480.36	480.48	480.60	480.80	481.02	481.22	481.45	481.66
Min	479.31	479.47	479.40	479.74	479.92	480.17	480.34	480.52	480.75	480.86	480.88	481.21

Year 2012 Statistics: **Year Max 481.66; Year Min 479.31**

Note: Water level in ft bgs


2012 HYDROGRAPH FOR WELL 184W502M
WATER LEVEL (ft bgs)
WATER-LEVEL ELEVATION (ft amsl)
475
476
477
478
479
480
481
482
483
484
485
5,715
5,714
5,713
5,712
5,711
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7/1/12
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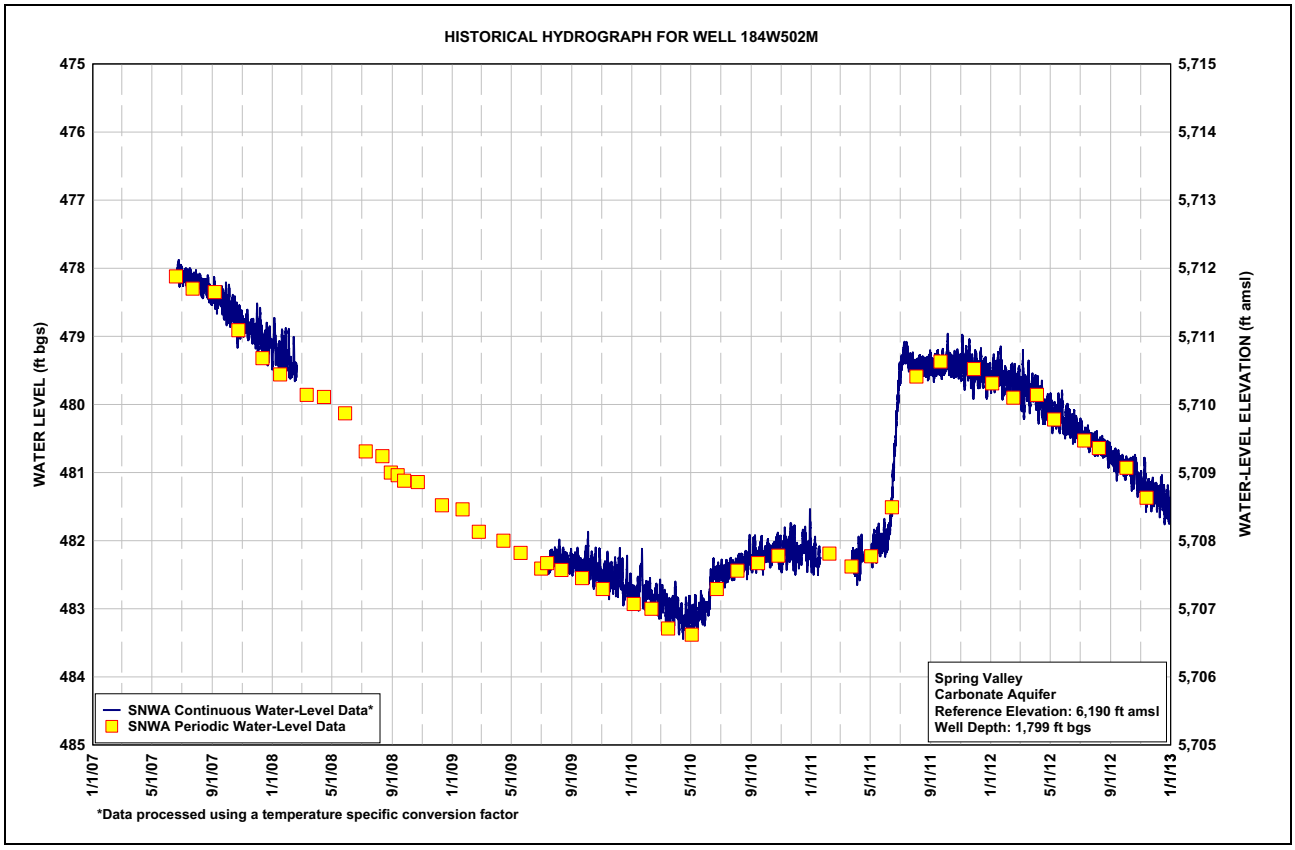
9/1/12
10/1/12
11/1/12
12/1/12
1/1/13
SNWA Continuous Water-Level Data*
SNWA Periodic Water-Level Data
Spring Valley
Carbonate Aquifer
Reference Elevation: 6,190 ft amsl
Well Depth: 1,799 ft bgs
*Data processed using a temperature specific conversion factor


HISTORICAL HYDROGRAPH FOR WELL 184W502M
WATER LEVEL (ft bgs)
WATER-LEVEL ELEVATION (ft amsl)
475
476
477
478
479
480
481
482
483
484
485
5,715
5,714
5,713
5,712
5,711
5,710
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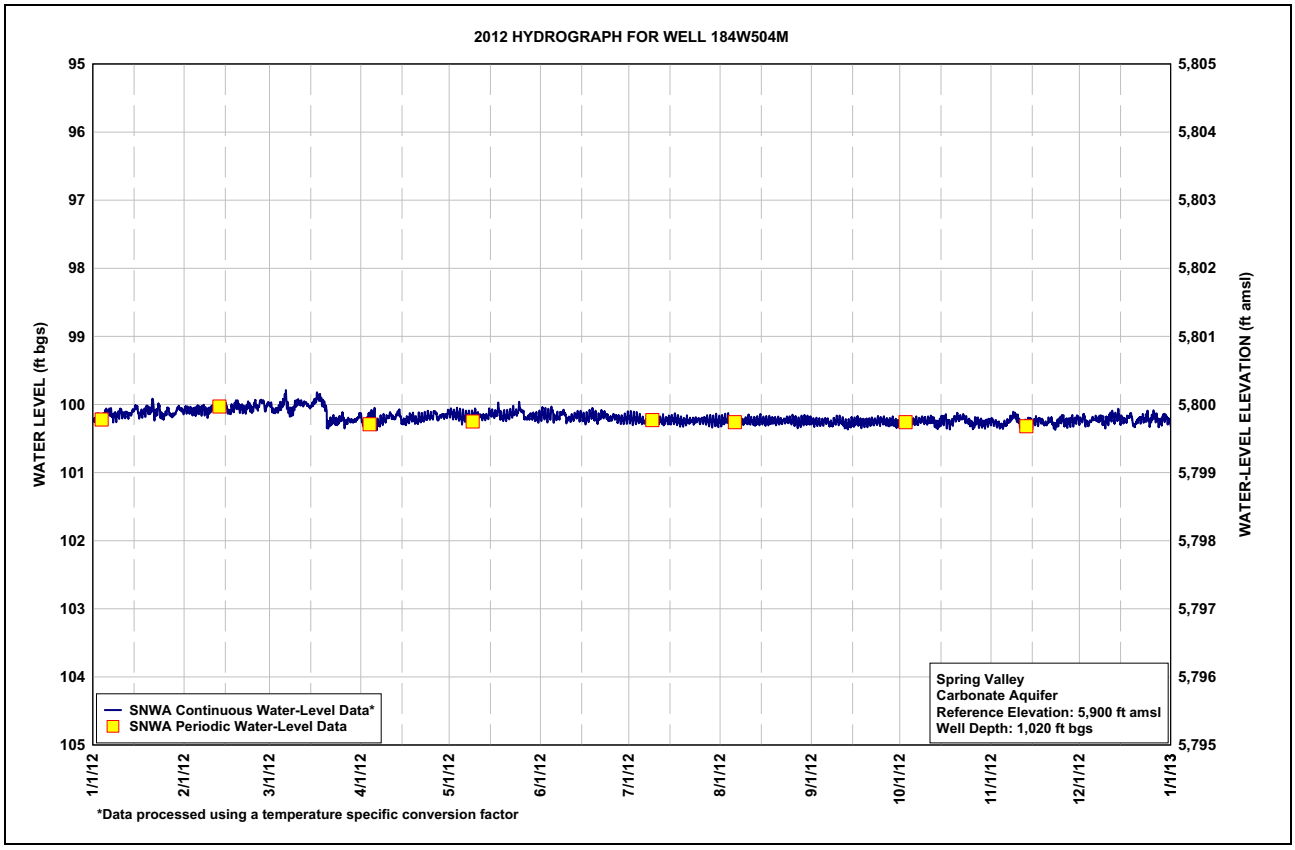
9/1/10
1/1/11
5/1/11
9/1/11
1/1/12
5/1/12
9/1/12
1/1/13
SNWA Continuous Water-Level Data*
SNWA Periodic Water-Level Data
Spring Valley
Carbonate Aquifer
Reference Elevation: 6,190 ft amsl
Well Depth: 1,799 ft bgs
*Data processed using a temperature specific conversion factor

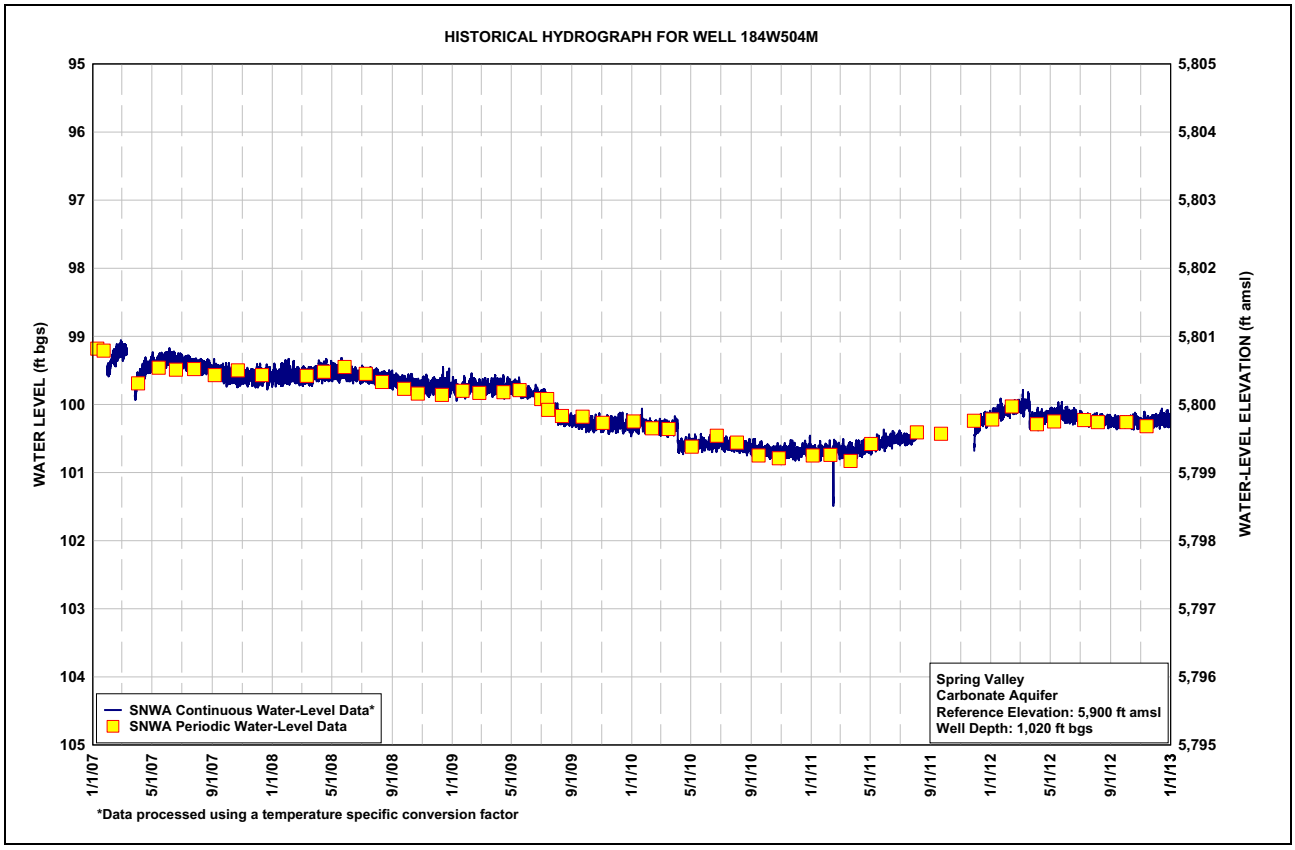
Table B-10
Spring Valley Well 184W504M, Calendar Year 2012
Water-Level Data, Daily Mean Values

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1	100.23	100.07	100.02	100.24	100.12	100.15	100.19	100.25	100.25	100.26	100.24	100.23
2	100.18	100.08	100.09	100.26	100.15	100.14	100.21	100.22	100.26	100.23	100.27	100.20
3	100.19	100.10	100.08	100.22	100.14	100.17	100.21	100.22	100.26	100.25	100.29	100.28
4	100.19	100.10	100.04	100.17	100.15	100.13	100.22	100.26	100.26	100.25	100.32	100.27
5	100.12	100.08	99.98	100.17	100.20	100.17	100.24	100.26	100.25	100.25	100.30	100.22
6	100.11	100.08	99.91	100.28	100.18	100.18	100.25	100.27	100.25	100.25	100.27	100.21
7	100.16	100.07	100.07	100.25	100.17	100.17	100.24	100.24	100.29	100.25	100.23	100.23
8	100.17	100.11	100.11	100.23	100.17	100.12	100.25	100.26	100.27	100.23	100.16	100.22
9	100.16	100.10	100.03	100.21	100.13	100.18	100.24	100.24	100.24	100.24	100.19	100.27
10	100.11	100.05	99.97	100.17	100.13	100.21	100.22	100.24	100.24	100.24	100.25	100.24
11	100.15	100.00	99.98	100.17	100.17	100.20	100.23	100.24	100.25	100.23	100.33	100.18
12	100.14	100.02	100.00	100.20	100.19	100.17	100.25	100.25	100.29	100.24	100.29	100.17
13	100.16	100.00	99.99	100.13	100.19	100.15	100.23	100.24	100.30	100.29	100.27	100.18
14	100.11	100.04	100.03	100.18	100.15	100.17	100.23	100.23	100.27	100.28	100.26	100.17
15	100.05	100.05	100.00	100.25	100.13	100.19	100.22	100.24	100.26	100.23	100.26	100.21
16	100.12	100.11	99.94	100.23	100.14	100.21	100.22	100.25	100.25	100.22	100.24	100.23
17	100.14	100.06	99.89	100.21	100.08	100.17	100.23	100.25	100.26	100.27	100.23	100.20
18	100.12	100.01	99.93	100.19	100.16	100.14	100.25	100.24	100.27	100.27	100.25	100.17
19	100.07	100.03	100.00	100.22	100.17	100.18	100.26	100.24	100.26	100.22	100.29	100.30
20	100.09	100.05	100.19	100.22	100.17	100.21	100.25	100.24	100.26	100.19	100.25	100.26
21	100.04	100.07	100.27	100.20	100.15	100.17	100.25	100.24	100.25	100.20	100.24	100.22
22	100.13	100.02	100.23	100.20	100.12	100.16	100.24	100.24	100.26	100.19	100.31	100.20
23	100.06	100.05	100.25	100.17	100.12	100.18	100.24	100.23	100.24	100.23	100.28	100.21
24	100.17	100.05	100.24	100.18	100.07	100.21	100.22	100.23	100.25	100.26	100.23	100.22
25	100.15	100.01	100.19	100.17	100.09	100.19	100.23	100.23	100.24	100.29	100.22	100.21
26	100.08	100.01	100.26	100.14	100.16	100.19	100.23	100.25	100.26	100.27	100.27	100.16
27	100.15	99.96	100.24	100.20	100.20	100.21	100.24	100.27	100.26	100.25	100.26	100.23
28	100.15	100.05	100.24	100.17	100.17	100.23	100.24	100.25	100.25	100.27	100.23	100.25
29	100.09	100.00	100.24	100.17	100.17	100.21	100.25	100.23	100.27	100.28	100.24	100.20
30	100.06	---	100.22	100.13	100.19	100.20	100.25	100.24	100.28	100.27	100.21	100.20
31	100.10	---	100.16	---	100.18	---	100.25	100.24	---	100.25	---	100.25
Max	100.23	100.11	100.27	100.28	100.20	100.23	100.26	100.27	100.30	100.29	100.33	100.30
Min	100.04	99.96	99.89	100.13	100.07	100.12	100.19	100.22	100.24	100.19	100.16	100.16

Year 2012 Statistics: **Year Max 100.33; Year Min 99.89**

Note: Water level in ft bgs


2012 HYDROGRAPH FOR WELL 184W504M
WATER LEVEL (ft bgs)
WATER-LEVEL ELEVATION (ft amsl)
95
96
97
98
99
100
101
102
103
104
105
5,805
5,804
5,803
5,802
5,801
5,800
5,799
5,798
5,797
5,796
5,795
1/1/12
2/1/12
3/1/12
4/1/12
5/1/12
6/1/12
7/1/12
8/1/12
9/1/12
10/1/12
11/1/12
12/1/12
1/1/13
SNWA Continuous Water-Level Data*
SNWA Periodic Water-Level Data
Spring Valley
Carbonate Aquifer
Reference Elevation: 5,900 ft amsl
Well Depth: 1,020 ft bgs
*Data processed using a temperature specific conversion factor


HISTORICAL HYDROGRAPH FOR WELL 184W504M
WATER LEVEL (ft bgs)
WATER-LEVEL ELEVATION (ft amsl)
95
96
97
98
99
100
101
102
103
104
105
5,805
5,804
5,803
5,802
5,801
5,800
5,799
5,798
5,797
5,796
5,795
1/1/07
5/1/07
9/1/07
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9/1/08
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5/1/09
9/1/09
1/1/10
5/1/10
9/1/10
1/1/11
5/1/11
9/1/11
1/1/12
5/1/12
9/1/12
1/1/13
SNWA Continuous Water-Level Data*
SNWA Periodic Water-Level Data
Spring Valley
Carbonate Aquifer
Reference Elevation: 5,900 ft amsl
Well Depth: 1,020 ft bgs
*Data processed using a temperature specific conversion factor

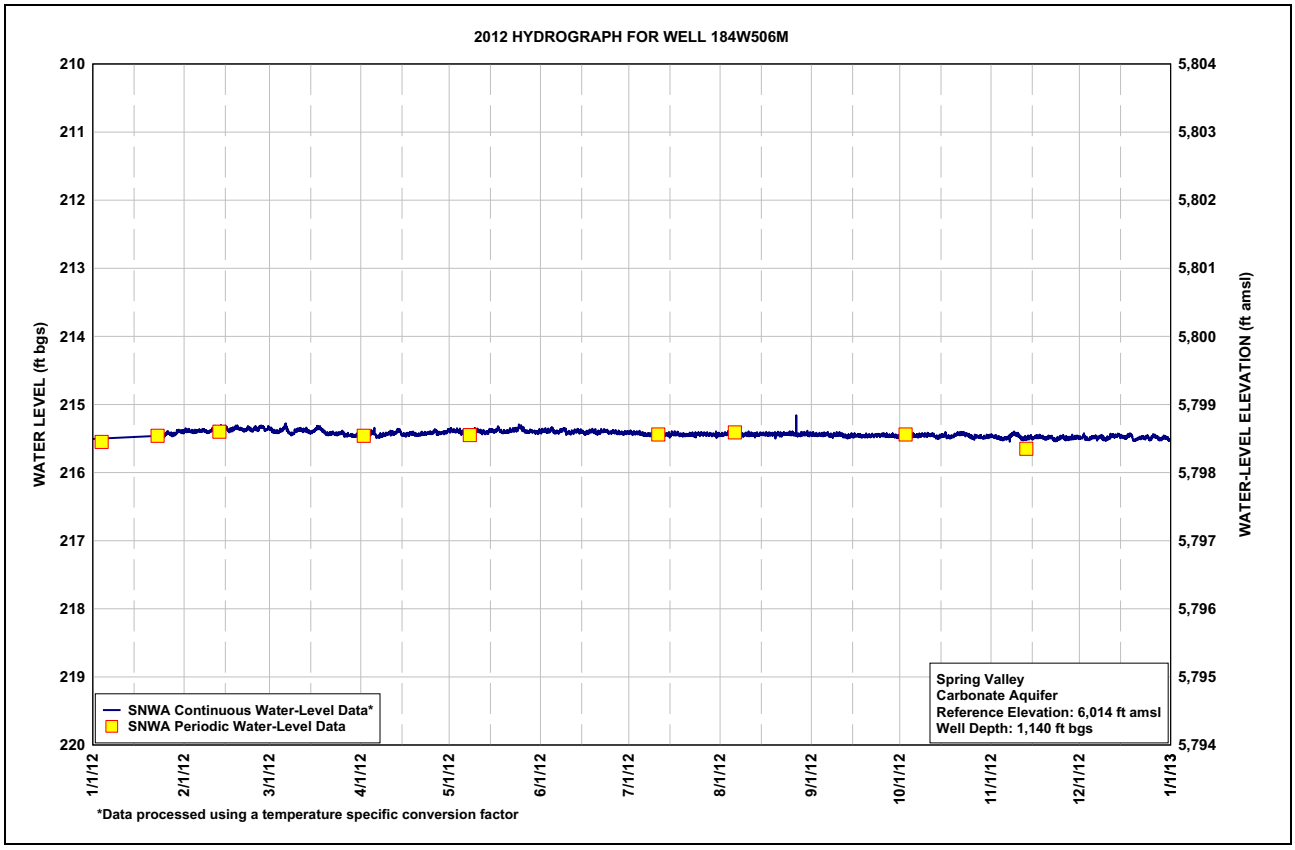
Table B-11
Spring Valley Well 184W506M, Calendar Year 2012
Water-Level Data, Daily Mean Values

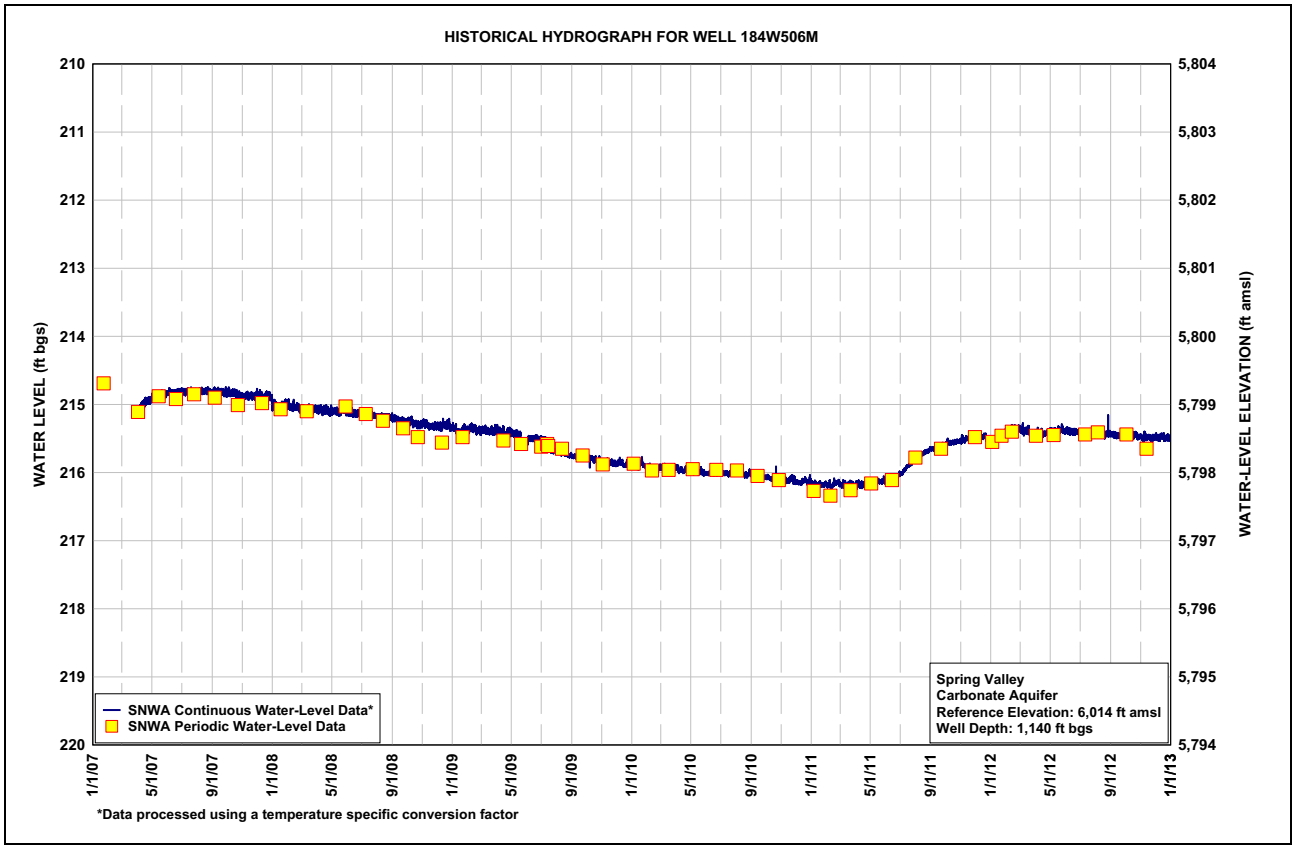
	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1	---[a]	215.39	215.36	215.47	215.38	215.39	215.41	215.45	215.44	215.47	215.47	215.49
2	---[a]	215.39	215.40	215.47	215.39	215.38	215.42	215.44	215.45	215.45	215.48	215.47
3	---[a]	215.40	215.41	215.44	215.39	215.40	215.42	215.43	215.44	215.46	215.49	215.51
4	---[a]	215.40	215.39	215.42	215.39	215.38	215.42	215.44	215.45	215.46	215.50	215.51
5	---[a]	215.39	215.37	215.41	215.42	215.39	215.44	215.45	215.44	215.46	215.50	215.48
6	---[a]	215.39	215.32	215.47	215.41	215.41	215.44	215.45	215.44	215.46	215.49	215.48
7	---[a]	215.38	215.40	215.46	215.41	215.40	215.45	215.45	215.46	215.46	215.47	215.49
8	---[a]	215.40	215.43	215.45	215.40	215.38	215.45	215.45	215.46	215.45	215.43	215.48
9	---[a]	215.40	215.41	215.44	215.38	215.40	215.45	215.44	215.44	215.45	215.44	215.51
10	---[a]	215.38	215.38	215.42	215.38	215.42	215.44	215.44	215.44	215.45	215.46	215.50
11	---[a]	215.35	215.37	215.42	215.40	215.42	215.44	215.44	215.45	215.45	215.51	215.48
12	---[a]	215.35	215.38	215.42	215.41	215.40	215.45	215.45	215.47	215.45	215.50	215.46
13	---[a]	215.33	215.38	215.40	215.41	215.39	215.44	215.44	215.47	215.48	215.49	215.47
14	---[a]	215.34	215.41	215.41	215.40	215.40	215.45	215.44	215.47	215.48	215.49	215.46
15	---[a]	215.35	215.40	215.45	215.38	215.41	215.44	215.44	215.46	215.46	215.49	215.47
16	---[a]	215.38	215.37	215.45	215.39	215.42	215.43	215.44	215.46	215.45	215.48	215.48
17	---[a]	215.37	215.35	215.43	215.36	215.41	215.43	215.44	215.46	215.48	215.48	215.47
18	---[a]	215.34	215.36	215.43	215.40	215.39	215.45	215.44	215.47	215.48	215.49	215.45
19	---[a]	215.35	215.40	215.44	215.40	215.40	215.45	215.44	215.46	215.46	215.50	215.52
20	---[a]	215.37	215.44	215.44	215.40	215.42	215.45	215.44	215.46	215.44	215.49	215.51
21	---[a]	215.38	215.44	215.44	215.39	215.40	215.45	215.44	215.46	215.43	215.48	215.49
22	---[a]	215.35	215.42	215.43	215.38	215.39	215.44	215.44	215.46	215.43	215.52	215.48
23	---[b]	215.37	215.43	215.42	215.37	215.40	215.45	215.43	215.45	215.44	215.52	215.49
24	215.46	215.38	215.43	215.42	215.35	215.42	215.44	215.43	215.45	215.46	215.49	215.49
25	215.45	215.36	215.41	215.41	215.34	215.40	215.43	215.43	215.45	215.48	215.49	215.49
26	215.42	215.35	215.45	215.40	215.38	215.41	215.44	215.43	215.46	215.48	215.50	215.47
27	215.44	215.33	215.45	215.42	215.40	215.42	215.44	215.45	215.46	215.47	215.50	215.49
28	215.45	215.37	215.45	215.42	215.40	215.42	215.44	215.44	215.46	215.48	215.49	215.51
29	215.42	215.35	215.46	215.41	215.40	215.42	215.44	215.44	215.47	215.49	215.49	215.49
30	215.39	---	215.46	215.39	215.41	215.41	215.44	215.43	215.48	215.48	215.48	215.49
31	215.40	---	215.43	---	215.40	---	215.45	215.44	---	215.47	---	215.52
Max	215.46	215.40	215.46	215.47	215.42	215.42	215.45	215.45	215.48	215.49	215.52	215.52
Min	215.39	215.33	215.32	215.39	215.34	215.38	215.41	215.43	215.44	215.43	215.43	215.45

Year 2012 Statistics: **Year Max 215.52; Year Min 215.32**

Note: Water level in ft bgs

[a]No data available due to data logger malfunction.
[b]Insufficient data points to report a daily average.


2012 HYDROGRAPH FOR WELL 184W506M
WATER LEVEL (ft bgs)
WATER-LEVEL ELEVATION (ft amsl)
210
211
212
213
214
215
216
217
218
219
220
5,804
5,803
5,802
5,801
5,800
5,799
5,798
5,797
5,796
5,795
5,794
1/1/12
2/1/12
3/1/12
4/1/12
5/1/12
6/1/12
7/1/12
8/1/12
9/1/12
10/1/12
11/1/12
12/1/12
1/1/13
SNWA Continuous Water-Level Data*
SNWA Periodic Water-Level Data
Spring Valley
Carbonate Aquifer
Reference Elevation: 6,014 ft amsl
Well Depth: 1,140 ft bgs
*Data processed using a temperature specific conversion factor


HISTORICAL HYDROGRAPH FOR WELL 184W506M
WATER LEVEL (ft bgs)
WATER-LEVEL ELEVATION (ft amsl)
210
211
212
213
214
215
216
217
218
219
220
5,804
5,803
5,802
5,801
5,800
5,799
5,798
5,797
5,796
5,795
5,794
1/1/07
5/1/07
9/1/07
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5/1/08
9/1/08
1/1/09
5/1/09
9/1/09
1/1/10
5/1/10
9/1/10
1/1/11
5/1/11
9/1/11
1/1/12
5/1/12
9/1/12
1/1/13
SNWA Continuous Water-Level Data*
SNWA Periodic Water-Level Data
Spring Valley
Carbonate Aquifer
Reference Elevation: 6,014 ft amsl
Well Depth: 1,140 ft bgs
*Data processed using a temperature specific conversion factor

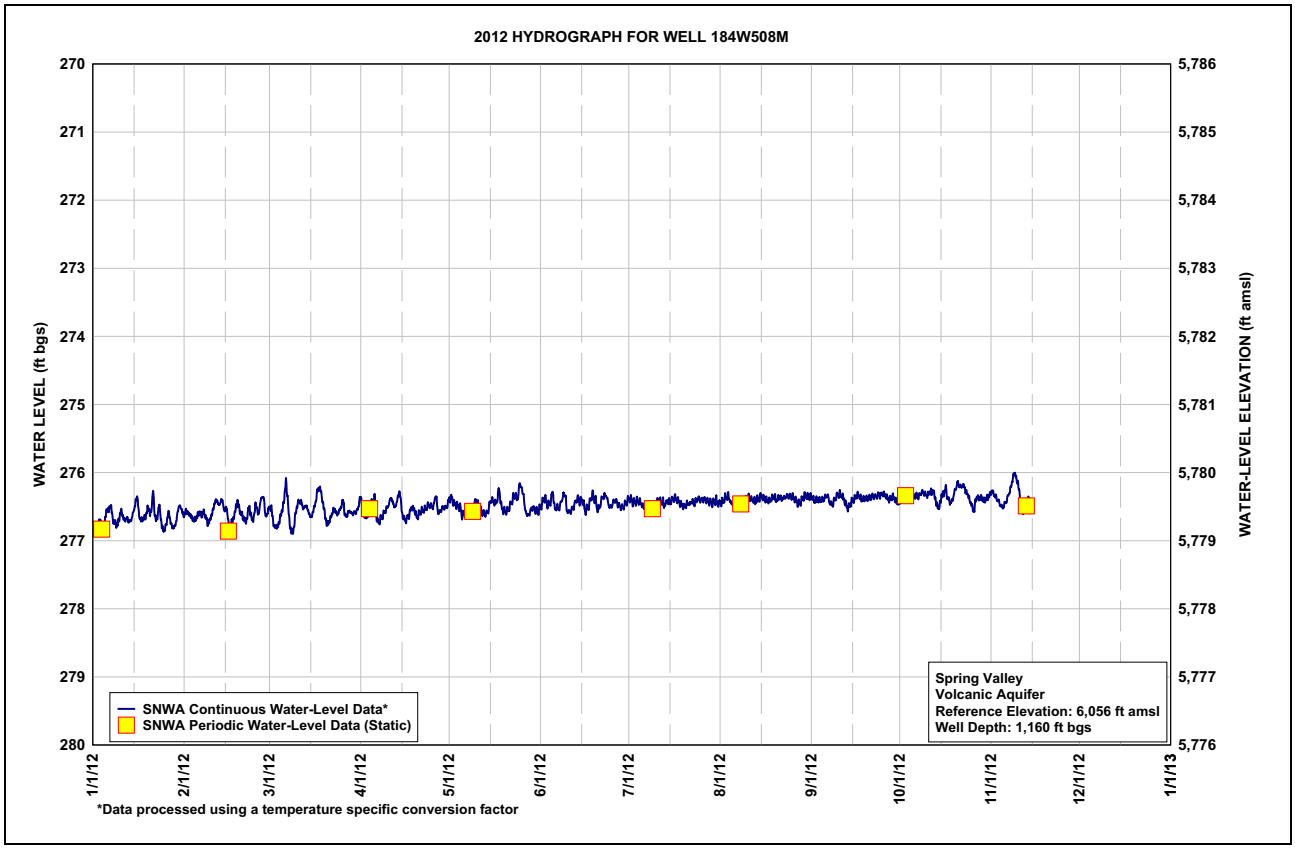
Table B-12
Spring Valley Well 184W508M, Calendar Year 2012
Water-Level Data, Daily Mean Values

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1	276.85	276.59	276.54	276.51	276.38	276.45	276.39	276.44	276.38	276.40	276.29	---[b]
2	276.77	276.60	276.75	276.64	276.44	276.39	276.43	276.39	276.41	276.30	276.35	---[b]
3	276.73	276.65	276.79	276.59	276.48	276.46	276.42	276.36	276.41	276.31	276.42	---[b]
4	276.77	276.69	276.68	276.46	276.51	276.41	276.43	276.43	276.41	276.34	276.49	---[b]
5	276.61	276.63	276.51	276.42	276.62	276.40	276.48	276.47	276.38	276.35	276.47	---[b]
6	276.53	276.60	276.23	276.66	276.60	276.52	276.52	276.50	276.36	276.34	276.38	---[b]
7	276.60	276.60	276.57	276.70	276.54	276.50	276.51	276.43	276.45	276.35	276.25	---[b]
8	276.74	276.68	276.85	276.62	276.54	276.37	276.50	276.43	276.44	276.29	276.07	---[b]
9	276.73	276.71	276.72	276.55	276.47	276.40	276.46	276.41	276.35	276.31	276.07	---[b]
10	276.60	276.60	276.48	276.46	276.42	276.57	276.42	276.39	276.33	276.33	276.25	---[b]
11	276.67	276.44	276.43	276.40	276.52	276.55	276.42	276.39	276.35	276.29	276.51	---[b]
12	276.68	276.45	276.51	276.49	276.59	276.47	276.45	276.41	276.44	276.30	276.51	---[b]
13	276.71	276.43	276.51	276.38	276.60	276.39	276.46	276.40	276.51	276.45	276.42	---[b]
14	276.62	276.51	276.61	276.40	276.51	276.41	276.42	276.37	276.44	276.47	---[a]	---[b]
15	276.45	276.57	276.61	276.66	276.41	276.45	276.41	276.36	276.39	276.33	---[b]	---[b]
16	276.52	276.77	276.46	276.68	276.44	276.54	276.38	276.40	276.34	276.26	---[b]	---[b]
17	276.69	276.69	276.26	276.61	276.34	276.47	276.41	276.42	276.36	276.39	---[b]	---[b]
18	276.67	276.53	276.30	276.52	276.41	276.35	276.46	276.38	276.39	276.43	---[b]	---[b]
19	276.56	276.49	276.53	276.59	276.55	276.40	276.49	276.38	276.39	276.31	---[b]	---[b]
20	276.57	276.61	276.73	276.63	276.56	276.53	276.48	276.39	276.38	276.18	---[b]	---[b]
21	276.40	276.69	276.69	276.57	276.51	276.44	276.46	276.38	276.36	276.20	---[b]	---[b]
22	276.66	276.62	276.58	276.55	276.40	276.36	276.43	276.37	276.35	276.20	---[b]	---[b]
23	276.54	276.58	276.58	276.50	276.36	276.37	276.44	276.35	276.34	276.28	---[b]	---[b]
24	276.77	276.66	276.58	276.49	276.30	276.49	276.39	276.35	276.33	276.37	---[b]	---[b]
25	276.81	276.51	276.47	276.49	276.23	276.46	276.41	276.36	276.32	276.49	---[b]	---[b]
26	276.64	276.54	276.56	276.39	276.43	276.41	276.40	276.40	276.35	276.48	---[b]	---[b]
27	276.73	276.37	276.61	276.57	276.61	276.47	276.41	276.45	276.39	276.37	---[b]	---[b]
28	276.80	276.55	276.58	276.53	276.57	276.51	276.43	276.42	276.36	276.37	---[b]	---[b]
29	276.66	276.56	276.60	276.51	276.52	276.48	276.44	276.36	276.40	276.40	---[b]	---[b]
30	276.51	---	276.57	276.46	276.55	276.42	276.43	276.35	276.44	276.38	---[b]	---[b]
31	276.59	---	276.43	---	276.54	---	276.45	276.36	---	276.33	---	---[b]
Max	276.85	276.77	276.85	276.70	276.62	276.57	276.52	276.50	276.51	276.49	276.51	---
Min	276.40	276.37	276.23	276.38	276.23	276.35	276.38	276.35	276.32	276.18	276.07	---

Year 2012 Statistics: **Year Max 276.85; Year Min 276.07**

Note: Water level in ft bgs

[a]Insufficient data points to report a daily average.
[b]No data available due to data logger malfunction.


2012 HYDROGRAPH FOR WELL 184W508M
WATER LEVEL (ft bgs)
WATER-LEVEL ELEVATION (ft amsl)
270
271
272
273
274
275
276
277
278
279
280
5,786
5,785
5,784
5,783
5,782
5,781
5,780
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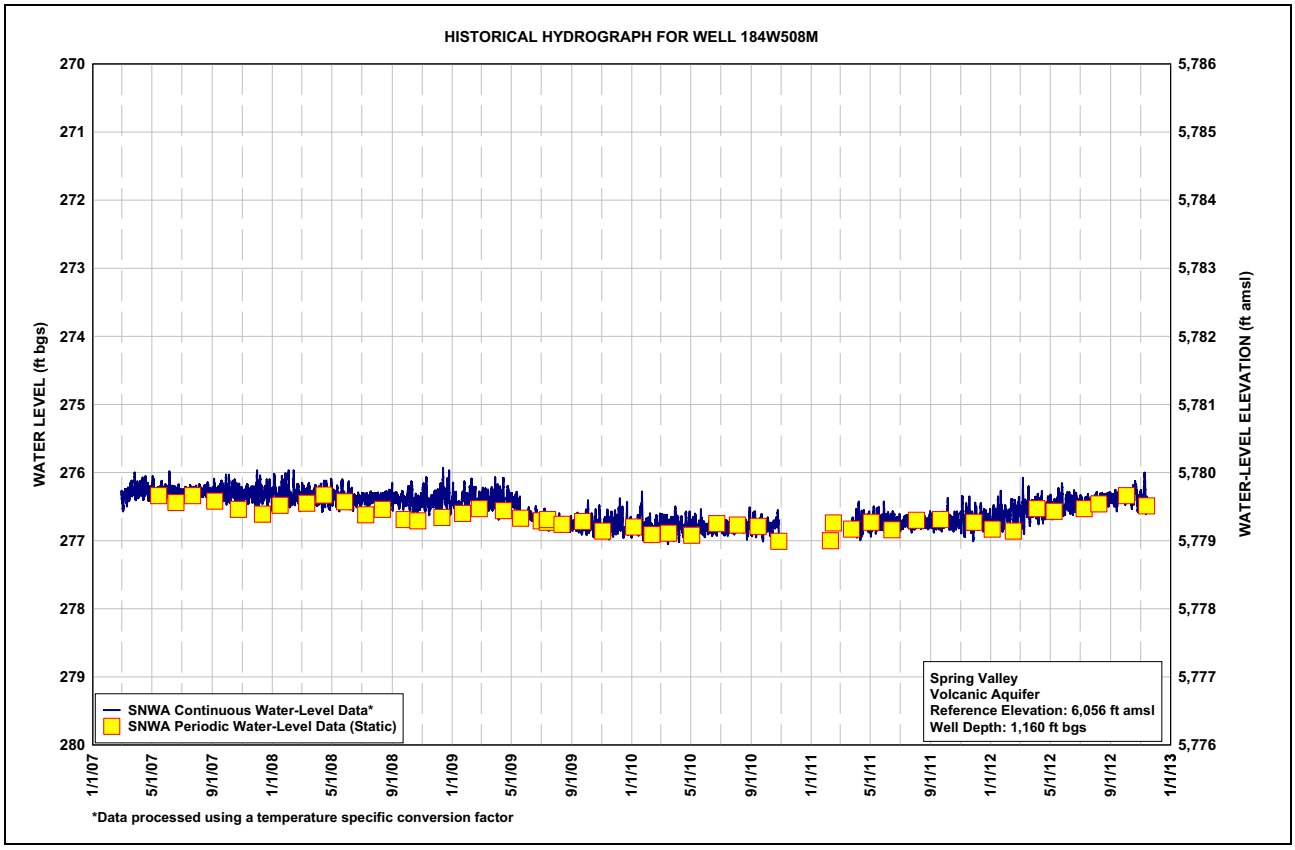
2/1/12
3/1/12
4/1/12
5/1/12
6/1/12
7/1/12
8/1/12
9/1/12
10/1/12
11/1/12
12/1/12
1/1/13
SNWA Continuous Water-Level Data*
SNWA Periodic Water-Level Data (Static)
Spring Valley
Volcanic Aquifer
Reference Elevation: 6,056 ft amsl
Well Depth: 1,160 ft bgs
*Data processed using a temperature specific conversion factor


HISTORICAL HYDROGRAPH FOR WELL 184W508M
WATER LEVEL (ft bgs)
WATER-LEVEL ELEVATION (ft amsl)
270
271
272
273
274
275
276
277
278
279
280
5,786
5,785
5,784
5,783
5,782
5,781
5,780
5,779
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5,777
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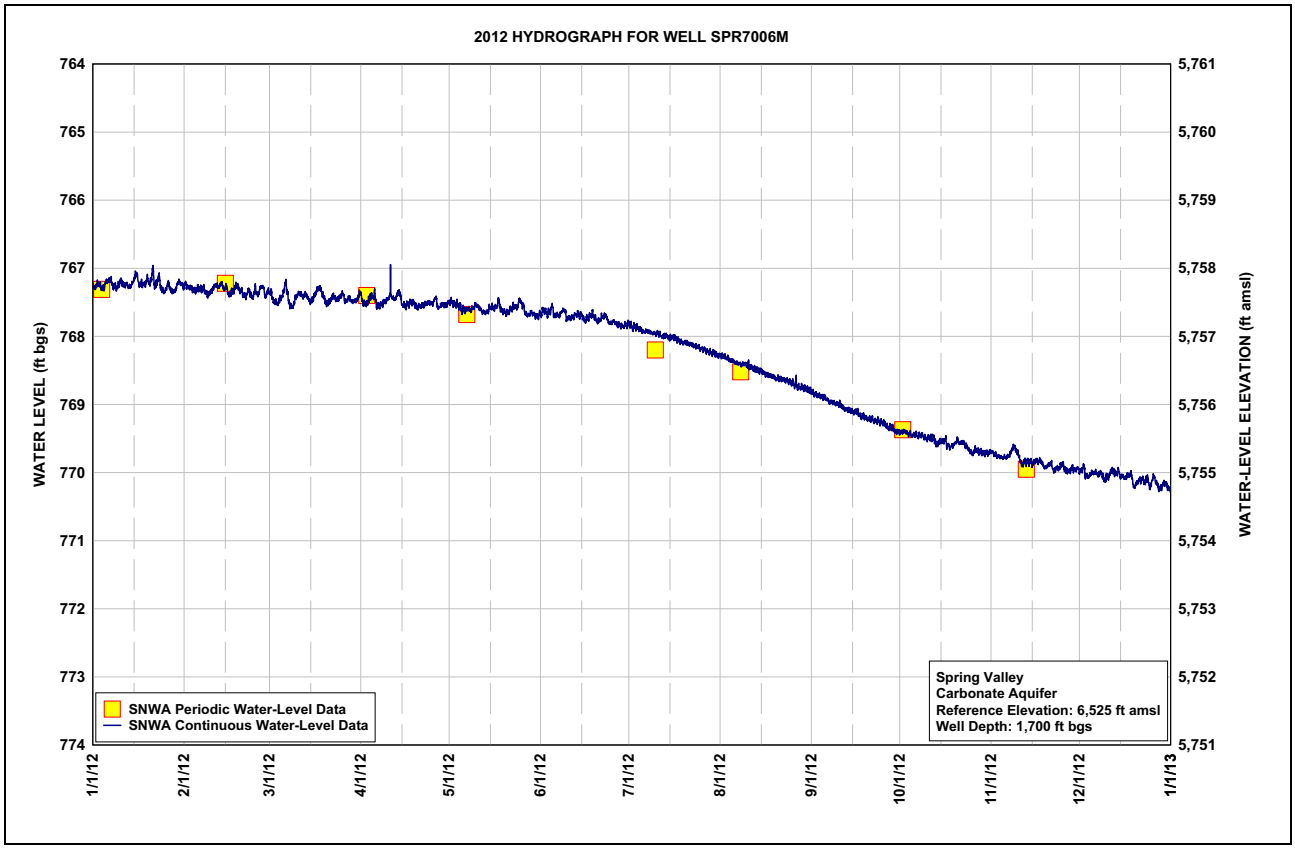
5/1/10
9/1/10
1/1/11
5/1/11
9/1/11
1/1/12
5/1/12
9/1/12
1/1/13
SNWA Continuous Water-Level Data*
SNWA Periodic Water-Level Data (Static)
Spring Valley
Volcanic Aquifer
Reference Elevation: 6,056 ft amsl
Well Depth: 1,160 ft bgs
*Data processed using a temperature specific conversion factor

Table B-13
Spring Valley Well SPR7006M, Calendar Year 2012
Water-Level Data, Daily Mean Values

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1	767.27	767.24	767.37	767.47	767.49	767.66	767.83	768.28	768.82	769.41	769.69	769.99
2	767.25	767.27	767.49	767.51	767.52	767.62	767.87	768.29	768.86	769.39	769.74	769.93
3	767.26	767.29	767.51	767.48	767.53	767.66	767.87	768.32	768.87	769.42	769.77	770.06
4	767.29	767.32	767.47	767.42	767.56	767.62	767.88	768.36	768.90	769.43	769.78	770.04
5	767.21	767.30	767.40	767.43	767.62	767.69	767.92	768.36	768.91	769.45	769.78	770.01
6	767.19	767.30	767.24	767.54	767.61	767.70	767.93	768.40	768.94	769.46	769.77	770.01
7	767.22	767.30	767.48	767.53	767.60	767.68	767.93	768.41	768.97	769.47	769.71	770.04
8	767.27	767.36	767.56	767.52	767.60	767.63	767.95	768.41	768.97	769.47	769.64	770.01
9	767.27	767.37	767.49	767.48	767.58	767.65	767.96	768.42	769.00	769.48	769.68	770.09
10	767.20	767.32	767.40	767.45	767.56	767.74	767.97	768.43	769.00	769.51	769.75	770.06
11	767.25	767.26	767.37	767.42	767.59	767.73	767.99	768.45	769.03	769.50	769.87	770.01
12	767.24	767.26	767.42	767.45	767.64	767.69	767.99	768.48	769.07	769.50	769.84	769.98
13	767.28	767.24	767.41	767.39	767.65	767.69	768.00	768.49	769.08	769.56	769.84	770.02
14	767.21	767.29	767.48	767.41	767.60	767.70	768.01	768.50	769.09	769.56	769.84	769.99
15	767.12	767.30	767.48	767.54	767.57	767.72	768.02	768.52	769.11	769.53	769.87	770.05
16	767.20	767.39	767.38	767.54	767.58	767.76	768.02	768.55	769.11	769.52	769.83	770.08
17	767.25	767.34	767.30	767.52	767.53	767.72	768.05	768.57	769.15	769.61	769.83	770.04
18	767.23	767.28	767.32	767.50	767.60	767.69	768.08	768.59	769.18	769.62	769.87	770.03
19	767.19	767.28	767.43	767.55	767.63	767.73	768.09	768.61	769.19	769.57	769.93	770.20
20	767.20	767.34	767.51	767.57	767.65	767.78	768.09	768.62	769.21	769.54	769.89	770.15
21	767.07	767.40	767.49	767.55	767.63	767.74	768.12	768.63	769.22	769.57	769.87	770.12
22	767.23	767.37	767.43	767.54	767.59	767.72	768.13	768.64	769.25	769.57	769.97	770.10
23	767.14	767.38	767.45	767.52	767.57	767.72	768.15	768.66	769.25	769.61	769.95	770.13
24	767.32	767.40	767.45	767.51	767.53	767.80	768.16	768.67	769.26	769.67	769.92	770.15
25	767.33	767.36	767.41	767.51	767.51	767.79	768.18	768.70	769.28	769.72	769.88	770.15
26	767.24	767.35	767.48	767.45	767.60	767.79	768.20	768.71	769.31	769.69	769.95	770.06
27	767.32	767.28	767.46	767.57	767.68	767.83	768.22	768.74	769.34	769.68	769.98	770.18
28	767.35	767.41	767.48	767.54	767.67	767.85	768.24	768.75	769.35	769.70	769.94	770.24
29	767.26	767.35	767.48	767.55	767.66	767.85	768.25	768.77	769.39	769.72	769.97	770.18
30	767.22	---	767.48	767.52	767.70	767.83	768.25	768.77	769.41	769.71	769.94	770.18
31	767.25	---	767.37	---	767.68	---	768.28	768.80	---	769.71	---	770.24
Max	767.35	767.41	767.56	767.57	767.70	767.85	768.28	768.80	769.41	769.72	769.98	770.24
Min	767.07	767.24	767.24	767.39	767.49	767.62	767.83	768.28	768.82	769.39	769.64	769.93

Year 2012 Statistics: **Year Max 770.24; Year Min 767.07**

Note: Water level in ft bgs


2012 HYDROGRAPH FOR WELL SPR7006M
WATER LEVEL (ft bgs)
WATER-LEVEL ELEVATION (ft amsl)
764
765
766
767
768
769
770
771
772
773
774
5,761
5,760
5,759
5,758
5,757
5,756
5,755
5,754
5,753
5,752
5,751
1/1/12
2/1/12
3/1/12
4/1/12
5/1/12
6/1/12
7/1/12
8/1/12
9/1/12
10/1/12
11/1/12
12/1/12
1/1/13
SNWA Periodic Water-Level Data
SNWA Continuous Water-Level Data
Spring Valley
Carbonate Aquifer
Reference Elevation: 6,525 ft amsl
Well Depth: 1,700 ft bgs

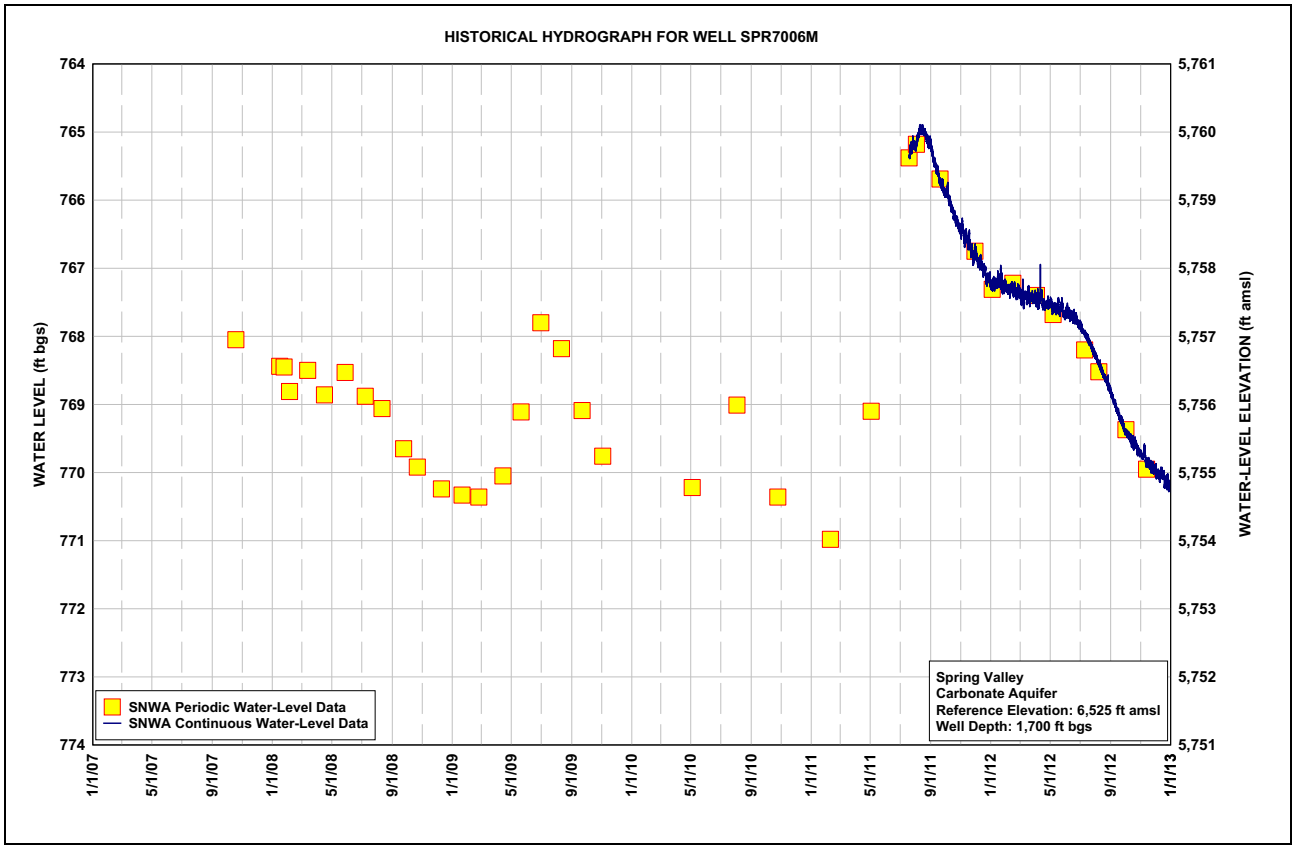
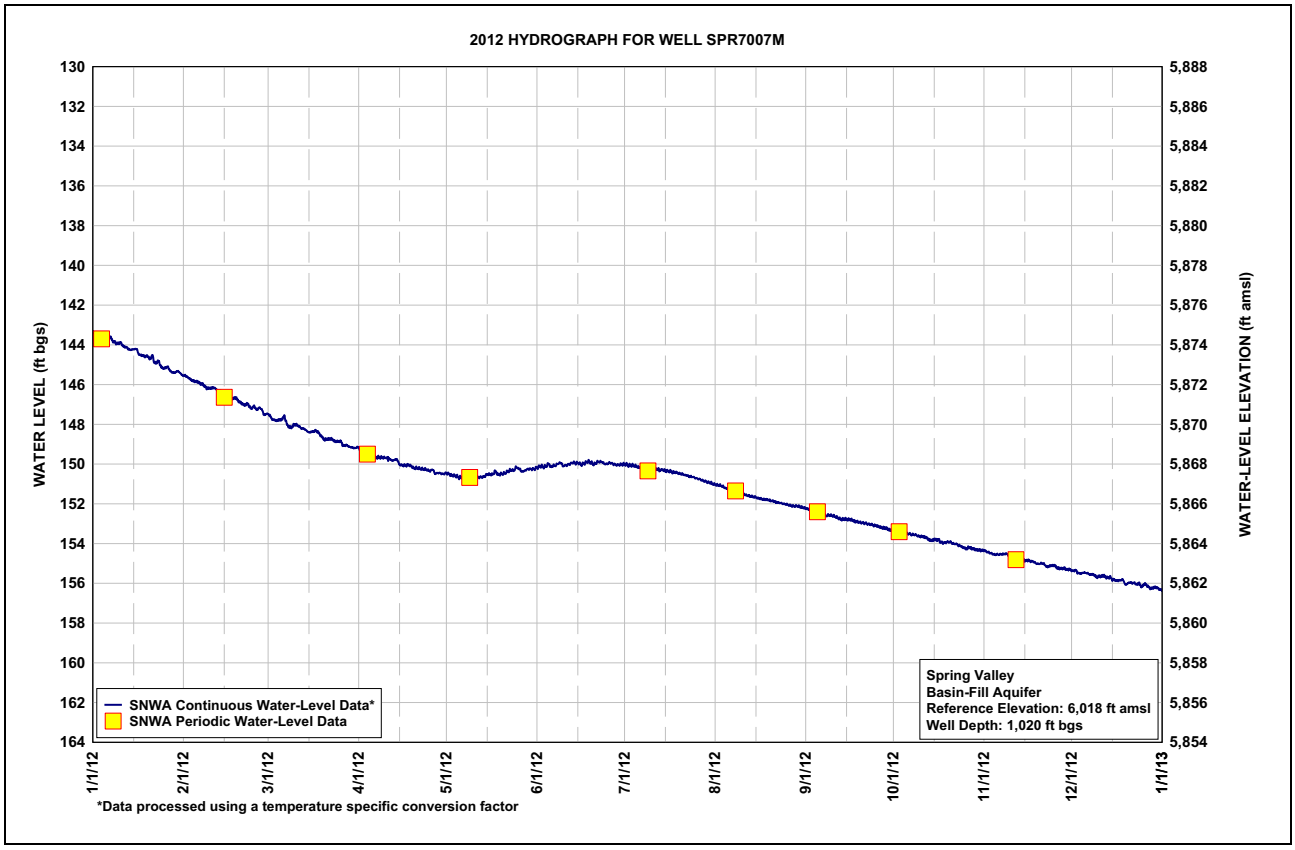

HISTORICAL HYDROGRAPH FOR WELL SPR7006M
WATER LEVEL (ft bgs)
WATER-LEVEL ELEVATION (ft amsl)
764
765
766
767
768
769
770
771
772
773
774
5,761
5,760
5,759
5,758
5,757
5,756
5,755
5,754
5,753
5,752
5,751
1/1/07
5/1/07
9/1/07
1/1/08
5/1/08
9/1/08
1/1/09
5/1/09
9/1/09
1/1/10
5/1/10
9/1/10
1/1/11
5/1/11
9/1/11
1/1/12
5/1/12
9/1/12
1/1/13
SNWA Periodic Water-Level Data
SNWA Continuous Water-Level Data
Spring Valley
Carbonate Aquifer
Reference Elevation: 6,525 ft amsl
Well Depth: 1,700 ft bgs

Table B-14
Spring Valley Well SPR7007M, Calendar Year 2012
Water-Level Data, Daily Mean Values

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1	143.38	145.55	147.55	149.31	150.47	150.15	150.02	151.05	152.25	153.34	154.37	155.37
2	143.39	145.63	147.74	149.40	150.55	150.11	150.06	151.07	152.30	153.34	154.44	155.37
3	143.47	145.74	147.79	149.40	150.58	150.14	150.07	151.12	152.35	153.40	154.49	155.49
4	143.58	145.82	147.79	149.38	150.61	150.06	150.10	151.21	152.39	153.44	154.54	155.49
5	143.54	145.85	147.76	149.43	150.68	150.08	150.14	151.25	152.45	153.48	154.55	155.46
6	143.58	145.92	147.66	149.65	150.67	150.10	150.18	151.30	152.52	153.51	154.55	155.50
7	143.72	145.98	147.98	149.66	150.65	150.06	150.19	151.31	152.58	153.55	154.54	155.56
8	143.87	146.11	148.14	149.67	150.65	149.97	150.21	151.40	152.58	153.56	154.52	155.57
9	143.92	146.18	148.08	149.68	150.61	150.01	150.21	151.46	152.58	153.62	154.61	155.67
10	143.91	146.17	148.02	149.68	150.59	150.07	150.22	151.50	152.61	153.65	154.72	155.65
11	144.06	146.17	148.09	149.73	150.65	150.04	150.25	151.56	152.67	153.67	154.82	155.63
12	144.13	146.27	148.20	149.81	150.66	149.98	150.28	151.60	152.74	153.73	154.79	155.66
13	144.23	146.31	148.24	149.78	150.64	149.93	150.30	151.63	152.78	153.82	154.79	155.72
14	144.23	146.45	148.36	149.88	150.57	149.95	150.31	151.66	152.77	153.82	154.82	155.74
15	144.21	146.53	148.39	150.05	150.51	149.97	150.35	151.71	152.79	153.80	154.85	155.82
16	144.38	146.71	148.36	150.06	150.52	150.01	150.36	151.74	152.80	153.83	154.86	155.86
17	144.52	146.70	148.34	150.06	150.42	149.95	150.41	151.78	152.86	153.94	154.89	155.85
18	144.57	146.68	148.47	150.07	150.49	149.88	150.42	151.79	152.90	153.96	154.96	155.84
19	144.57	146.76	148.64	150.16	150.51	149.94	150.46	151.82	152.93	153.92	155.02	156.04
20	144.67	146.90	148.75	150.20	150.48	150.00	150.50	151.85	152.96	153.93	155.00	155.99
21	144.64	147.00	148.74	150.21	150.42	149.92	150.55	151.89	152.98	154.00	155.04	155.98
22	144.90	146.99	148.74	150.25	150.34	149.89	150.58	151.93	153.02	154.02	155.15	156.00
23	144.86	147.07	148.82	150.26	150.32	149.92	150.63	151.96	153.04	154.10	155.13	156.04
24	145.11	147.17	148.86	150.30	150.24	149.99	150.65	152.00	153.08	154.17	155.11	156.08
25	145.17	147.15	148.85	150.33	150.21	149.96	150.71	152.03	153.12	154.23	155.15	156.10
26	145.13	147.22	149.01	150.33	150.31	149.96	150.75	152.07	153.17	154.22	155.24	156.08
27	145.30	147.21	149.06	150.47	150.35	150.01	150.81	152.11	153.21	154.23	155.25	156.20
28	145.39	147.46	149.10	150.45	150.28	150.04	150.86	152.11	153.23	154.27	155.25	156.24
29	145.36	147.48	149.16	150.49	150.25	150.02	150.91	152.12	153.29	154.31	155.30	156.20
30	145.37	---	149.19	150.47	150.25	150.01	150.95	152.17	153.33	154.33	155.31	156.24
31	145.51	---	149.16	---	150.22	---	151.01	152.20	---	154.34	---	156.33
Max	145.51	147.48	149.19	150.49	150.68	150.15	151.01	152.20	153.33	154.34	155.31	156.33
Min	143.38	145.55	147.55	149.31	150.21	149.88	150.02	151.05	152.25	153.34	154.37	155.37

Year 2012 Statistics: **Year Max 156.33; Year Min 143.38**

Note: Water level in ft bgs


2012 HYDROGRAPH FOR WELL SPR7007M
WATER LEVEL (ft bgs)
WATER-LEVEL ELEVATION (ft amsl)
130
132
134
136
138
140
142
144
146
148
150
152
154
156
158
160
162
164
5,888
5,886
5,884
5,882
5,880
5,878
5,876
5,874
5,872
5,870
5,868
5,866
5,864
5,862
5,860
5,858
5,856
5,854
1/1/12
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3/1/12
4/1/12
5/1/12
6/1/12
7/1/12
8/1/12
9/1/12
10/1/12
11/1/12
12/1/12
1/1/13
SNWA Continuous Water-Level Data*
SNWA Periodic Water-Level Data
Spring Valley
Basin-Fill Aquifer
Reference Elevation: 6,018 ft amsl
Well Depth: 1,020 ft bgs
*Data processed using a temperature specific conversion factor

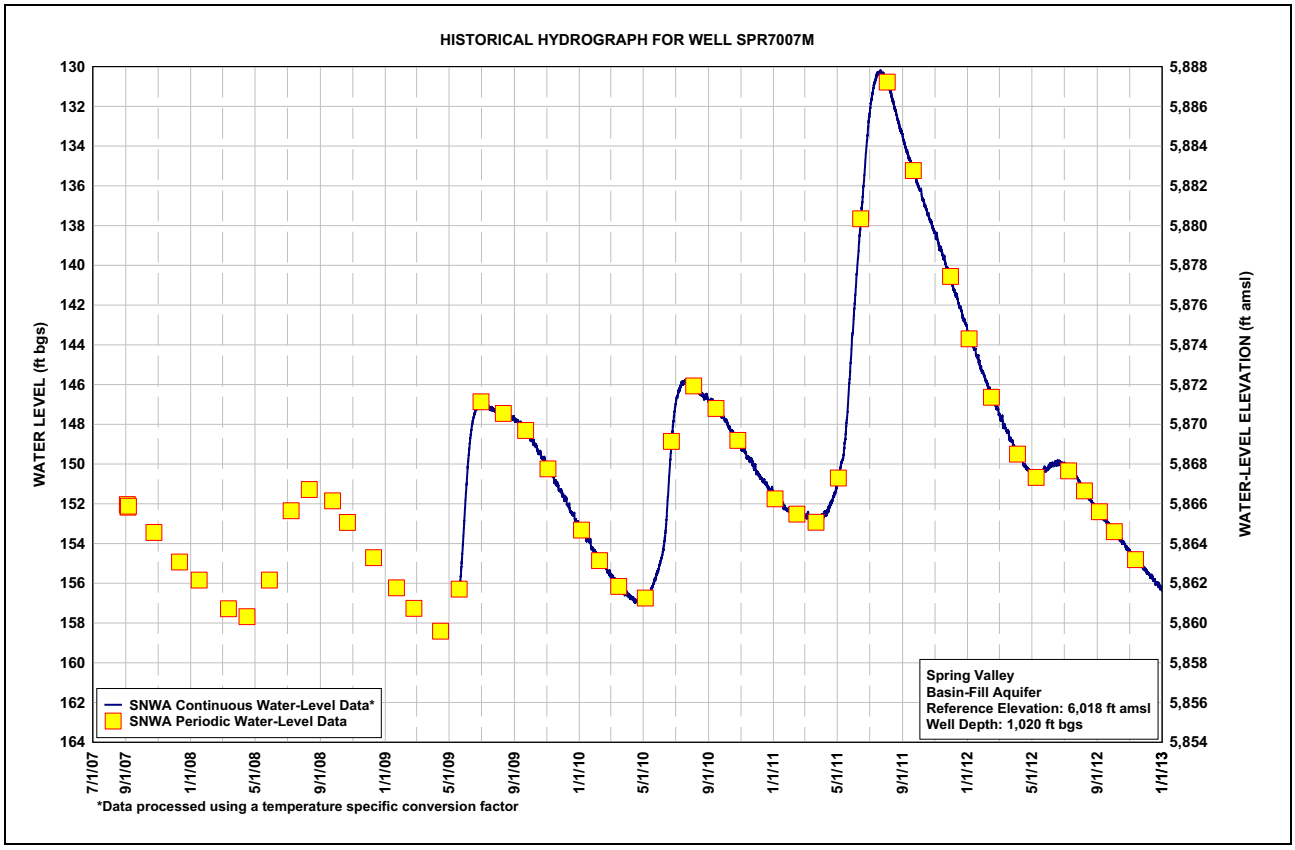
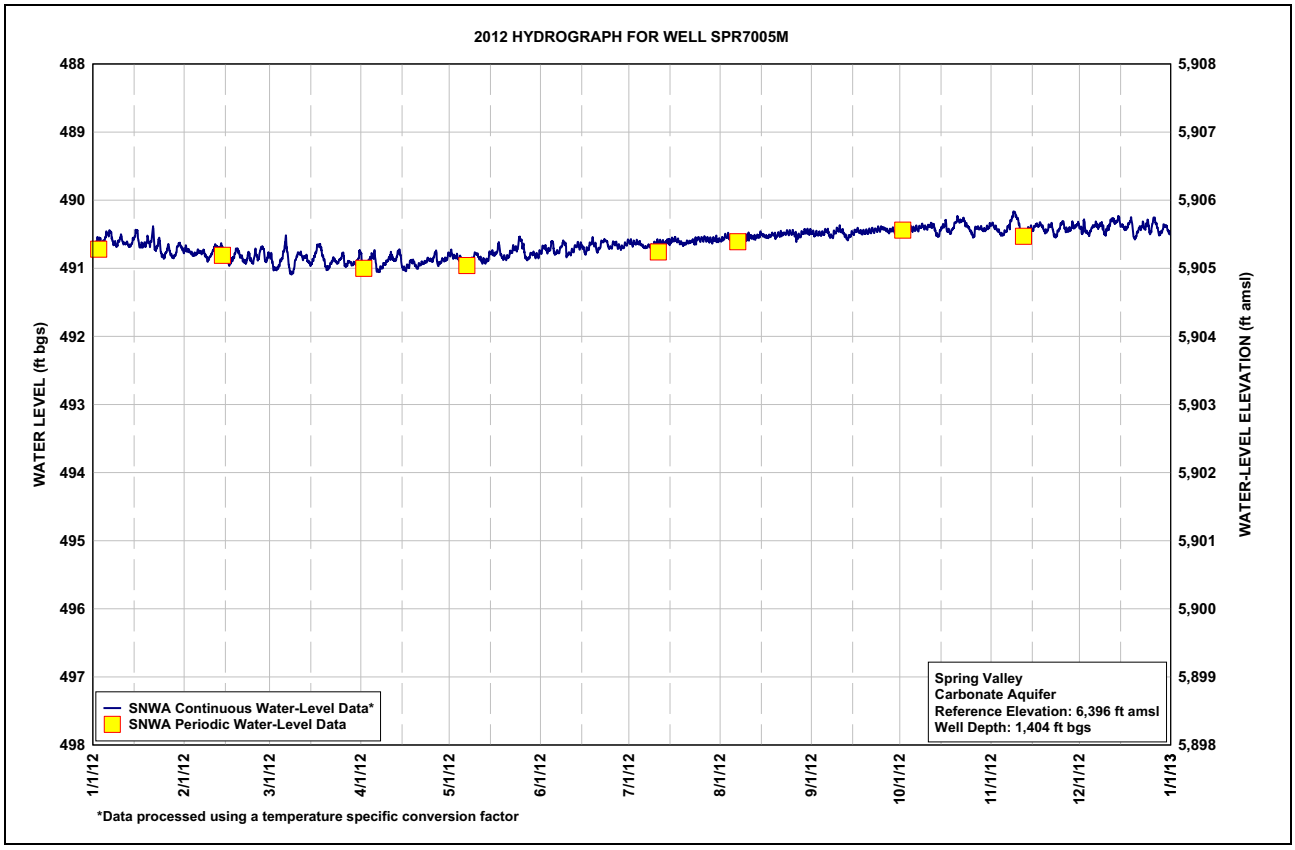

HISTORICAL HYDROGRAPH FOR WELL SPR7007M
WATER LEVEL (ft bgs)
WATER-LEVEL ELEVATION (ft amsl)
130
132
134
136
138
140
142
144
146
148
150
152
154
156
158
160
162
164
5,888
5,886
5,884
5,882
5,880
5,878
5,876
5,874
5,872
5,870
5,868
5,866
5,864
5,862
5,860
5,858
5,856
5,854
7/1/07
9/1/07
1/1/08
5/1/08
9/1/08
1/1/09
5/1/09
9/1/09
1/1/10
5/1/10
9/1/10
1/1/11
5/1/11
9/1/11
1/1/12
5/1/12
9/1/12
1/1/13
SNWA Continuous Water-Level Data*
SNWA Periodic Water-Level Data
Spring Valley
Basin-Fill Aquifer
Reference Elevation: 6,018 ft amsl
Well Depth: 1,020 ft bgs
*Data processed using a temperature specific conversion factor

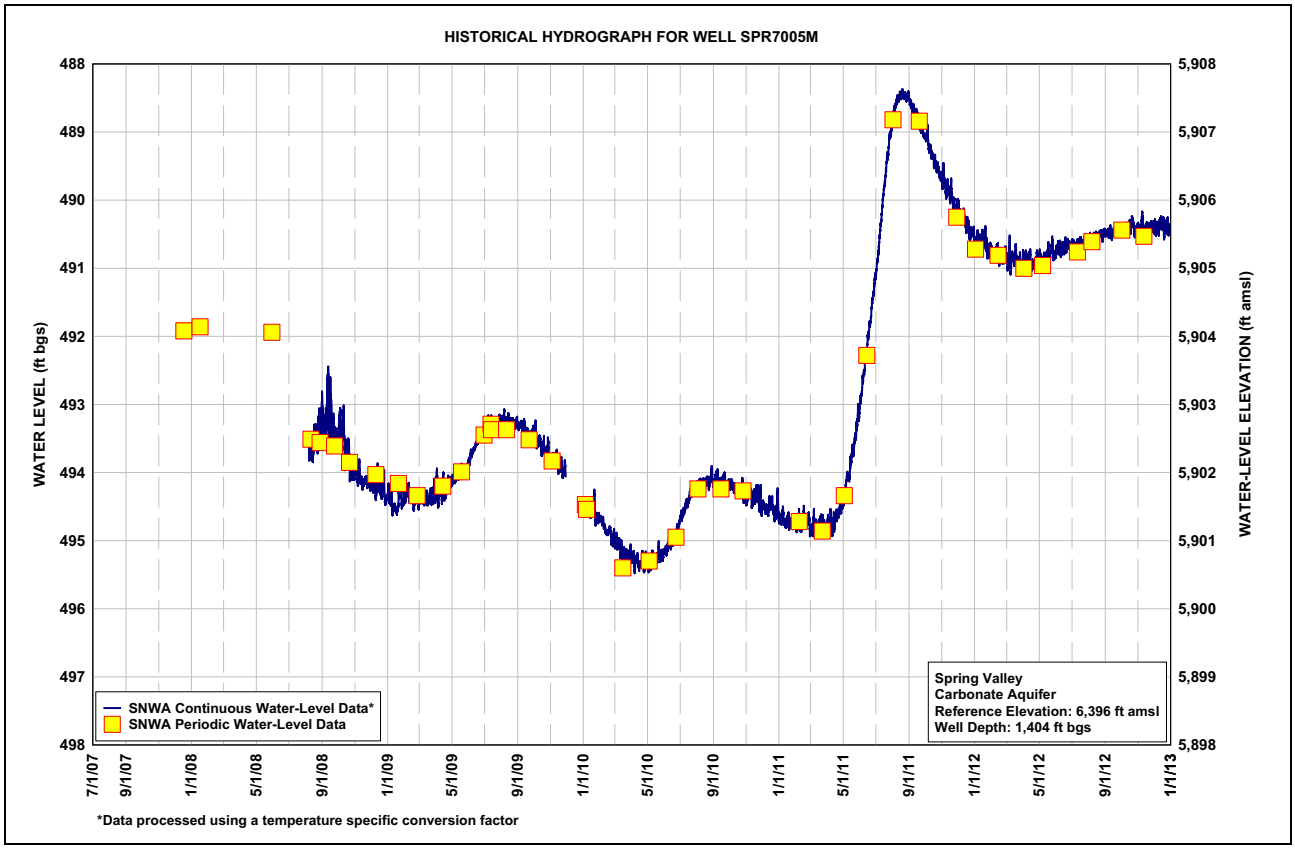
Table B-15
Spring Valley Well SPR7005M, Calendar Year 2012
Water-Level Data, Daily Mean Values

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1	490.65	490.72	490.83	490.91	490.78	490.73	490.61	490.58	490.48	490.46	490.36	490.43
2	490.59	490.74	490.99	490.99	490.83	490.69	490.64	490.55	490.49	490.39	490.41	490.38
3	490.59	490.78	491.00	490.93	490.83	490.74	490.63	490.53	490.50	490.41	490.45	490.47
4	490.63	490.80	490.93	490.83	490.86	490.68	490.63	490.58	490.49	490.41	490.50	490.48
5	490.51	490.77	490.81	490.82	490.94	490.71	490.66	490.60	490.47	490.43	490.48	490.39
6	490.48	490.76	490.64	491.01	490.91	490.77	490.69	490.61	490.47	490.42	490.42	490.36
7	490.56	490.76	490.92	491.02	490.88	490.74	490.68	490.56	490.53	490.42	490.33	490.39
8	490.64	490.84	491.07	490.96	490.87	490.64	490.67	490.58	490.50	490.38	490.21	490.36
9	490.63	490.85	490.95	490.92	490.81	490.69	490.65	490.55	490.45	490.40	490.23	490.47
10	490.55	490.77	490.80	490.85	490.80	490.79	490.62	490.53	490.43	490.40	490.35	490.43
11	490.63	490.68	490.79	490.83	490.86	490.76	490.62	490.54	490.46	490.37	490.52	490.34
12	490.63	490.70	490.84	490.88	490.90	490.71	490.64	490.55	490.53	490.38	490.50	490.29
13	490.67	490.67	490.84	490.79	490.90	490.66	490.63	490.54	490.55	490.49	490.44	490.32
14	490.60	490.75	490.92	490.83	490.82	490.68	490.61	490.51	490.50	490.48	490.41	490.29
15	490.49	490.79	490.91	491.00	490.77	490.71	490.60	490.51	490.47	490.39	490.41	490.37
16	490.58	490.93	490.80	490.99	490.79	490.75	490.58	490.54	490.44	490.36	490.37	490.42
17	490.67	490.86	490.67	490.94	490.70	490.68	490.60	490.54	490.47	490.45	490.36	490.37
18	490.66	490.76	490.72	490.90	490.78	490.61	490.63	490.51	490.47	490.46	490.40	490.31
19	490.59	490.76	490.88	490.95	490.84	490.67	490.65	490.51	490.47	490.37	490.46	490.52
20	490.63	490.84	491.00	490.97	490.85	490.74	490.63	490.51	490.46	490.29	490.41	490.50
21	490.52	490.90	490.96	490.93	490.80	490.65	490.62	490.50	490.45	490.31	490.38	490.42
22	490.70	490.84	490.88	490.92	490.73	490.60	490.60	490.49	490.44	490.29	490.51	490.37
23	490.61	490.85	490.90	490.88	490.71	490.62	490.60	490.48	490.42	490.36	490.49	490.39
24	490.80	490.89	490.90	490.88	490.64	490.70	490.57	490.48	490.42	490.42	490.38	490.39
25	490.81	490.80	490.82	490.87	490.61	490.66	490.58	490.48	490.42	490.49	490.34	490.41
26	490.70	490.81	490.91	490.80	490.74	490.64	490.57	490.50	490.44	490.46	490.43	490.29
27	490.80	490.70	490.93	490.94	490.86	490.68	490.58	490.53	490.46	490.41	490.44	490.41
28	490.83	490.85	490.92	490.89	490.81	490.70	490.59	490.51	490.43	490.41	490.38	490.49
29	490.73	490.82	490.93	490.88	490.79	490.67	490.59	490.47	490.47	490.43	490.39	490.40
30	490.65	---	490.91	490.82	490.81	490.63	490.58	490.47	490.49	490.41	490.36	490.39
31	490.73	---	490.80	---	490.80	---	490.59	490.47	---	490.38	---	490.47
Max	490.83	490.93	491.07	491.02	490.94	490.79	490.69	490.61	490.55	490.49	490.52	490.52
Min	490.48	490.67	490.64	490.79	490.61	490.60	490.57	490.47	490.42	490.29	490.21	490.29

Year 2012 Statistics: **Year Max 491.07; Year Min 490.21**

Note: Water level in ft bgs


2012 HYDROGRAPH FOR WELL SPR7005M
WATER LEVEL (ft bgs)
WATER-LEVEL ELEVATION (ft amsl)
488
489
490
491
492
493
494
495
496
497
498
5,908
5,907
5,906
5,905
5,904
5,903
5,902
5,901
5,900
5,899
5,898
1/1/12
2/1/12
3/1/12
4/1/12
5/1/12
6/1/12
7/1/12
8/1/12
9/1/12
10/1/12
11/1/12
12/1/12
1/1/13
SNWA Continuous Water-Level Data*
SNWA Periodic Water-Level Data
Spring Valley
Carbonate Aquifer
Reference Elevation: 6,396 ft amsl
Well Depth: 1,404 ft bgs
*Data processed using a temperature specific conversion factor


HISTORICAL HYDROGRAPH FOR WELL SPR7005M
WATER LEVEL (ft bgs)
WATER-LEVEL ELEVATION (ft amsl)
488
489
490
491
492
493
494
495
496
497
498
5,908
5,907
5,906
5,905
5,904
5,903
5,902
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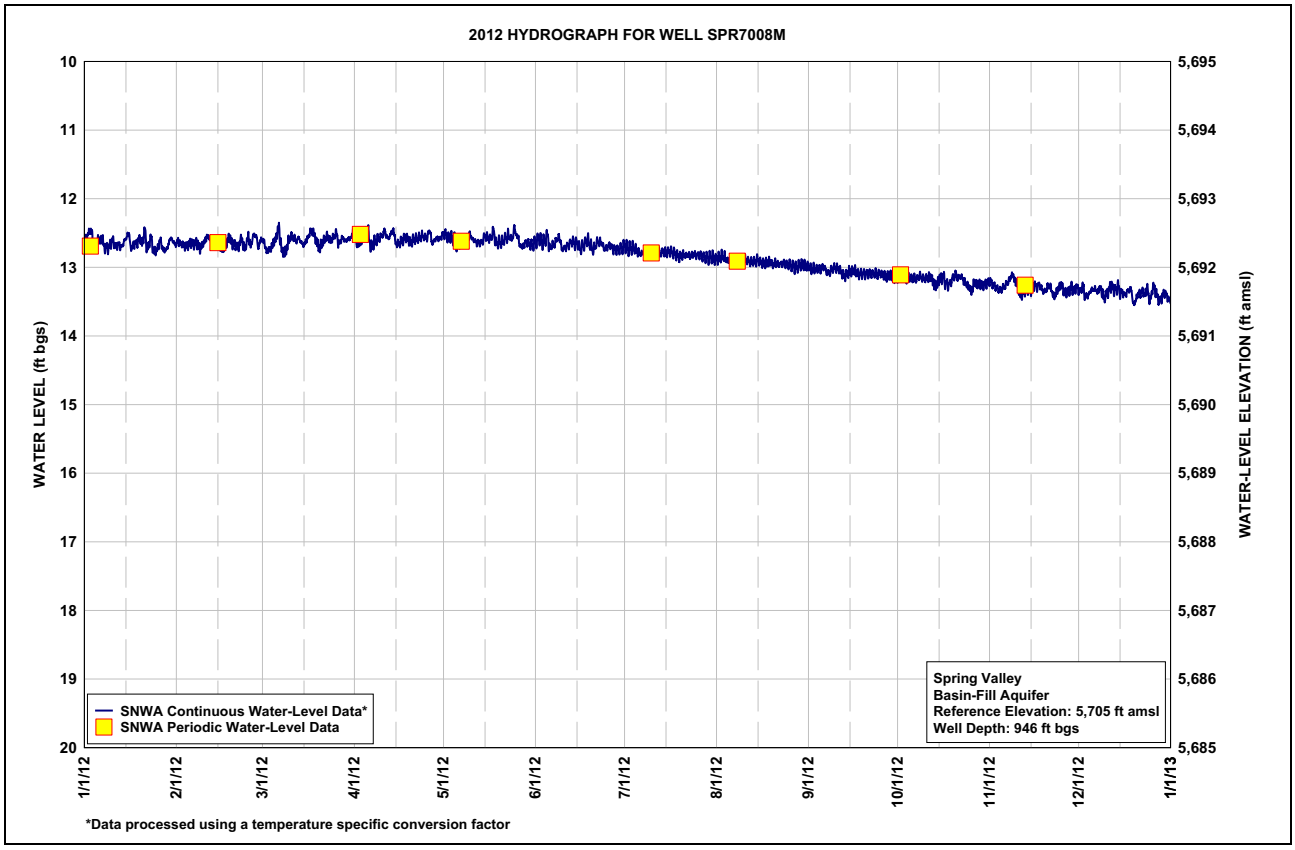
5/1/10
9/1/10
1/1/11
5/1/11
9/1/11
1/1/12
5/1/12
9/1/12
1/1/13
SNWA Continuous Water-Level Data*
SNWA Periodic Water-Level Data
Spring Valley
Carbonate Aquifer
Reference Elevation: 6,396 ft amsl
Well Depth: 1,404 ft bgs
*Data processed using a temperature specific conversion factor

Table B-16
Spring Valley Well SPR7008M, Calendar Year 2012
Water-Level Data, Daily Mean Values

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1	12.56	12.63	12.64	12.61	12.51	12.61	12.70	12.87	13.01	13.15	13.21	13.33
2	12.49	12.66	12.75	12.64	12.56	12.59	12.73	12.85	13.02	13.11	13.26	13.29
3	12.56	12.68	12.73	12.58	12.56	12.63	12.72	12.85	13.03	13.13	13.30	13.41
4	12.71	12.68	12.66	12.51	12.59	12.58	12.74	12.89	13.03	13.14	13.32	13.39
5	12.61	12.65	12.57	12.53	12.66	12.65	12.78	12.91	13.02	13.16	13.30	13.33
6	12.60	12.65	12.48	12.68	12.63	12.68	12.80	12.93	13.02	13.16	13.26	13.32
7	12.66	12.64	12.71	12.65	12.61	12.65	12.78	12.90	13.08	13.17	13.20	13.35
8	12.70	12.69	12.77	12.61	12.60	12.58	12.78	12.91	13.05	13.14	13.13	13.33
9	12.68	12.69	12.67	12.57	12.56	12.66	12.77	12.89	13.02	13.16	13.19	13.43
10	12.62	12.62	12.56	12.53	12.57	12.72	12.76	12.89	13.02	13.17	13.28	13.38
11	12.68	12.56	12.57	12.51	12.62	12.69	12.76	12.90	13.05	13.15	13.39	13.30
12	12.67	12.59	12.61	12.57	12.64	12.65	12.78	12.92	13.10	13.17	13.35	13.29
13	12.69	12.57	12.60	12.50	12.64	12.62	12.78	12.92	13.12	13.25	13.32	13.32
14	12.62	12.63	12.66	12.55	12.58	12.65	12.78	12.90	13.08	13.23	13.30	13.30
15	12.54	12.65	12.63	12.66	12.56	12.68	12.78	12.91	13.06	13.17	13.30	13.37
16	12.65	12.74	12.55	12.63	12.58	12.71	12.77	12.94	13.05	13.15	13.27	13.39
17	12.69	12.67	12.48	12.59	12.51	12.66	12.80	12.94	13.08	13.24	13.26	13.35
18	12.65	12.59	12.54	12.57	12.60	12.62	12.82	12.93	13.09	13.24	13.30	13.33
19	12.59	12.62	12.65	12.62	12.64	12.68	12.84	12.94	13.09	13.16	13.35	13.51
20	12.62	12.66	12.69	12.62	12.63	12.74	12.83	12.95	13.10	13.12	13.30	13.45
21	12.54	12.69	12.62	12.59	12.60	12.66	12.83	12.95	13.09	13.15	13.29	13.38
22	12.69	12.62	12.56	12.58	12.55	12.64	12.82	12.95	13.09	13.14	13.41	13.36
23	12.60	12.66	12.59	12.55	12.57	12.67	12.83	12.94	13.08	13.21	13.37	13.38
24	12.75	12.67	12.58	12.55	12.51	12.73	12.81	12.95	13.10	13.27	13.30	13.39
25	12.73	12.60	12.52	12.55	12.52	12.69	12.83	12.96	13.10	13.32	13.28	13.40
26	12.63	12.62	12.61	12.51	12.63	12.69	12.82	12.98	13.12	13.27	13.36	13.31
27	12.73	12.54	12.60	12.64	12.70	12.74	12.84	13.01	13.14	13.24	13.35	13.42
28	12.74	12.66	12.59	12.59	12.65	12.75	12.85	12.99	13.12	13.24	13.30	13.46
29	12.64	12.61	12.60	12.58	12.64	12.73	12.86	12.96	13.16	13.26	13.32	13.40
30	12.60	---	12.58	12.54	12.67	12.71	12.86	12.98	13.17	13.24	13.30	13.40
31	12.66	---	12.49	---	12.65	---	12.88	12.99	---	13.22	---	13.47
Max	12.75	12.74	12.77	12.68	12.70	12.75	12.88	13.01	13.17	13.32	13.41	13.51
Min	12.49	12.54	12.48	12.50	12.51	12.58	12.70	12.85	13.01	13.11	13.13	13.29

Year 2012 Statistics: **Year Max 13.51; Year Min 12.48**

Note: Water level in ft bgs


2012 HYDROGRAPH FOR WELL SPR7008M
WATER LEVEL (ft bgs)
WATER-LEVEL ELEVATION (ft amsl)
10
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16
17
18
19
20
5,695
5,694
5,693
5,692
5,691
5,690
5,689
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5,686
5,685
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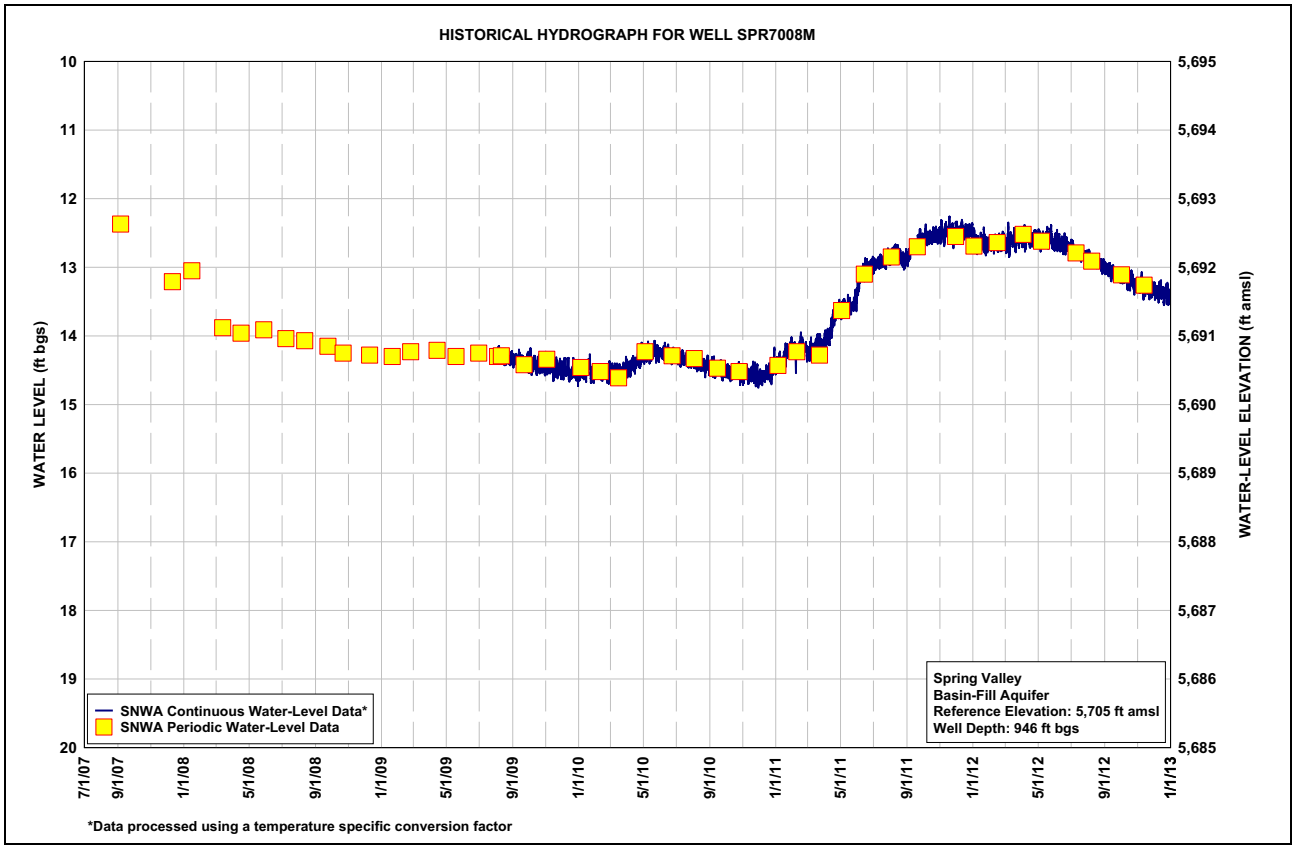
9/1/12
10/1/12
11/1/12
12/1/12
1/1/13
SNWA Continuous Water-Level Data*
SNWA Periodic Water-Level Data
Spring Valley
Basin-Fill Aquifer
Reference Elevation: 5,705 ft amsl
Well Depth: 946 ft bgs
*Data processed using a temperature specific conversion factor


HISTORICAL HYDROGRAPH FOR WELL SPR7008M
WATER LEVEL (ft bgs)
WATER-LEVEL ELEVATION (ft amsl)
10
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5,695
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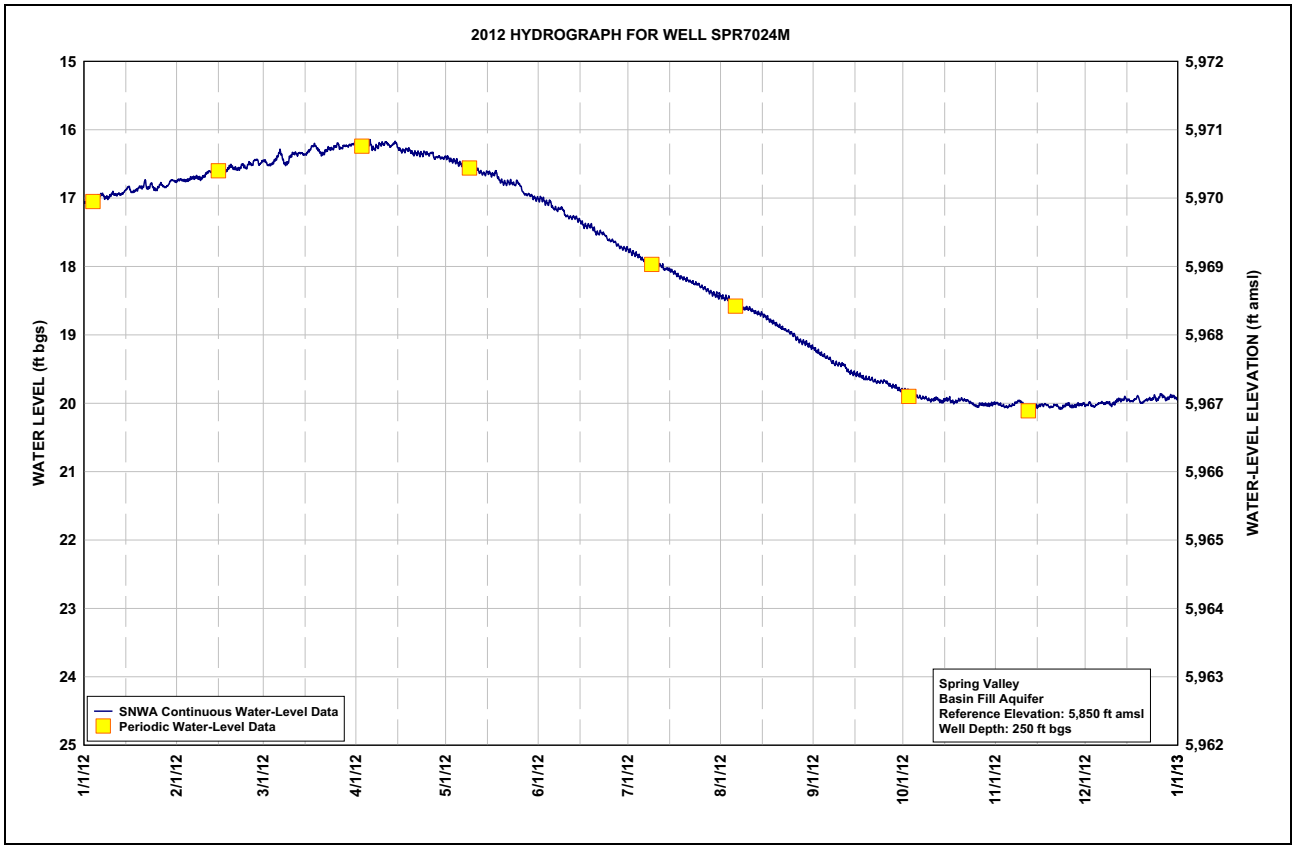
5/1/10
9/1/10
1/1/11
5/1/11
9/1/11
1/1/12
5/1/12
9/1/12
1/1/13
SNWA Continuous Water-Level Data*
SNWA Periodic Water-Level Data
Spring Valley
Basin-Fill Aquifer
Reference Elevation: 5,705 ft amsl
Well Depth: 946 ft bgs
*Data processed using a temperature specific conversion factor

Table B-17
Spring Valley Well SPR7024M, Calendar Year 2012
Water-Level Data, Daily Mean Values

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1	17.06	16.74	16.46	16.24	16.40	17.01	17.77	18.44	19.21	19.82	20.00	20.03
2	17.03	16.73	16.51	16.27	16.44	17.02	17.80	18.46	19.25	19.82	20.02	20.00
3	17.01	16.74	16.51	16.24	16.45	17.07	17.82	18.47	19.28	19.85	20.04	20.04
4	17.03	16.74	16.47	16.19	16.46	17.07	17.85	18.50	19.30	19.88	20.05	20.04
5	16.98	16.72	16.41	16.19	16.50	17.10	17.88	18.54	19.33	19.90	20.05	20.01
6	16.96	16.70	16.33	16.26	16.50	17.15	17.91	18.58	19.35	19.91	20.03	19.99
7	16.96	16.69	16.42	16.27	16.49	17.17	17.93	18.59	19.40	19.92	20.01	20.01
8	16.99	16.71	16.50	16.23	16.51	17.15	17.96	18.61	19.42	19.92	19.97	19.99
9	16.98	16.71	16.45	16.21	16.52	17.19	17.97	18.61	19.43	19.95	19.98	20.02
10	16.94	16.67	16.37	16.20	16.53	17.26	17.97	18.62	19.43	19.96	20.04	20.01
11	16.95	16.62	16.35	16.20	16.58	17.28	17.98	18.64	19.45	19.95	20.09	19.97
12	16.94	16.62	16.36	16.24	16.62	17.28	18.00	18.67	19.52	19.93	20.08	19.95
13	16.94	16.59	16.34	16.21	16.64	17.29	18.04	18.68	19.55	19.97	20.06	19.95
14	16.91	16.61	16.36	16.21	16.64	17.32	18.04	18.69	19.56	19.97	20.04	19.93
15	16.86	16.60	16.35	16.28	16.63	17.36	18.06	18.72	19.58	19.95	20.04	19.95
16	16.88	16.63	16.30	16.31	16.66	17.41	18.09	18.75	19.59	19.94	20.02	19.97
17	16.91	16.60	16.24	16.30	16.64	17.41	18.12	18.79	19.62	19.98	20.02	19.95
18	16.89	16.55	16.24	16.29	16.69	17.41	18.16	18.81	19.64	19.98	20.03	19.91
19	16.85	16.54	16.30	16.32	16.75	17.45	18.17	18.84	19.64	19.96	20.06	19.98
20	16.84	16.57	16.35	16.35	16.78	17.51	18.19	18.87	19.65	19.95	20.04	19.98
21	16.78	16.57	16.33	16.35	16.78	17.51	18.21	18.90	19.67	19.96	20.03	19.95
22	16.85	16.54	16.29	16.35	16.77	17.52	18.23	18.92	19.69	19.96	20.07	19.94
23	16.80	16.53	16.28	16.35	16.79	17.55	18.25	18.94	19.69	19.99	20.06	19.94
24	16.86	16.54	16.27	16.34	16.79	17.61	18.26	18.97	19.68	20.01	20.03	19.92
25	16.86	16.49	16.23	16.36	16.79	17.62	18.30	19.00	19.69	20.04	20.02	19.93
26	16.80	16.49	16.25	16.34	16.87	17.64	18.32	19.05	19.73	20.03	20.05	19.88
27	16.82	16.44	16.26	16.41	16.94	17.68	18.34	19.09	19.75	20.01	20.04	19.91
28	16.84	16.49	16.24	16.40	16.95	17.72	18.37	19.11	19.76	20.02	20.02	19.93
29	16.79	16.47	16.23	16.41	16.96	17.73	18.40	19.12	19.79	20.03	20.02	19.90
30	16.74	---	16.22	16.41	16.99	17.75	18.42	19.15	19.81	20.02	20.01	19.90
31	16.76	---	16.20	---	17.01	---	18.43	19.18	---	20.00	---	19.93
Max	17.06	16.74	16.51	16.41	17.01	17.75	18.43	19.18	19.81	20.04	20.09	20.04
Min	16.74	16.44	16.20	16.19	16.40	17.01	17.77	18.44	19.21	19.82	19.97	19.88

Year 2012 Statistics: **Year Max 20.09; Year Min 16.19**

Note: Water level in ft bgs


2012 HYDROGRAPH FOR WELL SPR7024M
WATER LEVEL (ft bgs)
WATER-LEVEL ELEVATION (ft amsl)
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5,972
5,971
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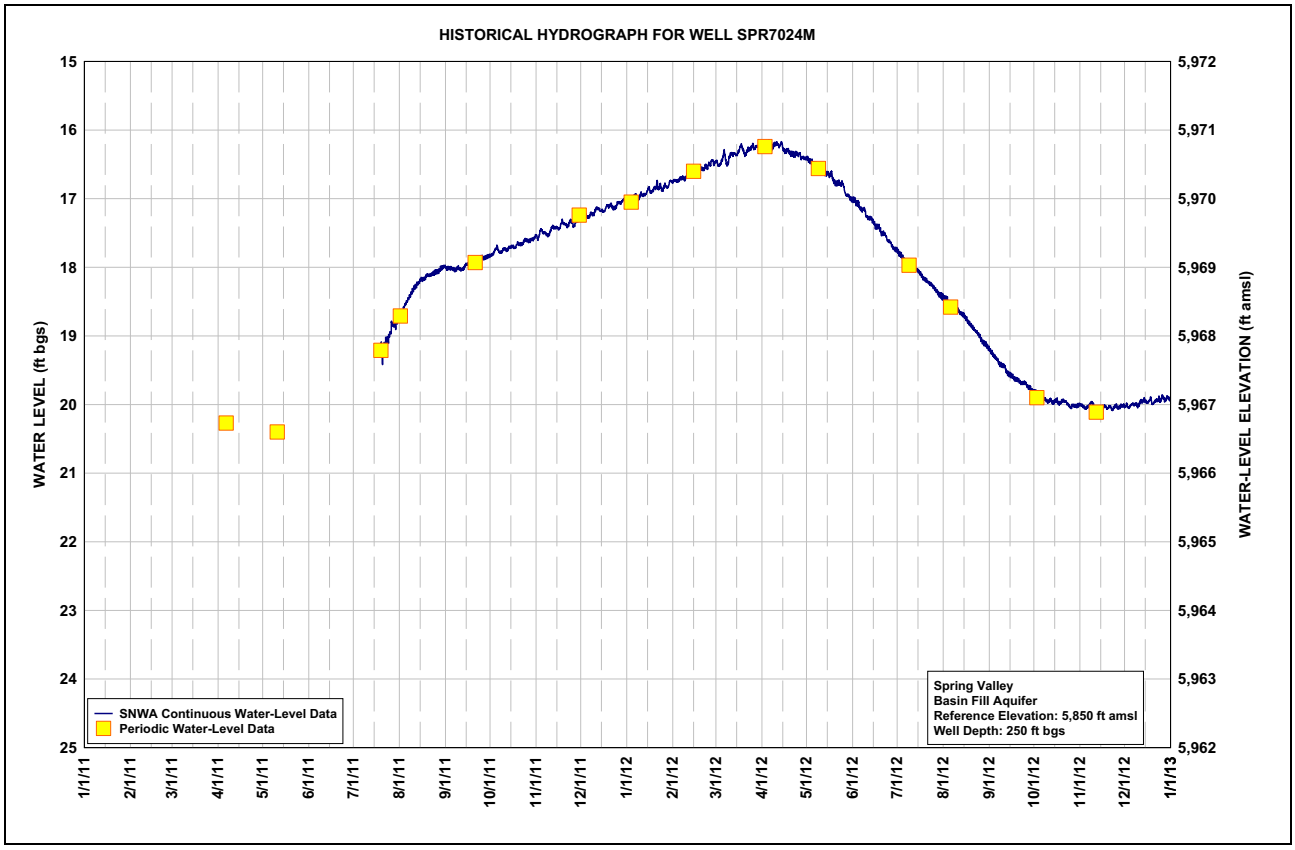
11/1/12
12/1/12
1/1/13
SNWA Continuous Water-Level Data
Periodic Water-Level Data
Spring Valley
Basin Fill Aquifer
Reference Elevation: 5,850 ft amsl
Well Depth: 250 ft bgs


HISTORICAL HYDROGRAPH FOR WELL SPR7024M
WATER LEVEL (ft bgs)
WATER-LEVEL ELEVATION (ft amsl)
15
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6/1/12
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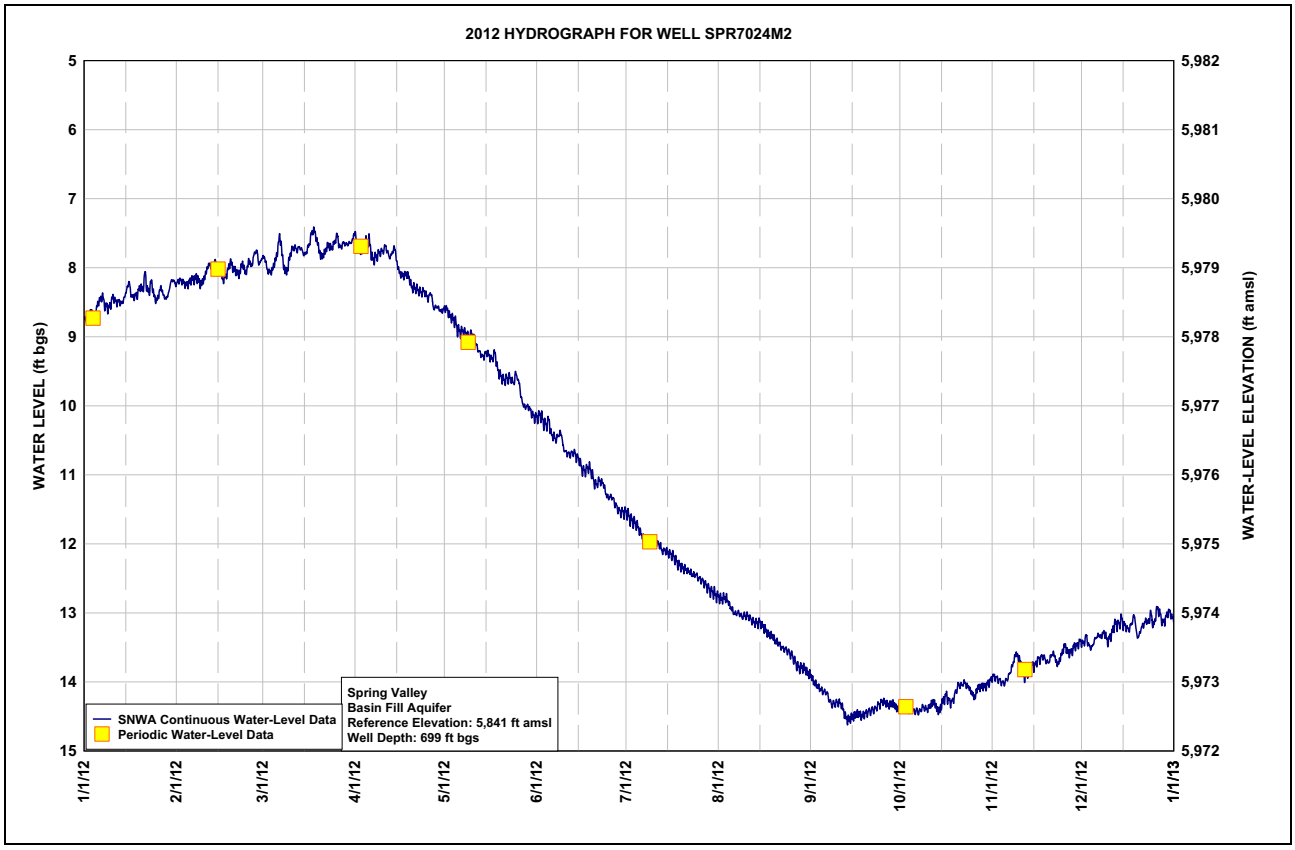
11/1/12
12/1/12
1/1/13
SNWA Continuous Water-Level Data
Periodic Water-Level Data
Spring Valley
Basin Fill Aquifer
Reference Elevation: 5,850 ft amsl
Well Depth: 250 ft bgs

Table B-18
Spring Valley Well SPR7024M2, Calendar Year 2012
Water-Level Data, Daily Mean Values

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1	8.75	8.21	7.86	7.61	8.59	10.16	11.57	12.78	13.94	14.39	13.92	13.44
2	8.70	8.19	8.01	7.75	8.67	10.15	11.64	12.79	14.02	14.34	13.95	13.37
3	8.65	8.22	8.06	7.73	8.72	10.25	11.68	12.79	14.07	14.36	13.98	13.47
4	8.67	8.24	7.99	7.62	8.78	10.26	11.73	12.86	14.11	14.39	14.01	13.49
5	8.55	8.20	7.85	7.61	8.89	10.31	11.80	12.94	14.14	14.42	13.99	13.39
6	8.46	8.17	7.62	7.79	8.93	10.44	11.88	13.00	14.17	14.42	13.92	13.33
7	8.47	8.15	7.78	7.87	8.93	10.48	11.92	13.00	14.28	14.43	13.81	13.34
8	8.56	8.19	8.03	7.82	8.97	10.42	11.96	13.03	14.32	14.38	13.66	13.30
9	8.57	8.22	7.97	7.78	8.97	10.48	11.98	13.04	14.31	14.38	13.63	13.38
10	8.46	8.13	7.79	7.75	8.97	10.65	11.97	13.05	14.30	14.38	13.73	13.36
11	8.48	8.00	7.71	7.73	9.09	10.70	11.99	13.07	14.35	14.33	13.89	13.25
12	8.49	7.97	7.74	7.83	9.20	10.70	12.04	13.12	14.47	14.30	13.89	13.16
13	8.51	7.93	7.72	7.78	9.27	10.68	12.10	13.14	14.54	14.39	13.82	13.16
14	8.44	7.97	7.78	7.77	9.27	10.75	12.11	13.14	14.53	14.39	13.76	13.11
15	8.29	8.00	7.78	8.00	9.24	10.81	12.14	13.17	14.50	14.28	13.75	13.18
16	8.31	8.15	7.67	8.10	9.30	10.93	12.16	13.22	14.47	14.21	13.68	13.23
17	8.42	8.12	7.50	8.11	9.28	10.93	12.22	13.29	14.47	14.27	13.65	13.19
18	8.40	8.01	7.50	8.11	9.37	10.90	12.29	13.32	14.49	14.28	13.65	13.08
19	8.32	7.95	7.65	8.20	9.53	10.98	12.33	13.36	14.46	14.18	13.71	13.27
20	8.30	8.03	7.81	8.29	9.60	11.12	12.36	13.42	14.43	14.07	13.66	13.30
21	8.15	8.08	7.80	8.31	9.62	11.12	12.38	13.46	14.41	14.05	13.60	13.20
22	8.33	8.03	7.72	8.34	9.60	11.10	12.41	13.50	14.40	14.02	13.70	13.13
23	8.24	7.98	7.69	8.35	9.62	11.15	12.45	13.53	14.35	14.06	13.70	13.12
24	8.39	8.04	7.69	8.37	9.62	11.29	12.45	13.56	14.31	14.11	13.58	13.07
25	8.45	7.92	7.59	8.43	9.59	11.32	12.50	13.61	14.29	14.18	13.49	13.13
26	8.33	7.93	7.63	8.40	9.78	11.34	12.53	13.68	14.32	14.17	13.57	12.96
27	8.37	7.78	7.68	8.57	9.98	11.43	12.58	13.76	14.33	14.08	13.56	13.03
28	8.44	7.87	7.65	8.57	10.01	11.51	12.64	13.79	14.32	14.07	13.49	13.13
29	8.34	7.89	7.66	8.61	10.04	11.54	12.69	13.80	14.35	14.06	13.47	13.05
30	8.19	---	7.64	8.61	10.12	11.55	12.71	13.84	14.39	14.03	13.42	13.00
31	8.22	---	7.55	---	10.16	---	12.76	13.89	---	13.97	---	13.07
Max	8.75	8.24	8.06	8.61	10.16	11.55	12.76	13.89	14.54	14.43	14.01	13.49
Min	8.15	7.78	7.50	7.61	8.59	10.15	11.57	12.78	13.94	13.97	13.42	12.96

Year 2012 Statistics: **Year Max 14.54; Year Min 7.50**

Note: Water level in ft bgs


2012 HYDROGRAPH FOR WELL SPR7024M2
WATER LEVEL (ft bgs)
WATER-LEVEL ELEVATION (ft amsl)
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5/1/12
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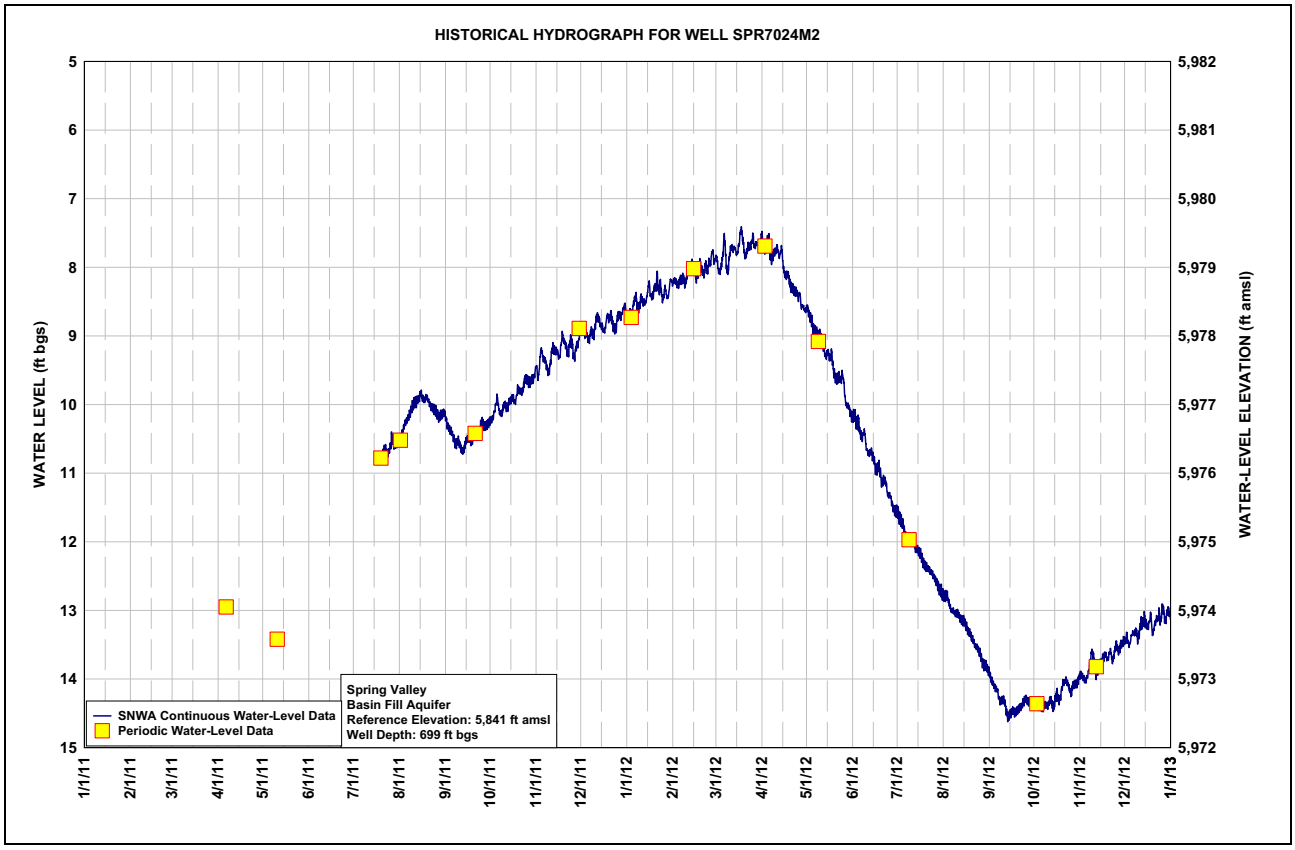
11/1/12
12/1/12
1/1/13
SNWA Continuous Water-Level Data
Periodic Water-Level Data
Spring Valley
Basin Fill Aquifer
Reference Elevation: 5,841 ft amsl
Well Depth: 699 ft bgs


HISTORICAL HYDROGRAPH FOR WELL SPR7024M2
WATER LEVEL (ft bgs)
WATER-LEVEL ELEVATION (ft amsl)
5
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8/1/12
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11/1/12
12/1/12
1/1/13
SNWA Continuous Water-Level Data
Periodic Water-Level Data
Spring Valley
Basin Fill Aquifer
Reference Elevation: 5,841 ft amsl
Well Depth: 699 ft bgs

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Appendix C

Spring-Monitoring Program
Hydrologic and Field Chemistry Data

Table C-1
Spring Valley Miscellaneous Discharge Data
(Page 1 of 3)

Spring Number	Spring Name	Date	Time	Discharge[a] (gpm)	Discharge[a] (cfs)	Measurement Rated as: (E, G, F, P)[b]	Water Temp (°C)	Air Temp (°C)	Electrical Conductivity (µS/cm)	pH	Method[c]	Remarks	Data Source
1845501	Willow Spring	2/15/2012	9:50	6.7	0.02	E	---	---	---	---	F	---	SNWA
		4/3/2012	13:05	6.7	0.02	E	---	---	---	---	F	---	SNWA
		5/8/2012	14:51	2.7	0.01	G	---	---	---	---	F	---	SNWA
		7/10/2012	11:45	4.0	0.01	E	---	---	---	---	F	---	SNWA
		8/7/2012	15:45	4.0	0.01	F	15	28	---	---	F	---	SNWA
		10/2/2012	13:45	4.0	0.01	E	---	---	---	---	F	---	SNWA
		11/13/2012	10:36	6.7	0.02	E	---	---	---	---	F	---	SNWA
1845702	South Millick Spring	2/15/2012	14:38	588	1.3	P	9.8	0	251	8.08	C	---	SNWA
		4/3/2012	11:40	907	2.0	P	13.0	---	362	7.83	C	---	SNWA
		5/1/2012	9:48	732	1.6	P	13.1	20	413	7.15	C	---	SNWA
		7/26/2012	10:10	471	1.0	P	---	30	---	---	C	---	SNWA
		8/8/2012	9:12	---	---	---	12.9	24	442	7.88	---	---	SNWA
		10/2/2012	15:30	---	---	---	---	---	---	---	---	Water was flowing but the velocity was too low to measure.	SNWA
1845901	Layton Spring	1/3/2012	16:17	0	0	E	---	---	---	---	---	Site is dry.	SNWA
		2/15/2012	13:16	0	0	E	---	---	---	---	---	Site is dry.	SNWA
		4/3/2012	15:13	0	0	E	---	---	---	---	---	Site is dry.	SNWA
		5/7/2012	16:43	0	0	E	---	---	---	---	---	Site is dry.	SNWA
		7/10/2012	9:15	0	0	E	---	---	---	---	---	Site is dry.	SNWA
		10/2/2012	17:10	0	0	E	---	---	---	---	---	Site is dry.	SNWA
		11/13/2012	14:55	0	0	E	---	---	---	---	---	Site is dry.	SNWA
1846201	Swallow Springs	1/9/2012	14:24	355	0.79	F	---	---	---	---	M	Sum of all channels.	SNWA
		2/15/2012	15:43	359	0.80	F	---	---	---	---	M	Sum of all channels.	SNWA
		4/2/2012	12:26	390	0.87	F	11.6	---	262	7.93	M	Sum of all channels.	SNWA
		4/30/2012	15:05	382	0.85	P	10.6	22	297	7.98	M	Sum of all channels.	SNWA
		6/18/2012	16:05	433	0.96	F	10.4	35	302	7.75	M	Sum of all channels.	SNWA
		7/24/2012	13:45	364	0.81	P	10.4	28	288	7.22	M	Sum of all channels.	SNWA
		8/8/2012	14:16	403	0.90	G	---	---	---	---	F	Sum of all channels.	SNWA
		9/17/2012	16:18	329	0.73	P	10.2	---	305	7.86	M	Sum of all channels.	SNWA
		10/17/2012	11:05	347	0.77	P	10.7	---	252	---	M	Sum of all channels.	SNWA

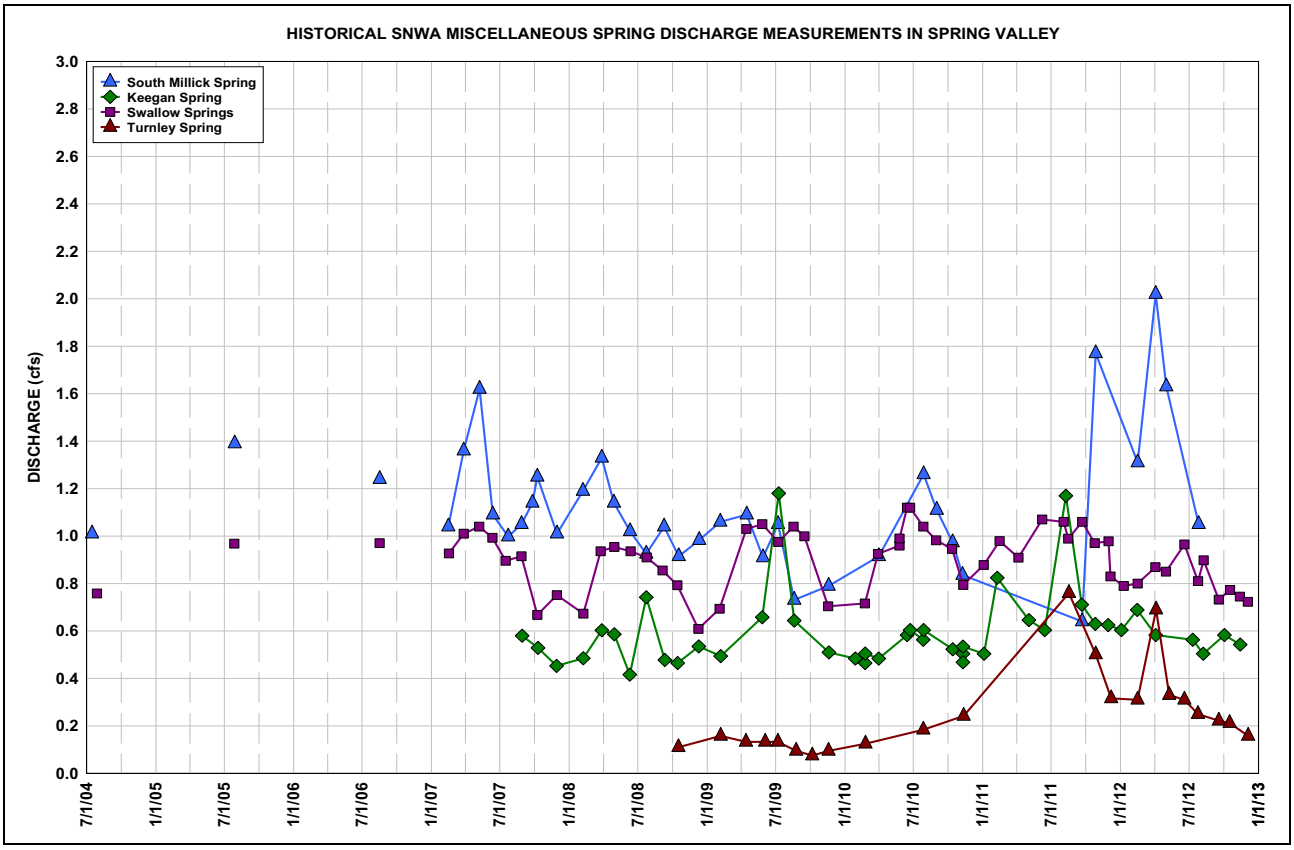
Table C-1
Spring Valley Miscellaneous Discharge Data
(Page 2 of 3)

Spring Number	Spring Name	Date	Time	Discharge[a] (gpm)	Discharge[a] (cfs)	Measurement Rated as: (E, G, F, P)[b]	Water Temp (°C)	Air Temp (°C)	Electrical Conductivity (µS/cm)	pH	Method[c]	Remarks	Data Source
1846201	Swallow Springs (con't)	11/12/2012	16:50	334	0.74	G	---	---	---	---	F	Sum of all channels.	SNWA
		12/3/2012	17:45	325	0.72	P	9.8	8	364	7.86	M	Sum of all channels.	SNWA
1847101	Keegan Spring near Piermont, NV	1/3/2012	12:50	271	0.60	E	---	---	---	---	F	---	SNWA
		2/14/2012	16:35	309	0.69	E	---	---	---	---	F	---	SNWA
		4/3/2012	11:50	262	0.58	E	---	---	---	---	F	---	SNWA
		5/8/2012	13:46	---	---	---	---	---	---	---	---	---	SNWA
		7/10/2012	13:00	253	0.56	E	---	---	---	---	F	---	SNWA
		8/7/2012	14:05	226	0.50	F	---	---	---	---	F	---	SNWA
		10/2/2012	14:30	262	0.58	E	---	---	---	---	F	---	SNWA
		11/13/2012	9:20	244	0.54	E	---	---	---	---	F	---	SNWA
1847301	Rock Spring	1/11/2012	12:35	---	---	---	10.8	---	---	---	---	---	SNWA
		2/15/2012	13:56	18.0	0.04	G	18.6	-2	239	7.74	F	---	SNWA
		4/4/2012	8:38	18.0	0.04	E	9.0	12	375	8.37	F	---	SNWA
		5/1/2012	8:38	22.9	0.05	E	12.9	18	612	7.92	F	---	SNWA
		6/18/2012	13:12	20.6	0.05	E	19	31	---	---	F	---	SNWA
		6/18/2012	17:01	20.6	0.05	G	17.8	35	495	7.77	F	---	SNWA
		7/24/2012	12:00	15.7	0.04	F	20.6	---	565	7.51	F	---	SNWA
		9/18/2012	11:00	13.9	0.03	E	16.8	---	656	7.47	F	---	SNWA
		10/16/2012	8:18	15.7	0.04	E	11.8	18	628	8.09	F	---	SNWA
		12/4/2012	10:56	18.0	0.04	G	11.9	---	569	8.06	F	---	SNWA
1848001	Turnley Spring	2/15/2012	13:02	139	0.31	P	19.6	-3	212	6.93	C	---	SNWA
		4/4/2012	9:35	310	0.69	P	11.1	18	300	7.57	C	---	SNWA
		5/9/2012	9:49	148	0.33	P	11.6	19	462	7.01	C	---	SNWA
		6/18/2012	13:55	139	0.31	P	11.6	---	493	7.02	C	---	SNWA
		7/24/2012	10:23	89.8	0.25	P	11.7	21	489	7.1	C	---	SNWA
		9/17/2012	17:22	99.6	0.22	E	14.2	---	525	---	F	---	SNWA
		10/16/2012	9:20	95.2	0.21	G	11.9	23	522	7.23	F	---	SNWA
		12/4/2012	9:50	70.9	0.16	E	11.4	7	500	7.33	F	---	SNWA

Table C-1
Spring Valley Miscellaneous Discharge Data
(Page 3 of 3)

Spring Number	Spring Name	Date	Time	Discharge[a] (gpm)	Discharge[a] (cfs)	Measurement Rated as: (E, G, F, P)[b]	Water Temp (°C)	Air Temp (°C)	Electrical Conductivity (µS/cm)	pH	Method[c]	Remarks	Data Source
1848401	North Cleveland Ranch Spring	1/3/2012	11:24	---	---	---	---	15.6	---	---	---	Winter ditch is flooding the area. Water is passing over wing walls of the flume.	SNWA
		2/14/2012	12:46	243	0.54	G	8.6	---	413	7.58	F	---	SNWA
		4/3/2012	10:25	147	0.33	E	---	---	---	---	F	---	SNWA
		5/8/2012	11:28	18.0	0.04	G	---	---	---	---	F	---	SNWA
		7/10/2012	14:07	11.7	0.03	E	---	---	---	---	F	---	SNWA
		10/2/2012	11:10	25.6	0.06	E	---	---	---	---	F	---	SNWA
		11/13/2012	8:05	28.3	0.06	E	---	---	---	---	F	---	SNWA
1848501	South Cleveland Ranch Spring	1/3/2012	10:55	66.9	0.15	E	---	15.6	---	---	F	---	SNWA
		1/11/2012	10:41	63.3	0.14	E	---	---	---	---	F	---	SNWA
		1/25/2012	10:40	59.7	0.13	E	---	---	---	---	F	---	SNWA
		2/14/2012	14:11	63.3	0.14	E	---	---	405	7.77	F	---	SNWA
		4/3/2012	9:30	66.9	0.15	E	---	---	---	---	F	---	SNWA
		5/8/2012	11:54	66.9	0.15	G	---	---	---	---	F	---	SNWA
		7/10/2012	15:06	63.3	0.14	E	---	---	---	---	F	---	SNWA
		8/7/2012	12:25	63.3	0.14	G	---	35	---	---	F	---	SNWA
		10/2/2012	10:25	59.7	0.13	E	---	---	---	---	F	---	SNWA
		11/13/2012	7:35	52.5	0.12	E	---	---	---	---	F	---	SNWA

[a]Discharge is reported in cfs for values >0.01 and in gpm for values <0.01 cfs.
[b]Measurement Rating: E = Excellent; G = Good; F = Fair; P = Poor
[c]Measurement Method: C = Current meter; O = Other; F = Flume; M = Multiple
Note: The Seep was observed to be dry in 2012.


HISTORICAL SNWA MISCELLANEOUS SPRING DISCHARGE MEASUREMENTS IN SPRING VALLEY
South Millick Spring
Keegan Spring
Swallow Springs
Turnley Spring
DISCHARGE (cfs)
3.0
2.8
2.6
2.4
2.2
2.0
1.8
1.6
1.4
1.2
1.0
0.8
0.6
0.4
0.2
0.0
7/1/04
1/1/05
7/1/05
1/1/06
7/1/06
1/1/07
7/1/07
1/1/08
7/1/08
1/1/09
7/1/09
1/1/10
7/1/10
1/1/11
7/1/11
1/1/12
7/1/12
1/1/13

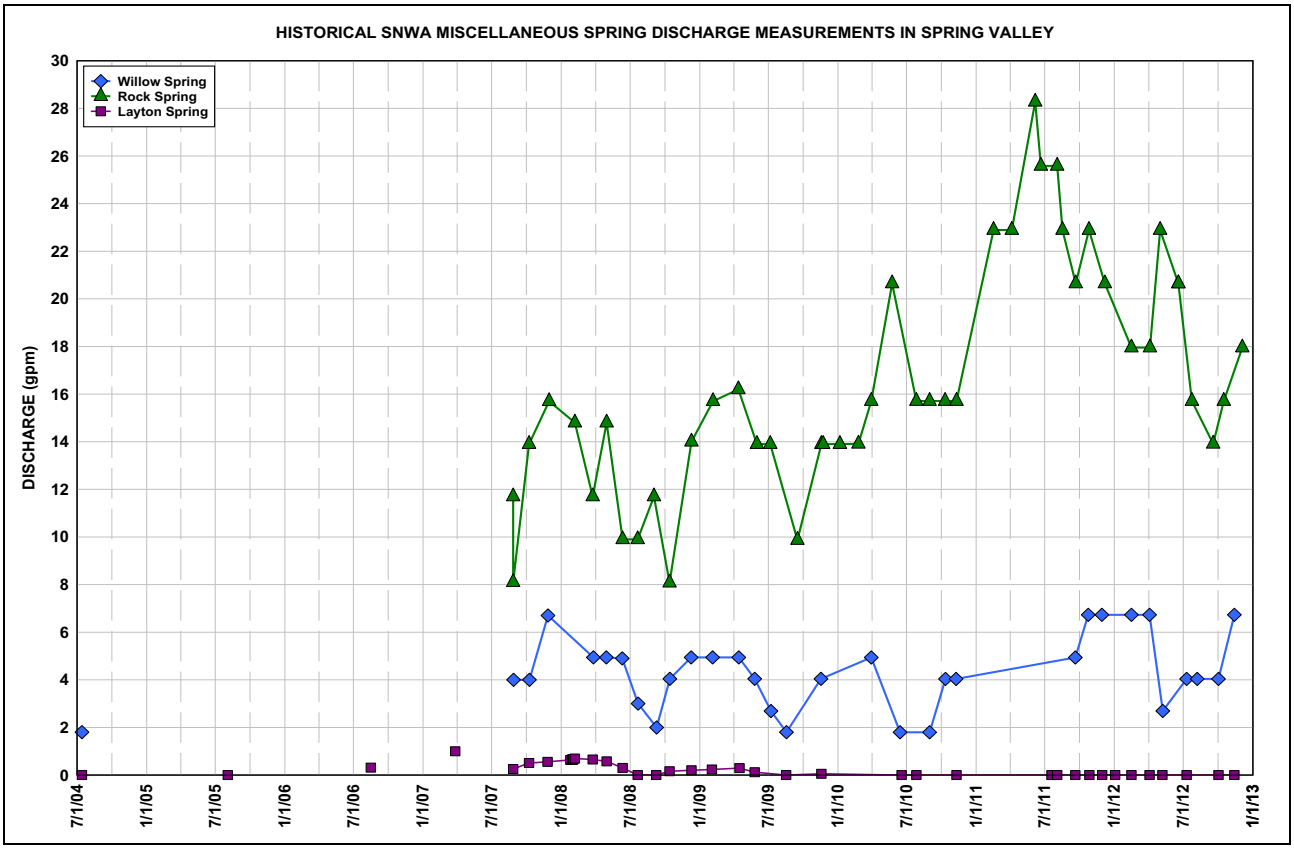

HISTORICAL SNWA MISCELLANEOUS SPRING DISCHARGE MEASUREMENTS IN SPRING VALLEY
Willow Spring
Rock Spring
Layton Spring
DISCHARGE (gpm)
30
28
26
24
22
20
18
16
14
12
10
8
6
4
2
0
7/1/04
1/1/05
7/1/05
1/1/06
7/1/06
1/1/07
7/1/07
1/1/08
7/1/08
1/1/09
7/1/09
1/1/10
7/1/10
1/1/11
7/1/11
1/1/12
7/1/12
1/1/13

Table C-2
Periodic Water-Level Measurement Data from the Spring Valley Spring-Piezometer Monitoring Network
(Page 1 of 3)

Site Number	Station Local Number[a]	Associated Spring	Well Depth (ft bgs)	Surface Elevation (ft amsl)	Water Level			
					Date	Depth to Water (ft bgs)	Well Status[b]	Measurement Method[c]
SPR7007Z	184 N11 E67 12DACA1	Minerva Spring	31	5,828.66	1/4/2012	9.34	S	T
					2/15/2012	10.06	S	T
					4/4/2012	10.74	S	T
					5/9/2012	10.57	S	T
					7/9/2012	11.26	S	T
					8/8/2012	11.66	S	T
					10/3/2012	12.17	S	T
					11/12/2012	12.48	S	T
SPR7011Z	184 N11 E67 23ADDD1	Blind Spring	31	5,769.71	1/4/2012	5.63	S	T
					2/13/2012	5.39	S	T
					4/4/2012	4.88	S	T
					5/9/2012	4.71	S	T
					7/9/2012	6.27	S	T
					8/8/2012	6.70	S	T
					10/3/2012	6.62	S	T
					11/13/2012	6.18	S	T
SPR7012Z	184 N15 E67 30BDBD1	Four Wheel Drive Spring	25	5,756.22	1/3/2012	1.43	S	T
					2/14/2012	1.29	S	T
					4/3/2012	1.18	S	T
					5/8/2012	1.23	S	T
					7/10/2012	1.73	S	T
					8/7/2012	1.90	S	T
					10/2/2012	1.98	S	T
					11/12/2012	1.75	S	T
SPR7014Z	184 N12 E67 26ACAD1	The Seep	31	5,778.54	1/4/2012	11.59	S	T
					2/15/2012	11.24	S	T
					4/3/2012	10.89	S	T
					5/9/2012	10.70	S	T
					7/9/2012	10.75	S	T
					8/8/2012	10.94	S	T
					10/3/2012	11.15	S	T
					11/12/2012	11.04	S	T

Table C-2
Periodic Water-Level Measurement Data from the Spring Valley Spring-Piezometer Monitoring Network
(Page 2 of 3)

Site Number	Station Local Number[a]	Associated Spring	Well Depth (ft bgs)	Surface Elevation (ft amsl)	Water Level			
					Date	Depth to Water (ft bgs)	Well Status[b]	Measurement Method[c]
SPR7015Z	184 N17 E67 30CADA1	West Spring Valley Complex	38	5,602.90	1/3/2012	4.13	S	T
					2/14/2012	4.03	S	T
					4/3/2012	4.13	S	T
					5/8/2012	4.53	S	T
					7/10/2012	5.41	S	T
					8/7/2012	5.53	S	T
					10/2/2012	5.17	S	T
					11/13/2012	5.04	S	T
SPR7016Z	184 N15 E67 09BBBA1	Unnamed Spring 5	32	5,645.67	1/3/2012	0.48	S	T
					2/14/2012	0.30	S	T
					4/3/2012	0.14	S	T
					5/8/2012	0.23	S	T
					7/10/2012	0.8	S	T
					8/7/2012	0.94	S	T
					10/2/2012	1.14	S	T
					11/12/2012	1.23	S	T
SPR7018Z	184 N17 E67 25CDCA1	South Millick Spring	25	5,587.16	1/3/2012	4.76	S	T
					2/15/2012	4.67	S	T
					4/3/2012	4.53	S	T
					5/1/2012	4.49	S	T
					7/11/2012	4.65	S	T
					7/26/2012	4.60	S	S
					8/8/2012	4.75	S	T
					10/2/2012	4.90	S	T
					11/13/2012	4.93	S	T
SPR7019Z	184 N14 E67 04DBAB1	Layton Spring	35	5,686.63	1/3/2012	10.33	S	T
					2/15/2012	10.15	S	T
					4/3/2012	9.97	S	T
					5/7/2012	9.94	S	T
					7/10/2012	10.50	S	T
					8/8/2012	10.69	S	T
					10/2/2012	10.60	S	T
					11/13/2012	10.36	S	T

Table C-2
Periodic Water-Level Measurement Data from the Spring Valley Spring-Piezometer Monitoring Network
(Page 3 of 3)

Site Number	Station Local Number[a]	Associated Spring	Well Depth (ft bgs)	Surface Elevation (ft amsl)	Water Level			
					Date	Depth to Water (ft bgs)	Well Status[b]	Measurement Method[c]
SPR7020Z	184 N22 E66 17CAAC1	Stonehouse Spring	9	6,264.62	1/3/2012	1.46	S	T
					2/14/2012	0.84	S	T
					4/3/2012	1.26	S	T
					5/8/2012	1.51	S	T
					7/10/2012	3.07	S	T
					8/7/2012	2.86	S	T
					10/2/2012	1.99	S	T
					11/13/2012	1.83	S	T
SPR7021Z	184 N18 E66 01CCAA1	Keegan Spring	21	5,613.12	1/3/2012	-3.42	S	O
					2/14/2012	-3.05	S	T
					4/3/2012	-2.67	S	S
					5/8/2012	-2.01	S	S
					7/10/2012	-1.89	S	S
					8/7/2012	-2.06	S	T
					10/2/2012	-2.27	S	T
					11/13/2012	-2.07	S	T
SPR7022Z	184 N21 E66 15BCDD1	Willow Spring	35	5,987.54	1/3/2012	11.99	S	T
					2/15/2012	11.77	S	T
					4/3/2012	11.66	S	T
					5/8/2012	11.96	S	T
					7/10/2012	12.89	S	T
					8/7/2012	13.05	S	T
					10/2/2012	12.90	S	T
					11/13/2012	12.71	S	T
SPR7031Z[d]	184 N16 E67 20CCDC1	Cleveland Ranch North Spring	10.3	5,637.32	1/3/2012	0.39	S	S
					2/14/2012	0.32	S	T
					4/3/2012	0.39	S	S
					5/8/2012	1.03	S	S
					7/10/2012	2.80	S	S
					8/7/2012	2.83	S	T
					10/2/2012	1.49	S	S
					11/13/2012	0.63	S	S

[a]Station Local Numbers provided by the Nevada Department of Water Resources.
[b]S = Static Conditions.
[c]T = Electric tape measurement, S = Steel tape measurement, O = Other.
[d]No hydrograph presented due to limited data.
Note: SNWA tape calibration program started in August 2008.

Table C-3
Station Number 1847301 - Rock Spring near Osceola, NV, Water Year 2012
Mean Daily Discharge Values

Day	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.05	0.05e	0.05e	0.04e	0.04e	0.04e	0.04	0.05	0.08	0.04	0.04	0.04
2	0.05	0.05e	0.04e	0.04e	0.04e	0.04e	0.05	0.05	0.07	0.04	0.03	0.04
3	0.05	0.05e	0.04e	0.04e	0.04e	0.04e	0.05	0.05	0.06	0.04	0.03	0.03
4	0.05	0.05e	0.05e	0.04e	0.04e	0.04e	0.04	0.05	0.07	0.03	0.03	0.04
5	0.05	0.05e	0.05e	0.04e	0.04e	0.04e	0.05	0.05	0.07	0.04	0.03	0.04
6	0.05	0.05e	0.05e	0.04e	0.04e	0.05e	0.05	0.05	0.06	0.03	0.03	0.04
7	0.05	0.05e	0.05e	0.04e	0.04e	0.05e	0.04	0.05	0.06	0.03	0.03	0.04
8	0.05	0.05e	0.05e	0.04e	0.04e	0.05e	0.04	0.05	0.06	0.03	0.03	0.04
9	0.05	0.05e	0.04e	0.04e	0.04e	0.05e	0.04	0.05	0.06	0.03	0.03	0.04
10	0.05	0.05e	0.05e	0.04e	0.04e	0.04e	0.04	0.05	0.06	0.03	0.03	0.04
11	0.05	0.05e	0.05e	0.04e	0.04e	0.04e	0.04	0.05	0.06	0.03	0.03	0.03
12	0.05	0.05e	0.05e	0.04e	0.04e	0.04e	0.04	0.05	0.06	0.03	0.03	0.03
13	0.05	0.05e	0.05e	0.04e	0.05e	0.04e	0.04	0.05	0.06	0.03	0.03	0.03
14	0.05	0.05e	0.05e	0.04e	0.04e	0.04e	0.04	0.05	0.06	0.03	0.03	0.03
15	0.05	0.05e	0.05e	0.04e	0.04e	0.04e	0.04	0.05	0.05	0.03	0.03	0.03
16	0.05e	0.05e	0.05e	0.04e	0.04e	0.05e	0.04	0.05	0.06	0.03	0.03	0.03
17	0.05e	0.05e	0.04e	0.04e	0.04e	0.04e	0.04	0.05	0.05	0.03	0.03	0.03
18	0.05e	0.05e	0.05e	0.04e	0.04e	0.04e	0.04	0.05	0.05	0.03	0.04	0.03
19	0.05e	0.05e	0.04e	0.04e	0.04e	0.04e	0.04	0.05	0.04	0.02	0.04	0.03
20	0.05e	0.05e	0.04e	0.04e	0.04e	0.04e	0.04	0.05	0.04	0.02	0.04	0.03
21	0.05e	0.05e	0.04e	0.04e	0.04e	0.04	0.05	0.07	0.05	0.03	0.03	0.03
22	0.05e	0.05e	0.04e	0.04e	0.04e	0.04	0.05	0.05	0.05	0.03	0.04	0.03
23	0.05e	0.05e	0.04e	0.04e	0.04e	0.04	0.05	0.06	0.05	0.03	0.03	0.03
24	0.05e	0.05e	0.05e	0.04e	0.04e	0.05	0.05	0.06	0.05	0.03	0.03	0.03
25	0.05e	0.05e	0.05e	0.04e	0.04e	0.04	0.05	0.06	0.05	0.03	0.03	0.03
26	0.05e	0.05e	0.05e	0.04e	0.04e	0.04	0.05	0.06	0.04	0.03	0.03	0.04
27	0.05e	0.05e	0.04e	0.04e	0.04e	0.04	0.05	0.07	0.04	0.03	0.04	0.04
28	0.05e	0.05e	0.04e	0.04e	0.04e	0.04	0.05	0.08	0.04	0.03	0.04	0.04
29	0.05e	0.05e	0.04e	0.04e	0.04e	0.04	0.05	0.08	0.05	0.03	0.04	0.03
30	0.05e	0.05e	0.04e	0.04e	--	0.04	0.05	0.09	0.04	0.04	0.04	0.03e
31	0.05e	--	0.04e	0.04e	--	0.04	--	0.08	--	0.04	0.04	--
Total	1.55	1.50	1.41	1.24	1.17	1.30	1.34	1.76	1.64	0.97	1.03	1.02
Min	0.05	0.05	0.04	0.04	0.04	0.04	0.04	0.05	0.04	0.02	0.03	0.03
Max	0.05	0.05	0.05	0.04	0.05	0.05	0.05	0.09	0.08	0.04	0.04	0.04
Mean	0.05	0.05	0.05	0.04	0.04	0.04	0.04	0.06	0.05	0.03	0.03	0.03
Acre-feet	3.07	2.97	2.79	2.46	2.32	2.57	2.65	3.48	3.25	1.92	2.04	2.02

Note: Values are in cfs unless noted otherwise.
e = Estimated day.

Annual Statistics	
Min:	0.02
Max:	0.09
Annual Total (Acre-ft):	32
Annual Mean (cfs)	0.04

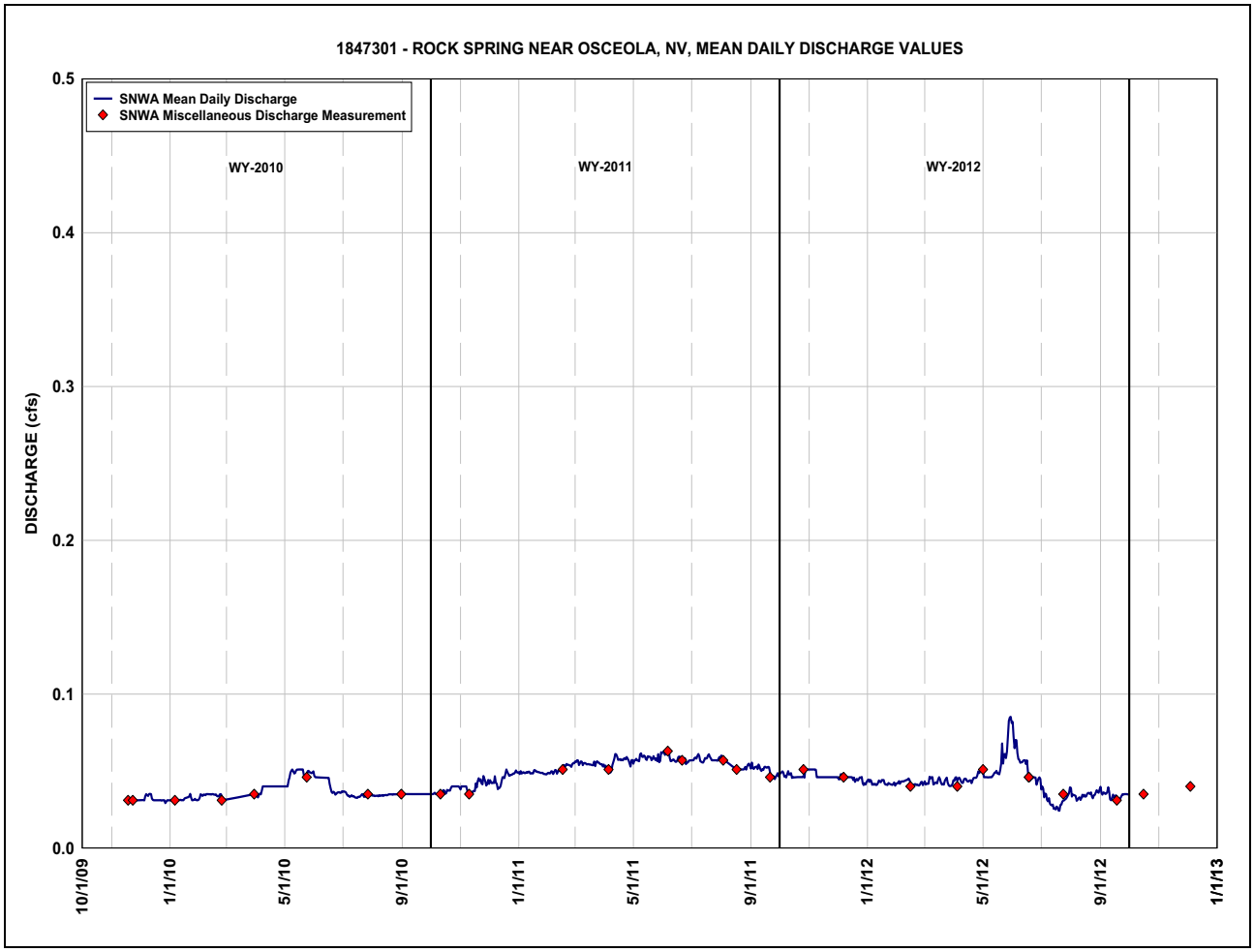

1847301 - ROCK SPRING NEAR OSCEOLA, NV, MEAN DAILY DISCHARGE VALUES
SNWA Mean Daily Discharge
SNWA Miscellaneous Discharge Measurement
WY-2010
WY-2011
WY-2012
DISCHARGE (cfs)
0.5
0.4
0.3
0.2
0.1
0.0
10/1/09
1/1/10
5/1/10
9/1/10
1/1/11
5/1/11
9/1/11
1/1/12
5/1/12
9/1/12
1/1/13

Table C-4
Station Number 1846203 - Swallow Springs South near Minerva, NV, Water Year 2012
Mean Daily Discharge Values

Day	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.82	0.81	0.76	0.66	0.65	0.65	0.72	0.72	0.79	0.77	0.65	0.64
2	0.82	0.81	0.75	0.66	0.65	0.64	0.72	0.73	0.80	0.77	0.65	0.64
3	0.83	0.82	0.75	0.66	0.65	0.64	0.71	0.73	0.80	0.77	0.65	0.64
4	0.84	0.82	0.75	0.65	0.65	0.63	0.71	0.73	0.80	0.76	0.65	0.64
5	0.85	0.82	0.73	0.65	0.65	0.63	0.71	0.74	0.80	0.77	0.64	0.64
6	0.84	0.81	0.72	0.65	0.66	0.63	0.72	0.74	0.80	0.76	0.64	0.64
7	0.84	0.82	0.72	0.66	0.66	0.63	0.71	0.74	0.80	0.76	0.64	0.64
8	0.83	0.82	0.72	0.65	0.66	0.63	0.71	0.74	0.80	0.75	0.64	0.64
9	0.83	0.82	0.72	0.64	0.66	0.63	0.71	0.75	0.81	0.74	0.64	0.63
10	0.83	0.82	0.71	0.62	0.67	0.63	0.72	0.75	0.81	0.73	0.64	0.63
11	0.83	0.83	0.71	0.62	0.67	0.64	0.72	0.75	0.81	0.73	0.64	0.64
12	0.83	0.82	0.71	0.62	0.67	0.65	0.72	0.75	0.81	0.73	0.63	0.64
13	0.83	0.82	0.72	0.62	0.67	0.65	0.72	0.75	0.81	0.74	0.64	0.63
14	0.83	0.82	0.71	0.63	0.68	0.65	0.72	0.75	0.81	0.75	0.64	0.63
15	0.82	0.82	0.70	0.63	0.68	0.65	0.71	0.75	0.81	0.76	0.64	0.63
16	0.82	0.82	0.69	0.63	0.68	0.65	0.71	0.75	0.81	0.76	0.64	0.61
17	0.83	0.82	0.69	0.63	0.68	0.66	0.70	0.75	0.81	0.74	0.64	0.61
18	0.83	0.81	0.69	0.63	0.67	0.66	0.71	0.75	0.82	0.72	0.64	0.61
19	0.82	0.81	0.69	0.63	0.67	0.65	0.71	0.76	0.81	0.71	0.65	0.61
20	0.82	0.81	0.69	0.63	0.67	0.64	0.71	0.76	0.81	0.70	0.64	0.61
21	0.82	0.81	0.68	0.64	0.67	0.63	0.72	0.76	0.81	0.69	0.65	0.61
22	0.82	0.81	0.68	0.64	0.67	0.65	0.73	0.77	0.81	0.69	0.65	0.61
23	0.82	0.81	0.68	0.64	0.67	0.69	0.73	0.77	0.80	0.68	0.65	0.61
24	0.82	0.81	0.67	0.64	0.67	0.72	0.74	0.78	0.80	0.68	0.65	0.62
25	0.81	0.81	0.67	0.64	0.67	0.72	0.74	0.78	0.80	0.66	0.64	0.62
26	0.81	0.79	0.67	0.64	0.66	0.72	0.73	0.78	0.79	0.65	0.64	0.63
27	0.81	0.79	0.67	0.64	0.66	0.71	0.72	0.79	0.79	0.65	0.64	0.63
28	0.81	0.78	0.67	0.64	0.66	0.69	0.72	0.79	0.78	0.65	0.64	0.63
29	0.81	0.78	0.67	0.64	0.65	0.67	0.72	0.79	0.78	0.64	0.64	0.63
30	0.81	0.76	0.66	0.65	--	0.66	0.72	0.79	0.78	0.64	0.64	0.63
31	0.81	--	0.66	0.65	--	0.69	--	0.79	--	0.65	0.64	--
Total	25.5	24.3	21.7	19.8	19.3	20.4	21.5	23.5	24.1	22.2	19.9	18.8
Min	0.81	0.76	0.66	0.62	0.65	0.63	0.70	0.72	0.78	0.64	0.63	0.61
Max	0.85	0.83	0.76	0.66	0.68	0.72	0.74	0.79	0.82	0.77	0.65	0.64
Mean	0.82	0.81	0.70	0.64	0.66	0.66	0.72	0.76	0.80	0.72	0.64	0.63
Acre-feet	50.5	48.1	43.0	39.2	38.2	40.4	42.6	46.5	47.7	44.0	39.4	37.2

Note: Values are in cfs unless noted otherwise.

Annual Statistics	
Min:	0.61
Max:	0.85
Annual Total (Acre-ft):	517
Annual Mean (cfs)	0.71

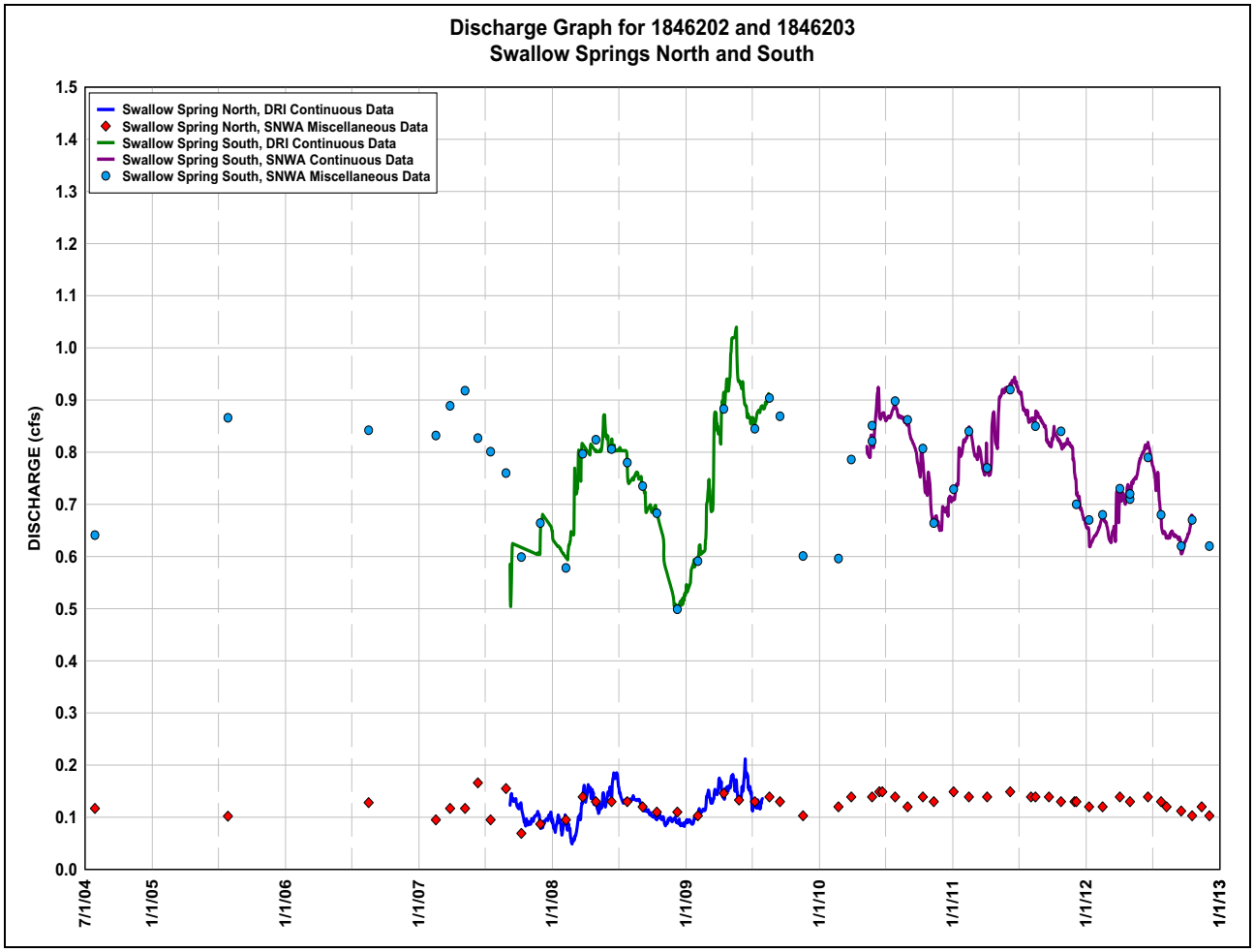
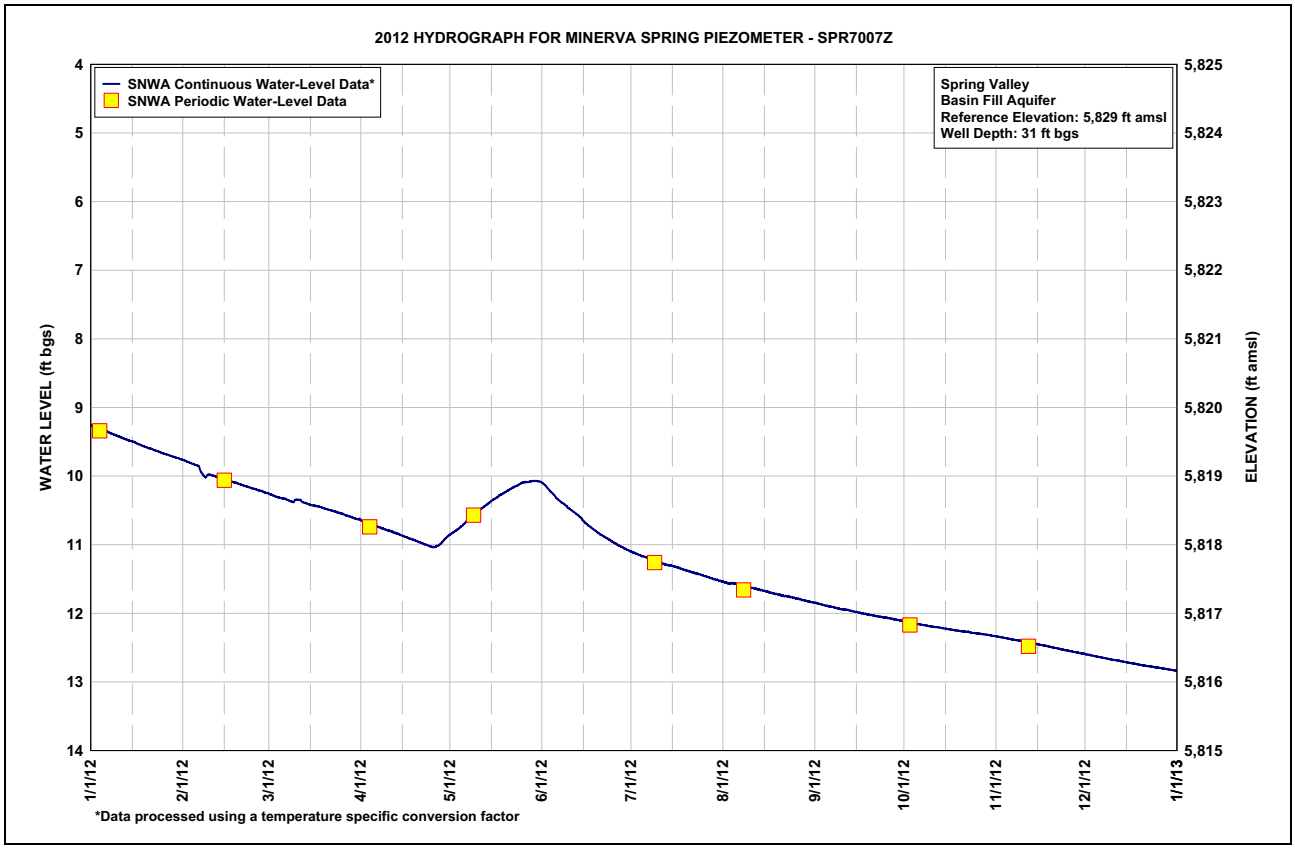

Discharge Graph for 1846202 and 1846203
Swallow Springs North and South
Swallow Spring North, DRI Continuous Data
Swallow Spring North, SNWA Miscellaneous Data
Swallow Spring South, DRI Continuous Data
Swallow Spring South, SNWA Continuous Data
Swallow Spring South, SNWA Miscellaneous Data
DISCHARGE (cfs)
1.5
1.4
1.3
1.2
1.1
1.0
0.9
0.8
0.7
0.6
0.5
0.4
0.3
0.2
0.1
0.0
7/1/04
1/1/05
1/1/06
1/1/07
1/1/08
1/1/09
1/1/10
1/1/11
1/1/12
1/1/13

Table C-5
Minerva Spring Piezometer SPR7007Z, Calendar Year 2012
Water-Level Data, Daily Mean Values

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1	9.27	9.77	10.27	10.65	10.84	10.11	11.11	11.54	11.85	12.12	12.34	12.60
2	9.28	9.79	10.28	10.67	10.81	10.15	11.13	11.56	11.86	12.13	12.35	12.61
3	9.30	9.81	10.30	10.69	10.78	10.20	11.14	11.57	11.87	12.14	12.36	12.62
4	9.32	9.82	10.31	10.70	10.75	10.25	11.16	11.56	11.89	12.14	12.36	12.63
5	9.34	9.84	10.33	10.71	10.71	10.30	11.17	11.57	11.90	12.15	12.37	12.63
6	9.35	9.87	10.33	10.73	10.67	10.34	11.19	11.58	11.90	12.16	12.38	12.64
7	9.37	9.96	10.35	10.75	10.63	10.38	11.21	11.60	11.91	12.17	12.39	12.65
8	9.39	10.01	10.37	10.77	10.59	10.41	11.23	11.61	11.93	12.18	12.39	12.66
9	9.41	9.98	10.37	10.78	10.55	10.45	11.24	11.62	11.94	12.19	12.40	12.67
10	9.42	9.98	10.34	10.79	10.51	10.48	11.26	11.63	11.94	12.19	12.41	12.68
11	9.44	10.00	10.35	10.81	10.48	10.51	11.27	11.64	11.95	12.20	12.42	12.68
12	9.46	10.01	10.38	10.83	10.45	10.55	11.29	11.65	11.96	12.20	12.43	12.69
13	9.48	10.02	10.39	10.84	10.41	10.58	11.30	11.66	11.97	12.21	12.44	12.70
14	9.49	10.04	10.41	10.86	10.38	10.63	11.30	11.67	11.98	12.22	12.45	12.71
15	9.50	10.05	10.42	10.88	10.35	10.67	11.32	11.68	11.99	12.23	12.46	12.72
16	9.52	10.07	10.43	10.89	10.32	10.71	11.33	11.69	12.00	12.23	12.46	12.73
17	9.54	10.08	10.44	10.91	10.29	10.75	11.34	11.70	12.01	12.24	12.47	12.73
18	9.56	10.09	10.45	10.93	10.26	10.78	11.36	11.71	12.01	12.25	12.48	12.74
19	9.58	10.11	10.47	10.94	10.24	10.81	11.37	11.72	12.02	12.26	12.49	12.75
20	9.59	10.12	10.48	10.96	10.21	10.84	11.39	11.73	12.03	12.26	12.50	12.76
21	9.60	10.14	10.49	10.98	10.19	10.87	11.40	11.75	12.04	12.27	12.51	12.76
22	9.62	10.15	10.51	10.99	10.16	10.90	11.41	11.75	12.05	12.27	12.52	12.77
23	9.64	10.16	10.52	11.01	10.14	10.92	11.42	11.76	12.05	12.28	12.53	12.78
24	9.65	10.18	10.53	11.02	10.12	10.95	11.44	11.77	12.06	12.29	12.54	12.78
25	9.67	10.19	10.55	11.03	10.10	10.97	11.45	11.78	12.07	12.29	12.55	12.79
26	9.68	10.21	10.56	11.02	10.09	11.00	11.46	11.79	12.07	12.30	12.56	12.80
27	9.70	10.22	10.58	11.00	10.09	11.02	11.48	11.80	12.08	12.30	12.56	12.80
28	9.71	10.24	10.59	10.96	10.08	11.05	11.49	11.81	12.09	12.31	12.57	12.81
29	9.73	10.25	10.61	10.91	10.07	11.07	11.51	11.82	12.10	12.32	12.58	12.82
30	9.74	---	10.62	10.87	10.07	11.09	11.52	11.83	12.11	12.32	12.59	12.83
31	9.76	---	10.63	---	10.08	---	11.53	11.84	---	12.33	---	12.84
Max	9.76	10.25	10.63	11.03	10.84	11.09	11.53	11.84	12.11	12.33	12.59	12.84
Min	9.27	9.77	10.27	10.65	10.07	10.11	11.11	11.54	11.85	12.12	12.34	12.60

Year 2012 Statistics: **Year Max 12.84; Year Min 9.27**

Note: Water level in ft bgs.


2012 HYDROGRAPH FOR MINERVA SPRING PIEZOMETER - SPR7007Z
SNWA Continuous Water-Level Data*
SNWA Periodic Water-Level Data
Spring Valley
Basin Fill Aquifer
Reference Elevation: 5,829 ft amsl
Well Depth: 31 ft bgs
WATER LEVEL (ft bgs)
ELEVATION (ft amsl)
4
5
6
7
8
9
10
11
12
13
14
5,825
5,824
5,823
5,822
5,821
5,820
5,819
5,818
5,817
5,816
5,815
1/1/12
2/1/12
3/1/12
4/1/12
5/1/12
6/1/12
7/1/12
8/1/12
9/1/12
10/1/12
11/1/12
12/1/12
1/1/13
*Data processed using a temperature specific conversion factor

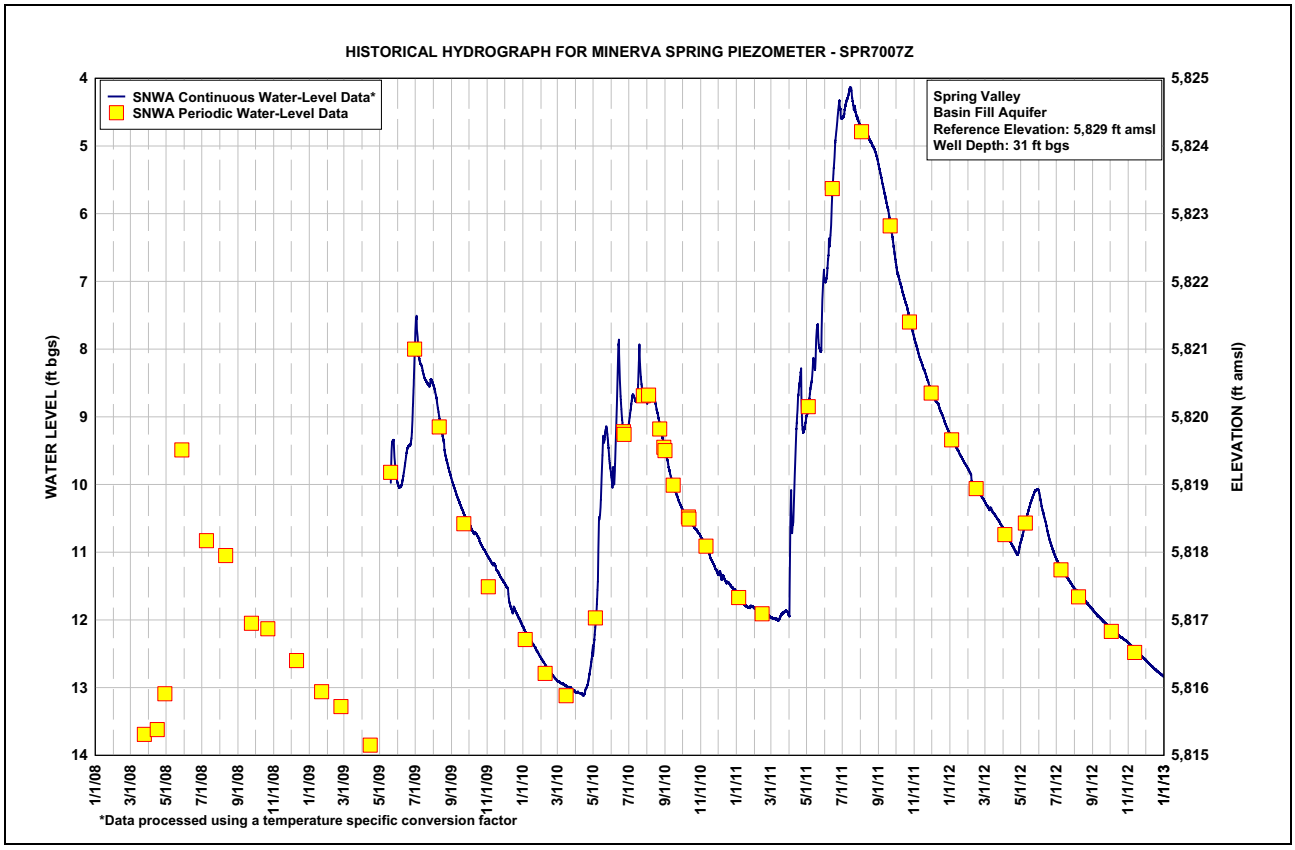
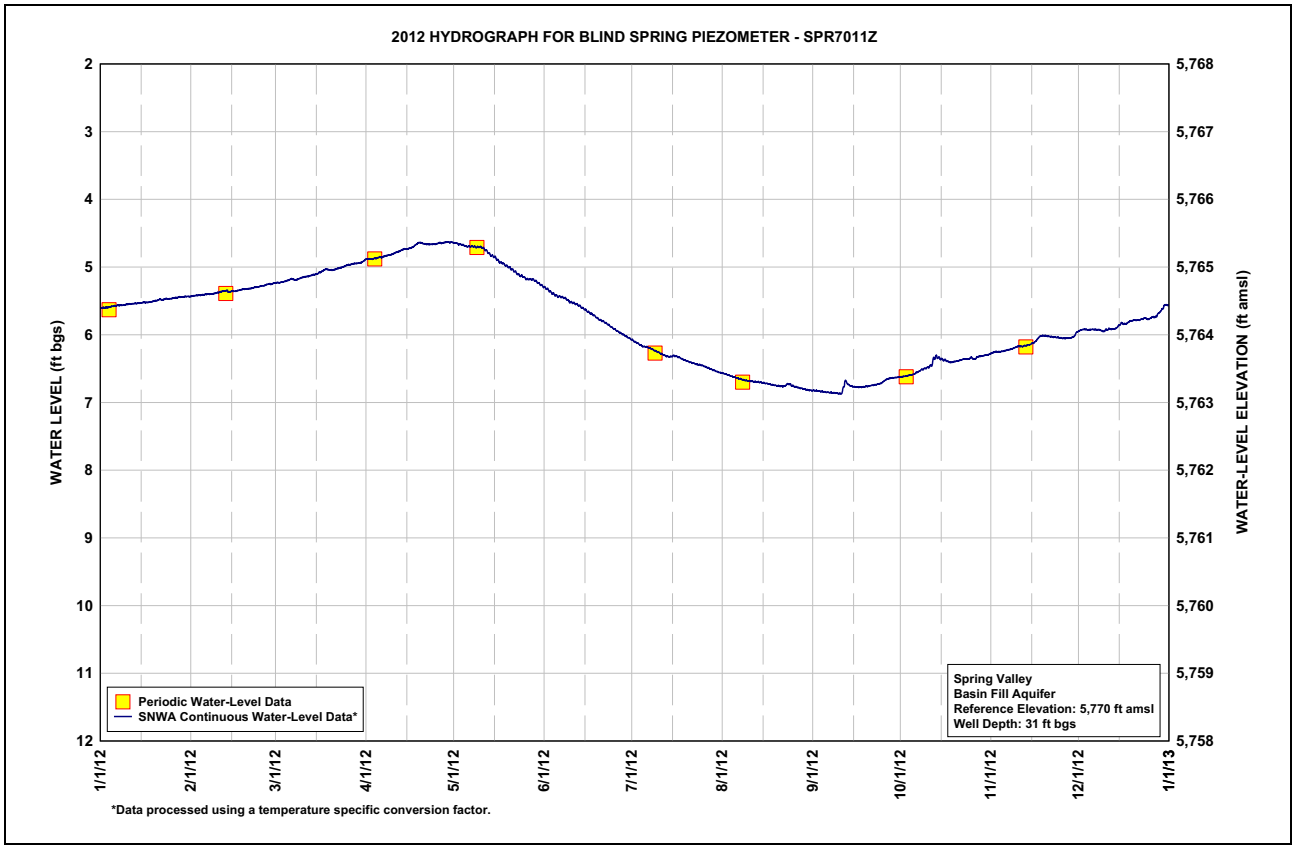

HISTORICAL HYDROGRAPH FOR MINERVA SPRING PIEZOMETER - SPR7007Z
SNWA Continuous Water-Level Data*
SNWA Periodic Water-Level Data
Spring Valley
Basin Fill Aquifer
Reference Elevation: 5,829 ft amsl
Well Depth: 31 ft bgs
WATER LEVEL (ft bgs)
ELEVATION (ft amsl)
4
5
6
7
8
9
10
11
12
13
14
5,825
5,824
5,823
5,822
5,821
5,820
5,819
5,818
5,817
5,816
5,815
1/1/08
3/1/08
5/1/08
7/1/08
9/1/08
11/1/08
1/1/09
3/1/09
5/1/09
7/1/09
9/1/09
11/1/09
1/1/10
3/1/10
5/1/10
7/1/10
9/1/10
11/1/10
1/1/11
3/1/11
5/1/11
7/1/11
9/1/11
11/1/11
1/1/12
3/1/12
5/1/12
7/1/12
9/1/12
11/1/12
1/1/13
*Data processed using a temperature specific conversion factor

Table C-6
Blind Spring Piezometer SPR7011Z, Calendar Year 2012
Water-Level Data, Daily Mean Values

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1	5.60	5.43	5.23	4.88	4.64	5.31	6.09	6.57	6.82	6.62	6.27	5.94
2	5.60	5.42	5.23	4.88	4.66	5.34	6.11	6.58	6.83	6.61	6.25	5.92
3	5.60	5.42	5.22	4.88	4.67	5.38	6.14	6.60	6.83	6.60	6.25	5.92
4	5.59	5.41	5.21	4.87	4.68	5.40	6.16	6.62	6.84	6.60	6.25	5.93
5	5.58	5.41	5.19	4.85	4.70	5.43	6.18	6.63	6.85	6.58	6.24	5.92
6	5.57	5.40	5.18	4.85	4.70	5.44	6.19	6.64	6.85	6.56	6.23	5.92
7	5.57	5.40	5.19	4.84	4.70	5.45	6.20	6.66	6.86	6.54	6.22	5.92
8	5.56	5.40	5.18	4.83	4.70	5.47	6.22	6.67	6.86	6.51	6.20	5.93
9	5.56	5.39	5.16	4.82	4.70	5.50	6.25	6.68	6.86	6.50	6.18	5.95
10	5.55	5.37	5.15	4.80	4.71	5.52	6.27	6.68	6.87	6.48	6.17	5.93
11	5.54	5.36	5.14	4.78	4.73	5.54	6.29	6.69	6.78	6.45	6.17	5.91
12	5.54	5.35	5.13	4.76	4.77	5.56	6.31	6.70	6.70	6.36	6.16	5.92
13	5.54	5.35	5.12	4.74	4.81	5.58	6.32	6.70	6.74	6.33	6.15	5.91
14	5.53	5.36	5.11	4.73	4.84	5.61	6.32	6.70	6.76	6.35	6.14	5.88
15	5.52	5.36	5.10	4.73	4.87	5.64	6.31	6.71	6.77	6.37	6.12	5.84
16	5.52	5.35	5.07	4.71	4.91	5.67	6.32	6.72	6.77	6.38	6.09	5.84
17	5.52	5.34	5.05	4.69	4.94	5.70	6.34	6.73	6.77	6.40	6.04	5.83
18	5.51	5.33	5.03	4.66	4.97	5.73	6.36	6.74	6.77	6.41	6.02	5.80
19	5.50	5.33	5.04	4.64	4.99	5.76	6.38	6.75	6.76	6.40	6.01	5.79
20	5.49	5.32	5.04	4.65	5.02	5.79	6.40	6.76	6.75	6.39	6.02	5.79
21	5.48	5.32	5.03	4.66	5.05	5.81	6.41	6.76	6.75	6.38	6.03	5.78
22	5.48	5.30	5.02	4.66	5.08	5.84	6.43	6.75	6.74	6.36	6.03	5.77
23	5.47	5.30	5.01	4.66	5.12	5.87	6.44	6.73	6.73	6.36	6.04	5.76
24	5.47	5.29	4.99	4.66	5.13	5.90	6.45	6.74	6.71	6.36	6.04	5.77
25	5.46	5.28	4.97	4.65	5.16	5.93	6.46	6.76	6.68	6.34	6.05	5.76
26	5.45	5.27	4.96	4.64	5.18	5.96	6.48	6.77	6.66	6.35	6.05	5.74
27	5.45	5.25	4.95	4.64	5.18	5.98	6.49	6.79	6.64	6.33	6.05	5.73
28	5.44	5.25	4.95	4.63	5.19	6.01	6.51	6.80	6.64	6.32	6.04	5.68
29	5.44	5.24	4.94	4.63	5.22	6.03	6.53	6.81	6.63	6.31	6.02	5.63
30	5.43	---	4.93	4.63	5.25	6.06	6.55	6.82	6.63	6.30	5.96	5.57
31	5.44	---	4.90	---	5.28	---	6.56	6.82	---	6.29	---	5.56
Max	5.60	5.43	5.23	4.88	5.28	6.06	6.56	6.82	6.87	6.62	6.27	5.95
Min	5.43	5.24	4.90	4.63	4.64	5.31	6.09	6.57	6.63	6.29	5.96	5.56

Year 2012 Statistics: **Year Max 6.87; Year Min 4.63**

Note: Water level in ft bgs.


2012 HYDROGRAPH FOR BLIND SPRING PIEZOMETER - SPR7011Z
WATER LEVEL (ft bgs)
WATER-LEVEL ELEVATION (ft amsl)
2
3
4
5
6
7
8
9
10
11
12
5,768
5,767
5,766
5,765
5,764
5,763
5,762
5,761
5,760
5,759
5,758
1/1/12
2/1/12
3/1/12
4/1/12
5/1/12
6/1/12
7/1/12
8/1/12
9/1/12
10/1/12
11/1/12
12/1/12
1/1/13
Periodic Water-Level Data
SNWA Continuous Water-Level Data*
Spring Valley
Basin Fill Aquifer
Reference Elevation: 5,770 ft amsl
Well Depth: 31 ft bgs
*Data processed using a temperature specific conversion factor.

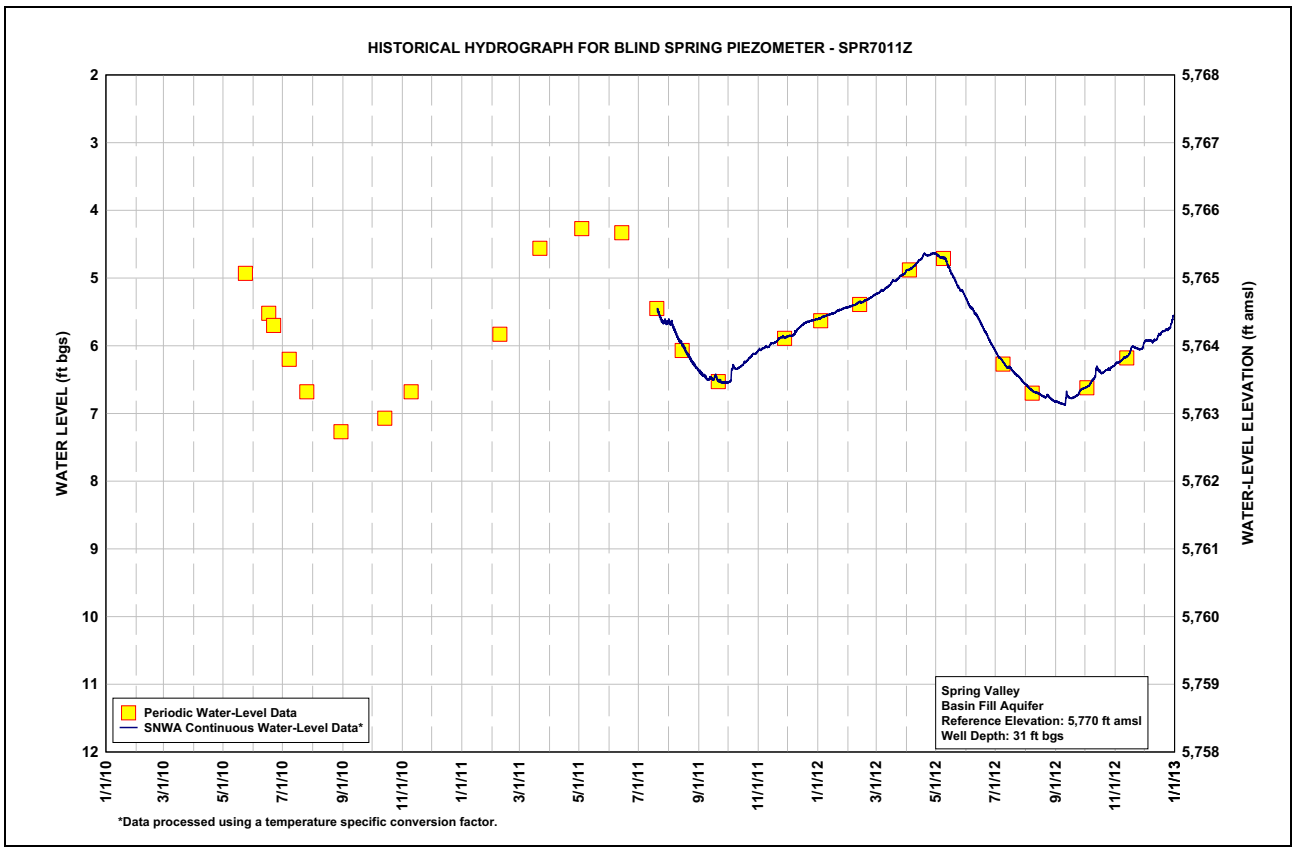
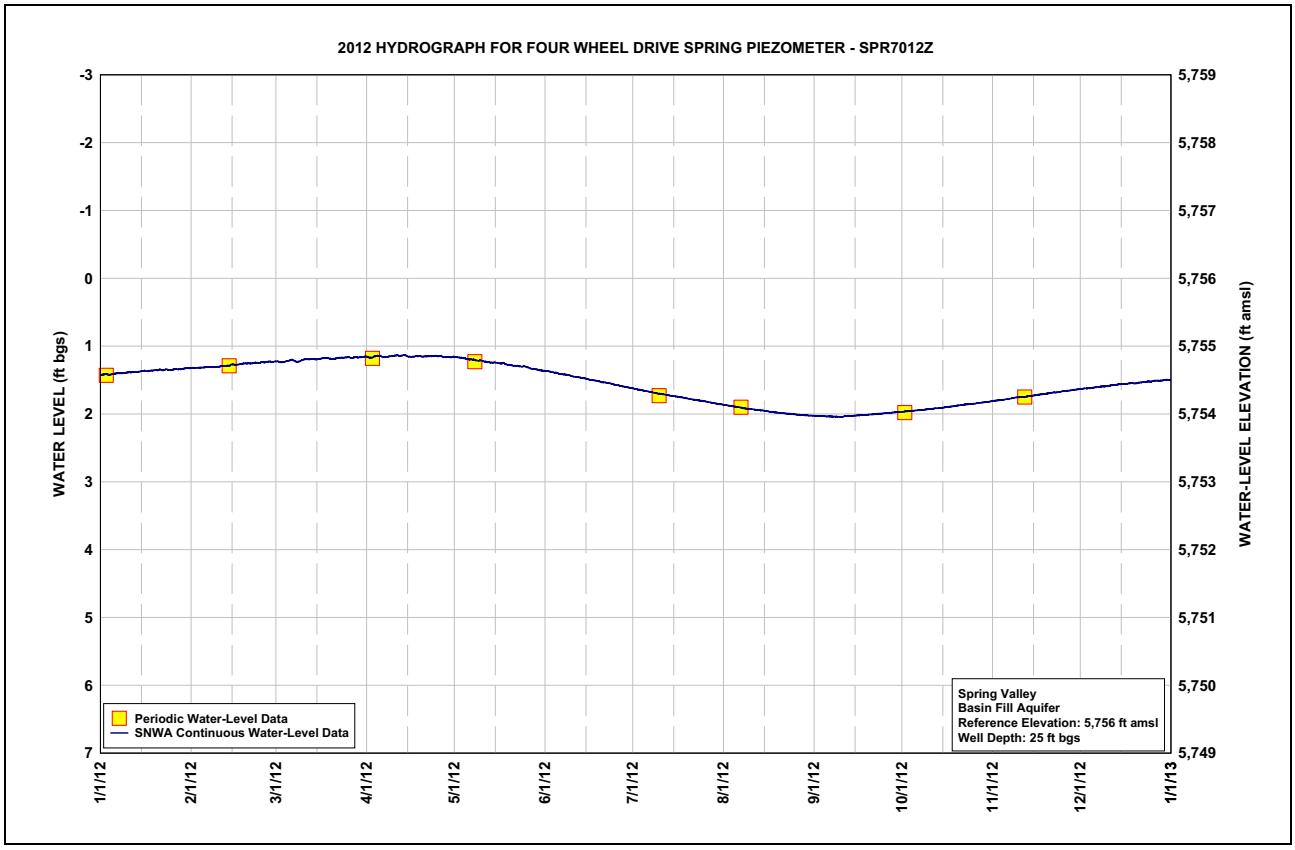

HISTORICAL HYDROGRAPH FOR BLIND SPRING PIEZOMETER - SPR7011Z
WATER LEVEL (ft bgs)
WATER-LEVEL ELEVATION (ft amsl)
2
3
4
5
6
7
8
9
10
11
12
5,768
5,767
5,766
5,765
5,764
5,763
5,762
5,761
5,760
5,759
5,758
1/1/10
3/1/10
5/1/10
7/1/10
9/1/10
11/1/10
1/1/11
3/1/11
5/1/11
7/1/11
9/1/11
11/1/11
1/1/12
3/1/12
5/1/12
7/1/12
9/1/12
11/1/12
1/1/13
Periodic Water-Level Data
SNWA Continuous Water-Level Data*
Spring Valley
Basin Fill Aquifer
Reference Elevation: 5,770 ft amsl
Well Depth: 31 ft bgs
*Data processed using a temperature specific conversion factor.

Table C-7
Four Wheel Drive Spring Piezometer SPR7012Z, Calendar Year 2012
Water-Level Data, Daily Mean Values

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1	1.42	1.32	1.23	1.16	1.16	1.37	1.63	1.87	2.03	1.97	1.81	1.63
2	1.41	1.32	1.24	1.17	1.17	1.37	1.64	1.87	2.03	1.96	1.80	1.62
3	1.42	1.32	1.23	1.16	1.17	1.38	1.65	1.88	2.03	1.96	1.80	1.62
4	1.42	1.32	1.22	1.14	1.18	1.39	1.65	1.89	2.03	1.95	1.79	1.62
5	1.41	1.31	1.21	1.14	1.19	1.40	1.66	1.90	2.04	1.95	1.79	1.61
6	1.40	1.31	1.20	1.16	1.20	1.41	1.67	1.90	2.04	1.95	1.78	1.60
7	1.40	1.31	1.22	1.16	1.20	1.42	1.68	1.91	2.04	1.94	1.77	1.60
8	1.40	1.31	1.23	1.15	1.21	1.42	1.69	1.92	2.04	1.94	1.76	1.59
9	1.39	1.31	1.22	1.15	1.21	1.43	1.70	1.92	2.04	1.93	1.76	1.59
10	1.39	1.30	1.20	1.14	1.22	1.45	1.70	1.93	2.04	1.93	1.75	1.59
11	1.39	1.30	1.19	1.14	1.23	1.45	1.71	1.93	2.03	1.92	1.75	1.58
12	1.38	1.29	1.19	1.14	1.24	1.46	1.72	1.94	2.03	1.92	1.74	1.57
13	1.38	1.29	1.19	1.14	1.24	1.47	1.73	1.95	2.03	1.92	1.74	1.57
14	1.37	1.28	1.19	1.14	1.24	1.47	1.73	1.95	2.02	1.91	1.73	1.56
15	1.37	1.27	1.19	1.15	1.24	1.48	1.74	1.96	2.02	1.90	1.73	1.56
16	1.37	1.28	1.18	1.16	1.25	1.50	1.75	1.96	2.02	1.90	1.72	1.56
17	1.37	1.27	1.18	1.15	1.25	1.50	1.75	1.97	2.02	1.89	1.71	1.55
18	1.36	1.26	1.18	1.15	1.26	1.51	1.76	1.98	2.01	1.89	1.70	1.55
19	1.36	1.26	1.18	1.15	1.28	1.52	1.77	1.98	2.01	1.88	1.70	1.55
20	1.35	1.25	1.19	1.15	1.28	1.53	1.78	1.98	2.01	1.87	1.69	1.54
21	1.35	1.25	1.18	1.15	1.29	1.54	1.79	1.99	2.00	1.87	1.69	1.54
22	1.35	1.25	1.17	1.15	1.29	1.54	1.79	1.99	2.00	1.86	1.68	1.53
23	1.34	1.25	1.17	1.15	1.30	1.55	1.80	2.00	2.00	1.86	1.68	1.53
24	1.35	1.25	1.17	1.15	1.30	1.57	1.81	2.00	1.99	1.85	1.67	1.52
25	1.35	1.24	1.16	1.15	1.30	1.57	1.81	2.01	1.99	1.85	1.66	1.52
26	1.34	1.24	1.17	1.15	1.32	1.58	1.82	2.01	1.99	1.84	1.66	1.51
27	1.34	1.23	1.17	1.16	1.33	1.59	1.83	2.02	1.98	1.84	1.65	1.51
28	1.34	1.23	1.16	1.16	1.34	1.60	1.84	2.02	1.98	1.83	1.65	1.51
29	1.33	1.23	1.17	1.16	1.35	1.61	1.85	2.02	1.97	1.83	1.64	1.50
30	1.32	---	1.16	1.16	1.36	1.62	1.85	2.02	1.97	1.82	1.64	1.50
31	1.32	---	1.15	---	1.36	---	1.86	2.02	---	1.81	---	1.50
Max	1.42	1.32	1.24	1.17	1.36	1.62	1.86	2.02	2.04	1.97	1.81	1.63
Min	1.32	1.23	1.15	1.14	1.16	1.37	1.63	1.87	1.97	1.81	1.64	1.50

Year 2012 Statistics: **Year Max 2.04; Year Min 1.14**

Note: Water level in ft bgs.


2012 HYDROGRAPH FOR FOUR WHEEL DRIVE SPRING PIEZOMETER - SPR7012Z
WATER LEVEL (ft bgs)
WATER-LEVEL ELEVATION (ft amsl)
-3
-2
-1
0
1
2
3
4
5
6
7
5,759
5,758
5,757
5,756
5,755
5,754
5,753
5,752
5,751
5,750
5,749
1/1/12
2/1/12
3/1/12
4/1/12
5/1/12
6/1/12
7/1/12
8/1/12
9/1/12
10/1/12
11/1/12
12/1/12
1/1/13
Periodic Water-Level Data
SNWA Continuous Water-Level Data
Spring Valley
Basin Fill Aquifer
Reference Elevation: 5,756 ft amsl
Well Depth: 25 ft bgs

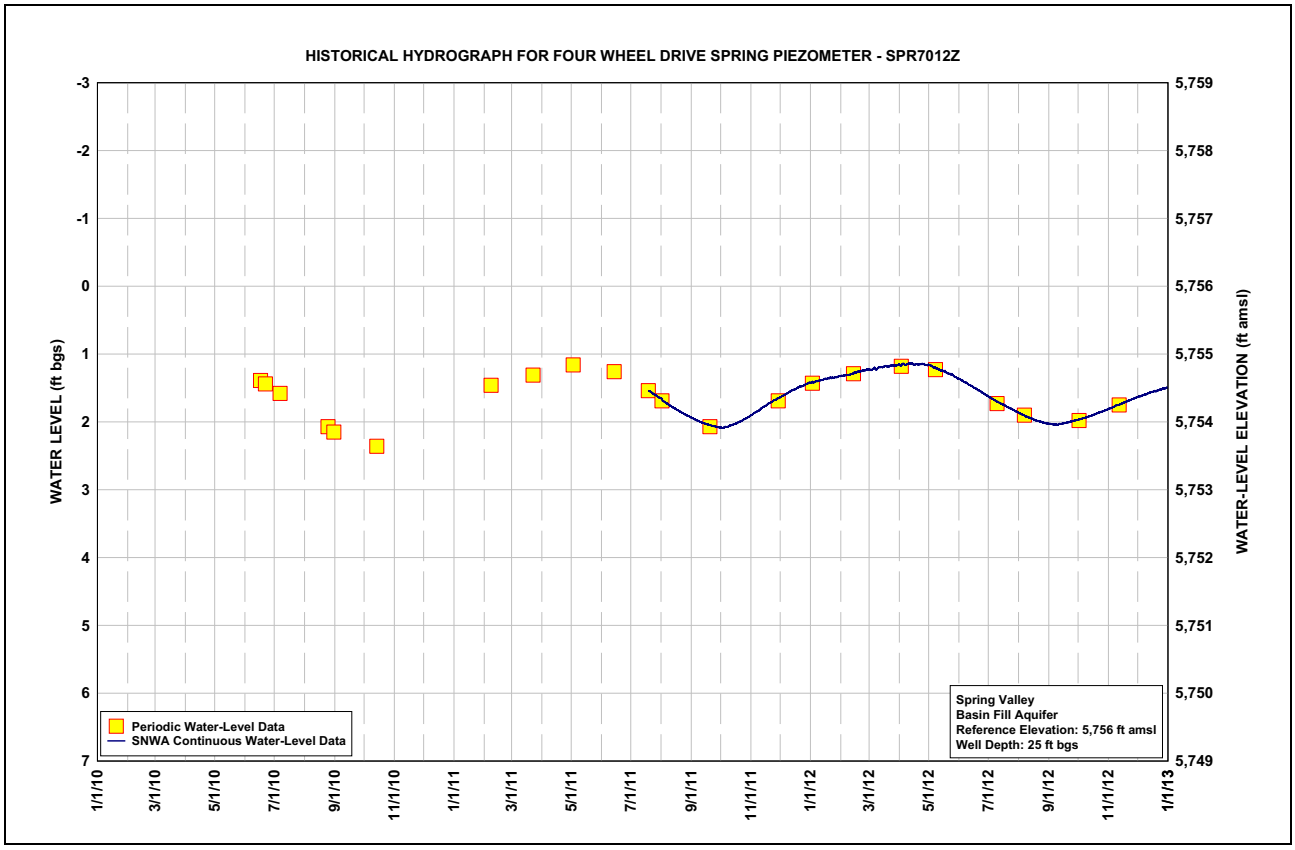
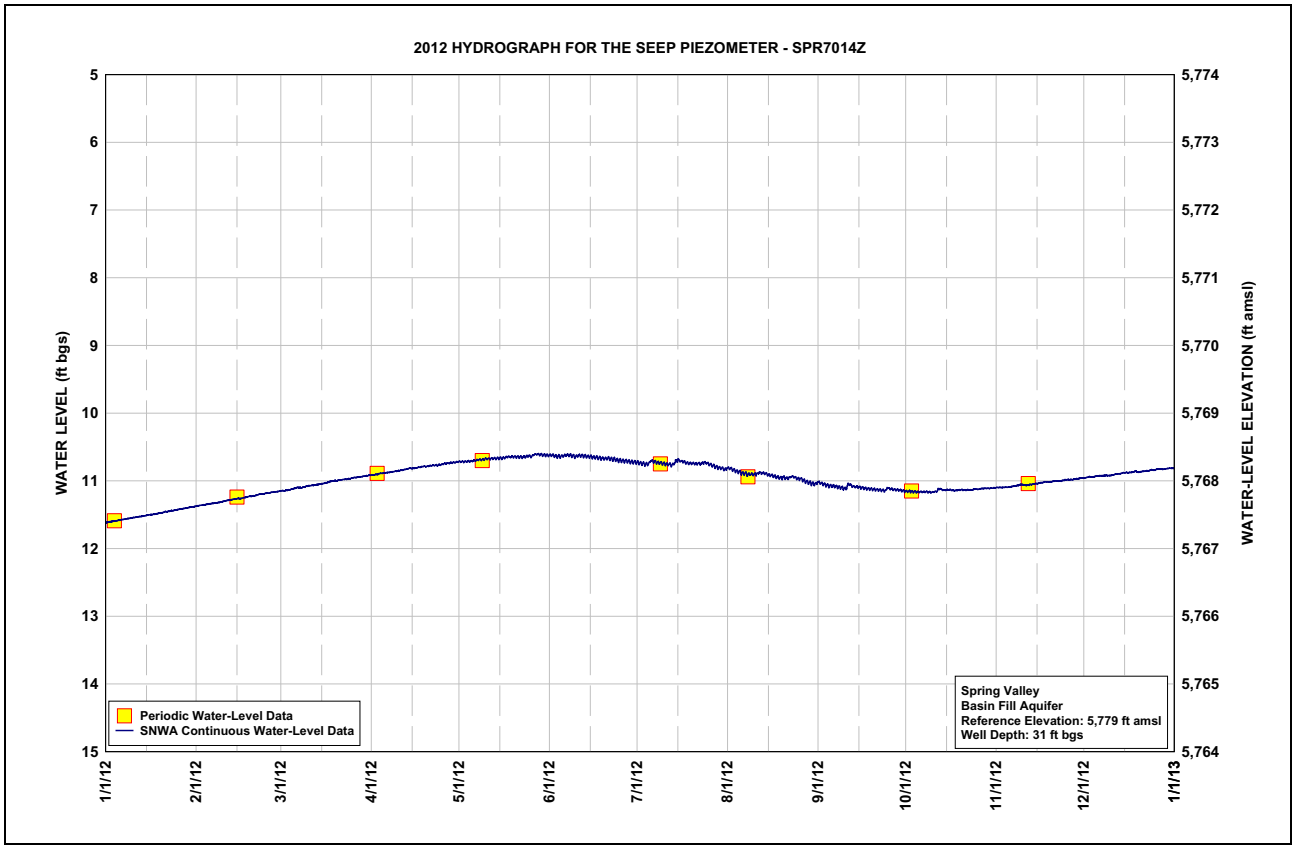

HISTORICAL HYDROGRAPH FOR FOUR WHEEL DRIVE SPRING PIEZOMETER - SPR7012Z
WATER LEVEL (ft bgs)
WATER-LEVEL ELEVATION (ft amsl)
-3
-2
-1
0
1
2
3
4
5
6
7
5,759
5,758
5,757
5,756
5,755
5,754
5,753
5,752
5,751
5,750
5,749
1/1/10
3/1/10
5/1/10
7/1/10
9/1/10
11/1/10
1/1/11
3/1/11
5/1/11
7/1/11
9/1/11
11/1/11
1/1/12
3/1/12
5/1/12
7/1/12
9/1/12
11/1/12
1/1/13
Periodic Water-Level Data
SNWA Continuous Water-Level Data
Spring Valley
Basin Fill Aquifer
Reference Elevation: 5,756 ft amsl
Well Depth: 25 ft bgs

Table C-8
The Seep Piezometer SPR7014Z, Calendar Year 2012
Water-Level Data, Daily Mean Values

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1	11.61	11.37	11.15	10.91	10.72	10.62	10.73	10.81	11.03	11.15	11.10	10.95
2	11.60	11.36	11.14	10.91	10.72	10.63	10.74	10.83	11.04	11.16	11.10	10.94
3	11.60	11.36	11.14	10.90	10.71	10.64	10.75	10.85	11.06	11.16	11.10	10.94
4	11.59	11.35	11.12	10.89	10.71	10.64	10.75	10.86	11.07	11.16	11.09	10.94
5	11.58	11.34	11.11	10.88	10.71	10.63	10.72	10.88	11.08	11.16	11.09	10.93
6	11.57	11.33	11.10	10.88	10.70	10.62	10.71	10.89	11.08	11.16	11.08	10.93
7	11.57	11.33	11.10	10.87	10.69	10.62	10.72	10.90	11.09	11.16	11.08	10.92
8	11.56	11.32	11.10	10.86	10.69	10.63	10.73	10.90	11.10	11.16	11.07	10.92
9	11.55	11.31	11.09	10.86	10.68	10.64	10.74	10.90	11.10	11.17	11.05	10.92
10	11.54	11.30	11.07	10.85	10.67	10.63	10.75	10.90	11.11	11.16	11.06	10.92
11	11.54	11.29	11.07	10.84	10.67	10.63	10.75	10.88	11.05	11.16	11.06	10.91
12	11.53	11.28	11.06	10.83	10.67	10.63	10.76	10.88	11.07	11.12	11.06	10.90
13	11.52	11.27	11.06	10.82	10.67	10.64	10.75	10.89	11.09	11.13	11.05	10.89
14	11.52	11.27	11.05	10.82	10.66	10.64	10.71	10.90	11.09	11.14	11.04	10.88
15	11.51	11.26	11.04	10.81	10.66	10.65	10.70	10.91	11.10	11.13	11.03	10.88
16	11.50	11.26	11.03	10.81	10.66	10.65	10.71	10.93	11.10	11.13	11.03	10.88
17	11.49	11.25	11.02	10.80	10.65	10.66	10.73	10.94	11.11	11.14	11.02	10.87
18	11.49	11.24	11.00	10.79	10.65	10.66	10.74	10.95	11.12	11.14	11.02	10.86
19	11.48	11.23	11.00	10.79	10.64	10.67	10.74	10.95	11.12	11.13	11.01	10.87
20	11.47	11.22	11.00	10.78	10.65	10.67	10.74	10.95	11.13	11.13	11.01	10.87
21	11.46	11.21	10.99	10.78	10.65	10.67	10.74	10.96	11.13	11.14	11.00	10.86
22	11.45	11.20	10.98	10.77	10.65	10.68	10.74	10.94	11.14	11.13	11.00	10.85
23	11.44	11.19	10.98	10.77	10.65	10.68	10.74	10.94	11.14	11.13	11.00	10.85
24	11.44	11.19	10.97	10.76	10.64	10.70	10.73	10.96	11.12	11.12	10.99	10.84
25	11.43	11.18	10.96	10.75	10.64	10.70	10.75	10.97	11.11	11.12	10.98	10.84
26	11.42	11.18	10.95	10.74	10.62	10.70	10.77	10.98	11.12	11.12	10.98	10.83
27	11.41	11.17	10.94	10.74	10.61	10.71	10.78	11.00	11.13	11.11	10.98	10.83
28	11.40	11.16	10.94	10.73	10.61	10.72	10.80	11.02	11.13	11.11	10.97	10.83
29	11.39	11.15	10.93	10.73	10.62	10.72	10.81	11.03	11.14	11.11	10.96	10.82
30	11.39	---	10.93	10.72	10.62	10.73	10.82	11.04	11.15	11.11	10.96	10.81
31	11.38	---	10.92	---	10.62	---	10.82	11.03	---	11.10	---	10.81
Max	11.61	11.37	11.15	10.91	10.72	10.73	10.82	11.04	11.15	11.17	11.10	10.95
Min	11.38	11.15	10.92	10.72	10.61	10.62	10.70	10.81	11.03	11.10	10.96	10.81

Year 2012 Statistics: **Year Max 11.61; Year Min 10.61**

Note: Water level in ft bgs.


2012 HYDROGRAPH FOR THE SEEP PIEZOMETER - SPR7014Z
WATER LEVEL (ft bgs)
WATER-LEVEL ELEVATION (ft amsl)
5
6
7
8
9
10
11
12
13
14
15
5,774
5,773
5,772
5,771
5,770
5,769
5,768
5,767
5,766
5,765
5,764
1/1/12
2/1/12
3/1/12
4/1/12
5/1/12
6/1/12
7/1/12
8/1/12
9/1/12
10/1/12
11/1/12
12/1/12
1/1/13
Periodic Water-Level Data
SNWA Continuous Water-Level Data
Spring Valley
Basin Fill Aquifer
Reference Elevation: 5,779 ft amsl
Well Depth: 31 ft bgs

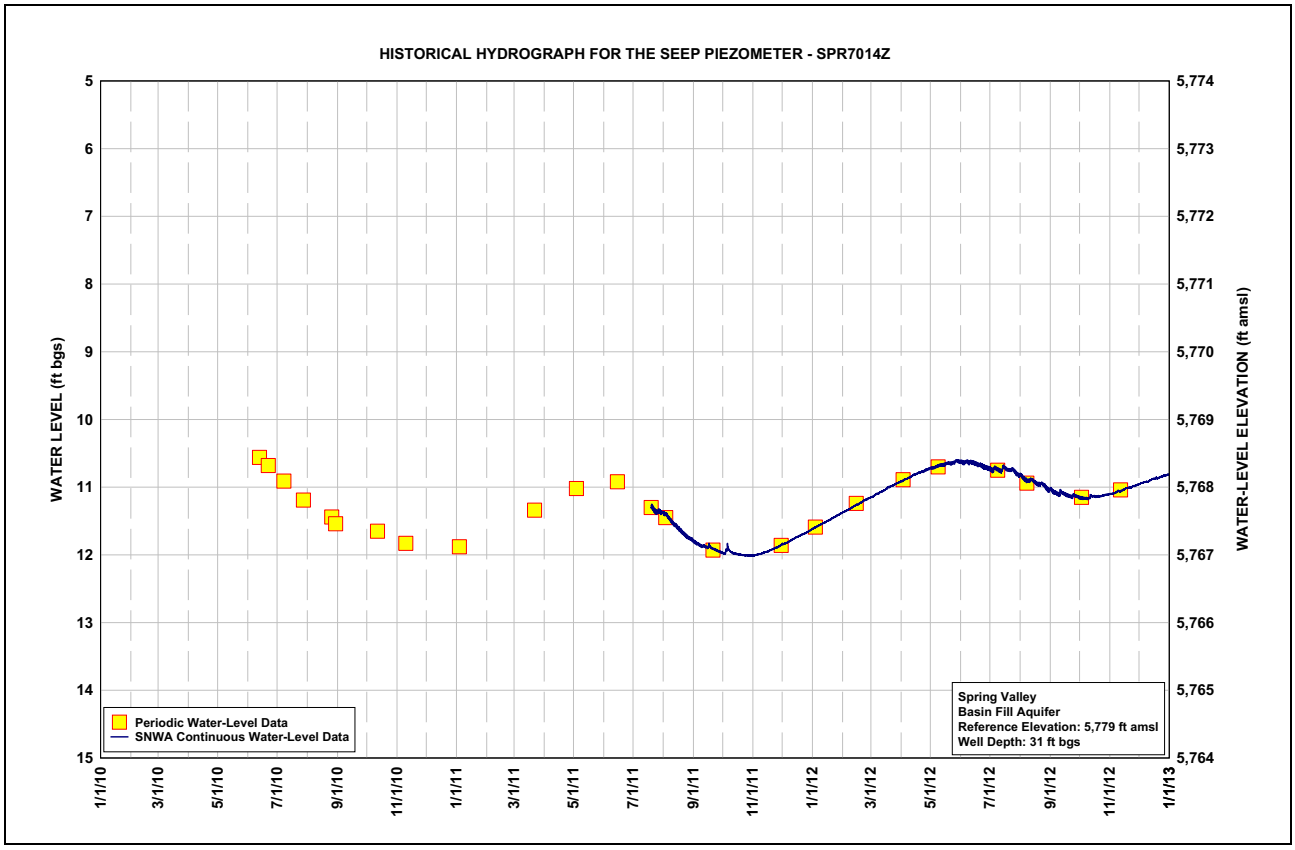
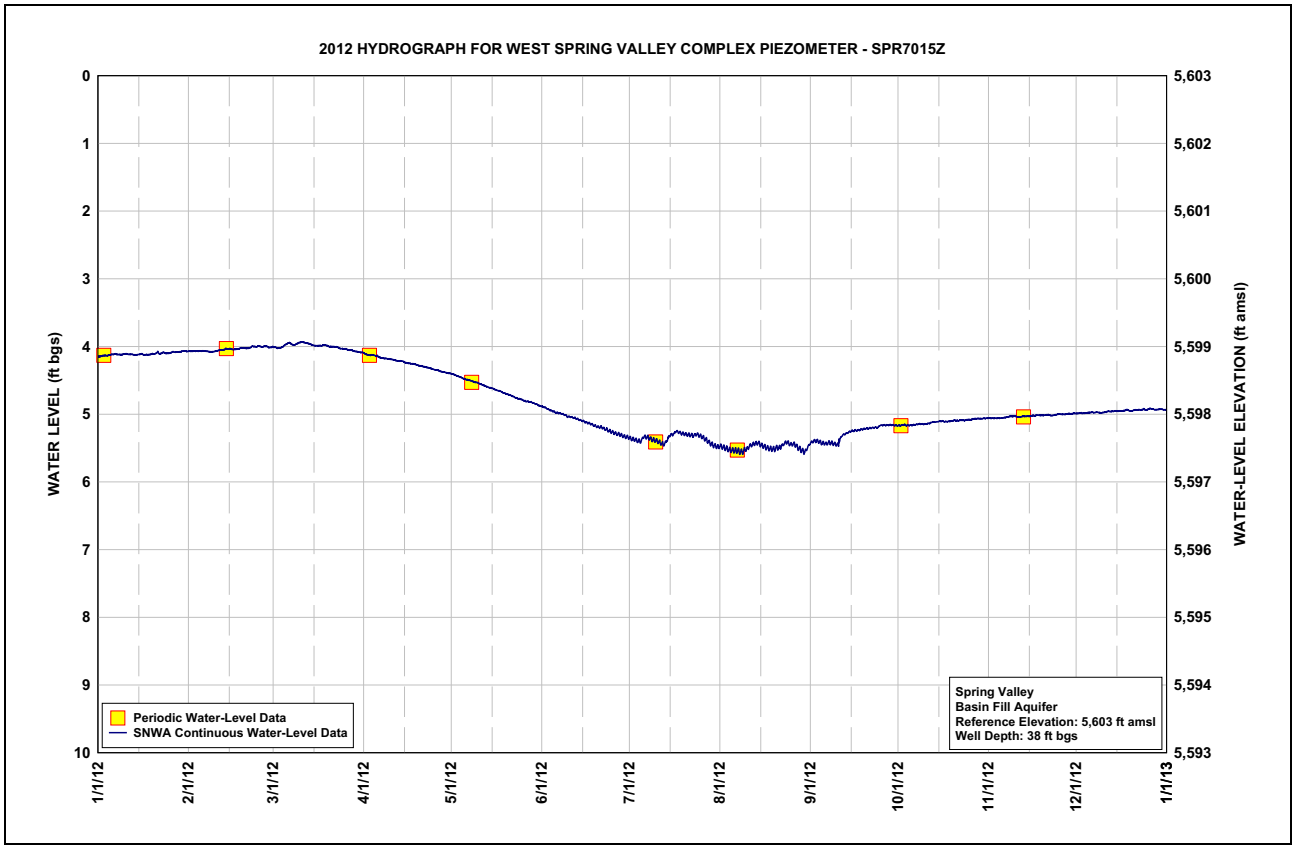

HISTORICAL HYDROGRAPH FOR THE SEEP PIEZOMETER - SPR7014Z
WATER LEVEL (ft bgs)
WATER-LEVEL ELEVATION (ft amsl)
5
6
7
8
9
10
11
12
13
14
15
5,774
5,773
5,772
5,771
5,770
5,769
5,768
5,767
5,766
5,765
5,764
1/1/10
3/1/10
5/1/10
7/1/10
9/1/10
11/1/10
1/1/11
3/1/11
5/1/11
7/1/11
9/1/11
11/1/11
1/1/12
3/1/12
5/1/12
7/1/12
9/1/12
11/1/12
1/1/13
Periodic Water-Level Data
SNWA Continuous Water-Level Data
Spring Valley
Basin Fill Aquifer
Reference Elevation: 5,779 ft amsl
Well Depth: 31 ft bgs

Table C-9
West Spring Valley Complex Piezometer SPR7015Z, Calendar Year 2012
Water-Level Data, Daily Mean Values

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1	4.15	4.07	4.01	4.11	4.41	4.89	5.36	5.48	5.41	5.17	5.06	4.99
2	4.14	4.07	4.02	4.12	4.42	4.91	5.37	5.49	5.40	5.16	5.06	4.98
3	4.13	4.07	4.02	4.13	4.44	4.93	5.39	5.51	5.40	5.16	5.06	4.99
4	4.13	4.07	4.00	4.13	4.46	4.95	5.40	5.53	5.42	5.16	5.06	4.98
5	4.12	4.07	3.97	4.14	4.48	4.97	5.36	5.53	5.43	5.16	5.06	4.98
6	4.11	4.07	3.95	4.16	4.49	4.98	5.34	5.54	5.43	5.16	5.05	4.97
7	4.12	4.07	3.97	4.17	4.50	4.99	5.35	5.55	5.42	5.15	5.04	4.97
8	4.12	4.08	3.97	4.18	4.52	5.00	5.37	5.56	5.43	5.14	5.03	4.97
9	4.12	4.08	3.95	4.18	4.53	5.03	5.38	5.53	5.44	5.15	5.03	4.98
10	4.11	4.07	3.94	4.19	4.54	5.04	5.40	5.50	5.43	5.14	5.03	4.97
11	4.12	4.06	3.94	4.20	4.56	5.05	5.42	5.46	5.34	5.14	5.04	4.96
12	4.12	4.05	3.95	4.21	4.58	5.06	5.44	5.44	5.30	5.12	5.03	4.96
13	4.12	4.04	3.96	4.21	4.60	5.08	5.41	5.43	5.28	5.12	5.03	4.96
14	4.12	4.04	3.98	4.22	4.61	5.09	5.34	5.44	5.26	5.11	5.03	4.95
15	4.11	4.04	3.99	4.24	4.62	5.11	5.30	5.46	5.25	5.10	5.03	4.95
16	4.12	4.04	3.99	4.25	4.64	5.13	5.28	5.49	5.24	5.10	5.02	4.95
17	4.12	4.04	3.99	4.26	4.66	5.14	5.26	5.50	5.23	5.11	5.02	4.95
18	4.12	4.03	3.98	4.26	4.68	5.16	5.28	5.51	5.22	5.11	5.02	4.93
19	4.11	4.02	3.99	4.28	4.69	5.18	5.29	5.51	5.22	5.10	5.02	4.95
20	4.11	4.03	4.00	4.29	4.71	5.19	5.30	5.50	5.21	5.09	5.01	4.95
21	4.09	4.02	4.00	4.30	4.73	5.20	5.31	5.49	5.21	5.10	5.01	4.94
22	4.10	4.01	4.01	4.31	4.74	5.22	5.31	5.46	5.20	5.09	5.02	4.93
23	4.09	4.00	4.02	4.32	4.76	5.23	5.31	5.42	5.20	5.09	5.01	4.93
24	4.10	4.00	4.03	4.33	4.78	5.26	5.30	5.43	5.18	5.08	5.00	4.93
25	4.10	4.00	4.04	4.34	4.79	5.27	5.33	5.44	5.16	5.08	5.00	4.93
26	4.08	4.00	4.05	4.35	4.81	5.29	5.35	5.45	5.16	5.07	5.00	4.92
27	4.08	4.00	4.05	4.37	4.82	5.30	5.39	5.48	5.16	5.07	5.00	4.93
28	4.08	4.01	4.06	4.38	4.82	5.32	5.42	5.52	5.16	5.06	4.99	4.93
29	4.07	4.01	4.08	4.39	4.84	5.33	5.45	5.55	5.16	5.07	4.99	4.93
30	4.07	---	4.08	4.40	4.86	5.34	5.47	5.53	5.17	5.06	4.99	4.93
31	4.07	---	4.09	---	4.88	---	5.48	5.46	---	5.06	---	4.94
Max	4.15	4.08	4.09	4.40	4.88	5.34	5.48	5.56	5.44	5.17	5.06	4.99
Min	4.07	4.00	3.94	4.11	4.41	4.89	5.26	5.42	5.16	5.06	4.99	4.92

Year 2012 Statistics: **Year Max 5.56; Year Min 3.94**

Note: Water level in ft bgs.


2012 HYDROGRAPH FOR WEST SPRING VALLEY COMPLEX PIEZOMETER - SPR7015Z
WATER LEVEL (ft bgs)
WATER-LEVEL ELEVATION (ft amsl)
0
1
2
3
4
5
6
7
8
9
10
5,603
5,602
5,601
5,600
5,599
5,598
5,597
5,596
5,595
5,594
5,593
1/1/12
2/1/12
3/1/12
4/1/12
5/1/12
6/1/12
7/1/12
8/1/12
9/1/12
10/1/12
11/1/12
12/1/12
1/1/13
Periodic Water-Level Data
SNWA Continuous Water-Level Data
Spring Valley
Basin Fill Aquifer
Reference Elevation: 5,603 ft amsl
Well Depth: 38 ft bgs

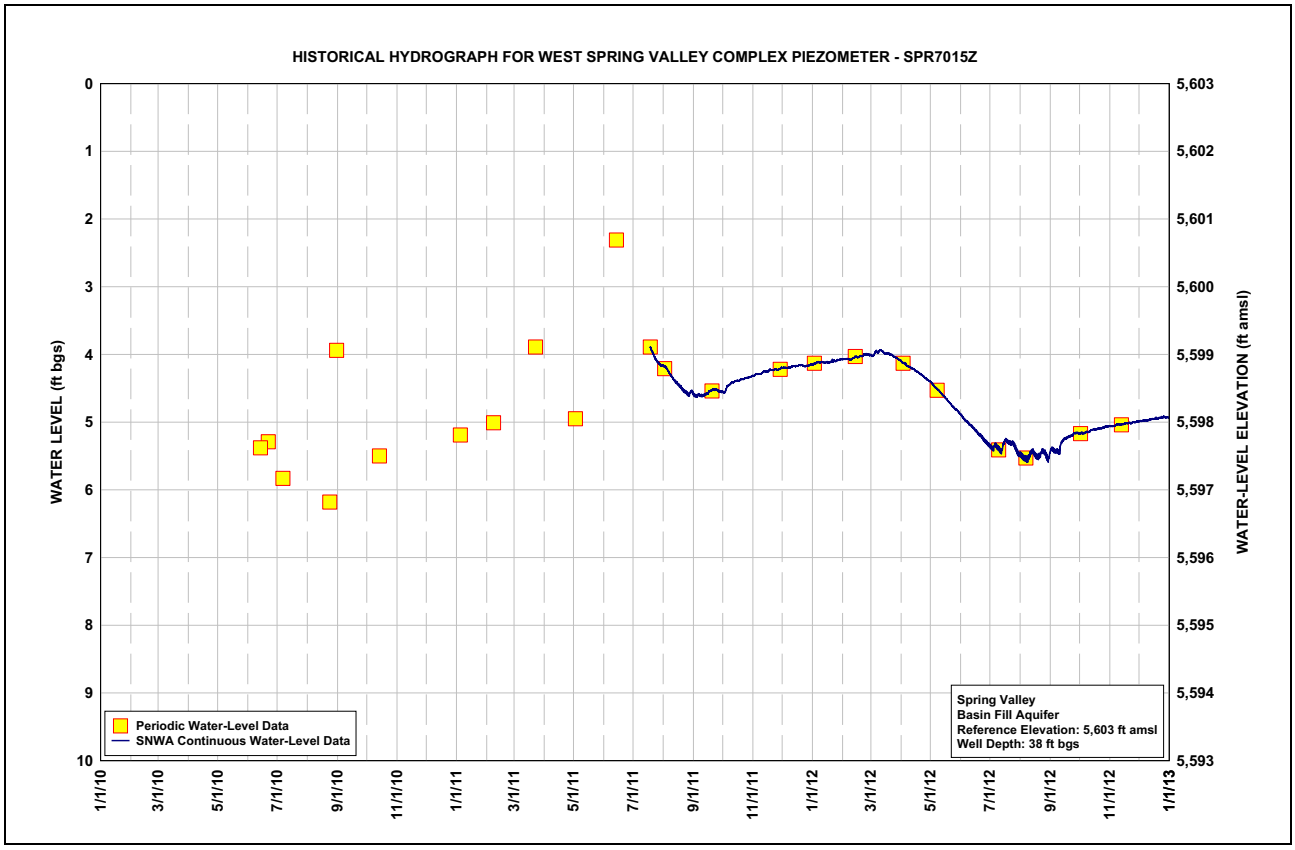

HISTORICAL HYDROGRAPH FOR WEST SPRING VALLEY COMPLEX PIEZOMETER - SPR7015Z
WATER LEVEL (ft bgs)
WATER-LEVEL ELEVATION (ft amsl)
0
1
2
3
4
5
6
7
8
9
10
5,603
5,602
5,601
5,600
5,599
5,598
5,597
5,596
5,595
5,594
5,593
1/1/10
3/1/10
5/1/10
7/1/10
9/1/10
11/1/10
1/1/11
3/1/11
5/1/11
7/1/11
9/1/11
11/1/11
1/1/12
3/1/12
5/1/12
7/1/12
9/1/12
11/1/12
1/1/13
Periodic Water-Level Data
SNWA Continuous Water-Level Data
Spring Valley
Basin Fill Aquifer
Reference Elevation: 5,603 ft amsl
Well Depth: 38 ft bgs

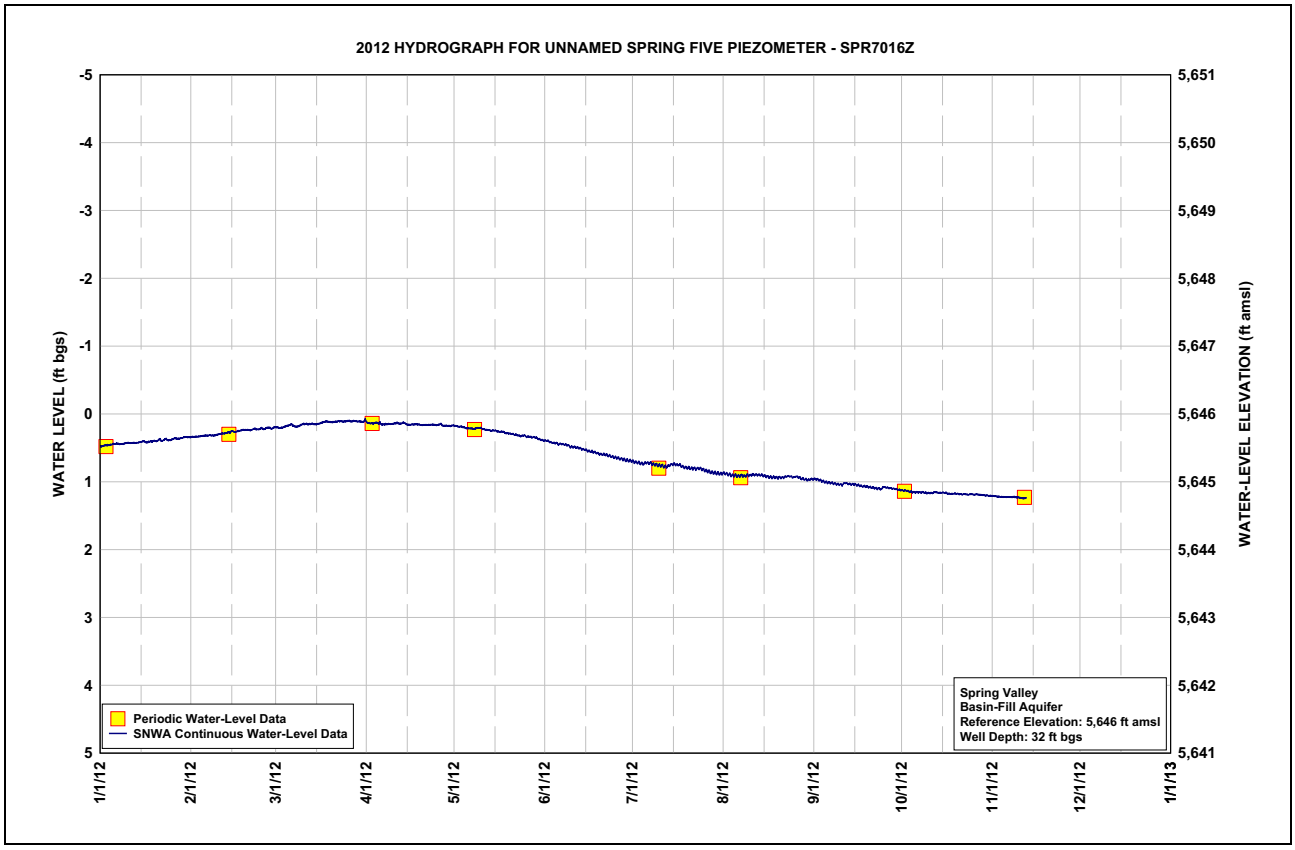
Table C-10
Unnamed Spring Five Spring Piezometer SPR7016Z, Calendar Year 2012
Water-Level Data, Daily Mean Values

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1	0.48	0.34	0.20	0.13	0.18	0.39	0.70	0.87	0.96	1.13	1.21	---[a]
2	0.46	0.34	0.21	0.14	0.19	0.40	0.71	0.89	0.97	1.13	1.22	---[a]
3	0.46	0.33	0.20	0.14	0.19	0.42	0.72	0.90	0.98	1.14	1.22	---[a]
4	0.46	0.33	0.18	0.13	0.20	0.43	0.73	0.91	1.00	1.15	1.22	---[a]
5	0.44	0.32	0.17	0.14	0.21	0.44	0.72	0.91	1.01	1.15	1.23	---[a]
6	0.44	0.32	0.16	0.15	0.21	0.44	0.72	0.91	1.01	1.15	1.23	---[a]
7	0.44	0.31	0.18	0.15	0.22	0.45	0.73	0.91	1.02	1.16	1.23	---[a]
8	0.44	0.32	0.18	0.15	0.21	0.46	0.75	0.91	1.03	1.16	1.22	---[a]
9	0.43	0.31	0.17	0.15	0.21	0.48	0.75	0.90	1.04	1.16	1.23	---[a]
10	0.43	0.30	0.15	0.14	0.21	0.49	0.76	0.90	1.04	1.17	1.24	---[a]
11	0.43	0.29	0.15	0.13	0.23	0.49	0.77	0.89	1.02	1.16	1.24	---[a]
12	0.42	0.29	0.15	0.14	0.24	0.50	0.78	0.90	1.03	1.15	---[a]	---[a]
13	0.42	0.27	0.15	0.13	0.24	0.51	0.76	0.90	1.03	1.16	---[a]	---[a]
14	0.42	0.27	0.15	0.15	0.24	0.52	0.74	0.90	1.04	1.16	---[a]	---[a]
15	0.40	0.26	0.15	0.16	0.25	0.54	0.74	0.92	1.04	1.16	---[a]	---[a]
16	0.41	0.26	0.13	0.16	0.26	0.55	0.75	0.93	1.05	1.17	---[a]	---[a]
17	0.41	0.25	0.12	0.15	0.26	0.56	0.76	0.93	1.06	1.18	---[a]	---[a]
18	0.40	0.24	0.11	0.15	0.28	0.57	0.78	0.94	1.07	1.18	---[a]	---[a]
19	0.40	0.24	0.12	0.16	0.29	0.59	0.79	0.94	1.07	1.17	---[a]	---[a]
20	0.40	0.23	0.12	0.16	0.29	0.60	0.80	0.94	1.08	1.18	---[a]	---[a]
21	0.38	0.24	0.11	0.16	0.30	0.60	0.80	0.94	1.09	1.19	---[a]	---[a]
22	0.39	0.22	0.11	0.16	0.31	0.61	0.81	0.92	1.10	1.18	---[a]	---[a]
23	0.37	0.22	0.11	0.16	0.32	0.62	0.80	0.92	1.10	1.19	---[a]	---[a]
24	0.39	0.22	0.11	0.16	0.32	0.64	0.81	0.93	1.09	1.18	---[a]	---[a]
25	0.38	0.22	0.10	0.16	0.33	0.64	0.83	0.93	1.08	1.19	---[a]	---[a]
26	0.36	0.21	0.11	0.15	0.33	0.66	0.84	0.93	1.09	1.19	---[a]	---[a]
27	0.36	0.20	0.11	0.17	0.34	0.66	0.85	0.95	1.10	1.19	---[a]	---[a]
28	0.36	0.21	0.11	0.17	0.34	0.68	0.86	0.96	1.10	1.19	---[a]	---[a]
29	0.35	0.20	0.11	0.17	0.36	0.69	0.87	0.97	1.11	1.20	---[a]	---[a]
30	0.34	---	0.11	0.17	0.38	0.69	0.88	0.97	1.12	1.20	---[a]	---[a]
31	0.34	---	0.10	---	0.39	---	0.88	0.96	---	1.21	---	---[a]
Max	0.48	0.34	0.21	0.17	0.39	0.69	0.88	0.97	1.12	1.21	1.24	---
Min	0.34	0.20	0.10	0.13	0.18	0.39	0.70	0.87	0.96	1.13	1.21	---

Year 2012 Statistics: **Year Max 1.24; Year Min 0.10**

Note: Water level in ft bgs.

[a]Data unavailable due to equipment malfunction.


2012 HYDROGRAPH FOR UNNAMED SPRING FIVE PIEZOMETER - SPR7016Z
WATER LEVEL (ft bgs)
WATER-LEVEL ELEVATION (ft amsl)
-5
-4
-3
-2
-1
0
1
2
3
4
5
5,651
5,650
5,649
5,648
5,647
5,646
5,645
5,644
5,643
5,642
5,641
1/1/12
2/1/12
3/1/12
4/1/12
5/1/12
6/1/12
7/1/12
8/1/12
9/1/12
10/1/12
11/1/12
12/1/12
1/1/13
Periodic Water-Level Data
SNWA Continuous Water-Level Data
Spring Valley
Basin-Fill Aquifer
Reference Elevation: 5,646 ft amsl
Well Depth: 32 ft bgs

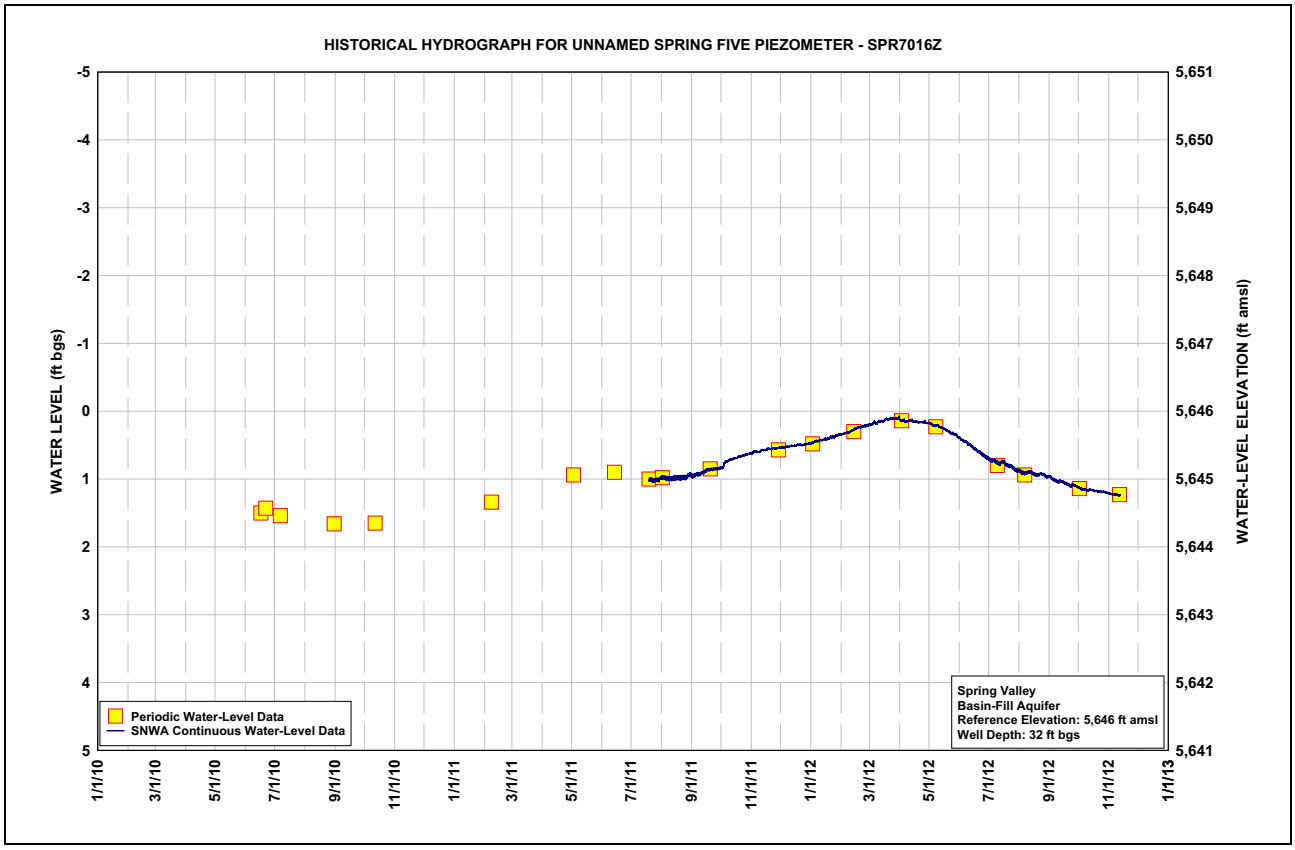
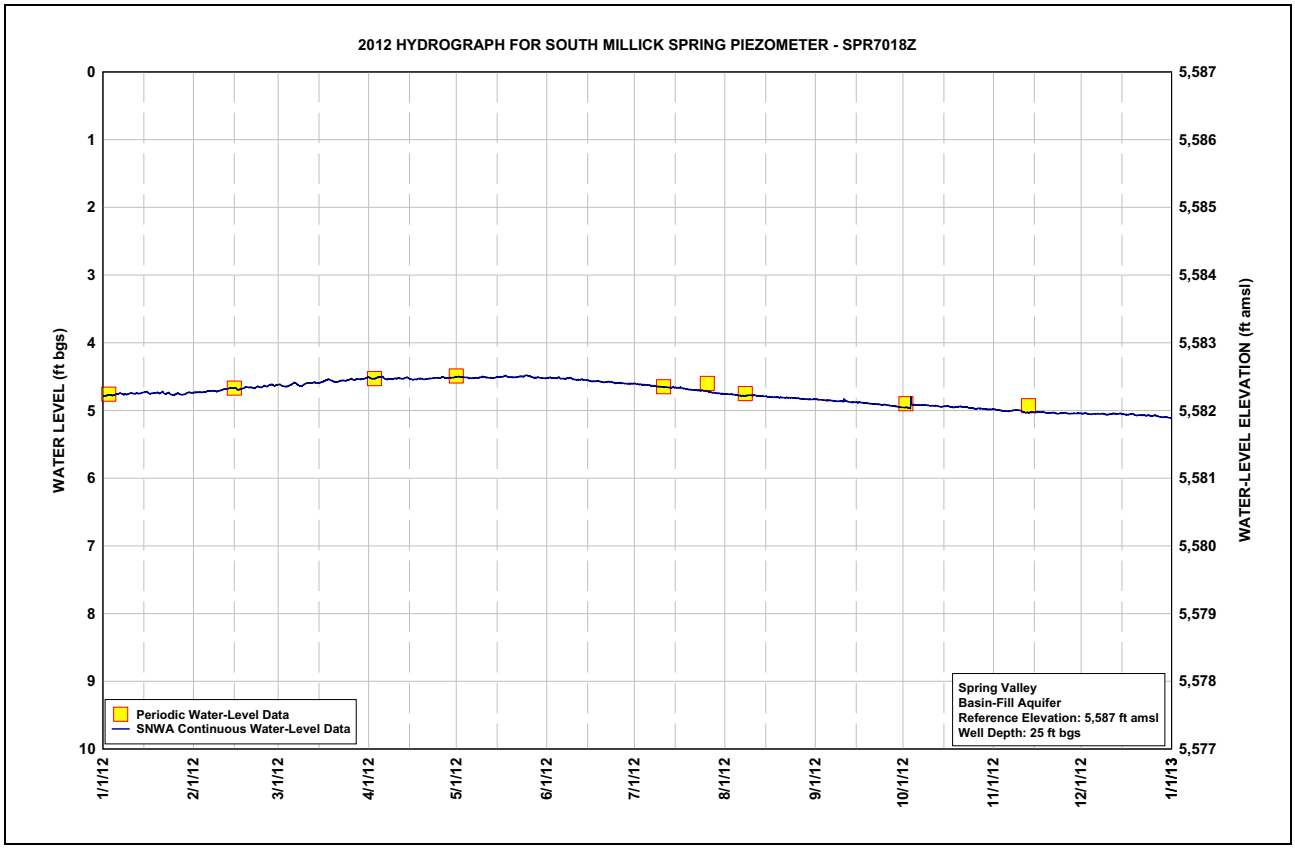

HISTORICAL HYDROGRAPH FOR UNNAMED SPRING FIVE PIEZOMETER - SPR7016Z
WATER LEVEL (ft bgs)
WATER-LEVEL ELEVATION (ft amsl)
-5
-4
-3
-2
-1
0
1
2
3
4
5
5,651
5,650
5,649
5,648
5,647
5,646
5,645
5,644
5,643
5,642
5,641
1/1/10
3/1/10
5/1/10
7/1/10
9/1/10
11/1/10
1/1/11
3/1/11
5/1/11
7/1/11
9/1/11
11/1/11
1/1/12
3/1/12
5/1/12
7/1/12
9/1/12
11/1/12
1/1/13
Periodic Water-Level Data
SNWA Continuous Water-Level Data
Spring Valley
Basin-Fill Aquifer
Reference Elevation: 5,646 ft amsl
Well Depth: 32 ft bgs

Table C-11
South Millick Spring Piezometer SPR7018Z, Calendar Year 2012
Water-Level Data, Daily Mean Values

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1	4.78	4.73	4.62	4.52	4.50	4.52	4.61	4.76	4.84	4.96	4.99	5.05
2	4.77	4.73	4.64	4.53	4.51	4.51	4.61	4.76	4.84	4.96	4.99	5.04
3	4.77	4.73	4.65	4.52	4.51	4.52	4.62	4.76	4.85	4.93	5.00	5.05
4	4.77	4.73	4.64	4.51	4.51	4.52	4.62	4.77	4.85	4.91	5.01	5.06
5	4.76	4.72	4.62	4.51	4.52	4.52	4.62	4.78	4.85	4.92	5.01	5.05
6	4.75	4.71	4.59	4.53	4.52	4.53	4.63	4.78	4.85	4.92	5.01	5.05
7	4.75	4.71	4.61	4.54	4.52	4.53	4.64	4.78	4.86	4.92	5.00	5.05
8	4.76	4.72	4.64	4.54	4.52	4.52	4.64	4.78	4.87	4.92	4.99	5.05
9	4.76	4.71	4.63	4.53	4.51	4.53	4.65	4.78	4.86	4.92	5.00	5.06
10	4.74	4.70	4.60	4.53	4.50	4.54	4.65	4.78	4.86	4.93	5.01	5.06
11	4.75	4.69	4.59	4.52	4.51	4.55	4.65	4.78	4.86	4.93	5.03	5.05
12	4.75	4.68	4.59	4.53	4.52	4.54	4.66	4.79	4.87	4.93	5.03	5.05
13	4.75	4.67	4.59	4.52	4.52	4.54	4.66	4.79	4.88	4.94	5.03	5.05
14	4.74	4.67	4.59	4.52	4.51	4.55	4.66	4.79	4.88	4.94	5.02	5.05
15	4.73	4.67	4.59	4.54	4.50	4.56	4.66	4.79	4.88	4.94	5.03	5.06
16	4.74	4.69	4.57	4.54	4.50	4.57	4.66	4.80	4.88	4.94	5.02	5.06
17	4.75	4.68	4.55	4.54	4.49	4.57	4.67	4.80	4.89	4.95	5.02	5.06
18	4.74	4.66	4.54	4.53	4.50	4.57	4.68	4.81	4.89	4.95	5.03	5.05
19	4.74	4.66	4.56	4.54	4.51	4.57	4.69	4.81	4.90	4.95	5.04	5.07
20	4.74	4.66	4.58	4.54	4.51	4.58	4.69	4.81	4.90	4.94	5.03	5.07
21	4.73	4.66	4.57	4.53	4.51	4.58	4.70	4.81	4.91	4.95	5.03	5.07
22	4.75	4.66	4.56	4.53	4.50	4.58	4.70	4.81	4.91	4.95	5.04	5.07
23	4.74	4.65	4.56	4.52	4.50	4.58	4.70	4.81	4.91	4.96	5.04	5.07
24	4.76	4.65	4.56	4.52	4.49	4.59	4.71	4.81	4.91	4.96	5.04	5.07
25	4.77	4.64	4.54	4.52	4.49	4.59	4.71	4.82	4.92	4.97	5.03	5.08
26	4.75	4.64	4.54	4.51	4.50	4.60	4.72	4.82	4.93	4.97	5.04	5.07
27	4.76	4.62	4.54	4.52	4.51	4.60	4.73	4.83	4.93	4.97	5.05	5.09
28	4.76	4.63	4.54	4.52	4.51	4.61	4.74	4.83	4.94	4.98	5.04	5.10
29	4.75	4.62	4.54	4.52	4.51	4.60	4.75	4.83	4.95	4.98	5.04	5.10
30	4.74	---	4.53	4.51	4.52	4.60	4.75	4.84	4.95	4.98	5.04	5.10
31	4.74	---	4.51	---	4.52	---	4.75	4.83	---	4.98	---	5.11
Max	4.78	4.73	4.65	4.54	4.52	4.61	4.75	4.84	4.95	4.98	5.05	5.11
Min	4.73	4.62	4.51	4.51	4.49	4.51	4.61	4.76	4.84	4.91	4.99	5.04

Year 2012 Statistics: **Year Max 5.11; Year Min 4.49**

Note: Water level in ft bgs.


2012 HYDROGRAPH FOR SOUTH MILLICK SPRING PIEZOMETER - SPR7018Z
WATER LEVEL (ft bgs)
WATER-LEVEL ELEVATION (ft amsl)
0
1
2
3
4
5
6
7
8
9
10
5,587
5,586
5,585
5,584
5,583
5,582
5,581
5,580
5,579
5,578
5,577
1/1/12
2/1/12
3/1/12
4/1/12
5/1/12
6/1/12
7/1/12
8/1/12
9/1/12
10/1/12
11/1/12
12/1/12
1/1/13
Periodic Water-Level Data
SNWA Continuous Water-Level Data
Spring Valley
Basin-Fill Aquifer
Reference Elevation: 5,587 ft amsl
Well Depth: 25 ft bgs

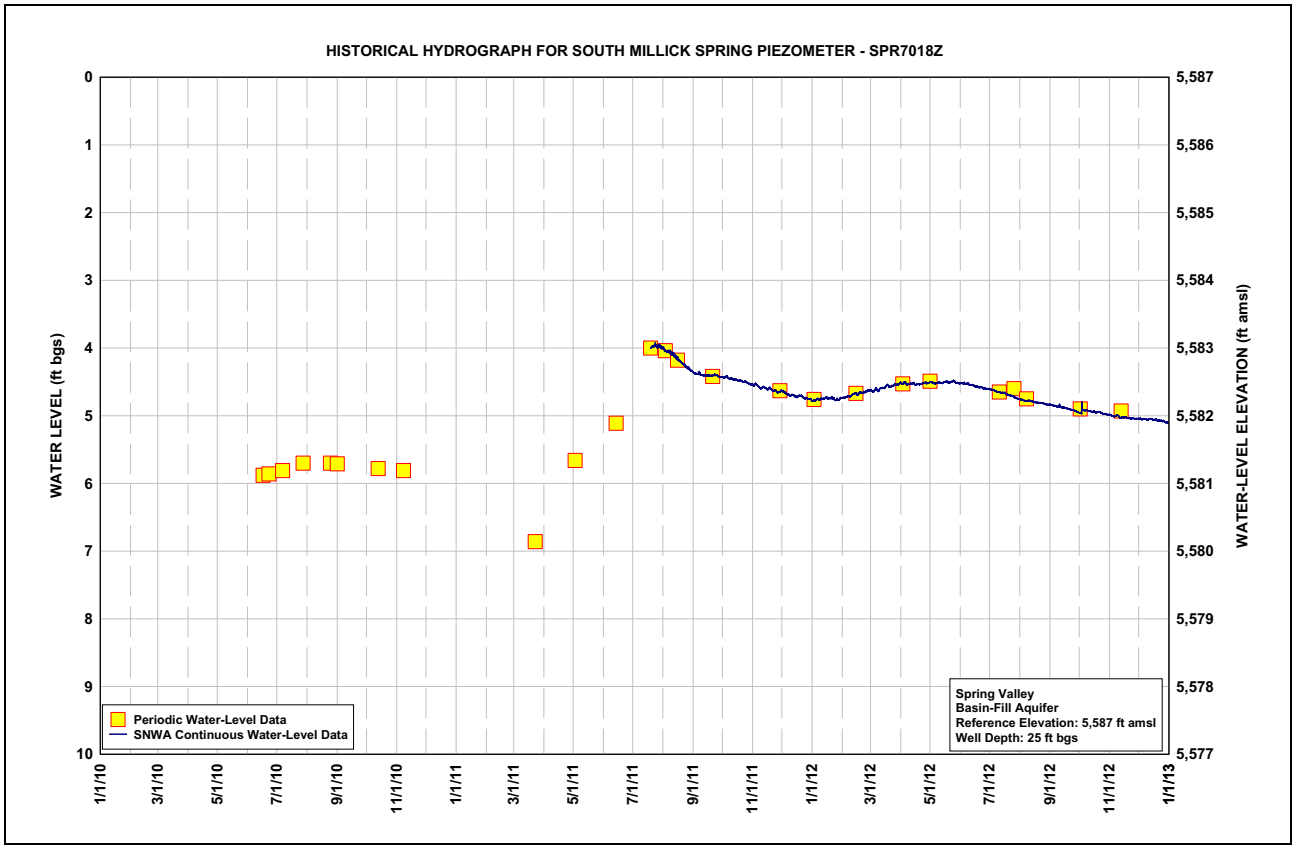
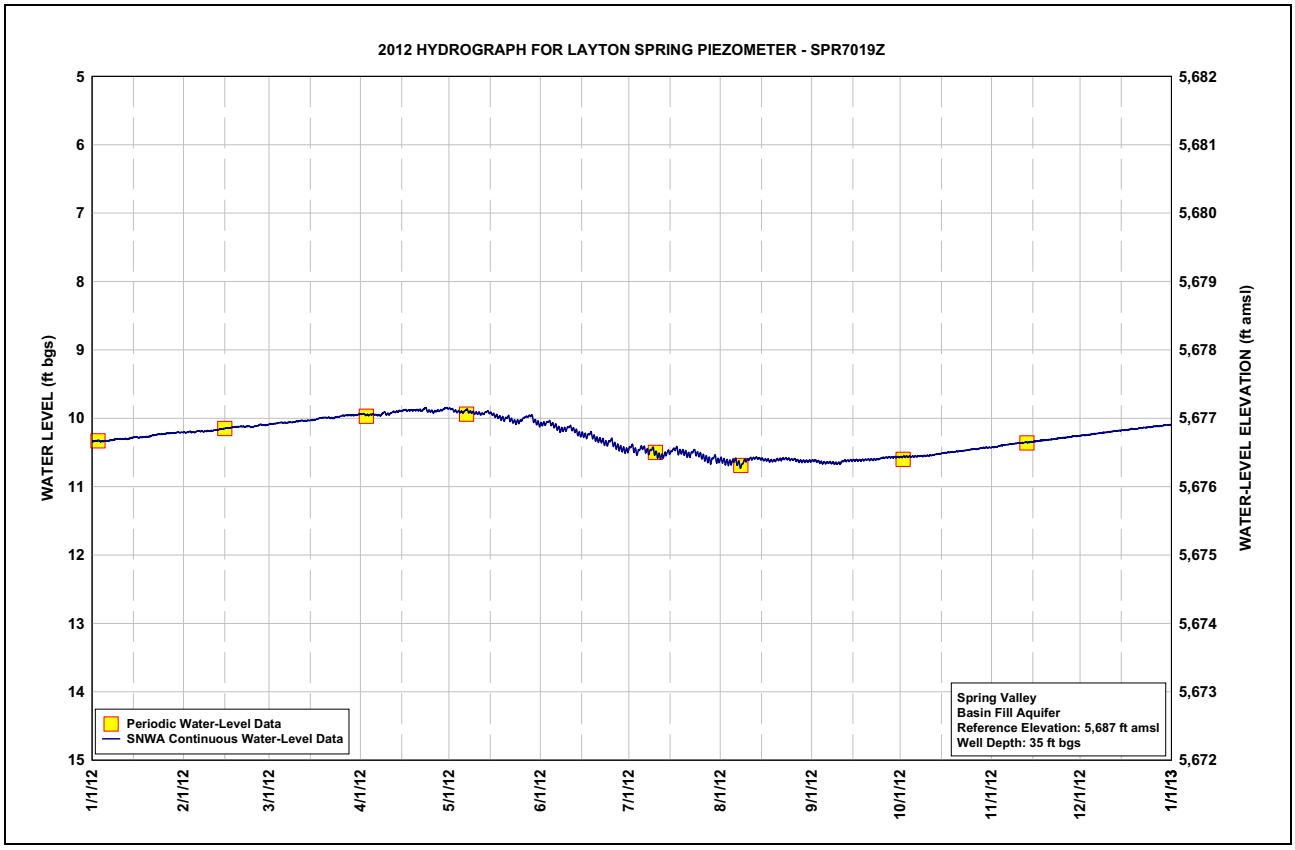

HISTORICAL HYDROGRAPH FOR SOUTH MILLICK SPRING PIEZOMETER - SPR7018Z
WATER LEVEL (ft bgs)
WATER-LEVEL ELEVATION (ft amsl)
0
1
2
3
4
5
6
7
8
9
10
5,587
5,586
5,585
5,584
5,583
5,582
5,581
5,580
5,579
5,578
5,577
1/1/10
3/1/10
5/1/10
7/1/10
9/1/10
11/1/10
1/1/11
3/1/11
5/1/11
7/1/11
9/1/11
11/1/11
1/1/12
3/1/12
5/1/12
7/1/12
9/1/12
11/1/12
1/1/13
Periodic Water-Level Data
SNWA Continuous Water-Level Data
Spring Valley
Basin-Fill Aquifer
Reference Elevation: 5,587 ft amsl
Well Depth: 25 ft bgs

Table C-12
Layton Spring Piezometer SPR7019Z, Calendar Year 2012
Water-Level Data, Daily Mean Values

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1	10.34	10.21	10.08	9.94	9.86	10.09	10.42	10.61	10.62	10.57	10.42	10.25
2	10.33	10.20	10.08	9.95	9.88	10.08	10.44	10.63	10.62	10.56	10.42	10.25
3	10.33	10.20	10.08	9.95	9.90	10.06	10.49	10.64	10.64	10.56	10.41	10.24
4	10.34	10.20	10.07	9.95	9.90	10.07	10.46	10.65	10.65	10.56	10.40	10.24
5	10.33	10.19	10.07	9.94	9.91	10.10	10.43	10.62	10.65	10.56	10.39	10.23
6	10.33	10.19	10.07	9.95	9.89	10.13	10.46	10.64	10.65	10.56	10.39	10.22
7	10.32	10.19	10.06	9.96	9.89	10.16	10.49	10.67	10.65	10.55	10.38	10.22
8	10.31	10.19	10.06	9.93	9.91	10.17	10.46	10.67	10.65	10.55	10.37	10.21
9	10.30	10.19	10.05	9.93	9.92	10.16	10.48	10.62	10.66	10.55	10.37	10.21
10	10.30	10.18	10.05	9.94	9.93	10.13	10.53	10.60	10.66	10.55	10.36	10.20
11	10.30	10.18	10.04	9.92	9.93	10.14	10.55	10.59	10.63	10.54	10.36	10.20
12	10.30	10.17	10.04	9.91	9.93	10.17	10.55	10.58	10.62	10.53	10.35	10.19
13	10.30	10.16	10.04	9.90	9.91	10.21	10.52	10.58	10.62	10.53	10.35	10.18
14	10.28	10.15	10.03	9.89	9.91	10.24	10.49	10.59	10.62	10.52	10.35	10.18
15	10.28	10.14	10.03	9.88	9.93	10.24	10.48	10.60	10.61	10.51	10.34	10.18
16	10.28	10.14	10.02	9.88	9.96	10.26	10.45	10.61	10.61	10.50	10.33	10.17
17	10.28	10.13	10.01	9.88	9.97	10.23	10.47	10.62	10.61	10.50	10.33	10.17
18	10.27	10.13	10.00	9.88	10.00	10.25	10.49	10.62	10.61	10.49	10.32	10.15
19	10.27	10.12	9.99	9.88	10.01	10.29	10.50	10.62	10.61	10.49	10.32	10.16
20	10.27	10.12	9.99	9.88	9.99	10.31	10.52	10.60	10.60	10.48	10.31	10.15
21	10.25	10.12	9.99	9.88	10.00	10.32	10.53	10.60	10.60	10.48	10.31	10.14
22	10.24	10.12	10.00	9.86	10.04	10.35	10.50	10.59	10.60	10.47	10.30	10.14
23	10.23	10.12	9.99	9.88	10.05	10.37	10.50	10.59	10.60	10.47	10.30	10.14
24	10.23	10.12	9.98	9.90	10.05	10.34	10.52	10.60	10.58	10.46	10.29	10.13
25	10.23	10.11	9.97	9.90	10.03	10.35	10.55	10.60	10.58	10.45	10.28	10.13
26	10.22	10.10	9.96	9.90	9.99	10.40	10.58	10.61	10.57	10.45	10.28	10.12
27	10.22	10.09	9.96	9.89	9.98	10.43	10.60	10.62	10.57	10.45	10.27	10.12
28	10.22	10.10	9.96	9.88	9.96	10.45	10.62	10.63	10.57	10.44	10.27	10.11
29	10.21	10.10	9.96	9.86	10.01	10.46	10.59	10.63	10.57	10.43	10.26	10.10
30	10.21	---	9.95	9.85	10.05	10.47	10.59	10.63	10.57	10.43	10.26	10.10
31	10.21	---	9.94	---	10.08	---	10.62	10.62	---	10.43	---	10.10
Max	10.34	10.21	10.08	9.96	10.08	10.47	10.62	10.67	10.66	10.57	10.42	10.25
Min	10.21	10.09	9.94	9.85	9.86	10.06	10.42	10.58	10.57	10.43	10.26	10.10

Year 2012 Statistics: **Year Max 10.67; Year Min 9.85**

Note: Water level in ft bgs.


2012 HYDROGRAPH FOR LAYTON SPRING PIEZOMETER - SPR7019Z
WATER LEVEL (ft bgs)
WATER-LEVEL ELEVATION (ft amsl)
5
6
7
8
9
10
11
12
13
14
15
5,682
5,681
5,680
5,679
5,678
5,677
5,676
5,675
5,674
5,673
5,672
1/1/12
2/1/12
3/1/12
4/1/12
5/1/12
6/1/12
7/1/12
8/1/12
9/1/12
10/1/12
11/1/12
12/1/12
1/1/13
Periodic Water-Level Data
SNWA Continuous Water-Level Data
Spring Valley
Basin Fill Aquifer
Reference Elevation: 5,687 ft amsl
Well Depth: 35 ft bgs

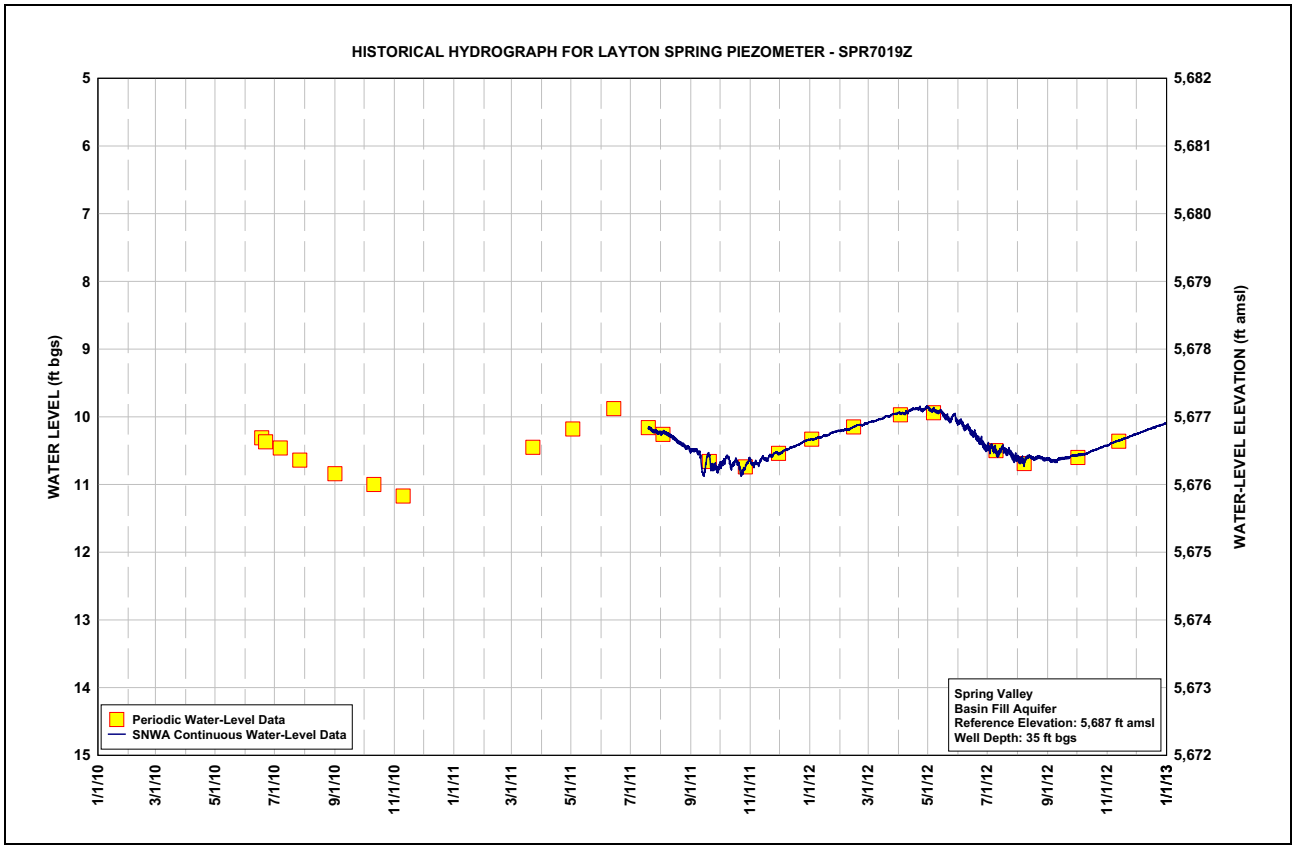
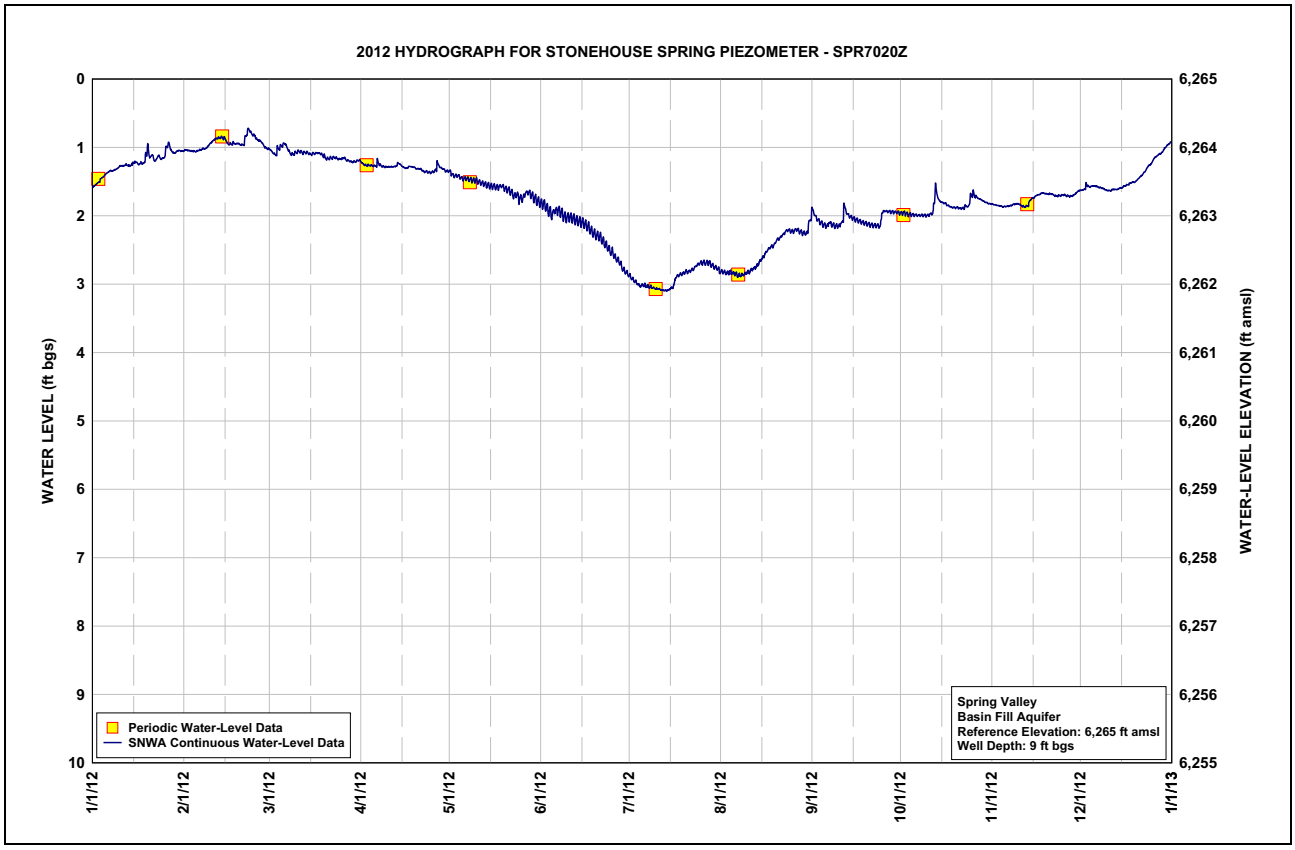

HISTORICAL HYDROGRAPH FOR LAYTON SPRING PIEZOMETER - SPR7019Z
WATER LEVEL (ft bgs)
WATER-LEVEL ELEVATION (ft amsl)
5
6
7
8
9
10
11
12
13
14
15
5,682
5,681
5,680
5,679
5,678
5,677
5,676
5,675
5,674
5,673
5,672
1/1/10
3/1/10
5/1/10
7/1/10
9/1/10
11/1/10
1/1/11
3/1/11
5/1/11
7/1/11
9/1/11
11/1/11
1/1/12
3/1/12
5/1/12
7/1/12
9/1/12
11/1/12
1/1/13
Periodic Water-Level Data
SNWA Continuous Water-Level Data
Spring Valley
Basin Fill Aquifer
Reference Elevation: 5,687 ft amsl
Well Depth: 35 ft bgs

Table C-13
Stonehouse Spring Piezometer SPR7020Z, Calendar Year 2012
Water-Level Data, Daily Mean Values

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1	1.57	1.04	1.04	1.23	1.37	1.83	2.89	2.82	1.94	1.96	1.83	1.63
2	1.53	1.04	1.09	1.26	1.41	1.85	2.94	2.83	2.03	1.96	1.84	1.60
3	1.49	1.05	1.06	1.26	1.41	1.92	2.98	2.84	2.08	1.98	1.85	1.56
4	1.44	1.06	1.00	1.26	1.43	1.96	3.02	2.82	2.12	1.98	1.87	1.57
5	1.39	1.05	0.97	1.27	1.46	1.94	3.02	2.84	2.14	1.99	1.86	1.57
6	1.36	1.04	0.96	1.24	1.46	1.92	3.02	2.86	2.12	1.99	1.86	1.57
7	1.34	1.02	1.04	1.25	1.46	1.94	3.04	2.87	2.12	1.99	1.85	1.59
8	1.33	1.01	1.10	1.28	1.48	1.98	3.05	2.86	2.14	1.99	1.83	1.60
9	1.31	0.97	1.09	1.29	1.48	2.02	3.06	2.84	2.15	2.00	1.82	1.62
10	1.27	0.92	1.06	1.28	1.49	2.02	3.07	2.82	2.13	1.99	1.84	1.63
11	1.27	0.88	1.06	1.28	1.51	2.03	3.08	2.79	2.01	1.97	1.86	1.63
12	1.26	0.86	1.08	1.28	1.53	2.05	3.09	2.76	1.92	1.76	1.86	1.61
13	1.27	0.86	1.07	1.25	1.55	2.07	3.09	2.72	2.00	1.69	1.82	1.61
14	1.24	0.87	1.09	1.25	1.56	2.09	3.08	2.66	2.03	1.79	1.75	1.60
15	1.22	0.91	1.10	1.29	1.57	2.11	3.05	2.60	2.05	1.81	1.72	1.58
16	1.24	0.95	1.09	1.30	1.58	2.14	2.95	2.53	2.07	1.83	1.70	1.56
17	1.23	0.95	1.08	1.28	1.58	2.18	2.88	2.48	2.09	1.86	1.68	1.54
18	1.22	0.95	1.10	1.29	1.57	2.24	2.86	2.45	2.10	1.88	1.67	1.51
19	1.05	0.95	1.13	1.30	1.59	2.27	2.84	2.40	2.12	1.88	1.68	1.50
20	1.12	0.96	1.16	1.31	1.61	2.29	2.82	2.34	2.13	1.88	1.68	1.47
21	1.14	0.91	1.16	1.32	1.64	2.33	2.81	2.30	2.14	1.89	1.69	1.42
22	1.18	0.78	1.15	1.35	1.68	2.39	2.79	2.26	2.14	1.88	1.71	1.37
23	1.13	0.76	1.15	1.36	1.70	2.45	2.74	2.22	2.15	1.86	1.71	1.31
24	1.16	0.82	1.17	1.37	1.73	2.51	2.71	2.22	2.04	1.77	1.70	1.26
25	1.11	0.86	1.17	1.36	1.75	2.55	2.69	2.23	1.93	1.69	1.69	1.20
26	0.97	0.90	1.16	1.30	1.70	2.62	2.69	2.21	1.94	1.72	1.71	1.14
27	1.01	0.93	1.19	1.26	1.66	2.66	2.69	2.22	1.94	1.75	1.71	1.11
28	1.08	0.99	1.20	1.31	1.68	2.74	2.70	2.24	1.94	1.77	1.70	1.08
29	1.06	1.02	1.21	1.34	1.73	2.81	2.73	2.25	1.95	1.79	1.67	1.02
30	1.05	---	1.20	1.35	1.77	2.85	2.76	2.20	1.96	1.81	1.64	0.97
31	1.05	---	1.19	---	1.80	---	2.80	2.04	---	1.83	---	0.93
Max	1.57	1.06	1.21	1.37	1.80	2.85	3.09	2.87	2.15	2.00	1.87	1.63
Min	0.97	0.76	0.96	1.23	1.37	1.83	2.69	2.04	1.92	1.69	1.64	0.93

Year 2012 Statistics: **Year Max 3.09; Year Min 0.76**

Note: Water level in ft bgs.


2012 HYDROGRAPH FOR STONEHOUSE SPRING PIEZOMETER - SPR7020Z
WATER LEVEL (ft bgs)
WATER-LEVEL ELEVATION (ft amsl)
0
1
2
3
4
5
6
7
8
9
10
6,265
6,264
6,263
6,262
6,261
6,260
6,259
6,258
6,257
6,256
6,255
1/1/12
2/1/12
3/1/12
4/1/12
5/1/12
6/1/12
7/1/12
8/1/12
9/1/12
10/1/12
11/1/12
12/1/12
1/1/13
Periodic Water-Level Data
SNWA Continuous Water-Level Data
Spring Valley
Basin Fill Aquifer
Reference Elevation: 6,265 ft amsl
Well Depth: 9 ft bgs

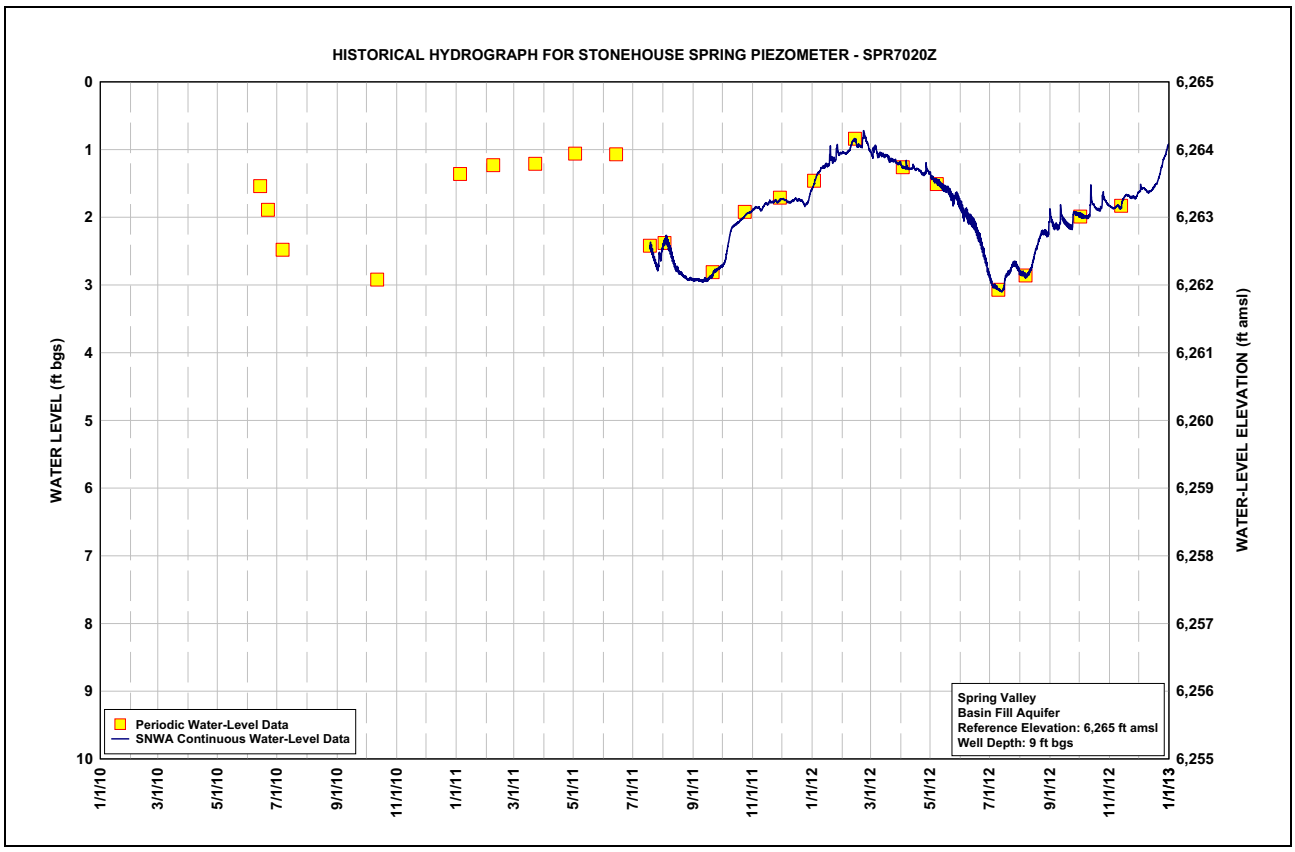
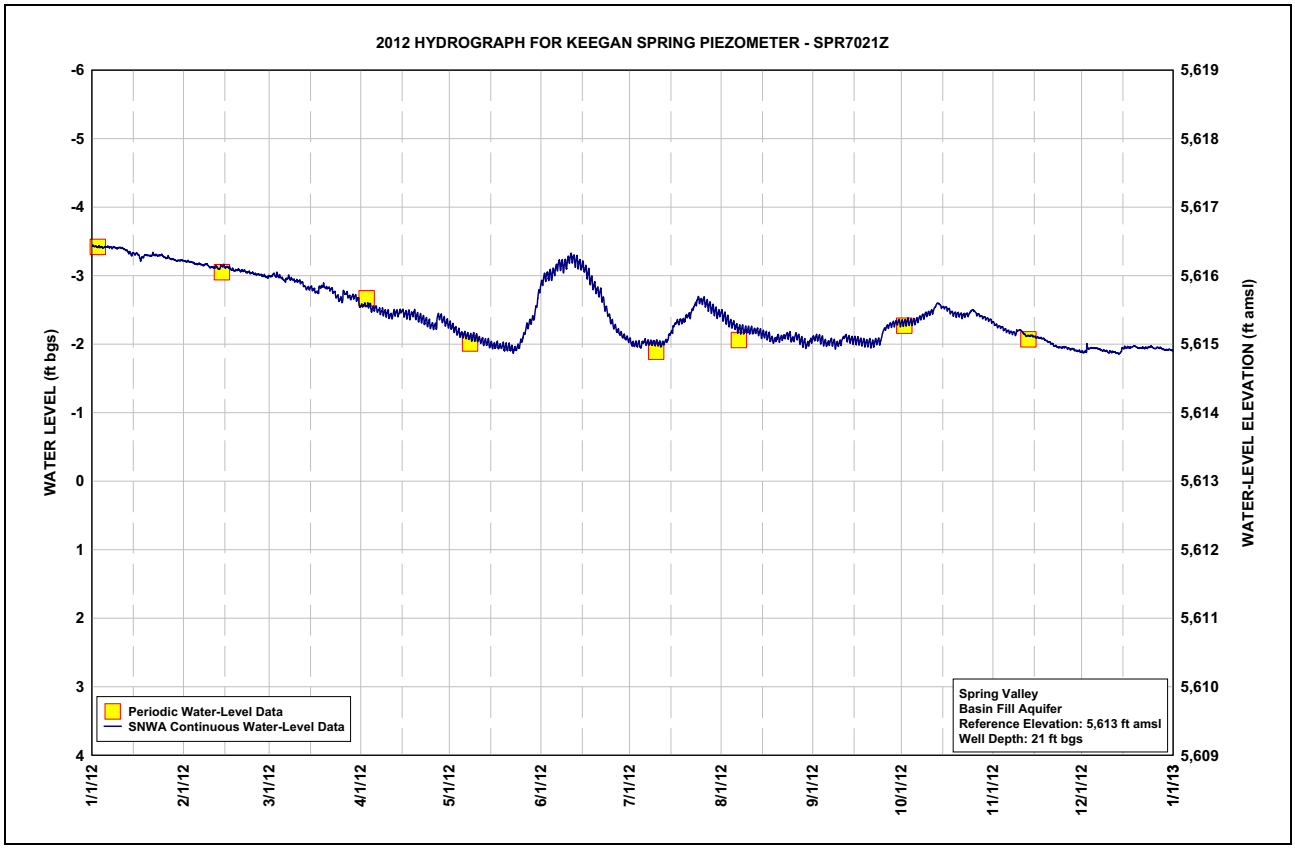

HISTORICAL HYDROGRAPH FOR STONEHOUSE SPRING PIEZOMETER - SPR7020Z
WATER LEVEL (ft bgs)
WATER-LEVEL ELEVATION (ft amsl)
0
1
2
3
4
5
6
7
8
9
10
6,265
6,264
6,263
6,262
6,261
6,260
6,259
6,258
6,257
6,256
6,255
1/1/10
3/1/10
5/1/10
7/1/10
9/1/10
11/1/10
1/1/11
3/1/11
5/1/11
7/1/11
9/1/11
11/1/11
1/1/12
3/1/12
5/1/12
7/1/12
9/1/12
11/1/12
1/1/13
Periodic Water-Level Data
SNWA Continuous Water-Level Data
Spring Valley
Basin Fill Aquifer
Reference Elevation: 6,265 ft amsl
Well Depth: 9 ft bgs

Table C-14
Keegan Spring Piezometer SPR7021Z, Calendar Year 2012
Water-Level Data, Daily Mean Values

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1	-3.43	-3.21	-2.99	-2.56	-2.27	-2.91	-2.03	-2.42	-2.09	-2.31	-2.30	-1.88
2	-3.42	-3.21	-3.02	-2.57	-2.24	-2.99	-2.00	-2.38	-2.10	-2.32	-2.27	-1.91
3	-3.42	-3.20	-3.01	-2.56	-2.19	-3.01	-2.00	-2.34	-2.08	-2.33	-2.25	-1.94
4	-3.41	-3.18	-2.99	-2.53	-2.16	-3.01	-1.99	-2.30	-2.05	-2.32	-2.23	-1.94
5	-3.42	-3.17	-2.96	-2.52	-2.14	-3.07	-2.02	-2.28	-2.02	-2.33	-2.20	-1.94
6	-3.42	-3.17	-2.93	-2.51	-2.13	-3.13	-2.03	-2.23	-2.02	-2.36	-2.18	-1.94
7	-3.41	-3.15	-2.97	-2.48	-2.12	-3.16	-2.02	-2.22	-2.03	-2.39	-2.17	-1.92
8	-3.41	-3.16	-2.95	-2.47	-2.10	-3.14	-2.02	-2.21	-2.00	-2.41	-2.16	-1.91
9	-3.40	-3.14	-2.93	-2.45	-2.10	-3.17	-2.02	-2.21	-2.01	-2.44	-2.20	-1.90
10	-3.41	-3.12	-2.92	-2.44	-2.09	-3.24	-2.02	-2.21	-2.03	-2.45	-2.20	-1.89
11	-3.40	-3.12	-2.91	-2.42	-2.06	-3.26	-2.00	-2.20	-2.10	-2.48	-2.15	-1.88
12	-3.37	-3.12	-2.87	-2.46	-2.04	-3.22	-2.02	-2.19	-2.09	-2.55	-2.12	-1.88
13	-3.34	-3.12	-2.82	-2.45	-2.03	-3.20	-2.05	-2.18	-2.07	-2.59	-2.12	-1.87
14	-3.32	-3.14	-2.82	-2.48	-2.01	-3.16	-2.13	-2.16	-2.06	-2.55	-2.12	-1.91
15	-3.32	-3.12	-2.81	-2.45	-1.99	-3.12	-2.21	-2.15	-2.06	-2.54	-2.10	-1.95
16	-3.32	-3.11	-2.78	-2.43	-1.98	-3.05	-2.30	-2.13	-2.05	-2.52	-2.09	-1.95
17	-3.25	-3.09	-2.77	-2.43	-1.98	-2.99	-2.32	-2.10	-2.03	-2.48	-2.09	-1.95
18	-3.28	-3.07	-2.84	-2.44	-1.97	-2.89	-2.34	-2.06	-2.02	-2.45	-2.07	-1.97
19	-3.30	-3.08	-2.85	-2.43	-1.97	-2.82	-2.35	-2.07	-2.02	-2.44	-2.04	-1.96
20	-3.29	-3.07	-2.82	-2.39	-1.96	-2.76	-2.41	-2.09	-2.02	-2.43	-2.02	-1.94
21	-3.31	-3.07	-2.81	-2.38	-1.95	-2.72	-2.44	-2.10	-2.01	-2.42	-1.99	-1.95
22	-3.30	-3.05	-2.78	-2.35	-1.92	-2.58	-2.52	-2.11	-2.04	-2.43	-1.97	-1.95
23	-3.29	-3.04	-2.72	-2.32	-1.94	-2.47	-2.60	-2.13	-2.04	-2.43	-1.95	-1.95
24	-3.30	-3.04	-2.67	-2.29	-1.97	-2.36	-2.65	-2.11	-2.13	-2.47	-1.95	-1.96
25	-3.27	-3.02	-2.65	-2.27	-2.06	-2.28	-2.63	-2.08	-2.23	-2.49	-1.95	-1.94
26	-3.26	-3.02	-2.75	-2.29	-2.17	-2.22	-2.62	-2.12	-2.26	-2.44	-1.94	-1.95
27	-3.25	-3.01	-2.72	-2.40	-2.27	-2.17	-2.57	-2.08	-2.29	-2.42	-1.93	-1.95
28	-3.24	-2.99	-2.68	-2.37	-2.33	-2.13	-2.54	-2.04	-2.30	-2.40	-1.92	-1.93
29	-3.22	-2.98	-2.69	-2.33	-2.39	-2.10	-2.50	-2.01	-2.32	-2.38	-1.90	-1.92
30	-3.22	---	-2.68	-2.30	-2.56	-2.07	-2.47	-2.01	-2.31	-2.36	-1.90	-1.92
31	-3.22	---	-2.60	---	-2.78	---	-2.45	-2.05	---	-2.34	---	-1.91
Max	-3.22	-2.98	-2.60	-2.27	-1.92	-2.07	-1.99	-2.01	-2.00	-2.31	-1.90	-1.87
Min	-3.43	-3.21	-3.02	-2.57	-2.78	-3.26	-2.65	-2.42	-2.32	-2.59	-2.30	-1.97

Year 2012 Statistics: **Year Max -1.87; Year Min -3.43.**

Note: Water level in ft bgs.


2012 HYDROGRAPH FOR KEEGAN SPRING PIEZOMETER - SPR7021Z
WATER LEVEL (ft bgs)
WATER-LEVEL ELEVATION (ft amsl)
-6
-5
-4
-3
-2
-1
0
1
2
3
4
5,619
5,618
5,617
5,616
5,615
5,614
5,613
5,612
5,611
5,610
5,609
1/1/12
2/1/12
3/1/12
4/1/12
5/1/12
6/1/12
7/1/12
8/1/12
9/1/12
10/1/12
11/1/12
12/1/12
1/1/13
Periodic Water-Level Data
SNWA Continuous Water-Level Data
Spring Valley
Basin Fill Aquifer
Reference Elevation: 5,613 ft amsl
Well Depth: 21 ft bgs

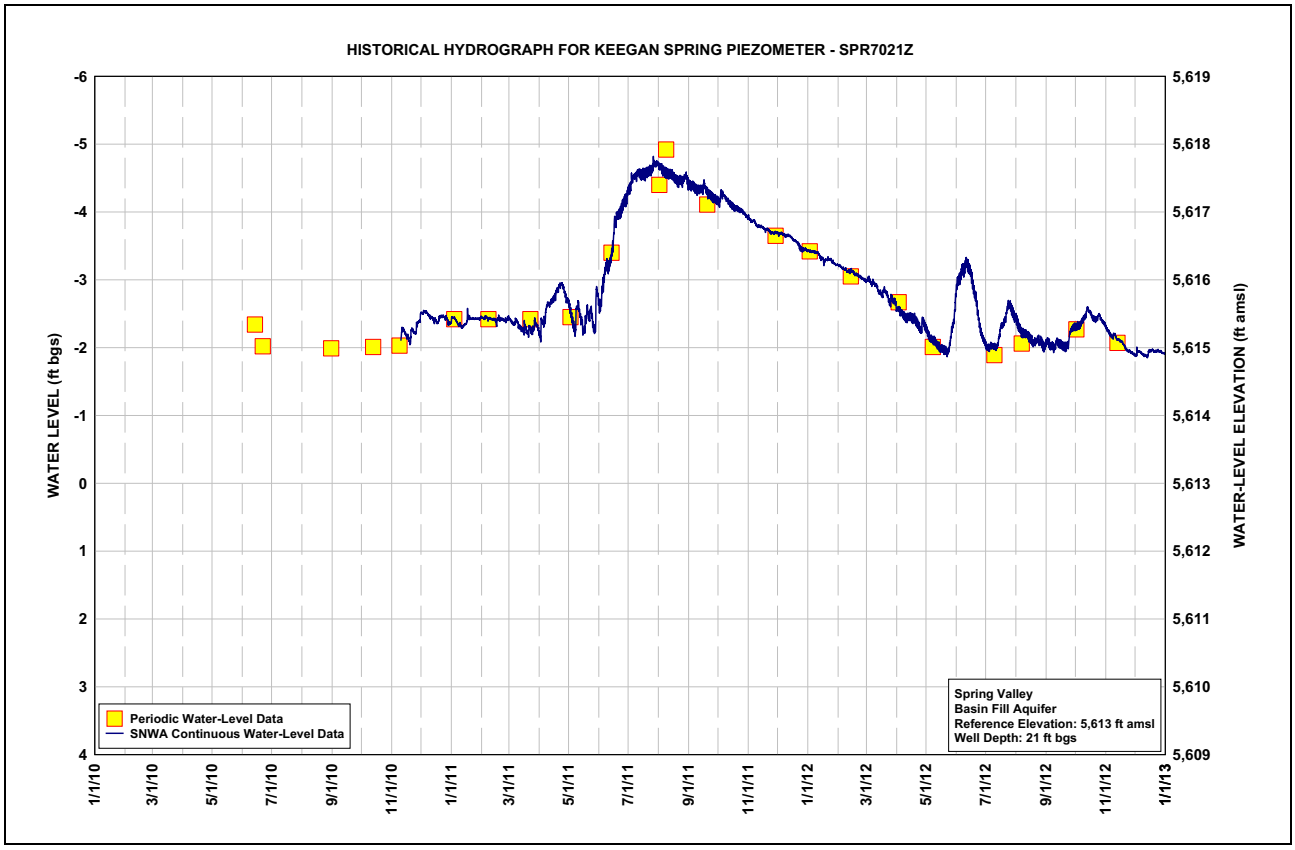
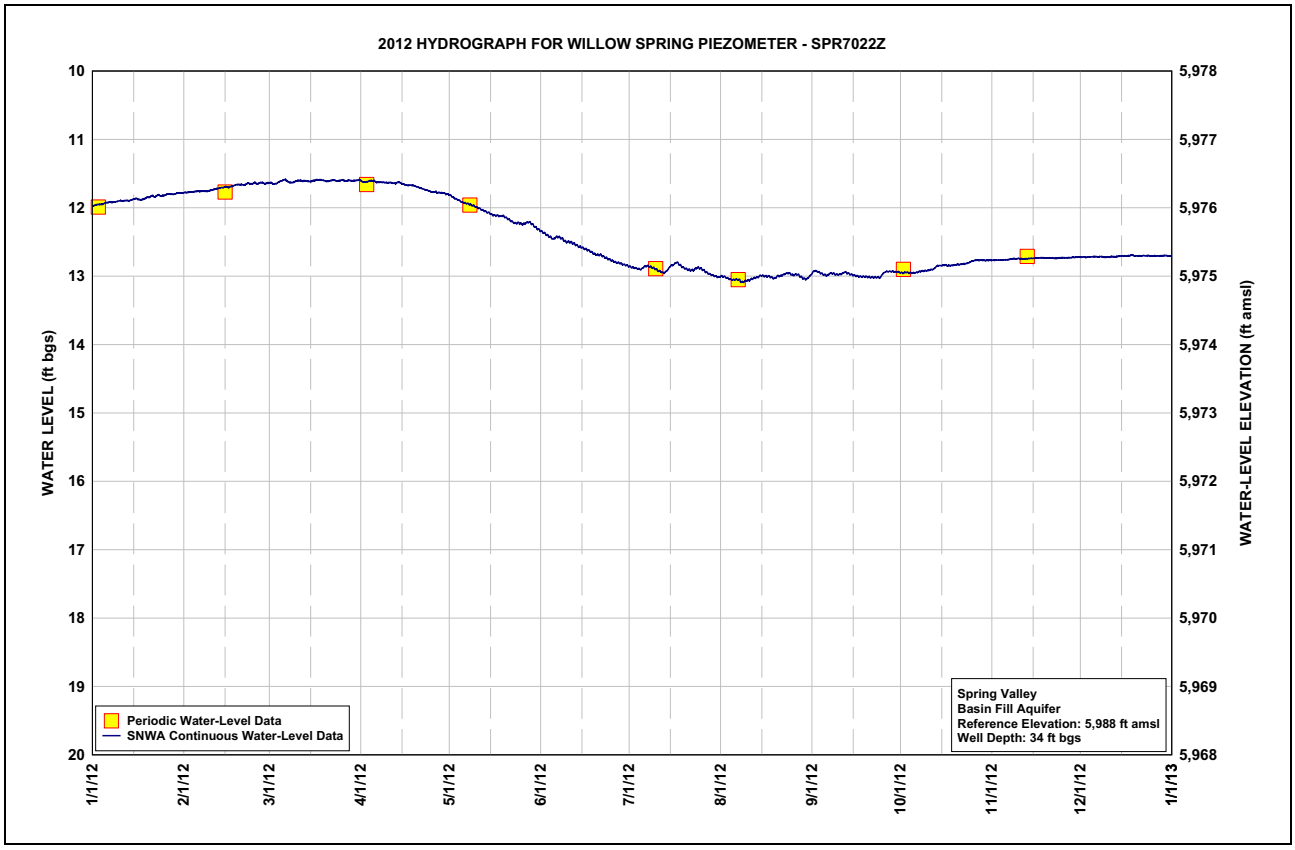

HISTORICAL HYDROGRAPH FOR KEEGAN SPRING PIEZOMETER - SPR7021Z
WATER LEVEL (ft bgs)
WATER-LEVEL ELEVATION (ft amsl)
-6
-5
-4
-3
-2
-1
0
1
2
3
4
5,619
5,618
5,617
5,616
5,615
5,614
5,613
5,612
5,611
5,610
5,609
1/1/10
3/1/10
5/1/10
7/1/10
9/1/10
11/1/10
1/1/11
3/1/11
5/1/11
7/1/11
9/1/11
11/1/11
1/1/12
3/1/12
5/1/12
7/1/12
9/1/12
11/1/12
1/1/13
Periodic Water-Level Data
SNWA Continuous Water-Level Data
Spring Valley
Basin Fill Aquifer
Reference Elevation: 5,613 ft amsl
Well Depth: 21 ft bgs

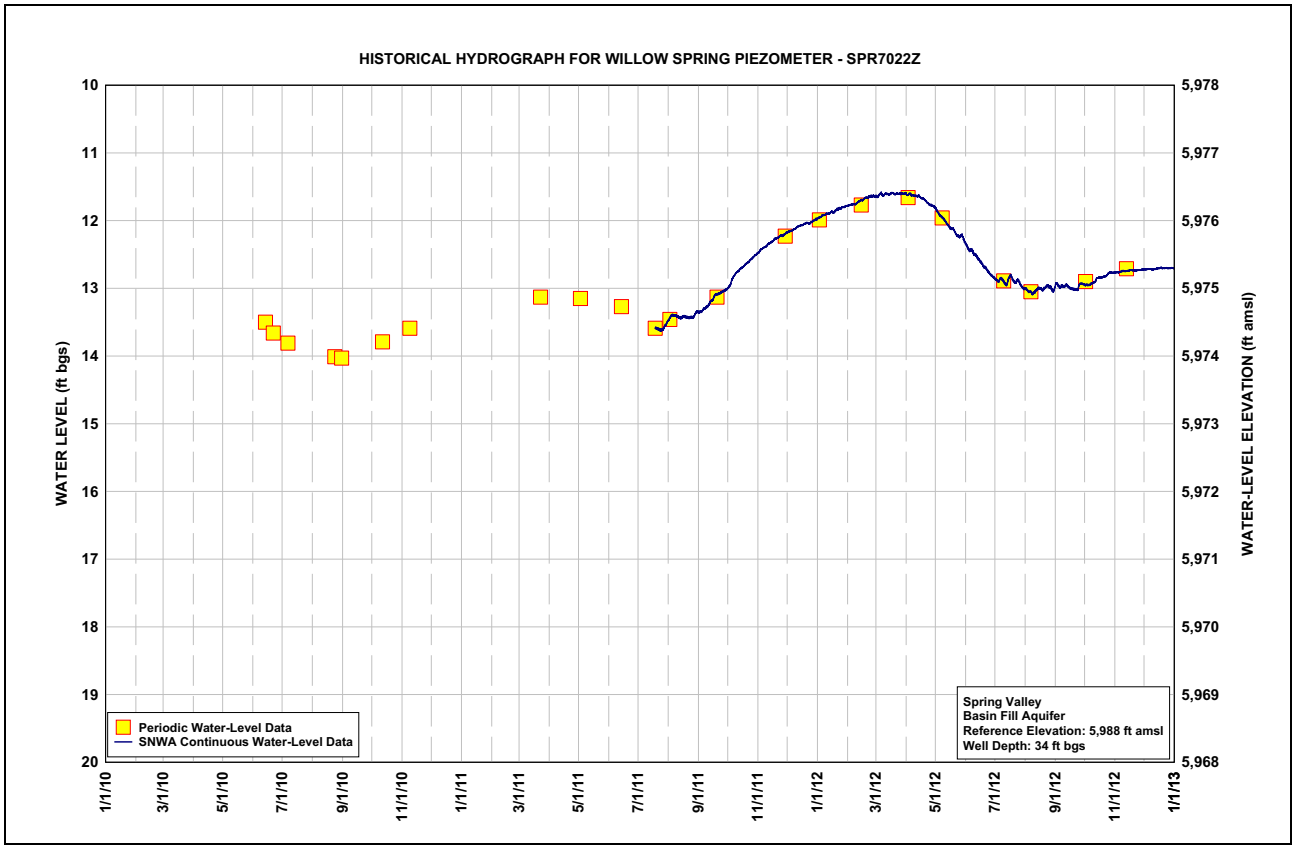
Table C-15
Willow Spring Piezometer SPR7022Z, Calendar Year 2012
Water-Level Data, Daily Mean Values

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1	11.97	11.78	11.63	11.62	11.82	12.35	12.86	13.00	12.94	12.95	12.77	12.72
2	11.96	11.77	11.65	11.62	11.85	12.38	12.88	13.01	12.93	12.95	12.76	12.72
3	11.95	11.77	11.64	11.61	11.87	12.41	12.89	13.03	12.95	12.95	12.76	12.72
4	11.95	11.76	11.62	11.60	11.89	12.43	12.90	13.05	12.97	12.95	12.76	12.72
5	11.93	11.76	11.60	11.61	11.92	12.45	12.88	13.05	12.98	12.95	12.76	12.71
6	11.92	11.76	11.59	11.63	11.93	12.43	12.86	13.05	12.98	12.95	12.76	12.71
7	11.92	11.76	11.62	11.63	11.94	12.43	12.85	13.06	12.96	12.93	12.75	12.71
8	11.91	11.76	11.63	11.63	11.96	12.46	12.87	13.08	12.97	12.92	12.74	12.72
9	11.91	11.75	11.62	11.63	11.97	12.49	12.88	13.07	12.98	12.92	12.74	12.72
10	11.90	11.74	11.60	11.63	12.00	12.50	12.91	13.06	12.97	12.91	12.74	12.72
11	11.90	11.73	11.60	11.64	12.02	12.51	12.93	13.04	12.95	12.90	12.75	12.71
12	11.89	11.72	11.61	11.64	12.04	12.53	12.95	13.03	12.95	12.89	12.75	12.71
13	11.90	11.71	11.61	11.63	12.06	12.56	12.93	13.02	12.96	12.85	12.74	12.71
14	11.88	11.70	11.61	11.64	12.08	12.57	12.88	12.99	12.98	12.85	12.74	12.71
15	11.87	11.69	11.61	11.66	12.10	12.59	12.84	13.00	12.99	12.84	12.74	12.71
16	11.88	11.70	11.60	11.67	12.11	12.61	12.82	13.00	13.00	12.84	12.74	12.70
17	11.88	11.68	11.59	11.67	12.11	12.63	12.81	13.01	13.01	12.85	12.73	12.70
18	11.87	11.67	11.59	11.67	12.12	12.65	12.85	13.02	13.01	12.84	12.73	12.69
19	11.85	11.66	11.60	11.68	12.13	12.68	12.88	13.03	13.01	12.83	12.74	12.71
20	11.84	11.66	11.61	11.70	12.15	12.69	12.90	13.00	13.01	12.83	12.73	12.70
21	11.83	11.66	11.61	11.71	12.18	12.69	12.91	12.99	13.02	12.83	12.74	12.70
22	11.83	11.65	11.60	11.73	12.21	12.72	12.91	12.97	13.02	12.82	12.74	12.70
23	11.81	11.65	11.60	11.74	12.22	12.74	12.89	12.96	13.02	12.81	12.74	12.70
24	11.82	11.64	11.60	11.76	12.22	12.76	12.88	12.96	13.00	12.80	12.73	12.70
25	11.82	11.64	11.60	11.77	12.24	12.78	12.89	12.98	12.95	12.78	12.73	12.71
26	11.80	11.64	11.60	11.77	12.23	12.80	12.92	12.98	12.93	12.77	12.73	12.70
27	11.80	11.63	11.60	11.78	12.21	12.81	12.95	12.99	12.93	12.77	12.73	12.70
28	11.80	11.64	11.60	11.78	12.22	12.82	12.97	13.02	12.93	12.77	12.73	12.70
29	11.79	11.64	11.60	11.79	12.25	12.83	12.99	13.04	12.94	12.77	12.72	12.70
30	11.78	---	11.60	11.80	12.29	12.85	13.00	13.03	12.94	12.77	12.72	12.70
31	11.78	---	11.59	---	12.32	---	13.01	12.99	---	12.77	---	12.71
Max	11.97	11.78	11.65	11.80	12.32	12.85	13.01	13.08	13.02	12.95	12.77	12.72
Min	11.78	11.63	11.59	11.60	11.82	12.35	12.81	12.96	12.93	12.77	12.72	12.69

Year 2012 Statistics: **Year Max 13.08; Year Min 11.59**

Note: Water level in ft bgs.


2012 HYDROGRAPH FOR WILLOW SPRING PIEZOMETER - SPR7022Z
WATER LEVEL (ft bgs)
WATER-LEVEL ELEVATION (ft amsl)
10
11
12
13
14
15
16
17
18
19
20
5,978
5,977
5,976
5,975
5,974
5,973
5,972
5,971
5,970
5,969
5,968
1/1/12
2/1/12
3/1/12
4/1/12
5/1/12
6/1/12
7/1/12
8/1/12
9/1/12
10/1/12
11/1/12
12/1/12
1/1/13
Periodic Water-Level Data
SNWA Continuous Water-Level Data
Spring Valley
Basin Fill Aquifer
Reference Elevation: 5,988 ft amsl
Well Depth: 34 ft bgs


HISTORICAL HYDROGRAPH FOR WILLOW SPRING PIEZOMETER - SPR7022Z
WATER LEVEL (ft bgs)
WATER-LEVEL ELEVATION (ft amsl)
10
11
12
13
14
15
16
17
18
19
20
5,978
5,977
5,976
5,975
5,974
5,973
5,972
5,971
5,970
5,969
5,968
1/1/10
3/1/10
5/1/10
7/1/10
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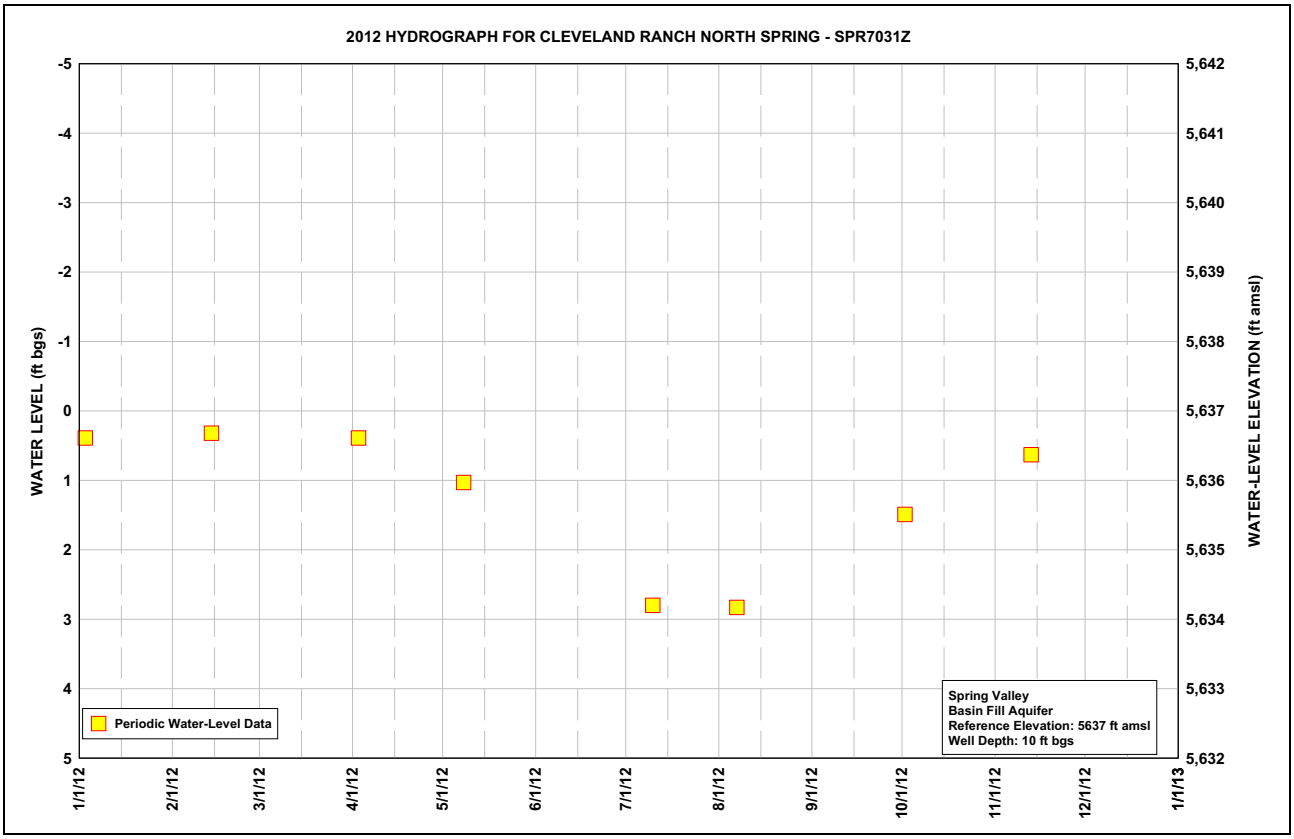
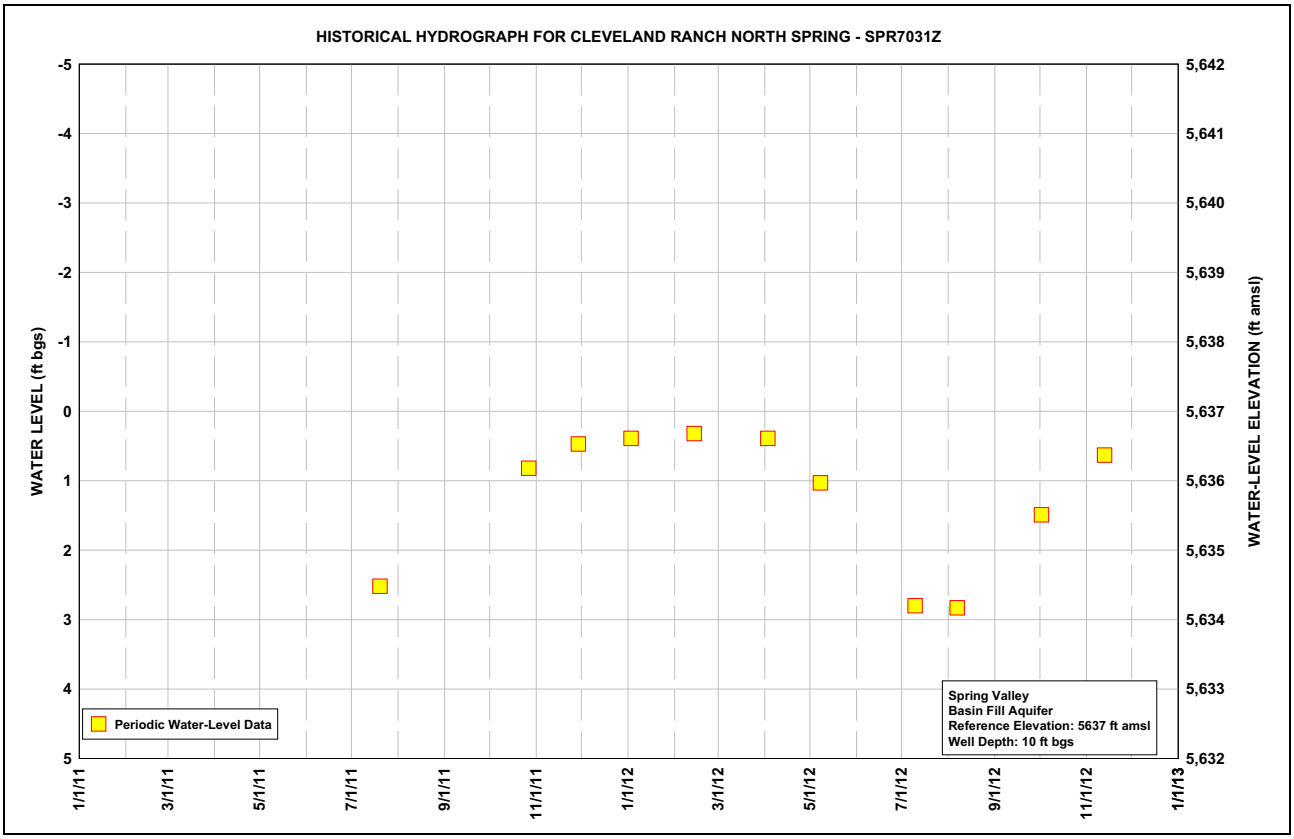
11/1/10
1/1/11
3/1/11
5/1/11
7/1/11
9/1/11
11/1/11
1/1/12
3/1/12
5/1/12
7/1/12
9/1/12
11/1/12
1/1/13
Periodic Water-Level Data
SNWA Continuous Water-Level Data
Spring Valley
Basin Fill Aquifer
Reference Elevation: 5,988 ft amsl
Well Depth: 34 ft bgs


2012 HYDROGRAPH FOR CLEVELAND RANCH NORTH SPRING - SPR7031Z
WATER LEVEL (ft bgs)
WATER-LEVEL ELEVATION (ft amsl)
-5
-4
-3
-2
-1
0
1
2
3
4
5
5,642
5,641
5,640
5,639
5,638
5,637
5,636
5,635
5,634
5,633
5,632
1/1/12
2/1/12
3/1/12
4/1/12
5/1/12
6/1/12
7/1/12
8/1/12
9/1/12
10/1/12
11/1/12
12/1/12
1/1/13
Periodic Water-Level Data
Spring Valley
Basin Fill Aquifer
Reference Elevation: 5637 ft amsl
Well Depth: 10 ft bgs


HISTORICAL HYDROGRAPH FOR CLEVELAND RANCH NORTH SPRING - SPR7031Z
WATER LEVEL (ft bgs)
WATER-LEVEL ELEVATION (ft amsl)
-5
-4
-3
-2
-1
0
1
2
3
4
5
5,642
5,641
5,640
5,639
5,638
5,637
5,636
5,635
5,634
5,633
5,632
1/1/11
3/1/11
5/1/11
7/1/11
9/1/11
11/1/11
1/1/12
3/1/12
5/1/12
7/1/12
9/1/12
11/1/12
1/1/13
Periodic Water-Level Data
Spring Valley
Basin Fill Aquifer
Reference Elevation: 5637 ft amsl
Well Depth: 10 ft bgs

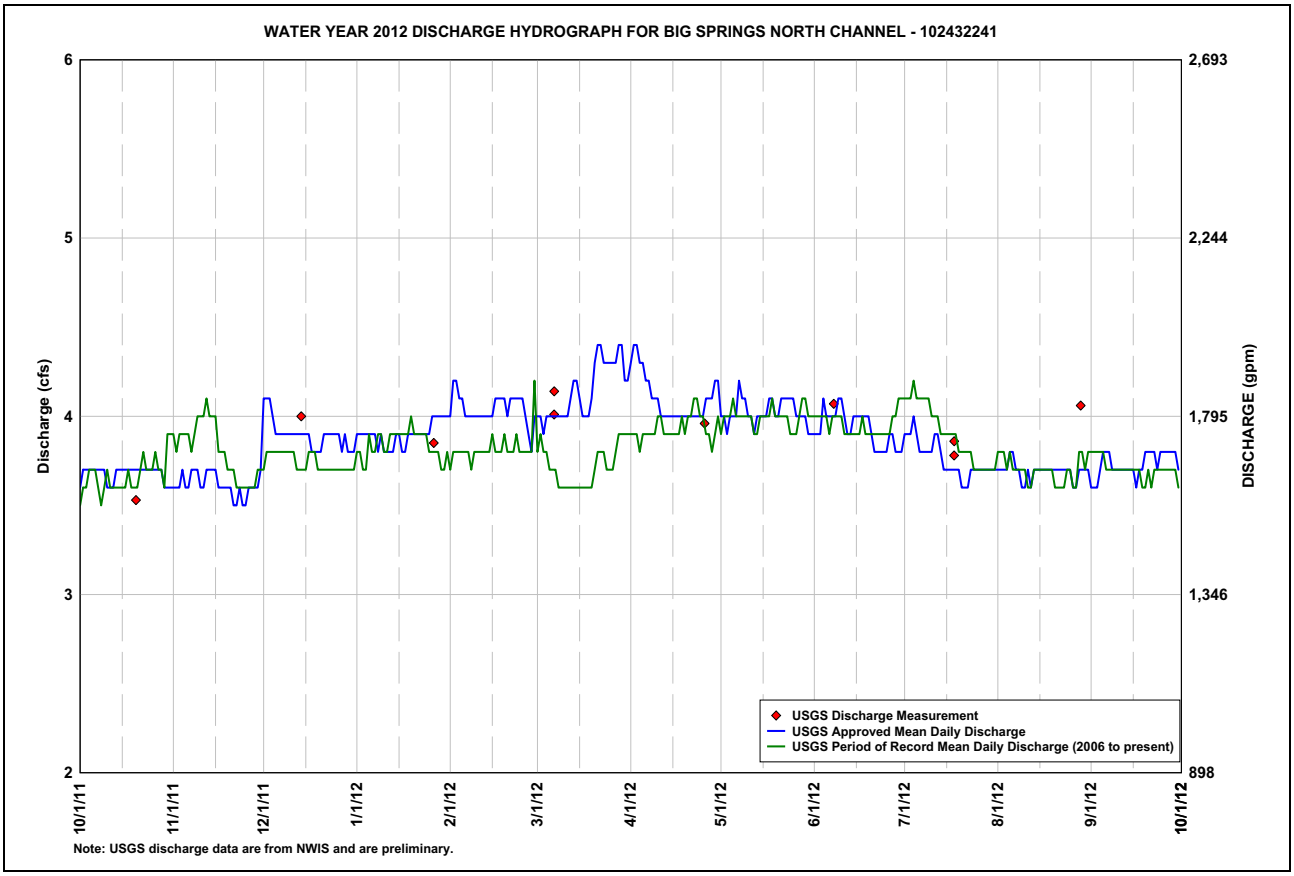
Appendix D

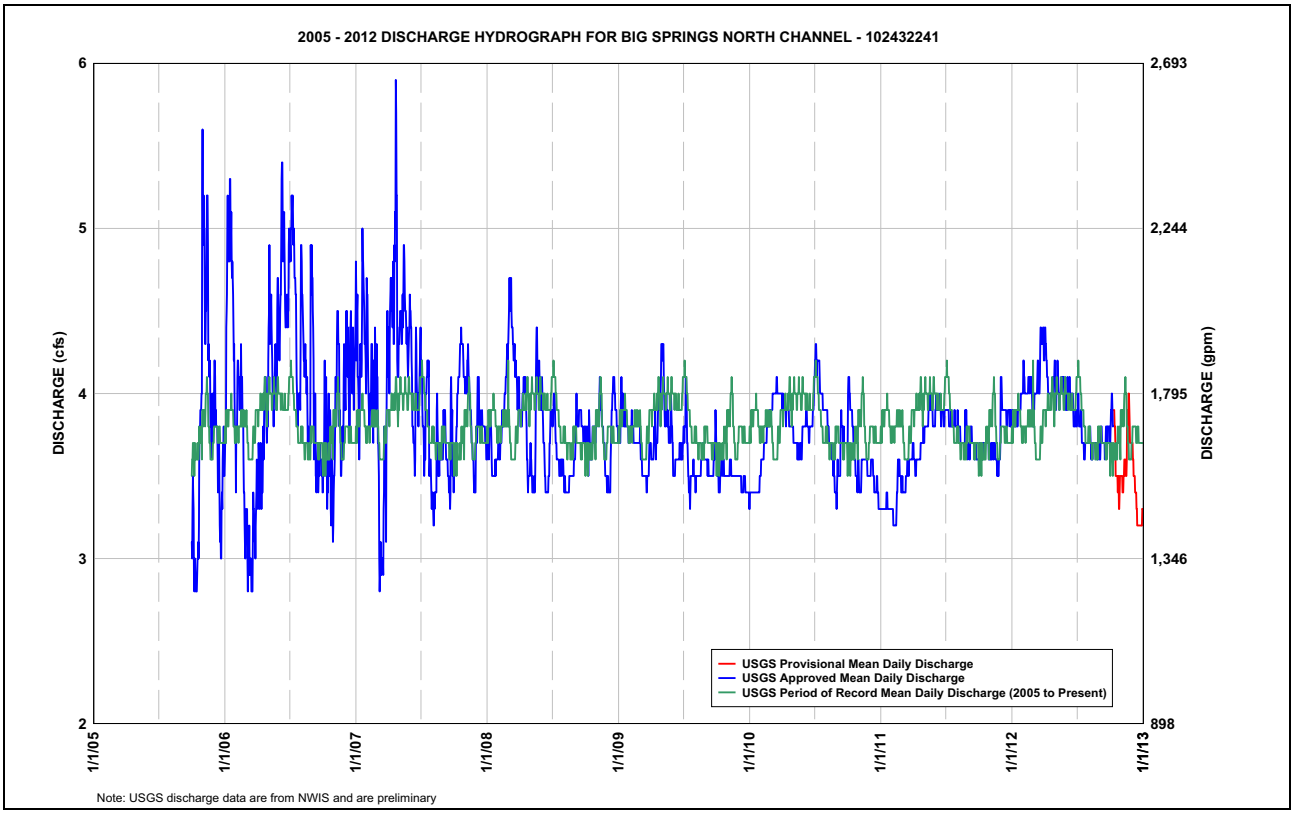
SNWA and USGS Discharge Measurements and Hydrographs for Cleve Creek and Big Springs Creek

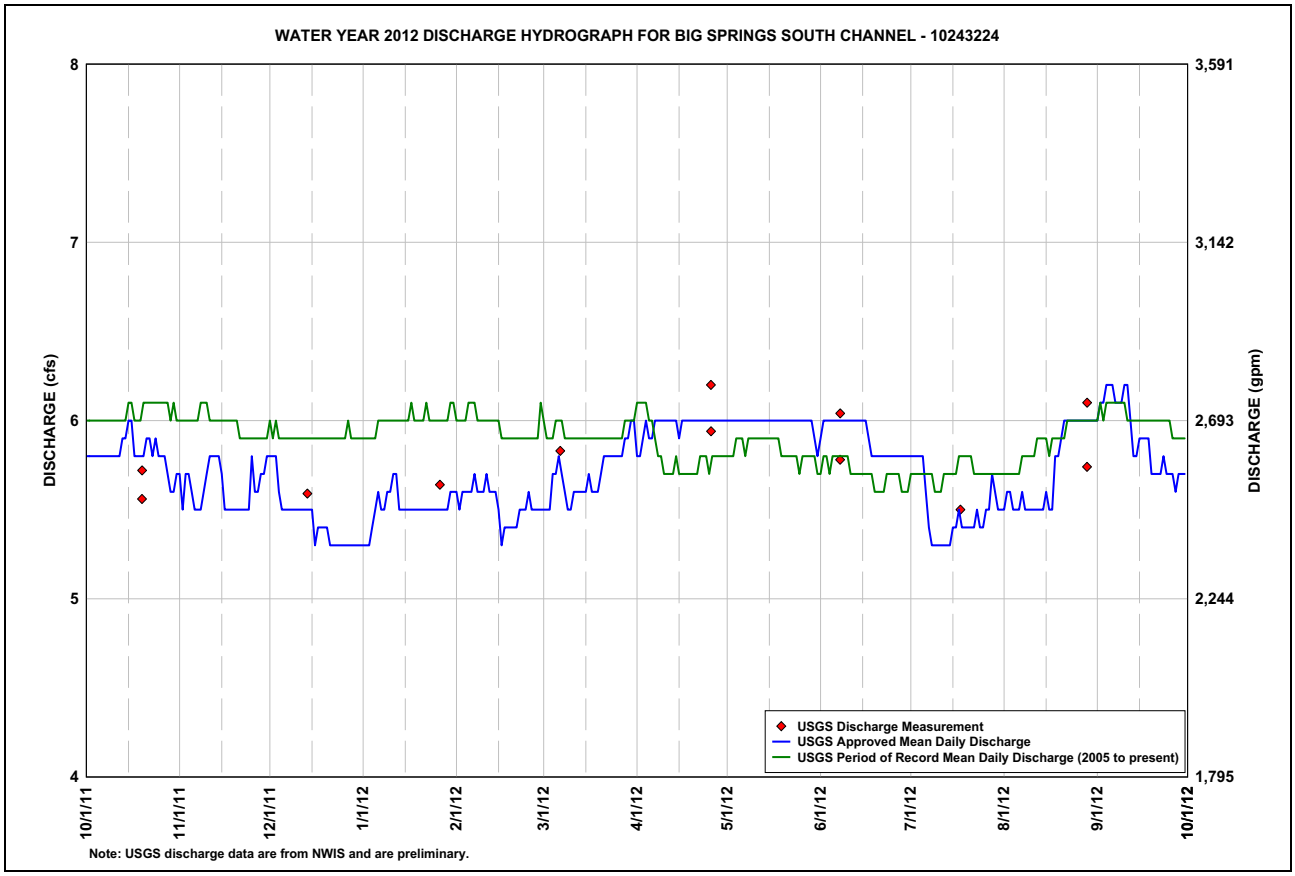
Table D-1
Big Springs Creek near Baker, Nevada

SNWA Station Number	USGS Station Number	Station Name	Date	Time	Discharge (cfs)	Measurement Rated as:	Method	Data Source
USGS Discharge Measurements at Big Springs Creek North Channel								
1951904	102432241	Big Springs Creek North Channel	10/19/2011	13:20	3.53	FAIR	Reported	USGS-NWIS
			12/13/2011	11:25	4	FAIR	Reported	USGS-NWIS
			1/26/2012	13:07	3.85	FAIR	Reported	USGS-NWIS
			3/6/2012	12:38	4.01	FAIR	Reported	USGS-NWIS
			3/6/2012	13:25	4.14	FAIR	Reported	USGS-NWIS
			4/25/2012	12:52	3.96	FAIR	Reported	USGS-NWIS
			6/7/2012	11:04	4.07	FAIR	Reported	USGS-NWIS
			7/17/2012	11:00	3.78	GOOD	Reported	USGS-NWIS
			7/17/2012	11:37	3.86	GOOD	Reported	USGS-NWIS
			8/28/2012	12:58	4.06	FAIR	Reported	USGS-NWIS
USGS Discharge Measurements at Big Springs Creek South Channel								
1951903	10243224	Big Springs Creek South Channel	10/19/2011	12:15	5.56	FAIR	Reported	USGS-NWIS
			10/19/2011	12:45	5.72	GOOD	Reported	USGS-NWIS
			12/13/2011	10:41	5.59	FAIR	Reported	USGS-NWIS
			1/26/2012	12:15	5.64	FAIR	Reported	USGS-NWIS
			3/6/2012	11:41	5.83	GOOD	Reported	USGS-NWIS
			4/25/2012	13:50	6.2	GOOD	Reported	USGS-NWIS
			4/25/2012	14:28	5.94	GOOD	Reported	USGS-NWIS
			6/7/2012	12:24	5.78	FAIR	Reported	USGS-NWIS
			6/7/2012	13:02	6.04	GOOD	Reported	USGS-NWIS
			7/17/2012	12:21	5.5	GOOD	Reported	USGS-NWIS
			8/28/2012	13:47	5.74	FAIR	Reported	USGS-NWIS
			8/28/2012	14:30	6.1	GOOD	Reported	USGS-NWIS

Note: USGS-NWIS data are provisional.


WATER YEAR 2012 DISCHARGE HYDROGRAPH FOR BIG SPRINGS NORTH CHANNEL - 102432241
Discharge (cfs)
DISCHARGE (gpm)
6
5
4
3
2
2,693
2,244
1,795
1,346
898
10/1/11
11/1/11
12/1/11
1/1/12
2/1/12
3/1/12
4/1/12
5/1/12
6/1/12
7/1/12
8/1/12
9/1/12
10/1/12
USGS Discharge Measurement
USGS Approved Mean Daily Discharge
USGS Period of Record Mean Daily Discharge (2006 to present)
Note: USGS discharge data are from NWIS and are preliminary.


2005 - 2012 DISCHARGE HYDROGRAPH FOR BIG SPRINGS NORTH CHANNEL - 102432241
DISCHARGE (cfs)
DISCHARGE (gpm)
6
5
4
3
2
2,693
2,244
1,795
1,346
898
1/1/05
1/1/06
1/1/07
1/1/08
1/1/09
1/1/10
1/1/11
1/1/12
1/1/13
USGS Provisional Mean Daily Discharge
USGS Approved Mean Daily Discharge
USGS Period of Record Mean Daily Discharge (2005 to Present)
Note: USGS discharge data are from NWIS and are preliminary


WATER YEAR 2012 DISCHARGE HYDROGRAPH FOR BIG SPRINGS SOUTH CHANNEL - 10243224
DISCHARGE (cfs)
DISCHARGE (gpm)
8
7
6
5
4
3,591
3,142
2,693
2,244
1,795
10/1/11
11/1/11
12/1/11
1/1/12
2/1/12
3/1/12
4/1/12
5/1/12
6/1/12
7/1/12
8/1/12
9/1/12
10/1/12
USGS Discharge Measurement
USGS Approved Mean Daily Discharge
USGS Period of Record Mean Daily Discharge (2005 to present)
Note: USGS discharge data are from NWIS and are preliminary.

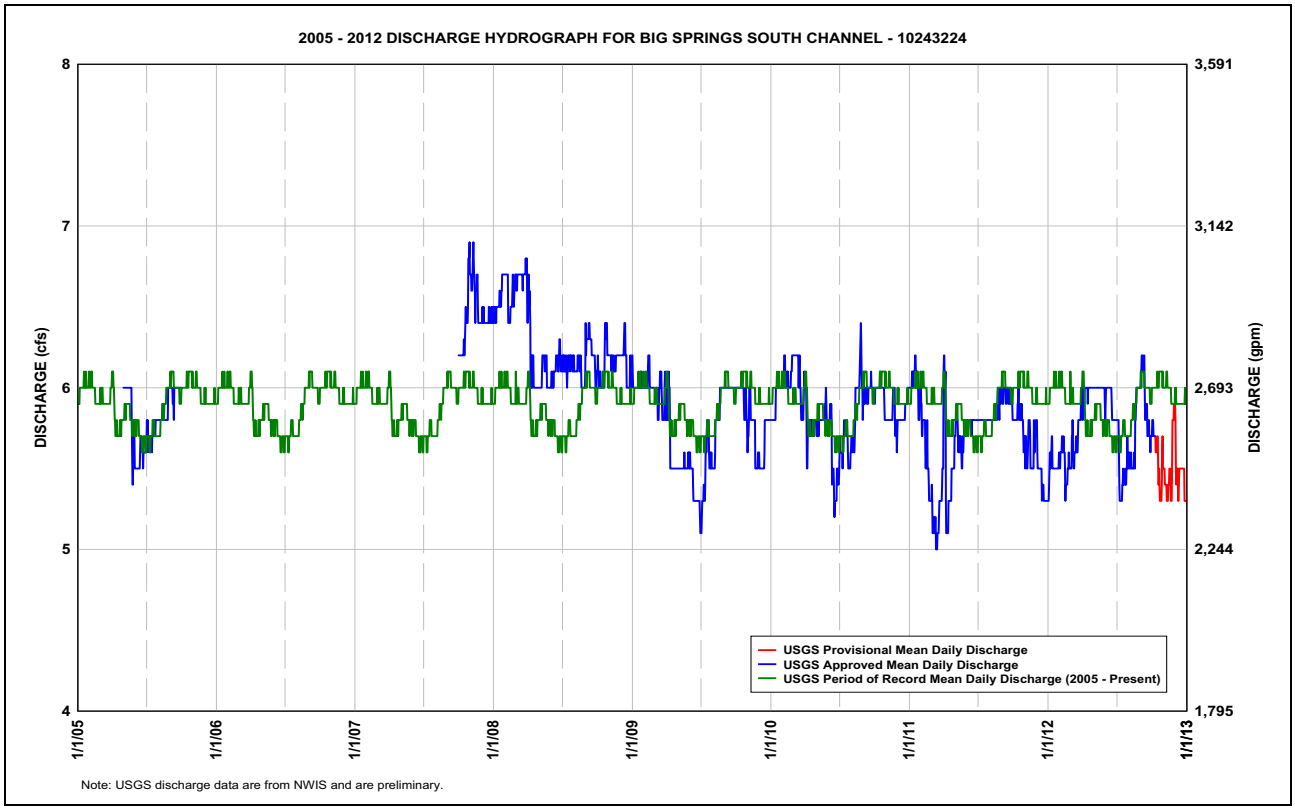
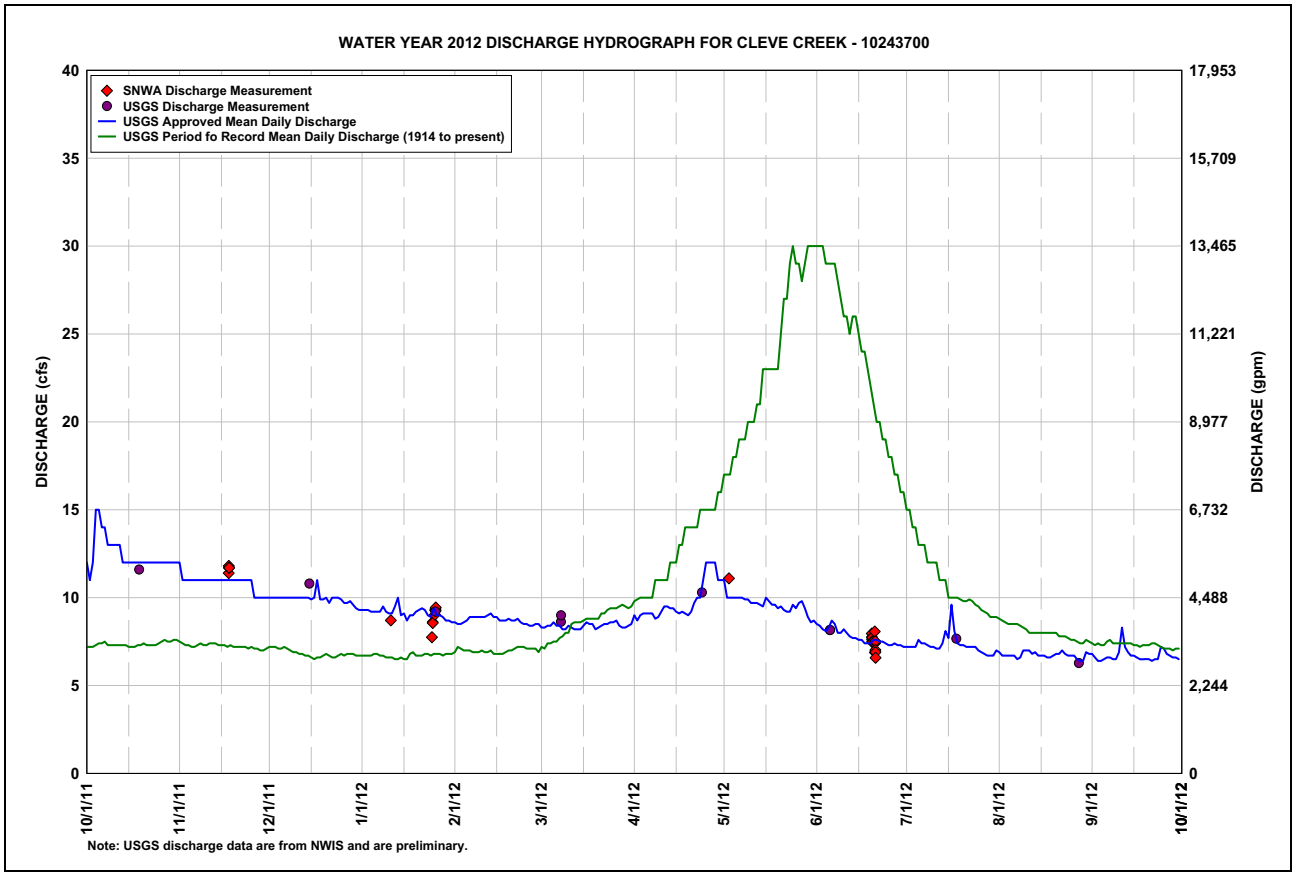
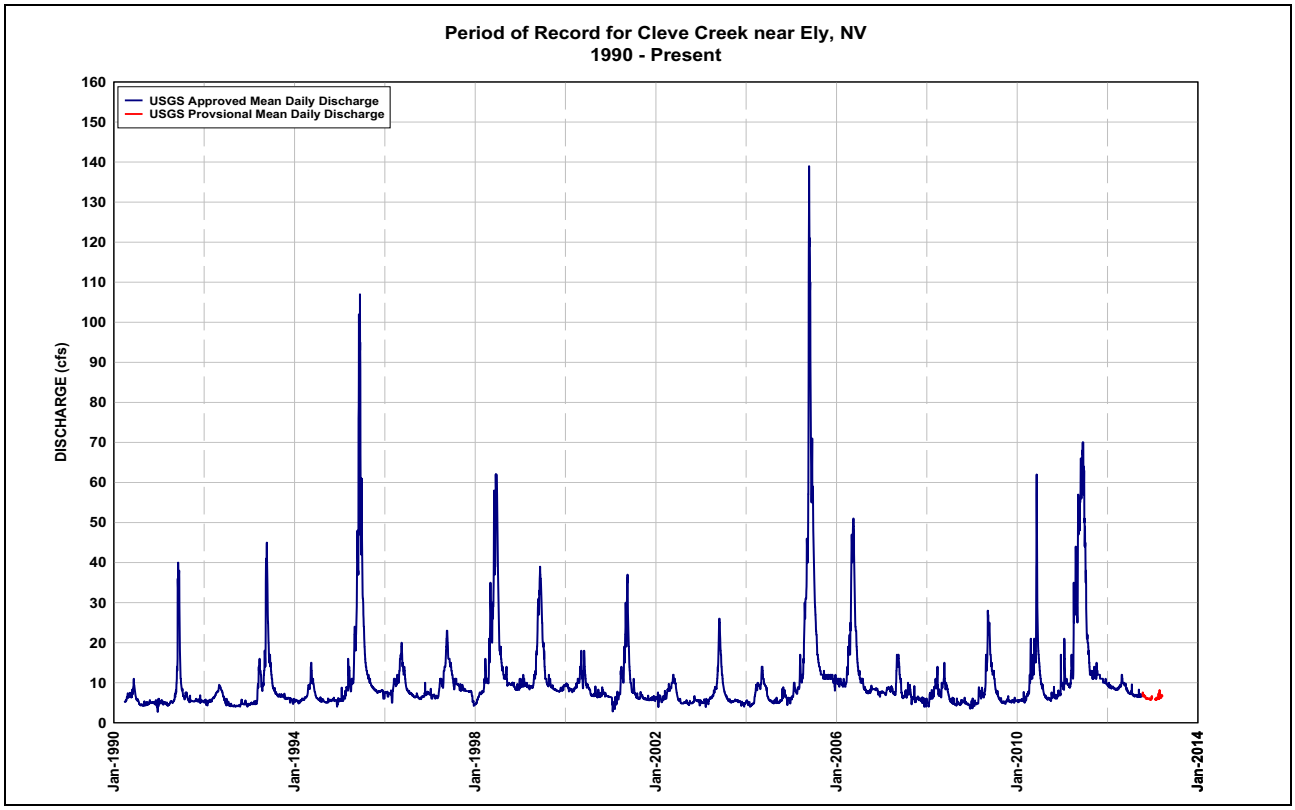

2005 - 2012 DISCHARGE HYDROGRAPH FOR BIG SPRINGS SOUTH CHANNEL - 10243224
DISCHARGE (cfs)
DISCHARGE (gpm)
8
7
6
5
4
3,591
3,142
2,693
2,244
1,795
1/1/05
1/1/06
1/1/07
1/1/08
1/1/09
1/1/10
1/1/11
1/1/12
1/1/13
USGS Provisional Mean Daily Discharge
USGS Approved Mean Daily Discharge
USGS Period of Record Mean Daily Discharge (2005 - Present)
Note: USGS discharge data are from NWIS and are preliminary.

Table D-2
10243700 - Cleve Creek near Ely, Nevada (Discharge Measurements)

SNWA Station Number	USGS Station Number	Station Name	Date	Time	Discharge (cfs)	Measurement Rated As:	Method[a]	Data Source[b]
1841611	10243700	Cleve Creek near Ely, NV	10/18/2011	11:59	11.6	GOOD	R	USGS-NWIS
			11/17/2011	10:07	11	POOR	C	SNWA
			11/17/2011	11:12	12	POOR	C	SNWA
			11/17/2011	12:25	12	POOR	C	SNWA
			11/17/2011	13:36	12	POOR	C	SNWA
			12/14/2011	8:44	10.8	FAIR	R	USGS-NWIS
			1/10/2012	15:02	8.7	FAIR	C	SNWA
			1/24/2012	9:00	7.8	POOR	C	SNWA
			1/24/2012	14:18	8.6	POOR	C	SNWA
			1/24/2012	15:10	8.6	POOR	C	SNWA
			1/25/2012	9:03	9.0	FAIR	C	SNWA
			1/25/2012	10:02	9.3	FAIR	C	SNWA
			1/25/2012	12:09	9.21	FAIR	R	USGS-NWIS
			1/25/2012	13:03	9.4	FAIR	C	SNWA
			1/25/2012	14:02	9.2	FAIR	C	SNWA
			1/25/2012	15:02	9.4	FAIR	C	SNWA
			3/7/2012	11:27	8.63	FAIR	R	USGS-NWIS
			3/7/2012	12:14	9.00	FAIR	R	USGS-NWIS
			4/23/2012	14:35	10.3	FAIR	R	USGS-NWIS
			5/2/2012	15:38	11	POOR	C	SNWA
			6/5/2012	9:30	8.16	FAIR	R	USGS-NWIS
			6/5/2012	10:08	8.16	FAIR	R	USGS-NWIS
			6/19/2012	8:59	8.0	POOR	C	SNWA
			6/19/2012	10:02	7.8	POOR	C	SNWA
			6/19/2012	11:00	7.6	POOR	C	SNWA
			6/19/2012	11:59	7.7	POOR	C	SNWA
			6/19/2012	12:58	7.5	POOR	C	SNWA
			6/19/2012	14:00	7.5	POOR	C	SNWA
			6/19/2012	15:00	7.5	POOR	C	SNWA
			6/20/2012	9:02	8.1	POOR	C	SNWA
			6/20/2012	10:00	6.9	POOR	C	SNWA
			6/20/2012	11:02	7.4	POOR	C	SNWA
			6/20/2012	12:04	7.5	POOR	C	SNWA
			6/20/2012	13:12	7.5	POOR	C	SNWA
			6/20/2012	14:00	7.0	POOR	C	SNWA
			6/20/2012	15:01	6.9	POOR	C	SNWA
			6/20/2012	15:06	6.6	POOR	C	SNWA
			7/17/2012	14:37	7.67	GOOD	R	USGS-NWIS
			8/27/2012	14:16	6.28	GOOD	R	USGS-NWIS

[a]Measurement Method: C = Current meter, R = Reported
[b]USGS-NWIS data are provisional.


WATER YEAR 2012 DISCHARGE HYDROGRAPH FOR CLEVE CREEK - 10243700
SNWA Discharge Measurement
USGS Discharge Measurement
USGS Approved Mean Daily Discharge
USGS Period fo Record Mean Daily Discharge (1914 to present)
DISCHARGE (cfs)
DISCHARGE (gpm)
40
35
30
25
20
15
10
5
0
17,953
15,709
13,465
11,221
8,977
6,732
4,488
2,244
0
10/1/11
11/1/11
12/1/11
1/1/12
2/1/12
3/1/12
4/1/12
5/1/12
6/1/12
7/1/12
8/1/12
9/1/12
10/1/12
Note: USGS discharge data are from NWIS and are preliminary.


Period of Record for Cleve Creek near Ely, NV
1990 - Present
USGS Approved Mean Daily Discharge
USGS Provsional Mean Daily Discharge
DISCHARGE (cfs)
160
150
140
130
120
110
100
90
80
70
60
50
40
30
20
10
0
Jan-1990
Jan-1994
Jan-1998
Jan-2002
Jan-2006
Jan-2010
Jan-2014

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Appendix E

Regional and High-Altitude Precipitation Data

Table E-1
2012 Regional Precipitation Data
(Page 1 of 6)

Lages, NV (RP1790201)													
Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
2012	0.41	0.51	0.38	0.23	0.06	0.01	1.51	1.41	1.40a	1.47*	0.29*	0.89*	8.57
Period of Recod Statistics (1984 to Present)													
Mean	0.59	0.60	0.76	0.92	0.92	0.65	0.71	0.46	0.63	0.94	0.50	0.46	8.23
Min	0.02	0.02	0.01	0.00	0.00	0.00	0.00	0.00	0.04	0.00	0.00	0.00	4.10
Max	2.34	2.01	2.74	2.76	2.89	3.05	2.24	1.41	2.19	3.89	1.75	2.44	13.20
No. Yrs.	28	29	28	29	29	28	28	28	29	28	27	28	24
McGill, NV (RP1790202)													
Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
2012	0.55	0.91	0.92	0.78	0.00	0.00	0.68	1.10	2.02a	0.62*	0.18*	1.53*	9.29
Period of Recod Statistics (1892 to Present)													
Mean	0.63	0.65	0.75	0.95	1.03	0.76	0.69	0.76	0.68	0.80	0.56	0.59	8.88
Min	0.00	0.01	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	3.76
Max	4.58	2.38	2.54	3.19	3.33	4.30	3.03	3.25	5.57	3.38	1.90	3.05	16.21
No. Yrs.	103	104	105	106	104	104	104	103	103	100	103	104	90
Ely, NV (RP1790203)													
Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
2012	0.67	1.22	0.84	1.03	0.08	0.04	1.17	2.88	1.21b	0.91*	0.46*	1.75*	12.26
Period of Recod Statistics (1893 to Present)													
Mean	0.77	0.78	1.01	1.03	1.10	0.65	0.64	0.81	0.75	0.82	0.68	0.68	9.60
Min	0.00	0.01	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	4.22
Max	2.50	3.75	4.30	5.52	3.55	3.53	2.30	3.00	4.99	3.67	2.40	3.33	16.16
No. Yrs.	90	90	90	90	90	88	89	91	90	88	87	87	80
Cedar Pass, NV (RP1940201)													
Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
2012	0.31	0.70	0.45	0.53	0.03	0.00a	1.70	1.48	0.66	0.90	0.19	0.42	7.37
Period of Recod Statistics (1990 to Present)													
Mean	0.34	0.64	0.86	1.23	1.12	0.97	0.80	0.72	0.54	0.91	0.35	0.37	8.84
Min	0.10	0.04	0.16	0.00	0.00	0.00	0.00	0.05	0.00	0.00	0.00	0.03	5.30
Max	1.12	1.55	1.84	4.01	4.83	3.24	1.75	1.72	1.09	2.64	0.92	2.24	14.77
No. Yrs.	18	19	19	19	16	18	17	18	17	19	18	20	11
Callao, UT (RP1950201)													
Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
2012	0.26	0.64	0.26	0.09	0.12	0.00	0.89a	0.13	1.13	0.26*	0.16*	1.70*	5.64
Period of Recod Statistics (1902 to Present)													
Mean	0.37	0.39	0.39	0.57	0.81	0.64	0.39	0.56	0.43	0.58	0.37	0.28	5.74
Min	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.94
Max	2.50	1.45	1.60	2.24	4.20	3.03	2.27	3.11	4.08	3.00	1.88	1.94	10.59
No. Yrs.	75	74	72	75	75	73	77	75	77	75	72	77	68

Table E-1
2012 Regional Precipitation Data
(Page 2 of 6)

Partoun, UT (RP1950202)													
Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
2012	0.53	0.61	0.39	0.25	0.00	0.00	1.27	0.33	1.69a	0.30*	0.49*	1.37*	7.23
Period of Recod Statistics (1905 to Present)													
Mean	0.42	0.50	0.54	0.72	0.94	0.69	0.56	0.56	0.58	0.61	0.46	0.35	7.11
Min	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.03
Max	1.85	1.92	1.50	2.22	5.08	3.29	2.66	2.27	4.58	2.57	2.20	1.81	12.34
No. Yrs.	60	60	62	64	65	63	62	62	65	61	64	60	47
Eskdale, UT (RP1950203)													
Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
2012	0.10	0.40	0.74	0.09	0.00	0.00	0.38	0.79	0.91	0.17*	0.33*	0.90*	4.81
Period of Recod Statistics (1966 to Present)													
Mean	0.27	0.41	0.63	0.66	0.67	0.61	0.54	0.55	0.64	0.66	0.38	0.33	6.41
Min	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	3.18
Max	1.77	2.38	2.03	2.21	3.35	2.32	3.26	2.40	3.57	2.24	1.40	2.57	12.57
No. Yrs.	43	44	42	46	46	47	46	46	45	45	43	42	30
Mather, NV (RP1950204)													
Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
2012	0.18	0.22	0.26c	0.79	0.06	0.00	1.84	2.32a	2.11a	0.47	0.31	0.18	8.74
Period of Recod Statistics (1999 to Present)													
Mean	0.25	0.54	0.65	1.38	1.31	1.16	1.46	1.23	1.12	1.40	0.49	0.23	11.22
Min	0.02	0.15	0.25	0.50	0.06	0.00	0.20	0.00	0.16	0.00	0.03	0.01	7.64
Max	0.72	1.15	1.32	2.59	3.76	3.27	3.17	2.81	2.24	3.63	1.80	1.50	13.59
No. Yrs.	12	13	13	12	14	15	14	13	14	13	14	13	9
Great Basin National Park, NV (RP1950205)													
Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
2012	0.40b	1.71	0.98a	0.44	0.24	0.00a	2.01a	1.56	1.96a	0.60*	1.42*	2.20*	13.52
Period of Recod Statistics (1948 to Present)													
Mean	1.05	1.18	1.37	1.21	1.24	0.87	0.97	1.18	1.08	1.25	0.97	0.96	13.33
Min	0.03	0.09	0.00	0.03	0.00	0.00	0.01	0.02	0.00	0.00	0.00	0.00	7.37
Max	3.78	3.59	4.96	3.02	4.74	3.73	3.90	5.10	6.02	5.22	3.40	4.23	21.20
No. Yrs.	61	61	61	63	63	61	63	63	64	63	62	61	55
Baker Flat, NV (RP1950206)													
Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
2012	0.40	0.18a	0.51b	0.49	0.08	0.00	1.52	1.84	0.02z	0.44a	0.13c	1.11a	6.72
Period of Recod Statistics (2001 to Present)													
Mean	0.84	0.83	0.41	0.61	0.30	0.27	0.46	0.61	0.40	1.07	0.34	0.51	6.65
Min	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.01	0.01	0.00	3.95
Max	3.52	2.15	1.06	2.65	1.13	0.97	1.52	2.27	1.43	4.23	1.95	1.41	15.26
No. Yrs.	9	9	10	10	11	12	10	11	10	10	10	10	5

Table E-1
2012 Regional Precipitation Data
(Page 3 of 6)

Clifton Flat, UT (RP2530201)													
Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
2012	0.74	0.56	0.17g	0.45e	0.03o	0.00e	1.07f	1.17l	0.53g	0.33g	0.17e	0.38i	5.6
Period of Recod Statistics (2005 to Present)													
Mean	0.32	0.41	0.64	1.56	2.53	1.01	0.54	0.46	0.57	1.11	0.41	0.35	9.91
Min	0.10	0.21	0.13	0.11	0.31	0.00	0.11	0.00	0.13	0.53	0.00	0.02	4.84
Max	0.74	0.60	1.21	3.60	8.02	3.09	0.95	0.76	2.09	1.70	1.19	2.10	15.92
No. Yrs.	8	7	7	8	7	9	7	8	8	8	9	8	6
Ibapah, UT (RP2530202)													
Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
2012	0.30	0.45a	0.63	0.26	0.04	0.02	0.88	0.64	1.08	0.45*	0.32*	1.38*	6.45
Period of Recod Statistics (1903 to Present)													
Mean	0.62	0.77	0.95	1.29	1.44	0.98	0.82	0.90	0.72	0.95	0.60	0.65	9.91
Min	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	3.20
Max	2.41	1.96	3.14	4.81	6.15	4.16	2.58	4.10	5.85	3.42	1.94	2.03	16.41
No. Yrs.	81	87	91	89	89	88	91	91	88	89	84	83	47
Tule Valley-RAWS, UT (RP2570201)													
Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
2012	0.21	0.43	0.30	0.55	0.03	0.00	0.66	0.24	1.22	0.63	0.29	0.67	5.23
Period of Recod Statistics (1988 to Present)													
Mean	0.27	0.35	0.54	0.64	0.73	0.36	0.40	0.36	0.44	0.59	0.33	0.31	5.33
Min	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.75
Max	1.03	0.84	1.49	2.17	3.80	1.44	1.80	1.14	1.22	1.18	1.28	1.31	10.96
No. Yrs.	19	22	17	19	18	19	16	17	17	17	19	20	10
Fish Springs Refuge, UT (RP2580201)													
Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
2012	0.63	0.52	0.06	0.21	0.13	0.00	0.45	0.01z	0.00z	0.52*	0.71*	1.50*	4.73
Period of Recod Statistics (1960 to Present)													
Mean	0.39	0.50	0.69	1.04	1.06	0.70	0.50	0.54	0.68	0.82	0.53	0.42	7.83
Min	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	3.89
Max	1.04	1.60	2.42	2.63	4.89	2.94	1.91	3.16	3.14	3.47	1.67	1.67	12.64
No. Yrs.	49	52	52	49	51	51	53	52	49	50	52	52	42
Bird Creek, NV (RP1790301)													
Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
2012	1.30	1.20	1.70	1.50	0.30	0.00	1.00	1.10	1.50	1.00	0.40	2.60	13.60
Period of Recod Statistics (2011 to Present)													
Mean	1.30	1.20	1.70	1.50	0.30	0.00	1.00	1.10	1.50	1.40	0.45	1.45	12.90
Min	1.30	1.20	1.70	1.50	0.30	0.00	1.00	1.10	1.50	1.00	0.40	0.30	13.60
Max	1.30	1.20	1.70	1.50	0.30	0.00	1.00	1.10	1.50	1.80	0.50	2.60	13.60
No. Yrs.	1	1	1	1	1	1	1	2	2	2	2	2	1

Table E-1
2012 Regional Precipitation Data
(Page 4 of 6)

Berry Creek, NV (RP1790302)													
Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
2012	2.00	1.90	3.80	2.50	0.50	0.00	3.60	3.60	2.60	2.10	0.60	3.30	26.50
Period of Recod Statistics (1980 to Present)													
Mean	2.59	2.98	3.38	3.53	2.83	1.44	1.41	1.35	1.30	2.29	2.12	2.56	27.79
Min	0.60	1.10	0.00	0.00	0.20	0.00	0.00	0.00	0.00	0.00	0.00	0.20	17.20
Max	5.20	7.60	5.90	11.40	7.90	4.90	3.60	5.60	3.40	7.20	7.00	7.10	40.00
No. Yrs.	32	32	32	32	32	32	32	31	31	37	36	35	30
Kalamazoo, NV (RP1840301)													
Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
2012	1.90	1.90	2.20	1.60	0.20	0.00	0.90	2.10	2.00a	1.80	0.70	2.90	18.20
Period of Recod Statistics (2011 to Present)													
Mean	1.90	1.90	2.20	1.60	0.20	0.00	0.90	2.45	1.60	1.90	0.55	1.65	16.85
Min	1.90	1.90	2.20	1.60	0.20	0.00	0.90	2.10	1.20	1.80	0.40	0.40	18.20
Max	1.90	1.90	2.20	1.60	0.20	0.00	0.90	2.80	2.00	2.00	0.70	2.90	18.20
No. Yrs.	1	1	1	1	1	1	1	2	2	2	2	2	1
Cave Mountain, NV (RP1840302)													
Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
2012	1.90	1.40	3.20	1.40	0.40	0.10	2.30	3.10	2.90	1.30	0.60	3.20	21.80
Period of Recod Statistics (2011 to Present)													
Mean	1.90	1.40	3.20	1.40	0.40	0.10	2.30	2.10	2.05	2.05	0.70	1.80	19.40
Min	1.90	1.40	3.20	1.40	0.40	0.10	2.30	1.10	1.20	1.30	0.60	0.40	21.80
Max	1.90	1.40	3.20	1.40	0.40	0.10	2.30	3.10	2.90	2.80	0.80	3.20	21.80
No. Yrs.	1	1	1	1	1	1	1	2	2	2	2	2	1
Wheeler Peak, NV (RP1840303)													
Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
2012	1.90	2.90	4.00	2.70	0.60	0.00	4.30	2.20	3.50	1.20	1.90	3.90	29.10
Period of Recod Statistics (2010 to Present)													
Mean	1.75	3.00	4.95	4.00	3.95	0.25	3.00	1.33	1.87	3.73	2.83	5.30	35.97
Min	1.60	2.90	4.00	2.70	0.60	0.00	1.70	0.80	0.10	1.20	1.20	0.80	29.10
Max	1.90	3.10	5.90	5.30	7.30	0.50	4.30	2.20	3.50	5.70	5.40	11.20	34.70
No. Yrs.	2	2	2	2	2	2	2	3	3	3	3	3	2
Goshute, UT (RP2530301)													
Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
2012	0.33	0.53	0.36	0.48	0.09	0.00	0.65	0.75	0.52a	0.52	0.27	1.30	5.80
Period of Recod Statistics (2010 to Present)													
Mean	0.25	0.70	0.61	1.08	3.17	0.48	0.53	0.70	0.28	0.79	0.58	1.08	10.25
Min	0.17	0.53	0.36	0.48	0.09	0.00	0.38	0.31	0.13	0.52	0.26	0.36	5.80
Max	0.33	0.86	0.86	2.14	6.54	1.07	0.65	1.03	0.52	1.27	1.22	1.57	13.93
No. Yrs.	2	2	2	3	3	3	3	3	3	3	3	3	2

Table E-1
2012 Regional Precipitation Data
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Hals Canyon, UT (RP2550301)													
Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
2012	0.24a	0.35	0.10	0.17	0.01	0.00a	0.08a	0.98	1.89a	0.31b	0.13c	0.26	4.52
Period of Recod Statistics (2010 to Present)													
Mean	0.12	0.27	0.12	0.58	0.68	0.28	0.61	1.12	0.73	1.10	0.37	0.63	6.61
Min	0.00	0.18	0.10	0.17	0.01	0.00	0.08	0.84	0.00	0.31	0.13	0.21	4.52
Max	0.24	0.35	0.14	0.89	1.82	0.65	0.99	1.54	1.89	1.56	0.82	1.43	7.96
No. Yrs.	2	2	2	3	3	3	3	3	3	3	3	3	2
Tule Valley-SCAN, UT (RP2570301)													
Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
2012	0.30	0.84	0.28	0.48	0.02	0.00	0.21	0.46	1.82	0.54	0.39	0.94	6.28
Period of Recod Statistics (2010 to Present)													
Mean	0.15	0.61	0.30	1.06	2.28	0.18	0.51	0.57	0.81	0.82	0.75	0.94	8.98
Min	0.00	0.38	0.28	0.48	0.02	0.00	0.09	0.27	0.00	0.54	0.39	0.15	6.28
Max	0.30	0.84	0.32	1.46	5.48	0.33	1.23	0.97	1.82	1.09	1.25	1.74	12.37
No. Yrs.	2	2	2	3	3	3	3	3	3	3	3	3	2
Subalpine (west), NV (RP1840501)													
Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
2012	0.44	0.47	0.86	1.25	0.50	0.00	3.82	2.90	1.89	1.03a	1.31	0.36	14.83
Period of Recod Statistics (2011 to Present)													
Mean	0.22	1.18	2.14	1.67	3.53	0.13	3.31	2.00	0.99	2.73	2.10	3.84	23.84
Min	0.00	0.47	0.86	1.25	0.50	0.00	2.79	1.09	0.08	1.03	0.50	0.28	14.83
Max	0.44	1.88	3.41	2.09	6.56	0.25	3.82	2.90	1.89	4.90	4.48	10.88	14.83
No. Yrs.	2	2	2	2	2	2	2	2	2	3	3	3	1
Montane (west), NV (RP1840502)													
Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
2012	1.11	1.77	2.01	2.05	0.36	0.00	2.44	1.83	1.43	1.41a	0.59	0.30	15.30
Period of Recod Statistics (2010 to Present)													
Mean	0.74	1.81	2.34	2.16	2.95	0.13	2.08	1.22	0.91	2.50	1.70	2.31	20.85
Min	0.37	1.77	2.01	2.05	0.36	0.00	1.71	0.60	0.04	1.41	0.59	0.30	15.30
Max	1.11	1.84	2.66	2.27	5.53	0.25	2.44	1.83	1.43	3.60	3.53	6.02	20.59
No. Yrs.	2	2	2	2	2	2	2	2	3	3	3	3	2
Pinyon-Juniper (west), NV (RP1840503)													
Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
2012	0.74	1.19	1.30	1.16	0.18	0.00	2.18	1.54	1.10	1.01a	0.41	0.64	11.45
Period of Recod Statistics (2011 to Present)													
Mean	0.74	1.19	1.30	1.16	0.18	0.10	1.95	1.01	1.05	1.51	0.44	0.43	11.06
Min	0.74	1.19	1.30	1.16	0.18	0.00	1.71	0.47	0.99	1.01	0.41	0.22	11.45
Max	0.74	1.19	1.30	1.16	0.18	0.19	2.18	1.54	1.10	2.01	0.47	0.64	11.45
No. Yrs.	1	1	1	1	1	2	2	2	2	2	2	2	1

Table E-1
2012 Regional Precipitation Data
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Sagebrush (west), NV (RP1840504)													
Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
2012	0.49	0.71	0.56	0.23	0.09	0.00	1.53	0.90	0.83	0.52g	0.07	0.37	6.30
Period of Recod Statistics (2011 to Present)													
Mean	0.29	0.75	0.70	0.58	1.31	0.06	1.47	0.64	0.47	1.28	0.32	1.15	9.02
Min	0.09	0.71	0.56	0.23	0.09	0.00	0.24	0.37	0.00	1.18	0.07	0.09	10.83
Max	0.49	0.79	0.84	0.92	2.53	0.11	2.65	0.90	0.83	1.38	0.70	2.99	10.83
No. Yrs.	2	2	2	2	2	2	3	3	3	2	3	3	1
Subalpine (east), NV (RP1950501)													
Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
2012	1.47	2.79	1.20	1.88a	0.39	0.00	2.92	2.22	2.12	1.09	0.65	0.53	17.26
Period of Recod Statistics (2011 to Present)													
Mean	1.47	2.79	1.20	1.88	0.39	0.00	2.92	2.22	1.88	2.02	0.77	0.67	18.21
Min	1.47	2.79	1.20	1.88	0.39	0.00	2.92	2.22	1.64	1.09	0.65	0.53	17.26
Max	1.47	2.79	1.20	1.88	0.39	0.00	2.92	2.22	2.12	2.94	0.89	0.80	17.26
No. Yrs.	1	1	1	1	1	1	1	1	2	2	2	2	1
Sagebrush (east), NV (RP1950502)													
Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
2012	0.16	1.09	0.23	0.04a	0.01	0.00	0.72	0.84	1.04	0.24a	0.43	0.57a	5.37
Period of Recod Statistics (2011 to Present)													
Mean	0.18	1.07	0.43	0.60	1.36	0.07	0.74	0.38	0.56	0.86	0.54	1.31	8.10
Min	0.16	1.04	0.23	0.04	0.01	0.00	0.65	0.11	0.17	0.24	0.10	0.34	5.37
Max	0.19	1.09	0.62	1.15	2.71	0.13	0.84	0.84	1.04	1.39	1.10	3.01	8.64
No. Yrs.	2	2	2	2	2	2	3	3	3	3	3	3	2
Salt Desert Shrub (east), NV (RP1950503)													
Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
2012	0.12	0.67	0.17	0.11a	0.00	0.00	0.51	0.78	0.77	0.34a	0.18	0.26	3.91
Period of Recod Statistics (2011 to Present)													
Mean	0.12	0.67	0.17	0.11	0.00	0.00	0.51	0.52	0.50	0.52	0.14	0.25	3.51
Min	0.12	0.67	0.17	0.11	0.00	0.00	0.51	0.26	0.23	0.34	0.09	0.24	3.91
Max	0.12	0.67	0.17	0.11	0.00	0.00	0.51	0.78	0.77	0.70	0.18	0.26	3.91
No. Yrs.	1	1	1	1	1	1	1	2	2	2	2	2	1

Note: Star(*) = Provisional Data; a = 1 day missing, b = 2 days missing, c = 3 days missing, etc.., z = 26 or more days missing;
Long-term means based on summation of long-term monthly row values.

Table E-2
2012 High-Altitude Precipitation Data

Source	Station Number	Station Name	2012 Precipitation (in.)	Period of Record Statistics				
				Time Period	Mean	Min	Max	NOY
NDWR	RP1790101	Schellborne	9.40	1954 - 2012	14.47	0.00	26.80	53
NDWR	RP1790102	Connors	8.95	1956 - 2012	13.97	3.40	23.94	53
NDWR	RP1830103	Wilson Creek Summit	11.75	1954 - 2012	16.63	7.50	28.30	56
USGS	RP1840401	Mount Washington	16.00	1984 - 2012	26.51	12.00	62.00	28
USGS	RP1840402	Cave Mountain	19.75	1984 - 2012	20.39	12.00	32.16	29
USGS	RP1950403	Unnamed Peak Northwest of Mount Moriah	14.50	1984 - 2012	18.14	8.50	28.75	27

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Appendix F

Water Chemistry Results

Table F-1
Isotopic Data for SPR7029M in the Spring Valley Monitoring Network

Site Number	Site Name	Sample date	$\delta^{13}C$*	^{14}C PMC (%)	$\delta^{18}O$ (‰)	δD (‰)	E ^{3}H (T.U.)	± 1σ	$^{87}Sr/^{86}Sr$ (Ratio)	Sr (ppb)
SPR7029M	SPR7029M	5/10/11	-7.7	43.9	-16	-121	2.1	0.3	0.712891	165.9

Tritium is reported in Tritium Units
1 TU = 3.221 Picocurries/L per IAEA, 2000 Report
1 TU = 0.11919 Becquerels/L per IAEA, 2000 Report
SPR7029M - Laboratory report for Isotopic data for this site was not received by the time the 2010 annual report was published.

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March 28, 2013

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Dear Mr. King and Stipulation Executive Committee Members:

SUBJECT: SUBMITTAL OF THE 2012 DDC AND SPRING VALLEY HYDROLOGIC MONITORING, MANAGEMENT AND MITIGATION PLAN STATUS AND DATA REPORTS

The Southern Nevada Water Authority (SNWA) hereby submits the subject reports to the Nevada State Engineer (NSE) and Stipulation Executive Committee (EC). These reports are submitted in satisfaction of reporting requirements set forth in hydrologic monitoring plans approved by the NSE associated with Rulings 6164 through 6167, and Exhibit A of the Dry Lake, Delamar, and Cave (DDC) and Spring Valley Stipulations for Withdrawal of Protests. The hydrologic monitoring plans approved by the NSE were submitted as SNWA exhibits 148 and 0149 during the 2011 administrative hearings regarding SNWA applications in the subject basins.

These reports provide the NSE, EC, and Technical Review Panel (TRP) with hydrologic data for calendar year 2012 and a status update of monitoring activities performed by SNWA. Copies of the reports have also been submitted to the TRP representatives.

An electronic copy of the data has been submitted to the NSE in the required format. Copies of the reports and NSE electronic data submittal will also be posted on the DDC and Spring Valley data-exchange web site.

If you have any questions regarding these reports, please contact James Prieur at (702) 862-7437.

Sincerely,

Zane L. Marshall
Director, Water & Environmental Resources

Enc.

ZM:clw

c: Rick Felling, Nevada Division of Water Resources
John Guillory, Nevada Division of Water Resources
Mark D'Aversa, Bureau of Land Management
Dan Netcher, Bureau of Land Management
Amy Lueders, Bureau of Land Management
Ray Roessel, Bureau of Indian Affairs, Western Region
William Van Liew, National Park Service, WRD
Sue Braumiller, U.S. Fish and Wildlife Service
Joe Gurrieri, USDA Forest Service
Andrew Burns, Southern Nevada Water Authority
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