

Prepared for  
**Nevada Environmental Response Trust**

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Prepared by  
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Date  
**April 29, 2016**

**SEMI-ANNUAL REMEDIAL  
PERFORMANCE REPORT FOR  
CHROMIUM AND PERCHLORATE  
NEVADA ENVIRONMENTAL RESPONSE  
TRUST SITE  
HENDERSON, NEVADA**

## Semi-Annual Remedial Performance Report for Chromium and Perchlorate

**Nevada Environmental Response Trust Site  
(Former Tronox LLC Site)  
Henderson, Nevada**

### **Nevada Environmental Response Trust (NERT) Representative Certification**

I certify that this document and all attachments submitted to the Division were prepared at the request of, or under the direction or supervision of NERT. Based on my own involvement and/or my inquiry of the person or persons who manage the system(s) or those directly responsible for gathering the information or preparing the document, or the immediate supervisor of such person(s), the information submitted and provided herein is, to the best of my knowledge and belief, true, accurate, and complete in all material respects.

Office of the Nevada Environmental Response Trust

Le Petomane XXVII, Inc., not individually, but solely in its representative capacity as the Nevada Environmental Response Trust Trustee

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**Date:** 4/29/16



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Henderson, Nevada

### Responsible Certified Environmental Manager (CEM) for this project

I hereby certify that I am responsible for the services described in this document and for the preparation of this document. The services described in this document have been provided in a manner consistent with the current standards of the profession and, to the best of my knowledge, comply with all applicable federal, state and local statutes, regulations and ordinances.



4/29/16

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### Appendix B

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### Appendix D

Data Validation Summary Report (DVSR)

**Appendix E**

Electronic Data Deliverable (EDD)

**Appendix F**

Environmental Footprint Analysis

**ATTACHMENTS**

**Attachment A**

Phase 4 Groundwater Model Refinement

**Attachment B**

2016 Groundwater Monitoring Optimization Plan

## ACRONYMS AND ABBREVIATIONS

3D	three-dimensional
AMPAC	American Pacific Corporation
AWF	Athens Road Well Field
bgs	below ground surface
Bird Viewing Ponds	City of Henderson Bird Viewing Ponds
BMI	Black Mountain Industrial
CD	compact disc
CEM	Certified Environmental Manager
COH	City of Henderson
COP	Continuous Optimization Program
CTD	conductance, temperature, and depth
CZE	Capture Zone Evaluation
DVSR	Data Validation Summary Report
EDD	Electronic Data Deliverable
Endeavour	Endeavour LLC
Envirogen	Envirogen Technologies, Inc.
ENVIRON	ENVIRON International Corporation
FBR	fluidized bed reactors
ft/ft	feet/foot
GAC	Granular Activated Carbon
GEI	GEI Consultants, Inc.
gpm	gallons per minute
GWETS	groundwater extraction and treatment system
GWTP	Groundwater Treatment Plant
ITRC	Interstate Technology and Regulatory Council
IWF	Interceptor Well Field
IX	ion exchange
kWh	kilowatt hour
lbs/day	pounds per day
mg/L	milligrams per liter
NDEP	Nevada Division of Environmental Protection

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NERT	Nevada Environmental Response Trust
Northgate	Northgate Environmental Management, Inc.
NPDES	National Pollutant Discharge Elimination System
OSSM	Olin, Stauffer, Syngenta, and Montrose
Qal	Quaternary alluvium
Ramboll Environ	Ramboll Environ US Corporation
RIB	Rapid Infiltration Basin
RI	Remedial Investigation
RI/FS	Remedial Investigation and Feasibility Study
Site	Nevada Environmental Response Trust Site
SNWA	Southern Nevada Water Authority
SQL	Sample quantitation limit
SWF	Seep Well Field
TDS	total dissolved solids
TestAmerica	TestAmerica Laboratories, Inc.
Tetra Tech	Tetra Tech, Inc.
TIMET	Titanium Metals Corporation
Tronox	Tronox LLC
Trust	Nevada Environmental Response Trust
UMCf	Upper Muddy Creek Formation
USEPA	United States Environmental Protection Agency
USGS	United States Geological Survey
Veolia	Veolia Water North America
WBZ	water-bearing zones
WRF	Water Reclamation Facility



## 1. INTRODUCTION

In accordance with the Interim Consent Agreement between the Nevada Environmental Response Trust (the Trust) and the Nevada Division of Environmental Protection (NDEP), Ramboll Environ US Corporation (Ramboll Environ) submits this performance report to NDEP on behalf of the Trust for the Nevada Environmental Response Trust Site (the Site). The Site, which was formerly owned and operated by Tronox LLC (Tronox), comprises approximately 346 acres located within the Black Mountain Industrial (BMI) Complex in unincorporated Clark County and is surrounded by the City of Henderson, Nevada.

In conjunction with the settlement of Tronox's bankruptcy proceeding, the Trust took title to the Site and the groundwater extraction and treatment system (GWETS).<sup>1</sup> The effective date of the property transfer to the Trust and the Interim Consent Agreement between the Trust and NDEP was February 14, 2011. Tronox continues to conduct manufacturing operations on a portion of the Site leased from the Trust.

Envirogen Technologies, Inc. (Envirogen) currently operates and maintains the GWETS on behalf of the Trust.<sup>2</sup> TestAmerica Laboratories, Inc. (TestAmerica) acts as the Site's primary analytical testing laboratory.<sup>3</sup>

This report, covering the period July through December 2015, summarizes performance data for both the chromium and perchlorate removal programs based on sampling performed during this period. Specifically, this report describes:

- Regional groundwater conditions based on July through December 2015 groundwater levels;
- The hexavalent chromium remediation system (consisting of the on-site Interceptor Well Field [IWF] and the related treatment systems) and its performance in carrying out the extraction and treatment of chromium;
- The perchlorate remediation system (consisting of the on-site IWF, the off-site Athens Road Well Field [AWF]<sup>4</sup>, the off-site Seep Well Field [SWF], and related treatment systems) and its performance in carrying out the extraction and treatment of perchlorate;
- The distribution of total dissolved solids (TDS) concentrations at the Site;

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<sup>1</sup> Herein "GWETS" will be used to refer to the entirety of all systems and components of the groundwater extraction and treatment systems owned by the Trust, both on-site and off-site, including extraction well fields, treatment facilities, and groundwater conveyance systems.

<sup>2</sup> Veolia Water North America (Veolia), formerly US Filter Operating Services, operated the GWETS on behalf of Tronox beginning in 2003 and, after the Trust took title to the Site, continued to serve as the GWETS operator until July 24, 2013.

<sup>3</sup> Eaton Analytical, formerly MWH Laboratories, served as the Site's primary analytical testing laboratory prior to April 1, 2013.

<sup>4</sup> Although Athens Road has been renamed Galleria Drive, the Athens Road designation has been retained for the well field to maintain consistency with past reports.

- The performance metrics,<sup>5</sup> which are used to evaluate the performance of the GWETS;
- An update on activities related to the Continuous Optimization Program (COP);
- An update to the groundwater model, as described in Attachment A;
- A proposed plan for optimization of the groundwater monitoring program, as described in Attachment B; and
- Proposed future activities, including ongoing activities related to the COP, the NERT Remedial Investigation (RI), and other relevant tasks.

This report is provided in both hard copy and electronic forms. Where electronic files are referenced or information is stated as provided on compact disc (CD), this information is contained on the CD attached to the hard copy report. Appendix A contains Table A-1, which has five quarters of analytical data from the Site. The analytical lab reports for the third and fourth quarter 2015 groundwater monitoring events are also included in Appendix A (on the report CD). Appendix B (on the report CD) contains well data sheets for the monitoring program wells, which show groundwater elevations, perchlorate concentrations, and chromium concentrations over time for each well, in addition to well construction details and the location of the Upper Muddy Creek Formation (UMCf) contact. In addition, if the well is an extraction well, the pumping rate, specific capacity, and estimated mass removal of perchlorate and chromium over time are shown. Appendix C contains the field records from July to December 2015 (on the report CD). Appendix D contains the Data Validation Summary Report (DVSR) (on the report CD). Appendix E contains the Electronic Data Deliverable (EDD). The EDD includes an Access<sup>®</sup> compatible data file (on the report CD) containing the analytical results from the period July to December 2015, and an Access<sup>®</sup> compatible data file (on the report CD) containing water level monitoring data from the period July to December 2015. Appendix F contains an inventory of energy and materials used, wastes generated, and activities and services conducted at the Site for the purpose of an expanded environmental footprint analysis for July to December 2015. Attachment A contains the Phase 4 Groundwater Model Refinement Report, which describes further refinement of the steady state groundwater model. Attachment B contains the 2016 Groundwater Monitoring Optimization Plan, which recommends changes to the current groundwater monitoring program to enhance data quality, address data gaps, and reduce sampling redundancies.

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<sup>5</sup> Performance metrics were developed as part of the 2013 GWETS Optimization Work Plan (ENVIRON 2013d), approved by NDEP on December 3, 2013 (NDEP 2013c). These performance metrics differ from the metrics being utilized as part of NERT's monthly GWETS operations reporting, which were developed by Tetra Tech and included in their Enhanced Operational Metrics Proposal dated August 20, 2014 (Tetra Tech 2014a).

## 2. AREA GROUNDWATER CONDITIONS

The locations of the groundwater extraction well fields are shown on Figure 1a, a map covering the area between the Site and Las Vegas Wash. Figure 1b is a guide showing the locations of various well transects that are discussed in subsequent sections of the report. Plate 1 shows the locations of all former and current wells in the vicinity. Discussion of the overall groundwater conditions follows below. The remainder of this section discusses the hydraulic performance of each of the well fields, starting with the on-site extraction well field, the IWF, and proceeding northward to the successively downgradient extraction well fields, the AWF and the SWF.

Ground surface elevations across the Site range from 1,677 to 1,873 feet above mean sea level. The ground surface across the Site generally slopes downward to the north at a gradient of approximately 0.02 feet per foot (ft/ft). Off site to the north, the topographic surface continues at the same gradient to approximately Sunset Road, at which point it flattens to a gradient of 0.01 ft/ft to the Las Vegas Wash. The shallow groundwater gradient generally mimics the surface topography.

The NDEP has defined three water-bearing zones (WBZs) of interest in the vicinity of the Site, including the Shallow, Middle, and Deep WBZ.<sup>6</sup> The Shallow WBZ, which extends to approximately 90 feet below ground surface (bgs), is unconfined to partially confined, and is considered the water table aquifer. Unless otherwise stated, discussions of groundwater in this report refer to the Shallow WBZ, which contains the saturated portions of the Quaternary alluvium (Qal) and the uppermost portion of the UMCf.

Investigations of the Middle WBZ at the Site and surrounding sites indicate, with a few exceptions, a vertical upward gradient between the Middle and Shallow Zones that generally increases with depth. Wells screened in the Middle WBZ were not sampled during this performance period, but second quarter 2015 measurements in the vicinity immediately downgradient of the IWF found vertical head differences between Middle and Shallow Zone wells ranging from 5 feet to 13 feet, with calculated vertical gradients ranging between 0.05 and 0.2 ft/ft in the upward direction (Ramboll Environ 2015). Upward vertical gradients were generally more prominent near the western and central portions of the on-site bentonite-slurry groundwater barrier wall (the "barrier wall"). At the AWF, two wells are screened within the UMCf, PC-134A and PC-137, to depths of 70 and 73.6 feet, respectively.<sup>7</sup> These wells were not sampled during the current reporting period. However, the second quarter 2015 measured vertical head differences between PC-134A and PC-137 and corresponding wells screened within the Qal were 0.7 feet and 1.7 feet, respectively, with very slight downward vertical gradients of 0.03 and 0.05 ft/ft. Vertical gradients have not been evaluated near the SWF due to a lack of wells screened below the Qal.

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<sup>6</sup> NDEP guidance for the water-bearing zones can be viewed at [http://ndep.nv.gov/bmi/docs/090106\\_hydro\\_litho.pdf](http://ndep.nv.gov/bmi/docs/090106_hydro_litho.pdf)

<sup>7</sup> Groundwater wells have been recently installed deeper within the UMCf in this area as part of the RI. The initial data from these wells suggest that an upward vertical gradient exists deeper in the UMCf. Future submittals will include data from these deeper wells.

During the current reporting period, shallow groundwater was generally encountered in on-site wells between 20 and 50 feet bgs and is generally deepest in the southern portion of the Site. North of the Site, beyond Boulder Highway, shallow groundwater is generally encountered between three and 33 feet bgs, becoming shallower as it approaches the Las Vegas Wash.

As discussed in the report entitled *Annual Remedial Performance Report for Chromium and Perchlorate, Nevada Environmental Response Trust Site; Henderson, Nevada; July 2014 – June 2015 dated October 30, 2015* (the 2014-2015 Annual Performance Report) (Ramboll Environ 2015), groundwater flow direction at the Site is generally north to northwesterly, whereas north of the Site, the direction changes slightly to the north-northeast. This generally uniform flow pattern may be modified locally by subsurface alluvial channels cut into the underlying UMCf; the barrier wall; localized areas of recharge from on-site storm water retention basins (discussed below); off-site recharge from the City of Henderson (COH) Bird Viewing Ponds; groundwater extraction from the IWF, AWF, and SWF; and nearby groundwater extraction conducted by Olin, Stauffer, Syngenta, and Montrose (OSSM), Titanium Metals Corporation (TIMET), and Endeavour LLC (Endeavour, formerly known as American Pacific Corporation [AMPAC]). Historically, on- and off-site artificial groundwater highs or “mounds” were observed around the on-site recharge trenches<sup>8</sup> and the COH Water Reclamation Facility (WRF) Rapid Infiltration Basins (RIBs)<sup>9</sup>; however, both of these have ceased operation.

During the 2011-2012 interim soil removal action, the Site was regraded such that storm water would be retained on-site. Two retention basins and a drainage channel were constructed: 1) the Central Retention Basin, located approximately 800 feet south (upgradient) of the IWF and 2) the Northern Retention Basin, located approximately 300 feet north (downgradient) of the IWF. A shallow channel located along the eastern side of the Site connects the two retention basins and conveys overflow from the Central Retention Basin into the Northern Retention Basin. Surface runoff from on-site areas and a majority of water collected by the storm sewer network within the Tronox-leased area are directed to the Central Retention Basin. Given the topography along the western property boundary, there is the potential for a small volume of storm water to enter the Site from the west through surface flow, which is collected in topographic depressions on the Site and/or in the Central Retention Basin. Surface runoff from north of the former Beta Ditch is directed to the Northern Retention Basin. The design capacities of the Central and Northern Retention Basins are approximately 1.3 and 1.2 million cubic feet, respectively (RCI Engineering 2010).

The retention basins have altered the location and extent of infiltration at the Site and thereby have had significant effects on groundwater conditions. Following a series of storm events between August and October 2012, storm water accumulated in the Central

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<sup>8</sup> ReInjection of stabilized Lake Mead water ceased in September 2010 when the recharge trenches were removed to accommodate soil excavation and remediation activities at the Site. They have not been replaced.

<sup>9</sup> Since the completion of the COH WRF in 2008, discharge of treated effluent to the Pabco Road RIBs has ceased; however, groundwater mounding events continued to be observed into late 2011, although lessening in intensity. The most recent mounding events are likely attributable to the operation of the COH Bird Viewing Ponds located west of the RIBs.

Retention Basin. This altered local infiltration pathways and influenced downgradient groundwater conditions at the IWF, the effects of which have been discussed previously beginning with the 2012 Semi-Annual Performance Report (ENVIRON 2013a). The effects included elevated water levels in and around the IWF and mobilization of perchlorate previously bound to vadose zone soils. Mobilized perchlorate migrated to underlying groundwater and was subsequently captured in the IWF, resulting in increased perchlorate mass removal from the Site. It is anticipated that similar effects will likely occur in the future following large storm events.

During the current reporting period ending December 2015, groundwater elevation trends at the Site were relatively consistent with the previous five quarters, although slight groundwater elevation increases were observed later in the reporting period in the vicinity of the IWF and AWF.

## 2.1 Interceptor Well Field Area

The location of the IWF area is shown on Figure 1a. A barrier wall was constructed at the Site in 2001 as a physical barrier across the higher concentration portion of the perchlorate/chromium plume. The barrier wall is approximately 1,600 feet in length and 60 feet deep and constructed to tie into approximately 30 feet of the UMCf. The IWF consists of a series of 27 active groundwater extraction wells that are situated south (upgradient) of the barrier wall.

The average discharge rate for each IWF well active during July to December 2015 is shown in Table 1, along with the annual average discharge rates from the four previous years. The combined discharge of the IWF averaged 60.7 gallons per minute (gpm) from July to December 2015. As seen in Table 4, average IWF extraction rates were generally consistent for July through October before decreasing to 54.8 and 57.8 gpm in November and December, respectively. The decrease was due primarily to various outages and maintenance activities related to equipment installation and upgrades in support of the GWETS Enhanced Operational Metrics. During this period, IWF extraction rates had to be estimated or adjusted for November and December to compensate for inaccurate totalizer readings caused by these activities (Tetra Tech 2015f). Over the last four and a half years of operation, the combined discharge of the IWF averaged 67.3 gpm. For comparison, in June 2001, prior to the installation of the barrier wall, the 22 wells comprising the IWF at that time averaged a combined discharge of 24.7 gpm.

Groundwater recharge trenches located north (downgradient) of the barrier wall were originally installed to receive extracted and treated groundwater. Beginning in 1999, the trenches were used to inject stabilized Lake Mead water into the subsurface to replace water extracted by the IWF. Injection ceased in September 2010 when the recharge trenches were removed to accommodate soil excavation and removal activities at the Site.

Figures 2a through 2f present historical (January 2006 to December 2015) water elevations for selected pairs of monitoring wells located on opposite sides of the barrier wall. As shown on the figures, between July and December 2015, water levels in wells directly downgradient (north) of the barrier wall (wells M-69 through M-74) were generally four to eleven feet lower than water levels in corresponding wells upgradient

(south) of the wall (wells I-Y/M-167, M-55, M-56, M-58, M-67, and M-68). The large drop in measured groundwater elevations across the barrier wall indicates that the wall is generally an effective barrier to shallow groundwater flow. Further analysis of barrier wall performance is presented in Section 6.4.7.

Figures 2a through 2f show that, beginning in January 2006, water levels in wells downgradient of the barrier wall showed a continual decline until February 2008 when refurbishment of the recharge trench was completed allowing increased recharge rates and a corresponding rise in water levels. Peaks in water levels in downgradient wells observed in July 2008 and May 2010 (Figures 2a through 2c, and to a lesser extent on Figures 2d through 2f) are in response to increased recharge rates during those times. These figures also show a significant decline in water elevations in the downgradient wells beginning around September 2010, when the recharge trenches were shut down and groundwater mounding associated with the recharge began to dissipate.

As seen on Figures 2a through 2d, groundwater elevations upgradient of the barrier wall increased during the current reporting period, potentially due to the decrease in extraction rates at the IWF. Groundwater elevations downgradient of the wall remained relatively constant throughout the reporting period and are consistent with pre-November 2012 levels. Figures 2e and 2f show increases in groundwater elevations in both downgradient and upgradient wells at the east end of the barrier wall beginning in late 2013 to early 2014, with the response first seen in the downgradient wells. The timing corresponds to the installation of a barrier wall by TIMET at the northern edge of their property (GEI 2015). Monitoring wells M-129 and M-130, which are located east of the NERT barrier wall and thus closer to TIMET's barrier wall, are sampled annually and have also shown increasing groundwater elevations since installation of TIMET's barrier wall. Between 2013 and 2015, groundwater elevations have increased by 2.1 and 0.87 feet in M-129 and M-130, respectively. Therefore, it appears that the increases in groundwater elevations seen at the east side of the NERT property are likely the result of groundwater mounding upgradient of TIMET's barrier wall. Although operation of TIMET's barrier wall and extraction well system do not appear to have changed significantly, groundwater elevations downgradient of the barrier wall have shown a slight decreasing trend during the current reporting period.

## **2.2 Athens Road Well Field Area**

The AWF is approximately 8,200 feet north (downgradient) of the barrier wall and the IWF. The AWF was constructed as a series of 14 groundwater extraction wells screened in the Qal at seven paired well locations that span approximately 1,200 feet across two alluvial paleochannels located on either side of an UMCf ridge. The AWF was completed in March 2002 and continuous pumping began in mid-October of that year. The well pairs act in concert, with one well pumping while the adjacent well is used to measure water levels and monitor the effect of pumping on the aquifer. In September 2006, a fifteenth standalone well, ART-9, began full-time operation after groundwater elevations at the AWF dropped below a level where ART-6/6A could be effective. Wells ART-7B and PC-150 were connected to the AWF as part of the 2013 GWETS Optimization Project and began operating as extraction wells in October 2014 and November 2014, respectively. These two new wells were designed to address potential capture gaps identified as part of

the 2011-2012 Annual Performance Report (ENVIRON 2012). Further analysis of AWF performance following implementation of the 2013 GWETS Optimization Project was described in Attachment A of the 2014 Semi-Annual Performance Report (ENVIRON 2015b).

The average discharge rate for each AWF pumping well from July to December 2015 is shown in Table 2, along with the average annual discharge rates for the previous four years. The combined discharge rate of the AWF averaged 276.0 gpm from July to December 2015, which represented a decrease in extraction rate of approximately 10 gpm when compared with the prior reporting period. As seen in Table 4, this decrease is due primarily to lower total extraction rates in October 2015, during which time ART-1 was turned off and ART-2 flow rates were reduced as part of well field optimization activities related to implementation of the COP, which is further described in Section 6.6. Monthly average extraction rates ranged from 241.2 to 296.7 gpm during the reporting period. Over the last four and a half years of operation, the combined discharge of the AWF has averaged 279.2 gpm.

Groundwater levels are currently much lower than they were in 2002 before pumping began, and the Qal overlying the UMCf ridge has been partially dewatered. Historical groundwater level trends for selected wells are shown on Figure 3. In general, the water elevations at the west end of the AWF (measured in wells PC-18 and PC-55) increased during the reporting period, likely due to the effects of decreased extraction rates at ART-1 and ART-2. Water elevations observed in PC-122 at the east end of the AWF were generally consistent with trends observed during the prior reporting period.

### 2.3 Seep Well Field Area

The SWF and the seep capture sump,<sup>10</sup> located approximately 4,500 feet north (downgradient) of the AWF near the Las Vegas Wash, are shown on Figure 1a. When pumping began in July 2002, the SWF consisted of three extraction wells (PC-99R2/R3, PC-115R, and PC-116R) situated over the deepest part of the alluvial channel and a seep capture sump designed to capture an intermittent surface seep. Five additional wells (PC-117, PC-118, PC-119, PC-120, and PC-121) were completed in February 2003 and an additional well (PC-133) was completed in December 2004. Presently, the SWF consists of 10 extraction wells—two of which (PC-99R2 and PC-99R3) are connected and operate as one combined well. The wells comprising the SWF are screened across the full thickness of the Qal and across the deepest portion of an alluvial channel.

The SWF has been effective in lowering groundwater levels in the vicinity of the seep; as a result, the surface seep reportedly had not flowed since April 2007, although the location was not regularly inspected as part of the groundwater monitoring program. On February 4, 2015, NDEP reported that groundwater was discharging to the surface from the eastern side of the seep capture sump and overtopping the sump. This surface flow from the seep capture sump is likely the result of seasonal changes in the water table elevation, which may have been further aggravated by tamarisk removal efforts. As an interim response, pumping rates were increased at the east end of the SWF (wells PC-

<sup>10</sup> The seep capture sump was reportedly last operated in April 2007 and was decommissioned (pump removed and piping blocked) shortly thereafter. Currently only the seep sump remains.

133, PC-117, PC-116R, and PC-99R2/R3) in order to lower the water table in the vicinity and reduce the potential for future discharge from the sump. After one month of continuous increased pumping, water levels dropped to three inches below the rim of the seep capture sump<sup>11</sup>.

The average discharge rate for each SWF pumping well during July to December 2015 is shown in Table 3, along with the discharge rates for the previous four years. The combined discharge rate of the SWF averaged 529.3 gpm during the current reporting period, which is generally consistent with pumping rates during the prior reporting period. Average monthly extraction rates during the current reporting period ranged from 457.8 gpm to 568.7 gpm, with the lowest average extraction rate observed in November. Over the last four and a half years of operation, the combined discharge of the SWF averaged 534.4 gpm.

Groundwater levels at the SWF are currently lower than they were in 2001, before pumping began. Historical groundwater level trends for selected wells are shown on Figure 4<sup>12</sup>. Since approximately mid-2010, groundwater elevations at the SWF appear to be trending higher, although seasonal patterns are also apparent.

## 2.4 Groundwater Treatment Overview

Treatment of chromium-contaminated groundwater (primarily from the IWF) occurs via the on-site Groundwater Treatment Plant (GWTP),<sup>13</sup> which chemically reduces hexavalent chromium and removes total chromium via chemical precipitation. A small ferrous sulfate drip system, which was used at the AWF lift station (Lift Station #3) to treat chromium present (at lower concentrations) in groundwater extracted by the AWF, ceased operation in August 2014 after it was determined that the low concentrations of hexavalent chromium from the AWF did not require treatment ahead of the fluidized bed reactors (FBRs) (Tetra Tech 2014b). This change in operation, which is further discussed in Section 3.2, does not appear to have had a significant effect on overall GWETS performance.

Treatment of perchlorate-contaminated groundwater from all well fields occurs via the on-site FBRs, which biologically remove perchlorate as well as chlorate, nitrate, and trace concentrations of residual chromium. A simplified process flow diagram is presented on Figure 5. Monthly extraction rates for individual IWF, AWF, and SWF wells are presented

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<sup>11</sup> On April 7, 2015, the Trust submitted a memo to NDEP detailing the interim response actions near the seep and requesting permission to discontinue interim response measures due to the current hydraulic limitation of the GWETS and the anticipated implementation of the COP (NERT 2015). NDEP approved discontinuation of the interim measure on April 9, 2015 (NDEP 2015b) and SWF extraction rates were returned to normal on April 22, 2015

<sup>12</sup> During October 2015, the reported groundwater elevation for PC-91 was approximately 8 feet lower than current and historic trends. Groundwater elevations measured in this well during the preceding and following months are consistent with historic trends and do not indicate any drop in water elevations. Personnel with Envirogen also indicated they are not aware of any operational changes that would have impacted this well during the reporting period. As such, the October measurement has been omitted from Figure 4 as it does not appear representative of groundwater elevation trends, but is available in Table A-1 included in Appendix A.

<sup>13</sup> By convention, the "GWTP" consists of only the on-site hexavalent chromium treatment plant. The name pre-dates the installation of any of the perchlorate treatment systems and related components.



in Table 4.<sup>14</sup> Routine maintenance is completed as needed at the GWTP and FBRs. The performances of the chromium and perchlorate treatment systems are described in Sections 3.2 and 4.2, respectively.

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<sup>14</sup> The average total influent reported in Table 4 differs from the average total effluent of the GWETS. The discrepancy is the result of flow into and out of GW-11, evaporation from GW-11, and additions of stabilized Lake Mead water, which are used for various maintenance procedures. Perchlorate removal calculations are based on the extraction rates at each individual extraction well for the IWF, AWF, and SWF.

### 3. CHROMIUM CAPTURE AND TREATMENT

The components of the chromium capture system consist of the IWF, the barrier wall, and the AWF. As discussed previously, recharge trenches located downgradient of the barrier wall were formerly part of the chromium remediation system. The locations of these components are shown on Figure 1a. For the 6-month period lasting from July to December 2015, a total of approximately 1,260 pounds of chromium were captured and removed from groundwater. Chromium removal, reported herein, was determined using a revised methodology which has been approved by NDEP (Tetra Tech 2015b). The treatment of chromium-contaminated groundwater is discussed in Section 3.2.

#### 3.1 Chromium Plume Configuration

A chromium plume map is not included in this mid-period report. Plume maps are included as part of the detailed evaluation and presentation of data contained in the Annual Performance Report submitted in October of each year. This section presents data to supplement the 2014-2015 Annual Performance Report and the plume maps contained therein.

Table A-1 in Appendix A contains analytical and groundwater elevation data for the last five quarters. Appendix B contains well data sheets showing chromium concentration trends (as well as perchlorate concentrations and groundwater elevations) in individual wells over time.

Based on the fourth quarter 2015 chromium analytical results, the portion of the chromium plume with the highest concentrations remains south (upgradient) of the barrier wall where it is captured by the IWF. In this area, the highest chromium concentrations in shallow groundwater continued to be centered near the middle of the IWF in well I-T (23 milligrams per liter, or mg/L). North of the barrier wall, the highest total chromium concentration was 13 mg/L in groundwater collected from well M-73, located north of wells I-I and I-Z. North of the former recharge trenches, the highest total chromium concentration detected in fourth quarter 2015 was 2.3 mg/L in groundwater collected from well PC-54, located approximately 1,000 feet north (downgradient) of the Site and screened within the alluvium. This peak concentration is slightly higher than the concentration measured in fourth quarter 2014 (1.8 mg/L), but is lower than the prior peak concentration measured north of the former recharge trenches in fourth quarter 2014, which was 3.6 mg/L in well PC-136 located at the AWF. Total chromium concentrations in groundwater adjacent to well M-12A, located immediately north of Unit Building 4 on the upgradient edge of the main plume, have been generally declining since 2002 and have remained stable over the last year. At the end of the current reporting period, the total chromium concentration in groundwater collected from M-12A was 11 mg/L compared with 25 mg/L in May 2002.

In general, the overall lower concentrations observed in on-site wells located downgradient of the barrier wall compared with those upgradient indicate that the barrier wall and IWF are effectively limiting migration of the main portion of the chromium plume. The predominantly upward vertical gradients and the fact that the barrier wall is keyed into the UMCf are important factors that appear to limit flow beneath the barrier.

### 3.1.1 Interceptor Well Field Area

The IWF captures the highest concentrations and the main portion of the groundwater plume located downgradient of the on-site source areas. Figure 6 shows the concentrations of total chromium in groundwater extracted by the IWF pumping wells over the last five quarters. Chromium concentrations during the current reporting period were generally similar to previous quarters, with the exception of what appear to be anomalous results at well I-G in second and third quarter 2015 and at well I-D in third quarter 2015.

Chromium concentration data from groundwater samples collected from select wells (M-11, M-23, M-36, M-38, M-72, and M-86)<sup>15</sup> over time are presented in Figure 7. Groundwater samples collected from monitoring well M-11, located immediately downgradient of Unit Buildings 4 and 5, illustrate that concentrations have remained relatively stable over the last ten years with a concentration of 1.2 mg/L at the end of the current reporting period. Total chromium concentrations measured in groundwater from well M-38, located upgradient of the IWF, were consistent with recent concentrations observed over the last year (18 mg/L in November 2015). The concentration of chromium in groundwater collected from well M-72, located between the barrier wall and former recharge trenches has increased during the reporting period from a concentration of 8.8 mg/L in May 2015 to 12 mg/L in November 2015. Concentrations in M-72 have increased slightly since approximately November 2010, following the shutdown of recharge trenches in September 2010. This suggests that the former recharge trenches either diluted concentrations in these wells, prevented lateral migration through or around the barrier wall, or mitigated the upward diffusion of chromium from the UMCf. Further evaluation of the barrier wall's effectiveness is presented in Section 6.4.7.

### 3.1.2 Athens Road Well Field

The AWF is designed to intercept residual chromium in groundwater downgradient of the IWF and the Site. Based on total chromium concentrations in groundwater downgradient of the AWF, the system is operating effectively; nonetheless, as described in Attachment A of the 2014 Semi-Annual Performance Report, wells ART-7B and PC-150 were activated as extraction wells to enhance capture. Downgradient of the AWF in the Athens Road Piezometer or "ARP" well line, the highest measured concentration of total chromium during the fourth quarter 2015 sampling event was 0.46 mg/L in well ARP-6B. Chromium concentrations in MW-K4, located further west, were historically equal to or greater than the concentrations in ARP-6B. However, chromium concentrations in MW-K4 have decreased since fourth quarter 2014, following the activation of PC-150 as an extraction well. Fourth quarter 2015 concentrations at MW-K4 were 0.026 and 0.042 mg/L in November and December, respectively.

Figure 8 shows the concentrations of total chromium across the area of the eight AWF pumping wells in addition to monitoring wells PC-18, PC-55, PC-122, PC-148, and PC-149 over the last five quarters, where data are available. PC-148 and PC-149 are monitoring

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<sup>15</sup> These wells were selected because they are the five "Consent Order Appendix J Wells" that were historically presented for evaluating performance of the chromium mitigation program. Figure 7 has historically presented data for well M-36; however, M-36 was damaged in June 2013. Data collected from nearby well M-38 is presented in Figure 7 to replace M-36.

wells that are situated across the top of the UMCf ridge with screened intervals primarily within the UMCf. As shown on Figure 8, chromium concentrations in the western sub-channel (represented by wells west of PC-149) have been low relative to those in the eastern sub-channel (represented by wells east of PC-148). An additional extraction well, ART-9, was installed in this area in 2006 to capture this narrow channel of chromium-impacted groundwater.

### 3.1.3 Seep Well Field

Wells in the SWF continue to generally contain less than 0.01 mg/L total chromium. Total chromium concentrations east of the SWF are slightly higher, but remained relatively stable over the reporting period. For example, the concentration of total chromium in groundwater collected from monitoring well PC-94, located east of the well field, was measured at 0.041 mg/L in fourth quarter 2015, greater than the concentration in groundwater at any of the SWF extraction wells (the highest chromium concentration detected in the SWF during fourth quarter 2015, was 0.0068 mg/L in well PC-116R).

## 3.2 Chromium Treatment System

The operation and maintenance of the chromium treatment system, as well as the rest of the GWETS, has been performed by Envirogen since July 25, 2013. Prior to that date the GWETS was operated and maintained by Veolia.

Table 5 contains the July to December 2015 process treatment data from the on-site GWTP. The treated groundwater from the GWTP is pumped to the equalization tanks or GW-11,<sup>16</sup> where it is combined with water from the off-site groundwater collection systems (AWF and SWF). The blended water flows through activated carbon beds before being pumped to the FBRs for treatment to remove perchlorate, chlorate, nitrate, and residual chromium.

As shown in Table 5, the total monthly chromium inflow concentration to the GWTP for this reporting period has been relatively stable in the range of 7.4 to 8.7 mg/L, which is consistent with the range of 7.4 to 8.2 mg/L reported for July 2014 to June 2015. The chemical reduction of hexavalent chromium and removal of total chromium via the GWTP during the reporting period has been consistently effective. The average monthly total chromium outflow concentrations for the last 6 months ranged from 0.10 to 0.49 mg/L. All hexavalent chromium outflow concentrations during the reporting period were non-detect (<0.00025 mg/L). As seen in Table 5, for the period between July and December 2015, approximately 1,020 pounds of chromium were treated by the GWTP.

A trace amount of chromium is also removed in the FBRs. Results of total chromium analysis from weekly FBR influent and effluent samples are presented in Table 6. Based on an average influent total chromium concentration of 0.025 mg/L and an average flow

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<sup>16</sup> During the current reporting period, GW-11 operated as an equalization basin until September 2, 2015. When not operating as an equalization basin, groundwater enters the equalization tanks directly from Lift Station 2 and the GWTP. GW-11 started serving as an equalization basin again on October 9, 2015.

rate of 917 gpm,<sup>17</sup> the FBRs were receiving about 0.27 pounds of chromium per day from the equalization tanks.

As previously discussed, until August 2014 a small ferrous sulfate drip system was used to treat the relatively low concentrations of chromium present in groundwater extracted at the AWF. Initially, chromium concentrations in the FBR influent increased slightly after operation of the ferrous sulfate drip system ended in August 2014. However, concentrations decreased during the current reporting period and are now consistent with influent concentrations measured prior to August 2014. For comparison, between June 2013 and July 2014 (the year preceding shutdown of the AWF ferrous sulfate drip system), total chromium influent concentrations averaged 0.034 mg/L and the FBRs were receiving about 0.36 pounds of chromium per day from the equalization tanks.

Total and hexavalent chromium concentrations in the FBR effluent are well below the site's National Pollutant Discharge Elimination System (NPDES) permit requirements, as described below. The FBRs discharge treated water to the Las Vegas Wash just upgradient of the Pabco Road erosion control structure under authority of NPDES Permit NV0023060. Results of discharge monitoring performed between July and December 2015 are presented in Table 6. Effluent hexavalent chromium concentrations were between <0.00025 mg/L and 0.00029 mg/L during the current reporting period – well below the effluent discharge limitation of 0.01 mg/L (daily maximum). Total chromium was detected in effluent samples at concentrations ranging from <0.00025 to 0.098 mg/L and at an average concentration of 0.0085 mg/L – also well below the effluent discharge limitation of 0.1 mg/L (daily maximum).

The FBR system treated approximately 30 pounds of additional chromium over the 6-month period. The sum of the chromium treated between July and December 2015 by the GWTP and by the FBRs totaled approximately 1,050 pounds.

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<sup>17</sup> This flow rate is measured at the effluent totalizer and measures the throughput at the FBRs. This flow is not the same as the cumulative groundwater extraction rate as measured by the extraction well totalizers, since these readings do not account for flow into and out of GW-11, evaporation, and additions of stabilized Lake Mead water, which is used to maintain the mechanical pump seals.

## 4. PERCHLORATE CAPTURE AND TREATMENT

The components of the perchlorate capture system consist of the IWF, the barrier wall, the AWF, the SWF, and the seep capture sump.<sup>18</sup> As discussed previously, recharge trenches located downgradient of the barrier wall were formerly part of the GWETS. The locations of these components are shown on Figure 1a. Perchlorate mass removal, flow rate, and average concentration information for the IWF, AWF, and SWF are presented in Table 7. Figure 9 presents the monthly perchlorate recovery totals and the relative contribution of the IWF, AWF, and SWF.

During the period July to December 2015, a total of approximately 213,100 pounds of perchlorate (approximately 1,160 pounds per day [lbs/day]) were captured and removed from groundwater by the GWETS. Of this total, approximately 110,600 pounds (approximately 600 lbs/day) were captured by the IWF; approximately 89,300 pounds (approximately 490 lbs/day) were captured by the AWF; and approximately 13,300 pounds (approximately 70 lbs/day) were captured by the SWF. Perchlorate removal, reported herein, was determined using a revised methodology which has been approved by NDEP (Tetra Tech 2015b).

The perchlorate mass removal during the current reporting period indicates a gradual return to conditions as they existed prior to late 2012. Starting in September 2012 there was a significant increase in the mass of perchlorate captured and removed from groundwater due to a series of storm events between August and October 2012 and subsequent infiltration, primarily at the Central Retention Basin, but in other areas as well, causing mobilization of perchlorate from the vadose zone.<sup>19</sup>

### 4.1 Perchlorate Plume Configuration

A perchlorate plume map is not included in this mid-period report. Plume maps are included as part of the detailed evaluation and presentation of data contained in the Annual Performance Report submitted in October of each year. This section presents data to supplement the 2014-2015 Annual Performance Report and the plume maps contained therein.

Table A-1 in Appendix A contains analytical and groundwater elevation data for the last five quarters for wells monitored as part of the NERT groundwater monitoring program. Appendix B contains well data sheets showing perchlorate concentration trends (as well as chromium concentrations and groundwater elevations) in individual wells over time.

Based on fourth quarter 2015 perchlorate analytical results, the highest perchlorate concentration south (upgradient) of the barrier wall occurred in well I-AR (2,400 mg/L), in the western flank of the IWF, and near I-U (2,200 mg/L) near the center of the IWF.

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<sup>18</sup> As discussed in Section 1, the seep capture sump was decommissioned shortly after April 2007, which is when the sump reportedly last operated.

<sup>19</sup> Perchlorate captured and removed by the three well fields rapidly increased from approximately 1,300 lbs/day in August 2012 to 1,730 lbs/day in September 2012. In October 2012, perchlorate removal reached a peak of approximately 1,980 lbs/day. The effects of the storm events on groundwater conditions were discussed in previous performance reports beginning with the 2012 Semi-Annual Performance Report (ENVIRON 2013a).

As seen in Figure 10, perchlorate concentrations at the IWF have been relatively stable over the last five quarters with the exception of well I-G and I-T, which showed increased variability in concentrations during the reporting period.

North of the barrier wall, the highest perchlorate concentrations in fourth quarter 2015 were detected in well M-72 (1,300 mg/L) located immediately downgradient and near the center of the wall, and well M-71 (1,200 mg/L), which is also located immediately downgradient and near the mid-point of the wall. North of the former recharge trenches, the highest perchlorate concentration in fourth quarter 2015 was 800 mg/L in well M-44, located between Warm Springs Road and Boulder Highway. The highest perchlorate concentration reported at the SWF during fourth quarter 2015 was 21 mg/L in well PC-99R2/R3, which is located in the center of the well field.

#### 4.1.1 Interceptor Well Field Area

The IWF targets the highest concentrations of perchlorate at the Site. In general, perchlorate concentrations in groundwater downgradient of the IWF and barrier wall are significantly below concentrations observed in groundwater upgradient of these features. Figure 10 represents a west-east transect through the IWF and shows perchlorate concentrations from May 2002 compared to data for the last five quarters from the extraction wells. Seven of these wells (I-AA, I-AB, I-AC, I-AD, I-W, I-X, and I-Y) were activated as part of the 2013 GWETS Optimization Project. Following activation, extraction wells I-AB, I-AC, and I-AD were unable to achieve sustainable pumping rates and are currently idle.

Since November 2012, there has been significant variability in the perchlorate concentrations in the IWF wells due to a marked increase in perchlorate concentrations beginning in November 2012. A combination of factors is likely responsible for the observed increase and subsequent decrease in perchlorate concentrations within many of the IWF wells. These factors include high levels of precipitation during late 2012, the alteration of Site drainage patterns resulting from Site excavation and grading, and the potential mobilization of vadose zone perchlorate from infiltration at the Central Retention Basin. However, perchlorate concentrations have gradually decreased and are now consistent with levels prior to November 2012. During the reporting period, elevated perchlorate concentrations west of well I-M existed in a relatively narrow area centered on well I-AR, while the elevated perchlorate concentrations east of I-M typically spanned a broader area extending from wells I-E to I-I. This concentration profile is similar, but less pronounced than in the dashed red line in Figure 10 depicting the May 2002 data with the exception of wells I-M, I-I, and I-K, where perchlorate concentrations during the reporting period were higher than they were in 2002. Concentrations at I-K appear relatively stable over the last five quarters, while concentration ranges at wells I-I and I-M spanned 460 and 240 mg/L, respectively, during the last five quarters. These ranges are consistent with increased variability observed in perchlorate concentrations at the IWF since November 2012. Although higher variability remains compared to pre-November 2012 conditions, concentrations have become more stable recently. For comparison, measured perchlorate concentration ranges in wells I-I and I-M spanned 850 and 1,060 mg/L in the five quarters immediately following August 2012.

Figure 11 charts perchlorate concentrations for select wells at the IWF over time. The graph shows generally decreasing trends since sampling for perchlorate began in 2002. Figure 12 represents a west-to-east transect through wells immediately downgradient of the barrier wall and shows perchlorate concentrations from May 2000 compared to data for the last five quarters. Perchlorate concentrations in wells immediately downgradient of the barrier wall remained elevated during the reporting period compared to late-2012 conditions (concentrations were 690 mg/L in well M-71 in November 2012 and ranged between 940 mg/L and 1,200 mg/L during the current reporting period). The variability in concentrations measured during the reporting period is most pronounced in the central portion of the well line.

Figure 13 charts perchlorate concentration and water elevation trends in monitoring wells M-100 and M-23, located approximately 700 and 1,300 feet north (downgradient) of the former recharge trenches, respectively. Figure 13 indicates a sharp decrease in perchlorate concentrations in both wells beginning in early 2002, shortly after the barrier wall was installed at the IWF. Water level trends reflect infiltration and mounding of water recharged to the subsurface through the former recharge trenches. Clogging of the trenches and reduced infiltration are reflected in the decreasing water levels beginning in approximately May 2007. The trenches were subsequently refurbished in February 2008 and June 2009 with water levels in well M-100 quickly rebounding and water levels in well M-23 rebounding somewhat more slowly. Operation of the trenches was suspended in September 2010, which corresponds with decreases in water levels in both wells M-100 and M-23. Well M-100 has been dry since December 2010. The water level in well M-23 has decreased approximately eight feet since the trenches were shut down. Perchlorate concentrations in well M-100 remained relatively stable from 2008 through 2010. Perchlorate concentrations in well M-23 have decreased significantly since July 2006.

#### **4.1.2 Athens Road Well Field Area**

The AWF captures perchlorate in groundwater at concentrations generally less than 500 mg/L. A west-east transect through the AWF, which charts perchlorate concentrations for the last five quarters, is shown on Figure 14. Perchlorate concentrations in the AWF's eight pumping wells are shown, in addition to monitoring wells PC-18, PC-55, PC-122, PC-148, and PC-149. The pumping wells shown include PC-150, which was activated as an extraction well during the previous reporting period. As shown on the figure, perchlorate concentrations on the western (PC-55 and ART-1) and eastern (PC-122) edges of the well field remain relatively low, consistent with previously identified trends.

Figure 15 shows that overall perchlorate concentrations in the AWF have declined significantly since 2002. Slightly increased variability in concentrations was observed during the reporting period, as shown on Figure 15. Concentrations in individual wells fluctuate between sampling events, but for most wells these fluctuations have moderated with time.

Approximately 250 feet north of the AWF, eight wells comprise the Athens Road Piezometer or "ARP" well line. Perchlorate concentrations across the ARP well line are presented on Figure 16, and perchlorate concentrations in these wells over time are shown on Figure 17.



As shown on Figure 16, perchlorate concentrations in the western side of the well line (represented by ARP-1, ARP-2/2A, and ARP-3/3A) and the eastern side of the well line (represented by ARP-4/4A, ARP-5/5A, ARP-6/6A/6B and ARP-7) have significantly decreased since 2002, with the exception of ARP-6/6A/6B which had slightly elevated concentrations in fourth quarter 2015. This indicates that the AWF has been effective in capturing perchlorate contaminated groundwater in these sections of the plume. As shown on Figure 17, with the exception of wells MW-K4 and ARP-6/6A/6B, concentration trends in the ARP well line appear relatively stable. Concentrations in well MW-K4 initially declined with the onset of AWF operation in 2002 and dropped further when ART-9 began pumping in September 2006. Perchlorate concentrations in MW-K4 generally declined between January 2010 (300 mg/L) and December 2011 (150 mg/L), but rebounded during 2012, once again reaching 300 mg/L. These increases and decreases in perchlorate concentration in MW-K4 do not appear related to changes in water elevation. Analysis first presented in Appendix E of the 2011-2012 Annual Performance Report indicated that there could be a gap in the capture zone that may be responsible for the elevated concentrations in MW-K4 (ENVIRON 2012).

Perchlorate concentrations in MW-K4 declined during the current reporting period from 41 mg/L in July 2015 to 32 mg/L in December 2015, with a low of 23 mg/L measured in November 2015. Activation of upgradient extraction well PC-150 occurred in November 2014, and perchlorate concentrations have generally decreased following activation. In October 2014, the concentration in MW-K4 was 180 mg/L. No significant changes in perchlorate concentration were observed downgradient of well ART-7B, which was also activated as an extraction well during the current reporting period. However, ARP-6B exhibited slightly elevated concentrations in fourth quarter 2015. Preliminary data available for January and February 2016 indicate that these fourth quarter samples were likely anomalous, and concentrations have returned to levels consistent with historical trends.

Between the ARP well line and the SWF are the COH WRF well line (wells PC-103, PC-98R, MW-K5, PC-53) and the Lower Ponds monitoring well line (PC-68, PC-62, PC-59, PC-60, PC-56, PC-58), located approximately 2,200 and 4,400 feet north (downgradient) of the AWF, respectively. Perchlorate concentrations in the COH WRF wells on a west-east transect are shown on Figure 18. Figure 19 presents perchlorate concentration trends for these same wells over time. As shown in the figures, current perchlorate concentrations are well below levels measured in the same wells in May 2002, especially in the center of the well line (Figure 18). Figure 19 shows perchlorate concentrations at the COH WRF well line have been relatively stable or gradually increasing since mid-2007. A decrease in concentrations was observed in wells MW-K5 and PC-98R in December 2015. Groundwater elevations also increased by approximately 5.8 feet in PC-98R and 10.8 feet in MW-K5 in December. This sudden increase in water elevations and corresponding decrease in perchlorate concentrations is likely related to the Groundwater Bioremediation Treatability Study located upgradient of the COH WRF well line, for which the first injection event was conducted from November 30 through December 5, 2015 (Tetra Tech 2015h). According to Tetra Tech, the injection consisted of 75,000 gallons of chase water in addition to the carbon source. The decrease in concentrations is potentially due to dilution effects of the injections. This treatability study is further discussed in Section 8.

Figure 20 shows historical water elevations at the COH WRF well line in PC-98R. This figure indicates that many of the historical low-concentration events in the wells appear to be associated with a rapid increase in the water levels, likely the result of increased infiltration from the COH WRF surface ponds. The significant groundwater “mounding events” since 2008 (when the operation of the COH RIBs ceased) are not as pronounced as previous ones and are presumed to be related to operation of the COH Bird Viewing Ponds or due to seasonal fluctuation. Recently, the more moderate changes in groundwater elevations appear to have little effect on perchlorate concentrations. Overall, perchlorate concentrations in PC-98R have been gradually increasing since about 2009. Immediately upgradient from PC-98R is the location of the groundwater bioremediation pilot test intended to evaluate in-situ biological treatment for perchlorate (Tetra Tech 2015a). Pilot test injections began on November 30, 2015 with injection of emulsified vegetable oil into three separate injection wells. Initial results showed a decrease in perchlorate concentrations in nearby monitoring wells. A similar decrease in concentration, along with an increase in groundwater elevation, was observed in nearby well PC-98R in December 2015 as shown on Figure 20.

The Lower Ponds well line is approximately 2,200 feet north of the COH WRF well line. Figures 21 and 22, the perchlorate west-east transect and trend chart for the Lower Ponds well line, respectively, show that current perchlorate concentrations are well below levels measured in the same wells in May 2002, especially at well PC-56 (Figure 21). Figure 22 shows that perchlorate concentrations present in the Lower Ponds well line are generally low and, with the exception of well PC-56, have been relatively stable since 2007. Perchlorate concentrations in well PC-56 have historically been higher and more variable than in other wells on the Lower Ponds well line. The higher and more variable perchlorate concentrations in well PC-56 may be influenced by the well’s location with respect to a subsurface alluvial channel that runs north-south back towards the AWF. According to boring logs for these wells, the UMCf was encountered 12 to 20 feet deeper in PC-56 compared to nearby wells PC-58 and PC-60 suggesting it is within a narrow alluvial channel incised within the UMCf.

#### 4.1.3 Seep Well Field Area

At present, the SWF consists of 10 extraction wells – two of which (PC-99R2 and PC-99R3) are connected and operate as one – positioned over the deepest part of a broad alluvial channel. The well field is located approximately 600 feet upgradient of the seep capture sump. The original three recovery wells in the SWF (PC-99R2/R3, PC-115R, and PC-116R) commenced pumping in 2002. In 2003, five additional wells (PC-117, PC-118, PC-119, PC-120, and PC-121), and in 2005, one additional well (PC-133), were completed in the SWF. Wells PC-120 and PC-121, located at the west end of the SWF line and away from the deepest portion of the subsurface alluvial channel, have not been continuously pumped since 2005 due to their low perchlorate removal efficiencies when compared with other SWF wells. Wells PC-120 and PC-121 are turned on for sampling or when maintenance is performed on other SWF wells.

Figure 23 shows perchlorate concentrations along a west-east transect for the last five quarters along with concentrations for each well during its first month of operation. This transect shows that the plume configuration has remained relatively stable, with a broad

area of higher concentration centered on well PC-99R2/R3. Figure 24, which depicts perchlorate concentrations in each well, shows that perchlorate concentrations have significantly decreased since 2002. Perchlorate concentrations in PC-99R2/R3, PC-116R, and PC-117 remain relatively low but appear to be gradually increasing since about 2009 in a manner that is similar to upgradient well PC-56 (Figure 22) located at the Lower Ponds well line and PC-98R (Figure 20) located at the COH WRF well line.

SWF wells with lower concentrations of perchlorate (PC-119, PC-120, and PC-121) have been relatively stable with the exception of PC-133, which steadily increased from 0.63 mg/L in May 2012 to a high of 16.0 mg/L in February 2013. However, starting in March 2013, perchlorate concentrations in PC-133 decreased to a low of 1.5 mg/L in April 2014 before increasing to 14.0 mg/L by January 2015. From February 2015 to June 2015, the perchlorate concentrations in PC-133 remained between 9.0 mg/L and 11.0 mg/L, then dropped to between 0.8 and 1.1 mg/L for July through December 2015. PC-133 is on the eastern edge of the alluvial channel away from the other SWF pumping wells, which pump at significantly higher rates. It is further noted that PC-133 was rehabilitated on September 30, 2013 to remove roots from the well in an effort to increase its extraction rate; however, the work, which included swabbing and pumping the well and replacing the pump and motor with higher capacity units, did not result in an increase in the extraction rate. The reasons for these concentration fluctuations and extraction limitations are unclear, but will be further evaluated as part of the effort to quantify flows to the SWF, as described in section 6.4.4.

## 4.2 Perchlorate Treatment System

Throughout the reporting period, groundwater was captured both on-site and off-site, conveyed to the on-site treatment facilities, and treated biologically in the FBRs to remove perchlorate, chlorate, and nitrate. As previously shown in Figure 9, the majority of perchlorate capture at the Site happens via the IWF (110,600 pounds), followed by the AWF (89,300 pounds), and the SWF (13,300 pounds). The SWF contributes the highest flow to the GWETS (an average flow rate of 529.3 gpm between July and December 2015) compared with the IWF (an average flow rate of 60.7 gpm) and the AWF (an average flow rate of 276.0 gpm), but captures significantly lower concentrations of perchlorate (generally less than 12 mg/L).

As shown on Figure 25, the monthly average perchlorate concentrations captured at the IWF generally decreased from a high of about 1,890 mg/L in October 2002 to 732 mg/L in June 2012, the lowest recorded average concentration. The IWF's monthly average perchlorate concentration then doubled to 1,491 mg/L in December 2012. As reported previously, it is likely that additional perchlorate mass was mobilized via infiltration of storm water following the large rain events in the fall of 2012 leading to the high perchlorate concentrations and mass removals at the IWF. The calculated perchlorate mass removal has generally followed a similar trend. During the current reporting period, average concentrations in the IWF decreased from approximately 900 mg/L in July 2015 to 870 mg/L in December 2015, resulting in decreased mass removal. Mass removal was further reduced in November and December 2015, despite increased perchlorate concentrations, due to reduced extraction rates at the IWF as discussed in Section 2.1. Barring additional historic rain events or changes in system operation, it is

expected that the elevated perchlorate concentrations and mass removals will continue to decrease to levels similar to those prior to December 2012.

Figure 26 shows that perchlorate concentration and mass removal for the AWF have been decreasing since late 2002. During the current reporting period, concentrations and mass removal rates were relatively stable. In contrast to the IWF (Figure 25) where large increases and subsequent decreases in perchlorate concentrations and mass removal are evident starting in late 2012 following large rain events at that time, similar trends have not been observed at the AWF (Figure 26) in the succeeding years.

Figure 27 depicts a generally decreasing trend in monthly average perchlorate concentrations captured at the SWF from a high of approximately 82 mg/L in March 2003 to an average of approximately 11 mg/L between July and December 2015. The calculated perchlorate mass removal has generally followed a similar trend. The average perchlorate removal for the SWF during the current reporting period is approximately 110 pounds per month greater than the average reported for the previous reporting period from July 2014 to June 2015.

Effluent from the FBRs has been discharged into Las Vegas Wash within the limits specified in the NPDES NV0023060 discharge permit. As shown on Table 8, between July and December 2015, the perchlorate influent to the FBRs ranged from 65 mg/L to 110 mg/L. Perchlorate was not detected at concentrations exceeding the laboratory sample quantitation limit (SQL) (<0.0025 mg/L) in effluent discharged to Las Vegas Wash during the current reporting period.

On March 27, 2014, the GW-11 pond, which had been operated as a retention basin for both untreated groundwater and off-specification effluent, was altered to function as an influent equalization basin. The change was designed to provide hydraulic retention upstream of the GWETS process units and dampen fluctuations in influent loading. However, plugging of filtration equipment proved to be a significant hindrance to the modification and the use of GW-11 as an equalization basin ended on August 6, 2014. Envirogen subsequently identified modifications to the filtration system, including the use of automatic filters, which were fully implemented during the previous reporting period. GW-11 began operating as an equalization basin again in January 2015 and continued operating as such through the current reporting period, with the exception of September 2 through October 9 when GW-11 was bypassed due to clogging of the filters caused by boatman bugs (Tetra Tech 2015e). While the installation of the automatic filters improved filtering capabilities, boatman bugs continue to clog the filters in the spring and fall due to the lifecycle of the boatman bug. Since treatment of the water to remove the bugs would impact the micro-organism utilized in the FBRs, this problem is expected to continue.

## 5. TOTAL DISSOLVED SOLIDS

As shown in TDS plume maps presented as part of the 2014-2015 Annual Performance Report, the Site is located between two high TDS zones originating from off-site sources to the west and east.

Figure 28 is a west-east transect through the IWF which charts TDS concentrations over the last five quarters. A comparison of Figure 10 and Figure 28, which show perchlorate and TDS, respectively, in each of the IWF wells, indicates that a broad zone of high TDS in the central part of the IWF coincides with the eastern area of elevated perchlorate concentrations. As with perchlorate, concentrations of TDS generally returned to pre-November 2012 levels across the IWF during the current performance period with the exception of an anomalously high TDS reading in well I-AC in fourth quarter 2014.

Figure 29 is a west-east transect through the AWF which charts TDS concentrations for the last five quarters. The figure shows that two zones of higher TDS exist at the AWF: one centered on well ART-8 on the west side of the AWF and one at wells ART-7 and PC-122 on the east end of the AWF. Concentrations of TDS in AWF wells remained relatively stable during the reporting period, although concentrations in third quarter 2015 were slightly elevated in the central portion of the well field.

TDS concentrations in the SWF wells for the last five quarters are plotted on Figure 30. The highest TDS concentration during the reporting period (5,200 mg/L) was detected in well PC-99R2/R3 in July 2015. Higher TDS concentrations generally correspond with higher perchlorate concentrations in both AWF and SWF wells. TDS mapping and analysis in the northern portion of the plume, between the Bird Viewing Ponds and Las Vegas Wash, has also aided in interpretation of hydrologic conditions and the potential influence of surface water features, as further discussed in Section 6.4.4.

## 6. PERFORMANCE EVALUATION

This section provides an evaluation of the performance of the GWETS against a set of performance metrics developed in coordination with NDEP. These metrics are intended to establish a consistent framework for evaluating performance of the GWETS.

### 6.1 Performance Metrics

Performance metrics were developed as part of the 2013 GWETS Optimization Work Plan (ENVIRON 2013d), approved by NDEP on December 3, 2013 (NDEP 2013c). The metrics include those identified in the October 10, 2013 letter from NDEP (NDEP 2013b) commenting on the 2012-2013 Annual Performance Report, additional data requested in the April 9, 2014 letter from NDEP (NDEP 2014) on the 2013 Semi-Annual Performance Report, and additional metrics<sup>20</sup> identified by Ramboll Environ. The approved performance metrics are outlined below:

1. Monthly perchlorate and chromium mass removal rates from the IWF, AWF, and SWF;
2. Perchlorate and chromium plume mass estimates;
3. The concentrations at which the Site is achieving 90% and 99% capture of perchlorate and chromium;
4. Perchlorate and chromium capture efficiency of the IWF, AWF, and SWF;
5. Mass loading of perchlorate and chromium in the Las Vegas Wash at Northshore Road;
6. The fraction of mass loading in Las Vegas Wash at Northshore Road that originates from the Site;
7. The amount of surface water from Las Vegas Wash and the COH Bird Viewing Ponds that is being extracted by the SWF; and
8. The environmental footprint of the GWETS.

The numbering of the metrics presented above was done only for clarity and does not reflect prioritization. The metrics are discrete measures of performance that will be used to understand and adjust GWETS performance over time.

### 6.2 Groundwater Model

A key tool for developing and implementing the performance metrics is the groundwater model. The groundwater model for the Site was originally developed by Northgate Environmental Management, Inc. (Northgate) and documented in the Capture Zone Evaluation (CZE) Report (Northgate 2010). The model was approved on April 4, 2013 by NDEP (NDEP 2013a). As part of the 2013 GWETS Optimization Project, the model was refined and updated to recent steady-state conditions. The modeling work follows the 2013 GWETS Optimization Project Work Plan (ENVIRON 2013d). The updated model,

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<sup>20</sup> These metrics are separate and distinct from those being utilized as part of NERT's monthly GWETS operations reporting, which were included in Tetra Tech's Enhanced Operational Metrics Proposal dated August 20, 2014 (Tetra Tech 2014a).

known as the Phase I Model, was described in the 2013 Semi-Annual Performance Report (ENVIRON 2014a). A second phase of refinements and updates were made as described in Attachment A of the 2013-2014 Annual Performance Report (ENVIRON 2014c). A third phase of refinements and updates was presented in Attachment A of the 2014-2015 Annual Performance Report (Ramboll Environ 2015). The Phase 4 Model, which involves further refinement of the steady state model, is presented herein as Attachment A. The Phase 4 Model has recently been updated with average pumping rates for the third and fourth quarters of 2015 for evaluations presented in this report and shown in Tables 1 through 3. The pumping rates for OSSM, TIMET, and Endeavour wells over the same time period have also been incorporated. Following NDEP approval of the Phase 4 model, the transient groundwater model (Phase 5 model) will be developed as part of the RI effort.

### **6.3 Performance Evaluation Approach**

An overall approach for evaluating metrics was established in the 2013 GWETS Optimization Project Work Plan (ENVIRON 2013d) and was described in the 2013 Semi-Annual Performance Report (ENVIRON 2014a). The performance metrics are focused mainly on perchlorate because the perchlorate plume is the most spatially extensive (i.e., the spatial extent of the chromium plume is contained within the perchlorate plume) and perchlorate represents the more immediate threat to off-site receptors due to its potential impacts on Las Vegas Wash. This is consistent with the focus of previous capture zone evaluations at the Site. The evaluation of GWETS performance using the metrics is consistent with United States Environmental Protection Agency (USEPA) guidance on evaluating capture zones for groundwater pump and treat systems (USEPA 2008).

### **6.4 Evaluation of Performance**

In this section, the performance of the GWETS is discussed in relation to the metrics described in Section 6.1. The methodologies used for these evaluations are also described. This evaluation of performance also includes discussion of the operation of GW-11 in Section 6.4.6, as requested by NDEP in the April 9, 2014 comments on the 2013 Semi-Annual Performance Report (NDEP 2014), and an evaluation of the continuing performance of the barrier wall in Section 6.4.7.

#### **6.4.1 Mass Removal and Remaining Plume Mass**

During the period July through December 2015, approximately 213,100 pounds of perchlorate (approximately 1,160 lbs/day) were captured and removed from groundwater by the GWETS, as shown in Table 7. Of this total, approximately 110,600 pounds (approximately 600 lbs/day) were captured by the IWF; approximately 89,300 pounds (approximately 490 lbs/day) were captured by the AWF; and approximately 13,300 pounds (approximately 70 lbs/day) were captured by the SWF.

Tables 9 and 10 present perchlorate and chromium plume mass estimates<sup>21</sup> for 2002, 2006, 2012, 2014, and 2015. The mass estimates for 2015 were based on second quarter 2015 data and were originally presented in the 2014-2015 Annual Performance Report. Updated mass estimates will be presented as part of the 2015-2016 Annual Performance Report in October 2016.

The total plume masses as of second quarter 2015 are estimated to be 2,888 ± 754 tons for perchlorate and 20 ± 6 tons for chromium. Compared to the 2014 estimates, mass estimates increased in all areas in the Qal and UMCf for both perchlorate and chromium, except for the chromium estimate on-site in the UMCf, which appears to be due to the reinterpretation of the chromium concentration contour map. The increases in plume mass were caused by a combination of two factors: 1) the plume interpretation was altered based on the evaluation of available shallow groundwater data collected as part of the RI, and 2) the assumed thickness of the layers used in the estimate increased due to the refinement of the contact surface between the Qal and UMCf as a result of the COP subsurface conditions evaluation and Phase III model refinement. These two factors have caused mass estimates to change considerably from previous years. Currently, alternative mass estimation methods are being considered including those suggested by NDEP in their December 30, 2015 comments on the 2014-2015 Annual Performance Report (NDEP 2015d). Any changes to the mass estimation methodology will be discussed in the next Annual Performance Report.

#### 6.4.2 Capture Zone Evaluation and Estimated Mass Flux

Capture zones for each of the well fields were estimated in the Shallow, Middle, and Deep WBZs using forward particle tracking, calculated using MODPATH (Pollock 1994), and using the Phase 4 Model. Particles were released in the center of each model cell in model layers 1 and 2 (representing the Shallow WBZ), layers 3, 4, and 5 (representing the Middle WBZ), and layers 6 and 7 (representing the Deep WBZ). Capture zones for each well field were defined using an analysis of the particle tracking endpoints.

Based on pumping rates from the second half of 2015, simulated capture zones in the Shallow, Middle, and Deep WBZs are shown in Figure 31a, Figure 31b, and Figure 31c, respectively. In order to evaluate performance based on this metric, the simulated capture zones are compared to target capture zones, which were defined as the combination of the Site and Off-Site NERT RI Study Area<sup>22</sup>, outlined on Figures 31a, 31b, and 31c. Comparing the target capture zones to the simulated capture zones indicates that the combination of the IWF, AWF, and SWF almost completely capture groundwater within the Site and Off-Site NERT RI Study Area, except for a small area between the SWF and Las Vegas Wash, where the perchlorate concentrations are generally less than 10 mg/L (between 0.74 and 1.3 mg/L in PC-97 during the reporting period), and an area

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<sup>21</sup> Estimates of remaining plume mass were first presented in the 2012-2013 Annual Performance Report (ENVIRON 2013c) for years 2002, 2006, and 2012. No estimate of chromium mass for 2002 could be developed due to lack of data. Since 2013 plume mass estimates have been calculated annually as part of the Annual Performance Reports.

<sup>22</sup> The Off-Site NERT RI Study Area was formerly defined in the Remedial Investigation and Feasibility Study (RI/FS) Work Plan (ENVIRON 2014b) as the Downgradient Plume Area.



east of the SWF where perchlorate concentrations in groundwater collected from well PC-94 were approximately 20 mg/L during the reporting period.

To further evaluate the performance of each well field, perchlorate mass flux at the IWF, AWF, and SWF were estimated at three transects within the Site and Off-Site NERT RI Study Area, located just upgradient of each of the three respective well fields. The transect lines were drawn perpendicular to the groundwater flow and are shown on Figure 32a. Mass flux was calculated using the methods described in applicable guidance by the Interstate Technology and Regulatory Council (ITRC 2010). The distributions of perchlorate mass flux at the IWF, AWF, and SWF along these transects are shown in Figures 32b, 32c, and 32d, respectively.

Perchlorate mass flux across each transect was calculated differently depending on whether that portion of the transect was inside or outside of the simulated capture zone. The perchlorate mass flux within the capture zone was estimated by summing the mass loading at each extraction well, which was determined using the average pumping rates for fourth quarter 2015 and the perchlorate concentration measured in each well in November 2015. The estimates of perchlorate mass flux outside of the capture zone at each transect were calculated from modeled flow rates and interpolated concentrations. For each model cell on the transect, the flux was calculated as the product of the average perchlorate concentration for May 2015, modeled groundwater flow rate, model cell width, and the thickness of model layers 1, 2, 3, and 4, which includes the Qal and the estimated saturated thickness of perchlorate-impacted UMCf. Further, it was assumed that perchlorate has not reached the UMCf in the vicinity of the SWF. These assumptions were based on an examination of the vertical distribution of concentrations found at nested well locations, which are screened in both the Shallow and Middle WBZ. Using these approaches, the perchlorate mass fluxes within each capture zone are estimated as 621, 525, and 72 lbs/day for the IWF, AWF, and SWF, respectively, while the perchlorate mass fluxes outside each capture zone are estimated as 2.6, 17.1, and 5.3 lbs/day for the IWF, AWF, and SWF, respectively.

The overall capture efficiency of each well field was calculated as the ratio of the total captured mass flux to the total mass flux across each transect. The capture efficiencies of the IWF, AWF, and SWF were calculated as 99.6%, 96.9%, and 93.2%, respectively. The results show that during fourth quarter 2015, an estimated average of 5.3 lbs/day of perchlorate discharged into Las Vegas Wash from the Off-Site NERT RI Study Area. It is important to note this estimated perchlorate mass flux to Las Vegas Wash only accounts for perchlorate passing through the transects within the Off-Site NERT RI Study Area and not captured by the well fields. Therefore, any perchlorate outside of the boundary of the Off-Site NERT RI Study Area is not accounted for in this estimate. Mass loading to the Las Vegas Wash is greater than this estimate due to additional perchlorate sources outside the Off-Site NERT RI Study Area, including Endeavour's perchlorate plume and residual perchlorate from the Lower Ponds Area east of Pabco Road.

As requested in NDEP's April 9, 2014 letter on the 2013 Semi-Annual Performance Report (NDEP 2014), the mass flux across each transect was also estimated using an alternative calculation method, one based only on model-estimated groundwater flow rates and interpolated concentrations. Unlike the "baseline method" described above, the

alternative method does not use the calculated mass removal rates. Rather, a simple transport model was used to simulate migration of perchlorate in groundwater, considering advection only. Other transport processes, such as dispersion and diffusion, as well as external sources or sinks, were not considered. The transport model was developed using MT3DMS (Zheng 2010). Since the perchlorate plume is representative of perchlorate in the shallow WBZ, these concentrations are applied as initial perchlorate concentrations in model layers 1, 2, 3, and 4. However, for the SWF the mass flux is estimated for layer 1 only, as the concentration of perchlorate in the UMCf is assumed to be 0 in the vicinity of the SWF. For this purpose, the transport model is run for one day only. For comparison, the perchlorate mass captured at each well field using the extraction well mass removal rates (baseline method) and the alternative method is shown below:

	Baseline Method <sup>1</sup>		Alternative Method	
	Perchlorate Mass Captured (lbs/day)	Capture Efficiency	Perchlorate Mass Captured (lbs/day)	Capture Efficiency
<b>IWF</b>	621	99.6%	640	99.6%
<b>AWF</b>	525	96.9%	540	96.9%
<b>SWF</b>	72	93.2%	72	93.1%

<sup>1</sup> From average measured flow rates and average perchlorate concentrations at each well during fourth quarter 2015.

As shown in the table above, the estimate of the mass captured at the three well fields using the alternative method is consistent with the estimate of mass captured using the baseline method. The capture efficiencies of the IWF, AWF, and SWF using the alternative method were calculated as 99.6%, 96.9%, and 93.1%, respectively, which is consistent with the capture efficiencies calculated using the baseline method. The estimated average mass of perchlorate outside each capture zone is equivalent for both methods. While it is Ramboll Environ’s opinion that the baseline method, which uses average measured mass removal data from extraction wells, is likely to be most accurate, the alternative method described above provides good confirmation of the baseline method’s accuracy. The agreement between the two methods also provides validation of the Phase 4 Model refinements.

#### 6.4.3 Perchlorate Mass Loading to Las Vegas Wash

The water in the Las Vegas Wash is sampled for perchlorate monthly or quarterly at various locations by the GWETS operator (for compliance with the site’s NPDES permit) and by the Southern Nevada Water Authority (SNWA). Currently, perchlorate concentration and mass loading to Las Vegas Wash are reported to NDEP using data from Northshore Road, which is located approximately six river miles downstream of the SWF and just upstream from Lake Mead.

Based on the measured perchlorate concentrations in stream water and corresponding stream flow (at the time of chemical sampling), perchlorate mass loading was estimated

at the following three locations: Las Vegas Wasteway (LW8.85), Pabco Road (LW6.05), and Northshore Road (LW0.55). These sampling stations are co-located with United States Geological Survey (USGS) gauging stations and are shown on Figure 33a. Perchlorate mass entering the Las Vegas Wash at any point will include groundwater discharge from the Off-Site NERT RI Study Area, as well as other sources, such as bank storage, wash gravels, residual perchlorate from the Lower Ponds Area east of Pabco Road, and Endeavour's perchlorate plume. This analysis does not attempt to identify the various sources of perchlorate, but is intended only to identify the general areas where perchlorate may be entering the Las Vegas Wash. Mass loading at the Las Vegas Wasteway stream gauging station, located about 2.8 river miles upstream of the SWF, is used to estimate background levels of perchlorate. Mass loading at Pabco Road can be used to evaluate the portion of the perchlorate mass loading resulting from sources upstream of Pabco Road.

Annual perchlorate mass loading at the three stations (Northshore Road, Pabco Road and Las Vegas Wasteway) for each year (July through June) are presented in Table 11. From July 2014 through June 2015, the average perchlorate mass loading was 1.2 lbs/day at Las Vegas Wasteway, 20.6 lbs/day at Pabco Road, and 61.1 lbs/day at Northshore Road. Thus, this analysis indicates that approximately 32% of the mass loading measured at Northshore Road can generally be attributed to mass entering the Las Vegas Wash between the Las Vegas Wasteway and Pabco Road stations, while approximately 66% can be attributed to mass entering Las Vegas Wash between the Pabco Road and Northshore Road stations for this reporting period. Figure 33b shows the perchlorate concentrations in the Las Vegas Wash and in the SNWA groundwater monitoring wells along the length of the wash from the Las Vegas Wasteway to Lake Mead from fourth quarter 2015, as well as average mass loading at the three stations for the current reporting period.

The estimated average perchlorate mass loading to Las Vegas Wash during the reporting period between Las Vegas Wasteway and Pabco Road is 19.4 lbs/d. This number is larger than the estimated 6.5 lbs/d discharged to the Las Vegas Wash through the transects discussed in Section 6.4.2 because it accounts for additional sources of perchlorate loading outside of the Off-Site NERT RI Study Area, including Endeavour's perchlorate plume. According to Endeavour's recent monitoring and performance report, Endeavour's average perchlorate loading to the Athens Drainage Channel was 9.9 lbs/day from August to December 2015 (Endeavour 2016, pg. 12). Endeavour additionally reported that the perchlorate loading not captured in shallow groundwater was 4 to 5 lbs/day in the second half of 2015 (Endeavour 2016, pg. 18).

#### **6.4.4 Surface Water and Groundwater Interaction Near the SWF**

Because the SWF is located near two surface water bodies (Las Vegas Wash and the COH Bird Viewing Ponds), pumping at the SWF has the potential to induce water originating at these two surface water bodies to flow into the SWF extraction wells. Since the surface water from both the Las Vegas Wash and the COH Bird Viewing Ponds is comprised primarily of treated municipal wastewater effluent, minimization of these inflows would potentially allow a greater percentage of the capacity of the SWF to be used for plume capture.

Recent performance reports evaluated whether surface water is potentially being pulled into the SWF from Las Vegas Wash by comparing groundwater elevations in shallow monitoring wells near the SWF and stream stage at the Pabco Road weir, located approximately 1,000 feet downstream of the SWF (ENVIRON 2014a, 2014c, 2015a, Ramboll Environ 2015). The evaluation presented in the performance reports indicated that by 2007, groundwater elevations in nearby monitoring wells were generally below the stream stage calculated from the stream gauging height recorded by the USGS at Pabco Road weir (USGS # 09419700). However, in 2015 the benchmark for the Pabco Road stream gauge was resurveyed by Ramboll Environ as part of RI field activities. Based on the survey results and additional information received from the USGS, the Pabco Road stage measurements presented previously were adjusted downward by approximately 7 feet.

A comparison of groundwater elevations measured in nearby shallow monitoring wells with the adjusted stream stage elevations is shown in Figure 34. Using the relative locations and elevations of the stream stage at Pabco Road weir and groundwater elevations of SNWA wells adjacent to the wash (WMW-6.15S and WMW-6.55S), a slope of 0.004 feet/foot was calculated, which can be applied as a correction to the stream stage when comparing it to a well upstream of the Pabco Road weir. After adjusting the stream stage, groundwater elevations in the vicinity of the SWF appear to be below the stream stage at PC-94 and above the stream stage at PC-91 and PC-97.

Apart from surface water potentially being pulled into the SWF from the Las Vegas Wash, the SWF appears currently to draw a significant quantity of water from the COH Bird Viewing Ponds, which are located hydraulically upgradient. A region of groundwater containing low concentrations of TDS (<2,500 mg/L) originating at the COH Bird Viewing Ponds extends to the SWF, as shown on the TDS plume map presented as part of the 2014-2015 Annual Performance Report (Plate 8). In May 2015, effluent wastewater discharged to the COH Bird Viewing Ponds contained 1,170 mg/L of TDS (COH 2015), which is distinct from the higher TDS concentrations found in groundwater typically ranging from 2,500 to 5,000 mg/L. Thus, TDS values less than 2,500 mg/L in groundwater provide a reliable indicator of the presence of surface water originating from the COH Bird Viewing Ponds. The low TDS region in groundwater extending from the COH Bird Viewing Ponds to the SWF along the expected direction of groundwater flow is strong evidence that the SWF is extracting a significant amount of COH Bird Viewing Pond water.

Additional analysis of the fraction of surface water extracted by the SWF was presented as part of the 2014-2015 Annual Performance Report. Full and modified Piper diagrams presented in that report suggest that three distinct water types (groundwater, Las Vegas Wash, and effluent from the Bird Viewing Ponds) are likely mixing at the SWF. The amount of water originating at the COH Bird Viewing Ponds and subsequently captured by the SWF was quantified using the Phase 4 Model presented as Attachment A. Under conditions in the second half of 2015, the Phase 4 Model indicates that approximately 39% of water extracted at the SWF originates from the COH Bird Viewing Ponds. Results of a simple mixing calculation between surface water (either from the COH Bird Viewing Ponds or the Las Vegas Wash) and groundwater using TDS as an indicator compound, originally presented as part of the 2013 GWETS Optimization Report (ENVIRON 2015b),

support the findings of the model. However, the use of TDS alone as a tracer cannot differentiate COH Bird Viewing Pond water from Las Vegas Wash water.

In response to the 2014 Semi-Annual Remedial Performance Report and the 2015 Annual Remedial Performance Report, NDEP requested that the Trust refine estimates of the sources of SWF flow by quantifying individual contributions of the Las Vegas Wash and the COH Bird Viewing Ponds to SWF extraction, as well as investigate the possibility of distinct groundwater sources from the shallow and deep zones (NDEP 2015c, 2015d). Conductance, temperature, and depth (CTD) loggers were deployed in October 2015 in the vicinity of the SWF and the Las Vegas Wash to address data gaps prohibiting adequate quantification of flows. Additional sampling of shallow and deep groundwater was conducted in the vicinity of the SWF, Las Vegas Wash, and the COH Bird Viewing Ponds in February 2016. Surface water samples were also collected in February 2016 from the COH Bird Viewing Ponds and the Las Vegas Wash. As it becomes available, the data from these sampling events will be used to support the quantification of flows to be evaluated and reported in the 2015-2016 Annual Performance Report.

#### **6.4.5 Environmental Footprint**

For the current reporting period, an inventory of energy and materials used, wastes generated, and activities and services conducted at the Site was compiled for the purpose of an environmental footprint analysis. This inventory is available in Appendix F. This inventory was compiled using methodology and formats previously specified by USEPA and NDEP for the July 2011 to June 2012 environmental footprint analysis, which was submitted in August 2013 (ENVIRON 2013b).

Based on information compiled for the July to December 2015 environmental footprint analysis, which documents energy and materials used at the Site, the GWETS used approximately 2.0 million kilowatt hours (kWh) and the wells and pump stations used approximately 0.7 million kWh during the reporting period. Monthly energy use by the GWETS varied from 317,326 to 354,168 kWh between July and December 2015. Monthly use by the wells and lift stations varied from 98,410 to 123,631 kWh during the same period. During the July to December 2015 performance period, approximately 12.4 kWh of electricity were used for each pound of perchlorate removed, which is slightly higher than the 10.3 kWh of electricity used per pound of perchlorate removed from July 2013 to June 2014.

Additional information compiled for this expanded environmental footprint analysis includes materials usage, water usage, wastes generated, personnel transportation, laboratory analyses, and total perchlorate and chromium removed from the environment. Materials usage information provided by Envirogen comprises data related to process materials used for GWETS operations, including approximate quantities used, location of manufacture, chemical properties, and formulation information. Water usage estimates were derived from the GWETS Field Spreadsheet, maintained by Envirogen and Tetra Tech, and account for water extracted by the GWETS in addition to Lake Mead water used for various maintenance, operational, and ancillary purposes. Wastes generated include FBR sludge, GWTP sludge, spent Granular Activated Carbon (GAC), and spent Nessler Reagent, for which waste quantity estimates were provided by Envirogen or retrieved from fourth quarter 2015 compliance submittals. Additional estimates were made by

Ramboll Environ, Envirogen, and Tetra Tech regarding personnel transportation and fuel usage on-site. The number of analyses performed per analyte during the reporting period was retrieved from the analytical database maintained by Ramboll Environ.

#### **6.4.6 GW-11's Operation as an Equalization Basin**

On March 27, 2014, the GW-11 pond, which had previously served as a retention basin for untreated groundwater and off-specification effluent, was altered to function as an influent equalization basin, as discussed in Section 4.2. GW-11's use as an equalization basin was temporarily halted on August 6, 2014 after plugging of filtration equipment. Subsequent modifications to the intake filtration system enabled GW-11 to begin operating as an equalization basin again on January 6, 2015. The system was taken offline again from January 29 to February 4, 2015 to perform additional modifications to the filtration system and from April 8 to April 10, 2015 during installation of the new GW-11 influent flow meter and sample tap as part of the Enhanced Operational Metrics project. During the current reporting period, GW-11 consistently operated as an equalization basin, with the exception of September 2 through October 9 when GW-11 was bypassed due to clogging of the filters (Tetra Tech 2015e).

As shown in Table 12, GW-11 water volume and level were monitored on an approximately weekly to bi-weekly basis during the reporting period and average influent and effluent flow were calculated on a monthly basis. Estimated evaporation rates for GW-11, which were calculated using the pond's surface area and published pan evaporation rates (Shevenell 1996), were also included to more fully explain changes in GW-11's volume. The total volume of water in GW-11 decreased by approximately 4.4 million gallons during the reporting period from a high of approximately 47.9 million gallons in early July 2015 to 43.6 million gallons in late December 2015, reaching a minimum volume of 43.1 million gallons in November 2015. GW-11 did not operate as an equalization basin from September 2 to October 9, 2015, causing a decrease in influent flow during this timeframe.

As presented in Table 13, Envirogen collected approximately monthly single-point grab samples via the GW-11 effluent piping, which were analyzed for a reduced list of analytes (perchlorate, chlorate, nitrate, total chromium, and hexavalent chromium). In late July 2014, Tetra Tech<sup>23</sup> initiated collection of four-point composite samples which were analyzed for the full suite of analytes requested by NDEP. An initial composite sample was collected on July 25, 2014, and monthly sampling was initiated after GW-11 began operating as an equalization basin on January 6, 2015. The composite sampling frequency was adjusted to quarterly beginning in October 2015. The perchlorate mass in GW-11 presented in Table 14 was calculated using perchlorate concentration data (as presented in Table 13) and GW-11 pond volume data (presented in Table 12). Measured perchlorate concentrations generally ranged from 72 mg/L to 100 mg/L during the reporting period, with one anomalously high composite sample of 700 mg/L measured in August 2015. The August 2015 sample was deemed to not be representative of actual

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<sup>23</sup> Starting in May 2014, Tetra Tech began overseeing Envirogen's groundwater sampling activities and operation of the GWETS.

GW-11 pond water and, therefore, was excluded from the mass estimate calculation presented in Table 14.

In addition to regular analytical monitoring of GW-11, Tetra Tech continues to evaluate the integrity of GW-11 leak detection pipes, as described in the monthly GWETS Operation Reports submitted to NDEP. During the reporting period, Tetra Tech conducted high resolution camera surveys of the northeast, northwest, southeast, and southwest sumps and made subsequent recommendations to repair the northeast sump riser pump and reset the southwest, northwest, and northeast pumps to a lower depth. The pump in the northeast corner has been reset by Envirogen. The Trust is currently working with Envirogen to reset the well pumps in the northwest and southwest corners to the base of each well.

#### **6.4.7 Analysis of Barrier Wall Performance**

Performance of the barrier wall at the IWF was evaluated using groundwater elevation data from wells immediately upgradient and downgradient, as well as perchlorate concentration data in these same wells. Groundwater elevation data were plotted over time for the same paired wells presented in Figures 2a through 2f. As shown on Figures 35a through 35f, perchlorate concentration data have been added to these hydrographs for the downgradient wells and for additional extraction wells upgradient of the barrier wall. These data are presented in Figures 35a through 35f.

The primary measure of the barrier wall's effectiveness is the change in potentiometric surface across the wall (i.e., the difference in water elevations between the upgradient and downgradient wells). During this period of performance, the elevation difference ranged from approximately four to eleven feet, with the lowest elevation difference on the west side of the barrier wall near the M-167/M-69 well pair (Figure 35a) and the highest elevation difference on the east side of the barrier wall near the M-67/M-73 well pair (Figure 35e). While water elevations vary in response to precipitation events in the vicinity of the IWF, the relative elevations in the well pairs have remained reasonably constant (i.e., the groundwater elevations in the upgradient and downgradient wells rise and fall in tandem). Prior to September 2008, the elevation differences were more variable due to the operation of the recharge trenches. Towards the end of the current reporting period, groundwater elevations upgradient of the barrier wall increased slightly, potentially due to decreased extraction rates at the IWF.

Although the hydraulic data suggest that the barrier wall is an effective barrier to groundwater flow, concentrations in downgradient wells have increased since the end of 2012, most notably in M-69, M-70, and M-71. From 2012 through 2014, the increases in concentration in downgradient wells generally followed similar trends as those in the upgradient wells. As discussed in the 2012-2013 Annual and 2013 Semi-Annual Reports, these increased concentrations were believed to be related to mobilization of soil-bound perchlorate as a result of heavy rains in the fall and winter of 2012 (ENVIRON 2013c; ENVIRON 2014a).

An initial evaluation of barrier wall effectiveness included in the 2013-2014 Annual Performance Report concluded that although the concentration data is consistent with leakage past the wall, the hydraulic data did not support this interpretation. For leakage

to occur, it is expected that there first be a hydraulic response (an increase in head) in the upgradient wells followed by a similar hydraulic response in the downgradient wells. In fact, the data showed the opposite—the hydraulic response was seen first in the downgradient wells.

During the current report period, perchlorate concentrations downgradient of the barrier wall generally increased while concentrations upgradient have been generally decreasing. Downgradient concentrations are now similar to (and in certain areas greater than) upgradient concentrations, as shown on Figures 35b through 35e. The source of the increasing downgradient concentrations is unclear, but appears to be related to shutdown of the recharge trenches, which when operating may have either diluted concentrations in these wells, prevented migration through or around the barrier wall, or mitigated the upward diffusion of perchlorate from the UMCf. Ramboll Environ has identified the area downgradient of the barrier wall as a data gap during the course of the ongoing RI data evaluation, and therefore it will be further addressed as part of the Phase 2 RI data gap investigation. The performance of the barrier wall, including the potential to re-initiate artificial recharge via trenches or other means, is currently being evaluated.

## **6.5 Summary of GWETS Performance Evaluation**

A summary of the performance metrics is shown in Table 15. The performance metrics for GWETS described above will be used to adjust the operation of the GWETS to more effectively and efficiently meet the performance objectives during the COP.

## **6.6 Continuous Optimization Program**

In January 2015, NDEP required the Trust to initiate a COP to enhance the performance and efficiency of the GWETS (NDEP 2015a). In January 2016, the Trust submitted the COP 2015 Annual Summary Report to NDEP (NERT 2016). In support of the COP, several major tasks have been completed in 2015, including a subsurface conditions evaluation; a hydrogeologic evaluation; an evaluation of extraction system infrastructure, capacity, and technology; and initial optimization of the AWF and SWF.

In May through August 2015, Ramboll Environ conducted a subsurface conditions evaluation and a hydrogeologic evaluation in order to compile and evaluate pertinent historical data regarding hydrogeologic conditions at the Site and in the Off-Site NERT RI Study Area. The subsurface conditions evaluation included the compilation of extensive historical data regarding soil boring and well construction details, and the refinement of the interpretation of subsurface conditions, including updated interpretations of the paleochannel configuration and the contact surface between the UMCf and the Qal. The hydrogeologic evaluation included compilation of previously conducted aquifer testing in each groundwater bearing zone, analysis of the variance of hydraulic conductivity across each extraction well field, and an evaluation of previous capture zone analyses to identify limitations or constraints that would affect the reliability of capture zone results. Based on these evaluations, additional recommendations have been made to address identified data gaps. The conclusions drawn from these efforts were incorporated into the Phase III Model Refinement, as described in Attachment A of the 2014-2015 Annual Performance Report (Ramboll Environ 2015), and also the Phase 4 Model Refinement included with this submittal as Attachment A. All future groundwater modeling efforts, including



development of the transient Phase 5 Model will benefit from these evaluations. The results of these evaluations were also incorporated into three-dimensional (3D) visualization tools, which will be used to further refine and understand the conceptual site model.

In August 2015, Tetra Tech submitted the Infrastructure Audit and Data Accessibility Report for the GWETS on behalf of the Trust to NDEP (Tetra Tech 2015d), which was approved by NDEP on November 2, 2015. This report evaluated the hydraulic and mass loading capacities of the GWETS components and reviewed potential limitations to utilizing the full capacity of the GWETS, including infrastructure-related restrictions and potential points of failure. Based on the findings of this evaluation, the Trust will implement various infrastructure and monitoring system improvements in 2016, including the inspection of all extraction well pumps to optimize extraction rates; the establishment of a well maintenance program to evaluate the condition of wells for their intended purpose; the installation of a larger backup pump at Lift Station 2 to accommodate both SWF and AWF flows; replacement of both submersible pumps at Lift Station 3 to accommodate larger flow rates; evaluation of the effluent pump and pipeline system to identify physical limitations; installation of additional flow meters on the effluent pipeline, diversion pipeline to GW-11, and D1 Building sump discharge pipeline to improve the accuracy of water balance calculations; installation of equipment to improve GW-11 pond stage measurements; and installation of network infrastructure to allow for accessing recent GWETS data via the web.

Well field optimization efforts for the AWF and SWF were also initiated in 2015. Extraction rates at the AWF were initially adjusted in September 2015. Following these adjustments, additional field investigations (step drawdown tests and an evaluation of pump specifications) were conducted to inform optimization efforts. Several potential pumping scenarios were developed based on the results of these field investigations, and evaluated based on perchlorate plume mass captured and instantaneous mass removal rate. Optimized pumping rates for the AWF will be implemented in 2016, and will focus on increasing extraction at wells with relatively higher perchlorate concentrations. A similar evaluation was conducted for the SWF to develop alternative pumping scenarios. This initial evaluation focused on groundwater extraction rate reductions that would decrease surface water captured by the SWF originating from the Las Vegas Wash and the COH Bird Viewing Ponds.

## 7. CONCLUSIONS

The GWETS consists of three groundwater capture well fields: the IWF, the AWF, and the SWF. The IWF coupled with the barrier wall provides capture of the highest concentrations of perchlorate and chromium at the Site and significantly reduces the amount of perchlorate and chromium in downgradient groundwater. The off-site AWF, located approximately 8,200 feet downgradient of the IWF, has operated since October 2002. The AWF captures significantly lower concentrations of both perchlorate and chromium, but operates at higher extraction rates compared with the IWF and contributes significantly to the overall mass of perchlorate removed from the environment and mitigates its migration in groundwater. The SWF, located over a broad alluvium channel in close proximity to Las Vegas Wash, operates at the highest flow rate (average of 529.3 gpm between July and December 2015) compared with the IWF (60.7 gpm) and the AWF (276.0 gpm), but captures groundwater containing significantly lower perchlorate concentrations.

Treatment of chromium-contaminated groundwater captured by the IWF occurs via the on-site GWTP, which chemically reduces hexavalent chromium and removes total chromium. Treatment of perchlorate-contaminated groundwater from all well fields occurs via the on-site FBRs, which biologically remove perchlorate as well as chlorate and nitrate. The FBRs also remove lesser amounts of residual chromium.

For the 6-month period ending in December 2015, a total of approximately 1,260 pounds of chromium were captured and removed from groundwater by all three well fields. Treatment at the on-site GWTP has treated approximately 1,020 pounds of chromium. Adding the approximately 30 pounds of chromium treated by the FBRs for the same period, a total of approximately 1,050 pounds of chromium were treated between July and December 2015.

For the same 6-month period, the capture of perchlorate-contaminated groundwater from all three well fields, and biological treatment in the on-site FBRs, has removed a total of approximately 213,100 pounds of perchlorate from the environment. This was a 16.6% decrease from the 255,600 pounds of perchlorate removed between July and December 2014, and a 21.8% decrease from the 272,430 pounds of perchlorate removed between July and December 2013. The decrease in removal is primarily the result of decreased extraction rates during the reporting period, as discussed in Sections 2.1, 2.2, and 2.3, and lower average perchlorate concentrations at the IWF.

The performance metrics developed as part of the 2013 GWETS Optimization Project and described in Section 6 will continue to be used for quantitatively evaluating performance of the GWETS on a comparative basis moving forward. As discussed in Section 6.4.1, the plume interpretation was altered in the 2014-2015 Annual Performance Report to incorporate available shallow groundwater data from the RI and information from the COP subsurface evaluations. As a result, plume mass estimates have changed considerably from previous years. Therefore, the current mass estimates (although more accurate) are not comparable to previous estimates. Currently, alternative mass estimation methods are being considered including those suggested by NDEP in their December 30, 2015 comments on the 2014-2015 Annual Performance Report (NDEP

2015d). Any changes to the mass estimation methodology will be discussed in the next Annual Performance Report.

In 2015, the COP was established and implemented for the purpose of enhancing the performance and efficiency of the GWETS. As discussed in Section 6.6, many initiatives under the COP have been successfully completed in 2015. Most notably, the subsurface conditions evaluation and hydrogeologic evaluation have provided critical information for the development of the Phase 4 Model Refinement included with this submittal as Attachment A.

## 8. PROPOSED FUTURE ACTIVITIES

With the exception of the RI activities associated with the Unit 4 and 5 Buildings, field activities related to the initial phase of the RI have been completed. Information from the groundwater, soil, and soil gas sampling programs, which includes approximately 450 soil and 250 groundwater samples, will be incorporated into an interim RI technical memorandum and ultimately, the RI Report. Data from approximately 1,750 soil borings have also been incorporated into a 3D visualization for the Site. This model will continue to be refined using historical information on the use of ditches, surface impoundments, and subsurface paleochannels.

Further field investigation activities will be developed as part of the Phase 2 RI data gap investigation to address data gaps found through evaluation of the information collected in Phase I. Ramboll Environ also anticipates developing a transient groundwater flow and contaminant transport model (the transient Phase 5 model) and submitting it as an Attachment to the 2015-2016 Annual Remedial Performance Report in October 2016.

AECOM has begun implementation of an investigation of the Downgradient Study Area expanding upon the NERT Phase I RI. The Downgradient Study Area investigation is intended to determine the extent of elevated constituents, associated with historical operations at the Site, but outside of the Off-Site NERT RI Study Area defined in the RI/FS Work Plan (ENVIRON 2014b). The results of this investigation will be reported by Ramboll Environ in a single comprehensive RI report to be submitted in late 2018.

Ramboll Environ prepared the 2016 Groundwater Monitoring Optimization (GWMO) Plan, included as Attachment B, to propose changes to the current groundwater monitoring program. The proposed changes are intended to optimize the existing program, which will enhance understanding of the conceptual site model and reduce inefficiencies in data collection and interpretation. Assuming NDEP approval of the 2016 GWMO Plan is received within 60 days of submittal, it is anticipated that well inspections and resurveying can be completed in third quarter of 2016 and the proposed groundwater monitoring program will be implemented in fourth quarter 2016.

The feasibility of groundwater perchlorate bioremediation using a slow-release carbon substrate is currently being investigated as part of the Groundwater Bioremediation Treatability Study (Tetra Tech 2015a). The treatability study is located near the COH Bird Viewing Ponds, upgradient of the COH WRF well line. Carbon substrate injections began on November 30, 2015 into three separate injection wells. Initial results showed a decrease in perchlorate concentrations in nearby monitoring wells. The treatability study will operate for a total of six months, and the results will be reported later in 2016. Based on the preliminary results of this study, a second bioremediation treatability study is planned adjacent to the SWF with the objective of testing this technology in a different geologic setting from the 2015 study area and reducing perchlorate loading to Las Vegas Wash.

Natural soil flushing in the Central Retention Basin was examined in August 2015, the purpose of which was to determine the effects of monsoon storm events on perchlorate concentrations in groundwater (Tetra Tech 2015g). Results showed no significant change

in groundwater perchlorate levels between August 14 (the day of the storm event) and 26, 2015. However, storm water from the rain event may not have infiltrated sufficiently to reach the water table. Additional study may be warranted if a larger storm event results in a minimum of eight inches of water accumulation within the Central Retention Basin. A soil flushing treatability study in the Central Retention Basin, consisting of four test plots that will have varying flow rates applied, is currently underway. Soil flushing at these test plots began in December 2015, and results will be reported later in 2016. Based on the results of this study, an expanded soil flushing pilot study is proposed in the Central Retention Basin in order to evaluate the potential to use a blend of GWETS effluent and stabilized Lake Mead water as a flushing agent. NERT will also be implementing a soil flushing Interim Remedial Measure within the former Ammonium Perchlorate manufacturing area designed to increase perchlorate mass removal. An in-situ chromium treatability study is also planned for the Central Retention Basin area, with the goal of reducing chromium loading to the GWTP. Mobilization for this study is tentatively scheduled for mid-2016.

The Enhanced Operational Metrics project (installation of new meters, valves, and improved control system at the IWF and AWF) was partially implemented in 2015. Further proposed improvements for 2016 include, 1) installation of additional flow meters and lift station pumps, 2) enabling real-time monitoring of the GWETS, and 3) improving data access capabilities with a web-based tool. Additional infrastructure improvements and well field optimization efforts are also planned for 2016 as part of the COP, as discussed in Section 6.6.

Deployment of an ion exchange (IX) treatment system near Lift Station 1 is also planned for 2016. The goal of this system is to treat a portion of the groundwater captured by the SWF in order to more effectively manage the storage capacity of GW-11 and create additional hydraulic capacity of the FBRs.

Various sampling and investigation activities took place in 2015 in support of the AP-5 Solids Removal Project, for which a work plan was submitted in March 2015 (Tetra Tech 2015c). The current design consists of removal of the upper layer of solids from the pond, washing the solids to remove perchlorate salts, and treating the perchlorate-containing water using the GWETS. AP-5 solids were sampled in 2015 to evaluate composition, physical characteristics, and explosive properties. Lab-scale treatability studies were also conducted, including preliminary mixing tests and solid-liquid separation tests, to determine conditions necessary for treatment using the GWETS. Additional sampling and investigation is planned for 2016 in support of finalizing the remaining design elements, which include completing sampling of the berm; verifying the tank mixing system design; confirming the vertical shaft-mounted mixers are safe and effective; finalizing safe heating and mixing procedures; conducting field tests to confirm the selection of air operated diaphragm pumps; and completing process hazard analyses. A detailed design is anticipated to be complete later in 2016.

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Semi-Annual Remedial Performance Report  
For Chromium and Perchlorate  
Nevada Environmental Response Trust Site  
Henderson, Nevada

**TABLES**

**TABLE 1: INTERCEPTOR WELL FIELD DISCHARGE RATES**

Nevada Environmental Response Trust Site

Henderson, Nevada

Well ID	July 2011- June 2012 (gpm)	July 2012- June 2013 (gpm)	July 2013- June 2014 (gpm)	July 2014- June 2015 (gpm)	July 2015- December 2015 (gpm)	Well Screened In
I-AA	-	-	0.1	1.0	1.2	Qal/UMCf
I-AB	-	-	0.0	0.0	0.0	Qal/UMCf
I-AC	-	-	0.0	0.0	0.0	Qal/UMCf
I-AD	-	-	0.0	0.0	0.0	Qal/UMCf
I-AR	1.1	1.4	1.1	0.8	0.6	Qal/UMCf
I-B	1.5	1.6	1.5	1.1	0.9	Qal/UMCf
I-C	5.9	5.1	5.5	5.6	3.1	Qal/UMCf
I-D	1.3	1.7	2.0	1.9	1.6	Qal/UMCf
I-E	1.3	2.1	2.7	1.2	1.0	Qal/UMCf
I-F	5.7	4.5	4.7	4.2	3.8	Qal/UMCf
I-G	0.1	0.5	0.9	0.2	0.2	Qal/UMCf
I-H	0.9	1.0	0.8	1.2	0.8	Qal/UMCf
I-I	5.0	4.7	4.8	4.7	4.8	Qal/UMCf
I-J	6.3	6.0	6.6	4.8	6.6	Qal/UMCf
I-K	3.9	3.3	4.0	4.6	3.4	Qal/UMCf
I-L	1.9	1.9	1.5	2.8	2.1	Qal/UMCf
I-M	2.6	4.0	2.2	2.5	2.1	Qal/UMCf
I-N	3.1	2.7	1.7	2.6	2.4	Qal/UMCf
I-O	1.7	2.7	1.5	2.1	1.0	Qal/UMCf
I-P	2.1	3.7	5.1	2.8	1.9	Qal/UMCf
I-Q	0.3	0.2	0.7	0.5	0.4	Qal/UMCf
I-R	2.5	2.9	3.3	2.5	2.3	Qal/UMCf
I-S	5.2	4.0	4.0	4.9	4.6	Qal/UMCf
I-T	0.4	0.4	0.4	0.4	0.3	Qal/UMCf
I-U	0.7	0.8	1.0	0.9	0.9	Qal/UMCf
I-V	4.8	5.4	5.7	5.1	4.3	Qal/UMCf
I-W	-	-	0.1	0.8	0.5	Qal/UMCf
I-X	-	-	0.5	3.0	2.0	Qal/UMCf
I-Y	-	-	0.1	1.5	1.2	Qal/UMCf
I-Z	6.7	8.0	7.5	5.2	6.6	Qal/UMCf
<b>TOTAL</b>	<b>65.2</b>	<b>68.6</b>	<b>70.1</b>	<b>68.7</b>	<b>60.7</b>	

**Notes:**

Pumping rates are presented as annual averages.

- = Well not pumping

gpm = gallons per minute

Qal = Quaternary Alluvium

UMCf = Upper Muddy Creek Formation (first fine-grained unit)

**TABLE 2: ATHENS ROAD WELL FIELD DISCHARGE RATES**

Nevada Environmental Response Trust Site

Henderson, Nevada

Well ID	July 2011- June 2012 (gpm)	July 2012- June 2013 (gpm)	July 2013- June 2014 (gpm)	July 2014- June 2015 (gpm)	July 2015- December 2015 (gpm)	Well Screened In
ART-1/1A	14.1	22.0	23.4	14.6	3.6	Qal
ART-2/2A	62.4	62.2	61.6	60.9	54.4	Qal
ART-3/3A	46.8	45.8	47.3	44.4	44.2	Qal
ART-4/4A	8.5	8.3	10.0	15.0	14.0	Qal
ART-7/7A/7B <sup>1</sup>	31.2	31.1	30.9	30.3	26.1	Qal
ART-8/8A	62.7	62.2	60.0	63.7	68.0	Qal
ART-9 <sup>2</sup>	46.7	49.1	46.4	53.9	61.8	Qal
PC-150 <sup>1</sup>	-	-	-	2.8	3.9	Qal
<b>TOTAL</b>	<b>272.4</b>	<b>280.6</b>	<b>279.6</b>	<b>285.6</b>	<b>276.0</b>	

**Notes:**

Pumping rates are presented as annual averages.

- = Well not pumping

ART-1, 2, 3, 4, 7, and 8 have adjacent recovery wells - "Buddy Wells" - designated by the letter "A".

<sup>1</sup>ART-7B and PC-150 were activated as part of the 2013 GWETS Optimization project; ART-7B began pumping in October 2014 and PC-150 began pumping in November 2014.

<sup>2</sup>Starting in September 2006, ART-9 replaced the pumping of ART-6/6A due to the low water levels in that well pair. The electrical and plumbing system from ART-6A was removed and is being used in ART-9.

gpm = gallons per minute

Qal = Quaternary Alluvium

**TABLE 3: SEEP WELL FIELD DISCHARGE RATES**

Nevada Environmental Response Trust Site

Henderson, Nevada

Well ID	July 2011- June 2012 (gpm)	July 2012- June 2013 (gpm)	July 2013- June 2014 (gpm)	July 2014- June 2015 (gpm)	July 2015- December 2015 (gpm)	Well Screened In
PC-115R	91.4	95.7	88.4	95.9	86.9	Qal
PC-116R	124.8	124.5	123.2	133.7	143.2	Qal
PC-117	92.6	124.6	96.8	99.7	89.4	Qal
PC-118	76.3	93.3	67.3	76.9	74.7	Qal
PC-119	65.0	87.6	63.5	59.0	61.1	Qal
PC-120 <sup>2</sup>	0.0	0.1	0.4	0.0	0.0	Qal
PC-121 <sup>2</sup>	0.0	0.1	0.0	0.0	0.0	Qal
PC-133	3.1	4.3	4.3	4.2	7.8	Qal
PC-99R2/R3 <sup>1</sup>	61.6	54.4	61.0	66.5	66.2	Qal
<b>TOTAL</b>	<b>514.9</b>	<b>584.6</b>	<b>504.9</b>	<b>536.0</b>	<b>529.3</b>	

**Notes:**

Pumping rates are presented as annual averages.

<sup>1</sup>Wells PC-99R2 and PC-99R3 are connected and operate as a single pumping well.

<sup>2</sup>Wells PC-120 and PC-121 have not been continuously pumped since October 2005 due to their low perchlorate removal efficiencies and because they are located at the end of the well line in the shallowest portion of the subsurface alluvial channel.

gpm = gallons per minute

Qal = Quaternary Alluvium

**TABLE 4: MONTHLY WELL FIELD DISCHARGE RATES, JULY - DECEMBER 2015**

Nevada Environmental Response Trust Site

Henderson, Nevada

Well ID	July 2015 (gpm)	August 2015 (gpm)	September 2015 (gpm)	October 2015 (gpm)	November 2015 (gpm)	December 2015 (gpm)
<b>Interceptor Well Field (IWF)</b>						
I-AA	1.2	1.2	1.3	1.3	1.0	1.0
I-AB	0.0	0.0	0.0	0.0	0.0	0.0
I-AC	0.0	0.0	0.0	0.0	0.0	0.0
I-AD	0.0	0.0	0.0	0.0	0.0	0.0
I-AR	0.7	0.6	0.7	0.7	0.6	0.5
I-B	1.1	1.0	1.0	0.9	0.6	0.6
I-C	3.4	3.4	3.4	3.4	1.8	3.0
I-D	1.6	1.5	1.6	1.4	1.8	1.8
I-E	1.1	1.1	1.1	1.0	0.6	1.1
I-F	3.7	3.7	4.0	4.0	3.9	3.6
I-G	0.1	0.1	0.1	0.1	0.2	0.2
I-H	0.7	0.7	0.7	0.8	0.7	1.0
I-I	5.0	5.0	5.1	4.8	4.3	4.8
I-J	6.6	6.5	6.6	6.5	6.3	6.9
I-K	3.9	3.8	3.8	3.6	3.2	2.0
I-L	2.8	2.5	2.4	2.0	1.1	1.9
I-M	2.4	2.3	2.4	2.5	1.3	1.8
I-N	2.6	2.4	2.6	2.9	2.1	1.6
I-O	1.3	1.2	1.1	1.1	0.8	0.7
I-P	1.6	1.5	1.5	1.7	2.5	2.6
I-Q	0.4	0.4	0.4	0.4	0.4	0.7
I-R	2.4	2.5	2.5	2.0	2.1	2.2
I-S	4.9	5.0	5.4	4.2	3.8	4.1
I-T	0.4	0.4	0.4	0.4	0.2	0.2
I-U	0.9	0.9	0.9	0.9	0.9	0.8
I-V	4.3	4.3	4.4	4.6	4.1	4.3
I-W	0.6	0.6	0.6	0.6	0.4	0.6
I-X	2.1	2.0	1.7	2.0	2.5	2.0
I-Y	1.4	1.3	1.2	1.3	0.8	1.2
I-Z	6.7	6.6	6.2	6.8	6.6	6.7
<b>Total for IWF</b>	<b>63.9</b>	<b>62.5</b>	<b>62.9</b>	<b>62.0</b>	<b>54.8</b>	<b>57.8</b>

**TABLE 4: MONTHLY WELL FIELD DISCHARGE RATES, JULY - DECEMBER 2015**

Nevada Environmental Response Trust Site

Henderson, Nevada

Well ID	July 2015 (gpm)	August 2015 (gpm)	September 2015 (gpm)	October 2015 (gpm)	November 2015 (gpm)	December 2015 (gpm)
<b>Athens Road Well Field (AWF)</b>						
ART-1/1A	7.8	7.9	5.8	0.0	0.0	0.0
ART-2/2A	62.5	62.1	64.5	35.0	54.5	48.2
ART-3/3A	43.0	42.2	45.7	40.9	47.7	45.8
ART-4/4A	15.7	15.7	16.1	13.5	16.1	7.1
ART-7/7A/7B	27.3	25.2	27.1	26.5	27.0	23.6
ART-8/8A	62.5	62.4	66.5	68.4	76.5	72.1
ART-9	57.4	55.8	64.7	53.6	70.7	69.1
PC-150	4.0	3.9	4.2	3.4	4.2	3.9
<b>Total for AWF</b>	<b>280.1</b>	<b>275.1</b>	<b>294.5</b>	<b>241.2</b>	<b>296.7</b>	<b>269.7</b>
<b>Seep Well Field (SWF)</b>						
PC-115R	91.3	92.6	96.1	88.7	70.6	82.0
PC-116R	150.4	150.0	155.3	144.6	117.0	141.3
PC-117	93.7	93.7	97.4	92.2	75.4	83.9
PC-118	78.1	78.1	81.1	76.9	64.8	69.3
PC-119	62.5	62.5	64.9	61.4	54.8	60.5
PC-120 <sup>1</sup>	0.0	0.0	0.0	0.0	0.0	0.0
PC-121 <sup>1</sup>	0.0	0.0	0.0	0.0	0.0	0.0
PC-133	7.7	8.5	9.0	6.6	7.2	7.7
PC-99R2/R3	62.5	62.5	64.9	61.4	68.0	77.8
<b>Total for SWF</b>	<b>546.1</b>	<b>547.8</b>	<b>568.7</b>	<b>531.9</b>	<b>457.7</b>	<b>522.6</b>

**Notes:**

Pumping rates are presented as monthly averages.

- = Well not pumping

gpm = gallons per minute

<sup>1</sup>Wells PC-120 and PC-121 have not been continuously pumped since October 2005 due to their low perchlorate removal efficiencies and because they are located at the end of the well line in the shallowest portion of the subsurface alluvial channel.

**TABLE 5: CHROMIUM TREATMENT DATA FOR THE GWTP, JULY - DECEMBER 2015**  
**Nevada Environmental Response Trust Site**  
**Henderson, Nevada**

Month	Average Flow to GWTP (gpm)	Average Total Cr Inflow (mg/L)	Average Total Cr Outflow <sup>1</sup> (mg/L)	Average Total Cr Treated (lbs/day)	Total Cr Treated (lbs/month)
July 2015	64	7.4	0.10	5.65	175
August 2015	63	8.3	0.38	6.00	186
September 2015	63	8.3	0.49	5.93	178
October 2015	62	8.7	0.48	6.10	189
November 2015	54	8.3	0.22	4.80	144
December 2015	58	7.6	0.21	4.81	149

**Estimated Chromium Treated by GWTP: 1,020**  
**Estimated Chromium Treated by FBRs: 30**  
**Estimated Total Chromium Treated: 1,050**

**Notes:**

Estimated treatment rates are rounded to the nearest 10 pounds.

<sup>1</sup>Treated Outflow is pumped to the equalization tanks or GW-11, where it is combined with water extracted by the AWF and SWF, before flowing through the activated carbon beds and being pumped to the Fluidized Bed Reactors (FBRs).

Cr = chromium

FBR = fluidized bed reactor

gpm = gallons per minute

GWTP = groundwater treatment plant

mg/L = milligrams per liter

lbs = pounds

**TABLE 6: WEEKLY CHROMIUM IN FBR INFLUENT AND EFFLUENT, JULY - DECEMBER 2015**

Nevada Environmental Response Trust Site

Henderson, Nevada

Sample Date	Influent/ Effluent	Total Chromium EPA 200.7 (mg/L)	Total Chromium SQL (mg/L)	Hexavalent Chromium EPA 218.6 (mg/L)	Hexavalent Chromium SQL (mg/L)
07/06/2015	INFLUENT	0.022	0.0025	0.00043 J	0.00025
	EFFLUENT	0.0049 J	0.0025	<0.00025	0.00025
07/13/2015	INFLUENT	0.014	0.0025	NA	NA
	EFFLUENT	<0.0025	0.0025	NA	NA
07/14/2015	INFLUENT	0.016	0.0025	0.011	0.00025
	EFFLUENT	<0.0025	0.0025	<0.00025 UH	0.00025
07/20/2015	INFLUENT	0.02	0.0025	0.013	0.00025
	EFFLUENT	<0.0025	0.0025	<0.00025	0.00025
07/27/2015	INFLUENT	0.016	0.0025	0.0083	0.00025
	EFFLUENT	0.0046 J	0.0025	<0.00025	0.00025
08/03/2015	INFLUENT	0.0076	0.0025	0.0034	0.00025
	EFFLUENT	0.0048 J	0.0025	<0.00025	0.00025
08/11/2015	INFLUENT	0.011	0.0025	0.0071	0.00025
	EFFLUENT	0.011	0.0025	<0.00025	0.00025
08/17/2015	INFLUENT	0.013	0.0025	0.007	0.00025
	EFFLUENT	0.0062	0.0025	<0.00025	0.00025
08/24/2015	INFLUENT	0.0041 J	0.0025	0.00037 J	0.00025
	EFFLUENT	<0.0025	0.0025	<0.00025	0.00025
08/31/2015	INFLUENT	0.0082	0.0025	0.0021	0.00025
	EFFLUENT	<0.0025	0.0025	<0.00025	0.00025
09/08/2015	INFLUENT	0.043	0.0025	0.04	0.00025
	EFFLUENT	0.007	0.0025	<0.00025	0.00025
09/14/2015	INFLUENT	0.0085	0.0025	0.035	0.00025
	EFFLUENT	0.098	0.013	<0.00025	0.00025
09/21/2015	INFLUENT	<0.013	0.013	0.011	0.00025
	EFFLUENT	0.0038 J	0.0025	<0.00025	0.00025
09/28/2015	INFLUENT	0.018	0.0025	0.008	0.00025
	EFFLUENT	0.003 J	0.0025	<0.00025	0.00025
10/05/2015	INFLUENT	0.034	0.0025	<0.00025 UF1	0.00025
	EFFLUENT	0.0059	0.0025	<0.00025	0.00025
10/12/2015	INFLUENT	0.062	0.0025	0.012	0.00025
	INFLUENT	0.067	0.0025	0.012	0.00025
	INFLUENT	0.062	0.0025	NA	NA
	EFFLUENT	0.0039 J	0.0025	0.00029 J	0.00025
	EFFLUENT	0.0041 J	0.0025	0.00029 J	0.00025
	EFFLUENT	0.0039 J	0.0025	NA	NA
10/19/2015	INFLUENT	0.022	0.0025	0.012	0.00025
	EFFLUENT	<0.0025	0.0025	<0.00025	0.00025
10/26/2015	INFLUENT	0.02	0.0025	0.011	0.00025



**TABLE 6: WEEKLY CHROMIUM IN FBR INFLUENT AND EFFLUENT, JULY - DECEMBER 2015**  
**Nevada Environmental Response Trust Site**  
**Henderson, Nevada**

Sample Date	Influent/ Effluent	Total Chromium EPA 200.7 (mg/L)	Total Chromium SQL (mg/L)	Hexavalent Chromium EPA 218.6 (mg/L)	Hexavalent Chromium SQL (mg/L)
10/26/2015	EFFLUENT	0.0029 J	0.0025	<0.00025	0.00025
11/02/2015	INFLUENT	0.032	0.0025	0.0043	0.00025
	EFFLUENT	<0.0025	0.0025	<0.00025	0.00025
11/09/2015	INFLUENT	0.019	0.0025	0.0082	0.00025
	EFFLUENT	<0.0025	0.0025	<0.00025	0.00025
11/16/2015	INFLUENT	0.044	0.0025	0.0077	0.00025
	EFFLUENT	<0.0025	0.0025	<0.00025	0.00025
11/23/2015	INFLUENT	0.028	0.0025	0.019	0.00025
	EFFLUENT	0.013	0.0025	<0.00025	0.00025
11/30/2015	INFLUENT	0.04	0.0025	0.025	0.00025
	EFFLUENT	0.014	0.0025	<0.00025	0.00025
12/07/2015	INFLUENT	0.047	0.0025	0.028	0.0013
	EFFLUENT	0.0082	0.0025	<0.00025	0.00025
12/14/2015	INFLUENT	0.028	0.0025	0.011	0.00025
	EFFLUENT	0.0075	0.0025	<0.00025	0.00025
12/21/2015	INFLUENT	0.043	0.0025	0.023	0.00025
	EFFLUENT	0.009	0.0025	<0.00025	0.00025
12/29/2015	INFLUENT	0.041	0.0025	0.027	0.00025
	EFFLUENT	0.011	0.0025	<0.00025	0.00025

**Notes:**

FBR = Fluidized Bed Reactor

mg/L = milligrams per liter

NA = Not Analyzed

SQL = Sample Quantitation Limit

F1 = Matrix Spike and/or Matrix Spike Duplicate recovery is outside acceptance limits

H = Sample was prepped or analyzed beyond the specified holding time

J = Result is less than the reporting limit but greater than or equal to the method detection limit and the concentration is an approximate value

U = Not Detected

**TABLE 7: PERCHLORATE REMOVED FROM THE ENVIRONMENT**

Nevada Environmental Response Trust Site  
Henderson, Nevada

Month	Perchlorate Removal Rate						Extraction Rate				Average Perchlorate Concentration			
	Interceptor Well Field (lbs/day)	Athens Road Well Field (lbs/day)	Seep Wells and Seep (lbs/day)	Total (lbs/day)	Total Pounds Removed (per month)	Total Tons Removed (per month)	Interceptor Well Field (gpm)	Athens Road Well Field (gpm)	Seep Well Field (gpm)	Total (gpm)	Interceptor Well Field (mg/L)	Athens Road Well Field (mg/L)	Seep Well Field (mg/L)	Total (mg/L)
Oct 2002	1,402	331	495	2,228	69,068	34.5	--	--	--	--	--	--	--	--
Nov 2002	1,146	1,001	422	2,569	77,070	38.5	--	--	--	--	--	--	--	--
Dec 2002	1,292	1,164	208	2,664	82,584	41.3	--	--	--	--	--	--	--	--
Jan 2003	1,467	1,077	408	2,952	91,500	45.7	--	--	--	--	--	--	--	--
Feb 2003	1,060	785	482	2,327	65,155	32.6	--	--	--	--	--	--	--	--
Mar 2003	1,067	806	576	2,449	75,923	38.0	--	--	--	--	--	--	--	--
Apr 2003	1,033	708	664	2,405	72,146	36.1	--	--	--	--	--	--	--	--
May 2003	1,148	728	640	2,517	78,016	39.0	--	--	--	--	--	--	--	--
Jun 2003	1,098	909	628	2,634	79,035	39.5	--	--	--	--	--	--	--	--
Jul 2003	1,034	764	550	2,348	72,795	36.4	--	--	--	--	--	--	--	--
Aug 2003	999	742	431	2,172	67,400	33.7	--	--	--	--	--	--	--	--
Sep 2003	937	769	415	2,121	63,644	31.8	--	--	--	--	--	--	--	--
Oct 2003	1,003	767	370	2,140	66,344	33.2	--	--	--	--	--	--	--	--
Nov 2003	949	714	337	2,000	59,991	30.0	--	--	--	--	--	--	--	--
Dec 2003	932	734	318	1,984	61,518	30.8	--	--	--	--	--	--	--	--
Jan 2004	938	690	306	1,934	59,950	30.0	--	--	--	--	--	--	--	--
Feb 2004	881	652	322	1,856	53,816	26.9	--	--	--	--	--	--	--	--
Mar 2004	917	742	221	1,879	58,256	29.1	--	--	--	--	--	--	--	--
Apr 2004	854	735	151	1,740	52,197	26.1	--	--	--	--	--	--	--	--
May 2004	890	741	122	1,753	54,340	27.2	--	--	--	--	--	--	--	--
Jun 2004	978	753	157	1,888	56,641	28.3	--	--	--	--	--	--	--	--
Jul 2004	985	760	195	1,941	60,163	30.1	59.5	245.4	704.3	1009.3	1,380	258	23.1	160
Aug 2004	941	803	201	1,945	60,308	30.2	57.3	241.6	684.8	983.8	1,370	277	24.4	165
Sep 2004	970	835	169	1,973	59,201	29.6	55.8	243.2	649.4	948.4	1,450	286	21.7	174
Oct 2004	1,038	799	179	2,016	62,498	31.2	58.7	239.3	690.4	988.3	1,475	279	21.6	170
Nov 2004	1,016	814	168	1,998	59,928	30.0	62.5	243.2	698.1	1003.9	1,355	279	20.0	166
Dec 2004	929	811	122	1,862	57,725	28.9	65.1	257.6	681.0	1003.8	1,190	262	15.0	155
Jan 2005	993	776	142	1,910	59,215	29.6	67.5	254.0	665.6	987.0	1,227	255	17.8	161
Feb 2005	976	790	144	1,910	53,467	26.7	65.9	254.1	713.6	1033.7	1,234	259	16.9	154
Mar 2005	964	781	158	1,902	58,975	29.5	63.5	251.2	725.2	1039.9	1,265	259	18.1	153
Apr 2005	971	787	145	1,904	57,107	28.6	65.3	244.2	711.9	1021.4	1,240	269	17.0	155
May 2005	966	838	152	1,956	60,646	30.3	64.0	234.7	701.8	1000.5	1,258	298	18.1	163
Jun 2005	970	793	151	1,913	57,400	28.7	64.5	237.5	703.4	1005.5	1,253	278	17.9	159
Jul 2005	1,060	769	154	1,983	61,485	30.7	65.5	234.7	686.6	986.9	1,350	273	18.7	168
Aug 2005	1,092	800	135	2,028	62,858	31.4	66.6	239.2	680.6	986.4	1,369	279	16.6	171
Sep 2005	1,122	806	85	2,013	60,384	30.2	65.4	254.9	634.3	954.6	1,431	264	11.1	176
Oct 2005	1,060	797	99	1,957	60,653	30.3	64.4	251.6	621.5	937.5	1,374	264	13.3	174
Nov 2005	1,072	773	111	1,956	58,672	29.3	66.1	244.9	619.6	930.6	1,353	263	14.9	175
Dec 2005	1,123	726	121	1,971	61,088	30.5	63.8	236.5	621.1	921.4	1,469	256	16.3	178
Jan 2006	984	756	141	1,881	58,325	29.2	62.9	237.8	657.0	957.7	1,303	265	18.0	164
Feb 2006	975	734	120	1,828	51,197	25.6	63.8	239.1	664.1	967.0	1,273	256	15.1	158
Mar 2006	967	736	109	1,813	56,198	28.1	63.5	235.1	661.6	960.2	1,270	261	13.8	157
Apr 2006	1,011	749	127	1,887	56,598	28.3	63.7	224.1	660.6	948.5	1,325	279	16.0	166
May 2006	945	713	131	1,789	55,466	27.7	65.3	239.2	669.5	974.1	1,207	248	16.4	153
Jun 2006	874	753	135	1,762	52,854	26.4	61.9	244.1	669.8	975.9	1,176	257	16.8	151
Jul 2006	920	647	123	1,690	52,377	26.2	65.4	239.5	670.6	975.5	1,173	225	15.3	144
Aug 2006	925	656	139	1,720	53,325	26.7	63.6	240.9	664.4	969.0	1,214	227	17.5	148

**TABLE 7: PERCHLORATE REMOVED FROM THE ENVIRONMENT**

Nevada Environmental Response Trust Site  
Henderson, Nevada

Month	Perchlorate Removal Rate						Extraction Rate				Average Perchlorate Concentration			
	Interceptor Well Field (lbs/day)	Athens Road Well Field (lbs/day)	Seep Wells and Seep (lbs/day)	Total (lbs/day)	Total Pounds Removed (per month)	Total Tons Removed (per month)	Interceptor Well Field (gpm)	Athens Road Well Field (gpm)	Seep Well Field (gpm)	Total (gpm)	Interceptor Well Field (mg/L)	Athens Road Well Field (mg/L)	Seep Well Field (mg/L)	Total (mg/L)
Sep 2006	1,064	768	157	1,989	59,674	29.8	66.2	251.5	656.4	974.0	1,341	255	20.0	170
Oct 2006	1,018	778	134	1,930	59,824	29.9	66.4	254.7	649.0	970.0	1,279	255	17.3	166
Nov 2006	867	724	102	1,694	50,809	25.4	63.9	258.0	524.0	845.8	1,133	234	16.3	167
Dec 2006	870	745	121	1,736	53,818	26.9	64.6	253.4	629.2	947.1	1,124	245	16.0	153
Jan 2007	948	786	98	1,831	56,775	28.4	66.1	256.2	638.2	960.4	1,197	256	12.8	159
Feb 2007	871	736	91	1,697	47,520	23.8	68.5	265.6	657.5	991.6	1,060	231	11.5	143
Mar 2007	915	689	88	1,692	52,454	26.2	68.4	259.0	601.3	928.6	1,116	222	12.2	152
Apr 2007	896	692	90	1,678	50,351	25.2	68.1	257.2	631.5	956.8	1,098	225	11.9	146
May 2007	890	679	100	1,669	51,734	25.9	66.2	259.1	660.5	985.8	1,120	219	12.6	141
Jun 2007	832	642	91	1,565	46,959	23.5	64.3	258.5	673.7	996.5	1,079	207	11.3	131
Jul 2007	912	659	67	1,638	50,785	25.4	63.7	257.8	656.7	978.3	1,193	213	8.6	140
Aug 2007	840	632	55	1,527	47,329	23.7	61.2	258.5	611.0	930.7	1,145	204	7.5	137
Sep 2007	842	631	53	1,526	45,794	22.9	59.2	251.1	605.2	915.5	1,187	210	7.4	139
Oct 2007	841	686	53	1,580	48,973	24.5	59.4	264.5	617.0	940.9	1,181	216	7.2	140
Nov 2007	762	675	55	1,493	44,782	22.4	57.3	264.1	622.9	944.3	1,110	213	7.4	132
Dec 2007	742	655	60	1,456	45,134	22.6	55.4	264.1	627.6	947.1	1,117	207	7.9	128
Jan 2008	873	630	58	1,562	48,410	24.2	56.5	262.9	631.2	950.7	1,289	200	7.6	137
Feb 2008	818	634	61	1,513	43,878	21.9	59.1	262.2	608.9	930.3	1,154	202	8.3	136
Mar 2008	870	666	60	1,595	49,460	24.7	61.6	265.0	614.0	940.6	1,178	210	8.1	141
Apr 2008	830	656	54	1,540	46,196	23.1	61.9	268.1	623.1	953.1	1,118	204	7.3	135
May 2008	721	627	46	1,394	43,222	21.6	60.6	266.5	618.8	945.9	993	196	6.2	123
Jun 2008	732	637	44	1,413	42,393	21.2	61.0	271.5	630.3	962.8	1,001	196	5.8	122
Jul 2008	817	673	54	1,544	47,872	23.9	63.4	273.5	618.5	955.4	1,076	205	7.3	135
Aug 2008	945	678	59	1,682	52,153	26.1	65.7	276.5	585.1	927.3	1,201	205	8.4	151
Sep 2008	798	635	56	1,489	44,670	22.3	65.4	275.7	589.9	931.0	1,018	192	7.9	133
Oct 2008	801	626	51	1,477	45,791	22.9	65.5	275.3	597.2	938.0	1,020	190	7.1	131
Nov 2008	807	643	48	1,497	44,921	22.5	65.4	279.0	560.4	904.8	1,029	192	7.1	138
Dec 2008	809	678	58	1,544	47,871	23.9	65.4	285.8	562.7	914.0	1,031	198	8.6	141
Jan 2009	864	659	44	1,567	48,567	24.3	66.8	276.4	586.0	929.3	1,078	199	6.2	141
Feb 2009	825	648	33	1,506	42,170	21.1	66.7	267.5	584.2	918.4	1,031	202	4.8	137
Mar 2009	865	720	36	1,621	50,242	25.1	67.6	258.9	606.0	932.4	1,067	232	4.9	145
Apr 2009	833	685	34	1,552	46,562	23.3	67.5	260.0	595.9	923.3	1,029	220	4.7	140
May 2009	823	655	35	1,514	46,920	23.5	66.6	256.8	598.6	922.0	1,031	213	4.9	137
Jun 2009	866	618	35	1,519	45,557	22.8	69.3	258.2	579.9	907.4	1,042	199	5.1	140
Jul 2009	833	674	40	1,547	47,953	24.0	68.6	282.6	572.2	923.4	1,012	199	5.8	140
Aug 2009	859	652	43	1,554	48,168	24.1	69.3	226.7	561.8	857.7	1,034	240	6.4	151
Sep 2009	938	671	48	1,657	49,708	24.9	71.2	230.7	559.4	861.4	1,099	242	7.1	160
Oct 2009	847	622	44	1,513	46,914	23.5	74.9	238.1	562.2	875.2	944	218	6.6	144
Nov 2009	894	613	47	1,554	46,611	23.3	74.5	234.7	564.6	873.8	1,001	218	7.0	148
Dec 2009	891	635	49	1,575	48,839	24.4	73.3	248.1	582.4	903.8	1,015	213	7.1	145
Jan 2010	914	661	55	1,630	50,533	25.3	71.8	240.2	571.0	883.0	1,062	230	8.1	154
Feb 2010	853	675	53	1,581	44,270	22.1	75.3	246.6	573.5	895.3	945	228	7.8	147
Mar 2010	949	629	49	1,626	50,413	25.2	73.2	255.4	562.2	890.8	1,081	205	7.2	152
Apr 2010	926	637	50	1,614	48,408	24.2	73.2	244.1	540.8	858.1	1,055	218	7.7	157
May 2010	983	758	53	1,794	55,610	27.8	75.1	266.2	548.5	889.8	1,092	237	8.0	168
Jun 2010	942	733	53	1,728	51,846	25.9	73.8	267.3	527.4	868.5	1,064	229	8.4	166
Jul 2010	839	652	46	1,537	47,638	23.8	73.0	269.4	533.7	876.1	959	202	7.1	146

**TABLE 7: PERCHLORATE REMOVED FROM THE ENVIRONMENT**

Nevada Environmental Response Trust Site  
Henderson, Nevada

Month	Perchlorate Removal Rate						Extraction Rate				Average Perchlorate Concentration			
	Interceptor Well Field (lbs/day)	Athens Road Well Field (lbs/day)	Seep Wells and Seep (lbs/day)	Total (lbs/day)	Total Pounds Removed (per month)	Total Tons Removed (per month)	Interceptor Well Field (gpm)	Athens Road Well Field (gpm)	Seep Well Field (gpm)	Total (gpm)	Interceptor Well Field (mg/L)	Athens Road Well Field (mg/L)	Seep Well Field (mg/L)	Total (mg/L)
Aug 2010	846	668	44	1,558	48,294	24.1	71.1	269.4	518.7	859.2	992	207	7.0	151
Sep 2010	833	707	46	1,585	47,564	23.8	73.8	264.6	510.3	848.7	941	223	7.5	156
Oct 2010	794	632	51	1,476	45,762	22.9	70.9	268.4	529.6	868.9	934	196	8.0	142
Nov 2010	761	635	50	1,447	43,401	21.7	69.8	268.9	521.6	860.2	910	197	8.1	140
Dec 2010	687	636	42	1,365	42,327	21.2	67.7	267.7	530.8	866.2	846	198	6.6	131
Jan 2011	735	598	24	1,357	42,073	21.0	69.3	266.9	529.7	865.9	885	187	3.8	131
Feb 2011	709	588	38	1,334	37,362	18.7	67.3	263.0	545.1	875.5	878	186	5.8	127
Mar 2011	733	634	43	1,410	43,695	21.8	65.0	283.3	526.1	874.5	941	187	6.8	134
Apr 2011	791	616	48	1,455	43,641	21.8	67.1	285.1	505.0	857.2	983	180	8.0	142
May 2011	732	632	57	1,421	44,053	22.0	65.4	285.8	500.7	851.9	934	184	9.5	139
Jun 2011	757	639	46	1,442	43,246	21.6	66.2	284.6	499.9	850.7	953	187	7.7	141
Jul 2011	756	646	41	1,443	44,726	22.4	67.8	285.5	535.8	889.1	931	189	6.4	135
Aug 2011	768	630	39	1,438	44,578	22.3	67.3	273.9	507.0	848.3	952	192	6.5	141
Sep 2011	751	619	41	1,410	42,312	21.2	65.8	270.6	461.3	797.7	951	191	7.4	147
Oct 2011	747	585	41	1,372	42,537	21.3	67.5	270.7	467.7	805.8	923	180	7.3	142
Nov 2011	696	570	41	1,307	39,212	19.6	67.9	268.2	494.3	830.3	855	177	6.9	131
Dec 2011	659	567	38	1,263	39,168	19.6	65.0	267.3	506.8	839.1	846	177	6.2	126
Jan 2012	694	611	41	1,346	41,741	20.9	64.4	268.7	438.6	771.7	899	190	7.8	146
Feb 2012	701	658	43	1,401	40,643	20.3	64.5	269.1	469.4	803.1	906	204	7.6	146
Mar 2012	720	625	46	1,391	43,134	21.6	64.2	270.9	566.0	901.1	936	193	6.7	129
Apr 2012	686	607	44	1,337	40,095	20.0	63.7	273.1	567.9	904.7	897	185	6.5	123
May 2012	687	665	47	1,399	43,375	21.7	61.8	278.2	571.7	911.7	926	199	6.9	128
Jun 2012	541	641	48	1,229	36,879	18.4	61.6	272.8	590.8	925.2	732	196	6.7	111
Jul 2012	661	621	49	1,331	41,256	20.6	61.8	271.5	590.4	923.8	892	191	6.9	120
Aug 2012	654	598	48	1,301	40,316	20.2	62.4	272.2	578.8	913.4	874	183	6.9	119
Sep 2012	1,042	626	61	1,728	51,844	25.9	73.7	280.7	602.4	956.9	1,178	186	8.4	151
Oct 2012	1,294	604	65	1,962	60,837	30.4	74.4	278.7	602.8	955.9	1,450	181	9.0	171
Nov 2012	1,145	606	50	1,801	54,024	27.0	68.6	290.9	597.2	956.6	1,392	174	7.0	157
Dec 2012	1,301	619	56	1,976	61,268	30.6	72.8	290.3	590.5	953.6	1,491	178	8.0	173
Jan 2013	1,292	642	58	1,992	61,742	30.9	70.6	288.1	589.6	948.3	1,527	186	8.2	175
Feb 2013	1,194	615	52	1,862	52,137	26.1	70.7	282.8	587.1	940.5	1,408	182	7.4	165
Mar 2013	1,070	610	51	1,732	53,679	26.8	68.1	280.8	578.8	927.7	1,311	181	7.4	156
Apr 2013	1,141	629	63	1,833	54,980	27.5	68.4	281.2	570.9	920.5	1,391	187	9.2	166
May 2013	1,086	564	62	1,713	53,095	26.5	65.4	270.2	568.8	904.4	1,384	174	9.1	158
Jun 2013	885	538	47	1,471	44,118	22.1	66.6	280.6	558.3	905.5	1,109	160	7.1	135
Jul 2013	947	523	53	1,523	47,223	23.6	66.2	274.8	570.2	911.2	1,193	159	7.8	139
Aug 2013	933	569	59	1,562	48,417	24.2	65.6	277.1	545.1	887.8	1,187	171	9.1	147
Sep 2013	956	576	44	1,576	47,281	23.6	66.7	274.0	508.9	849.6	1,194	175	7.3	155
Oct 2013	937	593	55	1,586	49,158	24.6	66.7	283.8	507.4	857.9	1,173	174	9.1	154
Nov 2013	795	514	54	1,363	40,898	20.4	66.2	274.2	476.6	817.0	1,001	156	9.4	139
Dec 2013	799	448	45	1,292	40,063	20.0	71.3	285.3	477.6	834.2	934	131	7.9	129
Jan 2014	944	479	57	1,480	45,874	22.9	71.7	283.0	503.2	857.8	1,095	141	9.4	144
Feb 2014	837	512	49	1,399	39,174	19.6	71.8	282.8	510.9	865.5	971	151	8.1	135
Mar 2014	916	497	48	1,461	45,289	22.6	73.1	272.9	492.5	838.4	1,043	152	8.2	144
Apr 2014	808	469	45	1,322	39,655	19.8	71.1	276.8	488.6	836.5	945	141	7.7	132
May 2014	735	448	47	1,230	38,142	19.1	73.3	284.6	496.0	853.9	834	131	8.0	121
Jun 2014	975	423	47	1,445	43,337	21.7	78.1	285.4	481.0	844.5	1,038	123	8.2	142

**TABLE 7: PERCHLORATE REMOVED FROM THE ENVIRONMENT**

Nevada Environmental Response Trust Site

Henderson, Nevada

Month	Perchlorate Removal Rate						Extraction Rate				Average Perchlorate Concentration			
	Interceptor Well Field (lbs/day)	Athens Road Well Field (lbs/day)	Seep Wells and Seep (lbs/day)	Total (lbs/day)	Total Pounds Removed (per month)	Total Tons Removed (per month)	Interceptor Well Field (gpm)	Athens Road Well Field (gpm)	Seep Well Field (gpm)	Total (gpm)	Interceptor Well Field (mg/L)	Athens Road Well Field (mg/L)	Seep Well Field (mg/L)	Total (mg/L)
Jul 2014	898	506	60	1,464	45,374	22.7	71.9	281.5	506.4	859.9	1,039	150	10	142
Aug 2014	840	510	59	1,409	43,666	21.8	69.0	288.1	519.1	876.1	1,014	147	9	134
Sep 2014	830	541	70	1,441	43,219	21.6	68.5	292.8	524.2	885.5	1,008	154	11	135
Oct 2014	804	539	70	1,412	43,767	21.9	68.3	289.2	517.0	874.5	979	155	11	134
Nov 2014	759	483	61	1,303	39,087	19.5	67.9	277.5	525.1	870.5	935	145	10	125
Dec 2014	737	508	62	1,307	40,512	20.3	71.5	283.7	521.1	876.3	858	149	10	124
Jan 2015	738	560	69	1,368	42,405	21.2	71	284	520	875	859	164	11	129
Feb 2015	814	501	79	1,394	39,029	19.5	70	284	596	950	965	147	11	122
Mar 2015	793	571	83	1,447	44,872	22.4	68	287	591	946	964	165	12	127
Apr 2015	761	603	76	1,440	43,208	21.6	66	287	559	912	957	174	11	131
May 2015	728	522	68	1,318	40,873	20.4	67	286	526	879	902	152	11	125
Jun 2015	752	579	75	1,406	42,176	21.1	66	287	533	886	921	162	11	128
Jul 2015	695	352	73	1,120	34,727	17.4	64	280	546	890	902	105	11	105
Aug 2015	604	380	73	1,056	32,740	16.4	63	275	548	886	802	115	11	100
Sep 2015	605	556	77	1,238	37,128	18.6	63	294	569	926	800	157	11	111
Oct 2015	598	482	71	1,151	35,666	17.8	62	240	536	838	805	167	11	114
Nov 2015	537	635	65	1,236	37,080	18.5	54	297	444	795	896	178	12	134
Dec 2015	565	513	77	1,155	35,803	17.9	58	270	518	846	866	158	12	117

**Notes:**

Mass removal rates presented in this spreadsheet from months prior to January 2015 may be slightly different from previously reported mass removal rates for the following reasons:

- 1) Analytical data were obtained directly from the database for extraction wells and the GWTP east and west well feeds instead of the field spreadsheet.
- 2) Data interpolation and mass removal calculations were performed more systematically using a script developed in Matlab.

These changes have not substantially impacted total perchlorate mass removal rates. Previously, data presented in Table 7 were based on calculations performed in the Envirogen/Veolia field spreadsheet. Ramboll Environ has not been able to locate perchlorate concentration and/or pumping data prior to July 2004, but has included the perchlorate removal numbers included in prior reports.

-- = no data available

gpm = gallons per minute

lbs/day = pounds per day

mg/L = milligrams per liter

**TABLE 8: WEEKLY PERCHLORATE IN FBR INFLUENT AND EFFLUENT  
JULY - DECEMBER 2015**

**Nevada Environmental Response Trust Site  
Henderson, Nevada**

Sample Date	Influent/Effluent Weekly Composite	Perchlorate by EPA 314 (mg/L)	Perchlorate SQL (mg/L)
07/04/2015	INFLUENT-COMP	110	5
	EFFLUENT-COMP	<0.0025	0.0025
07/11/2015	INFLUENT-COMP	110	5
	EFFLUENT-COMP	<0.0025	0.0025
07/18/2015	INFLUENT-COMP	91	5
	EFFLUENT-COMP	<0.0025	0.0025
07/25/2015	INFLUENT-COMP	88	5
	EFFLUENT-COMP	<0.0025	0.0025
08/01/2015	INFLUENT-COMP	92	5
	EFFLUENT-COMP	<0.0025	0.0025
08/08/2015	INFLUENT-COMP	93	5
	EFFLUENT-COMP	<0.0025	0.0025
08/15/2015	INFLUENT-COMP	83	5
	EFFLUENT-COMP	<0.0025	0.0025
08/22/2015	INFLUENT-COMP	84	5
	EFFLUENT-COMP	<0.0025	0.0025
08/29/2015	INFLUENT-COMP	82	5
	EFFLUENT-COMP	<0.0025	0.0025
09/05/2015	INFLUENT-COMP	92	5
	EFFLUENT-COMP	<0.0025	0.0025
09/12/2015	INFLUENT-COMP	110	5
	EFFLUENT-COMP	<0.0025	0.0025
09/19/2015	INFLUENT-COMP	100	5
	EFFLUENT-COMP	<0.0025	0.0025
09/26/2015	INFLUENT-COMP	110	5
	EFFLUENT-COMP	<0.0025	0.0025
10/03/2015	INFLUENT-COMP	93	5
	EFFLUENT-COMP	<0.0025	0.0025
10/10/2015	INFLUENT-COMP	97	5
	EFFLUENT-COMP	<0.0025	0.0025
10/17/2015	INFLUENT-COMP	73	5
	EFFLUENT-COMP	<0.0025	0.0025
10/24/2015	INFLUENT-COMP	82	5
	EFFLUENT-COMP	<0.0025	0.0025
10/31/2015	INFLUENT-COMP	84	5
	EFFLUENT-COMP	<0.0025	0.0025
11/07/2015	INFLUENT-COMP	70	5
	EFFLUENT-COMP	<0.0025	0.0025
11/14/2015	INFLUENT-COMP	85	5

**TABLE 8: WEEKLY PERCHLORATE IN FBR INFLUENT AND EFFLUENT  
 JULY - DECEMBER 2015  
 Nevada Environmental Response Trust Site  
 Henderson, Nevada**

Sample Date	Influent/Effluent Weekly Composite	Perchlorate by EPA 314 (mg/L)	Perchlorate SQL (mg/L)
11/14/2015	EFFLUENT-COMP	<0.0025	0.0025
11/21/2015	INFLUENT-COMP	86	5
	EFFLUENT-COMP	<0.0025	0.0025
11/28/2015	INFLUENT-COMP	88	5
	EFFLUENT-COMP	<0.0025	0.0025
12/05/2015	INFLUENT-COMP	79	5
	EFFLUENT-COMP	<0.0025	0.0025
12/12/2015	INFLUENT-COMP	65	5
	EFFLUENT-COMP	<0.0025	0.0025
12/19/2015	INFLUENT-COMP	85	5
	EFFLUENT-COMP	<0.0025	0.0025
12/26/2015	INFLUENT-COMP	74	5
	EFFLUENT-COMP	<0.0025	0.0025

**Notes:**

The influent and effluent composite results above are the same as those used in the Discharge Monitoring Reports (DMRs) associated with the Sites National Pollution Discharge Elimination System (NPDES) Permit NV0023060.

FBR = Fluidized Bed Reactor

mg/L = milligrams per liter

SQL = Sample Quantitation Limit

**TABLE 9: PERCHLORATE PLUME MASS ESTIMATES**

Nevada Environmental Response Trust Site

Henderson, Nevada

	On-site			Off-site to AWF			AWF to Wash			Entire Area
	Alluvium	UMCf	Total On-site	Alluvium	UMCf	Total Off-site to AWF	Alluvium	UMCf	Total AWF to Wash	
2002	18	3,680	3,698	680	1,604	2,285	95	0	95	6,078
2006	12	2,321	2,333	538	1,223	1,761	11	0	11	4,105
2012	9	1,724	1,733	384	817	1,201	14	0	14	2,947
2014	17 ± 4	1,447 ± 567	1,464 ± 567	185 ± 37	556 ± 219	741 ± 222	11 ± 3	0	11 ± 3	2,217 ± 609
2015	20 ± 5	1,797 ± 694	1,817 ± 694	307 ± 83	736 ± 284	1,043 ± 296	28 ± 8	0	28 ± 8	2,888 ± 754

**Notes:**

Mass values are presented in tons.

AWF = Athens Road Well Field

UMCf = Upper Muddy Creek Formation

Mass estimations for 2014 and 2015 are presented with a 95% margin of error, which was calculated from the standard deviation of the interpolated concentrations and aquifer thicknesses.



**TABLE 10: CHROMIUM PLUME MASS ESTIMATES**  
**Nevada Environmental Response Trust Site**  
**Henderson, Nevada**

	On-Site			Off-Site to AWF			AWF to Wash			Entire Area
	Alluvium	UMCf	Total On-site	Alluvium	UMCf	Total Off-site to AWF	Alluvium	UMCf	Total AWF to Wash	
2006	0	32	32	2	5	6	0	0	0	38
2012	0	20	20	1	3	4	0	0	0	24
2014	0.24 ± 0.05	21.34 ± 8.37	21.58 ± 8.37	0.65 ± 0.13	2.60 ± 1.02	3.25 ± 1.03	0.03 ± 0.01	0	0.03 ± 0.01	24.86 ± 8.43
2015	0.25 ± 0.07	16.50 ± 6.37	16.75 ± 6.37	0.88 ± 0.24	2.62 ± 1.01	3.51 ± 1.04	0.06 ± 0.02	0	0.06 ± 0.02	20.32 ± 6.45

**Notes:**

Mass values are presented in tons.

AWF = Athens Road Well Field

UMCf = Upper Muddy Creek Formation

Mass estimations for 2014 and 2015 are presented with a 95% margin of error, which was calculated from the standard deviation of the interpolated concentrations and aquifer thicknesses.

**TABLE 11: AVERAGE PERCHLORATE MASS LOADING IN LAS VEGAS WASH**

Nevada Environmental Response Trust Site

Henderson, Nevada

Reporting Year	Average Perchlorate Mass Loading (lbs/d)			Percentage Loading at Northshore Road from		
	LV Wasteway	Pabco Road	Northshore Road	Upstream of Wasteway	Las Vegas Wasteway to Pabco Road	Pabco Road to Northshore Road
2007/2008 <sup>1</sup>	1.96	23.34	68.73	3%	31%	66%
2008/2009 <sup>2</sup>	1.69	16.71	70.60	2%	21%	76%
2009/2010	1.60	30.21	62.05	3%	46%	51%
2010/2011	1.49	18.74	71.05	2%	24%	74%
2011/2012	1.26	9.69	76.35	2%	11%	87%
2012/2013	1.44	27.94	68.57	2%	39%	59%
2013/2014	1.77	30.00	67.26	3%	42%	55%
2014/2015	1.38	20.08	64.56	2%	29%	69%
2015/2016*	1.24	20.61	61.13	2%	32%	66%
<b>Average</b>	<b>1.55</b>	<b>22.00</b>	<b>68.20</b>	<b>2%</b>	<b>30%</b>	<b>68%</b>

**Notes:**

lbs/d = pounds per day

Reporting year is July through June

<sup>1</sup> 2007 third quarter mass loading estimate missing.

<sup>2</sup> 2009 first quarter mass loading estimate missing.

\* Based on July through December 2015 estimates.

**TABLE 12: GW-11 WATER ELEVATION, WATER VOLUME, AND FLOW**  
**Nevada Environmental Response Trust Site**  
**Henderson, Nevada**

Date	Water Level Elevation (ft amsl)	Water Volume (Mgal)	Average GW-11 Influent Flow (gpm)	Average GW-11 Effluent Flow (gpm)	Estimated Evaporation Rate (gpm)*
7/9/2015	1743.74	47.94	--	--	--
7/30/2015	1743.37	46.36	--	--	--
Monthly Average	--	--	875	872	127
8/13/2015	1743.19	45.57	--	--	--
8/27/2015	1743.44	46.64	--	--	--
Monthly Average	--	--	894	931	110
9/8/2015	1743.24	45.79	--	--	--
9/18/2015	1743.16	45.46	--	--	--
9/24/2015	1743.35	46.24	--	--	--
9/29/2015	1743.11	45.23	--	--	--
Monthly Average	--	--	71	50	91
10/6/2015	1742.98	44.68	--	--	--
10/14/2015	1742.95	44.56	--	--	--
10/23/2015	1742.82	44.02	--	--	--
10/27/2015	1742.76	43.75	--	--	--
Monthly Average	--	--	654	697	60
11/3/2015	1742.63	43.22	--	--	--
11/10/2015	1742.66	43.33	--	--	--
11/25/2015	1742.61	43.10	--	--	--
Monthly Average	--	--	808	904	37
12/8/2015	1742.63	43.22	--	--	--
12/20/2015	1742.69	43.44	--	--	--
12/27/2015	1742.71	43.55	--	--	--
Monthly Average	--	--	878	924	26

**Notes:**

Influent and effluent flow rates were calculated in the GWETS field spreadsheet maintained by Tetra Tech and Envirogen.

\*Evaporation has a significant impact on pond volume. Using historic pan evaporation data, Ramboll Environ calculated approximate evaporation rates for GW-11 in gpm (Shevenell 1996).

GW-11 did not operate as an equalization basin between September 2 and October 9, 2015.

ft amsl = feet above mean sea level

gpm = gallons per minute

Mgal = millions of gallons

**TABLE 13: GW-11 ANALYTICAL MONITORING**  
**Nevada Environmental Response Trust Site**  
**Henderson, Nevada**

Date	Sample Type	Perchlorate (mg/L)	Chlorate (mg/L)	Nitrate as Nitrogen (mg/L)	Chloride (mg/L)	Sulfate (mg/L)	Ammonia (mg/L)	Phosphorus (mg/L)	Calcium (mg/L)	Iron (mg/L)	Total Chromium (µg/L)	Hexavalent Chromium (µg/L)	TDS (mg/L)	TSS (mg/L)	pH (SU)
03/27/2014	Composite	40	68	2.4	2,800	2,400	NA	0.15	510	0.19	28	1.1	8,600	26	NA
05/05/2014	Effluent	84	170	8.8	NA	NA	NA	NA	NA	NA	59	31	NA	NA	NA
06/02/2014	Effluent	99	280	7.3	NA	NA	NA	NA	NA	NA	23	5.5	NA	NA	NA
07/01/2014	Effluent	130	250	8	NA	NA	NA	NA	NA	NA	28	11	NA	NA	NA
07/25/2014	Composite	110	230	7.1	1,800	1,600	0.59	0.53	350	0.058	41	NA	6,000	25	8.37
08/04/2014	Effluent	120	190	7.6	NA	NA	NA	NA	NA	NA	49	5.1	NA	NA	NA
09/02/2014	Effluent	100	140	4.4	NA	NA	NA	NA	NA	NA	12	0.44	NA	NA	NA
09/04/2014	Composite	100	140	4.4	1,800	1,700	2.6	0.11	360	0.37	16	<0.25	6,000	43	8.27
10/13/2014	Effluent	85	100	4.9	NA	NA	NA	NA	NA	NA	39	0.42	NA	NA	NA
11/03/2014	Effluent	63	90	3.2	NA	NA	NA	NA	NA	NA	5.4	1.2	NA	NA	NA
12/10/2014	Effluent	49	63	2.8	NA	NA	NA	NA	NA	NA	13	3.1	NA	NA	NA
01/05/2015	Effluent	44	190	1.1	NA	NA	NA	NA	NA	NA	32	4.5	NA	NA	NA
01/28/2015	Composite	81	150	5	1,700	1,400	0.38	0.026	310	0.26	73	50	6,000	14	8.66
02/02/2015	Effluent	87	140	5.1	NA	NA	NA	NA	NA	NA	130	47	NA	NA	NA
02/27/2015	Composite	87	150	6.5	1,600	1,400	0.15	0.19	280	1.4	180	47	5,700	25	8.47
03/02/2015	Effluent	84	130	7.9	NA	NA	NA	NA	NA	NA	240	9.7	NA	NA	NA
03/31/2015	Composite	81	170	5.9	1,700	1,500	0.35	0.37	310	0.67	81	24	5,700	40	8.29
04/06/2015	Effluent	80	150	6	NA	NA	NA	NA	NA	NA	49	15	NA	NA	NA
04/30/2015	Composite	93	180	6.4	1,400	1,200	<0.1	<0.025	320	0.56	46	27	5,300	3	8.36
05/04/2015	Effluent	91	170	5.9	NA	NA	NA	NA	NA	NA	43	27	NA	NA	NA
05/29/2015	Composite	110	180	6.6	1,500	1,300	0.11	<0.025	280	0.4	43	33	5,500	5	8.56
06/01/2015	Effluent	100	180	7.8	NA	NA	NA	NA	NA	NA	450	29	NA	NA	NA
06/29/2015	Composite	100	210	5.7	1,500	1,300	0.27	0.098	320	0.71	45	14	6,100	55	8.27
07/06/2015	Effluent	100	160	4.9	NA	NA	NA	NA	NA	NA	24	0.54	NA	NA	NA
07/29/2015	Composite	79	160	5.9	1,600	1,600	0.76	0.059	330	1.6	80	8.7	5,500	99	7.81
08/03/2015	Effluent	83	150	5.2	NA	NA	NA	NA	NA	NA	20	3.1	NA	NA	NA
08/27/2015	Composite	700	150	5.7	1,600	1,500	2.2	0.31	460	7.1	240	<0.25	5,400	89	7.58
09/08/2015	Effluent	76	150	4.4	NA	NA	NA	NA	NA	NA	<2.5	1.2	NA	NA	NA
10/01/2015	Composite	77	110	1.9	1,700	1,600	0.72	0.67	290	1.2	46	<0.25	5,800	300	7.41
10/05/2015	Effluent	72	110	2.1	NA	NA	NA	NA	NA	NA	2.7	26	NA	NA	NA
11/02/2015	Effluent	74	150	5.5	NA	NA	NA	NA	NA	NA	51	2.1	NA	NA	NA
12/07/2015	Effluent	73	140	7.3	NA	NA	NA	NA	NA	NA	51	30	NA	NA	NA

**Notes:**

GW-11 did not operate as an equalization basin between September 2 and October 9, 2015.

Samples listed as composite were collected from GW-11 as four-point composite samples. Samples listed as effluent were collected from the GW-11 effluent pipe.

GW-11 effluent samples are not analyzed for chloride, sulfate, ammonia, phosphorus, calcium, iron, TDS, TSS, or pH.

According to Tetra Tech's GWETS Operational Metrics Tables for December 2015, composite samples were not collected in November or December 2015.

mg/L = milligrams per liter      TDS = total dissolved solids

µg/L = micrograms per liter      TSS = total suspended solids

NA = not analyzed      SU = standard unit

**TABLE 14: GW-11 PERCHLORATE MASS ESTIMATE, JULY - DECEMBER 2015**  
**Nevada Environmental Response Trust Site**  
**Henderson, Nevada**

GW-11 Water Sample		GW-11 Pond Volume		Estimated Perchlorate Mass in GW-11 (lbs)
Date	Perchlorate Concentration (mg/L)	Date	Measured Volume (Mgal)	
July 6, 2015	100	July 9, 2015	47.94	40,012
July 29, 2015	79	July 30, 2015	46.36	30,562
August 3, 2015	83	July 30, 2015	46.36	32,110
September 8, 2015	76	September 8, 2015	45.79	29,044
October 1, 2015	77	September 29, 2015	45.23	29,064
October 5, 2015	72	October 6, 2015	44.68	26,846
November 2, 2015	74	November 3, 2015	43.22	26,689
December 7, 2015	73	December 8, 2015	43.22	26,328

**Notes:**

GW-11 began functioning as an equalization basin on March 27, 2014. GW-11 did not operate as an equalization basin between September 2 and October 9, 2015.

-- = no value

lbs = pounds

Mgal = million gallons

mg/L = milligrams per liter

**TABLE 15: GWETS PERFORMANCE METRICS SUMMARY**

**Nevada Environmental Response Trust Site**

**Henderson, Nevada**

Performance Metric	Method of Evaluation	Location	Value
<b>Mass Removal and Remaining Plume Mass (Section 6.4.1)</b>			
Perchlorate Mass Remaining in Groundwater (tons)	Interpolation of concentrations (May 2015 data used for estimate)	On-site	1,817
		Off-site to AWF	1,043
		AWF to the Wash	28
		Total	2,888
Perchlorate Mass Removal Rate <sup>1</sup> (tons)	Calculated from extraction rates and concentrations in extraction wells (July through December 2015)	IWF	55
		AWF	45
		SWF	7
		Total	107
Chromium Mass Remaining in Groundwater (tons)	Interpolation of concentrations (May 2015 data used for estimate)	On-site	16.75
		Off-site to AWF	3.51
		AWF to the Wash	0.06
		Total	20.32
Chromium Mass Removal Rate <sup>2</sup> (tons)	Calculated from extraction rates and concentrations in extraction wells (July through December 2015)	IWF	0.53
		AWF	0.10
		SWF	0.00
		Total	0.63
<b>Capture Zone Evaluation and Estimated Mass Flux (Section 6.4.2)</b>			
Capture Efficiency at Well Fields (percent)	Calculated from groundwater modeling, measured concentrations, and extraction rates	IWF	99.6%
		AWF	96.9%
		SWF	93.2%
Well Field Capture Zones	Estimated capture zones from particle tracking compared to target capture zone. See Figures 31a, 31b, and 31c.	Study Area	Target area captured except for small area near SWF

**TABLE 15: GWETS PERFORMANCE METRICS SUMMARY**

**Nevada Environmental Response Trust Site**

**Henderson, Nevada**

Performance Metric	Method of Evaluation	Location	Value
<b>Perchlorate Mass Loading to Las Vegas Wash (Section 6.4.3)</b>			
Perchlorate Mass Loading in Las Vegas Wash (lbs/day)	Based on instantaneous sampling results and flow rates.	Northshore Rd	61
		Pabco Rd	21
		LV Wasteway	1
Contribution to Northshore Road Mass Loading by Reach (percent)	Apportionment of mass loading at Northshore Road to stream reaches.	Pabco Rd to Northshore Rd	66%
		Wasteway to Pabco Rd	32%
		Upstream of Wasteway	2%
<b>Surface Water-Groundwater Interaction Near the SWF (Section 6.4.4)</b>			
Las Vegas Wash Flow Captured at SWF	Comparison of surface water level at Pabco Road gauge to nearby groundwater levels.	SWF	Flow direction is from LVW to SWF near PC-94
COH Birding Pond Flow Captured at SWF	Low TDS plume used as tracer	SWF	Flow direction is from Birding Ponds to SWF
<b>Environmental Footprint (Section 6.4.5)</b>			
Energy Use (GWh)	Summarized from utility bills	GWETS Plant	2.0
		Off-site Wells and Lift Stations	0.7
		Entire system	2.6
Energy Use (kWh per lb of perchlorate removed)	Summarized from utility bills and perchlorate mass removal	Entire system	12.4
Energy Use (additional sources) (gallons)	Estimates provided by Envirogen	Gasoline Usage (entire site)	940
		Diesel Fuel (GWTP)	10
Materials Usage	Estimates provided by Envirogen	GWETS Plant	See Appendix F
Water Usage (gallons)	Estimated from GWETS field sheet maintained by Envirogen and Tetra Tech	Groundwater Extraction (IWF, AWF, SWF)	229,455,000
		Lake Mead	8,639,000

**TABLE 15: GWETS PERFORMANCE METRICS SUMMARY**

**Nevada Environmental Response Trust Site**

**Henderson, Nevada**

<b>Performance Metric</b>	<b>Method of Evaluation</b>	<b>Location</b>	<b>Value</b>
Waste Generated	Estimates provided by Envirogen or compiled from NPDES fourth quarter submittal	FBR Sludge (metric tons)	44.2
		GWTP Sludge (tons)	43.8
		Spent Nessler Reagent (gal)	10.0
Personnel Transportation	Estimates provided by Envirogen, Ramboll Environ, and Tetra Tech	Study Area	See Appendix F
Laboratory Analyses	Compiled from Site Analytical Database maintained by Ramboll Environ	Study Area	See Appendix F
Contaminants Removed or Destroyed	Calculated from extraction rates and concentrations in extraction wells	Study Area	See Appendix F

**Notes:**

<sup>1</sup> Average mass removal rate at each well field between July and December 2015. Monthly removal rates are shown on Table 7.

<sup>2</sup> Average mass removal rate at each well field between July and December 2015. Monthly treatment rates at the at the Groundwater Treatment Plant (GWTP) and Fluidized Bed Reactor (FBR) are shown on Table 5.

AWF = Athens Road Well Field

gal = gallons

GWh = gigawatt hour

IWF = Interceptor Well Field

kWh = kilowatt hour

LVW = Las Vegas Wash

NPDES = National Pollutant Discharge Elimination System

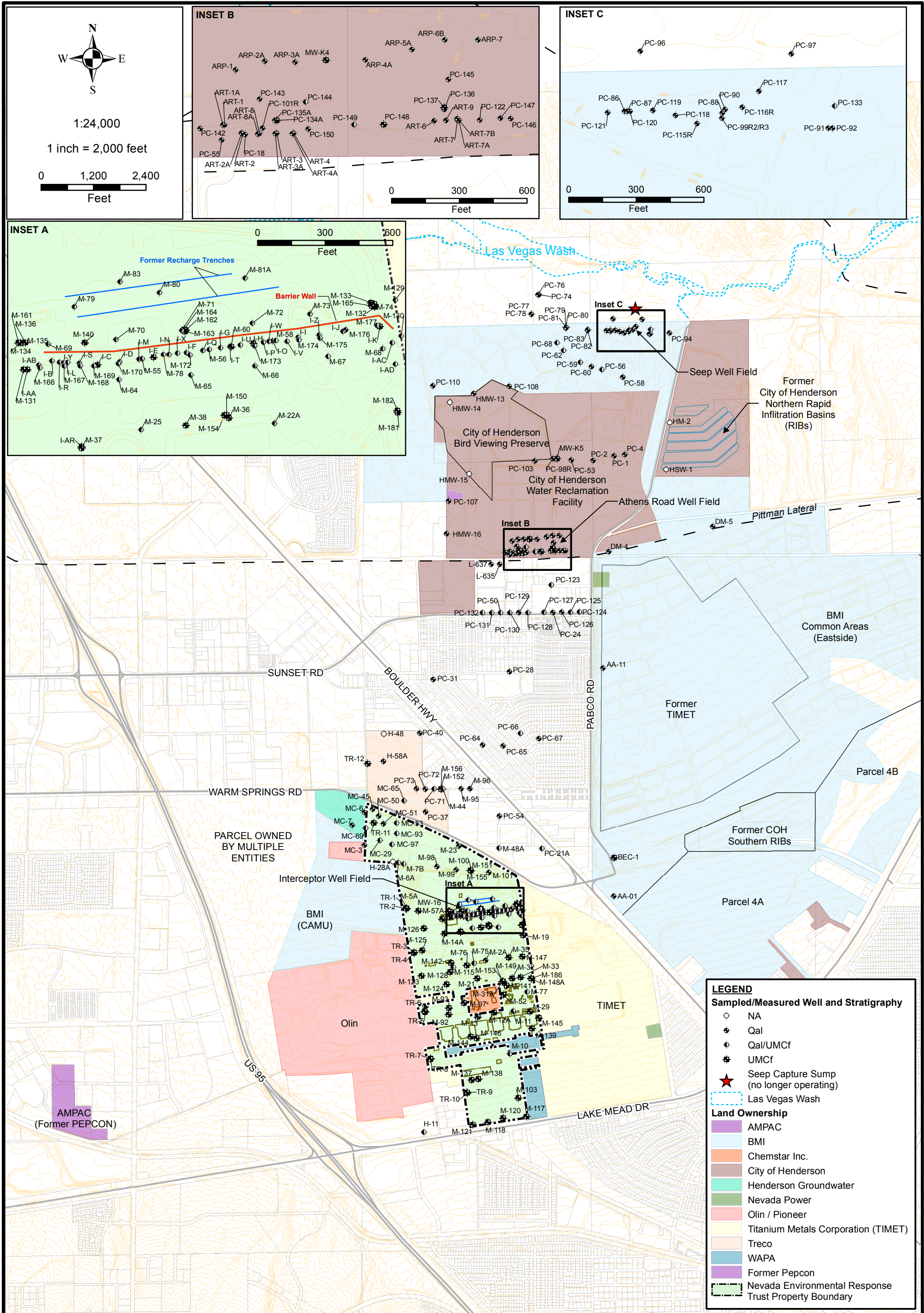
lbs/day = pounds per day

SWF = Seep Well Field



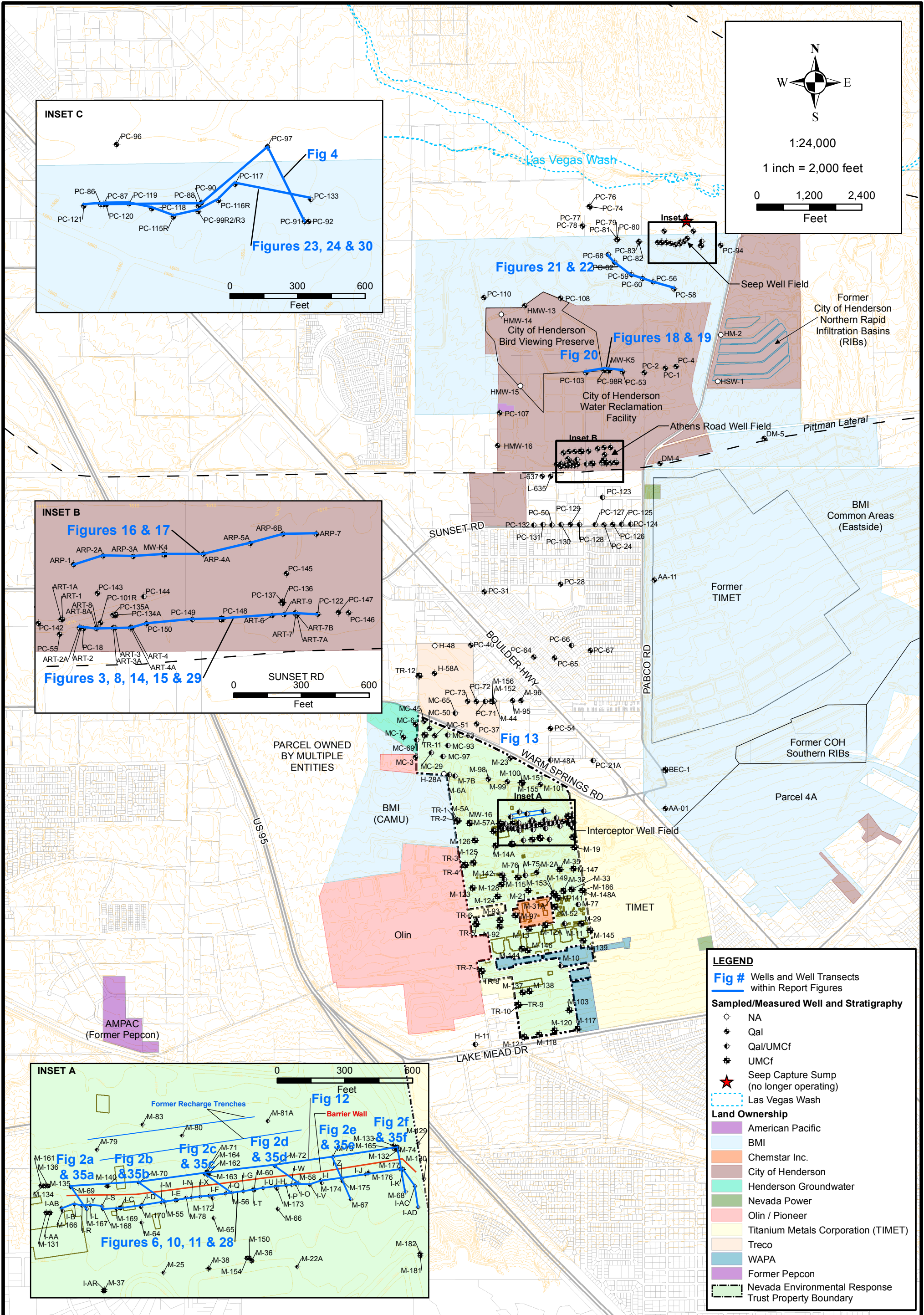
Semi-Annual Remedial Performance Report  
For Chromium and Perchlorate  
Nevada Environmental Response Trust Site  
Henderson, Nevada

## FIGURES



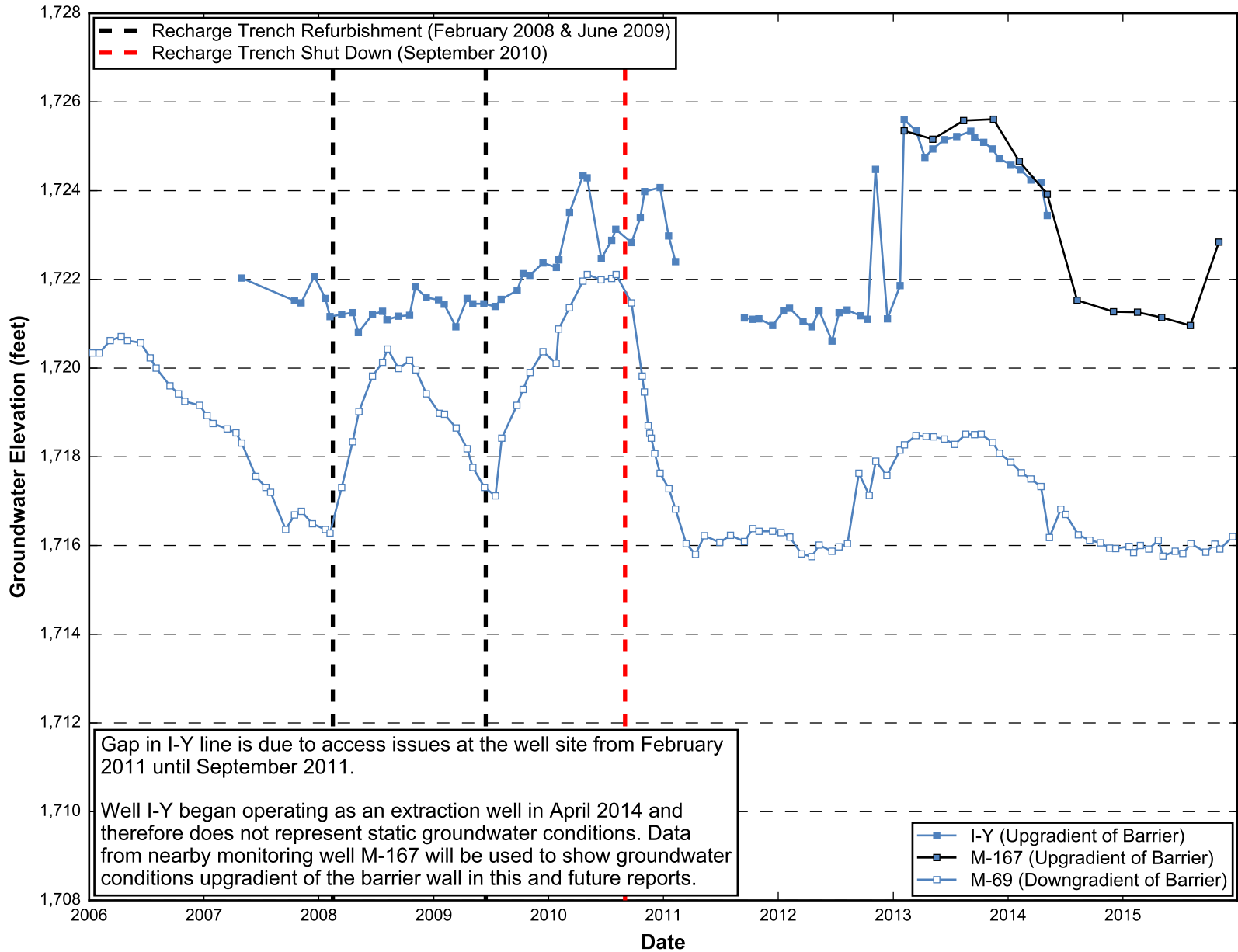
LEGEND	
<b>Sampled/Measured Well and Stratigraphy</b>	
○	NA
◐	Qal
◑	Qal/UMCf
⊕	UMCf
★	Seep Capture Sump (no longer operating)
—	Las Vegas Wash
<b>Land Ownership</b>	
■	AMPAC
■	BMI
■	Chemstar Inc.
■	City of Henderson
■	Henderson Groundwater
■	Nevada Power
■	Olin / Pioneer
■	Titanium Metals Corporation (TIMET)
■	Treco
■	WAPA
■	Former Pepcon
■	Nevada Environmental Response Trust Property Boundary





**FIGURE LOCATION MAP**  
**Semi-Annual Performance Report**  
 Nevada Environmental Response Trust Site  
 Henderson, Nevada

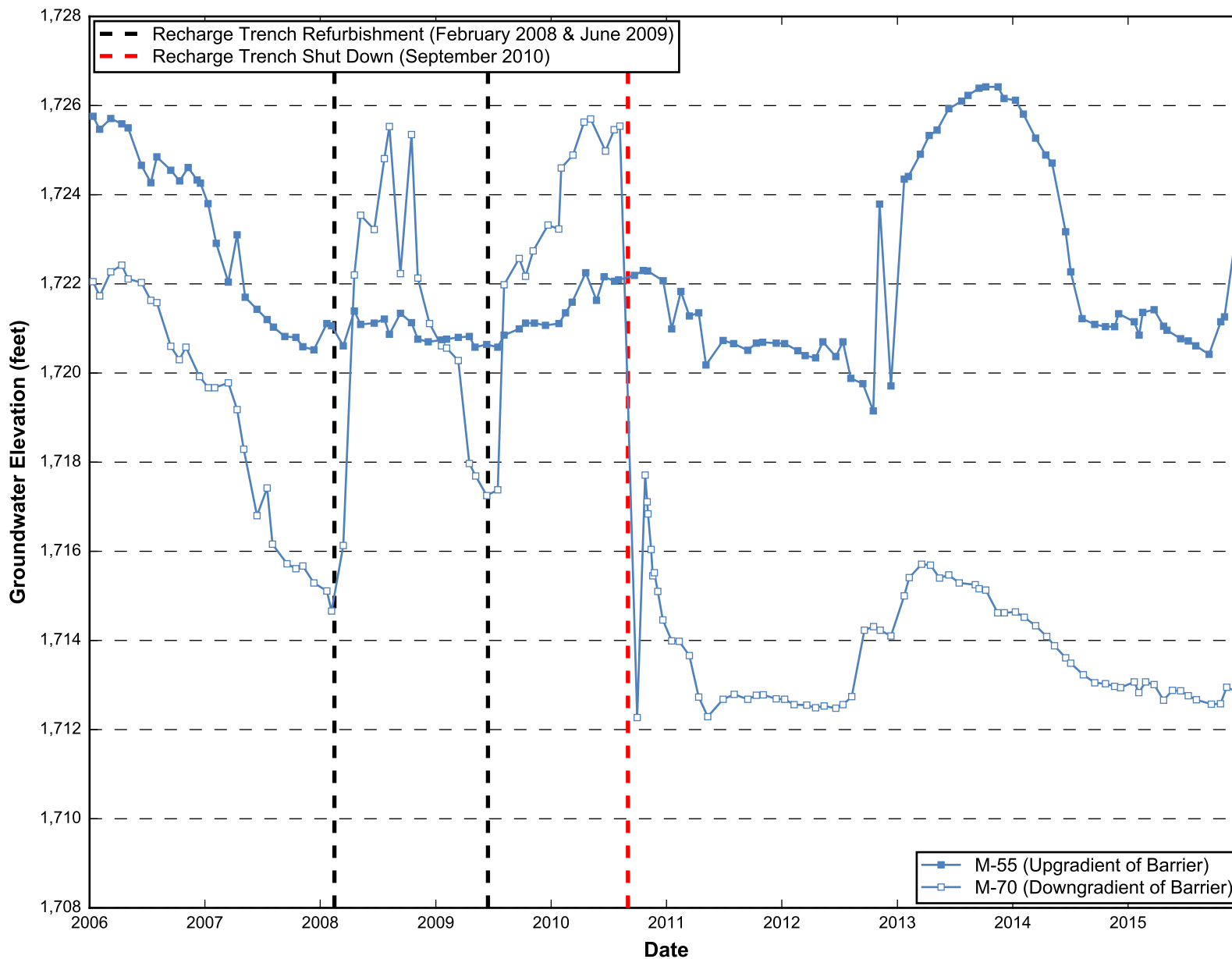
**FIGURE**  
**1b**



**Hydrograph Pair Across the Barrier Wall - M-69 and I-Y**  
 Nevada Environmental Response Trust Site  
 Henderson, Nevada

Figure

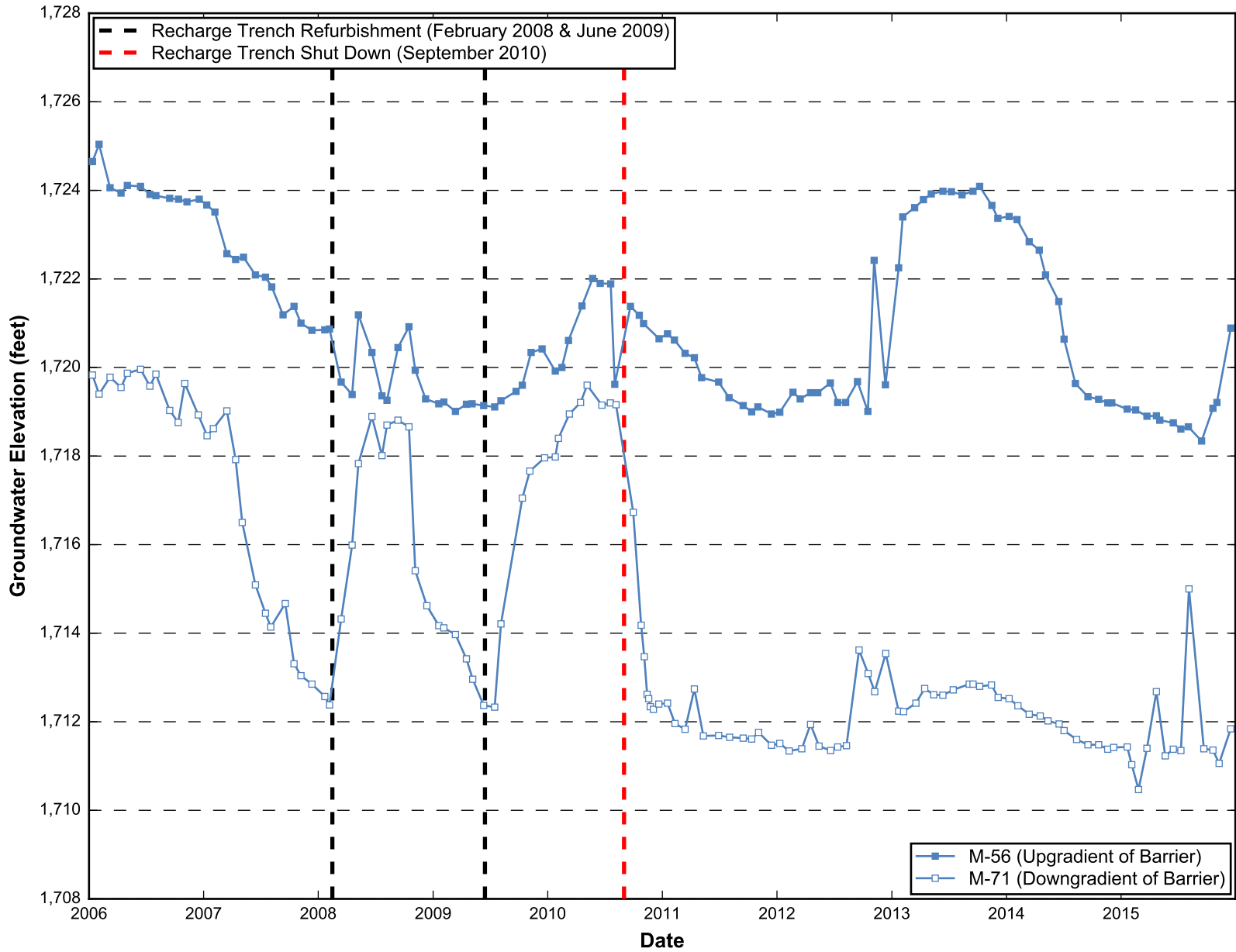
**2a**



**Hydrograph Pair Across the Barrier Wall - M-70 and M-55**  
 Nevada Environmental Response Trust Site  
 Henderson, Nevada

Figure  
**2b**

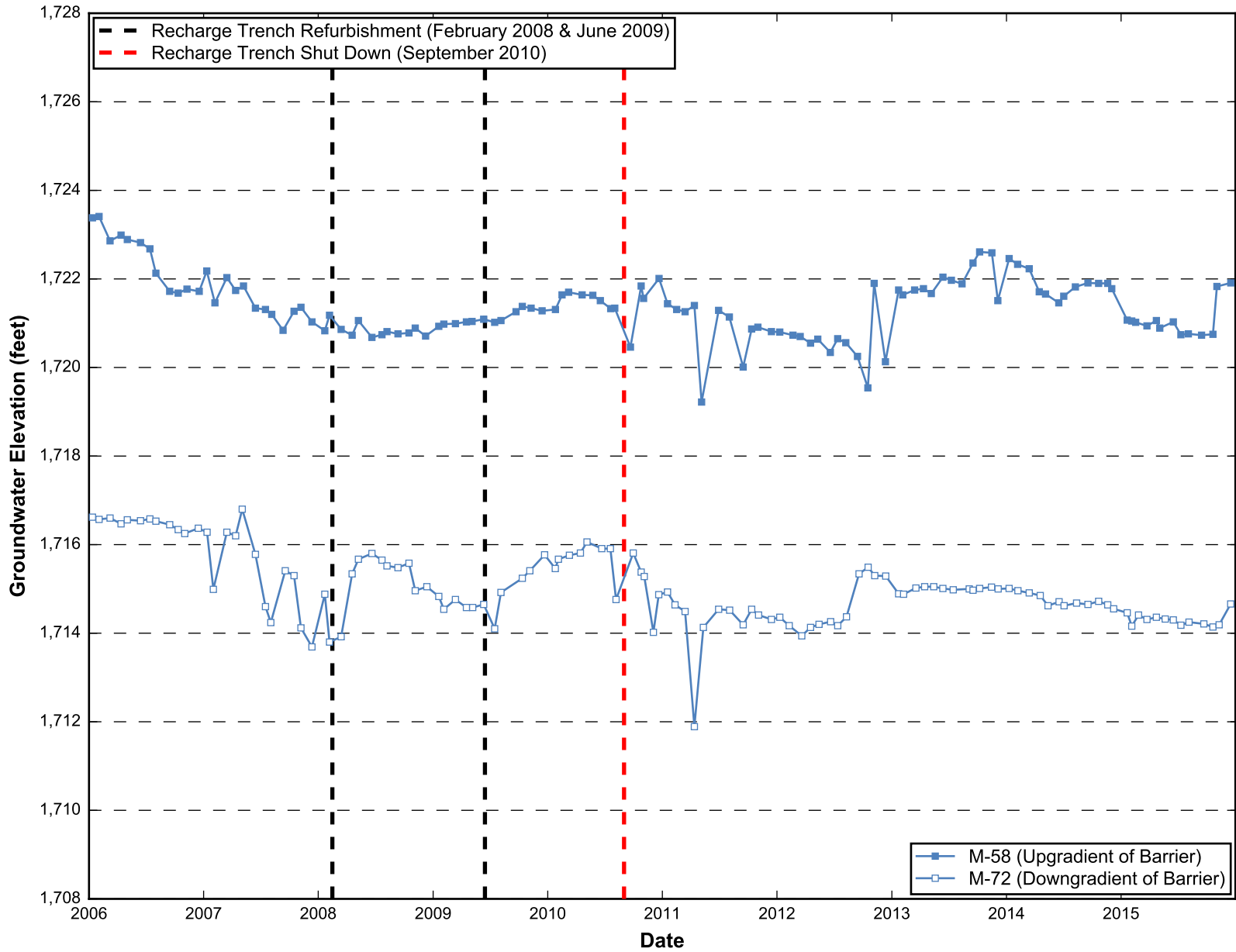




**Hydrograph Pair Across the Barrier Wall - M-71 and M-56**  
 Nevada Environmental Response Trust Site  
 Henderson, Nevada

Figure

**2c**



**Hydrograph Pair Across the Barrier Wall - M-72 and M-58**  
 Nevada Environmental Response Trust Site  
 Henderson, Nevada

Figure

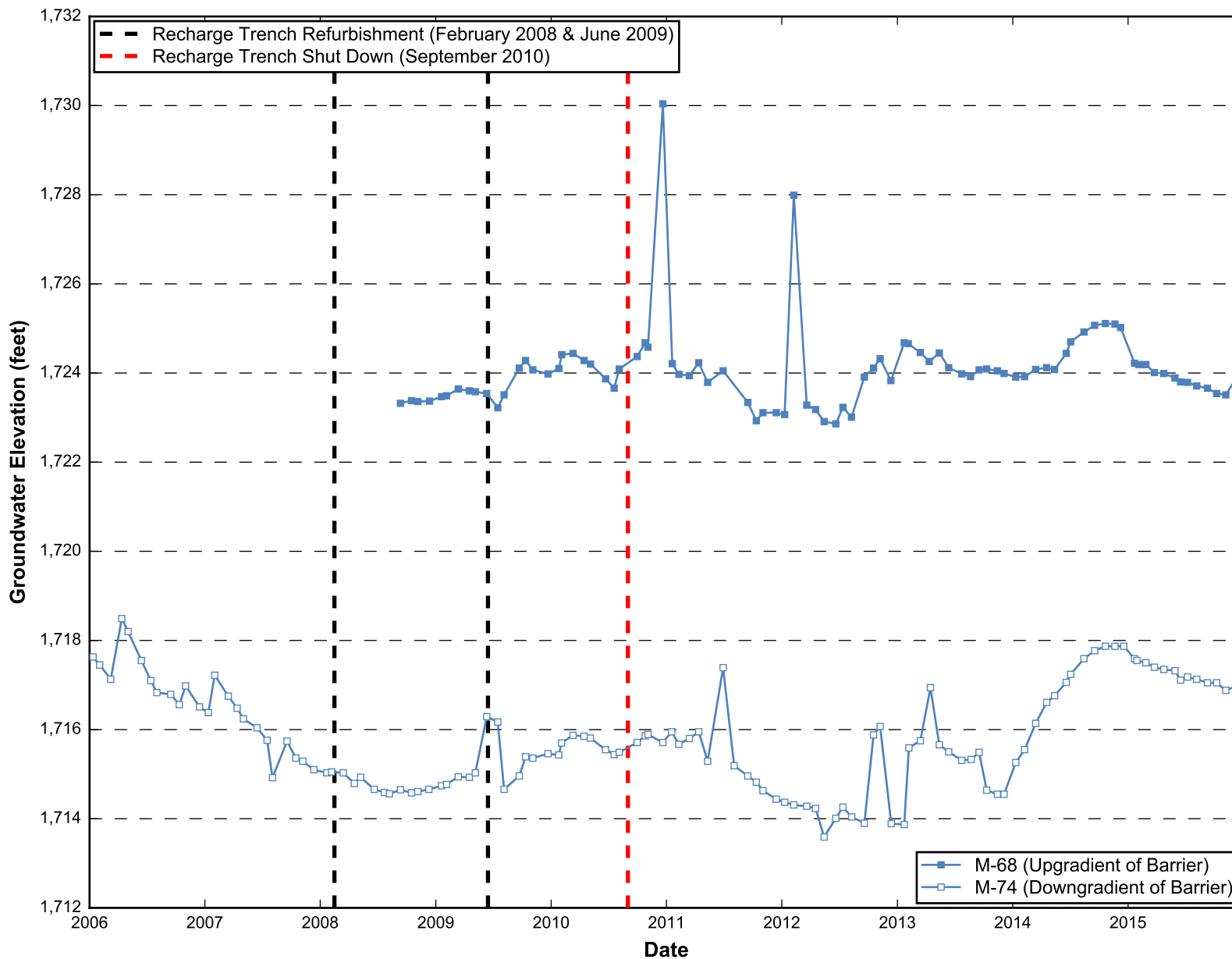
**2d**



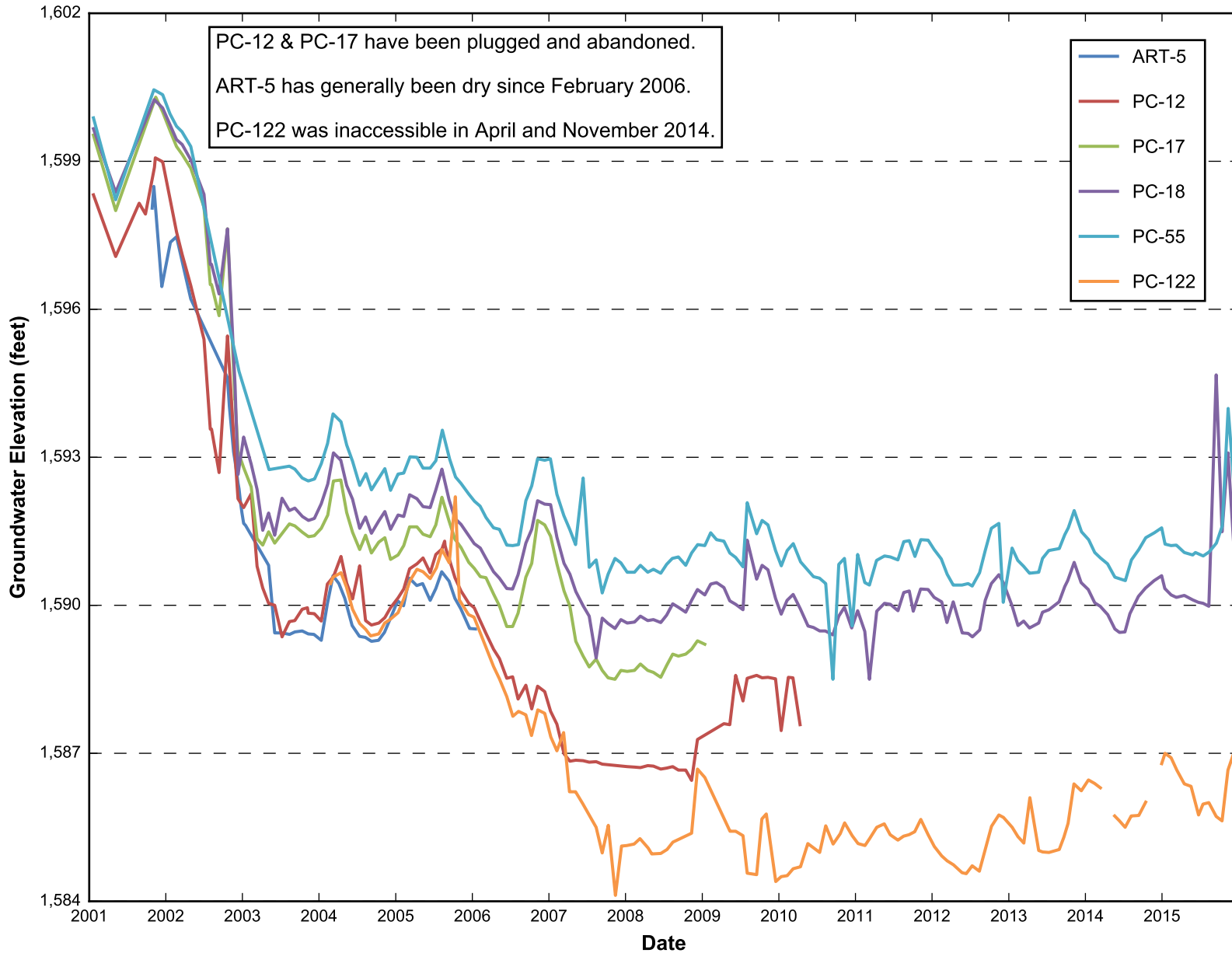
**Hydrograph Pair Across the Barrier Wall - M-73 and M-67**  
 Nevada Environmental Response Trust Site  
 Henderson, Nevada

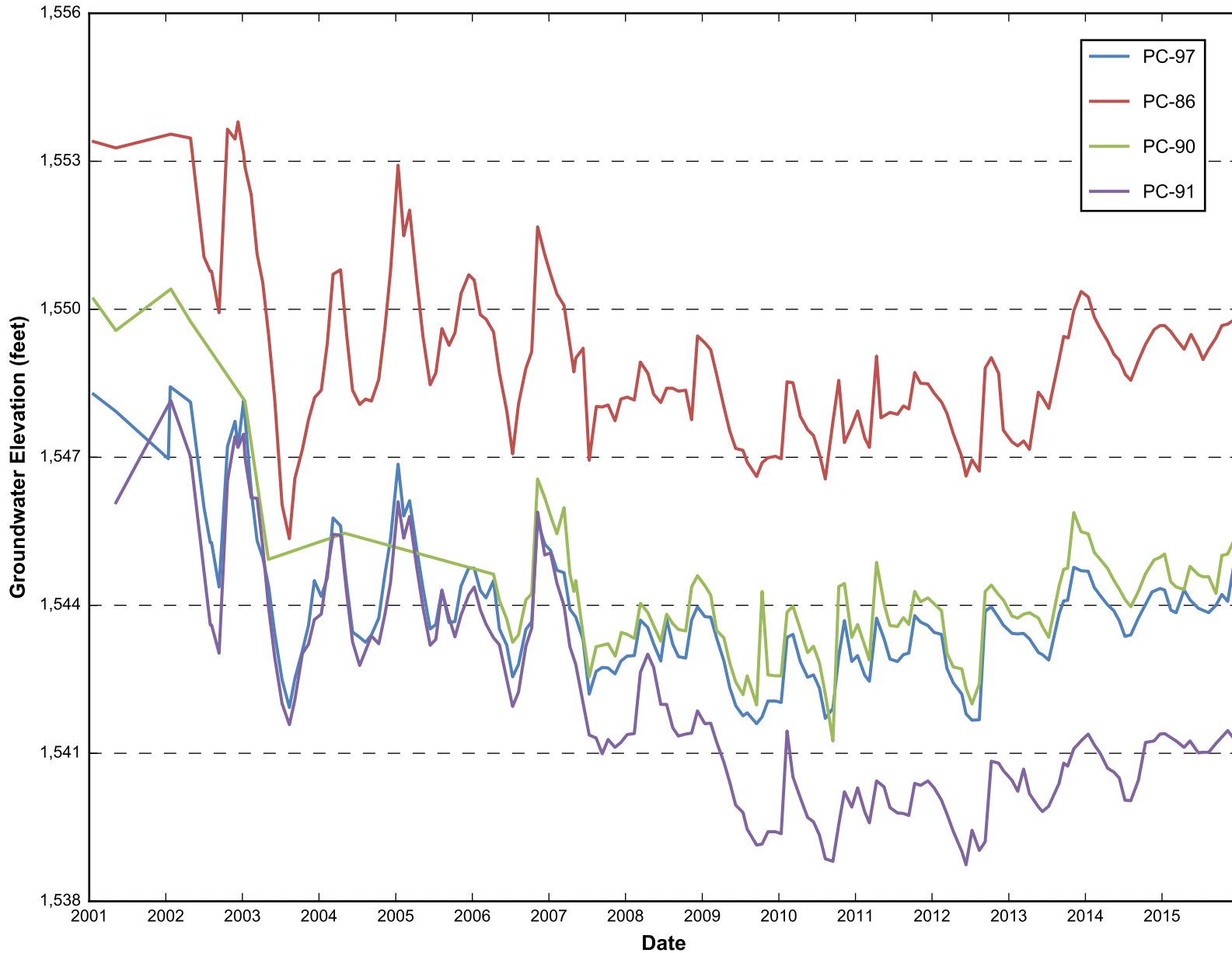
Figure  
**2e**





**Hydrograph Pair Across the Barrier Wall - M-74 and M-68**  
 Nevada Environmental Response Trust Site  
 Henderson, Nevada





**Seep Well Field Drawdown**  
Nevada Environmental Response Trust Site  
Henderson, Nevada

Figure

**4**

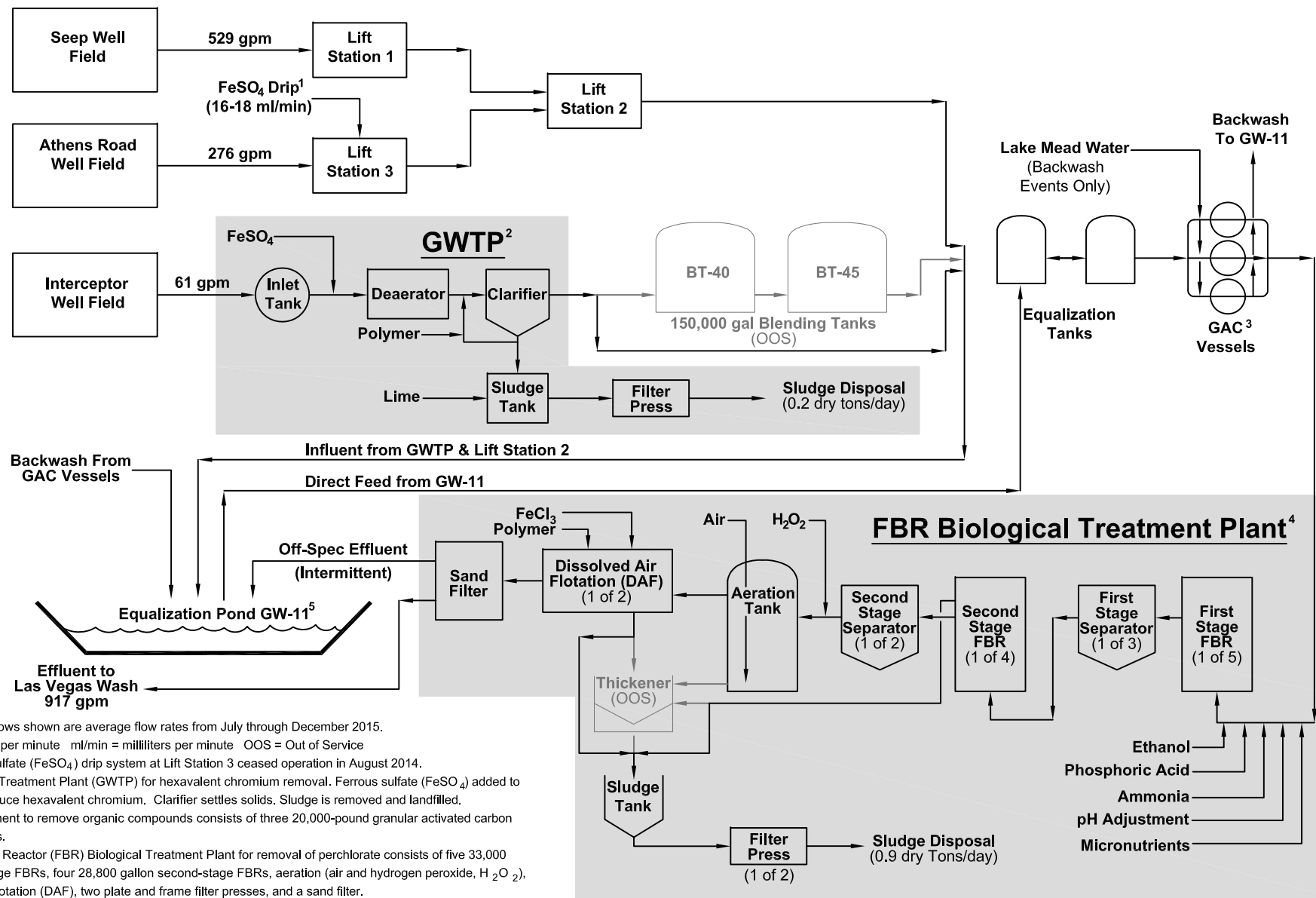
Drafter: JH

Date: 03/17/16

Contract Number: 21-38800A

Approved:

Revised:



**NOTES:**

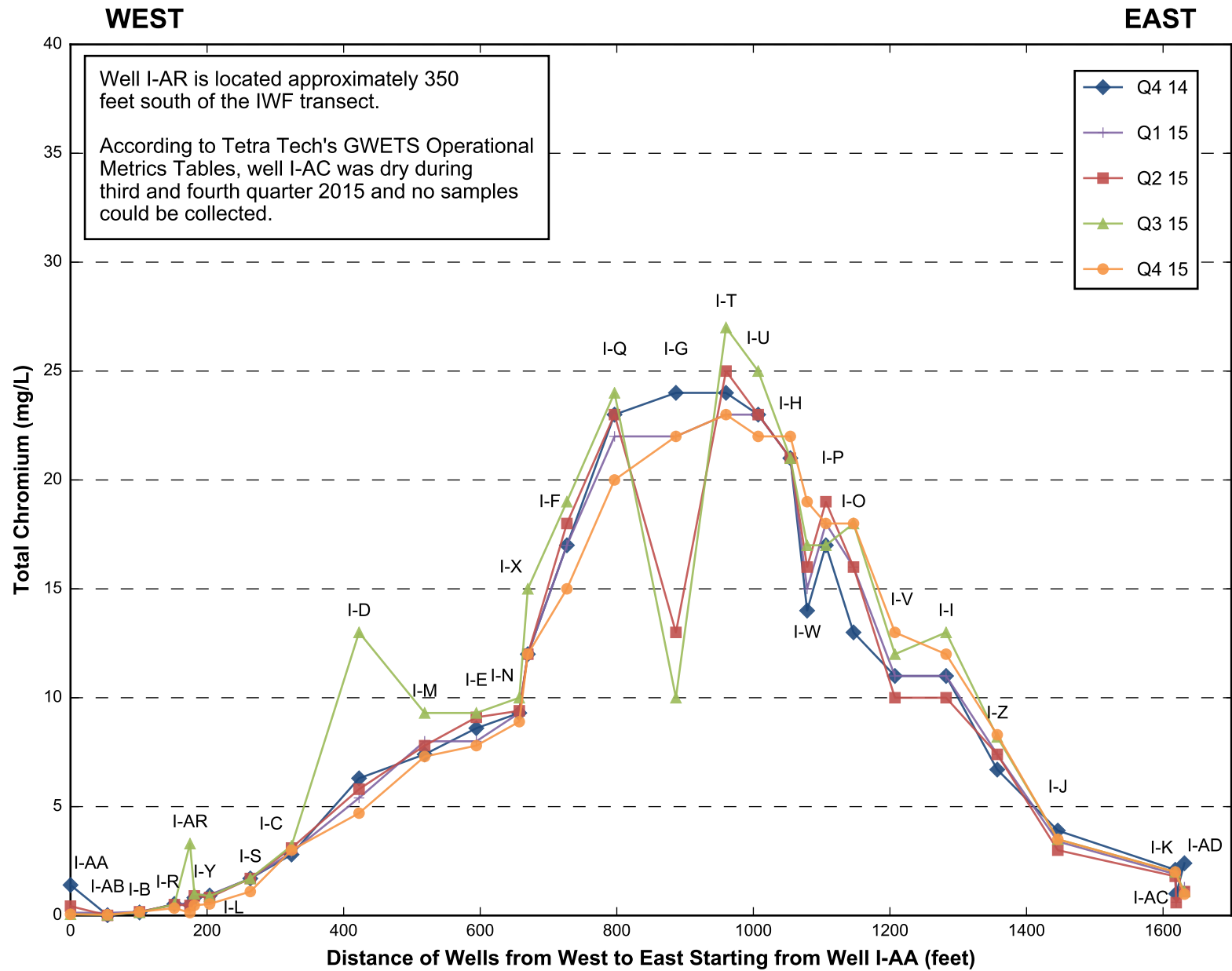
- The process flows shown are average flow rates from July through December 2015.
- gpm = gallons per minute ml/min = milliliters per minute OOS = Out of Service
- 1) The ferrous sulfate (FeSO<sub>4</sub>) drip system at Lift Station 3 ceased operation in August 2014.
- 2) Groundwater Treatment Plant (GWTP) for hexavalent chromium removal. Ferrous sulfate (FeSO<sub>4</sub>) added to chemically reduce hexavalent chromium. Clarifier settles solids. Sludge is removed and landfilled.
- 3) Carbon treatment to remove organic compounds consists of three 20,000-pound granular activated carbon (GAC) vessels.
- 4) Fluidized Bed Reactor (FBR) Biological Treatment Plant for removal of perchlorate consists of five 33,000 gallon first-stage FBRs, four 28,800 gallon second-stage FBRs, aeration (air and hydrogen peroxide, H<sub>2</sub>O<sub>2</sub>), dissolved air flotation (DAF), two plate and frame filter presses, and a sand filter.
- 5) During the current reporting period, GW-11 operated as an equalization basin until September 2, 2015. After that date, groundwater entered the equalization tanks directly from lift station 2 and the GWTP. GW-11 started serving as an equalization basin again starting in October 2015.



**Groundwater Extraction and Treatment System (GWETS) Flow Diagram**  
 Nevada Environmental Response Trust (NERT)  
 Henderson, Nevada

Figure

**5**



**Interceptor Well Field Total Chromium Concentrations**  
 Nevada Environmental Response Trust Site  
 Henderson, Nevada

Figure

**6**

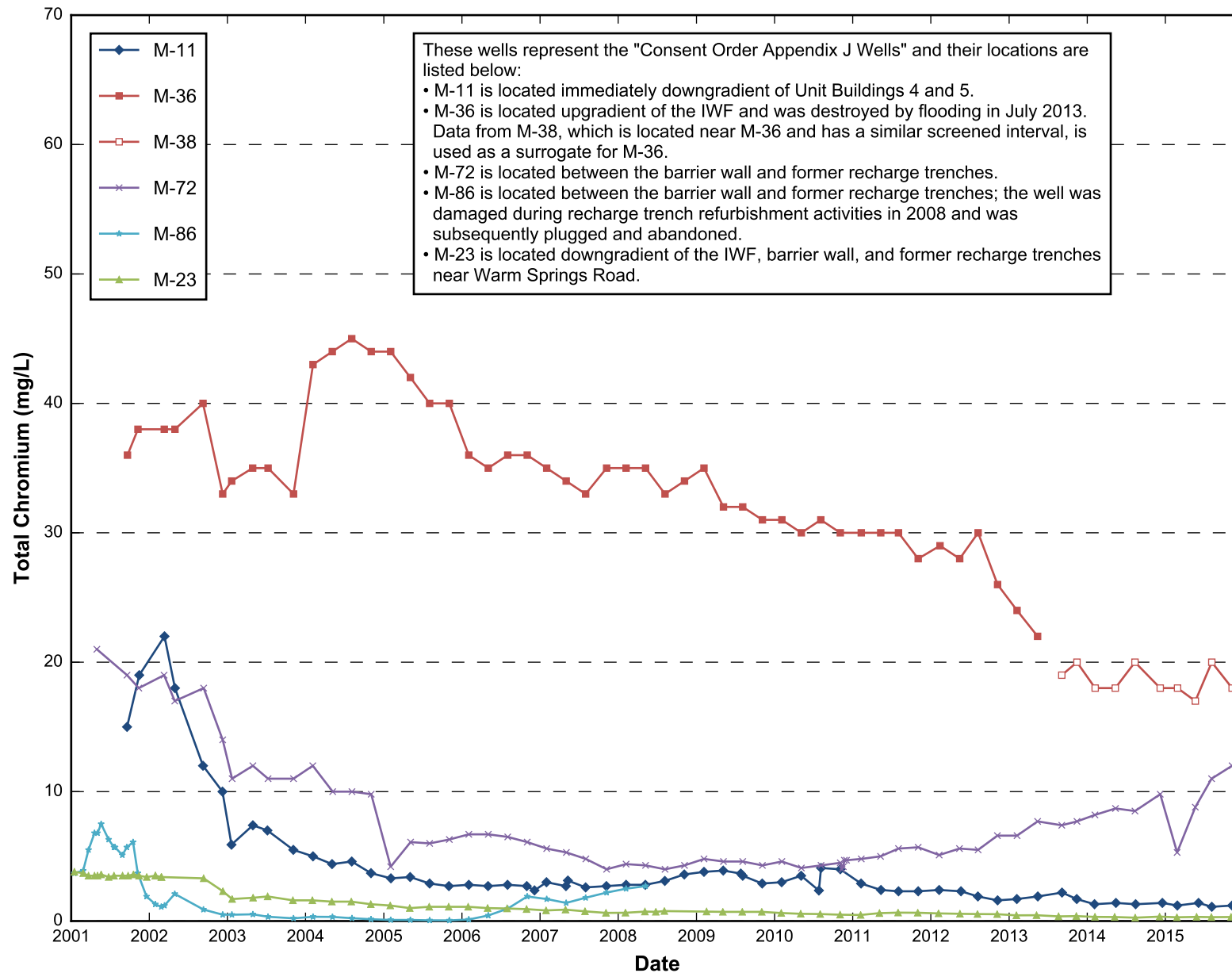
Drafter: JH

Date: 03/17/16

Contract Number: 21-38800A

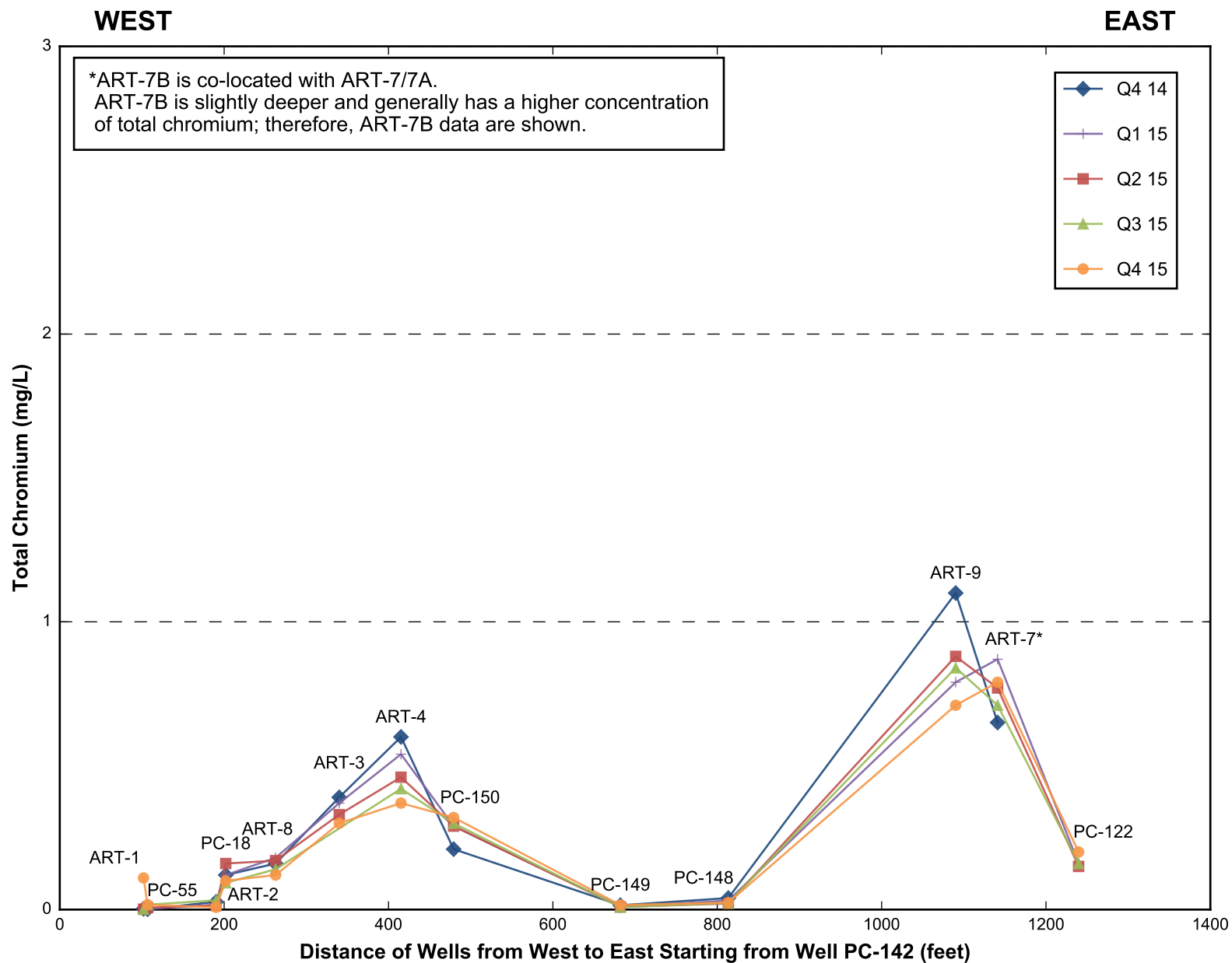
Approved:

Revised:



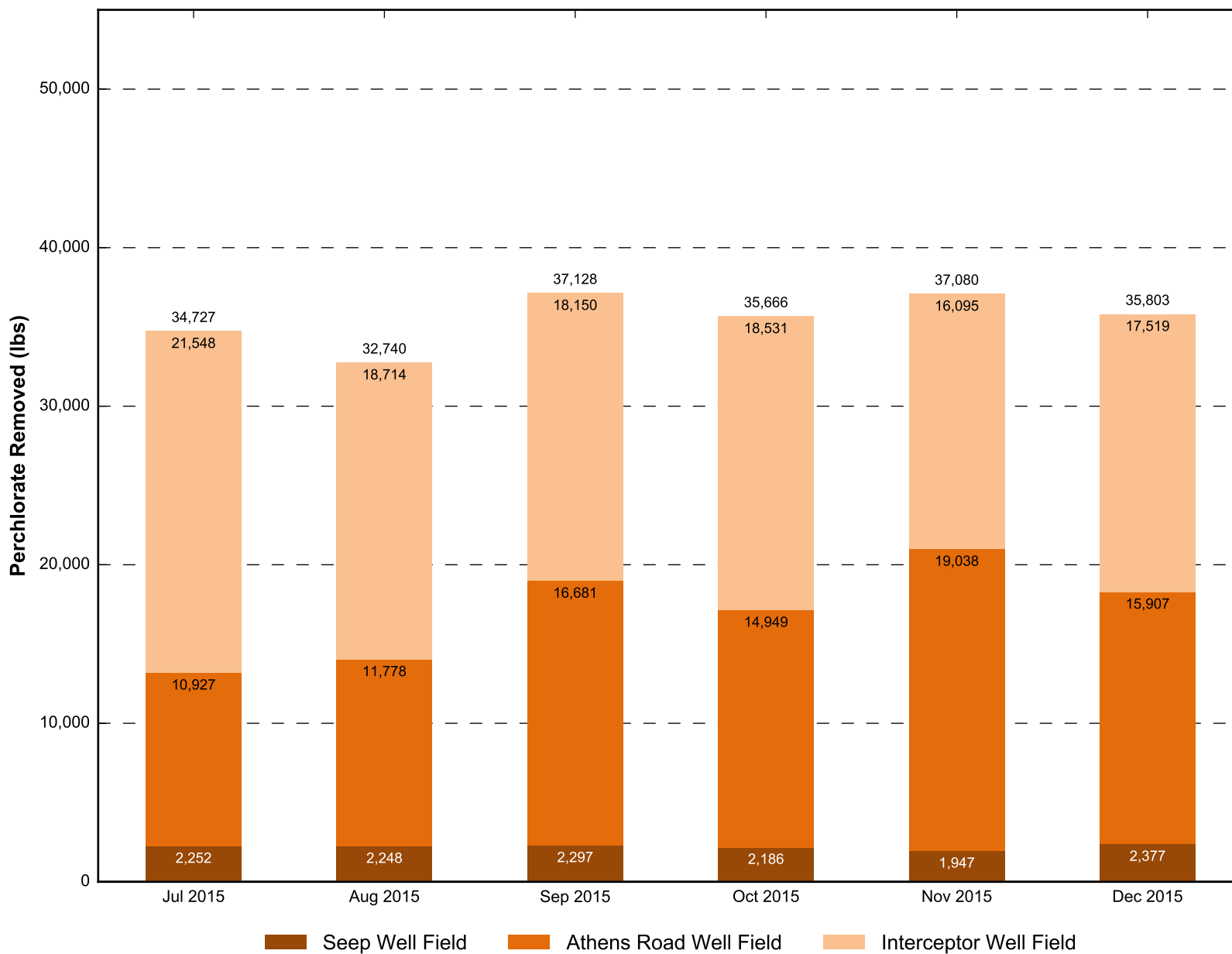
**Total Chromium Concentration Trends for Select Wells**  
 Nevada Environmental Response Trust Site  
 Henderson, Nevada

Figure  
**7**



**Athens Road Well Field Total Chromium Concentrations**  
Nevada Environmental Response Trust Site  
Henderson, Nevada

Figure  
**8**

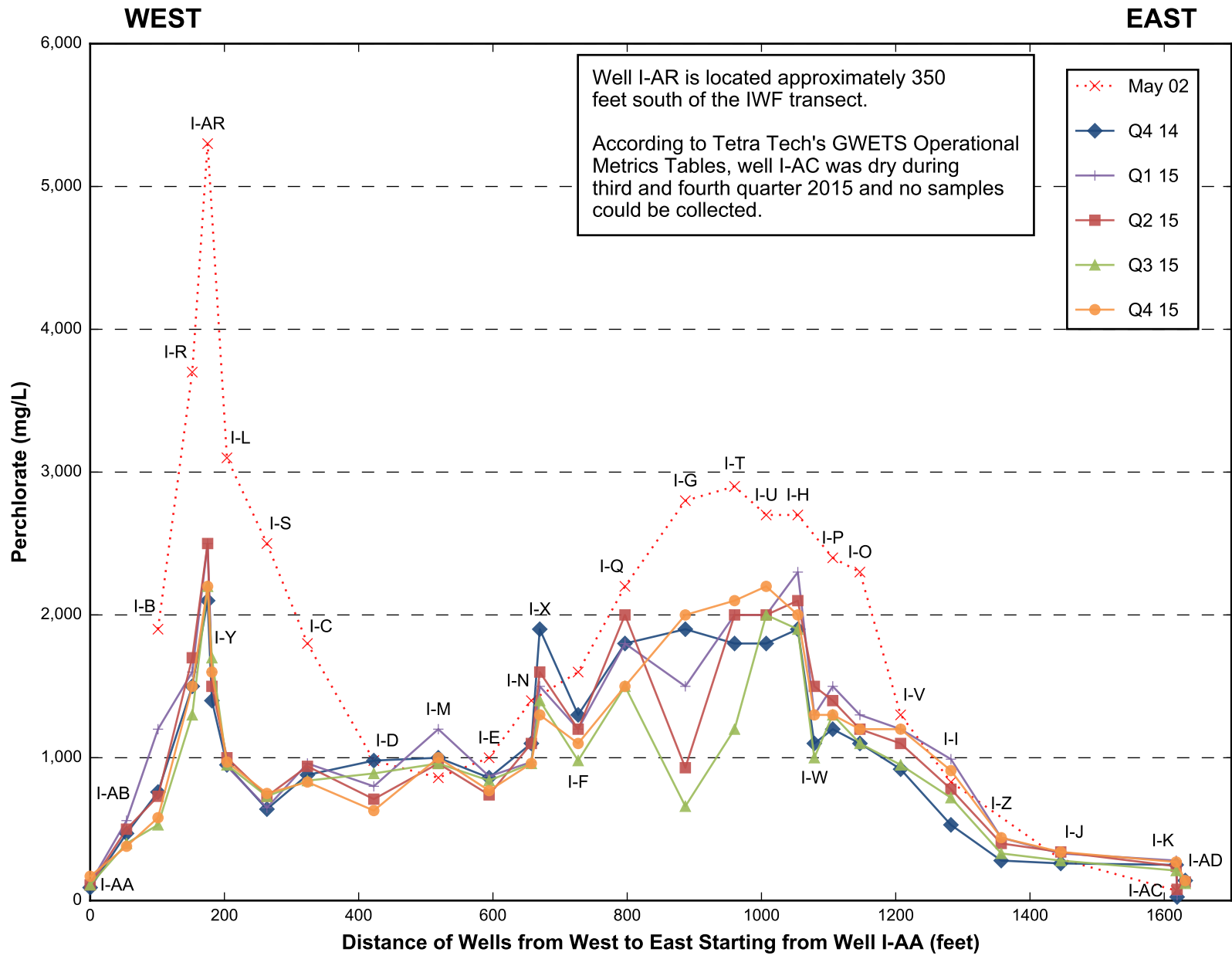


**Perchlorate Removed from the Environment July - December 2015**  
 Nevada Environmental Response Trust Site  
 Henderson, Nevada

Figure

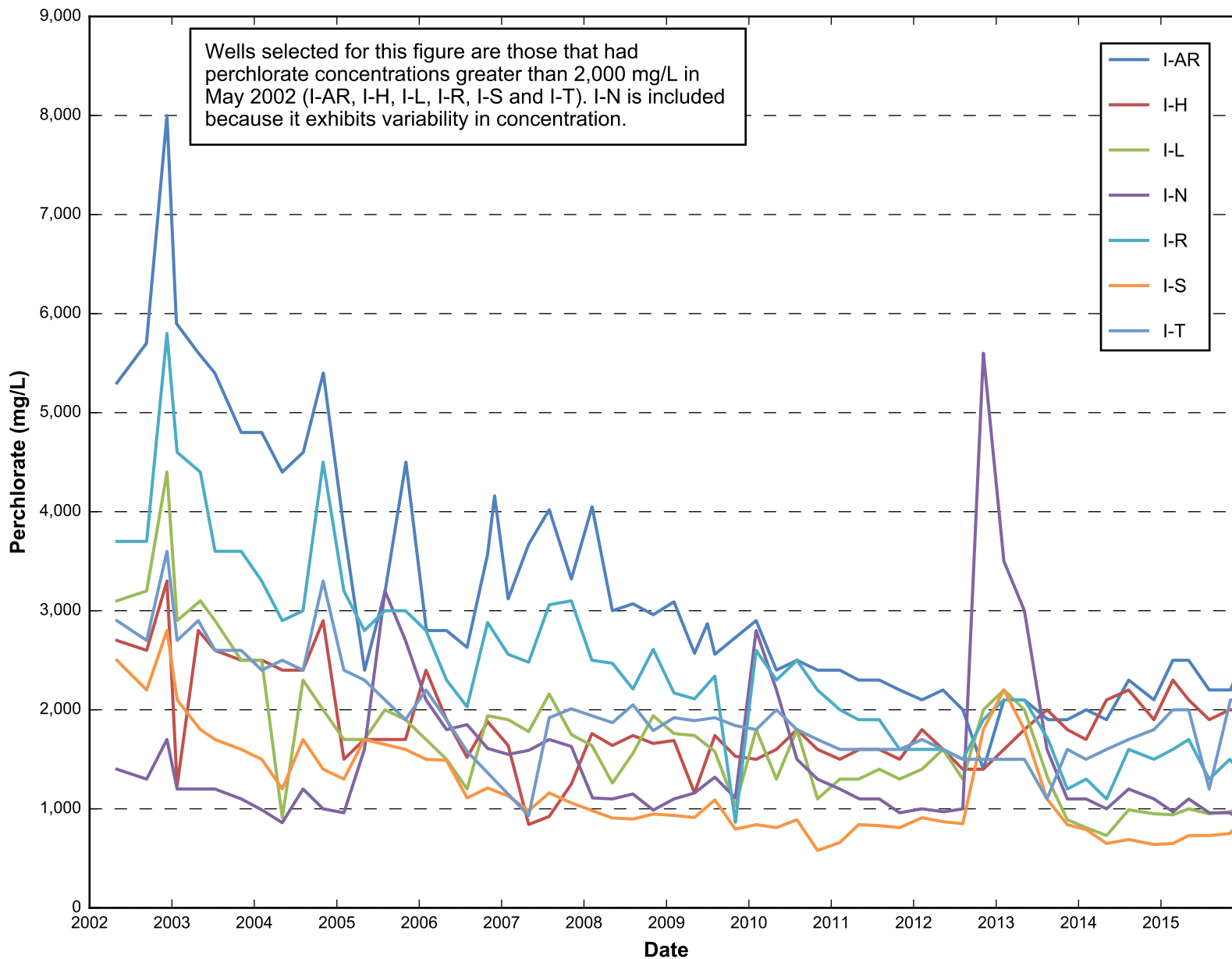
**9**





**Interceptor Well Field Perchlorate Concentrations**  
 Nevada Environmental Response Trust Site  
 Henderson, Nevada

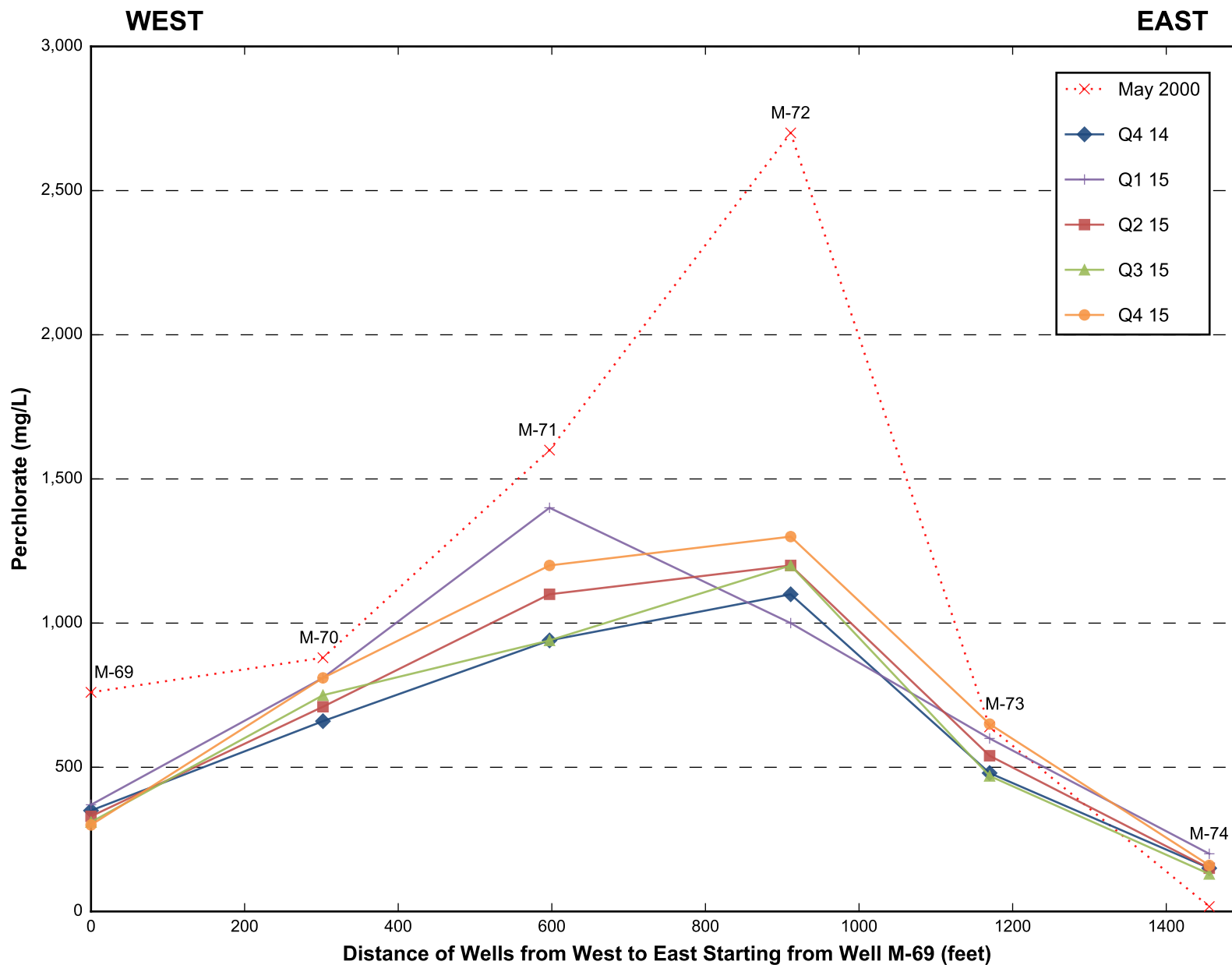
Figure  
**10**



**Interceptor Well Field Perchlorate Concentration Trends for Select Wells**  
 Nevada Environmental Response Trust Site  
 Henderson, Nevada

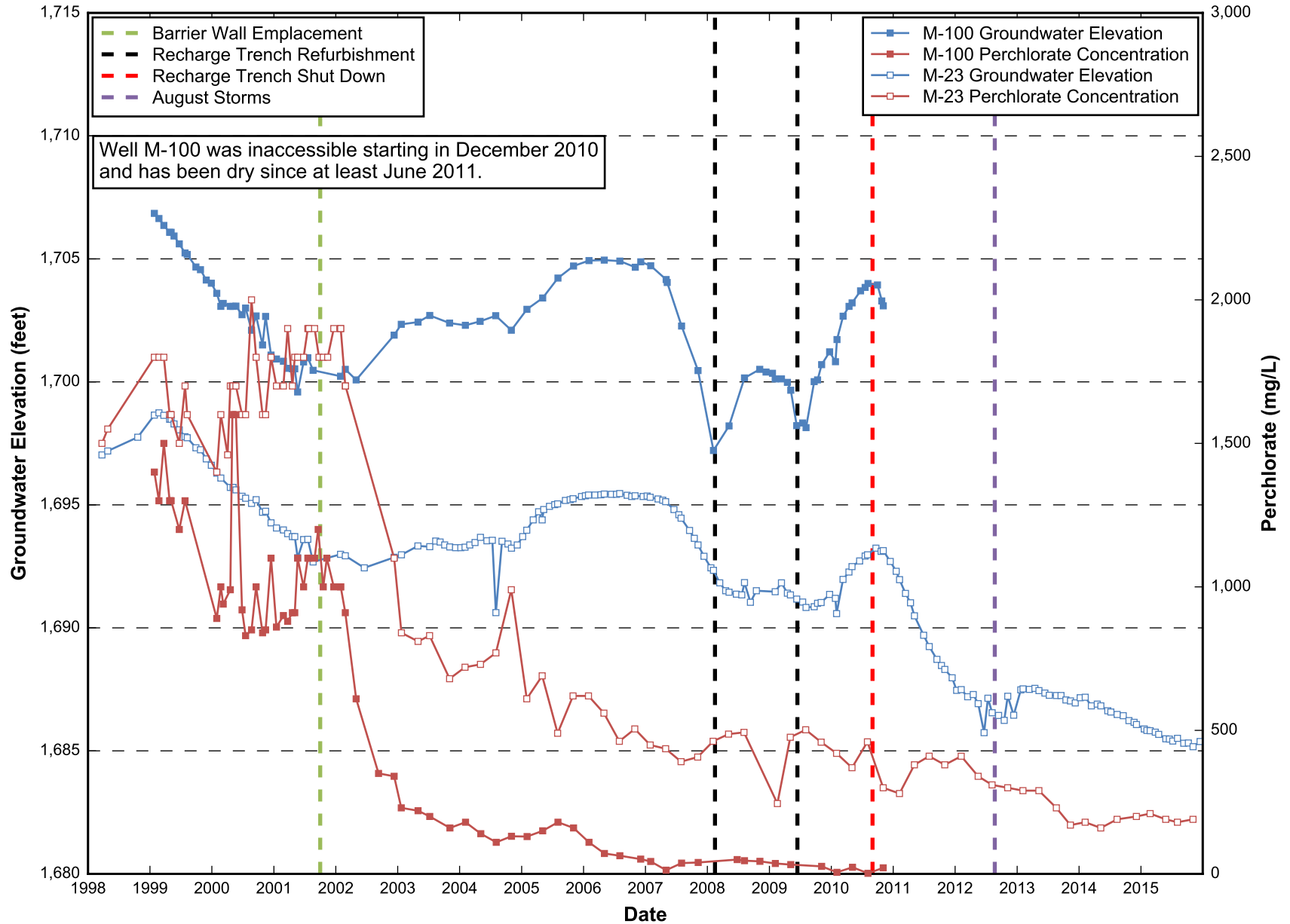
Figure

**11**



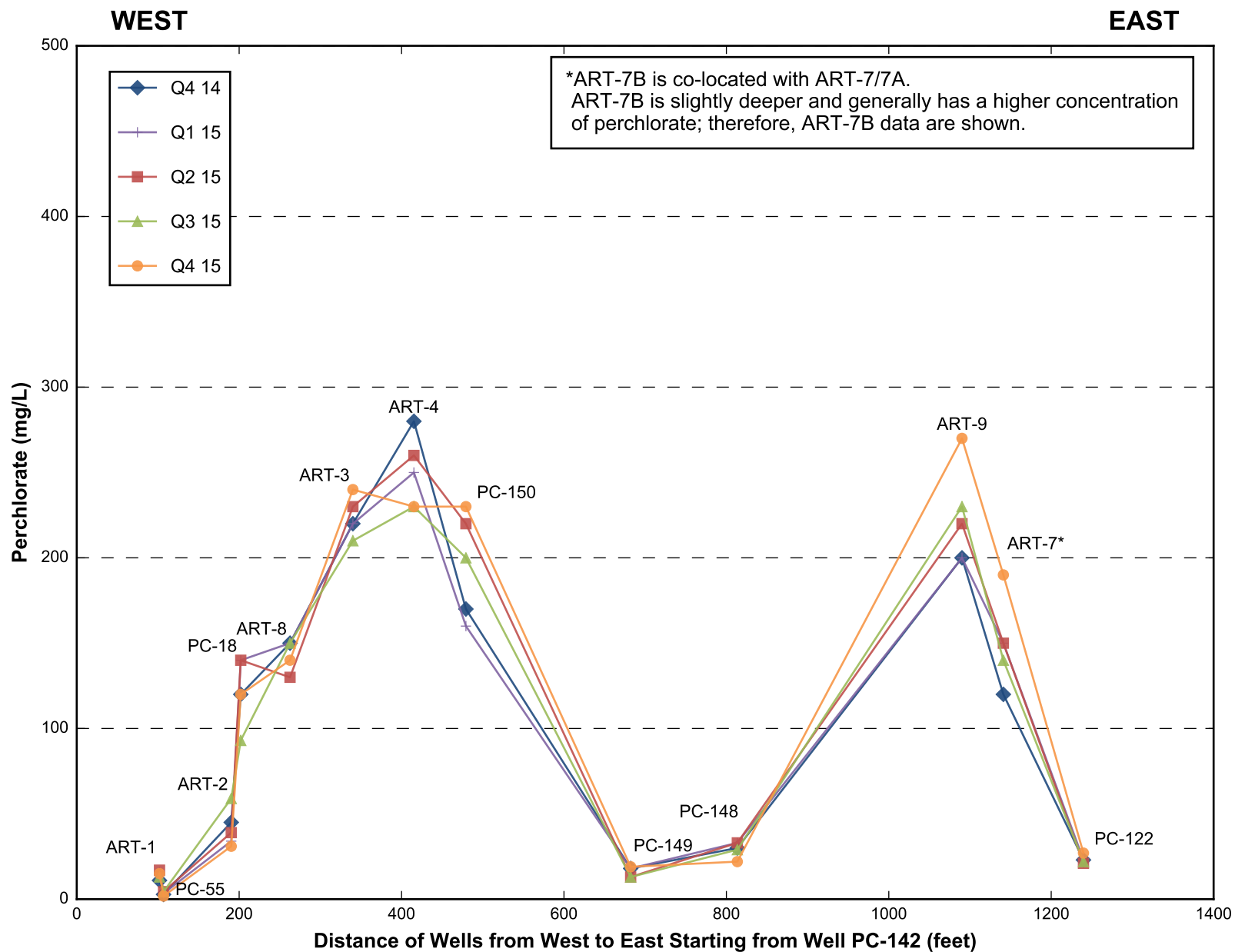
**Barrier Wall Well Line Perchlorate Concentrations**  
 Nevada Environmental Response Trust Site  
 Henderson, Nevada

Figure  
**12**



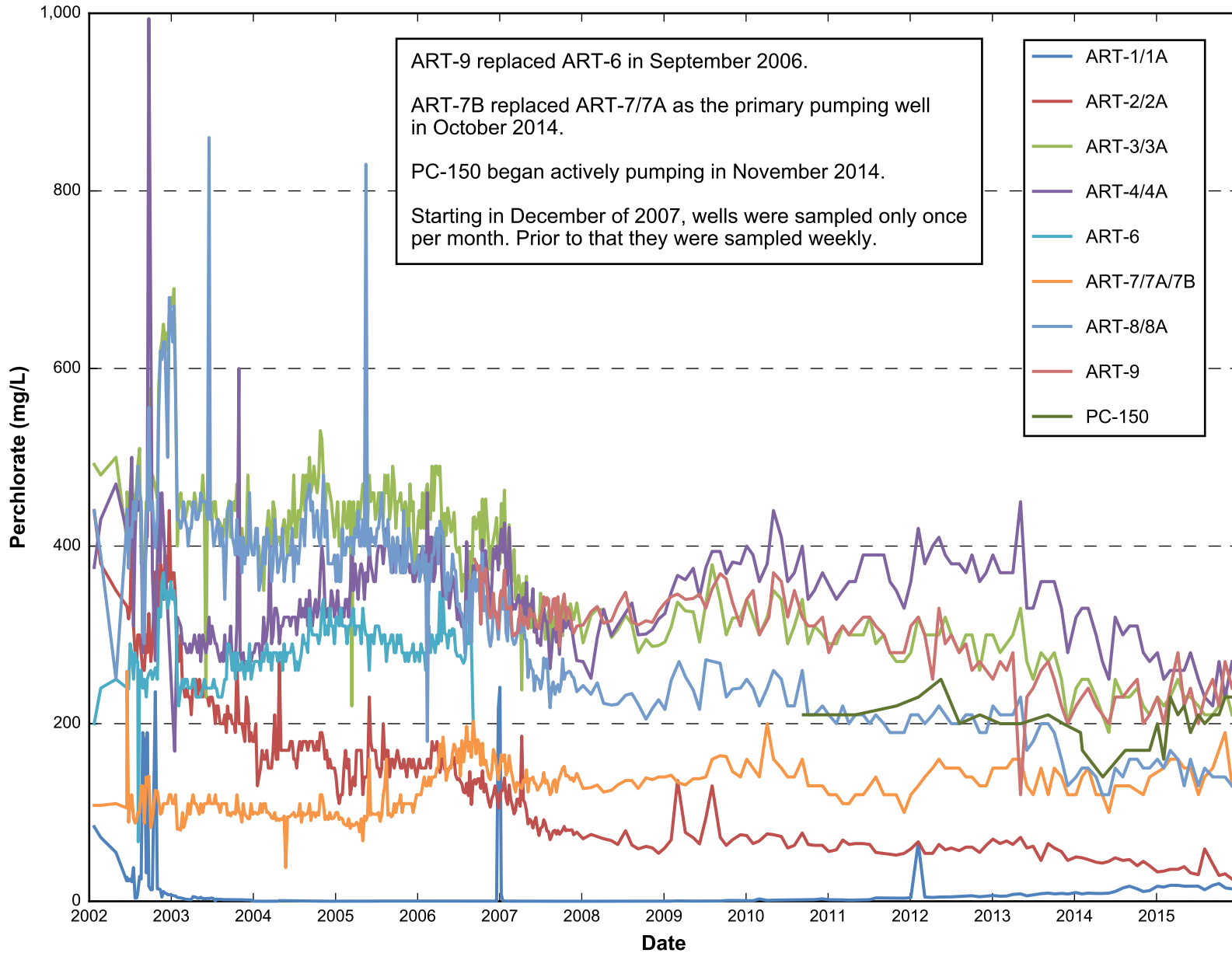
**Wells M-100 and M-23 Perchlorate Concentrations vs. Groundwater Elevation Trends**  
 Nevada Environmental Response Trust Site  
 Henderson, Nevada

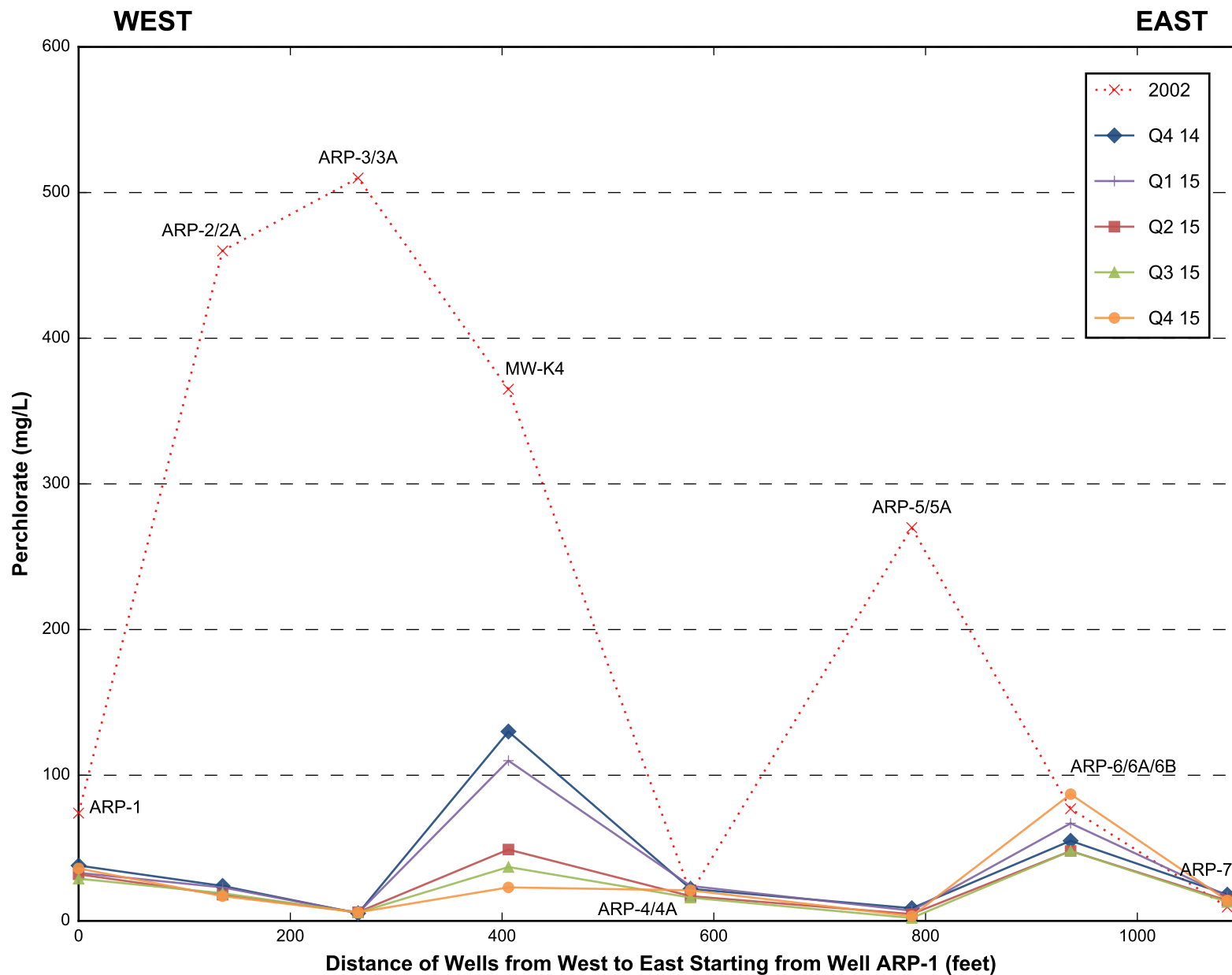
Figure  
**13**



**Athens Road Well Field Perchlorate Concentrations**  
 Nevada Environmental Response Trust Site  
 Henderson, Nevada

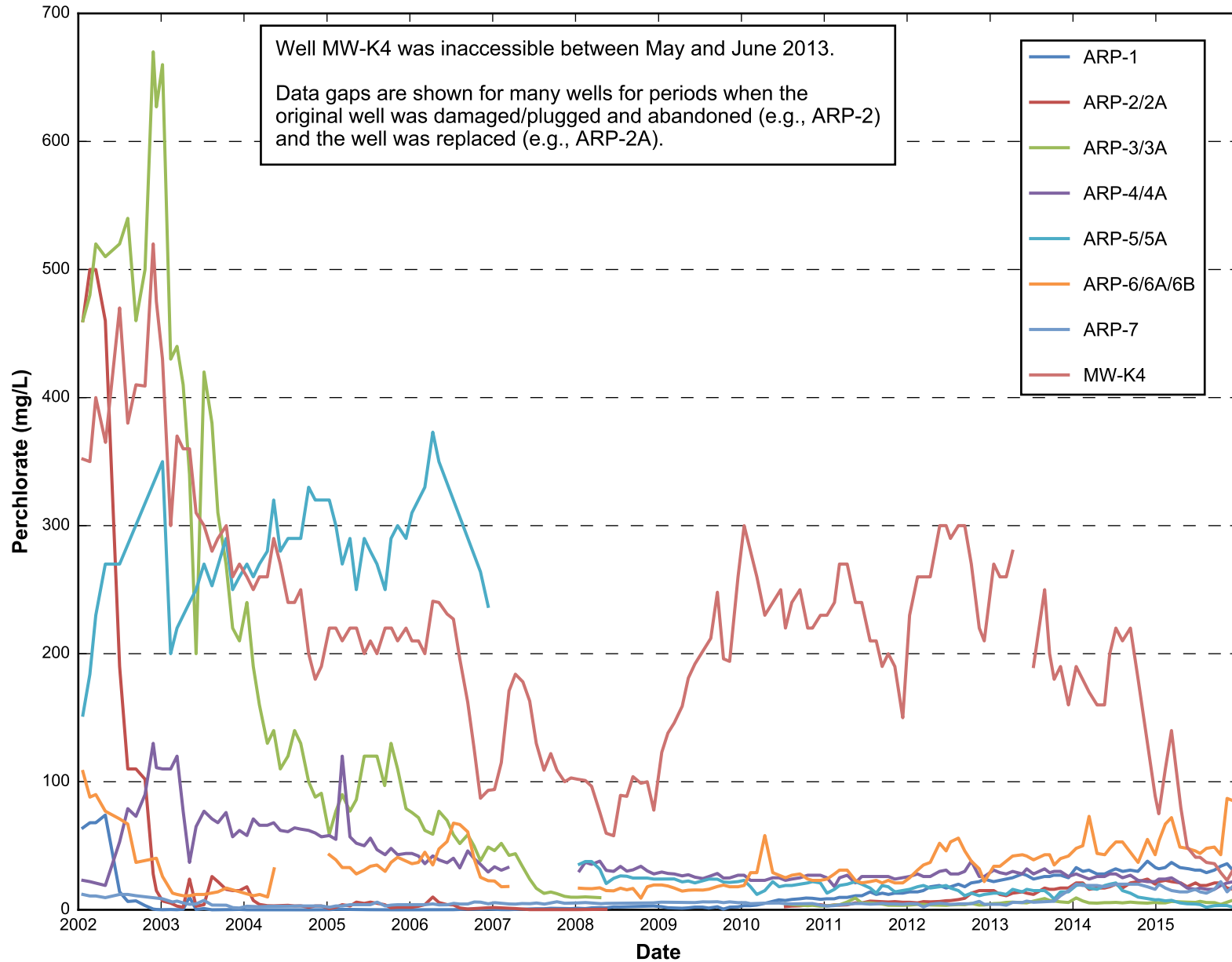
Figure  
**14**



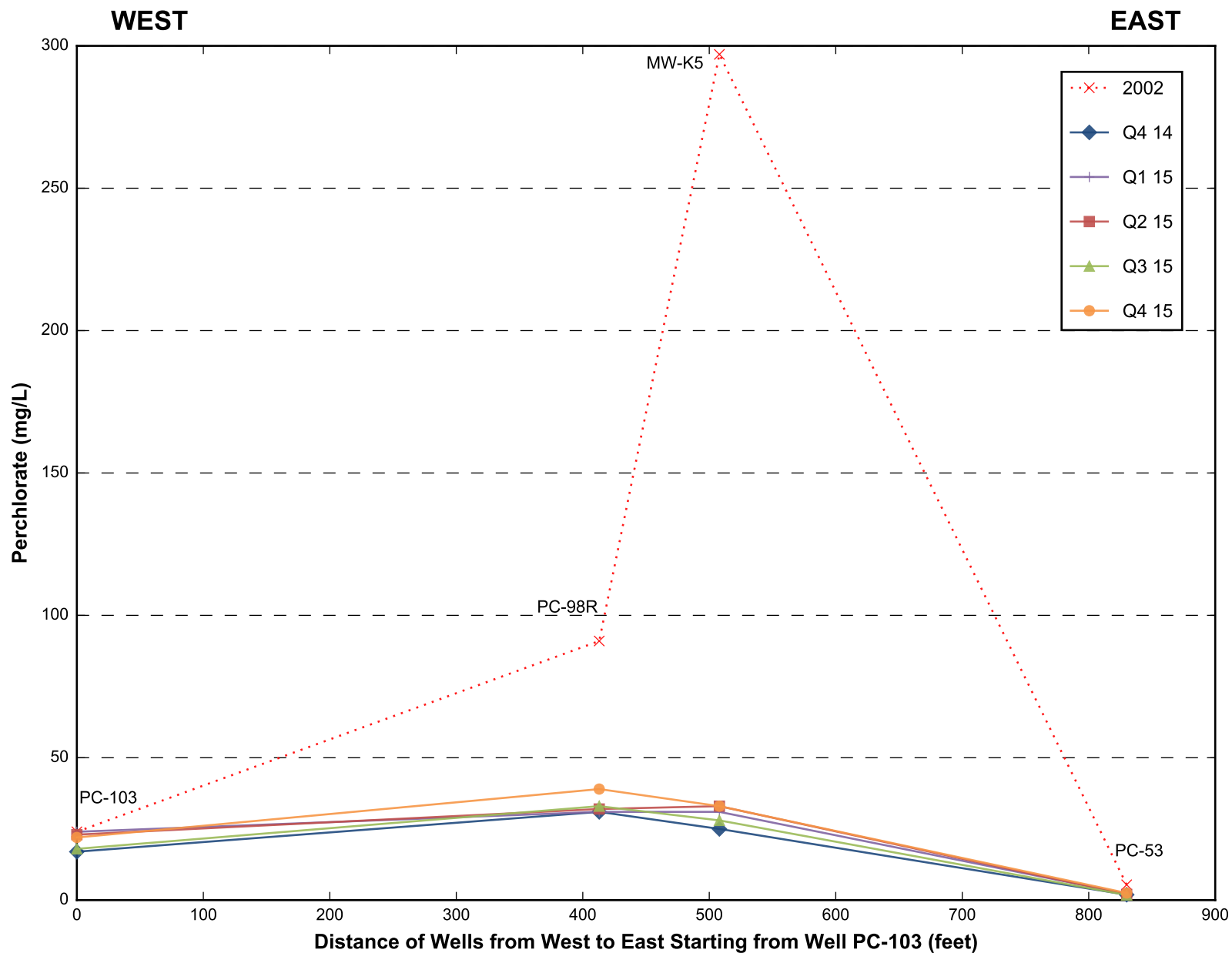


**Athens Road Piezometer Well Line Perchlorate Concentrations**  
 Nevada Environmental Response Trust Site  
 Henderson, Nevada

Figure  
**16**

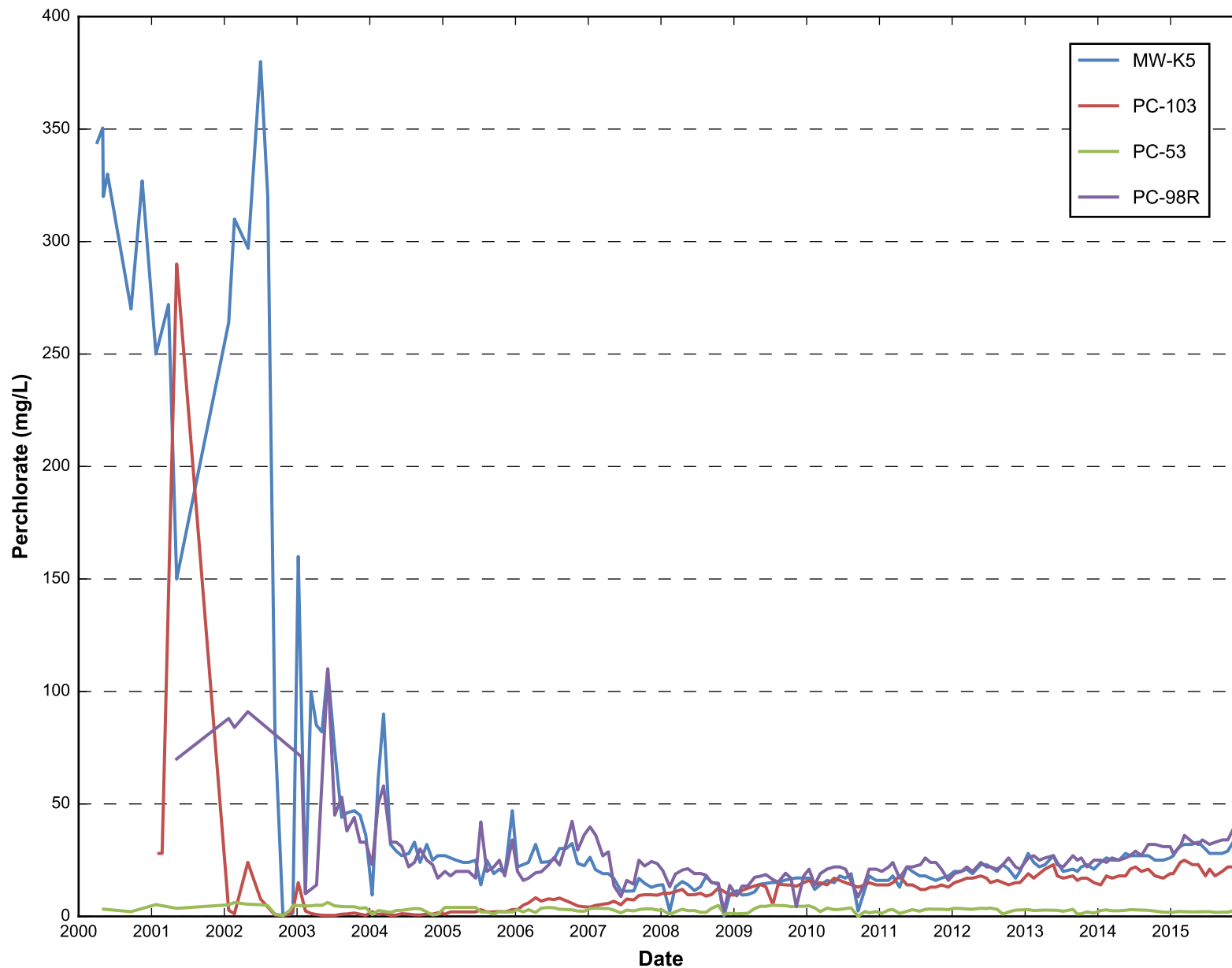






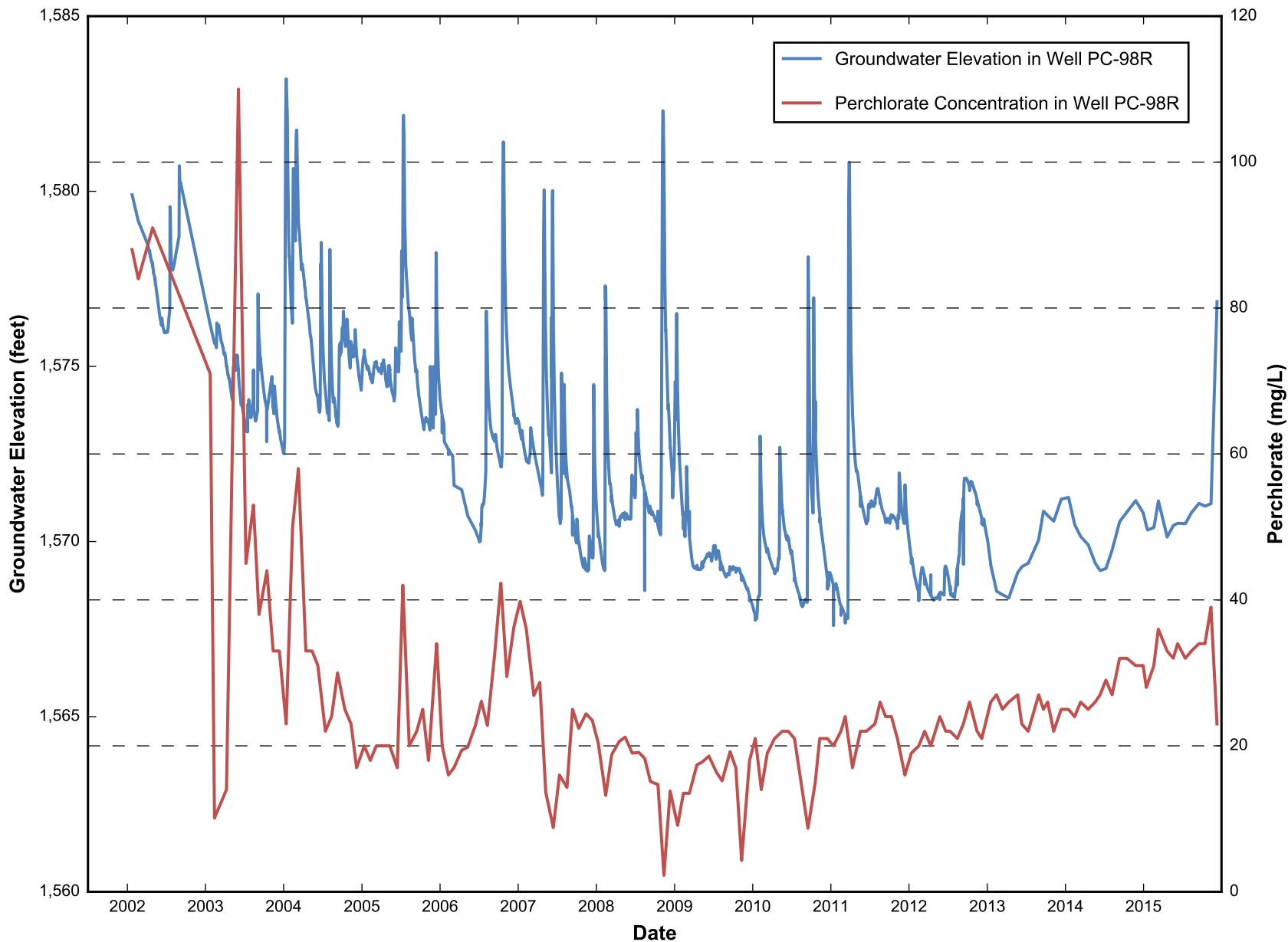
**City of Henderson WRF Well Line Perchlorate Concentrations**  
 Nevada Environmental Response Trust Site  
 Henderson, Nevada

Figure  
**18**



**City of Henderson WRF Well Line Perchlorate Concentration Trends**  
Nevada Environmental Response Trust Site  
Henderson, Nevada

Figure  
**19**



**Well PC-98R Perchlorate Concentration vs. Water Elevation Trends**  
Nevada Environmental Response Trust Site  
Henderson, Nevada

Figure

**20**

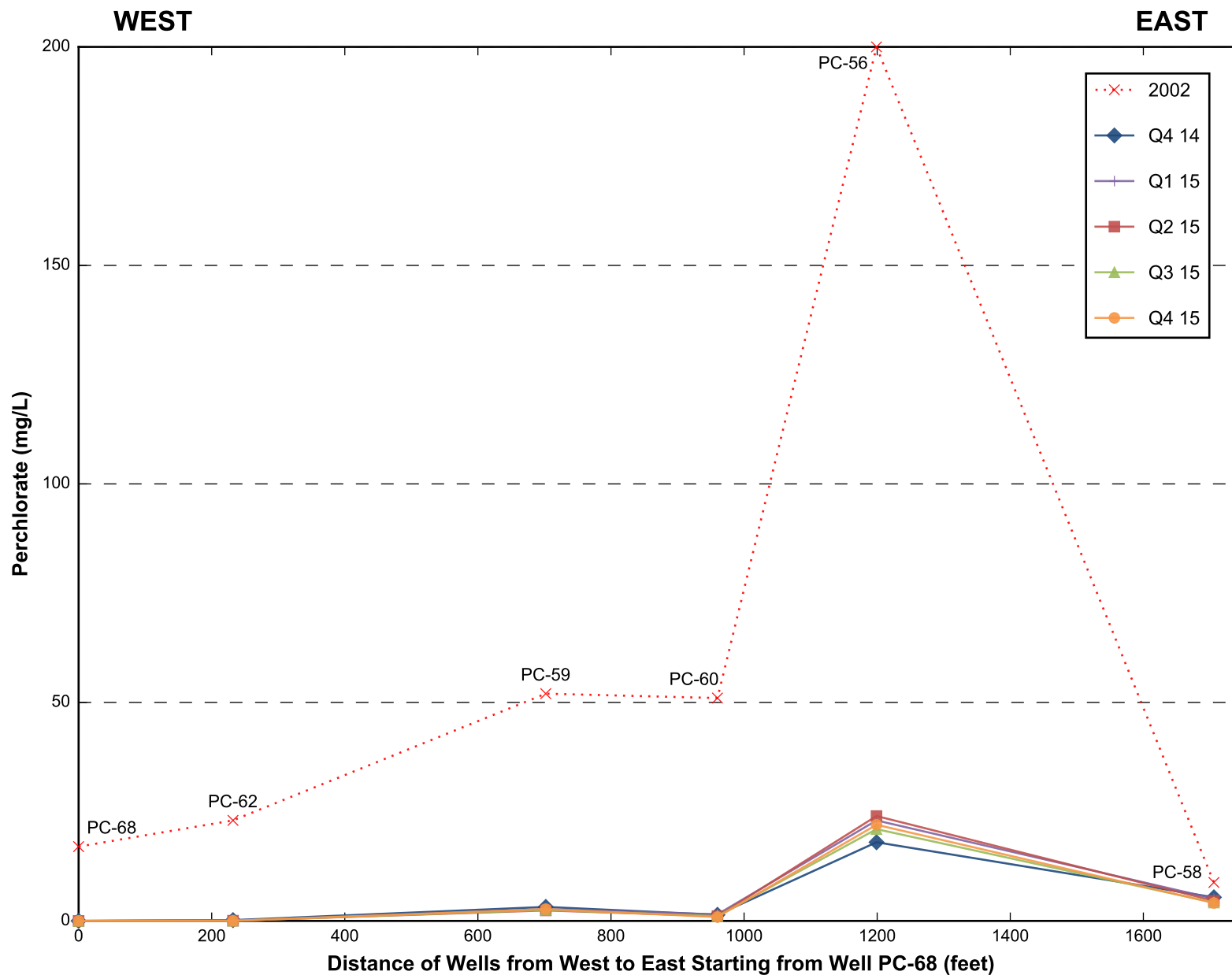
Drafter: JH

Date: 02/19/16

Contract Number: 21-38800A

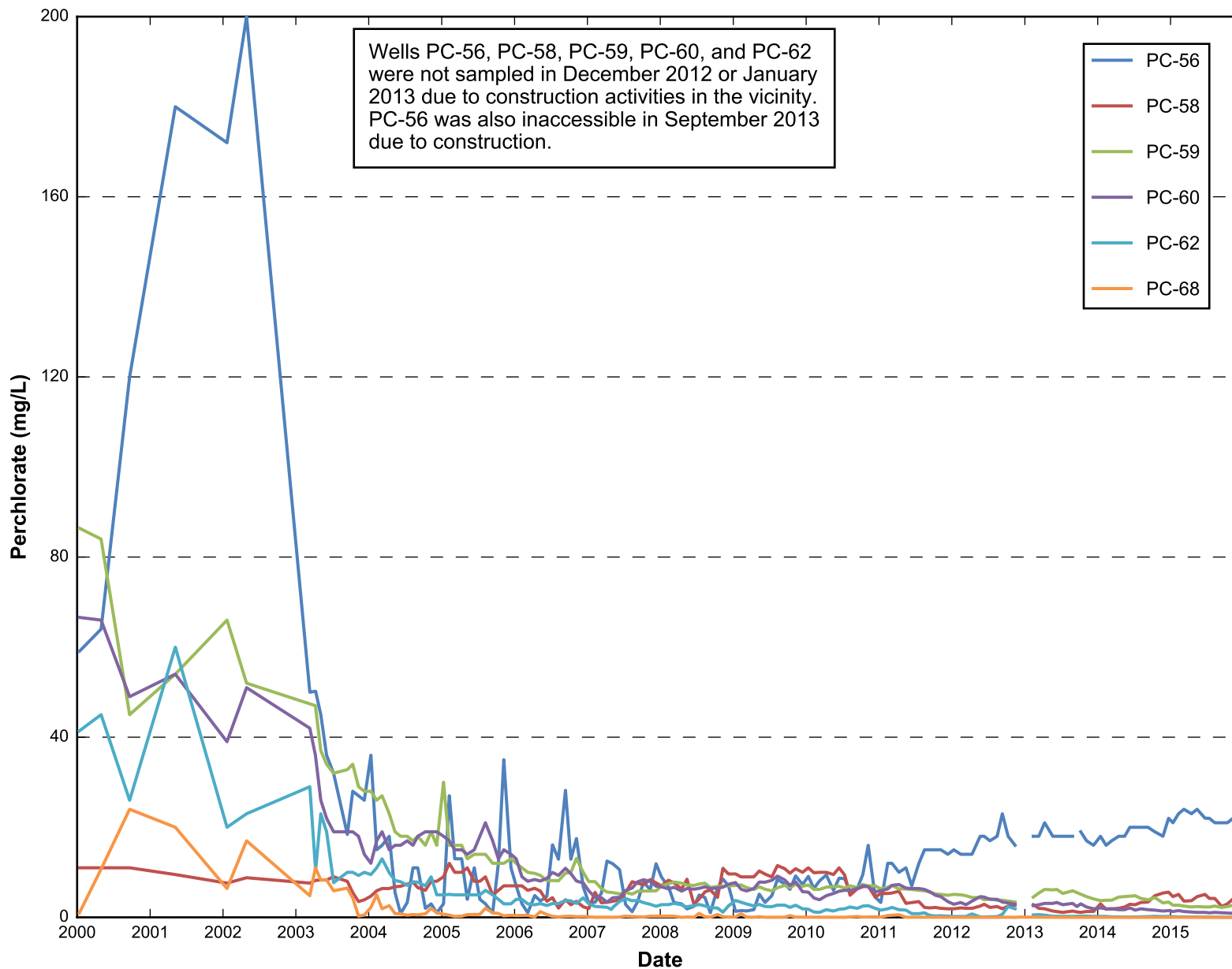
Approved:

Revised:



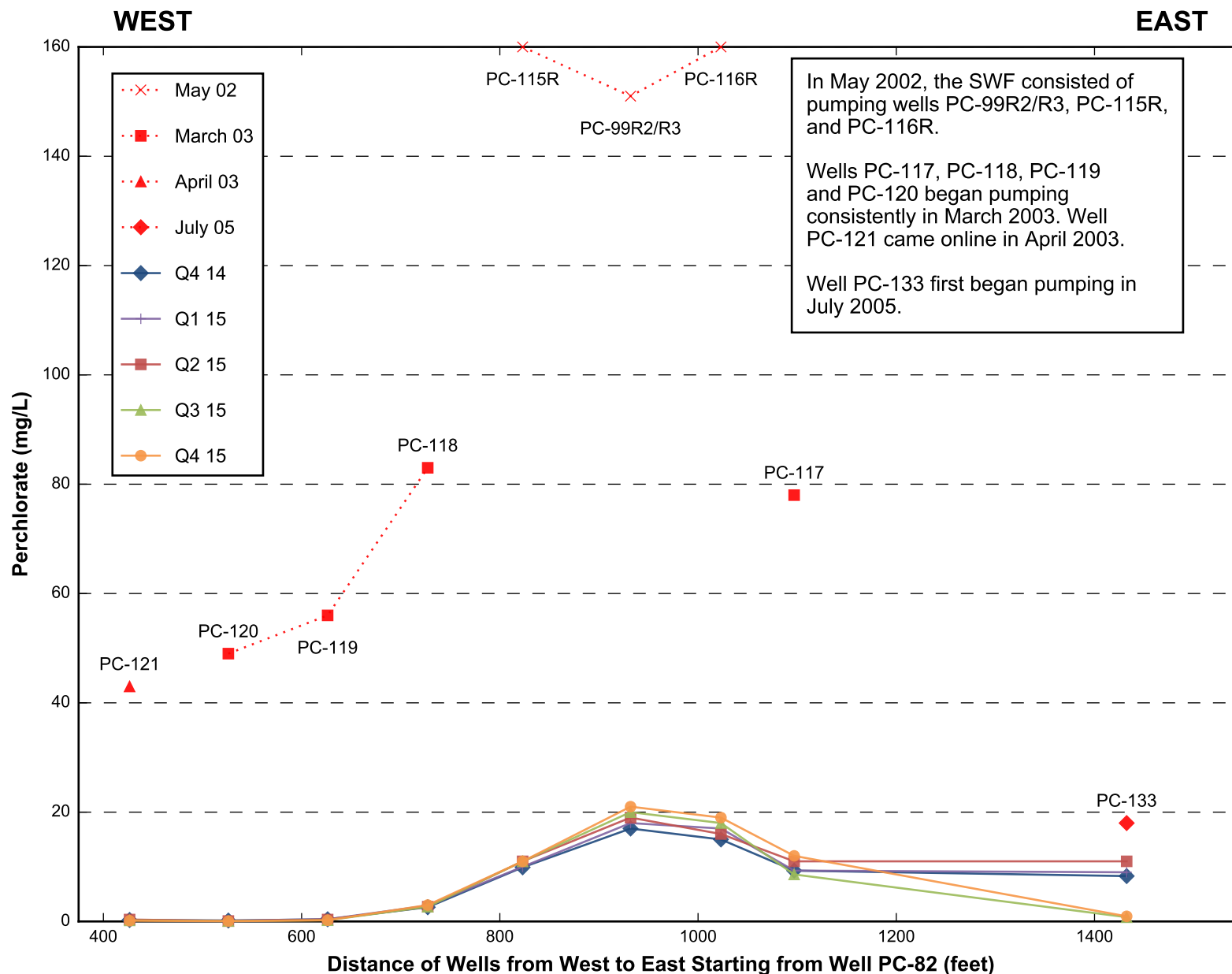
**Lower Ponds Well Line Perchlorate Concentrations**  
 Nevada Environmental Response Trust Site  
 Henderson, Nevada

Figure  
**21**



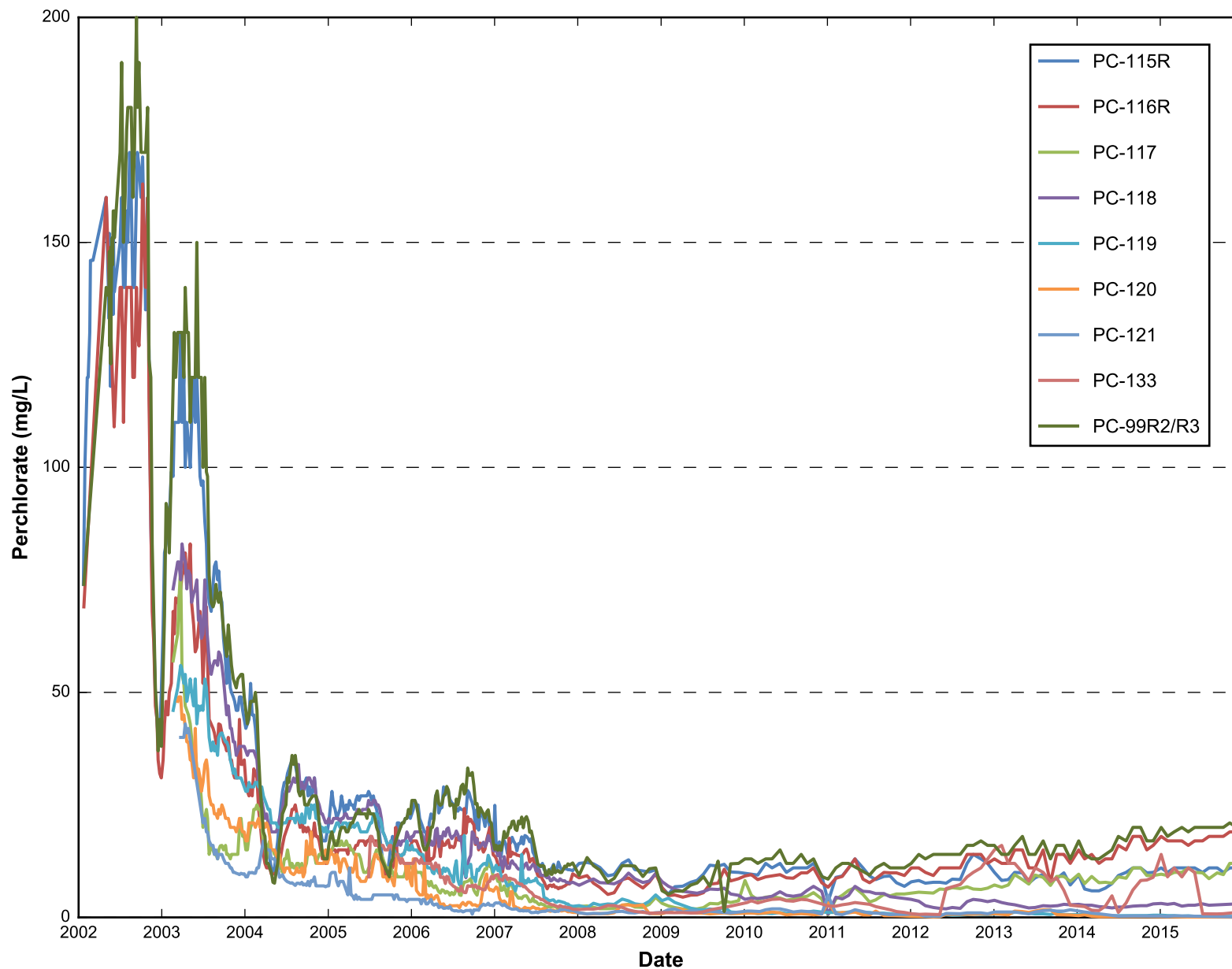
**Lower Ponds Well Line Perchlorate Concentration Trends**  
 Nevada Environmental Response Trust Site  
 Henderson, Nevada

Figure  
**22**



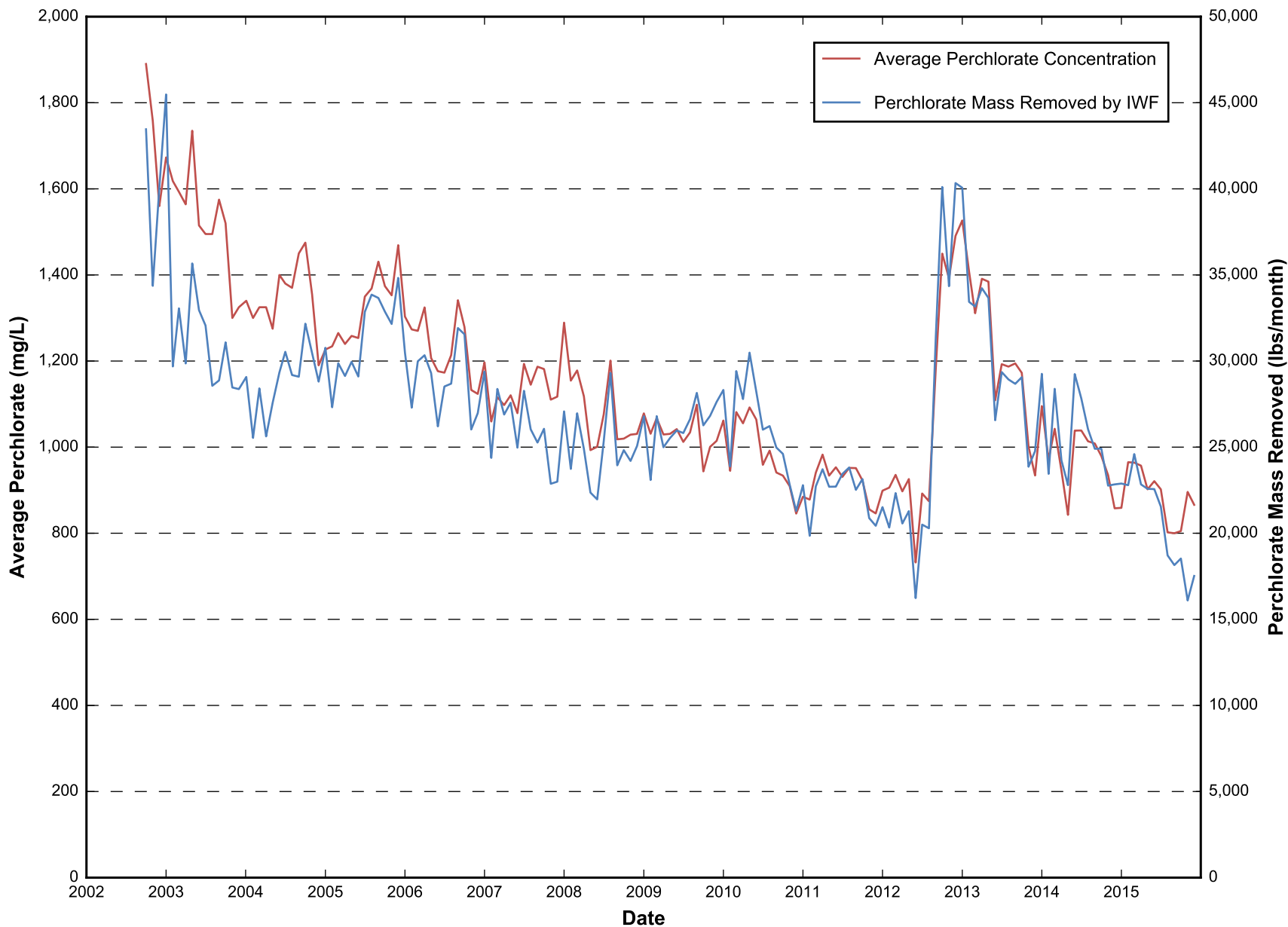
**Seep Well Field Perchlorate Concentrations**  
 Nevada Environmental Response Trust Site  
 Henderson, Nevada

Figure  
**23**



**Seep Well Field Perchlorate Concentration Trends**  
Nevada Environmental Response Trust Site  
Henderson, Nevada

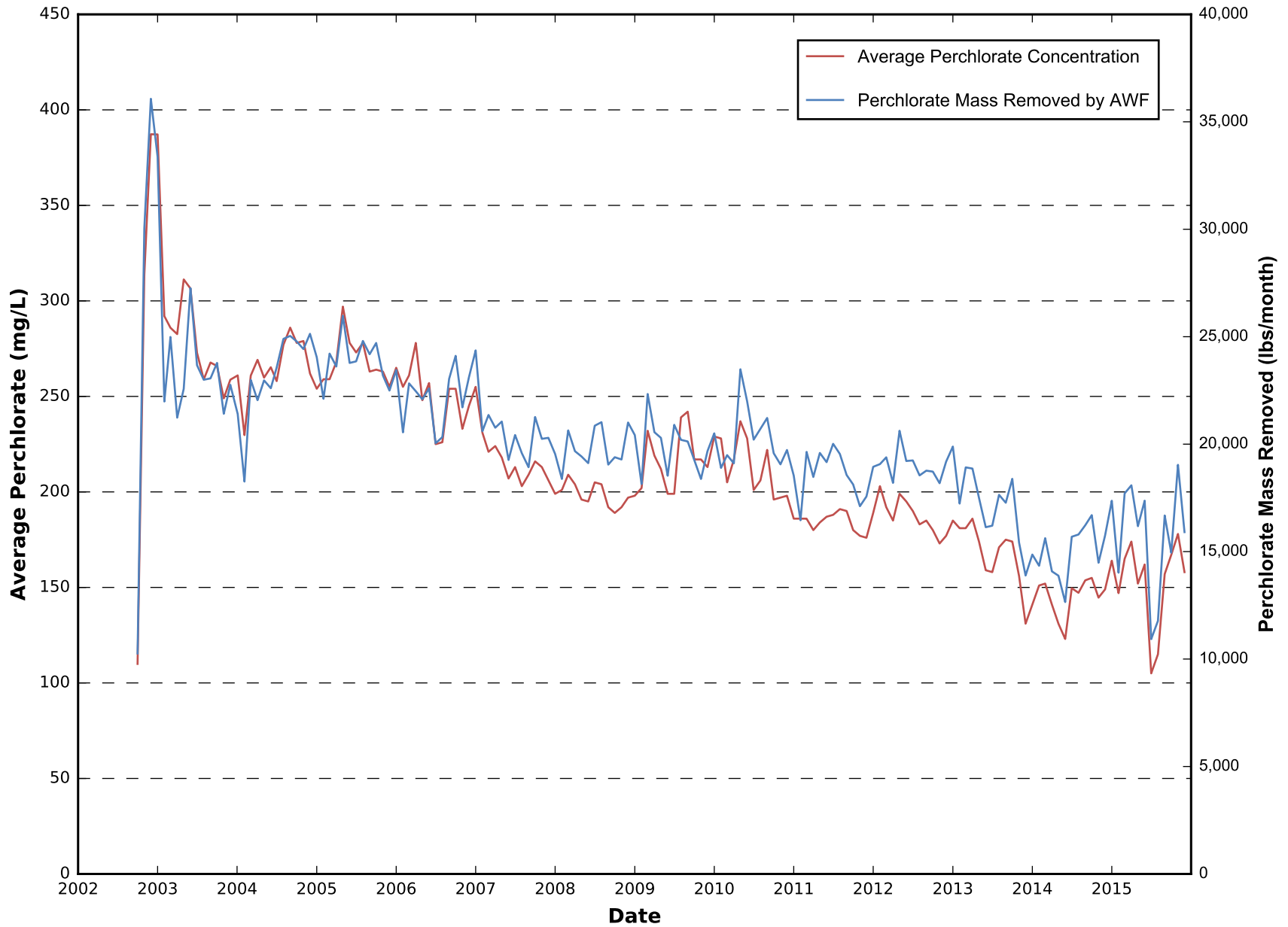
Figure  
**24**



**Interceptor Well Field Average Perchlorate Concentration and Mass Removed**  
 Nevada Environmental Response Trust Site  
 Henderson, Nevada

Figure  
**25**

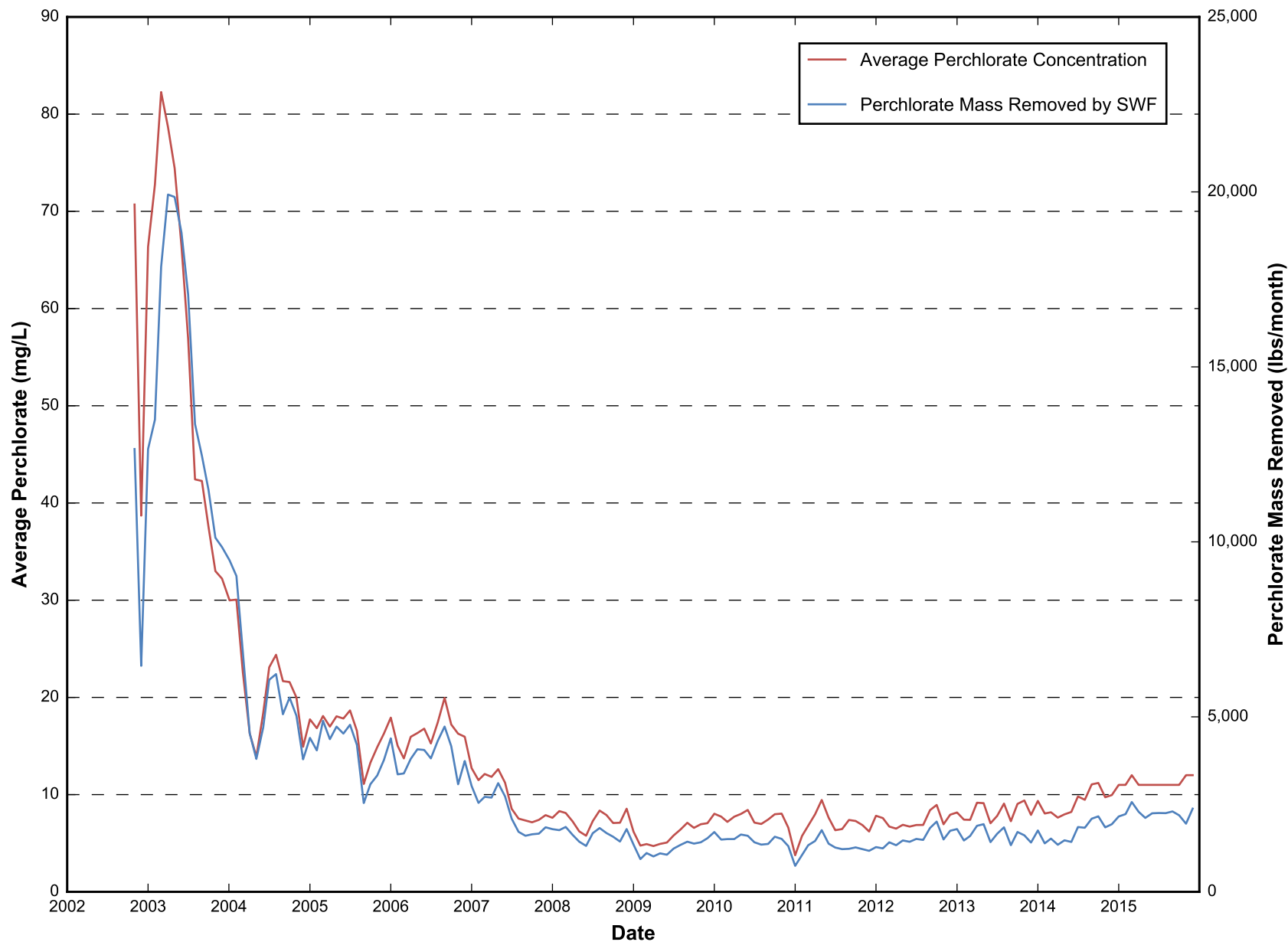




**Athens Road Well Field Average Perchlorate Concentration and Mass Removed**  
Nevada Environmental Response Trust Site  
Henderson, Nevada

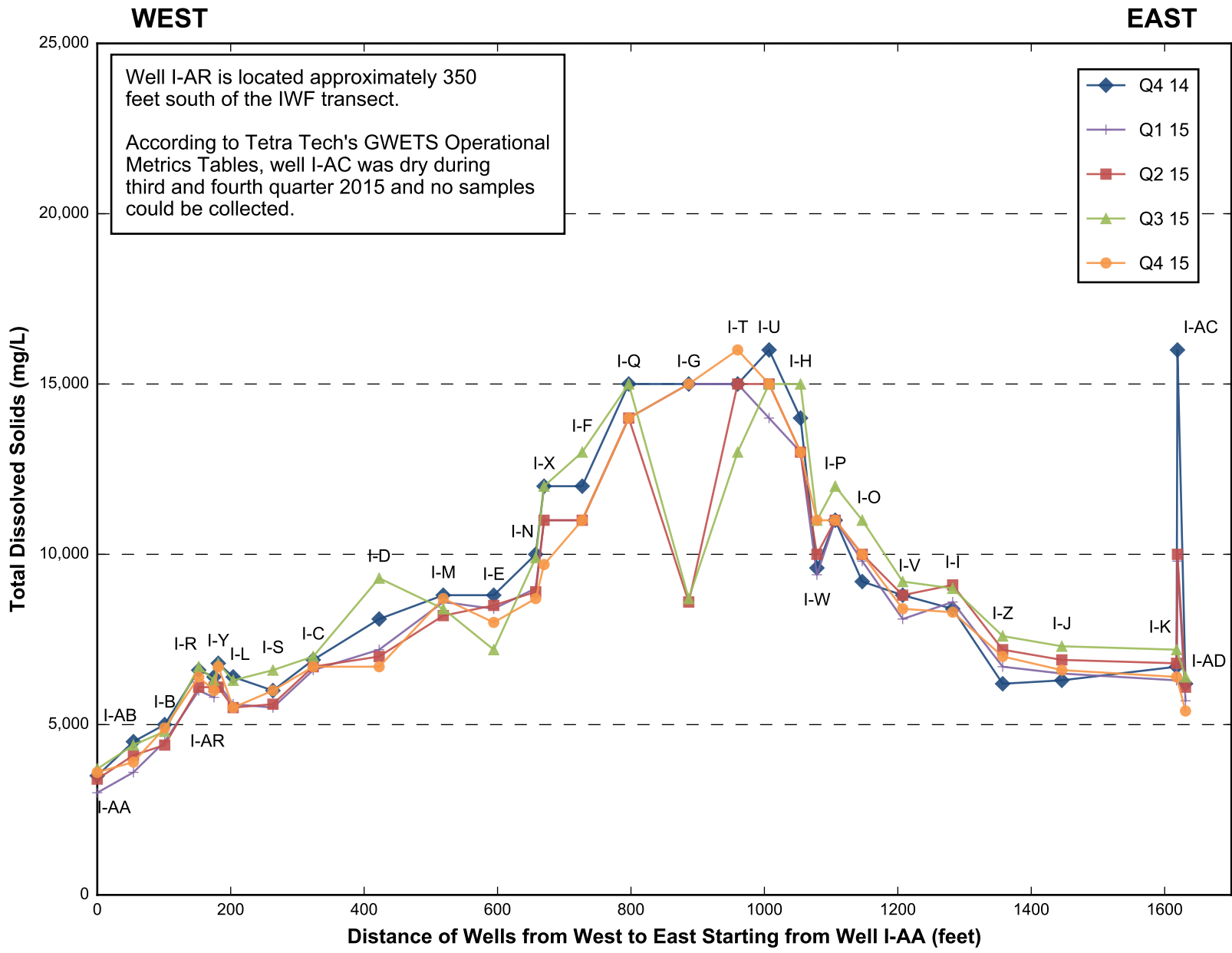
Figure

**26**

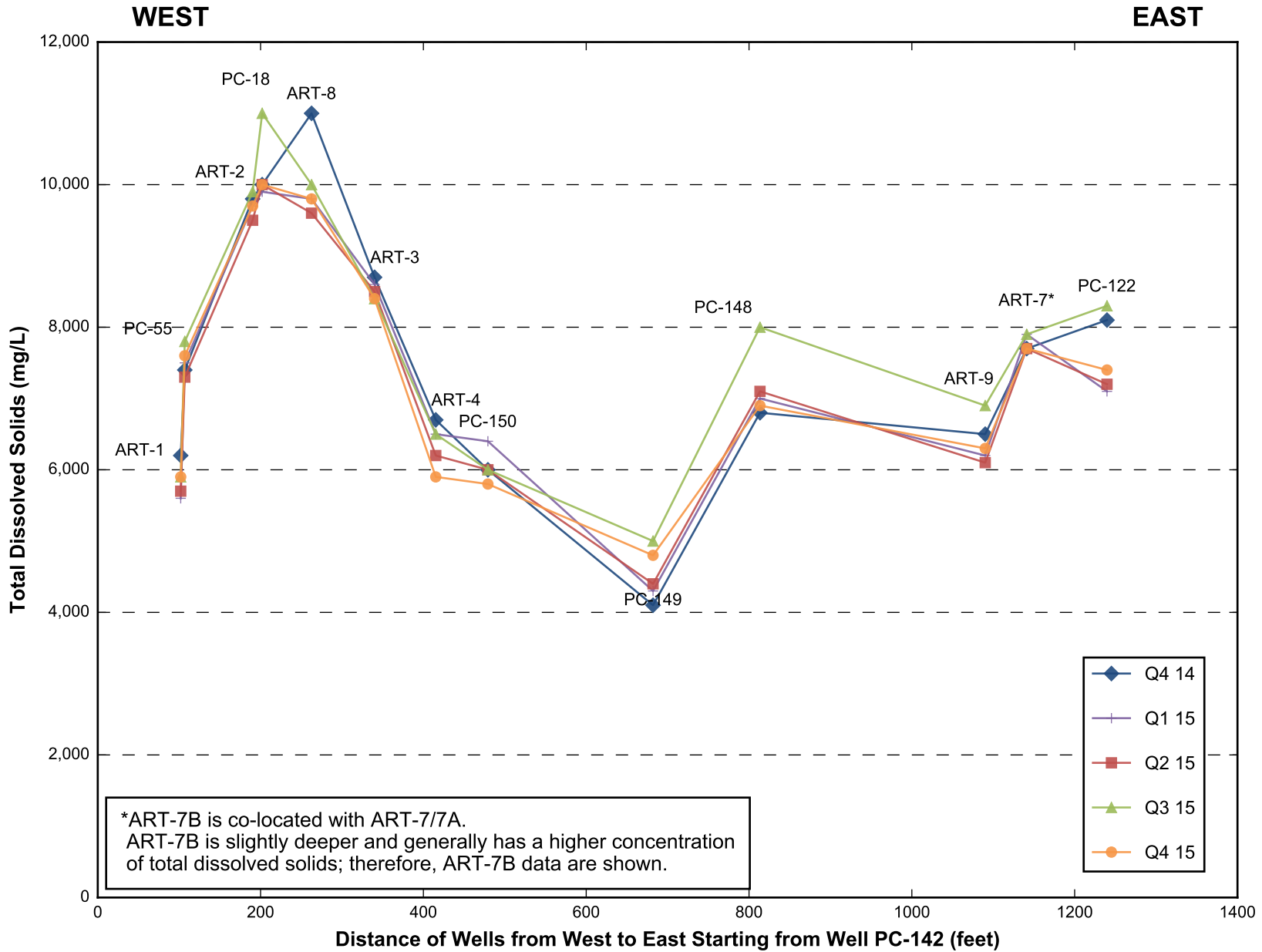


**Seep Well Field Average Perchlorate Concentration and Mass Removed**  
Nevada Environmental Response Trust Site  
Henderson, Nevada

Figure  
**27**



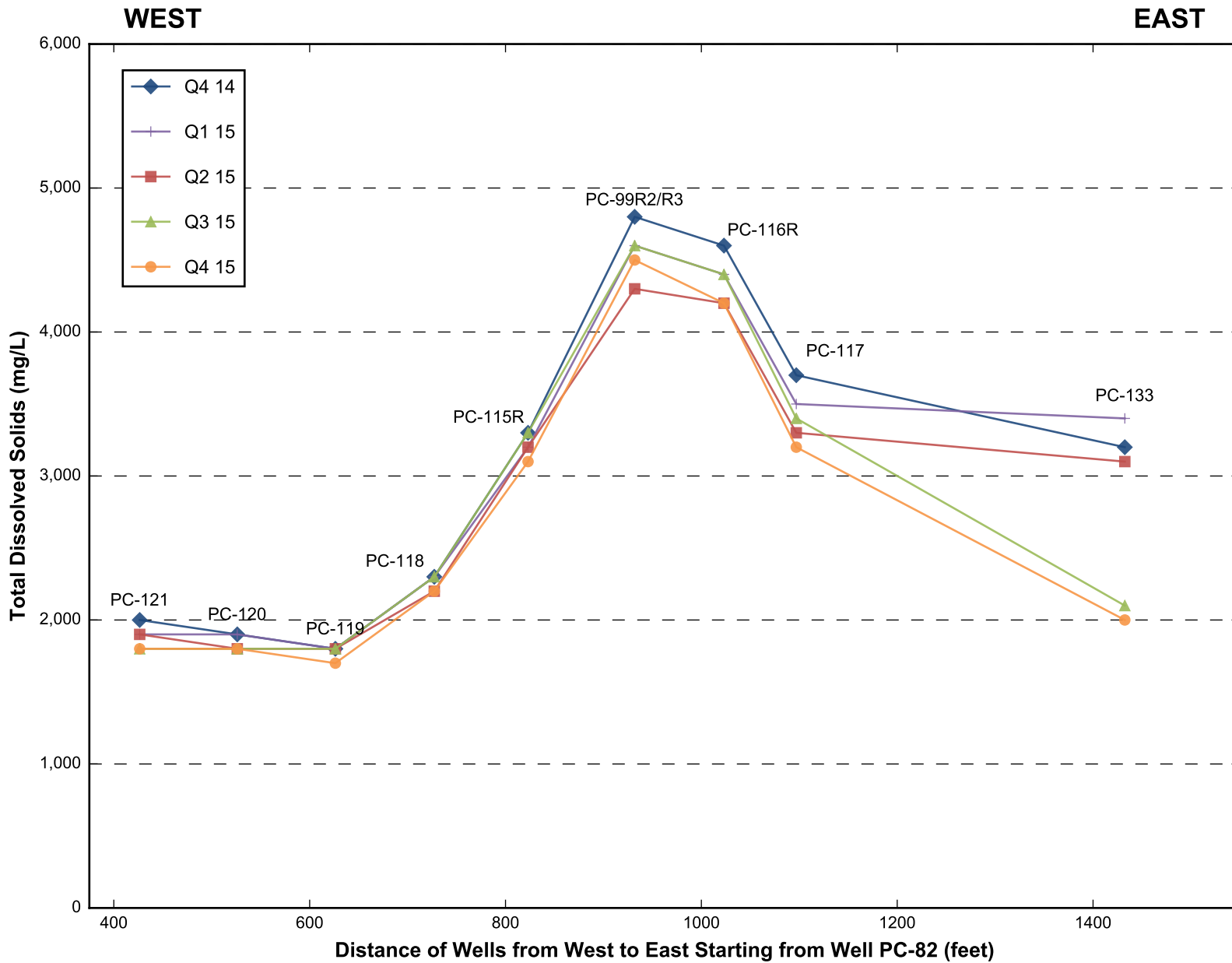
**Interceptor Well Field Total Dissolved Solids Concentrations**  
Nevada Environmental Response Trust Site  
Henderson, Nevada



**Athens Road Well Field Total Dissolved Solids Concentrations**  
 Nevada Environmental Response Trust Site  
 Henderson, Nevada

Figure

**29**



**Seep Well Field Total Dissolved Solids Concentrations**  
 Nevada Environmental Response Trust Site  
 Henderson, Nevada

Figure

**30**

Drafter: JH

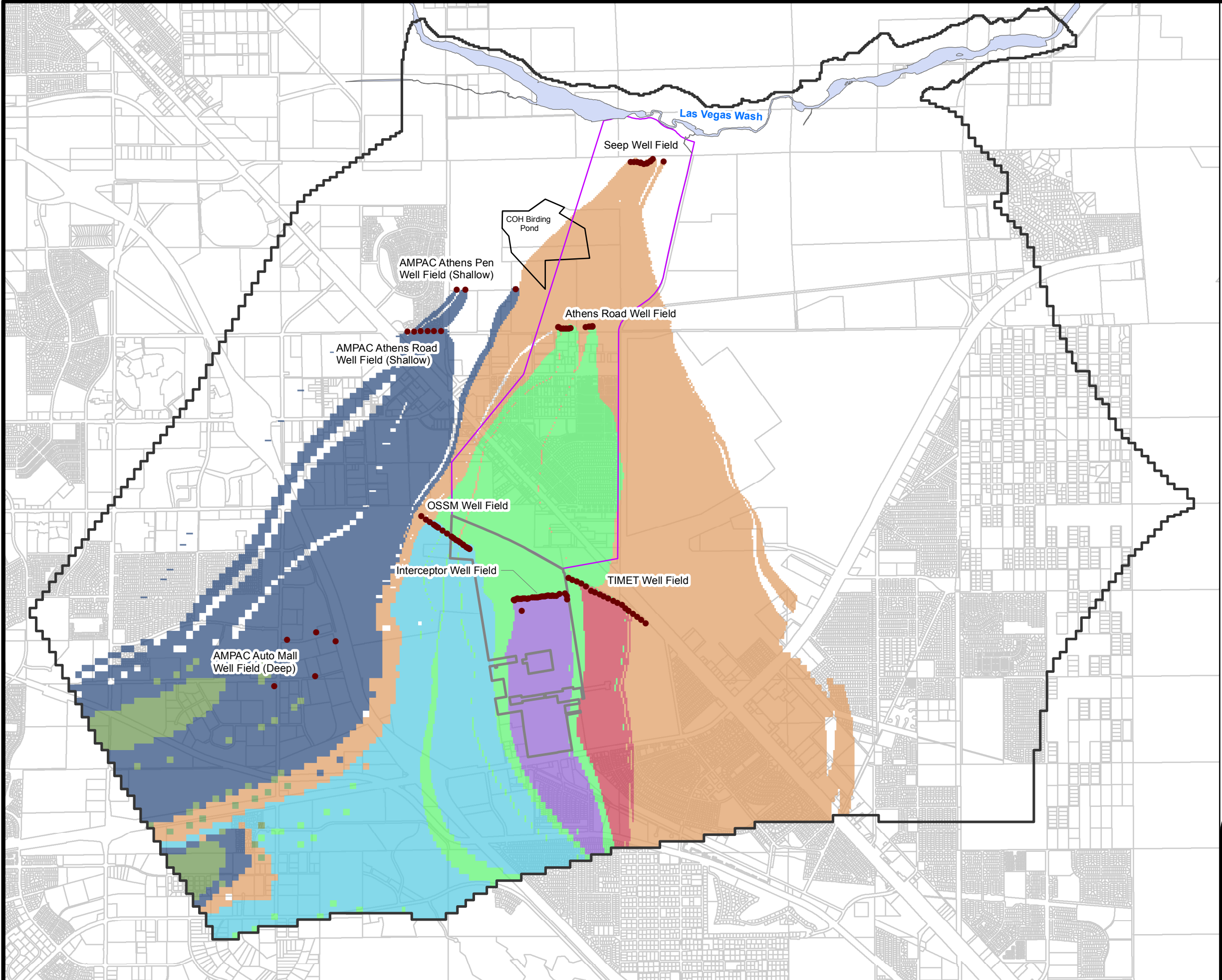
Date: 02/19/16

Contract Number: 21-38800A

Approved:

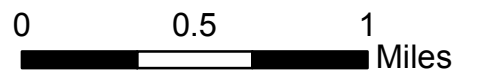
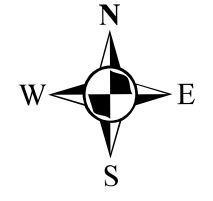
Revised:

Path: H:\LePeromana\NERT\GWM\Annual Performance Reports\2015 semi-Annual\Figures\GIS\Fig 31 - Capture Zones\_NERT\_Phase4\_2015\_semi\_imp\_S.mxd



- EXPLANATION**
- Phase 4 Model Boundary
  - Extraction Wells
  - Las Vegas Wash
  - Site Boundary
  - Off-Site NERT RI Study Area
  - Interceptor Well Field
  - Athens Road Well Field
  - Seep Well Field
  - OSSM Well Field
  - TIMET Well Field
  - AMPAC - Shallow Extraction Wells
  - AMPAC - Deep Extraction Wells

AMPAC = American Pacific Corporation  
 OSSM = Olin/Stauffer/Syngenta/Montrose  
 TIMET = Titanium Metals Corporation  
 COH = City of Henderson

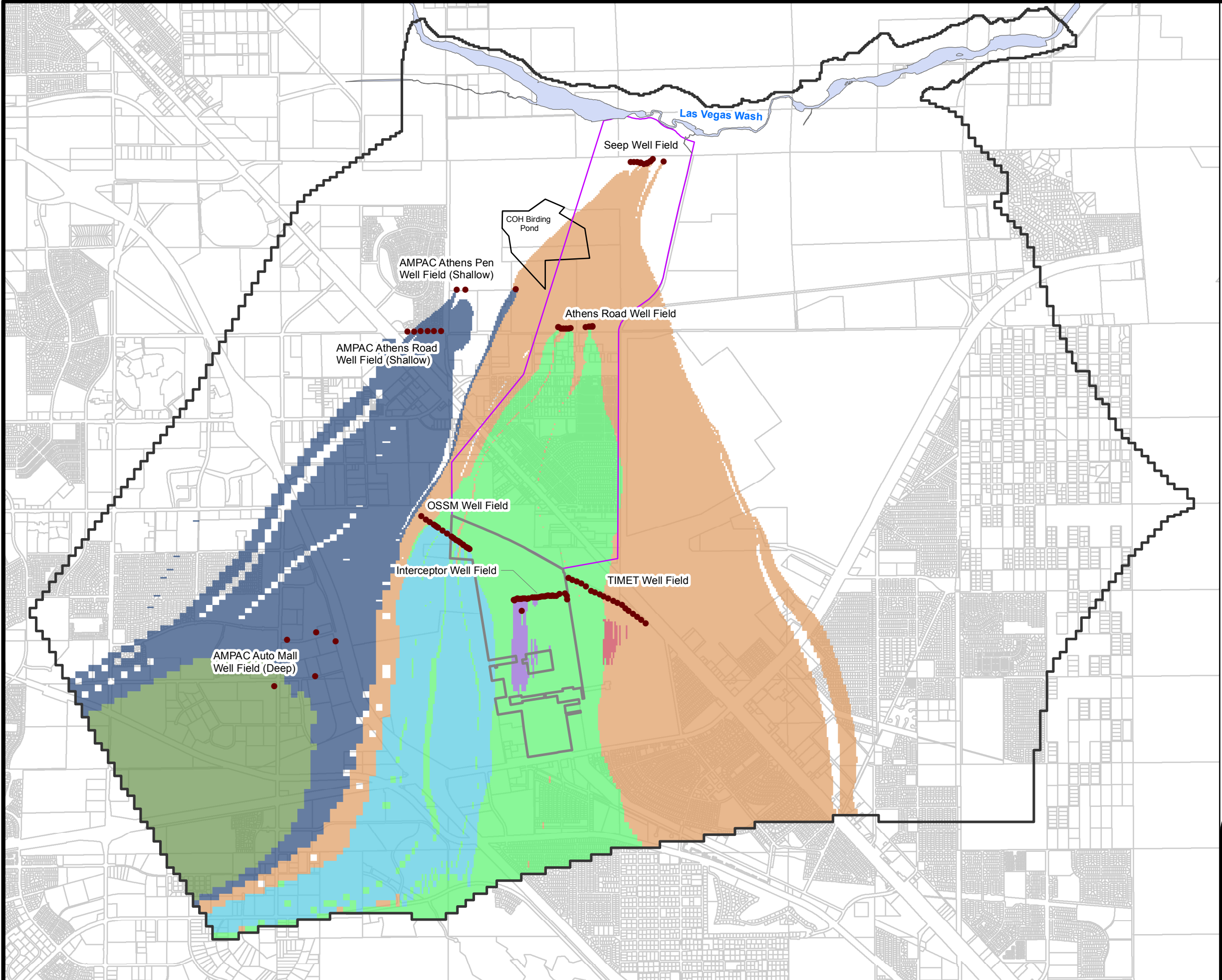


**SHALLOW CAPTURE ZONES**  
 Nevada Environmental Response Trust Site  
 Henderson, Nevada

Date: 4/29/2016	Contract Number: 21-38800A	Figure
Drafter: AS	Approved:	Revised:

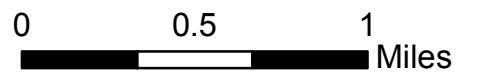
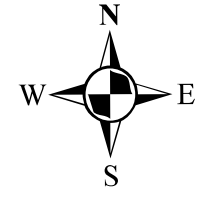


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- EXPLANATION**
- Phase 4 Model Boundary
  - Extraction Wells
  - Las Vegas Wash
  - Site Boundary
  - Off-Site NERT RI Study Area
  - Interceptor Well Field
  - Athens Road Well Field
  - Seep Well Field
  - OSSM Well Field
  - TIMET Well Field
  - AMPAC - Shallow Extraction Wells
  - AMPAC - Deep Extraction Wells

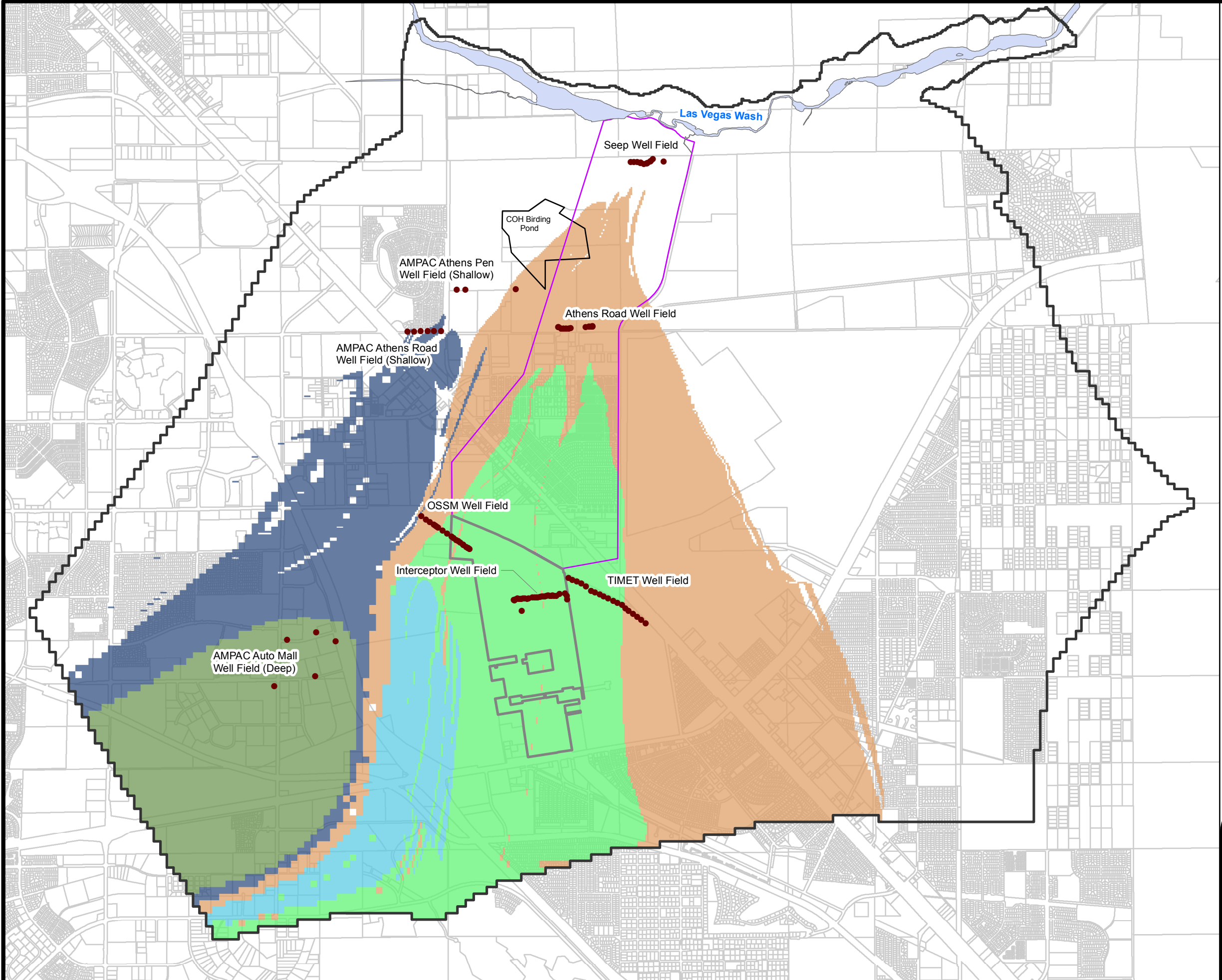
AMPAC = American Pacific Corporation  
 OSSM = Olin/Stauffer/Syngenta/Montrose  
 TIMET = Titanium Metals Corporation  
 COH = City of Henderson



**MIDDLE CAPTURE ZONES**  
 Nevada Environmental Response Trust Site  
 Henderson, Nevada

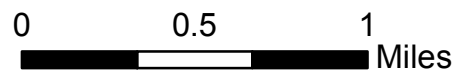
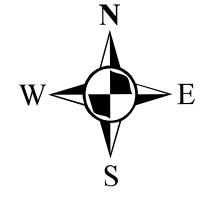
Date: 4/29/2016	Contract Number: 21-38800A	Figure
Drafter: AS	Approved:	Revised:

Path: H:\LePeromana\NERT\GWM\Annual Performance Reports\2015 semi-Annual\Figures\GIS\Fig 31 - Capture Zones\_NERT\_Phase4\_2015\_semi\_imp\_D.mxd



- EXPLANATION**
- Phase 4 Model Boundary
  - Extraction Wells
  - Las Vegas Wash
  - Site Boundary
  - Off-Site NERT RI Study Area
  - Athens Road Well Field
  - Seep Well Field
  - OSSM Well Field
  - AMPAC - Shallow Extraction Wells
  - AMPAC - Deep Extraction Wells

AMPAC = American Pacific Corporation  
 OSSM = Olin/Stauffer/Syngenta/Montrose  
 TIMET = Titanium Metals Corporation  
 COH = City of Henderson

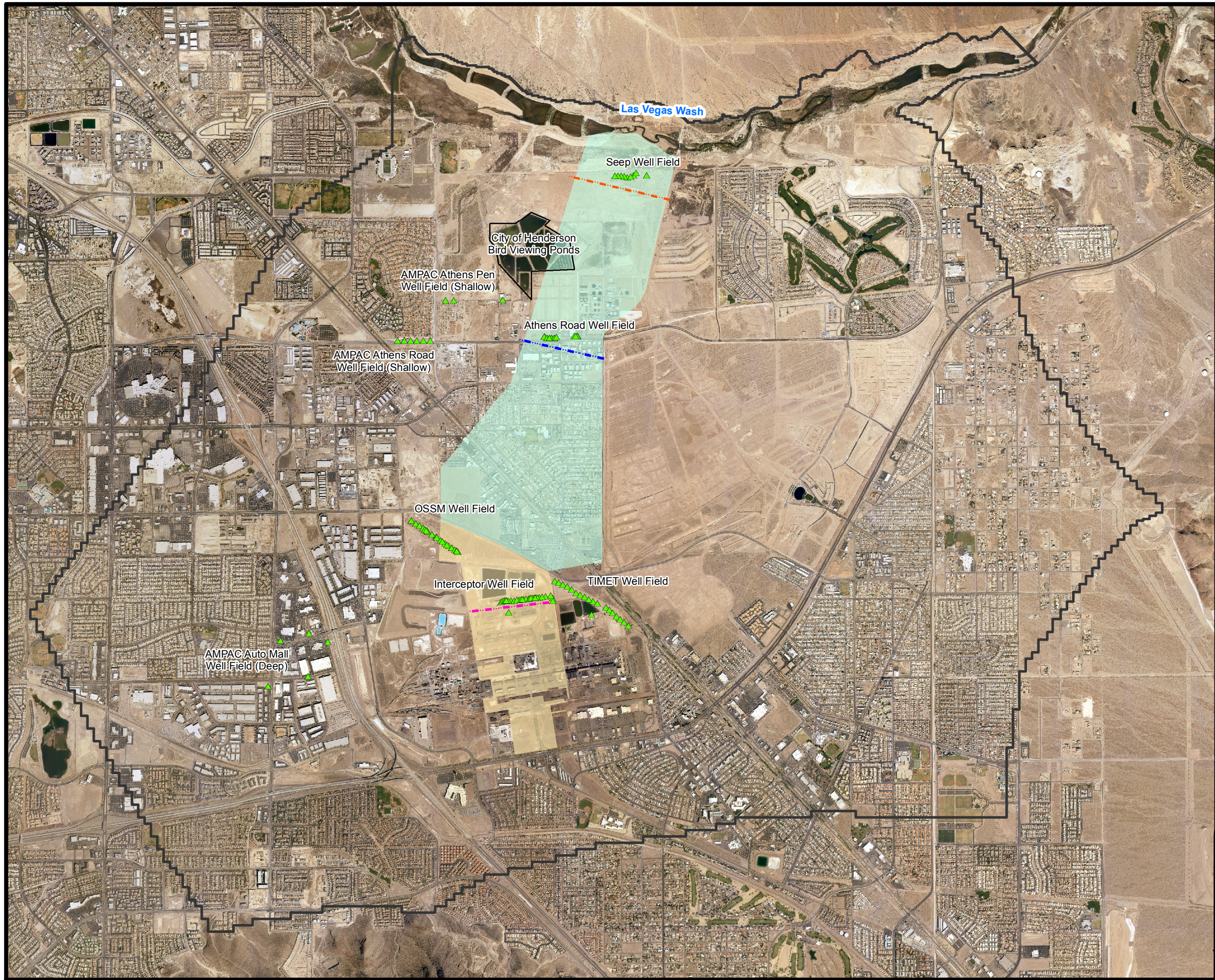


**DEEP CAPTURE ZONES**  
 Nevada Environmental Response Trust Site  
 Henderson, Nevada








Date: 4/29/2016	Contract Number: 21-38800A	Figure
Drafter: AS	Approved:	Revised:

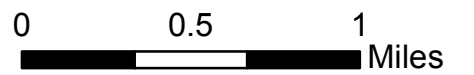
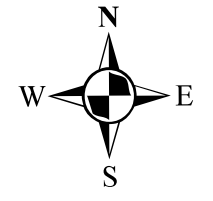


Path: H:\LePermana\NERT\GWM\Annual Performance Reports\2015 semi-Annual\Figures\GIS\Fig 32a-Transsect\_Location\_2015.mxd



**EXPLANATION**

-  Extraction Wells
-  Phase 4 Model Extent
-  Transect - Athens Road Well Field
-  Transect - Interceptor Well Field
-  Transect - Seep Well Field
-  Site Boundary
-  Off-Site NERT RI Study Area

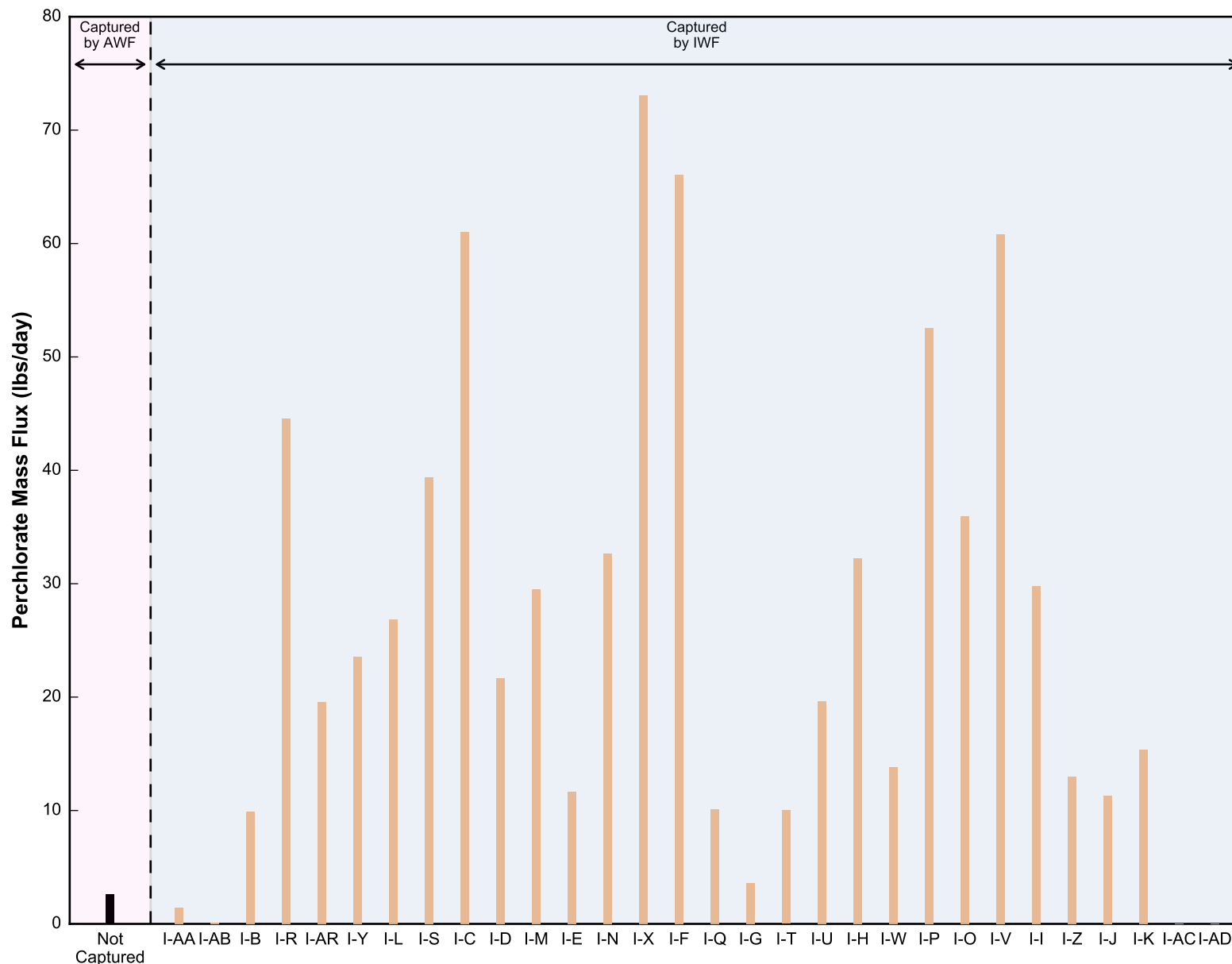


**Mass Flux Transect Locations**  
 Nevada Environmental Response Trust Site  
 Henderson, Nevada

Date: 4/29/2016	Contract Number: 21-38800A	Figure
Drafter: AS	Approved:	Revised:

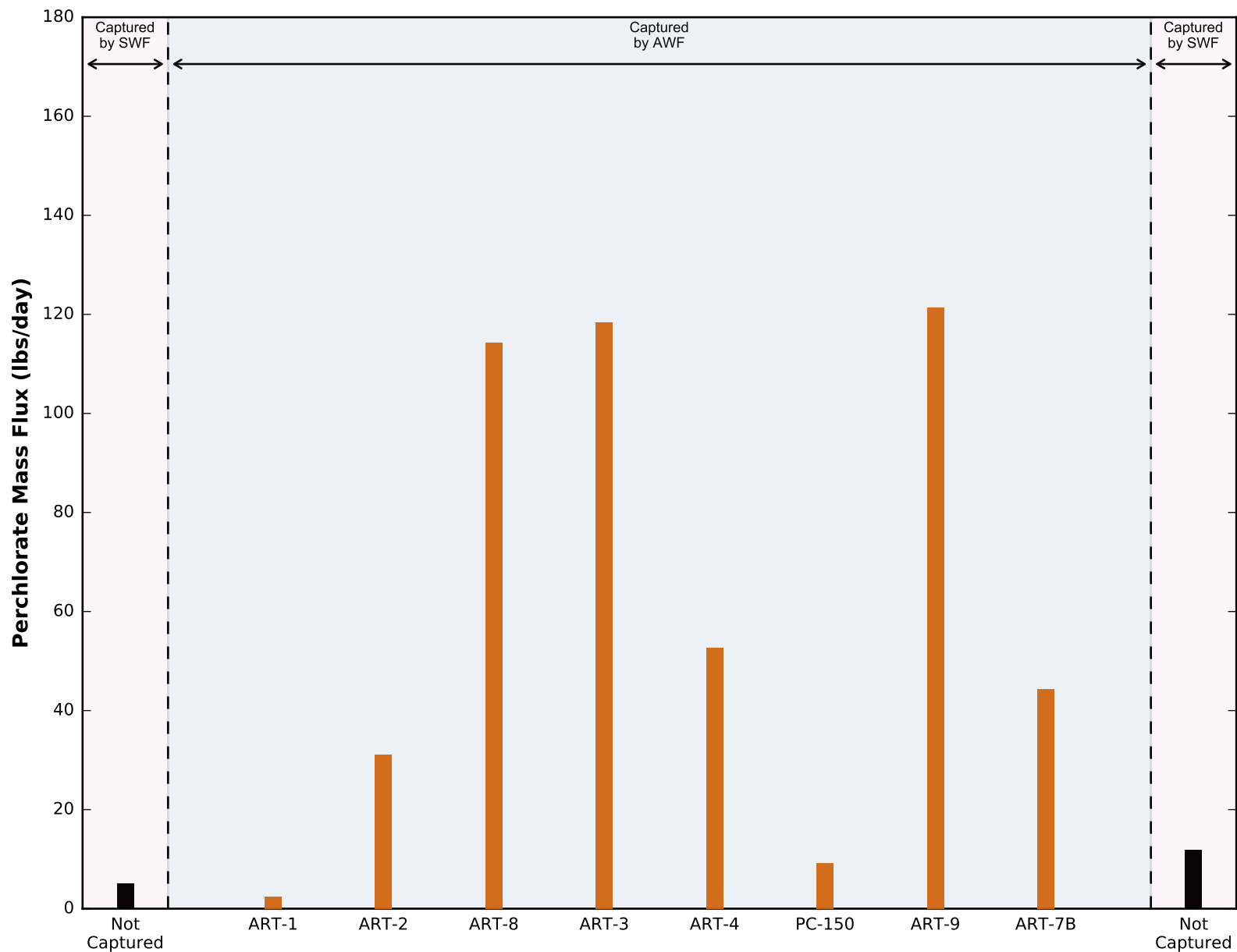
**32a**





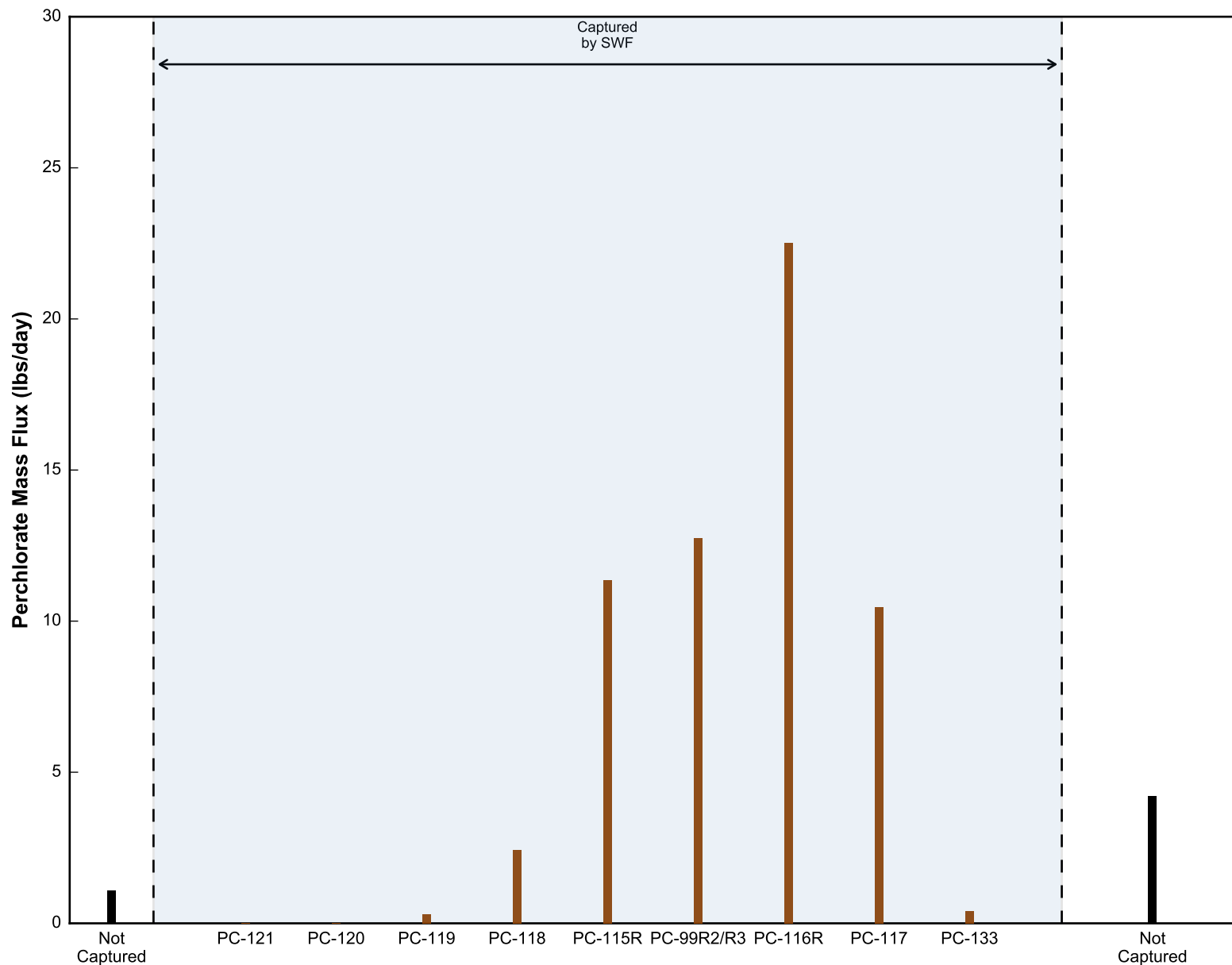
**Perchlorate Mass Flux at Interceptor Well Field**  
 Nevada Environmental Response Trust Site  
 Henderson, Nevada

Figure  
**32b**



**Perchlorate Mass Flux at Athens Road Well Field**  
 Nevada Environmental Response Trust Site  
 Henderson, Nevada

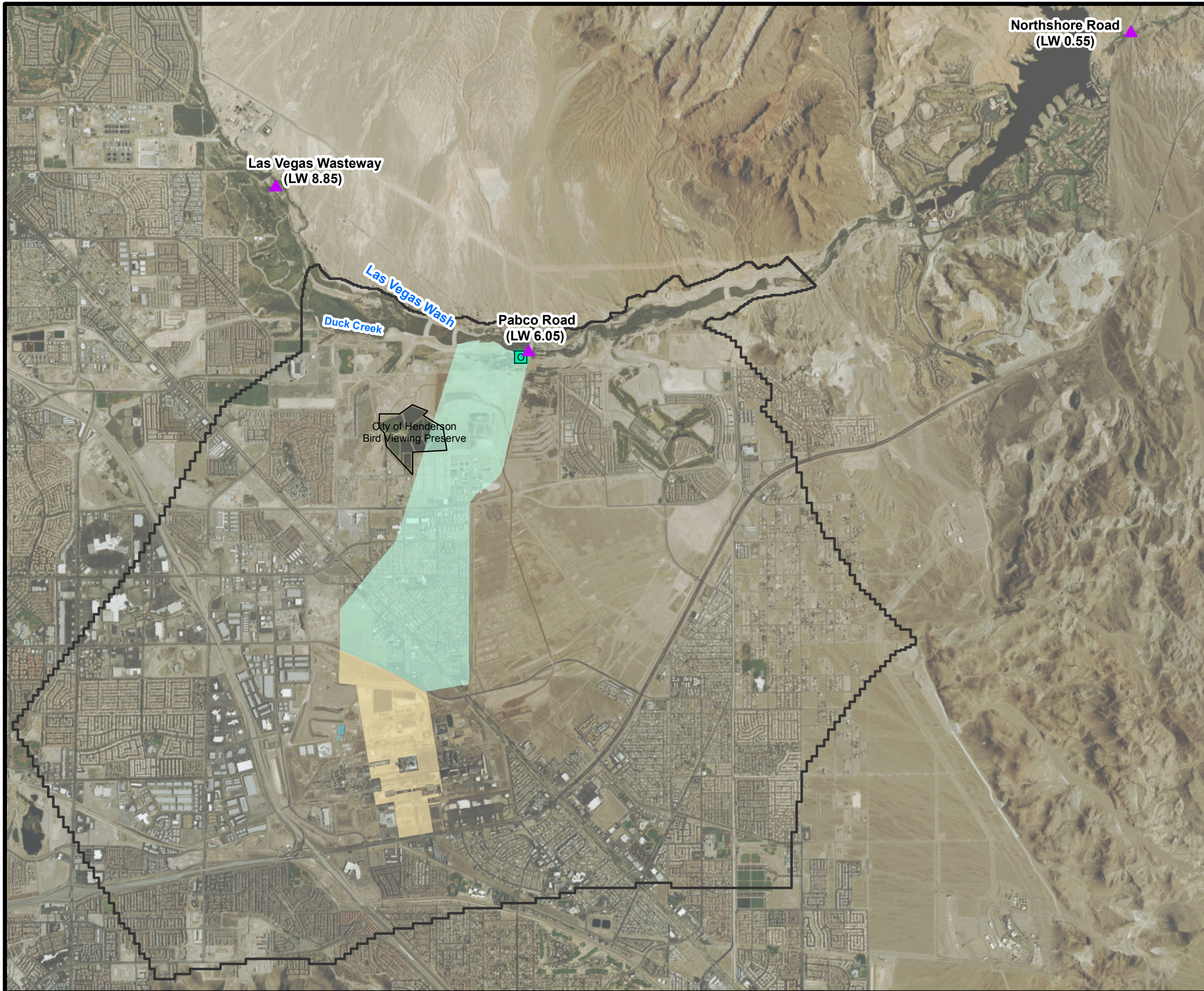
Figure  
**32c**



**Perchlorate Mass Flux at Seep Well Field**  
Nevada Environmental Response Trust Site  
Henderson, Nevada

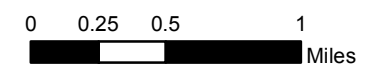
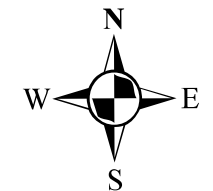
Figure  
**32d**





### Legend

- USGS Stream Gauge Station
- NERT/AMPAC/TIMET Outfall Location
- Phase 4 Model Extent
- Site Boundary
- Off-Site NERT RI Study Area

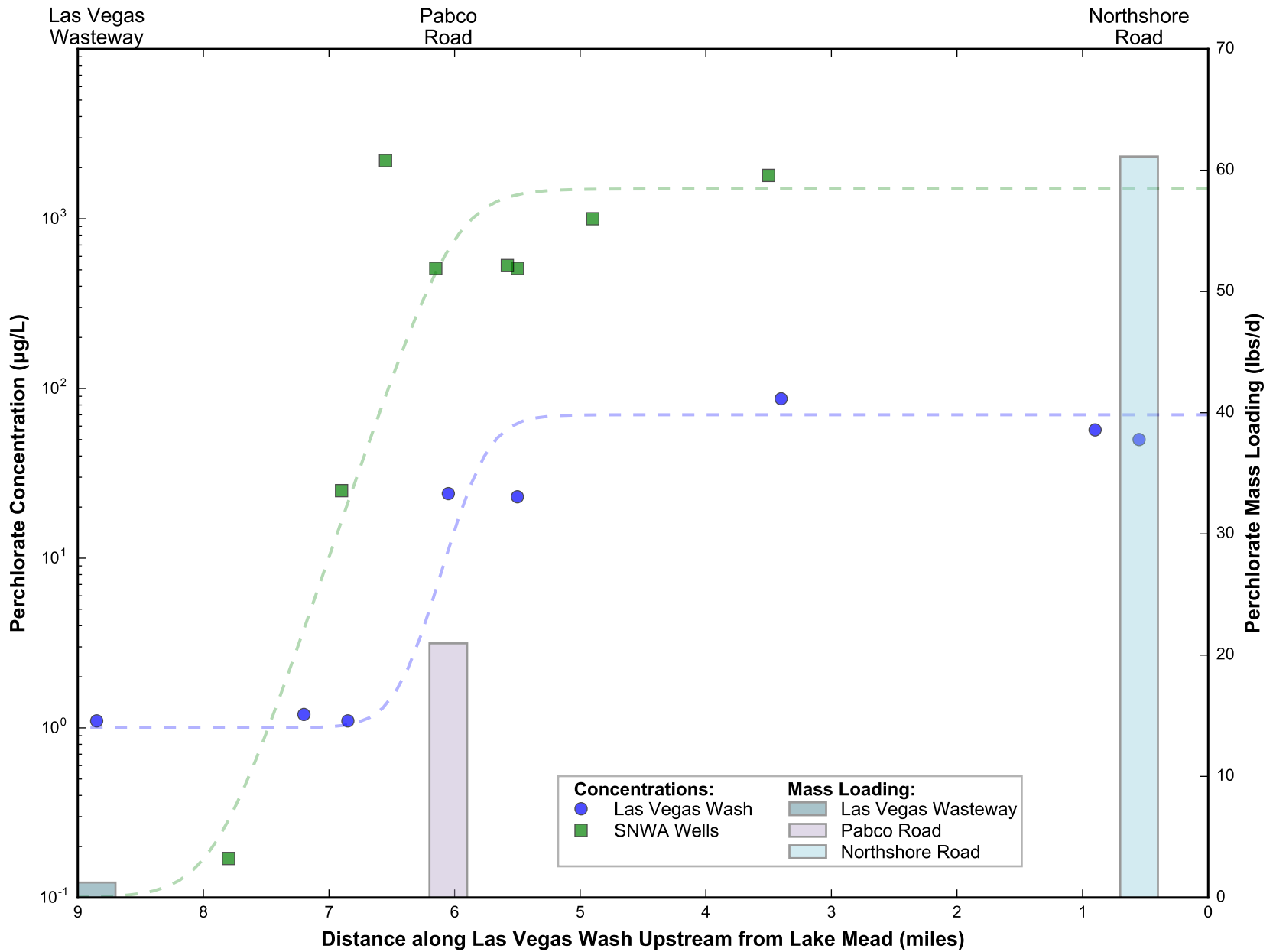


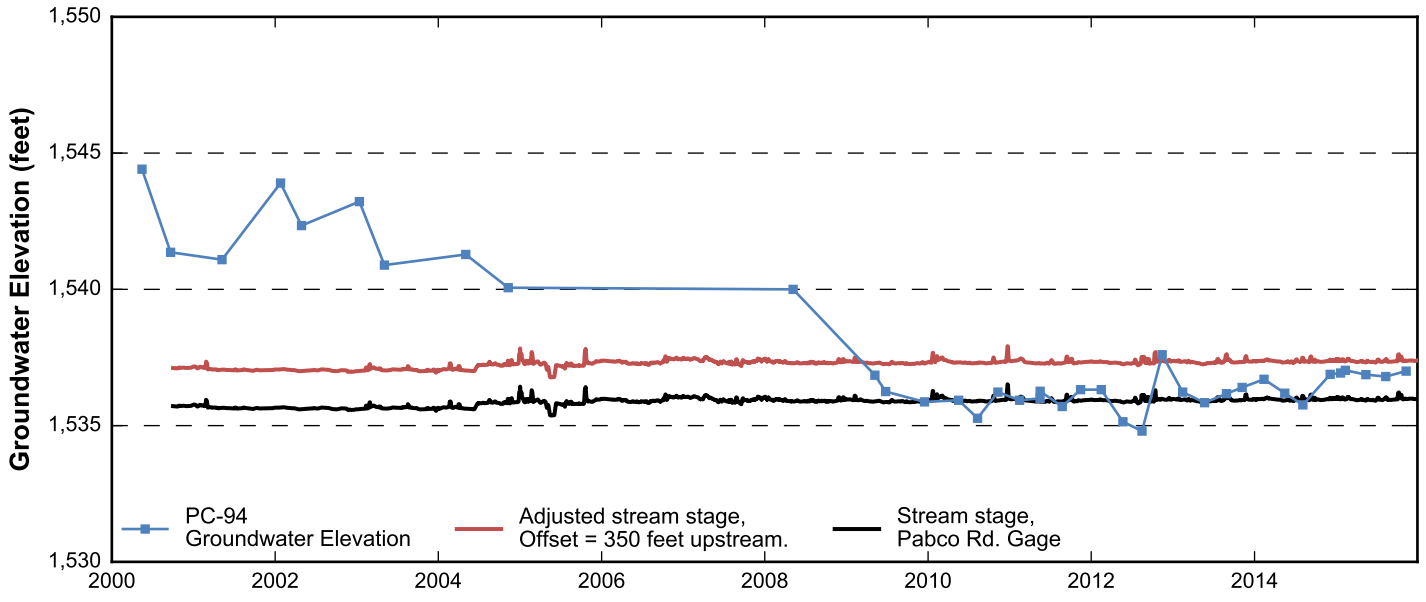
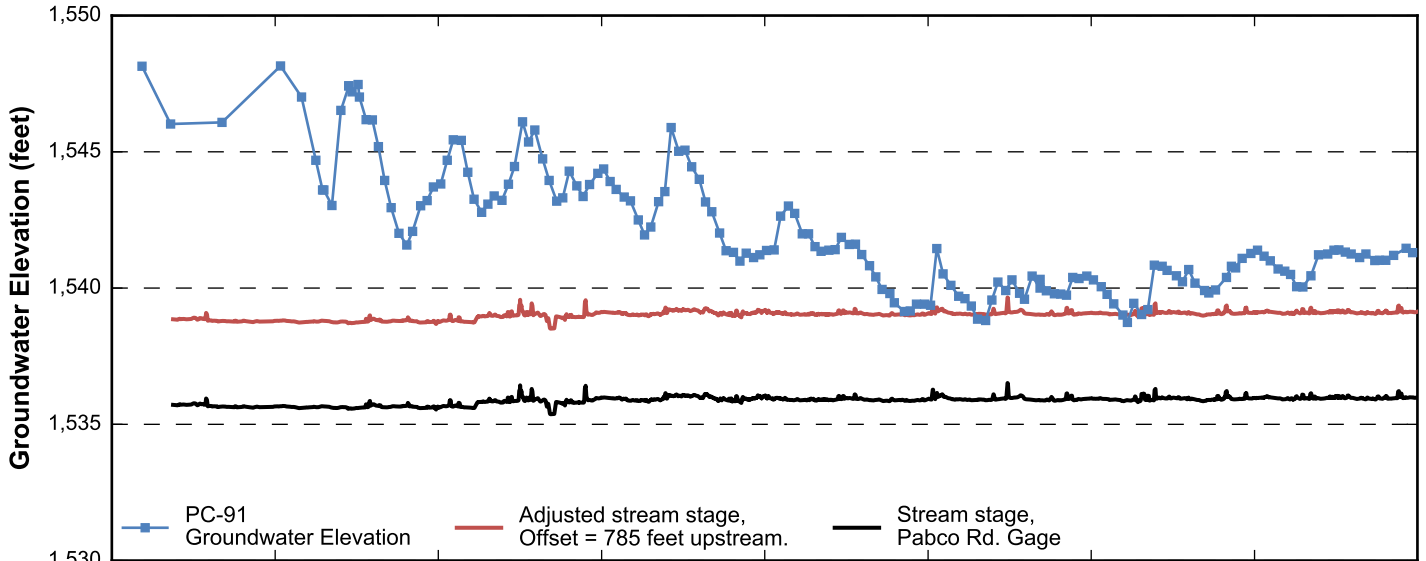
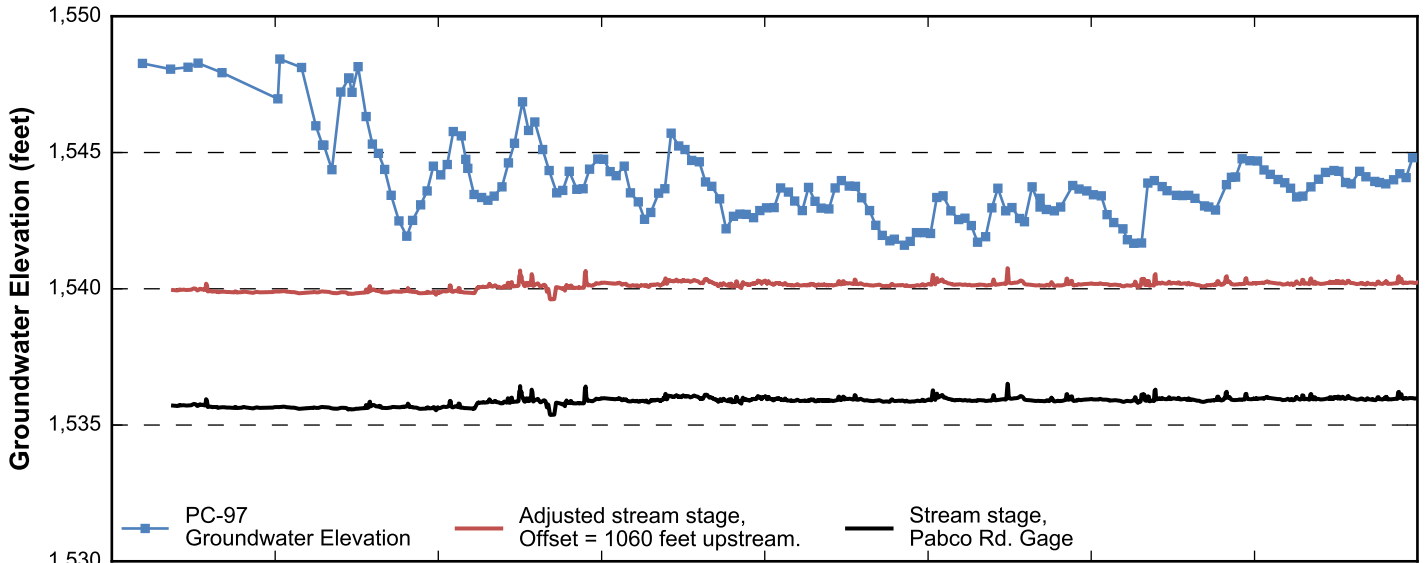
### Sampling Locations in Las Vegas Wash

Nevada Environmental Response Trust Site  
Henderson, Nevada

Date: 4/29/2016	Contract Number: 21-38800A	Figure
Drafter: AS	Approved:	Revised:



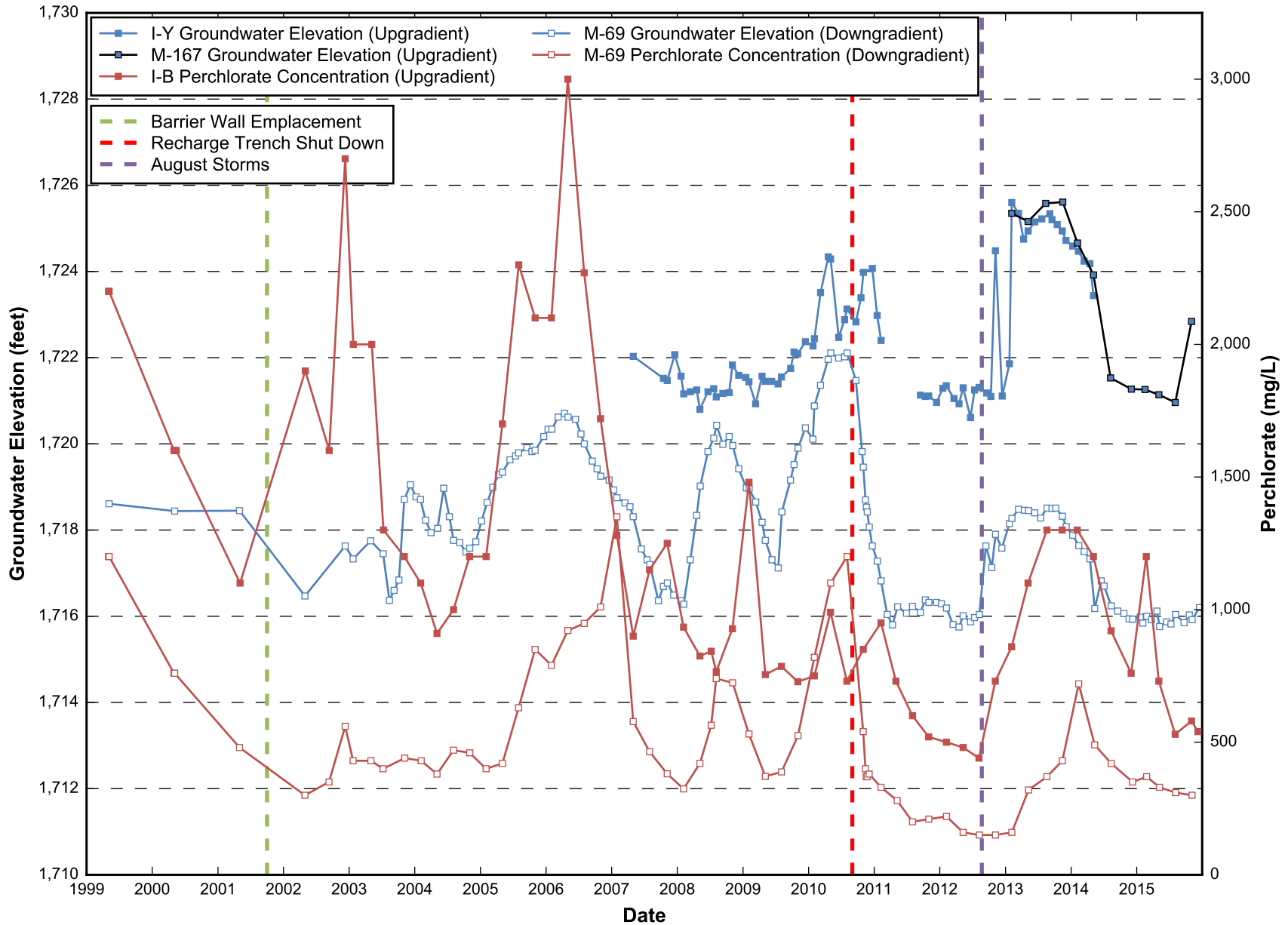




**RAMBOLL ENVIRON**

**Groundwater Levels and Stream Stage Near Pabco Road**  
Nevada Environmental Response Trust Site  
Henderson, Nevada

Figure **34**

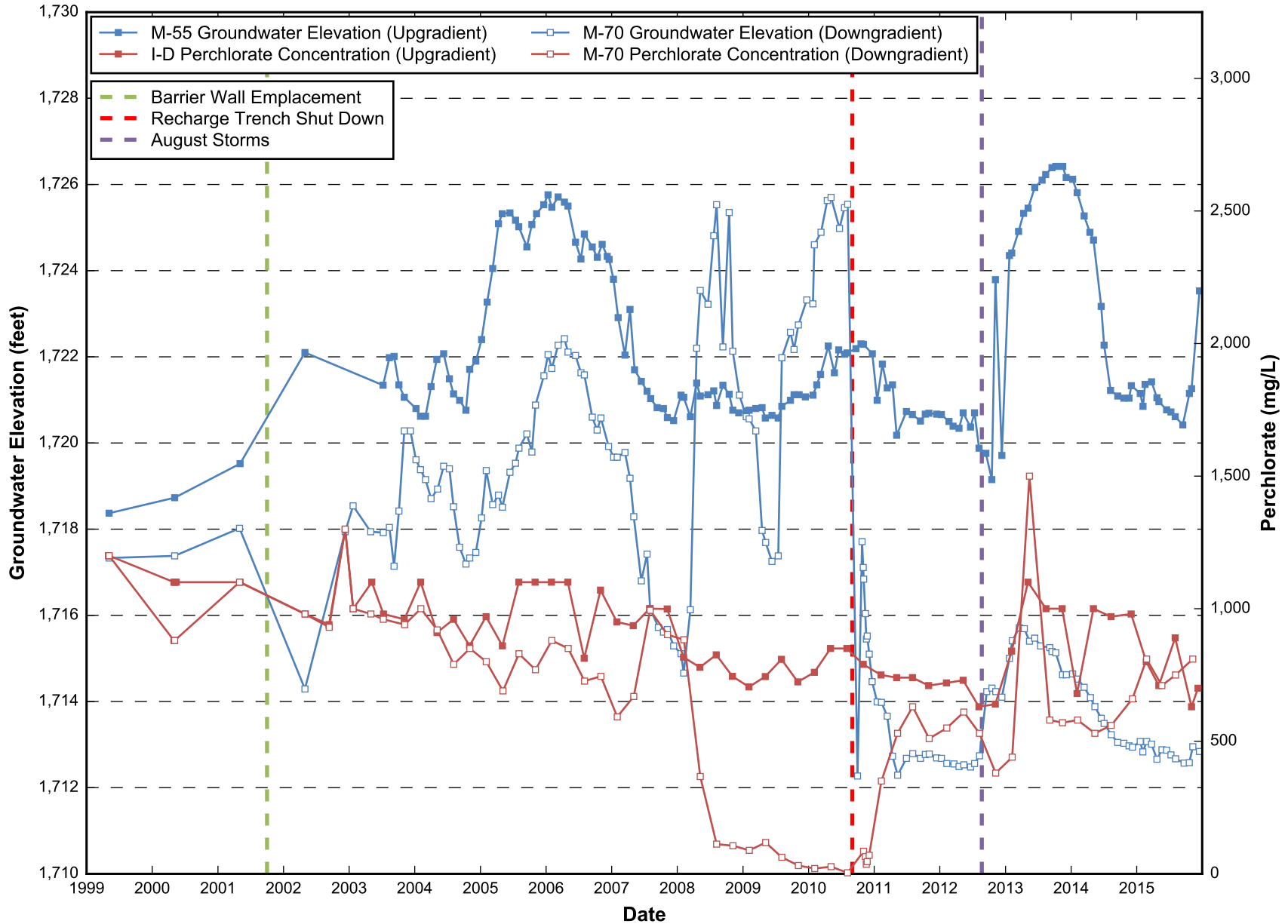


**Perchlorate and Groundwater Elevation Across the Barrier Wall Near Well M-69**  
 Nevada Environmental Response Trust Site  
 Henderson, Nevada

Figure

**35a**





**Perchlorate and Groundwater Elevation Across the Barrier Wall Near Well M-70**  
 Nevada Environmental Response Trust Site  
 Henderson, Nevada

Figure

**35b**

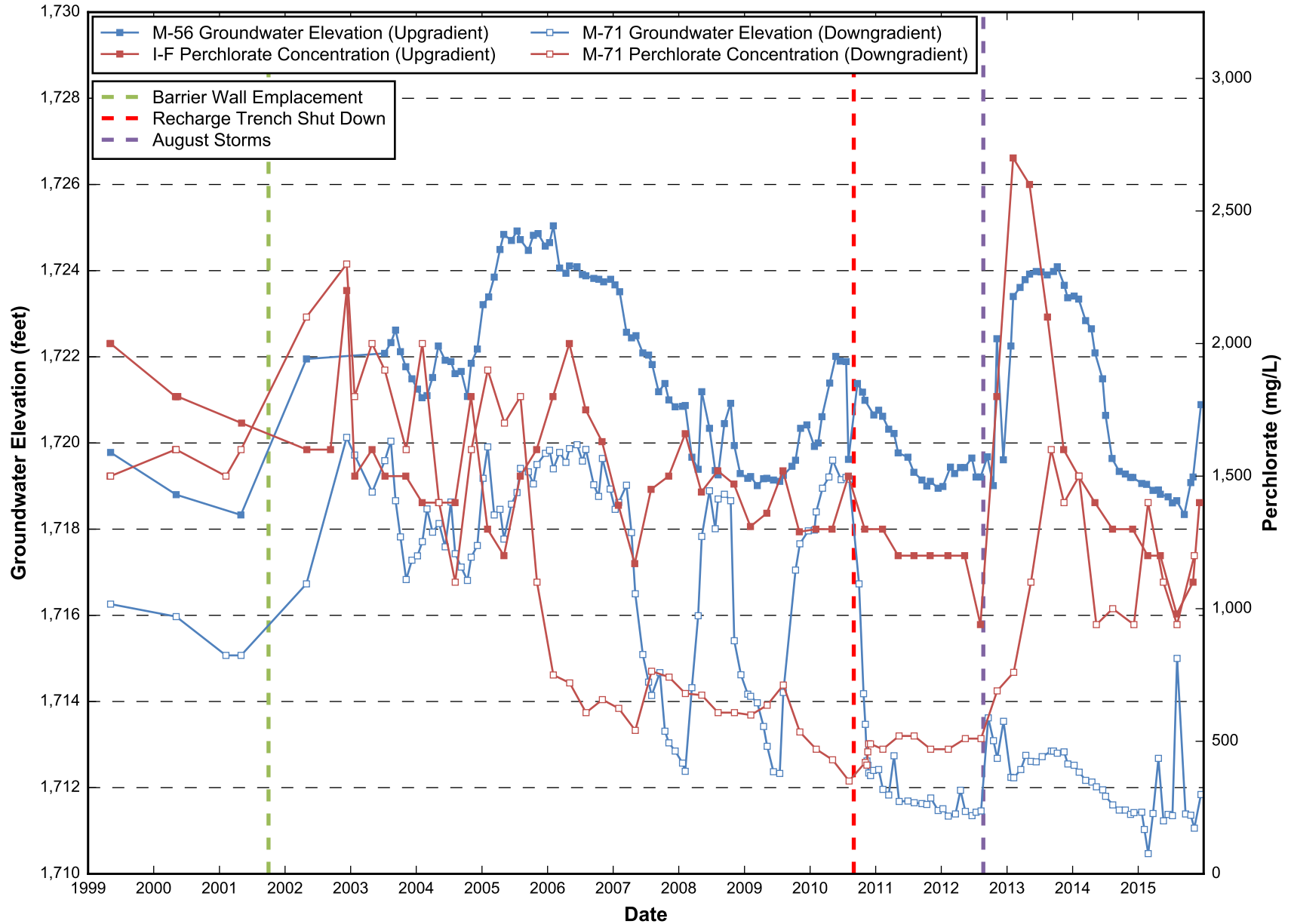
Drafter: JH

Date: 02/19/16

Contract Number: 21-38800A

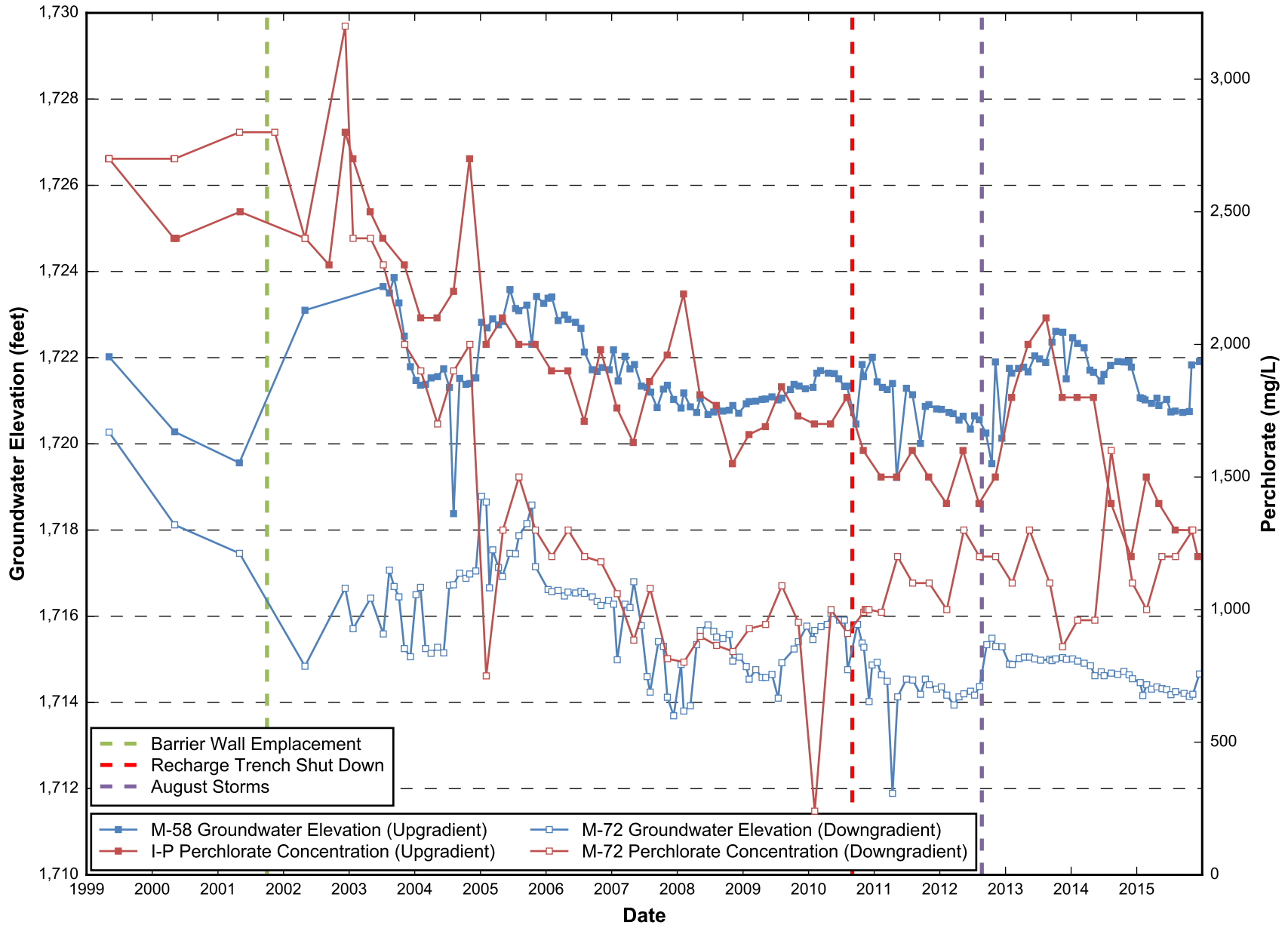
Approved:

Revised:



**Perchlorate and Groundwater Elevation Across the Barrier Wall Near Well M-71**  
 Nevada Environmental Response Trust Site  
 Henderson, Nevada

Figure  
**35c**



**Perchlorate and Groundwater Elevation Across the Barrier Wall Near Well M-72**  
 Nevada Environmental Response Trust Site  
 Henderson, Nevada

Figure

**35d**

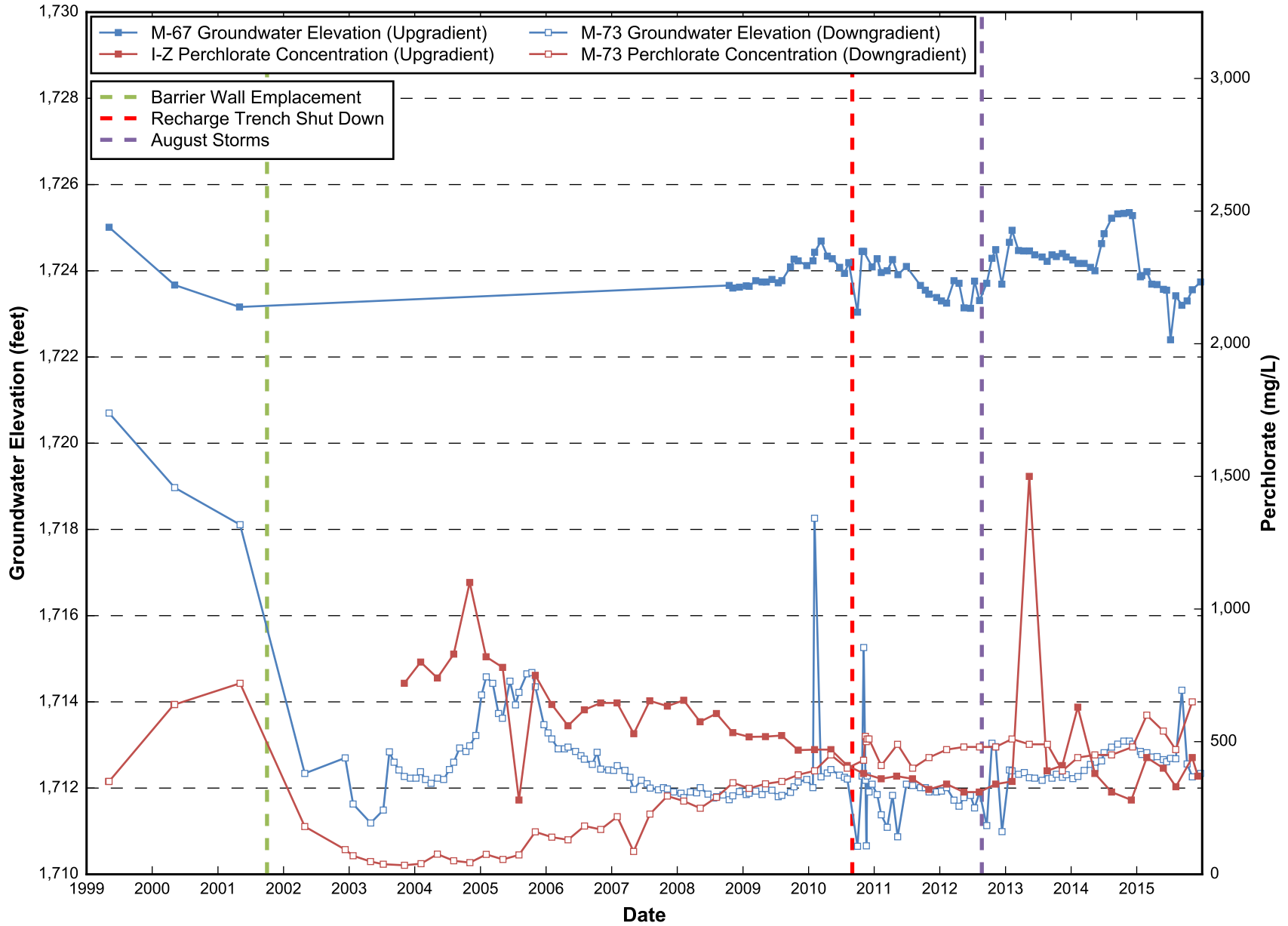
Drafter: JH

Date: 02/19/16

Contract Number: 21-38800A

Approved:

Revised:



**Perchlorate and Groundwater Elevation Across the Barrier Wall Near Well M-73**  
 Nevada Environmental Response Trust Site  
 Henderson, Nevada

Figure

**35e**

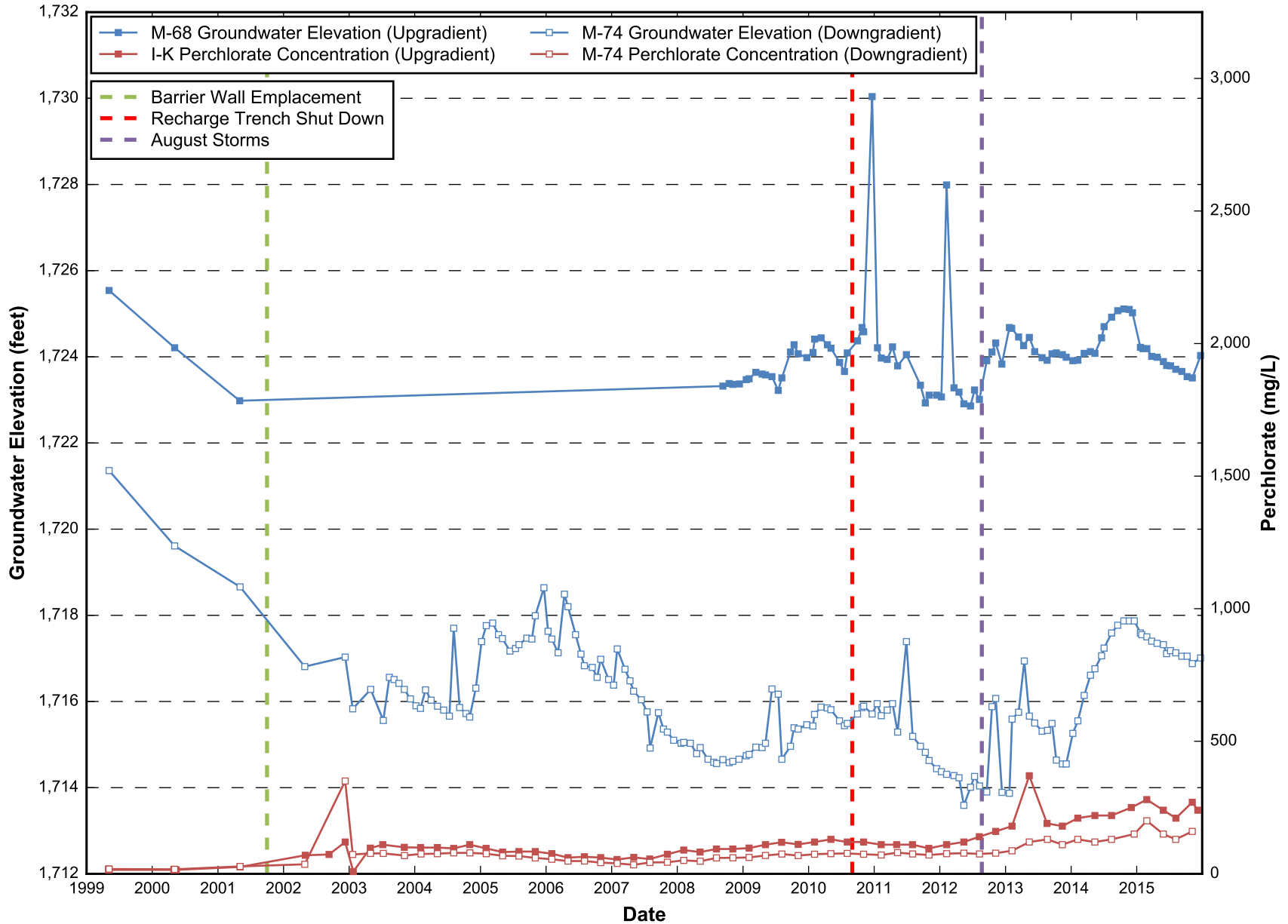
Drafter: JH

Date: 02/19/16

Contract Number: 21-38800A

Approved:

Revised:



**Perchlorate and Groundwater Elevation Across the Barrier Wall Near Well M-74**  
 Nevada Environmental Response Trust Site  
 Henderson, Nevada

Figure

**35f**

Drafter: JH

Date: 02/19/16

Contract Number: 21-38800A

Approved:

Revised:

Semi-Annual Remedial Performance Report  
For Chromium and Perchlorate  
Nevada Environmental Response Trust Site  
Henderson, Nevada

**PLATE**







Semi-Annual Remedial Performance Report  
For Chromium and Perchlorate  
Nevada Environmental Response Trust Site  
Henderson, Nevada

**APPENDIX A**  
**GROUNDWATER ELEVATIONS AND ANALYTICAL DATA**



**TABLE A-1: Groundwater Elevation and Analytical Data for Five Quarters  
October 2014 - December 2015  
Nevada Environmental Response Trust Site  
Henderson, Nevada**

Well ID	Collection Date	GW Elevation (ft amsl)	Chlorate (mg/L)	Chromium (mg/L)	Chromium VI (mg/L)	Nitrate (mg/L)	Perchlorate (mg/L)	TDS (mg/L)
AA-01	06/02/2015	1708.05					1.8	4,400 J+
AA-11	06/02/2015	Dry						
ARP-1	10/14/2014	1589.61					30	5,700
	11/25/2014	1589.70		<0.0025			38	5,800
	12/30/2014	1589.76					33	5,100
	01/14/2015	1589.60					32	5,500
	02/11/2015	1589.40		<0.0025			33	5,500
	03/10/2015	1589.36						
	03/11/2015						37	5,600
	04/17/2015	1589.41					33	5,300
	05/27/2015	1589.29		0.024 J			32	5,500
	06/23/2015	1589.25					31	5,300
	07/16/2015	1589.18					31	5,500
	08/12/2015	1589.28		0.0041 J			29	5,900
	09/16/2015	1589.30					31	5,600
	10/13/2015	1590.15					34	5,400
	11/11/2015	1591.25		<0.0025			36	5,200
12/11/2015	1590.20		<0.0025	<0.00019		30	5,300	
ARP-2A	10/15/2014	1589.00					22	6,000
	11/25/2014	1589.01		0.011			24	5,700
	12/29/2014	1589.09					20	5,900
	01/14/2015	1588.92					22	5,900
	02/13/2015	1588.70		0.011			23	5,800
	03/11/2015	1588.65					22	6,000
	04/21/2015	1588.70					21	5,800
	05/19/2015	1588.70		0.0092			18	5,800
	06/25/2015	1585.77					21	5,800
	07/15/2015	1588.51					19	5,800
	08/12/2015	1588.67		0.013			19	6,000
	09/17/2015	1588.81					21	5,700
	10/14/2015	1589.46					21	5,900
11/11/2015	1590.47			0.015		17	6,300	
12/10/2015	1589.48		0.014	<0.00019		16	5,600	
ARP-3A	10/15/2014	1588.06					5.5	8,300
	11/25/2014	1588.05		0.0058			5.2	8,200
	12/29/2014	1588.10					5.8	8,200
	01/14/2015	1587.98					5.4	8,400
	02/12/2015	1587.71		0.0079			5.4	8,300
	03/11/2015	1587.66					6.5	8,400
	04/21/2015	1587.73					6.1	7,900

**TABLE A-1: Groundwater Elevation and Analytical Data for Five Quarters  
October 2014 - December 2015  
Nevada Environmental Response Trust Site  
Henderson, Nevada**

Well ID	Collection Date	GW Elevation (ft amsl)	Chlorate (mg/L)	Chromium (mg/L)	Chromium VI (mg/L)	Nitrate (mg/L)	Perchlorate (mg/L)	TDS (mg/L)
ARP-3A	05/19/2015	1587.75		0.0027 J			6	8,100
	06/25/2015	1600.79					5.8	7,900
	07/15/2015	1587.48					6.6	7,900
	08/12/2015	1587.73		0.0066			5.7	8,600
	09/17/2015	1587.85					5.6	8,100
	10/14/2015	1588.29					4.2	8,000
	11/11/2015	1589.07		0.013 J			5.9	7,800
	12/10/2015	1588.42		0.0052	0.002		7.7	8,000
ARP-4A	10/15/2014	1586.96					23	5,400
	11/25/2014	1586.99		0.004 J			22	5,300
	12/29/2014	1587.09					22	4,900
	01/14/2015	1587.03					24	5,200
	02/12/2015	1586.94		0.0063			24	5,100
	03/11/2015	1586.79					25	5,200
	04/17/2015	1586.74					21	4,700
	05/19/2015	1586.72		<0.0025			17	5,300
	06/25/2015	1586.64					16	4,700
	07/15/2015	1586.66					17	5,000
	08/12/2015	1586.81		0.0028 J			16	5,500
	09/16/2015	1586.96					16	5,200
	10/14/2015	1587.12					19	5,400
	11/11/2015	1587.68			0.0025 J		21	5,400
12/10/2015	1587.60		<0.005	<0.00019		22	5,100	
ARP-5A	10/15/2014	1584.38					9.9	5,500
	11/25/2014	1584.58		0.031			8.7	5,100
	12/29/2014	1584.78					7.8	4,500
	01/14/2015	1584.79					7.9	4,400
	02/12/2015	1584.71		0.019			7	4,000
	03/11/2015	1584.54					7.4	4,100
	04/17/2015	1584.42					5.4	3,700
	05/19/2015	1584.38		0.0099			4.7	4,200
	06/24/2015	1584.18					4.5	3,600
	07/15/2015	1584.13					4.1	3,400
	08/12/2015	1584.27		0.0092			2	2,700
	09/16/2015	1584.23					3.2	3,100
	10/14/2015	1584.21					3.4	3,000
	11/11/2015	1584.72			0.01		3.3	2,900
12/10/2015	1584.06		0.0059	0.002		1.9	2,600	
ARP-6B	10/15/2014	1584.34					37	7,800
	11/25/2014	1584.55		0.35			55	7,500

**TABLE A-1: Groundwater Elevation and Analytical Data for Five Quarters  
October 2014 - December 2015  
Nevada Environmental Response Trust Site  
Henderson, Nevada**

Well ID	Collection Date	GW Elevation (ft amsl)	Chlorate (mg/L)	Chromium (mg/L)	Chromium VI (mg/L)	Nitrate (mg/L)	Perchlorate (mg/L)	TDS (mg/L)
ARP-6B	12/29/2014	1584.72					43	7,600
	01/15/2015	1584.59					54	8,100
	02/12/2015	1584.60		0.36			67	8,100
	03/11/2015	1584.42					72	7,700
	04/17/2015	1584.33					49	6,900
	05/19/2015	1584.30		0.27			48	7,500
	06/24/2015	1584.08					46	7,700
	07/15/2015	1584.06					44	7,600
	08/12/2015	1584.19		0.31			48	7,900
	09/16/2015	1584.09					49	7,800
	10/14/2015	1584.03					43	7,600
	11/11/2015	1584.56		0.42			87	7,600
12/10/2015	1583.63		0.46	0.01		85	6,600	
ARP-7	10/15/2014	1583.91					20	8,400
	11/25/2014	1584.09		0.15			18	8,300
	12/29/2014	1584.22					16	8,100
	01/15/2015	1584.17					20	8,100
	02/12/2015	1584.11		0.12			17	7,800
	03/12/2015	1583.95					15	7,100
	04/17/2015	1583.86					14	7,300
	05/19/2015	1583.81		0.096			14	7,600
	06/24/2015	1583.62					16	7,900
	07/15/2015	1583.59					14	7,300
	08/12/2015	1583.68		0.12			13	8,100
	09/16/2015	1583.63					16	8,300
	10/14/2015	1583.59					22	7,500
	11/11/2015	1584.14		0.11			14	7,000
12/10/2015	1583.38		0.15	<0.00019		19	7,300	
ART-1	10/07/2014						14	6,600
	10/22/2014	1581.26						
	11/03/2014			0.0027 J			11	6,200
	11/05/2014	1578.45						
	12/01/2014						12	6,200
	12/16/2014	1589.59						
	01/05/2015						17	5,900
	01/15/2015	1589.38						
	02/02/2015			0.0029 J			16	5,600
	02/03/2015	1589.32						
	03/03/2015						18	5,800
03/10/2015	1589.49							

**TABLE A-1: Groundwater Elevation and Analytical Data for Five Quarters  
October 2014 - December 2015  
Nevada Environmental Response Trust Site  
Henderson, Nevada**

Well ID	Collection Date	GW Elevation (ft amsl)	Chlorate (mg/L)	Chromium (mg/L)	Chromium VI (mg/L)	Nitrate (mg/L)	Perchlorate (mg/L)	TDS (mg/L)
ART-1	04/06/2015						18	5,800
	04/17/2015	1589.15						
	05/04/2015			<0.0025			17	5,700
	05/28/2015	1588.99						
	06/01/2015						17	5,900
	06/09/2015	1589.10						
	07/06/2015						17	6,000
	07/16/2015	1588.90						
	08/03/2015			<0.0025			13	5,900
	08/13/2015	1589.21						
	09/08/2015						18	5,700
	09/10/2015	1589.26						
	10/06/2015						20	5,600
	10/15/2015	1591.49						
	11/04/2015				0.11		15	5,900
	11/12/2015	1593.92						
12/03/2015				0.0092	0.001		14	6,000
12/15/2015	1591.95							
ART-1A	10/22/2014	1590.71						
	11/05/2014	1590.67						
	12/16/2014	1591.00						
	01/15/2015	1590.67						
	02/03/2015	1590.46						
	03/10/2015	1590.67						
	04/17/2015	1590.59						
	05/28/2015	1590.43						
	06/09/2015	1590.56						
	07/16/2015	1590.45						
	08/13/2015	1590.43						
	09/10/2015	1590.11						
	10/15/2015	1591.58						
	11/12/2015	1593.67						
12/15/2015	1591.89							
ART-2	10/07/2014						40	10,000
	10/22/2014	1589.78						
	11/03/2014			0.027			45	9,800
	11/05/2014	1589.51						
	12/01/2014						40	11,000
	12/16/2014	1590.58						
	01/05/2015						33	9,600

**TABLE A-1: Groundwater Elevation and Analytical Data for Five Quarters  
October 2014 - December 2015  
Nevada Environmental Response Trust Site  
Henderson, Nevada**

Well ID	Collection Date	GW Elevation (ft amsl)	Chlorate (mg/L)	Chromium (mg/L)	Chromium VI (mg/L)	Nitrate (mg/L)	Perchlorate (mg/L)	TDS (mg/L)	
ART-2	01/15/2015	1590.24							
	02/02/2015			0.017			34	9,700	
	02/03/2015	1590.05							
	03/03/2015						36	9,400	
	03/10/2015	1590.23							
	04/06/2015						36	9,700	
	04/17/2015	1589.99							
	05/04/2015			0.014			39	9,500	
	05/28/2015	1589.82							
	06/01/2015						32	9,800	
	06/09/2015	1590.44							
	07/06/2015						30	9,900	
	07/16/2015	1590.04							
	08/03/2015				0.032			59	9,900
	08/13/2015	1589.45							
	09/08/2015						42	9,700	
	09/10/2015	1589.23							
	10/06/2015						29	9,500	
	10/15/2015	1590.20							
	11/02/2015				0.0079			31	9,700
11/12/2015	1593.54								
12/03/2015				0.0066	<0.00019		25	9,900	
12/15/2015	1590.54								
ART-2A	10/22/2014	1590.40							
	11/05/2014	1590.28							
	12/16/2014	1589.33							
	01/15/2015	1588.77							
	02/03/2015	1588.73							
	03/10/2015	1589.02							
	04/17/2015	1588.92							
	05/28/2015	1588.75							
	06/09/2015	1588.80							
	07/16/2015	1588.71							
	08/13/2015	1589.87							
	09/10/2015	1590.04							
	10/15/2015	1594.27							
	11/12/2015	1593.84							
12/15/2015	1591.64								
ART-3	10/07/2014						240	9,400	
	10/22/2014	1587.35							

**TABLE A-1: Groundwater Elevation and Analytical Data for Five Quarters  
October 2014 - December 2015  
Nevada Environmental Response Trust Site  
Henderson, Nevada**

Well ID	Collection Date	GW Elevation (ft amsl)	Chlorate (mg/L)	Chromium (mg/L)	Chromium VI (mg/L)	Nitrate (mg/L)	Perchlorate (mg/L)	TDS (mg/L)	
ART-3	11/03/2014			0.39			220	8,700	
	11/05/2014	1587.33							
	12/01/2014						210	8,900	
	12/16/2014	1587.57							
	01/05/2015						230	9,200	
	01/15/2015	1587.35							
	02/02/2015			0.37			220	8,600	
	02/03/2015	1587.01							
	03/03/2015						230	8,600	
	03/10/2015	1587.30							
	04/06/2015						250	8,700	
	04/17/2015	1587.02							
	05/04/2015				0.33			230	8,500
	05/28/2015	1587.11							
	06/01/2015							230	8,800
	06/09/2015	1587.23							
	07/06/2015							220	9,200
	07/16/2015	1586.90							
	08/13/2015	1587.35							
	09/08/2015							210	8,400
	09/10/2015	1586.92							
	10/06/2015							220	8,400
10/15/2015	1587.93								
11/02/2015				0.3			240	8,400	
11/12/2015	1594.88								
12/03/2015				0.29	0.24		210	9,000	
12/15/2015	1588.01								
ART-3A	10/22/2014	1580.09							
	11/05/2014	1591.84							
	12/16/2014	1577.53							
	01/15/2015	1574.94							
	02/03/2015	1579.23							
	03/10/2015	1571.58							
	04/17/2015	1575.97							
	05/28/2015	1581.67							
	06/09/2015	1579.38							
	07/16/2015	1581.76							
	08/03/2015				0.3			210	8,900
	08/13/2015	1580.78							
09/10/2015	1576.18								

**TABLE A-1: Groundwater Elevation and Analytical Data for Five Quarters  
October 2014 - December 2015  
Nevada Environmental Response Trust Site  
Henderson, Nevada**

Well ID	Collection Date	GW Elevation (ft amsl)	Chlorate (mg/L)	Chromium (mg/L)	Chromium VI (mg/L)	Nitrate (mg/L)	Perchlorate (mg/L)	TDS (mg/L)
ART-3A	10/15/2015	1578.70						
	11/12/2015	1593.51						
	12/15/2015	1595.12						
ART-4	10/07/2014						310	7,800
	10/22/2014	1579.34						
	11/03/2014			0.6			280	6,700
	11/05/2014	1579.18						
	12/01/2014						270	7,000
	12/16/2014	1578.86						
	01/05/2015						280	6,700
	01/15/2015	1578.83						
	02/02/2015			0.54			250	6,500
	02/03/2015	1579.03						
	03/03/2015						260	6,300
	03/10/2015	1578.88						
	04/06/2015						260	6,300
	04/28/2015	1580.13						
	05/04/2015			0.46			260	6,200
	05/28/2015	1591.88						
	06/01/2015						280	6,700
	06/09/2015	1579.01						
	07/06/2015						250	6,800
	07/16/2015	1578.57						
	08/03/2015				0.42		230	6,500
	08/13/2015	1578.74						
	09/08/2015						220	6,400
	09/10/2015	1581.70						
10/06/2015						270	6,000	
10/15/2015	1590.08							
11/02/2015				0.37		230	5,900	
11/12/2015	1592.27							
12/03/2015				0.45	0.37	270	6,300	
12/15/2015	1587.94							
ART-4A	10/22/2014	1588.52						
	11/05/2014	1588.61						
	12/16/2014	1588.68						
	01/15/2015	1588.49						
	02/03/2015	1588.69						
	03/10/2015	1588.29						
	04/17/2015	1587.91						

**TABLE A-1: Groundwater Elevation and Analytical Data for Five Quarters  
October 2014 - December 2015  
Nevada Environmental Response Trust Site  
Henderson, Nevada**

Well ID	Collection Date	GW Elevation (ft amsl)	Chlorate (mg/L)	Chromium (mg/L)	Chromium VI (mg/L)	Nitrate (mg/L)	Perchlorate (mg/L)	TDS (mg/L)
ART-4A	05/28/2015	1588.18						
	06/09/2015	1588.30						
	07/16/2015	1587.94						
	08/13/2015	1588.15						
	09/10/2015	1588.29						
	10/15/2015	1589.98						
	11/12/2015	1592.69						
	12/15/2015	1589.00						
ART-6	10/08/2014						47	7,200
	10/22/2014	1586.09						
	11/03/2014			0.21			36	6,300
	11/05/2014	1586.14						
	12/01/2014						36	6,500
	12/16/2014	1586.33						
	01/05/2015						37	6,700
	01/16/2015	1587.12						
	02/02/2015			0.15			30	6,700
	02/03/2015	1587.08						
	03/03/2015						36	6,400
	03/10/2015	1586.83						
	04/06/2015						37	6,400
	04/17/2015	1586.57						
	05/04/2015	1588.39		0.13			34	6,100
	06/01/2015						34	6,300
	06/09/2015	1586.08						
	07/06/2015	1585.77					29	6,000
	08/03/2015	1586.54		0.11			30	5,600
	09/08/2015						25	5,400
	09/10/2015	1585.27						
10/06/2015						170	5,500	
10/20/2015	1586.11							
11/02/2015				0.36		76	5,400	
11/18/2015	1586.24							
12/07/2015				0.27	0.51 J-	69	5,600	
12/15/2015	1585.02							
ART-7	10/07/2014						130	8,200
ART-7A	10/22/2014	1584.94						
	11/05/2014	1585.07						
	12/16/2014	1585.51						
	01/16/2015	1586.49						



**TABLE A-1: Groundwater Elevation and Analytical Data for Five Quarters  
October 2014 - December 2015  
Nevada Environmental Response Trust Site  
Henderson, Nevada**

Well ID	Collection Date	GW Elevation (ft amsl)	Chlorate (mg/L)	Chromium (mg/L)	Chromium VI (mg/L)	Nitrate (mg/L)	Perchlorate (mg/L)	TDS (mg/L)
ART-7A	02/03/2015	1586.45						
	02/13/2015			1.7 J-			200	8,100
	03/10/2015	1586.17						
	04/17/2015	1585.80						
	05/04/2015	1585.81		1.9			160	7,600
	06/09/2015	1585.53						
	07/17/2015	1585.34						
	08/03/2015	1585.50		2.5			130	8,100
	09/10/2015	1585.00						
	10/06/2015						160	8,100
	10/15/2015	1585.12						
	11/18/2015	1585.71						
12/15/2015	1589.69							
ART-7B	10/22/2014	1583.95						
	11/03/2014			0.65			120	7,700
	11/05/2014	1582.89						
	12/01/2014						140	7,900
	12/16/2014	1581.78						
	01/05/2015						160	7,900
	01/16/2015	1579.63						
	02/02/2015			0.87			150	7,900
	02/03/2015	1582.58						
	03/03/2015						160	7,700
	03/10/2015	1579.55						
	04/06/2015						160	7,900
	04/17/2015	1579.81						
	05/04/2015			0.77			150	7,700
	05/28/2015	1581.54						
	06/01/2015						150	7,900
	06/09/2015	1581.18						
	07/06/2015						120	8,400
	07/17/2015	1579.99						
	08/03/2015			0.71			140	7,900
	08/13/2015	1579.72						
	09/08/2015						150	7,800
	09/10/2015	1582.34						
	10/15/2015	1581.61						
11/02/2015			0.79			190	7,700	
11/18/2015	1579.32							
12/03/2015			0.64		0.52	130	7,900	

**TABLE A-1: Groundwater Elevation and Analytical Data for Five Quarters  
October 2014 - December 2015  
Nevada Environmental Response Trust Site  
Henderson, Nevada**

Well ID	Collection Date	GW Elevation (ft amsl)	Chlorate (mg/L)	Chromium (mg/L)	Chromium VI (mg/L)	Nitrate (mg/L)	Perchlorate (mg/L)	TDS (mg/L)
ART-7B	12/15/2015	1579.63						
ART-8	10/07/2014						160	11,000
	10/22/2014	1586.73						
	11/03/2014			0.16			150	11,000
	11/05/2014	1585.48						
	12/01/2014						150	10,000
	12/16/2014	1586.89						
	01/05/2015						160	10,000
	01/15/2015	1585.79						
	02/02/2015			0.18			150	9,800
	02/03/2015	1586.41						
	03/03/2015						170	9,800
	03/10/2015	1586.86						
	04/06/2015						160	9,900
	04/17/2015	1586.74						
	05/04/2015				0.17		130	9,600
	05/28/2015	1587.59						
	06/01/2015						160	10,000
	06/09/2015	1586.55						
	07/06/2015						130	10,000
	07/16/2015	1586.57						
	08/03/2015				0.14		150	10,000
08/13/2015	1589.22							
09/08/2015						140	10,000	
09/10/2015	1588.58							
10/06/2015						140	10,000	
10/15/2015	1590.10							
11/02/2015				0.12		140	9,800	
11/12/2015	1593.56							
12/03/2015				0.098	0.088	130	10,000	
12/15/2015	1586.46							
ART-8A	10/22/2014	1589.71						
	11/05/2014	1589.48						
	12/16/2014	1589.90						
	01/15/2015	1589.49						
	02/03/2015	1589.31						
	03/10/2015	1589.54						
	04/17/2015	1589.08						
	05/28/2015	1589.39						
06/09/2015	1590.33							

**TABLE A-1: Groundwater Elevation and Analytical Data for Five Quarters  
October 2014 - December 2015  
Nevada Environmental Response Trust Site  
Henderson, Nevada**

Well ID	Collection Date	GW Elevation (ft amsl)	Chlorate (mg/L)	Chromium (mg/L)	Chromium VI (mg/L)	Nitrate (mg/L)	Perchlorate (mg/L)	TDS (mg/L)
ART-8A	07/16/2015	1589.45						
	08/13/2015	1586.88						
	09/10/2015	1589.22						
	10/15/2015	1577.20						
	11/12/2015	1593.32						
	12/15/2015	1590.45						
ART-9	10/07/2014						250	7,400
	10/22/2014	1583.51						
	11/03/2014			1.1			200	6,500
	11/05/2014	1583.50						
	12/01/2014						210	6,700
	12/16/2014	1584.93						
	01/05/2015						230	6,600
	01/16/2015	1585.56						
	02/02/2015			0.79			200	6,200
	02/03/2015	1585.43						
	03/03/2015						240	6,200
	03/10/2015	1584.75						
	04/06/2015						280	6,500
	04/17/2015	1584.41						
	05/04/2015				0.88		220	6,100
	05/28/2015	1584.55						
	06/01/2015						240	6,600
	06/09/2015	1583.83						
	07/06/2015						200	7,000
	07/17/2015	1584.29						
	08/03/2015				0.84		230	6,900
	08/13/2015	1583.99						
	09/08/2015						250	6,800
	09/10/2015	1583.17						
10/06/2015						220	6,700	
10/15/2015	1582.21							
11/02/2015				0.71		270	6,300	
11/18/2015	1583.62							
12/03/2015				0.87	0.78	240	6,900	
12/15/2015	1583.64							
H-28A	05/28/2015	1692.47		0.053			14	11,000
	08/07/2015	1692.46		0.034			15	12,000
H-58A	05/26/2015	1663.39		<0.013			0.42	14,000
HM-2	05/06/2015	1559.88					4.6	4,700

**TABLE A-1: Groundwater Elevation and Analytical Data for Five Quarters  
October 2014 - December 2015  
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Well ID	Collection Date	GW Elevation (ft amsl)	Chlorate (mg/L)	Chromium (mg/L)	Chromium VI (mg/L)	Nitrate (mg/L)	Perchlorate (mg/L)	TDS (mg/L)
HMW-13	05/07/2015	1578.47					<0.0025	1,400
HMW-14	05/06/2015	1580.35					0.031	1,500
HMW-15	05/06/2015	1600.53					0.008 J+	2,500
HMW-16	05/20/2015	1612.54					23	6,100
I-AA	10/21/2014	1709.85						
	11/19/2014	1709.99						
	12/01/2014	1709.85		1.4			91	3,500
	01/20/2015	1709.92						
	02/23/2015	1709.22		0.13			120	3,000
	03/24/2015	1709.91						
	04/23/2015	1709.91						
	05/04/2015	1709.94		0.43			110	3,400
	06/17/2015	1708.37						
	07/10/2015	1708.49						
	08/03/2015	1710.22		0.058			110	3,700
	09/18/2015	1710.73						
	10/20/2015	1711.28						
	11/02/2015	1711.42						
	11/03/2015				0.055		170	3,600
12/08/2015				0.056	0.06	110	3,500	
12/18/2015	1714.10							
I-AB	10/21/2014	1720.66						
	11/19/2014	1720.63						
	12/01/2014	1720.61		0.016			470	4,500
	01/20/2015	1721.62						
	02/23/2015	1720.60		0.12			560	3,600
	03/24/2015	1720.65						
	04/23/2015	1720.63						
	05/04/2015	1720.53		<0.013			500	4,100
	06/17/2015	1720.36						
	07/10/2015	1720.28						
	08/03/2015	1720.38		0.03			400	4,400
	09/18/2015	1720.47						
	10/20/2015	1721.16						
	11/02/2015	1712.44		0.038			380	3,900
	12/08/2015			0.033	0.02		390	4,000
12/18/2015	1713.32							
I-AC	10/21/2014	1724.59						
	11/20/2014	1724.56						
	12/01/2014	1724.53						

**TABLE A-1: Groundwater Elevation and Analytical Data for Five Quarters  
October 2014 - December 2015  
Nevada Environmental Response Trust Site  
Henderson, Nevada**

Well ID	Collection Date	GW Elevation (ft amsl)	Chlorate (mg/L)	Chromium (mg/L)	Chromium VI (mg/L)	Nitrate (mg/L)	Perchlorate (mg/L)	TDS (mg/L)
I-AC	12/02/2014			1			25	16,000
	01/21/2015	1723.88						
	02/26/2015	1723.85		0.61			37	9,800
	03/25/2015	1723.72						
	04/24/2015	1723.70						
	05/29/2015	1723.53		0.59			79	10,000
	06/16/2015	1723.45						
	07/08/2015	1723.53						
	08/07/2015	1723.05						
	09/09/2015	1723.35						
	10/08/2015	1723.26						
	11/06/2015	1723.58						
12/21/2015	1723.81							
I-AD	10/21/2014	1726.68						
	11/20/2014	1726.61						
	12/02/2014	1726.66		2.4			140	6,200
	01/21/2015	1726.03						
	02/26/2015	1725.92		1.3			140	5,700
	03/25/2015	1725.81						
	04/24/2015	1725.73						
	05/29/2015	1725.40		1.1			130	6,100
	06/16/2015	1725.56						
	07/08/2015	1725.58						
	08/07/2015	1724.90		1.1			120	6,400
	09/09/2015	1725.38						
	10/08/2015	1725.09						
	11/06/2015	1723.70						
	11/10/2015			0.98			140	5,400
12/07/2015			0.77	0.037 J+		130	6,000	
12/21/2015	1724.30							
I-AR	10/21/2014	1715.29						
	11/19/2014	1715.24						
	12/01/2014			0.5			2,100	6,400
	12/02/2014	1715.26						
	01/20/2015	1715.32						
	02/23/2015	1715.23		0.56			2,500	5,800
	03/24/2015	1715.06						
	04/23/2015	1715.18						
	05/04/2015	1715.28		0.46			2,500	6,100
	06/16/2015	1714.93						

**TABLE A-1: Groundwater Elevation and Analytical Data for Five Quarters  
October 2014 - December 2015  
Nevada Environmental Response Trust Site  
Henderson, Nevada**

Well ID	Collection Date	GW Elevation (ft amsl)	Chlorate (mg/L)	Chromium (mg/L)	Chromium VI (mg/L)	Nitrate (mg/L)	Perchlorate (mg/L)	TDS (mg/L)
I-AR	07/10/2015	1715.17						
	08/03/2015	1715.34		3.3			2,200	6,300
	09/19/2015	1715.07						
	10/20/2015	1714.44						
	11/05/2015	1725.70						
	11/06/2015			0.13			2,200	6,000
	12/08/2015			0.4	0.26		2,400	6,300
	12/16/2015	1729.86						
I-B	10/21/2014	1711.19						
	11/19/2014	1714.10						
	12/01/2014	1709.20		0.14			760	5,000
	01/20/2015	1709.20						
	02/23/2015	1709.21		0.17			1,200	4,500
	03/24/2015	1709.20						
	04/23/2015	1709.25						
	05/04/2015	1709.25		0.17			730	4,400
	06/17/2015	1709.53						
	07/10/2015	1709.39						
	08/03/2015	1710.54		0.14			530	4,800
	09/19/2015	1709.59						
	10/20/2015	1711.89						
	11/02/2015	1709.40		0.17			580	4,900
	12/08/2015			0.13	0.1		540	4,500
12/18/2015	1709.52							
I-C	10/21/2014	1716.74						
	11/19/2014	1716.63						
	12/01/2014			2.8			880	6,900
	12/02/2014	1716.61						
	01/20/2015	1716.58						
	02/23/2015	1717.06		2.9			960	6,600
	03/24/2015	1717.19						
	04/23/2015	1716.68						
	05/04/2015	1716.28		3.1			940	6,700
	06/17/2015	1715.76						
	07/10/2015	1714.98						
	08/03/2015	1709.49		3.2			840	7,000
	09/18/2015	1711.77						
	10/21/2015	1721.83						
	11/05/2015	1715.95		3			830	6,700
12/08/2015			2.8	2.48		870	6,700	

**TABLE A-1: Groundwater Elevation and Analytical Data for Five Quarters  
October 2014 - December 2015  
Nevada Environmental Response Trust Site  
Henderson, Nevada**

Well ID	Collection Date	GW Elevation (ft amsl)	Chlorate (mg/L)	Chromium (mg/L)	Chromium VI (mg/L)	Nitrate (mg/L)	Perchlorate (mg/L)	TDS (mg/L)
I-C	12/29/2015	1716.50						
I-D	10/21/2014	1707.84						
	11/19/2014	1708.93						
	12/01/2014			6.3			980	8,100
	12/02/2014	1709.58						
	01/26/2015	1715.21						
	02/23/2015	1719.03		5.4			800	7,200
	03/24/2015	1720.03						
	04/23/2015	1713.31						
	05/04/2015	1708.90		5.8			710	7,000
	06/17/2015	1707.90						
	07/10/2015	1709.62						
	08/03/2015	1705.81		13			890	9,300
	09/18/2015	1705.84						
	10/21/2015	1720.99						
	11/02/2015	1724.45			4.7		630	6,700
12/08/2015				6.2	4.1	700	6,900	
12/29/2015	1722.90							
I-E	10/21/2014	1708.27						
	11/19/2014	1708.29						
	12/01/2014	1708.59		8.6			860	8,800
	01/20/2015	1707.92						
	02/23/2015	1707.93		8			870	8,400
	03/24/2015	1708.12						
	04/23/2015	1708.04						
	05/04/2015	1707.90		9.1			740	8,500
	06/17/2015	1708.13						
	07/10/2015	1707.67						
	08/03/2015	1707.97		9.3			840	7,200
	09/14/2015	1707.76						
	10/21/2015	1720.17						
	11/02/2015	1718.47			7.8		770	8,000
	12/08/2015				10	7.62	1,000	8,600
12/29/2015	1718.00							
I-F	10/21/2014	1708.65						
	11/19/2014	1709.03						
	12/01/2014	1708.65		17			1,300	12,000
	01/20/2015	1708.73						
	02/23/2015	1710.74		17			1,200	11,000
	03/24/2015	1708.66						

**TABLE A-1: Groundwater Elevation and Analytical Data for Five Quarters  
October 2014 - December 2015  
Nevada Environmental Response Trust Site  
Henderson, Nevada**

Well ID	Collection Date	GW Elevation (ft amsl)	Chlorate (mg/L)	Chromium (mg/L)	Chromium VI (mg/L)	Nitrate (mg/L)	Perchlorate (mg/L)	TDS (mg/L)
I-F	04/23/2015	1710.33						
	05/04/2015	1708.68		18			1,200	11,000
	06/17/2015	1709.65						
	07/10/2015	1710.36						
	08/03/2015	1709.27		19			980	13,000
	09/14/2015	1712.19						
	10/21/2015	1711.69						
	11/02/2015	1717.58		15			1,100	11,000
	12/08/2015			20	13.9		1,400	11,000
	12/16/2015	1721.81						
I-G	10/21/2014	1712.64						
	11/19/2014	1712.85						
	12/01/2014	1711.12		24			1,900	15,000
	01/20/2015	1712.58						
	02/23/2015	1711.37		22			1,500	15,000
	03/24/2015	1712.42						
	04/23/2015	1711.97						
	05/04/2015	1711.05		13			930	8,600
	06/17/2015	1712.11						
	07/10/2015	1711.23						
	08/03/2015	1711.22		10			660	8,700
	09/14/2015	1711.21						
	10/20/2015	1727.78						
	11/02/2015	1712.24		22			2,000	15,000
12/07/2015			20	21		1,700	16,000	
12/16/2015	1712.61							
I-H	10/21/2014	1709.27						
	11/19/2014	1709.27						
	12/01/2014	1709.18		21			1,900	14,000
	01/20/2015	1709.17						
	02/23/2015	1709.12		21			2,300	13,000
	03/24/2015	1709.09						
	04/23/2015	1709.20						
	05/04/2015	1709.13		21			2,100	13,000
	06/17/2015	1709.14						
	07/10/2015	1708.57						
	08/03/2015	1709.08		21			1,900	15,000
	09/14/2015	1708.61						
	10/20/2015	1720.64						
11/02/2015	1709.16		22			2,000	13,000	



**TABLE A-1: Groundwater Elevation and Analytical Data for Five Quarters  
October 2014 - December 2015  
Nevada Environmental Response Trust Site  
Henderson, Nevada**

Well ID	Collection Date	GW Elevation (ft amsl)	Chlorate (mg/L)	Chromium (mg/L)	Chromium VI (mg/L)	Nitrate (mg/L)	Perchlorate (mg/L)	TDS (mg/L)
I-H	12/07/2015			18	16.7		2,000	14,000
	12/29/2015	1719.10						
I-I	10/21/2014	1722.81						
	11/20/2014	1722.76						
	12/01/2014	1722.78						
	12/02/2014			11			530	8,400
	01/21/2015	1722.47						
	02/26/2015	1721.26		11			990	8,600
	03/25/2015	1721.02						
	04/24/2015	1720.99						
	05/29/2015	1720.79		10			780	9,100
	06/16/2015	1721.17						
	07/08/2015	1721.31						
	08/07/2015	1720.58		13			720	9,000
	09/09/2015	1720.38						
	10/08/2015	1719.80						
	11/06/2015				12		910	8,300
12/08/2015				12	10.9	950	8,700	
12/29/2015	1707.00							
I-J	10/21/2014	1722.93						
	11/20/2014	1723.01						
	12/02/2014	1722.96		3.9			260	6,300
	01/21/2015	1713.34						
	02/27/2015	1707.83		3.4			330	6,500
	03/25/2015	1711.02						
	04/24/2015	1714.72						
	05/29/2015	1711.81		3			340	6,900
	06/16/2015	1711.50						
	07/08/2015	1707.80						
	08/07/2015	1707.75		3.5			280	7,300
	09/09/2015	1707.82						
	10/08/2015	1707.82						
	11/06/2015	1708.51		3.5			340	6,600
	12/07/2015			3	3.21		270	7,000
12/21/2015	1707.69							
I-K	10/21/2014	1719.43						
	11/20/2014	1718.47						
	12/02/2014	1716.55		2.1			250	6,700
	01/21/2015	1715.01						
	02/26/2015	1709.92		1.9			280	6,300

**TABLE A-1: Groundwater Elevation and Analytical Data for Five Quarters  
October 2014 - December 2015  
Nevada Environmental Response Trust Site  
Henderson, Nevada**

Well ID	Collection Date	GW Elevation (ft amsl)	Chlorate (mg/L)	Chromium (mg/L)	Chromium VI (mg/L)	Nitrate (mg/L)	Perchlorate (mg/L)	TDS (mg/L)
I-K	03/25/2015	1710.53						
	04/24/2015	1711.32						
	05/29/2015	1711.24		1.8			240	6,800
	06/16/2015	1712.91						
	07/08/2015	1711.56						
	08/07/2015	1715.07		2			210	7,200
	09/09/2015	1710.14						
	10/08/2015	1711.88						
	11/06/2015			2			260	6,400
	(FD)			2			270	6,400
	11/10/2015	1713.30						
	12/07/2015			2	1.77		240	6,700
12/21/2015	1720.79							
I-L	10/21/2014	1719.74						
	11/19/2014	1712.41						
	12/01/2014	1711.64		0.92			950	6,400
	01/20/2015	1711.83						
	02/23/2015	1711.73		0.95			940	5,600
	03/24/2015	1711.61						
	04/23/2015	1712.03						
	05/04/2015	1713.06		0.83			1,000	5,500
	06/17/2015	1713.01						
	07/10/2015	1713.52						
	08/03/2015	1714.39		0.89			950	6,300
	09/14/2015	1719.15						
	10/20/2015	1722.68						
	11/02/2015	1722.78		0.53			970	5,500
	12/08/2015			0.6	0.6		1,000	5,400
12/18/2015	1720.39							
I-M	10/21/2014	1715.97						
	11/19/2014	1716.27						
	12/01/2014	1716.27		7.4			1,000	8,800
	01/20/2015	1716.69						
	02/23/2015	1717.56		8			1,200	8,600
	03/24/2015	1718.27						
	04/23/2015	1716.83						
	05/04/2015	1716.57		7.8			960	8,200
	06/17/2015	1716.21						
	07/10/2015	1716.06						
08/03/2015	1715.77		9.3			960	8,400	

**TABLE A-1: Groundwater Elevation and Analytical Data for Five Quarters  
October 2014 - December 2015  
Nevada Environmental Response Trust Site  
Henderson, Nevada**

Well ID	Collection Date	GW Elevation (ft amsl)	Chlorate (mg/L)	Chromium (mg/L)	Chromium VI (mg/L)	Nitrate (mg/L)	Perchlorate (mg/L)	TDS (mg/L)
I-M	09/14/2015	1715.57						
	10/21/2015	1721.13						
	11/02/2015	1716.97		7.3			1,000	8,700
	12/08/2015			9.3	6.56		1,000	8,100
	12/16/2015	1722.72						
I-N	10/21/2014	1715.10						
	11/19/2014	1717.66						
	12/01/2014	1717.63		9.3			1,100	10,000
	01/20/2015	1718.06						
	02/23/2015	1718.44		9.3			970	9,000
	03/24/2015	1718.14						
	04/23/2015	1717.71						
	05/04/2015	1713.69		9.4			1,100	8,900
	06/17/2015	1714.12						
	07/10/2015	1713.71						
	08/03/2015	1712.67		10			960	9,900
	09/14/2015	1713.69						
	10/21/2015	1719.19						
	11/02/2015	1718.34		8.9			960	8,700
12/08/2015			10	7		910	4,100	
12/16/2015	1722.48							
I-O	10/21/2014	1720.56						
	11/19/2014	1715.95						
	12/01/2014	1715.24		13			1,100	9,200
	01/20/2015	1715.25						
	02/23/2015	1715.02		16			1,300	9,800
	03/24/2015	1715.23						
	04/23/2015	1715.16						
	05/04/2015	1714.98		16			1,200	10,000
	06/17/2015	1715.57						
	07/10/2015	1715.53						
	08/03/2015	1714.85		18			1,100	11,000
	09/14/2015	1715.24						
	10/20/2015	1715.06						
	11/02/2015	1721.30		18			1,200	10,000
12/07/2015			13	14.2		1,100	11,000	
12/16/2015	1721.64							
I-P	10/21/2014	1711.50						
	11/19/2014	1711.43						
	12/01/2014	1710.61		17			1,200	11,000

**TABLE A-1: Groundwater Elevation and Analytical Data for Five Quarters  
October 2014 - December 2015  
Nevada Environmental Response Trust Site  
Henderson, Nevada**

Well ID	Collection Date	GW Elevation (ft amsl)	Chlorate (mg/L)	Chromium (mg/L)	Chromium VI (mg/L)	Nitrate (mg/L)	Perchlorate (mg/L)	TDS (mg/L)
I-P	01/20/2015	1709.33						
	02/23/2015	1710.59		18			1,500	11,000
	03/24/2015	1709.82						
	04/23/2015	1710.57						
	05/04/2015	1711.97		19			1,400	11,000
	06/17/2015	1713.15						
	07/10/2015	1710.55						
	08/03/2015	1711.45		17			1,300	12,000
	09/14/2015	1712.35						
	10/20/2015	1712.67						
	11/02/2015	1711.91		18			1,300	11,000
	12/07/2015			12	14.8		1,200	11,000
12/16/2015	1708.96							
I-Q	10/21/2014	1712.69						
	11/19/2014	1713.79						
	12/01/2014	1712.58		23			1,800	15,000
	01/20/2015	1712.62						
	02/23/2015	1713.11		22			1,800	14,000
	03/24/2015	1712.93						
	04/23/2015	1713.30						
	05/04/2015	1712.92		23			2,000	14,000
	06/17/2015	1713.12						
	07/10/2015	1712.79						
	08/03/2015	1712.84		24			1,500	15,000
	09/14/2015	1713.22						
	10/21/2015	1719.41						
	11/18/2015	1713.67		20			1,500	14,000
	12/07/2015			20	19.1		1,500	15,000
12/16/2015	1713.11							
I-R	10/21/2014	1715.12						
	11/19/2014	1710.23						
	12/01/2014	1709.22		0.53			1,500	6,600
	01/20/2015	1709.58						
	02/23/2015	1709.22		0.5			1,600	6,000
	03/24/2015	1709.38						
	04/23/2015	1710.17						
	05/04/2015	1711.67		0.5			1,700	6,100
	06/17/2015	1710.66						
	07/10/2015	1712.29						
08/03/2015	1710.27		0.51			1,300	6,700	

**TABLE A-1: Groundwater Elevation and Analytical Data for Five Quarters  
October 2014 - December 2015  
Nevada Environmental Response Trust Site  
Henderson, Nevada**

Well ID	Collection Date	GW Elevation (ft amsl)	Chlorate (mg/L)	Chromium (mg/L)	Chromium VI (mg/L)	Nitrate (mg/L)	Perchlorate (mg/L)	TDS (mg/L)
I-R	09/18/2015	1709.93						
	10/20/2015	1711.76						
	11/02/2015	1721.22		0.34			1,500	6,400
	12/08/2015			0.35	0.34		1,400	6,100
	12/29/2015	1708.80						
I-S	10/21/2014	1721.11						
	11/19/2014	1721.08						
	12/01/2014	1721.04		1.7			640	6,000
	01/20/2015	1721.05						
	02/23/2015	1721.21		1.7			650	5,500
	03/24/2015	1721.35						
	04/23/2015	1721.14						
	05/04/2015	1724.64		1.7			730	5,600
	06/17/2015	1718.52						
	07/10/2015	1717.95						
	08/03/2015	1715.34		1.7			730	6,600
	09/14/2015	1705.97						
	10/21/2015	1722.24						
	11/02/2015	1707.04		1.1			750	6,000
12/08/2015			1.3	1.28		840	5,600	
12/16/2015	1723.22							
I-T	10/21/2014	1708.45						
	11/19/2014	1708.42						
	12/01/2014	1708.42		24			1,800	15,000
	01/20/2015	1708.42						
	02/23/2015	1708.49		23			2,000	15,000
	03/24/2015	1708.44						
	04/23/2015	1708.42						
	05/04/2015	1708.38		25			2,000	15,000
	06/17/2015	1708.40						
	07/10/2015	1708.27						
	08/03/2015	1708.20		27			1,200	13,000
	09/14/2015	1708.35						
	10/20/2015	1707.99						
	11/05/2015	1717.01		23			2,100	16,000
12/07/2015			22	20.2		2,100	16,000	
12/16/2015	1718.95							
I-U	10/21/2014	1707.90						
	11/19/2014	1707.98						
	12/01/2014	1707.75		23			1,800	16,000

**TABLE A-1: Groundwater Elevation and Analytical Data for Five Quarters  
October 2014 - December 2015  
Nevada Environmental Response Trust Site  
Henderson, Nevada**

Well ID	Collection Date	GW Elevation (ft amsl)	Chlorate (mg/L)	Chromium (mg/L)	Chromium VI (mg/L)	Nitrate (mg/L)	Perchlorate (mg/L)	TDS (mg/L)
I-U	01/21/2015	1707.70						
	02/23/2015	1707.94		23			2,000	14,000
	03/24/2015	1707.85						
	04/23/2015	1707.63						
	05/04/2015	1707.89		23			2,000	15,000
	06/17/2015	1707.31						
	07/10/2015	1707.18						
	08/03/2015	1707.58		25			2,000	15,000
	09/14/2015	1707.92						
	10/20/2015	1710.75						
	11/02/2015	1707.43		22			2,200	15,000
	12/07/2015			19	19.9		1,800	16,000
12/16/2015	1712.25							
I-V	10/21/2014	1720.80						
	11/20/2014	1720.86						
	12/02/2014	1720.82		11			920	8,800
	01/21/2015	1719.19						
	02/26/2015	1719.18		11			1,200	8,100
	03/25/2015	1718.82						
	04/24/2015	1719.04						
	05/29/2015	1718.39		10			1,100	8,800
	06/16/2015	1719.50						
	07/08/2015	1718.30						
	08/07/2015	1718.10		12			950	9,200
	09/09/2015	1717.71						
	10/08/2015	1717.88						
	11/06/2015	1719.81		13			1,200	8,400
12/07/2015			7.8	9.73		820	9,100	
12/21/2015	1720.07							
I-W	10/21/2014	1717.44						
	11/19/2014	1720.16						
	12/01/2014	1719.91		14			1,100	9,600
	01/20/2015	1715.08						
	02/23/2015	1708.61		15			1,300	9,400
	03/24/2015	1714.37						
	04/23/2015	1719.34						
	05/04/2015	1707.87		16			1,500	10,000
	06/17/2015	1713.02						
	07/10/2015	1707.89						
08/03/2015	1709.77		17			1,000	11,000	

**TABLE A-1: Groundwater Elevation and Analytical Data for Five Quarters  
October 2014 - December 2015  
Nevada Environmental Response Trust Site  
Henderson, Nevada**

Well ID	Collection Date	GW Elevation (ft amsl)	Chlorate (mg/L)	Chromium (mg/L)	Chromium VI (mg/L)	Nitrate (mg/L)	Perchlorate (mg/L)	TDS (mg/L)
I-W	09/14/2015	1711.90						
	10/20/2015	1713.07						
	11/16/2015			19			1,300	11,000
	11/19/2015	1723.44						
	12/07/2015			14	14.8		1,100	11,000
	12/16/2015	1721.79						
I-X	10/21/2014	1707.38						
	11/19/2014	1703.39						
	12/01/2014	1704.43		12			1,900	12,000
	01/20/2015	1708.54						
	02/23/2015	1709.02		12			1,500	11,000
	03/24/2015	1707.51						
	04/23/2015	1704.19						
	05/04/2015	1706.87		12			1,600	11,000
	06/17/2015	1717.67						
	07/10/2015	1712.84						
	08/03/2015	1712.16		15			1,400	12,000
	09/14/2015	1718.14						
	10/21/2015	1719.00						
	11/16/2015			12			1,300	9,700
11/19/2015	1720.70							
12/08/2015			14	9.82		1,400	11,000	
12/16/2015	1722.49							
I-Y	10/21/2014	1712.96						
	11/19/2014	1708.77						
	12/01/2014	1711.28		0.82			1,400	6,800
	01/20/2015	1710.87						
	02/23/2015	1712.78		0.94			1,600	6,200
	03/24/2015	1705.87						
	04/23/2015	1710.63						
	05/04/2015	1711.24		0.9			1,500	6,100
	06/17/2015	1708.52						
	07/10/2015	1710.95						
	08/03/2015	1714.01		1			1,700	6,800
	09/14/2015	1704.53						
	10/20/2015	1712.65						
	11/02/2015	1721.77		0.47			1,600	6,700
	12/08/2015			0.51	0.44		1,600	6,800
12/18/2015	1712.88							
I-Z	10/21/2014	1722.69						

**TABLE A-1: Groundwater Elevation and Analytical Data for Five Quarters  
October 2014 - December 2015  
Nevada Environmental Response Trust Site  
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Well ID	Collection Date	GW Elevation (ft amsl)	Chlorate (mg/L)	Chromium (mg/L)	Chromium VI (mg/L)	Nitrate (mg/L)	Perchlorate (mg/L)	TDS (mg/L)
I-Z	11/20/2014	1722.67						
	12/02/2014	1722.61		6.7			280	6,200
	01/21/2015	1710.01						
	02/26/2015	1713.75		7.4			440	6,700
	03/25/2015	1710.11						
	04/24/2015	1710.65						
	05/29/2015	1710.50		7.4			400	7,200
	06/16/2015	1710.59						
	07/08/2015	1708.92						
	08/07/2015	1708.90		8.2			330	7,600
	09/09/2015	1708.96						
	10/08/2015	1709.95						
	11/06/2015			8.3			440	7,000
	12/07/2015			7.1	7.57		370	7,500
12/29/2015	1714.00							
M-2A	05/29/2015	1738.94		11			320	8,600
M-5A	05/22/2015	1713.68		<0.013			22	12,000
	08/05/2015	1713.67		<0.005			20	13,000
M-6A	05/28/2015	1694.17		0.019			16	9,600
	08/10/2015	1693.90		<0.013			16	10,000
M-7B	05/22/2015	1695.97		<0.013			25	8,700
	08/05/2015	1700.61		<0.0025			24	9,300
M-10	10/21/2014	1785.64						
	11/21/2014	1785.45						
	12/08/2014	1785.27	73	0.36	0.00062 J	1.3	6.6	2,600
	01/21/2015	1785.12						
	02/03/2015	1784.94						
	03/03/2015		58	0.4	<0.00025	1.3	7.2	2,600
	03/26/2015	1784.84						
	04/23/2015	1784.77						
	06/03/2015	1784.68	56	0.32	<0.00025	1.1	7.2	2,400 J+
	(FD)			0.28	<0.00025		6.7	2,400 J+
	06/16/2015	1784.63						
	07/07/2015	1784.55						
	08/06/2015	1784.34	35	0.19	0.00025 J	0.92	5.3	2,400
	09/09/2015	1784.61						
	10/09/2015	1782.98						
11/09/2015	1783.93	58	0.31	<0.00025	1.1	6.2	2,500	
12/22/2015	1782.97							
M-11	10/21/2014	1771.58						



**TABLE A-1: Groundwater Elevation and Analytical Data for Five Quarters  
October 2014 - December 2015  
Nevada Environmental Response Trust Site  
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Well ID	Collection Date	GW Elevation (ft amsl)	Chlorate (mg/L)	Chromium (mg/L)	Chromium VI (mg/L)	Nitrate (mg/L)	Perchlorate (mg/L)	TDS (mg/L)
M-11	11/21/2014	1771.44						
	12/18/2014	1771.32		1.4	1.2		17	2,400
	01/22/2015	1771.19						
	02/26/2015	1771.19		1.2	1.1		18	2,300
	03/26/2015	1771.05						
	04/24/2015	1771.01						
	06/05/2015	1770.89	170	1.4	0.95	1.7	15	2,300 J+
	06/16/2015	1770.89						
	07/08/2015	1770.83						
	08/06/2015	1770.87		1.1	1.1 J-		15	2,300
	09/09/2015	1769.66						
	10/09/2015	1770.71						
	11/09/2015	1770.56			1.2	1.1		17
12/22/2015	1770.75							
M-12A	12/18/2014	1769.94		11	10		220	7,200
	(FD)			12	10		230	7,000
	02/26/2015	1769.86		11	11		240	7,300
	06/05/2015	1769.78	2,000	9.7	10	9 J	230	7,200
	(FD)		2,000	10	10	14 J	230	7,300
	08/06/2015	1769.75		10	10		210	7,100
11/09/2015	1769.52			11	9.5		220	6,800
M-13	06/05/2015	1769.27	120	0.37		3.8	14	3,100 J+
M-14A	10/21/2014	1728.32						
	11/19/2014	1728.20						
	12/08/2014	1728.15		0.047			30	3,200
	01/20/2015	1728.11						
	02/25/2015	1728.14		0.042			33	3,100
	03/24/2015	1728.11						
	04/23/2015	1728.09						
	05/22/2015	1727.99		0.047			27	3,300
	06/16/2015	1727.91						
	07/08/2015	1727.83						
	08/05/2015	1728.06		0.044			26	3,500
	09/21/2015	1728.38						
	10/20/2015	1728.32						
	11/09/2015	1728.05			0.041		25	3,200
(FD)				0.044		25	3,100	
12/16/2015	1728.63							
M-19	10/21/2014	1732.24						
	11/20/2014	1732.19						

**TABLE A-1: Groundwater Elevation and Analytical Data for Five Quarters  
October 2014 - December 2015  
Nevada Environmental Response Trust Site  
Henderson, Nevada**

Well ID	Collection Date	GW Elevation (ft amsl)	Chlorate (mg/L)	Chromium (mg/L)	Chromium VI (mg/L)	Nitrate (mg/L)	Perchlorate (mg/L)	TDS (mg/L)
M-19	12/18/2014	1732.18		0.39			14	5,100
	01/21/2015	1731.95						
	02/26/2015	1731.75		0.4			17	4,900
	03/25/2015	1731.65						
	04/24/2015	1731.50						
	05/29/2015	1731.41		0.35			14	5,300
	06/16/2015	1731.85						
	07/08/2015	1731.44						
	08/06/2015	1731.23		0.43			12	5,100
	09/09/2015	1730.72						
	10/09/2015	1731.05						
	11/06/2015	1731.05		0.43			16	5,100
12/22/2015	1730.91							
M-21	06/05/2015	Dry						
M-22A	10/21/2014	1729.54						
	11/19/2014	1729.53						
	12/08/2014	1729.47		17			1,100	11,000
	01/20/2015	1729.00						
	02/27/2015	1728.82		16			1,400	8,900
	03/24/2015	1728.70						
	04/23/2015	1728.54						
	05/21/2015	1728.45		16			1,200	12,000
	06/16/2015	1728.40						
	07/10/2015	1728.33						
	08/05/2015	1728.27		18			1,200	12,000
	09/21/2015	1728.12						
	10/20/2015	1728.02						
	11/09/2015	1727.82		20			1,300	11,000
12/16/2015	1728.60							
M-23	10/22/2014	1686.23						
	11/21/2014	1686.16						
	12/05/2014	1686.07		0.34			200	3,900
	(FD)			0.32			190	4,000
	01/20/2015	1685.89						
	02/24/2015	1685.82		0.29			210	3,800
	03/26/2015	1685.76						
	04/15/2015	1685.67						
	05/27/2015	1685.49	110	0.32		33	190	4,300
	06/17/2015	1685.48						
07/07/2015	1685.40							

**TABLE A-1: Groundwater Elevation and Analytical Data for Five Quarters  
October 2014 - December 2015  
Nevada Environmental Response Trust Site  
Henderson, Nevada**

Well ID	Collection Date	GW Elevation (ft amsl)	Chlorate (mg/L)	Chromium (mg/L)	Chromium VI (mg/L)	Nitrate (mg/L)	Perchlorate (mg/L)	TDS (mg/L)
M-23	08/04/2015	1685.51		0.3			180	4,200
	09/10/2015	1685.31						
	10/07/2015	1685.32						
	11/04/2015	1685.17		0.31			190	4,100
	12/15/2015	1685.38						
M-25	10/21/2014	1726.50						
	11/19/2014	1726.42						
	12/08/2014	1726.43		7			430	7,600
	01/20/2015	1726.34						
	02/27/2015	1726.39		7			490	7,400
	03/24/2015	1726.37						
	04/23/2015	1726.27						
	05/22/2015	1726.14	1,900	6.9		20	430	7,500
	(FD)		1,900	6.6		19	460	7,400
	06/16/2015	1726.17						
	07/10/2015	1726.17						
	08/05/2015	1726.15		6.6			400	7,800
	09/19/2015	1724.92						
	10/20/2015	1725.15						
11/05/2015	1726.12			7.3		430	7,100	
12/16/2015	1727.08							
M-31A	10/21/2014	1750.73						
	11/21/2014	1750.60						
	12/09/2014	1750.54		4.7			710	6,400
	01/21/2015	1750.29						
	02/26/2015	1750.39		4.5			860	6,000
	03/25/2015	1750.03						
	04/24/2015	1749.99						
	06/02/2015	1749.96		5.9			770	6,600
	06/16/2015	1749.45						
	07/08/2015	1749.72						
	08/07/2015	1749.84		4.5			680	6,500
	(FD)			4.3			590	6,800
	09/09/2015	1749.80						
	10/09/2015	1749.73						
11/06/2015	1749.63			5		890	5,700	
12/22/2015	1749.92							
M-33	07/14/2015			0.26			240	5,400
M-32	07/14/2015	1750.68		3.6			270	5,700
	08/07/2015	1750.45		4.1			230	6,300

**TABLE A-1: Groundwater Elevation and Analytical Data for Five Quarters  
October 2014 - December 2015  
Nevada Environmental Response Trust Site  
Henderson, Nevada**

Well ID	Collection Date	GW Elevation (ft amsl)	Chlorate (mg/L)	Chromium (mg/L)	Chromium VI (mg/L)	Nitrate (mg/L)	Perchlorate (mg/L)	TDS (mg/L)
M-35	10/21/2014	1740.40						
	11/20/2014	1740.35						
	12/18/2014	1740.27		5.8			200	5,900
	01/21/2015	1740.09						
	02/26/2015	1739.86		4.8			210	4,600
	03/25/2015	1739.71						
	04/24/2015	1739.65						
	05/29/2015	1739.49		3.9			160	4,300
	06/06/2015	1739.49						
	07/08/2015	1739.41						
	08/07/2015	1739.34		4.3			150	4,300
	09/10/2015	1739.16						
	10/09/2015	1739.11						
	11/06/2015	1738.90		5.2			250	4,600
12/22/2015	1738.96							
M-37	10/21/2014	1729.27						
	11/19/2014	1729.25						
	12/05/2014	1729.19		0.016	0.0083		1,400	4,700
	01/20/2015	1729.15						
	02/27/2015	1729.18		0.032	0.0093		1,300	4,300
	(FD)			0.013	0.0084		1,400	4,600
	03/24/2015	1729.27						
	04/23/2015	1729.17						
	05/22/2015	1729.03	12	0.035	0.0063	130	1,100	4,900
	06/16/2015	1728.87						
	07/08/2015	1728.96						
	08/10/2015	1729.03		0.062 J	0.0062		1,100	5,600
	(FD)			0.0078 J	0.0062		1,000	5,500
	09/17/2015	1730.02						
	10/20/2015	1728.98						
	11/05/2015	1729.61		0.019	0.01		1,100	4,600
(FD)			0.014	0.013		850	4,500	
12/16/2015	1730.75							
M-38	10/21/2014	1728.52						
	11/19/2014	1728.50						
	12/08/2014	1728.41		18	18		630	11,000
	(FD)			18	18		640	11,000
	01/20/2015	1728.36						
	02/27/2015	1728.37		18	21		720	11,000
	03/24/2015	1728.32						

**TABLE A-1: Groundwater Elevation and Analytical Data for Five Quarters  
October 2014 - December 2015  
Nevada Environmental Response Trust Site  
Henderson, Nevada**

Well ID	Collection Date	GW Elevation (ft amsl)	Chlorate (mg/L)	Chromium (mg/L)	Chromium VI (mg/L)	Nitrate (mg/L)	Perchlorate (mg/L)	TDS (mg/L)
M-38	04/23/2015	1728.25						
	05/21/2015	1728.11	4,600	17	18	23	700	11,000
	06/16/2015	1728.16						
	07/10/2015	1728.14						
	08/06/2015	1728.12		20	19		660	12,000
	(FD)			19	18		680	11,000
	09/21/2015	1728.17						
	10/20/2015	1727.98						
	11/09/2015	1728.11		18	18		720	11,000
	12/16/2015	1728.43						
M-44	10/22/2014	1673.82						
	11/21/2014	1673.73						
	12/04/2014	1673.63		1	0.93		740	8,400
	01/20/2015	1673.49						
	02/24/2015	1673.25		0.87	0.94		700	8,500
	(FD)			0.94	0.93		800	8,600
	03/26/2015	1673.22						
	04/15/2015	1673.19						
	05/26/2015	1672.97		0.94	0.86		750	8,800
	(FD)			0.91	0.93		720	8,800
	06/17/2015	1673.02						
	07/07/2015	1672.91						
	08/10/2015	1672.95		0.97	0.86		670	11,000
	09/10/2015	1672.64						
10/07/2015	1672.74							
11/03/2015	1672.62		0.96	0.85		800	8,900	
12/15/2015	1672.64							
M-48A	10/22/2014	1688.12						
	11/21/2014	1688.10						
	12/04/2014	1688.04		1.9			160	5,000
	01/20/2015	1687.94						
	02/24/2015	1687.86		2.1			180	4,900
	03/26/2015	1687.78						
	04/15/2015	1687.54						
	05/26/2015	1687.64	600	2.1		22	190	5,600
	06/17/2015	1687.67						
	07/07/2015	1688.21						
	08/04/2015	1688.88		1			79	4,000
	09/10/2015	1689.08						
10/07/2015	1689.16							

**TABLE A-1: Groundwater Elevation and Analytical Data for Five Quarters  
October 2014 - December 2015  
Nevada Environmental Response Trust Site  
Henderson, Nevada**

Well ID	Collection Date	GW Elevation (ft amsl)	Chlorate (mg/L)	Chromium (mg/L)	Chromium VI (mg/L)	Nitrate (mg/L)	Perchlorate (mg/L)	TDS (mg/L)
M-48A	11/03/2015	1688.99		0.5			56	2,200
	12/15/2015	1688.83						
M-52	12/09/2014	1760.66		1.9			430	4,900
	02/26/2015	1760.33		1.8			530	4,600
	06/02/2015	1760.24		1.9			410	5,000 J+
	08/06/2015	1760.20		1.8			400	4,600
	11/06/2015	1759.95		1.8			530	4,500
M-55	10/21/2014	1721.04						
	11/19/2014	1721.04						
	12/02/2014	1721.33						
	01/20/2015	1721.15						
	02/16/2015	1721.36						
	03/24/2015	1721.42						
	04/23/2015	1721.05						
	05/04/2015	1720.96						
	06/16/2015	1720.77						
	07/10/2015	1720.72						
	08/03/2015	1720.61						
	09/14/2015	1720.42						
	10/21/2015	1721.15						
	11/02/2015	1721.26						
12/16/2015	1723.53							
M-56	10/21/2014	1719.28						
	11/19/2014	1719.20						
	12/02/2014	1719.20						
	01/20/2015	1719.06						
	02/16/2015	1719.04						
	03/24/2015	1718.90						
	04/23/2015	1718.91						
	05/04/2015	1718.81						
	06/16/2015	1718.75						
	07/10/2015	1718.61						
	08/03/2015	1718.66						
	09/14/2015	1718.34						
	10/20/2015	1719.08						
	11/02/2015	1719.21						
12/16/2015	1720.89							
M-57A	10/21/2014	1723.80						
	11/19/2014	1723.72						
	12/05/2014	1723.66		0.062			39	3,400

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October 2014 - December 2015  
Nevada Environmental Response Trust Site  
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Well ID	Collection Date	GW Elevation (ft amsl)	Chlorate (mg/L)	Chromium (mg/L)	Chromium VI (mg/L)	Nitrate (mg/L)	Perchlorate (mg/L)	TDS (mg/L)
M-57A	01/20/2015	1723.63						
	02/25/2015	1723.57		0.054			38	3,400
	03/24/2015	1723.65						
	04/23/2015	1723.57						
	05/08/2015	1723.55		0.064			34	3,300
	06/16/2015	1723.52						
	07/08/2015	1723.32						
	08/05/2015	1723.58		0.14			31	3,800
	09/18/2015	1723.75						
	10/20/2015	1723.74						
	11/05/2015	1723.69		0.06			28	3,500
	12/18/2015	1723.89						
M-58	10/21/2014	1721.90						
	11/19/2014	1721.90						
	12/02/2014	1721.78						
	01/20/2015	1721.07						
	02/16/2015	1721.02						
	03/24/2015	1720.94						
	04/23/2015	1721.06						
	05/04/2015	1720.89						
	06/16/2015	1721.03						
	07/10/2015	1720.74						
	08/03/2015	1720.76						
	09/14/2015	1720.73						
	10/20/2015	1720.75						
	11/02/2015	1721.83						
12/16/2015	1721.91							
M-60	10/21/2014	1718.89						
	11/19/2014	1718.92						
	12/02/2014	1721.00						
	01/20/2015	1718.46						
	02/16/2015	1718.40						
	03/24/2015	1718.27						
	04/23/2015	1718.17						
	05/04/2015	1718.19						
	06/16/2015	1718.06						
	07/10/2015	1718.00						
	08/03/2015	1717.97						
	09/14/2015	1717.81						
10/20/2015	1720.53							

**TABLE A-1: Groundwater Elevation and Analytical Data for Five Quarters  
October 2014 - December 2015  
Nevada Environmental Response Trust Site  
Henderson, Nevada**

Well ID	Collection Date	GW Elevation (ft amsl)	Chlorate (mg/L)	Chromium (mg/L)	Chromium VI (mg/L)	Nitrate (mg/L)	Perchlorate (mg/L)	TDS (mg/L)
M-60	11/02/2015	1720.61						
	12/16/2015	1720.85						
M-64	10/21/2014	1720.55						
	11/19/2014	1720.73						
	12/03/2014	1720.39		2.9			390	5,600
	01/20/2015	1721.04						
	02/25/2015	1721.26		0.09			7.1	2,700
	03/24/2015	1721.70						
	04/23/2015	1720.39						
	05/08/2015	1720.27		4.1			490	5,900
	06/16/2015	1720.14						
	07/10/2015	1720.07						
	08/05/2015	1719.93		5.2			570	7,600
	09/18/2015	1720.03						
	10/21/2015	1720.31						
	11/05/2015	1720.57		6.8			610	7,300
12/17/2015	1720.37							
M-65	10/21/2014	1720.97						
	11/19/2014	1720.95						
	12/03/2014	1720.94		22			1,300	14,000
	01/20/2015	1720.88						
	02/25/2015	1720.78		23			1,600	13,000
	03/24/2015	1720.75						
	04/23/2015	1721.17						
	05/07/2015	1720.75		22			1,200	13,000
	06/16/2015	1720.58						
	07/10/2015	1720.56						
	08/05/2015	1720.58		20			1,300	14,000
	09/14/2015	1720.62						
	10/20/2015	1720.64						
	11/05/2015	1721.02		22			1,300	13,000
12/16/2015	1723.22							
M-66	10/21/2014	1723.83						
	11/19/2014	1723.56						
	12/02/2014	1723.47						
	12/03/2014			21			2,200	14,000
	01/20/2015	1722.86						
	02/25/2015			23			2,300	14,000
	03/02/2015	1722.71						
	03/24/2015	1722.61						



**TABLE A-1: Groundwater Elevation and Analytical Data for Five Quarters  
October 2014 - December 2015  
Nevada Environmental Response Trust Site  
Henderson, Nevada**

Well ID	Collection Date	GW Elevation (ft amsl)	Chlorate (mg/L)	Chromium (mg/L)	Chromium VI (mg/L)	Nitrate (mg/L)	Perchlorate (mg/L)	TDS (mg/L)
M-66	04/23/2015	1722.16						
	05/08/2015	1722.28		21			1,900	14,000
	(FD)			23			2,100	14,000
	06/16/2015	1722.41						
	07/10/2015	1722.33						
	08/05/2015	1722.24		20			1,900	15,000
	09/14/2015	1722.11						
	10/20/2015	1722.31						
	11/05/2015	1722.52		21			2,100	14,000
	(FD)			21			2,100	13,000
	12/16/2015	1723.32						
M-67	10/21/2014	1725.33						
	11/20/2014	1725.35						
	12/08/2014	1725.28		3			260	5,800
	01/21/2015	1723.86						
	02/26/2015	1723.98		5.6			340	5,700
	03/25/2015	1723.69						
	04/24/2015	1723.68						
	05/29/2015	1723.57		5.1			310	6,400
	06/16/2015	1723.55						
	07/08/2015	1722.40						
	08/06/2015	1723.42		6.4			340	6,200
	09/09/2015	1723.20						
	10/08/2015	1723.30						
	11/06/2015	1723.56		6.2			340	6,100
12/22/2015	1723.74							
M-68	10/21/2014	1725.11						
	11/20/2014	1725.10						
	12/08/2014	1725.02		1.6			170	6,200
	01/21/2015	1724.22						
	02/26/2015	1724.19		1.5			210	6,000
	(FD)			1.5			170	6,000
	03/25/2015	1724.01						
	04/24/2015	1723.99						
	05/29/2015	1723.89		1.4			180	6,500
	06/16/2015	1723.80						
	07/08/2015	1723.79						
	08/06/2015	1723.71		1.6			170	6,700
	09/09/2015	1723.66						
10/08/2015	1723.54							

**TABLE A-1: Groundwater Elevation and Analytical Data for Five Quarters  
October 2014 - December 2015  
Nevada Environmental Response Trust Site  
Henderson, Nevada**

Well ID	Collection Date	GW Elevation (ft amsl)	Chlorate (mg/L)	Chromium (mg/L)	Chromium VI (mg/L)	Nitrate (mg/L)	Perchlorate (mg/L)	TDS (mg/L)
M-68	11/06/2015	1723.51		1.9			210	6,700
	12/22/2015	1724.03						
M-69	10/21/2014	1716.06						
	11/19/2014	1715.94						
	12/09/2014	1715.93		0.058			350	4,000
	01/20/2015	1715.98						
	02/25/2015	1716.00		0.061			370	3,800
	03/24/2015	1715.92						
	04/23/2015	1716.12						
	05/08/2015	1715.76		0.059			330	3,800
	06/16/2015	1715.87						
	07/10/2015	1715.82						
	08/05/2015	1716.04		0.055			310	4,400
	09/21/2015	1715.85						
	10/20/2015	1716.03						
	11/05/2015	1715.92		0.059			300	3,900
12/16/2015	1716.20							
M-70	10/21/2014	1713.03						
	11/19/2014	1712.97						
	12/08/2014	1712.94		4.2			660	6,800
	01/20/2015	1713.07						
	02/25/2015	1713.07		4.4			810	6,900
	03/24/2015	1713.01						
	04/23/2015	1712.66						
	05/21/2015	1712.88		3.9			710	7,500
	06/16/2015	1712.87						
	07/10/2015	1712.76						
	08/05/2015	1712.67		4.1			750	7,900
	09/21/2015	1712.57						
	10/20/2015	1712.58						
	11/09/2015	1712.95		4.9			810	9,400
12/16/2015	1712.84							
M-71	10/21/2014	1711.48						
	11/19/2014	1711.38						
	12/08/2014	1711.42		4.9			940	7,000
	01/20/2015	1711.43						
	02/25/2015	1710.47		11			1,400	11,000
	03/24/2015	1711.40						
	04/23/2015	1712.68						
	05/21/2015	1711.23		4.7			1,100	8,200

**TABLE A-1: Groundwater Elevation and Analytical Data for Five Quarters  
October 2014 - December 2015  
Nevada Environmental Response Trust Site  
Henderson, Nevada**

Well ID	Collection Date	GW Elevation (ft amsl)	Chlorate (mg/L)	Chromium (mg/L)	Chromium VI (mg/L)	Nitrate (mg/L)	Perchlorate (mg/L)	TDS (mg/L)
M-71	06/16/2015	1711.38						
	07/10/2015	1711.35						
	08/05/2015	1715.00		4.8			940	8,000
	09/21/2015	1711.39						
	10/20/2015	1711.36						
	11/09/2015	1711.06		6.3			1,200	7,000
	12/16/2015	1711.84						
M-72	10/21/2014	1714.72						
	11/19/2014	1714.64						
	12/08/2014	1714.55		9.8			1,100	11,000
	01/20/2015	1714.46						
	02/25/2015	1714.41		5.3			1,000	7,200
	03/24/2015	1714.31						
	04/23/2015	1714.36						
	05/21/2015	1714.32		8.8			1,200	12,000
	06/16/2015	1714.30						
	07/10/2015	1714.18						
	08/05/2015	1714.25		11			1,200	13,000
	09/21/2015	1714.21						
	10/20/2015	1714.14						
	11/09/2015	1714.19		12			1,300	11,000
12/16/2015	1714.66							
M-73	10/21/2014	1713.09						
	11/20/2014	1713.09						
	12/09/2014	1713.02		9.3			480	8,400
	01/21/2015	1712.85						
	02/26/2015	1712.82		12			600	8,400
	03/25/2015	1712.72						
	04/24/2015	1712.73						
	05/29/2015	1712.66		9.4			540	8,800
	06/16/2015	1712.61						
	07/08/2015	1712.69						
	08/06/2015	1712.68		11			470	8,900
	09/09/2015	1714.27						
	10/08/2015	1712.56						
	11/06/2015	1712.26		13			650	8,700
12/22/2015	1712.34							
M-74	10/21/2014	1717.87						
	11/20/2014	1717.87						
	12/18/2014	1717.87		1.4			150	6,300

**TABLE A-1: Groundwater Elevation and Analytical Data for Five Quarters  
October 2014 - December 2015  
Nevada Environmental Response Trust Site  
Henderson, Nevada**

Well ID	Collection Date	GW Elevation (ft amsl)	Chlorate (mg/L)	Chromium (mg/L)	Chromium VI (mg/L)	Nitrate (mg/L)	Perchlorate (mg/L)	TDS (mg/L)
M-74	01/21/2015	1717.59						
	02/26/2015	1717.50		1.5			200	5,900
	03/25/2015	1717.40						
	04/24/2015	1717.35						
	05/29/2015	1717.32		1.4			150	6,300
	06/16/2015	1717.11						
	07/08/2015	1717.18						
	08/06/2015	1717.13		1.4			130	6,500
	09/09/2015	1717.05						
	10/08/2015	1717.05						
	11/06/2015	1716.88		1.5			160	5,800
12/22/2015	1717.01							
M-75	10/21/2014	1741.79						
	11/20/2014	1741.85						
	12/02/2014	1741.68						
	01/21/2015	1741.77						
	02/16/2015	1744.00						
	03/25/2015	1741.75						
	04/24/2015	1741.74						
	05/29/2015	1741.74		1.9			48	4,000
	06/16/2015	1741.78						
	07/08/2015	1741.67						
	08/06/2015	1741.58						
	09/09/2015	1741.51						
	10/09/2015	1741.97						
11/06/2015	1741.84							
12/22/2015	1742.12							
M-76	10/21/2014	1745.88						
	11/20/2014	1745.87						
	12/02/2014	1745.82						
	01/21/2015	1745.85						
	02/16/2015	1742.79						
	03/25/2015	1745.85						
	04/24/2015	1745.82						
	05/29/2015	1745.84		2.1			130	4,500
	06/16/2015	1745.83						
	07/08/2015	1745.91						
	08/06/2015	1745.89						
	09/09/2015	1745.85						
10/09/2015	1746.23							

**TABLE A-1: Groundwater Elevation and Analytical Data for Five Quarters  
October 2014 - December 2015  
Nevada Environmental Response Trust Site  
Henderson, Nevada**

Well ID	Collection Date	GW Elevation (ft amsl)	Chlorate (mg/L)	Chromium (mg/L)	Chromium VI (mg/L)	Nitrate (mg/L)	Perchlorate (mg/L)	TDS (mg/L)
M-76	11/06/2015	1746.18						
	12/22/2015	1746.46						
M-77	10/21/2014	1761.90						
	11/21/2014	1761.57						
	12/02/2014	1761.74						
	01/21/2015	1761.60						
	02/16/2015	1761.52						
	03/25/2015	1761.38						
	04/24/2015	1761.35						
	06/05/2015	1761.10		0.56			220	3,000 J+
	06/16/2015	1761.17						
	07/08/2015	1755.22						
	08/06/2015	1761.15						
	09/09/2015	1761.68						
	10/09/2015	1760.95						
	11/06/2015	1760.96						
12/22/2015	1760.95							
M-78	10/21/2014	1718.63						
	11/19/2014	1718.83						
	12/02/2014	1718.99						
	01/20/2015	1718.99						
	02/16/2015	1719.12						
	03/24/2015	1718.64						
	04/23/2015	1718.54						
	05/04/2015	1718.59						
	06/16/2015	1718.45						
	07/10/2015	1718.44						
	08/03/2015	1718.31						
	09/14/2015	1718.53						
	10/21/2015	1717.50						
	11/02/2015	1719.51						
12/15/2015	1711.41							
M-79	10/21/2014	1711.15						
	11/19/2014	1711.06						
	12/03/2014	1711.05		0.19			630	4,700
	01/20/2015	1711.14						
	02/25/2015	1711.10		0.17			740	4,300
	03/24/2015	1711.09						
	04/23/2015	1710.96						
05/08/2015	1710.80			0.2		610	4,500	

**TABLE A-1: Groundwater Elevation and Analytical Data for Five Quarters  
October 2014 - December 2015  
Nevada Environmental Response Trust Site  
Henderson, Nevada**

Well ID	Collection Date	GW Elevation (ft amsl)	Chlorate (mg/L)	Chromium (mg/L)	Chromium VI (mg/L)	Nitrate (mg/L)	Perchlorate (mg/L)	TDS (mg/L)
M-79	06/16/2015	1711.01						
	07/10/2015	1710.93						
	08/05/2015	1710.84		0.15			570	5,500
	09/21/2015	1710.75						
	10/20/2015	1710.78						
	11/05/2015	1710.80		0.15			550	4,400
	12/16/2015	1710.92						
M-80	10/21/2014	1710.01						
	11/20/2014	1710.00						
	12/18/2014	1710.01		1.3			360	3,500
	01/21/2015	1710.02						
	02/26/2015	1709.84		1.4			370	3,400
	03/25/2015	1709.98						
	04/24/2015	1709.60						
	05/29/2015	1709.97		1.4			430	4,100
	06/16/2015	1709.82						
	07/08/2015	1709.75						
	08/06/2015	1709.83		1.8 J-	1.7		310	4,500
	09/09/2015	1709.46						
	10/08/2015	1708.13						
	11/06/2015	1709.74		1.8	1.6 J-		430	4,100
12/22/2015	1710.03							
M-81A	10/21/2014	1708.54						
	11/20/2014	1708.54						
	12/18/2014	1708.48		2			550	4,700
	01/21/2015	1708.45						
	02/26/2015	1708.45		2.1			640	4,400
	(FD)			2.1			620	4,500
	03/25/2015	1708.33						
	04/24/2015	1708.37						
	05/29/2015	1708.33		1.8			570	4,700
	06/16/2015	1707.87						
	07/08/2015	1708.22						
	08/06/2015	1708.12		2.2			540	5,200
	09/09/2015	1709.07						
	10/08/2015	1708.26						
11/06/2015	1708.16		2.1			670	4,700	
12/22/2015	1708.14							
M-83	10/14/2014	1710.68					530	3,900
	11/24/2014	1710.43		1.2			440	4,300

**TABLE A-1: Groundwater Elevation and Analytical Data for Five Quarters  
October 2014 - December 2015  
Nevada Environmental Response Trust Site  
Henderson, Nevada**

Well ID	Collection Date	GW Elevation (ft amsl)	Chlorate (mg/L)	Chromium (mg/L)	Chromium VI (mg/L)	Nitrate (mg/L)	Perchlorate (mg/L)	TDS (mg/L)
M-83	12/30/2014	1710.41					500	3,500
	01/15/2015	1710.54					500	4,300
	02/13/2015	1710.55		1.1			540	4,300
	03/11/2015	1710.48					550	4,400
	04/16/2015	1710.41					570	4,300
	05/29/2015	1710.36		1.1			620	4,600
	06/25/2015	1710.35					570	4,600
	07/13/2015	1710.34					580	4,700
	08/06/2015	1710.34		1.2			570	4,900
	09/15/2015	1710.20						
	09/16/2015						620	5,300
	10/13/2015	1710.07					620	5,100
	11/06/2015	1710.05			1.4		700	4,400
	12/09/2015	1709.89			1.2	1.35		640
M-92	10/22/2014	1764.77						
	11/21/2014	1764.74						
	12/02/2014	1764.74						
	01/20/2015	1764.70						
	02/16/2015	1764.70						
	03/25/2015	1764.59						
	04/15/2015	1764.77						
	05/22/2015	1764.70		0.021			3.3	2,000
	06/16/2015	1764.69						
	07/07/2015	1764.78						
	08/06/2015	1765.02						
	09/10/2015	1765.06						
	10/07/2015	1765.06						
	11/09/2015	1765.03						
	12/15/2015	1765.22						
M-93	10/22/2014	1762.38						
	11/21/2014	1762.38						
	12/02/2014	1762.32						
	01/20/2015	1762.29						
	02/16/2015	1762.29						
	03/25/2015	1762.27						
	04/15/2015	1762.35						
	05/28/2015	1762.32						
	06/16/2015	1762.40						
	07/07/2015	1762.39						
08/06/2015	1762.72							

**TABLE A-1: Groundwater Elevation and Analytical Data for Five Quarters  
October 2014 - December 2015  
Nevada Environmental Response Trust Site  
Henderson, Nevada**

Well ID	Collection Date	GW Elevation (ft amsl)	Chlorate (mg/L)	Chromium (mg/L)	Chromium VI (mg/L)	Nitrate (mg/L)	Perchlorate (mg/L)	TDS (mg/L)
M-93	09/10/2015	1762.90						
	10/07/2015	1762.79						
	11/09/2015	1762.72						
	12/15/2015	1762.98						
M-95	10/22/2014	1676.81						
	11/21/2014	1676.62						
	12/05/2014	1676.55		0.55	0.61		360	6,200
	01/20/2015	1676.36						
	02/24/2015	1676.16		0.51	0.57		340	5,900
	03/26/2015	1676.20						
	04/15/2015	1676.15						
	05/26/2015	1676.01		0.54			310	6,300
	06/17/2015	1675.91						
	07/07/2015	1675.87						
	08/10/2015	1675.76		0.58	0.55 J-		290	7,400
	09/10/2015	1675.61						
	10/07/2015	1675.59						
	11/03/2015	1675.33		0.59	0.54		300	6,400
	(FD)			0.54	0.55		330	6,400
12/15/2015	1675.24							
M-96	10/22/2014	Dry						
	11/21/2014	Dry						
	12/05/2014	Dry						
	01/20/2015	Dry						
	02/24/2015	Dry						
	03/26/2015	Dry						
	04/15/2015	Dry						
	05/26/2015	Dry						
	06/18/2015	Dry						
	07/07/2015	Dry						
	08/04/2015	Dry						
	09/10/2015	Dry						
	10/07/2015	Dry						
	11/03/2015	Dry						
12/15/2015	Dry							
M-97	10/22/2014	1760.97						
	11/21/2014	1761.04						
	12/02/2014	1760.98						
	01/20/2015	1760.97						
	02/16/2015	1760.94						



**TABLE A-1: Groundwater Elevation and Analytical Data for Five Quarters  
October 2014 - December 2015  
Nevada Environmental Response Trust Site  
Henderson, Nevada**

Well ID	Collection Date	GW Elevation (ft amsl)	Chlorate (mg/L)	Chromium (mg/L)	Chromium VI (mg/L)	Nitrate (mg/L)	Perchlorate (mg/L)	TDS (mg/L)
M-97	03/25/2015	1760.96						
	04/15/2015	1760.92						
	05/22/2015	1760.96		0.071			140	5,000
	06/16/2015	1760.79						
	07/07/2015	1761.05						
	08/06/2015	1761.09						
	09/10/2015	1761.31						
	10/07/2015	1761.35						
	11/09/2015	1761.34						
	12/15/2015	1761.75						
M-98	10/22/2014	Dry						
	11/21/2014	Dry						
	12/05/2014	Dry						
	01/20/2015	Dry						
	02/24/2015	Dry						
	03/26/2015	Dry						
	04/15/2015	Dry						
	05/28/2015	Dry						
	06/17/2015	Dry						
	07/07/2015	Dry						
	08/10/2015	Dry						
	09/10/2015	Dry						
	10/20/2015	Dry						
	11/04/2015	Dry						
12/16/2015	Dry							
M-99	10/21/2014	1697.28						
	11/19/2014	1697.21						
	12/08/2014	1697.18		0.26			98	3,300
	01/20/2015	Dry						
	02/26/2015	Dry						
	03/24/2015	Dry						
	04/23/2015	Dry						
	05/22/2015	Dry						
	06/16/2015	Dry						
	07/10/2015	Dry						
	08/05/2015	Dry						
	09/21/2015	Dry						
	10/20/2015	Dry						
	11/09/2015	Dry						
12/16/2015	Dry							

**TABLE A-1: Groundwater Elevation and Analytical Data for Five Quarters  
October 2014 - December 2015  
Nevada Environmental Response Trust Site  
Henderson, Nevada**

Well ID	Collection Date	GW Elevation (ft amsl)	Chlorate (mg/L)	Chromium (mg/L)	Chromium VI (mg/L)	Nitrate (mg/L)	Perchlorate (mg/L)	TDS (mg/L)
M-100	10/21/2014	Dry						
	11/21/2014	Dry						
	12/02/2014	Dry						
	01/21/2015	Dry						
	02/16/2015	Dry						
	03/25/2015	Dry						
	04/24/2015	Dry						
	05/29/2015	Dry						
	06/16/2015	Dry						
	07/08/2015	Dry						
	08/06/2015	Dry						
	09/09/2015	Dry						
	10/09/2015	Dry						
	11/06/2015	Dry						
12/22/2015	Dry							
M-101	10/21/2014	Dry						
	11/21/2014	Dry						
	12/02/2014	Dry						
	01/21/2015	Dry						
	02/16/2015	Dry						
	03/25/2015	Dry						
	04/24/2015	Dry						
	05/29/2015	Dry						
	06/16/2015	Dry						
	07/08/2015	Dry						
	08/06/2015	Dry						
	09/09/2015	Dry						
	10/09/2015	Dry						
	11/06/2015	Dry						
12/22/2015	Dry							
M-103	05/19/2015	Dry						
M-115	10/21/2014	1749.73						
	11/20/2014	1749.68						
	12/02/2014	1749.62						
	01/21/2015	1749.65						
	02/16/2015	1749.66						
	03/25/2015	1750.00						
	04/24/2015	1749.61						
	05/29/2015	1749.65		0.054			18	2,300
	06/16/2015	1749.47						

**TABLE A-1: Groundwater Elevation and Analytical Data for Five Quarters  
October 2014 - December 2015  
Nevada Environmental Response Trust Site  
Henderson, Nevada**

Well ID	Collection Date	GW Elevation (ft amsl)	Chlorate (mg/L)	Chromium (mg/L)	Chromium VI (mg/L)	Nitrate (mg/L)	Perchlorate (mg/L)	TDS (mg/L)
M-115	07/08/2015	1749.54						
	08/06/2015	1749.83						
	09/09/2015	1749.95						
	10/09/2015	1750.22						
	11/06/2015	1750.06						
	12/22/2015	1750.26						
M-117	05/26/2015	1809.56		0.022			<0.0005	740
M-118	05/19/2015	1810.27		0.019			0.00079 J	810
M-120	05/19/2015	1794.62		0.0064			0.087	2,100
M-121	05/19/2015	1796.11		0.028			1.2	4,200
M-123	06/03/2015	1743.71		0.0061			0.27	13,000
M-124	06/03/2015	1750.82		0.024			1.7	3,200 J+
	(FD)			0.022			1.6	3,100 J+
M-125	06/03/2015	1732.66		0.029			0.69	13,000
M-126	05/08/2015	1724.02		<0.013			0.93	16,000
M-128	06/03/2015	1741.96		0.031			6.6	2,500 J+
M-131	12/03/2014	1720.58		0.089			39	3,300
	(FD)			0.081			42	3,300
	02/27/2015	1720.54		0.069			46	3,400
	05/08/2015	1720.31		0.089			36	3,400
	08/05/2015	1720.27		0.067			35	3,500
	11/05/2015	1720.81		0.088			39	3,500
M-132	06/05/2015	1720.12		0.21			14	1,300 J+
M-133	06/05/2015	1717.50		1			46	5,900 J+
M-134	05/08/2015	1717.47		0.15			81	2,600
M-135	12/09/2014	1717.21		0.084			45	3,500
	02/27/2015	1717.14		0.07			40	3,300
	05/08/2015	1717.16		0.054			42	3,400
	08/05/2015	1717.04		0.065			46	3,700
	11/05/2015	1717.29		0.077			52	3,500
M-136	05/08/2015	1721.76		0.087			72	1,200
M-137	06/03/2015	1788.76		0.05			0.96	2,100 J+
M-138	06/03/2015	1788.53		0.065			1.3	2,200 J+
M-139	06/02/2015	1776.07		0.029			1.2	2,800 J+
M-140	05/08/2015			2.1			1,500	7,500
M-141	06/02/2015	1753.64		5.4			450	6,100
M-142	06/02/2015	1742.36		0.042			8.9	2,600 J+
M-144	06/02/2015	1774.52		0.075			6	4,300 J+
M-145	06/02/2015	1772.99		0.032			0.11	2,900 J+
M-146	06/02/2015	1776.52		0.092			3.2	4,400 J+

**TABLE A-1: Groundwater Elevation and Analytical Data for Five Quarters  
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Well ID	Collection Date	GW Elevation (ft amsl)	Chlorate (mg/L)	Chromium (mg/L)	Chromium VI (mg/L)	Nitrate (mg/L)	Perchlorate (mg/L)	TDS (mg/L)
M-147	06/02/2015	1742.02		0.24			9.4	4,700 J+
M-148A	06/02/2015	1752.55		0.15			4.6	6,100
M-149	05/26/2015	1751.39		0.43			68	910
M-150	05/20/2015	1735.38		0.038			0.06	540
M-151	05/26/2015	1711.89		0.026			0.0067	510
M-152	05/21/2015	1671.22		0.026			0.2	610
M-153	05/26/2015	1766.25		0.019			0.017	550
M-154	05/20/2015	1747.15		0.022			<0.0005	570
M-155	05/26/2015			0.081			2.1	570
M-156	05/21/2015	1677.92		<0.0025			<0.0005	550
M-161	05/20/2015	1728.65		0.023			0.0085	570
M-162	05/20/2015	1724.46		0.027			99	830
M-163	05/20/2015	1719.83		0.029			0.15	570
M-164	05/20/2015	1712.64		4.7			740	5,200
M-165	05/26/2015	1721.93		0.029			0.04	520
M-166	12/02/2014	1723.35						
	02/16/2015	1721.33						
	05/04/2015	1721.37						
	08/03/2015	1721.20						
	11/02/2015	1722.01						
M-167	12/02/2014	1721.27						
	02/16/2015	1721.26						
	05/04/2015	1721.14						
	08/03/2015	1720.96						
	11/02/2015	1722.84						
M-168	12/02/2014	1722.20						
	02/16/2015	1722.27						
	05/04/2015	1722.05						
	08/03/2015	1721.82						
	11/02/2015	1722.70						
M-169	12/02/2014	1721.68						
	02/16/2015	1721.80						
	05/04/2015	1721.50						
	08/03/2015	1720.90						
	11/02/2015	1722.68						
M-170	12/02/2014	1720.90						
	02/16/2015	1721.45						
	05/04/2015	1720.97						
	08/03/2015	1720.57						
	11/02/2015	1721.50						

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Well ID	Collection Date	GW Elevation (ft amsl)	Chlorate (mg/L)	Chromium (mg/L)	Chromium VI (mg/L)	Nitrate (mg/L)	Perchlorate (mg/L)	TDS (mg/L)
M-172	12/02/2014	1717.16						
	02/16/2015	1717.13						
	05/04/2015	1717.06						
	08/03/2015	1716.95						
	11/02/2015	1718.02						
M-173	12/02/2014	1721.32						
	02/16/2015	1720.52						
	05/04/2015	1720.36						
	08/03/2015	1720.20						
	11/02/2015	1720.86						
M-174	12/02/2014	1722.96						
	02/17/2015	1721.72						
	05/22/2015	1721.54						
	08/06/2015	1721.41						
	11/06/2015	1721.68						
M-175	12/02/2014	1723.66						
	02/17/2015	1721.41						
	05/22/2015	1721.18						
	08/06/2015	1721.13						
	11/06/2015	1721.34						
M-176	12/02/2014	1723.79						
	02/17/2015	1721.33						
	05/22/2015	1721.13						
	08/06/2015	1721.12						
	11/06/2015	1721.20						
M-177	12/02/2014	1722.77						
	02/17/2015	1721.69						
	05/22/2015	1721.50						
	08/06/2015	1721.39						
	11/06/2015	1721.31						
M-181	05/26/2015	1733.26		0.038			0.042	510
M-182	05/26/2015	1728.00		1.4			8.9	13,000
M-186	05/26/2015	1754.25		3.4			230	5,900
MC-3	05/27/2015	1691.22					7.1	18,000
MC-6	05/27/2015	1682.87					0.56	16,000
MC-7	05/27/2015	1690.51					3.6	8,000
MC-29	05/27/2015	1685.92					1.6	20,000
MC-45	05/27/2015	1681.59					0.66	16,000
MC-50	05/27/2015	1682.71					0.51	16,000
MC-51	05/28/2015	1683.94					0.079	17,000

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Well ID	Collection Date	GW Elevation (ft amsl)	Chlorate (mg/L)	Chromium (mg/L)	Chromium VI (mg/L)	Nitrate (mg/L)	Perchlorate (mg/L)	TDS (mg/L)
MC-53	05/28/2015	1682.83		0.023			2.9	14,000
MC-65	05/27/2015	1670.35		0.02 J			21	12,000
MC-69	05/27/2015	1685.77					0.77	16,000
MC-93	05/28/2015	1685.08					28	8,600
MC-97	05/28/2015	1682.16					2.5	15,000
MW-16	05/22/2015	1718.13		<0.005			0.54	11,000
MW-K4	10/15/2014	1587.58					180	7,400
	11/25/2014	1587.55		0.2			130	7,500
	12/29/2014	1587.63					89	7,500
	01/14/2015	1587.52					75	7,900
	02/12/2015	1587.27		0.15			110	7,600
	03/11/2015	1587.23					140	7,800
	04/21/2015	1587.25					80	7,600
	05/19/2015	1587.23		0.068			49	7,800
	06/25/2015	1587.13					41	7,800
	07/15/2015	1587.11					41	8,000
	08/12/2015	1587.25		0.066			37	8,100
	09/17/2015	1587.35					36	8,000
	10/14/2015	1587.66					29	7,900
11/11/2015	1588.32			0.026			23	7,900
12/10/2015	1587.58			0.042	<0.00019		32	7,800
MW-K5	10/15/2014	1569.08					25	6,900
	11/25/2014	1569.59		0.036			25	6,600
	12/29/2014	1569.16					26	6,700
	01/15/2015	1568.88					27	6,800
	02/12/2015	1568.98		0.069			31	6,800
	03/12/2015	1568.58					32	6,900
	04/17/2015	1568.39					32	6,600
	05/19/2015	1568.75	76	0.08		12	33	7,000
	06/24/2015	1568.70					30	7,000
	07/15/2015	1568.27					28	6,500
	08/12/2015	1569.08		0.041			28	6,900
	09/16/2015	1569.42					28	6,700
	10/14/2015	1569.45					29	6,500
11/11/2015	1569.51			0.028			33	6,300
12/10/2015	1580.36			0.022	0.002		8.2	3,200
PC-1	05/20/2015	Dry						
PC-2	05/20/2015	1568.95	17	0.032		12	3.2	5,400
PC-4	05/20/2015	1566.24	80	0.12		21	7.5	7,100
PC-18	10/14/2014	1590.35					150	10,000

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PC-18	11/24/2014	1590.50		0.12			120	10,000
	12/30/2014	1590.60					130	10,000
	01/14/2015	1590.34					120	10,000
	02/13/2015	1590.21		0.12			140	9,900
	03/10/2015	1590.16						
	03/11/2015						150	10,000
	04/17/2015	1590.20					130	10,000
	05/27/2015	1590.11		0.16			140	10,000
	06/23/2015	1590.06					130	10,000
	07/16/2015	1590.04					110	10,000
	08/12/2015	1589.98		0.093			92	11,000
	(FD)			0.091			93	10,000
	09/16/2015	1594.67					110	11,000
	10/14/2015	1591.49					53	10,000
	11/11/2015	1593.09			0.1		120	10,000
12/11/2015	1591.06			0.14	0.05		84	10,000
PC-21A	05/26/2015	1691.73	310	0.39		24	2.8	10,000
PC-24	05/05/2015	1612.57		0.24			26	8,000
PC-28	05/28/2015	1638.41		0.36			110	4,100
PC-31	05/28/2015	1646.33		<0.005			40	4,800
PC-37	10/22/2014	1677.53						
	11/21/2014	1677.48						
	12/05/2014	1677.34		0.13			380	7,400
	01/20/2015	1677.33						
	02/24/2015	1677.22		0.13			360	7,200
	03/26/2015	1677.17						
	04/15/2015	1677.13						
	05/27/2015	1676.90		0.12			360	7,600
	06/17/2015	1676.88						
	07/07/2015	1676.91						
	08/04/2015	1676.85		0.11			340	8,100
	09/10/2015	1670.58						
	10/07/2015	1676.72						
11/03/2015	1676.43			0.074		360	7,400	
12/15/2015	1676.63							
PC-40	05/26/2015	1656.61		<0.013			0.63	15,000
PC-50	05/05/2015	1620.91		0.066			120	11,000
PC-53	10/15/2014	1568.06					2.3	5,400
	11/25/2014	1568.88		0.09			1.9	5,200
	12/29/2014	1568.48					1.8	5,100

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PC-53	01/15/2015	1568.16					1.9	5,200
	02/12/2015	1568.26		0.1			2.2	5,100
	03/12/2015	1567.79					2.1	5,000
	04/17/2015	1567.23					2	4,900
	05/19/2015	1567.75		0.11			2	5,500
	06/24/2015	1567.73					2.1	5,400
	07/15/2015	1567.88					2.1	5,300
	08/12/2015	1568.03		0.13			1.8	5,600
	09/16/2015	1568.37					1.9	5,600
	10/14/2015	1568.57					1.9	5,700
	11/11/2015	1568.60		0.14			2.5	5,300
	12/10/2015	1578.67		0.01	1.35		0.18	2,200
PC-54	10/22/2014	1680.57						
	11/21/2014	1680.42						
	12/04/2014	1680.29		1.8			240	5,100
	01/20/2015	1680.15						
	02/24/2015	1679.98		2.1			270	4,900
	03/26/2015	1679.95						
	04/15/2015	1679.87						
	05/26/2015	1679.69		2.2			290	5,500
	06/17/2015	1679.62						
	07/08/2015	1679.50						
	08/04/2015	1679.50		2.1			250	5,800
	09/10/2015	1679.63						
	10/07/2015	1679.79						
	11/03/2015	1679.68		2.3			280	5,200
12/15/2015	1679.51							
PC-55	10/15/2014	1591.37					3.6	7,600
	11/25/2014	1591.47		<0.0025			2.8	7,400
	12/30/2014	1591.57					3.1	7,000
	01/15/2015	1591.24					3.2	7,500
	02/13/2015	1591.21		0.0025 J			3.4	7,500
	03/10/2015	1591.22						
	03/11/2015						3.3	7,500
	04/17/2015	1591.07					3.2	7,100
	05/27/2015	1591.02		<0.013			4.4	7,300
	06/09/2015	1591.07					1.8	7,500
	07/16/2015	1591.00					3.8	7,300
	08/13/2015	1591.08		0.017			4.4	7,800
09/17/2015	1591.26					3.6	7,300	



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PC-55	10/15/2015	1591.61					4.6	7,300
	11/12/2015	1593.99		0.017 J			1.8	7,600
	12/11/2015	1592.35		<0.0025	<0.00019		6	6,800
PC-56	10/14/2014	1555.61					19	4,600
	11/24/2014	1556.27		0.0032 J			18	4,400
	12/22/2014	1556.26					22	4,900
	01/13/2015	1556.20					21	4,900
	02/10/2015	1556.30		0.0057			23	4,700
	03/09/2015	1556.04					24	4,700
	04/16/2015	1555.45					23	4,700
	05/14/2015	1555.62		0.0052			24	4,400
	06/23/2015	1555.41					22	4,600
	07/14/2015	1555.66					22	5,100
	08/11/2015	1555.73		0.0031 J			21	5,300
	09/15/2015	1556.02					21	4,700
	10/13/2015	1556.15					21	4,800
	11/10/2015	1556.15			0.0027 J		22	4,600
12/09/2015	1556.89		<0.0025	0.002		19	4,400	
PC-58	10/14/2014	1554.75					4.8	3,200
	11/24/2014	1555.37		0.015			5.4	3,700
	12/22/2014	1555.42					5.6	3,300
	01/13/2015	1555.38					4.6	3,500
	02/10/2015	1555.50		0.018			5.1	3,400
	03/09/2015	1555.30					3.6	3,400
	04/16/2015	1554.80					3.7	3,700
	05/14/2015	1554.84		0.026			4.6	3,500
	06/23/2015	1554.80					5.1	3,700
	07/14/2015	1554.80					4.2	4,400
	08/11/2015	1554.92		0.018			4.2	4,200
	09/15/2015	1555.05					2.4	3,900
	10/13/2015	1549.36					3	3,800
	11/10/2015	1555.21			0.014		4.1	3,500
12/09/2015	1555.70			0.011	0.01	3.6	3,500	
PC-59	10/14/2014	1556.38					4.4	2,800
	11/24/2014	1556.78		<0.0025			3.2	2,600
	12/22/2014	1556.86					3.4	2,600
	01/13/2015	1556.70					2.7	2,500
	02/10/2015	1556.93		<0.0025			2.7	2,600
	03/09/2015	1556.54					2.5	2,400
	04/16/2015	1556.29					2.3	2,400

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PC-59	05/14/2015	1556.34		<0.0025			2.4	2,300
	06/23/2015	1556.22					2.3	2,300
	07/14/2015	1556.29					2.3	2,300
	08/11/2015	1556.16		<0.0025			2.5	2,400
	09/15/2015	1556.60					2.2	2,300
	10/13/2015	1556.79					2.4	2,400
	11/10/2015	1556.75		<0.0025			2.7	2,300
	12/09/2015	1556.77		<0.0025	<0.00019		1.9	2,200
PC-60	10/14/2014	1556.06					1.6	2,100
	11/24/2014	1556.69		0.0025 J			1.4	2,100
	12/22/2014	1556.69					1.5	2,000
	01/13/2015	1556.61					1.3	2,000
	02/10/2015	1556.76		0.0025 J			1.5	2,000
	03/09/2015	1556.45					1.3	2,000
	04/16/2015	1555.93					1.2	2,000
	05/14/2015	1556.06		<0.0025			1.1	1,900
	06/23/2015	1555.93					1.1	1,900
	07/14/2015	1556.14					1	2,000
	08/11/2015	1556.12		<0.0025			1.1	2,000
	09/15/2015	1556.42					1	2,000
	10/13/2015	1556.58					0.95	1,900
	11/10/2015	1556.52		<0.0025			0.89	1,800
12/09/2015	1557.22		<0.0025	<0.00019		0.91	1,800	
PC-62	10/14/2014	1556.85					0.23	1,700
	11/24/2014	1557.20		<0.0025			0.18	1,800
	12/22/2014	1557.32					0.21	1,700
	01/13/2015	1557.12					0.16	1,800
	02/11/2015	1557.31		<0.0025			0.1	1,800
	03/09/2015	1557.06					0.088	1,700
	04/16/2015	1556.61					0.058	1,700
	05/19/2015	1556.87		<0.0025			0.046	1,700
	06/23/2015	1556.65					0.048	1,600
	07/14/2015	1556.63					0.042	1,700
	08/11/2015	1556.73		<0.0025			0.046	1,700
	09/15/2015	1557.05					0.034	1,600
	10/13/2015	1557.28					0.0095	1,600
	11/10/2015	1557.31		<0.0025			0.0092	1,500
12/11/2015	1557.49		<0.0025	<0.00019		0.00087 J	1,600	
PC-64	05/28/2015	1664.05		1			310	7,000
PC-65	05/28/2015	1663.89		0.54			150	6,000

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Well ID	Collection Date	GW Elevation (ft amsl)	Chlorate (mg/L)	Chromium (mg/L)	Chromium VI (mg/L)	Nitrate (mg/L)	Perchlorate (mg/L)	TDS (mg/L)
PC-66	06/02/2015	1659.11		1.6			280	6,600
PC-67	05/28/2015	1658.96		0.39			20	12,000
PC-68	10/14/2014	1557.50					<0.0025	1,800
	11/24/2014	1557.80		<0.0025			<0.0025	1,700
	12/22/2014	1557.89					<0.0025	1,700
	01/13/2015	1557.75					<0.0025	1,700
	02/11/2015	1557.90		<0.0025			0.0045	1,600
	03/10/2015	1557.68						
	03/11/2015						<0.0025	1,800
	04/16/2015	1557.46					<0.0025	1,700
	05/19/2015	1557.56		<0.0025			<0.0025	1,800
	06/23/2015	1557.31					<0.0025	1,800
	07/15/2015	1557.37					<0.0025	1,700
	08/11/2015	1557.35		<0.0025			<0.0025	1,700
	09/15/2015	1557.63					<0.0025	1,700
	10/13/2015	1557.85					0.0024	1,700
11/10/2015	1558.02		<0.0025			0.00079 J	1,600	
12/11/2015	1558.00		<0.0025	<0.00019		<0.0005	1,600	
PC-71	10/22/2014	1671.32						
	11/21/2014	1671.21						
	12/04/2014	1671.16		0.43			420	7,500
	01/20/2015	1671.07						
	02/24/2015	1670.89		0.42			440	7,400
	03/26/2015	1670.93						
	04/15/2015	1670.80						
	05/26/2015	1670.70		0.4			590	7,500
	06/17/2015	1670.59						
	07/07/2015	1670.60						
	08/04/2015	1670.54		0.46			570	8,600
	09/10/2015	1670.30						
	10/07/2015	1670.33						
11/03/2015	1670.20			0.35		400	7,800	
12/15/2015	1670.21							
PC-72	10/22/2014	1669.19						
	11/21/2014	1669.10						
	12/04/2014	1669.00		0.19			220	6,700
	01/20/2015	1668.92						
	02/24/2015	1668.75		0.17			270	6,800
	03/26/2015	1668.76						
	04/15/2015	1668.70						

**TABLE A-1: Groundwater Elevation and Analytical Data for Five Quarters  
October 2014 - December 2015  
Nevada Environmental Response Trust Site  
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Well ID	Collection Date	GW Elevation (ft amsl)	Chlorate (mg/L)	Chromium (mg/L)	Chromium VI (mg/L)	Nitrate (mg/L)	Perchlorate (mg/L)	TDS (mg/L)
PC-72	05/26/2015	1668.54		0.36			530	7,800
	06/17/2015	1668.47						
	07/07/2015	1668.43						
	08/04/2015	1668.26		0.16			270	7,600
	09/10/2015	1667.84						
	10/07/2015	1667.99						
	11/03/2015	1667.81		0.17			340	7,500
	12/15/2015	1667.82						
PC-73	10/22/2014	1668.02						
	11/21/2014	1668.00						
	12/04/2014	1667.92		0.49			450	7,400
	01/20/2015	1667.82						
	02/24/2015	1667.75		0.57			530	7,200
	03/26/2015	1667.71						
	04/15/2015	1667.71						
	05/26/2015	1667.56		0.52			430	8,000
	06/17/2015	1671.36						
	07/07/2015	1667.40						
	08/04/2015	1667.24		0.6			520	8,300
	09/10/2015	1666.86						
	10/07/2015	1667.03						
	11/03/2015	1666.81			0.53		520	7,700
12/15/2015	1666.85							
PC-74	05/05/2015	1552.98					0.47	4,600
PC-76	05/05/2015	1553.48						
PC-77	05/05/2015	1559.87					2.9	4,400
PC-78	05/05/2015	1560.24						
PC-79	05/06/2015	1555.54		<0.0025			1.2	2,100
PC-80	05/06/2015	1555.54						
PC-81	05/06/2015	1555.43						
PC-82	05/06/2015	1552.25	<0.02			0.31	0.013 J+	1,900
PC-83	05/06/2015	1553.14						
PC-86	10/14/2014	1549.29					0.24	1,900
	11/24/2014	1549.59		<0.0025			0.17	2,100
	12/22/2014	1549.67					0.2	1,800
	01/13/2015	1549.67					0.18	1,800
	02/11/2015	1549.55		<0.0025			0.16	1,700
	03/10/2015	1549.39						
	03/11/2015						0.17	1,900
	04/16/2015	1549.19					0.14	1,900

**TABLE A-1: Groundwater Elevation and Analytical Data for Five Quarters  
October 2014 - December 2015  
Nevada Environmental Response Trust Site  
Henderson, Nevada**

Well ID	Collection Date	GW Elevation (ft amsl)	Chlorate (mg/L)	Chromium (mg/L)	Chromium VI (mg/L)	Nitrate (mg/L)	Perchlorate (mg/L)	TDS (mg/L)
PC-86	05/19/2015	1549.49	<0.02	<0.0025		<0.11	0.22	1,900
	06/23/2015	1549.21					0.067	1,800
	07/15/2015	1548.98					0.049	1,800
	08/11/2015	1549.19		<0.0025			0.04	1,900
	09/15/2015	1549.42					0.044	1,800
	10/13/2015	1549.67					0.022	1,800
	11/10/2015	1549.70		<0.0025			0.03	1,700
	12/11/2015	1549.79		<0.0025	<0.00019		0.008	1,700
PC-87	05/06/2015	1548.94						
PC-88	05/06/2015	1545.35						
PC-90	10/14/2014	1544.64					3.9	2,500
	11/24/2014	1544.92		<0.0025			3.4	2,600
	12/22/2014	1544.97					4.4	2,600
	01/13/2015	1545.04					4.2	2,700
	02/11/2015	1544.48		<0.0025			6.4	2,800
	03/09/2015	1544.37					5.9	2,600
	04/16/2015	1544.32					5.6	2,700
	05/14/2015	1544.79	1.7	<0.0025		1.7	5.4	2,600
	06/23/2015	1544.62					5	2,700
	07/14/2015	1544.58					4	2,600
	08/11/2015	1544.58		<0.0025			4.4	2,800
	09/15/2015	1544.24					4.8	2,700
	10/13/2015	1545.01					5.2	2,800
	11/10/2015	1545.04		<0.0025			12	3,300
12/09/2015	1545.31		<0.0025	<0.00019		6.2	2,800	
PC-91	10/14/2014	1541.22					3.2	2,700
	11/24/2014	1541.25		<0.0025			2.4	2,700
	12/22/2014	1541.39					2.9	2,800
	01/13/2015	1541.40					2.6	2,800
	02/11/2015	1541.32		0.0069			3	2,900
	03/09/2015	1541.25					3.2	2,900
	04/16/2015	1541.12					3	2,800
	05/14/2015	1541.25	1.9	0.0028 J		<0.28	2.8	2,700
	06/23/2015	1541.01					2.8	2,700
	07/14/2015	1541.02					2.4	3,100
	08/11/2015	1541.02		<0.0025			2.6	3,000
	09/15/2015	1541.20					2.5	2,800
	10/13/2015	1533.14					2.6	2,800
	11/10/2015	1541.46		<0.0025			3.2	2,700
12/09/2015	1541.30		<0.0025	<0.00019		2.6	2,800	

**TABLE A-1: Groundwater Elevation and Analytical Data for Five Quarters  
October 2014 - December 2015  
Nevada Environmental Response Trust Site  
Henderson, Nevada**

Well ID	Collection Date	GW Elevation (ft amsl)	Chlorate (mg/L)	Chromium (mg/L)	Chromium VI (mg/L)	Nitrate (mg/L)	Perchlorate (mg/L)	TDS (mg/L)
PC-92	05/14/2015	1541.24		<0.0025			1.6	2,600
PC-94	12/05/2014	1536.88		0.036			20	6,000
	02/11/2015	1537.03		0.034			23	5,600
	05/14/2015	1536.87		0.037			23	6,200
	08/11/2015	1536.80		0.038			20	6,800
	11/10/2015	1537.00		0.041			20	6,400
PC-96	05/05/2015	1546.60					2.5	2,400
PC-97	10/14/2014	1544.02					2.2	2,400
	11/14/2014	1544.27						
	11/24/2014			0.0026 J			1.9	2,400
	12/22/2014	1544.34					2	2,300
	01/13/2015	1544.31					1.6	2,300
	02/12/2015	1543.90		<0.0025			1.6	2,200
	03/09/2015	1543.85					1.7	2,300
	04/16/2015	1544.31					1.8	2,300
	05/14/2015	1544.11		0.0031 J			1.7	2,200
	06/23/2015	1543.94					1.4	2,300
	07/14/2015	1543.90					1.3	2,400
	08/11/2015	1543.85		<0.0025			1.3	2,300
	09/15/2015	1544.00					1.1	2,200
	10/13/2015	1544.22					0.85	2,200
	11/10/2015	1544.08		<0.0025			0.99	2,000
12/09/2015	1544.81		0.0063	0.002		0.74	2,100	
PC-98R	10/15/2014	1570.84					32	6,400
	11/25/2014	1571.17		0.015			31	6,000
	12/30/2014	1570.82					31	5,600
	01/14/2015	1570.44					28	6,500
	02/18/2015	1570.40		0.037			31	6,400
	03/11/2015	1571.16					36	6,700
	04/21/2015	1570.13					33	6,100
	05/20/2015	1570.46		0.02 J			32	6,000
	06/09/2015	1570.52					34	6,100
	07/15/2015	1570.51					32	5,800
	08/13/2015	1570.83		0.015			33	6,600
	09/17/2015	1571.09					34	6,200
	10/15/2015	1571.01					34	6,200
	11/12/2015	1571.08		<0.013			39	5,800
12/10/2015	1576.85		0.039	<0.00019		23	4,900	
PC-99R2/R3	10/07/2014						20	5,300
	10/22/2014	1538.09						

**TABLE A-1: Groundwater Elevation and Analytical Data for Five Quarters  
October 2014 - December 2015  
Nevada Environmental Response Trust Site  
Henderson, Nevada**

Well ID	Collection Date	GW Elevation (ft amsl)	Chlorate (mg/L)	Chromium (mg/L)	Chromium VI (mg/L)	Nitrate (mg/L)	Perchlorate (mg/L)	TDS (mg/L)
PC-99R2/R3	11/03/2014			0.0033 J			17	4,800
	11/04/2014	1536.57						
	12/01/2014						17	4,700
	12/16/2014	1538.36						
	01/05/2015						20	4,800
	01/07/2015	1535.32						
	02/02/2015			0.0026 J			18	4,600
	02/04/2015	1539.46						
	03/03/2015						19	4,300
	03/05/2015	1538.45						
	04/06/2015						20	4,400
	04/09/2015	1537.53						
	05/04/2015				0.004 J		19	4,300
	05/28/2015	1540.43						
	06/01/2015						20	4,700
	06/11/2015	1538.99						
	07/06/2015						20	5,200
	07/17/2015	1538.41						
	08/03/2015				<0.0025		20	4,600
	08/13/2015	1538.70						
	09/08/2015						20	4,600
	09/22/2015	1531.08						
	10/05/2015						20	4,500
10/15/2015	1530.21							
10/23/2015	1533.65							
11/02/2015				<0.0025		21	4,500	
11/18/2015	1534.63							
12/03/2015				0.0031 J	0.011		20	4,200
12/15/2015	1537.78							
PC-101R	10/15/2014	1589.11					120	11,000
	11/25/2014	1589.21		0.08			120	11,000
	12/29/2014	1589.31					110	11,000
	01/15/2015	1588.91					110	11,000
	02/12/2015	1589.72		0.074			140	11,000
	03/12/2015	1588.90					120	11,000
	04/21/2015	1588.96					130	11,000
	05/20/2015	1588.92		0.084			110	11,000
	06/25/2015	1588.86					99	11,000
	07/15/2015	1588.76					110	11,000
08/12/2015	1588.93			0.016		20	8,700	

**TABLE A-1: Groundwater Elevation and Analytical Data for Five Quarters  
October 2014 - December 2015  
Nevada Environmental Response Trust Site  
Henderson, Nevada**

Well ID	Collection Date	GW Elevation (ft amsl)	Chlorate (mg/L)	Chromium (mg/L)	Chromium VI (mg/L)	Nitrate (mg/L)	Perchlorate (mg/L)	TDS (mg/L)
PC-101R	09/17/2015	1588.99					99	10,000
	10/14/2015	1590.06					21	9,400
	11/12/2015	1592.69		0.17			160	9,500
	12/10/2015	1589.59		0.043	1.35		81	10,000
PC-103	10/15/2014	1576.98					18	4,600
	11/25/2014	1576.78		<0.0025			17	4,400
	12/30/2014	1576.46					19	3,900
	01/14/2015	1575.96					19	4,400
	02/18/2015	1575.98		<0.0025			24	4,600
	03/11/2015	1575.91					25	4,800
	04/21/2015	1576.26					23	4,900
	05/20/2015	1576.54	2.7	0.0028 J		8.5	23	4,600
	06/25/2015	1576.32					18	4,400
	07/15/2015	1576.49					21	4,400
	08/12/2015	1576.75		<0.0025			18	4,500
	09/17/2015	1577.02					20	4,500
	10/15/2015	1576.77					22	4,200
	11/12/2015	1576.56		<0.013			22	3,400
12/10/2015	1571.56		<0.0025	0.01		21	4,200	
PC-107	05/27/2015	1606.99					62	5,100
PC-108	05/06/2015	1573.86					<0.0005	2,100
PC-110	05/06/2015						1.4	4,500
	05/08/2015	1578.42						
PC-115R	10/07/2014						11	3,800
	10/22/2014	1543.28						
	11/03/2014			<0.0025			9.9	3,300
	11/04/2014	1543.40						
	12/01/2014						10	3,400
	12/16/2014	1543.54						
	01/05/2015						11	3,400
	01/20/2015	1543.52						
	02/02/2015			<0.0025			10	3,200
	02/04/2015	1543.71						
	03/03/2015						11	3,100
	03/05/2015	1542.92						
	04/06/2015						11	3,000
	04/09/2015	1542.90						
	05/04/2015			<0.0025			11	3,200
05/28/2015	1543.33							
06/01/2015						11	3,300	



**TABLE A-1: Groundwater Elevation and Analytical Data for Five Quarters  
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Well ID	Collection Date	GW Elevation (ft amsl)	Chlorate (mg/L)	Chromium (mg/L)	Chromium VI (mg/L)	Nitrate (mg/L)	Perchlorate (mg/L)	TDS (mg/L)
PC-115R	06/11/2015	1546.52						
	07/06/2015						10	3,500
	07/17/2015	1543.06						
	08/03/2015			<0.0025			11	3,300
	08/13/2015	1543.00						
	09/08/2015						11	3,400
	09/22/2015	1543.45						
	10/05/2015						10	3,300
	10/23/2015	1542.88						
	11/02/2015			<0.0025			11	3,100
	12/03/2015			<0.0025	<0.00019		11	3,100
12/15/2015	1544.31							
PC-116R	10/07/2014						18	5,100
	10/22/2014	1538.65						
	11/03/2014			0.0025 J			15	4,600
	11/04/2014	1538.88						
	12/01/2014						16	4,500
	12/16/2014	1539.03						
	01/05/2015						18	4,500
	01/07/2015	1539.04						
	02/02/2015			0.0038 J			17	4,400
	02/04/2015	1539.12						
	03/03/2015						17	4,100
	03/05/2015	1537.19						
	04/06/2015						17	4,300
	04/09/2015	1537.70						
	05/04/2015			<0.0025			16	4,200
	05/28/2015	1538.63						
	06/01/2015						17	4,600
	06/11/2015	1538.87						
	07/06/2015						17	4,900
	07/17/2015	1537.87						
	08/03/2015			<0.0025			18	4,400
	08/13/2015	1537.57						
	09/08/2015						18	4,700
	09/22/2015	1539.87						
10/05/2015						18	4,300	
10/23/2015	1539.31							
11/02/2015			<0.0025			19	4,200	
12/03/2015			0.0068	<0.00019		19	4,300	

**TABLE A-1: Groundwater Elevation and Analytical Data for Five Quarters  
October 2014 - December 2015  
Nevada Environmental Response Trust Site  
Henderson, Nevada**

Well ID	Collection Date	GW Elevation (ft amsl)	Chlorate (mg/L)	Chromium (mg/L)	Chromium VI (mg/L)	Nitrate (mg/L)	Perchlorate (mg/L)	TDS (mg/L)	
PC-116R	12/29/2015	1540.10							
PC-117	10/07/2014						11	4,200	
	10/22/2014	1541.28							
	11/03/2014			<0.0025			9.3	3,700	
	11/04/2014	1541.41							
	12/01/2014						9.3	3,500	
	12/16/2014	1541.50							
	01/05/2015						9.6	3,400	
	01/07/2015	1541.52							
	02/02/2015			0.0027 J			9.3	3,500	
	02/04/2015	1541.38							
	03/03/2015						10	3,300	
	03/05/2015	1538.35							
	04/06/2015						10	3,400	
	04/09/2015	1538.08							
	05/04/2015				<0.0025			11	3,300
	05/28/2015	1540.68							
	06/01/2015						10	3,600	
	06/11/2015	1540.86							
	07/06/2015						9.9	3,500	
	07/17/2015	1540.02							
	08/03/2015				<0.0025			8.6	3,400
	08/13/2015	1540.22							
	09/08/2015						9.9	3,500	
	09/22/2015	1540.48							
10/05/2015						9.5	3,400		
10/23/2015	1541.15								
11/02/2015				<0.0025			12	3,200	
11/18/2015	1540.71								
12/03/2015				<0.0025	0.002		12	3,500	
12/15/2015	1540.20								
PC-118	10/07/2014						2.6	2,600	
	10/22/2014	1546.40							
	11/03/2014			<0.0025			2.6	2,300	
	11/04/2014	1546.61							
	12/01/2014						3	2,300	
	12/16/2014	1546.71							
	01/05/2015						3.1	2,300	
	01/20/2015	1546.69							
02/02/2015				<0.0025			2.9	2,300	

**TABLE A-1: Groundwater Elevation and Analytical Data for Five Quarters  
October 2014 - December 2015  
Nevada Environmental Response Trust Site  
Henderson, Nevada**

Well ID	Collection Date	GW Elevation (ft amsl)	Chlorate (mg/L)	Chromium (mg/L)	Chromium VI (mg/L)	Nitrate (mg/L)	Perchlorate (mg/L)	TDS (mg/L)	
PC-118	02/04/2015	1546.84							
	03/03/2015						3.1	2,300	
	03/05/2015	1546.30							
	04/06/2015						2.5	2,300	
	04/09/2015	1546.31							
	05/04/2015			<0.0025			2.7	2,200	
	05/28/2015	1546.38							
	06/01/2015						2.7	2,300	
	06/11/2015	1546.58							
	07/06/2015						3	2,200	
	07/17/2015	1546.09							
	08/03/2015				<0.0025			2.7	2,300
	08/13/2015	1546.07							
	09/08/2015							2.8	2,300
	09/22/2015	1546.39							
	10/05/2015							2.9	2,200
	10/21/2015	1546.73							
	11/02/2015				<0.0025			3	2,200
11/18/2015	1546.61								
12/03/2015				<0.0025	<0.00019		3	2,200	
12/29/2015	1547.70								
PC-119	10/07/2014						0.4	2,100	
	10/22/2014	1548.24							
	11/03/2014			<0.0025			0.4	1,800	
	11/04/2014	1548.42							
	12/01/2014						0.48	1,800	
	12/16/2014	1548.46							
	01/05/2015						0.49	1,800	
	01/20/2015	1548.54							
	02/02/2015			<0.0025				0.4	1,800
	02/04/2015	1548.65							
	03/03/2015							0.39	1,900
	03/05/2015	1548.36							
	04/06/2015							0.29	1,900
	04/09/2015	1548.25							
	05/04/2015				<0.0025			0.35	1,800
	05/28/2015	1548.37							
	06/01/2015							0.25	1,800
	06/11/2015	1548.48							
07/06/2015							0.24	1,800	

**TABLE A-1: Groundwater Elevation and Analytical Data for Five Quarters  
October 2014 - December 2015  
Nevada Environmental Response Trust Site  
Henderson, Nevada**

Well ID	Collection Date	GW Elevation (ft amsl)	Chlorate (mg/L)	Chromium (mg/L)	Chromium VI (mg/L)	Nitrate (mg/L)	Perchlorate (mg/L)	TDS (mg/L)	
PC-119	07/17/2015	1548.14							
	08/03/2015			<0.0025			0.23	1,800	
	08/13/2015	1548.28							
	09/08/2015						0.23	1,800	
	09/22/2015	1548.70							
	10/05/2015						0.22	1,700	
	10/21/2015	1548.61							
	11/02/2015			<0.0025			0.22	1,700	
	11/18/2015	1549.81							
	12/03/2015			<0.0025	<0.00019		0.22	1,800	
12/15/2015	1550.35								
PC-120	10/07/2014						0.17	2,100	
	10/22/2014	1550.08							
	11/03/2014			<0.0025			0.17	1,900	
	11/04/2014	1550.27							
	12/01/2014						0.17	1,900	
	12/16/2014	1550.34							
	01/05/2015						0.18	1,900	
	01/20/2015	1550.36							
	02/02/2015			<0.0025			0.17	1,900	
	02/04/2015	1550.45							
	03/03/2015						0.13	1,800	
	03/05/2015	1550.11							
	04/06/2015						0.085	1,900	
	04/09/2015	1549.97							
	05/04/2015			<0.0025			0.082	1,800	
	05/28/2015	1550.11							
	06/01/2015						0.081	1,800	
	06/11/2015	1550.42							
	07/06/2015						0.076	1,800	
	07/17/2015	1549.92							
	08/03/2015				<0.0025			0.077	1,800
	08/13/2015	1549.92							
	09/08/2015						0.067	1,800	
	09/22/2015	1551.49							
10/05/2015						0.059	1,800		
10/21/2015	1551.54								
11/02/2015				<0.0025		0.054	1,800		
11/18/2015	1551.61								
12/03/2015				<0.0025	<0.00019		0.0078	1,700	

**TABLE A-1: Groundwater Elevation and Analytical Data for Five Quarters  
October 2014 - December 2015  
Nevada Environmental Response Trust Site  
Henderson, Nevada**

Well ID	Collection Date	GW Elevation (ft amsl)	Chlorate (mg/L)	Chromium (mg/L)	Chromium VI (mg/L)	Nitrate (mg/L)	Perchlorate (mg/L)	TDS (mg/L)	
PC-120	12/15/2015	1552.20							
PC-121	10/07/2014						0.29	2,200	
	10/22/2014	1549.56							
	11/03/2014			<0.0025			0.27	2,000	
	11/04/2014	1549.78							
	12/01/2014						0.29	1,900	
	12/16/2014	1549.84							
	01/05/2015						0.3	2,100	
	01/20/2015	1549.83							
	02/02/2015			<0.0025			0.22	1,900	
	02/04/2015	1549.99							
	03/03/2015						0.34	2,000	
	03/05/2015	1549.65							
	04/06/2015						0.32	2,000	
	04/09/2015	1549.46							
	05/04/2015				<0.0025			0.35	1,900
	05/28/2015	1549.59							
	06/01/2015							0.26	1,900
	06/11/2015	1549.66							
	07/06/2015							0.22	1,800
	07/17/2015	1549.51							
	08/03/2015				<0.0025			0.2	1,800
	08/13/2015	1549.20							
	09/08/2015							0.18	1,900
09/22/2015	1549.78								
10/05/2015							0.15	1,800	
10/21/2015	1550.02								
11/02/2015				<0.0025			0.14	1,800	
11/18/2015	1549.73								
12/03/2015				<0.0025	<0.00019		0.0054	1,800	
12/15/2015	1550.39								
PC-122	10/15/2014	1586.01					23	8,100	
	12/30/2014	1586.79					22	6,900	
	01/15/2015	1587.00					19	7,500	
	02/13/2015	1586.91		0.16			23	7,100	
	03/12/2015	1586.66					21	6,900	
	04/17/2015	1586.38					20	6,700	
	05/19/2015	1586.33		0.15			21	7,200	
	06/24/2015	1585.75					21	7,700	
07/15/2015	1585.97					22	7,500		

**TABLE A-1: Groundwater Elevation and Analytical Data for Five Quarters  
October 2014 - December 2015  
Nevada Environmental Response Trust Site  
Henderson, Nevada**

Well ID	Collection Date	GW Elevation (ft amsl)	Chlorate (mg/L)	Chromium (mg/L)	Chromium VI (mg/L)	Nitrate (mg/L)	Perchlorate (mg/L)	TDS (mg/L)
PC-122	08/12/2015	1586.00		0.16			22	8,300
	09/16/2015	1585.72					23	8,300
	10/14/2015	1585.63					22	8,000
	11/11/2015	1586.66		0.2			27	7,400
	12/10/2015	1587.02		0.22	<0.00019		23	7,400
PC-123	12/04/2014	1604.01		0.88			200	6,600
	02/24/2015	1603.81		1			270	6,500
	05/05/2015	1603.51		0.97			260	6,600
	08/04/2015	1603.30		0.84			230	6,900
	11/03/2015	1603.11		1			290	6,900
PC-124	12/04/2014	1610.65		0.12			8.9	8,800
	02/24/2015	1610.69		0.11			10	7,100
	05/05/2015	1610.46	180	0.12		26	10	9,300
	08/04/2015	1610.35		0.098			7.8	9,200
	11/04/2015	1610.35		0.11			9.3	8,700
PC-125	12/04/2014	1612.12		0.091			9.6	7,700
	02/24/2015	1612.02		0.077			6.9	6,500
	05/05/2015	1611.63		0.044			5.5	6,200
	08/04/2015	1611.30		0.034			4.1	6,000
	11/03/2015	1611.50		0.083			7.4	6,500
PC-126	12/04/2014	1612.59		0.18			19	6,300
	02/24/2015			0.22			26	7,000
	02/26/2015	1612.57						
	05/05/2015	1612.08	210	0.22		25	23	8,300
	08/04/2015	1611.72		0.21			25	9,600
	11/03/2015	1611.88		0.33			27	9,300
PC-127	12/04/2014	1614.15		0.86			220	6,100
	02/24/2015	1614.01		1			260	6,100
	05/05/2015	1613.51		0.97			260	6,600
	08/04/2015	1612.80		0.83			230	7,300
	11/03/2015	1613.27		0.89			270	6,500
PC-128	12/04/2014	1615.10		0.42			250	6,300
	02/24/2015	1614.81		0.43			280	5,900
	05/05/2015	1614.74	380	0.44		21	280	6,200
	08/10/2015	1614.83		0.43			240	7,800
	11/03/2015	1614.53		0.53			280	6,400
PC-129	12/04/2014	1615.53		0.74			290	6,200
	02/24/2015	1615.53		0.73			310	6,100
	05/05/2015	1615.45		0.67			290	6,300
	08/04/2015	1615.83		0.61			270	6,800

**TABLE A-1: Groundwater Elevation and Analytical Data for Five Quarters  
October 2014 - December 2015  
Nevada Environmental Response Trust Site  
Henderson, Nevada**

Well ID	Collection Date	GW Elevation (ft amsl)	Chlorate (mg/L)	Chromium (mg/L)	Chromium VI (mg/L)	Nitrate (mg/L)	Perchlorate (mg/L)	TDS (mg/L)
PC-129	(FD)			0.59			270	6,900
	11/03/2015	1615.14		0.71			310	6,700
PC-130	12/04/2014	1614.14		0.81			340	6,900
	02/24/2015	1613.95		0.91			410	6,700
	05/05/2015	1613.97	520	0.87		28	370	7,200
	08/04/2015	1614.16		0.75			340	7,900
	11/03/2015	1613.90		1			400	7,400
PC-131	12/04/2014	1622.38		0.0043 J			2.5	9,200
	02/24/2015	1622.34		0.0094			2.6	9,100
	05/06/2015	1622.29		<0.0025			2.1	8,900
	08/04/2015	1622.11		0.0034 J			1.8	9,900
	11/03/2015	1622.08		<0.013			1.8	9,400
PC-132	12/04/2014	1624.78		<0.0025			0.44	9,100
	02/24/2015	1624.83		0.0032 J			0.35	8,900
	05/05/2015	1624.78	<0.05	<0.013		<1.1	0.2	9,100
	08/04/2015	1624.71		<0.0025			0.1	9,400
	11/03/2015	1624.69		<0.005			0.19	9,200
PC-133	10/07/2014						8.2	3,400
	10/22/2014	1545.79						
	11/03/2014			<0.0025			8.3	3,200
	11/04/2014	1545.94						
	12/01/2014						8.9	3,300
	12/16/2014	1546.08						
	01/05/2015						14	5,200
	01/07/2015	1546.13						
	02/02/2015			0.0031 J			9	3,400
	02/04/2015	1546.19						
	03/03/2015						11	3,300
	03/05/2015	1545.72						
	04/06/2015						9	3,300
	04/09/2015	1545.66						
	05/04/2015			<0.0025			11	3,100
	05/28/2015	1545.94						
	06/01/2015						10	3,500
	06/11/2015	1545.93						
	07/06/2015						0.79	2,600
	07/17/2015	1521.86						
08/03/2015				<0.0025			0.78	2,100
08/13/2015	1521.82							
09/08/2015							0.77	2,100

**TABLE A-1: Groundwater Elevation and Analytical Data for Five Quarters  
October 2014 - December 2015  
Nevada Environmental Response Trust Site  
Henderson, Nevada**

Well ID	Collection Date	GW Elevation (ft amsl)	Chlorate (mg/L)	Chromium (mg/L)	Chromium VI (mg/L)	Nitrate (mg/L)	Perchlorate (mg/L)	TDS (mg/L)
PC-133	09/22/2015	1520.93						
	10/05/2015						0.82	2,000
	10/23/2015	1529.62						
	11/02/2015			<0.0025			0.94	2,000
	12/03/2015			<0.0025	<0.00019		1.1	2,000
	12/15/2015	1546.27						
PC-134A	05/07/2015	1588.67		0.027			5.4 J+	1,800
PC-135A	12/05/2014	1589.67		0.011			23	9,100
	02/25/2015	1589.24		0.049			70	9,800
	05/07/2015	1589.40		0.038			74	10,000
	08/10/2015	1589.10		0.027			35	10,000
	11/04/2015	1590.62		0.028			57	10,000
PC-136	12/05/2014	1585.52		3.6			120	6,100
	02/25/2015	1586.00		3.6			180	6,100
	05/20/2015	1585.41		3.6			110	6,500
	08/10/2015	1585.20		2.2			110	6,700
	11/04/2015	1585.25		1.3			210	6,500
PC-137	05/20/2015	1583.69		<0.0025			0.29	3,000
PC-142	05/27/2015	1591.92		<0.013			28	5,300
PC-143	05/21/2015	1589.49		0.0026 J			3	7,300
PC-144	10/15/2014	1588.44						
	11/25/2014	1588.42		0.4			220	6,700
	12/29/2014	1588.55						
	01/15/2015	1588.40						
	02/12/2015	1588.11		0.29			160	7,400
	03/12/2015	1588.09						
	04/21/2015	1588.10						
	05/20/2015	1588.11		0.045			13	8,300
	(FD)			0.048			13	8,500
	06/25/2015	1588.05						
	07/15/2015	1587.97						
	08/10/2015	1588.07		0.2			20	8,100
	09/17/2015	1588.21						
	10/15/2015	1588.69						
11/12/2015	1589.93			0.26		50	7,800	
12/28/2015	1589.20							
PC-145	05/20/2015	1585.02		0.46			67	7,600
PC-146	05/21/2015	Dry						
PC-147	05/21/2015	Dry						
PC-148	12/05/2014	1590.32		0.04			30	6,800



**TABLE A-1: Groundwater Elevation and Analytical Data for Five Quarters  
October 2014 - December 2015  
Nevada Environmental Response Trust Site  
Henderson, Nevada**

Well ID	Collection Date	GW Elevation (ft amsl)	Chlorate (mg/L)	Chromium (mg/L)	Chromium VI (mg/L)	Nitrate (mg/L)	Perchlorate (mg/L)	TDS (mg/L)	
PC-148	02/27/2015	1590.20		0.031			33	7,000	
	05/21/2015	1590.13		0.021			33	7,100	
	(FD)			0.019			28	7,100	
	08/10/2015	1590.05		0.023			29	8,000	
	11/05/2015	1590.67		0.024			22	6,900	
PC-149	12/05/2014	1589.72		0.015			18	4,100	
	02/27/2015	1589.41		0.011			18	4,300	
	05/21/2015	1589.42		0.009			13	4,400	
	08/10/2015	1598.45		0.0085			13	5,000	
	11/05/2015	1590.15		0.016			19	4,800	
PC-150	11/13/2014	1590.27		0.21			170	6,000	
	12/01/2014						170	6,200	
	01/05/2015						200	6,400	
	01/16/2015	1591.41							
	02/02/2015			0.29			160	6,400	
	02/03/2015	1586.74							
	03/03/2015						230	6,200	
	03/10/2015	1586.54							
	04/06/2015						210	6,100	
	04/17/2015	1586.79							
	05/04/2015			0.29			220	6,000	
	05/28/2015	1585.37							
	06/01/2015						190	6,800	
	06/09/2015	1588.68							
	07/06/2015						210	6,600	
	07/19/2015	1596.87							
	08/03/2015				0.3			200	6,000
	08/13/2015	1587.67							
	09/08/2015							210	6,000
	09/10/2015	1586.06							
10/06/2015							210	5,800	
10/15/2015	1588.71								
11/02/2015				0.32			230	5,800	
11/12/2015									
12/03/2015				0.33	0.31		230	6,000	
12/29/2015	1584.20								
TR-1	05/18/2015			0.017			<0.0005	700	
TR-2	05/21/2015	1726.02		0.021			<0.0005	580	
TR-3	05/18/2015			0.035			<0.0005	670	
TR-4	05/18/2015	1736.57		0.021			0.00055 J	620	

**TABLE A-1: Groundwater Elevation and Analytical Data for Five Quarters  
 October 2014 - December 2015  
 Nevada Environmental Response Trust Site  
 Henderson, Nevada**

Well ID	Collection Date	GW Elevation (ft amsl)	Chlorate (mg/L)	Chromium (mg/L)	Chromium VI (mg/L)	Nitrate (mg/L)	Perchlorate (mg/L)	TDS (mg/L)
TR-5	05/18/2015			0.016			<0.0005	740
TR-6	05/18/2015	1764.01		0.032			0.41	24,000
TR-7	05/18/2015	1819.76		0.014			<0.0005	780
TR-8	05/18/2015	1779.28						
	05/19/2015			0.017			0.077	1,200
TR-9	06/10/2015	1820.07		0.013			0.018	800
TR-10	06/10/2015	1791.04		0.13			3.3	2,400
TR-11	05/21/2015			0.015			<0.0005	710
TR-12	05/21/2015	1695.76		0.042			<0.0005	540

**Notes:**

FD = field duplicate

ft amsl = feet above mean sea level

J = Concentration is estimated

J- = Estimated concentration, potential negative bias

J+ = Estimated concentration, potential positive bias

< = Concentration is less than indicated laboratory method reporting limit

mg/L = milligrams per liter

Semi-Annual Remedial Performance Report  
For Chromium and Perchlorate  
Nevada Environmental Response Trust Site  
Henderson, Nevada

**APPENDIX B**  
**WELL DATA SHEETS**  
**(AVAILABLE ELECTRONICALLY ON CD)**

## Well Data Sheets

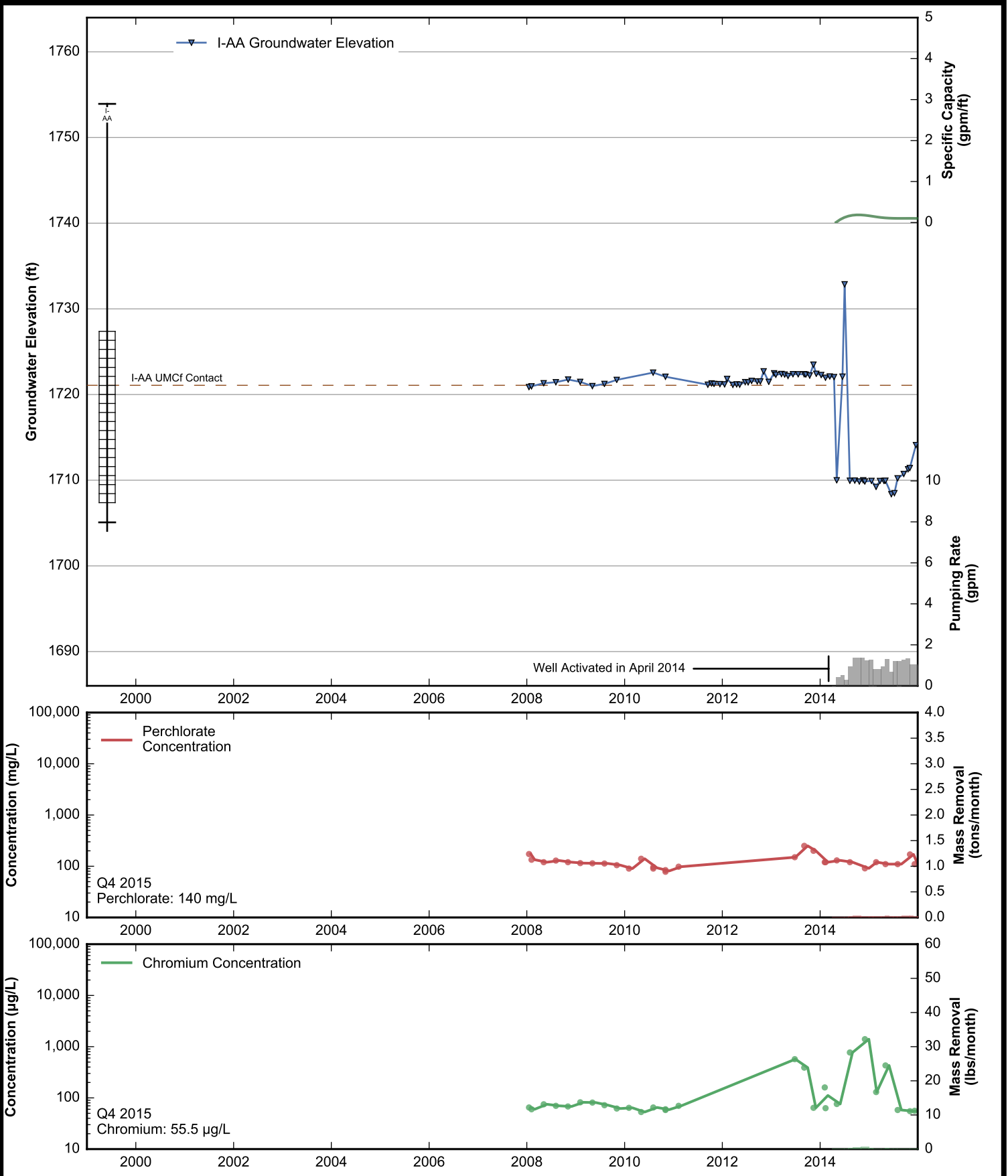
Data summary sheets for individual extraction and monitoring wells are provided in Appendix B. The data sheets show key well performance indicators for all wells, including water levels, perchlorate concentrations and chromium concentrations over the period 1999-2015. Additional key well performance indicators are shown for the extraction wells, including flow rates, specific capacity, mass removal rates, and the average perchlorate and chromium concentrations for the second quarter of 2015. For each extraction well field, the concentration plots for each analyte have identical ranges unless otherwise specified to facilitate comparison of wells within a single well field. In addition, the data sheets show well construction details (top of casing, screened interval, Qal/UMCf contact, and the total well depth) for comparison to the groundwater elevations. The well construction details were compiled from the All Wells Database spreadsheet maintained by NDEP (Broadbent 2014). Construction details for several wells are not plotted due to a lack of key data in the All Wells Database. All other data shown in the data sheets were from the site database.

Perchlorate and chromium concentration trends, calculated as a monthly average of the data and interpolating where no data were available in a given month, are shown as solid lines. Individual laboratory analytical results are shown with a solid symbol for detected values and an open symbol for non-detected values. Pumping rates are shown as monthly averages from July 2002 through June 2015, compiled into the site database from the operational field spreadsheets. Mass removal rates for perchlorate and chromium were calculated by multiplying the monthly average pumping rate by the monthly average concentration. For the purposes of the mass removal calculations, the monthly average concentration was assumed to be zero for non-detected results. The specific capacity is calculated using the methodology outlined in Appendix B of the 2013 GWETS Optimization Project Report (ENVIRON 2015).

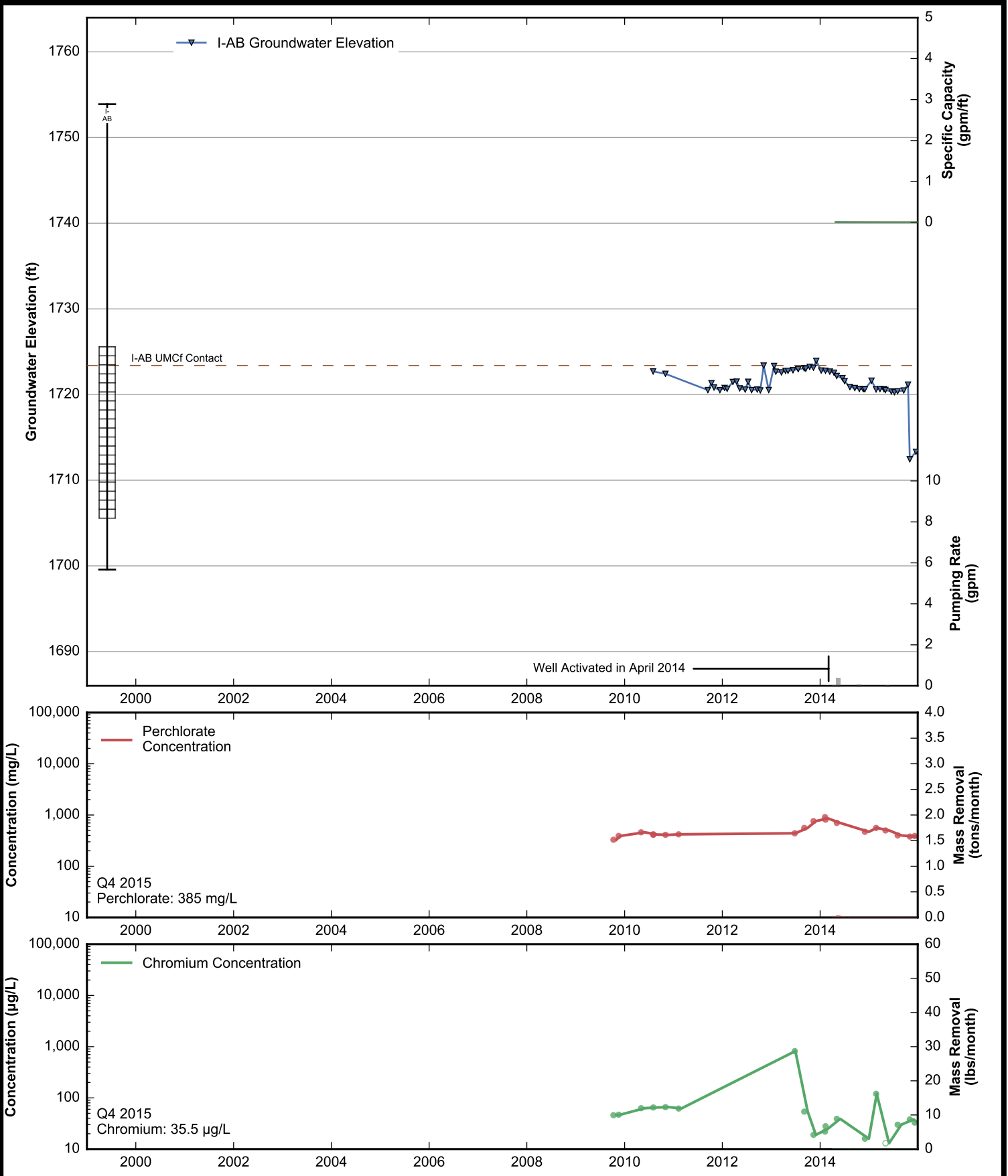
## References

Broadbent & Associates, Inc. (Broadbent). 2014. All Wells Database, January 2014 Update. Excel file received via email. December 18.

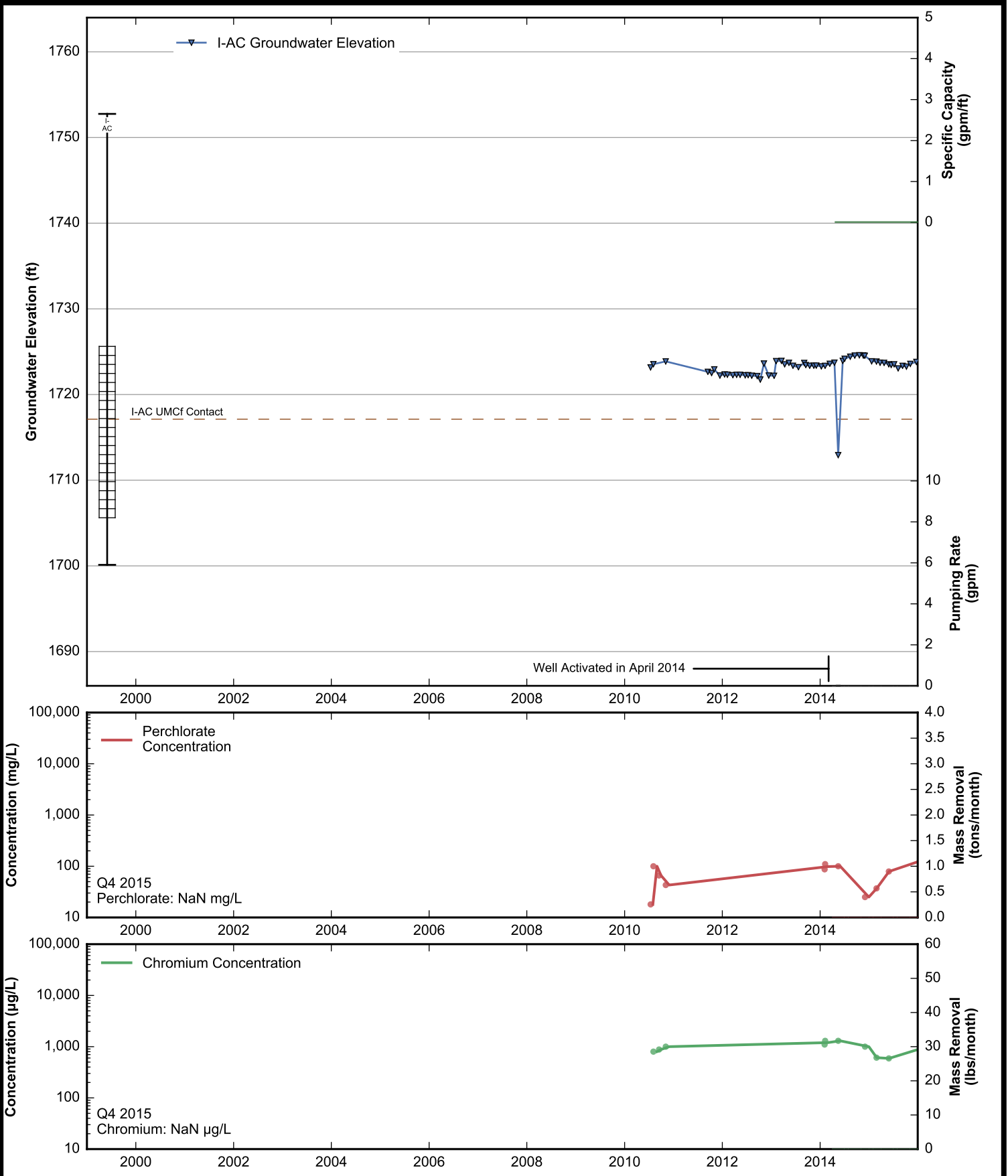
ENVIRON, 2015. 2013 GWETS Optimization Project Report; Nevada Environmental Response Trust Site; Henderson, Nevada. April 30. NDEP approved May 20, 2015.

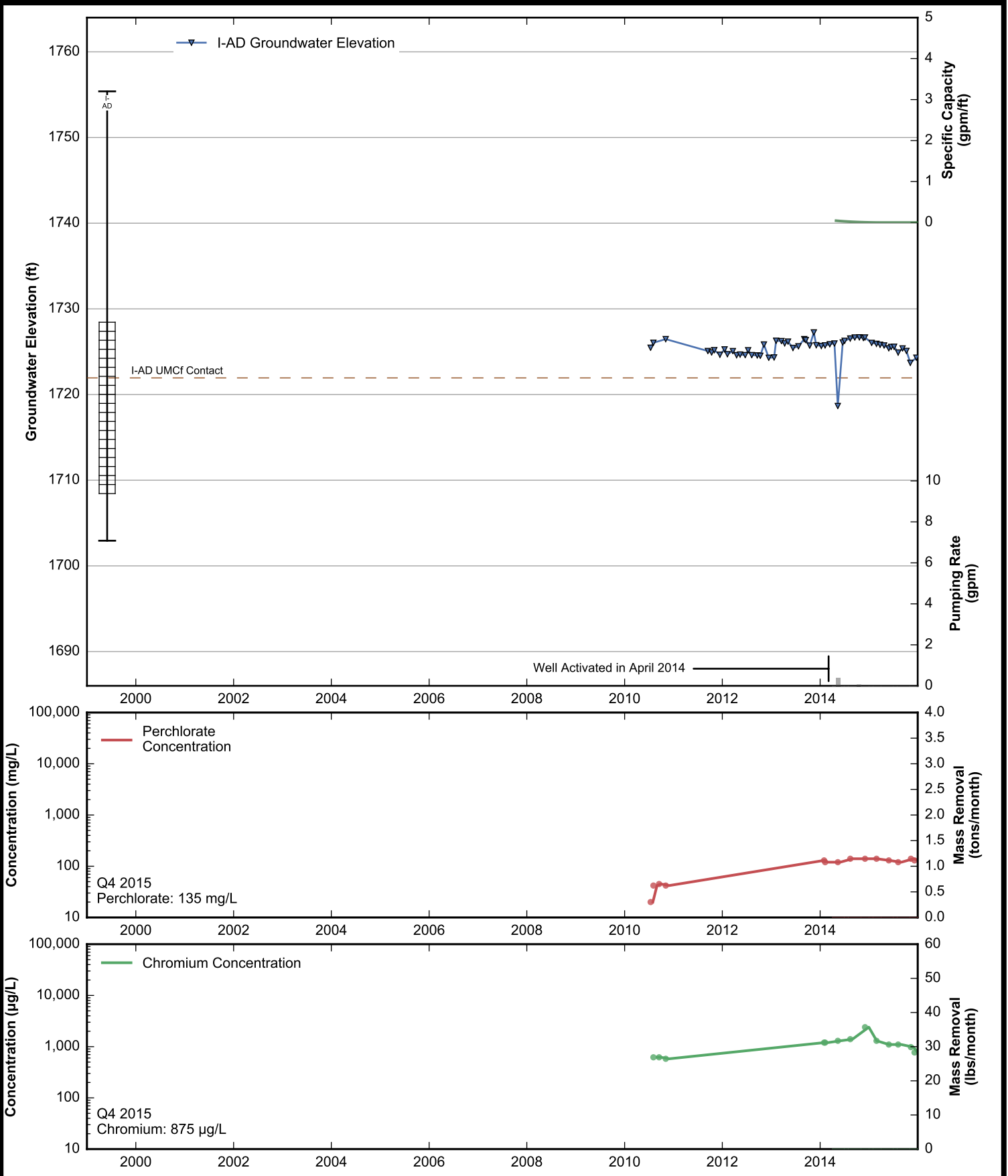


**Data Sheet for Well I-AA**  
 Nevada Environmental Response Trust Site  
 Henderson, Nevada



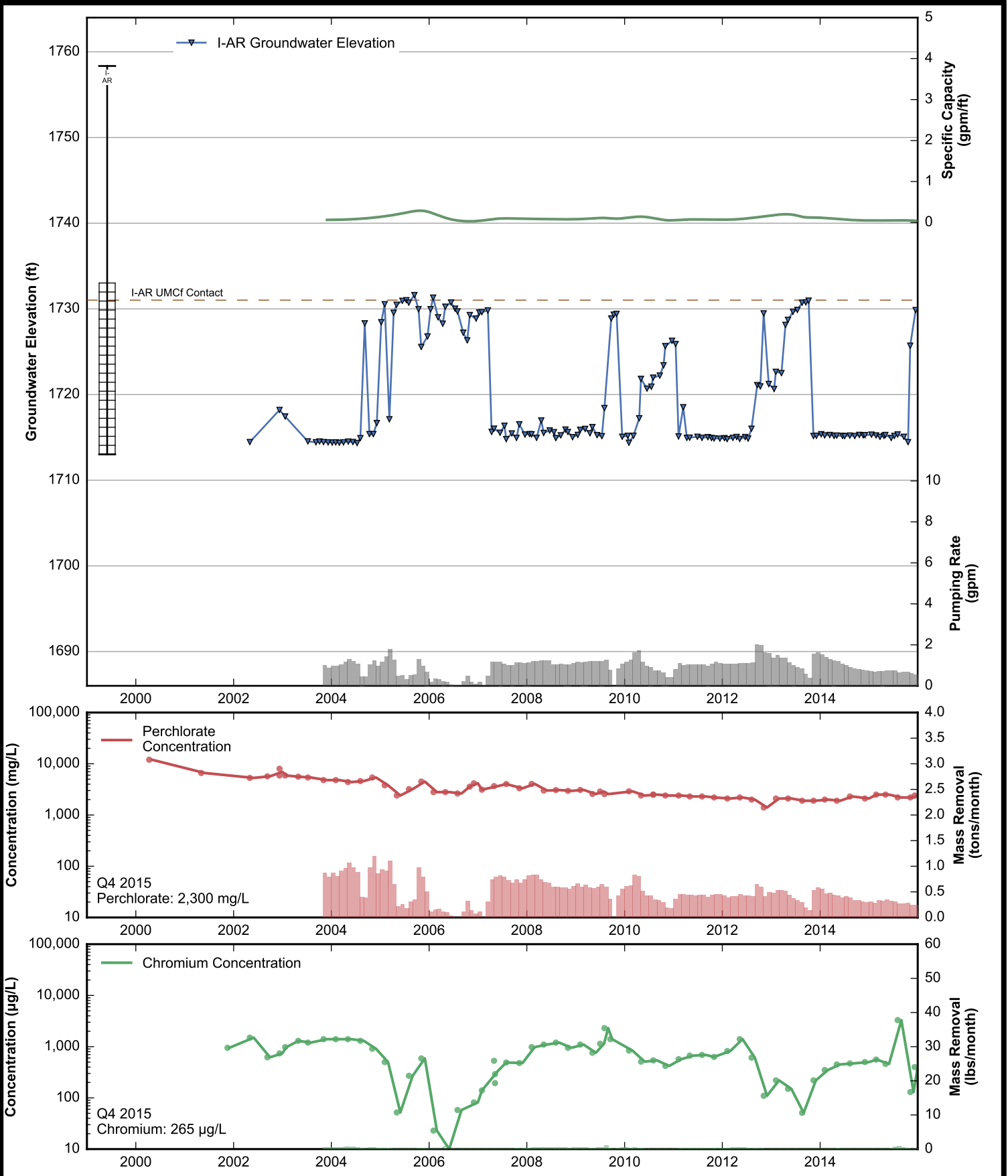
**Data Sheet for Well I-AB**  
 Nevada Environmental Response Trust Site  
 Henderson, Nevada



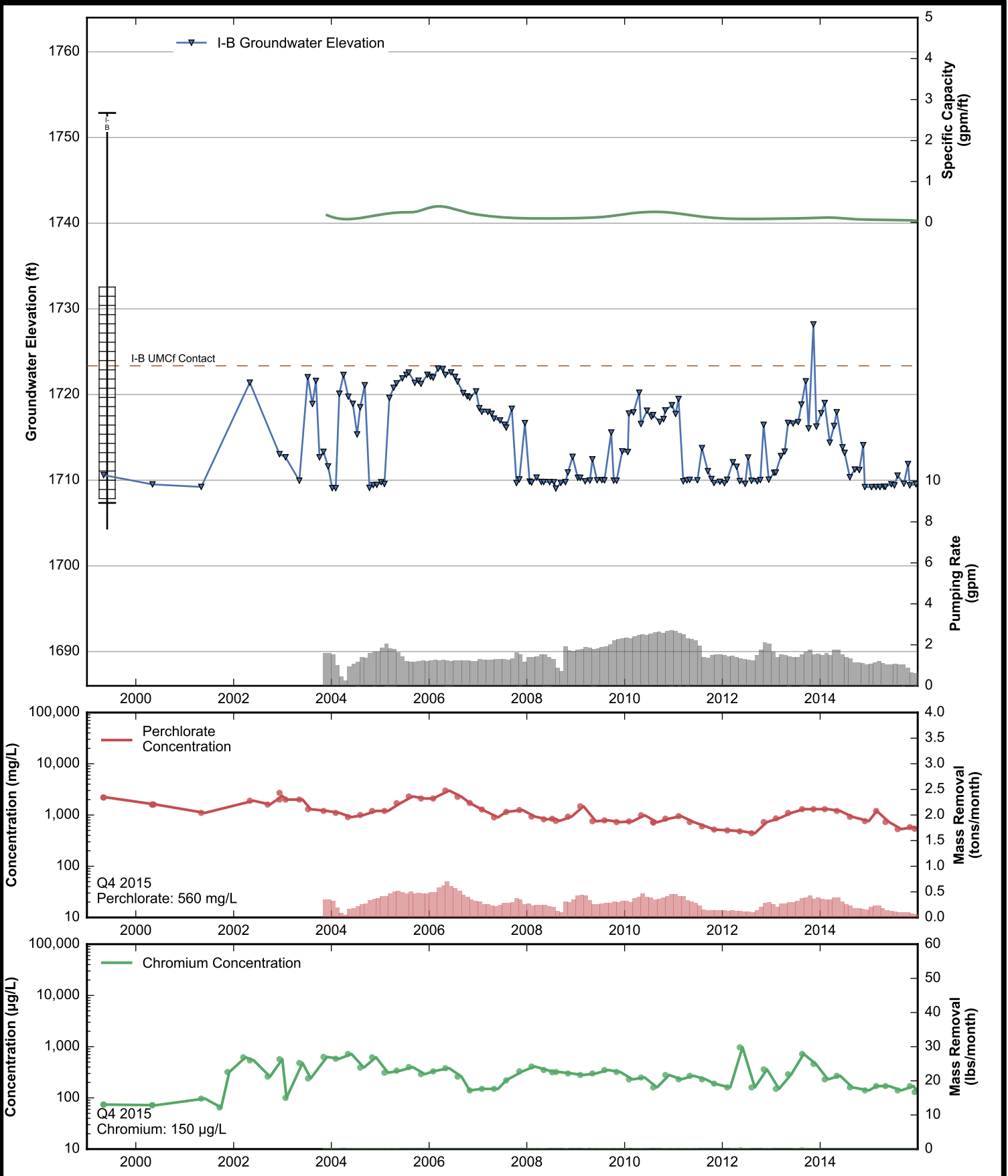


**Data Sheet for Well I-AD**  
 Nevada Environmental Response Trust Site  
 Henderson, Nevada

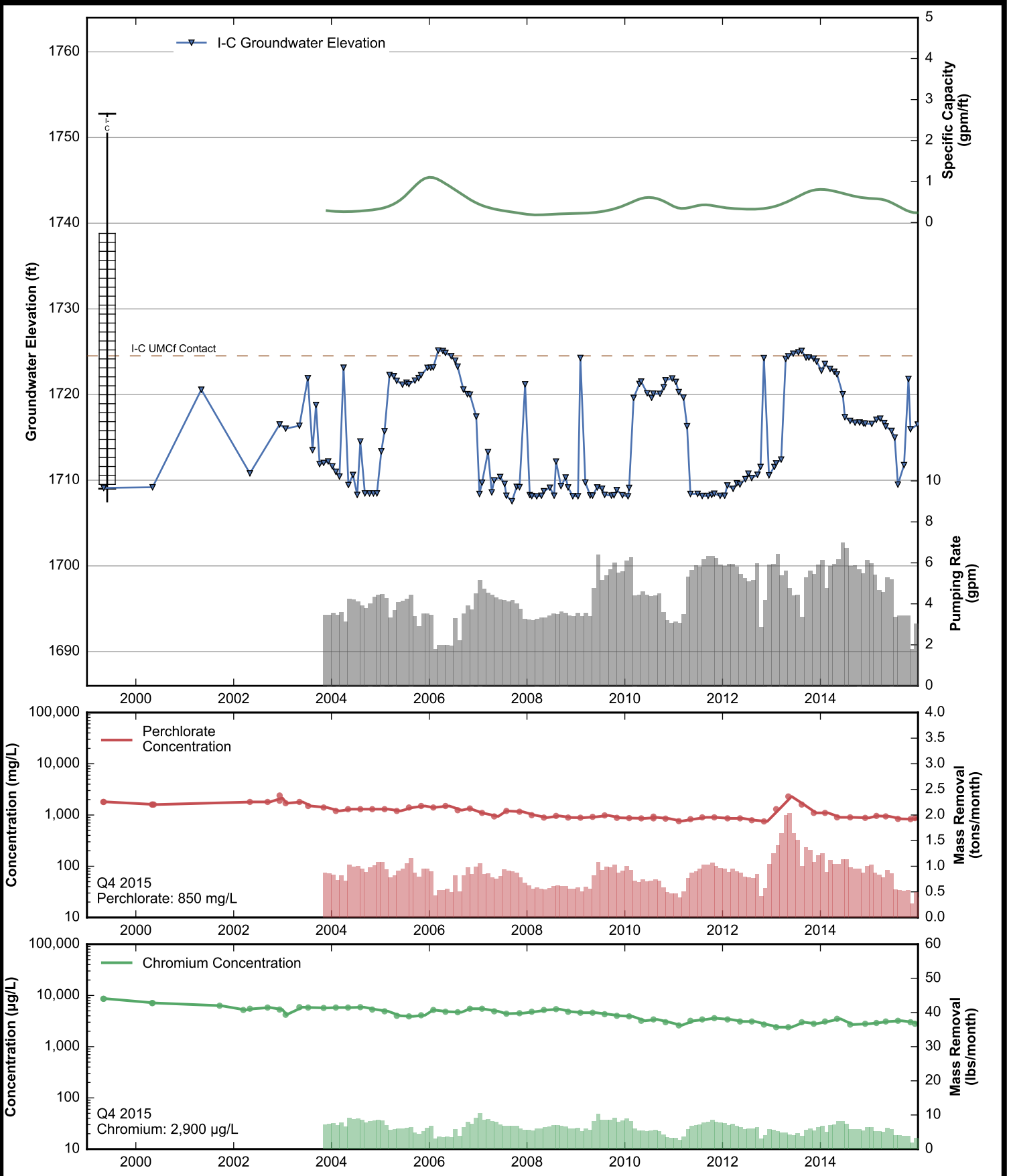




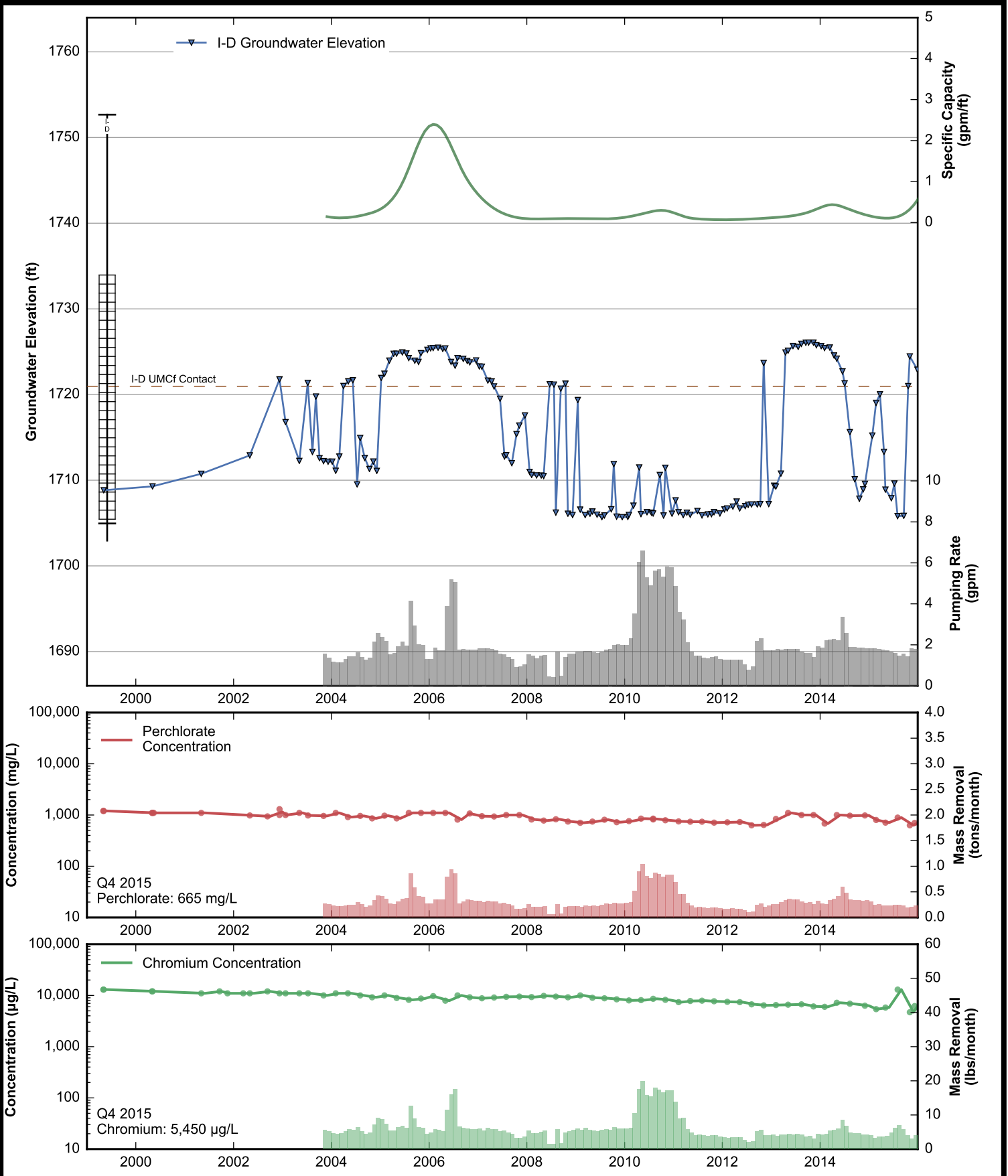
**Data Sheet for Well I-AR**  
 Nevada Environmental Response Trust Site  
 Henderson, Nevada



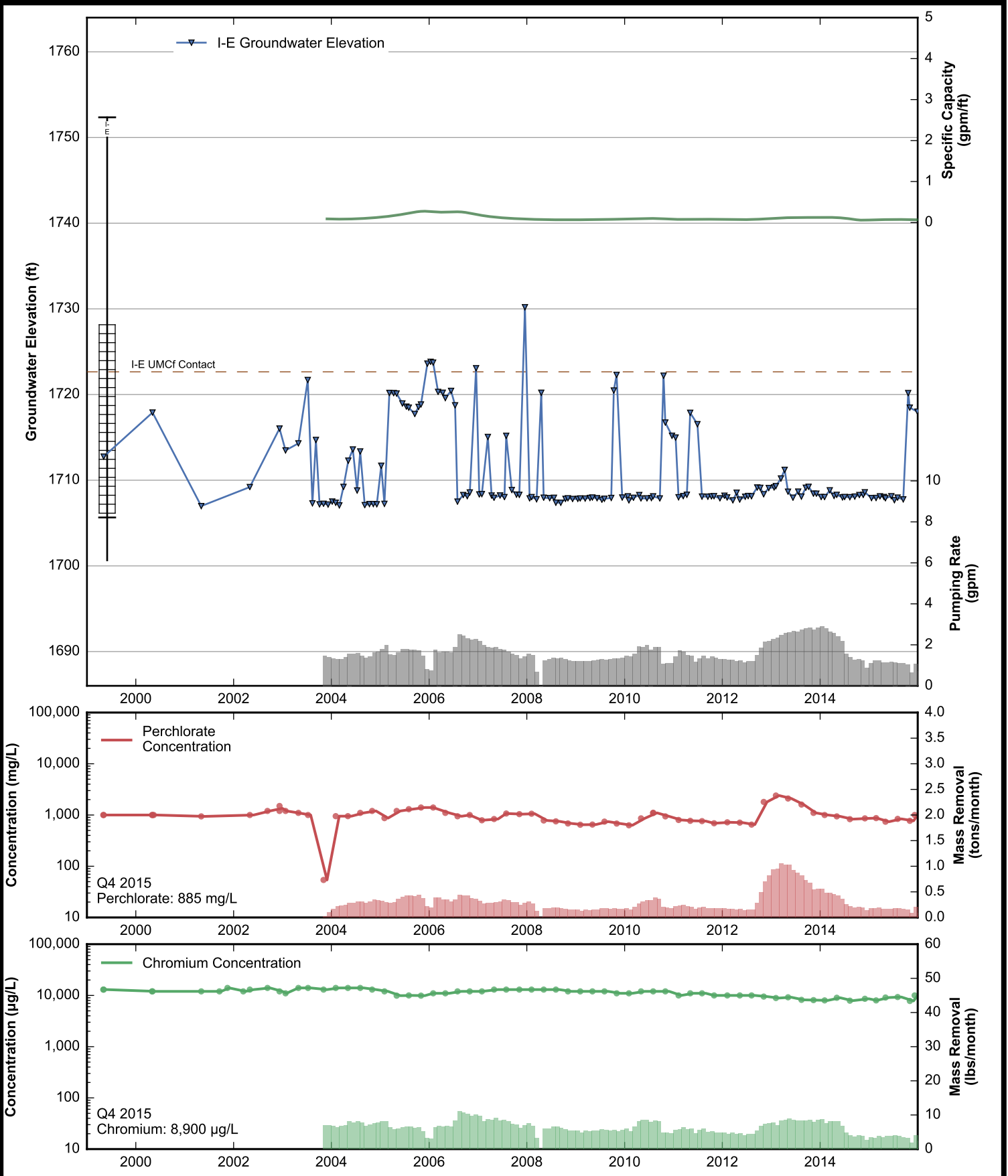
**Data Sheet for Well I-B**  
 Nevada Environmental Response Trust Site  
 Henderson, Nevada

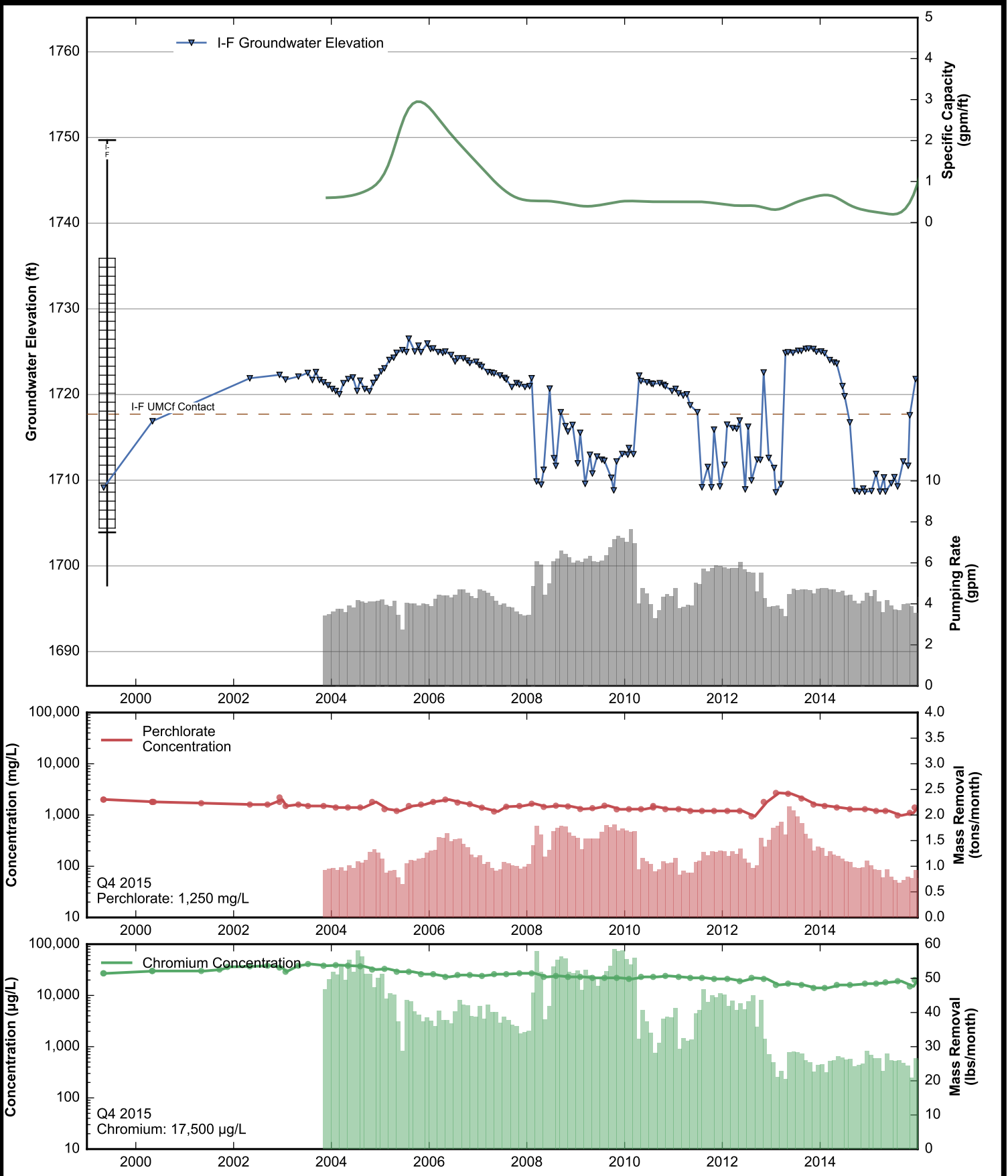


**Data Sheet for Well I-C**  
 Nevada Environmental Response Trust Site  
 Henderson, Nevada

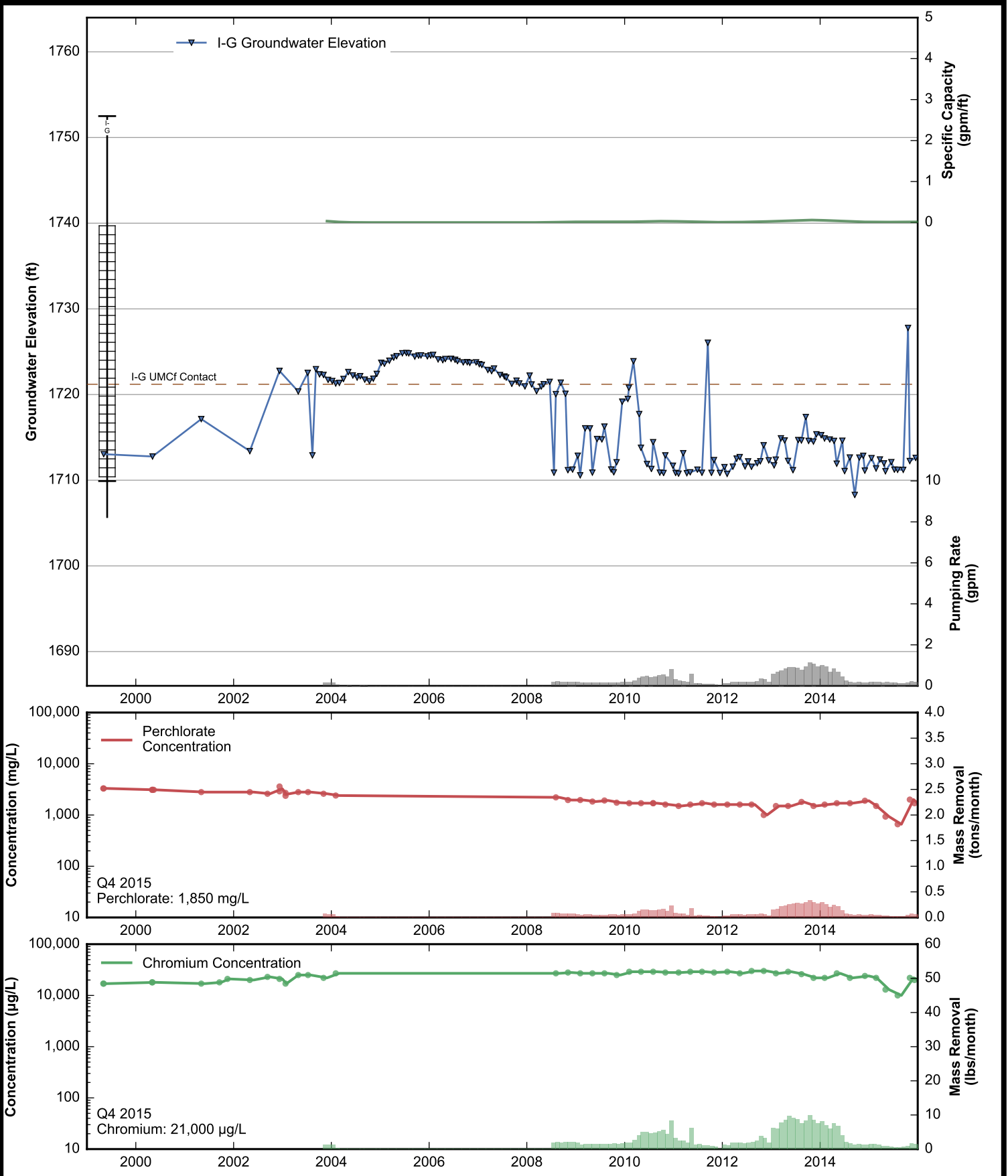


**Data Sheet for Well I-D**  
 Nevada Environmental Response Trust Site  
 Henderson, Nevada

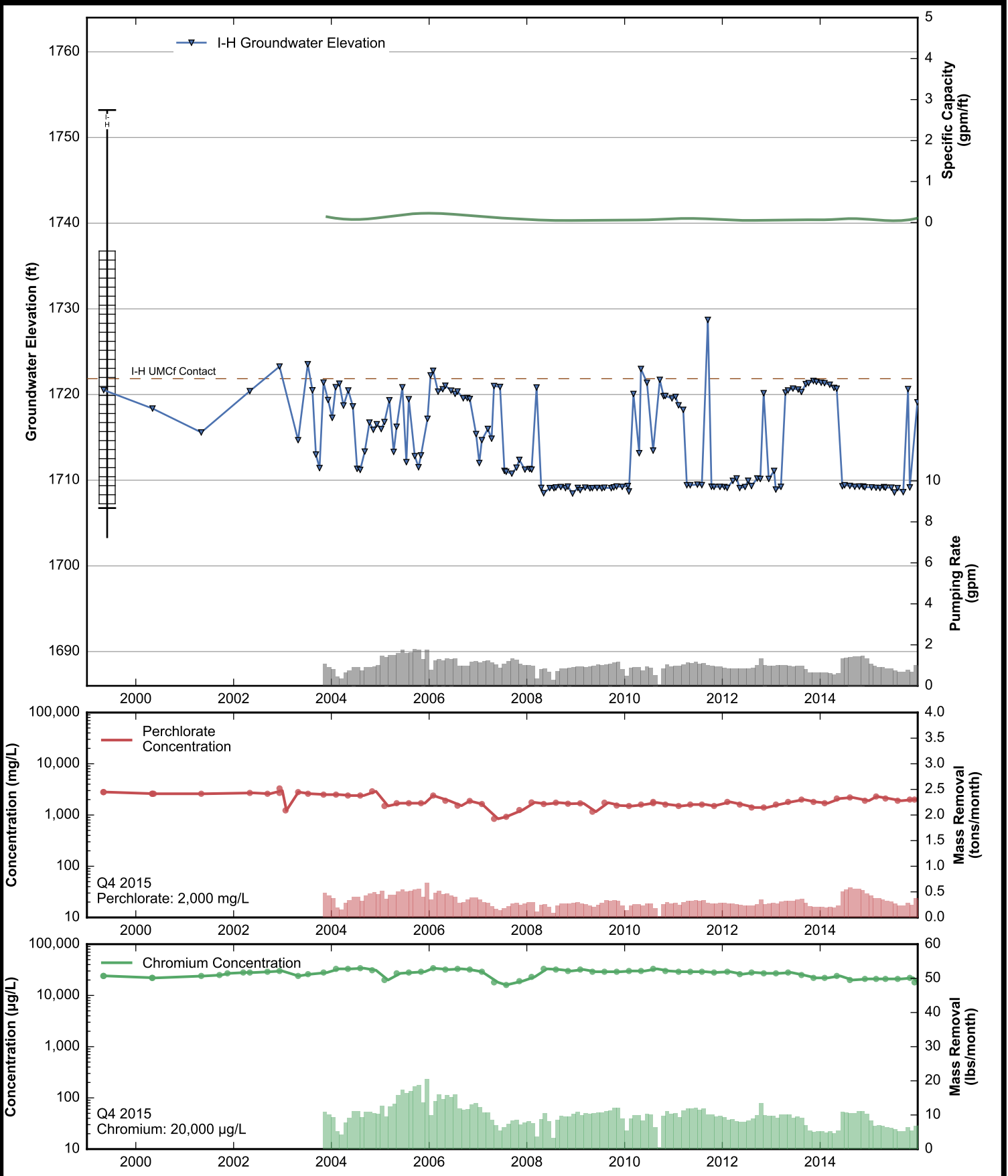




**Data Sheet for Well I-F**  
 Nevada Environmental Response Trust Site  
 Henderson, Nevada

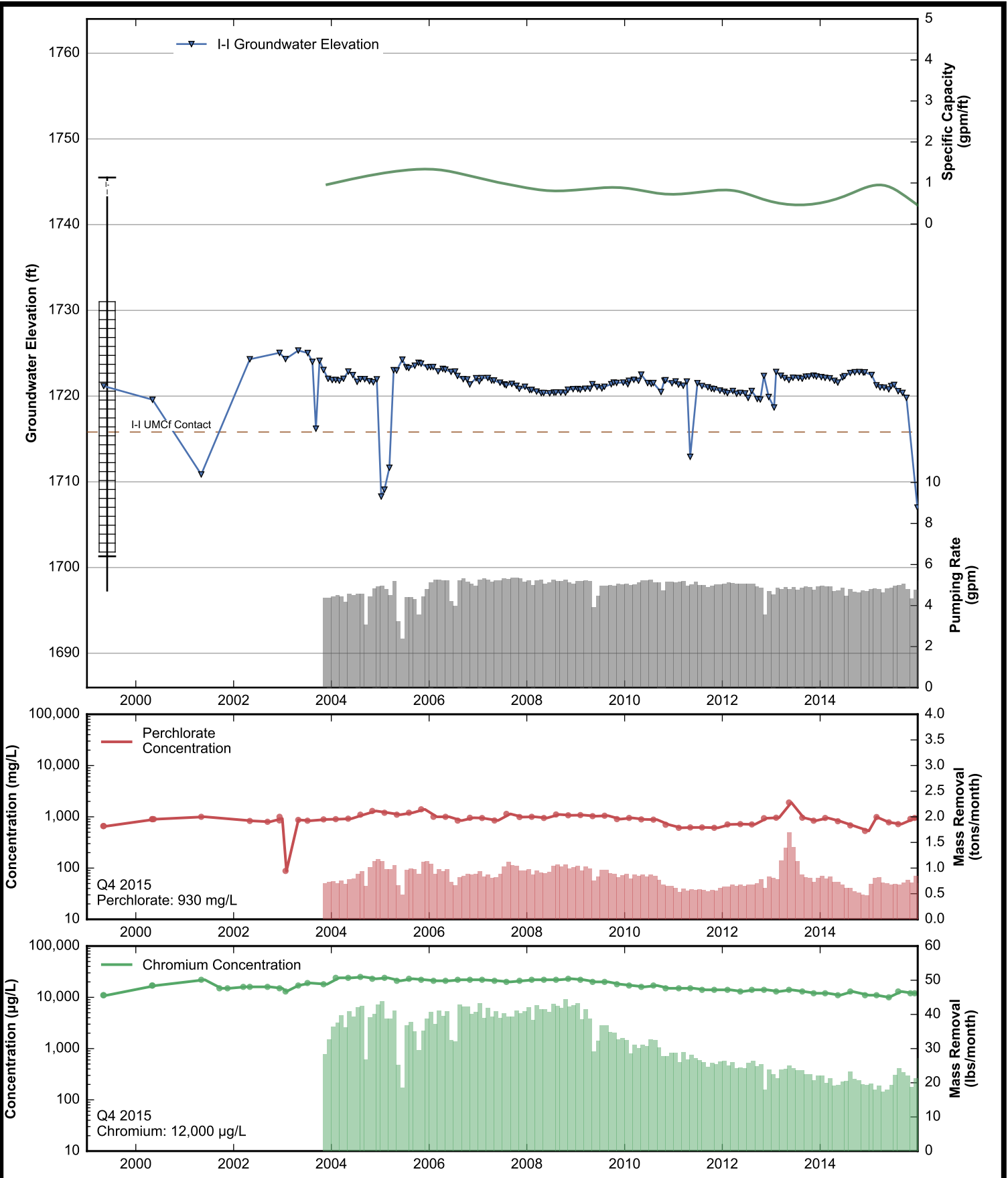


**Data Sheet for Well I-G**  
 Nevada Environmental Response Trust Site  
 Henderson, Nevada

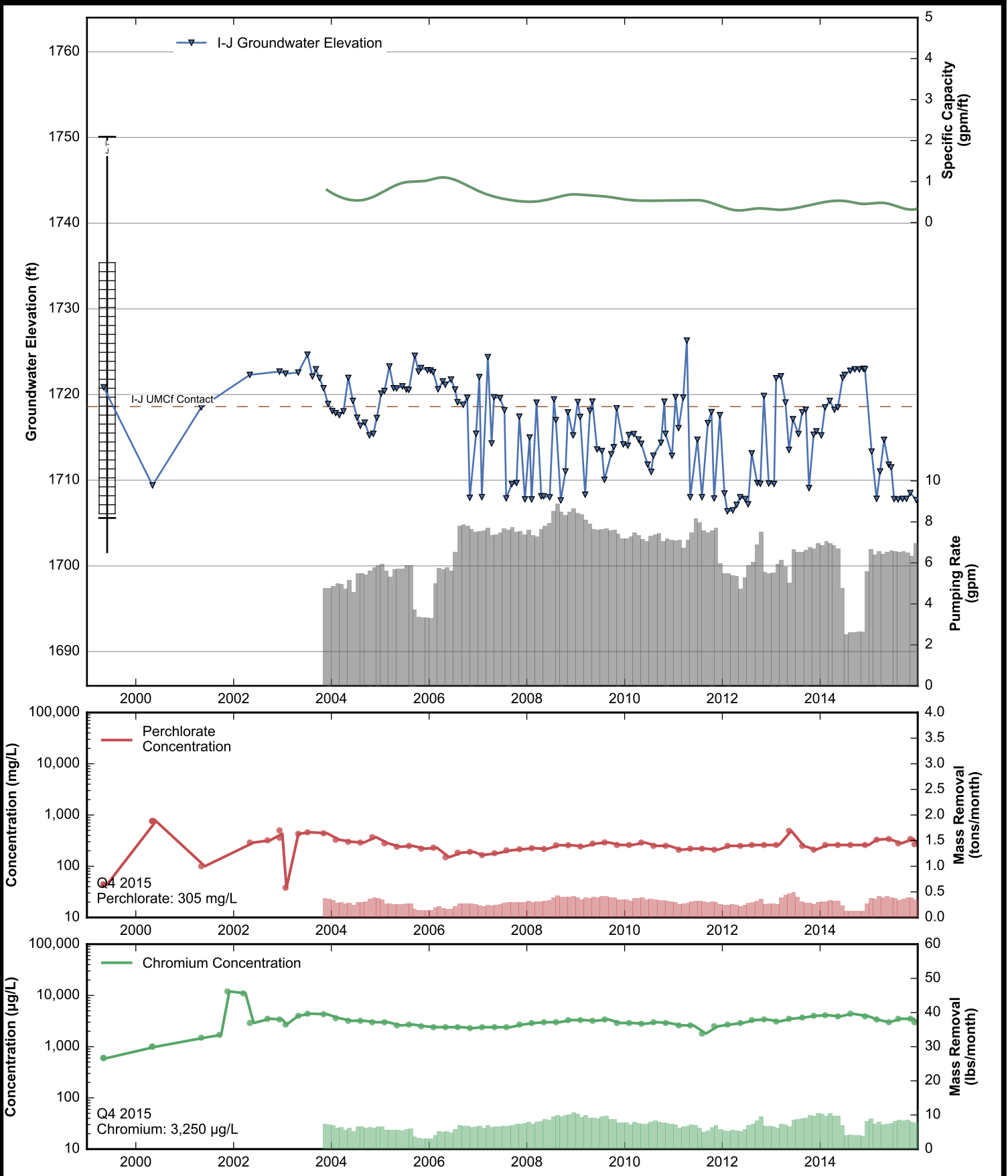


**Data Sheet for Well I-H**  
 Nevada Environmental Response Trust Site  
 Henderson, Nevada

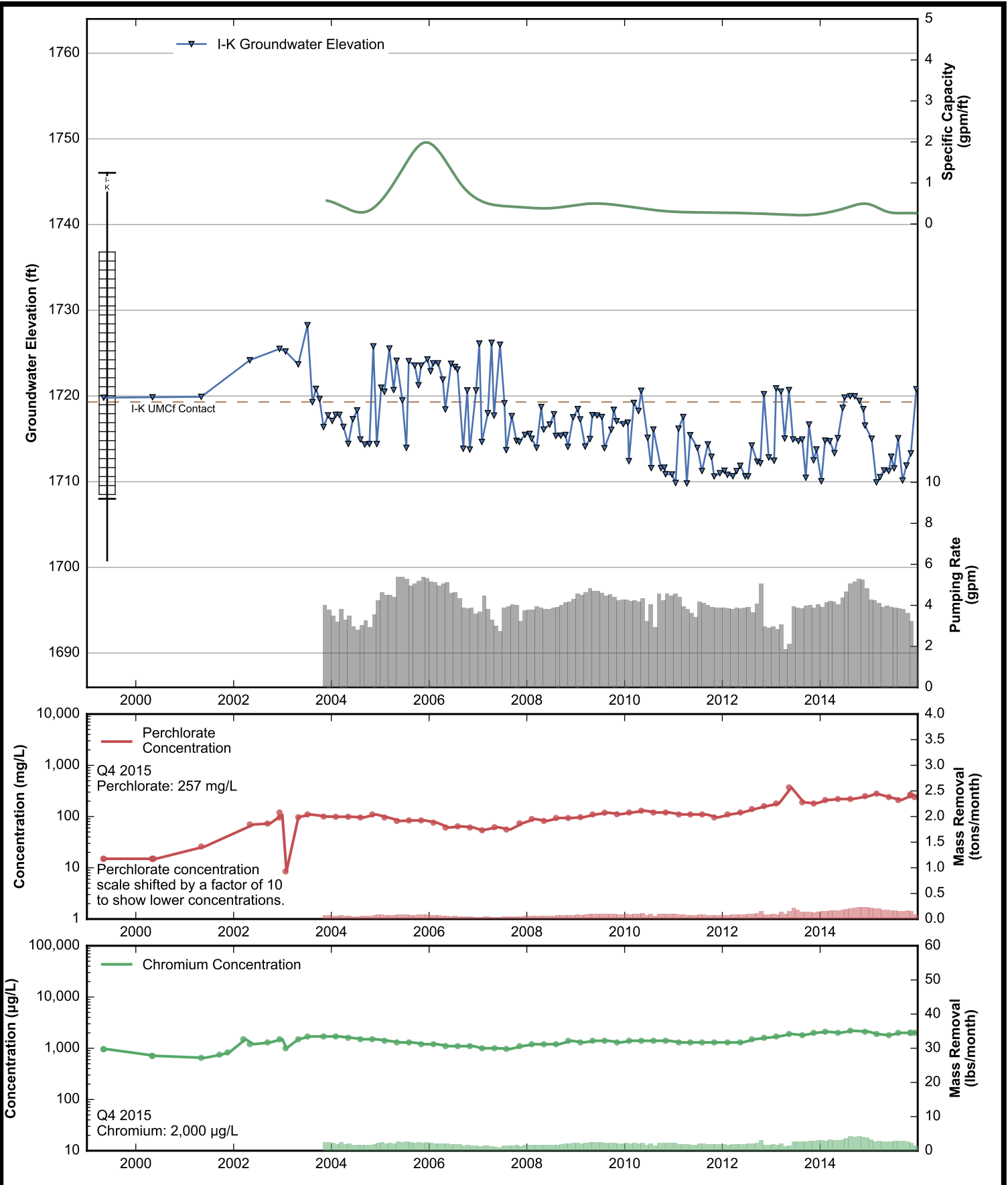




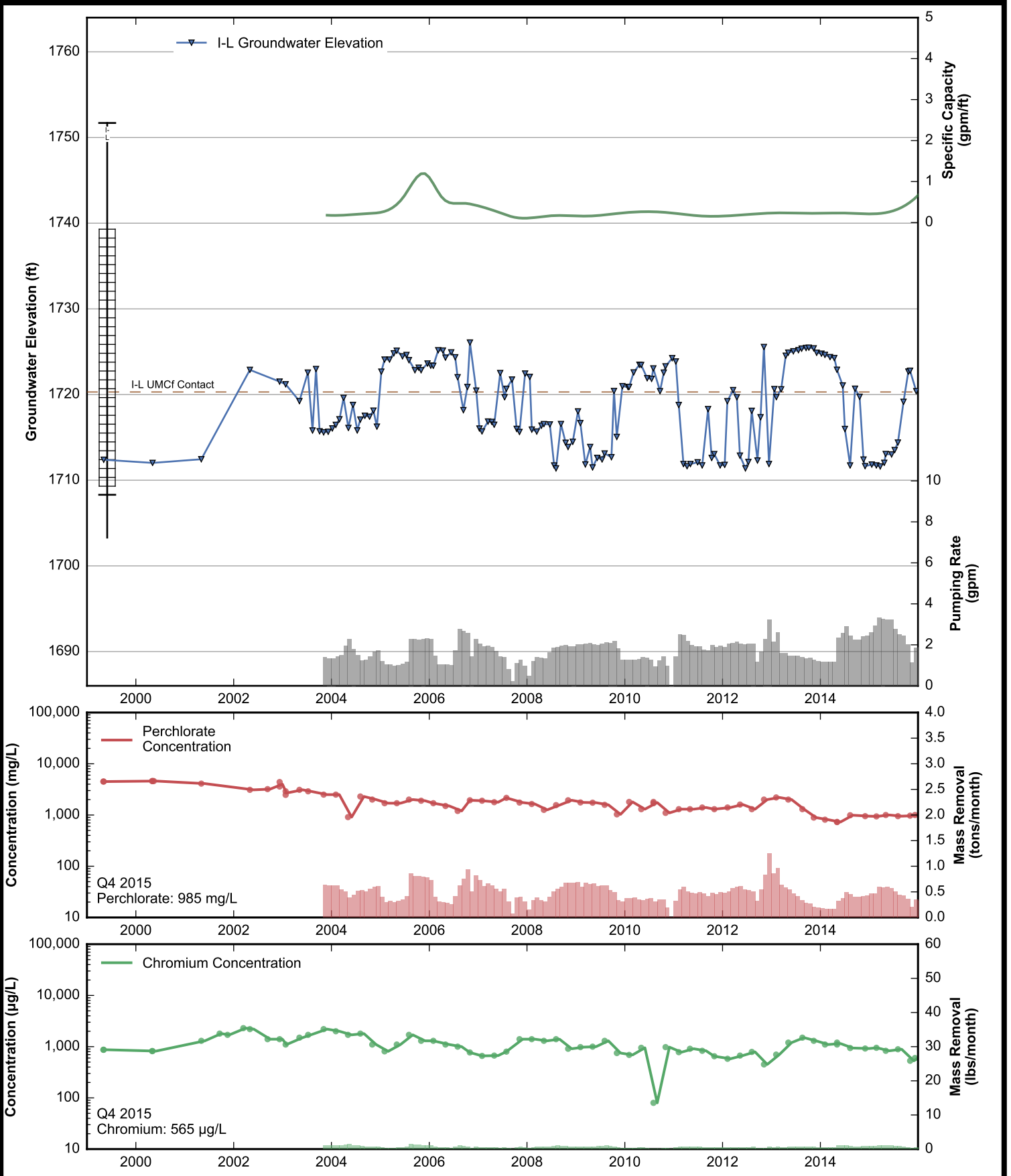
**Data Sheet for Well I-I**  
 Nevada Environmental Response Trust Site  
 Henderson, Nevada



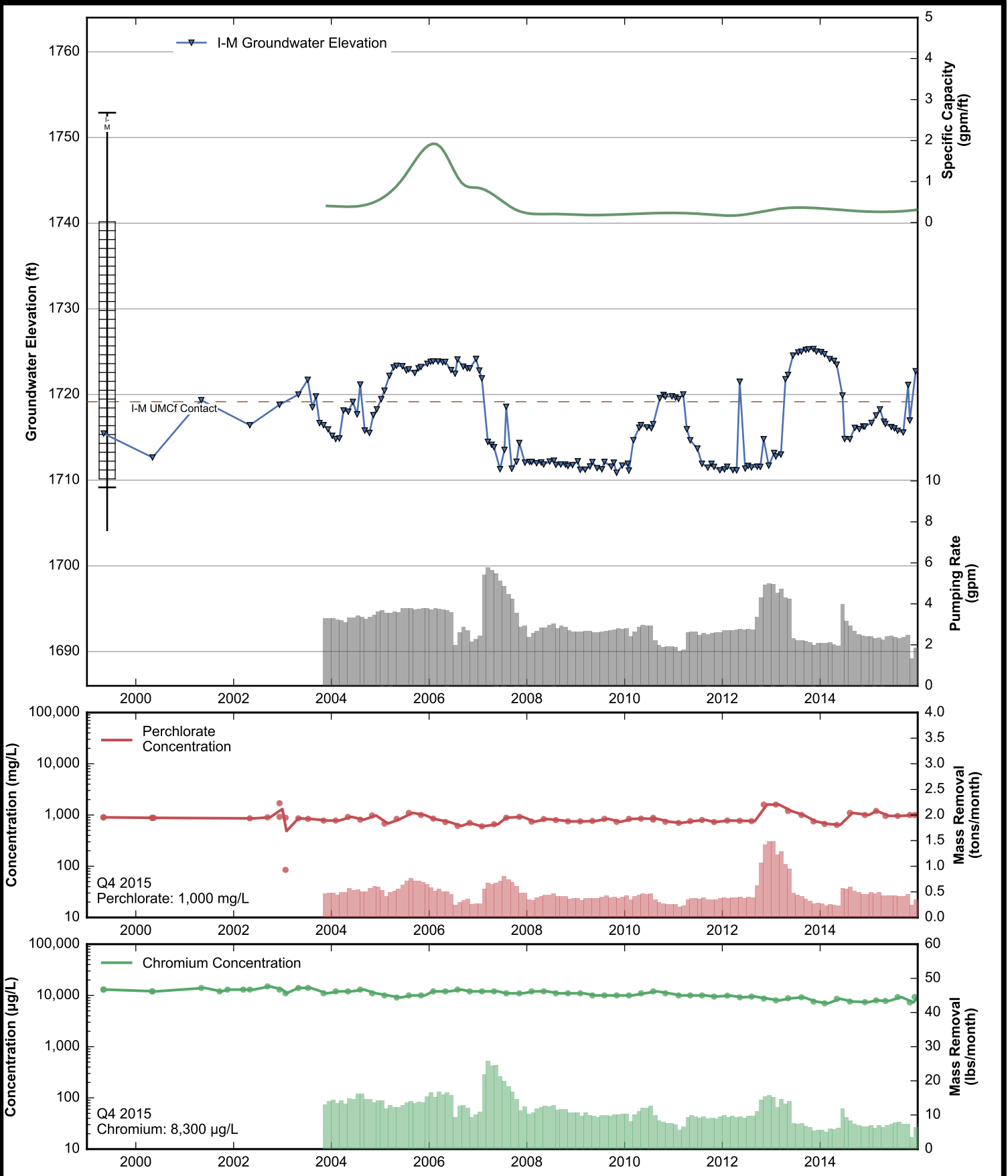
**Data Sheet for Well I-J**  
 Nevada Environmental Response Trust Site  
 Henderson, Nevada



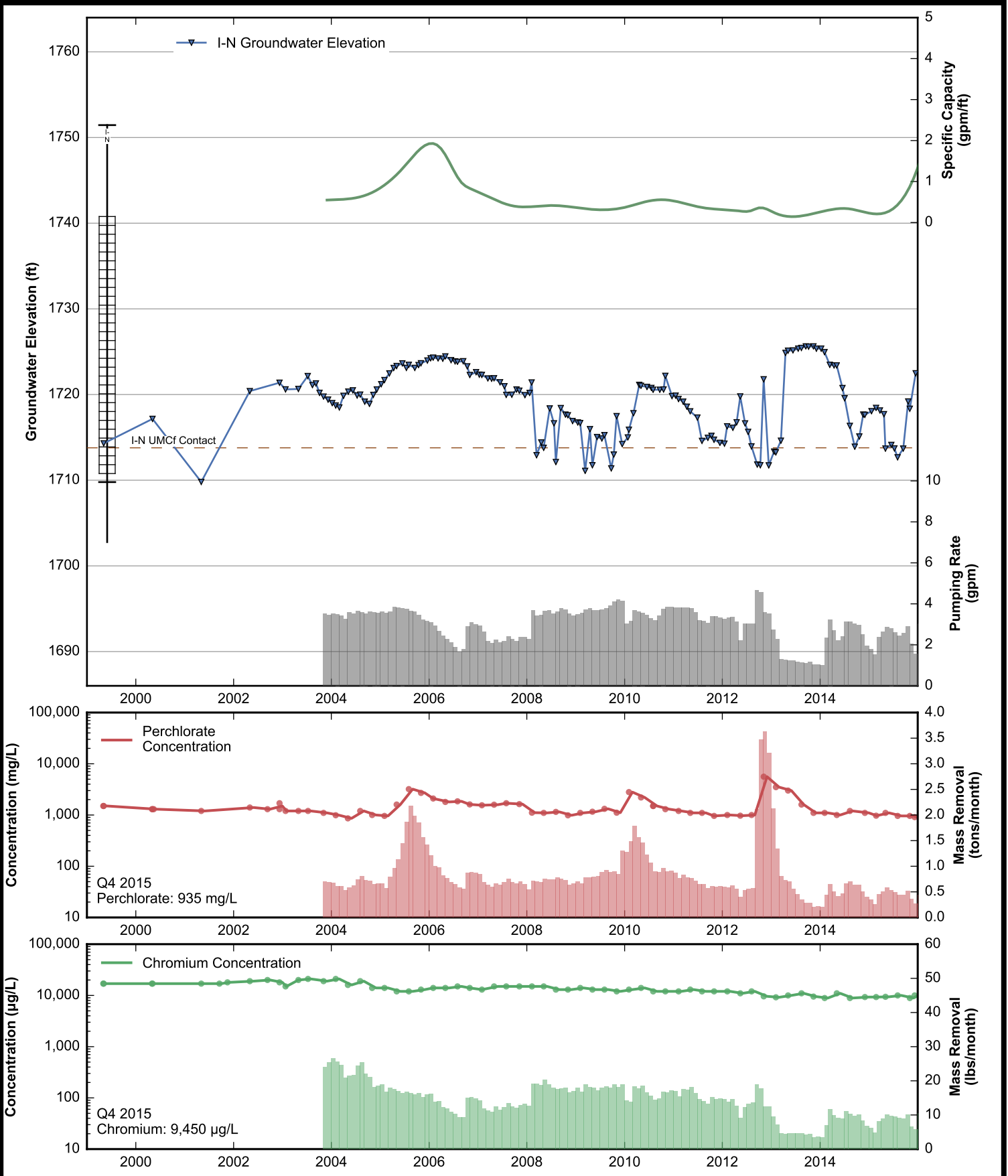
**Data Sheet for Well I-K**  
 Nevada Environmental Response Trust Site  
 Henderson, Nevada



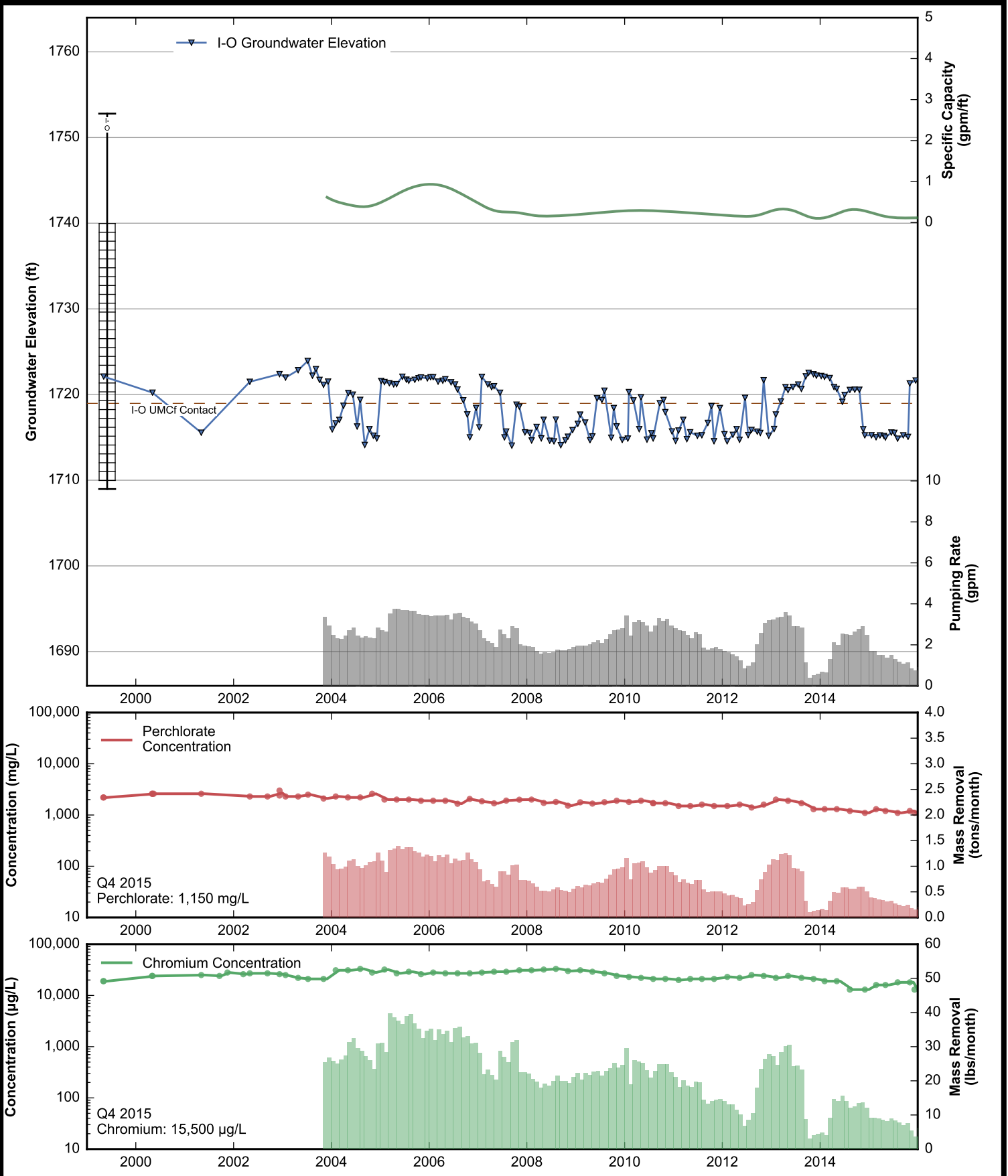
**Data Sheet for Well I-L**  
 Nevada Environmental Response Trust Site  
 Henderson, Nevada



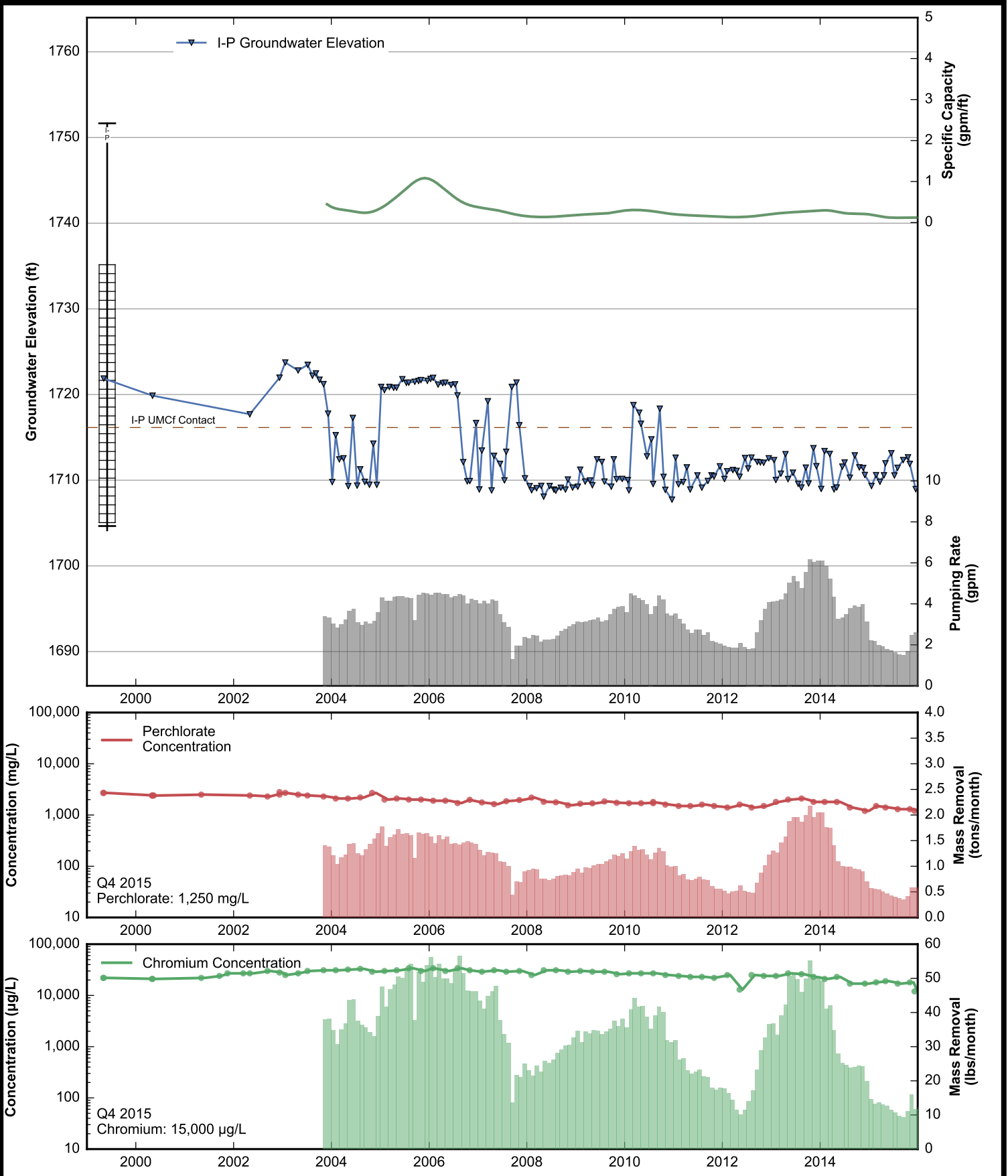
**Data Sheet for Well I-M**  
 Nevada Environmental Response Trust Site  
 Henderson, Nevada



**Data Sheet for Well I-N**  
 Nevada Environmental Response Trust Site  
 Henderson, Nevada

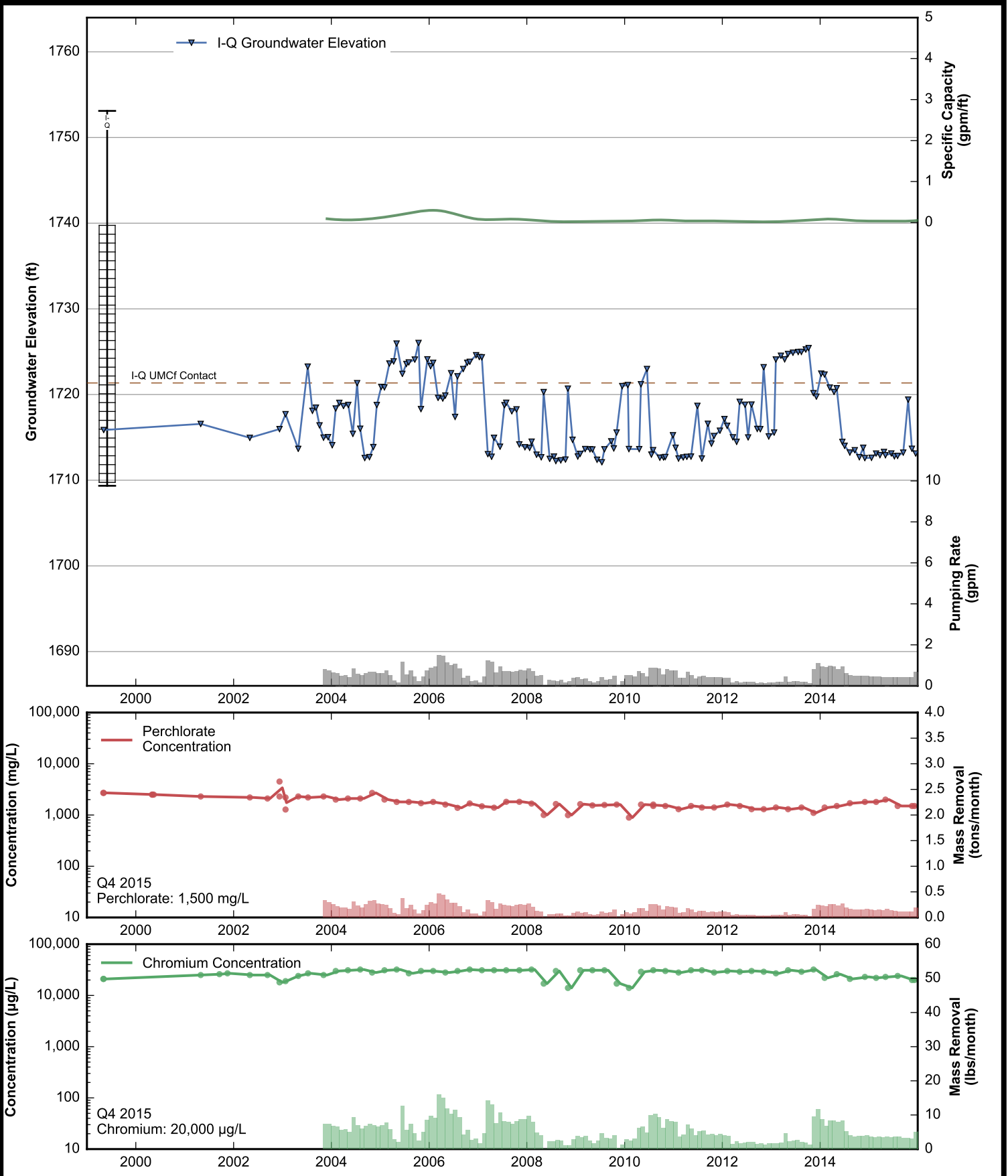


**Data Sheet for Well I-O**  
 Nevada Environmental Response Trust Site  
 Henderson, Nevada

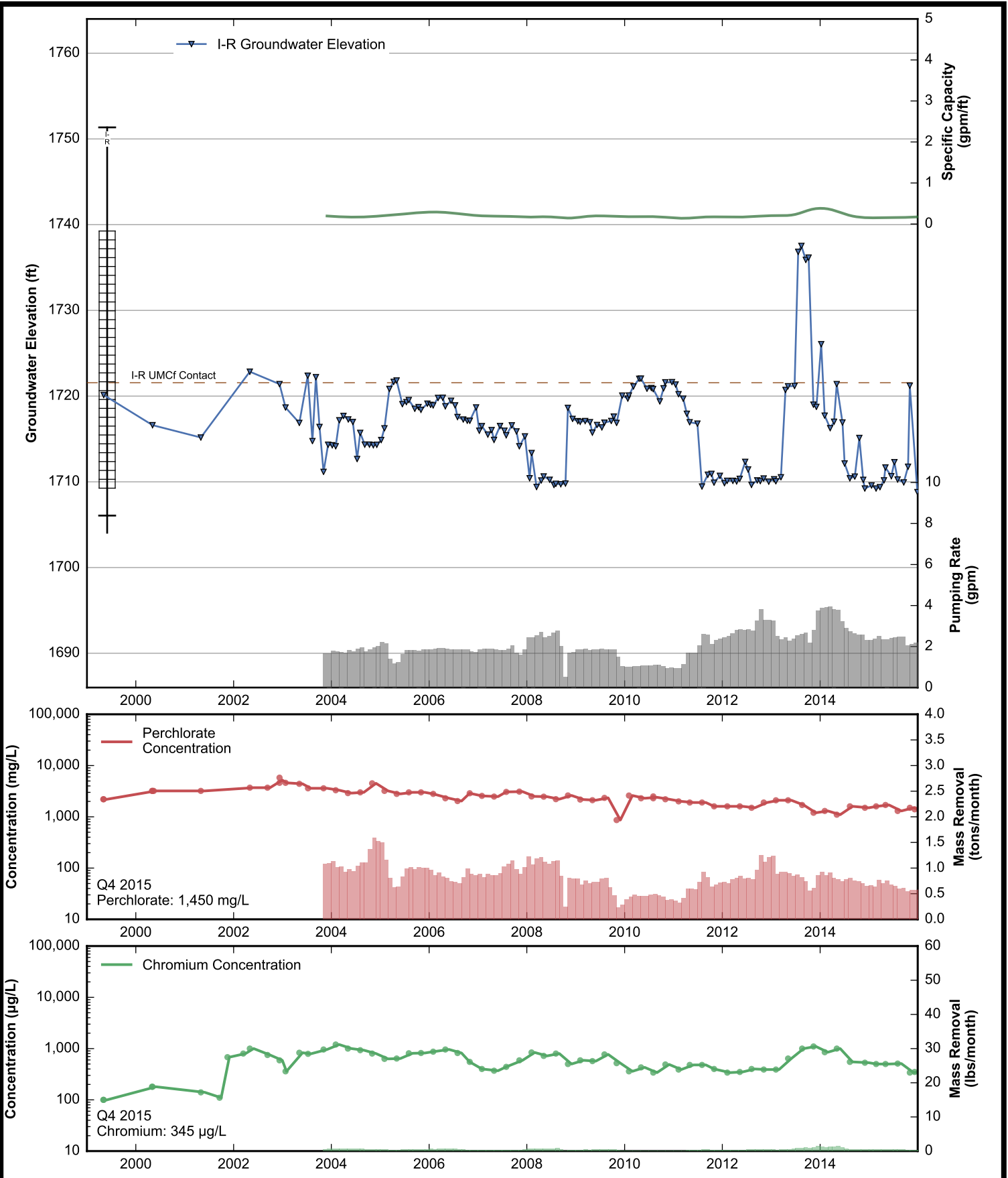


**Data Sheet for Well I-P**  
 Nevada Environmental Response Trust Site  
 Henderson, Nevada

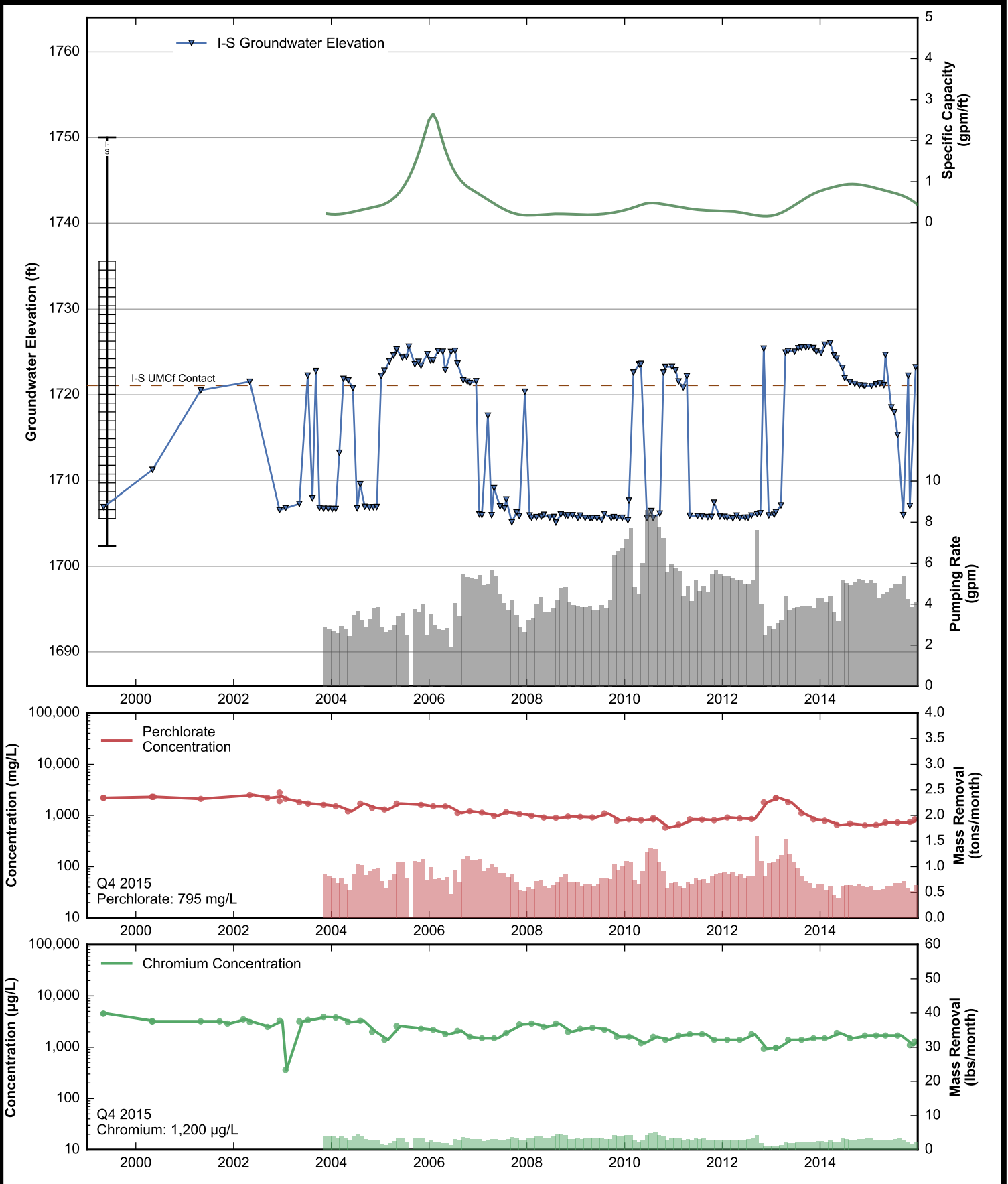




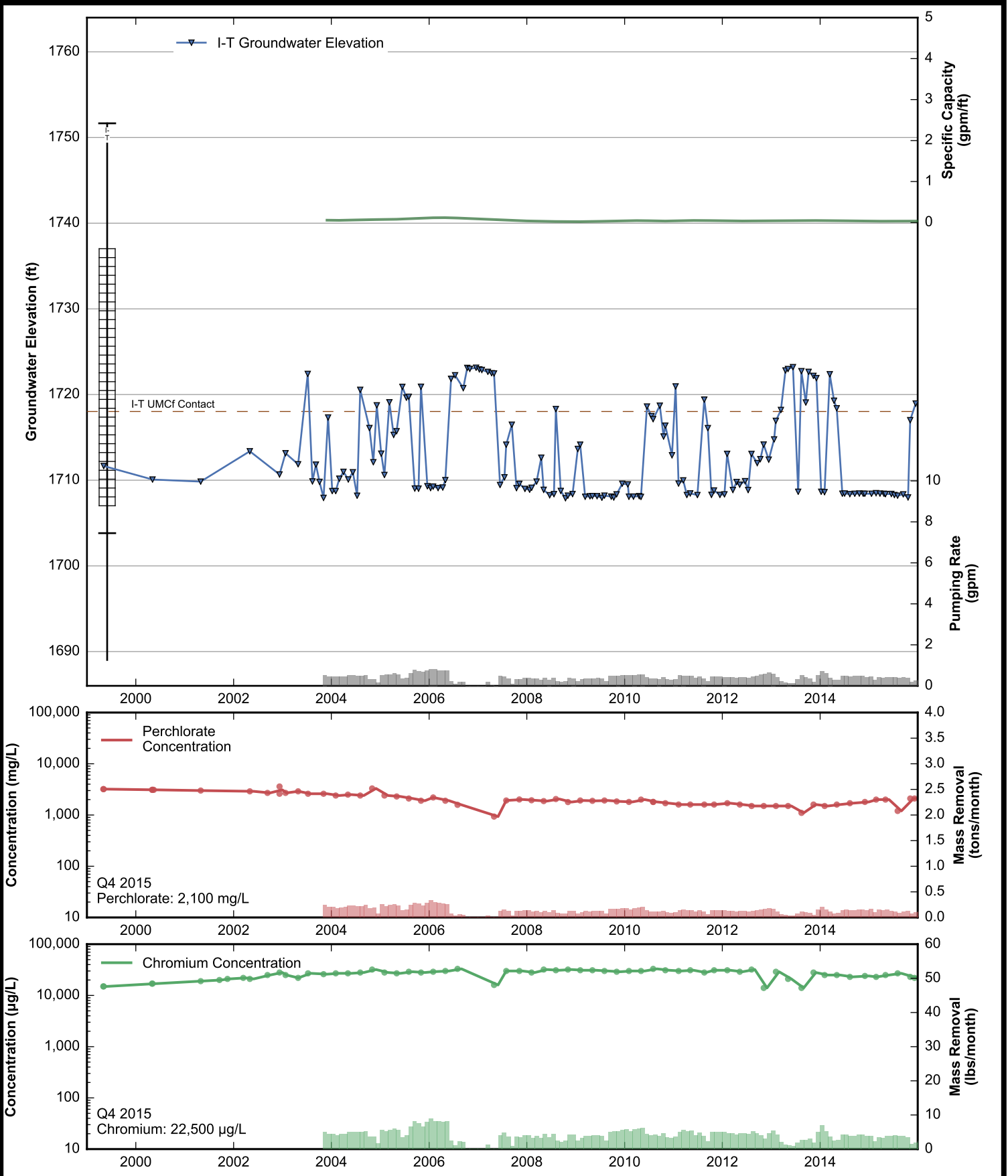
**Data Sheet for Well I-Q**  
 Nevada Environmental Response Trust Site  
 Henderson, Nevada



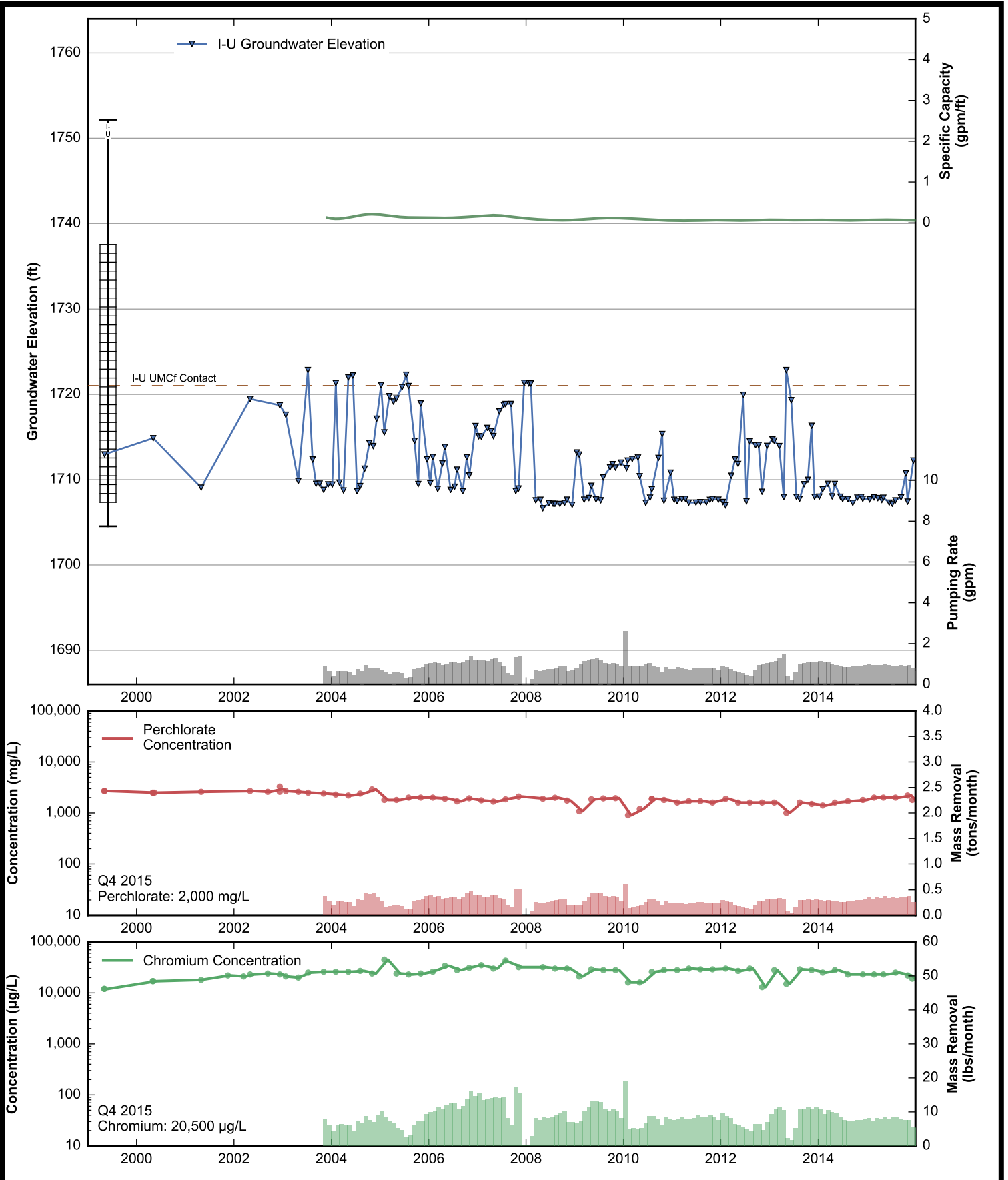
**Data Sheet for Well I-R**  
 Nevada Environmental Response Trust Site  
 Henderson, Nevada



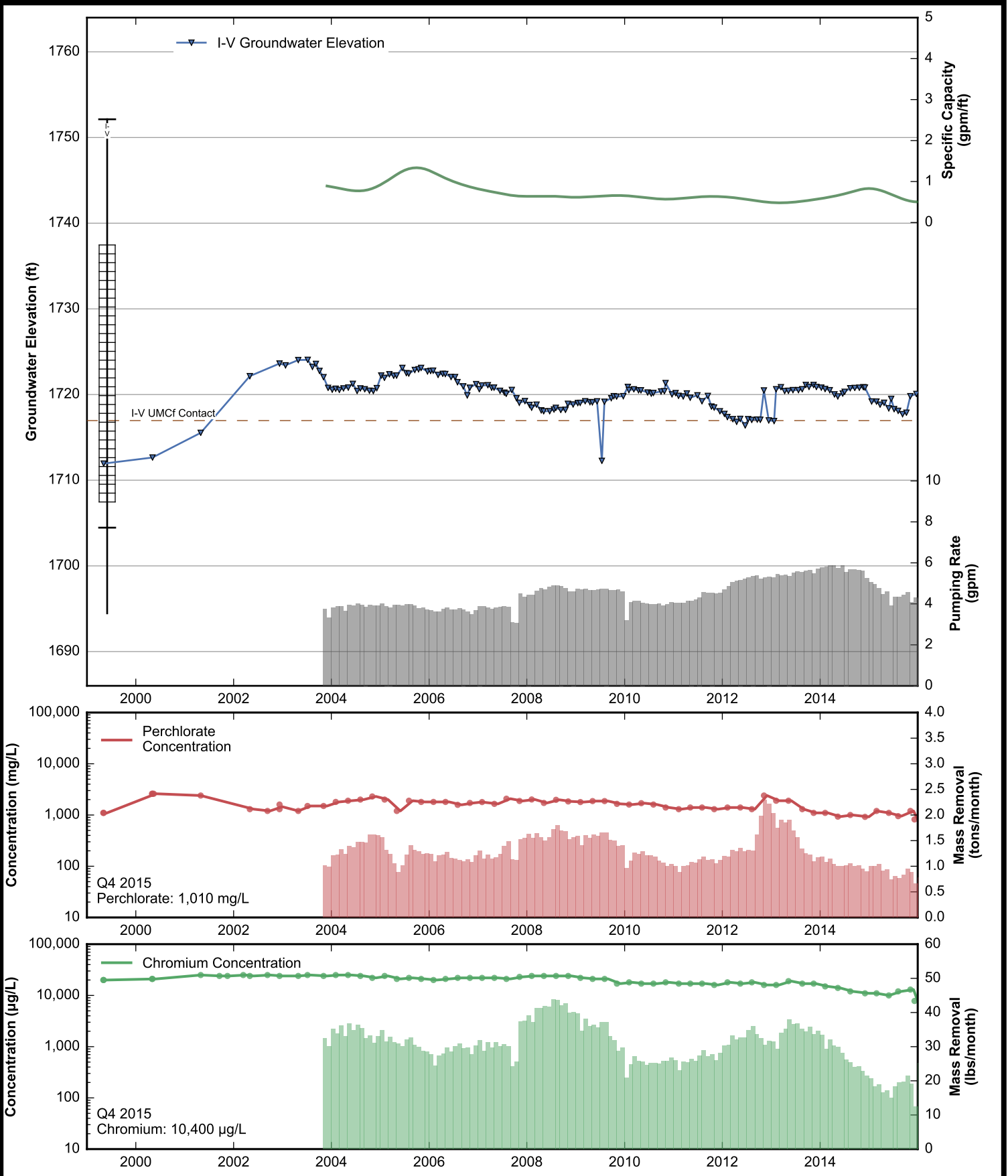
**Data Sheet for Well I-S**  
 Nevada Environmental Response Trust Site  
 Henderson, Nevada



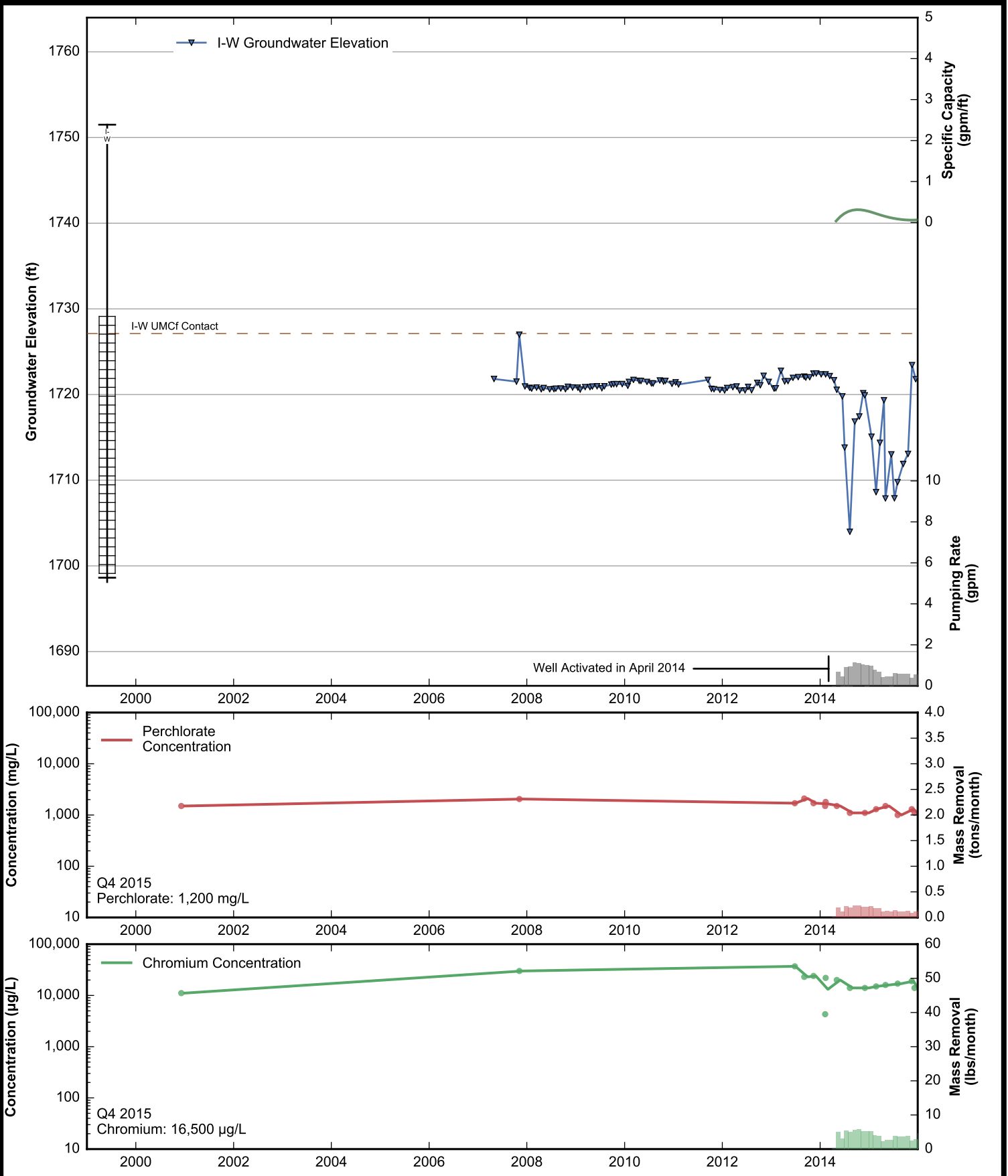
**Data Sheet for Well I-T**  
 Nevada Environmental Response Trust Site  
 Henderson, Nevada



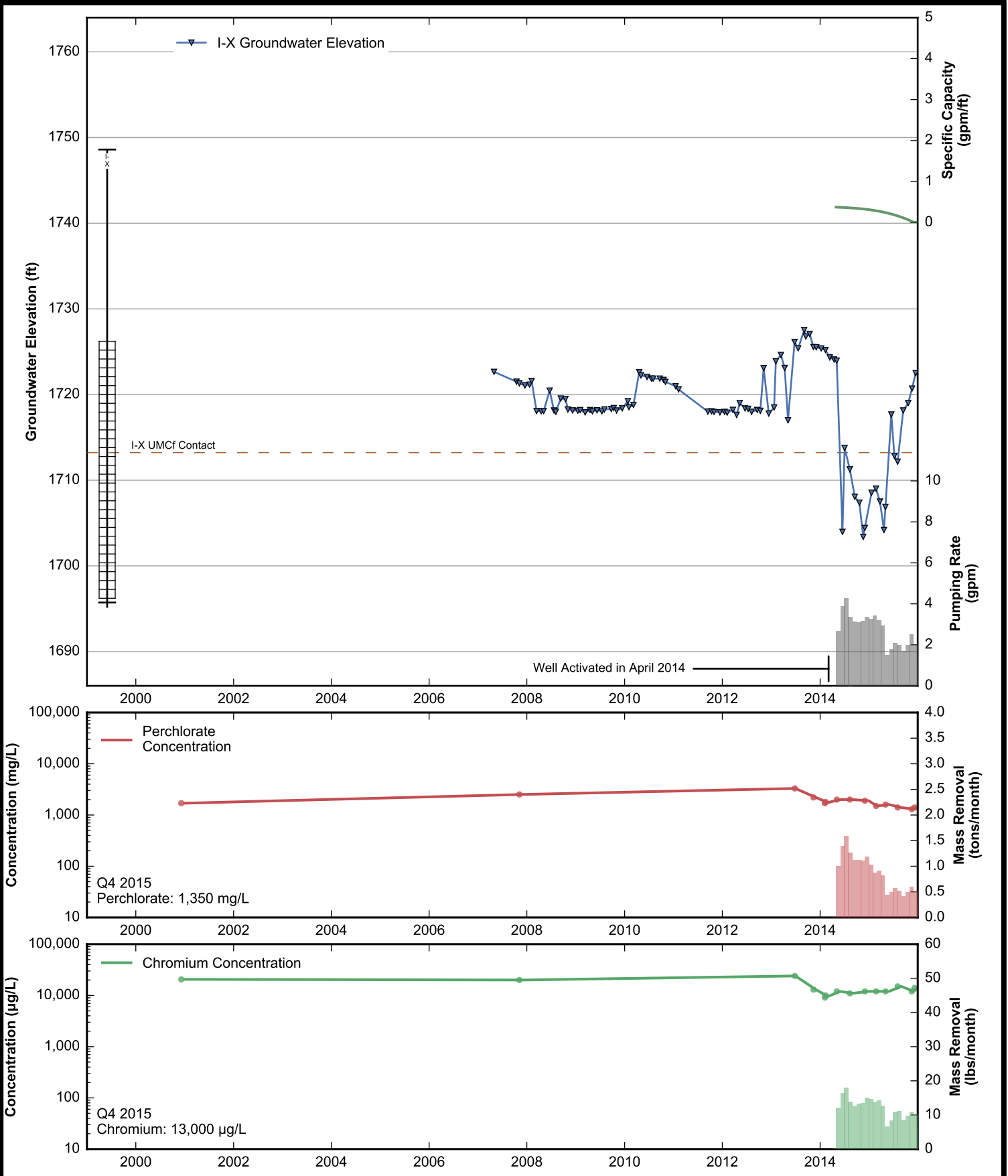
**Data Sheet for Well I-U**  
 Nevada Environmental Response Trust Site  
 Henderson, Nevada



**Data Sheet for Well I-V**  
 Nevada Environmental Response Trust Site  
 Henderson, Nevada

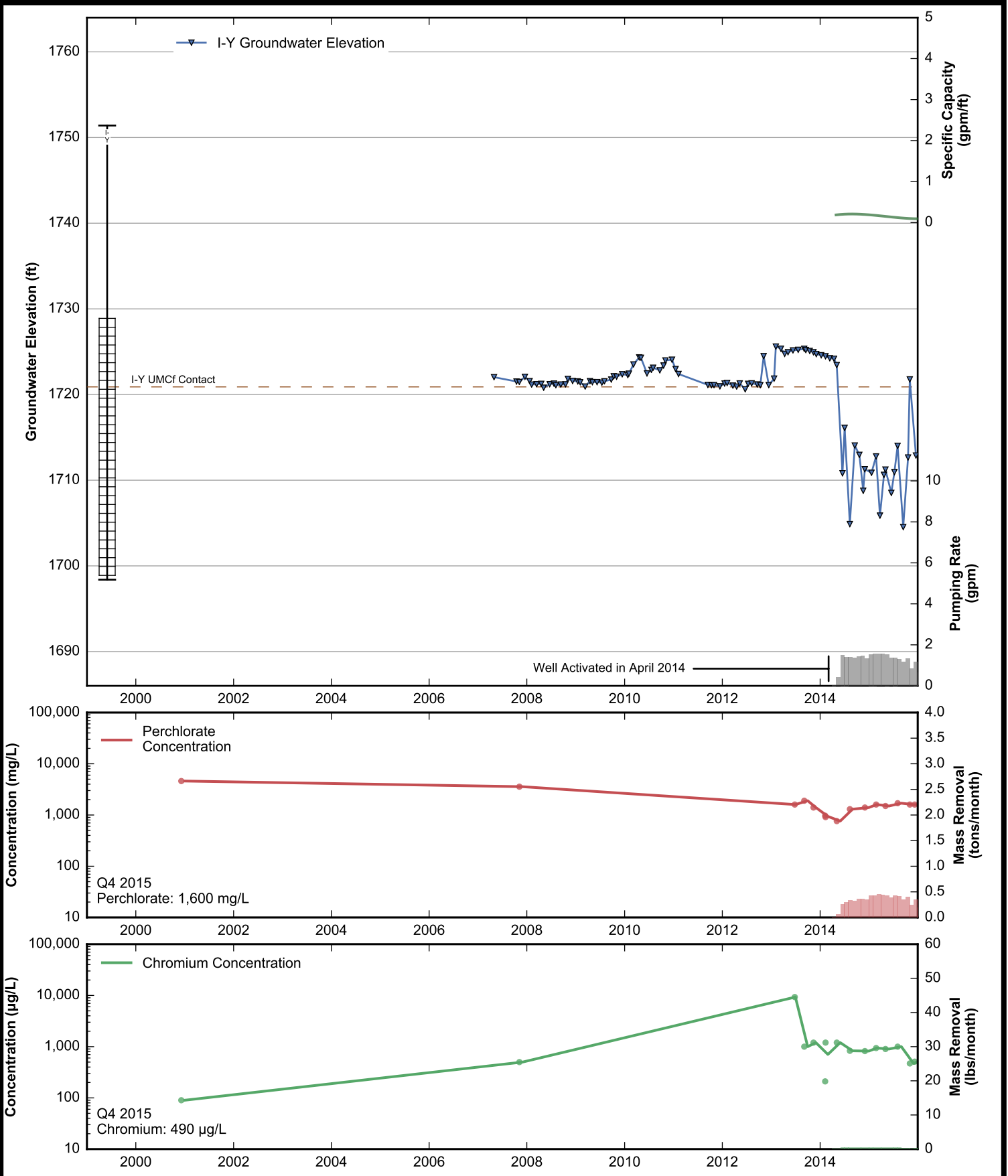


**Data Sheet for Well I-W**  
 Nevada Environmental Response Trust Site  
 Henderson, Nevada

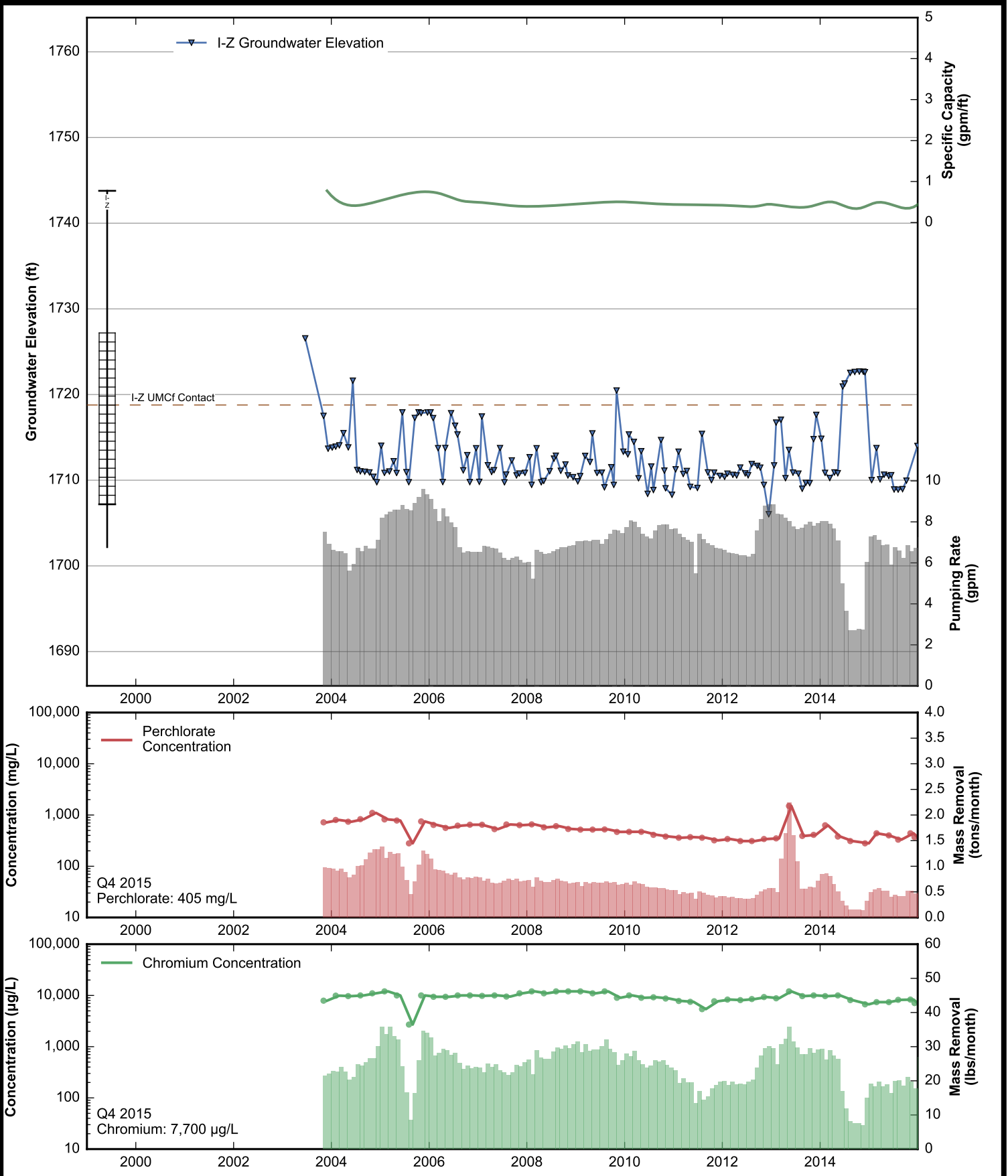


**Data Sheet for Well I-X**  
 Nevada Environmental Response Trust Site  
 Henderson, Nevada

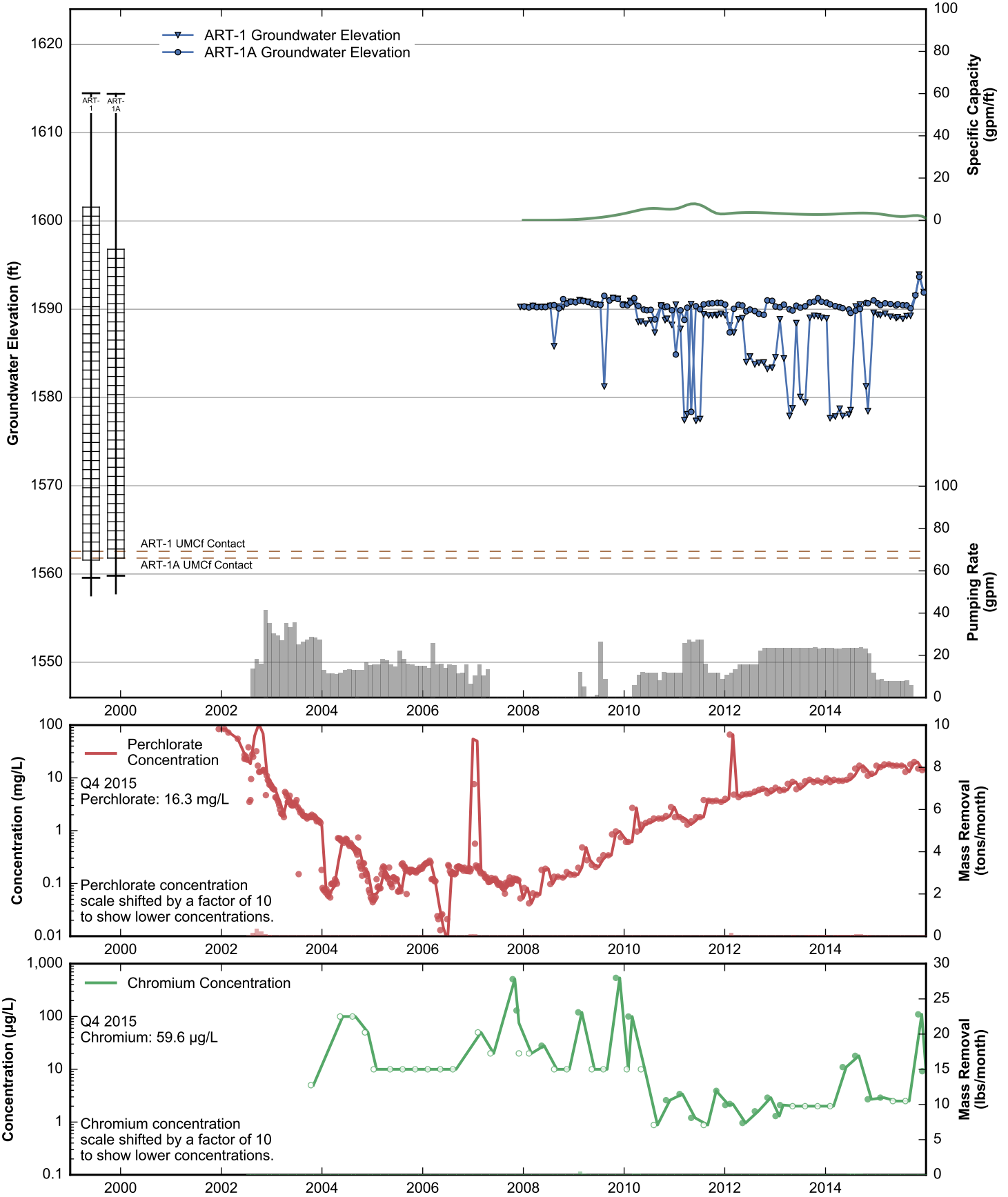




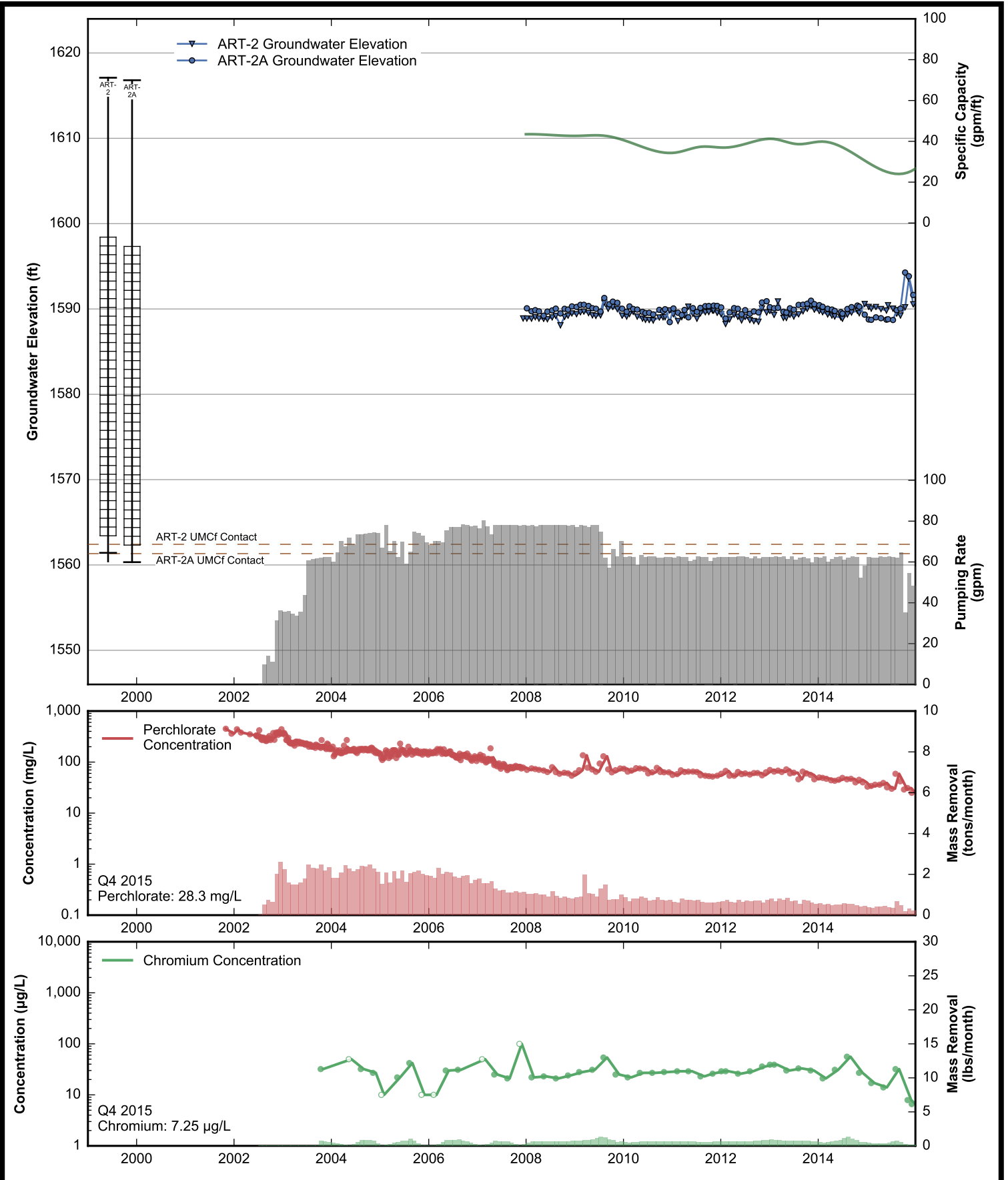
**Data Sheet for Well I-Y**  
 Nevada Environmental Response Trust Site  
 Henderson, Nevada



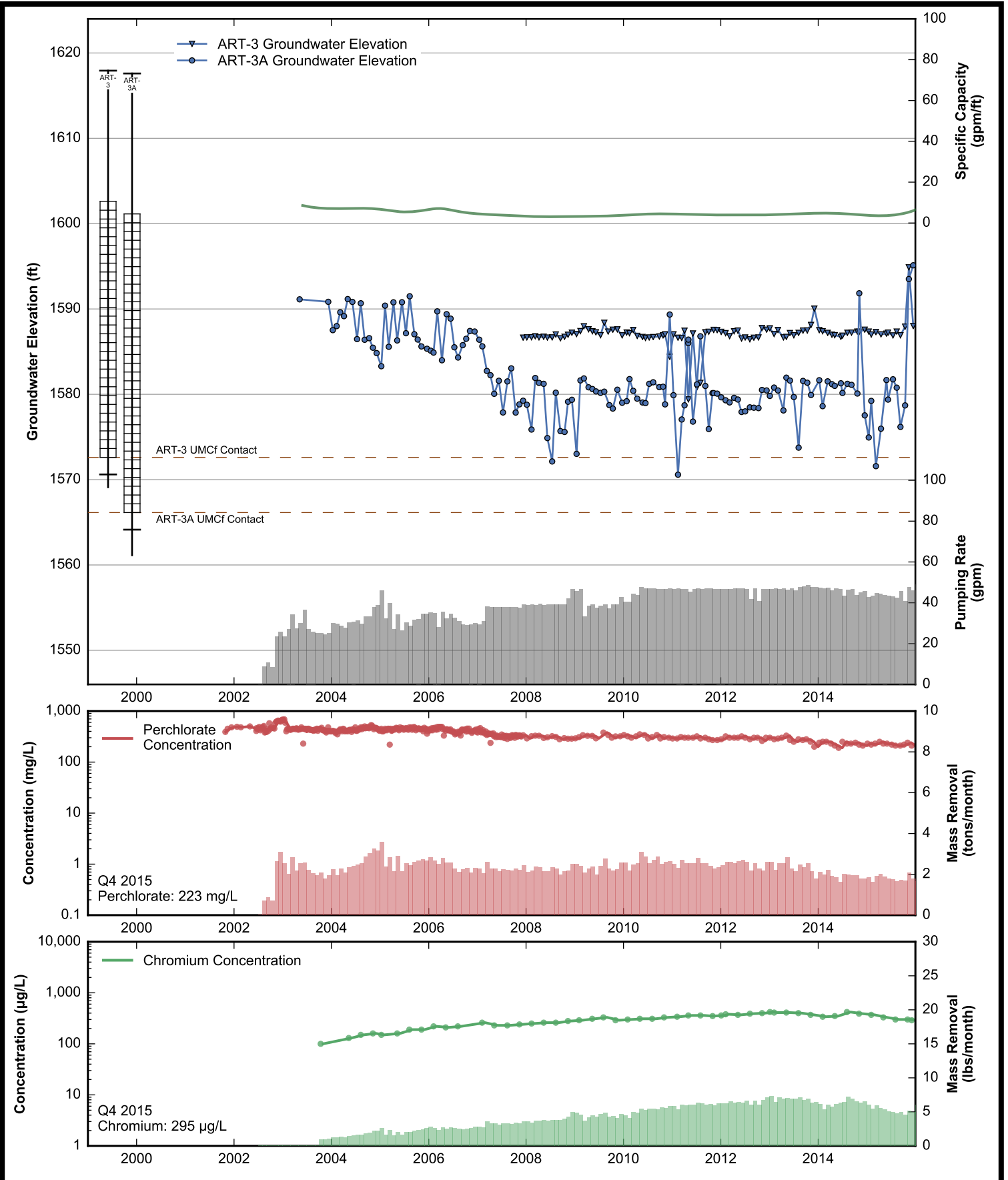
**Data Sheet for Well I-Z**  
 Nevada Environmental Response Trust Site  
 Henderson, Nevada

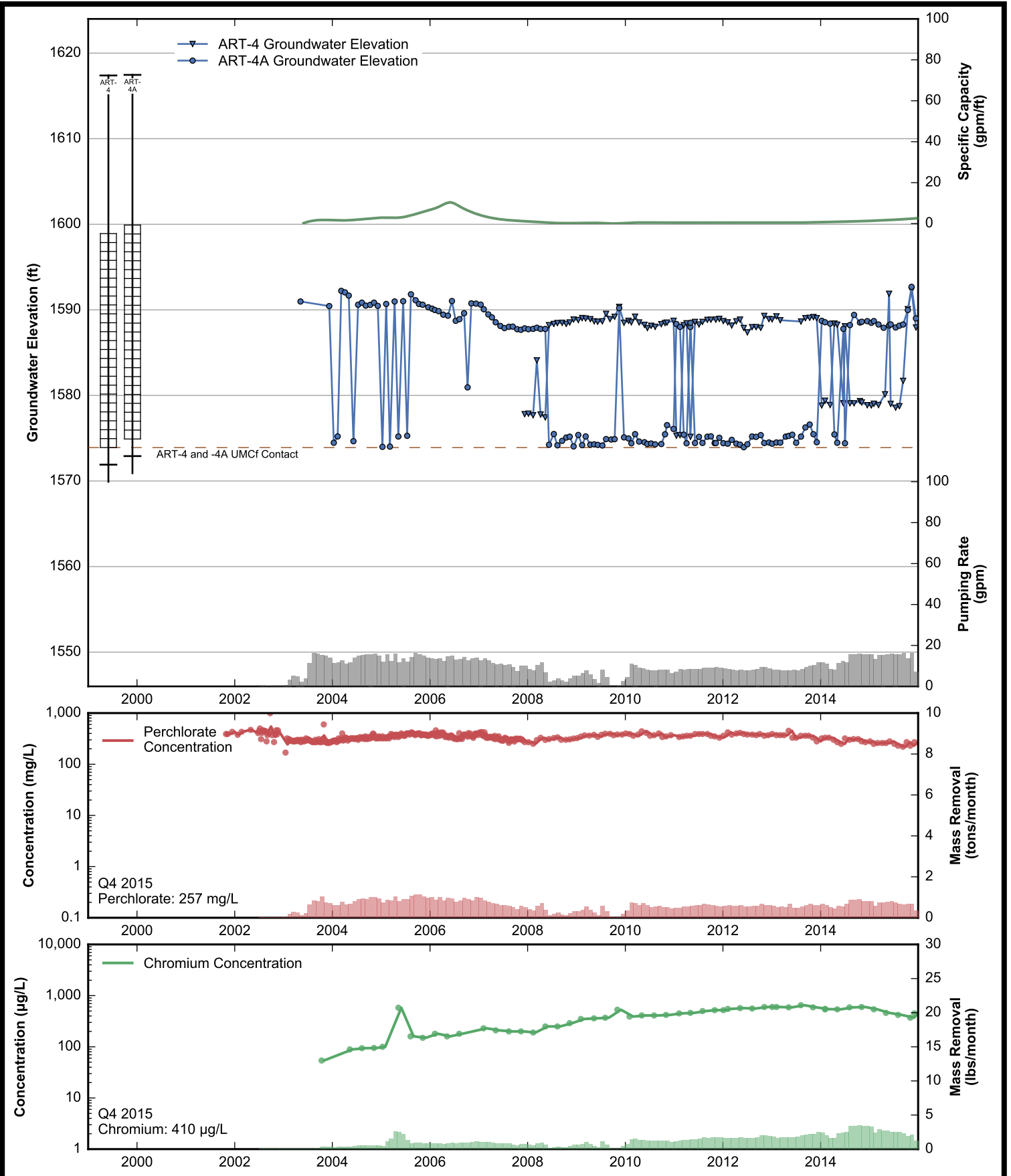


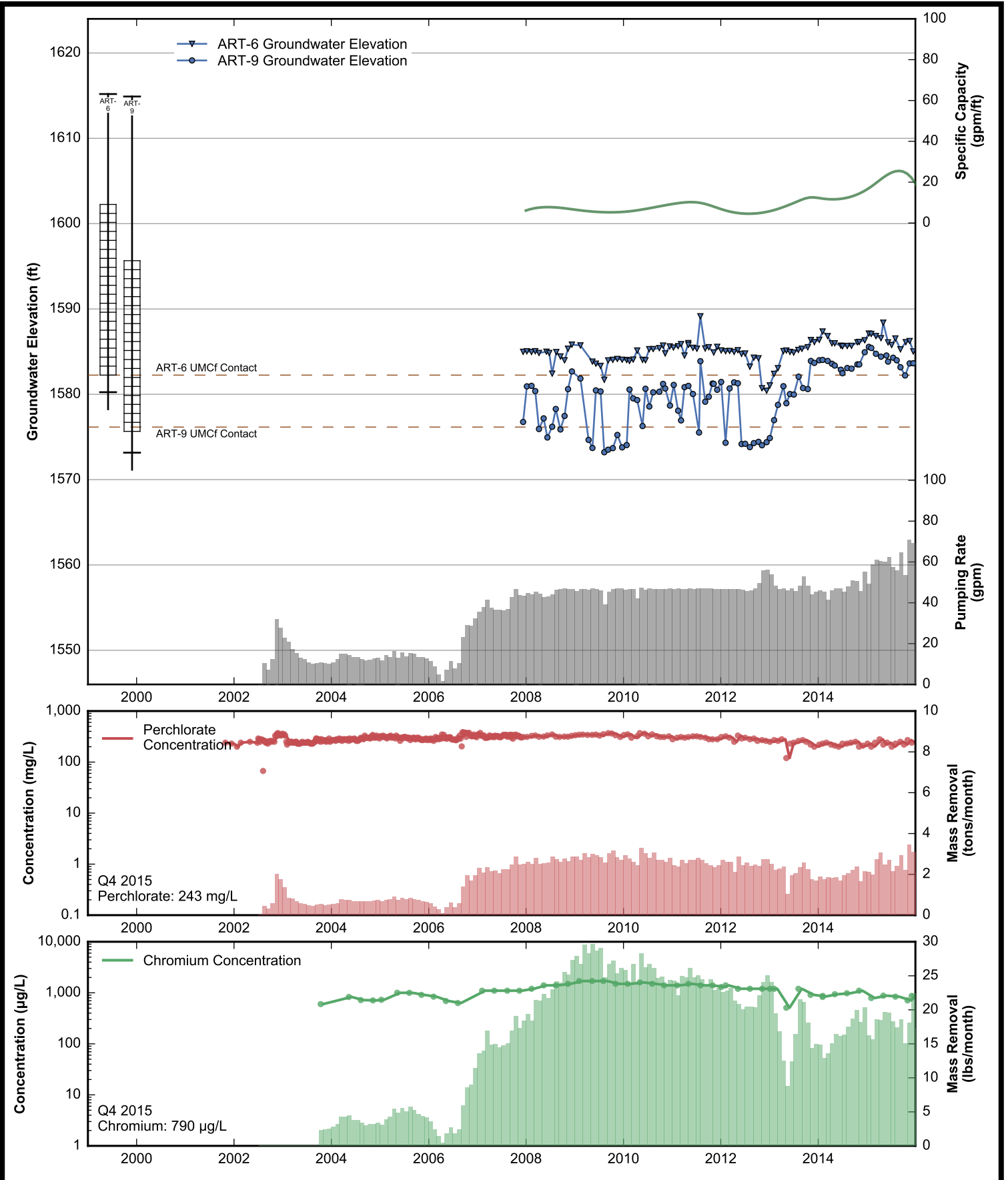
**Data Sheet for Well ART-1/1A**  
 Nevada Environmental Response Trust Site  
 Henderson, Nevada



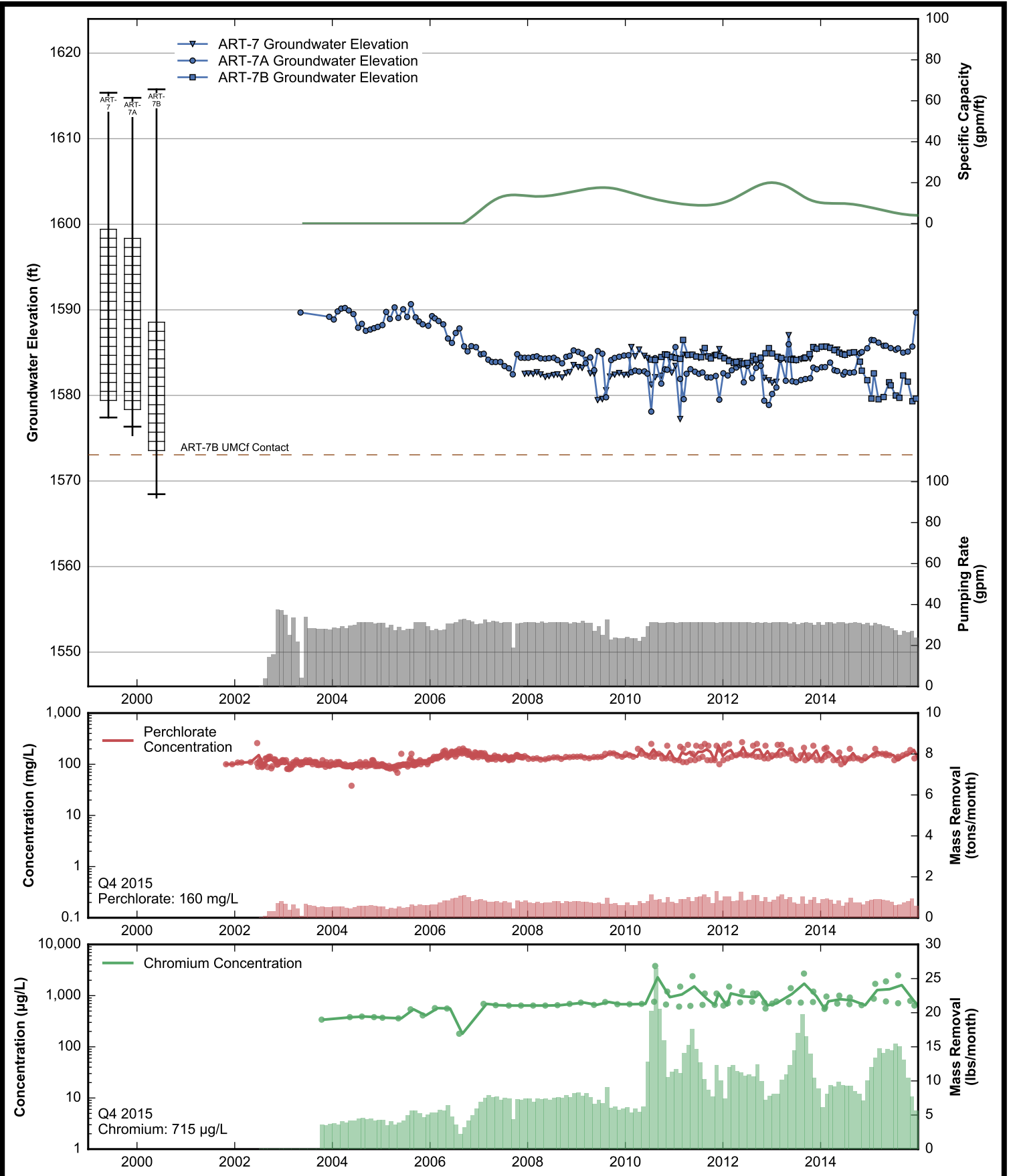
**Data Sheet for Well ART-2/2A**  
 Nevada Environmental Response Trust Site  
 Henderson, Nevada





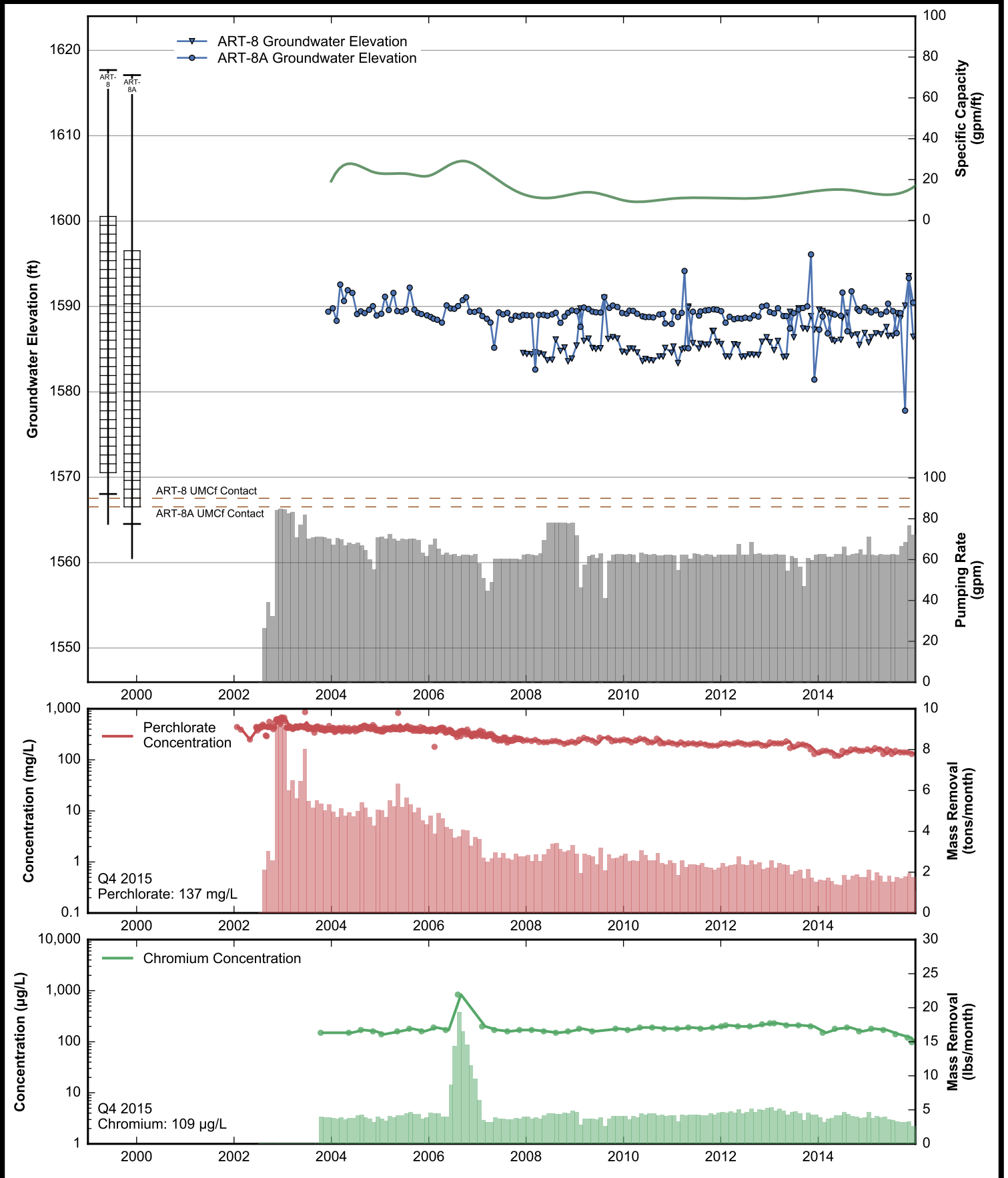


**Data Sheet for Well ART-6/9**  
 Nevada Environmental Response Trust Site  
 Henderson, Nevada

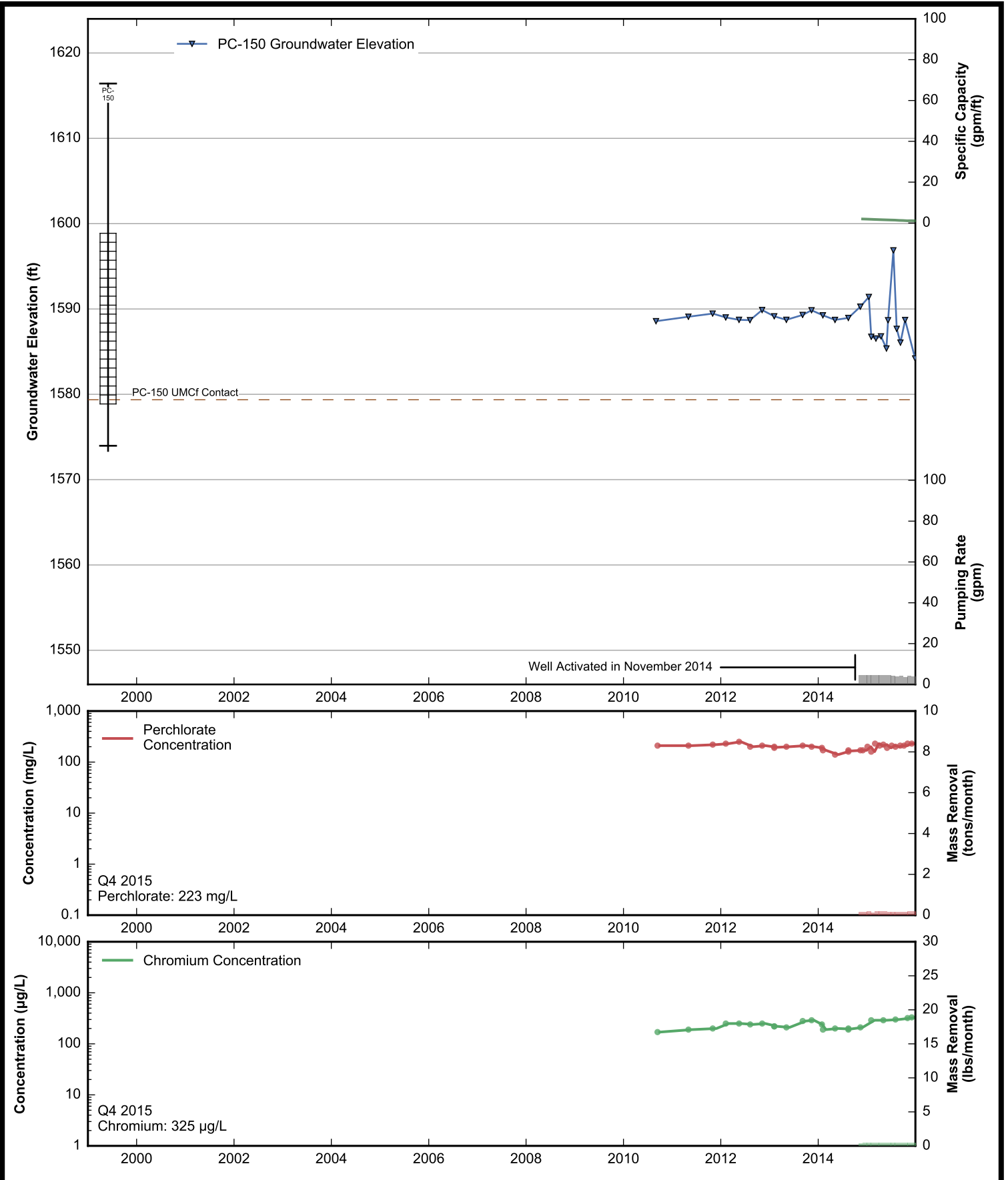


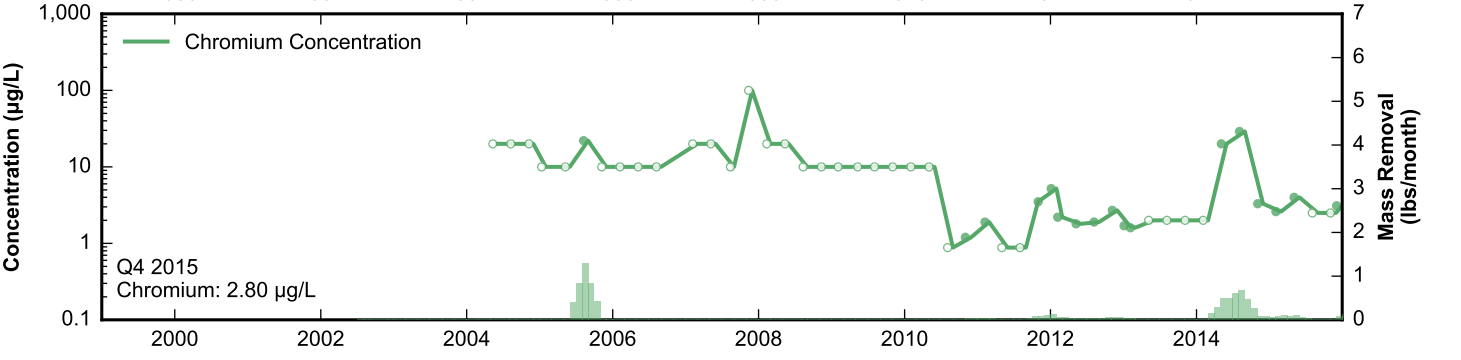
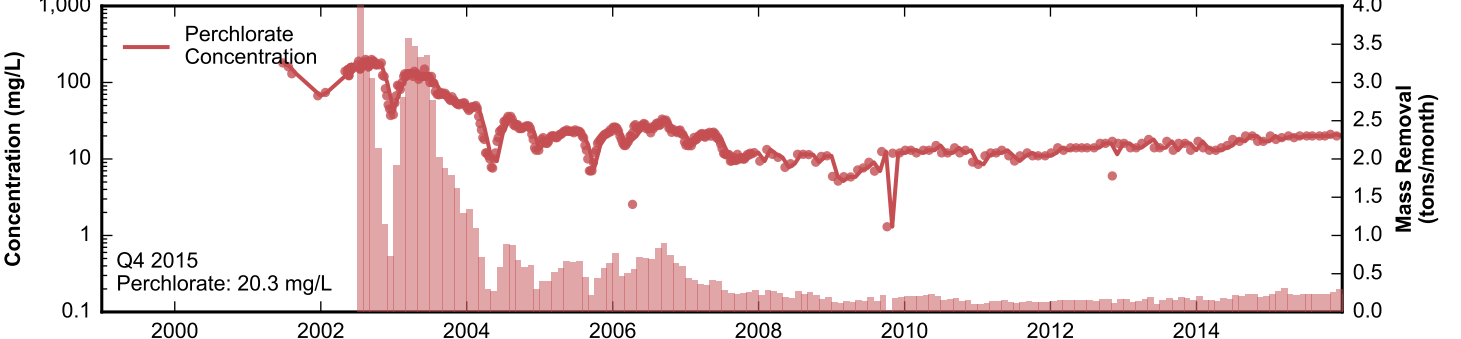
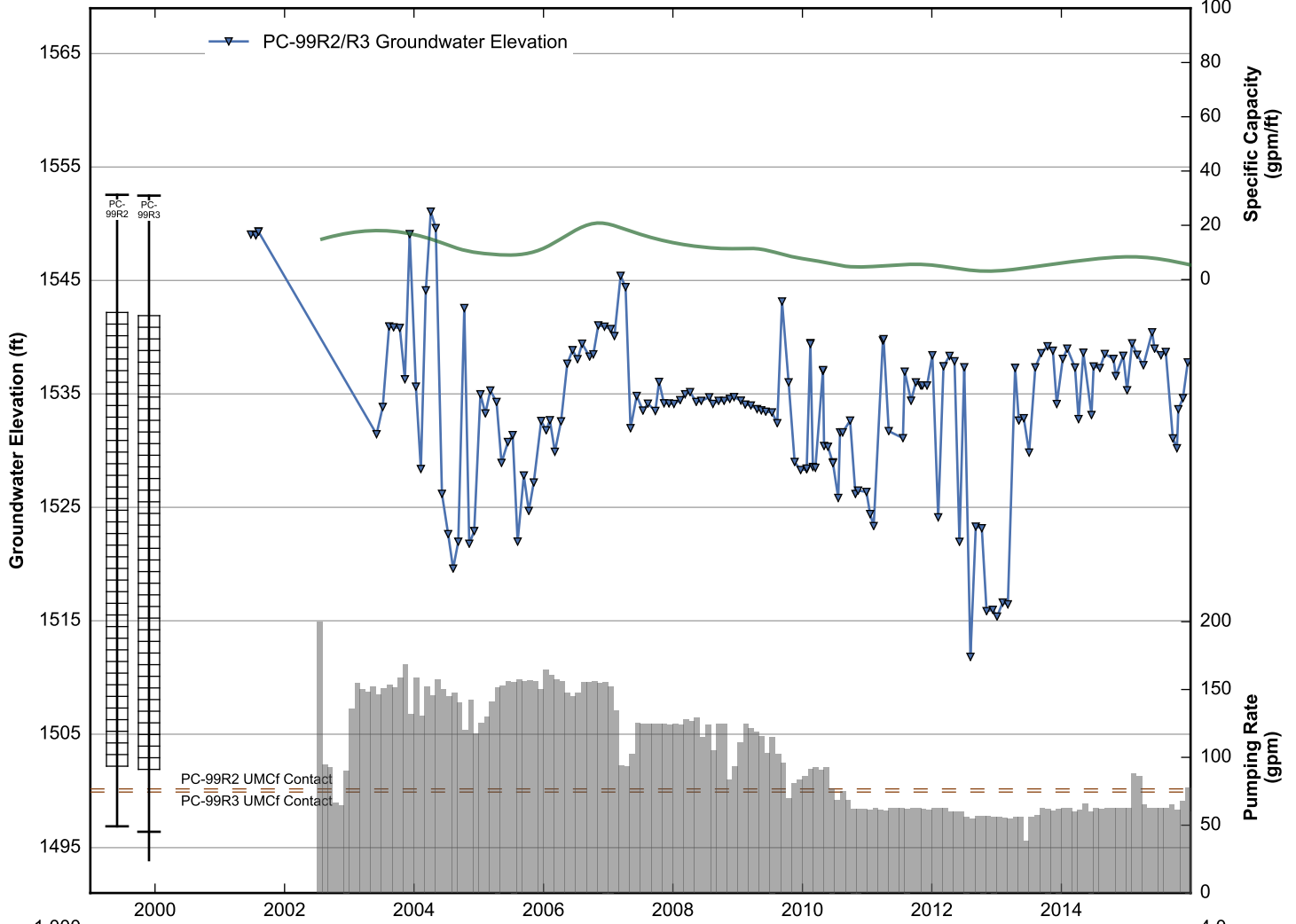
**Data Sheet for Well ART-7/7A/7B**  
 Nevada Environmental Response Trust Site  
 Henderson, Nevada



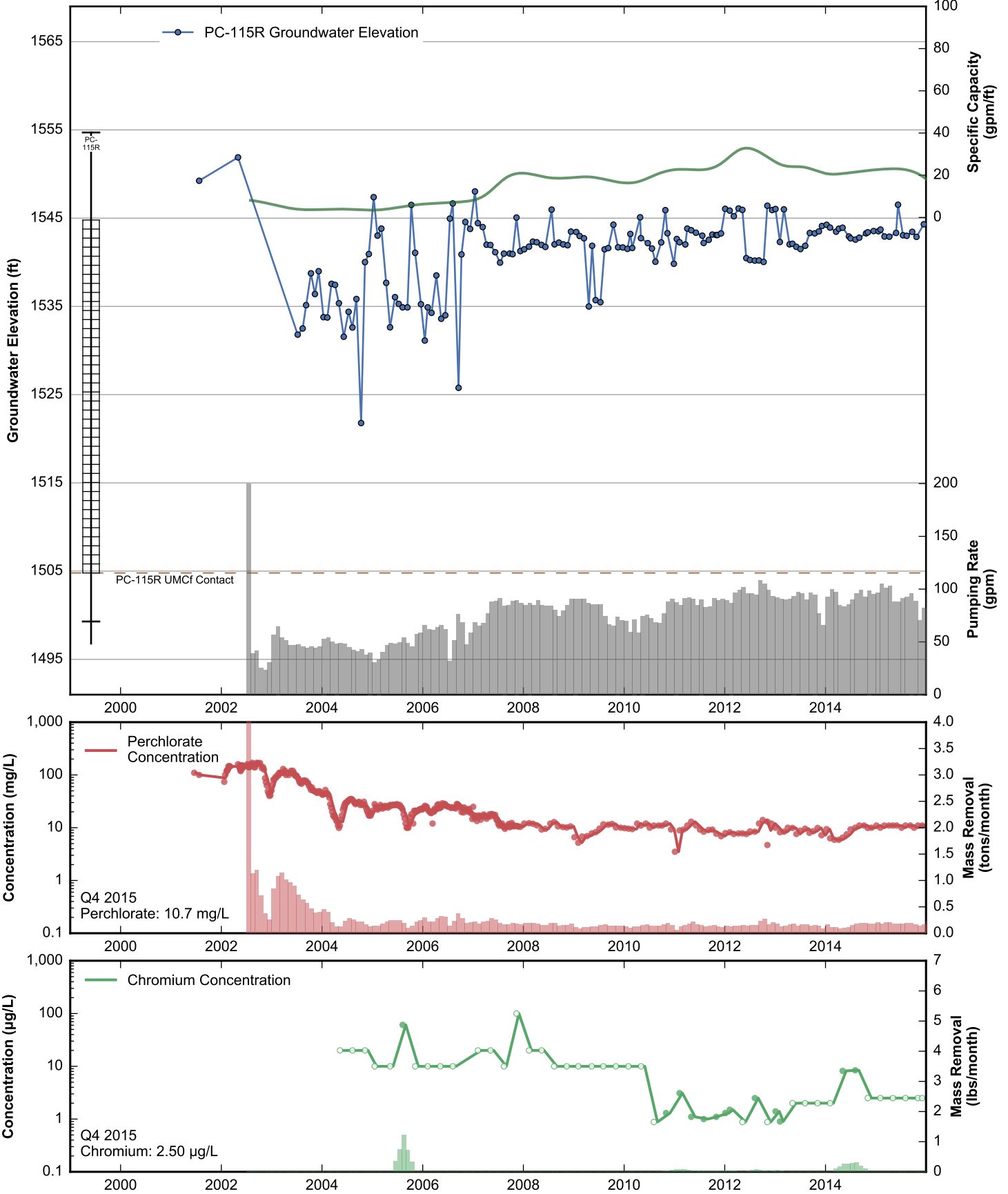


**Data Sheet for Well ART-8/8A**  
 Nevada Environmental Response Trust Site  
 Henderson, Nevada

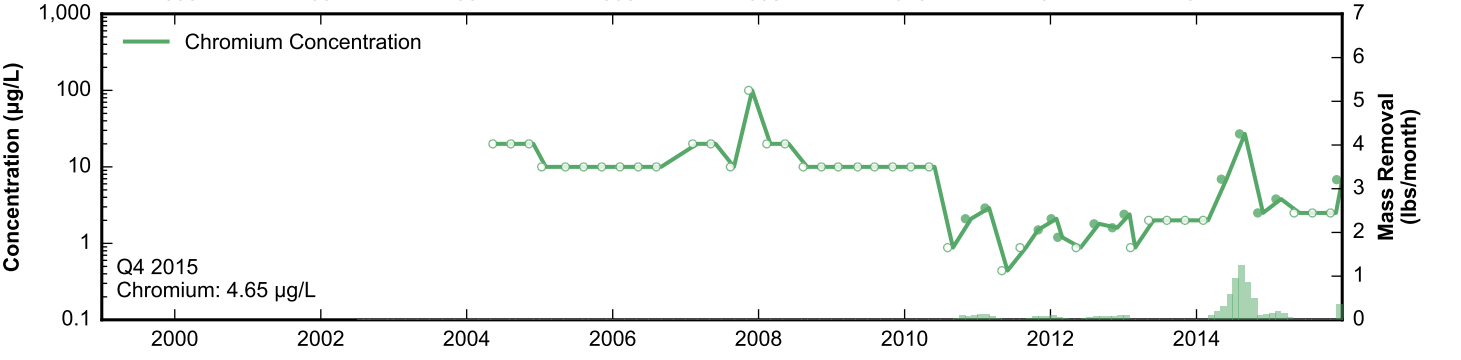
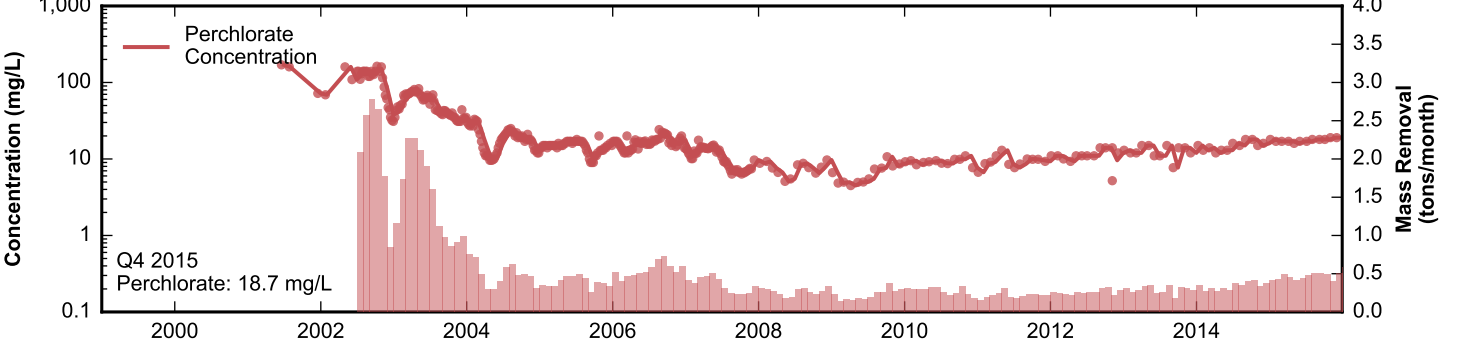
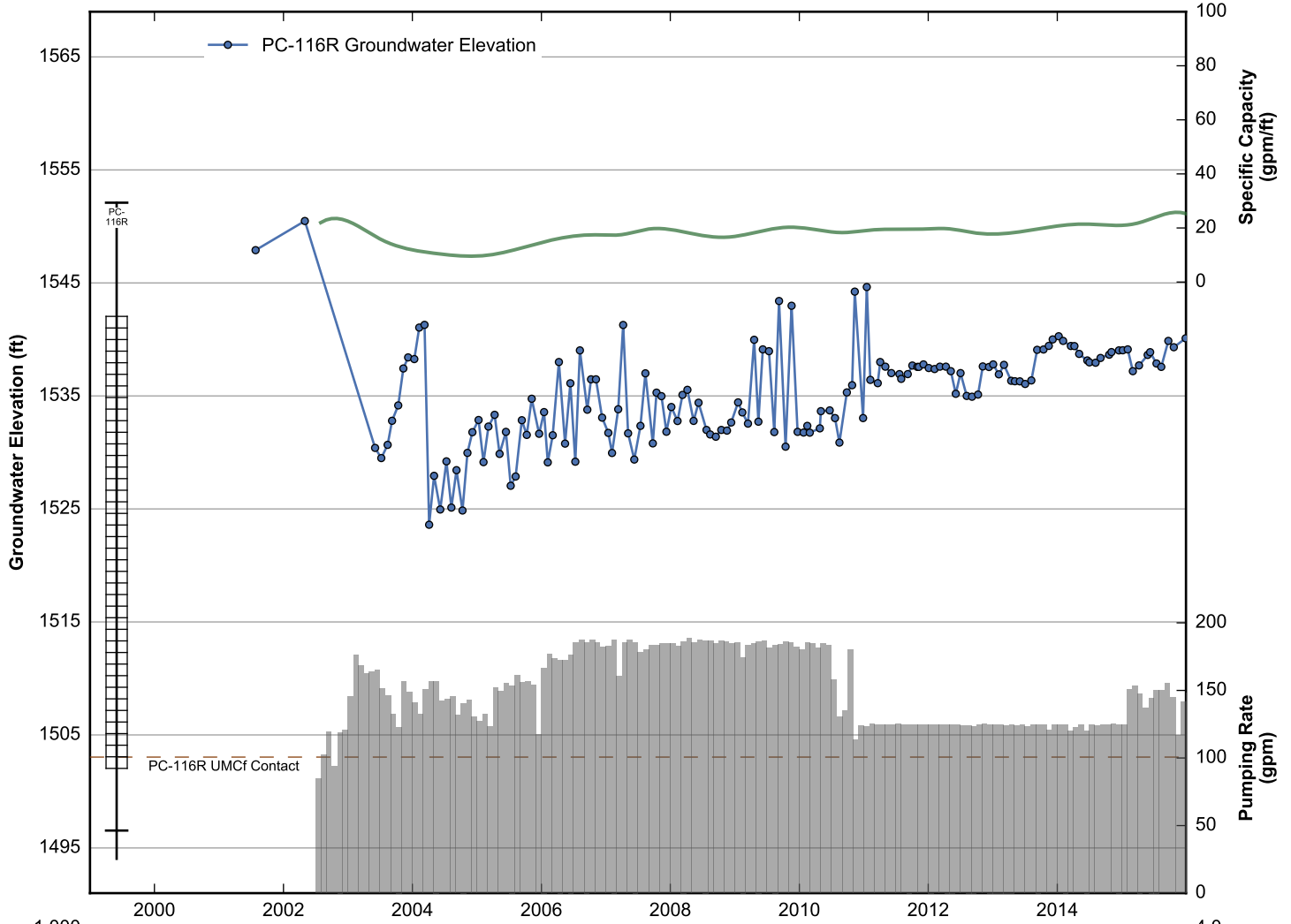




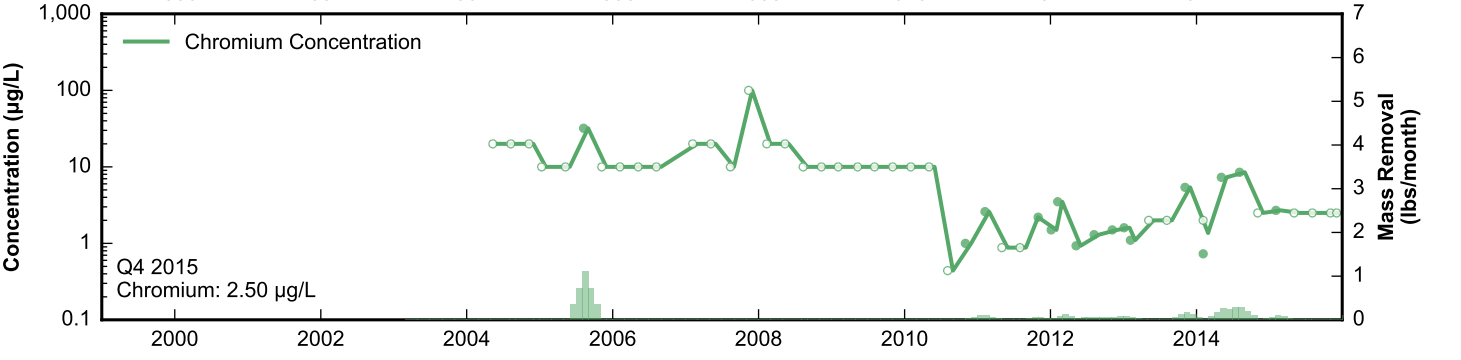
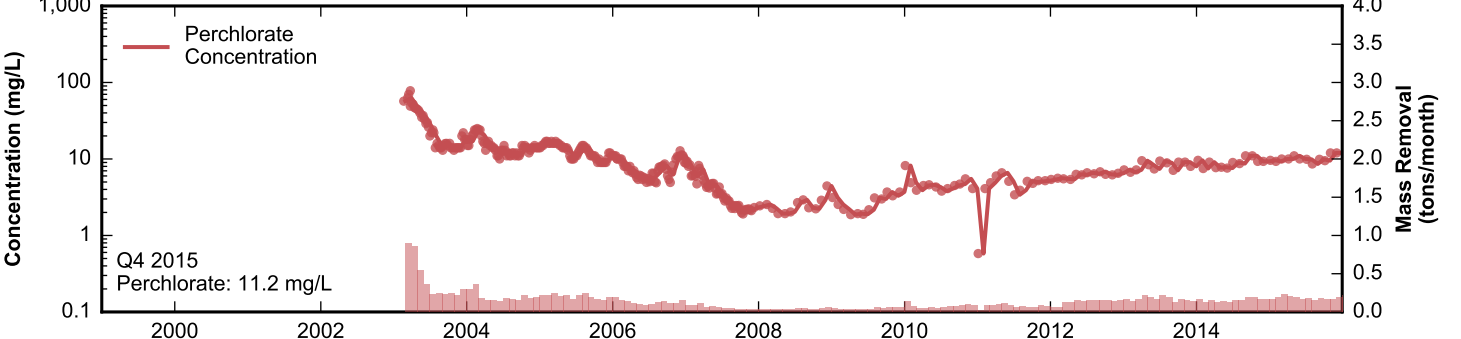
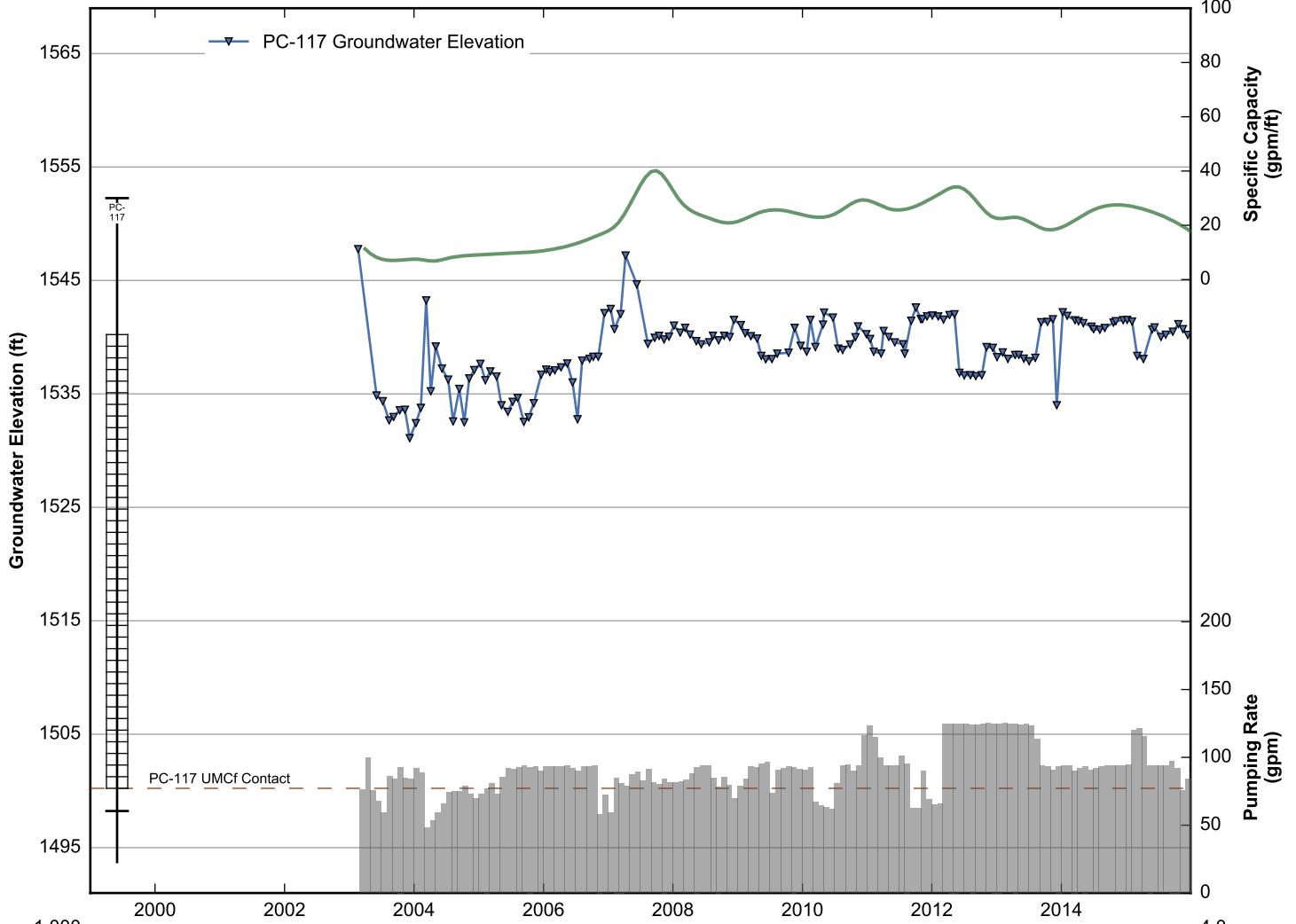
**Data Sheet for Well PC-99R2/R3**  
 Nevada Environmental Response Trust Site  
 Henderson, Nevada



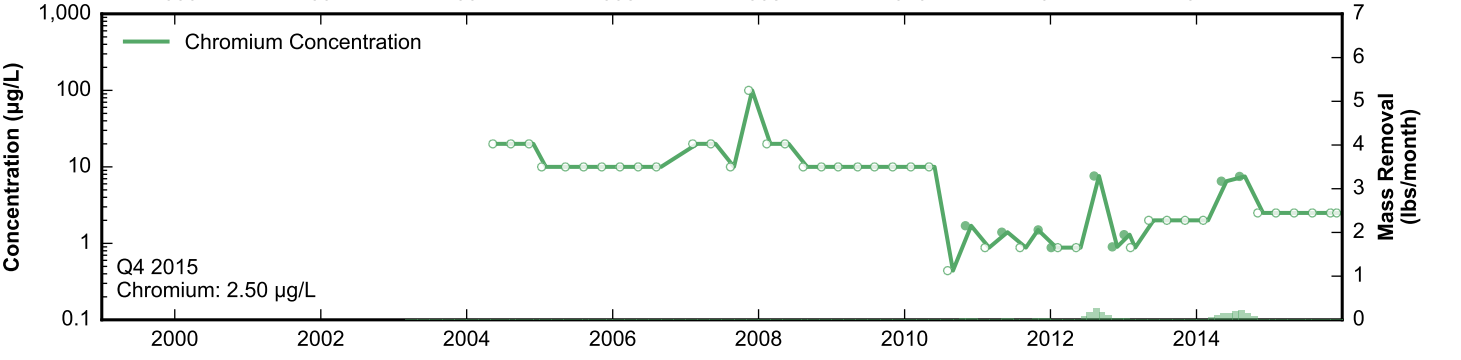
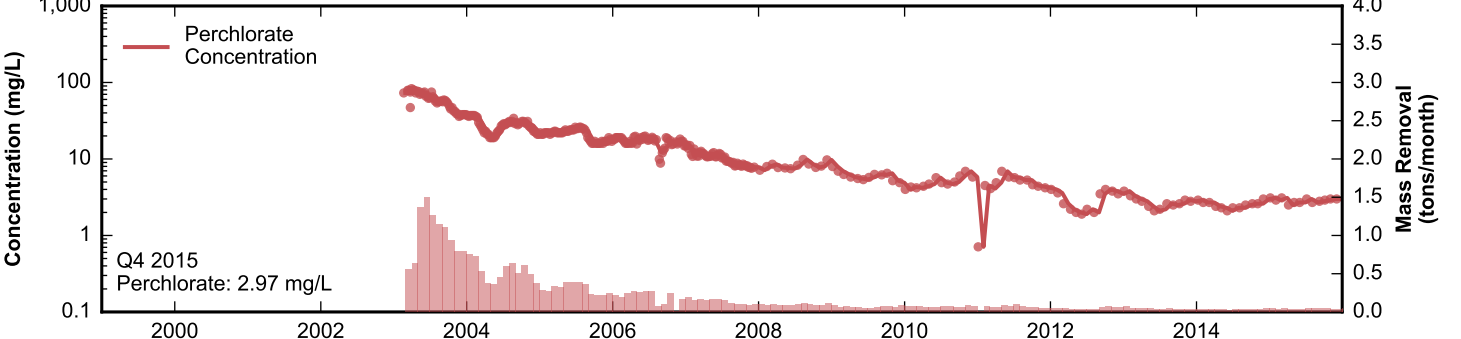
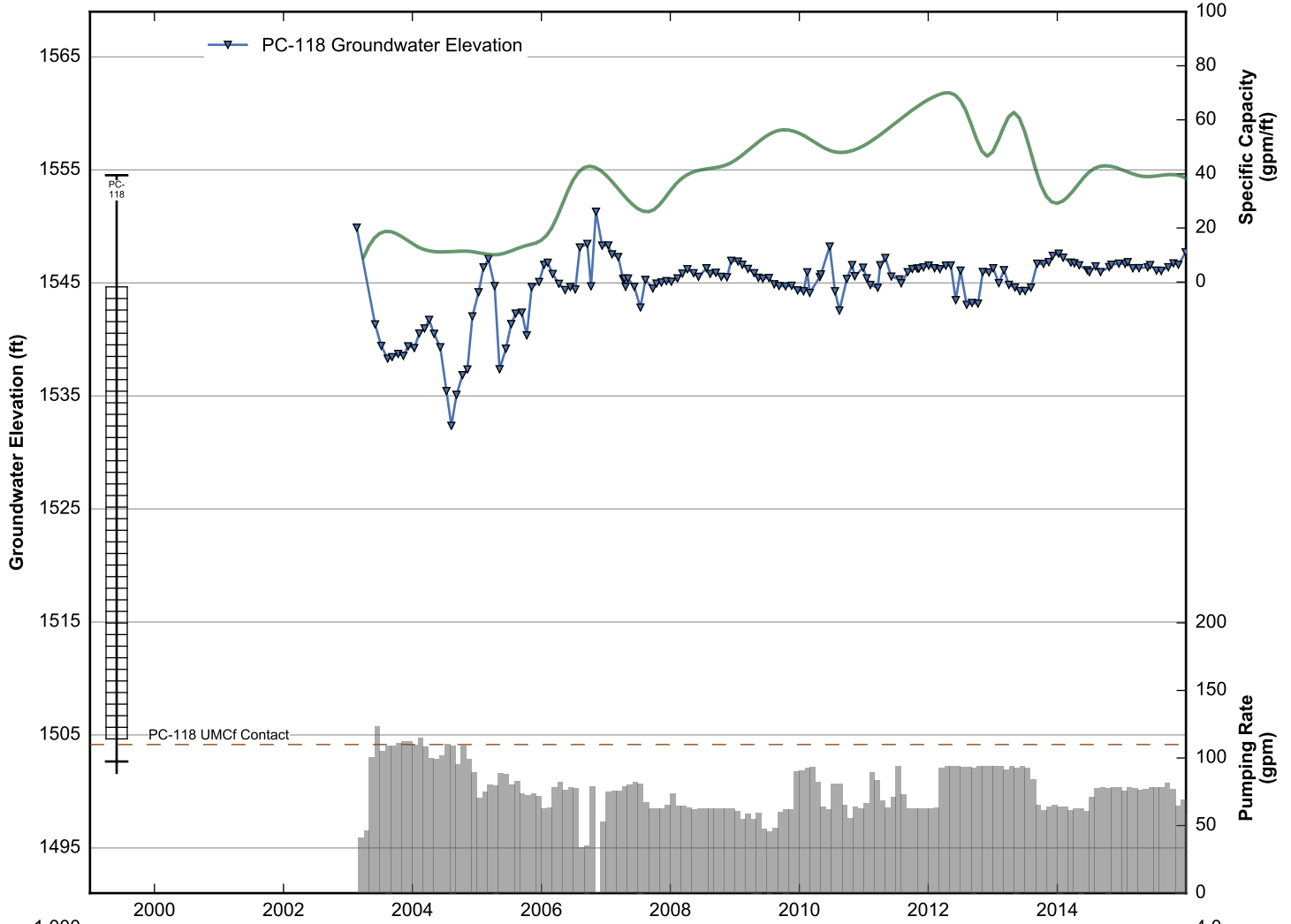
**Data Sheet for Well PC-115R**  
 Nevada Environmental Response Trust Site  
 Henderson, Nevada



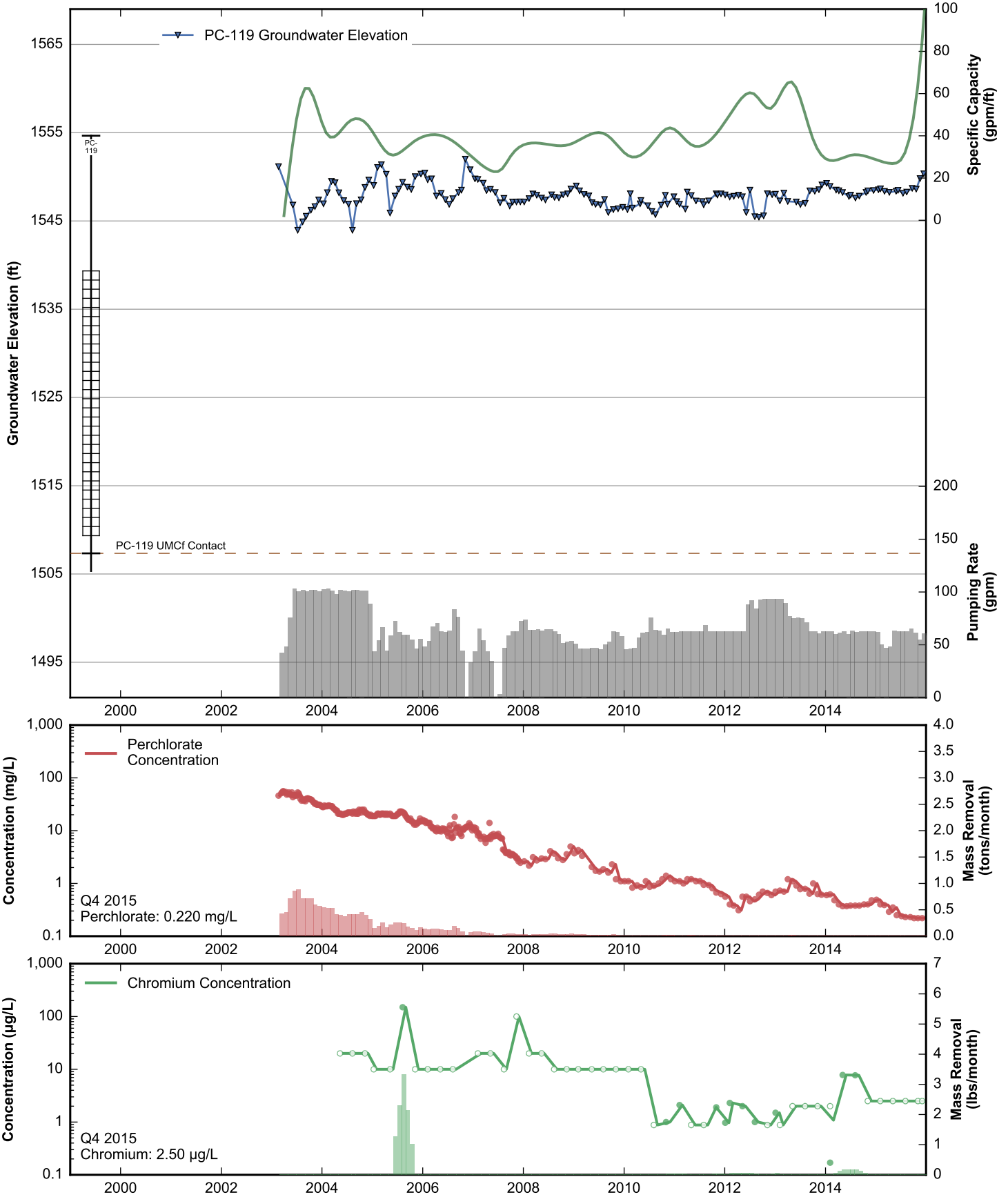
**Data Sheet for Well PC-116R**  
 Nevada Environmental Response Trust Site  
 Henderson, Nevada



**Data Sheet for Well PC-117**  
 Nevada Environmental Response Trust Site  
 Henderson, Nevada

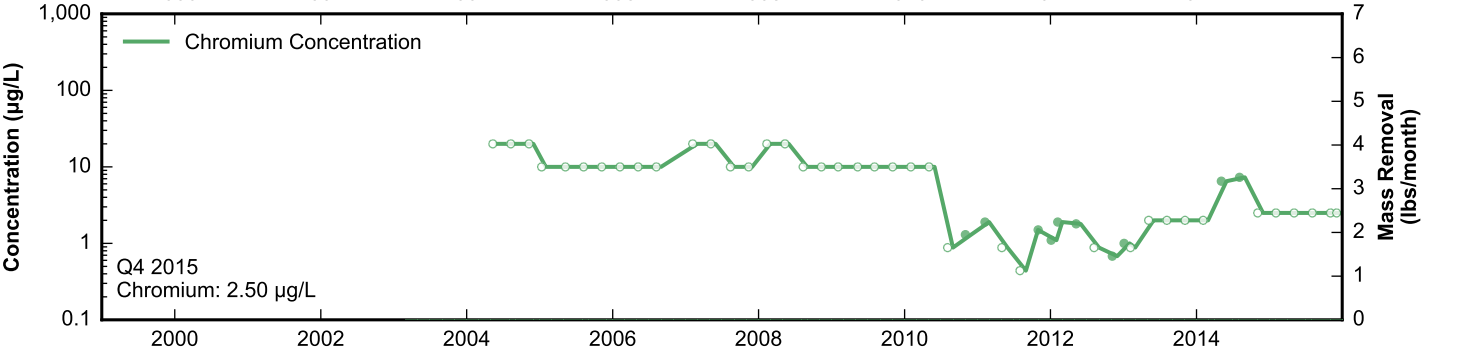
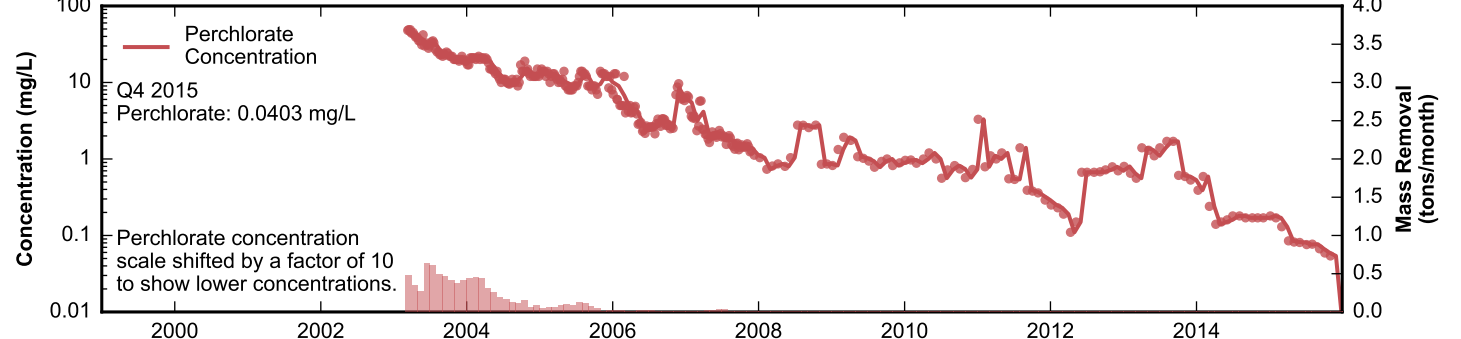
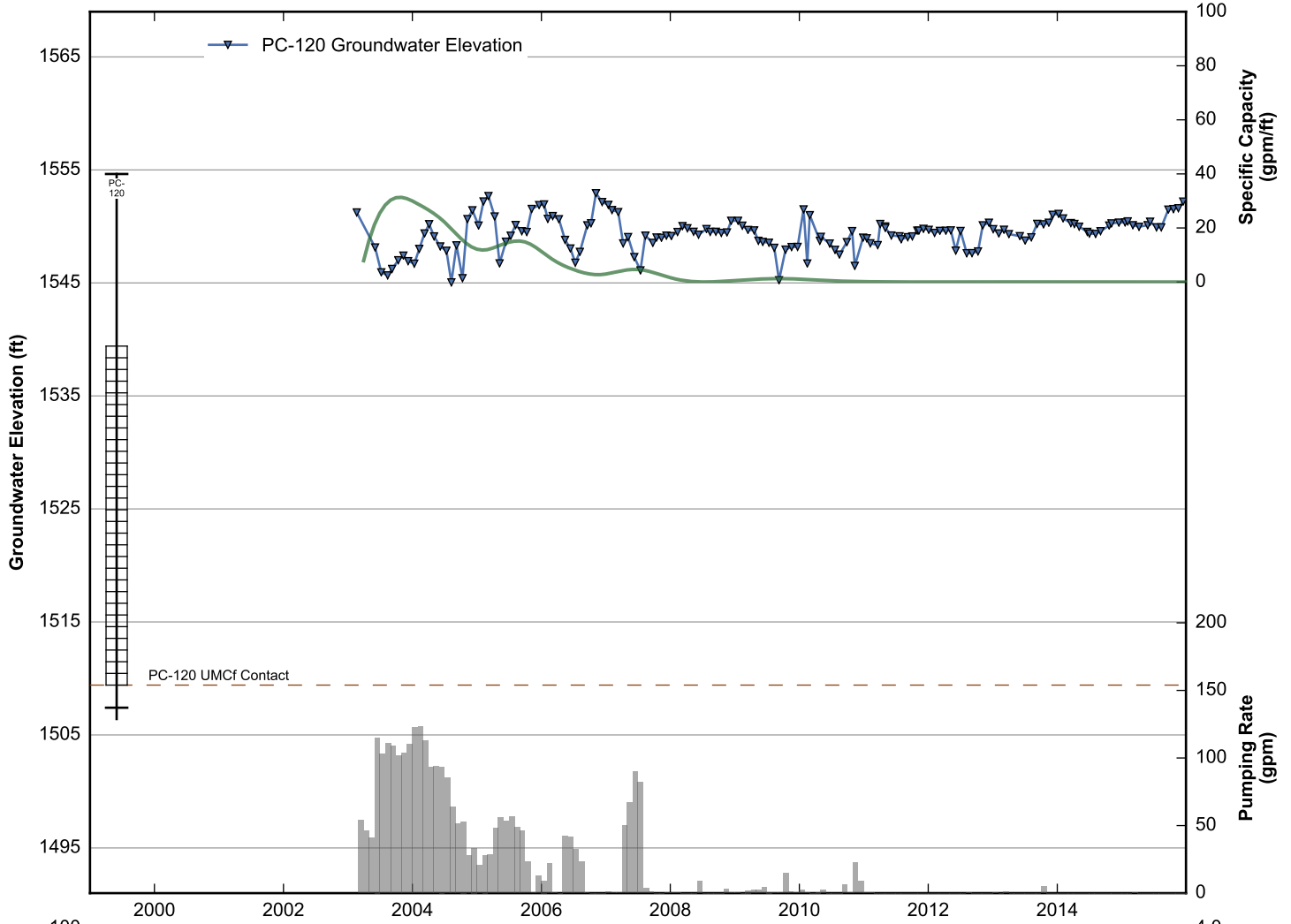


**Data Sheet for Well PC-118**  
 Nevada Environmental Response Trust Site  
 Henderson, Nevada

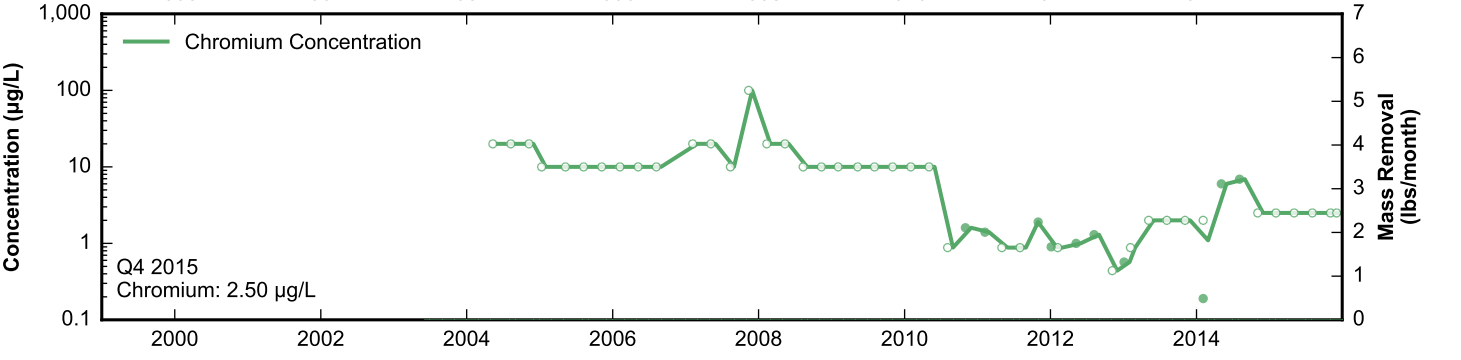
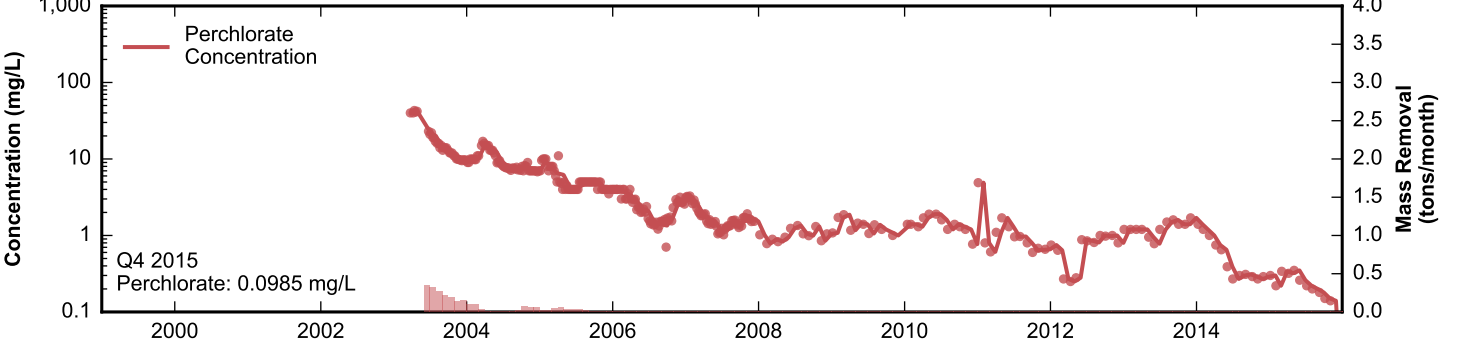
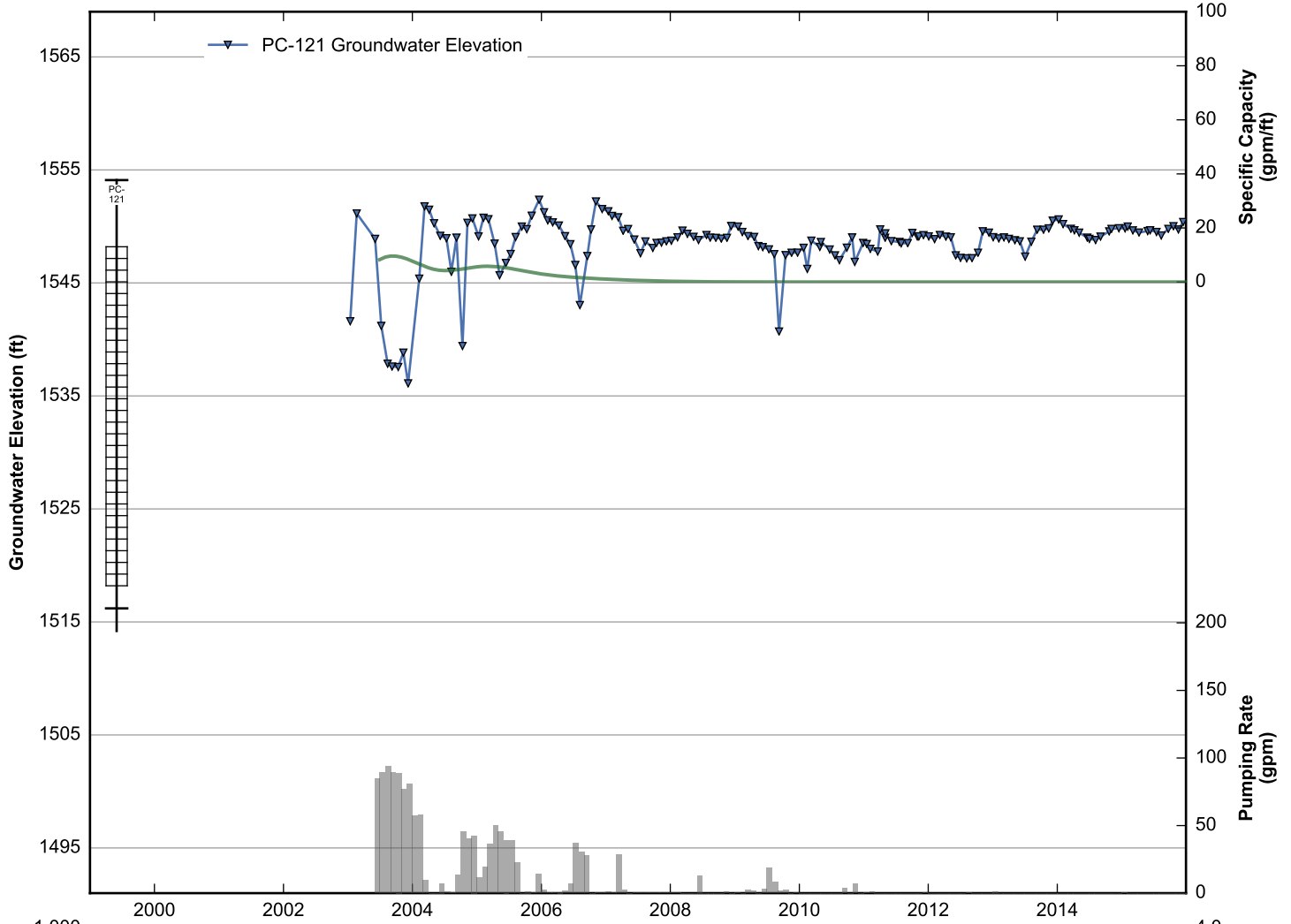


**Data Sheet for Well PC-119**  
 Nevada Environmental Response Trust Site  
 Henderson, Nevada

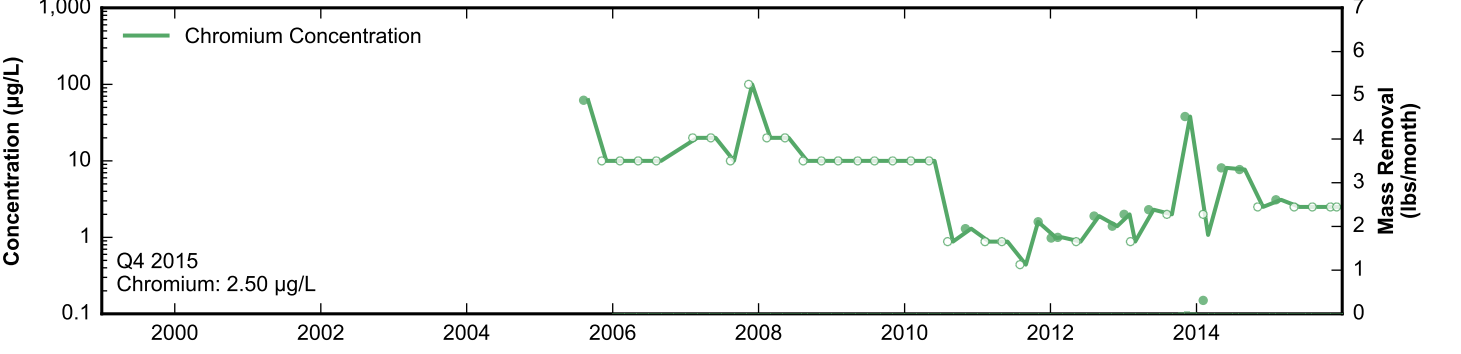
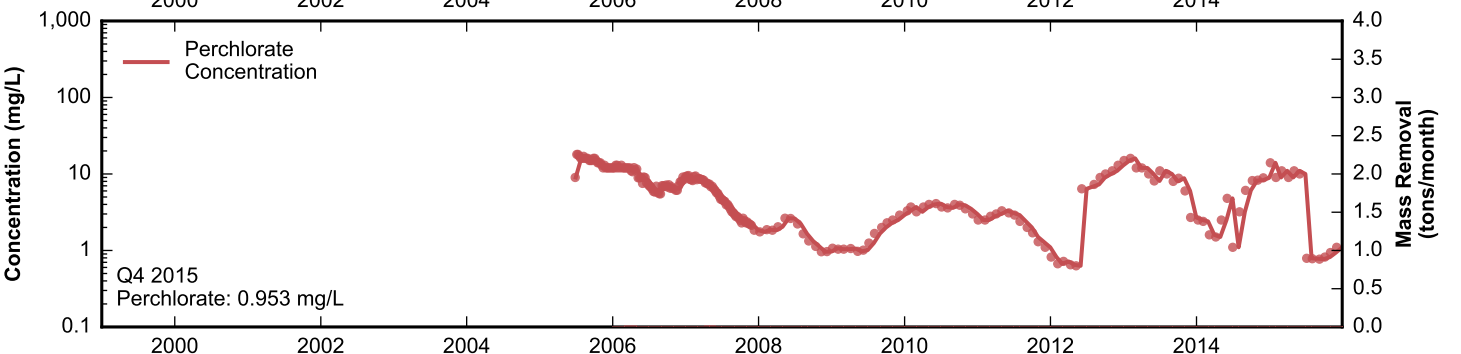
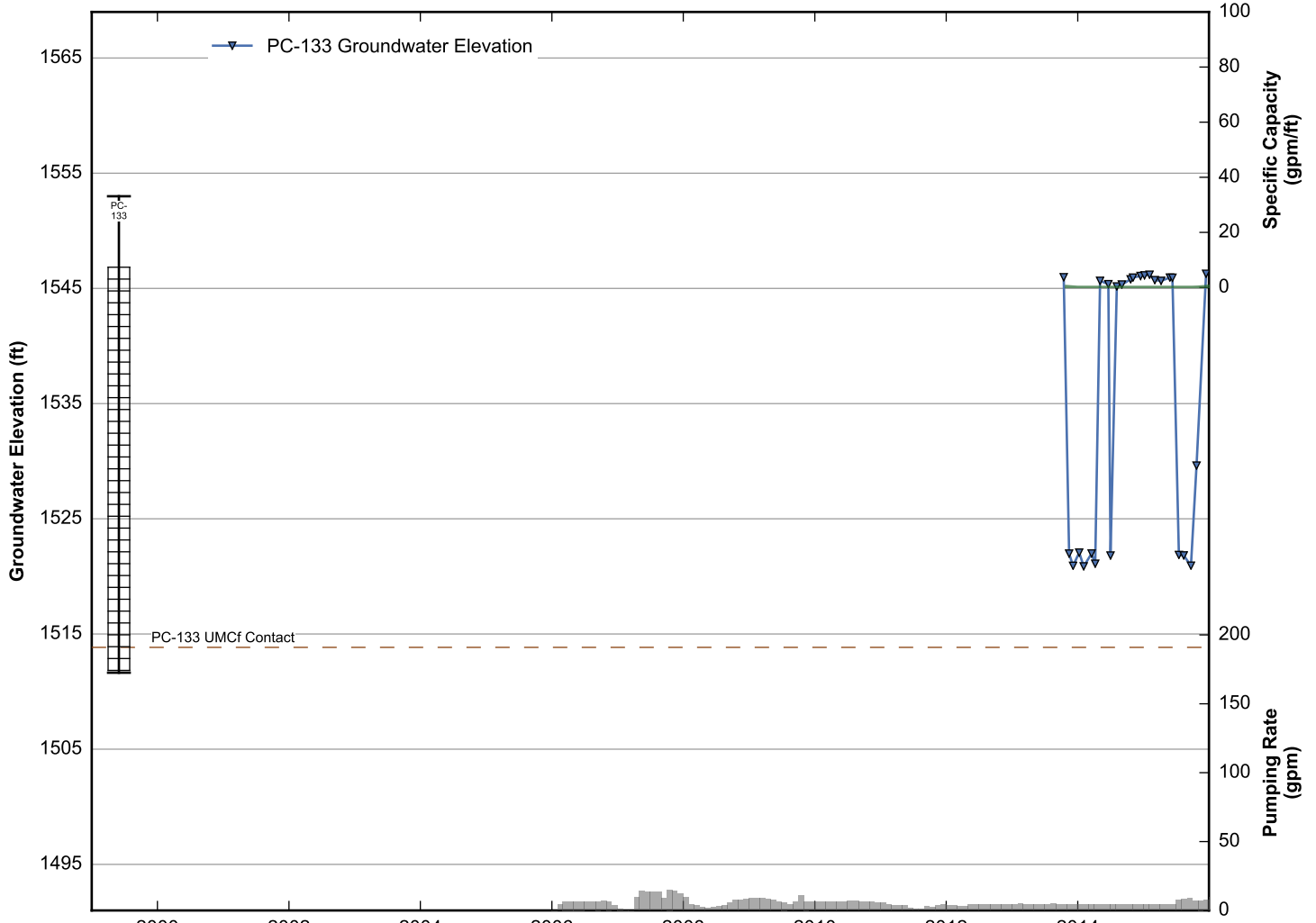




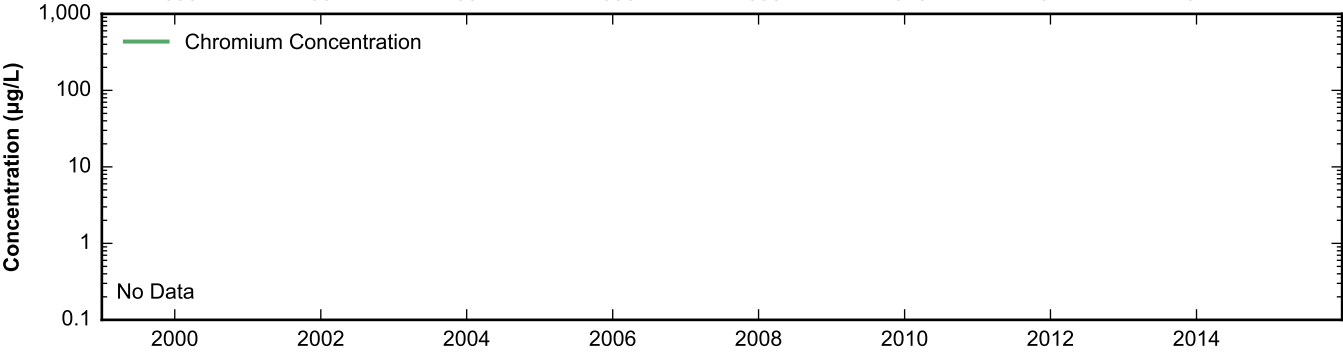
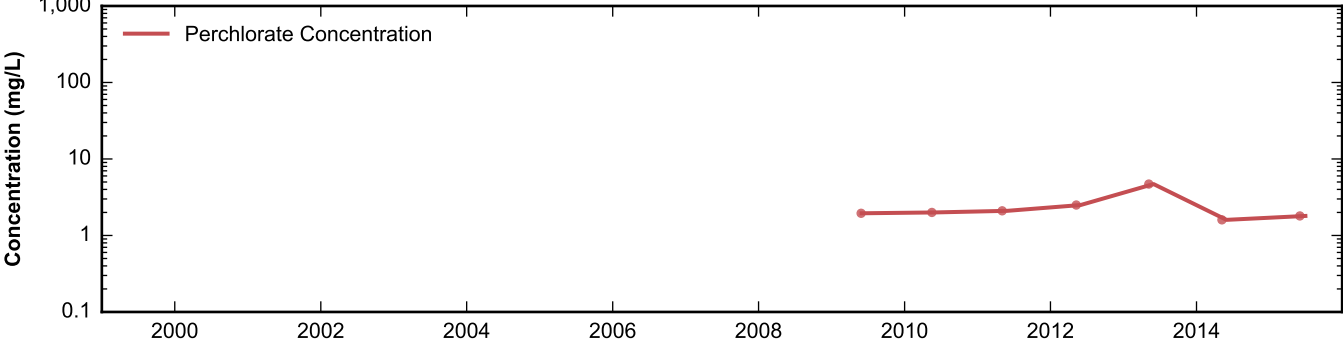
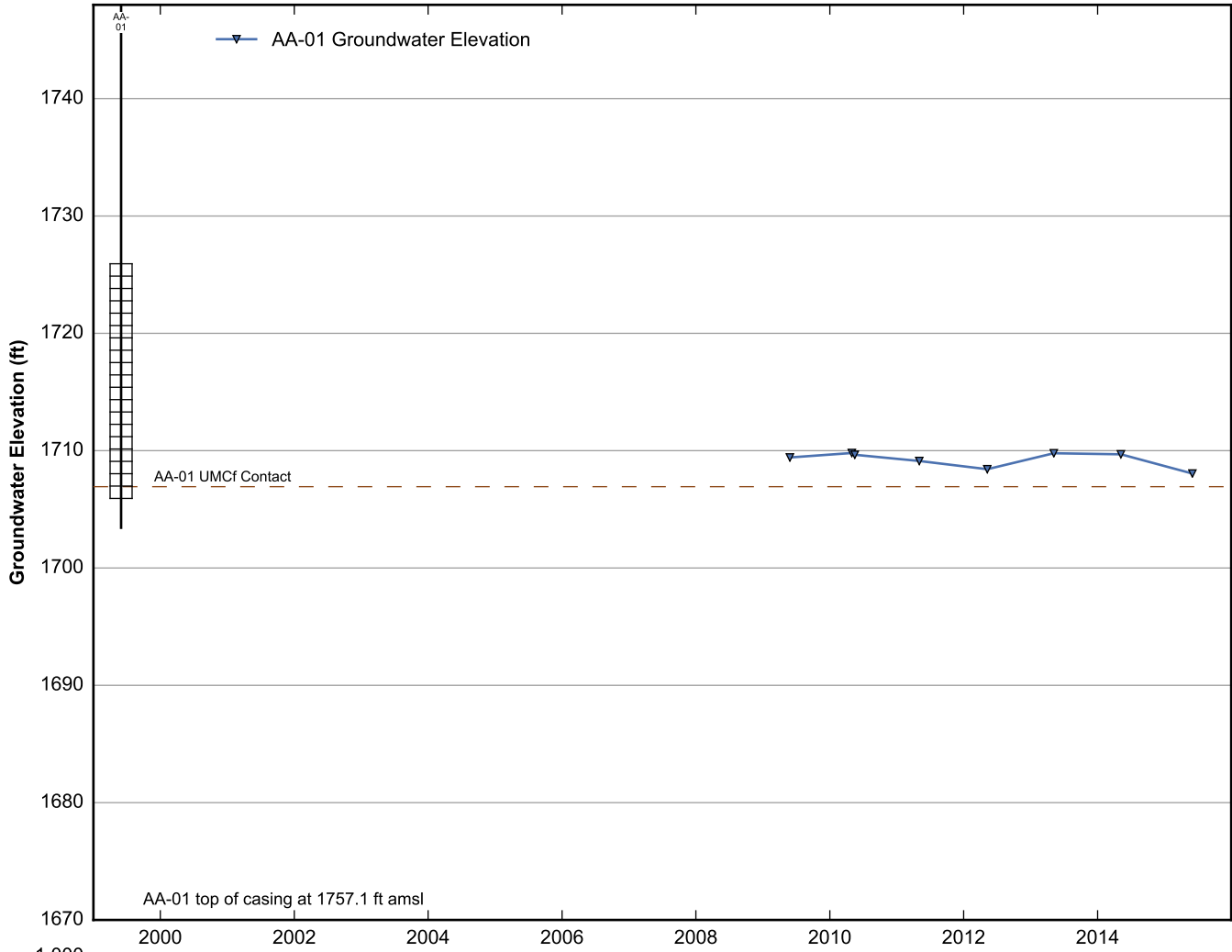
**Data Sheet for Well PC-120**  
 Nevada Environmental Response Trust Site  
 Henderson, Nevada



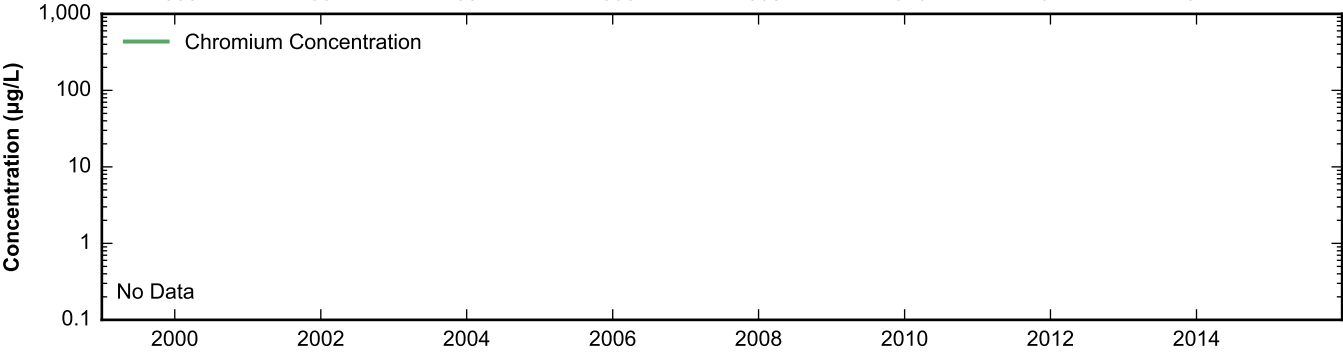
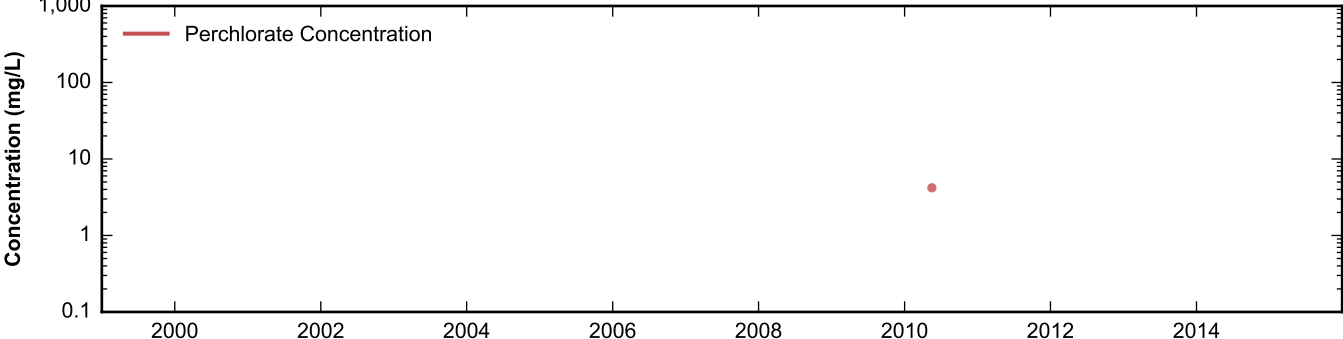
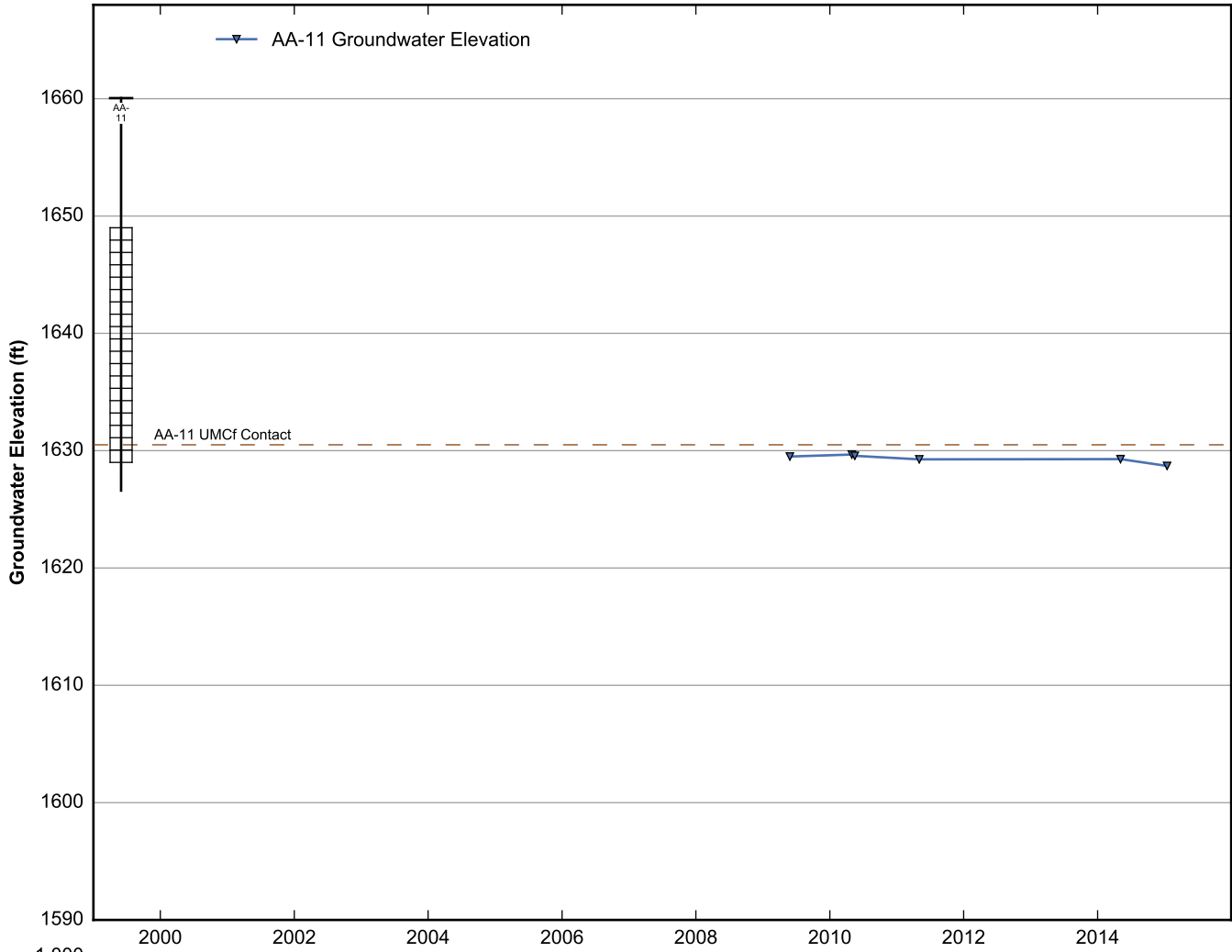
**Data Sheet for Well PC-121**  
 Nevada Environmental Response Trust Site  
 Henderson, Nevada



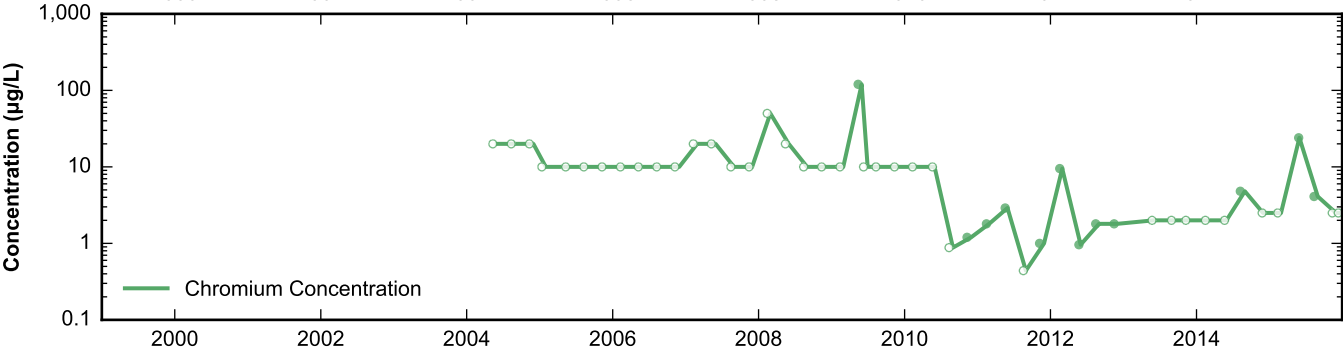
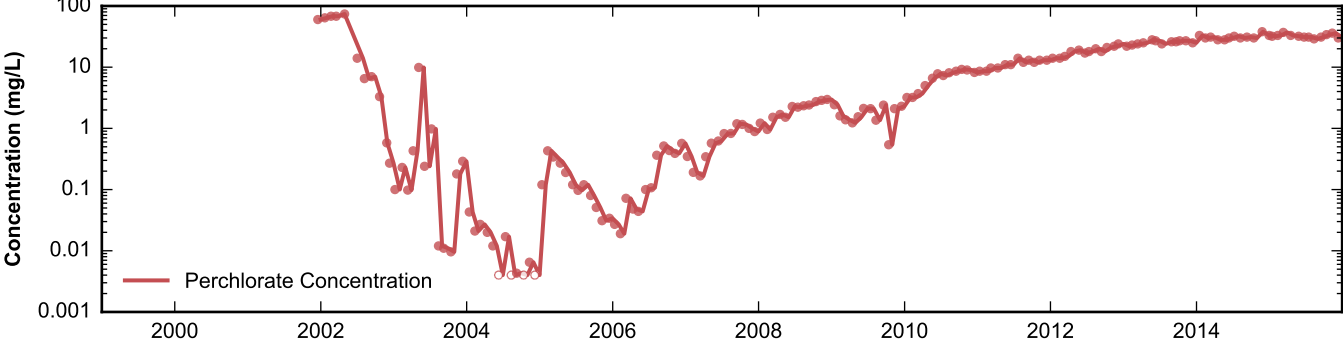
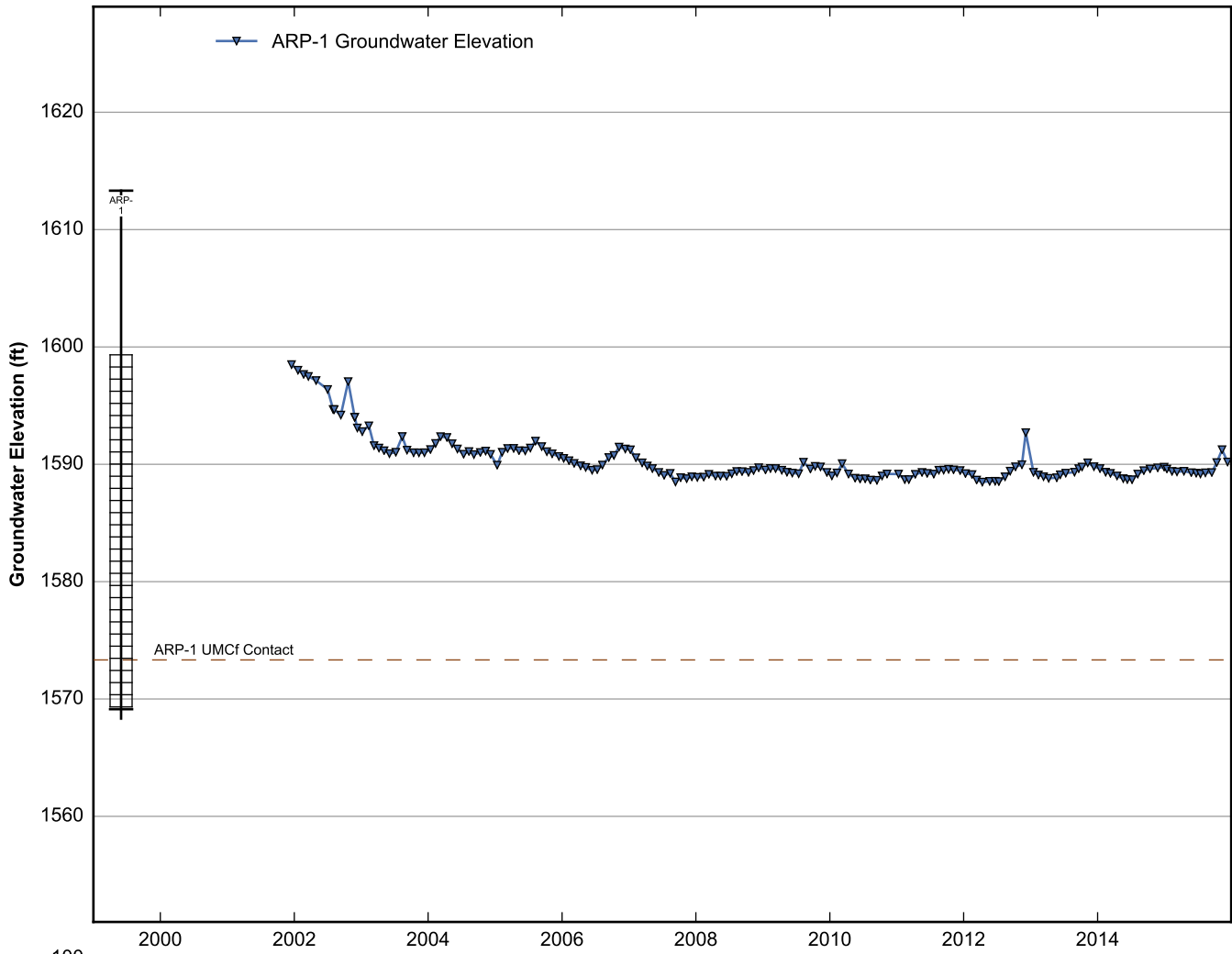
**Data Sheet for Well PC-133**  
 Nevada Environmental Response Trust Site  
 Henderson, Nevada



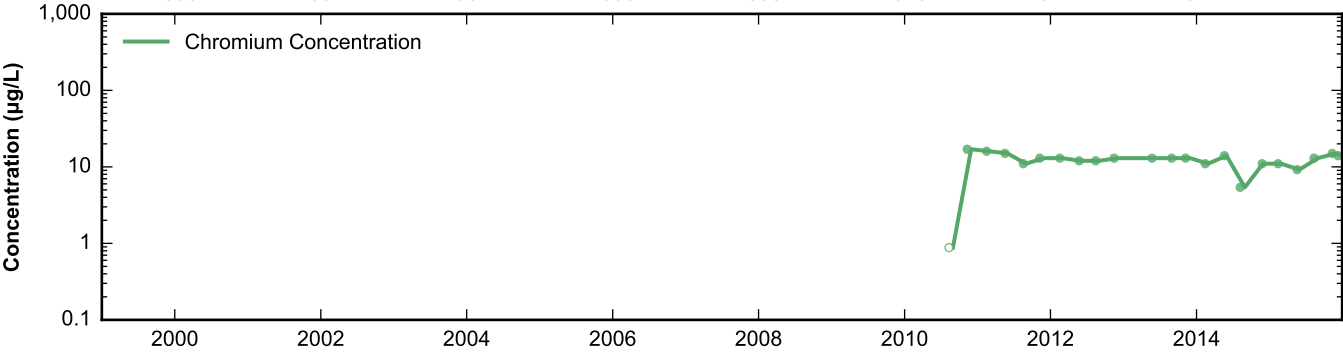
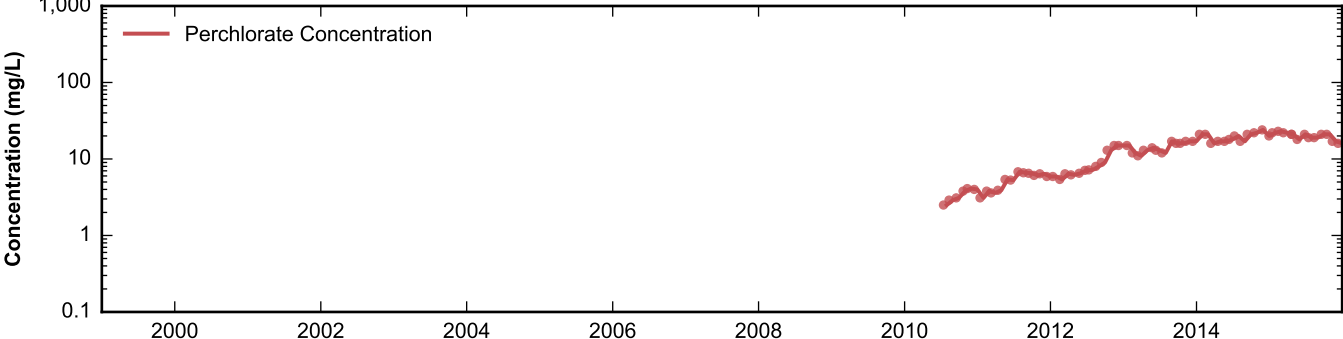
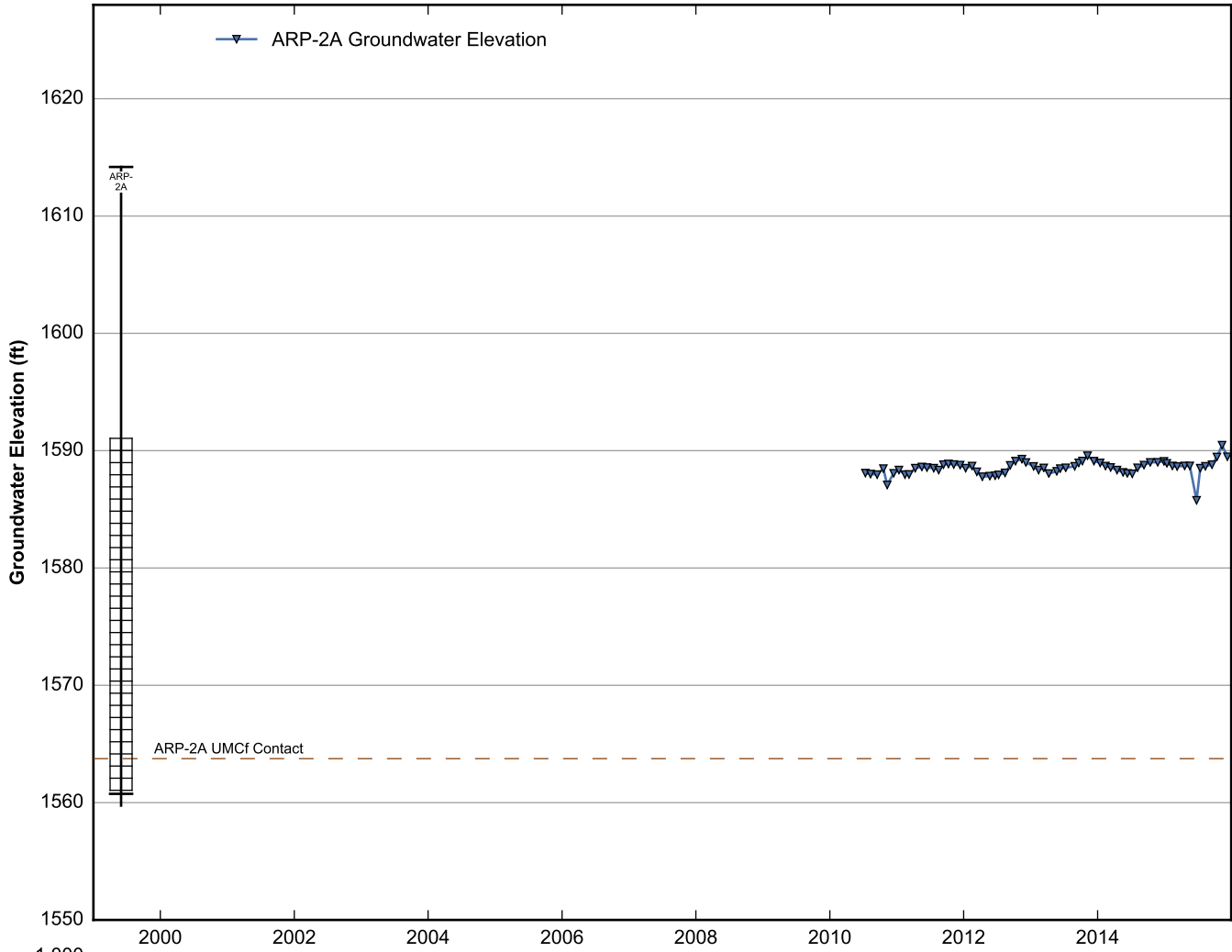
**Data Sheet for Well AA-01**  
Nevada Environmental Response Trust Site  
Henderson, Nevada



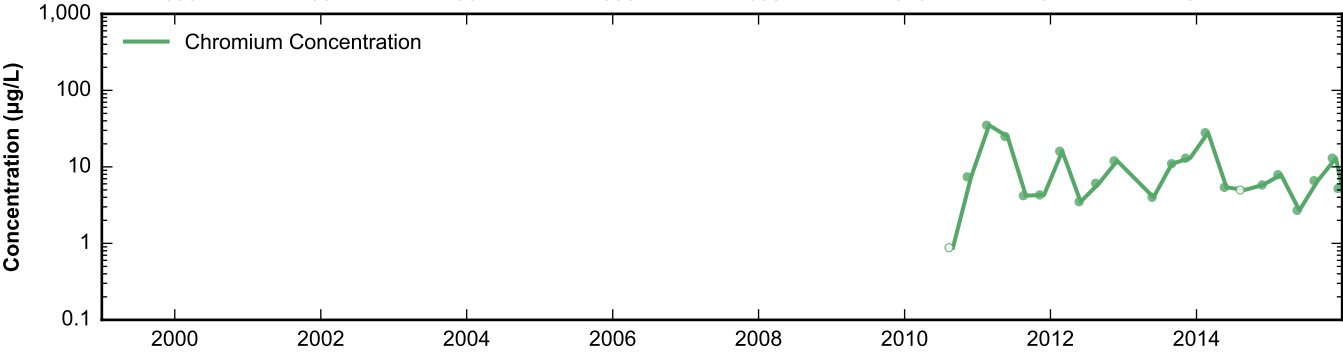
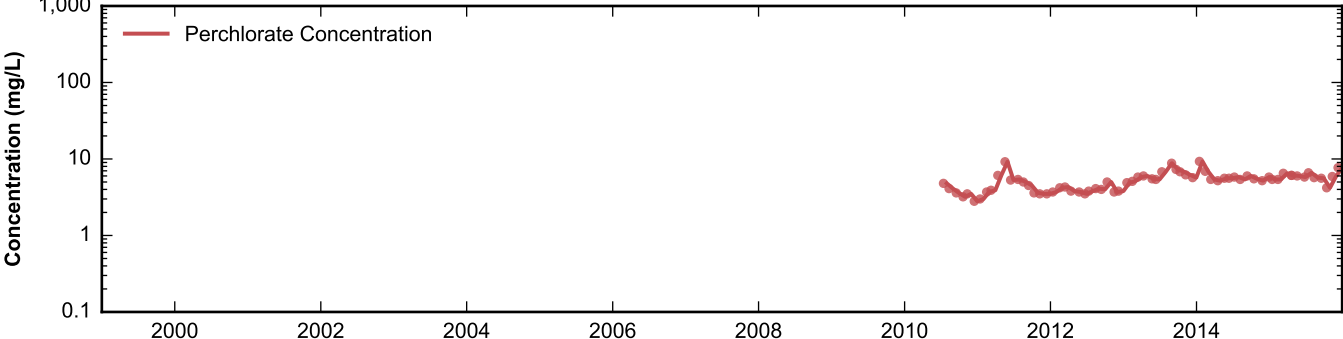
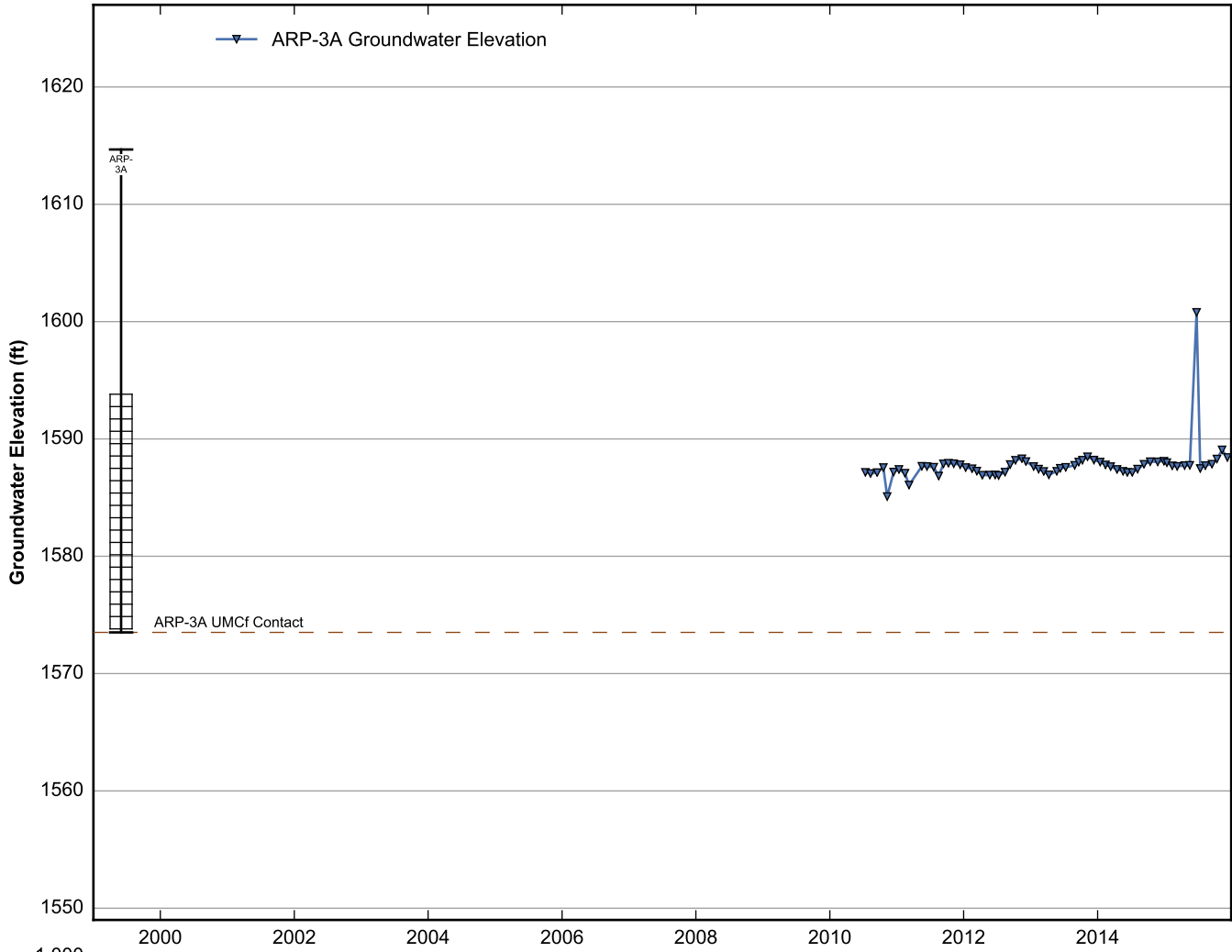
**Data Sheet for Well AA-11**  
Nevada Environmental Response Trust Site  
Henderson, Nevada



**Data Sheet for Well ARP-1**  
Nevada Environmental Response Trust Site  
Henderson, Nevada

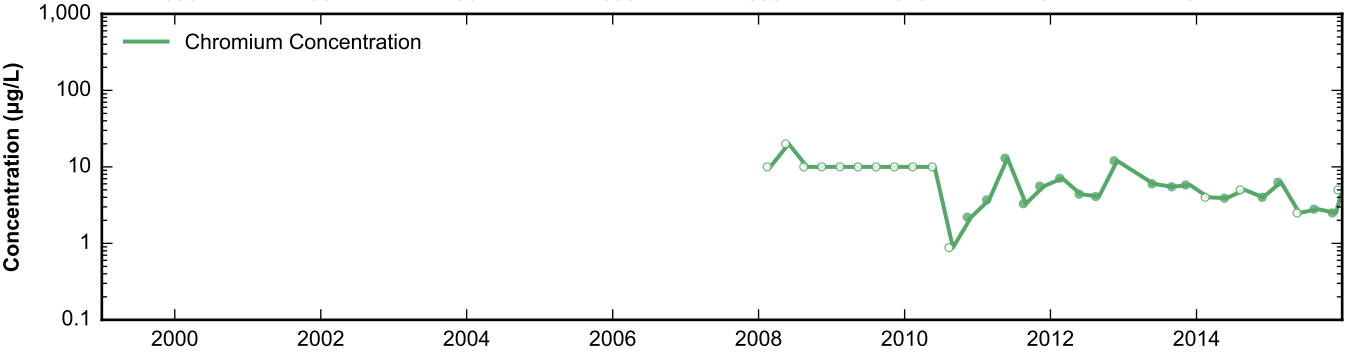
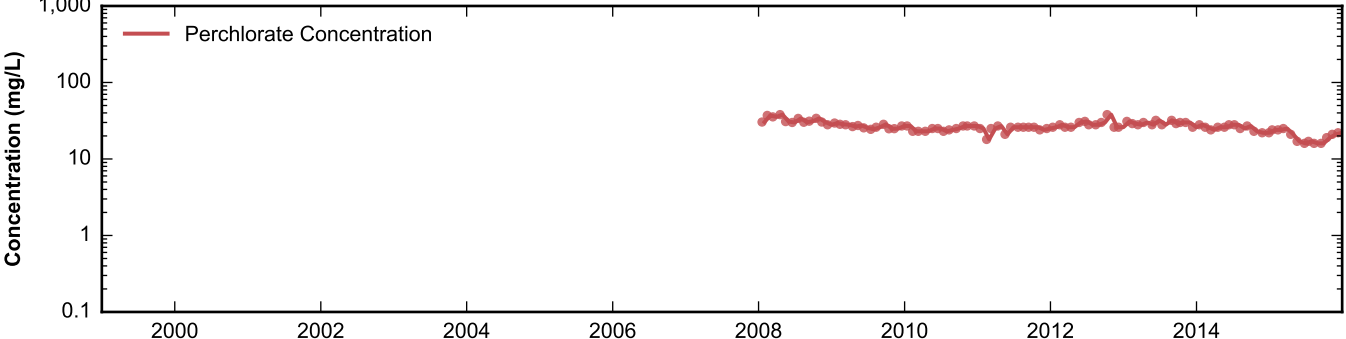
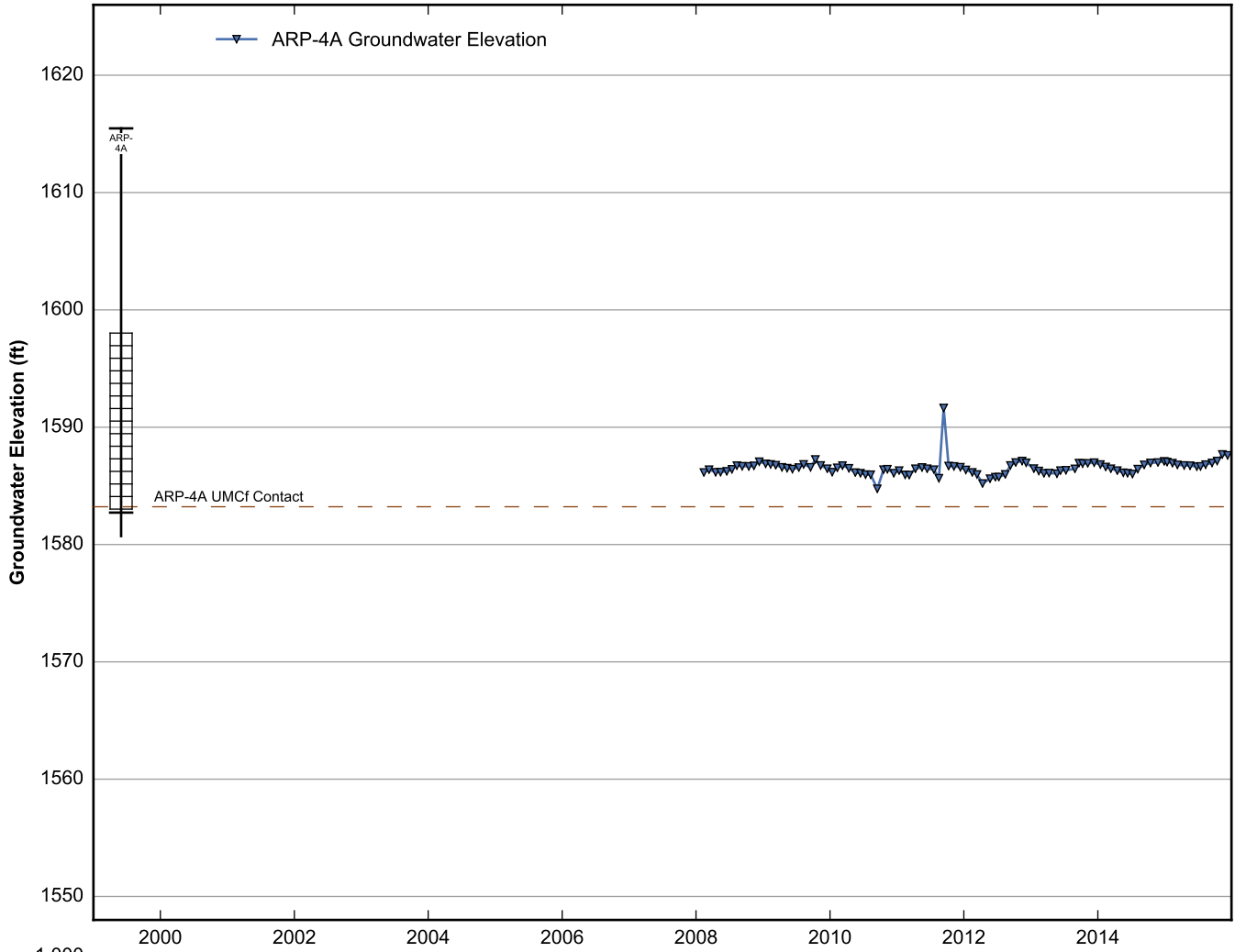


**Data Sheet for Well ARP-2A**  
Nevada Environmental Response Trust Site  
Henderson, Nevada

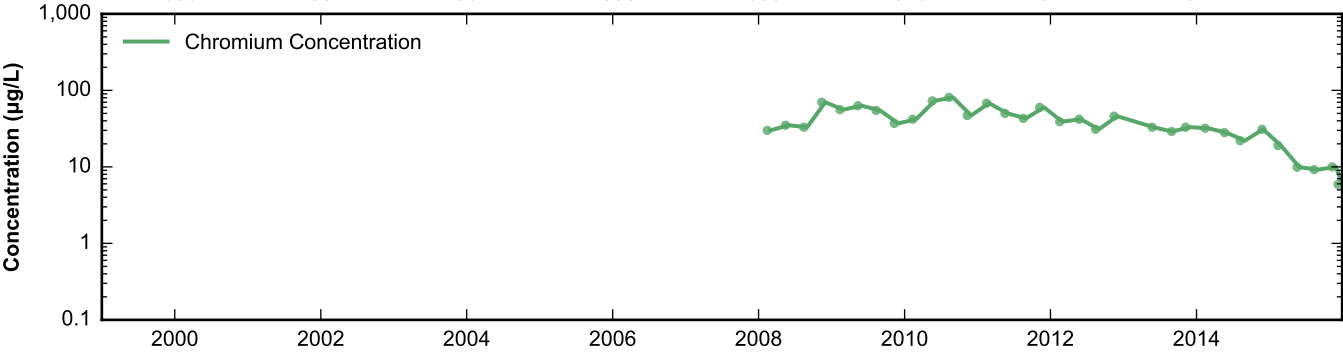
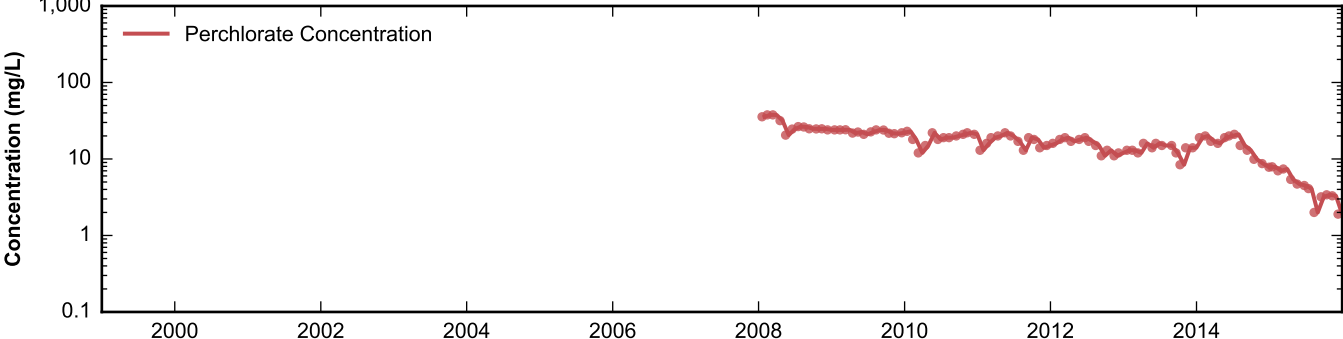
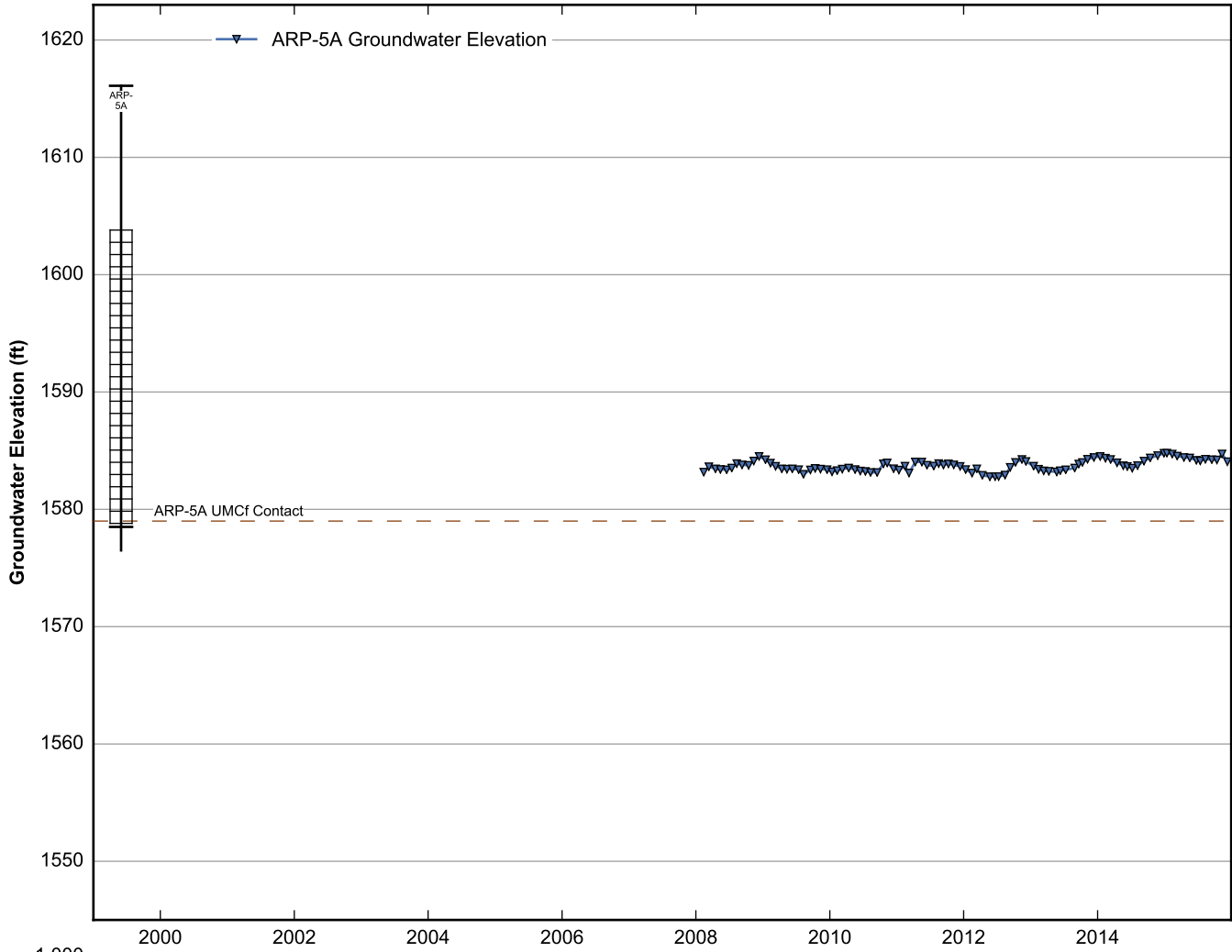


**Data Sheet for Well ARP-3A**  
Nevada Environmental Response Trust Site  
Henderson, Nevada

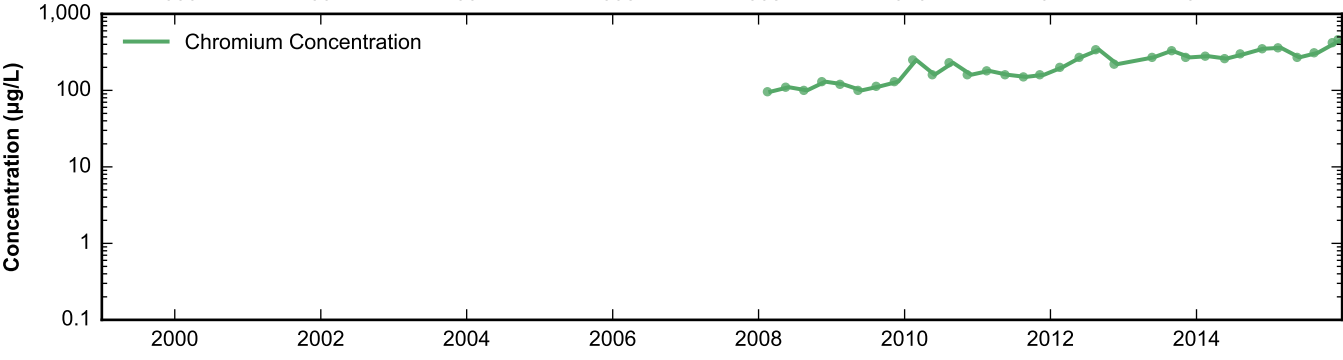
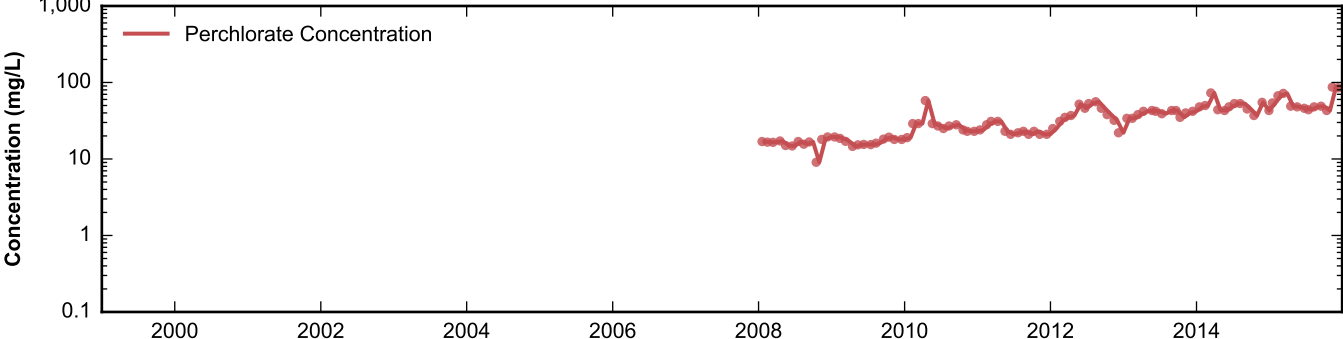
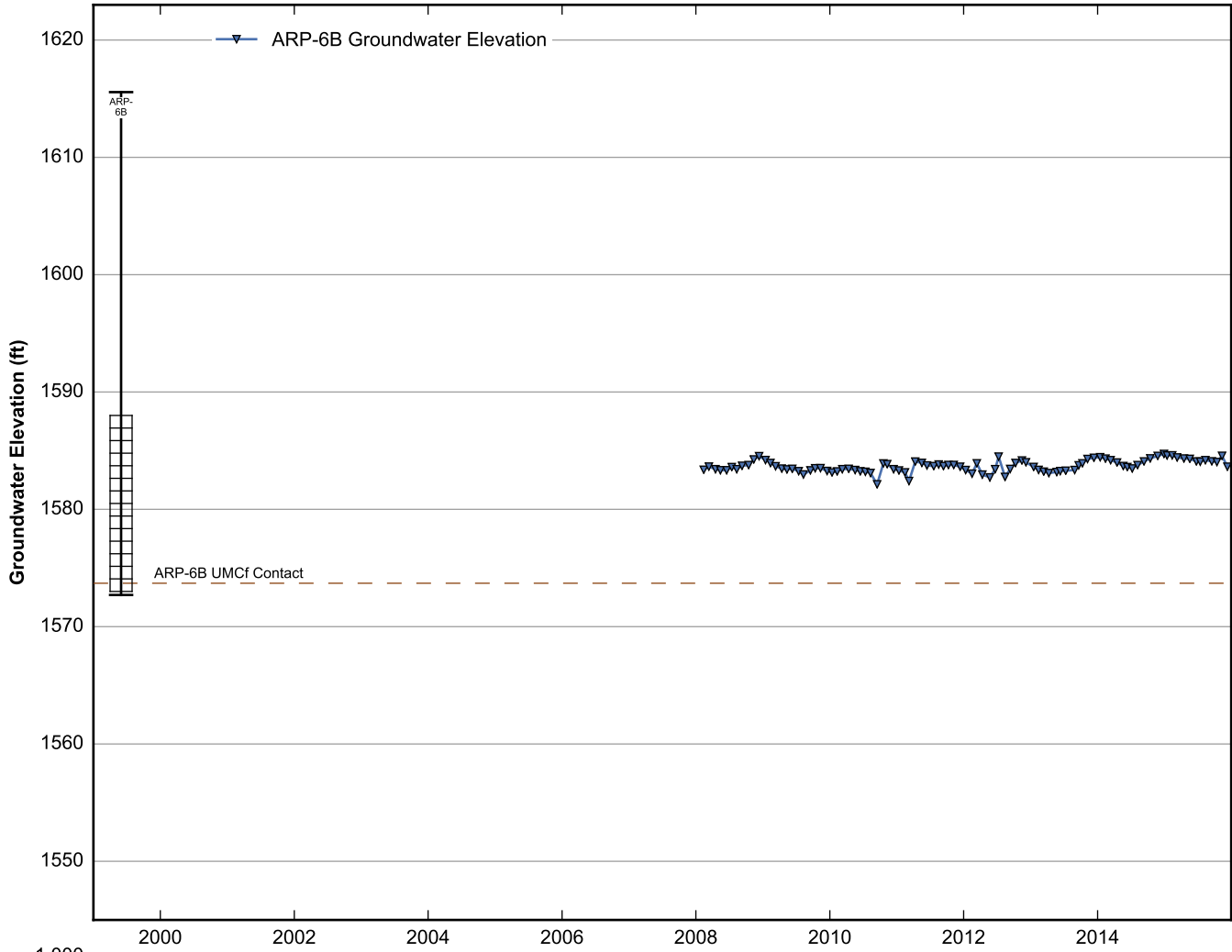




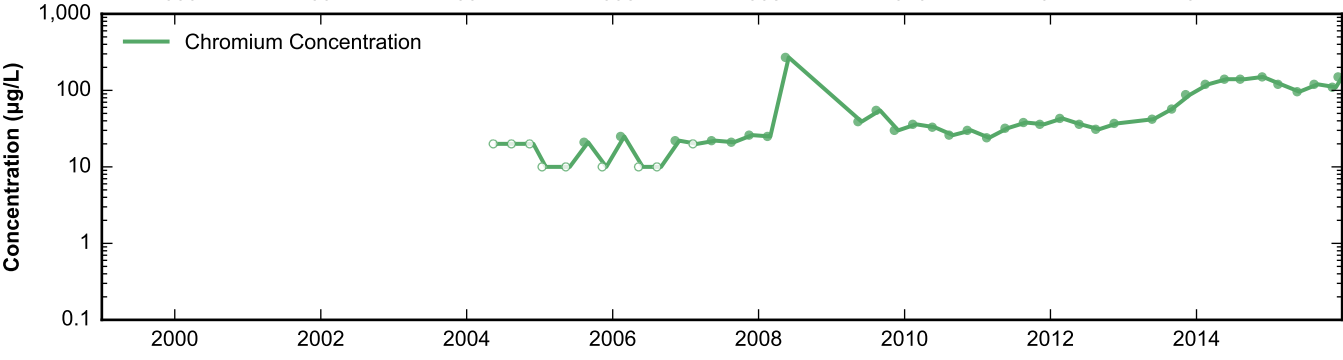
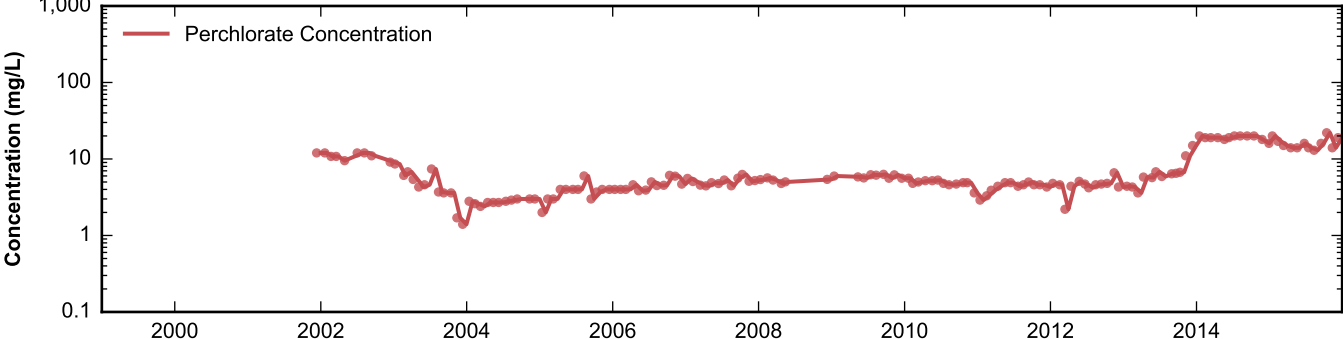
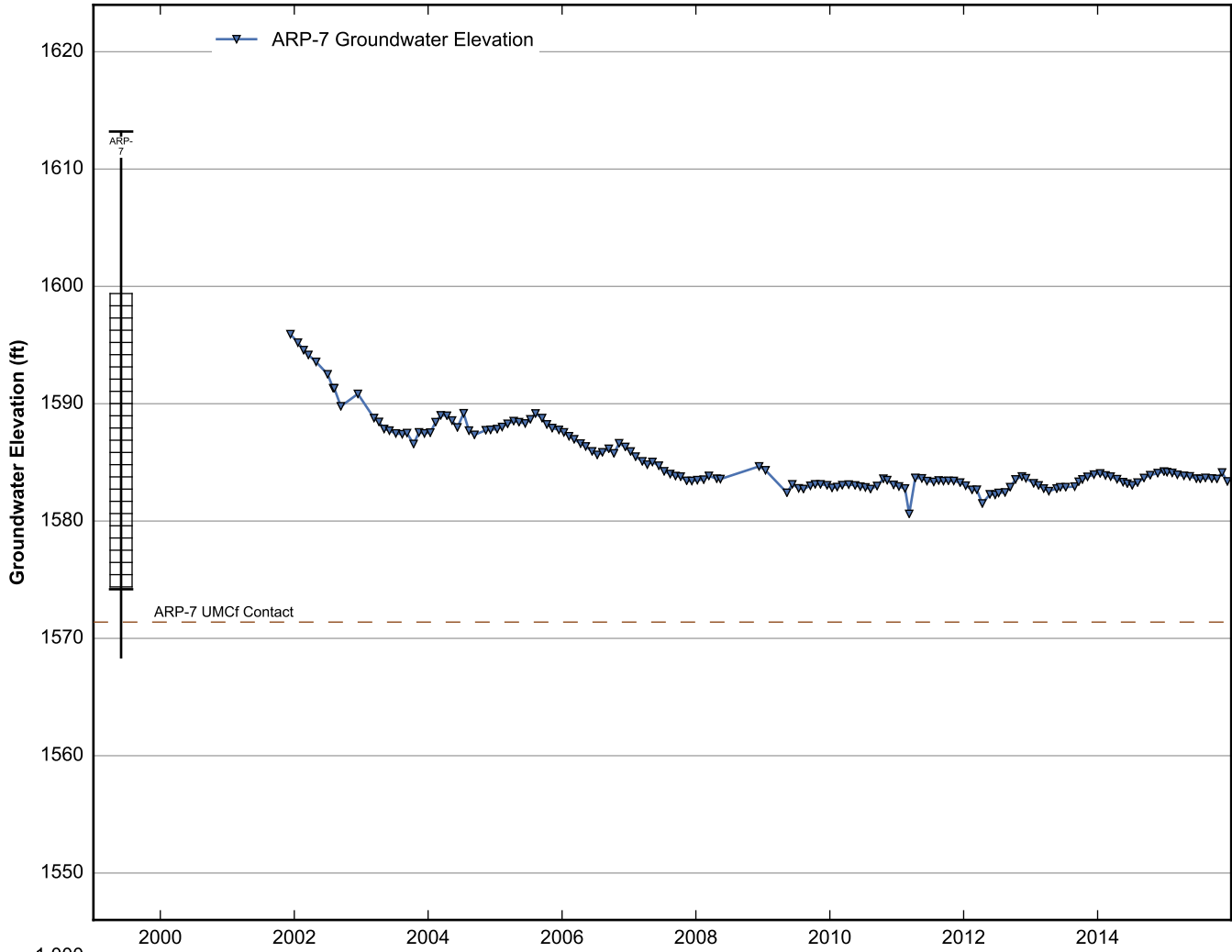
**Data Sheet for Well ARP-4A**  
Nevada Environmental Response Trust Site  
Henderson, Nevada



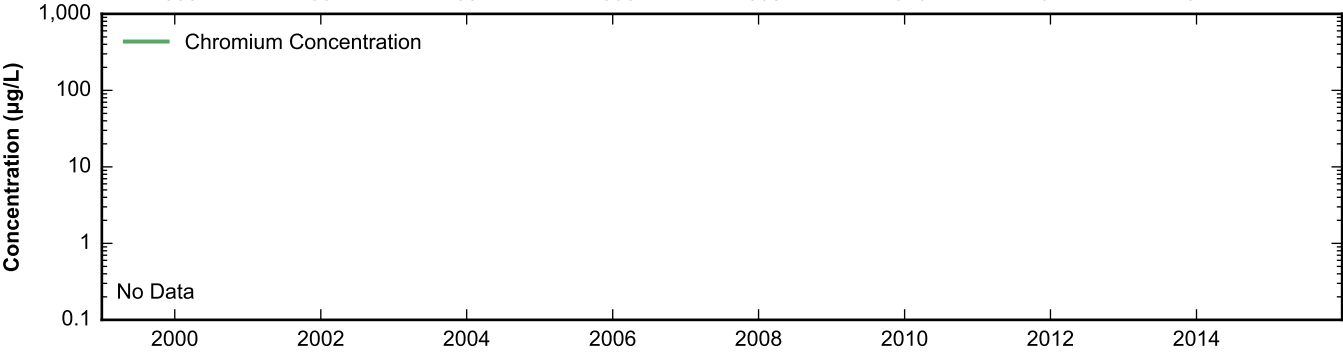
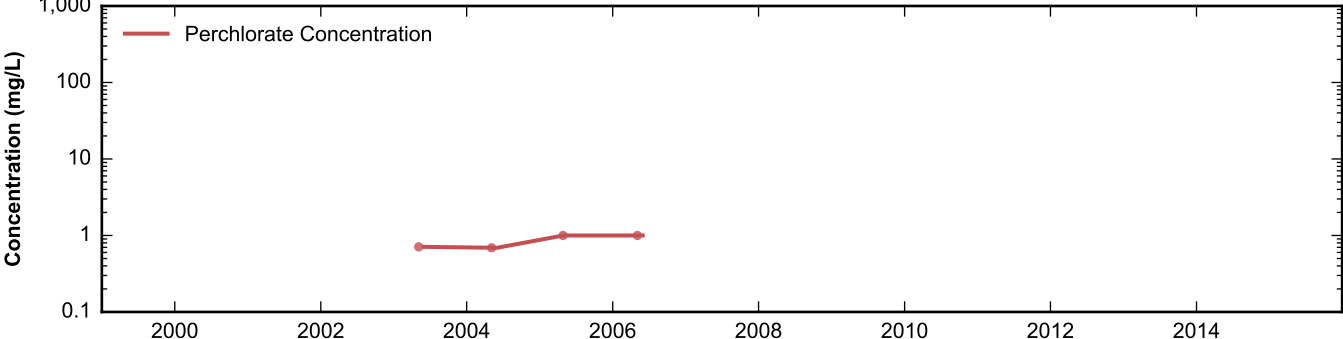
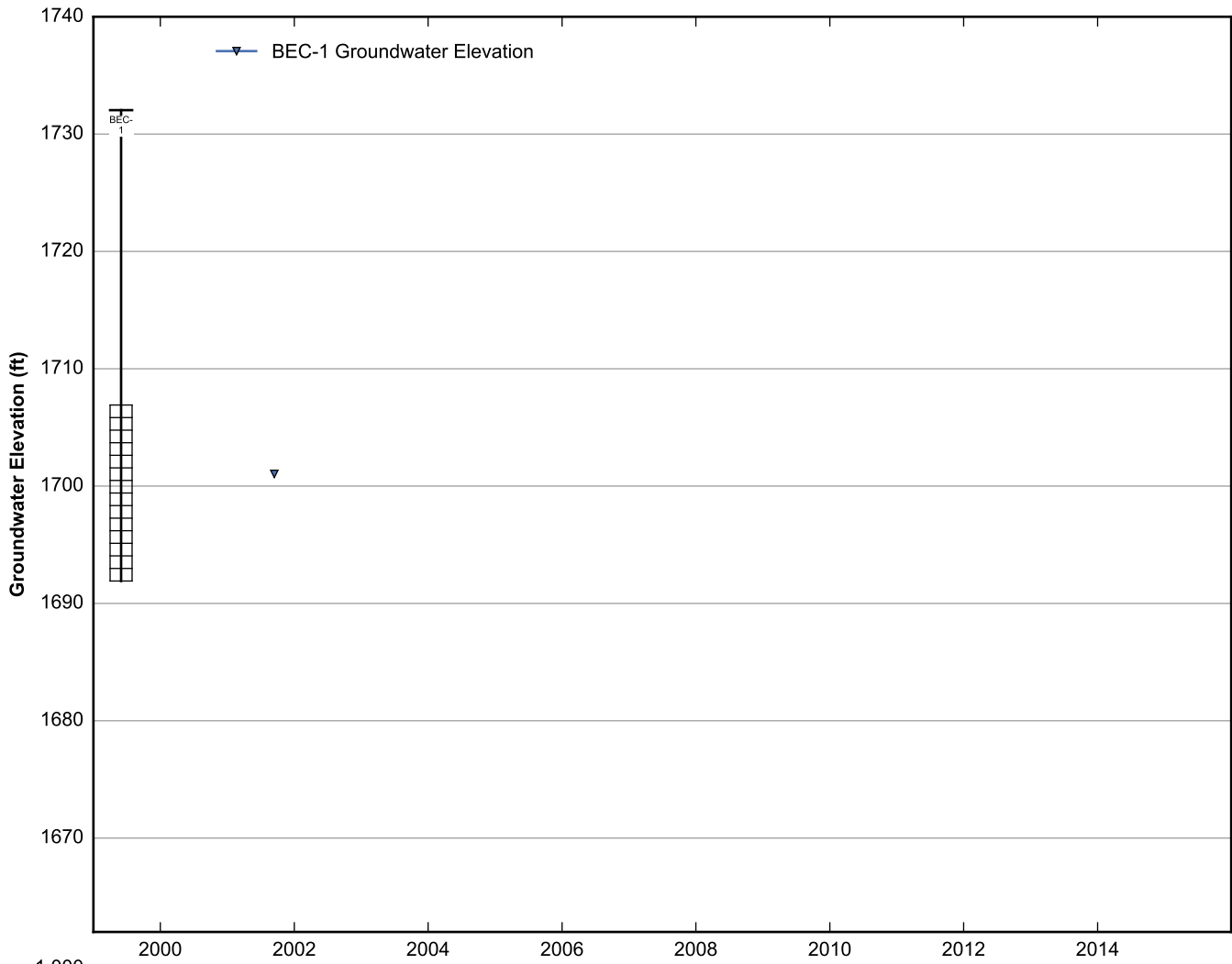
**Data Sheet for Well ARP-5A**  
Nevada Environmental Response Trust Site  
Henderson, Nevada



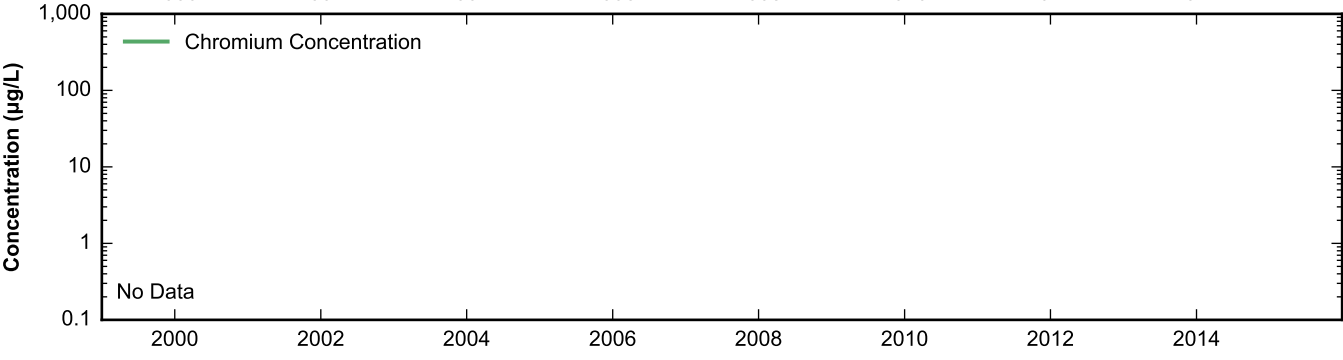
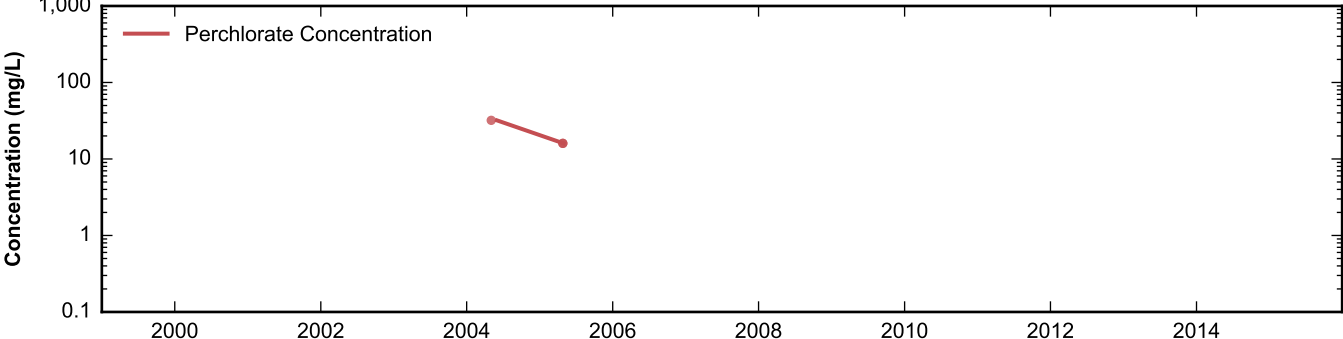
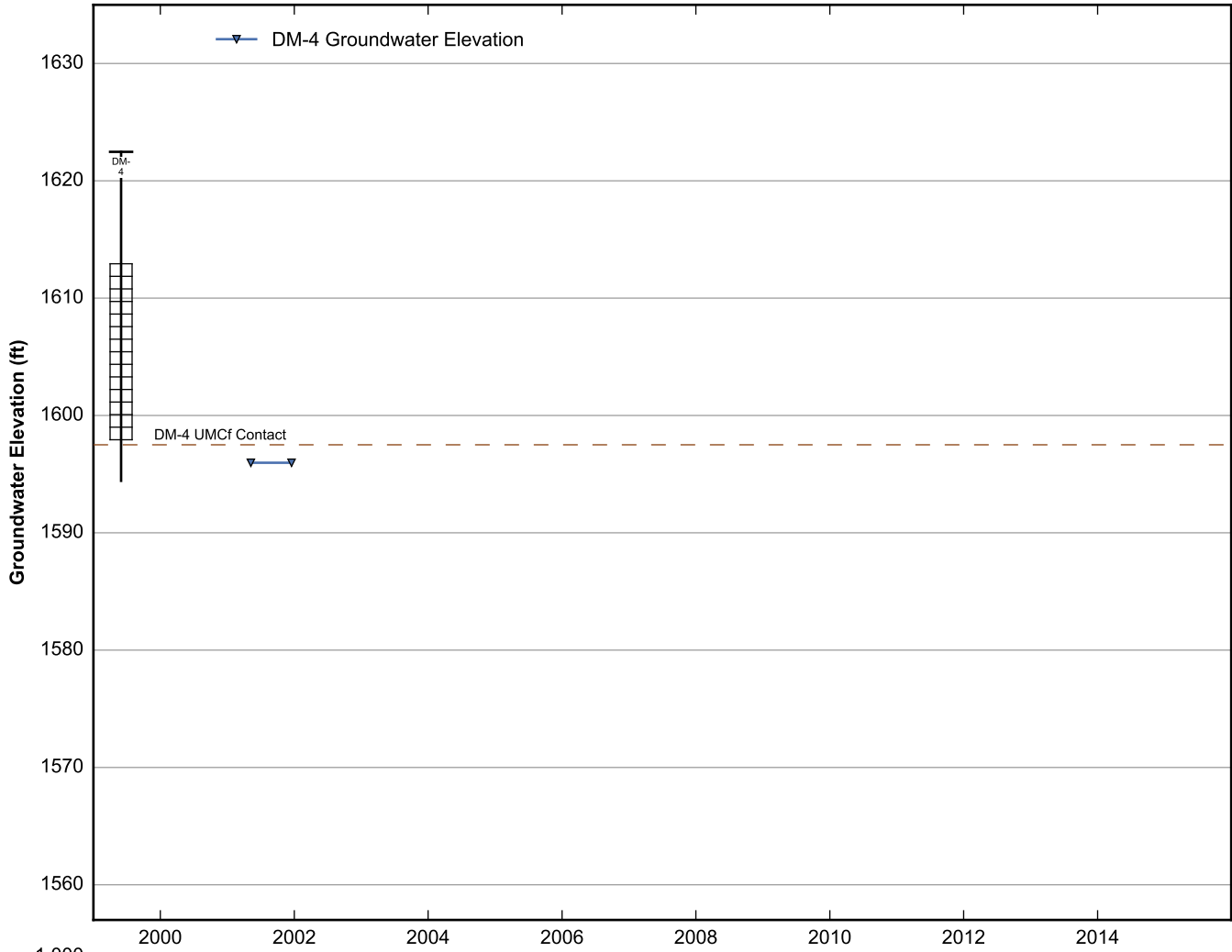
**Data Sheet for Well ARP-6B**  
Nevada Environmental Response Trust Site  
Henderson, Nevada



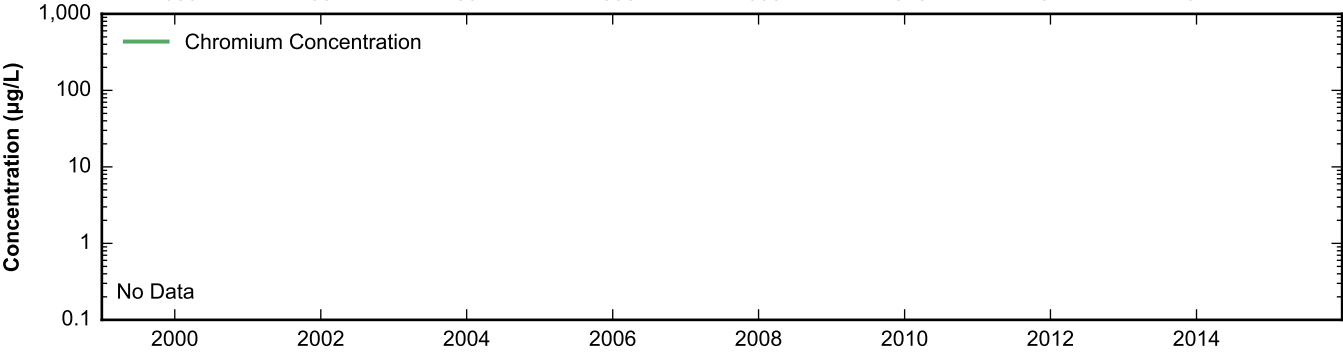
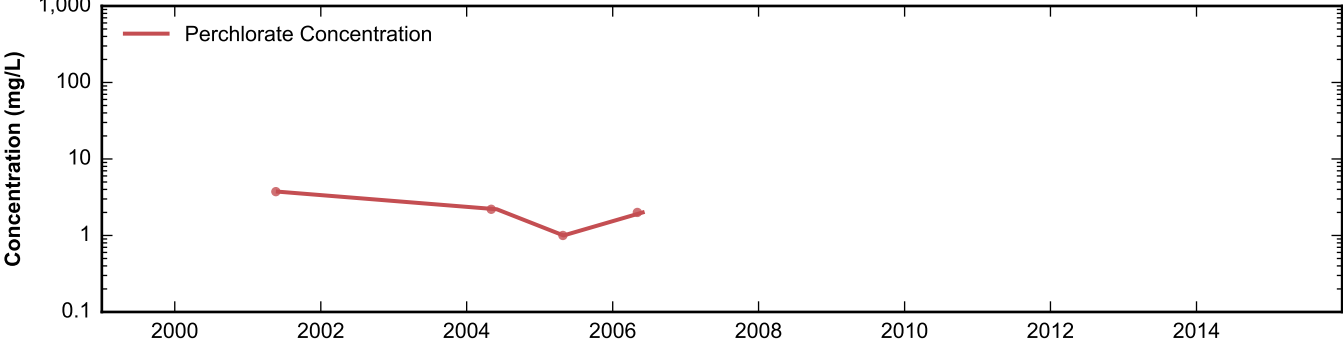
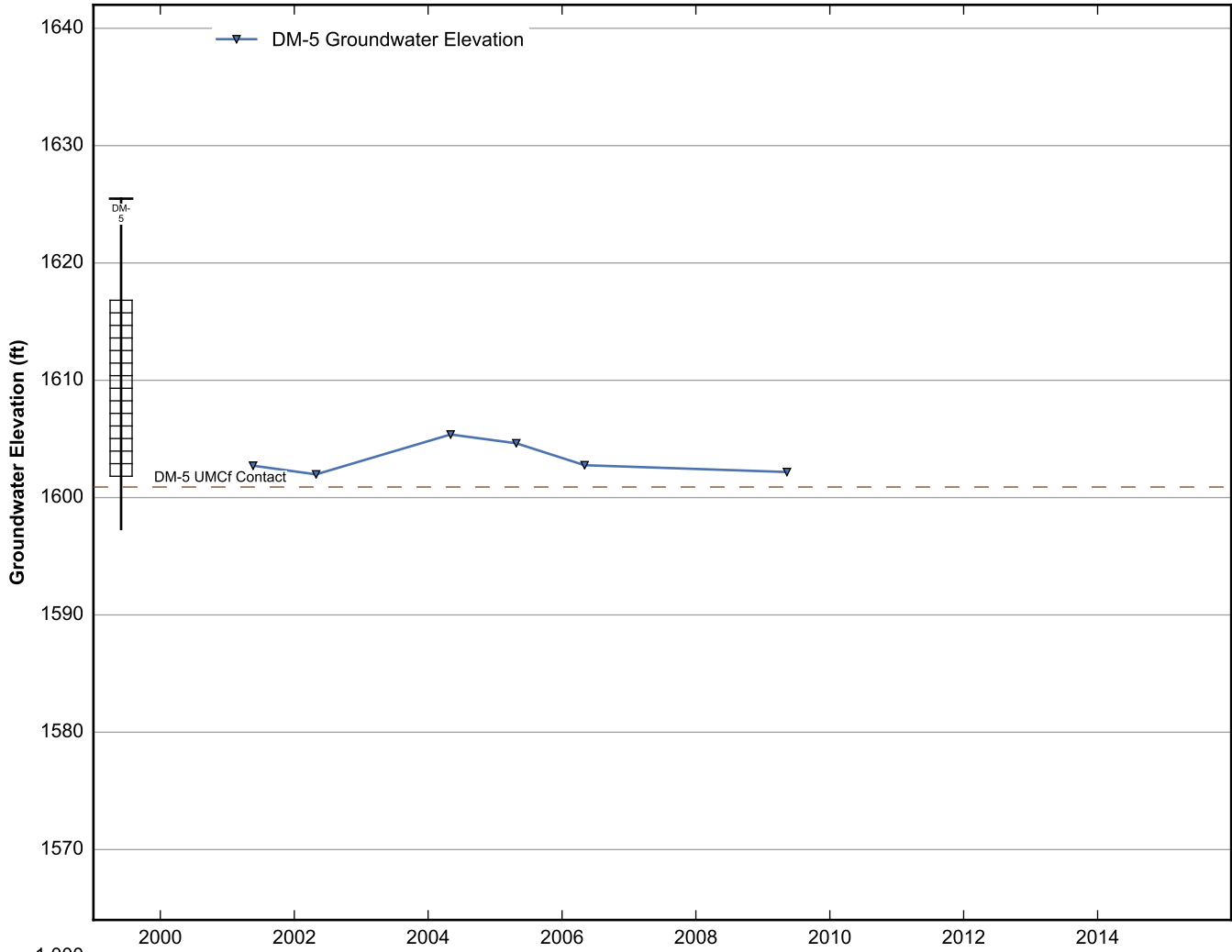
**Data Sheet for Well ARP-7**  
Nevada Environmental Response Trust Site  
Henderson, Nevada



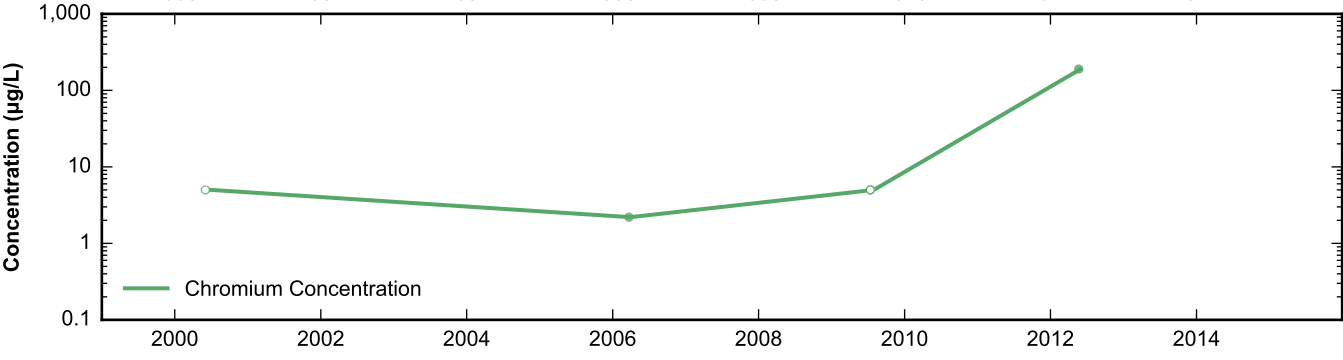
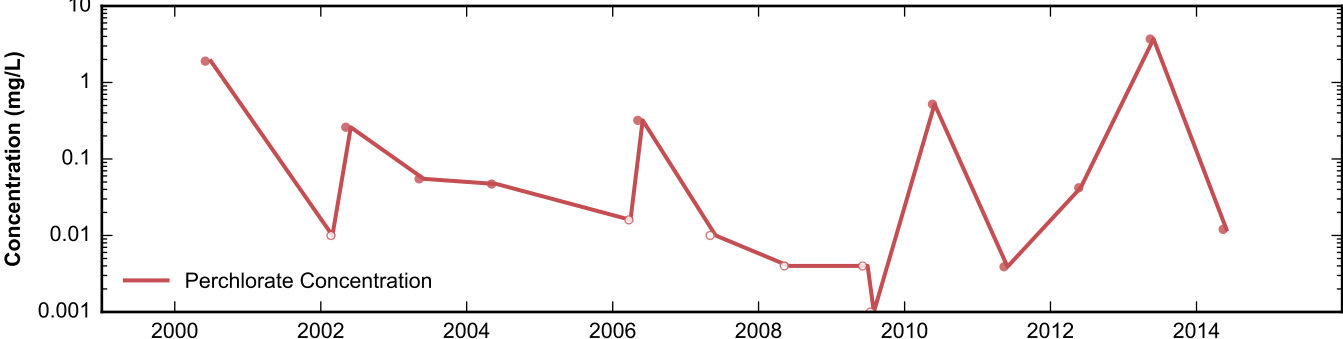
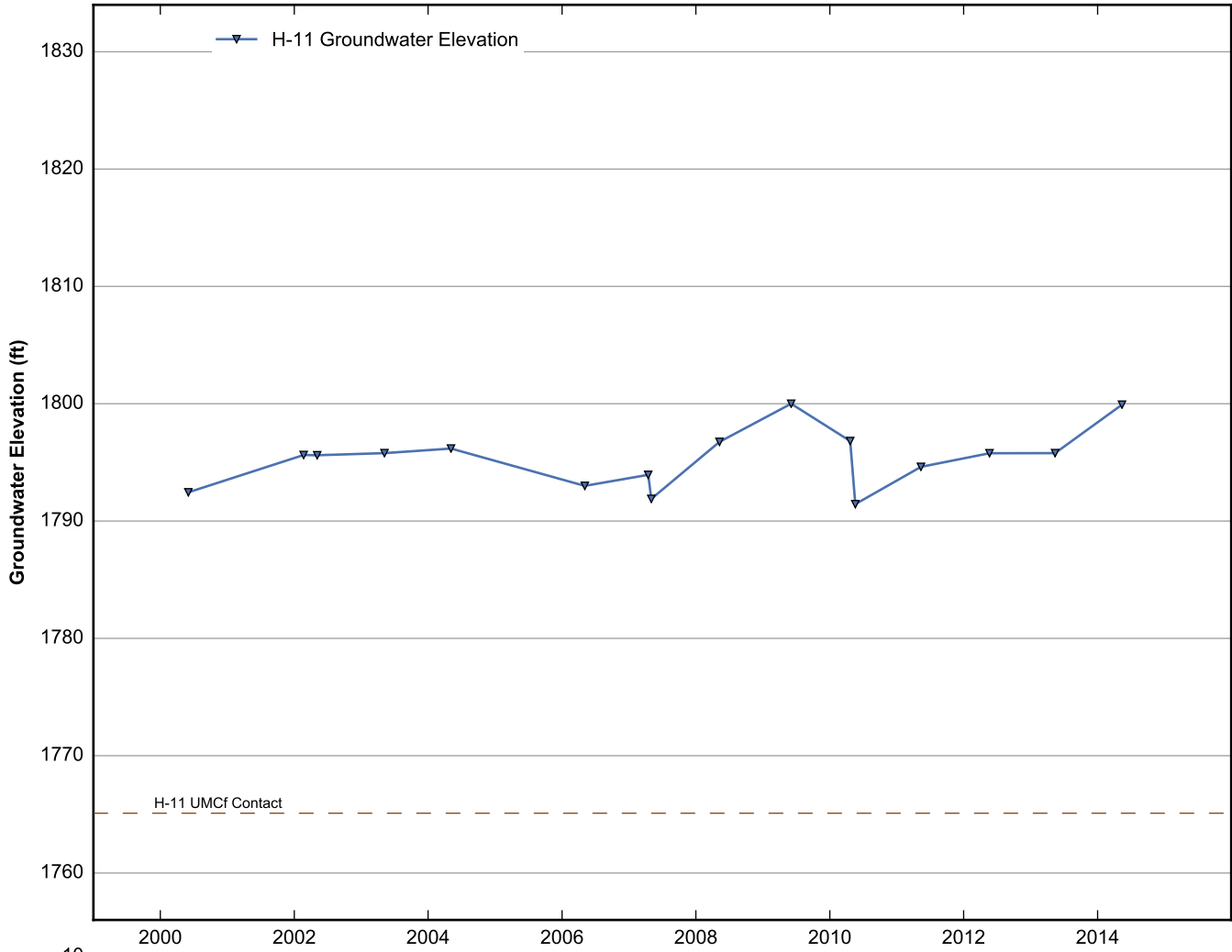
**Data Sheet for Well BEC-1**  
Nevada Environmental Response Trust Site  
Henderson, Nevada



**Data Sheet for Well DM-4**  
Nevada Environmental Response Trust Site  
Henderson, Nevada

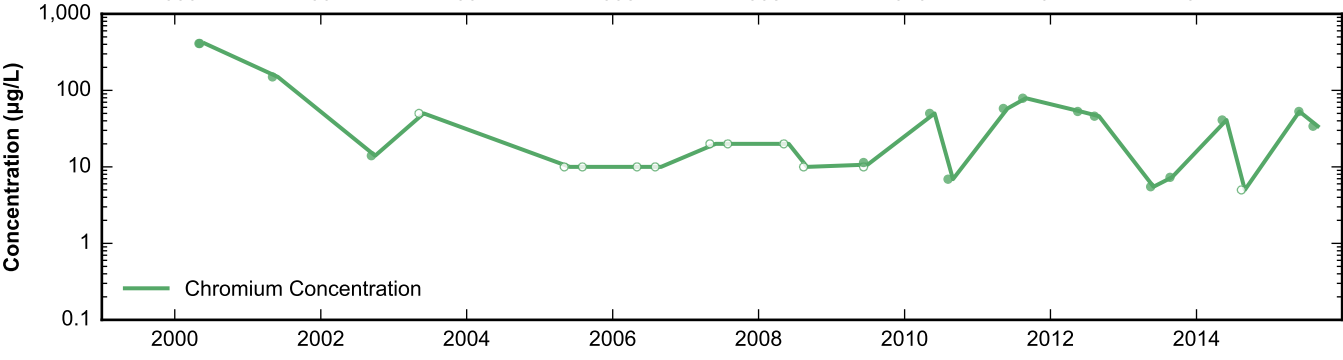
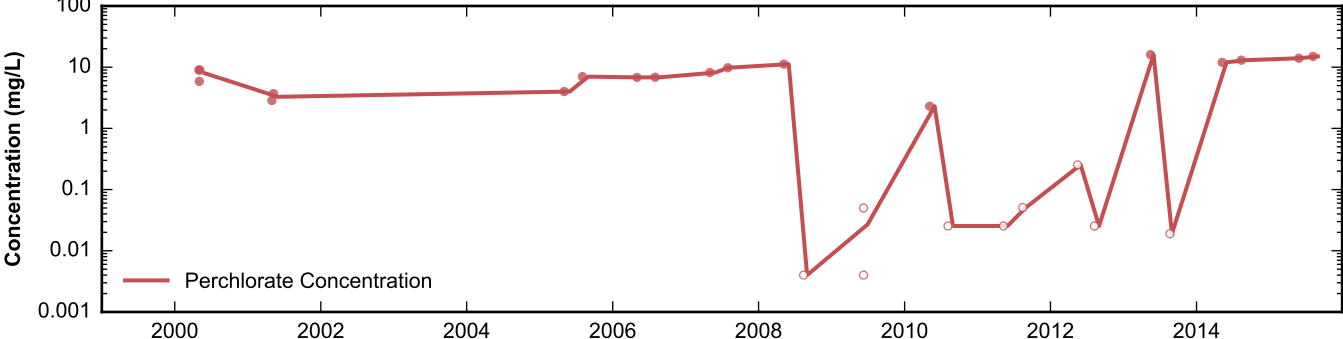
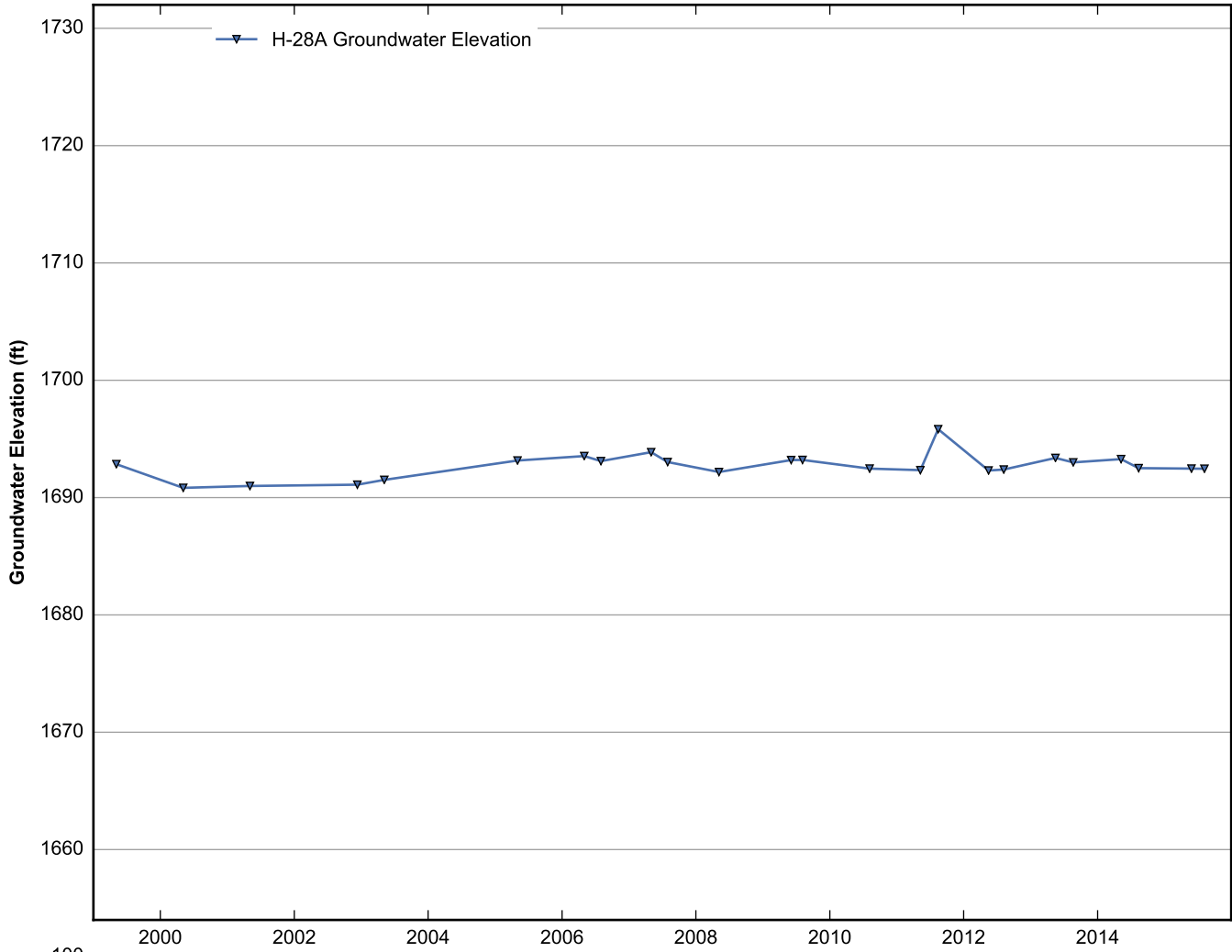


**Data Sheet for Well DM-5**  
 Nevada Environmental Response Trust Site  
 Henderson, Nevada

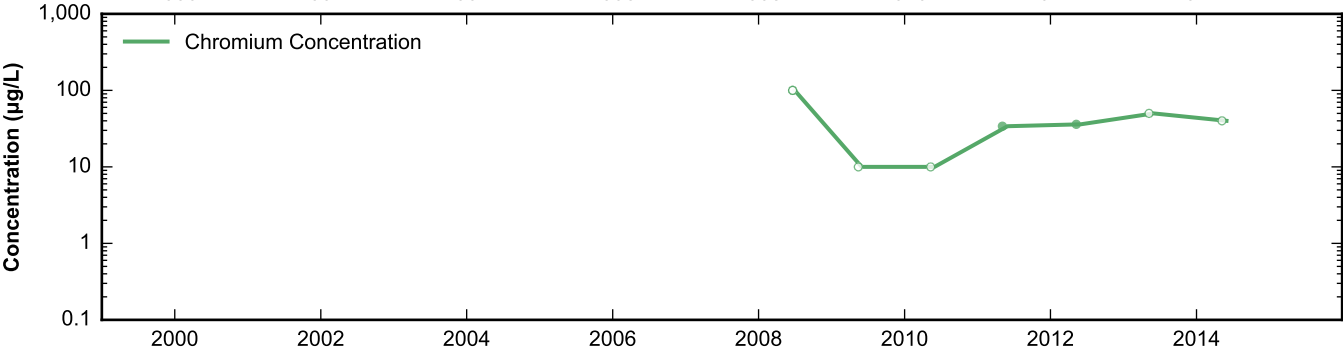
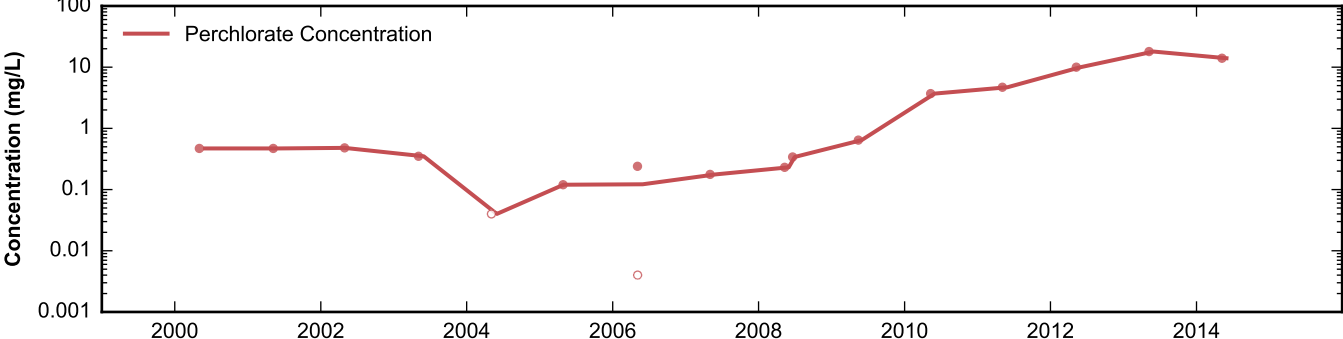
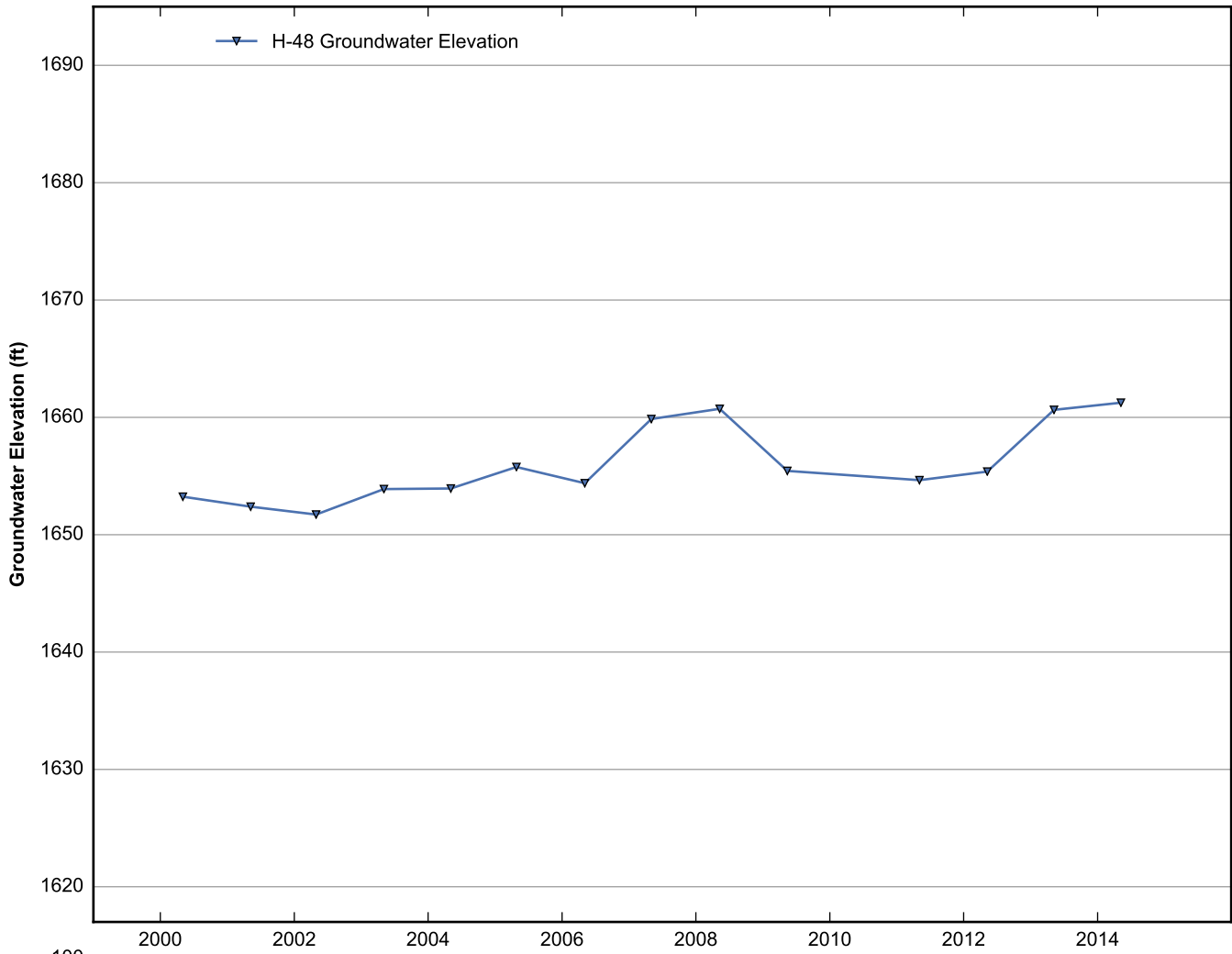


**Data Sheet for Well H-11**  
Nevada Environmental Response Trust Site  
Henderson, Nevada

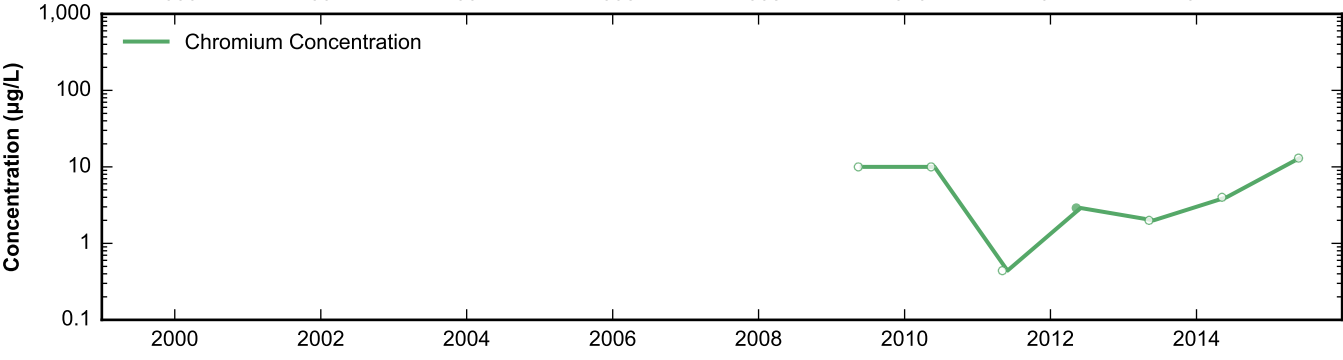
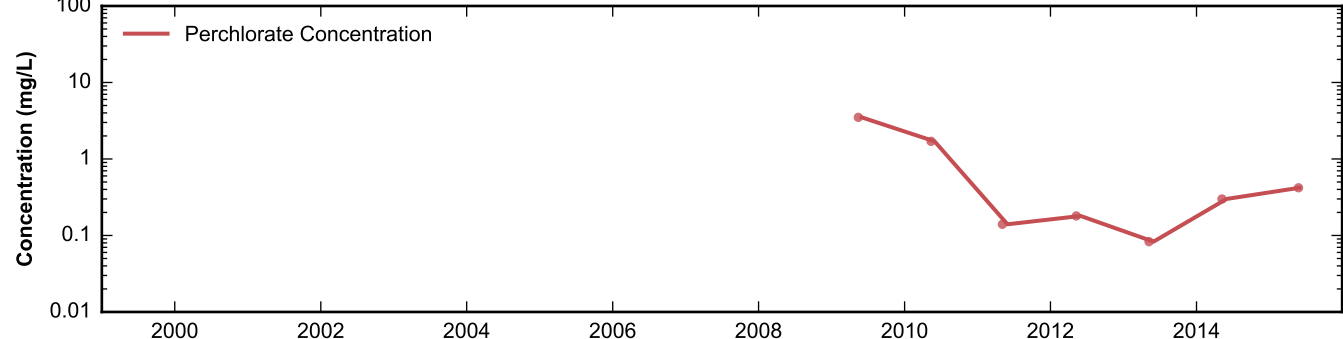
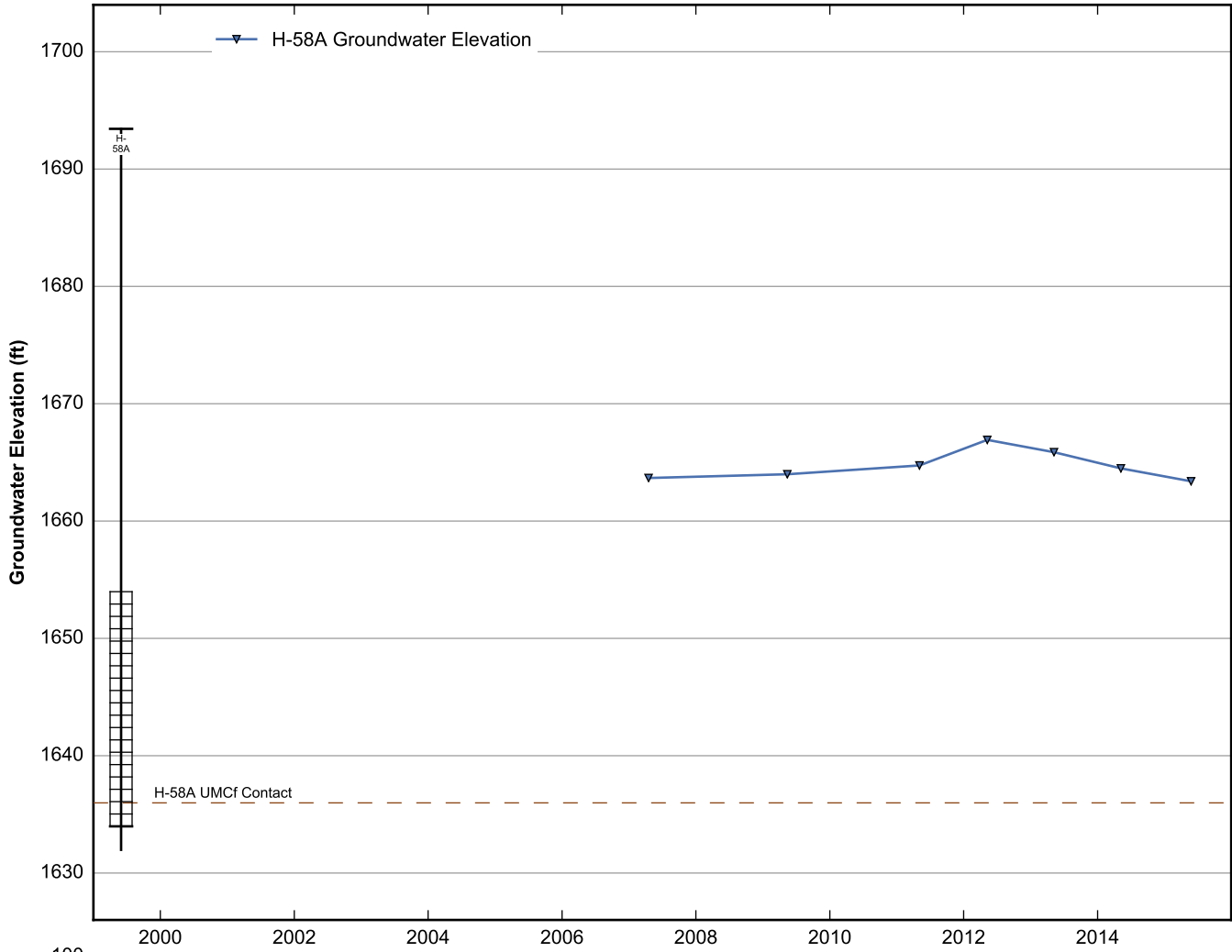




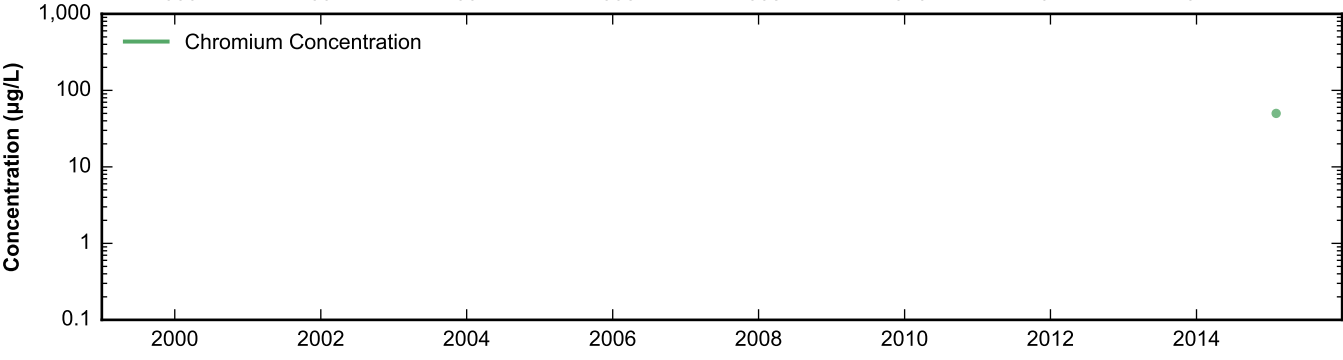
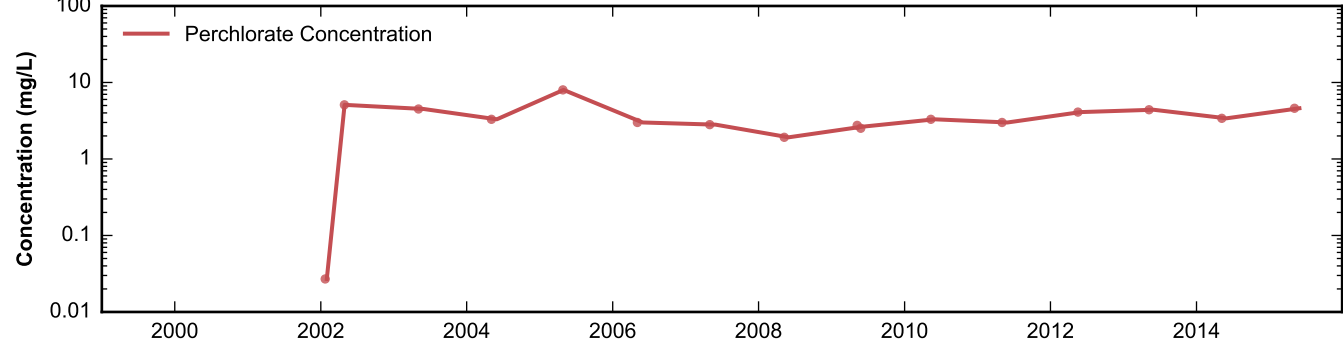
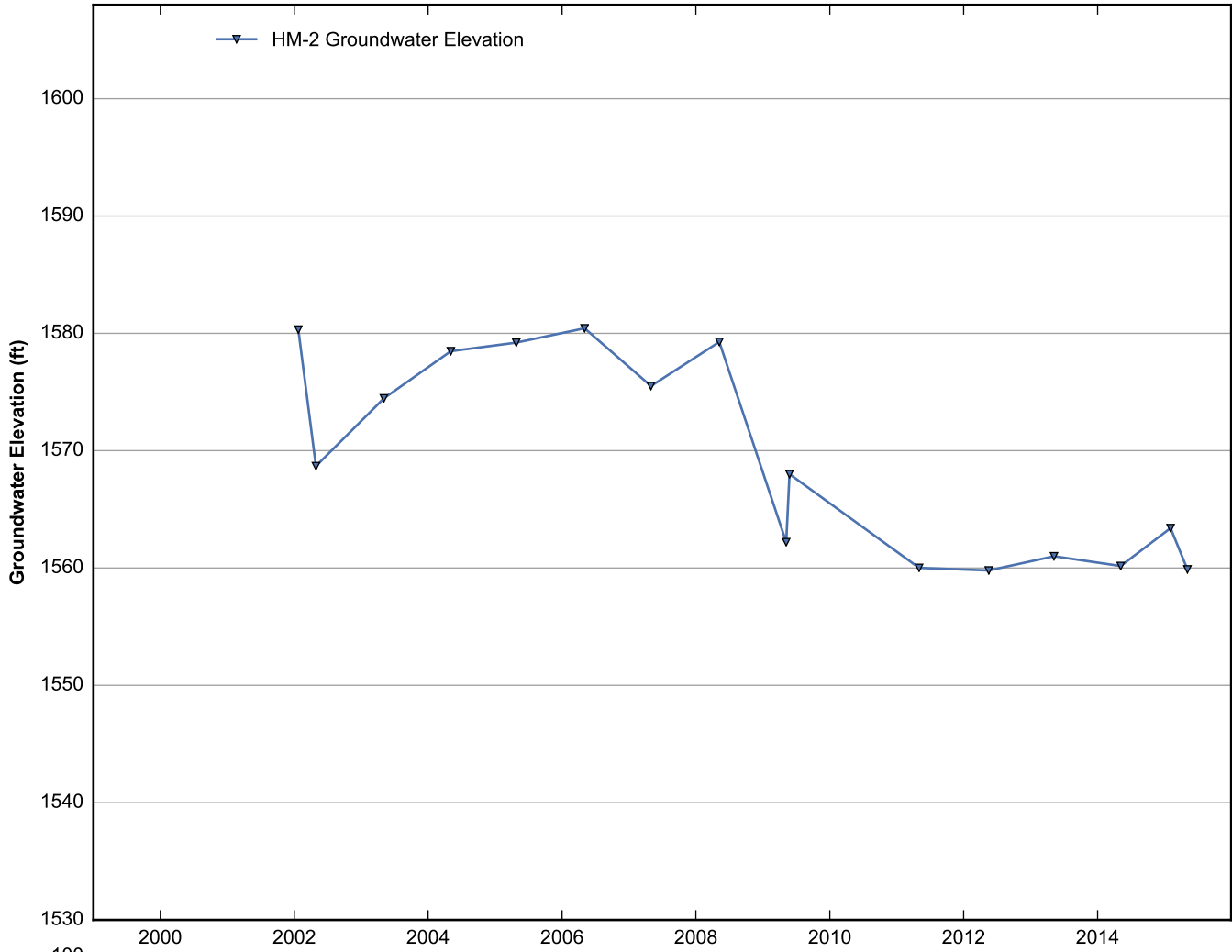
**Data Sheet for Well H-28A**  
 Nevada Environmental Response Trust Site  
 Henderson, Nevada



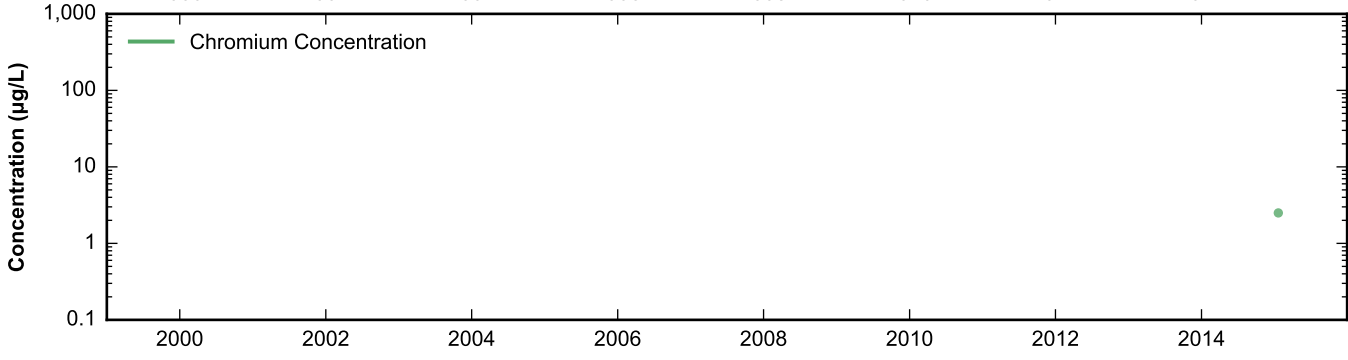
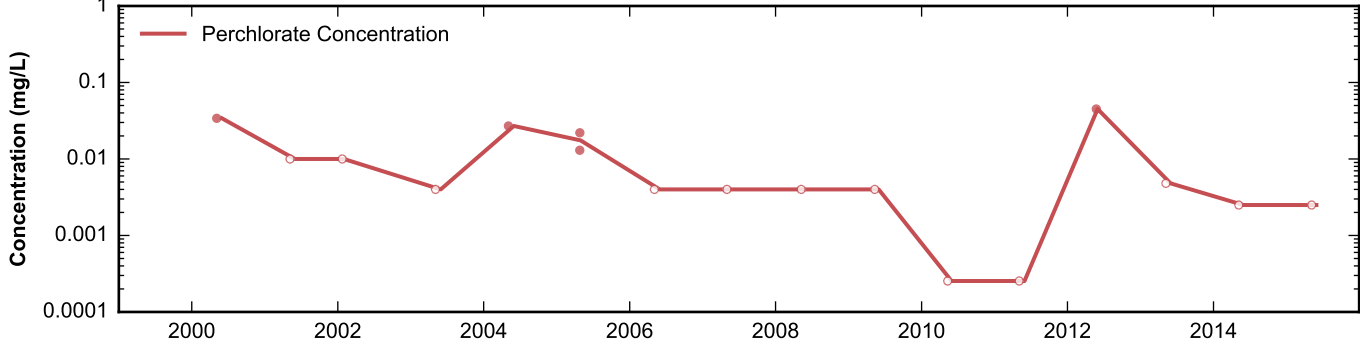
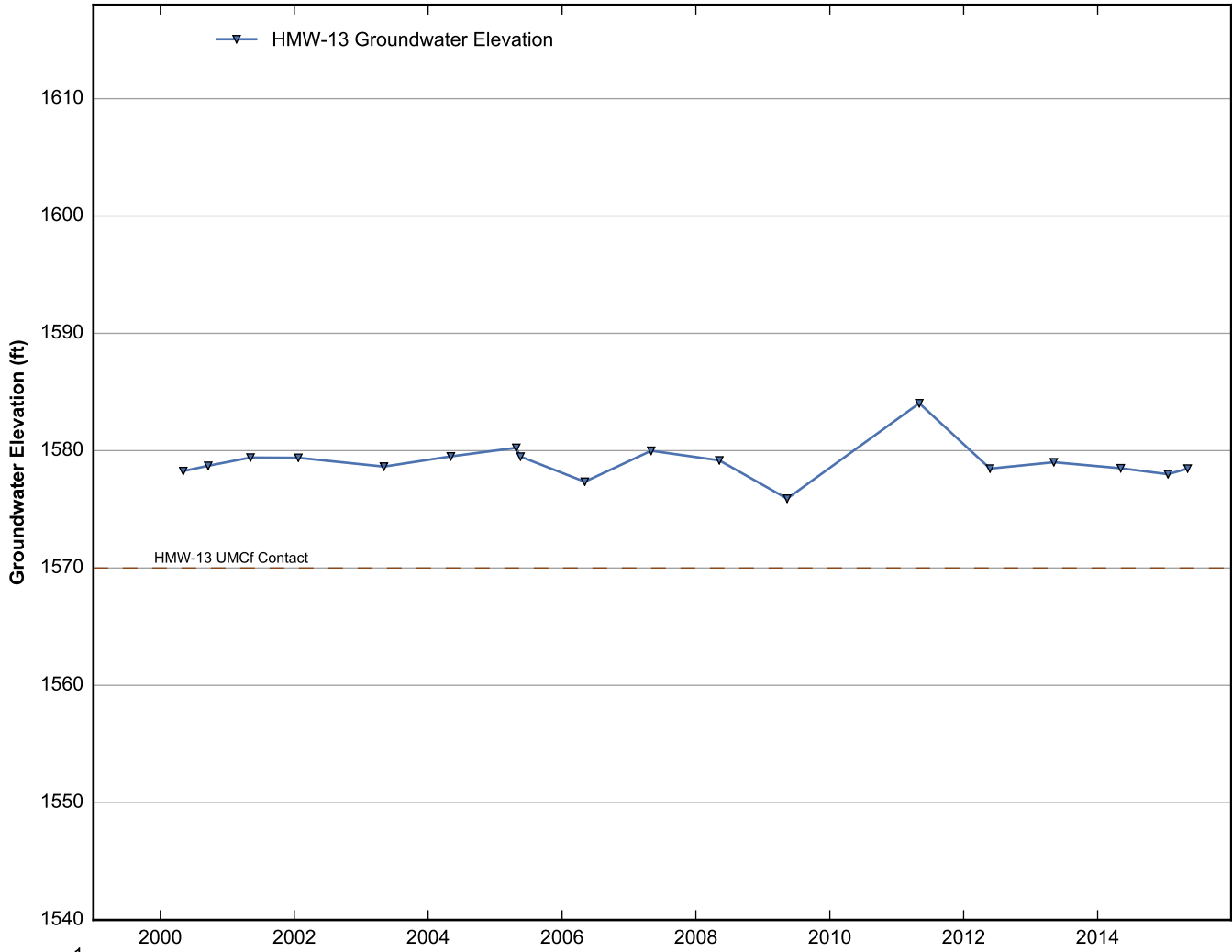
**Data Sheet for Well H-48**  
 Nevada Environmental Response Trust Site  
 Henderson, Nevada



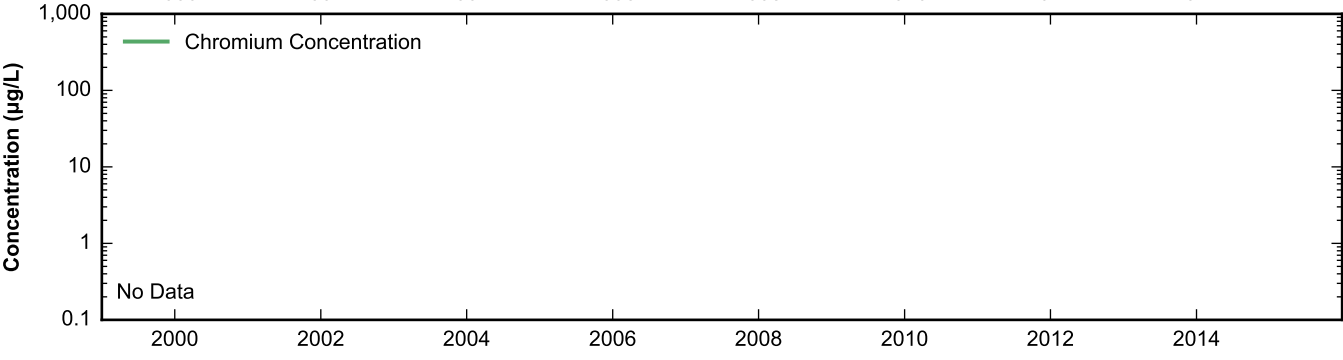
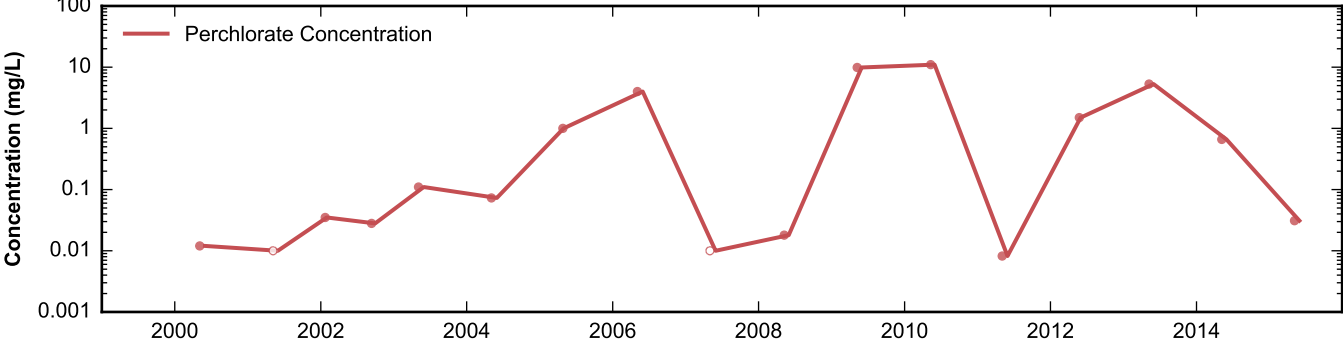
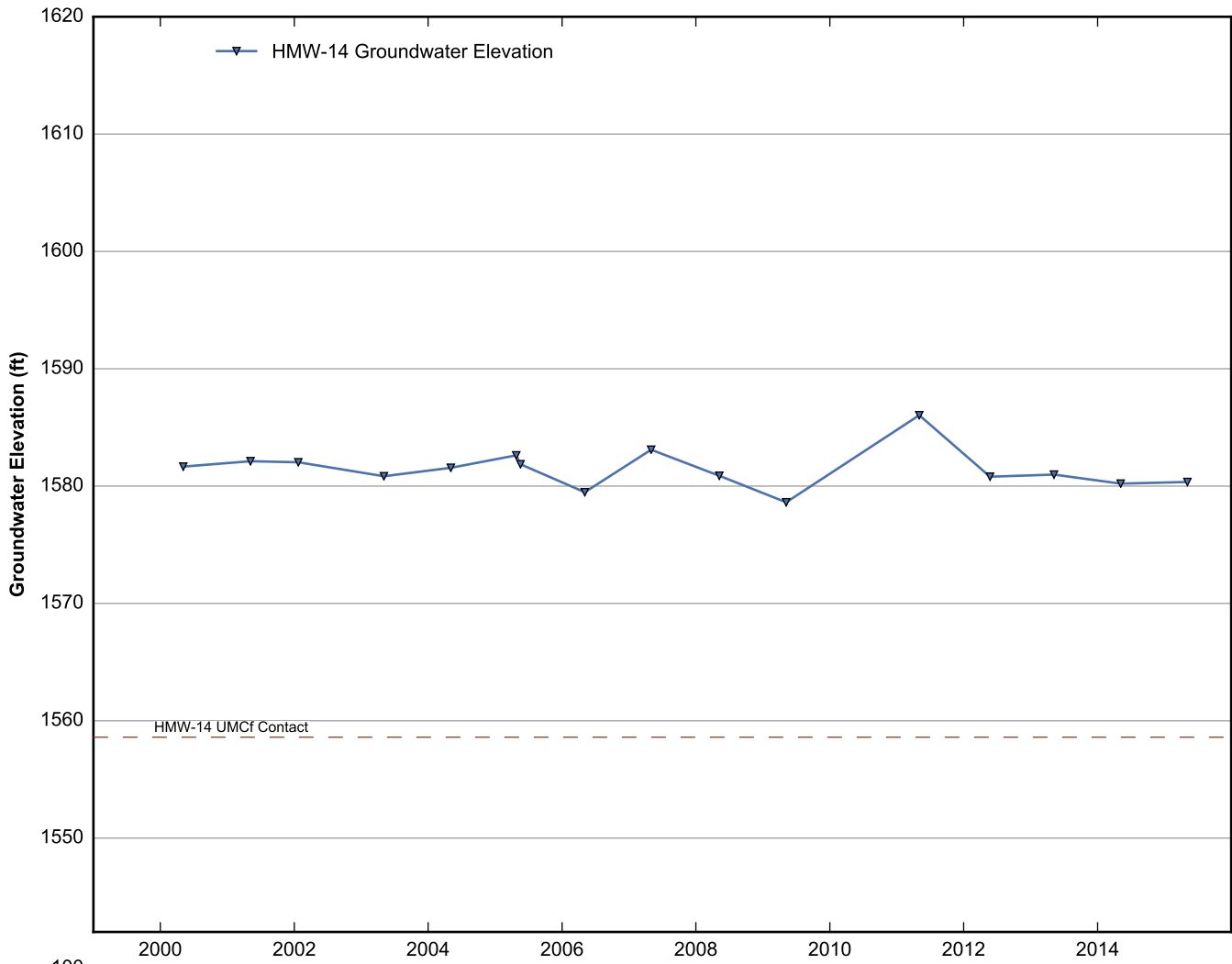
**Data Sheet for Well H-58A**  
 Nevada Environmental Response Trust Site  
 Henderson, Nevada



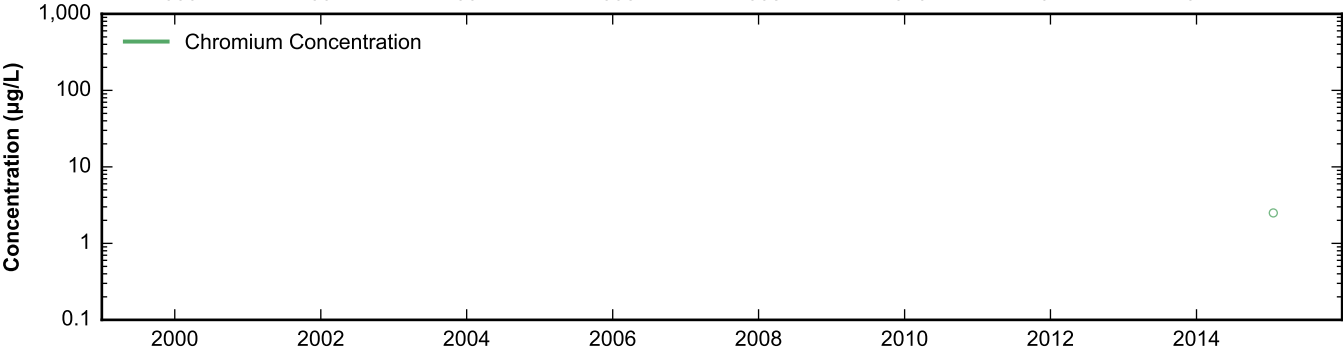
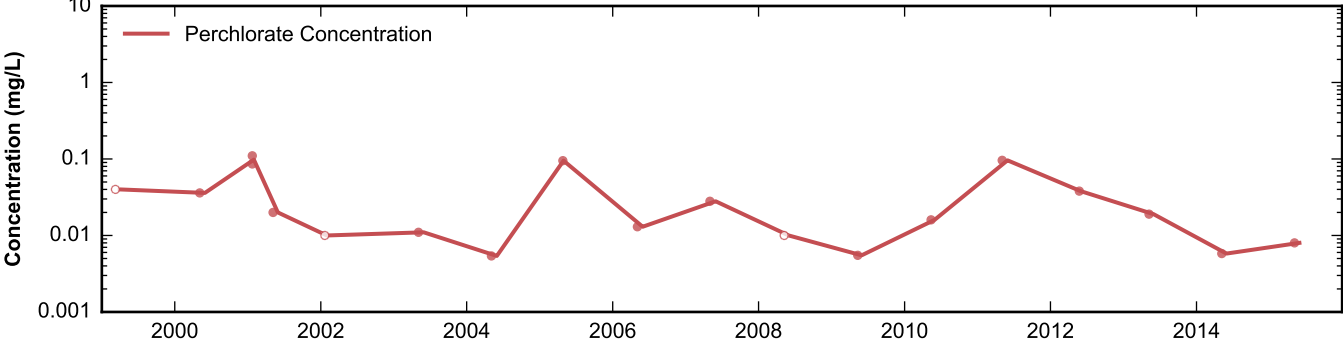
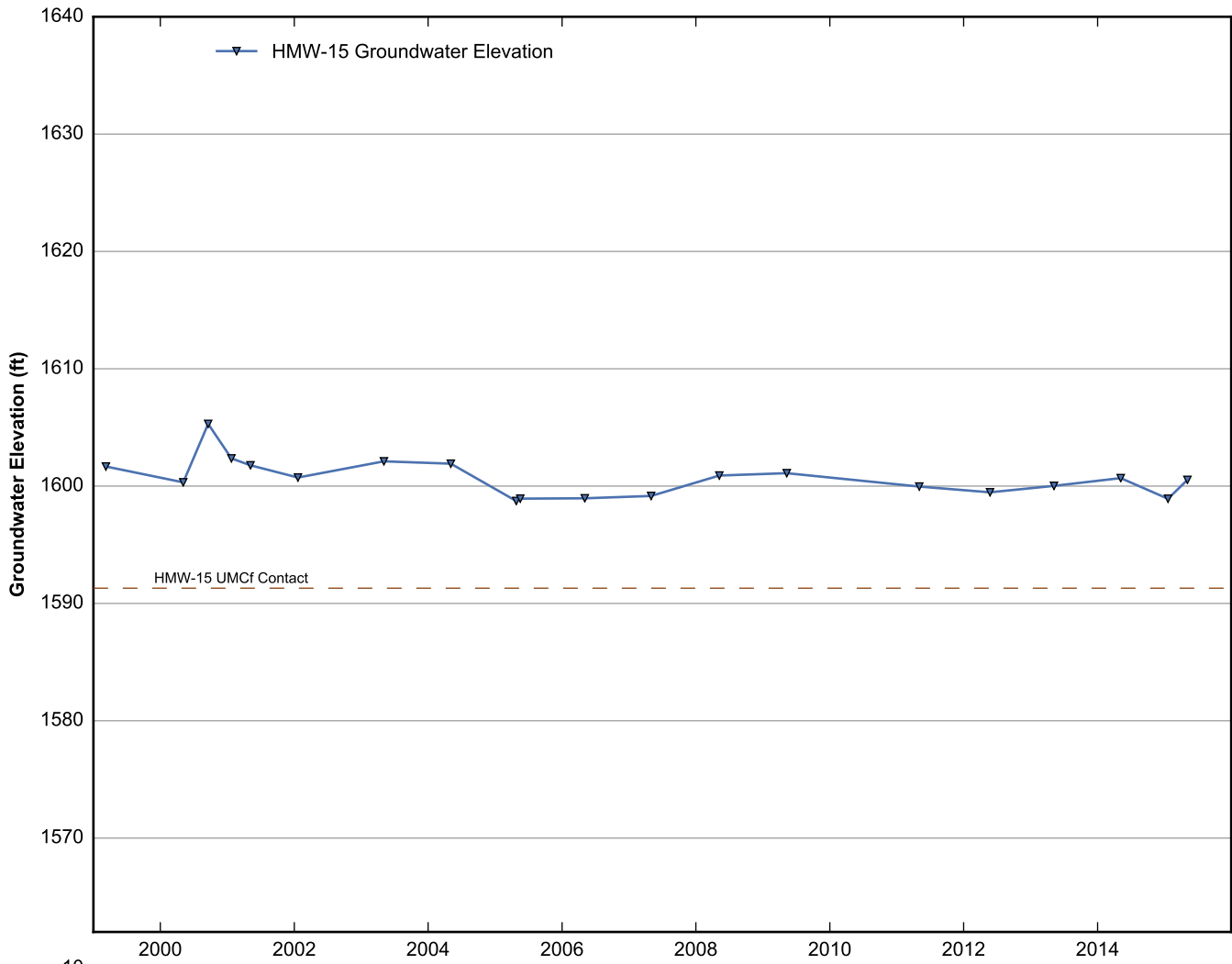
**Data Sheet for Well HM-2**  
Nevada Environmental Response Trust Site  
Henderson, Nevada



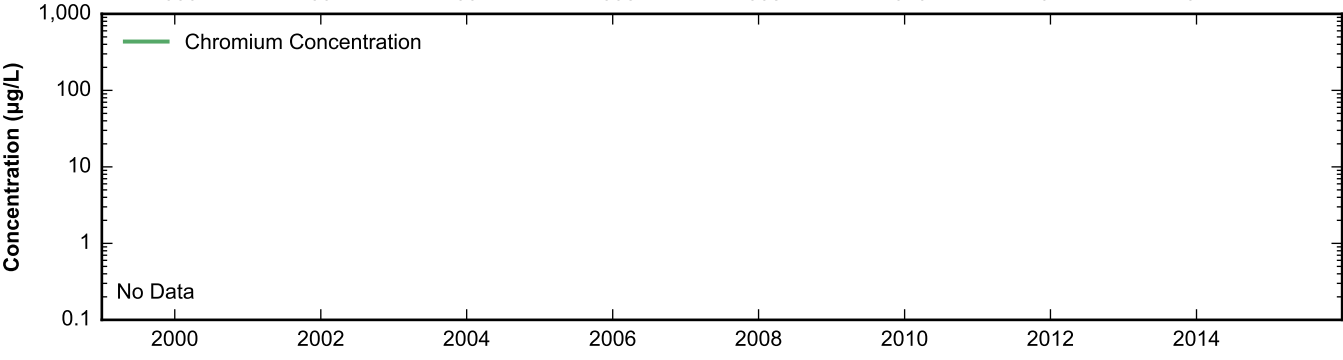
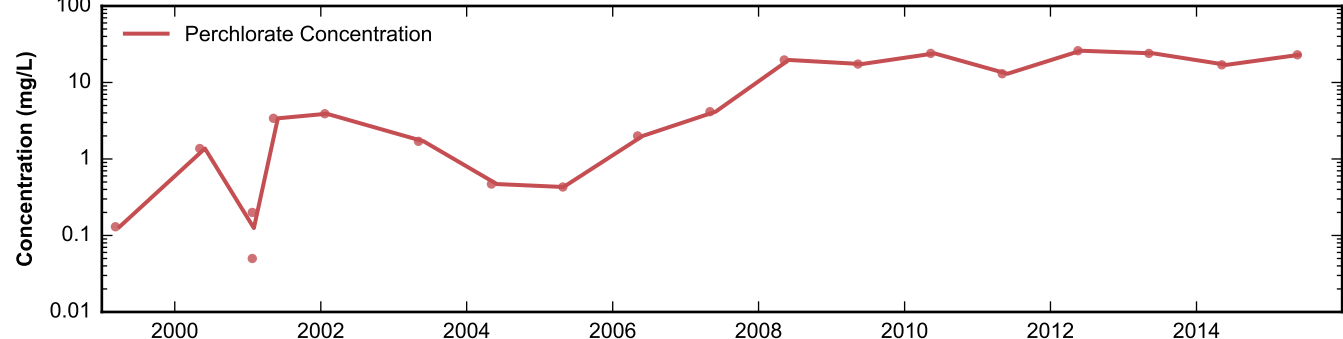
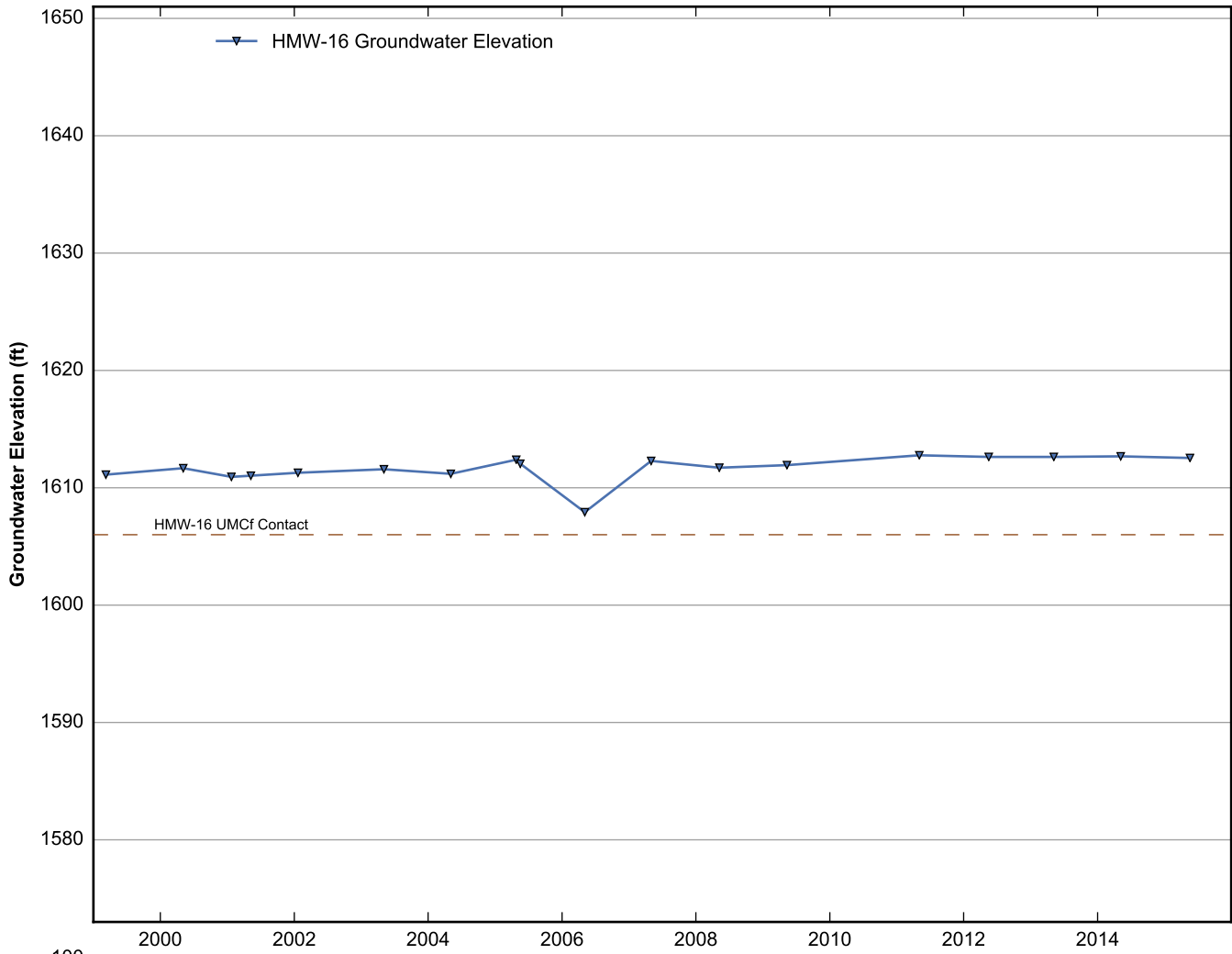
**Data Sheet for Well HMW-13**  
 Nevada Environmental Response Trust Site  
 Henderson, Nevada



**Data Sheet for Well HMW-14**  
Nevada Environmental Response Trust Site  
Henderson, Nevada

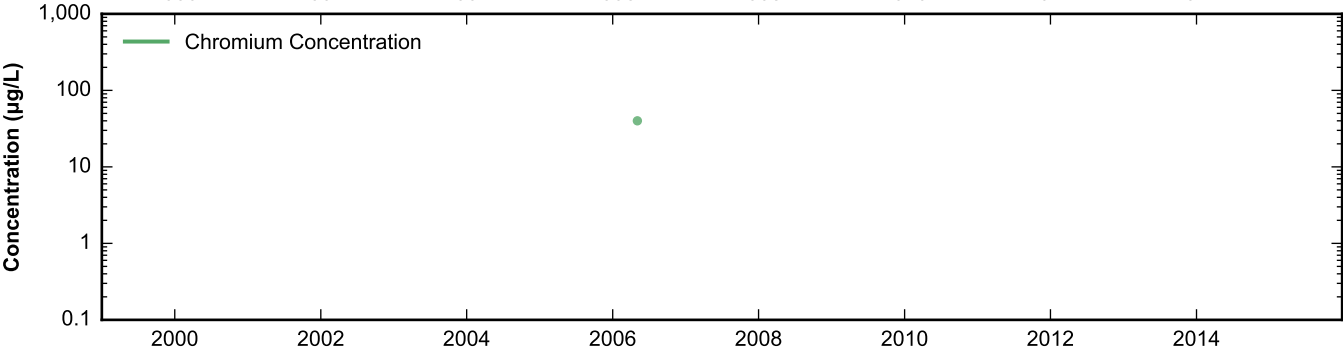
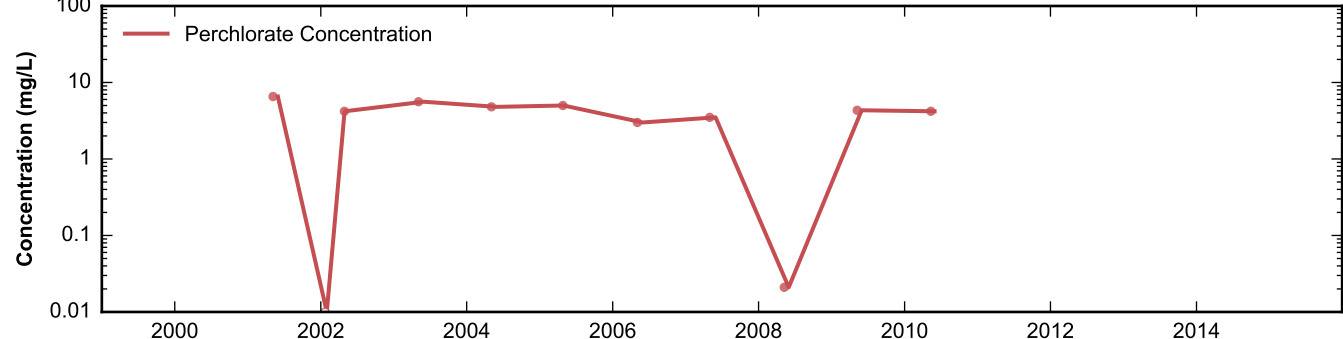
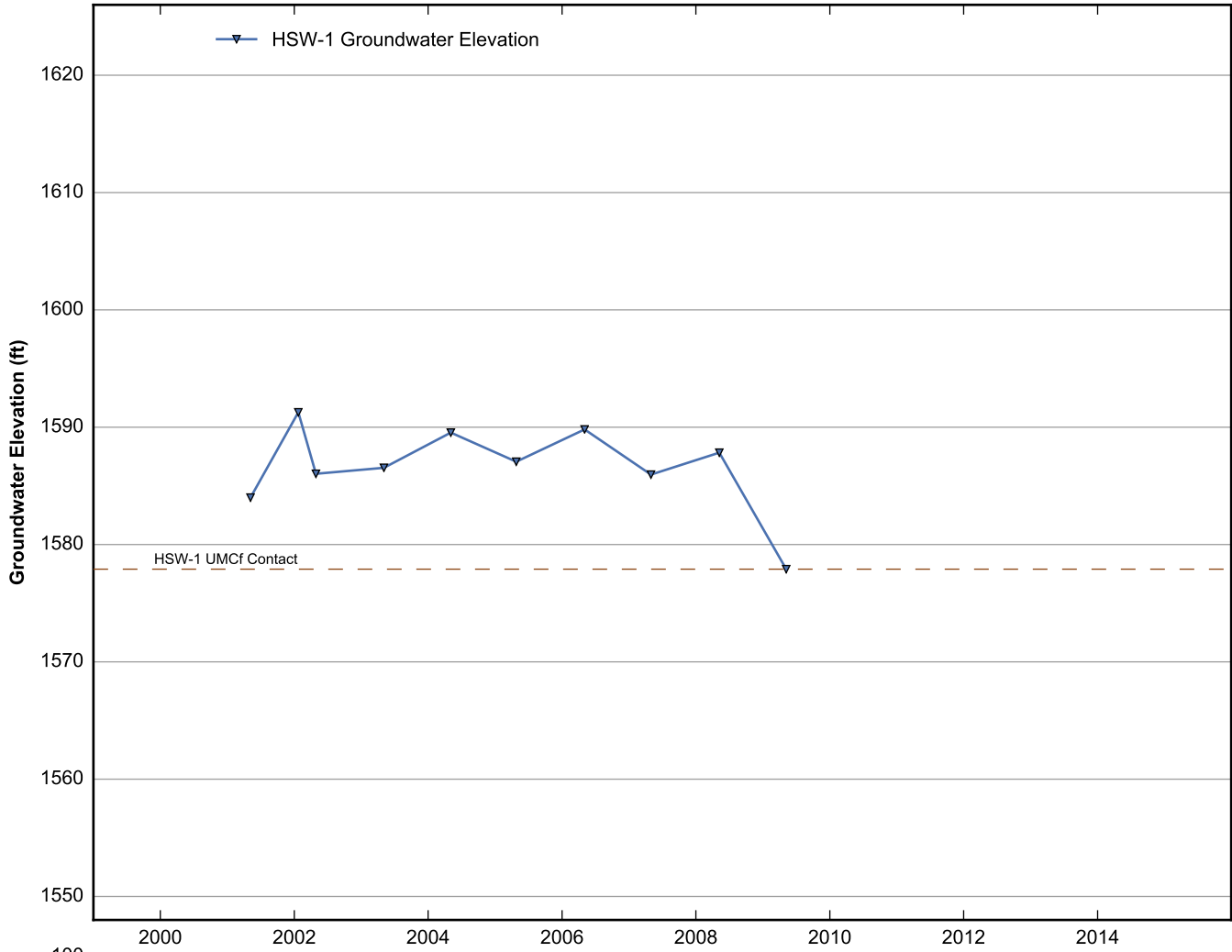


**Data Sheet for Well HMW-15**  
 Nevada Environmental Response Trust Site  
 Henderson, Nevada

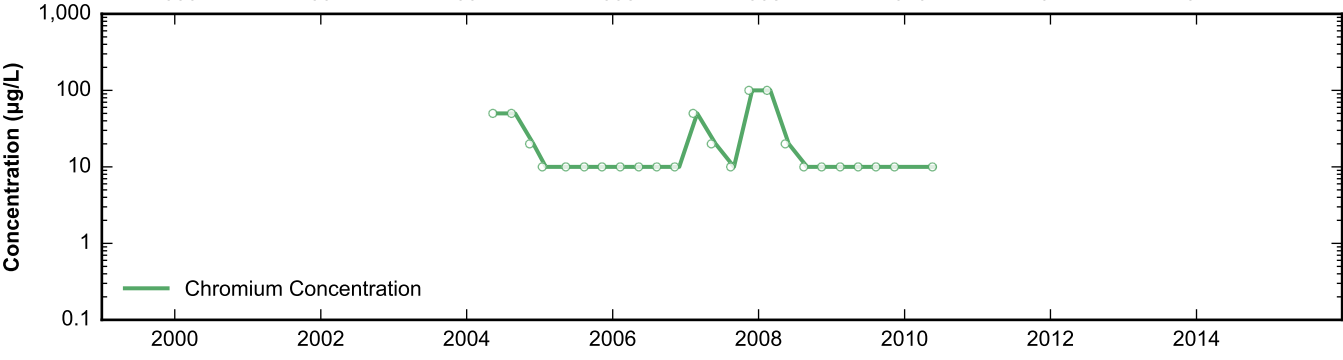
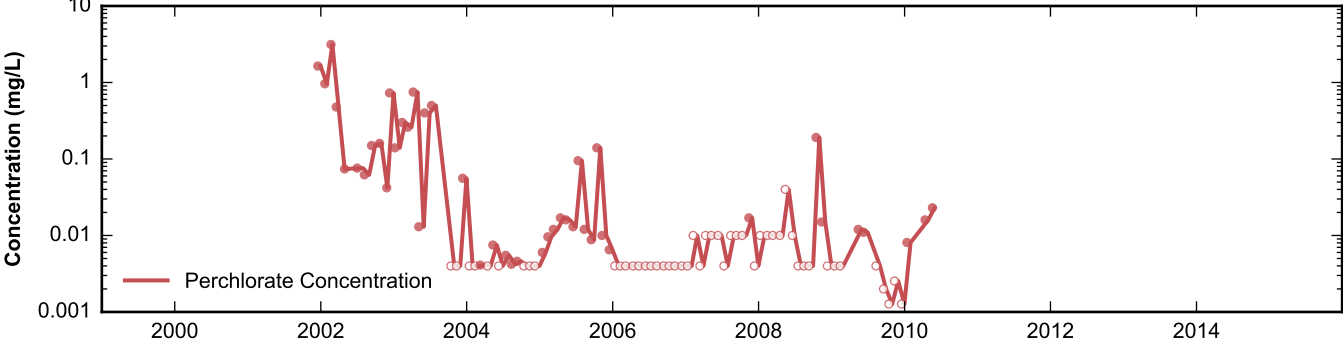
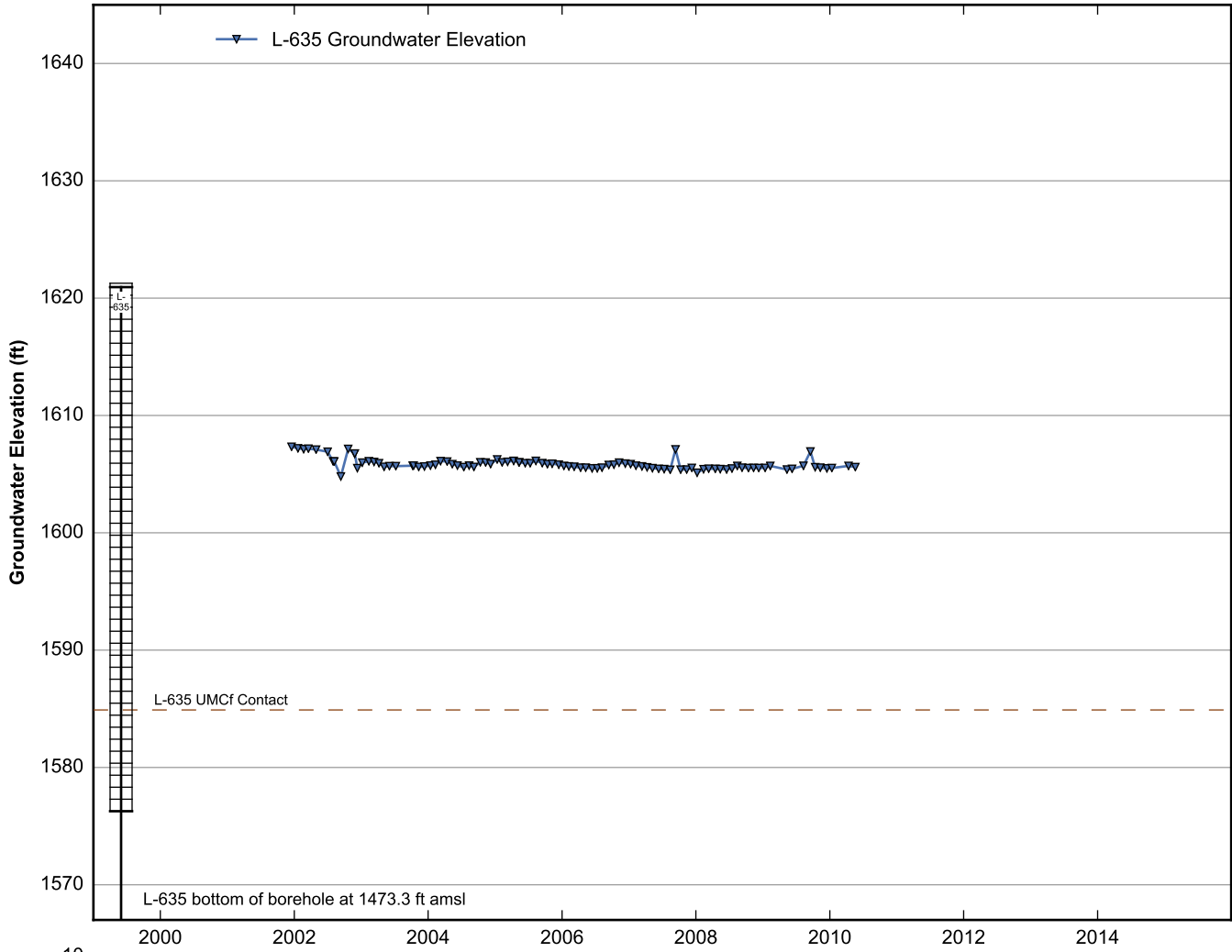


**Data Sheet for Well HMW-16**  
 Nevada Environmental Response Trust Site  
 Henderson, Nevada

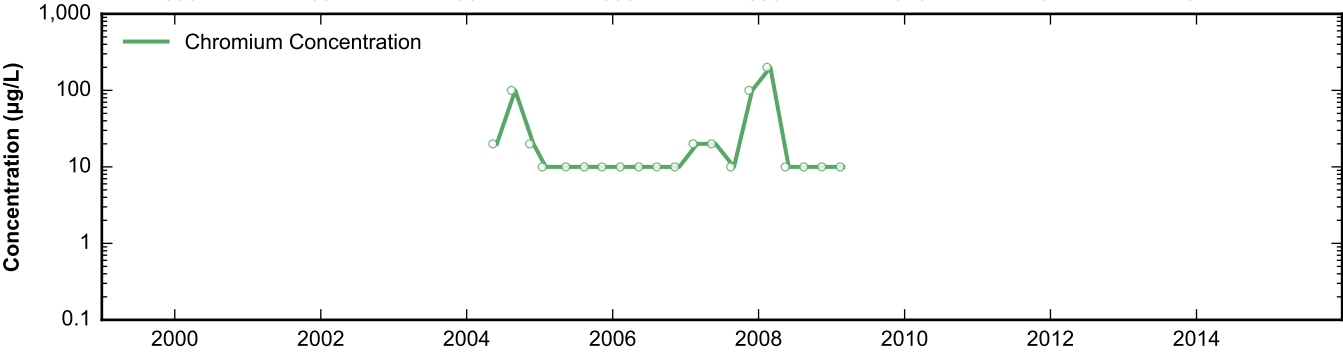
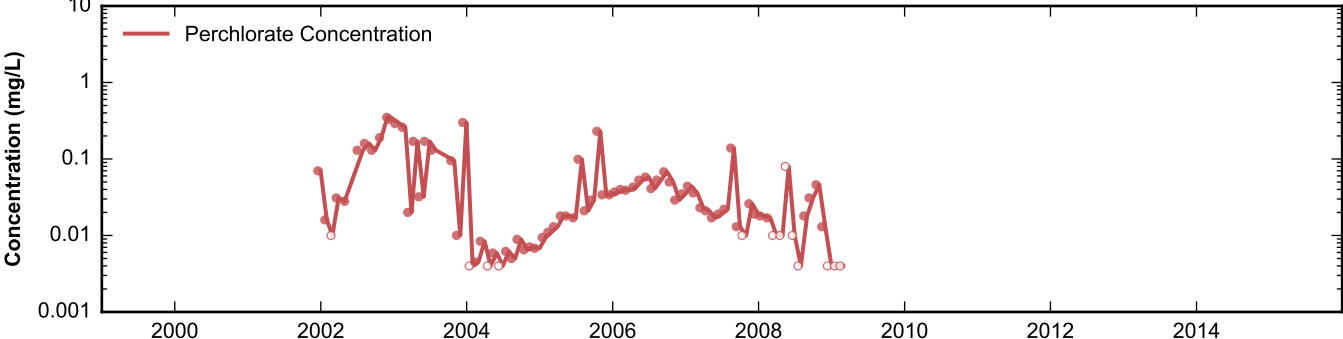
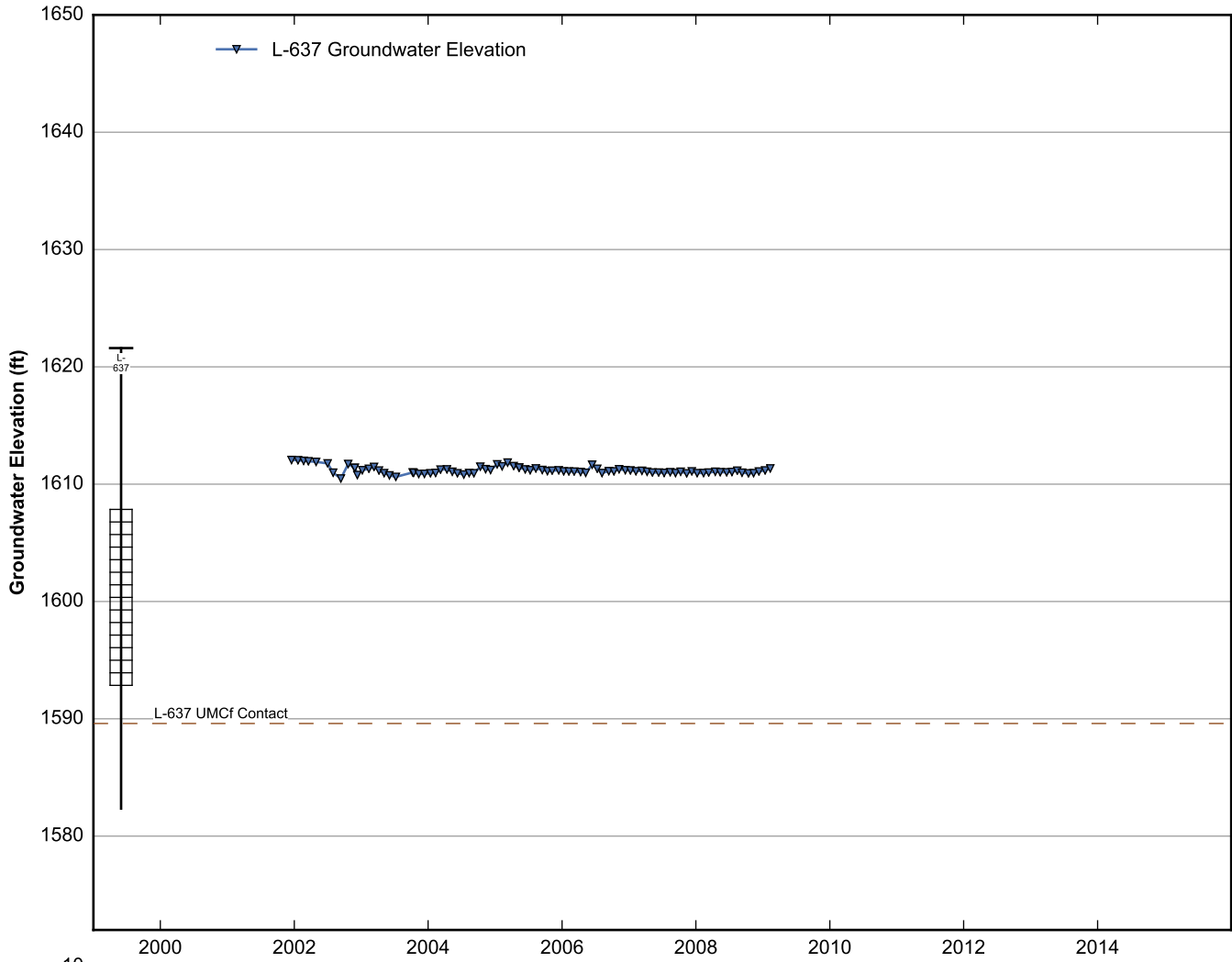




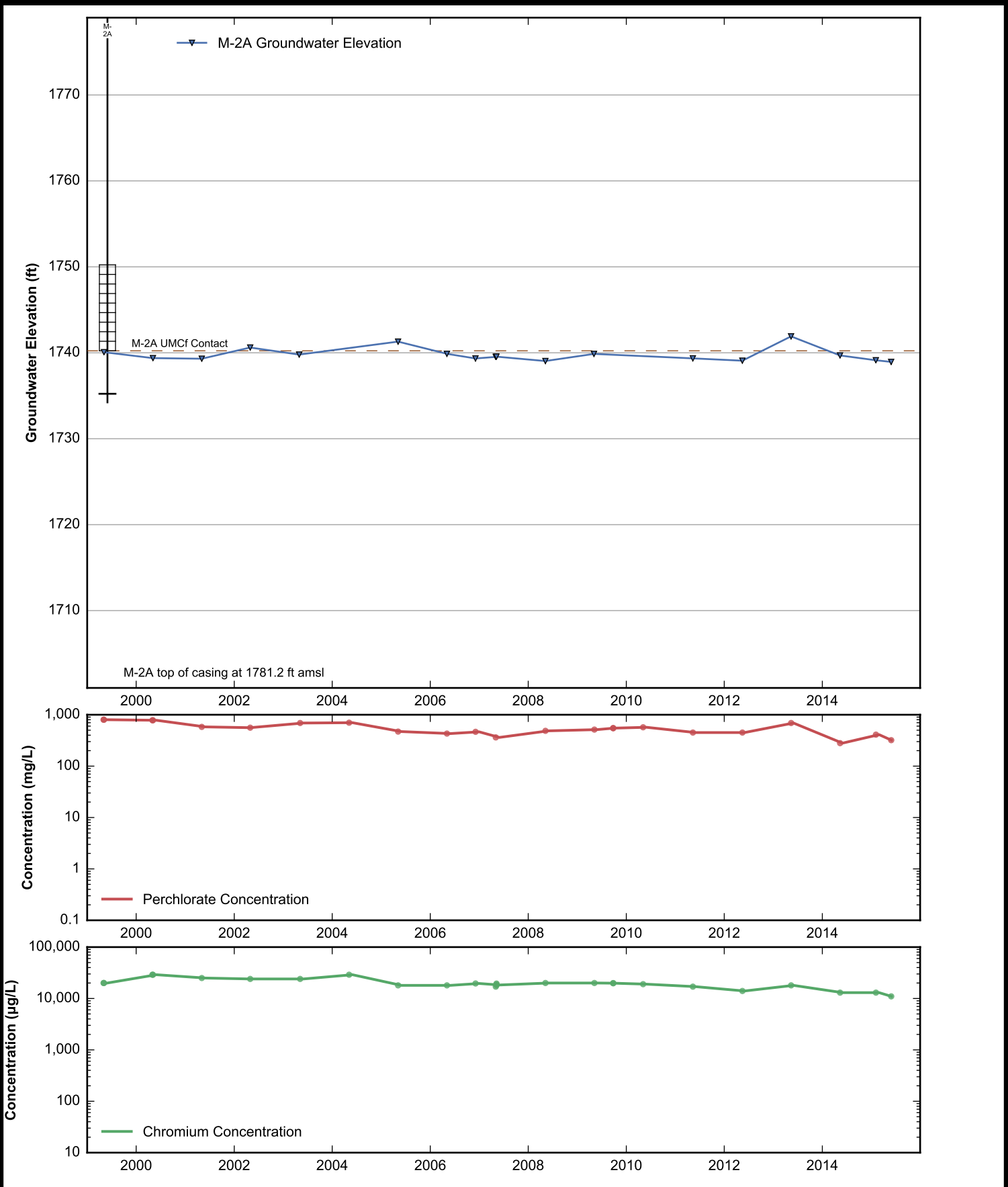
**Data Sheet for Well HSW-1**  
 Nevada Environmental Response Trust Site  
 Henderson, Nevada



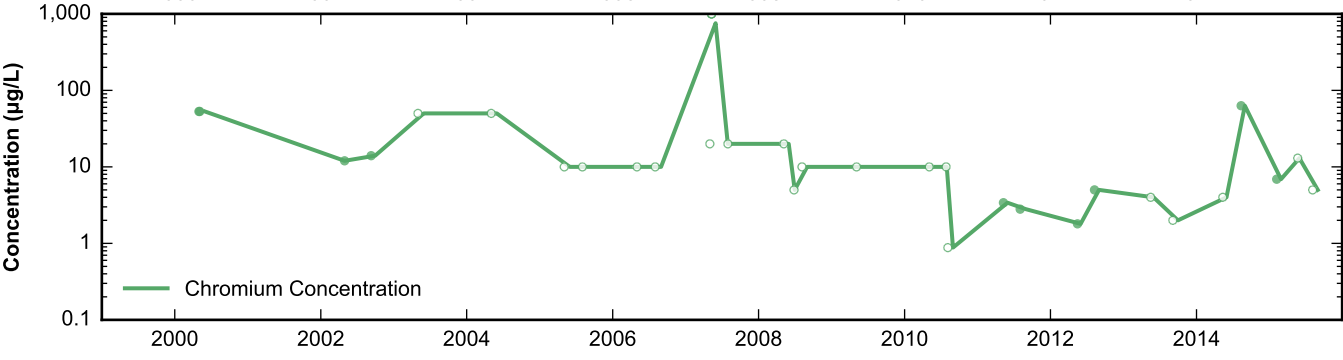
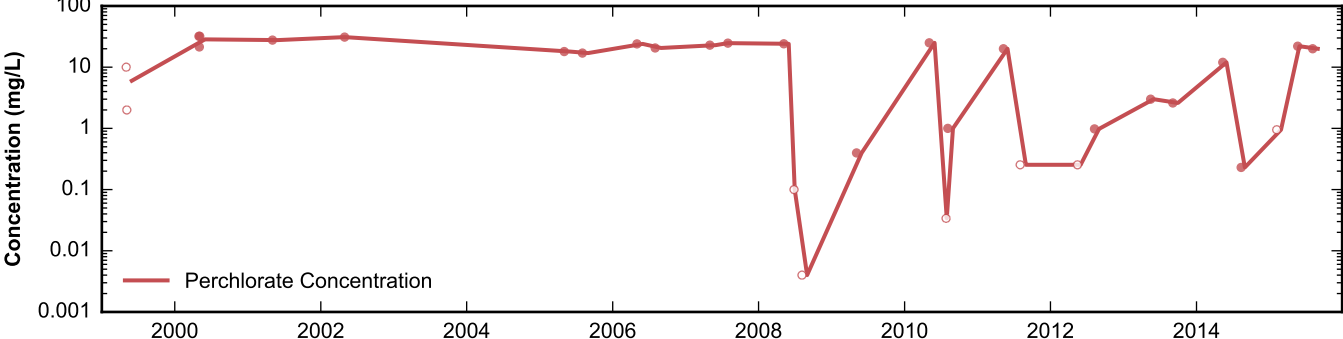
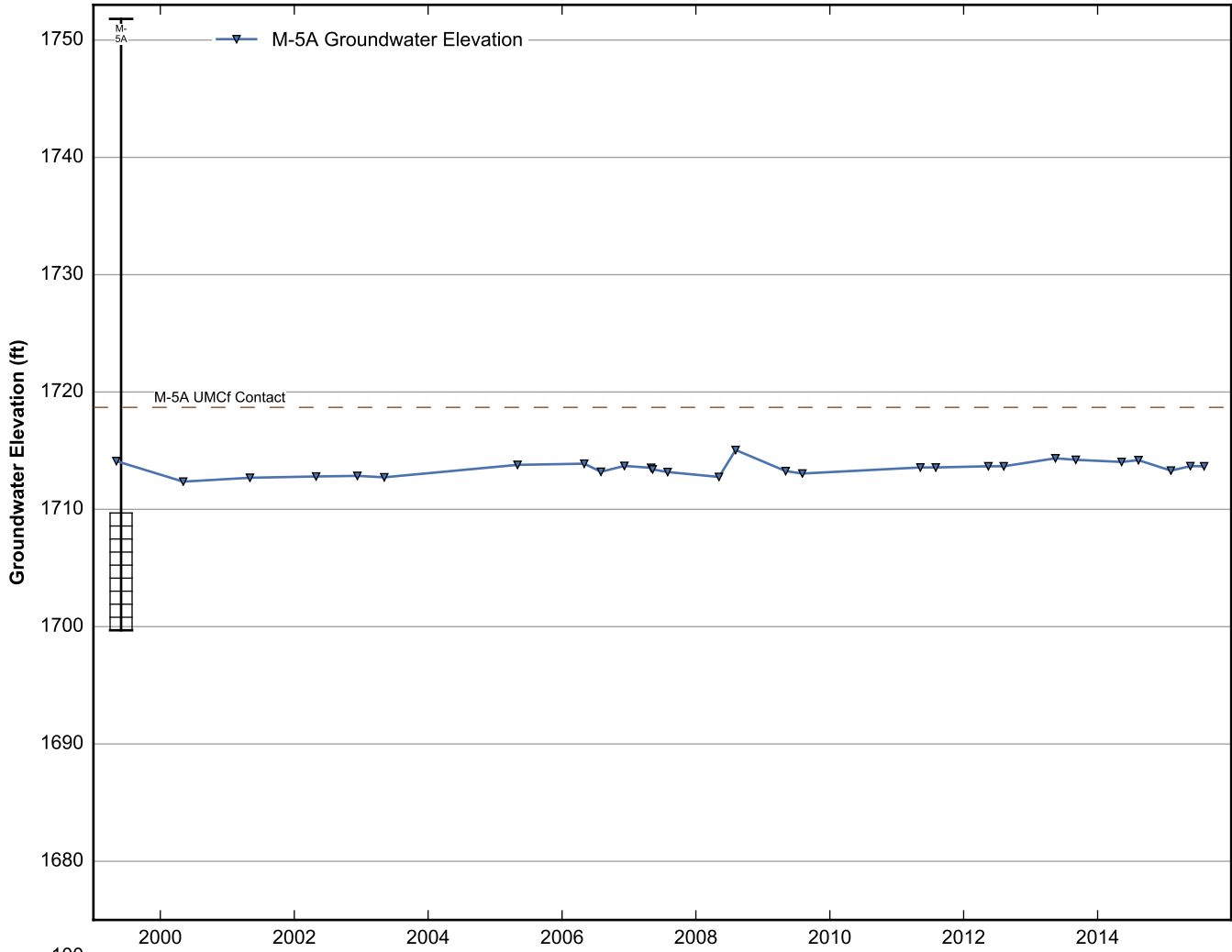
**Data Sheet for Well L-635**  
Nevada Environmental Response Trust Site  
Henderson, Nevada



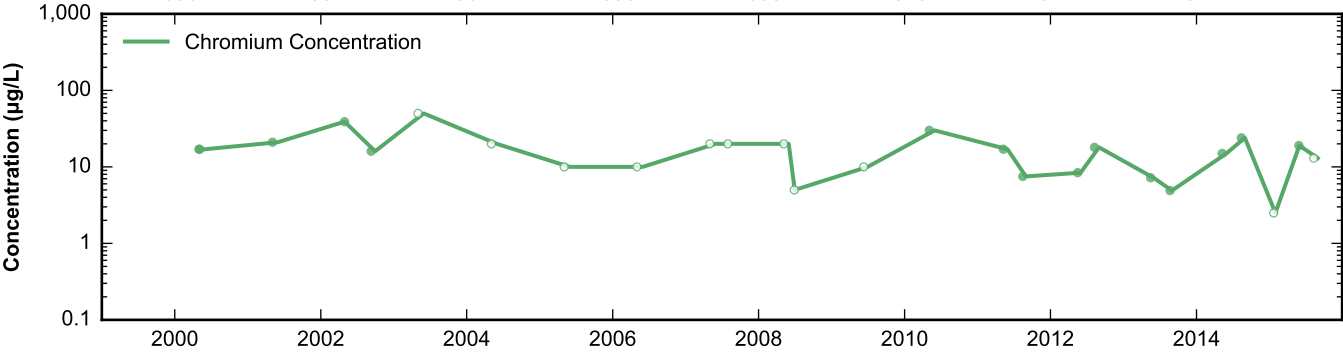
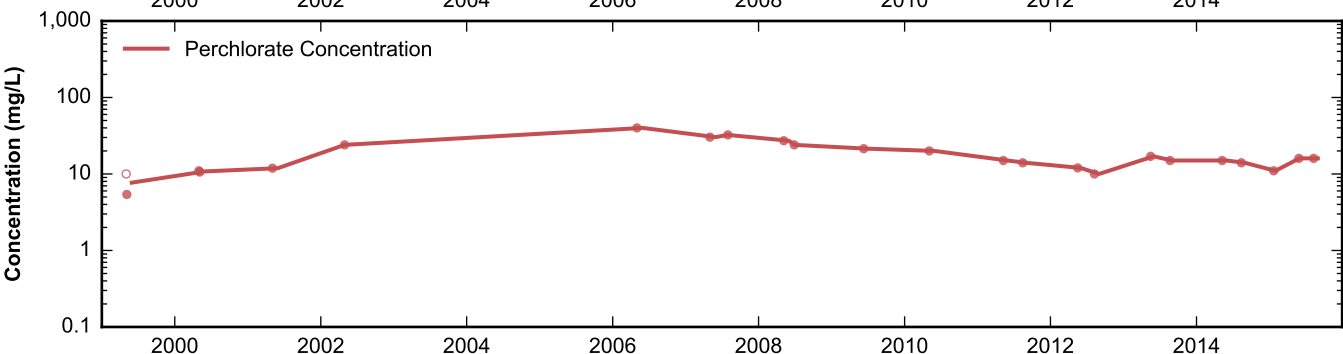
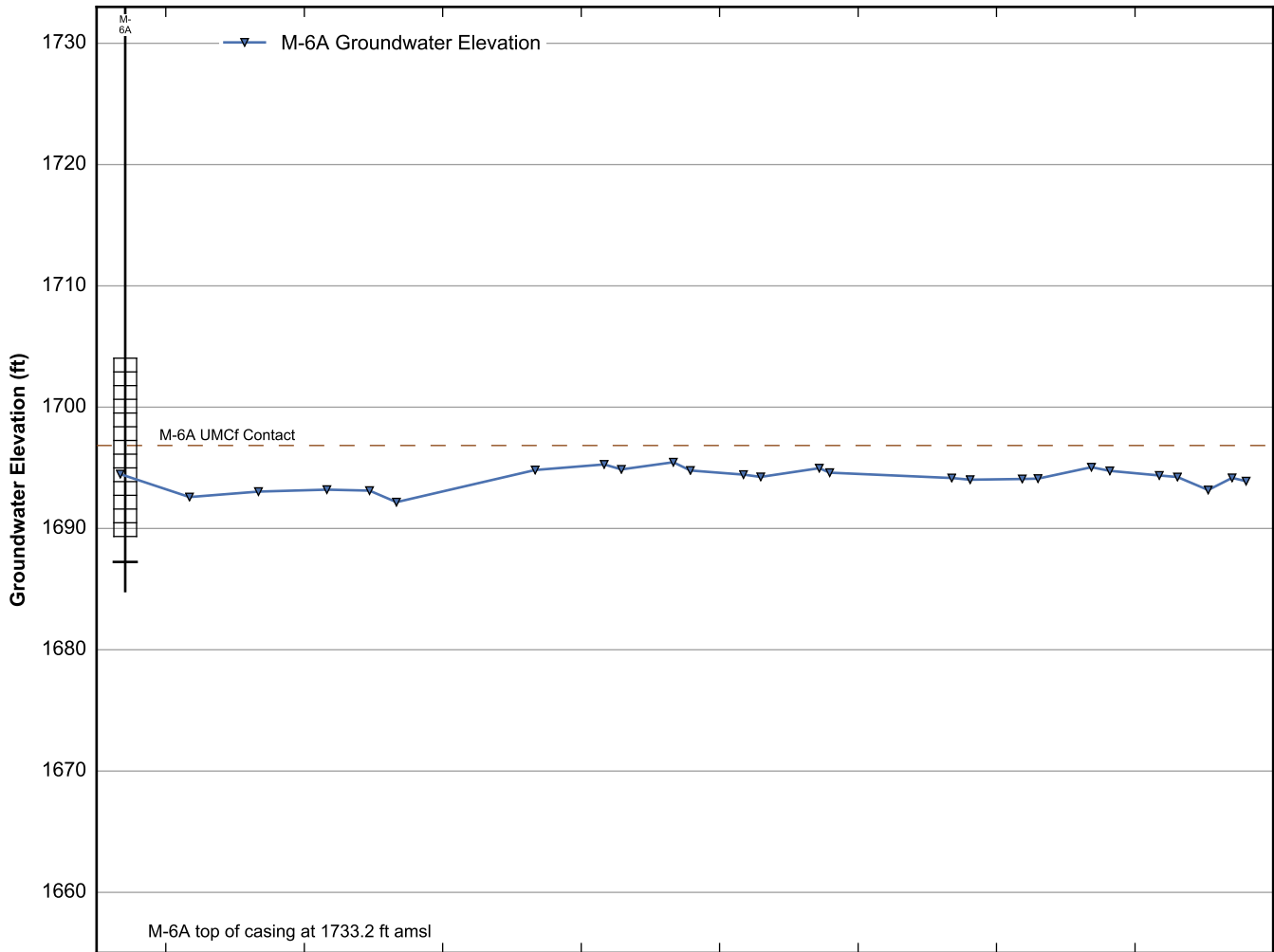
**Data Sheet for Well L-637**  
Nevada Environmental Response Trust Site  
Henderson, Nevada

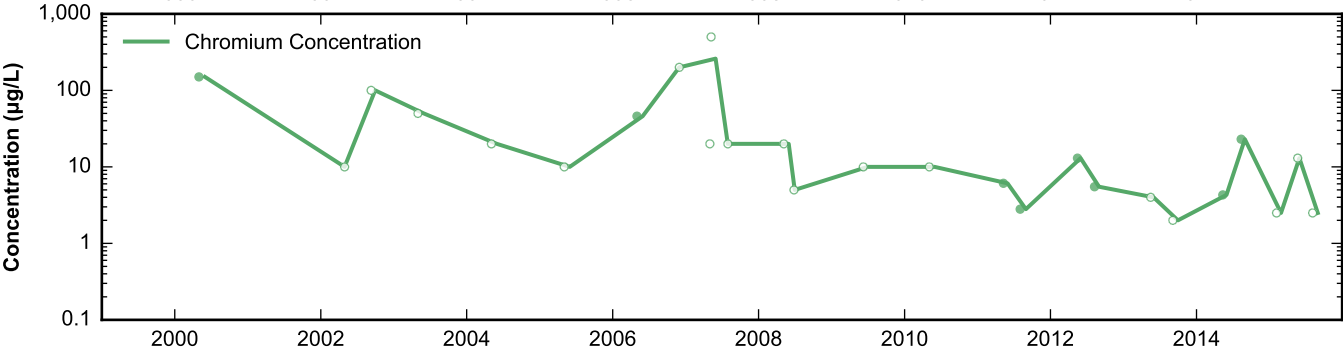
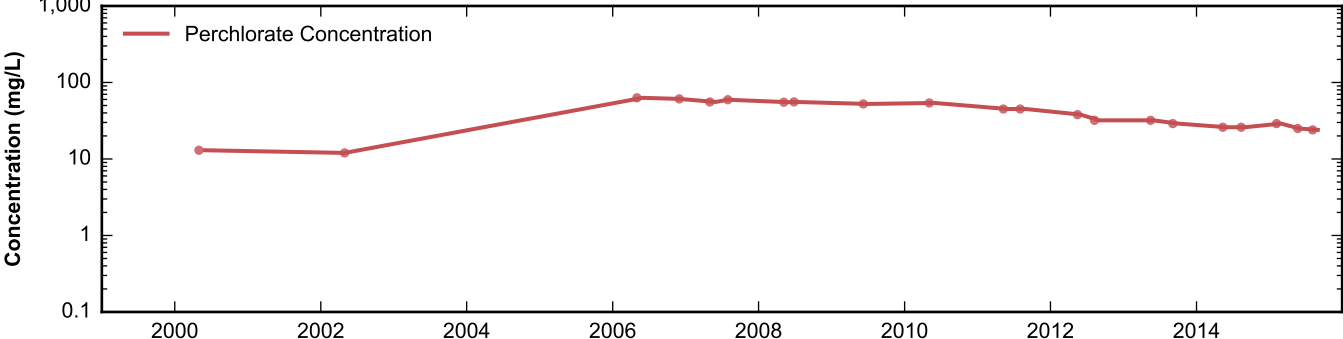
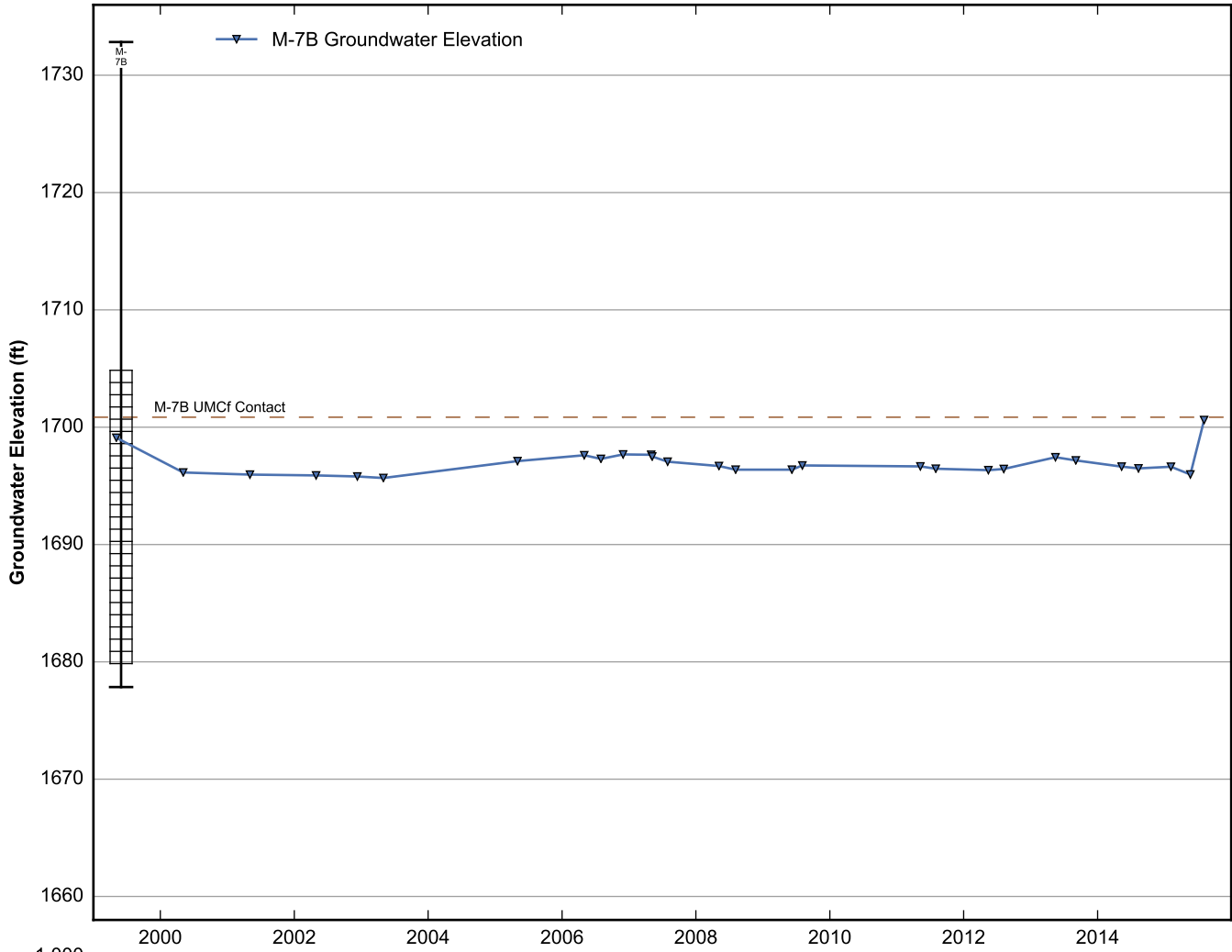


**Data Sheet for Well M-2A**  
 Nevada Environmental Response Trust Site  
 Henderson, Nevada

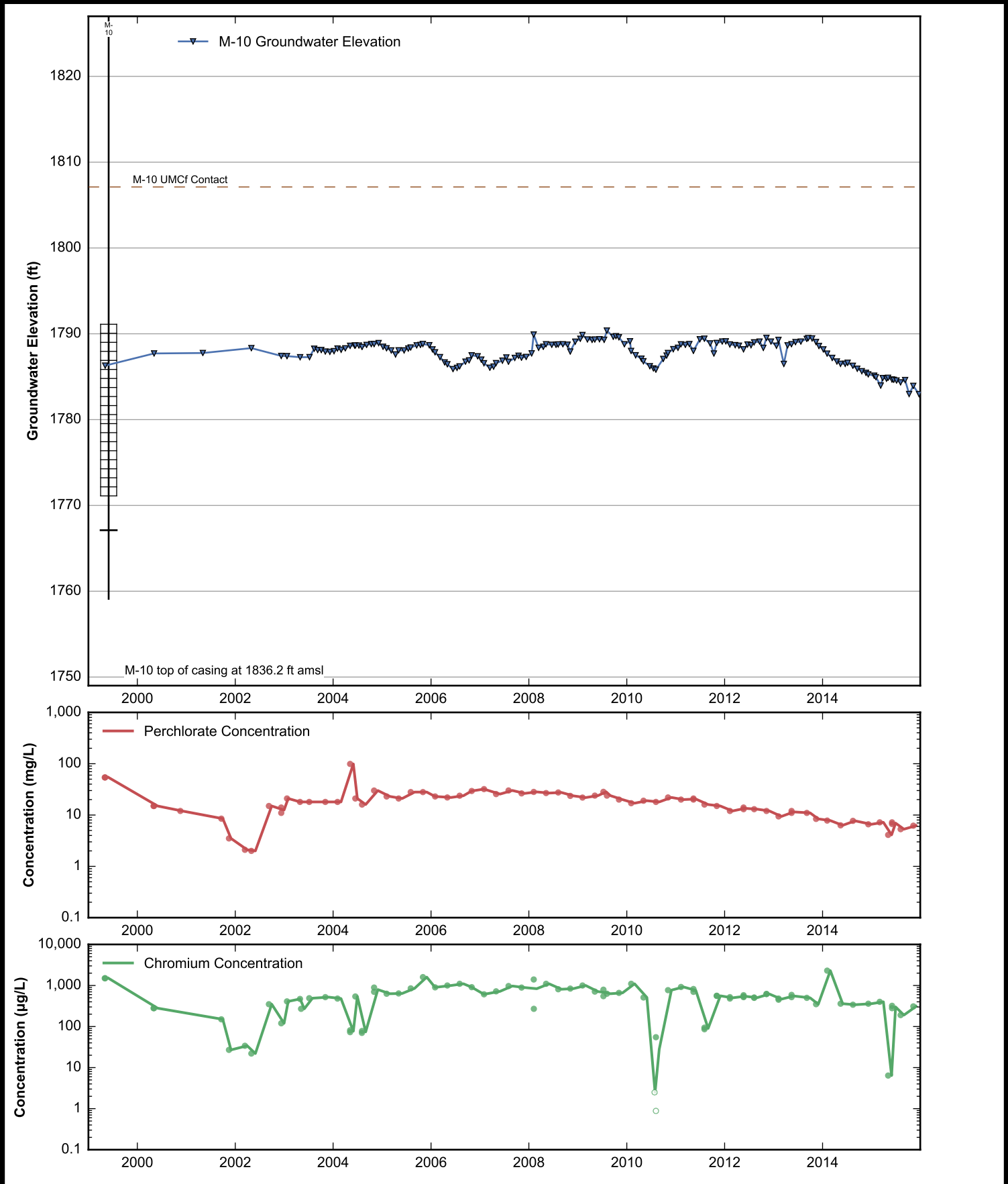


**Data Sheet for Well M-5A**  
 Nevada Environmental Response Trust Site  
 Henderson, Nevada



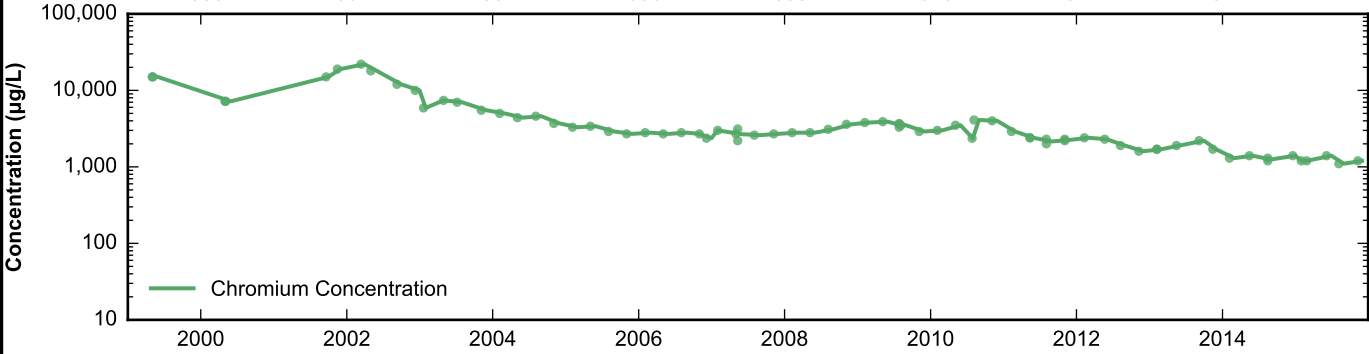
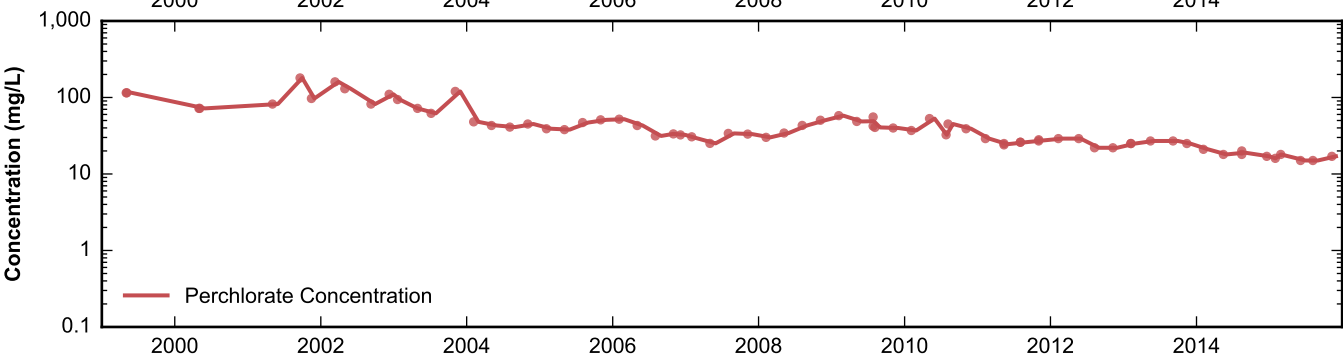
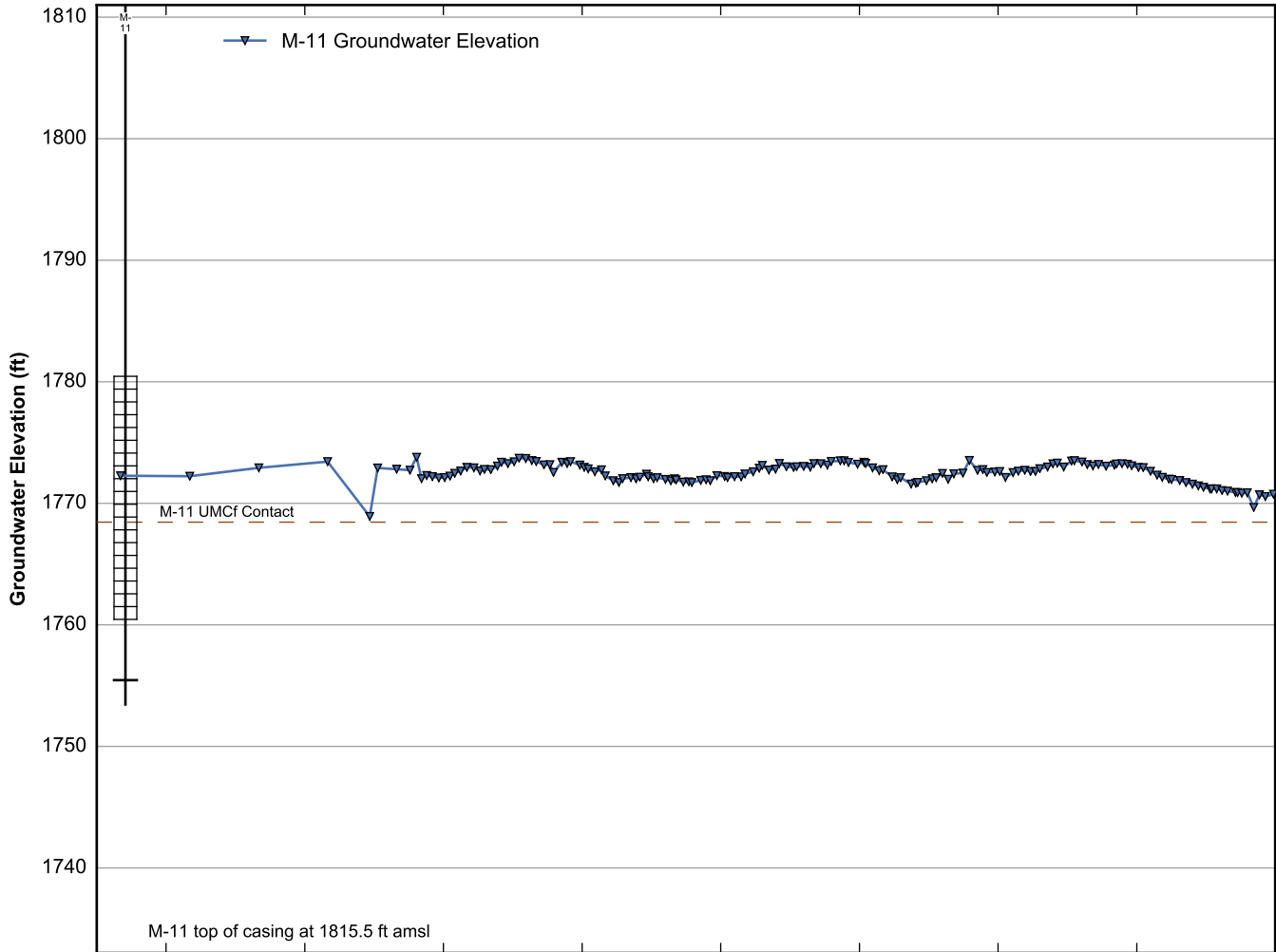


**Data Sheet for Well M-7B**  
 Nevada Environmental Response Trust Site  
 Henderson, Nevada

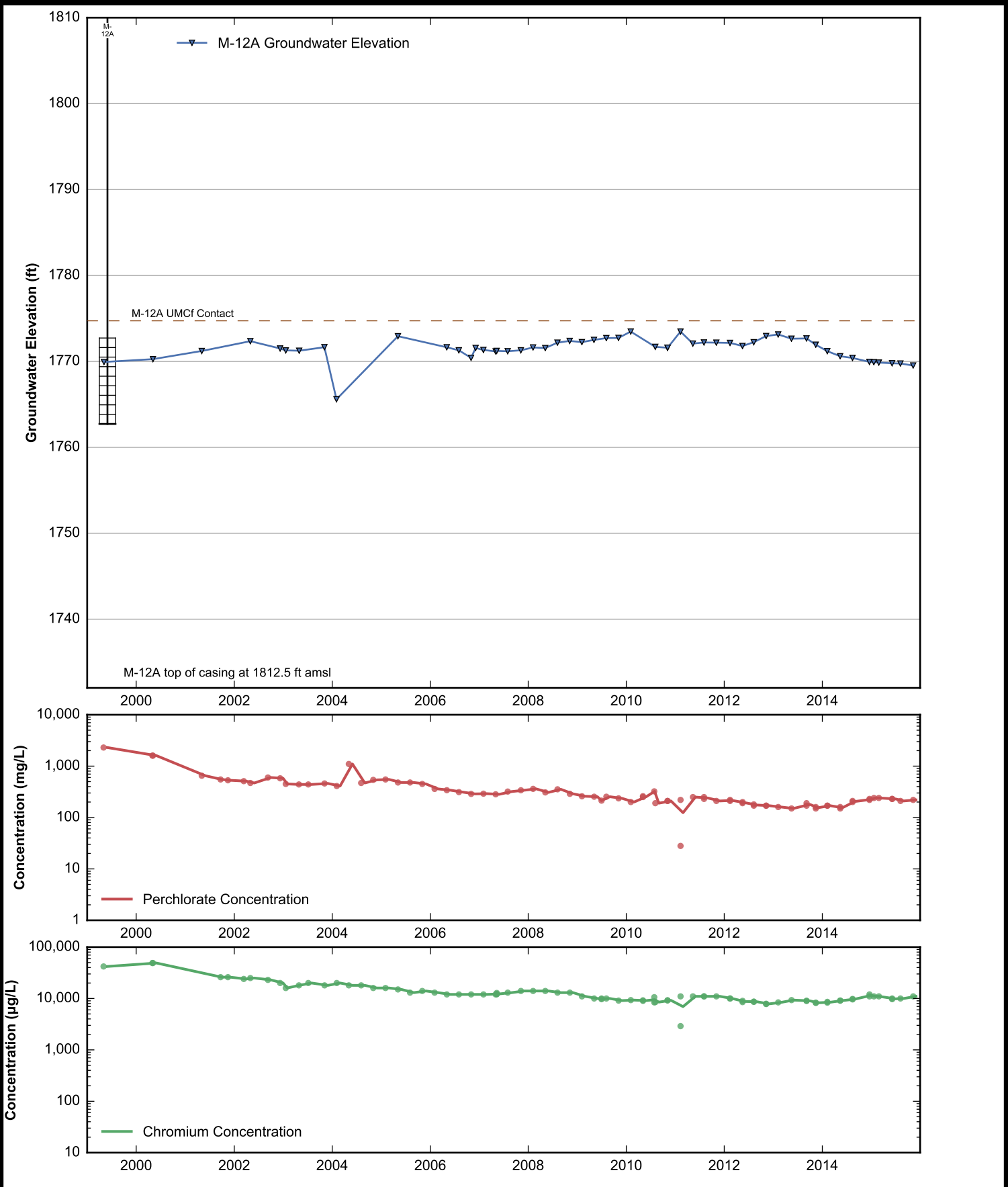


**Data Sheet for Well M-10**  
Nevada Environmental Response Trust Site  
Henderson, Nevada

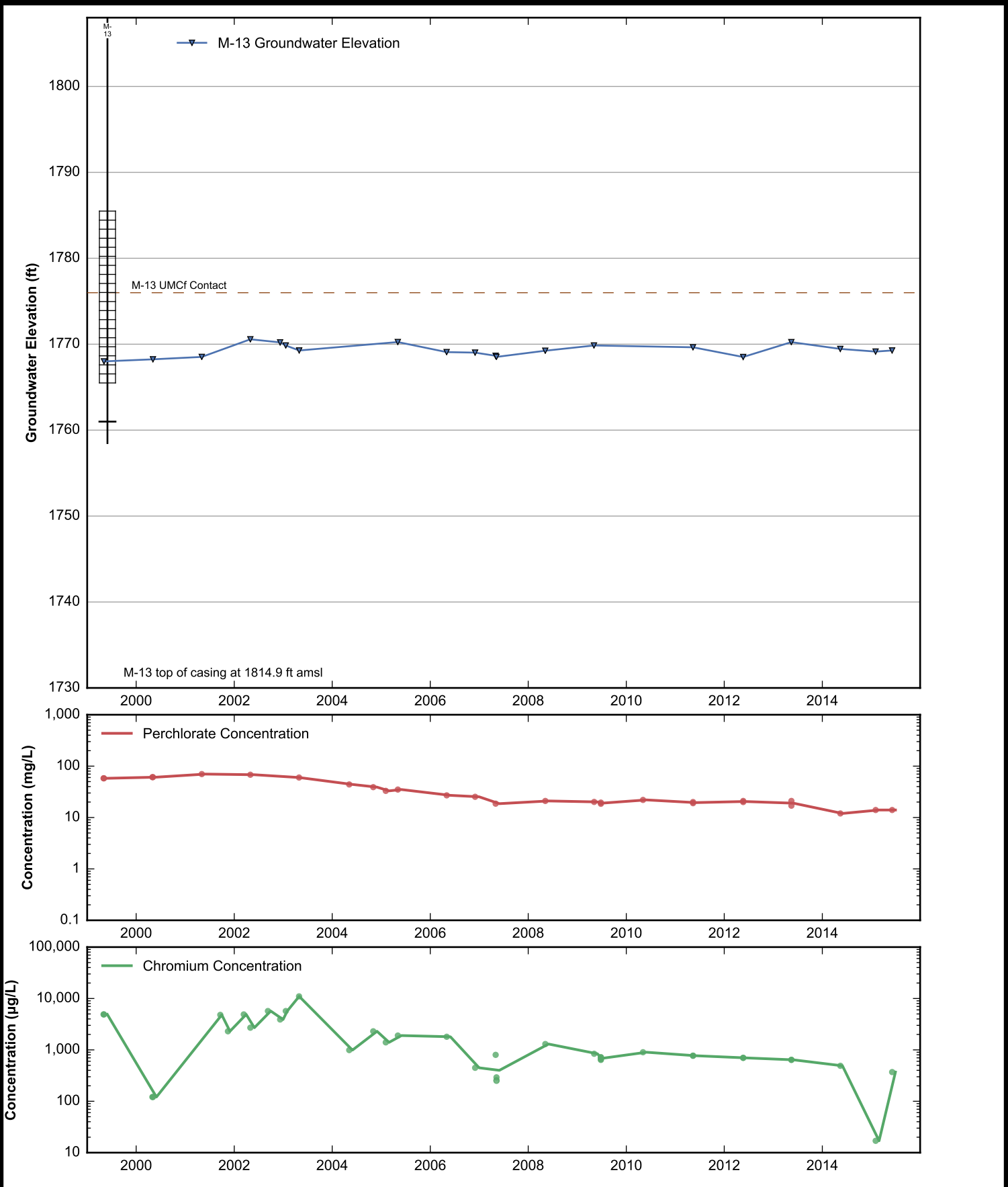




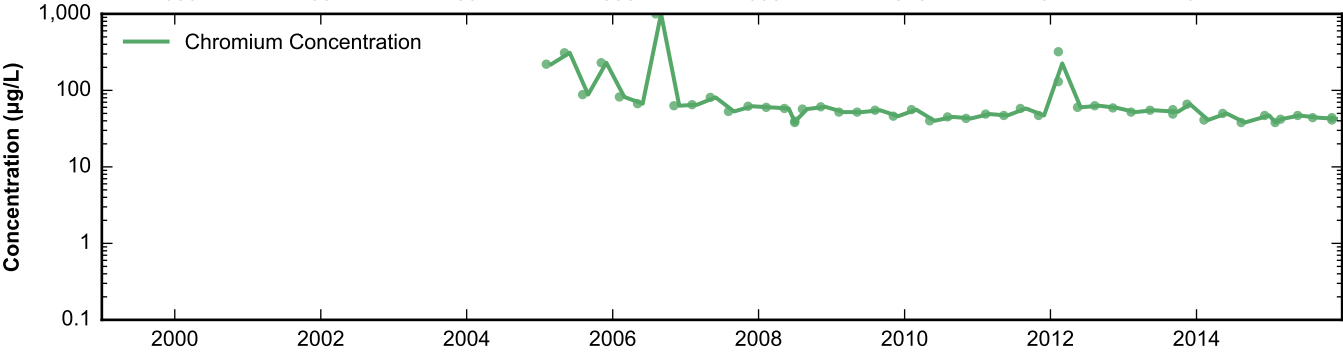
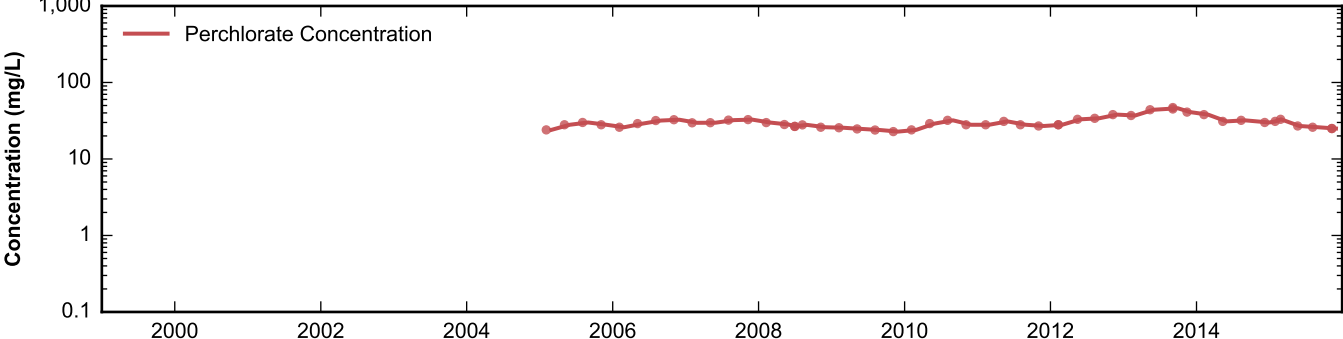
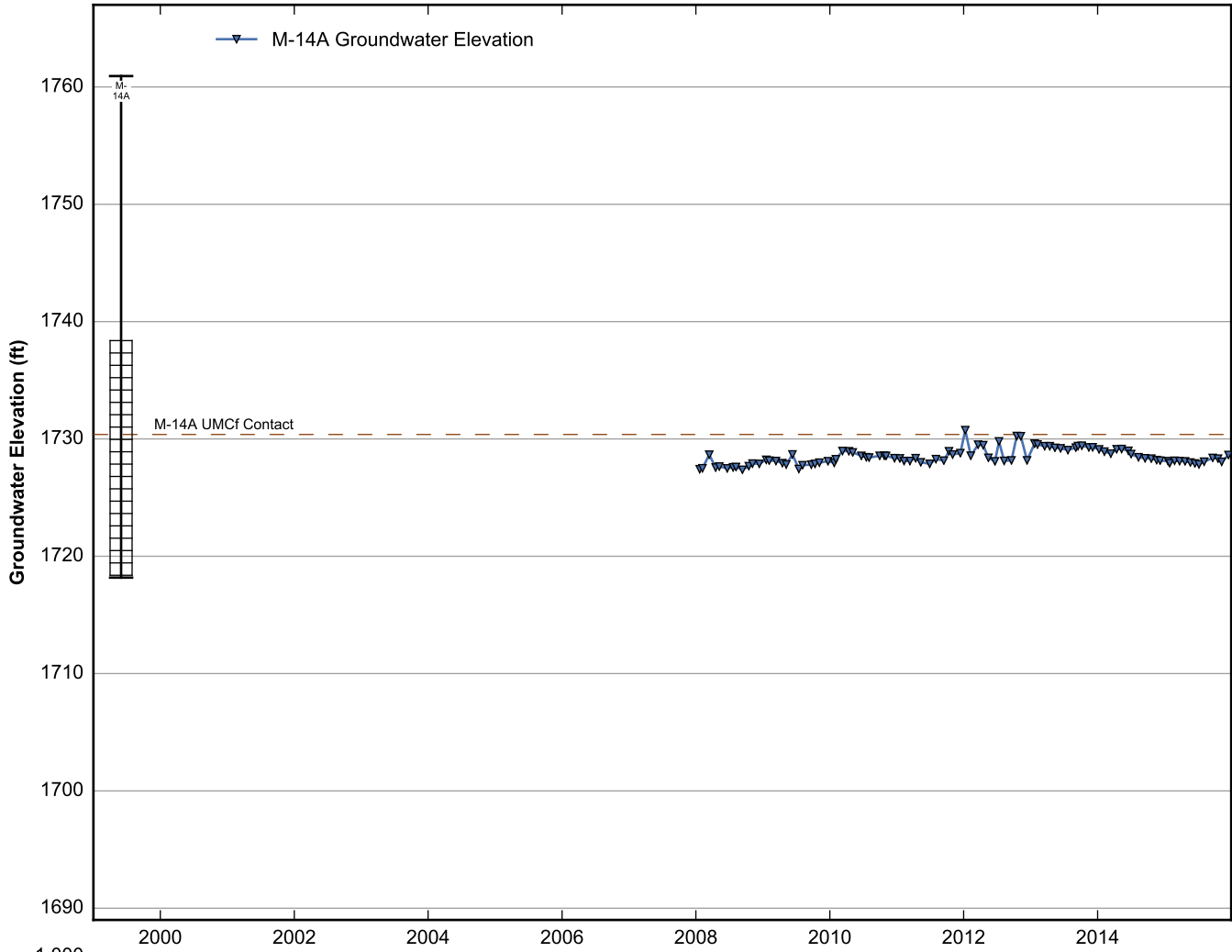
**Data Sheet for Well M-11**  
Nevada Environmental Response Trust Site  
Henderson, Nevada



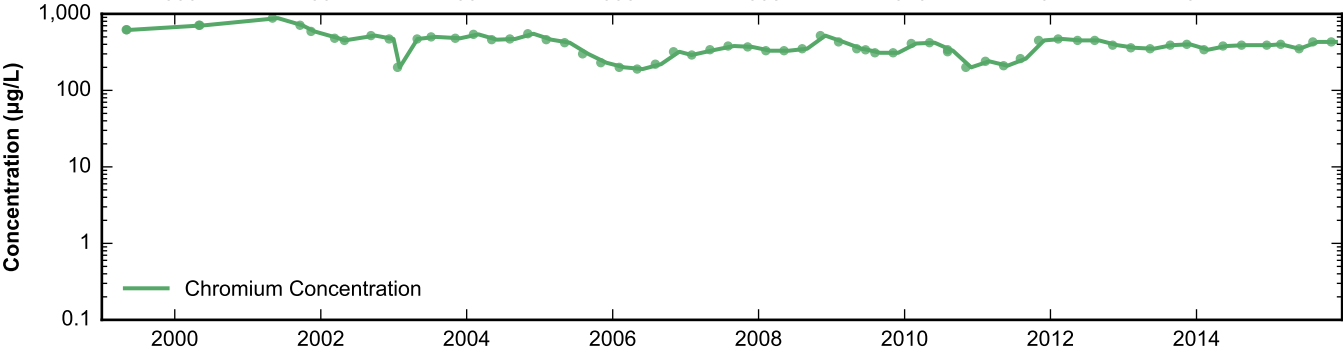
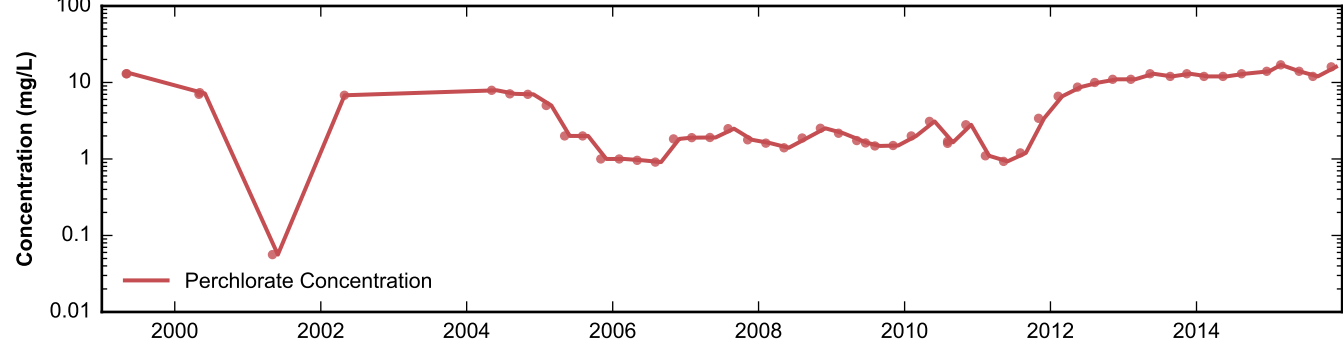
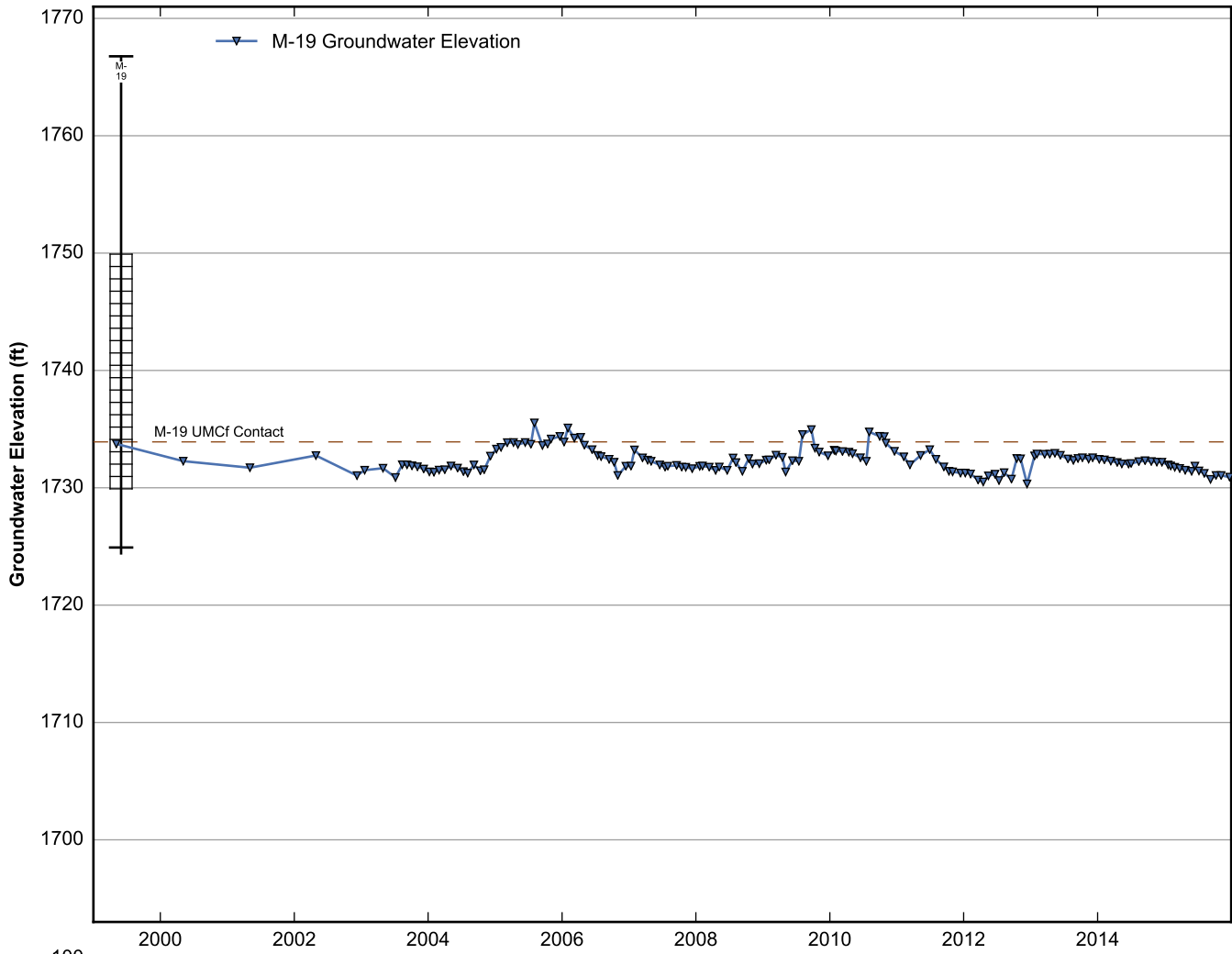
**Data Sheet for Well M-12A**  
Nevada Environmental Response Trust Site  
Henderson, Nevada



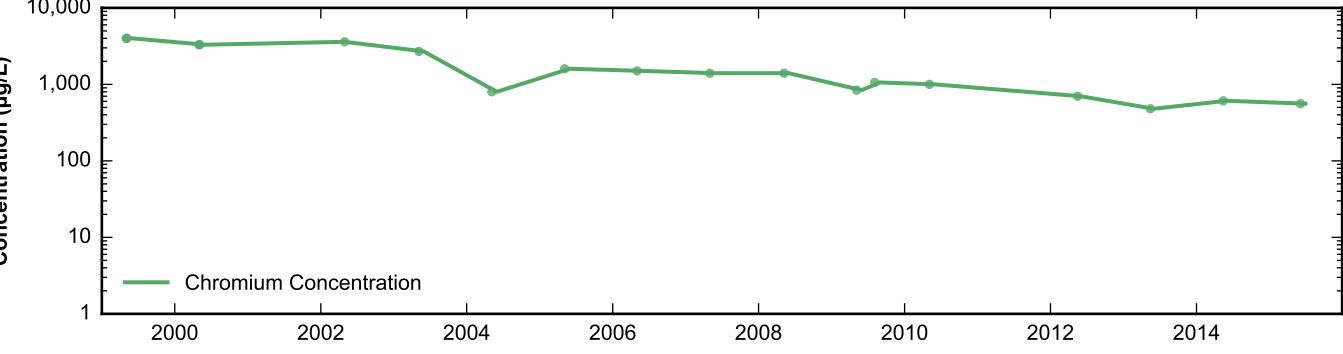
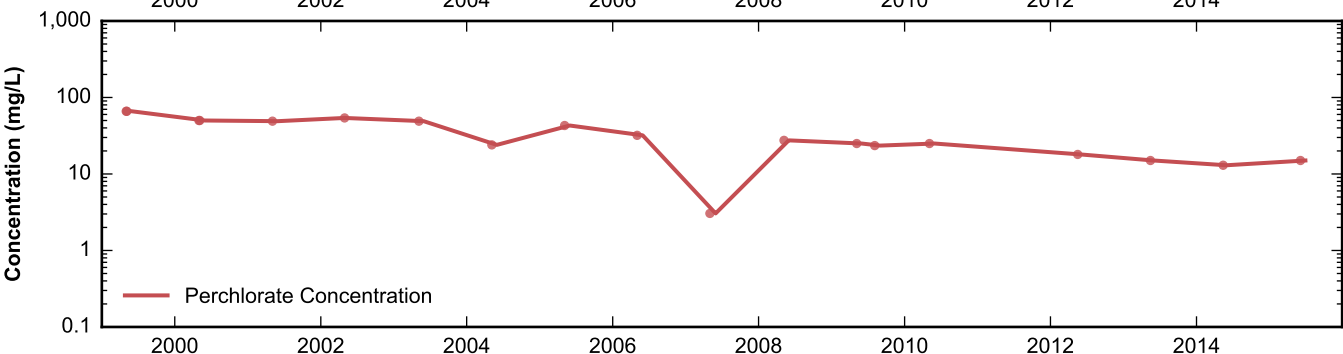
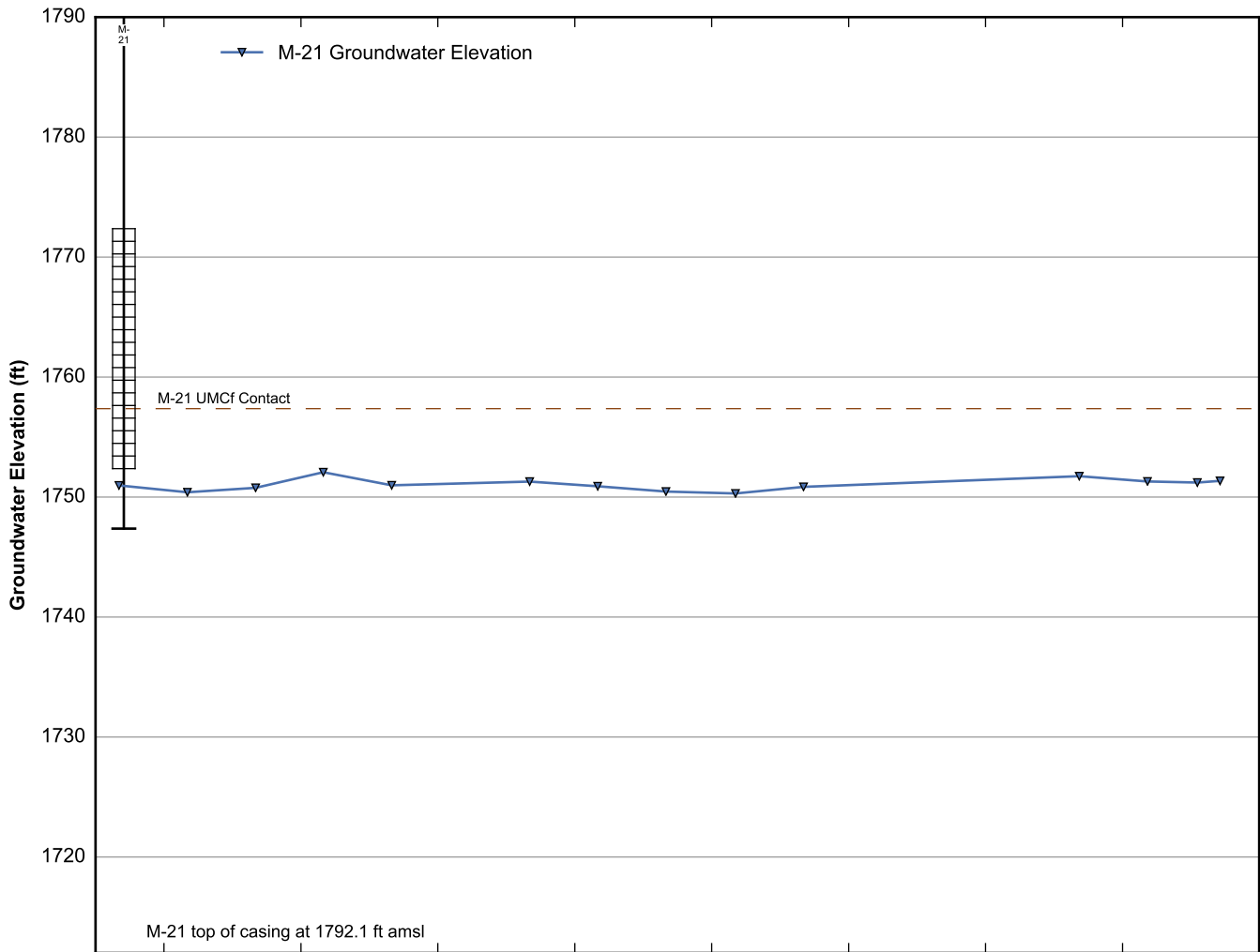
**Data Sheet for Well M-13**  
 Nevada Environmental Response Trust Site  
 Henderson, Nevada

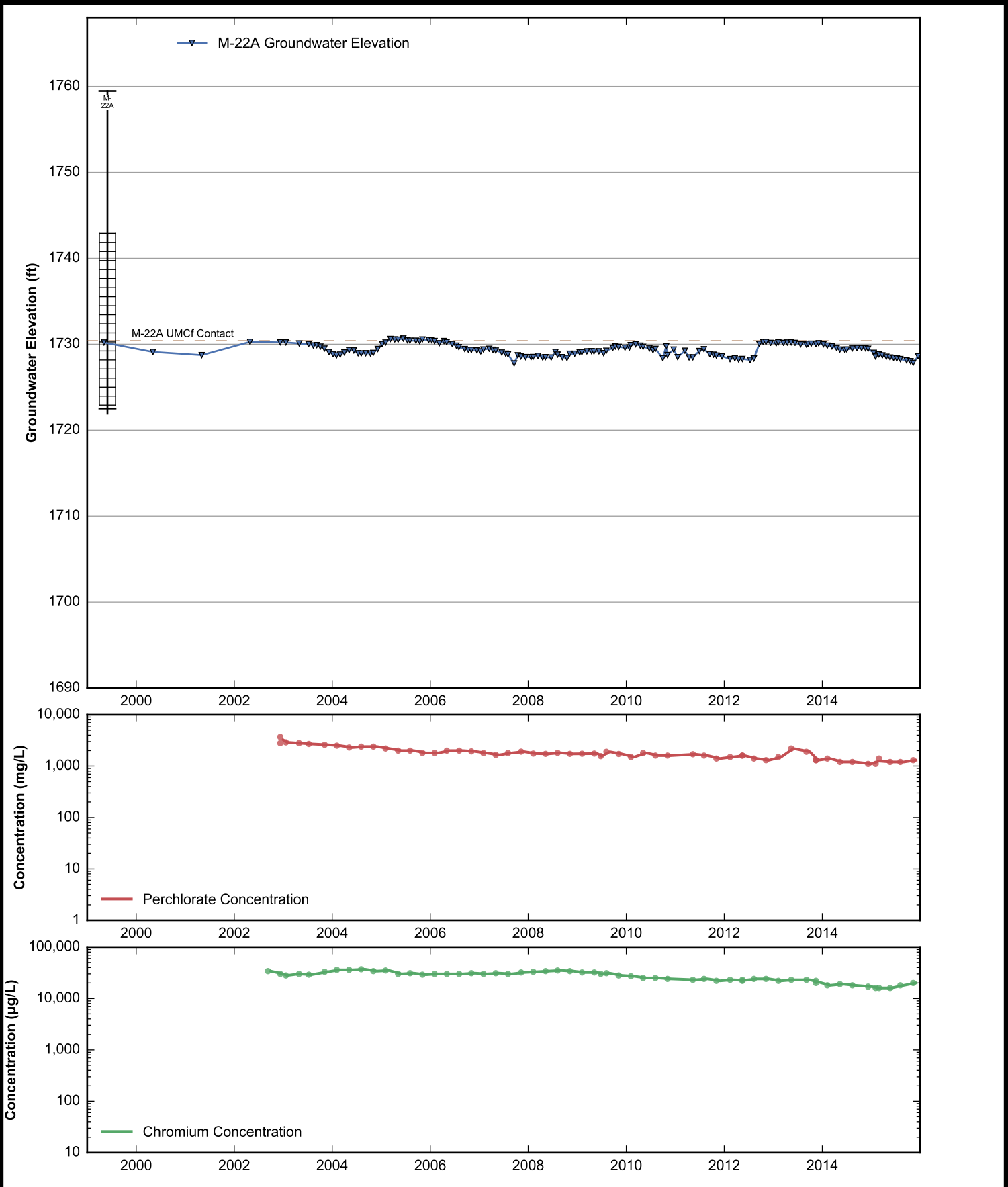


**Data Sheet for Well M-14A**  
Nevada Environmental Response Trust Site  
Henderson, Nevada

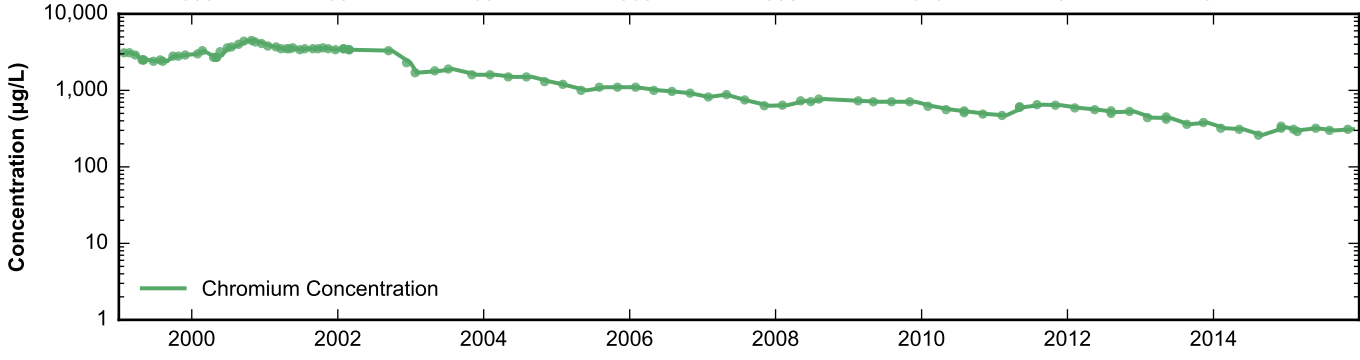
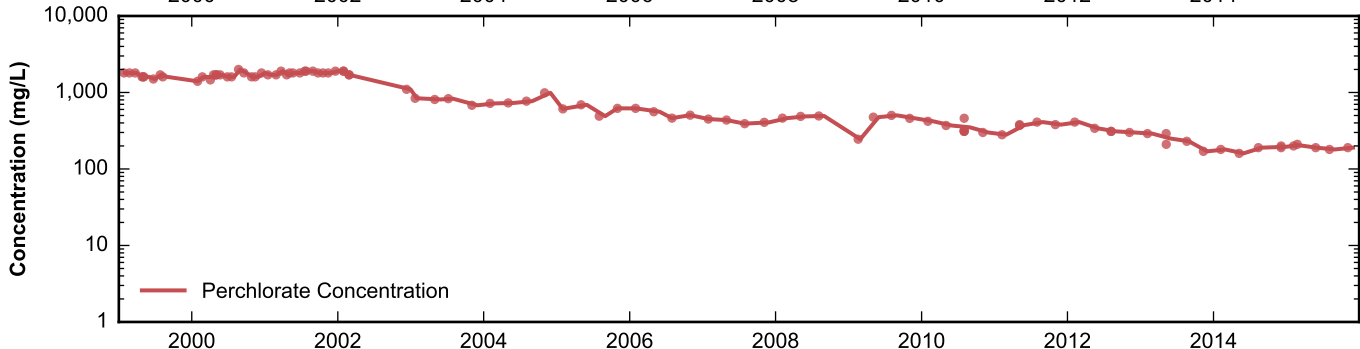
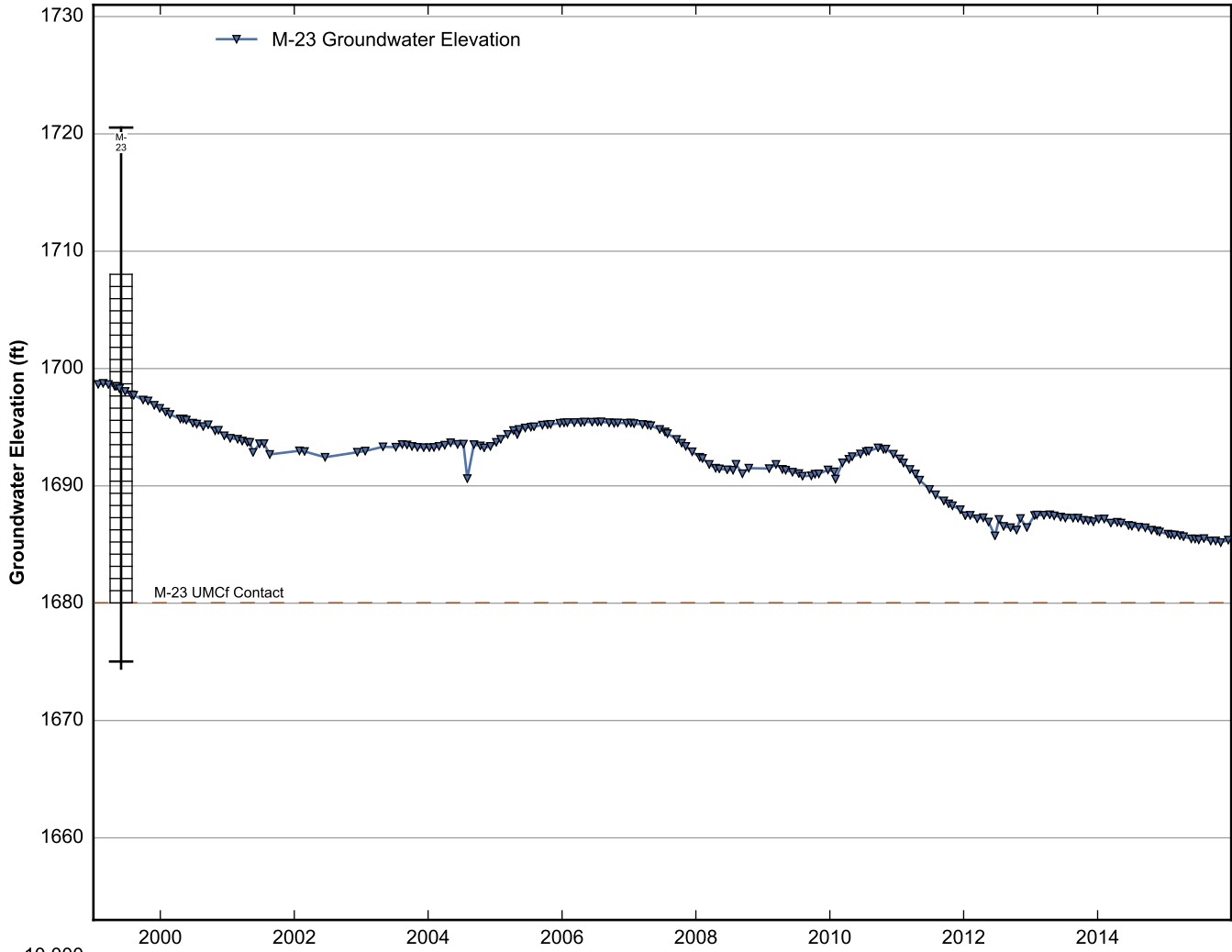


**Data Sheet for Well M-19**  
Nevada Environmental Response Trust Site  
Henderson, Nevada



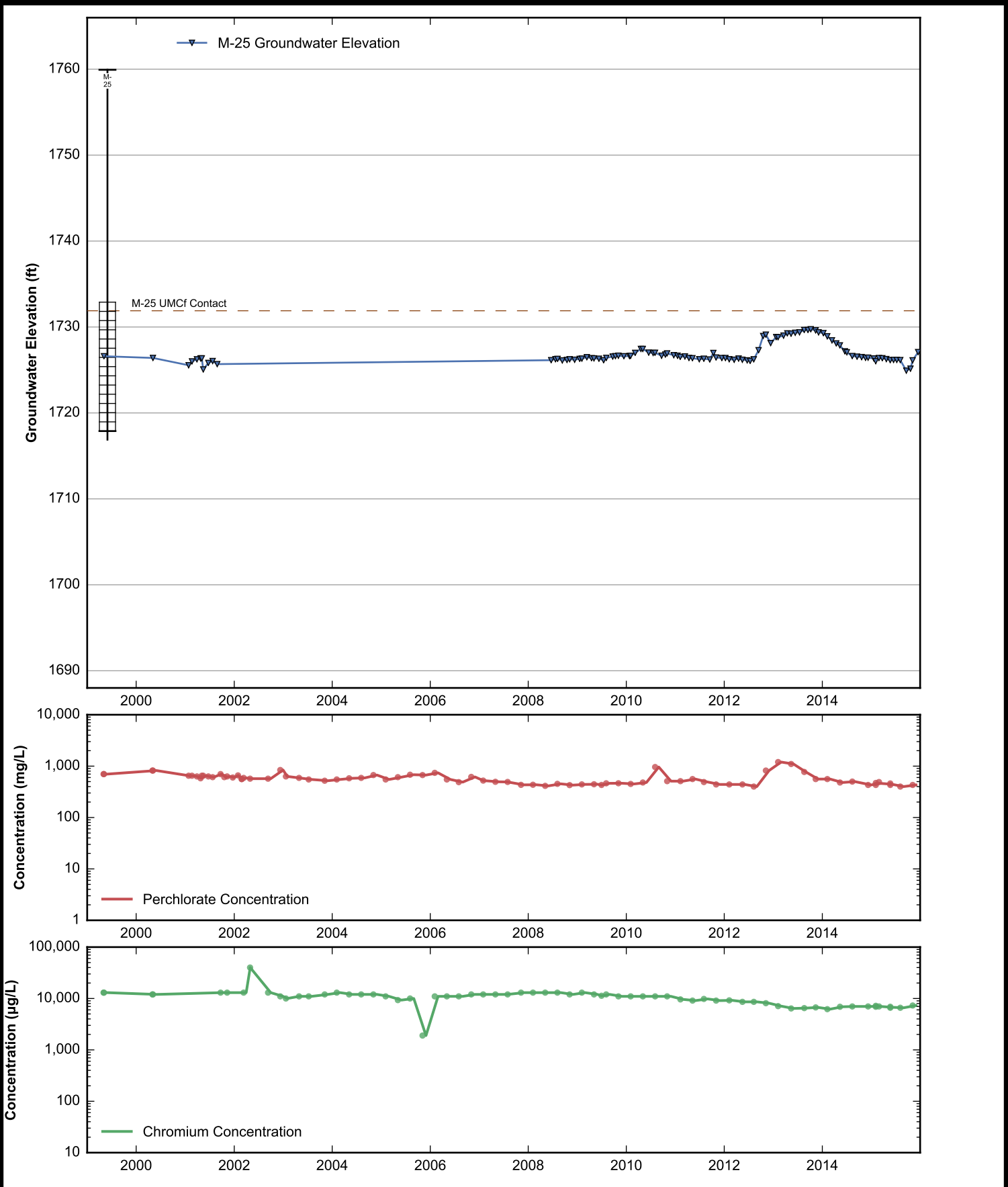


**Data Sheet for Well M-22A**  
Nevada Environmental Response Trust Site  
Henderson, Nevada

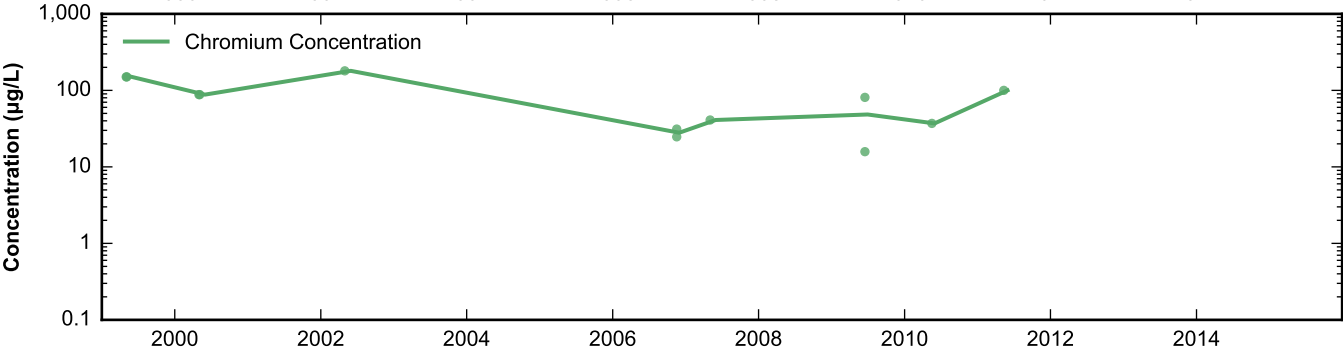
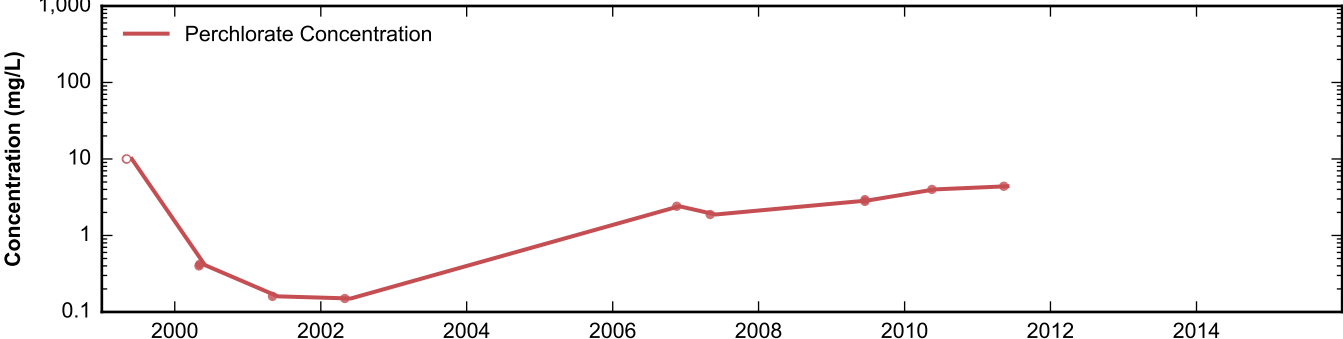
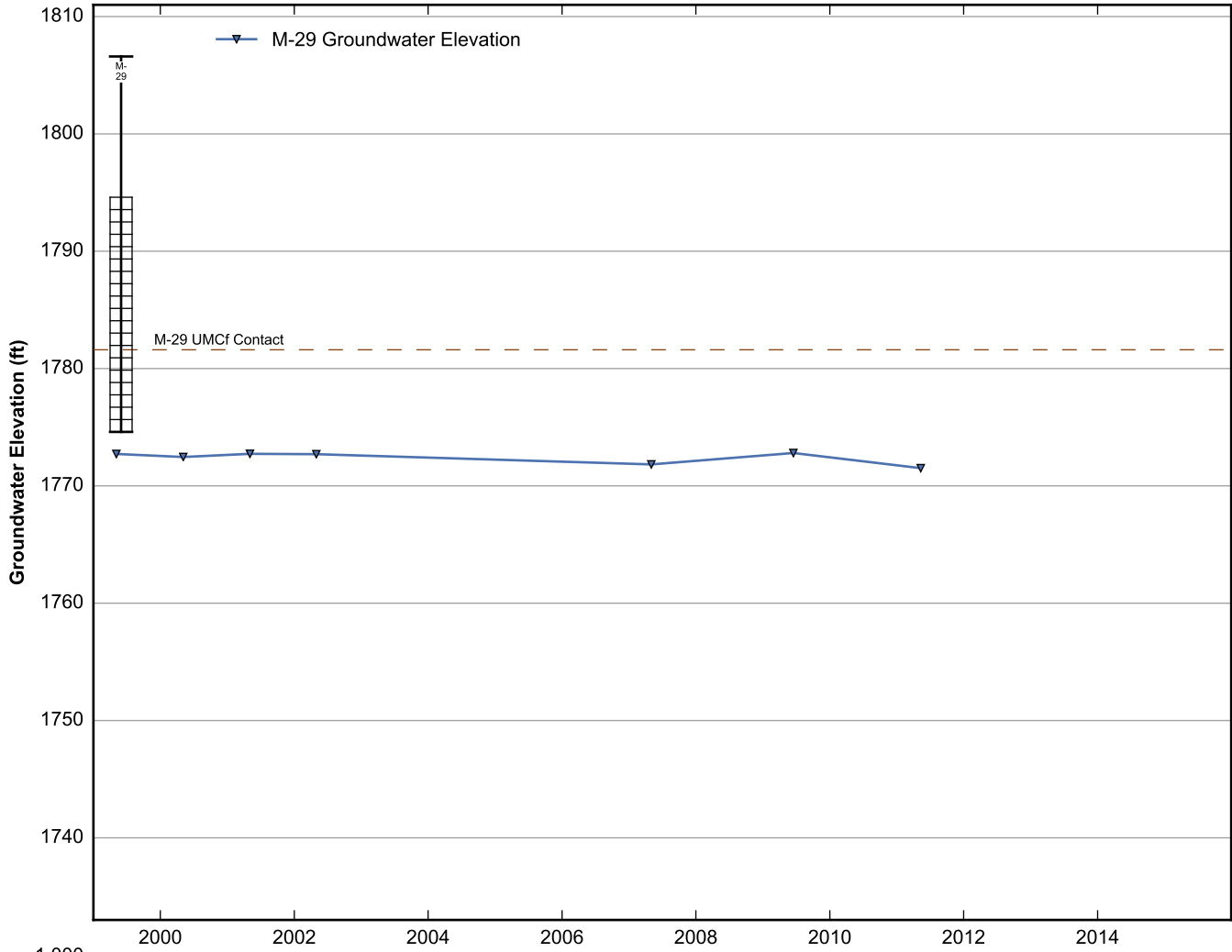


**Data Sheet for Well M-23**  
Nevada Environmental Response Trust Site  
Henderson, Nevada

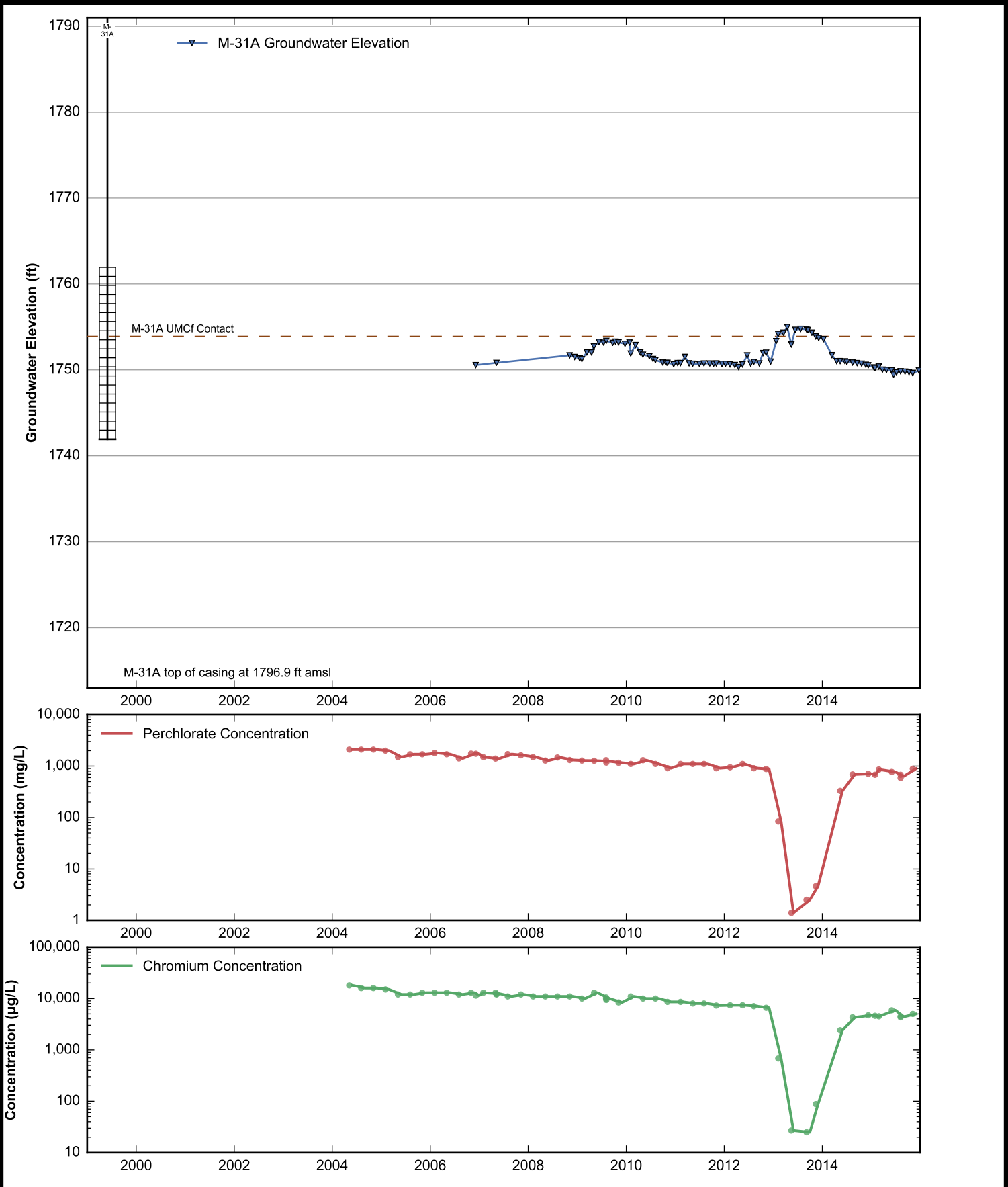




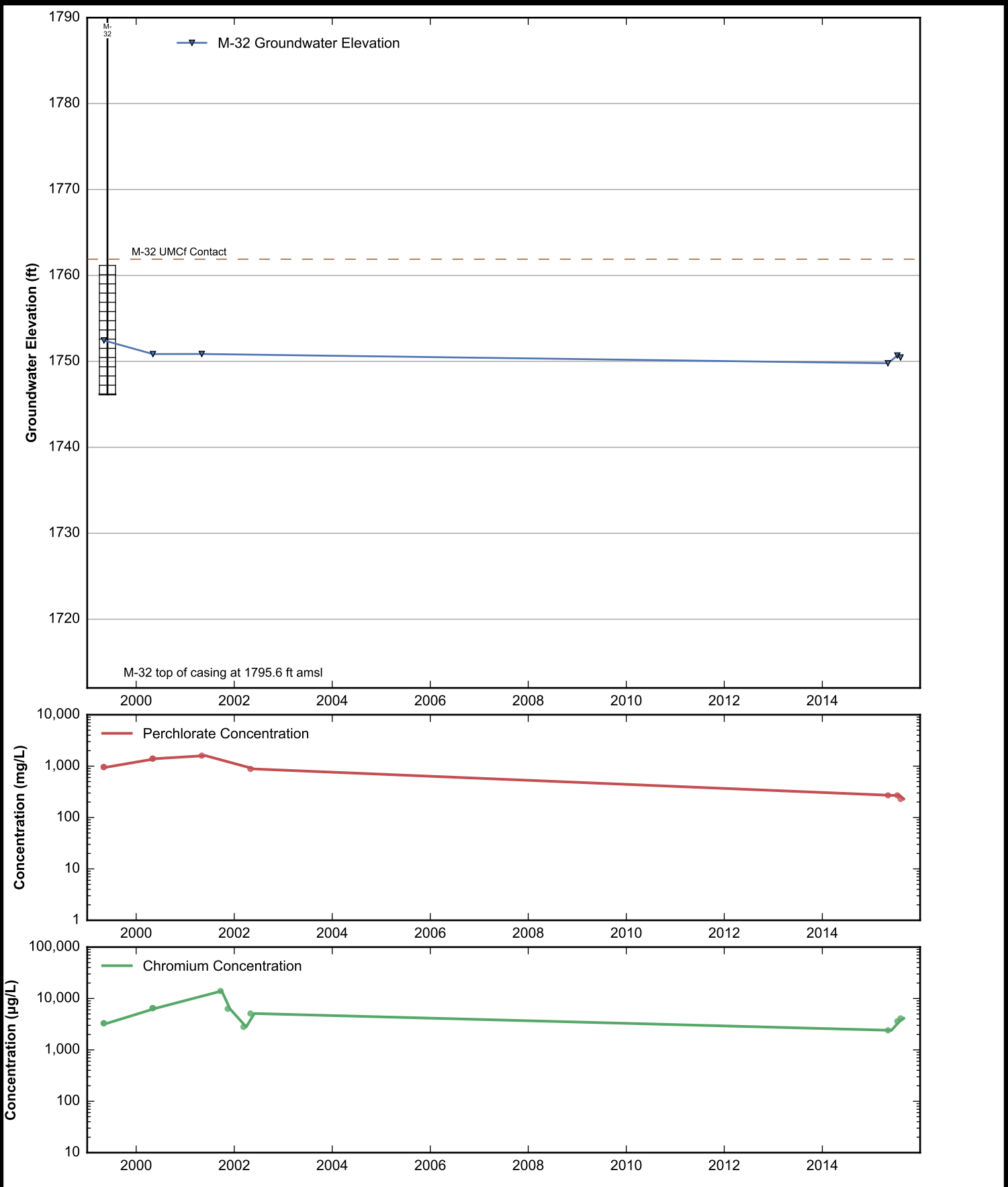
**Data Sheet for Well M-25**  
Nevada Environmental Response Trust Site  
Henderson, Nevada



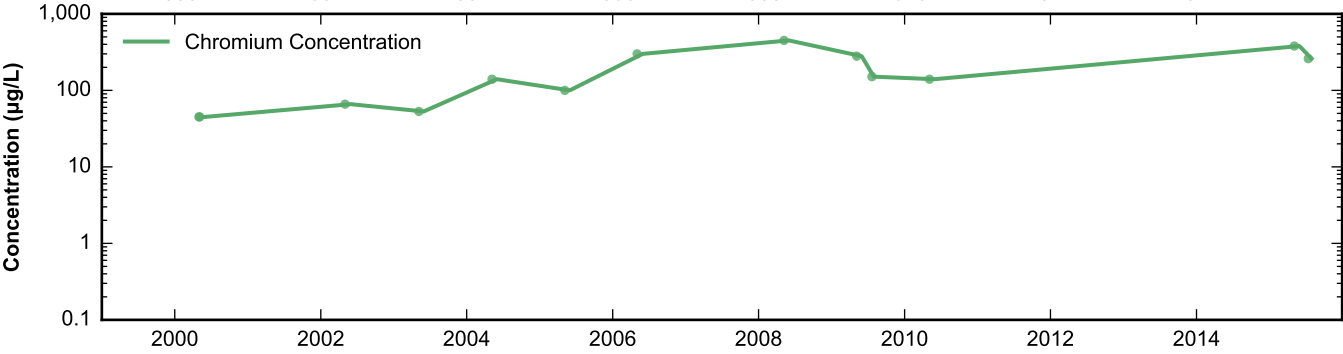
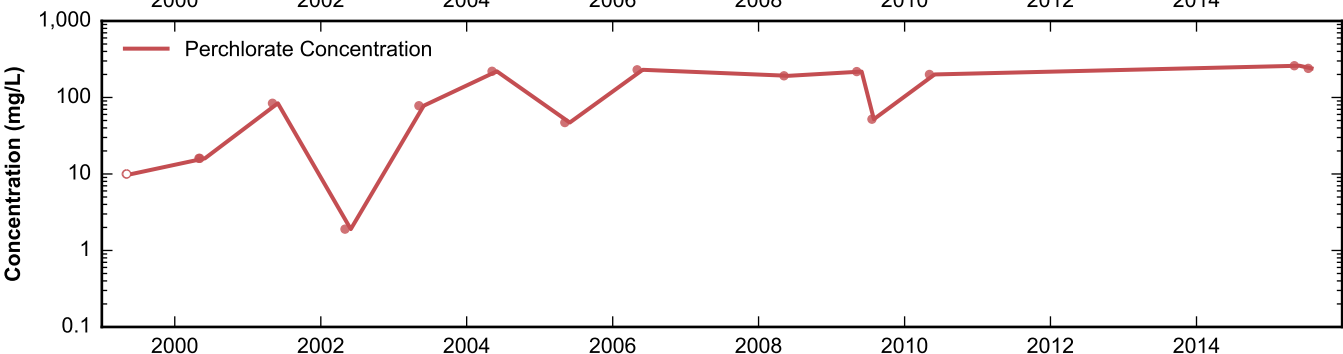
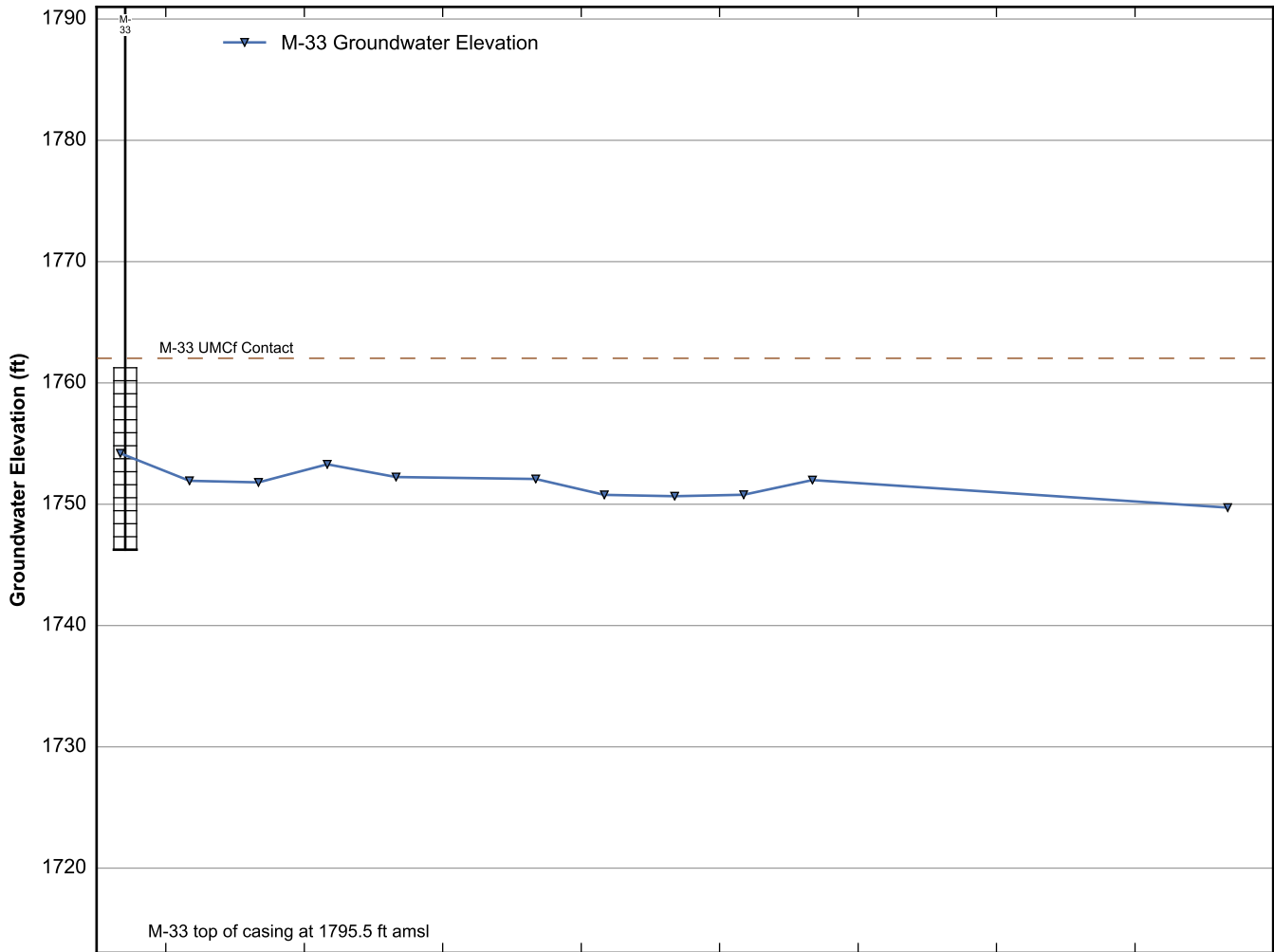
**Data Sheet for Well M-29**  
 Nevada Environmental Response Trust Site  
 Henderson, Nevada



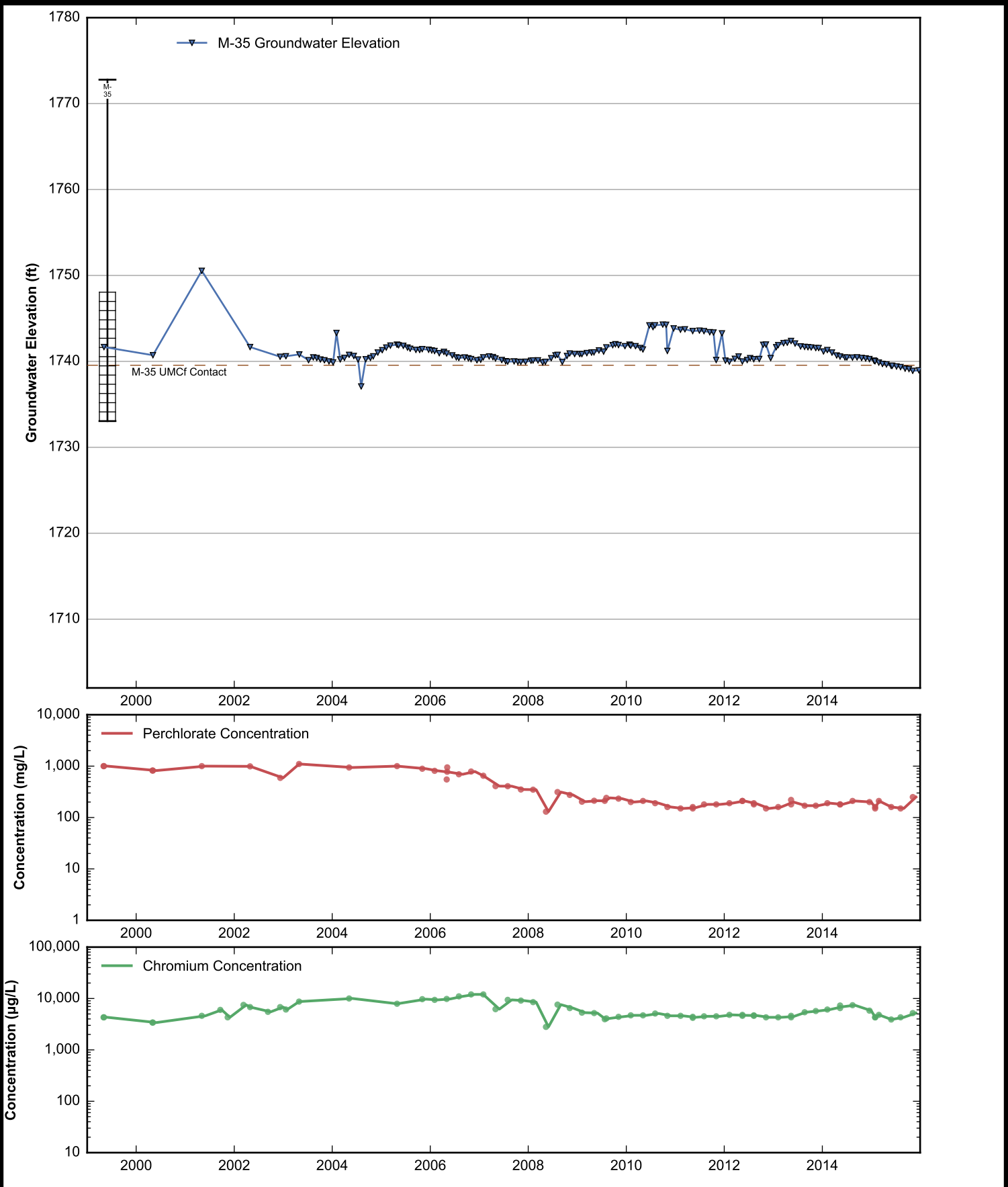
**Data Sheet for Well M-31A**  
 Nevada Environmental Response Trust Site  
 Henderson, Nevada

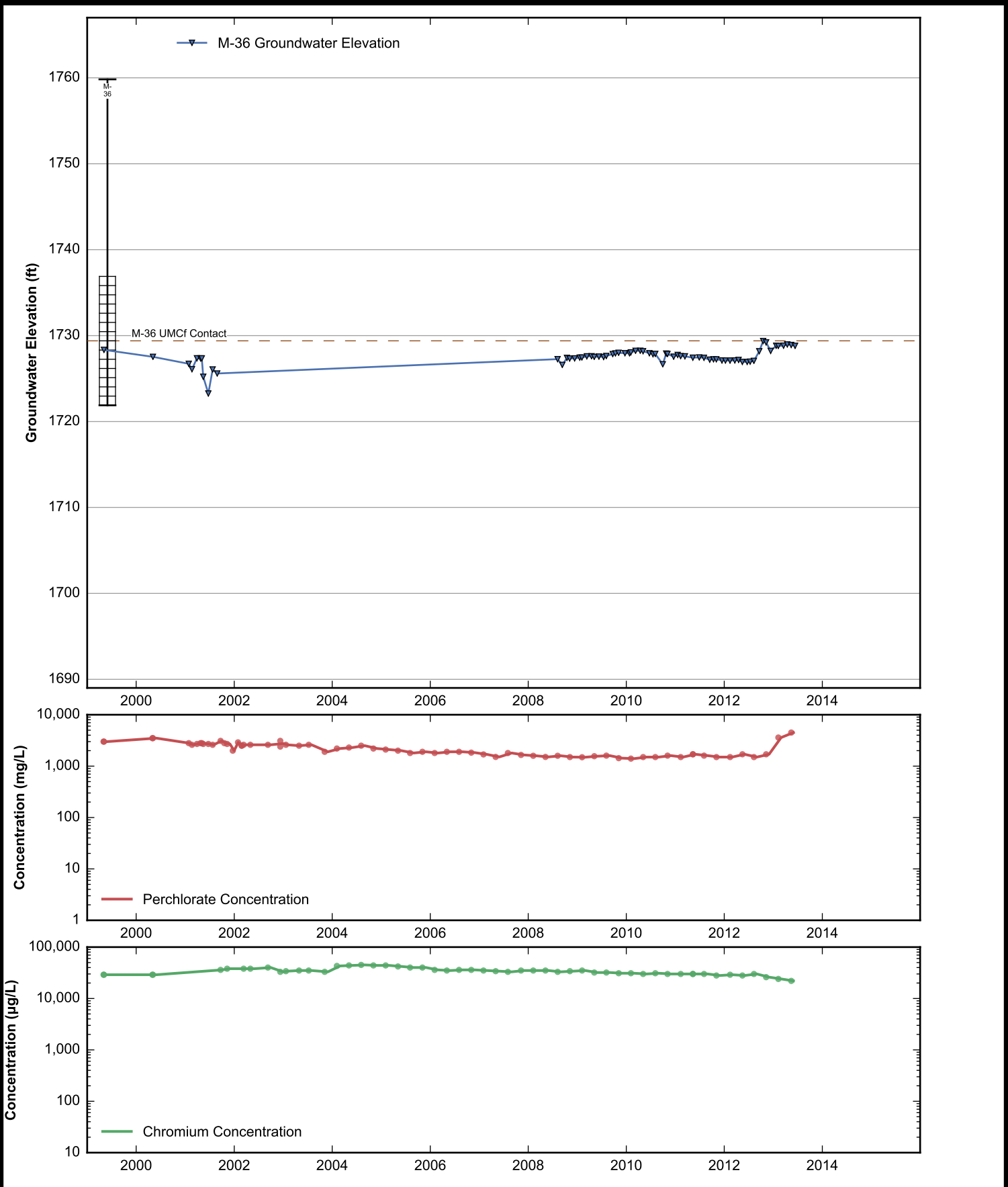


**Data Sheet for Well M-32**  
 Nevada Environmental Response Trust Site  
 Henderson, Nevada

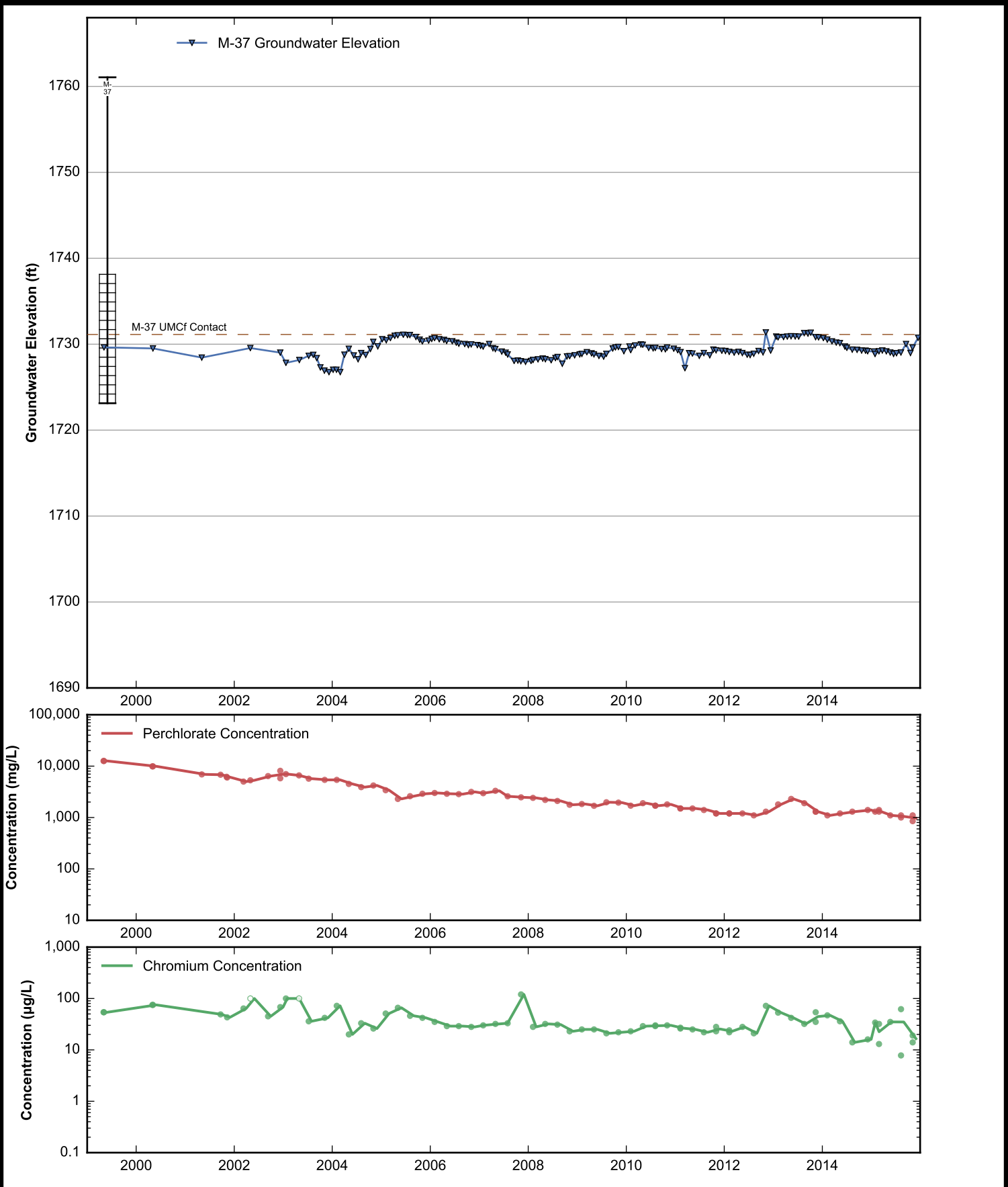


**Data Sheet for Well M-33**  
 Nevada Environmental Response Trust Site  
 Henderson, Nevada



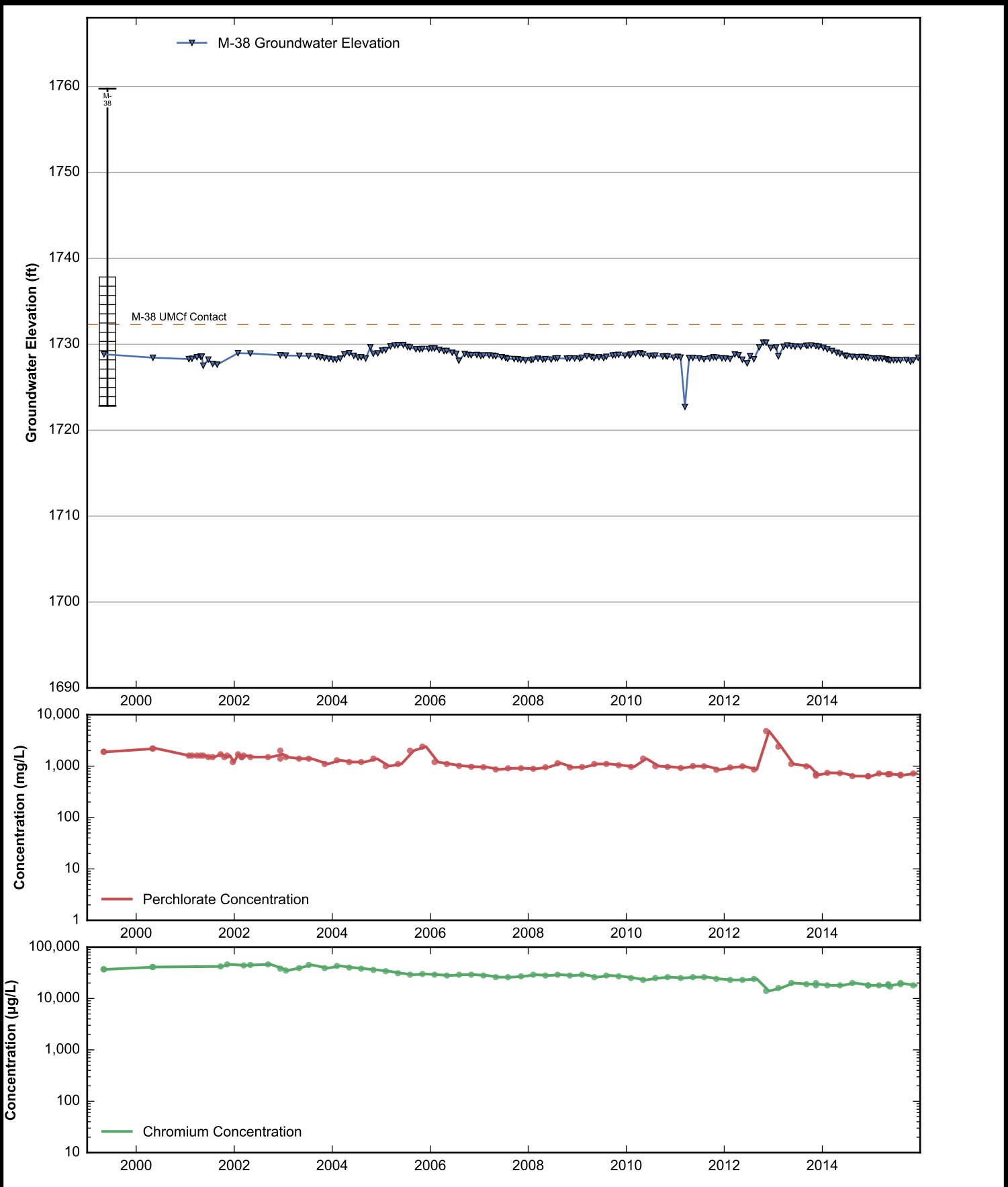


**Data Sheet for Well M-36**  
 Nevada Environmental Response Trust Site  
 Henderson, Nevada

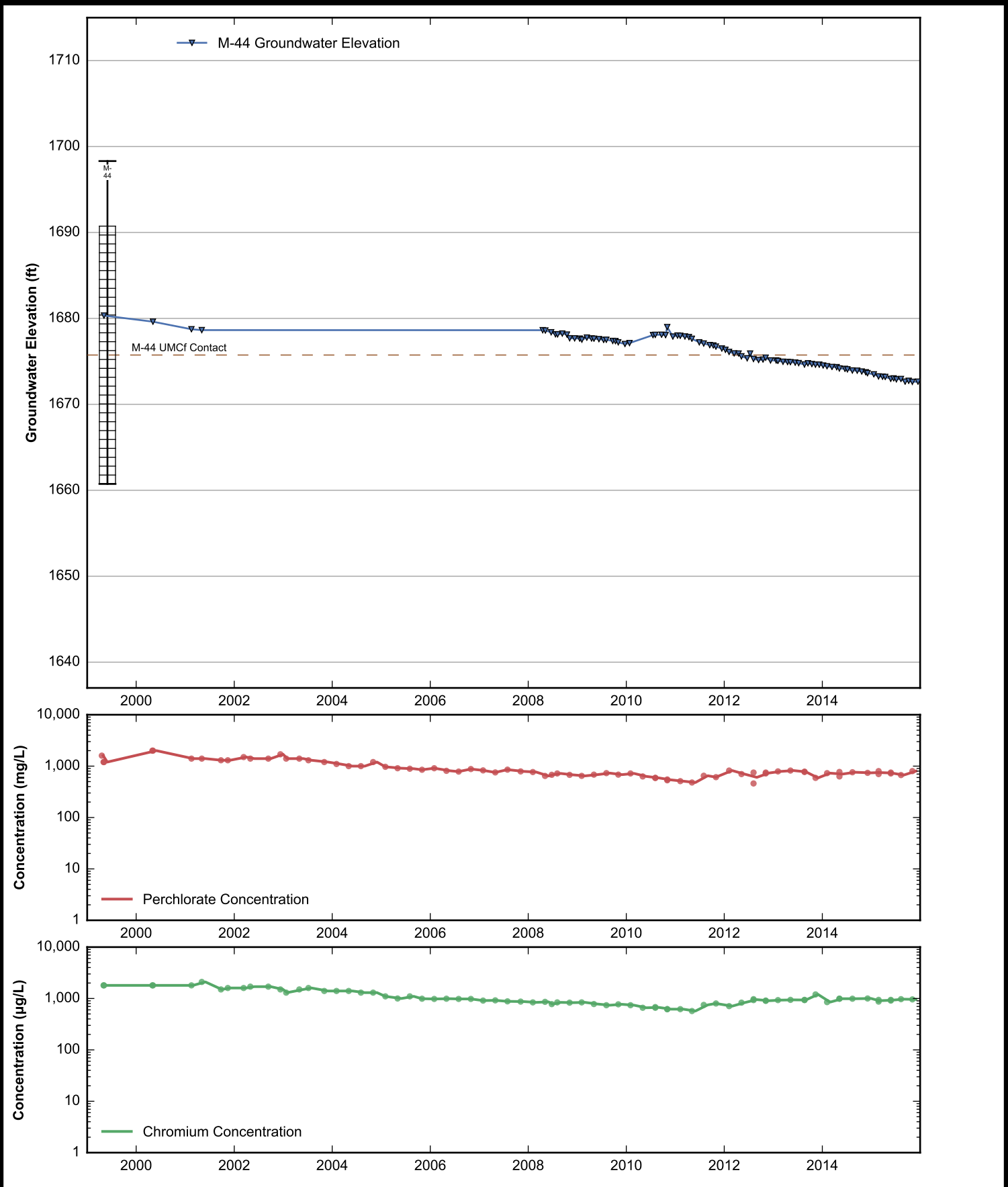


**Data Sheet for Well M-37**  
Nevada Environmental Response Trust Site  
Henderson, Nevada

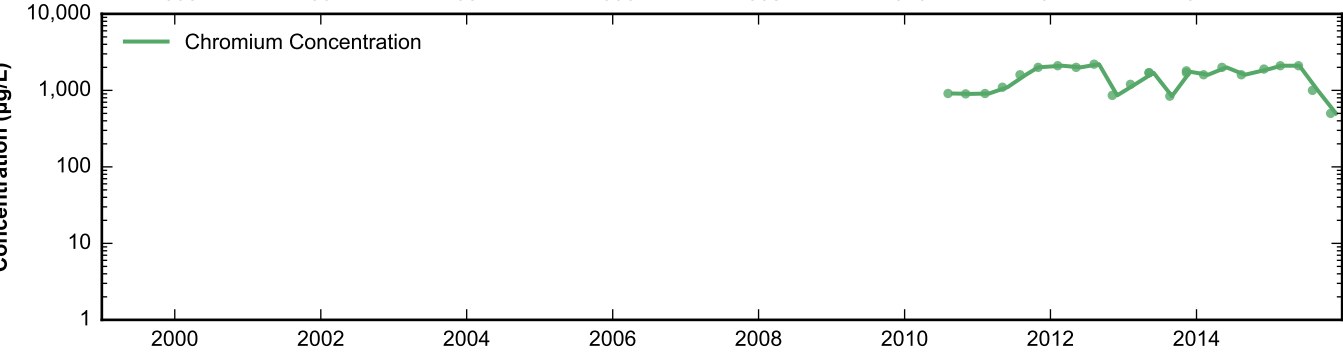
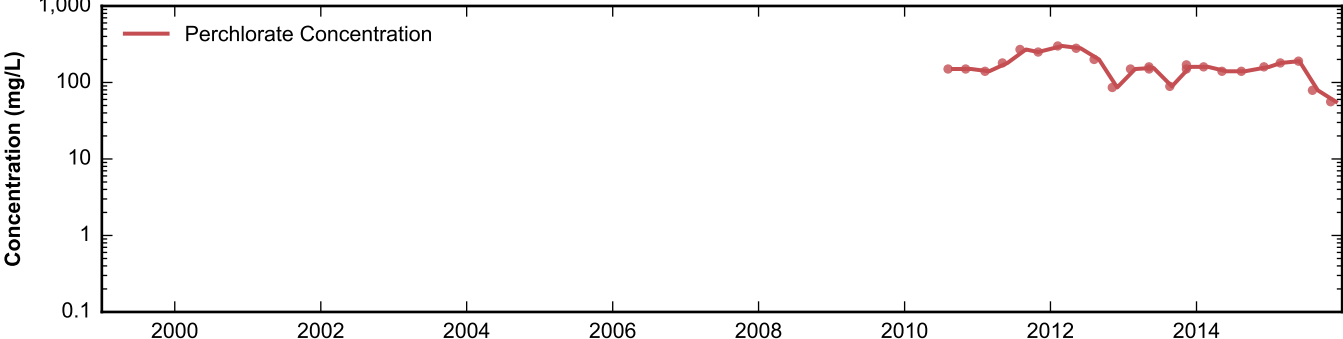
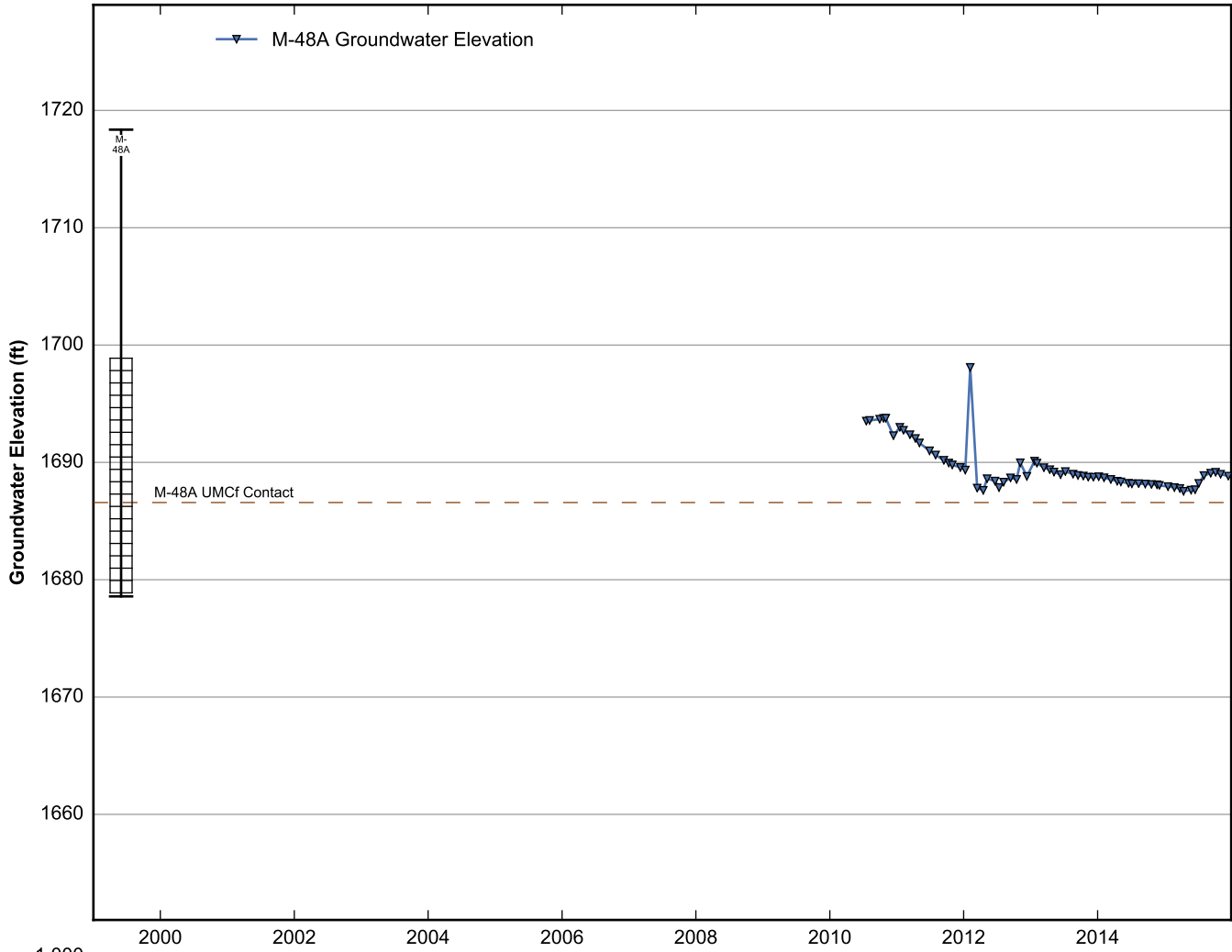




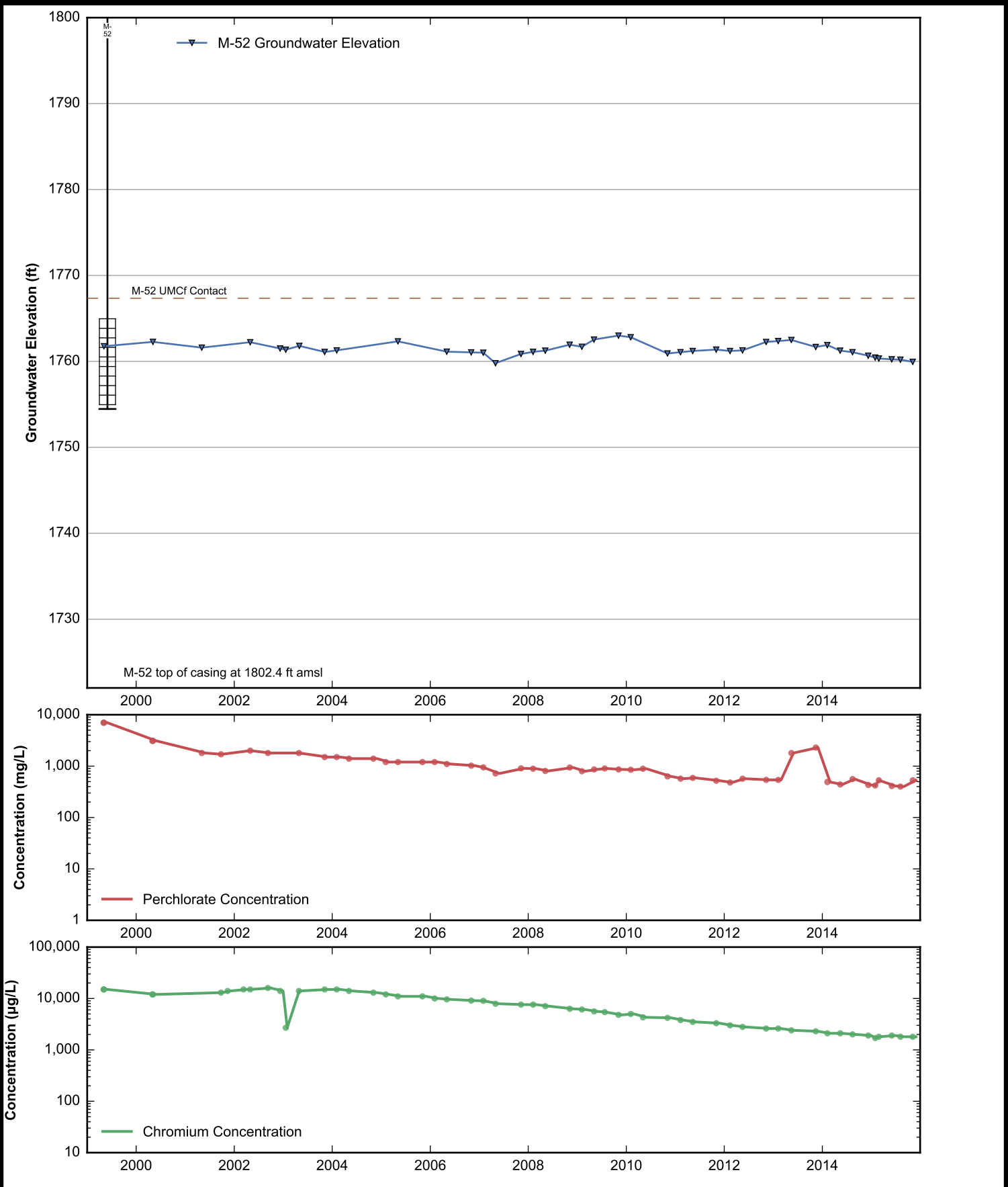
**Data Sheet for Well M-38**  
Nevada Environmental Response Trust Site  
Henderson, Nevada



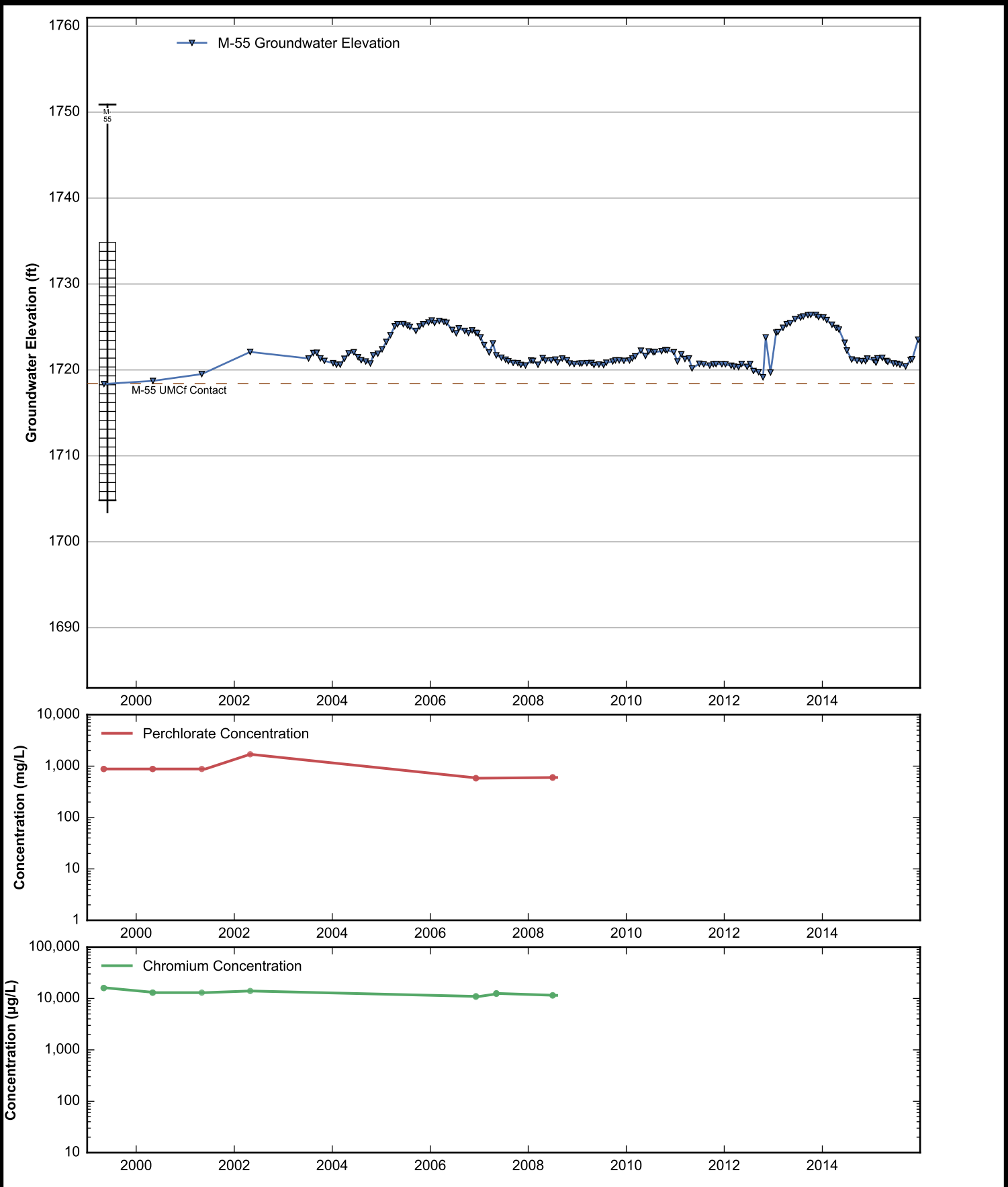
**Data Sheet for Well M-44**  
Nevada Environmental Response Trust Site  
Henderson, Nevada



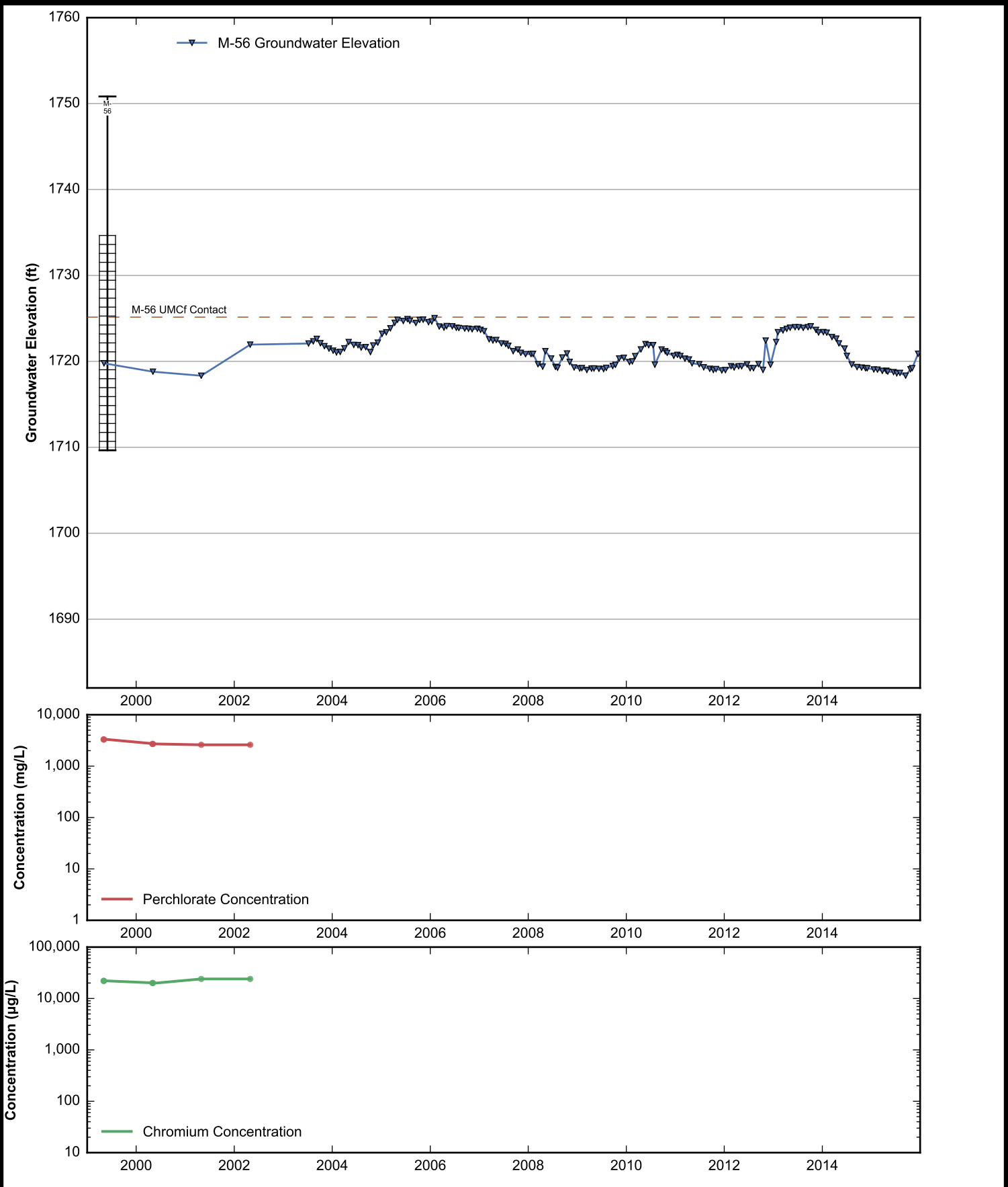
**Data Sheet for Well M-48A**  
Nevada Environmental Response Trust Site  
Henderson, Nevada



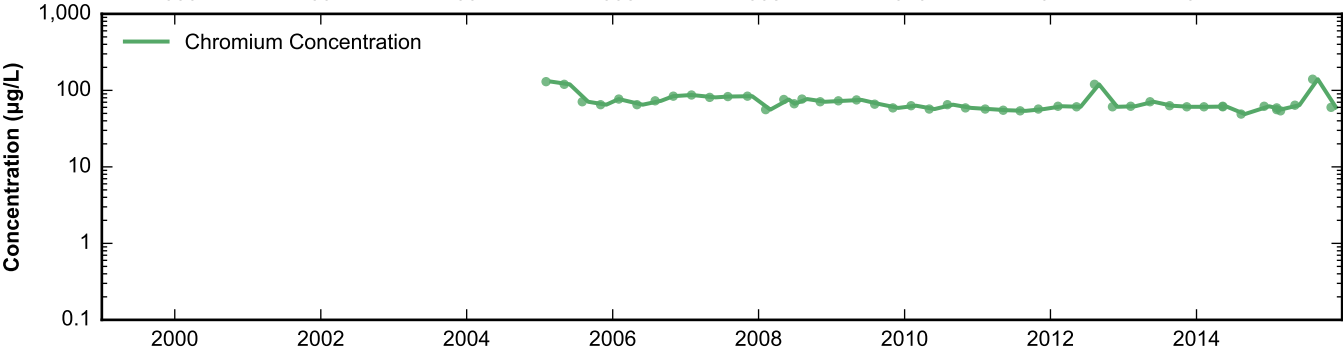
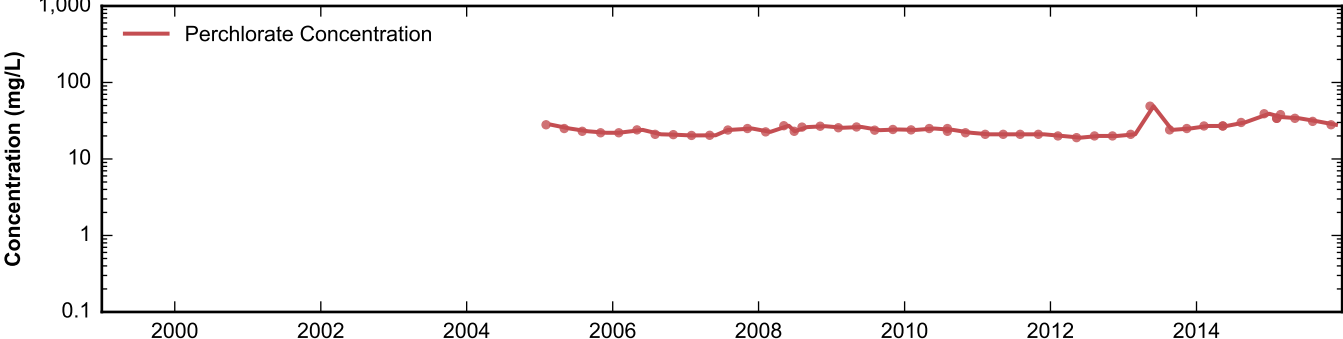
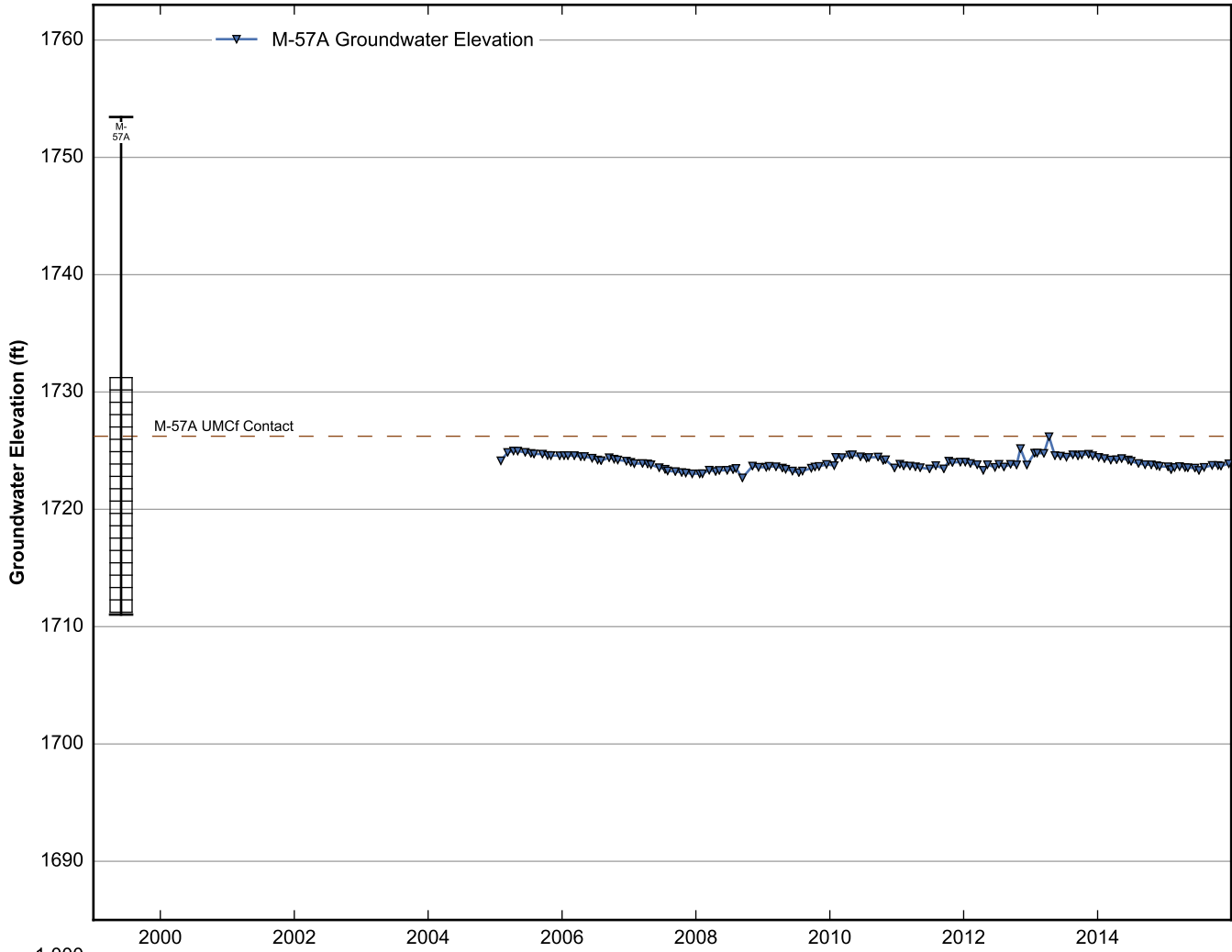
**Data Sheet for Well M-52**  
 Nevada Environmental Response Trust Site  
 Henderson, Nevada



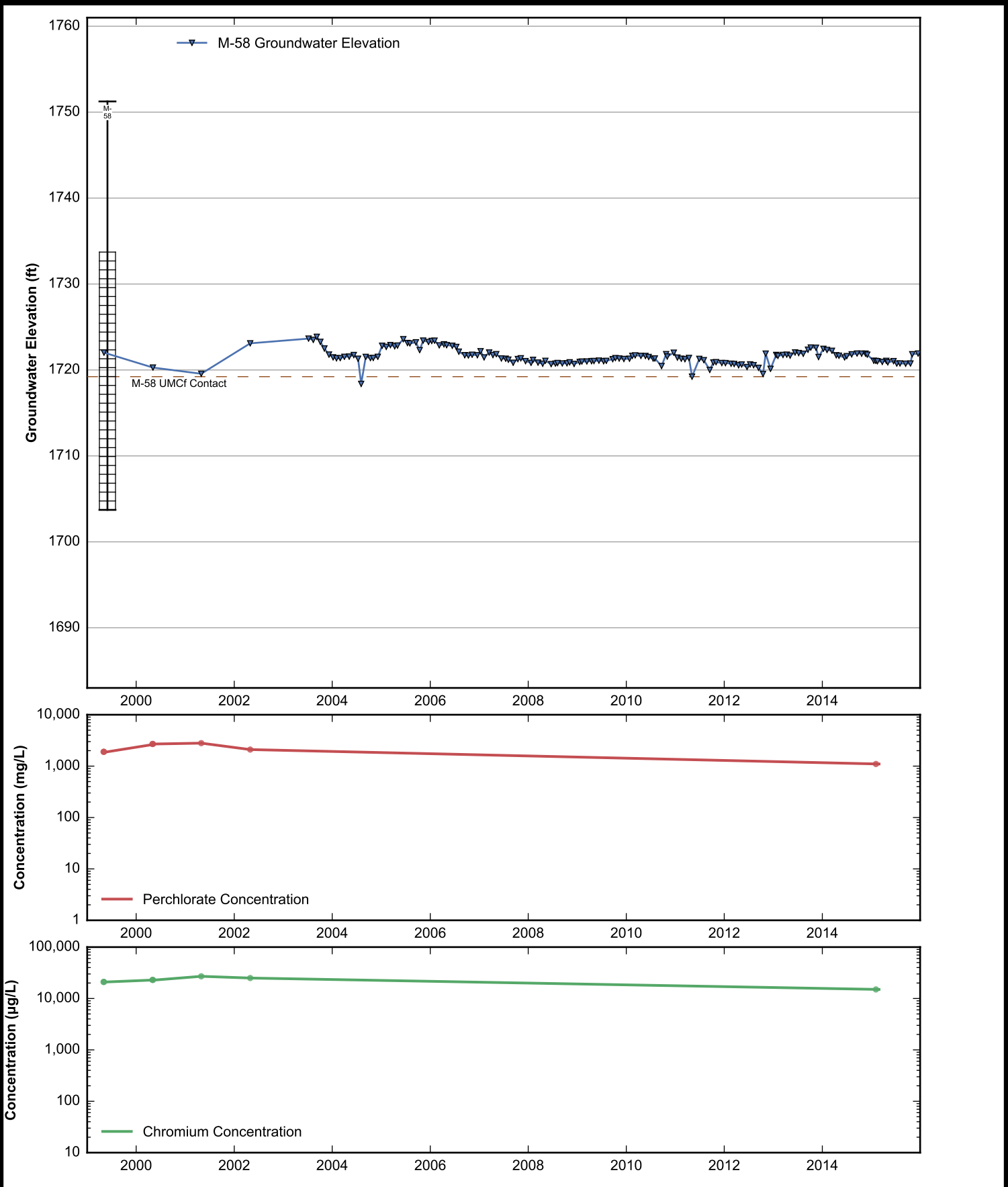
**Data Sheet for Well M-55**  
 Nevada Environmental Response Trust Site  
 Henderson, Nevada



**Data Sheet for Well M-56**  
Nevada Environmental Response Trust Site  
Henderson, Nevada

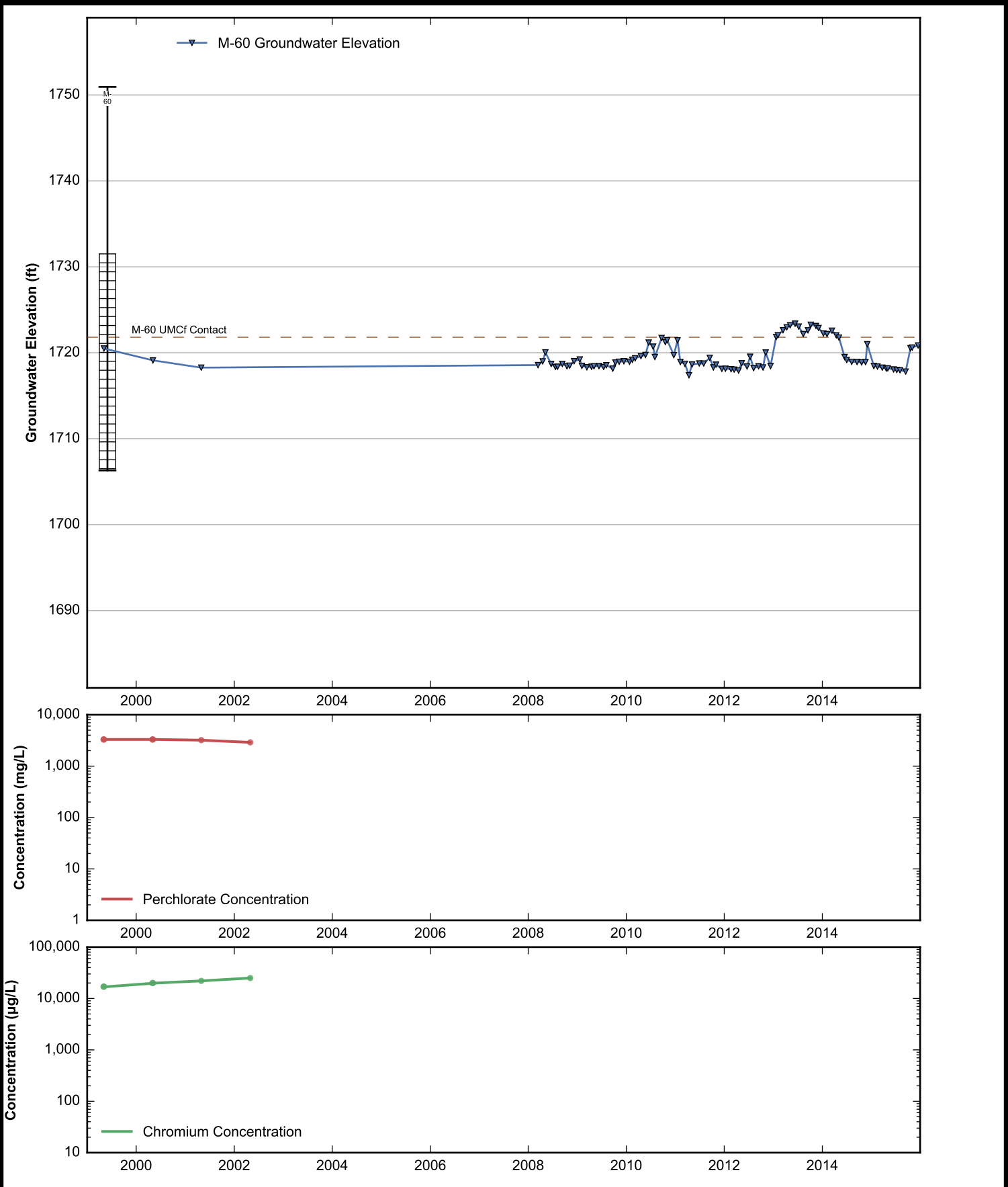


**Data Sheet for Well M-57A**  
Nevada Environmental Response Trust Site  
Henderson, Nevada

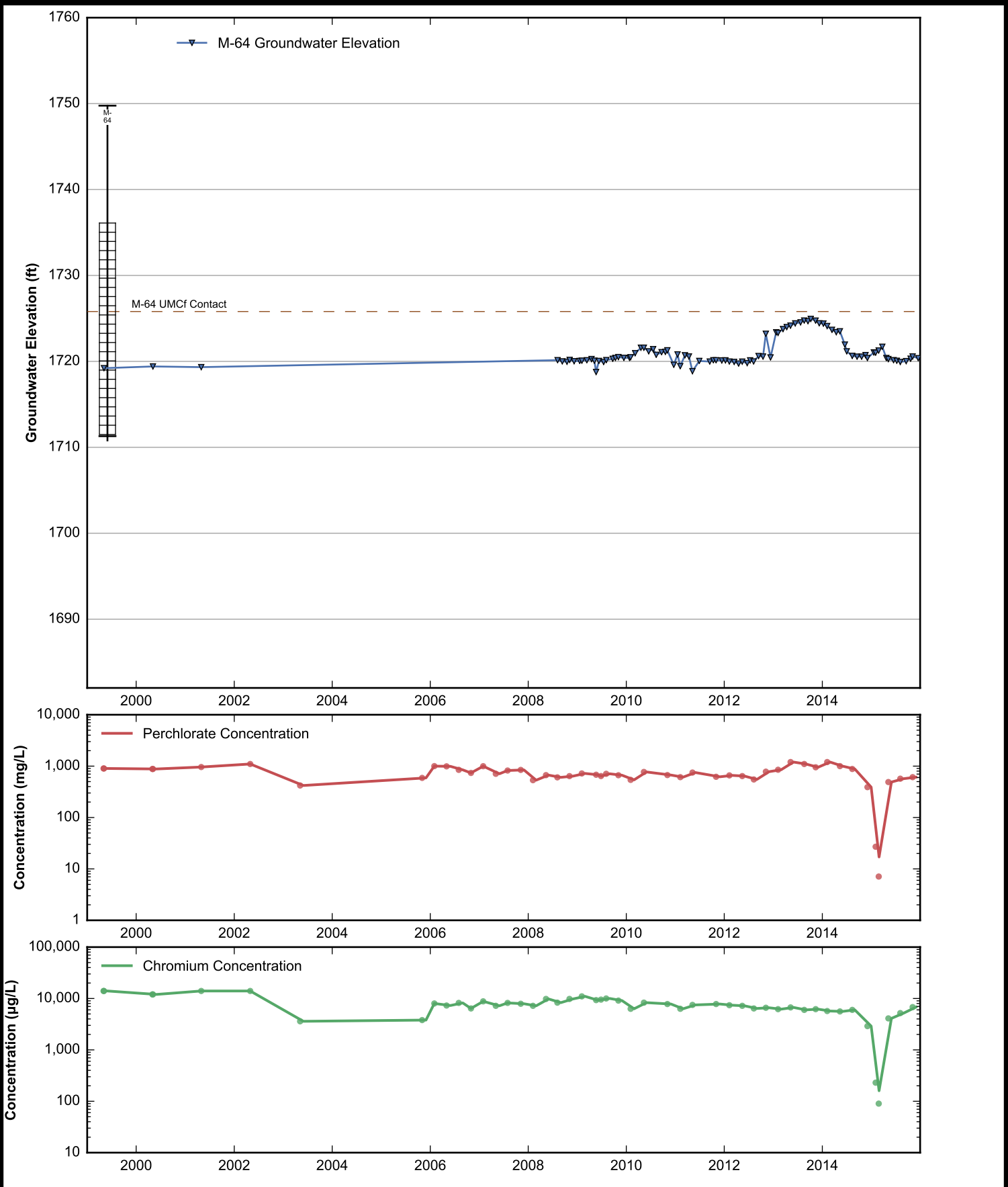


**Data Sheet for Well M-58**  
 Nevada Environmental Response Trust Site  
 Henderson, Nevada

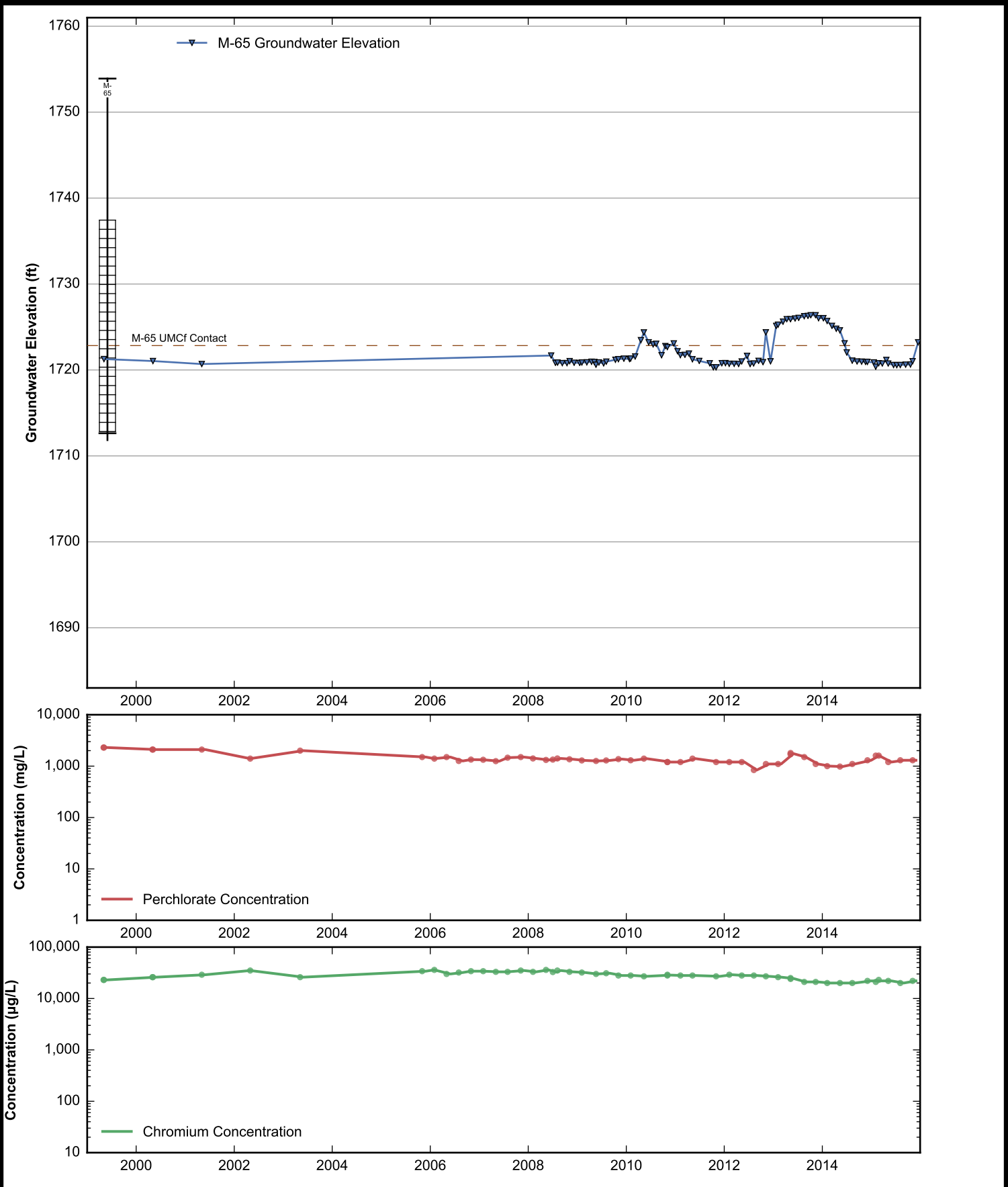




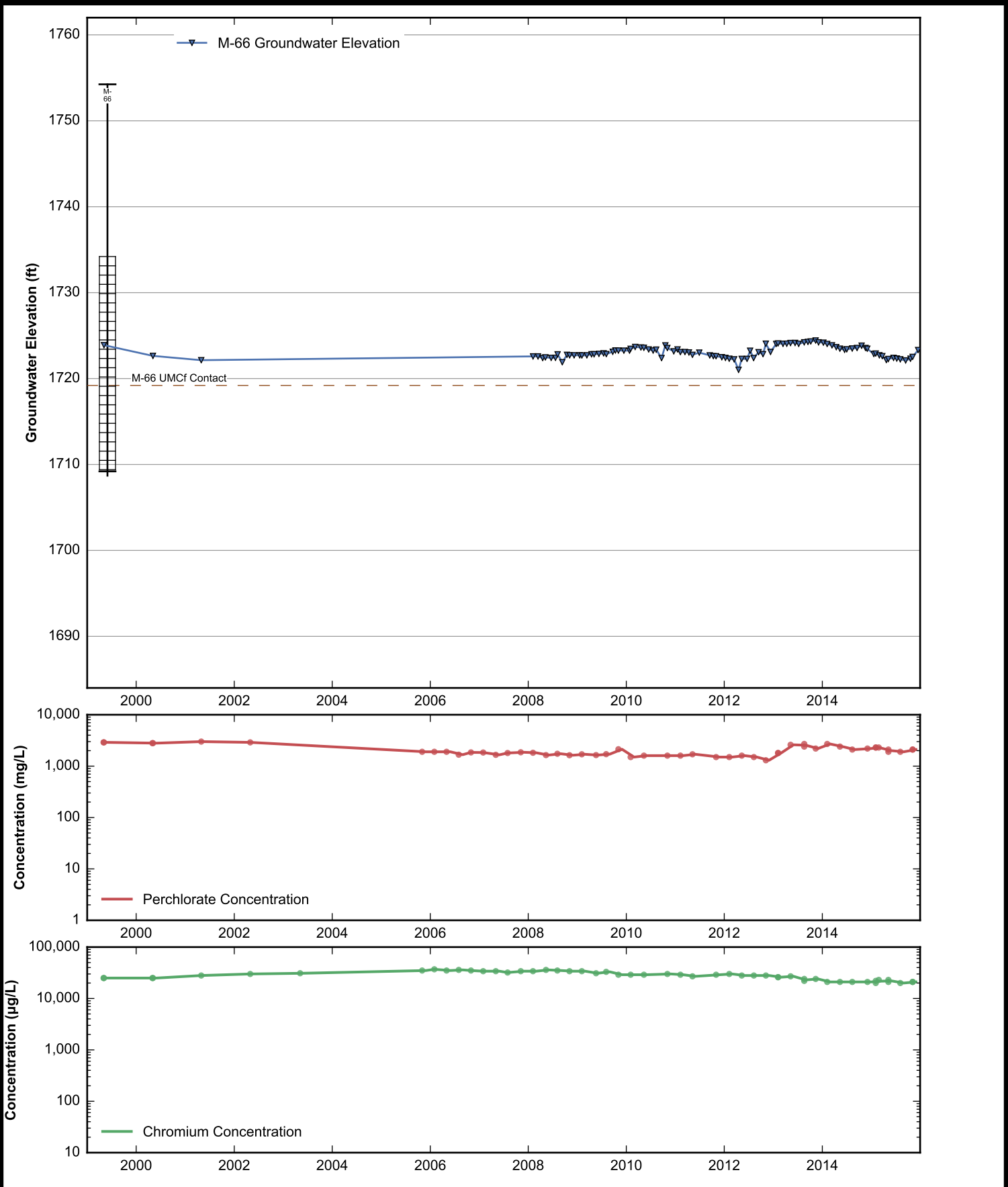
**Data Sheet for Well M-60**  
 Nevada Environmental Response Trust Site  
 Henderson, Nevada



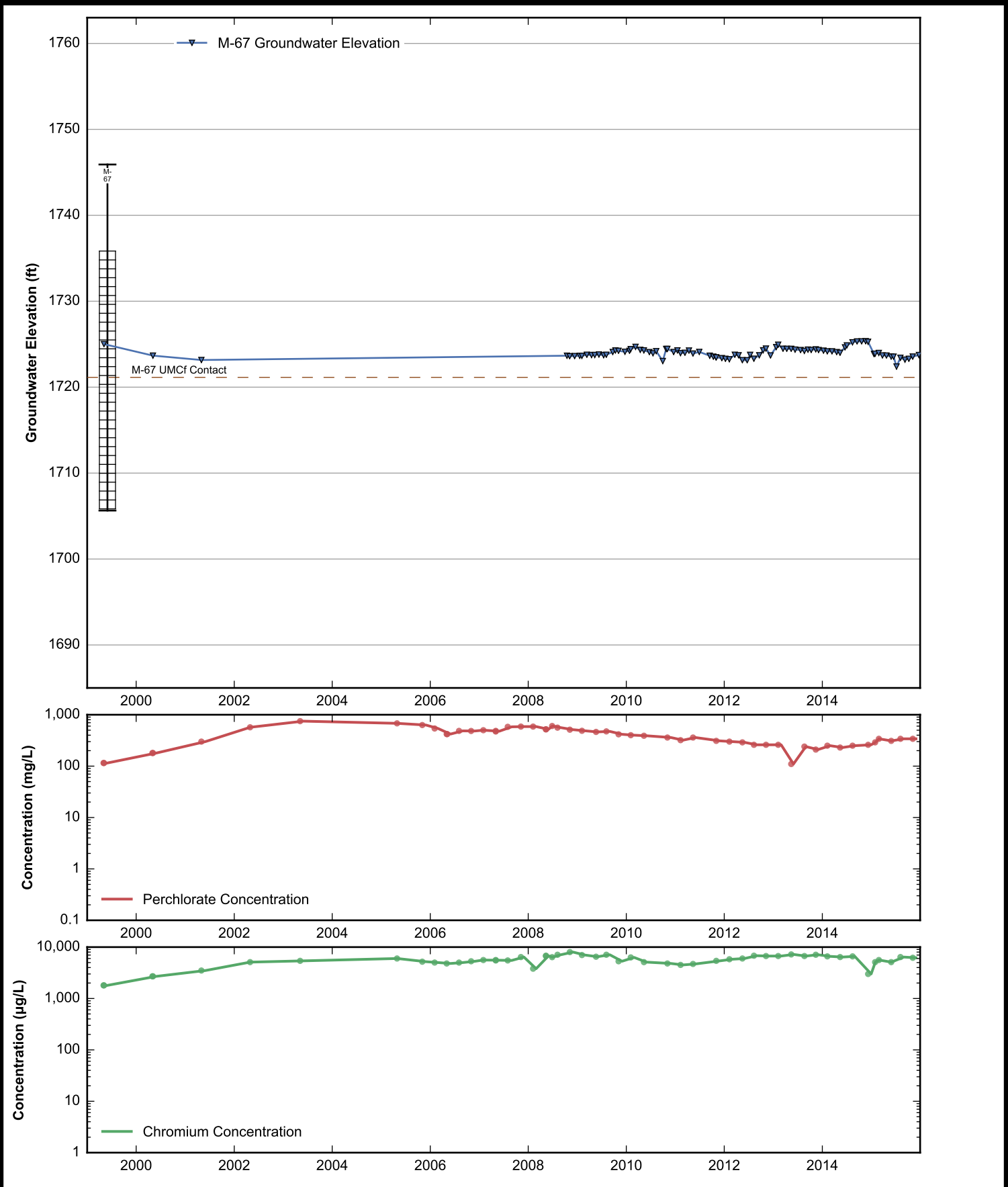
**Data Sheet for Well M-64**  
Nevada Environmental Response Trust Site  
Henderson, Nevada



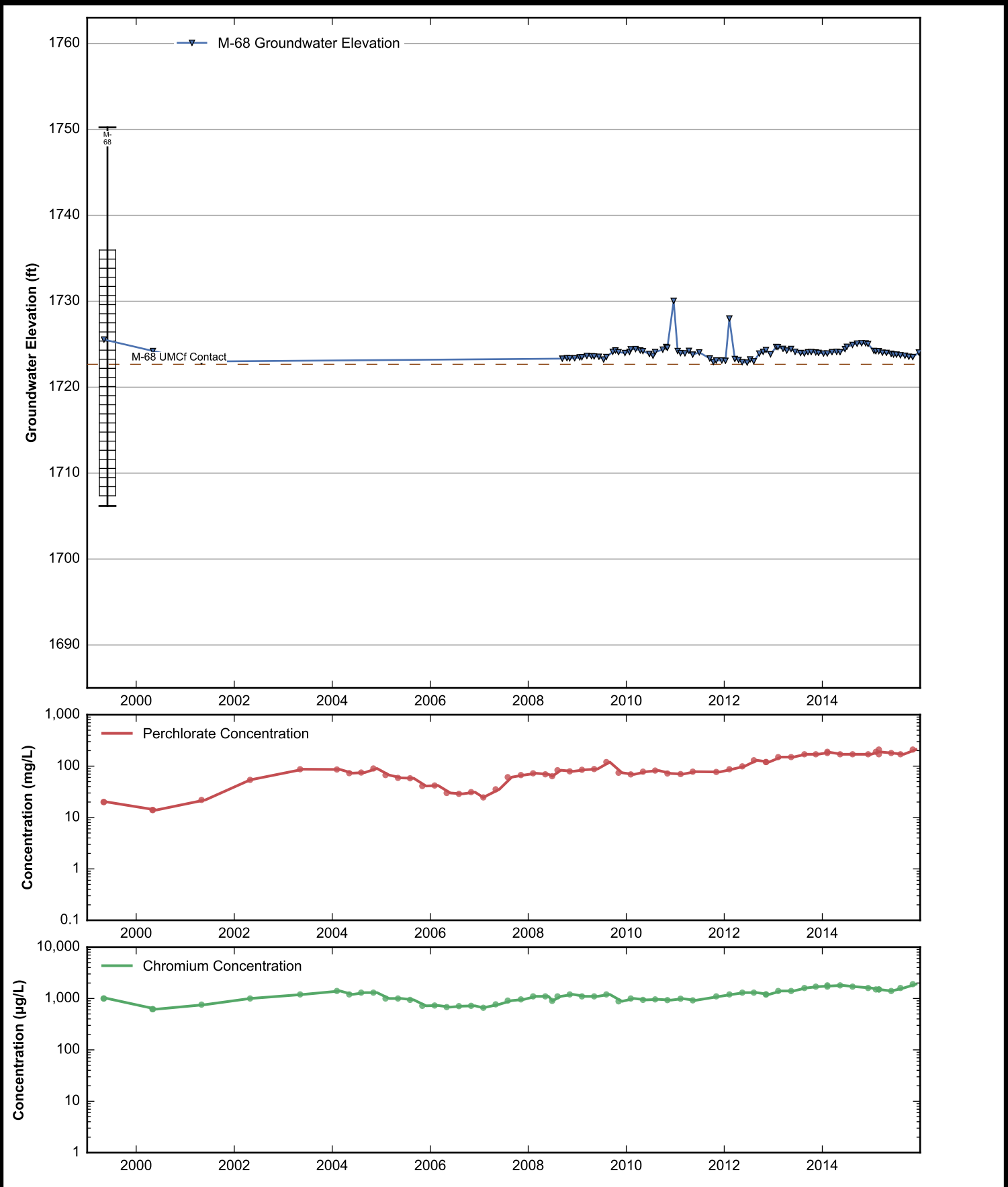
**Data Sheet for Well M-65**  
 Nevada Environmental Response Trust Site  
 Henderson, Nevada



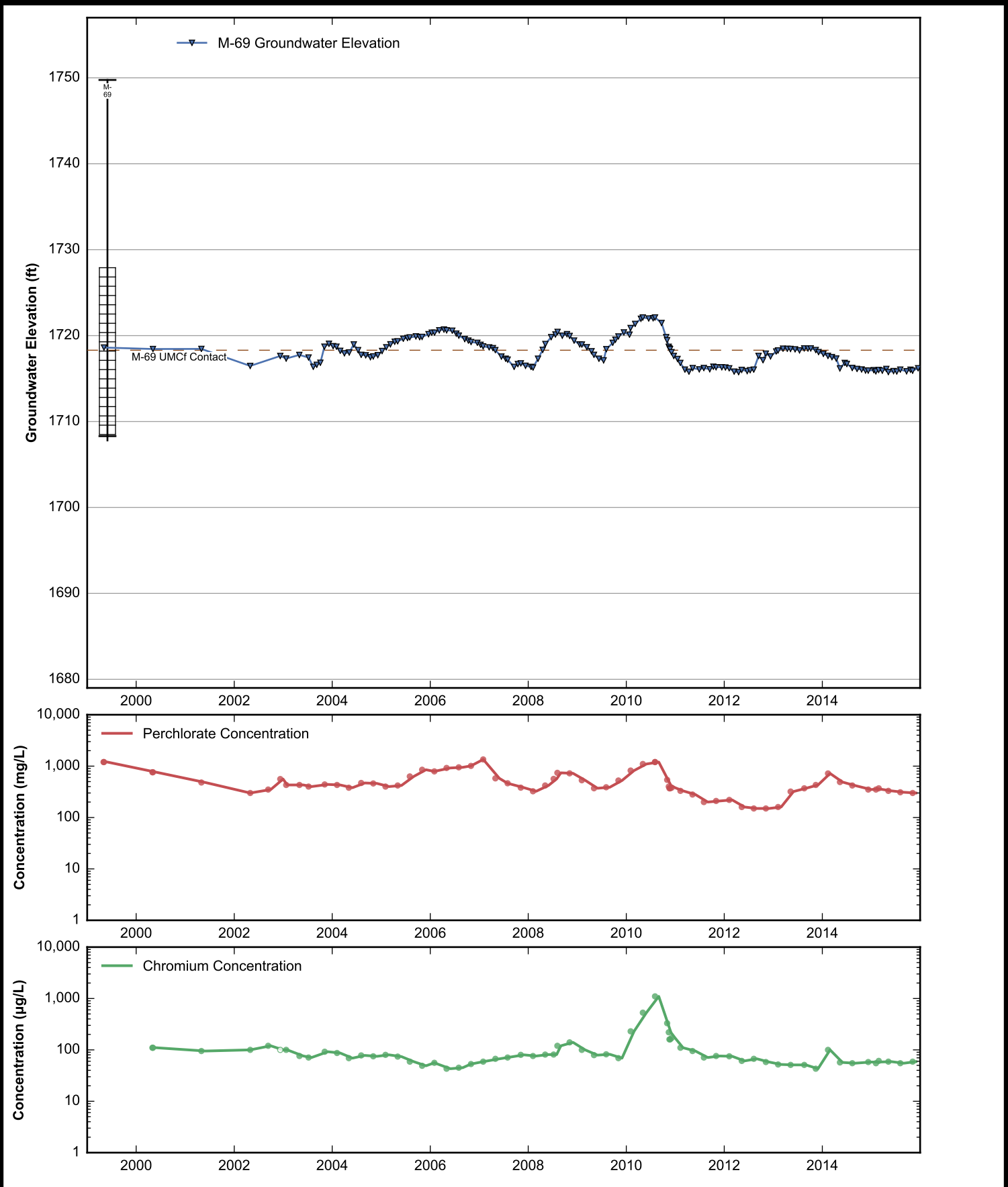
**Data Sheet for Well M-66**  
 Nevada Environmental Response Trust Site  
 Henderson, Nevada



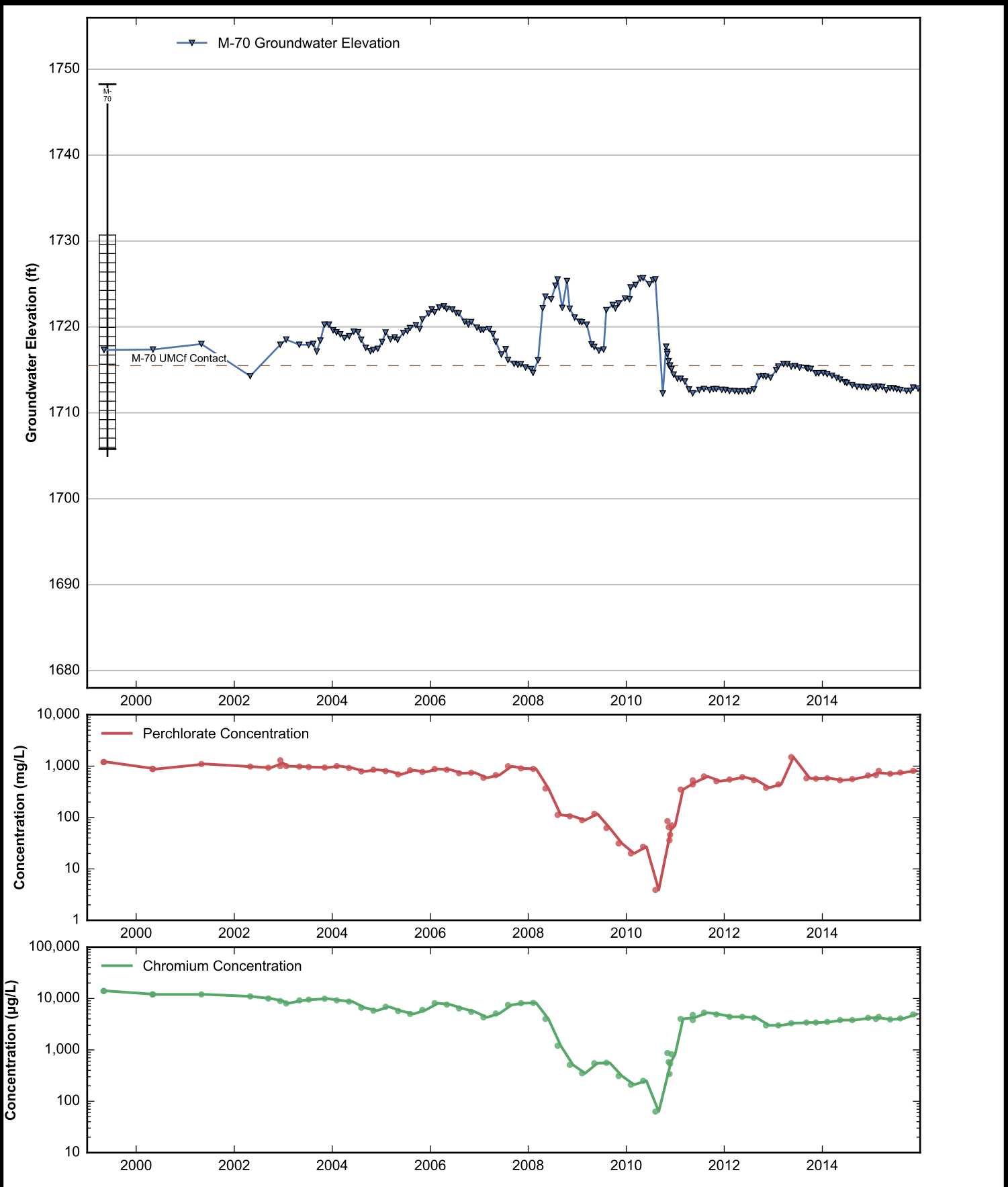
**Data Sheet for Well M-67**  
 Nevada Environmental Response Trust Site  
 Henderson, Nevada



**Data Sheet for Well M-68**  
Nevada Environmental Response Trust Site  
Henderson, Nevada

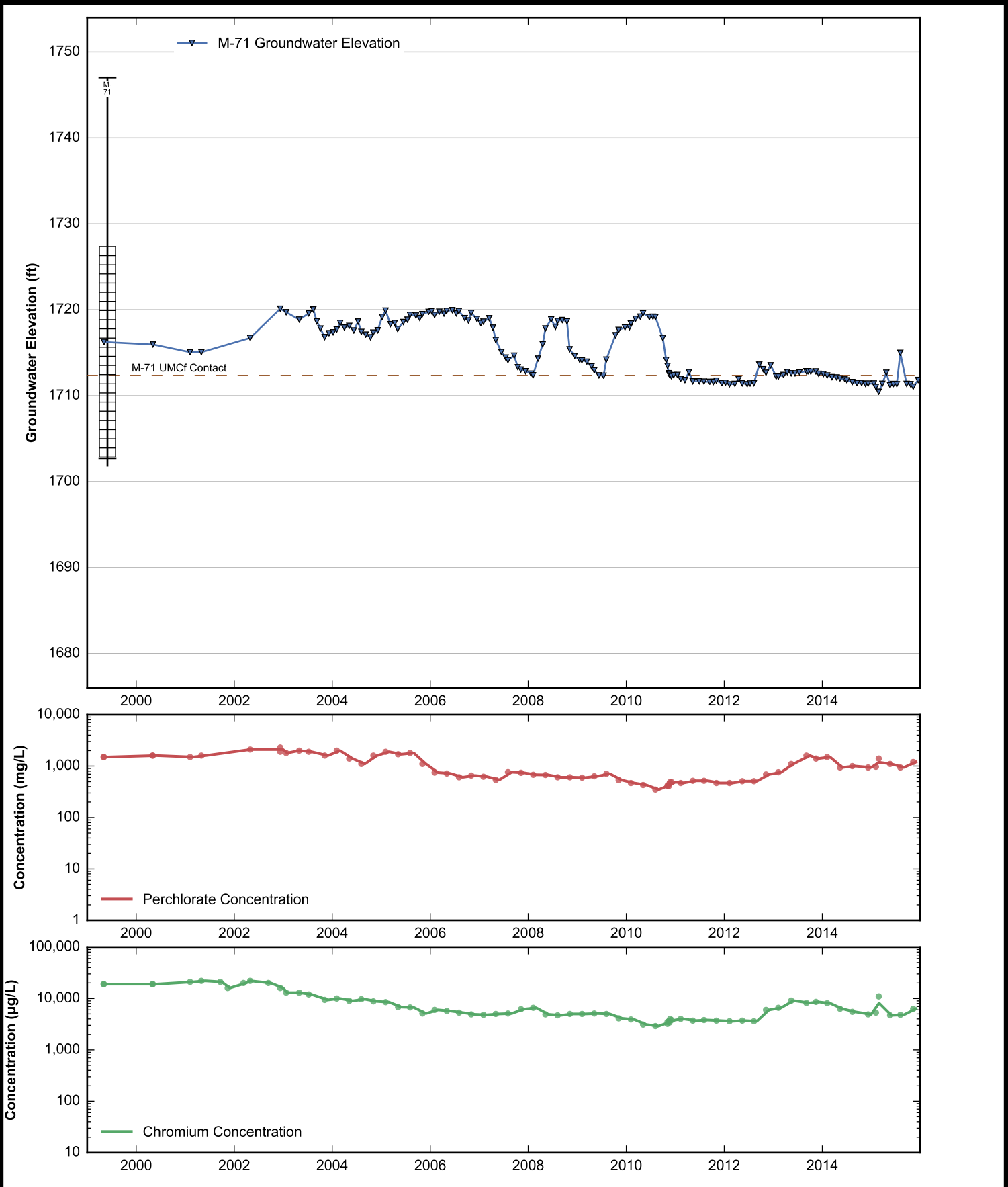


**Data Sheet for Well M-69**  
Nevada Environmental Response Trust Site  
Henderson, Nevada

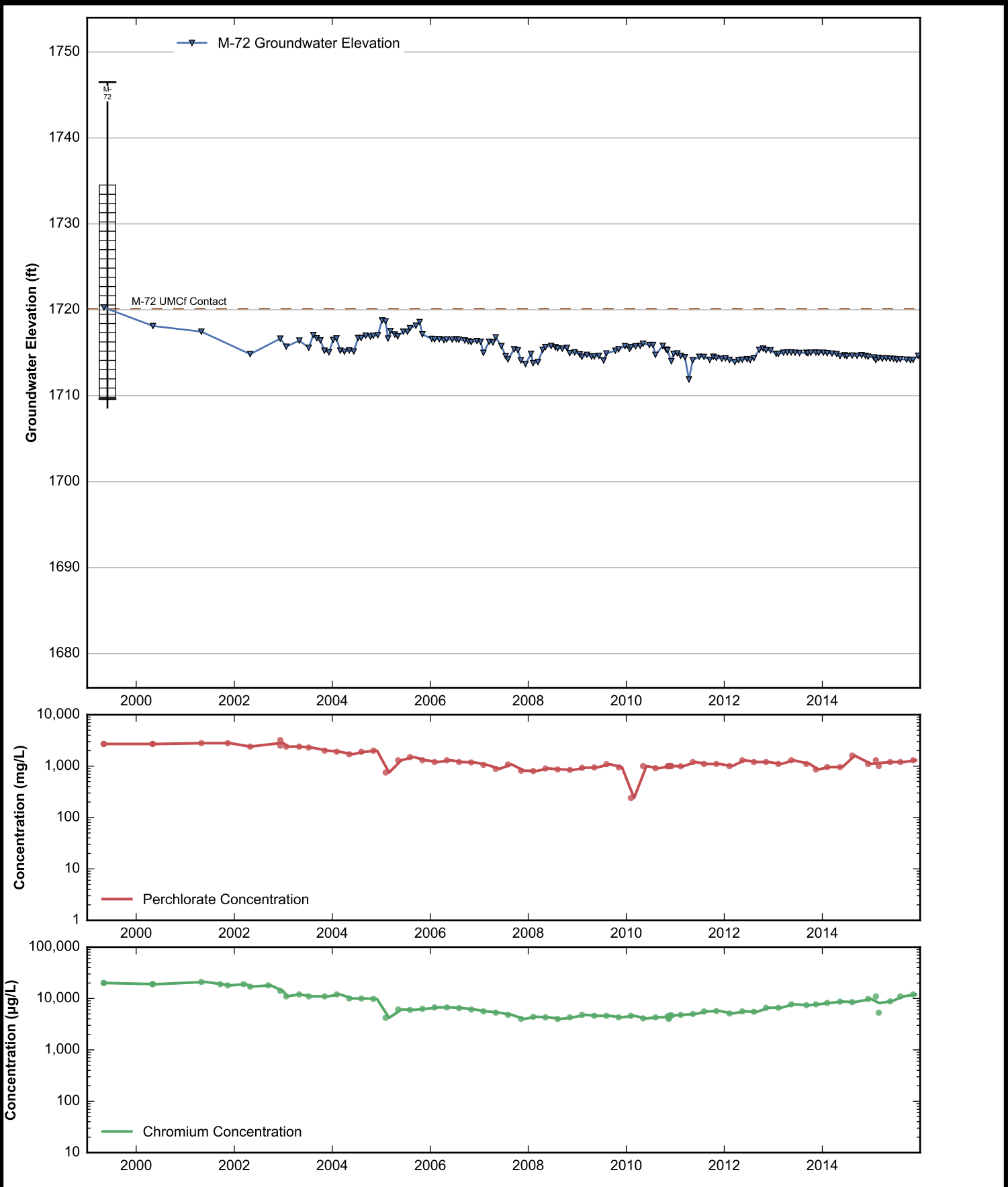


**Data Sheet for Well M-70**  
Nevada Environmental Response Trust Site  
Henderson, Nevada

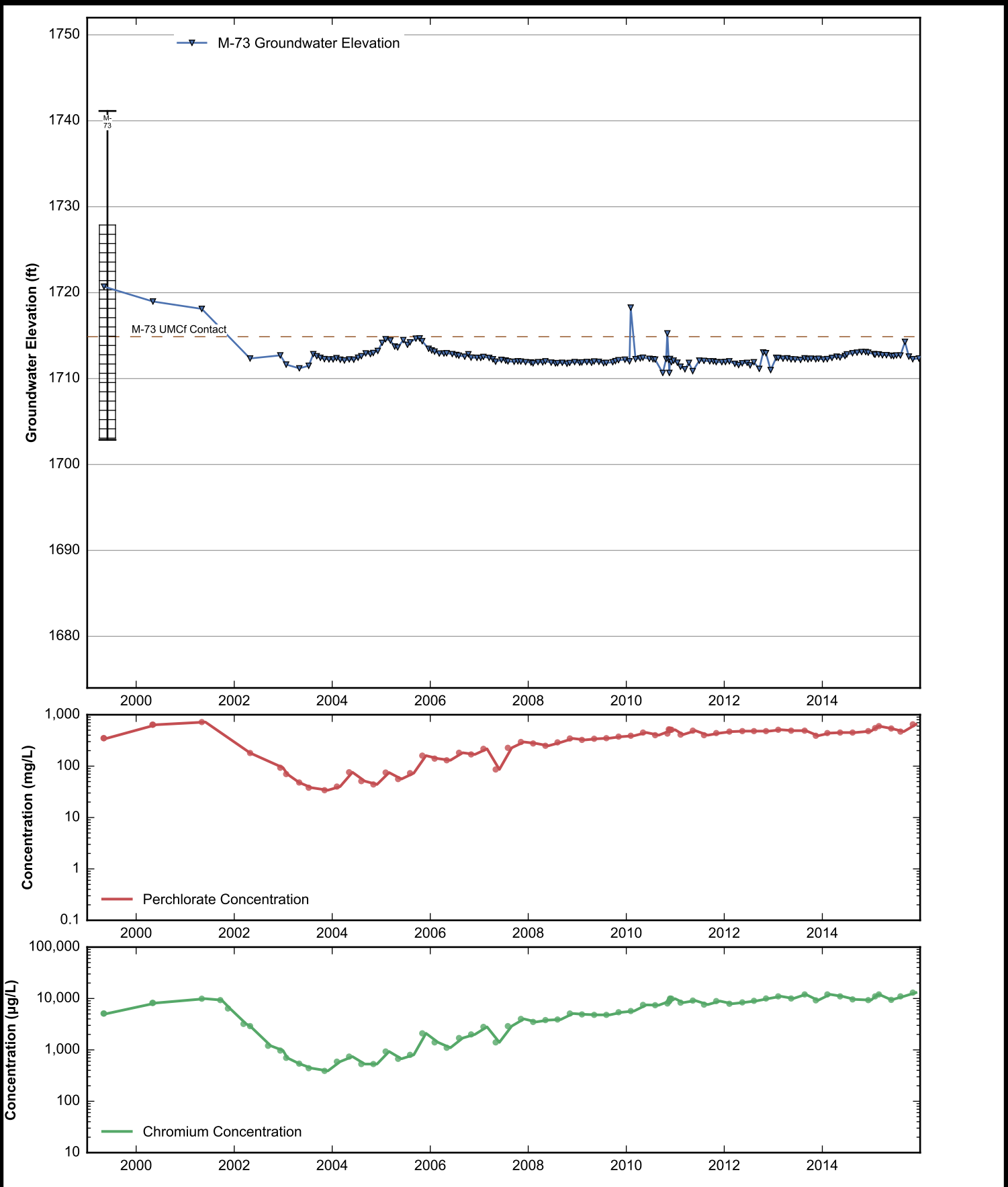




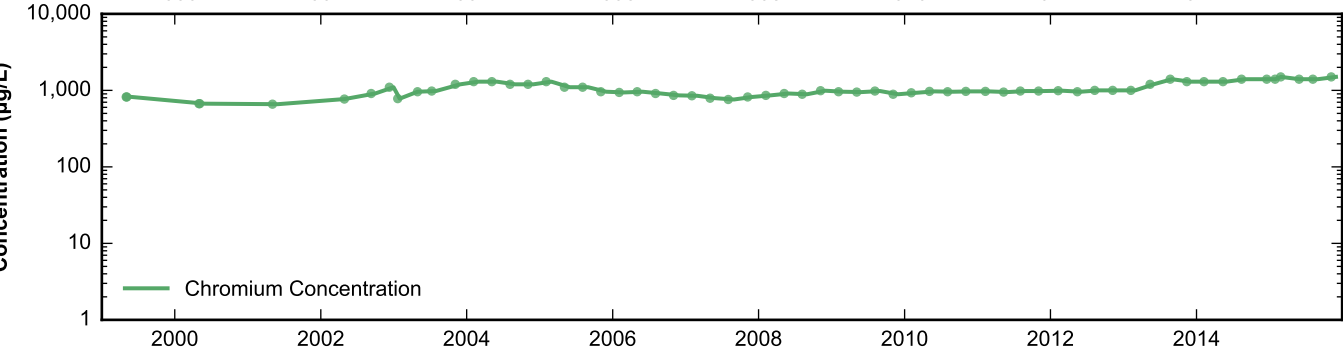
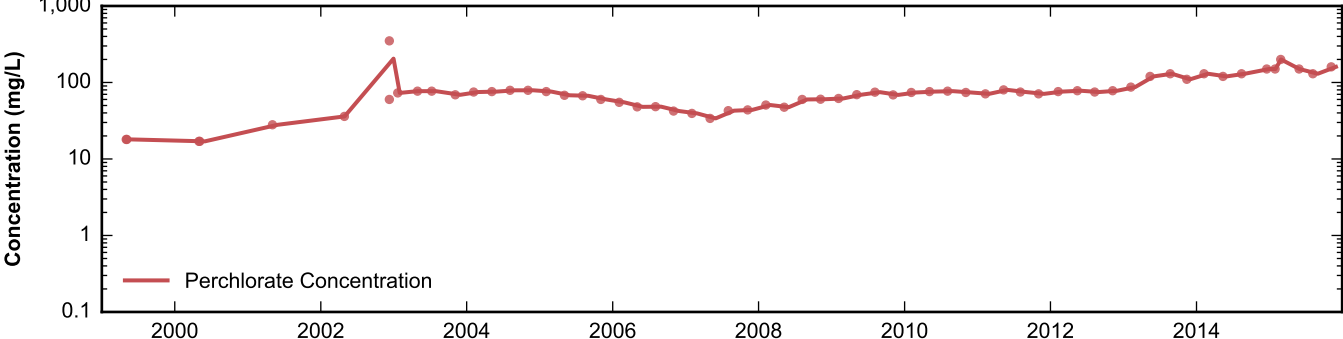
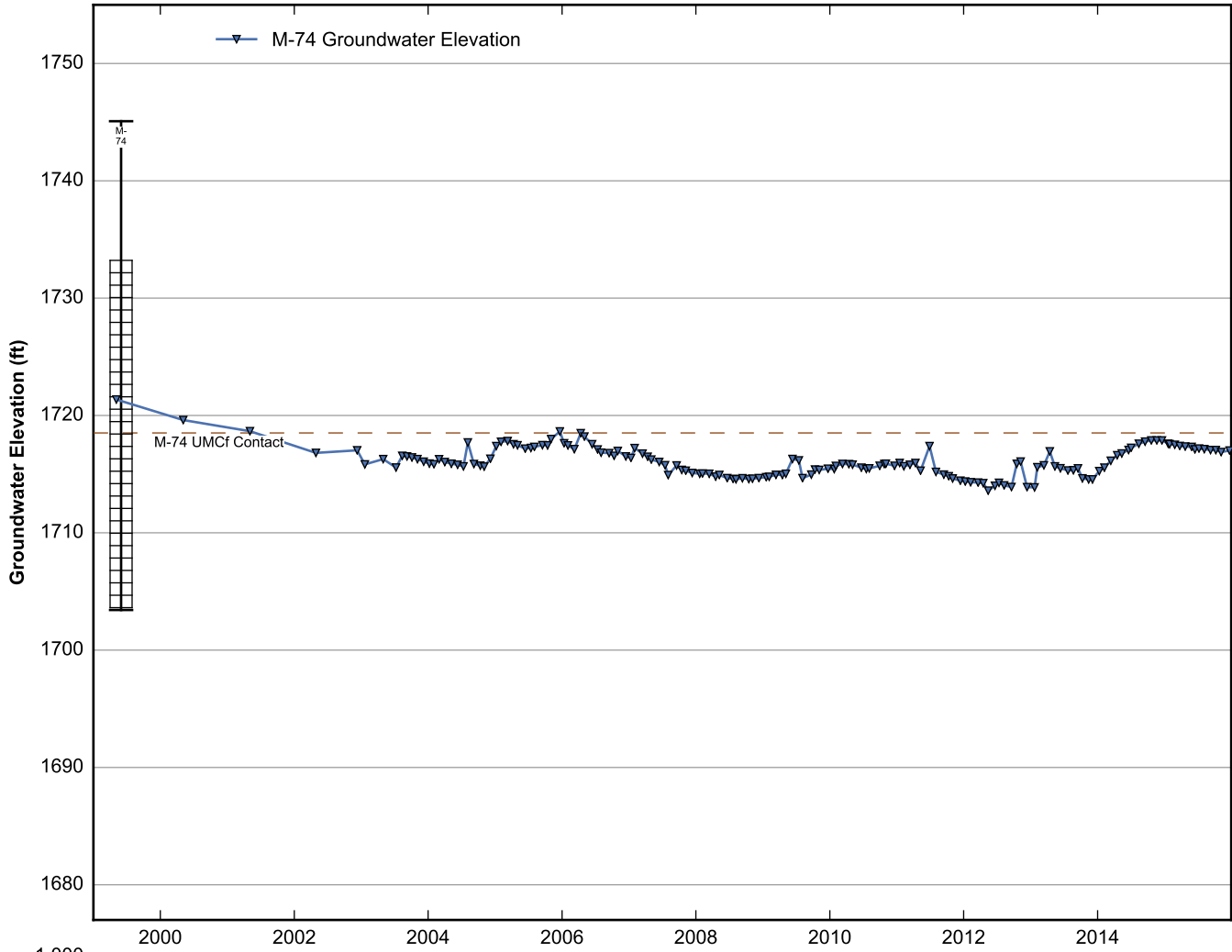
**Data Sheet for Well M-71**  
Nevada Environmental Response Trust Site  
Henderson, Nevada



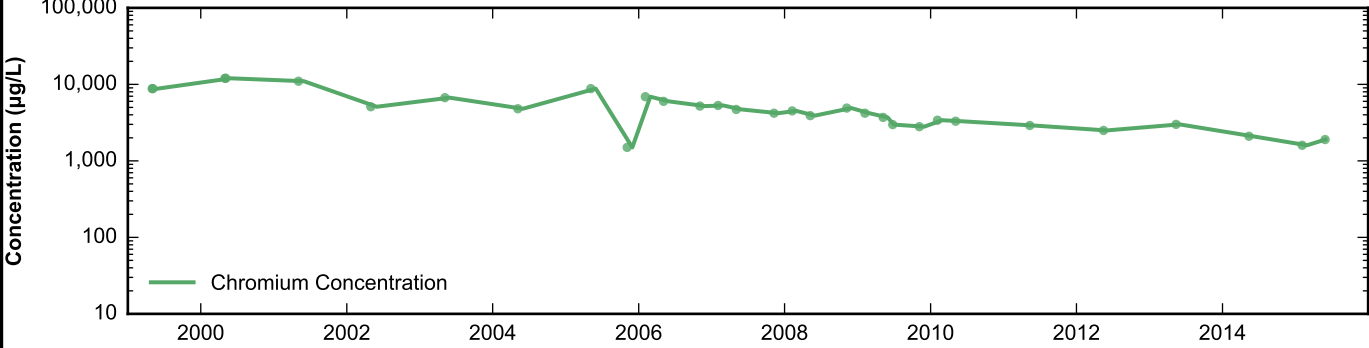
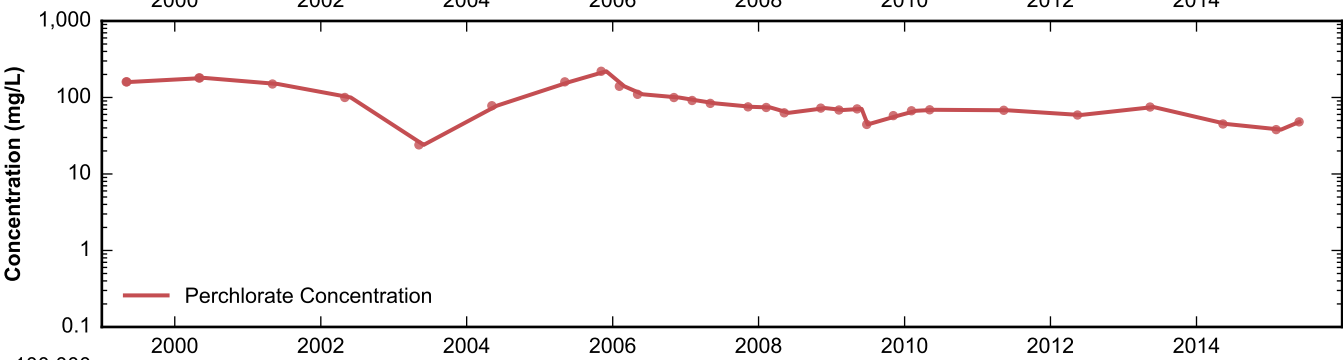
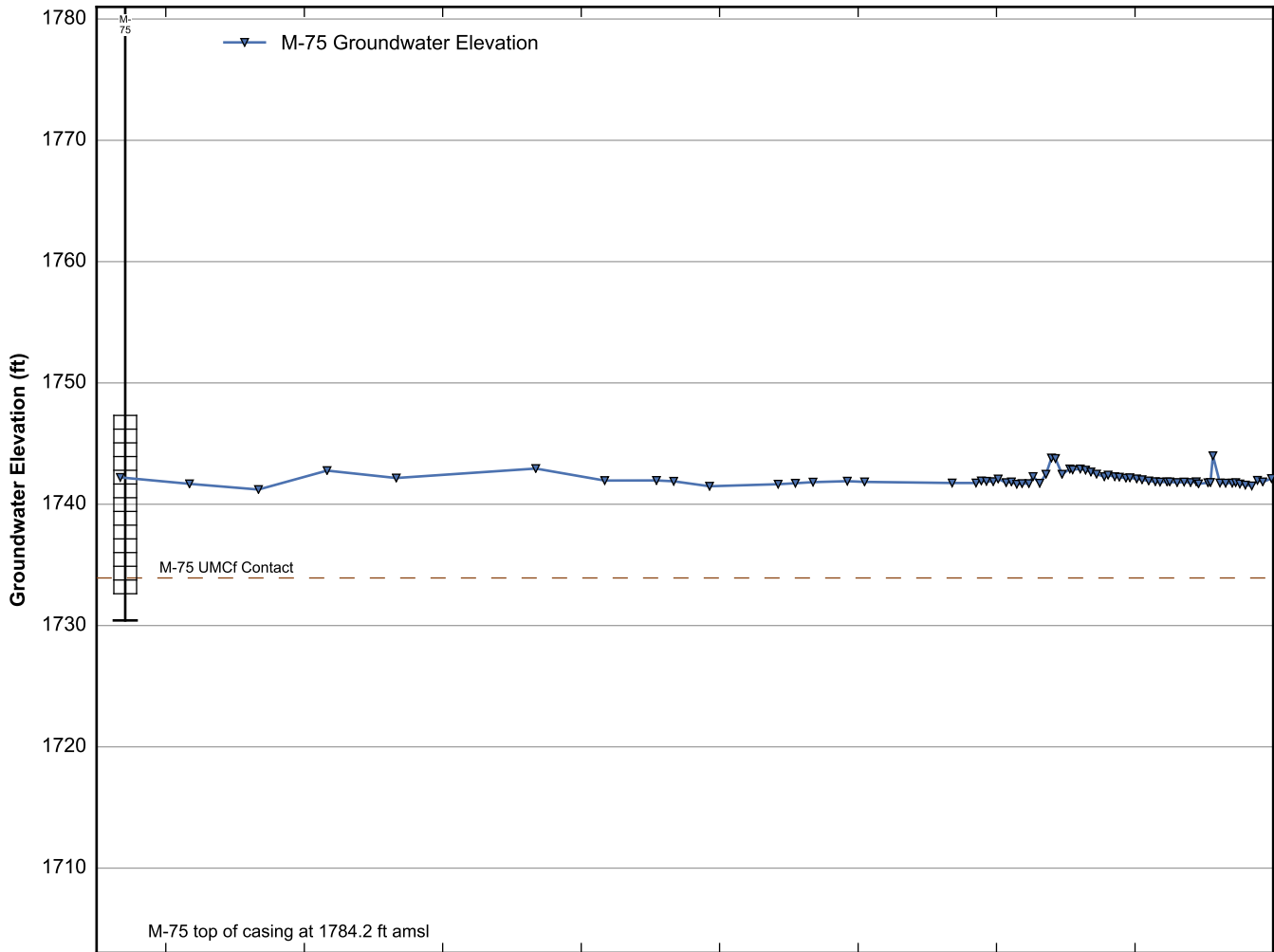
**Data Sheet for Well M-72**  
Nevada Environmental Response Trust Site  
Henderson, Nevada



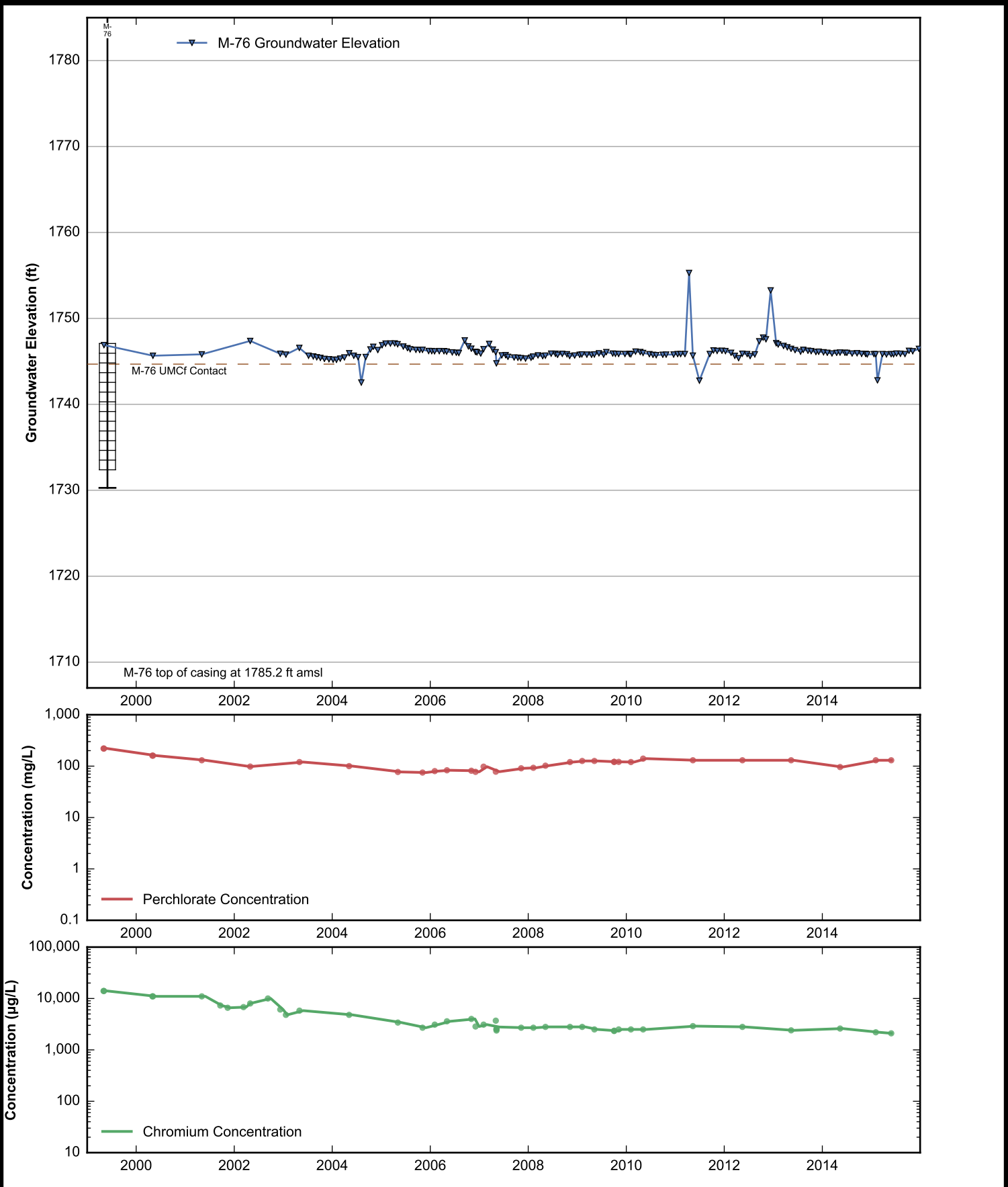
**Data Sheet for Well M-73**  
Nevada Environmental Response Trust Site  
Henderson, Nevada



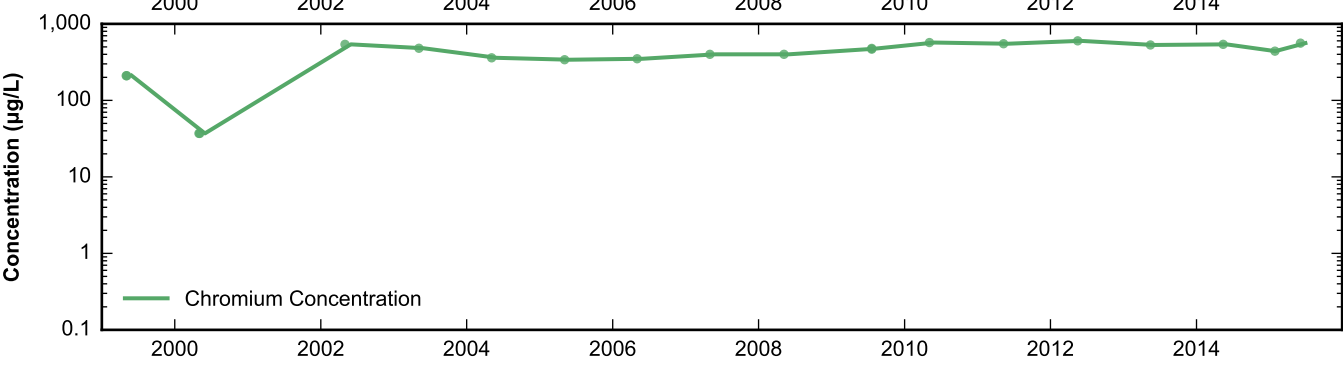
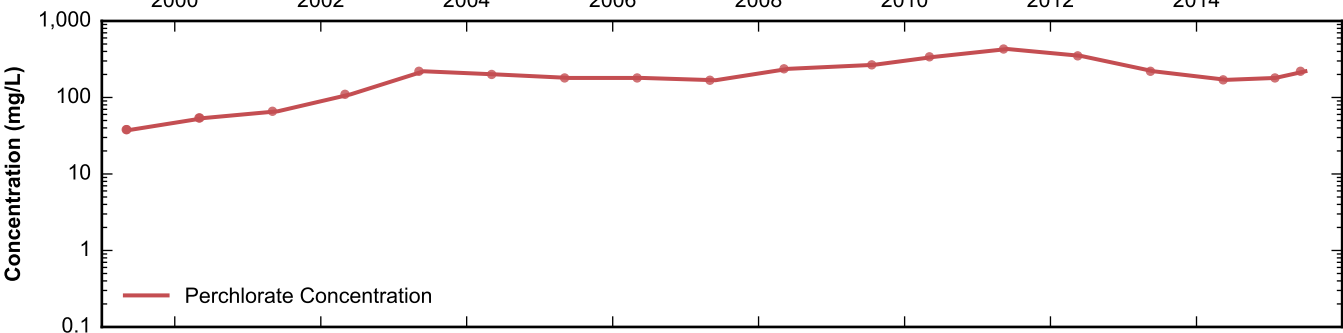
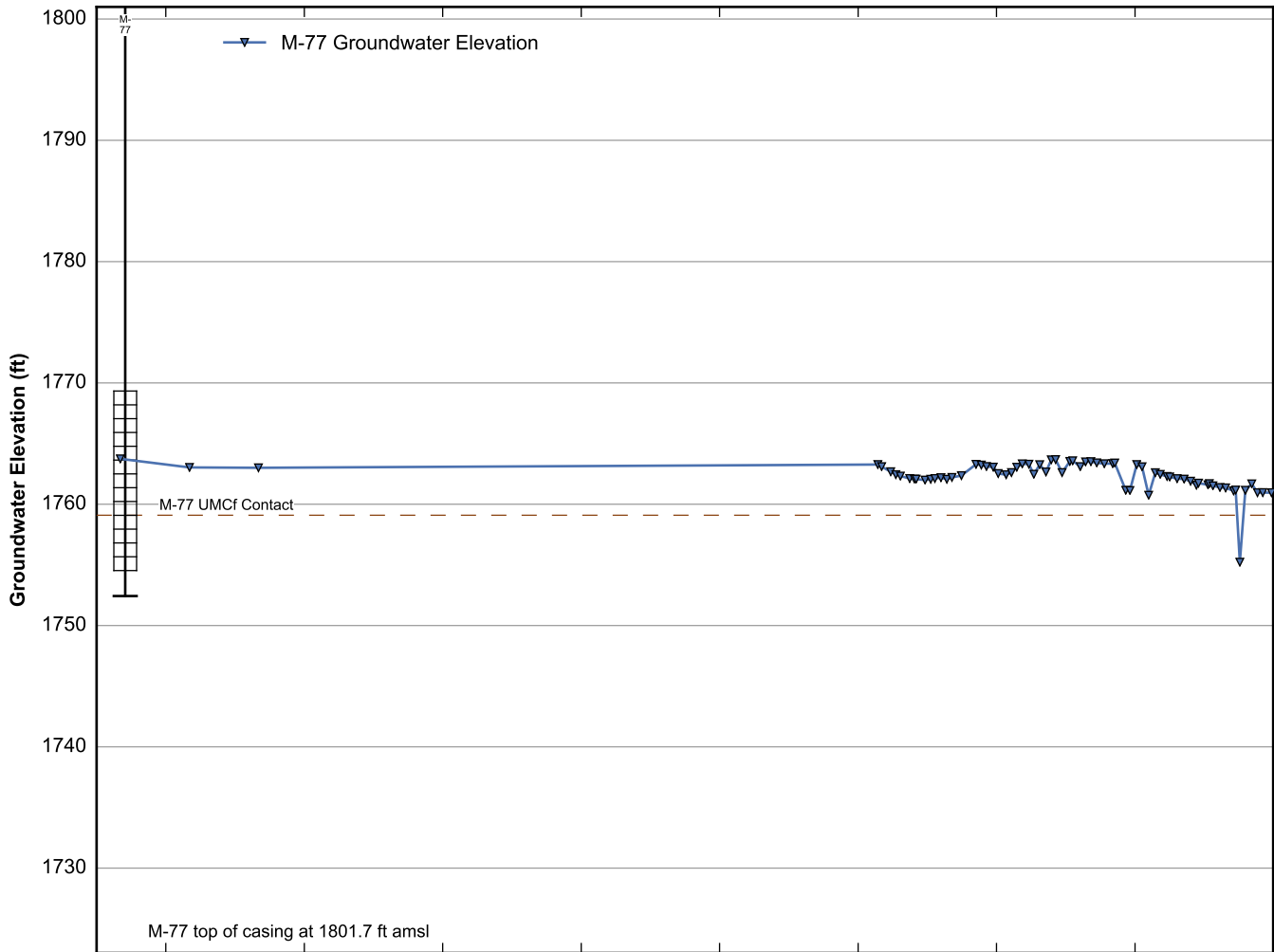
**Data Sheet for Well M-74**  
Nevada Environmental Response Trust Site  
Henderson, Nevada



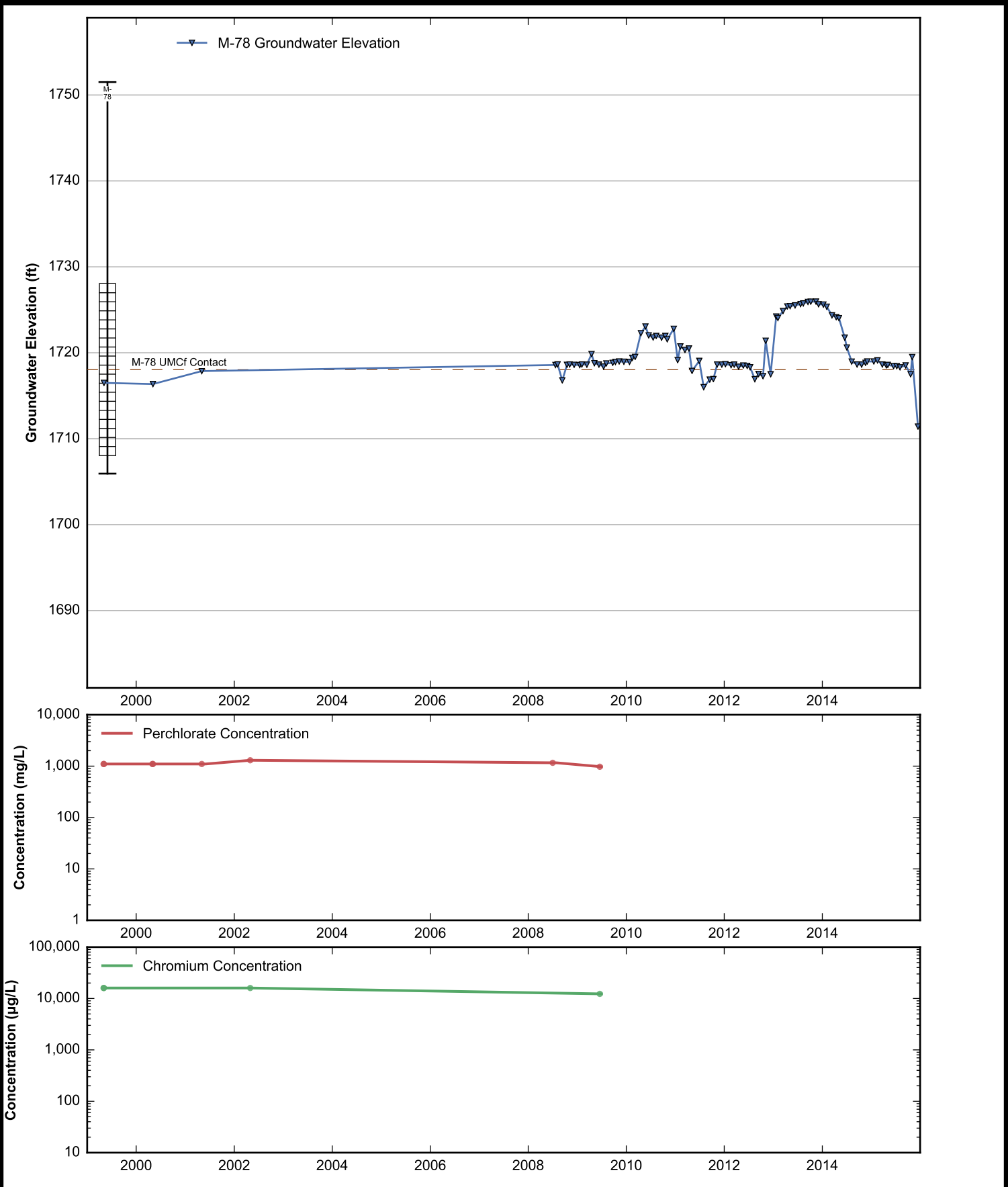
**Data Sheet for Well M-75**  
 Nevada Environmental Response Trust Site  
 Henderson, Nevada



**Data Sheet for Well M-76**  
 Nevada Environmental Response Trust Site  
 Henderson, Nevada

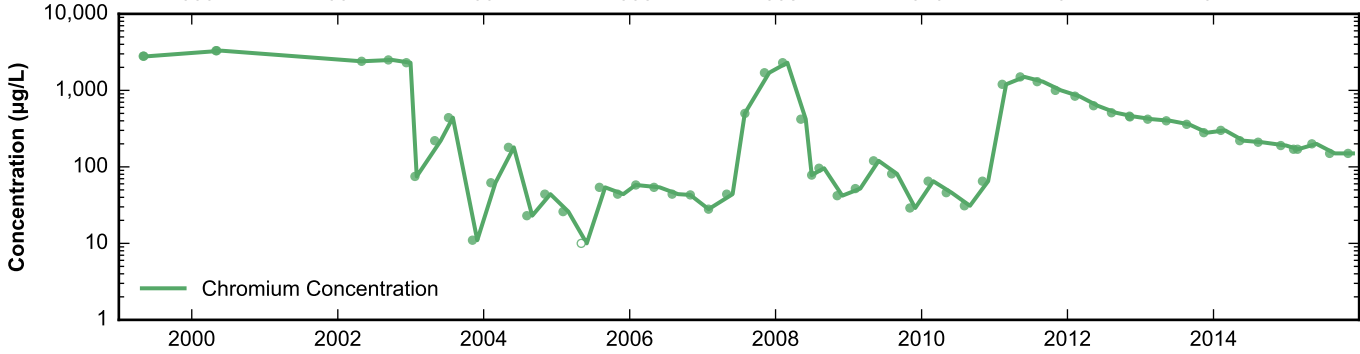
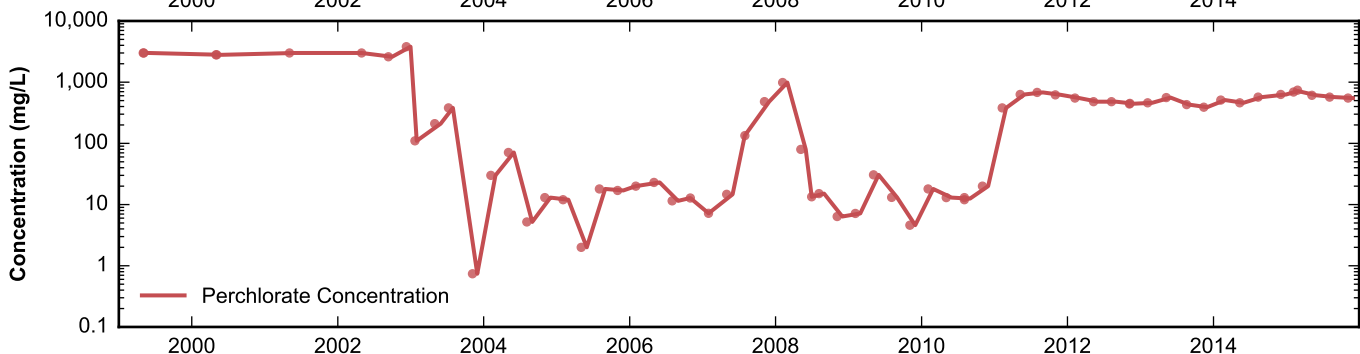
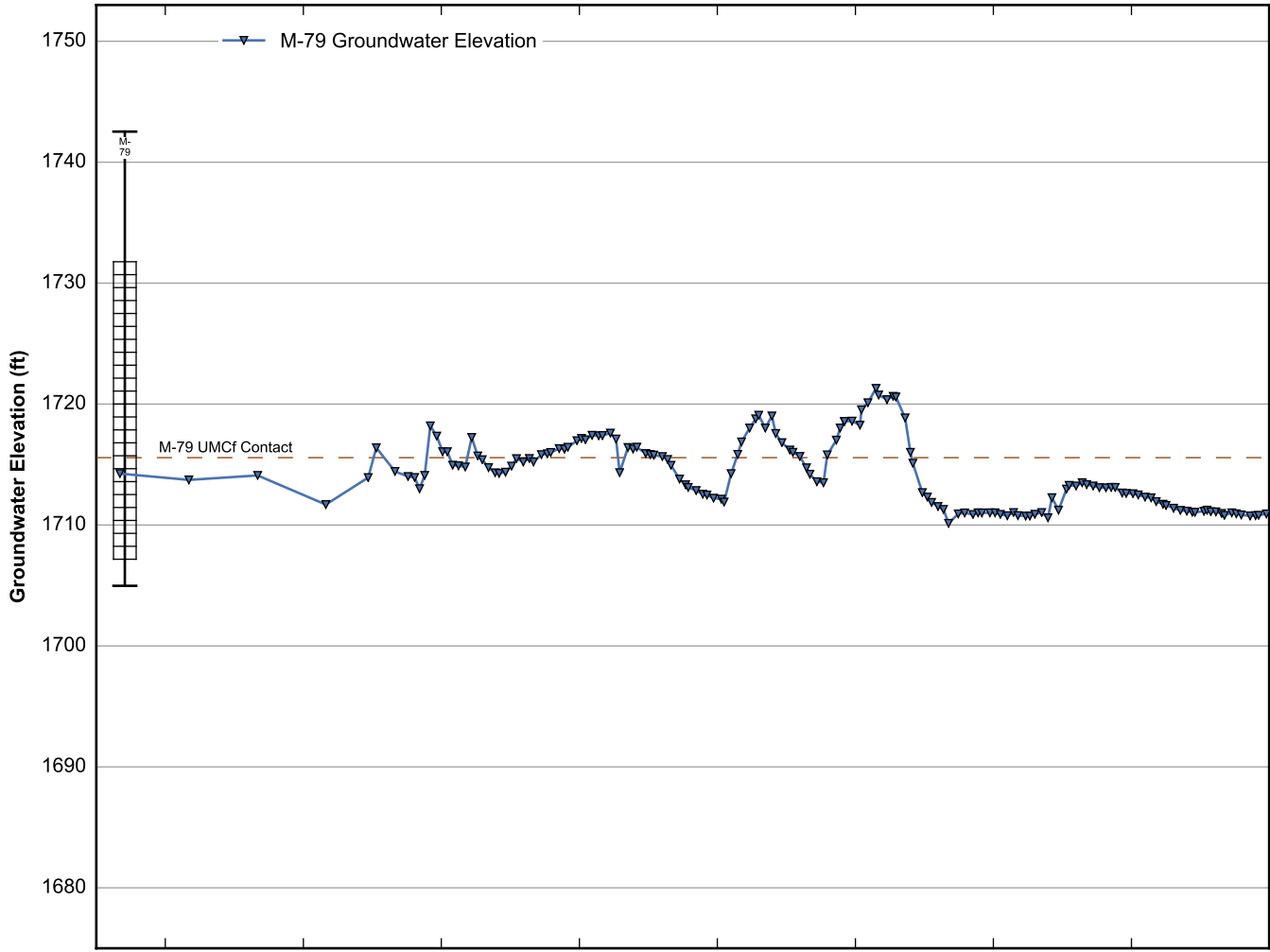


**Data Sheet for Well M-77**  
 Nevada Environmental Response Trust Site  
 Henderson, Nevada

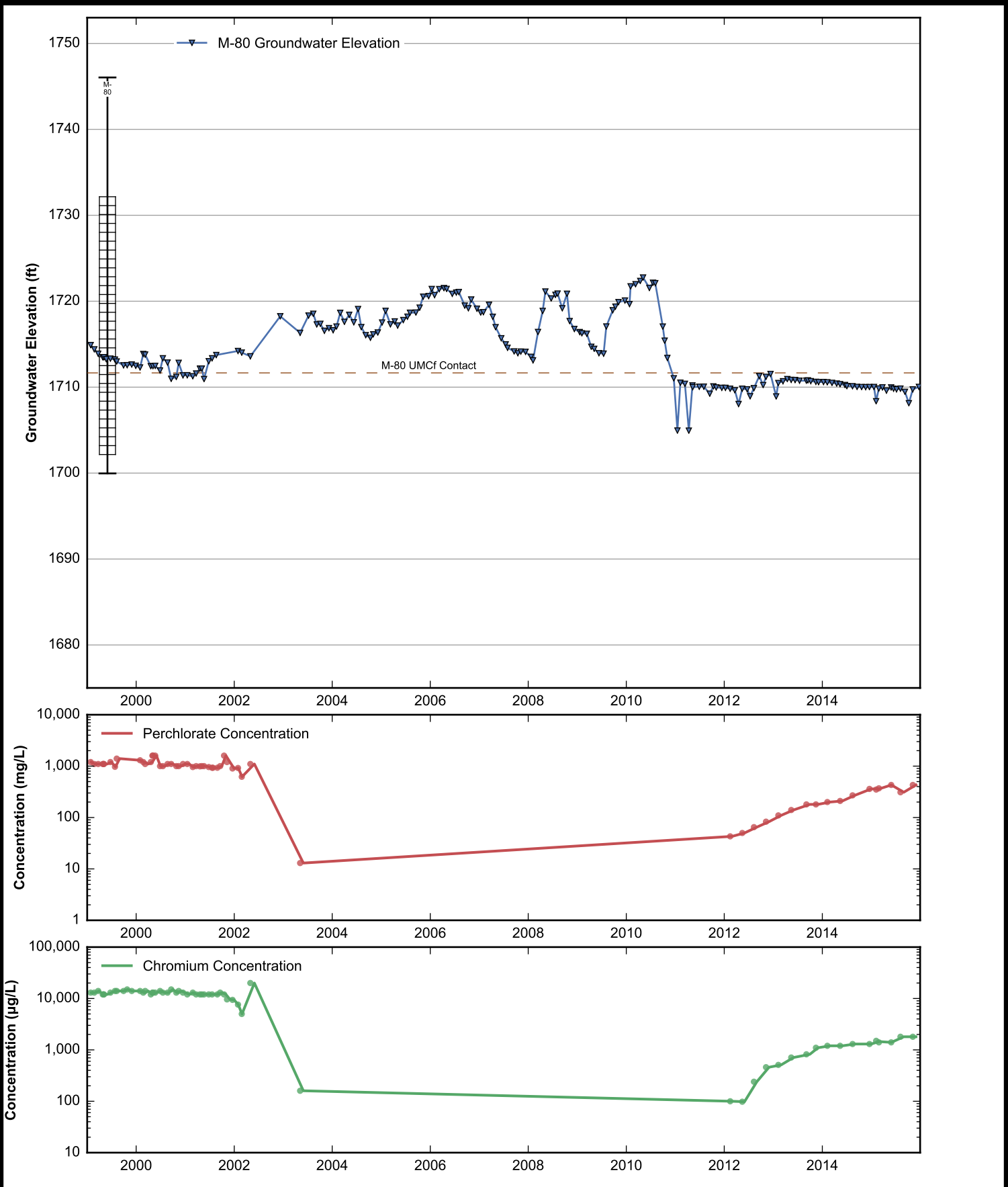


**Data Sheet for Well M-78**  
 Nevada Environmental Response Trust Site  
 Henderson, Nevada

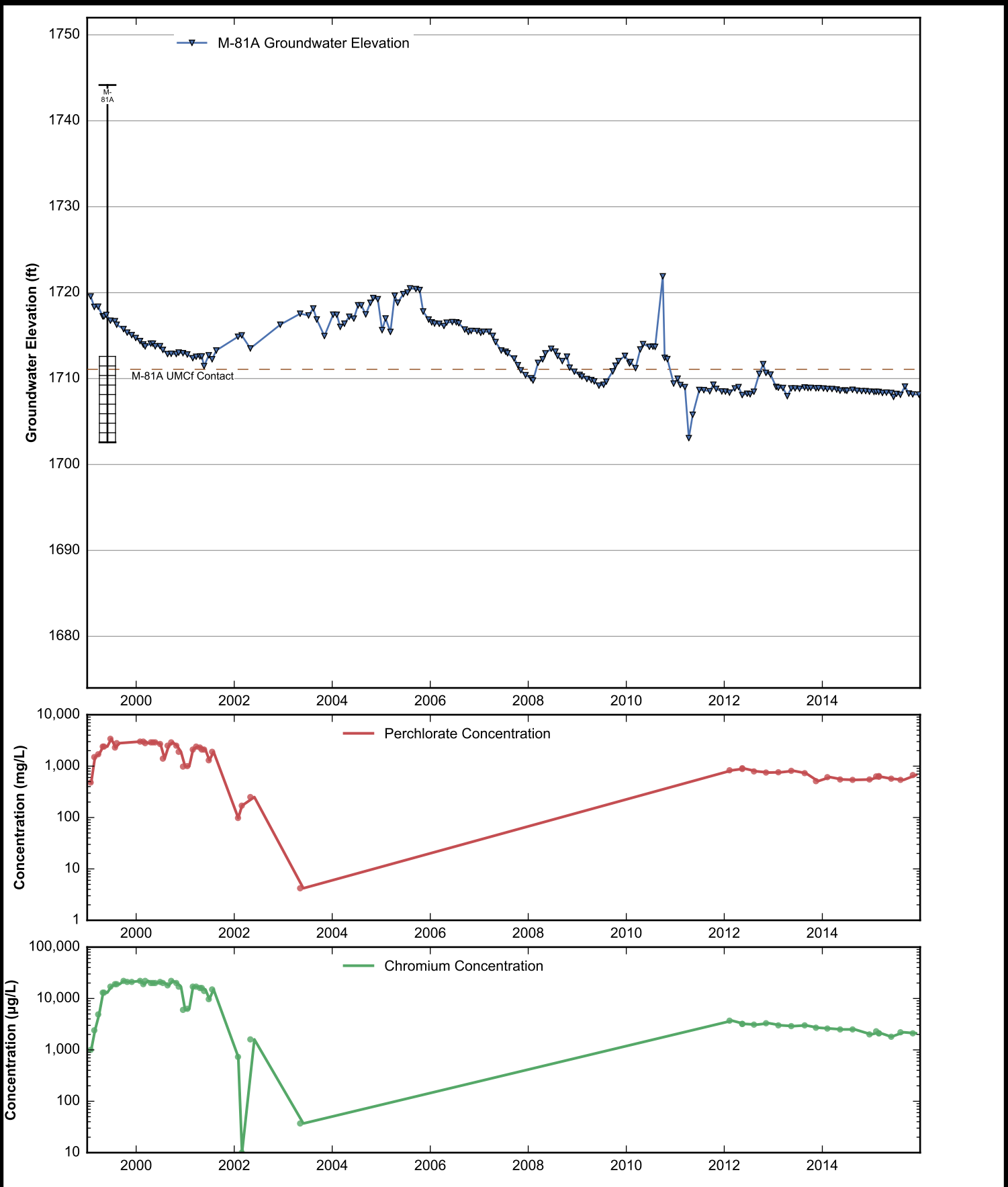




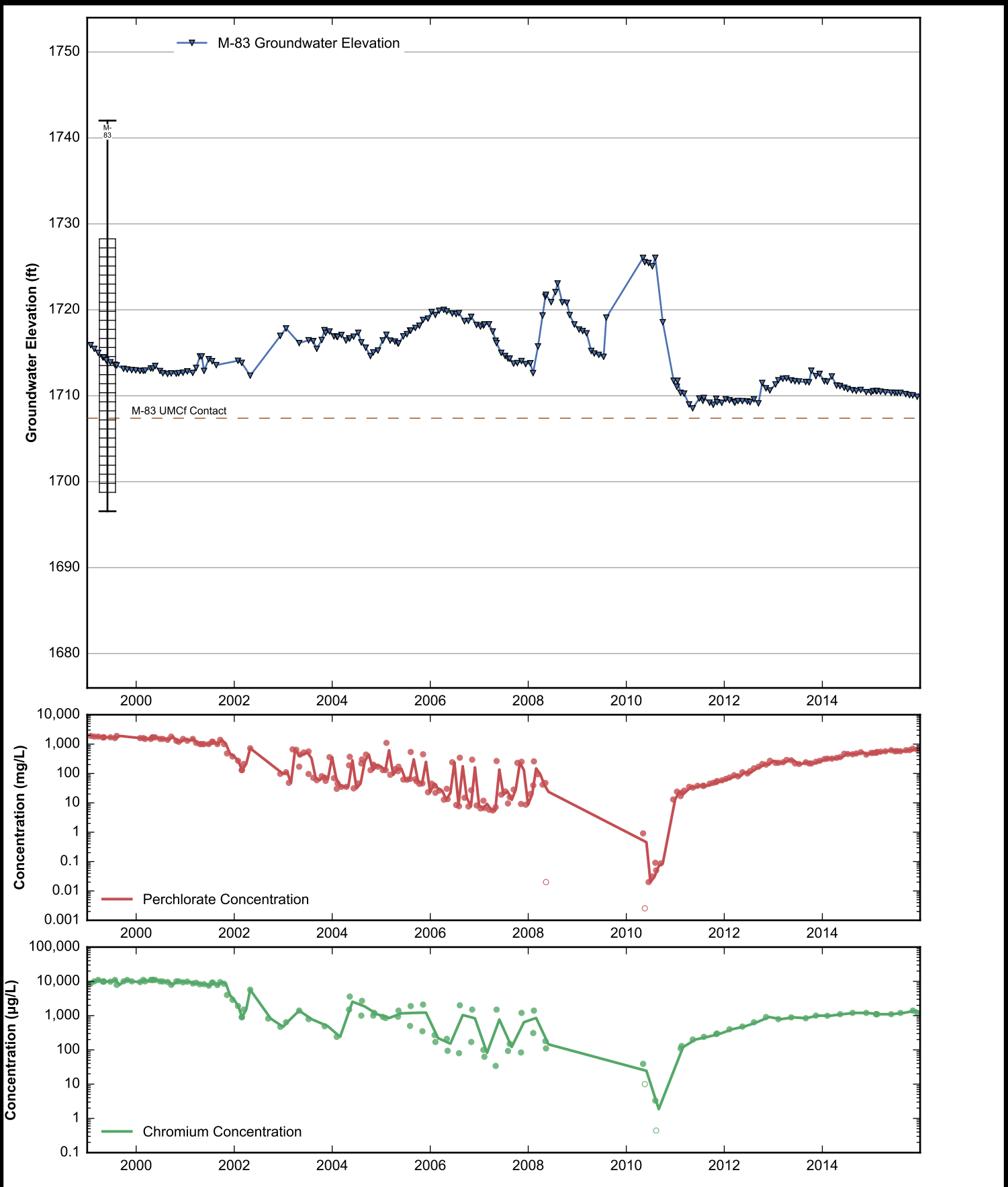
**Data Sheet for Well M-79**  
Nevada Environmental Response Trust Site  
Henderson, Nevada



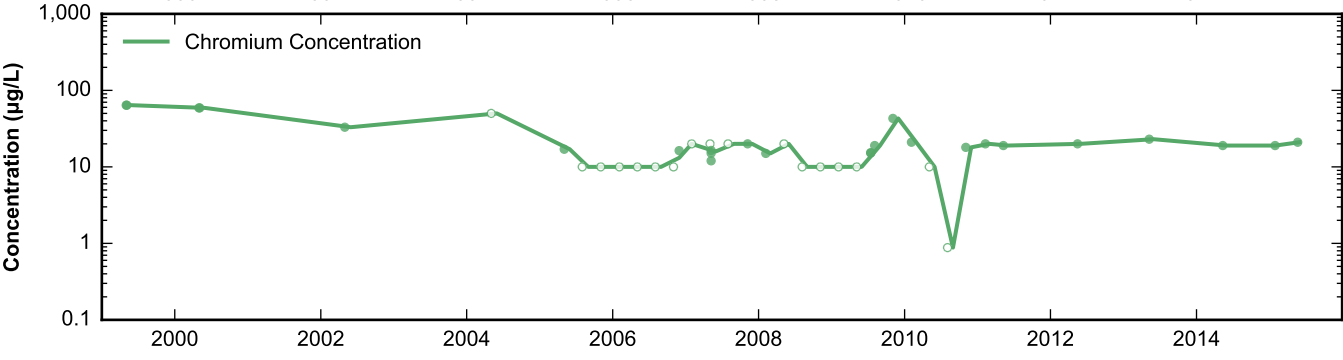
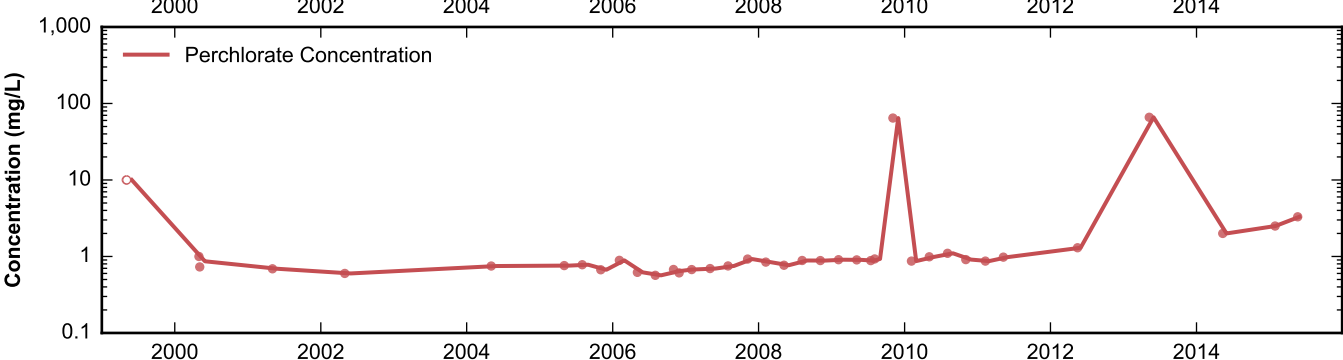
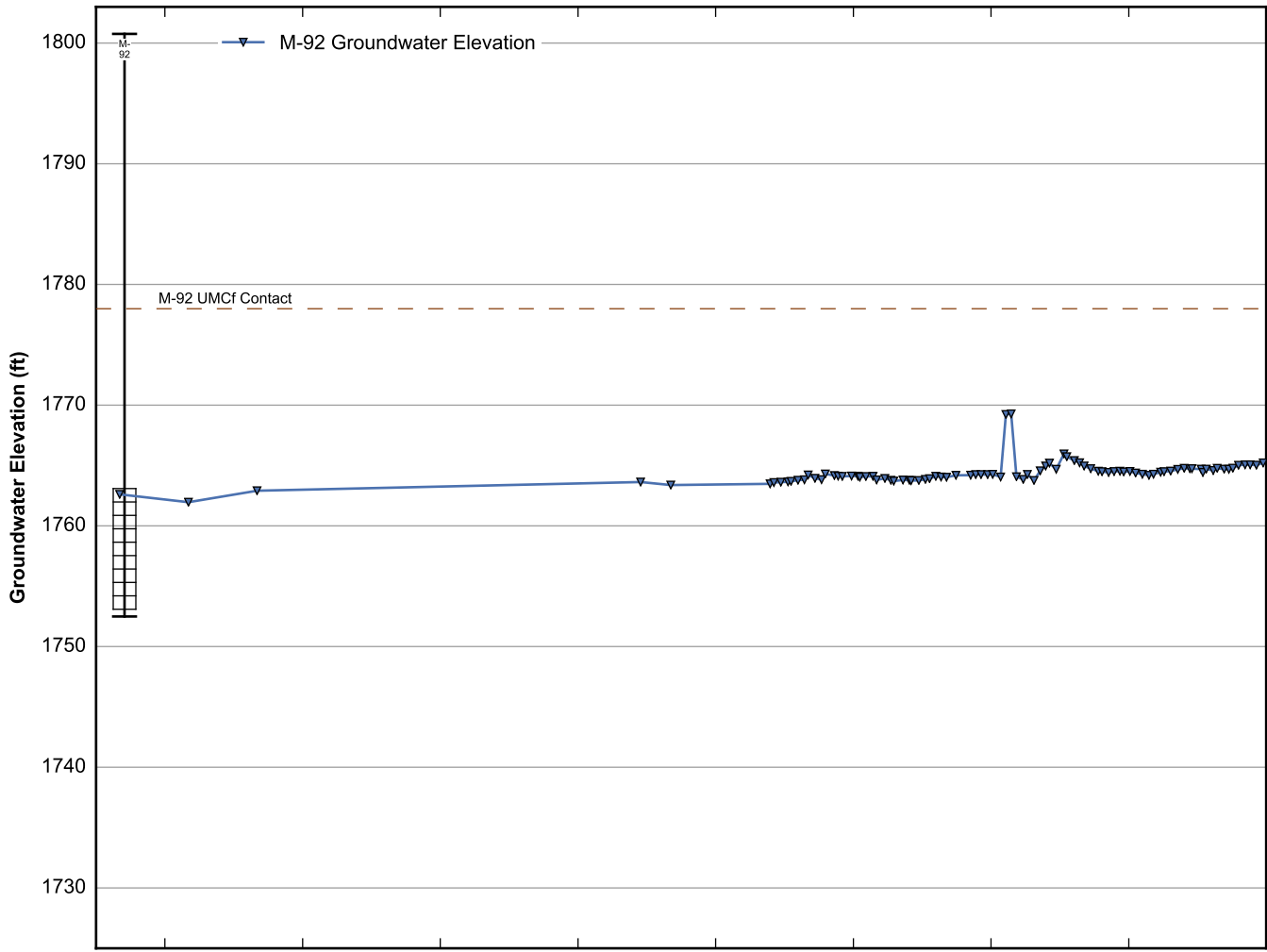
**Data Sheet for Well M-80**  
Nevada Environmental Response Trust Site  
Henderson, Nevada



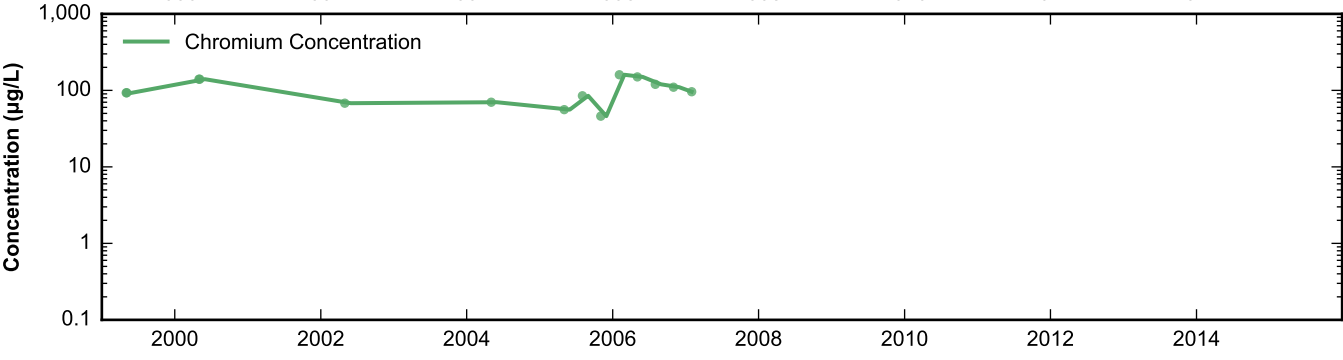
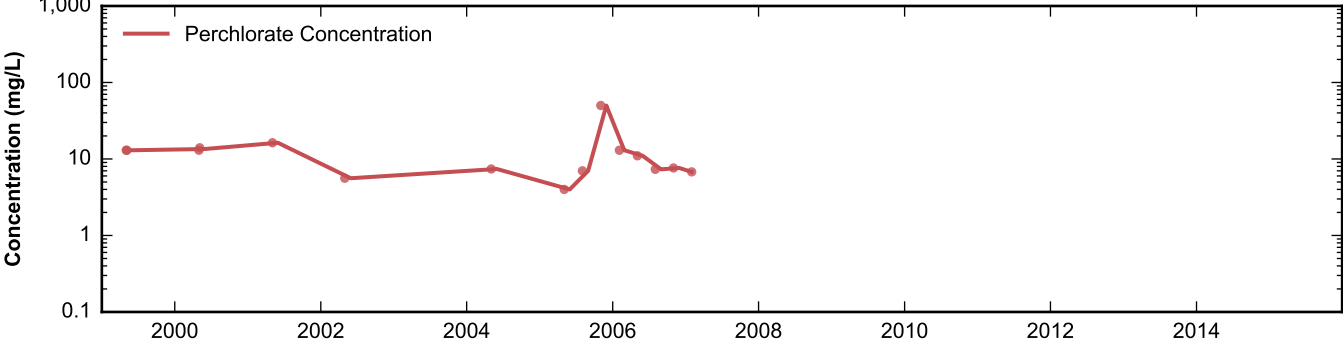
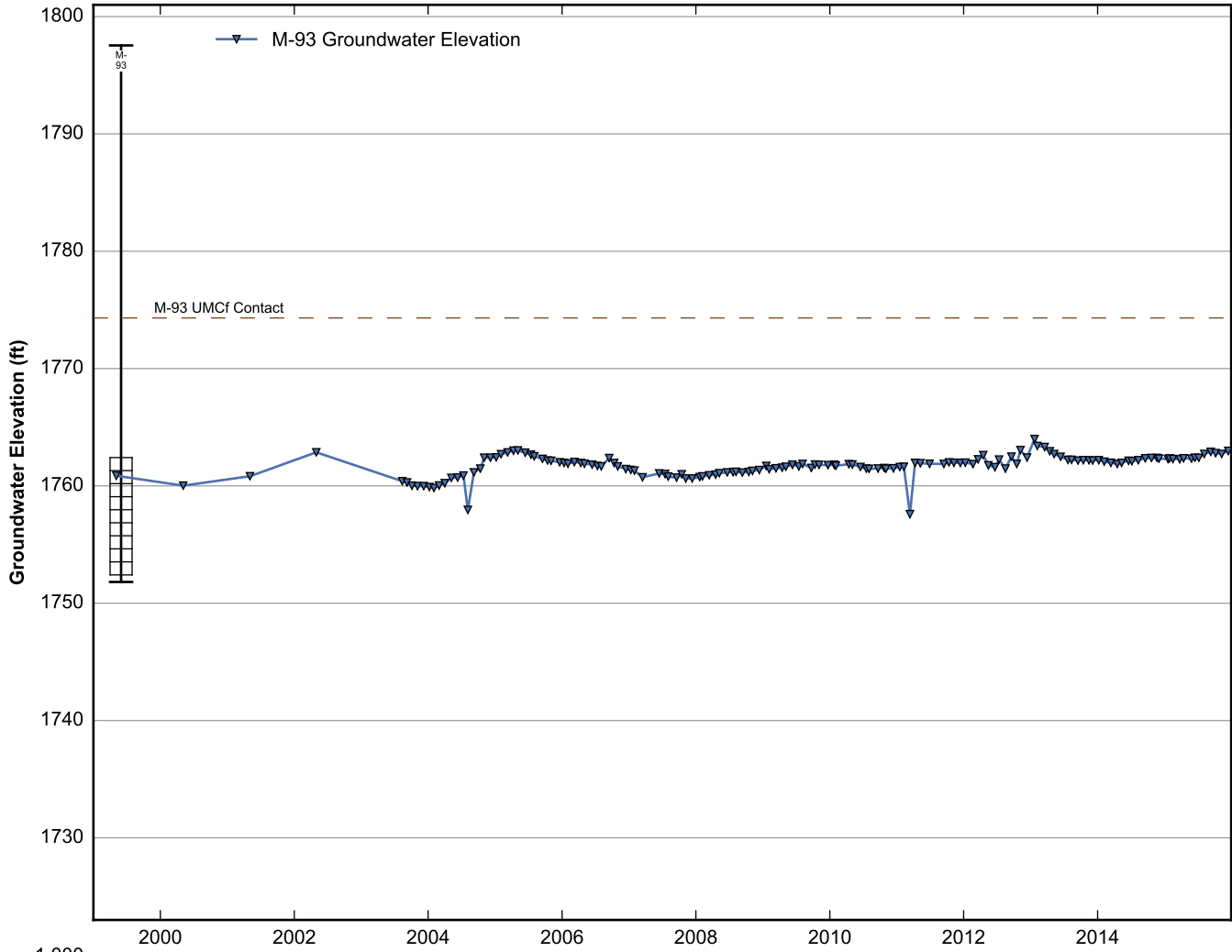
**Data Sheet for Well M-81A**  
Nevada Environmental Response Trust Site  
Henderson, Nevada



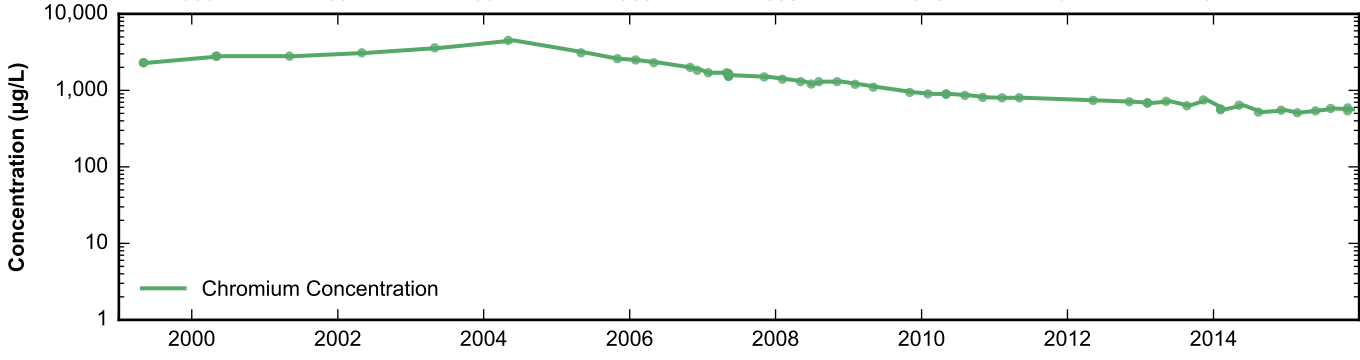
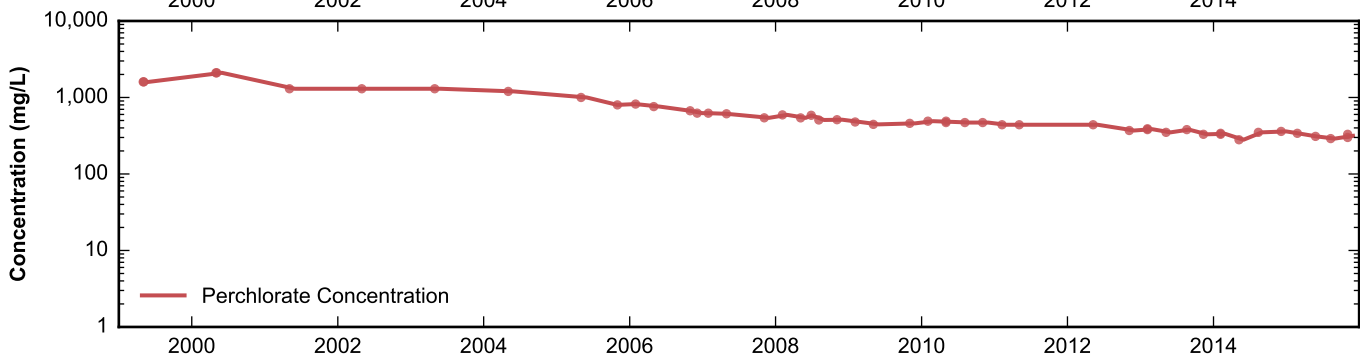
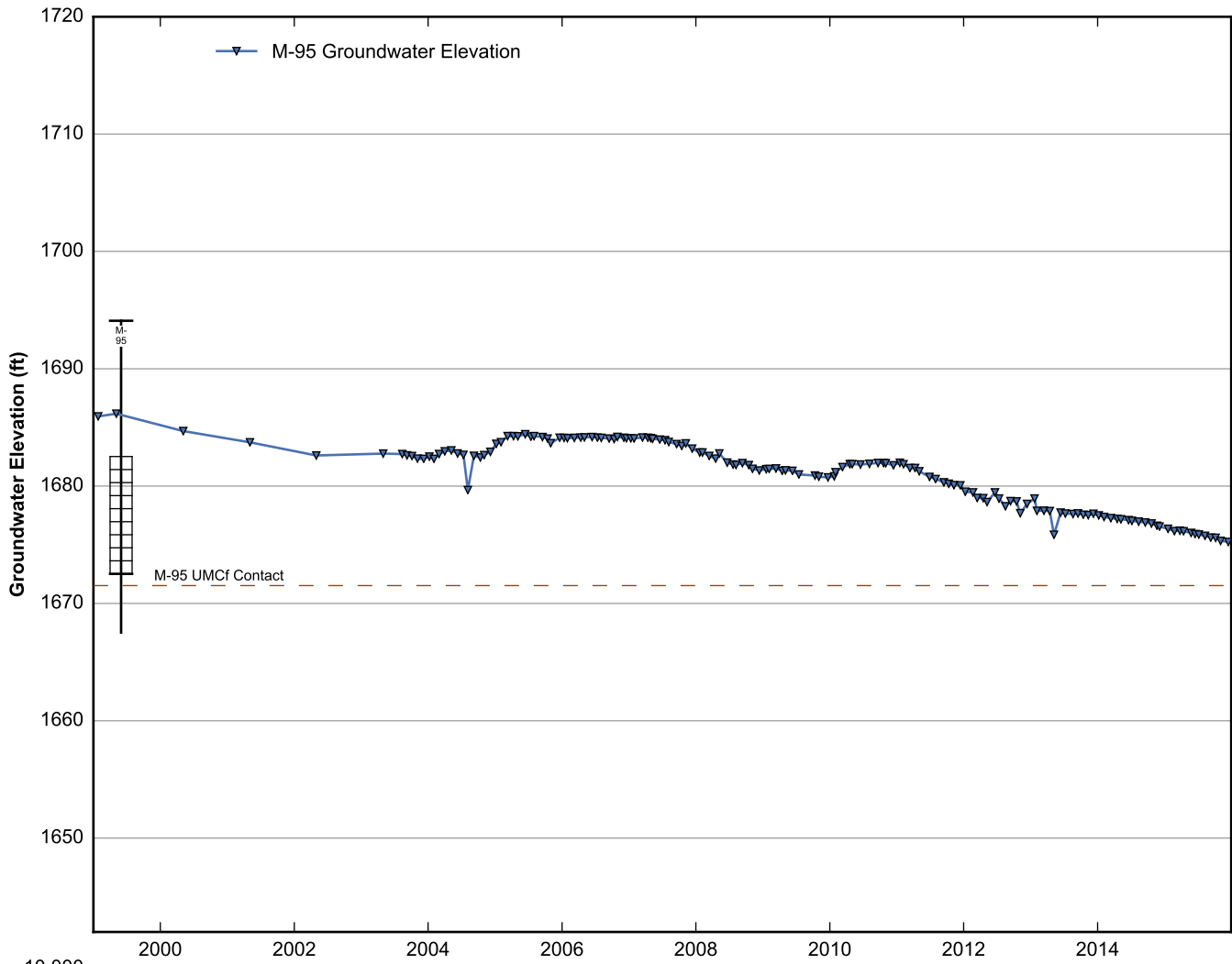
**Data Sheet for Well M-83**  
Nevada Environmental Response Trust Site  
Henderson, Nevada



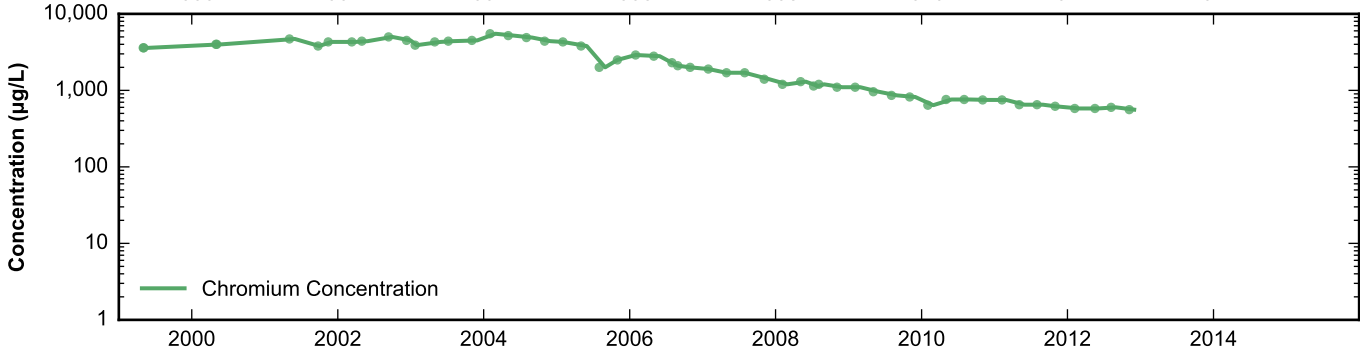
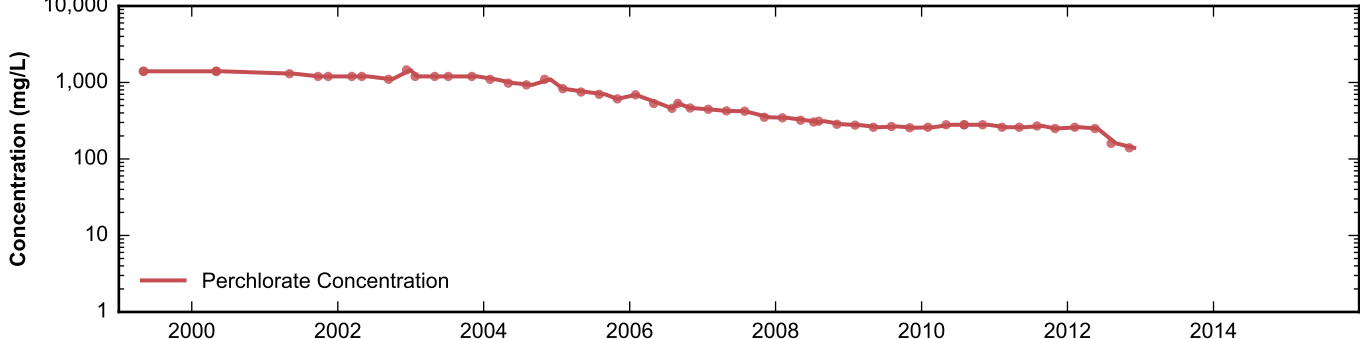
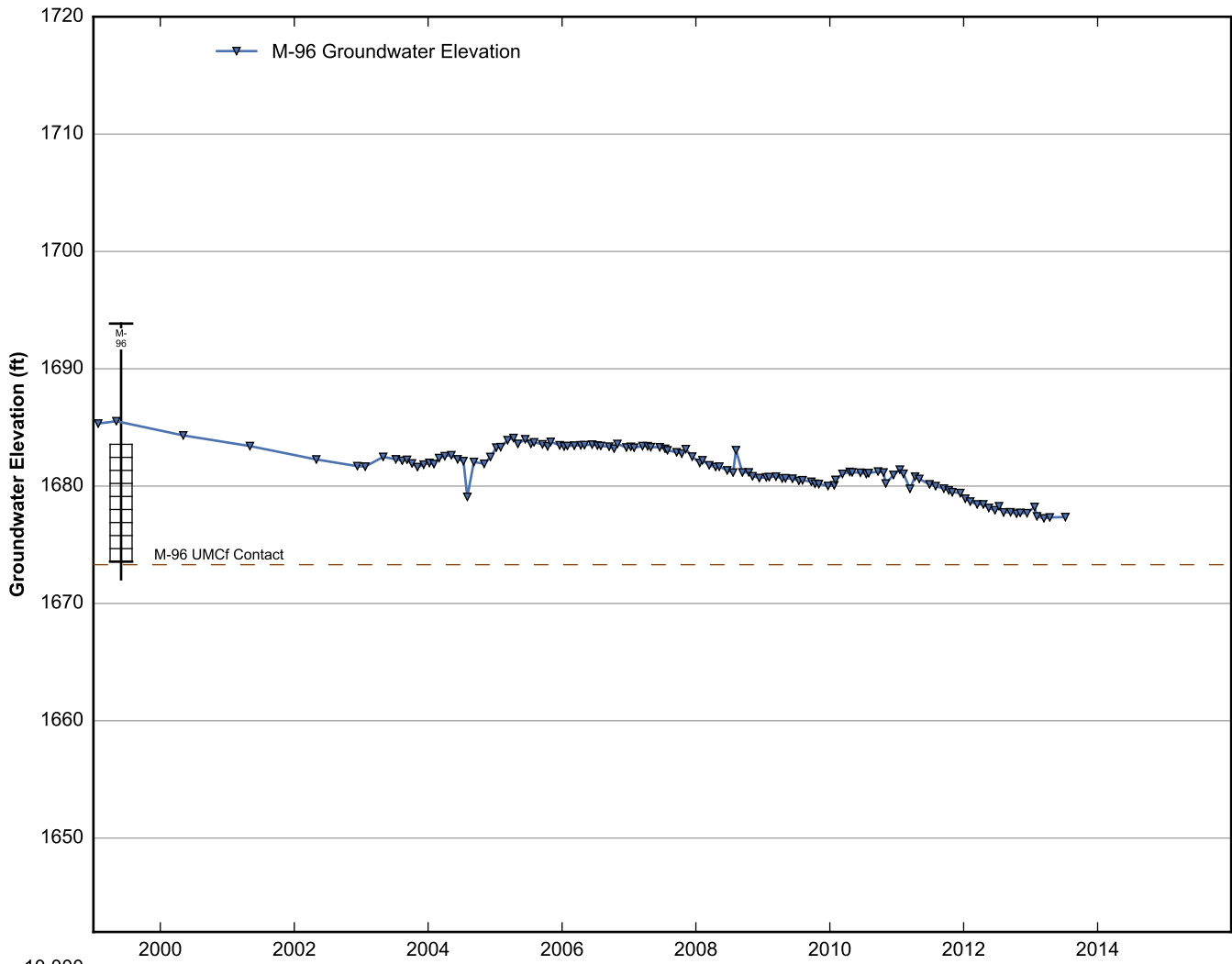
**Data Sheet for Well M-92**  
Nevada Environmental Response Trust Site  
Henderson, Nevada



**Data Sheet for Well M-93**  
Nevada Environmental Response Trust Site  
Henderson, Nevada

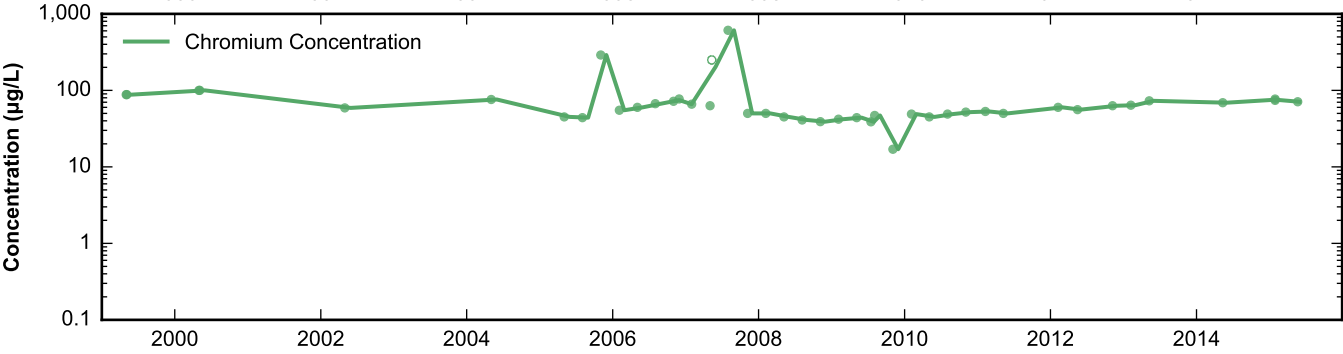
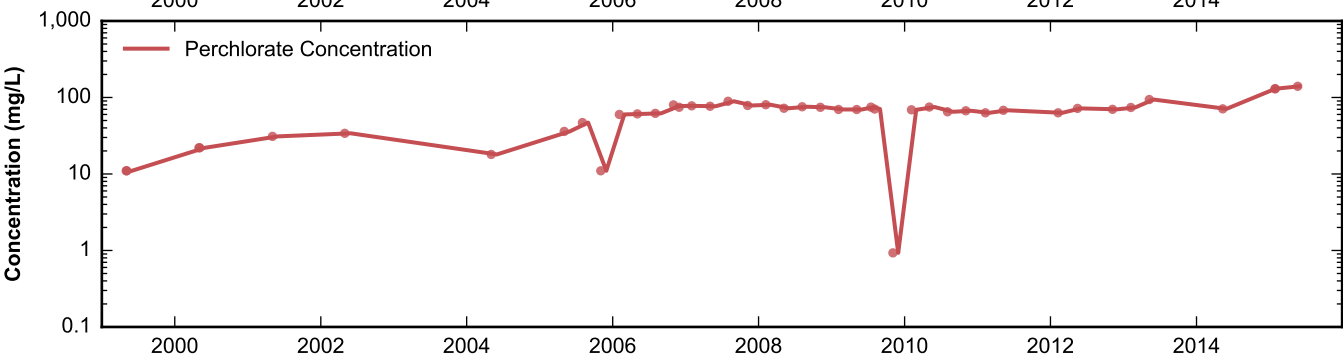
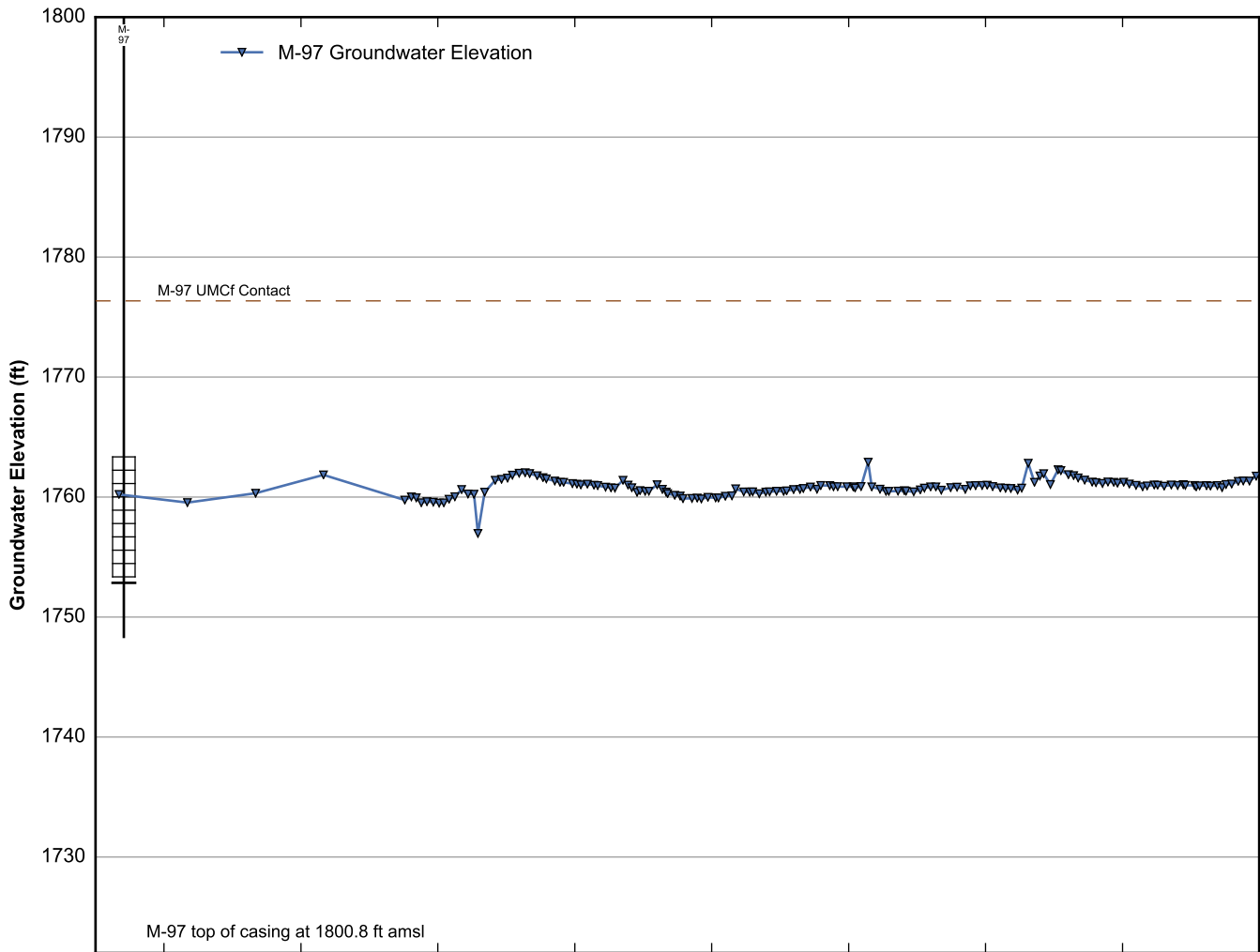


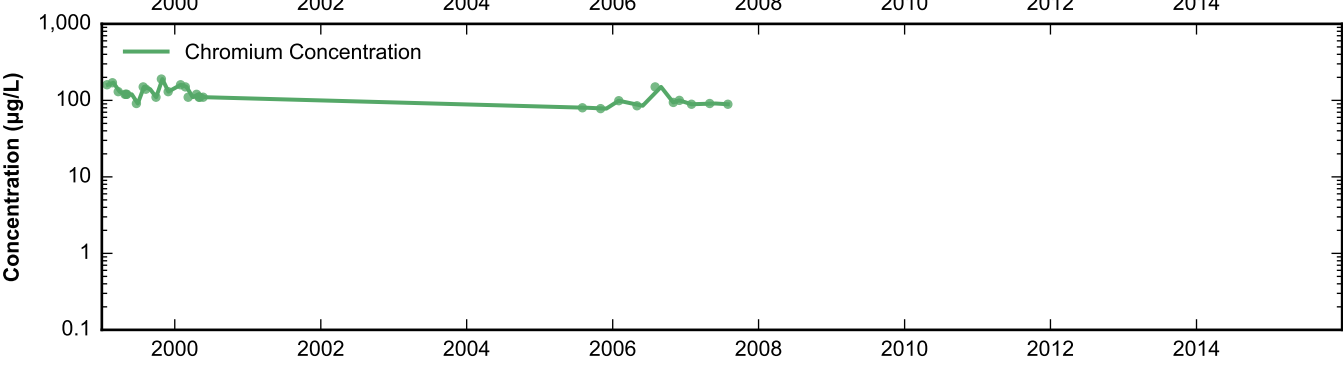
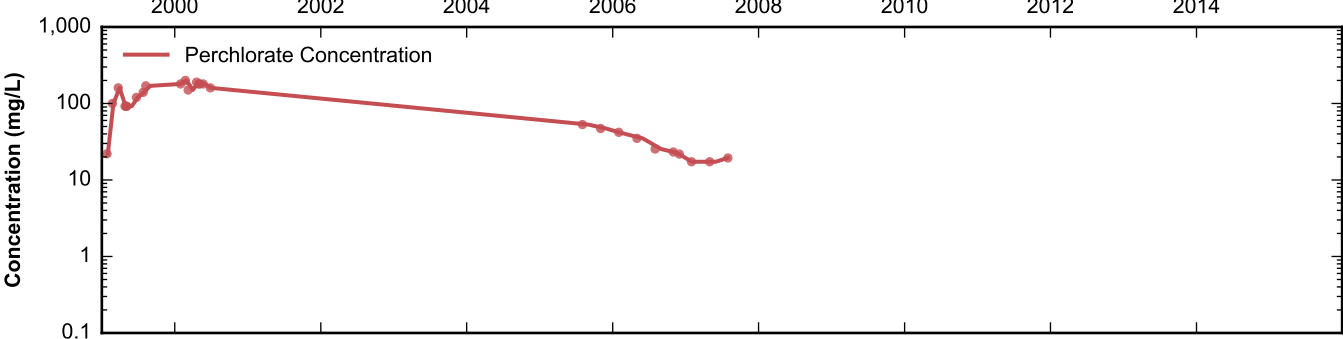
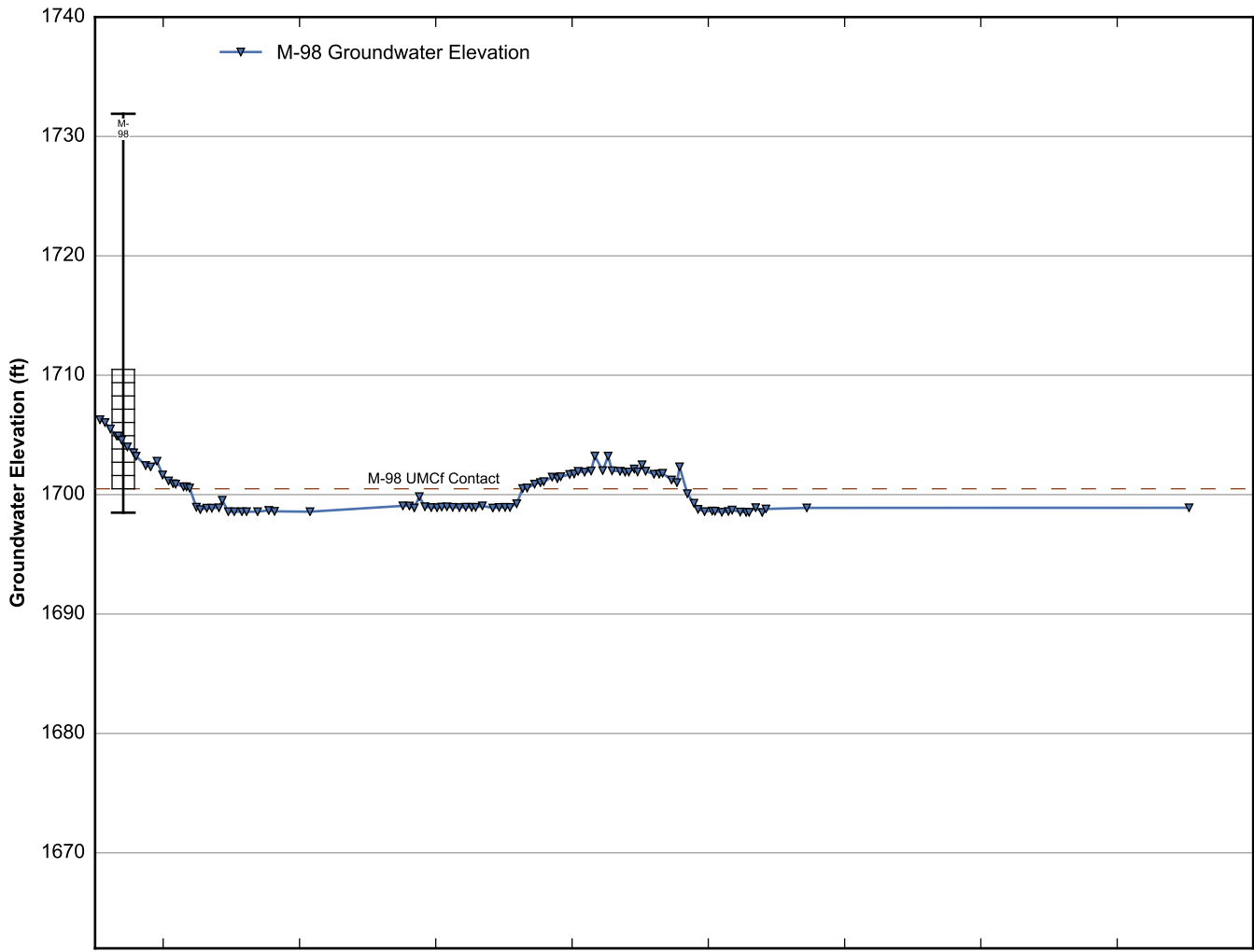
**Data Sheet for Well M-95**  
 Nevada Environmental Response Trust Site  
 Henderson, Nevada



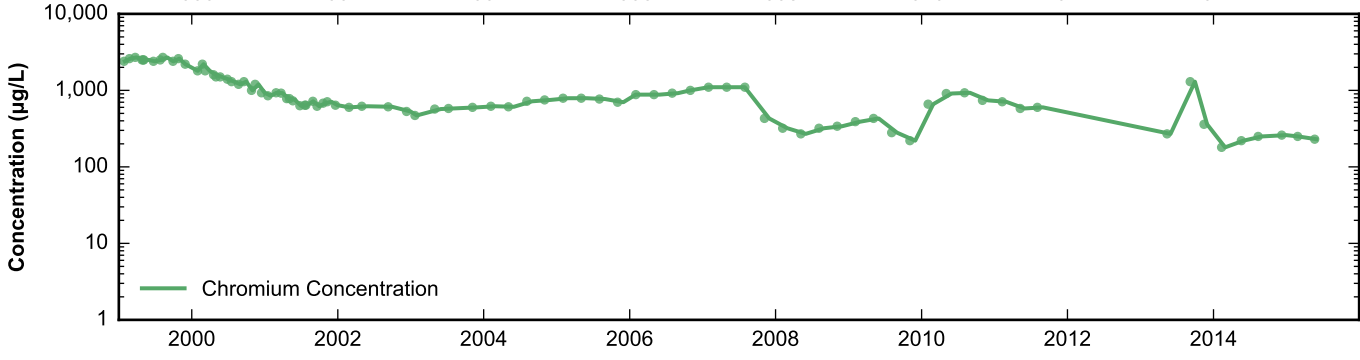
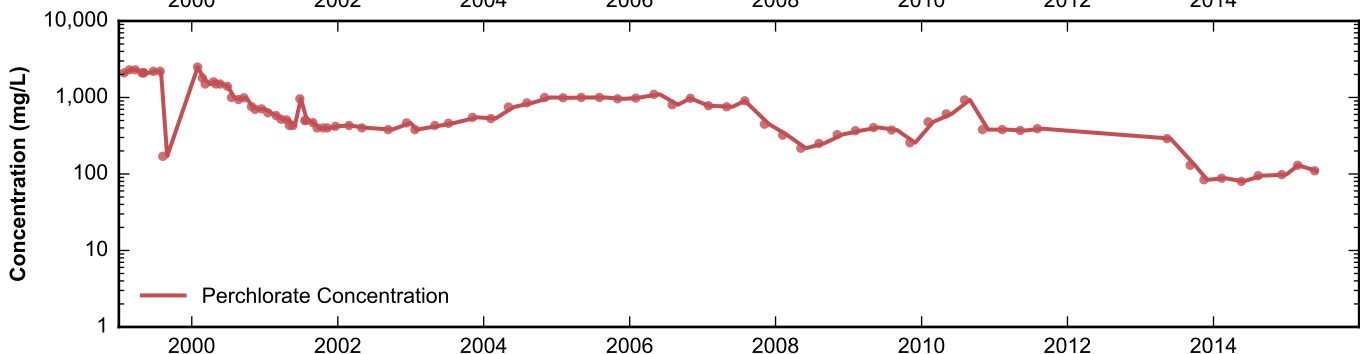
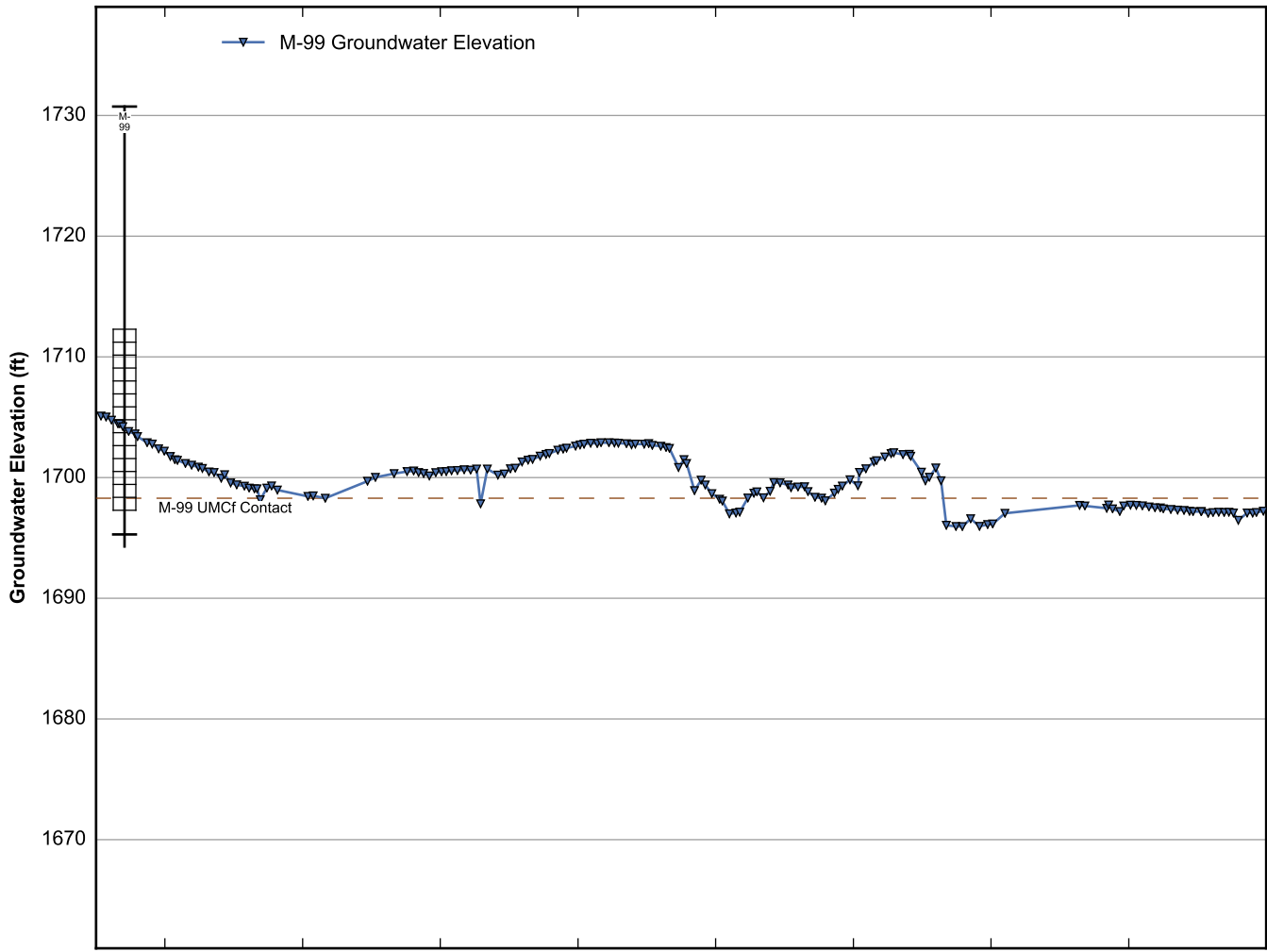
**Data Sheet for Well M-96**  
 Nevada Environmental Response Trust Site  
 Henderson, Nevada



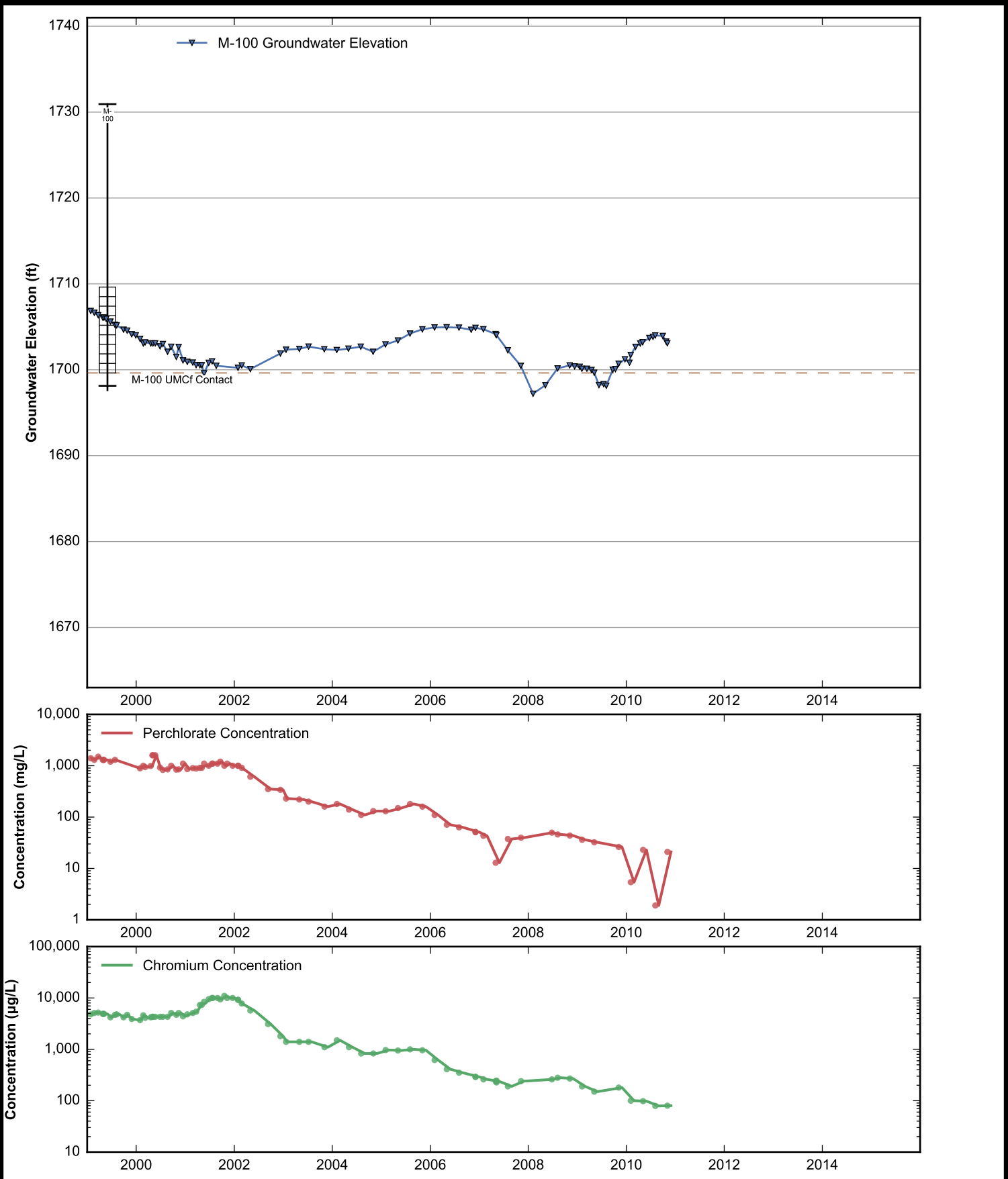




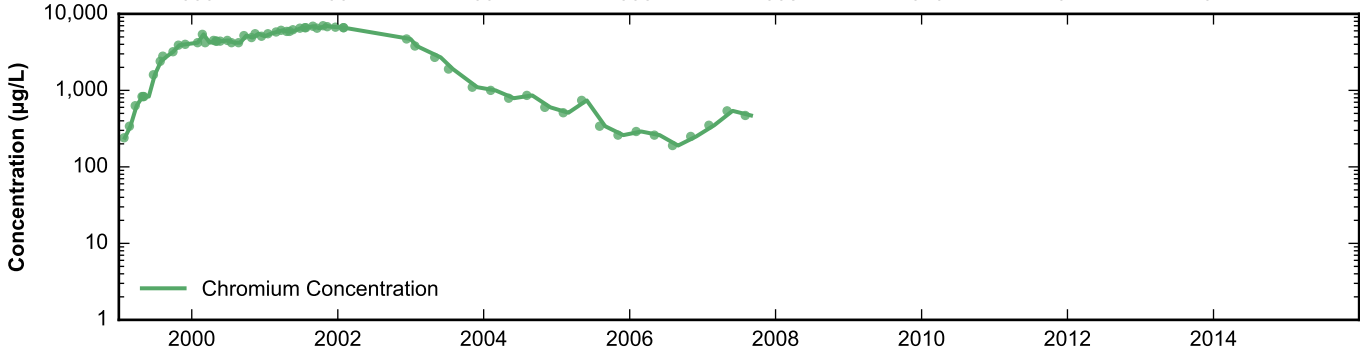
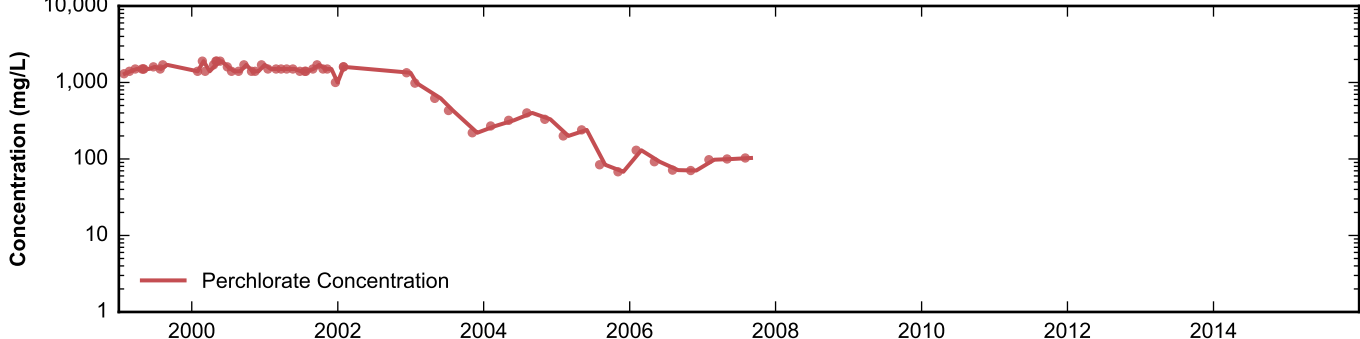
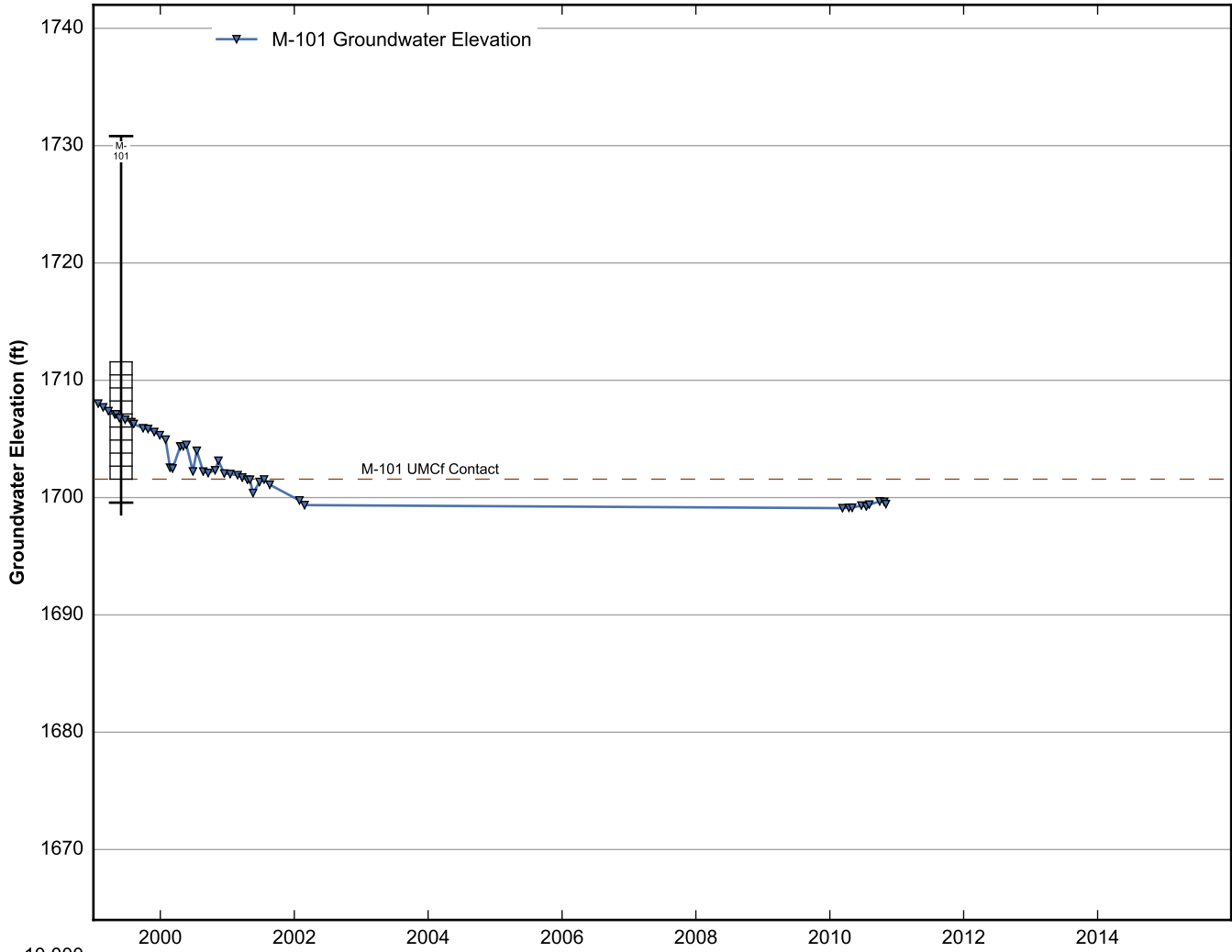
**Data Sheet for Well M-98**  
Nevada Environmental Response Trust Site  
Henderson, Nevada



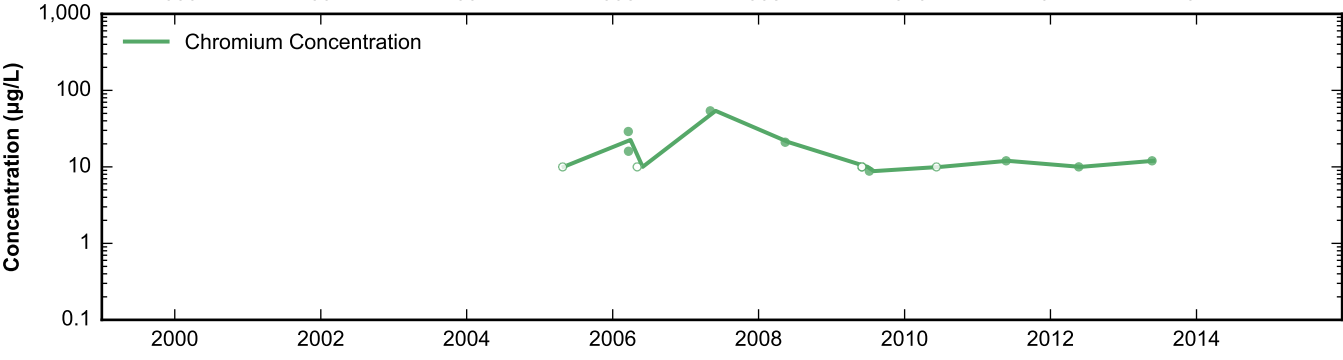
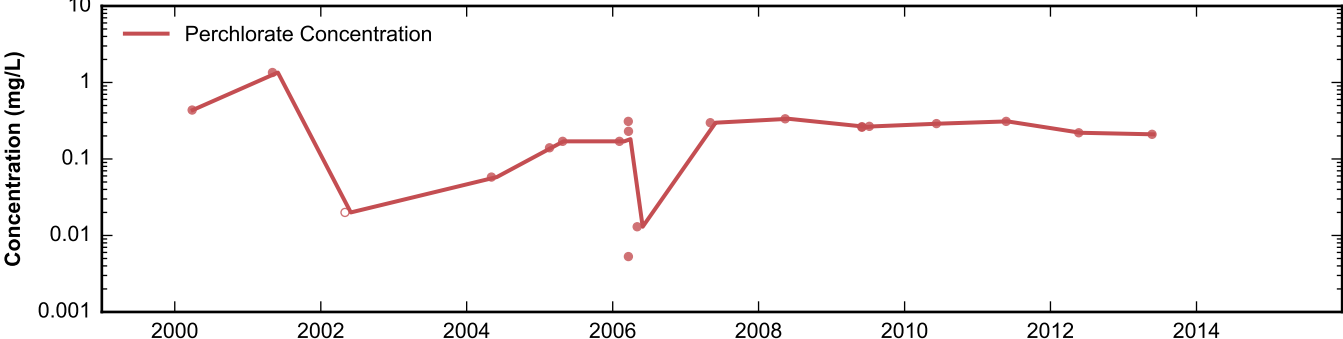
**Data Sheet for Well M-99**  
Nevada Environmental Response Trust Site  
Henderson, Nevada



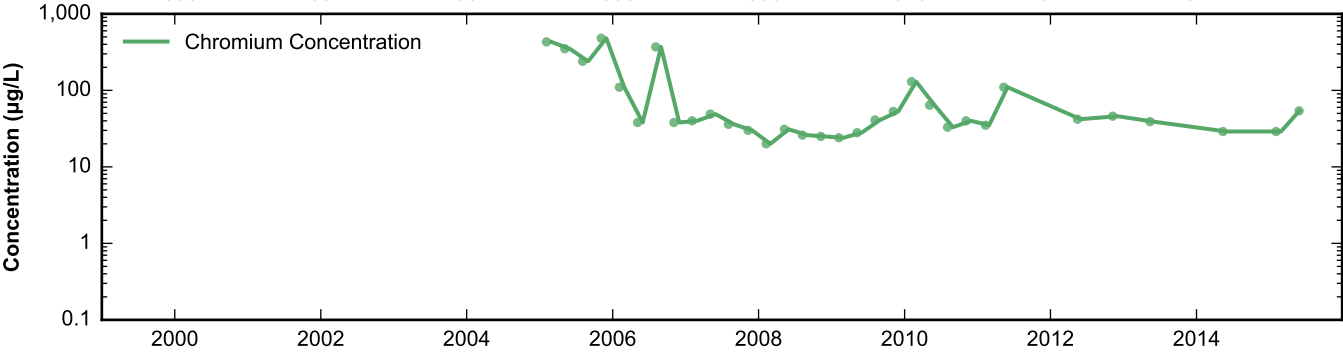
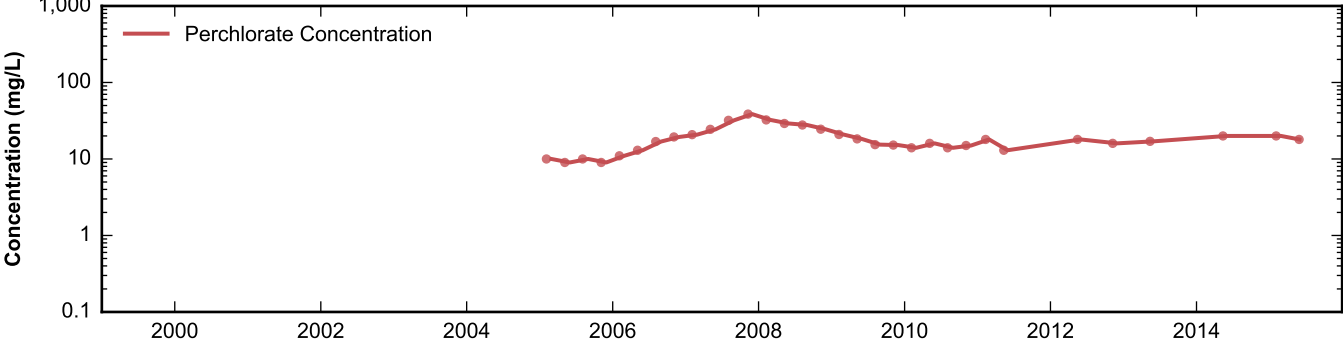
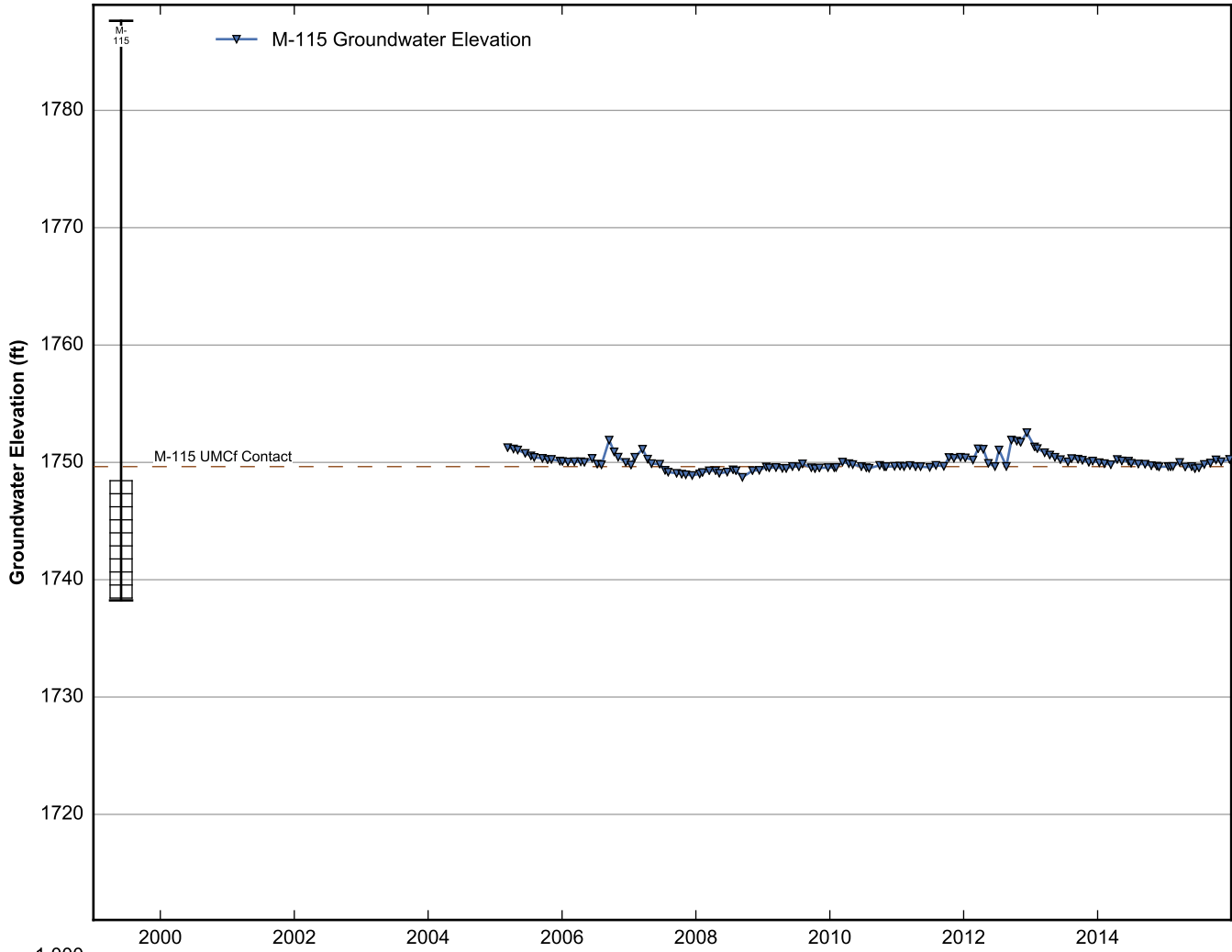
**Data Sheet for Well M-100**  
Nevada Environmental Response Trust Site  
Henderson, Nevada



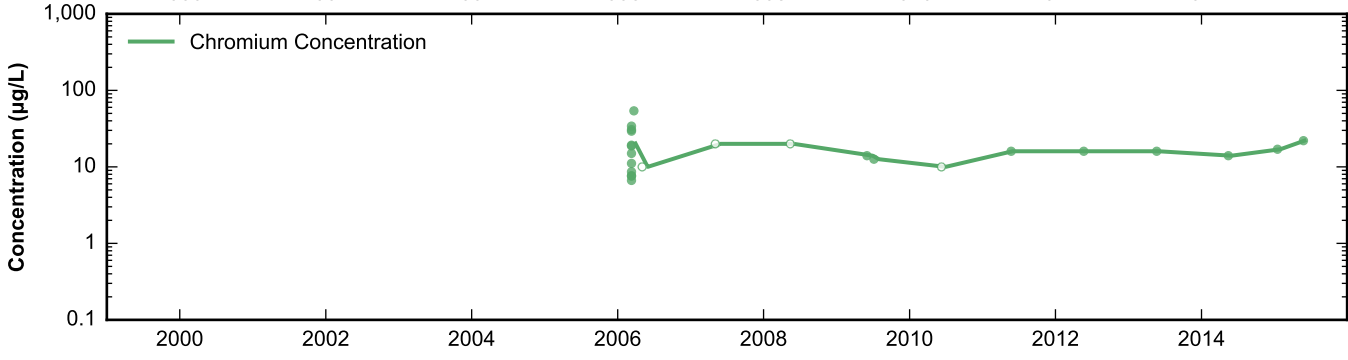
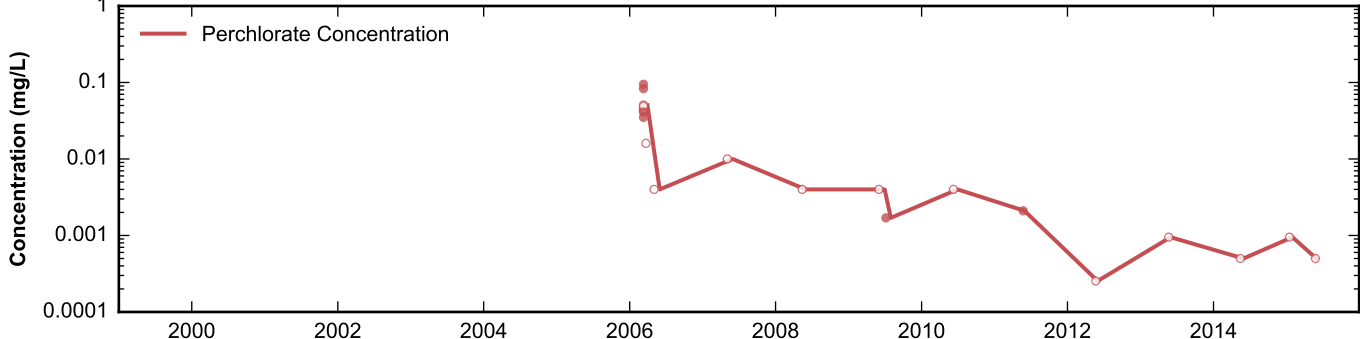
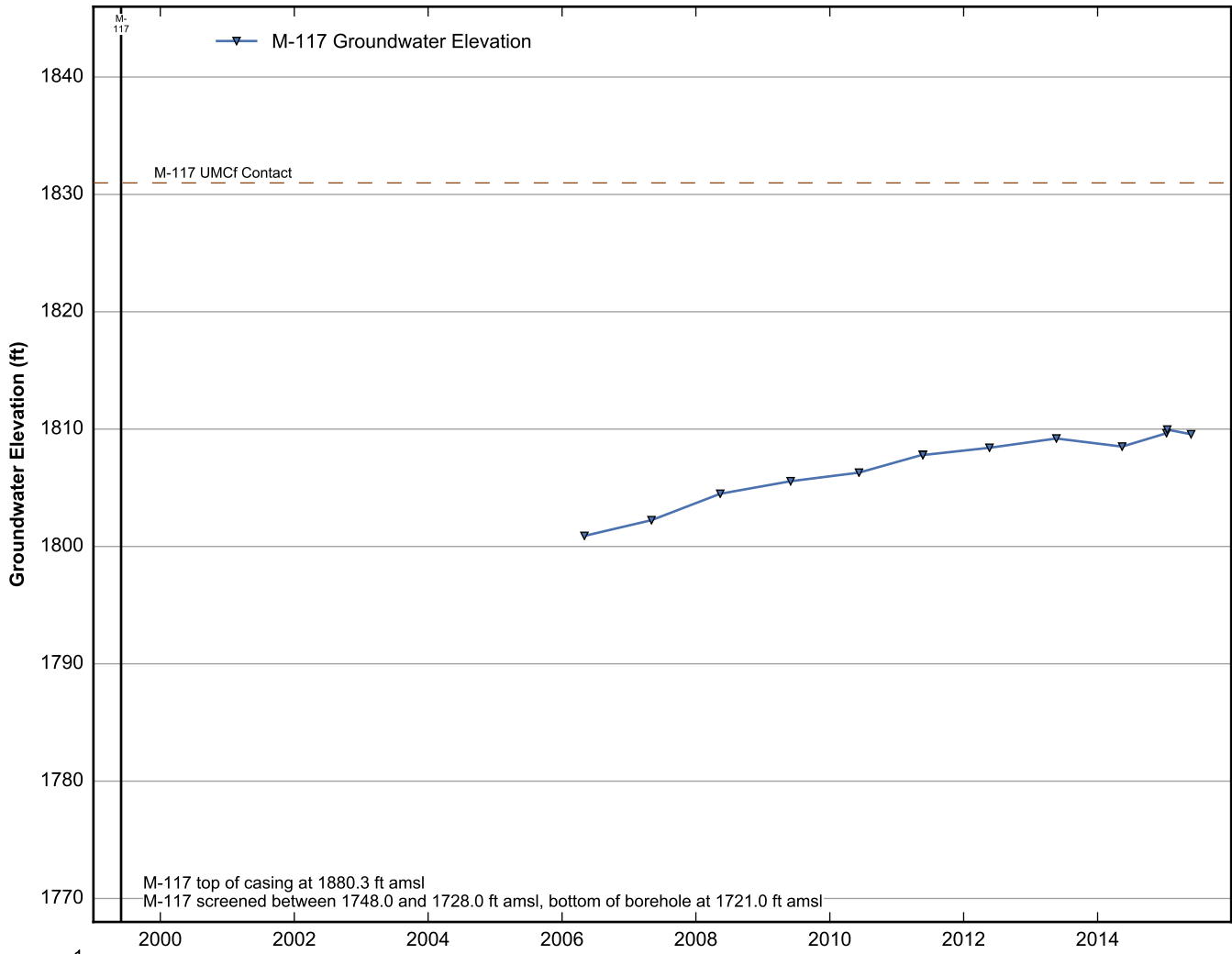
**Data Sheet for Well M-101**  
Nevada Environmental Response Trust Site  
Henderson, Nevada



**Data Sheet for Well M-103**  
Nevada Environmental Response Trust Site  
Henderson, Nevada

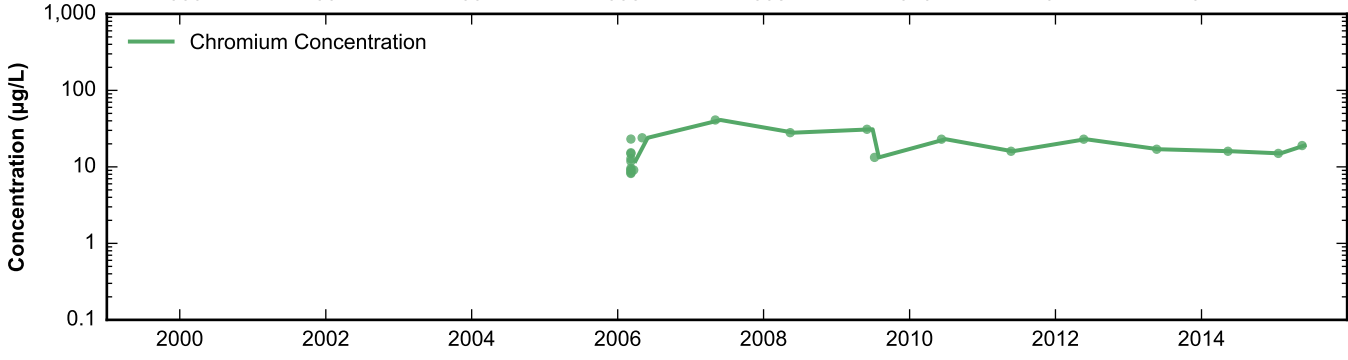
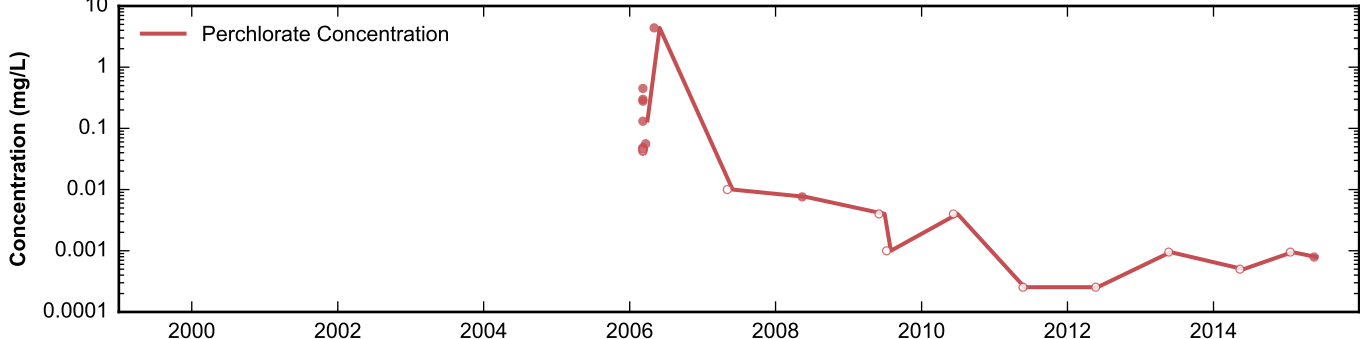
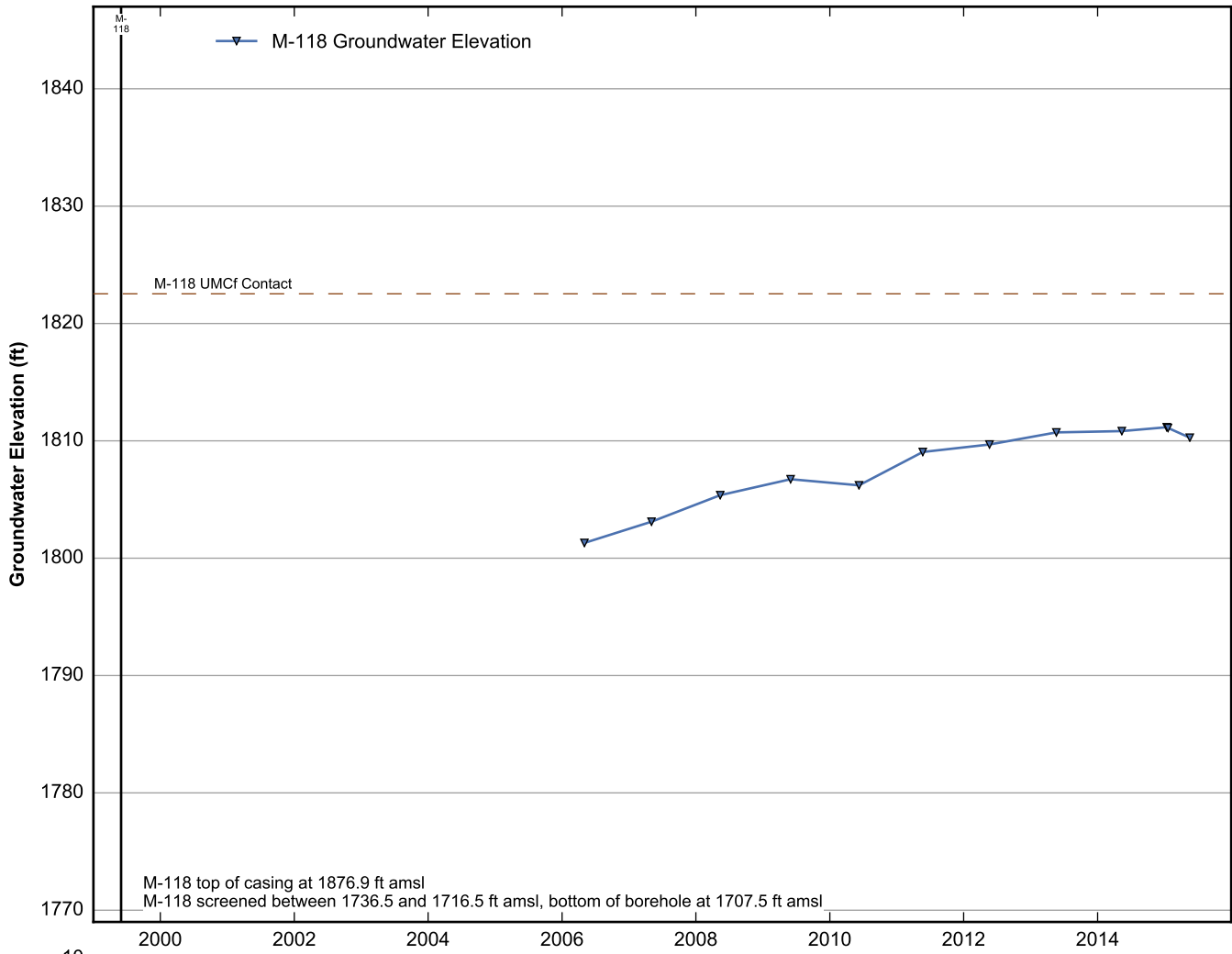


**Data Sheet for Well M-115**  
Nevada Environmental Response Trust Site  
Henderson, Nevada

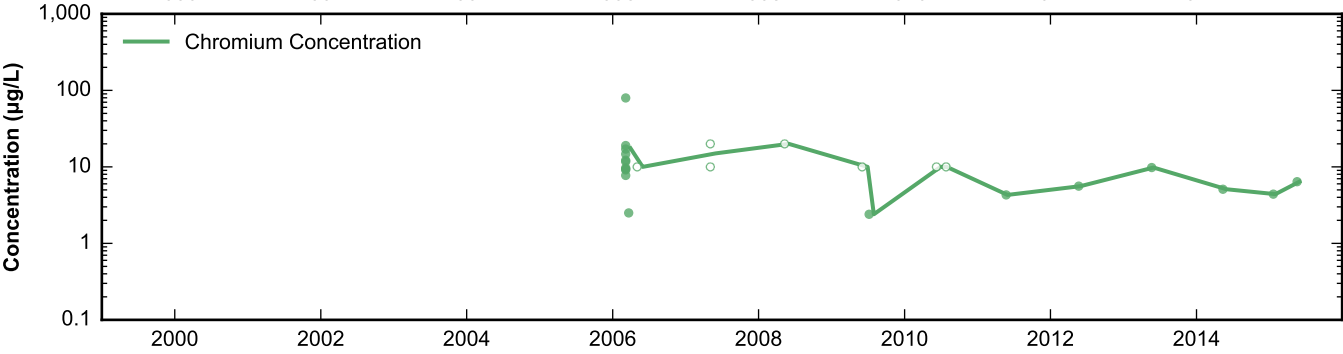
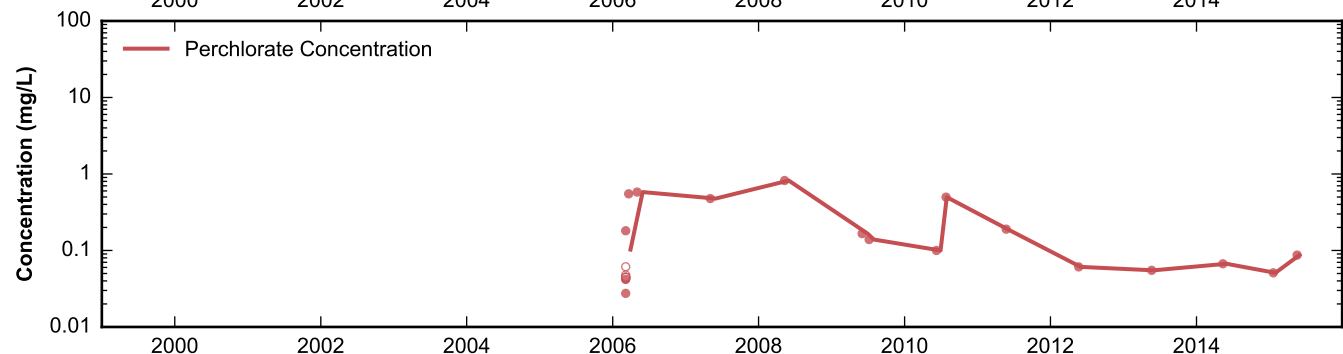
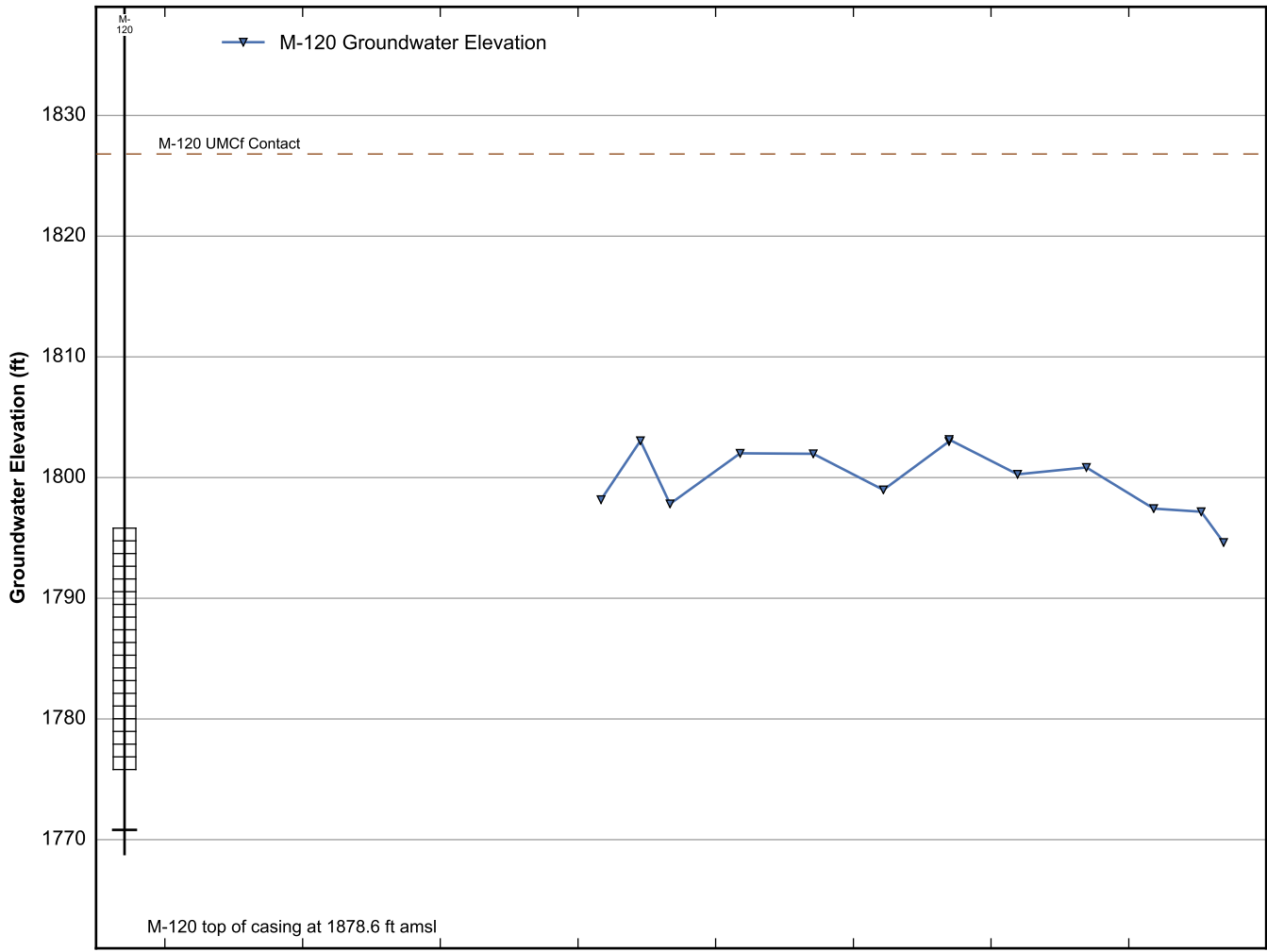


**Data Sheet for Well M-117**  
 Nevada Environmental Response Trust Site  
 Henderson, Nevada

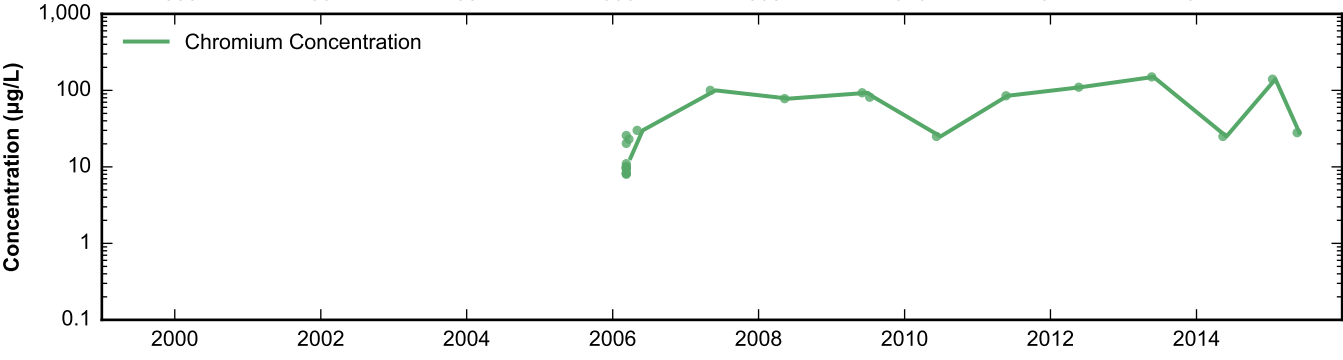
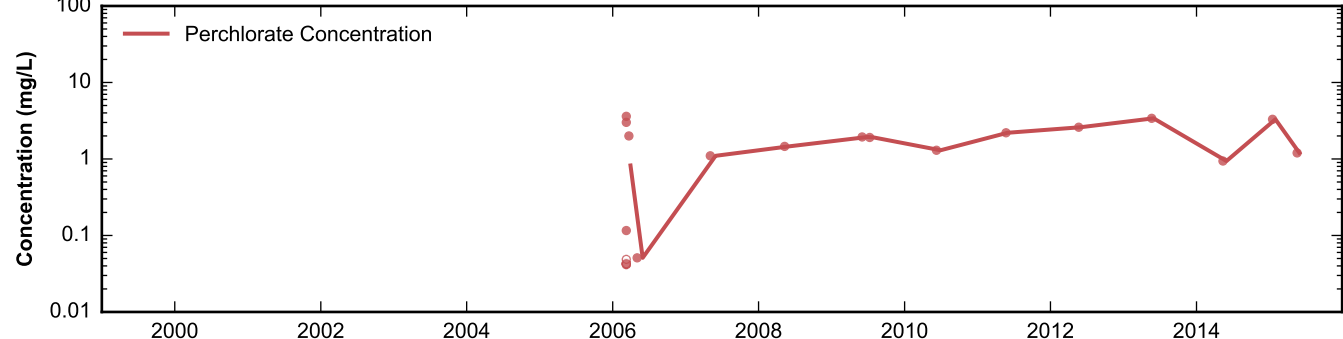
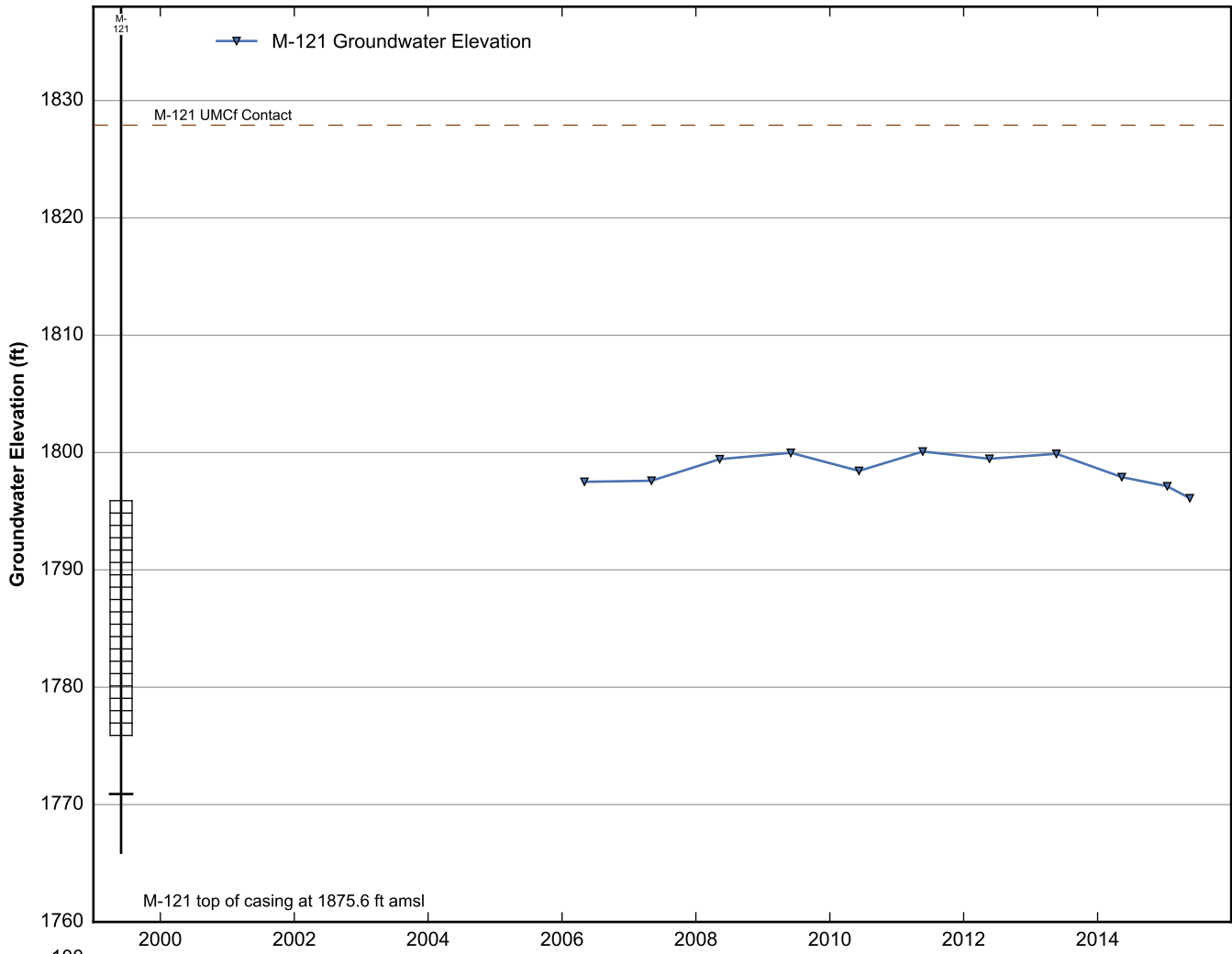




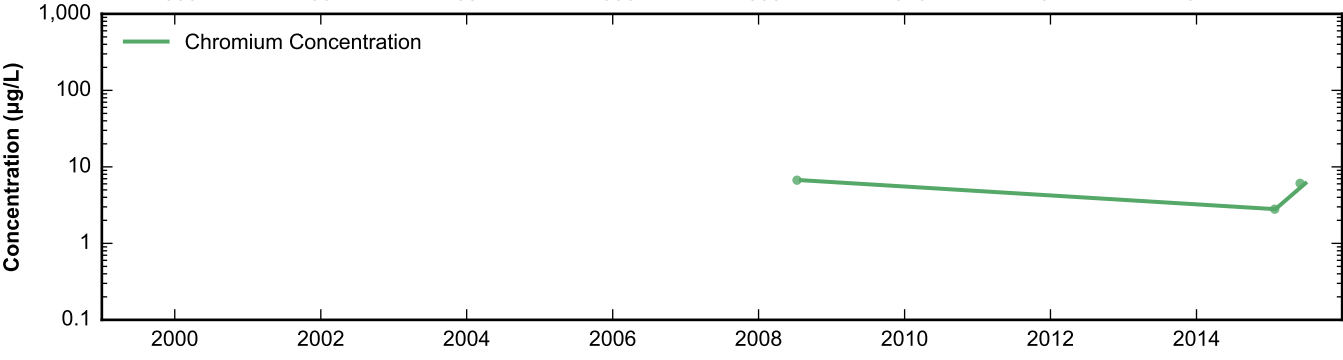
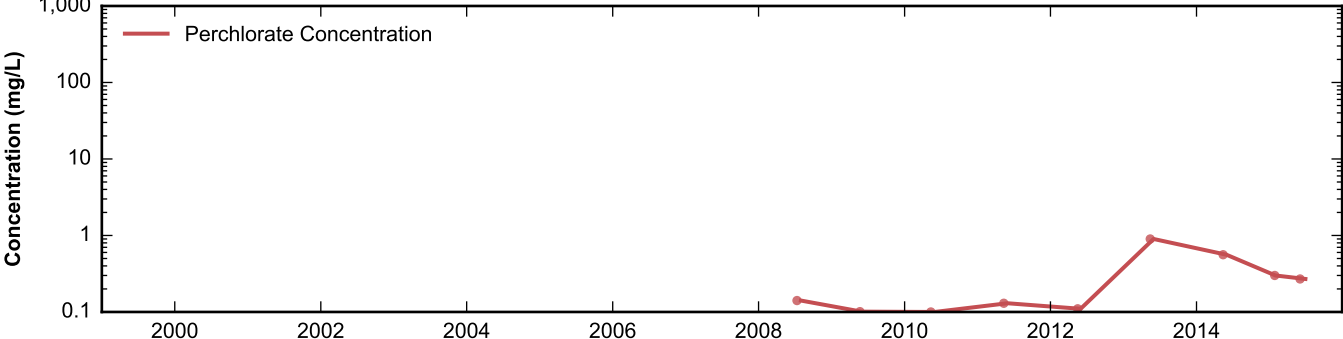
**Data Sheet for Well M-118**  
 Nevada Environmental Response Trust Site  
 Henderson, Nevada



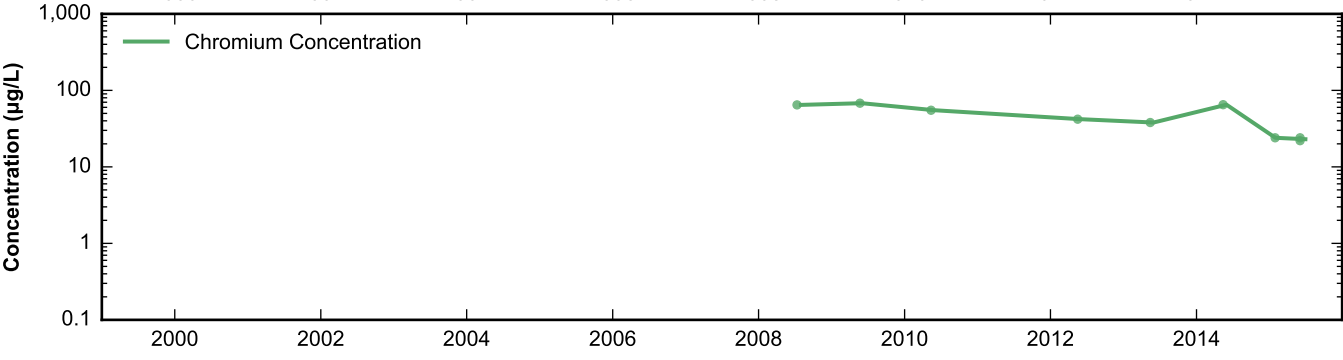
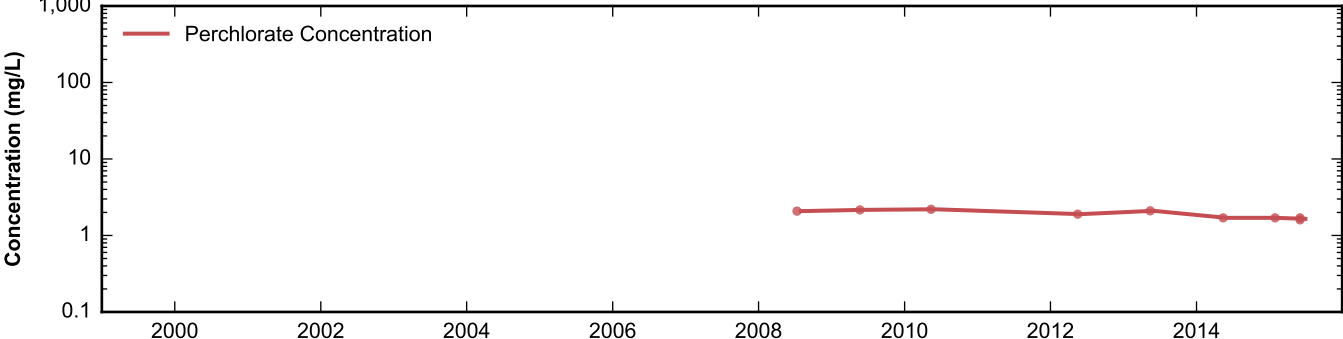
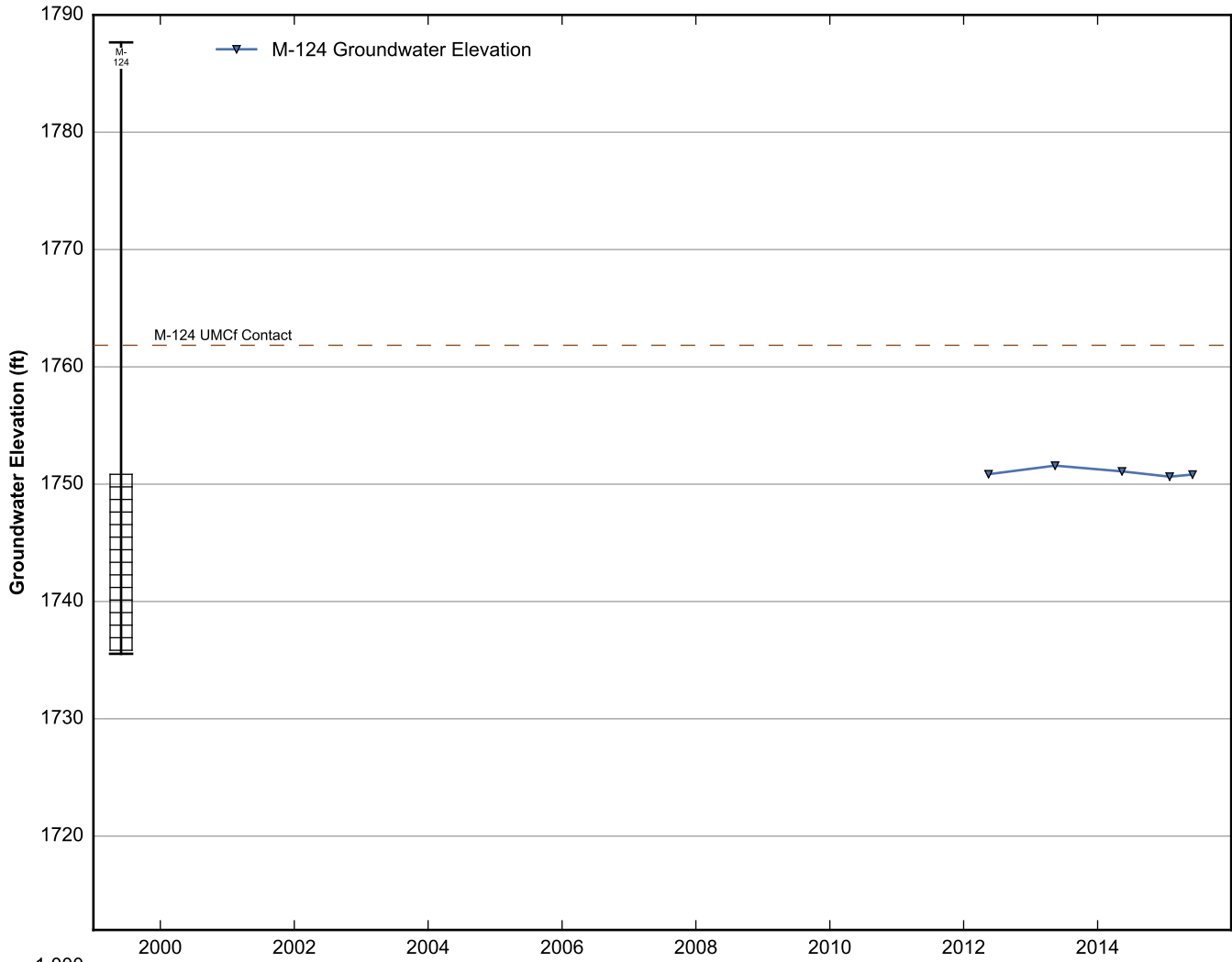
**Data Sheet for Well M-120**  
 Nevada Environmental Response Trust Site  
 Henderson, Nevada



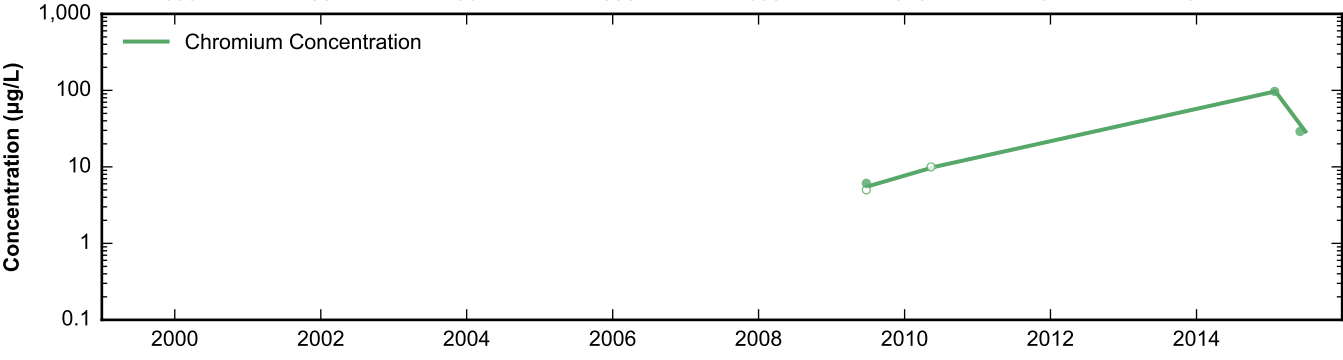
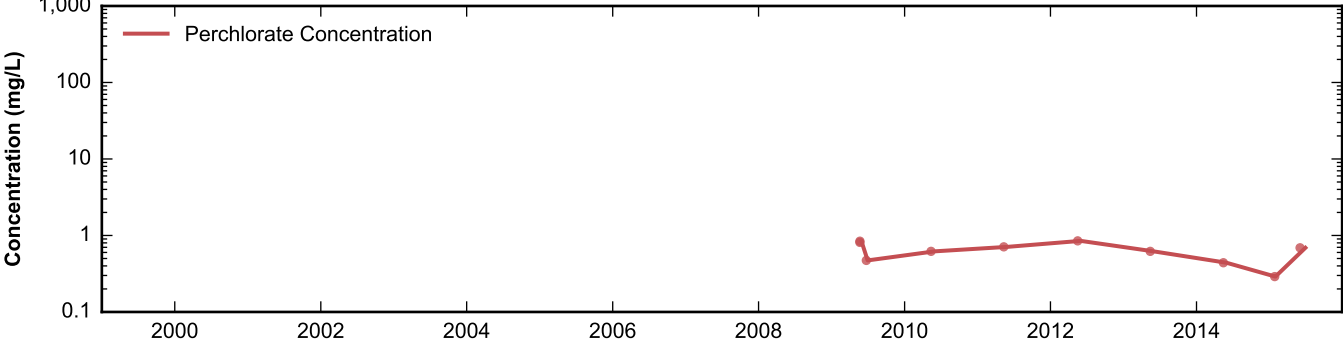
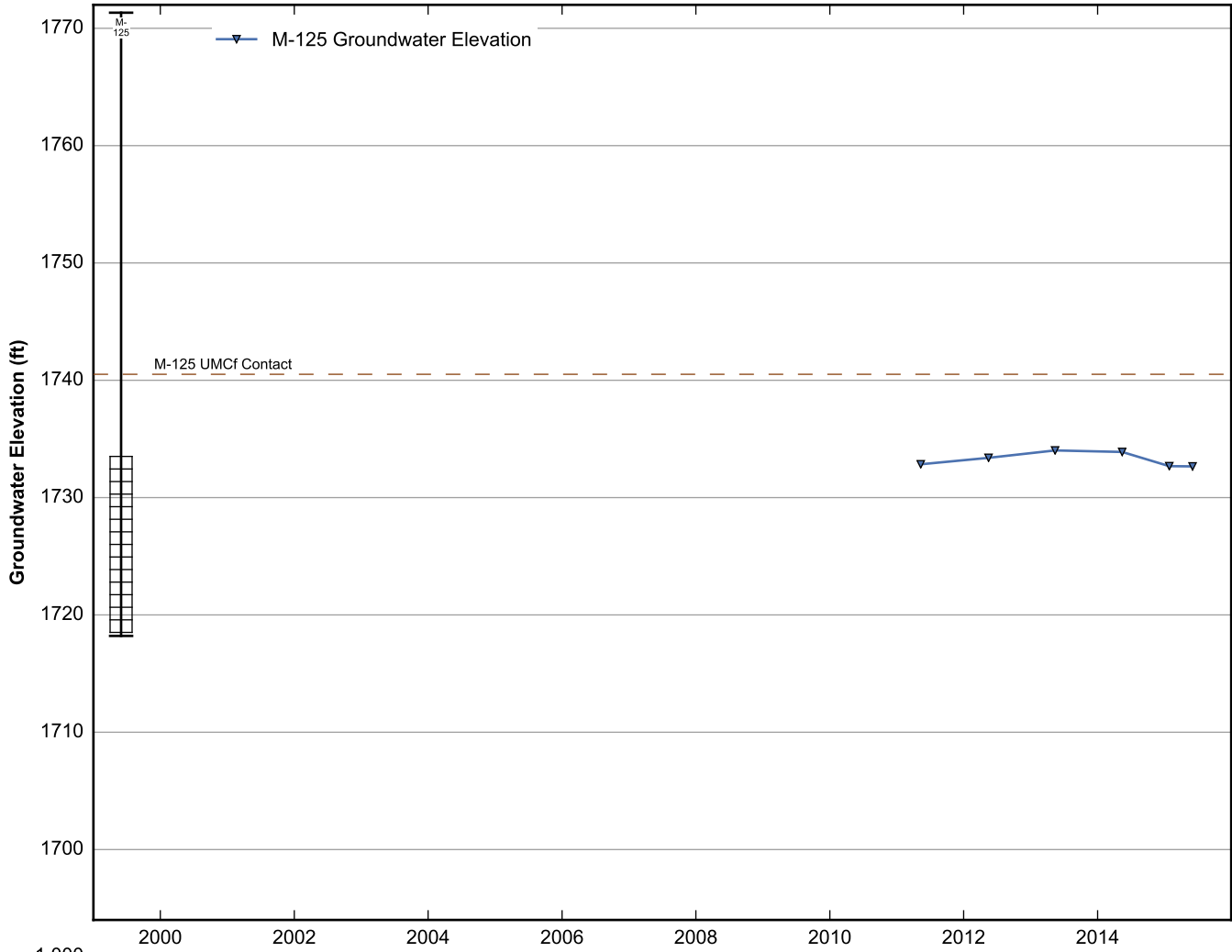
**Data Sheet for Well M-121**  
Nevada Environmental Response Trust Site  
Henderson, Nevada



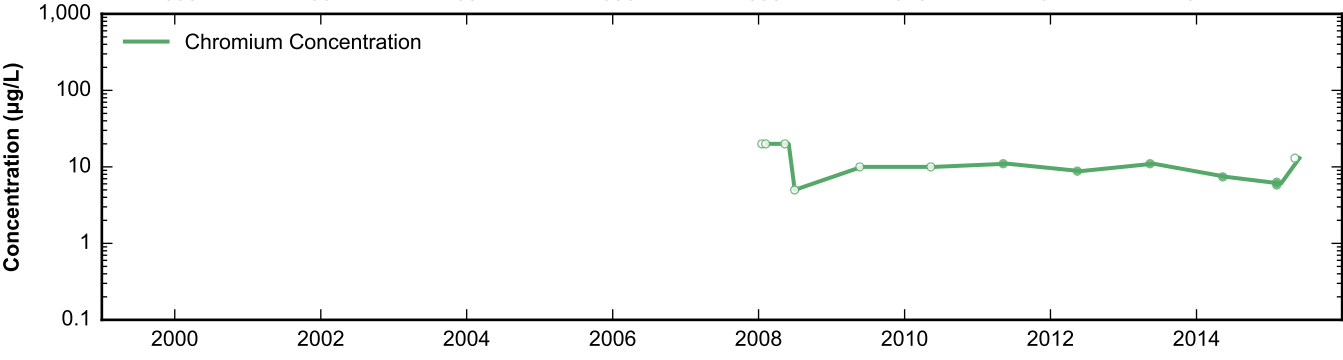
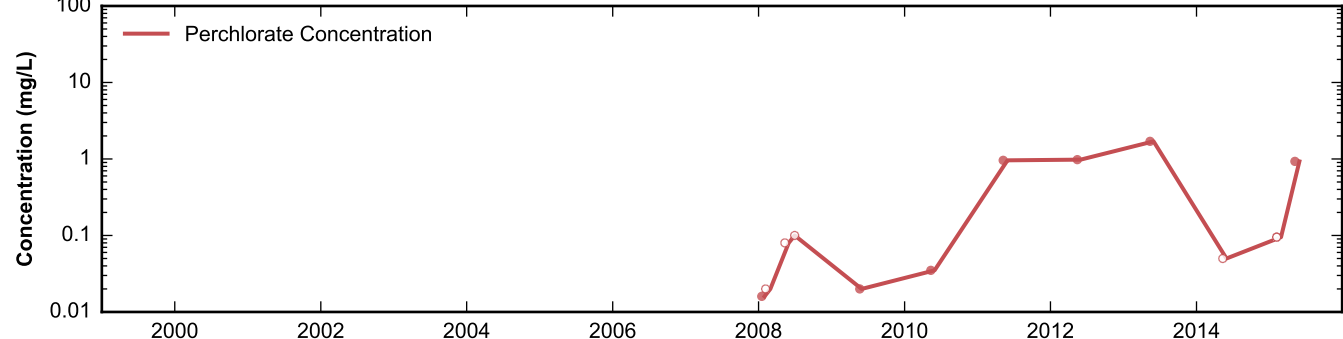
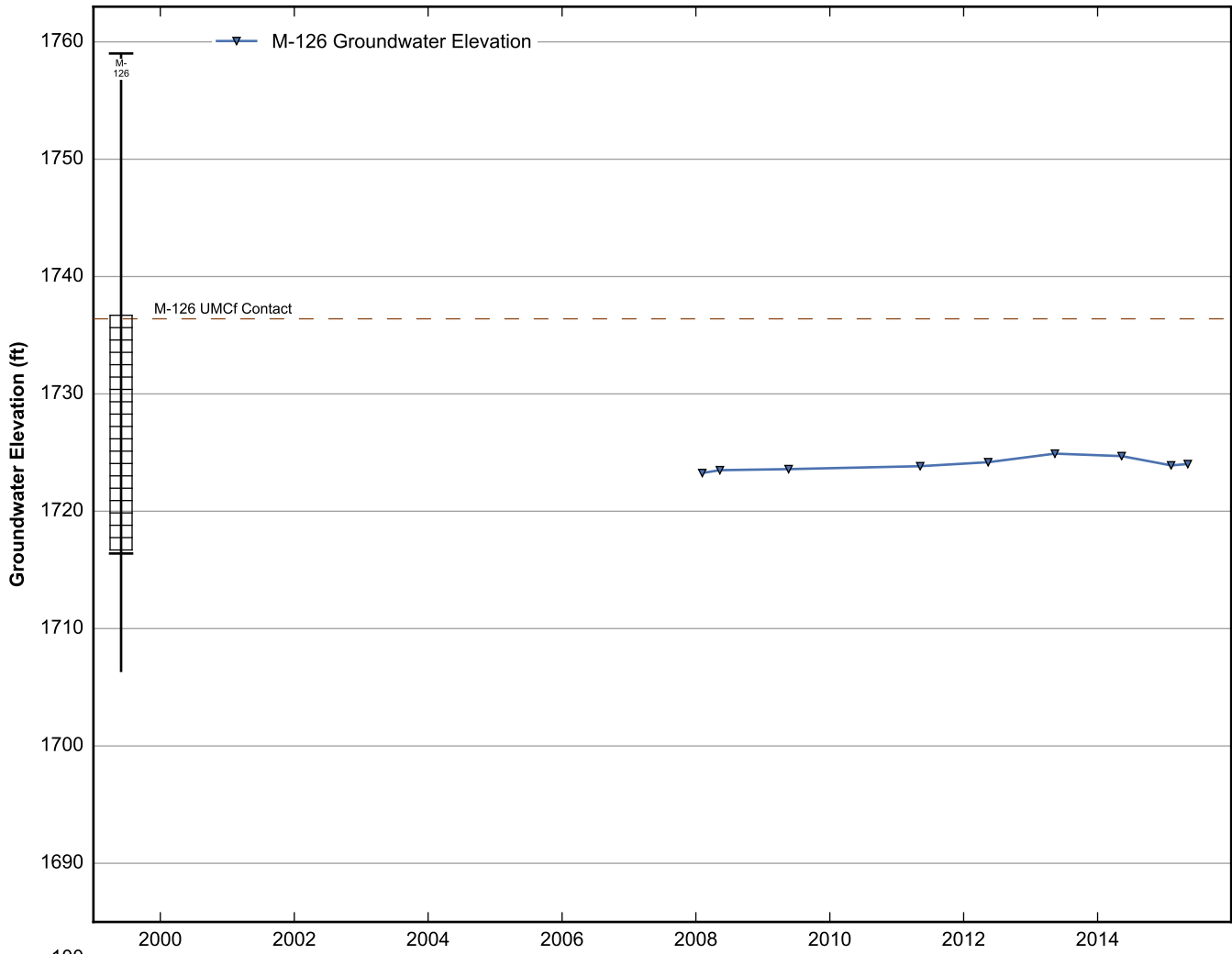
**Data Sheet for Well M-123**  
 Nevada Environmental Response Trust Site  
 Henderson, Nevada



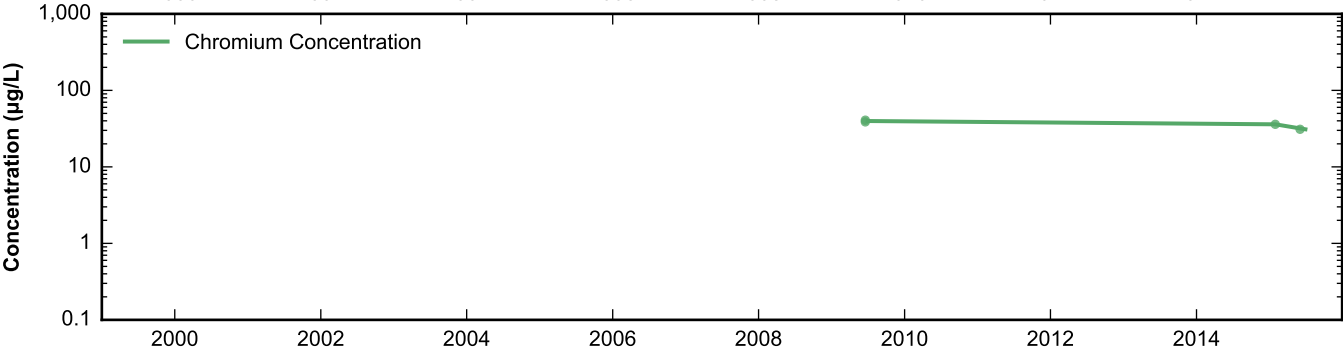
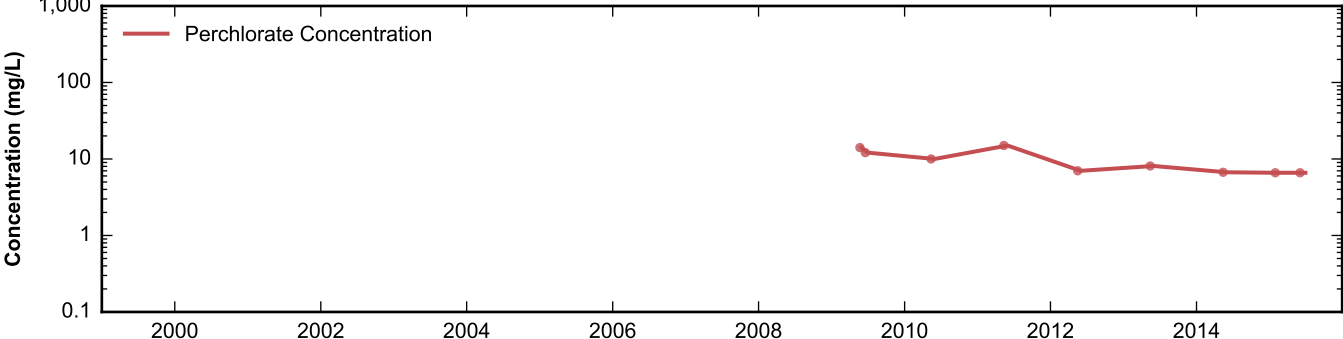
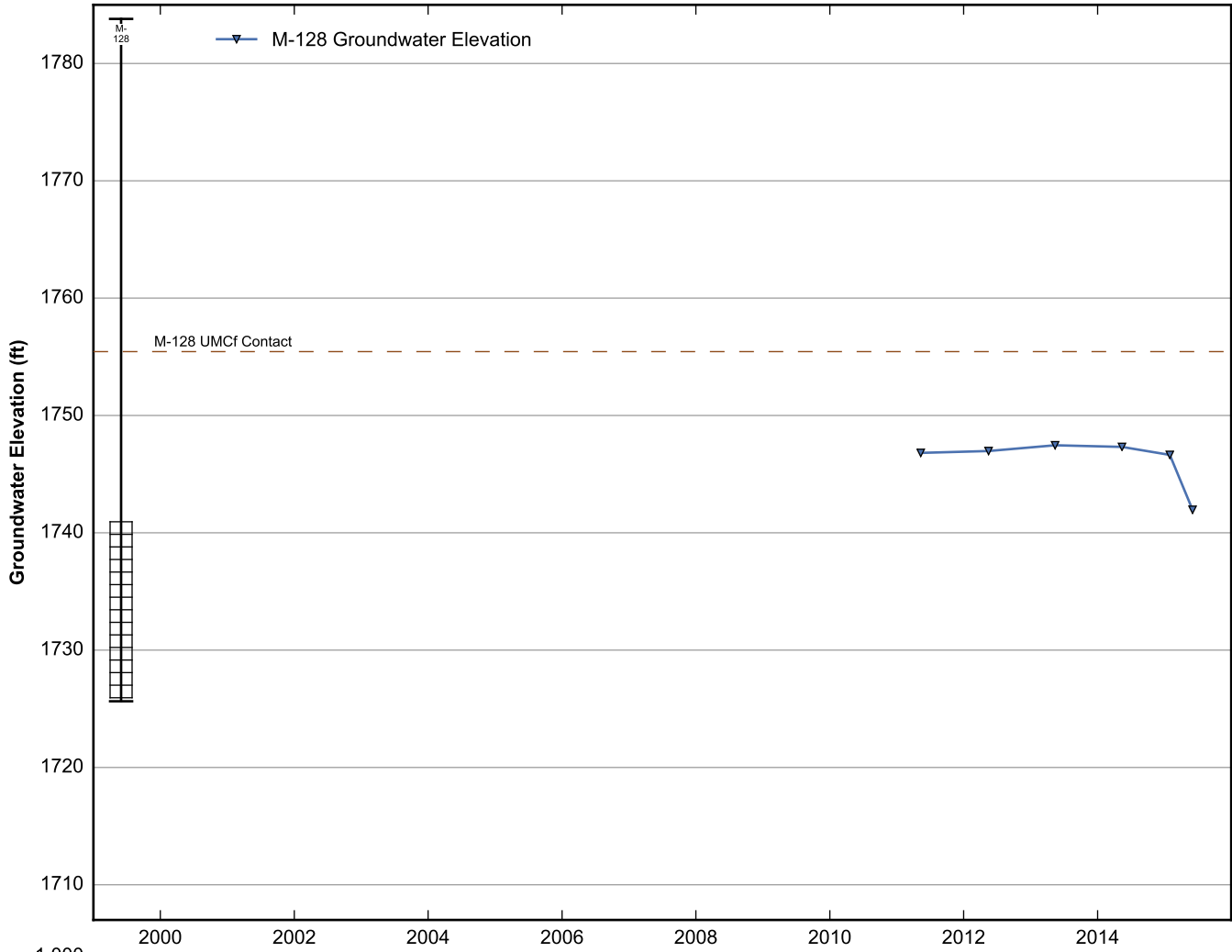
**Data Sheet for Well M-124**  
 Nevada Environmental Response Trust Site  
 Henderson, Nevada



**Data Sheet for Well M-125**  
 Nevada Environmental Response Trust Site  
 Henderson, Nevada

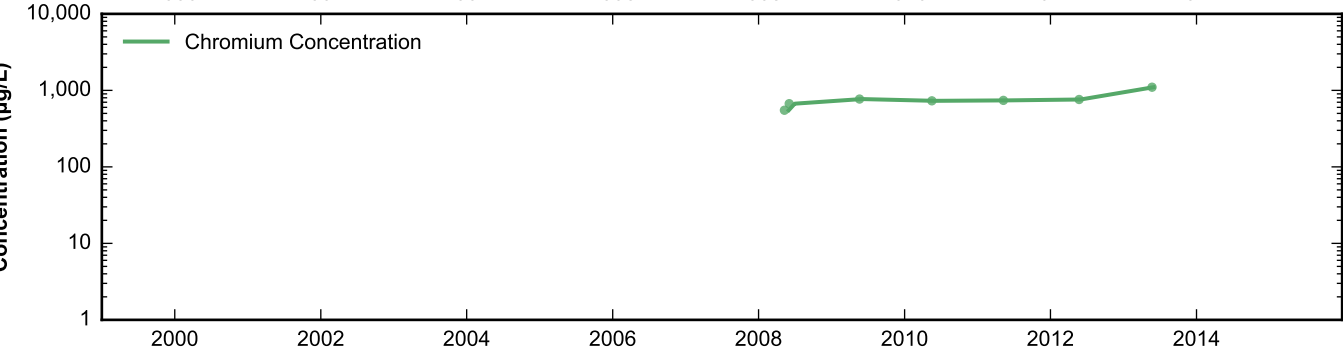
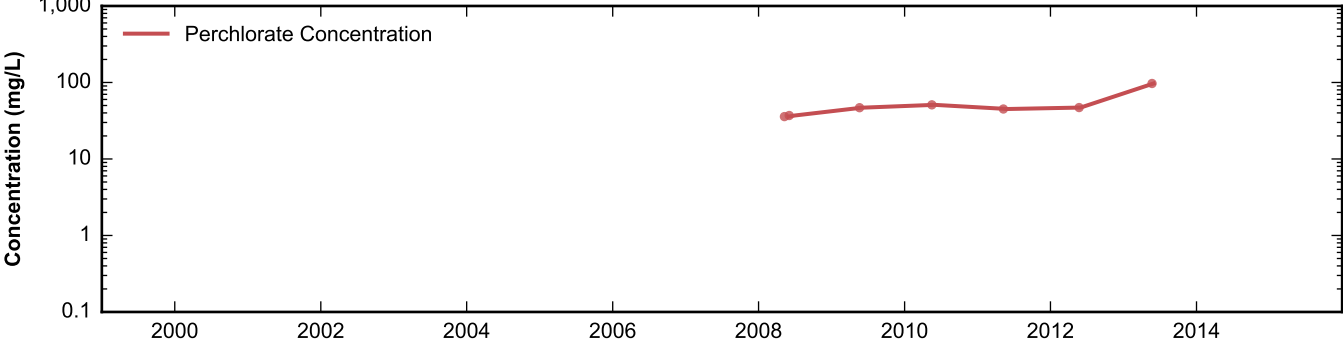
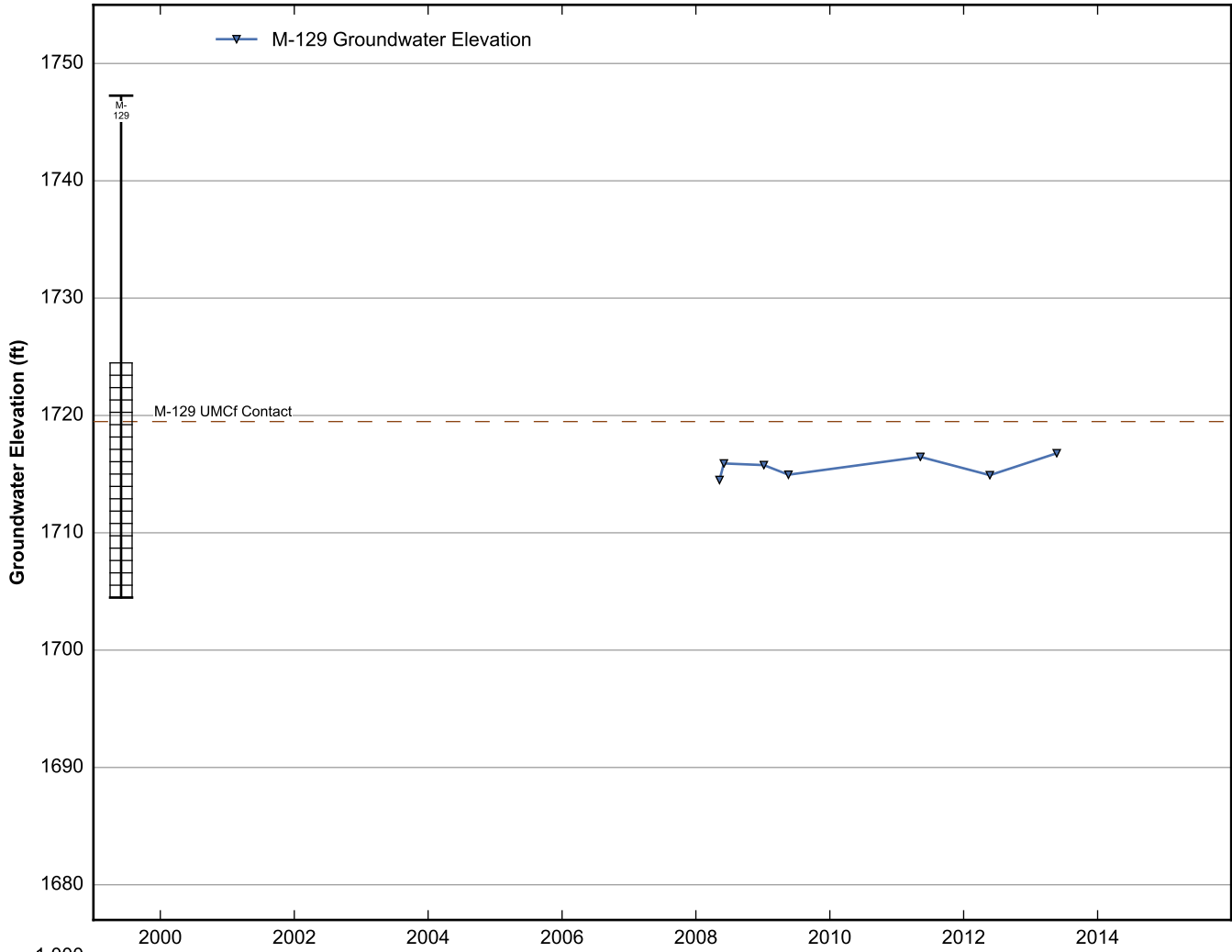


**Data Sheet for Well M-126**  
 Nevada Environmental Response Trust Site  
 Henderson, Nevada

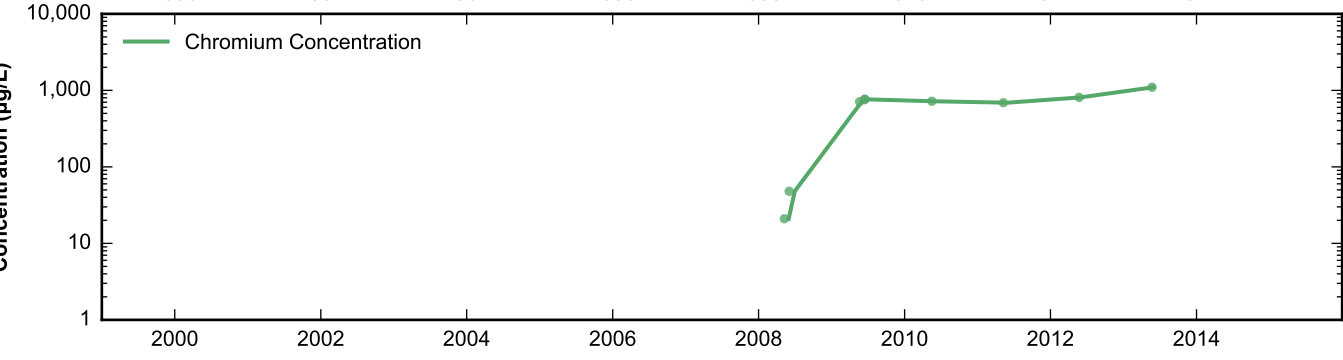
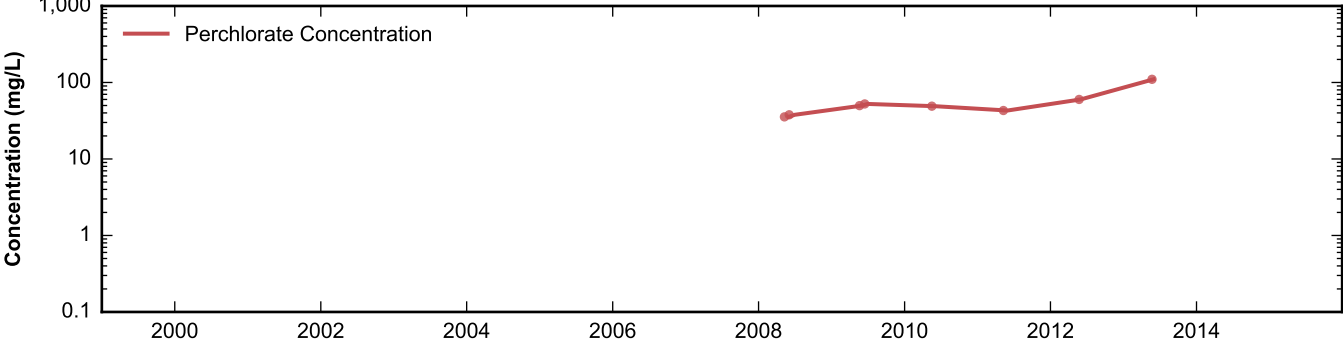


**Data Sheet for Well M-128**  
 Nevada Environmental Response Trust Site  
 Henderson, Nevada

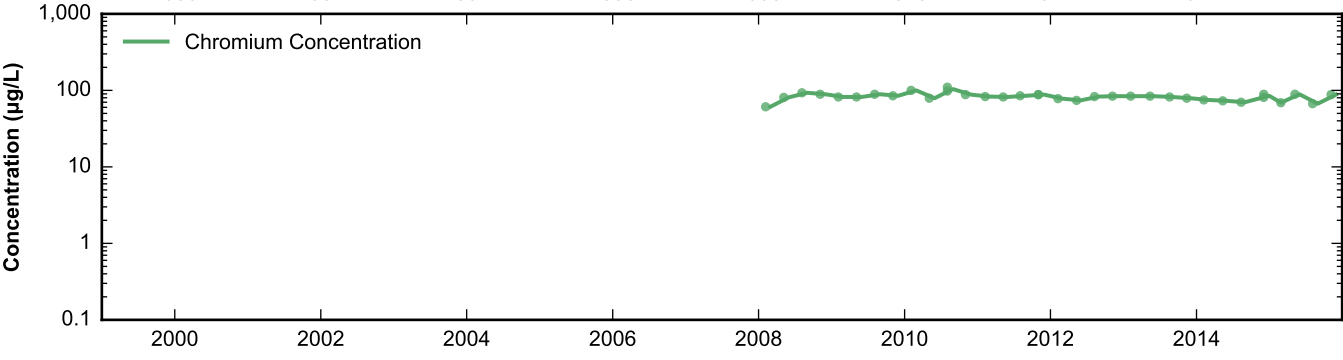
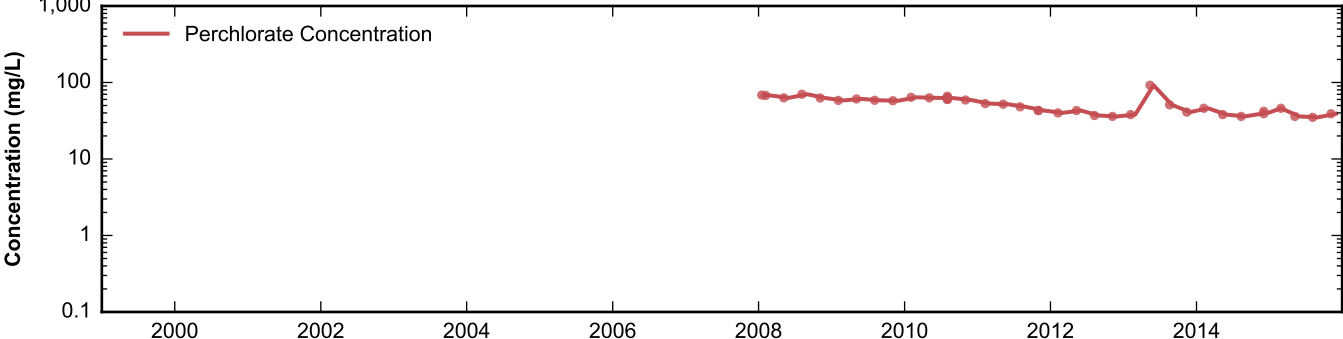
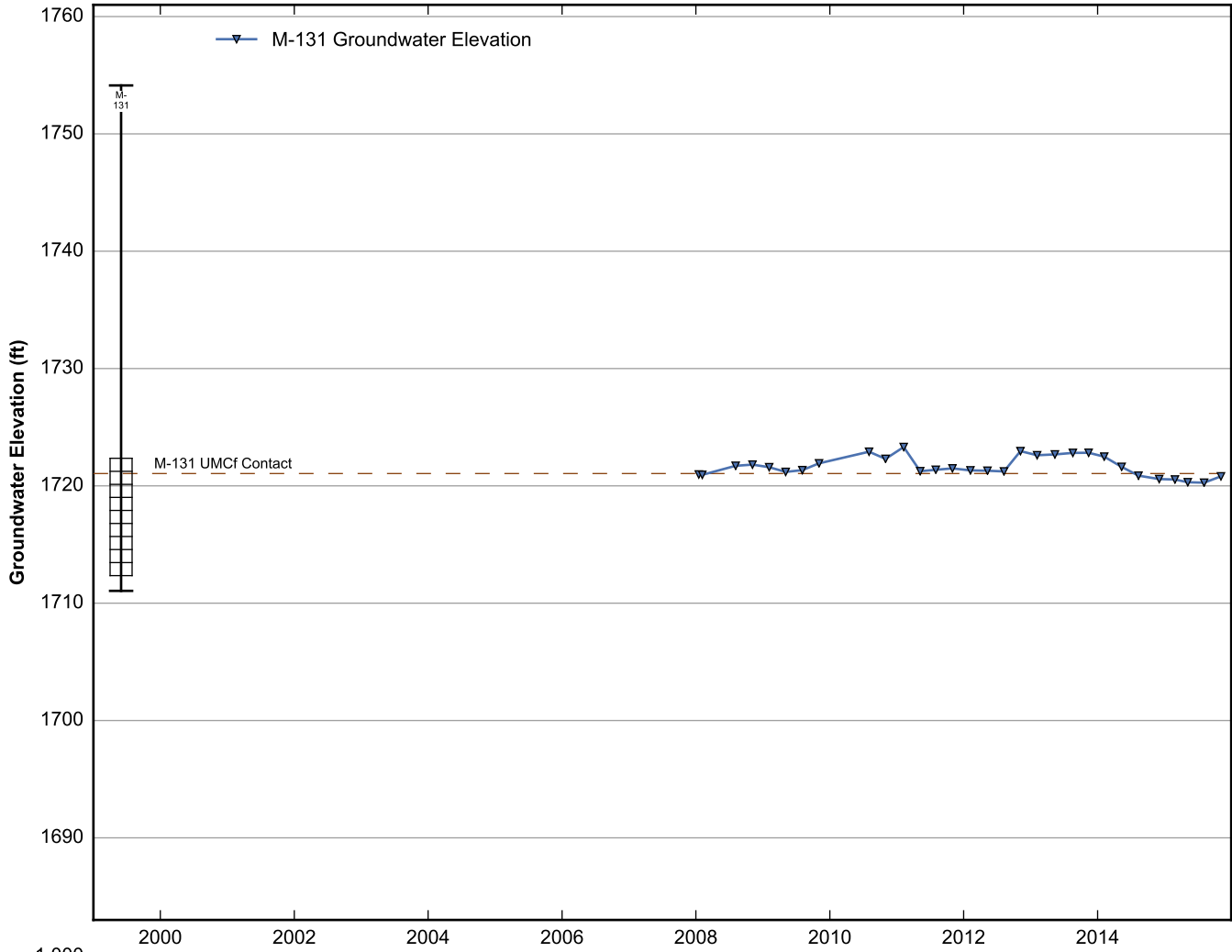




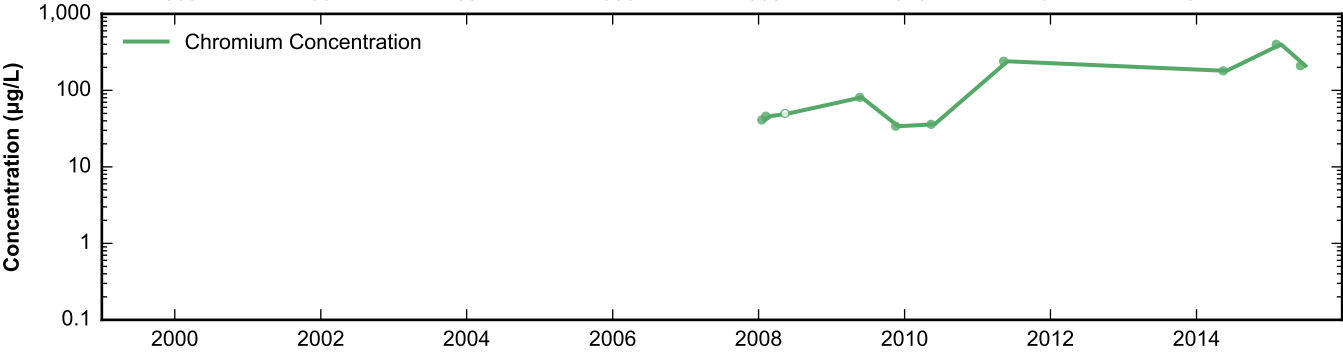
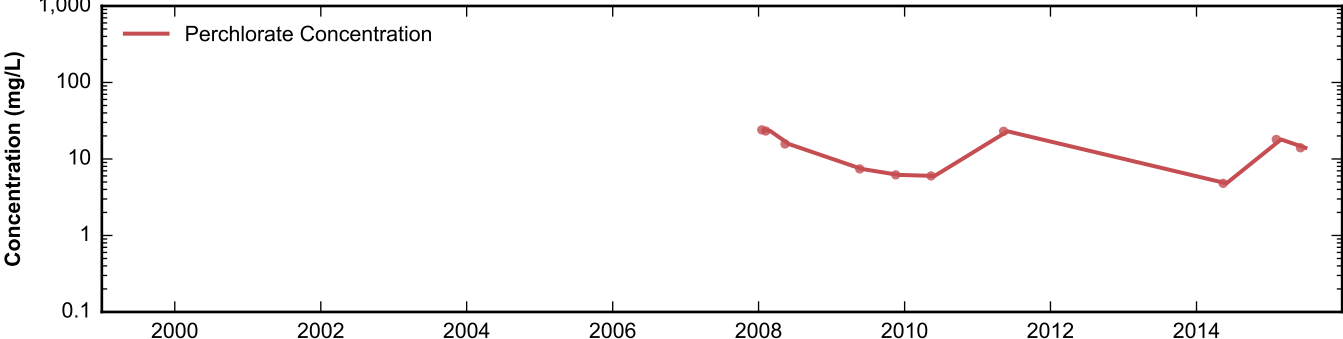
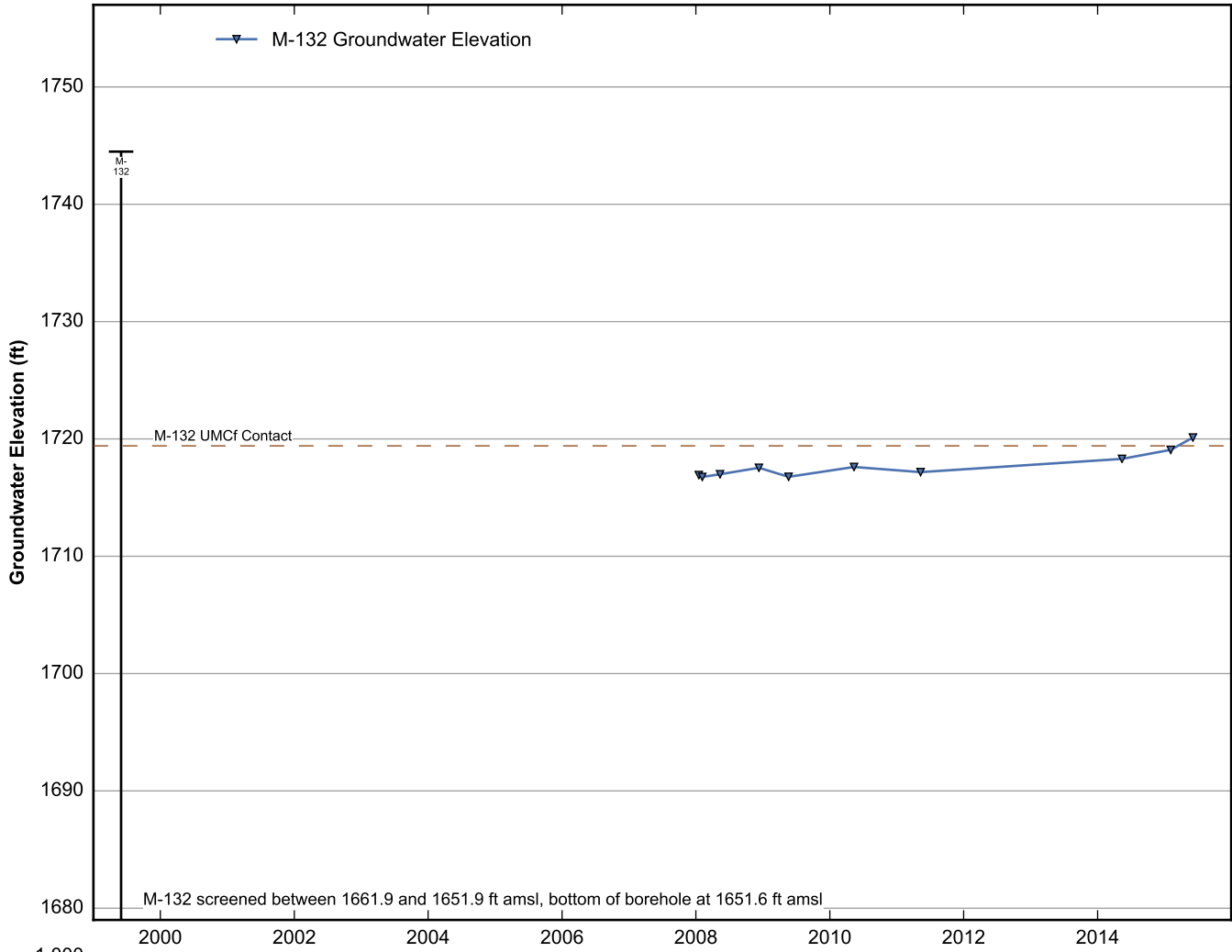
**Data Sheet for Well M-129**  
 Nevada Environmental Response Trust Site  
 Henderson, Nevada



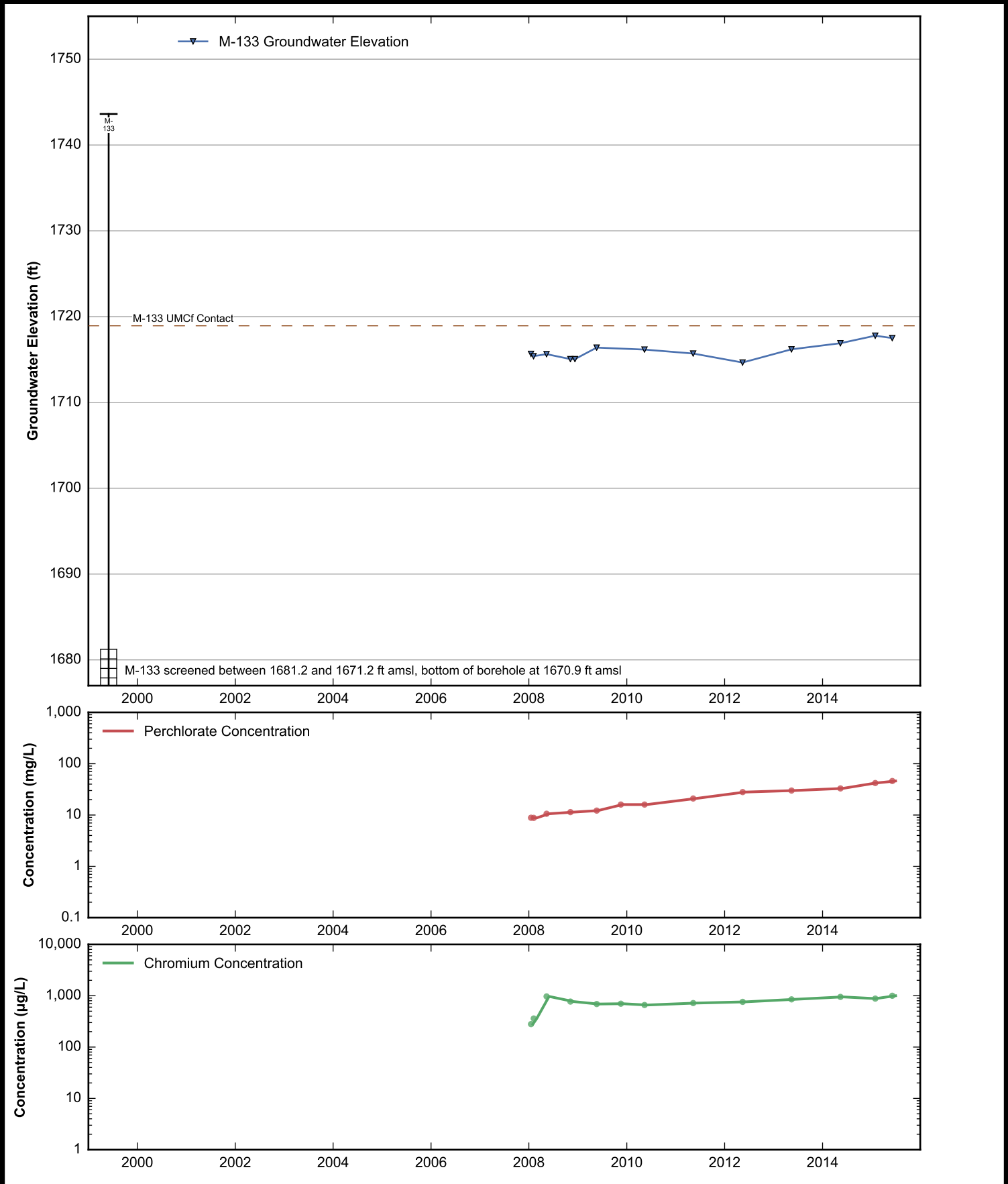
**Data Sheet for Well M-130**  
 Nevada Environmental Response Trust Site  
 Henderson, Nevada

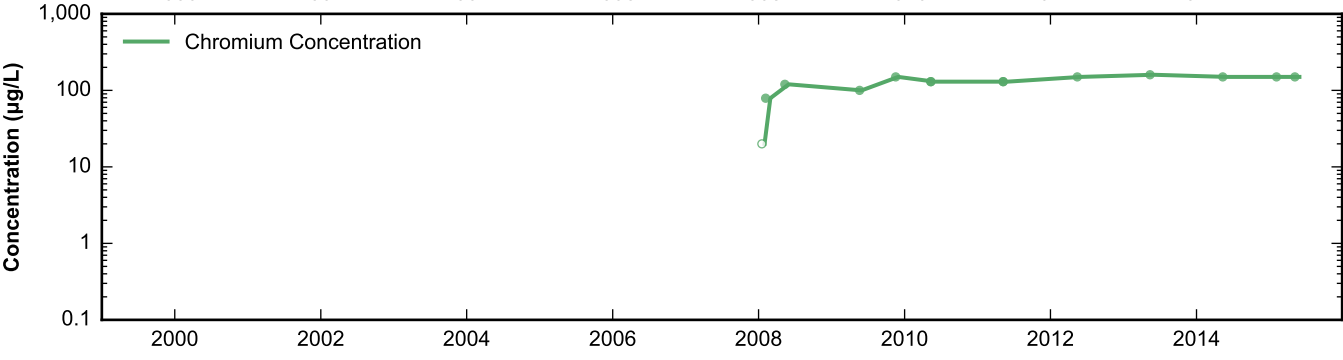
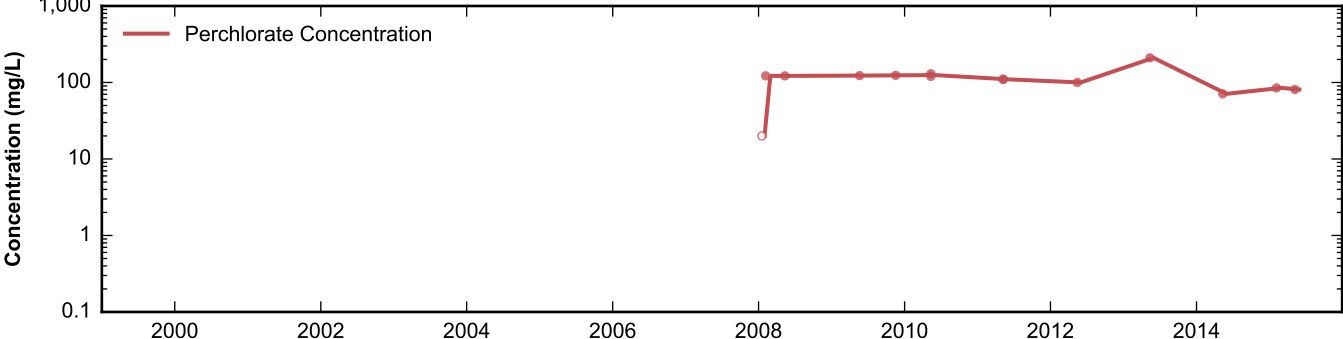
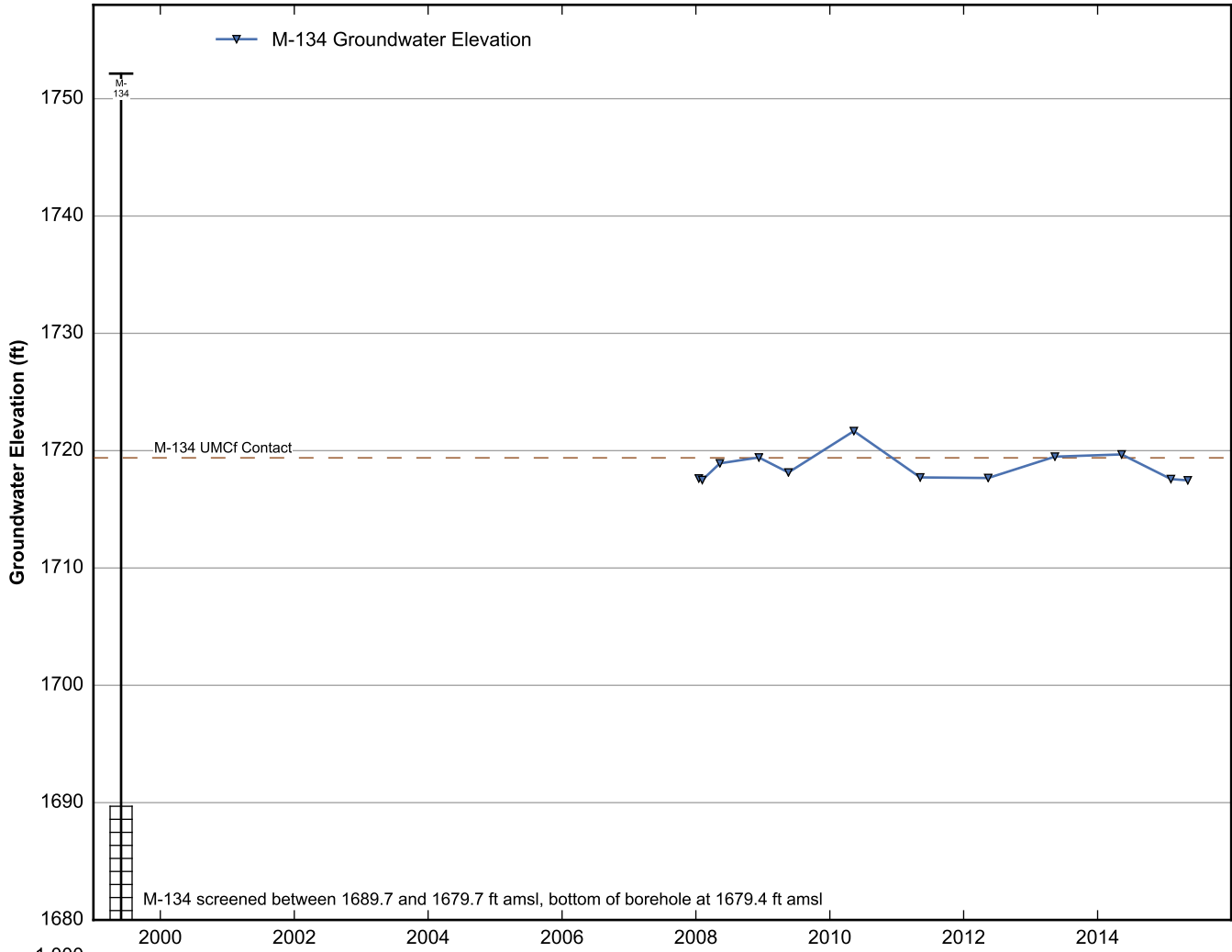


**Data Sheet for Well M-131**  
Nevada Environmental Response Trust Site  
Henderson, Nevada

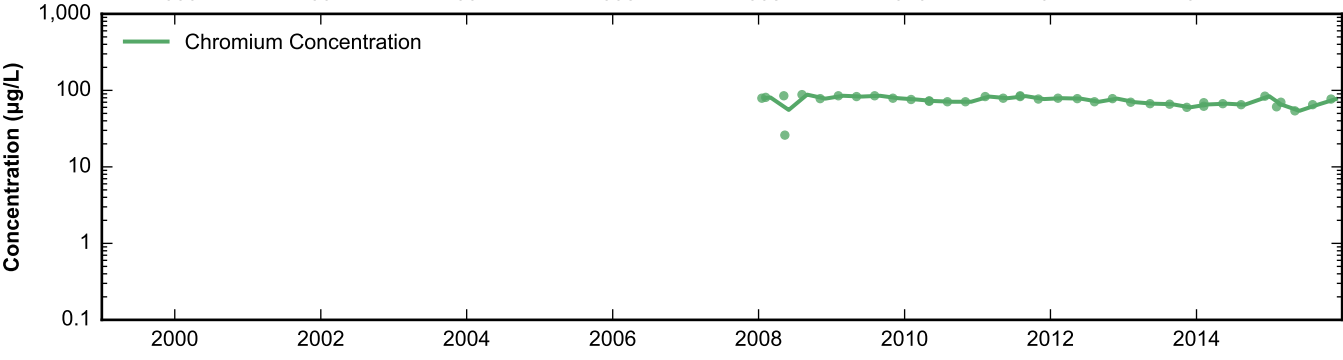
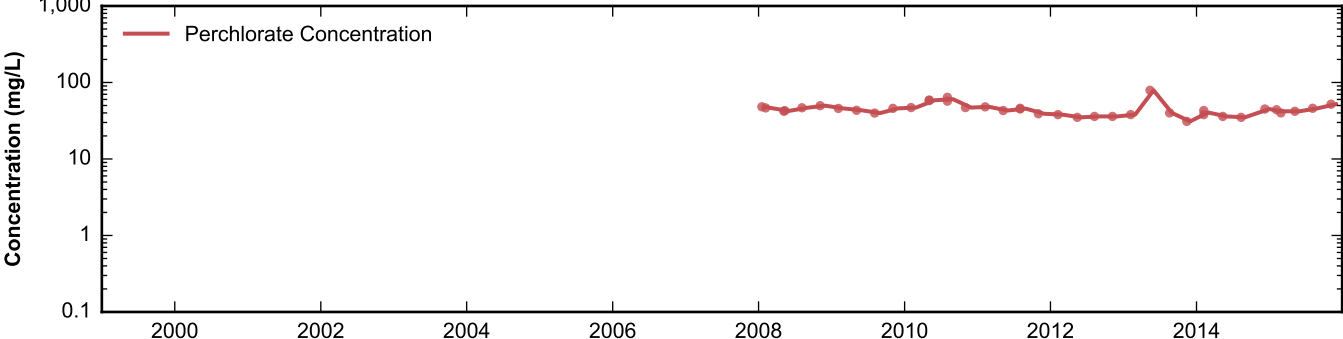
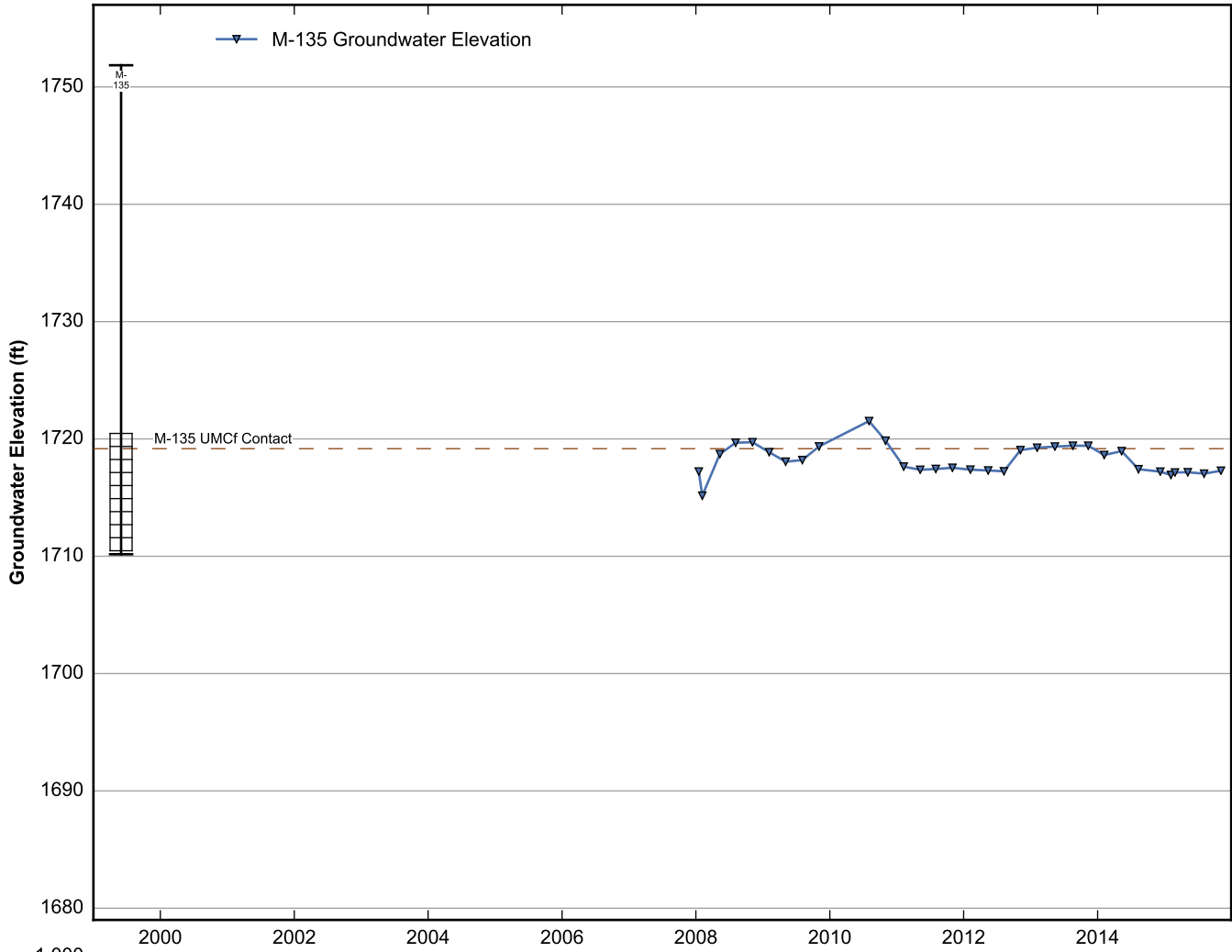


**Data Sheet for Well M-132**  
 Nevada Environmental Response Trust Site  
 Henderson, Nevada

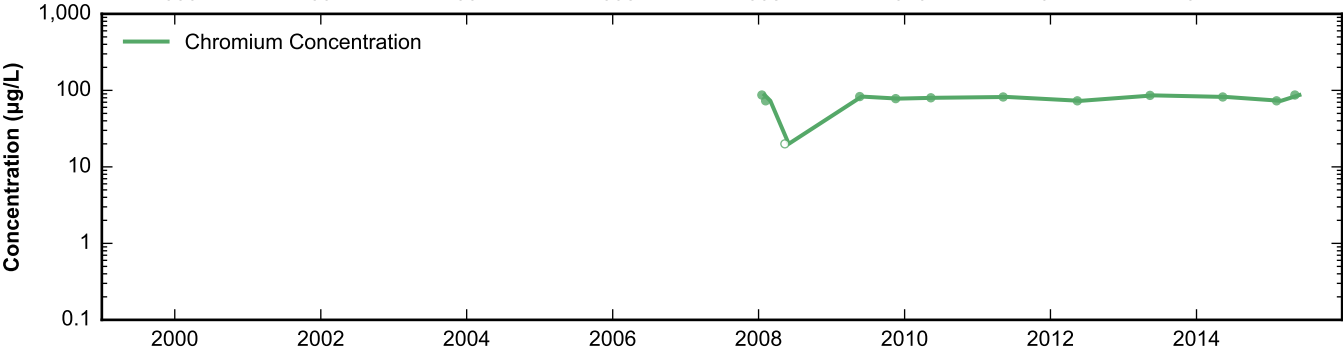
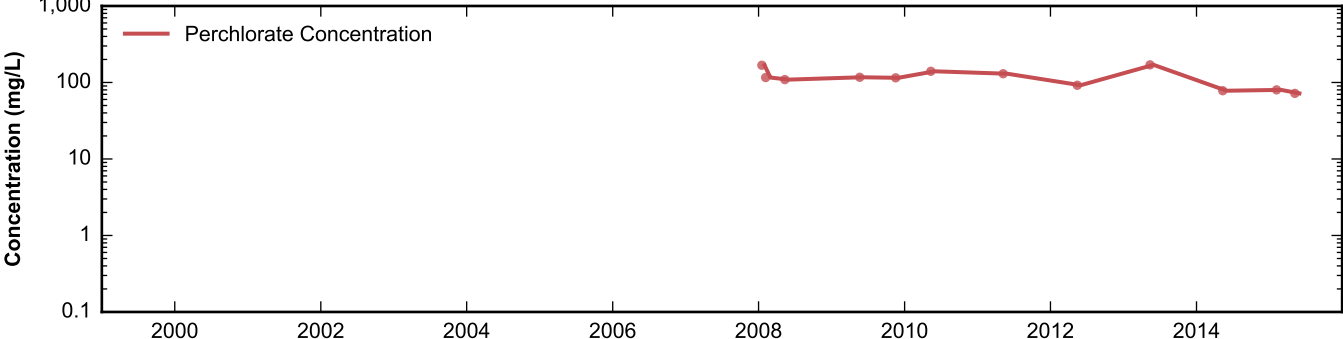
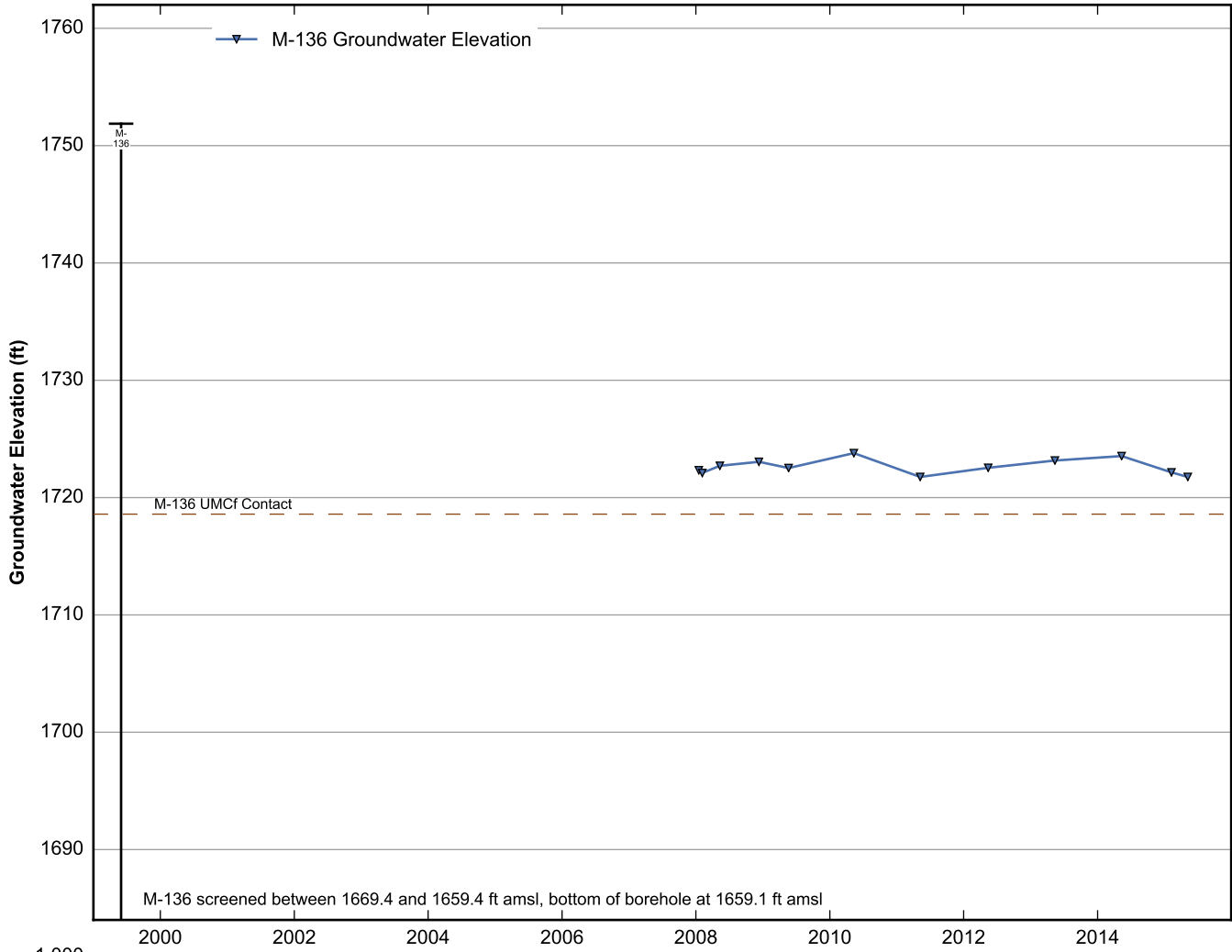




**Data Sheet for Well M-134**  
 Nevada Environmental Response Trust Site  
 Henderson, Nevada

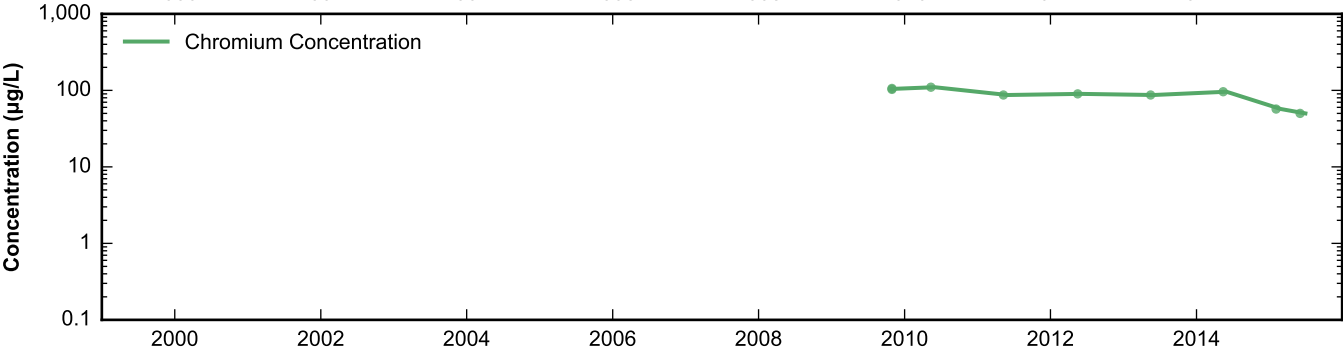
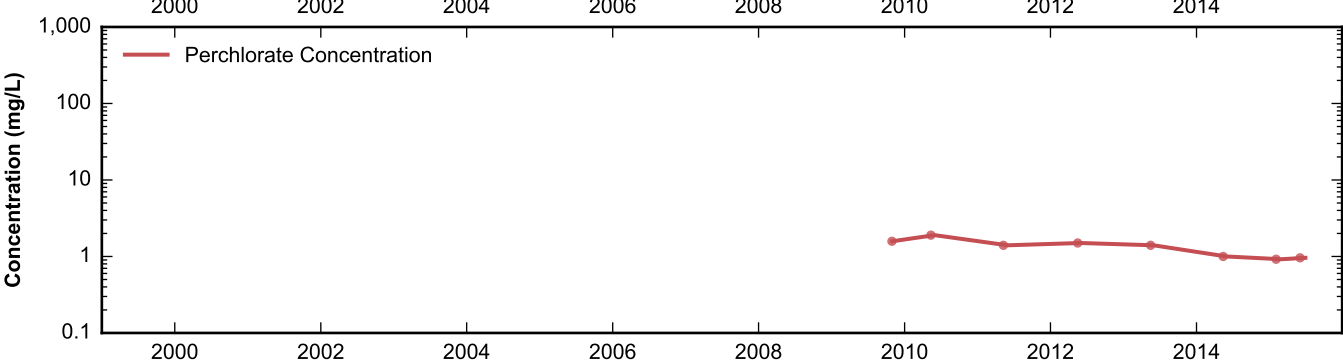
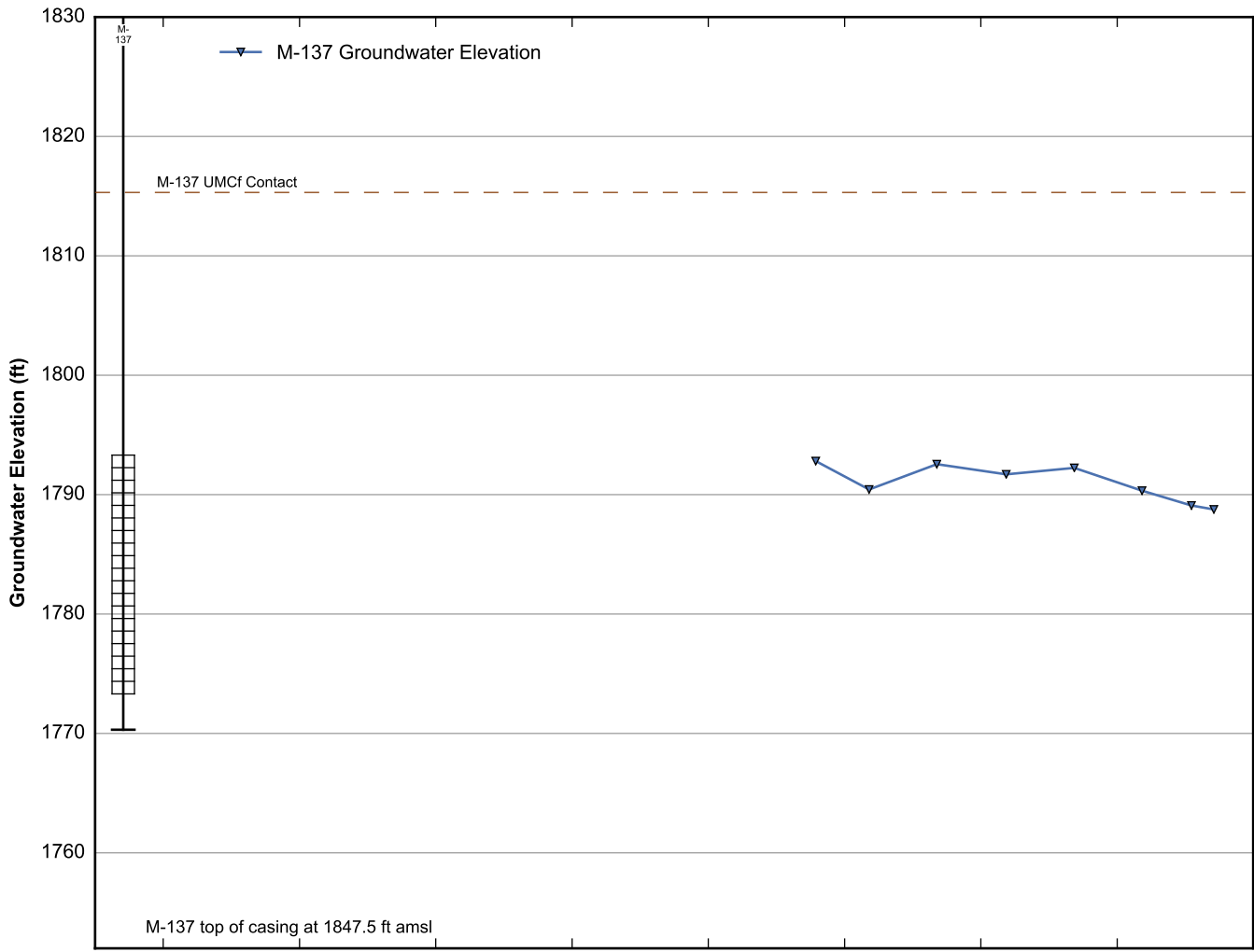


**Data Sheet for Well M-135**  
Nevada Environmental Response Trust Site  
Henderson, Nevada

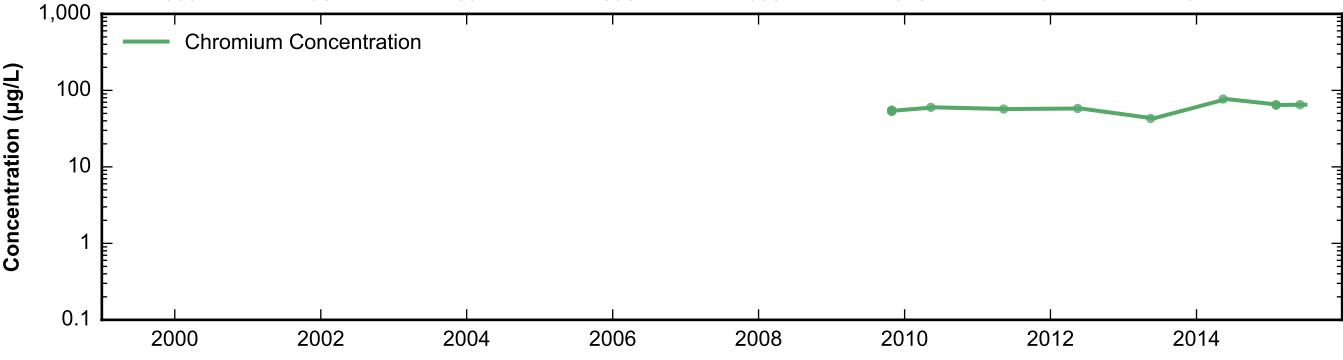
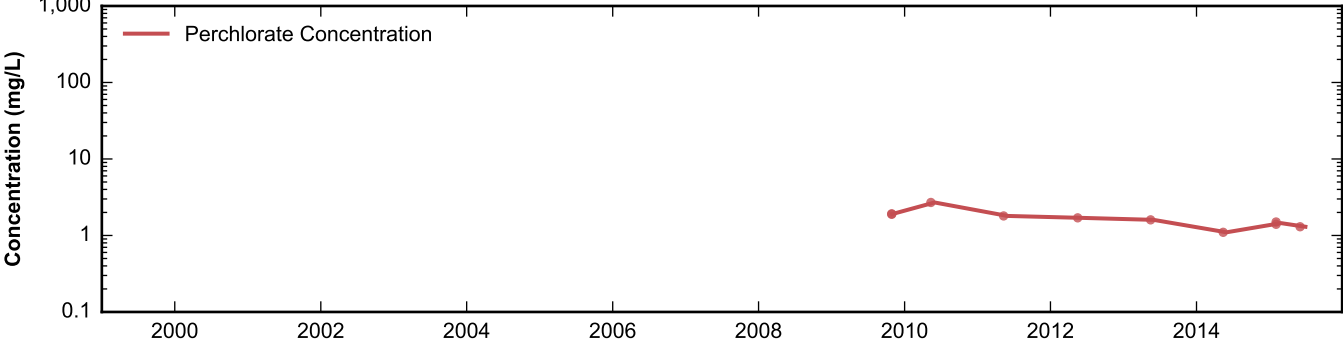
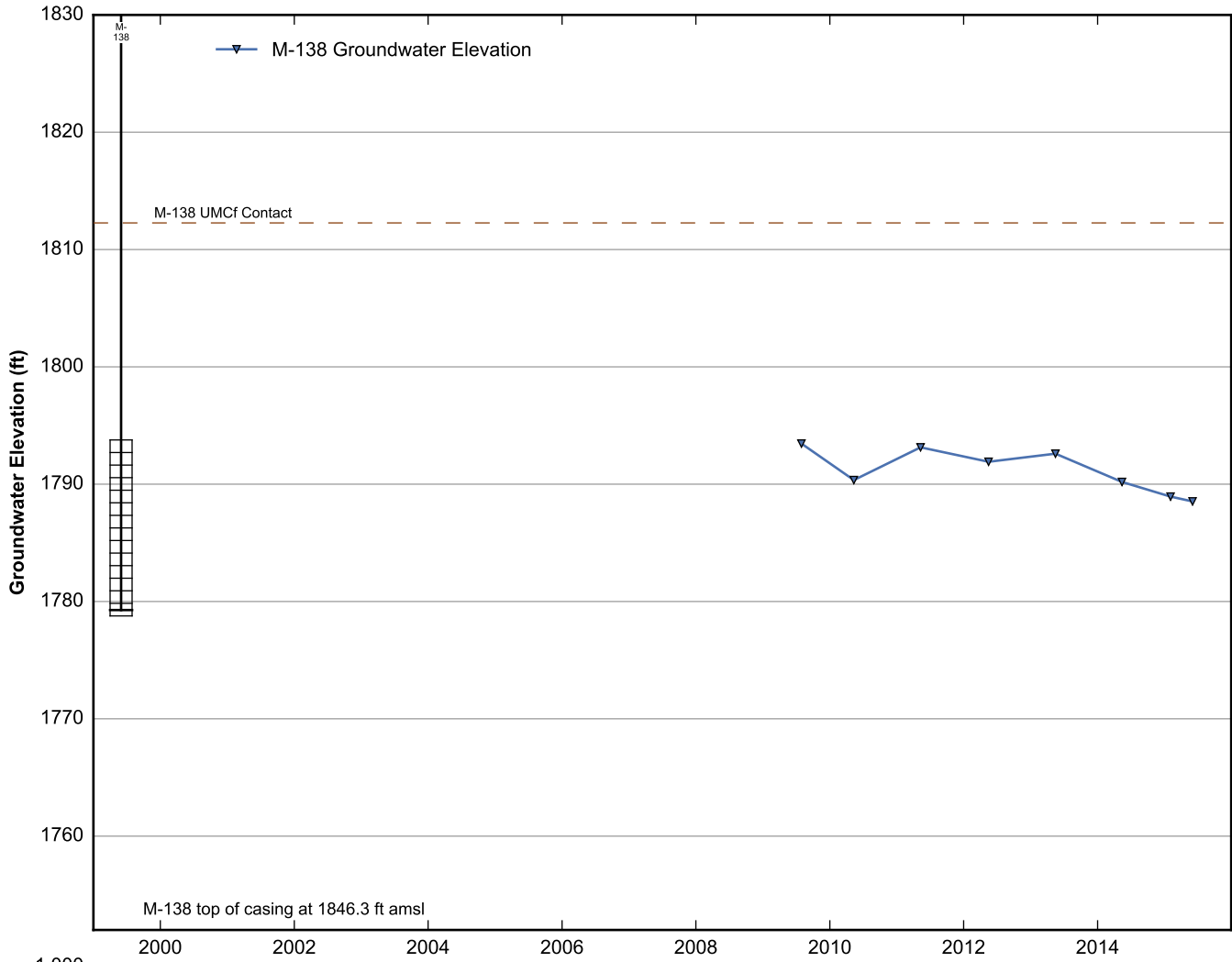


**Data Sheet for Well M-136**  
 Nevada Environmental Response Trust Site  
 Henderson, Nevada

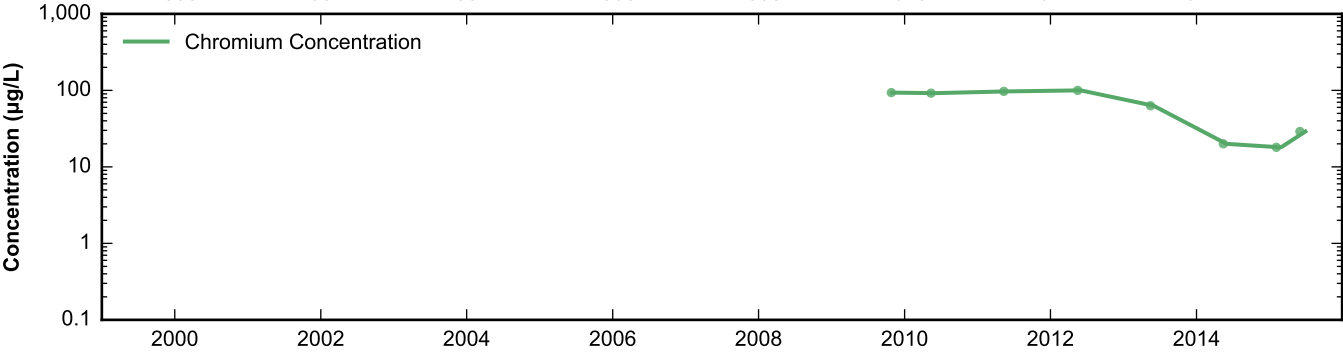
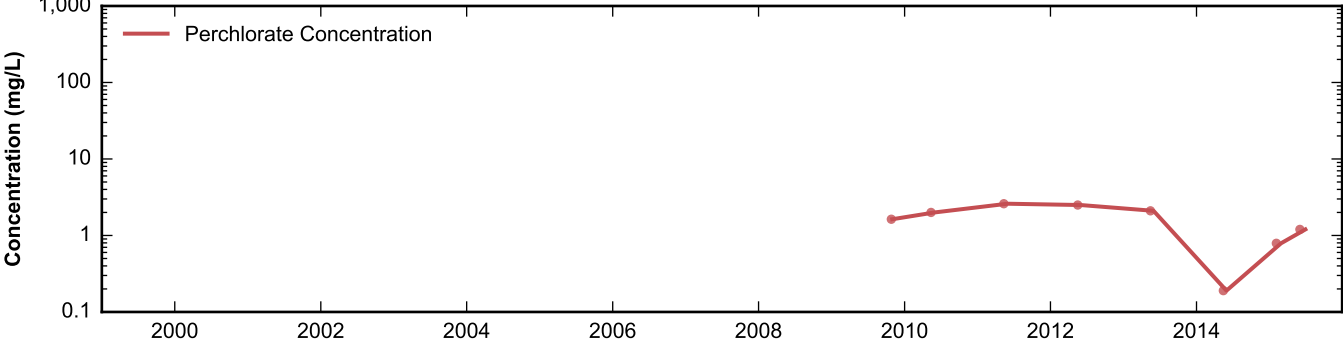
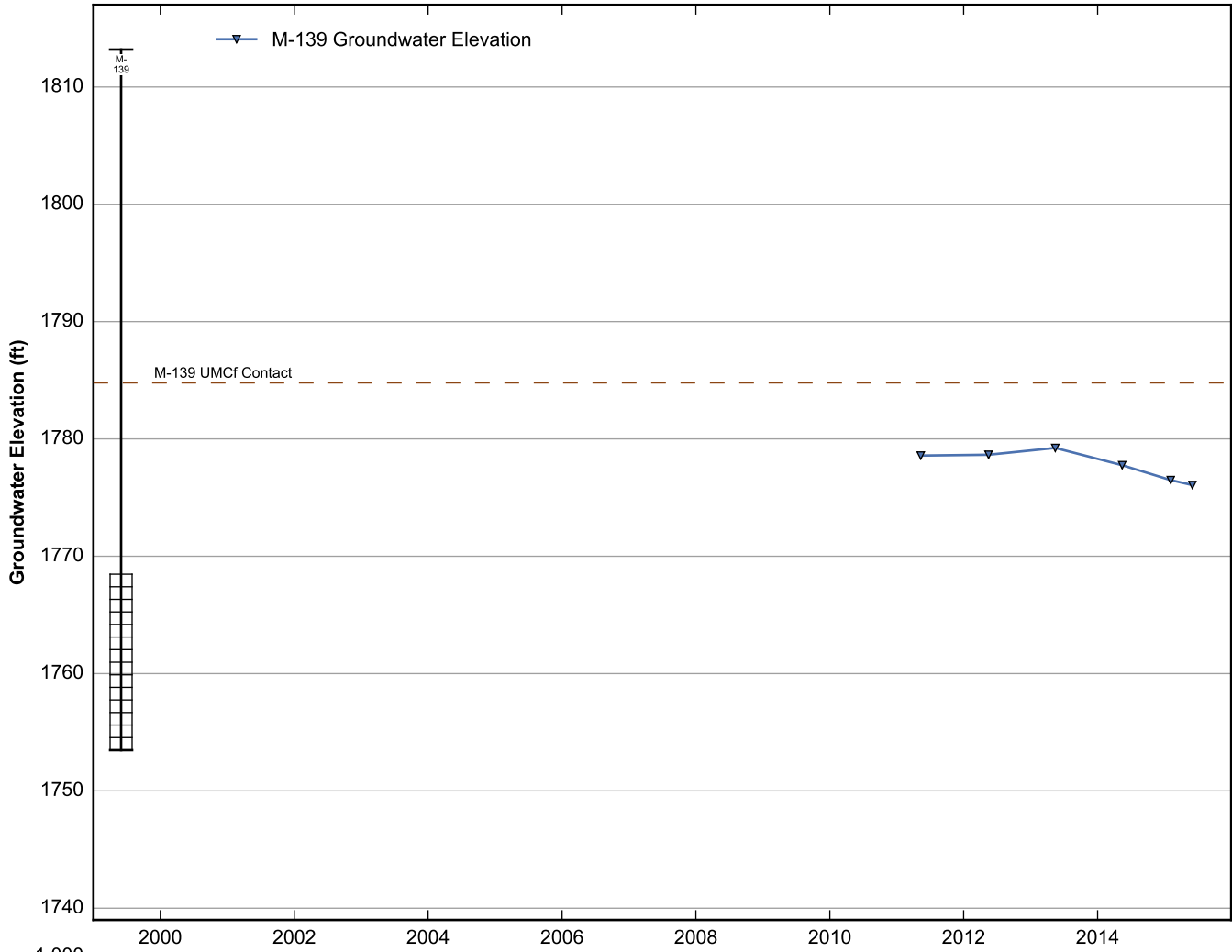




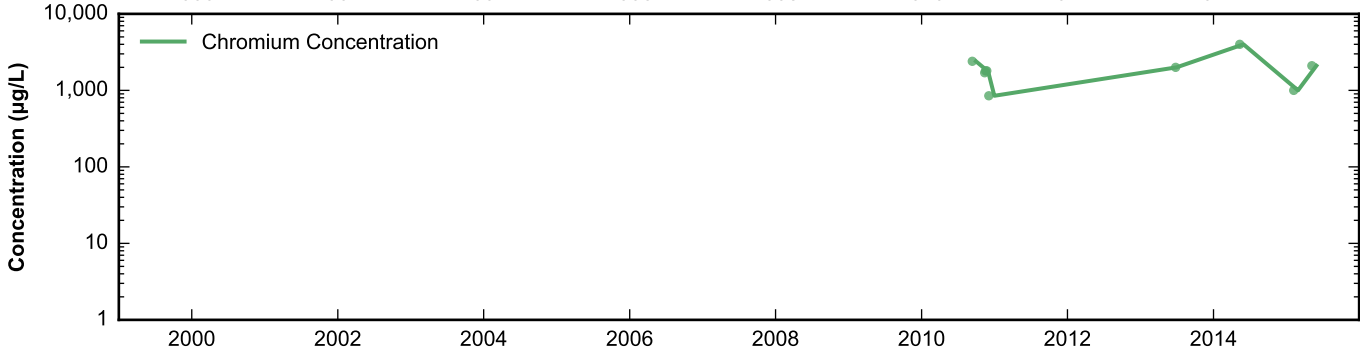
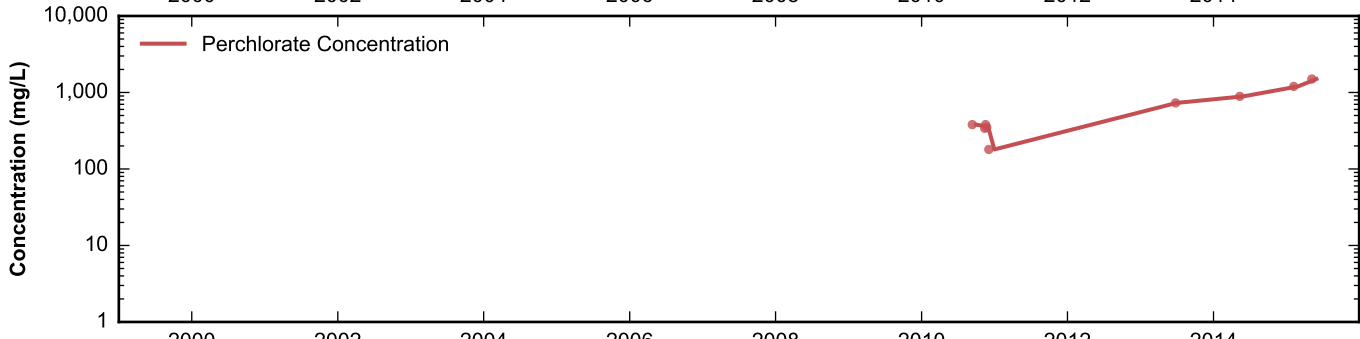
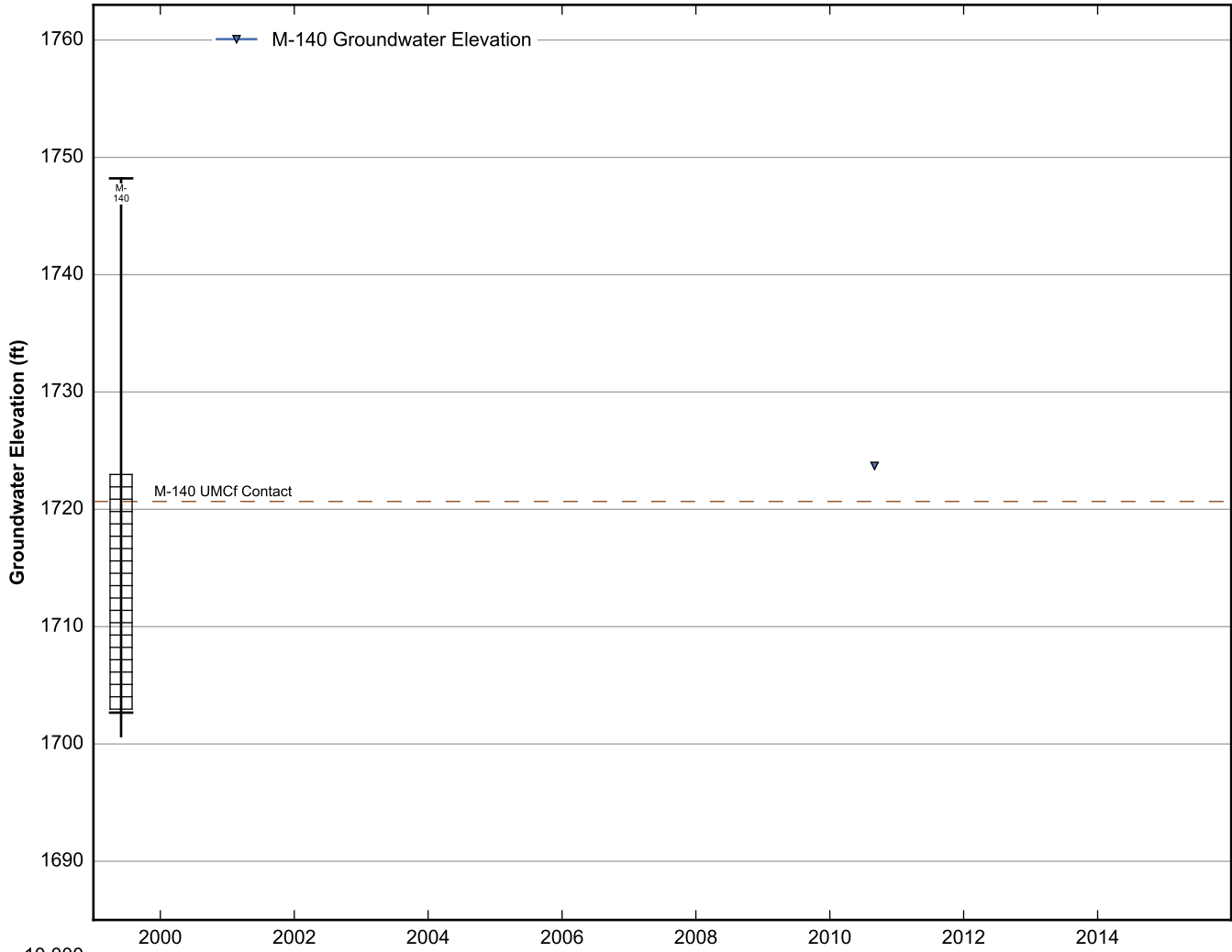
**Data Sheet for Well M-137**  
 Nevada Environmental Response Trust Site  
 Henderson, Nevada



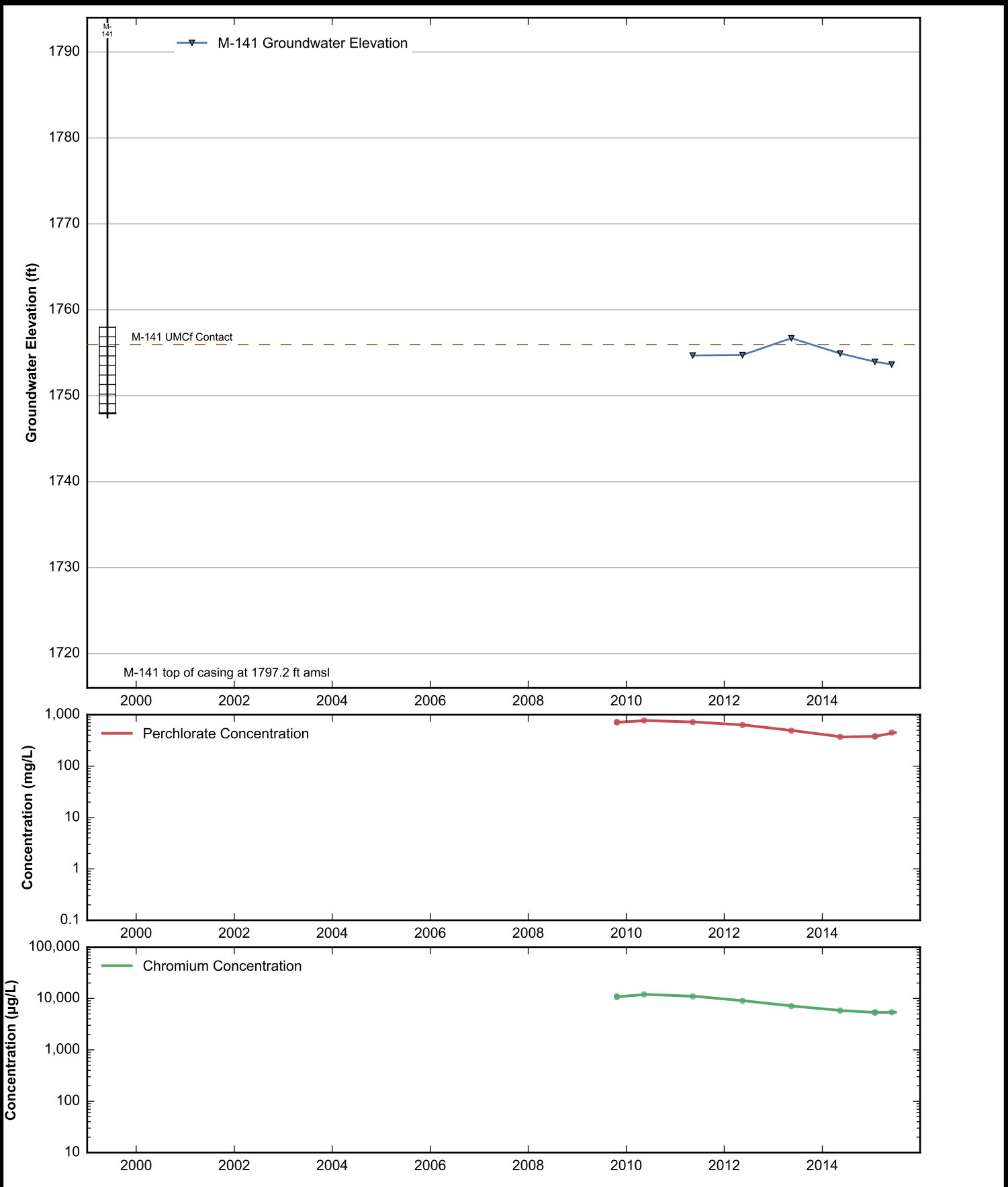
**Data Sheet for Well M-138**  
 Nevada Environmental Response Trust Site  
 Henderson, Nevada



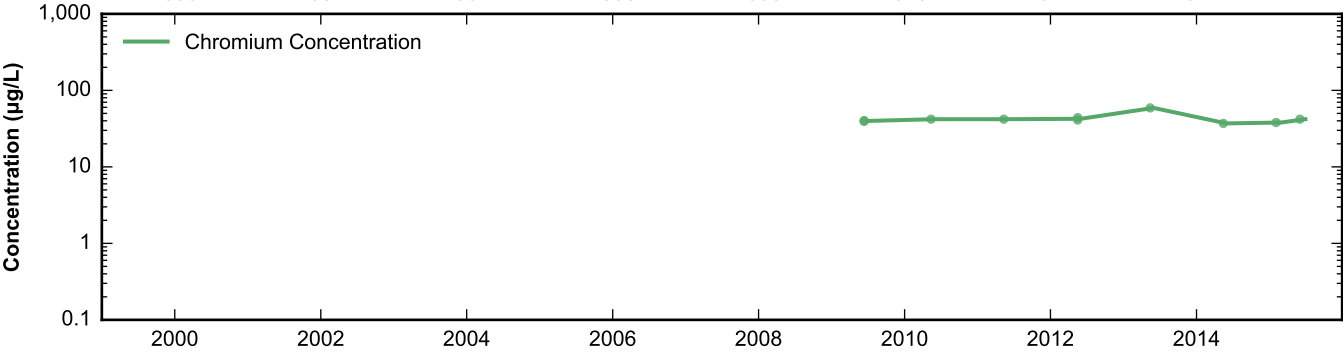
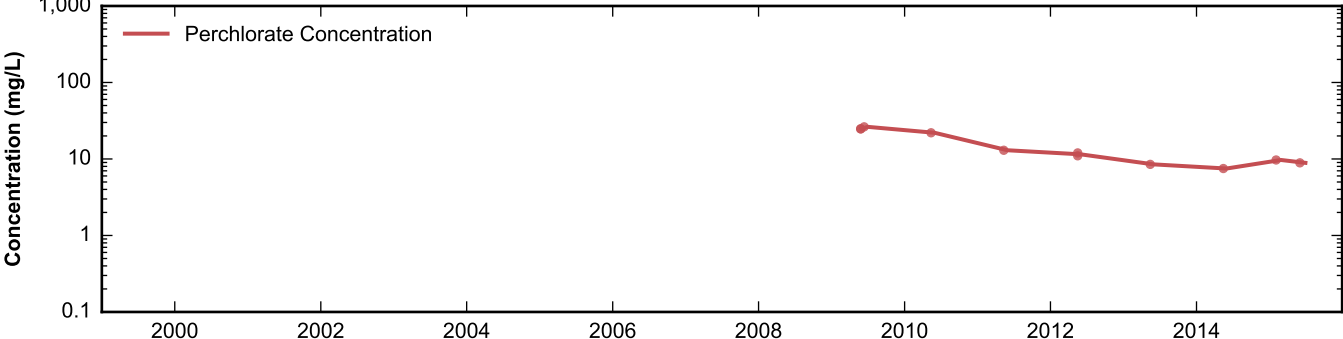
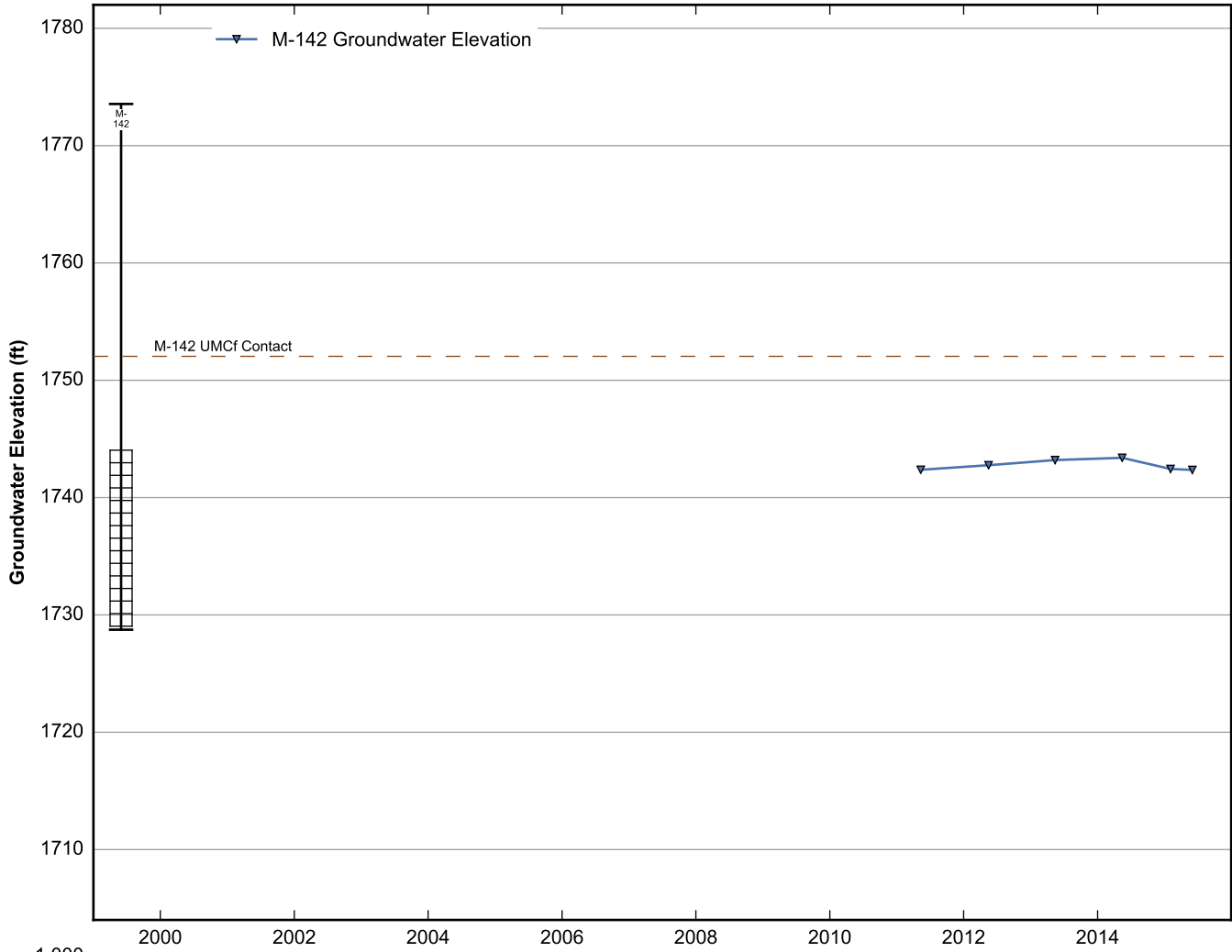
**Data Sheet for Well M-139**  
 Nevada Environmental Response Trust Site  
 Henderson, Nevada



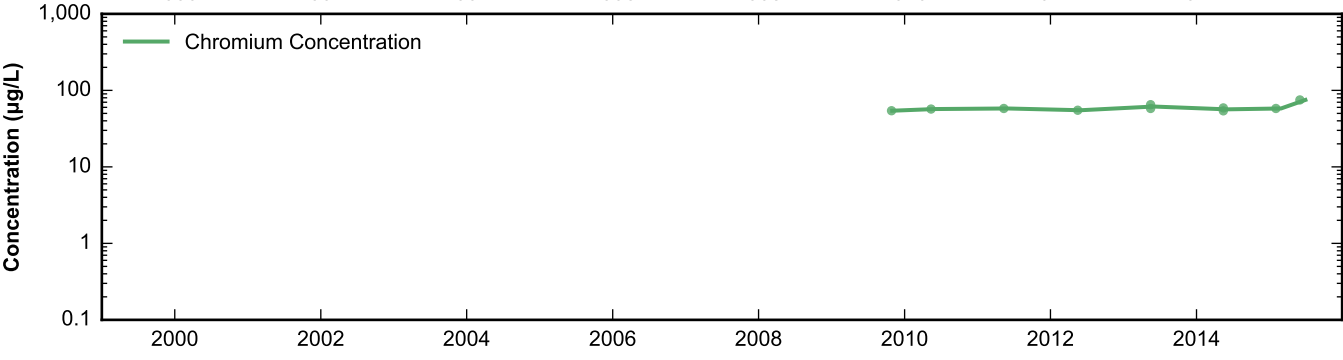
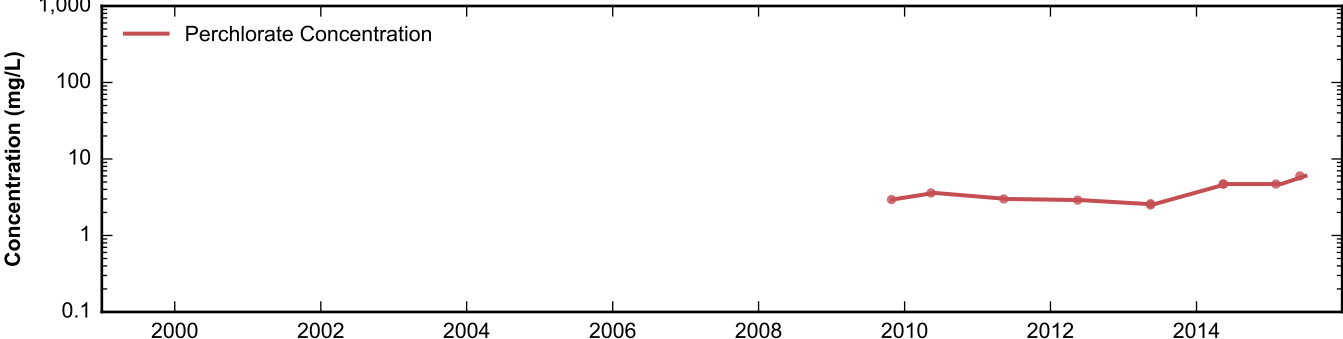
**Data Sheet for Well M-140**  
 Nevada Environmental Response Trust Site  
 Henderson, Nevada



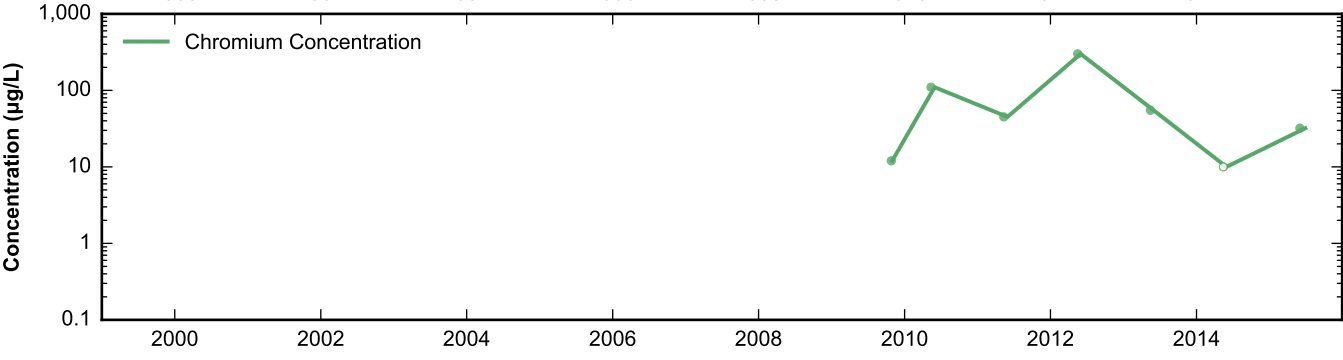
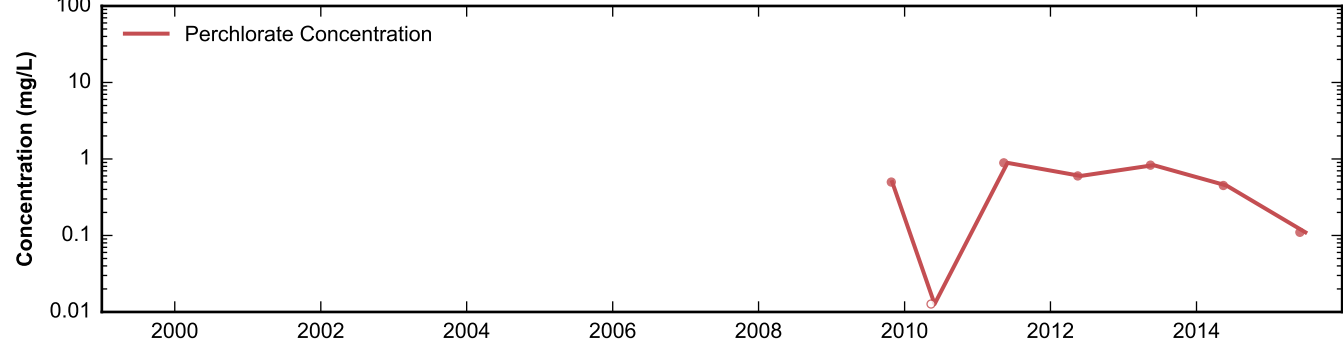
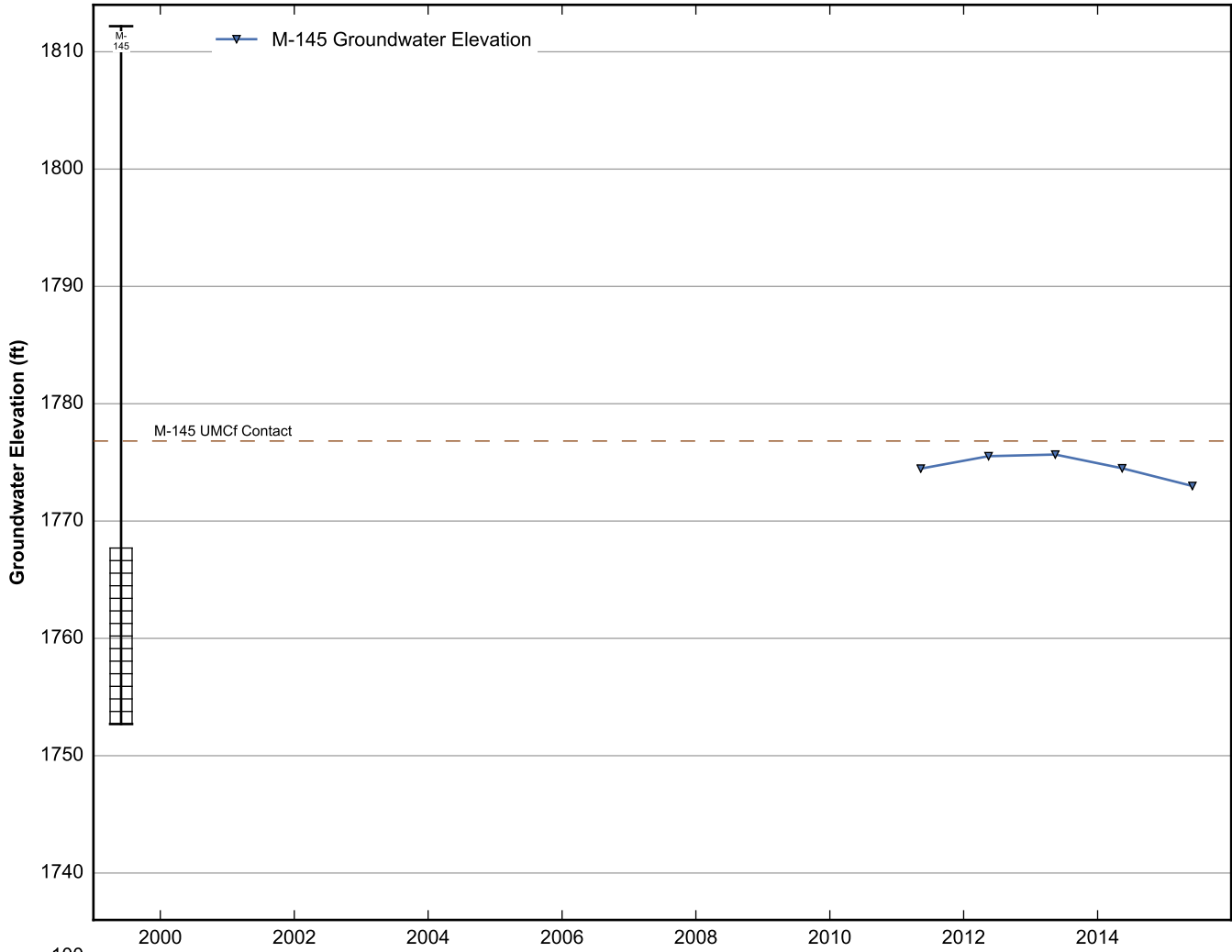
**Data Sheet for Well M-141**  
 Nevada Environmental Response Trust Site  
 Henderson, Nevada



**Data Sheet for Well M-142**  
 Nevada Environmental Response Trust Site  
 Henderson, Nevada

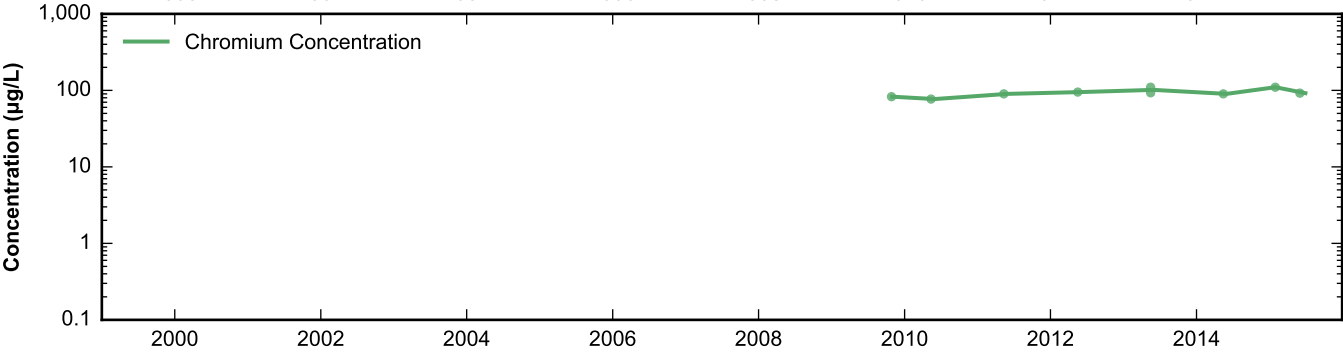
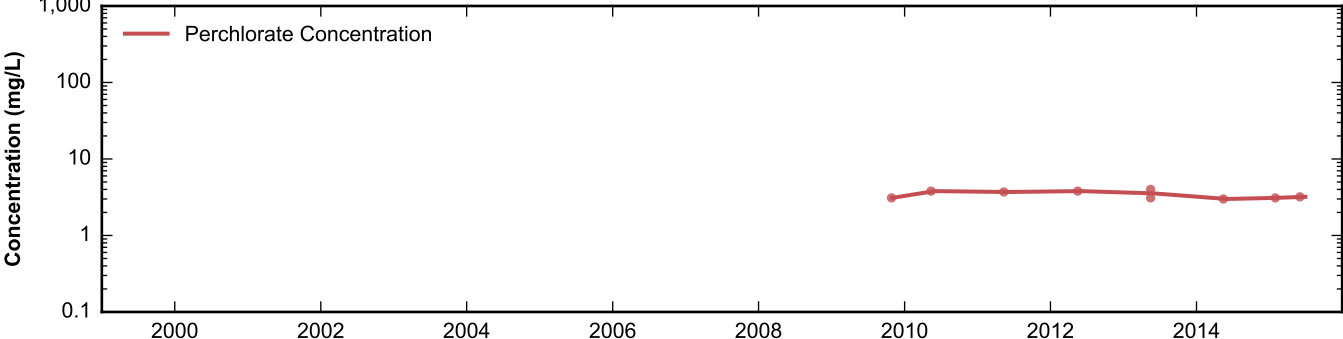
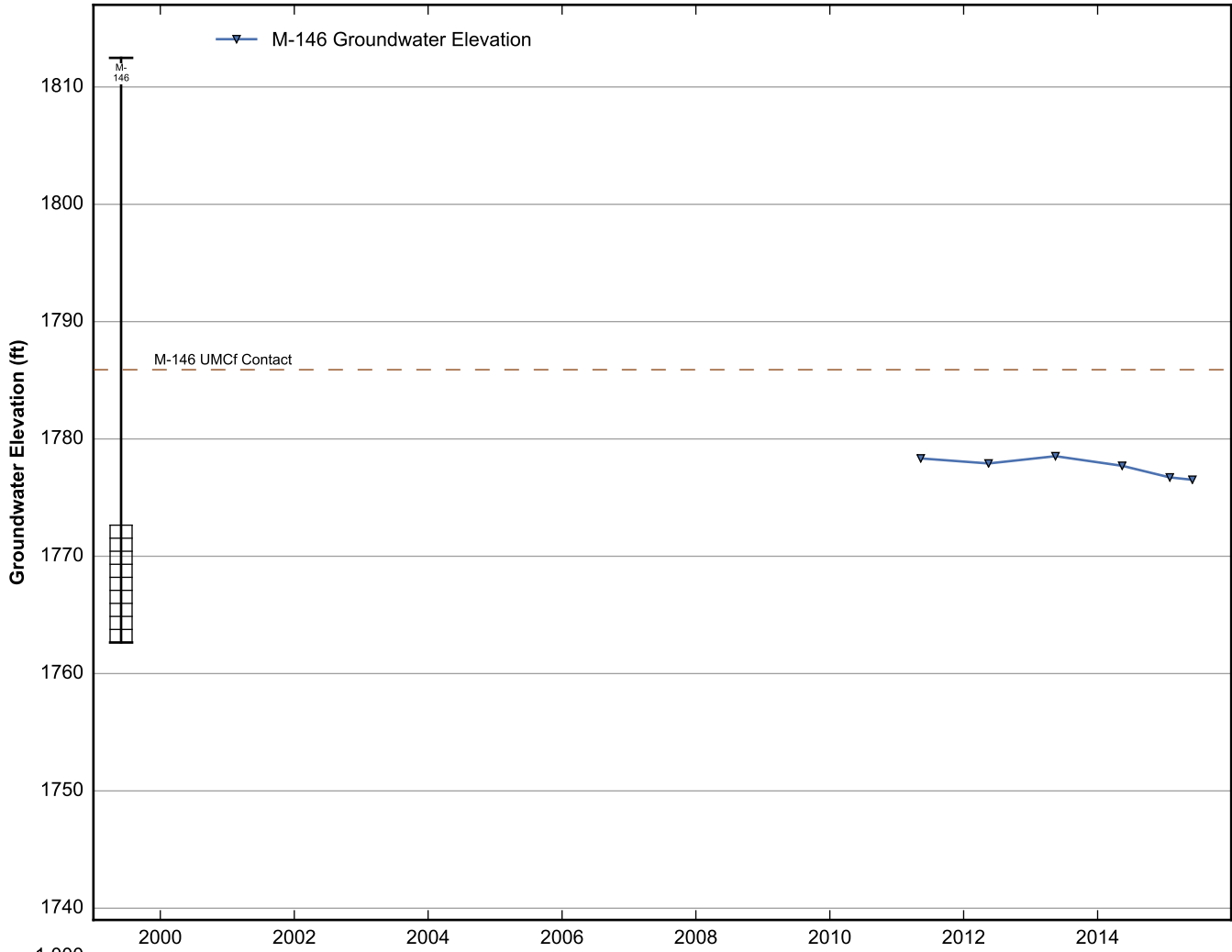


**Data Sheet for Well M-144**  
 Nevada Environmental Response Trust Site  
 Henderson, Nevada

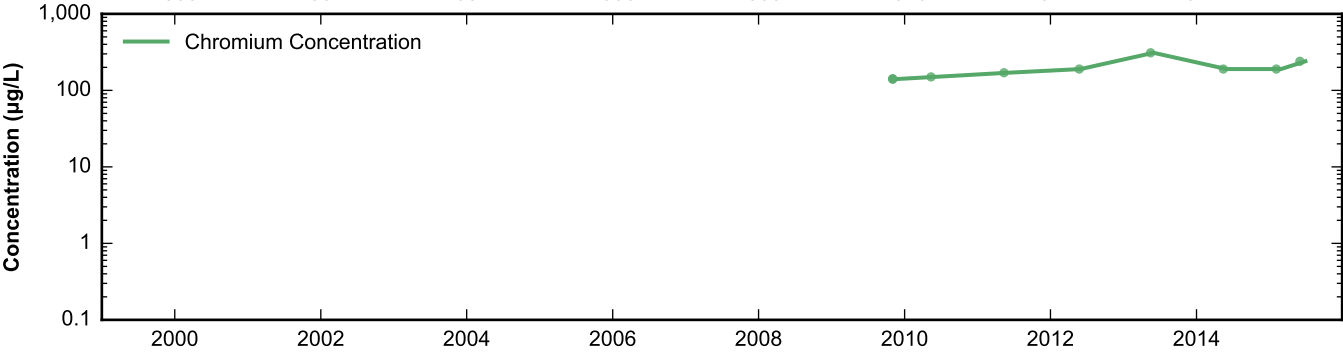
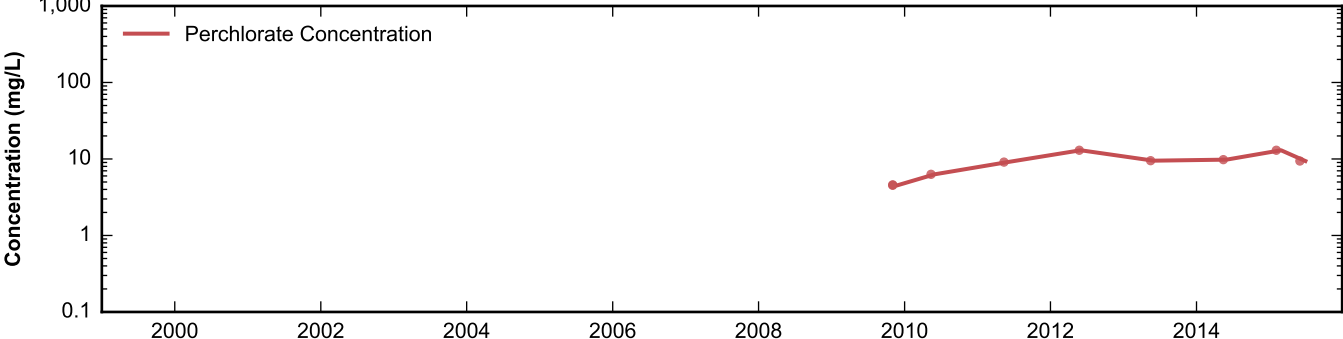
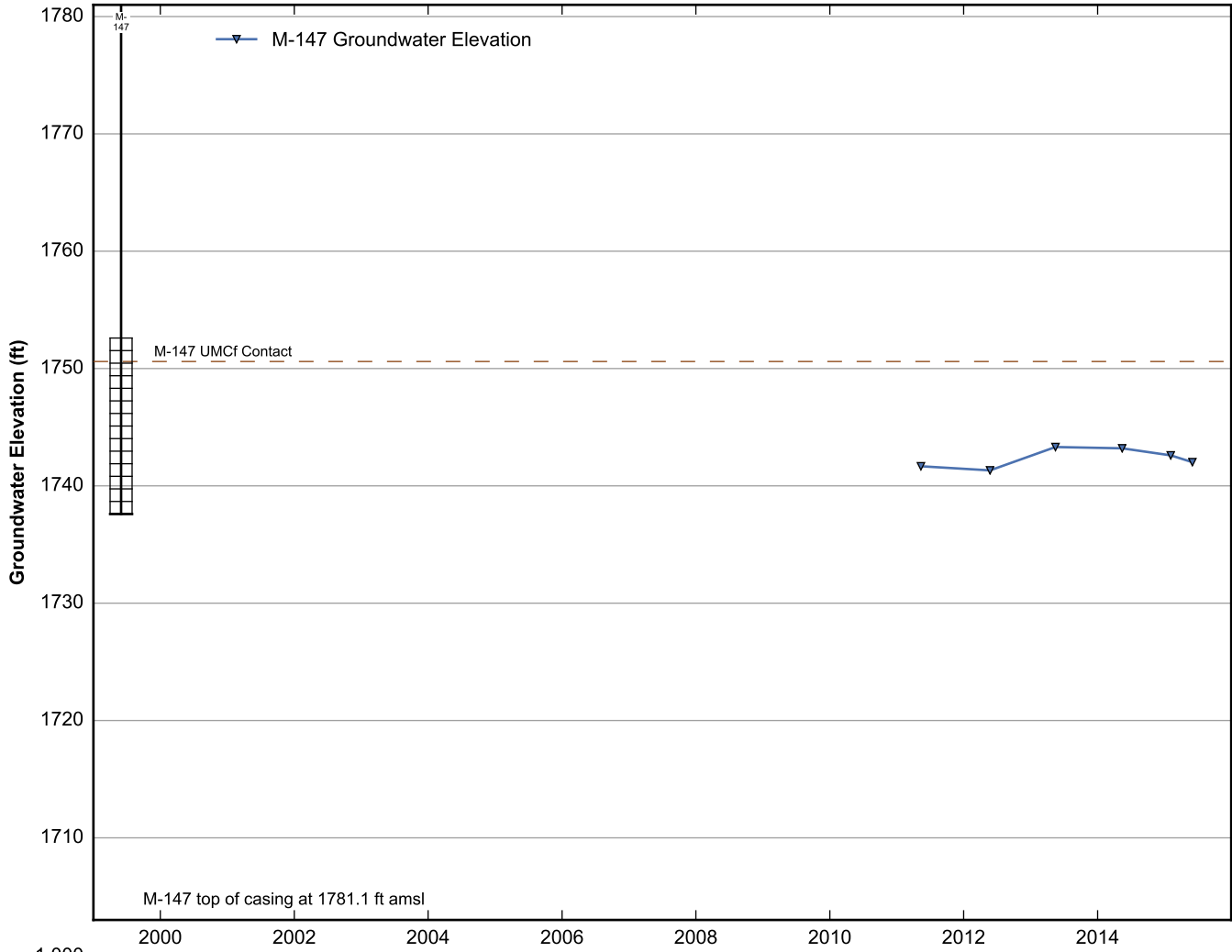


**Data Sheet for Well M-145**  
 Nevada Environmental Response Trust Site  
 Henderson, Nevada

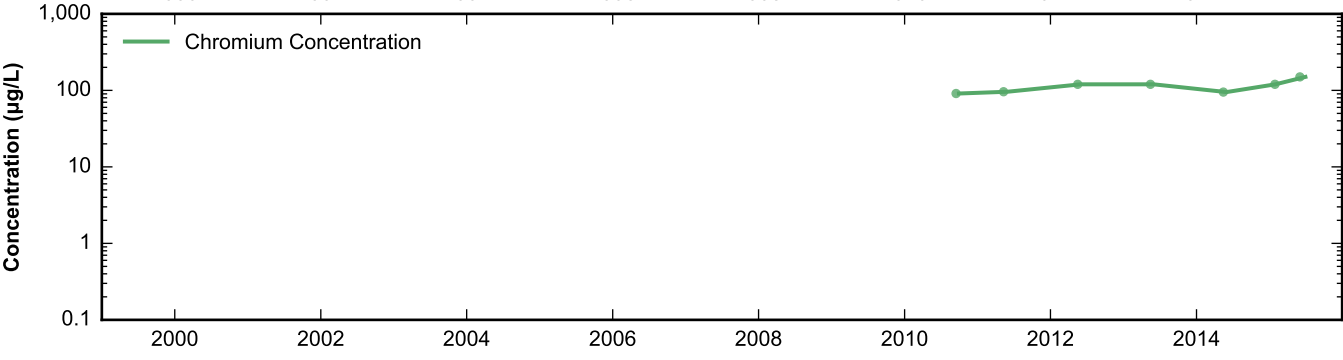
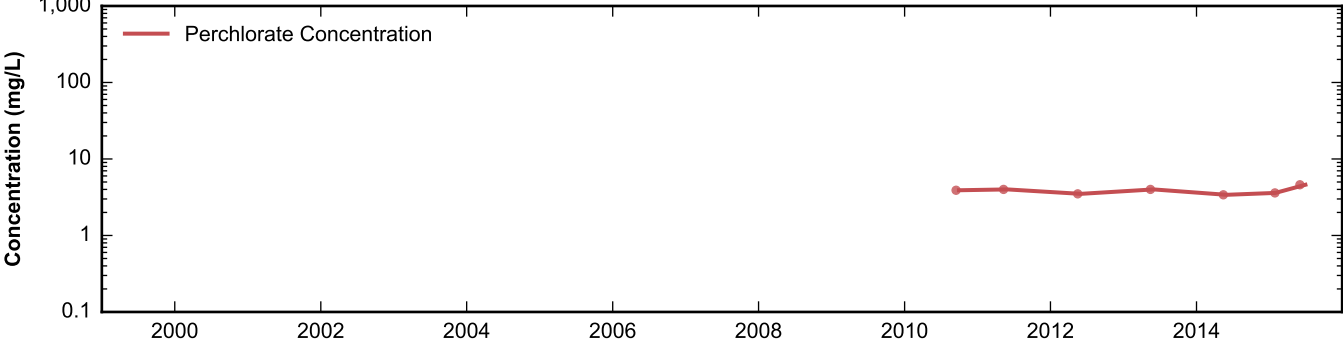
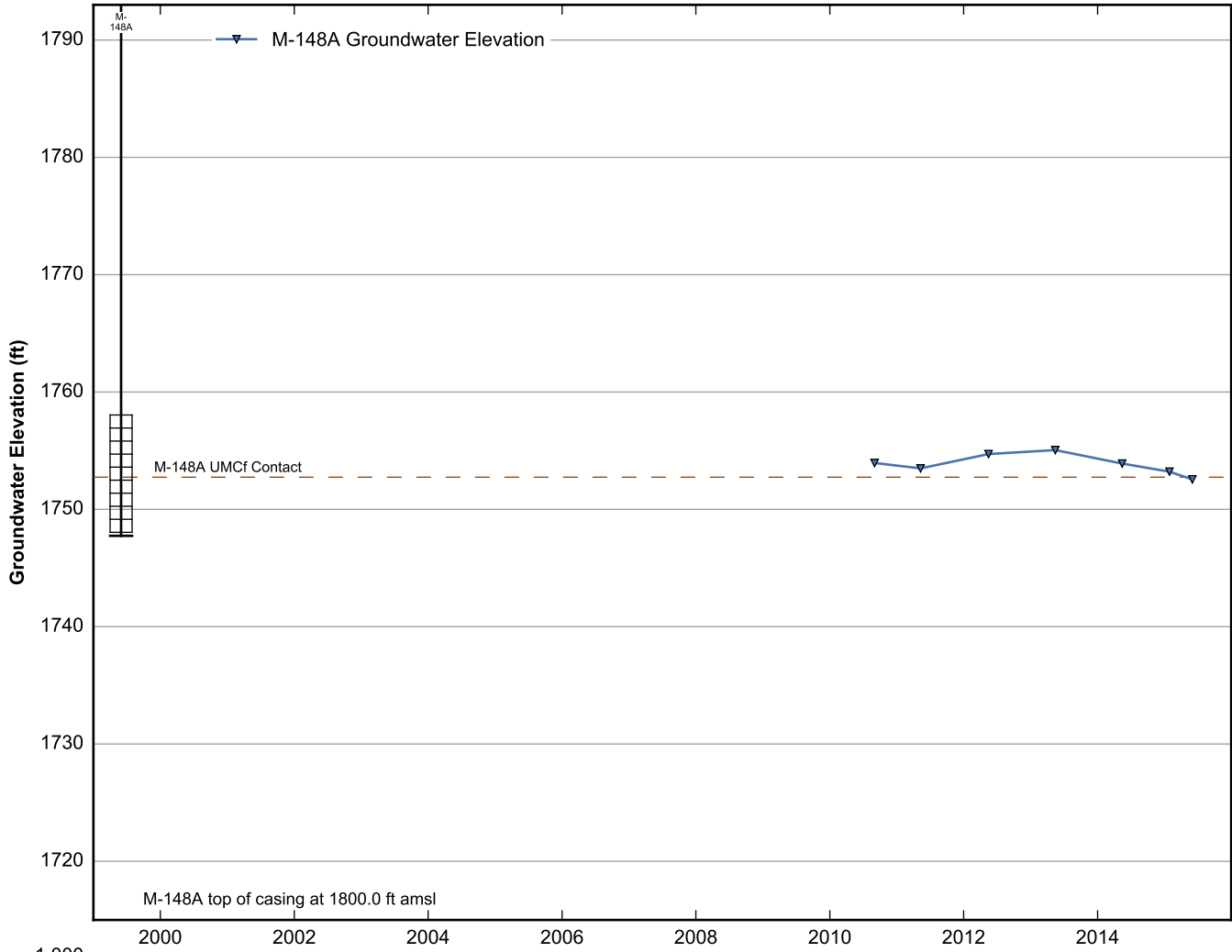




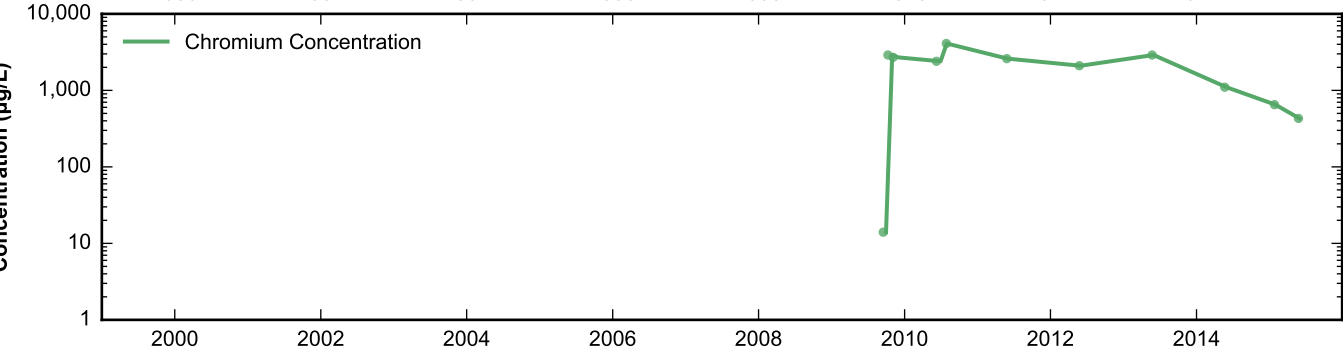
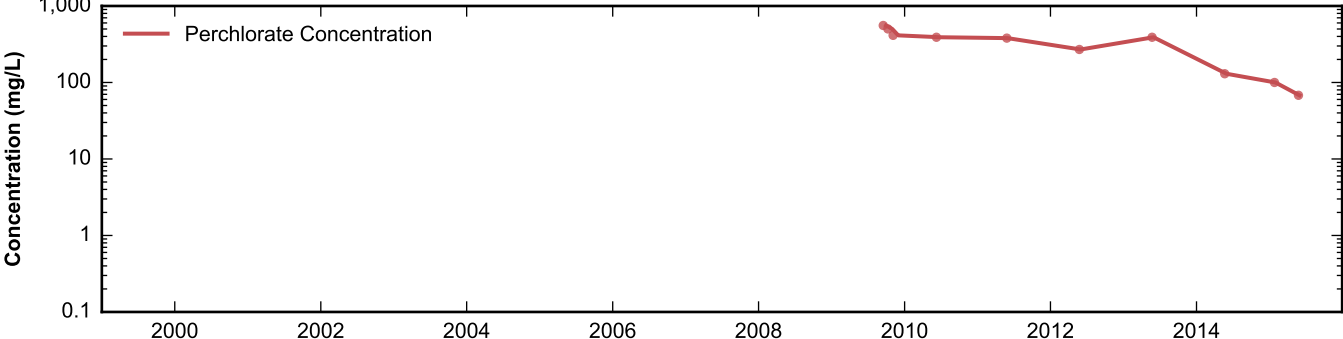
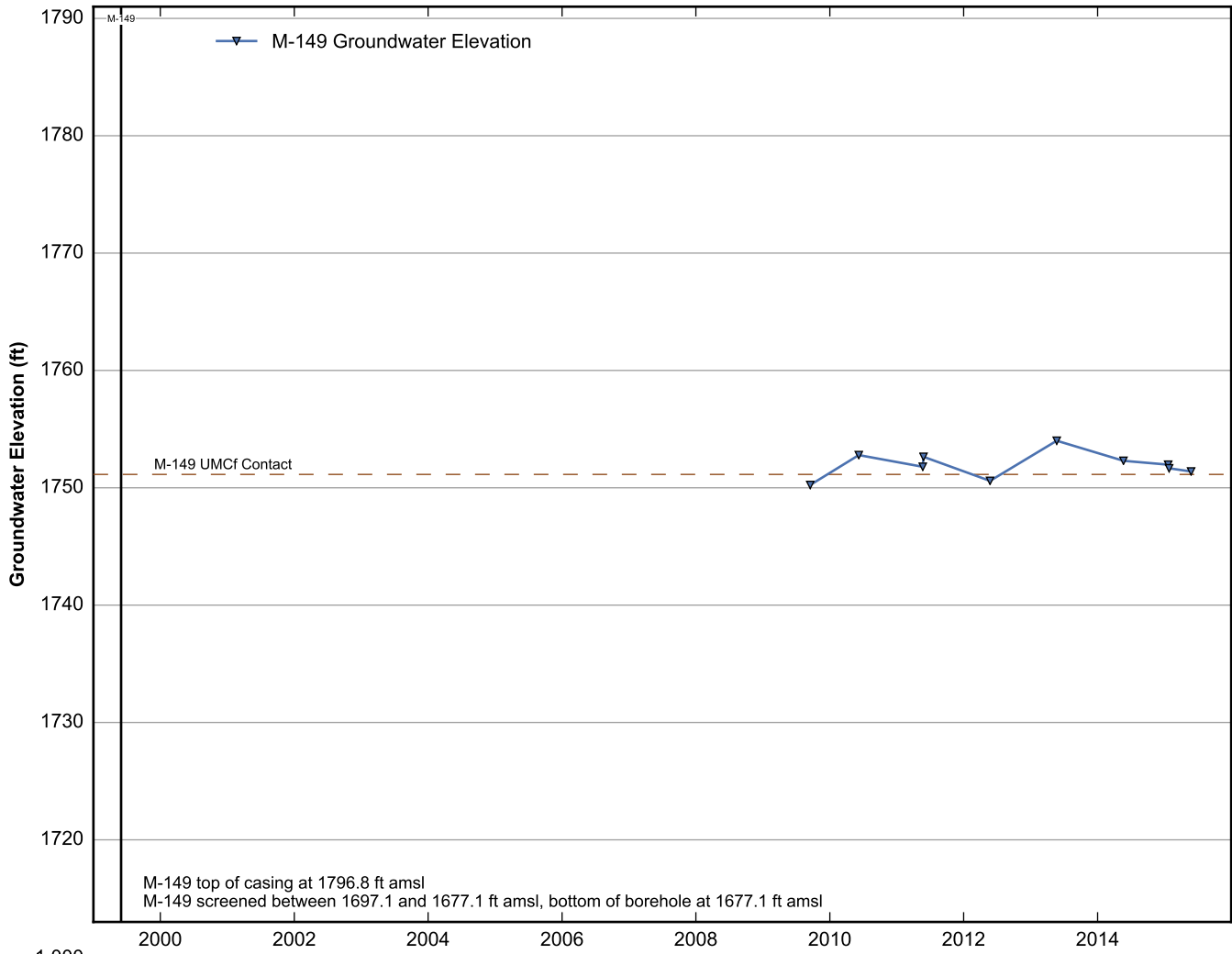
**Data Sheet for Well M-146**  
Nevada Environmental Response Trust Site  
Henderson, Nevada



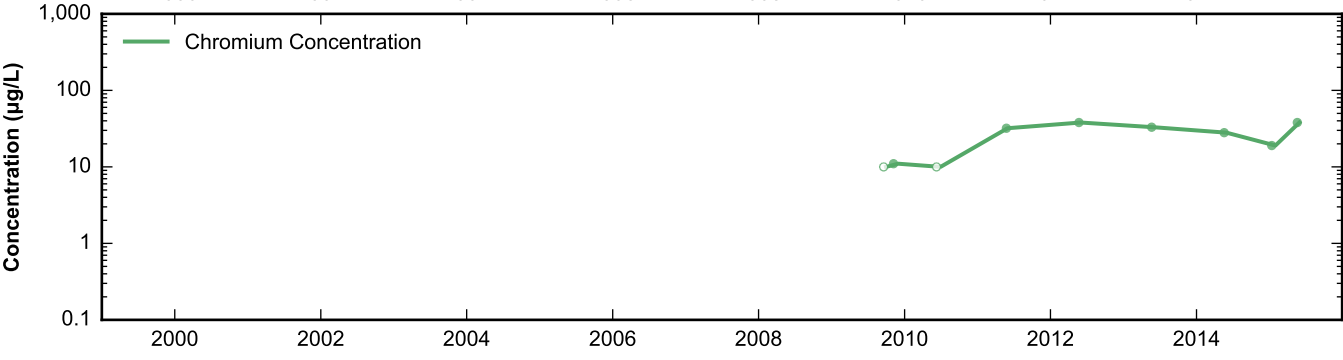
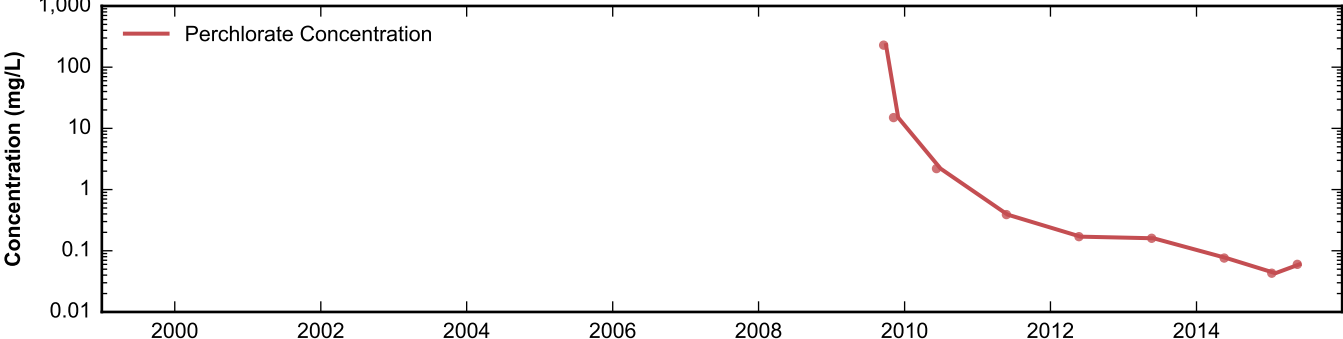
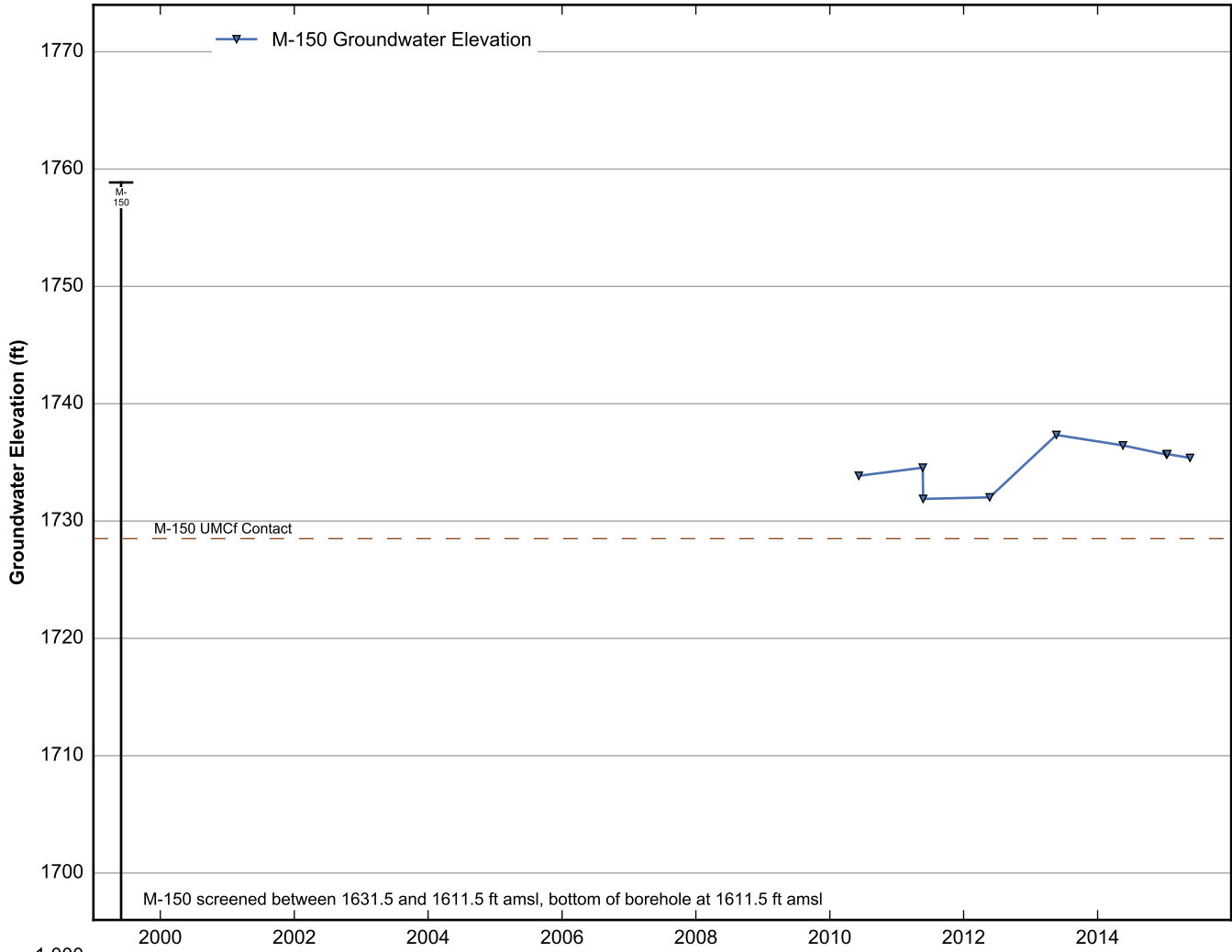
**Data Sheet for Well M-147**  
 Nevada Environmental Response Trust Site  
 Henderson, Nevada



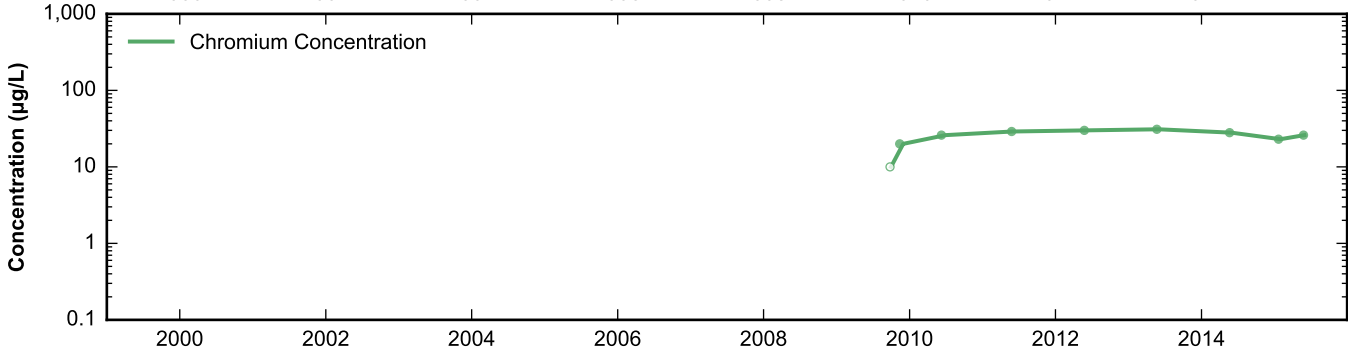
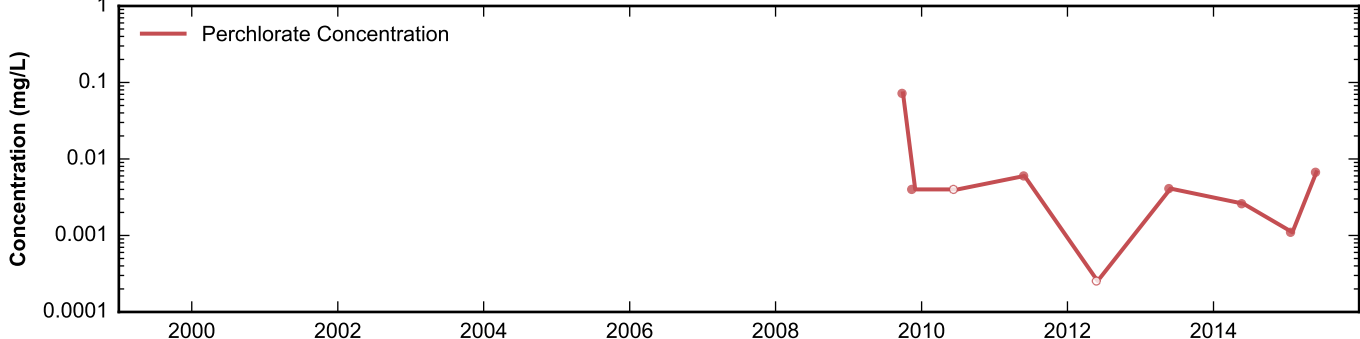
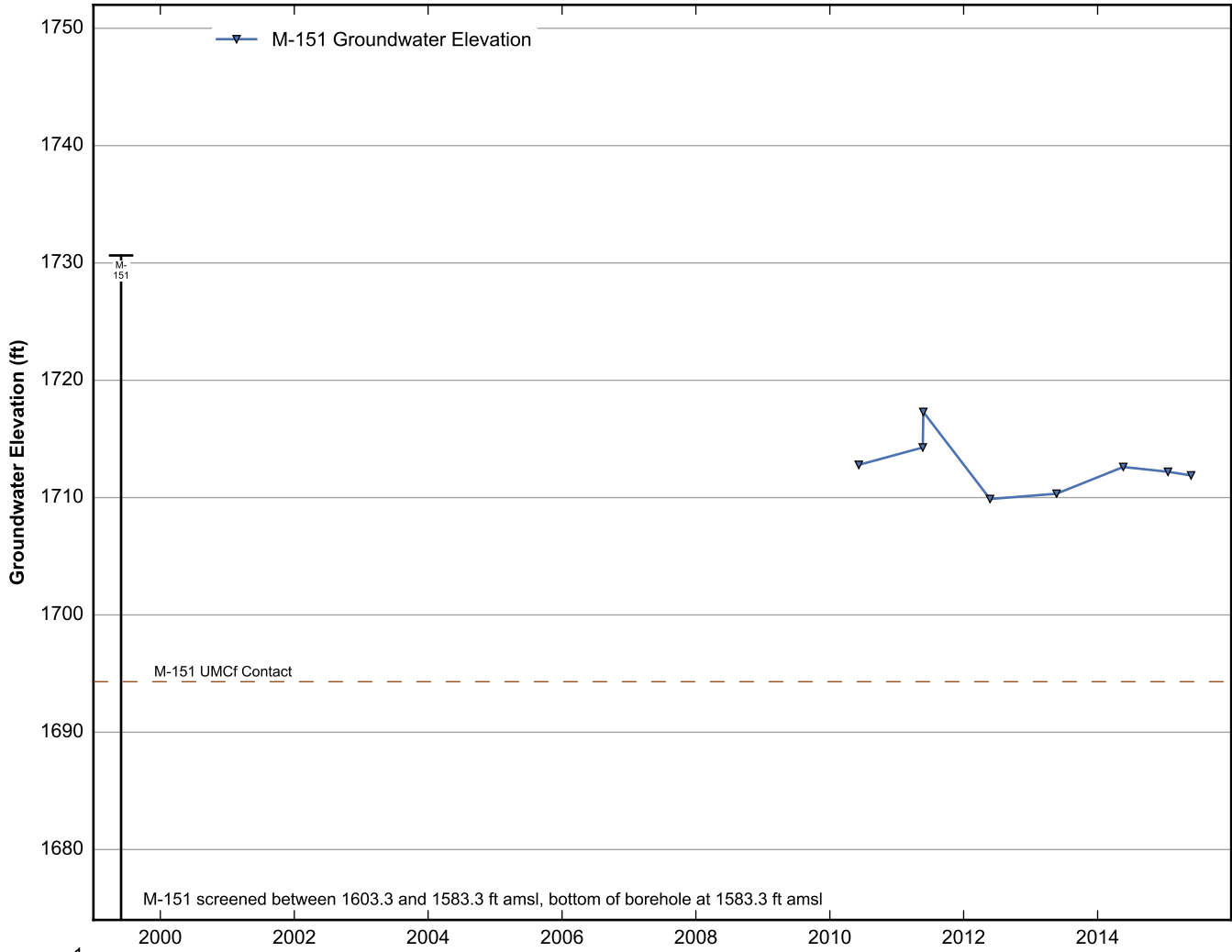
**Data Sheet for Well M-148A**  
 Nevada Environmental Response Trust Site  
 Henderson, Nevada



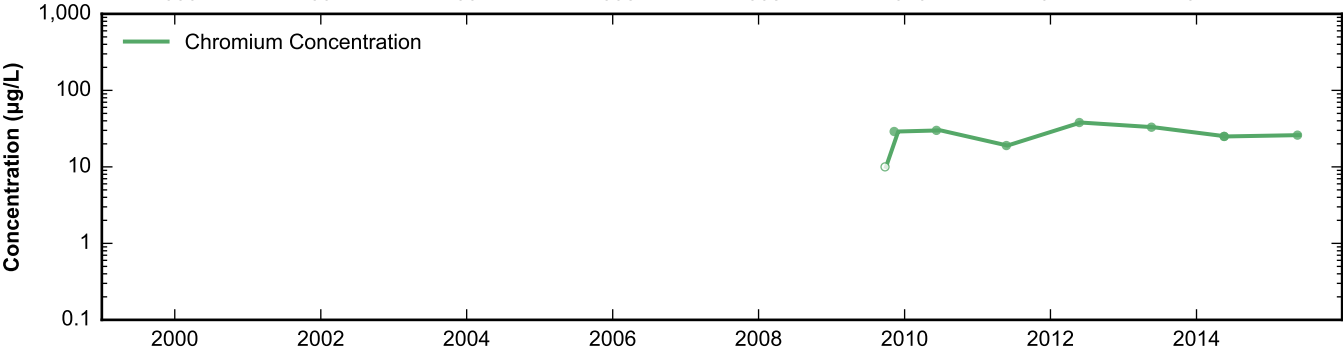
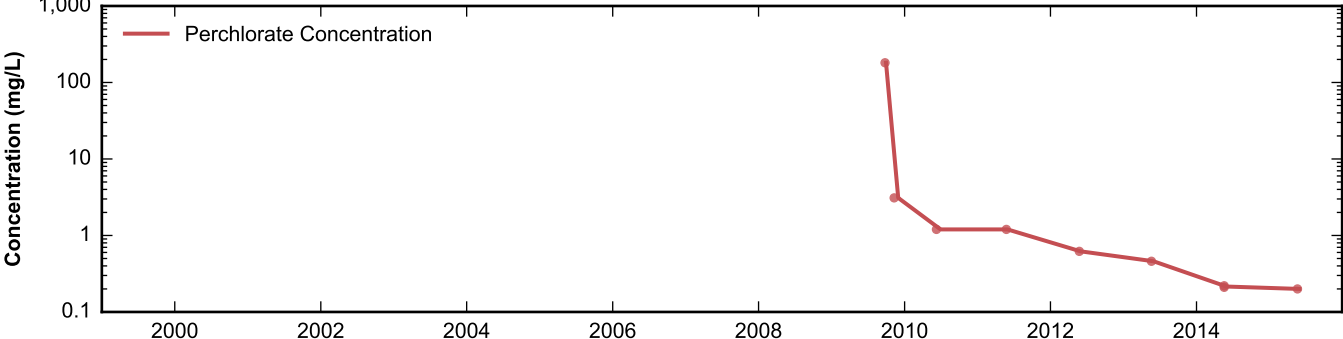
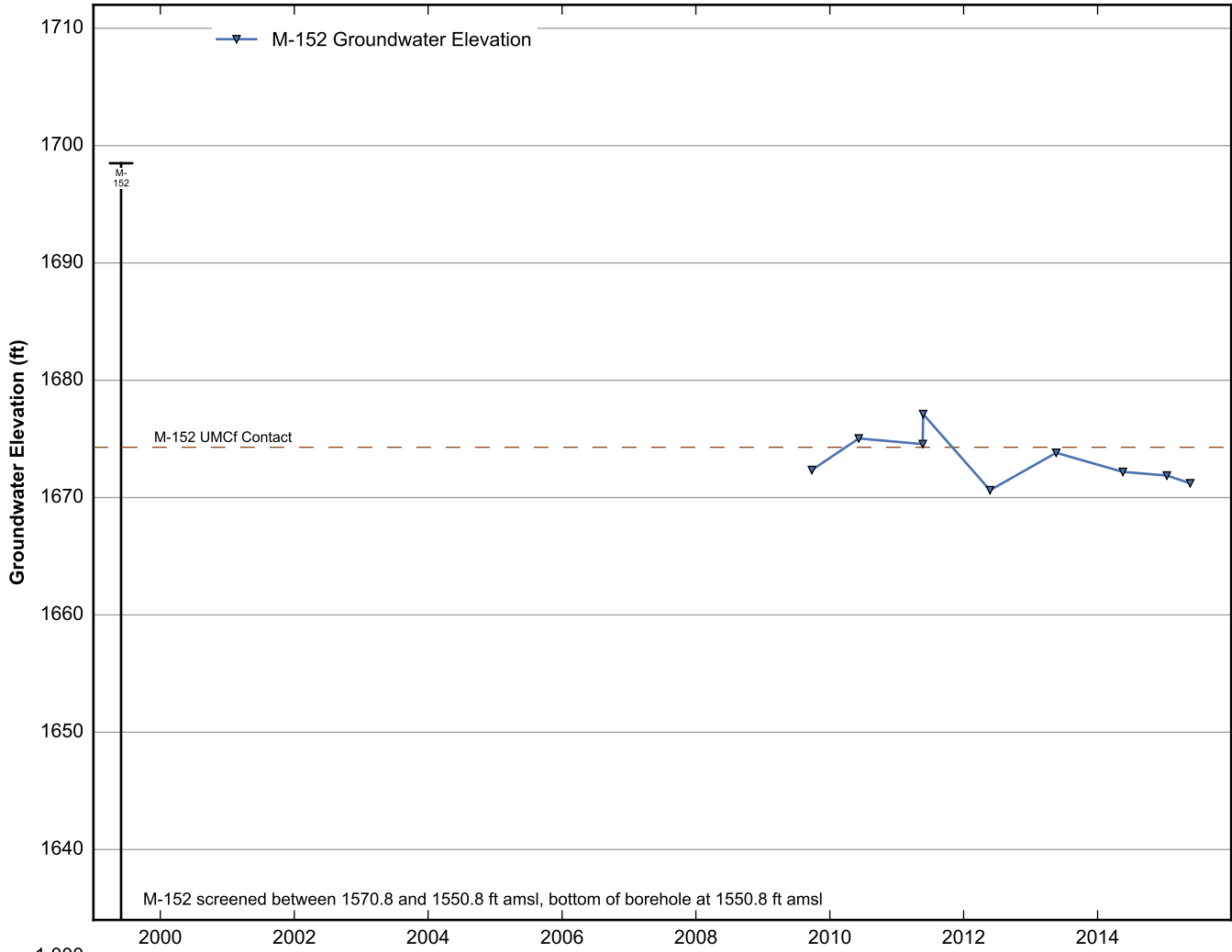
**Data Sheet for Well M-149**  
 Nevada Environmental Response Trust Site  
 Henderson, Nevada



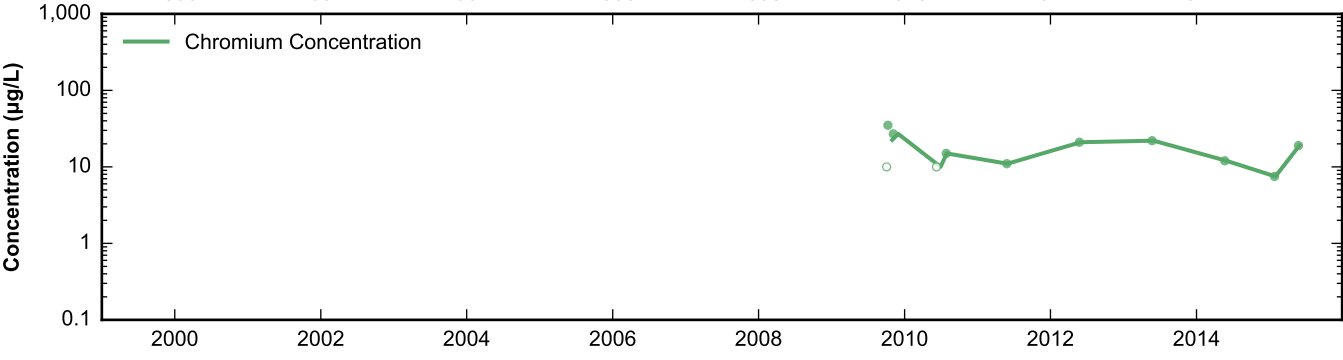
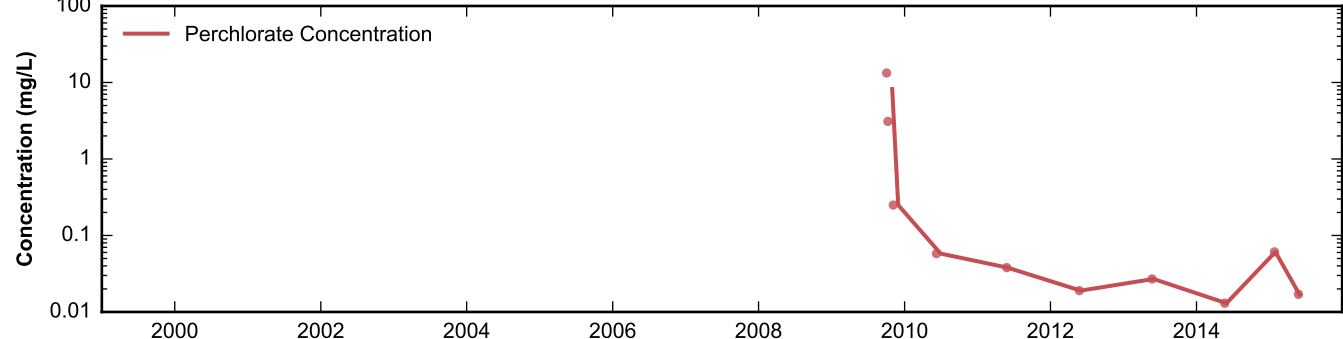
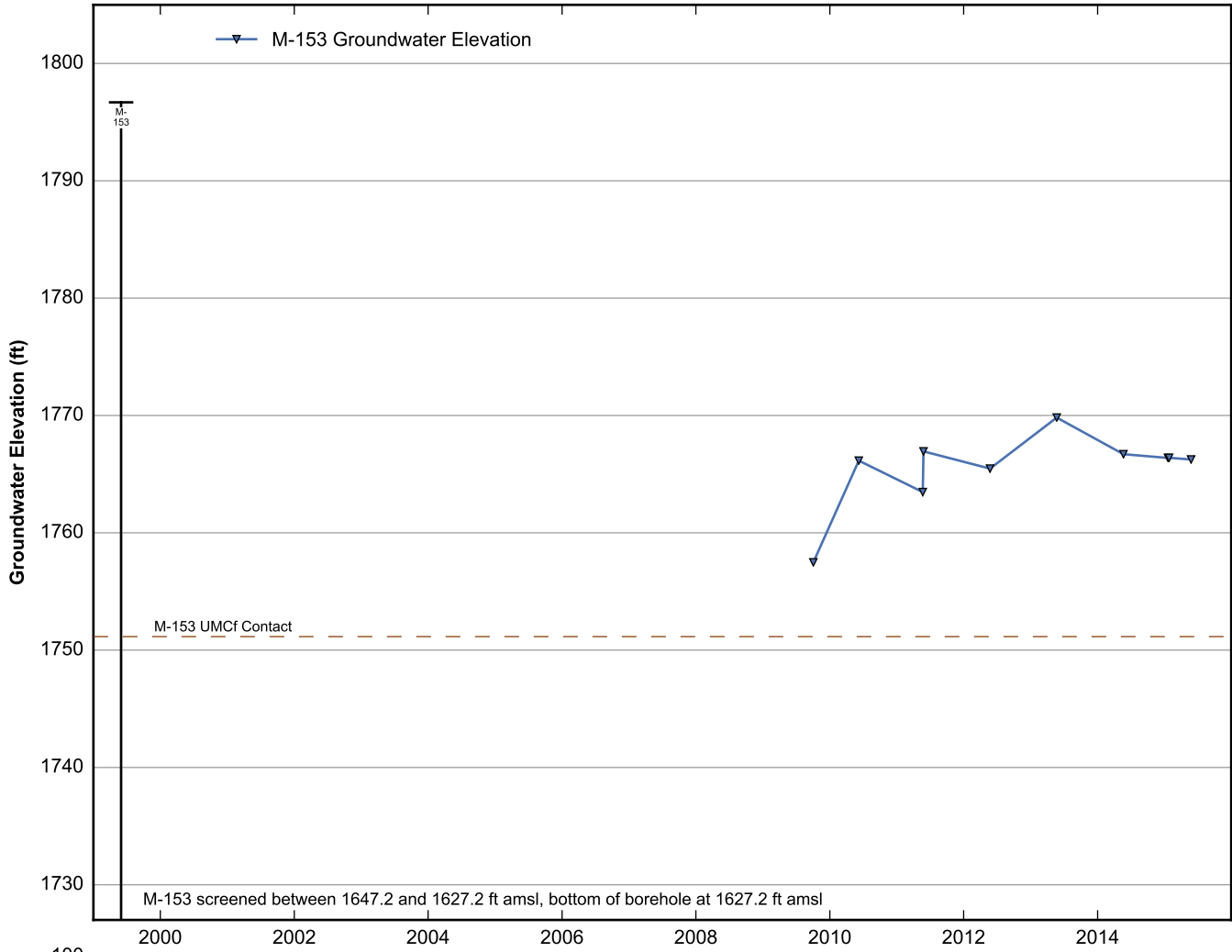
**Data Sheet for Well M-150**  
 Nevada Environmental Response Trust Site  
 Henderson, Nevada



**Data Sheet for Well M-151**  
 Nevada Environmental Response Trust Site  
 Henderson, Nevada

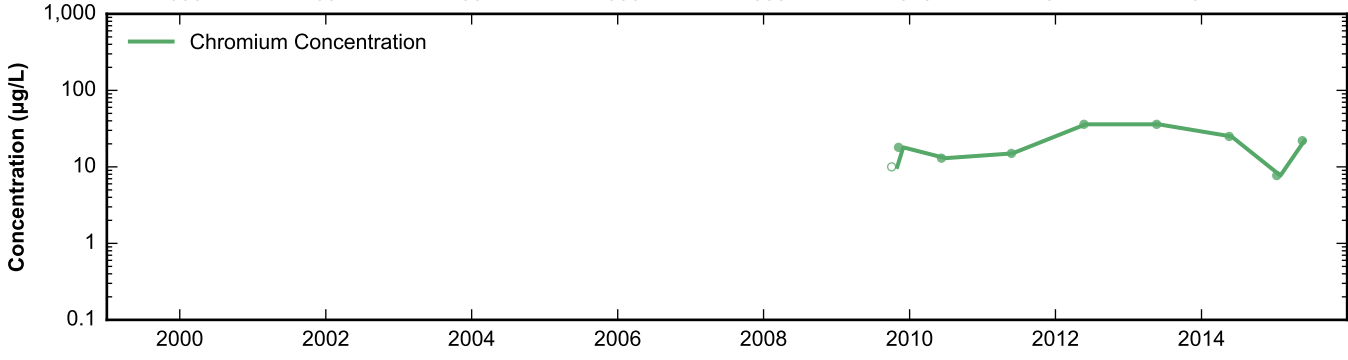
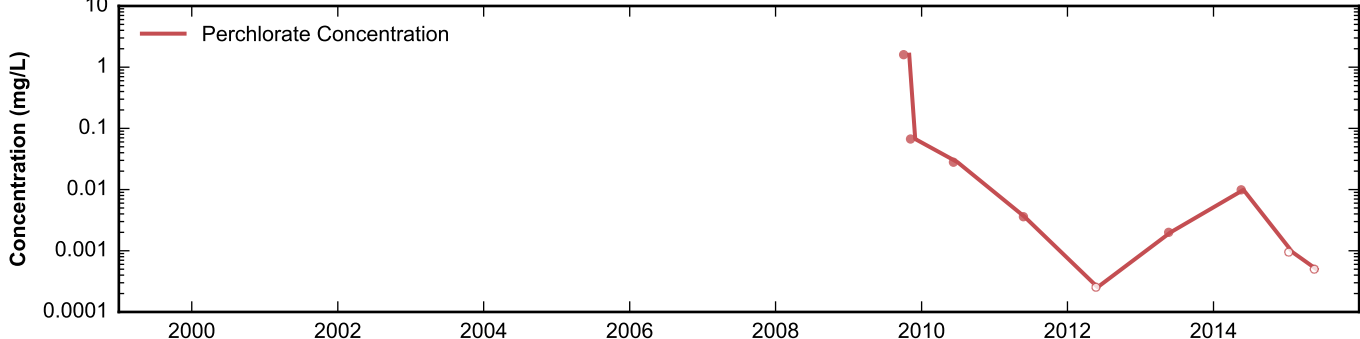
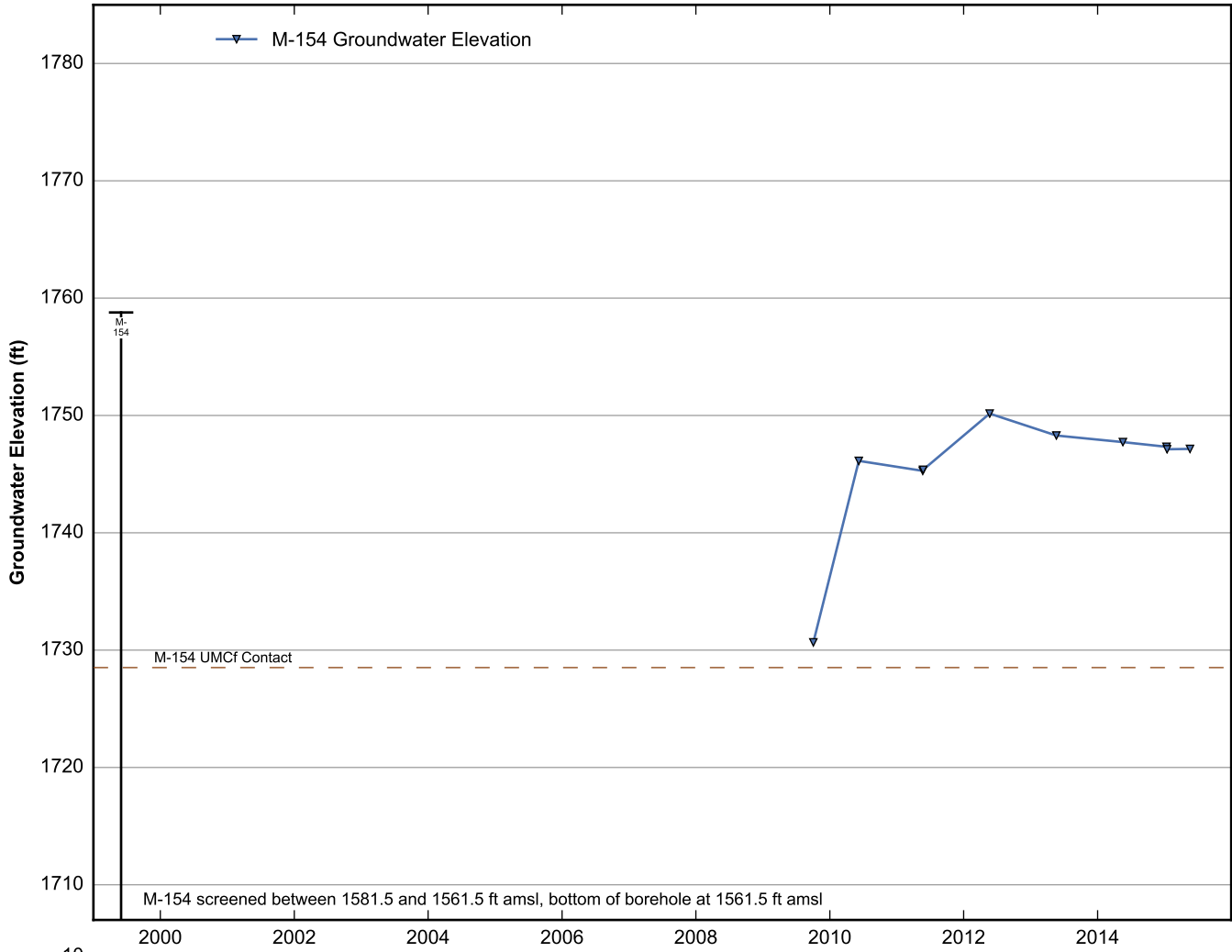


**Data Sheet for Well M-152**  
 Nevada Environmental Response Trust Site  
 Henderson, Nevada

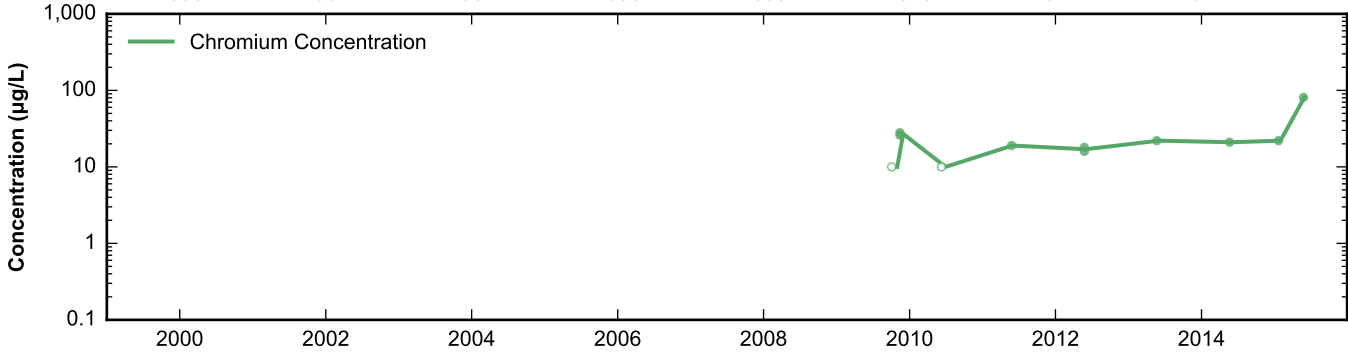
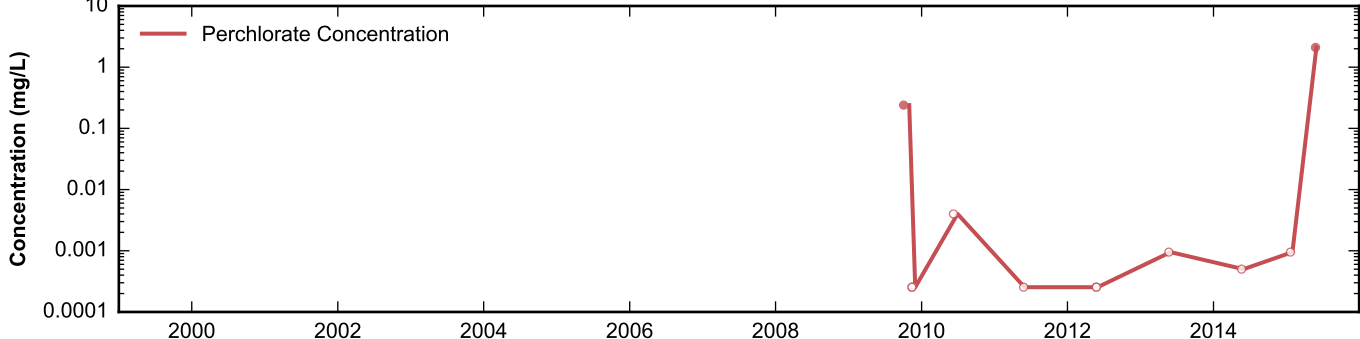
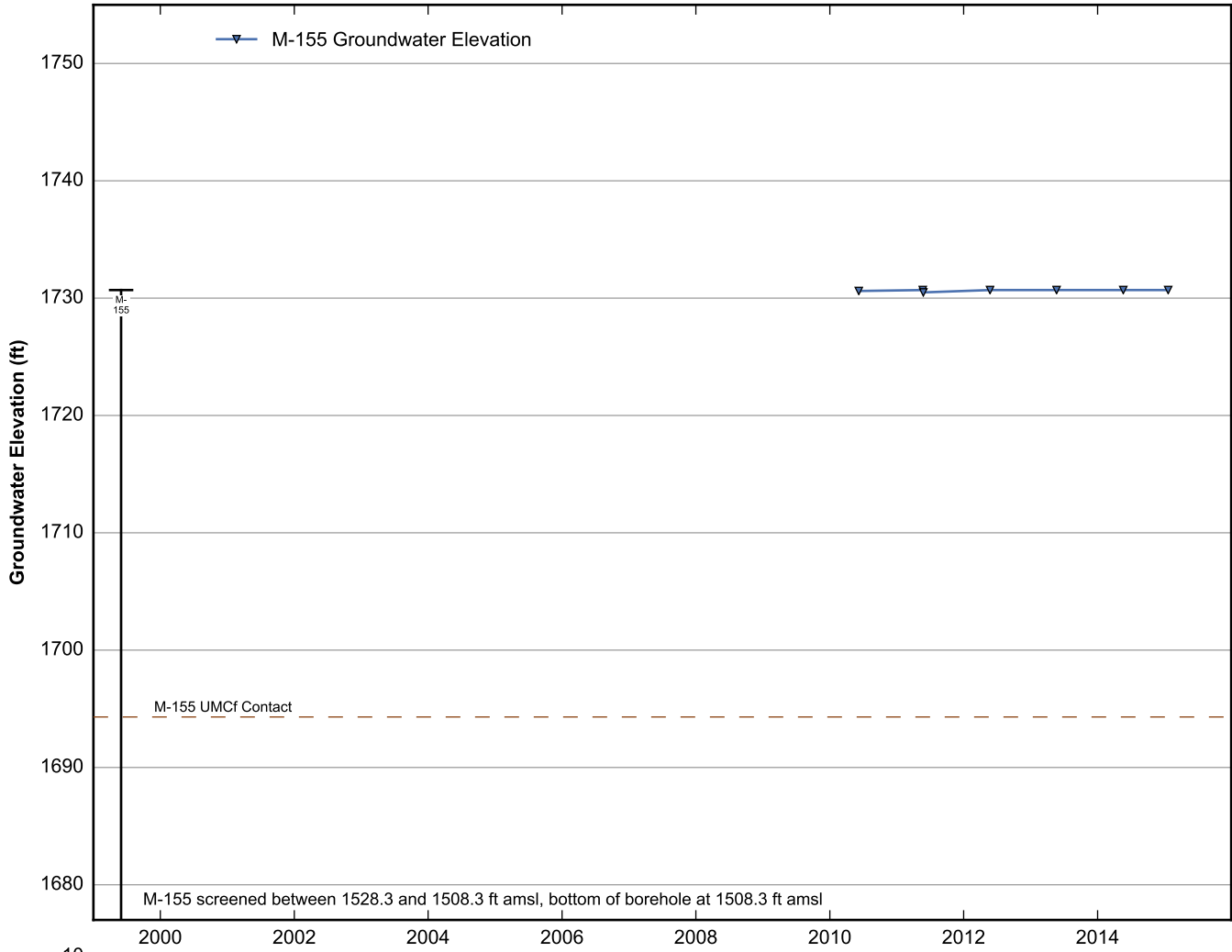


**Data Sheet for Well M-153**  
 Nevada Environmental Response Trust Site  
 Henderson, Nevada

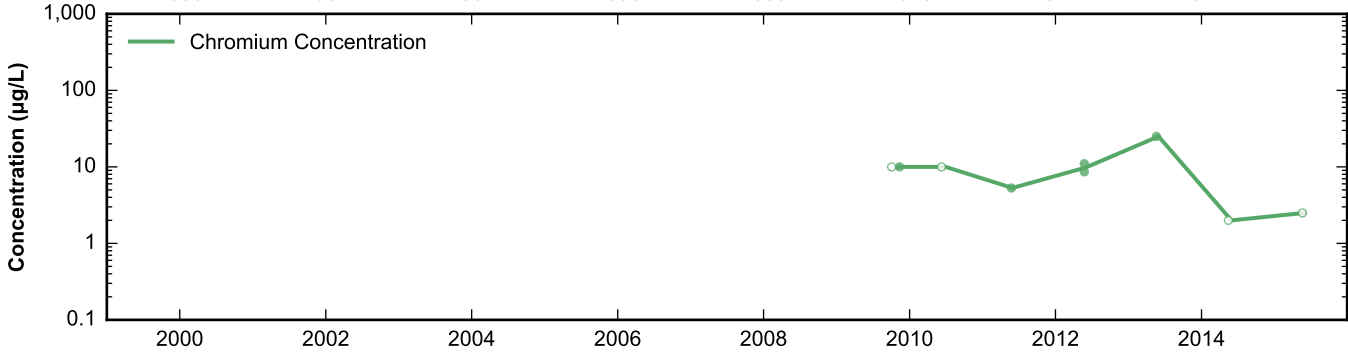
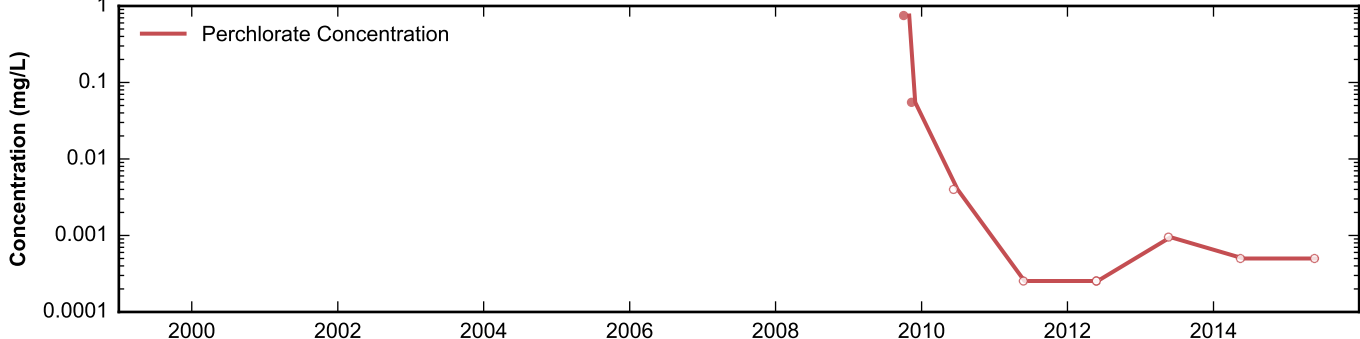
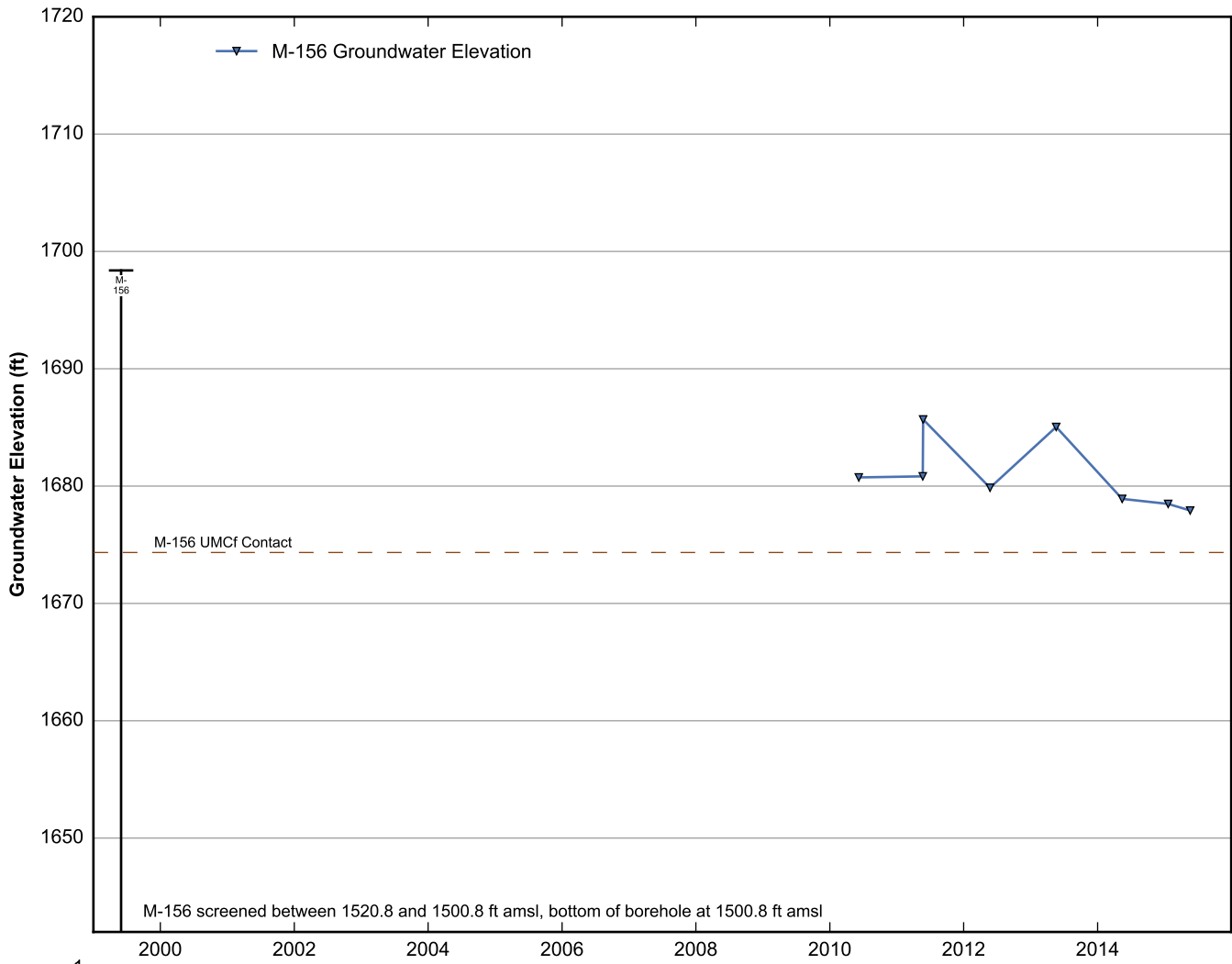




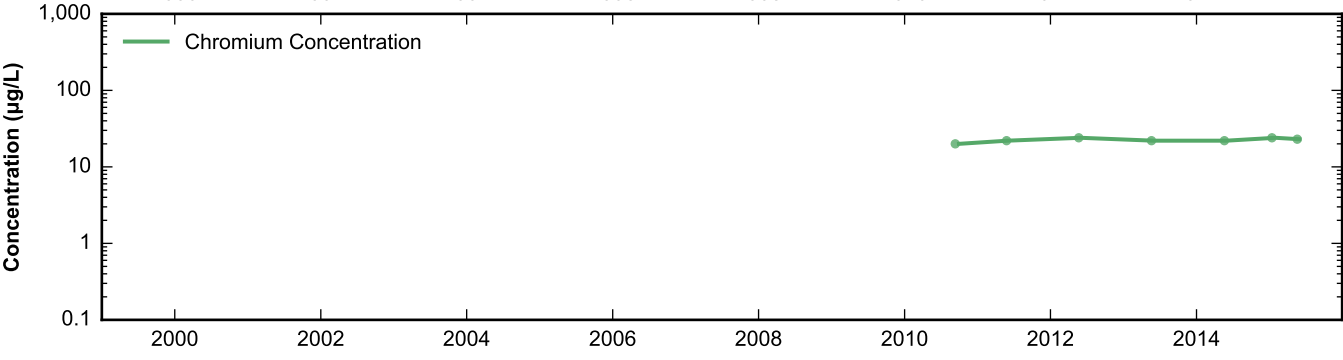
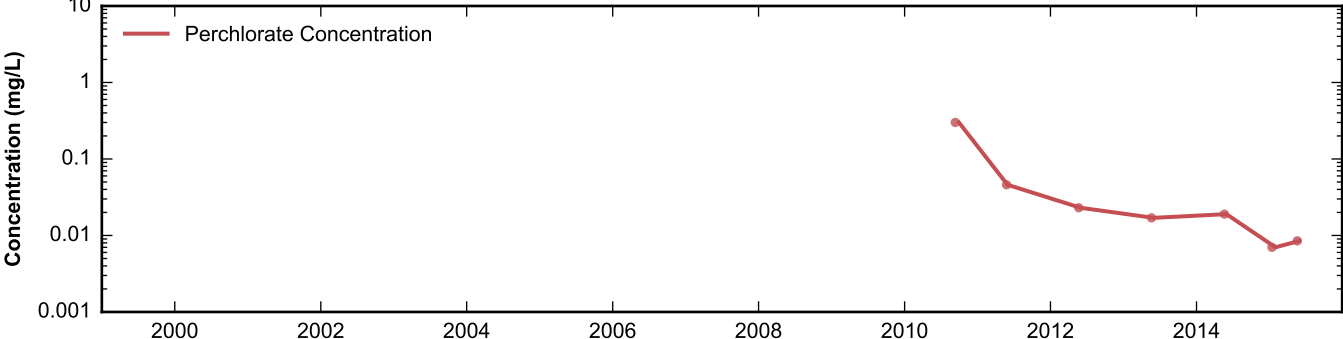
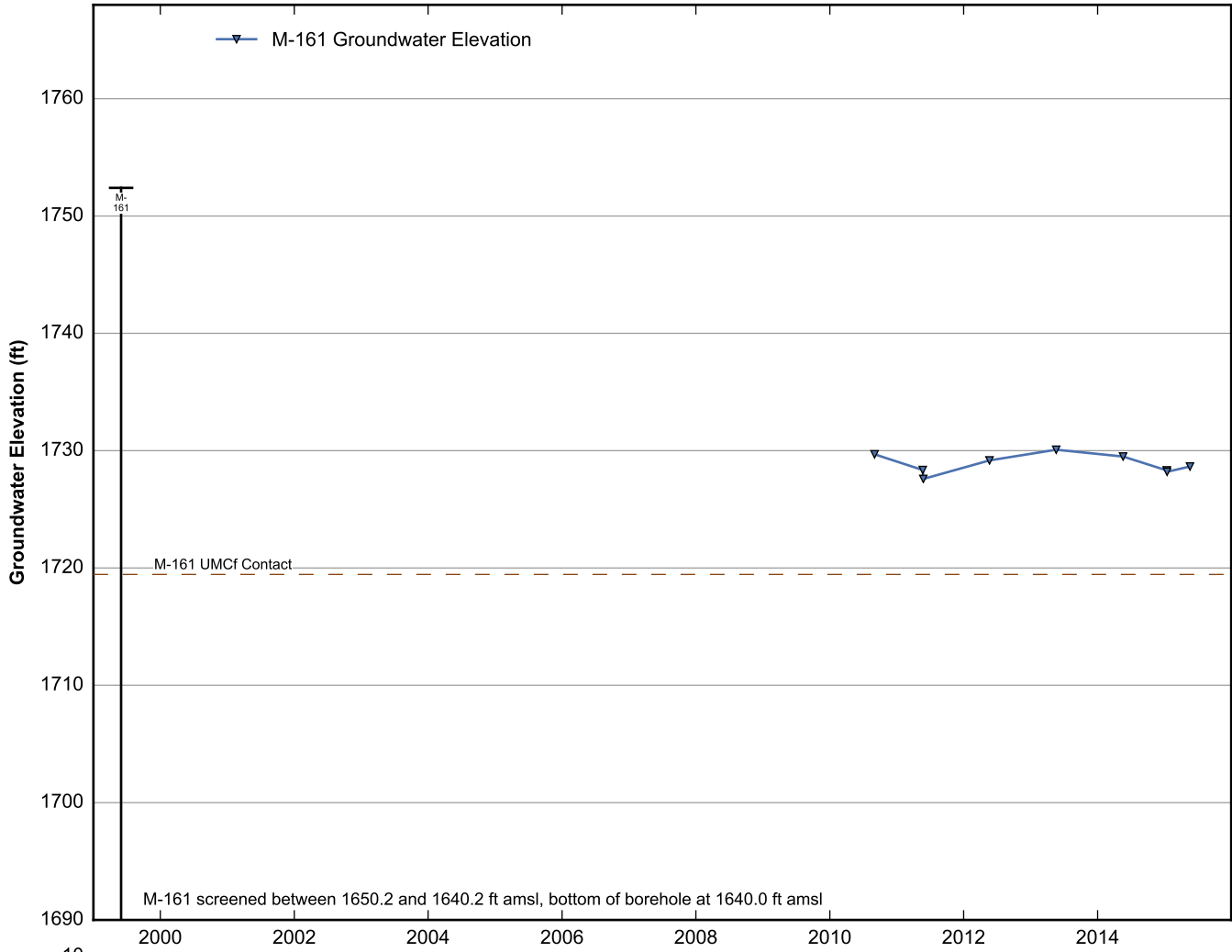
**Data Sheet for Well M-154**  
 Nevada Environmental Response Trust Site  
 Henderson, Nevada



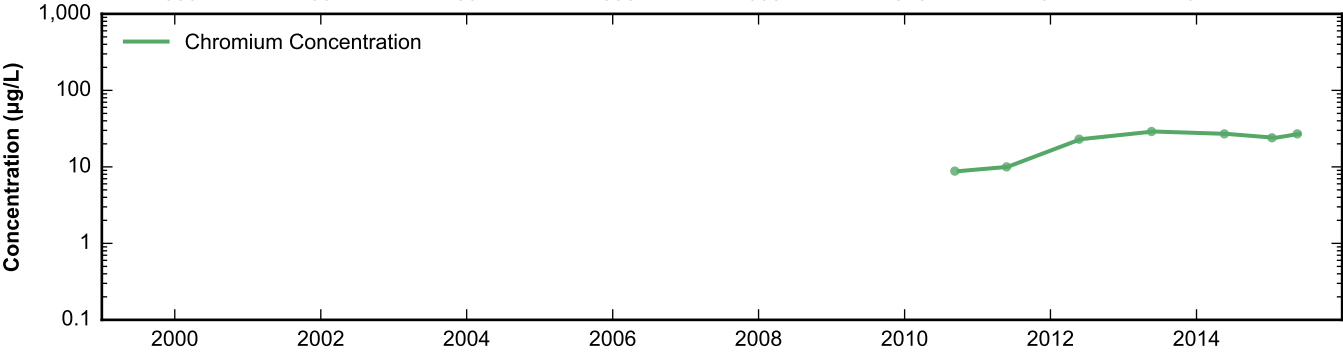
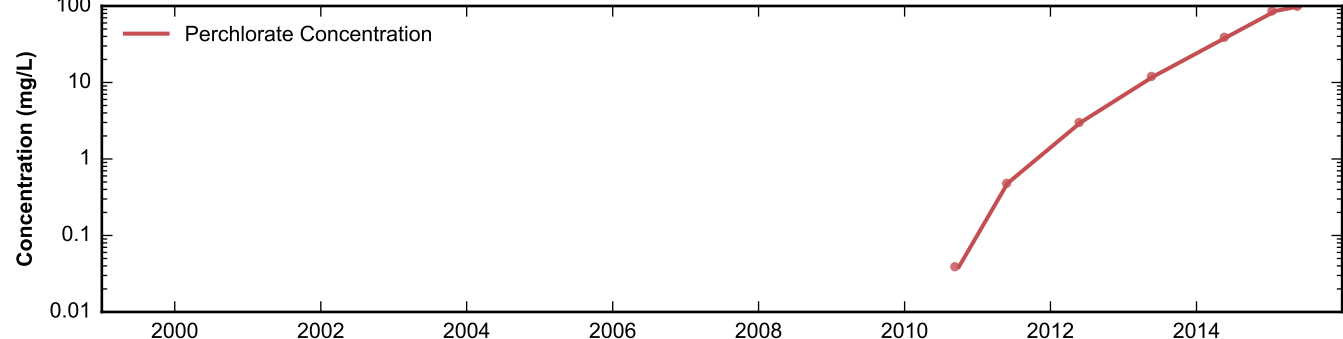
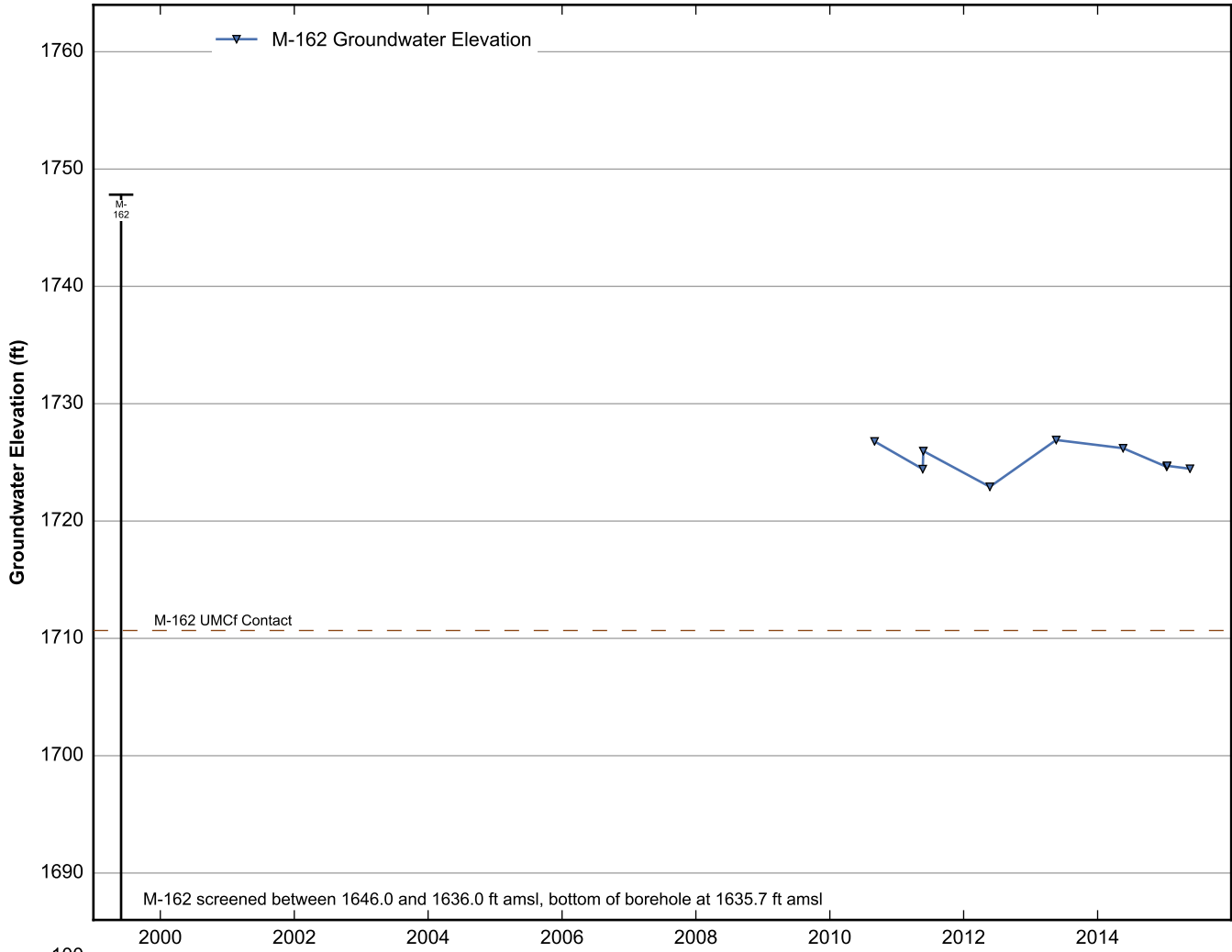
**Data Sheet for Well M-155**  
 Nevada Environmental Response Trust Site  
 Henderson, Nevada



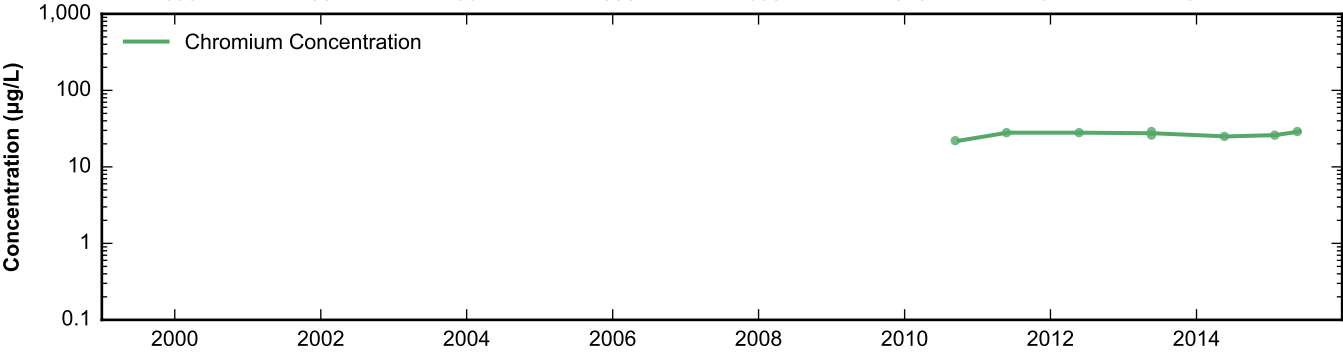
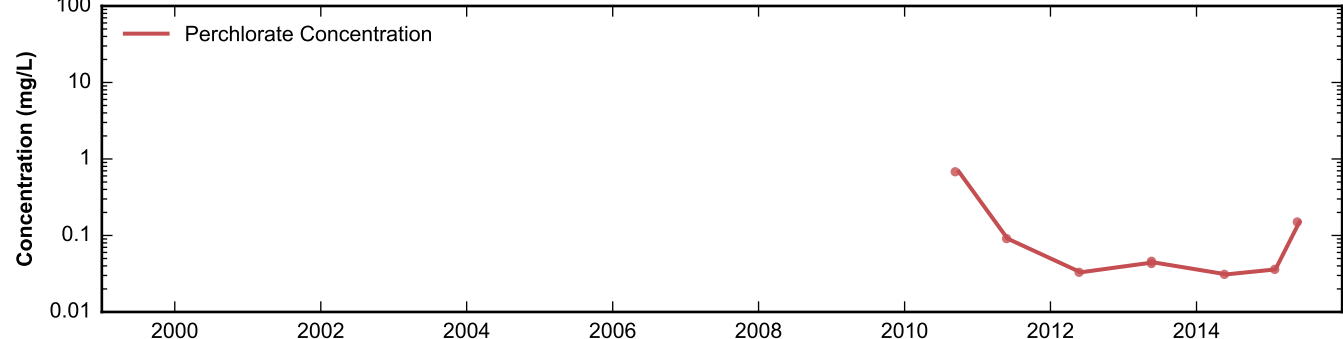
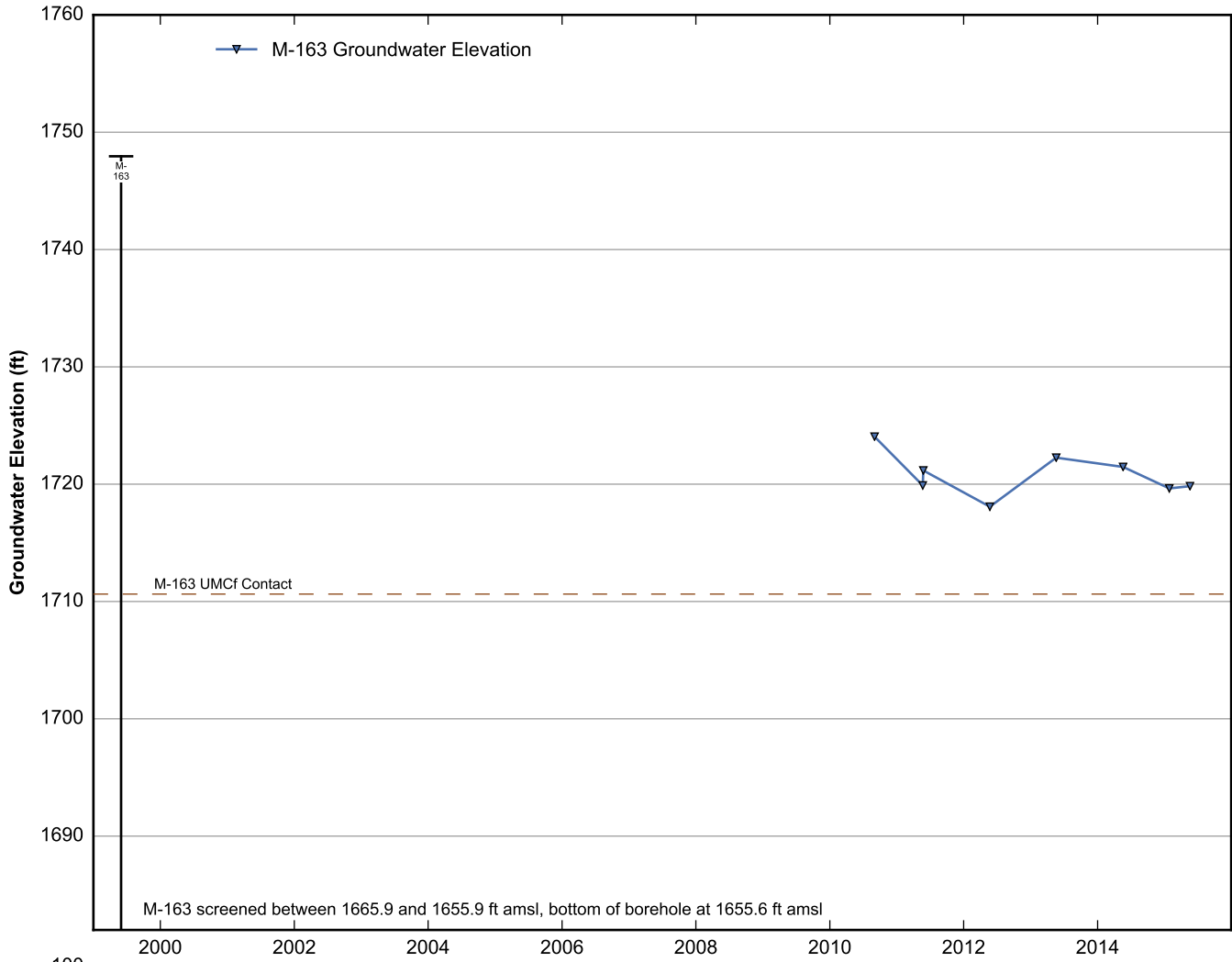
**Data Sheet for Well M-156**  
 Nevada Environmental Response Trust Site  
 Henderson, Nevada



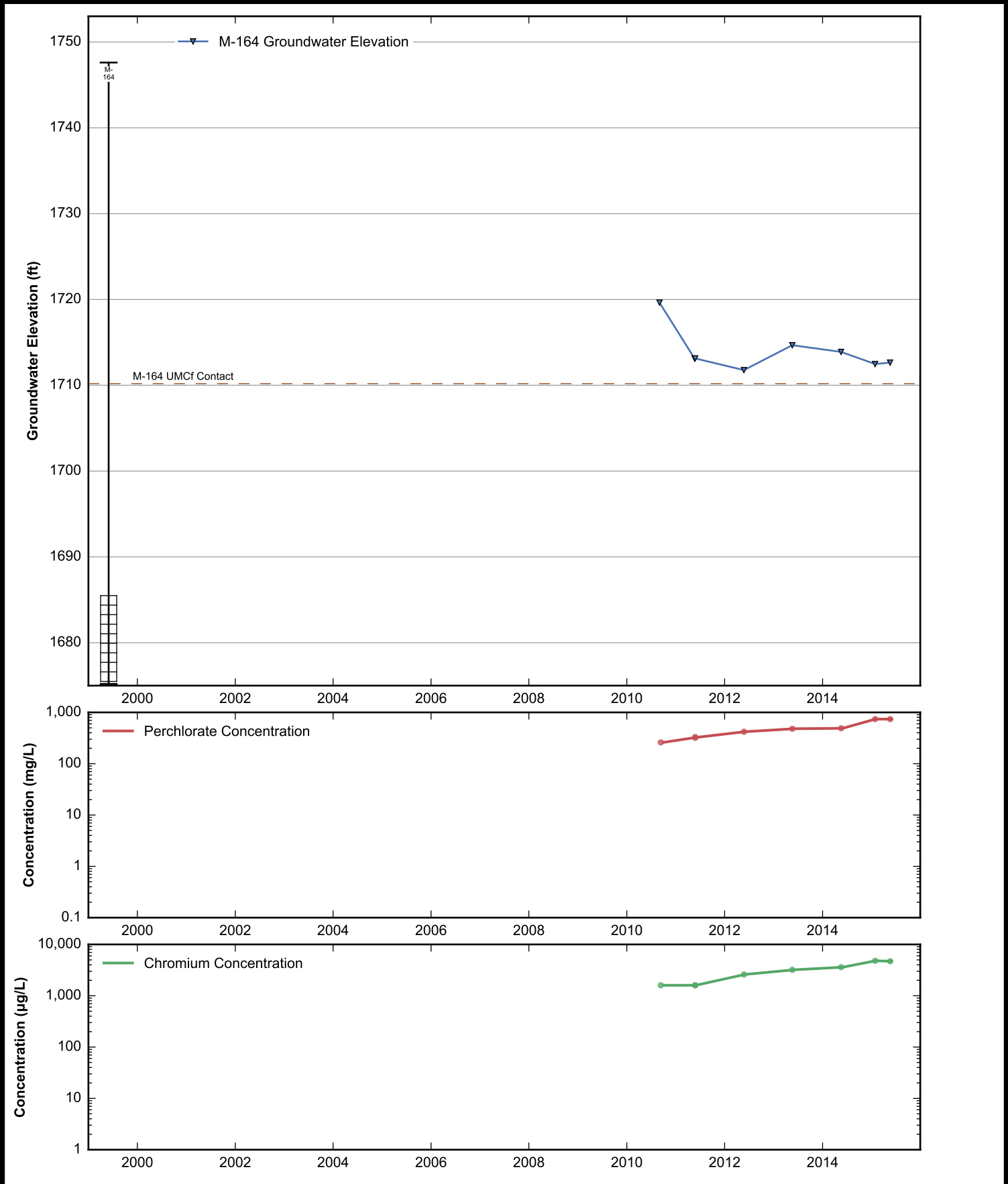
**Data Sheet for Well M-161**  
 Nevada Environmental Response Trust Site  
 Henderson, Nevada



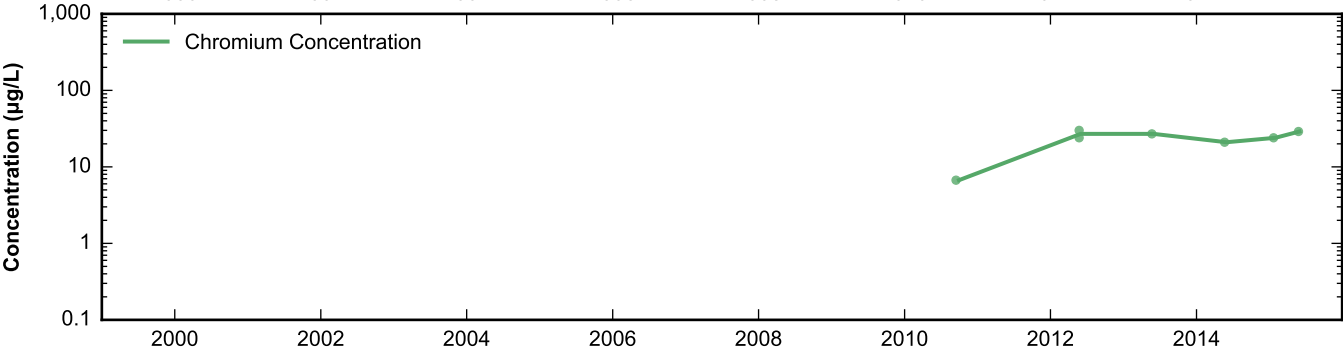
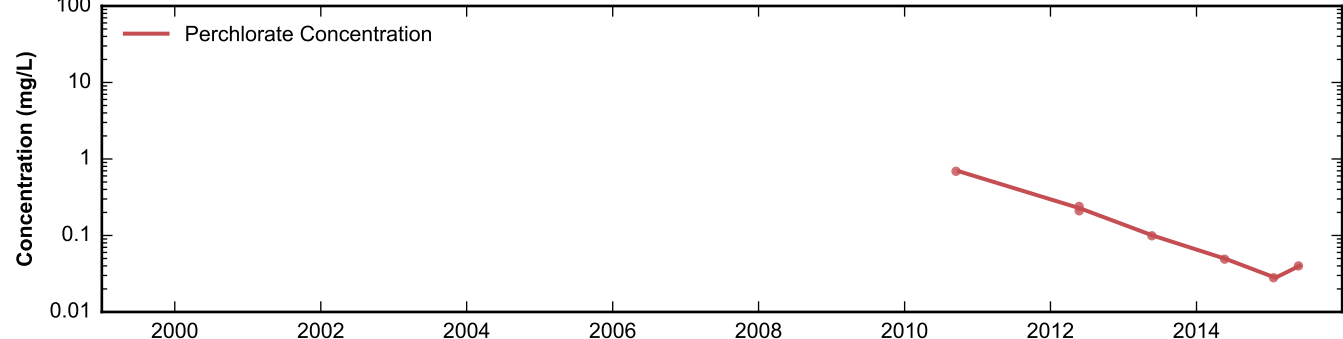
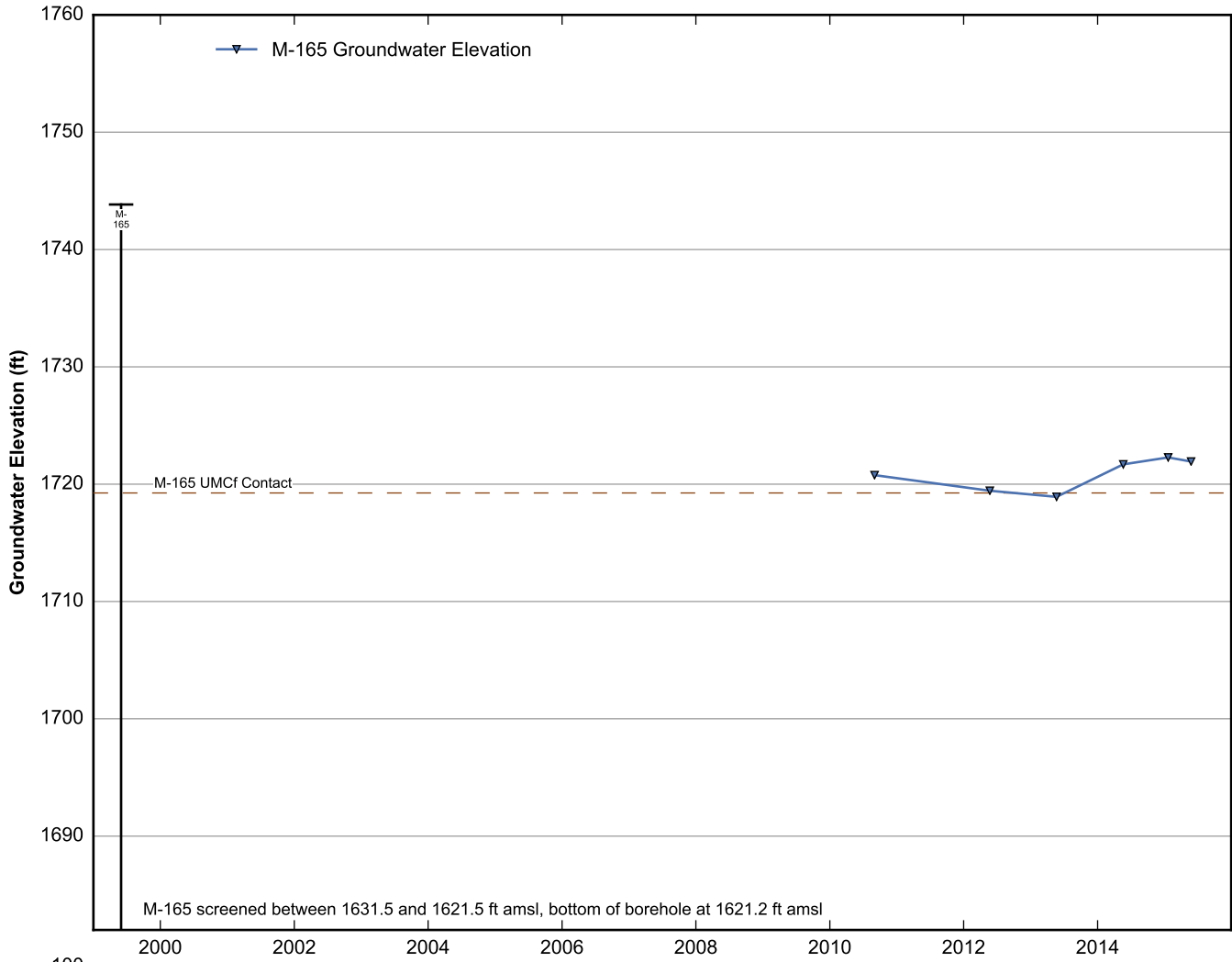
**Data Sheet for Well M-162**  
 Nevada Environmental Response Trust Site  
 Henderson, Nevada



**Data Sheet for Well M-163**  
 Nevada Environmental Response Trust Site  
 Henderson, Nevada

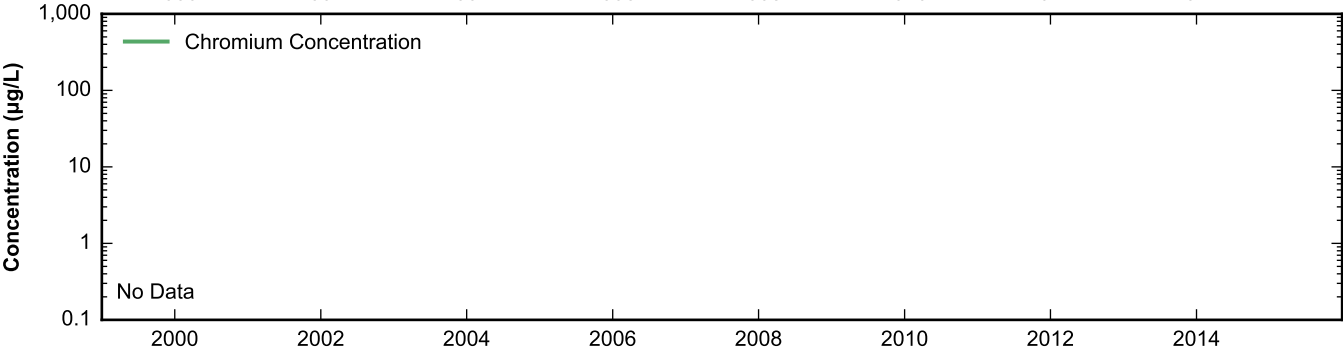
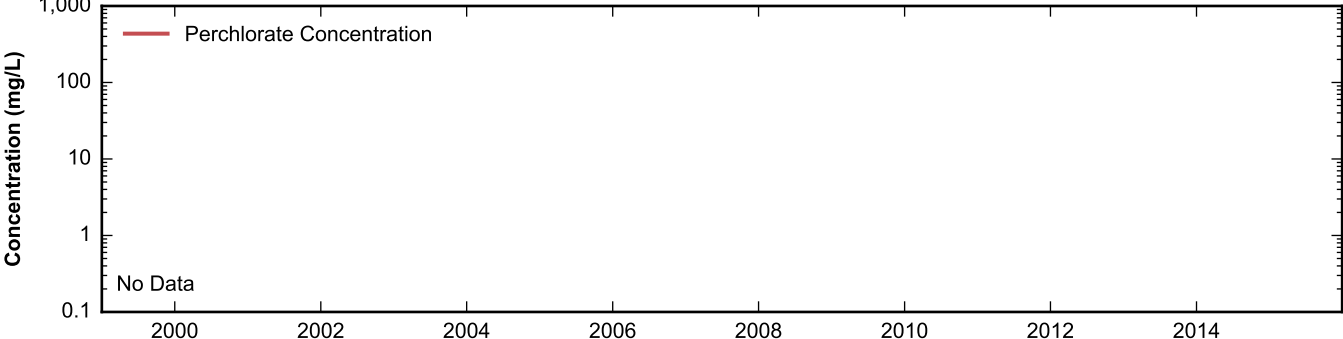
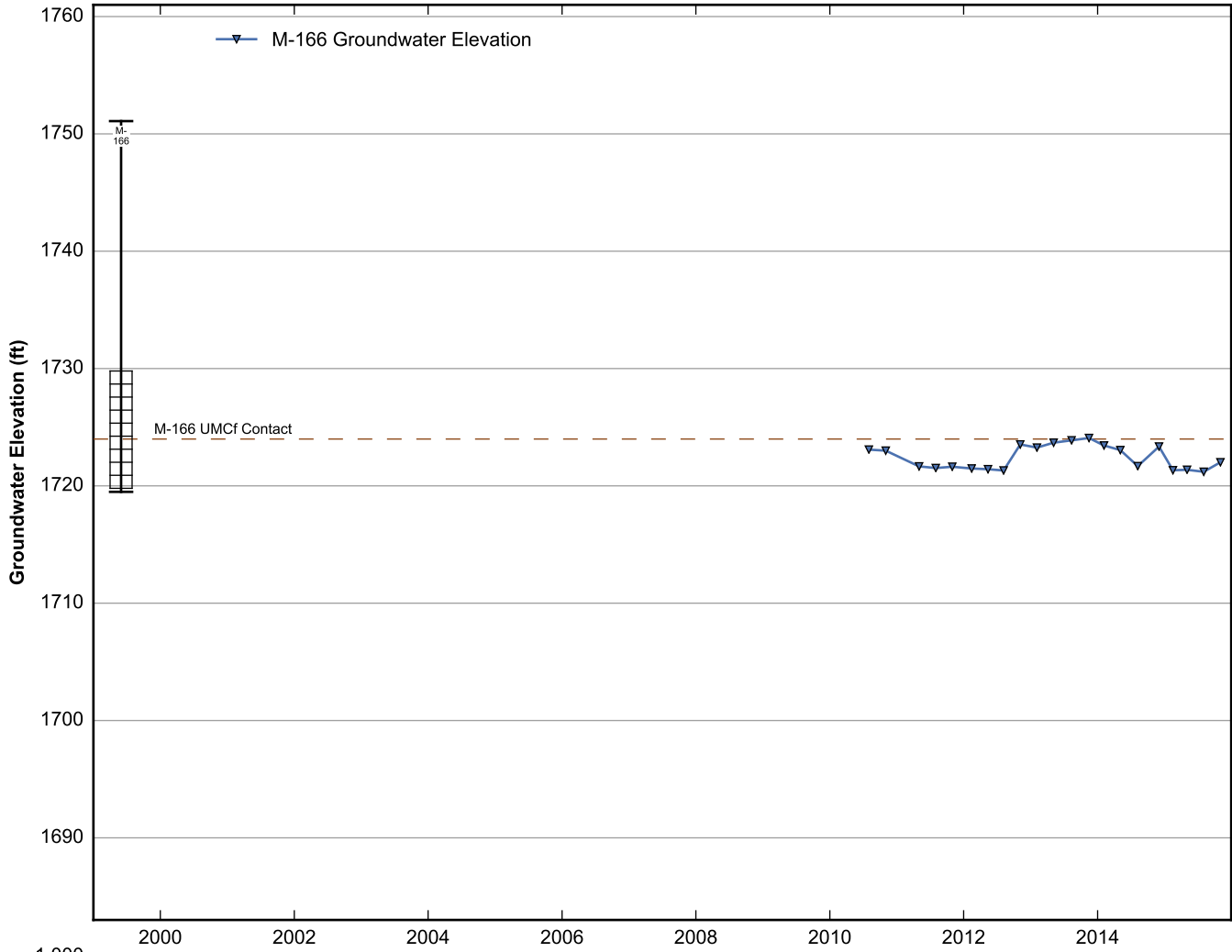


**Data Sheet for Well M-164**  
 Nevada Environmental Response Trust Site  
 Henderson, Nevada

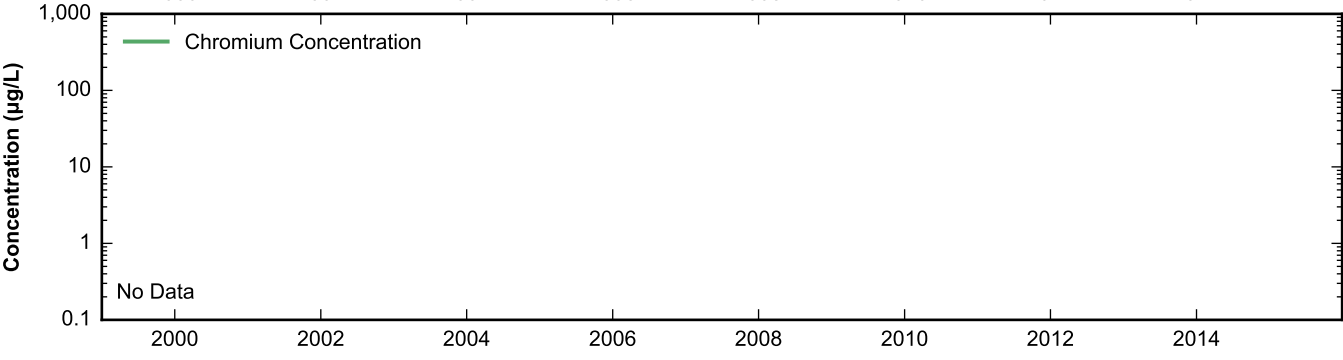
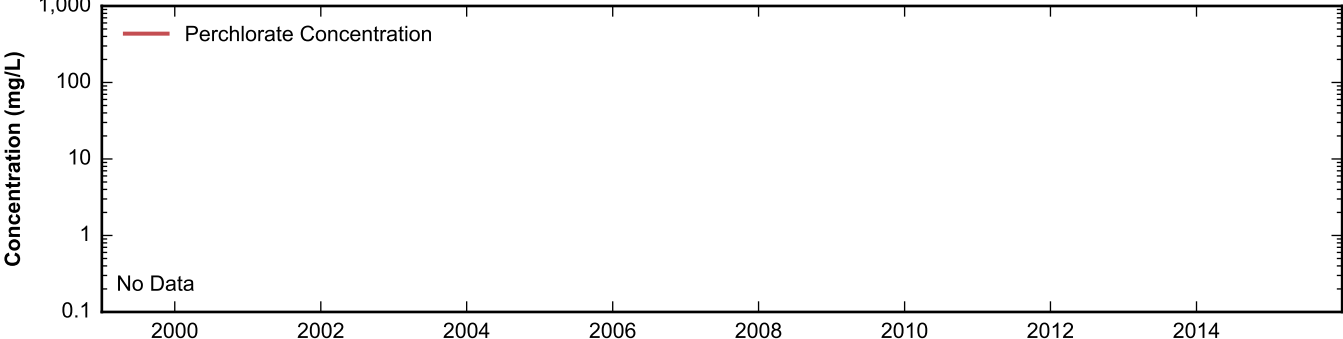
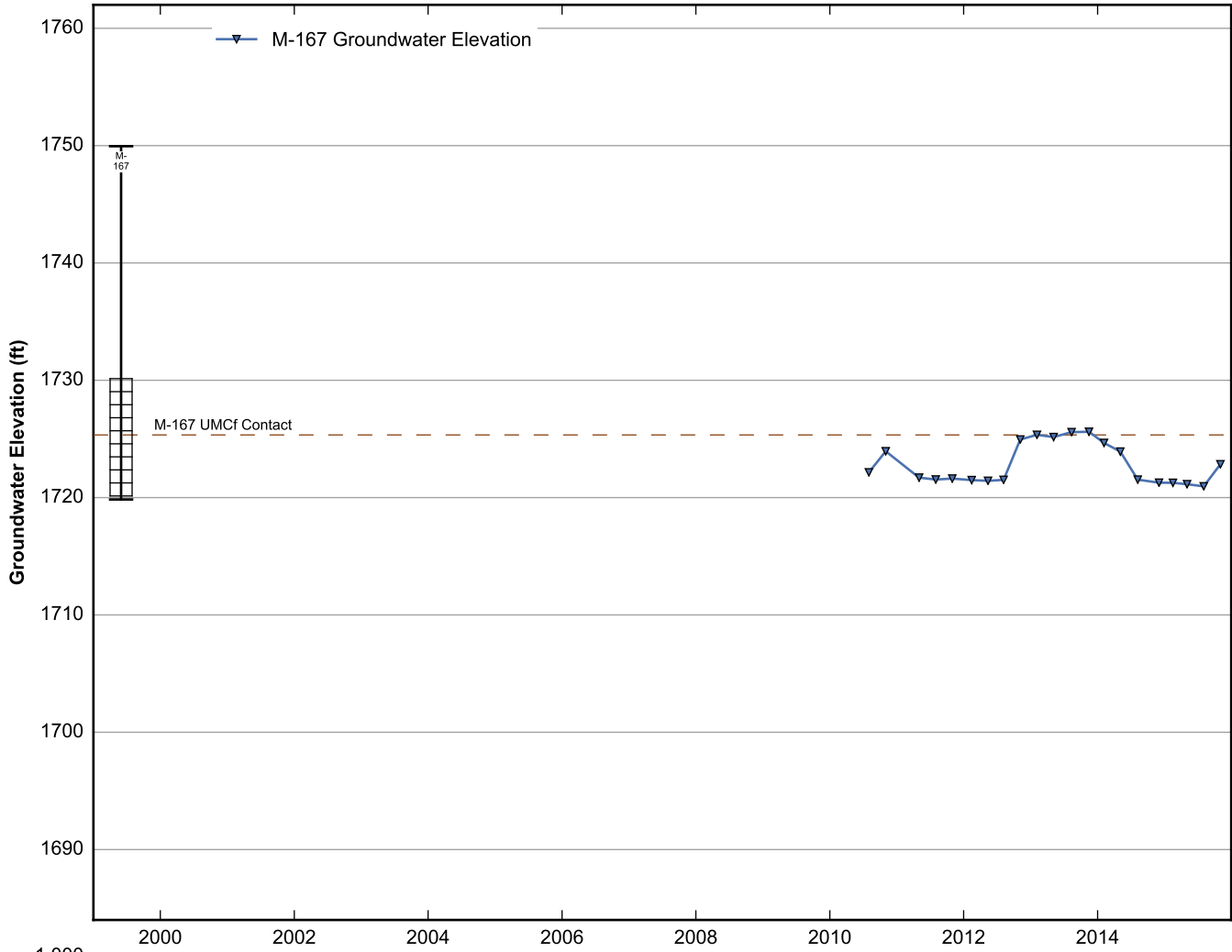


**Data Sheet for Well M-165**  
 Nevada Environmental Response Trust Site  
 Henderson, Nevada

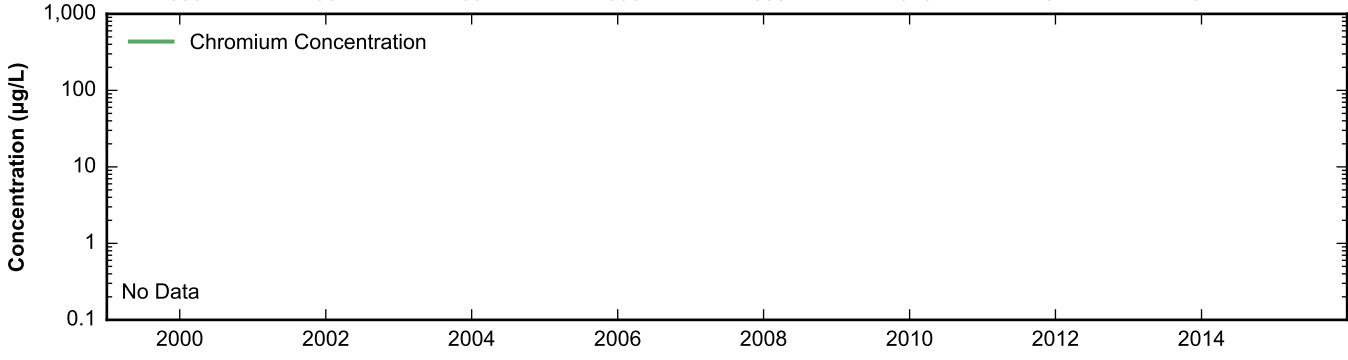
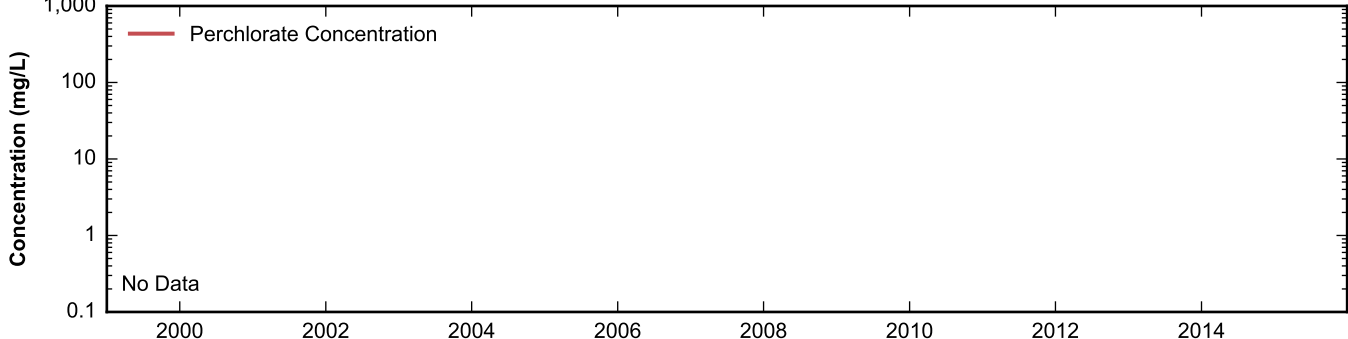
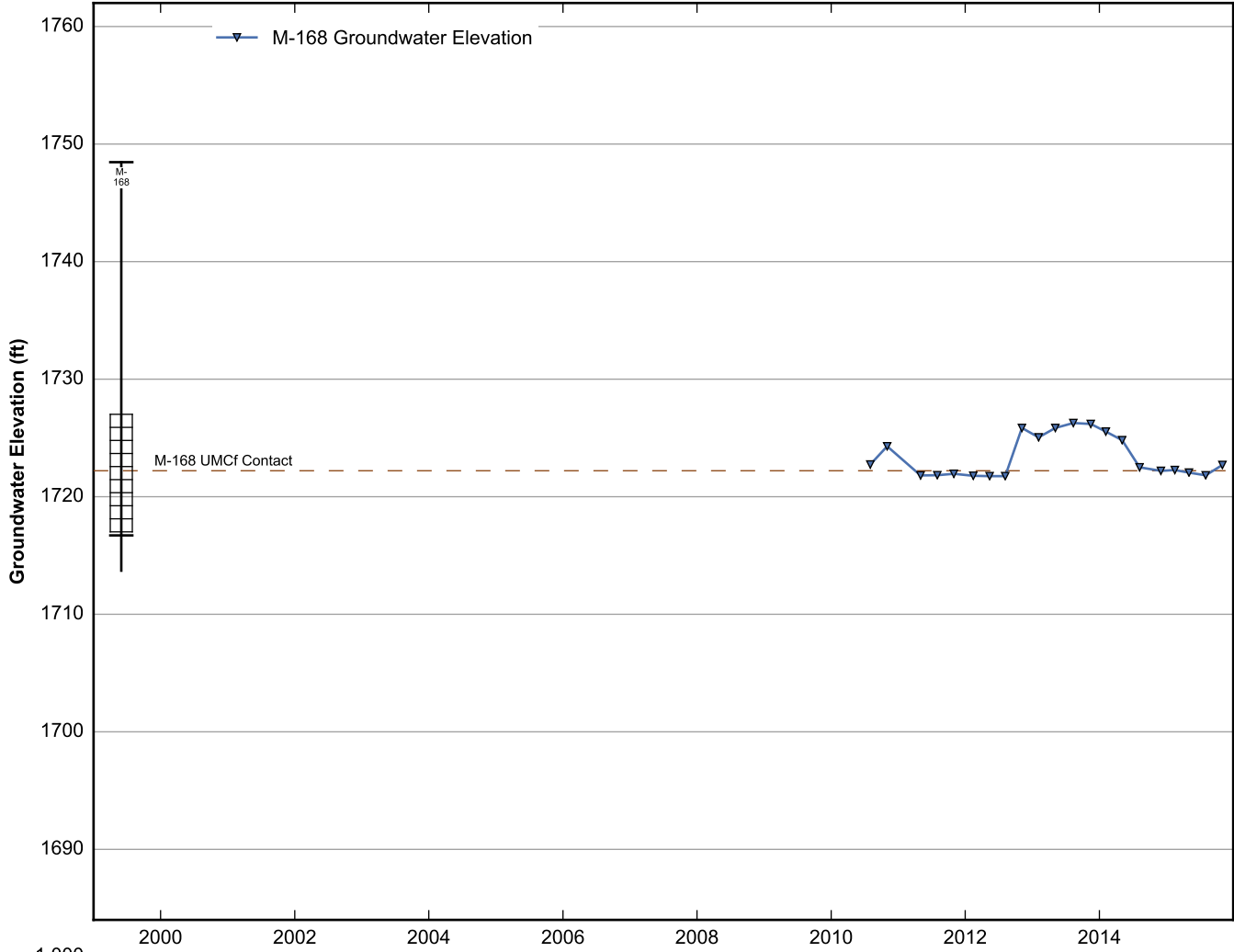




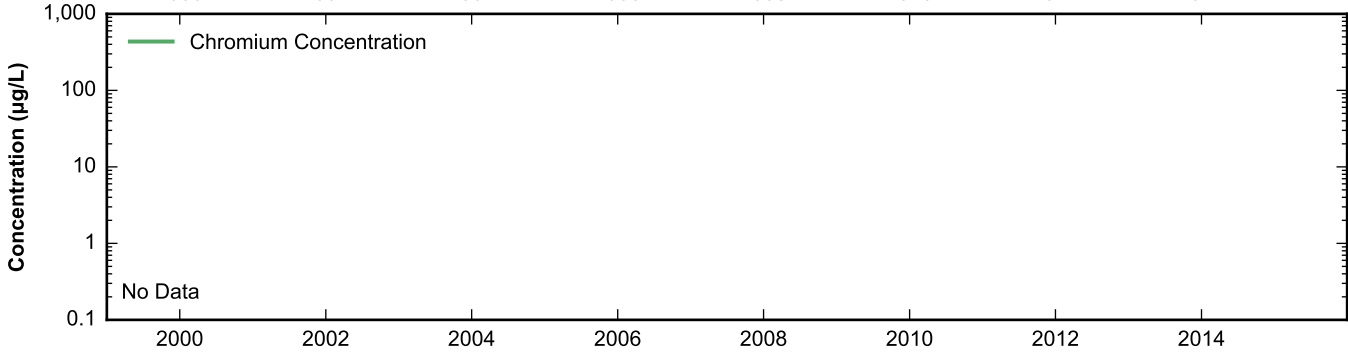
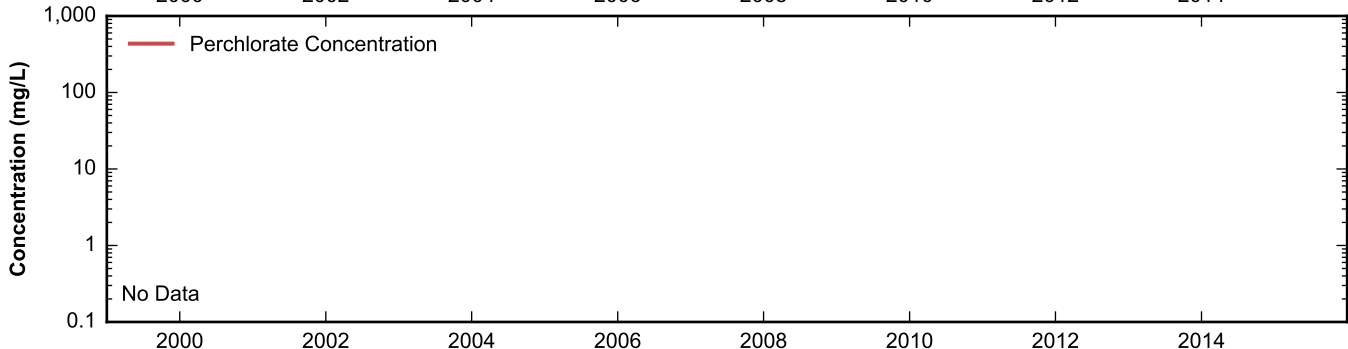
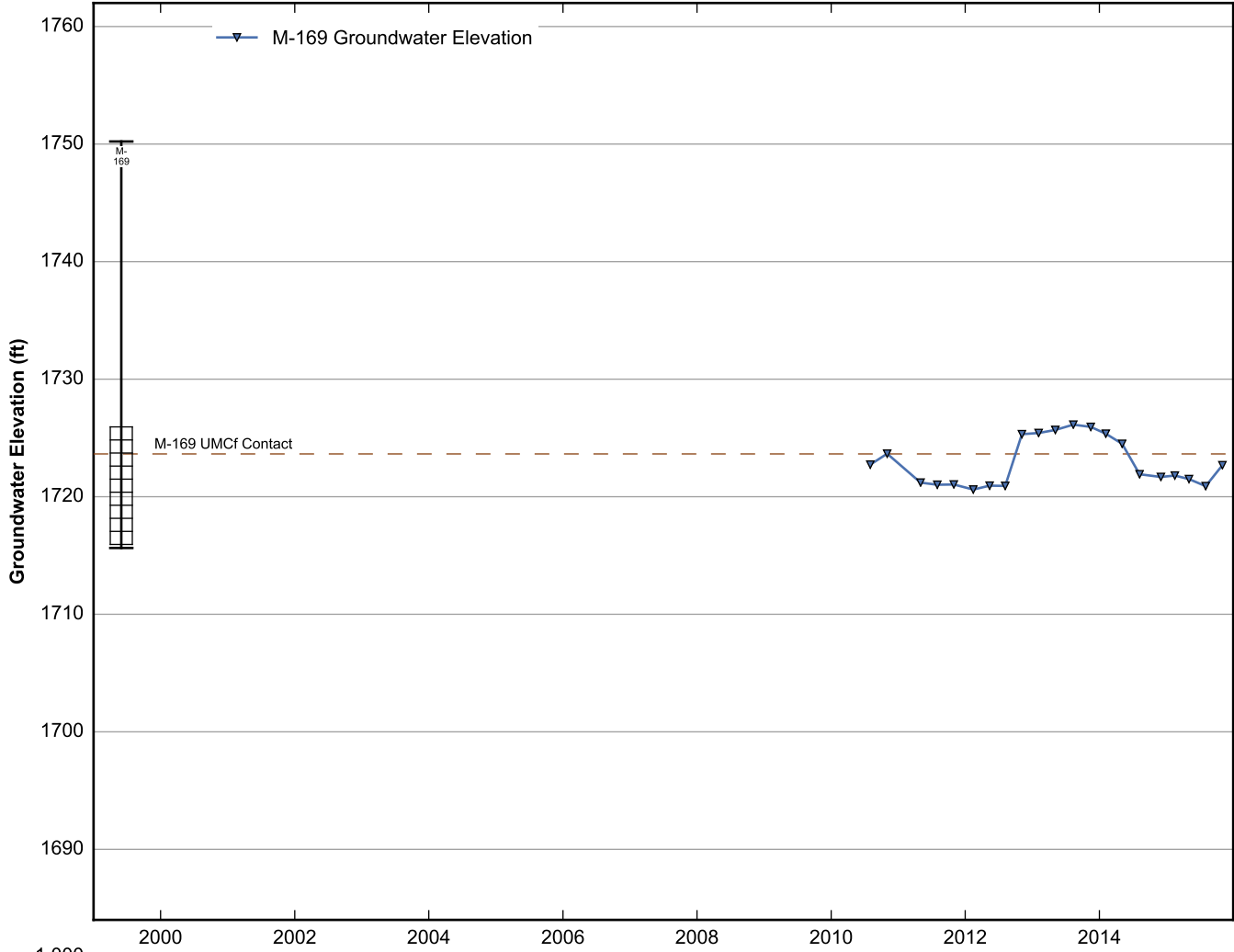
**Data Sheet for Well M-166**  
Nevada Environmental Response Trust Site  
Henderson, Nevada



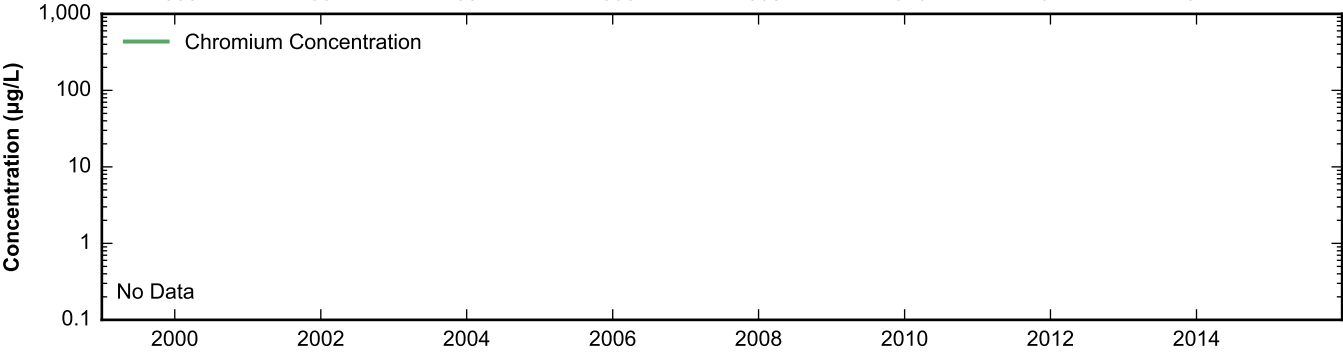
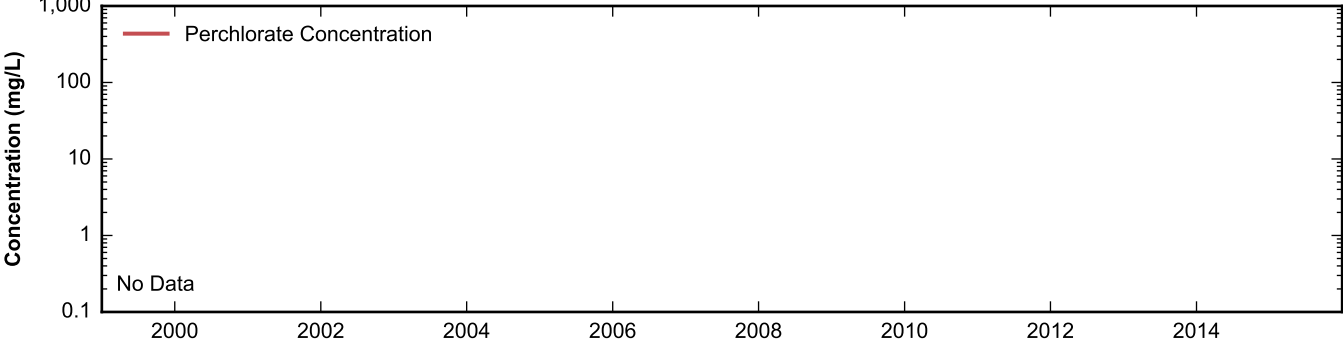
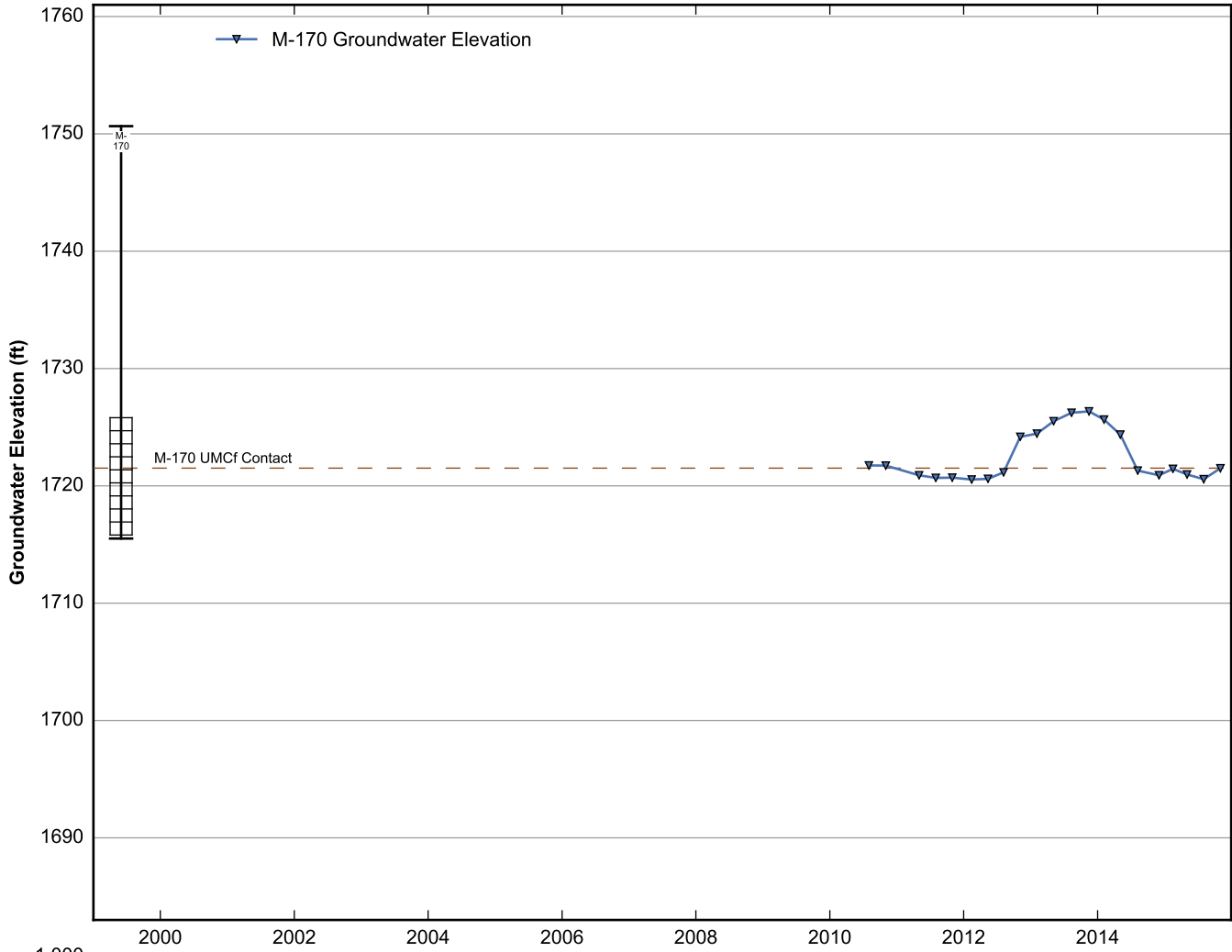
**Data Sheet for Well M-167**  
Nevada Environmental Response Trust Site  
Henderson, Nevada



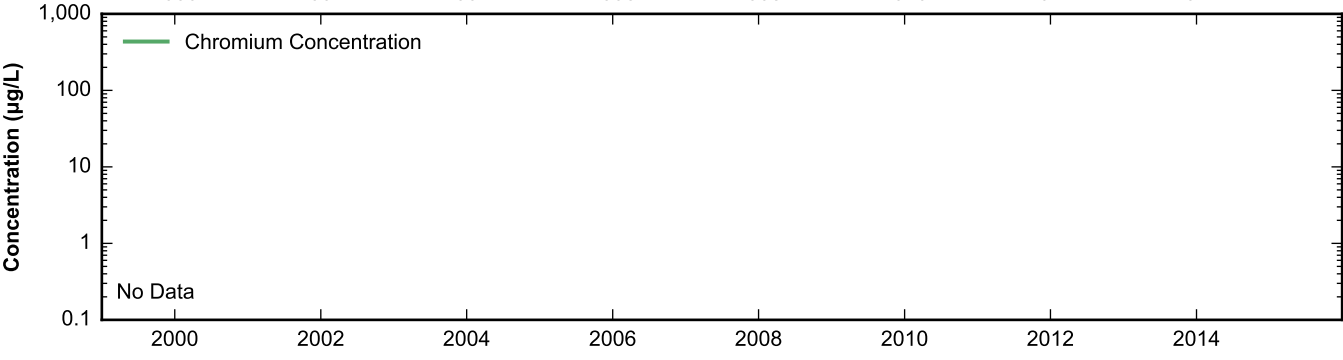
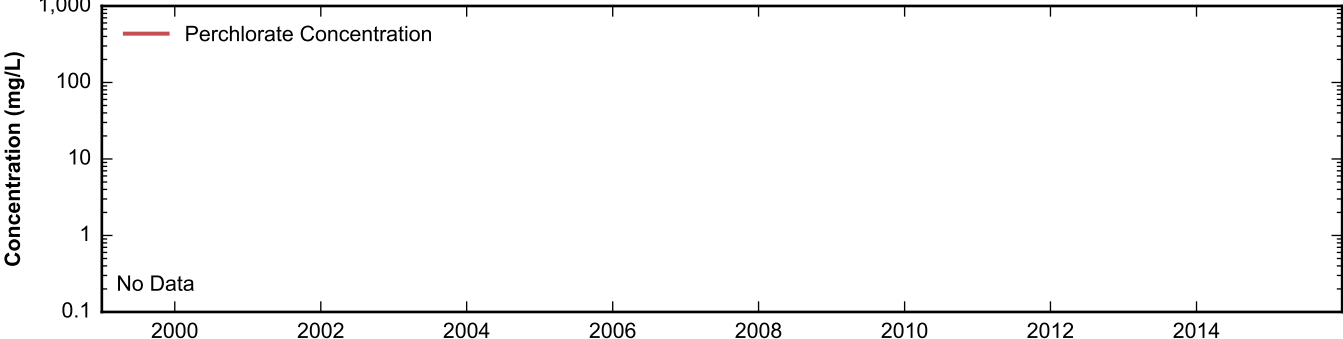
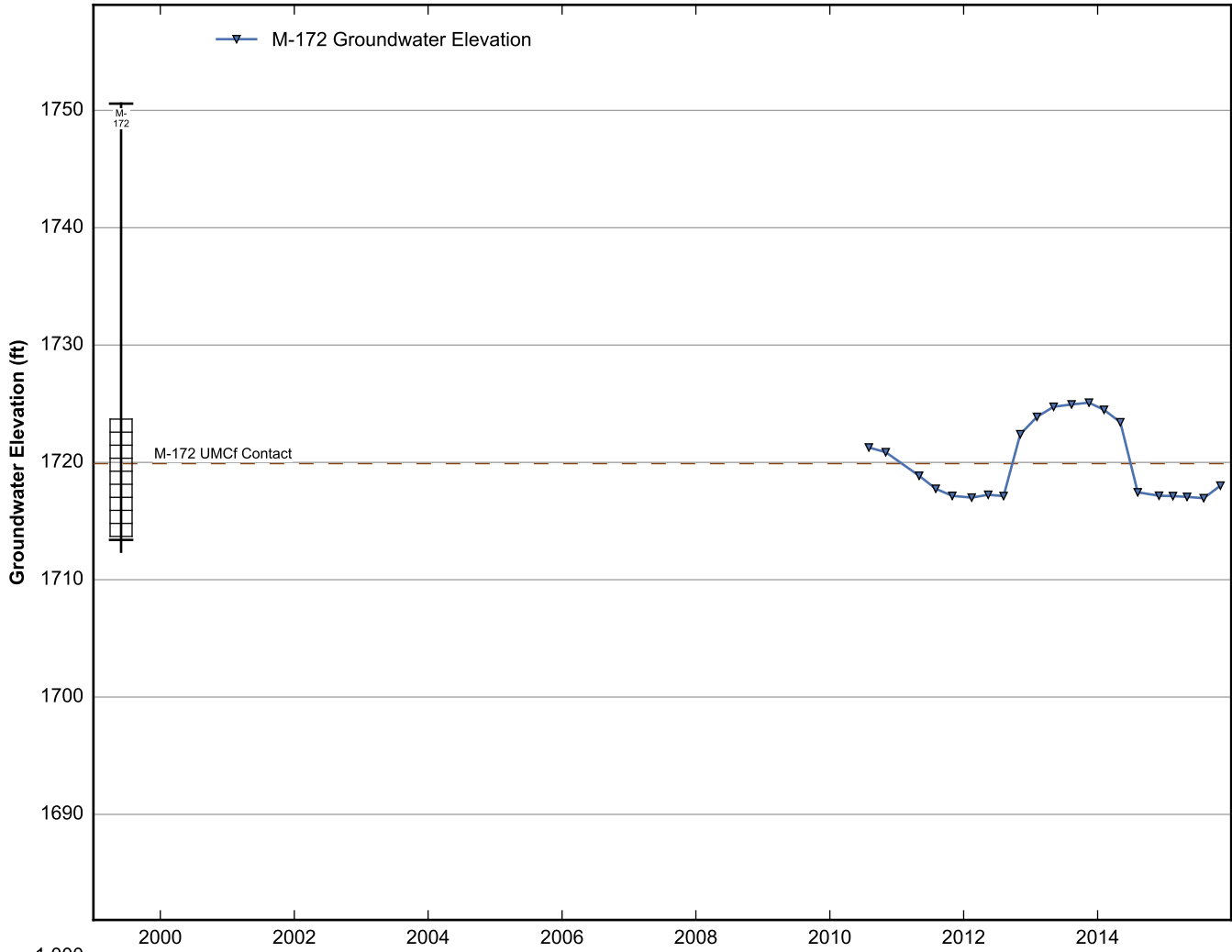
**Data Sheet for Well M-168**  
Nevada Environmental Response Trust Site  
Henderson, Nevada



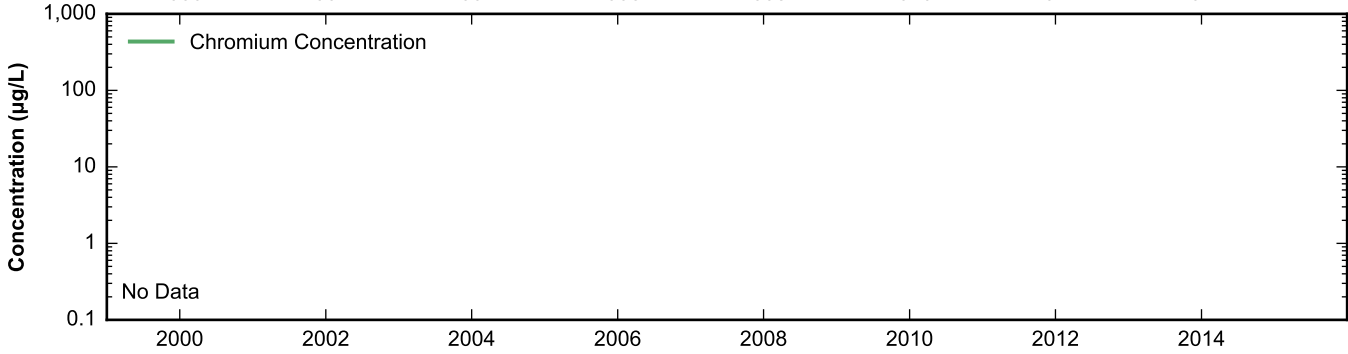
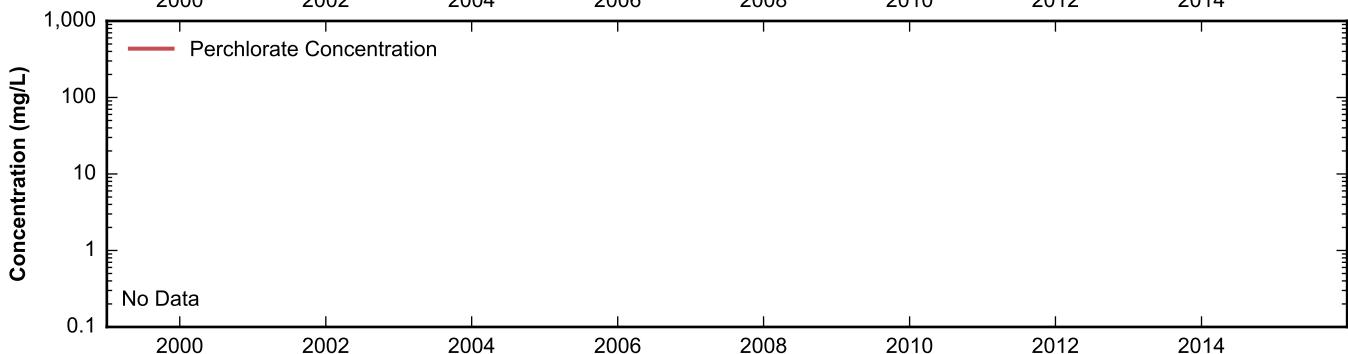
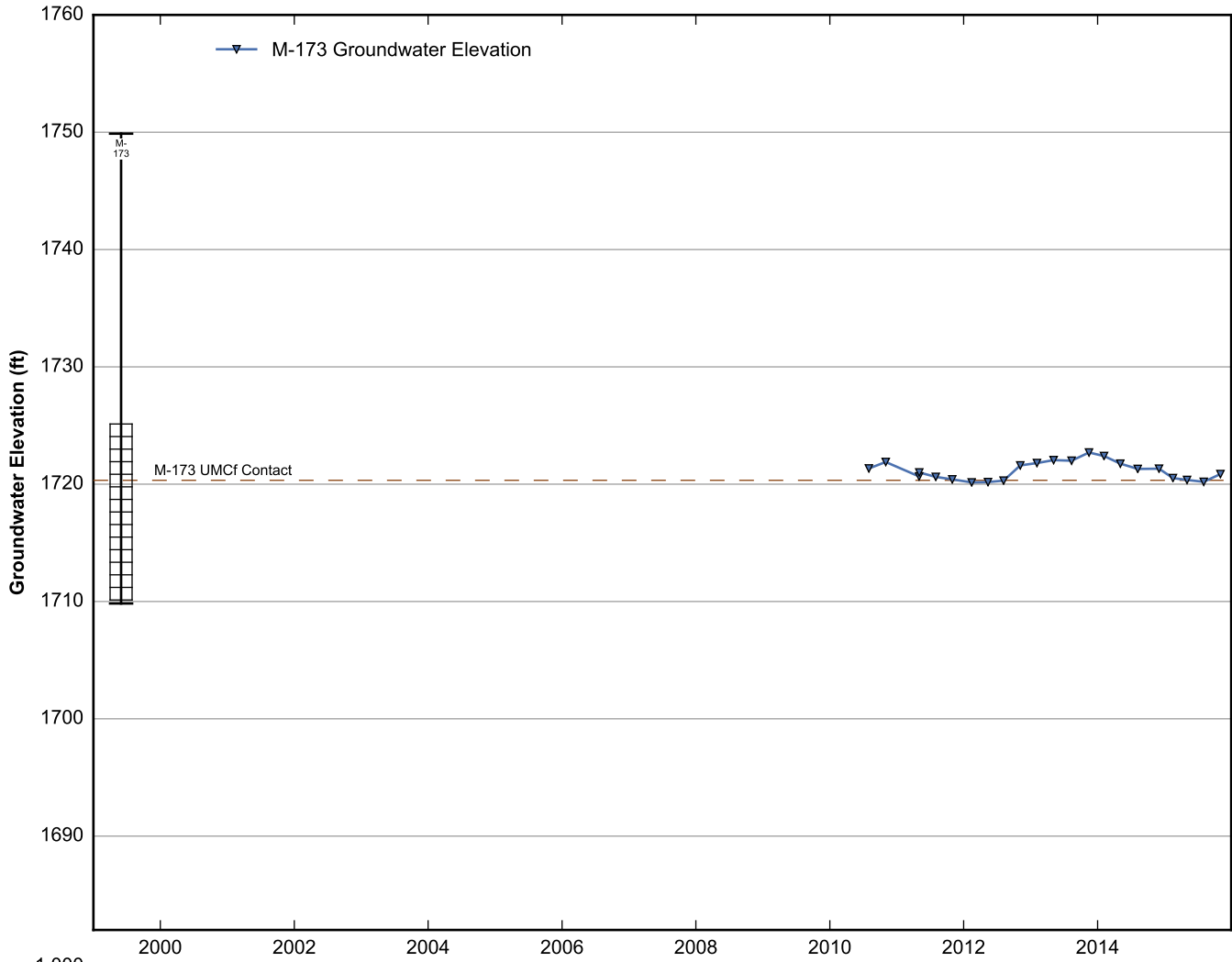
**Data Sheet for Well M-169**  
Nevada Environmental Response Trust Site  
Henderson, Nevada



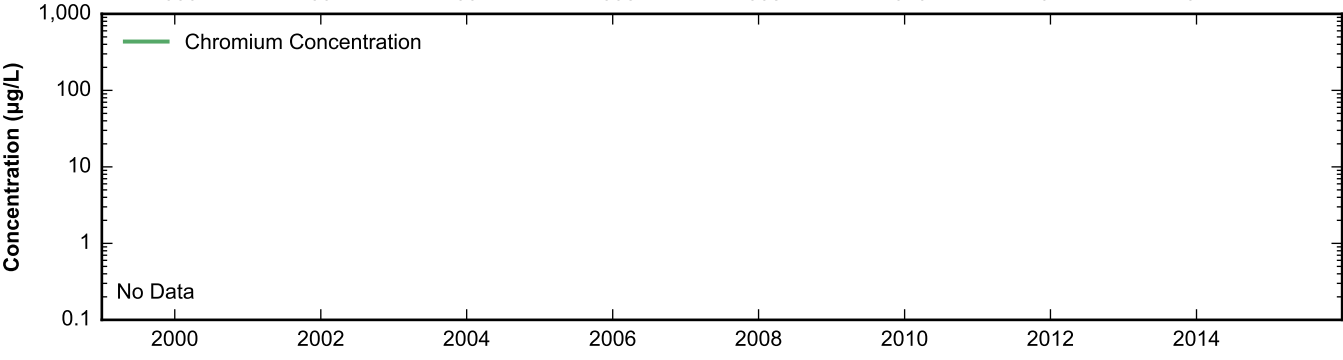
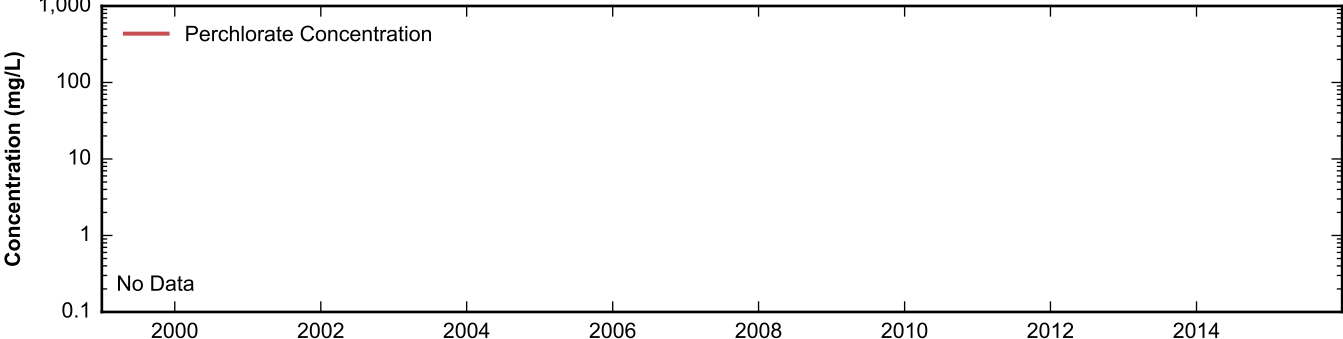
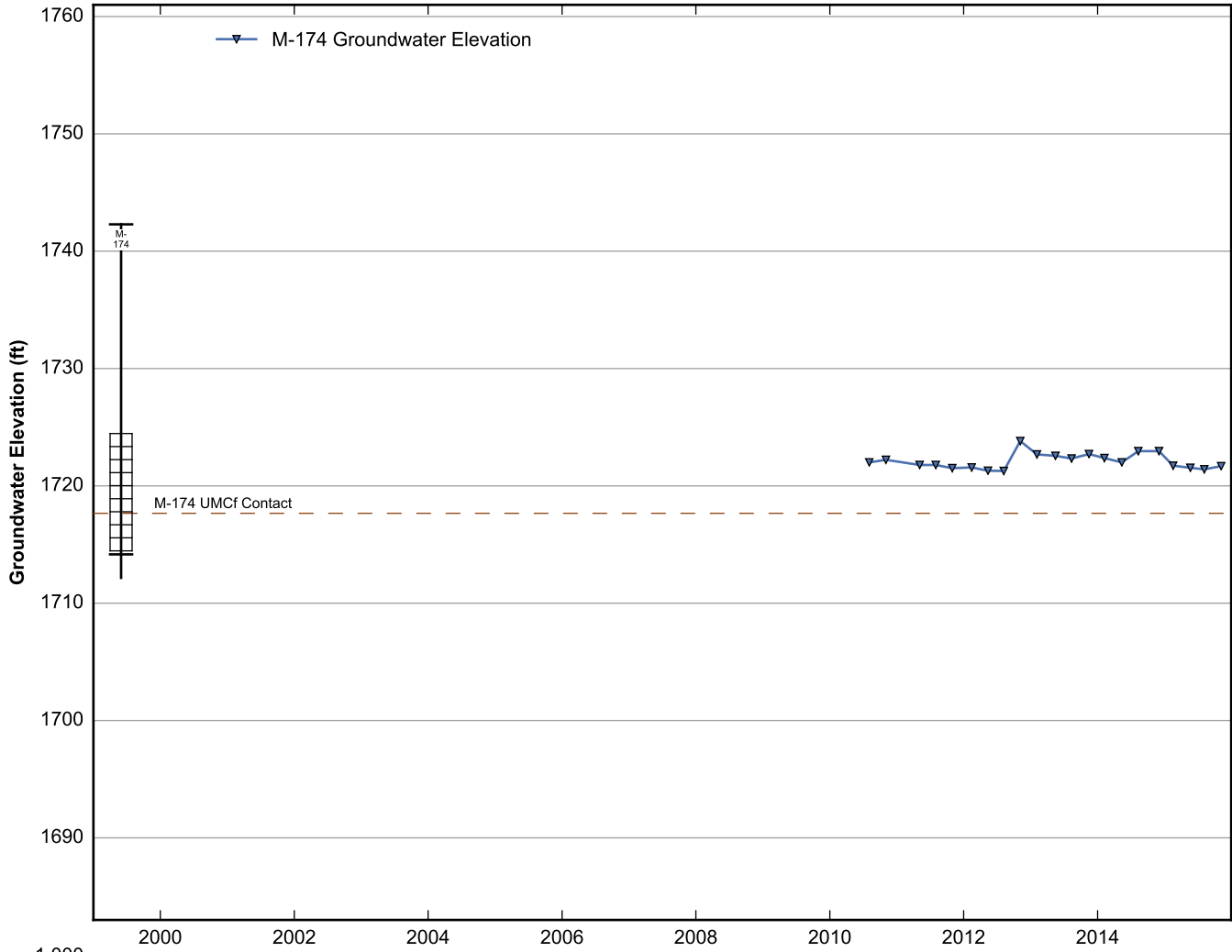
**Data Sheet for Well M-170**  
Nevada Environmental Response Trust Site  
Henderson, Nevada



**Data Sheet for Well M-172**  
Nevada Environmental Response Trust Site  
Henderson, Nevada

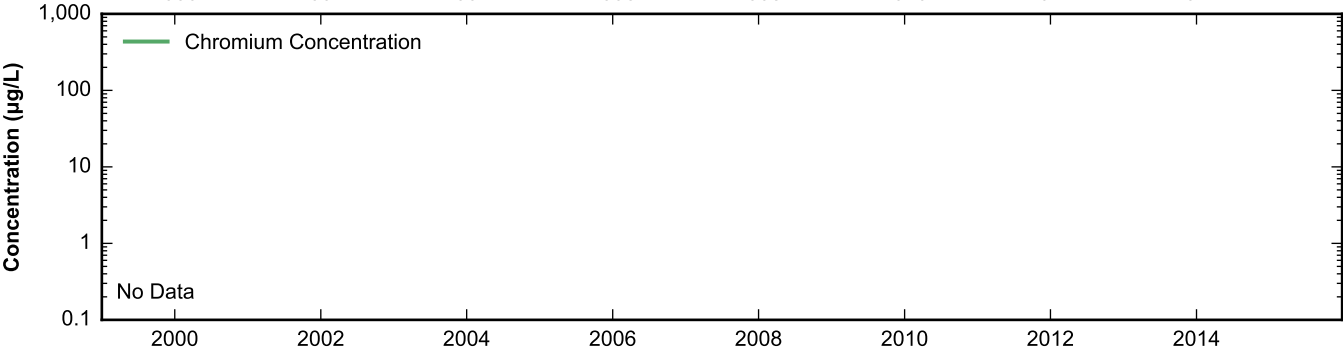
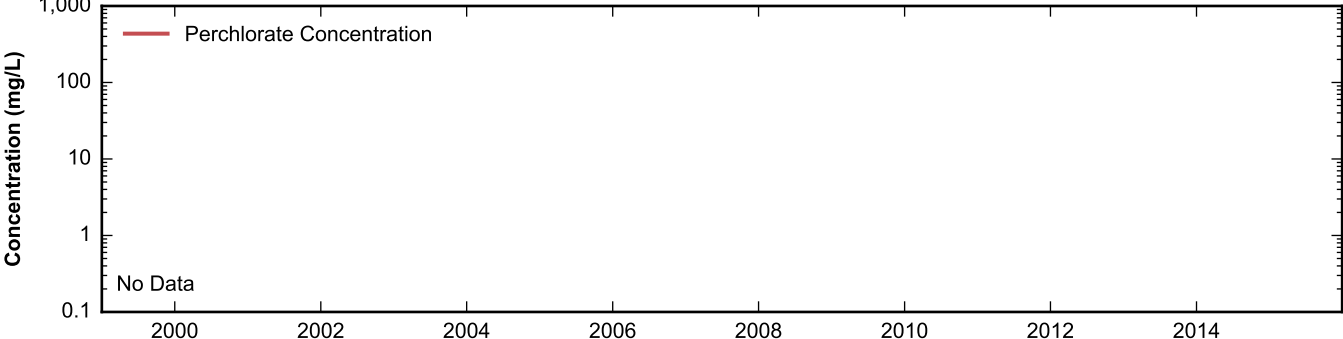
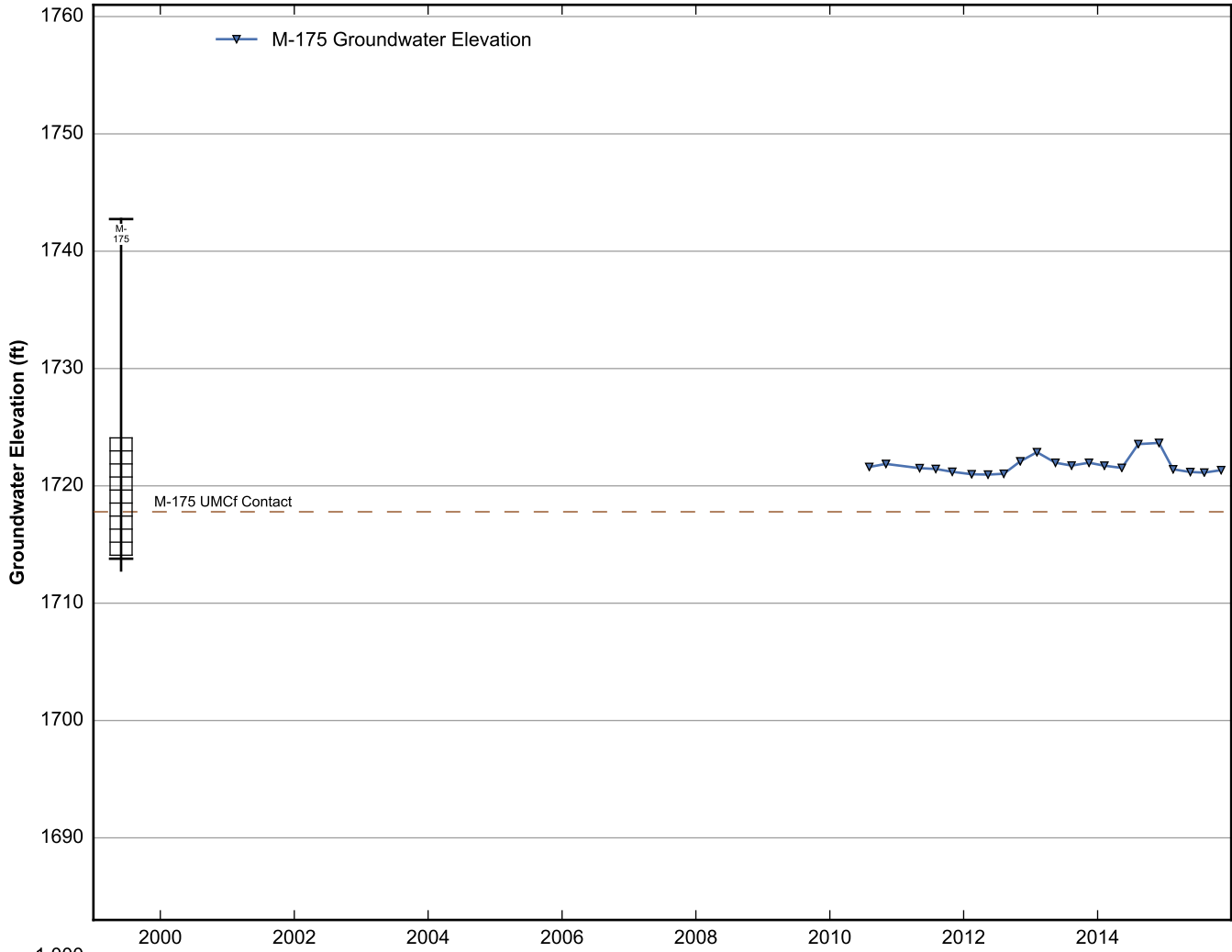


**Data Sheet for Well M-173**  
Nevada Environmental Response Trust Site  
Henderson, Nevada

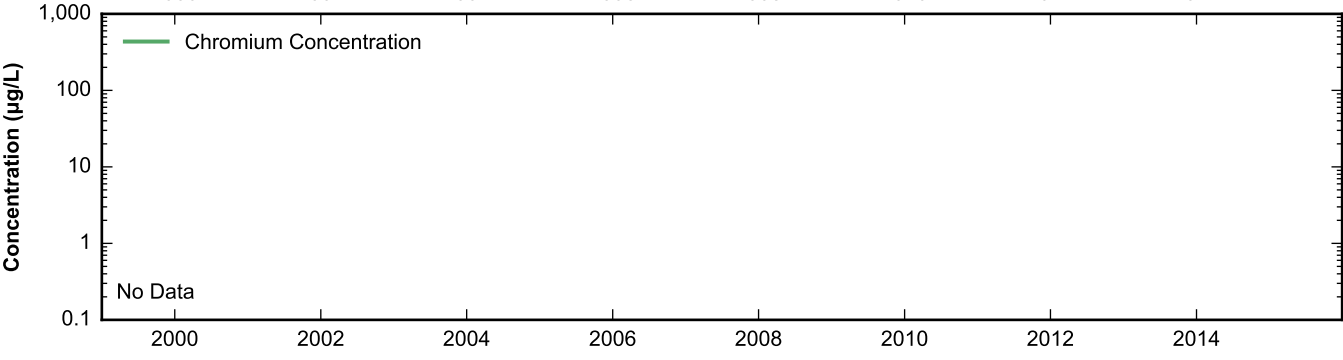
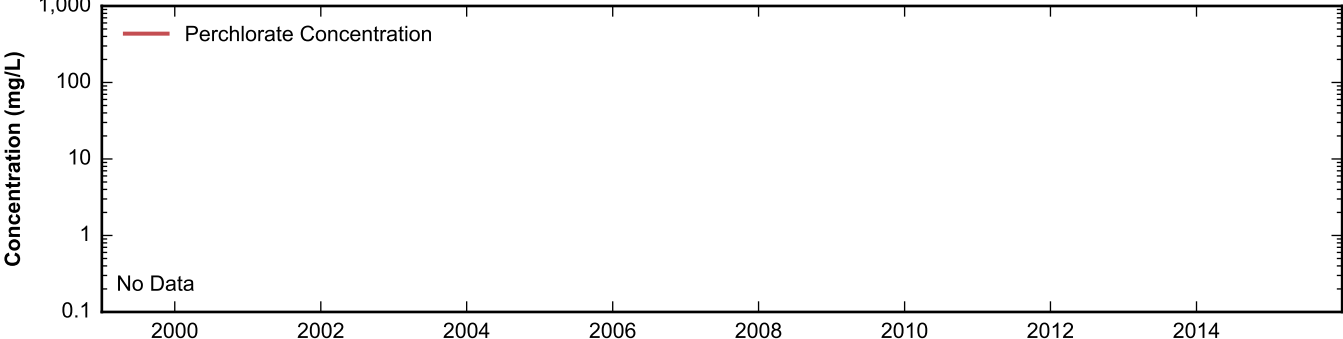
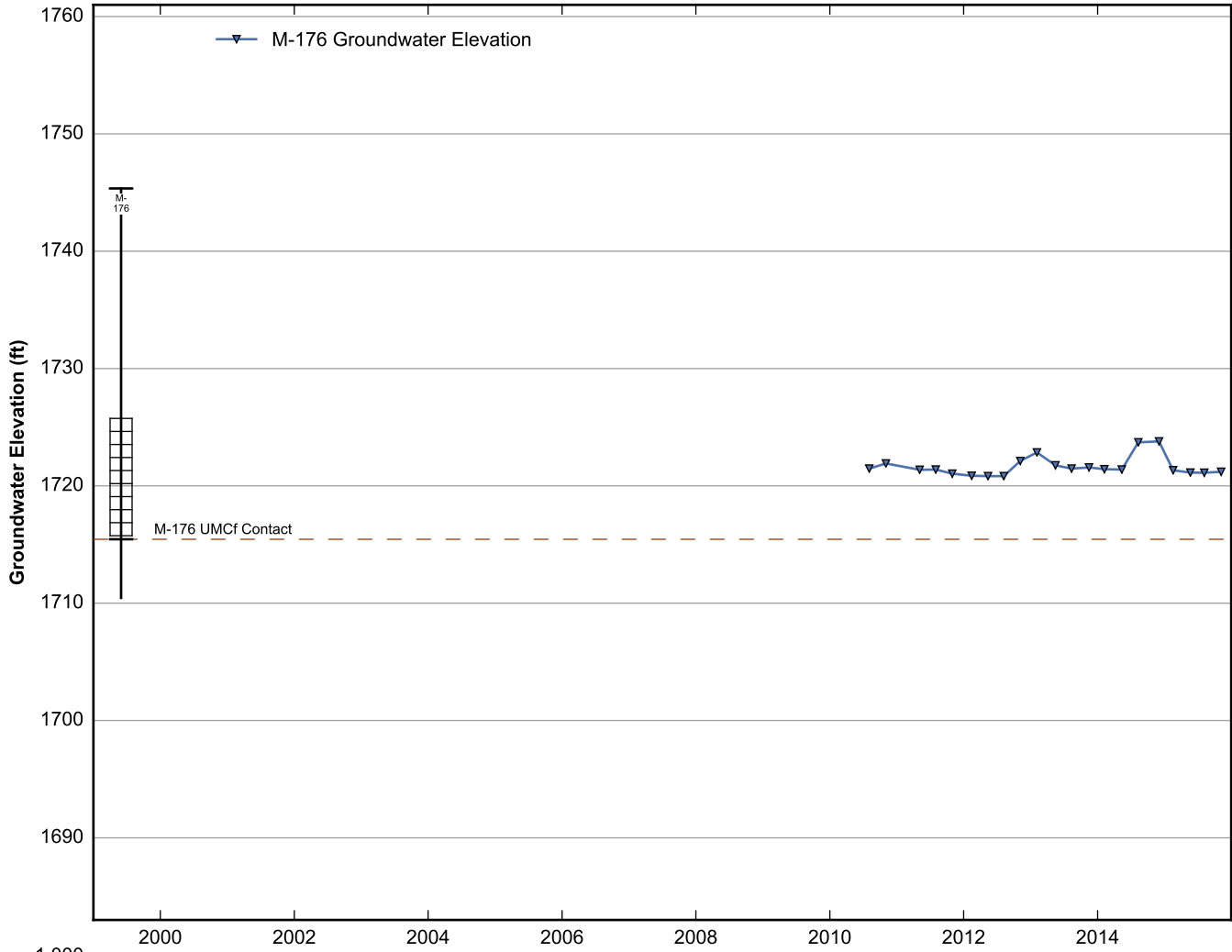


**Data Sheet for Well M-174**  
Nevada Environmental Response Trust Site  
Henderson, Nevada

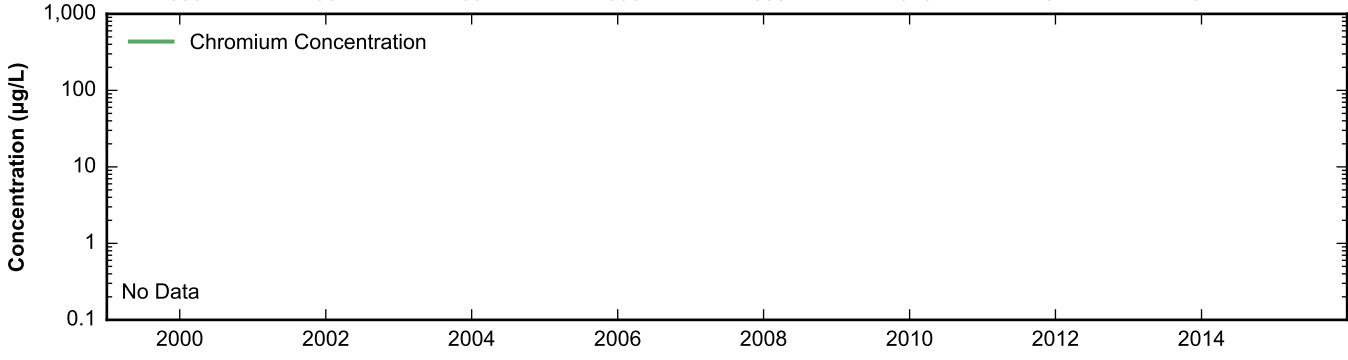
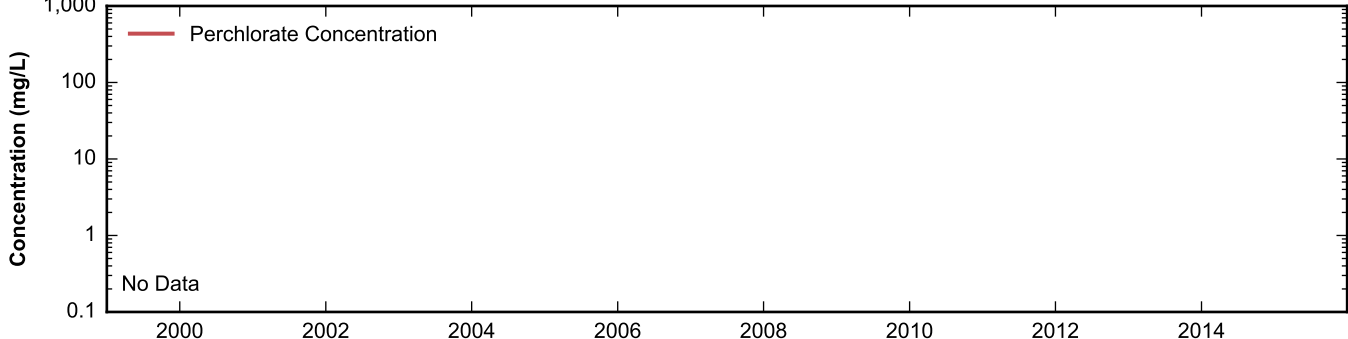
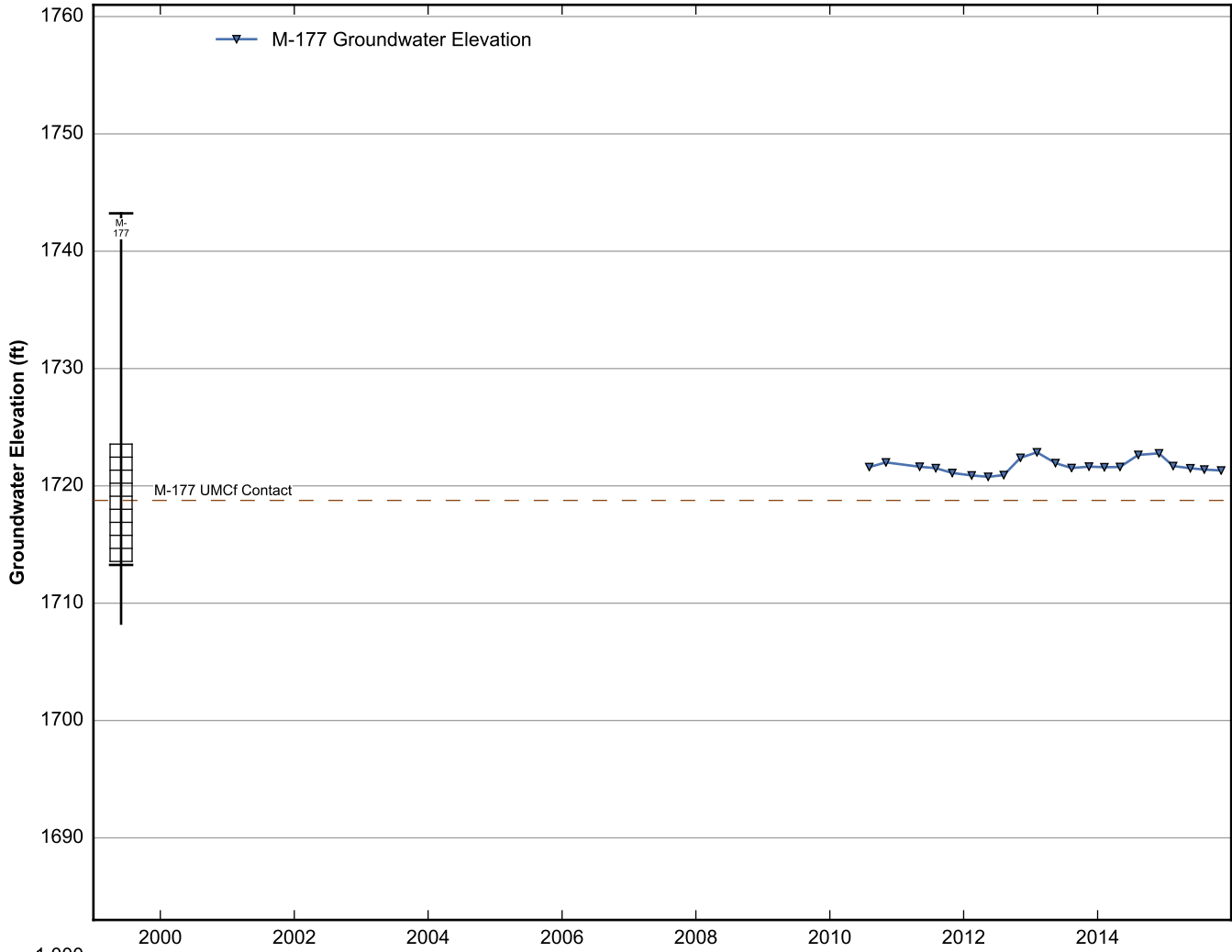




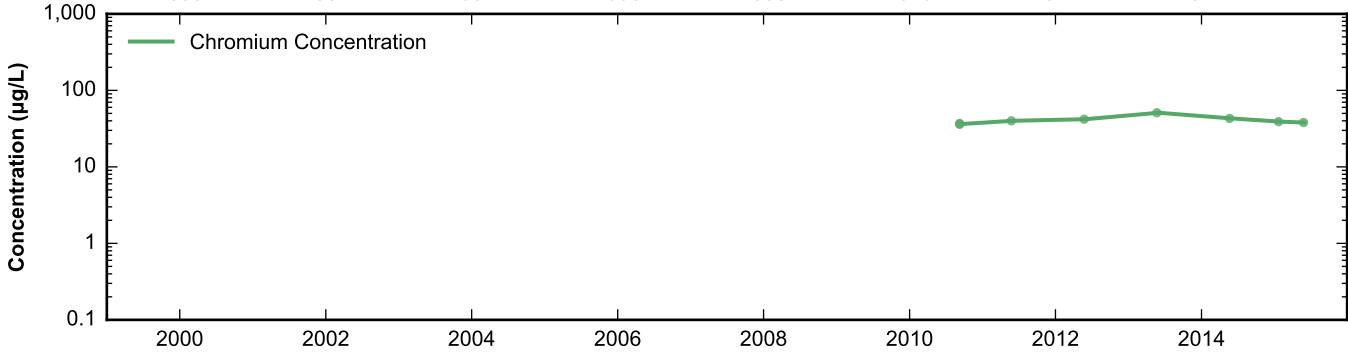
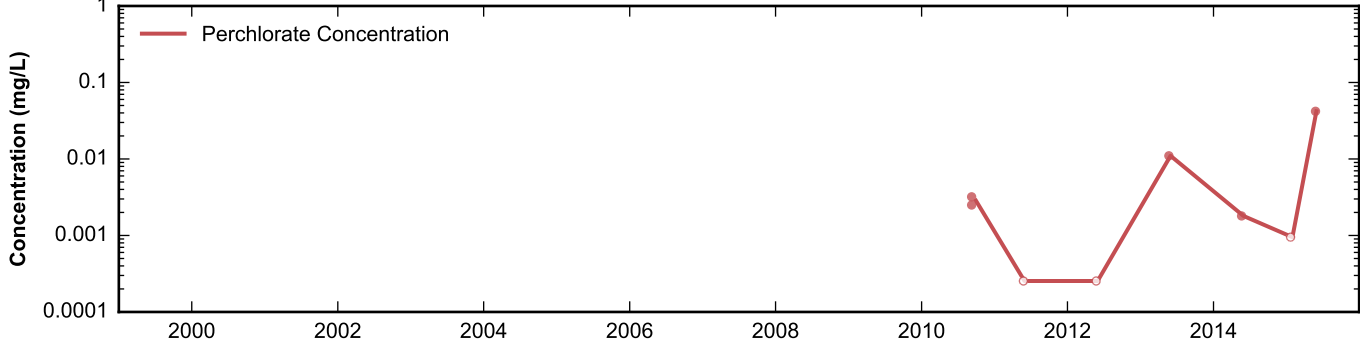
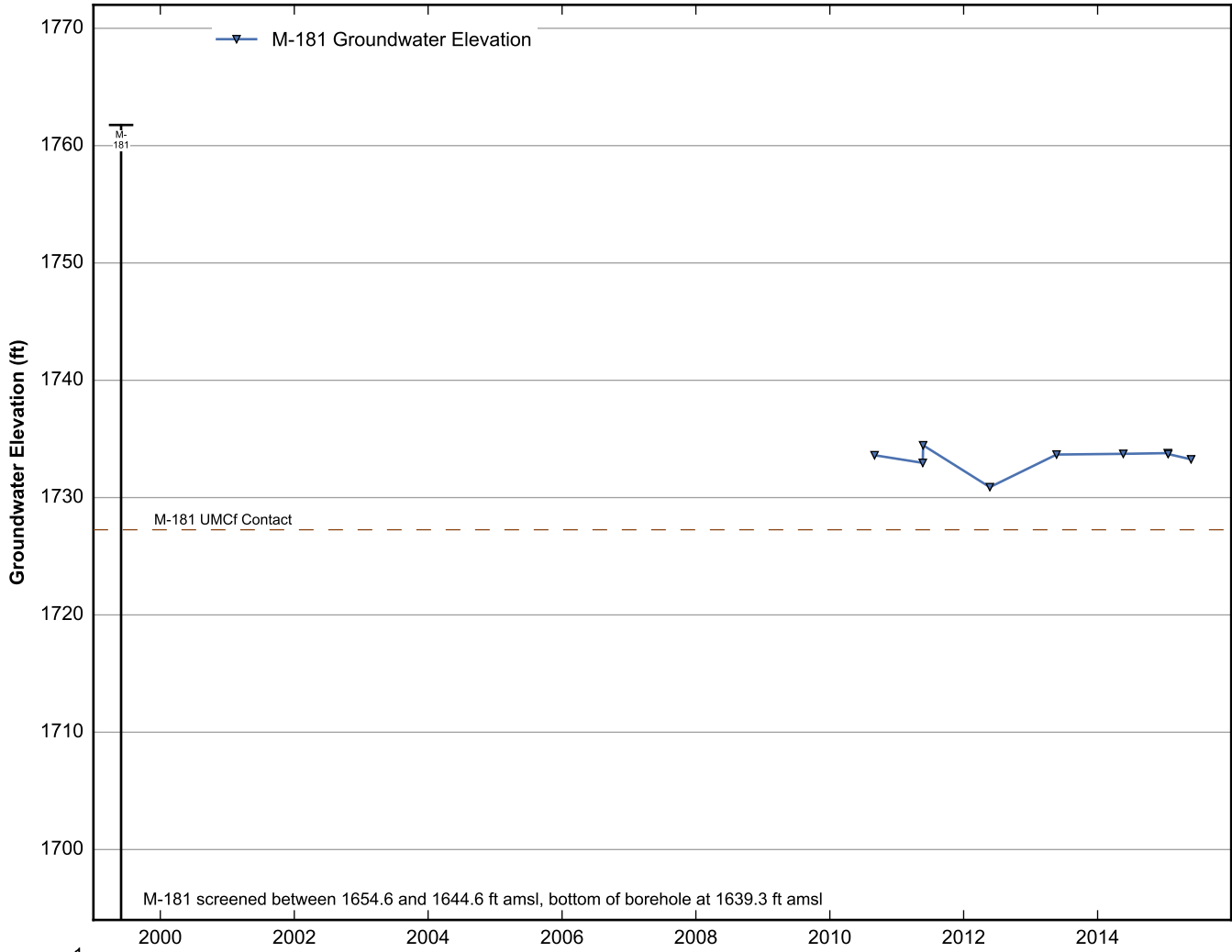
**Data Sheet for Well M-175**  
 Nevada Environmental Response Trust Site  
 Henderson, Nevada



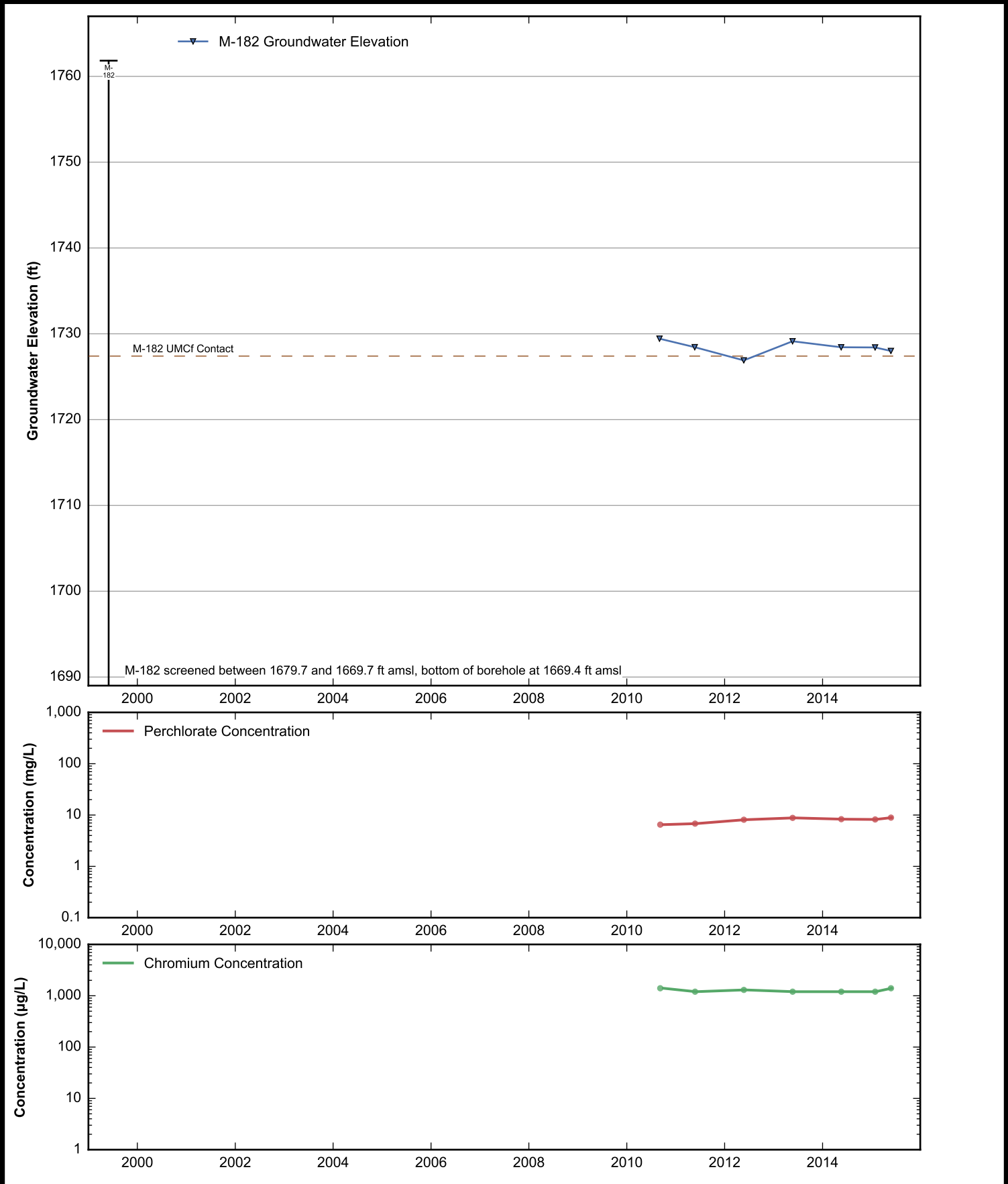
**Data Sheet for Well M-176**  
Nevada Environmental Response Trust Site  
Henderson, Nevada

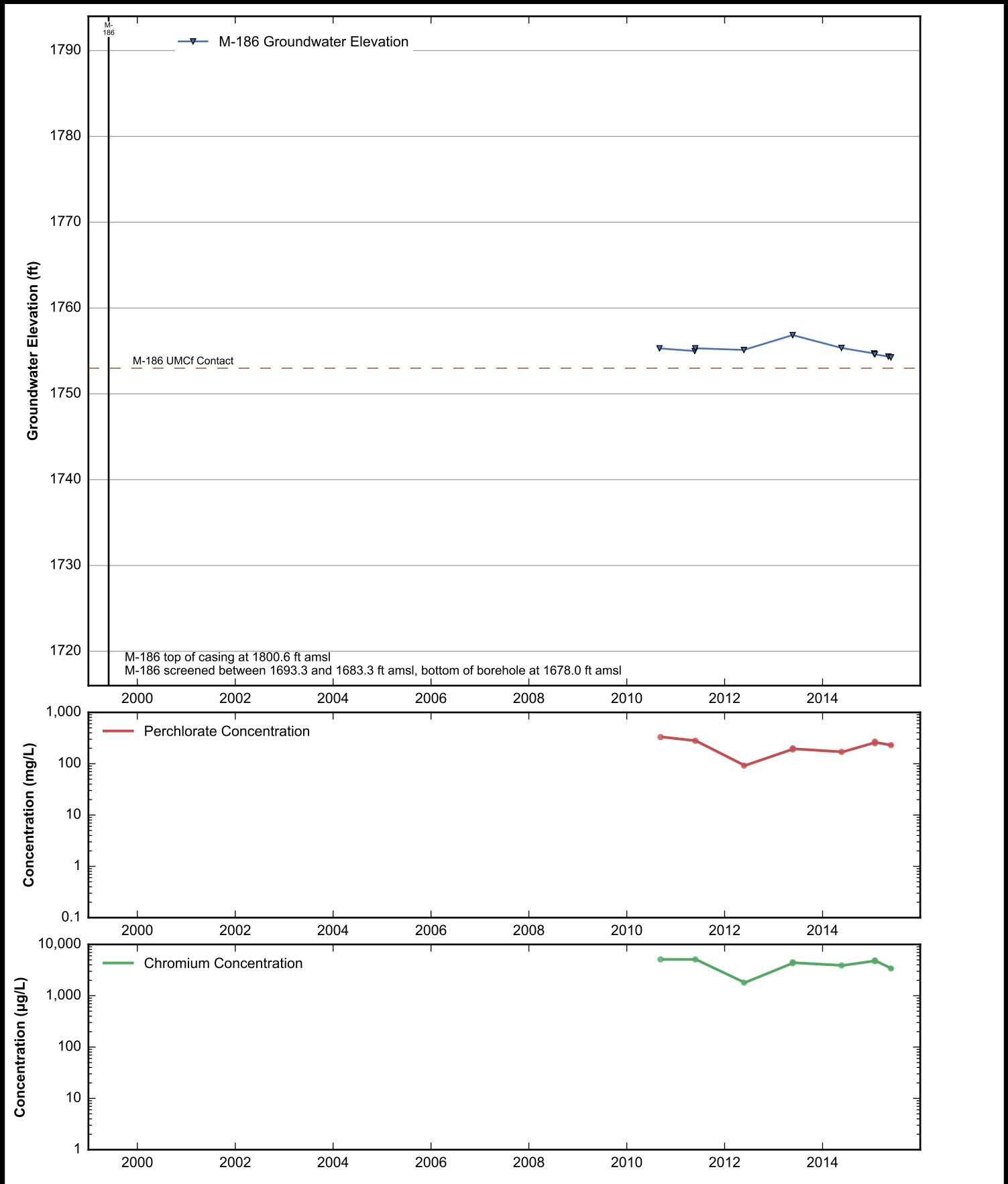


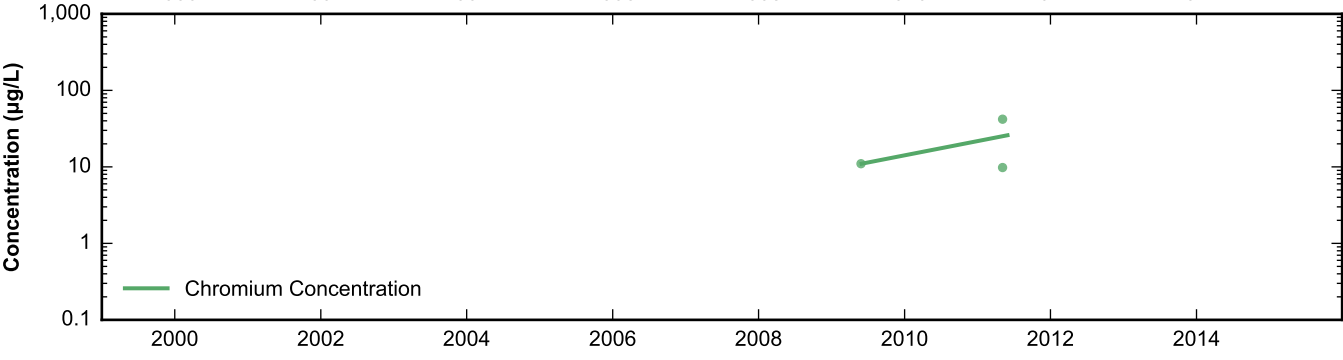
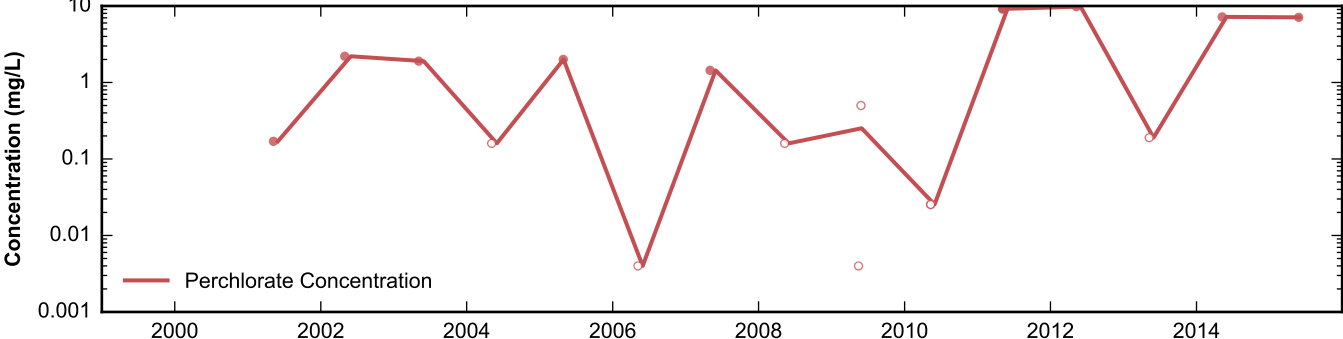
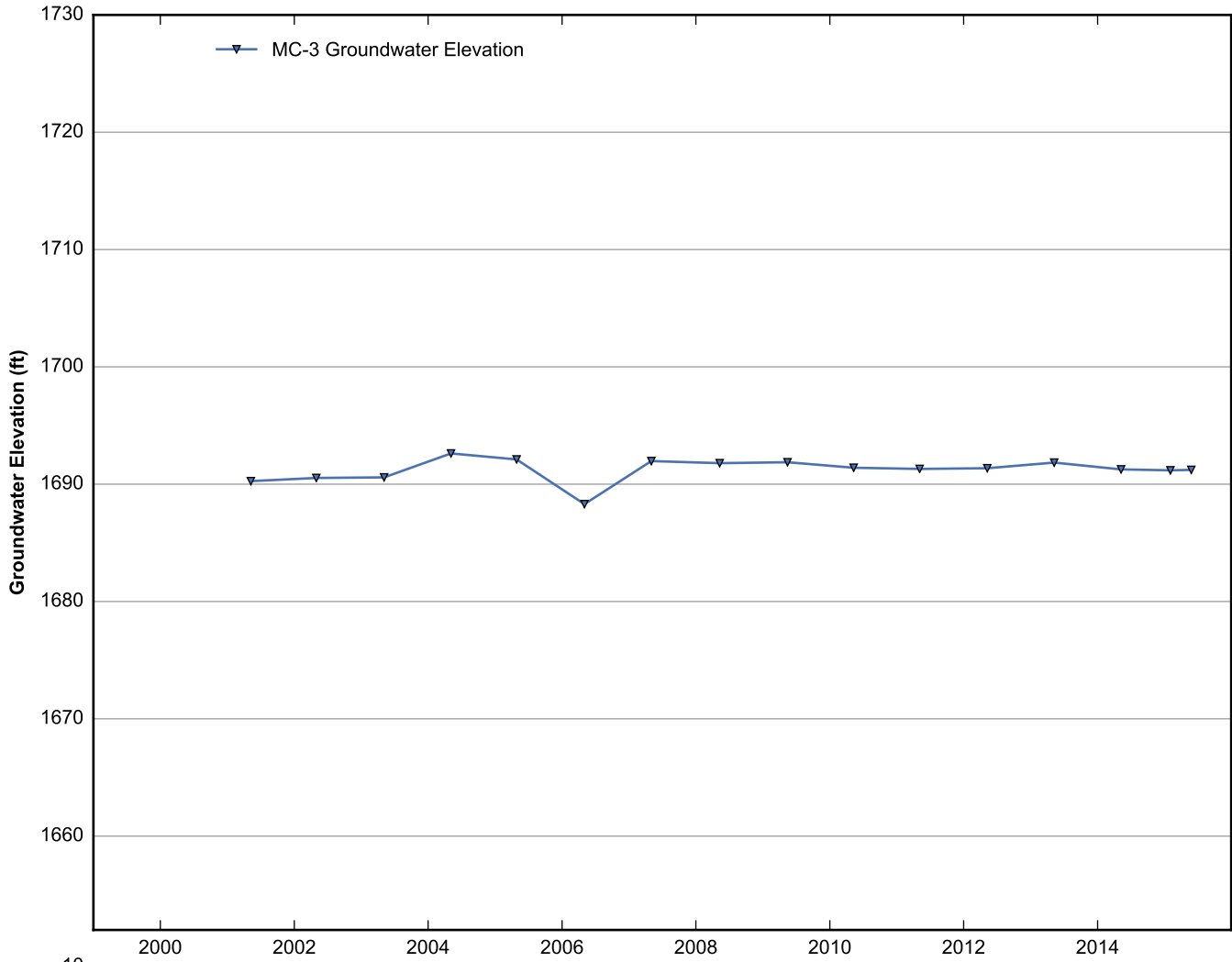
**Data Sheet for Well M-177**  
Nevada Environmental Response Trust Site  
Henderson, Nevada



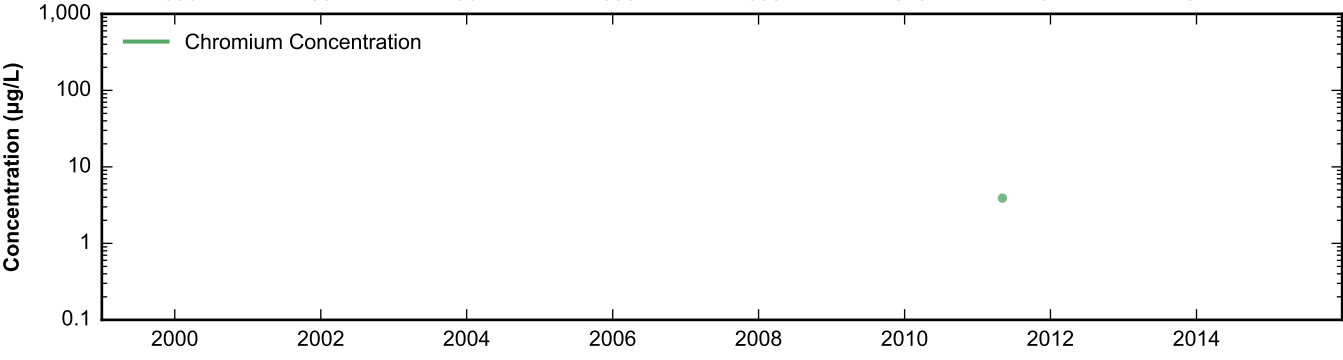
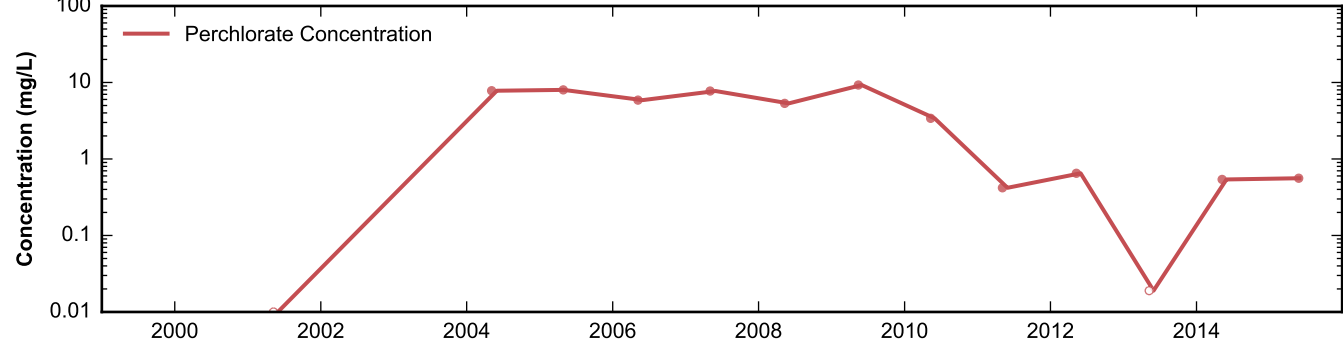
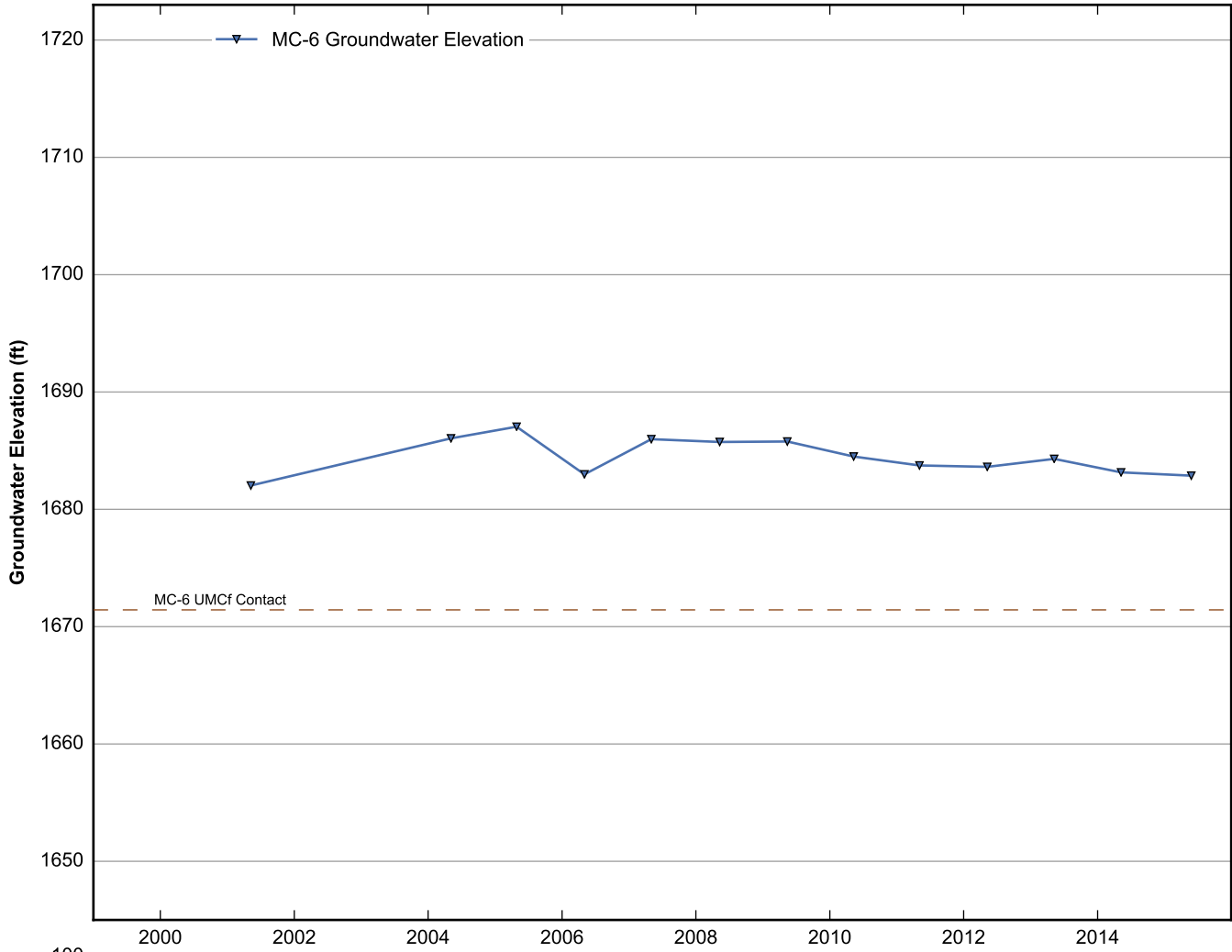
**Data Sheet for Well M-181**  
 Nevada Environmental Response Trust Site  
 Henderson, Nevada





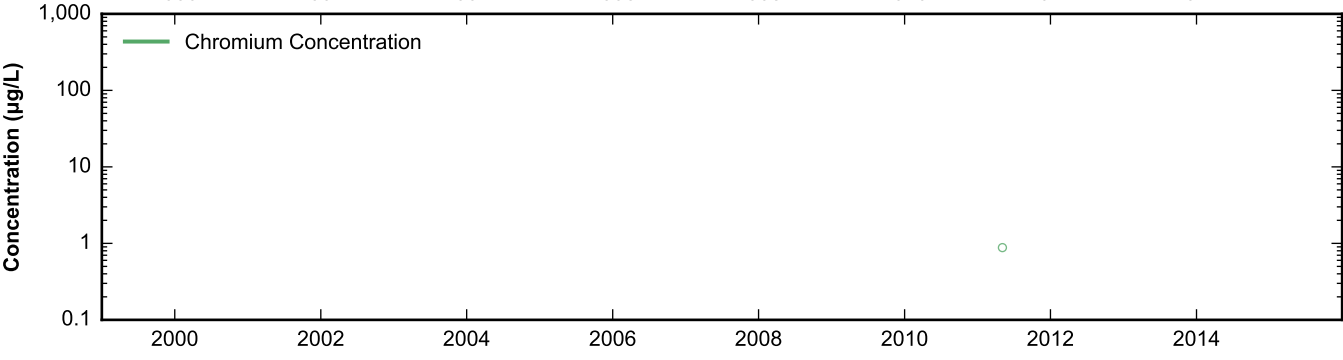
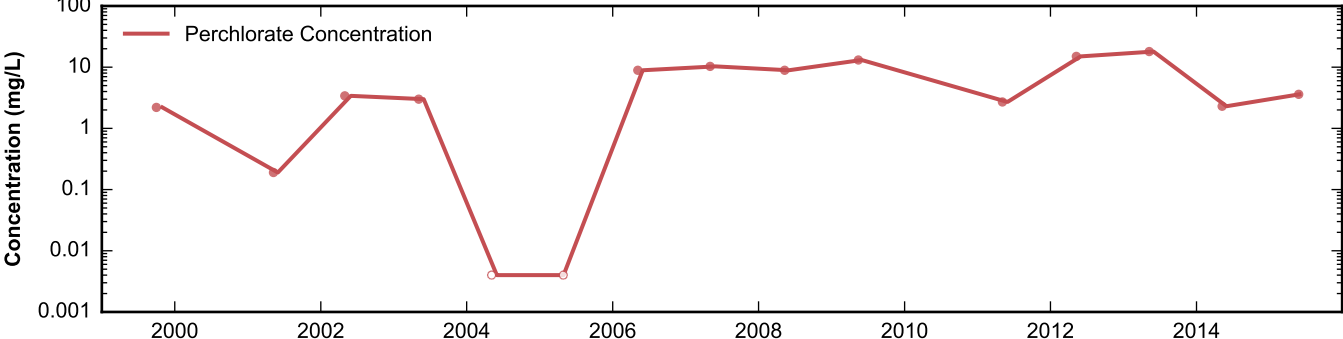
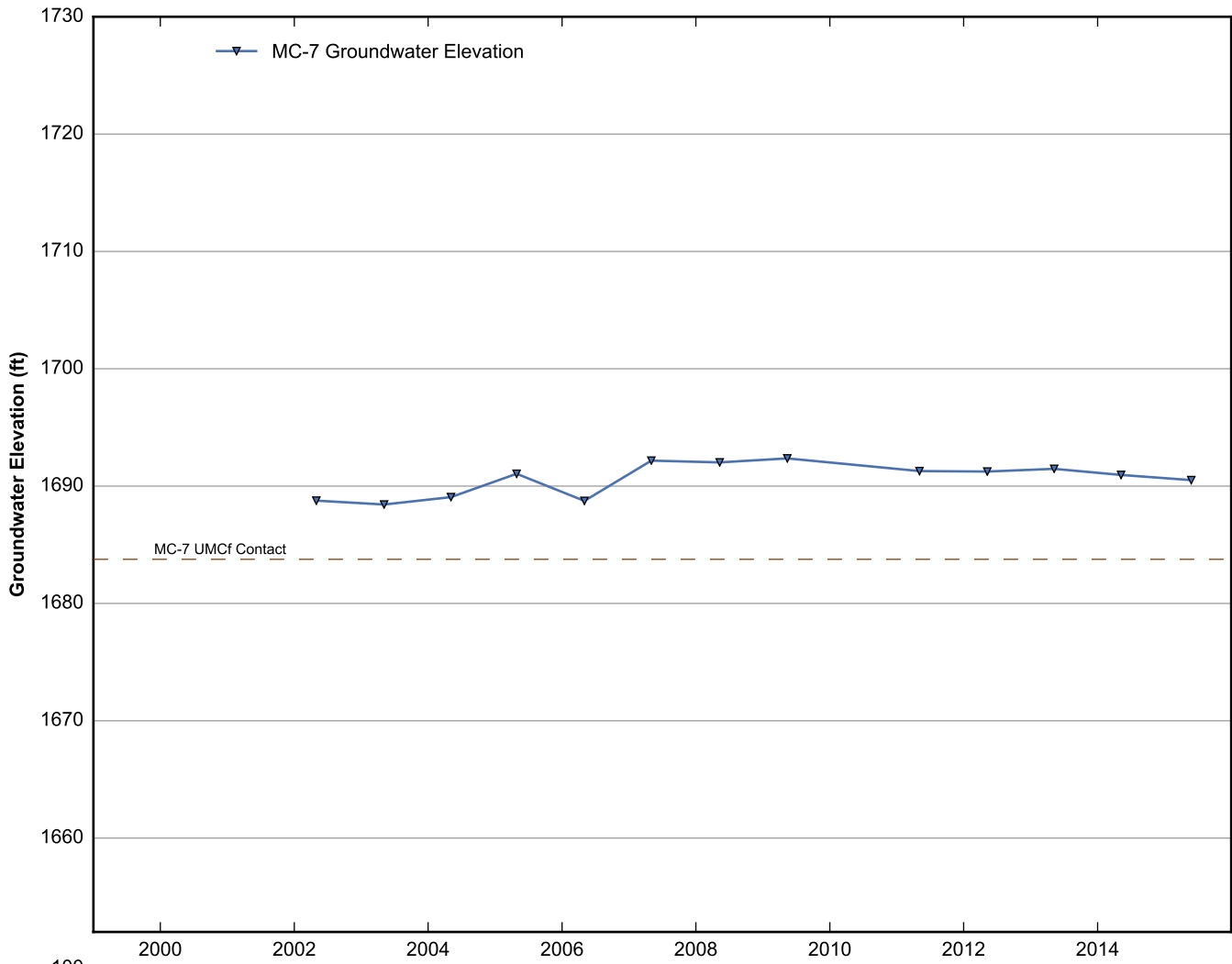


**Data Sheet for Well MC-3**  
 Nevada Environmental Response Trust Site  
 Henderson, Nevada

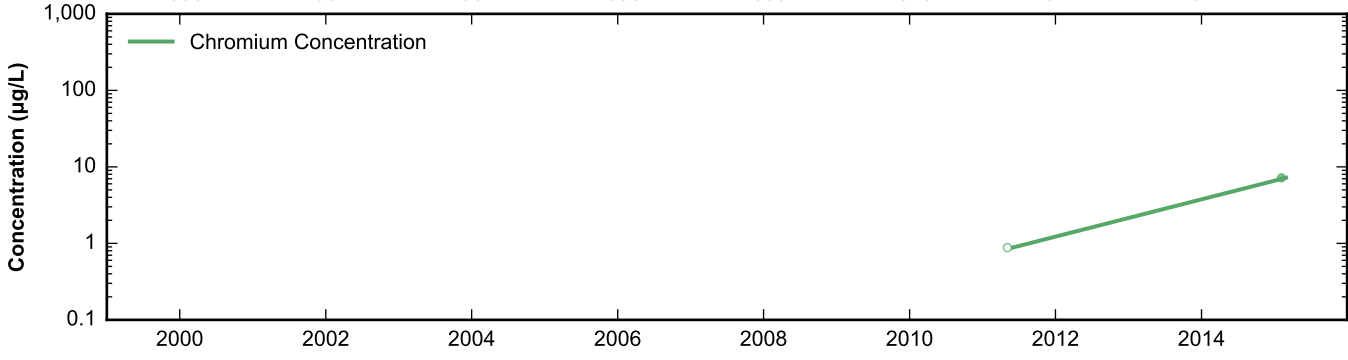
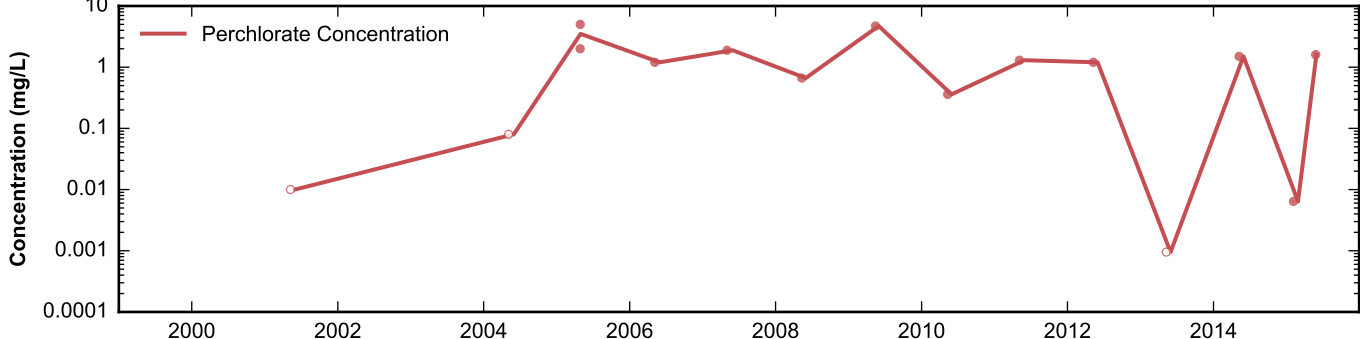
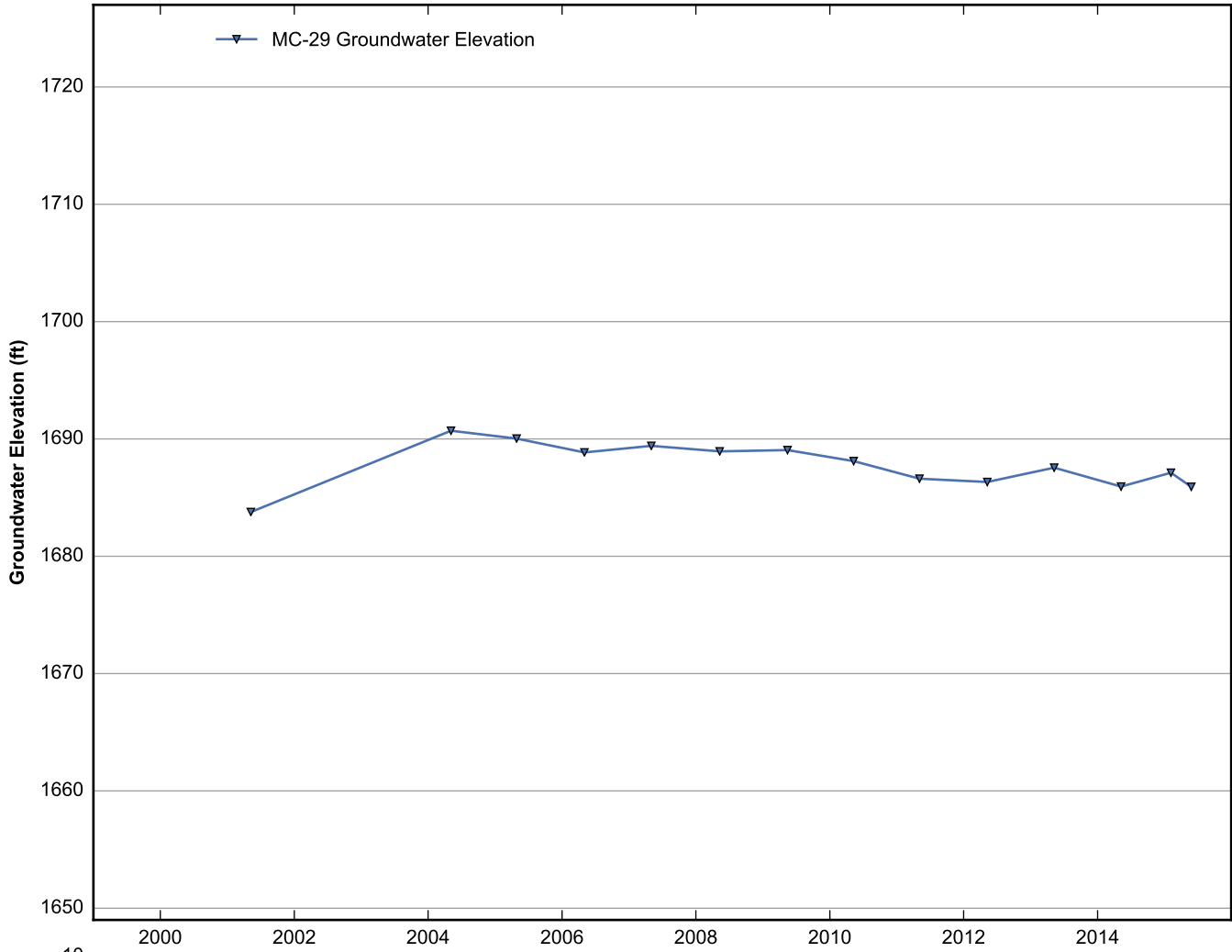


**Data Sheet for Well MC-6**  
Nevada Environmental Response Trust Site  
Henderson, Nevada

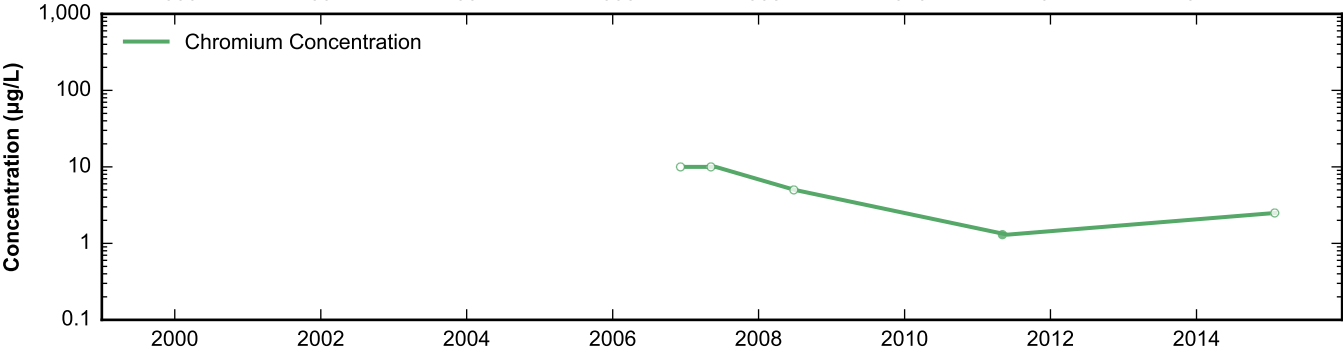
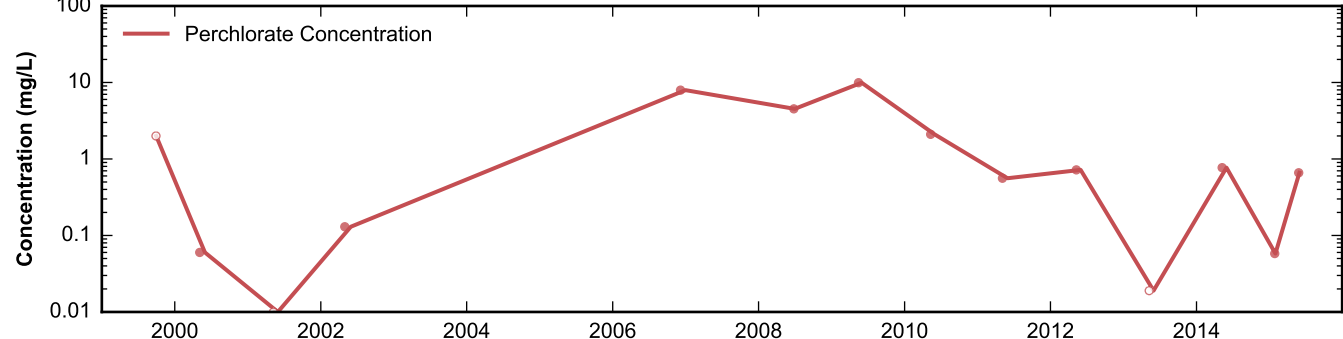
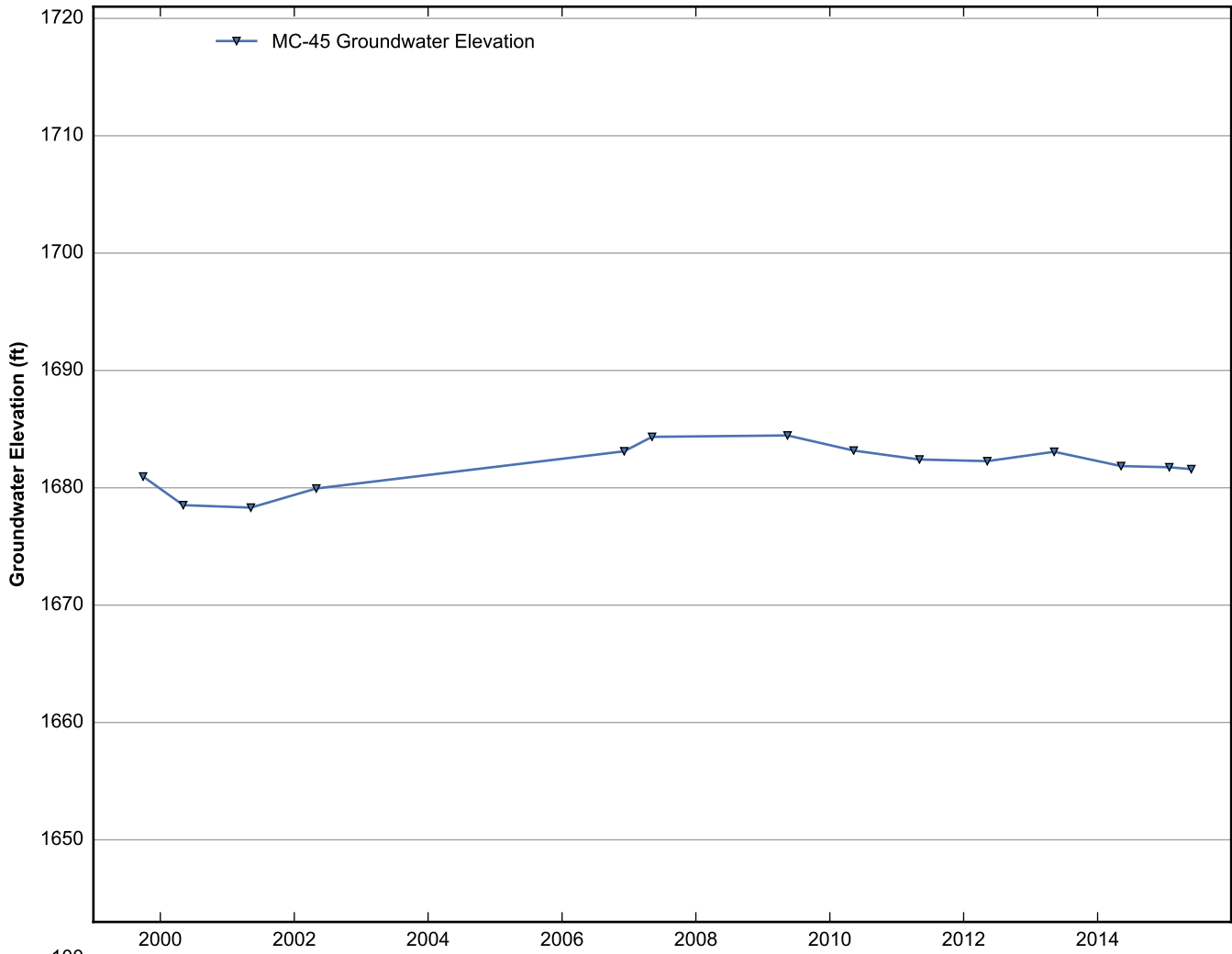




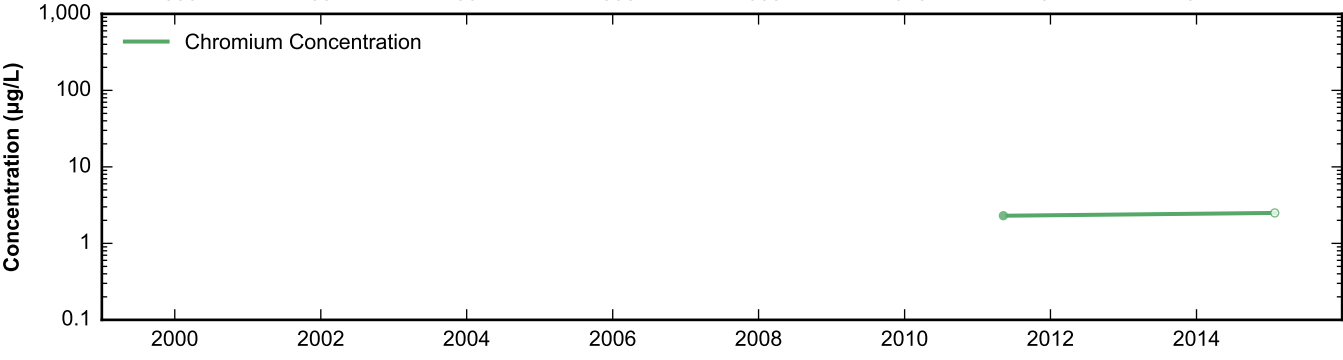
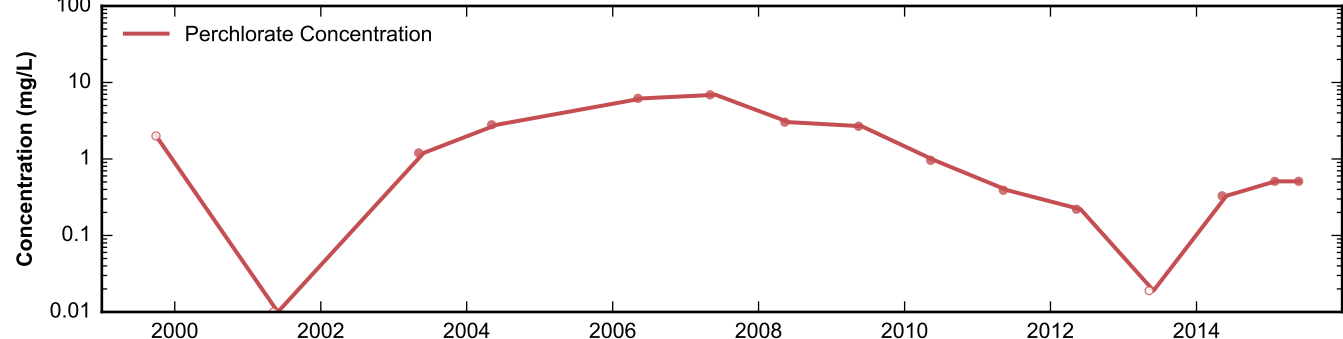
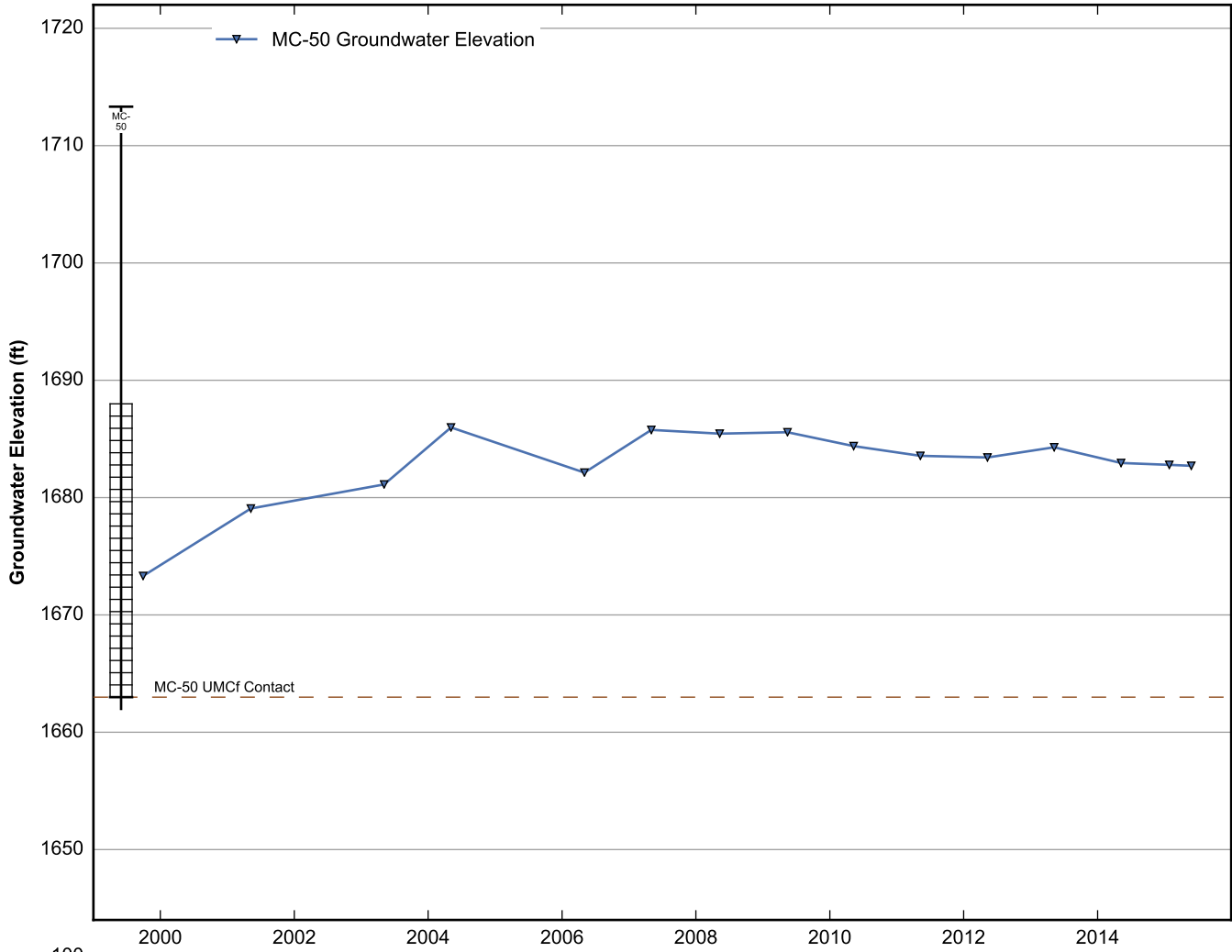
**Data Sheet for Well MC-7**  
 Nevada Environmental Response Trust Site  
 Henderson, Nevada



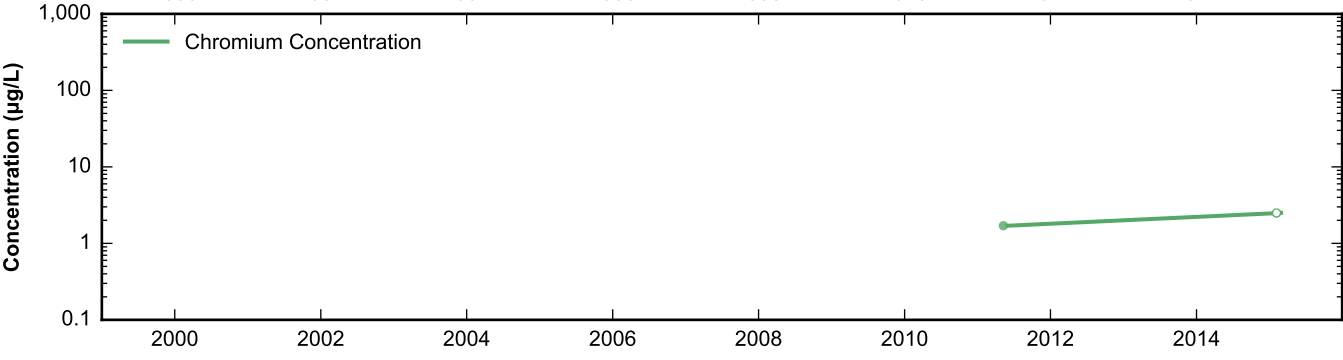
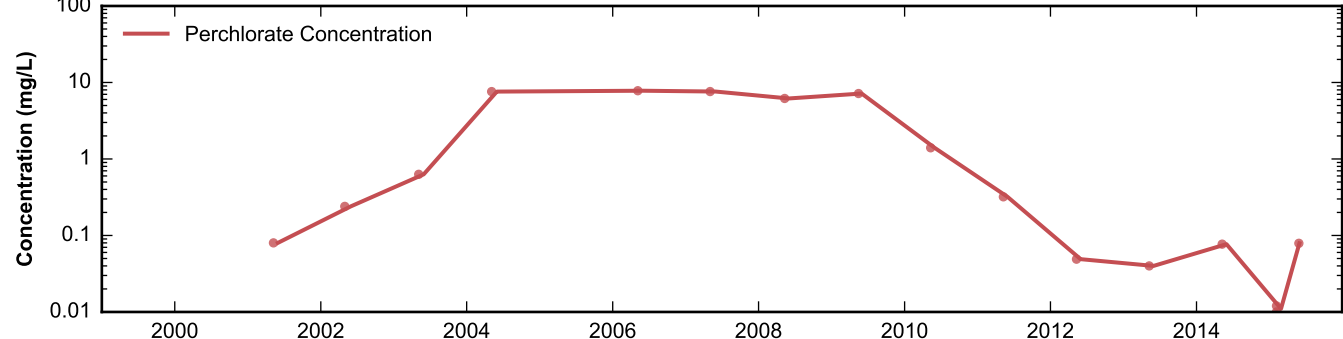
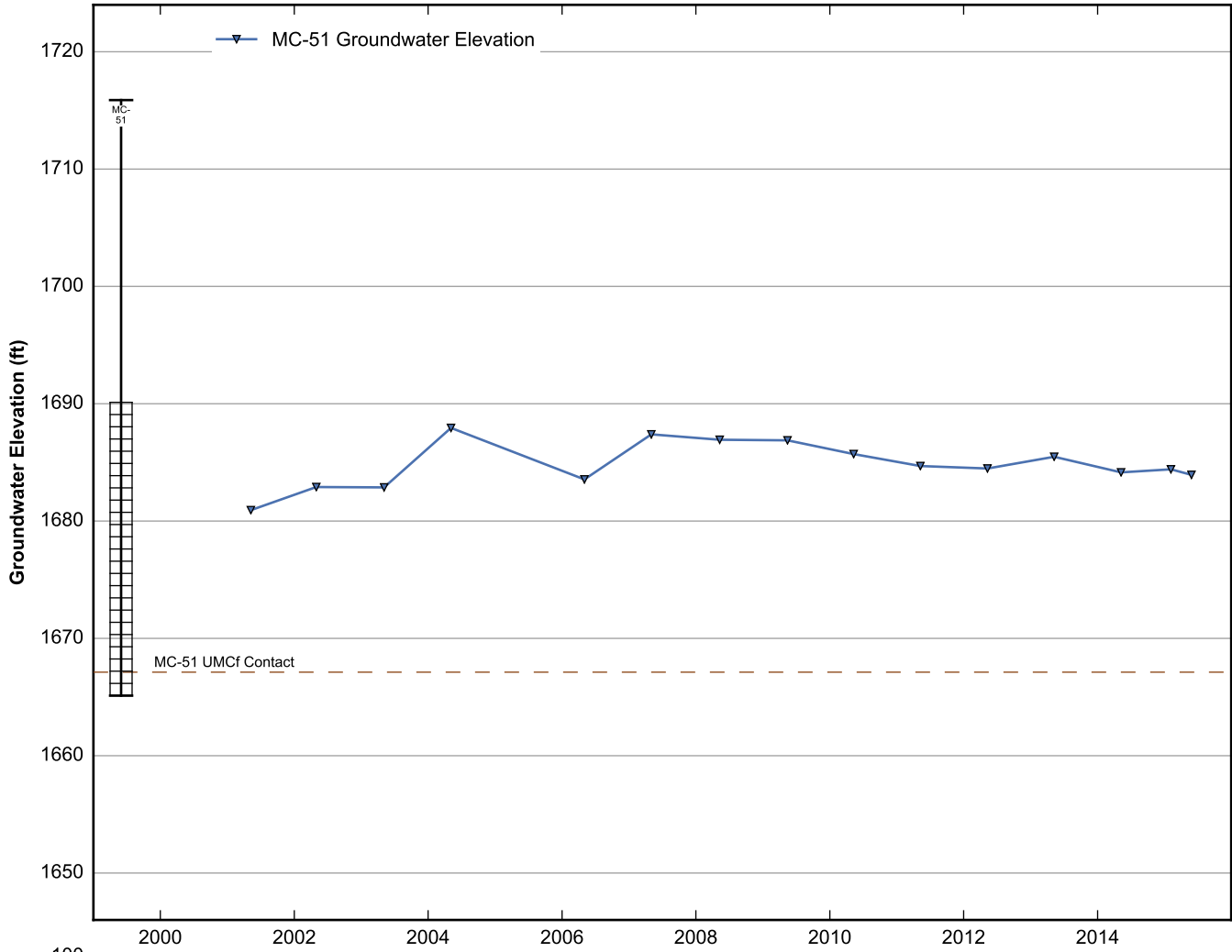
**Data Sheet for Well MC-29**  
Nevada Environmental Response Trust Site  
Henderson, Nevada



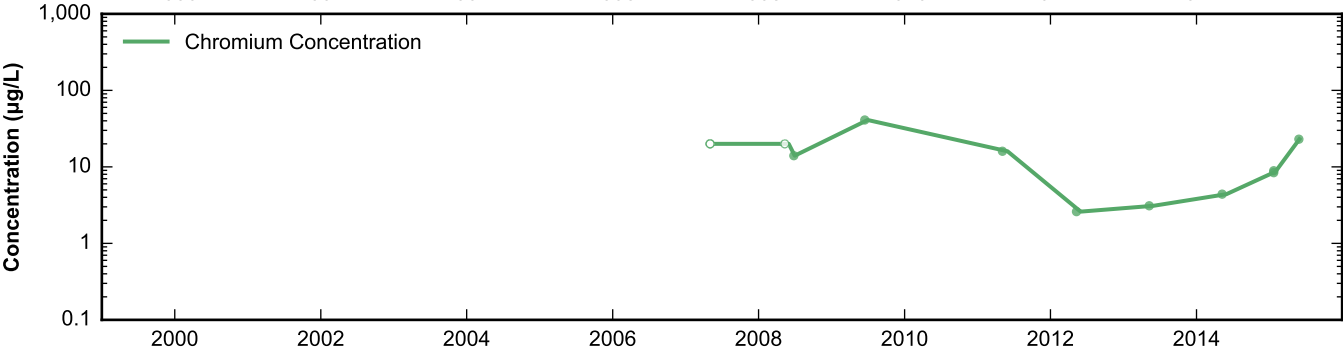
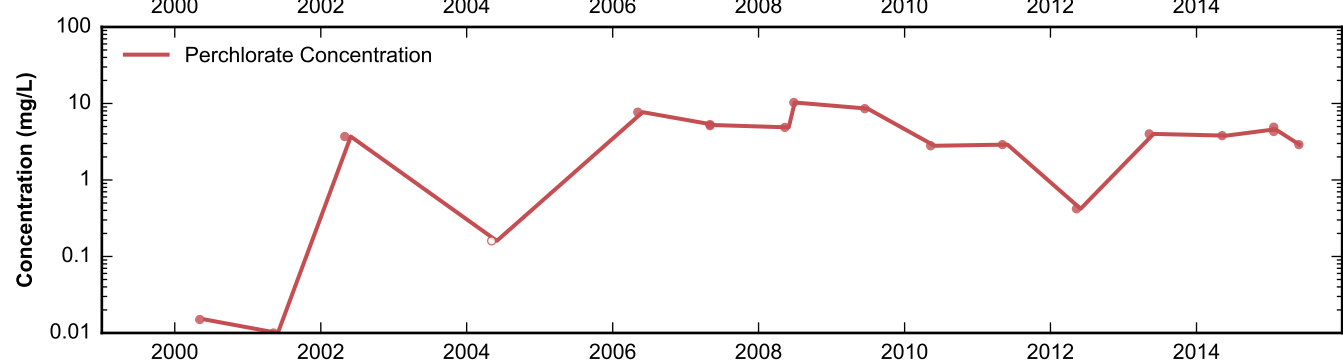
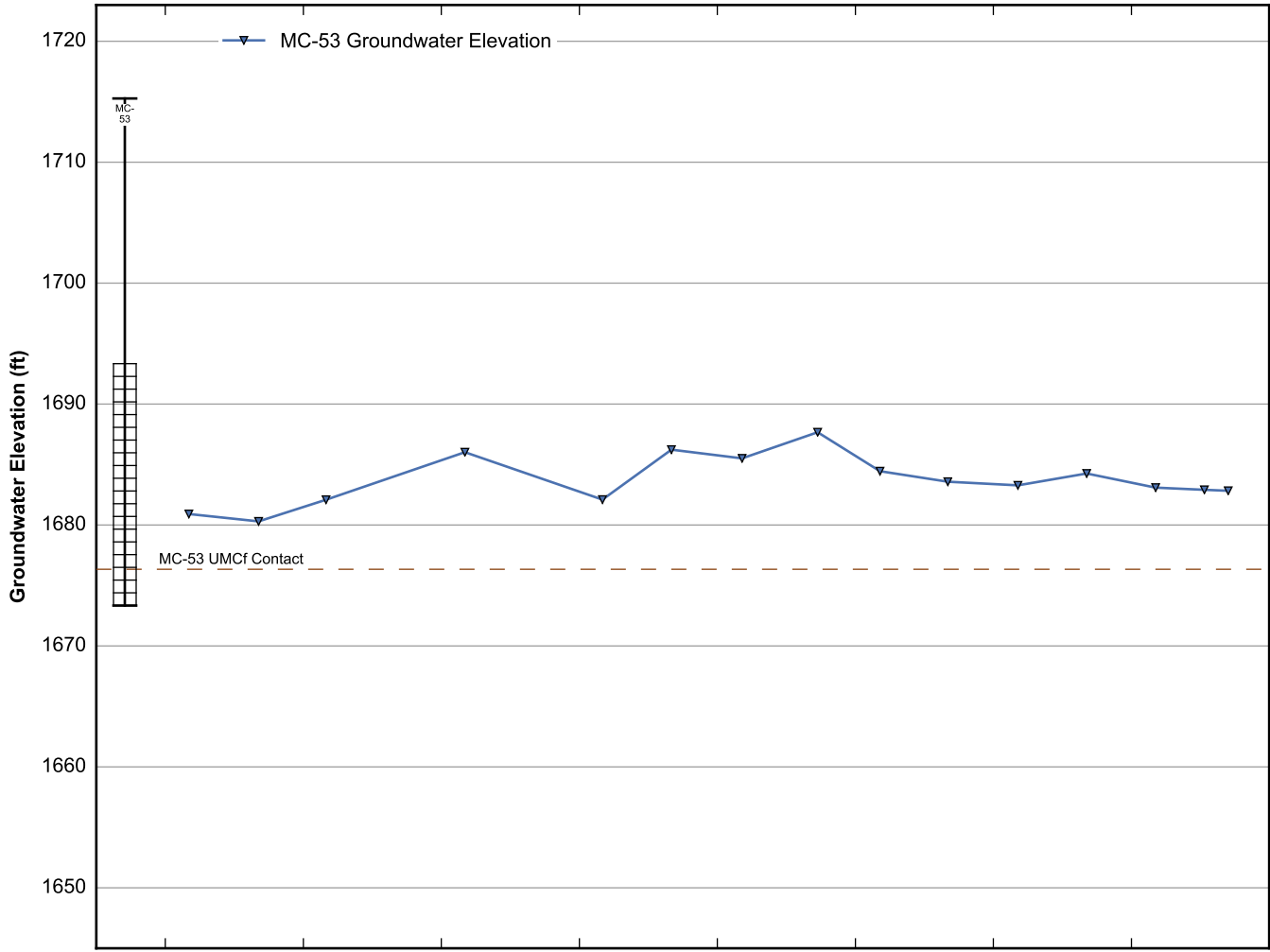
**Data Sheet for Well MC-45**  
 Nevada Environmental Response Trust Site  
 Henderson, Nevada



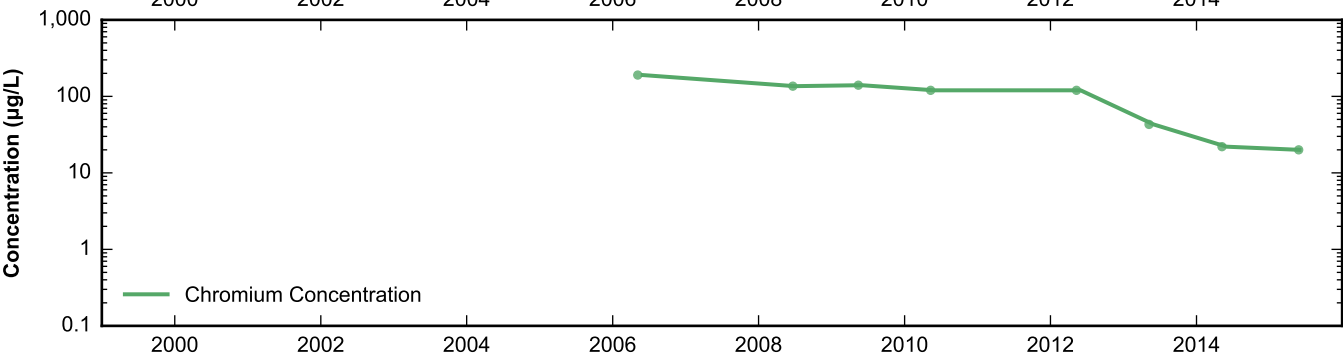
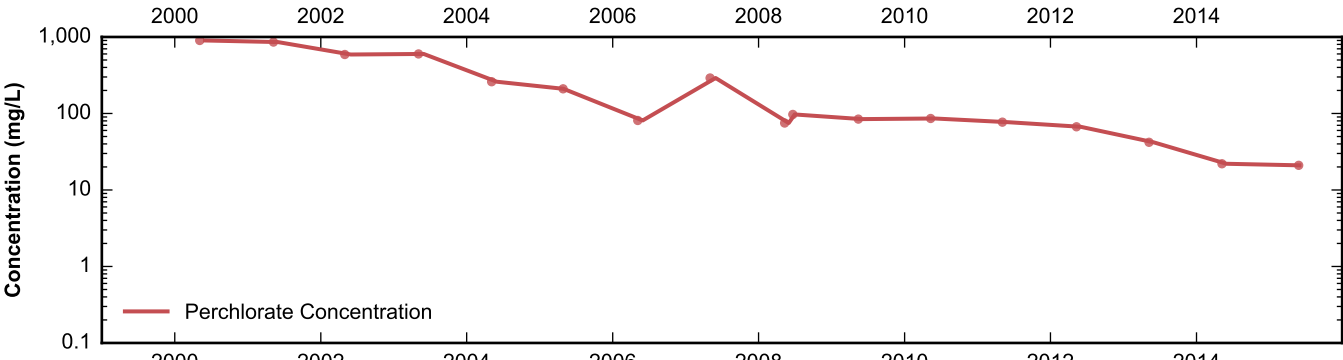
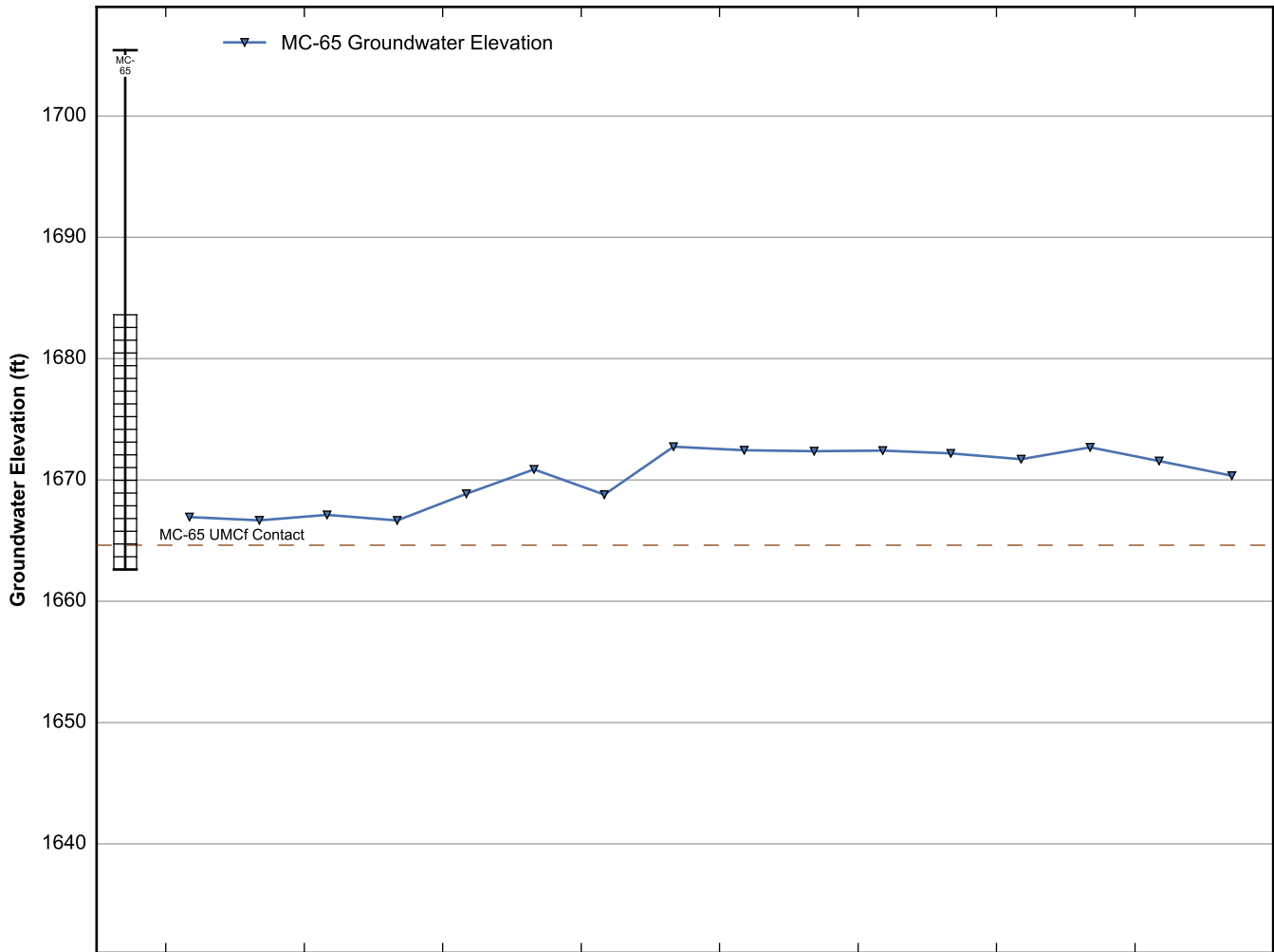
**Data Sheet for Well MC-50**  
 Nevada Environmental Response Trust Site  
 Henderson, Nevada



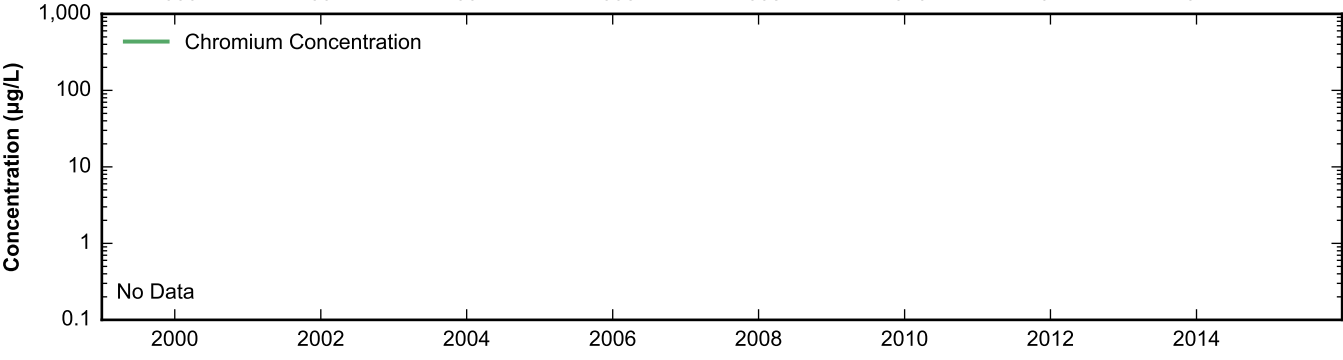
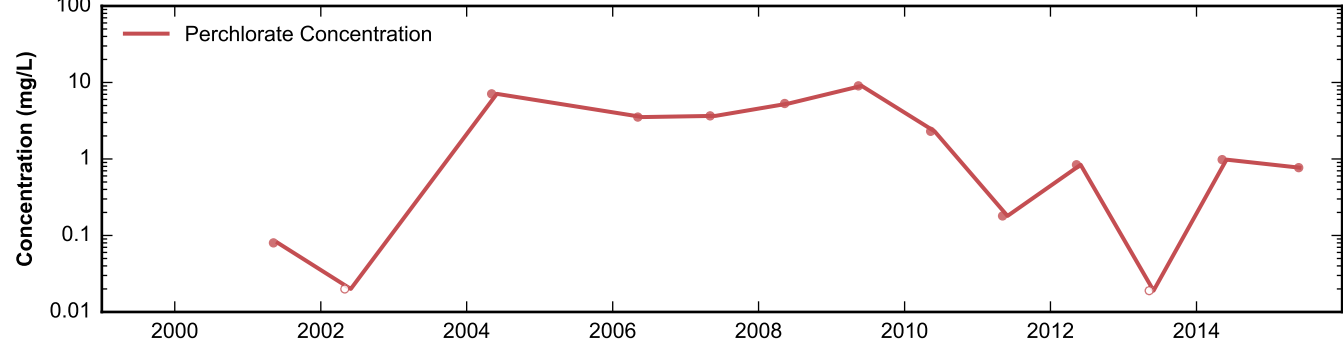
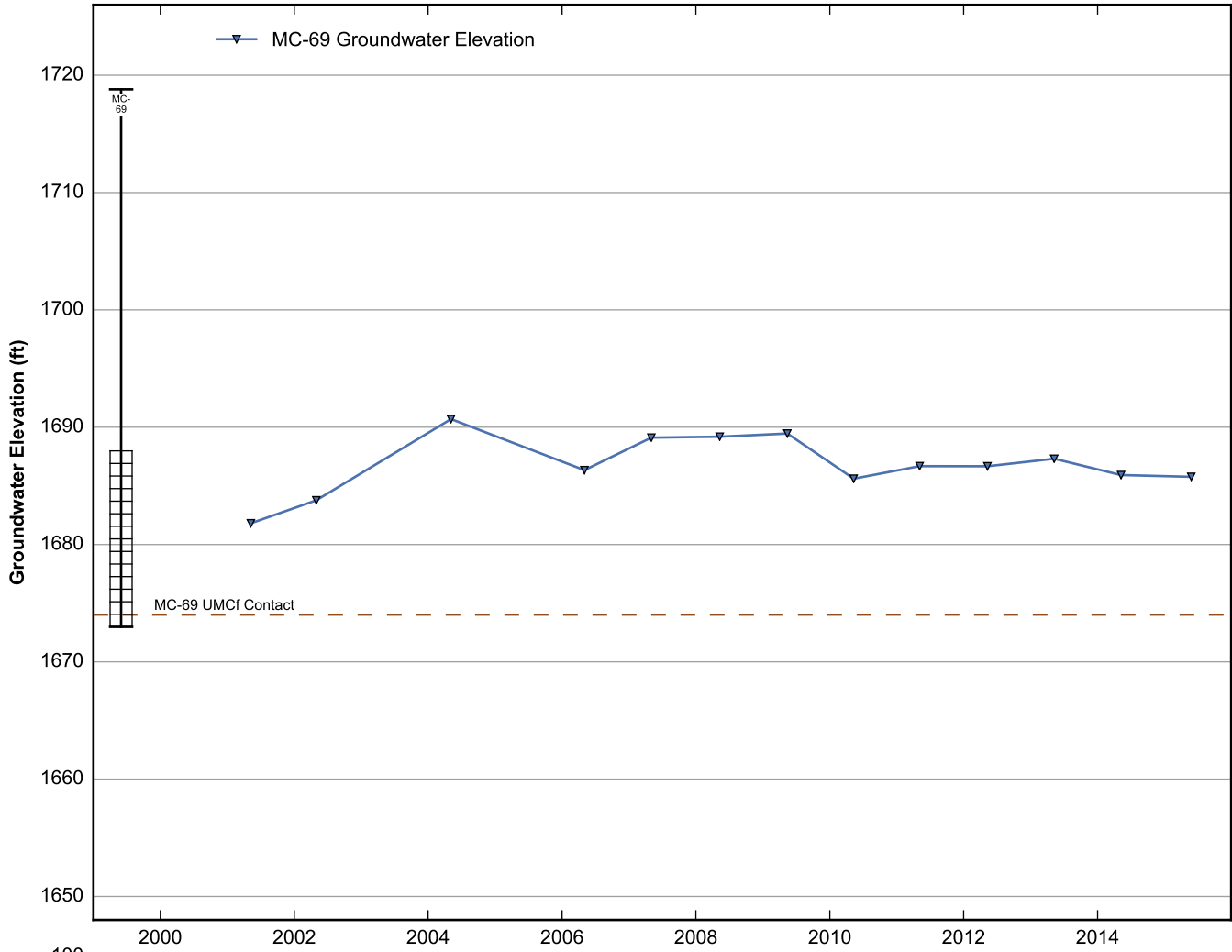
**Data Sheet for Well MC-51**  
 Nevada Environmental Response Trust Site  
 Henderson, Nevada



**Data Sheet for Well MC-53**  
 Nevada Environmental Response Trust Site  
 Henderson, Nevada

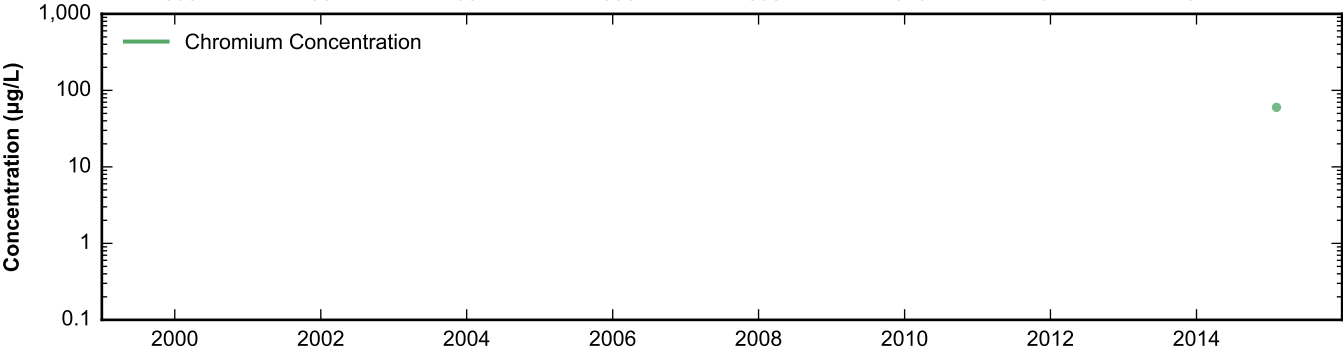
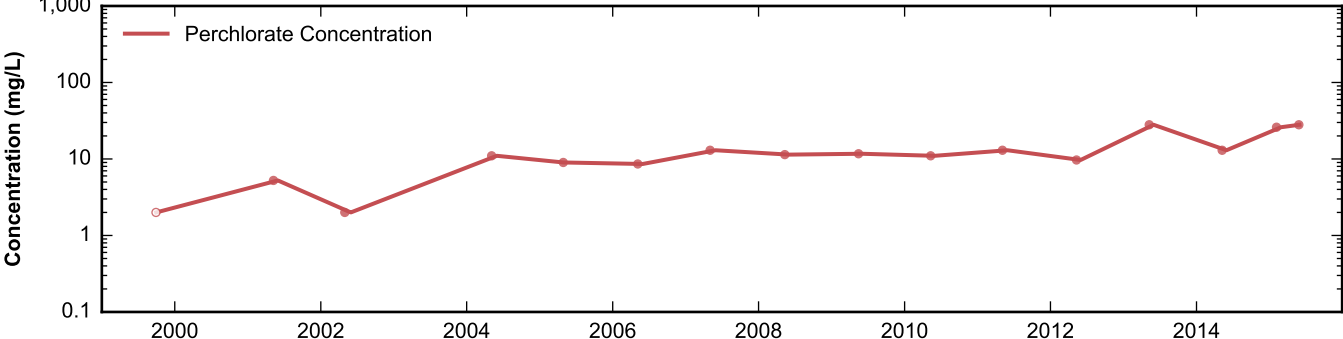
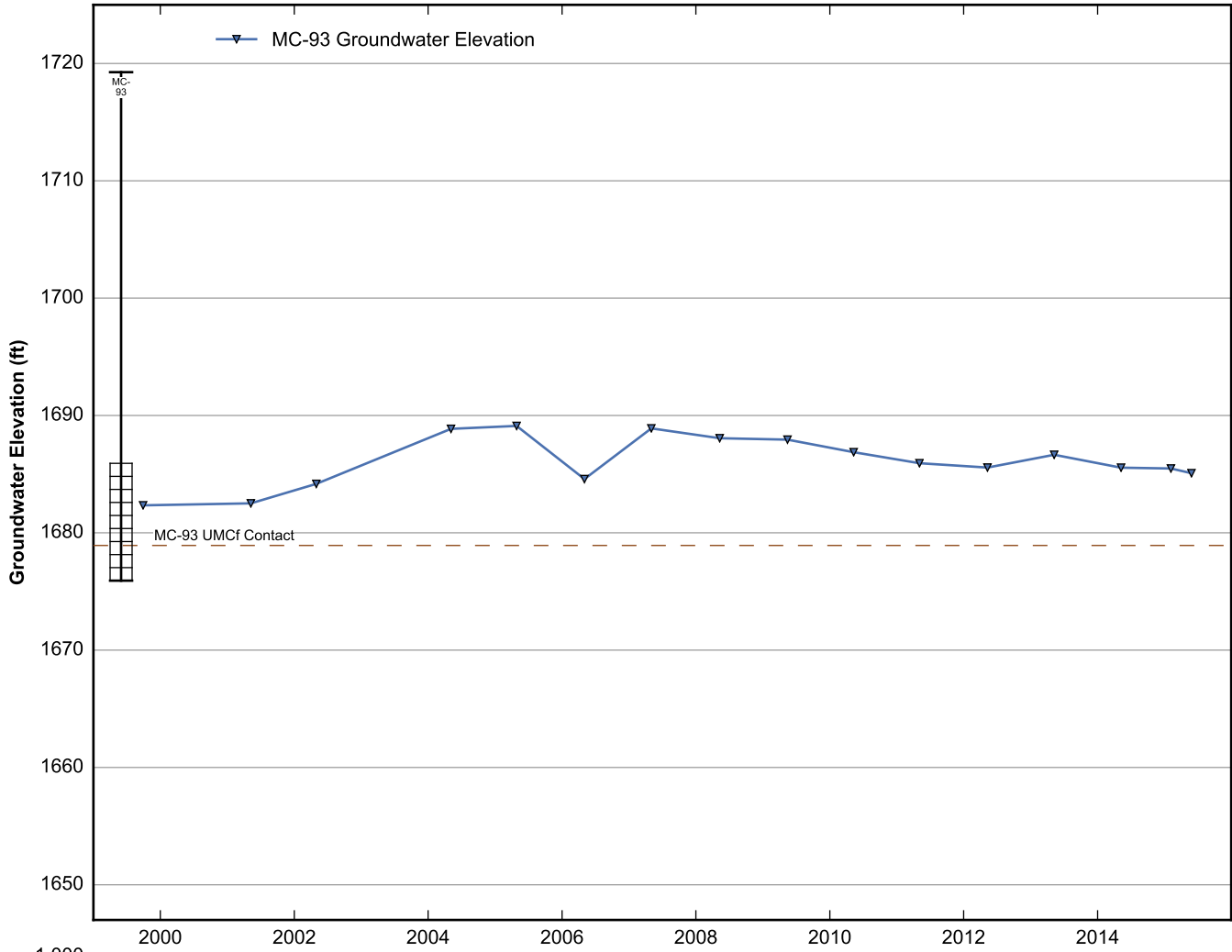


**Data Sheet for Well MC-65**  
 Nevada Environmental Response Trust Site  
 Henderson, Nevada

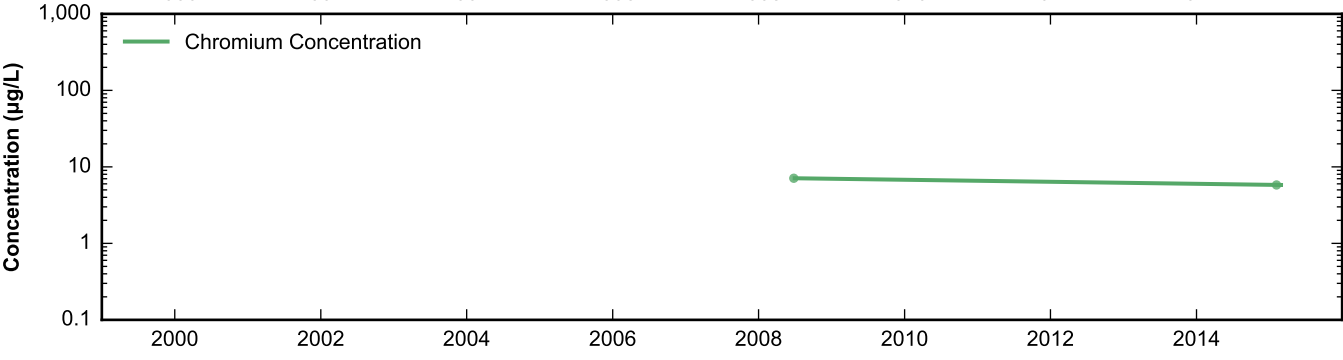
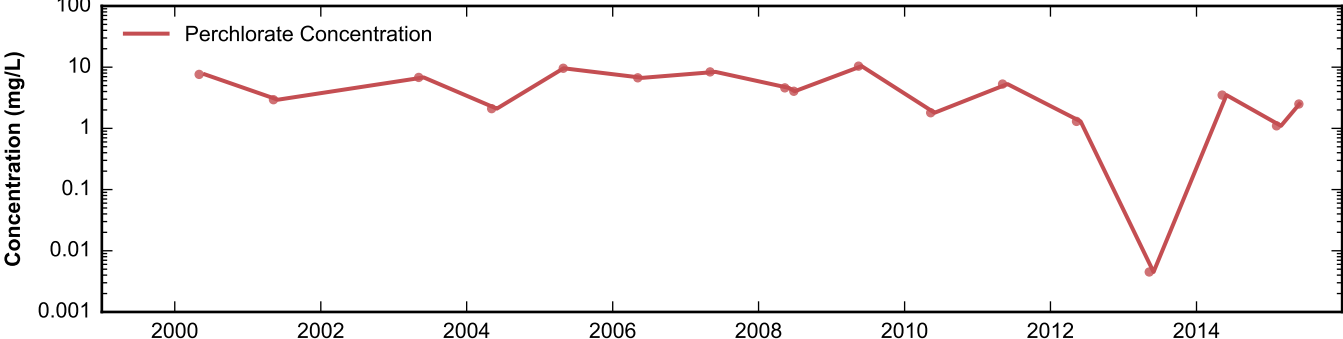
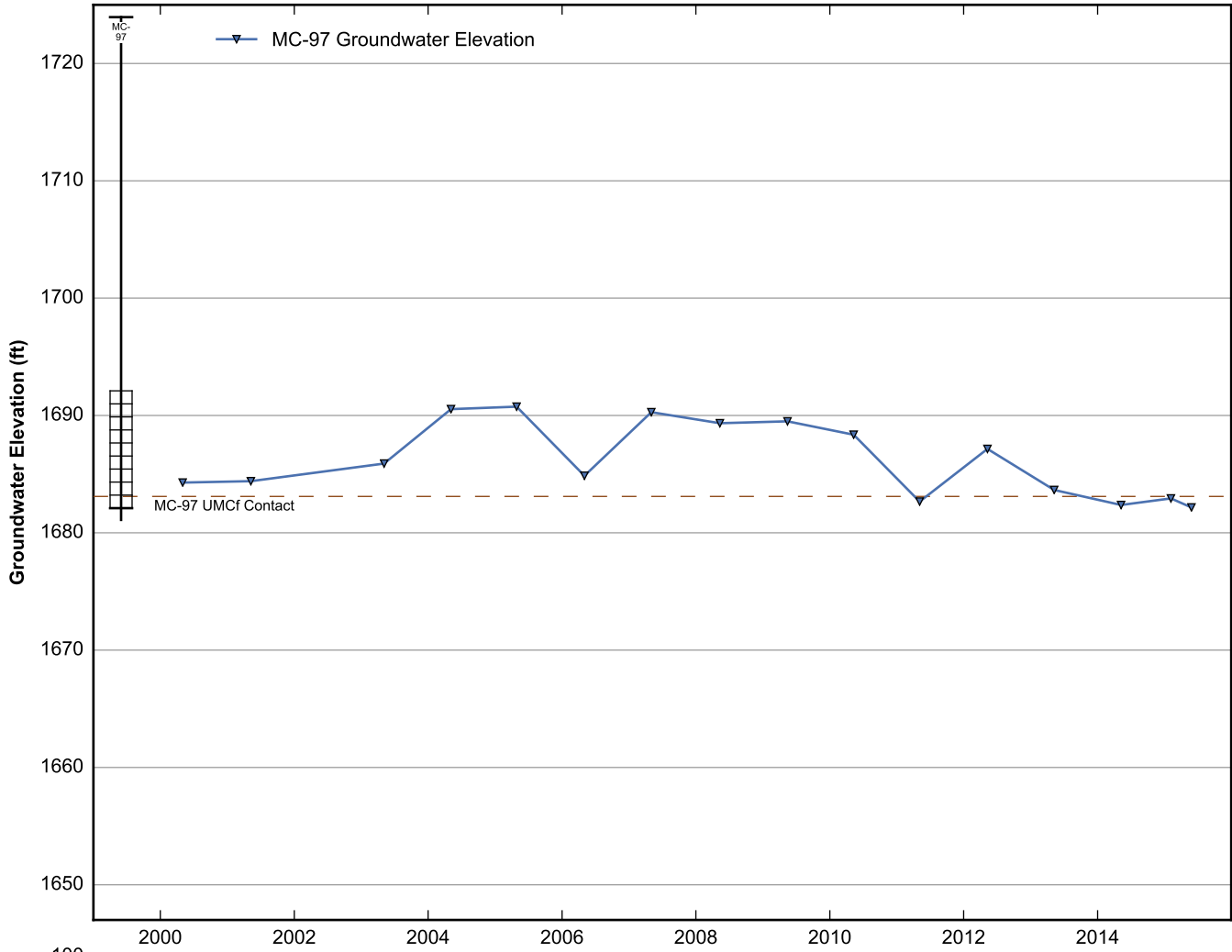


**Data Sheet for Well MC-69**  
 Nevada Environmental Response Trust Site  
 Henderson, Nevada

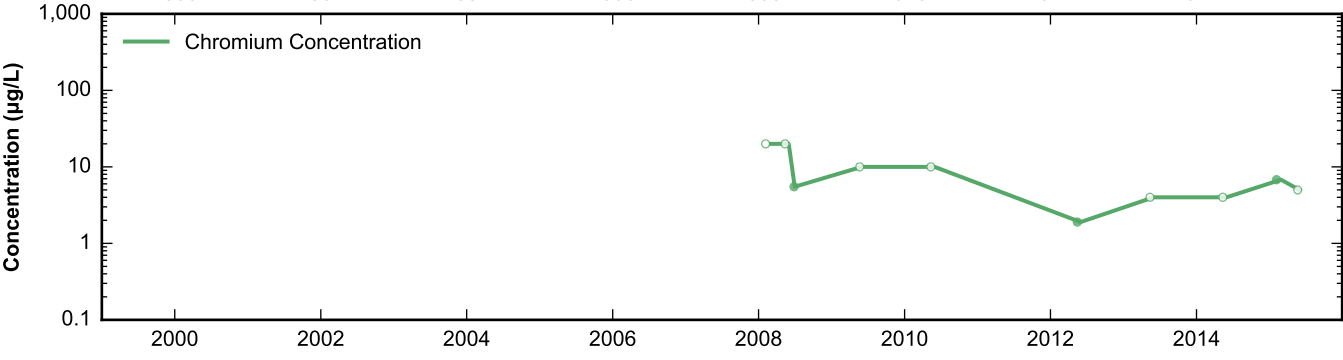
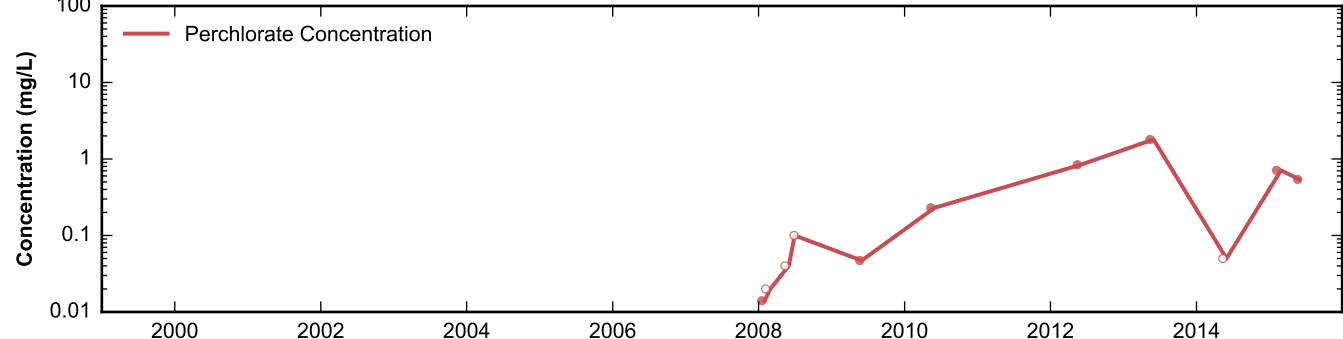
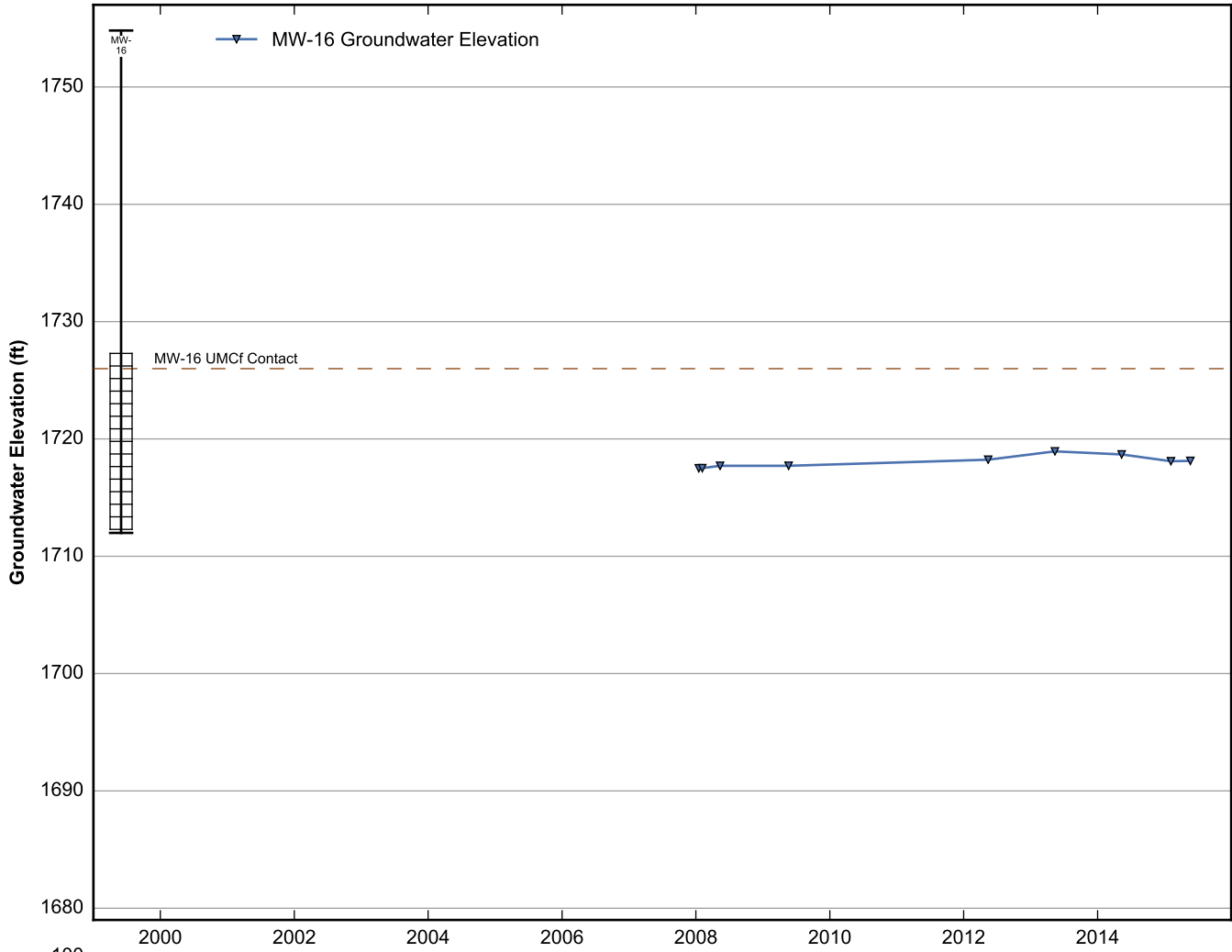




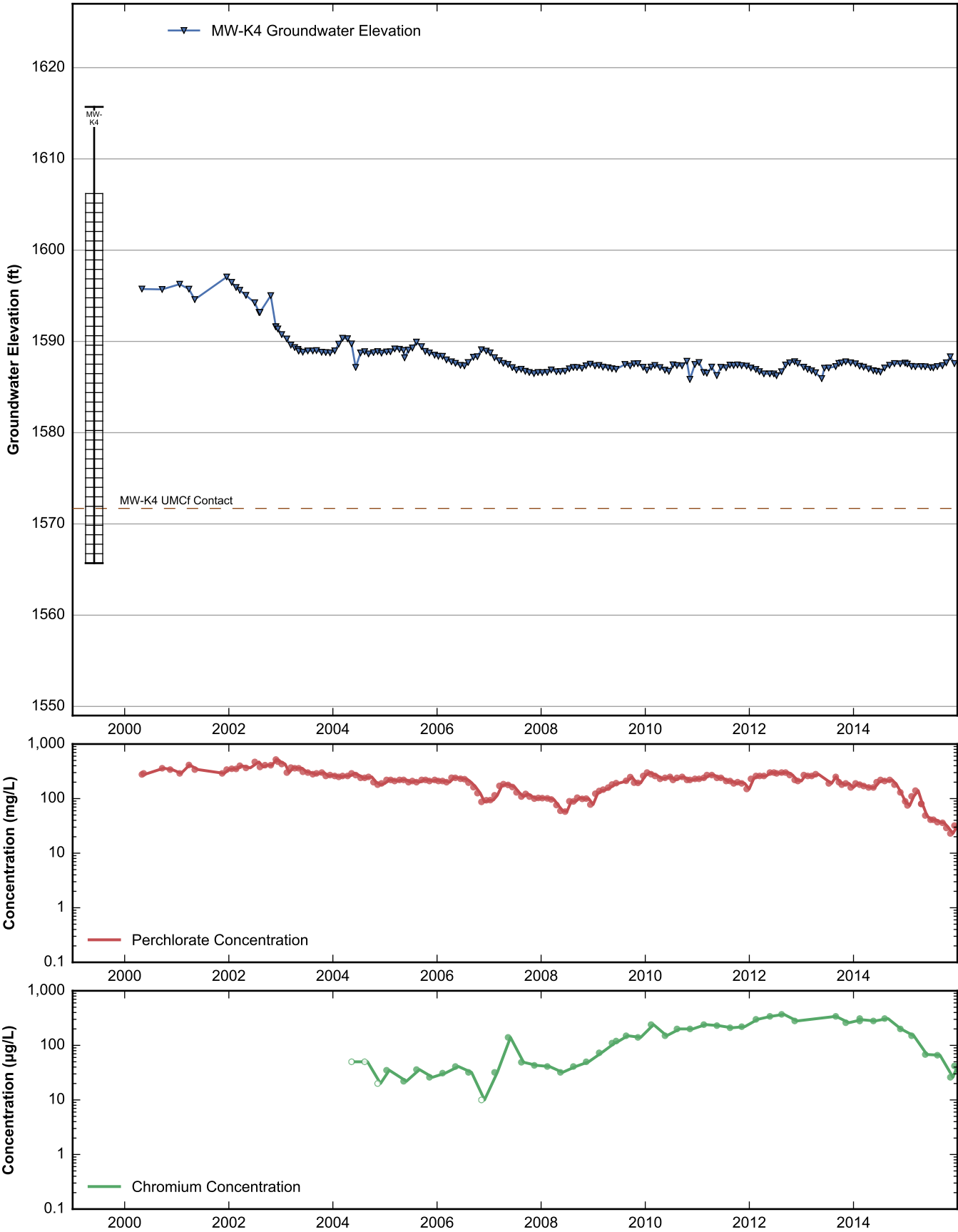
**Data Sheet for Well MC-93**  
 Nevada Environmental Response Trust Site  
 Henderson, Nevada



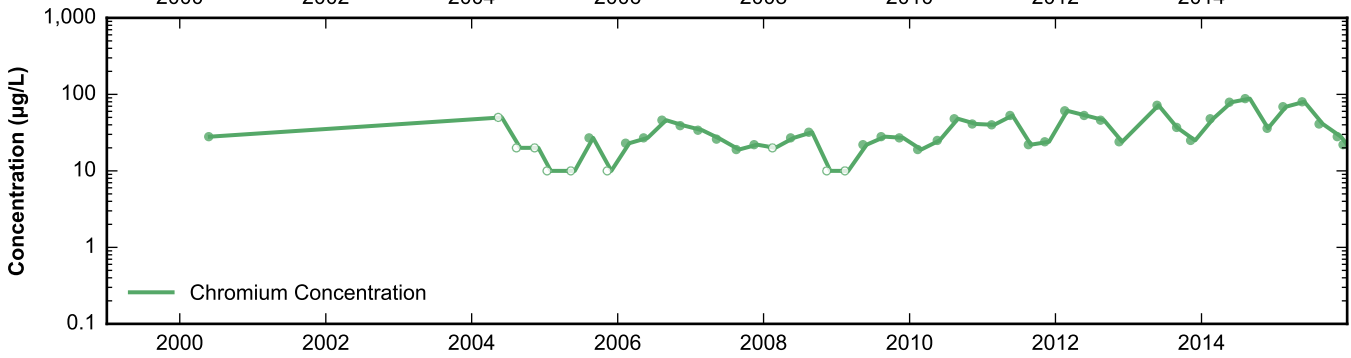
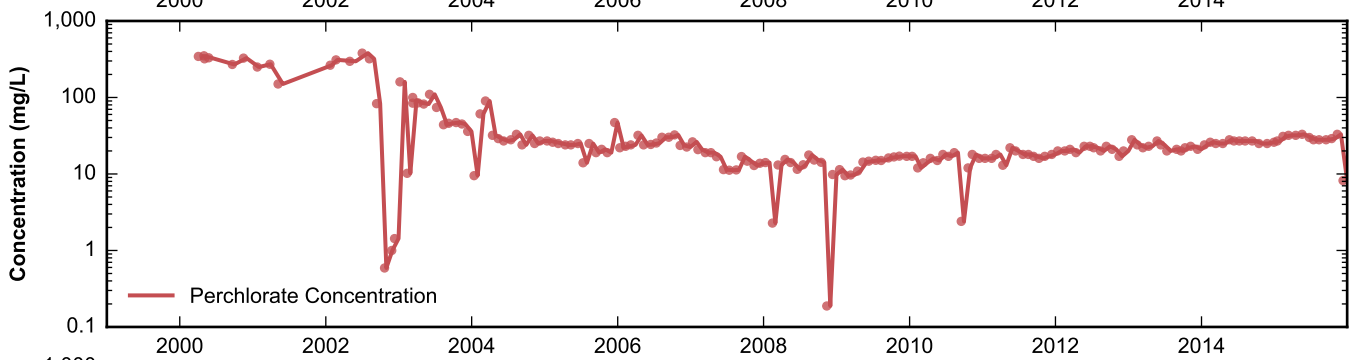
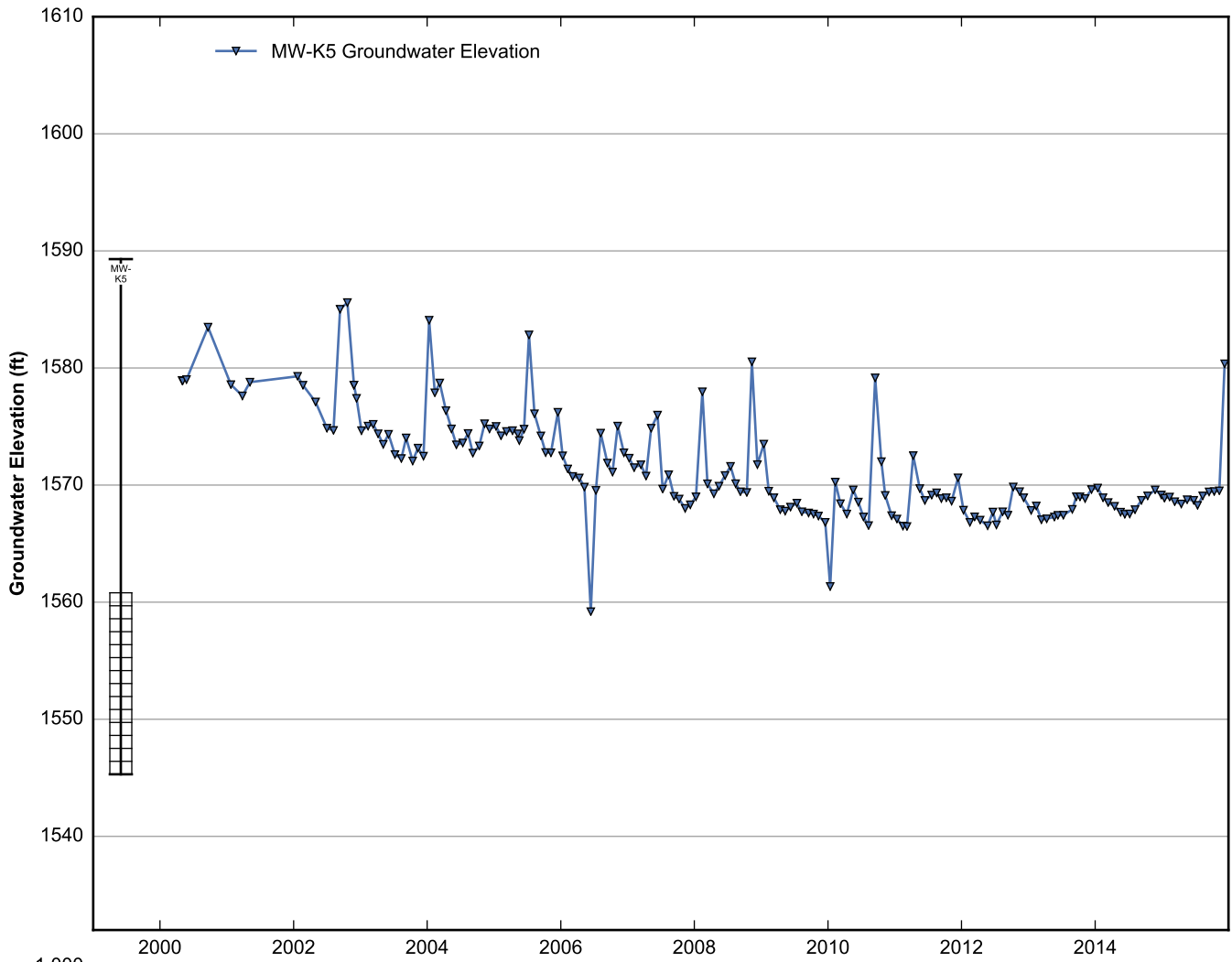
**Data Sheet for Well MC-97**  
 Nevada Environmental Response Trust Site  
 Henderson, Nevada



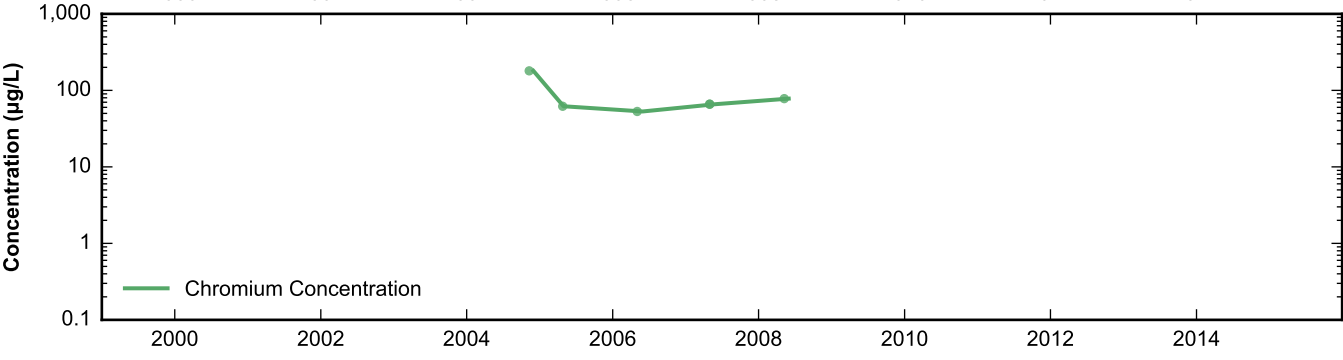
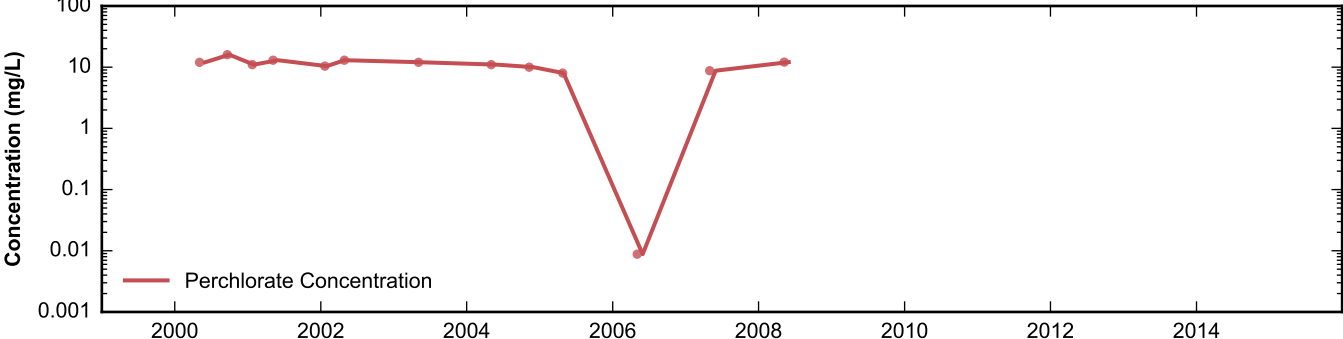
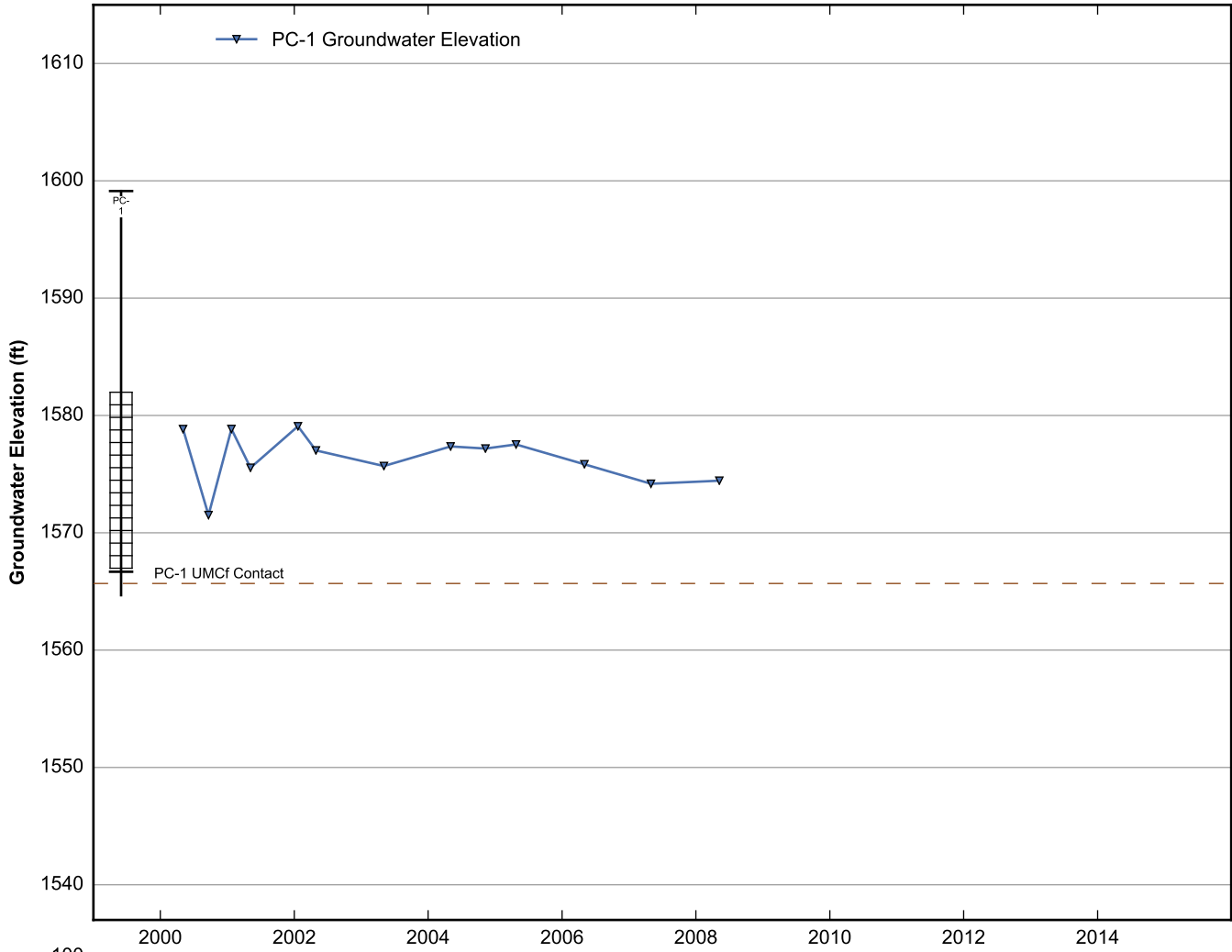
**Data Sheet for Well MW-16**  
 Nevada Environmental Response Trust Site  
 Henderson, Nevada



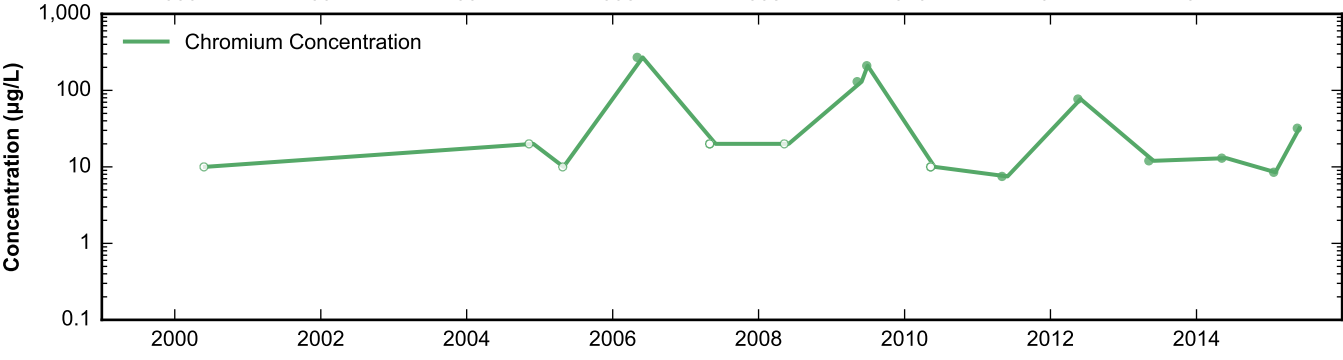
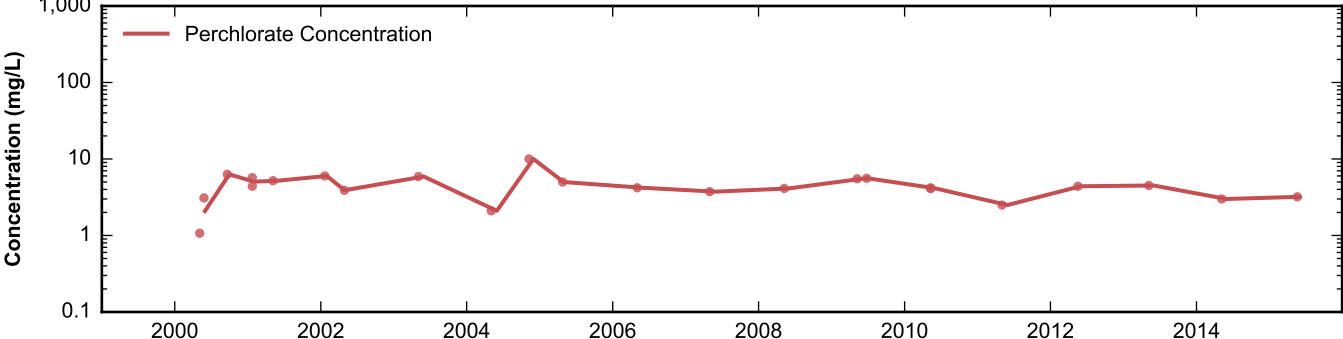
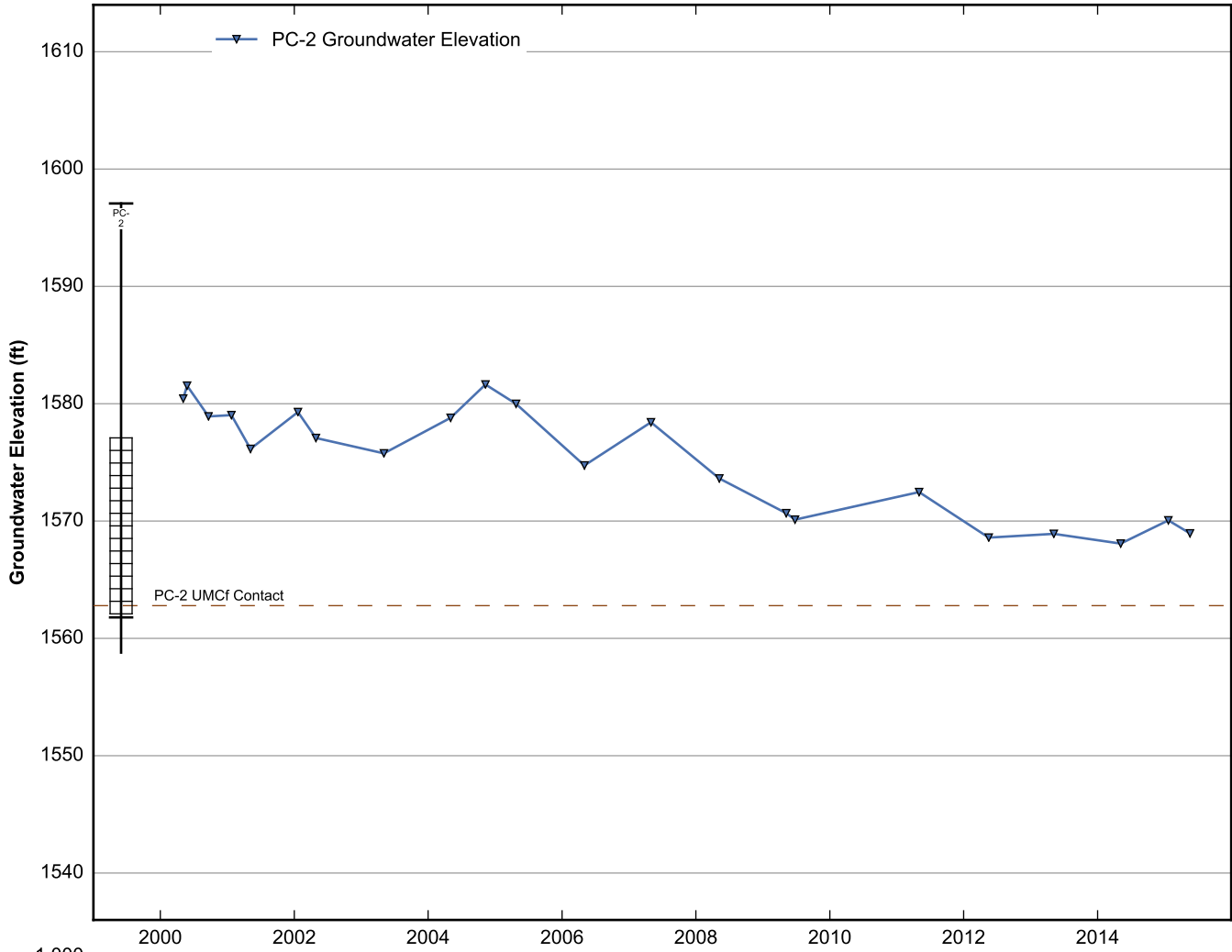
**Data Sheet for Well MW-K4**  
Nevada Environmental Response Trust Site  
Henderson, Nevada



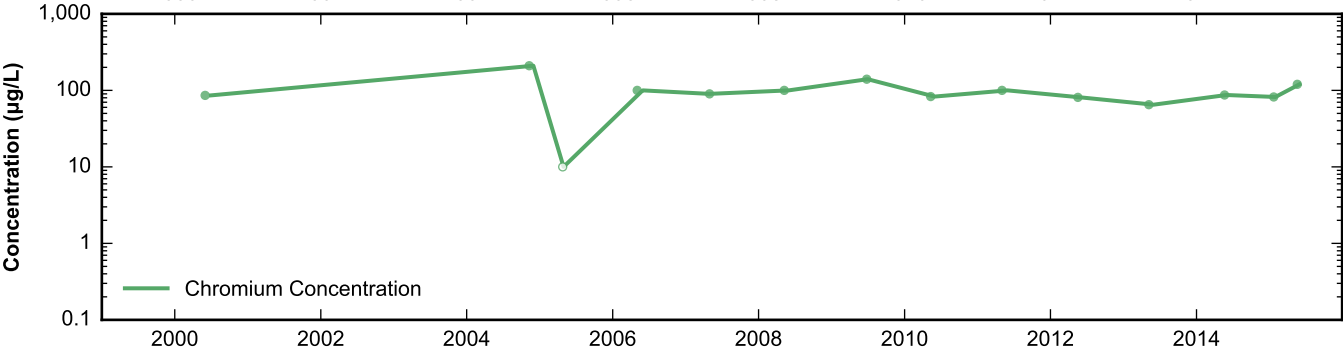
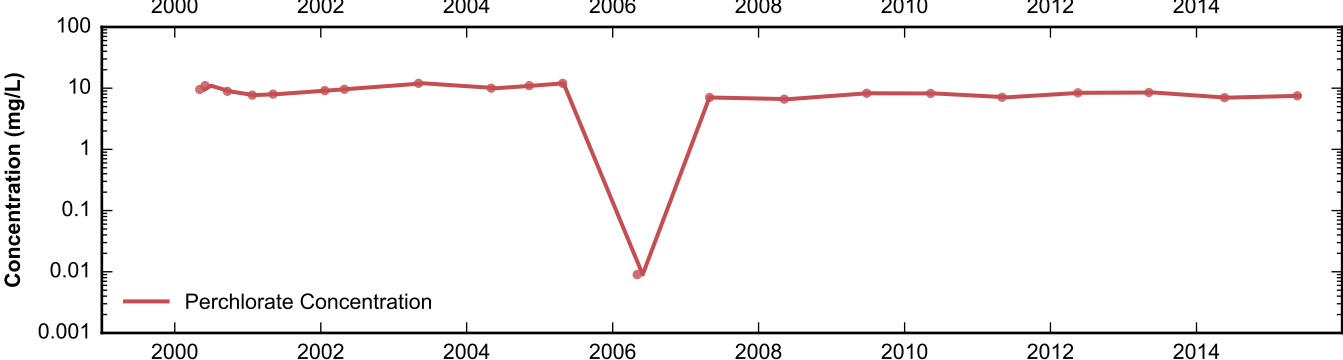
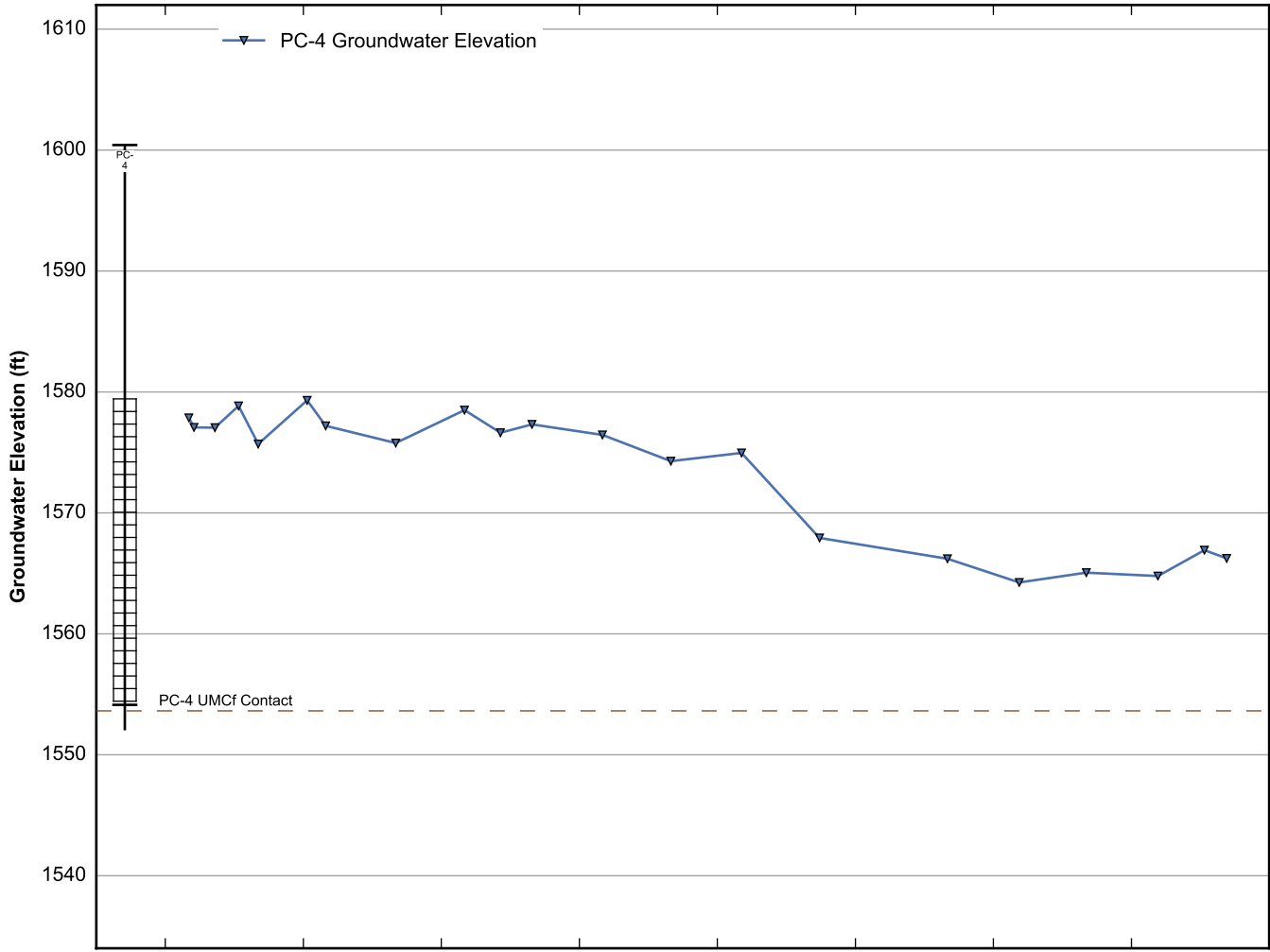
**Data Sheet for Well MW-K5**  
Nevada Environmental Response Trust Site  
Henderson, Nevada



**Data Sheet for Well PC-1**  
 Nevada Environmental Response Trust Site  
 Henderson, Nevada

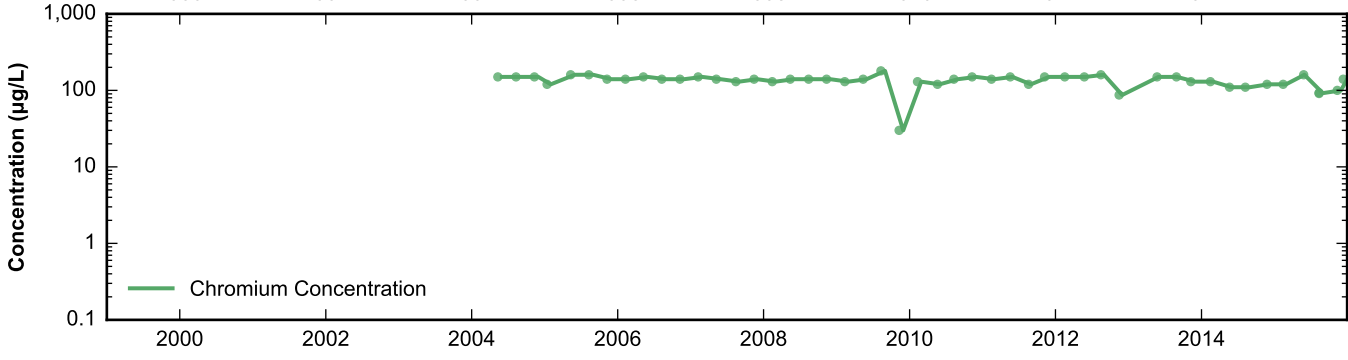
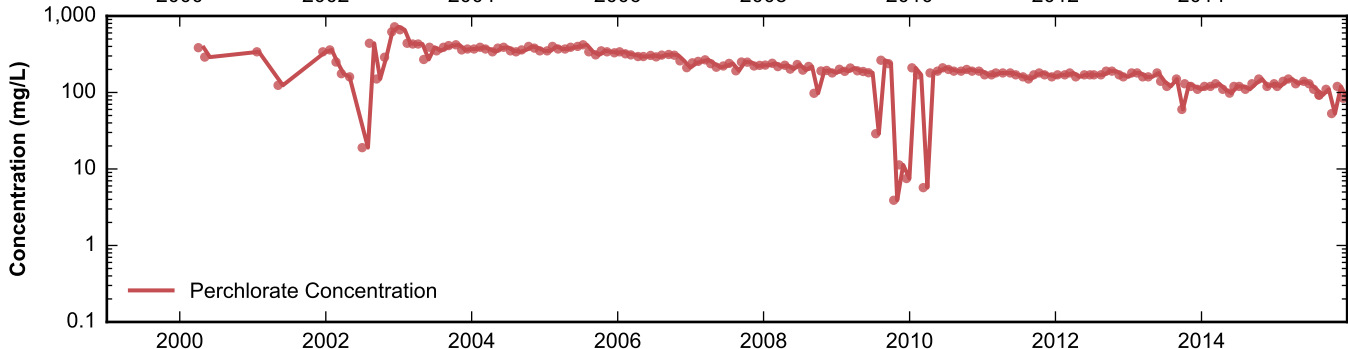
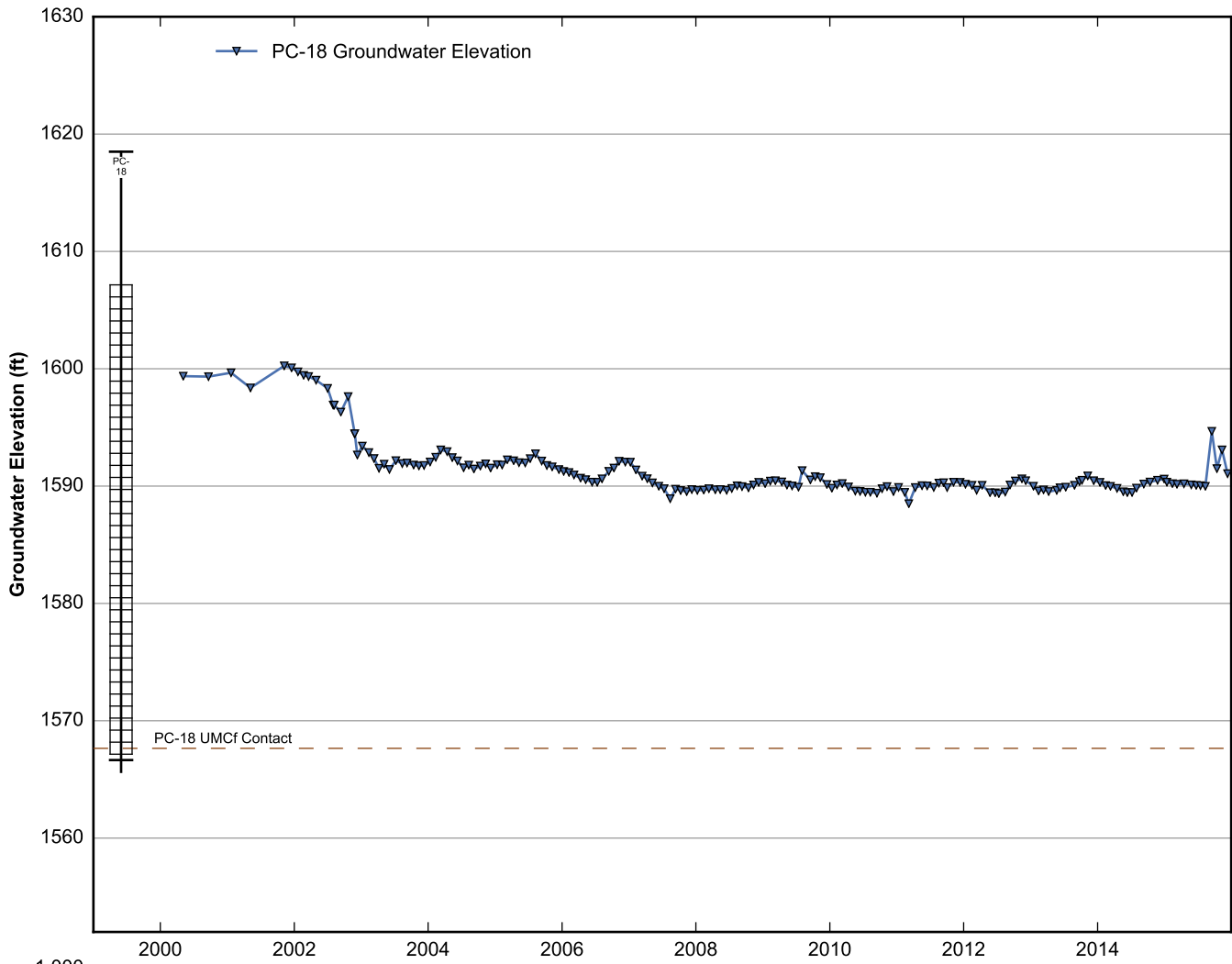


**Data Sheet for Well PC-2**  
 Nevada Environmental Response Trust Site  
 Henderson, Nevada

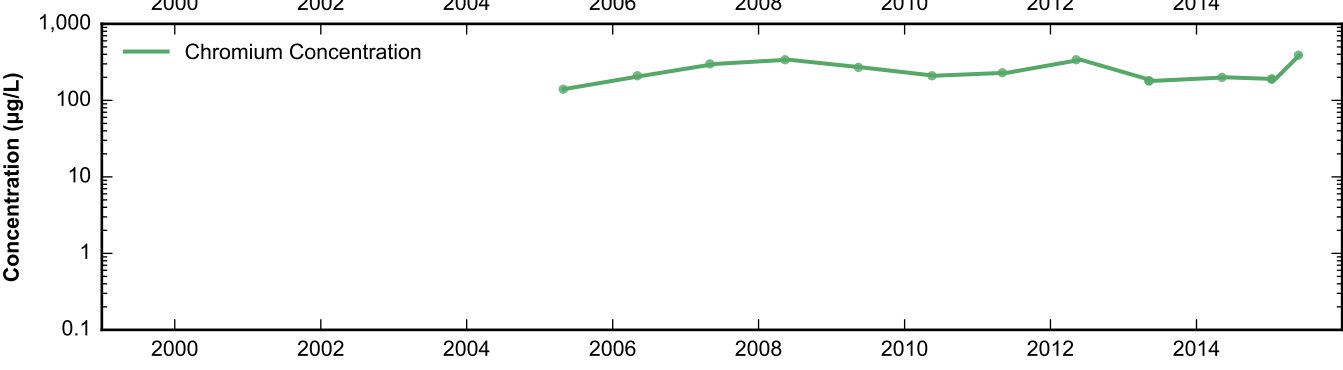
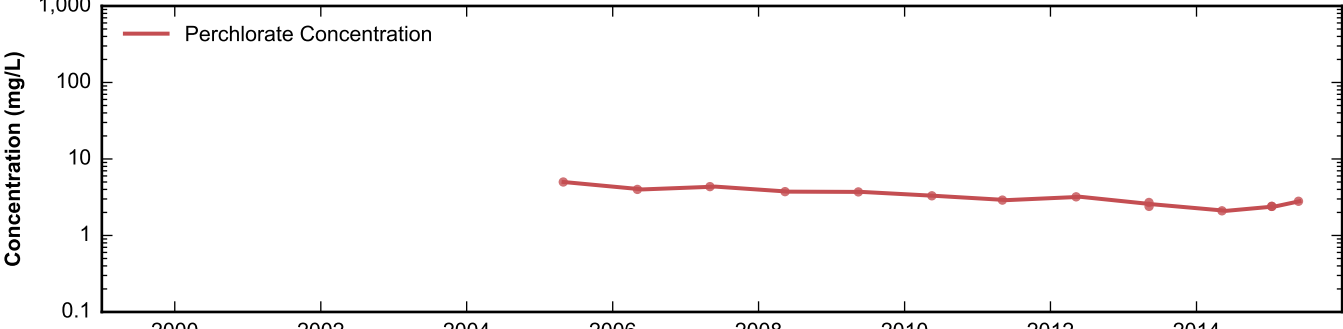
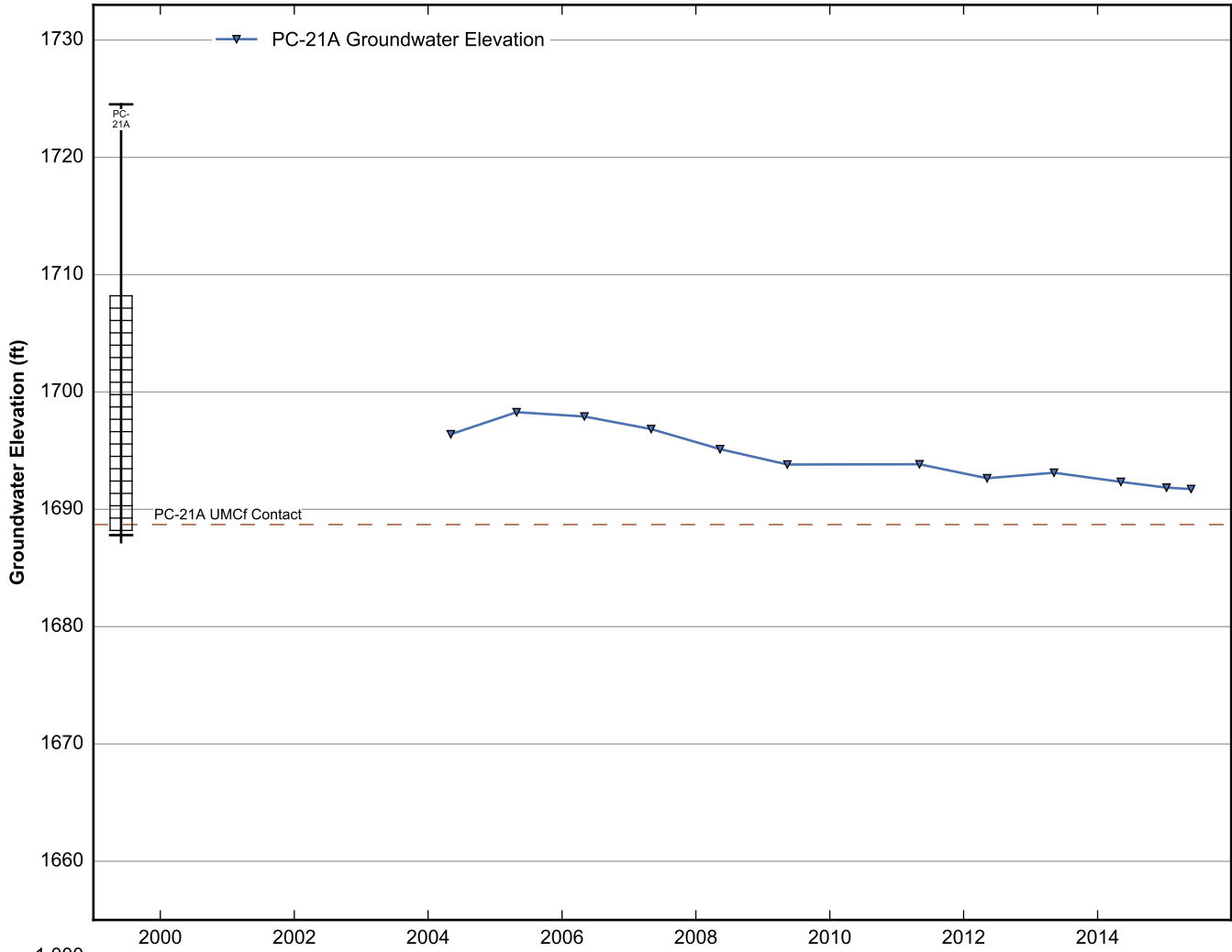


**Data Sheet for Well PC-4**  
 Nevada Environmental Response Trust Site  
 Henderson, Nevada

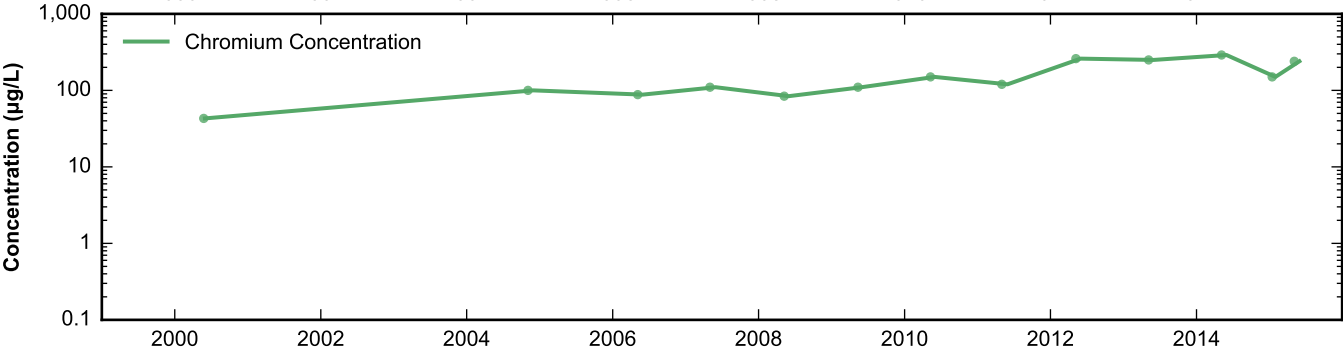
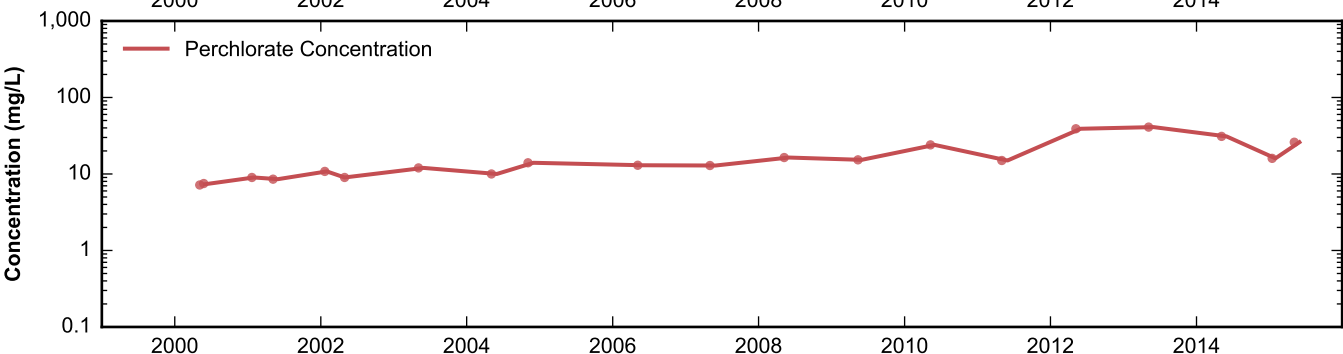
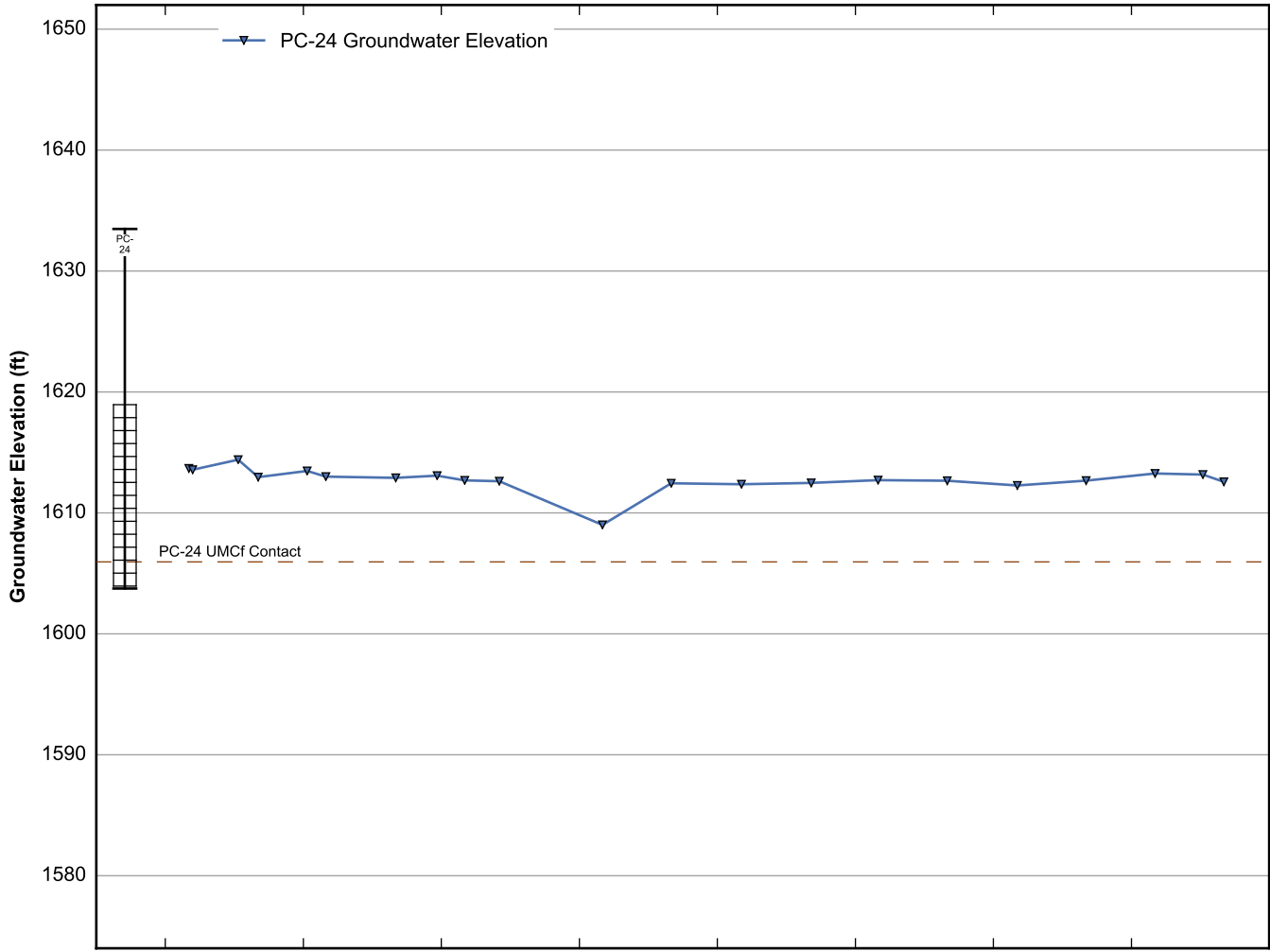




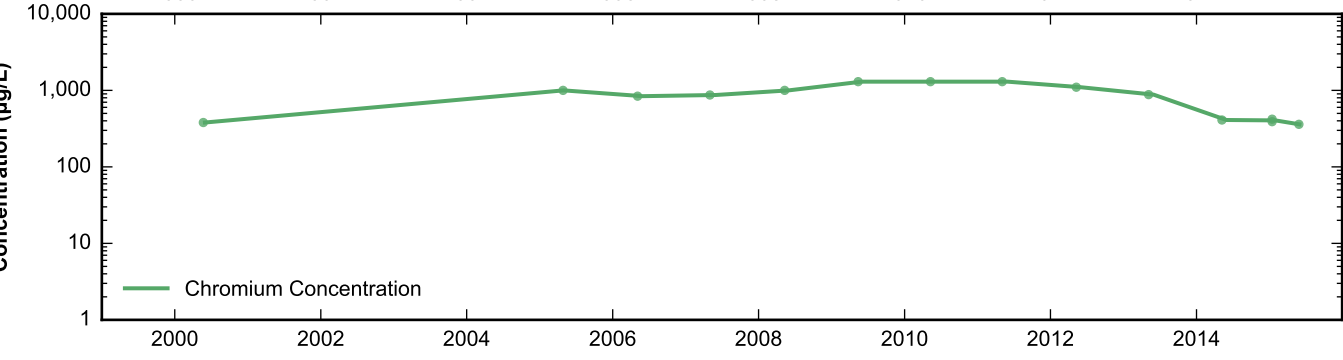
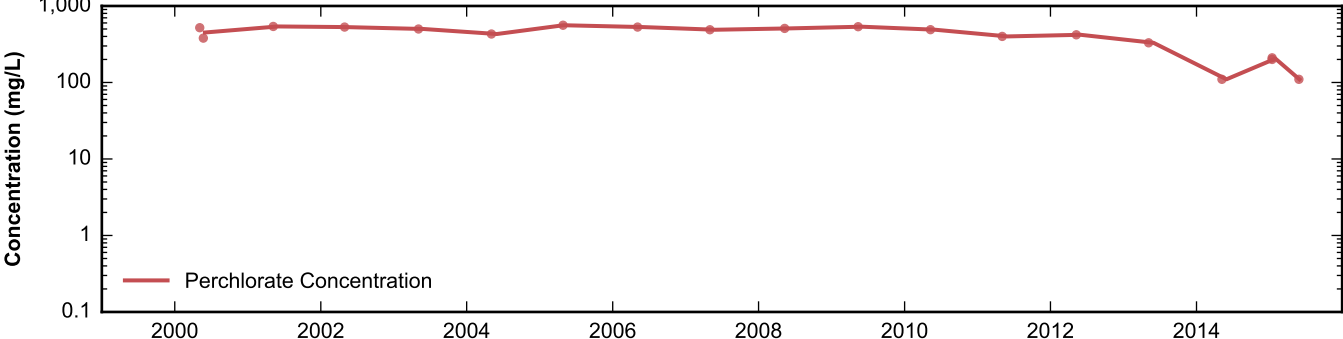
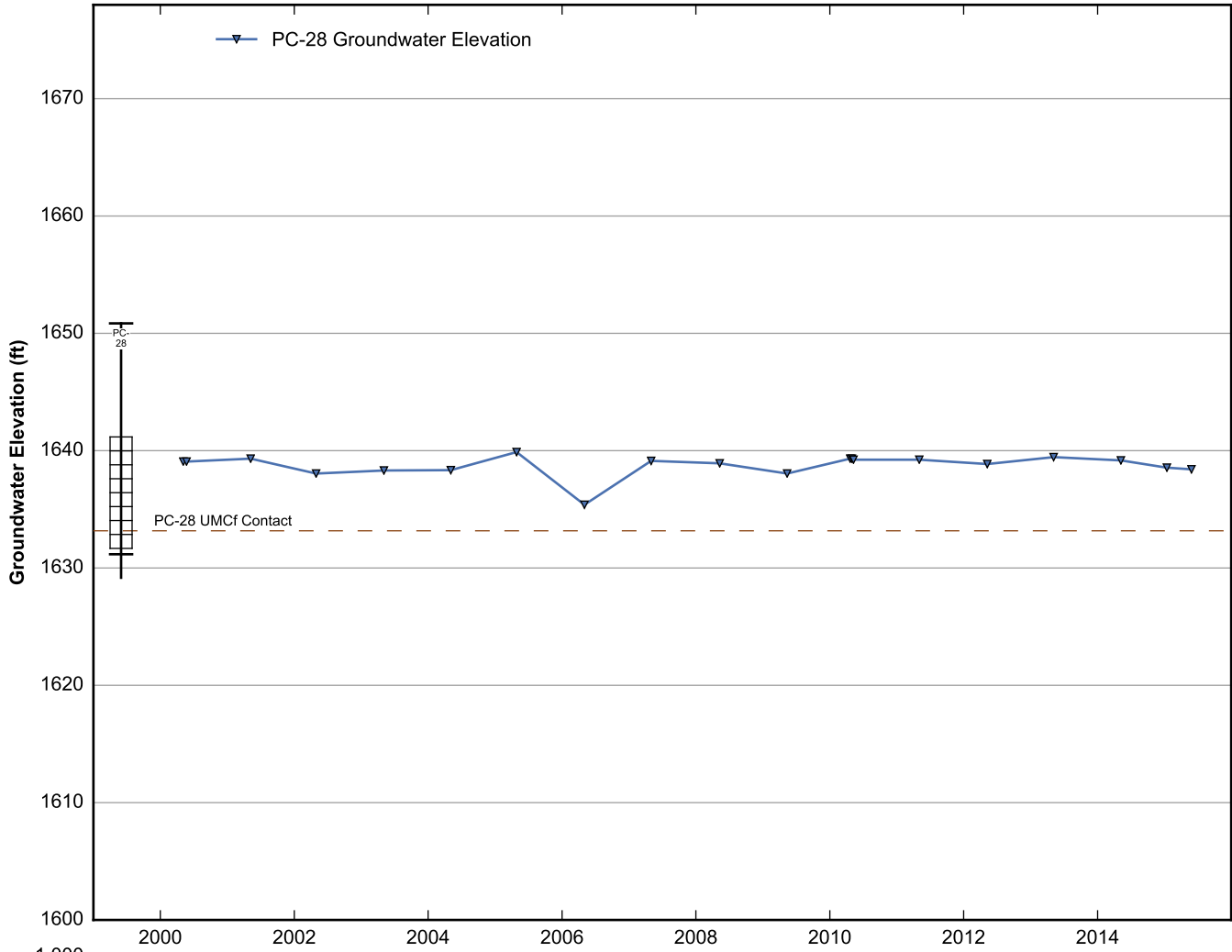
**Data Sheet for Well PC-18**  
Nevada Environmental Response Trust Site  
Henderson, Nevada



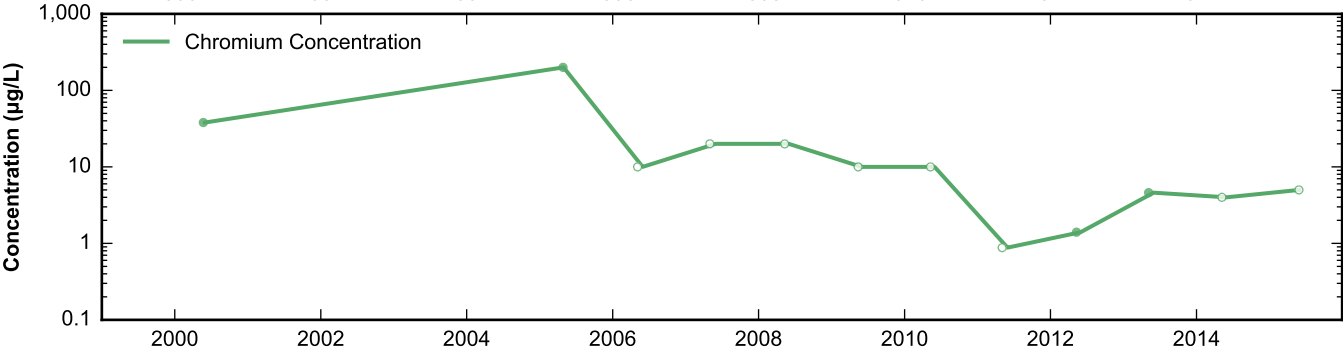
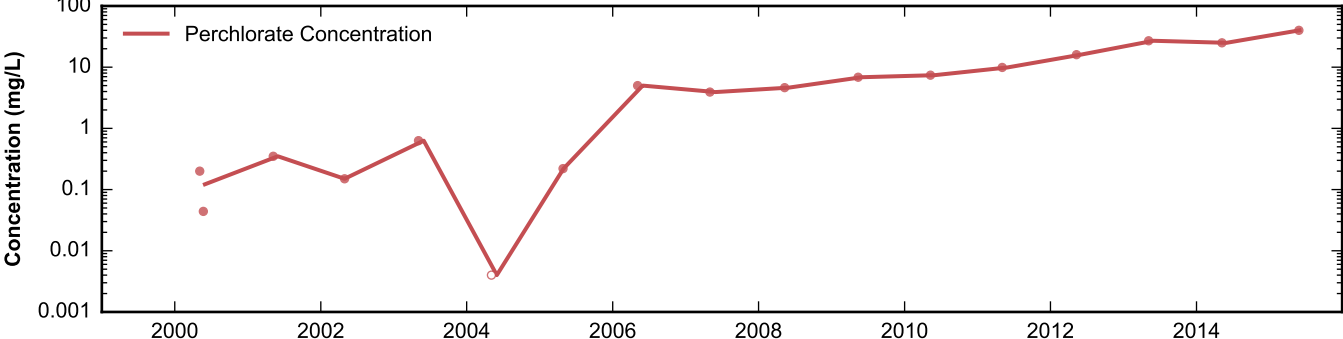
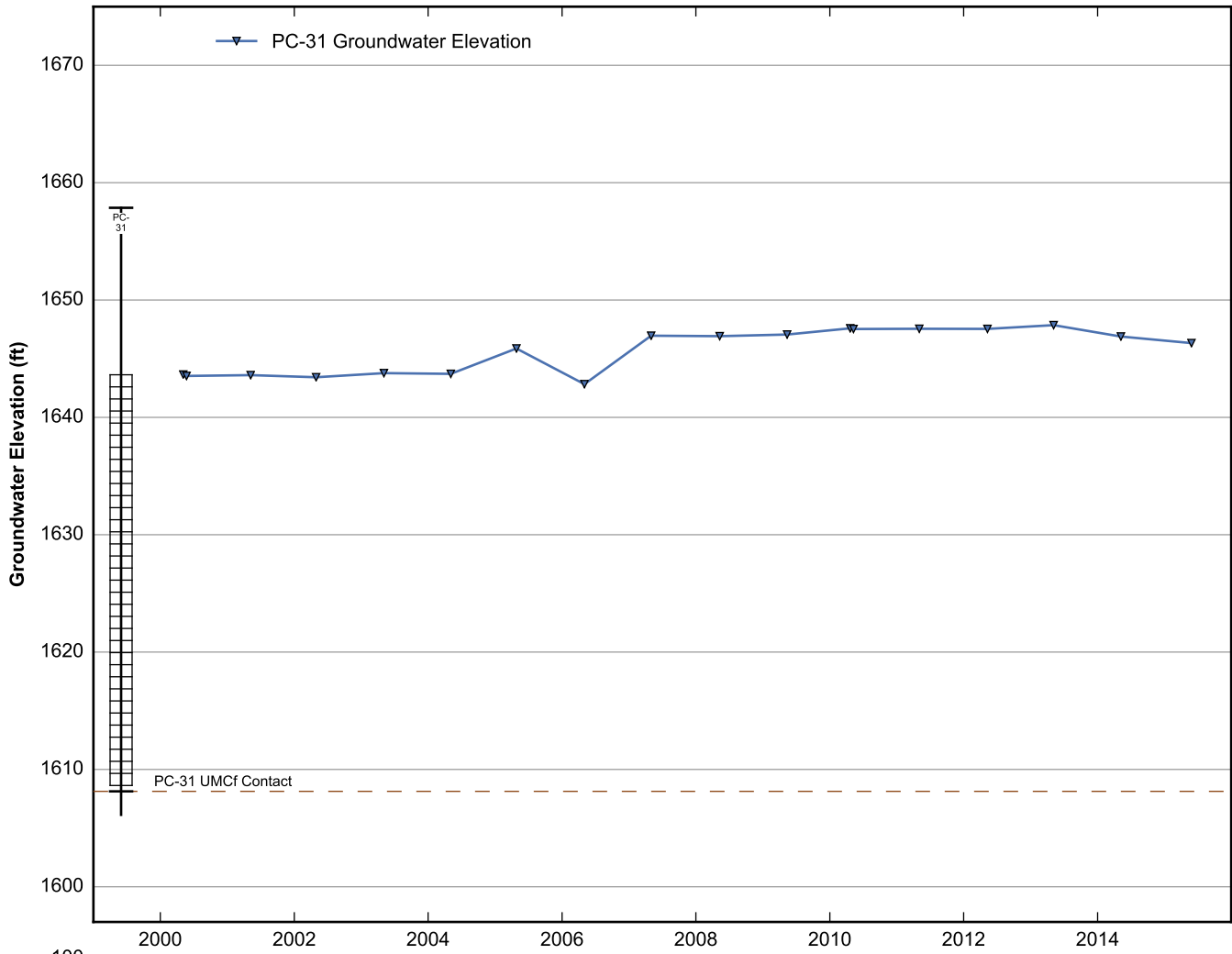
**Data Sheet for Well PC-21A**  
 Nevada Environmental Response Trust Site  
 Henderson, Nevada



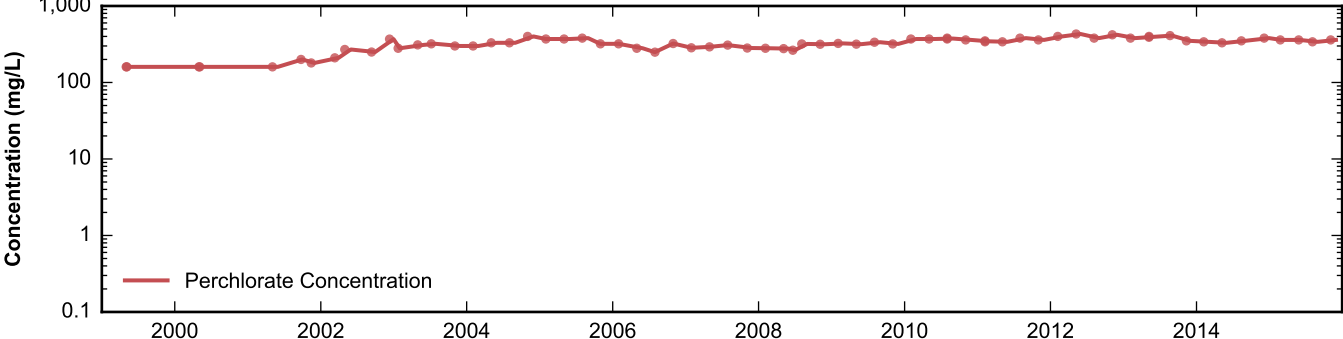
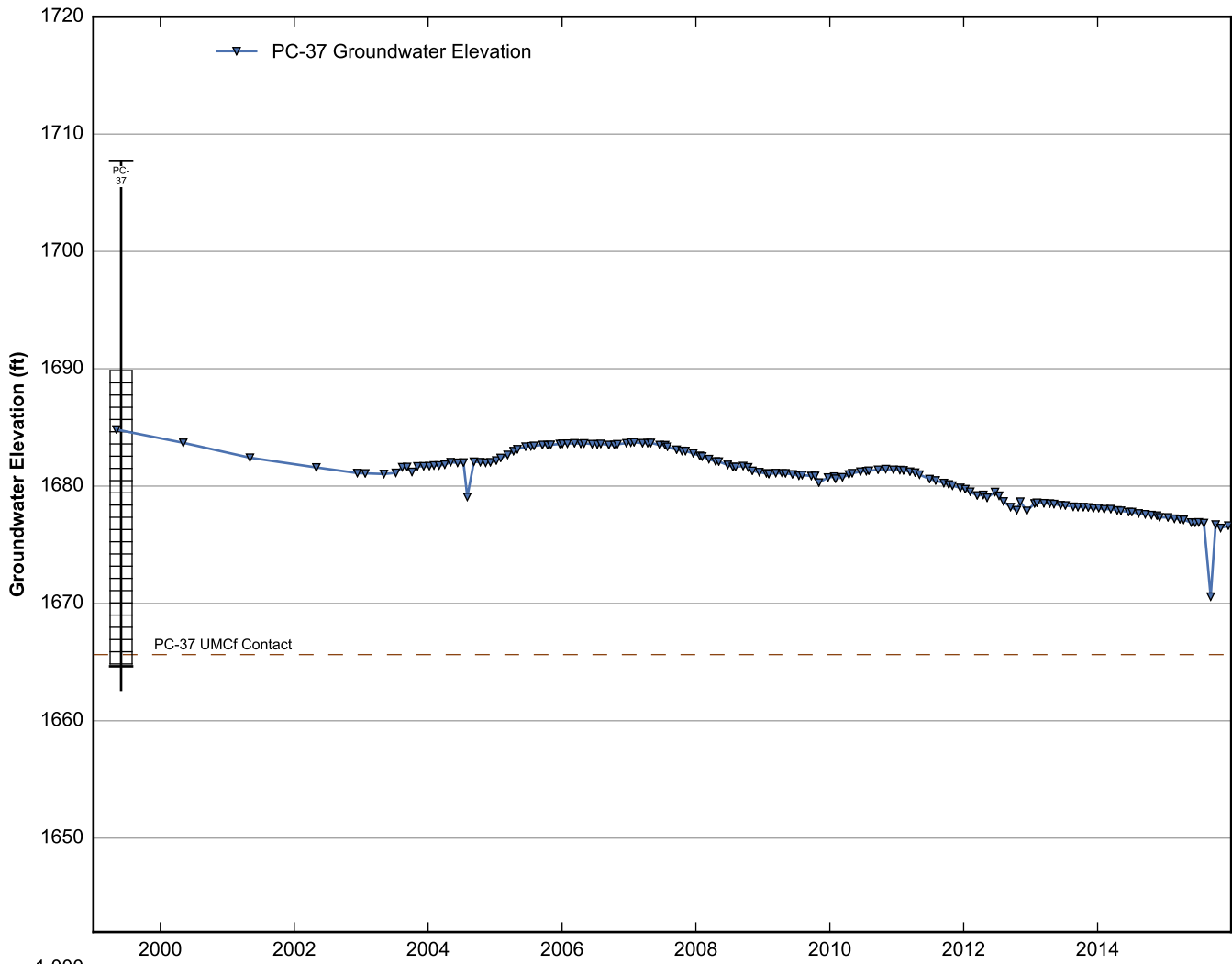
**Data Sheet for Well PC-24**  
 Nevada Environmental Response Trust Site  
 Henderson, Nevada



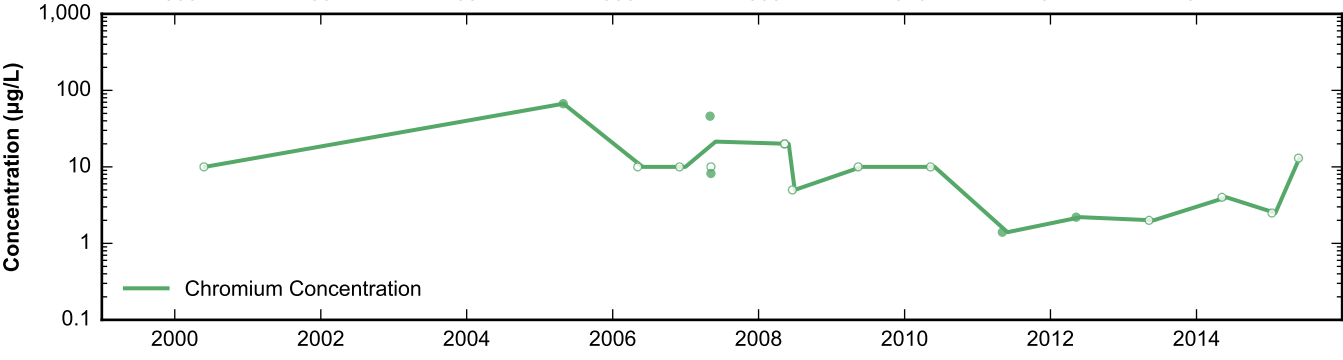
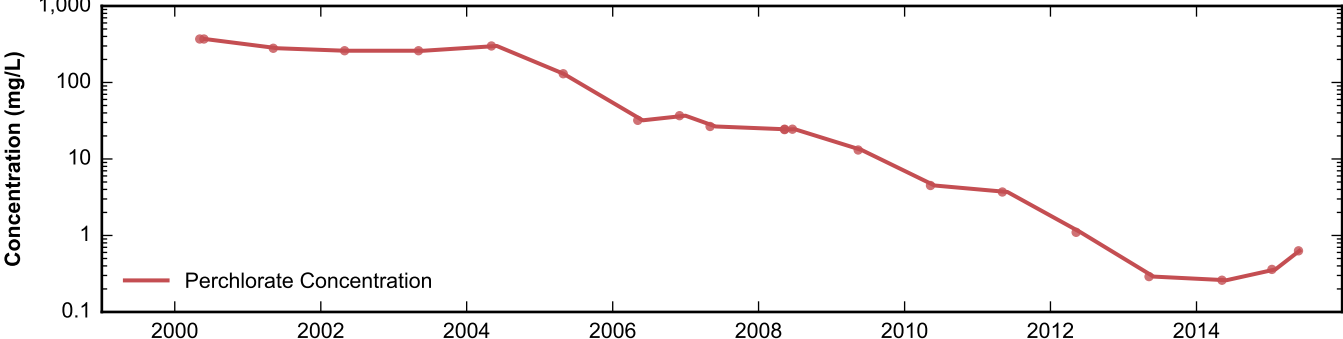
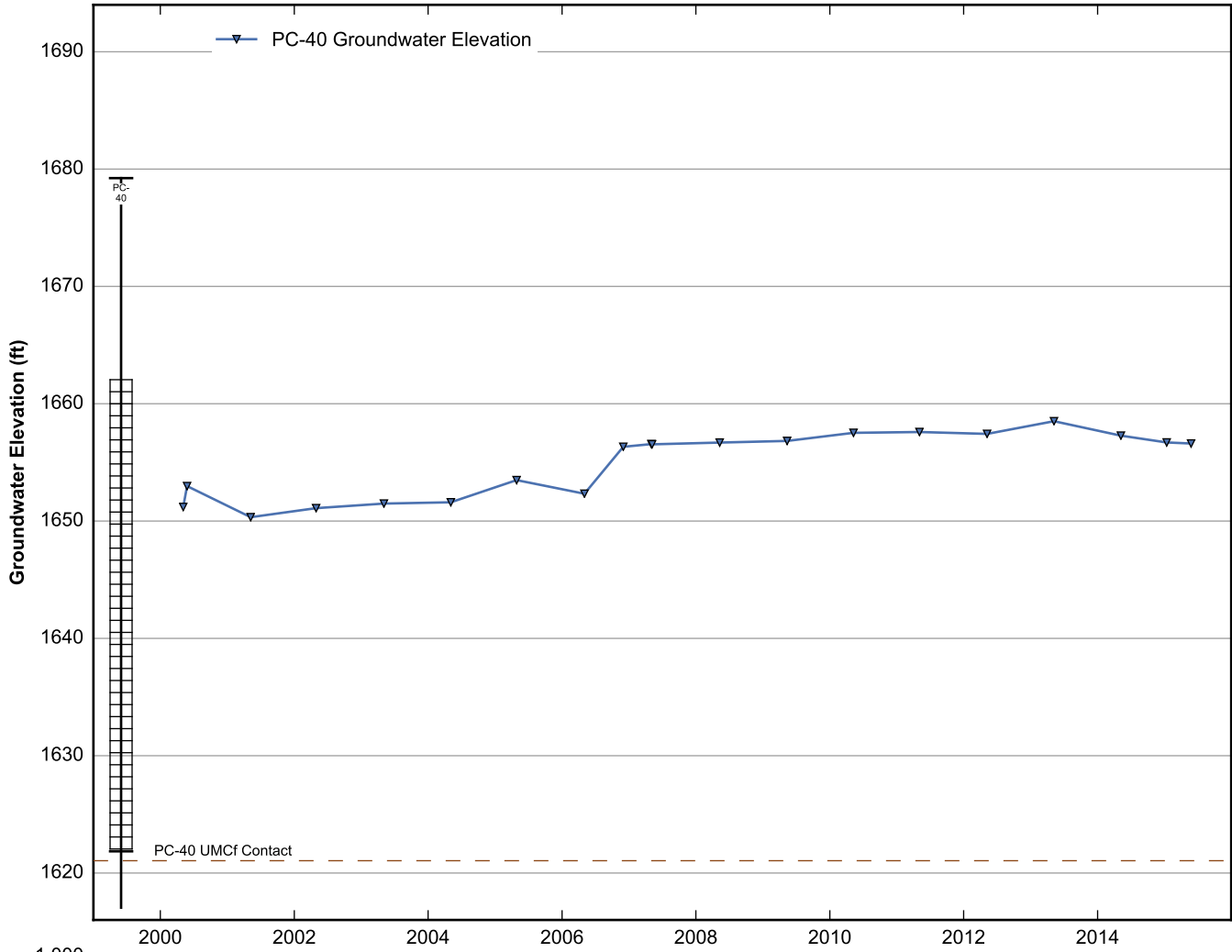
**Data Sheet for Well PC-28**  
 Nevada Environmental Response Trust Site  
 Henderson, Nevada



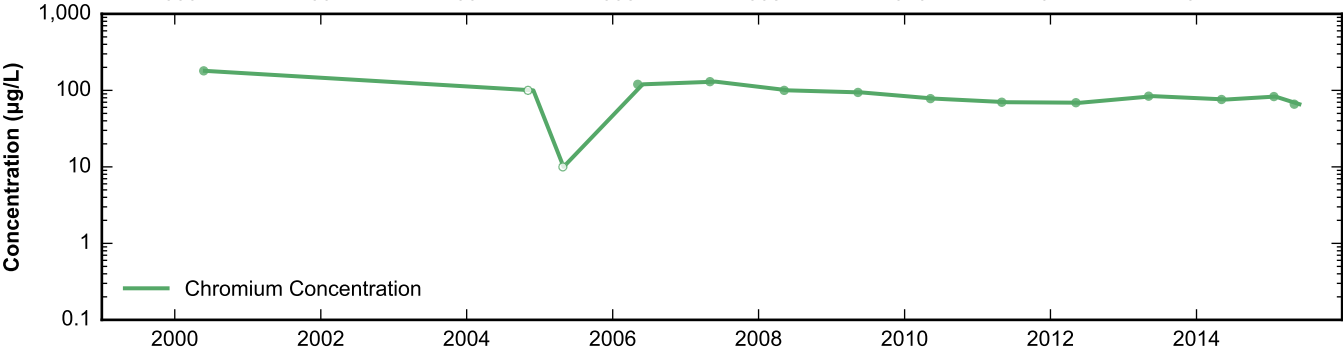
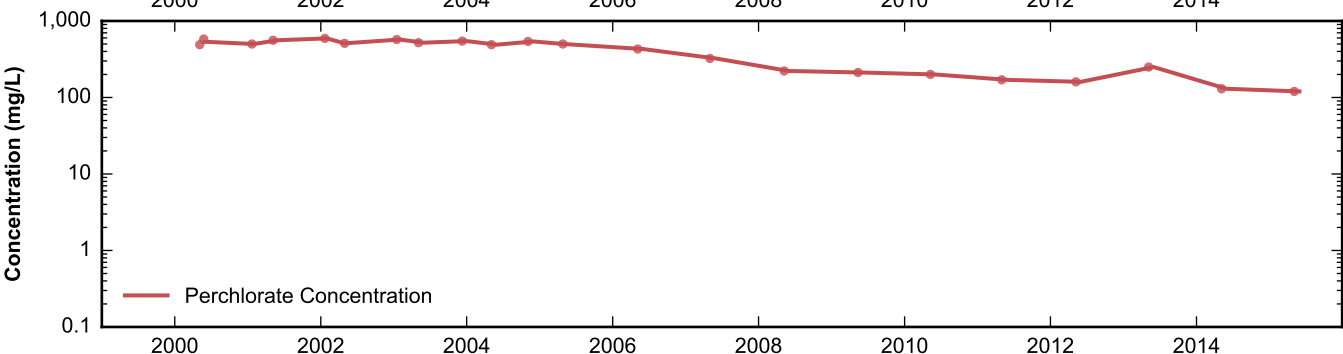
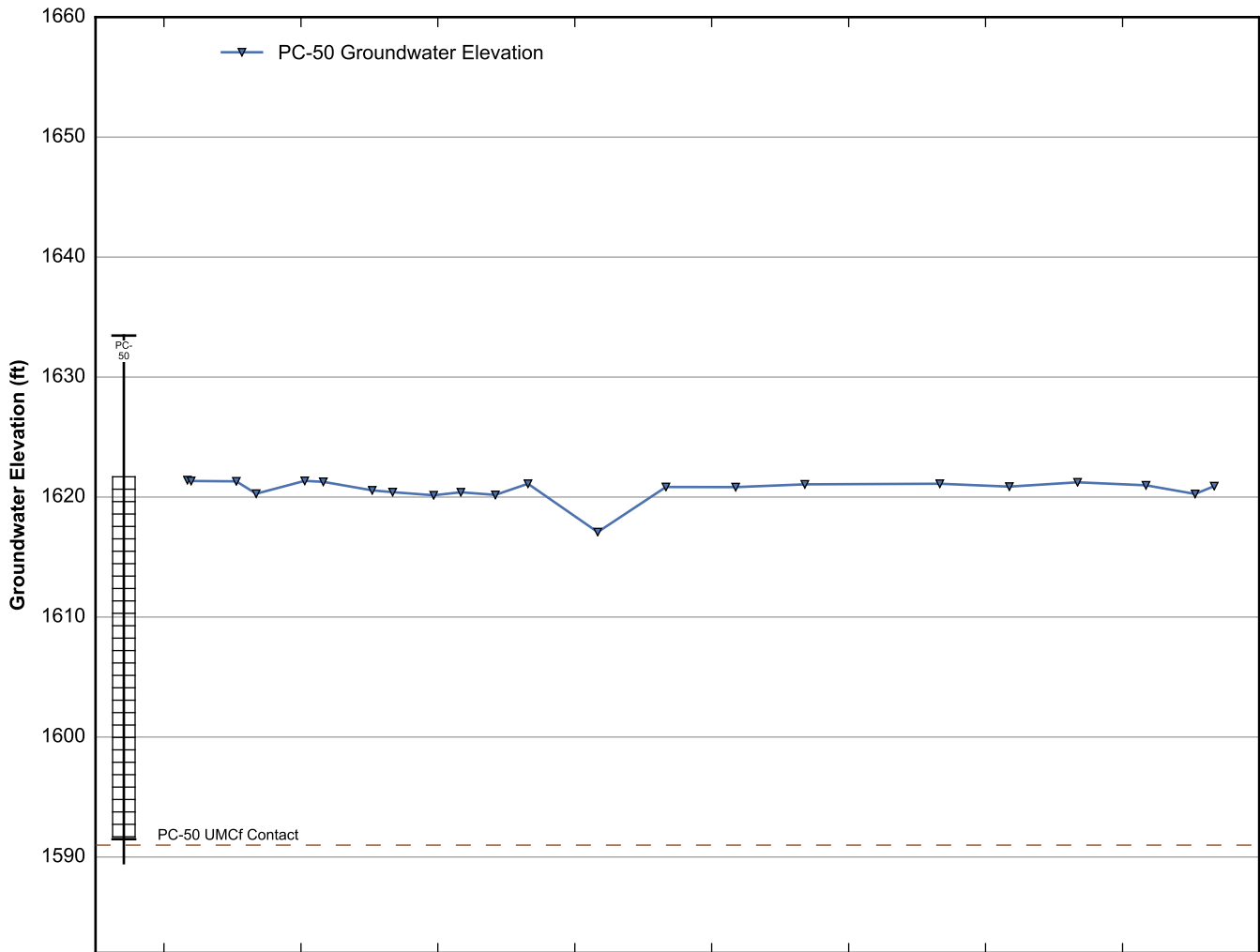
**Data Sheet for Well PC-31**  
 Nevada Environmental Response Trust Site  
 Henderson, Nevada



**Data Sheet for Well PC-37**  
 Nevada Environmental Response Trust Site  
 Henderson, Nevada

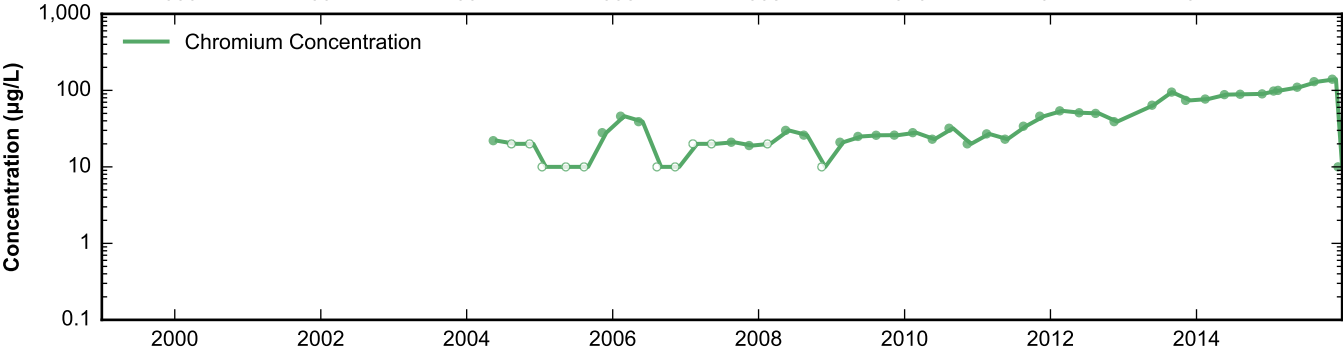
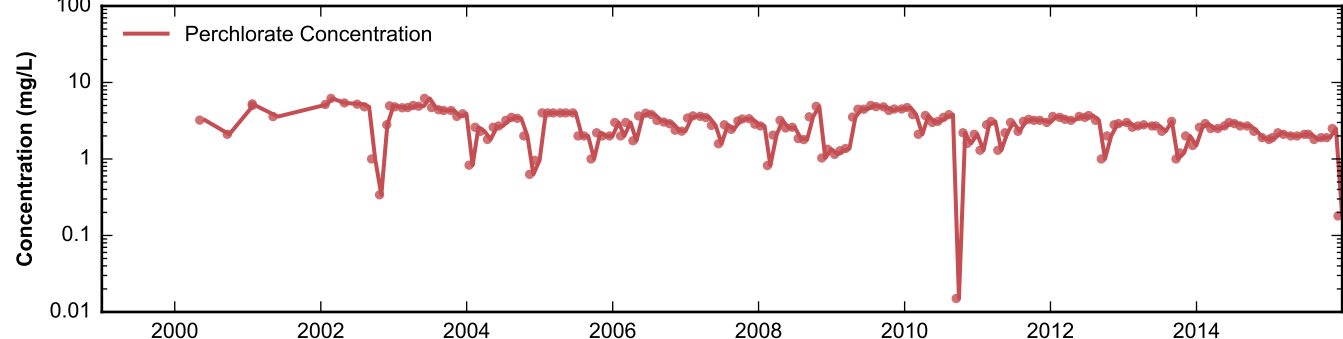
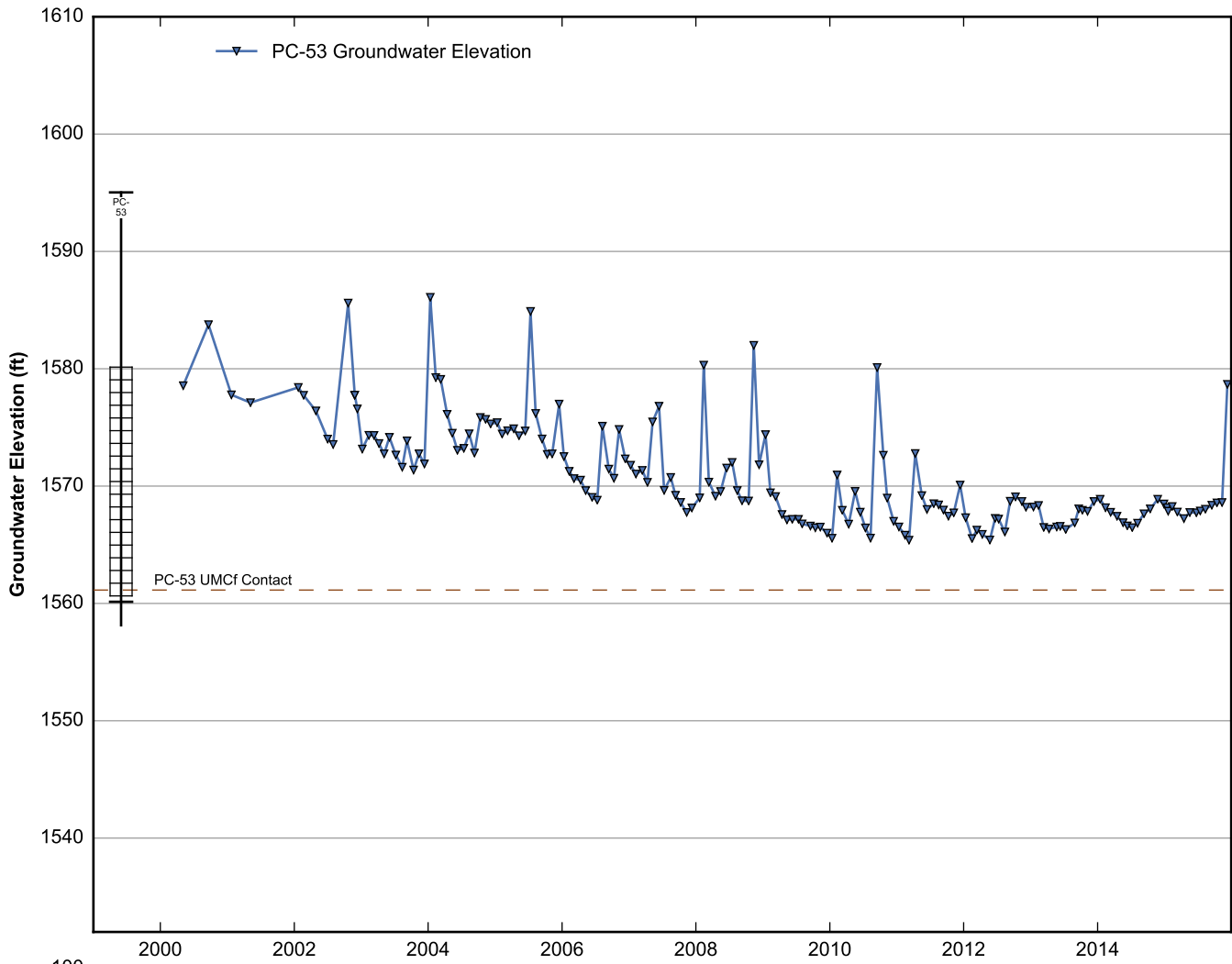


**Data Sheet for Well PC-40**  
 Nevada Environmental Response Trust Site  
 Henderson, Nevada

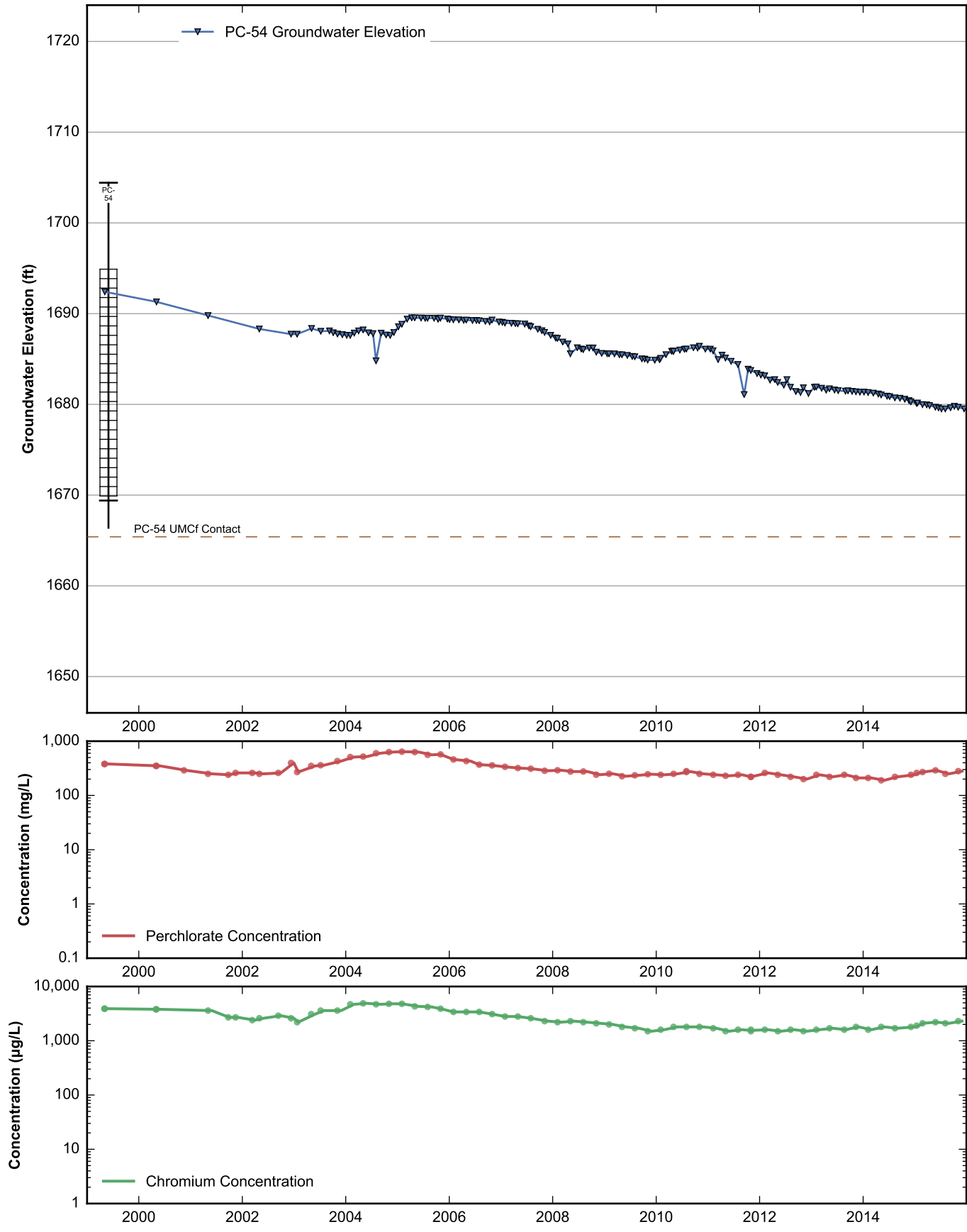


**Data Sheet for Well PC-50**  
 Nevada Environmental Response Trust Site  
 Henderson, Nevada

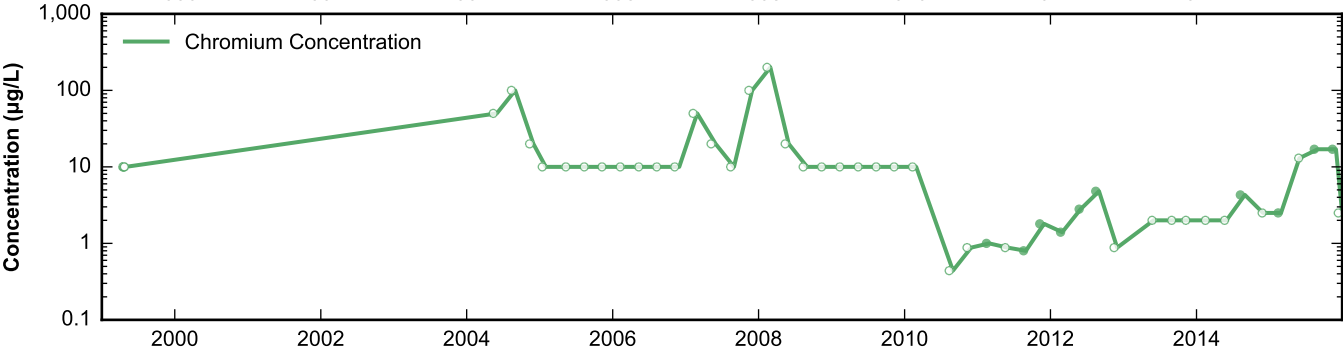
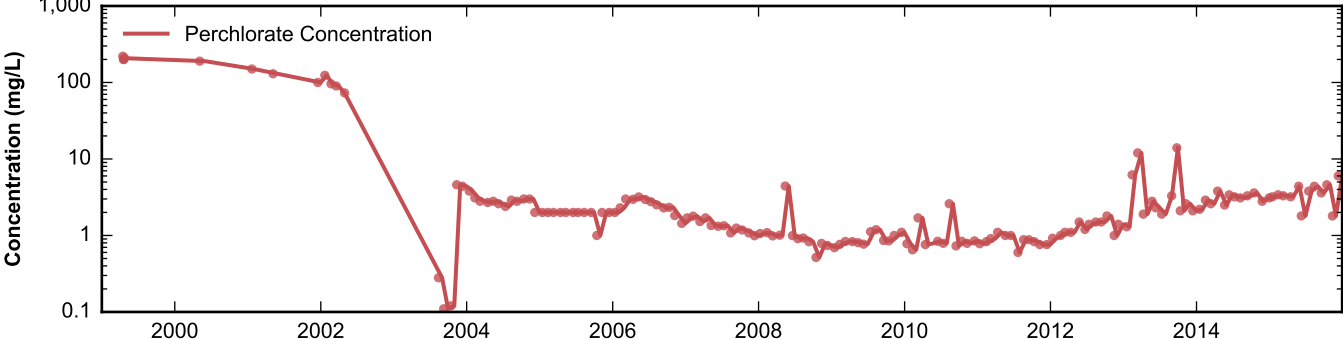
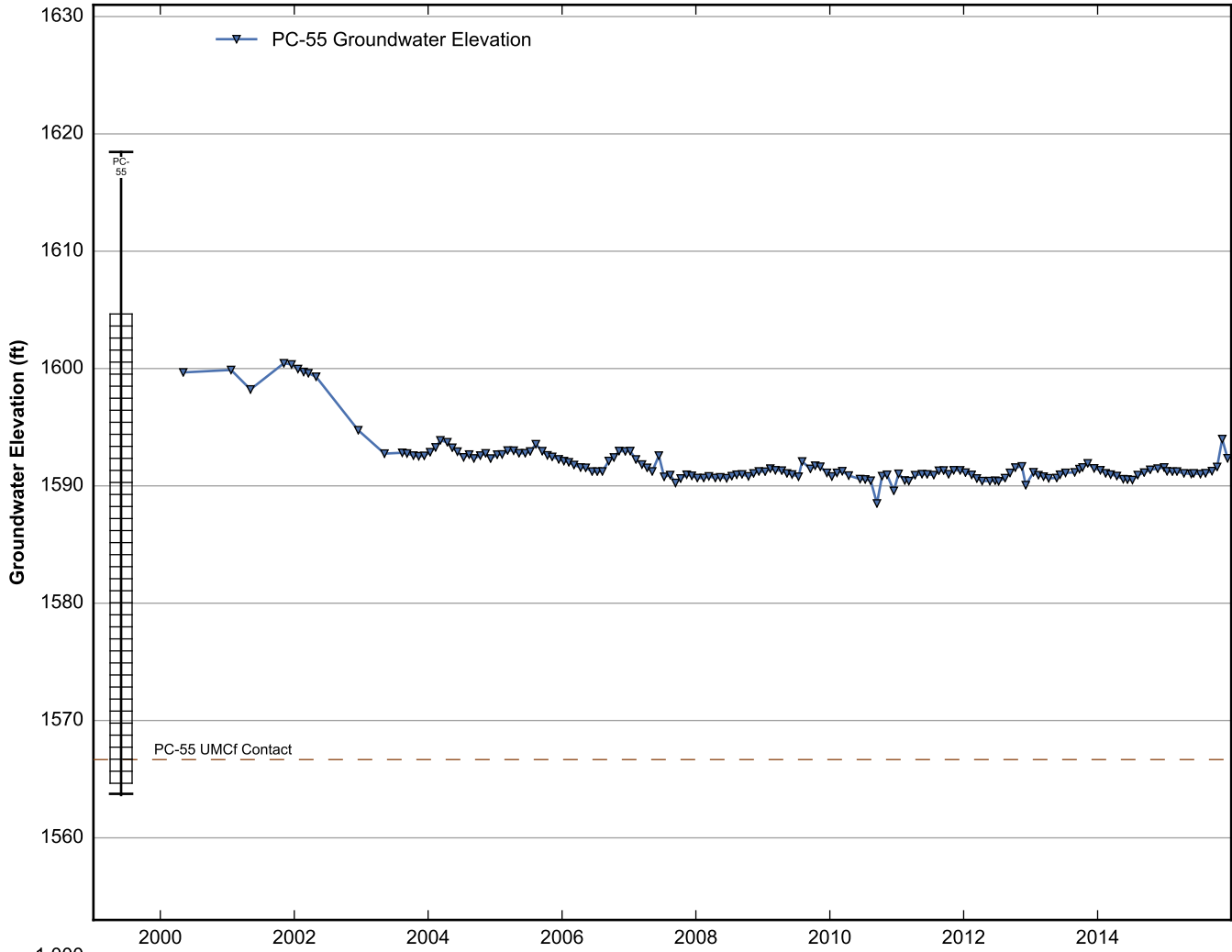




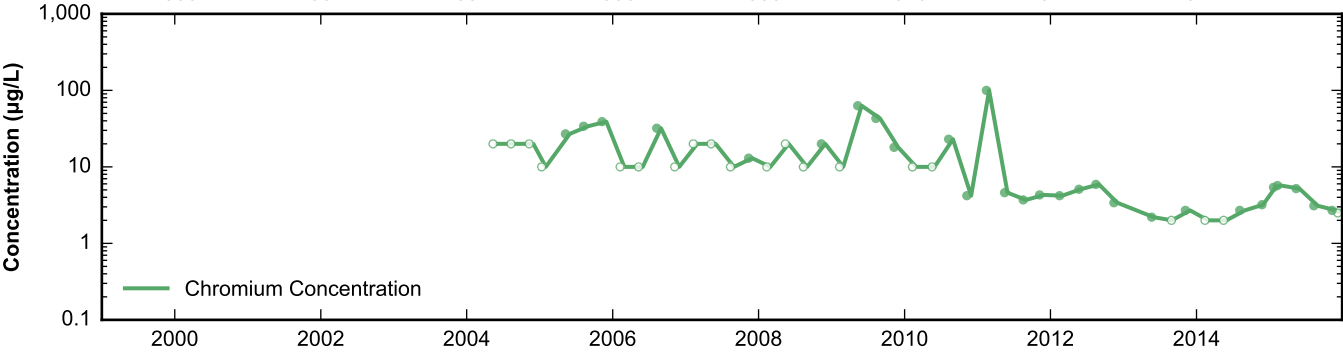
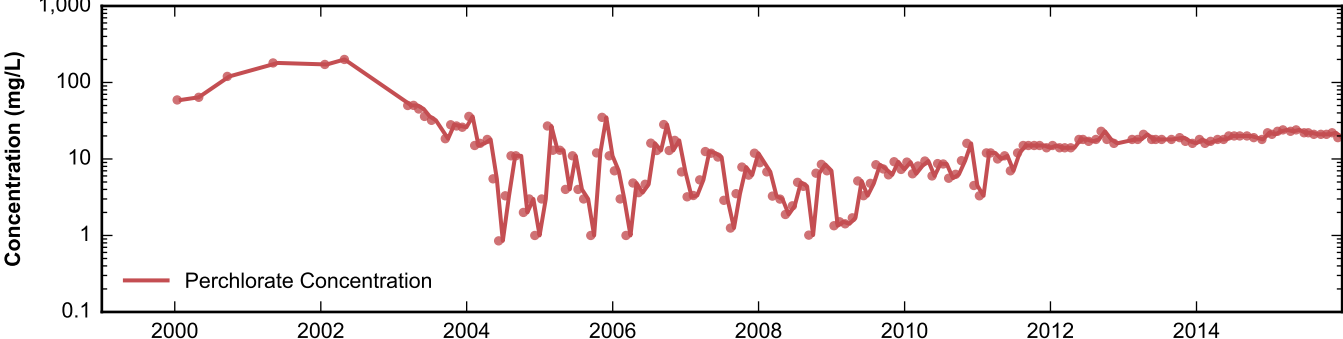
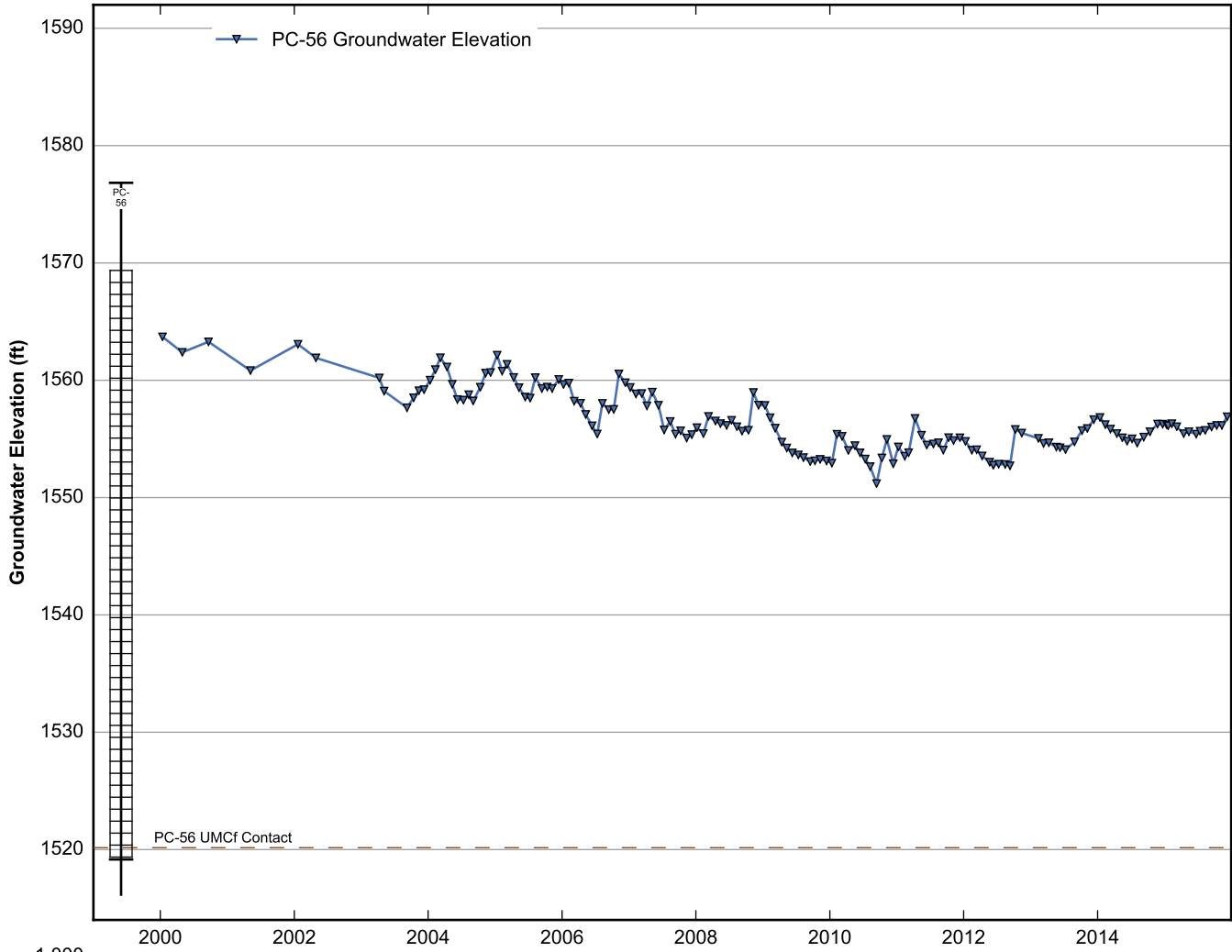
**Data Sheet for Well PC-53**  
Nevada Environmental Response Trust Site  
Henderson, Nevada



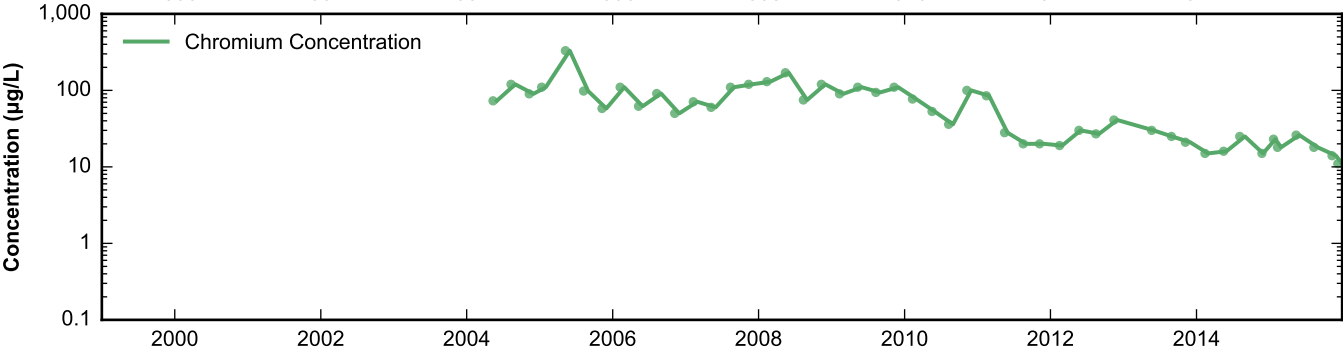
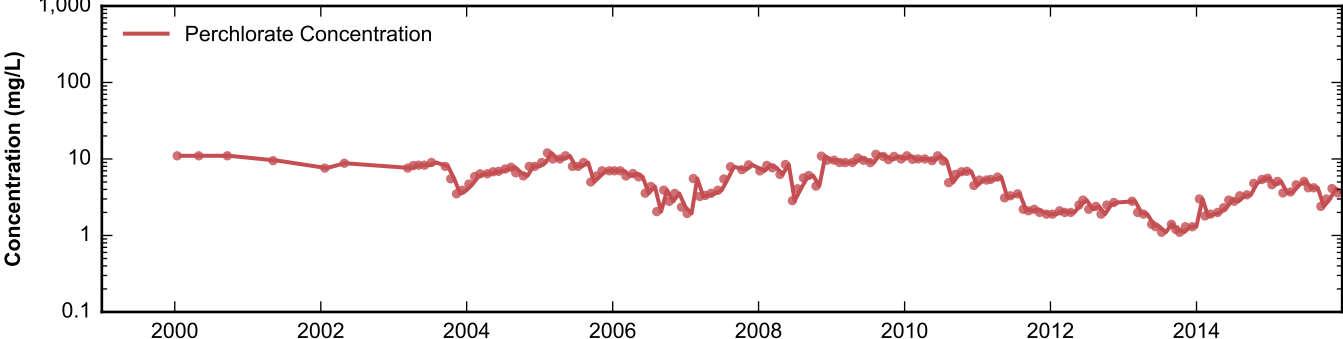
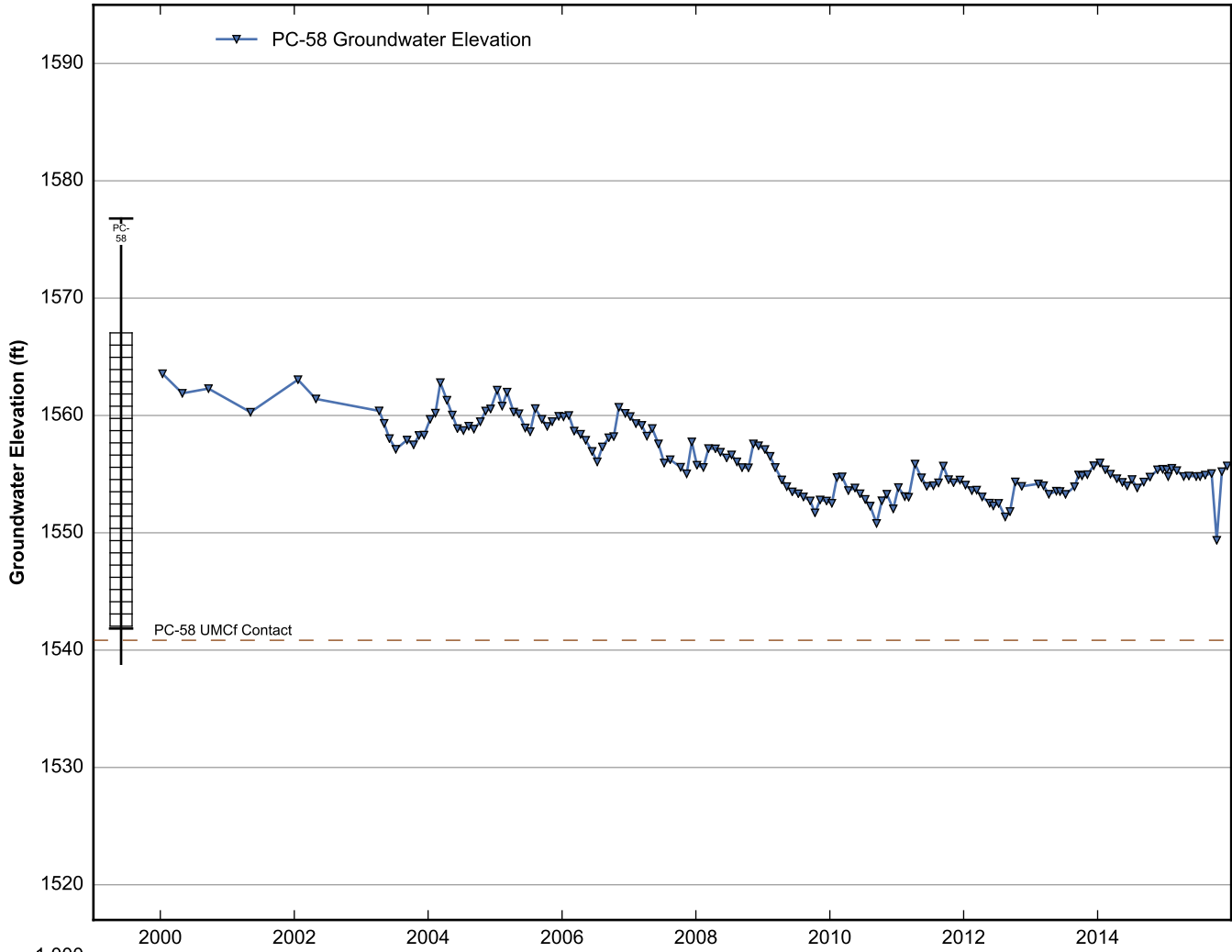
**Data Sheet for Well PC-54**  
Nevada Environmental Response Trust Site  
Henderson, Nevada



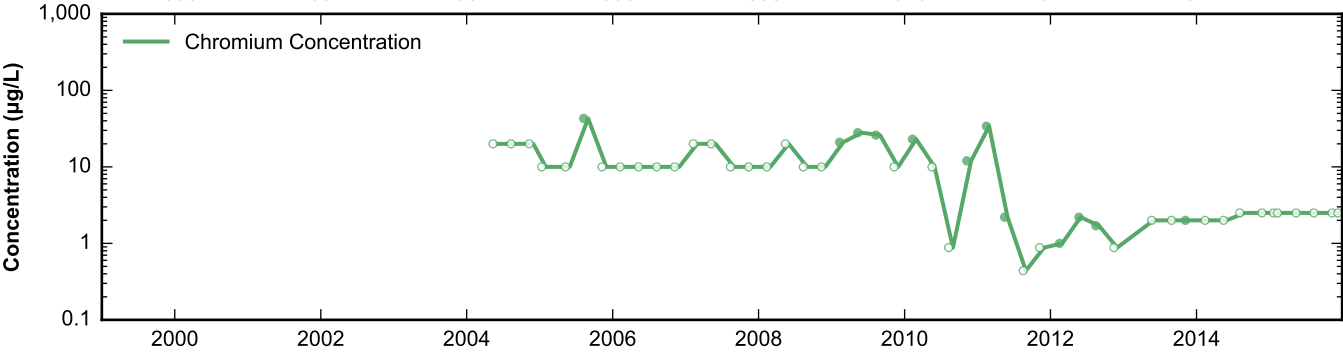
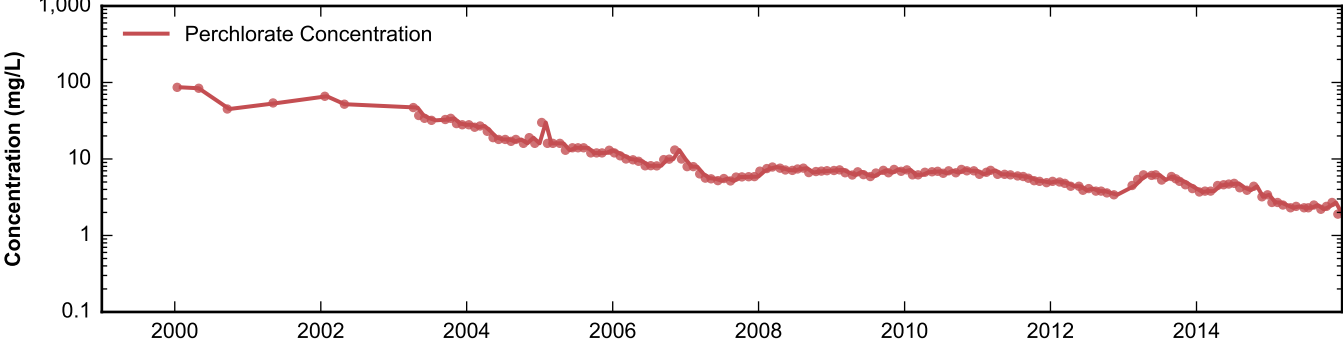
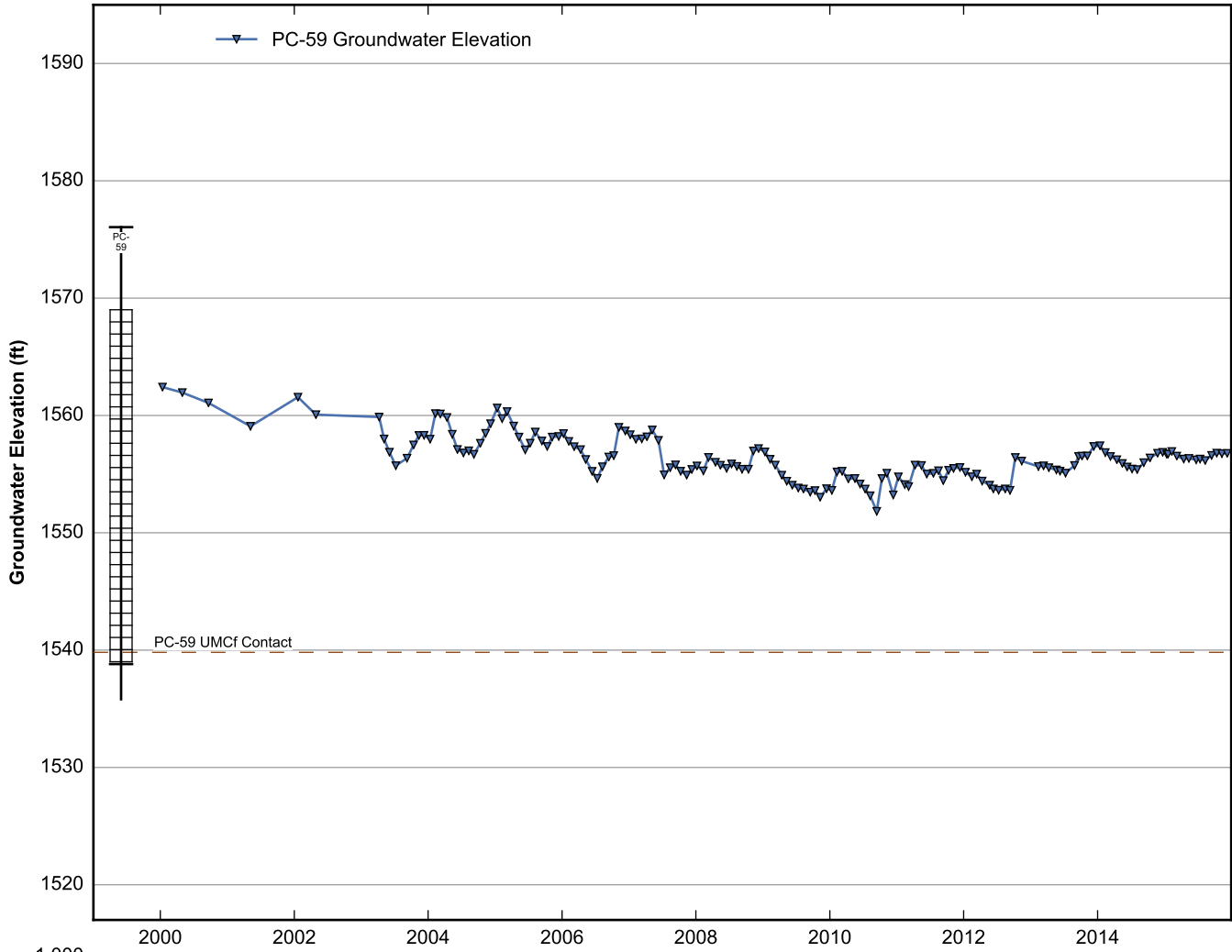
**Data Sheet for Well PC-55**  
Nevada Environmental Response Trust Site  
Henderson, Nevada



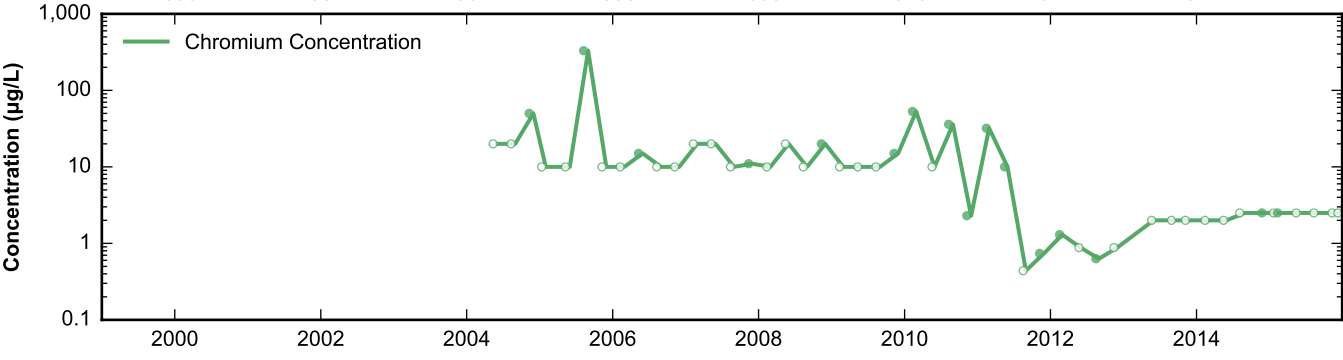
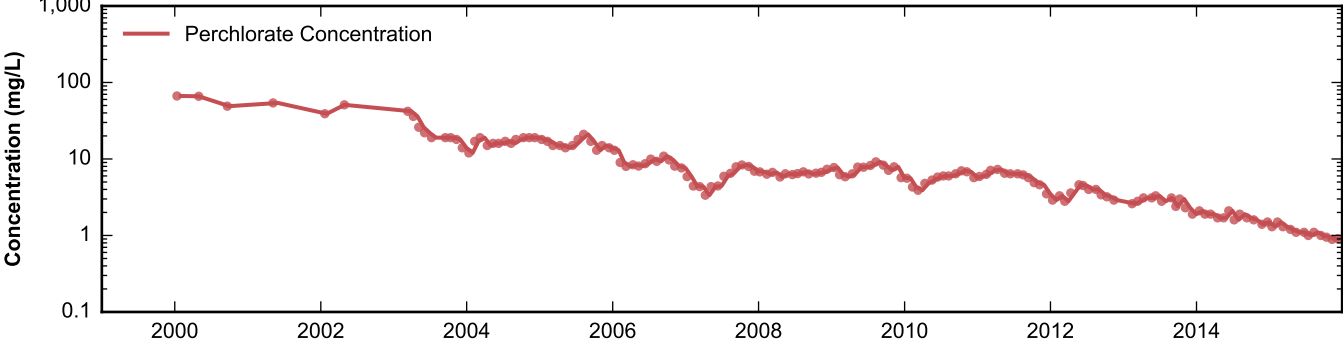
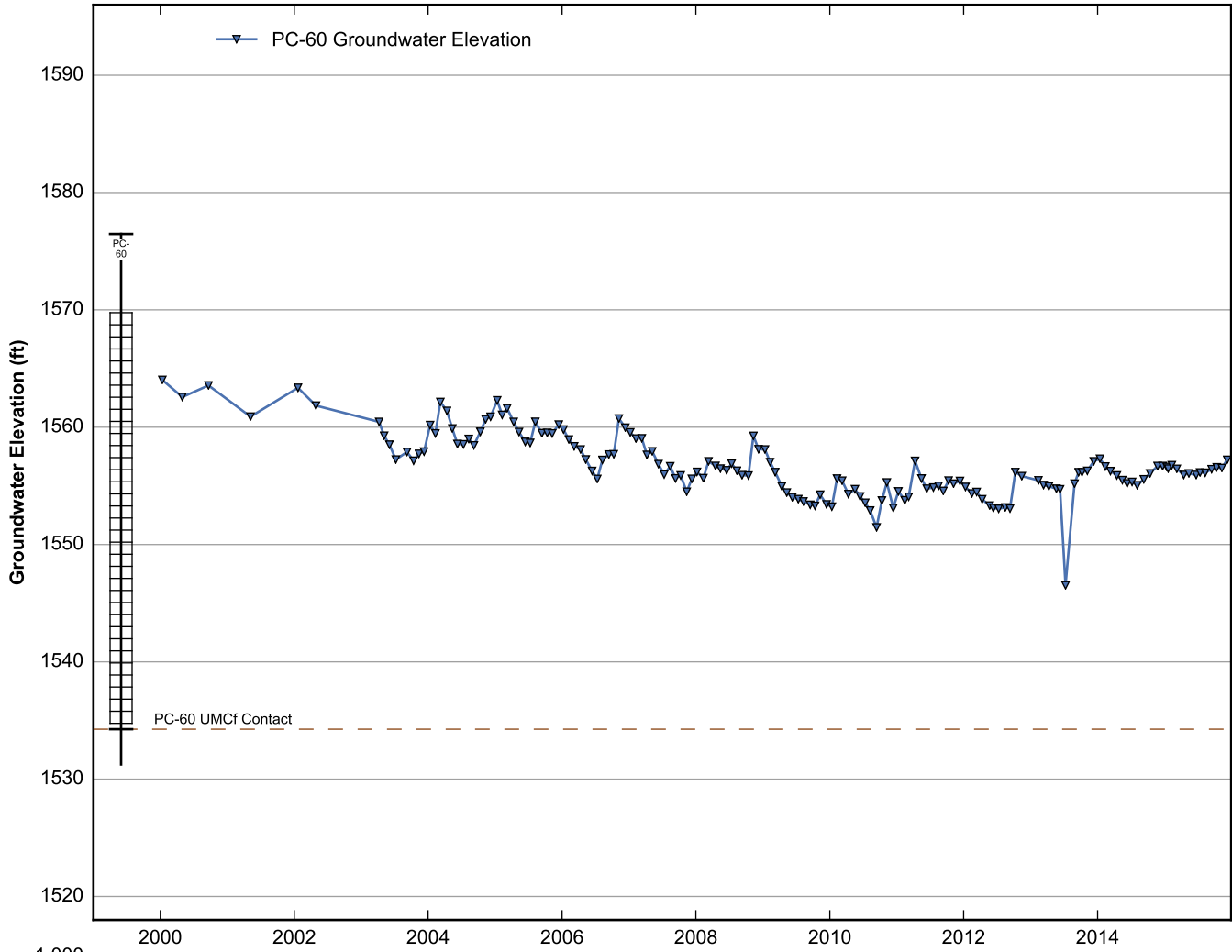
**Data Sheet for Well PC-56**  
Nevada Environmental Response Trust Site  
Henderson, Nevada



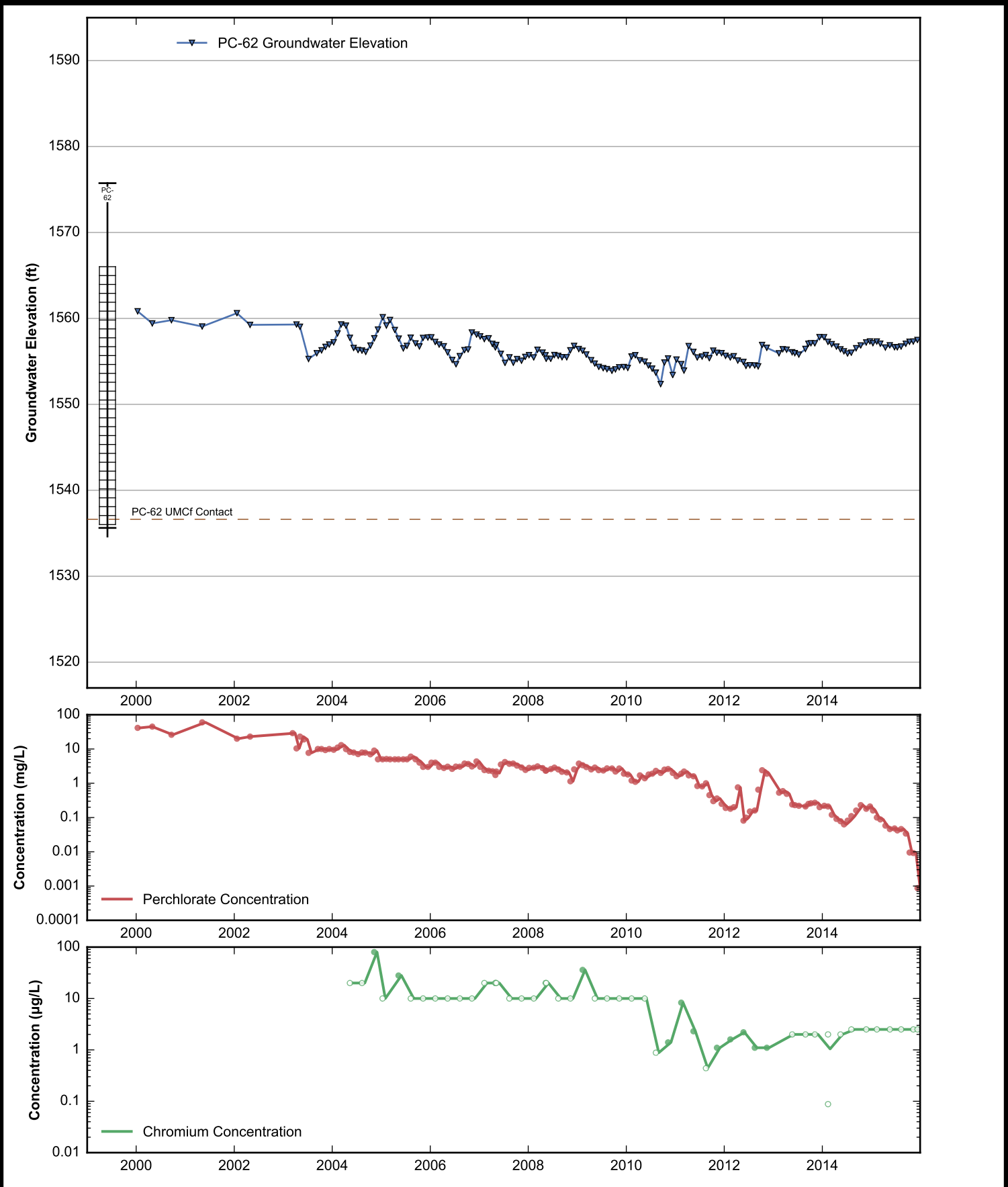
**Data Sheet for Well PC-58**  
Nevada Environmental Response Trust Site  
Henderson, Nevada



**Data Sheet for Well PC-59**  
Nevada Environmental Response Trust Site  
Henderson, Nevada

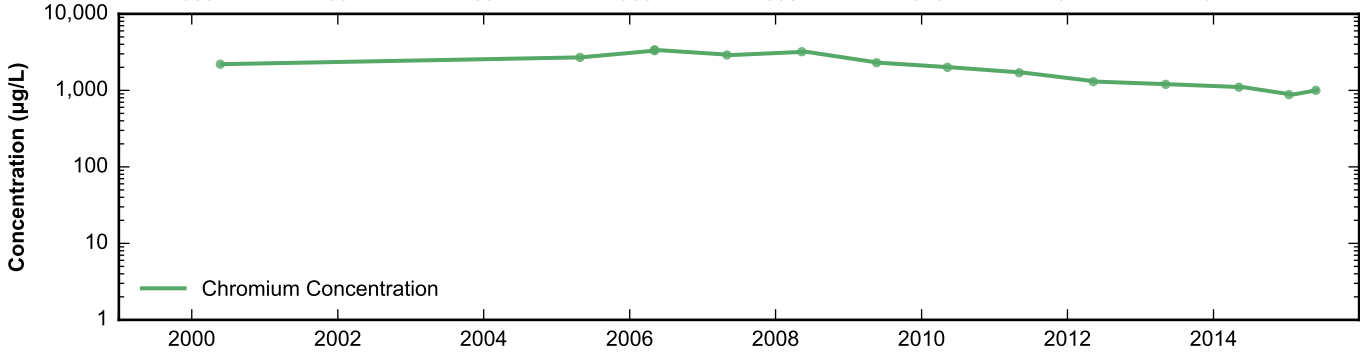
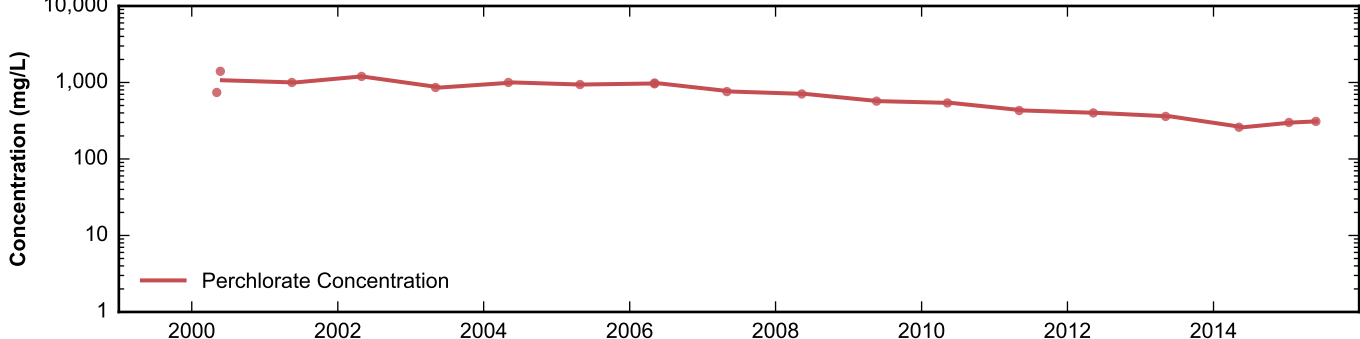
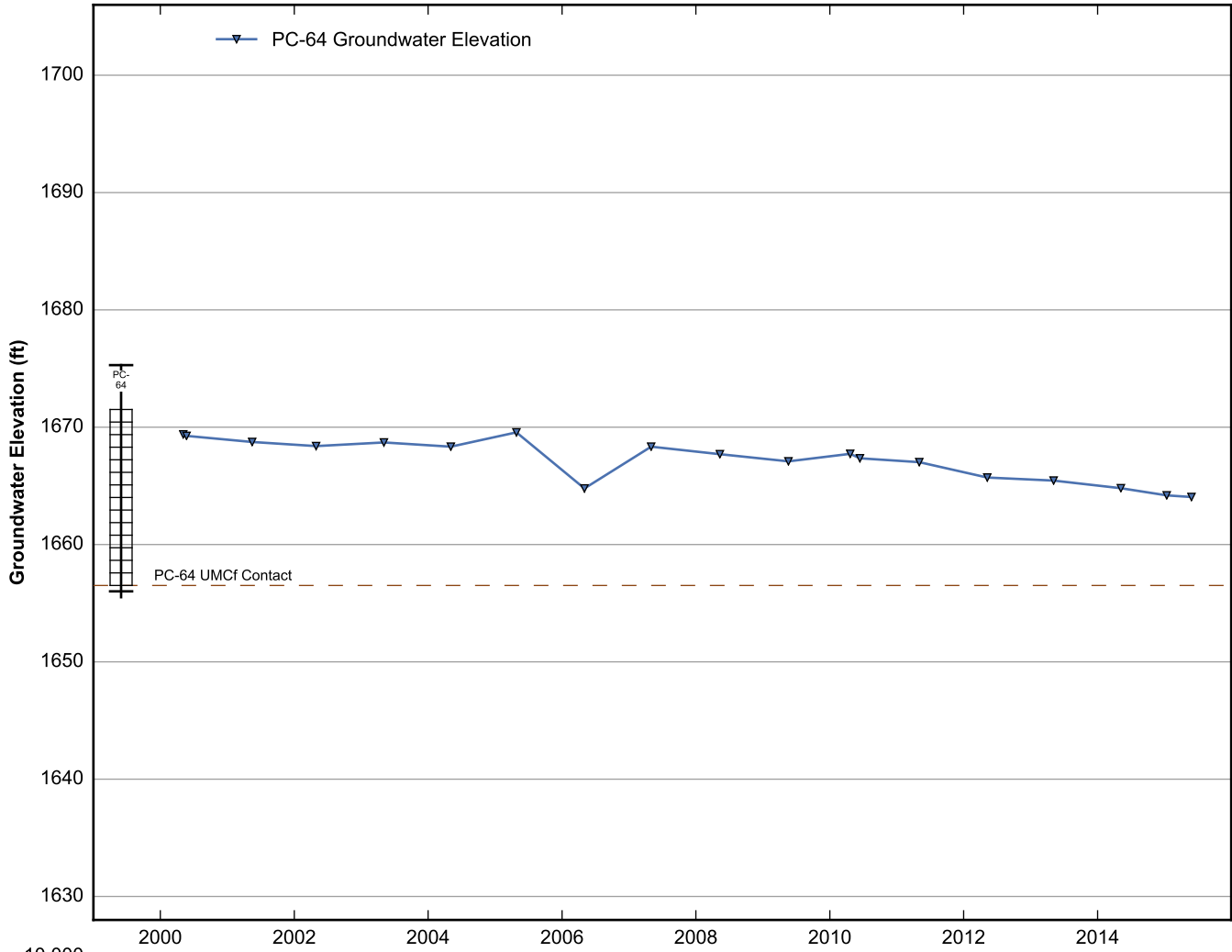


**Data Sheet for Well PC-60**  
Nevada Environmental Response Trust Site  
Henderson, Nevada

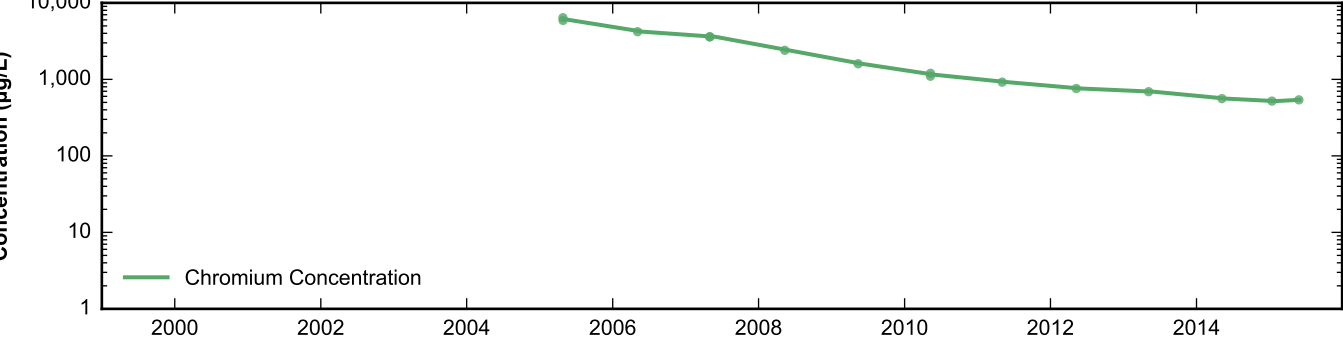
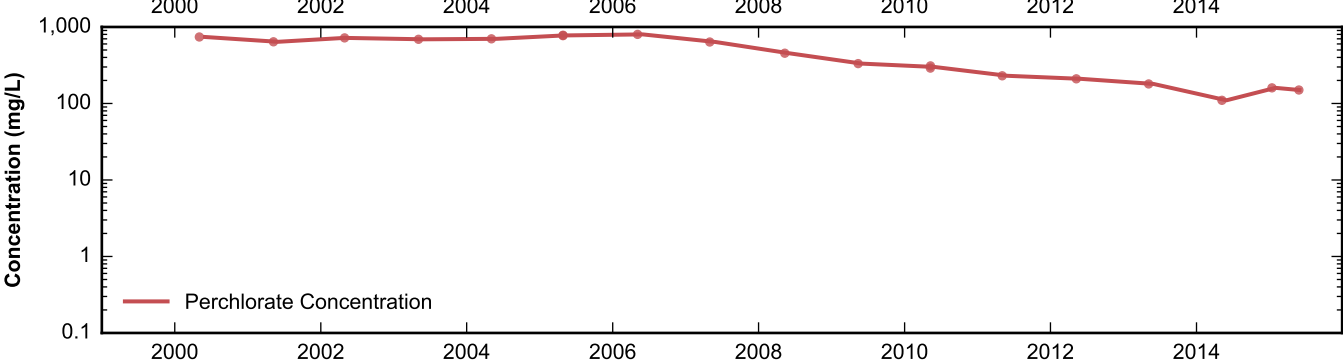
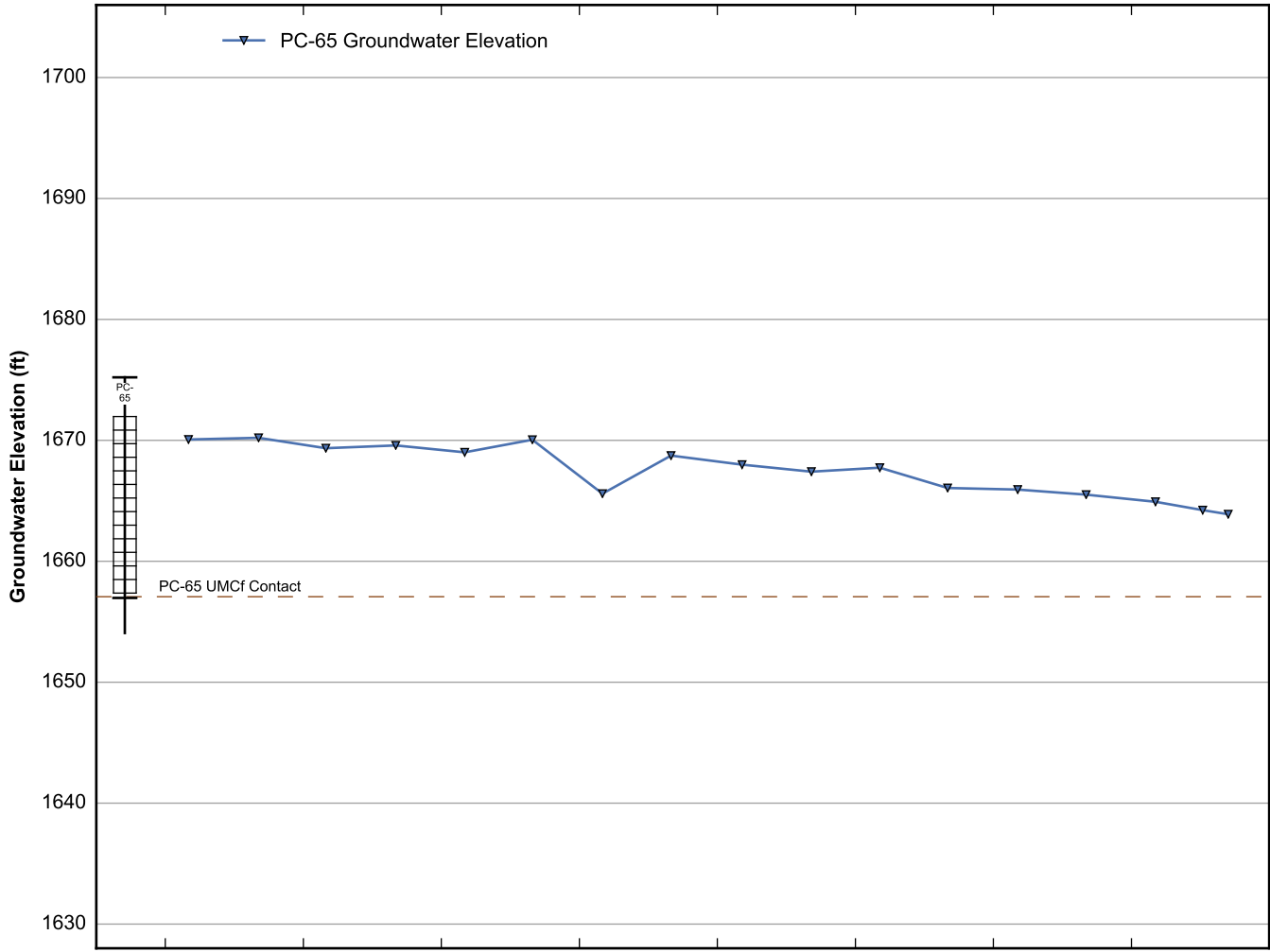


**Data Sheet for Well PC-62**  
Nevada Environmental Response Trust Site  
Henderson, Nevada

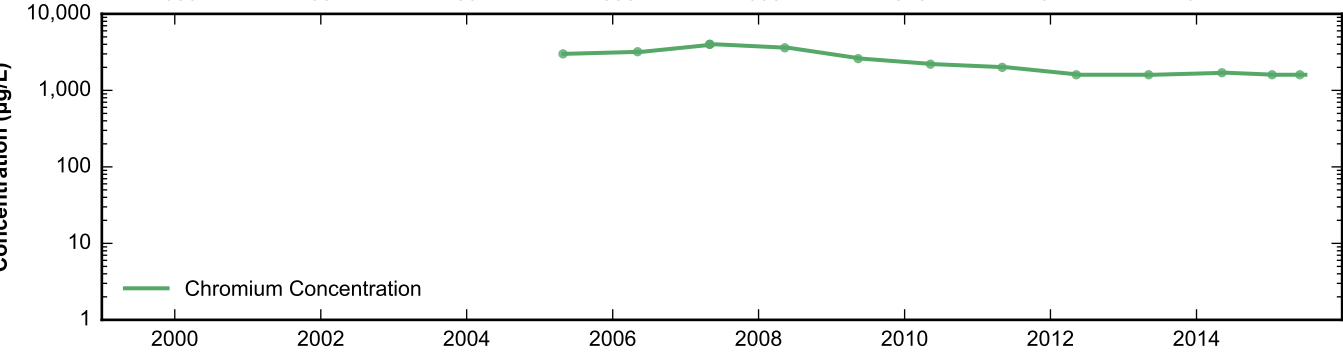
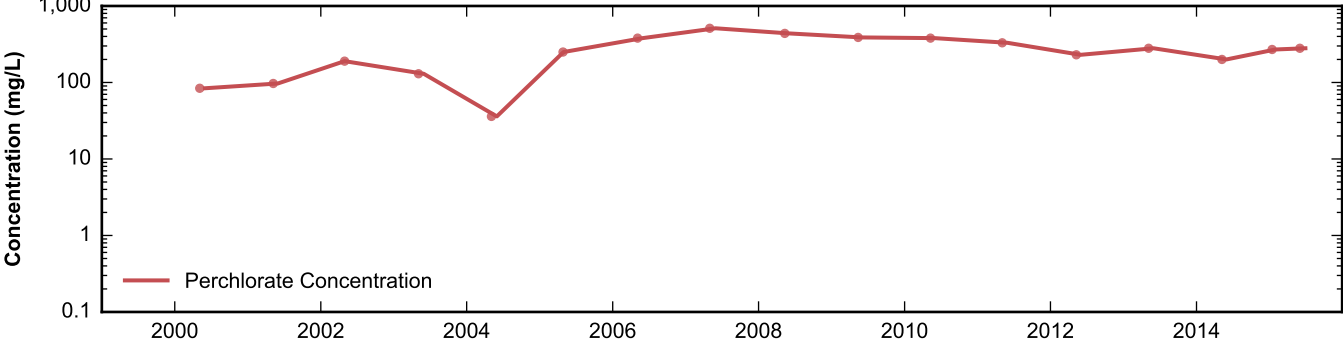
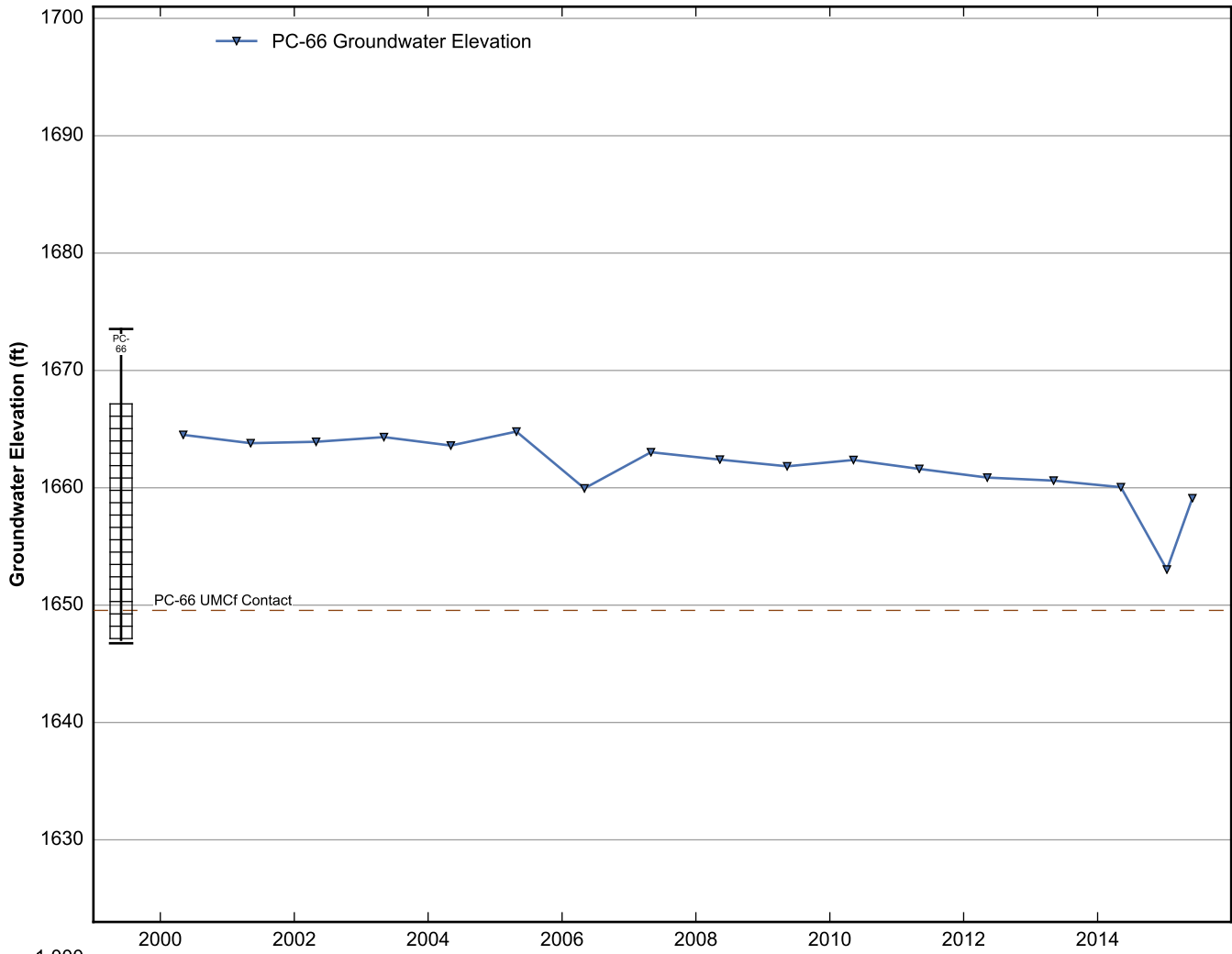




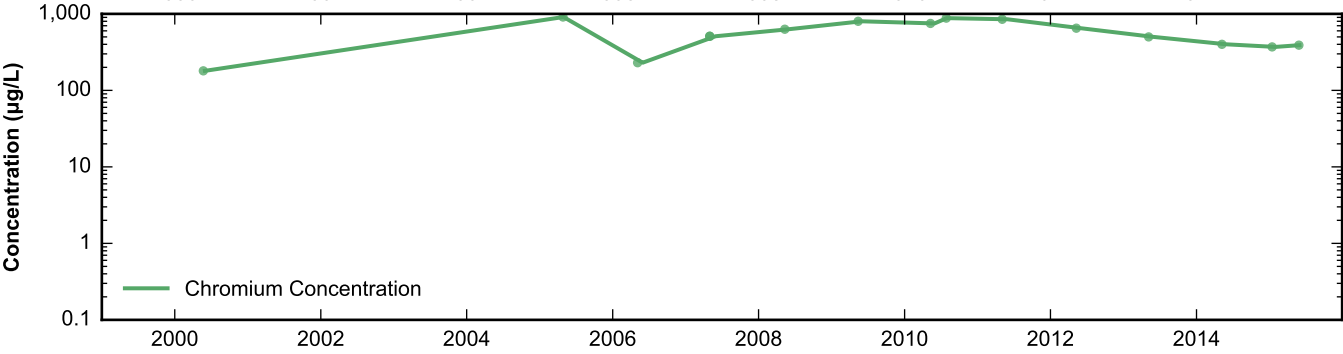
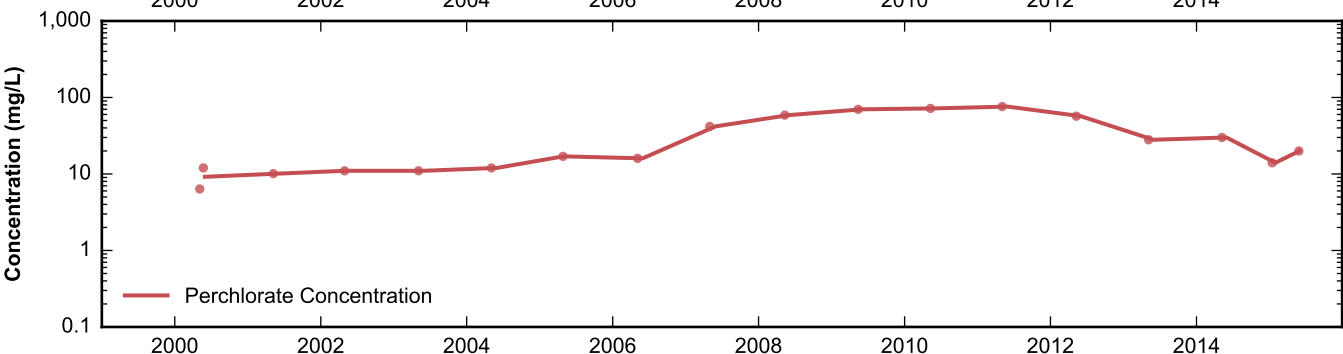
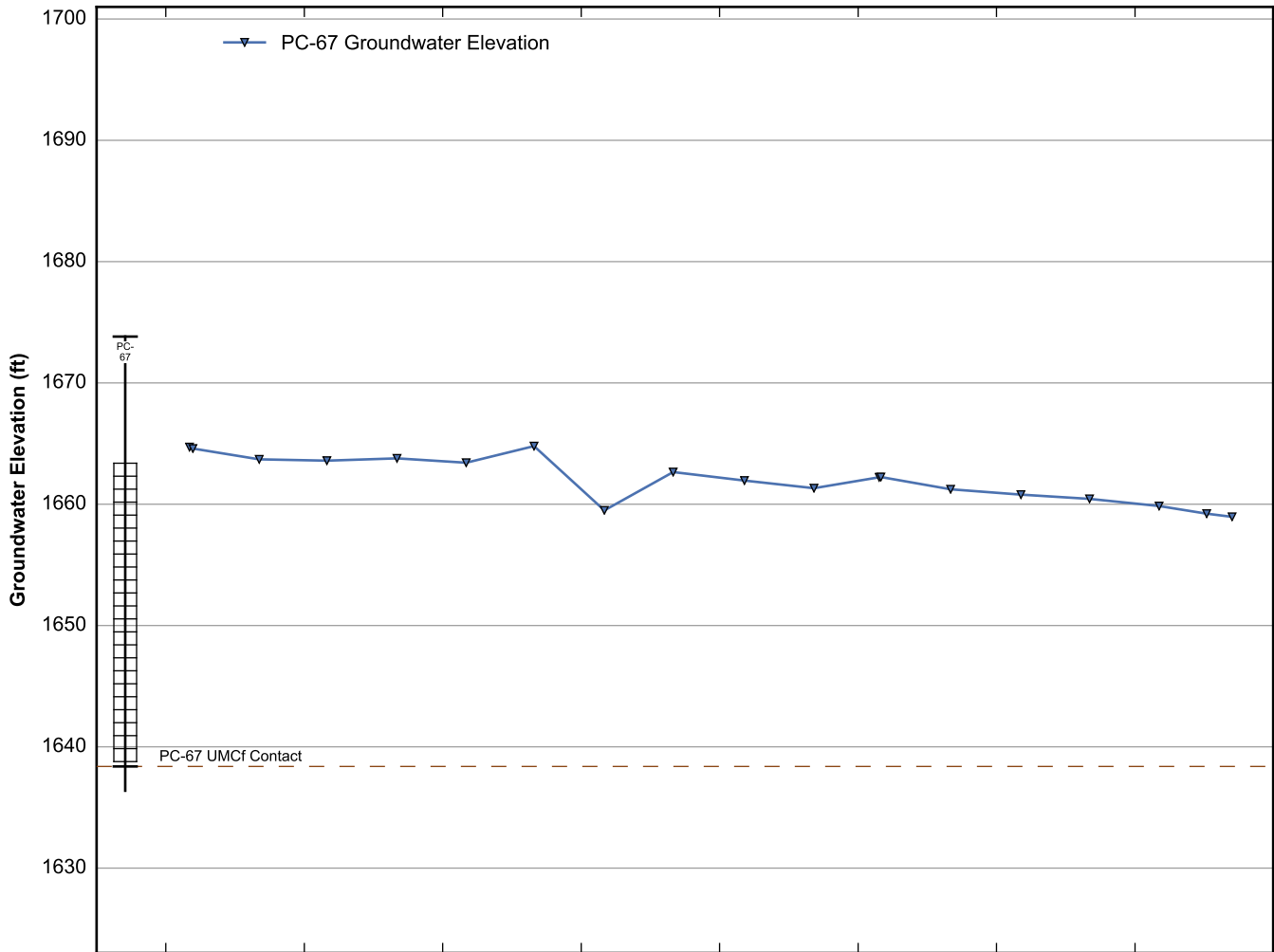
**Data Sheet for Well PC-64**  
 Nevada Environmental Response Trust Site  
 Henderson, Nevada



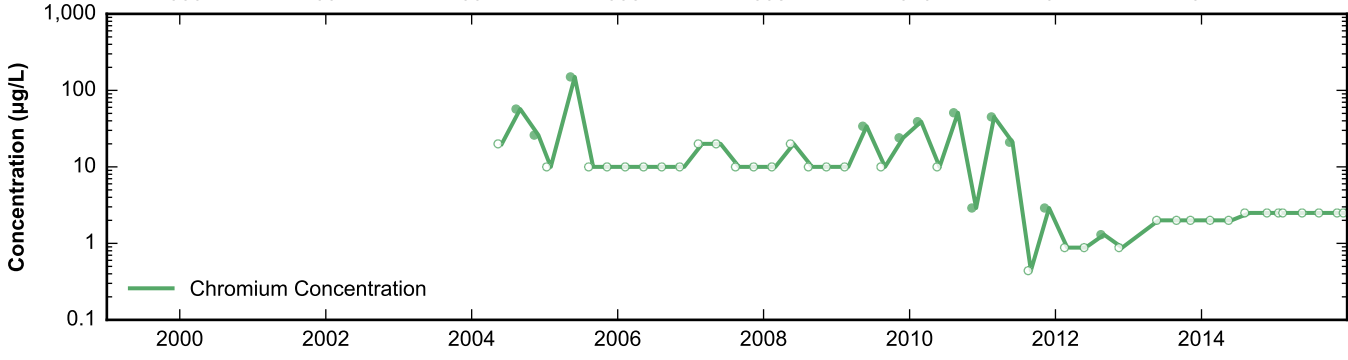
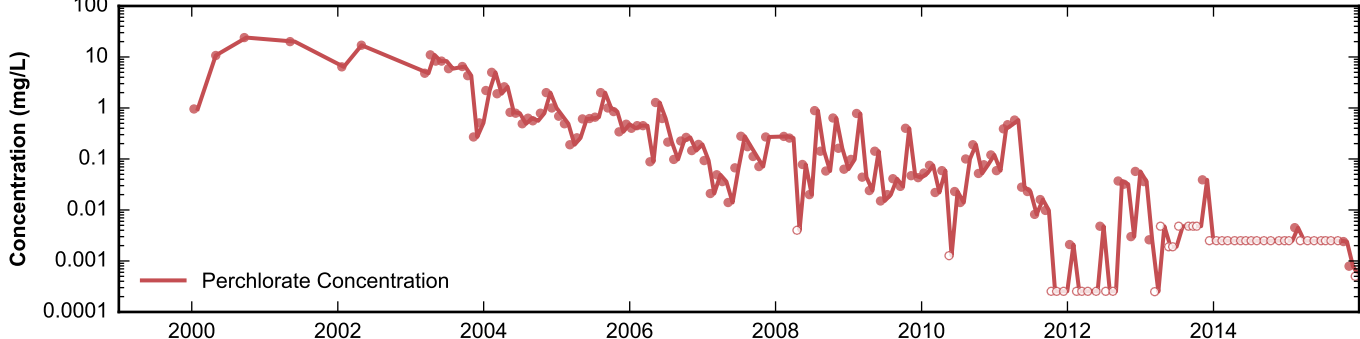
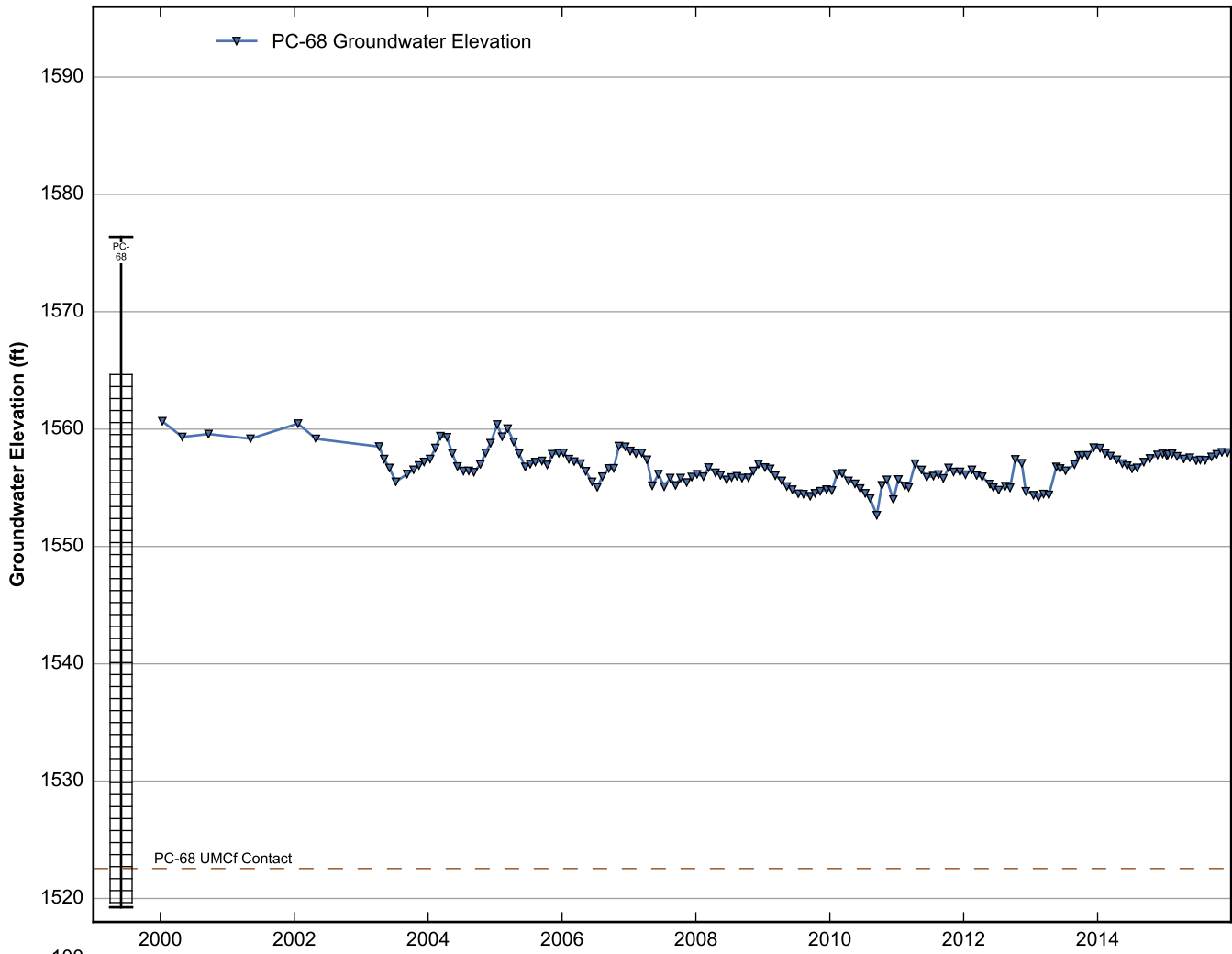
**Data Sheet for Well PC-65**  
 Nevada Environmental Response Trust Site  
 Henderson, Nevada



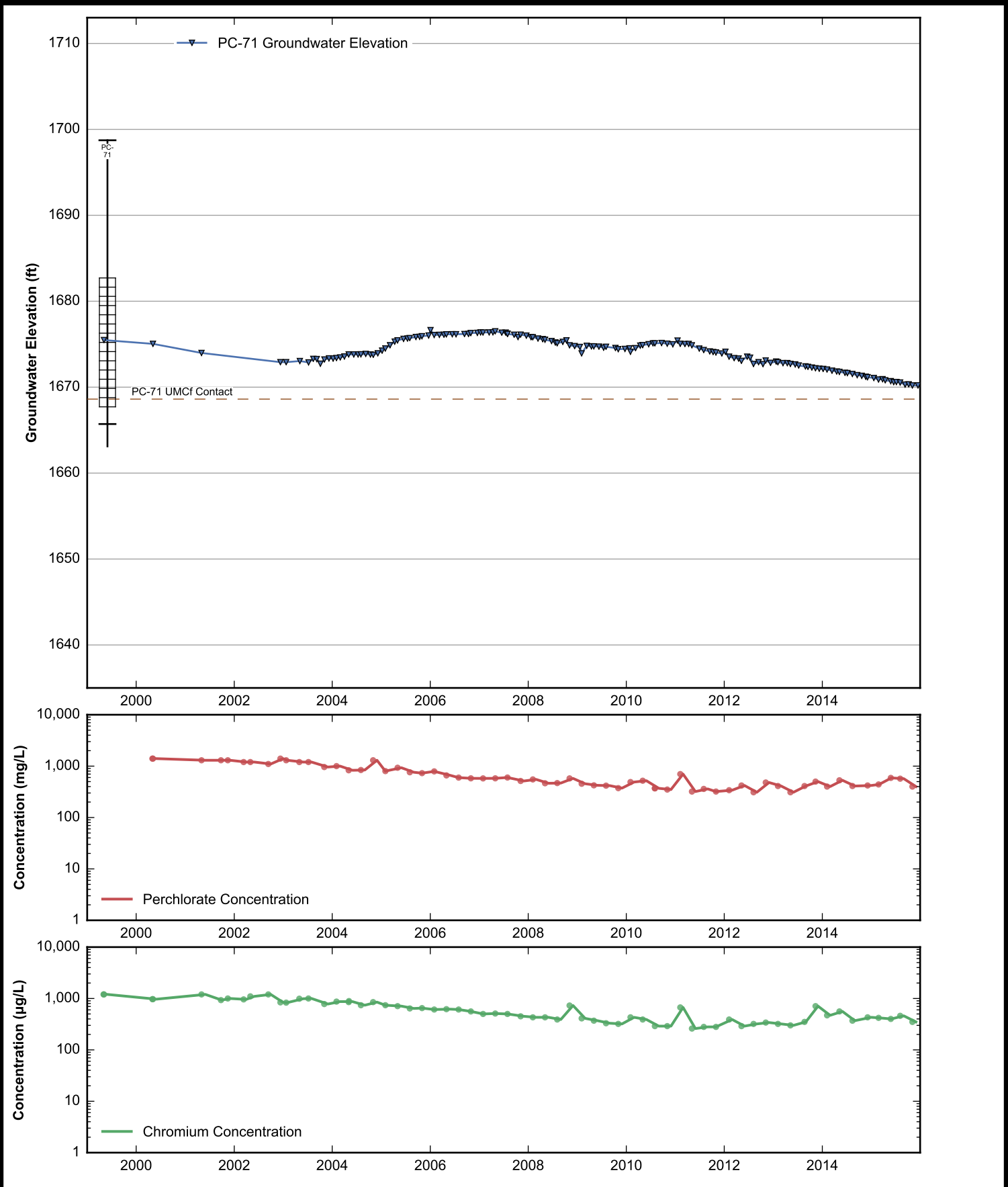
**Data Sheet for Well PC-66**  
 Nevada Environmental Response Trust Site  
 Henderson, Nevada



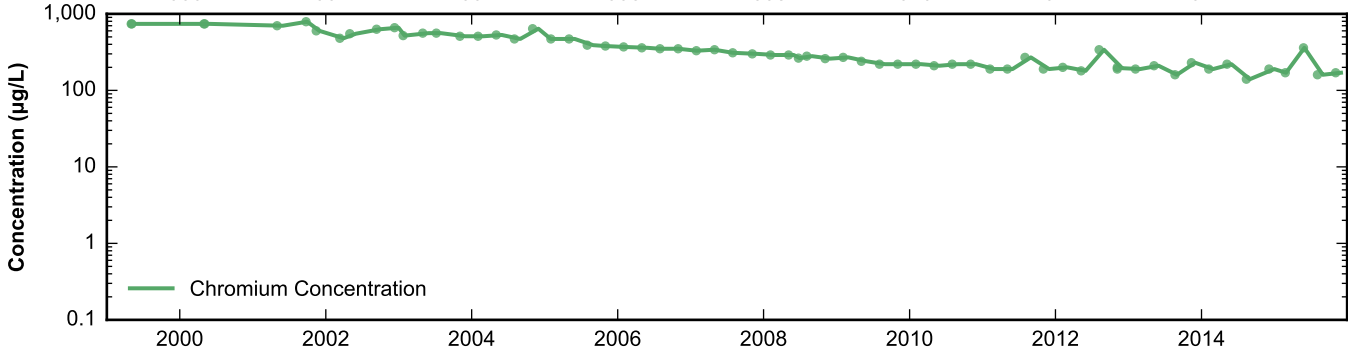
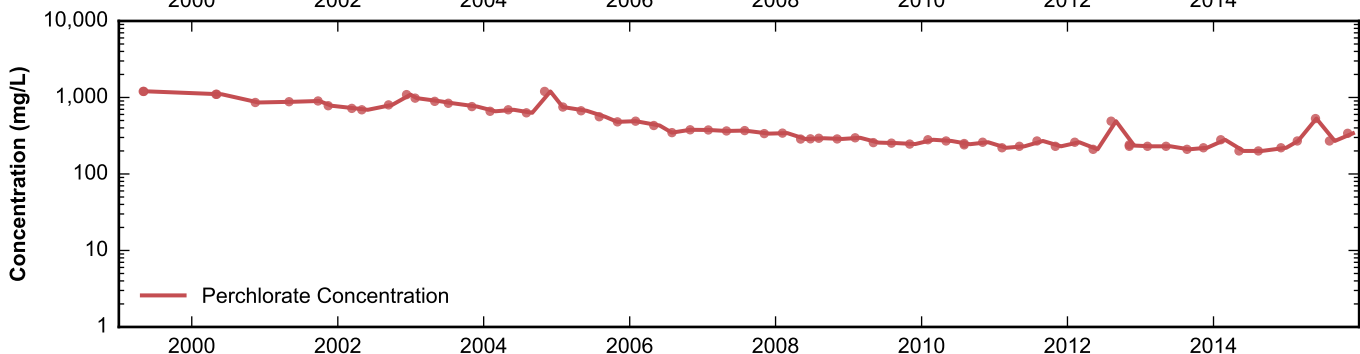
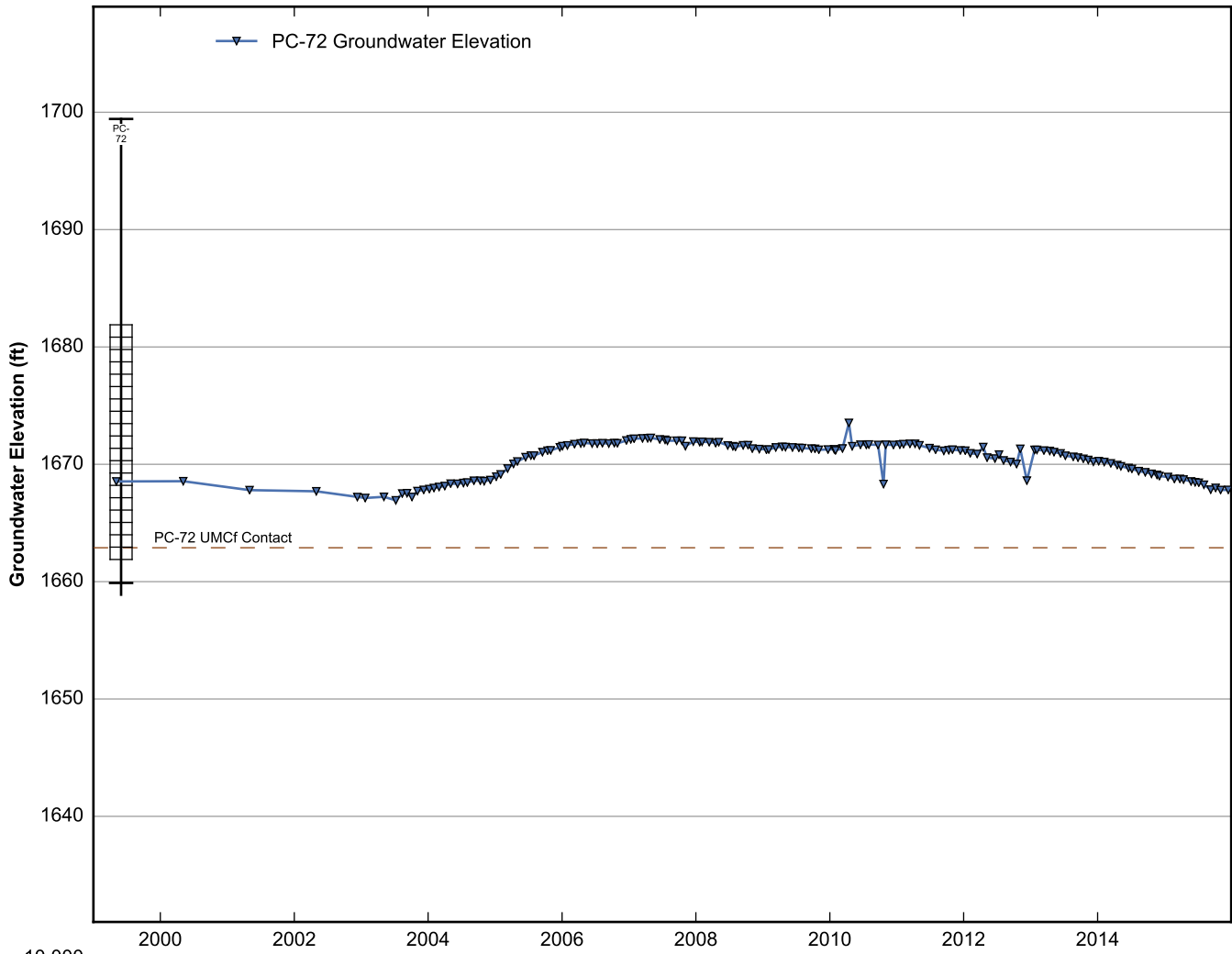
**Data Sheet for Well PC-67**  
 Nevada Environmental Response Trust Site  
 Henderson, Nevada



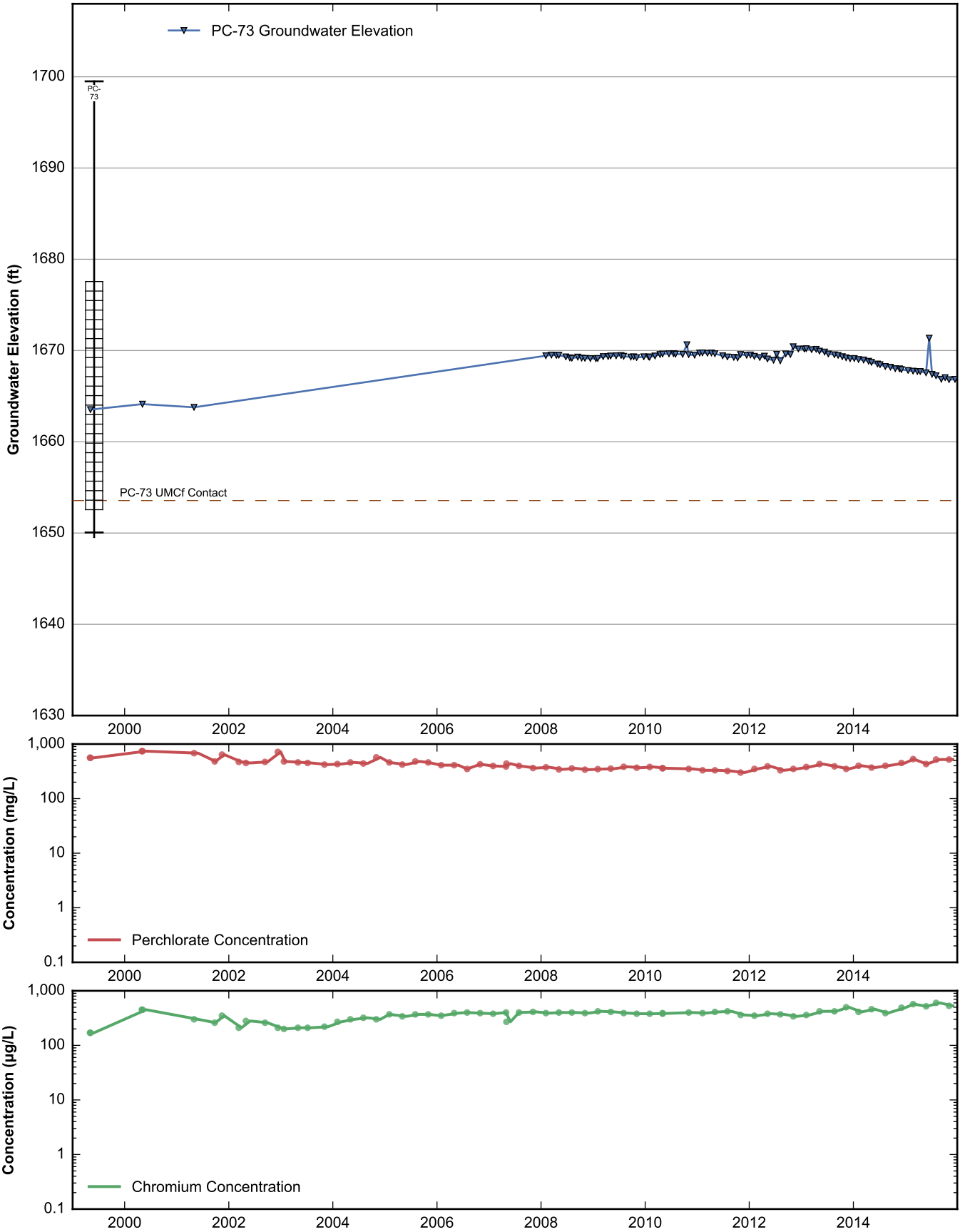
**Data Sheet for Well PC-68**  
Nevada Environmental Response Trust Site  
Henderson, Nevada



**Data Sheet for Well PC-71**  
Nevada Environmental Response Trust Site  
Henderson, Nevada

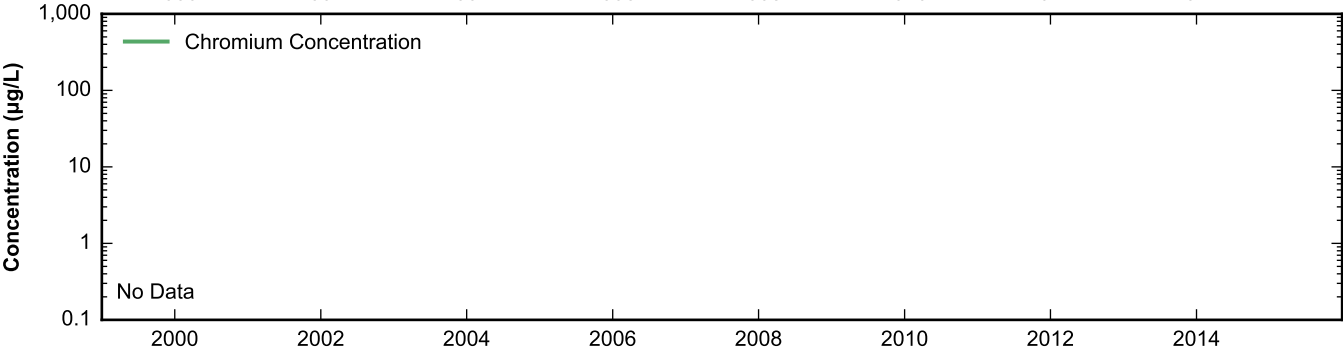
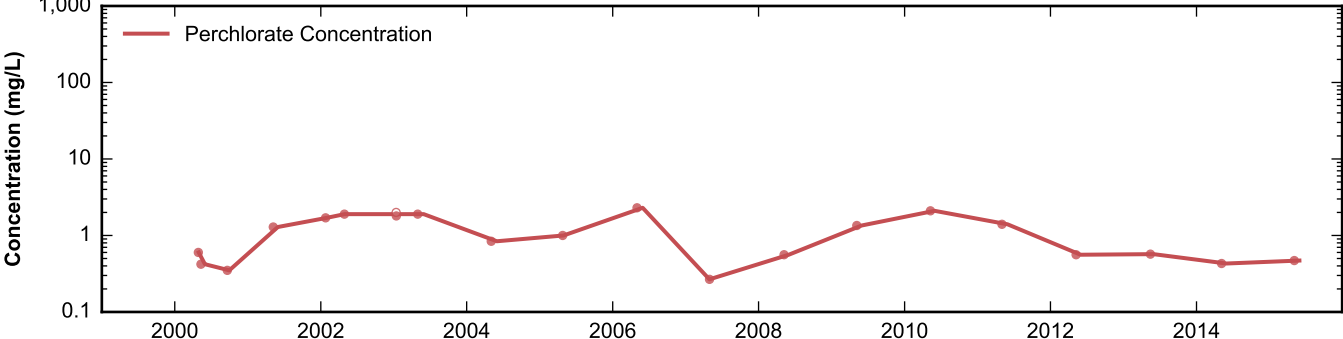
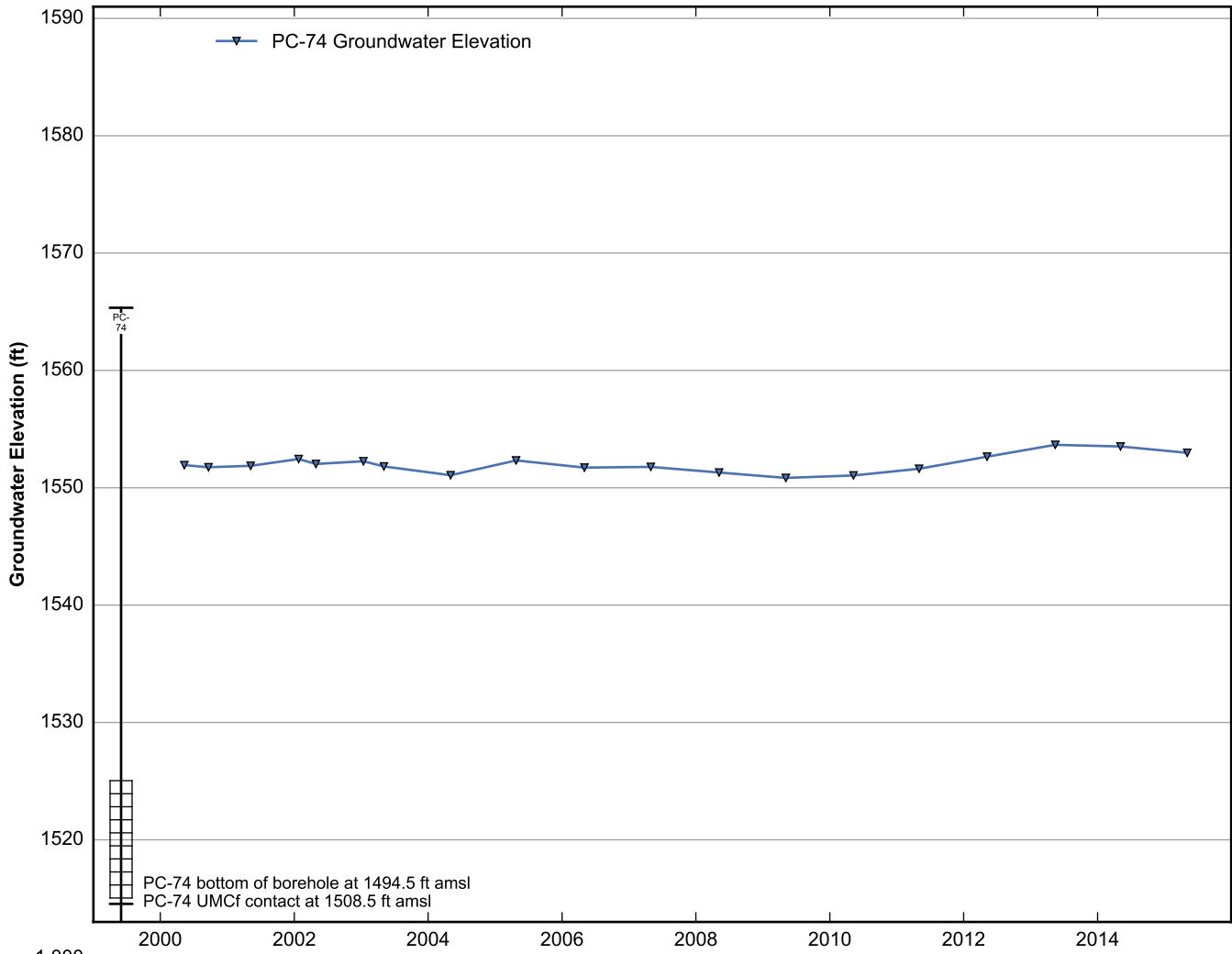


**Data Sheet for Well PC-72**  
 Nevada Environmental Response Trust Site  
 Henderson, Nevada

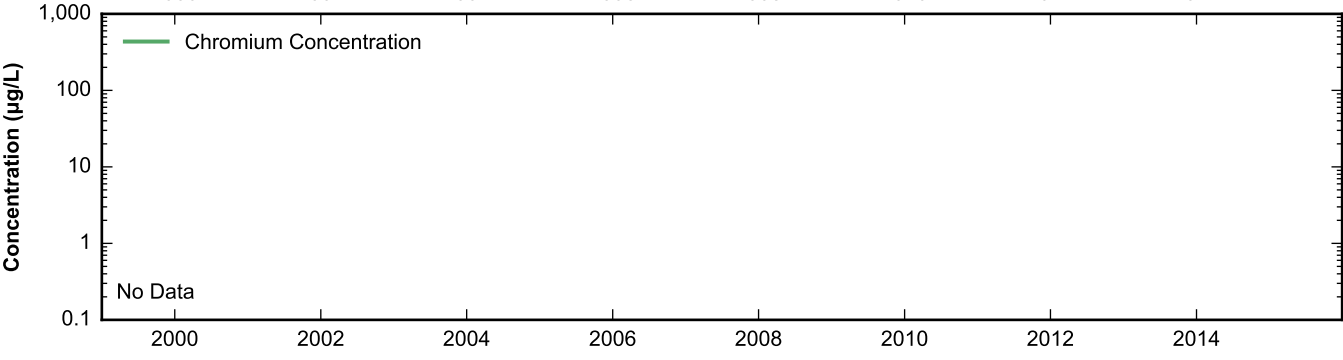
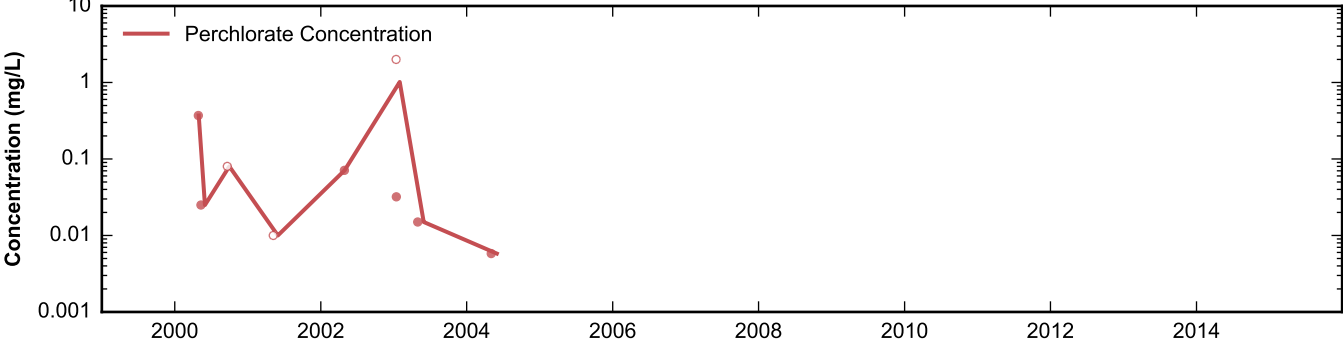
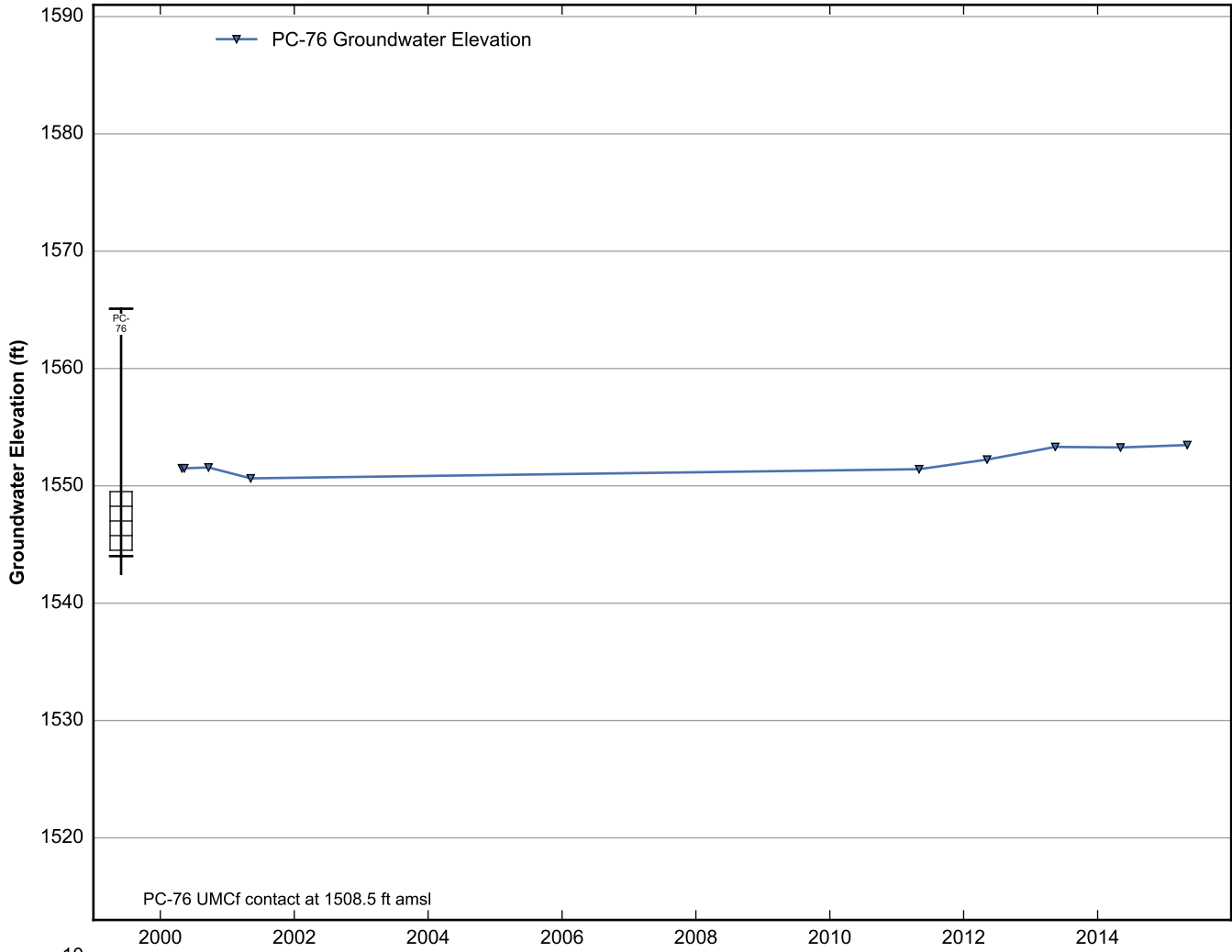


**Data Sheet for Well PC-73**  
Nevada Environmental Response Trust Site  
Henderson, Nevada

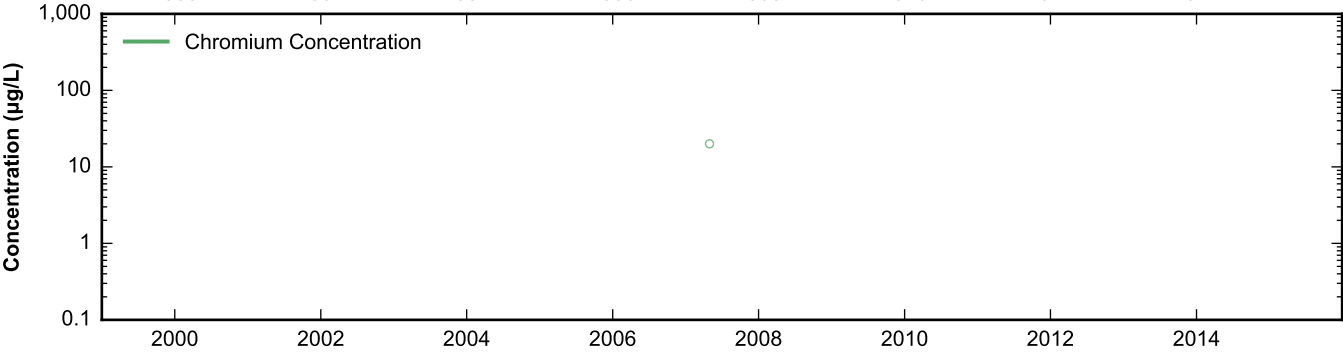
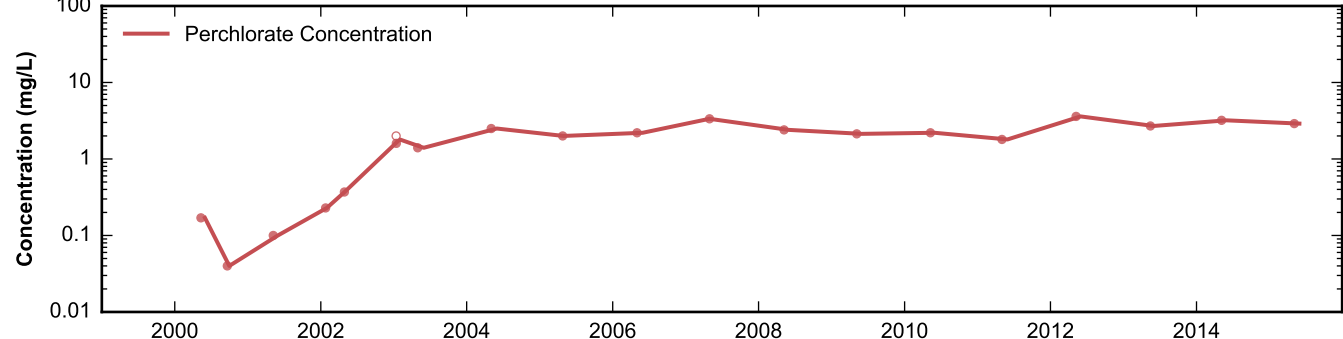
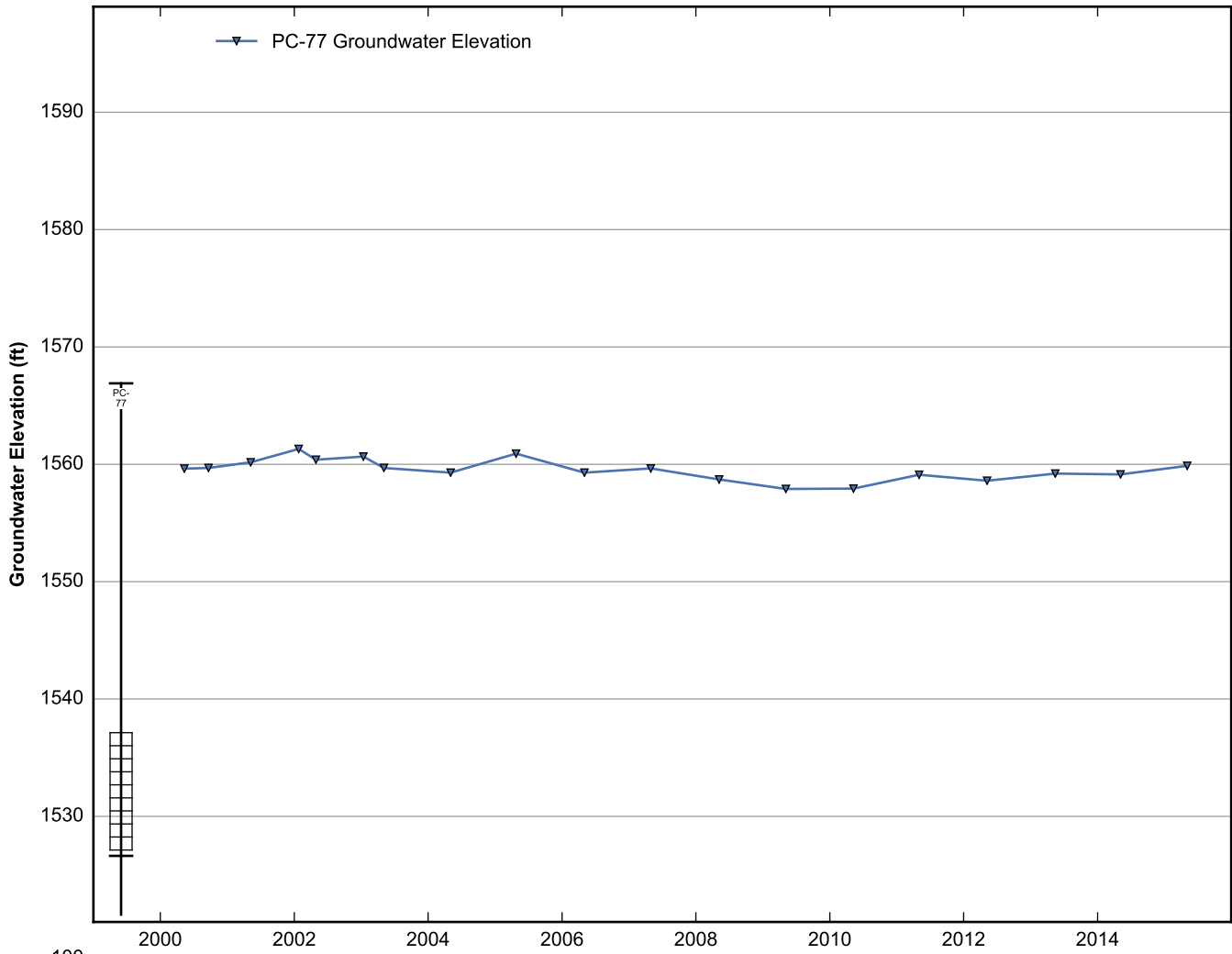




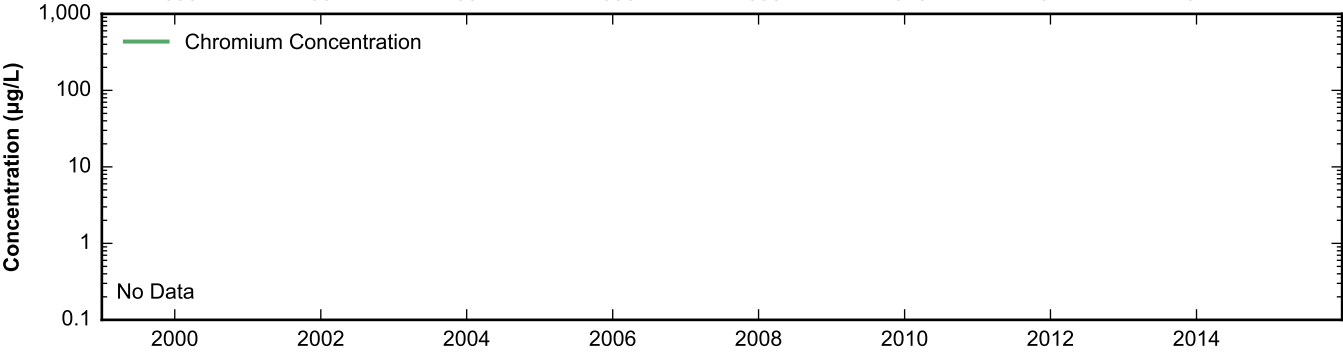
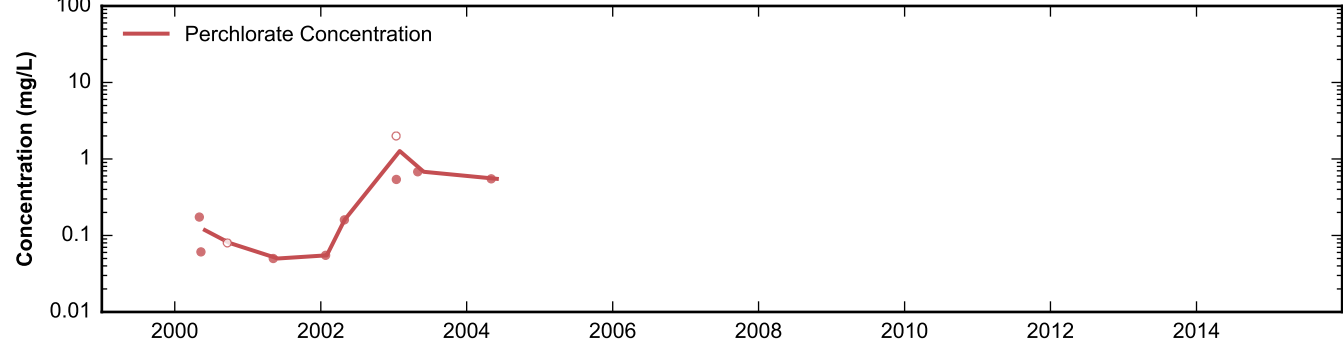
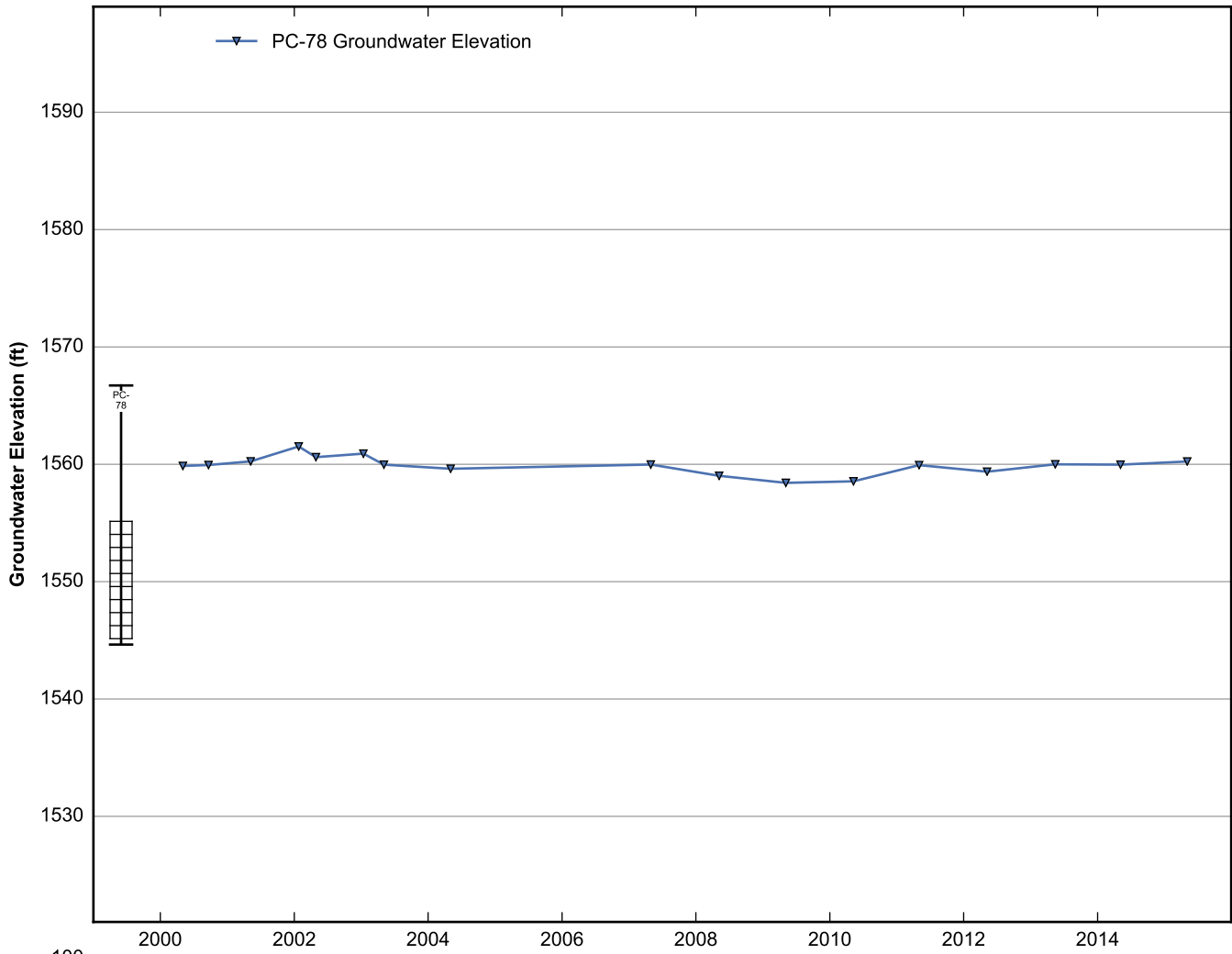
**Data Sheet for Well PC-74**  
Nevada Environmental Response Trust Site  
Henderson, Nevada



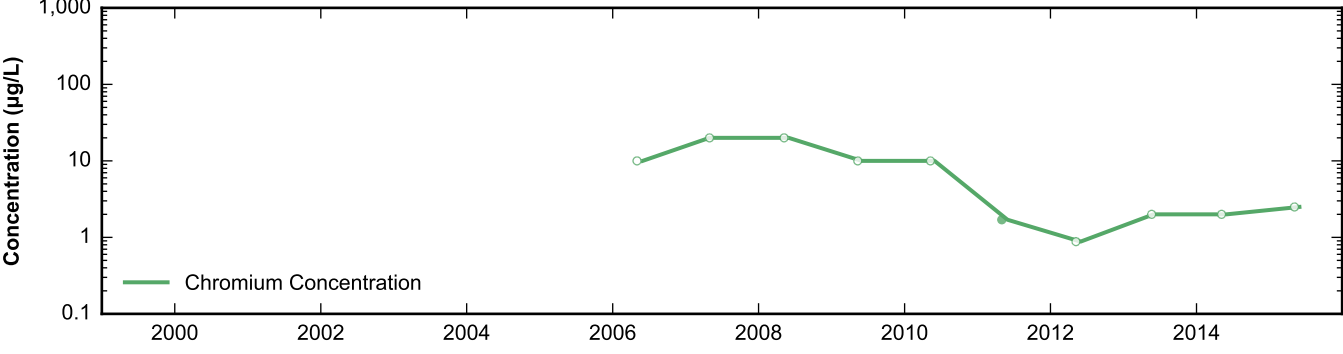
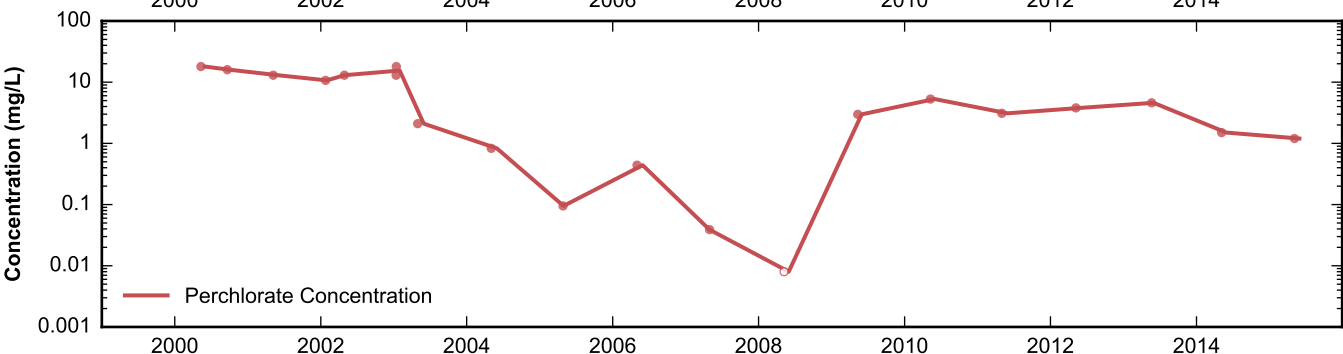
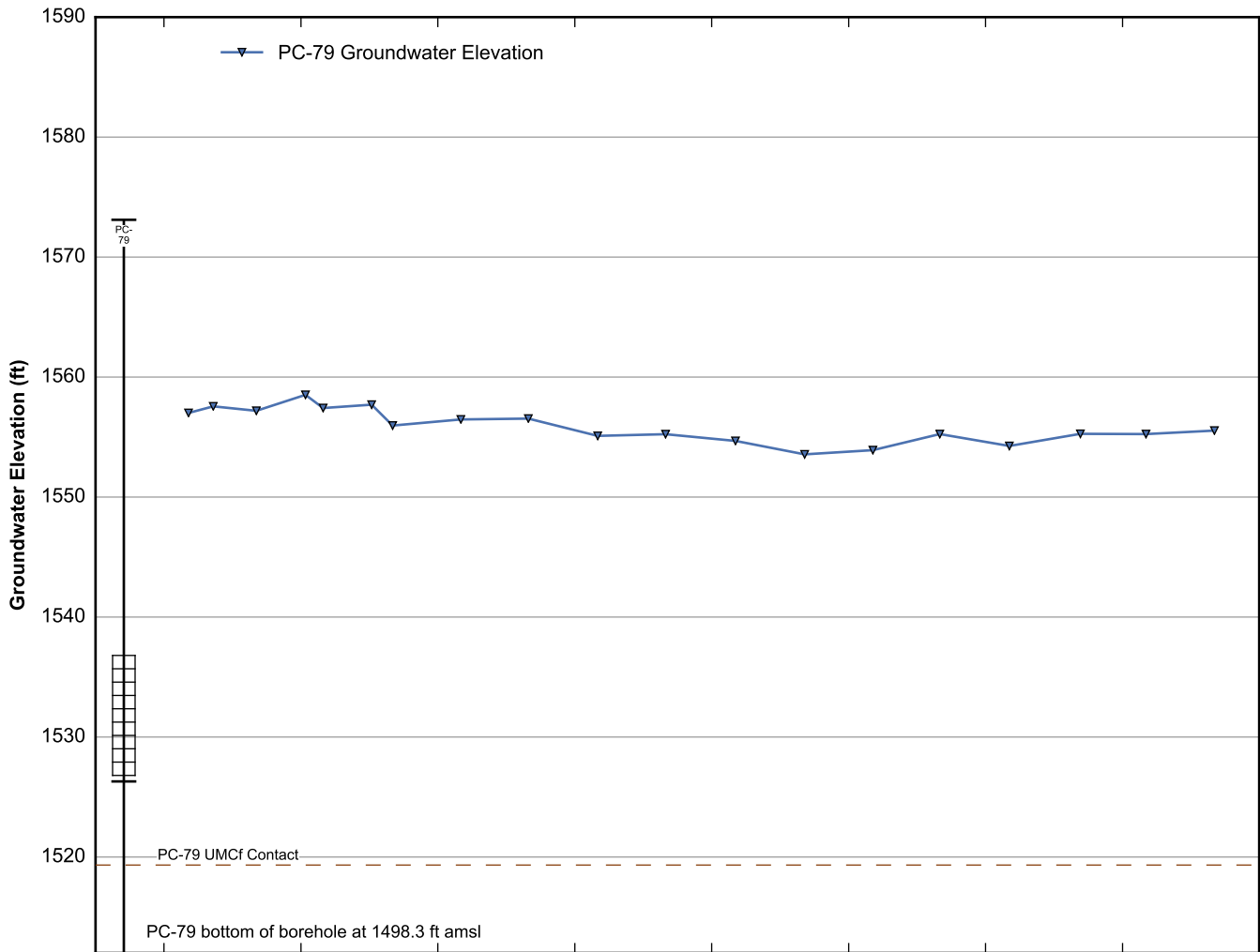
**Data Sheet for Well PC-76**  
 Nevada Environmental Response Trust Site  
 Henderson, Nevada



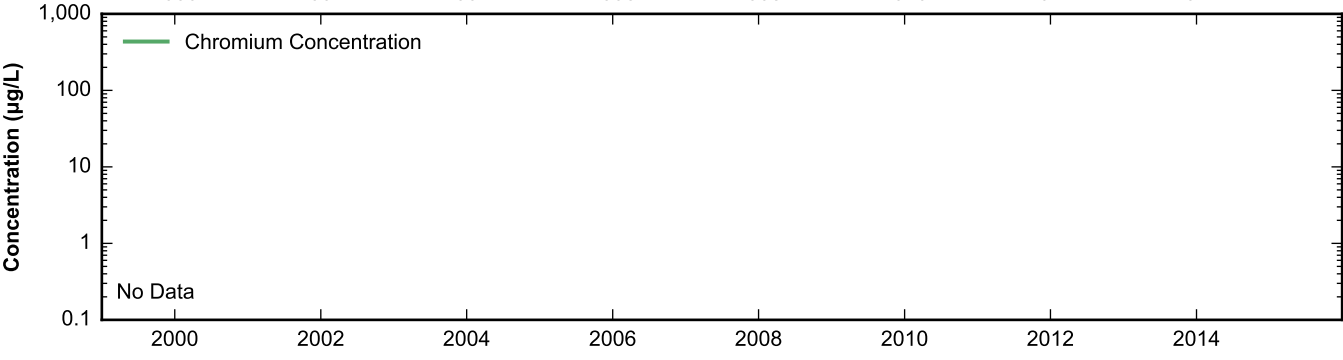
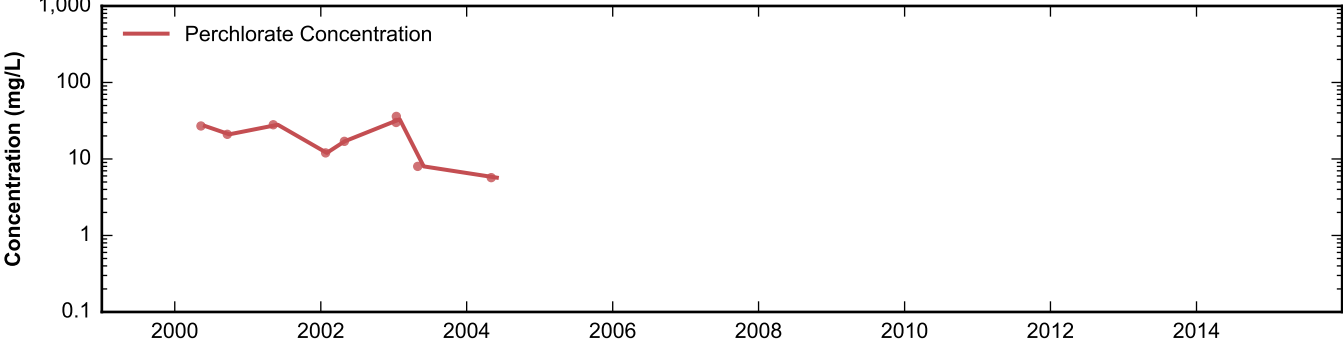
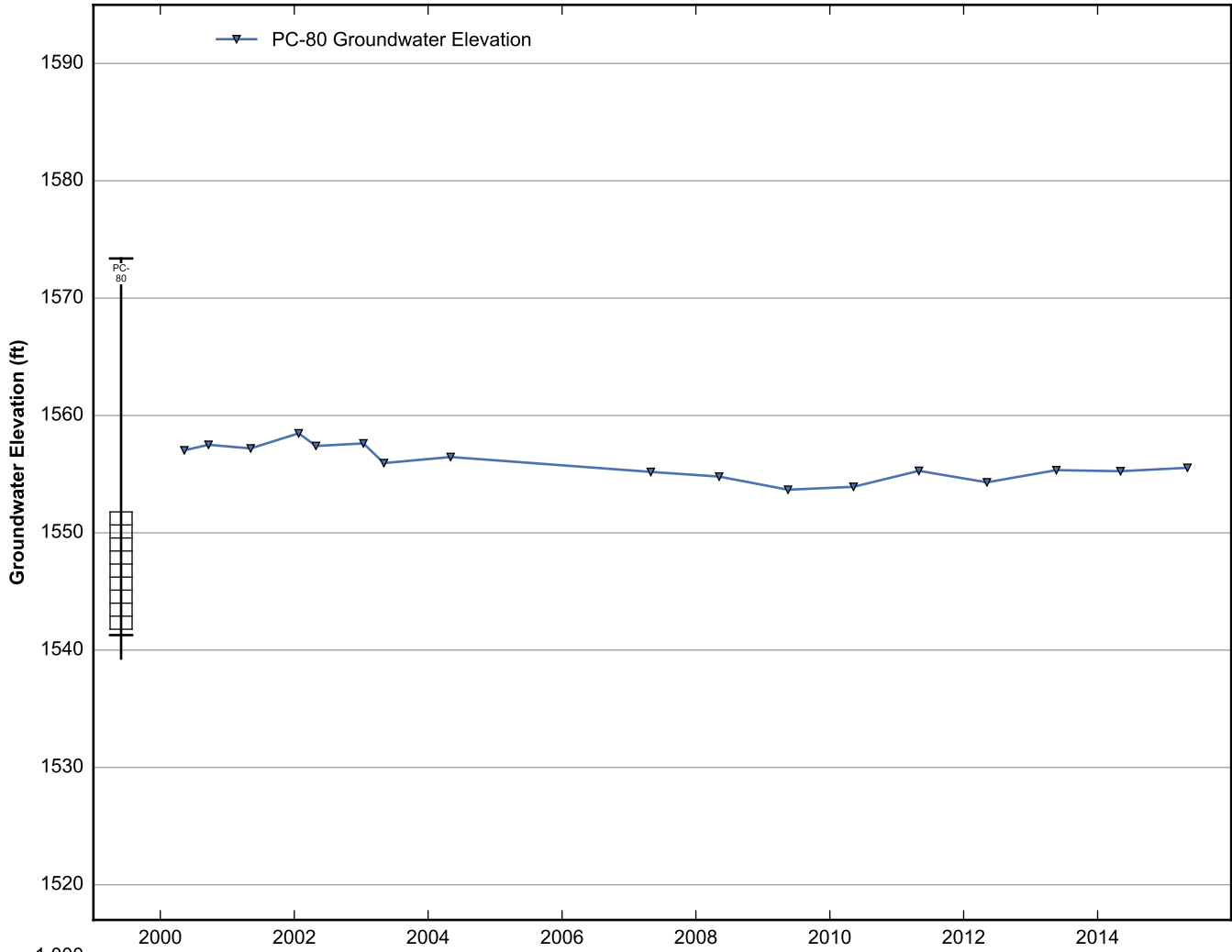
**Data Sheet for Well PC-77**  
 Nevada Environmental Response Trust Site  
 Henderson, Nevada



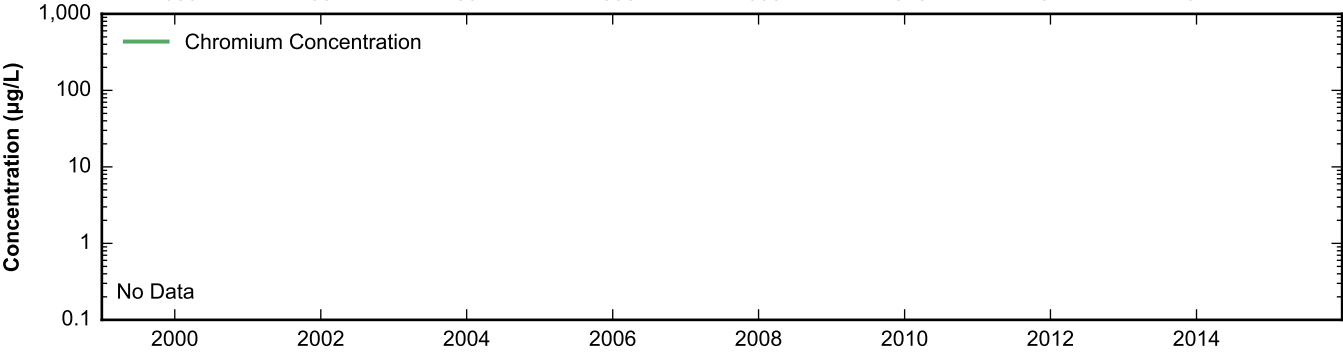
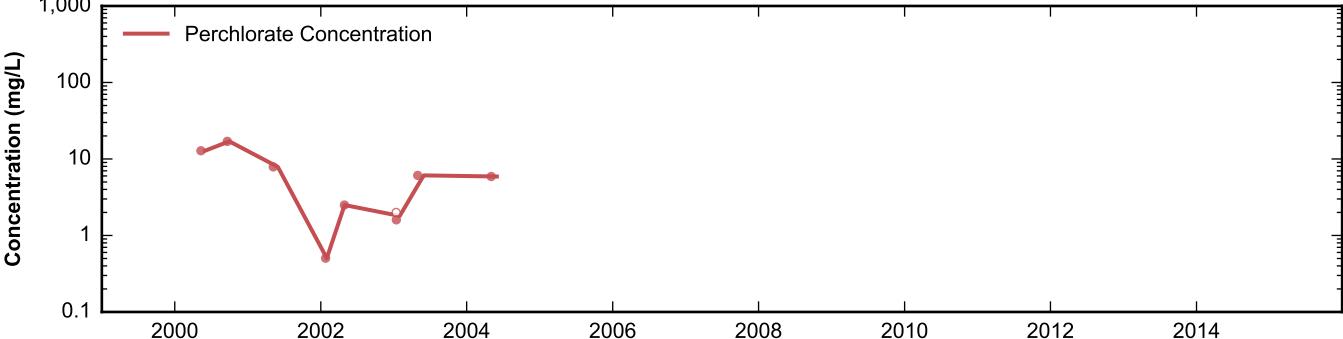
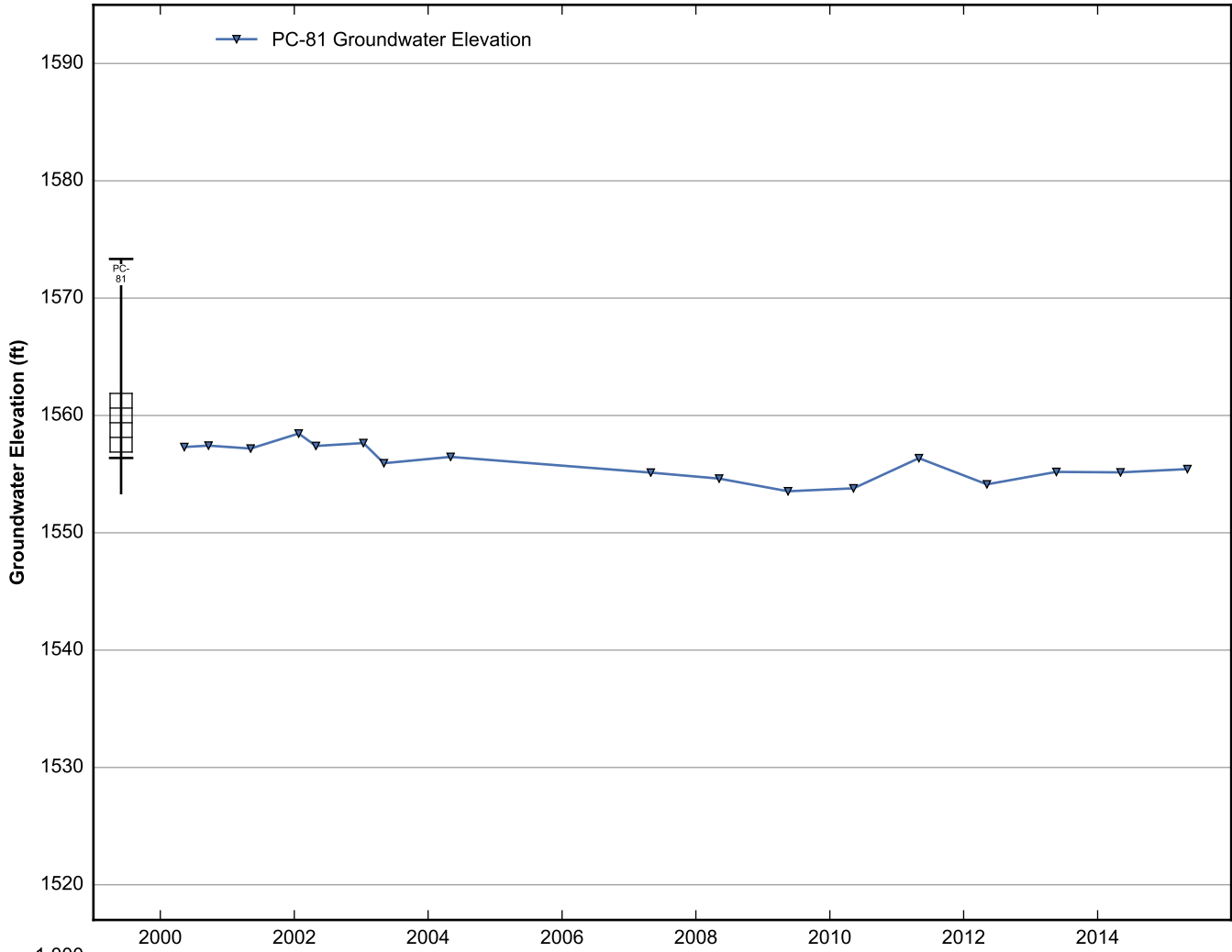
**Data Sheet for Well PC-78**  
 Nevada Environmental Response Trust Site  
 Henderson, Nevada



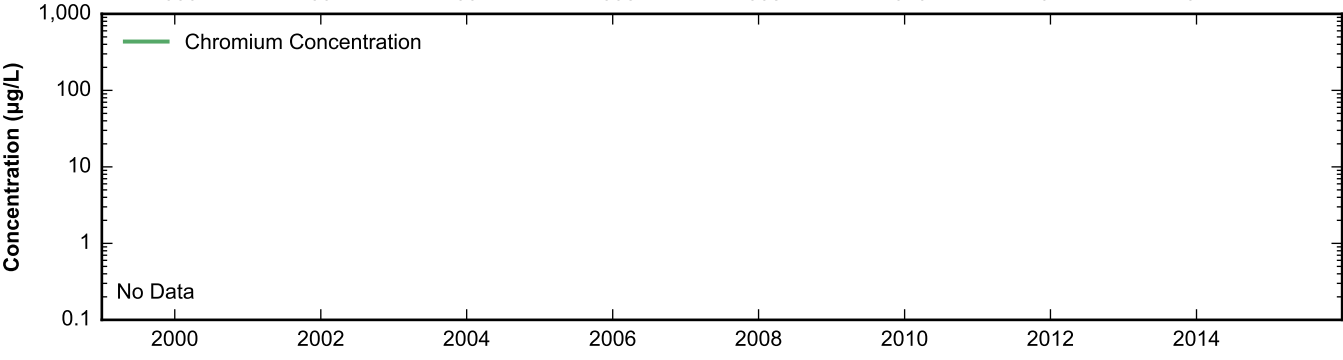
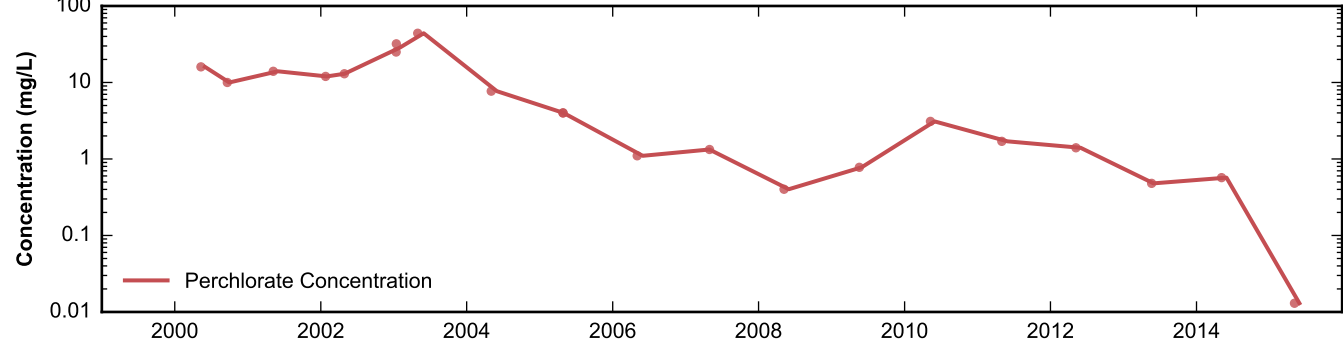
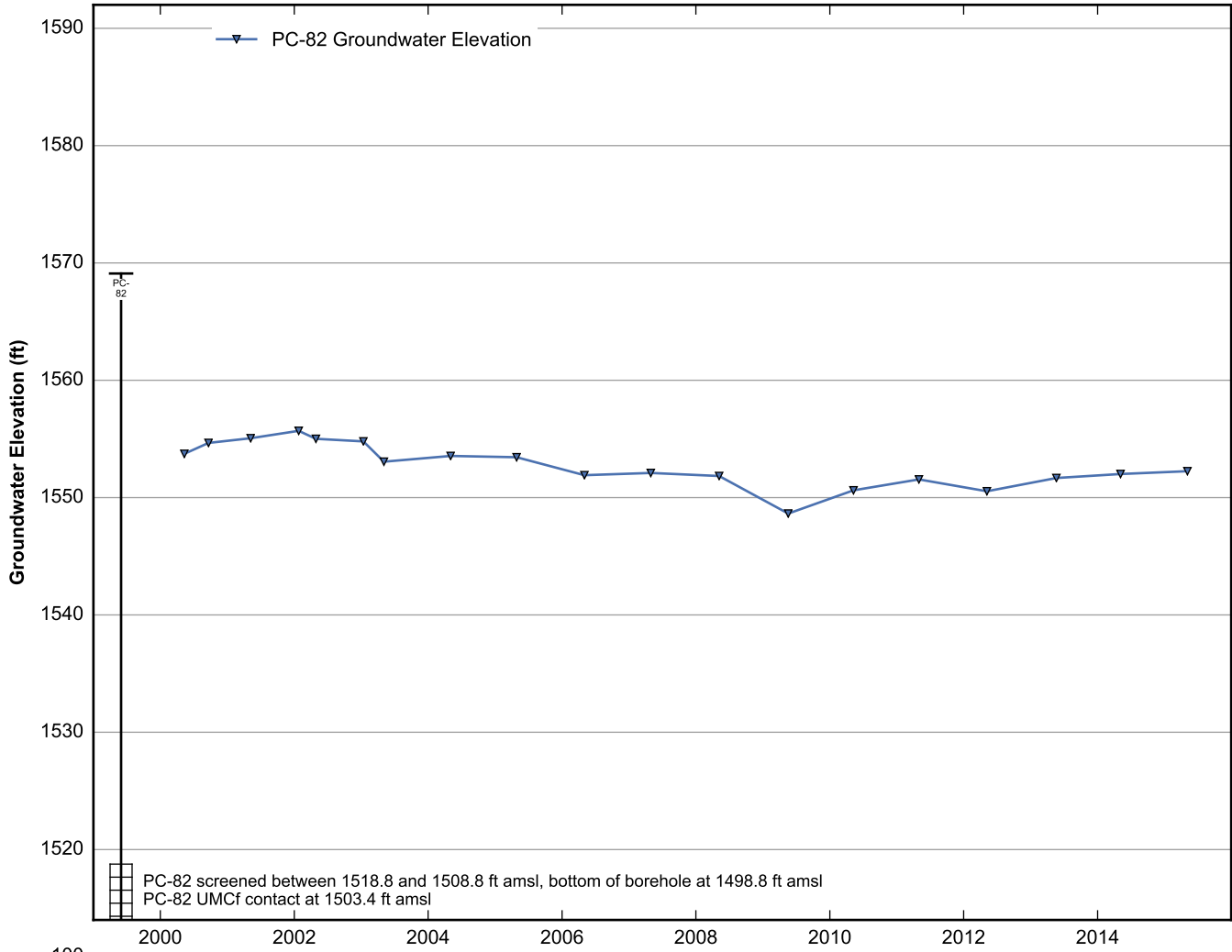
**Data Sheet for Well PC-79**  
 Nevada Environmental Response Trust Site  
 Henderson, Nevada



**Data Sheet for Well PC-80**  
 Nevada Environmental Response Trust Site  
 Henderson, Nevada

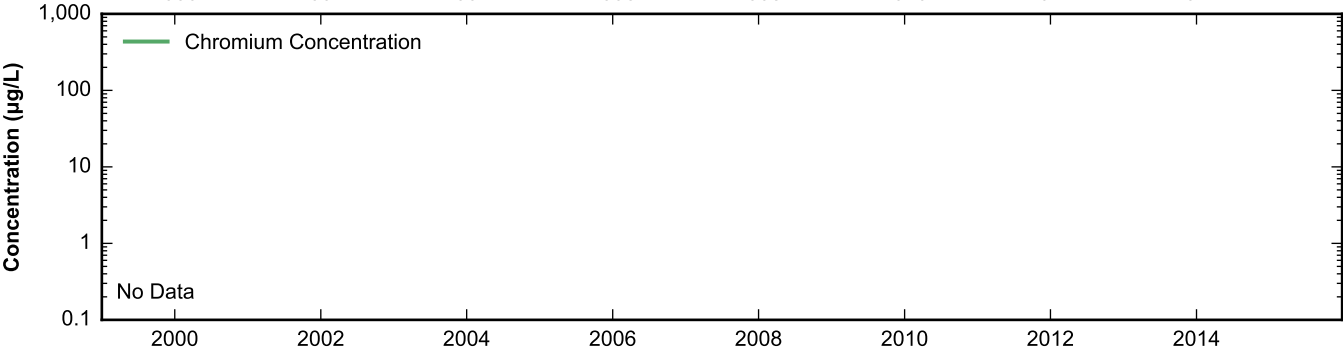
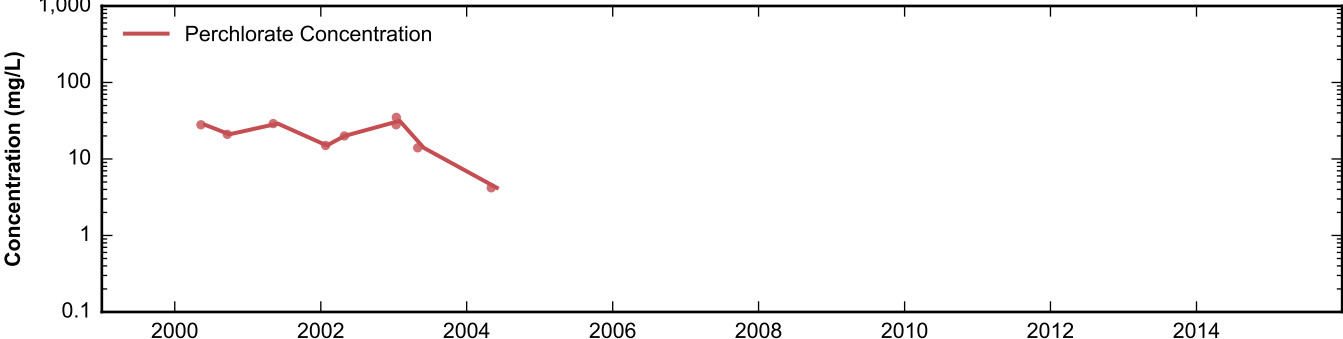
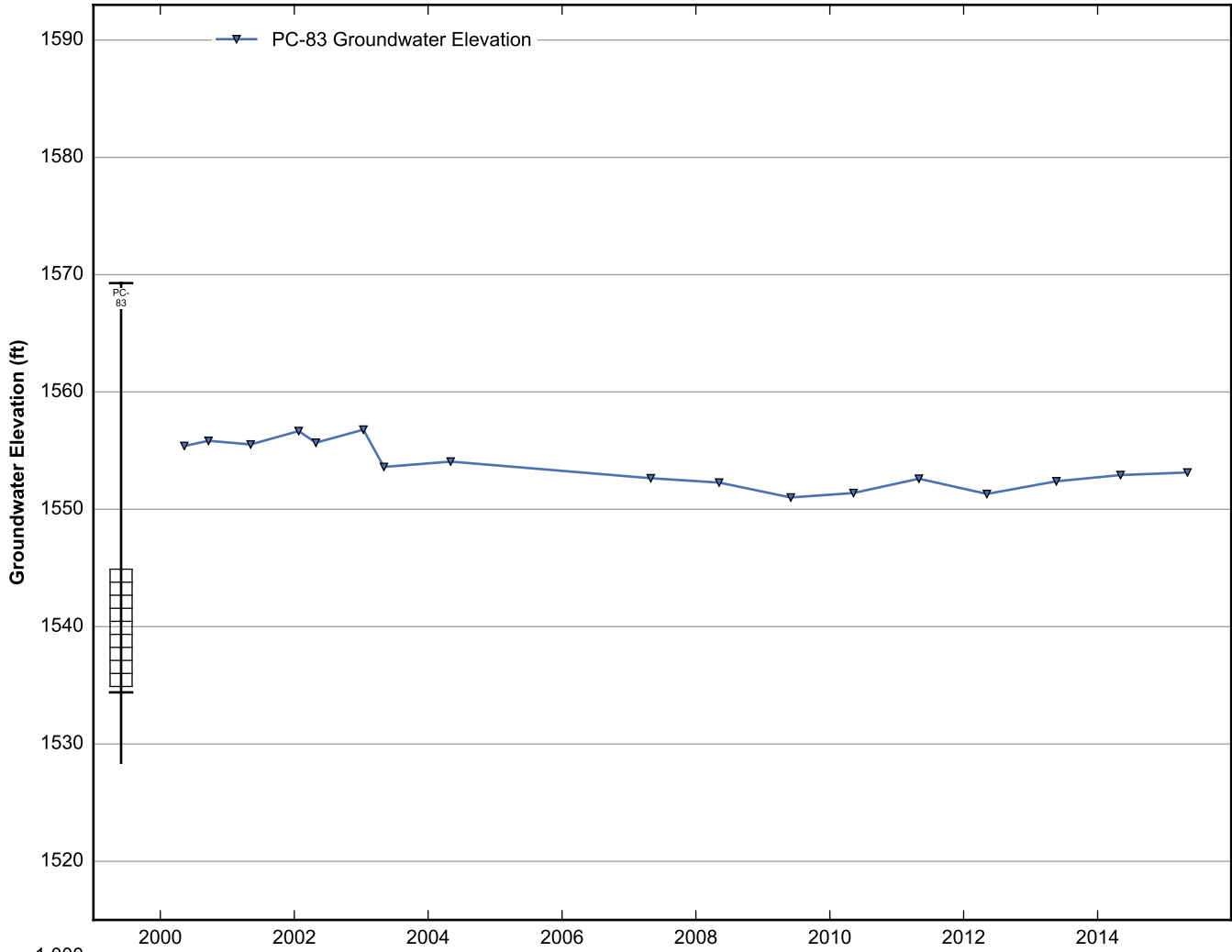


**Data Sheet for Well PC-81**  
 Nevada Environmental Response Trust Site  
 Henderson, Nevada

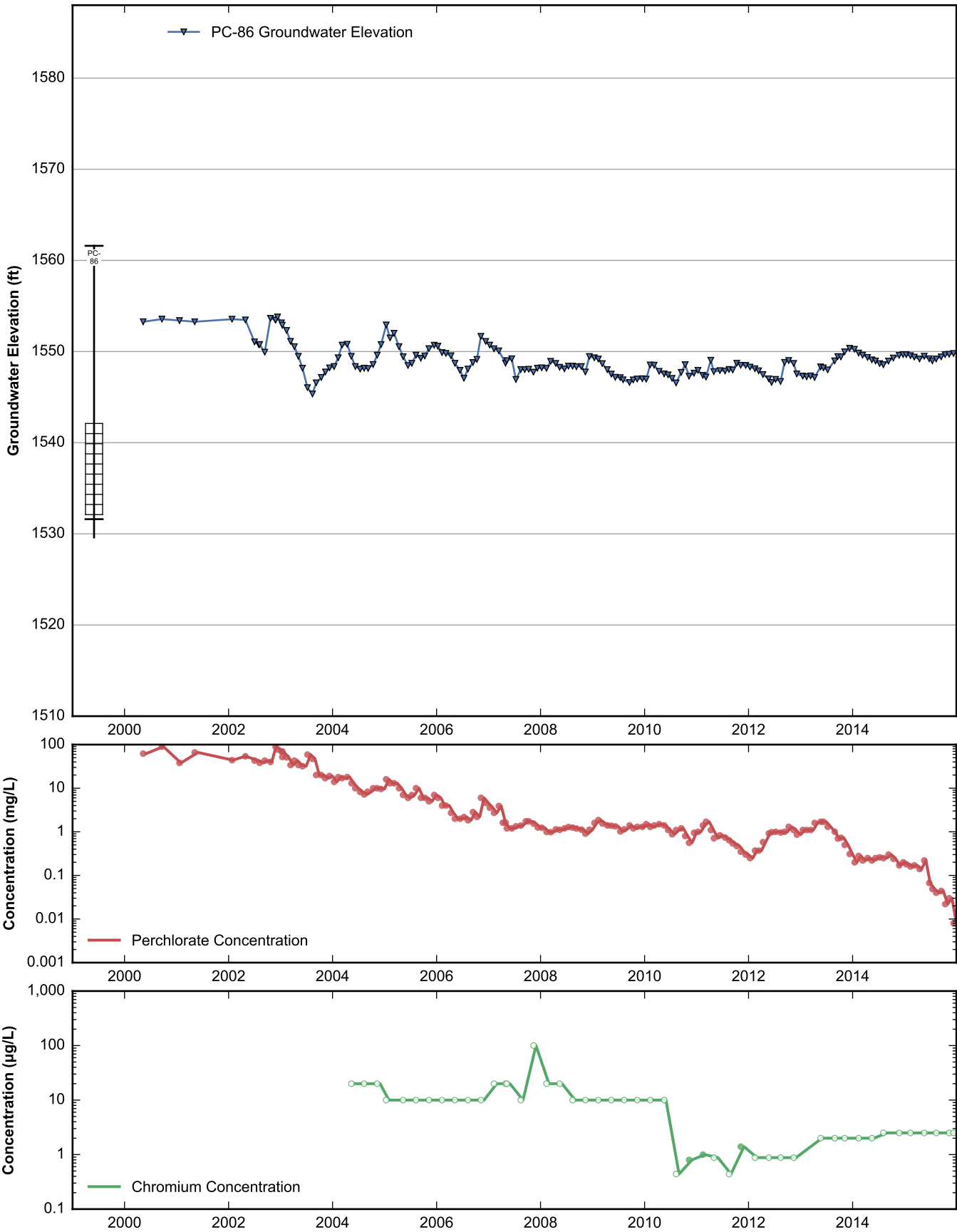


**Data Sheet for Well PC-82**  
 Nevada Environmental Response Trust Site  
 Henderson, Nevada

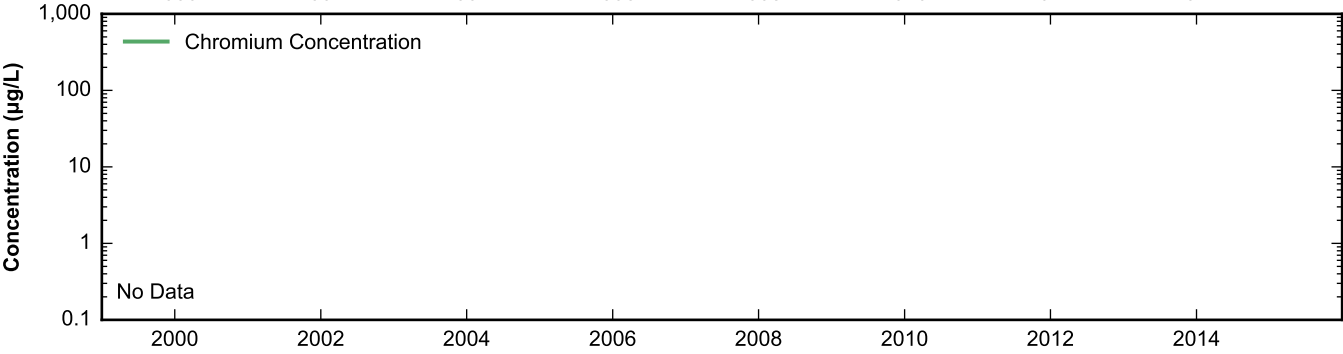
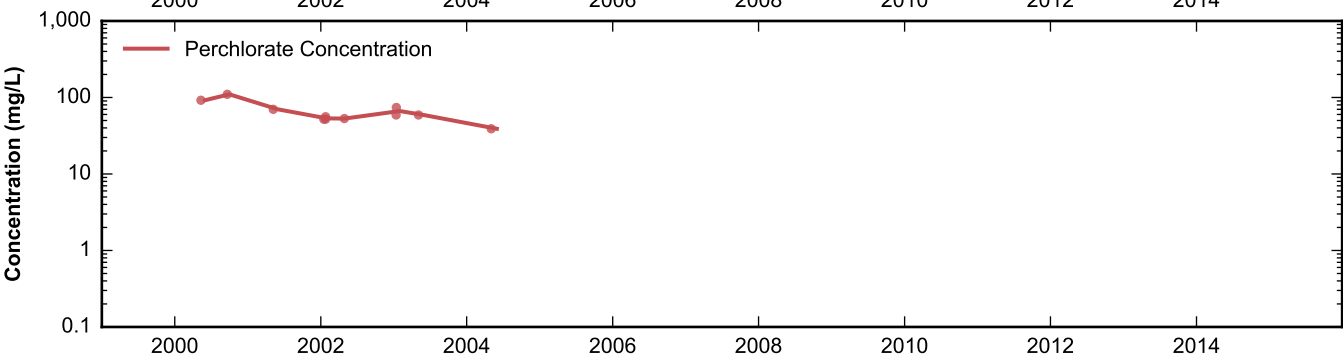
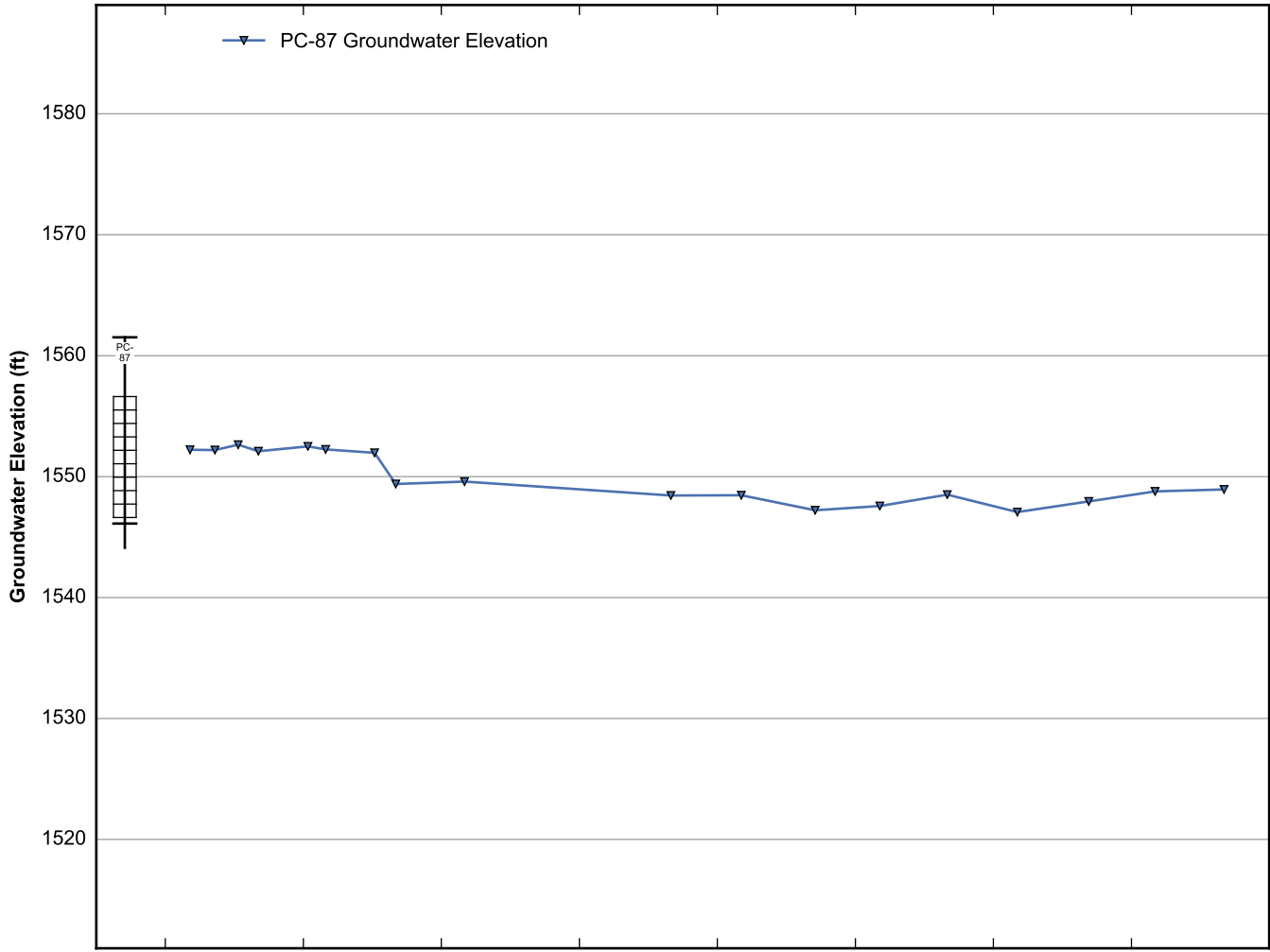




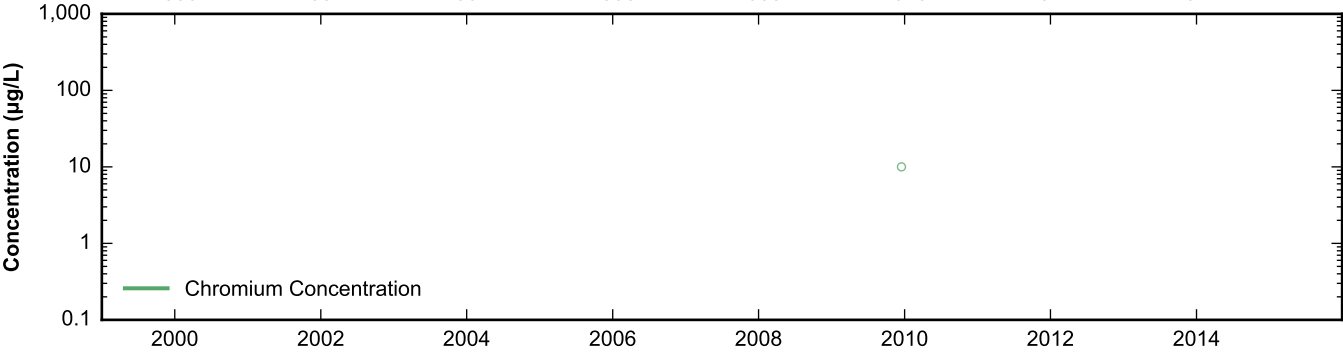
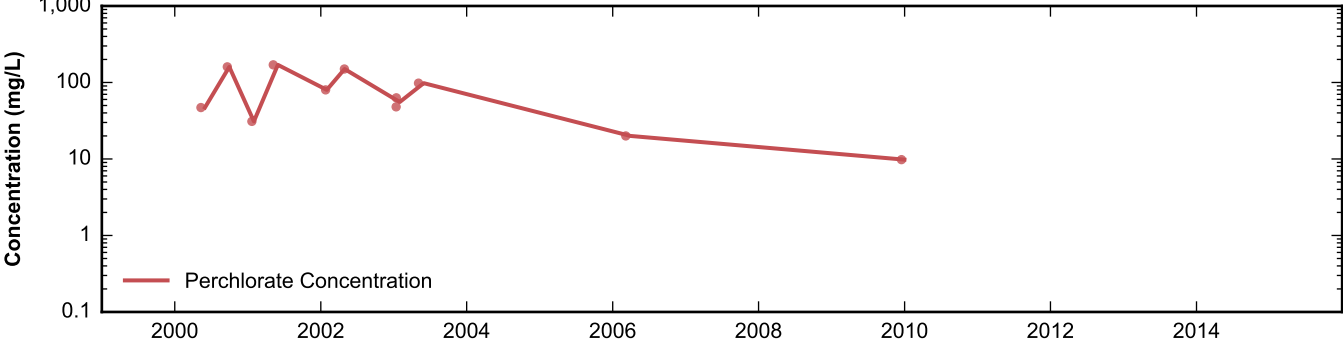
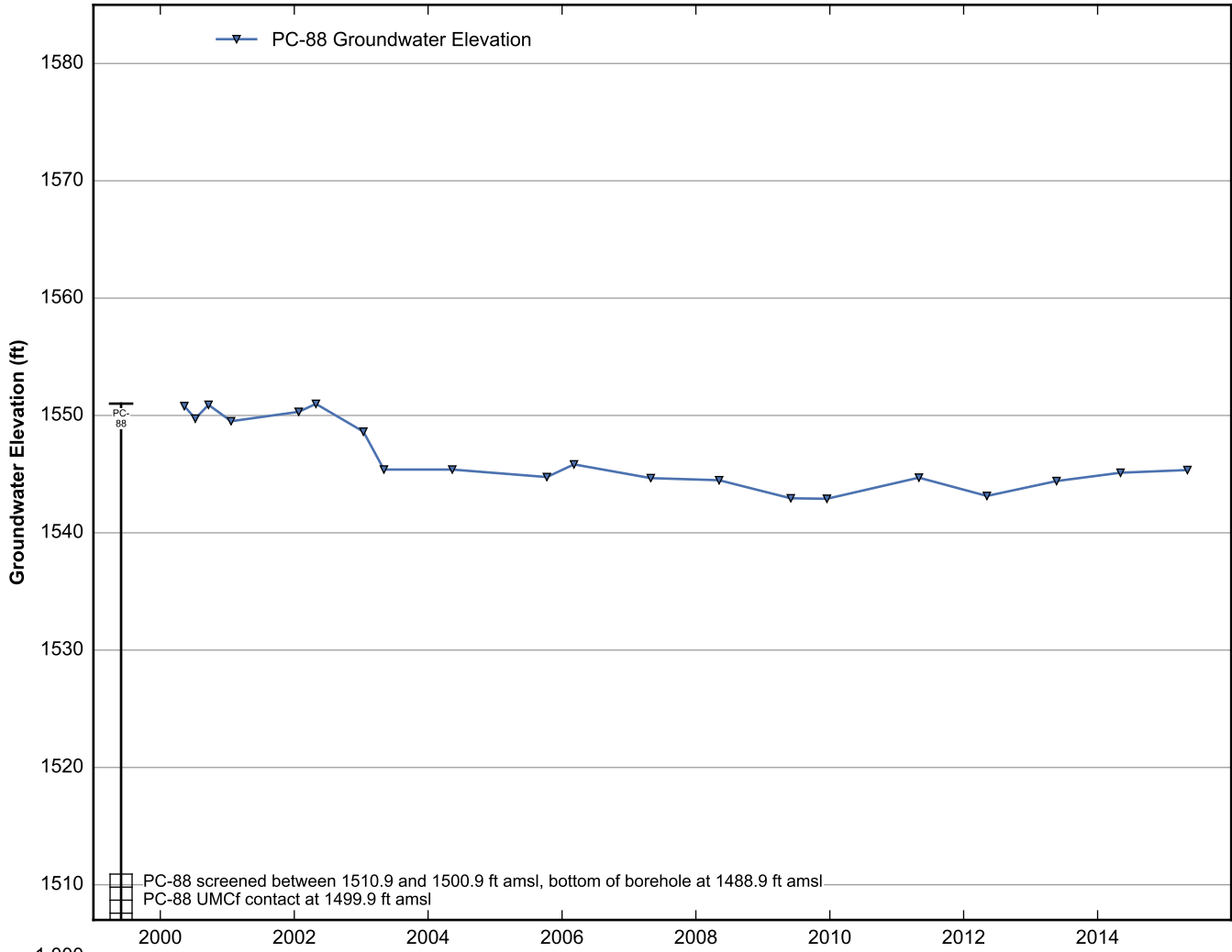
**Data Sheet for Well PC-83**  
 Nevada Environmental Response Trust Site  
 Henderson, Nevada



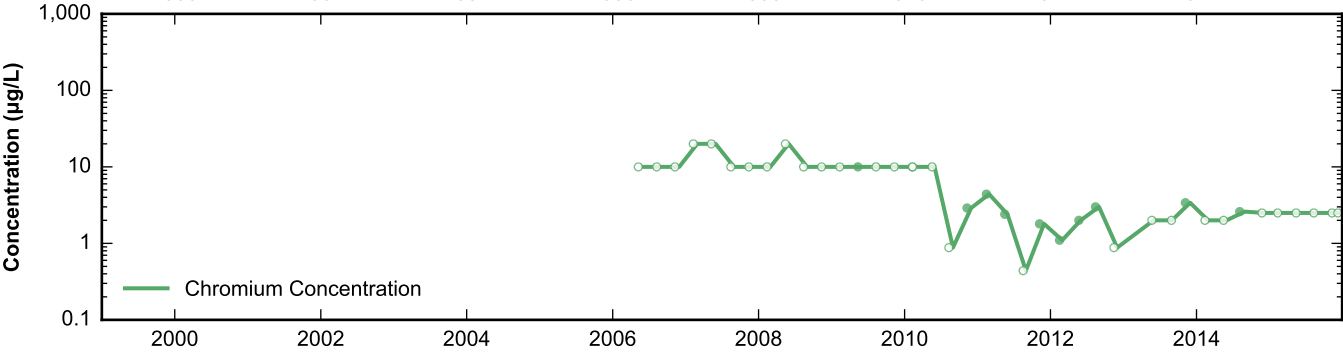
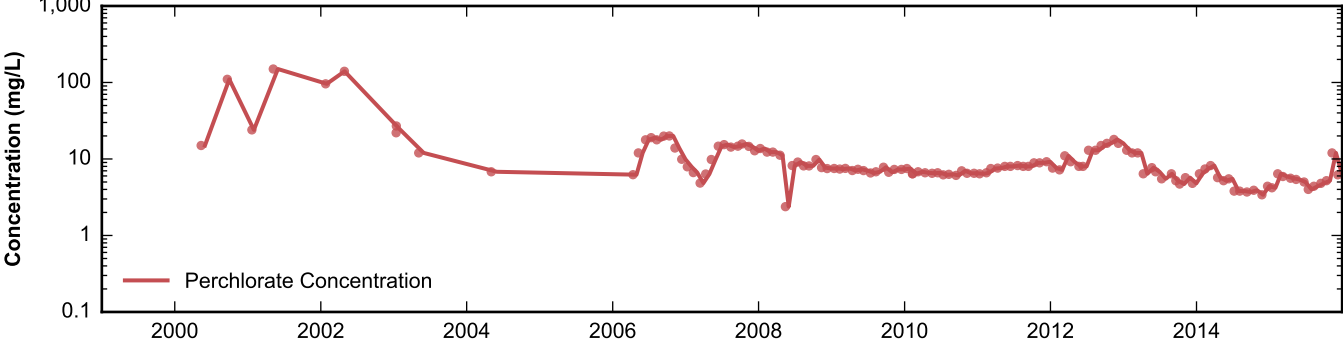
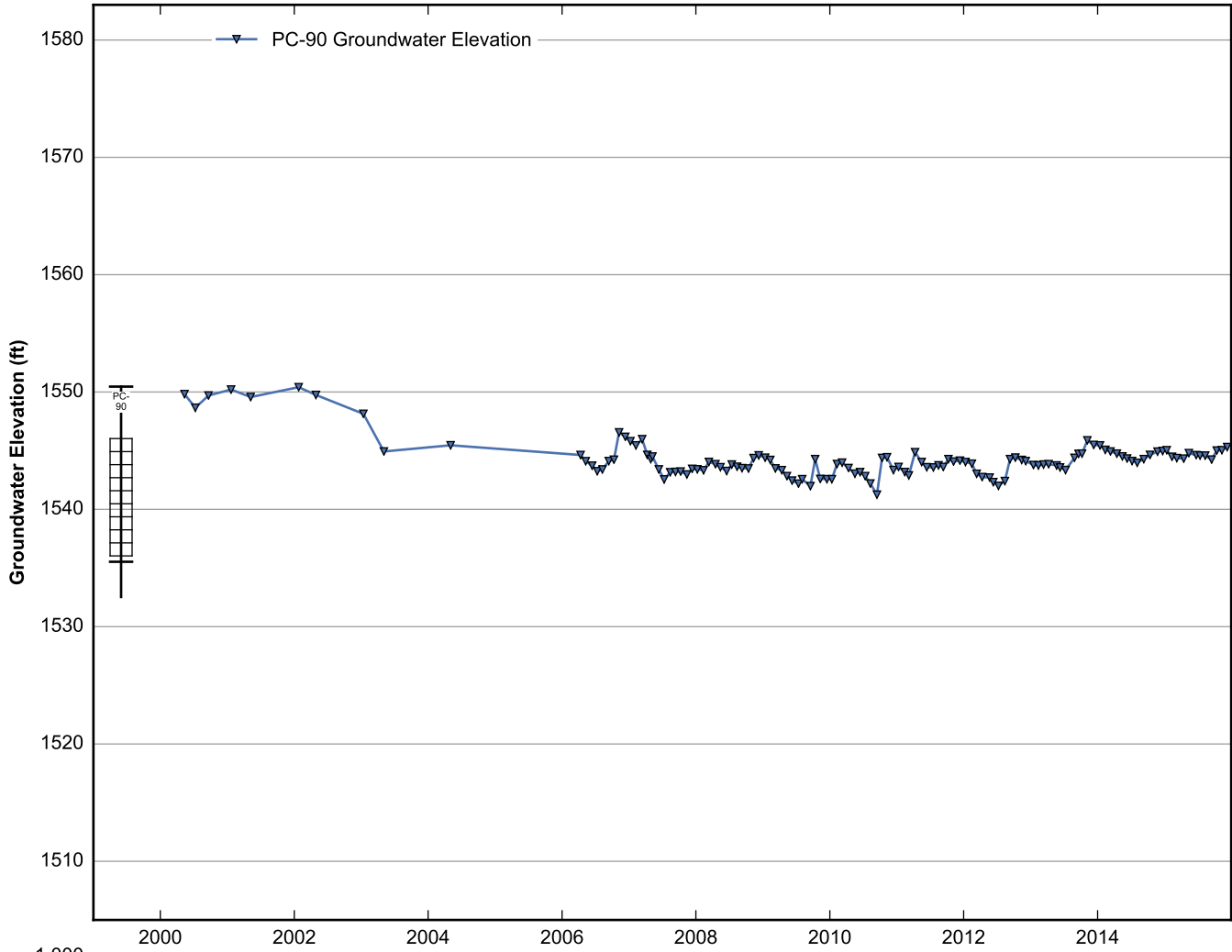
**Data Sheet for Well PC-86**  
Nevada Environmental Response Trust Site  
Henderson, Nevada



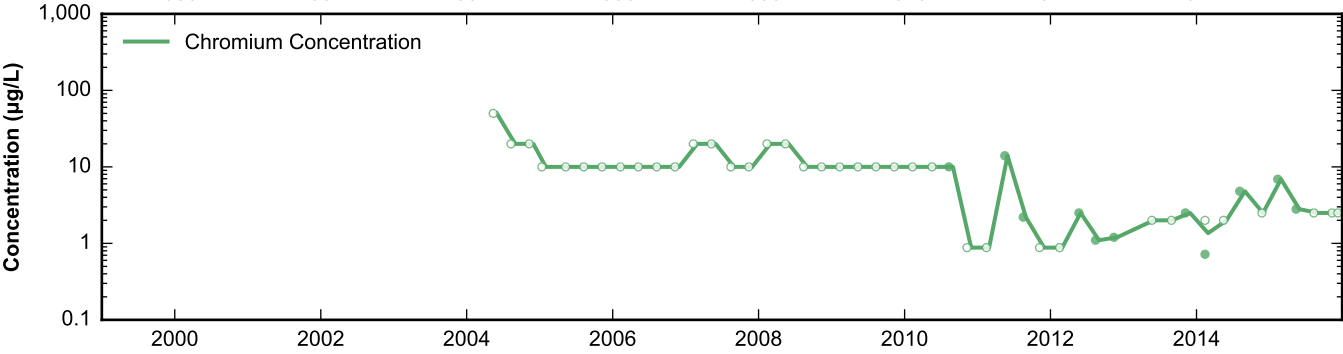
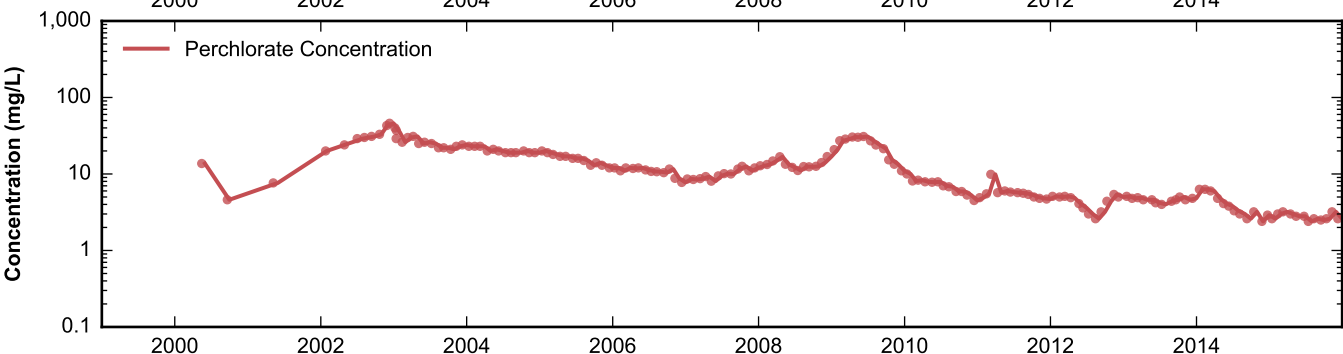
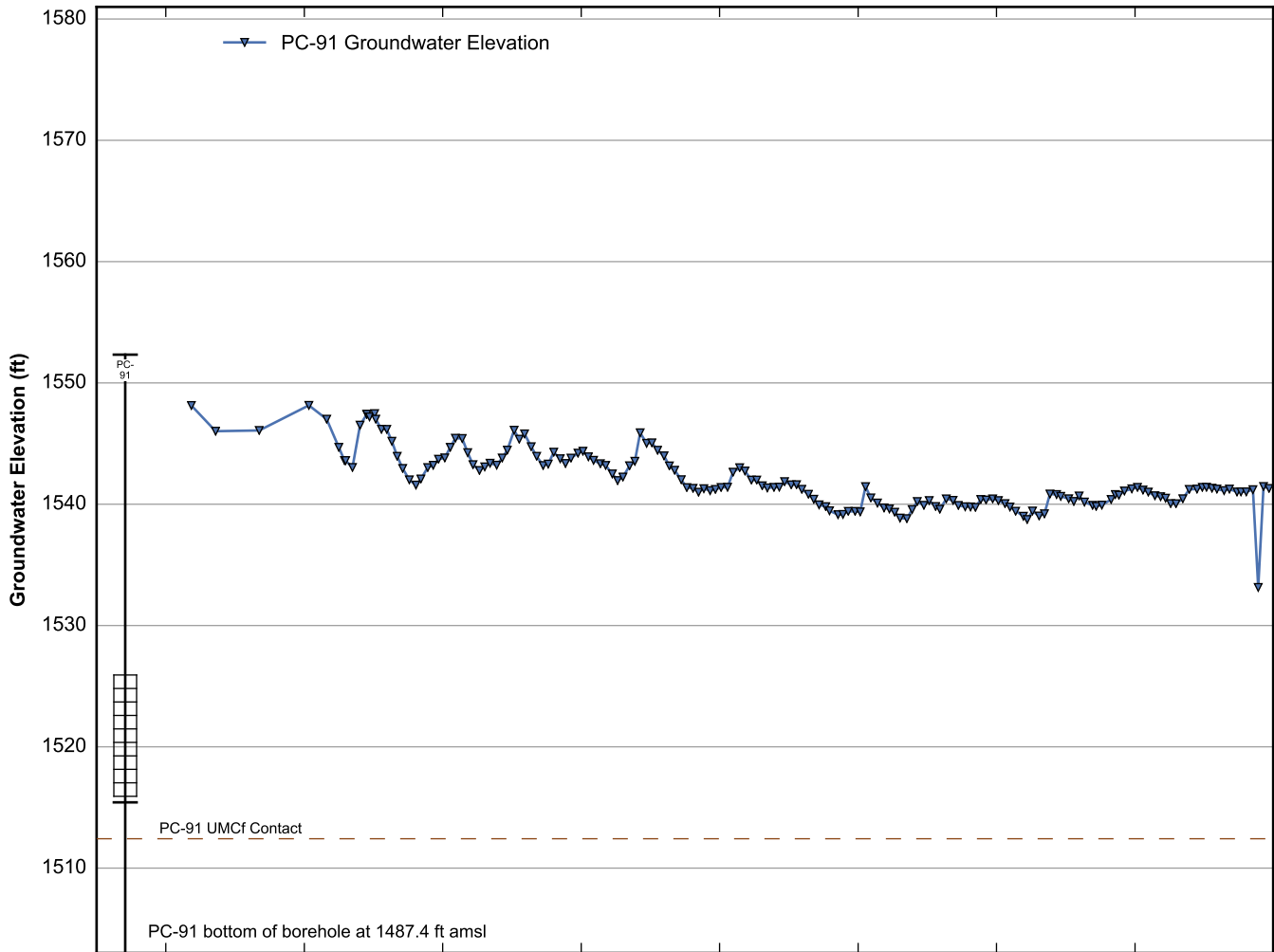
**Data Sheet for Well PC-87**  
 Nevada Environmental Response Trust Site  
 Henderson, Nevada



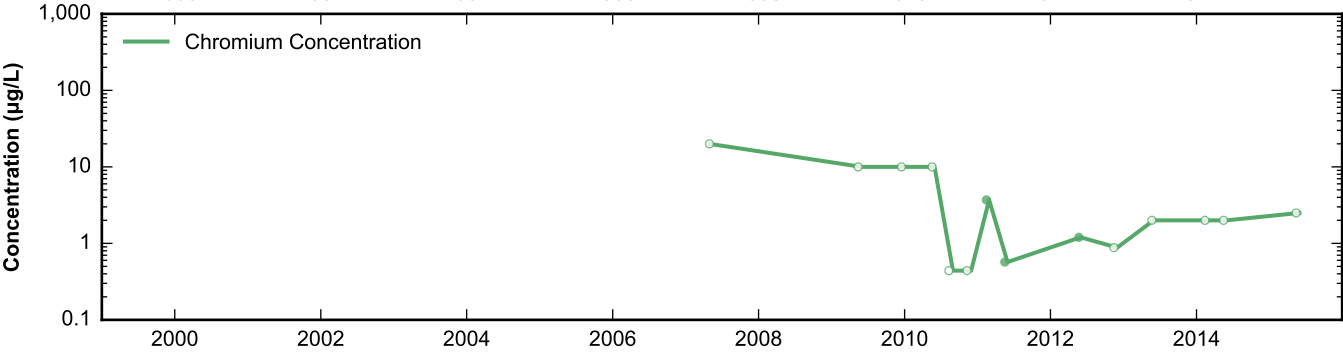
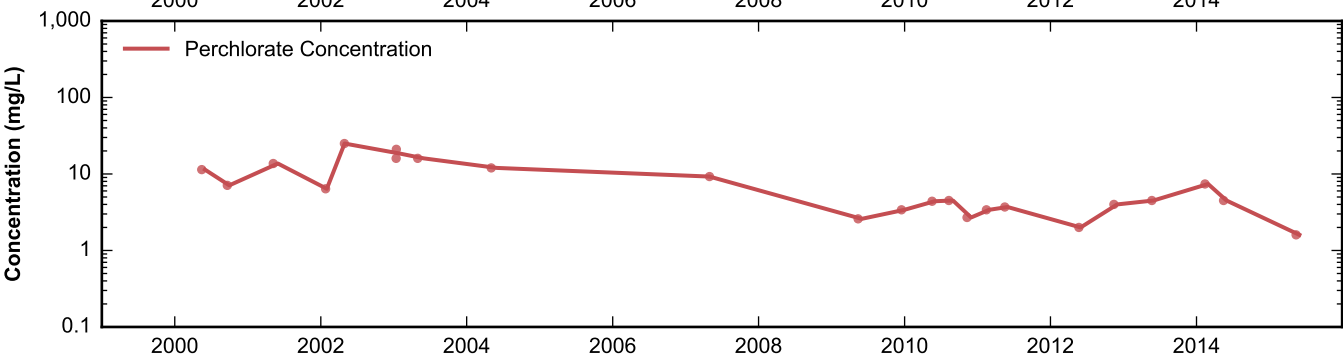
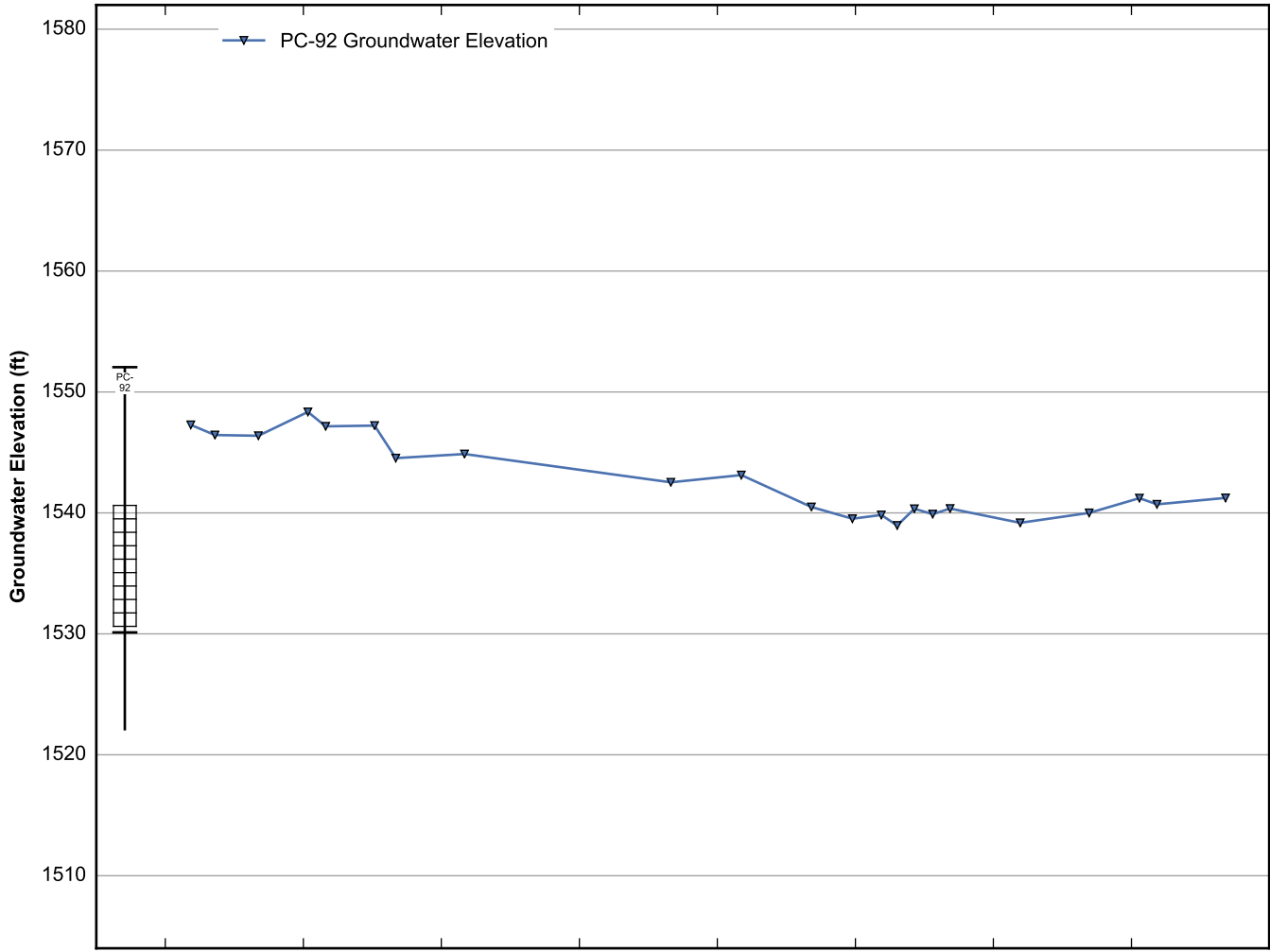
**Data Sheet for Well PC-88**  
 Nevada Environmental Response Trust Site  
 Henderson, Nevada



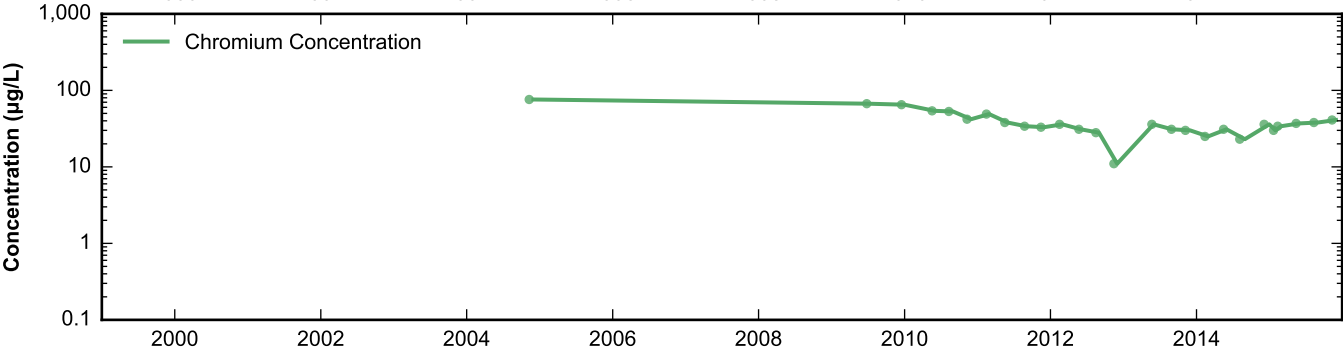
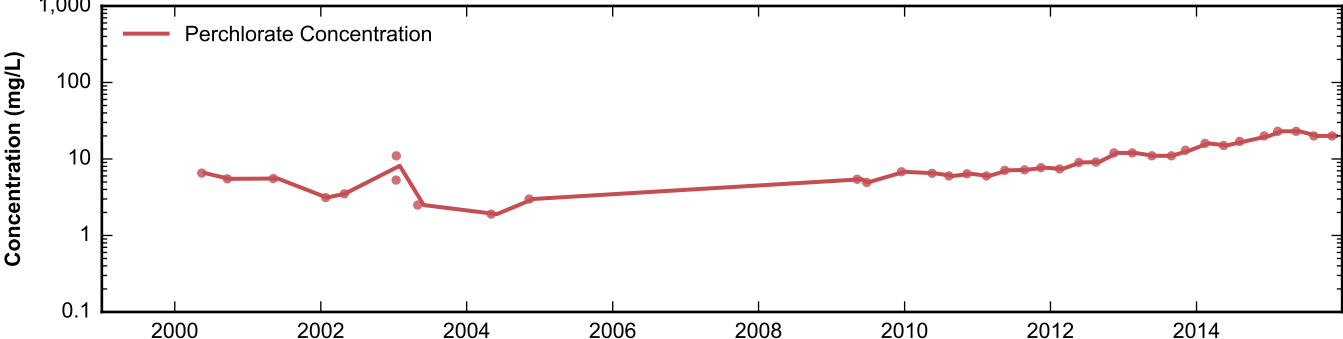
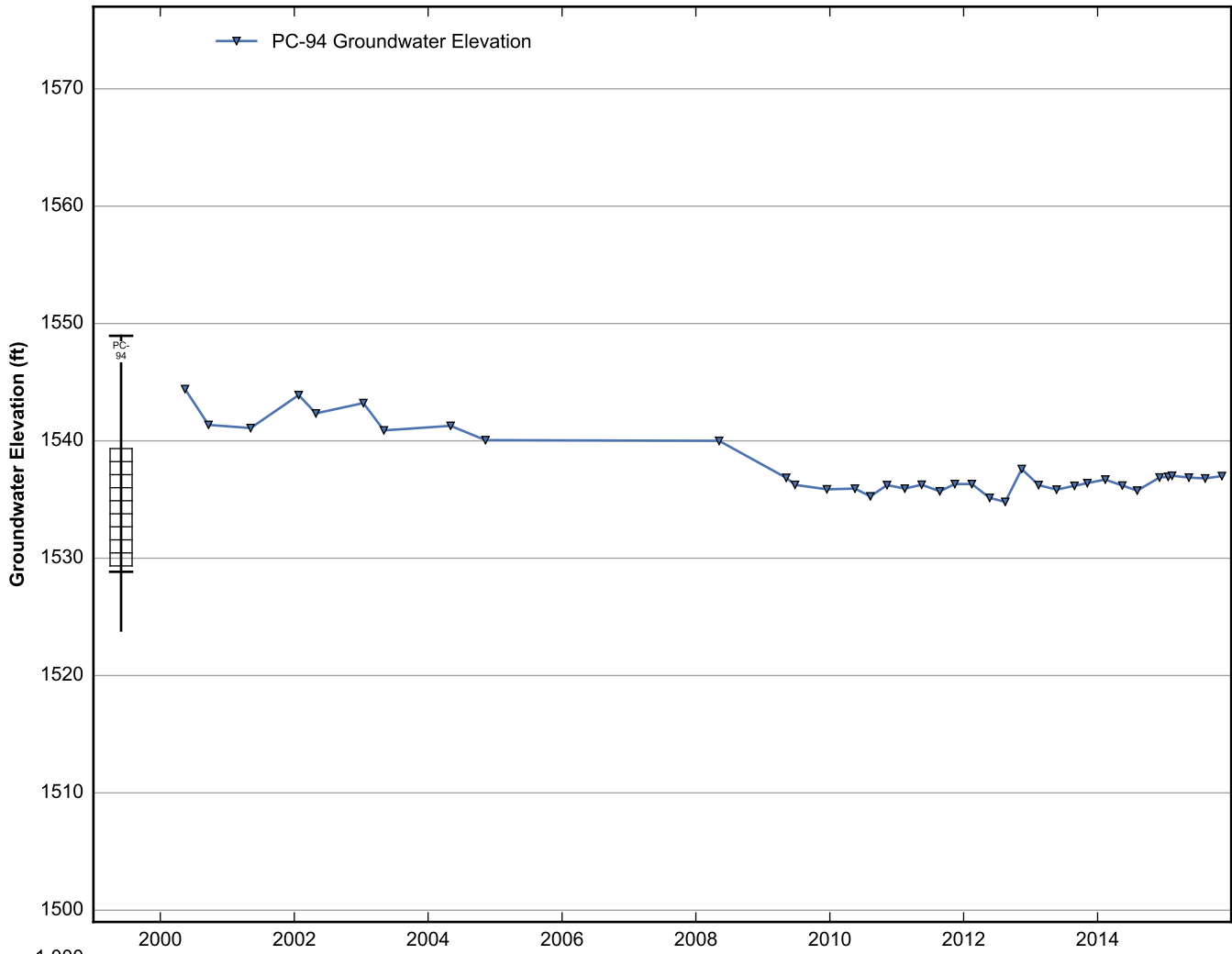
**Data Sheet for Well PC-90**  
Nevada Environmental Response Trust Site  
Henderson, Nevada



**Data Sheet for Well PC-91**  
Nevada Environmental Response Trust Site  
Henderson, Nevada

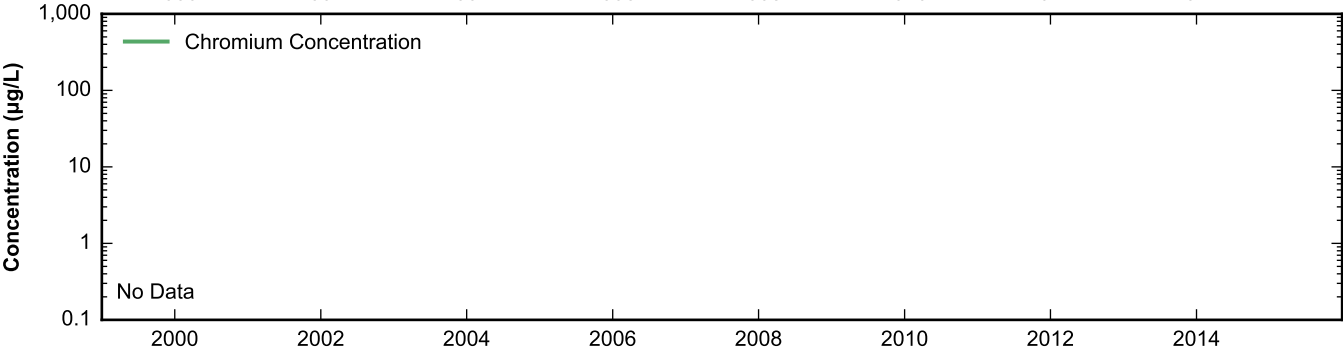
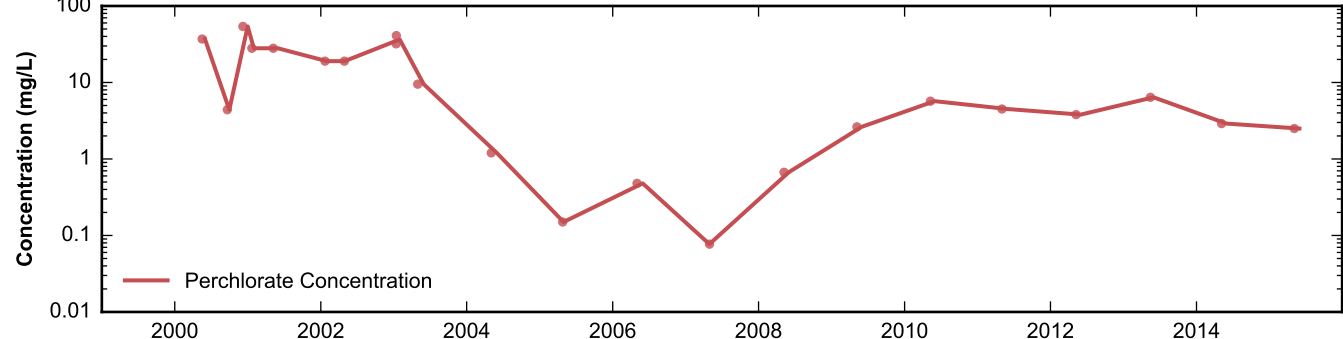
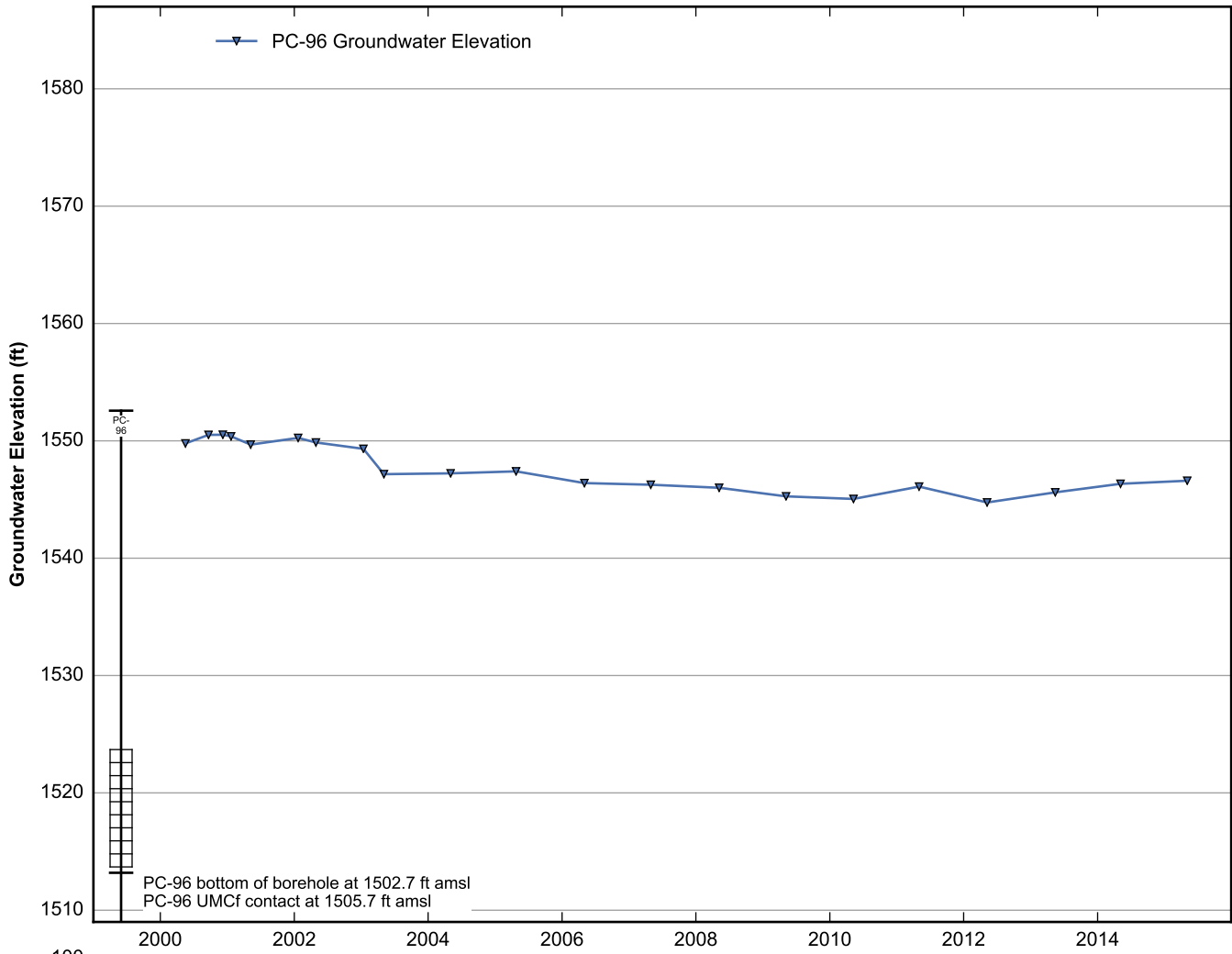


**Data Sheet for Well PC-92**  
 Nevada Environmental Response Trust Site  
 Henderson, Nevada

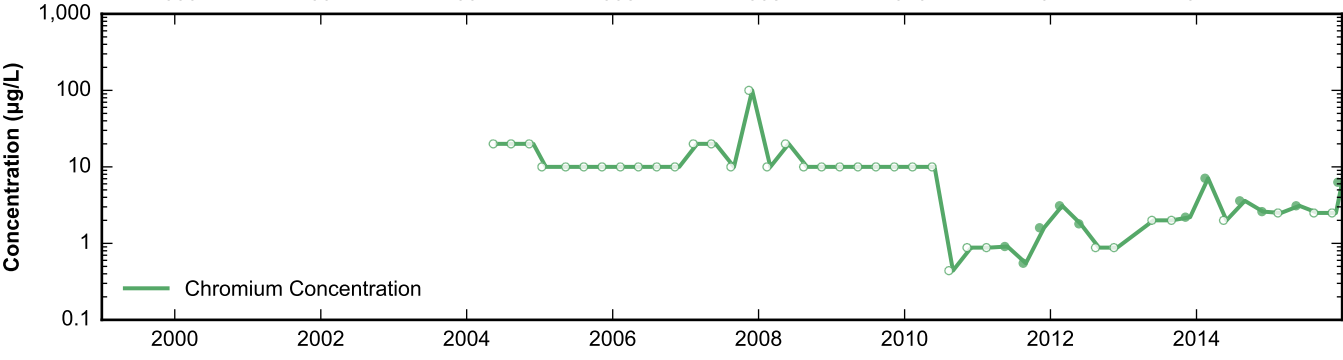
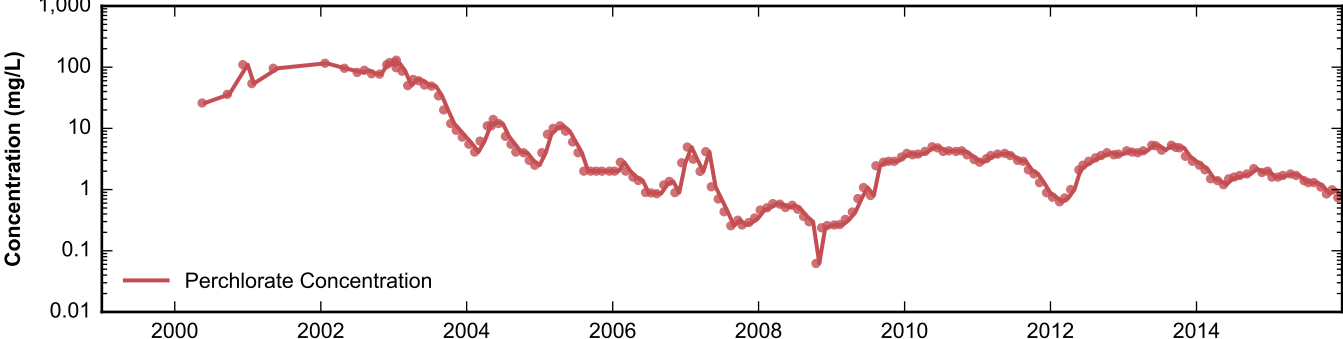
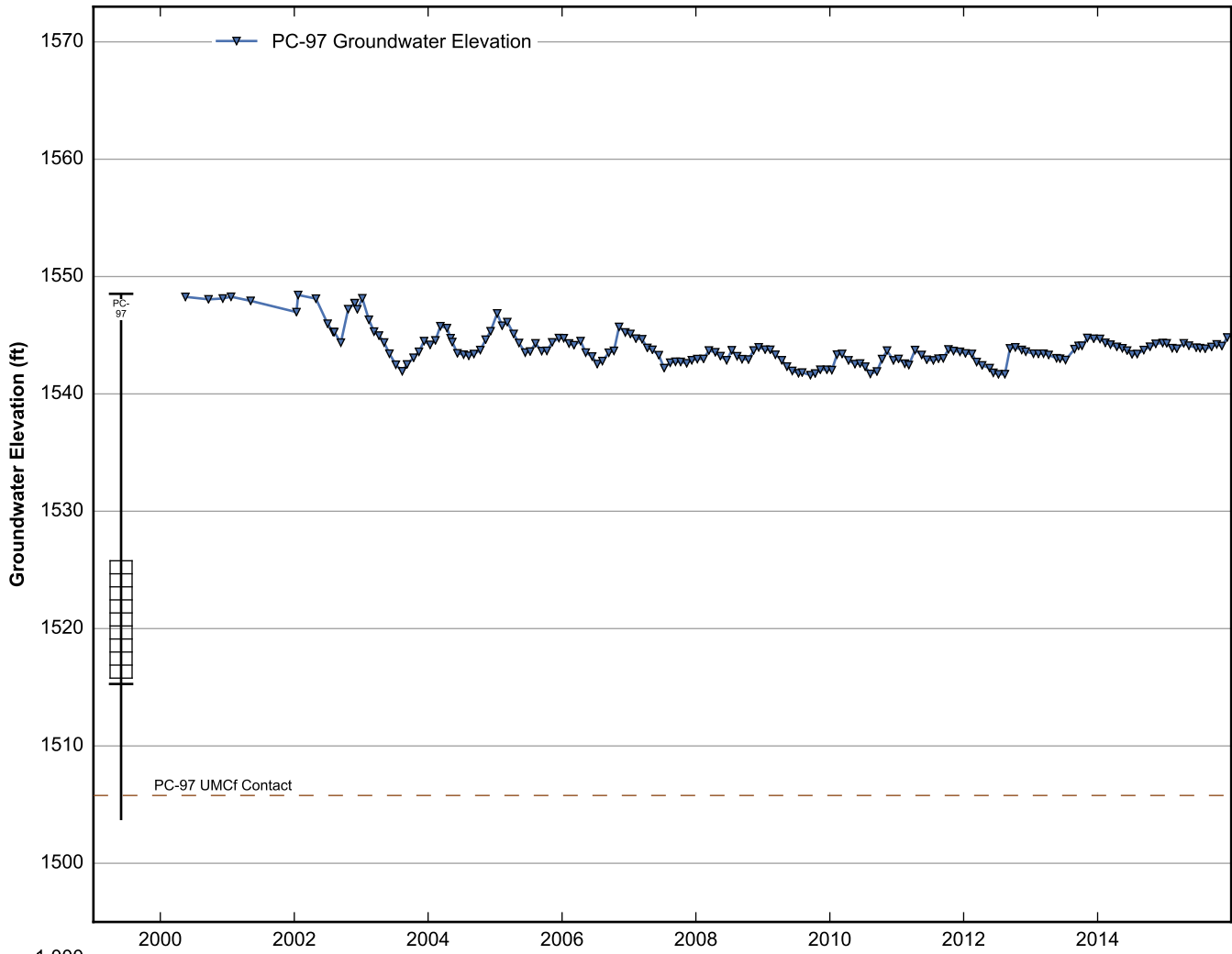


**Data Sheet for Well PC-94**  
 Nevada Environmental Response Trust Site  
 Henderson, Nevada

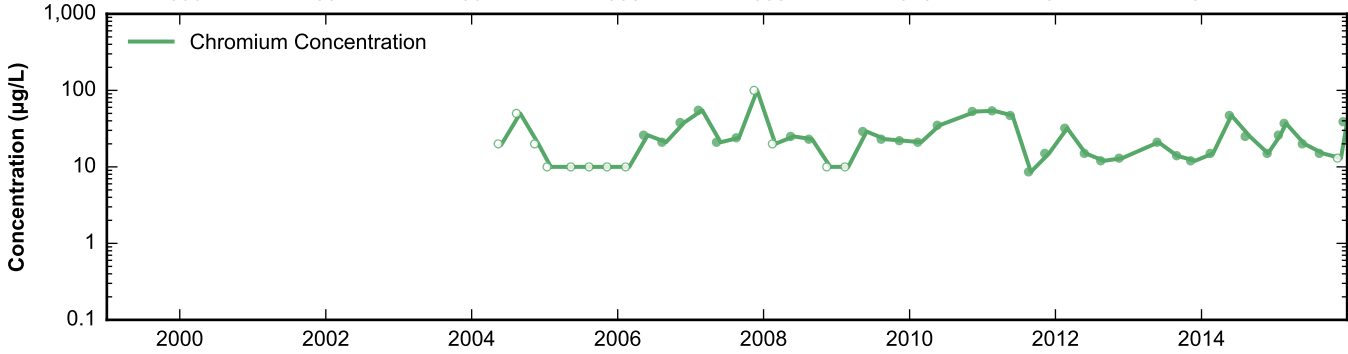
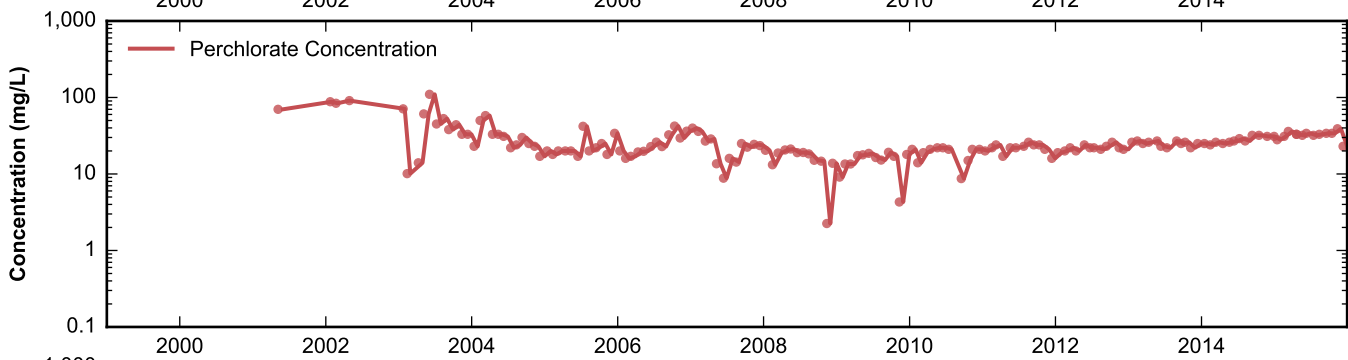
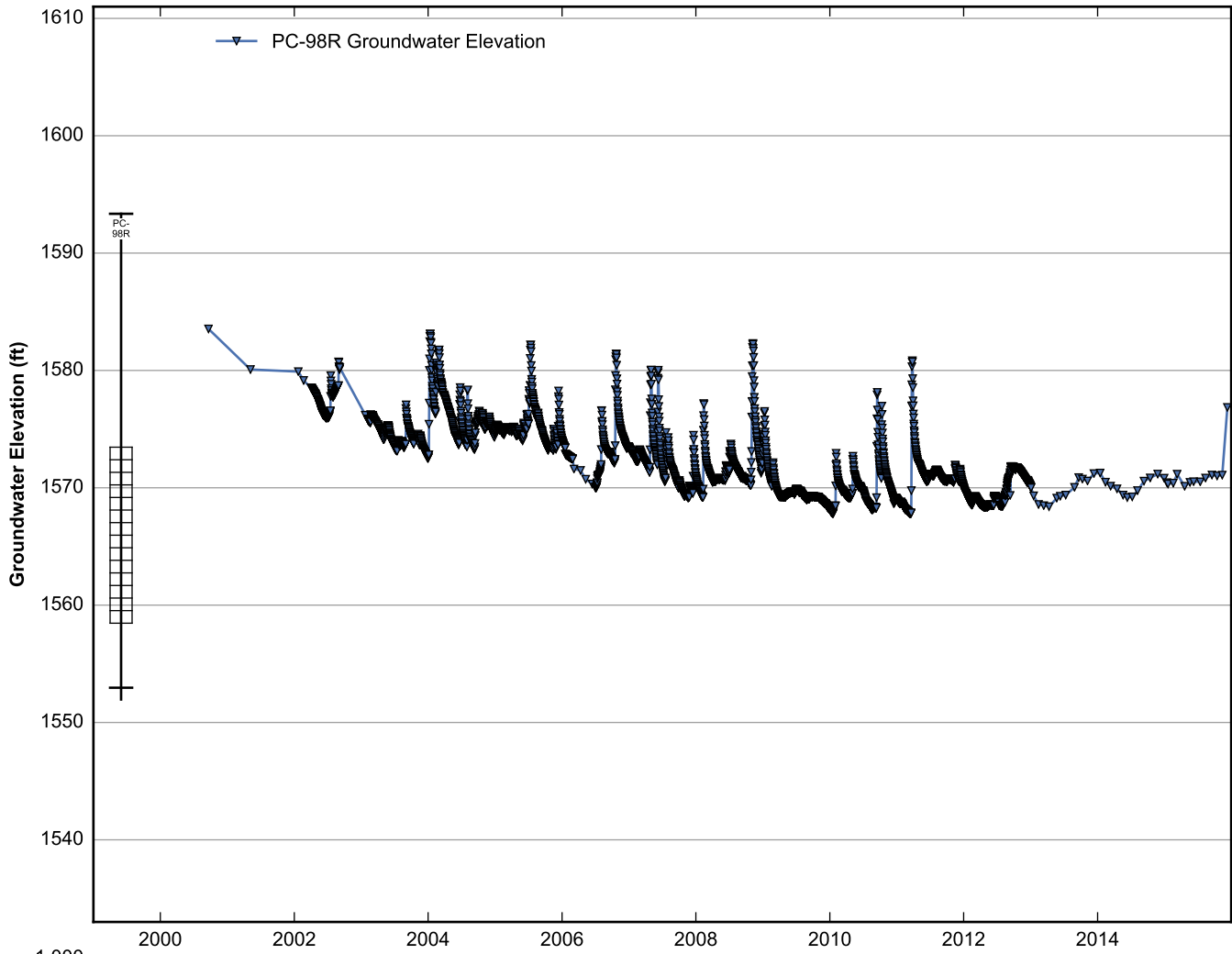




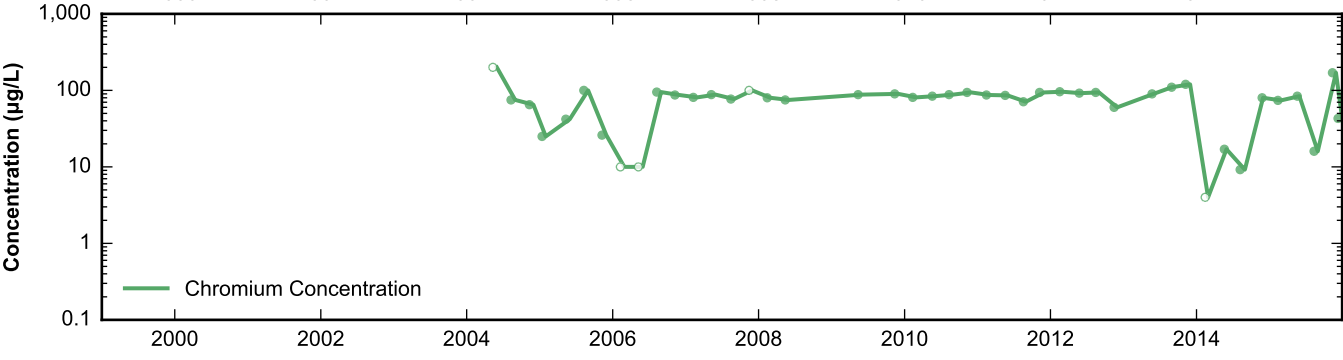
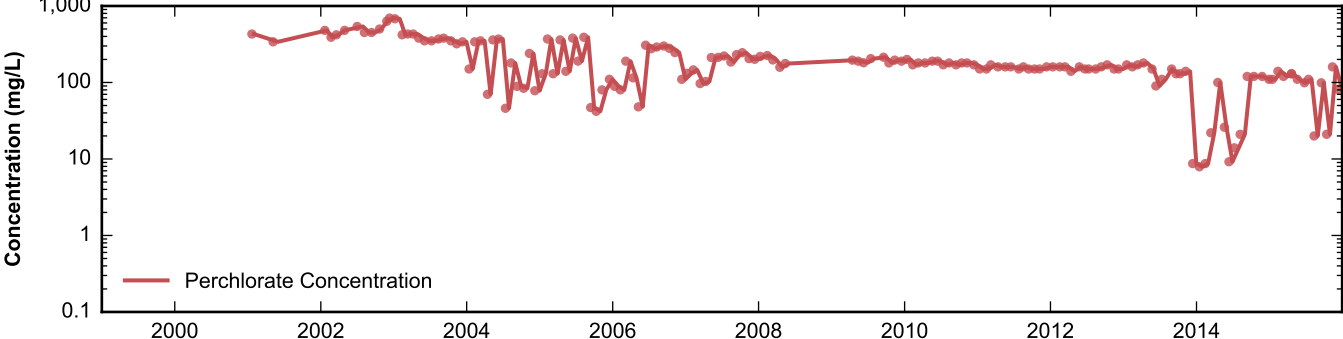
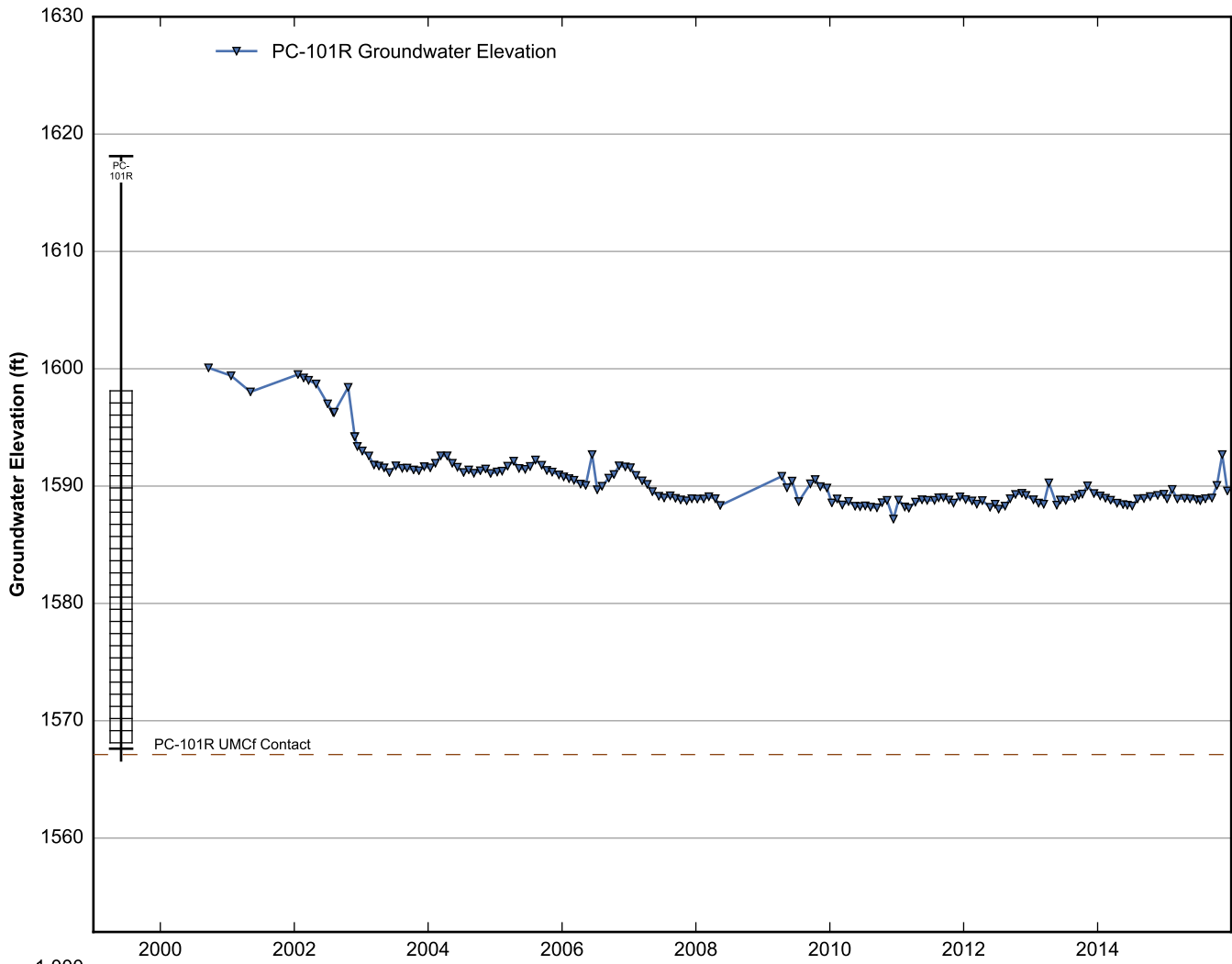
**Data Sheet for Well PC-96**  
Nevada Environmental Response Trust Site  
Henderson, Nevada



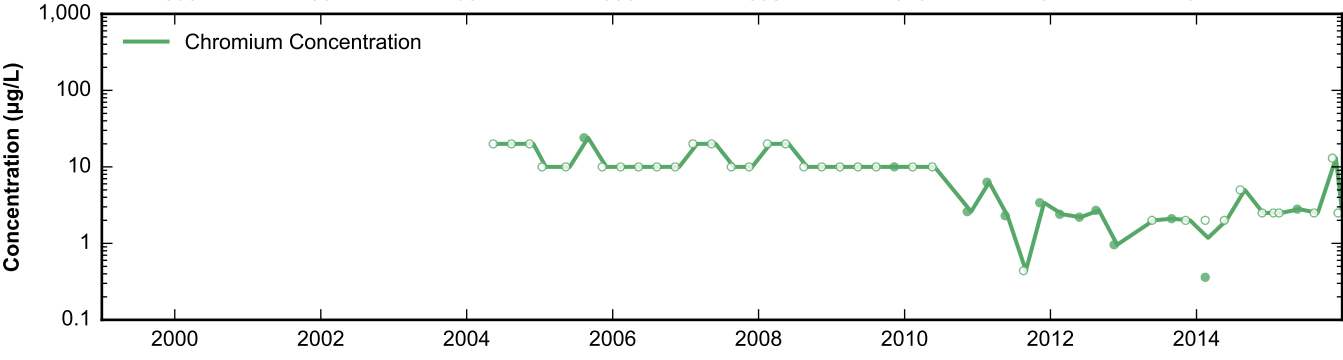
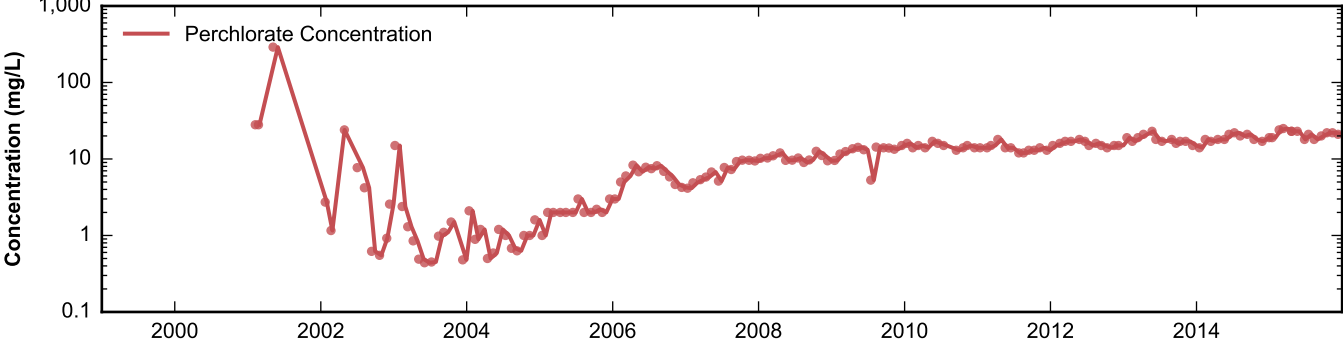
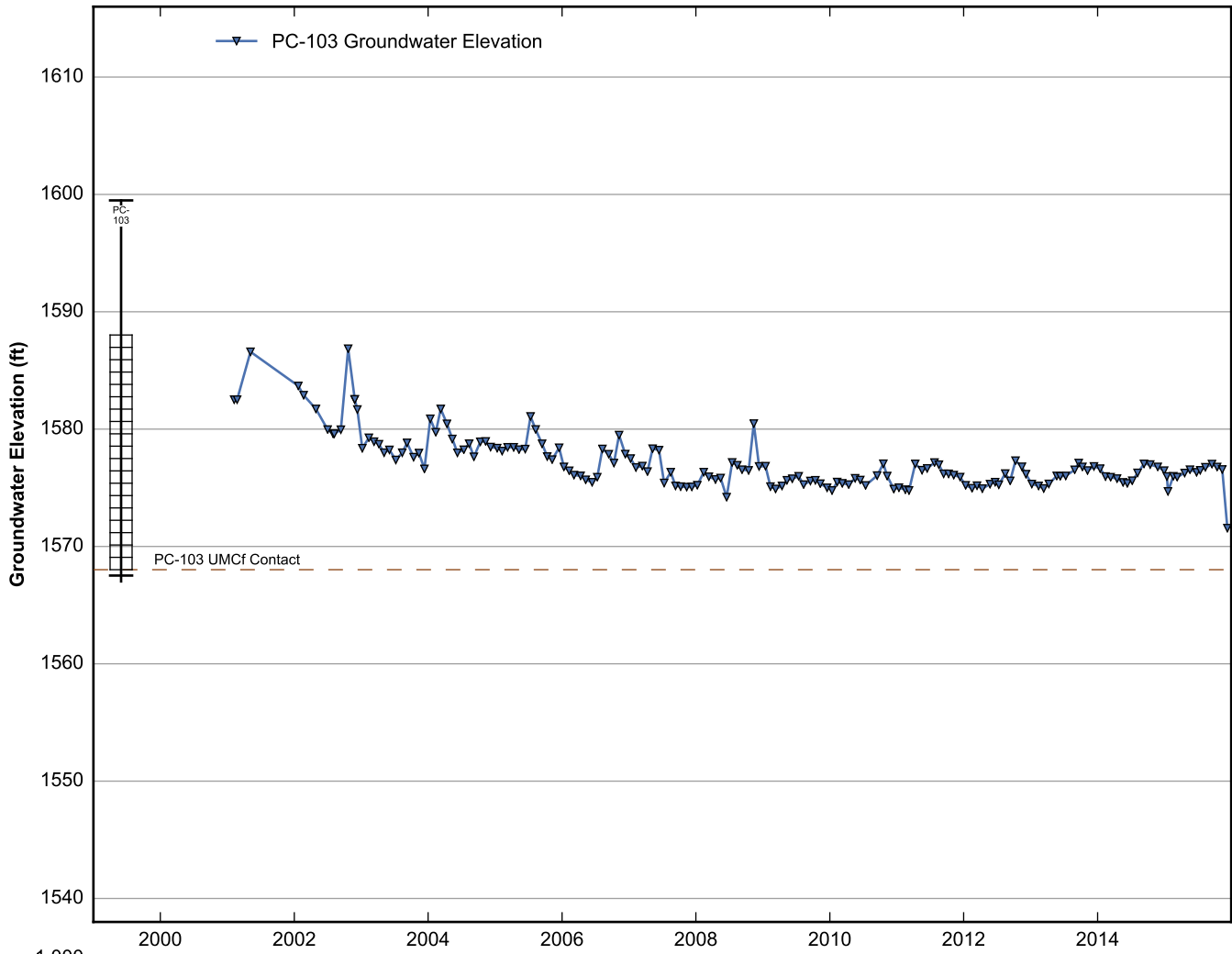
**Data Sheet for Well PC-97**  
Nevada Environmental Response Trust Site  
Henderson, Nevada



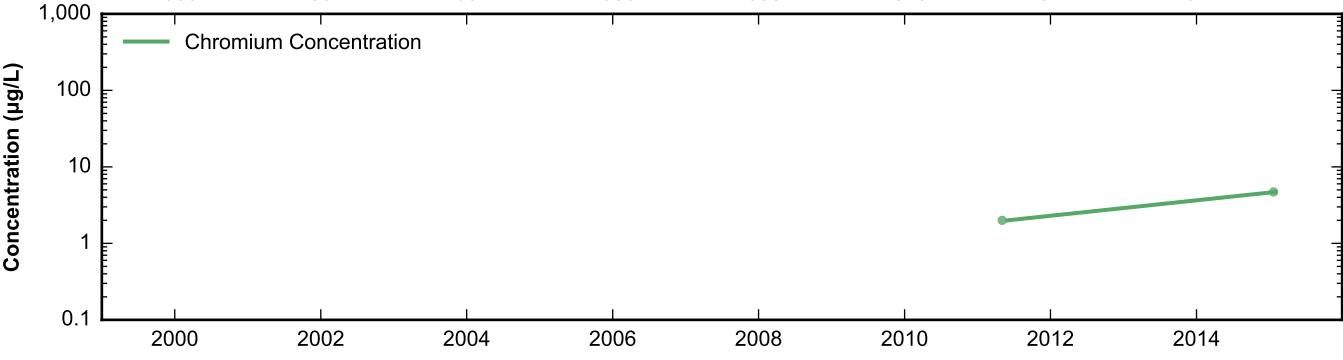
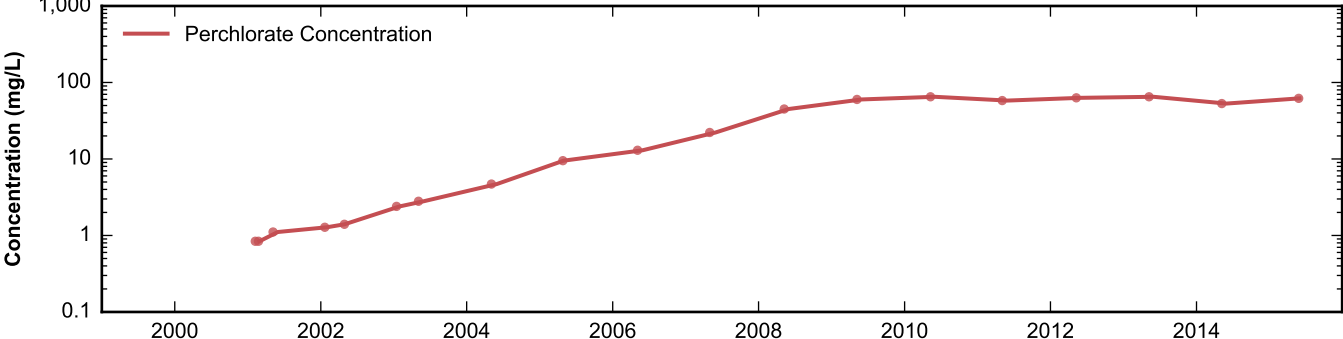
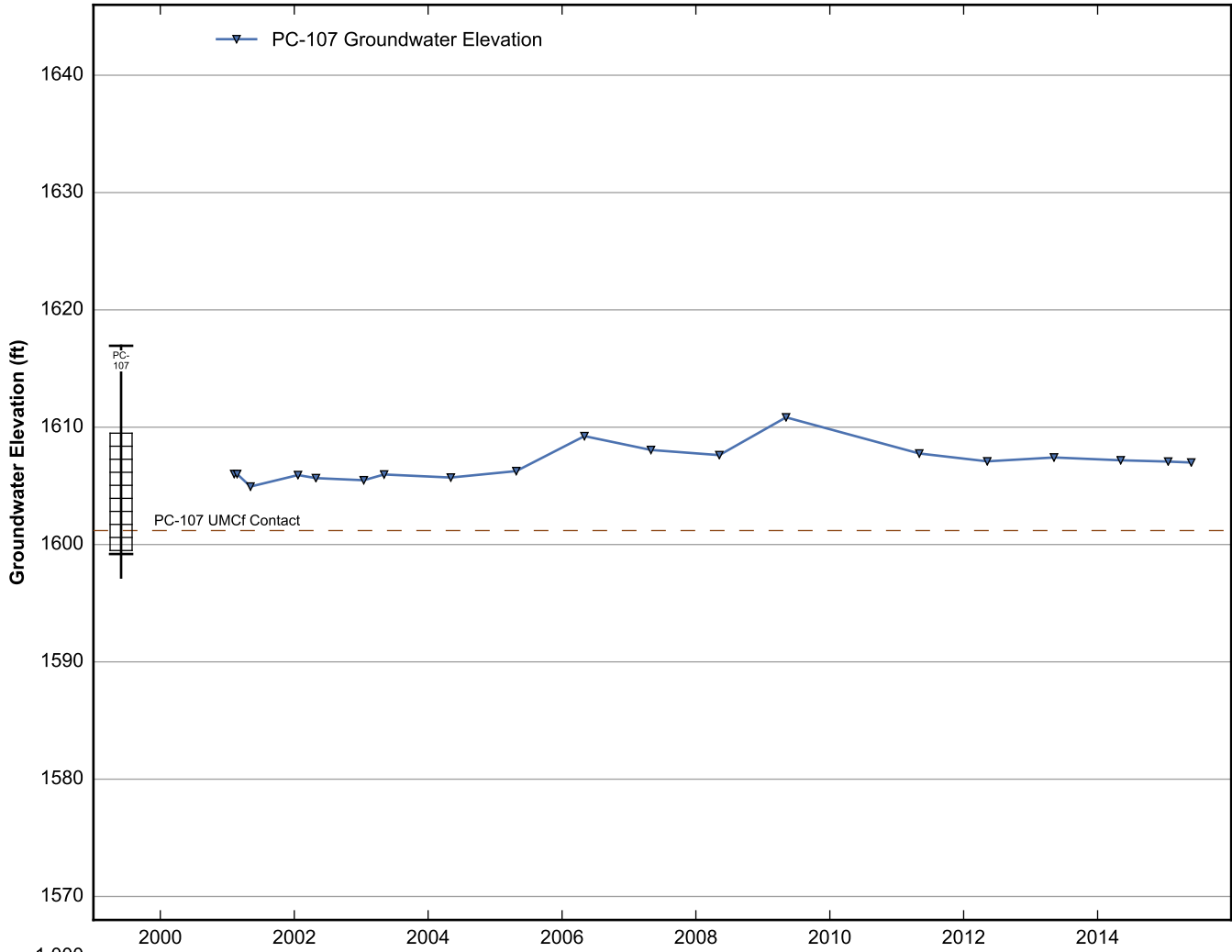
**Data Sheet for Well PC-98R**  
Nevada Environmental Response Trust Site  
Henderson, Nevada



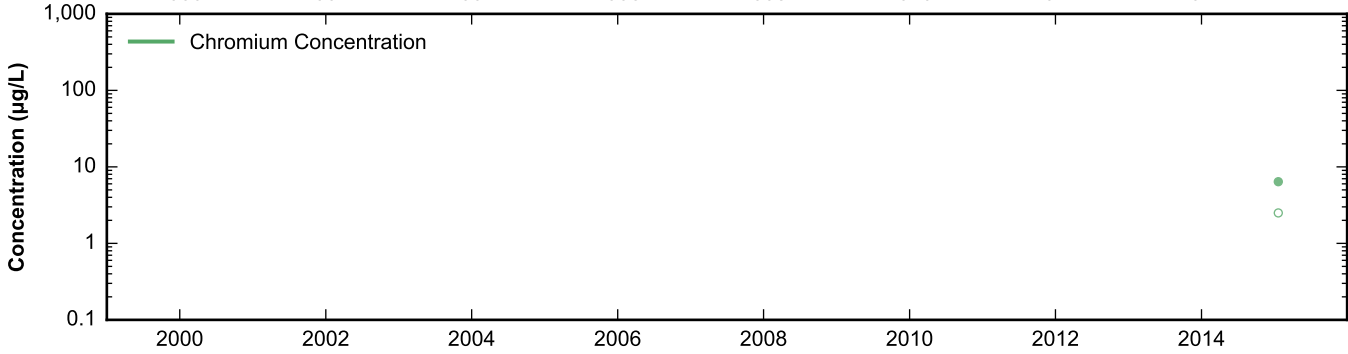
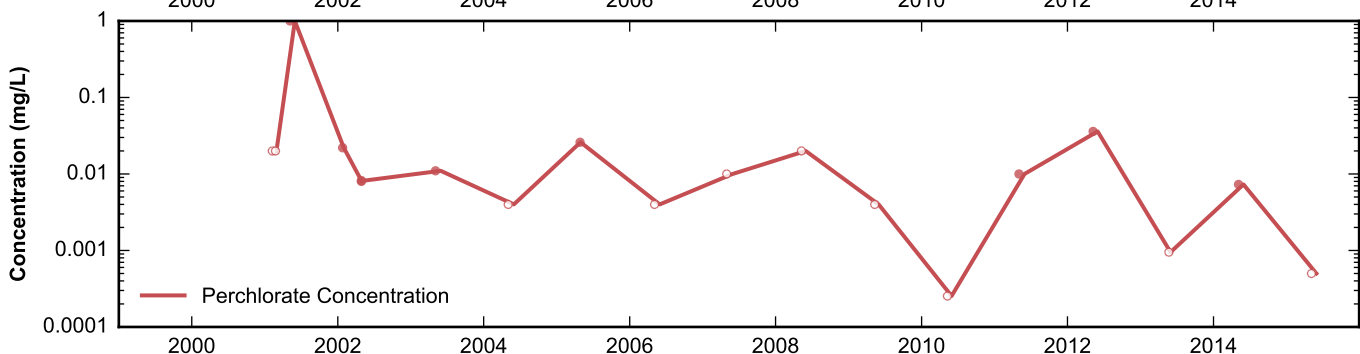
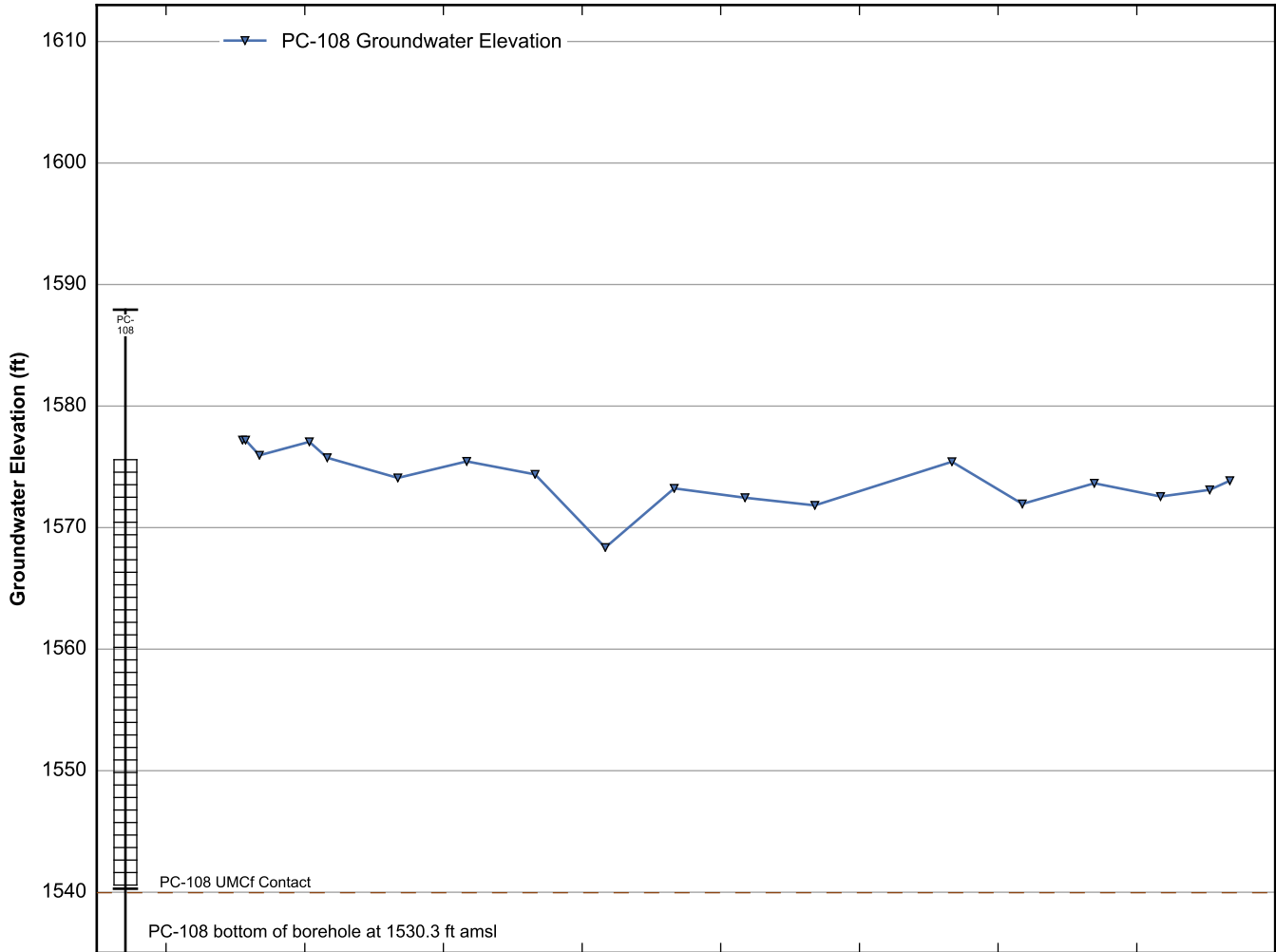
**Data Sheet for Well PC-101R**  
Nevada Environmental Response Trust Site  
Henderson, Nevada



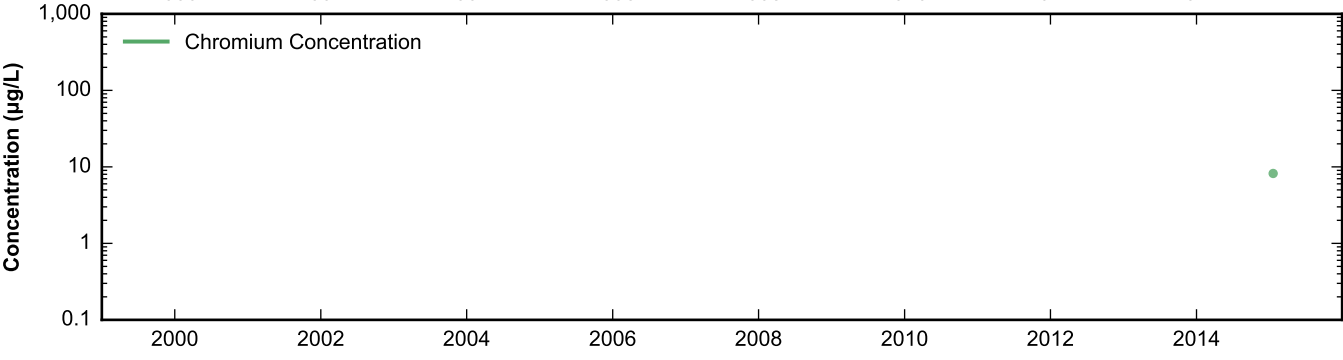
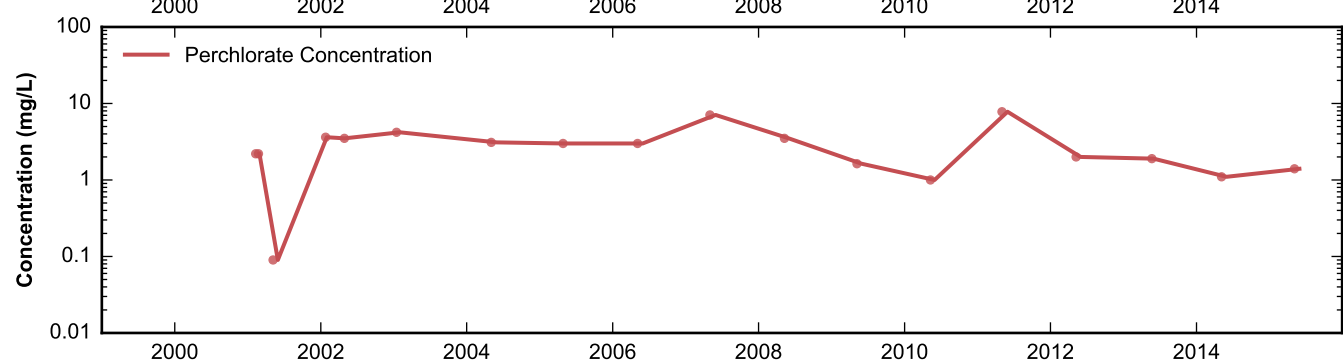
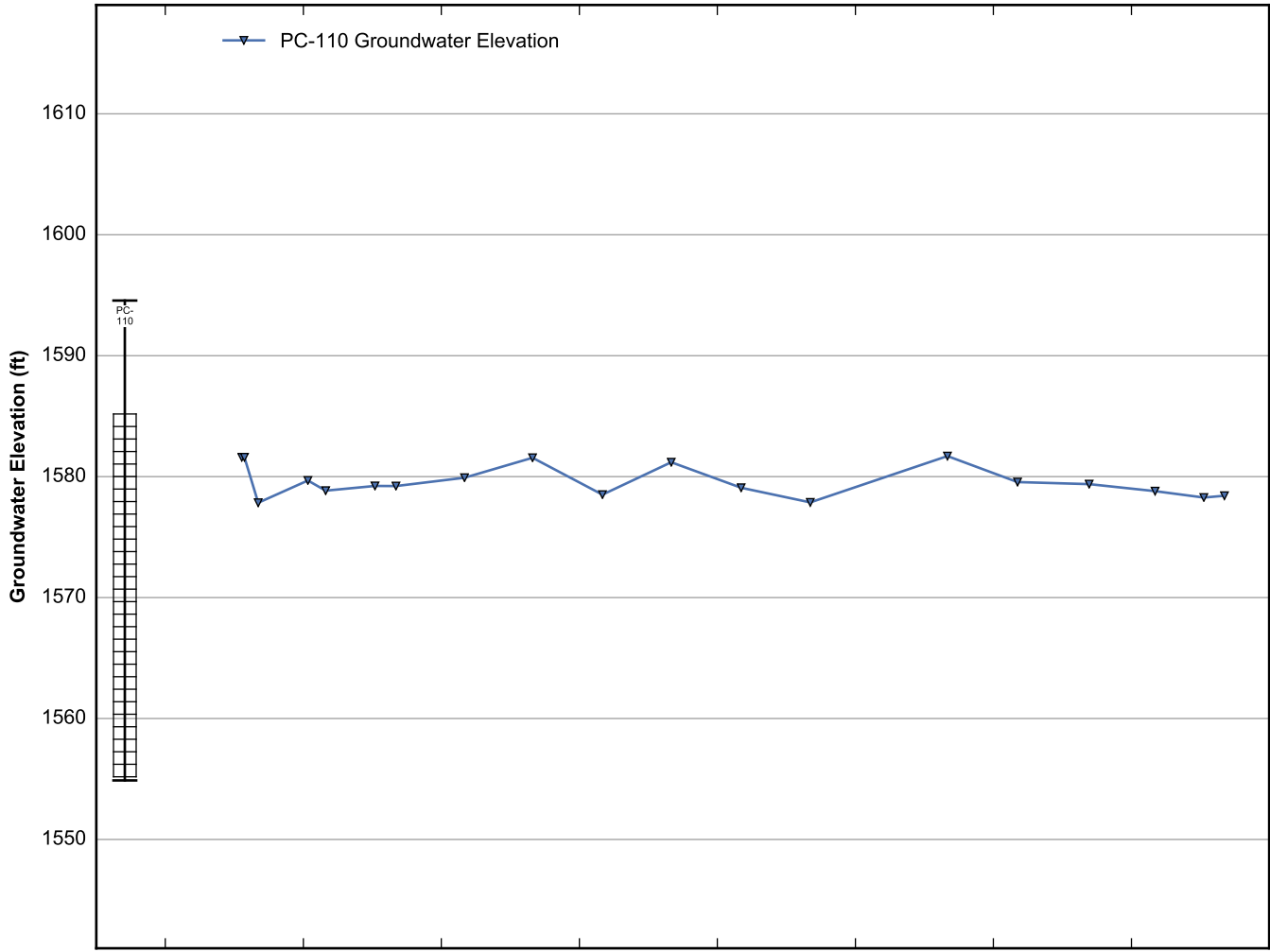
**Data Sheet for Well PC-103**  
Nevada Environmental Response Trust Site  
Henderson, Nevada



**Data Sheet for Well PC-107**  
 Nevada Environmental Response Trust Site  
 Henderson, Nevada

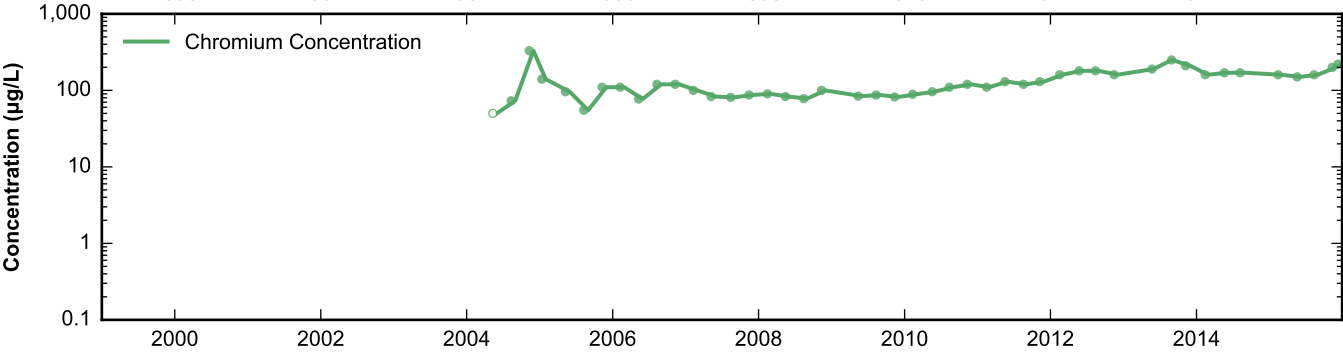
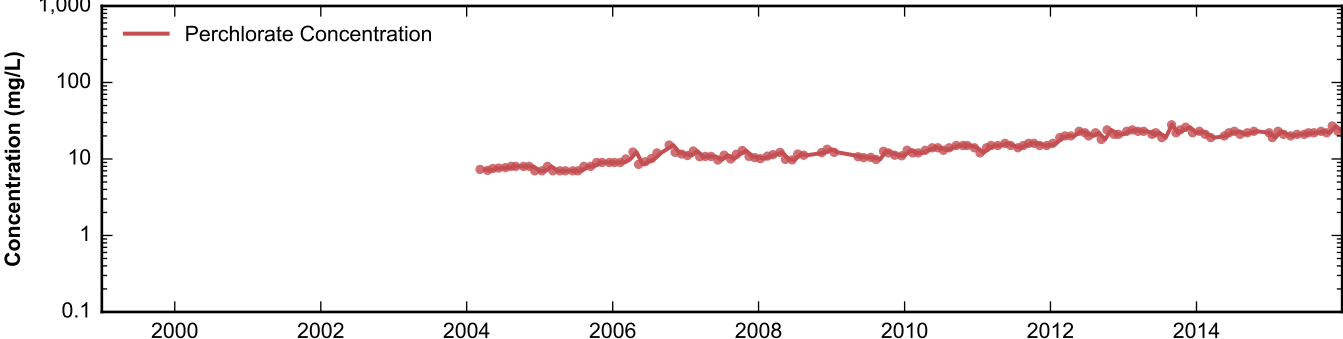
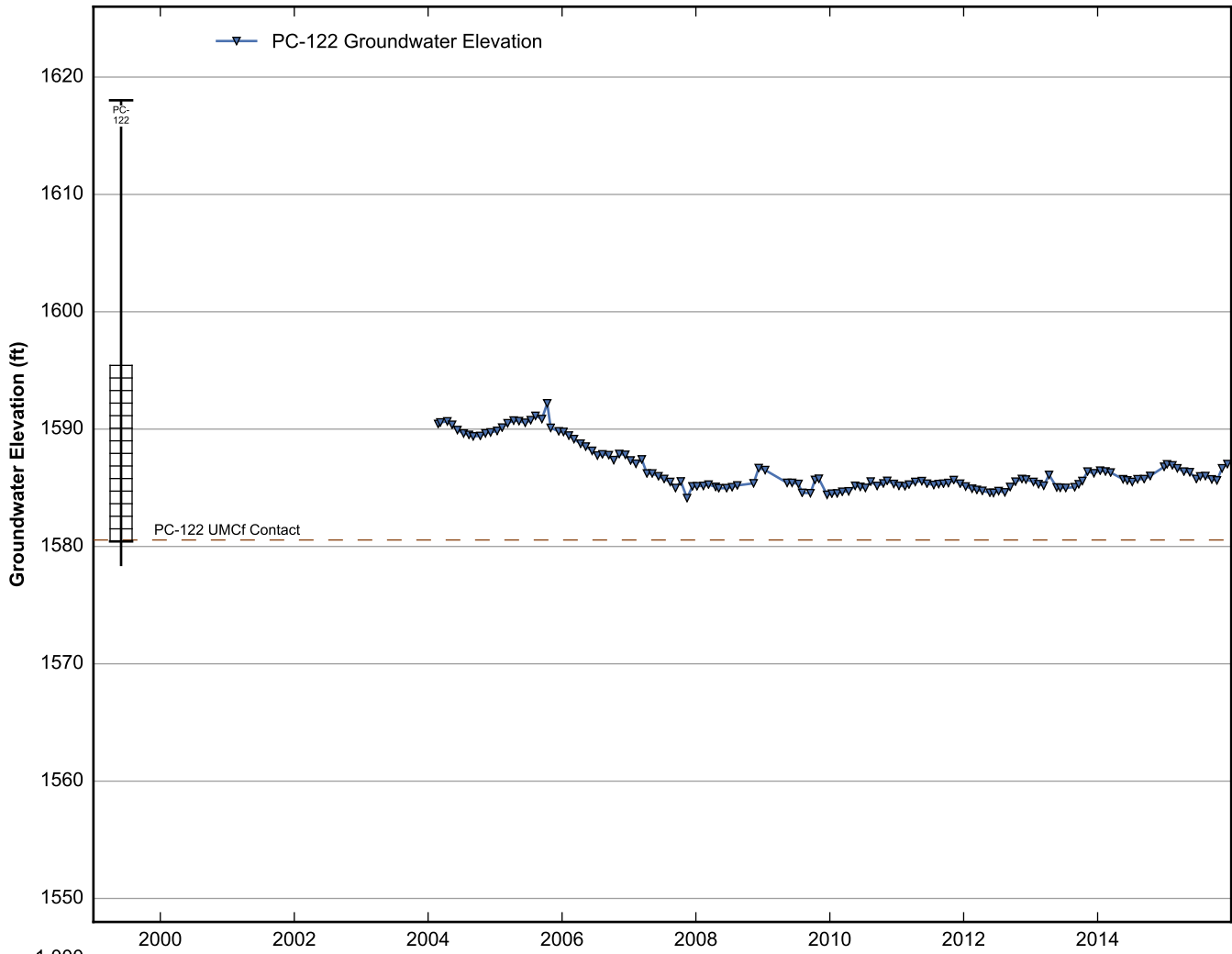


**Data Sheet for Well PC-108**  
 Nevada Environmental Response Trust Site  
 Henderson, Nevada

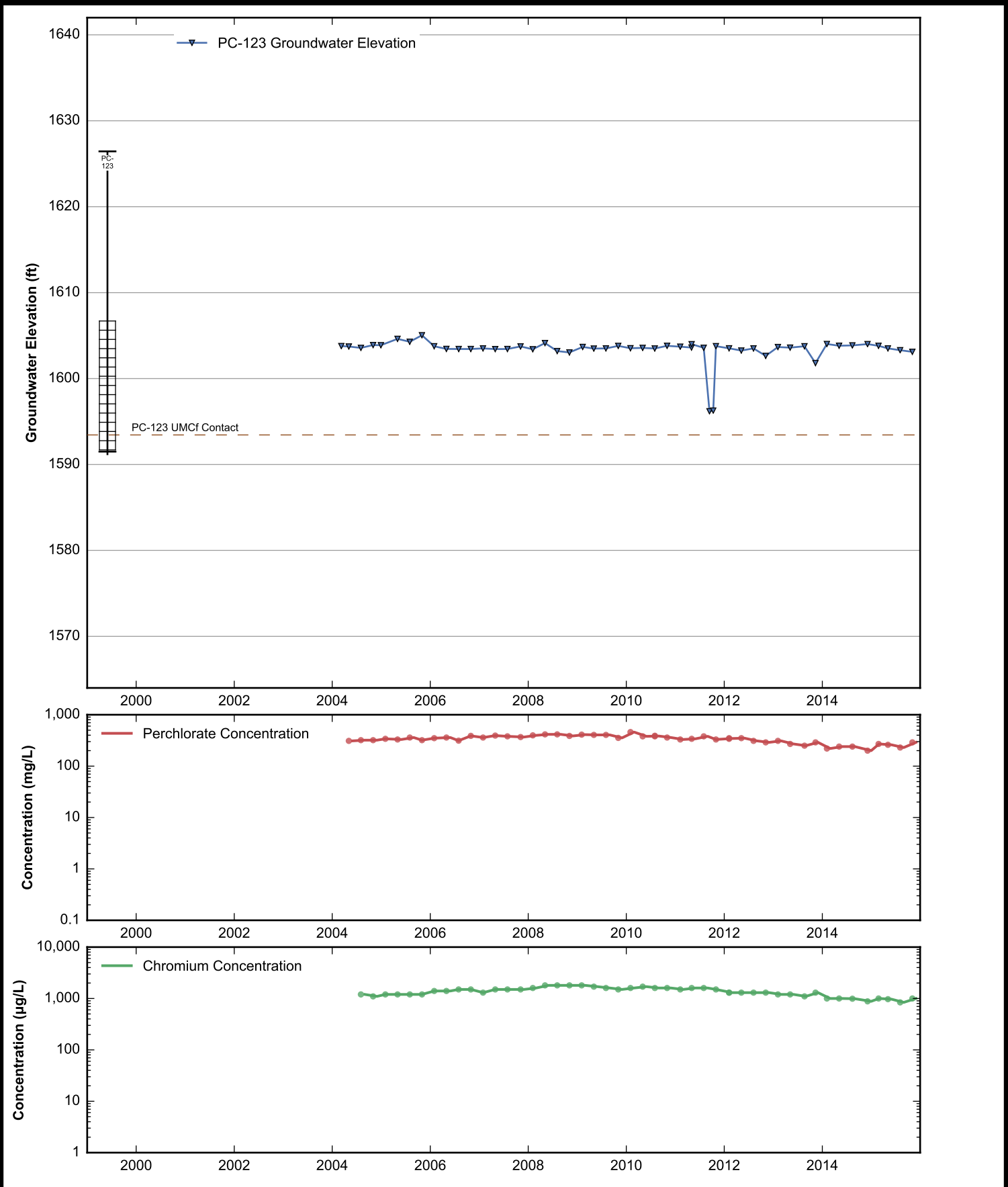


**Data Sheet for Well PC-110**  
 Nevada Environmental Response Trust Site  
 Henderson, Nevada

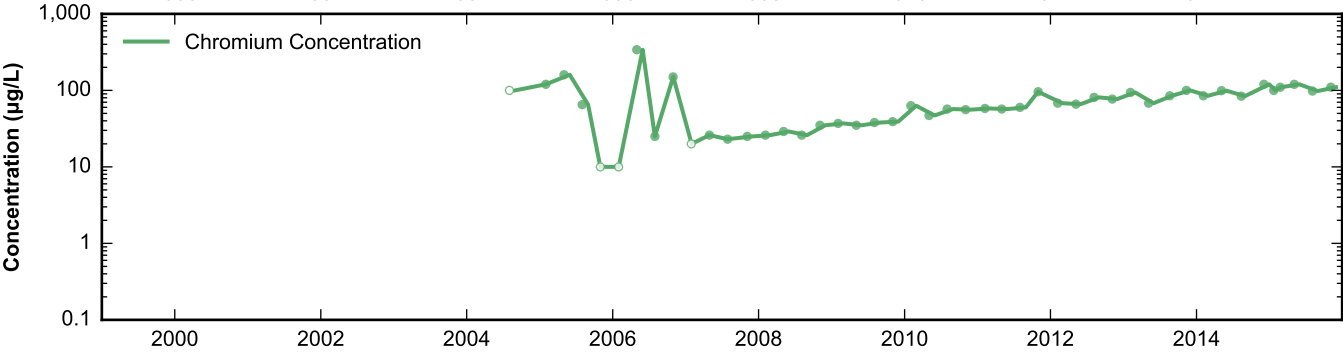
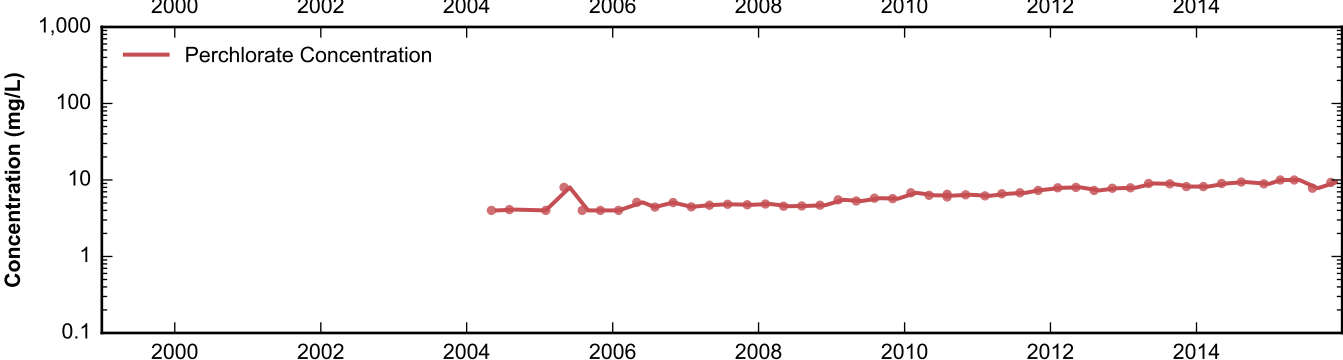
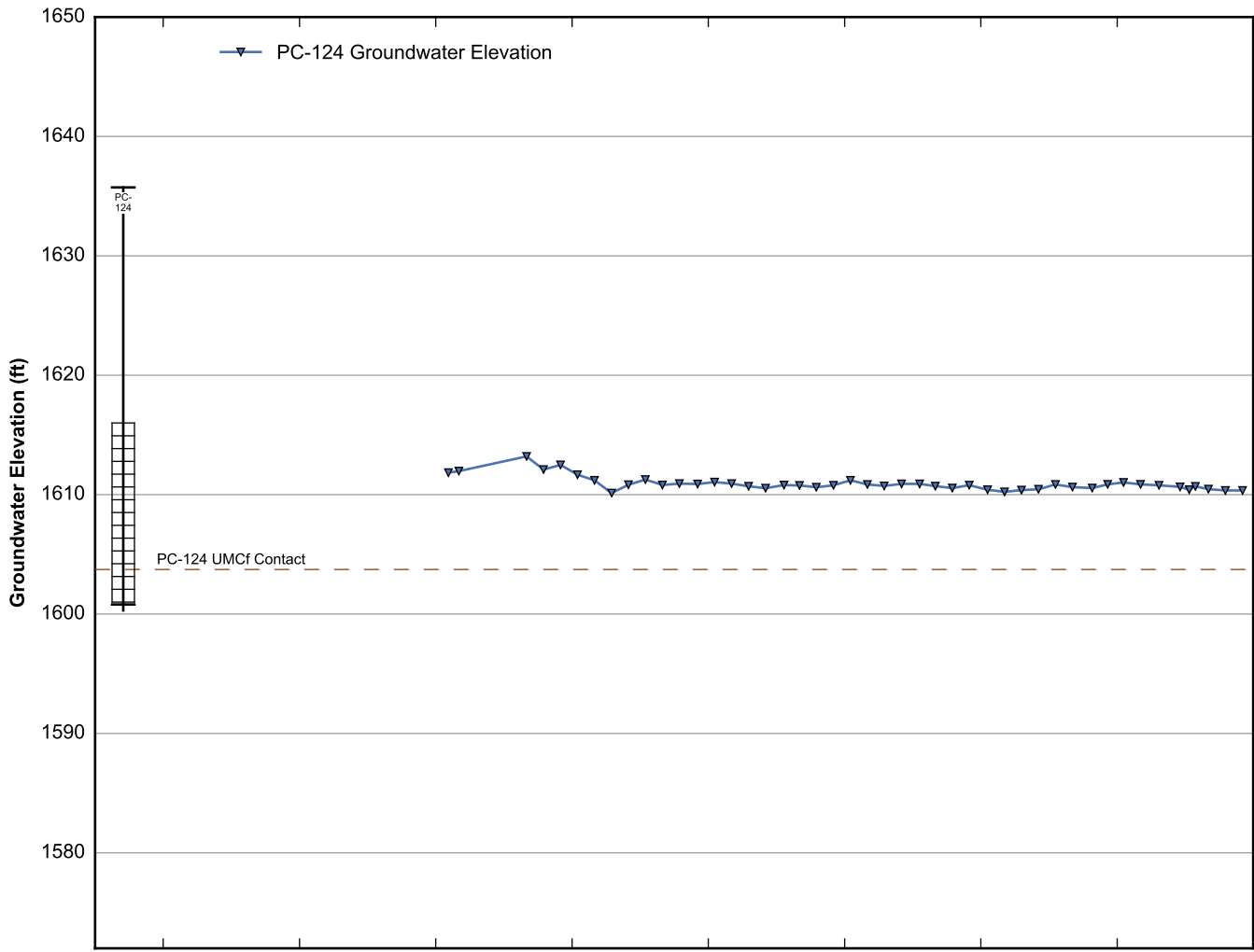




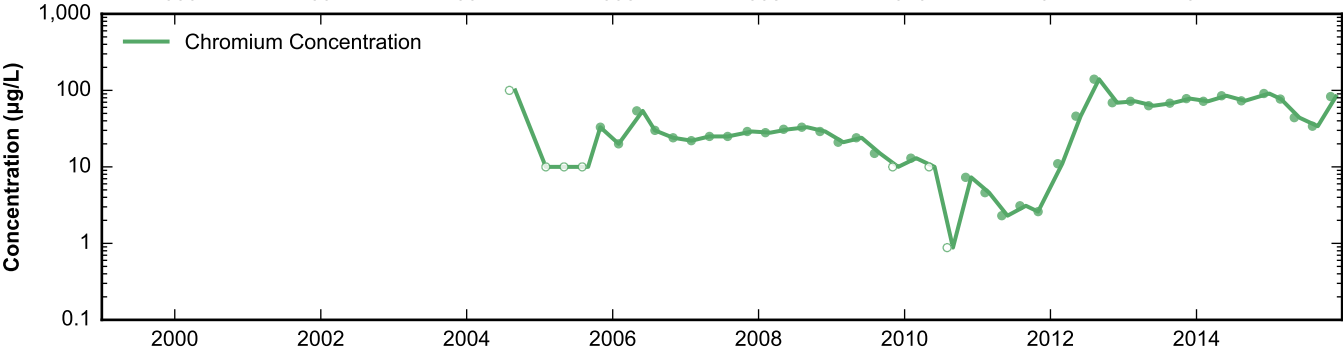
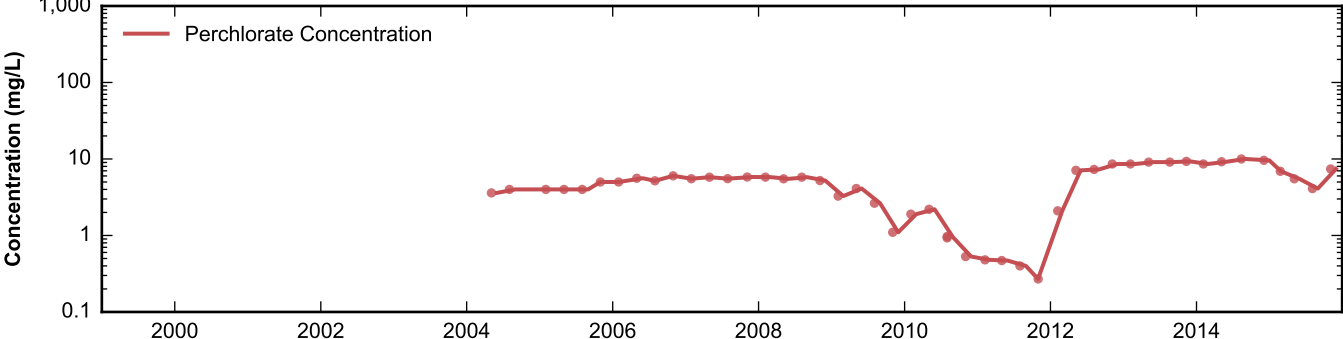
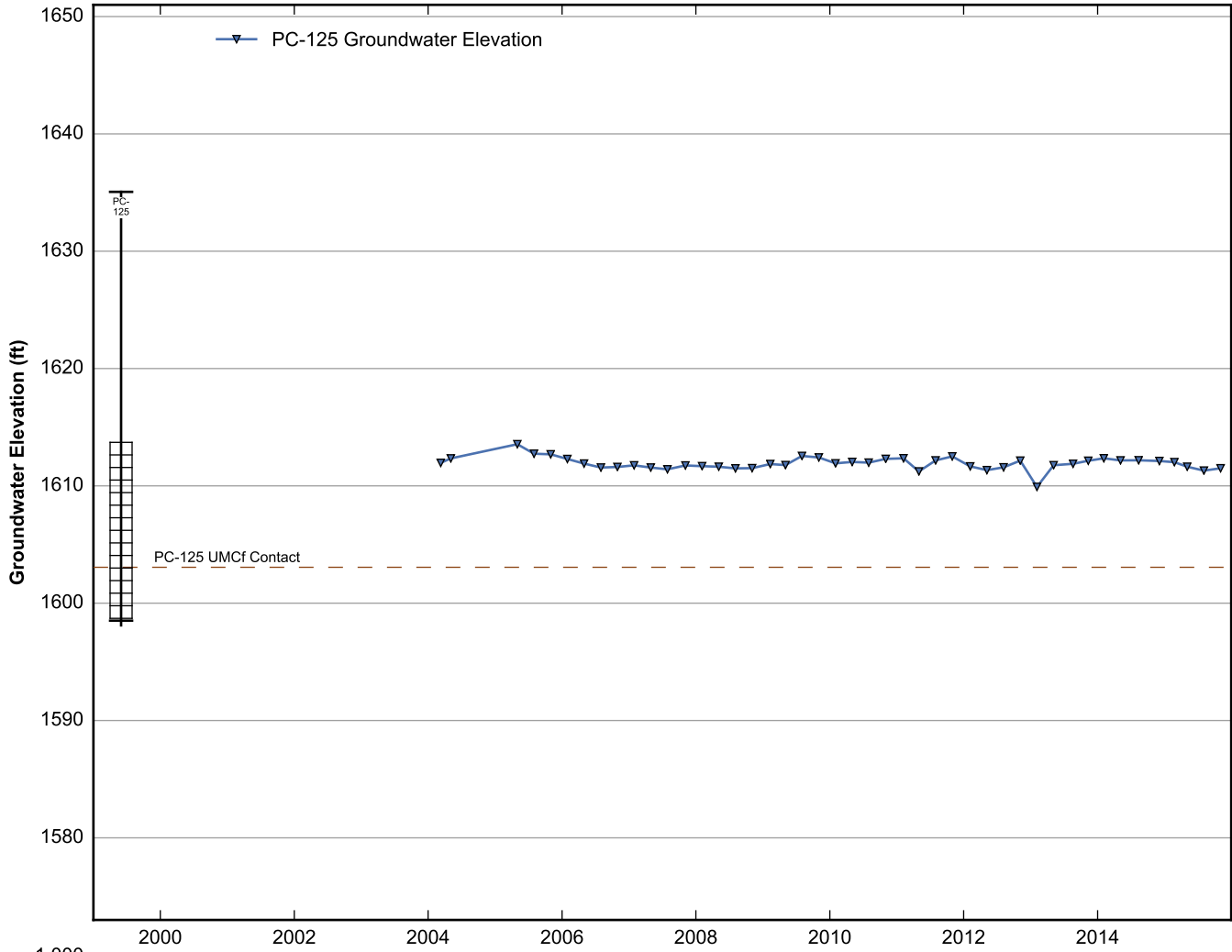
**Data Sheet for Well PC-122**  
Nevada Environmental Response Trust Site  
Henderson, Nevada



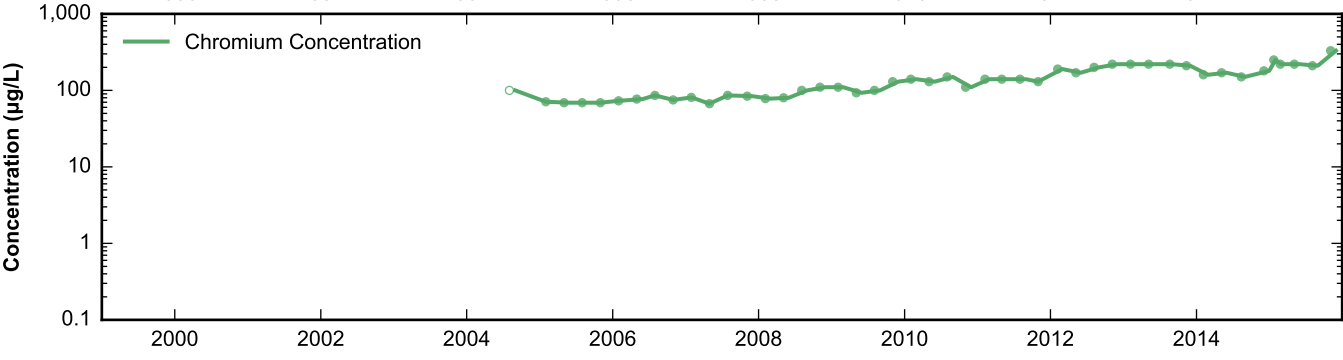
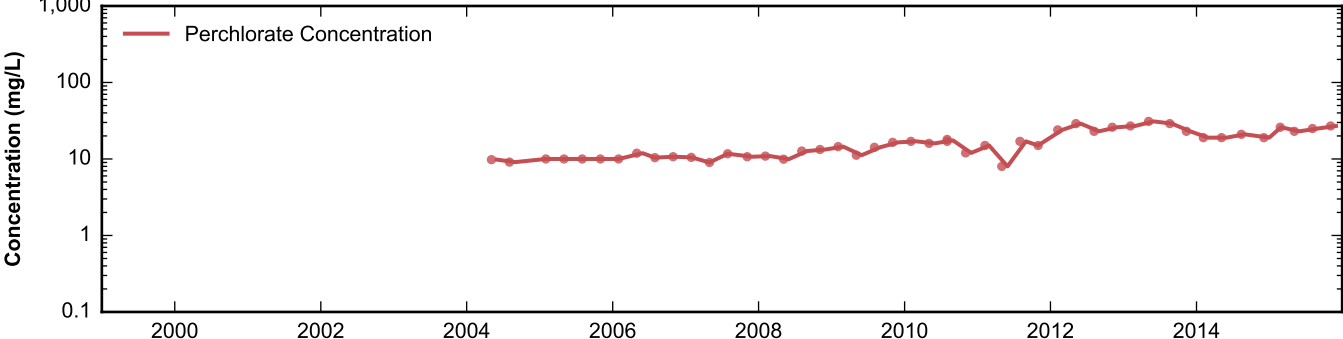
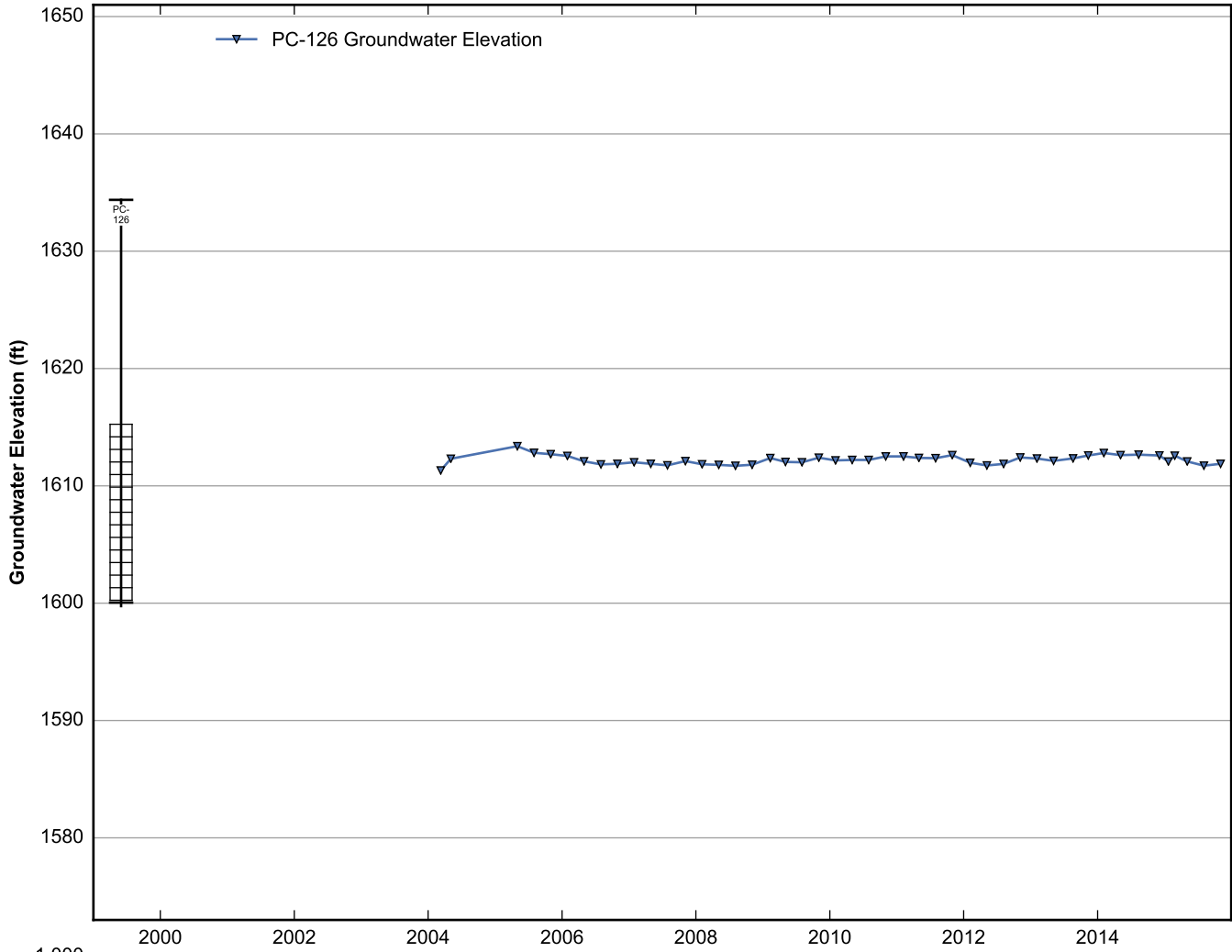
**Data Sheet for Well PC-123**  
Nevada Environmental Response Trust Site  
Henderson, Nevada



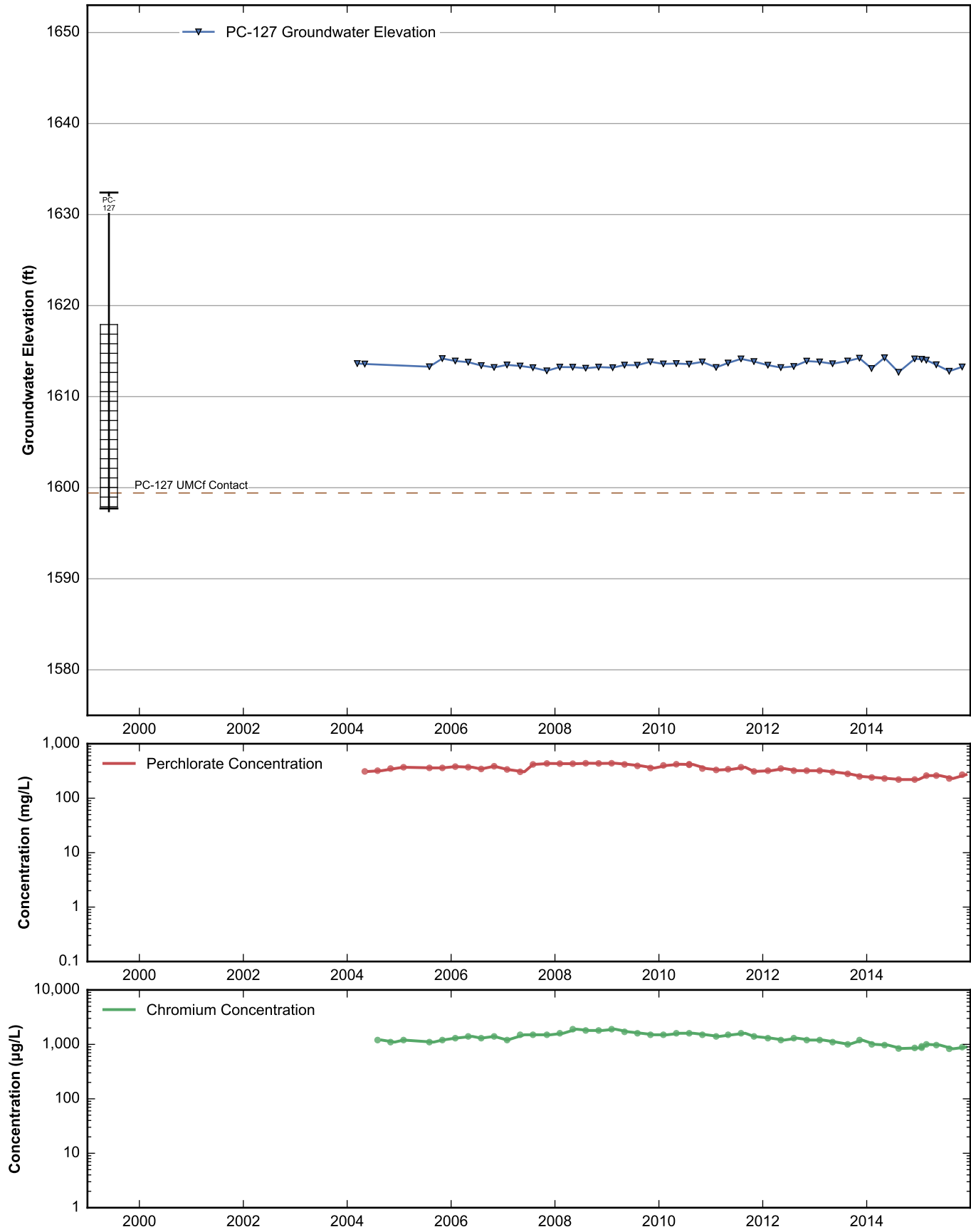
**Data Sheet for Well PC-124**  
 Nevada Environmental Response Trust Site  
 Henderson, Nevada



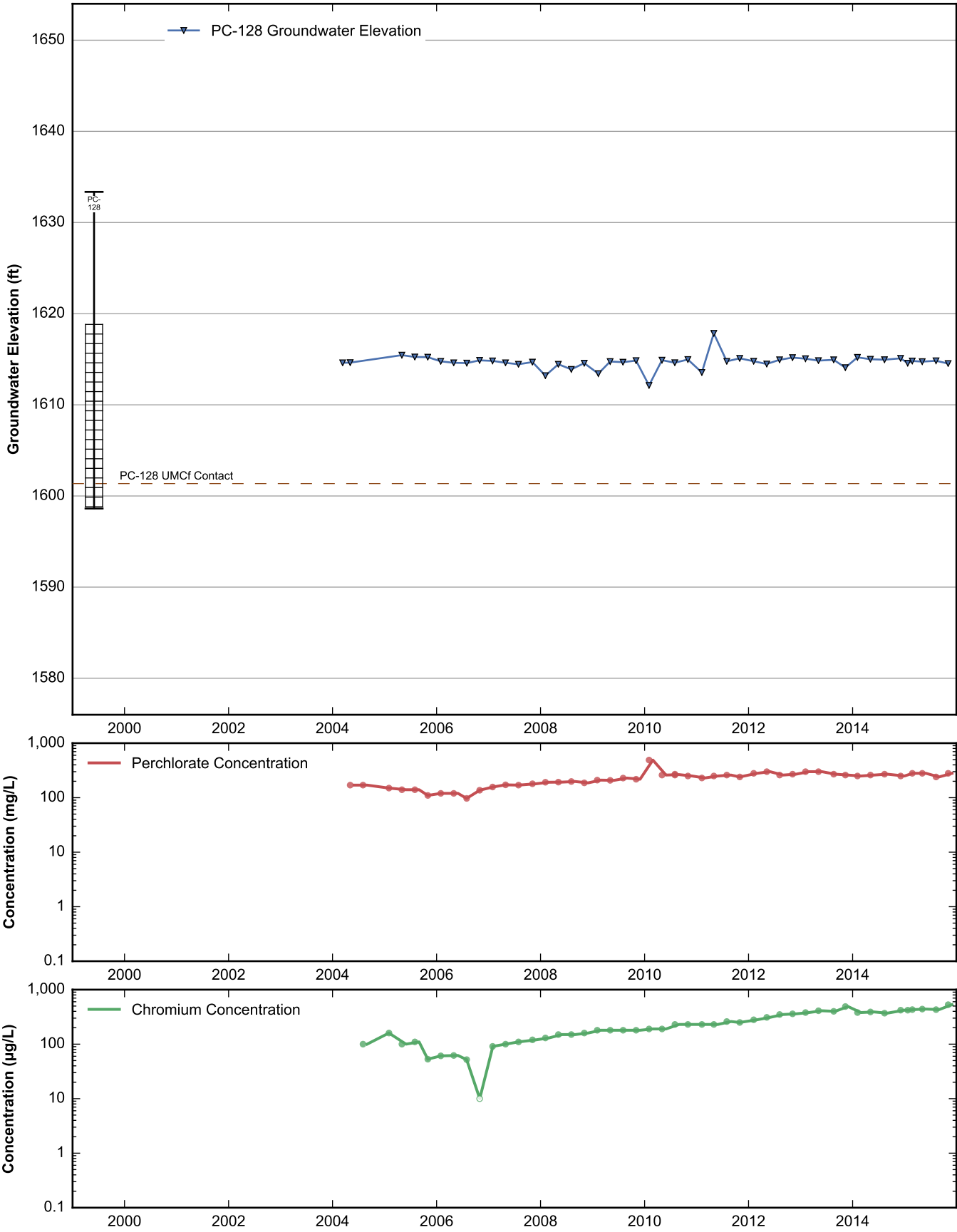
**Data Sheet for Well PC-125**  
Nevada Environmental Response Trust Site  
Henderson, Nevada



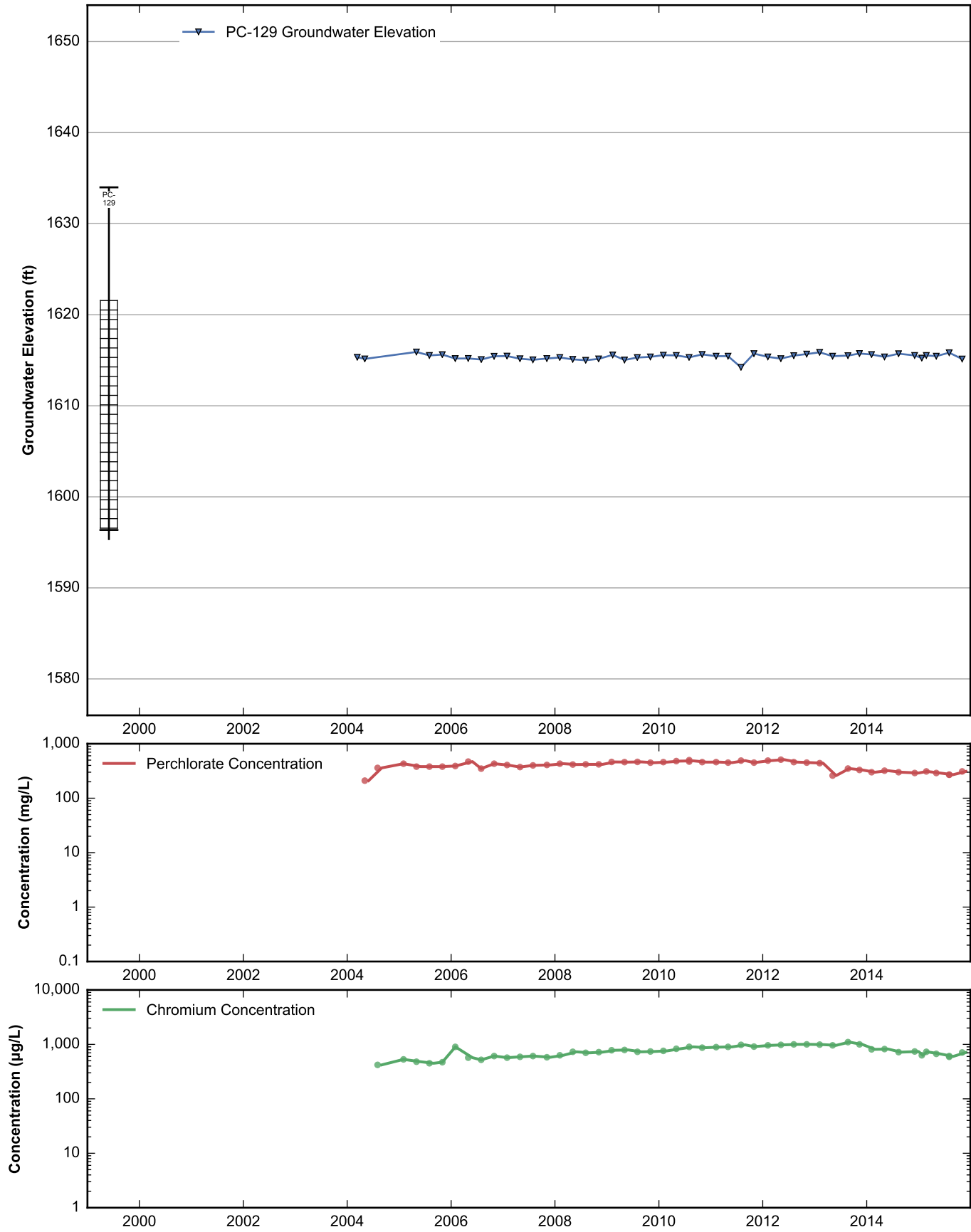
**Data Sheet for Well PC-126**  
Nevada Environmental Response Trust Site  
Henderson, Nevada



**Data Sheet for Well PC-127**  
Nevada Environmental Response Trust Site  
Henderson, Nevada

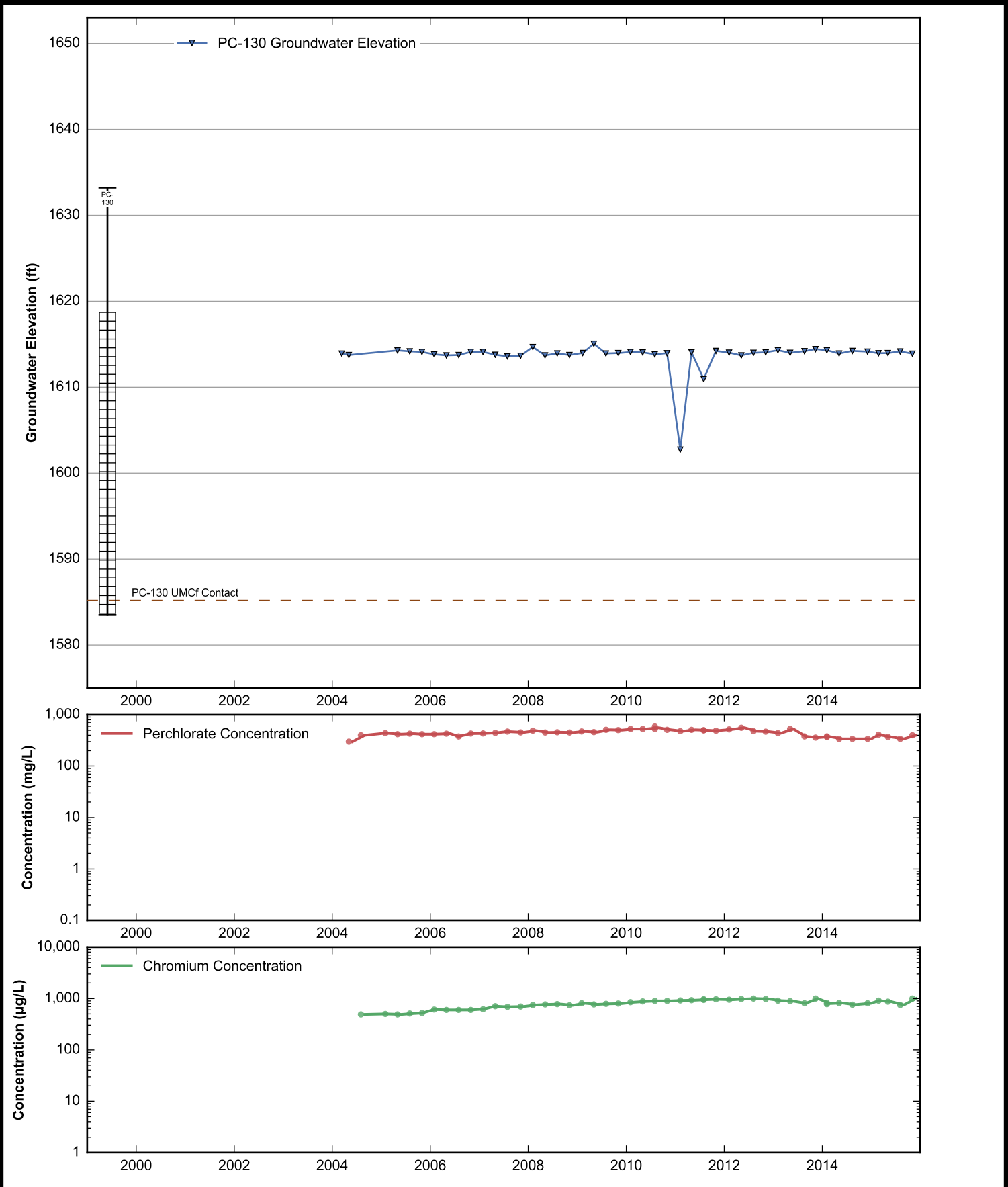


**Data Sheet for Well PC-128**  
Nevada Environmental Response Trust Site  
Henderson, Nevada

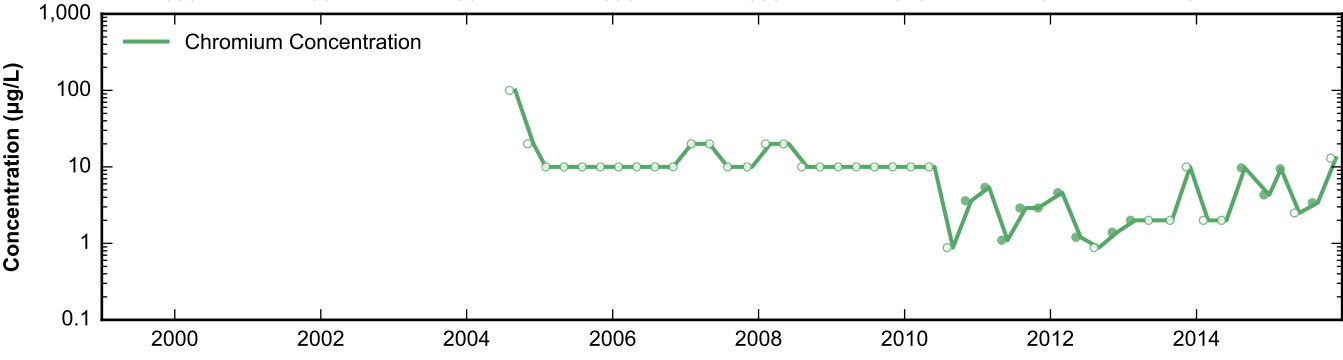
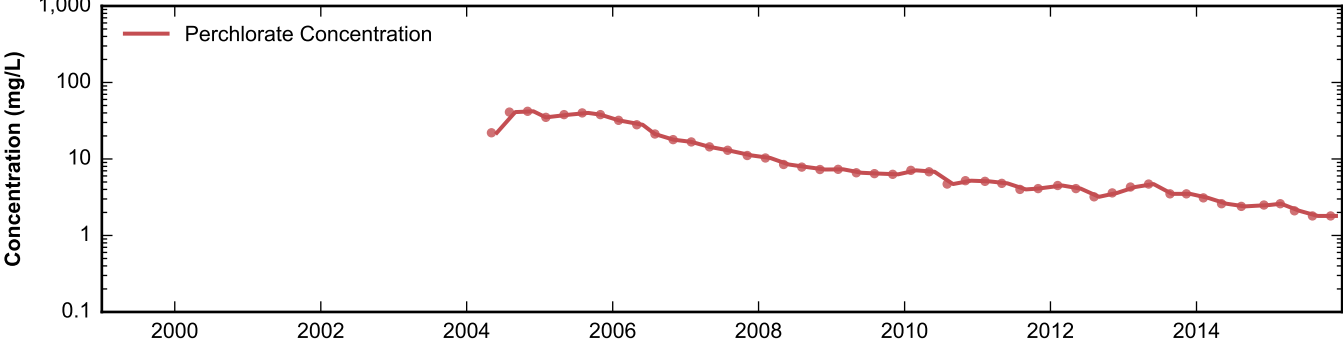
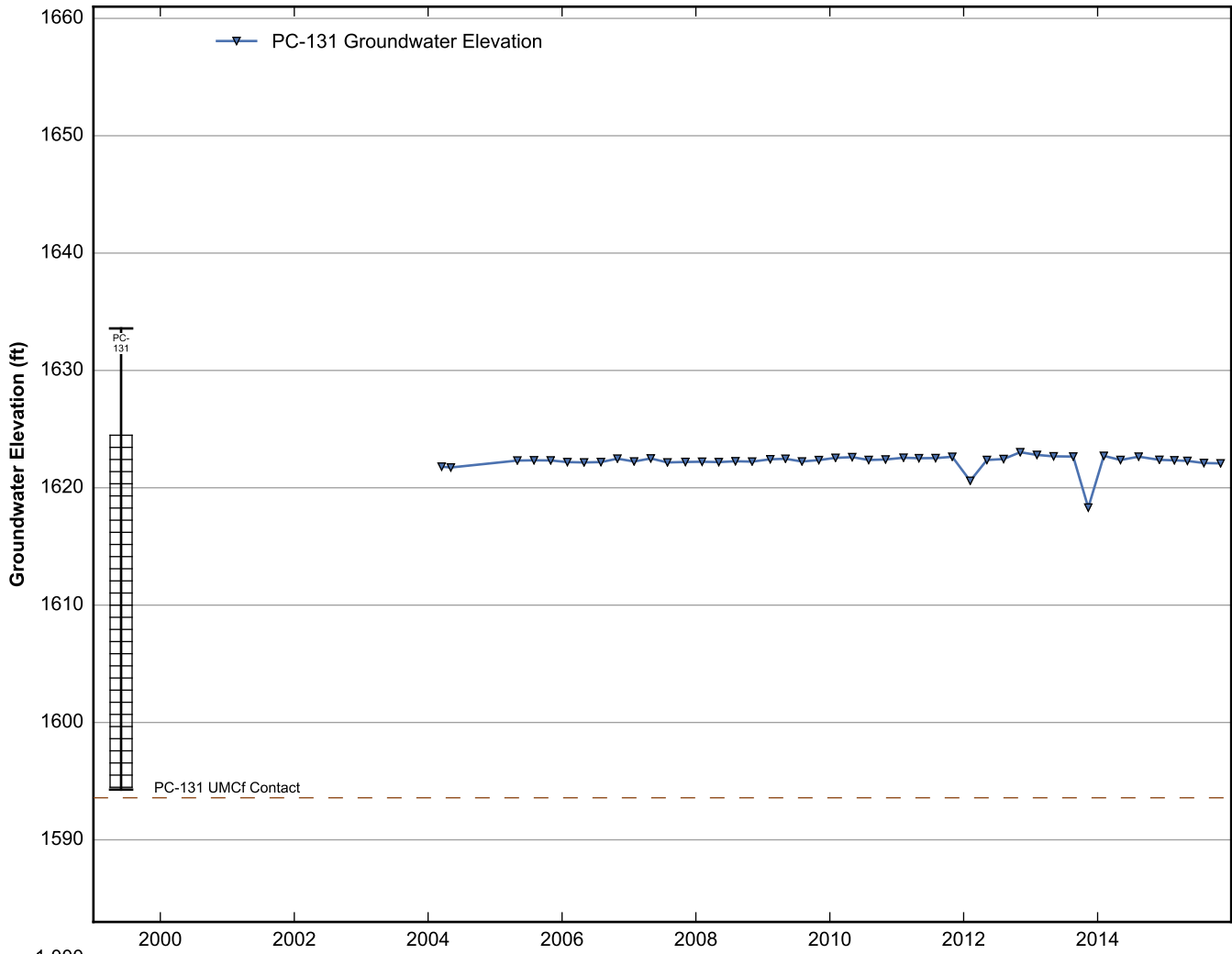


**Data Sheet for Well PC-129**  
Nevada Environmental Response Trust Site  
Henderson, Nevada

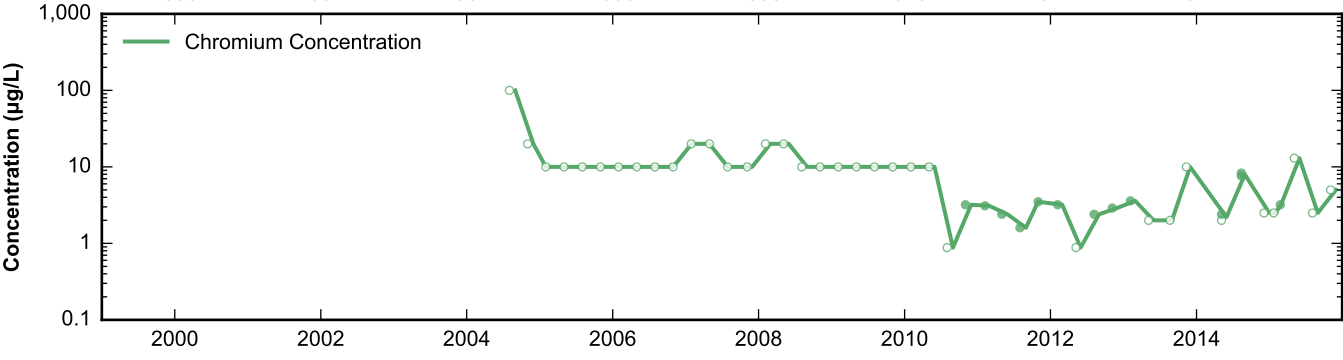
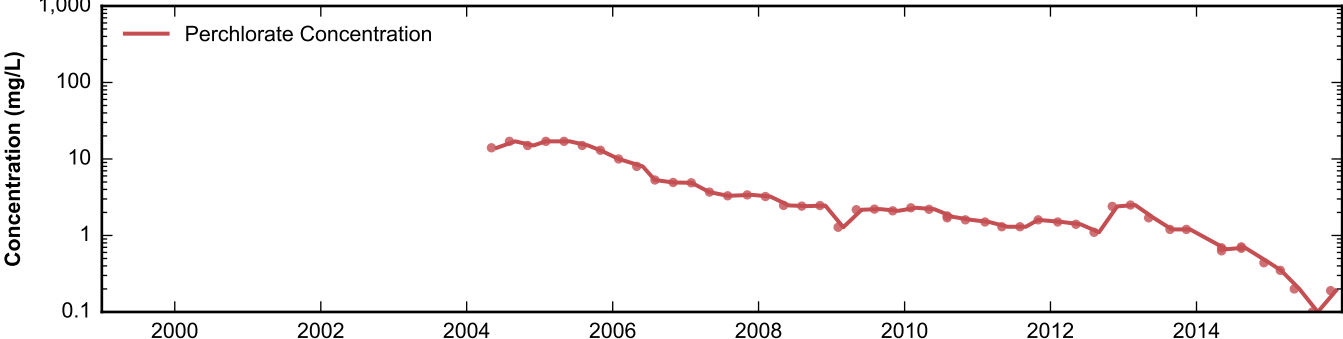
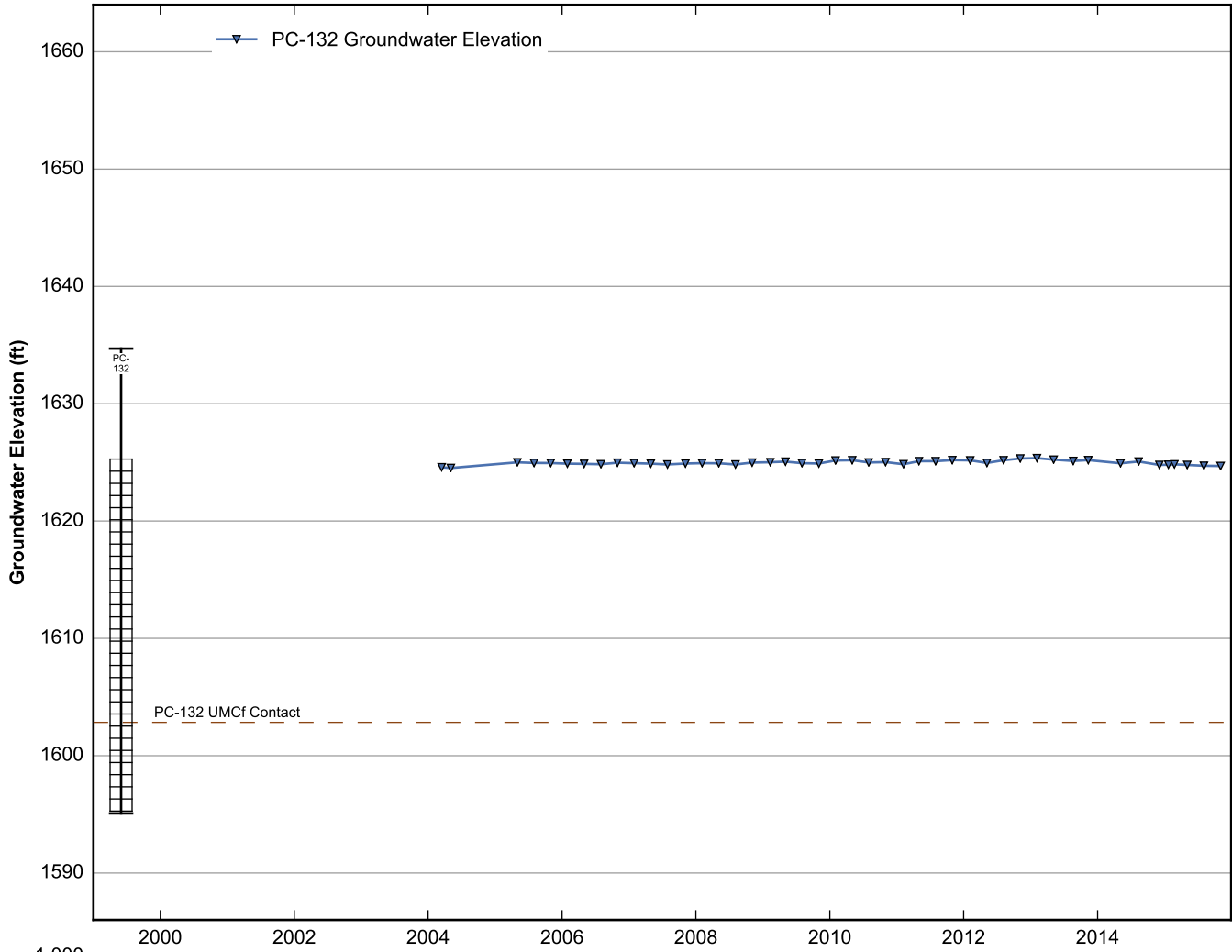




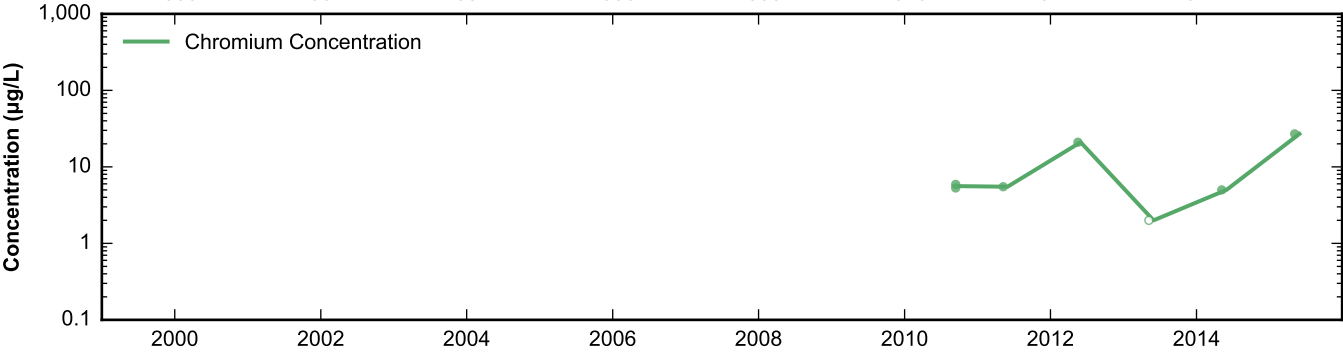
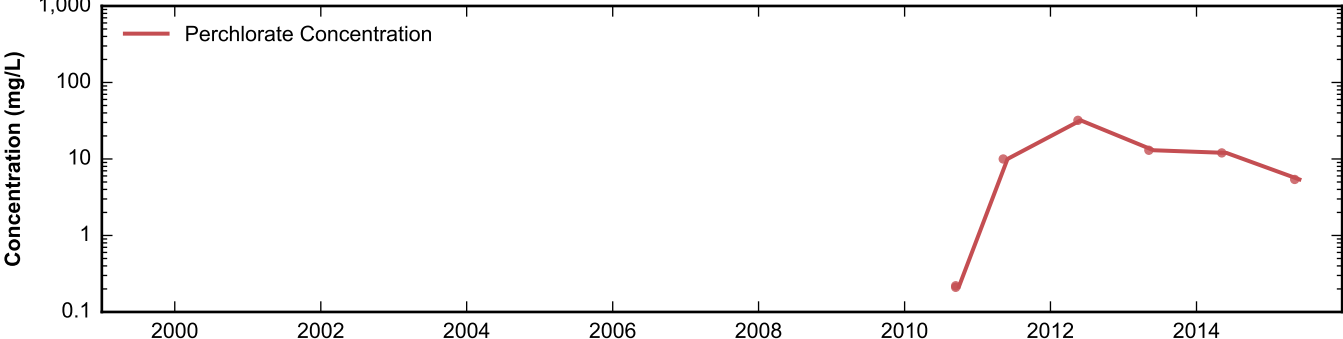
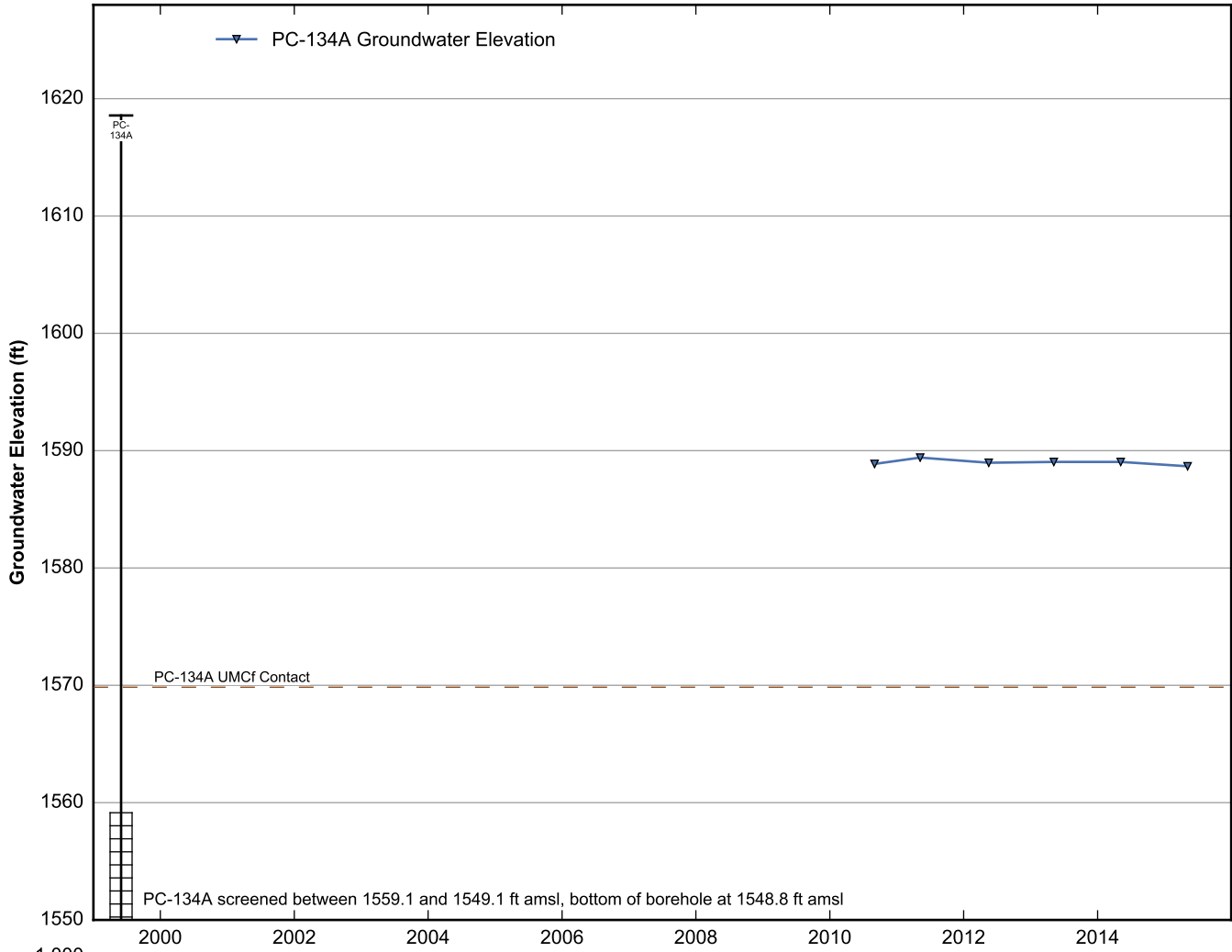
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 Nevada Environmental Response Trust Site  
 Henderson, Nevada



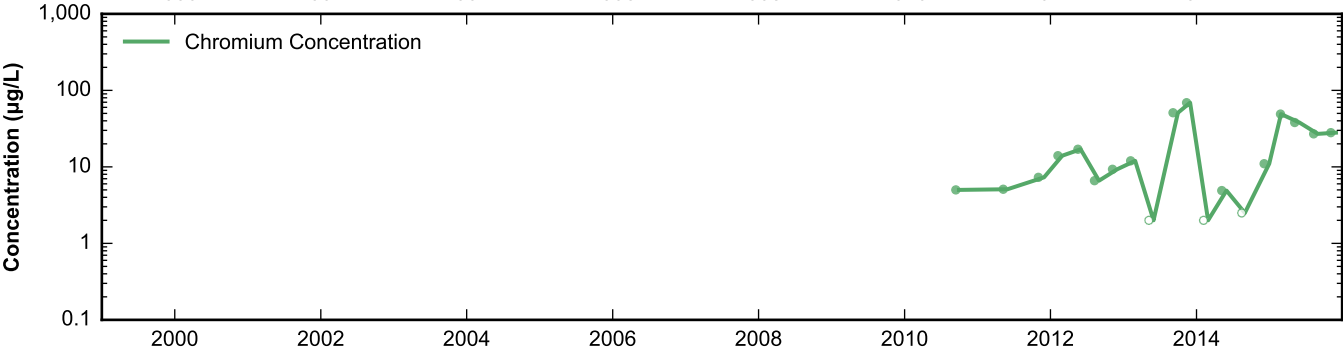
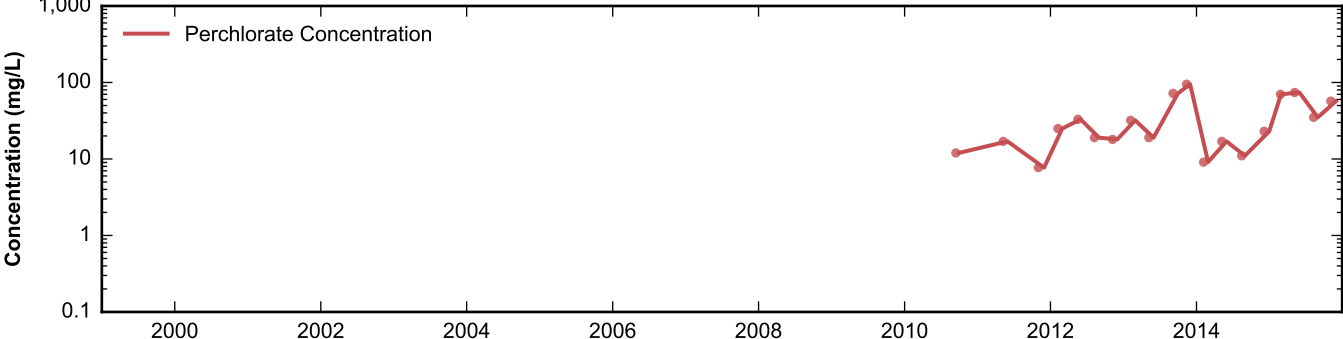
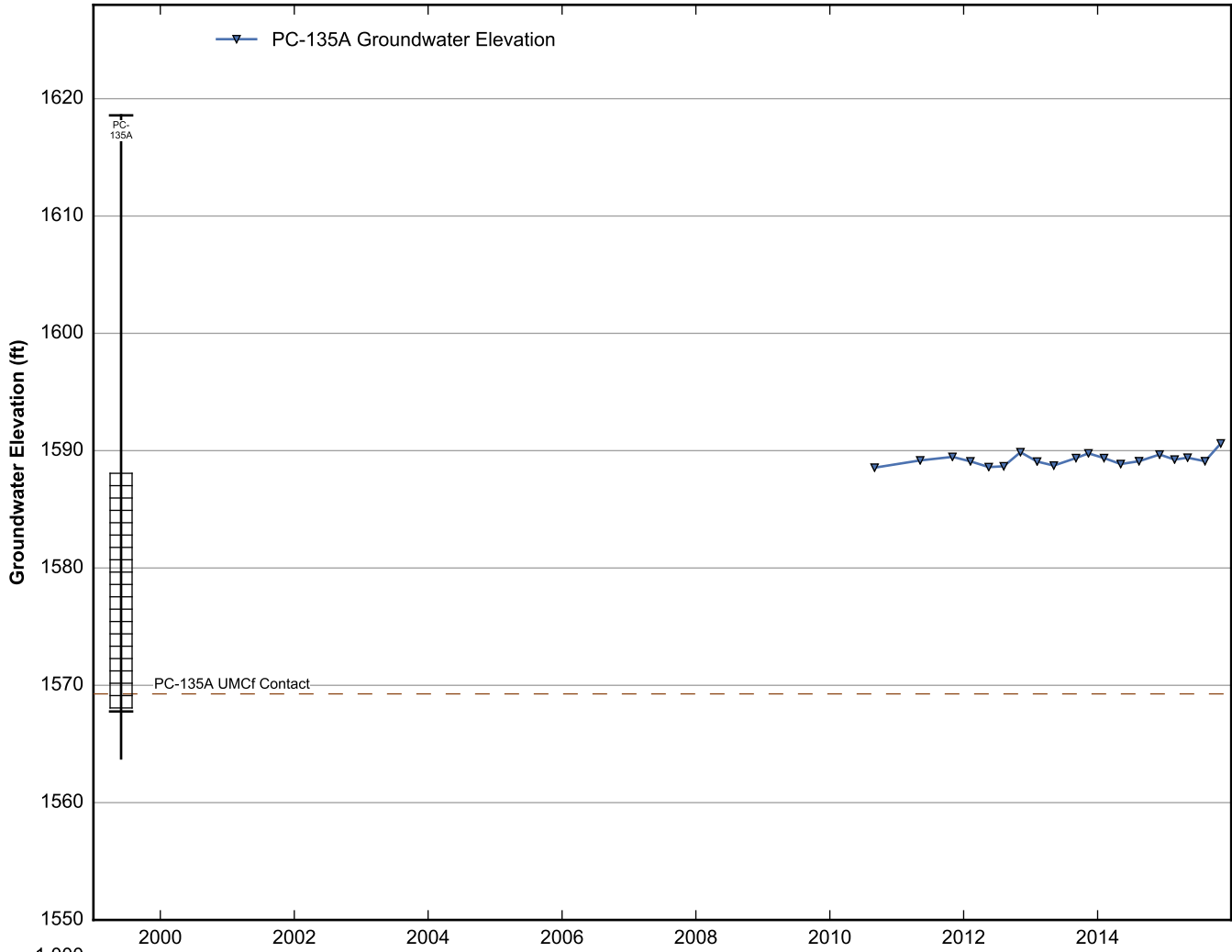
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Henderson, Nevada



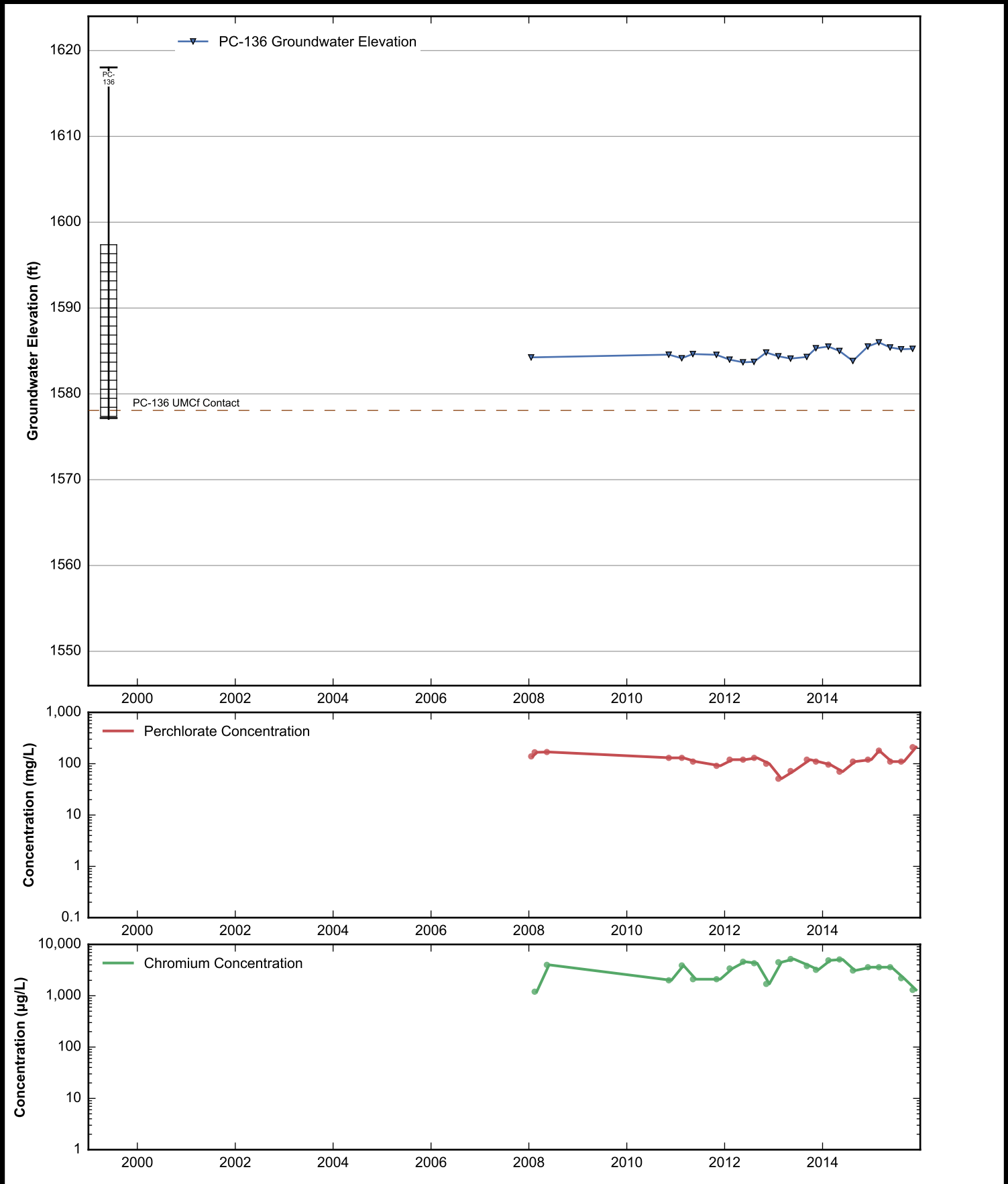
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Henderson, Nevada



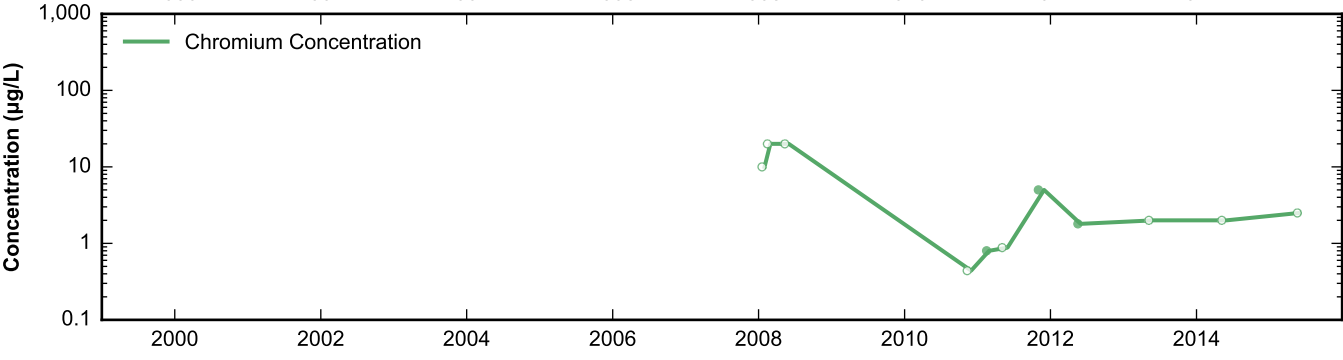
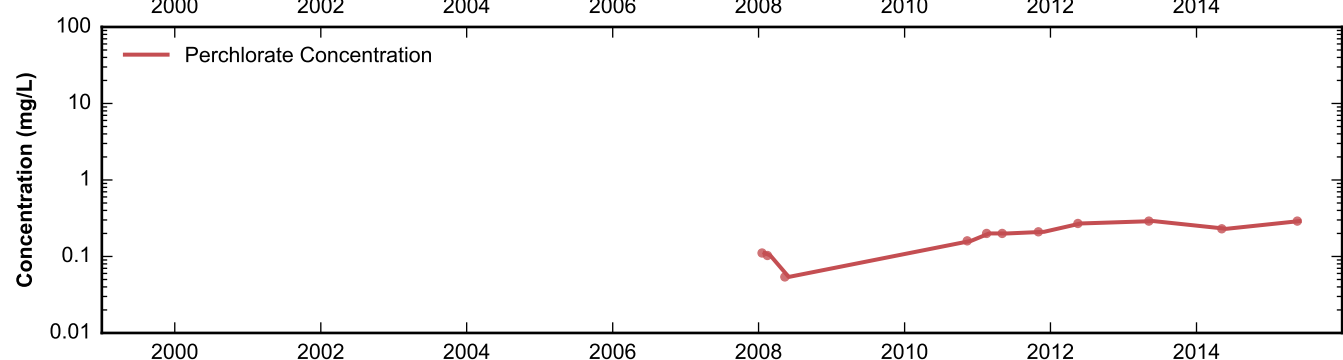
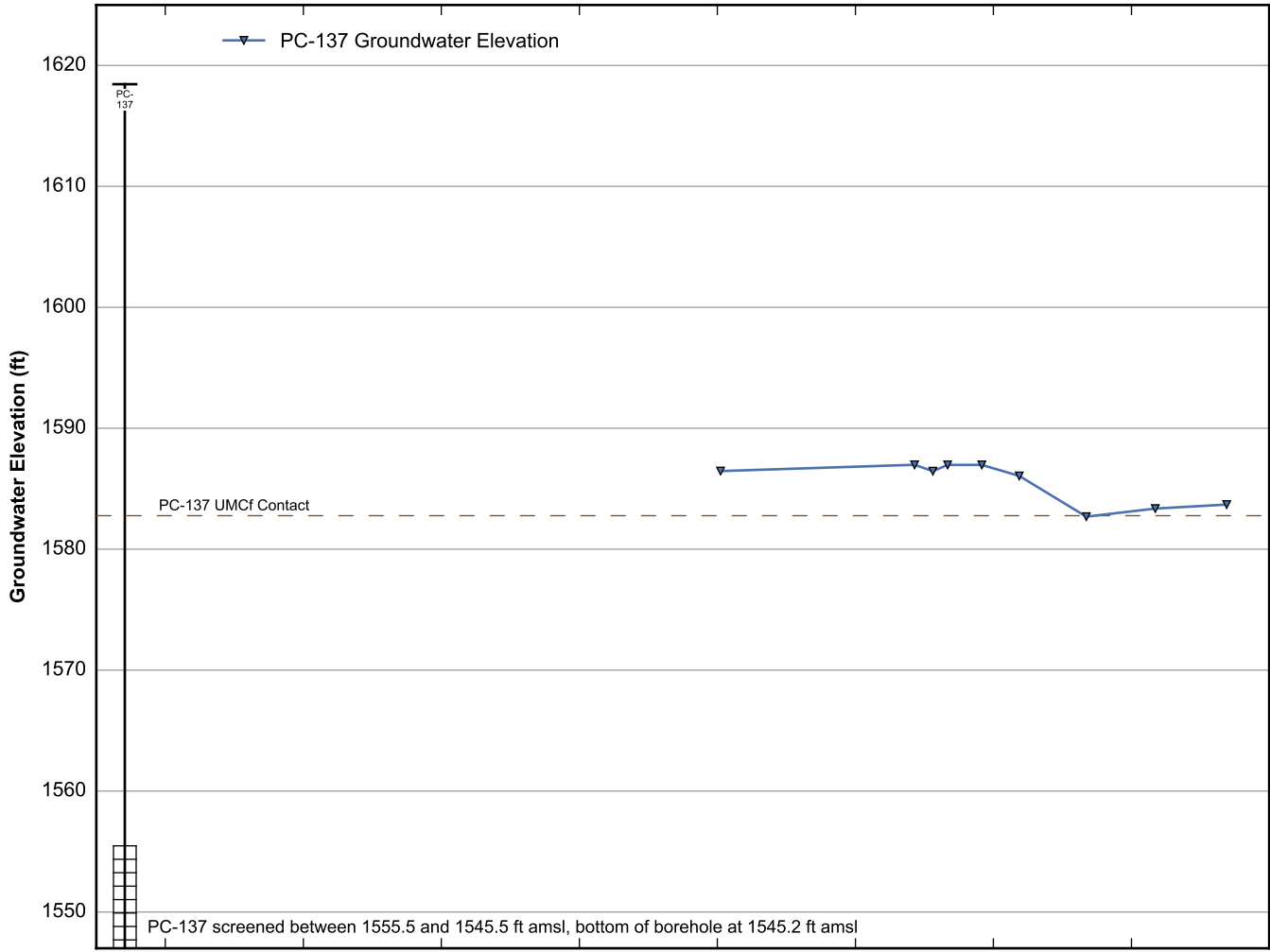
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 Henderson, Nevada



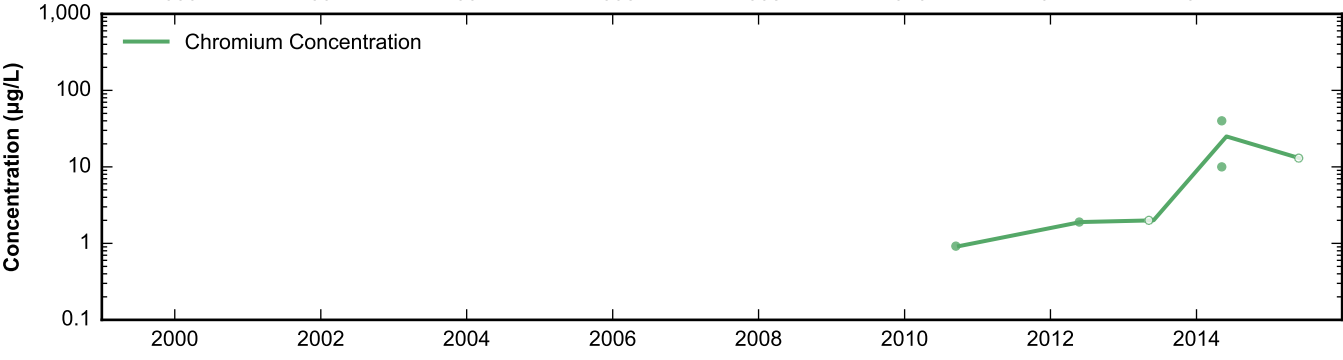
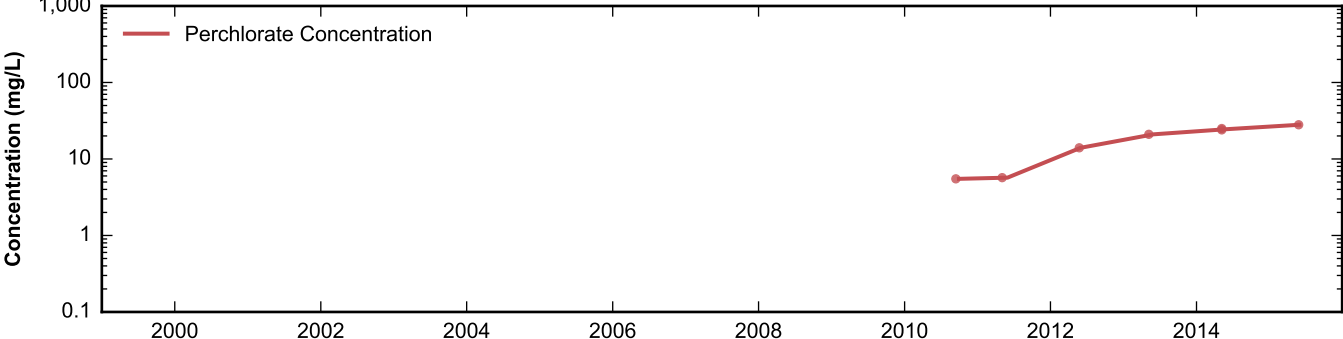
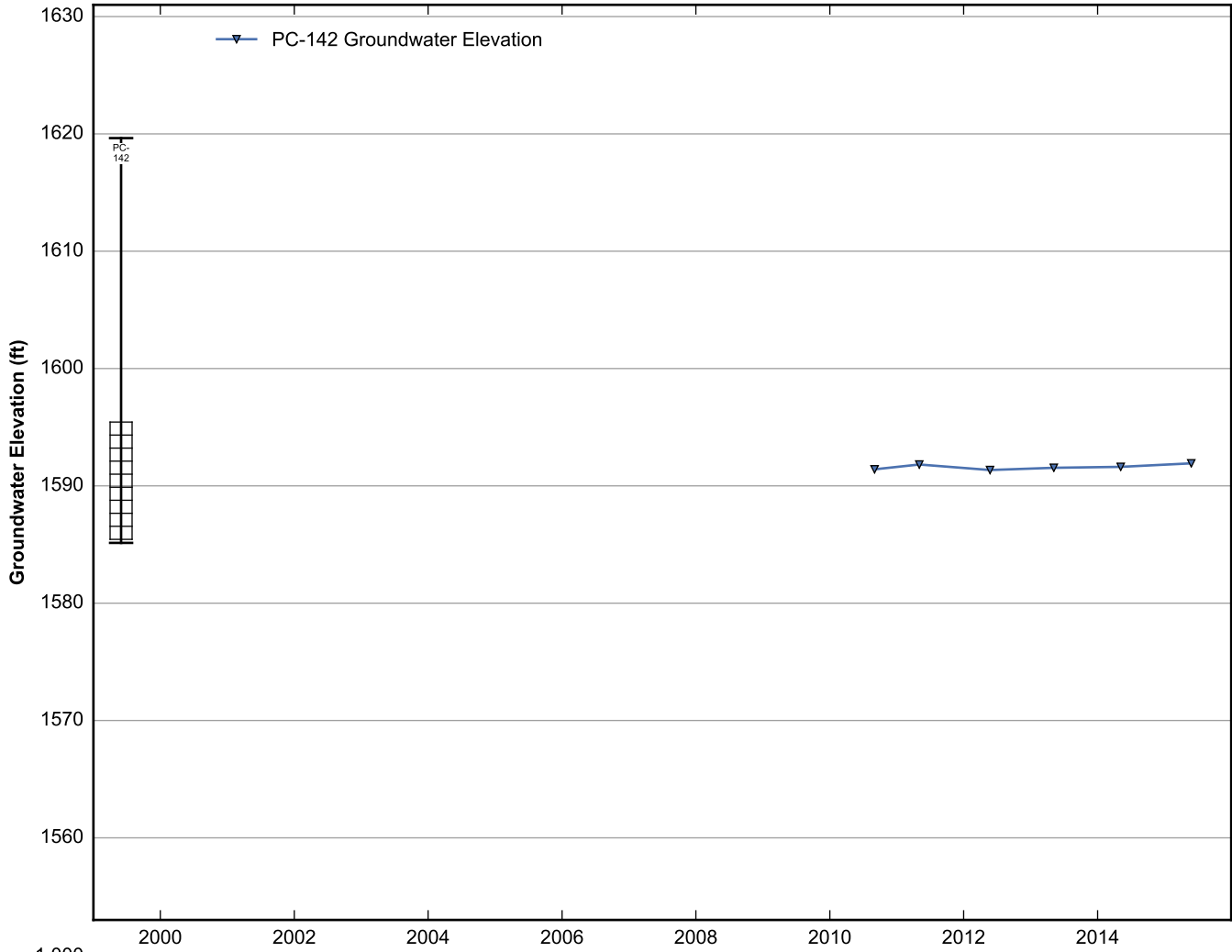
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Nevada Environmental Response Trust Site  
Henderson, Nevada



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 Nevada Environmental Response Trust Site  
 Henderson, Nevada

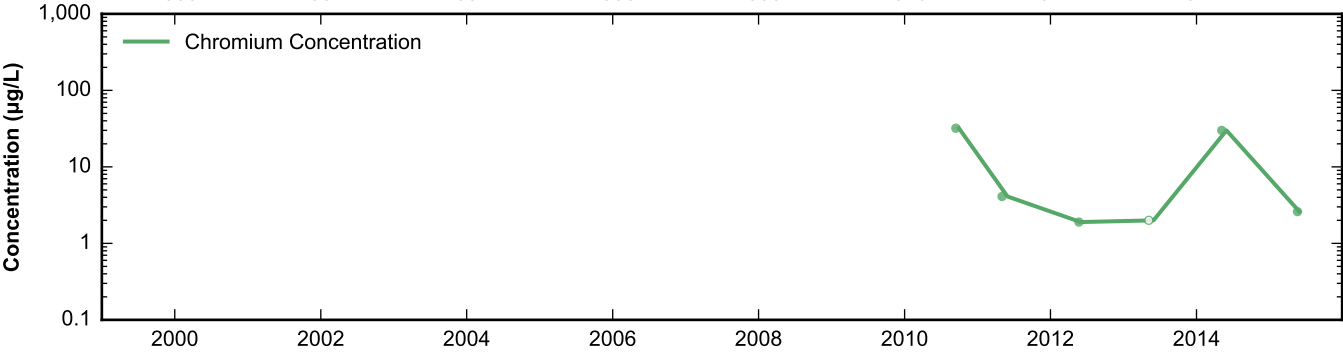
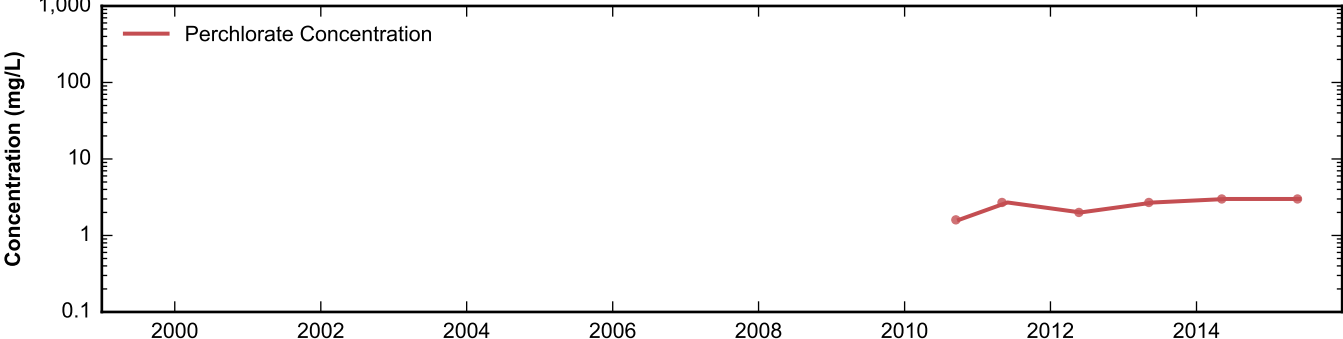
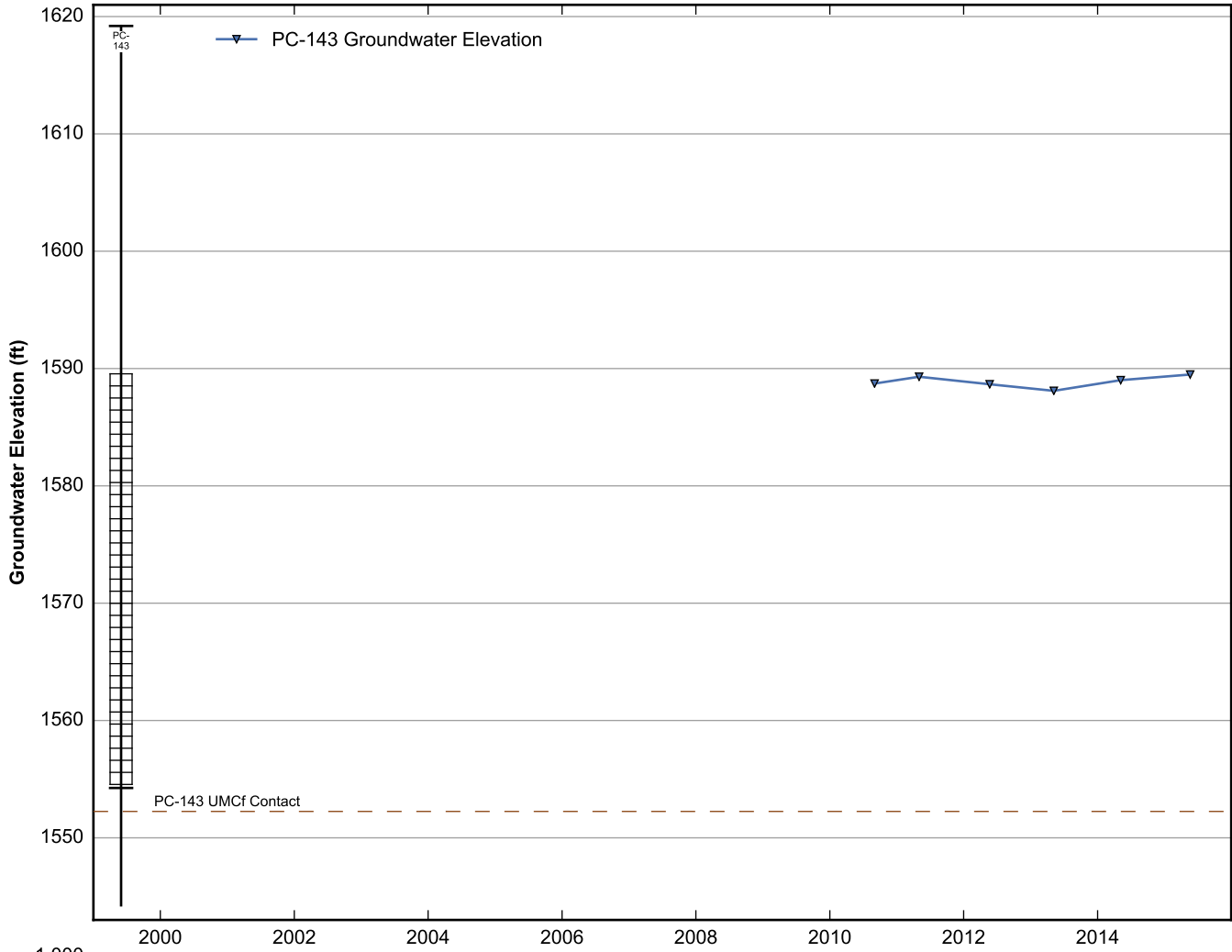


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 Nevada Environmental Response Trust Site  
 Henderson, Nevada

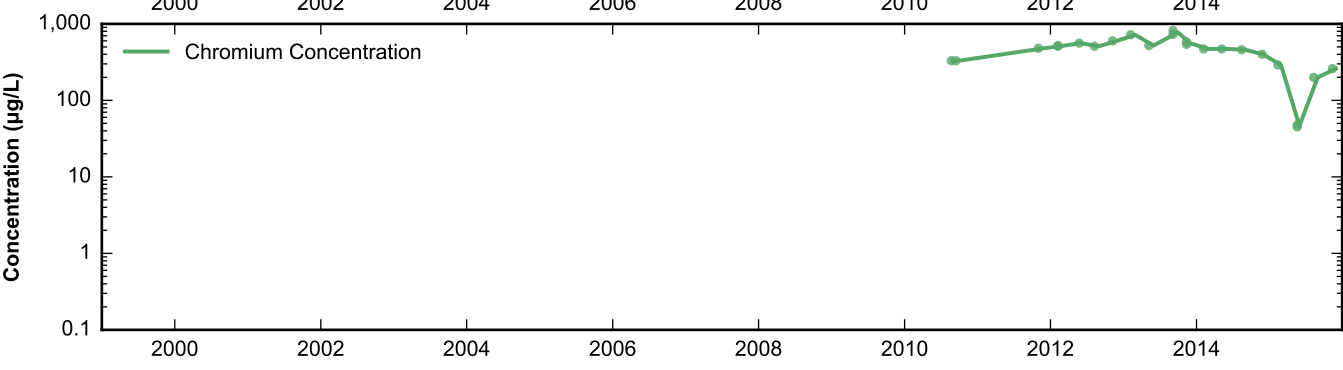
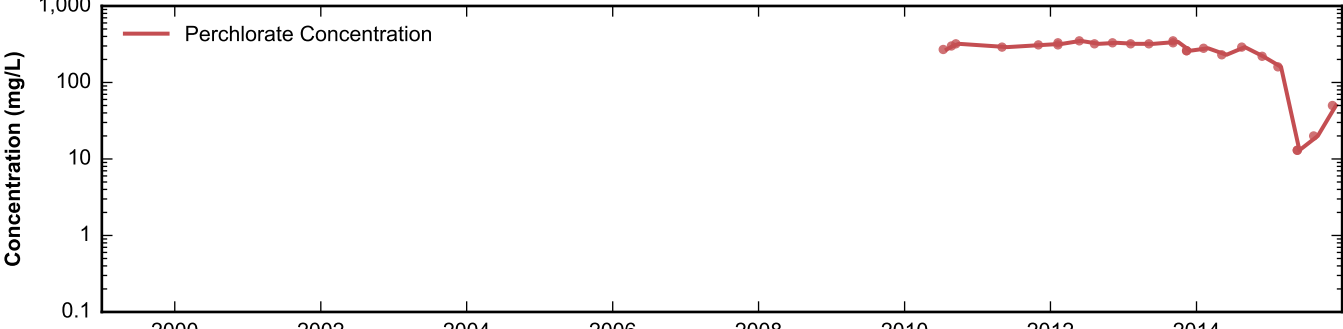
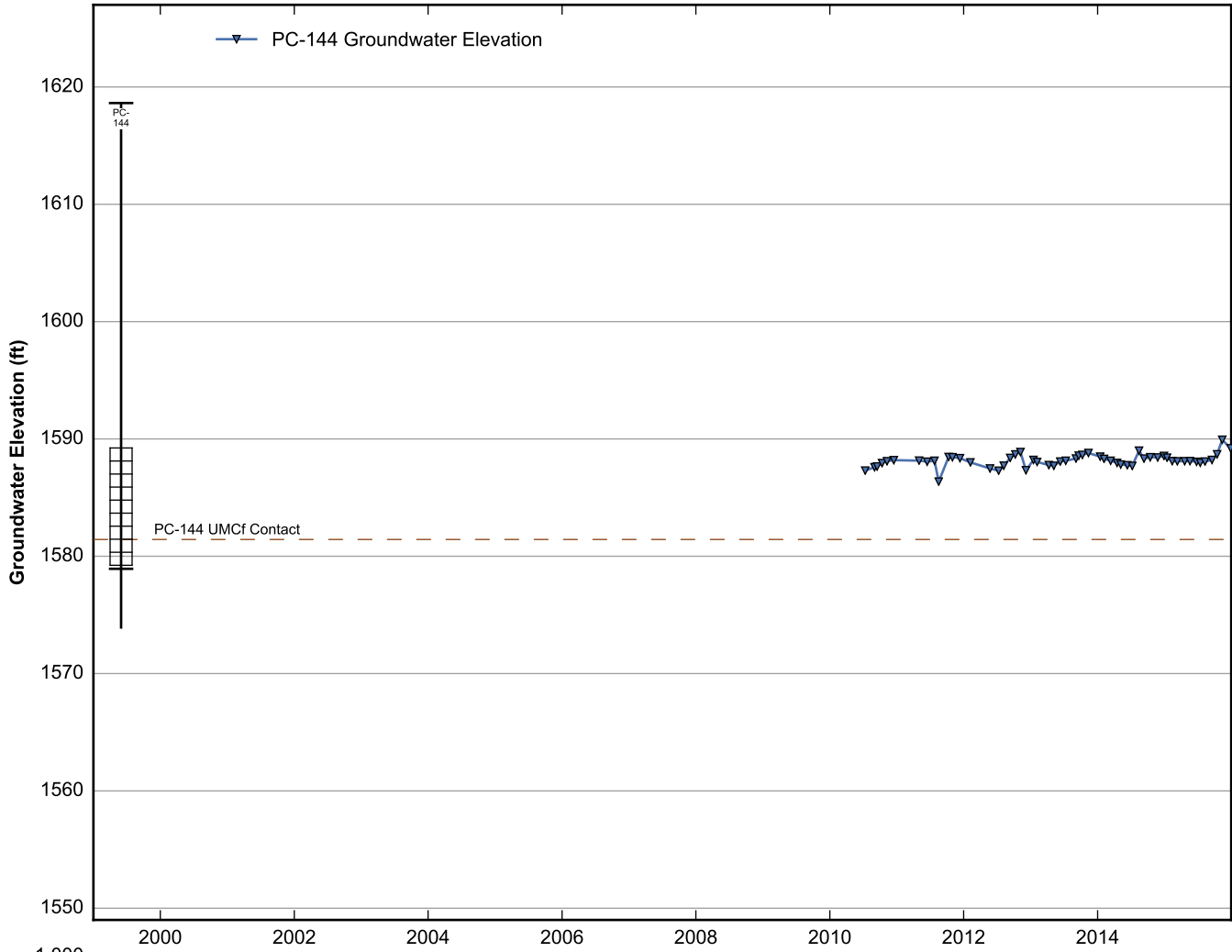


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Nevada Environmental Response Trust Site  
Henderson, Nevada

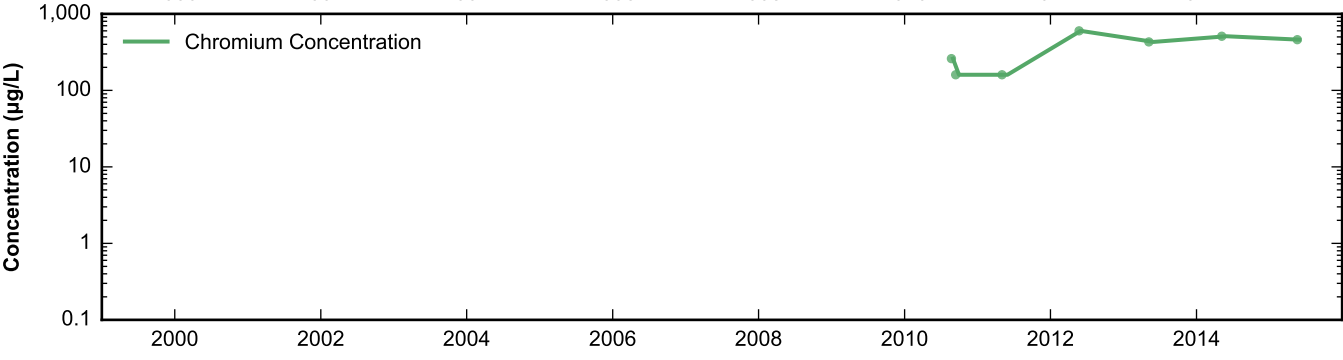
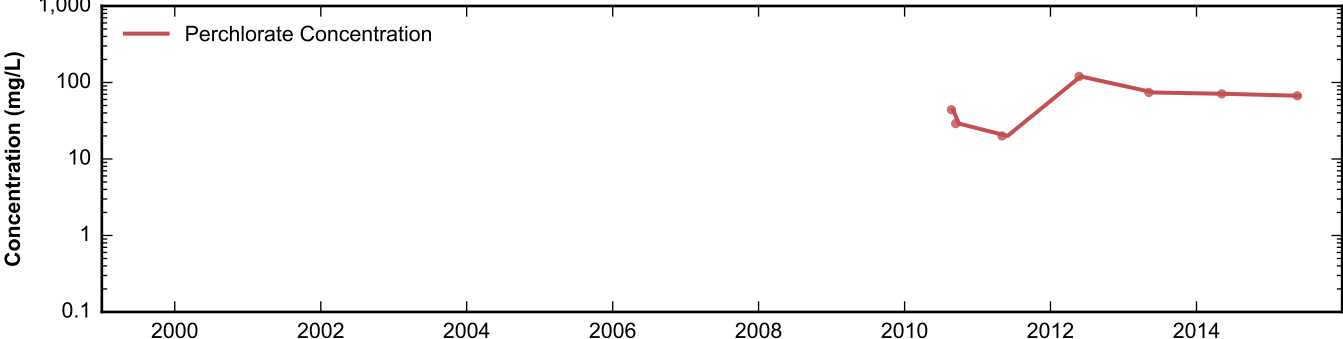
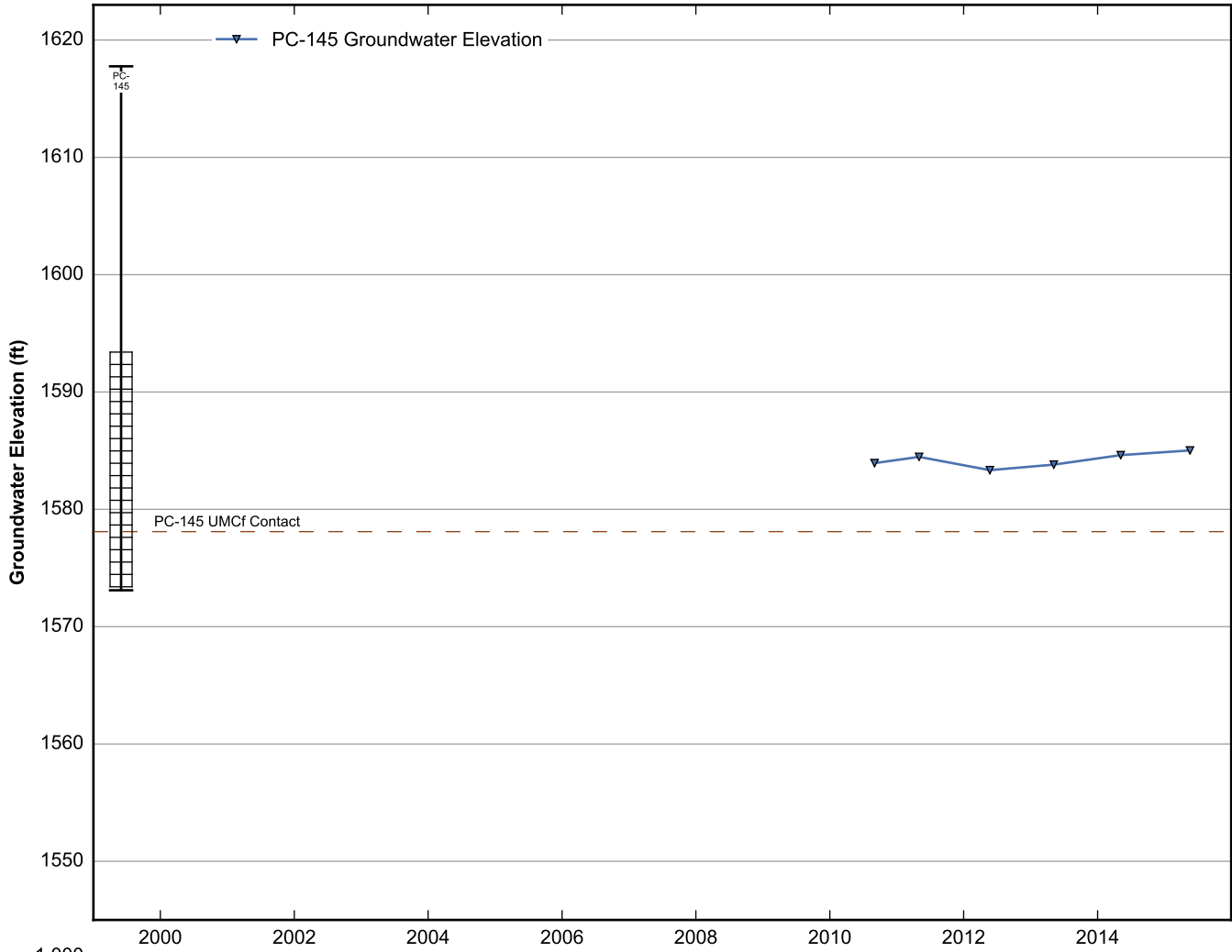




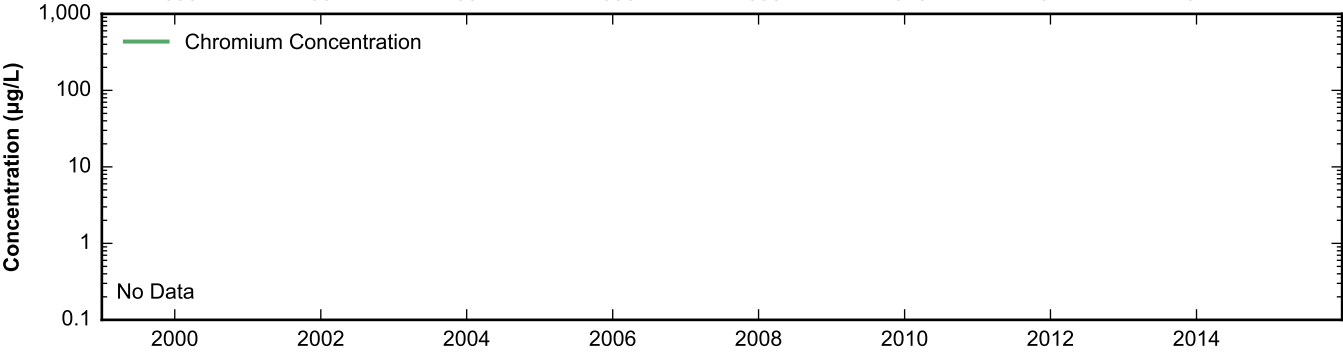
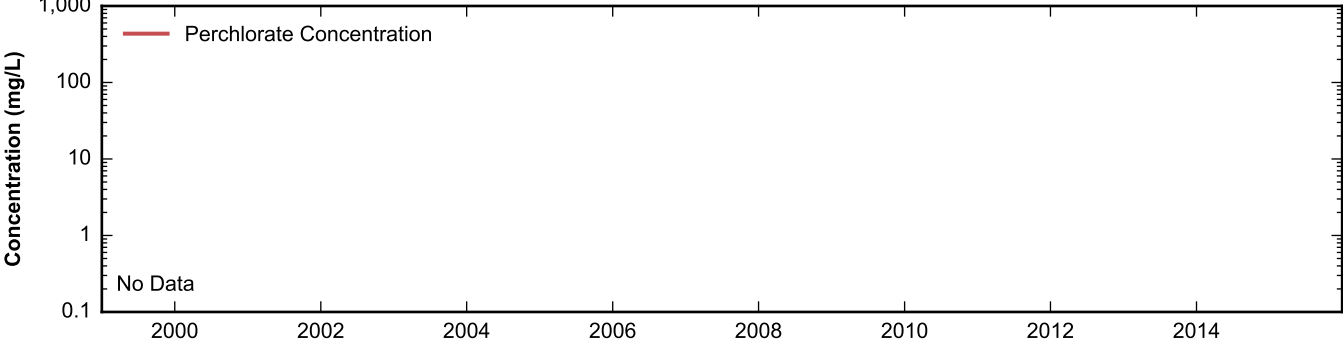
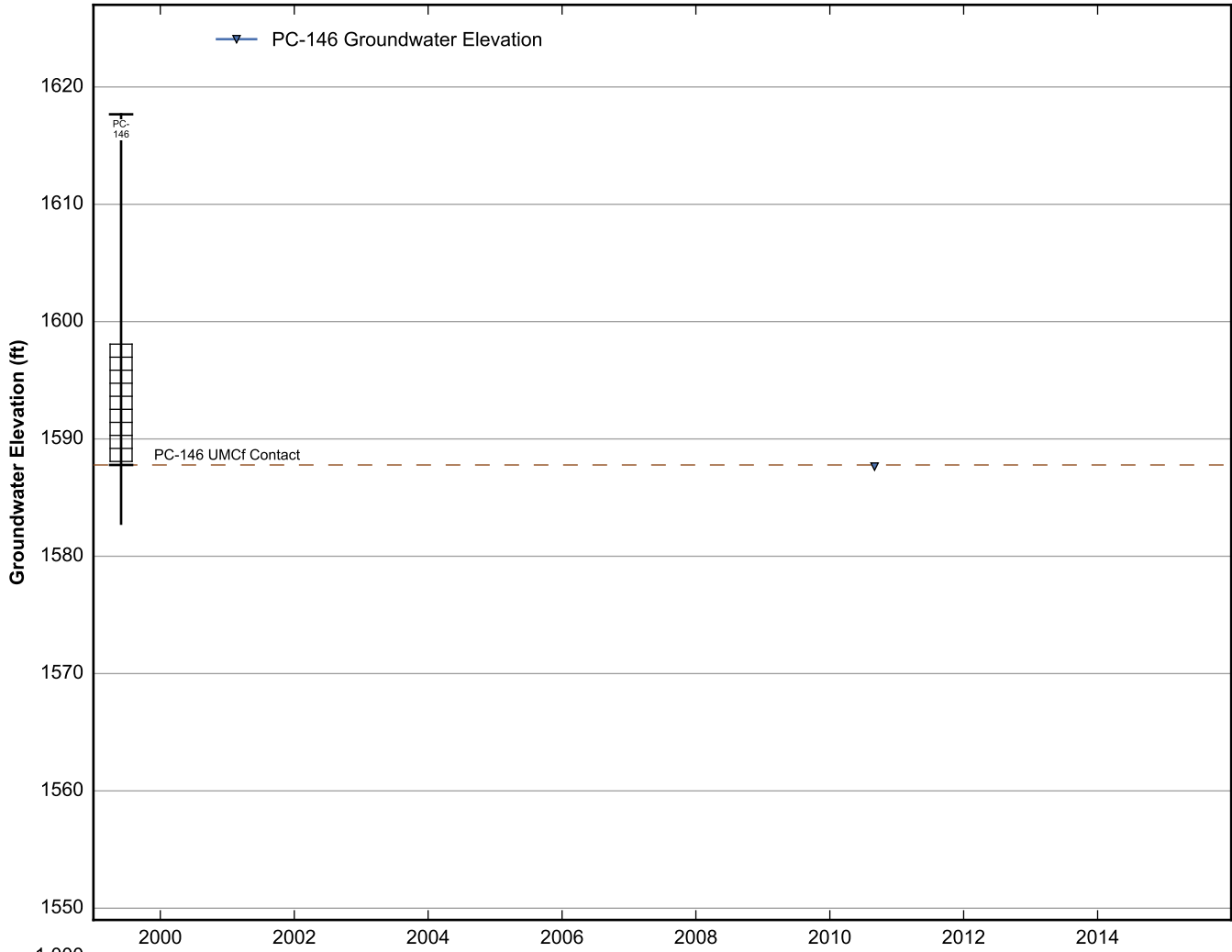
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 Nevada Environmental Response Trust Site  
 Henderson, Nevada



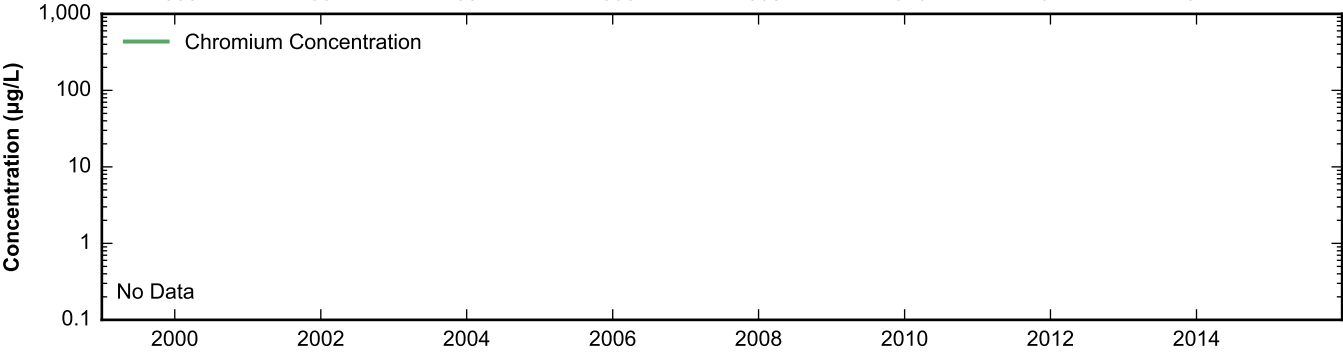
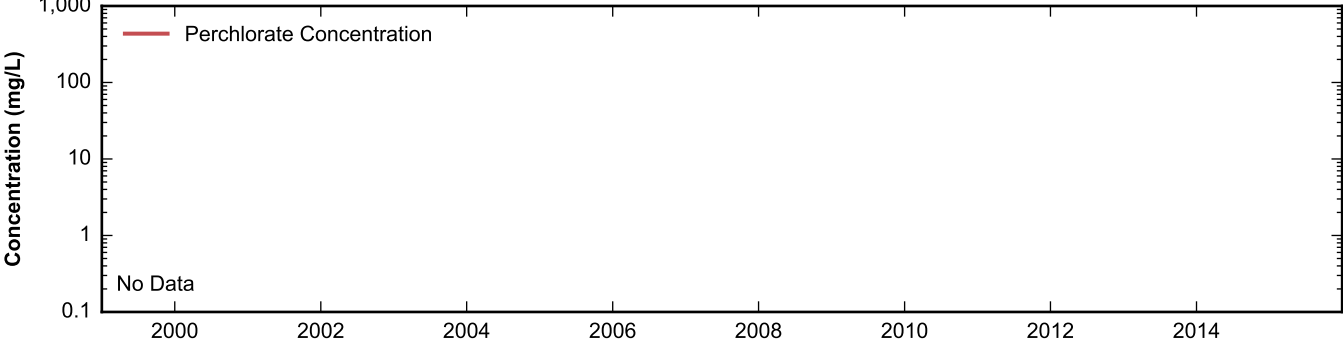
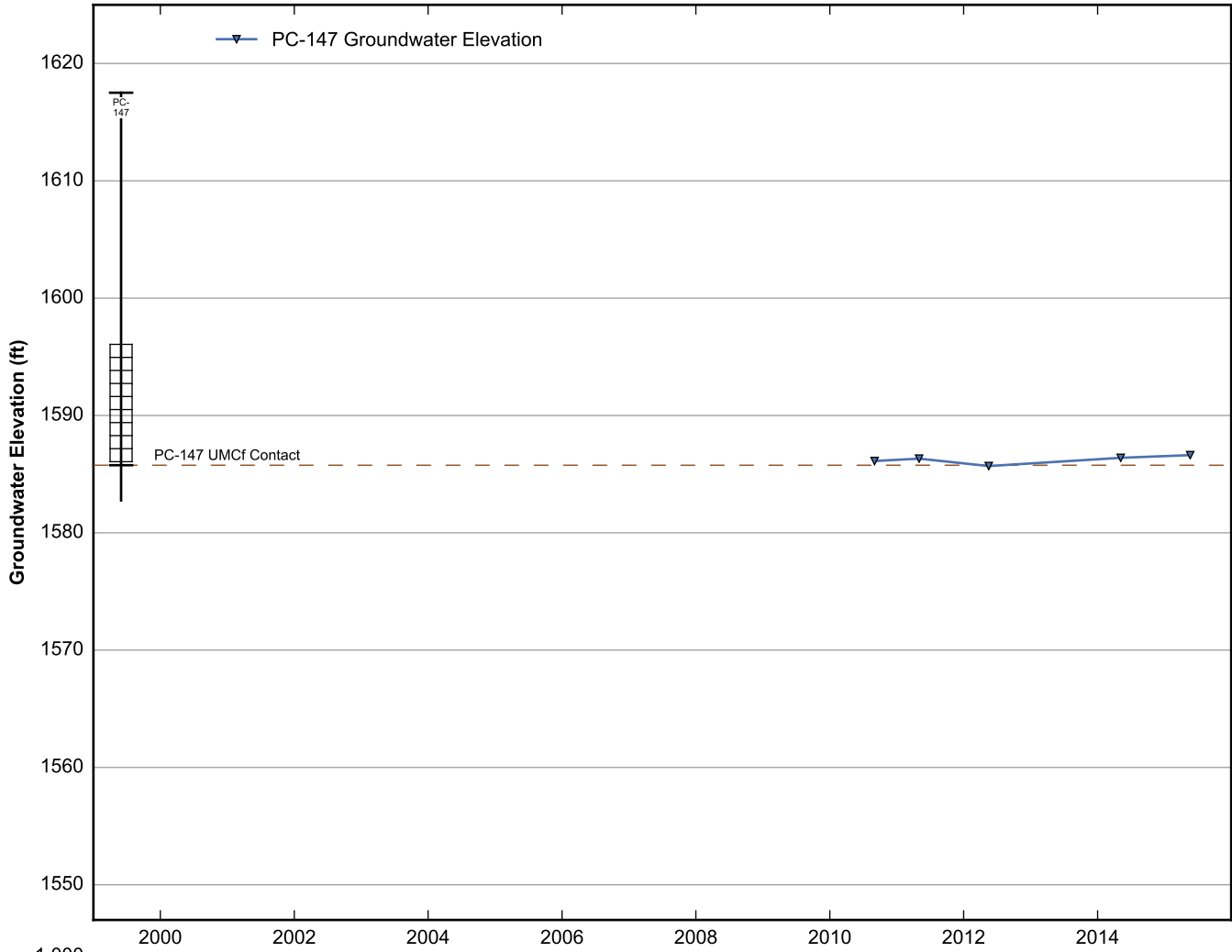
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Henderson, Nevada



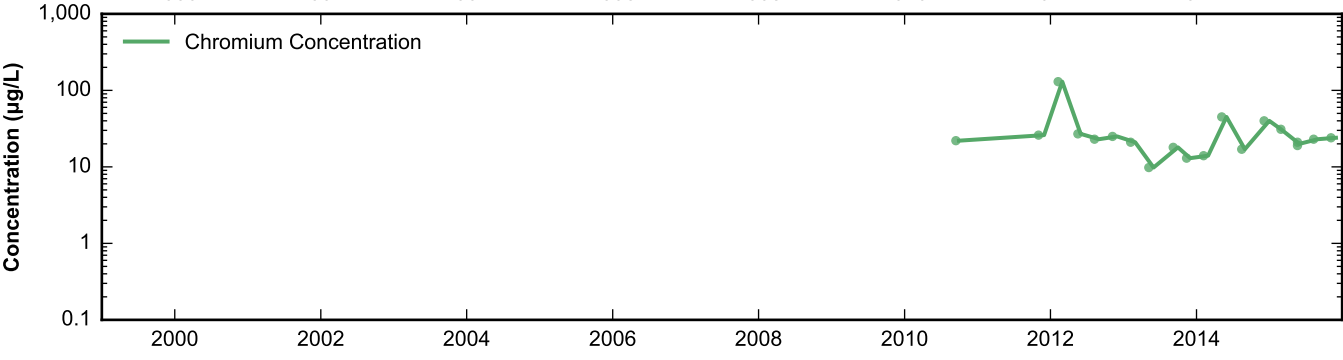
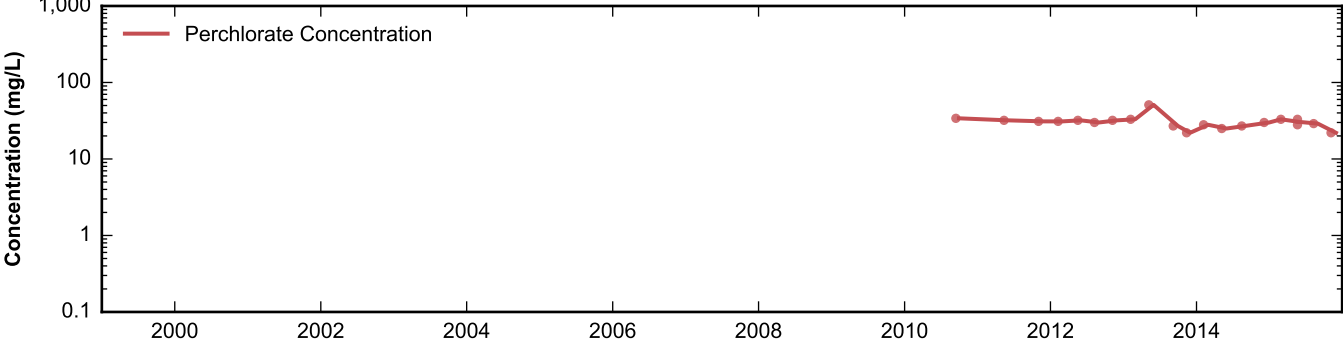
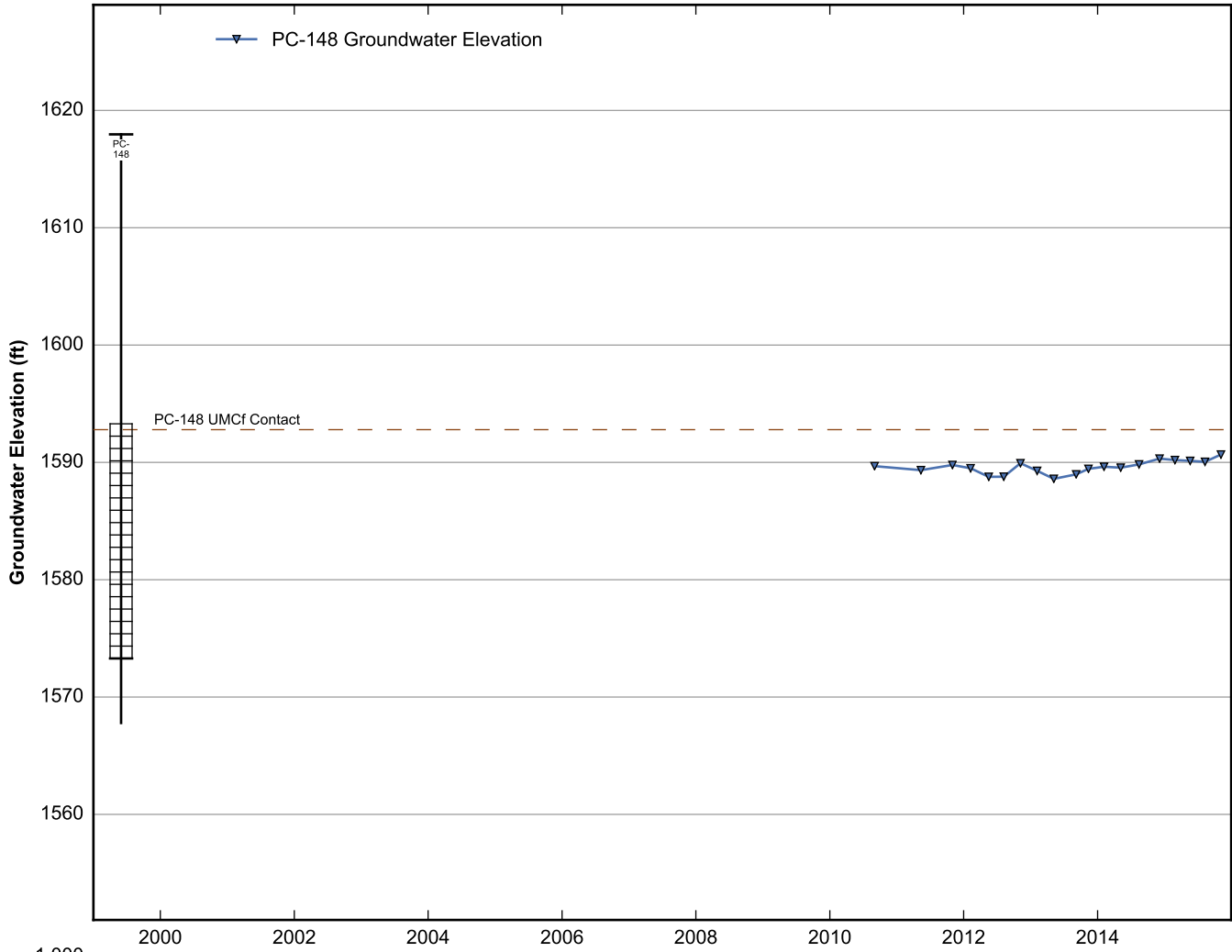
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 Nevada Environmental Response Trust Site  
 Henderson, Nevada



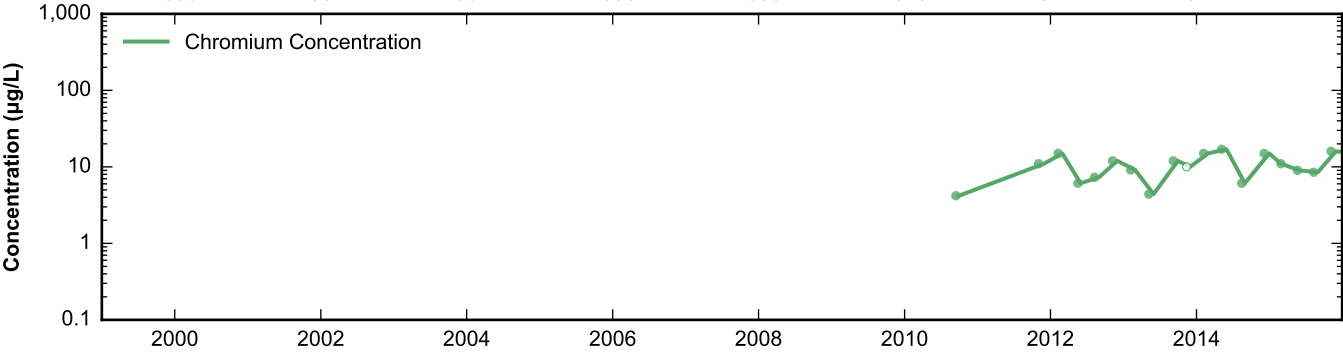
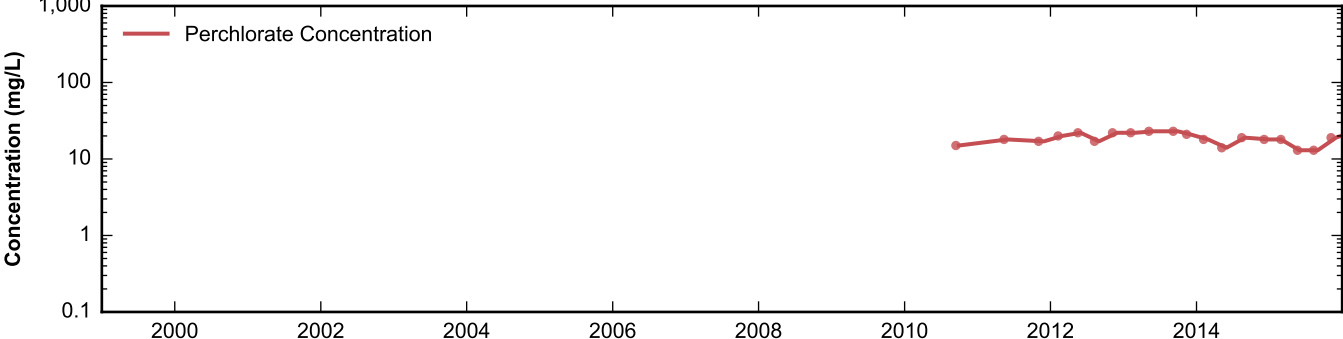
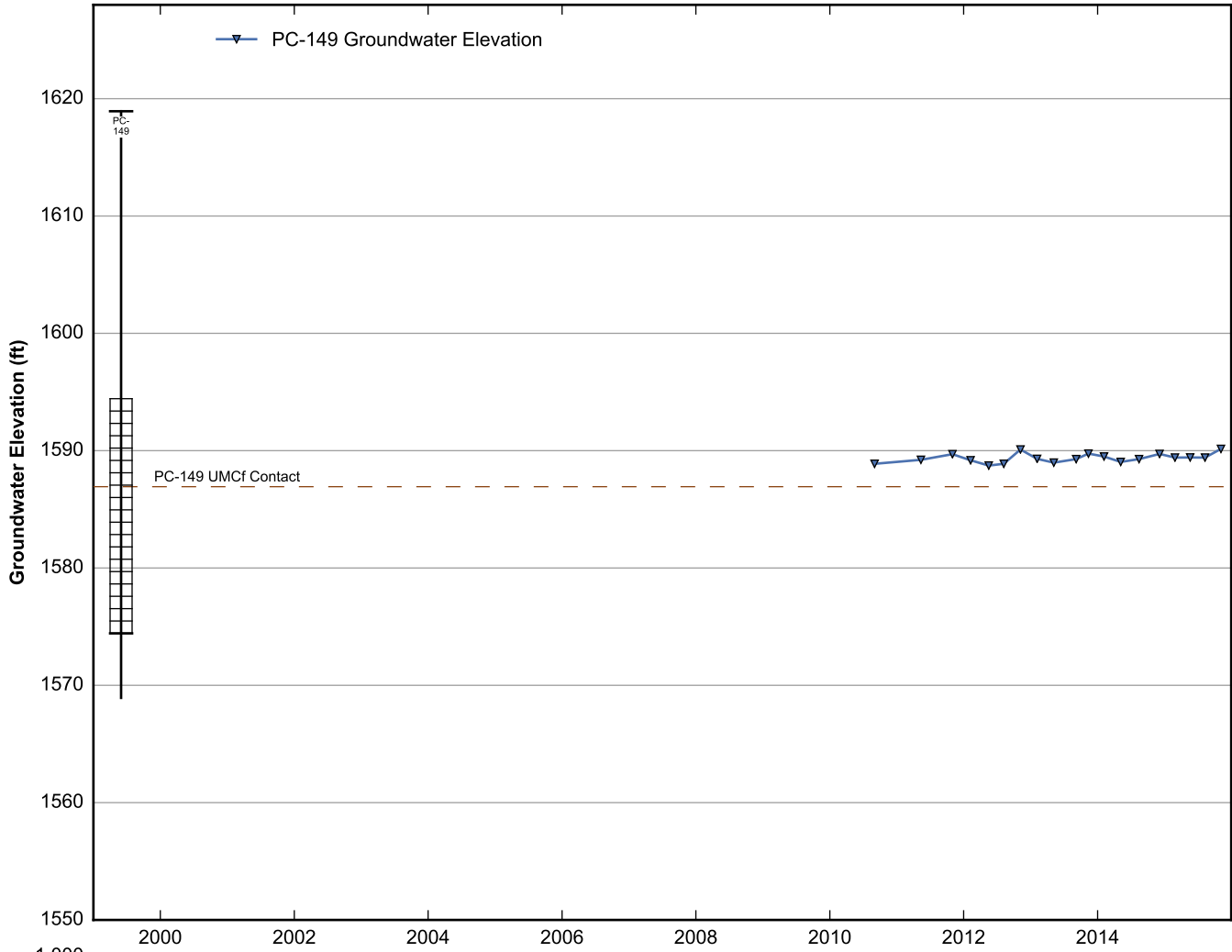
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Henderson, Nevada



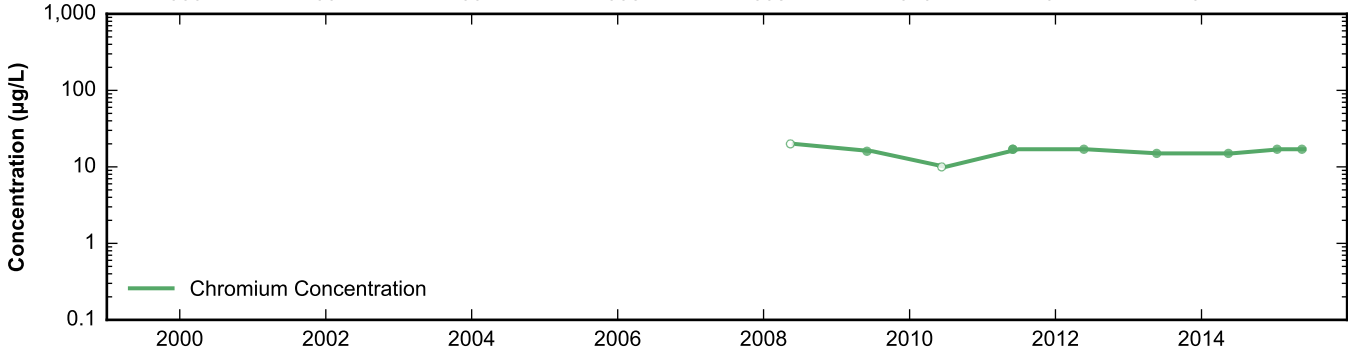
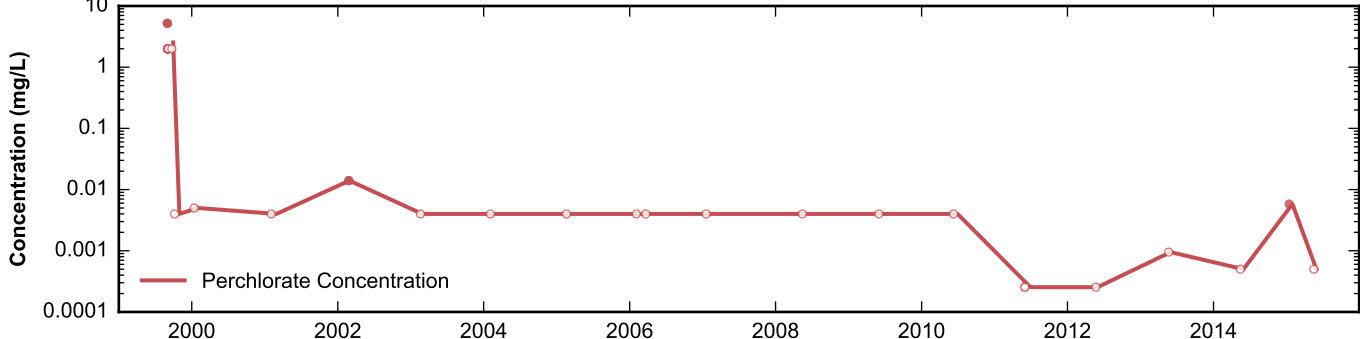
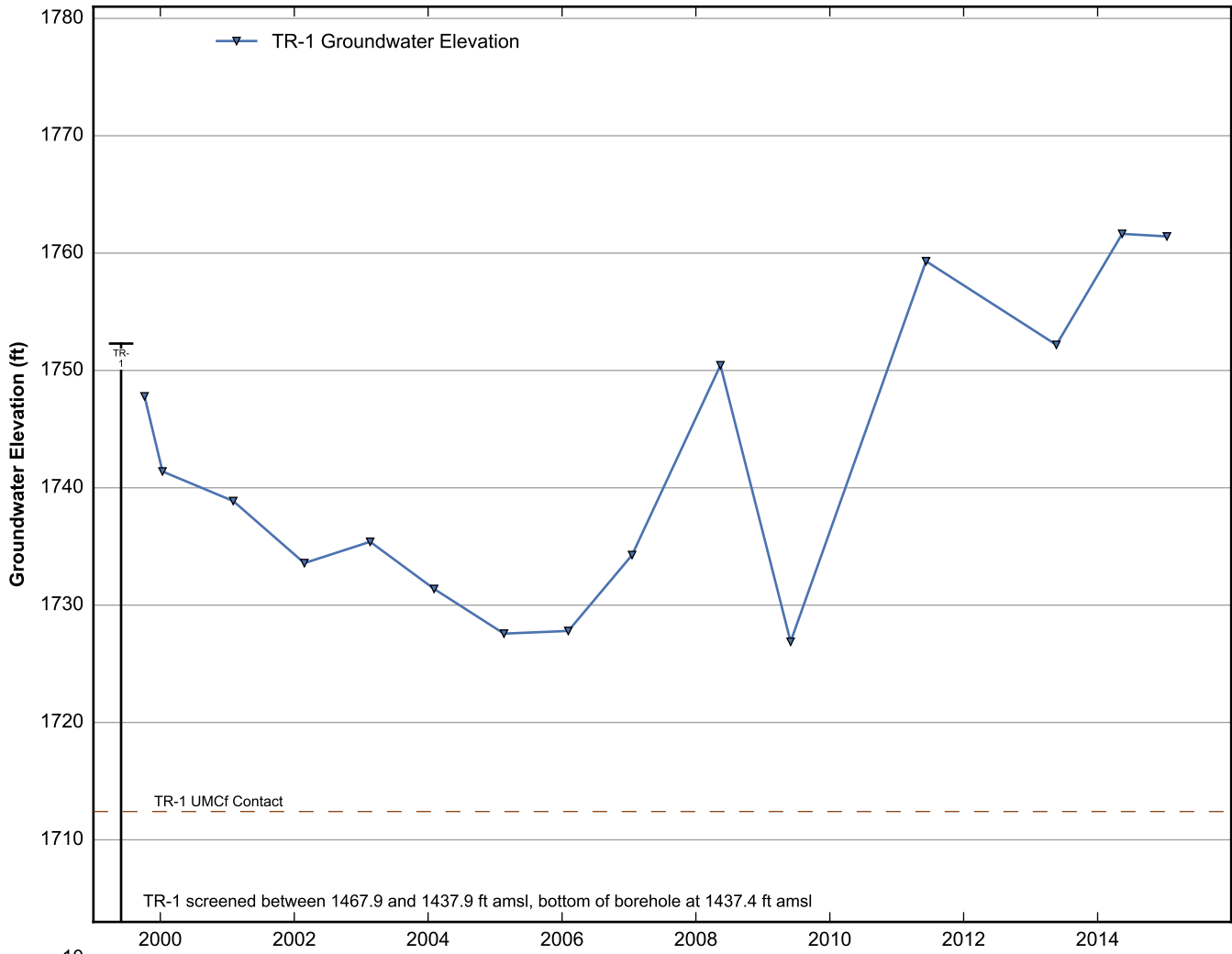
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Henderson, Nevada



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Henderson, Nevada

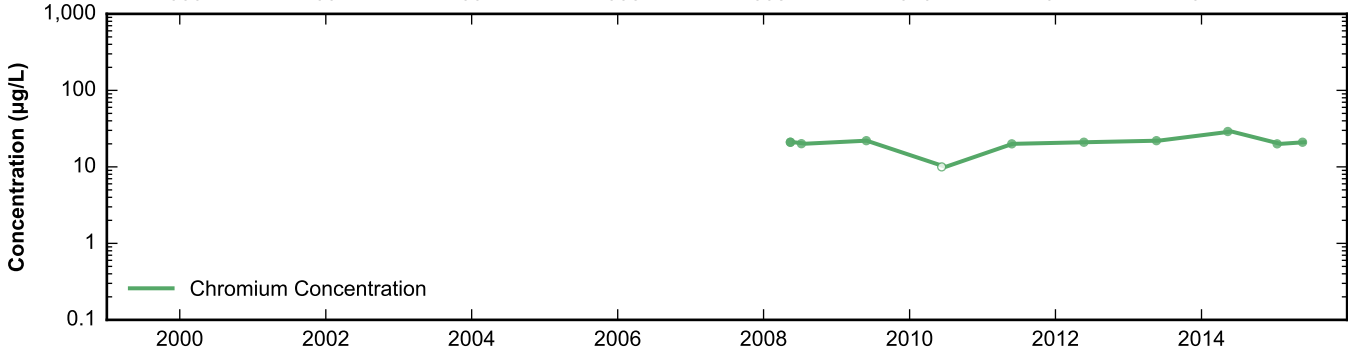
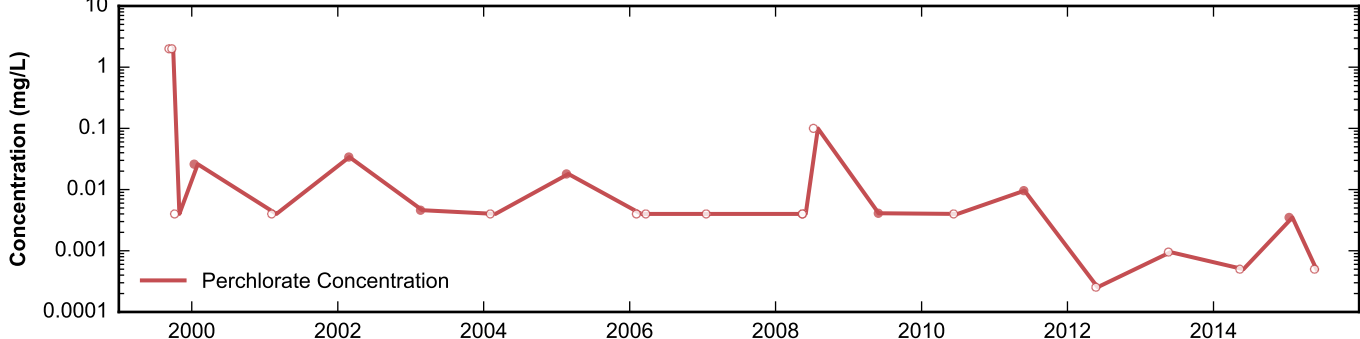
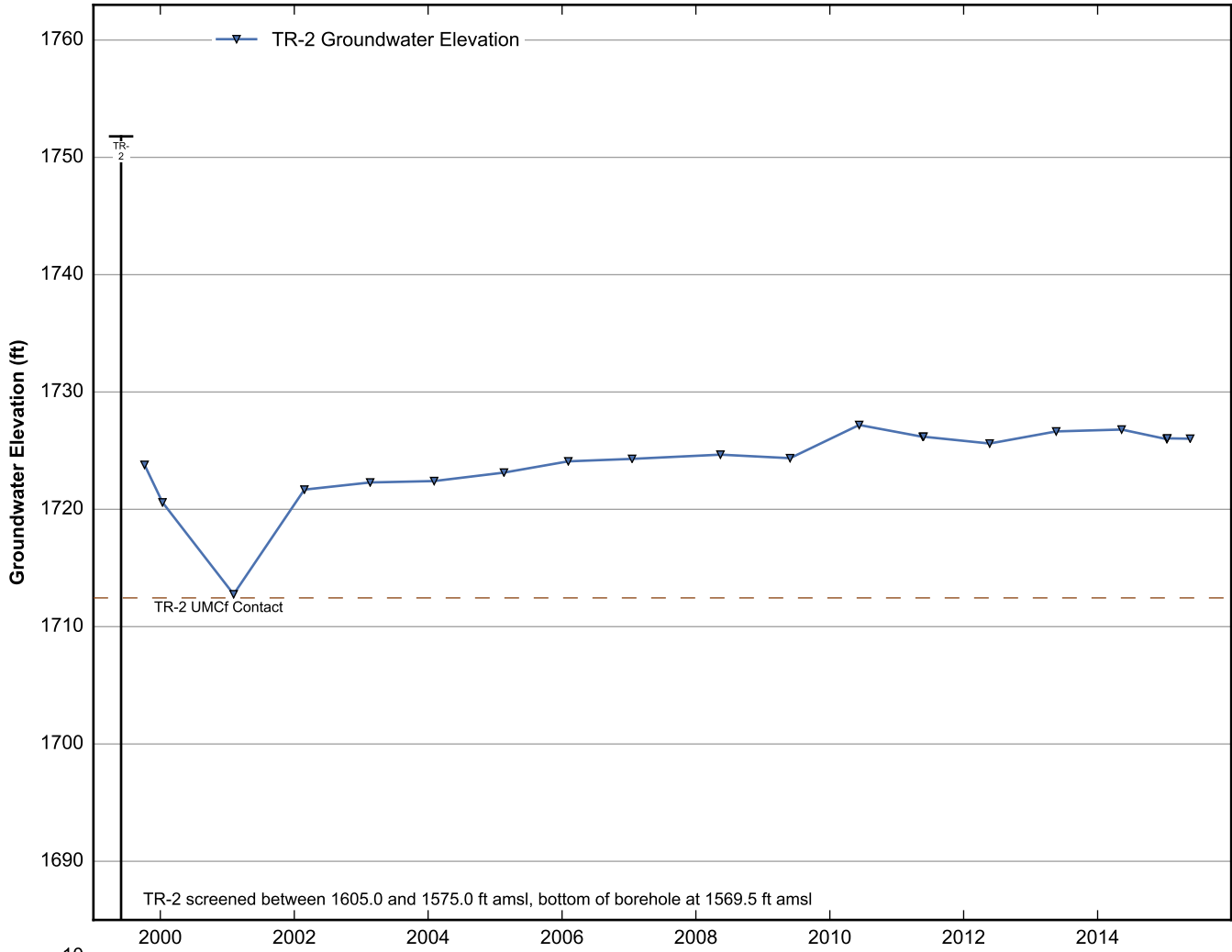


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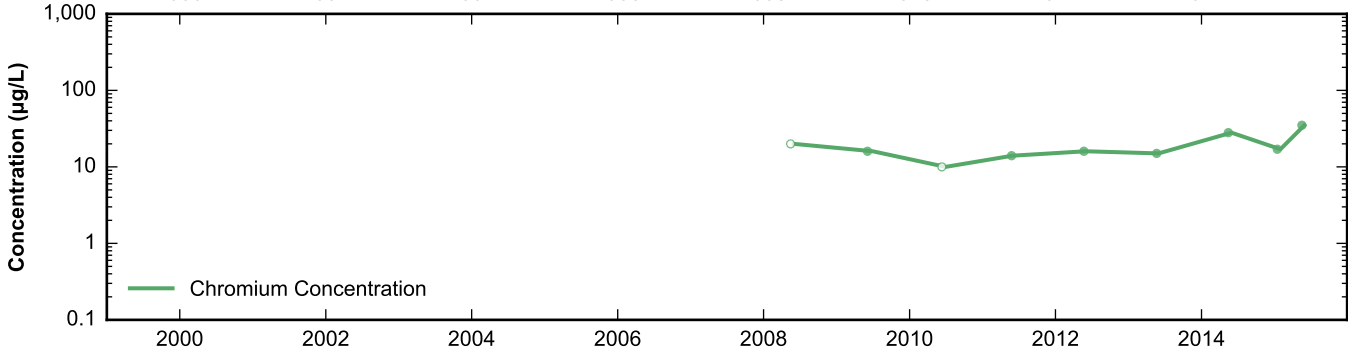
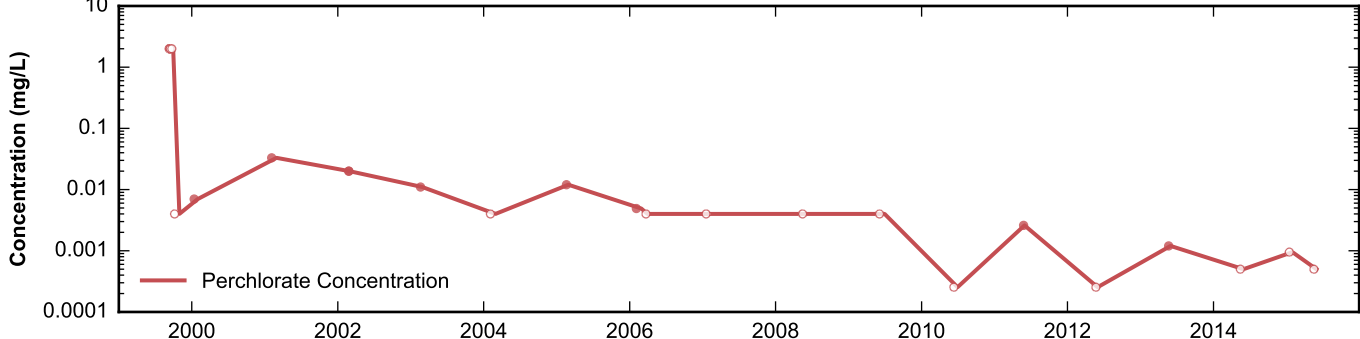
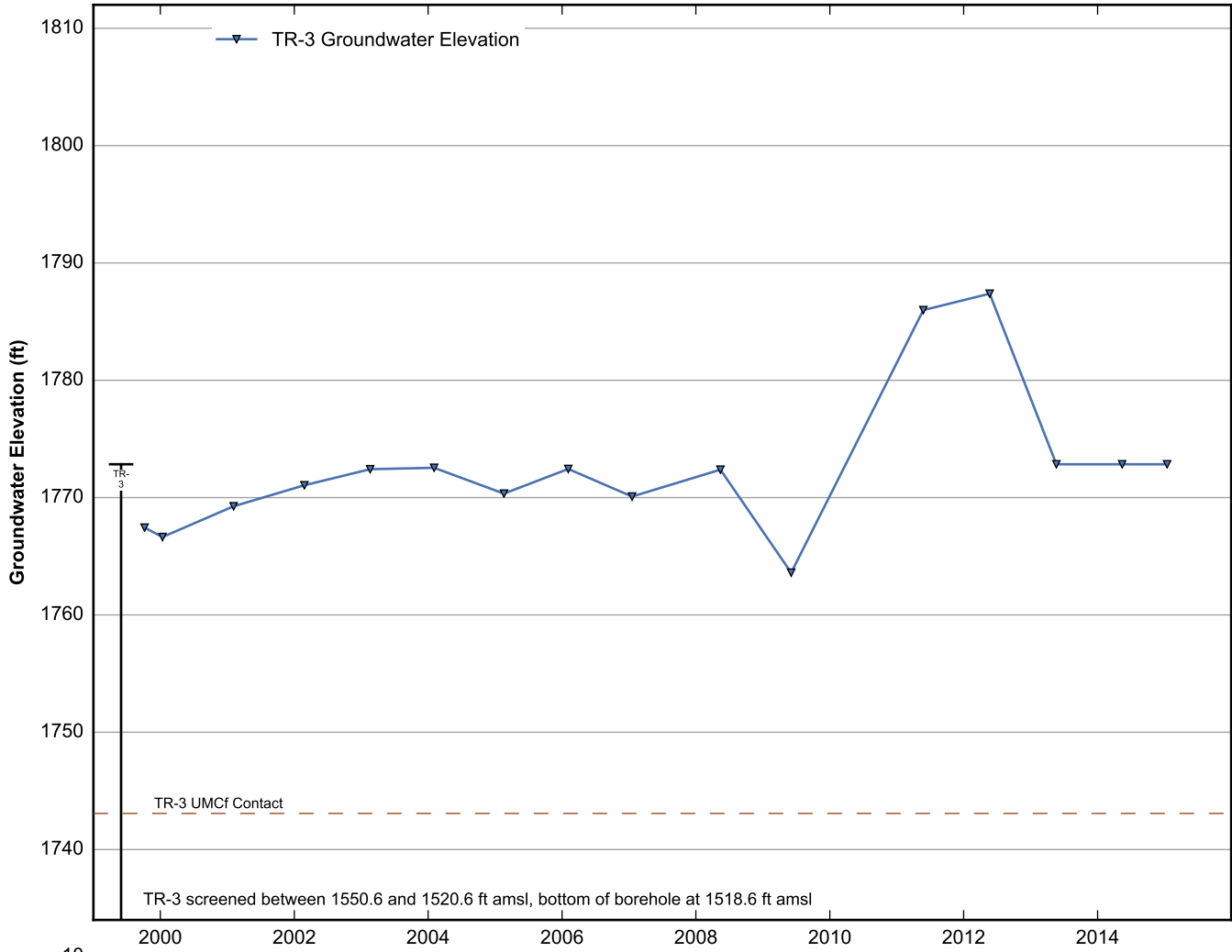


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 Nevada Environmental Response Trust Site  
 Henderson, Nevada

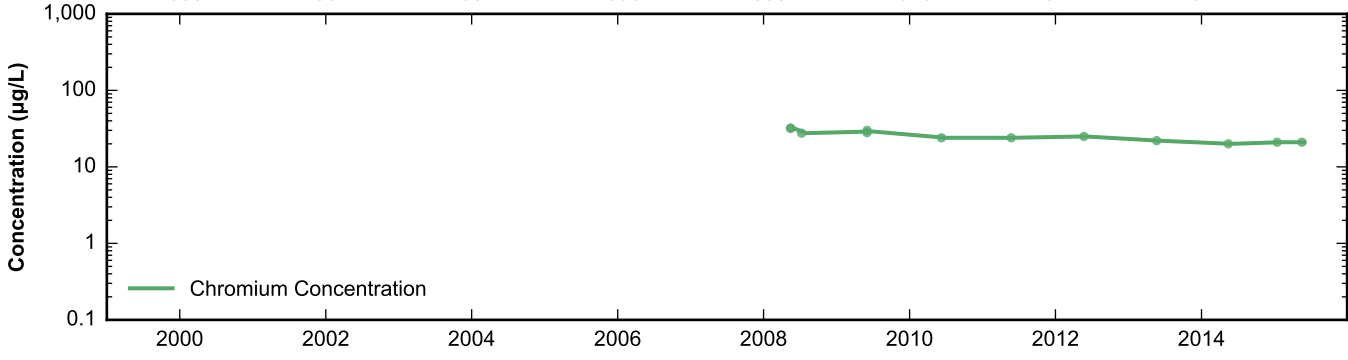
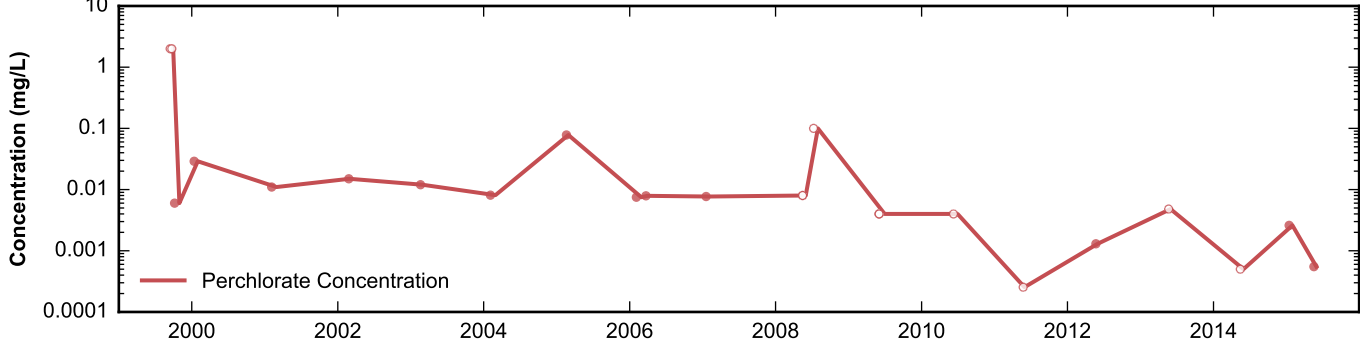
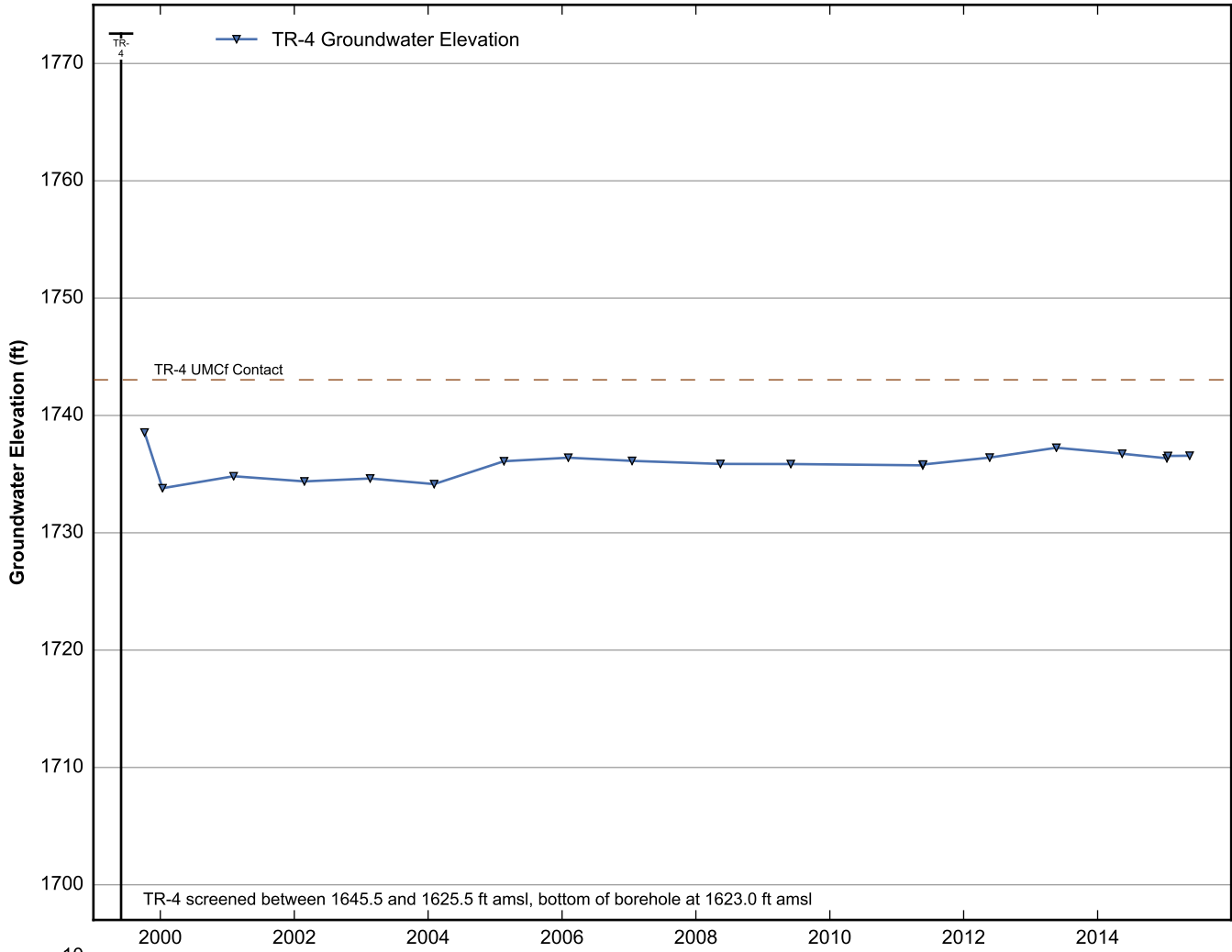




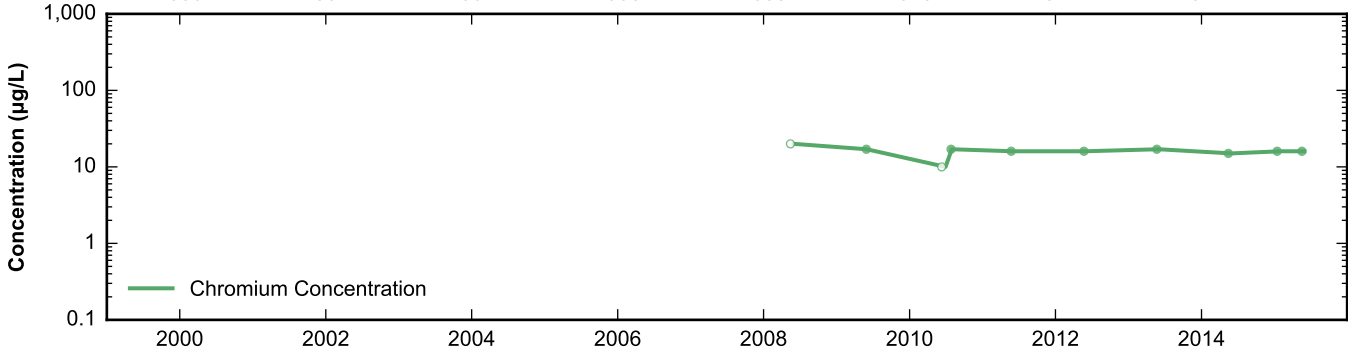
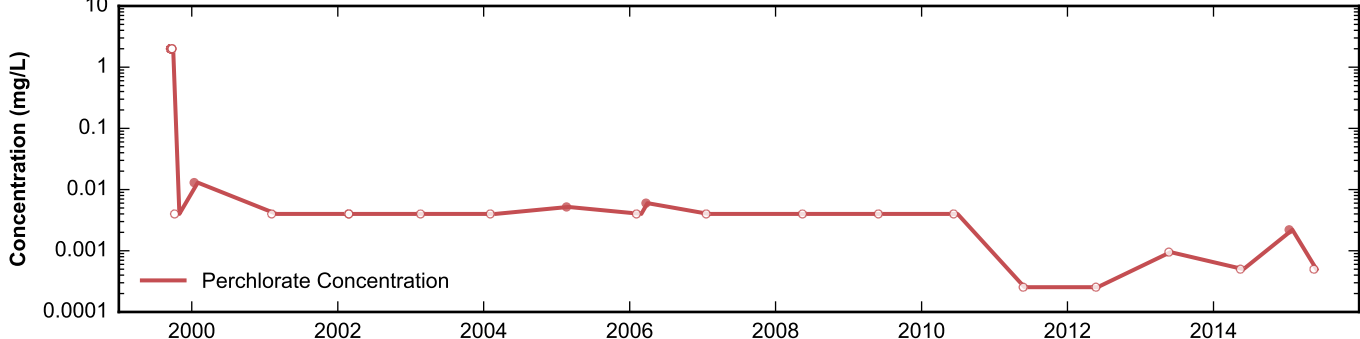
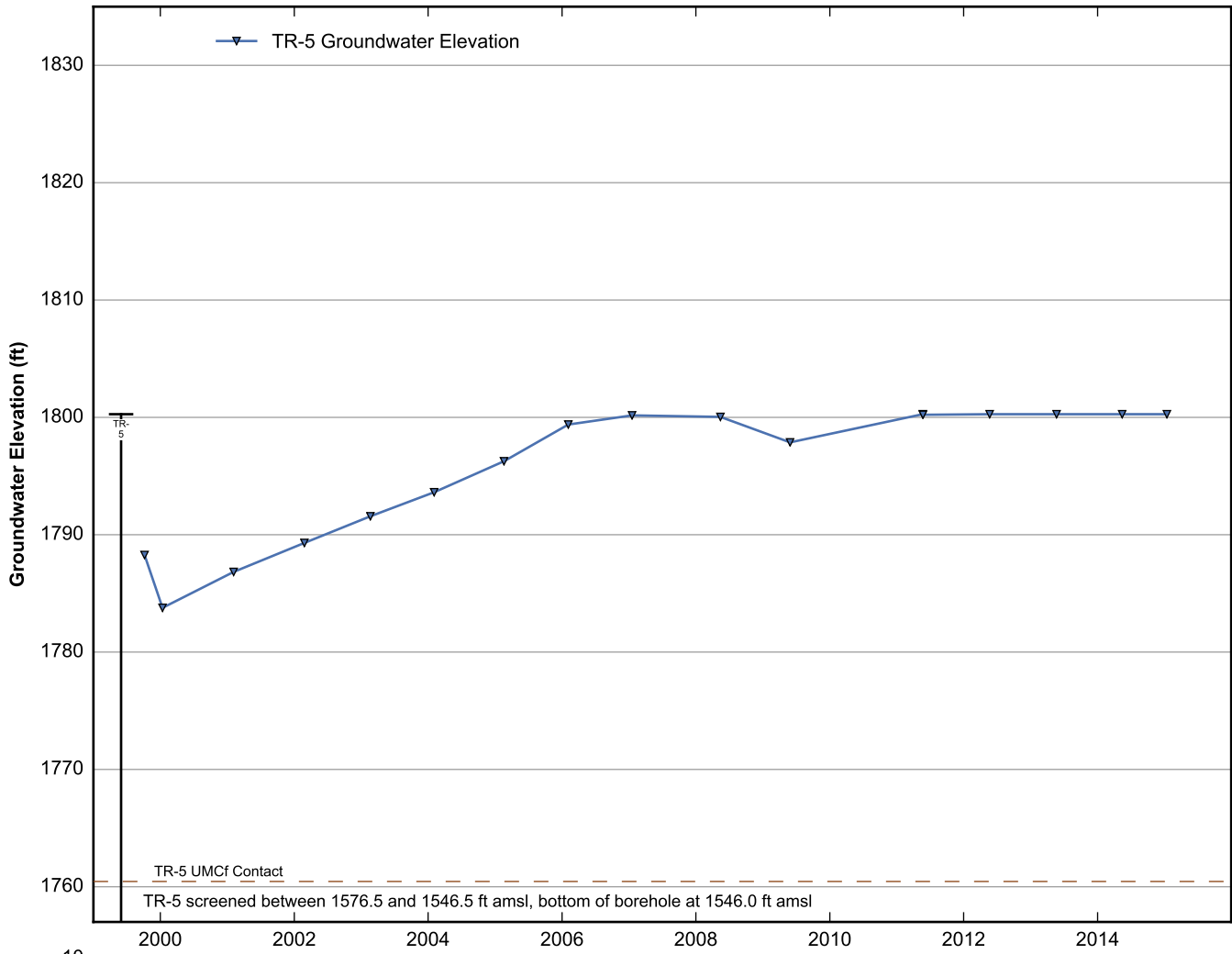
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 Nevada Environmental Response Trust Site  
 Henderson, Nevada



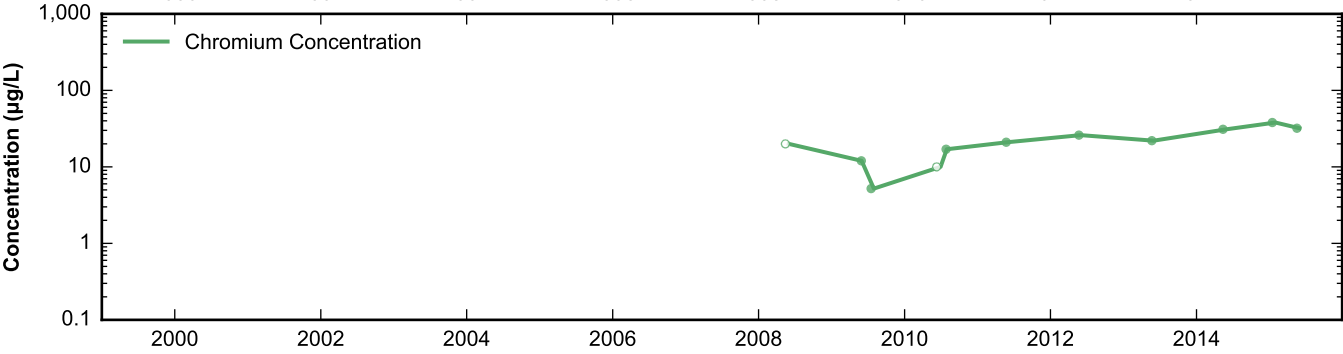
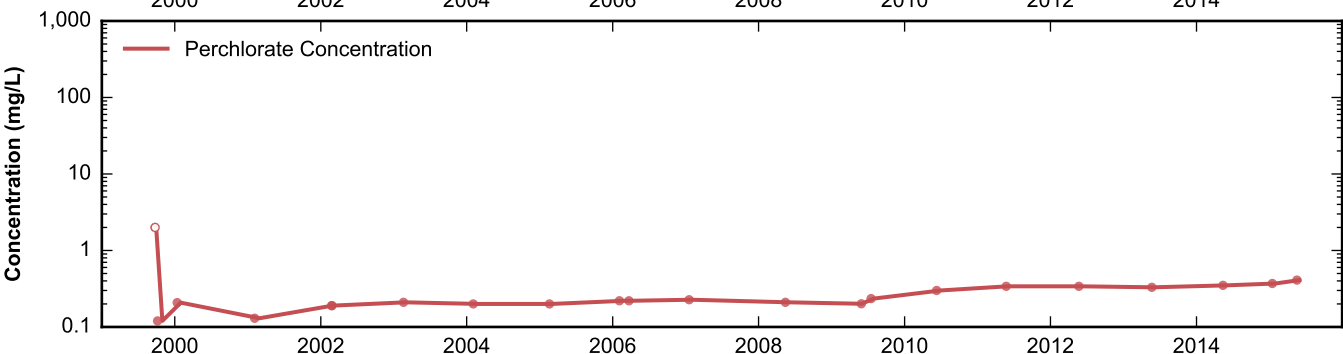
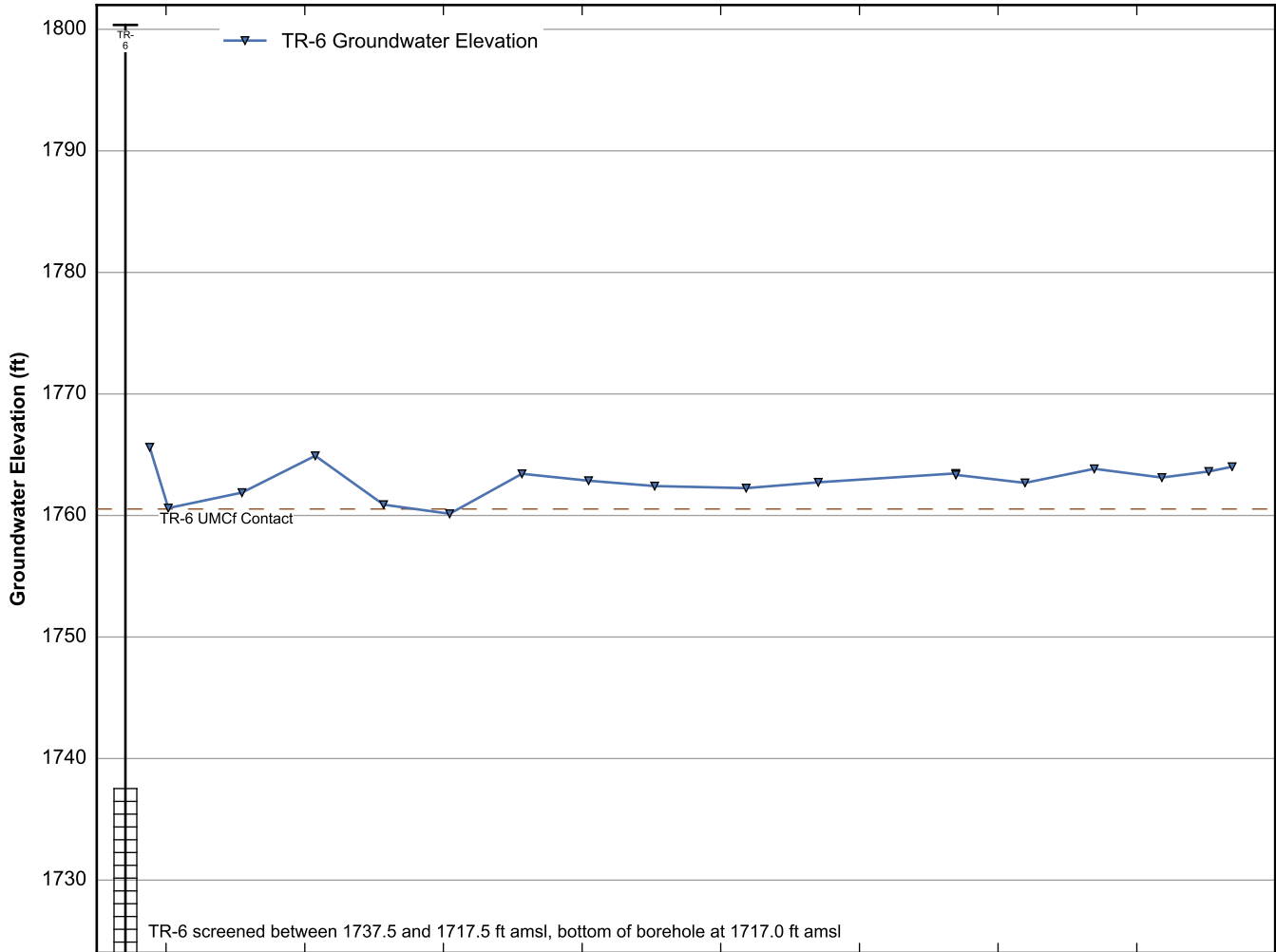
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 Nevada Environmental Response Trust Site  
 Henderson, Nevada



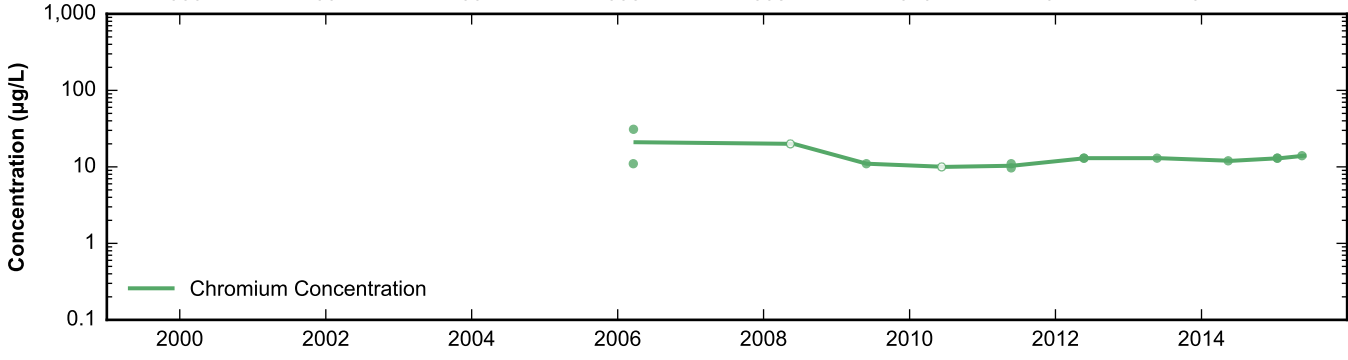
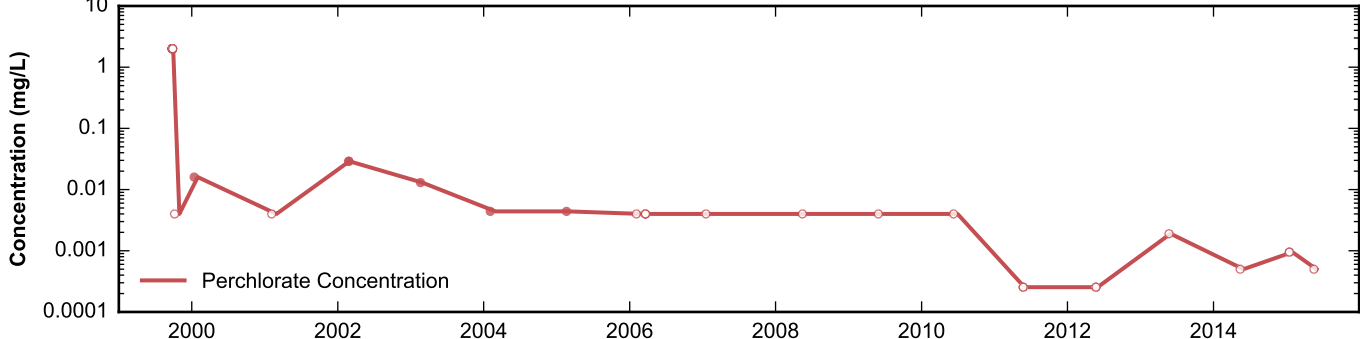
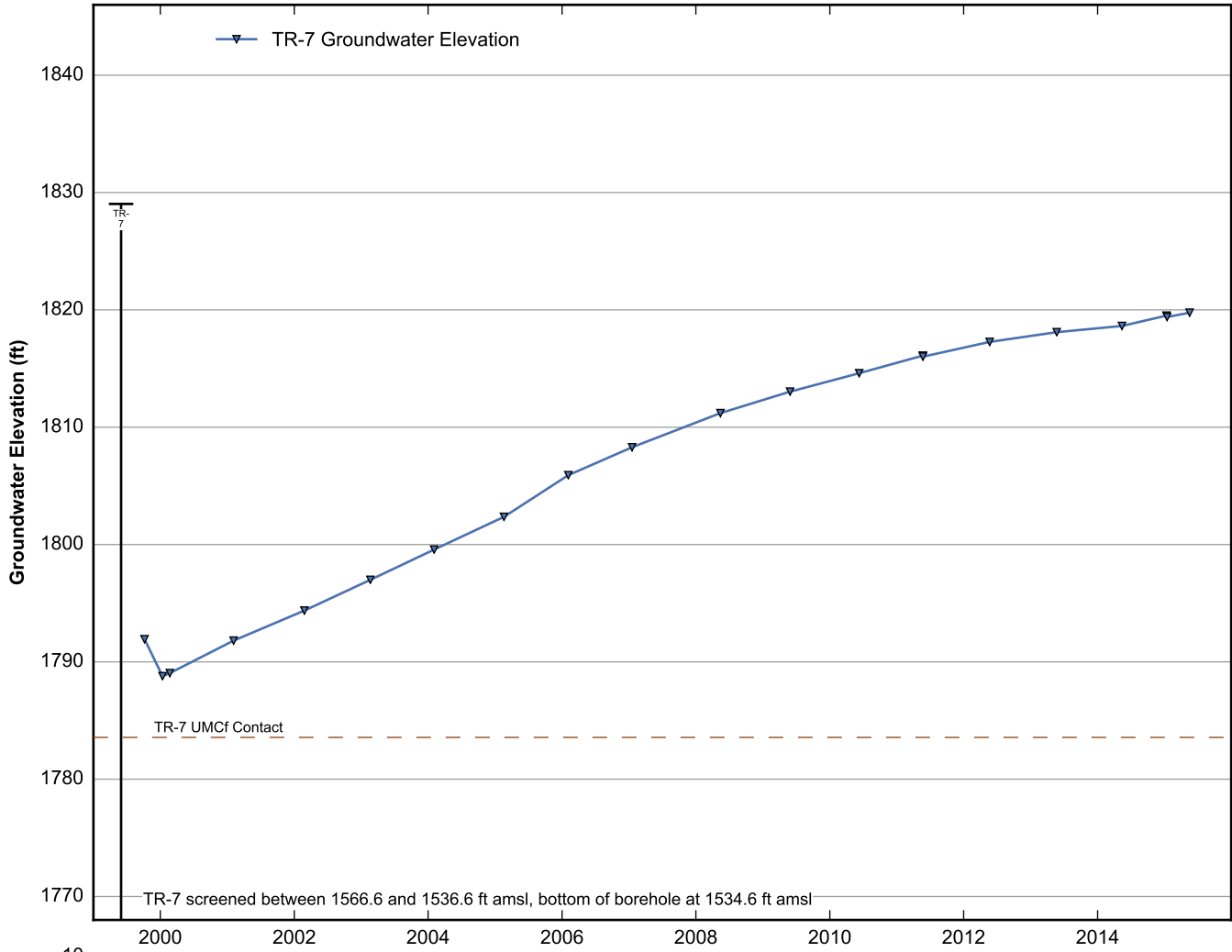
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 Henderson, Nevada



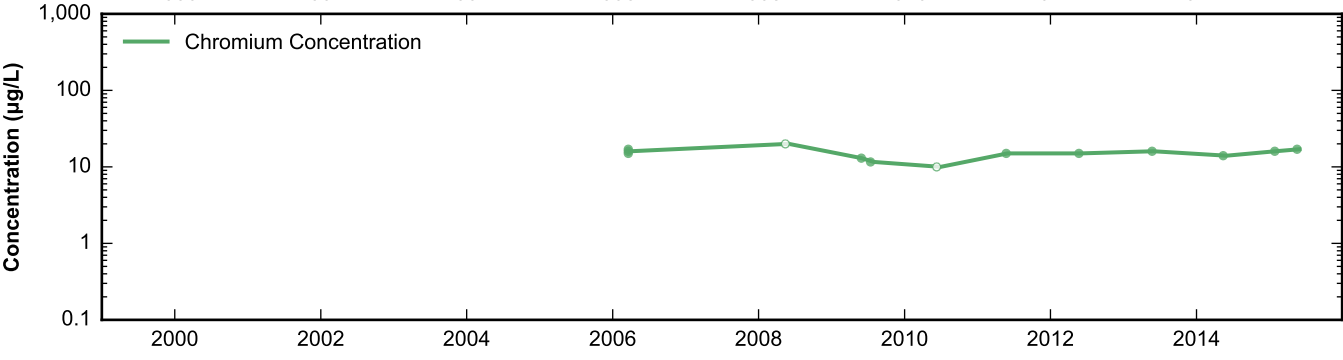
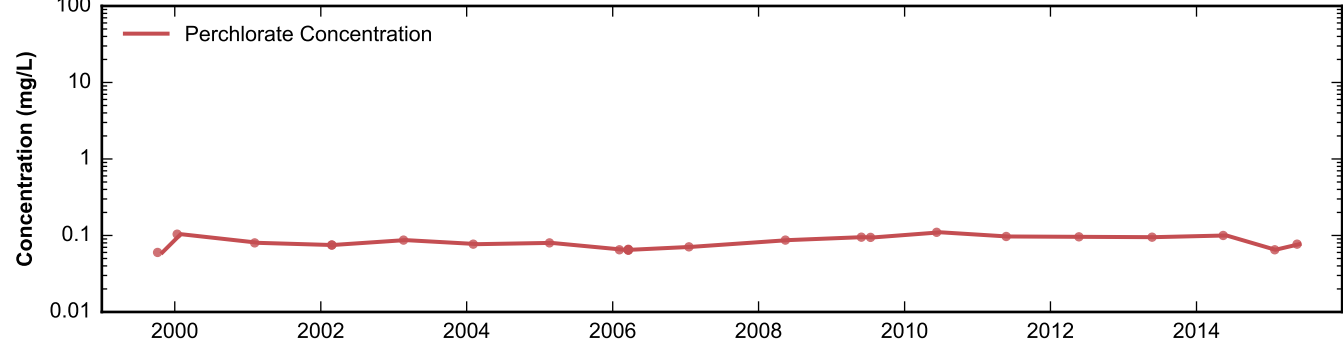
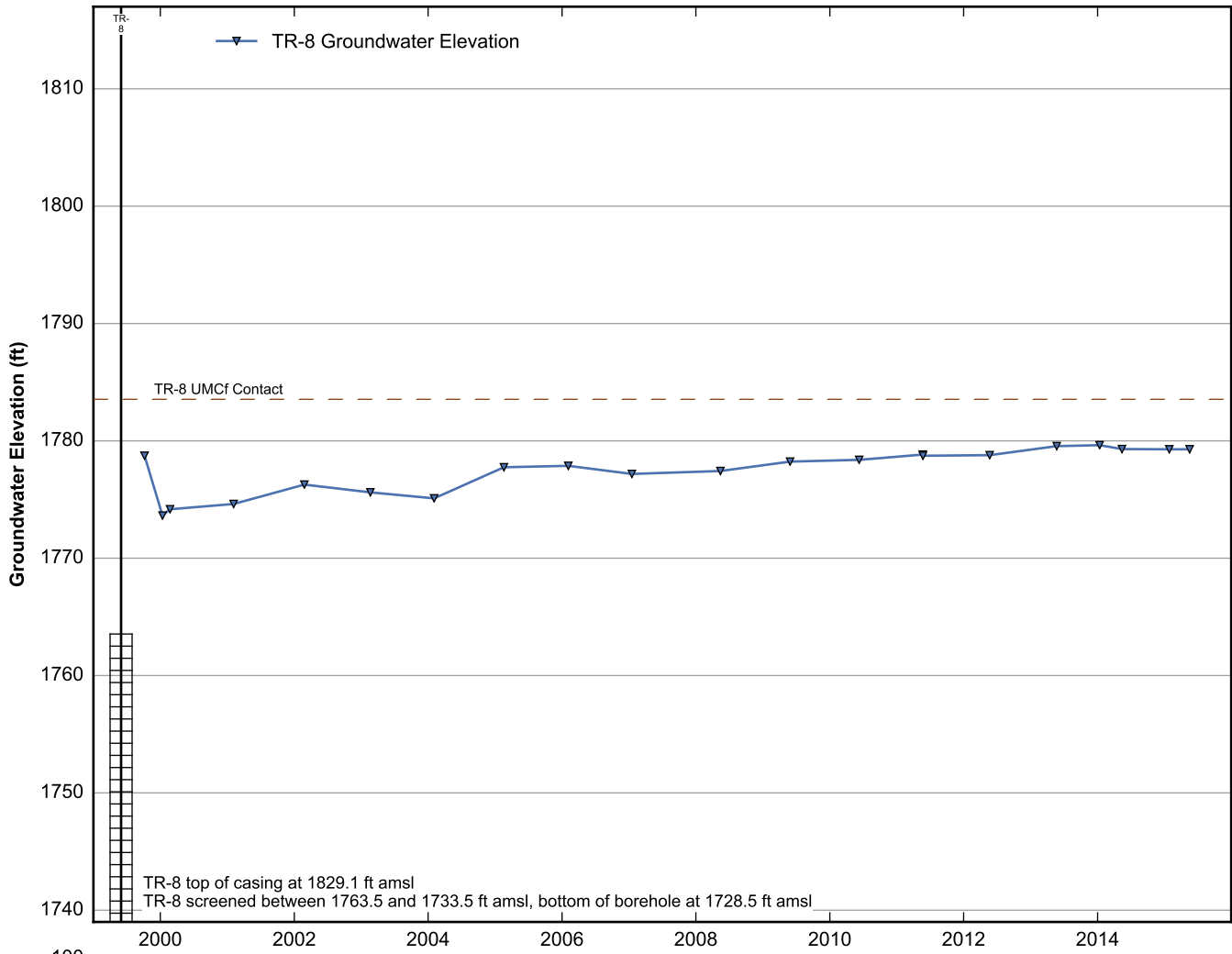
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 Henderson, Nevada



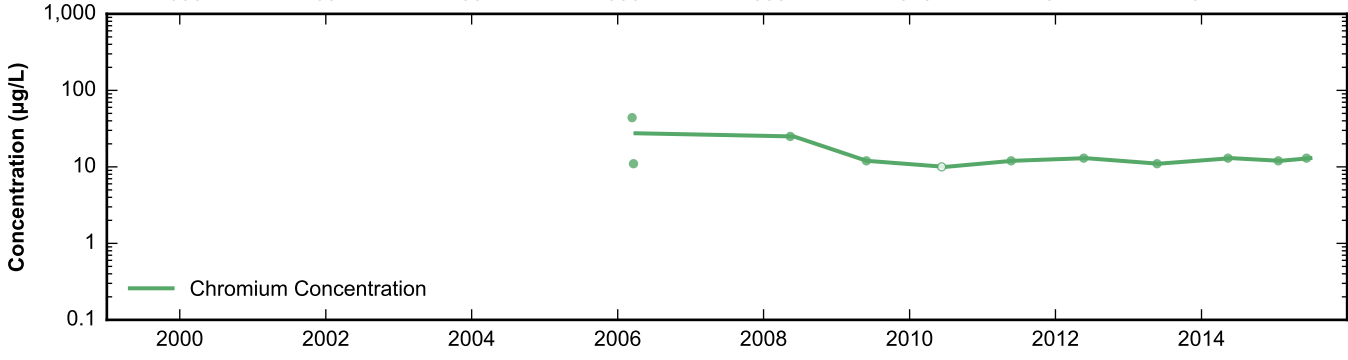
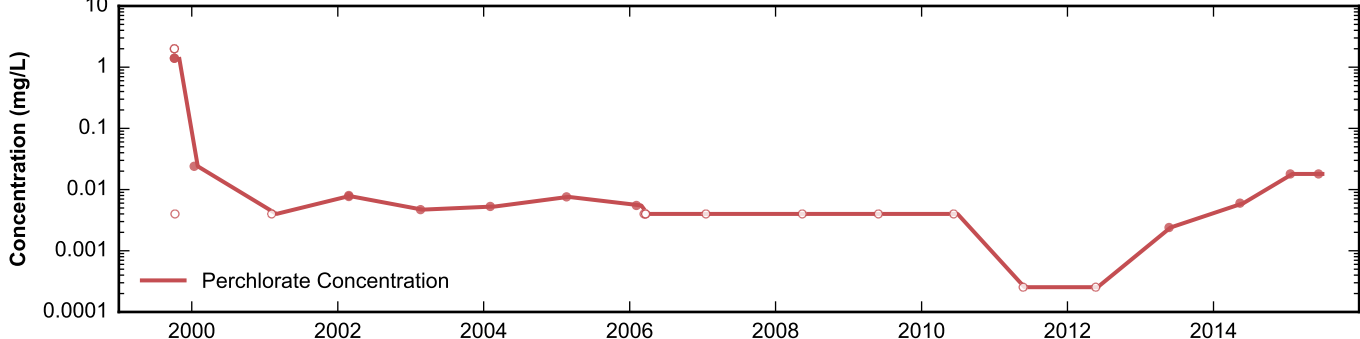
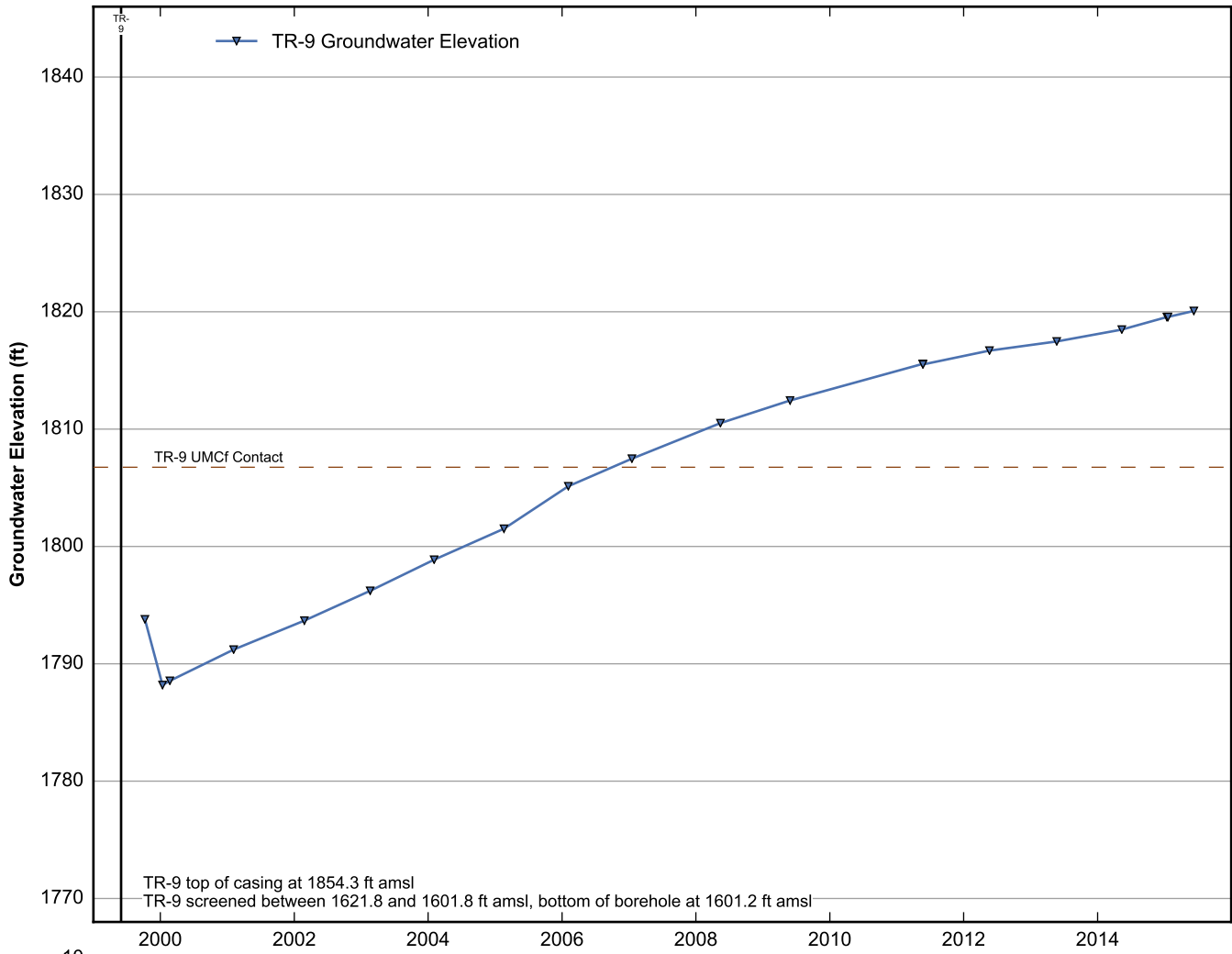
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 Nevada Environmental Response Trust Site  
 Henderson, Nevada



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 Nevada Environmental Response Trust Site  
 Henderson, Nevada

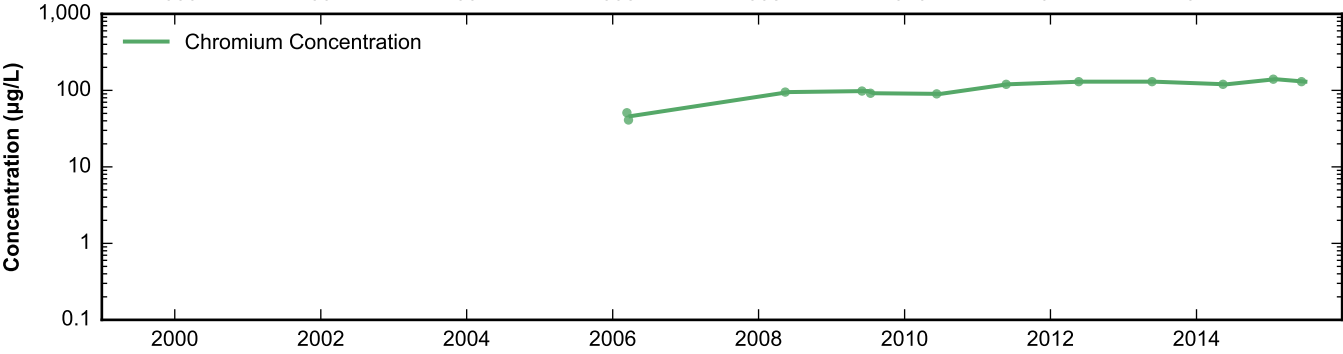
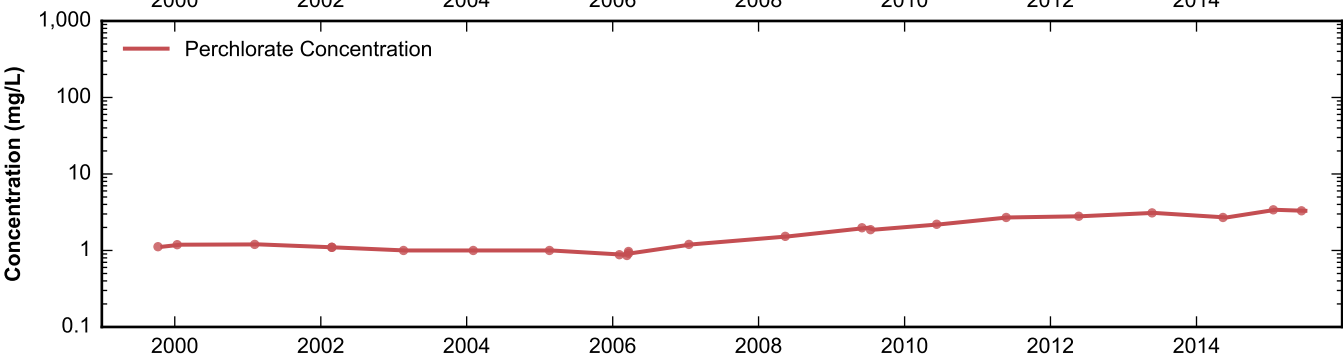
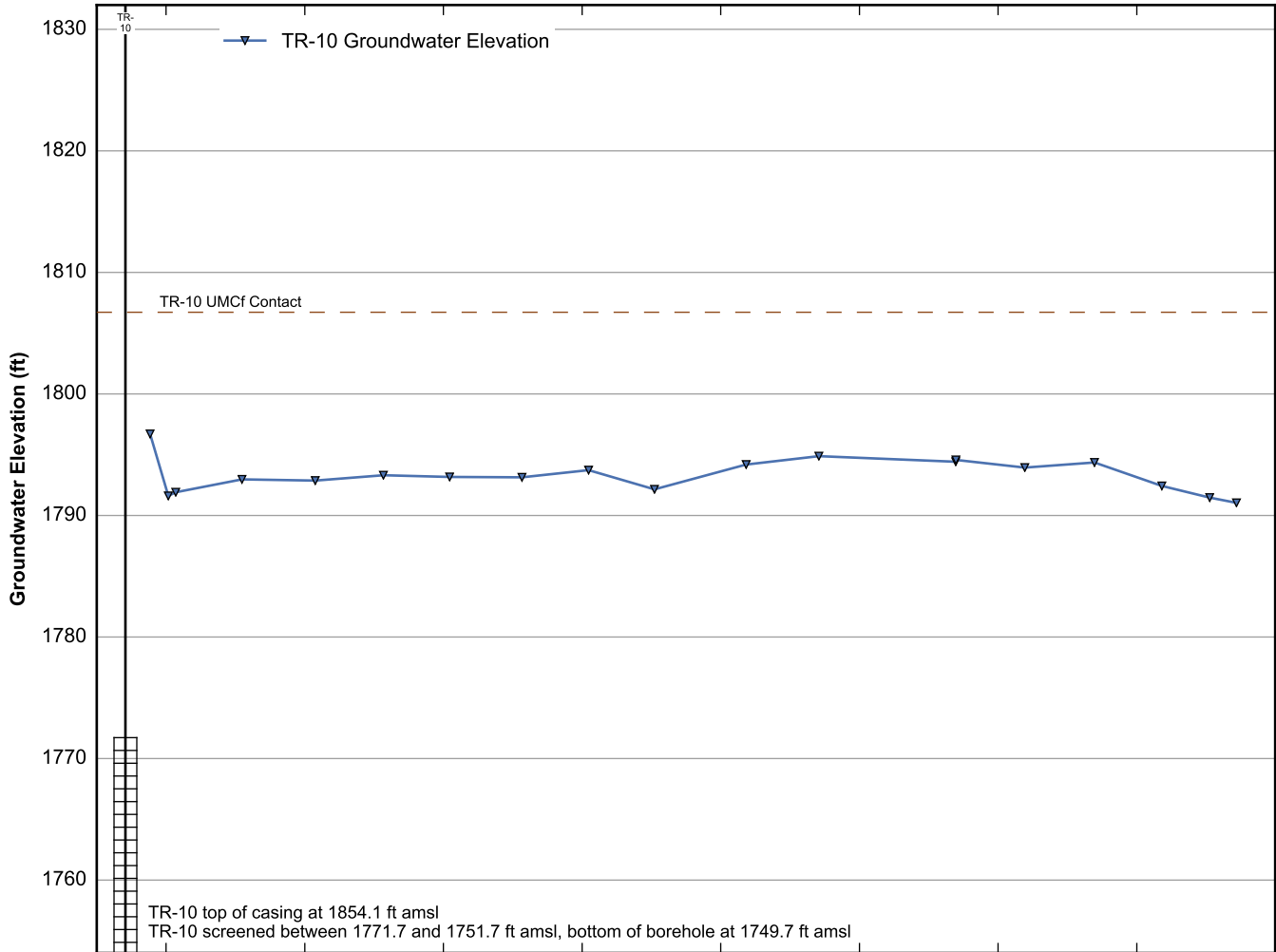


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 Nevada Environmental Response Trust Site  
 Henderson, Nevada

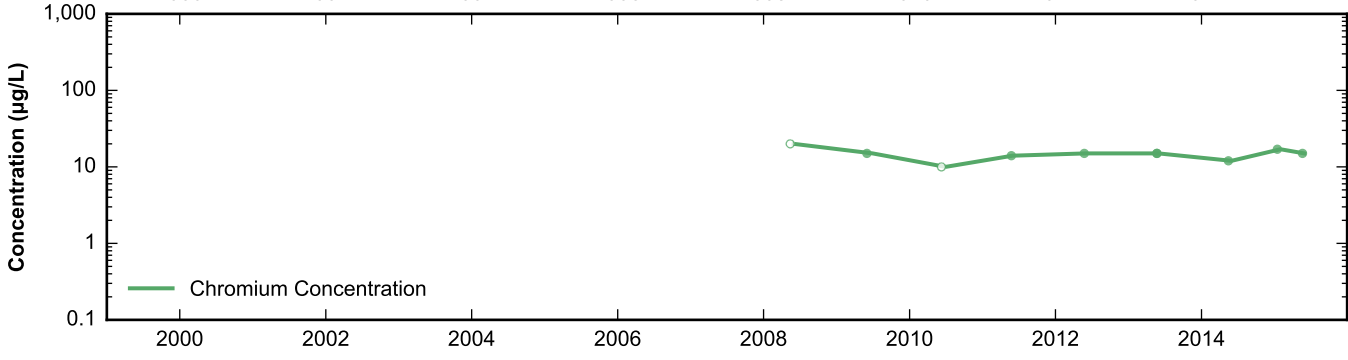
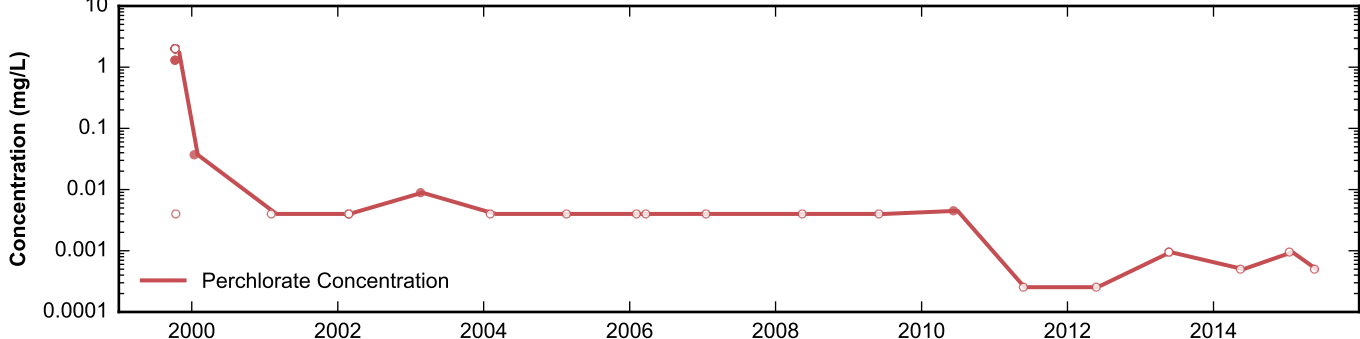
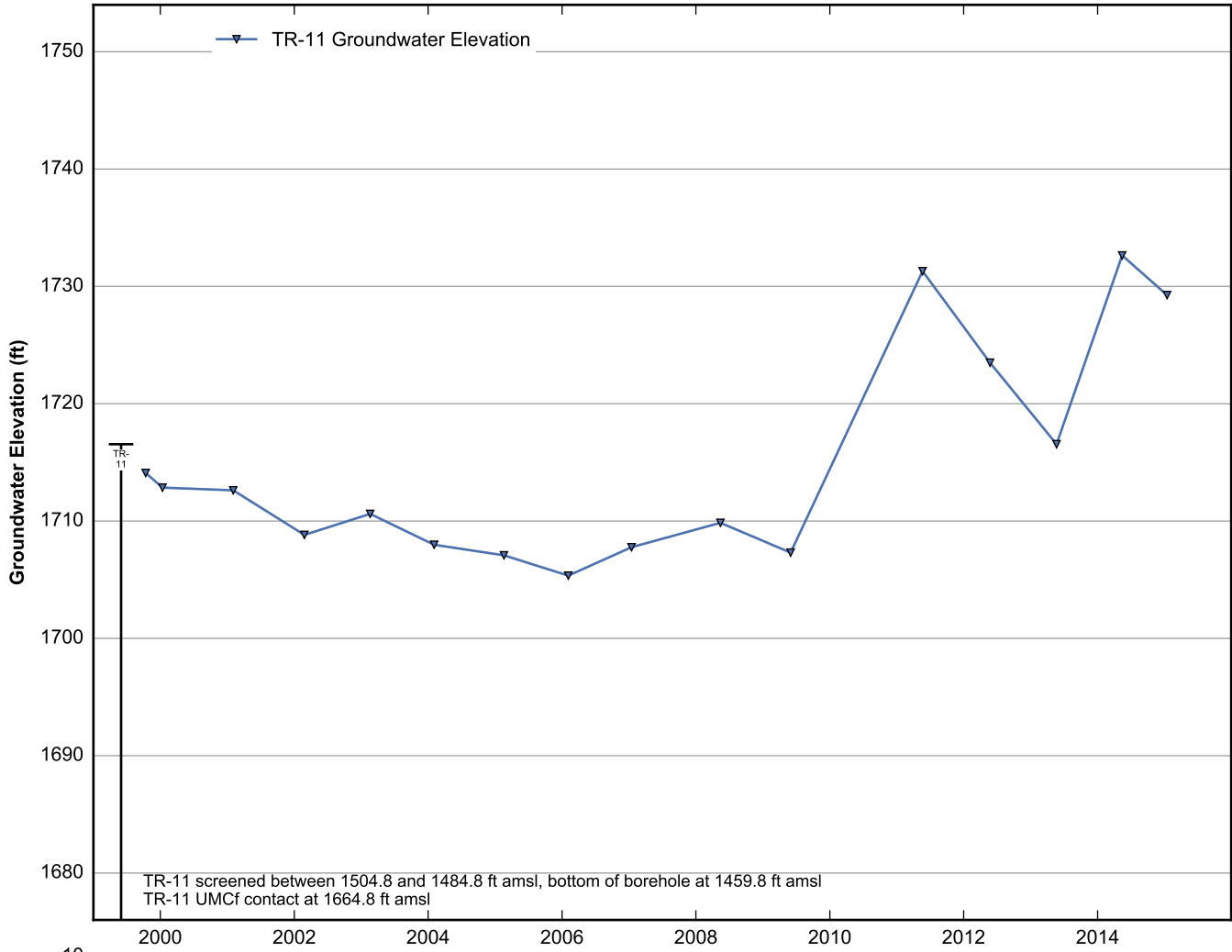


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 Nevada Environmental Response Trust Site  
 Henderson, Nevada

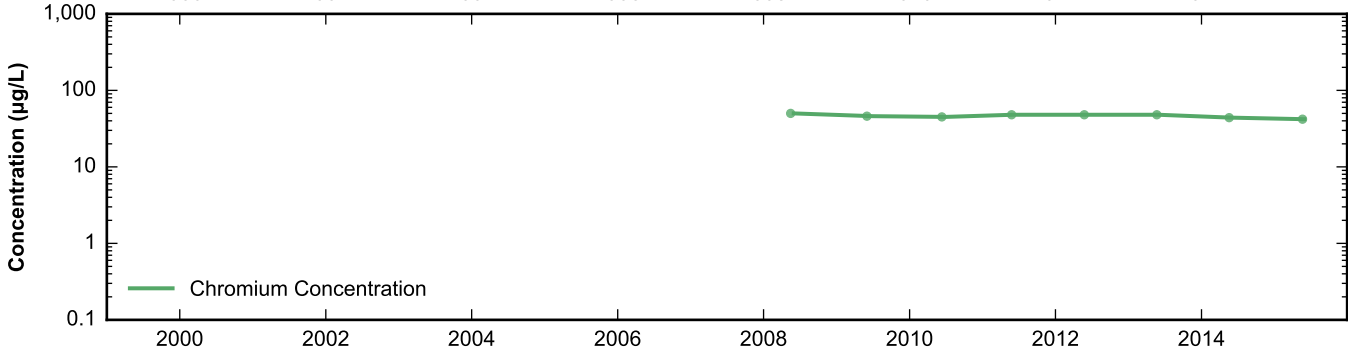
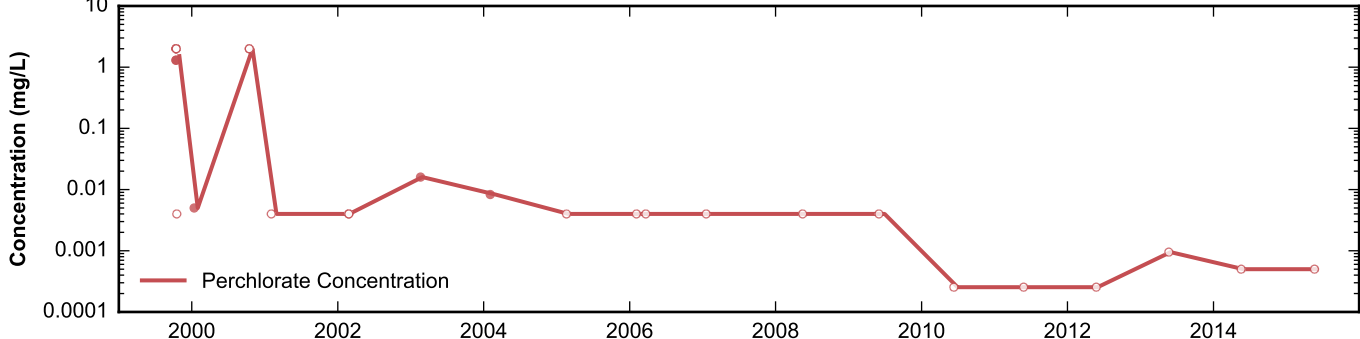
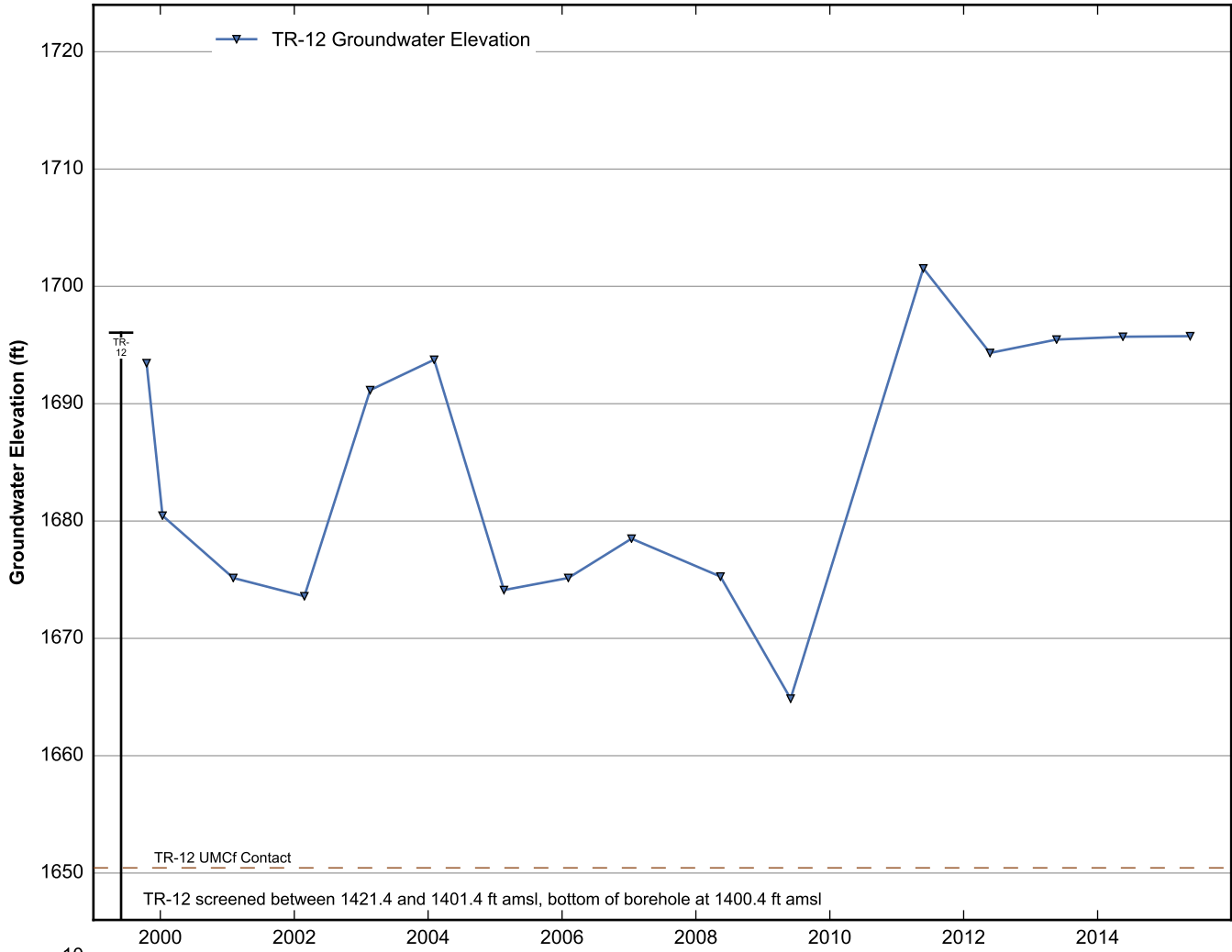




**Data Sheet for Well TR-10**  
Nevada Environmental Response Trust Site  
Henderson, Nevada



**Data Sheet for Well TR-11**  
 Nevada Environmental Response Trust Site  
 Henderson, Nevada



**Data Sheet for Well TR-12**  
 Nevada Environmental Response Trust Site  
 Henderson, Nevada

Semi-Annual Remedial Performance Report  
For Chromium and Perchlorate  
Nevada Environmental Response Trust Site  
Henderson, Nevada

## **APPENDIX C**

**GROUNDWATER FIELD RECORDS  
(AVAILABLE ELECTRONICALLY ON CD)**



# **Third Quarter Well Monitoring**

**Nevada Environmental  
Response Trust  
Henderson, Nevada**

**August 3 - August 13, 2015**



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**Field Data Letter Report**

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## Letter of Transmittal

Attention: Andrew Harley, PhD  
Principal Geochemist  
Mine Water Management Lead  
Tetra Tech  
350 Indiana Street Suite 500  
Golden, Co 80401

Date: September 11, 2015

---

Project: 2015 3rd Quarter Groundwater Monitoring

---

Enclosed: 1 copy of Field Data Letter Report

---

Remarks:  
Andrew,

The enclosed Quarterly Groundwater Monitoring Report with supporting documents is provided for your records.

A handwritten signature in black ink that reads "Wendy Prescott". The signature is written in a cursive style with a large, looped initial "W".

---

Signature:

Wendy Prescott  
Envirogen Technologies  
Two Kingwood Place  
700 Rockmead Drive Suite 105  
Kingwood, TX 77339

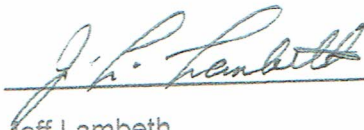


## Quarterly Groundwater Monitoring Report

Nevada Environmental Response Trust  
(Former Tronox LLC Site)  
Henderson, Nevada

### Responsible Certified Environmental Manager (CEM) for this project

I hereby certify that I am responsible for the services described in this document and for the preparation of this document. The services described in this document have been provided in a manner consistent with the current standards of the profession and, to the best of my knowledge, comply with all applicable federal, state and local statutes, regulations and ordinances.



Jeff Lambeth  
Certified Environmental Manager  
Envirogen Technologies  
CEM Certificate Number: 2347  
CEM Expiration Date: September 20, 2016

8-18-15

Date

The following individuals provided input to this document:

Michele Brown, Lab Analyst 1, Sampling Tech, Envirogen Technologies

Janel Rivera, Sampling Tech, Aerotek



## **Field Data Letter Report**

### **1 INTRODUCTION**

Nevada Environmental Response Trust (NERT) contracts with Envirogen Technologies to conduct groundwater sampling and analysis at their Perchlorate Removal Facility, located at 510 Fourth Street, in Henderson, Nevada. The work described herein represents the third quarter groundwater sampling event for 2015. The work was conducted in accordance with the Sampling and Analysis Work plan, submitted to Tronox January 9, 2004.

Envirogen has three staff members trained to assist the quarterly well monitoring events. The Envirogen monitoring team meets once prior to the sampling event to discuss all issues associated with this project, sampling and laboratory equipment needs, time tables and well site schedules. Bottle orders and bottles received are cross checked to ensure that all wells and analysis are represented.

#### **1.1 SCOPE OF SAMPLING EVENT**

This sampling effort included the following tasks:

- Soundings of the pumping water levels in 30 interceptor wells.
- Soundings of the water levels in 3 dormant interceptor wells
- Collection of groundwater samples from 29 interceptor wells.
- Soundings of water levels in 111 monitoring wells.
- Collection of groundwater samples from 82 monitoring wells.
- Collection of groundwater samples from 16 pumping wells.

- Soundings of water levels in 6 backup (Buddy) wells.
- Soundings of water levels in 16 pumping wells.

Analysis of samples collected from the interceptor and monitoring wells, range from Perchlorate (CLO4), Total Chromium (Cr), Hexavalent Chromium (CRVI), pH, Specific Conductance (EC), Total Dissolved Solids (TDS), and NPDES list for well M-10, (Up Well). CR, MN, FE, B, Ammonia, TIN, Nitrate-Nitrite as N, and Chloide. RCRA well analysis also included Conductance, TOC, TOX and Total Phenols.

Groundwater samples were shipped daily to TestAmerica (TA) for analysis, in Irvine, California. TA is certified by the State of Nevada.

The scope of this assignment also included compiling the water level and analytical data presented in this report. Data are presented in tabular form.

## **2 FIELD ACTIVITIES**

Envirogen conducted the field activities associated with this quarterly sampling event between Monday August 3rd and Thursday August 13th, 2015. Activities included the sounding of “pumping water” levels in the interceptor wells, sounding the “static water” level in the monitoring wells and sampling of both the interceptor and monitoring wells. Prior to each quarter, an inventory list is issued to Environ for review and comment. Sampling was conducted according to their specifications.

Michele Brown and Janel Rivera were responsible for sample collection and recording all pertinent data on sample bottles. Michele Brown supervised the groundwater sampling activities. She is responsible for executing all work elements related to the groundwater sampling program, including laboratory equipment maintenances and calibration, fieldwork, documenting field activities, maintaining field notes and photographs (when applicable), and providing the Project Manager with information concerning implementation of the sampling plan.

Envirogen maintained records of daily events and pertinent sampling data of each well on a field log sheet and addendum data in a bound log book. Log sheet entries included personnel onsite, weather conditions, water levels, activities conducted, sampling times, pH, EC, temperature and other significant field information.

**2.1 Groundwater Level Soundings**

Envirogen sounded pumping water levels in 30 interceptor wells. The static water readings were taken in Interceptor wells I-AB, I-AD and I-AC. In addition to the interceptor wells, static water levels in 111 monitoring wells were taken. There were twenty-eight (28) wells where only static water levels were taken. The following are the 28 wells:

ART-1A	ART-2A	ART-3	ART-4A	ART-7A	ART-8A	M-55	M-56	M-58	M-60	M-75
M-76	M-77	M-78	M-92	M-93	M-97	M-115	M-166	M-167	M-168	M-169
M-170	M-172	M-173	M-174	M-175	M-176	M-177				

The water levels were sounded to the nearest 0.01 foot using an electronic well sounder.

**2.2 Equipment Cleaning Procedures**

All equipment was washed and rinsed with three gallons of de-ionized soapy water then rinsed with three gallons of lab grade DI water after use at each well. The rinse water was collected in a polyethylene container and transported to GW-11 for treatment.

**3.0 GROUNDWATER SAMPLING**

**3.1 Sampling Locations**

The following presents the identification of wells sampled.

**3.1.1 Interceptor Wells**

I-AR	I-B	I-C	I-D	I-E	I-F	I-G	I-H	I-I	I-J	I-K
I-L	I-M	I-N	I-O	I-P	I-Q	I-R	I-S	I-T	I-U	I-V
I-W	I-Y	I-Z	I-AA	I-AD	I-AB	I-X				

### 3.1.2 Pumping Wells

ART-1	ART-2	ART-3A	ART-4	ART-8	ART-9	PC-99R2/R3	PC-115R	PC-116R	PC-117	PC-118
PC-119	PC-120	PC-121	PC-133	PC-150						

### 3.1.3 Monitoring Wells

ARP-1	ARP-2A	ARP-3A	ARP-4A	ARP-5A	ARP-6B	ARP-7	M-52	M-5A	PC-144	PC-148
M-10	M-11	M-12A	M-14A	M-19	M-22A	M-23	M-25	M-31A	M-35	M-37
M-38	M-44	M-48A	M-57A	M-64	M-65	M-66	M-67	M-68	M-69	M-70
M-71	M-72	M-73	M-74	M-79	M-80	M-81A	M-83	M-95	PC-149	M-131
M-135	MW-K4	MW-K5	PC-18	PC-37	PC-53	PC-54	PC-55	PC-56	PC-58	PC-59
PC-60	PC-62	PC-68	PC-71	PC-72	PC-73	PC-86	PC-90	PC-91	PC-94	PC-97
PC-98R	PC-101R	PC-103	PC-122	PC-123	PC-124	PC-125	PC-126	PC-127	PC-128	PC-129
PC-130	PC-131	PC-132	PC-135A	PC-136						

## 4.0 SAMPLING TECHNIQUES

### 4.1 Interceptor Wells

All interceptor wells were sampled using dedicated sampling ports. At the beginning of sampling each well or line, personnel wore a new pair of clean nitrile or latex gloves.

The sampling port was opened to drain any stagnant water from piping and valves. This water is captured and containerized. All captured water is off-loaded at GW-11 for onsite treatment.

Following the purging of the sample port, a “water quality” sample was collected for analysis of Perchlorate, Total Chromium, pH, and TDS. Envirogen also recorded the “*field*” temperature, pH, and conductivity as well as the pumping water level. The “*field*” parameters are provided in Table 1.

### 4.2 Monitoring Wells

Monitoring wells were purged before sampling to assure that each sample was collected from fresh formation water.

Eighty-two (82) wells were purged and sampled, using the 12 volt submersible pump. One (1) well M-6A was sampled with a dedicated bailer. Five (5) wells were sampled using a non-dedicated disposable bailer, M-7B, H28A, ART-6, ART-7A and M-32, and were not purged due

to location and/or low water column level. Hand bailing was done as a result of only needing to purge less than 3 gallons of water, if there was an insufficient amount of water in the well casing to use a pump or due to the location of the well.

Samples for both the interceptor and monitoring wells were collected in appropriate containers supplied by TestAmerica and analyzed for the specific required analysis of the well. The bottles were filled with minimal aeration, using laminar flow.

The samples were labeled, packaged, stored, and transported using the procedures outlined in the work plan for well samples. .

#### **4.3 Problems Encountered**

Access to M-7B is limited to golf cart or by foot.

M-36 is destroyed.

PC-90 has no cast lid but is locked on the well plug.

L-635 and L-637 are not accessible.

I-AC was turned on for sampling but no water was pumped to the surface.

M-99 was not sampled due to low water level.

M-96, M-98, M-100 and M-101 were all dry.

#### **4.4**    Equipment Cleaning Procedures

The deionized water is changed each morning so the rinsing water is fresh. Non-dedicated sampling equipment has been replaced by disposable bailers. Sounding meter and Conductivity/pH meter probe was thoroughly rinsed with soapy de-ionized water and again with lab grade DI water after each sample was analyzed. Pumping equipment was washed and purged with soapy deionized water and again with lab grade DI water to flush and clean before leaving to sample at the next location.

#### **5.0**    **QUALITY CONTROL**

Quality control (QC) procedures include collection and analysis of QC duplicate samples, equipment and field blanks. The analytical laboratory is also required to meet specific QA/QC requirements for surrogate recovery, MS/MSD recovery and RPDs, and LCS recoveries. Duplicate SC readings were conducted at one well each day to insure the accuracy of the Hanna field probe.

#### **5.1**    QC Duplicate Samples

QC duplicate samples were collected during the sampling event to evaluate the precision and accuracy of analytical data. The QC duplicates were collected, packaged, and transported in the same manner as the primary sample, but assigned a different identification number. Six (6) duplicates were collected from the wells. The duplicate samples were collected from the following wells: PC-129, M-44, M-31A, PC-118, M-38 and M-37. They were analyzed for the same parameters as the primary samples. TestAmerica was not informed of the identity of these "blind" samples.

#### **5.2**    Equipment Blanks

Seven (7) equipment blanks were taken this quarter. Five of the equipment blanks, for

CLO4, TDS, CR, CRVI and pH analysis, were collected on August 4th through August 8th, 2015. One equipment blank for CLO4 analysis only was collected on 8-12-15. This is done to evaluate the adequacy of cleaning procedures used by field personnel during this sampling event.

### 5.3 Field Blanks

One Field Blank was collected for CLO4, TDS, CR, CRVI and pH analysis. This was done on August 4<sup>th</sup>, 2015

## 6.0 ANALYTICAL PROCEDURES

The following designates the parameter, analytical method and method reporting limits for groundwater. Some of the following analysis may not have been performed for this reporting period.

<u>PARAMETER</u>	<u>ANALYTICAL METHOD</u>	<u>MRL</u>
CLO4	Method 314.0	4.0 µg/L
Total Chromium	Method 200.7	0.01 mg/L
Hexavalent Chromium (CRVI)	Method 218.6 ORGFM	0.005 mg/L,
pH	Method 150.1	.01 units
TDS	Method 2540C Calcd	10 mg/L
<u>PARAMETER</u>	<u>ANALYTICAL METHOD</u>	<u>MRL</u>
Chloride	Method 300 ORGFM 28D	80.0 mg/L
Iron (ICAP)	Method 200.7	0.005 mg/L
Manganese (ICAP)	Method 200.7	100 µg/L
Sodium (ICAP)	Method 200.7	5 mg/L
Phenols, Total	Method 420.1, 420	.010 mg/L
Sulfate	Method 300 ORGFM 28D	80 mg/L
Total Organic Carbon, TOC	Method 5310C	unknown
Total Organic Halogen, TOX	Method 9020B - 9020	unknown
Boron	Method 200.7	.10 mg/L



Conductance	Method 2510B - 2510	2 $\mu$ ohms/cm
Ammonia Nitrogen	Method 300 ORGFM	0.050 mg/L
Nitrate Nitrogen	Method 300 ORGFM	2.0 mg/L
Copper	Method 300 ORGFM	2.0 $\mu$ g/L
Chlorate	Method 300.1B 28D	

### 6.1 Field Equipment Calibration

Prior to the start of each day's events, field laboratory equipment was calibrated. A Hanna HI 98130 water proof pH, EC/TDS and temperature field probe was calibrated and measurements recorded on daily laboratory calibration maintenance forms, which have been provided. Each day a duplicate EC reading was taken at random wells to ensure the calibration of the meter was holding. The duplicate EC readings were taken from wells I-AR, I-K, M-5A, M-37, M-38, PC-62, PC-73, PC-98R and PC-101R.

## SUMMARY RESULTS

### 7.1 Groundwater Level Soundings

A summary of water level soundings collected for the interceptor and monitoring wells are presented in Table 1.

Pumping water level in interceptors wells. (Measured in feet from below the top of casing.)

#### **LOW**

47.52 (I-W)

#### **HIGH**

21.25 (I-Z)

Static water level monitoring wells. (Measured in feet from below the top of casing.)

#### **LOW**

49.94 (M-10)

#### **HIGH**

5.13 (PC-97)

### 7.2 Summary of Field Activities

#### 7.2.1 Interceptor Wells

Twenty-nine (29) interceptor wells were sampled for analytical sets including CLO4, Cr, TDS and pH.

### 7.2.2 Monitoring Wells

Eighty-three (83) monitoring wells were sampled for sets that may have included: pH, TDS, CLO4, CR and CRVI. Four (4) wells were sampled for RCRA constituents. Two (2) dormant ART wells, ART-6 and ART-7A were sampled for sets that included: pH, TDS, Cr and CLO4.

### 7.2.3 QC Duplicate Samples (Measured for the same analyses as the primary samples.)

PC-129, M-95, M-31A, PC-18, M-38 and M-37.

### 7.2.4 Equipment Blanks

Equipment blanks were analyzed for CLO4, Total Cr., Hex Cr., pH, and TDS.

Collected daily during the Monthly/Quarterly sampling event

Weather	Warm/Humid/Clear/Sunny/Hot
Total # of wells visited	171
Total water samples collected	147
Total Wells measured DTW only	28
Total Duplicate Samples	6
Total Equipment Blanks	5
Total Wells hand bailed	6
Total Wells considered DRY	4
Total Wells not accessible	3
Total Wells damaged	1



## *Table of Well Gauging Data*

### **This Section Contains:**

- Field Sign - In Log
- Daily Maintenance & Calibration Log
- Table 1 Well Inventory
- Chain-of-Custody & Bottle Order Forms



ENVIROGEN QUARTERLY SAMPLING SIGN IN SHEET

DATE	TIME	COMPANY	SIGNATURE	PRINT NAME
8-3-15	0500	ETI	Michele Brown	Michele Brown
08-3-15	0530	ETI	Janel Rivera	Janel Rivera
8-3-15	1000	Tetra Tech	Becki Dano	Becki Dano
8-4-15	0130	ETI	Michele Brown	Michele Brown
8-4-15	0211	ETI	Janel Rivera	Janel Rivera
8-5-15	0211	ETI	Janel Rivera	Janel Rivera
8-5-15	0530	Tetra Tech	Becki Dano	Becki Dano
8-5-15	0130	ETI	M Brown	Michele Brown
8-6-15	0400	ETI	Michele Brown	Michele Brown
8/6/15	0500	ETI	Janel Rivera	Janel Rivera
8/6/15	1140	Tetra Tech	Becki Dano	Becki Dano
8-7-15	0130	ETI	Michele Brown	Michele Brown
8/7/15	0130	ETI	Janel Rivera	Janel Rivera
8-8-15	0900	ETI	Michele Brown	Michele Brown
8/10/15	0400	ETI	Janel Rivera	Janel Rivera
8-10-15	0400	ETI	Michele Brown	Michele Brown
8-11-15	0830	ETI	Janel Rivera	Janel Rivera
8-12-15	0350	ETI	Janel Rivera	Janel Rivera
8-12-15	0400	ETI	Michele Brown	Michele Brown
8-13-15	0430	ETI	Janel Rivera	Janel Rivera
8-13-15	0500	ETI	Michele Brown	Michele Brown

HANNA FIELD PH METER

Known value	1) 7.0	1) 8.0	Time/analyst
Calibration Value	2) <u>7.02</u>	2) <u>8.02</u>	<u>MB</u>
Buffer Temperature	3) <u>23.4°c</u>	3) <u>23.3°c</u>	
changed buffers yes <input checked="" type="checkbox"/> please check			

HANNA FIELD EC METER

Known Value	1) 1288	Time/analyst
Temp. Comp. Value	1) <u>1239</u>	<u>0550 / MB</u>
Calibration Value	1) <u>1288</u>	
Standard Temp	1) <u>22.5°c</u>	
changed standards yes <input checked="" type="checkbox"/> please check		

Duplicate EC reading Well # I-AR

1st Reading	2nd Reading
EC <u>7.92</u> TEMP <u>33.0°c</u>	EC <u>7.88</u> TEMP <u>33.0°c</u>
<u>ms/cm</u>	<u>ms/cm</u>
CLOSING QC	Every 8 samples
I-Q <u>7.01</u>	I-S <u>7.0</u>
	I-AR <u>7.01</u>
	ART-9 <u>6.99</u>
	PC-121 <u>7.0</u>

All equipment was rinsed and purged with Deionized water after each well.

Date 8-3-15 Verified MB

HANNA FIELD PH METER

Known value	1) 7.0	1) 8.0	Time/analyst <u>0209 JR</u>
Calibration Value	2) <u>7.02</u>	2) <u>8.01</u>	
Buffer Temperature	3) <u>23.3</u>	3) <u>22.9</u>	
changed buffers yes <input checked="" type="checkbox"/> please check			

HANNA FIELD EC METER

Known Value	1) 1288	Time/analyst <u>0154 JR</u>
Temp. Comp. Value	1) <u>1288</u>	
Calibration Value	1) <u>1288</u> JR <u>1291</u>	
Standard Temp	1) <u>24.5</u>	
changed standards yes <input checked="" type="checkbox"/> please check		

Duplicate EC reading Well # PC-13

1st Reading	2nd Reading
EC <u>9.13</u> TEMP <u>28.5<sup>oc</sup></u>	EC <u>9.08</u> TEMP <u>28.6<sup>oc</sup></u>
<u>mS/cm</u>	<u>mS/cm</u>
CLOSING QC	Every 8 samples
<u>PC-126</u> <u>6.99</u>	<u>M-23</u> <u>6.98</u>

All equipment was rinsed and purged with Deionized water after each well.

Date 8-4-15 Verified MB

HANNA FIELD PH METER

Known value	1) 7.0	1) 8.0	Time/analyst <u>0138 / JR</u>
Calibration Value	2) <u>7.01</u>	2) <u>7.98</u>	
Buffer Temperature	3) <u>24.0</u>	3) <u>23.3</u>	
changed buffers yes <input checked="" type="checkbox"/> please check			

HANNA FIELD EC METER

Known Value	1) 1288	Time/analyst <u>0136 / JR</u>
Temp. Comp. Value	1) <u>12.88</u>	
Calibration Value	1) <u>12.64</u>	
Standard Temp	1) <u>23.0</u>	
changed standards yes <input checked="" type="checkbox"/> please check		

Duplicate EC reading Well # M-5A

1st Reading	2nd Reading
EC <u>15.40</u> TEMP <u>27.7<sup>00</sup></u>	EC <u>15.38</u> TEMP <u>27.2<sup>00</sup></u>
<u>mS/cm</u>	<u>mS/cm</u>
CLOSING QC	Every 8 samples
<u>M-57A 7.01</u>	<u>M-22A 7.01</u>

All equipment was rinsed and purged with Deionized water after each well.

Date 8-5-15 Verified MB

HANNA FIELD PH METER

Known value	1) 7.0	1) 8.0	Time/analyst <u>0504 / MB</u>
Calibration Value	2) <u>7.01</u>	2) <u>7.98</u>	
Buffer Temperature	3) <u>24.5</u>	3) <u>24.3</u>	
changed buffers yes <u>X</u> please check			

HANNA FIELD EC METER

Known Value	1) 1288	Time/analyst <u>0501 / MB</u>
Temp. Comp. Value	1) <u>12.88</u>	
Calibration Value	1) <u>1288</u>	
Standard Temp	1) <u>24.8°</u>	
changed standards yes <u>X</u> please check		

Duplicate EC reading Well # M-38

1st Reading	2nd Reading
EC <u>11.12</u> TEMP <u>27.6°</u>	EC <u>11.07</u> TEMP <u>28.1°</u>
<u>mScm</u>	<u>mScm</u>
CLOSING QC	Every 8 samples
<u>m03 7.0</u>	<u>M-38 6.99</u>

All equipment was rinsed and purged with Deionized water after each well.

Date 8-6-15 Verified MB



HANNA FIELD PH METER

Known value	1) 7.0	1) 8.0	Time/analyst <u>0149/MB</u>
Calibration Value	2) <u>7.01</u>	2) <u>8.0</u>	
Buffer Temperature	3) <u>24.8<sup>°c</sup></u>	3) <u>24.4<sup>°c</sup></u>	
changed buffers yes <u>X</u> please check			

HANNA FIELD EC METER

Known Value	1) 1288	Time/analyst <u>0144/MB</u>
Temp. Comp. Value	1) <u>1288</u>	
Calibration Value	1) <u>1288</u>	
Standard Temp	1) <u>25.0<sup>°c</sup></u>	
changed standards yes <u>X</u> please check		

Duplicate EC reading Well # I-K

1st Reading	2nd Reading
EC <u>7.36</u> TEMP <u>25.1<sup>°c</sup></u>	EC <u>7.29</u> TEMP <u>25.3<sup>°c</sup></u>
<u>mS/cm</u>	<u>mS/cm</u>
CLOSING QC	Every 8 samples
<u>M-31A</u> <u>7.02</u>	<u>M-35</u> <u>7.02</u>

All equipment was rinsed and purged with Deionized water after each well.

Date 8-7-15 Verified MB

HANNA FIELD PH METER

Known value	1) 7.0	1) 8.0	Time/analyst <u>0402/m</u>
Calibration Value	2) <u>7.0</u>	2) <u>8.0</u>	
Buffer Temperature	3) <u>24.7</u>	3) <u>25.0</u>	
changed buffers yes <input checked="" type="checkbox"/> please check			

HANNA FIELD EC METER

Known Value	1) 1288	Time/analyst <u>0400/MB</u>
Temp. Comp. Value	1) <u>1288</u>	
Calibration Value	1) <u>1288</u>	
Standard Temp	1) <u>24.9°C</u>	
changed standards yes <input checked="" type="checkbox"/> please check		

Duplicate EC reading

Well # M-37

1st Reading

2nd Reading

EC 6.85 TEMP 29.8°C  
mS/cm

EC 6.83 TEMP 29.9°C  
mS/cm

CLOSING QC

Every 8 samples

M-95 7.01

M-37 7.0

All equipment was rinsed and purged with Deionized water after each well.

Date 8-10-15

Verified MB

DATE 8/11/15

HANNA FIELD PH METER

Known value	1) 7.0	1) 8.0	Time/analyst <u>0529/JR</u>
Calibration Value	2) <u>7.01</u>	2) <u>7.98</u>	
Buffer Temperature	3) <u>24.7</u>	3) <u>24.4</u>	
changed buffers yes <input checked="" type="checkbox"/> please check			

HANNA FIELD EC METER

Known Value	1) 1288	Time/analyst <u>0415/JR</u>
Temp. Comp. Value	1) <u>1288</u>	
Calibration Value	1) <u>1288</u>	
Standard Temp	1) <u>24.02</u>	
changed standards <input checked="" type="checkbox"/> yes <input type="checkbox"/> please check		

Duplicate EC reading

Well # PC-62

1st Reading

2nd Reading

EC 2.60 TEMP 22.9<sup>o</sup>  
mS/cm  
 CLOSING QC

EC 2.60 TEMP 23.1<sup>o</sup>  
mS/cm

Every 8 samples

PC-59 6.99 PC-66 7.01

All equipment was rinsed and purged with Deionized water after each well.

Date 8-11-15 Verified YM Brown

HANNA FIELD PH METER

Known value	1) 7.0	1) 8.0	Time/analyst <u>0350/JR</u>
Calibration Value	2) <u>6.99</u>	2) <u>7.98</u>	
Buffer Temperature	3) <u>24.8</u>	3) <u>24.5</u>	
changed buffers yes <input checked="" type="checkbox"/>			
please check			

HANNA FIELD EC METER

Known Value	1) 1288	Time/analyst <u>0351/JR</u>
Temp. Comp. Value	1) <u>1288</u>	
Calibration Value	1) <u>1288</u>	
Standard Temp	1) <u>25.0</u>	
changed standards yes <input checked="" type="checkbox"/>		
please check		

Duplicate EC reading Well # PC-101R

1st Reading

2nd Reading

EC 12.54 TEMP 28.4<sup>oc</sup>  
ms/cm

EC 12.37 TEMP 27.8<sup>oc</sup>  
ms/cm

CLOSING QC

Every 8 samples

ARP-5A 6.99

PC-103 7.0

All equipment was rinsed and purged with Deionized water after each well.

Date 8-12-15 Verified M Brown

HANNA FIELD PH METER

Known value	1) 7.0	1) 8.0	Time/analyst <u>0538/JR</u>
Calibration Value	2) 7.0	2) 7.98	
Buffer Temperature	3) 24.5	3) 24.1	
changed buffers yes <input checked="" type="checkbox"/> please check			

HANNA FIELD EC METER

Known Value	1) 1288	Time/analyst <u>0537/JR</u>
Temp. Comp. Value	1) 1264	
Calibration Value	1) 1288	
Standard Temp	1) 24.0	
changed standards yes <input checked="" type="checkbox"/> please check		

Duplicate EC reading

Well # PC-98R

1st Reading

2nd Reading

EC 820 TEMP 27.0<sup>°C</sup>

EC 816 TEMP 27.2<sup>°C</sup>

mS/cm  
CLOSING QC

Every 8 samples

mS/cm

PC-98R  
701

All equipment was rinsed and purged with Deionized water after each well.

Date 8-13-15 Verified MB

**TABLE 1**  
**Well Inventory for Groundwater Sampling**  
**NERT Project, Henderson, Nevada**  
**Summary of Field Data for: 3rd Quarter Groundwater Monitoring, August 2015**

WELL #	TOTAL DEPTH (from TOC)	TOP OF CASING ELEVATION (MSL)	DEPTH TO WATER (FEET)	NON-AQUEOUS PHASE LIQUID <sup>1</sup>	GROUNDWATER ELEVATION (FT MSL)	pH	SPECIFIC CONDUCTIVITY (mS/cm)	DATE	TIME	MONITORING QUALIFIER <sup>2</sup>	COMMENTS/Analytical Plan/Temp
ARP-1	44.2	1613.32	24.04		1589.28	7.47	7.92	8/12/2015	6:32		pH, TDS, Cr, ClO <sub>4</sub>
ARP-2A	54	1614.18	25.51		1588.67	7.43	8.56	8/12/2015	10:06		pH, TDS, Cr, ClO <sub>4</sub>
ARP-3A	41	1614.67	26.94		1587.73	7.21	12.15	8/12/2015	9:48		pH, TDS, Cr, ClO <sub>4</sub>
ARP-4A	33	1615.47	28.66		1586.81	7.25	6.18	8/12/2015	8:41		pH, TDS, Cr, ClO <sub>4</sub>
ARP-5A	38	1616.10	31.83		1584.27	7.50	3.48	8/12/2015	8:25		pH, TDS, Cr, ClO <sub>4</sub>
ARP-6B	43	1615.56	31.37		1584.19	7.27	10.00	8/12/2015	8:10		pH, TDS, Cr, ClO <sub>4</sub>
ARP-7	39.2	1613.20	29.52		1583.68	7.17	9.82	8/12/2015	7:53		pH, TDS, Cr, ClO <sub>4</sub>
ART-1	56	1614.47	25.26		1589.21	7.23	8.59	8/13/2015	6:57		pH, TDS, Cr, ClO <sub>4</sub>
ART-1A	56	1614.40	23.97		1590.43			8/13/2015	6:58		DTW Only
ART-2	56	1617.10	27.65		1589.45	6.92	14.70	8/13/2015	6:53		pH, TDS, Cr, ClO <sub>4</sub>
ART-2A	58	1616.81	26.94		1589.87			8/13/2015	6:54		DTW Only
ART-3	47	1617.94	30.59		1587.35			8/13/2015	6:47		DTW Only
ART-3A	55	1617.60	36.82		1580.78	7.10	11.75	8/13/2015	6:46		pH, TDS, Cr, ClO <sub>4</sub>
ART-4	46	1617.39	38.65		1578.74	7.33	7.82	8/13/2015	6:51		pH, TDS, Cr, ClO <sub>4</sub>
ART-4A	46	1617.46	29.31		1588.15			8/13/2015	6:49		DTW Only
ART-6	36	1615.19	28.65		1586.54	7.46	6.95	8/3/2015	11:25		pH, TDS, Cr, ClO <sub>4</sub>
ART-7	38.9	1615.37			1615.37			8/3/2015	11:38	well capped	pH, TDS, Cr, ClO <sub>4</sub>
ART-7A	40	1614.78	29.28		1585.50	7.12	9.45	8/3/2015	11:40		pH, TDS, Cr, ClO <sub>4</sub>
ART-7B	50	1619.62	39.9		1579.72	7.31	9.53	8/13/2015	8:41		pH, TDS, Cr, ClO <sub>6</sub>

Sampling Crew Signature:

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**Well Inventory for Groundwater Sampling**  
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WELL #	TOTAL DEPTH (from TOC)	TOP OF CASING ELEVATION (MSL)	DEPTH TO WATER (FEET)	NON-AQUEOUS PHASE LIQUID <sup>1</sup>	GROUNDWATER ELEVATION (FT MSL)	pH	SPECIFIC CONDUCTIVITY (mS/cm)	DATE	TIME	MONITORING QUALIFIER <sup>2</sup>	COMMENTS/Analytical Plan/Temp
ART-8	50.53	1617.66	28.44		1589.22	7.02	14.14	8/13/2015	6:40		pH, TDS, Cr, ClO <sub>4</sub>
ART-8A	54	1617.10	30.22		1586.88			8/13/2015	6:42		DTW Only
ART-9	43	1614.90	30.91		1583.99	7.38	7.51	8/13/2015	8:44		pH, TDS, Cr, ClO <sub>4</sub>
L-635	36.5							8/13/2015	9:45	No Access	pH, TDS, Cr, ClO <sub>4</sub>
L-637	37.5							8/13/2015	9:45	No Access	pH, TDS, Cr, ClO <sub>4</sub>
M-2A	47.57	1781.16			1781.16		sampled in the 2nd quarter only				pH, TDS, Cr, ClO <sub>4</sub>
M-5A	50.00	1751.80	38.13		1713.67	6.68	15.40	8/5/2015	8:21		(pH / SC / TOC / TOX) x 4 / ClO <sub>4</sub> / CR / TDS
M-6A	46.00	1733.19	39.29		1693.90	6.98	13.76	8/10/2015	8:40		(pH / SC / TOC / TOX) x 4 / ClO <sub>4</sub> / CR / TDS
M-7B	55.00	1732.83	32.22		1700.61	7.22	11.50	8/5/2015	6:08		(pH / SC / TOC / TOX) x 4 / ClO <sub>4</sub> / CR / TDS
M-10	69.45	1836.21	51.87		1784.34	6.85	3.36	8/6/2015	11:42		pH / CR6 / Cr / ClO <sub>4</sub> / TDS / NPDES list
M-11	58.00	1815.53	44.66		1770.87	7.97	3.14	8/6/2015	9:23		pH / TDS / Cr / Cr6 / ClO <sub>4</sub>
M-12A	49.71	1812.47	42.72		1769.75	7.81	8.29	8/6/2015	11:17		pH / TDS / Cr / Cr6 / ClO <sub>4</sub>
M-13	54.76	1814.89			1814.89		sampled in the 2nd quarter only				pH / TDS / Cr / ClO <sub>4</sub>
M-14A	42.40	1760.93	32.87		1728.06	7.49	4.06	8/5/2015	4:53		pH, TDS, Cr, ClO <sub>4</sub>
M-19	41.20	1766.77	35.54		1731.23	7.36	6.54	8/6/2015	6:50		pH, TDS, Cr, ClO <sub>4</sub>
M-21	44.74	1792.07			1792.07		sampled in the 2nd quarter only				pH, TDS, Cr, ClO <sub>4</sub>
M-22A	36.92	1759.46	31.19		1728.27	7.14	10.78	8/5/2015	7:33		pH, TDS, Cr, ClO <sub>4</sub>
M-23	44.66	1720.54	35.03		1685.51	7.25	5.20	8/4/2015	9:31		pH / TDS / Cr / ClO <sub>4</sub>

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M-25	41.47	1759.93	33.78		1726.15	7.19	8.38	8/5/2015	5:10		pH / TDS / Cr / ClO <sub>4</sub>
M-31A	55.00	1796.87	47.03		1749.84	7.39	6.34	8/7/2015	4:33		pH, TDS, Cr, ClO <sub>4</sub>
M-32	53.30	1796.87	46.42		1750.45	7.20	6.48	8/7/2015	4:54		pH, TDS, Cr, ClO <sub>4</sub>
M-33	53.40				0.00		sampled in the 2nd quarter only				pH, TDS, Cr, ClO <sub>4</sub>
M-35	39.70	1772.78	33.44		1739.34	7.32	4.98	8/7/2015	4:13		pH, TDS, Cr, ClO <sub>4</sub>
M-36	37.85	1759.82			1759.82					Destroyed	pH / Cr / Cr <sup>6</sup> / ClO <sub>4</sub> / TDS
M-37	37.18	1761.06	32.03		1729.03	6.79	6.85	8/10/2015	11:25		pH / Cr / Cr <sup>6</sup> / ClO <sub>4</sub> / TDS
M-38	36.82	1759.73	31.61		1728.12	7.01	11.12	8/6/2015	12:55		pH / Cr / Cr <sup>6</sup> / ClO <sub>4</sub> / TDS
M-44	37.65	1698.31	25.36		1672.95	7.37	9.95	8/10/2015	10:30		pH / TDS / Cr / Cr <sup>6</sup> / ClO <sub>4</sub>
M-48A	40	1718.36	29.48		1688.88	7.39	4.58	8/4/2015	7:51		pH / TDS / Cr / ClO <sub>4</sub>
M-52	47.85	1802.39	42.19		1760.20	7.51	5.14	8/6/2015	6:15		pH, TDS, Cr, ClO <sub>4</sub>
M-55	45.00	1750.88	30.27		1720.61			8/3/2015	8:13		DTW Only
M-56	40.00	1750.83	32.17		1718.66			8/3/2015	7:27		DTW Only
M-57A	42.40	1753.44	29.86		1723.58	7.56	4.58	8/5/2015	4:26		pH, TDS, Cr, ClO <sub>4</sub>
M-58	45.00	1751.25	30.49		1720.76			8/3/2015	6:23		DTW Only
M-60	43.00	1750.94	32.97		1717.97			8/3/2015	7:02		DTW Only
M-64	38.00	1749.76	29.83		1719.93	7.26	7.96	8/5/2015	2:21		pH, TDS, Cr, ClO <sub>4</sub>
M-65	40.00	1753.91	33.33		1720.58	7.09	12.78	8/5/2015	2:39		pH, TDS, Cr, ClO <sub>4</sub>

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M-66	43.00	1754.24	32.00		1722.24	7.01	13.58	8/5/2015	3:00		pH, TDS, Cr, ClO <sub>4</sub>
M-67	38.00	1745.91	22.49		1723.42	7.14	6.99	8/6/2015	7:51		pH, TDS, Cr, ClO <sub>4</sub>
M-68	41.00	1750.23	26.52		1723.71	7.23	7.24	8/6/2015	7:08		pH, TDS, Cr, ClO <sub>4</sub>
M-69	40.00	1749.75	33.71		1716.04	7.27	4.91	8/5/2015	3:37		pH, TDS, Cr, ClO <sub>4</sub>
M-70	41.00	1748.25	35.58		1712.67	7.25	7.10	8/5/2015	6:40		pH, TDS, Cr, ClO <sub>4</sub>
M-71	43.00	1747.04	32.04		1715.00	7.11	7.51	8/5/2015	6:59		pH, TDS, Cr, ClO <sub>4</sub>
M-72	36.00	1746.49	32.24		1714.25	7.12	11.28	8/5/2015	7:14		pH, TDS, Cr, ClO <sub>4</sub>
M-73	36.00	1741.14	28.46		1712.68	7.16	8.56	8/6/2015	8:12		pH, TDS, Cr, ClO <sub>4</sub>
M-74	39.70	1745.08	27.95		1717.13	7.25	7.15	8/6/2015	7:31		pH, TDS, Cr, ClO <sub>4</sub>
M-75	53.90	1784.21	42.63		1741.58			8/6/2015	5:56		DTW ONLY
M-76	54.60	1785.22	39.33		1745.89			8/6/2015	5:52		DTW ONLY
M-77	49.32	1801.73	40.58		1761.15			8/6/2015	6:07		DTW ONLY
M-78	43.60	1751.50	33.19		1718.31			8/3/2015	8:01		DTW ONLY
M-79	37.60	1742.53	31.69		1710.84	7.33	5.53	8/5/2015	3:22		pH / TDS / Cr / ClO <sub>4</sub>
M-80	43.70	1746.04	36.21		1709.83	7.39	4.72	8/6/2015	10:41		pH / Cr / ClO <sub>4</sub> / TDS / CRVI
M-81A	41.60	1744.16	36.04		1708.12	7.26	5.90	8/6/2015	8:37		pH / TDS / Cr / ClO <sub>4</sub>
M-83	41.75	1742.02	31.68		1710.34	7.18	5.34	8/6/2015	9:03		pH, TDS, Cr, ClO <sub>4</sub>
M-92	48.50	1800.76	35.74		1765.02			8/6/2015	5:30		DTW ONLY

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M-93	49.00	1797.54	34.82		1762.72			8/6/2015	5:35		DTW ONLY
M-95	30.00	1694.09	18.33		1675.76	7.20	7.22	8/10/2015	10:52		pH / TDS / Cr / Cr6 / ClO4
M-96	16.57	1693.85			1693.85			8/4/2015	7:17	DRY	pH / Cr / Cr <sup>6</sup> / ClO <sub>4</sub> / TDS
M-97	52.50	1800.85	39.76		1761.09			8/6/2015	5:32		DTW ONLY
M-98	33.40	1731.90			1731.90			8/10/2015	8:58	DRY	pH, TDS, Cr, ClO <sub>4</sub>
M-99	35.59	1730.74	34.28		1696.46			8/5/2015	5:55	bailler would not collect sample	pH, TDS, Cr, ClO <sub>4</sub>
M-100	33.81	1730.93			1730.93			8/6/2015	8:23	DRY	pH / TDS / Cr / Cr6 / ClO4
M-101	32.15	1730.81			1730.81			8/6/2015	8:22	DRY	pH, TDS, Cr, ClO <sub>4</sub>
M-115	47.50	1787.64	37.81		1749.83			8/6/2015	5:59		DTW ONLY
M-131	39.00	1754.13	33.86		1720.27	7.53	4.65	8/5/2015	4:12		pH, TDS, Cr, ClO <sub>4</sub>
M-135	39.00	1751.85	34.81		1717.04	7.50	4.55	8/5/2015	3:52		pH, TDS, Cr, ClO <sub>4</sub>
M-166	32.00	1751.09	29.89		1721.20			8/3/2015	9:14		DTW Only
M-167	30.00	1749.95	28.99		1720.96			8/3/2015	8:55		DTW Only
M-168	35.00	1748.46	26.64		1721.82			8/3/2015	8:41		DTW Only
M-169	35.00	1750.22	29.32		1720.90			8/3/2015	8:33		DTW Only
M-170	35.00	1750.66	30.09		1720.57			8/3/2015	8:23		DTW Only
M-172	37.00	1750.58	33.63		1716.95			8/3/2015	7:48		DTW Only
M-173	40.00	1749.88	29.68		1720.20			8/3/2015	7:00		DTW Only

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M-174	28.00	1742.29	20.88		1721.41			8/6/2015	8:28		DTW Only
M-175	29.00	1742.74	21.61		1721.13			8/6/2015	8:27		DTW Only
M-176	30.00	1745.35	24.23		1721.12			8/6/2015	8:26		DTW Only
M-177	30.00	1743.23	21.84		1721.39			8/6/2015	8:24		DTW Only
MW-K4	50	1614.96	27.71		1587.25	7.25	11.39	8/12/2015	9:21		pH, TDS, Cr, ClO <sub>4</sub>
MW-K5	44	1598.87	29.79		1569.08	7.26	9.17	8/12/2015	7:31		pH / TDS / Cr / ClO <sub>4</sub>
PC-18	52.11	1618.39	28.41		1589.98	7.13	14.81	8/12/2015	6:05		pH, TDS, Cr, ClO <sub>4</sub>
PC-53	32.86	1595.17	27.14		1568.03	7.37	6.50	8/12/2015	7:18		pH, TDS, Cr, ClO <sub>4</sub>
PC-55	54.9	1618.46	27.38		1591.08	7.26	10.93	8/13/2015	6:24		pH, TDS, Cr, ClO <sub>4</sub>
PC-56	63.58	1576.83	21.10		1555.73	7.22	6.71	8/11/2015	8:19		pH, TDS, Cr, ClO <sub>4</sub>
PC-58	42.78	1,576.79	21.87		1554.92	7.40	5.16	8/11/2015	7:58		pH, TDS, Cr, ClO <sub>4</sub>
PC-59	48.13	1576.05	19.89		1556.16	7.48	3.82	8/11/2015	9:16		pH, TDS, Cr, ClO <sub>4</sub>
PC-60	48.09	1576.47	20.35		1556.12	7.50	3.14	8/11/2015	8:51		pH, TDS, Cr, ClO <sub>4</sub>
PC-62	45.91	1575.74	19.01		1556.73	7.38	2.6	8/11/2015	9:39		pH, TDS, Cr, ClO <sub>4</sub>
PC-68	64.72	1576.39	19.04		1557.35	7.27	2.68	8/11/2015	10:02		pH, TDS, Cr, ClO <sub>4</sub>
PC-86	35.75	1561.60	12.41		1549.19	7.35	2.76	8/11/2015	10:32		pH / TDS / Cr / ClO <sub>4</sub>
PC-90	15.0	1550.46	5.88		1544.58	7.55	3.97	8/11/2015	6:48		pH / TDS / Cr / ClO <sub>4</sub>
PC-91	37.0	1552.33	11.31		1541.02	7.43	4.07	8/11/2015	7:13		pH / TDS / Cr / ClO <sub>4</sub>

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PC-92	22.0	1552.05			1552.05		sampled in the 2nd quarter only				pH, TDS, Cr, ClO <sub>4</sub>
PC-94	20.0	1548.95	12.15		1536.80	7.14	8.41	8/11/2015	7:38		pH, TDS, Cr, ClO <sub>4</sub>
PC-97	33.5	1548.53	4.68		1543.85	7.55	3.32	8/11/2015	6:20		pH, TDS, Cr, ClO <sub>4</sub>
PC-98R	40.5	1593.35	22.52		1570.83	7.09	8.2	8/13/2015	8:52		pH, TDS, Cr, ClO <sub>4</sub>
PC-99R3	55.3	1552.48	13.78		1538.70	7.23	6.37	8/13/2015	11:00		pH, TDS, Cr, ClO <sub>4</sub>
PC-101R	50.58	1618.04	29.11		1588.93	7.14	12.54	8/12/2015	8:58		pH, TDS, Cr, ClO <sub>4</sub>
PC-103	29.5	1599.49	22.74		1576.75	7.31	6.41	8/12/2015	10:35		pH / TDS / Cr / ClO <sub>4</sub>
PC-115R	55.5	1554.71	11.71		1543.00	7.23	4.83	8/13/2015	11:03		pH, TDS, Cr, ClO <sub>4</sub>
PC-116R	55.5	1552.10	14.53		1537.57	7.24	6.29	8/13/2015	10:54		pH, TDS, Cr, ClO <sub>4</sub>
PC-117	53.0	1552.26	12.04		1540.22	7.29	4.97	8/13/2015	10:51		pH, TDS, Cr, ClO <sub>4</sub>
PC-118	51.0	1554.53	8.46		1546.07	7.39	3.49	8/13/2015	11:05		pH, TDS, Cr, ClO <sub>4</sub>
PC-119	47.0	1554.66	6.38		1548.28	7.19	2.70	8/13/2015	11:09		pH, TDS, Cr, ClO <sub>4</sub>
PC-120	47.0	1554.64	4.72		1549.92	7.27	3.07	8/13/2015	11:17		pH, TDS, Cr, ClO <sub>4</sub>
PC-121	38.5	1554.10	4.90		1549.20	7.19	2.80	8/13/2015	11:12		pH, TDS, Cr, ClO <sub>4</sub>
PC-122	38.0	1618.02	32.02		1586.00	7.33	10.10	8/12/2015	6:59		pH, TDS, Cr, ClO <sub>4</sub>
PC-123	34.70	1626.44	23.14		1603.30	7.47	7.66	8/4/2015	3:23		pH, TDS, Cr, ClO <sub>4</sub>
PC-124	34.60	1635.73	25.38		1610.35	7.38	11.09	8/4/2015	5:44		pH / TDS / Cr / ClO <sub>4</sub>
PC-125	33.50	1635.06	23.76		1611.30	7.55	7.06	8/4/2015	6:01		pH, TDS, Cr, ClO <sub>4</sub>

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PC-126	34.35	1634.38	22.66		1611.72	7.38	11.93	8/4/2015	6:17		pH / TDS / Cr / ClO <sub>4</sub>
PC-127	34.70	1632.42	19.62		1612.80	7.51	7.18	8/4/2015	6:39		pH, TDS, Cr, ClO <sub>4</sub>
PC-128	34.70	1633.36	18.53		1614.83	7.48	7.11	8/10/2015	4:50		pH / TDS / Cr / ClO <sub>4</sub>
PC-129	37.70	1633.99	18.16		1615.83	7.33	7.39	8/4/2015	3:54		pH, TDS, Cr, ClO <sub>4</sub>
PC-130	49.70	1633.21	19.05		1614.16	7.50	8.32	8/4/2015	4:18		pH / TDS / Cr / ClO <sub>4</sub>
PC-131	39.40	1633.58	11.47		1622.11	7.24	3.58	8/4/2015	4:47		pH, TDS, Cr, ClO <sub>4</sub>
PC-132	39.56	1634.70	9.99		1624.71	7.24	13.33	8/4/2015	5:13		pH / TDS / Cr / ClO <sub>4</sub>
PC-133	40.2	1553.00	31.18		1521.82	7.20	3.01	8/13/2015	10:48		pH, TDS, Cr, ClO <sub>4</sub>
PC-135A	50.8	1618.58	29.48		1589.10	7.13	13.41	8/10/2015	6:55		pH, TDS, Cr, ClO <sub>4</sub>
PC-136	40.3	1618.04	32.84		1585.20	7.30	7.15	8/10/2015	7:33		pH, TDS, Cr, ClO <sub>4</sub>
PC-142	34.5	1619.64			1619.64		sampled in the 2nd quarter only				pH, TDS, Cr, ClO <sub>4</sub>
PC-143	65	1619.20			1619.20		sampled in the 2nd quarter only				pH, TDS, Cr, ClO <sub>4</sub>
PC-144	39.7	1618.63	30.56		1588.07	7.26	11.3	8/10/2015	7:15		pH, TDS, Cr, ClO <sub>4</sub>
PC-145	39.7	1617.76			1617.76		sampled in the 2nd quarter only				pH, TDS, Cr, ClO <sub>4</sub>
PC-146							sampled in the 2nd quarter only			DRY	pH, TDS, Cr, ClO <sub>4</sub>
PC-147	31.7	1617.51			1617.51		sampled in the 2nd quarter only				pH, TDS, Cr, ClO <sub>4</sub>
PC-148	50.2	1617.96	27.91		1590.05	7.38	9.09	8/10/2015	5:18		pH, TDS, Cr, ClO <sub>4</sub>
PC-149	50	1618.93	20.48		1598.45	7.54	5.15	8/10/2015	6:10		pH, TDS, Cr, ClO <sub>4</sub>

Sampling Crew Signature: \_\_\_\_\_

**TABLE 1**  
**Well Inventory for Groundwater Sampling**  
**NERT Project, Henderson, Nevada**  
**Summary of Field Data for: 3rd Quarter Groundwater Monitoring, August 2015**

WELL #	TOTAL DEPTH (from TOC)	TOP OF CASING ELEVATION (MSL)	DEPTH TO WATER (FEET)	NON-AQUEOUS PHASE LIQUID <sup>1</sup>	GROUNDWATER ELEVATION (FT MSL)	pH	SPECIFIC CONDUCTIVITY (mS/cm)	DATE	TIME	MONITORING QUALIFIER <sup>2</sup>	COMMENTS/Analytical Plan/Temp
PC-150	45.7	1619.09	31.32		1587.77	7.44	7.27	8/13/2015	6:39		pH, TDS, Cr, ClO <sub>4</sub>
<b>INTERCEPTOR WELLS</b>											
					0.00						
I-AA	46.00	1753.93	43.71		1710.22	7.05	4.72	8/3/2015	9:17		pH, TDS, Cr, ClO <sub>4</sub>
I-AB	52.0	1753.89	33.51		1720.38	7.54	4.91	8/3/2015	9:11		pH, TDS, Cr, ClO <sub>4</sub>
I-AC	50	1752.76	29.71		1723.05			8/7/2015	3:08		pH, TDS, Cr, ClO <sub>4</sub>
I-AD	50	1755.39	30.49		1724.90	7.22	6.90	8/7/2015	3:04		pH, TDS, Cr, ClO <sub>4</sub>
I-AR	45.00	1758.35	43.01		1715.34	7.17	7.92	8/3/2015	9:29		pH, TDS, Cr, ClO <sub>4</sub>
I-B	45.70	1752.87	42.33		1710.54	7.24	5.63	8/3/2015	9:06		pH, TDS, Cr, ClO <sub>4</sub>
I-C	43.80	1752.77	43.28		1709.49	7.19	8.32	8/3/2015	8:28		pH, TDS, Cr, ClO <sub>4</sub>
I-D	47.70	1752.67	46.86		1705.81	6.94	9.16	8/3/2015	8:21		pH, TDS, Cr, ClO <sub>4</sub>
I-E	46.70	1752.36	44.39		1707.97	6.94	9.59	8/3/2015	8:08		pH, TDS, Cr, ClO <sub>4</sub>
I-F	45.80	1749.70	40.43		1709.27	6.94	11.97	8/3/2015	7:51		pH, TDS, Cr, ClO <sub>4</sub>
I-G	42.60	1752.50	41.28		1711.22	7.10	8.92	8/3/2015	7:21		pH, TDS, Cr, ClO <sub>4</sub>
I-H	46.50	1753.21	44.13		1709.08	6.96	13.71	8/3/2015	6:51		pH, TDS, Cr, ClO <sub>4</sub>
I-I	44.20	1745.50	24.92		1720.58	7.30	9.16	8/7/2015	3:50		pH, TDS, Cr, ClO <sub>4</sub>
I-J	44.50	1750.09	42.34		1707.75	7.03	7.34	8/7/2015	3:20		pH, TDS, Cr, ClO <sub>4</sub>
I-K	40.60	1746.04	30.97		1715.07	7.61	7.36	8/7/2015	3:17		pH, TDS, Cr, ClO <sub>4</sub>
I-L	43.40	1751.70	37.31		1714.39	7.46	7.18	8/3/2015	8:46		pH, TDS, Cr, ClO <sub>4</sub>
I-M	43.70	1752.90	37.13		1715.77	7.33	9.87	8/3/2015	8:15		pH, TDS, Cr, ClO <sub>4</sub>

Sampling Crew Signature: \_\_\_\_\_

**TABLE 1**  
**Well Inventory for Groundwater Sampling**  
**NERT Project, Henderson, Nevada**

**Summary of Field Data for: 3rd Quarter Groundwater Monitoring, August 2015**

WELL #	TOTAL DEPTH (from TOC)	TOP OF CASING ELEVATION (MSL)	DEPTH TO WATER (FEET)	NON-AQUEOUS PHASE LIQUID <sup>1</sup>	GROUNDWATER ELEVATION (FT MSL)	pH	SPECIFIC CONDUCTIVITY (mS/cm)	DATE	TIME	MONITORING QUALIFIER <sup>2</sup>	COMMENTS/Analytical Plan/Temp
I-N	41.70	1751.45	38.78		1712.67	6.88	10.25	8/3/2015	8:04		pH, TDS, Cr, ClO <sub>4</sub>
I-O	43.80	1752.79	37.94		1714.85	7.09	10.78	8/3/2015	6:25		pH, TDS, Cr, ClO <sub>4</sub>
I-P	47.80	1751.66	40.21		1711.45	6.92	11.56	8/3/2015	6:42		pH, TDS, Cr, ClO <sub>4</sub>
I-Q	43.80	1753.11	40.27		1712.84	6.77	13.97	8/3/2015	7:29		pH, TDS, Cr, ClO <sub>4</sub>
I-R	45.30	1751.35	41.08		1710.27	7.13	7.26	8/3/2015	9:00		pH, TDS, Cr, ClO <sub>4</sub>
I-S	47.70	1750.03	34.69		1715.34	7.33	7.56	8/3/2015	8:40		pH, TDS, Cr, ClO <sub>4</sub>
I-T	47.80	1751.66	43.46		1708.20	6.93	11.58	8/3/2015	7:13		pH, TDS, Cr, ClO <sub>4</sub>
I-U	47.60	1752.17	44.59		1707.58	6.90	14.64	8/3/2015	7:05		pH, TDS, Cr, ClO <sub>4</sub>
I-V	47.70	1752.13	34.03		1718.10	7.37	9.06	8/7/2015	3:54		pH, TDS, Cr, ClO <sub>4</sub>
I-W	50.00	1751.50	41.73		1709.77	6.92	10.30	8/3/2015	6:36		pH, TDS, Cr, ClO <sub>4</sub>
I-X	50.00	1748.60	36.44		1712.16	6.90	9.93	8/3/2015	7:55		pH, TDS, Cr, ClO <sub>4</sub>
I-Y	50.50	1751.40	37.39		1714.01	7.38	8.03	8/3/2015	8:53		pH, TDS, Cr, ClO <sub>4</sub>
I-Z	37.00	1743.78	34.88		1708.90	7.46	7.76	8/7/2015	3:36		pH, TDS, Cr, ClO <sub>4</sub>
<b>OTHER WELLS (OFFSITE)</b>											
					0.00						
PC-37	43.08	1707.72	30.87		1676.85	7.40	9.62	8/4/2015	9:08		pH, TDS, Cr, ClO <sub>4</sub>
PC-54	34.60	1704.43	24.93		1679.50	7.40	5.88	8/4/2015	7:25		pH, TDS, Cr, ClO <sub>4</sub>
PC-71	33.23	1698.73	28.19		1670.54	7.35	9.65	8/4/2015	8:13		pH, TDS, Cr, ClO <sub>4</sub>
PC-72	39.54	1699.43	31.17		1668.26	7.44	8.69	8/4/2015	8:28		pH, TDS, Cr, ClO <sub>4</sub>
PC-73	49.44	1699.50	32.26		1667.24	7.38	9.13	8/4/2015	8:49		pH, TDS, Cr, ClO <sub>4</sub>

Sampling Crew Signature: \_\_\_\_\_

**TABLE 1**  
**Well Inventory for Groundwater Sampling**  
**NERT Project, Henderson, Nevada**  
**Summary of Field Data for: 3rd Quarter Groundwater Monitoring, August 2015**

WELL #	TOTAL DEPTH (from TOC)	TOP OF CASING ELEVATION (MSL)	DEPTH TO WATER (FEET)	NON-AQUEOUS PHASE LIQUID <sup>1</sup>	GROUNDWATER ELEVATION (FT MSL)	pH	SPECIFIC CONDUCTIVITY (mS/cm)	DATE	TIME	MONITORING QUALIFIER <sup>2</sup>	COMMENTS/Analytical Plan/Temp
<b>PIONEER CHEMICAL WELL</b>											
H-28A	51.00	1731.75	39.29		1692.46	6.95	15.11	8/7/2015	5:40		(pH / SC / TOC / TOX) x 4 / CLO4 / CR / TDS
<b>DUPLICATE SAMPLES</b>											
DUP-1	PC-129		18.16		1615.83	7.33	7.39	8/4/2015	4:05		pH, TDS, Cr, ClO <sub>4</sub>
DUP-2	M-44		25.36		1672.95	7.37	9.95	8/10/2015	11:03		pH / TDS / Cr / Cr6 / ClO <sub>4</sub>
DUP-3	M-31A		47.03		1749.84	7.39	6.35	8/7/2015	4:42		pH, TDS, Cr, ClO <sub>4</sub>
DUP-4	PC-18		28.41		1589.98	7.13	14.81	8/11/2015	6:21		pH, TDS, Cr, ClO <sub>4</sub>
DUP-5	M-38		31.61		1728.12	7.01	11.12	8/6/2015	13:05		pH / TDS / Cr / Cr6 / ClO <sub>4</sub>
DUP-6	M-37		32.03		1729.03	6.79	6.85	8/10/2015	11:33		pH / TDS / Cr / Cr6 / ClO <sub>4</sub>
<b>OTHER SAMPLES COLLECTED</b>											
EB-1								8/4/2015	8:10		pH / TDS / Cr / Cr6 / ClO <sub>4</sub>
EB-2								8/5/2015	6:53		pH / TDS / Cr / Cr6 / ClO <sub>4</sub>
EB-3								8/6/2015	10:35		pH / TDS / Cr / Cr6 / ClO <sub>4</sub>
EB-4								8/7/2015	4:48		pH / TDS / Cr / Cr6 / ClO <sub>4</sub>
EB-5								8/8/2015	7:28		pH / TDS / Cr / Cr6 / ClO <sub>4</sub>
MEB-1								8/12/2015	9:42		CLO4 Only
FB-1								8/4/2015	8:40		pH / TDS / Cr / Cr6 / ClO <sub>4</sub>

NOTES:

Monthly 1st Monday  
 Monthly ARP and PC

Sampling Crew Signature: \_\_\_\_\_



# Chain of Custody Record

TestAmerica Laboratories, Inc.

<b>Client Contact</b> Envirogen Technologies 510 South Fourth Street Henderson, NV 89015 702-371-9307 FAX: _____		<b>Project Manager: Wendy Prescott</b> Tel/Fax: 702-371-9307 Analysis Turnaround Time Calendar (C) or Work Days (W) <b>WORK</b> TAT if different from Below _____ <input checked="" type="checkbox"/> 2 weeks <input type="checkbox"/> 1 week <input type="checkbox"/> 2 days <input type="checkbox"/> 1 day		<b>Site Contact: Wendy Prescott</b> Lab Contact: Patty Mata Date: _____ Carrier: _____	
<b>Project Name: NERT- 2nd Quarter M Wells</b> Site: NERT- 510 S. Fourth St., Henderson, NV 89015 P O # 3693		Job No. _____ SDG No. _____			

Sample Identification	Sample Date	Sample Time	Sample Type	Matrix	# of Cont.	Filtered Sample	CL04	TDS, CRVI	TDS, NO3	TDS, CRVI, NO3	CL03
I-O	8-3-15	0627	NORMAL	WATER	3	4	1				
I-W		0638	NORMAL	WATER	3	4	1				
I-P		0646	NORMAL	WATER	3	4	1				
I-H		0655	NORMAL	WATER	3	4	1				
I-U		0708	NORMAL	WATER	3	4	1				
I-T		0715	NORMAL	WATER	3	4	1				
I-G		0724	NORMAL	WATER	3	4	1				
I-Q		0732	NORMAL	WATER	3	4	1				
I-F		0753	NORMAL	WATER	3	4	1				
I-X		0758	NORMAL	WATER	3	4	1				
I-N		0801	NORMAL	WATER	3	4	1				
I-E		0811	NORMAL	WATER	3	4	1				

Field pH = 7.09  
 Field pH = 6.92  
 Field pH = 6.92  
 Field pH = 6.96  
 Field pH = 6.90  
 Field pH = 6.93  
 Field pH = 7.10  
 Field pH = 6.77  
 Field pH = 6.94  
 Field pH = 6.90  
 Field pH = 6.88  
 Field pH = 6.94

Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4=HNO3; 5=NaOH; 6= Other  
 Possible Hazard Identification  
 Non-Hazard  Flammable  Skin Irritant  Poison B  Unknown  
 Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)  
 Return To Client  Disposal By Lab  Archive For 1 Months

I attest to the validity and authenticity of this (these) sample(s). I am aware that tampering with or intentionally mislabeling the sample(s) location, date or time of collection may be considered fraud and subject to legal action (NAC445.0086)  
 Signature: Wendy Prescott Date: 8-3-15

Special Instructions/QC Requirements & Comments:  
**NEEDS LEVEL 4 REPORT**

Relinquished by: <u>Mylene Brow</u>	Company: <u>Envirogen</u>	Received by: <u>[Signature]</u>	Company: <u>TA</u>	Date/Time: <u>8-3-15 1:34</u>	Date/Time: <u>8/3/15 1:34</u>
Relinquished by:	Company:	Received by:	Company:	Date/Time:	Date/Time:
Relinquished by:	Company:	Received by:	Company:	Date/Time:	Date/Time:

# Chain of Custody Record

TestAmerica Laboratories, Inc.

17461 Derian Ave  
Suite 100  
Irvine, CA 92614  
phone: 949.261.1022 fax: 949.260.3299

Project Manager: Wendy Prescott Tel/Fax: 702-371-9307		Site Contact: Wendy Prescott		Date:	
Client Contact		Lab Contact: Patty Mata		Carrier:	
Envirogen Technologies 510 South Fourth Street Henderson, NV 89015 702-371-9307		TOTAL CHROME		Job No.	
FAX:		TDS, CRVI		SDG No.	
Project Name: NERT- 2nd Quarter M Wells		TDS, NO3			
Site: NERT- 510 S. Fourth St., Henderson, NV 89015		TDS, CRVI, NO3			
P O # 3693		CL04			
Analysis Turnaround Time		CL03			
Calendar (C) or Work Days (W) WORK		TDS, CRVI, NO3			
TAT if different from Below		CL04			
<input checked="" type="checkbox"/> 2 weeks		Filtered Sample			
<input type="checkbox"/> 1 week		TOTAL CHROME			
<input type="checkbox"/> 2 days		TDS			
<input type="checkbox"/> 1 day		TDS, CRVI			
Sample Date	Sample Time	Sample Type	Matrix	# of Cont.	Field pH =
8-3-15	0819	NORMAL	WATER	3	7.33
	0824	NORMAL	WATER	3	6.94
	0830	NORMAL	WATER	3	7.19
	0843	NORMAL	WATER	3	7.33
	0849	NORMAL	WATER	3	7.46
	0857	NORMAL	WATER	3	7.38
	0904	NORMAL	WATER	3	7.13
	0909	NORMAL	WATER	3	7.24
	0915	NORMAL	WATER	3	7.54
	0920	NORMAL	WATER	3	7.05
	0931	NORMAL	WATER	3	7.17
		NORMAL	WATER	3	

Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4=HNO3; 5=NaOH; 6= Other  
 Possible Hazard Identification  
 Non-Hazard  Flammable  Skin Irritant  Poison B  Unknown  
 I attest to the validity and authenticity of this (these) sample(s). I am aware that tampering with or intentionally mislabeling the sample(s) location, date or time of collection may be considered fraud and subject to legal action (CA445.0636)  
 Signature: Wendy Prescott Date: 8-3-15

Requested by:	Company:	Date/Time:
<u>Wendy Prescott</u>	<u>Envirogen</u>	<u>8-3-15 / 13:41</u>
Relinquished by:	Company:	Date/Time:
<u>Wendy Prescott</u>	<u>TA</u>	<u>8/3/15 13:36</u>
Relinquished by:	Company:	Date/Time:

Special Instructions/QC Requirements & Comments:  
**NEEDS LEVEL 4 REPORT**

# Chain of Custody Record

TestAmerica Laboratories, Inc.

<b>Client Contact</b>		<b>Project Manager: Wendy Prescott</b>		<b>Site Contact: Wendy Prescott</b>	
Envirogen Technologies		Tel/Fax: 702-371-9307		Lab Contact: Patty Mata	
510 South Fourth Street		<b>Analysis Turnaround Time</b>		Carrier:	
Henderson, NV 89015		Calendar (C) or Work Days (W) WORK		Date:	
702-371-9307		TAT if different from Below 10 DAY		COC No:	
FAX:		<input checked="" type="checkbox"/> 2 weeks		1 of 2 COCs	
Project Name: Envirogen- Monthly ART and PC Wells pg 1		<input type="checkbox"/> 1 week		Job No.	
Site: NERT- 510 S. Fourth St., Henderson, NV 89015		<input type="checkbox"/> 2 days		SDG No.	
P O # 3693		<input type="checkbox"/> 1 day			

Sample Identification	Sample Date	Sample Time	Sample Type	Matrix	# of Cont.	Filtered Sample	2540C_CALCCD-TOTAL DISSOLVED	3140_LI_PERCHLORATE	200.7 Total Chromium	Field pH =
ART-1	8-31-15	1640	NORMAL	WATER	3		1	1	4	7.23
ART-2		1044	NORMAL	WATER	3		1	1	4	6.92
ART-3 A		1047	NORMAL	WATER	3		1	1	4	7.10
ART-4		1051	NORMAL	WATER	3		1	1	4	7.33
ART-6		1128	NORMAL	WATER	3		1	1	4	7.31
ART-7 B		1102	NORMAL	WATER	3		1	1	4	7.46
ART-8		1054	NORMAL	WATER	3		1	1	4	7.02
ART-9		1108	NORMAL	WATER	3		1	1	4	7.38
PC-99R2/R3		1156	NORMAL	WATER	3		1	1	4	7.23
PC-115R		1159	NORMAL	WATER	3		1	1	4	7.23
PC-116R		1201	NORMAL	WATER	3		1	1	4	7.24
PC-117		1203	NORMAL	WATER	3		1	1	4	7.29

**Possible Hazard Identification**  
 Non-Hazard  Flammable  Skin Irritant  Poison B  Unknown

I attest to the validity and authenticity of this (these) sample(s). I am aware that tampering with or intentionally mislabeling the sample(s) location, date or time of collection may be considered fraud and subject to legal action (NRS445.0636)

Signature: Michele Brown Date: 8-3-15

Special Instructions/QC Requirements & Comments: **NEEDS LEVEL 4 REPORT**

Relinquished by: Michele Brown Date/Time: 8-3-15 13:17

Relinquished by: Envirogen Date/Time: 8-3-15 13:40

Relinquished by: Envirogen Date/Time: 8-3-15 13:40



### Chain of Custody Record

**Irvin**  
17461 Denian Ave  
Suite 100  
Irvine, CA 92614  
phone 949.261.1022 fax 949.260.3299

TestAmerica Laboratories, Inc.

<b>Client Contact</b>	<b>Project Manager: Wendy Prescott</b> Tel/Fax: 702-371-9307	<b>Site Contact: Wendy Prescott</b>	<b>Date:</b>
<b>Envirogen Technologies</b>	<b>Lab Contact: Patty Mata</b>	<b>Carrier:</b>	<b>COC No.:</b>
510 South Fourth Street Henderson, NV 89015 702-371-9307	<b>Analysis Turnaround Time</b> Calendar (C) or Work Days (W) WORK TAT if different from Below _____ <input checked="" type="checkbox"/> 2 weeks <input type="checkbox"/> 1 week <input type="checkbox"/> 2 days <input type="checkbox"/> 1 day		<b>PG 2 OF 2 COC's</b> Job No.
<b>FAX:</b>			<b>SDG No.</b>
<b>Project Name:</b> Envirogen- Monthly ART and PC Wells pg 2			
<b>Site:</b> NERT- 510 S. Fourth St., Henderson, NV 89015			
<b>P O #</b> 3693			

Sample Identification	Sample Date	Sample Time	Sample Type	Matrix	# of Cont.	Filtered Sample	Field pH
PC-118	8-3-15	12:08	NORMAL	WATER	3	2540C_CALCED-TOTAL DISSOLVED SOLIDS	7.39
PC-119		12:10	NORMAL	WATER	3	314.0 LT-PERCHLORATE	7.19
PC-120		12:17	NORMAL	WATER	3	200.7 Total Chromium	7.27
PC-121		12:20	NORMAL	WATER	3		7.19
PC-133		12:44	NORMAL	WATER	3		7.20
PC-150		11:10	NORMAL	WATER	3		7.44
ART-7A		11:43	NORMAL	WATER	3		7.12
<del>PC-122</del>							
<del>PC-123</del>							
<del>PC-124</del>							
<del>PC-125</del>							
<del>PC-126</del>							
<del>PC-127</del>							
<del>PC-128</del>							
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<del>PC-180</del>							
<del>PC-181</del>							
<del>PC-182</del>							
<del>PC-183</del>							
<del>PC-184</del>							
<del>PC-185</del>							
<del>PC-186</del>							
<del>PC-187</del>							
<del>PC-188</del>							
<del>PC-189</del>							
<del>PC-190</del>							
<del>PC-191</del>							
<del>PC-192</del>							
<del>PC-193</del>							
<del>PC-194</del>							
<del>PC-195</del>							
<del>PC-196</del>							
<del>PC-197</del>							
<del>PC-198</del>							
<del>PC-199</del>							
<del>PC-200</del>							

**Preservation Used:** 1= Ice, 2= HCl; 3= H2SO4; 4=HNO3; 5=NaOH; 6= Other \_\_\_\_\_

**Possible Hazard Identification**  
 Non-Hazard     Flammable     Skin Irritant     Poison B     Unknown  
 Return To Client     Disposal By Lab     Archive For 1 Month

**Sample Disposal ( A fee may be assessed if samples are retained longer than 1 month)**

I attest to the validity and authenticity of this (these) sample(s). I am aware that tampering with or intentionally mislabeling the sample(s) location, date or time of collection may be considered fraud and subject to legal action (NRS-445.0636)

Signature: Michele Brown Date: 8-3-15

Special Instructions/QC Requirements & Comments: **NEEDS LEVEL 4 REPORT**

<b>Relinquished by:</b> <u>Michele Brown</u>	<b>Company:</b> <u>Envirogen</u>	<b>Date/Time:</b> <u>8-3-15 / 1:34</u>	<b>Received by:</b> <u>Patty Mata</u>	<b>Company:</b> <u>TestAmerica</u>	<b>Date/Time:</b> <u>8-3-15 / 1:34</u>
<b>Relinquished by:</b>	<b>Company:</b>	<b>Date/Time:</b>	<b>Received by:</b>	<b>Company:</b>	<b>Date/Time:</b>
<b>Relinquished by:</b>	<b>Company:</b>	<b>Date/Time:</b>	<b>Received by:</b>	<b>Company:</b>	<b>Date/Time:</b>

# Chain of Custody Record

TestAmerica Laboratories, Inc.

Client Contact		Project Manager: Wendy Prescott		Site Contact: Wendy Prescott		Date:	
Envirogen Technologies 510 South Fourth Street Henderson, NV 89015 702-371-9307 FAX:		Tel/Fax: 702-371-9307 Analysis Turnaround Time Calendar (C) or Work Days (W) WORK TAT if different from Below <input checked="" type="checkbox"/> 2 weeks <input type="checkbox"/> 1 week <input type="checkbox"/> 2 days <input type="checkbox"/> 1 day		Lab Contact: Patty Matz		Carrier:	
Project Name: NERT - 3rd Quarter M Wells Site: NERT - 510 S. Fourth St., Henderson, NV 89015 P O # 3693		Sample Date		Sample Time		Sample Type	
Sample Identification		Sample Matrix		# of Cont.		Filtered Sample	
PC-123 ✓	8-4-15	0334	NORMAL WATER	3	TOTAL CHROME	CLO4	Field pH = 7.47
PC-129 ✓	1	0405	NORMAL WATER	3	TDS, CRVI	TDS, NO3	Field pH = 7.33
PC-130 ✓	1	0435	NORMAL WATER	3	TDS, CRVI	TDS, NO3	Field pH = 7.50
PC-131 ✓	1	0504	NORMAL WATER	3	TDS	CLO4	Field pH = 7.24
PC-132 ✓	1	0531	NORMAL WATER	3	TDS	CLO4	Field pH = 7.24
PC-124 ✓	1	0553	NORMAL WATER	3	TDS	CLO4	Field pH = 7.38
PC-125 ✓	1	0610	NORMAL WATER	3	TDS	CLO4	Field pH = 7.55
PC-126 ✓	1	0626	NORMAL WATER	3	TDS	CLO4	Field pH = 7.38
PC-127 ✓	1	0650	NORMAL WATER	3	TDS	CLO4	Field pH = 7.51
PC-54 ✓	1	0734	NORMAL WATER	3	TDS	CLO4	Field pH = 7.40
M-48A ✓	1	0800	NORMAL WATER	3	TDS	CLO4	Field pH = 7.39
DUP-1 ✓	1	0405	NORMAL WATER	3	TDS	CLO4	Field pH = 7.33

Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4= HNO3; 5= NaOH; 6= Other  
Possible Hazard Identification  
 Non-Hazard  Flammable  Skin Irritant  Poison B  Unknown

I attest to the validity and authenticity of this (these) sample(s). I am aware that tampering with or intentionally mislabeling the sample(s) location, date or time of collection may be considered fraud and subject to legal action (NAC445.0636)  
Signature: Michelle Brown Date 8-4-15

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)  
 Return To Client  Disposal By Lab  Archive For 1 Month

Special Instructions/QC Requirements & Comments:  
NEEDS LEVEL 4 REPORT

Relinquished by: <u>Michael Brown</u>	Company: <u>Envirogen</u>	Received by: <u>Donna</u>	Company: <u>Envirogen</u>
Relinquished by:	Company:	Received by:	Company:
Relinquished by:	Company:	Received by:	Company:

**Chain of Custody Record**

TestAmerica Laboratories, Inc.

1 Deni  
Suite 100  
Irvine, CA 92614  
phone 949.261.1022 fax 949.260.3299

Client Contact		Project Manager: Wendy Prescott		Site Contact: Wendy Prescott		Date:	
Envirogen Technologies 510 South Fourth Street Henderson, NV 89015 702-371-9307 FAX:		Tel/Fax: 702-371-9307		Lab Contact: Patty Mata		Carrier:	
702-371-9307		Analysis Turnaround Time		TOTAL CHROME			
Calendar (C) or Work Days (W) WORK		TAT if different from Below _____		CLO4			
<input checked="" type="checkbox"/> 2 weeks <input type="checkbox"/> 1 week <input type="checkbox"/> 2 days <input type="checkbox"/> 1 day				TDS			
Project Name: NERT- 3rd Quarter M Wells				TDS, CRVI			
Site: NERT- 510 S. Fourth St., Henderson, NV 89015				TDS, NO3			
P O # 3693				TDS, CRVI, NO3			
Sample Identification		Sample Date	Sample Time	Sample Type	Matrix	# of Cont.	
EB-1	84-15	0810		NORMAL	WATER	3	Field pH = 8.49
PC-71		0820		NORMAL	WATER	3	Field pH = 7.35
PC-72		0836		NORMAL	WATER	3	Field pH = 7.44
FD-1		0840		NORMAL	WATER	3	Field pH = 8.53
PC-43		0901		NORMAL	WATER	3	Field pH = 7.38
PC-34		0918		NORMAL	WATER	3	Field pH = 7.40
M-23		0940		NORMAL	WATER	3	Field pH = 7.25
				NORMAL	WATER		Field pH =
				NORMAL	WATER		Field pH =
				NORMAL	WATER		Field pH =
				NORMAL	WATER		Field pH =
				NORMAL	WATER		Field pH =
				NORMAL	WATER		Field pH =
				NORMAL	WATER		Field pH =
				NORMAL	WATER		Field pH =

Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4=HNO3; 5=NaOH; 6= Other

Possible Hazard Identification

Non-Hazard 
  Irramiable 
  Skin Irritant 
  Poison B 
  Unknown

Return To Client 
  Disposal By Lab 
  Archive For 1 Month

Sample Disposal ( A fee may be assessed if samples are retained longer than 1 month)

I attest to the validity and authenticity of this (these) sample(s). I am aware that tampering with or intentionally mislabeling the sample(s) location, date or time of collection may be considered fraud and subject to legal action. (NAC445.0636)

Signature: Melissa Brown Date: 8-4-15

Special Instructions/QC Requirements & Comments:

**NEEDS LEVEL 4 REPORT**

Relinquished by:	Company: <u>Envirogen</u>	Date/Time: <u>8-15/15</u>	Received by:	Company:	Date/Time:
Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:



# Chain of Custody Record

TestAmerica Laboratories, Inc.

17461 Dezan Ave  
 Suite 100  
 Irvine, CA 92614  
 phone 949.261.1022 fax 949.260.3299

Client Contact		Project Manager: Wendy Prescott		Site Contact: Wendy Prescott		Date:	
Envirogen Technologies		Tel/Fax: 702-371-9307		Lab Contact: Patty Mata		Carrier:	
510 South Fourth Street		Analysis Turnaround Time		300 ORGM, 28D - 300: C/SO4, 150: Conductance		1 of 1 COCs	
Henderson, NV 89015		Calendar (C) or Work Days (W) WORK		420.1 - 420, Phenols, Total		Job No.	
702-371-9307		TAT if different from Below		9020B-9020, TOX		SDG No.	
FAX:		<input checked="" type="checkbox"/> 2 weeks		5310C - 5310C TOC			
Project Name: Envirogen Quarterly RCRA		<input type="checkbox"/> 1 week					
Site: NERT- 510 S. Fourth St., Hnederson, NV 89015		<input type="checkbox"/> 2 days		Cr, B, Iron, Mn, Na 200.7 - 200.7			
P O # 3693		<input type="checkbox"/> 1 day		CL04314.0			
Sample Identification		Sample Date	Sample Time	Sample Type	Matrix	# of Cont.	
H-28A				NORMAL	WATER	8	Field pH = NO sample
M-6A				NORMAL	WATER	8	Field pH = NO sample
M-5A		8/5/15	0919	NORMAL	WATER	8	Field pH = 6.68
M-7B		8/5/16	0616	NORMAL	WATER	8	Field pH = 7.22

Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4=HNO3; 5=NaOH; 6= Other  
 Possible Hazard Identification  
 Non-Hazard  Flammable  Skin Irritant  Poison B  Unknown  Archive For 12 months  
 Return To Client  Disposal By Lab

Sample Disposal ( A fee may be assessed if samples are retained longer than 1 month)  
 I attest to the validity and authenticity of this (these) sample(s). I am aware that tampering with or intentionally mislabeling the sample(s) location, date or time of collection may be considered fraud and subject to legal action (NAC445.0636)  
 Signature: *[Signature]* Date: 8/5/15

Special Instructions/QC Requirements & Comments:  
 NEEDS LEVEL 4 REPORT

Relinquished by:	<i>[Signature]</i>	Date/Time:	8/5/15	Received by:	<i>[Signature]</i>	Date/Time:	8/5/15
Relinquished by:		Date/Time:		Received by:		Date/Time:	
Relinquished by:		Date/Time:		Received by:		Date/Time:	

Irvine, CA 92614  
phone 949.261.1022 fax 949.260.3299

Chain of Custody Report

TestAmerica Laboratories, Inc.

Client Contact		Project Manager: Wendy Prescott Tel/Fax: 702-371-9307		Site Contact: Wendy Prescott		COC No.:	
Envirogen Technologies 510 South Fourth Street Henderson, NV 89015 702-371-9307 FAX:		Analysis Turnaround Time Calendar (C) or Work Days (W) WORK TAT if different from Below _____ <input checked="" type="checkbox"/> 2 weeks <input type="checkbox"/> 1 week <input type="checkbox"/> 2 days <input type="checkbox"/> 1 day		Lab Contact: Patty Mata		Job No.:	
Project Name: NERT- 3rd Quarter M Wells Site: NERT- 510 S. Fourth St, Henderson, NV 89015 P O # 3693		Sample Identification		Carrier:		SDG No.:	
Sample Date	Sample Time	Sample Type	Matrix	# of Cont.	Filtered Sample	Field pH =	
8/15	0229	NORMAL	WATER	3	4 1 1	7.26	
	0247	NORMAL	WATER	3	4 1 1	7.09	
	0309	NORMAL	WATER	3	4 1 1	7.01	
	0328	NORMAL	WATER	3	4 1 1	7.33	
	0344	NORMAL	WATER	3	4 1 1	7.27	
	0400	NORMAL	WATER	3	4 1 1	7.50	
	0420	NORMAL	WATER	3	4 1 1	7.53	
	0431	NORMAL	WATER	3	4 1 1	7.56	
	0502	NORMAL	WATER	3	4 1 1	7.49	
	0519	NORMAL	WATER	3	4 1 1	7.19	
		NORMAL	WATER	-	4 1 1	Field pH = no sample	
	0647	NORMAL	WATER	3	4 1 1	7.25	
Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4=HNO3; 5=NaOH; 6= Other Possible Hazard Identification <input checked="" type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown							
Sample Disposal ( A fee may be assessed if samples are retained longer than 1 month) <input type="checkbox"/> Return To Client <input type="checkbox"/> Disposal By Lab <input checked="" type="checkbox"/> Archive For 1 Months							
I attest to the validity and authenticity of this (these) sample(s). I am aware that tampering with or intentionally mislabeling the sample(s) location, date or time of collection may be considered fraud and subject to legal action (NAC445.0636) Signature: [Signature] Date: 8/05/15							
Special Instructions/QC Requirements & Comments:							
NEEDS LEVEL 4 REPORT							
Relinquished by:	[Signature]	Company:	ETI	Date/Time:	8/5/15	Received by:	[Signature]
Relinquished by:		Company:		Date/Time:		Received by:	
Relinquished by:		Company:		Date/Time:		Received by:	



TestAmerica Laboratories, Inc.

<b>Client Contact</b>		<b>Project Manager: Wendy Prescott</b>		<b>Site Contact: Wendy Prescott</b>		<b>COC No.:</b>	
Envirogen Technologies		Tel/Fax: 702-371-9307		Lab Contact: Patty Mata		Date:	
510 South Fourth Street		Analysis Turnaround Time		Carrier:		Job No.	
Henderson, NV 89015		Calendar (C) or Work Days (W) WORK				SDG No.	
702-371-9307		TAT if different from Below _____					
FAX:		<input checked="" type="checkbox"/> 2 weeks					
Project Name: NERT - 3rd Quarter M Wells		<input type="checkbox"/> 1 week					
Site: NERT - 510 S. Fourth St., Henderson, NV 89015		<input type="checkbox"/> 2 days					
P O # 3693		<input type="checkbox"/> 1 day					
Sample Identification	Sample Date	Sample Time	Sample Type	Matrix	# of Cont.	Filtered Sample	Field pH =
E-B2	8/5/15	0653	NORMAL	WATER	3	4 1	8.10
M-71	8/5/15	0708	NORMAL	WATER	3	4 1	7.11
M-72	8/5/15	0722	NORMAL	WATER	3	4 1	7.12
M-22A	8/5/15	0919	NORMAL	WATER	3	4 1	7.14
			NORMAL	WATER	4	4 1	Field pH =
			NORMAL	WATER	4	4 1	Field pH =
			NORMAL	WATER	4	4 1	Field pH =
			NORMAL	WATER	4	4 1	Field pH =
			NORMAL	WATER	4	4 1	Field pH =
			NORMAL	WATER	4	4 1	Field pH =
			NORMAL	WATER	4	4 1	Field pH =
			NORMAL	WATER	4	4 1	Field pH =
			NORMAL	WATER	4	4 1	Field pH =
			NORMAL	WATER	4	4 1	Field pH =
			NORMAL	WATER	4	4 1	Field pH =
			NORMAL	WATER	4	4 1	Field pH =
			NORMAL	WATER	4	4 1	Field pH =
			NORMAL	WATER	4	4 1	Field pH =
			NORMAL	WATER	4	4 1	Field pH =
			NORMAL	WATER	4	4 1	Field pH =

Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4= HNO3; 5= NaOH; 6= Other

Possible Hazard Identification  
 Non-Hazard  Flammable  Skin Irritant  Poison B  Unknown  Archive For 1 Month

Sample Disposal ( A fee may be assessed if samples are retained longer than 1 month)  
 Return To Client  Disposal By Lab

I attest to the validity and authenticity of this (these) sample(s). I am aware that tampering with or intentionally mislabeling the sample(s) location, date or time of collection may be considered fraud and subject to legal action (NAC445.0636)

Signature: *[Signature]* Date: 8/5/15

Special Instructions/OC Requirements & Comments:

NEEDS LEVEL 4 REPORT

Relinquished by: <i>[Signature]</i>	Company: EIT	Date/Time: 8/15/15	Received by: <i>[Signature]</i>	Company: -TA	Date/Time: 8/15/15
Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:

17461 Dertian Ave  
Suite 100  
Irvine, CA 92614  
phone 949.261.1022 fax 949.260.3299

# Chain of Custody Record

TestAmerica Laboratories, Inc.

<b>Client Contact</b> Envirogen Technologies 510 South Fourth Street Henderson, NV 89015 702-371-9307 FAX: _____ Project Name: NERT - Quarterly M-10 Site: NERT - 510 S. Fourth St., Henderson, NV 89015 P O # 3693		<b>Project Manager: Wendy Prescott</b> Tel/Fax: 702-371-9307 Analysis Turnaround Time Calendar (C) or Work Days (W) WORK TAT if different from Below _____ <input checked="" type="checkbox"/> 2 weeks <input type="checkbox"/> 1 week <input type="checkbox"/> 2 days <input type="checkbox"/> 1 day		<b>Site Contact: Wendy Prescott</b> Lab Contact: Patty Mata 300 ORGFMS - (MOD) Nitrate-Nitrite as N 300 ORGFM 28d - Chloride 150.1 - pH 2540C Calcd - Total Dissolved Solids 218.6 ORGFM - Chromium, hexavalent 314.0 Perchlorate 300.1B 28D - Chlorate SM4500NH3 D - Ammonia, TN 200.7 - B, Cr, Iron, Mn Filtered Sample		<b>Date:</b> Carrier: _____ COC No: _____ of COCs Job No: _____ SDG No: _____ Field pH - 6.85			
Sample Identification	M-10	Sample Date	8-6-15 12:27	Sample Type	NORMAL WATER	Matrix		# of Cont.	6
Preservation Used: 1 = Ice, 2 = HCl; 3 = H2SO4; 4 = HNO3; 5 = NaOH; 6 = Other Possible Hazard Identification <input checked="" type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown									
I attest to the validity and authenticity of this (these) sample(s). I am aware that tampering with or intentionally mislabeling the sample(s) location, date or time of collection may be considered fraud and subject to legal action (NAC445.06367) Signature: <u>Michelle Brown</u> Date <u>8-6-15</u>									
Special Instructions/QC Requirements & Comments: Sample Disposal ( A fee may be assessed if samples are retained longer than 1 month) <input type="checkbox"/> Return To Client <input type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For 1 Months									
Relinquished by: <u>Michelle Brown</u>		Received by: <u>Patty Mata</u>		Company: Envirogen		Company: TA		Date/Time: 8-6-15 12:27	
Relinquished by: _____		Received by: _____		Company: _____		Company: _____		Date/Time: _____	

NEEDS LEVEL 4 REPORT

# Chain of Custody Record

TestAmerica Laboratories, Inc.  
 COC No.

Client Contact		Project Manager: Wendy Prescott		Site Contact: Wendy Prescott	
Envirogen Technologies 510 South Fourth Street Henderson, NV 89015 702-371-9307		Tel/Fax: 702-371-9307		Lab Contact: Patty Mata	
FAX:		Analysis Turnaround Time		Carrier:	
Project Name: NERT- 3rd Quarter M Wells		Calendar (C) or Work Days (W) WORK		Date:	
Site: NERT- 510 S. Fourth St., Henderson, NV 89015		TAT: if different from Below		Job No.	
P O # 3693		<input checked="" type="checkbox"/> 2 weeks <input type="checkbox"/> 1 week <input type="checkbox"/> 2 days <input type="checkbox"/> 1 day		SDG No.	
Sample Identification	Sample Date	Sample Time	Sample Type	Matrix	# of Cont.
M-52	8-15	0628	NORMAL	WATER	3
M-19		0657	NORMAL	WATER	3
M-68		0723	NORMAL	WATER	3
M-67		0803	NORMAL	WATER	3
M-14		0742	NORMAL	WATER	3
M-13		0820	NORMAL	WATER	3
M-81A		0852	NORMAL	WATER	3
M-83		0912	NORMAL	WATER	3
M-11		1029	NORMAL	WATER	3
EB-3		1035	NORMAL	WATER	3
M-80		1100	NORMAL	WATER	3
M-12A		1126	NORMAL	WATER	3

Field pH = 7.51  
 Field pH = 7.36  
 Field pH = 7.23  
 Field pH = 7.14  
 Field pH = 7.25  
 Field pH = 7.16  
 Field pH = 7.26  
 Field pH = 7.18  
 Field pH = 7.97  
 Field pH = 8.41  
 Field pH = 7.39  
 Field pH = 7.81

Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4= HNO3; 5= NaOH; 6= Other

Possible Hazard Identification  
 Non-Hazard  Flammable  Skin Irritant  Poison B  Unknown

I attest to the validity and authenticity of this (these) sample(s). I am aware that tampering with or intentionally mislabeling the sample(s) location, date or time of collection may be considered fraud and subject to legal action (NAC 445.0636)

Signature: Michelle Brown Date: 8-16-15

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)  
 Return To Client  Disposal By Lab  Archive For 1 Month

Special Instructions/QC Requirements & Comments:

NEEDS LEVEL 4 REPORT

Relinquished by: <u>Michelle Brown</u>	Company: <u>Envirogen</u>	Date/Time: <u>8-15-15</u>	Received by: <u>TO</u>	Company:	Date/Time:
Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:



Project Manager: Wendy Prescott Tel/Fax: 702-371-9307		Site Contact: Wendy Prescott		Date:	
Client Contact Envirogen Technologies 510 South Fourth Street Henderson, NV 89015 702-371-9307 FAX:		Lab Contact: Patty Mata		Carrier:	
Analysis Turnaround Time Calendar (C) or Work Days (W) WORK TAT if different from Below		TOTAL CHROME CLO4 TDS TDS, CRVI TDS, NO3 TDS, CRVI, NO3 CLO3		Job No.  SDG No.	
<input checked="" type="checkbox"/> 2 weeks	<input type="checkbox"/> 1 week	<input type="checkbox"/> 2 days	<input type="checkbox"/> 1 day	<input type="checkbox"/> Return To Client	<input checked="" type="checkbox"/> Archive For 1 Month

Sample Identification	Sample Date	Sample Time	Sample Type	Matrix	# of Cont.	Field pH =
DUP-5 ✓	8-6-15	1305	NORMAL	WATER	4	7.01
M-50 ✓	8-6-15	1305	NORMAL	WATER	4	7.01
<del>XXXXXXXXXXXX</del>	<del>XXXXXXXX</del>	<del>XXXXXXXX</del>	<del>NORMAL</del>	<del>WATER</del>	<del>4</del>	<del>Field pH =</del>
<del>XXXXXXXXXXXX</del>	<del>XXXXXXXX</del>	<del>XXXXXXXX</del>	<del>NORMAL</del>	<del>WATER</del>	<del>4</del>	<del>Field pH =</del>
<del>XXXXXXXXXXXX</del>	<del>XXXXXXXX</del>	<del>XXXXXXXX</del>	<del>NORMAL</del>	<del>WATER</del>	<del>4</del>	<del>Field pH =</del>
<del>XXXXXXXXXXXX</del>	<del>XXXXXXXX</del>	<del>XXXXXXXX</del>	<del>NORMAL</del>	<del>WATER</del>	<del>4</del>	<del>Field pH =</del>
<del>XXXXXXXXXXXX</del>	<del>XXXXXXXX</del>	<del>XXXXXXXX</del>	<del>NORMAL</del>	<del>WATER</del>	<del>4</del>	<del>Field pH =</del>
<del>XXXXXXXXXXXX</del>	<del>XXXXXXXX</del>	<del>XXXXXXXX</del>	<del>NORMAL</del>	<del>WATER</del>	<del>4</del>	<del>Field pH =</del>
<del>XXXXXXXXXXXX</del>	<del>XXXXXXXX</del>	<del>XXXXXXXX</del>	<del>NORMAL</del>	<del>WATER</del>	<del>4</del>	<del>Field pH =</del>
<del>XXXXXXXXXXXX</del>	<del>XXXXXXXX</del>	<del>XXXXXXXX</del>	<del>NORMAL</del>	<del>WATER</del>	<del>4</del>	<del>Field pH =</del>
<del>XXXXXXXXXXXX</del>	<del>XXXXXXXX</del>	<del>XXXXXXXX</del>	<del>NORMAL</del>	<del>WATER</del>	<del>4</del>	<del>Field pH =</del>
<del>XXXXXXXXXXXX</del>	<del>XXXXXXXX</del>	<del>XXXXXXXX</del>	<del>NORMAL</del>	<del>WATER</del>	<del>4</del>	<del>Field pH =</del>

Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4=HNO3; 5=NaOH; 6= Other  
 Possible Hazard Identification  
 Non-Hazard    Flammable    Skin Irritant    Poison B    Unknown  
 I attest to the validity and authenticity of this (these) sample(s). I am aware that tampering with or intentionally mislabeling the sample(s) location, date or time of collection may be considered fraud and subject to legal action. (NAC445.0636)  
 Signature: *Michelle Brown*   Date: 8-6-15

Special Instructions/QC Requirements & Comments:  
NEEDS LEVEL 4 REPORT

Relinquished by: <i>Michelle Brown</i>	Company:	Received by: <i>[Signature]</i>	Company:	Date/Time: <i>8/6/15</i>
Relinquished by:	Company:	Received by:	Company:	Date/Time:
Relinquished by:	Company:	Received by:	Company:	Date/Time:

# Chain of Custody Record

TestAmerica Laboratories, Inc.  
COC No:

<b>Client Contact</b>		<b>Project Manager: Wendy Prescott</b>		<b>Site Contact: Wendy Prescott</b>	
Envirogen Technologies		Tel/Fax: 702-371-9307		Lab Contact: Patty Mata	
510 South Fourth Street		Analysis Turnaround Time		Carrier:	
Henderson, NV 89015		Calendar (C) or Work Days (W) WORK		Date:	
702-371-9307		TAT if different from below		Job No.	
FAX:		<input checked="" type="checkbox"/> 2 weeks		SDG No.	
Project Name: NERT- 3rd Quarter M Wells		<input type="checkbox"/> 1 week			
Site: NERT- 510 S. Fourth St., Henderson, NV 89015		<input type="checkbox"/> 2 days			
P O # 3683		<input type="checkbox"/> 1 day			

Sample Identification	Sample Date	Sample Time	Sample Type	Matrix	# of Cont.	Filtered Sample	CL04	TDS	TDS, CRVI	TDS, NO3	TDS, CRVI, NO3	CL03
I-AD	07-15	0306	NORMAL	WATER	3	4	1	1				
I-K		0319	NORMAL	WATER	3	4	1	1				
I-J		0333	NORMAL	WATER	3	4	1	1				
I-Z		0338	NORMAL	WATER	3	4	1	1				
I-I		0352	NORMAL	WATER	3	4	1	1				
I-V		0356	NORMAL	WATER	3	4	1	1				
M-35		0419	NORMAL	WATER	3	4	1	1				
M-31A		0442	NORMAL	WATER	3	4	1	1				
M-32		0457	NORMAL	WATER	3	4	1	1				
Dip 3		0442	NORMAL	WATER	3	4	1	1				
EB-4		0446	NORMAL	WATER	3	4	1	1				
			NORMAL	WATER		4	1					

Field pH = 7.22  
Field pH = 7.61  
Field pH = 7.03  
Field pH = 7.46  
Field pH = 7.30  
Field pH = 7.37  
Field pH = 7.32  
Field pH = 7.39  
Field pH = 7.20  
Field pH = 7.39  
Field pH = 6.58  
Field pH =

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)  
 Return To Client  
 Disposal By Lab  
 Archive For 1 Months

Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4=HNO3; 5=NaOH; 6= Other  
 Possible Hazard Identification  
 Non-Hazard  
 Flammable  
 Skin Irritant  
 Poison B  
 Unknown

I attest to the validity and authenticity of this (these) sample(s). I am aware that tampering with or intentionally mislabeling the sample(s) location, date or time of collection may be considered fraud and subject to legal action (NAC445.0636)  
 Signature: *[Signature]* Date: 07-15

Special Instructions/QC Requirements & Comments:  
**NEEDS LEVEL 4 REPORT**

Relinquished by: <i>Michelle Brown</i>	Company: <i>Envirogen</i>	Date/Time: <i>07-15 09:10</i>
Relinquished by:	Company:	Date/Time:
Relinquished by:	Company:	Date/Time:

17461 Derian Ave  
Suite 100  
Irvine, CA 92614  
phone 949.261.1022 fax 949.260.3299

Chain of Custody Record



TestAmerica Laboratories, Inc.

Client Contact		Project Manager: Wendy Prescott Tel/Fax: 702-371-9307		Site Contact: Wendy Prescott		Date:	
Envirogen Technologies		Analysis Turnaround Time		Lab Contact: Patty Mata		Carrier:	
510 South Fourth Street		Calendar (C) or Work Days (W) WORK		Cr, B, Iron, Mn, Na 200.7 - 200.7		Job No.	
Henderson, NV 89015		<input checked="" type="checkbox"/> 2 weeks <input type="checkbox"/> 1 week <input type="checkbox"/> 2 days <input type="checkbox"/> 1 day		300, ORGFM, 28D - 300; C/SO4, 150; Conductance		SDG No.	
702-371-9307		TAT if different from Below		2540C_Calc'd - 2540; TDS, 2510B - 2510;		1 of 1 COCs	
FAX:		Sample Date		300, ORGFM, 28D - 300; C/SO4, 150; Conductance		Job No.	
Project Name: Envirogen Quarterly RCRA		Sample Time		420.1 - 420, Phenols, Total			
Site: NERT - 510 S. Fourth St., Henderson, NV 89015		Sample Type		9020B- 9020, TOX			
P O # 3693		Matrix		5310C - 5310C TOC			

Sample Identification	Sample Date	Sample Time	Sample Type	Matrix	# of Cont.	Filtered Sample	Field pH =
H-28A	8-7-15	0549	NORMAL	WATER	8	1	6.95
M-6A			NORMAL	WATER	8	1	NO SAMPLE
M-5A			NORMAL	WATER	8	1	NO SAMPLE
M-7B			NORMAL	WATER	8	1	NO SAMPLE

Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4=HNO3; 5=NaOH; 6= Other

Possible Hazard Identification:  Non-Hazard  Flammable  Skin Irritant  Poison B  Unknown

I attest to the validity and authenticity of this (these) sample(s). I am aware that tampering with or intentionally mislabeling the sample(s) location, date or time of collection may be considered fraud and subject to legal action (NAC445.0636)

Signature: Michele Brown Date: 8-7-15

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)  
 Return To Client  Disposal By Tab  Archive For: 12 months

Special Instructions/QC Requirements & Comments: **NEEDS LEVEL 4 REPORT**

Relinquished by: <u>Michele Brown</u>	Company:	Received by: <u>Patricia</u>	Company:
Relinquished by:	Company:	Received by:	Company:
Relinquished by:	Company:	Received by:	Company:



# Chain of Custody Record



TestAmerica Laboratories, Inc.

<b>Client Contact</b>		<b>Project Manager: Wendy Prescott</b>		<b>Site Contact: Wendy Prescott</b>	
Envirogen Technologies		Tel/Fax: 702-371-9307		Lab Contact: Patty Mata	
510 South Fourth Street		<b>Analysis Turnaround Time</b>		Carrier:	
Henderson, NV 89015		Calendar (C) or Work Days (W) WORK		Date:	
702-371-9307		TAT if different from Below		COC No:	
FAX:		<input checked="" type="checkbox"/> 2 weeks		Job No:	
Project Name: NERT- 3rd Quarter M Wells		<input type="checkbox"/> 1 week		SDG No:	
Site: NERT- 510 S. Fourth St., Henderson, NV 89015		<input type="checkbox"/> 2 days			
P O # 3693		<input type="checkbox"/> 1 day			
Sample Identification	Sample Date	Sample Time	Sample Type	Matrix	# of Cont.
PC-128	8-10-15	0502	NORMAL	WATER	3
PC-148		0552	NORMAL	WATER	3
PC-149		0645	NORMAL	WATER	3
PC-135A		0109	NORMAL	WATER	3
PC-144		0123	NORMAL	WATER	3
EB-5		0128	NORMAL	WATER	3
PC-136		0741	NORMAL	WATER	3
M-44		1040	NORMAL	WATER	3
M-95		1103	NORMAL	WATER	3
M-87		1137	NORMAL	WATER	3
DUP-2		1103	NORMAL	WATER	3
DUP-6		1137	NORMAL	WATER </td <td>3</td>	3

Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4= HNO3; 5= NaOH; 6= Other

Possible Hazard Identification:  Non-Hazard  Flammable  Skin Irritant  Poison B  Unknown

I attest to the validity and authenticity of this (these) sample(s). I am aware that tampering with or intentionally mislabeling the sample(s) location, date or time of collection may be considered fraud and subject to legal action (NAC45.0636)

Signature: Wendy Prescott Date: 8-10-15

Special Instructions/QC Requirements & Comments: **NEEDS LEVEL 4 REPORT**

Relinquished by: <u>Melinda Bow</u>	Company: <u>Envirogen</u>	Received by: <u>[Signature]</u>	Company: <u>[Signature]</u>
Relinquished by:	Company:	Received by:	Company:
Relinquished by:	Company:	Received by:	Company:

<b>Client Contact</b> Envirogen Technologies 510 South Fourth Street Henderson, NV 89015 702-371-9307 FAX: _____ Project Name: Envirogen Quarterly RCRA Site: NERT- 510 S. Fourth St., Henderson, NV 89015 P O # 3693		<b>Project Manager: Wendy Prescott</b> Tel/Fax: 702-371-9307 Analysis Turnaround Time Calendar (C) or Work Days (W) WORK TAT, if different from Below: <input checked="" type="checkbox"/> 2 weeks <input type="checkbox"/> 1 week <input type="checkbox"/> 2 days <input type="checkbox"/> 1 day		<b>Site Contact: Wendy Prescott</b> Lab Contact: Patty Mata CL043140 Cr, B, Iron, Mn, Na 200.7 - 200.7 300_ORGFM_28D - 300; C/SO4, 150; 2540C_Calc'd - 2540; TDS, 2510B - 2510; Conductance 5310C - 5310C TOC 9020B- 9020, TOX 420.1 - 420, Phenols, Total		<b>Date:</b> Carrier: Job No. SDG No.	
<b>Sample Identification</b> H-28A M-6A M-5A M-7B		Sample Date Sample Time Sample Type Matrix # of Cont.		Filtered Sample 1 4 1 6 3 3 1 4 1 6 3 3 1 4 1 6 3 3 1 4 1 6 3 3		No Sample Field pH = 6.98 No Sample No Sample	
Preservation Used: 1= Ice, 2= HCl, 3= H2SO4, 4=HNO3; 5=NaOH; 6= Other Possible Hazard Identification <input checked="" type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown							
I attest to the validity and authenticity of this (these) sample(s). I am aware that tampering with or intentionally mislabeling the sample(s) location, date or time of collection may be considered fraud and subject to legal action (NRC445.0636) Signature: <u>Wendy Prescott</u> Date: <u>8-10-15</u>							
Sample Disposal ( A fee may be assessed if samples are retained longer than 1 month) <input type="checkbox"/> Return To Client <input type="checkbox"/> Disposal By Tab Archive For <input type="checkbox"/> Months							
Special Instructions/QC Requirements & Comments: NEEDS LEVEL 4 REPORT							
Relinquished by: <u>Wendy Prescott</u>		Received by: <u>[Signature]</u>		Company: <u>Envirogen</u>		Date/Time: <u>8-10-15 1300</u>	
Relinquished by:		Received by:		Company:		Date/Time:	
Relinquished by:		Received by:		Company:		Date/Time:	



# Chain of Custody Record

TestAmerica Laboratories, Inc.

<b>Client Contact</b>		<b>Project Manager: Wendy Prescott</b>		<b>Site Contact: Wendy Prescott</b>		<b>Date:</b>	
Envirogen Technologies		Tel/Fax: 702-371-9307		Lab Contact: Patty Mata		Carrier:	
510 South Fourth Street		Analysis Turnaround Time		2540C Calcd- Total Dissolved Solids		COC No:	
Henderson, NV 89015		Calendar (C) or Work Days (W) WORK		200.7 Total Chromium		Job No:	
702-371-9307		TAT if different from Below _____		14.0 Perchlorate		SDG No:	
FAX:		<input checked="" type="checkbox"/> 2 weeks		Filtered Sample			
Project Name: Envirogen- Monthly ARP and PC Wells pg 1		<input type="checkbox"/> 1 week		Sample Date		Field pH =	
Site: NERT- 510 S. Fourth St., Hnederson, NV 89015		<input type="checkbox"/> 2 days		Sample Time		Field pH =	
P O # 3693		<input type="checkbox"/> 1 day		Sample Type		Field pH =	
				Matrix		Field pH =	
				# of Cont.		Field pH =	
Sample Identification		Sample Date		Sample Time		Field pH =	
PC-97	8-11-15	0638	NORMAL	WATER	3	1	7.55
PC-90		0704	NORMAL	WATER	3	1	7.55
PC-91		0729	NORMAL	WATER	3	1	7.43
PC-94		0745	NORMAL	WATER	3	1	7.14
PC-58		0811	NORMAL	WATER	3	1	7.40
PC-56		0844	NORMAL	WATER	3	1	7.22
PC-60		0910	NORMAL	WATER	3	1	7.50
PC-59		0933	NORMAL	WATER	3	1	7.48
PC-62		0956	NORMAL	WATER	3	1	7.38
PC-68		1027	NORMAL	WATER	3	1	7.27
PC-86		1043	NORMAL	WATER	3	1	7.35
			NORMAL	WATER	3	1	Field pH =

Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4=HNO3; 5=NaOH; 6= Other  
 Possible Hazard Identification  
 Non-Hazard  Flammable  Skin Irritant  Poison B  Unknown  
 Sample Disposal ( A fee may be assessed if samples are retained longer than 1 month)  
 Return To Client  Disposal By Lab  Archive For 1 Months

I attest to the validity and authenticity of this (these) sample(s). I am aware that tampering with or intentionally mislabeling the sample(s) location, date or time of collection may be considered fraud and subject to legal action (NAC445.0636)  
 Signature: *[Signature]* Date: 8-11-15

Special Instructions/QC Requirements & Comments:  
 NEEDS LEVEL 4 REPORT  
 Relinquished by: *[Signature]* Date/Time: 8-11-15 13:30  
 Relinquished by: *[Signature]* Date/Time: 8-11-15 13:30  
 Relinquished by: *[Signature]* Date/Time: 8-11-15 13:30

18, 2-

1/401 Derran Ave  
Suite 100  
Irvine, CA 92614  
phone 949.261.1022 fax 949.260.3299

# Chain of Custody Record

TestAmerica Laboratories, Inc.

Client Contact		Project Manager: Wendy Prescott		Site Contact: Wendy Prescott		COC No:	
Envirogen Technologies 510 South Fourth Street Henderson, NV 89015 702-371-9307		Tel/Fax: 702-371-9307		Lab Contact: Patty Mata		1 OF 3 COCs	
FAX:		Analysis Turnaround Time		Carrier:		Job No.	
Project Name: Envirogen- Monthly ARP and PC Wells pg 1		Calendar (C) or Work Days (W) WORK		Date:		SDG No.	
Site: NERT - 510 S. Fourth St., Henderson, NV 89015		TAT if different from Below		2540C, Calcd- Total Dissolved Solids		200.7 Total Chromium	
P O # 3693		<input checked="" type="checkbox"/> 2 weeks <input type="checkbox"/> 1 week <input type="checkbox"/> 2 days <input type="checkbox"/> 1 day		314.0 Perchlorate		Field pH = 7.13	
Sample Identification	Sample Date	Sample Time	Sample Type	Matrix	# of Cont.	Field pH =	
PC-18	8-12-15	0621	NORMAL	WATER	3	7.13	
ARP-1		0649	NORMAL	WATER	3	7.47	
PC-1a2		0707	NORMAL	WATER	3	7.37	
PC-53		0724	NORMAL	WATER	3	7.37	
MW-K5		0743	NORMAL	WATER	3	7.26	
ARP-7		0802	NORMAL	WATER	3	7.17	
ARP-6B		0820	NORMAL	WATER	3	7.27	
ARP-5A		0833	NORMAL	WATER	3	7.50	
ARP-4A		0848	NORMAL	WATER	3	7.25	
PC-101R		0902	NORMAL	WATER	3	7.14	
MW-K4		0936	NORMAL	WATER	3	7.25	
ARP-3A		0959	NORMAL	WATER	3	7.21	

Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4=HNO3; 5=NaOH; 6= Other

Possible Hazard Identification  
 Non-Hazard  Flammable  Skin Irritant  Poison B  Unknown  Archive For 1 Month

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)  
 Return To Client  Disposal By Lab

I attest to the validity and authenticity of this (these) sample(s). I am aware that tampering with or intentionally mislabeling the sample(s) location, date or time of collection may be considered fraud and subject to legal action (NAC 445.0636)

Signature: Michael Brown Date: 8-12-15

Special Instructions/QC Requirements & Comments:  
 NEEDS LEVEL 4 REPORT

Relinquished by: <u>Michael Brown</u>	Company: <u>Envirogen</u>	Received by: <u>Ch...</u>	Company: <u>Envirogen</u>	Date/Time: <u>8-12-15 14:30</u>
Relinquished by:	Company:	Received by:	Company:	Date/Time:
Relinquished by:	Company:	Received by:	Company:	Date/Time:



# Chain of Custody Record

TestAmerica Laboratories, Inc.

<b>Client Contact</b>	<b>Project Manager: Wendy Prescott</b>	<b>Site Contact: Wendy Prescott</b>	<b>Date:</b>
Envirogen Technologies	<b>Tel/Fax: 702-371-9307</b>	<b>Lab Contact: Patty Mata</b>	<b>Carrier:</b>
510 South Fourth Street	<b>Analysis Turnaround Time</b>		
Henderson, NV 89015	Calendar (C) or Work Days (W) WORK		
702-371-9307	TAT, if different from Below _____		
<b>FAX:</b>	<input checked="" type="checkbox"/> 2 weeks		
<b>Project Name:</b> Envirogen- Monthly ARP and PC Wells pg 1	<input type="checkbox"/> 1 week		
<b>Site:</b> NERT - 510 S. Fourth St., Henderson, NV 89015	<input type="checkbox"/> 2 days		
<b>P O #</b> 3693	<input type="checkbox"/> 1 day		

Sample Identification	Sample Date	Sample Time	Sample Type	Matrix	# of Cont.	Filtered Sample	340C Calcd- Total Dissolved Solids	314.0 Perchlorate	200.7 Total Chromium	Field pH =
MEB-1	8-12-15	0942	NORMAL	WATER	1	X				7.08
ARP-2A	8-12-15	1025	NORMAL	WATER	3					7.43
PC-103	8-12-15	1043	NORMAL	WATER	3					7.31
Dup 4	8-12-15	0604	NORMAL	WATER	3					7.13
			NORMAL	WATER	3					
			NORMAL	WATER	3					
			NORMAL	WATER	3					
			NORMAL	WATER	3					
			NORMAL	WATER	3					
			NORMAL	WATER	3					
			NORMAL	WATER	3					
			NORMAL	WATER	3					
			NORMAL	WATER	3					
			NORMAL	WATER	3					
			NORMAL	WATER	3					
			NORMAL	WATER	3					

**Preservation Used:** 1= Ice, 2= HCl; 3= H2SO4; 4=HNO3; 5=NaOH; 6= Other \_\_\_\_\_

**Possible Hazard Identification**

Non-Hazard  Flammable  Skin Irritant  Poison B  Unknown

**I attest to the validity and authenticity of this (these) sample(s). I am aware that tampering with or intentionally mislabeling the sample(s) location, date or time of collection may be considered fraud and subject to legal action (8/AC445,0636)**

**Signature:** *Wendy Prescott* **Date:** 8-12-15

**Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)**

Return To Client  Disposal By Lab  Archive For 1 Month

<b>Relinquished by:</b> <i>Wendy Prescott</i>	<b>Company:</b> Envirogen	<b>Date/Time:</b> 8-15-15	<b>Received by:</b> <i>Patty Mata</i>	<b>Company:</b>	<b>Date/Time:</b> 8/16/15
<b>Relinquished by:</b>	<b>Company:</b>	<b>Date/Time:</b>	<b>Received by:</b>	<b>Company:</b>	<b>Date/Time:</b>
<b>Relinquished by:</b>	<b>Company:</b>	<b>Date/Time:</b>	<b>Received by:</b>	<b>Company:</b>	<b>Date/Time:</b>

19.1

**Bottle Order Information**

Bottle Order: 3rd Qtr - pH, TDS, Cr, CLO4  
 Bottle Order #: 5498  
 Request From Client: 1/2/2015  
 Date Order Posted: 7/11/2013 12:34:33PM  
 Order Status: Ready To Process  
 Prepared By: Sushmitha Reddy  
**Deliver By Date: 7/24/2015 11:59:00PM**  
 Lab Project Number: 44008877

**Order Completion Information**

Creator: Sushmitha Reddy  
 Filled by:  
 Sent Date:  
 Sent Via:  
 Tracking #:

Sets	Bottles/Set	Qty	Bottle Type Description	Preservative	Method	Matrix	Sample Type	Comments	Lot #
129	1	129	Plastic 500ml - with Nitric Acid	Nitric Acid	200.7 - Chromium	Water	Normal		
129	1	129	Plastic 500ml - unpreserved	None	2540C_Calcd - Total Dissolved Solids	Water	Normal		
129	1	129	Plastic 125mL - sterile	None	SM4500_H+ - pH	Water	Normal		
						Water	Normal	Perchlorate	

**Notes to Field Staff:**

**Health and Safety Notes:**

Preservative \_\_\_\_\_ Comment \_\_\_\_\_

Nitric Acid

CAUTION! STRONG OXIDIZER! CONTAINS 1:1 NITRIC ACID. Avoid skin and eye contact. If contact is made, FLUSH IMMEDIATELY with water.

Relinquished By	Company	Date	Time	Received By	Company	Seal #:
Relinquished By	Company	Date	Time	Received By	Company	Seal #:

Please notify us immediately if an error is found in shipment

**Bottle Order Information**

Bottle Order: NERT - Quarterly 3rd RCRA wells  
 Bottle Order #: 5497  
 Request From Client: 7/11/2013 12:20:49PM  
 Order Status: Ready To Process  
 Prepared By: Sushmitha Reddy  
**Deliver By Date: 7/24/2015 11:59:00PM**  
 Lab Project Number: 44008877

**Order Completion Information**

Creator: Sushmitha Reddy  
 Filled by:  
 Sent Date:  
 Sent Via:  
 Tracking #:

Sets	Bottles/Set	Qty	Bottle Type Description	Preservative	Method	Matrix	Sample Type	Comments	Lot #
4	1	4	Plastic 500ml - with Nitric Acid	Nitric Acid	200.7 - B, Cr, Iron, Mn, Na	Water	Normal		
4	1	4	Amber Glass 500mL - Sulfuric Acid	Sulfuric Acid	420.1 - Phenols	Water	Normal		
4	2	8	Plastic 500ml - unpreserved	None	2540C_Calcd - Total Dissolved Solids	Water	Normal		
4	1	4	Amber Glass 250ml - H3PO4	Phosphoric Acid	2510B - Specific Conductance	Water	Normal		
4	2	8	Amber Glass 500mL - Sulfuric Acid	Sulfuric Acid	300_ORGFM_28D - Cl/SO4	Water	Normal		
4	1	4	Plastic 125mL - sterile	None	SM4500_H+ - pH	Water	Normal		
4	1	4	Amber Glass 250ml - H3PO4	Phosphoric Acid	5310C - Total Organic Carbon	Water	Normal		
4	2	8	Amber Glass 500mL - Sulfuric Acid	Sulfuric Acid	9020B - QUAD TOX (in quadruplicate)	Water	Normal		
4	1	4	Plastic 125mL - sterile	None		Water	Normal	Perchlorate	

**Notes to Field Staff:**

**Health and Safety Notes:**  
 Preservative Comment

Nitric Acid CAUTION! STRONG OXIDIZER! CONTAINS 1:1 NITRIC ACID. Avoid skin and eye contact. If contact is made, FLUSH IMMEDIATELY with water.

Phosphoric Acid CAUTION! CONTAINS 1:1 PHOSPHORIC ACID. Avoid skin and eye contact. If contact is made, FLUSH IMMEDIATELY with water.

Sulfuric Acid CAUTION! CONTAINS 1:1 SULFURIC ACID. Avoid skin and eye contact. If contact is made, FLUSH IMMEDIATELY with water.

Relinquished By	Company	Date	Time	Received By	Company	Seal #
Relinquished By	Company	Date	Time	Received By	Company	Seal #

Please notify us immediately if an error is found in shipment



# *Groundwater Field Log*

**This Section Contains:**

- Water Sampling Field Logs



# Water Sampling Field Log

Well No.: H-28A

Project No.: \_\_\_\_\_ Site: NERT PROJECT- HENDERSON, NEVADA

Sampling Team: Janel Rivera, Michele Brown Date: 8-7-15

Sampling Method:  Electric Pump  Dedicated bailer  Disposable Bailer

Weather Conditions: cool, drizzling

**Well Information:**

Total Well Depth: 51.0 feet Time: 0540

Depth to Water: 39.29 feet

Well Diameter (circle one)  
 2-in.     4-in.     6-in.  
11.71 feet    \*0.16 gal/ft    \*0.65 gal/ft    \*1.47 gal/ft

Well Volume (WV)	Purge Factor	Purge Volume
gal. *	<u>3</u>	gal

**Field Measurements:**

Depth Purging From: 2 ft. below depth to water

Time	Cumulative Volume Purged	pH	Specific Conductivity	Temp	Observations
<u>0547</u>	gal	<u>6.95</u>	<u>15.11 mS/cm</u>	<u>23.8°</u>	<u>cloudy</u>
	gal				
	gal				

FIELD pH = 6.95

Sample Appearance: cloudy

Sample Collection - Time Start: 0549 Time Finished: 0549

Analyses:	TOC	TOX	CLO4	Phenols	B/Cr/Iron/Mn/Na	TDS/SC/SO4/Cl
Bottles:	1 Btl	2 Btls	1 Btl	1 Btl	1 Btl	2 Btls

**TOTAL BOTTLES- 8**

Comments: well not purged due to location

# Water Sampling Field Log

Well No.: ARP-1

Project No.: \_\_\_\_\_ Site: NERT PROJECT- HENDERSON, NEVADA

Sampling Team: Michele Brown Date: 8-12-15

Sampling Method:  Electric Pump  Dedicated Bailer  Non Dedicated Bailer  Ready Flo 2" O

Weather Conditions: overcast breezy, warm

**Well Information:**

Total Well Depth: 44.2 feet Time: 0632

Depth to Water: 24.04 feet

Height of Water Column (L): 20.16 feet \* 2-in. Well Diameter (circle one) \* 0.16 gal/ft \* 4-in. \* 0.65 gal/ft \* 6-in. \* 1.47 gal/ft = 322 gal. \* 3 Purge Factor = 10 gal Purge Volume

**Field Measurements:**

Depth Purging From: 2 ft. below depth to water

Time	Cumulative Volume Purged	pH	Specific Conductivity	Temp	Observations
<u>0635</u>	-----	-----	-----	-----	
<u>0639</u>	<u>4</u> gal	<u>7.58</u>	<u>8.50</u> mspm	<u>25.1</u> °C	<u>clear</u>
<u>0642</u>	<u>7</u> gal	<u>7.55</u>	<u>7.93</u> mspm	<u>24.8</u> °C	<u>clear</u>
<u>0645</u>	<u>10</u> gal	<u>7.47</u>	<u>7.92</u> mspm	<u>24.7</u> °C	<u>clear</u>
	gal				
	gal				
	gal				<u>Field pH = 7.47</u>

Sample Appearance: Clear

Sample Collection - Time Start: 0647 Time Finished: 0647

Analyses: CLO4 TDS TDS/pH CR  
 Bottles: 1 BTL 1 BTL 1 BTL 1 BTL

TOTAL BOTTLES: 3

Comments: screen 14, 44'



# Water Sampling Field Log

Well No.: ARP-2A

Project No.: \_\_\_\_\_ Site: NERT PROJECT- HENDERSON, NEVADA

Sampling Team: Michele Brown Date: 8-12-15

Sampling Method:  Electric Pump  Dedicated Bailer  Non Dedicated Bailer  Ready Flo 2" O

Weather Conditions: humid, breezy, warm, sunny

**Well Information:**

Total Well Depth: 54.0 feet Time: 1006

Depth to Water: 25.51 feet

Height of Water Column (L): 28.49 feet

Well Diameter (circle one)			Well	Purge	Purge
2-in.	4-in.	6-in.	Volume (WV)	Factor	Volume
<u>0.16 gal/ft</u>	* 0.65 gal/ft	* 1.47 gal/ft	= <u>4.55</u> gal.	* <u>3</u>	= <u>14 gal</u>

**Field Measurements:**

Depth Purging From: 2 ft. below depth to water

Time	Cumulative Volume Purged	pH	Specific Conductivity	Temp	Observations
1009	----	----	----	----	
1014	5 gal	7.34	8.60 mspcm	28.7 °C	clear
1019	10 gal	7.42	8.60 mspcm	28.4 °C	clear
1023	14 gal	7.43	8.56 mspcm	28 °C	clear
	gal				
	gal				
	gal				Field pH = 7.43

Sample Appearance: clear

Sample Collection - Time Start: 1025 Time Finished: 1025

Analyses: CLO4 TDS TDS/pH CR  
 Bottles: 1 BTL 1 BTL 1 BTL 1 BTL

TOTAL BOTTLES: 3

Comments: Top of screen 23.7'

# Water Sampling Field Log

Well No.: ARP-3A

Project No.: \_\_\_\_\_

Site: NERT PROJECT- HENDERSON, NEVADA

Sampling Team: Michele Brown

Date: 8-12-15

Sampling Method:  Electric Pump     Dedicated Bailer     Non Dedicated Bailer     Ready Flo 2" O

Weather Conditions: humid, warm, sunny

**Well Information:**

Total Well Depth: 41.0 feet                      Time: 0948

Depth to Water: 26.94 feet

Height of Water Column (L): 14.06 feet

Well Diameter (circle one)  
 2-in.     4-in.     6-in.

Well Volume (WV)    Purge Factor    Purge Volume  
 = 2.24 gal. \* 3 = 7 gal

**Field Measurements:**

Depth Purging From: 2 ft. below depth to water

Time	Cumulative Volume Purged	pH	Specific Conductivity	Temp	Observations
<u>0950</u>	-----	-----	-----	-----	
<u>0953</u>	<u>3 gal</u>	<u>7.22</u>	<u>12.12 mS/cm</u>	<u>29.0 °C</u>	<u>clear</u>
<u>0955</u>	<u>5 gal</u>	<u>7.23</u>	<u>11.9 mS/cm</u>	<u>28.1 °C</u>	<u>clear</u>
<u>0957</u>	<u>7 gal</u>	<u>7.21</u>	<u>12.15 mS/cm</u>	<u>27.2 °C</u>	<u>clear</u>
	gal				
	gal				
	gal				<u>Field pH = 7.21</u>

Sample Appearance: clear

Sample Collection -                      Time Start: 0959                      Time Finished: 0959

Analyses: CLO4    TDS    TDS/pH    CR  
 Bottles: 1 BTL    1 BTL    1 BTL    1 BTL

TOTAL BOTTLES: 3

Comments: Top of screen 20.7'

# Water Sampling Field Log

Well No.: ARP-4A

Project No.: \_\_\_\_\_ Site: NERT PROJECT- HENDERSON, NEVADA

Sampling Team: Michele Brown Date: 8-12-15

Sampling Method:  Electric Pump  Dedicated Bailer  Non Dedicated Bailer  Ready Flo 2" O

Weather Conditions: breezy, humid

**Well Information:**

Total Well Depth: 33.0 feet Time: 0841

Depth to Water: 28.66 feet

Height of Water Column (L): 4.34 feet \* 0.16 gal/ft \* 0.65 gal/ft \* 1.47 gal/ft = 0.69 gal. \* 3 = 3 gal

Well Diameter (circle one)  
 2-in.  4-in.  6-in.  
 Well Volume (WV) Purge Factor Purge Volume

**Field Measurements:**

Depth Purging From: 2 ft. below depth to water

Time	Cumulative Volume Purged	pH	Specific Conductivity	Temp	Observations
<u>0843</u>	-----	-----	-----	-----	
<u>0844</u>	<u>1</u> gal	<u>7.27</u>	<u>6.10 mscm</u>	<u>27.4</u> °C	<u>Clear</u>
<u>0845</u>	<u>2</u> gal	<u>7.20</u>	<u>6.14 mscm</u>	<u>26.1</u> °C	<u>clear</u>
<u>0846</u>	<u>3</u> gal	<u>7.25</u>	<u>6.18 mscm</u>	<u>26.0</u> °C	<u>clear</u>
	gal				
	gal				
	gal				<u>Field pH. 7.25</u>

Sample Appearance: Clear

Sample Collection - Time Start: 0848 Time Finished: 0848

Analyses: CLO4 TDS TDS/pH CR  
 Bottles: 1 BTL 1 BTL 1 BTL 1 BTL

TOTAL BOTTLES: 3

Comments: screen 17.7 - 32.7

# Water Sampling Field Log

Well No.: ARP-5A

Project No.: \_\_\_\_\_

Site: NERT PROJECT- HENDERSON, NEVADA

Sampling Team: Michele Brown

Date: 8-12-15

Sampling Method:  Electric Pump  Dedicated Bailer  Non Dedicated Bailer  Ready Flo 2" O

Weather Conditions: humid, warm

**Well Information:**

Total Well Depth: 38.0 feet Time: 0825

Depth to Water: 31.83 feet

Height of Water Column (L): 6.17 feet

Well Diameter (circle one)	Well Volume (VV)	Purge Factor	Purge Volume
<input checked="" type="radio"/> 2-in. <input type="radio"/> 4-in. <input type="radio"/> 6-in.			
* 0.16 gal/ft    * 0.65 gal/ft    * 1.47 gal/ft	= <u>.98</u> gal.	* <u>3</u>	= <u>3 gal</u>

**Field Measurements:**

Depth Purging From: 2 ft. below depth to water

Time	Cumulative Volume Purged	pH	Specific Conductivity	Temp	Observations
<u>0827</u>	-----	-----	-----	-----	
<u>0828</u>	<u>1 gal</u>	<u>7.50</u>	<u>3.49 mscm</u>	<u>27.1 °C</u>	<u>clear</u>
<u>0829</u>	<u>2 gal</u>	<u>7.51</u>	<u>3.36 mscm</u>	<u>25.8 °C</u>	<u>clear</u>
<u>0830</u>	<u>3 gal</u>	<u>7.50</u>	<u>3.48 mscm</u>	<u>25.2 °C</u>	<u>clear</u>
	gal				
	gal				
	gal				<u>Field pH = 7.50</u>

Sample Appearance: clear

Sample Collection - Time Start: 0832 Time Finished: 0832

Analyses: CLO4 TDS TDS/pH CR  
 Bottles: 1 BTL 1 BTL 1 BTL 1 BTL

TOTAL BOTTLES: 3

Comments: screen 12.7 - 37.7'      closing qc 6.99

# Water Sampling Field Log

Well No.: ARP-6B

Project No.: \_\_\_\_\_ Site: NERT PROJECT- HENDERSON, NEVADA

Sampling Team: Michele Brown Date: 8-12-15

Sampling Method:  Electric Pump  Dedicated Bailer  Non Dedicated Bailer  Ready Flo 2" O

Weather Conditions: warm, humid

**Well Information:**

Total Well Depth: 43.0 feet Time: 0810

Depth to Water: 31.37 feet

Height of Water Column (L): 11.63 feet

Well Diameter (circle one)	Well Volume (VV)	Purge Factor	Purge Volume
<input checked="" type="radio"/> 2-in. <input type="radio"/> 4-in. <input type="radio"/> 6-in.	0.16 gal/ft                    * 0.65 gal/ft                    * 1.47 gal/ft	= <u>1.86</u> gal. * <u>3</u> =	<u>6 gal</u>

**Field Measurements:**

Depth Purging From: 2 ft. below depth to water

Time	Cumulative Volume Purged	pH	Specific Conductivity	Temp	Observations
<u>0812</u>	-----	-----	-----	-----	
<u>0814</u>	<u>2</u> gal	<u>7.31</u>	<u>10.24</u> mS/cm	<u>27.3</u> °C	<u>clear</u>
<u>0816</u>	<u>4</u> gal	<u>7.24</u>	<u>10.03</u> mS/cm	<u>26.6</u> °C	<u>clear</u>
<u>0818</u>	<u>6</u> gal	<u>7.27</u>	<u>10.00</u> mS/cm	<u>26.4</u> °C	<u>clear</u>
_____	gal	_____	_____	_____	_____
_____	gal	_____	_____	_____	_____
_____	gal	_____	_____	_____	<u>Field pH = 7.27</u>

Sample Appearance: clear

Sample Collection - Time Start: 0820 Time Finished: 0820

Analyses: CLO4 TDS TDS/pH CR

Bottles: 1 BTL 1 BTL 1 BTL 1 BTL

TOTAL BOTTLES: 3

Comments: Screen 27.7 - 42.7'

# Water Sampling Field Log

Well No.: ARP-7

Project No.: \_\_\_\_\_

Site: NERT PROJECT- HENDERSON, NEVADA

Sampling Team: Michele Brown

Date: 8-12-15

Sampling Method:  Electric Pump  Dedicated Bailer  Non Dedicated Bailer  Ready Flo 2" O

Weather Conditions: Breezy, warm, some sun

**Well Information:**

Total Well Depth: 39.0 feet Time: 0753

Depth to Water: 29.52 feet

Well Diameter (circle one)  
 2-in. 4-in. 6-in.  
 Height of Water Column (L): 9.48 feet \* 0.16 gal/ft \* 0.65 gal/ft \* 1.47 gal/ft = 1.51 gal. \* 3 = 5 gal

Well Volume (WV) Purge Factor Purge Volume

**Field Measurements:**

Depth Purging From: 2 ft. below depth to water

Time	Cumulative Volume Purged	pH	Specific Conductivity	Temp	Observations
<u>0755</u>	----	----	-----	-----	
<u>0757</u>	<u>2</u> gal	<u>7.15</u>	<u>9.88</u> mscm	<u>26.5</u> °C	<u>clear</u>
<u>0759</u>	<u>4</u> gal	<u>7.19</u>	<u>9.82</u> mscm	<u>26.6</u> °C	<u>clear</u>
<u>0800</u>	<u>5</u> gal	<u>7.17</u>	<u>9.82</u> mscm	<u>26.4</u> °C	<u>clear</u>
	gal				
	gal				
	gal				<u>Field pH = 7.17</u>

Sample Appearance: clear

Sample Collection -

Time Start: 0802 Time Finished: 0802

Analyses:  
Bottles:

CLO4 TDS TDS/pH CR  
1 BTL 1 BTL 1 BTL 1 BTL

TOTAL BOTTLES: 3

Comments: screen 14-39'

**Water Sampling Field Log**

Well No.: ART-1

Project No.: \_\_\_\_\_ Site: NERT PROJECT- HENDERSON, NEVADA

Sampling Team: Michele Brown, Janel Rivera Date: 8-3-15

Sampling Method:  Sample Port  Disposable Bailer  Electric pump

Weather Conditions: Warm, sunny, clear

**Well Information:**

Total Well Depth: 56.0 feet Time: 8-13-15 0654

Depth to Water: - 25.26 feet

Well Diameter (circle one)  
 2-in.  4-in.  6-in.

Water Column (L): 30.74 feet X 0.4893 1.9 4.41 =            Purge Volume

Field Measurements: Depth Purging From: 2 ft below DTW

Time	gals	EC	pH	Temp	Observations of Sample
<u>1039</u>		<u>8.59</u>	<u>7.23</u>	<u>30.0 °C</u>	<u>Clear</u>

**Comments:**

Sample Collection Time - 1040

Analyses:	<u>CR</u>	<u>CLO4</u>	<u>pH/TDS</u>	<u>pH / TDS/ CRVI</u>	<u>pH/ TDS / NO3</u>	<u>pH / TDS / CRVI / NO3</u>
Bottles:	<u>1 Bottle</u>	<u>1 Bottle</u>	<u>1 Bottle</u>	<u>1 Bottle</u>	<u>1 Bottle</u>	<u>1 Bottle</u>

**TOTAL Bottles- 3**

Water Sampling Field Log

Well No.: ART-1A

Project No.: \_\_\_\_\_ Site: NERT PROJECT- HENDERSON, NEVADA

Sampling Team: Michele Brown Janel Rivera Date: 8.13.15

Sampling Method: Sample Port O Disposable Bailer O Electric pump O

Weather Conditions: Sunny, humid

Well Information:

Total Well Depth: 56.0 feet Time: 0658

Depth to Water: - 23.97 feet

Water Column (L):	<u>32.03</u> feet	X	Well Diameter (circle one)			=	Purge Volume
			2-in.	4-in.	6-in.		
			0.4893	1.9	4.41		

Field Measurements: Depth Purging From: 2 ft below DTW

Time	gals	pH	Temp	Observations of Sample

Comments:

DTW ONLY  
NO SAMPLE

Sample Collection Time - \_\_\_\_\_

Analyses:	CR	CLO4	pH / TDS	pH / TDS / CRVI	pH / TDS / NO3	pH / TDS / CRVI / NO3
Bottles:	1 Bottle	1 Bottle	1 Bottle	1 Bottle	1 Bottle	1 Bottle

TOTAL Bottles- Ø



**Water Sampling Field Log**

Well No.: ART-20

Project No.: \_\_\_\_\_ Site: NERT PROJECT- HENDERSON, NEVADA

Sampling Team: Michele Brown, Janel Rivera Date: 8-3-15

Sampling Method:  Sample Port  Disposable Bailer  Electric pump

Weather Conditions: Warm, sunny, clear

**Well Information:**

Total Well Depth: 56.0 feet Time: 8-13-15 0653

Depth to Water: - 27.65 feet

Water Column (L):	<u>28.35</u> feet	X	Well Diameter (circle one)			=	Purge Volume
			<u>2-in.</u>	<u>4-in.</u>	<u>6-in.</u>		
			0.4893	1.9	4.41		

Field Measurements: Depth Purging From: 2 ft below DTW

Time	gals	EC	pH	Temp	Observations of Sample
<u>1043</u>		<u>14.70</u>	<u>6.92</u>	<u>27.6°</u>	<u>Clear</u>

**Comments:**

Sample Collection Time - 1044

Analyses:	<u>CR</u>	<u>CLO4</u>	<u>pH / TDS</u>	pH / TDS / CRVI	pH / TDS / NO3	pH / TDS / CRVI / NO3
Bottles:	<u>1 Bottle</u>	<u>1 Bottle</u>	<u>1 Bottle</u>	1 Bottle	1 Bottle	1 Bottle

**TOTAL Bottles- 3**

Water Sampling Field Log

Well No.: ART-2A

Project No.: \_\_\_\_\_ Site: NERT PROJECT- HENDERSON, NEVADA

Sampling Team: Michele Brown, Janel Rivera Date: 8.13.15

Sampling Method:  Sample Port  Disposable Bailer  Electric pump

Weather Conditions: hot, humid

Well Information:

Total Well Depth: 58.0 feet

Time: 0654

Depth to Water: - 26.94 feet

Water Column (L):	<u>31.06</u> feet	X	Well Diameter (circle one)			=	Purge Volume
			<u>2-in.</u>	<u>4-in.</u>	<u>6-in.</u>		
			0.4893	1.9	4.41		

Field Measurements: Depth Purging From: 2 ft below DTW

Time	gals	pH	Temp	Observations of Sample

Comments:

DTW ONLY  
NO SAMPLE

Sample Collection Time - \_\_\_\_\_

Analyses:	<u>CR</u>	<u>CLO4</u>	<u>pH / TDS</u>	<u>pH / TDS / CRVI</u>	<u>pH / TDS / NO3</u>	<u>pH / TDS / CRVI / NO3</u>
Bottles:	<u>1 Bottle</u>	<u>1 Bottle</u>	<u>1 Bottle</u>	<u>1 Bottle</u>	<u>1 Bottle</u>	<u>1 Bottle</u>

TOTAL Bottles- 0

Water Sampling Field Log

Well No.: ART-3

Project No.: \_\_\_\_\_ Site: NERT PROJECT- HENDERSON, NEVADA

Sampling Team: Michele Brown, Janel Rivera Date: 8.13.15

Sampling Method:  Sample Port  Disposable Bailer  Electric pump

Weather Conditions: hot, humid

Well Information:

Total Well Depth: 47.0 feet Time: 0647

Depth to Water: - 30.59 feet

Water Column (L):	<u>16.41</u> feet	X	Well Diameter (circle one)			=	Purge Volume
			<u>0.4893</u>	<u>1.9</u>	<u>4.41</u>		

Field Measurements: Depth Purging From: 2 ft below DTW

Time	gals	pH	Temp	Observations of Sample

Comments: DTW ONLY  
NO SAMPLE

Sample Collection Time - \_\_\_\_\_

Analyses:	<u>CR</u>	<u>CLO4</u>	<u>pH / TDS</u>	<u>pH / TDS/ CRVI</u>	<u>pH/ TDS / NO3</u>	<u>pH / TDS / CRVI / NO3</u>
Bottles:	<u>1 Bottle</u>	<u>1 Bottle</u>	<u>1 Bottle</u>	<u>1 Bottle</u>	<u>1 Bottle</u>	<u>1Bottle</u>

TOTAL Bottles- 0

**Water Sampling Field Log**

Well No.: ART-3A

Project No.: \_\_\_\_\_ Site: NERT PROJECT- HENDERSON, NEVADA

Sampling Team: Michele Brown, Janel Rivera Date: 8-3-15

Sampling Method:  Sample Port  Disposable Bailer  Electric pump

Weather Conditions: Warm, sunny, clear

**Well Information:**

Total Well Depth: 55.0 feet

Time: 0646 <sup>8-13-15</sup>

Depth to Water: - 36.82 feet

Well Diameter (circle one)

Purge Volume

Water Column (L): 18.18 feet X 

2-in.	4-in.	6-in.	
0.4893	1.9	4.41	= _____

Field Measurements: Depth Purging From: 2 ft below DTW

Time	gals	EC	pH	Temp	Observations of Sample
<u>1046</u>		<u>11.75</u>	<u>7.10</u>	<u>26.6<sup>00</sup></u>	<u>clear</u>

**Comments:**

Sample Collection Time - 1047

Analyses:	<u>CR</u>	<u>CLO4</u>	<u>pH/TDS</u>	<u>pH / TDS/ CRVI</u>	<u>pH/ TDS / NO3</u>	<u>pH / TDS / CRVI / NO3</u>
Bottles:	<u>1 Bottle</u>	<u>1 Bottle</u>	<u>1 Bottle</u>	<u>1 Bottle</u>	<u>1 Bottle</u>	<u>1 Bottle</u>

**TOTAL Bottles- 3**

**Water Sampling Field Log**

Well No.: ART-4

Project No.: \_\_\_\_\_

Site: NERT PROJECT- HENDERSON, NEVADA

Sampling Team: Michele Brown

Date: 8-3-15

Sampling Method:  Sample Port  Disposable Bailer  Electric pump

Weather Conditions: Warm, sunny, clear

**Well Information:**

Total Well Depth: 46.0 feet Time: 8:13:15  
0651

Depth to Water: - 38.65 feet

Water Column (L): 7.35 feet X

Well Diameter (circle one)			Purge Volume
2-in.	4-in.	6-in.	
0.4893	1.9	4.41	= _____

Field Measurements: Depth Purging From: 2 ft below DTW

Time	gals	EC	pH	Temp	Observations of Sample
<u>1050</u>		<u>7.82</u>	<u>7.33</u>	<u>27.4</u>	<u>clear</u>

**Comments:**

Sample Collection Time - 1051

Analyses:	<u>CR</u>	<u>CLO4</u>	<u>pH/TDS</u>	<u>pH / TDS/ CRVI</u>	<u>pH/ TDS / NO3</u>	<u>pH / TDS / CRVI / NO3</u>
Bottles:	<u>1 Bottle</u>	<u>1 Bottle</u>	<u>1 Bottle</u>	<u>1 Bottle</u>	<u>1 Bottle</u>	<u>1Bottle</u>

**TOTAL Bottles- 3**

Water Sampling Field Log

Well No.: ART-4A

Project No.: \_\_\_\_\_

Site: NERT PROJECT- HENDERSON, NEVADA

Sampling Team: Michele Brown

Date: 8.13.15

Sampling Method: Sample Port O Disposable Bailer O Electric pump O

Weather Conditions: hot, humid

Well Information:

Total Well Depth: 46.0 feet

Time: 0649

Depth to Water: - 29.31 feet

Well Diameter (circle one)

Purge Volume

Water Column (L): 16.69 feet

2-in. 4-in. 6-in.

X 0.4893 1.9 4.41 = \_\_\_\_\_

Field Measurements: Depth Purging From: 2 ft below DTW

Time	gals	pH	Temp	Observations of Sample

Comments:

DTW ONLY  
NO SAMPLE

Sample Collection Time - \_\_\_\_\_

Analyses:	CR	CLO4	pH /TDS	pH / TDS/ CRVI	pH/ TDS / NO3	pH / TDS / CRVI / NO3
Bottles:	1 Bottle	1 Bottle	1 Bottle	1 Bottle	1 Bottle	1Bottle

TOTAL Bottles- 6

Water Sampling Field Log

Well No.: ART-10

Project No.: \_\_\_\_\_

Site: NERT PROJECT- HENDERSON, NEVADA

Sampling Team: Michele Brown

Date: 8-3-15

Sampling Method: Sample Port O Disposable Bailer ● Electric pump O

Weather Conditions: warm, sunny, clear

Well Information:

Total Well Depth: 36.0 feet Time: 1125

Depth to Water: - 28.65 feet

Water Column (L):	<u>7.35</u> feet	X	Well Diameter (circle one)			=	Purge Volume
			<u>0.4893</u>	<u>1.9</u>	<u>4.41</u>		

Field Measurements: Depth Purging From: 2 ft below DTW

Time	gals	EC	pH	Temp	Observations of Sample
<u>1127</u>		<u>6.95</u>	<u>7.46</u>	<u>32.7°</u>	<u>clear</u>

Comments:

Sample Collection Time - 1128

Analyses:	<u>CR</u>	<u>CLO4</u>	<u>pH / TDS</u>	pH / TDS / CRVI	pH / TDS / NO3	pH / TDS / CRVI / NO3
Bottles:	<u>1 Bottle</u>	<u>1 Bottle</u>	<u>1 Bottle</u>	1 Bottle	1 Bottle	1 Bottle

TOTAL Bottles- 3

Water Sampling Field Log

Well No.: ART-7

Project No.: \_\_\_\_\_

Site: NERT PROJECT- HENDERSON, NEVADA

Sampling Team: Michele Brown

Date: 8-3-15

Sampling Method:  Sample Port  Disposable Bailer  Electric pump

Weather Conditions: \_\_\_\_\_

Well Information:

Total Well Depth: 38.9 feet Time: 1138

Depth to Water: - \_\_\_\_\_ feet

Well Diameter (circle one)  
2-in. 4-in. 6-in.

Purge Volume

Water Column (L): \_\_\_\_\_ feet X 0.4893 1.9 4.41 = \_\_\_\_\_

Field Measurements: Depth Purging From: 2 ft below DTW

Time	gals	pH	Temp	Observations of Sample

Comments:

well capped  
NO sample  
NO data

Sample Collection Time - \_\_\_\_\_

Analyses:	CR	CLO4	pH /TDS	pH / TDS/ CRVI	pH/ TDS / NO3	pH / TDS / CRVI / NO3
Bottles:	1 Bottle	1 Bottle	1 Bottle	1 Bottle	1 Bottle	1 Bottle

TOTAL Bottles- 0



**Water Sampling Field Log**

Well No.: ART-7A

Project No.: \_\_\_\_\_

Site: NERT PROJECT- HENDERSON, NEVADA

Sampling Team: Michele Brown

Date: 8-3-15

Sampling Method: Sample Port O  Disposable Bailer ●  Electric pump O

Weather Conditions: warm, sunny, clear

**Well Information:**

Total Well Depth: 40.0 feet Time: 1140

Depth to Water: - 29.28 feet

Well Diameter (circle one)

2-in. 4-in. 6-in.

Purge Volume

Water Column (L): 10.72 feet X 0.4893 1.9 4.41 = \_\_\_\_\_

**Field Measurements:** Depth Purging From: 2 ft below DTW

Time	gals	EC	pH	Temp	Observations of Sample
<u>1142</u>		<u>9.45</u>	<u>7.12</u>	<u>27.7°</u>	<u>clear</u>

**Comments:**

Sample Collection Time - 1143

Analyses: CR ClO4 pH/TDS pH / TDS / CRVI pH / TDS / NO3 pH / TDS / CRVI / NO3  
 Bottles: 1 Bottle 1 Bottle 1 Bottle 1 Bottle 1 Bottle 1 Bottle

**TOTAL Bottles- 3**

Water Sampling Field Log

Well No.: ART-7B

Project No.: \_\_\_\_\_

Site: NERT PROJECT- HENDERSON, NEVADA

Sampling Team: Michele Brown

Date: 8-3-15

Sampling Method: Sample Port ● Disposable Bailer O Electric pump O

Weather Conditions: Warm, sunny, clear

Well Information:

Total Well Depth: 50.0 feet Time: 8.13.15 0841

Depth to Water: - 39.90 feet

Water Column (L): 10.10 feet X Well Diameter (circle one) 2-in. 4-in. 6-in. =          Purge Volume

Field Measurements: Depth Purging From: 2 ft below DTW

Time	gals	EC	pH	Temp	Observations of Sample
<u>1101</u>		<u>9.53</u>	<u>7.31</u>	<u>26.9°c</u>	<u>Clear</u>

Comments:

Sample Collection Time - 1102

Analyses: CR ClO4 pH/TDS pH / TDS / CRVI pH / TDS / NO3 pH / TDS / CRVI / NO3  
Bottles: 1 Bottle 1 Bottle 1 Bottle 1 Bottle 1 Bottle 1 Bottle

TOTAL Bottles- 3

**Water Sampling Field Log**

Well No.: ART-8

Project No.: \_\_\_\_\_

Site: NERT PROJECT- HENDERSON, NEVADA

Sampling Team: Michele Brown

Date: 8-3-15

Sampling Method:  Sample Port  Disposable Bailer  Electric pump

Weather Conditions: Warm, sunny, clear

**Well Information:**

Total Well Depth: 50.53 feet Time: 8:13.15  
0640

Depth to Water: - 28.44 feet

Well Diameter (circle one)  
2-in. 4-in. 6-in.

Purge Volume

Water Column (L): 22.09 feet X 0.4893 1.9 4.41 = \_\_\_\_\_

Field Measurements: Depth Purging From: 2 ft below DTW

Time	gals	EC	pH	Temp	Observations of Sample
<u>1053</u>		<u>14.14</u>	<u>7.02</u>	<u>27.3<sup>oc</sup></u>	<u>clear</u>

**Comments:**

Sample Collection Time - 1054

Analyses: CR CLO4 pH/TDS pH / TDS / CRVI pH / TDS / NO3 pH / TDS / CRVI / NO3  
Bottles: 1 Bottle 1 Bottle 1 Bottle 1 Bottle 1 Bottle 1 Bottle

**TOTAL Bottles- 3**

Water Sampling Field Log

Well No.: ART-8A

Project No.: \_\_\_\_\_

Site: NERT PROJECT- HENDERSON, NEVADA

Sampling Team: Michele Brown

Date: 8.13.15

Sampling Method: Sample Port  Disposable Bailer  Electric pump

Weather Conditions: hot, humid

Well Information:

Total Well Depth: 54.0 feet

Time: 0642

Depth to Water: - 30.22 feet

Well Diameter (circle one)  
2-in. 4-in. 6-in.

Purge Volume

Water Column (L): 23.78 feet X 0.4893 1.9 4.41 = \_\_\_\_\_

Field Measurements: Depth Purging From: 2 ft below DTW

Time	gals	pH	Temp	Observations of Sample

Comments:

DTW ONLY  
NO SAMPLE

Sample Collection Time - \_\_\_\_\_

Analyses:	<u>CR</u>	<u>CLO4</u>	<u>pH / TDS</u>	<u>pH / TDS / CRVI</u>	<u>pH / TDS / NO3</u>	<u>pH / TDS / CRVI / NO3</u>
Bottles:	<u>1 Bottle</u>	<u>1 Bottle</u>	<u>1 Bottle</u>	<u>1 Bottle</u>	<u>1 Bottle</u>	<u>1 Bottle</u>

TOTAL Bottles- 0

Water Sampling Field Log

Well No.: ART-9

Project No.: \_\_\_\_\_

Site: NERT PROJECT- HENDERSON, NEVADA

Sampling Team: Michele Brown

Date: 8-3-15

Sampling Method: Sample Port  Disposable Bailer  Electric pump

Weather Conditions: Warm, Sunny, Clear

Well Information:

Total Well Depth: 43.0 feet

Time: 0844 <sup>8.13.15</sup>

Depth to Water: 30.91 feet

Well Diameter (circle one)  
2-in. 4-in. 6-in.

Purge Volume

Water Column (L): 12.09 feet X 0.4893 1.9 4.41 = \_\_\_\_\_

Field Measurements:

Depth Purging From: 2 ft below DTW

Time	gals	pH	Temp EC ↓	Temp	Observations of Sample
<u>1107</u>		<u>7.38</u>	<u>7.51</u>	<u>26.0°</u>	<u>clear</u>

Comments:

closing QC 6.99

Sample Collection Time - 1108

Analyses:	<u>CR</u>	<u>CLO4</u>	<u>pH / TDS</u>	pH / TDS / CRVI	pH / TDS / NO3	pH / TDS / CRVI / NO3
Bottles:	<u>1 Bottle</u>	<u>1 Bottle</u>	<u>1 Bottle</u>	1 Bottle	1 Bottle	1 Bottle

TOTAL Bottles- 3

# Water Sampling Field Log

Well No.: I- AA

Project No.: \_\_\_\_\_ Site: NERT PROJECT- HENDERSON, NEVADA

Sampling Team: Michele Brown, Janel Rivera Date: 8-3-15

Sampling Method: Sample taken from spigot on treatment system discharge line

Weather Conditions: warm, sunny, clear

## Well Information:

Total Well Depth: 46.0 feet Time: 0917

Depth to Water: 43.71 feet

Height of Water Column (L): 2.29 feet

## Field Measurements:

Time	Specific Conductivity	Temperature	pH	Observations
<u>0919</u>	<u>4.72 mS/cm</u>	<u>31.3 °C</u>	<u>7.05</u>	<u>clear</u>

Sample Appearance: clear

Sample Collection - Time Start: 0920 Time Finished: 0920

Analyses: pH / TDS CR CLO4  
Bottles: 3 Bottles

Comments:

# Water Sampling Field Log

Well No.: I- AB

Project No.: \_\_\_\_\_ Site: NERT PROJECT- HENDERSON, NEVADA

Sampling Team: Michele Brown, Janel Rivera Date: 8-3-15

Sampling Method: Sample taken from spigot on treatment system discharge line

Weather Conditions: warm, sunny, clear

## Well Information:

Total Well Depth: 52.0 feet Time: 0911

Depth to Water: 33.51 feet

Height of Water Column (L): 18.49 feet

## Field Measurements:

Time	Specific Conductivity	Temperature	pH	Observations
<u>0913</u>	<u>4.91 mS/cm</u>	<u>29.6 °C</u>	<u>7.54</u>	<u>clear</u>

Sample Appearance: clear

Sample Collection - Time Start: 0915 Time Finished: 0915

Analyses: pH / TDS CR CLO4  
Bottles: 3 Bottles

Comments: turned pump on to sample

# Water Sampling Field Log

Well No.: I- AC

Project No.: \_\_\_\_\_ Site: NERT PROJECT- HENDERSON, NEVADA

Sampling Team: Janel Rivera, Date: 8-7-15

Sampling Method: Sample taken from spigot on treatment system discharge line

Weather Conditions: humid warm

## Well Information:

Total Well Depth: 50.0 feet Time: 0308

Depth to Water: 29.71 feet

Height of Water Column (L): 20.29 feet

## Field Measurements:

Time	Specific Conductivity	Temperature	Field pH	Observations
_____	_____	_____	_____	<u>No sample</u>

Sample Appearance: \_\_\_\_\_

Sample Collection - Time Start: \_\_\_\_\_ Time Finished: \_\_\_\_\_

Analyses: TDS CR CLO4  
Bottles: 3 Bottles

Comments:

No sample collected -  
Turned pump on but no  
water was pumped to surface



# Water Sampling Field Log

Well No.: I- AD

Project No.: \_\_\_\_\_ Site: NERT PROJECT- HENDERSON, NEVADA

Sampling Team: Janel Rivera, Michele Brown Date: 8-7-15

Sampling Method: Sample taken from spigot on treatment system discharge line

Weather Conditions: humid & warm

## Well Information:

Total Well Depth: 50.0 feet Time: 0304

Depth to Water: 30.49 feet

Height of Water Column (L): 19.51 feet

## Field Measurements:

Time	Specific Conductivity	Temperature	Field pH	Observations
<u>0305</u>	<u>6.90 mS/cm</u>	<u>24.1<sup>oc</sup></u>	<u>7.22</u>	<u>cloudy yellow</u>

Sample Appearance: cloudy yellow

Sample Collection - Time Start: 0306 Time Finished: 0306

Analyses: TDS CR CLO4  
Bottles: 3 Bottles

Comments:

# Water Sampling Field Log

Well No.: I- AR

Project No.: \_\_\_\_\_ Site: NERT PROJECT- HENDERSON, NEVADA

Sampling Team: Michele Brown, Janel Rivera Date: 8-3-15

Sampling Method: Sample taken from spigot on treatment system discharge line

Weather Conditions: Warm, Sunny, Clear

## Well Information:

Total Well Depth: 45.0 feet Time: 0929

Depth to Water: 43.01 feet

Height of Water Column (L): 1.99 feet

## Field Measurements:

Time	Specific Conductivity	Temperature	pH	Observations
<u>0930</u>	<u>1.92 mS/cm</u>	<u>33.0 °C</u>	<u>7.17</u>	<u>Clear</u>

Sample Appearance: clear

Sample Collection - Time Start: 0931 Time Finished: 0931

Analyses: pH / TDS CR CLO4  
Bottles: 3 Bottles

Comments: closing Qc 7.01

Rep EC  
33.0  
Temp  
7.88  
EC

# Water Sampling Field Log

Well No.: I- B

Project No.: \_\_\_\_\_ Site: NERT PROJECT- HENDERSON, NEVADA

Sampling Team: Michele Brown, Janel Rivera Date: 8-3-15

Sampling Method: Sample taken from spigot on treatment system discharge line

Weather Conditions: Warm, sunny, clear

## Well Information:

Total Well Depth: 45.70 feet Time: 0906

Depth to Water: 42.33 feet

Height of Water Column (L): 3.37 feet

## Field Measurements:

Time	Specific Conductivity	Temperature	pH	Observations
<u>0908</u>	<u>513</u> <u>ms/cm</u>	<u>31.0</u> °C	<u>7.24</u>	<u>clear</u>

Sample Appearance: clear

Sample Collection - Time Start: 0909 Time Finished: 0909

Analyses: pH / TDS CR CLO4  
Bottles: 3 Bottles

Comments:

# Water Sampling Field Log

Well No.: I-C

Project No.: \_\_\_\_\_ Site: NERT PROJECT- HENDERSON, NEVADA

Sampling Team: Michele Brown. Date: 8-3-15

Sampling Method: Sample taken from spigot on treatment system discharge line

Weather Conditions: Warm, Sunny, Clear

## Well Information:

Total Well Depth: 43.80 feet Time: 0828

Depth to Water: 43.28 feet

Height of Water Column (L): .52 feet

## Field Measurements:

Time	Specific Conductivity	Temperature	pH	Observations
<u>0829</u>	<u>8.32 mS/cm</u>	<u>29.7 °C</u>	<u>7.19</u>	<u>light yellow</u>

Sample Appearance: light yellow

Sample Collection - Time Start: 0830 Time Finished: 0830

Analyses: pH / TDS CR CLO4  
Bottles: 3 Bottles

Comments:

# Water Sampling Field Log

Well No.: I-D

Project No.: \_\_\_\_\_ Site: NERT PROJECT- HENDERSON, NEVADA

Sampling Team: Michele Brown. Date: 8-3-15

Sampling Method: Sample taken from spigot on treatment system discharge line

Weather Conditions: warm, sunny, clear

## Well Information:

Total Well Depth: 47.70 feet Time: 0821

Depth to Water: 46.86 feet

Height of Water Column (L): .84 feet

## Field Measurements:

Time	Specific Conductivity	Temperature	pH	Observations
<u>0823</u>	<u>9.16 mS/cm</u>	<u>30.7 °C</u>	<u>6.94</u>	<u>light yellow</u>

Sample Appearance: light yellow

Sample Collection - Time Start: 0824 Time Finished: 0824

Analyses: pH / TDS CR CLO4  
Bottles: 3 Bottles

Comments:

# Water Sampling Field Log

Well No.: I- E

Project No.: \_\_\_\_\_ Site: NERT PROJECT- HENDERSON, NEVADA

Sampling Team: Michele Brown, Jamel Rivera Date: 8-3-15

Sampling Method: Sample taken from spigot on treatment system discharge line

Weather Conditions: Warm, sunny, clear

## Well Information:

Total Well Depth: 46.70 feet Time: 0808

Depth to Water: 44.39 feet

Height of Water Column (L): 2.31 feet

## Field Measurements:

Time	Specific Conductivity	Temperature	pH	Observations
<u>0810</u>	<u>9.59 mS/cm</u>	<u>28.5 °C</u>	<u>6.94</u>	<u>Light yellow</u>

Sample Appearance: light yellow

Sample Collection - Time Start: 0811 Time Finished: 0811

Analyses: pH / TDS CR CLO4  
Bottles: 3 Bottles

Comments:

# Water Sampling Field Log

Well No.: I- F

Project No.: \_\_\_\_\_ Site: NERT PROJECT- HENDERSON, NEVADA

Sampling Team: Michele Brown, Janel Rivera Date: 8-3-15

Sampling Method: Sample taken from spigot on treatment system discharge line

Weather Conditions: Warm, sunny, clear

## Well Information:

Total Well Depth: 45.80 feet Time: 0751

Depth to Water: 40.43 feet

Height of Water Column (L): 5.37 feet

## Field Measurements:

Time	Specific Conductivity	Temperature	pH	Observations
<u>0752</u>	<u>11.97 mS/cm</u>	<u>27.8 °C</u>	<u>6.94</u>	<u>yellow</u>

Sample Appearance: yellow

Sample Collection - Time Start: 0753 Time Finished: 0753

Analyses: pH / TDS CR CLO4  
Bottles: 3 Bottles

Comments:

# Water Sampling Field Log

Well No.: I- G

Project No.: \_\_\_\_\_ Site: NERT PROJECT- HENDERSON, NEVADA

Sampling Team: Michele Brown, Janel Rivera Date: 8-3-15

Sampling Method: Sample taken from spigot on treatment system discharge line

Weather Conditions: Warm, sunny, clear

## Well Information:

Total Well Depth: 42.60 feet Time: 0721

Depth to Water: 41.28 feet

Height of Water Column (L): 1.32 feet

## Field Measurements:

Time	Specific Conductivity	Temperature	pH	Observations
<u>0723</u>	<u>8.92 mS/cm</u>	<u>28.4 °C</u>	<u>7.10</u>	<u>yellow</u>

Sample Appearance: yellow

Sample Collection - Time Start: 0724 Time Finished: 0724

Analyses: pH / TDS CR CLO4  
Bottles: 3 Bottles

Comments:



# Water Sampling Field Log

Well No.: I- H

Project No.: \_\_\_\_\_ Site: NERT PROJECT- HENDERSON, NEVADA

Sampling Team: Michele Brown. Date: 08-03-15

Sampling Method: Sample taken from spigot on treatment system discharge line

Weather Conditions: warm, sunny, clear

## Well Information:

Total Well Depth: 46.50 feet Time: 0651

Depth to Water: 44.13 feet

Height of Water Column (L): 237 feet

## Field Measurements:

Time	Specific Conductivity	Temperature	pH	Observations
<u>0654</u>	<u>13.71 mS/cm</u>	<u>28.2 °C</u>	<u>6.94</u>	<u>yellow</u>

Sample Appearance: yellow

Sample Collection - Time Start: 0655 Time Finished: 0655

Analyses: pH / TDS CR CLO4  
Bottles: 3 Bottles

Comments:

# Water Sampling Field Log

Well No.: I- I

Project No.: \_\_\_\_\_ Site: NERT PROJECT- HENDERSON, NEVADA

Sampling Team: Michele Brown, Janel Rivera Date: 8-7-15

Sampling Method: Sample taken from spigot on treatment system discharge line

Weather Conditions: humid, warm

## Well Information:

Total Well Depth: 44.20 feet Time: 0350

Depth to Water: 24.92 feet

Height of Water Column (L): 19.28 feet

## Field Measurements:

Time	Specific Conductivity	Temperature	pH	Observations
<u>0351</u>	<u>9.16 mscm</u>	<u>24.7 °C</u>	<u>7.30</u>	<u>light yellow</u>

Sample Appearance: light yellow

Sample Collection - Time Start: 0352 Time Finished: 0352

Analyses: pH / TDS CR CLO4  
Bottles: 3 Bottles

Comments:

# Water Sampling Field Log

Well No.: I- J

Project No.: \_\_\_\_\_ Site: NERT PROJECT- HENDERSON, NEVADA

Sampling Team: Janel Rivera, Michele Brown Date: 8-17-15

Sampling Method: Sample taken from spigot on treatment system discharge line

Weather Conditions: warm + humid

## Well Information:

Total Well Depth: 44.50 feet Time: 0320

Depth to Water: 42.34 feet

Height of Water Column (L): 2.16 feet

## Field Measurements:

Time	Specific Conductivity	Temperature	Field pH	Observations
<u>0331</u>	<u>1.34 mS/cm</u>	<u>24.7<sup>00</sup></u>	<u>7.03</u>	<u>clear</u>

Sample Appearance: clear

Sample Collection - Time Start: 0333 Time Finished: 0333

Analyses: TDS CR CLO4  
Bottles: 3 Bottles

Comments:

# Water Sampling Field Log

Well No.: I- K

Project No.: \_\_\_\_\_ Site: NERT PROJECT- HENDERSON, NEVADA

Sampling Team: Michele Brown Janel Rivera Date: 8-17-15

Sampling Method: Sample taken from spigot on treatment system discharge line

Weather Conditions: humid, warm

## Well Information:

Total Well Depth: 40.60 feet Time: 0317

Depth to Water: 30.97 feet

Height of Water Column (L): 9.63 feet

## Field Measurements:

Time	Specific Conductivity	Temperature	pH	Observations
<u>0318</u>	<u>1.36 mS/cm</u>	<u>25.1 °C</u>	<u>7.61</u>	<u>Clear</u>

Sample Appearance: clear

Sample Collection - Time Start: 0319 Time Finished: 0319

Analyses: pH / TDS CR CLO4  
Bottles: 3 Bottles

Comments: Dup EC  
7.29  
EC  
25.3 °C  
Temp

# Water Sampling Field Log

Well No.: 1- L

Project No.: \_\_\_\_\_ Site: NERT PROJECT- HENDERSON, NEVADA

Sampling Team: Michele Brown, Janel Rivera Date: 8-3-15

Sampling Method: Sample taken from spigot on treatment system discharge line

Weather Conditions: warm, sunny, clear

## Well Information:

Total Well Depth: 43.40 feet Time: 0846

Depth to Water: 37.31 feet

Height of Water Column (L): 6.09 feet

## Field Measurements:

Time	Specific Conductivity	Temperature	pH	Observations
<u>0848</u>	<u>7.18 mS/cm</u>	<u>30.0 °C</u>	<u>7.46</u>	<u>clear</u>

Sample Appearance: clear

Sample Collection - Time Start: 0849 Time Finished: 0849

Analyses: pH / TDS CR CLO4  
Bottles: 3 Bottles

Comments:

# Water Sampling Field Log

Well No.: I- M

Project No.: \_\_\_\_\_ Site: NERT PROJECT- HENDERSON, NEVADA

Sampling Team: Michele Brown, Janel Rivera Date: 8-3-15

Sampling Method: Sample taken from spigot on treatment system discharge line

Weather Conditions: Warm, sunny, clear

## Well Information:

Total Well Depth: 43.70 feet Time: 0815

Depth to Water: 37.13 feet

Height of Water Column (L): 6.57 feet

## Field Measurements:

Time	Specific Conductivity	Temperature	pH	Observations
<u>0817</u>	<u>9.87 mS/cm</u>	<u>29.0 °C</u>	<u>7.33</u>	<u>light yellow</u>

Sample Appearance: light yellow

Sample Collection - Time Start: 0819 Time Finished: 0819

Analyses: pH / TDS CR CLO4  
Bottles: 3 Bottles

Comments:

# Water Sampling Field Log

Well No.: I- N

Project No.: \_\_\_\_\_ Site: NERT PROJECT- HENDERSON, NEVADA

Sampling Team: Michele Brown, Janel Rivera Date: 8-3-15

Sampling Method: Sample taken from spigot on treatment system discharge line

Weather Conditions: Warm, Sunny, clear

## Well Information:

Total Well Depth: 41.70 feet Time: 0804

Depth to Water: 38.78 feet

Height of Water Column (L): 2.92 feet

## Field Measurements:

Time	Specific Conductivity	Temperature	pH	Observations
<u>0805</u>	<u>1025 mS/cm</u>	<u>27.8 °C</u>	<u>6.88</u>	<u>yellow</u>

Sample Appearance: yellow

Sample Collection - Time Start: 0807 Time Finished: 0807

Analyses: pH / TDS CR CLO4  
Bottles: 3 Bottles

Comments:

# Water Sampling Field Log

Well No.: I- 0

Project No.: \_\_\_\_\_ Site: NERT PROJECT- HENDERSON, NEVADA

Sampling Team: Michele Brown, Date: 8-3-15

Sampling Method: Sample taken from spigot on treatment system discharge line

Weather Conditions: warm, sunny, clear

## Well Information:

Total Well Depth: 43.80 feet Time: 0625

Depth to Water: 37.94 feet

Height of Water Column (L): 5.86 feet

## Field Measurements:

Time	Specific Conductivity	Temperature	pH	Observations
<u>0626</u>	<u>1078 mS/cm</u>	<u>26.3 °C</u>	<u>7.09</u>	<u>yellow</u>

Sample Appearance: yellow

Sample Collection - Time Start: 0627 Time Finished: 0627

Analyses: pH / TDS CR CLO4  
Bottles: 3 Bottles

Comments:



# Water Sampling Field Log

Well No.: I-P

Project No.: \_\_\_\_\_ Site: NERT PROJECT- HENDERSON, NEVADA

Sampling Team: Michele Brown, \_\_\_\_\_ Date: 8-3-15

Sampling Method: Sample taken from spigot on treatment system discharge line

Weather Conditions: WARM, sunny, clear

## Well Information:

Total Well Depth: 47.80 feet Time: 0642

Depth to Water: 40.21 feet

Height of Water Column (L): 7.59 feet

## Field Measurements:

Time	Specific Conductivity	Temperature	pH	Observations
<u>0644</u>	<u>11.56 mS/cm</u>	<u>26.6<sup>°C</sup></u>	<u>6.92<sup>°C</sup></u> <u>26.6</u>	<u>yellow</u>

Sample Appearance: yellow

Sample Collection - Time Start: 0646 Time Finished: 0646

Analyses: pH / TDS CR CLO4

Bottles: 3 Bottles

Comments:

# Water Sampling Field Log

Well No.: I- Q

Project No.: \_\_\_\_\_ Site: NERT PROJECT- HENDERSON, NEVADA

Sampling Team: Michele Brown, Janel Rivera Date: 8-3-15

Sampling Method: Sample taken from spigot on treatment system discharge line

Weather Conditions: warm, sunny, clear

## Well Information:

Total Well Depth: 43.80 feet Time: 0729

Depth to Water: 40.27 feet

Height of Water Column (L): 3.53 feet

## Field Measurements:

Time	Specific Conductivity	Temperature	pH	Observations
<u>0731</u>	<u>13.97 mS/cm</u>	<u>29.5 °C</u>	<u>6.77</u>	<u>yellow</u>

Sample Appearance: yellow

Sample Collection - Time Start: 0732 Time Finished: 0732

Analyses: pH / TDS CR CLO4  
Bottles: 3 Bottles

Comments: closing Q1 7.01

# Water Sampling Field Log

Well No.: 1- R

Project No.: \_\_\_\_\_ Site: NERT PROJECT- HENDERSON, NEVADA

Sampling Team: Michele Brown, Janel Rivera Date: 8-3-15

Sampling Method: Sample taken from spigot on treatment system discharge line

Weather Conditions: Warm, Sunny, Clear

## Well Information:

Total Well Depth: 45.30 feet Time: 0900

Depth to Water: 41.08 feet

Height of Water Column (L): 4.22 feet

## Field Measurements:

Time	Specific Conductivity	Temperature	pH	Observations
<u>0902</u>	<u>7.26 mS/cm</u>	<u>30.7 °C</u>	<u>7.13</u>	<u>Clear</u>

Sample Appearance: Clear

Sample Collection - Time Start: 0904 Time Finished: 0904

Analyses: pH / TDS CR CLO4  
Bottles: 3 Bottles

Comments:

# Water Sampling Field Log

Well No.: I- 8

Project No.: \_\_\_\_\_ Site: NERT PROJECT- HENDERSON, NEVADA

Sampling Team: Michele Brown, C Date: 8-3-15

Sampling Method: Sample taken from spigot on treatment system discharge line

Weather Conditions: warm, sunny, clear

## Well Information:

Total Well Depth: 47.70 feet Time: 0840

Depth to Water: 34.69 feet

Height of Water Column (L): 13.01 feet

## Field Measurements:

Time	Specific Conductivity	Temperature	pH	Observations
<u>0842</u>	<u>175.6 mS/cm</u>	<u>30.1 °C</u>	<u>7.33</u>	<u>clear</u>

Sample Appearance: clear

Sample Collection - Time Start: 0843 Time Finished: 0843

Analyses: pH / TDS CR CLO4  
Bottles: 3 Bottles

Comments:

Closing Qc - 7.0

# Water Sampling Field Log

Well No.: I-T

Project No.: \_\_\_\_\_ Site: NERT PROJECT- HENDERSON, NEVADA

Sampling Team: Michele Brown, Janel Rivera Date: 8-3-15

Sampling Method: Sample taken from spigot on treatment system discharge line

Weather Conditions: warm, sunny, clear

## Well Information:

Total Well Depth: 47.80 feet Time: 0713

Depth to Water: 43.46 feet

Height of Water Column (L): 4.34 feet

## Field Measurements:

Time	Specific Conductivity	Temperature	pH	Observations
<u>0714</u>	<u>1158 mscm</u>	<u>28.5 °C</u>	<u>6.93</u>	<u>yellow</u>

Sample Appearance: yellow

Sample Collection - Time Start: 0715 Time Finished: 0715

Analyses: pH / TDS CR CLO4  
Bottles: 3 Bottles

Comments:

# Water Sampling Field Log

Well No.: I- U

Project No.: \_\_\_\_\_ Site: NERT PROJECT- HENDERSON, NEVADA

Sampling Team: Michele Brown Date: 8-3-15

Sampling Method: Sample taken from spigot on treatment system discharge line

Weather Conditions: warm, sunny, clear

## Well Information:

Total Well Depth: 47.60 feet Time: 0705

Depth to Water: 44.59 feet

Height of Water Column (L): 301 feet

## Field Measurements:

Time	Specific Conductivity	Temperature	pH	Observations
<u>0707</u>	<u>14.64 mS/cm</u>	<u>28.3 °C</u>	<u>6.90</u>	<u>yellow</u>

Sample Appearance: yellow

Sample Collection - Time Start: 0708 Time Finished: 0708

Analyses: pH / TDS CR CLO4  
Bottles: 3 Bottles

Comments:

# Water Sampling Field Log

Well No.: I- V

Project No.: \_\_\_\_\_ Site: NERT PROJECT- HENDERSON, NEVADA

Sampling Team: Michele Brown, Nanel Rivera Date: 8-7-15

Sampling Method: Sample taken from spigot on treatment system discharge line

Weather Conditions: humid, warm

## Well Information:

Total Well Depth: 47.70 feet Time: 0354

Depth to Water: 34.03 feet

Height of Water Column (L): 13.67 feet

## Field Measurements:

Time	Specific Conductivity	Temperature	pH	Observations
<u>0355</u>	<u>900 mS/cm</u>	<u>24.9 °C</u>	<u>7.37</u>	<u>light yellow</u>

Sample Appearance: light yellow

Sample Collection - Time Start: 0356 Time Finished: 0356

Analyses: pH / TDS CR CLO4  
Bottles: 3 Bottles

Comments:

# Water Sampling Field Log

Well No.: I- W

Project No.: \_\_\_\_\_ Site: NERT PROJECT- HENDERSON, NEVADA

Sampling Team: Michele Brown, Date: 8-3-15

Sampling Method: Sample taken from spigot on treatment system discharge line

Weather Conditions: WARM, SUNNY CLEAR

## Well Information:

Total Well Depth: 50.0 feet Time: 0636

Depth to Water: 41.3 feet

Height of Water Column (L): 8.27 feet

## Field Measurements:

Time	Specific Conductivity	Temperature	pH	Observations
<u>0637</u>	<u>10.30 mS/cm</u>	<u>27.0 °C</u>	<u>6.92</u>	<u>yellow</u>

Sample Appearance: yellow

Sample Collection - Time Start: 0638 Time Finished: 0638

Analyses: pH / TDS CR CLO4  
Bottles: 3 Bottles

Comments:



# Water Sampling Field Log

Well No.: 1-X

Project No.: \_\_\_\_\_ Site: NERT PROJECT- HENDERSON, NEVADA

Sampling Team: Michele Brown, Janel Rivera Date: 8-3-15

Sampling Method: Sample taken from spigot on treatment system discharge line

Weather Conditions: warm, sunny, clear

## Well Information:

Total Well Depth: 50 feet Time: 0755

Depth to Water: 36.44 feet

Height of Water Column (L): 13.56 feet

## Field Measurements:

Time	Specific Conductivity	Temperature	pH	Observations
<u>0756</u>	<u>9.93 mS/cm</u>	<u>27.4 °C</u>	<u>4.90</u>	<u>yellow</u>

Sample Appearance: yellow

Sample Collection - Time Start: 0758 Time Finished: 0758

Analyses: pH / TDS CR CLO4  
Bottles: 3 Bottles

Comments:

# Water Sampling Field Log

Well No.: I-4

Project No.: \_\_\_\_\_ Site: NERT PROJECT- HENDERSON, NEVADA

Sampling Team: Michele Brown, Janel Rivera Date: 8-3-15

Sampling Method: Sample taken from spigot on treatment system discharge line

Weather Conditions: warm, sunny, clear

## Well Information:

Total Well Depth: 50.5 feet Time: 0853

Depth to Water: 37.39 feet

Height of Water Column (L): 13.11 feet

## Field Measurements:

Time	Specific Conductivity	Temperature	pH	Observations
<u>0855</u>	<u>8.03 mS/cm</u>	<u>29.3 °C</u>	<u>7.38</u>	<u>clear</u>

Sample Appearance: clear

Sample Collection - Time Start: 0857 Time Finished: 0857

Analyses: pH / TDS CR CLO4  
Bottles: 3 Bottles

## Comments:

Closing Qc 7.0

# Water Sampling Field Log

Well No.: 1-2

Project No.: \_\_\_\_\_ Site: NERT PROJECT- HENDERSON, NEVADA

Sampling Team: Michele Brown, Janel Rivera Date: 8-1-15

Sampling Method: Sample taken from spigot on treatment system discharge line

Weather Conditions: humid, warm

## Well Information:

Total Well Depth: 37.00 feet Time: 0336

Depth to Water: 34.88 feet

Height of Water Column (L): 2.12 feet

## Field Measurements:

Time	Specific Conductivity	Temperature	pH	Observations
<u>0337</u>	<u>7.76 mS/cm</u>	<u>25.0 °C</u>	<u>7.46</u>	<u>light yellow</u>

Sample Appearance: light yellow

Sample Collection - Time Start: 0338 Time Finished: 0338

Analyses: pH / TDS CR CLO4  
Bottles: 3 Bottles

Comments:

# Water Sampling Field Log

Well No.: L-635

Project No.: \_\_\_\_\_ Site: NERT PROJECT- HENDERSON, NEVADA

Sampling Team: Michele Brown Date: 8-13-15

Sampling Method:  Electric Pump  Dedicated Bailer  Non Dedicated Bailer  Ready Flo 2" O

Weather Conditions: hot, humid

## Well Information:

Total Well Depth: 45.33 feet Time: 0945

Depth to Water: \_\_\_\_\_ feet  
Well Diameter (circle one)  2-in.  4-in.  6-in. Well Volume (WV) \_\_\_\_\_ Purge Factor \_\_\_\_\_ Purge Volume \_\_\_\_\_

Height of Water Column (L): \_\_\_\_\_ feet \* 0.16 gal/ft \* 0.65 gal/ft \* 1.47 gal/ft = \_\_\_\_\_ gal. \* 3 = \_\_\_\_\_

## Field Measurements:

Depth Purging From: 2 ft. below depth to water

Time	Cumulative Volume Purged	pH	Specific Conductivity	Temp	Observations
_____	_____ gal	_____	_____	_____	_____
_____	_____ gal	_____	_____	_____	<u>NO ACCESS</u>
_____	_____ gal	_____	_____	_____	_____
_____	_____ gal	_____	_____	_____	_____
_____	_____ gal	_____	_____	_____	_____
_____	_____ gal	_____	_____	_____	_____

Sample Appearance: \_\_\_\_\_

Sample Collection - Time Start: \_\_\_\_\_ Time Finished: \_\_\_\_\_

Analyses: CLO4 TDS TDS/pH CR  
Bottles: 1 BTL 1 BTL 1 BTL 1BTL

TOTAL BOTTLES: Ø

Comments:

# Water Sampling Field Log

Well No.: L-637

Project No.: \_\_\_\_\_ Site: NERT PROJECT- HENDERSON, NEVADA

Sampling Team: Michele Brown Date: 8-13-15

Sampling Method:  Electric Pump  Dedicated Bailer  Non Dedicated Bailer  Ready Flo 2" O

Weather Conditions: hot, humid

**Well Information:**

Total Well Depth: 39.5 feet Time: 0945

Depth to Water: \_\_\_\_\_ feet

Well Diameter (circle one)  
 2-in.     4-in.     6-in.

Height of Water Column (L): \_\_\_\_\_ feet \* 0.16 gal/ft \* 0.65 gal/ft \* 1.47 gal/ft = \_\_\_\_\_ gal. \* 3 = \_\_\_\_\_

**Field Measurements:**

Depth Purging From: 2 ft. below depth to water

Time	Cumulative Volume Purged	pH	Specific Conductivity	Temp	Observations
_____	_____ gal	_____	_____	_____	_____
_____	_____ gal	_____	_____	_____	<u>NO Access</u>
_____	_____ gal	_____	_____	_____	_____
_____	_____ gal	_____	_____	_____	_____
_____	_____ gal	_____	_____	_____	_____
_____	_____ gal	_____	_____	_____	_____

Sample Appearance: \_\_\_\_\_

Sample Collection - Time Start: \_\_\_\_\_ Time Finished: \_\_\_\_\_

Analyses: CLO4    TDS    TDS/pH    CR  
 Bottles: 1 BTL    1 BTL    1 BTL    1BTL

TOTAL BOTTLES: 4

Comments: \_\_\_\_\_

# Water Sampling Field Log

Well No.: M-5A

Project No.: \_\_\_\_\_ Site: NERT PROJECT- HENDERSON, NEVADA

Sampling Team: Janel Rivera Michele Brown Date: 8/5/15

Sampling Method:  Electric Pump  Dedicated bailer  Disposable Bailer

Weather Conditions: Hot, sunny

**Well Information:**

Total Well Depth: 50.00 feet Time: 0821

Depth to Water: 38.13 feet

Well Diameter (circle one)			Well	Purge	<div style="border: 1px solid black; border-radius: 50%; padding: 5px; display: inline-block;">MB</div> <div style="border: 1px solid black; border-radius: 50%; padding: 5px; display: inline-block;">23</div>
2-in.	4-in.	6-in	Volume (WV)	Factor	
<u>11.87</u>	<u>*0.16 gal/ft</u>	<u>*0.65 gal/ft</u>	<u>7.71</u> gal. *	<u>3</u>	<u>39</u> gal

**Field Measurements:**

Depth Purging From: 2 ft. below depth to water

Time	Cumulative Volume Purged	pH	Specific Conductivity	Temp	Observations
<u>0825</u>	-----	-----	-----	-----	
<u>0838</u>	<u>13 gal</u>	<u>6.75</u>	<u>12.17 ms/cm</u>	<u>29.4<sup>o</sup>C</u>	<u>Clear</u>
<u>0851</u>	<u>26 gal</u>	<u>6.71</u>	<u>14.04 ms/cm</u>	<u>28.1<sup>o</sup>C</u>	<u>Clear</u>
<u>0904</u>	<u>39 gal</u>	<u>6.73</u>	<u>15.25 ms/cm</u>	<u>28.2<sup>o</sup>C</u>	<u>Clear</u>
<u>0917</u>	<u>52 gal.</u>	<u>6.68</u>	<u>15.40 ms/cm</u>	<u>27.7<sup>o</sup>C</u>	<u>Clear</u>
					FIELD pH = <u>6.68</u>

Sample Appearance: Clear

Sample Collection - Time Start: 0919 Time Finished: 0919

Analyses:	TOC	TOX	CLO4	Phenols	B/Cr/Iron/Mn/Na	TDS/SC/SO4/Cl
Bottles:	1 Btl	2 Btls	1 Btl	1 Btl	1 Btl	2 Btls

**TOTAL BOTTLES- 8**

Comments: Top of screen - 40 Dup EC temp 27.2  
EC 15.38

# Water Sampling Field Log

Well No.: M-6A

Project No.: \_\_\_\_\_ Site: NERT- HENDERSON, NEVADA

Sampling Team: Janel Rivera, Michele Brown Date: 8-10-15

Sampling Method: Electric Pump  Dedicated bailer  Non Dedicated Bailer

Weather Conditions: warm, clear

**Well Information:**

Total Well Depth: 46.00 feet Time: 0840

Depth to Water: 39.29 feet

Well Diameter (circle one)  
 2-in. 4-in. 6-in.  
6.71 feet \*0.16 gal/ft \*0.65 gal/ft \*1.47 gal/ft

Well Volume (VV)	Purge Factor	Purge Volume
gal. *	<u>3</u>	gal

**Field Measurements:**

Depth Purging From: 2 ft. below depth to water

Time	Cumulative Volume Purged	pH	Specific Conductivity	Temp	Observations
	gal		mS/cm	°C	
	gal		mS/cm	°C	
	gal	6.98	13.76 mS/cm	26.4 °C	cloudy
					FIELD pH = <u>6.98</u>

Sample Appearance: cloudy

Sample Collection - Time Start: 0841 Time Finished: 0841

Analyses:	Metals	TOX	TOC	CLO4	TDS, CR	Phenols
Bottles:	1 bottle	2 bottles	1 bottle	1 bottle	2 bottles	1 bottle

**TOTAL BOTTLES - 8** sample pulled w/ NOT purged due to location

Comments: Top of Screen - 26.8

# Water Sampling Field Log

Well No.: M-10

Project No.: \_\_\_\_\_ Site: NERT PROJECT- HENDERSON, NEVADA

Sampling Team: Janel Rivera, Michele Brown Date: 8.6.15

Sampling Method:  Electric Pump  Dedicated Bailer  Non Dedicated Bailer  Ready Flo 2" O

Weather Conditions: humid, hot, cloudy

**Well Information:**

Total Well Depth: 69.45 feet Time: 1142

Depth to Water: 51.87 feet

Height of Water Column (L): <u>17.58</u> feet	Well Diameter (circle one)	Well Volume (WV)	
	<table border="0" style="margin: auto;"> <tr> <td style="text-align: center; padding: 0 10px;">2-in.</td> <td style="text-align: center; padding: 0 10px;">4-in.</td> <td style="text-align: center; padding: 0 10px;">6-in</td> </tr> </table>		2-in.
2-in.	4-in.	6-in	

\* 0.16 gal/ft \* 0.65 gal/ft \* 1.47 gal/ft = 25.84 gal. \* x 3 = 78 gal

**Field Measurements:**

Depth Purging From: 2 ft. below depth to water

Time	Cumulative Volume Purged	pH	Specific Conductivity	Temp	Observations
<u>1146</u>	----	----	----	----	
<u>1159</u>	<u>26 gal</u>	<u>6.87</u>	<u>3.46 mS/cm</u>	<u>34.9 °C</u>	<u>clear</u>
<u>1212</u>	<u>52 gal</u>	<u>6.79</u>	<u>3.42 mS/cm</u>	<u>29.1 °C</u>	<u>clear</u>
<u>1225</u>	<u>78 gal</u>	<u>6.85</u>	<u>3.36 mS/cm</u>	<u>27.9 °C</u>	<u>clear w/ tint of tan</u>

FIELD pH = 6.85

Sample Appearance: clear w/ tint of tan

Sample Collection - Time Start: 1227 Time Finished: 1227

Analyses:	CLO4	TDS	CR	TDS / CRVI	TDS / CRVI / NO3	TDS / NO3	CL03
Bottles:	1 BTL	1 BTL	1 BTL	1 BTL	1 BTL	1 BTL	1 BTL

TOTAL BOTTLES: 6

Comments: seperate cooler  
seperate BO  
seperate COC  
NPDES well



## Water Sampling Field Log

Well No.: M-14A

Project No.: \_\_\_\_\_ Site: NERT PROJECT- HENDERSON, NEVADA

Sampling Team: Janel Rivera, Michele Brown Date: 8/5/15

Sampling Method:  Electric Pump  Dedicated Bailer  Non Dedicated Bailer  Ready Flo 2" O

Weather Conditions: warm, breezy

**Well Information:**

Total Well Depth: 42.40 feet Time: 0453

Depth to Water: 32.87 feet

Height of Water Column (L): 9.53 feet

Well Diameter (circle one)			Well
2-in.	4-in.	6-in.	Volume (WV)
* 0.16 gal/ft	* 0.65 gal/ft	* 1.47 gal/ft	= <u>1.52</u> gal. * x 3 <u>5</u>

**Field Measurements:**

Depth Purging From: 2 ft. below depth to water

Time	Cumulative Volume Purged	pH	Specific Conductivity	Temp	Observations
<u>0455</u>	-----	-----	-----	-----	
<u>0457</u>	<u>2</u> gal	<u>7.60</u>	<u>4.21</u> <sup>ms/cm</sup>	<u>26.2</u> °C	<u>clear</u>
<u>0459</u>	<u>4</u> gal	<u>7.49</u>	<u>4.08</u> <sup>ms/cm</sup>	<u>25.2</u> °C	<u>cloudy</u>
<u>0500</u>	<u>5</u> gal	<u>7.49</u>	<u>4.06</u> <sup>ms/cm</sup>	<u>25.2</u> °C	<u>cloudy</u>

FIELD pH = 7.49

Sample Appearance: Cloudy

Sample Collection - Time Start: 0502 Time Finished: 0502

Analyses:	CLO4	TDS	CR	TDS / CRVI	TDS / CRVI / NO3	TDS / NO3	CL03
Bottles:	1 BTL	1 BTL	1 BTL	1 BTL	1 BTL	1 BTL	1 BTL

TOTAL BOTTLES: 3

Comments: Top of screen - 20

### Water Sampling Field Log

Well No.: M-19

Project No.: \_\_\_\_\_ Site: NERT PROJECT- HENDERSON, NEVADA

Sampling Team: Janel Rivera, Michele Brown Date: 8-6-15

Sampling Method:  Electric Pump  Dedicated Bailer  Non Dedicated Bailer  Ready Flo 2" O

Weather Conditions: warm, partially cloudy

#### Well Information:

Total Well Depth: 41.20 feet Time: 0650

Depth to Water: 35.54 feet

Well Diameter (circle one)  
2-in. 4-in. 6-in.

Well Volume (WV)

Height of Water Column (L): 5.66 feet \* 0.16 gal/ft \* 0.65 gal/ft \* 1.47 gal/ft = 90 gal. \* x 3 3 gal

#### Field Measurements:

Depth Purging From: 2 ft. below depth to water

Time	Cumulative Volume Purged	pH	Specific Conductivity	Temp	Observations
<u>0653</u>	<u>----</u>	<u>----</u>	<u>----</u>	<u>----</u>	
<u>0654</u>	<u>1 gal</u>	<u>7.35</u>	<u>6.63 ms/cm</u>	<u>25.3 °C</u>	<u>clear</u>
<u>0655</u>	<u>2 gal</u>	<u>7.35</u>	<u>6.53 ms/cm</u>	<u>25.4 °C</u>	<u>clear</u>
<u>0656</u>	<u>3 gal</u>	<u>7.36</u>	<u>6.54 ms/cm</u>	<u>25.7 °C</u>	<u>clear</u>

FIELD pH = 7.36

Sample Appearance: Clear

Sample Collection - Time Start: 0657 Time Finished: 0657

Analyses:	<u>CLO4</u>	<u>TDS</u>	<u>CR</u>	<u>TDS / CRVI</u>	<u>TDS / CRVI / NO3</u>	<u>TDS / NO3</u>	<u>CL03</u>
Bottles:	<u>1 BTL</u>	<u>1 BTL</u>	<u>1 BTL</u>	<u>1 BTL</u>	<u>1 BTL</u>	<u>1 BTL</u>	<u>1 BTL</u>

TOTAL BOTTLES: 3

Comments:

Top of screen - 14.5

Water Sampling Field Log

Well No.: M-22A

Project No.: \_\_\_\_\_ Site: NERT PROJECT- HENDERSON, NEVADA

Sampling Team: Janel Rivera, Michelle Brown Date: 8/5/15

Sampling Method:  Electric Pump  Dedicated Bailer  Non Dedicated Bailer  Ready Flo 2" O

Weather Conditions: Windy, Sunny

Well Information:

Total Well Depth: 36.92 feet Time: 0733

Depth to Water: 31.19 feet

Height of Water Column (L): 5.73 feet Well Diameter (circle one) 2-in. Well Volume (VV) = .91 gal. \* x 3 3

Field Measurements:

Depth Purging From: 2 ft. below depth to water

Time	Cumulative Volume Purged	pH	Specific Conductivity	Temp	Observations
0736	-----	-----	-----	-----	
0737	1 gal	7.16	10.93 mS/cm	27.4 °C	Light yellow, clear
0738	2 gal	7.12	10.79 mS/cm	26.6 °C	Light yellow, clear
0739	3 gal	7.14	10.78 mS/cm	27.0 °C	Light yellow, clear

FIELD pH = 7.14

Sample Appearance: Light yellow, clear

Sample Collection - Time Start: 0741 Time Finished: 0741

Analyses:	<u>CLO4</u>	<u>TDS</u>	<u>CR</u>	TDS / CRVI	TDS / CRVI / NO3	TDS / NO3	CL03
Bottles:	<u>1 BTL</u>	<u>1 BTL</u>	<u>1 BTL</u>	1 BTL	1 BTL	1 BTL	1 BTL

TOTAL BOTTLES: 3

Comments: closing OC - 7.01  
Top of screen - 16

# Water Sampling Field Log

Well No.: M-23

Project No.: \_\_\_\_\_ Site: NERT PROJECT- HENDERSON, NEVADA

Sampling Team: Janel Rivera, Michele Brown Date: 8-4-15

Sampling Method:  Electric Pump  Dedicated Bailer  Non Dedicated Bailer  Ready Flo 2" O

Weather Conditions: Warm, sunny, clear

**Well Information:**

Total Well Depth: 44.66 feet Time: 0931

Depth to Water: 35.03 feet

Height of Water Column (L): 9.63 feet

Well Diameter (circle one)			Well Volume (VV)
2-in.	4-in.	6-in.	

\* 0.16 gal/ft \* 0.65 gal/ft \* 1.47 gal/ft = 2.50 gal. \* x 3 7.5 gal  
1.54 MB

**Field Measurements:**

Depth Purging From: 2 ft. below depth to water

Time	Cumulative Volume Purged	pH	Specific Conductivity	Temp	Observations
0934	-----	-----	-----	-----	
0936	2 gal	7.25	5.46 ms/cm	28.0 °C	clear
0938	4 gal	7.26	5.28 ms/cm	26.8 °C	clear
0939	5 gal	7.25	5.20 ms/cm	26.3 °C	clear
FIELD pH = 7.25					

Sample Appearance: clear

Sample Collection - Time Start: 0940 Time Finished: 0940

Analyses:	CLO4	TDS	CR	TDS / CRVI	TDS / CRVI / NO3	TDS / NO3	CL03
Bottles:	1 BTL	1 BTL	1 BTL	1 BTL	1 BTL	1 BTL	1 BTL

TOTAL BOTTLES: 3

Comments: closing Qc - 6.98  
Top of Screen - 9.4

# Water Sampling Field Log

Well No.: M-25

Project No.: \_\_\_\_\_ Site: NERT PROJECT- HENDERSON, NEVADA

Sampling Team: Janel Rivera, Michele Brown Date: 8/5/15

Sampling Method:  Electric Pump  Dedicated Bailer  Non Dedicated Bailer  Ready Flo 2" O

Weather Conditions: Warm, breezy

**Well Information:**

Total Well Depth: 41.47 feet Time: 0510  
 Depth to Water: 33.78 feet  
 Height of Water Column (L): 7.69 feet \* 0.16 gal/ft \* 0.65 gal/ft \* 1.47 gal/ft = 1.23 gal. \* x 3 4

Well Diameter (circle one)  
 2-in. 4-in. 6-in.  
 Well Volume (WV)

**Field Measurements:**

Depth Purging From: 2 ft. below depth to water

Time	Cumulative Volume Purged	pH	Specific Conductivity	Temp	Observations
0513	-----	-----	-----	-----	
0515	2 gal	7.28	8.40 <sup>ms/cm</sup>	25.5 °C	clear, yellow tint
0516	3 gal	7.21	8.34 <sup>ms/cm</sup>	25.1 °C	Clear, yellow tint
0517	4 gal	7.19	8.38 <sup>ms/cm</sup>	25.0 °C	clear, yellow tint
					FIELD pH = 7.19

Sample Appearance: clear, yellow tint

Sample Collection - Time Start: 0519 Time Finished: 0519

Analyses: CLO4 TDS CR TDS / CRVI TDS / CRVI / NO3 TDS / NO3 CL03  
 Bottles: 1 BTL 1 BTL 1 BTL 1 BTL 1 BTL 1 BTL 1 BTL

TOTAL BOTTLES: 3

Comments: Top of screen - 24

# Water Sampling Field Log

Well No.: M31-A

Project No.: \_\_\_\_\_ Site: NERT PROJECT- HENDERSON, NEVADA

Sampling Team: Janel Rivera, Michele Brown Date: 8-7-15

Sampling Method:  Electric Pump  Dedicated Bailer  Non Dedicated Bailer  Ready Flo 2" O

Weather Conditions: warm, humid

## Well Information:

Total Well Depth: 55.00 feet Time: 0433

Depth to Water: 47.03 feet

Height of Water Column (L): 7.97 feet

Well Diameter (circle one)			
2-in.	4-in.	6-in.	
0.16 gal/ft	* 0.65 gal/ft	* 1.47 gal/ft	= <u>1.27</u> gal. * x 3 <u>4 gal</u>

## Field Measurements:

Depth Purging From: 2 ft. below depth to water

Time	Cumulative Volume Purged	pH	Specific Conductivity	Temp	Observations
<u>0436</u>					
<u>0438</u>	<u>2 gal</u>	<u>7.54</u>	<u>6.36 mS/cm</u>	<u>24.1 °C</u>	<u>slightly cloudy yellow</u>
<u>0439</u>	<u>3 gal</u>	<u>7.40</u>	<u>6.38 mS/cm</u>	<u>24.0 °C</u>	<u>same</u>
<u>0440</u>	<u>4 gal</u>	<u>7.39</u>	<u>6.34 mS/cm</u>	<u>24.2 °C</u>	<u>clear</u>

FIELD pH = 7.39

Sample Appearance: Clear

Sample Collection - Time Start: 0442 Time Finished: 0442

Analyses:	<u>CLO4</u>	<u>TDS</u>	<u>CR</u>	<u>TDS / CRVI</u>	<u>TDS / CRVI / NO3</u>	<u>TDS / NO3</u>	<u>CL03</u>
Bottles:	<u>1 BTL</u>	<u>1 BTL</u>	<u>1 BTL</u>	<u>1 BTL</u>	<u>1 BTL</u>	<u>1 BTL</u>	<u>1 BTL</u>

EB-4 collected here before 0448 moving to next well

3 bottles

TOTAL BOTTLES: 3

Comments: Top of Screen - 35 Dup 3 collected here for some analyses

Closing Qc - 7.02

# Water Sampling Field Log

Well No.: M-32

Project No.: \_\_\_\_\_ Site: NERT PROJECT- HENDERSON, NEVADA

Sampling Team: Janel Rivera, Michele Brown Date: 8-7-15

Sampling Method:  Electric Pump  Dedicated Bailer  Non Dedicated Bailer  Ready Flo 2" O

Weather Conditions: warm, sprinkling

**Well Information:**

Total Well Depth: 53.30 feet Time: 0454

Depth to Water: 46.42 feet

Well Diameter (circle one) Well  
 2-in.  4-in.  6-in.  Volume (VV)

Height of Water Column (L): 6.88 feet \* 0.16 gal/ft \* 0.65 gal/ft \* 1.47 gal/ft = \_\_\_\_\_ gal. \* x 3 \_\_\_\_\_

**Field Measurements:**

Depth Purging From: 2 ft. below depth to water

Time	Cumulative Volume Purged	pH	Specific Conductivity	Temp	Observations
<u>0456</u>	_____ gal	<u>7.20</u>	<u>648</u> mspm	<u>24.9</u> °C	<u>Clear</u>
_____	_____ gal	_____	_____	_____	_____
_____	_____ gal	_____	_____	_____	_____
_____	_____ gal	_____	_____	_____	_____
_____	_____ gal	_____	_____	_____	_____
_____	_____ gal	_____	_____	_____	_____
_____	_____ gal	_____	_____	_____	_____
_____	_____ gal	_____	_____	_____	_____
_____	_____ gal	_____	_____	_____	_____
_____	_____ gal	_____	_____	_____	_____

FIELD pH = 7.20

Sample Appearance: clear

Sample Collection - Time Start: 0457 Time Finished: 0457

Analyses: CLO4 TDS CR TDS / CRVI TDS / CRVI / NO3 TDS / NO3 CL03  
 Bottles: 1 BTL 1 BTL 1 BTL 1 BTL 1 BTL 1 BTL 1 BTL

TOTAL BOTTLES: 3

Comments: well not purged due to location

# Water Sampling Field Log

Well No.: M-35

Project No.: \_\_\_\_\_ Site: NERT PROJECT- HENDERSON, NEVADA

Sampling Team: Janel Rivera, Michele Brown Date: 8-7-15

Sampling Method:  Electric Pump  Dedicated Bailer  Non Dedicated Bailer  Ready Flo 2" O

Weather Conditions: humid, warm

**Well Information:**

Total Well Depth: 39.70 feet Time: 0413

Depth to Water: 33.44 feet

Height of Water Column (L): 6.26 feet \* 0.16 gal/ft \* 0.65 gal/ft \* 1.47 gal/ft = 1.0 gal. \* x 3 = 3 gal

Well Diameter (circle one)  
 2-in.  4-in.  6-in. Well Volume (WV)

**Field Measurements:**

Depth Purging From: 2 ft. below depth to water

Time	Cumulative Volume Purged	pH	Specific Conductivity	Temp	Observations
<u>0414</u>	-----	-----	-----	-----	
<u>0415</u>	<u>1 gal</u>	<u>7.49</u>	<u>3.78 mscm</u>	<u>24.7 °C</u>	<u>clear</u>
<u>0416</u>	<u>2 gal</u>	<u>7.41</u>	<u>4.36 mscm</u>	<u>25.0 °C</u>	<u>clear</u>
<u>0417</u>	<u>3 gal</u>	<u>7.35</u>	<u>4.79 mscm</u>	<u>25.1 °C</u>	<u>clear</u>
<u>0418</u>	<u>4 gal</u>	<u>7.34</u>	<u>4.83 mscm</u>	<u>25.1 °C</u>	<u>clear</u>
<u>0419</u>	<u>5 gal</u>	<u>7.32</u>	<u>4.98 mscm</u>	<u>25.1 °C</u>	<u>clear</u>
FIELD pH = <u>7.32</u>					

Sample Appearance: clear

Sample Collection - Time Start: 0419 Time Finished: 0419

Analyses:	<u>CLO4</u>	<u>TDS</u>	<u>CR</u>	TDS / CRVI	TDS / CRVI / NO3	TDS / NO3	CL03
Bottles:	<u>1 BTL</u>	<u>1 BTL</u>	<u>1 BTL</u>	1 BTL	1 BTL	1 BTL	1 BTL

TOTAL BOTTLES: 3

Comments: Top of screen - 25 Closing QC 7.02



**Water Sampling Field Log**

Well No.: M-37

Project No.: \_\_\_\_\_ Site: NERT PROJECT- HENDERSON, NEVADA

Sampling Team: Janel Rivera, Michele Brown Date: 8-10-15

Sampling Method:  Electric Pump  Dedicated Bailer  Non Dedicated Bailer  Ready Flo 2" O

Weather Conditions: warm, clear, breezy

**Well Information:**

Total Well Depth: 37.18 feet Time: 1125

Depth to Water: 32.03 feet

Well Diameter (circle one)  2-in.  4-in.  6-in. Well Volume (WV) = 82 gal. \* x 3 = 3 gal

Height of Water Column (L): 5.15 feet \* 0.16 gal/ft \* 0.65 gal/ft \* 1.47 gal/ft = 0.82 gal. \* x 3 = 3 gal

**Field Measurements:**

Depth Purging From: 2 ft. below depth to water

Time	Cumulative Volume Purged	pH	Specific Conductivity	Temp	Observations
<u>1127</u>	-----	-----	-----	-----	-----
<u>1129</u>	<u>1 gal</u>	<u>6.80</u>	<u>1.05</u>	<u>ms/cm 33.6 °C</u>	<u>Clear</u>
<u>1130</u>	<u>2 gal</u>	<u>6.67</u>	<u>6.89</u>	<u>ms/cm 31.0 °C</u>	<u>Clear</u>
<u>1131</u>	<u>3 gal</u>	<u>6.79</u>	<u>6.85</u>	<u>ms/cm 29.8 °C</u>	<u>Clear</u>

FIELD pH = 6.79

Sample Appearance: Clear

Sample Collection - Time Start: 1133 Time Finished: 1133

Analyses: <u>CLO4</u>	<u>TDS</u>	<u>CR</u>	<u>TDS / CRVI</u>	<u>TDS / CRVI / NO3</u>	<u>TDS / NO3</u>	<u>CL03</u>
Bottles: <u>1 BTL</u>	<u>1 BTL</u>	<u>1 BTL</u>	<u>1 BTL</u>	<u>1 BTL</u>	<u>1 BTL</u>	<u>1 BTL</u>

TOTAL BOTTLES: 3

**Comments:**

Top of Screen - 20 closing qc 7.0

dup EC 6.83 29.9 TEMP

dup 6 collected here for same analysis

# Water Sampling Field Log

Well No.: M-38

Project No.: \_\_\_\_\_ Site: NERT PROJECT- HENDERSON, NEVADA

Sampling Team: Janel Rivera, Michele Brown Date: 8-6-15

Sampling Method:  Electric Pump  Dedicated Bailer  Non Dedicated Bailer  Ready Flo 2" O

Weather Conditions: humid, hot, cloudy

**Well Information:**

Total Well Depth: 36.82 feet Time: 1255

Depth to Water: 31.61 feet

Well Diameter (circle one)  2-in.  4-in.  6-in. Well Volume (WV) \_\_\_\_\_

Height of Water Column (L): 5.21 feet \* 0.16 gal/ft \* 0.65 gal/ft \* 1.47 gal/ft = .83 gal. \* x 3 3 gal

**Field Measurements:**

Depth Purging From: 2 ft. below depth to water

Time	Cumulative Volume Purged	pH	Specific Conductivity	Temp	Observations
<u>1259</u>	-----	-----	-----	-----	
<u>1301</u>	<u>1 gal</u>	<u>6.89</u>	<u>11.15</u> <sup>ns/cm</sup>	<u>28.9</u> °C	<u>yellow</u>
<u>1302</u>	<u>2 gal</u>	<u>6.99</u>	<u>11.08</u> <sup>ns/cm</sup>	<u>27.9</u> °C	<u>yellow</u>
<u>1303</u>	<u>3 gal</u>	<u>7.01</u>	<u>11.12</u> <sup>ns/cm</sup>	<u>27.6</u> °C	<u>yellow</u>
					FIELD pH = <u>7.01</u>

Sample Appearance: yellow

Sample Collection - Time Start: 1305 Time Finished: 1305

Analyses: CLO4 TDS CR TDS / CRVI TDS / CRVI / NO3 TDS / NO3 CL03  
 Bottles: 1 BTL 1 BTL 1 BTL 1 BTL 1 BTL 1 BTL 1 BTL

Comments: Dup EC 28.1 Temp 1107 EC Dup 5 TOTAL BOTTLES: 3  
 Top of screen - 20 collected here for some analyses  
 Dup Closing QC 6.99

**Water Sampling Field Log**

Well No.: M-44

Project No.: \_\_\_\_\_ Site: NERT PROJECT- HENDERSON, NEVADA

Sampling Team: Janel Rivera, Michele Brown Date: 8-10-15

Sampling Method:  Electric Pump  Dedicated Bailer  Non Dedicated Bailer  Ready Flo 2" O

Weather Conditions: Warm, clear

**Well Information:**

Total Well Depth: 37.65 feet Time: 1030

Depth to Water: 2536 feet

Height of Water Column (L): 12.29 feet

Well Volume (WV)

Well Diameter (circle one)				Well Volume (WV)
2-in.	4-in.	6-in.		
<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>		$0.16 \text{ gal/ft} * 0.65 \text{ gal/ft} * 1.47 \text{ gal/ft} = 1.96 \text{ gal.} * \text{ x 3 } = 5.88 \text{ gal}$

**Field Measurements:**

Depth Purging From: 2 ft. below depth to water

Time	Cumulative Volume Purged	pH	Specific Conductivity	Temp	Observations
<u>1032</u>	-----	-----	-----	-----	
<u>1034</u>	<u>2</u> gal	<u>7.47</u>	<u>10.02</u> <sup>mc/cm</sup>	<u>27.4</u> °C	<u>clear</u>
<u>1036</u>	<u>4</u> gal	<u>7.41</u>	<u>9.90</u> <sup>mc/cm</sup>	<u>26.9</u> °C	<u>clear</u>
<u>1038</u>	<u>6</u> gal	<u>7.37</u>	<u>9.95</u> <sup>mc/cm</sup>	<u>27.7</u> °C	<u>clear</u>

FIELD pH = 7.37

Sample Appearance: clear

Sample Collection - Time Start: 1040 Time Finished: 1040

Analyses: Bottles:	<u>CLO4</u>	TDS	<u>CR</u>	TDS / CRVI	TDS / CRVI / NO3	TDS / NO3	CL03
	<u>1 BTL</u>	1 BTL	<u>1 BTL</u>	1 BTL	1 BTL	1 BTL	1 BTL

TOTAL BOTTLES: 3

Comments: Top of Screen -5

Step 2 collected here for same analyses

# Water Sampling Field Log

Well No.: M-48A

Project No.: \_\_\_\_\_ Site: NERT PROJECT- HENDERSON, NEVADA

Sampling Team: Janel Rivera, Michele Brown Date: 8.4.15

Sampling Method:  Electric Pump  Dedicated Bailer  Non Dedicated Bailer  Ready Flo 2" O

Weather Conditions: warm, clear

**Well Information:**

Total Well Depth: 40.00 feet Time: 0751

Depth to Water: 29.48 feet

Height of Water Column (L): 10.52 feet

Well Diameter (circle one)			Well
2-in.	4-in.	6-in.	Volume (WV)
0.16 gal/ft	* 0.65 gal/ft	* 1.47 gal/ft	= <u>1.68</u> gal. * x 3 <u>5</u> gal

**Field Measurements:**

Depth Purging From: 2 ft. below depth to water

Time	Cumulative Volume Purged	pH	Specific Conductivity	Temp	Observations
<u>0753</u>	-----	-----	-----	-----	
<u>0755</u>	<u>2</u> gal	<u>7.48</u>	<u>4.67</u> mS/cm	<u>27.7</u> °C	<u>clear</u>
<u>0757</u>	<u>4</u> gal	<u>7.35</u>	<u>4.34</u> mS/cm	<u>27.1</u> °C	<u>clear</u>
<u>0758</u>	<u>5</u> gal	<u>7.39</u>	<u>4.58</u> mS/cm	<u>°C</u>	<u>clear</u>
FIELD pH = <u>7.39</u>					

Sample Appearance: clear

Sample Collection - Time Start: 0800 Time Finished: 0800

Analyses:	CLO4	TDS	CR	TDS / CRVI	TDS / CRVI / NO3	TDS / NO3	CL03
Bottles:	1 BTL	1 BTL	1 BTL	1 BTL	1 BTL	1 BTL	1 BTL

TOTAL BOTTLES: 3

Comments: Top of Screen -19.7  
pH 8.49 Temp 27.4  
EB-1 - collected here before moving to next well  
3 BTLs CR, CRVI, TDS, 0810

### Water Sampling Field Log

Well No.: M-52

Project No.: \_\_\_\_\_ Site: NERT PROJECT- HENDERSON, NEVADA

Sampling Team: Janel Rivera, Michele Bowen Date: 8-6-15

Sampling Method:  Electric Pump  Dedicated Bailer  Non Dedicated Bailer  Ready Flo 2" O

Weather Conditions: warm, some clouds

#### Well Information:

Total Well Depth: 47.85 feet Time: 0615

Depth to Water: 42.19 feet Well Volume (VV) \_\_\_\_\_

				Well Diameter (circle one)				
				2-in.	4-in.	6-in		

Height of Water Column (L): 5.66 feet \* 0.16 gal/ft \* 0.65 gal/ft \* 1.47 gal/ft = .90 gal. \* x 3 = 3 gal

#### Field Measurements:

Depth Purging From: 2 ft. below depth to water

Time	Cumulative Volume Purged	pH	Specific Conductivity	Temp	Observations
<u>0623</u>	----	----	----	----	
<u>0624</u>	<u>1 gal</u>	<u>7.52</u>	<u>5.42</u> <u>mc/cm</u>	<u>25.2</u> <u>c</u>	<u>relty</u>
<u>0625</u>	<u>2 gal</u>	<u>7.50</u>	<u>5.26</u> <u>mc/cm</u>	<u>25.1</u> <u>c</u>	<u>clear w/ some selt</u>
<u>0626</u>	<u>3 gal</u>	<u>7.51</u>	<u>5.14</u> <u>mc/cm</u>	<u>25.0</u> <u>c</u>	<u>clear w/ some selt</u>
FIELD pH = <u>7.51</u>					

Sample Appearance: \_\_\_\_\_

Sample Collection - Time Start: 0628 Time Finished: 0628

Analyses:	CLO4	TDS	CR	TDS / CRVI	TDS / CRVI / NO3	TDS / NO3	CL03
Bottles:	<u>1 BTL</u>	<u>1 BTL</u>	<u>1 BTL</u>	<u>1 BTL</u>	<u>1 BTL</u>	<u>1 BTL</u>	<u>1 BTL</u>

TOTAL BOTTLES: 3

Comments:

Top of screen 34.5

Water Sampling Field Log

Well No.: M-55

Project No.: \_\_\_\_\_ Site: NERT PROJECT- HENDERSON, NEVADA

Sampling Team: Janel Rivera, Michele Brown Date: 8-3-15

Sampling Method:  Electric Pump  Dedicated Bailer  Non Dedicated Bailer  Ready Flo 2" O

Weather Conditions: warm, sunny, clear

Well Information:

Total Well Depth: 45.0 feet Time: 0813

Depth to Water: 30.27 feet

Well Diameter (circle one)  
 2-in.  4-in.  6-in

Well Volume (WV)

Height of Water Column (L): 14.73 feet \* 0.16 gal/ft \* 0.65 gal/ft \* 1.47 gal/ft = \_\_\_\_\_ gal. \* x 3 \_\_\_\_\_

Field Measurements:

Depth Purging From: 2 ft. below depth to water

Time	Cumulative Volume Purged	pH	Specific Conductivity	Temp	Observations
	gal				DTW ONLY
	gal				NO SAMPLE
	gal				
					FIELD pH = _____

Sample Appearance: \_\_\_\_\_

Sample Collection - Time Start: \_\_\_\_\_ Time Finished: \_\_\_\_\_

Analyses:	CLO4	TDS	CR	TDS / CRVI	TDS / CRVI / NO3	TDS / NO3	CL03
Bottles:	1 BTL	1 BTL	1 BTL	1 BTL	1 BTL	1 BTL	1 BTL

TOTAL BOTTLES: 0

Comments:



# Water Sampling Field Log

Well No.: M-57A

Project No.: \_\_\_\_\_ Site: NERT PROJECT- HENDERSON, NEVADA

Sampling Team: Janel Rivera, Michele Brown Date: 9/5/15

Sampling Method:  Electric Pump  Dedicated Bailer  Non Dedicated Bailer  Ready Flo 2" O

Weather Conditions: Windy, warm

**Well Information:**

Total Well Depth: 42.40 feet Time: 0426

Depth to Water: 29.86 feet

Height of Water Column (L): 12.54 feet

Well Diameter (circle one)			Well
2-in.	4-in.	6-in	Volume (VV)
* 0.16 gal/ft	* 0.65 gal/ft	* 1.47 gal/ft	= <u>2.00</u> gal. * x 3 <u>6</u>

**Field Measurements:**

Depth Purging From: 2 ft. below depth to water

Time	Cumulative Volume Purged	pH	Specific Conductivity	Temp	Observations
<u>0429</u>	-----	-----	-----	-----	
<u>0431</u>	<u>2 gal</u>	<u>7.66</u>	<u>4.64</u> <u>ms/cm</u>	<u>25.5</u> °C	<u>Cloudy</u>
<u>0433</u>	<u>4 gal</u>	<u>7.65</u>	<u>4.53</u> <u>ms/cm</u>	<u>25.1</u> °C	<u>Cloudy</u>
<u>0435</u>	<u>6 gal</u>	<u>7.56</u>	<u>4.58</u> <u>ms/cm</u>	<u>25.1</u> °C	<u>clear</u>
					FIELD pH = <u>7.56</u>

Sample Appearance: Clear

Sample Collection - Time Start: 0431 Time Finished: 0437

Analyses:	<u>CLO4</u>	<u>TDS</u>	<u>CR</u>	TDS / CRVI	TDS / CRVI / NO3	TDS / NO3	CL03
Bottles:	1 BTL	1 BTL	1 BTL	1 BTL	1 BTL	1 BTL	1 BTL

TOTAL BOTTLES: 3

Comments: Top of screen -20 Closing @ 7.01



# Water Sampling Field Log

Well No.: M-58

Project No.: \_\_\_\_\_ Site: NERT PROJECT- HENDERSON, NEVADA

Sampling Team: Janel Rivera, Michele Brown Date: 8-3-15

Sampling Method:  Electric Pump  Dedicated Bailer  Non Dedicated Bailer  Ready Flo 2" O

Weather Conditions: Warm, Sunny, Clear

**Well Information:**

Total Well Depth: 45.0 feet Time: 0623

Depth to Water: 30.49 feet

Well Diameter (circle one)			Well Volume (WV)
2-in.	4-in.	6-in	

Height of Water Column (L): 14.51 feet \* 0.16 gal/ft \* 0.65 gal/ft \* 1.47 gal/ft = \_\_\_\_\_ gal. \* x 3 \_\_\_\_\_

**Field Measurements:**

Depth Purging From: 2 ft. below depth to water

Time	Cumulative Volume Purged	pH	Specific Conductivity	Temp	Observations
	gal				
	gal				DTW ONLY
	gal				NO SAMPLE
					FIELD pH =

Sample Appearance: \_\_\_\_\_

Sample Collection - Time Start: \_\_\_\_\_ Time Finished: \_\_\_\_\_

Analyses:	CLO4	TDS	CR	TDS / CRVI	TDS / CRVI / NO3	TDS / NO3	CL03
Bottles:	1 BTL	1 BTL	1 BTL	1 BTL	1 BTL	1 BTL	1 BTL

TOTAL BOTTLES: 8

Comments:

# Water Sampling Field Log

Well No.: M-66

Project No.: \_\_\_\_\_ Site: NERT PROJECT- HENDERSON, NEVADA

Sampling Team: Janel Rivera, Michele Brown Date: 8/5/15

Sampling Method: Electric Pump ● Dedicated Bailer O Non Dedicated Bailer O Ready Flo 2" O

Weather Conditions: Warm, breezy

**Well Information:**

Total Well Depth: 43.00 feet Time: 0300

Depth to Water: 32.00 feet

Well Diameter (circle one)  
 2-in. 4-in. 6-in.  
 Height of Water Column (L): 11 feet \* 0.16 gal/ft \* 0.65 gal/ft \* 1.47 gal/ft = 1.76 gal. \* x 3 5

**Field Measurements:**

Depth Purging From: 2 ft. below depth to water

Time	Cumulative Volume Purged	pH	Specific Conductivity	Temp	Observations
<u>0302</u>	----	----	----	----	
<u>0305</u>	<u>3</u> gal	<u>7.15</u>	<u>13.67</u> <u>ms/cm</u>	<u>26.0</u> °C	<u>Clear, yellow</u>
<u>0306</u>	<u>4</u> gal	<u>7.01</u>	<u>13.56</u> <u>ms/cm</u>	<u>25.8</u> °C	<u>Clear, yellow</u>
<u>0307</u>	<u>5</u> gal	<u>7.01</u>	<u>13.58</u> <u>ms/cm</u>	<u>25.4</u> °C	<u>Clear, yellow</u>

FIELD pH = 7.01

Sample Appearance: yellow, clear

Sample Collection - Time Start: 0309 Time Finished: 0309

Analyses:	<u>CLO4</u>	<u>TDS</u>	<u>CR</u>	TDS / CRVI	TDS / CRVI / NO3	TDS / NO3	CL03
Bottles:	<u>1 BTL</u>	<u>1 BTL</u>	<u>1 BTL</u>	1 BTL	1 BTL	1 BTL	1 BTL

TOTAL BOTTLES: 3

Comments: Top of screen -17.5

# Water Sampling Field Log

Well No.: M-67

Project No.: \_\_\_\_\_ Site: NERT PROJECT- HENDERSON, NEVADA

Sampling Team: Janel Rivera, Michele Braun Date: 8-6-15

Sampling Method:  Electric Pump  Dedicated Bailer  Non Dedicated Bailer  Ready Flo 2" O

Weather Conditions: Humid, warm, partially cloudy

**Well Information:**

Total Well Depth: 38.00 feet Time: 0751

Depth to Water: 22.49 feet

Height of Water Column (L): 15.51 feet

Well Diameter (circle one)	Well
<input checked="" type="radio"/> 2-in. <input type="radio"/> 4-in. <input type="radio"/> 6-in.	Volume (VV)
* 0.16 gal/ft    * 0.65 gal/ft    * 1.47 gal/ft	= <u>2.32</u> gal. * x 3 <u>7 gal</u>

**Field Measurements:**

Depth Purging From: 2 ft. below depth to water

Time	Cumulative Volume Purged	pH	Specific Conductivity	Temp	Observations
<u>0754</u>	---	---	---	---	
<u>0757</u>	<u>3 gal</u>	<u>7.17</u>	<u>7.02</u> <sup>ms/cm</sup>	<u>27.5 °C</u>	<u>light yellow</u>
<u>0759</u>	<u>5 gal</u>	<u>7.13</u>	<u>6.94</u> <sup>ms/cm</sup>	<u>26.8 °C</u>	<u>light yellow</u>
<u>0801</u>	<u>7 gal</u>	<u>7.14</u>	<u>6.99</u> <sup>ms/cm</sup>	<u>26.4 °C</u>	<u>light yellow</u>

FIELD pH = 7.14

Sample Appearance: light yellow

Sample Collection - Time Start: 0803 Time Finished: 0803

Analyses:	<u>CLO4</u>	<u>TDS</u>	<u>CR</u>	TDS / CRVI	TDS / CRVI / NO3	TDS / NO3	CL03
Bottles:	<u>1 BTL</u>	<u>1 BTL</u>	<u>1 BTL</u>	1 BTL	1 BTL	1 BTL	1 BTL

TOTAL BOTTLES: 3

Comments: Top of screen 7.8

## Water Sampling Field Log

Well No.: M-68

Project No.: \_\_\_\_\_ Site: NERT PROJECT- HENDERSON, NEVADA

Sampling Team: Janel Rivera, Michele Brown Date: 8-6-15

Sampling Method:  Electric Pump  Dedicated Bailer  Non Dedicated Bailer  Ready Flo 2" O

Weather Conditions: warm, partially cloudy

### Well Information:

Total Well Depth: 41.00 feet Time: 0708

Depth to Water: 26.52 feet

Height of Water Column (L): 14.48 feet \* 0.16 gal/ft \* 0.65 gal/ft \* 1.47 gal/ft = 2.31 gal. \* x 3 7 gal

Well Diameter (circle one)  
 2-in.  4-in.  6-in. Well Volume (WV)

### Field Measurements: Depth Purging From: 2 ft. below depth to water

Time	Cumulative Volume Purged	pH	Specific Conductivity	Temp	Observations
<u>0714</u>	---	---	---	---	
<u>0717</u>	<u>3</u> gal	<u>7.29</u>	<u>7.32</u> mS/cm	<u>25.9 °C</u>	<u>clear</u>
<u>0719</u>	<u>5</u> gal	<u>7.19</u>	<u>7.26</u> mS/cm	<u>23.8 °C</u>	<u>clear</u>
<u>0721</u>	<u>7</u> gal	<u>7.23</u>	<u>7.24</u> mS/cm	<u>25.7 °C</u>	<u>clear</u>

FIELD pH = 7.23

Sample Appearance: clear

Sample Collection - Time Start: 0723 Time Finished: 0723

Analyses:	<u>CLO4</u>	<u>TDS</u>	<u>CR</u>	TDS / CRVI	TDS / CRVI / NO3	TDS / NO3	CL03
Bottles:	<u>1 BTL</u>	<u>1 BTL</u>	<u>1 BTL</u>	1 BTL	1 BTL	1 BTL	1 BTL

TOTAL BOTTLES: 3

Comments:  
Top of Screen 11.2

# Water Sampling Field Log

Well No.: M-69

Project No.: \_\_\_\_\_ Site: NERT PROJECT- HENDERSON, NEVADA

Sampling Team: Janel Rivera, Michele Brown Date: 080515

Sampling Method:  Electric Pump  Dedicated Bailer  Non Dedicated Bailer  Ready Flo 2" O

Weather Conditions: warm, breezy

**Well Information:**

Total Well Depth: 40.00 feet Time: 0337

Depth to Water: 33.71 feet

Well Diameter (circle one)  2-in.  4-in.  6-in. Well Volume (WV) = 1.00 gal. \* x 3 3

Height of Water Column (L): 6.29 feet \* 0.16 gal/ft \* 0.65 gal/ft \* 1.47 gal/ft = 1.00 gal. \* x 3 3

**Field Measurements:**

Depth Purging From: 2 ft. below depth to water

Time	Cumulative Volume Purged	pH	Specific Conductivity	Temp	Observations
0339	----	----	----	----	
0340	1 gal	7.32	4.98	25.3 °C	clear
0341	2 gal	7.29	4.95	25.1 °C	clear
0342	3 gal	7.27	4.91	25.3 °C	clear

FIELD pH = 7.27

Sample Appearance: Clear

Sample Collection - Time Start: 0344 Time Finished: 0344

Analyses: CLO4 TDS CR TDS / CRVI TDS / CRVI / NO3 TDS / NO3 CL03  
 Bottles: 1 BTL 1 BTL 1 BTL 1 BTL 1 BTL 1 BTL 1 BTL

TOTAL BOTTLES: 3

Comments: Top of screen 19.9

# Water Sampling Field Log

Well No.: M-70

Project No.: \_\_\_\_\_ Site: NERT PROJECT- HENDERSON, NEVADA

Sampling Team: Janel Rivera, Michele Brown Date: 8/5/15

Sampling Method:  Electric Pump  Dedicated Bailer  Non Dedicated Bailer  Ready Flo 2" O

Weather Conditions: warm, breezy, sunny

**Well Information:**

Total Well Depth: 41.00 feet Time: 0640

Depth to Water: 35.58 feet

Height of Water Column (L): 5.42 feet \* 0.16 gal/ft \* 0.65 gal/ft \* 1.47 gal/ft = .86 gal. \* x 3

Well Diameter (circle one) Well Volume (WV)  
 2-in.  4-in.  6-in.

**Field Measurements:**

Depth Purging From: 2 ft. below depth to water

Time	Cumulative Volume Purged	pH	Specific Conductivity	Temp	Observations
<u>0642</u>	----	----	----	----	
<u>0643</u>	<u>1 gal</u>	<u>7.38</u>	<u>8.46 mS/cm</u>	<u>26.6 °C</u>	<u>Clear</u>
<u>0644</u>	<u>2 gal</u>	<u>7.33</u>	<u>8.18 mS/cm</u>	<u>26.0 °C</u>	<u>Clear</u>
<u>0645</u>	<u>3 gal</u>	<u>7.25</u>	<u>8.10 mS/cm</u>	<u>25.8 °C</u>	<u>Clear</u>
FIELD pH = <u>7.25</u>					

Sample Appearance: Clear

Sample Collection - Time Start: 0647 Time Finished: 0647

Analyses:	<u>CLO4</u>	<u>TDS</u>	<u>CR</u>	TDS / CRVI	TDS / CRVI / NO3	TDS / NO3	CL03
Bottles:	<u>1 BTL</u>	<u>1 BTL</u>	<u>1 BTL</u>	1 BTL	1 BTL	1 BTL	1 BTL

TOTAL BOTTLES: 3

Comments: Top of Screen - 17.5 8/5/15  
0653

EB 2 collected here

<u>Temp</u>	<u>pH</u>	<u>CLO4</u>	<u>TDS</u>	<u>CR</u>	<u>CRVI</u>
<u>27.3</u>	<u>8.80</u>				

**Water Sampling Field Log**

Well No.: M-71

Project No.: \_\_\_\_\_ Site: NERT PROJECT- HENDERSON, NEVADA

Sampling Team: Janel Rivera, Michele Brown Date: 8-5-15

Sampling Method: Electric Pump ● Dedicated Bailer O Non Dedicated Bailer O Ready Flo 2" O

Weather Conditions: sunny, hot

**Well Information:**

Total Well Depth: 43.0 feet Time: 0659

Depth to Water: 32.04 feet

Well Diameter (circle one) 2-in. 4-in. 6-in. Well Volume (WV) = 1.75 gal. \* 3 = 5

**Field Measurements:** Depth Purging From: 2 ft. below depth to water

Time	Cumulative Volume Purged	pH	Specific Conductivity	Temp	Observations
<u>0701</u>	<u>---</u>	<u>---</u>	<u>---</u>	<u>---</u>	
<u>0704</u>	<u>3 gal</u>	<u>7.21</u>	<u>7.60 mS/cm</u>	<u>26.6°C</u>	<u>Clear</u>
<u>0705</u>	<u>4 gal</u>	<u>7.10</u>	<u>7.57 mS/cm</u>	<u>26.0°C</u>	<u>Clear</u>
<u>0706</u>	<u>5 gal</u>	<u>7.11</u>	<u>7.51 mS/cm</u>	<u>25.7°C</u>	<u>Clear</u>

Sample Appearance: clear

Sample Collection - Time Start: 0708 Time Finished: 0708

Analyses: CLO4 TDS CR TDS / CRVI TDS / CRVI / NO3 TDS / NO3 CL03  
Bottles: 1 BTL 1 BTL 1 BTL 1 BTL 1 BTL 1 BTL 1 BTL

TOTAL BOTTLES: 3

Comments: top of screen . 17.5

Water Sampling Field Log

Well No.: M-72

Project No.: \_\_\_\_\_ Site: NERT PROJECT- HENDERSON, NEVADA

Sampling Team: Janel Rivera, Michele Brown Date: 9/5/15

Sampling Method:  Electric Pump  Dedicated Bailer  Non Dedicated Bailer  Ready Flo 2" O

Weather Conditions: Windy, sunny

Well Information:

Total Well Depth: 36.00 feet Time: 0714

Depth to Water: 32.24 feet

Height of Water Column (L): 3.76 feet \* 2-in. Well Diameter (circle one) \* 0.16 gal/ft \* 4-in. \* 0.65 gal/ft \* 6-in. \* 1.47 gal/ft = .60 gal. \* x 3 2

Field Measurements:

Depth Purging From: 2 ft. below depth to water

Time	Cumulative Volume Purged	pH	Specific Conductivity	Temp	Observations
0717	---	---	---	---	---
0718	1 gal	7.14	11.50 $\mu$ S/cm	26.0 °C	yellow tint, clear
0719	1.5 gal	7.10	11.05 $\mu$ S/cm	25.4 °C	yellow tint, clear
0720	2 gal	7.12	11.28 $\mu$ S/cm	26.1 °C	yellow tint, clear

FIELD pH = 7.12

Sample Appearance: yellow tint, clear

Sample Collection - Time Start: 0722 Time Finished: 0722

Analyses: CLO4 TDS CR TDS / CRVI TDS / CRVI / NO3 TDS / NO3 CL03  
Bottles: 1 BTL 1 BTL 1 BTL 1 BTL 1 BTL 1 BTL 1 BTL

TOTAL BOTTLES: 3

Comments:  
Top of Screen -10.1



# Water Sampling Field Log

Well No.: M-73

Project No.: \_\_\_\_\_ Site: NERT PROJECT- HENDERSON, NEVADA

Sampling Team: Janel Rivera, Michele Brown Date: 8-6-15

Sampling Method:  Electric Pump  Dedicated Bailer  Non Dedicated Bailer  Ready Flo 2" O

Weather Conditions: humid, warm, partially cloudy

## Well Information:

Total Well Depth: 36.00 feet Time: 0812

Depth to Water: 28.46 feet

Well Diameter (circle one) Well Volume (VV)

2-in. 4-in. 6-in

Height of Water Column (L): 7.54 feet \* 0.16 gal/ft \* 0.65 gal/ft \* 1.47 gal/ft = 1.20 gal. \* x 3 4 gal

## Field Measurements:

Depth Purging From: 2 ft. below depth to water

Time	Cumulative Volume Purged	pH	Specific Conductivity	Temp	Observations
<u>0815</u>	---	---	---	---	
<u>0817</u>	<u>2</u> gal	<u>7.05</u>	<u>9.27</u> mS/cm	<u>28.8</u> °C	<u>light yellow</u>
<u>0818</u>	<u>3</u> gal	<u>7.08</u>	<u>8.69</u> mS/cm	<u>28.0</u> °C	<u>light yellow</u>
<u>0819</u>	<u>4</u> gal	<u>7.14</u>	<u>8.56</u> mS/cm	<u>27.7</u> °C	<u>light yellow</u>
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____

FIELD pH = 7.16

Sample Appearance: light yellow

Sample Collection - Time Start: 0820 Time Finished: 0820

Analyses: CLO4 TDS CR TDS / CRVI TDS / CRVI / NO3 TDS / NO3 CL03

Bottles: 1 BTL 1 BTL 1 BTL 1 BTL 1 BTL 1 BTL 1 BTL

TOTAL BOTTLES: 3

Comments: Top of screen 11

**Water Sampling Field Log**

Well No.: M-74

Project No.: \_\_\_\_\_ Site: NERT PROJECT- HENDERSON, NEVADA

Sampling Team: Janel Rivera, Michele Brown Date: 8-6-15

Sampling Method:  Electric Pump  Dedicated Bailer  Non Dedicated Bailer  Ready Flo 2" O

Weather Conditions: humid, warm, partially cloudy

**Well Information:**

Total Well Depth: 39.70 feet Time: 0731

Depth to Water: 27.95 feet

Height of Water Column (L): 11.75 feet \* 0.16 gal/ft \* 0.65 gal/ft \* 1.47 gal/ft = 1.88 gal. \* x 3 6 gal

Well Diameter (circle one)  
2-in. 4-in. 6-in Well Volume (WV)

**Field Measurements:** Depth Purging From: 2 ft. below depth to water

Time	Cumulative Volume Purged	pH	Specific Conductivity	Temp	Observations
<u>0734</u>	---	---	---	---	---
<u>0736</u>	<u>2 gal</u>	<u>7.41</u>	<u>7.30 mS/cm</u>	<u>25.4 °C</u>	<u>clear</u>
<u>0738</u>	<u>4 gal</u>	<u>7.33</u>	<u>7.16 mS/cm</u>	<u>25.3 °C</u>	<u>clear</u>
<u>0740</u>	<u>10 gal</u>	<u>7.25</u>	<u>7.15 mS/cm</u>	<u>25.5 °C</u>	<u>clear</u>

FIELD pH = 7.25

Sample Appearance: clear

Sample Collection - Time Start: 0742 Time Finished: 0742

Analyses:	<u>CLO4</u>	<u>TDS</u>	<u>CR</u>	TDS / CRVI	TDS / CRVI / NO3	TDS / NO3	CL03
	<u>1 BTL</u>	<u>1 BTL</u>	<u>1 BTL</u>	1 BTL	1 BTL	1 BTL	1 BTL

TOTAL BOTTLES: 3

Comments: Top of screen 9.2

# Water Sampling Field Log

Well No.: M-75

Project No.: \_\_\_\_\_ Site: NERT PROJECT- HENDERSON, NEVADA

Sampling Team: Janel Rivera, Michele Brown Date: 8-6-15

Sampling Method:  Electric Pump  Dedicated Bailer  Non Dedicated Bailer  Ready Flo 2" O

Weather Conditions: warm, some clouds

### Well Information:

Total Well Depth: 53.90 feet Time: 0552

Depth to Water: 39.33 feet

Well Diameter (circle one)  
 2-in.  4-in.  6-in.

Well Volume (WV)

Height of Water Column (L): 14.57 feet \* 0.16 gal/ft \* 0.65 gal/ft \* 1.47 gal/ft = \_\_\_\_\_ gal. \* x 3

### Field Measurements:

Depth Purging From: 2 ft. below depth to water

Time	Cumulative Volume Purged	pH	Specific Conductivity	Temp	Observations
_____	_____ gal	_____	_____	_____	_____
_____	_____ gal	_____	_____	_____	<u>DTW Only</u>
_____	_____ gal	_____	_____	_____	<u>No Sample</u>
_____	_____ gal	_____	_____	_____	_____
_____	_____ gal	_____	_____	_____	_____
_____	_____ gal	_____	_____	_____	_____
_____	_____ gal	_____	_____	_____	_____
_____	_____ gal	_____	_____	_____	_____
_____	_____ gal	_____	_____	_____	_____

FIELD pH = \_\_\_\_\_

Sample Appearance: \_\_\_\_\_

Sample Collection - Time Start: \_\_\_\_\_ Time Finished: \_\_\_\_\_

Analyses:	CLO4	TDS	CR	TDS / CRVI	TDS / CRVI / NO3	TDS / NO3	CL03
Bottles:	1 BTL	1 BTL	1 BTL	1 BTL	1 BTL	1 BTL	1 BTL

TOTAL BOTTLES: 8

Comments:

# Water Sampling Field Log

Well No.: M-76

Project No.: \_\_\_\_\_ Site: NERT PROJECT- HENDERSON, NEVADA

Sampling Team: Janel Rivera, Michele Brown Date: 8-6-15

Sampling Method:  Electric Pump  Dedicated Bailer  Non Dedicated Bailer  Ready Flo 2"

Weather Conditions: warm, some clouds

## Well Information:

Total Well Depth: 54.60 feet Time: 0552

Depth to Water: 39.33 feet

Height of Water Column (L): 15.27 feet \* 0.16 gal/ft \* 0.65 gal/ft \* 1.47 gal/ft = \_\_\_\_\_ gal. \* x 3 \_\_\_\_\_

Well Diameter (circle one) 2-in. 4-in. 6-in. Well Volume (WV)

## Field Measurements:

Depth Purging From: 2 ft. below depth to water

Time	Cumulative Volume Purged	pH	Specific Conductivity	Temp	Observations
_____	_____ gal	_____	_____	_____	_____
_____	_____ gal	_____	_____	_____	DTW Only
_____	_____ gal	_____	_____	_____	No Sample
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____

Sample Appearance: \_\_\_\_\_

Sample Collection - Time Start: \_\_\_\_\_ Time Finished: \_\_\_\_\_

Analyses: CLO4 TDS CR TDS / CRVI TDS / CRVI / NO3 TDS / NO3 CL03  
Bottles: 1 BTL 1 BTL 1 BTL 1 BTL 1 BTL 1 BTL 1 BTL

TOTAL BOTTLES: 8

Comments: \_\_\_\_\_

## Water Sampling Field Log

Well No.: M-77

Project No.: \_\_\_\_\_ Site: NERT PROJECT- HENDERSON, NEVADA

Sampling Team: Janel Rivera, Michele Brown Date: 8-6-15

Sampling Method:  Electric Pump  Dedicated Bailer  Non Dedicated Bailer  Ready Flo 2" O

Weather Conditions: warm, some clouds

**Well Information:**

Total Well Depth: 49.32 feet Time: 0609

Depth to Water: 40.58 feet

Height of Water Column (L): 8.74 feet \* 0.16 gal/ft \* 0.65 gal/ft \* 1.47 gal/ft = \_\_\_\_\_ gal. \* x 3 \_\_\_\_\_

Well Diameter (circle one) Well Volume (WV)  
 2-in.  4-in.  6-in.

**Field Measurements:**

Depth Purging From: 2 ft. below depth to water

Time	Cumulative Volume Purged	pH	Specific Conductivity	Temp	Observations
_____	_____ gal	_____	_____	_____	_____
_____	_____ gal	_____	_____	_____	<u>DTW ONLY</u>
_____	_____ gal	_____	_____	_____	<u>NO SAMPLE</u>
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	FIELD pH = _____

Sample Appearance: \_\_\_\_\_

Sample Collection - Time Start: \_\_\_\_\_ Time Finished: \_\_\_\_\_

Analyses:	CLO4	TDS	CR	TDS / CRVI	TDS / CRVI / NO3	TDS / NO3	CL03
Bottles:	1 BTL	1 BTL	1 BTL	1 BTL	1 BTL	1 BTL	1 BTL

TOTAL BOTTLES: 8

Comments:

# Water Sampling Field Log

Well No.: M-78

Project No.: \_\_\_\_\_ Site: NERT PROJECT- HENDERSON, NEVADA

Sampling Team: Janel Rivera, Michele Brown Date: 8-3-15

Sampling Method: Electric Pump  Dedicated Bailer  Non Dedicated Bailer  Ready Flo 2"

Weather Conditions: warm, sunny, clear

**Well Information:**

Total Well Depth: 43.60 feet Time: 0801

Depth to Water: 33.19 feet

Well Diameter (circle one)  
 2-in.      4-in.      6-in.

Well Volume (VV) \_\_\_\_\_

Height of Water Column (L): 10.41 feet \* 0.16 gal/ft \* 0.65 gal/ft \* 1.47 gal/ft = \_\_\_\_\_ gal. \* x 3 \_\_\_\_\_

**Field Measurements:**

Depth Purging From: 2 ft. below depth to water

Time	Cumulative Volume Purged	pH	Specific Conductivity	Temp	Observations
	gal				
	gal				PTW ONLY
	gal				NO SAMPLE

FIELD pH = \_\_\_\_\_

Sample Appearance: \_\_\_\_\_

Sample Collection - Time Start: \_\_\_\_\_ Time Finished: \_\_\_\_\_

Analyses: CLO4 TDS CR TDS / CRVI TDS / CRVI / NO3 TDS / NO3 CL03  
 Bottles: 1 BTL 1 BTL 1 BTL 1 BTL 1 BTL 1 BTL 1 BTL

TOTAL BOTTLES: 7

Comments:

# Water Sampling Field Log

Well No.: M-79

Project No.: \_\_\_\_\_ Site: NERT PROJECT- HENDERSON, NEVADA

Sampling Team: Janel Rivera, Michele Brown Date: 8/5/15

Sampling Method:  Electric Pump  Dedicated Bailer  Non Dedicated Bailer  Ready Flo 2" O

Weather Conditions: warm, breezy

**Well Information:**

Total Well Depth: 37.60 feet Time: 0322

Depth to Water: 31.69 feet

Well Diameter (circle one)  2-in.  4-in.  6-in. Well Volume (WV) \_\_\_\_\_

Height of Water Column (L): 5.91 feet \* 0.16 gal/ft \* 0.65 gal/ft \* 1.47 gal/ft = .94 gal. \* x 3

**Field Measurements:**

Depth Purging From: 2 ft. below depth to water

Time	Cumulative Volume Purged	pH	Specific Conductivity	Temp	Observations
<u>0323</u>	---	---	---	---	
<u>0324</u>	<u>1</u> gal	<u>6.07</u>	<u>5.78</u> <u>ns/cm</u>	<u>24.9</u> °C	<u>Clear</u>
<u>0325</u>	<u>2</u> gal	<u>7.36</u>	<u>5.56</u> <u>ns/cm</u>	<u>24.9</u> °C	<u>Clear</u>
<u>0326</u>	<u>3</u> gal	<u>7.36</u>	<u>5.52</u> <u>ns/cm</u>	<u>24.9</u> °C	<u>Clear</u>
<u>0327</u>	<u>4</u> gal.	<u>7.33</u>	<u>5.53</u> <u>ns/cm</u>	<u>25.0</u> °C	<u>Clear</u>

FIELD pH = 7.33

Sample Appearance: Clear

Sample Collection - Time Start: 0328 Time Finished: 0328

Analyses: CLO4 TDS CR TDS / CRVI TDS / CRVI / NO3 TDS / NO3 CL03

Bottles: 1 BTL 1 BTL 1 BTL 1 BTL 1 BTL 1 BTL 1 BTL

TOTAL BOTTLES: 3

Comments:

Top of screen 10.8

# Water Sampling Field Log

Well No.: M-80

Project No.: \_\_\_\_\_ Site: NERT PROJECT- HENDERSON, NEVADA

Sampling Team: Janel Rivera, Michele Brown Date: 8-6-15

Sampling Method:  Electric Pump  Dedicated Bailer  Non Dedicated Bailer  Ready Flo 2" O

Weather Conditions: Humid, warm, cloudy

**Well Information:**

Total Well Depth: 43.76 feet Time: 1041

Depth to Water: 36.21 feet Well Volume (WV)

Well Diameter (circle one)  
 2-in.  4-in.  6-in

Height of Water Column (L): 7.49 feet \* 0.16 gal/ft \* 0.65 gal/ft \* 1.47 gal/ft = 4.86 gal. \* x 3 15 gal

**Field Measurements:**

Depth Purging From: 2 ft. below depth to water

Time	Cumulative Volume Purged	pH	Specific Conductivity	Temp	Observations
<u>1043</u>	---	---	---	---	
<u>1048</u>	<u>5 gal</u>	<u>7.29</u>	<u>4.73 mS/cm</u>	<u>26.5°</u>	<u>Clear</u>
<u>1053</u>	<u>10 gal</u>	<u>7.39</u>	<u>4.76 mS/cm</u>	<u>29.2°</u>	<u>Clear</u>
<u>1058</u>	<u>15 gal</u>	<u>7.39</u>	<u>4.72 mS/cm</u>	<u>28.7°</u>	<u>Clear</u>
					<u>FIELD pH = 7.39</u>

Sample Appearance: Clear

Sample Collection - Time Start: 1100 Time Finished: 1100

Analyses: CL04 TDS CR TDS / CRVI TDS / CRVI / NO3 TDS / NO3 CL03  
 Bottles: 1 BTL 1 BTL 1 BTL 1 BTL 1 BTL 1 BTL 1 BTL

TOTAL BOTTLES: 3

Comments: Top of Screen - 11.5



# Water Sampling Field Log

Well No.: M-83

Project No.: \_\_\_\_\_ Site: NERT PROJECT- HENDERSON, NEVADA

Sampling Team: Janel Rivera, Michele Brown Date: 8-6-15

Sampling Method:  Electric Pump  Dedicated Bailer  Non Dedicated Bailer  Ready Flo 2" O

Weather Conditions: Humid, warm

**Well Information:**

Total Well Depth: 41.75 feet Time: 0903

Depth to Water: 31.108 feet

Height of Water Column (L): 10.07 feet

Well Diameter (circle one)  
 2-in.  4-in.  6-in

Well Volume (WV) = 1.661 gal. \* x 3 = 5 gal

**Field Measurements:**

Depth Purging From: 2 ft. below depth to water

Time	Cumulative Volume Purged	pH	Specific Conductivity	Temp	Observations
<u>0905</u>	---	---	---	---	---
<u>0907</u>	<u>2 gal</u>	<u>7.21</u>	<u>5.12 mS/cm</u>	<u>29.1 °C</u>	<u>clear</u>
<u>0909</u>	<u>4 gal</u>	<u>7.21</u>	<u>5.31 mS/cm</u>	<u>28.1 °C</u>	<u>clear</u>
<u>0910</u>	<u>5 gal</u>	<u>7.18</u>	<u>5.34 mS/cm</u>	<u>26.6 °C</u>	<u>clear</u>
FIELD pH = <u>7.18</u>					

Sample Appearance: clear

Sample Collection - Time Start: 0912 Time Finished: 0912

Analyses: CLO4 TDS CR TDS / CRVI TDS / CRVI / NO3 TDS / NO3 CL03

Bottles: 1 BTL 1 BTL 1 BTL 1 BTL 1 BTL 1 BTL 1 BTL

TOTAL BOTTLES: 3

Comments:

Top of Screen -15.3 Closing Qc - 7.0

# Water Sampling Field Log

Well No.: M-92

Project No.: \_\_\_\_\_ Site: NERT PROJECT- HENDERSON, NEVADA

Sampling Team: Janel Rivera, Michele Brown Date: 8-6-15

Sampling Method:  Electric Pump  Dedicated Bailer  Non Dedicated Bailer  Ready Flo 2" O

Weather Conditions: warm, some clouds

**Well Information:**

Total Well Depth: 48.50 feet Time: 0530

Depth to Water: 35.74 feet

Well Diameter (circle one)  2-in.  4-in.  6-in. Well Volume (VV) \_\_\_\_\_

Height of Water Column (L): 12.76 feet \* 0.16 gal/ft \* 0.65 gal/ft \* 1.47 gal/ft = \_\_\_\_\_ gal. \* x 3 \_\_\_\_\_

**Field Measurements:**

Depth Purging From: 2 ft. below depth to water

Time	Cumulative Volume Purged	pH	Specific Conductivity	Temp	Observations
_____	_____ gal	_____	_____	_____	_____
_____	_____ gal	_____	_____	_____	_____
_____	_____ gal	_____	_____	_____	DTW Only No Sample
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____

FIELD pH = \_\_\_\_\_

Sample Appearance: \_\_\_\_\_

Sample Collection - Time Start: \_\_\_\_\_ Time Finished: \_\_\_\_\_

Analyses:	CLO4	TDS	CR	TDS / CRVI	TDS / CRVI / NO3	TDS / NO3	CL03
Bottles:	1 BTL	1 BTL	1 BTL	1 BTL	1 BTL	1 BTL	1 BTL

TOTAL BOTTLES: 0

Comments: \_\_\_\_\_

## Water Sampling Field Log

Well No.: M-93

Project No.: \_\_\_\_\_ Site: NERT PROJECT- HENDERSON, NEVADA

Sampling Team: Janel Rivera, Michele Brown Date: 8-6-15

Sampling Method:  Electric Pump  Dedicated Bailer  Non Dedicated Bailer  Ready Flo 2"

Weather Conditions: warm, some clouds

**Well Information:**

Total Well Depth: 49.00 feet Time: 0535

Depth to Water: 34.82 feet

Height of Water Column (L): 14.18 feet \* 0.16 gal/ft \* 0.65 gal/ft \* 1.47 gal/ft =          gal. \* x 3

Well Diameter (circle one)  
 2-in.     4-in.     6-in.      Well Volume (VV)

**Field Measurements:**

Depth Purging From: 2 ft. below depth to water

Time	Cumulative Volume Purged	pH	Specific Conductivity	Temp	Observations
	gal				
	gal				DTW Only
	gal				No Sample
					FIELD pH = _____

Sample Appearance: \_\_\_\_\_

Sample Collection - Time Start: \_\_\_\_\_ Time Finished: \_\_\_\_\_

Analyses: CLO4 TDS CR TDS / CRVI TDS / CRVI / NO3 TDS / NO3 CL03

Bottles: 1 BTL 1 BTL 1 BTL 1 BTL 1 BTL 1 BTL 1 BTL

TOTAL BOTTLES: 0

Comments: \_\_\_\_\_

# Water Sampling Field Log

Well No.: M-95

Project No.: \_\_\_\_\_ Site: NERT PROJECT- HENDERSON, NEVADA

Sampling Team: Janel Rivera, Michele Brown Date: 8-10-15

Sampling Method:  Electric Pump  Dedicated Bailer  Non Dedicated Bailer  Ready Flo 2"

Weather Conditions: warm, clear

**Well Information:**

Total Well Depth: 30.00 feet Time: 1052

Depth to Water: 18.33 feet

Well Diameter (circle one)  
 2-in.     4-in.     6-in.  
 Well Volume (VV) = 186 gal. \* x 3 6 gal

Height of Water Column (L): 11.67 feet \* 0.16 gal/ft \* 0.65 gal/ft \* 1.47 gal/ft = 186 gal. \* x 3 6 gal

**Field Measurements:**

Depth Purging From: 2 ft. below depth to water

Time	Cumulative Volume Purged	pH	Specific Conductivity	Temp	Observations
<u>1055</u>	---	---	---	---	
<u>1057</u>	<u>2 gal</u>	<u>7.23</u>	<u>7.43 mS/cm</u>	<u>31.8 °C</u>	<u>clear</u>
<u>1059</u>	<u>4 gal</u>	<u>7.17</u>	<u>7.24 mS/cm</u>	<u>31.5 °C</u>	<u>clear</u>
<u>1101</u>	<u>6 gal</u>	<u>7.20</u>	<u>7.22 mS/cm</u>	<u>28.7 °C</u>	<u>clear</u>

FIELD pH = 7.20

Sample Appearance: clear

Sample Collection - Time Start: 1103 Time Finished: 1103

Analyses:	<u>CLO4</u>	TDS	<u>CR</u>	TDS / CRVI	TDS / CRVI / NO3	TDS / NO3	CL03
Bottles:	<u>1 BTL</u>	1 BTL	<u>1 BTL</u>	<u>1 BTL</u>	1 BTL	1 BTL	1 BTL

TOTAL BOTTLES: 3

Comments: Top of Screen -12 closing @ 7.01

# Water Sampling Field Log

Well No.: M-96

Project No.: \_\_\_\_\_ Site: NERT PROJECT- HENDERSON, NEVADA

Sampling Team: Janel Rivera, Michele Brown Date: 8-4-15

Sampling Method: Electric Pump  Dedicated Bailer  Non Dedicated Bailer  Ready Flo 2" O

Weather Conditions: warm, clear

**Well Information:**

Total Well Depth: 16.57 feet Time: 0717

Depth to Water: \_\_\_\_\_ feet Well Volume (WV) \_\_\_\_\_

Well Diameter (circle one)  
 2-in.     4-in.     6-in.

Height of Water Column (L): \_\_\_\_\_ feet \* 0.16 gal/ft \* 0.65 gal/ft \* 1.47 gal/ft = \_\_\_\_\_ gal. \* x 3 \_\_\_\_\_

**Field Measurements:**

Depth Purging From: 2 ft. below depth to water

Time	Cumulative Volume Purged	pH	Specific Conductivity	Temp	Observations
_____	_____ gal	_____	<u>ms/cm</u>	<u>°C</u>	
_____	_____ gal	_____	<u>ms/cm</u>	<u>°C</u>	<u>Dry</u>
_____	_____ gal	_____	<u>ms/cm</u>	<u>°C</u>	<u>NO SAMPLE</u>
_____	_____ gal	_____	_____	_____	<u>NO DATA</u>
_____	_____ gal	_____	_____	_____	_____
_____	_____ gal	_____	_____	_____	_____
_____	_____ gal	_____	_____	_____	_____
_____	_____ gal	_____	_____	_____	FIELD pH = _____

Sample Appearance: \_\_\_\_\_

Sample Collection - Time Start: \_\_\_\_\_ Time Finished: \_\_\_\_\_

Analyses:	<u>CLO4</u>	<u>TDS</u>	<u>CR</u>	TDS / CRVI	TDS / CRVI / NO3	TDS / NO3	CL03
Bottles:	1 BTL	1 BTL	1 BTL	1 BTL	1 BTL	1 BTL	1 BTL

TOTAL BOTTLES: 3 MB

Comments:

Top of Screen - 10.5

# Water Sampling Field Log

Well No.: M-97

Project No.: \_\_\_\_\_ Site: NERT PROJECT- HENDERSON, NEVADA

Sampling Team: Janel Rivera, Michele Bowen Date: 8-6-15

Sampling Method: Electric Pump O Dedicated Bailer O Non Dedicated Bailer O Ready Flo 2" O

Weather Conditions: warm, some clouds

**Well Information:**

Total Well Depth: 52.50 feet Time: 0532

Depth to Water: 39.76 feet

Well Diameter (circle one) 2-in. 4-in. 6-in. Well Volume (VV) \_\_\_\_\_

Height of Water Column (L): 12.74 feet \* 0.16 gal/ft \* 0.65 gal/ft \* 1.47 gal/ft = \_\_\_\_\_ gal. \* x 3 \_\_\_\_\_

**Field Measurements:**

Depth Purging From: 2 ft. below depth to water

Time	Cumulative Volume Purged	pH	Specific Conductivity	Temp	Observations
_____	_____ gal	_____	_____	_____	_____
_____	_____ gal	_____	_____	_____	_____
_____	_____ gal	_____	_____	_____	DTW Only No Sample
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	FIELD pH = _____

Sample Appearance: \_\_\_\_\_

Sample Collection - Time Start: \_\_\_\_\_ Time Finished: \_\_\_\_\_

Analyses:	CLO4	TDS	CR	TDS / CRVI	TDS / CRVI / NO3	TDS / NO3	CL03
Bottles:	1 BTL	1 BTL	1 BTL	1 BTL	1 BTL	1 BTL	1 BTL

TOTAL BOTTLES: 8

Comments: \_\_\_\_\_

# Water Sampling Field Log

Well No.: M-98

Project No.: \_\_\_\_\_ Site: NERT PROJECT- HENDERSON, NEVADA

Sampling Team: Janel Rivera, Michele Brown Date: 8-10-15

Sampling Method:  Electric Pump  Dedicated Bailer  Non Dedicated Bailer  Ready Flo 2" O

Weather Conditions: Warm, sunny, clear

**Well Information:**

Total Well Depth: 33.40 feet Time: 0858

Depth to Water: \_\_\_\_\_ feet

Well Diameter (circle one)	Well
<input checked="" type="radio"/> 2-in. <input type="radio"/> 4-in. <input type="radio"/> 6-in.	Volume (VV)

Height of Water Column (L): \_\_\_\_\_ feet \* 0.16 gal/ft \* 0.65 gal/ft \* 1.47 gal/ft = \_\_\_\_\_ gal. \* x 3 \_\_\_\_\_

**Field Measurements:** Depth Purging From: 2 ft. below depth to water

Time	Cumulative Volume Purged	pH	Specific Conductivity	Temp	Observations
_____	_____ gal	_____	ms/cm	°C	Dry
_____	_____ gal	_____	ms/cm	°C	
_____	_____ gal	_____	ms/cm	°C	
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	FIELD pH = _____

Sample Appearance: \_\_\_\_\_

Sample Collection - Time Start: \_\_\_\_\_ Time Finished: \_\_\_\_\_

Analyses:	CLO4	TDS	CR	TDS / CRVI	TDS / CRVI / NO3	TDS / NO3	CL03
Bottles:	1 BTL	1 BTL	1 BTL	1 BTL	1 BTL	1 BTL	1 BTL

TOTAL BOTTLES: 3 ~~0~~  
*MB*

Comments: Top of screen -19

# Water Sampling Field Log

Well No.: M-99

Project No.: \_\_\_\_\_ Site: NERT PROJECT- HENDERSON, NEVADA

Sampling Team: Janel Rivera, Michele Brown Date: 8/5/15

Sampling Method:  Electric Pump  Dedicated Bailer  Non Dedicated Bailer  Ready Flo 2" O

Weather Conditions: Warm, Sunny

## Well Information:

Total Well Depth: 35.37 feet measured in field Time: 6555

Depth to Water: 34.28 feet

Height of Water Column (L): 1.31 feet \* 0.16 gal/ft \* 0.65 gal/ft \* 1.47 gal/ft = \_\_\_\_\_ gal. \* x 3

Well Diameter (circle one)  2-in.  4-in.  6-in. Well Volume (WV)

## Field Measurements:

Depth Purging From: 2 ft. below depth to water

Time	Cumulative Volume Purged	pH	Specific Conductivity	Temp	Observations
	gal				No SAMPLE collected
	gal				water levels too low for bailer
	gal				to pull sample
					FIELD pH =

Sample Appearance: \_\_\_\_\_

Sample Collection - Time Start: \_\_\_\_\_ Time Finished: \_\_\_\_\_

Analyses: CLO4 TDS CR TDS / CRVI TDS / CRVI / NO3 TDS / NO3 CL03  
Bottles: 1 BTL 1 BTL 1 BTL 1 BTL 1 BTL 1 BTL 1 BTL

TOTAL BOTTLES: \_\_\_\_\_

Comments: Top of Screen - 16 Well not purged due to location & low water level



## Water Sampling Field Log

Well No.: M-100

Project No.: \_\_\_\_\_ Site: NERT PROJECT- HENDERSON, NEVADA

Sampling Team: Janel Rivera, Mechel Brown Date: 8-6-15

Sampling Method: Electric Pump  Dedicated Bailer  Non Dedicated Bailer  Ready Flo 2"

Weather Conditions: humid, warm

### Well Information:

Total Well Depth: 33.81 feet Time: 0823

Depth to Water: \_\_\_\_\_ feet Well Volume (VV) \_\_\_\_\_

Well Diameter (circle one)  
 2-in.  4-in.  6-in.

Height of Water Column (L): \_\_\_\_\_ feet \* 0.16 gal/ft \* 0.65 gal/ft \* 1.47 gal/ft = \_\_\_\_\_ gal. \* x 3 \_\_\_\_\_

### Field Measurements:

Depth Purging From: 2 ft. below depth to water

Time	Cumulative Volume Purged	pH	Specific Conductivity	Temp	Observations
	gal		mS/cm	°C	well dry
	gal		mS/cm	°C	
	gal		mS/cm	°C	
					FIELD pH = _____

Sample Appearance: \_\_\_\_\_

Sample Collection - Time Start: \_\_\_\_\_ Time Finished: \_\_\_\_\_

Analyses: CLO4 TDS CR TDS / CRVI TDS / CRVI / NO3 TDS / NO3 CL03  
 Bottles: 1 BTL 1 BTL 1 BTL 1 BTL 1 BTL 1 BTL 1 BTL

TOTAL BOTTLES: 8

Comments: \_\_\_\_\_

# Water Sampling Field Log

Well No.: M-101

Project No.: \_\_\_\_\_ Site: NERT PROJECT- HENDERSON, NEVADA

Sampling Team: Janel Rivera, Michele Brown Date: 8-6-15

Sampling Method:  Electric Pump  Dedicated Bailer  Non Dedicated Bailer  Ready Flo 2" O

Weather Conditions: humid, warm

## Well Information:

Total Well Depth: 32.15 feet Time: 0822

Depth to Water: \_\_\_\_\_ feet

Well Diameter (circle one)  
2-in. 4-in. 6-in.

2-in.

Well Volume (VV)

Height of Water Column (L): \_\_\_\_\_ feet \* 0.16 gal/ft \* 0.65 gal/ft \* 1.47 gal/ft = \_\_\_\_\_ gal. \* x 3 \_\_\_\_\_

## Field Measurements:

Depth Purging From: 2 ft. below depth to water

Time	Cumulative Volume Purged	pH	Specific Conductivity	Temp	Observations
	gal		ms/cm	c	
	gal		ms/cm	c	Well dry
	gal		ms/cm	c	

FIELD pH = \_\_\_\_\_

Sample Appearance: \_\_\_\_\_

Sample Collection - Time Start: \_\_\_\_\_ Time Finished: \_\_\_\_\_

Analyses: CLO4 TDS CR TDS / CRVI TDS / CRVI / NO3 TDS / NO3 CL03  
Bottles: 1 BTL 1 BTL 1 BTL 1 BTL 1 BTL 1 BTL 1 BTL

TOTAL BOTTLES: 3

Comments:

# Water Sampling Field Log

Well No.: M-115

Project No.: \_\_\_\_\_ Site: NERT PROJECT- HENDERSON, NEVADA

Sampling Team: Janel Rivera, Michele Brown Date: 8-6-15

Sampling Method: Electric Pump  Dedicated Bailer  Non Dedicated Bailer  Ready Flo 2"

Weather Conditions: warm, some clouds

**Well Information:**

Total Well Depth: 47.50 feet Time: 0559

Depth to Water: 37.91 feet

Well Diameter (circle one)  
 2-in.     4-in.     6-in.

Well Volume (VV)

Height of Water Column (L): 9.69 feet \* 0.16 gal/ft \* 0.65 gal/ft \* 1.47 gal/ft = \_\_\_\_\_ gal. \* x 3 \_\_\_\_\_

**Field Measurements:**

Depth Purging From: 2 ft. below depth to water

Time	Cumulative Volume Purged	pH	Specific Conductivity	Temp	Observations
	gal				
	gal				
	gal				DTW Only No Sample
					FIELD pH = _____

Sample Appearance: \_\_\_\_\_

Sample Collection - Time Start: \_\_\_\_\_ Time Finished: \_\_\_\_\_

Analyses:	CLO4	TDS	CR	TDS / CRVI	TDS / CRVI / NO3	TDS / NO3	CL03
Bottles:	1 BTL	1 BTL	1 BTL	1 BTL	1 BTL	1 BTL	1 BTL

TOTAL BOTTLES: 0

Comments:

# Water Sampling Field Log

Well No.: M-131

Project No.: \_\_\_\_\_ Site: NERT PROJECT- HENDERSON, NEVADA

Sampling Team: Janel Rivera, Michele Brown Date: 8/5/15

Sampling Method:  Electric Pump  Dedicated Bailer  Non Dedicated Bailer  Ready Flo 2" O

Weather Conditions: Warm, breezy

**Well Information:**

Total Well Depth: 39.00 feet Time: 04:12

Depth to Water: 33.86 feet

Height of Water Column (L): 5.14 feet

Well Diameter (circle one)				Well Volume (VV)
2-in.	4-in.	6-in		
0.16 gal/ft	* 0.65 gal/ft	* 1.47 gal/ft	=	<u>.82</u> gal. * x 3 <u>3</u>

**Field Measurements:**

Depth Purging From: 2 ft. below depth to water

Time	Cumulative Volume Purged	pH	Specific Conductivity	Temp	Observations
<u>0415</u>	----	----	----	----	
<u>0416</u>	<u>1</u> gal	<u>7.65</u>	<u>4.76</u> <u>ms/cm</u>	<u>25.3</u> °C	<u>Clear</u>
<u>0417</u>	<u>1.52</u> gal	<u>7.54</u>	<u>4.66</u> <u>ms/cm</u>	<u>25.0</u> °C	<u>Clear</u>
<u>0418</u>	<u>2</u> gal	<u>7.53</u>	<u>4.65</u> <u>ms/cm</u>	<u>25.1</u> °C	<u>Clear</u>
					FIELD pH = <u>7.53</u>

Sample Appearance: Clear

Sample Collection - Time Start: 0420 Time Finished: 0420

Analyses: CLO4 TDS CR TDS / CRVI TDS / CRVI / NO3 TDS / NO3 CL03  
 Bottles: 1 BTL 1 BTL 1 BTL 1 BTL 1 BTL 1 BTL 1 BTL

TOTAL BOTTLES: 3

Comments: Top of screen 28.7

# Water Sampling Field Log

Well No.: M-135

Project No.: \_\_\_\_\_ Site: NERT PROJECT- HENDERSON, NEVADA

Sampling Team: Janel Rivera, Michele Brown Date: 8/5/15

Sampling Method:  Electric Pump  Dedicated Bailer  Non Dedicated Bailer  Ready Flo 2" O

Weather Conditions: warm, breezy

## Well Information:

Total Well Depth: 39.00 feet Time: 0352

Depth to Water: 34.81 feet

Height of Water Column (L): 4.19 feet  
Well Diameter (circle one): 2-in. (4-in. 6-in.)  
Well Volume (WV):  $0.16 \text{ gal/ft} \times 4.19 \text{ ft} \times 3 = \underline{.67} \text{ gal} \times 2$

## Field Measurements:

Depth Purging From: 2 ft. below depth to water

Time	Cumulative Volume Purged	pH	Specific Conductivity	Temp	Observations
<u>0355</u>	-----	-----	-----	-----	
<u>0356</u>	<u>1</u> gal	<u>7.56</u>	<u>4.69</u> mscm	<u>25.0</u> °C	<u>Clear</u>
<u>0357</u>	<u>1.5</u> gal	<u>7.57</u>	<u>4.53</u> mscm	<u>25.1</u> °C	<u>clear</u>
<u>0358</u>	<u>2</u> gal	<u>7.50</u>	<u>4.55</u> mscm	<u>24.8</u> °C	<u>clear</u>

FIELD pH = 7.50

Sample Appearance: Clear

Sample Collection - Time Start: 0400 Time Finished: 0400

Analyses: CLO4 TDS CR TDS / CRVI TDS / CRVI / NO3 TDS / NO3 CL03  
Bottles: 1 BTL 1 BTL 1 BTL 1 BTL 1 BTL 1 BTL 1 BTL

TOTAL BOTTLES: 3

Comments: Top of Screen 28.7

# Water Sampling Field Log

Well No.: M-166

Project No.: \_\_\_\_\_ Site: NERT PROJECT- HENDERSON, NEVADA

Sampling Team: Janel Rivera, Michele Brown Date: 8-3-15

Sampling Method:  Electric Pump  Dedicated Bailer  Non Dedicated Bailer  Ready Flo 2" O

Weather Conditions: Warm, sunny, clear

### Well Information:

Total Well Depth: 32.0 feet Time: 0914

Depth to Water: 29.89 feet

Well Diameter (circle one)  2-in.  4-in.  6-in. Well Volume (WV)

Height of Water Column (L): 2.11 feet \* 0.16 gal/ft \* 0.65 gal/ft \* 1.47 gal/ft = \_\_\_\_\_ gal. \* x 3 \_\_\_\_\_

### Field Measurements:

Depth Purging From: 2 ft. below depth to water

Time	Cumulative Volume Purged	pH	Specific Conductivity	Temp	Observations
_____	_____	_____	_____	_____	_____
_____	gal	_____	_____	_____	_____
_____	gal	_____	_____	_____	DTW ONLY
_____	gal	_____	_____	_____	NO SAMPLE
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	FIELD pH = _____

Sample Appearance: \_\_\_\_\_

Sample Collection - Time Start: \_\_\_\_\_ Time Finished: \_\_\_\_\_

Analyses:	CLO4	TDS	CR	TDS / CRVI	TDS / CRVI / NO3	TDS / NO3	CL03
Bottles:	1 BTL	1 BTL	1 BTL	1 BTL	1 BTL	1 BTL	1 BTL

TOTAL BOTTLES: 0

Comments:

# Water Sampling Field Log

Well No.: M-167

Project No.: \_\_\_\_\_ Site: NERT PROJECT- HENDERSON, NEVADA

Sampling Team: Janel Rivera, Michele Brown Date: 8-3-15

Sampling Method: Electric Pump  Dedicated Bailer  Non Dedicated Bailer  Ready Flo 2"

Weather Conditions: warm, sunny, clear

## Well Information:

Total Well Depth: 30.0 feet Time: 0855

Depth to Water: 28.99 feet

Well Diameter (circle one)

<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
2-in.	4-in.	6-in

Well Volume (VV) \_\_\_\_\_

Height of Water Column (L): 1.01 feet \* 0.16 gal/ft \* 0.65 gal/ft \* 1.47 gal/ft = \_\_\_\_\_ gal. \* x 3 \_\_\_\_\_

## Field Measurements:

Depth Purging From: 2 ft. below depth to water

Time	Cumulative Volume Purged	pH	Specific Conductivity	Temp	Observations
	gal				
	gal				<u>DTW ONLY</u>
	gal				<u>NO SAMPLE</u>

FIELD pH = \_\_\_\_\_

Sample Appearance: \_\_\_\_\_

Sample Collection - Time Start: \_\_\_\_\_ Time Finished: \_\_\_\_\_

Analyses:	<u>CLO4</u>	<u>TDS</u>	<u>CR</u>	<u>TDS / CRVI</u>	<u>TDS / CRVI / NO3</u>	<u>TDS / NO3</u>	<u>CL03</u>
Bottles:	<u>1 BTL</u>	<u>1 BTL</u>	<u>1 BTL</u>	<u>1 BTL</u>	<u>1 BTL</u>	<u>1 BTL</u>	<u>1 BTL</u>

TOTAL BOTTLES: 8

Comments: \_\_\_\_\_

# Water Sampling Field Log

Well No.: M-1168

Project No.: \_\_\_\_\_ Site: NERT PROJECT- HENDERSON, NEVADA

Sampling Team: Janel Rivera, Michele Brown Date: 8-3-15

Sampling Method: Electric Pump  Dedicated Bailer  Non Dedicated Bailer  Ready Flo 2" O

Weather Conditions: Warm, sunny, clear

**Well Information:**

Total Well Depth: 35.00 feet Time: 0841

Depth to Water: 26.64 feet Well Volume (WV) \_\_\_\_\_

Height of Water Column (L): 8.36 feet

Well Diameter (circle one)			
2-in.	4-in.	6-in.	
* 0.16 gal/ft	* 0.65 gal/ft	* 1.47 gal/ft	= _____ gal. * x 3 _____

**Field Measurements:**

Depth Purging From: 2 ft. below depth to water

Time	Cumulative Volume Purged	pH	Specific Conductivity	Temp	Observations
	gal				
	gal				NO SAMPLE
	gal				DTW ONLY
					FIELD pH = _____

Sample Appearance: \_\_\_\_\_

Sample Collection - Time Start: \_\_\_\_\_ Time Finished: \_\_\_\_\_

Analyses:	CLO4	TDS	CR	TDS / CRVI	TDS / CRVI / NO3	TDS / NO3	CL03
Bottles:	1 BTL	1 BTL	1 BTL	1 BTL	1 BTL	1 BTL	1 BTL

TOTAL BOTTLES: 8

Comments: \_\_\_\_\_



# Water Sampling Field Log

Well No.: M-172

Project No.: \_\_\_\_\_ Site: NERT PROJECT- HENDERSON, NEVADA

Sampling Team: Janel Rivera, Michele Brown Date: 8-3-15

Sampling Method:  Electric Pump  Dedicated Bailer  Non Dedicated Bailer  Ready Flo 2" O

Weather Conditions: Warm, sunny, clear

## Well Information:

Total Well Depth: 37.0 feet Time: 0748

Depth to Water: 33.63 feet

Well Diameter (circle one)  2-in.  4-in.  6-in. Well Volume (WV) \_\_\_\_\_ gal. \* x 3 \_\_\_\_\_

Height of Water Column (L): 3.37 feet  0.16 gal/ft \*  0.65 gal/ft \*  1.47 gal/ft = \_\_\_\_\_ gal. \* x 3 \_\_\_\_\_

## Field Measurements:

Depth Purging From: 2 ft. below depth to water

Time	Cumulative Volume Purged	pH	Specific Conductivity	Temp	Observations
_____	_____ gal	_____	_____	_____	<b>NO SAMPLE DTW ONLY</b>
_____	_____ gal	_____	_____	_____	
_____	_____ gal	_____	_____	_____	
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____

FIELD pH = \_\_\_\_\_

Sample Appearance: \_\_\_\_\_

Sample Collection - Time Start: \_\_\_\_\_ Time Finished: \_\_\_\_\_

Analyses:	CLO4	TDS	CR	TDS / CRVI	TDS / CRVI / NO3	TDS / NO3	CL03
Bottles:	1 BTL	1 BTL	1 BTL	1 BTL	1 BTL	1 BTL	1 BTL

TOTAL BOTTLES: 0

Comments: \_\_\_\_\_

**Water Sampling Field Log**

Well No.: M-174

Project No.: \_\_\_\_\_ Site: NERT PROJECT- HENDERSON, NEVADA

Sampling Team: Janel Rivera, Michele Brown Date: 8-6-15

Sampling Method: Electric Pump  Dedicated Bailer  Non Dedicated Bailer  Ready Flo 2"

Weather Conditions: humid, warm

**Well Information:**

Total Well Depth: 28.00 feet Time: 0820

Depth to Water: 20.88 feet

Well Diameter (circle one)  
2-in. 4-in. 6-in.

Well Volume (WV)

Height of Water Column (L): 7.12 feet \* 0.16 gal/ft \* 0.65 gal/ft \* 1.47 gal/ft = \_\_\_\_\_ gal. \* x 3 \_\_\_\_\_

**Field Measurements:**

Depth Purging From: 2 ft. below depth to water

Time	Cumulative Volume Purged	pH	Specific Conductivity	Temp	Observations
_____	_____ gal	_____	_____	_____	_____
_____	_____ gal	_____	_____	_____	_____
_____	_____ gal	_____	_____	_____	DTW Only No Sample
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____

FIELD pH = \_\_\_\_\_

Sample Appearance: \_\_\_\_\_

Sample Collection - Time Start: \_\_\_\_\_ Time Finished: \_\_\_\_\_

Analyses:	CLO4	TDS	CR	TDS / CRVI	TDS / CRVI / NO3	TDS / NO3	CL03
Bottles:	1 BTL	1 BTL	1 BTL	1 BTL	1 BTL	1 BTL	1 BTL

TOTAL BOTTLES: 8

Comments:

## Water Sampling Field Log

Well No.: M-175

Project No.: \_\_\_\_\_ Site: NERT PROJECT- HENDERSON, NEVADA

Sampling Team: Janel Rivera, Michele Brown Date: 8-6-15

Sampling Method:  Electric Pump  Dedicated Bailer  Non Dedicated Bailer  Ready Flo 2" O

Weather Conditions: humid, warm

**Well Information:**

Total Well Depth: 29.00 feet Time: 0827

Depth to Water: 21.61 feet

Well Diameter (circle one)  
 2-in.     4-in.     6-in.

Well Volume (VV)

Height of Water Column (L): 7.39 feet \* 0.16 gal/ft \* 0.65 gal/ft \* 1.47 gal/ft = \_\_\_\_\_ gal. \* x 3 \_\_\_\_\_

**Field Measurements:**

Depth Purging From: 2 ft. below depth to water

Time	Cumulative Volume Purged	pH	Specific Conductivity	Temp	Observations
_____	_____ gal	_____	_____	_____	_____
_____	_____ gal	_____	_____	_____	_____
_____	_____ gal	_____	_____	_____	DTW Only No Sample
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	FIELD pH = _____

Sample Appearance: \_\_\_\_\_

Sample Collection - Time Start: \_\_\_\_\_ Time Finished: \_\_\_\_\_

Analyses:	CLO4	TDS	CR	TDS / CRVI	TDS / CRVI / NO3	TDS / NO3	CL03
Bottles:	1 BTL	1 BTL	1 BTL	1 BTL	1 BTL	1 BTL	1 BTL

TOTAL BOTTLES: 8

Comments:

# Water Sampling Field Log

Well No.: M-176

Project No.: \_\_\_\_\_ Site: NERT PROJECT- HENDERSON, NEVADA

Sampling Team: Janel Rivera, Michele Brown Date: 8-6-15

Sampling Method:  Electric Pump  Dedicated Bailer  Non Dedicated Bailer  Ready Flo 2" O

Weather Conditions: humid, warm

**Well Information:**

Total Well Depth: 30.00 feet Time: 0826

Depth to Water: 24.23 feet Well Volume (WV)

Height of Water Column (L): 5.77 feet \* 2-in. gal/ft \* 0.65 gal/ft \* 1.47 gal/ft = \_\_\_\_\_ gal. \* x 3 \_\_\_\_\_

**Field Measurements:**

Depth Purging From: 2 ft. below depth to water

Time	Cumulative Volume Purged	pH	Specific Conductivity	Temp	Observations
	gal				
	gal				
	gal				DTW Only No Sample

FIELD pH = \_\_\_\_\_

Sample Appearance: \_\_\_\_\_

Sample Collection - Time Start: \_\_\_\_\_ Time Finished: \_\_\_\_\_

Analyses:	CLO4	TDS	CR	TDS / CRVI	TDS / CRVI / NO3	TDS / NO3	CL03
Bottles:	1 BTL	1 BTL	1 BTL	1 BTL	1 BTL	1 BTL	1 BTL

TOTAL BOTTLES: 0

omments:

Water Sampling Field Log

Well No.: M-177

Project No.: \_\_\_\_\_ Site: NERT PROJECT- HENDERSON, NEVADA

Sampling Team: Janel Rivera, Michele Brown Date: 8-6-15

Sampling Method: Electric Pump  Dedicated Bailer  Non Dedicated Bailer  Ready Flo 2"

Weather Conditions: humid, warm

Well Information:

Total Well Depth: 30.00 feet Time: 0824

Depth to Water: 21.84 feet

Well Diameter (circle one)  
2-in. 4-in. 6-in.

Well Volume (WV)

Height of Water Column (L): 8.16 feet \* 0.16 gal/ft \* 0.65 gal/ft \* 1.47 gal/ft = \_\_\_\_\_ gal. \* x 3 \_\_\_\_\_

Field Measurements:

Depth Purging From: 2 ft. below depth to water

Time	Cumulative Volume Purged	pH	Specific Conductivity	Temp	Observations
_____	_____ gal	_____	_____	_____	_____
_____	_____ gal	_____	_____	_____	_____
_____	_____ gal	_____	_____	_____	DTW Only No Sample
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	FIELD pH = _____

Sample Appearance: \_\_\_\_\_

Sample Collection - Time Start: \_\_\_\_\_ Time Finished: \_\_\_\_\_

Analyses:	CLO4	TDS	CR	TDS / CRVI	TDS / CRVI / NO3	TDS / NO3	CL03
Bottles:	1 BTL	1 BTL	1 BTL	1 BTL	1 BTL	1 BTL	1 BTL

TOTAL BOTTLES: Ø

Comments:

# Water Sampling Field Log

Well No.: MW-K4

Project No.: \_\_\_\_\_ Site: NERT PROJECT- HENDERSON, NEVADA

Sampling Team: Michele Brown Date: 8-12-15

Sampling Method:  Electric Pump  Dedicated Bailer  Non Dedicated Bailer  Ready Flo 2" O

Weather Conditions: humid, warm, sunny

**Well Information:**

Total Well Depth: 50.0 feet Time: 0921

Depth to Water: 27.71 feet

Height of Water Column (L): 22.29 feet

Well Diameter (circle one)	Well Volume (WV)	Purge Factor	Purge Volume
<input checked="" type="radio"/> 2-in. <input type="radio"/> 4-in. <input type="radio"/> 6-in.			
0.16 gal/ft                    0.65 gal/ft                    * 1.47 gal/ft	= <u>3.56</u> gal.	* <u>3</u>	= <u>11 gal</u>

**Field Measurements:**

Depth Purging From: 2 ft. below depth to water

Time	Cumulative Volume Purged	pH	Specific Conductivity	Temp	Observations
<u>0925</u>	-----	-----	-----	-----	
<u>0929</u>	<u>4</u> gal	<u>7.19</u>	<u>1131 mS/cm</u>	<u>28.3 °C</u>	<u>clear</u>
<u>0933</u>	<u>8</u> gal	<u>7.20</u>	<u>1129 mS/cm</u>	<u>27.9 °C</u>	<u>clear</u>
<u>0934</u>	<u>11</u> gal	<u>7.25</u>	<u>1139 mS/cm</u>	<u>28.1 °C</u>	<u>Clear</u>
	gal				
	gal				
	gal				<u>Field pH = 7.25</u>

Sample Appearance: clear

Sample Collection - Time Start: 0936 Time Finished: 0936

Analyses: CLO4 TDS TDS/pH CR  
 Bottles: 1 BTL 1 BTL 1 BTL 1 BTL

TOTAL BOTTLES: 3

Comments: Top of screen 9.5'

MEB-1 - collected here before moving to next well  
 CLO4 only 1 BTL 0942  
 Field pH - 7.08

# Water Sampling Field Log

Well No.: MW-K5

Project No.: \_\_\_\_\_ Site: NERT PROJECT- HENDERSON, NEVADA

Sampling Team: Michele Brown Date: 8-12-15

Sampling Method:  Electric Pump  Dedicated Bailer  Non Dedicated Bailer  Ready Flo 2" O

Weather Conditions: breezy, warm, some sun

**Well Information:**

Total Well Depth: 44.0 feet Time: 0731

Depth to Water: 29.79 feet

	Well Diameter (circle one)		Well	Purge	Purge
Height of Water Column (L): <u>14.21</u> feet	<input checked="" type="radio"/> 2-in. <input type="radio"/> 4-in. <input type="radio"/> 6-in.	* 0.16 gal/ft	Volume (WV)	Factor	Volume
		* 0.65 gal/ft			
		* 1.47 gal/ft	= <u>2,27</u> gal.	* <u>3</u>	= <u>7</u> gal

**Field Measurements:**

Depth Purging From: 2 ft. below depth to water

Time	Cumulative Volume Purged	pH	Specific Conductivity	Temp	Observations
<u>0734</u>	---	---	---	---	
<u>0737</u>	<u>3</u> gal	<u>7.25</u>	<u>9.31 mS/cm</u>	<u>25.9</u> °C	<u>clear</u>
<u>0739</u>	<u>5</u> gal	<u>7.22</u>	<u>9.10 mS/cm</u>	<u>25.8</u> °C	<u>clear</u>
<u>0741</u>	<u>7</u> gal	<u>7.26</u>	<u>9.17 mS/cm</u>	<u>25.8</u>	<u>clear</u>
	gal				
	gal				
	gal				<u>Field pH = 7.26</u>

Sample Appearance: clear

Sample Collection - Time Start: 0743 Time Finished: 0743

Analyses:  CLO4  TDS  TDS/pH  CR  
 Bottles: 1 BTL 1 BTL 1 BTL 1 BTL

TOTAL BOTTLES: 3

Comments: Top of screen 28.5'

# Water Sampling Field Log

Well No.: PC-18

Project No.: \_\_\_\_\_ Site: NERT PROJECT- HENDERSON, NEVADA

Sampling Team: Michele Brown Date: 8-12-15

Sampling Method:  Electric Pump  Dedicated Bailer  Non Dedicated Bailer  Ready Flo 2" O

Weather Conditions: overcast, warm, breezy

**Well Information:**

Total Well Depth: 52.11 feet Time: 0605

Depth to Water: 28.41 feet

Height of Water Column (L): 23.70 feet

Well Diameter (circle one)			Well	Purge	Purge
2-in.	4-in.	6-in.	Volume (WV)	Factor	Volume
* 0.16 gal/ft	* 0.65 gal/ft	* 1.47 gal/ft	= <u>3.79</u> gal.	* <u>3</u>	= <u>11.3 gal</u>

**Field Measurements:**

Depth Purging From: 2 ft. below depth to water

Time	Cumulative Volume Purged	pH	Specific Conductivity	Temp	Observations
<u>0608</u>	---	---	---	---	
<u>0612</u>	<u>4</u> gal	<u>7.25</u>	<u>14.89 mS/cm</u>	<u>25.8°C</u>	<u>clear</u>
<u>0616</u>	<u>8</u> gal	<u>7.08</u>	<u>14.82 mS/cm</u>	<u>25.2°C</u>	<u>clear</u>
<u>0619</u>	<u>11</u> gal	<u>7.13</u>	<u>14.81 mS/cm</u>	<u>25.1°C</u>	<u>clear</u>
	gal				
	gal				
	gal				<u>Field pH = 7.13</u>

Sample Appearance: clear

Sample Collection - Time Start: 0621 Time Finished: 0621

Analyses: CLO4 TDS TDS/pH CR  
 Bottles: 1 BTL 1 BTL 1 BTL 1 BTL

TOTAL BOTTLES: 3

Comments: Screen 11.5 - 51.5'  
Rep 4 collected here for same analyses



## Water Sampling Field Log

Well No.: PC-37

Project No.: \_\_\_\_\_ Site: NERT PROJECT- HENDERSON, NEVADA

Sampling Team: Janel Rivera, Nichole Brown Date: 8-4-15

Sampling Method:  Electric Pump  Dedicated Bailer  Non Dedicated Bailer  Ready Flo 2" O

Weather Conditions: Warm, Sunny, Clear

**Well Information:**

Total Well Depth: 43.08 feet Time: 0908

Depth to Water: 30.87 feet

Height of Water Column (L): <u>12.21</u> feet	Well Diameter (circle one)			Well Volume (VV)
	2-in.	4-in.	6-in.	
	* 0.16 gal/ft	* 0.65 gal/ft	* 1.47 gal/ft	= <u>1.95</u> gal. * x 3 <u>6 gal</u>

**Field Measurements:**

Depth Purging From: 2 ft. below depth to water

Time	Cumulative Volume Purged	pH	Specific Conductivity	Temp	Observations
<u>0910</u>	-----	-----	-----	-----	
<u>0912</u>	<u>2 gal</u>	<u>7.46</u>	<u>9.42 mS/cm</u>	<u>29.6 °C</u>	<u>Clear</u>
<u>0914</u>	<u>4 gal</u>	<u>7.35</u>	<u>9.60 mS/cm</u>	<u>28.6 °C</u>	<u>Clear</u>
<u>0916</u>	<u>6 gal</u>	<u>7.40</u>	<u>9.62 mS/cm</u>	<u>28.2 °C</u>	<u>Clear</u>
FIELD pH = <u>7.40</u>					

Sample Appearance: Clear

Sample Collection - Time Start: 0918 Time Finished: 0918

Analyses:	CLO4	TDS	CR	TDS / CRVI	TDS / CRVI / NO3	TDS / NO3	CL03
Bottles:	1 BTL	1 BTL	1 BTL	1 BTL	1 BTL	1 BTL	1 BTL

TOTAL BOTTLES: 3

Comments:

Top of Screen - 16.8 closing QC - 7.02

# Water Sampling Field Log

Well No.: PC-53

Project No.: \_\_\_\_\_ Site: NERT PROJECT- HENDERSON, NEVADA

Sampling Team: Michele Brown Date: 8-12-15

Sampling Method: Electric Pump ● Dedicated Bailer ○ Non Dedicated Bailer ○ Ready Flo 2" O

Weather Conditions: Breezy cloudy some sun

**Well Information:**

Total Well Depth: 32.86 feet Time: 0718

Depth to Water: 27.14 feet

Height of Water Column (L): 5.72 feet

Well Diameter (circle one)			Well	Purge	Purge
2-in.	4-in.	6-in.	Volume (WV)	Factor	Volume
0.16 gal/ft	* 0.65 gal/ft	* 1.47 gal/ft	= .91 gal.	* 3	= 3 gal

**Field Measurements:**

Depth Purging From: 2 ft. below depth to water

Time	Cumulative Volume Purged	pH	Specific Conductivity	Temp	Observations
0720	-----	-----	-----	-----	
0721	1 gal	7.43	6.77 mS/cm	25.7 °C	clear
0722	2 gal	7.35	6.50 mS/cm	25.3 °C	clear
0723	3 gal	7.37	6.50 mS/cm	25.2 °C	clear
	gal				
	gal				
	gal				Field pH = 7.37

Clear

Sample Appearance: \_\_\_\_\_

Sample Collection - Time Start: 0724 Time Finished: 0724

Analyses: CLO4 TDS TDS/pH CR  
 Bottles: 1 BTL 1 BTL 1 BTL 1 BTL

TOTAL BOTTLES: 3

Comments: Screen 13 - 32.5'

# Water Sampling Field Log

Well No.: PC-54

Project No.: \_\_\_\_\_ Site: NERT PROJECT- HENDERSON, NEVADA

Sampling Team: Janel Rivera, Michele Brown Date: 8-4-15

Sampling Method:  Electric Pump  Dedicated Bailer  Non Dedicated Bailer  Ready Flo 2" O

Weather Conditions: Warm, clear

**Well Information:**

Total Well Depth: 34.60 feet Time: 0725

Depth to Water: 24.93 feet

Height of Water Column (L): 9.67 feet

Well Diameter (circle one)				Well
2-in.      4-in.      6-in.				Volume (WV)
* 0.16 gal/ft	* 0.65 gal/ft	* 1.47 gal/ft	=	<u>1.54 gal.</u> * x 3 <u>5 gal</u>

**Field Measurements:**

Depth Purging From: 2 ft. below depth to water

Time	Cumulative Volume Purged	pH	Specific Conductivity	Temp	Observations
<u>0727</u>	----	----	----	----	
<u>0729</u>	<u>2 gal</u>	<u>7.43</u>	<u>6.01 mS/cm</u>	<u>27.5°C</u>	<u>cloudy</u>
<u>0731</u>	<u>4 gal</u>	<u>7.41</u>	<u>5.88 mS/cm</u>	<u>26.9°C</u>	<u>clear</u>
<u>0732</u>	<u>5 gal</u>	<u>7.40</u>	<u>5.88 mS/cm</u>	<u>26.6°C</u>	<u>clear</u>
FIELD pH = <u>7.40</u>					

Sample Appearance: clear

Sample Collection - Time Start: 0734 Time Finished: 0734

Analyses:	<u>CLO4</u>	<u>TDS</u>	<u>CR</u>	<u>TDS / CRVI</u>	<u>TDS / CRVI / NO3</u>	<u>TDS / NO3</u>	<u>CL03</u>
Bottles:	1 BTL	1 BTL	1 BTL	1 BTL	1 BTL	1 BTL	1 BTL

TOTAL BOTTLES: 3

Comments:

Top of Screen - 9.5

# Water Sampling Field Log

Well No.: PC-55

Project No.: \_\_\_\_\_ Site: NERT PROJECT- HENDERSON, NEVADA

Sampling Team: Michele Brown Janel Rivera Date: 8/13/15

Sampling Method: Electric Pump  Dedicated Bailer  Non Dedicated Bailer  Ready Flo 2"

Weather Conditions: Sunny, humid

**Well Information:**

Total Well Depth: 55.4 feet Time: 0624

Depth to Water: 27.38 feet

Well Diameter (circle one)  
 2-in. 4-in. 6-in  
 Height of Water Column (L): 28.02 feet \* 0.16 gal/ft \* 0.65 gal/ft \* 1.47 gal/ft = 41.18 gal. \* 3 = 123 gal

Well Volume (WV) Purge Factor Purge Volume

**Field Measurements:**

Depth Purging From: 2 ft. below depth to water

Time	Cumulative Volume Purged	pH	Specific Conductivity	Temp	Observations
<u>0626</u>	---	---	---	---	
<u>0707</u>	<u>41 gal</u>	<u>7.48</u>	<u>10.95 mS/cm</u>	<u>25.4 °C</u>	<u>Clear</u>
<u>0748</u>	<u>82 gal</u>	<u>7.21</u>	<u>11.03 mS/cm</u>	<u>28.8 °C</u>	<u>Clear</u>
<u>0829</u>	<u>123 gal</u>	<u>7.26</u>	<u>10.93 mS/cm</u>	<u>28.6 °C</u>	<u>Clear</u>
	gal				
	gal				
	gal				<u>Field pH = 7.26</u>

Sample Appearance: Clear

Sample Collection - Time Start: 0831 Time Finished: 0831

Analyses: CLO4 TDS TDS/pH CR  
 Bottles: 1 BTL 1 BTL 1 BTL 1 BTL

TOTAL BOTTLES: 3

Comments: screen 4-54'

# Water Sampling Field Log

Well No.: PC-56

Project No.: \_\_\_\_\_ Site: NERT PROJECT- HENDERSON, NEVADA

Sampling Team: Michele Brown Janet Rivera Date: 8.11.15

Sampling Method:  Electric Pump  Dedicated Bailer  Non Dedicated Bailer  Ready Flo 2" O

Weather Conditions: hot, humid

**Well Information:**

Total Well Depth: 63.58 feet Time: 0819

Depth to Water: 21.1 feet

Height of Water Column (L): 42.49 feet

Well Diameter (circle one)			Well Volume (WV)	Purge Factor	Purge Volume
2-in.	4-in.	6-in			
0.16 gal/ft	0.65 gal/ft	* 1.47 gal/ft	= <u>6.79</u> gal.	* <u>3</u>	= <u>20 gal</u>

**Field Measurements:**

Depth Purging From: 2 ft. below depth to water

Time	Cumulative Volume Purged	pH	Specific Conductivity	Temp	Observations
<u>0822</u>	-----	-----	-----	-----	
<u>0829</u>	<u>87</u> gal	<u>7.28</u>	<u>6.85</u> mscm	<u>26.6</u> °C	<u>Clear</u>
<u>0836</u>	<u>14</u> gal	<u>7.26</u>	<u>6.69</u> mscm	<u>26.2</u> °C	<u>Clear</u>
<u>0842</u>	<u>20</u> gal	<u>7.22</u>	<u>6.71</u> mscm	<u>26.2</u> °C	<u>Clear</u>
	gal				
	gal				
	gal				<u>Field pH - 7.22</u>

Sample Appearance: Clear

Sample Collection - Time Start: 0844 Time Finished: 0844

Analyses: CLO4 TDS TDS/pH CR  
 Bottles: 1 BTL 1 BTL 1 BTL 1 BTL

TOTAL BOTTLES: 3

Comments: screen 4.8 - 54.8

# Water Sampling Field Log

Well No.: PC-58

Project No.: \_\_\_\_\_ Site: NERT PROJECT- HENDERSON, NEVADA

Sampling Team: Michele Brown Janel Rivera Date: 8.11.15

Sampling Method:  Electric Pump  Dedicated Bailer O  Non Dedicated Bailer O  Ready Flo 2" O

Weather Conditions: humid, hot

**Well Information:**

Total Well Depth: 42.78 feet Time: 0758

Depth to Water: 21.87 feet

Height of Water Column (L): 20.91 feet

Well Diameter (circle one)			Well	Purge	Purge
2-in.	4-in.	6-in.	Volume (VV)	Factor	Volume
* 0.16 gal/ft * 0.65 gal/ft * 1.47 gal/ft			= <u>3.34</u> gal.	* <u>3</u>	= <u>10gal</u>

**Field Measurements:**

Depth Purging From: 2 ft. below depth to water

Time	Cumulative Volume Purged	pH	Specific Conductivity	Temp	Observations
<u>0759</u>	----	----	----	----	
<u>0803</u>	<u>5.2</u> gal	<u>7.38</u>	<u>5.21</u> mS/cm	<u>25.1</u> °C	<u>Clear</u>
<u>0806</u>	<u>7.2</u> gal	<u>7.38</u>	<u>5.14</u> mS/cm	<u>24.1</u> °C	<u>Clear</u>
<u>0809</u>	<u>10</u> gal	<u>7.40</u>	<u>5.16</u> mS/cm	<u>24.1</u> °C	<u>Clear</u>
	gal				
	gal				
	gal				<u>Field pH = 7.40</u>

Sample Appearance: Clear

Sample Collection - Time Start: 0811 Time Finished: 0811

Analyses: QLO4 TDS TDS/pH CR  
 Bottles: 1 BTL 1 BTL 1 BTL 1 BTL

TOTAL BOTTLES: 3

Comments: Screen 7.8 - 32.8

# Water Sampling Field Log

Well No.: PC-59

Project No.: \_\_\_\_\_ Site: NERT PROJECT- HENDERSON, NEVADA

Sampling Team: Michele Brown Janel Rivera Date: 8.11.15

Sampling Method:  Electric Pump  Dedicated Bailer O  Non Dedicated Bailer O  Ready Flo 2" O

Weather Conditions: hot, humid

**Well Information:**

Total Well Depth: 48.13 feet Time: 0916

Depth to Water: 19.89 feet

	Well Diameter (circle one)		Well Volume (WV)	Purge Factor	Purge Volume
Height of Water Column (L): <u>28.24</u> feet	<input checked="" type="radio"/> 2-in. <input type="radio"/> 4-in. <input type="radio"/> 6-in.	* 0.16 gal/ft    * 0.65 gal/ft    * 1.47 gal/ft	= <u>4.52</u> gal.	* <u>3</u>	= <u>13gal.</u>

**Field Measurements:**

Depth Purging From: 2 ft. below depth to water

Time	Cumulative Volume Purged	pH	Specific Conductivity	Temp	Observations
<u>0918</u>	-----	-----	-----	-----	
<u>0923</u>	<u>5</u> gal	<u>7.41</u>	<u>3.80</u> ms/cm	<u>26.6</u> °C	<u>Clear</u>
<u>0927</u>	<u>9</u> gal	<u>7.44</u>	<u>3.75</u> ms/cm	<u>25.7</u> °C	<u>Clear</u>
<u>0931</u>	<u>13</u> gal	<u>7.48</u>	<u>3.82</u> ms/cm	<u>25.5</u> °C	<u>Clear</u>
	gal				
	gal				
	gal				<u>Field pH = 7.48</u>

Sample Appearance: Clear

Sample Collection - Time Start: 0933 Time Finished: 0933

Analyses: QLO4 TDS TDS/pH CR  
 Bottles: 1 BTL 1 BTL 1 BTL 1 BTL

TOTAL BOTTLES: 3

Comments: screen 4.8 - 34.8'

Closing QC 6.99

# Water Sampling Field Log

Well No.: PC-60

Project No.: \_\_\_\_\_ Site: NERT PROJECT- HENDERSON, NEVADA

Sampling Team: Michele Brown Janel Rivera Date: 8.11.15

Sampling Method:  Electric Pump  Dedicated Bailer  Non Dedicated Bailer  Ready Flo 2" O

Weather Conditions: hot, humid

**Well Information:**

Total Well Depth: 48.09 feet Time: 0851

Depth to Water: 20.35 feet

Well Diameter (circle one)  
 2-in.  4-in.  6-in.

Well Volume (WV)      Purge Factor      Purge Volume

Height of Water Column (L): 27.74 feet \* 16 gal/ft \* 0.65 gal/ft \* 1.47 gal/ft = 4.43 gal. \* 3 = 13 gal

**Field Measurements:**

Depth Purging From: 2 ft. below depth to water

Time	Cumulative Volume Purged	pH	Specific Conductivity	Temp	Observations
<u>0855</u>	----	----	----	----	
<u>0900</u>	<u>5</u> gal	<u>7.49</u>	<u>3.19</u>	<u>ms/cm 25.9°C</u>	<u>Clear</u>
<u>0904</u>	<u>9</u> gal	<u>7.46</u>	<u>3.11</u>	<u>ms/cm 25.3°C</u>	<u>Clear</u>
<u>0908</u>	<u>13</u> gal	<u>7.50</u>	<u>3.14</u>	<u>ms/cm 25.0°C</u>	<u>Clear</u>
	gal				
	gal				
	gal				<u>Field pH = 7.50</u>

Sample Appearance: Clear

Sample Collection - Time Start: 0910 Time Finished: 0910

Analyses: CLO4 TDS TDS/pH CR  
 Bottles: 1 BTL 1 BTL 1 BTL 1 BTL

TOTAL BOTTLES: 3

Comments: Screen 4.5 - 39.5'



# Water Sampling Field Log

Well No.: PC-62

Project No.: \_\_\_\_\_ Site: NERT PROJECT- HENDERSON, NEVADA

Sampling Team: Michele Brown Janel Rivera Date: 8.11.15

Sampling Method:  Electric Pump  Dedicated Bailer  Non Dedicated Bailer  Ready Flo 2" O

Weather Conditions: hot, humid

**Well Information:**

Total Well Depth: 45.91 feet Time: 0939

Depth to Water: 19.01 feet

Height of Water Column (L): 26.9 feet

Well Diameter (circle one)			Well	Purge	Purge
2-in.	4-in.	6-in.	Volume (VV)	Factor	Volume
<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	= <u>4.30</u> gal.	* <u>3</u>	= <u>13gal</u>
* 0.16 gal/ft	* 0.65 gal/ft	* 1.47 gal/ft			

**Field Measurements:**

Depth Purging From: 2 ft. below depth to water

Time	Cumulative Volume Purged	pH	Specific Conductivity	Temp	Observations
<u>0941</u>	-----	-----	-----	-----	
<u>0946</u>	<u>5 gal</u>	<u>7.36</u>	<u>2.58 mscm</u>	<u>24.5°C</u>	<u>Clear</u>
<u>0950</u>	<u>9 gal</u>	<u>7.36</u>	<u>2.60 mscm</u>	<u>23.6°C</u>	<u>Clear</u>
<u>0954</u>	<u>13 gal</u>	<u>7.38</u>	<u>2.60 mscm</u>	<u>22.9°C</u>	<u>Clear</u>
	gal				
	gal				
	gal				<u>Field pH = 7.38</u>

Sample Appearance: Clear

Sample Collection - Time Start: 0956 Time Finished: 0956

Analyses: LO4 TDS TDS/pH CR  
 Bottles: 1 BTL 1 BTL 1 BTL 1 BTL

TOTAL BOTTLES: 3

Comments: Screen 7.6 - 37.6'  
Deep EC 2.60  
temp EC

# Water Sampling Field Log

Well No.: PC-68

Project No.: \_\_\_\_\_ Site: NERT PROJECT- HENDERSON, NEVADA

Sampling Team: Michele Brown Janel Rivera Date: 8.11.15

Sampling Method: Electric Pump  Dedicated Bailer  Non Dedicated Bailer  Ready Flo 2"

Weather Conditions: hot, humid

**Well Information:**

Total Well Depth: 64.72 feet Time: 1002

Depth to Water: 19.04 feet

Height of Water Column (L): 45.68 feet

Well Diameter (circle one)	Well Volume (WV)	Purge Factor	Purge Volume
<input checked="" type="radio"/> 2-in. <input type="radio"/> 4-in. <input type="radio"/> 6-in.			
0.16 gal/ft                    * 0.65 gal/ft                    * 1.47 gal/ft	= <u>7.30</u> gal.	* <u>3</u>	= <u>21 gal</u>

**Field Measurements:**

Depth Purging From: 2 ft. below depth to water

Time	Cumulative Volume Purged	pH	Specific Conductivity	Temp	Observations
<u>1004</u>	----	----	----	----	
<u>1011</u>	<u>7</u> gal	<u>7.26</u>	<u>2.66</u> mS/cm	<u>25.7</u> °C	<u>Clear</u>
<u>1018</u>	<u>14</u> gal	<u>7.29</u>	<u>2.69</u> mS/cm	<u>26.0</u> °C	<u>Clear</u>
<u>1025</u>	<u>21</u> gal	<u>7.27</u>	<u>2.68</u> mS/cm	<u>25.4</u> °C	<u>Clear</u>
	gal				
	gal				
	gal				<u>Field pH = 7.27</u>

Sample Appearance: Clear

Sample Collection - Time Start: 1027 Time Finished: 1027

Analyses: CLO4 TDS TDS/pH OR  
 Bottles: 1 BTL 1 BTL 1 BTL 1 BTL

TOTAL BOTTLES: 3

Comments: screen 9.9 - 54.9'

# Water Sampling Field Log

Well No.: PC-71

Project No.: \_\_\_\_\_ Site: NERT PROJECT- HENDERSON, NEVADA

Sampling Team: Janel Rivera, Michele Brown Date: 8-4-15

Sampling Method:  Electric Pump  Dedicated Bailer  Non Dedicated Bailer  Ready Flo 2" O

Weather Conditions: Warm, sunny, clear

**Well Information:**

Total Well Depth: 33.23 feet Time: 0813

Depth to Water: 28.19 feet

Height of Water Column (L): 5.04 feet \* 0.16 gal/ft \* 0.65 gal/ft \* 1.47 gal/ft = .80 gal. \* x 3 3 gal

**Field Measurements:**

Depth Purging From: 2 ft. below depth to water

Time	Cumulative Volume Purged	pH	Specific Conductivity	Temp	Observations
<u>0816</u>	-----	-----	-----	-----	
<u>0817</u>	<u>1 gal</u>	<u>7.45</u>	<u>9.06 mscm</u>	<u>28.1 °C</u>	<u>clear</u>
<u>0818</u>	<u>2 gal</u>	<u>7.36</u>	<u>9.51 mscm</u>	<u>27.3 °C</u>	<u>clear</u>
<u>0819</u>	<u>3 gal</u>	<u>7.35</u>	<u>9.65 mscm</u>	<u>27.1 °C</u>	<u>clear</u>

FIELD pH = 7.35

Sample Appearance: clear

Sample Collection - Time Start: 0820 Time Finished: 0820

Analyses:	<u>CLO4</u>	<u>TDS</u>	<u>CR</u>	<u>TDS / CRVI</u>	<u>TDS / CRVI / NO3</u>	<u>TDS / NO3</u>	<u>CL03</u>
Bottles:	<u>1 BTL</u>	<u>1 BTL</u>	<u>1 BTL</u>	<u>1 BTL</u>	<u>1 BTL</u>	<u>1 BTL</u>	<u>1 BTL</u>

TOTAL BOTTLES: 3

Comments:

Top of Screen - 13.4

# Water Sampling Field Log

Well No.: PC-72

Project No.: \_\_\_\_\_ Site: NERT PROJECT- HENDERSON, NEVADA

Sampling Team: Janel Rivera, Michele Brown Date: 8-4-15

Sampling Method:  Electric Pump  Dedicated Bailer  Non Dedicated Bailer  Ready Flo 2" O

Weather Conditions: warm, sunny, clear

## Well Information:

Total Well Depth: 39.54 feet Time: 0828

Depth to Water: 31.17 feet

Height of Water Column (L): 8.34 feet  $\times 0.16 \text{ gal/ft}$   $\times 0.65 \text{ gal/ft}$   $\times 1.47 \text{ gal/ft}$  = 1.33 gal.  $\times 3$  4 gal

Field Measurements: Depth Purging From: 2 ft. below depth to water

Time	Cumulative Volume Purged	pH	Specific Conductivity	Temp	Observations
<u>0830</u>					
<u>0832</u>	<u>2 gal</u>	<u>7.36</u>	<u>8.67 mscm</u>	<u>28.6°C</u>	<u>clear</u>
<u>0833</u>	<u>3 gal</u>	<u>7.42</u>	<u>8.66 mscm</u>	<u>27.7°C</u>	<u>clear</u>
<u>0834</u>	<u>4 gal</u>	<u>7.44</u>	<u>8.69 mscm</u>	<u>27.4°C</u>	<u>clear</u>

FIELD pH = 7.44

Sample Appearance: clear

Sample Collection - Time Start: 0836 Time Finished: 0836

Analyses:	CLO4	TDS	CR	TDS / CRVI	TDS / CRVI / NO3	TDS / NO3	CL03
bottles:	<u>1 BTL</u>	<u>1 BTL</u>	<u>1 BTL</u>	<u>1 BTL</u>	<u>1 BTL</u>	<u>1 BTL</u>	<u>1 BTL</u>

TOTAL BOTTLES: 3

Comments: Top of Screen - 15

FB-1 collected here  
pH, TDS, EC, CLO4, CRVI  
3 btl 0840  
EC 0.21  
pH 8.53  
Temp 30.4

### Water Sampling Field Log

Well No.: PC-73Project No.: \_\_\_\_\_ Site: NERT PROJECT- HENDERSON, NEVADASampling Team: Janel Rivera, Michele Brown Date: 8.4.15Sampling Method:  Electric Pump  Dedicated Bailer  Non Dedicated Bailer  Ready Flo 2" OWeather Conditions: Warm, sunny, clear

#### Well Information:

Total Well Depth: 49.44 feet Time: 0849Depth to Water: 32.26 feetHeight of Water Column (L): 17.18 feet   
 Well Diameter (circle one)   
 2-in.  4-in.  6-in.  Well Volume (VV)   
 = 2.14 gal. \* 3 = 8 gal

#### Field Measurements:

Depth Purging From: 2 ft. below depth to water

Time	Cumulative Volume Purged	pH	Specific Conductivity	Temp	Observations
<u>0851</u>	-----	-----	-----	-----	
<u>0854</u>	<u>3 gal</u>	<u>7.27</u>	<u>9.23</u> <i>ms/cm</i>	<u>29.4</u> °C	<u>Clear</u>
<u>0857</u>	<u>6 gal</u>	<u>7.22</u>	<u>9.24</u> <i>ms/cm</i>	<u>28.7</u> °C	<u>Clear</u>
<u>0859</u>	<u>8 gal</u>	<u>7.38</u>	<u>9.13</u> <i>ms/cm</i>	<u>28.5</u> °C	<u>Clear</u>

FIELD pH = 7.38

Sample Appearance: ClearSample Collection - Time Start: 0901 Time Finished: 0901

Analyses:	<u>CLO4</u>	<u>TDS</u>	<u>CR</u>	<u>TDS / CRVI</u>	<u>TDS / CRVI / NO3</u>	<u>TDS / NO3</u>	<u>CL03</u>
	<u>1 BTL</u>	<u>1 BTL</u>	<u>1 BTL</u>	<u>1 BTL</u>	<u>1 BTL</u>	<u>1 BTL</u>	<u>1 BTL</u>

TOTAL BOTTLES: 3

Comments:

Top of Screen - 20 Dep EC 9.08 28.4  
EC Temp

Water Sampling Field Log

Well No.: PC-86

Project No.: \_\_\_\_\_ Site: NERT PROJECT- HENDERSON, NEVADA

Sampling Team: Michele Brown Janel Rivera Date: 8.11.15

Sampling Method: Electric Pump ● Dedicated Bailer O Non Dedicated Bailer O Ready Flo 2" O

Weather Conditions: hot, humid

Well Information:

Total Well Depth: 28.0 feet Time: 1032

Depth to Water: 12.41 feet

Height of Water Column (L): 15.59 feet \* 0.16 gal/ft \* 0.65 gal/ft \* 1.47 gal/ft = 2.49 gal. \* 3 = 7 gal

Well Diameter (circle one)  
2-in. 4-in. 6-in.

Well Volume (WV) Purge Factor Purge Volume

Field Measurements:

Depth Purging From: 2 ft. below depth to water

Time	Cumulative Volume Purged	pH	Specific Conductivity	Temp	Observations
1034	---	---	---	---	
1037	3 gal	7.34	2.75 <u>ms/cm</u>	26.5 °C	Clear
1039	5 gal	7.34	2.80 <u>ms/cm</u>	24.9 °C	Clear
1041	7 gal	7.35	2.76 <u>ms/cm</u>	25.2 °C	Clear
	gal				
	gal				
	gal				Field pH = 7.35

Clear

Sample Appearance: \_\_\_\_\_

Sample Collection - Time Start: 1043 Time Finished: 1043

Analyses: CLO4 TDS TDS/pH CR  
Bottles: 1 BTL 1 BTL 1 BTL 1 BTL

TOTAL BOTTLES: 3

Comments: Screen 17.5 - 27.5'

Closing PC 7.01

# Water Sampling Field Log

Well No.: PC-90

Project No.: \_\_\_\_\_ Site: NERT PROJECT- HENDERSON, NEVADA

Sampling Team: Michele Brown Janel Rivera Date: 8.11.15

Sampling Method:  Electric Pump  Dedicated Bailer  Non Dedicated Bailer  Ready Flo 2" O

Weather Conditions: hot, humid

**Well Information:**

Total Well Depth: 33.0 feet Time: 0648

Depth to Water: 5.88 feet

Height of Water Column (L): 27.12 feet \* 0.16 gal/ft \* 0.65 gal/ft \* 1.47 gal/ft = 4.34 gal. \* 3 = 13gal

Well Diameter (circle one)  
 2-in.  4-in.  6-in

Well Volume (WV) Purge Factor Purge Volume

**Field Measurements:**

Depth Purging From: 2 ft. below depth to water

Time	Cumulative Volume Purged	pH	Specific Conductivity	Temp	Observations
<u>0649</u>	-----	-----	-----	-----	
<u>0653</u>	<u>5</u> gal	<u>7.61</u>	<u>3.95</u> mS/cm	<u>23.8</u> °C	<u>Clear</u>
<u>0659</u>	<u>10</u> gal	<u>7.60</u>	<u>3.96</u> mS/cm	<u>24.5</u> °C	<u>Clear</u>
<u>0703</u>	<u>13</u> gal	<u>7.55</u>	<u>3.97</u> mS/cm	<u>24.4</u> °C	<u>Clear</u>
	gal				
	gal				
	gal				<u>field pH = 7.55</u>

Sample Appearance: Clear

Sample Collection - Time Start: 0704 Time Finished: 0704

Analyses: CLO4 TDS TDS/pH CR  
 Bottles: 1 BTL 1 BTL 1 BTL 1 BTL

TOTAL BOTTLES: 3

Comments: Screen 4.5 - 14.5'  
no cast lid

# Water Sampling Field Log

Well No.: PC-91

Project No.: \_\_\_\_\_ Site: NERT PROJECT- HENDERSON, NEVADA

Sampling Team: Michele Brown Janel Rwera Date: 8.11.15

Sampling Method:  Electric Pump  Dedicated Bailer  Non Dedicated Bailer  Ready Flo 2" O

Weather Conditions: hot, humid

**Well Information:**

Total Well Depth: 37.0 feet Time: 0713

Depth to Water: 11.31 feet

Height of Water Column (L): <u>25.69</u> feet	Well Diameter (circle one)	2-in.	4-in.	6-in.	Well Volume (WV)	Purge Factor	Purge Volume
	<input checked="" type="radio"/> 0.16 gal/ft <input type="radio"/> 0.65 gal/ft <input type="radio"/> 1.47 gal/ft	= <u>4.11</u> gal.	*	<u>3</u>	=	<u>12gal</u>	

**Field Measurements:**

Depth Purging From: 2 ft. below depth to water

Time	Cumulative Volume Purged	pH	Specific Conductivity	Temp	Observations
<u>0715</u>	-----	-----	-----	-----	
<u>0719</u>	<u>4 gal</u>	<u>7.46</u>	<u>3.98 MS/cm</u>	<u>24.4°C</u>	<u>clear</u>
<u>0723</u>	<u>8 gal</u>	<u>7.36</u>	<u>4.05 MS/cm</u>	<u>24.0°C</u>	<u>clear</u>
<u>0727</u>	<u>12 gal</u>	<u>7.43</u>	<u>4.07 MS/cm</u>	<u>24.6°C</u>	<u>Clear</u>
	gal				
	gal				
	gal				<u>field pH = 7.43</u>

Sample Appearance: Clear

Sample Collection Time Start: 0729 Time Finished: 0729

Analyses: CLO4 TDS TDS/pH CR  
 Bottles: 1 BTL 1 BTL 1 BTL 1 BTL

TOTAL BOTTLES: 3

Comments: Screen 26.5 - 36.5



# Water Sampling Field Log

Well No.: PC-94

Project No.: \_\_\_\_\_ Site: NERT PROJECT- HENDERSON, NEVADA

Sampling Team: Michele Brown Janel Rivera Date: 8.11.15

Sampling Method:  Electric Pump  Dedicated Bailer  Non Dedicated Bailer  Ready Flo 2" O

Weather Conditions: hot, humid

**Well Information:**

Total Well Depth: 20. feet Time: 0738

Depth to Water: 12.15 feet

	Well Diameter (circle one)		Well	Purge	Purge
	2-in. 4-in. 6-in		Volume (WV)	Factor	Volume
Height of Water Column (L): <u>7.85</u> feet	* 0.16 gal/ft * 0.65 gal/ft * 1.47 gal/ft		= <u>1.26</u> gal.	* <u>3</u>	= <u>3 gal</u>

**Field Measurements:**

Depth Purging From: 2 ft. below depth to water

Time	Cumulative Volume Purged	pH	Specific Conductivity	Temp	Observations
<u>0740</u>	-----	-----	-----	-----	
<u>0741</u>	<u>1 gal</u>	<u>7.22</u>	<u>8.11</u> <u>ns/cm</u>	<u>25.9 °C</u>	<u>Clear</u>
<u>0742</u>	<u>2 gal</u>	<u>7.19</u>	<u>8.49</u> <u>ns/cm</u>	<u>25.0 °C</u>	<u>Clear</u>
<u>0743</u>	<u>3 gal</u>	<u>7.14</u>	<u>8.41</u> <u>ns/cm</u>	<u>24.6 °C</u>	<u>Clear</u>
	gal				
	gal				
	gal				<u>Field pH = 7.14</u>

Sample Appearance: Clear

Sample Collection - Time Start: 0745 Time Finished: 0745

Analyses: CLO4 TDS TDS/pH CR  
 Bottles: 1 BTL 1 BTL 1 BTL 1 BTL

TOTAL BOTTLES: 3

Comments:

# Water Sampling Field Log

Well No.: PC97

Project No.: \_\_\_\_\_ Site: NERT PROJECT- HENDERSON, NEVADA

Sampling Team: Michele Brown Janel Rivera Date: 8/11/15

Sampling Method:  Electric Pump  Dedicated Bailer  Non Dedicated Bailer  Ready Flo 2" O

Weather Conditions: Clear

**Well Information:**

Total Well Depth: 33.5 feet Time: 0620

Depth to Water: 4.68 feet

Height of Water Column (L): 28.82 feet

Well Diameter (circle one)  
 2-in.     4-in.     6-in.

Well Volume (WV)    Purge Factor    Purge Volume  
 = 4.61 gal. \* 3 = 14 gal

**Field Measurements:**

Depth Purging From: 2 ft. below depth to water

Time	Cumulative Volume Purged	pH	Specific Conductivity	Temp	Observations
<u>0622</u>	-----	-----	-----	-----	
<u>0627</u>	<u>5</u> gal	<u>7.53</u>	<u>3.32</u> <u>ns/cm</u>	<u>22.4</u> °C	<u>Clear</u>
<u>0631</u>	<u>9</u> gal	<u>7.51</u>	<u>3.30</u> <u>ns/cm</u>	<u>22.3</u> °C	<u>Clear</u>
<u>0636</u>	<u>14</u> gal	<u>7.55</u>	<u>3.32</u> <u>ns/cm</u>	<u>21.8</u> °C	<u>Clear</u>
	gal				
	gal				
	gal				<u>Field pH = 7.55</u>

Sample Appearance: Clear

Sample Collection Time Start: 0638 Time Finished: 0638

Analyses: CLO4 TDS TDS/pH CR  
 Bottles: 1 BTL 1 BTL 1 BTL 1 BTL

TOTAL BOTTLES: 3

Comments: Screen 23 - 33'

# Water Sampling Field Log

Well No.: PC-98R

Project No.: \_\_\_\_\_ Site: NERT PROJECT- HENDERSON, NEVADA

Sampling Team: Michele Brown Janel Rivera Date: 8/13/15

Sampling Method: Electric Pump  Dedicated Bailer  Non Dedicated Bailer  Ready Flo 2"

Weather Conditions: hot sunny

**Well Information:**

Total Well Depth: 40.5 feet Time: 0852

Depth to Water: 22.52 feet

Height of Water Column (L): 17.98 feet \* 0.16 gal/ft \* 2.65 gal/ft \* 1.47 gal/ft = 11.68 gal. \* 3 = 35 gal

Well Diameter (circle one)  
 2-in.  4-in.  6-in.

Well Volume (WV) Purge Factor Purge Volume

**Field Measurements:**

Depth Purging From: 2 ft. below depth to water

Time	Cumulative Volume Purged	pH	Specific Conductivity	Temp	Observations
<u>0853</u>	---	---	---	---	
<u>0905</u>	<u>12 gal</u>	<u>7.09</u>	<u>8.60 mS/cm</u>	<u>27.9°C</u>	<u>Clear</u>
<u>0916</u>	<u>23 gal</u>	<u>7.18</u>	<u>8.31 mS/cm</u>	<u>26.0°C</u>	<u>Clear</u>
<u>0928</u>	<u>35 gal</u>	<u>7.09</u>	<u>8.20 mS/cm</u>	<u>27.0°C</u>	<u>Clear</u>
	<u>gal</u>				
	<u>gal</u>				
	<u>gal</u>				<u>Field ptt = 7.09</u>

Sample Appearance: clear

Sample Collection - Time Start: 0930 Time Finished: 0930

Analyses: CLO4 TDS TDS/pH CR  
 Bottles: 1 BTL 1 BTL 1 BTL 1 BTL

TOTAL BOTTLES: 3

Comments: screen 20-35' Dup EC 8.16 27.2°C  
EC Temp  
Closing QC 7.01

Water Sampling Field Log

Well No.: PC-99R2/R3

Project No.: \_\_\_\_\_ Site: NERT PROJECT- HENDERSON, NEVADA

Sampling Team: Michele Brown, Janel Rivera Date: 8.3.15

Sampling Method: Sample Port ● Disposable Bailer O Electric pump O

Weather Conditions: Warm, sunny, clear

Well Information:

Total Well Depth: 55.3 feet Time: 8.13.15 1100

Depth to Water: - 13.78 feet

Well Diameter (circle one)  
2-in. 4-in. 6-in.

Purge Volume

Water Column (L): 41.52 feet X 0.4893 1.9 4.41 = \_\_\_\_\_

Field Measurements: Depth Purging From: 2 ft below DTW

Time	gals	EC	pH	Temp	Observations of Sample
<u>1155</u>		<u>6.37</u>	<u>7.23</u>	<u>28.6°</u>	<u>clear</u>

Comments:

Sample Collection Time - 1156

Analyses:	<u>CR</u>	<u>CLO4</u>	<u>pH/TDS</u>	pH / TDS / CRVI	pH / TDS / NO3	pH / TDS / CRVI / NO3
Bottles:	<u>1 Bottle</u>	<u>1 Bottle</u>	<u>1 Bottle</u>	1 Bottle	1 Bottle	1 Bottle

TOTAL Bottles- 3

# Water Sampling Field Log

Well No.: PC-101R

Project No.: \_\_\_\_\_ Site: NERT PROJECT- HENDERSON, NEVADA

Sampling Team: Michele Brown Date: 8-12-15

Sampling Method:  Electric Pump  Dedicated Bailer  Non Dedicated Bailer  Ready Flo 2" O

Weather Conditions: Breezy, humid, sunny

Well Information: \_\_\_\_\_

Total Well Depth: 50.58 feet Time: 0858

Depth to Water: 29.11 feet

Height of Water Column (L): 21.47 feet \* 2.16 gal/ft \* 0.65 gal/ft \* 1.47 gal/ft = 3.43 gal. \* 3 = 10.9 gal

Field Measurements: Depth Purging From: 2 ft. below depth to water

Time	Cumulative Volume Purged	pH	Specific Conductivity	Temp	Observations
<u>0900</u>	---	---	---	---	---
<u>0904</u>	<u>4</u> gal	<u>7.17</u>	<u>12.59</u> mscm	<u>28.9</u> °C	<u>Clear</u>
<u>0907</u>	<u>7</u> gal	<u>7.16</u>	<u>12.38</u> mscm	<u>28.7</u> °C	<u>Clear</u>
<u>0910</u>	<u>10</u> gal	<u>7.14</u>	<u>12.54</u> mscm	<u>28.4</u> °C	<u>Clear</u>
_____	gal	_____	_____	_____	_____
_____	gal	_____	_____	_____	_____
_____	gal	_____	_____	_____	<u>Field pH = 7.14</u>

Sample Appearance: clear

Sample Collection - Time Start: 0912 Time Finished: 0912

Analyses: CLO4 TDS TDS/pH CR  
 Bottles: 1 BTL 1 BTL 1 BTL 1 BTL

TOTAL BOTTLES: 3

Comments: screen 20-50' Dup EC  
27.8 12.37  
Temp EC

# Water Sampling Field Log

Well No.: PC-103

Project No.: \_\_\_\_\_ Site: NERT PROJECT- HENDERSON, NEVADA

Sampling Team: Michele Brown Date: 8-12-15

Sampling Method: Electric Pump  Dedicated Bailer  Non Dedicated Bailer  Ready Flo 2" O

Weather Conditions: hot, humid, breezy, sunny

**Well Information:**

Total Well Depth: 31.8 feet Time: 1035

Depth to Water: 22.74 feet

Height of Water Column (L): 9.06 feet \* 0.16 gal/ft \* 0.65 gal/ft \* 1.47 gal/ft = 144 gal. \* 3 = 4 gal

Well Diameter (circle one)  
 2-in.     4-in.     6-in.  
 Well Volume (WV)    Purge Factor    Purge Volume

**Field Measurements:**

Depth Purging From: 2 ft. below depth to water

Time	Cumulative Volume Purged	pH	Specific Conductivity	Temp	Observations
<u>1037</u>	---	---	---	---	
<u>1039</u>	<u>2</u> gal	<u>7.49</u>	<u>6.90</u> mS/cm	<u>27.2</u> °C	<u>clear</u>
<u>1040</u>	<u>3</u> gal	<u>7.38</u>	<u>6.37</u> mS/cm	<u>26.3</u> °C	<u>clear</u>
<u>1041</u>	<u>4</u> gal	<u>7.31</u>	<u>6.41</u> mS/cm	<u>26.1</u> °C	<u>clear</u>
	gal				
	gal				
	gal				<u>Field pH = 7.31</u>

Sample Appearance: clear

Sample Collection - Time Start: 1043 Time Finished: 1043

Analyses: CLO4 TDS TDS/pH CR  
 Bottles: 1 BTL 1 BTL 1 BTL 1 BTL

TOTAL BOTTLES: 3

Comments: The screen is 9-29'  
Closing QC 7.0

Water Sampling Field Log

Well No.: PC-115R

Project No.: \_\_\_\_\_ Site: NERT PROJECT- HENDERSON, NEVADA

Sampling Team: Michele Brown, Janel Rivera Date: 8-3-15

Sampling Method:  Sample Port  Disposable Bailer  Electric pump

Weather Conditions: warm, sunny, clear

Well Information:

Total Well Depth: 55.5 feet Time: 8:13:15  
1103

Depth to Water: - 11.71 feet  
Well Diameter (circle one)

Water Column (L): 43.79 feet X 2-in. 0.4893 4-in. 1.9 6-in. 4.41 = \_\_\_\_\_  
Purge Volume

Field Measurements: Depth Purging From: 2 ft below DTW

Time	gals	EC	pH	Temp	Observations of Sample
<u>1158</u>		<u>4.83</u>	<u>7.23</u>	<u>25.8°c</u>	<u>clear</u>

Comments:

Sample Collection Time - 1159

Analyses:	<u>CR</u>	<u>CLO4</u>	<u>pH/TDS</u>	pH / TDS / CRVI	pH / TDS / NO3	pH / TDS / CRVI / NO3
Bottles:	<u>1 Bottle</u>	<u>1 Bottle</u>	<u>1 Bottle</u>	1 Bottle	1 Bottle	1 Bottle

TOTAL Bottles- 3

**Water Sampling Field Log**

Well No.: PC-116R

Project No.: \_\_\_\_\_ Site: NERT PROJECT- HENDERSON, NEVADA

Sampling Team: Michele Brown Janel Rivera Date: 8.3.15

Sampling Method: Sample Port ● Disposable Bailer O Electric pump O

Weather Conditions: warm, sunny, clear

Well Information: \_\_\_\_\_

Total Well Depth: 55.5 feet Time: 8.13.15 1054

Depth to Water: - 14.53 feet ←

Water Column (L):	<u>40.97</u> feet	X	Well Diameter (circle one)			=	Purge Volume
			<u>2-in.</u>	<u>4-in.</u>	<u>6-in.</u>		
			0.4893	1.9	4.41		

Field Measurements: Depth Purging From: 2 ft below DTW

Time	gals	EC	pH	Temp	Observations of Sample
<u>1200</u>		<u>6.29</u>	<u>7.24</u>	<u>26.0<sup>oc</sup></u>	<u>clear</u>

Comments:

Sample Collection Time - 1201

Analyses:	<u>CR</u>	<u>CLO4</u>	<u>pH/TDS</u>	<u>pH / TDS/ CRVI</u>	<u>pH/ TDS / NO3</u>	<u>pH / TDS / CRVI / NO3</u>
Bottles:	<u>1 Bottle</u>	<u>1 Bottle</u>	<u>1 Bottle</u>	1 Bottle	1 Bottle	1Bottle

TOTAL Bottles- 3



**Water Sampling Field Log**

Well No.: PC-117

Project No.: \_\_\_\_\_ Site: NERT PROJECT- HENDERSON, NEVADA

Sampling Team: Michele Brown Janel Rivera Date: 8-3-15

Sampling Method:  Sample Port  Disposable Bailer  Electric pump

Weather Conditions: warm, clear, sunny

**Well Information:**  
 Total Well Depth: 53.0 feet Time: 8-13-15 1051  
 Depth to Water: - 12.04 feet  
 Water Column (L): 40.96 feet X  
 Well Diameter (circle one)  2-in.  4-in.  6-in.  
 Purge Volume = \_\_\_\_\_

Field Measurements: Depth Purging From: 2 ft below DTW

Time	gals	EC	pH	Temp	Observations of Sample
<u>1202</u>		<u>4.97</u>	<u>7.29</u>	<u>25.50c</u>	<u>clear</u>

Comments:

Sample Collection Time - 1203

Analyses: CR CLO4 pH/TDS pH / TDS / CRVI pH / TDS / NO3 pH / TDS / CRVI / NO3  
 Bottles: 1 Bottle 1 Bottle 1 Bottle 1 Bottle 1 Bottle 1 Bottle

**TOTAL Bottles- 3**

**Water Sampling Field Log**

Well No.: PC-118

Project No.: \_\_\_\_\_ Site: NERT PROJECT- HENDERSON, NEVADA

Sampling Team: Michele Brown, Janel Rivera Date: 8-3-15

Sampling Method:  Sample Port  Disposable Bailer  Electric pump

Weather Conditions: Warm, Sunny, clear

**Well Information:**

Total Well Depth: 51.0 feet Time: 8-13-15 1105

Depth to Water: - 8.46 feet  
 Well Diameter (circle one)  
 2-in.  4-in.  6-in.

Water Column (L): 42.54 feet X 0.4893 1.9 4.41 =            Purge Volume

Field Measurements: Depth Purging From: 2 ft below DTW

Time	gals	EC	pH	Temp	Observations of Sample
<u>1207</u>		<u>3.49</u>	<u>7.39</u>	<u>24.7</u>	<u>clear</u>

**Comments:**

Sample Collection Time - 1208

Analyses: CR CLO4 pH/TDS pH / TDS / CRVI pH / TDS / NO3 pH / TDS / CRVI / NO3  
 Bottles: 1 Bottle 1 Bottle 1 Bottle 1 Bottle 1 Bottle 1 Bottle

**TOTAL Bottles- 3**

Water Sampling Field Log

Well No.: PC-119

Project No.: \_\_\_\_\_

Site: NERT PROJECT- HENDERSON, NEVADA

Sampling Team: Michele Brown

Date: 8-3-15

Sampling Method:  Sample Port  Disposable Bailer  Electric pump

Weather Conditions: warm, sunny, clear

Well Information:

Total Well Depth: 47.0 feet Time: 8.13.15  
1109

Depth to Water: - 6.38 feet  
Well Diameter (circle one)  
2-in. 4-in. 6-in.

Water Column (L): 40.62 feet X 0.4893 1.9 4.41 =           

Purge Volume

Field Measurements: Depth Purging From: 2 ft below DTW

Time	gals	EC	pH	Temp	Observations of Sample
<u>1209</u>		<u>2.70</u>	<u>7.19</u>	<u>25.1<sup>o</sup></u>	<u>clear</u>

Comments:

Sample Collection Time - 1210

Analyses:	<u>CR</u>	<u>CLO4</u>	<u>pH/TDS</u>	pH / TDS / CRVI	pH / TDS / NO3	pH / TDS / CRVI / NO3
Bottles:	<u>1 Bottle</u>	<u>1 Bottle</u>	<u>1 Bottle</u>	1 Bottle	1 Bottle	1 Bottle

TOTAL Bottles- 3

Water Sampling Field Log

Well No.: PC-120

Project No.: \_\_\_\_\_ Site: NERT PROJECT- HENDERSON, NEVADA

Sampling Team: Michele Brown, Janel Rivera Date: 8-3-15

Sampling Method:  Sample Port  Disposable Bailer  Electric pump

Weather Conditions: Warm, sunny, clear

Well Information:

Total Well Depth: 47.0 feet Time: 8.13.15  
1117

Depth to Water: - 4.72 feet  
Well Diameter (circle one)

Water Column (L): 42.28 feet X  2-in.  4-in.  6-in. Purge Volume = \_\_\_\_\_

Field Measurements: Depth Purging From: 2 ft below DTW

Time	gals	EC	pH	Temp	Observations of Sample
<u>12:16</u>		<u>3.07</u>	<u>7.27</u>	<u>26.2</u>	<u>clear</u>

Comments:

Sample Collection Time - 1217

Analyses:	<u>CR</u>	<u>CLO4</u>	<u>pH/TDS</u>	pH / TDS / CRVI	pH / TDS / NO3	pH / TDS / CRVI / NO3
Bottles:	<u>1 Bottle</u>	<u>1 Bottle</u>	<u>1 Bottle</u>	1 Bottle	1 Bottle	1 Bottle

TOTAL Bottles- 3

Water Sampling Field Log

Well No.: PC-121

Project No.: \_\_\_\_\_ Site: NERT PROJECT- HENDERSON, NEVADA

Sampling Team: Michele Brown, Janel Rivera Date: 8-3-15

Sampling Method:  Sample Port  Disposable Bailer  Electric pump

Weather Conditions: warm, sunny, clear

Well Information:

Total Well Depth: 38.5 feet Time: 8.13.15  
1112

Depth to Water: - 4.90 feet

Water Column (L): 33.60 feet X Well Diameter (circle one)  
2-in. 4-in. 6-in.  
0.4893 1.9 4.41 = \_\_\_\_\_

Field Measurements: Depth Purging From: 2 ft below DTW

Time	gals	EC	pH	Temp	Observations of Sample
<u>1219</u>		<u>280</u>	<u>7.19</u>	<u>25.0</u>	<u>clear</u>

Comments: losing qc 7.0

Sample Collection Time - 1220

Analyses:	<u>CR</u>	<u>CLO4</u>	<u>pH/TDS</u>	<u>pH / TDS/ CRVI</u>	<u>pH/ TDS / NO3</u>	<u>pH / TDS / CRVI / NO3</u>
Bottles:	<u>1 Bottle</u>	<u>1 Bottle</u>	<u>1 Bottle</u>	<u>1 Bottle</u>	<u>1 Bottle</u>	<u>1 Bottle</u>

TOTAL Bottles- 3

# Water Sampling Field Log

Well No.: PC-122

Project No.: \_\_\_\_\_ Site: NERT PROJECT- HENDERSON, NEVADA

Sampling Team: Michele Brown Date: 8-12-15

Sampling Method:  Electric Pump  Dedicated Bailer  Non Dedicated Bailer  Ready Flo 2" O

Weather Conditions: overcast, breezy, warm

**Well Information:**

Total Well Depth: 37.9 feet Time: 0659

Depth to Water: 32.02 feet

Height of Water Column (L): 5.88 feet

Well Diameter (circle one)			Well	Purge	Purge
2-in.	4-in.	6-in	Volume (VV)	Factor	Volume
<u>0.16 gal/ft</u>	* 0.65 gal/ft	* 1.47 gal/ft	= <u>94</u> gal.	* 3	= <u>3 gal</u>

**Field Measurements:**

Depth Purging From: 2 ft. below depth to water

Time	Cumulative Volume Purged	pH	Specific Conductivity	Temp	Observations
<u>0702</u>	-----	-----	-----	-----	
<u>0703</u>	<u>1 gal</u>	<u>7.52</u>	<u>10.45 mscm</u>	<u>25.3 °C</u>	<u>Clear</u>
<u>0704</u>	<u>2 gal</u>	<u>7.35</u>	<u>10.10 mscm</u>	<u>25.2 °C</u>	<u>Clear</u>
<u>0705</u>	<u>3 gal</u>	<u>7.33</u>	<u>10.10 mscm</u>	<u>25.1 °C</u>	<u>Clear</u>
	gal				
	gal				
	gal				<u>Field pH = 7.33</u>

Sample Appearance: Clear

Sample Collection - Time Start: 0707 Time Finished: 0707

Analyses: CLO4 TDS TDS/pH CR  
 Bottles: 1 BTL 1 BTL 1 BTL 1 BTL

TOTAL BOTTLES: 3

Comments: Screen 22.5 - 37.5'

# Water Sampling Field Log

Well No.: PC-123

Project No.: \_\_\_\_\_ Site: NERT PROJECT- HENDERSON, NEVADA

Sampling Team: Janel Rivera, Michele Braen Date: 8-4-15

Sampling Method:  Electric Pump  Dedicated Bailer  Non Dedicated Bailer  Ready Flo 2" O

Weather Conditions: warm

## Well Information:

Total Well Depth: 34.70 feet Time: 0323

Depth to Water: 23.14 feet

Well Volume (WV)  
 Height of Water Column (L): 11.56 feet  2-in.  4-in.  6-in.  
 \* 0.16 gal/ft \* 0.65 gal/ft \* 1.47 gal/ft = 1.84 gal. \* x 3 6 gal

## Field Measurements:

Depth Purging From: 2 ft. below depth to water

Time	Cumulative Volume Purged	pH	Specific Conductivity	Temp	Observations
0326	-----	-----	-----	-----	
0328	2 gal	7.48	7.75 MS/cm	25.3 °C	clear
0330	4 gal	7.44	7.65 MS/cm	25.1 °C	clear
0332	6 gal	7.47	7.66 MS/cm	25.0 °C	clear
					FIELD pH = 7.47

Sample Appearance: \_\_\_\_\_

Sample Collection - Time Start: 0334 Time Finished: 0334

Analyses: CLO4 TDS CR TDS / CRVI TDS / CRVI / NO3 TDS / NO3 CL03  
 Bottles: 1 BTL 1 BTL 1 BTL 1 BTL 1 BTL 1 BTL 1 BTL

TOTAL BOTTLES: 3

Comments: Top of screen - 20

**Water Sampling Field Log**

Well No.: PC-124

Project No.: \_\_\_\_\_ Site: NERT PROJECT- HENDERSON, NEVADA

Sampling Team: Janel Rivera, Michele Brown Date: 8-4-15

Sampling Method:  Electric Pump  Dedicated Bailer  Non Dedicated Bailer  Ready Flo 2" O

Weather Conditions: (warm)

**Well Information:**

Total Well Depth: 34.60 feet Time: 0544

Depth to Water: 29.38 feet

Height of Water Column (L): 9.22 feet \* 0.16 gal/ft \* 0.65 gal/ft \* 1.47 gal/ft = 1.47 gal. \* x 3 = 5 gal

**Field Measurements:**

Depth Purging From: 2 ft. below depth to water

Time	Cumulative Volume Purged	pH	Specific Conductivity	Temp	Observations
<u>0546</u>	-----	-----	-----	-----	
<u>0548</u>	<u>2</u> gal	<u>7.48</u>	<u>11.21</u> ns/cm	<u>23.4</u> °C	<u>clear</u>
<u>0550</u>	<u>4</u> gal	<u>7.44</u>	<u>11.02</u> ns/cm	<u>23.7</u> °C	<u>clear</u>
<u>0551</u>	<u>5</u> gal	<u>7.38</u>	<u>11.09</u> ns/cm	<u>24.6</u> °C	<u>clear</u>

FIELD pH = 7.38

Sample Appearance: clear

Sample Collection - Time Start: 0553 Time Finished: 0553

Analyses: CLO4 TDS CR TDS / CRVI TDS / CRVI / NO3 TDS / NO3 CL03  
Bottles: 1 BTL 1 BTL 1 BTL 1 BTL 1 BTL 1 BTL 1 BTL

TOTAL BOTTLES: 3

Comments: Top of screen - 20.3



## Water Sampling Field Log

Well No.: PC-125

Project No.: \_\_\_\_\_ Site: NERT PROJECT- HENDERSON, NEVADA

Sampling Team: Janel Rivera, Michele Brain Date: 8-4-15

Sampling Method:  Electric Pump  Dedicated Bailer  Non Dedicated Bailer  Ready Flo 2" O

Weather Conditions: warm, clear

### Well Information:

Total Well Depth: 33.50 feet Time: 0601

Depth to Water: 23.76 feet

Well Diameter (circle one): 2-in.      Well Volume (WV): \_\_\_\_\_  
 2-in.      4-in.      6-in.  
 Height of Water Column (L): 9.74 feet \* 0.16 gal/ft \* 0.65 gal/ft \* 1.47 gal/ft = 1.55 gal. \* x 3 = 5 gal

### Field Measurements:

Depth Purging From: 2 ft. below depth to water

Time	Cumulative Volume Purged	pH	Specific Conductivity	Temp	Observations
<u>0603</u>	----	----	----	----	
<u>0605</u>	2 gal	7.61	7.10 <u>ms/cm</u>	23.7 <u>°C</u>	clear w/some silt
<u>0607</u>	4 gal	7.57	7.03 <u>ms/cm</u>	24.0 <u>°C</u>	clear w/some silt
<u>0608</u>	5 gal	7.55	7.06 <u>ms/cm</u>	24.0 <u>°C</u>	clear w/some silt

FIELD pH = 7.55

Sample Appearance: clear w/some silt

Sample Collection - Time Start: 0610 Time Finished: 0610

Analyses:	CLO4	TDS	CR	TDS / CRVI	TDS / CRVI / NO3	TDS / NO3	CL03
Bottles:	1 BTL	1 BTL	1 BTL	1 BTL	1 BTL	1 BTL	1 BTL

TOTAL BOTTLES: 3

Comments: Top of Screen - 18.7

Water Sampling Field Log

Well No.: PC-127

Project No.: Site: NERT PROJECT- HENDERSON, NEVADA

Sampling Team: Janel Rivera, Michele Brown Date: 8-4-15

Sampling Method: Electric Pump (checked) Dedicated Bailer (unchecked) Non Dedicated Bailer (unchecked) Ready Flo 2" (unchecked)

Weather Conditions: Warm, clear

Well Information:

Total Well Depth: 34.70 feet Time: 0639

Depth to Water: 19.62 feet

Well Diameter (circle one): 2-in. (circled) 4-in. 6-in. Well Volume (VV)

Height of Water Column (L): 15.08 feet \* 0.16 gal/ft \* 0.65 gal/ft \* 1.47 gal/ft = 2.41 gal. \* x 3 = 7 gal

Field Measurements:

Depth Purging From: 2 ft. below depth to water

Table with columns: Time, Cumulative Volume Purged, pH, Specific Conductivity, Temp, Observations. Contains handwritten data for times 0642, 0645, 0647, 0649 and a note 'FIELD pH = 7.51'.

Sample Appearance: clear

Sample Collection - Time Start: 0650 Time Finished: 0650

Table with columns: Analyses (CLO4, TDS, CR, TDS/CRVI, TDS/CRVI/NO3, TDS/NO3, CLO3), Bottles (1 BTL each).

TOTAL BOTTLES: 3

Comments:

Top of Screen -15

# Water Sampling Field Log

Well No.: PC-128

Project No.: \_\_\_\_\_ Site: NERT PROJECT- HENDERSON, NEVADA

Sampling Team: Janel Rivera, Michele Brown Date: 8-10-15

Sampling Method:  Electric Pump  Dedicated Bailer  Non Dedicated Bailer  Ready Flo 2" O

Weather Conditions: warm, humid

**Well Information:**

Total Well Depth: 34.70 feet Time: 0450

Depth to Water: 18.53 feet Well Volume (WV)

Height of Water Column (L): 16.17 feet

Well Diameter (circle one)			Well Volume (WV)
2-in.	4-in.	6-in.	

0.16 gal/ft \* 0.65 gal/ft \* 1.47 gal/ft = 2.58 gal. \* x 3 8 gal

**Field Measurements:**

Depth Purging From: 2 ft. below depth to water

Time	Cumulative Volume Purged	pH	Specific Conductivity	Temp	Observations
<u>0452</u>	-----	-----	-----	-----	
<u>0455</u>	<u>3</u> gal	<u>7.61</u>	<u>7.02 mS/cm</u>	<u>25.1°c</u>	<u>Clear</u>
<u>0458</u>	<u>6</u> gal	<u>7.50</u>	<u>7.05 mS/cm</u>	<u>25.3°c</u>	<u>Clear</u>
<u>0500</u>	<u>8</u> gal	<u>7.48</u>	<u>7.11 mS/cm</u>	<u>25.4°c</u>	<u>Clear</u>

FIELD pH = 7.48

Sample Appearance: clean

Sample Collection - Time Start: 0502 Time Finished: 0502

Analyses:	CLO4	TDS	CR	TDS / CRVI	TDS / CRVI / NO3	TDS / NO3	CL03
Bottles:	1 BTL	1 BTL	1 BTL	1 BTL	1 BTL	1 BTL	1 BTL

TOTAL BOTTLES: 3

Comments: Top of screen - 14.8

# Water Sampling Field Log

Well No.: PC-129

Project No.: \_\_\_\_\_ Site: NERT PROJECT- HENDERSON, NEVADA

Sampling Team: Janel Rivera, Michele Brown

Date: 8-4-15

Sampling Method:  Electric Pump  Dedicated Bailer  Non Dedicated Bailer  Ready Flo 2" O

Weather Conditions: Clear

### Well Information:

Total Well Depth: 37.70 feet

Time: 0354

Depth to Water: 18.16 feet

Well Diameter (circle one)  
 2-in.  4-in.  6-in

Well Volume (WV)

Height of Water Column (L): 19.54 feet \* 0.16 gal/ft \* 0.65 gal/ft \* 1.47 gal/ft = 3.12 gal. \* x 3 9 gal

### Field Measurements:

Depth Purging From: 2 ft. below depth to water

Time	Cumulative Volume Purged	pH	Specific Conductivity	Temp	Observations
<u>0355</u>	----	----	-----	----	
<u>0358</u>	<u>3</u> gal	<u>7.36</u>	<u>7.15</u> mS/cm	<u>24.6</u> °C	<u>Clear</u>
<u>0401</u>	<u>6</u> gal	<u>7.35</u>	<u>7.29</u> mS/cm	<u>24.5</u> °C	<u>Clear</u>
<u>0404</u>	<u>9</u> gal	<u>7.33</u>	<u>7.39</u> mS/cm	<u>24.4</u> °C	<u>Clear</u>

FIELD pH = 7.33

Sample Appearance: Clear

Sample Collection - Time Start: 0405 Time Finished: 0405

Analyses:	<u>CLO4</u>	<u>TDS</u>	<u>CR</u>	<u>TDS / CRVI</u>	<u>TDS / CRVI / NO3</u>	<u>TDS / NO3</u>	<u>CL03</u>
Bottles:	<u>1 BTL</u>	<u>1 BTL</u>	<u>1 BTL</u>	<u>1 BTL</u>	<u>1 BTL</u>	<u>1 BTL</u>	<u>1 BTL</u>

TOTAL BOTTLES: 3

Comments:

Top of Screen-38  
Dup 1 collected here for same analysis 3 btl's 0405

# Water Sampling Field Log

Well No.: PC-131

Project No.: \_\_\_\_\_ Site: NERT PROJECT- HENDERSON, NEVADA

Sampling Team: Janel Rivera, Michele Brown Date: 8-4-15

Sampling Method: Electric Pump  Dedicated Bailer  Non Dedicated Bailer  Ready Flo 2"

Weather Conditions: warm

**Well Information:**

Total Well Depth: 39.40 feet Time: 0447

Depth to Water: 11.47 feet

Height of Water Column (L): 27.93 feet \* 0.16 gal/ft \* 0.65 gal/ft \* 1.47 gal/ft = 4.46 gal. \* x 3 = 13 gal

Well Diameter (circle one)  
 2-in.     4-in.     6-in.    Well Volume (WV)

**Field Measurements:**

Depth Purging From: 2 ft. below depth to water

Time	Cumulative Volume Purged	pH	Specific Conductivity	Temp	Observations
<u>0449</u>	---	---	---	---	
<u>0454</u>	<u>5 gal</u>	<u>7.29</u>	<u>13.54</u> mS/cm	<u>24.3</u> °C	<u>clear</u>
<u>0458</u>	<u>9 gal</u>	<u>7.29</u>	<u>13.69</u> mS/cm	<u>24.3</u> °C	<u>clear</u>
<u>0502</u>	<u>13 gal</u>	<u>7.24</u>	<u>13.58</u> mS/cm	<u>24.8</u> °C	<u>clear</u>
FIELD pH = <u>7.24</u>					

Sample Appearance: clear

Sample Collection - Time Start: 0504 Time Finished: 0504

Analyses:	<u>CLO4</u>	<u>TDS</u>	<u>CR</u>	TDS / CRVI	TDS / CRVI / NO3	TDS / NO3	CL03
Bottles:	<u>1 BTL</u>	<u>1 BTL</u>	<u>1 BTL</u>	1 BTL	1 BTL	1 BTL	1 BTL

TOTAL BOTTLES: 3

Comments: Top of Screen - 9.8

# Water Sampling Field Log

Well No.: PC-132

Project No.: \_\_\_\_\_ Site: NERT PROJECT- HENDERSON, NEVADA

Sampling Team: Janel Rivera, Michele Brown Date: 8-4-15

Sampling Method:  Electric Pump  Dedicated Bailer  Non Dedicated Bailer  Ready Flo 2" O

Weather Conditions: Warm

**Well Information:**

Total Well Depth: 39.56 feet Time: 0513

Depth to Water: 9.99 feet

Height of Water Column (L): 29.57 feet

Well Diameter (circle one)  
 2-in.     4-in.     6-in.

Well Volume (WV) = 4.73 gal. \* x 3 = 14 gal

**Field Measurements:**

Depth Purging From: 2 ft. below depth to water

Time	Cumulative Volume Purged	pH	Specific Conductivity	Temp	Observations
<u>0515</u>	-----	-----	-----	-----	
<u>0520</u>	<u>5 gal</u>	<u>7.31</u>	<u>13.42</u> <sup>ms/cm</sup>	<u>25.0</u> °C	<u>Clear</u>
<u>0525</u>	<u>10 gal</u>	<u>7.19</u>	<u>13.32</u> <sup>ms/cm</sup>	<u>25.1</u> °C	<u>Clear</u>
<u>0529</u>	<u>14 gal</u>	<u>7.24</u>	<u>13.33</u> <sup>ms/cm</sup>	<u>25.1</u> °C	<u>Clear</u>
FIELD pH = <u>7.24</u>					

Sample Appearance: Clear

Sample Collection - Time Start: 0531 Time Finished: 0531

Analyses:	CLO4	TDS	CR	TDS / CRVI	TDS / CRVI / NO3	TDS / NO3	CL03
Bottles:	<u>1 BTL</u>	<u>1 BTL</u>	<u>1 BTL</u>	1 BTL	1 BTL	1 BTL	1 BTL

TOTAL BOTTLES: 3

Comments: Top of Screen - 9.8

Water Sampling Field Log

Well No.: PC-133

Project No.: \_\_\_\_\_ Site: NERT PROJECT- HENDERSON, NEVADA

Sampling Team: Michele Brown, Janel Rivera Date: 8-3-15

Sampling Method: Sample Port  Disposable Bailer  Electric pump

Weather Conditions: Warm, sunny, clear

Well Information:

Total Well Depth: 40.2 feet Time: 8.13.15 1048

Depth to Water: - 31.18 feet

Well Diameter (circle one)  
2-in. 4-in. 6-in.

Purge Volume

Water Column (L): 9.02 feet X 0.4893 1.9 4.41 = \_\_\_\_\_

Field Measurements: Depth Purging From: 2 ft below DTW

Time	gals	EC	pH	Temp	Observations of Sample
<u>1213</u>		<u>3.01</u>	<u>7.20</u>	<u>27.5</u>	<u>clear</u>

Comments:

Sample Collection Time - 1214

Analyses:	<u>CR</u>	<u>CLO4</u>	<u>pH/TDS</u>	pH / TDS / CRVI	pH / TDS / NO3	pH / TDS / CRVI / NO3
Bottles:	<u>1 Bottle</u>	<u>1 Bottle</u>	<u>1 Bottle</u>	1 Bottle	1 Bottle	1 Bottle

TOTAL Bottles- 3

# Water Sampling Field Log

Well No.: PC-135 A

Project No.: \_\_\_\_\_ Site: NERT PROJECT- HENDERSON, NEVADA

Sampling Team: Janel Rivera, Michele Brown Date: 8-10-15

Sampling Method:  Electric Pump  Dedicated Bailer  Non Dedicated Bailer  Ready Flo 2" O

Weather Conditions: warm humid, clear

## Well Information:

Total Well Depth: 50.80 feet Time: 0655

Depth to Water: 29.48 feet

Well Diameter (circle one)  
2-in.  4-in.  6-in.

Well Volume (WV)

Height of Water Column (L): 21.32 feet \* 0.16 gal/ft \* 0.65 gal/ft \* 1.47 gal/ft = 3.41 gal. \* x 3 10 gal

## Field Measurements:

Depth Purging From: 2 ft. below depth to water

Time	Cumulative Volume Purged	pH	Specific Conductivity	Temp	Observations
<u>0657</u>	---	---	---	---	---
<u>0700</u>	<u>3 gal</u>	<u>7.14</u>	<u>13.41 mS/cm</u>	<u>25.0°C</u>	<u>clear w/ some silt</u>
<u>0704</u>	<u>7 gal</u>	<u>7.17</u>	<u>13.42 mS/cm</u>	<u>25.3°C</u>	<u>clear w/ some silt</u>
<u>0707</u>	<u>10 gal</u>	<u>7.13</u>	<u>13.41 mS/cm</u>	<u>25.4°C</u>	<u>clear w/ some silt</u>

FIELD pH = 7.13

Sample Appearance: clear w/ some silt

Sample Collection - Time Start: 0709 Time Finished: 0709

Analyses:	CLO4	TDS	CR	TDS / CRVI	TDS / CRVI / NO3	TDS / NO3	CL03
Bottles:	<u>1 BTL</u>	<u>1 BTL</u>	<u>1 BTL</u>	<u>1 BTL</u>	<u>1 BTL</u>	<u>1 BTL</u>	<u>1 BTL</u>

TOTAL BOTTLES: 3

Comments:

Top of Screen - 30.7



# Water Sampling Field Log

Well No.: PC-136

Project No.: \_\_\_\_\_ Site: NERT PROJECT- HENDERSON, NEVADA

Sampling Team: Janel Rivera, Michele Brown Date: 8-10-15

Sampling Method:  Electric Pump  Dedicated Bailer  Non Dedicated Bailer  Ready Flo 2" O

Weather Conditions: warm, clear

**Well Information:**

Total Well Depth: 40.30 feet Time: 0733  
 Depth to Water: 37.84 feet  
 Height of Water Column (L): 1.46 feet

Well Diameter (circle one)  
 2-in.      4-in.      6-in.

Well Volume (WV) = 1.19 gal. \* x 3 = 4 gal

**Field Measurements:**

Depth Purging From: 2 ft. below depth to water

Time	Cumulative Volume Purged	pH	Specific Conductivity	Temp	Observations
<u>0734</u>	----	----	----	----	
<u>0736</u>	<u>2 gal</u>	<u>7.41</u>	<u>7.55</u> <u>ns/cm</u>	<u>25.9°C</u>	<u>clear</u>
<u>0738</u>	<u>3 gal</u>	<u>7.37</u>	<u>7.16</u> <u>ns/cm</u>	<u>25.8°C</u>	<u>clear</u>
<u>0739</u>	<u>4 gal</u>	<u>7.30</u>	<u>7.15</u> <u>ns/cm</u>	<u>25.5°C</u>	<u>clear</u>
FIELD pH = <u>7.30</u>					

Sample Appearance: clear

Sample Collection - Time Start: 0741 Time Finished: 0741

Analyses:	<u>CLO4</u>	<u>TDS</u>	<u>CR</u>	TDS / CRVI	TDS / CRVI / NO3	TDS / NO3	CL03
Bottles:	<u>1 BTL</u>	<u>1 BTL</u>	<u>1 BTL</u>	1 BTL	1 BTL	1 BTL	1 BTL

TOTAL BOTTLES: 3

ments: Top of screen - 21.0

# Water Sampling Field Log

Well No.: PC-144

Project No.: \_\_\_\_\_ Site: NERT PROJECT- HENDERSON, NEVADA

Sampling Team: Janel Rivera, Michele Brown Date: 8-10-15

Sampling Method:  Electric Pump  Dedicated Bailer  Non Dedicated Bailer  Ready Flo 2" O

Weather Conditions: warm, clear

**Well Information:**

Total Well Depth: 39.70 feet Time: 0715

Depth to Water: 30.56 feet

Well Diameter (circle one)  2-in.  4-in.  6-in. Well Volume (WV)

Height of Water Column (L): 9.14 feet \* 0.16 gal/ft \* 0.65 gal/ft \* 1.47 gal/ft = 1.46 gal. \* x 3 4 gal

**Field Measurements:**

Depth Purging From: 2 ft. below depth to water

Time	Cumulative Volume Purged	pH	Specific Conductivity	Temp	Observations
<u>0717</u>	----	----	----	----	
<u>0719</u>	<u>2 gal</u>	<u>7.36</u>	<u>11.37</u> <u>ns/cm</u>	<u>25.4</u> °C	<u>clear</u>
<u>0720</u>	<u>3 gal</u>	<u>7.25</u>	<u>11.33</u> <u>ns/cm</u>	<u>25.7</u> °C	<u>clear</u>
<u>0721</u>	<u>4 gal</u>	<u>7.26</u>	<u>11.30</u> <u>ns/cm</u>	<u>25.8</u> °C	<u>clear</u>
<u>FIELD pH = 7.26</u>					

Sample Appearance: clear

Sample Collection - Time Start: 0723 Time Finished: 0723

Analyses:	<u>CLO4</u>	<u>TDS</u>	<u>CR</u>	TDS / CRVI	TDS / CRVI / NO3	TDS / NO3	CL03
Bottles:	<u>1 BTL</u>	<u>1 BTL</u>	<u>1 BTL</u>	1 BTL	1 BTL	1 BTL	1 BTL

TOTAL BOTTLES: 3

ments:

Top of screen - 29.7 EB-5 collected here before moving to next well  
3 btl CR, CRVI, TDS, pH, CLO4 0728



# Water Sampling Field Log

Well No.: PC-149

Project No.: \_\_\_\_\_ Site: NERT PROJECT- HENDERSON, NEVADA

Sampling Team: Janel Rivera, Michele Brown Date: 8-10-15

Sampling Method:  Electric Pump  Dedicated Bailer  Non Dedicated Bailer  Ready Flo 2"

Weather Conditions: Warm, humid

**Well Information:**

Total Well Depth: 50.00 feet Time: 0610

Depth to Water: 29.52 feet

Well Diameter (circle one) Well Volume (VV)  
 2-in. 4-in. 6-in.  
 Height of Water Column (L): 20.48 feet \* 0.16 gal/ft \* 0.65 gal/ft \* 1.47 gal/ft = 30.10 gal. \* x 3 90 gal

**Field Measurements:**

Depth Purging From: 2 ft. below depth to water

Time	Cumulative Volume Purged	pH	Specific Conductivity	Temp	Observations
<u>0612</u>	-----	-----	-----	-----	
<u>0622</u>	<u>10 gal</u>	<u>7.58</u>	<u>5.36 mS/cm</u>	<u>23.2 °C</u>	<u>clear</u>
<u>0632</u>	<u>20 gal</u>	<u>7.50</u>	<u>5.31 mS/cm</u>	<u>23.2 °C</u>	<u>clear</u>
<u>0642</u>	<u>30 gal</u>	<u>7.54</u>	<u>5.15 mS/cm</u>	<u>23.3 °C</u>	<u>clear</u>
					FIELD pH = <u>7.54</u>

Sample Appearance: clear

Sample Collection - Time Start: 0645 Time Finished: 0645

Analyses: CLO4 TDS CR TDS / CRVI TDS / CRVI / NO3 TDS / NO3 CL03  
 Bottles: 1 BTL 1 BTL 1 BTL 1 BTL 1 BTL 1 BTL 1 BTL

TOTAL BOTTLES: 3

Comments: Top of screen - 24.5  
historic - well slow to recharge  
electric pump purged 30 gallons before  
sample was collected.

Water Sampling Field Log

Well No.: PC-150

Project No.: \_\_\_\_\_

Site: NERT PROJECT- HENDERSON, NEVADA

Sampling Team: Michele Brown

Date: 8-3-15

Sampling Method:  Sample Port  Disposable Bailer  Electric pump

Weather Conditions: warm, sunny, clear

Well Information:

Total Well Depth: 45.7 feet Time: 8:13.15  
0639

Depth to Water: - 31.42 feet

Well Diameter (circle one)  
2-in. 4-in. 6-in.

Purge Volume

Water Column (L): 14.28 feet X 0.4893 1.9 4.41 = \_\_\_\_\_

Field Measurements: Depth Purging From: 2 ft below DTW

Flow	gals	EC	pH	Temp	Observations of Sample
<u>1109</u>		<u>7.27</u>	<u>7.44</u>	<u>27.1°C</u>	<u>clear</u>

Comments:

Sample Collection Time - 1110

Analyses:	<u>CR</u>	<u>CLO4</u>	<u>pH/TDS</u>	pH / TDS / CRVI	pH / TDS / NO3	pH / TDS / CRVI / NO3
Bottles:	<u>1 Bottle</u>	<u>1 Bottle</u>	<u>1 Bottle</u>	1 Bottle	1 Bottle	1 Bottle

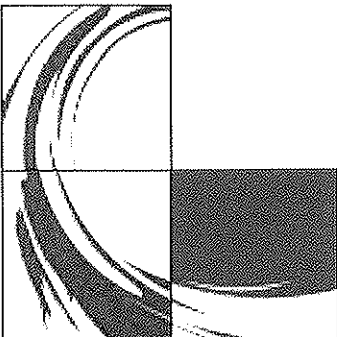
TOTAL Bottles- 3



# Fourth Quarter Well Monitoring

Nevada Environmental  
Response Trust  
Henderson, Nevada

November 2, 2015 thru November 18, 2015



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## Letter of Transmittal

Attention: Gwen Brodsky  
Planning and Permitting Lead  
4900 Pearl E. Circle  
Boulder, CO 80301

Date: December , 2015

---

Project:  
2015 4th Quarter Groundwater Monitoring

---

Enclosed:  
1 copy of Field Data Letter Report

---

Remarks:  
Gwen,  
The enclosed Quarterly Groundwater Monitoring Report with supporting documents is provided for your records.

---

Signature:

Wendy Prescott

Envirogen Technologies  
Two Kingwood Place  
700 Rockmead Drive Suite 105  
Kingwood, TX 77339



## Quarterly Groundwater Monitoring Report

Nevada Environmental Response Trust  
(Former Tronox LLC Site)  
Henderson, Nevada

### Responsible Certified Environmental Manager (CEM) for this project

I hereby certify that I am responsible for the services described in this document and for the preparation of this document. The services described in this document have been provided in a manner consistent with the current standards of the profession and, to the best of my knowledge, comply with all applicable federal, state and local statutes, regulations and ordinances.



Jeff Lambeth  
Certified Environmental Manager  
Envirogen Technologies  
CEM Certificate Number: 2391  
CEM Expiration Date: March 24, 2017

12-2-15

Date

The following individuals provided input to this document:

Michele Brown, Lab Analyst 1, Sampling Tech, Envirogen Technologies

Janel Rivera, Sampling Tech, Envirogen Technologies

## **Field Data Letter Report**

### **1 INTRODUCTION**

Nevada Environmental Response Trust (NERT) contracts with Envirogen Technologies to conduct groundwater sampling and analysis at their Perchlorate Removal Facility, located at 510 Fourth Street, in Henderson, Nevada. The work described herein represents the fourth quarter groundwater sampling event for 2015. The work was conducted in accordance with the Sampling and Analysis Work plan, submitted to Tronox January 9, 2004.

Envirogen has three staff members trained to assist the quarterly well monitoring events. The Envirogen monitoring team meets once prior to the sampling event to discuss all issues associated with this project, sampling and laboratory equipment needs, time tables and well site schedules. Bottle orders and bottles received are cross checked to ensure that all wells and analysis are represented.

#### **1.1 SCOPE OF SAMPLING EVENT**

This sampling effort included the following tasks:

- Soundings of the pumping water levels in 25 interceptor wells.
- Soundings of the water levels in 3 dormant interceptor wells
- Collection of groundwater samples from 29 interceptor wells.
- Soundings of water levels in 104 monitoring wells.
- Collection of groundwater samples from 81 monitoring wells.
- Collection of groundwater samples from 15 pumping wells.
- Collection of water levels in 6 backup (Buddy) wells.
- Collection of groundwater sample from 1 dormant ART well (ART-6).

Analysis of samples collected from the interceptor and monitoring wells, range from Perchlorate (CLO4), Total Chromium (Cr), Hexavalent Chromium (CRVI), pH, Specific Conductance (EC), Total Dissolved Solids (TDS), and NPDES list for well M-10, (Up Well). CR, MN, FE, B, Ammonia, TIN, Nitrate-Nitrite as N, and Chloide.

Groundwater samples were shipped daily to TestAmerica (TA) for analysis, in Irvine, California. TA is certified by the State of Nevada.

The scope of this assignment also included compiling the water level and analytical data presented in this report. Data are presented in tabular form.

## **2 FIELD ACTIVITIES**

Envirogen conducted the field activities associated with this quarterly sampling event between Monday November 2 and Wednesday November 18, 2015. Activities included the sounding of “pumping water” levels in the interceptor wells, sounding the “static water” level in the monitoring wells and sampling of both the interceptor and monitoring wells. Prior to each quarter, an inventory list was issued to Environ for review and comment. Sampling was conducted according to their specifications.

Janel Rivera and Michele Brown were responsible for sample collection and recording all pertinent data on sample bottles. Michele Brown supervised the groundwater sampling activities. She is responsible for executing all work elements related to the groundwater sampling program, including laboratory equipment maintenances and calibration, fieldwork, documenting field activities, maintaining field notes and photographs (when applicable), and providing the Operations Manager with information concerning implementation of the sampling plan.

Envirogen maintained records of daily events and pertinent sampling data of each well on a field log sheet and addendum data in a bound log book. Log sheet entries included personnel onsite, weather conditions, water levels, activities conducted, sampling times, pH, EC, temperature and other significant field information.

**2.1 Groundwater Level Soundings**

Envirogen sounded pumping water levels in 25 interceptor wells. The static water readings were taken in Interceptor wells I-AB, I-AC, I-I, I-Z and I-AD. In addition to the interceptor wells, static water levels in 104 monitoring wells were taken. There were twenty-nine (29) wells where only static water levels were taken. The following are the 29 wells:

ART-1A	ART-2A	ART-3	ART-4A	ART-7A	ART-8A	M-55	M-56	M-58	M-60	M-75
M-76	M-77	M-78	M-92	M-93		M-97	M-115	M-166	M-167	M-168
M-169	M-170	M-172	M-173	M-174	M-175	M-176	M-177			

The water levels were sounded to the nearest 0.01 foot using an electronic well sounder.

**2.2 Equipment Cleaning Procedures**

During the sounding of water levels and purging of wells, the equipment was washed and rinsed with DI water containing Liquinox and rinsed again with 1 to 2 gallons of de-ionized water after use at each well. The rinse water was collected in a polyethylene container and transported to GW-11 for treatment.

**3.0 GROUNDWATER SAMPLING**

**3.1 Sampling Locations**

The following presents the identification of wells sampled.

### 3.1.1 Interceptor Wells

I-AR	I-B	I-C	I-D	I-E	I-F	I-G	I-H	I-I	I-J	I-K
I-L	I-M	I-N	I-O	I-P	I-Q	I-R	I-S	I-T	I-U	I-V
I-W	I-X	I-Y	I-Z	I-AA	I-AB	I-AD				

### 3.1.2 Pumping Wells

ART-1	ART-2	ART-3A	ART-4	ART-7B	ART-8	ART-9	PC-99R2/R3	PC-115R	PC-116R	PC-117
PC-118	PC-119	PC-133	PC-120	PC-121	PC-133	PC-150				

### 3.1.3 Monitoring Wells

ARP-1	ARP-2A	ARP-3A	ARP-4A	ARP-5A	ARP-6B	ARP-7	M-10	M-11	M-12A	M-14A
M-19	M-22A	M-23	M-25	M-31A	M-35	M-37	M-38	M-44	M-48A	M-52
M-57A	M-64	M-65	M-66		M-68	M-69	M-70	M-71	M-72	PC-122
M-74	M-79	M-80	M-81A	M-83	M-95	M-131	M-135	MW-K4	MW-K5	PC-18
PC-37	PC-53	PC-54	PC-55	PC-56	PC-58	PC-59	PC-60	PC-62	PC-68	PC-71
PC-72	PC-73	PC-86	PC-90	PC-91	PC-94	PC-97	PC-98R	PC-101R	PC-103	PC-123
PC-124	PC-125	PC-126	PC-127	PC-128	PC-129	PC-130	PC-131	PC-132	PC-135A	PC-136
PC-144	PC-148	PC-149								

## 4.0 SAMPLING TECHNIQUES

### 4.1 Interceptor Wells

All interceptor wells were sampled using dedicated sampling ports. At the beginning of sampling each well or line, personnel wore a new pair of clean nitrile or latex gloves.

The sampling port was opened to drain any stagnant water from piping and valves. This water is captured and containerized. All captured water is off-loaded at GW-11 for onsite treatment.

Following the purging of the sample port, a “water quality” sample was collected for analysis of Perchlorate, Total Chromium, pH, and TDS. Envirogen also recorded the “*field*” temperature,

pH, and conductivity as well as the pumping water level. The “*field*” parameters are provided in Table 1.

#### 4.2 Monitoring Wells

Monitoring wells were purged before sampling to assure that each sample was collected from fresh formation water.

Seventy-nine (79) wells were purged and sampled, using the 12 volt submersible pump connected to dedicated tubing in each well. Three (3) wells, ART-6, M-67 and M-73 were sampled with a disposable bailer. M-67 and M-73 were] not purged due to location and/or water column level but samples were collected. Hand bailing was done as a result of only needing to purge less than 3 gallons of water, if there was an insufficient amount of water in the well casing to use a pump or due to the location of the well.

Samples for both the interceptor and monitoring wells were collected in appropriate containers supplied by TestAmerica and analyzed for the specific required analysis of the well. The bottles were filled with minimal aeration, using laminar flow.

The samples were labeled, packaged, stored, and transported using the procedures outlined in the work plan for well samples. .

#### 4.3 Problems Encountered

This quarter the following problems were encountered.

I-AC was turned on but no water surfaced to sample (well considered Dry)

I-I no DTW reading taken due to equipment installed in well casing

I-Z no DTW reading taken due to equipment installed in well casing

ART-1 unable to sample due to tie-in project

ART-7 well capped unable to sample or take DTW reading

M-99 not a sufficient amount of water bailed to the surface for sampling. Only pH and Conductivity recorded

PC-62 Removed transducer to purge and sample

M-67 not able to get sampling rig into area, used disposable bailer

M-73 not able to get sampling rig into area, used disposable bailer

PC-68 Removed transducer to purge and sample

PC-115R no DTW reading taken due to equipment installed in well casing

PC-116R vault lid unstable to lift to take DTW reading

PC-133 no DTW reading taken due to equipment installed in well casing

PC-150 no DTW reading taken due to equipment installed in well casing

#### **4.4**    Equipment Cleaning Procedures

The deionized water is changed each morning so the rinsing water is fresh. Non-dedicated sampling equipment has been replaced by dedicated tubing in each well. Conductivity/pH meter probe was thoroughly rinsed with de-ionized water after each sample was analyzed. Pumping equipment was washed with DI water containing Liquinox and then purged with deionized water to flush and clean before leaving to sample at the next location.

### **5.0**    **QUALITY CONTROL**

Quality control (QC) procedures include collection and analysis of QC duplicate samples, equipment and field blanks. The analytical laboratory is also required to meet specific QA/QC requirements for surrogate recovery, MS/MSD recovery and RPDs, and LCS recoveries.

Duplicate EC readings were conducted at one well each day to insure the accuracy of the Hanna field probe.

#### **5.1**    QC Duplicate Samples

QC duplicate samples were collected during the sampling event to evaluate the precision and accuracy of analytical data. The QC duplicates were collected, packaged, and transported in the same manner as the primary sample, but assigned a different identification number.



Five (5) duplicates were collected from the wells, representing at least 5 percent of the samples collected. The duplicate samples were collected from the following wells I-K, M-14A, M-37, M-66, and M-95. They were analyzed for the same parameters as the primary samples.

TestAmerica was not informed of the identity of these "blind" samples.

## 5.2 Equipment Blanks

Five equipment blanks were taken this quarter. The equipment blanks were collected on November 3, November 4, November 5, November 6 and November 9, 2015. All sets consisting of three (3) bottles, CLO<sub>4</sub>, TDS and CR was collected. This was done to evaluate the adequacy of cleaning procedures used by field personnel during this sampling event.

## 5.3 Field Blank

One field blank sample was collected on November 6, 2015. One set of three bottles were sent to the laboratory for analysis to evaluate the integrity of the de-ionized water used to clean and purge the sampling equipment.

## 6.0 ANALYTICAL PROCEDURES

The following designates the parameter, analytical method and method reporting limits for groundwater. Some of the following analysis may not have been performed for this reporting period.

<u>PARAMETER</u>	<u>ANALYTICAL METHOD</u>	<u>MRL</u>
CLO <sub>4</sub>	Method 314.0	4.0 µg/L
Total Chromium	Method 200.7	0.01 mg/L
Hexavalent Chromium (CRVI)	Method 218.6 ORGFM	0.005 mg/L,
pH	Method 150.1	.01 units
TDS	Method 2540C Calcd	10 mg/L

<u>PARAMETER</u>	<u>ANALYTICAL METHOD</u>	<u>MRL</u>
Chloride	Method 300 ORGFM 28D	80.0 mg/L
Iron (ICAP)	Method 200.7	0.005 mg/L
Manganese (ICAP)	Method 200.7	100 µg/L
Sodium (ICAP)	Method 200.7	5 mg/L
Phenols, Total	Method 420.1, 420	.010 mg/L
Sulfate	Method 300 ORGFM 28D	80 mg/L
Total Organic Carbon, TOC	Method 5310C	unknown
Total Organic Halogen, TOX	Method 9020B - 9020	unknown
Boron	Method 200.7	.10 mg/L
Conductance	Method 2510B - 2510	2 µohms/cm
Ammonia Nitrogen	Method 300 ORGFM	0.050 mg/L
Nitrate Nitrogen	Method 300 ORGFM	2.0 mg/L
Copper	Method 300 ORGFM	2.0 µg/L
Chlorate	Method 300.1B 28D	

## 6.1 Field Equipment Calibration

Prior to the start of each day's events, field laboratory equipment was calibrated. A Hanna HI 98130 water proof pH, EC/TDS and temperature field probe was calibrated and measurements recorded on daily laboratory calibration maintenance forms, which have been provided. Each day a duplicate EC reading was taken at random wells to ensure the calibration of the meter was holding. The duplicate EC readings were taken from wells I-L, I-V, M-10, M-79, MW-K5, PC-56, PC-101R and PC-136.

## SUMMARY RESULTS

### 7.1 Groundwater Level Soundings

A summary of water level soundings collected for the interceptor and monitoring wells are presented in Table 1.

Pumping water level in interceptors wells. (Measured in feet from below the top of casing.)

#### **LOW**

44.74 (I-U)

#### **HIGH**

27.90 (I-X)

Static water level monitoring wells. (Measured in feet from below the top of casing.)

#### **LOW**

52.28 (M-10)

#### **HIGH**

4.45 (PC-97)

### 7.2 Summary of Field Activities

#### 7.2.1 Interceptor Wells

CLO4, Cr, TDS, pH                      twenty-nine (29) interceptor wells

#### 7.2.2 Monitoring Wells

Seventy-nine (79) Monitoring wells sampled for sets that may have included: pH, TDS, CLO4, CR, and CRVI

#### 7.2.3 QC Duplicate Samples (Measured for the same analyses as the primary samples.)

M-95, M-37 (Measured for pH, CR, CRVI, CLO4, TDS)

M-66, I-K, M-14A (Measured for Total Cr., pH, CLO4 and TDS)

#### 7.2.4 Equipment Blanks

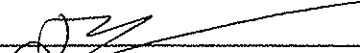
Five (5) equipment blanks were analyzed for CLO4, Total Cr., Hex Cr., pH, and TDS.

#### 7.2.5 Field Blank

One (1) field blank was analyzed for CLO4, Total Cr., Hex Cr., pH and TDS.

Weather	cool to cold
Total # of wells visited	167
Total water samples collected	135
Total Wells measured DTW only	29
Total Duplicate Samples (5%)	5
Total Equipment Blanks	5
Total Field Blanks	1
Total Wells hand bailed	3
Total Wells considered DRY	6
Total Wells not accessible	3
Total Wells damaged	1
Total wells not found	0

ENVIROGEN QUARTERLY SAMPLING SIGN IN SHEET

DATE	TIME	COMPANY	SIGNATURE	PRINT NAME
11-2-15	0430	ETI	Michele Brown	Michele Brown
11/2/15	445	ETI	Janel R	Janel Rivera
11-3-15	0330	ETI	Michele Brown	Michele Brown
11-3-15	345	ETI	Janel R	Janel Rivera
11/4/15	400	ETI	Janel R	Janel Rivera
11-4-15	420	ETI	Michele Brown	Michele Brown
11/5/15	400	ETI	Janel R	Janel Rivera
11-5-15	420	ETI	Michele Brown	Michele Brown
11-6-15	420	ETI	Michele Brown	Michele Brown
11-6-15	400	ETI	Janel R	Janel Rivera
11/9/15	430	ETI	Janel R	Janel Rivera
11-9-15	0400	ETI	Michele Brown	Michele Brown
11/10/15	430	ETI	Janel R	Janel Rivera
11-10-15	0400	ETI	Michele Brown	Michele Brown
11-10-15	0831	ENVIRO		Tommy WINGER
11/11/15	430	ETI	Janel R	Janel Rivera
11-11-15	400	ETI	Michele Brown	Michele Brown
11/12/15	445	ETI	Janel R	Janel Rivera
11-12-15	400	ETI	Michele Brown	Michele Brown
11/16/15	0900	ETI	Michele Brown	Michele Brown
11/18/15	0900	ETI	Michele Brown	Michele Brown

# DAILY SAMPLING RIG INSPECTION SHEET

DATE 11/4/15 OPERATOR JR

## TRUCK INSPECTION

CHECK TIRES AND LUG NUTS	<input checked="" type="checkbox"/>
CHECK STEERING WHEEL	<input checked="" type="checkbox"/>
CHECK LIGHTS	<input checked="" type="checkbox"/>
CHECK HORN	<input checked="" type="checkbox"/>
CHECK RADIATOR FLUID	<input checked="" type="checkbox"/>
CHECK ENGINE OIL	<input checked="" type="checkbox"/>
CHECK PARKING BRAKE	<input checked="" type="checkbox"/>
CHECK BRAKES AND BRAKE FLUID	<input checked="" type="checkbox"/>
CHECK GUAGES	<input checked="" type="checkbox"/>
OIL LIGHT	<input type="checkbox"/>
BATTERY LIGHT	<input type="checkbox"/>

ITEMS NOT CHECKED AS OK:

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## TRAILER INSPECTION

CHECK LIGHTS	<input checked="" type="checkbox"/>
CHECK WIRING HARNESS	<input checked="" type="checkbox"/>
CHECK TIRES	<input checked="" type="checkbox"/>
CHECK TANKS	<input checked="" type="checkbox"/>

ITEMS NOT CHECKED AS OK:

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# DAILY SAMPLING RIG INSPECTION SHEET

DATE 11/9/15 OPERATOR JR

## TRUCK INSPECTION

CHECK TIRES AND LUG NUTS	<input checked="" type="checkbox"/>
CHECK STEERING WHEEL	<input checked="" type="checkbox"/>
CHECK LIGHTS	<input checked="" type="checkbox"/>
CHECK HORN	<input checked="" type="checkbox"/>
CHECK RADIATOR FLUID	<input checked="" type="checkbox"/>
CHECK ENGINE OIL	<input checked="" type="checkbox"/>
CHECK PARKING BRAKE	<input checked="" type="checkbox"/>
CHECK BRAKES AND BRAKE FLUID	<input checked="" type="checkbox"/>
CHECK GUAGES	<input checked="" type="checkbox"/>
OIL LIGHT	<input type="checkbox"/>
BATTERY LIGHT	<input type="checkbox"/>

ITEMS NOT CHECKED AS OK:

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## TRAILER INSPECTION

CHECK LIGHTS	<input checked="" type="checkbox"/>
CHECK WIRING HARNESS	<input type="checkbox"/>
CHECK TIRES	<input checked="" type="checkbox"/>
CHECK TANKS	<input checked="" type="checkbox"/>

ITEMS NOT CHECKED AS OK:

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HANNA FIELD PH METER

Known value	1) 7.0	1) 8.0	Time/analyst <u>501 / JR</u>
Calibration Value	2) <u>7.01</u>	2) <u>7.99</u>	
Buffer Temperature	3) <u>20.9</u>	3) <u>21.1</u>	
changed buffers yes <input checked="" type="checkbox"/>			
please check			

HANNA FIELD EC METER

Known Value	1) 1288	Time/analyst <u>505 / JR</u>
Temp. Comp. Value	1) <u>11670</u>	
Calibration Value	1) <u>1288</u>	
Standard Temp	1) <del>20.89</del> <u>20.7</u>	
changed standards yes <input checked="" type="checkbox"/>		
please check		

Duplicate EC reading Well # \_\_\_\_\_

1st Reading \_\_\_\_\_ 2nd Reading \_\_\_\_\_

EC \_\_\_\_\_ TEMP \_\_\_\_\_ EC \_\_\_\_\_ TEMP \_\_\_\_\_

CLOSING QC Every 8 samples

\_\_\_\_\_

All equipment was rinsed and purged with Deionized water after each well.

Date 11/2/15 Verified [Signature]



HANNA FIELD PH METER

Known value	1) 7.0	1) 8.0	Time/analyst <u>0430 / MB</u>
Calibration Value	2) <u>7.02</u>	2) <u>7.98</u>	
Buffer Temperature	3) <u>21.3</u>	3) <u>21.3</u>	
changed buffers yes <u>X</u> please check			

HANNA FIELD EC METER

Known Value	1) 1288	Time/analyst <u>0426 / MB</u>
Temp. Comp. Value	1) <u>11.91</u>	
Calibration Value	1) <u>1289</u>	
Standard Temp	1) <u>21.4</u>	
changed standards yes <u>X</u> please check		

Duplicate EC reading Well # I-L

1st Reading	2nd Reading
EC <u>7.28</u> TEMP <u>30.7<sup>00</sup></u>	EC <u>7.32</u> TEMP <u>30.1<sup>00</sup></u>
<u>mS/cm</u>	<u>mS/cm</u>
CLOSING QC	Every 8 samples
<u>I-M</u>	<u>I-AB</u>
<u>7.01</u>	<u>7.0</u>

All equipment was rinsed and purged with Deionized water after each well.

Date 11-2-15 Verified MB

DATE 11-3-15

HANNA FIELD PH METER

Known value	1) 7.0	1) 8.0	Time/analyst
Calibration Value	2) 7.02	2) 7.99	0150/mbs
Buffer Temperature	3) 21.4°c	3) 21.5°c	
changed buffers yes <u>X</u> please check			

HANNA FIELD EC METER

Known Value	1) 1288	Time/analyst
Temp. Comp. Value	1) 12.15	0445/mbs
Calibration Value	1) 12.88	
Standard Temp	1) 22.2°c	
changed standards yes <u>X</u> please check		

Duplicate EC reading Well # M-95

1st Reading	2nd Reading
EC <u>7.14</u> TEMP <u>25.0</u>	EC <u>7.10</u> TEMP <u>24.4</u>

CLOSING QC Every 8 samples  
PC127  
7.01

All equipment was rinsed and purged with Deionized water after each well.

Date 11/3/15 Verified JG

HANNA FIELD PH METER

Known value	1) 7.0	1) 8.0	Time/analyst <u>4:28/MB</u>
Calibration Value	2) <u>7.02</u>	2) <u>7.98</u>	
Buffer Temperature	3) <u>20.6</u>	3) <u>20.6</u>	
changed buffers yes <input checked="" type="checkbox"/>			
please check			

HANNA FIELD EC METER

Known Value	1) 1288	Time/analyst <u>4:30/MB</u>
Temp. Comp. Value	1) <u>1288</u>	
Calibration Value	1) <u>1191</u>	
Standard Temp	1) <u>20.8</u>	
changed standards yes <input checked="" type="checkbox"/>		
please check		

Duplicate EC reading

Well # PC-136

1st Reading

2nd Reading

EC 7.20 TEMP 23.7

EC 7.20 TEMP 23.6

CLOSING QC

Every 8 samples

pet/sto JR

All equipment was rinsed and purged with Deionized water after each well.

Date 11/4/15

Verified [Signature]

HANNA FIELD PH METER

Known value	1) 7.0	1) <del>8.0</del> <u>10.0</u>	Time/analyst <u>412 JR</u>
Calibration Value	2) 7.01	2) 10.01	
Buffer Temperature	3) 19.2	3) 18.9	
changed buffers yes <input checked="" type="checkbox"/> _____ please check			

HANNA FIELD EC METER

Known Value	1) 1288	Time/analyst <u>408 JR</u>
Temp. Comp. Value	1) <del>12.88</del>	
Calibration Value	1) 1119	
Standard Temp	1) 18.4	
changed standards yes <input checked="" type="checkbox"/> _____ please check		

Duplicate EC reading Well # M-79

1st Reading                      2nd Reading  
 EC 1.83 TEMP 23.5              EC 5.50 TEMP 23.4

CLOSING QC              Every 8 samples  
M-135                      \_\_\_\_\_  
7.01                        \_\_\_\_\_

All equipment was rinsed and purged with Deionized water after each well.

Date 11/5/15              Verified [Signature]

DATE 11-6-15

HANNA FIELD PH METER

Known value	1) 7.0	1) 8.0	Time/analyst
Calibration Value	2) <u>7.0</u>	2) <u>7.98</u>	<u>0432/MB</u>
Buffer Temperature	3) <u>24.7 °C</u>	3) <u>25.0 °C</u>	
changed buffers			
yes <input checked="" type="checkbox"/>			
please check			

HANNA FIELD EC METER

Known Value	1) 1288	Time/analyst
Temp. Comp. Value	1) <u>1239</u>	<u>0430/MB</u>
Calibration Value	1) <u>1288 °C</u>	
Standard Temp	1) <u>22.5 °C</u>	
changed standards		
yes <input checked="" type="checkbox"/>		
please check		

Duplicate EC reading Well # I-V

1st Reading

2nd Reading

EC 9.12 TEMP 24.1 °C  
mS/cm

EC 9.17 TEMP 24.5 °C  
mS/cm

CLOSING QC Every 8 samples

M-74 7.02 M-81A 7.0

All equipment was rinsed and purged with Deionized water after each well.

Date 11-6-15 Verified MB

HANNA FIELD PH METER

Known value	1) 7.0	1) 8.0	Time/analyst
Calibration Value	2) 7.01	2) 8.02	447/ JR
Buffer Temperature	3) 20.0	3) 20.5	
changed buffers			
yes <input checked="checked" type="checkbox"/>			
please check			

HANNA FIELD EC METER

Known Value	1) 1288	Time/analyst	
Temp. Comp. Value	1) 12.88	445/ JR	
Calibration Value	1) 12390		
Standard Temp	1) 23.4		
changed standards			
yes <input checked="checked" type="checkbox"/>			
please check			

Duplicate EC reading Well # M-10

1st Reading

2nd Reading

EC 3.41 TEMP 22.9

EC 3.42 TEMP 22.9

CLOSING QC Every 8 samples

m-11 1.01

All equipment was rinsed and purged with Deionized water after each well.

Date 11/9/15 Verified [Signature]

HANNA FIELD PH METER

Known value	1) 7.0	1) 8.0	Time/analyst <u>0449/MB</u>
Calibration Value	2) <u>7.01</u>	2) <u>7.98</u>	
Buffer Temperature	3) <u>24.8</u>	3) <u>25.2</u>	
changed buffers			
yes <input checked="" type="checkbox"/>			
please check			

HANNA FIELD EC METER

Known Value	1) 1288	Time/analyst <u>0440/MB</u>
Temp. Comp. Value	1) <u>22.9</u>	
Calibration Value	1) <u>1289</u>	
Standard Temp	1) <u>22.9</u>	
changed standards		
yes <input checked="" type="checkbox"/>		
please check		

Duplicate EC reading Well # PC 56

1st Reading 2nd Reading  
EC 6.42 TEMP 22.1 EC 6.41 TEMP 22.1

CLOSING QC Every 8 samples  
6.99

All equipment was rinsed and purged with Deionized water after each well.

Date 11/10/15 Verified [Signature]

HANNA FIELD PH METER

Known value	1) 7.0	1) 8.0	Time/analyst <u>S40/JR</u>
Calibration Value	2) <u>7.02</u>	2) <u>8.02</u>	
Buffer Temperature	3) <u>20.2</u>	3) <u>20.3</u>	
changed buffers yes <input checked="" type="checkbox"/> please check			

HANNA FIELD EC METER

Known Value	1) 1288	Time/analyst <u>S39/JR</u>
Temp. Comp. Value	1) <u>12390</u>	
Calibration Value	1) <u>1288</u>	
Standard Temp	1) <u>23.5</u>	
changed standards yes <input checked="" type="checkbox"/> please check		

Duplicate EC reading Well # MW-K5

1st Reading 2nd Reading  
 EC 8.51 TEMP 23.9 EC 8.52 TEMP 23.4

CLOSING QC Every 8 samples  
ARP-5A  
6.98 \_\_\_\_\_ \_\_\_\_\_

All equipment was rinsed and purged with Deionized water after each well.

Date 11/11/15 Verified [Signature]



DATE 11-12-15

HANNA FIELD PH METER

Known value	1) 7.0	1) 8.0	Time/analyst <u>0433 / MS</u>
Calibration Value	2) <u>7.01</u>	2) <u>7.98</u>	
Buffer Temperature	3) <u>24.5</u>	3) <u>24.1</u>	
changed buffers yes <u>X</u> please check			

HANNA FIELD EC METER

Known Value	1) 1288	Time/analyst <u>0430 / MS</u>
Temp. Comp. Value	1) <u>1239</u>	
Calibration Value	1) <u>1287</u>	
Standard Temp	1) <u>23.4</u> °C	
changed standards yes <u>X</u> please check		

Duplicate EC reading Well # PC 101R

1st Reading 2nd Reading  
 EC 13.70 TEMP 23.6 EC 13.92 TEMP 24.4

CLOSING QC Every 8 samples  
PC 101R JR

All equipment was rinsed and purged with Deionized water after each well.

Date 11/12/15 Verified *Juff*

HANNA FIELD PH METER

Known value	1) 7.0	1) 8.0	Time/analyst <u>0630/MB</u>
Calibration Value	2) <u>7.01</u>	2) <u>7.99</u>	
Buffer Temperature	3) <u>24.7</u>	3) <u>24.9</u>	
changed buffers yes <u>X</u> please check			

HANNA FIELD EC METER

Known Value	1) 1288	Time/analyst <u>0635/MB</u>
Temp. Comp. Value	1) <u>1264</u>	
Calibration Value	1) <u>1287</u>	
Standard Temp	1) <u>23.7<sup>oc</sup></u>	
changed standards yes <u>X</u> please check		

Duplicate EC reading      Well # \_\_\_\_\_

1st Reading

2nd Reading

EC \_\_\_\_\_ TEMP \_\_\_\_\_

EC \_\_\_\_\_ TEMP \_\_\_\_\_

CLOSING QC      Every 8 samples

\_\_\_\_\_

All equipment was rinsed and purged with Deionized water after each well.

Date 11-16-15      Verified MB

No Dup EC - only 2 wells from sample ports collected today

**TABLE 1**  
**Well Inventory for Groundwater Sampling**  
**NERT Project, Henderson, Nevada**

Summary of Field Data for: 4th Quarter Groundwater Monitoring, November 2015

WELL #A1:L9LSA1 :L18A1:L1A I:L104	TOTAL DEPTH (from TOC)	TOP OF CASING ELEVATION (MSL)	DEPTH TO WATER (FEET)	NON-AQUEOUS PHASE LIQUID <sup>1</sup>	GROUNDWATER ELEVATION (FT MSL)	pH	SPECIFIC CONDUCTIVITY (mS/cm)	DATE	TIME	MONITORING QUALIFIER <sup>2</sup>	COMMENTS/Analytical Plan/Temp
ARP-1	44.2	1613.32	22.07		1591.25	7.75	7.33	11/11	0813		pH, TDS, Cr, ClO <sub>4</sub>
ARP-2A	54	1614.18	23.71		1590.47	7.80	9.00	11/11	1131		pH, TDS, Cr, ClO <sub>4</sub>
ARP-3A	41	1614.67	25.60		1589.07	7.68	10.92	11/11	1113		pH, TDS, Cr, ClO <sub>4</sub>
ARP-4A	33	1615.47	27.79		1587.68	7.62	6.44	11/11	1030		pH, TDS, Cr, ClO <sub>4</sub>
ARP-5A	38	1616.10	31.38		1584.72	7.69	3.47	11/11	1014		pH, TDS, Cr, ClO <sub>4</sub>
ARP-6B	43	1615.56	31.00		1584.56	7.55	9.48	11/11	0958		pH, TDS, Cr, ClO <sub>4</sub>
ARP-7	39.2	1613.20	29.06		1584.14	7.39	9.04	11/11	0937		pH, TDS, Cr, ClO <sub>4</sub>
ART-1	56	1614.47	20.55		1593.92			11/12	0626	no sample due to be in project	pH, TDS, Cr, ClO <sub>4</sub>
ART-1A	56	1614.40	20.73		1593.67			11/12	0625		DTW Only
ART-2	56	1617.10	23.56		1593.54	7.39	13.77	11/12	0628		pH, TDS, Cr, ClO <sub>4</sub>
ART-2A	58	1616.81	22.97		1593.84			11/12	0627		DTW Only
ART-3	47	1617.94	23.06		1594.89			11/12	0634		DTW Only
ART-3A	55	1617.60	24.09		1593.51	7.54	11.35	11/12	0632		pH, TDS, Cr, ClO <sub>4</sub>
ART-4	46	1617.39	25.12		1592.27	7.49	7.59	11/12	0640		pH, TDS, Cr, ClO <sub>4</sub>
ART-4A	46	1617.46	24.77		1592.69			11/12	0639		DTW Only
ART-6	36	1615.19	28.95		1586.24	3.78	7.27	11/18	1106		pH, TDS, Cr, ClO <sub>4</sub>
ART-7	38.9	1615.37						11/18	1109	well capped	pH, TDS, Cr, ClO <sub>4</sub>
ART-7A	40	1614.78	29.07		1585.71			11/18	1110		DTW Only
ART-7B	50	1619.62	40.30		1579.32	7.61	9.24	11/18	1112		pH, TDS, Cr, ClO <sub>4</sub>

Sampling Crew Signature:

TABLE 1

Well Inventory for Groundwater Sampling  
NERT Project, Henderson, Nevada

Summary of Field Data for: 4th Quarter Groundwater Monitoring, November 2015

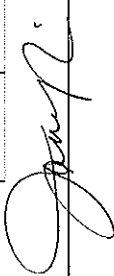
WELL #A1:L9LSA1 :L1SA1:LLA 1:L104	TOTAL DEPTH (from TOC)	TOP OF CASING ELEVATION (MSL)	DEPTH TO WATER (FEET)	NON-AQUEOUS PHASE LIQUID <sup>1</sup>	GROUNDWATER ELEVATION (FT MSL)	pH	SPECIFIC CONDUCTIVITY (mS/cm)	DATE	TIME	MONITORING QUALIFIER <sup>2</sup>	COMMENTS/Analytical Plan/Temp
ART-8	50.53	1617.66	24.10		1593.56	7.34	13.64	11/12	0630		pH, TDS, Cr, ClO <sub>4</sub>
ART-8A	54	1617.10	23.78		1593.32			11/12	0629		DTW Only
ART-9	43	1614.90	31.28		1583.62	7.46	7.17	11/18	1108		pH, TDS, Cr, ClO <sub>4</sub>
L-635	36.5							11/11	1200		pH, TDS, Cr, ClO <sub>4</sub>
L-637	37.5							11/11	1201		pH, TDS, Cr, ClO <sub>4</sub>
M-2A	47.57	1781.16					Sampled 2nd quarter only				pH, TDS, Cr, ClO <sub>4</sub>
M-5A	50.00	1751.80					Sampled 2nd and 3rd quarters only				(pH / SC / TOC / TOX) x 4 / ClO <sub>4</sub> / CR / TDS
M-6A	46.00	1733.19					Sampled 2nd and 3rd quarters only				(pH / SC / TOC / TOX) x 4 / ClO <sub>4</sub> / CR / TDS
M-7B	55.00	1732.83					Sampled 2nd and 3rd quarters only				(pH / SC / TOC / TOX) x 4 / ClO <sub>4</sub> / CR / TDS
M-10	69.45	1836.21	52.28		1783.93	7.23	3.41	11/19	0956		pH / CR6 / Cr / ClO <sub>4</sub> / TDS +/-NPDES list
M-11	58.00	1815.53	44.97		1770.56	8.19	3.19	11/19	1112		pH / TDS / Cr / Cr6 / ClO <sub>4</sub>
M-12A	49.71	1812.47	42.95		1769.52	8.27	8.29	11/19	1055		pH / TDS / Cr / Cr6 / ClO <sub>4</sub>
M-13	54.76	1814.89					Sampled 2nd quarter only				pH / TDS / Cr / ClO <sub>4</sub>
M-14A	42.40	1760.93	32.88		1728.05	7.75	4.18	11/19	0536		pH, TDS, Cr, ClO <sub>4</sub>
M-19	41.20	1766.77	35.72		1731.05	7.50	6.52	11/16	0715		pH, TDS, Cr, ClO <sub>4</sub>
M-21	44.74	1792.07					Sampled 2nd quarter only				pH, TDS, Cr, ClO <sub>4</sub>
M-22A	36.92	1759.46	31.64		1727.82	7.62	11.33	11/19	0654		pH, TDS, Cr, ClO <sub>4</sub>
M-23	44.66	1720.54	35.37		1685.17	7.73	5.17	11/14	0723		pH / TDS / Cr / ClO <sub>4</sub>

Sampling Crew Signature: \_\_\_\_\_

**TABLE 1**  
**Well Inventory for Groundwater Sampling**  
**NERT Project, Henderson, Nevada**

Summary of Field Data for: 4th Quarter Groundwater Monitoring, November 2015

WELL #	TOTAL DEPTH (from TOC)	TOP OF CASING ELEVATION (MSL)	DEPTH TO WATER (FEET)	NON-AQUEOUS PHASE LIQUID <sup>1</sup>	GROUNDWATER ELEVATION (FT MSL)	pH	SPECIFIC CONDUCTIVITY (mS/cm)	DATE	TIME	MONITORING QUALIFIER <sup>2</sup>	COMMENTS/Analytical Plan/Temp
M-25	41.47	1759.93	33.81		1726.12	7.47	8.36	11/5	0932		pH / TDS / Cr / ClO <sub>4</sub>
M-31A	55.00	1796.87	47.24		1749.63	7.20	5.85	11/6	0613		pH, TDS, Cr, ClO <sub>4</sub>
M-32	53.30	1796.87					Sampled 2nd quarter only				pH, TDS, Cr, ClO <sub>4</sub>
M-33	53.40						Sampled 2nd quarter only				pH, TDS, Cr, ClO <sub>4</sub>
M-35	39.70	1772.78	33.88		1738.90	7.46	5.46	11/6	0658		pH, TDS, Cr, ClO <sub>4</sub>
M-36	37.85	1759.82						11/9	0734	Destroyed	pH / Cr / Cr <sup>6</sup> / ClO <sub>4</sub> / TDS
M-37	37.18	1761.06	31.45		1729.61	7.22	6.54	11/5	0956		pH / Cr / Cr <sup>6</sup> / ClO <sub>4</sub> / TDS
M-38	36.82	1759.73	31.62		1728.11	7.45	11.56	11/9	1234		pH / Cr / Cr <sup>6</sup> / ClO <sub>4</sub> / TDS
M-44	37.65	1698.31	25.69		1672.62	7.60	9.93	11/3	1155		pH / TDS / Cr / Cr <sup>6</sup> / ClO <sub>4</sub>
M-48A	40	1718.36	29.37		1688.99	7.70	3.03	11/3	0933		pH / TDS / Cr / ClO <sub>4</sub>
M-52	47.85	1802.39	42.44		1759.95	7.45	5.10	11/6	0634		pH, TDS, Cr, ClO <sub>4</sub>
M-55	45.00	1750.88	29.62		1721.26			11/2	0700		DTW Only
M-56	40.00	1750.83	31.62		1719.21			11/2	0613		DTW Only
M-57A	42.40	1753.44	29.75		1723.69	7.73	4.62	11/5	0904		pH, TDS, Cr, ClO <sub>4</sub>
M-58	45.00	1751.25	29.42		1721.83			11/2	0458		DTW Only
M-60	43.00	1750.94	30.33		1720.61			11/2	0552		DTW Only
M-64	38.00	1749.76	29.19		1720.57	7.73	8.31	11/5	0442		pH, TDS, Cr, ClO <sub>4</sub>
M-65	40.00	1753.91	32.89		1721.02	7.48	13.04	11/5	0719		pH, TDS, Cr, ClO <sub>4</sub>

Sampling Crew Signature: 

**TABLE 1**  
**Well Inventory for Groundwater Sampling**  
**NERT Project, Henderson, Nevada**

Summary of Field Data for: 4th Quarter Groundwater Monitoring, November 2015

WELL #A1-L9L5A1 :L18A1-L1A I-L104	TOTAL DEPTH (from TOC)	TOP OF CASING ELEVATION (MSL)	DEPTH TO WATER (FEET)	NON-AQUEOUS PHASE LIQUID <sup>1</sup>	GROUNDWATER ELEVATION (FT MSL)	pH	SPECIFIC CONDUCTIVITY (mS/cm)	DATE	TIME	MONITORING QUALIFIER <sup>2</sup>	COMMENTS/Analytical Plan/Temp
M-66	43.00	1754.24	31.72		1722.52	7.36	13.60	11/5	0735		pH, TDS, Cr, ClO <sub>4</sub>
M-67	38.00	1745.91	22.35		1723.56	7.50	7.05	11/6	0834		pH, TDS, Cr, ClO <sub>4</sub>
M-68	41.00	1750.23	26.72		1723.51	7.35	7.39	11/6	0739		pH, TDS, Cr, ClO <sub>4</sub>
M-69	40.00	1749.75	33.83		1715.92	7.54	4.98	11/5	0808		pH, TDS, Cr, ClO <sub>4</sub>
M-70	41.00	1748.25	35.30		1712.95	7.62	8.55	11/9	0601		pH, TDS, Cr, ClO <sub>4</sub>
M-71	43.00	1747.04	35.98		1711.06	7.52	8.15	11/9	0616		pH, TDS, Cr, ClO <sub>4</sub>
M-72	36.00	1746.49	32.30		1714.19	7.36	11.51	11/9	0630		pH, TDS, Cr, ClO <sub>4</sub>
M-73	36.00	1741.14	29.88		1712.26	7.38	9.42	11/6	0855	Original sample due to location	pH, TDS, Cr, ClO <sub>4</sub>
M-74	39.70	1745.08	28.20		1716.88	7.48	7.11	11/6	0801		pH, TDS, Cr, ClO <sub>4</sub>
M-75	53.90	1784.21	42.37		1741.84			11/6	1054		DTW ONLY
M-76	54.60	1785.22	39.04		1746.18			11/6	1056		DTW ONLY
M-77	49.32	1801.73	40.77		1760.96			11/6	1005		DTW ONLY
M-78	43.60	1751.50	31.99		1719.51			11/2	0657		DTW ONLY
M-79	37.60	1742.53	31.13		1710.80	7.53	5.49	11/5	0753 <sup>OR</sup>		pH / TDS / Cr / ClO <sub>4</sub>
M-80	43.70	1746.04	36.30		1709.74	7.31	4.91	11/6	1035		pH / Cr / ClO <sub>4</sub> / TDS / CRVI
M-81A	41.60	1744.16	36.00		1708.16	7.45	5.89	11/6	0931		pH / TDS / Cr / ClO <sub>4</sub>
M-83	41.75	1742.02	31.97		1710.05	7.45	5.69	11/6	1020		pH, TDS, Cr, ClO <sub>4</sub>
M-92	48.50	1800.76	35.73		1765.03		Sampled 2nd Quarter only	11/9	0750		DTW ONLY

Sampling Crew Signature: \_\_\_\_\_

TABLE 1

Well Inventory for Groundwater Sampling  
NERT Project, Henderson, Nevada

Summary of Field Data for: 4th Quarter Groundwater Monitoring, November 2015

WELL # #A1:L9LSA1 :L18A1:L1A :L104	TOTAL DEPTH (from TOC)	TOP OF CASING ELEVATION (MSL)	DEPTH TO WATER (FEET)	NON-AQUEOUS PHASE LIQUID <sup>1</sup>	GROUNDWATER ELEVATION (FT MSL)	pH	SPECIFIC CONDUCTIVITY (mS/cm)	DATE	TIME	MONITORING QUALIFIER <sup>2</sup>	COMMENTS/Analytical Plan/Temp
M-93	49.00	1797.54	34.82		1762.72			11/9	0757		DTW ONLY
M-95	30.00	1694.09	18.76		1675.33	7.46	7.14	11/3	1138		pH / TDS / Cr / Cr6 / ClO4
M-96	16.57	1693.85	-					11/3	1159	DRY	pH / Cr / Cr6 / ClO4 / TDS
M-97	52.50	1800.85	39.51		1761.34			11/9	0754		DTW ONLY
M-98	33.40	1731.90	-					11/4	0755	DRY	pH, TDS, Cr, ClO4
M-99	35.59	1730.74	33.63		1697.11	7.22	5.01	11/9	1230	not able to bail water for sample, just pH - conducting readings	pH, TDS, Cr, ClO4
M-100	33.81	1730.93	-					11/6	0921	DRY	pH / TDS / Cr / Cr6 / ClO4
M-101	32.15	1730.81	-					11/6	0919	DRY	pH, TDS, Cr, ClO4
M-115	47.50	1787.64	37.58		1750.06			11/6	1059		DTW ONLY
M-131	39.00	1754.13	33.32		1720.81	7.74	4.74	11/5	0849		pH, TDS, Cr, ClO4
M-135	39.00	1751.85	34.56		1717.29	7.70	4.68	11/5	0822		pH, TDS, Cr, ClO4
M-166	32.00	1751.09	29.08		1722.01			11/2	0915		DTW Only
M-167	30.00	1749.95	27.11		1722.84			11/2	0809		DTW Only
M-168	35.00	1748.46	25.76		1722.70			11/2	0804		DTW Only
M-169	35.00	1750.22	27.54		1722.68			11/2	0807		DTW Only
M-170	35.00	1750.66	29.16		1721.50			11/2	0715		DTW Only
M-172	37.00	1750.58	32.56		1718.02			11/2	0945		DTW Only
M-173	40.00	1749.88	29.02		1720.86			11/2	0500		DTW Only



Sampling Crew Signature: 

TABLE 1

Well Inventory for Groundwater Sampling  
NERT Project, Henderson, Nevada

Summary of Field Data for: 4th Quarter Groundwater Monitoring, November 2015

WELL #	TOTAL DEPTH (from TOC)	TOP OF CASING ELEVATION (MSL)	DEPTH TO WATER (FEET)	NON-AQUEOUS PHASE LIQUID <sup>1</sup>	GROUNDWATER ELEVATION (FT MSL)	pH	SPECIFIC CONDUCTIVITY (mS/cm)	DATE	TIME	MONITORING QUALIFIER <sup>2</sup>	COMMENTS/Analytical Plan/Temp
M-174	28.00	1742.29	20.61		1721.68			11/6	1040		DTW Only
M-175	29.00	1742.74	21.40		1721.34			11/6	1042		DTW Only
M-176	30.00	1745.35	24.15		1721.20			11/6	1043		DTW Only
M-177	30.00	1743.23	21.92		1721.31			11/6	1046		DTW Only
MW-K4	50	1614.96	26.64		1588.32	7.56	11.31	11/11	1045		pH, TDS, Cr, ClO <sub>2</sub>
MW-K5	44	1598.87	29.36		1569.51	7.56	8.51	11/11	0915		pH / TDS / Cr / ClO <sub>4</sub>
PC-18	52.11	1618.39	25.30		1593.09	7.48	14.38	11/11	0748		pH, TDS, Cr, ClO <sub>4</sub>
PC-53	32.86	1595.17	26.57		1568.60	7.67	6.35	11/11	0901		pH, TDS, Cr, ClO <sub>4</sub>
PC-55	54.9	1618.46	24.47		1593.99	7.69	10.90	11/12	0615		pH, TDS, Cr, ClO <sub>4</sub>
PC-56	63.58	1576.83	20.68		1556.15	7.33	6.42	11/10	0957		pH, TDS, Cr, ClO <sub>4</sub>
PC-58	42.78	1576.79	21.58		1555.21	7.48	4.89	11/10	0757		pH, TDS, Cr, ClO <sub>4</sub>
PC-59	48.13	1576.05	19.30		1556.75	7.60	3.74	11/10	1050		pH, TDS, Cr, ClO <sub>4</sub>
PC-60	48.09	1576.47	19.95		1556.52	7.61	3.05	11/10	1027		pH, TDS, Cr, ClO <sub>4</sub>
PC-62	45.91	1575.74	18.43		1557.31	7.41	2.58	11/10	0823		pH, TDS, Cr, ClO <sub>4</sub>
PC-68	64.72	1576.39	18.37		1558.02	7.39	2.63	11/10	0848		pH, TDS, Cr, ClO <sub>4</sub>
PC-86	35.75	1561.60	11.90		1549.70	7.57	2.74	11/10	1115		pH, TDS, Cr, ClO <sub>4</sub>
PC-90	15.0	1550.46	5.42		1545.04	7.51	5.14	11/10	0651		pH / TDS / Cr / ClO <sub>4</sub>
PC-91	37.0	1552.33	10.87		1541.46	7.47	4.08	11/10	0712		pH / TDS / Cr / ClO <sub>4</sub>

Sampling Crew Signature: 



**TABLE 1**  
**Well Inventory for Groundwater Sampling**  
**NERT Project, Henderson, Nevada**

Summary of Field Data for: 4th Quarter Groundwater Monitoring, November 2015

WELL #A1:L9L5A1 :L18A1:L1A 1:L104	TOTAL DEPTH (from TOC)	TOP OF CASING ELEVATION (MSL)	DEPTH TO WATER (FEET)	NON-AQUEOUS PHASE LIQUID <sup>1</sup>	GROUNDWATER ELEVATION (FT MSL)	pH	SPECIFIC CONDUCTIVITY (mS/cm)	DATE	TIME	MONITORING QUALIFIER <sup>2</sup>	COMMENTS/Analytical Plan/Temp
PC-92	22.0	1552.05					sampled in the 2nd quarter only				pH, TDS, Cr, ClO <sub>4</sub>
PC-94	20.0	1548.95	11.95		1537.00	7.29	8.44	11/10	0738		pH, TDS, Cr, ClO <sub>4</sub>
PC-97	33.5	1548.53	4.45		1544.08	7.64	3.19	11/10	0626		pH, TDS, Cr, ClO <sub>4</sub>
PC-98R	40.5	1593.35	22.27		1571.08	7.51	7.86	11/12	0746		pH, TDS, Cr, ClO <sub>4</sub>
PC-99R3	55.3	1552.48	17.85		1534.63	7.40	6.32	11/18	1010		pH, TDS, Cr, ClO <sub>4</sub>
PC-101R	50.58	1618.04	25.35		1592.69	7.45	13.70	11/12	0910		pH, TDS, Cr, ClO <sub>4</sub>
PC-103	29.5	1599.49	22.93		1576.56	7.59	5.92	11/12	0834		pH / TDS / Cr / ClO <sub>4</sub>
PC-115R	55.5	1554.71				7.46	4.78	11/18	1021	equipment in well prevents from probe to pass	pH, TDS, Cr, ClO <sub>4</sub>
PC-116R	55.5	1552.10				7.41	6.12	11/18	1005	vault lid needs repaired prior to opening	pH, TDS, Cr, ClO <sub>4</sub>
PC-117	53.0	1552.26	11.55		1540.71	7.38	4.73	11/18	1017		pH, TDS, Cr, ClO <sub>4</sub>
PC-118	51.0	1554.53	7.92		1546.61	7.41	3.55	11/18	1023		pH, TDS, Cr, ClO <sub>4</sub>
PC-119	47.0	1554.66	4.85		1549.81	7.41	2.65	11/18	1026		pH, TDS, Cr, ClO <sub>4</sub>
PC-120	47.0	1554.64	3.03		1551.61	7.36	2.77	11/18	1029		pH, TDS, Cr, ClO <sub>4</sub>
PC-121	38.5	1554.10	4.37		1549.73	7.51	2.78	11/18	1031		pH, TDS, Cr, ClO <sub>4</sub>
PC-122	38.0	1618.02	31.36		1586.66	7.69	9.69	11/11	0845		pH, TDS, Cr, ClO <sub>4</sub>
PC-123	34.70	1626.44	23.33		1603.11	7.55	7.46	11/13	0450		pH, TDS, Cr, ClO <sub>4</sub>
PC-124	34.60	1635.73	25.38		1610.35	6.96	10.74	11/14	0540		pH / TDS / Cr / ClO <sub>4</sub>
PC-125	33.50	1635.06	23.56		1611.50	7.73	7.76	11/13	0712		pH, TDS, Cr, ClO <sub>4</sub>

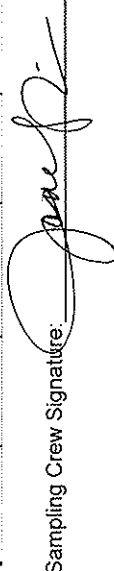

Sampling Crew Signature: 

TABLE 1

Well Inventory for Groundwater Sampling  
NERT Project, Henderson, Nevada

Summary of Field Data for: 4th Quarter Groundwater Monitoring, November 2015

WELL #	TOTAL DEPTH (from TOC)	TOP OF CASING ELEVATION (MSL)	DEPTH TO WATER (FEET)	NON-AQUEOUS PHASE LIQUID <sup>1</sup>	GROUNDWATER ELEVATION (FT MSL)	pH	SPECIFIC CONDUCTIVITY (mS/cm)	DATE	TIME	MONITORING QUALIFIER <sup>2</sup>	COMMENTS/Analytical Plan/Temp
PC-126	34.35	1634.38	22.50		1611.88	7.57	11.85	11/3	0728		pH/TDS / Cr / ClO <sub>4</sub>
PC-127	34.70	1632.42	19.15		1613.27	7.66	7.19	11/3	0750		pH, TDS, Cr, ClO <sub>4</sub>
PC-128	34.70	1633.36	18.83		1614.53	7.70	6.97	11/3	0508		pH/TDS / Cr / ClO <sub>4</sub>
PC-129	37.70	1633.99	18.85		1615.14	7.60	7.60	11/3	0529		pH, TDS, Cr, ClO <sub>4</sub>
PC-130	49.70	1633.21	19.31		1613.90	7.70	8.36	11/3	0553		pH/TDS / Cr / ClO <sub>4</sub>
PC-131	39.40	1633.58	11.50		1622.08	7.64	13.65	11/3	0619		pH, TDS, Cr, ClO <sub>4</sub>
PC-132	39.56	1634.70	10.01		1624.69	7.69	13.16	11/3	0810		pH/TDS / Cr / ClO <sub>4</sub>
PC-133	40.2	1553.00				7.50	2.94	11/18	1003	No DTN due to equipment unavailability for well.	pH, TDS, Cr, ClO <sub>4</sub>
PC-135A	50.8	1618.58	27.96		1590.62	7.47	14.84	11/4	0647		pH, TDS, Cr, ClO <sub>4</sub>
PC-136	40.3	1618.04	32.79		1585.25	7.54	7.20	11/4	0631		pH, TDS, Cr, ClO <sub>4</sub>
PC-142	34.5	1619.64					sampled in the 2nd quarter only				pH, TDS, Cr, ClO <sub>4</sub>
PC-143	65	1619.20					sampled in the 2nd quarter only				pH, TDS, Cr, ClO <sub>4</sub>
PC-144	39.7	1618.63	28.70		1589.93	7.57	11.03	11/2	0853		pH, TDS, Cr, ClO <sub>4</sub>
PC-145	39.7	1617.76					sampled in the 2nd quarter only				pH, TDS, Cr, ClO <sub>4</sub>
PC-146							sampled in the 2nd quarter only			DRY	pH, TDS, Cr, ClO <sub>4</sub>
PC-147	31.7	1617.51					sampled in the 2nd quarter only				pH, TDS, Cr, ClO <sub>4</sub>
PC-148	50.2	1617.96	27.29		1590.67	7.74	8.89	11/5	0526		pH, TDS, Cr, ClO <sub>4</sub>
PC-149	50	1618.93	28.78		1590.15	7.64	5.47	11/5	0613		pH, TDS, Cr, ClO <sub>4</sub>

Sampling Crew Signature: 

**TABLE 1**  
**Well Inventory for Groundwater Sampling**  
**NERT Project, Henderson, Nevada**  
**Summary of Field Data for: 4th Quarter Groundwater Monitoring, November 2015**

WELL #	TOTAL DEPTH (from TOC)	TOP OF CASING ELEVATION (MSL)	DEPTH TO WATER (FEET)	NON-AQUEOUS PHASE LIQUID <sup>1</sup>	GROUNDWATER ELEVATION (FT MSL)	pH	SPECIFIC CONDUCTIVITY (mS/cm)	DATE	TIME	MONITORING QUALIFIER <sup>2</sup>	COMMENTS/Analytical Plan/Temp
PC-150	45.7	1619.09				7.56	7.07	11/2	0643	equipment in well No DTN Reading	pH, TDS, Cr, ClO <sub>4</sub>
<b>INTERCEPTOR WELLS</b>											
I-AA	46.00	1753.93	42.51		1711.42	7.37	5.26	11/2	0904		pH, TDS, Cr, ClO <sub>4</sub>
I-AB	52.0	1753.89	41.45		1712.44	7.50	5.18	11/2	0856		pH, TDS, Cr, ClO <sub>4</sub>
I-AC	50	1752.76	29.18		1723.58			11/6	1047	unable to sample No water at port	pH, TDS, Cr, ClO <sub>4</sub>
I-AD	50	1755.39	37.69		1717.70	7.39	5.98	11/6	0734		pH, TDS, Cr, ClO <sub>4</sub>
I-AR	45.00	1758.35	32.65		1725.70	6.92	7.56	11/5	1009		pH, TDS, Cr, ClO <sub>4</sub>
I-B	45.70	1752.87	43.47		1709.40	7.18	6.15	11/2	0844		pH, TDS, Cr, ClO <sub>4</sub>
I-C	43.80	1752.77	36.92		1717.95	7.38	8.08	11/5	1033		pH, TDS, Cr, ClO <sub>4</sub>
I-D	47.70	1752.67	28.22		1724.45	7.36	8.51	11/2	0719		pH, TDS, Cr, ClO <sub>4</sub>
I-E	46.70	1752.36	33.89		1718.47	7.25	9.97	11/2	0949		pH, TDS, Cr, ClO <sub>4</sub>
I-F	45.80	1749.70	32.12		1717.58	7.23	12.08	11/2	0628		pH, TDS, Cr, ClO <sub>4</sub>
I-G	42.60	1752.50	40.26		1712.24	7.05	15.09	11/2	0601		pH, TDS, Cr, ClO <sub>4</sub>
I-H	46.50	1753.21	44.05		1709.16	7.13	13.36	11/2	0530		pH, TDS, Cr, ClO <sub>4</sub>
I-I	44.20	1745.50				7.47	9.06	11/6	0909	equipment in well No DTN	pH, TDS, Cr, ClO <sub>4</sub>
I-J	44.50	1750.09	41.58		1708.51	7.50	7.28	11/6	0819		pH, TDS, Cr, ClO <sub>4</sub>
I-K	40.60	1746.04	32.74		1713.30	7.41	7.18	11/10	0533		pH, TDS, Cr, ClO <sub>4</sub>
I-L	43.40	1751.70	29.82		1722.78	7.14	7.28	11/2	0811		pH, TDS, Cr, ClO <sub>4</sub>
I-M	43.70	1752.90	35.93		1716.97	7.36	9.88	11/2	0704		pH, TDS, Cr, ClO <sub>4</sub>


Sampling Crew Signature: 

TABLE 1

Well Inventory for Groundwater Sampling  
NERT Project, Henderson, Nevada

Summary of Field Data for: 4th Quarter Groundwater Monitoring, November 2015

WELL #	TOTAL DEPTH (from TOC)	TOP OF CASING ELEVATION (MSL)	DEPTH TO WATER (FEET)	NON-AQUEOUS PHASE LIQUID <sup>1</sup>	GROUNDWATER ELEVATION (FT MSL)	pH	SPECIFIC CONDUCTIVITY (mS/cm)	DATE	TIME	MONITORING QUALIFIER <sup>2</sup>	COMMENTS/Analytical Plan/Temp
I-N	41.70	1751.45	33.11		1718.34	7.08	9.78	11/2	0648		pH, TDS, Cr, ClO <sub>2</sub>
I-O	43.80	1752.79	31.49		1721.30	7.33	10.80	11/2	0503		pH, TDS, Cr, ClO <sub>2</sub>
I-P	47.80	1751.66	39.75		1711.91	7.16	11.26	11/2	0517		pH, TDS, Cr, ClO <sub>2</sub>
I-Q	43.80	1753.11	39.44		1713.67	7.60	13.99	11/18	1200		pH, TDS, Cr, ClO <sub>2</sub>
I-R	45.30	1751.35	30.13		1721.22	7.04	7.93	11/2	0834		pH, TDS, Cr, ClO <sub>2</sub>
I-S	47.70	1750.03	42.99		1707.04	7.20	7.33	11/2	0746		pH, TDS, Cr, ClO <sub>2</sub>
I-T	47.80	1751.66	34.65		1717.01	7.34	14.72	11/5	1046		pH, TDS, Cr, ClO <sub>2</sub>
I-U	47.60	1752.17	44.74		1707.43	6.97	14.42	11/2	0542		pH, TDS, Cr, ClO <sub>2</sub>
I-V	47.70	1752.13	32.32		1719.81	7.51	9.12	11/6	0925		pH, TDS, Cr, ClO <sub>2</sub>
I-W	50.00	1751.50	28.06		1723.44	6.97	10.87	11/19	1047		pH, TDS, Cr, ClO <sub>2</sub>
I-X	50.00	1748.60	27.90		1720.70	7.10	11.66	11/19	1056		pH, TDS, Cr, ClO <sub>2</sub>
I-Y	50.50	1751.40	29.63		1721.77	7.21	8.22	11/2	0822		pH, TDS, Cr, ClO <sub>2</sub>
I-Z	37.00	1743.78				7.58	7.73	11/6	0824	equipment in well no OTM reading	pH, TDS, Cr, ClO <sub>2</sub>
OTHER WELLS (OFFSITE)											
PC-37	43.08	1707.72	31.29		1676.43	7.63	9.52	11/3	1111		pH, TDS, Cr, ClO <sub>2</sub>
PC-54	34.60	1704.43	24.75		1679.68	7.69	5.79	11/3	0910		pH, TDS, Cr, ClO <sub>2</sub>
PC-71	33.23	1698.73	28.53		1670.20	7.72	9.13	11/3	1013		pH, TDS, Cr, ClO <sub>2</sub>
PC-72	39.54	1699.43	31.62		1667.81	7.76	8.62	11/3	1036		pH, TDS, Cr, ClO <sub>2</sub>
PC-73	49.44	1699.50	32.69		1666.81	7.49	9.11	11/3	1051		pH, TDS, Cr, ClO <sub>2</sub>

Sampling Crew Signature:



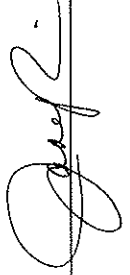
**TABLE 1**  
**Well Inventory for Groundwater Sampling**  
**NERT Project, Henderson, Nevada**

Summary of Field Data for: 4th Quarter Groundwater Monitoring, November 2015

WELL #A1:L195A1 :L18A1:L1A I:L104	TOTAL DEPTH (from TOC)	TOP OF CASING ELEVATION (MSL)	DEPTH TO WATER (FEET)	NON-AQUEOUS PHASE LIQUID <sup>1</sup>	GROUNDWATER ELEVATION (FT MSL)	pH	SPECIFIC CONDUCTIVITY (mS/cm)	DATE	TIME	MONITORING QUALIFIER <sup>2</sup>	COMMENTS/Analytical Plan/Temp
<b>PIONEER CHEMICAL WELL</b>											
H-28A	51.00	1731.75	—				Sampled 2nd and 3rd quarters only				(pH / SC / TOC / TOX) x 4 / CLO4 / CR / TDS
<b>DUPLICATE SAMPLES</b>											
DUP-1	30.00	1694.09	18.76		1675.33	7.46	7.14	11/3	1145		TDS, CR, CRVI, CLO4
DUP-2	37.18	1761.06	31.45		1729.61	7.22	6.54	11/5	1003		TDS, CR, CRVI, CLO4
DUP-3	43.00	1754.24	31.72		1722.52	7.36	13.60	11/5	0743		TDS, CR, CLO4
DUP-4	40.60	1746.04	32.74		1713.30	7.41	7.18	11/6	0745		TDS, CR, CLO4
DUP-5	42.40	1760.93	32.88		1729.05	7.75	4.18	11/9	0544		TDS, CR, CLO4
<b>OTHER SAMPLES COLLECTED</b>											
EB-1								11/3	0952		JR pH / TDS / Cr / Cr / C104
EB-2								11/4	0945		JR pH / TDS / Cr / Cr / C104
EB-3								11/5	0938		JR pH / TDS / Cr / Cr / C104
EB-4								11/6	0946		JR pH / TDS / Cr / Cr / C104
EB-5								11/9	0710		JR pH / TDS / Cr / Cr / C104
FB-1								11/6	0830		CLO4 Only JR pH / TDS / Cr / Cr / C104

NOTES:

Monthly 1st Monday  
 Monthly ARP and PC  
 UIC Permit Req. Wells  
 NPDES Permit

Sampling Crew Signature: 

Chain of Custody Record

TestAmerica Laboratories, Inc.

Irvine  
17461 Deitan Ave  
Suite 100  
Irvine, CA 92614  
phone 949 261.1022 fax 949.260.3299

Client Contact		Project Manager: Wendy Prescott Tel/Fax: 702-371-9307		Site Contact: Wendy Prescott		Date:	
Envirogen Technologies 510 South Fourth Street Henderson, NV 89015 702-371-9307		Analysis Turnaround Time Calendar (C) or Work Days (W) WORK TAT if different from Below: 10 DAY <input checked="" type="checkbox"/> 2 weeks <input type="checkbox"/> 1 week <input type="checkbox"/> 2 days <input type="checkbox"/> 1 day		Lab Contact: Patty Mata		Carrier:	
FAX:		Project Name: Envirogen- Monthly ART and PC Wells pg 1		2540C CALCED-TOTAL DISSOLVED		COC No.	
Site: NERT- 510 S. Fourth St., Henderson, NV 89015		Site: NERT- 510 S. Fourth St., Henderson, NV 89015		314.0 LL-PERCHLORATE		1 of 2 COCs	
P O # 3653		Sample identification		200.7 Total Chromium		Job No.	
		Sample Date		Sample Type		SDG No.	
		Sample Time		Matrix			
		# of Cont.					
ART-1		11/2/15 734		NORMAL WATER		Field pH = 7.39	
ART-2		11/2/15 802		NORMAL WATER		Field pH = 7.54	
ART-3		11/2/15 814		NORMAL WATER		Field pH = 7.49	
ART-4		11/2/15 841		NORMAL WATER		Field pH = 3.78	
ART-6		11/2/15 746		NORMAL WATER		Field pH = 7.61	
ART-7B		11/2/15 857		NORMAL WATER		Field pH = 7.34	
ART-8		11/2/15 825		NORMAL WATER		Field pH = 7.46	
ART-9		11/2/15 925		NORMAL WATER		Field pH = 7.40	
PC-99R2/R3		11/2/15 929		NORMAL WATER		Field pH = 7.46	
PC-115R		11/2/15 940		NORMAL WATER		Field pH = 7.41	
PC-116R		11/2/15 914		NORMAL WATER		Field pH = 7.38	
PC-117		11/2/15		NORMAL WATER			
Possible Hazard Identification <input checked="" type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown		Sample Disposal (A fee may be assessed if samples are retained longer than 1 month) <input type="checkbox"/> Return To Client <input type="checkbox"/> Disposal By Lab <input checked="" type="checkbox"/> Archive For 1 Month					
I attest to the validity and authenticity of this (these) sample(s). I am aware that tampering with or intentionally mislabeling the sample(s) location, date or time of collection may be considered fraud and subject to legal action (NAC-445.0636)		Signature: <i>[Signature]</i> Date: 11/2/15					
Special Instructions/QC Requirements & Comments: NEEDS LEVEL 4 REPORT							
Relinquished by: <i>[Signature]</i>		Company: <i>[Signature]</i>		Received by: <i>[Signature]</i>		Company: <i>[Signature]</i>	
Relinquished by:		Company:		Received by:		Company:	
Relinquished by:		Company:		Received by:		Company:	

Chain of Custody Record

TestAmerica Laboratories, Inc.

Irvine  
17461 Derian Ave  
Suite 100  
Irvine, CA 92614  
phone 949 261 1022 fax 949 260 3299

<b>Client Contact</b> Envirogen Technologies 510 South Fourth Street Henderson, NV 89015 702-371-9307 FAX: Project Name: Envirogen- Monthly ART and PC Wells pg 2 Site: NERT- 510 S. Fourth St., Henderson, NV 89015 P O # 3683		<b>Project Manager: Wendy Prescott</b> Tel/fax: 702-371-9307 Analysis Turnaround Time Calendar (C) or Work Days (W) WORK <input checked="" type="checkbox"/> TAT if different from Below <input type="checkbox"/> 2 weeks <input type="checkbox"/> 1 week <input type="checkbox"/> 2 days <input type="checkbox"/> 1 day		<b>Site Contact: Wendy Prescott</b> Lab Contact: Patty Mata Carrier:		Date: COC No: PG 2 OF 2 COC's Job No. SDG No									
<b>Sample Identification</b> PC-118 ✓ PC-119 ✓ PC-120 ✓ PC-121 ✓ PC-133 ✓ PC-150 ✓ IR-ART-77A - No sample		Sample Date 11/2/15 11/2/15 11/2/15 11/2/15 11/2/15 11/2/15		Sample Time 9:19 9:29 9:51 9:46 9:34 3:19		Sample Type NORMAL NORMAL NORMAL NORMAL NORMAL NORMAL		Matrix WATER WATER WATER WATER WATER WATER		# of Cont. 3 3 3 3 3 3		Filtered Sample 2540C_CALCED-TOTAL DISSOLVED SOLIDS 314.0_L1- PERCHLORATE 200.7 Total Chromium		Field pH = 7.56 Field pH = 7.41 Field pH = 7.36 Field pH = 7.51 Field pH = 7.50 Field pH = 7.56 Field pH =	
Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4= HNO3; 5= NaOH; 6= Other <input checked="" type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown <input type="checkbox"/>															
Sample Disposal ( A fee may be assessed if samples are retained longer than 1 month) <input type="checkbox"/> Return To Client <input type="checkbox"/> Disposal By Lab <input checked="" type="checkbox"/> Archive For 1 Month															
I attest to the validity and authenticity of this (these) sample(s). I am aware that tampering with or intentionally mislabeling the sample(s) location, date or time of collection may be considered fraud and subject to legal action (NAC445.0636) Signature: [Signature] Date: 11/2/15															
Special Instructions/OC Requirements & Comments NEEDS LEVEL 4 REPORT															
Relinquished by: [Signature]		Company: Envirogen		Date/Time: 11/2/15		Received by: [Signature]		Company: [Signature]		Date/Time: 11/2/15		Date/Time: 11/2/15			
Relinquished by:		Company:		Date/Time:		Received by:		Company:		Date/Time:		Date/Time:			

### Chain of Custody Record

TestAmerica Laboratories, Inc.

Client Contact		Project Manager: Wendy Prescott Tel/Fax: 702-371-9307		Site Contact: Wendy Prescott		Date:	
Envirogen Technologies 510 South Fourth Street Henderson, NV 89015 702-371-9307		Analysis Turnaround Time Calendar (C) or Work Days (W) WORK TAT if different from Below <input checked="" type="checkbox"/> 2 weeks <input type="checkbox"/> 1 week <input type="checkbox"/> 2 days <input type="checkbox"/> 1 day		Lab Contact: Patty Mata		Carrier:	
FAX:		Sample Date		Sample Time		Sample Type	
Project Name: NERT- 4th Quarter M Wells		Sample Date		Sample Time		Sample Type	
Site: NERT- 510 S. Fourth St., Henderson, NV 89015		Sample Date		Sample Time		Sample Type	
P O # 3693		Sample Date		Sample Time		Sample Type	
Sample Identification		Sample Date		Sample Time		Sample Type	
I-O ✓		11-2-15		0505		NORMAL WATER	
I-W ✓		11-2-15		0505		NORMAL WATER	
I-P ✓		11-2-15		0519		NORMAL WATER	
I-H ✓		11-2-15		0532		NORMAL WATER	
I-U ✓		11-2-15		0545		NORMAL WATER	
I-T ✓		11-2-15		0603		NORMAL WATER	
I-G ✓		11-2-15		0603		NORMAL WATER	
I-Q ✓		11-2-15		0631		NORMAL WATER	
I-F ✓		11-2-15		0651		NORMAL WATER	
I-X ✓		11-2-15		0952		NORMAL WATER	
I-N ✓		11-2-15		0952		NORMAL WATER	
I-E ✓		11-2-15		0952		NORMAL WATER	
Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4= HNO3; 5= NaOH; 6= Other		Sample Disposal ( A fee may be assessed if samples are retained longer than 1 month)		Return To Client <input type="checkbox"/>		Disposal By Lab <input type="checkbox"/>	
Possible Hazard Identification		Sample Disposal ( A fee may be assessed if samples are retained longer than 1 month)		Return To Client <input type="checkbox"/>		Disposal By Lab <input type="checkbox"/>	
<input checked="" type="checkbox"/> Non-Hazard		Sample Disposal ( A fee may be assessed if samples are retained longer than 1 month)		Return To Client <input type="checkbox"/>		Disposal By Lab <input type="checkbox"/>	
<input type="checkbox"/> Flammable		Sample Disposal ( A fee may be assessed if samples are retained longer than 1 month)		Return To Client <input type="checkbox"/>		Disposal By Lab <input type="checkbox"/>	
<input type="checkbox"/> Skin Irritant		Sample Disposal ( A fee may be assessed if samples are retained longer than 1 month)		Return To Client <input type="checkbox"/>		Disposal By Lab <input type="checkbox"/>	
<input type="checkbox"/> Poison B		Sample Disposal ( A fee may be assessed if samples are retained longer than 1 month)		Return To Client <input type="checkbox"/>		Disposal By Lab <input type="checkbox"/>	
<input type="checkbox"/> Unknown		Sample Disposal ( A fee may be assessed if samples are retained longer than 1 month)		Return To Client <input type="checkbox"/>		Disposal By Lab <input type="checkbox"/>	

I attest to the validity and authenticity of this (these) sample(s). I am aware that tampering with or intentionally mislabeling the sample(s) location, date or time of collection may be considered fraud and subject to legal action. (NA C445.0636)

Signature: Michelle Brown Date: 11-2-15

Special Instructions/QC Requirements & Comments: NEEDS LEVEL 4 REPORT

Relinquished by:	Company:	Date/Time:
<u>Michelle Brown</u>	<u>Envirogen</u>	<u>11-2-15</u>
Relinquished by:	Company:	Date/Time:
	<u>THA</u>	<u>11-15-15</u>
Relinquished by:	Company:	Date/Time:



10/14/15

# Chain of Custody Record

TestAmerica Laboratories, Inc.

IRVING  
17461 Derian Ave  
Suite 100  
Irvine, CA 92614  
phone 949 261 1022 fax 949 260 3299

Client Contact		Project Manager: Wendy Prescott		Site Contact: Wendy Prescott		Date:	
Envirogen Technologies 510 South Fourth Street Henderson, NV 89015 702-371-9307 FAX: Project Name: NERT- 4th Quarter-M Wells Site: NERT- 510 S. Fourth St., Henderson, NV 89015 P O # 3693		Tel/Fax: 702-371-9307 Analysis Turnaround Time Calendar (C) or Work Days (W) WORK TAT if different from below <input checked="" type="checkbox"/> 2 weeks <input type="checkbox"/> 1 week <input type="checkbox"/> 2 days <input type="checkbox"/> 1 day		Lab Contact: Patty Mata		COC No: 9042 Job No: SDG No:	
Sample Identification	Sample Date	Sample Time	Sample Type	Matrix	# of Cont.	Filtered Sample	Carrier:
I-M ✓	11-2-15	0701	NORMAL	WATER	3	TOTAL CHROME	
I-D ✓		0822	NORMAL	WATER	3	CL04	
I-C ✓			NORMAL	WATER	3	TDS, CRVI	
I-S ✓		0749	NORMAL	WATER	3	TDS, NO3	
I-L ✓		0814	NORMAL	WATER	3	TDS, CRVI	
I-Y ✓		0825	NORMAL	WATER	3	TDS, NO3	
I-R ✓		0837	NORMAL	WATER	3	CL03	
I-B ✓		0849	NORMAL	WATER	3		
I-AB ✓		0859	NORMAL	WATER	3		
I-AA ✓		0901	NORMAL	WATER	3		
I-AR ✓			NORMAL	WATER	3		
						Field pH = 7.36	
						Field pH = 7.36	
						Field pH = NO SAMPLE	
						Field pH = 7.20	
						Field pH = 7.14	
						Field pH = 7.21	
						Field pH = 7.04	
						Field pH = 7.18	
						Field pH = 7.50	
						Field pH = 7.37	
						Field pH = NO SAMPLE	
						Field pH =	

Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4= HNO3; 5=NaOH; 6= Other  
 Possible Hazard Identification  
 Non-Hazard  Flammable  Skin Irritant  Poison B  Unknown  Archive For 1 Month  
 Return To Client  Disposal By Lab

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)  
 I attest to the validity and authenticity of this (these) sample(s). I am aware that tampering with or intentionally mislabeling the sample(s) location, date or time of collection may be considered fraud and subject to legal action (NAC445.0636)  
 Signature: Michele Brown Date: 11-2-15

Special Instructions/QC Requirements & Comments:  
 NEEDS LEVEL 4 REPORT

Relinquished by: <u>Michele Brown</u>	Company: <u>Envirogen</u>	Date/Time: <u>11-2-15</u>	Received by: <u>Wendy Prescott</u>	Company: <u>TA</u>	Date/Time: <u>11-2-15</u>
Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:

Irvine  
17461 Derian Ave  
Suite 100  
Irvine, CA 92614  
phone 949.261.1022 fax 949.260.3299

### Chain of Custody Record

TestAmerica Laboratories, Inc.

Project Manager: Wendy Prescott Tel/Fax: 702-571-9307		Site Contact: Wendy Prescott		Date: <u>10/22</u>	
Client Contact		Lab Contact: Patty Mata		Carrier:	
Envirogen Technologies 510 South Fourth Street Henderson, NV 89015 702-371-9307		Analysis Turnaround Time Calendar (C) or Work Days (W) WORK TAT if different from below: <input checked="" type="checkbox"/> 2 weeks <input type="checkbox"/> 1 week <input type="checkbox"/> 2 days <input type="checkbox"/> 1 day		COC No. <u>1042</u>	
FAX:		TOTAL CHROME		SDG No.	
Project Name: NERT- 4th Quarter M Wells		TDS, CRVI		Job No.	
Site: NERT- 510 S. Fourth St., Henderson, NV 89015		TDS, NO3		SDG No.	
PO # 3693		TDS		SDG No.	
Sample Identification		CI04		SDG No.	
Sample Date	Sample Time	Sample Type	Matrix	# of Cont.	Field pH =
11/3/15	459	NORMAL	WATER	3	7.55
	522	NORMAL	WATER	3	7.70
	542	NORMAL	WATER	3	7.60
	611	NORMAL	WATER	3	7.70
	637	NORMAL	WATER	3	7.64
	721	NORMAL	WATER	3	7.73
	738	NORMAL	WATER	3	7.57
	801	NORMAL	WATER	3	7.66
	828	NORMAL	WATER	3	7.69
	918	NORMAL	WATER	3	7.69
	942	NORMAL	WATER	3	7.70
	952	NORMAL	WATER	3	9.70 8.73 JR

Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4=HNO3; 5=NaOH; 6= Other  
 Possible Hazard Identification  
 Non-Hazard  Flammable  Skin Irritant  Poison B  Unknown  Archive For 1 Month

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)  
 Return To Client  Disposal By Lab

I attest to the validity and authenticity of this (these) sample(s). I am aware that tampering with or intentionally mislabeling the sample(s) location, date or time of collection may be considered fraud and subject to legal action (NAC445.0636)  
 Signature: [Signature] Date: 11/3/15

Special Instructions/QC Requirements & Comments:

NEEDS LEVEL 4 REPORT

Relinquished by: <u>[Signature]</u>	Company: <u>Envirogen</u>	Date/Time: <u>11/3/15</u>	Received by: <u>[Signature]</u>	Company: <u>AA</u>	Date/Time: <u>11-3-15 1420</u>
Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:

MUTUALS

IRVINE  
17461 Denian Ave  
Suite 100  
Irvine, CA 92614  
phone 949 261.1022 fax 949 260 3299

### Chain of Custody Record

TestAmerica Laboratories, Inc.  
COC No  
Job No.  
SDG No.

Client Contact:  
 Envirogen Technologies  
 510 South Fourth Street  
 Henderson, NV 89015  
 702-371-9907  
 FAX:  
 Project Name: NERT- 4th Quarter MW Wells  
 Site: NERT- 510 S. Fourth St., Henderson, NV 89015  
 P O # 3693

Project Manager: Wendy Prescott  
 Tel/Fax: 702-571-9307  
 Analysis Turnaround Time  
 Calendar (C) or Work Days (W) WORK  
 TAT if different from Below  
 2 weeks  
 1 week  
 2 days  
 1 day

Site Contact: Wendy Prescott  
 Lab Contact: Patty Waza  
 Date:  
 Carrier:

Sample Identification	Sample Date	Sample Time	Sample Type	Matrix	# of Cont.	Filtered Sample	TDS, CRVI	TDS, NO3	TDS, CRVI, NO3	ClO4	Field pH =
PC-71 ✓	11/3/15	1019	NORMAL	WATER	3	4	1	1			7.72
PC-72 ✓		1043	NORMAL	WATER	3	4	1	1			7.76
PC-73 ✓		1103	NORMAL	WATER	3	4	1	1			7.49
PC-37 ✓		1120	NORMAL	WATER	3	4	1	1			7.63
M-45 ✓		1145	NORMAL	WATER	3	4	1	1			7.46
M-44 ✓		1204	NORMAL	WATER	3	4	1	1			7.60
Dup-1 ✓		1145	NORMAL	WATER	3	4	1	1			7.63
			NORMAL	WATER		4	1				
			NORMAL	WATER		4	1				
			NORMAL	WATER		4	1				
			NORMAL	WATER		4	1				
			NORMAL	WATER		4	1				
			NORMAL	WATER		4	1				
			NORMAL	WATER		4	1				
			NORMAL	WATER		4	1				

Preservation Used: 1= Ice, 2= HC; 3= H2SO4; 4=HNO3; 5=NaOH; 6= Other  
 Possible Hazard Identification  
 Non-Hazard  Flammable  Skin Irritant  Poison B  Unknown  
 Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)  
 Return To Client  Disposal By Lab  Archive For 1 Month

I attest to the validity and authenticity of this (these) sample(s). I am aware that tampering with or intentionally mislabeling the sample(s) location, date or time of collection may be considered fraud and subject to legal action (NAC445-0636)  
 Signature: *[Signature]* Date: 11/3/15

Special Instructions/QC Requirements & Comments:  
 NEEDS LEVEL 4 REPORT

Relinquished by: *[Signature]* Company: Envirogen Date/Time: 11/3/15  
 Relinquished by: *[Signature]* Company: TH Date/Time: 11/3/15 1720  
 Relinquished by: *[Signature]* Company: Date/Time: 11/3/15

14.179.145

Client Contact

Envirogen Technologies

510 South Fourth Street

Henderson, NV 89015

702-371-9307

FAX:

Project Name: NERT- 4th Quarter M Wells

Site: NERT- 510 S. Fourth St., Henderson, NV 89015

P O # 3693

Chain of Custody Record

TestAmerica Laboratories, Inc.

COC No

Job No.

SDG No

Project Manager: Wendy Prescott

Site Contact: Wendy Prescott

Lab Contact: Fany Waza

Carrier:

Analysis Turnaround Time

Calendar (C) or Work Days (W) WORK

TAT if different from Below

2 weeks

1 week

2 days

1 day

Filtrated Sample  
TOTAL CHROME  
ClO4  
TDS  
TDS, CRVI  
TDS, NO3  
TDS, CRVI, NO3  
ClO3

Sample Identification	Sample Date	Sample Time	Sample Type	Matrix	# of Cont.	Field pH =
PC-124 ✓	11/4/15	550	NORMAL	WATER	3	6.96
PC-136 ✓	↓	638	NORMAL	WATER	3	7.54
PC-135A ✓	↓	702	NORMAL	WATER	3	7.47
M-23 ✓	↓	731	NORMAL	WATER	3	7.73
ART-1 ✓	↓	617	NORMAL	WATER	3	7.54
EB-1 ✓	↓	745	NORMAL	WATER	3	8.86
			NORMAL	WATER	4	
			NORMAL	WATER	4	
			NORMAL	WATER	4	
			NORMAL	WATER	4	
			NORMAL	WATER	4	
			NORMAL	WATER	4	
			NORMAL	WATER	4	
			NORMAL	WATER	4	
			NORMAL	WATER	4	
			NORMAL	WATER	4	
			NORMAL	WATER	4	

Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4=HNO3; 5=NaOH; 6= Other

Possible Hazard Identification

Non-Hazard  Flammable  Skin Irritant  Poison B  Unknown

I attest to the validity and authenticity of this (these) sample(s). I am aware that tampering with or intentionally mislabeling the sample(s) location, date or time of collection may be considered fraud and subject to legal action (NAC445.0636)

Signature: [Signature] Date: 11/4/15

Return To Client  Disposal By Lab  Archive For 1 Month

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)

Special Instructions/OC Requirements & Comments:

NEEDS LEVEL 4 REPORT

Relinquished by: [Signature]

Company: BANNING

Date/Time: 11/4/15

Received by: [Signature]

Company: [Signature]

Date/Time: 11/4/15

Relinquished by: [Signature]

Company: [Signature]

Date/Time: [Signature]

Received by: [Signature]

Company: [Signature]

Date/Time: [Signature]

Relinquished by:

Company:

Date/Time:

Received by:

Company:

Date/Time:

107 TALS

1574-158000

# Chain of Custody Record

TestAmerica Laboratories, Inc.

**Irvine**  
 17461 Dentan Ave  
 Suite 100  
 Irvine, CA 92614  
 phone 949.261.1022 fax 949.260.3299

Project Manager: Wendy Prescott Tel/fax: 702-371-9307		Site Contact: Wendy Prescott		COC No. 1012								
Client Contact		Lab Contact: Fatty Mata		Date:								
Envirogen Technologies 510 South Fourth Street Henderson, NV 89015 702-371-9307		Carrier:		Job No.								
FAX:		Analysis Turnaround Time		SDG No.								
Project Name: NERT- 4th Quarter M Wells		Calendar (C) or Work Days (W) WORK										
Site: NERT- 510 S. Fourth St., Henderson, NV 89015		TAT if different from Below										
P O # 3693		<input checked="" type="checkbox"/> 2 weeks <input type="checkbox"/> 1 week <input type="checkbox"/> 2 days <input type="checkbox"/> 1 day										
Sample Identification		Sample Date	Sample Time	Sample Type	Matrix	# of Cont.	Filtered Sample	TDS	TDS, CRVI	TDS, NO3	CL03	Field pH
M-64 ✓		11/5/15	451	NORMAL	WATER	3	4	1				7.73
PC-148 ✓			602	NORMAL	WATER	3	4	1				7.74
PC-149 ✓			647	NORMAL	WATER	3	4	1				7.64
M-65 ✓			726	NORMAL	WATER	3	4	1				7.48
M-66 ✓			743	NORMAL	WATER	3	4	1				7.36
Dup 3 ✓			743	NORMAL	WATER	3	4	1				7.36
M-79 ✓			900	NORMAL	WATER	3	4	1				7.53
M-69 ✓			815	NORMAL	WATER	3	4	1				7.94
M-135 ✓			828	NORMAL	WATER	3	4	1				7.70
M-131 ✓			857	NORMAL	WATER	3	4	1				7.74
M-57A ✓			914	NORMAL	WATER	3	4	1				7.73
M-25 ✓			940	NORMAL	WATER	3	4	1				7.47
Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4= HNO3; 5= NaOH; 6= Other Possible Hazard Identification <input checked="" type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown							Sample Disposal ( A fee may be assessed if samples are retained longer than 1 month) <input type="checkbox"/> Return To Client <input type="checkbox"/> Disposal By Lab <input checked="" type="checkbox"/> Archive For 1 Month					
Signature: <i>[Signature]</i> Date: 11/5/15 I attest to the validity and authenticity of this (these) sample(s). I am aware that tampering with or intentionally mislabeling the sample(s) location, date or time of collection may be considered fraud and subject to legal action (NAC445.0636)							Received by: <i>[Signature]</i> Date/Time: 11/5/15 Company: <i>[Signature]</i>					
Special Instructions/Requirements & Comments: NEEDS LEVEL 4 REPORT							Received by: <i>[Signature]</i> Date/Time: 11/5/15 Company: <i>[Signature]</i>					
Requisitioned by: <i>[Signature]</i>							Received by: <i>[Signature]</i> Date/Time: 11/5/15 Company: <i>[Signature]</i>					
Requisitioned by: <i>[Signature]</i>							Received by: <i>[Signature]</i> Date/Time: 11/5/15 Company: <i>[Signature]</i>					
Requisitioned by: <i>[Signature]</i>							Received by: <i>[Signature]</i> Date/Time: 11/5/15 Company: <i>[Signature]</i>					

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17461 Derian Ave  
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Irvine, CA 92614  
phone 949.261.1022 fax 949.260.3299

### Chain of Custody Record

Test America Laboratories, Inc.  
COC No. 2082

Client Contact  
Envirogen Technologies  
510 South Fourth Street  
Henderson, NV 89015  
702-371-9307  
FAX

Project Manager: Wendy Prescott  
Tel/Fax: 702-371-9307

Site Contact: Wendy Prescott  
Date: \_\_\_\_\_  
Carrier: \_\_\_\_\_

Lab Contact: Patty Mata  
Job No. \_\_\_\_\_  
SDG No. \_\_\_\_\_

Analysis Turnaround Time  
Calendar (C) or Work Days (W) WORK  
TAT if different from Below \_\_\_\_\_  
 2 weeks  
 1 week  
 2 days  
 1 day

Project Name: NERT- 4th Quarter M Wells  
Site: NERT- 510 S. Fourth St., Henderson, NV 89015  
P O # 3693

Sample Identification	Sample Date	Sample Time	Sample Type	Matrix	# of Cont.	Filtered Sample	TOTAL CHROME	CL04	TDS	TDS, CRVI	TDS, NO3	TDS, CRVI, NO3	CL03	Field pH =
M-37 ✓	11/5/15	1003	NORMAL	WATER	3	4	1	1	1	1	1	1	1	7.22
I-C ✓	11/5/15	1035	NORMAL	WATER	3	4	1	1	1	1	1	1	1	7.38
I-T ✓	11/5/15	1042	NORMAL	WATER	3	4	1	1	1	1	1	1	1	7.34
EB-3 ✓	11/5/15	928	NORMAL	WATER	3	4	1	1	1	1	1	1	1	8.61
DUP-2 ✓	11/5/15	1003	NORMAL	WATER	3	4	1	1	1	1	1	1	1	7.22
			NORMAL	WATER		4	1							
			NORMAL	WATER		4	1							
			NORMAL	WATER		4	1							
			NORMAL	WATER		4	1							
			NORMAL	WATER		4	1							
			NORMAL	WATER		4	1							
			NORMAL	WATER		4	1							
			NORMAL	WATER		4	1							

Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4= HNO3; 5= NaOH; 6= Other \_\_\_\_\_

Possible Hazard Identification  
 Non-Hazard  
 Flammable  
 Skin Irritant  
 Poison B  
 Unknown

Return To Client  Disposal By Lab  Archive For 1 Month

Sample Disposal: (A fee may be assessed if samples are retained longer than 1 month)

Signature: \_\_\_\_\_ Date: 11/5/15

Special Instructions/QC Requirements & Comments  
NEEDS LEVEL 4 REPORT

Relinquished by: \_\_\_\_\_ Date/Time: 11/5/15  
Company: Envirogen

Relinquished by: \_\_\_\_\_ Date/Time: 11/5/15  
Company: Envirogen

Relinquished by: \_\_\_\_\_ Date/Time: 11/5/15  
Company: Envirogen

Received by: \_\_\_\_\_ Date/Time: 11/5/15  
Company: Envirogen

Received by: \_\_\_\_\_ Date/Time: 11/5/15  
Company: Envirogen

Received by: \_\_\_\_\_ Date/Time: 11/5/15  
Company: Envirogen

# Chain of Custody Record

TestAmerica Laboratories, Inc.

Client Contact Envirogen Technologies 510 South Fourth Street Henderson, NV 89015 702-371-9307 FAX		Project Manager: Wendy Prescott Tel/Fax: 702-371-9307 Analysis Turnaround Time Calendar (C) or Work Days (W) WORK <input checked="" type="checkbox"/> 2 weeks <input type="checkbox"/> 1 week <input type="checkbox"/> 2 days <input type="checkbox"/> 1 day		Site Contact: Wendy Prescott Lab Contact: Patty Infante Date: _____ Carrier: _____ Job No. _____ SDG No _____		COC No 1592								
Sample Identification		Sample Date	Sample Time	Sample Type	Matrix	# of Cont.	Filtered Sample	TOTAL CHROME	CLQA	TDS	TDS CRV	TDS, NO3	TDS, CRV, NO3	CLQA
M-31A ✓		11/6/15	621	NORMAL	WATER	3	4	1	1					
M-52 ✓			643	NORMAL	WATER	3	4	1	1					
M-35 ✓			706	NORMAL	WATER	3	4	1	1					
M-19 ✓			722	NORMAL	WATER	3	4	1	1					
M-68 ✓			750	NORMAL	WATER	3	4	1	1					
I-K ✓			745	NORMAL	WATER	3	4	1	1					
Dup 4 ✓			745	NORMAL	WATER	3	4	1	1					
M-83 ✓			1028	NORMAL	WATER	3	4	1	1					
M-74 ✓			810	NORMAL	WATER	3	4	1	1					
I-J ✓			821	NORMAL	WATER	3	4	1	1					
I-Z ✓			827	NORMAL	WATER	3	4	1	1					
FB-1 ✓			830	NORMAL	WATER	3	4	1	1					
Field pH = 7.20 Field pH = 7.45 Field pH = 7.46 Field pH = 7.50 Field pH = 7.35 Field pH = 7.41 Field pH = 7.41 Field pH = 7.45 Field pH = 7.48 Field pH = 7.50 Field pH = 7.58 Field pH = 8.40														
Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4= HNO3; 5= NaOH; 6= Other Possible Hazard Identification <input checked="" type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown														
Sample Disposal (A fee may be assessed if samples are retained longer than 1 month) <input type="checkbox"/> Return To Client <input checked="" type="checkbox"/> Disposal By Lab														

Signature: \_\_\_\_\_ Date: 11/6/15

Special Instructions/QC Requirements & Comments:

NEEDS LEVEL 4 REPORT

Relinquished by: <i>[Signature]</i>	Company: Envirogen	Received by: <i>[Signature]</i>	Company: TA
Relinquished by:	Company:	Received by:	Company:
Relinquished by:	Company:	Received by:	Company:

17.74 TALS

Irving  
17461 Derian Ave  
Suite 100  
Irvine, CA 92614  
phone 949.261.1022 fax 949.260.3299

### Chain of Custody Record

Test America Laboratories, Inc.

Client Contact		Project Manager: Wendy Prescott		Site Contact: Wendy Prescott		Date:	
Envirogen Technologies		Tel/Fax: 702-371-9307		Lab Contact: Patty Mata		Carcies:	
510 South Fourth Street		Analysis Turnaround Time		TDS, CRYI		Job No.	
Henderson, NV 89015		Calendar (C) or Work Days (W) WORK		TDS, NO3		SDG No	
702-371-9307		TAT if different from Below		TDS, CRVI			
FAX		<input checked="" type="checkbox"/> 2 weeks		CLO4			
Project Name: NERT- 4th Quarter M Wells		<input type="checkbox"/> 1 week		TOTAL CHROME			
Site: NERT- 510 S. Fourth St., Henderson, NV 89015		<input type="checkbox"/> 2 days		CLO4			
P O # 3693		<input type="checkbox"/> 1 day		TDS, CRVI			
Sample Identification	Sample Date	Sample Time	Sample Type	Matrix	# of Cont.	Field pH =	
M-67 ✓	11/16/15	8:44	NORMAL	WATER	3	7.50	
M-73 ✓		8:59	NORMAL	WATER	3	7.38	
I-V ✓		9:29	NORMAL	WATER	3	7.51	
I-I ✓		9:12	NORMAL	WATER	3	7.47	
M-81A ✓		9:38	NORMAL	WATER	3	7.45	
EG-4 ✓		9:46	NORMAL	WATER	3	8.40	
M-80 ✓		10:55	NORMAL	WATER	3	7.31	
I-AR		4:38	NORMAL	WATER	3	6.92	
			NORMAL	WATER			
			NORMAL	WATER			
			NORMAL	WATER			
			NORMAL	WATER			
			NORMAL	WATER			
			NORMAL	WATER			
			NORMAL	WATER			
			NORMAL	WATER			
			NORMAL	WATER			

Preservation Used: 1= Ice, 2= HCl, 3= H2SO4, 4= HNO3, 5= NaOH, 6= Other  
 Possible Hazard Identification  
 Non-Hazard  Flammable  Skin Irritant  Poison B  Unknown  
 I attest to the validity and authenticity of this (these) sample(s). I am aware that tampering with or intentionally mislabeling the sample(s) location, date or time of collection may be considered fraud and subject to legal action (NAC445.0636)  
 Signature: [Signature] Date: 11/16/15

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)  
 Return To Client  Disposal By Lab  Archive For 1 Month

Special Instructions/IOC Requirements & Comments:

NEEDS LEVEL 4 REPORT

Relinquished by	Company	Date/Time	Received by	Company	Date/Time
<u>[Signature]</u>	Envirogen	11/16/15	<u>[Signature]</u>	TA	11-16-15 1425
Relinquished by	Company	Date/Time	Received by	Company	Date/Time
Relinquished by	Company	Date/Time	Received by	Company	Date/Time

12.4.15 ALAS



# Chain of Custody Record

TestAmerica Laboratories, Inc.

17461 Derian Ave  
Suite 100  
Irvine, CA 92614  
phone 949.261.1022 fax 949.260.3299

Client Contact		Project Manager: Wendy Prescott		Site Contact: Wendy Prescott		Date:	
Envirogen Technologies		Tel/Fax: 702-371-9307		Lab Contact: Patty Metka		Carrier:	
510 South Fourth Street		Analysis Turnaround Time		TOTAL CHROME		COC No.	
Henderson, NV 89015		Calendar (C) or Work Days (W) WORK		TDS, CRVI		Job No.	
702-371-9307		TAT if different from Below		TDS, NO3		SDG No.	
FAX		<input checked="" type="checkbox"/> 2 weeks		TDS, CRVI, NO3			
Project Name: NERT- 4th Quarter M Wells		<input type="checkbox"/> 1 week		CLOS			
Site: NERT- 510 S. Fourth St. Henderson, NV 89015		<input type="checkbox"/> 2 days		CLOS			
P O # 3693		<input type="checkbox"/> 1 day		CLOS			
Sample Identification	Sample Date	Sample Time	Sample Type	Matrix	# of Cont.	Field pH =	
M-14A	11-15	544	NORMAL	WATER	3	7.75	
M-10		609	NORMAL	WATER	3	7.62	
M-71		623	NORMAL	WATER	3	7.52	
M-72		636	NORMAL	WATER	3	7.36	
M-23A		702	NORMAL	WATER	3	7.62	
M-38		1238	NORMAL	WATER	3	7.45	
M-12A		1102	NORMAL	WATER	3	8.27	
M-11		1214	NORMAL	WATER	3	8.19	
DW-0-5		544	NORMAL	WATER	3	7.75	
EB-0-5		710	NORMAL	WATER	3	9.19	
M-10		1041	NORMAL	WATER	3		
M-09			NORMAL	WATER	3		

Non-Hazardous     Flammable     Skin Irritant     Poison B     Unknown  
 Return To Client     Disposal By Lab     Archive For 1 Month(s)

Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4= HNO3; 5= NHOH; 6= Other  
 Possible Hazard Identification: \_\_\_\_\_  
 Signature: \_\_\_\_\_ Date: 11/15/07

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month):  
 Return To Client     Disposal By Lab     Archive For 1 Month(s)

Special Instructions/QC Requirements & Comments: NEEDS LEVEL 4 REPORT

Relinquished by: <i>[Signature]</i>	Date/Time: 11/15/07	Company: Envirogen
Relinquished by: <i>[Signature]</i>	Date/Time: 11/15/07	Company: Envirogen
Relinquished by: _____	Date/Time: _____	Company: _____

**Chain of Custody Record**

**Irvine**  
 17461 Derian Ave  
 Suite 100  
 Irvine, CA 92614  
 phone 949.261.1022 fax 949.260.3299

TestAmerica Laboratories, Inc.

<b>Client Contact</b> Envirogen Technologies 510 South Fourth Street Henderson, NV 89015 702-371-9307 FAX:		<b>Project Manager: Wendy Prescott</b> Tel/Fax: 702-371-9307 Analysis Turnaround Time Calendar (C) or Work Days (W) WORK <input checked="" type="checkbox"/> AT if different from Below		<b>Site Contact: Wendy Prescott</b> Lab Contact: Patty Mata Carrier:		Date:	
Project Name: NERT- Quarterly M-10 Site: NERT- 510 S. Fourth St, Henderson, NV 89015 PO # 3693		3140 Perchlorate 300 ORGAMS - (MHD) Nitrate-Nitrite as N 300 ORGPA1 280 - Chloride 2540C Calcd - Total Dissolved Solids 218.6 ORGPA1 - Chromium hexavalent		200.7 - B, Cr, Iron, Mn SM4500NH3_D - Ammonia, TN 300.1B 28D - Chlorate		COC No. of COCs Job No. SDG No.	
<b>Sample Identification</b> M-10		Sample Date: 11/15/15 Sample Time: 10:41 Sample Type: NORMAL Matrix: WATER # of Cont: 6		Field pH = 7.28			
Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4= HNO3; 5= NaOH; 6= Other		Possible Hazard Identification <input checked="" type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown		Sample Disposal (A fee may be assessed if samples are retained longer than 1 month) <input type="checkbox"/> Return To Client <input checked="" type="checkbox"/> Disposed By Lab <input type="checkbox"/> Archived for 1 Month		I attest to the validity and authenticity of this (these) sample(s). I am aware that tampering with or intentionally mislabeling the sample(s) location, date or time of collection may be considered fraud and subject to legal action (NAC445.0636) Signature: <i>[Signature]</i> Date: 11/15/15	

Special Instructions/CC Requirements & Comments:  
 NEEDS LEVEL 4 REPORT

Relinquished by: <i>[Signature]</i>	Company: Envirogen	Received by: <i>[Signature]</i>	Company: <i>[Signature]</i>
Relinquished by:	Company:	Received by:	Company:
Relinquished by:	Company:	Received by:	Company:

11/15/15

**Chain of Custody Record**

TestAmerica Laboratories, Inc.

Irvine  
17461 Derian Ave  
Suite 100  
Irvine, CA 92614  
phone 949.261.1022 fax 949.260.3299

**Client Contact**  
 Envirogen Technologies  
 510 South Fourth Street  
 Henderson, NV 89015  
 702-371-9307  
 FAX:  
 Project Name: Envirogen- Monthly ARP and PC Wells pg 1  
 Site: NERT- 510 S. Fourth St., Henderson, NV 89015  
 P O # 3693

**Project Manager: Wendy Prescott**  
 Tel/Fax: 702-371-9307  
 Analysis Turnaround Time  
 Calendar: ( C ) or Work Days (W) WORK  
 TAT if different from Below  
 2 weeks  
 1 week  
 2 days  
 1 day

**Site Contact: Wendy Prescott**  
 Lab Contact: Patty Mata

**COC No:** 1 OF 3 COCS  
**Job No.:**  
**SDG No.:**

Sample Identification	Sample Date	Sample Time	Sample Type	Matrix	# of Cont.	Filtered Sample	Field pH =
I-AD	11/05/08	538	NORMAL	WATER	3	2540C Caled- Total Dissolved Solids	7.39
PC-97	643		NORMAL	WATER	3	314.0 Perchlorate	7.64
PC-90	707		NORMAL	WATER	3	200.7 Total Chromium	7.51
PC-91	728		NORMAL	WATER	3		7.47
PC-58	812		NORMAL	WATER	3		7.48
PC-56	1021		NORMAL	WATER	3		7.33
PC-60	1044		NORMAL	WATER	3		7.61
PC-59	1107		NORMAL	WATER	3		7.60
PC-62	839		NORMAL	WATER	3		7.41
PC-68	914		NORMAL	WATER	3		7.39
PC-86	1126		NORMAL	WATER	3		7.57
MEB-1	923		NORMAL	WATER	3		

Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4= HNO3; 5= NaOH; 6= Other

Possible Hazard Identification  
 Non-Hazard  Flammable  Skin Irritant  Poison B  Unknown

Sample Disposal ( A fee may be assessed if samples are retained longer than 1 month )  
 Return To Client  Disposal By Lab  Archive For 1 Month

I attest to the validity and authenticity of this (these) sample(s). I am aware that tampering with or intentionally mislabeling the sample(s) location, date or time of collection may be considered fraud and subject to legal action (NAC445.0636)

Signature: *[Signature]* Date: 11/10/15

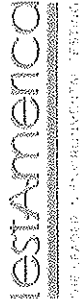
Special Instructions/QC Requirements & Comments:  
 NEEDS LEVEL 4 REPORT

Relinquished by: *[Signature]* Date/Time: 11/10/15  
 Relinquished by: *[Signature]* Date/Time: 11/10/15  
 Relinquished by: *[Signature]* Date/Time: 11/10/15

Company: Envirogen  
 Company: Envirogen  
 Company: Envirogen

Received by: *[Signature]* Date/Time: 11/10/15  
 Received by: *[Signature]* Date/Time: 11/10/15  
 Received by: *[Signature]* Date/Time: 11/10/15

15.3 TAN



# Chain of Custody Record

**IRVINE**  
17461 Dorian Ave  
Suite 100  
Irvine, CA 92614  
phone 949.261.1022 fax 949.260.3299

TestAmerica Laboratories, Inc.

<b>Client Contact</b> Envirogen Technologies 510 South Fourth Street Henderson, NV 89015 702-371-9307 FAX:				<b>Project Manager: Wendy Prescott</b> Tel/Fax: 702-371-9307				<b>Site Contact: Wendy Prescott</b>				<b>Date:</b>					
Analysis Turnaround Time Calendar (C) or Work Days (W) WORK TAT if different from Below <input checked="" type="checkbox"/> 2 weeks <input type="checkbox"/> 1 week <input type="checkbox"/> 2 days <input type="checkbox"/> 1 day				2540C, Calc'd - Total Dissolved Solids				200.7 Total Chromium				Carrier:					
Sample Identification PC-944 /				Sample Date 11/10/15	Sample Time 745	Sample Type NORMAL	Matrix WATER	# of Cont. 3	314.0 Perchlorate					Job No.			
									1	1	4	Field pH = 7.29					
									1	1	4	Field pH =					
									1	1	4	Field pH =					
									1	1	4	Field pH =					
									1	1	4	Field pH =					
									1	1	4	Field pH =					
									1	1	4	Field pH =					
									1	1	4	Field pH =					
									1	1	4	Field pH =					
									1	1	4	Field pH =					
									1	1	4	Field pH =					
									1	1	4	Field pH =					
									1	1	4	Field pH =					
									1	1	4	Field pH =					
									1	1	4	Field pH =					
									1	1	4	Field pH =					

Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4=HNO3; 5=NaOH; 6= Other  
Possible Hazard Identification  
 Non-Hazard  Flammable  Skin Irritant  Poison B  Unknown  Archive For 1 Month  
 Return To Client  Disposal By Lab

I attest to the validity and authenticity of this (these) sample(s). I am aware that tampering with or intentionally mislabeling the sample(s) location, date or time of collection may be considered fraud and is subject to legal action (NAC445.0636)

Signature: [Signature] Date: 11/10/15

Special Instructions/OC Requirements & Comments:

NEEDS LEVEL 4 REPORT

Relinquished by: [Signature]	Company: Envirogen	Date/Time: 11/10/15 14:19	Received by: [Signature]	Company: [Signature]	Date/Time: 4/10/15 14:19
Relinquished by: [Signature]	Company: Envirogen	Date/Time: 11/10/15 14:19	Received by: [Signature]	Company: [Signature]	Date/Time: 4/10/15 14:19
Relinquished by: [Signature]	Company: Envirogen	Date/Time: 11/10/15 14:19	Received by: [Signature]	Company: [Signature]	Date/Time: 4/10/15 14:19

11-3-15

Chain of Custody Record

TestAmerica Laboratories, Inc.

Client Contact		Project Manager: Wendy Prescott		Site Contact: Wendy Prescott		Date:	
Envirogen Technologies		Tel/Fax: 702-371-9307		Lab Contact: Patty Mata		Carrier:	
510 South Fourth Street		Analysis Turnaround Time		2540C Calc'd- Total Dissolved Solids		COC No.:	
Henderson, NV 89015		Calendar (C) or Work Days (W) WORK		3140 Perchlorate		Job No.:	
702-371-9307		TAT if different from Below		2007 Total Chromium		SDG No.:	
FAX:		<input checked="" type="checkbox"/> 2 weeks					
Project Name: Envirogen- Monthly ARP and PC Wells pg 1		<input type="checkbox"/> 1 week					
Site: NERT- 510 S. Fourth St., Henderson, NV 89015		<input type="checkbox"/> 2 days					
P O # 3693		<input type="checkbox"/> 1 day					
Sample Identification	Sample Date	Sample Time	Sample Type	Matrix	# of Cont.	Field pH =	
PC-18	11/11/15	805	NORMAL	WATER	3	7.48	
ARP-1		828	NORMAL	WATER	3	7.75	
PC-122		851	NORMAL	WATER	3	7.69	
PC-53		909	NORMAL	WATER	3	7.67	
MW-K5		928	NORMAL	WATER	3	7.56	
ARP-7		947	NORMAL	WATER	3	7.39	
ARP-6B		1008	NORMAL	WATER	3	7.55	
ARP-5A		1021	NORMAL	WATER	3	7.69	
ARP-4A		1036	NORMAL	WATER	3	7.62	
PC-101R no sample JR			NORMAL	WATER	3	-	
PC-144 no sample JR			NORMAL	WATER	3	-	
MW-K4		1104	NORMAL	WATER	3	7.56	

Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4= HNO3; 5= NaOH; 6= Other

Possible Hazard Identification  
 Non-Hazard  Flammable  Skin Irritant  
 Poison B  Unknown

I attest to the validity and authenticity of this (these) sample(s). I am aware that tampering with or intentionally mislabeling the sample(s) location, date or time of collection may be considered fraud and subject to legal action (NAC445.0636)

Signature: *[Signature]* Date: 11/11/15

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)  
 Return To Client  Disposal By Lab  Archive For 1 Month

Special Instructions/QC Requirements & Comments:  
NEEDS LEVEL 4 REPORT

Relinquished by: <i>[Signature]</i>	Company: Envirogen	Received by: <i>[Signature]</i>	Company: <i>[Signature]</i>	Date/Time: 11/11/15 12:55
Relinquished by:	Company:	Received by:	Company:	Date/Time:
Relinquished by:	Company:	Received by:	Company:	Date/Time:

19.2 - 100

**Chain of Custody Record**

TestAmerica Laboratories, Inc.

**IRVINE**  
17461 Derran Ave  
Suite 100  
Irvine, CA 92614  
phone 949.261.1022 fax 949.260.3299

<b>Client Contact</b>		<b>Project Manager: Wendy Prescott</b>		<b>Site Contact: Wendy Prescott</b>		<b>Date:</b>	
Envirogen Technologies		Tel/Fax: 702-371-9307		Lab Contact: Patty Mata		Carrier:	
510 South Fourth Street		Analysis Turnaround Time		2540C <sub>total</sub> Calc'd - Total Dissolved Solids		Job No.	
Henderson, NV 89015		Calendar (C) or Work Days (W) WORK		3140 Perchlorate		SDG No.	
702-371-9307		TAT if different from Below		Filtered Sample		Field pH = 7.68	
FAX:		<input checked="" type="checkbox"/> 2 weeks		<input type="checkbox"/> 1 week		Field pH = 7.80	
Project Name: Envirogen- Monthly ARP and PC Wells pg 1		<input type="checkbox"/> 2 days		<input type="checkbox"/> 1 day		Field pH =	
Site: NERT- 510 S. Fourth St., Henderson, NV 89015		Sample Date		Sample Time		Field pH =	
P O # 3693		Sample Type		Matrix		Field pH =	
ARP-3A		11/15		1123		Field pH =	
ARP-2A		11/15		1149		Field pH =	
<p>Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4=HNO3; 5=NaOH; 6= Other</p> <p>Possible Hazard Identification</p> <input checked="" type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown		Sample Date		Sample Time		Field pH =	
		Sample Type		Matrix		Field pH =	
		Sample Date		Sample Time		Field pH =	
		Sample Type		Matrix		Field pH =	
		Sample Date		Sample Time		Field pH =	
		Sample Type		Matrix		Field pH =	
		Sample Date		Sample Time		Field pH =	
		Sample Type		Matrix		Field pH =	
		Sample Date		Sample Time		Field pH =	
		Sample Type		Matrix		Field pH =	
Sample Date		Sample Time		Field pH =			
Sample Type		Matrix		Field pH =			

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)

Return To Client     Disposal By Lab     Archive For 1 Month

I attest to the validity and authenticity of this (these) sample(s). I am aware that tampering with or intentionally mislabeling the sample(s) location, date or time of collection may be considered fraud and subject to legal action (NAC445.0636)

Signature: *[Signature]* Date: 11/11/15

Special Instructions/QC Requirements & Comments:

NEEDS LEVEL 4 REPORT

Relinquished by:	<i>[Signature]</i>	Received by:	<i>[Signature]</i>	Company:	<i>[Signature]</i>	Date/Time:	11/11/15
Relinquished by:		Received by:		Company:		Date/Time:	
Relinquished by:		Received by:		Company:		Date/Time:	

19.8 - 2A

# Chain of Custody Record

17461 Derian Ave

Suite 100

Irvine, CA 92614

phone 949.261.1022 fax: 949.260.3299

TestAmerica Laboratories, Inc.

<b>Client Contact</b>				<b>Project Manager: Wendy Prescott</b>				<b>Site Contact: Wendy Prescott</b>				<b>Date:</b>			
Envirogen Technologies				Tel/Fax: 702-371-9307				Lab Contact: Patty Mata				Carrier:			
510 South Fourth Street				Analysis Turnaround Time				2540C, Calcd - Total Dissolved Solids				COC No:			
Henderson, NV 89015				Calendar (C) or Work Days (W) WORK				3140 Perchlorate				1 OF 3 COCs			
702-371-9307				TAT if different from Below:				Filtered Sample				Job No.			
FAX:				<input checked="" type="checkbox"/> 2 weeks				2007 Total Chromium				SDG No			
Project Name: Envirogen- Monthly ARP and PC Wells pg 1				<input type="checkbox"/> 1 week				2540C, Calcd - Total Dissolved Solids							
Site: NERT- 510 S. Fourth St., Henderson, NV 89015				<input type="checkbox"/> 2 days											
P O # 3693				<input type="checkbox"/> 1 day											
Sample Identification	Sample Date	Sample Time	Sample Type	Matrix	# of Cont.	Field pH =	Field pH =	Field pH =	Field pH =	Field pH =	Field pH =	Field pH =	Field pH =	Field pH =	Field pH =
PC-55	11/12/15	828	NORMAL	WATER	3	7.69									
PC-98R		895	NORMAL	WATER	3	7.51									
PC-103		842	NORMAL	WATER	3	7.59									
PC-101R		926	NORMAL	WATER	3	7.45									
PC-144		962	NORMAL	WATER	3	7.87									
			NORMAL	WATER	3										
			NORMAL	WATER	3										
			NORMAL	WATER	3										
			NORMAL	WATER	3										
			NORMAL	WATER	3										
			NORMAL	WATER	3										
			NORMAL	WATER	3										
			NORMAL	WATER	3										

Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4= HNO3; 5= NaOH; 6= Other

Possible Hazard Identification:  Non-Hazard  Flammable  Skin Irritant  Poison B  Unknown

I attest to the validity and authenticity of this (these) sample(s). I am aware that tampering with or intentionally mislabeling the sample(s) location, date or time of collection may be considered fraud and subject to legal action (NAC445.0636)

Signature: [Signature] Date: 11/12/15

Special Instructions/QC Requirements & Comments: NEEDS LEVEL 4 REPORT

10.4 TRAV

Chain of Custody Record

TestAmerica Laboratories, Inc.

**Client Contact**  
 Envirogen Technologies  
 510 South Fourth Street  
 Henderson, NV 89015  
 702-371-9307  
 FAX:

**Project Manager: Wendy Prescott**  
 Tel/Fax: 702-371-9307

**Site Contact: Wendy Prescott**  
 Lab Contact: Patty Mata

**Analysis Turnaround Time**  
 Calendar (C) or Work Days (W) WORK  
 2 weeks  
 1 week  
 2 days  
 1 day  
 TAT if different from below \_\_\_\_\_

**Project Name:** NERT- 4th Quarter M Wells  
**Site:** NERT- 510 S. Fourth St., Henderson, NV 89015  
**P O #** 3693

Sample Identification	Sample Date	Sample Time	Sample Type	Matrix	# of Cont.	Filtered Sample	Carrier	Date
I-W	11/16/2015	0650	NORMAL	WATER	3	TOTAL CHROME		
I-X	11/16/2015	0845	NORMAL	WATER	3	CLO4		
						TDS		
						TDS, CRVI		
						TDS, NO3		
						TDS, CRVI, NO3		
						CLO3		

Field pH = 6.97  
Field pH = 7.10

**Preservation Used:** 1= Ice, 2= HCl; 3= H2SO4; 4=HNO3; 5=NaOH; 6= Other \_\_\_\_\_

**Possible Hazard Identification**  
 Non-Hazard  Flammable  Skin Irritant  Poison B  Unknown  
 Return To Client  Disposal By Lab  Archive For 1 Month

**Sample Disposal ( A fee may be assessed if samples are retained longer than 1 month)**

I attest to the validity and authenticity of this (these) sample(s). I am aware that tampering with or intentionally mislabeling the sample(s) location, date or time of collection may be considered  
 fraud and subject to legal action (NAC445.0636)

Signature: \_\_\_\_\_ Date: 11/16/15

Special Instructor's/QC Requirements & Comments:  
 NEEDS LEVEL 4 REPORT

Relinquished by	Date/Time	Company	Received by	Date/Time	Company
	11/16/15	Envirogen		11/16/15	Envirogen
Relinquished by:	Date/Time:	Company:	Received by:	Date/Time:	Company:

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**Chain of Custody Record**

TestAmerica Laboratories, Inc.

Irvine  
 17461 Derran Ave  
 Suite 100  
 Irvine, CA 92614  
 phone 949 261 1022 fax 949 260 3299

Client Contact		Project Manager: Wendy Prescott Tel/Fax: 702-371-9307		Site Contact: Wendy Prescott		Date:	
Envirogen Technologies 510 South Fourth Street Henderson, NV 89015 702-371-9307		Analysis Turnaround Time Calendar (C) or Work Days (W) WORK TAT if different from Below <input checked="" type="checkbox"/> 2 weeks <input type="checkbox"/> 1 week <input type="checkbox"/> 2 days <input type="checkbox"/> 1 day		Lab Contact: Patty Mata		Carrier:	
FAX:		Sample Date		TOTAL CHROME		Job No.	
Project Name: NERT- 2nd Quarter M Wells		Sample Time		TDS, CRM		SDG No.	
Site: NERT- 510 S. Fourth St., Henderson, NV 89015		Sample Type		TDS, NO3			
P O # 3693		Matrix		TDS, CRM, NO3			
		Matrix		TDS, NO3			
		Matrix		TDS, CRM			
		Matrix		TDS			
		Matrix		CL04			
		Matrix		TDS, CRM			
		Matrix		TDS, NO3			
		Matrix		TDS, CRM, NO3			
		Matrix		CL03			

Sample Identification	Sample Date	Sample Time	Sample Type	Matrix	# of Cont.	Field pH =
I-Q ✓	11-16-15	12:00	NORMAL	WATER	3	7.60
			NORMAL	WATER		
			NORMAL	WATER		
			NORMAL	WATER		
			NORMAL	WATER		
			NORMAL	WATER		
			NORMAL	WATER		
			NORMAL	WATER		
			NORMAL	WATER		
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			NORMAL	WATER		
			NORMAL	WATER		
			NORMAL	WATER		
			NORMAL	WATER		
			NORMAL	WATER		
			NORMAL	WATER		

Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4= HNO3; 5= NaOH; 6= Other: \_\_\_\_\_

Possible Hazard Identification  
 Non-Hazard  Flammable  Skin Irritant  Poison B  Unknown  Archive For 1 Month

I attest to the validity and authenticity of this (these) sample(s). I am aware that tampering with or intentionally mislabeling the sample(s) location, date or time of collection may be considered fraud and subject to legal action (NAC445.8636)

Signature: *[Signature]* Date: 11/18/15

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)  
 Return To Client  Disposal By Lab  Archive For 1 Month

Special Instructions/OC Requirements & Comments:  
 NEEDS LEVEL 4 REPORT

Relinquished by: <i>[Signature]</i>	Company: Envirogen	Date/Time: 11/18/15	Received by: <i>[Signature]</i>	Company: TA	Date/Time: 11-18-15 13:15
Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:

1770-7ALAS

**Bottle Order Information**

Bottle Order: NERT - Quarterly M-10  
 Bottle Order #: 4296  
 Request From Client: 1/2/2015  
 Date Order Posted: 3/21/2013 12:00:12PM  
 Order Status: Ready To Process  
 Prepared By: Sushmitha Reddy  
**Deliver By Date: 9/29/2015 11:59:00PM**  
 Lab Project Number: 44008210

**Order Completion Information**

Creator: Sushmitha Reddy  
 Filled by:  
 Sent Date:  
 Sent Via:  
 Tracking #:

Sets	Bottles/Set	Qty	Bottle Type Description	Preservative	Method	Matrix	Sample Type	Comments	Lot #
1	1	1	Plastic 500ml - with Nitric Acid	Nitric Acid	200.7 - B, Cr, Iron, Mn	Water	Normal		
1	1	1	Plastic 500ml - with Sulfuric Acid	Sulfuric Acid	SM4500NH3_D - Ammonia, TIN	Water	Normal		
1	1	1	Plastic 125mL - ethylene diamine	Ethylene Diamine	300.1B_28D - Chlorate	Water	Normal		
1	2	2	Plastic 500ml - unpreserved	None	300_ORGFMS - (MOD) Nitrate-Nitrite as N	Water	Normal		
					300_ORGFM_28D - Chloride	Water	Normal		
					150.1 - pH	Water	Normal		
					2540C_Calcd - Total Dissolved Solids	Water	Normal		
					218.6_ORGFM - Chromium, hexavalent	Water	Normal		
1	1	1	Plastic 125mL - sterile	None		Water	Normal	CLO4	

**Notes to Field Staff:**

**Health and Safety Notes:**

Preservative	Comment
Ethylene Diamine	CAUTION! CORROSIVE! CONTAINS ETHYLENEDIAMINE. Harmful if inhaled. Use adequate ventilation. Harmful in contact with skin and eyes. If contact is made, FLUSH IMMEDIATELY with water.
Nitric Acid	CAUTION! STRONG OXIDIZER! CONTAINS 1:1 NITRIC ACID. Avoid skin and eye contact. If contact is made, FLUSH IMMEDIATELY with water.
Sulfuric Acid	CAUTION! CONTAINS 1:1 SULFURIC ACID. Avoid skin and eye contact. If contact is made, FLUSH IMMEDIATELY with water.

Relinquished By	Company	Date	Time	Received By	Company	Seal #
Relinquished By	Company	Date	Time	Received By	Company	Seal #

Please notify us immediately if an error is found in shipment

**Bottle Order Information**

Bottle Order: NERT - Quarterly 4th  
 Bottle Order #: 6764  
 Request From Client: 1/2/2015  
 Date Order Posted: 10/9/2013 10:59:19AM  
 Order Status: In Process  
 Prepared By: Sushmitha Reddy  
**Deliver By Date: 10/23/2015 2:00:00PM**  
 Lab Project Number: 44009450

**Order Completion Information**

Creator: Sushmitha Reddy  
 Filled by:  
 Sent Date:  
 Sent Via:  
 Tracking #:

Sets	Bottles/Set	Qty	Bottle Type Description	Preservative	Method	Matrix	Sample Type	Comments	Lot #
128	1	128	Plastic 500ml - with Nitric Acid	Nitric Acid	200.7 - Chromium	Water	Normal		
128	1	128	Plastic 500ml - unpreserved	None	2540C_Calcd - Total Dissolved Solids	Water	Normal		
128	1	128	Plastic 125mL - sterile	None	SM4500_H+ - pH	Water	Normal		
12	1	12	Plastic 500ml - with Nitric Acid	Nitric Acid	200.7 - Chromium	Water	Normal		
12	1	12	Plastic 500ml - unpreserved	None	2540C_Calcd - Total Dissolved Solids	Water	Normal		
					218.6_ORGFM - Chromium, hexavalent	Water	Normal		
					SM4500_H+ - pH	Water	Normal		
12	1	12	Plastic 125mL - sterile	None		Water	Normal	314	

**Notes to Field Staff:**

**Health and Safety Notes:**

Preservative Comment

Nitric Acid

CAUTION! STRONG OXIDIZER! CONTAINS 1:1 NITRIC ACID. Avoid skin and eye contact. If contact is made, FLUSH IMMEDIATELY with water.

Relinquished By	Company	Date	Time	Received By	Company	Seal #
Relinquished By	Company	Date	Time	Received By	Company	Seal #

Please notify us immediately if an error is found in shipment

# Water Sampling Field Log

Well No.: ARP-1

Project No.: \_\_\_\_\_ Site: NERT PROJECT- HENDERSON, NEVADA

Sampling Team: Michele Brown Date: 11/11/15

Sampling Method: Electric Pump  Dedicated Bailer  Non Dedicated Bailer  Ready Flo 2"

Weather Conditions: Sunny, warm

**Well Information:**

Total Well Depth: 44.20 feet Time: 0813

Depth to Water: 22.07 feet

	Well Diameter (circle one)				
	2-in.      4-in.      6-in				
Height of Water Column (L): <u>22.13</u> feet	* 0.16 gal/ft	* 0.65 gal/ft	* 1.47 gal/ft	= <u>3.54</u> gal.	* <u>3</u> = <u>11gal</u>

**Field Measurements:**

Depth Purging From: 2 ft. below depth to water

Time	Cumulative Volume Purged	pH	Specific Conductivity	Temp	Observations
<u>815</u>	----	----	----	----	
<u>819</u>	<u>4 gal</u>	<u>8.00</u>	<u>7.49 M/cm</u>	<u>21.7 °C</u>	<u>Clear</u>
<u>823</u>	<u>8 gal</u>	<u>7.91</u>	<u>7.44 M/cm</u>	<u>22.5 °C</u>	<u>Clear</u>
<u>826</u>	<u>11 gal</u>	<u>7.75</u>	<u>7.33 M/cm</u>	<u>23.7 °C</u>	<u>Clear</u>
	gal				
	gal				
	gal				<u>Field pH = 7.75</u>

Sample Appearance: clear

Sample Collection - Time Start: 0828 Time Finished: 0828

Analyses: CLO4 TDS TDS/pH CR  
 Bottles: 1 BTL 1 BTL 1 BTL 1 BTL

TOTAL BOTTLES: 3

Comments: Top of Screen 14-44-

# Water Sampling Field Log

Well No.: ARP-2A

Project No.: \_\_\_\_\_ Site: NERT PROJECT- HENDERSON, NEVADA

Sampling Team: Michele Brown, Daniel Rivera Date: 4/11/15

Sampling Method:  Electric Pump  Dedicated Bailer  Non Dedicated Bailer  Ready Flo 2" O

Weather Conditions: Sunny cool

**Well Information:**

Total Well Depth: 54.0 feet Time: 1131

Depth to Water: 23.71 feet

Height of Water Column (L): 30.29 feet \* 0.16 gal/ft \* 0.65 gal/ft \* 1.47 gal/ft = 4.84 gal. \* 3 = 15 gal

Well Diameter (circle one)  
 2-in.  4-in.  6-in.

Well Volume (WV) Purge Factor Purge Volume

**Field Measurements:**

Depth Purging From: 2 ft. below depth to water

Time	Cumulative Volume Purged	pH	Specific Conductivity	Temp	Observations
<u>1132</u>	----	----	----	----	
<u>1137</u>	<u>5</u> gal	<u>7.95</u>	<u>9.10</u> mS/cm	<u>23.9</u> °C	<u>clear</u>
<u>1142</u>	<u>10</u> gal	<u>7.74</u>	<u>9.06</u> mS/cm	<u>24.1</u> °C	<u>clear</u>
<u>1147</u>	<u>15</u> gal	<u>7.80</u>	<u>9.00</u> mS/cm	<u>22.5</u> °C	<u>clear</u>
	gal				
	gal				
	gal				<u>Field pH = 7.80</u>

Sample Appearance: clear

Sample Collection - Time Start: 1149 Time Finished: 1149

Analyses: CLO4 TDS TDS/pH CR  
 Bottles: 1 BTL 1 BTL 1 BTL 1 BTL

TOTAL BOTTLES: 3

Comments: Top of screen 23.7'

# Water Sampling Field Log

Well No.: ARP-3A

Project No.: \_\_\_\_\_ Site: NERT PROJECT- HENDERSON, NEVADA

Sampling Team: Michele Brown, Janel Rivera Date: 11/11/15

Sampling Method:  Electric Pump  Dedicated Bailer  Non Dedicated Bailer  Ready Flo 2" O

Weather Conditions: cool sunny

**Well Information:**

Total Well Depth: 41.0 feet Time: 1113

Depth to Water: 25.60 feet

Height of Water Column (L): 15.4 feet

Well Diameter (circle one)	Well	Purge	Purge
2-in.      4-in.      6-in.	Volume (WV)	Factor	Volume
<u>0.16 gal/ft</u> * <u>0.65 gal/ft</u> * <u>1.47 gal/ft</u>	<u>2.46 gal.</u> * <u>3</u>	<u>3</u>	<u>= 7 gal</u>

**Field Measurements:**

Depth Purging From: 2 ft. below depth to water

Time	Cumulative Volume Purged	pH	Specific Conductivity	Temp	Observations
<u>1114</u>	----	----	-----	-----	
<u>1117</u>	<u>3 gal</u>	<u>7.87</u>	<u>11.21 mS/cm</u>	<u>23.6 °C</u>	<u>clear</u>
<u>1119</u>	<u>5 gal</u>	<u>7.78</u>	<u>10.98 mS/cm</u>	<u>24.4 °C</u>	<u>clear</u>
<u>1121</u>	<u>7 gal</u>	<u>7.68</u>	<u>10.92 mS/cm</u>	<u>24.7 °C</u>	<u>clear</u>
	gal				
	gal				
	gal				<u>Field pH = 7.68</u>

Sample Appearance: clear slight yellow

Sample Collection - Time Start: 1123 Time Finished: 1123

Analyses: CLO4 TDS TDS/pH CR  
 Bottles: 1 BTL 1 BTL 1 BTL 1 BTL

TOTAL BOTTLES: 3

Comments: Top of screen 20.7'

# Water Sampling Field Log

Well No.: ARP-4A

Project No.: \_\_\_\_\_ Site: NERT PROJECT- HENDERSON, NEVADA

Sampling Team: Michele Brown, Janel Rivera Date: 11/11/15

Sampling Method:  Electric Pump  Dedicated Bailer  Non Dedicated Bailer  Ready Flo 2" O

Weather Conditions: \_\_\_\_\_

**Well Information:**

Total Well Depth: 33.0 feet Time: 1030

Depth to Water: 27.79 feet

Height of Water Column (L): 5.21 feet \* 0.16 gal/ft \* 0.65 gal/ft \* 1.47 gal/ft = .83 gal. \* 3 = 3gal

Well Diameter (circle one)  
 2-in.  4-in.  6-in.

Well Volume (WV) Purge Factor Purge Volume

**Field Measurements:**

Depth Purging From: 2 ft. below depth to water

Time	Cumulative Volume Purged	pH	Specific Conductivity	Temp	Observations
1031	-----	-----	-----	-----	
1032	1 gal	7.72	6.47 mS/cm	22.5 °C	Clear
1033	2 gal	7.69	6.41 mS/cm	23.7 °C	Clear
1034	3 gal	7.62	6.44 mS/cm	23.5 °C	Clear
	gal				
	gal				
	gal				Field pH=7.62

Sample Appearance: Clear

Sample Collection - Time Start: 1036 Time Finished: 1036

Analyses: CLO4 TDS TDS/pH CR  
 Bottles: 1 BTL 1 BTL 1 BTL 1 BTL

TOTAL BOTTLES: 3

Comments: screen 17.7 - 32.7

# Water Sampling Field Log

Well No.: ARP-5A

Project No.: \_\_\_\_\_ Site: NERT PROJECT- HENDERSON, NEVADA

Sampling Team: Michele Brown, Janel Rivera Date: 11/11/15

Sampling Method:  Electric Pump  Dedicated Bailer  Non Dedicated Bailer  Ready Flo 2" O

Weather Conditions: Sunny, warm

**Well Information:**

Total Well Depth: 38.0 feet Time: 1014

Depth to Water: 31.38 feet

Height of Water Column (L): 6.62 feet

Well Diameter (circle one)			Well	Purge	Purge
2-in.	4-in.	6-in.	Volume (WV)	Factor	Volume
* 0.16 gal/ft	* 0.65 gal/ft	* 1.47 gal/ft	= <u>1.05</u> gal.	* <u>3</u>	= <u>3gal</u>

**Field Measurements:**

Depth Purging From: 2 ft. below depth to water

Time	Cumulative Volume Purged	pH	Specific Conductivity	Temp	Observations
<u>1016</u>	----	----	----	----	
<u>1017</u>	<u>1 gal</u>	<u>7.84</u>	<u>3.59 m/cm</u>	<u>22.6 °C</u>	<u>clear</u>
<u>1018</u>	<u>2 gal</u>	<u>7.74</u>	<u>3.52 m/cm</u>	<u>23.2 °C</u>	<u>clear</u>
<u>1019</u>	<u>3 gal</u>	<u>7.69</u>	<u>3.47 m/cm</u>	<u>23.1 °C</u>	<u>clear</u>
	<u>gal</u>				
	<u>gal</u>				
	<u>gal</u>				<u>Field pH = 7.69</u>

Sample Appearance: clear

Sample Collection - Time Start: 1021 Time Finished: 1021

Analyses: CLO4 TDS TDS/pH CR  
 Bottles: 1 BTL 1 BTL 1 BTL 1 BTL

TOTAL BOTTLES: 3

Comments: screen 12.7 - 37.7'

Closing QC 6.98



# Water Sampling Field Log

Well No.: ARP-6B

Project No.: \_\_\_\_\_ Site: NERT PROJECT- HENDERSON, NEVADA

Sampling Team: Michele Brown, Lanel Rivera Date: 11/11/15

Sampling Method:  Electric Pump  Dedicated Bailer  Non Dedicated Bailer  Ready Flo 2" O

Weather Conditions: Sunny Warm

**Well Information:**

Total Well Depth: 43.0 feet Time: 958

Depth to Water: 31.00 feet

	Well Diameter (circle one)		Well Volume (VV)	Purge Factor	Purge Volume
Height of Water Column (L):	2-in. <input checked="" type="radio"/> 4-in. <input type="radio"/> 6-in. <input type="radio"/>				
<u>12.00</u> feet	* 0.16 gal/ft * 0.65 gal/ft * 1.47 gal/ft		= <u>1.92</u> gal.	* <u>3</u>	= <u>6 gal</u>

**Field Measurements:**

Depth Purging From: 2 ft. below depth to water

Time	Cumulative Volume Purged	pH	Specific Conductivity	Temp	Observations
<u>1000</u>	-----	-----	-----	-----	
<u>1002</u>	<u>2</u> gal	<u>7.65</u>	<u>9.92 mS/cm</u>	<u>23.4 °C</u>	<u>clear</u>
<u>1004</u>	<u>4</u> gal	<u>7.62</u>	<u>9.57 mS/cm</u>	<u>25.3 °C</u>	<u>clear</u>
<u>1006</u>	<u>6</u> gal	<u>7.55</u>	<u>9.48 mS/cm</u>	<u>24.4 °C</u>	<u>clear</u>
	gal				
	gal				
	gal				<u>Field pH = 7.55</u>

Sample Appearance: Clear

Sample Collection - Time Start: 1008 Time Finished: 1008

Analyses: ClO4 TDS TDS/pH CR  
 Bottles: 1 BTL 1 BTL 1 BTL 1 BTL

TOTAL BOTTLES: 3

Comments: Screen 27.7 - 42.7'

# Water Sampling Field Log

Well No.: ARP-7

Project No.: \_\_\_\_\_ Site: NERT PROJECT- HENDERSON, NEVADA

Sampling Team: Michele Brown, Janel Rivera Date: 11/11/15

Sampling Method: Electric Pump  Dedicated Bailer  Non Dedicated Bailer  Ready Flo 2"

Weather Conditions: Sunny warm

**Well Information:**

Total Well Depth: 39.0 feet Time: 937

Depth to Water: 29.06 feet

	Well Diameter (circle one)	Well	Purge	Purge
	2-in.    4-in.    6-in.	Volume (WV)	Factor	Volume
Height of Water Column (L): <u>9.94</u> feet	<input checked="" type="radio"/> 0.16 gal/ft <input type="radio"/> 0.65 gal/ft <input type="radio"/> 1.47 gal/ft	= <u>1.59</u> gal.	* <u>3</u>	= <u>5gal</u>

**Field Measurements:**

Depth Purging From: 2 ft. below depth to water

Time	Cumulative Volume Purged	pH	Specific Conductivity	Temp	Observations
<u>940</u>	-----	-----	-----	-----	
<u>942</u>	<u>2 gal</u>	<u>7.61</u>	<u>8.81 mS/cm</u>	<u>23.3 °C</u>	<u>Clear</u>
<u>944</u>	<u>4 gal</u>	<u>7.49</u>	<u>8.83 mS/cm</u>	<u>24.7 °C</u>	<u>Clear</u>
<u>945</u>	<u>5 gal</u>	<u>7.39</u>	<u>9.04 mS/cm</u>	<u>24.4 °C</u>	<u>Clear</u>
	gal				
	gal				
	gal				<u>Field pH = 7.39</u>

Sample Appearance: Clear

Sample Collection - Time Start: 947 Time Finished: 947

Analyses: QLO4 TDS TDS/pH CR  
 Bottles: 1 BTL 1 BTL 1 BTL 1 BTL

TOTAL BOTTLES: 3

Comments: screen 14-39'

Water Sampling Field Log

Well No.: ART-1

Project No.: \_\_\_\_\_ Site: NERT PROJECT- HENDERSON, NEVADA

Sampling Team: Michele Brown, Janel Rivera Date: 11/12/15

Sampling Method:  Sample Port  Disposable Bailer  Electric pump

Weather Conditions: Warm Sunny

Well Information:

Total Well Depth: 56.0 feet Time: 626

Depth to Water: - 20.55 feet

Well Diameter (circle one)  
2-in. 4-in. 6-in.

Water Column (L): 35.45 feet X 0.4893 1.9 4.41 = \_\_\_\_\_ Purge Volume

Field Measurements: Depth Purging From: 2 ft below DTW

Time	gals	pH	Temp	Observations of Sample
<u>11/12/15 730</u>				<u>No Sample due to die-in project unable to get water to sample</u>

Comments:

Sample Collection Time - \_\_\_\_\_ Field pH \_\_\_\_\_

Analyses:	<u>CR</u>	<u>CLO4</u>	<u>pH/TDS</u>	pH / TDS / CRVI	pH / TDS / NO3	pH / TDS / CRVI / NO3
Bottles:	<u>1 Bottle</u>	<u>1 Bottle</u>	<u>1 Bottle</u>	1 Bottle	1 Bottle	1 Bottle

TOTAL Bottles- 3

Water Sampling Field Log

Well No.: ART-1A

Project No.: \_\_\_\_\_ Site: NERT PROJECT- HENDERSON, NEVADA

Sampling Team: Michele Brown, Janel Rivera Date: 11/12/15

Sampling Method: Sample Port O Disposable Bailer O Electric pump O

Weather Conditions: Sunny, warm

Well Information:

Total Well Depth: 56.0 feet Time: 6:25

Depth to Water: - 20.73 feet

Water Column (L):	<u>35.27</u> feet	X	Well Diameter (circle one)			Purge Volume
			2-in.	4-in.	6-in.	
			0.4893	1.9	4.41	= _____

Field Measurements: Depth Purging From: 2 ft below DTW

Time	gals	pH	Temp	Observations of Sample

Comments: DTW ONLY - NO SAMPLE

Sample Collection Time - \_\_\_\_\_

Analyses:	<u>CR</u>	<u>CLO4</u>	<u>pH / TDS</u>	<u>pH / TDS / CRVI</u>	<u>pH / TDS / NO3</u>	<u>pH / TDS / CRVI / NO3</u>
Bottles:	<u>1 Bottle</u>	<u>1 Bottle</u>	<u>1 Bottle</u>	<u>1 Bottle</u>	<u>1 Bottle</u>	<u>1 Bottle</u>

TOTAL Bottles- 0

Water Sampling Field Log

Well No.: ART-20

Project No.: \_\_\_\_\_ Site: NERT PROJECT- HENDERSON, NEVADA

Sampling Team: Michele Brown, Janel Rivera Date: 11/2/15

Sampling Method:  Sample Port  Disposable Bailer  Electric pump

Weather Conditions: clear

Well Information:

Total Well Depth: 56.0 feet Time: 6:28 11/2/15

Depth to Water: - 23.56 feet  
Well Diameter (circle one) Purge Volume  
2-in. 4-in. 6-in.  
Water Column (L): 32.44 feet X 0.4893 1.9 4.41 = \_\_\_\_\_

Field Measurements: Depth Purging From: 2 ft below DTW

me	gals	ms/cm	pH	Temp	Observations of Sample
<u>734</u>		<u>13.77</u>	<u>7.39</u>	<u>25.9</u>	<u>clear</u>

Comments:

Sample Collection Time - 734 Field pH 7.39

Analyses:	CR	CLO4	pH/TDS	pH / TDS/ CRVI	pH/ TDS / NO3	pH / TDS / CRVI / NO3
Bottles:	<u>1 Bottle</u>	<u>1 Bottle</u>	<u>1 Bottle</u>	1 Bottle	1 Bottle	1 Bottle

TOTAL Bottles- 3

Water Sampling Field Log

Well No.: ART-2A

Project No.: \_\_\_\_\_ Site: NERT PROJECT- HENDERSON, NEVADA

Sampling Team: Michele Brown, Janel Rivera Date: 11/12/15

Sampling Method: Sample Port O Disposable Bailer O Electric pump O

Weather Conditions: Sunny, warm

Well Information: \_\_\_\_\_

Total Well Depth: 58.0 feet Time: 6:27

Depth to Water: -	<u>22.97</u> feet		Well Diameter (circle one)			Purge Volume
			<u>2-in.</u>	4-in.	6-in.	
Water Column (L):	<u>35.03</u> feet	X	0.4893	1.9	4.41	= _____

Field Measurements: Depth Purging From: 2 ft below DTW

Time	gals	pH	Temp	Observations of Sample

Comments: DTW ONLY  
NO SAMPLE

Sample Collection Time - \_\_\_\_\_

Analyses:	CR	CLO4	pH/TDS	pH/TDS/CRVI	pH/TDS/NO3	pH/TDS/CRVI/NO3
Bottles:	1 Bottle	1 Bottle	1 Bottle	1 Bottle	1 Bottle	1 Bottle

TOTAL Bottles- 0

Water Sampling Field Log

Well No.: ART-3

Project No.: \_\_\_\_\_ Site: NERT PROJECT- HENDERSON, NEVADA

Sampling Team: Michele Brown, Janel Rivera Date: 11/12/15

Sampling Method:  Sample Port  Disposable Bailer  Electric pump

Weather Conditions: Sunny, warm

Well Information:

Total Well Depth: 47.0 feet Time: 634

Depth to Water: - 23.06 feet

Water Column (L):	<u>23.94</u> feet	X	Well Diameter (circle one)			=	Purge Volume
			2-in.	4-in.	6-in.		
			0.4893	1.9	4.41		

Field Measurements: Depth Purging From: 2 ft below DTW

me	gals	pH	Temp	Observations of Sample

Comments: DTW ONLY  
NO SAMPLE

Sample Collection Time - \_\_\_\_\_

Analyses:	CR	CLO4	pH/TDS	pH / TDS/ CRVI	pH/ TDS / NO3	pH / TDS / CRVI / NO3
Bottles:	1 Bottle	1 Bottle	1 Bottle	1 Bottle	1 Bottle	1Bottle

TOTAL Bottles- 6

Water Sampling Field Log

Well No.: ART-3A

Project No.: \_\_\_\_\_

Site: NERT PROJECT- HENDERSON, NEVADA

Sampling Team: Michele Brown, Janel Rivera

Date: 11/2/15

Sampling Method:  Sample Port  Disposable Bailer  Electric pump

Weather Conditions: Clear

Well Information:

Total Well Depth: 55.0 feet Time: 632 11/2/15

Depth to Water: - 24.09 feet

Water Column (L):	<u>30.91</u> feet	X	Well Diameter (circle one)			=	Purge Volume
			<u>2-in.</u>	<u>4-in.</u>	<u>6-in.</u>		
			0.4893	1.9	4.41		

Field Measurements: Depth Purging From: 2 ft below DTW

Time	gals	ms/cm	pH	Temp	Observations of Sample
<u>802</u>		<u>11.35</u>	<u>7.54</u>	<u>25.0</u>	<u>Clear</u>

Comments:

Sample Collection Time - 802

Analyses:	<u>CR</u>	<u>CLO4</u>	<u>pH/TDS</u>	pH / TDS / CRVI	pH / TDS / NO3	pH / TDS / CRVI / NO3
Bottles:	<u>1 Bottle</u>	<u>1 Bottle</u>	<u>1 Bottle</u>	1 Bottle	1 Bottle	1 Bottle

TOTAL Bottles- 3



Water Sampling Field Log

Well No.: ART-4

Project No.: \_\_\_\_\_ Site: NERT PROJECT- HENDERSON, NEVADA

Sampling Team: Michele Brown, Janel Rivera Date: 11/2/15

Sampling Method:  Sample Port  Disposable Bailer  Electric pump

Weather Conditions: Clear

Well Information:

Total Well Depth: 46.0 feet Time: 640 11/2/15

Depth to Water: - 25.12 feet

Water Column (L):	<u>20.88</u> feet	X	Well Diameter (circle one)			=	Purge Volume
			<u>2-in.</u>	<u>4-in.</u>	<u>6-in.</u>		
			0.4893	1.9	4.41		

Field Measurements: Depth Purging From: 2 ft below DTW

Time	gals	MS/cm	pH	Temp	Observations of Sample
<u>814</u>		<u>7.59</u>	<u>7.49</u>	<u>25.1</u>	<u>Clear</u>

Comments:

Sample Collection Time - 814

Analyses:	<u>CR</u>	<u>CLO4</u>	<u>pH/TDS</u>	pH / TDS / CRVI	pH/ TDS / NO3	pH / TDS / CRVI / NO3
Bottles:	<u>1 Bottle</u>	<u>1 Bottle</u>	<u>1 Bottle</u>	1 Bottle	1 Bottle	1Bottle

TOTAL Bottles- 3

Water Sampling Field Log

Well No.: ART-4A

Project No.: \_\_\_\_\_ Site: NERT PROJECT- HENDERSON, NEVADA

Sampling Team: Michele Brown, Janel Rivera Date: 11/12/15

Sampling Method: Sample Port O Disposable Bailer O Electric pump O

Weather Conditions: \_\_\_\_\_

Well Information:

Total Well Depth: 46.0 feet Time: 639

Depth to Water: - 24.77 feet

Water Column (L):	<u>21.23</u> feet	X	Well Diameter (circle one)			Purge Volume
			2-in.	4-in.	6-in.	
			0.4893	1.9	4.41	= _____

Field Measurements: Depth Purging From: 2 ft below DTW

Time	Gals	pH	Temp	Observations of Sample

Comments: DTW ONLY  
NO SAMPLE

Sample Collection Time - \_\_\_\_\_

Analyses:	CR	CLO4	pH / TDS	pH / TDS / CRVI	pH / TDS / NO3	pH / TDS / CRVI / NO3
Bottles:	1 Bottle	1 Bottle	1 Bottle	1 Bottle	1 Bottle	1 Bottle

TOTAL Bottles- 0

Water Sampling Field Log

Well No.: ART-10

Project No.: \_\_\_\_\_ Site: NERT PROJECT- HENDERSON, NEVADA

Sampling Team: Michele Brown, Janel Rivera Date: 11/2/15

Sampling Method:  Sample Port  Disposable Bailer  Electric pump

Weather Conditions: clear

Well Information: \_\_\_\_\_ 11/18/15

Total Well Depth: 32.0 feet Time: 1106

Depth to Water: - 28.95 feet

Water Column (L):	<u>7.05</u> feet	X	Well Diameter (circle one)			=	Purge Volume
			<u>2-in.</u>	<u>4-in.</u>	<u>6-in.</u>		
			0.4893	1.9	4.41		

Field Measurements: Depth Purging From: 2 ft below DTW

Time	gals	MS/cm	pH	Temp	Observations of Sample
<u>841</u>		<u>7.27</u>	<u>3.785</u>	<u>24.9</u>	<u>clear</u>

Comments:

Sample Collection Time - 841

Analyses:	<u>CR</u>	<u>CLO4</u>	<u>pH/TDS</u>	<u>pH/TDS/CRVI</u>	<u>pH/TDS/NO3</u>	<u>pH/TDS/CRVI/NO3</u>
Bottles:	<u>1 Bottle</u>	<u>1 Bottle</u>	<u>1 Bottle</u>	<u>1 Bottle</u>	<u>1 Bottle</u>	<u>1 Bottle</u>

TOTAL Bottles- 3

# Water Sampling Field Log

Well No.: ART-7

Project No.: \_\_\_\_\_ Site: NERT PROJECT- HENDERSON, NEVADA

Sampling Team: Michele Brown Date: 11/18/15

Sampling Method:  Electric Pump  Dedicated Bailer  Non Dedicated Bailer  Ready Flo 2"

Weather Conditions: \_\_\_\_\_

Well Information: \_\_\_\_\_  
 Total Well Depth: \_\_\_\_\_ feet Time: 1109 *Well capped no DTW reading*

Depth to Water: \_\_\_\_\_ feet  
 Well Diameter (circle one)  2-in.  4-in.  6-in. Well Volume (WV) \_\_\_\_\_ Purge Factor \_\_\_\_\_ Purge Volume \_\_\_\_\_

Height of Water Column (L): \_\_\_\_\_ feet \* 0.16 gal/ft \* 0.65 gal/ft \* 1.47 gal/ft = \_\_\_\_\_ gal. \* 3 = \_\_\_\_\_

Field Measurements: Depth Purging From: 2 ft. below depth to water

Time	Cumulative Volume Purged	pH	Specific Conductivity	Temp	Observations
_____	_____ gal	_____	_____	_____	_____
_____	_____ gal	_____	_____	_____	_____
_____	_____ gal	_____	_____	_____	_____
_____	_____ gal	_____	_____	_____	_____
_____	_____ gal	_____	_____	_____	_____
_____	_____ gal	_____	_____	_____	_____

Sample Appearance: \_\_\_\_\_

Sample Collection - Time Start: \_\_\_\_\_ Time Finished: \_\_\_\_\_

Analyses: CLO4 TDS TDS/pH CR  
 Bottles: 1 BTL 1 BTL 1 BTL 1BTL

TOTAL BOTTLES: \_\_\_\_\_

Comments:

**Water Sampling Field Log**

Well No.: ART-7A

Project No.: \_\_\_\_\_ Site: NERT PROJECT- HENDERSON, NEVADA

Sampling Team: Michele Brown, Janel Rivera Date: 11/18/15

Sampling Method: Sample Port O Disposable Bailer O Electric pump O

Weather Conditions: sunny warm

**Well Information:** \_\_\_\_\_

Total Well Depth: 40.0 feet Time: 1110

Depth to Water: - 29.07 feet

Well Diameter (circle one)  
2-in. 4-in. 6-in.

Purge Volume

Water Column (L): 10.93 feet X 0.4893 1.9 4.41 = \_\_\_\_\_

Field Measurements: Depth Purging From: 2 ft below DTW

Time	gals	pH	Temp	Observations of Sample

Comments: DTW ONLY  
NO SAMPLE



Sample Collection Time - \_\_\_\_\_

Analyses:	CR	CLO4	pH / TDS	pH / TDS / CRVI	pH / TDS / NO3	pH / TDS / CRVI / NO3
Bottles:	1 Bottle	1 Bottle	1 Bottle	1 Bottle	1 Bottle	1 Bottle

TOTAL Bottles- 0

Water Sampling Field Log

Well No.: ART-7B

Project No.: \_\_\_\_\_ Site: NERT PROJECT- HENDERSON, NEVADA

Sampling Team: Michele Brown, Janet Rivera Date: 11/2/15

Sampling Method:  Sample Port  Disposable Bailer  Electric pump

Weather Conditions: Clear

Well Information: Total Well Depth: 50.0 feet Time: 11/18/15 1112

Depth to Water: 40.30 feet Well Diameter (circle one)  2-in.  4-in.  6-in. Purge Volume \_\_\_\_\_  
Water Column (L): 9.70 feet X 0.4893 1.9 4.41 = \_\_\_\_\_

Field Measurements: Depth Purging From: 2 ft below DTW

Time	gals	MS/Km	pH	Temp	Observations of Sample
<u>7:46</u>		<u>9.24</u>	<u>7.61</u>	<u>25.5</u>	<u>Clear</u>

Comments:

Sample Collection Time - 7:46

Analyses:	CR	ClO4	pH/TDS	pH/TDS/CRVI	pH/TDS/NO3	pH/TDS/CRVI/NO3
Bottles:	<u>1 Bottle</u>	<u>1 Bottle</u>	<u>1 Bottle</u>	1 Bottle	1 Bottle	1 Bottle

TOTAL Bottles- 3

Water Sampling Field Log

Well No.: ART-8

Project No.: \_\_\_\_\_ Site: NERT PROJECT- HENDERSON, NEVADA

Sampling Team: Michele Brown, Janel Rivera Date: 11/2/15

Sampling Method: Sample Port  Disposable Bailer  Electric pump

Weather Conditions: Clear

Well Information:

Total Well Depth: 50.53 feet Time: 630 11/2/15

Depth to Water: - 24.10 feet

Water Column (L):	<u>26.43</u> feet	X	Well Diameter (circle one)			=	Purge Volume
			2-in.	4-in.	6-in.		
			0.4893	1.9	4.41		

Field Measurements: Depth Purging From: 2 ft below DTW

Time	gals	ms/cm	pH	Temp	Observations of Sample
<u>807</u>		<u>13.64</u>	<u>7.34</u>	<u>27.3</u>	<u>Clear</u>

Comments:

Sample Collection Time - 7.34

Analyses:	<u>CR</u>	<u>CLO4</u>	<u>pH/TDS</u>	pH / TDS / CRVI	pH / TDS / NO3	pH / TDS / CRVI / NO3
Bottles:	<u>1 Bottle</u>	<u>1 Bottle</u>	<u>1 Bottle</u>	1 Bottle	1 Bottle	1 Bottle

TOTAL Bottles- 3

**Water Sampling Field Log**

Well No.: ART-8A

Project No.: \_\_\_\_\_ Site: NERT PROJECT- HENDERSON, NEVADA

Sampling Team: Michele Brown, Janel Rivera Date: 11/12/15

Sampling Method:  Sample Port  Disposable Bailer  Electric pump

Weather Conditions: \_\_\_\_\_

**Well Information:**

Total Well Depth: 54.0 feet Time: 629

Depth to Water: - 23.18 feet

Water Column (L):	<u>30.22</u> feet	X	Well Diameter (circle one)			=	Purge Volume
			<u>2-in.</u>	<u>4-in.</u>	<u>6-in.</u>		
			0.4893	1.9	4.41		

Field Measurements: Depth Purging From: 2 ft below DTW

Time	gals	pH	Temp	Observations of Sample

Comments: DTW ONLY  
NO SAMPLE

Sample Collection Time - \_\_\_\_\_

Analyses:	CR	CLO4	pH / TDS	pH / TDS / CRVI	pH / TDS / NO3	pH / TDS / CRVI / NO3
Bottles:	1 Bottle	1 Bottle	1 Bottle	1 Bottle	1 Bottle	1 Bottle

TOTAL Bottles- 0



Water Sampling Field Log

Well No.: ART-9

Project No.: \_\_\_\_\_

Site: NERT PROJECT- HENDERSON, NEVADA

Sampling Team: Michele Brown

Date: 11/2/15

Sampling Method: Sample Port  Disposable Bailer  Electric pump

Weather Conditions: Clear

Well Information:

Total Well Depth: 43.0 feet Time: 1108

Depth to Water: - 31.28 feet

Water Column (L):	<u>11.72</u> feet	X	Well Diameter (circle one)			=	Purge Volume
			<u>2-in.</u>	<u>4-in.</u>	<u>6-in.</u>		
			0.4893	1.9	4.41		

Field Measurements: Depth Purging From: 2 ft below DTW

Time	gals	ms/cm	pH	Temp	Observations of Sample
<u>825</u>		<u>7.17</u>	<u>7.46</u>	<u>25.3</u>	<u>Clear</u>

Comments:

Sample Collection Time - 825

Analyses:	<u>CR</u>	<u>CLO4</u>	<u>pH/TDS</u>	pH / TDS / CRVI	pH / TDS / NO3	pH / TDS / CRVI / NO3
Bottles:	<u>1 Bottle</u>	<u>1 Bottle</u>	<u>1 Bottle</u>	1 Bottle	1 Bottle	1 Bottle

TOTAL Bottles- 3

# Water Sampling Field Log

Well No.: I- AA

Project No.: \_\_\_\_\_ Site: NERT PROJECT- HENDERSON, NEVADA

Sampling Team: Michele Brown, Janel Rivera Date: 11-2-15

Sampling Method: Sample taken from spigot on treatment system discharge line

Weather Conditions: cool, windy, clear

## Well Information:

Total Well Depth: 46.0 feet Time: 0904

Depth to Water: 42.51 feet

Height of Water Column (L): 3.49 feet

## Field Measurements:

Time	Specific Conductivity	Temperature	pH	Observations
<u>0906</u>	<u>526 mS/cm</u>	<u>26.5 °C</u>	<u>7.37</u>	<u>Clear</u>

Sample Appearance: Clear

Sample Collection - Time Start: 0907 Time Finished: 0907

Analyses: pH / TDS CR CLO4  
Bottles: 3 Bottles

Comments:

Water Sampling Field Log

Well No.: I- AB

Project No.: \_\_\_\_\_ Site: NERT PROJECT- HENDERSON, NEVADA

Sampling Team: Michele Brown, Janel Rivera Date: 11-2-15

Sampling Method: Sample taken from spigot on treatment system discharge line

Weather Conditions: cool, windy, sunny

Well Information:

Total Well Depth: 52.0 feet Time: 0856

Depth to Water: 41.45 feet

Height of Water Column (L): 10.55 feet

Field Measurements:

Time	Specific Conductivity	Temperature	pH	Observations
<u>0858</u>	<u>5.18 mS/cm</u>	<u>23.0 °C</u>	<u>7.50</u>	<u>clear</u>

Sample Appearance: clear

Sample Collection - Time Start: 0859 Time Finished: 0859

Analyses: pH / TDS CR CLO4  
Bottles: 3 Bottles

Comments: turned pump on to sample  
closing qc = 7.0

# Water Sampling Field Log

Well No.: I- AC

Project No.: \_\_\_\_\_ Site: NERT PROJECT- HENDERSON, NEVADA

Sampling Team: Michele Brown, Janel Rivera Date: 11-6-15

Sampling Method: Sample taken from spigot on treatment system discharge line

Weather Conditions: Sunny, warm

## Well Information:

Total Well Depth: 50 feet Time: 1047

Depth to Water: 29.18 feet

Height of Water Column (L): 20.82 feet

## Field Measurements:

Time	Specific Conductivity	Temperature	pH	Observations
_____	<u>ms/cm</u>	<u>02</u>	_____	_____

Sample Appearance: \_\_\_\_\_

Sample Collection - Time Start: \_\_\_\_\_ Time Finished: \_\_\_\_\_

Analyses: pH / TDS CR CLO4  
Bottles: 3 Bottles

Comments:

pump turned on  
no water pumping  
unable to obtain  
sample

# Water Sampling Field Log

Well No.: I- AD

Project No.: \_\_\_\_\_ Site: NERT PROJECT- HENDERSON, NEVADA

Sampling Team: Janel Rivera, Michelle Brown Date: 11/6/15

Sampling Method: Sample taken from spigot on treatment system discharge line

Weather Conditions: Sunny warm

## Well Information:

Total Well Depth: 50.00 feet Time: 0734

Depth to Water: 37.69 feet

Height of Water Column (L): 12.31 feet

## Field Measurements:

Time	Specific Conductivity	Temperature	Field pH	Observations
<u>11/10/15</u>	<u>0538</u>			
<u>0538</u>	<u>5.98 <math>\frac{ms}{cm}</math></u>	<u>24.6<sup>o</sup>C</u>	<u>7.39</u>	<u>light yellow</u>

Sample Appearance: light yellow

Sample Collection - Time Start: 0538 Time Finished: 0538

Analyses: TDS CR CLO4  
Bottles: 3 Bottles

Comments:

# Water Sampling Field Log

Well No.: I- AR

Project No.: \_\_\_\_\_ Site: NERT PROJECT- HENDERSON, NEVADA

Sampling Team: Michele Brown, Janel Rivera Date: ~~11/5/15~~ <sup>JR</sup> 11/6/15

Sampling Method: Sample taken from spigot on treatment system discharge line

Weather Conditions: dark cold

## Well Information:

Total Well Depth: 45.0 feet Time: 1009  
Depth to Water: 32.65 feet DTW done 11/5/15  
Height of Water Column (L): 12.35 feet Sample collected 11/6/15

## Field Measurements:

Time	Specific Conductivity	Temperature	pH	Observations
<u>438</u>	<u>756 mS/cm</u>	<u>25.4 °C</u>	<u>6.92</u>	<u>clear</u>

Sample Appearance: Clear

Sample Collection - Time Start: 438 Time Finished: 438

Analyses: pH / TDS CR CLO4  
Bottles: 3 Bottles

Comments:

# Water Sampling Field Log

Well No.: I- B

Project No.: \_\_\_\_\_ Site: NERT PROJECT- HENDERSON, NEVADA

Sampling Team: Michele Brown, Janel Rivera Date: 11-2-15

Sampling Method: Sample taken from spigot on treatment system discharge line

Weather Conditions: cool, sunny, windy

## Well Information:

Total Well Depth: 45.70 feet Time: 0844

Depth to Water: 43.47 feet

Height of Water Column (L): 2.23 feet

## Field Measurements:

Time	Specific Conductivity	Temperature	pH	Observations
<u>0846</u>	<u>6.15 mscm</u>	<u>26.4 °C</u>	<u>7.18</u>	<u>clear</u>

Sample Appearance: clear

Sample Collection - Time Start: 0847 Time Finished: 0847

Analyses: pH / TDS CR CLO4  
Bottles: 3 Bottles

Comments:

# Water Sampling Field Log

Well No.: I-C

Project No.: \_\_\_\_\_ Site: NERT PROJECT- HENDERSON, NEVADA

Sampling Team: Michele Brown, Janel Rivera Date: 11/5/15

Sampling Method: Sample taken from spigot on treatment system discharge line

Weather Conditions: Sunny warm

## Well Information:

Total Well Depth: 43.80 feet Time: 1033

Depth to Water: 36.82 feet

Height of Water Column (L): 6.98 feet

## Field Measurements:

Time	Specific Conductivity	Temperature	pH	Observations
<u>1035</u>	<u>808 mS/cm</u>	<u>22.0 °C</u>	<u>7.38</u>	<u>light yellow</u>

Sample Appearance: light yellow

Sample Collection - Time Start: 1035 Time Finished: 1035

Analyses: pH / TDS CR CLO4  
Bottles: 3 Bottles

Comments:



# Water Sampling Field Log

Well No.: I-D

Project No.: \_\_\_\_\_ Site: NERT PROJECT- HENDERSON, NEVADA

Sampling Team: Michele Brown, Janel Rivera Date: 11-2-15

Sampling Method: Sample taken from spigot on treatment system discharge line

Weather Conditions: cool, sunny

## Well Information:

Total Well Depth: 47.70 feet Time: 0719

Depth to Water: 28.22 feet

Height of Water Column (L): 19.48 feet

## Field Measurements:

Time	Specific Conductivity	Temperature	pH	Observations
<u>0721</u>	<u>8.51 mS/cm</u>	<u>24.7 °C</u>	<u>0736</u>	<u>slightly yellow</u>

Sample Appearance: slightly yellow

Sample Collection - Time Start: 0722 Time Finished: 0722

Analyses: pH / TDS CR CLO4  
Bottles: 3 Bottles

Comments:

# Water Sampling Field Log

Well No.: 1-E

Project No.: \_\_\_\_\_ Site: NERT PROJECT- HENDERSON, NEVADA

Sampling Team: Michele Brown, Janel Rivera Date: 11-2-15

Sampling Method: Sample taken from spigot on treatment system discharge line

Weather Conditions: cool, sunny, windy

## Well Information:

Total Well Depth: 46.70 feet Time: 0949

Depth to Water: 33.89 feet

Height of Water Column (L): 12.81 feet

## Field Measurements:

Time	Specific Conductivity	Temperature	pH	Observations
<u>0951</u>	<u>9.97 mS/cm</u>	<u>32.9 °C</u>	<u>7.25</u>	<u>yellow</u>

Sample Appearance: yellow

Sample Collection - Time Start: 0952 Time Finished: 0952

Analyses: pH / TDS CR CLO4  
Bottles: 3 Bottles

Comments:

# Water Sampling Field Log

Well No.: I-F

Project No.: \_\_\_\_\_ Site: NERT PROJECT- HENDERSON, NEVADA

Sampling Team: Michele Brown, Janet Rivera Date: 11-2-15

Sampling Method: Sample taken from spigot on treatment system discharge line

Weather Conditions: cool

## Well Information:

Total Well Depth: 45.80 feet Time: 0628

Depth to Water: 32.12 feet

Height of Water Column (L): 13.68 feet

## Field Measurements:

Time	Specific Conductivity	Temperature	pH	Observations
<u>0630</u>	<u>12.08 mS/cm</u>	<u>22.1 °C</u>	<u>7.23</u>	<u>yellow</u>

Sample Appearance: yellow

Sample Collection - Time Start: 0631 Time Finished: 0631

Analyses: pH / TDS CR CLO4  
Bottles: 3 Bottles

Comments:

# Water Sampling Field Log

Well No.: 1- G

Project No.: \_\_\_\_\_ Site: NERT PROJECT- HENDERSON, NEVADA

Sampling Team: Michele Brown, Janel Rivera Date: 11-2-15

Sampling Method: Sample taken from spigot on treatment system discharge line

Weather Conditions: COOL

## Well Information:

Total Well Depth: 42.60 feet Time: 0601

Depth to Water: 40.26 feet

Height of Water Column (L): 2.34 feet

## Field Measurements:

Time	Specific Conductivity	Temperature	pH	Observations
<u>0602</u>	<u>15.09 mS/cm</u>	<u>25.3 °C</u>	<u>7.05</u>	<u>yellow</u>

Sample Appearance: yellow

Sample Collection - Time Start: 0603 Time Finished: 0603

Analyses: pH / TDS CR CLO4  
Bottles: 3 Bottles

Comments:

# Water Sampling Field Log

Well No.: I- H

Project No.: \_\_\_\_\_ Site: NERT PROJECT- HENDERSON, NEVADA

Sampling Team: Michele Brown, Janel Rivera Date: 11-2-15

Sampling Method: Sample taken from spigot on treatment system discharge line

Weather Conditions: Cool

## Well Information:

Total Well Depth: 46.50 feet Time: 0530

Depth to Water: 44.05 feet

Height of Water Column (L): 2.45 feet

## Field Measurements:

Time	Specific Conductivity	Temperature	pH	Observations
<u>0531</u>	<u>13.36 mS/cm</u>	<u>20.8 °C</u>	<u>7.13</u>	<u>yellow</u>

Sample Appearance: yellow

Sample Collection - Time Start: 0532 Time Finished: 0532

Analyses: pH / TDS CR CLO4  
Bottles: 3 Bottles

Comments:

# Water Sampling Field Log

Well No.: I- I

Project No.: \_\_\_\_\_ Site: NERT PROJECT- HENDERSON, NEVADA

Sampling Team: Janel Rivera, Michele Brown Date: 11-6-15

Sampling Method: Sample taken from spigot on treatment system discharge line

Weather Conditions: Sunny, cool

## Well Information:

Total Well Depth: 44.20 feet Time: 0909

Depth to Water: \_\_\_\_\_ feet

Height of Water Column (L): \_\_\_\_\_ feet

unable to get DTW  
due to equipment installed  
in well

## Field Measurements:

Time	Specific Conductivity	Temperature	Field pH	Observations
<u>0912</u>	<u>9.06 mS/cm</u>	<u>24.7°C</u>	<u>7.47</u>	<u>yellow</u>

Sample Appearance: yellow

Sample Collection - Time Start: 0912 Time Finished: 0912

Analyses: TDS CR CLO4  
Bottles: 3 Bottles

Comments:

# Water Sampling Field Log

Well No.: I-J

Project No.: \_\_\_\_\_ Site: NERT PROJECT- HENDERSON, NEVADA

Sampling Team: Michele Brown, Janel Rivera Date: 11/6/15

Sampling Method: Sample taken from spigot on treatment system discharge line

Weather Conditions: Sunny Cool

## Well Information:

Total Well Depth: 44.50 feet Time: 819

Depth to Water: 41.58 feet

Height of Water Column (L): 2.92 feet

## Field Measurements:

Time	Specific Conductivity	Temperature	pH	Observations
<u>821</u>	<u>7.28 mS/cm</u>	<u>22.2 °C</u>	<u>7.50</u>	<u>Clear</u>

Sample Appearance: Clear

Sample Collection - Time Start: 821 Time Finished: 821

Analyses: pH / TDS CR CLO4  
Bottles: 3 Bottles

Comments:

# Water Sampling Field Log

Well No.: I- K

Project No.: \_\_\_\_\_ Site: NERT PROJECT- HENDERSON, NEVADA

Sampling Team: Michele Brown, Janel Rivera Date: 11/6/15

Sampling Method: Sample taken from spigot on treatment system discharge line

Weather Conditions: Sunny warm

## Well Information:

Total Well Depth: 40.60 feet Time: 11/10 0533

Depth to Water: 32.74 feet

Height of Water Column (L): 7.86 feet

## Field Measurements:

Time	Specific Conductivity	Temperature	pH	Observations
<u>0745</u>	<u>7.18 mS/cm</u>	<u>23.6°C</u>	<u>7.41</u>	<u>Clear</u>

Sample Appearance: Clear

Sample Collection - Time Start: 0745 Time Finished: 0745

Analyses: CLO4 / CR / TDS  
Bottles: 3 Bottles

Comments:

Dup 4 collected here for same analysis



# Water Sampling Field Log

Well No.: I- L

Project No.: \_\_\_\_\_ Site: NERT PROJECT- HENDERSON, NEVADA

Sampling Team: Michele Brown, Janel Rivera Date: 11-2-15

Sampling Method: Sample taken from spigot on treatment system discharge line

Weather Conditions: cool, clear, breezy

## Well Information:

Total Well Depth: 43.40 feet Time: 0811

Depth to Water: 28.92 feet

Height of Water Column (L): 14.58 feet

## Field Measurements:

Time	Specific Conductivity	Temperature	pH	Observations
<u>0813</u>	<u>1.28 mS/cm</u>	<u>30.7 °C</u>	<u>7.14</u>	<u>clear</u>

Sample Appearance: clear

Sample Collection - Time Start: 0814 Time Finished: 0814

Analyses: pH / TDS CR CLO4  
Bottles: 3 Bottles

## Comments:

Dup EC 7.32  
EC 30.1  
Temp

# Water Sampling Field Log

Well No.: I-M

Project No.: \_\_\_\_\_ Site: NERT PROJECT- HENDERSON, NEVADA

Sampling Team: Michele Brown, Janel Rivera Date: 11-2-15

Sampling Method: Sample taken from spigot on treatment system discharge line

Weather Conditions: cool, sunny

## Well Information:

Total Well Depth: 43.70 feet Time: 0704

Depth to Water: 35.93 feet

Height of Water Column (L): 7.77 feet

## Field Measurements:

Time	Specific Conductivity	Temperature	pH	Observations
<u>0706</u>	<u>9.88 mS/cm</u>	<u>23.2 °C</u>	<u>7.36</u>	<u>light yellow</u>

Sample Appearance: light yellow

Sample Collection - Time Start: 0707 Time Finished: 0707

Analyses: pH / TDS CR CLO4

Bottles: 3 Bottles

Comments: closing QC 7.01

# Water Sampling Field Log

Well No.: 1-N

Project No.: \_\_\_\_\_ Site: NERT PROJECT- HENDERSON, NEVADA

Sampling Team: Michele Brown, Janel Rivera Date: 11-2-15

Sampling Method: Sample taken from spigot on treatment system discharge line

Weather Conditions: cool, sunny

## Well Information:

Total Well Depth: 41.70 feet Time: 0648

Depth to Water: 33.11 feet

Height of Water Column (L): 8.59 feet

## Field Measurements:

Time	Specific Conductivity	Temperature	pH	Observations
<u>0650</u>	<u>9.18 mS/cm</u>	<u>22.6 °C</u>	<u>7.08</u>	<u>light yellow</u>

Sample Appearance: light yellow

Sample Collection - Time Start: 0651 Time Finished: 0651

Analyses: pH / TDS CR CLO4  
Bottles: 3 Bottles

Comments:

# Water Sampling Field Log

Well No.: I- 0

Project No.: \_\_\_\_\_ Site: NERT PROJECT- HENDERSON, NEVADA

Sampling Team: Michele Brown, Janel Rivera Date: 11-2-15

Sampling Method: Sample taken from spigot on treatment system discharge line

Weather Conditions: cool

## Well Information:

Total Well Depth: 43.80 feet Time: 0503

Depth to Water: 31.49 feet

Height of Water Column (L): 12.31 feet

## Field Measurements:

Time	Specific Conductivity	Temperature	pH	Oberservations
<u>0504</u>	<u>10.80 mS/cm</u>	<u>23.2 °C</u>	<u>7.33</u>	<u>yellow</u>

Sample Appearance: yellow

Sample Collection - Time Start: 0505 Time Finished: 0505

Analyses: pH / TDS CR CLO4  
Bottles: 3 Bottles

Comments:

# Water Sampling Field Log

Well No.: I-P

Project No.: \_\_\_\_\_ Site: NERT PROJECT- HENDERSON, NEVADA

Sampling Team: Michele Brown, Janel Rivera Date: 11-2-15

Sampling Method: Sample taken from spigot on treatment system discharge line

Weather Conditions: cool

## Well Information:

Total Well Depth: 47.80 feet Time: 0517

Depth to Water: 39.75 feet

Height of Water Column (L): 8.05 feet

## Field Measurements:

Time	Specific Conductivity	Temperature	pH	Observations
<u>0518</u>	<u>1126 mS/cm</u>	<u>22.2<sup>o</sup>C</u>	<u>7.16</u>	<u>yellow</u>

Sample Appearance: yellow

Sample Collection - Time Start: 0519 Time Finished: 0519

Analyses: pH / TDS CR CLO4  
Bottles: 3 Bottles

Comments:

# Water Sampling Field Log

Well No.: I-Q

Project No.: \_\_\_\_\_ Site: NERT PROJECT- HENDERSON, NEVADA

Sampling Team: Michele Brown, Janel Rivera Date: 11/18/15

Sampling Method: Sample taken from spigot on treatment system discharge line

Weather Conditions: warm clear

## Well Information:

Total Well Depth: 43.80 feet

Time: ~~1054~~ <sup>11/19/15 JR</sup> 1200 <sup>11/18/15</sup>

Depth to Water: 39.44 feet

Height of Water Column (L): 4.36 feet

## Field Measurements:

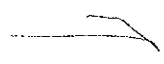
Time	Specific Conductivity	Temperature	pH	Observations
<u>1200</u>	<u>13.99 mS/cm</u>	<u>21.2 °C</u>	<u>7.60</u>	<u>yellow</u>

Sample Appearance: yellow

Sample Collection - Time Start: 1200 Time Finished: 1200

Analyses: pH / TDS CR CLO4  
Bottles: 3 Bottles

Comments:



Water Sampling Field Log

Well No.: I- R

Project No.: \_\_\_\_\_ Site: NERT PROJECT- HENDERSON, NEVADA

Sampling Team: Michele Brown, Janel Rivera Date: 11-2-15

Sampling Method: Sample taken from spigot on treatment system discharge line

Weather Conditions: COOL, sunny, windy.

Well Information:

Total Well Depth: 45.30 feet Time: 0834

Depth to Water: 30.13 feet

Height of Water Column (L): 25.17 feet

Field Measurements:

Time	Specific Conductivity	Temperature	pH	Observations
<u>0834</u>	<u>7.93 mS/cm</u>	<u>28.9 °C</u>	<u>7.04</u>	<u>clear</u>

Sample Appearance: clear

Sample Collection - Time Start: 0837 Time Finished: 0837

Analyses: pH / TDS CR CLO4  
Bottles: 3 Bottles

Comments:

# Water Sampling Field Log

Well No.: I- 8

Project No.: \_\_\_\_\_ Site: NERT PROJECT- HENDERSON, NEVADA

Sampling Team: Michele Brown, Daniel Rivera Date: 11-2-15

Sampling Method: Sample taken from spigot on treatment system discharge line

Weather Conditions: cool, clear, breezy

## Well Information:

Total Well Depth: 47.70 feet Time: 0746

Depth to Water: 42.99 feet

Height of Water Column (L): 4.71 feet

## Field Measurements:

Time	Specific Conductivity	Temperature	pH	Observations
<u>0748</u>	<u>7.33 mS/cm</u>	<u>23.8 °C</u>	<u>7.26</u>	<u>clear</u>

Sample Appearance: clear

Sample Collection - Time Start: 0749 Time Finished: 0749

Analyses: pH / TDS CR CLO4  
Bottles: 3 Bottles

Comments:



# Water Sampling Field Log

Well No.: I-T

Project No.: \_\_\_\_\_ Site: NERT PROJECT- HENDERSON, NEVADA

Sampling Team: Janel Rivera, Michele Brown Date: 11/5/15

Sampling Method: Sample taken from spigot on treatment system discharge line

Weather Conditions: COOL

## Well Information:

Total Well Depth: 47.80 feet Time: 1046

Depth to Water: 34.65 feet

Height of Water Column (L): 13.15 feet

## Field Measurements:

Time	Specific Conductivity	Temperature	Field pH	Observations
<u>1042</u>	<u>14.72 ms/cm</u>	<u>20.4<sup>oc</sup></u>	<u>7.34</u>	<u>yellow</u>

Sample Appearance: Yellow

Sample Collection - Time Start: 1042 Time Finished: 1042

Analyses: TDS CR CLO4  
Bottles: 3 Bottles

Comments:

# Water Sampling Field Log

Well No.: 1- U

Project No.: \_\_\_\_\_ Site: NERT PROJECT- HENDERSON, NEVADA

Sampling Team: Michele Brown, Janel Rivera Date: 11-2-15

Sampling Method: Sample taken from spigot on treatment system discharge line

Weather Conditions: cool

## Well Information:

Total Well Depth: 47.60 feet Time: 0542

Depth to Water: 44.74 feet

Height of Water Column (L): 2.86 feet

## Field Measurements:

Time	Specific Conductivity	Temperature	pH	Observations
<u>0543</u>	<u>14.42 mS/cm</u>	<u>24.0 °C</u>	<u>6.97</u>	<u>yellow</u>

Sample Appearance: yellow

Sample Collection - Time Start: 0545 Time Finished: 0545

Analyses: pH / TDS CR CLO4  
Bottles: 3 Bottles

Comments:

# Water Sampling Field Log

Well No.: I- ✓

Project No.: \_\_\_\_\_ Site: NERT PROJECT- HENDERSON, NEVADA

Sampling Team: Janel Rivera, Michele Brown Date: 11-6-15

Sampling Method: Sample taken from spigot on treatment system discharge line

Weather Conditions: Sunny, Warm

## Well Information:

Total Well Depth: 47.70 feet Time: 0925

Depth to Water: 32.32 feet

Height of Water Column (L): 15.38 feet

## Field Measurements:

Time	Specific Conductivity	Temperature	Field pH	Observations
<u>0929</u>	<u>9.12 mS/cm</u>	<u>24.1<sup>oc</sup></u>	<u>7.51</u>	<u>yellow</u>

Sample Appearance: Yellow

Sample Collection - Time Start: 0929 Time Finished: 0929

Analyses: TDS CR CLO4  
Bottles: 3 Bottles

Comments:

Dup Ec 9.17 24.5  
EC temp

# Water Sampling Field Log

Well No.: I- W

Project No.: \_\_\_\_\_ Site: NERT PROJECT- HENDERSON, NEVADA

Sampling Team: Michele Brown, Janel Rivera Date: 11-16-15

Sampling Method: Sample taken from spigot on treatment system discharge line

Weather Conditions: damp, cold

## Well Information:

Total Well Depth: 50.0 feet

Time: 1047

Depth to Water: 28.06 feet

Height of Water Column (L): 21.94 feet

~~11/18/15~~ <sup>JR</sup> 11/19/15

## Field Measurements:

Time	Specific Conductivity	Temperature	pH	Observations
<u>0650</u>	<u>18.89 mS/cm</u>	<u>24.3</u> °C	<u>6.97</u>	<u>yellow</u>

Sample Appearance: yellow

Sample Collection - Time Start: 0650 Time Finished: 0650

Analyses: pH / TDS CR CLO4

Bottles: 3 Bottles

Comments:

# Water Sampling Field Log

Well No.: I-X

Project No.: \_\_\_\_\_ Site: NERT PROJECT- HENDERSON, NEVADA

Sampling Team: Michele Brown, Janel Rivera Date: 11-16-15

Sampling Method: Sample taken from spigot on treatment system discharge line

Weather Conditions: cold, windy, damp

## Well Information:

Total Well Depth: 50 feet Time: 1056

Depth to Water: 27.90 feet

Height of Water Column (L): 22.10 feet

## Field Measurements:

Time	Specific Conductivity	Temperature	pH	Observations
<u>0845</u>	<u>11.66mS/cm</u>	<u>23.4</u> °C	<u>7.10</u>	<u>yellow</u>

Sample Appearance: yellow

Sample Collection - Time Start: 0845 Time Finished: 0845

Analyses: pH / TDS CR CLO4  
Bottles: 3 Bottles

Comments:



# Water Sampling Field Log

Well No.: 1-4

Project No.: \_\_\_\_\_ Site: NERT PROJECT- HENDERSON, NEVADA

Sampling Team: Michele Brown, Janet Rivera Date: 11-2-15

Sampling Method: Sample taken from spigot on treatment system discharge line

Weather Conditions: Breezy, cool, sunny

## Well Information:

Total Well Depth: 50.50 feet Time: 0822

Depth to Water: 29.63 feet

Height of Water Column (L): 20.87 feet

## Field Measurements:

Time	Specific Conductivity	Temperature	pH	Observations
<u>0824</u>	<u>822 mscm</u>	<u>29.3 °C</u>	<u>7.21</u>	<u>Clear</u>

Sample Appearance: Clear

Sample Collection - Time Start: 0825 Time Finished: 0825

Analyses: pH / TDS CR CLO4  
Bottles: 3 Bottles

Comments:

# Water Sampling Field Log

Well No.: I- 2

Project No.: \_\_\_\_\_ Site: NERT PROJECT- HENDERSON, NEVADA

Sampling Team: Michele Brown, Janel Rivera Date: 11/6/15

Sampling Method: Sample taken from spigot on treatment system discharge line

Weather Conditions: Sunny cool

## Well Information:

Total Well Depth: 37.00 feet

Time: 824

Depth to Water: \_\_\_\_\_ feet

Unable to get DTW Reading due to equipment installed in well

Height of Water Column (L): \_\_\_\_\_ feet

## Field Measurements:

Time	Specific Conductivity	Temperature	pH	Observations
<u>827</u>	<u>7.73 mS/cm</u>	<u>21.9 °C</u>	<u>7.58</u>	<u>Clear yellow</u>

Sample Appearance: Clear yellow

Sample Collection - Time Start: 827 Time Finished: 827

Analyses: pH / TDS CR CLO4  
Bottles: 3 Bottles

## Comments:

FB-1 collected here at 830  
CR TDS CRVI CLO4

## Water Sampling Field Log

Well No.: L-635

Project No.: \_\_\_\_\_ Site: NERT PROJECT- HENDERSON, NEVADA

Sampling Team: Michele Brown, Janel Rivera Date: 11/11/15

Sampling Method:  Electric Pump  Dedicated Bailer  Non Dedicated Bailer  Ready Flo 2" O

Weather Conditions: \_\_\_\_\_

**Well Information:**

Total Well Depth: 45.33 feet Time: 1200

Depth to Water: \_\_\_\_\_ feet

	Well Diameter (circle one)				
	2-in.      4-in.      6-in	Well	Purge		
		Volume (WV)	Factor	Purge Volume	

Height of Water Column (L): \_\_\_\_\_ feet \* 0.16 gal/ft \* 0.65 gal/ft \* 1.47 gal/ft = \_\_\_\_\_ gal. \* 3 = \_\_\_\_\_

**Field Measurements:**

Depth Purging From: 2 ft. below depth to water

Time	Cumulative Volume Purged	pH	Specific Conductivity	Temp	Observations
_____	gal	_____	_____	_____	NO ACCESS
_____	gal	_____	_____	_____	NO DATA
_____	gal	_____	_____	_____	NO SAMPLE
_____	gal	_____	_____	_____	
_____	gal	_____	_____	_____	
_____	gal	_____	_____	_____	

Sample Appearance: \_\_\_\_\_

Sample Collection - Time Start: \_\_\_\_\_ Time Finished: \_\_\_\_\_

Analyses:	CLO4	TDS	TDS/pH	CR
Bottles:	1 BTL	1 BTL	1 BTL	1 BTL

TOTAL BOTTLES: 8

Comments: \_\_\_\_\_



### Water Sampling Field Log

Well No.: L-637

Project No.: \_\_\_\_\_ Site: NERT PROJECT- HENDERSON, NEVADA

Sampling Team: Michele Brown Janel Rivera Date: 11/11/15

Sampling Method:  Electric Pump  Dedicated Bailer  Non Dedicated Bailer  Ready Flo 2"

Weather Conditions: \_\_\_\_\_

**Well Information:**

Total Well Depth: 39.5 feet Time: 1201

Depth to Water: \_\_\_\_\_ feet

	Well Diameter (circle one)				
	2-in.      4-in.      6-in	Well	Purge	Purge	
		Volume (WV)	Factor	Volume	

Height of Water Column (L): \_\_\_\_\_ feet \* 0.16 gal/ft \* 0.65 gal/ft \* 1.47 gal/ft = \_\_\_\_\_ gal. \* 3 = \_\_\_\_\_

**Field Measurements:**

Depth Purging From: 2 ft. below depth to water

Time	Cumulative Volume Purged	pH	Specific Conductivity	Temp	Observations
_____	gal	_____	_____	_____	No Access
_____	gal	_____	_____	_____	No DATA
_____	gal	_____	_____	_____	NO SAMPLE
_____	gal	_____	_____	_____	
_____	gal	_____	_____	_____	
_____	gal	_____	_____	_____	

Sample Appearance: \_\_\_\_\_

Sample Collection - Time Start: \_\_\_\_\_ Time Finished: \_\_\_\_\_

Analyses:	<u>CLO4</u>	<u>TDS</u>	<u>TDS/pH</u>	<u>CR</u>
Bottles:	<u>1 BTL</u>	<u>1 BTL</u>	<u>1 BTL</u>	<u>1BTL</u>

TOTAL BOTTLES: Ø

Comments: \_\_\_\_\_

# Water Sampling Field Log

Well No.: M-10

Project No.: \_\_\_\_\_ Site: NERT PROJECT- HENDERSON, NEVADA

Sampling Team: Michele Brown Janel Rivera Date: 11/9/15

Sampling Method: Electric Pump  Dedicated Bailer  Non Dedicated Bailer  Ready Flo 2"

Weather Conditions: Sunny warm

**Well Information:**

Total Well Depth: 69.45 feet Time: 0956

Depth to Water: 52.28 feet

	Well Diameter (circle one)				
	2-in.      4-in.      6-in				
Height of Water Column (L): <u>17.17</u> feet	* 0.16 gal/ft	* 0.65 gal/ft	* <u>1.47</u> gal/ft	= <u>25</u> gal.	* <u>3</u> = <u>75</u>

**Field Measurements:**

Depth Purging From: 2 ft. below depth to water

Time	Cumulative Volume Purged	pH	Specific Conductivity	Temp	Observations
<u>1000</u>	-----	-----	-----	-----	
<u>1013</u>	<u>25</u> gal	<u>7.53</u>	<u>3.48</u> mS/cm	<u>23.1</u> °C	<u>Clear</u>
<u>1026</u>	<u>50</u> gal	<u>7.34</u>	<u>3.58</u> mS/cm	<u>22.5</u> °C	<u>Clear</u>
<u>1039</u>	<u>75</u> gal	<u>7.23</u>	<u>3.41</u> mS/cm	<u>22.9</u> °C	<u>Clear</u>
	gal				
	gal				
	gal				<u>Field pH 7.23</u>

Sample Appearance: Clear

Sample Collection - Time Start: 1041 Time Finished: 1041

Analyses:	<u>CLO4</u>	<u>TDS</u>	<u>TDS/pH</u>	<u>CR</u>
Bottles:	<u>1 BTL</u>	<u>1 BTL</u>	<u>1 BTL</u>	<u>1 BTL</u>

TOTAL BOTTLES: 3 <sup>JP</sup> 6

Comments: Top of Screen 42

Dup EC 

mS/cm	Temp
3.42	22.9 °C

Separate cooler / Separate CO2  
See bottle order

# Water Sampling Field Log

Well No.: M-11

Project No.: \_\_\_\_\_ Site: NERT PROJECT- HENDERSON, NEVADA

Sampling Team: Michele Brown Janel Rivera Date: 11/9/15

Sampling Method:  Electric Pump  Dedicated Bailer  Non Dedicated Bailer  Ready Flo 2" O

Weather Conditions: Sunny warm

**Well Information:**

Total Well Depth: 58.00 feet Time: 1112

Depth to Water: 44.97 feet

	Well Diameter (circle one)		Well	Purge	Purge
Height of Water Column (L): <u>13.03</u> feet	2-in.    4-in.    6-in.	* 0.16 gal/ft    * 0.65 gal/ft    * 1.47 gal/ft	Volume (WV)	Factor	Volume
	6-in.		<u>19.15</u> gal.	* 3	= <u>58 gal</u>

**Field Measurements:**

Depth Purging From: 2 ft. below depth to water

Time	Cumulative Volume Purged	pH	Specific Conductivity	Temp	Observations
<u>1114</u>	----	----	----	----	
<u>1134</u>	<u>20</u> gal	<u>8.32</u>	<u>3.34</u> ms/cm	<u>22.92</u>	<u>Clear</u>
<u>1154</u>	<u>40</u> gal	<u>8.21</u>	<u>3.18</u> ms/cm	<u>22.52</u>	<u>Clear</u>
<u>1212</u>	<u>58</u> gal	<u>8.19</u>	<u>3.19</u> ms/cm	<u>23.82</u>	<u>Clear</u>
_____	gal	_____	_____	_____	_____
_____	gal	_____	_____	_____	_____
_____	gal	_____	_____	_____	<u>Field pH 8.19</u>

Sample Appearance: Clear

Sample Collection - Time Start: 1214 Time Finished: 1214

Analyses: CLO4 TDS/CRVI TDS/pH CR  
 Bottles: 1 BTL 1 BTL 1 BTL 1 BTL

TOTAL BOTTLES: 3

Comments: Top of Screen 33.3

Closing QC 7.01

# Water Sampling Field Log

Well No.: M-12A

Project No.: \_\_\_\_\_ Site: NERT PROJECT- HENDERSON, NEVADA

Sampling Team: Michele Brown Janet Rivera Date: 11/9/15

Sampling Method:  Electric Pump  Dedicated Bailer  Non Dedicated Bailer  Ready Flo 2" O

Weather Conditions: Sunny cool

**Well Information:**

Total Well Depth: 49.71 feet Time: 1055

Depth to Water: 42.95 feet

Height of Water Column (L): 6.76 feet \* 0.16 gal/ft \* 0.65 gal/ft \* 1.47 gal/ft = 1.08 gal. \* 3 = 3gal

Well Diameter (circle one)  
 2-in.  4-in.  6-in.

**Field Measurements:**

Depth Purging From: 2 ft. below depth to water

Time	Cumulative Volume Purged	pH	Specific Conductivity	Temp	Observations
1057	----	----	----	----	
1058	1 gal	8.28	8.57 $ms/cm$	22.4 $^{\circ}C$	slightly yellow
1059	2 gal	8.31	8.41 $ms/cm$	23.5 $^{\circ}C$	slightly yellow
1100	3 gal	8.27	8.29 $ms/cm$	33.7 $^{\circ}C$	slightly yellow
	gal				
	gal				
	gal				Field pH 8.27

Sample Appearance: \_\_\_\_\_

Sample Collection - Time Start: 1102 Time Finished: 1102

Analyses: CLO4 TDS/crv TDS/pH CR  
 Bottles: 1 BTL 1 BTL 1 BTL 1 BTL

TOTAL BOTTLES: 3

Comments:

Top of screen - 40



# Water Sampling Field Log

Well No.: M-19

Project No.: \_\_\_\_\_ Site: NERT PROJECT- HENDERSON, NEVADA

Sampling Team: Janel Rivera, Michele Brown Date: 11/6/15

Sampling Method: Electric Pump  Dedicated Bailer  Non Dedicated Bailer  Ready Flo 2"

Weather Conditions: Cool Sunny

**Well Information:**

Total Well Depth: 41.20 feet Time: 715

Depth to Water: 25.72 feet

Height of Water Column (L): 5.48 feet

Well Diameter (circle one)			Well
2-in.	4-in.	6-in.	Volume (VV)
*0.16 gal/ft	*0.65 gal/ft	*1.47 gal/ft	= <u>.87</u> gal. * x 3 <u>3 gal</u>

**Field Measurements:**

Depth Purging From: 2 ft. below depth to water

Time	Cumulative Volume Purged	pH	Specific Conductivity	Temp	Observations
717	----	----	----	----	
718	1 gal	7.54	6.52 <u>ms/cm</u>	20.1 °C	Clear
719	2 gal	7.52	6.46 <u>ms/cm</u>	22.1 °C	Clear
720	3 gal	7.50	6.52 <u>ms/cm</u>	22.8 °C	Clear
					FIELD pH = <u>7.50</u>

Sample Appearance: Clear

Sample Collection - Time Start: 722 Time Finished: 722

Analyses:	<u>CLO4</u>	<u>TDS</u>	<u>CR</u>	TDS / CRVI	TDS / CRVI / NO3	TDS / NO3	CL03
Bottles:	1 BTL	1 BTL	1 BTL	1 BTL	1 BTL	1 BTL	1 BTL

TOTAL BOTTLES: 3

Comments:  
Top of screen - 14.5

# Water Sampling Field Log

Well No.: M-22A

Project No.: \_\_\_\_\_ Site: NERT PROJECT- HENDERSON, NEVADA

Sampling Team: Janel Rivera, Michele Brown Date: 11/9/15

Sampling Method:  Electric Pump  Dedicated Bailer  Non Dedicated Bailer  Ready Flo 2" O

Weather Conditions: Sunny cool

**Well Information:**

Total Well Depth: 36.92 feet Time: 654

Depth to Water: 31.64 feet

Height of Water Column (L): 5.28 feet

Well Diameter (circle one)			Well Volume (VV)
2-in.	4-in.	6-in.	
0.16 gal/ft	* 0.65 gal/ft	* 1.47 gal/ft	= <u>.84</u> gal. * x 3 <u>3gal</u>

**Field Measurements:**

Depth Purging From: 2 ft. below depth to water

Time	Cumulative Volume Purged	pH	Specific Conductivity	Temp	Observations
<u>657</u>	-----	-----	-----	-----	
<u>658</u>	<u>1 gal</u>	<u>7.66</u>	<u>11.29</u> mS/cm	<u>19.5</u> °C	<u>slightly yellow</u>
<u>659</u>	<u>2 gal</u>	<u>7.65</u>	<u>11.23</u> mS/cm	<u>21.9</u> °C	<u>slightly yellow</u>
<u>700</u>	<u>3 gal</u>	<u>7.62</u>	<u>11.33</u> mS/cm	<u>23.3</u> °C	<u>slightly yellow</u>
					FIELD pH = <u>7.62</u>

Sample Appearance: slightly yellow

Sample Collection - Time Start: 702 Time Finished: 702

Analyses:	<u>CLO4</u>	<u>TDS</u>	<u>CR</u>	TDS / CRVI	TDS / CRVI / NO3	TDS / NO3	CL03
Bottles:	1 BTL	1 BTL	1 BTL	1 BTL	1 BTL	1 BTL	1 BTL

TOTAL BOTTLES: 3

Comments: Top of screen -16

EBS  
710 11/9/15  
TDS CR CRVI CLO4

# Water Sampling Field Log

Well No.: M-23

Project No.: \_\_\_\_\_ Site: NERT PROJECT- HENDERSON, NEVADA

Sampling Team: Janel Rivera, Michele Brown Date: 11/4/15

Sampling Method:  Electric Pump  Dedicated Bailer  Non Dedicated Bailer  Ready Flo 2"

Weather Conditions: Cool breezy

**Well Information:**

Total Well Depth: 44.66 feet Time: 723

Depth to Water: 35.37 feet

Height of Water Column (L): 9.29 feet \* 0.16 gal/ft \* 0.65 gal/ft \* 1.47 gal/ft = 1.48 gal. \* x 3 4 gal

Well Diameter (circle one)  
 2-in.  4-in.  6-in. Well Volume (WV)

**Field Measurements:**

Depth Purging From: 2 ft. below depth to water

Time	Cumulative Volume Purged	pH	Specific Conductivity	Temp	Observations
<u>725</u>	----	----	----	----	
<u>727</u>	<u>2</u> gal	<u>7.87</u>	<u>5.28</u> <u>ms/cm</u>	<u>21.0 °C</u>	<u>Clear</u>
<u>728</u>	<u>3</u> gal	<u>7.79</u>	<u>5.19</u> <u>ms/cm</u>	<u>22.5 °C</u>	<u>Clear</u>
<u>729</u>	<u>4</u> gal	<u>7.73</u>	<u>5.17</u> <u>ms/cm</u>	<u>22.8 °C</u>	<u>Clear</u>
					FIELD pH = <u>7.73</u>

Sample Appearance: Clear

Sample Collection - Time Start: 731 Time Finished: 731

Analyses:	<u>CLO4</u>	<u>TDS</u>	<u>CR</u>	<u>TDS / CRVI</u>	<u>TDS / CRVI / NO3</u>	<u>TDS / NO3</u>	<u>CL03</u>
Bottles:	<u>1 BTL</u>	<u>1 BTL</u>	<u>1 BTL</u>	<u>1 BTL</u>	<u>1 BTL</u>	<u>1 BTL</u>	<u>1 BTL</u>

TOTAL BOTTLES: 3

Comments:

Top of Screen - 9.4

EB 2 collected here before moving to next well 945

CLO4 TDS CR CRVI 3 Bottles



# Water Sampling Field Log

Well No.: M-25

Project No.: \_\_\_\_\_ Site: NERT PROJECT- HENDERSON, NEVADA

Sampling Team: Janel Rivera, Michele Brown Date: 11/5/15

Sampling Method:  Electric Pump  Dedicated Bailer  Non Dedicated Bailer  Ready Flo 2" O

Weather Conditions: Sunny breezy

**Well Information:**

Total Well Depth: 41.47 feet Time: 932

Depth to Water: 33.81 feet

Well Diameter (circle one) Well Volume (WV)  
 2-in.  4-in.  6-in.   
 Height of Water Column (L): 7.66 feet \* 0.16 gal/ft \* 0.65 gal/ft \* 1.47 gal/ft = 1.22 gal. \* x 3 = 4 gal

**Field Measurements:** Depth Purging From: 2 ft. below depth to water

Time	Cumulative Volume Purged	pH	Specific Conductivity	Temp	Observations
<u>933</u>	-----	-----	-----	-----	
<u>935</u>	<u>2</u> gal	<u>7.63</u>	<u>8.52</u> <u>ms/cm</u>	<u>22.1</u> °C	<u>light yellow</u>
<u>936</u> <del>936</del> <sup>JR</sup>	<u>3</u> gal	<u>7.53</u>	<u>8.37</u> <u>ms/cm</u>	<u>22.0</u> °C	<u>light yellow</u>
<u>937</u>	<u>4</u> gal	<u>7.47</u>	<u>8.36</u> <u>ms/cm</u>	<u>22.8</u> °C	<u>Clear</u>
					FIELD pH = <u>7.47</u>

Sample Appearance: ~~clear~~ light yellow

Sample Collection - Time Start: 940 Time Finished: 940

Analyses: CLO4 TDS CR TDS / CRVI TDS / CRVI / NO3 TDS / NO3 CL03  
 Bottles: 1 BTL 1 BTL 1 BTL 1 BTL 1 BTL 1 BTL 1 BTL

TOTAL BOTTLES: 3

Comments: Top of screen - 24

# Water Sampling Field Log

Well No.: M 31-A

Project No.: \_\_\_\_\_ Site: NERT PROJECT- HENDERSON, NEVADA

Sampling Team: Janel Rivera, Michele Brown Date: 11/6/15

Sampling Method:  Electric Pump  Dedicated Bailer  Non Dedicated Bailer  Ready Flo 2"

Weather Conditions: cool, clear

**Well Information:**

Total Well Depth: 55.00 feet Time: 613

Depth to Water: 47.24 feet

Well Diameter (circle one)  2-in.  4-in.  6-in. Well Volume (WV) = 1.24 gal. \* x 3 = 4 gal

Height of Water Column (L): 7.76 feet \* 0.16 gal/ft \* 0.65 gal/ft \* 1.47 gal/ft

**Field Measurements:**

Depth Purging From: 2 ft. below depth to water

Time	Cumulative Volume Purged	pH	Specific Conductivity	Temp	Observations
<u>615</u>	---	---	---	---	
<u>617</u>	<u>2 gal</u>	<u>6.99</u>	<u>6.36</u> <u>ms/cm</u>	<u>20.3</u> °C	<u>Black Cloudy</u>
<u>618</u>	<u>3 gal</u>	<u>7.13</u>	<u>5.15</u> <u>ms/cm</u>	<u>21.1</u> °C	<u>Cloudy yellow</u>
<u>619</u>	<u>4 gal</u>	<u>7.11</u>	<u>6.12</u> <u>ms/cm</u>	<u>21.4</u> °C	<u>Cloudy yellow</u>
<u>620</u>	<u>5</u>	<u>7.20</u>	<u>5.85</u> <u>ms/cm</u>	<u>21.0</u> °C	<u>yellow</u>
FIELD pH = <u>7.20</u>					

Sample Appearance: Brown

Sample Collection - Time Start: 621 Time Finished: 621

Analyses: CLO4 TDS CR TDS / CRVI TDS / CRVI / NO3 TDS / NO3 CL03  
 Bottles: 1 BTL 1 BTL 1 BTL 1 BTL 1 BTL 1 BTL 1 BTL

TOTAL BOTTLES: 3

Comments: Top of Screen -35

# Water Sampling Field Log

Well No.: M-35

Project No.: \_\_\_\_\_ Site: NERT PROJECT- HENDERSON, NEVADA

Sampling Team: Janel Rivera, Michele Brown Date: 11/6/15

Sampling Method:  Electric Pump  Dedicated Bailer  Non Dedicated Bailer  Ready Flo 2" O

Weather Conditions: sunny cold

**Well Information:**

Total Well Depth: 39.70 feet Time: 658

Depth to Water: 33.88 feet

Height of Water Column (L): 5.82 feet

Well Diameter (circle one)				Well Volume (VV)
2-in.	4-in.	6-in		
*0.16 gal/ft	*0.65 gal/ft	*1.47 gal/ft	=	<u>.93</u> gal. * x 3 <u>3 gal.</u>

**Field Measurements:**

Depth Purging From: 2 ft. below depth to water

Time	Cumulative Volume Purged	pH	Specific Conductivity	Temp	Observations
701	-----	-----	-----	-----	
702	1 gal	7.52	5.15 <sup>ms/cm</sup>	21.1 °C	Clear light yellow
703	2 gal	7.52	5.37 <sup>ms/cm</sup>	23.5 °C	Clear light yellow
704	3 gal	7.46	5.46 <sup>ms/cm</sup>	23.6 °C	Clear light yellow
					FIELD pH = <u>7.46</u>

Sample Appearance: clear light yellow

Sample Collection - Time Start: 706 Time Finished: 706

Analyses:	CLO4	TDS	CR	TDS / CRVI	TDS / CRVI / NO3	TDS / NO3	CL03
Bottles:	1 BTL	1 BTL	1 BTL	1 BTL	1 BTL	1 BTL	1 BTL

TOTAL BOTTLES: 3

Comments: Top of screen - 25



Water Sampling Field Log

Well No.: M-37

Project No.: \_\_\_\_\_ Site: NERT PROJECT- HENDERSON, NEVADA

Sampling Team: Janel Rivera, Michele Brown Date: 4/5/15

Sampling Method:  Electric Pump  Dedicated Bailer  Non Dedicated Bailer  Ready Flo 2" O

Weather Conditions: Sunny warm

Well Information:

Total Well Depth: 37.18 feet Time: 956

Depth to Water: 31.45 feet Well Volume (WV)

Height of Water Column (L): 5.73 feet \* 0.16 gal/ft \* 0.65 gal/ft \* 1.47 gal/ft = .91 gal. \* x 3 = 3 gal

Field Measurements:

Depth Purging From: 2 ft. below depth to water

Time	Cumulative Volume Purged	pH	Specific Conductivity	Temp	Observations
958	-----	-----	-----	-----	
959	1 gal	7.36	6.69 <sup>ms/cm</sup>	20.9 °C	Clear
1000	2 gal	7.18	6.50 <sup>ms/cm</sup>	23.4 °C	Clear
1001	3 gal	7.22	6.54 <sup>ms/cm</sup>	21.7 °C	Clear
					FIELD pH = 7.22

Sample Appearance: \_\_\_\_\_

Sample Collection - Time Start: 1003 Time Finished: 1003

Analyses:	CLO4	TDS	CR	TDS / CRVI	TDS / CRVI / NO3	TDS / NO3	CL03
Bottles:	1 BTL	1 BTL	1 BTL	1 BTL	1 BTL	1 BTL	1 BTL

TOTAL BOTTLES: 3

Comments:

Top of Screen - 20

~~IR~~  
~~ES 2~~

Dup 2  
collected here for  
same analysis

# Water Sampling Field Log

Well No.: M-38

Project No.: \_\_\_\_\_ Site: NERT PROJECT- HENDERSON, NEVADA

Sampling Team: Michele Brown Janel Rivera Date: 11/9/15

Sampling Method: Electric Pump  Dedicated Bailer  Non Dedicated Bailer  Ready Flo 2"

Weather Conditions: clear cool

**Well Information:**

Total Well Depth: 36.82 feet Time: 1234

Depth to Water: 31.62 feet

	Well Diameter (circle one)				
	2-in.      4-in.      6-in.				
Height of Water Column (L): <u>5.20</u> feet	0.16 gal/ft	* 0.65 gal/ft	* 1.47 gal/ft	= <u>.83</u> gal.	* <u>3</u> = <u>2.49</u> gal

**Field Measurements:**

Depth Purging From: 2 ft. below depth to water

Time	Cumulative Volume Purged	pH	Specific Conductivity	Temp	Observations
<u>1235</u>	-----	-----	-----	-----	
<u>1235</u>	<u>1</u> gal	<u>7.73</u>	<u>11.35</u> mS/cm	<u>22.3</u> °	<u>slightly yellow</u>
<u>1235</u>	<u>1.5</u> gal	<u>7.52</u>	<u>11.51</u> mS/cm	<u>23.2</u> °	<u>slightly yellow</u>
<u>1236</u>	<u>2</u> gal	<u>7.45</u>	<u>11.56</u> mS/cm	<u>23.5</u> °	<u>slightly yellow</u>
	gal				
	gal				
	gal				<u>Field pH 7.45</u>

Sample Appearance: Slightly yellow

Sample Collection - Time Start: 1238 Time Finished: 1238

Analyses: CLO4 TDS/CRN TDS/pH CR  
 Bottles: 1 BTL 1 BTL 1 BTL 1 BTL

TOTAL BOTTLES: 3

Comments: Top of Screen - 20

# Water Sampling Field Log

Well No.: M-9502<sup>44</sup>

Project No.: \_\_\_\_\_ Site: NERT PROJECT- HENDERSON, NEVADA

Sampling Team: Janel Rivera, Michele Brown Date: 11.3.15

Sampling Method:  Electric Pump  Dedicated Bailer O  Disposable Bailer O  Ready Flo 2" O

Weather Conditions: Sunny Windy

**Well Information:**

Total Well Depth: 37.65 feet Time: 1155

Depth to Water: 25.69 feet

Well Diameter (circle one) Well Volume (WV)

2-in.	4-in.	6-in.		
<u>11.96</u> feet * 0.16 gal/ft	* 0.65 gal/ft	* 1.47 gal/ft	=	<u>1.91</u> gal. * x 3 = <u>6gal</u>

**Field Measurements:**

Depth Purging From: 2 ft. below depth to water

Time	Cumulative Volume Purged	pH	Specific Conductivity	Temp	Observations
<u>1157</u>	-----	-----	-----	-----	
<u>1158</u>	<u>2</u> gal	<u>7.75</u>	<u>9.44</u> ms/cm	<u>23.2°</u>	<u>clear</u>
<u>1200</u>	<u>4</u> gal	<u>7.57</u>	<u>9.70</u> ms/cm	<u>24.1°</u>	<u>clear</u>
<u>1202</u>	<u>6</u> gal	<u>7.60</u>	<u>9.93</u> ms/cm	<u>23.7°</u>	<u>clear</u>
				FIELD pH = <u>7.60</u>	

Sample Appearance: Clear

Sample Collection - Time Start: 1204 Time Finished: 1204

Analyses:	CLO4	TDS	CR	TDS / CRVI	TDS / CRVI / NO3	TDS / NO3	CL03
Bottles:	1 BTL	1 BTL	1 BTL	1 BTL	1 BTL	1 BTL	1 BTL

TOTAL BOTTLES: 3

Comments: Top of Screen -5

# Water Sampling Field Log

Well No.: M-48A

Project No.: \_\_\_\_\_ Site: NERT PROJECT- HENDERSON, NEVADA

Sampling Team: Janel Rivera, Michele Brown Date: 11.3.15

Sampling Method:  Electric Pump  Dedicated Bailer  Non Dedicated Bailer  Ready Flo 2" O

Weather Conditions: Warm Sunny

**Well Information:**

Total Well Depth: 40.00 feet Time: 933

Depth to Water: 29.37 feet

Well Diameter (circle one) Well Volume (WV)  
 2-in.  4-in.  6-in.   
 Height of Water Column (L): 10.63 feet \* 0.16 gal/ft \* 0.65 gal/ft \* 1.47 gal/ft = 1.70 gal. \* x 3 = 5 gal

**Field Measurements:**

Depth Purging From: 2 ft. below depth to water

Time	Cumulative Volume Purged	pH	Specific Conductivity	Temp	Observations
<u>935</u>	----	----	----	----	
<u>937</u>	<u>2 gal</u>	<u>7.88</u>	<u>3.07</u> <u>ms/cm</u>	<u>25.1</u> °C	<u>clear</u>
<u>939</u>	<u>4 gal</u>	<u>7.73</u>	<u>3.09</u> <u>ms/cm</u>	<u>25.5</u> °C	<u>clear</u>
<u>940</u>	<u>5 gal</u>	<u>7.70</u>	<u>3.03</u> <u>ms/cm</u>	<u>25.4</u> °C	<u>clear</u>

FIELD pH = 7.70

Sample Appearance: Clear Clear Yellow

Sample Collection - Time Start: 942 Time Finished: 942

Analyses:	CLO4	TDS	CR	TDS / CRVI	TDS / CRVI / NO3	TDS / NO3	CL03
Bottles:	<u>1 BTL</u>	<u>1 BTL</u>	<u>1 BTL</u>	<u>1 BTL</u>	<u>1 BTL</u>	<u>1 BTL</u>	<u>1 BTL</u>

TOTAL BOTTLES: 3

Comments: Top of Screen -19.7 Collected before moving to next well  
EB-1 952  
TDS CLO4 CRVI CR  
3 Bottles









# Water Sampling Field Log

Well No.: M-57A

Project No.: \_\_\_\_\_ Site: NERT PROJECT- HENDERSON, NEVADA

Sampling Team: Janel Rivera, Michele Brown Date: 11/5/15

Sampling Method:  Electric Pump  Dedicated Bailer  Non Dedicated Bailer  Ready Flo 2" O

Weather Conditions: breezy sunny

**Well Information:**

Total Well Depth: 42.40 feet Time: 904

Depth to Water: 29.75 feet

Well Diameter (circle one) Well Volume (WV)  
 2-in.  4-in.  6-in.  
 Height of Water Column (L): 12.65 feet \* 0.16 gal/ft \* 0.65 gal/ft \* 1.47 gal/ft = 2.02 gal. \* x 3 = 6 gal

**Field Measurements:**

Depth Purging From: 2 ft. below depth to water

Time	Cumulative Volume Purged	pH	Specific Conductivity	Temp	Observations
906	----	----	----	----	
908	2 gal	7.78	4.62 <sup>ms/cm</sup>	23.0 °C	Clear
910	4 gal	7.71	4.58 <sup>ms/cm</sup>	23.3 °C	clear
912	6 gal	7.73	4.62 <sup>ms/cm</sup>	23.6 °C	clear
					FIELD pH = 7.73

Sample Appearance: Clear

Sample Collection - Time Start: 914 Time Finished: 914

Analyses:	CLO4	TDS	CR	TDS / CRVI	TDS / CRVI / NO3	TDS / NO3	CL03
Bottles:	1 BTL	1 BTL	1 BTL	1 BTL	1 BTL	1 BTL	1 BTL

TOTAL BOTTLES: 3

**Comments:**

Top of screen -20  
Collected before moving to next well  
IR Dup 2  
3 bottles  
TDS CRVI CR CLO4  
EB3  
0928

### Water Sampling Field Log

Well No.: M-58

Project No.: \_\_\_\_\_ Site: NERT PROJECT- HENDERSON, NEVADA

Sampling Team: Janel Rivera, Michele Brown Date: 11-2-15

Sampling Method:  Electric Pump  Dedicated Bailer  Disposable Bailer  Ready Flo 2"

Weather Conditions: cool

**Well Information:**

Total Well Depth: 45.0 feet Time: 0458

Depth to Water: 29.42 feet

Height of Water Column (L): <u>15.58</u> feet	<u>Well Diameter (circle one)</u> 2-in.    4-in.    6-in.	*0.16 gal/ft	*0.65 gal/ft	*1.47 gal/ft	=	_____ gal.	* x 3	_____

**Field Measurements:**

Depth Purging From: 2 ft. below depth to water

Time	Cumulative Volume Purged	pH	Specific Conductivity	Temp	Observations
_____	_____ gal	_____	_____	_____	<u>DTW ONLY NO SAMPLE</u>
_____	_____ gal	_____	_____	_____	
_____	_____ gal	_____	_____	_____	
_____	_____ gal	_____	_____	_____	_____
_____	_____ gal	_____	_____	_____	_____
_____	_____ gal	_____	_____	_____	_____
_____	_____ gal	_____	_____	_____	_____
_____	_____ gal	_____	_____	_____	_____
_____	_____ gal	_____	_____	_____	_____
_____	_____ gal	_____	_____	_____	_____
_____	_____ gal	_____	_____	_____	_____

FIELD pH = \_\_\_\_\_

Sample Appearance: \_\_\_\_\_

Sample Collection - Time Start: \_\_\_\_\_ Time Finished: \_\_\_\_\_

Analyses:	CLO4	TDS	CR	TDS / CRVI	TDS / CRVI / NO3	TDS / NO3	CL03
	Bottles:	1 BTL	1 BTL	1 BTL	1 BTL	1 BTL	1 BTL

TOTAL BOTTLES: 8

Comments: \_\_\_\_\_

# Water Sampling Field Log

Well No.: N-60

Project No.: \_\_\_\_\_ Site: NERT PROJECT- HENDERSON, NEVADA

Sampling Team: Janel Rivera, Michele Brown Date: 11-2-15

Sampling Method:  Electric Pump  Dedicated Bailer  Disposable Bailer  Ready Flo 2"

Weather Conditions: clear

**Well Information:**

Total Well Depth: 43.0 feet Time: 0552

Depth to Water: 30.33 feet

Height of Water Column (L): 12.67 feet \* 0.16 gal/ft \* 0.65 gal/ft \* 1.47 gal/ft = \_\_\_\_\_ gal. \* x 3

Well Diameter (circle one)  
 2-in.     4-in.     6-in.

Well  
Volume (WV)

**Field Measurements:**

Depth Purging From: 2 ft. below depth to water

Time	Cumulative Volume Purged	pH	Specific Conductivity	Temp	Observations
					DTW ONLY
					NO SAMPLE
					FIELD pH =

Sample Appearance: \_\_\_\_\_

Sample Collection - Time Start: \_\_\_\_\_ Time Finished: \_\_\_\_\_

Analyses:	CLO4	TDS	CR	TDS / CRVI	TDS / CRVI / NO3	TDS / NO3	CL03
Bottles:	1 BTL	1 BTL	1 BTL	1 BTL	1 BTL	1 BTL	1 BTL

TOTAL BOTTLES: 0

Comments:

**Water Sampling Field Log**

Well No.: M-64

Project No.: \_\_\_\_\_

Site: NERT PROJECT- HENDERSON, NEVADA

Sampling Team: Janel Rivera, Michele Brown

Date: 11/5/15

Sampling Method: Electric Pump  Dedicated Bailer  Non Dedicated Bailer  Ready Flo 2" O

Weather Conditions: cold dark

**Well Information:**

Total Well Depth: 38.00 feet Time: 442

Depth to Water: 29.19 feet

Well Diameter (circle one) 2-in. 4-in. 6-in. Well Volume (WV) = 1.40 gal. \* 3 = 4 gal

Height of Water Column (L): 8.81 feet \* 0.16 gal/ft \* 0.65 gal/ft \* 1.47 gal/ft =

**Field Measurements:**

Depth Purging From: 2 ft. below depth to water

Time	Cumulative Volume Purged	pH	Specific Conductivity	Temp	Observations
<u>445</u>	-----	-----	-----	-----	
<u>447</u>	<u>2 gal</u>	<u>8.12</u>	<u>8.10 mscm</u>	<u>20.2 oc</u>	<u>clear</u>
<u>448</u>	<u>3 gal</u>	<u>7.84</u>	<u>8.19 mscm</u>	<u>21.4 oc</u>	<u>clear</u>
<u>449</u>	<u>4 gal</u>	<u>7.73</u>	<u>8.31 mscm</u>	<u>22.4 oc</u>	<u>clear</u>

FIELD pH = 7.73

Sample Appearance: clear

Sample Collection - Time Start: 451 Time Finished: 451

Analyses:	CLO4	TDS	CR	TDS / CRVI	TDS / CRVI / NO3	TDS / NO3	CL03
Bottles:	<u>1 BTL</u>	<u>1 BTL</u>	<u>1 BTL</u>	1 BTL	1 BTL	1 BTL	1 BTL

TOTAL BOTTLES: 3

Comments:

Top of screen - 12.7

# Water Sampling Field Log

Well No.: M-65

Project No.: \_\_\_\_\_ Site: NERT PROJECT- HENDERSON, NEVADA

Sampling Team: Janel Rivera, Michele Brown Date: 11/5/15

Sampling Method:  Electric Pump  Dedicated Bailer O  Non Dedicated Bailer O  Ready Flo 2" O

Weather Conditions: cool breezy

**Well Information:**

Total Well Depth: 40.00 feet Time: 719

Depth to Water: 32.89 feet

Height of Water Column (L): 7.11 feet \* 0.16 gal/ft \* 0.65 gal/ft \* 1.47 gal/ft = 1.13 gal. \* x 3 = 3 gal

Well Diameter (circle one)      Well Volume (WV)  
 2-in.      4-in.      6-in.

**Field Measurements:**

Depth Purging From: 2 ft. below depth to water

Time	Cumulative Volume Purged	pH	Specific Conductivity	Temp	Observations
721	-----	-----	-----	-----	
722	1 gal	7.52	12.80 <sup>ms</sup> cm	21.9 °C	yellow
723	2 gal	7.52	12.83 <sup>ms</sup> cm	23.4 °C	yellow
724	3 gal	7.48	13.04 <sup>ms</sup> cm	23.6 °C	yellow

FIELD pH = 7.48

Sample Appearance: yellow

Sample Collection - Time Start: 726 Time Finished: 726

Analyses: CLO4 TDS CR TDS / CRVI TDS / CRVI / NO3 TDS / NO3 CL03  
 Bottles: 1 BTL 1 BTL 1 BTL 1 BTL 1 BTL 1 BTL 1 BTL

TOTAL BOTTLES: 3

Comments: Top of screen -14.4



# Water Sampling Field Log

Well No.: M-66

Project No.: \_\_\_\_\_ Site: NERT PROJECT- HENDERSON, NEVADA

Sampling Team: Janel Rivera, Michele Brown Date: 11.5.15

Sampling Method:  Electric Pump  Dedicated Bailer  Non Dedicated Bailer  Ready Flo 2" O

Weather Conditions: Sunny cold

**Well Information:**

Total Well Depth: 43.00 feet Time: 735

Depth to Water: 31.72 feet

Height of Water Column (L): 11.28 feet \* 0.16 gal/ft \* 0.65 gal/ft \* 1.47 gal/ft = 1.80 gal. \* x 3 = 5 gal

Well Diameter (circle one) Well Volume (VV)  
 2-in.  4-in.  6-in.

**Field Measurements:**

Depth Purging From: 2 ft. below depth to water

Time	Cumulative Volume Purged	pH	Specific Conductivity	Temp	Observations
<u>736</u>	----	----	----	----	
<u>738</u>	<u>2</u> gal	<u>7.44</u>	<u>13.80</u> <sup>ms/cm</sup>	<u>21.8</u> °C	<u>yellow</u>
<u>740</u>	<u>4</u> gal	<u>7.39</u>	<u>13.51</u> <sup>ms/cm</sup>	<u>22.8</u> °C	<u>yellow</u>
<u>741</u>	<u>5</u> gal	<u>7.36</u>	<u>13.60</u> <sup>ms/cm</sup>	<u>23.7</u> °C	<u>yellow</u>
					FIELD pH = <u>7.36</u>

Sample Appearance: Yellow

Sample Collection - Time Start: 743 Time Finished: 743

Analyses:	<input checked="" type="checkbox"/> CLO4	<input checked="" type="checkbox"/> TDS	<input checked="" type="checkbox"/> CR	<input type="checkbox"/> TDS / CRVI	<input type="checkbox"/> TDS / CRVI / NO3	<input type="checkbox"/> TDS / NO3	<input type="checkbox"/> CLO3
Bottles:	1 BTL	1 BTL	1 BTL	1 BTL	1 BTL	1 BTL	1 BTL

TOTAL BOTTLES: 3

Comments: Top of screen -17.5 Dup 3  
Sampled for same analysis  
3 bottles at 743 0736 7.36 pH





# Water Sampling Field Log

Well No.: M-69

Project No.: \_\_\_\_\_ Site: NERT PROJECT- HENDERSON, NEVADA

Sampling Team: Janel Rivera, Michele Brown Date: 11/5/15

Sampling Method:  Electric Pump  Dedicated Bailer  Non Dedicated Bailer  Ready Flo 2" O

Weather Conditions: Sunny cold

**Well Information:**

Total Well Depth: 40.00 feet Time: 808

Depth to Water: 33.83 feet

Height of Water Column (L): 6.17 feet

Well Diameter (circle one)			Well
2-in.	4-in.	6-in.	Volume (WV)
* 0.16 gal/ft	* 0.65 gal/ft	* 1.47 gal/ft	= <u>.98</u> gal. * x 3 <u>3gal</u>

**Field Measurements:**

Depth Purging From: 2 ft. below depth to water

Time	Cumulative Volume Purged	pH	Specific Conductivity	Temp	Observations
810	----	----	----	----	
811	1 gal	7.53	5.01 <sup>ms/cm</sup>	21.7 °C	Clear
812	2 gal	7.57	4.99 <sup>ms/cm</sup>	23.7 °C	Clear
813	3 gal	7.54	4.98 <sup>ms/cm</sup>	24.0 °C	clear
					FIELD pH = <u>7.54</u>

Sample Appearance: Clear

Sample Collection - Time Start: 815 Time Finished: 815

Analyses:	<u>CLO4</u>	<u>TDS</u>	<u>CR</u>	TDS / CRVI	TDS / CRVI / NO3	TDS / NO3	CLO3
Bottles:	1 BTL	1 BTL	1 BTL	1 BTL	1 BTL	1 BTL	1 BTL

TOTAL BOTTLES: 3

Comments: Top of screen 19.9

### Water Sampling Field Log

Well No.: M-70

Project No.: \_\_\_\_\_ Site: NERT PROJECT- HENDERSON, NEVADA

Sampling Team: Janel Rivera, Michele Brown Date: 11/9

Sampling Method:  Electric Pump  Dedicated Bailer  Non Dedicated Bailer  Ready Flo 2" O

Weather Conditions: Cool, cloudy

**Well Information:**

Total Well Depth: 41.00 feet Time: 601

Depth to Water: 35.30 feet

Height of Water Column (L): 5.70 feet \* Well Diameter (circle one)  
2-in. 4-in. 6-in. \*  $\frac{1}{16}$  gal/ft \*  $\frac{1}{0.65}$  gal/ft \*  $\frac{1}{1.47}$  gal/ft = .91 gal. \* x 3 = 3gal.

**Field Measurements:** Depth Purging From: 2 ft. below depth to water

Time	Cumulative Volume Purged	pH	Specific Conductivity	Temp	Observations
<u>602</u>	-----	-----	-----	-----	
<u>603</u>	<u>1 gal</u>	<u>7.68</u>	<u>8.59 mS/cm</u>	<u>20.1 °C</u>	<u>Slight yellow</u>
<u>604</u>	<u>2 gal</u>	<u>7.65</u>	<u>8.48 mS/cm</u>	<u>21.9 °C</u>	<u>Slight yellow</u>
<u>605</u>	<u>3 gal</u>	<u>7.62</u>	<u>8.55 mS/cm</u>	<u>22.7 °C</u>	<u>Slight yellow</u>
					<u>FIELD pH = 7.62</u>

Sample Appearance: slight yellow

Sample Collection - Time Start: 607 Time Finished: 607

Analyses:	TDS	CR	TDS / CRVI	TDS / CRVI / NO3	TDS / NO3	CL03
Bottles:	<span style="border: 1px solid black; border-radius: 50%; padding: 2px;">CLO4 1 BTL</span>	<span style="border: 1px solid black; border-radius: 50%; padding: 2px;">TDS 1 BTL</span>	<span style="border: 1px solid black; border-radius: 50%; padding: 2px;">CR 1 BTL</span>	1 BTL	1 BTL	1 BTL

TOTAL BOTTLES: 3

Comments: Top of Screen - 17.5

### Water Sampling Field Log

Well No.: M-71

Project No.: \_\_\_\_\_ Site: NERT PROJECT- HENDERSON, NEVADA

Sampling Team: Janel Rivera, Michele Brown Date: 11/9/15

Sampling Method: Electric Pump  Dedicated Bailer  Non Dedicated Bailer  Ready Flo 2" O

Weather Conditions: Cool, cloudy

**Well Information:**

Total Well Depth: 43.00 feet Time: 616

Depth to Water: 35.98 feet

Height of Water Column (L): 7.02 feet \* 0.16 gal/ft \* 0.65 gal/ft \* 1.47 gal/ft = 1.12 gal. \* x 3 = 3 gal

Well Diameter (circle one) Well Volume (WV)  
 2-in.  4-in.  6-in.

**Field Measurements:**

Depth Purging From: 2 ft. below depth to water

Time	Cumulative Volume Purged	pH	Specific Conductivity	Temp	Observations
618	-----	-----	-----	-----	
619	1 gal	7.56	8.28 <u>ms/cm</u>	21.3 °C	slightly yellow
620	2 gal	7.56	8.09 <u>ms/cm</u>	22.9 °C	slightly yellow
621	3 gal	7.52	8.15 <u>ms/cm</u>	23.2 °C	slightly yellow
FIELD pH = <sup>JR</sup> <u>7.52</u>					

Sample Appearance: yellow

Sample Collection - Time Start: 623 Time Finished: 623

Analyses:	CLO4	TDS	CR	TDS / CRVI	TDS / CRVI / NO3	TDS / NO3	CL03
Bottles:	<u>1 BTL</u>	<u>1 BTL</u>	<u>1 BTL</u>	1 BTL	1 BTL	1 BTL	1 BTL

TOTAL BOTTLES: 3

Comments: Top of screen 17.5

# Water Sampling Field Log

Well No.: M-72

Project No.: \_\_\_\_\_ Site: NERT PROJECT- HENDERSON, NEVADA

Sampling Team: Janel Rivera, Michele Brown Date: 11/9/15

Sampling Method:  Electric Pump  Dedicated Bailer  Non Dedicated Bailer  Ready Flo 2" O

Weather Conditions: Sunny Cool

**Well Information:**

Total Well Depth: 36.00 feet Time: 630

Depth to Water: 32.3 feet

Height of Water Column (L): 3.7 feet

Well Diameter (circle one)			Well
2-in.	4-in.	6-in	Volume (VV)
* 0.16 gal/ft	* 0.65 gal/ft	* 1.47 gal/ft	= <u>.59</u> gal. * x 3 <u>2gal</u>

**Field Measurements:**

Depth Purging From: 2 ft. below depth to water

Time	Cumulative Volume Purged	pH	Specific Conductivity	Temp	Observations
<u>632</u>	----	----	----	----	
<u>633</u>	<u>1 gal</u>	<u>7.46</u>	<u>11.61</u> <sup>MS/cm</sup>	<u>20.5</u> °C	<u>Slightly yellow</u>
<u>633</u>	<u>1.5 gal</u>	<u>7.42</u>	<u>11.41</u> <sup>MS/cm</sup>	<u>22.8</u> °C	<u>Slightly yellow</u>
<u>634</u>	<u>2 gal</u>	<u>7.36</u>	<u>11.51</u> <sup>MS/cm</sup>	<u>22.1</u> °C	<u>Slightly yellow</u>
FIELD pH = <u>7.36</u>					

Sample Appearance: slightly yellow

Sample Collection - Time Start: 636 Time Finished: 636

Analyses:	<u>CLO4</u>	<u>TDS</u>	<u>CR</u>	TDS / CRVI	TDS / CRVI / NO3	TDS / NO3	CL03
Bottles:	<u>1 BTL</u>	<u>1 BTL</u>	<u>1 BTL</u>	1 BTL	1 BTL	1 BTL	1 BTL

TOTAL BOTTLES: 3

Comments:

Top of Screen -10.1

### Water Sampling Field Log

Well No.: M-73

Project No.: \_\_\_\_\_ Site: NERT PROJECT- HENDERSON, NEVADA

Sampling Team: Janel Rivera, Michele Brown Date: 11-6-15

Sampling Method:  Electric Pump  Dedicated Bailer  Disposable Bailer  Ready Flo 2" O

Weather Conditions: Sunny, COOL

**Well Information:**

Total Well Depth: 36.0 feet Time: 0855

Depth to Water: 28.88 feet

Well Volume (WV)

Well Diameter (circle one)  
 2-in.      4-in.      6-in.

Height of Water Column (L): 7.12 feet \* 0.16 gal/ft \* 0.65 gal/ft \* 1.47 gal/ft = 1.13 gal. \* x 3 = 3gal

**Field Measurements:** Depth Purging From: 2 ft. below depth to water

Time	Cumulative Volume Purged	pH	Specific Conductivity	Temp	Observations
<u>0859</u>	<u>1 gal</u>	<u>7.38</u>	<u>9.42 mS/cm</u>	<u>23.7 °C</u>	<u>yellow</u>
	<u>gal</u>				
	<u>gal</u>				

FIELD pH = 7.38

Sample Appearance: yellow

Sample Collection - Time Start: 0859 Time Finished: 0859

Analyses: CLO4 TDS CR TDS / CRVI TDS / CRVI / NO3 TDS / NO3 CL03  
 Bottles: 1 BTL 1 BTL 1 BTL 1 BTL 1 BTL 1 BTL 1 BTL

Comments: Top of screens!! TOTAL BOTTLES: 3  
purged 1 well casing with disposable bailer before sampling due to location. Not able to get sampling rig into area



# Water Sampling Field Log

Well No.: M-74

Project No.: \_\_\_\_\_ Site: NERT PROJECT- HENDERSON, NEVADA

Sampling Team: Janel Rivera, Michele Brown Date: 11/6/15

Sampling Method:  Electric Pump  Dedicated Bailer  Non Dedicated Bailer  Ready Flo 2" O

Weather Conditions: Sunny Cool

**Well Information:**

Total Well Depth: 39.70 feet Time: 801

Depth to Water: 28.20 feet

Well Diameter (circle one)  2-in.  4-in.  6-in. Well Volume (VV) = 1.84 gal. \* x 3 = 6 gal

Height of Water Column (L): 11.5 feet \* 0.16 gal/ft \* 0.65 gal/ft \* 1.47 gal/ft = 1.84 gal. \* x 3 = 6 gal

**Field Measurements:**

Depth Purging From: 2 ft. below depth to water

Time	Cumulative Volume Purged	pH	Specific Conductivity	Temp	Observations
802	----	----	----	----	
804	2 gal	7.59	7.03 <sup>ms/cm</sup>	21.6 °C	Clear
806	4 gal	7.53	7.15 <sup>ms/cm</sup>	22.4 °C	Clear
808	6 gal	7.48	7.11 <sup>ms/cm</sup>	22.7 °C	Clear
FIELD pH = <u>7.48</u>					

Sample Appearance: Clear

Sample Collection - Time Start: 810 Time Finished: 810

Analyses:	<u>CLO4</u>	<u>TDS</u>	<u>CR</u>	TDS / CRVI	TDS / CRVI / NO3	TDS / NO3	CL03
Bottles:	1 BTL	1 BTL	1 BTL	1 BTL	1 BTL	1 BTL	1 BTL

TOTAL BOTTLES: 3

Comments: Top of screen 9.2 Closing QC 7.02

# Water Sampling Field Log

Well No.: M-75

Project No.: \_\_\_\_\_ Site: NERT PROJECT- HENDERSON, NEVADA

Sampling Team: Janel Rivera, Michele Brown Date: 11-6-15

Sampling Method:  Electric Pump  Dedicated Bailer  Non Dedicated Bailer  Ready Flo 2" O

Weather Conditions: Warm, sunny

**Well Information:**

Total Well Depth: 53.90 feet Time: 1054

Depth to Water: 42.37 feet Well Volume (WV)

Height of Water Column (L): 1153 feet \* 0.16 gal/ft \* 0.65 gal/ft \* 1.47 gal/ft = \_\_\_\_\_ gal. \* x 3

Well Diameter (circle one)  
 2-in.  4-in.  6-in

**Field Measurements:**

Depth Purging From: 2 ft. below depth to water

Time	Cumulative Volume Purged	pH	Specific Conductivity	Temp	Observations
_____	_____ gal	_____	_____	_____	_____
_____	_____ gal	_____	_____	_____	DTW Only
_____	_____ gal	_____	_____	_____	No Sample
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	FIELD pH = _____

Sample Appearance: \_\_\_\_\_

Sample Collection - Time Start: \_\_\_\_\_ Time Finished: \_\_\_\_\_

Analyses:	CLO4	TDS	CR	TDS / CRVI	TDS / CRVI / NO3	TDS / NO3	CL03
Bottles:	1 BTL	1 BTL	1 BTL	1 BTL	1 BTL	1 BTL	1 BTL

TOTAL BOTTLES: 8

Comments:

Water Sampling Field Log

Well No.: M-76

Project No.: \_\_\_\_\_ Site: NERT PROJECT- HENDERSON, NEVADA

Sampling Team: Janel Rivera, Michele Brown Date: 11-6-15

Sampling Method: Electric Pump  Dedicated Bailer  Non Dedicated Bailer  Ready Flo 2"

Weather Conditions: warm, sunny

Well Information:

Total Well Depth: 54.60 feet Time: 1056

Depth to Water: 39.04 feet

Well Volume (VV)

Well Diameter (circle one)  
2-in. 4-in. 8-in.

Height of Water Column (L): 5.56 feet \* 0.16 gal/ft \* 0.65 gal/ft \* 1.47 gal/ft = \_\_\_\_\_ gal. \* x 3 \_\_\_\_\_

Field Measurements:

Depth Purging From: 2 ft. below depth to water

Time	Cumulative Volume Purged	pH	Specific Conductivity	Temp	Observations
_____	_____ gal	_____	_____	_____	_____
_____	_____ gal	_____	_____	_____	DTW Only
_____	_____ gal	_____	_____	_____	No Sample
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	FIELD pH = _____

Sample Appearance: \_\_\_\_\_

Sample Collection - Time Start: \_\_\_\_\_ Time Finished: \_\_\_\_\_

Analyses:	CLO4	TDS	CR	TDS / CRVI	TDS / CRVI / NO3	TDS / NO3	CL03
Bottles:	1 BTL	1 BTL	1 BTL	1 BTL	1 BTL	1 BTL	1 BTL

TOTAL BOTTLES: 8

Comments:

**Water Sampling Field Log**

Well No.: M-117

Project No.: \_\_\_\_\_ Site: NERT PROJECT- HENDERSON, NEVADA

Sampling Team: Janel Rivera, Michele Brown Date: 11-6-15

Sampling Method:  Electric Pump  Dedicated Bailer  Disposable Bailer  Ready Flo 2" O

Weather Conditions: cool

**Well Information:**

Total Well Depth: 49.32 feet Time: 605

Depth to Water: 40.17 feet

Height of Water Column (L): 8.55 feet \* 2-in. Well Diameter (circle one) 4-in. 6-in. Well Volume (WV) = \_\_\_\_\_ gal. \* x 3

**Field Measurements:**

Depth Purging From: 2 ft. below depth to water

Time	Cumulative Volume Purged	pH	Specific Conductivity	Temp	Observations
_____	_____ gal	_____	_____	_____	_____
_____	_____ gal	_____	_____	_____	DTW ONLY
_____	_____ gal	_____	_____	_____	NO SAMPLE
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	FIELD pH = _____

Sample Appearance: \_\_\_\_\_

Sample Collection - Time Start: \_\_\_\_\_ Time Finished: \_\_\_\_\_

Analyses:	<u>CLO4</u>	<u>TDS</u>	<u>CR</u>	<u>TDS / CRVI</u>	<u>TDS / CRVI / NO3</u>	<u>TDS / NO3</u>	<u>CL03</u>
Bottles:	<u>1 BTL</u>	<u>1 BTL</u>	<u>1 BTL</u>	<u>1 BTL</u>	<u>1 BTL</u>	<u>1 BTL</u>	<u>1 BTL</u>

TOTAL BOTTLES: 0

Comments: \_\_\_\_\_



# Water Sampling Field Log

Well No.: M-79

Project No.: \_\_\_\_\_ Site: NERT PROJECT- HENDERSON, NEVADA

Sampling Team: Michele Brown Janet Rivera Date: 11/5/15

Sampling Method:  Electric Pump  Dedicated Bailer  Non Dedicated Bailer  Ready Flo 2" O

Weather Conditions: Sunny cold

**Well Information:**

Total Well Depth: 37.60 feet Time: 0753

Depth to Water: 31.73 feet

	Well Diameter (circle one)			Well Volume (VV)	Purge Factor	Purge Volume
	2-in.	4-in.	6-in.			
Height of Water Column (L): <u>5.87</u> feet	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	= <u>.93</u> gal.	* <u>3</u>	= <u>39</u> gal

**Field Measurements:**

Depth Purging From: 2 ft. below depth to water

Time	Cumulative Volume Purged	pH	Specific Conductivity	Temp	Observations
<u>0755</u>	-----	-----	-----	-----	
<u>0756</u>	<u>1</u> gal	<u>7.70</u>	<u>5.50</u> mS/cm	<u>22.1</u> °C	<u>Clear</u>
<u>0757</u>	<u>2</u> gal	<u>7.64</u>	<u>5.51</u> mS/cm	<u>23.2</u> °C	<u>Clear</u>
<u>0758</u>	<u>3</u> gal	<u>7.53</u>	<u>5.49</u> mS/cm	<u>23.5</u> °C	<u>Clear</u>
	gal				
	gal				
	gal				<u>Field pH 7.53</u>

Sample Appearance: \_\_\_\_\_

Sample Collection - Time Start: 0800 Time Finished: 0800

Analyses: CL04 TDS TDS/pH CR  
 Bottles: 1 BTL 1 BTL 1 BTL 1 BTL

TOTAL BOTTLES: 3

Comments: Top of Screen 10.8

Dup EC	mS/cm	Temp
	5.50	23.4

# Water Sampling Field Log

Well No.: M-80

Project No.: \_\_\_\_\_ Site: NERT PROJECT- HENDERSON, NEVADA

Sampling Team: Janel Rivera, Michele Braun Date: 11-6-15

Sampling Method:  Electric Pump  Dedicated Bailer  Disposable Bailer  Ready Flo 2" O

Weather Conditions: breezy, sunny

**Well Information:**

Total Well Depth: 43.70 feet Time: 1035

Depth to Water: 36.30 feet

Well Diameter (circle one) Volume (WV)  
 2-in. 4-in. 6-in.  
 Height of Water Column (L): 7.40 feet \* 0.16 gal/ft \* 0.65 gal/ft \* 1.47 gal/ft = 4.81 gal. \* x 3 15 gal

**Field Measurements:**

Depth Purging From: 2 ft. below depth to water

Time	Cumulative Volume Purged	pH	Specific Conductivity	Temp	Observations
<u>1038</u>	-----	-----	-----	-----	
<u>1043</u>	<u>5</u> gal	<u>7.36</u>	<u>4.96 mS/cm</u>	<u>22.9°</u>	<u>clear</u>
<u>1048</u>	<u>10</u> gal	<u>7.38</u>	<u>5.07 mS/cm</u>	<u>21.3°</u>	<u>clear</u>
<u>1053</u>	<u>15</u> gal	<u>7.31</u>	<u>4.91 mS/cm</u>	<u>22.3°</u>	<u>clear</u>
				FIELD pH = <u>7.31</u>	

Sample Appearance: clear

Sample Collection - Time Start: 1055 Time Finished: 1055

Analyses:	<u>CLO4</u>	TDS	<u>CR</u>	<u>TDS / CRVI</u>	TDS / CRVI / NO3	TDS / NO3	CL03
Bottles:	<u>1 BTL</u>	1 BTL	<u>1 BTL</u>	<u>1 BTL</u>	1 BTL	1 BTL	1 BTL

TOTAL BOTTLES: 3

Comments: top of screen. 11.5

# Water Sampling Field Log

Well No.: M-8/A

Project No.: \_\_\_\_\_ Site: NERT PROJECT- HENDERSON, NEVADA

Sampling Team: Janel Rivera, Michele Brown Date: 11/6/15

Sampling Method:  Electric Pump  Dedicated Bailer  Non Dedicated Bailer  Ready Flo 2" O

Weather Conditions: Sunny warm

**Well Information:**

Total Well Depth: 41.60 feet Time: 931

Depth to Water: 36.00 feet

Height of Water Column (L): 5.6 feet

Well Diameter (circle one)			Well
2-in.	4-in.	6-in.	Volume (VV)
* 0.16 gal/ft	* 0.65 gal/ft	* 1.47 gal/ft	= <u>.89</u> gal. * x 3 <u>3gal</u>

**Field Measurements:**

Depth Purging From: 2 ft. below depth to water

Time	Cumulative Volume Purged	pH	Specific Conductivity	Temp	Observations
933	----	----	----	----	
934	1 gal	7.62	5.89 <sup>MS/cm</sup>	23.6 °C	Clear
935	2 gal	7.48	5.79 <sup>MS/cm</sup>	23.5 °C	Clear
936	3 gal	7.45	5.89 <sup>MS/cm</sup>	23.6 °C	Clear
					FIELD pH = <u>7.45</u>

Sample Appearance: Clear

Sample Collection - Time Start: 938 Time Finished: 938

Analyses:	CLO4	TDS	CR	TDS / CRVI	TDS / CRVI / NO3	TDS / NO3	CL03
Bottles:	1 BTL	1 BTL	1 BTL	1 BTL	1 BTL	1 BTL	1 BTL

TOTAL BOTTLES: 3

**Comments:**

Top of screen - 30 closing QC - 7.0  
EB4 collected here before moving to next well  
946 CLO4 TDS CR CRVI 3 bottles



# Water Sampling Field Log

Well No.: M-83

Project No.: \_\_\_\_\_ Site: NERT PROJECT- HENDERSON, NEVADA

Sampling Team: Janel Rivera Michele Brown Date: 11/6/15

Sampling Method:  Electric Pump  Dedicated Bailer  Non Dedicated Bailer  Ready Flo 2" O

Weather Conditions: Windy Sunny

**Well Information:**

Total Well Depth: 41.75 feet Time: 1020

Depth to Water: 31.97 feet

Height of Water Column (L): 9.78 feet

Well Diameter (circle one)			Well Volume (VV)	
2-in.	4-in.	6-in		
0.16 gal/ft	* 0.65 gal/ft	* 1.47 gal/ft	=	<u>1.56</u> gal. * x 3 = <u>5gal.</u>

**Field Measurements:**

Depth Purging From: 2 ft. below depth to water

Time	Cumulative Volume Purged	pH	Specific Conductivity	Temp	Observations
1021	-----	-----	-----	-----	
1023	2 gal	7.53	5.78 <i>ms/cm</i>	21.7 °C	Clear
1025	4 gal	7.46	5.72 <i>ms/cm</i>	22.2 °C	Clear
1026	5 gal	7.45	5.69 <i>ms/cm</i>	22.5 °C	Clear
					FIELD pH = <u>7.45</u>

Sample Appearance: clear

Sample Collection - Time Start: 1028 Time Finished: 1028

Analyses:	CLO4	TDS	CR	TDS / CRVI	TDS / CRVI / NO3	TDS / NO3	CL03
Bottles:	1 BTL	1 BTL	1 BTL	1 BTL	1 BTL	1 BTL	1 BTL

TOTAL BOTTLES: 3

Comments: Top of Screen -15.3

# Water Sampling Field Log

Well No.: M-92

Project No.: \_\_\_\_\_ Site: NERT PROJECT- HENDERSON, NEVADA

Sampling Team: Janel Rivera, Michele Brown Date: 11/9/15

Sampling Method:  Electric Pump  Dedicated Bailer  Non Dedicated Bailer  Ready Flo 2"

Weather Conditions: Sunny warm

### Well Information:

Total Well Depth: 48.50 feet Time: 7.56

Depth to Water: 35.73 feet

Height of Water Column (L): 12.77 feet

Well Diameter (circle one)	Well Volume (VV)
<input checked="" type="radio"/> 2-in.	0.16 gal/ft
<input type="radio"/> 4-in.	0.65 gal/ft
<input type="radio"/> 6-in.	1.47 gal/ft

= \_\_\_\_\_ gal. \* x 3 \_\_\_\_\_

### Field Measurements:

Depth Purging From: 2 ft. below depth to water

Time	Cumulative Volume Purged	pH	Specific Conductivity	Temp	Observations
_____	_____ gal	_____	_____	_____	_____
_____	_____ gal	_____	_____	_____	_____
_____	_____ gal	_____	_____	_____	<u>DTW Only</u>
_____	_____ gal	_____	_____	_____	<u>No Sample</u>
_____	_____ gal	_____	_____	_____	_____
_____	_____ gal	_____	_____	_____	_____
_____	_____ gal	_____	_____	_____	_____
_____	_____ gal	_____	_____	_____	_____
_____	_____ gal	_____	_____	_____	_____
_____	_____ gal	_____	_____	_____	_____

FIELD pH = \_\_\_\_\_

Sample Appearance: \_\_\_\_\_

Sample Collection - Time Start: \_\_\_\_\_ Time Finished: \_\_\_\_\_

Analyses:	CLO4	TDS	CR	TDS / CRVI	TDS / CRVI / NO3	TDS / NO3	CL03
Bottles:	1 BTL	1 BTL	1 BTL	1 BTL	1 BTL	1 BTL	1 BTL

TOTAL BOTTLES: 0

Comments:

# Water Sampling Field Log

Well No.: M-93

Project No.: \_\_\_\_\_ Site: NERT PROJECT- HENDERSON, NEVADA

Sampling Team: Janel Rivera, Michele Brown Date: 11/9/15

Sampling Method: Electric Pump O Dedicated Bailer O Non Dedicated Bailer O Ready Flo 2" O

Weather Conditions: \_\_\_\_\_

### Well Information:

Total Well Depth: 49.00 feet Time: 757

Depth to Water: 34.82 feet

Height of Water Column (L): 14.18 feet

Well Diameter (circle one) Well Volume (WV)  
 2-in. 4-in. 6-in.  
 \* 0.16 gal/ft \* 0.65 gal/ft \* 1.47 gal/ft = gal. \* x 3

### Field Measurements:

Depth Purging From: 2 ft. below depth to water

Time	Cumulative Volume Purged	pH	Specific Conductivity	Temp	Observations
_____	_____ gal	_____	_____	_____	_____
_____	_____ gal	_____	_____	_____	DTW Only
_____	_____ gal	_____	_____	_____	No Sample
_____	_____ gal	_____	_____	_____	_____
_____	_____ gal	_____	_____	_____	_____
_____	_____ gal	_____	_____	_____	_____
_____	_____ gal	_____	_____	_____	_____
_____	_____ gal	_____	_____	_____	_____

Sample Appearance: \_\_\_\_\_

Sample Collection - Time Start: \_\_\_\_\_ Time Finished: \_\_\_\_\_

Analyses:	CLO4	TDS	CR	TDS / CRVI	TDS / CRVI / NO3	TDS / NO3	CL03
Bottles:	1 BTL	1 BTL	1 BTL	1 BTL	1 BTL	1 BTL	1 BTL

TOTAL BOTTLES: 8

Comments: \_\_\_\_\_

# Water Sampling Field Log

Well No.: M-95

Project No.: \_\_\_\_\_ Site: NERT PROJECT- HENDERSON, NEVADA

Sampling Team: Janel Rivera, Michele Brown Date: 11.3.15

Sampling Method:  Electric Pump  Dedicated Bailer  Disposable Bailer  Ready Flo 2" O

Weather Conditions: Cool windy

### Well Information:

Total Well Depth: 30.00 feet Time: 1138

Depth to Water: 18.76 feet

Height of Water Column (L): 11.24 feet \* 0.6 gal/ft \* 0.65 gal/ft \* 1.47 gal/ft = 1.79 gal. \* x 3 = 5 gal

Well Diameter (circle one) Well Volume (WV)

2-in. 4-in. 6-in.

### Field Measurements:

Depth Purging From: 2 ft. below depth to water

Time	Cumulative Volume Purged	pH	Specific Conductivity	Temp	Observations
<u>1138<sup>or</sup></u>	----	----	----	----	
<u>1140</u>	<u>2 gal</u>	<u>7.70</u>	<u>7.18 mS/cm</u>	<u>24.4<sup>or</sup></u>	<u>Clear</u>
<u>1142</u>	<u>4 gal</u>	<u>7.50</u>	<u>7.18 mS/cm</u>	<u>24.8<sup>or</sup></u>	<u>Clear</u>
<u>1143</u>	<u>1 gal</u>	<u>7.46</u>	<u>7.14 mS/cm</u>	<u>25.0<sup>or</sup></u>	<u>Clear</u>
				FIELD pH = <u>7.46</u>	

Sample Appearance: \_\_\_\_\_

Sample Collection - Time Start: 1145 Time Finished: 1145

Analyses: LO4 TDS CR TDS / CRVI TDS / CRVI / NO3 TDS / NO3 CL03

Bottles: 1 BTL 1 BTL 1 BTL 1 BTL 1 BTL 1 BTL 1 BTL

TOTAL BOTTLES: 3

Comments:

Top of Screen - 12

Dup 1 collected here for same analysis 3 bottles

### Water Sampling Field Log

Well No.: M-96

Project No.: \_\_\_\_\_ Site: NERT PROJECT- HENDERSON, NEVADA

Sampling Team: Janel Rivera, Michele Brown Date: 11.3.15

Sampling Method:  Electric Pump  Dedicated Bailer  Disposable Bailer  Ready Flo 2"

Weather Conditions: \_\_\_\_\_

**Well Information:**

Total Well Depth: 16.57 feet Time: 1159

Depth to Water: \_\_\_\_\_ feet Well Volume (WV)

Well Diameter (circle one)  
 2-in.  4-in.  6-in.

Height of Water Column (L): \_\_\_\_\_ feet \* 0.16 gal/ft \* 0.65 gal/ft \* 1.47 gal/ft = \_\_\_\_\_ gal. \* x 3

**Field Measurements:**

Depth Purging From: 2 ft. below depth to water

Time	Cumulative Volume Purged	pH	Specific Conductivity	Temp	Observations
_____	gal	_____	mScm	oc	_____
_____	gal	_____	mScm	oc	DRY NO
_____	gal	_____	mScm	oc	SAMPLE
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____

Sample Appearance: \_\_\_\_\_

Sample Collection - Time Start: \_\_\_\_\_ Time Finished: \_\_\_\_\_

Analyses: CLO4 TDS CR TDS / CRVI TDS / CRVI / NO3 TDS / NO3 CL03  
 Bottles: 1 BTL 1 BTL 1 BTL 1 BTL 1 BTL 1 BTL 1 BTL

TOTAL BOTTLES: 3

Comments: \_\_\_\_\_

Water Sampling Field Log

Well No.: M-97

Project No.: \_\_\_\_\_ Site: NERT PROJECT- HENDERSON, NEVADA

Sampling Team: Janel Rivera, Michele Brown Date: 11/9/15

Sampling Method:  Electric Pump  Dedicated Bailer  Non Dedicated Bailer  Ready Flo 2"

Weather Conditions: Sunny Warm

Well Information:

Total Well Depth: 52.50 feet Time: 754

Depth to Water: 39.51 feet

Height of Water Column (L): 12.99 feet \* 0.16 gal/ft \* 0.65 gal/ft \* 1.47 gal/ft = \_\_\_\_\_ gal. \* x 3 \_\_\_\_\_

Well Diameter (circle one)  
2-in. 4-in. 6-in.

Well Volume (WV)

Field Measurements:

Depth Purging From: 2 ft. below depth to water

Time	Cumulative Volume Purged	pH	Specific Conductivity	Temp	Observations
_____	_____ gal	_____	_____	_____	_____
_____	_____ gal	_____	_____	_____	_____
_____	_____ gal	_____	_____	_____	DTW Only No Sample
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	FIELD pH = _____

Sample Appearance: \_\_\_\_\_

Sample Collection - Time Start: \_\_\_\_\_ Time Finished: \_\_\_\_\_

Analyses:	CLO4	TDS	CR	TDS / CRVI	TDS / CRVI / NO3	TDS / NO3	CL03
Bottles:	1 BTL	1 BTL	1 BTL	1 BTL	1 BTL	1 BTL	1 BTL

TOTAL BOTTLES: 8

Comments:



# Water Sampling Field Log

Well No.: M-99

Project No.: \_\_\_\_\_ Site: NERT PROJECT- HENDERSON, NEVADA

Sampling Team: Janel Rivera, Michele Brown Date: 11-9-15

Sampling Method: Electric Pump O Dedicated Bailer O Disposable Bailer  Ready Flo 2" O

Weather Conditions: Warm, clear

**Well Information:**

Total Well Depth: 35.59 feet Time: 1230

Depth to Water: 33.63 feet

Height of Water Column (L): 1.96 feet

Well Diameter (circle one)  
 2-in.     4-in.     6-in.

Well Volume (WV)

Height of Water Column (L): 1.96 feet  0.16 gal/ft    \* 0.65 gal/ft    \* 1.47 gal/ft =            gal. \* x 3

**Field Measurements:**

Depth Purging From: 2 ft. below depth to water

Time	Cumulative Volume Purged	pH	Specific Conductivity	Temp	Observations
<u>1231</u>	<u>gal</u>	<u>7.22</u>	<u>501 <math>\mu</math>S/cm</u>	<u>24.1°</u>	<u>clear</u>
_____	<u>gal</u>	_____	_____	_____	_____
_____	<u>gal</u>	_____	_____	_____	_____
_____	_____	_____	_____	_____	<u>NO SAMPLES TO LAB</u>
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	<u>FIELD pH = 7.22</u>

Sample Appearance: \_\_\_\_\_

Sample Collection - Time Start: \_\_\_\_\_ Time Finished: \_\_\_\_\_

Analyses: CLO4 TDS CR TDS / CRVI TDS / CRVI / NO3 TDS / NO3 CL03

Bottles: 1 BTL 1 BTL 1 BTL 1 BTL 1 BTL 1 BTL 1 BTL

TOTAL BOTTLES: 0

Comments: Not able to bail water to the surface. Got just enough to do pH + conductivity readings -



# Water Sampling Field Log

Well No.: M-100

Project No.: \_\_\_\_\_ Site: NERT PROJECT- HENDERSON, NEVADA

Sampling Team: Janel Rivera, Michele Brown Date: 11/6/15

Sampling Method:  Electric Pump  Dedicated Bailer  Disposable Bailer  Ready Flo 2" O

Weather Conditions: sunny

## Well Information:

Total Well Depth: 33.81 feet Time: 921

Depth to Water: \_\_\_\_\_ feet

Well Diameter (circle one)  
2-in. 4-in. 6-in

Well Volume (VV)

Height of Water Column (L): \_\_\_\_\_ feet 0.16 gal/ft \* 0.65 gal/ft \* 1.47 gal/ft = \_\_\_\_\_ gal. \* x 3

## Field Measurements:

Depth Purging From: 2 ft. below depth to water

Time	Cumulative Volume Purged	pH	Specific Conductivity	Temp	Observations
	gal				WELL DRY
	gal				NO SAMPLE
	gal				
					FIELD pH =

Sample Appearance: \_\_\_\_\_

Sample Collection - Time Start: \_\_\_\_\_ Time Finished: \_\_\_\_\_

Analyses:	CLO4	TDS	CR	TDS / CRVI	TDS / CRVI / NO3	TDS / NO3	CL03
Bottles:	1 BTL	1 BTL	1 BTL	1 BTL	1 BTL	1 BTL	1 BTL

TOTAL BOTTLES: 8

Comments:

### Water Sampling Field Log

Well No.: M-101

Project No.: \_\_\_\_\_ Site: NERT PROJECT- HENDERSON, NEVADA

Sampling Team: Janel Rivera, Michele Brown Date: 11/6/15

Sampling Method:  Electric Pump  Dedicated Bailer  Disposable Bailer  Ready Flo 2" O

Weather Conditions:  Sunny,

**Well Information:**

Total Well Depth: 32.15 feet Time: 919

Depth to Water: \_\_\_\_\_ feet Well Volume (WV)

Height of Water Column (L): \_\_\_\_\_ feet Well Diameter (circle one)  
2-in.      4-in.      6-in.  
 = \_\_\_\_\_ gal. \* x 3

**Field Measurements:**

Depth Purging From: 2 ft. below depth to water

Time	Cumulative Volume Purged	pH	Specific Conductivity	Temp	Observations
_____	_____ gal	_____	_____	_____	<u>Well DRY</u>
_____	_____ gal	_____	_____	_____	<u>NO SAMPLE</u>
_____	_____ gal	_____	_____	_____	_____
_____	_____ gal	_____	_____	_____	_____
_____	_____ gal	_____	_____	_____	_____
_____	_____ gal	_____	_____	_____	_____
_____	_____ gal	_____	_____	_____	_____
_____	_____ gal	_____	_____	_____	_____
_____	_____ gal	_____	_____	_____	FIELD pH = _____

Sample Appearance: \_\_\_\_\_

Sample Collection - Time Start: \_\_\_\_\_ Time Finished: \_\_\_\_\_

Analyses:	CLO4	TDS	CR	TDS / CRVI	TDS / CRVI / NO3	TDS / NO3	CL03
Bottles:	1 BTL	1 BTL	1 BTL	1 BTL	1 BTL	1 BTL	1 BTL

TOTAL BOTTLES: 8

Comments:

# Water Sampling Field Log

Well No.: M-115

Project No.: \_\_\_\_\_ Site: NERT PROJECT- HENDERSON, NEVADA

Sampling Team: Janel Rivera, Michele Brown Date: 11-6-15

Sampling Method:  Electric Pump  Dedicated Bailer  Non Dedicated Bailer  Ready Flo 2" O

Weather Conditions: Warm, sunny

**Well Information:**

Total Well Depth: 47.50 feet Time: 1059

Depth to Water: 37.58 feet

Height of Water Column (L): 9.92 feet \* 0.16 gal/ft \* 0.65 gal/ft \* 1.47 gal/ft = \_\_\_\_\_ gal. \* x 3 \_\_\_\_\_

Well Diameter (circle one)  
 2-in.     4-in.     6-in.    Well Volume (WV)

**Field Measurements:**

Depth Purging From: 2 ft. below depth to water

Time	Cumulative Volume Purged	pH	Specific Conductivity	Temp	Observations
_____	_____ gal	_____	_____	_____	_____
_____	_____ gal	_____	_____	_____	_____
_____	_____ gal	_____	_____	_____	DTW Only No Sample
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	FIELD pH = _____

Sample Appearance: \_\_\_\_\_

Sample Collection - Time Start: \_\_\_\_\_ Time Finished: \_\_\_\_\_

Analyses:	CLO4	TDS	CR	TDS / CRVI	TDS / CRVI / NO3	TDS / NO3	CL03
Bottles:	1 BTL	1 BTL	1 BTL	1 BTL	1 BTL	1 BTL	1 BTL

TOTAL BOTTLES: Ø

Comments:

# Water Sampling Field Log

Well No.: M-131

Project No.: \_\_\_\_\_ Site: NERT PROJECT- HENDERSON, NEVADA

Sampling Team: Janel Rivera, Michele Brown Date: 11/5/15

Sampling Method:  Electric Pump  Dedicated Bailer  Non Dedicated Bailer  Ready Flo 2" O

Weather Conditions: Sunny Cool

**Well Information:**

Total Well Depth: 39.00 feet Time: 849

Depth to Water: 33.32 feet

Height of Water Column (L): 5.68 feet

Well Diameter (circle one)			Well Volume (VV)
2-in.	4-in.	6-in	
* 0.16 gal/ft	* 0.65 gal/ft	* 1.47 gal/ft	= <u>.90</u> gal. * x 3 <u>3gal</u>

**Field Measurements:**

Depth Purging From: 2 ft. below depth to water

Time	Cumulative Volume Purged	pH	Specific Conductivity	Temp	Observations
<u>852</u>	----	----	----	----	
<u>853</u>	<u>1 gal</u>	<u>7.78</u>	<u>4.77</u> <sup>MS/cm</sup>	<u>22.6°C</u>	<u>clear</u>
<u>854</u>	<u>2 gal</u>	<u>7.76</u>	<u>4.77</u> <sup>MS/cm</sup>	<u>22.9°C</u>	<u>clear</u>
<u>855</u>	<u>3 gal</u>	<u>7.74</u>	<u>4.74</u> <sup>MS/cm</sup>	<u>23.9°C</u>	<u>clear</u>

FIELD pH = 7.74

Sample Appearance: clear

Sample Collection - Time Start: 857 Time Finished: 857

Analyses:	<u>CLO4</u>	<u>TDS</u>	<u>CR</u>	TDS / CRVI	TDS / CRVI / NO3	TDS / NO3	CL03
Bottles:	<u>1 BTL</u>	<u>1 BTL</u>	<u>1 BTL</u>	1 BTL	1 BTL	1 BTL	1 BTL

TOTAL BOTTLES: 3

Comments: Top of screen 28.7

# Water Sampling Field Log

Well No.: M-135

Project No.: \_\_\_\_\_ Site: NERT PROJECT- HENDERSON, NEVADA

Sampling Team: Janel Rivera, Michele Brown Date: 11/5/15

Sampling Method:  Electric Pump  Dedicated Bailer  Non Dedicated Bailer  Ready Flo 2" O

Weather Conditions: Sunny cool

**Well Information:**

Total Well Depth: 39.00 feet Time: 822

Depth to Water: 34.56 feet

Height of Water Column (L): 4.44 feet

Well Diameter (circle one)			Well
2-in.	4-in.	6-in.	Volume (VV)
*0.16 gal/ft	*0.65 gal/ft	*1.47 gal/ft	= <u>.71</u> gal. * x 3 <u>2 gal</u>

**Field Measurements:**

Depth Purging From: 2 ft. below depth to water

Time	Cumulative Volume Purged	pH	Specific Conductivity	Temp	Observations
824	-----	-----	-----	-----	
825	1 gal	7.74	4.59 <i>MS/cm</i>	22.6 °C	Clear
825	1.5 gal	7.74	4.60 <i>MS/cm</i>	23.7 °C	Clear
826	2 gal	7.70	4.68 <i>MS/cm</i>	23.3 °C	Clear
					FIELD pH = 7.70

Sample Appearance: Clear

Sample Collection - Time Start: 828 Time Finished: 828

Analyses:	CLO4	TDS	CR	TDS / CRVI	TDS / CRVI / NO3	TDS / NO3	CL03
Bottles:	1 BTL	1 BTL	1 BTL	1 BTL	1 BTL	1 BTL	1 BTL

TOTAL BOTTLES: 3

Comments: Top of Screen 28.7 Dup QC 7.01

# Water Sampling Field Log

Well No.: M-166

Project No.: \_\_\_\_\_ Site: NERT PROJECT- HENDERSON, NEVADA

Sampling Team: Janel Rivera, Michele Brown Date: 11-2-15

Sampling Method:  Electric Pump  Dedicated Bailer  Disposable Bailer  Ready Flo 2" O

Weather Conditions: cool, clear, windy

## Well Information:

Total Well Depth: 32.00 feet Time: 0915

Depth to Water: 29.08 feet

Well Diameter (circle one)  
 2-in.  4-in.  6-in.

Well  
Volume (VV)

Height of Water Column (L): 12.92 feet \* 0.16 gal/ft \* 0.65 gal/ft \* 1.47 gal/ft =          gal. \* x 3

## Field Measurements:

Depth Purging From: 2 ft. below depth to water

Time	Cumulative Volume Purged	pH	Specific Conductivity	Temp	Observations
	gal				
	gal				DTW ONLY
	gal				NO SAMPLE
					FIELD pH =

Sample Appearance: \_\_\_\_\_

Sample Collection - Time Start: \_\_\_\_\_ Time Finished: \_\_\_\_\_

Analyses:	CLO4	TDS	CR	TDS / CRVI	TDS / CRVI / NO3	TDS / NO3	CL03
Bottles:	1 BTL	1 BTL	1 BTL	1 BTL	1 BTL	1 BTL	1 BTL

TOTAL BOTTLES:   3  

Comments:

## Water Sampling Field Log

Well No.: M-1267

Project No.: \_\_\_\_\_ Site: NERT PROJECT- HENDERSON, NEVADA

Sampling Team: Janel Rivera, Michele Brown Date: 11-2-15

Sampling Method:  Electric Pump  Dedicated Bailer  Disposable Bailer  Ready Flo 2"

Weather Conditions: cool, sunny, breezy

**Well Information:**

Total Well Depth: 30.00 feet Time: 0809

Depth to Water: 27.11 feet

Height of Water Column (L): 2.89 feet \* 0.16 gal/ft \* 0.65 gal/ft \* 1.47 gal/ft = \_\_\_\_\_ gal. \* x 3

Well Diameter (circle one)  
 2-in.     4-in.     6-in.  
 Well Volume (WV)

**Field Measurements:**

Depth Purging From: 2 ft. below depth to water

Time	Cumulative Volume Purged	pH	Specific Conductivity	Temp	Observations
_____	_____ gal	_____	_____	_____	_____
_____	_____ gal	_____	_____	_____	DTW ONLY
_____	_____ gal	_____	_____	_____	NO SAMPLE
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	FIELD pH = _____

Sample Appearance: \_\_\_\_\_

Sample Collection - Time Start: \_\_\_\_\_ Time Finished: \_\_\_\_\_

Analyses:	CLO4	TDS	CR	TDS / CRVI	TDS / CRVI / NO3	TDS / NO3	CL03
Bottles:	1 BTL	1 BTL	1 BTL	1 BTL	1 BTL	1 BTL	1 BTL

TOTAL BOTTLES: Ø

Comments:

# Water Sampling Field Log

Well No.: M-1168

Project No.: \_\_\_\_\_ Site: NERT PROJECT- HENDERSON, NEVADA

Sampling Team: Janel Rivera, Michele Brown Date: 11-2-15

Sampling Method:  Electric Pump  Dedicated Bailer  Disposable Bailer  Ready Flo 2" O

Weather Conditions: cool, sunny, breezy

## Well Information:

Total Well Depth: 35.00 feet Time: 0804

Depth to Water: 25.76 feet

Height of Water Column (L): 9.24 feet \* 2-in. gal/ft \* 0.65 gal/ft \* 1.47 gal/ft = \_\_\_\_\_ gal. \* x 3 \_\_\_\_\_

## Field Measurements:

Depth Purging From: 2 ft. below depth to water

Time	Cumulative Volume Purged	pH	Specific Conductivity	Temp	Observations
_____	_____ gal	_____	_____	_____	_____
_____	_____ gal	_____	_____	_____	DTW ONLY
_____	_____ gal	_____	_____	_____	NO SAMPLE
_____	_____ gal	_____	_____	_____	_____
_____	_____ gal	_____	_____	_____	_____
_____	_____ gal	_____	_____	_____	_____
_____	_____ gal	_____	_____	_____	_____
_____	_____ gal	_____	_____	_____	_____
_____	_____ gal	_____	_____	_____	_____

Sample Appearance: \_\_\_\_\_

Sample Collection - Time Start: \_\_\_\_\_ Time Finished: \_\_\_\_\_

Analyses: CLO4 TDS CR TDS / CRVI TDS / CRVI / NO3 TDS / NO3 CL03  
Bottles: 1 BTL 1 BTL 1 BTL 1 BTL 1 BTL 1 BTL 1 BTL

TOTAL BOTTLES: Ø

Comments: \_\_\_\_\_



# Water Sampling Field Log

Well No.: N-1269

Project No.: \_\_\_\_\_ Site: NERT PROJECT- HENDERSON, NEVADA

Sampling Team: Janel Rivera, Michele Brown Date: 11-2-15

Sampling Method:  Electric Pump  Dedicated Bailer  Disposable Bailer  Ready Flo 2"

Weather Conditions: cool, clear, breezy

**Well Information:**

Total Well Depth: 35.00 feet Time: 0807

Depth to Water: 27.54 feet Well Volume (WV) \_\_\_\_\_

Well Diameter (circle one)  
 2-in.  4-in.  6-in.

Height of Water Column (L): 7.46 feet \* 0.16 gal/ft \* 0.65 gal/ft \* 1.47 gal/ft = \_\_\_\_\_ gal. \* x 3 \_\_\_\_\_

**Field Measurements:**

Depth Purging From: 2 ft. below depth to water

Time	Cumulative Volume Purged	pH	Specific Conductivity	Temp	Observations
_____	-----	-----	-----	-----	_____
_____	gal	_____	_____	_____	_____
_____	gal	_____	_____	_____	<b>DTW ONLY</b>
_____	gal	_____	_____	_____	<b>NO SAMPLE</b>
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	FIELD pH = _____

Sample Appearance: \_\_\_\_\_

Sample Collection - Time Start: \_\_\_\_\_ Time Finished: \_\_\_\_\_

Analyses:	CLO4	TDS	CR	TDS / CRVI	TDS / CRVI / NO3	TDS / NO3	CL03
Bottles:	1 BTL	1 BTL	1 BTL	1 BTL	1 BTL	1 BTL	1 BTL

TOTAL BOTTLES: 0

Comments:

# Water Sampling Field Log

Well No.: N-170

Project No.: \_\_\_\_\_ Site: NERT PROJECT- HENDERSON, NEVADA

Sampling Team: Janel Rivera, Nichole Brown Date: 11-2-15

Sampling Method:  Electric Pump  Dedicated Bailer  Disposable Bailer  Ready Flo 2"

Weather Conditions: cool, sunny

**Well Information:**

Total Well Depth: 35.0 feet Time: 0715

Depth to Water: 29.16 feet

Height of Water Column (L): 5.84 feet \* 0.16 gal/ft \* 0.65 gal/ft \* 1.47 gal/ft = \_\_\_\_\_ gal. \* x 3

Well Diameter (circle one)  
 2-in.  4-in.  6-in. Well Volume (VV)

**Field Measurements:**

Depth Purging From: 2 ft. below depth to water

Time	Cumulative Volume Purged	pH	Specific Conductivity	Temp	Observations
	gal				
	gal				DTW ONLY
	gal				NO SAMPLE
					FIELD pH = _____

Sample Appearance: \_\_\_\_\_

Sample Collection - Time Start: \_\_\_\_\_ Time Finished: \_\_\_\_\_

Analyses:	CLO4	TDS	CR	TDS / CRVI	TDS / CRVI / NO3	TDS / NO3	CL03
Bottles:	1 BTL	1 BTL	1 BTL	1 BTL	1 BTL	1 BTL	1 BTL

TOTAL BOTTLES: 0

Comments:

# Water Sampling Field Log

Well No.: N-172

Project No.: \_\_\_\_\_ Site: NERT PROJECT- HENDERSON, NEVADA

Sampling Team: Janel Rivera, Michele Brown Date: 11-2-15

Sampling Method:  Electric Pump  Dedicated Bailer  Disposable Bailer  Ready Flo 2"

Weather Conditions: cool, sunny, windy

## Well Information:

Total Well Depth: 37.0 feet Time: 0945

Depth to Water: 32.56 feet

Height of Water Column (L): 4.44 feet

Well Diameter (circle one)  
2-in. 4-in. 6-in.

Well Volume (WV)  
0.16 gal/ft \* 0.65 gal/ft \* 1.47 gal/ft = \_\_\_\_\_ gal. \* x 3 \_\_\_\_\_

## Field Measurements:

Depth Purging From: 2 ft. below depth to water

Time	Cumulative Volume Purged	pH	Specific Conductivity	Temp	Observations
_____	_____ gal	_____	_____	_____	_____
_____	_____ gal	_____	_____	_____	DTW ONLY
_____	_____ gal	_____	_____	_____	NO SAMPLE
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	FIELD pH = _____

Sample Appearance: \_\_\_\_\_

Sample Collection - Time Start: \_\_\_\_\_ Time Finished: \_\_\_\_\_

Analyses:	CLO4	TDS	CR	TDS / CRVI	TDS / CRVI / NO3	TDS / NO3	CL03
Bottles:	1 BTL	1 BTL	1 BTL	1 BTL	1 BTL	1 BTL	1 BTL

TOTAL BOTTLES: 0

Comments:

# Water Sampling Field Log

Well No.: M-173

Project No.: \_\_\_\_\_ Site: NERT PROJECT- HENDERSON, NEVADA

Sampling Team: Janel Rivera, Michele Brown Date: 11-2-15

Sampling Method:  Electric Pump  Dedicated Bailer  Disposable Bailer  Ready Flo 2"

Weather Conditions: cool

## Well Information:

Total Well Depth: 40.0 feet Time: 0500

Depth to Water: 29.02 feet Well Volume (WV)

Height of Water Column (L): 10.98 feet \* 0.16 gal/ft \* 0.65 gal/ft \* 1.47 gal/ft = \_\_\_\_\_ gal. \* x 3 \_\_\_\_\_

Well Diameter (circle one)  
2-in. 4-in. 6-in.

## Field Measurements:

Depth Purging From: 2 ft. below depth to water

Time	Cumulative Volume Purged	pH	Specific Conductivity	Temp	Observations
	gal				
	gal				DTW ONLY
	gal				NO SAMPLE
					FIELD pH = _____

Sample Appearance: \_\_\_\_\_

Sample Collection - Time Start: \_\_\_\_\_ Time Finished: \_\_\_\_\_

Analyses: CLO4 TDS CR TDS / CRVI TDS / CRVI / NO3 TDS / NO3 CL03  
Bottles: 1 BTL 1 BTL 1 BTL 1 BTL 1 BTL 1 BTL 1 BTL

TOTAL BOTTLES: Ø

Comments:

# Water Sampling Field Log

Well No.: M-174

Project No.: \_\_\_\_\_ Site: NERT PROJECT- HENDERSON, NEVADA

Sampling Team: Janel Rivera, Michele Brown Date: 11-6-15

Sampling Method:  Electric Pump  Dedicated Bailer  Non Dedicated Bailer  Ready Flo 2"

Weather Conditions: warm, sunny

**Well Information:**

Total Well Depth: 28.00 feet Time: 1040

Depth to Water: 20.61 feet

Height of Water Column (L): 7.39 feet

Well Diameter (circle one)			Well
2-in.	4-in.	6-in.	Volume (WV)
0.16 gal/ft	* 0.65 gal/ft	* 1.47 gal/ft	= _____ gal. * x 3 _____

**Field Measurements:**

Depth Purging From: 2 ft. below depth to water

Time	Cumulative Volume Purged	pH	Specific Conductivity	Temp	Observations
_____	_____ gal	_____	_____	_____	_____
_____	_____ gal	_____	_____	_____	_____
_____	_____ gal	_____	_____	_____	DTW only No Sample
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	FIELD pH = _____

Sample Appearance: \_\_\_\_\_

Sample Collection - Time Start: \_\_\_\_\_ Time Finished: \_\_\_\_\_

Analyses:	CLO4	TDS	CR	TDS / CRVI	TDS / CRVI / NO3	TDS / NO3	CL03
Bottles:	1 BTL	1 BTL	1 BTL	1 BTL	1 BTL	1 BTL	1 BTL

TOTAL BOTTLES: 0

Comments:

# Water Sampling Field Log

Well No.: M-175

Project No.: \_\_\_\_\_ Site: NERT PROJECT- HENDERSON, NEVADA

Sampling Team: Janel Rivera, Michele Brown Date: 11-6-15

Sampling Method: Electric Pump  Dedicated Bailer  Non Dedicated Bailer  Ready Flo 2"

Weather Conditions: Sunny, warm

**Well Information:**

Total Well Depth: 29.00 feet Time: 1042

Depth to Water: 21.40 feet Well Volume (WV)

Height of Water Column (L): 7.60 feet

Well Diameter (circle one)		
2-in.	4-in.	6-in.
* 0.16 gal/ft	* 0.65 gal/ft	* 1.47 gal/ft

= \_\_\_\_\_ gal. \* x 3 \_\_\_\_\_

**Field Measurements:**

Depth Purging From: 2 ft. below depth to water

Time	Cumulative Volume Purged	pH	Specific Conductivity	Temp	Observations
_____	_____ gal	_____	_____	_____	_____
_____	_____ gal	_____	_____	_____	_____
_____	_____ gal	_____	_____	_____	DTW Only No Sample
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	FIELD pH = _____

Sample Appearance: \_\_\_\_\_

Sample Collection - Time Start: \_\_\_\_\_ Time Finished: \_\_\_\_\_

Analyses:	CLO4	TDS	CR	TDS / CRVI	TDS / CRVI / NO3	TDS / NO3	CL03
Bottles:	1 BTL	1 BTL	1 BTL	1 BTL	1 BTL	1 BTL	1 BTL

TOTAL BOTTLES: 0

Comments:

# Water Sampling Field Log

Well No.: M-176

Project No.: \_\_\_\_\_ Site: NERT PROJECT- HENDERSON, NEVADA

Sampling Team: Janel Rivera, Michele Brown Date: 11-16-15

Sampling Method:  Electric Pump  Dedicated Bailer  Non Dedicated Bailer  Ready Flo 2"

Weather Conditions:  Sunny, warm

**Well Information:**

Total Well Depth: 30.00 feet Time: 1043

Depth to Water: 24.15 feet

Height of Water Column (L): 5.85 feet

Well Diameter (circle one)			Well
2-in.	4-in.	6-in.	Volume (VV)
* 0.16 gal/ft	* 0.65 gal/ft	* 1.47 gal/ft	= _____ gal. * x 3 _____

**Field Measurements:**

Depth Purging From: 2 ft. below depth to water

Time	Cumulative Volume Purged	pH	Specific Conductivity	Temp	Observations
_____	_____ gal	_____	_____	_____	_____
_____	_____ gal	_____	_____	_____	_____
_____	_____ gal	_____	_____	_____	DTW Only No Sample
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	FIELD pH = _____

Sample Appearance: \_\_\_\_\_

Sample Collection - Time Start: \_\_\_\_\_ Time Finished: \_\_\_\_\_

Analyses:	CLO4	TDS	CR	TDS / CRVI	TDS / CRVI / NO3	TDS / NO3	CL03
Bottles:	1 BTL	1 BTL	1 BTL	1 BTL	1 BTL	1 BTL	1 BTL

TOTAL BOTTLES: 0

Comments:

# Water Sampling Field Log

Well No.: M-177

Project No.: \_\_\_\_\_ Site: NERT PROJECT- HENDERSON, NEVADA

Sampling Team: Janel Rivera, Michele Brawn Date: 11-6-15

Sampling Method:  Electric Pump  Dedicated Bailer  Non Dedicated Bailer  Ready Flo 2"

Weather Conditions: Warm, sunny

**Well Information:**

Total Well Depth: 30.00 feet Time: 1040

Depth to Water: 21.92 feet

Height of Water Column (L): 8.08 feet

Well Diameter (circle one)			Well
2-in.	4-in.	6-in.	Volume (VV)
0.16 gal/ft	* 0.65 gal/ft	* 1.47 gal/ft	= _____ gal. * x 3 _____

**Field Measurements:**

Depth Purging From: 2 ft. below depth to water

Time	Cumulative Volume Purged	pH	Specific Conductivity	Temp	Observations
_____	_____ gal	_____	_____	_____	_____
_____	_____ gal	_____	_____	_____	_____
_____	_____ gal	_____	_____	_____	DTW Only No Sample
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____

Sample Appearance: \_\_\_\_\_

Sample Collection - Time Start: \_\_\_\_\_ Time Finished: \_\_\_\_\_

Analyses:	CLO4	TDS	CR	TDS / CRVI	TDS / CRVI / NO3	TDS / NO3	CL03
Bottles:	1 BTL	1 BTL	1 BTL	1 BTL	1 BTL	1 BTL	1 BTL

TOTAL BOTTLES: 0

Comments: \_\_\_\_\_



# Water Sampling Field Log

Well No.: MW-K4

Project No.: \_\_\_\_\_ Site: NERT PROJECT- HENDERSON, NEVADA

Sampling Team: Michele Brown, Janel Rivera Date: 11/11/15

Sampling Method:  Electric Pump  Dedicated Bailer  Non Dedicated Bailer  Ready Flo 2" O

Weather Conditions: Sunny, warm

**Well Information:**

Total Well Depth: 50.0 feet Time: 1045

Depth to Water: 26.64 feet

Height of Water Column (L): 23.36 feet

Well Diameter (circle one)			Well	Purge	Purge
2-in.	4-in.	6-in.	Volume (WV)	Factor	Volume
*0.16 gal/ft	*0.65 gal/ft	*1.47 gal/ft	= <u>3.73</u> gal.	* <u>3</u>	= <u>11 gal</u>

**Field Measurements:**

Depth Purging From: 2 ft. below depth to water

Time	Cumulative Volume Purged	pH	Specific Conductivity	Temp	Observations
<u>1047</u>	-----	-----	-----	-----	
<u>1051</u>	<u>4 gal</u>	<u>7.56</u>	<u>11.24 mS/cm</u>	<u>25.3 °C</u>	<u>clear</u>
<u>1059</u>	<u>8 gal</u>	<u>7.68</u>	<u>11.29 mS/cm</u>	<u>24.6 °C</u>	<u>clear</u>
<u>1102</u>	<u>11 gal</u>	<u>7.56</u>	<u>11.31 mS/cm</u>	<u>24.5 °C</u>	<u>clear</u>
	gal				
	gal				
	gal				<u>Field pH = 7.56</u>

Sample Appearance: Clear

Sample Collection - Time Start: 1104 Time Finished: 1104

Analyses: CLO4 TDS TDS/pH CR  
 Bottles: 1 BTL 1 BTL 1 BTL 1 BTL

TOTAL BOTTLES: 3

Comments: Top of screen 9.5'

# Water Sampling Field Log

Well No.: MW-K5

Project No.: \_\_\_\_\_ Site: NERT PROJECT- HENDERSON, NEVADA

Sampling Team: Michele Brown, Janel Rivera Date: 11/11/15

Sampling Method:  Electric Pump  Dedicated Bailer  Non Dedicated Bailer  Ready Flo 2" O

Weather Conditions: Sunny Warm

**Well Information:**

Total Well Depth: 44.0 feet Time: 915

Depth to Water: 29.36 feet

Height of Water Column (L): 14.64 feet

Well Diameter (circle one)			Well	Purge	Purge
2-in.	4-in.	6-in	Volume (WV)	Factor	Volume
*0.16 gal/ft	*0.65 gal/ft	*1.47 gal/ft	= <u>2.34</u> gal.	* <u>3</u>	= <u>7</u> gal.

**Field Measurements:**

Depth Purging From: 2 ft. below depth to water

Time	Cumulative Volume Purged	pH	Specific Conductivity	Temp	Observations
919	-----	-----	-----	-----	
922	3 gal	7.70	8.43 mS/cm	22.9 °C	Clear
924	<sup>JR</sup> 25 gal	7.56	8.45 mS/cm	23.5 °C	clear
926	7 gal	7.56	8.51 mS/cm	23.9 °C	clear
	gal				
	gal				
	gal				Field pH = 7.56

Sample Appearance: Clear

Sample Collection - Time Start: 928 Time Finished: 928

Analyses: CLO4 TDS TDS/pH CR  
 Bottles: 1 BTL 1 BTL 1 BTL 1 BTL

TOTAL BOTTLES: 3

Comments: Top of screen 28.5'

Dupec  
8.52 23.4

# Water Sampling Field Log

Well No.: PC-18

Project No.: \_\_\_\_\_ Site: NERT PROJECT- HENDERSON, NEVADA

Sampling Team: Michele Brown, Janel Rivera Date: 11/11/15

Sampling Method:  Electric Pump  Dedicated Bailer  Non Dedicated Bailer  Ready Flo 2" O

Weather Conditions: Sunny warm

**Well Information:**

Total Well Depth: 52.11 feet Time: 748

Depth to Water: 25.30 feet

	Well Diameter (circle one)		Well	Purge	Purge
	2-in.    4-in.    6-in.		Volume (WV)	Factor	Volume
Height of Water Column (L): <u>26.81</u> feet	* 0.16 gal/ft	* 0.65 gal/ft	= <u>4.28</u> gal.	* 3	= <u>13 gal</u>

**Field Measurements:**

Depth Purging From: 2 ft. below depth to water

Time	Cumulative Volume Purged	pH	Specific Conductivity	Temp	Observations
<u>750</u>	-----	-----	-----	-----	
<u>755</u>	<u>5 gal</u>	<u>7.72</u>	<u>14.13 mS/cm</u>	<u>22.4 °C</u>	<u>clear</u>
<u>800</u>	<u>10 gal</u>	<u>7.57</u>	<u>14.17 mS/cm</u>	<u>23.8 °C</u>	<u>clear</u>
<u>803</u>	<u>13 gal</u>	<u>7.48</u>	<u>14.38 mS/cm</u>	<u>23.5 °C</u>	<u>clear</u>
	gal				
	gal				
	gal				<u>Field pH = 7.48</u>

Sample Appearance: clear

Sample Collection - Time Start: 805 Time Finished: 805

Analyses: CLO4 TDS TDS/pH CR  
 Bottles: 1 BTL 1 BTL 1 BTL 1 BTL

TOTAL BOTTLES: 3

Comments: Screen 11.5 - 51.5'

# Water Sampling Field Log

Well No.: PC-37

Project No.: \_\_\_\_\_ Site: NERT PROJECT- HENDERSON, NEVADA

Sampling Team: Michele Brown, Janel Rivera Date: 11-3-15

Sampling Method: Electric Pump  Dedicated Bailer  Non Dedicated Bailer  Ready Flo 2"

Weather Conditions: scr Windy Sunny

**Well Information:**

Total Well Depth: 43.08 feet Time: 11:11

Depth to Water: 31.29 feet

Height of Water Column (L): 11.79 feet

Well Diameter (circle one)			Well
2-in.	4-in.	6-in.	Volume (VV)
0.16 gal/ft	* 0.65 gal/ft	* 1.47 gal/ft	= <u>1.88</u> gal. * x 3 <u>Legal</u>

**Field Measurements:**

Depth Purging From: 2 ft. below depth to water

Time	Cumulative Volume Purged	pH	Specific Conductivity	Temp	Observations
<u>1112</u>	----	----	----	----	
<u>1114</u>	<u>2 gal</u>	<u>7.70</u>	<u>9.65 mS/cm</u>	<u>24.0 °C</u>	<u>clear</u>
<u>1116</u>	<u>4 gal</u>	<u>7.64</u>	<u>9.53 mS/cm</u>	<u>24.2 °C</u>	<u>clear</u>
<u>1118</u>	<u>6 gal</u>	<u>7.63</u>	<u>9.52 mS/cm</u>	<u>24.4 °C</u>	<u>clear</u>
<u>Field pH = 7.63</u>					

Sample Appearance: 1 clear

Sample Collection - Time Start: 1120 Time Finished: 1120

Analyses: CLO4 pH/TDS CR pH/TDS/CRVI pH/TDS/CRVI/NO3 pH/TDS/NO3 CLO3  
 Bottles: 1 BTL 1 BTL 1 BTL 1 BTL 1 BTL 1 BTL 1 BTL

TOTAL BOTTLES: 3

Comments: Top of screen - 16.8

# Water Sampling Field Log

Well No.: PC-53

Project No.: \_\_\_\_\_ Site: NERT PROJECT- HENDERSON, NEVADA

Sampling Team: Michele Brown, Janel Rivera Date: 11/11/15

Sampling Method:  Electric Pump  Dedicated Bailer  Non Dedicated Bailer  Ready Flo 2" O

Weather Conditions: Sunny breezy

**Well Information:**

Total Well Depth: 32.86 feet Time: 901

Depth to Water: 26.57 feet

Height of Water Column (L): 6.29 feet

Well Diameter (circle one)			Well	Purge	Purge
2-in.	4-in.	6-in.	Volume (WV)	Factor	Volume
0.16 gal/ft	0.65 gal/ft	1.47 gal/ft	= 1.00 gal.	* 3	= 3 gal

**Field Measurements:**

Depth Purging From: 2 ft. below depth to water

Time	Cumulative Volume Purged	pH	Specific Conductivity	Temp	Observations
<u>904</u>	-----	-----	-----	-----	
<u>905</u>	<u>1 gal</u>	<u>7.75</u>	<u>6.51 mS/cm</u>	<u>23.3 °C</u>	<u>clear</u>
<u>906</u>	<u>2 gal</u>	<u>7.73</u>	<u>6.33 mS/cm</u>	<u>23.9 °C</u>	<u>clear</u>
<u>907</u>	<u>3 gal</u>	<u>7.67</u>	<u>6.35 mS/cm</u>	<u>24.2 °C</u>	<u>clear</u>
	gal				
	gal				
	gal				<u>Field pH = 7.67</u>

Sample Appearance: clear

Sample Collection - Time Start: 909 Time Finished: 909

Analyses: CLO4 TDS TDS/pH CR  
 Bottles: 1 BTL 1 BTL 1 BTL 1 BTL

TOTAL BOTTLES: 3

Comments: screen 13 - 32.5'

# Water Sampling Field Log

Well No.: PC-54

Project No.: \_\_\_\_\_ Site: NERT PROJECT- HENDERSON, NEVADA

Sampling Team: Michele Brown, Janel Rivera Date: 11/3/15

Sampling Method:  Electric Pump  Dedicated Bailer  Non Dedicated Bailer  Ready Flo 2" O

Weather Conditions: Windy cool

**Well Information:**

Total Well Depth: 34.60 feet Time: 910

Depth to Water: 24.75 feet

Height of Water Column (L): 9.85 feet

Well Diameter (circle one)			Well Volume (VV)
2-in.	4-in.	6-in.	
* 0.16 gal/ft	* 0.65 gal/ft	* 1.47 gal/ft	= <u>1.57</u> gal. * x 3 <u>5 gal</u>

**Field Measurements:**

Depth Purging From: 2 ft. below depth to water

Time	Cumulative Volume Purged	pH	Specific Conductivity	Temp	Observations
<u>911</u>	-----	-----	-----	-----	
<u>913</u>	<u>2 gal</u>	<u>7.80</u>	<u>5.94 mS/cm</u>	<u>24.5 °C</u>	<u>Clear</u>
<u>915</u>	<u>4 gal</u>	<u>7.70</u>	<u>5.80 mS/cm</u>	<u>25.0 °C</u>	<u>Clear</u>
<u>916</u>	<u>1 gal</u>	<u>7.69</u>	<u>5.79 mS/cm</u>	<u>25.4 °C</u>	<u>Clear</u>
					<u>Field pH = 7.69</u>

Sample Appearance: 1 Clear yellow

Sample Collection - Time Start: 918 Time Finished: 918

Analyses: CLO4 pH/TDS CR pH/TDS/CRVI pH/TDS/CRVI/NO3 pH/TDS/NO3 CLO3  
 Bottles: 1 BTL 1 BTL 1 BTL 1 BTL 1 BTL 1 BTL 1 BTL

TOTAL BOTTLES: 3

Comments: Top of screen - 9.5

# Water Sampling Field Log

Well No.: PC-55

Project No.: \_\_\_\_\_ Site: NERT PROJECT- HENDERSON, NEVADA

Sampling Team: Michele Brown, Janel Rivera Date: 11/12/15

Sampling Method:  Electric Pump  Dedicated Bailer  Non Dedicated Bailer  Ready Flo 2" O

Weather Conditions: Cool breezy

**Well Information:**

Total Well Depth: 55.4 feet Time: 615

Depth to Water: 24.47 feet

Height of Water Column (L): 30.93 feet \* 0.16 gal/ft \* 0.65 gal/ft \* 1.47 gal/ft = 45.46 gal. \* 3 = 136 gal

Well Diameter (circle one)  
 2-in.      4-in.      6-in.

**Field Measurements:**

Depth Purging From: 2 ft. below depth to water

Time	Cumulative Volume Purged	pH	Specific Conductivity	Temp	Observations
<u>616</u>	-----	-----	-----	-----	
<u>639</u>	<u>46 gal</u>	<u>7.60</u>	<u>10.80 mS/cm</u>	<u>21.1 °C</u>	<u>clear</u>
<u>703</u>	<u>91 gal</u>	<u>7.64</u>	<u>11.00 mS/cm</u>	<u>22.5 °C</u>	<u>clear</u>
<u>726</u>	<u>136 gal</u>	<u>7.69</u>	<u>10.90 mS/cm</u>	<u>20.9 °C</u>	<u>clear</u>
	gal				
	gal				
	gal				<u>Field pH = 7.69</u>

Sample Appearance: clear

Sample Collection - Time Start: 728 Time Finished: 728

Analyses: CLO4 TDS TDS/pH CR  
 Bottles: 1 BTL 1 BTL 1 BTL 1 BTL

TOTAL BOTTLES: 3

Comments: screen 4-54'

# Water Sampling Field Log

Well No.: PC-56

Project No.: \_\_\_\_\_ Site: NERT PROJECT- HENDERSON, NEVADA

Sampling Team: Michele Brown, Janel Rivera Date: 11/10/15

Sampling Method:  Electric Pump  Dedicated Bailer  Non Dedicated Bailer  Ready Flo 2"

Weather Conditions: Windy cold

**Well Information:**

Total Well Depth: 63.58 feet Time: 957

Depth to Water: 20.68 feet

Height of Water Column (L): 42.90 feet

Well Diameter (circle one)  
 2-in.     4-in.     6-in.

Well Volume (WV)    Purge Factor    Purge Volume  
 = 6.86 gal. \* 3 = 21 gal

**Field Measurements:**

Depth Purging From: 2 ft. below depth to water

Time	Cumulative Volume Purged	pH	Specific Conductivity	Temp	Observations
<u>958</u>	-----	-----	-----	-----	
<u>1005</u>	<u>7</u> gal	<u>7.41</u>	<u>6.50</u> mS/cm	<u>22.3</u> °C	<u>clear</u>
<u>1012</u>	<u>14</u> gal	<u>7.39</u>	<u>6.45</u> mS/cm	<u>21.7</u> °C	<u>clear</u>
<u>1019</u>	<u>21</u> gal	<u>7.33</u>	<u>6.42</u> mS/cm	<u>22.1</u> °C	<u>clear</u>
	gal				
	gal				
	gal				<u>Field pH = 7.33</u>

clear

Sample Appearance: \_\_\_\_\_

Sample Collection - Time Start: 1021 Time Finished: 1021

Analyses: CLO4 TDS TDS/pH CR  
 Bottles: 1 BTL 1 BTL 1 BTL 1 BTL

TOTAL BOTTLES: 3

Comments: screen 4.8 - 54.8

Closing QC 6.99

Dup EC  
6.41    22.1



# Water Sampling Field Log

Well No.: PC-58

Project No.: \_\_\_\_\_ Site: NERT PROJECT- HENDERSON, NEVADA

Sampling Team: Michele Brown, Janel Rivera Date: 11/10/15

Sampling Method:  Electric Pump  Dedicated Bailer  Non Dedicated Bailer  Ready Flo 2" O

Weather Conditions: Windy Cold

**Well Information:**

Total Well Depth: 42.78 feet Time: 757

Depth to Water: 21.58 feet

Height of Water Column (L): 21.2 feet

Well Diameter (circle one)	Well	Purge	Purge
2-in.      4-in.      6-in.	Volume (WV)	Factor	Volume
* 0.16 gal/ft   * 0.65 gal/ft   * 1.47 gal/ft	= <u>3.39</u> gal.	* <u>3</u>	= <u>10 gal</u>

**Field Measurements:**

Depth Purging From: 2 ft. below depth to water

Time	Cumulative Volume Purged	pH	Specific Conductivity	Temp	Observations
800	----	----	----	----	
804	4 gal	7.64	5.06 mS/cm	20.7 °C	clear
807	7 gal	7.50	4.91 mS/cm	21.5 °C	clear
810	10 gal	7.48	4.89 mS/cm	21.3 °C	clear
	gal				
	gal				
	gal				Field pH = 7.48

Sample Appearance: Clear

Sample Collection - Time Start: 812 Time Finished: 812

Analyses: CLO4 TDS TDS/pH CR  
 Bottles: 1 BTL 1 BTL 1 BTL 1 BTL

TOTAL BOTTLES: 3

Comments: Screen 7.8 - 32.8

# Water Sampling Field Log

Well No.: PC-59

Project No.: \_\_\_\_\_ Site: NERT PROJECT- HENDERSON, NEVADA

Sampling Team: Michele Brown, Janel Rivera Date: 11/10/15

Sampling Method:  Electric Pump  Dedicated Bailer  Non Dedicated Bailer  Ready Flo 2" O

Weather Conditions: Cold, Windy

**Well Information:**

Total Well Depth: 48.13 feet Time: 1050

Depth to Water: 19.30 feet

Height of Water Column (L): 28.83 feet \* 0.16 gal/ft \* 0.65 gal/ft \* 1.47 gal/ft = 4.61 gal. \* 3 = 14 gal

Well Diameter (circle one)  
 2-in.  4-in.  6-in.

**Field Measurements:**

Depth Purging From: 2 ft. below depth to water

Time	Cumulative Volume Purged	pH	Specific Conductivity	Temp	Observations
<u>1051</u>	-----	-----	-----	-----	
<u>1056</u>	<u>5 gal</u>	<u>7.63</u>	<u>3.76 mS/cm</u>	<u>21.9 °C</u>	<u>Clear</u>
<u>1101</u>	<u>10 gal</u>	<u>7.60</u>	<u>3.75 mS/cm</u>	<u>21.5 °C</u>	<u>Clear</u>
<u>1105</u>	<u>14 gal</u>	<u>7.60</u>	<u>3.74 mS/cm</u>	<u>21.9 °C</u>	<u>Clear</u>
	gal				
	gal				
	gal				<u>Field pH = 7.60</u>

clear

Sample Appearance: \_\_\_\_\_

Sample Collection - Time Start: 1107 Time Finished: 1107

Analyses: CLO4 TDS TDS/pH CR  
 Bottles: 1 BTL 1 BTL 1 BTL 1 BTL

TOTAL BOTTLES: 3

Comments: screen 4.8 - 34.8'

~~JR  
Closing PC 7~~

# Water Sampling Field Log

Well No.: PC-60

Project No.: \_\_\_\_\_ Site: NERT PROJECT- HENDERSON, NEVADA

Sampling Team: Michele Brown, Janel Rivera Date: 11/10/15

Sampling Method:  Electric Pump  Dedicated Bailer  Non Dedicated Bailer  Ready Flo 2" O

Weather Conditions: Cold windy

**Well Information:**

Total Well Depth: 48.09 feet Time: 1027

Depth to Water: 19.95 feet

Height of Water Column (L): 28.14 feet \* 0.16 gal/ft \* 0.65 gal/ft \* 1.47 gal/ft = 4.50 gal. \* 3 = 14 gal

Well Diameter (circle one)  
 2-in.  4-in.  6-in.

Well Volume (WV)      Purge Factor      Purge Volume

**Field Measurements:**

Depth Purging From: 2 ft. below depth to water

Time	Cumulative Volume Purged	pH	Specific Conductivity	Temp	Observations
<u>1028</u>	----	----	----	----	
<u>1033</u>	<u>5</u> gal	<u>7.59</u>	<u>3.03 mS/cm</u>	<u>22.1</u> °C	<u>Clear</u>
<u>1038</u>	<u>10</u> gal	<u>7.63</u>	<u>3.05 mS/cm</u>	<u>21.9</u> °C	<u>Clear</u>
<u>1042</u>	<u>14</u> gal	<u>7.61</u>	<u>3.05 mS/cm</u>	<u>21.7</u> °C	<u>Clear</u>
	gal				
	gal				
	gal				<u>Field pH = 7.61</u>

Sample Appearance: Clear

Sample Collection - Time Start: 1044 Time Finished: 1044

Analyses: CLO4 TDS TDS/pH CR  
 Bottles: 1 BTL 1 BTL 1 BTL 1 BTL

TOTAL BOTTLES: 3

Comments: Screen 4.5 - 39.5'

# Water Sampling Field Log

Well No.: PC-620

Project No.: \_\_\_\_\_ Site: NERT PROJECT- HENDERSON, NEVADA

Sampling Team: Michele Brown, Janel Rivera Date: 11/16/15

Sampling Method:  Electric Pump  Dedicated Bailer  Non Dedicated Bailer  Ready Flo 2" O

Weather Conditions: Cold Windy

**Well Information:**

Total Well Depth: 45.91 feet Time: 823

Depth to Water: 18.43 feet

	Well Diameter (circle one)		Well		Purge		Purge
Height of Water Column (L): <u>27.48</u> feet	<input checked="" type="radio"/> 2-in. <input type="radio"/> 4-in. <input type="radio"/> 6-in.	*0.16 gal/ft	Volume (WV)	= <u>4.39</u> gal.	Factor	*	Volume
		*0.65 gal/ft			3	=	<u>13 gal</u>
		*1.47 gal/ft					

**Field Measurements:**

Depth Purging From: 2 ft. below depth to water

Time	Cumulative Volume Purged	pH	Specific Conductivity	Temp	Observations
<u>824</u>	-----	-----	-----	-----	
<u>829</u>	<u>5</u> gal	<u>7.63</u>	<u>2.61 mS/cm</u>	<u>19.1 °C</u>	<u>Clear</u>
<u>833</u>	<u>9</u> gal	<u>7.45</u>	<u>2.59 mS/cm</u>	<u>18.9 °C</u>	<u>Clear</u>
<u>837</u>	<u>13</u> gal	<u>7.41</u>	<u>2.58 mS/cm</u>	<u>19.6 °C</u>	<u>Clear</u>
	gal				
	gal				<u>Field pH = 7.41</u>
	gal				

Sample Appearance: Clear

Sample Collection - Time Start: 839 Time Finished: 839

Analyses: CLO4 TDS TDS/pH CR  
 Bottles: 1 BTL 1 BTL 1 BTL 1 BTL

TOTAL BOTTLES: 3

Comments: Screen 7.6 - 37.6'

Removed transducer installed in well by Environ to sample well

# Water Sampling Field Log

Well No.: PC-68

Project No.: \_\_\_\_\_ Site: NERT PROJECT- HENDERSON, NEVADA

Sampling Team: Michele Brown Janet Rneira Date: 11/10/15

Sampling Method:  Electric Pump  Dedicated Bailer O  Non Dedicated Bailer O  Ready Flo 2" O

Weather Conditions: Windy, cold

**Well Information:**

Total Well Depth: 64.72 feet Time: 0848

Depth to Water: 18.37 feet

	Well Diameter (circle one)			
	2-in.    4-in.    6-in.	Well	Purge	Purge
Height of Water Column (L): <u>46.35</u> feet	<input checked="" type="radio"/> 2-in.	Volume (VV)	Factor	Volume
	* 0.16 gal/ft	= <u>7.41</u> gal.	* <u>3</u>	= <u>22.92</u>
	* 0.65 gal/ft			
	* 1.47 gal/ft			

**Field Measurements:**

Depth Purging From: 2 ft. below depth to water

Time	Cumulative Volume Purged	pH	Specific Conductivity	Temp	Observations
850	-----	-----	-----	-----	
858	8 gal	7.50	2.63 mS/cm	20.7 <sup>o</sup>	Clear
905	15 gal	7.41	2.63 mS/cm	20.1 <sup>o</sup>	Clear
912	22 gal	7.39	2.63 mS/cm	20.5 <sup>o</sup>	Clear
	gal				
	gal				
	gal				Field pH 7.39

Sample Appearance: Clear

Sample Collection - Time Start: 914 Time Finished: 914

Analyses: CLO4 TDS TDS/pH CR  
 Bottles: 1 BTL 1 BTL 1 BTL 1 BTL

TOTAL BOTTLES: 3

Comments: Top of screen 9.9 - 54.9

Removed transducer installed in well by Environ for sampling



## Water Sampling Field Log

Well No.: PC-72

Project No.: \_\_\_\_\_ Site: NERT PROJECT- HENDERSON, NEVADA

Sampling Team: Michele Brown, Janel Rivera Date: 11.3.15

Sampling Method:  Electric Pump  Dedicated Bailer  Non Dedicated Bailer  Ready Flo 2" O

Weather Conditions: Windy Sunny

**Well Information:**

Total Well Depth: 39.54 feet Time: 1036

Depth to Water: 31.62 feet

Height of Water Column (L): 7.92 feet

Well Diameter (circle one)  
 2-in.  4-in.  6-in.

Well Volume (WV) = 1.26 gal. \* x 3 = 4 gal

**Field Measurements:**

Depth Purging From: 2 ft. below depth to water

Time	Cumulative Volume Purged	pH	Specific Conductivity	Temp	Observations
1037	----	----	----	----	
1039	2 gal	7.83	8.65 mS/cm	24.0 °C	clear
1040	3 gal	7.80	8.54 mS/cm	24.6 °C	clear
1041	4 gal	7.76	8.62 mS/cm	24.8 °C	clear
Field pH = 7.76					

Sample Appearance: 1 clear

Sample Collection - Time Start: 1043 Time Finished: 1043

Analyses: CLO4 pH/TDS CR pH/TDS/CRVI pH/TDS/CRVI/NO3 pH/TDS/NO3 CLO3  
 Bottles: 1 BTL 1 BTL 1 BTL 1 BTL 1 BTL 1 BTL 1 BTL

TOTAL BOTTLES: 3

Comments: Top of screen - 15

# Water Sampling Field Log

Well No.: PC-13

Project No.: \_\_\_\_\_ Site: NERT PROJECT- HENDERSON, NEVADA

Sampling Team: Michele Brown, Nanel Rivera Date: 11.3.15

Sampling Method:  Electric Pump  Dedicated Bailer  Non Dedicated Bailer  Ready Flo 2"

Weather Conditions: Sunny windy

**Well Information:**

Total Well Depth: 49.44 feet Time: 1051

Depth to Water: 32.69 feet

Height of Water Column (L): 16.75 feet \* 2.16 gal/ft \* 0.65 gal/ft \* 1.47 gal/ft = 2.68 gal. \* x 3 = 8gal

Well Diameter (circle one)  
 2-in.  4-in.  6-in. Well Volume (VV)

**Field Measurements:**

Depth Purging From: 2 ft. below depth to water

Time	Cumulative Volume Purged	pH	Specific Conductivity	Temp	Observations
1053	----	----	----	----	
1056	3 gal	7.75	9.14 mS/cm	24.3 °C	clear
1059	6 gal	7.64	9.30 mS/cm	24.0 °C	clear
1101	8 gal	7.49	9.11 mS/cm	23.9 °C	clear
Field pH = 7.49					

Sample Appearance: 1 clear

Sample Collection - Time Start: 1103 Time Finished: 1103

Analyses: CLO4 pH / TDS CR pH / TDS / CRVI pH / TDS / CRVI / NO3 pH / TDS / NO3 CLO3  
 Bottles: 1 BTL 1 BTL 1 BTL 1 BTL 1 BTL 1 BTL 1 BTL

TOTAL BOTTLES: 3

Comments: Top of screen - 20



# Water Sampling Field Log

Well No.: PC-86

Project No.: \_\_\_\_\_ Site: NERT PROJECT- HENDERSON, NEVADA

Sampling Team: Michele Brown, Janel Rivera Date: 11/10/15

Sampling Method:  Electric Pump  Dedicated Bailer  Non Dedicated Bailer  Ready Flo 2" O

Weather Conditions: Windy Sunny

**Well Information:**

Total Well Depth: 28.0 feet Time: 1115

Depth to Water: 11.90 feet

Height of Water Column (L): 16.10 feet

Well Diameter (circle one)	Well Volume (WV)	Purge Factor	Purge Volume
<input checked="" type="radio"/> 2-in. <input type="radio"/> 4-in. <input type="radio"/> 6-in.			
* 0.16 gal/ft    * 0.65 gal/ft    * 1.47 gal/ft	= <u>2.57</u> gal.	* <u>3</u>	= <u>8gal</u>

**Field Measurements:**

Depth Purging From: 2 ft. below depth to water

Time	Cumulative Volume Purged	pH	Specific Conductivity	Temp	Observations
<u>1116</u>	---	---	---	---	
<u>1119</u>	<u>3</u> gal	<u>7.64</u>	<u>2.74 mS/cm</u>	<u>20.6 °C</u>	<u>clear</u>
<u>1122</u>	<u>6</u> gal	<u>7.53</u>	<u>2.74 mS/cm</u>	<u>20.4 °C</u>	<u>clear</u>
<u>1124</u>	<u>8</u> gal	<u>7.57</u>	<u>2.74 mS/cm</u>	<u>19.9 °C</u>	<u>clear</u>
	gal				
	gal				
	gal				<u>Field pH = 7.57</u>

Sample Appearance: Clear

Sample Collection - Time Start: 1126 Time Finished: 1126

Analyses: CLO4 TDS TDS/pH CR  
 Bottles: 1 BTL 1 BTL 1 BTL 1 BTL

TOTAL BOTTLES: 3

Comments: Screen 17.5 - 27.5'

# Water Sampling Field Log

Well No.: PC-90

Project No.: \_\_\_\_\_ Site: NERT PROJECT- HENDERSON, NEVADA

Sampling Team: Michele Brown, Janel Rivera Date: 11/10/15

Sampling Method:  Electric Pump  Dedicated Bailer  Non Dedicated Bailer  Ready Flo 2" O

Weather Conditions: Windy, cold

**Well Information:**

Total Well Depth: 33.0 feet Time: 651

Depth to Water: 5.42 feet

Height of Water Column (L): <u>27.58</u> feet	Well Diameter (circle one)	Well Volume (WV)	Purge Factor	Purge Volume
	<input checked="" type="radio"/> 2-in. <input type="radio"/> 4-in. <input type="radio"/> 6-in. * 0.16 gal/ft    * 0.65 gal/ft    * 1.47 gal/ft	= <u>4.41</u> gal.	* <u>3</u>	= <u>13 gal</u>

**Field Measurements:**

Depth Purging From: 2 ft. below depth to water

Time	Cumulative Volume Purged	pH	Specific Conductivity	Temp	Observations
<u>652</u>	----	----	----	----	
<u>657</u>	<u>5</u> gal	<u>7.57</u>	<u>5.45 mS/cm</u>	<u>22.9 °C</u>	<u>Clear</u>
<u>701</u>	<u>9</u> gal	<u>7.52</u>	<u>5.24 mS/cm</u>	<u>23.4 °C</u>	<u>Clear</u>
<u>705</u>	<u>13</u> gal	<u>7.51</u>	<u>5.14 mS/cm</u>	<u>22.9 °C</u>	<u>Clear</u>
	gal				
	gal				
	gal				<u>Field pH = 7.51</u>

Sample Appearance: Clear

Sample Collection - Time Start: 707 Time Finished: 707

Analyses: CLO4 TDS TDS/pH CR  
 Bottles: 1 BTL 1 BTL 1 BTL 1 BTL

TOTAL BOTTLES: 3

Comments: screen 4.5 - 14.5'

# Water Sampling Field Log

Well No.: PC-91

Project No.: \_\_\_\_\_ Site: NERT PROJECT- HENDERSON, NEVADA

Sampling Team: Michele Brown, Janel Rivera Date: 11/10/15

Sampling Method:  Electric Pump  Dedicated Bailer  Non Dedicated Bailer  Ready Flo 2" O

Weather Conditions: windy sunny

**Well Information:**

Total Well Depth: 37.0 feet Time: 712

Depth to Water: 10.87 feet

Height of Water Column (L): 26.13 feet \* 2-in.  4-in.  6-in.   
\* 0.16 gal/ft \* 0.65 gal/ft \* 1.47 gal/ft

Well Volume (WV) = 4.18 gal. \* Purge Factor 3 = Purge Volume 13 gal

**Field Measurements:**

Depth Purging From: 2 ft. below depth to water

Time	Cumulative Volume Purged	pH	Specific Conductivity	Temp	Observations
<u>713</u>	-----	-----	-----	-----	
<u>718</u>	<u>5</u> gal	<u>7.52</u>	<u>4.15 mS/cm</u>	<u>21.8</u> °C	<u>clear</u>
<u>722</u>	<u>9</u> gal	<u>7.42</u>	<u>4.13 mS/cm</u>	<u>22.0</u> °C	<u>clear</u>
<u>726</u>	<u>13</u> gal	<u>7.47</u>	<u>4.08 mS/cm</u>	<u>22.3</u> °C	<u>clear</u>
	gal				
	gal				
	gal				<u>Field pH = 7.47</u>

Sample Appearance: clear

Sample Collection - Time Start: 728 Time Finished: 728

Analyses: CLO4 TDS TDS/pH CR  
 Bottles: 1 BTL 1 BTL 1 BTL 1 BTL

TOTAL BOTTLES: 3

Comments: Screen 26.5 - 36.5

# Water Sampling Field Log

Well No.: PC-94

Project No.: \_\_\_\_\_ Site: NERT PROJECT- HENDERSON, NEVADA

Sampling Team: Michele Brown Date: 11/10/15

Sampling Method:  Electric Pump  Dedicated Bailer  Non Dedicated Bailer  Ready Flo 2" O

Weather Conditions: Windy, sunny

**Well Information:**

Total Well Depth: 20.0 feet Time: 7.38

Depth to Water: 11.95 feet

Height of Water Column (L): 8.05 feet

Well Diameter (circle one)			Well	Purge	Purge
2-in.	4-in.	6-in.	Volume (WV)	Factor	Volume
* 0.16 gal/ft	* 0.65 gal/ft	* 1.47 gal/ft	= <u>1.28</u> gal.	* <u>3</u>	= <u>4gal</u>

**Field Measurements:**

Depth Purging From: 2 ft. below depth to water

Time	Cumulative Volume Purged	pH	Specific Conductivity	Temp	Observations
<u>739</u>	-----	-----	-----	-----	
<u>741</u>	<u>2 gal</u>	<u>7.26</u>	<u>8.38 mS/cm</u>	<u>21.9°</u>	<u>clear</u>
<u>742</u>	<u>3 gal</u>	<u>7.22</u>	<u>8.43 mS/cm</u>	<u>21.9°</u>	<u>clear</u>
<u>743</u>	<u>4 gal</u>	<u>7.29</u>	<u>8.44 mS/cm</u>	<u>21.9°</u>	<u>clear</u>
	gal				
	gal				
	gal				<u>Field pH = 7.29</u>

Sample Appearance: clear

Sample Collection - Time Start: 745 Time Finished: 745

Analyses:	<u>CLO4</u>	<u>TDS</u>	<u>TDS/pH</u>	<u>CR</u>
Bottles:	<u>1 BTL</u>	<u>1 BTL</u>	<u>1 BTL</u>	<u>1BTL</u>

TOTAL BOTTLES: \_\_\_\_\_

Comments:

# Water Sampling Field Log

Well No.: PC-97

Project No.: \_\_\_\_\_ Site: NERT PROJECT- HENDERSON, NEVADA

Sampling Team: Michele Brown, Janel Rivera Date: 11/10/15

Sampling Method:  Electric Pump  Dedicated Bailer  Non Dedicated Bailer  Ready Flo 2" O

Weather Conditions: Windy, Cold

**Well Information:**

Total Well Depth: 33.5 feet Time: 626

Depth to Water: 4.45 feet

Height of Water Column (L): 29.05 feet

Well Diameter (circle one)			Well	Purge	Purge
2-in.	4-in.	6-in.	Volume (WV)	Factor	Volume
* 0.16 gal/ft	* 0.65 gal/ft	* 1.47 gal/ft	= <u>4.64</u> gal.	* <u>3</u>	= <u>14 gal</u>

**Field Measurements:**

Depth Purging From: 2 ft. below depth to water

Time	Cumulative Volume Purged	pH	Specific Conductivity	Temp	Observations
<u>627</u>	----	----	----	----	
<u>632</u>	<u>5 gal</u>	<u>7.63</u>	<u>3.27 mS/cm</u>	<u>19.8 °C</u>	<u>clear</u>
<u>637</u>	<u>10 gal</u>	<u>7.58</u>	<u>3.20 mS/cm</u>	<u>20.0 °C</u>	<u>Clear</u>
<u>641</u>	<u>14 gal</u>	<u>7.64</u>	<u>3.19 mS/cm</u>	<u>19.1 °C</u>	<u>clear</u>
	gal				
	gal				
	gal				<u>Field pH = 7.64</u>

Sample Appearance: Clear

Sample Collection - Time Start: 643 Time Finished: 643

Analyses: CLO4 TDS TDS/pH CR  
 Bottles: 1 BTL 1 BTL 1 BTL 1 BTL

TOTAL BOTTLES: 3

Comments: Screen 23 - 33'

# Water Sampling Field Log

Well No.: PC-98R

Project No.: \_\_\_\_\_ Site: NERT PROJECT- HENDERSON, NEVADA

Sampling Team: Michele Brown Janet Rivera Date: 11/2/15

Sampling Method:  Electric Pump  Dedicated Bailer  Non Dedicated Bailer  Ready Flo 2" O

Weather Conditions: Sunny cool

**Well Information:**

Total Well Depth: 40.5 feet Time: 746

Depth to Water: 22.27 feet

Height of Water Column (L): 18.23 feet \* 0.16 gal/ft \* 0.65 gal/ft \* 1.47 gal/ft = 11.84 gal. \* 3 = 36gal

Well Diameter (circle one)  
 2-in.      4-in.      6-in.

**Field Measurements:**

Depth Purging From: 2 ft. below depth to water

Time	Cumulative Volume Purged	pH	Specific Conductivity	Temp	Observations
<u>747</u>	-----	-----	-----	-----	
<u>759</u>	<u>12</u> gal	<u>7.59</u>	<u>7.92</u> $\mu S/cm$	<u>21.6</u> °C	<u>Clear</u>
<u>811</u>	<u>24</u> gal	<u>7.58</u>	<u>8.07</u> $\mu S/cm$	<u>21.8</u> °C	<u>Clear</u>
<u>823</u>	<u>36</u> gal	<u>7.51</u>	<u>7.86</u> $\mu S/cm$	<u>22.4</u> °C	<u>Clear</u>
	gal				
	gal				
	gal				<u>Field pH 7.51</u>

Sample Appearance: \_\_\_\_\_

Sample Collection - Time Start: 825 Time Finished: 825

Analyses: CLO4 TDS TDS/pH CR  
 Bottles: (1) BTL (1) BTL 1 BTL (1) BTL

TOTAL BOTTLES: 3

Comments: Top of Screen 20-35'

Water Sampling Field Log

Well No.: PC-99R2/R3

Project No.: \_\_\_\_\_ Site: NERT PROJECT- HENDERSON, NEVADA

Sampling Team: Michele Brown, Janel Rivera Date: 11/2/15

Sampling Method:  Sample Port  Disposable Bailer  Electric pump

Weather Conditions: Clear Sunny

Well Information:

Total Well Depth: 55.3 feet Time: 11/18/15 1010

Depth to Water: 17.85 feet

Water Column (L):	<u>37.45</u> feet	X	Well Diameter (circle one)			=	Purge Volume
			2-in.	4-in.	6-in.		
			0.4893	1.9	4.41		

Field Measurements: Depth Purging From: 2 ft below DTW

Time	gals	MS/cm	pH	Temp	Observations of Sample
<u>0925</u>		<u>6.32</u>	<u>7.40</u>	<u>24.6</u>	<u>Clear</u>

Comments:

Sample Collection Time - 0925 Field pH 7.40

Analyses:	<u>CR</u>	<u>CLO4</u>	<u>pH / TDS</u>	pH / TDS / CRVI	pH / TDS / NO3	pH / TDS / CRVI / NO3
Bottles:	<u>1 Bottle</u>	<u>1 Bottle</u>	<u>1 Bottle</u>	1 Bottle	1 Bottle	1 Bottle

TOTAL Bottles- 3

# Water Sampling Field Log

Well No.: PC-101R

Project No.: \_\_\_\_\_ Site: NERT PROJECT- HENDERSON, NEVADA

Sampling Team: Michele Brown, Nanel Rivera Date: 11/12/15

Sampling Method:  Electric Pump  Dedicated Bailer  Non Dedicated Bailer  Ready Flo 2" O

Weather Conditions: Warm Sunny

**Well Information:**

Total Well Depth: 50.58 feet Time: 910

Depth to Water: 25.35 feet

Height of Water Column (L): 25.23 feet \* 2.16 gal/ft \* 0.65 gal/ft \* 1.47 gal/ft = 4.03 gal. \* 3 = 12 gal

Well Diameter (circle one)  
 2-in.  4-in.  6-in.

**Field Measurements:**

Depth Purging From: 2 ft. below depth to water

Time	Cumulative Volume Purged	pH	Specific Conductivity	Temp	Observations
912	-----	-----	-----	-----	
916	4 gal	7.59	13.60 mS/cm	23.1 °C	Clear
920	8 gal	7.46	13.50 mS/cm	23.2 °C	Clear
924	12 gal	7.45	13.70 mS/cm	23.6 °C	Clear
	gal				
	gal				
	gal				Field pH = 7.45

Sample Appearance: clear

Sample Collection - Time Start: 926 Time Finished: 926

Analyses: CLO4 TDS TDS/pH CR  
 Bottles: 1 BTL 1 BTL 1 BTL 1 BTL

TOTAL BOTTLES: 3

Comments: screen 20-50'

Dup EC  
 0926a 13.92 24.2



# Water Sampling Field Log

Well No.: PC-103

Project No.: \_\_\_\_\_ Site: NERT PROJECT- HENDERSON, NEVADA

Sampling Team: Michele Brown, Janel Rivera Date: 11/12/15

Sampling Method:  Electric Pump  Dedicated Bailer  Non Dedicated Bailer  Ready Flo 2" O

Weather Conditions: Sunny, cool

**Well Information:**

Total Well Depth: 31.8 feet Time: 834

Depth to Water: 22.93 feet

Height of Water Column (L): 8.87 feet

Well Diameter (circle one)	Well Volume (WV)	Purge Factor	Purge Volume
<input checked="" type="radio"/> 2-in. <input type="radio"/> 4-in. <input type="radio"/> 6-in.	= <u>1.41</u> gal.	* <u>3</u>	= <u>4 gal</u>
*0.16 gal/ft                    *0.65 gal/ft                    *1.47 gal/ft			

**Field Measurements:**

Depth Purging From: 2 ft. below depth to water

Time	Cumulative Volume Purged	pH	Specific Conductivity	Temp	Observations
836	-----	-----	-----	-----	
838	<u>2</u> gal	<u>7.70</u>	<u>5.70 mS/cm</u>	<u>21.7 °C</u>	<u>clear</u>
839	<u>3</u> gal	<u>7.63</u>	<u>5.85 mS/cm</u>	<u>22.2 °C</u>	<u>clear</u>
840	<u>4</u> gal	<u>7.59</u>	<u>5.92 mS/cm</u>	<u>22.9 °C</u>	<u>clear</u>
	gal				
	gal				
	gal				<u>Field pH = 7.59</u>

Sample Appearance: clear

Sample Collection - Time Start: 842 Time Finished: 842

Analyses: CLO4 TDS TDS/pH CR  
 Bottles: 1 BTL 1 BTL 1 BTL 1 BTL

TOTAL BOTTLES: 3

Comments: The screen is 9-29'

Water Sampling Field Log

Well No.: PC-115R

Project No.: \_\_\_\_\_ Site: NERT PROJECT- HENDERSON, NEVADA

Sampling Team: Michele Brown, Janel Rivera Date: 11/2/15

Sampling Method: Sample Port  Disposable Bailer  Electric pump

Weather Conditions: Clear Sunny

Well Information: \_\_\_\_\_ 11/18/15

Total Well Depth: 55.5 feet Time: 1021

Depth to Water: \_\_\_\_\_ feet

Well Diameter (circle one)  
2-in. 4-in. 6-in.

Water Column (L): \_\_\_\_\_ feet X 0.4893 1.9 4.41 = \_\_\_\_\_ Purge Volume

Field Measurements: Depth Purging From: 2 ft below DTW

Time	gals	ms/cm	pH	Temp	Observations of Sample
929		4.78	7.46	24.2	clear

Comments: unable to obtain DTW Reading.  
Equipment installed in well prohibits DTW probe from passing by

Sample Collection Time - 929 Field pH 7.46

Analyses:	CR	CLO4	pH/TDS	pH / TDS/ CRVI	pH/ TDS / NO3	pH / TDS / CRVI / NO3
Bottles:	1 Bottle	1 Bottle	1 Bottle	1 Bottle	1 Bottle	1 Bottle

TOTAL Bottles- 3

Water Sampling Field Log

Well No.: PC-116R

Project No.: \_\_\_\_\_ Site: NERT PROJECT- HENDERSON, NEVADA

Sampling Team: Michele Brown, Janel Rivera Date: 11/2/15

Sampling Method:  Sample Port  Disposable Bailer  Electric pump

Weather Conditions: Clear Sunny

Well Information: \_\_\_\_\_ 11/18/15

Total Well Depth: 55.5 feet Time: 1005

Depth to Water: \_\_\_\_\_ feet

Water Column (L): _____ feet	X	Well Diameter (circle one)			= _____
		2-in. 0.4893	4-in. 1.9	6-in. 4.41	

Field Measurements: Depth Purging From: 2 ft below DTW

Time	gals	ms/cm	pH	Temp	Observations of Sample
940		6.12	7.41	23.9	clear

Comments: Unable to obtain DTW reading.  
Hinges on vault lid broken, if Lid opens it will fall inside vault.

Sample Collection Time - 940 Field pH 7.41

Analyses:	CR	ClO4	pH / TDS	pH / TDS / CRVI	pH / TDS / NO3	pH / TDS / CRVI / NO3
Bottles:	1 Bottle	1 Bottle	1 Bottle	1 Bottle	1 Bottle	1 Bottle

TOTAL Bottles- 3

Water Sampling Field Log

Well No.: PC-117

Project No.: \_\_\_\_\_ Site: NERT PROJECT- HENDERSON, NEVADA

Sampling Team: Michele Brown, Janel Rivera Date: 11/2/15

Sampling Method:  Sample Port  Disposable Bailer  Electric pump

Weather Conditions: clear, sunny

Well Information: \_\_\_\_\_ 11/18/15

Total Well Depth: 53.0 feet Time: 1017

Depth to Water: 11.55 feet

Water Column (L):	<u>41.45</u> feet	X	Well Diameter (circle one)			Purge Volume
			2-in.	4-in.	6-in.	
			0.4893	1.9	4.41	= _____

Field Measurements: Depth Purging From: 2 ft below DTW

Time	gals	ms/cm	pH	Temp	Observations of Sample
<u>914</u>		<u>4.73</u>	<u>7.38</u>	<u>22.7</u>	<u>Clear</u>

Comments:

Sample Collection Time - 914 Field pH 7.38

Analyses:	<u>CR</u>	<u>CLO4</u>	<u>pH / TDS</u>	<u>pH / TDS / CRVI</u>	<u>pH / TDS / NO3</u>	<u>pH / TDS / CRVI / NO3</u>
Bottles:	<u>1 Bottle</u>	<u>1 Bottle</u>	<u>1 Bottle</u>	<u>1 Bottle</u>	<u>1 Bottle</u>	<u>1 Bottle</u>

TOTAL Bottles- 3

Water Sampling Field Log

Well No.: PC-118

Project No.: \_\_\_\_\_ Site: NERT PROJECT- HENDERSON, NEVADA

Sampling Team: Michele Brown, Janel Rivera Date: 11/2/15

Sampling Method:  Sample Port  Disposable Bailer  Electric pump

Weather Conditions: Clear

Well Information: \_\_\_\_\_ 11/18/15

Total Well Depth: 51.0 feet Time: 1023

Depth to Water: - 7.92 feet

Water Column (L):	<u>43.08</u> feet	X	Well Diameter (circle one)			=	Purge Volume
			<u>2-in.</u>	<u>4-in.</u>	<u>6-in.</u>		
			0.4893	1.9	4.41		

Field Measurements: Depth Purging From: 2 ft below DTW

Time	gals	ms/cm	pH	Temp	Observations of Sample
<u>919</u>		<u>3.55</u>	<u>7.41</u>	<u>22.7</u>	<u>Clear</u>

Comments:

Sample Collection Time - 919 Field pH 7.41

Analyses:	<u>CR</u>	<u>ClO4</u>	<u>pH/TDS</u>	<u>pH / TDS/ CRVI</u>	<u>pH/ TDS / NO3</u>	<u>pH / TDS / CRVI / NO3</u>
Bottles:	<u>1 Bottle</u>	<u>1 Bottle</u>	<u>1 Bottle</u>	<u>1 Bottle</u>	<u>1 Bottle</u>	<u>1 Bottle</u>

TOTAL Bottles- 3

**Water Sampling Field Log**

Well No.: PC-119

Project No.: \_\_\_\_\_ Site: NERT PROJECT- HENDERSON, NEVADA

Sampling Team: Michele Brown, Janel Rivera Date: 11/2/15

Sampling Method:  Sample Port  Disposable Bailer  Electric pump

Weather Conditions: clear

Well Information: \_\_\_\_\_ 11/18/15

Total Well Depth: 47.0 feet Time: 1026

Depth to Water: 4.85 feet

Water Column (L):	<u>42.15</u> feet	X	Well Diameter (circle one)			=	Purge Volume
			2-in.	4-in.	6-in.		
			0.4893	1.9	4.41		

Field Measurements: Depth Purging From: 2 ft below DTW

Time	gals	ms/cm	pH	Temp	Observations of Sample
<u>909</u>		<u>2.65</u>	<u>7.41</u>	<u>22.0</u>	<u>clear</u>

Comments:

Sample Collection Time - 909 Field pH 7.41

Analyses:	<u>CR</u>	<u>CLO4</u>	<u>pH/TDS</u>	pH / TDS / CRVI	pH / TDS / NO3	pH / TDS / CRVI / NO3
Bottles:	<u>1 Bottle</u>	<u>1 Bottle</u>	<u>1 Bottle</u>	1 Bottle	1 Bottle	1 Bottle

TOTAL Bottles- 3

Water Sampling Field Log

Well No.: PC-120

Project No.: \_\_\_\_\_ Site: NERT PROJECT- HENDERSON, NEVADA

Sampling Team: Michele Brown, Janel Rivera Date: 11/2/15

Sampling Method:  Sample Port  Disposable Bailer  Electric pump

Weather Conditions: Clear

Well Information: \_\_\_\_\_ 11/18/15

Total Well Depth: 47.0 feet Time: 1029

Depth to Water: 3.03 feet

Water Column (L): 43.95 feet X Well Diameter (circle one) 2-in. 4-in. 6-in. Purge Volume = \_\_\_\_\_

Field Measurements: Depth Purging From: 2 ft below DTW

Time	gals	ms/cm	pH	Temp	Observations of Sample
<u>951</u>		<u>2.77</u>	<u>7.36</u>	<u>22.3</u>	<u>Clear</u>

Comments: Turned pump on to sample

Sample Collection Time - 951 Field pH 7.36

Analyses:	<u>CR</u>	<u>CLO4</u>	<u>pH / TDS</u>	<u>pH / TDS / CRVI</u>	<u>pH / TDS / NO3</u>	<u>pH / TDS / CRVI / NO3</u>
Bottles:	<u>1 Bottle</u>	<u>1 Bottle</u>	<u>1 Bottle</u>	<u>1 Bottle</u>	<u>1 Bottle</u>	<u>1 Bottle</u>

TOTAL Bottles- 3

Water Sampling Field Log

Well No.: PC-121

Project No.: \_\_\_\_\_ Site: NERT PROJECT- HENDERSON, NEVADA

Sampling Team: Michele Brown, Janel Rivera Date: 11/18/15

Sampling Method:  Sample Port  Disposable Bailer  Electric pump

Weather Conditions: Clear

Well Information: 11/18/15

Total Well Depth: 38.5 feet Time: 1031

Depth to Water: 4.37 feet

Water Column (L):	<u>34.13</u> feet	X	Well Diameter (circle one)			=	Purge Volume
			<input checked="" type="radio"/> 2-in.	<input type="radio"/> 4-in.	<input type="radio"/> 6-in.		
			0.4893	1.9	4.41		

Field Measurements: Depth Purging From: 2 ft below DTW

Time	gals	mg/cm	pH	Temp	Observations of Sample
<u>946</u>		<u>2.78</u>	<u>7.51</u>	<u>22.0</u>	<u>Clear</u>

Comments: Turned pump on to sample

Sample Collection Time - 946 Field pH 7.51

Analyses:	<u>CR</u>	<u>CLO4</u>	<u>pH/TDS</u>	<u>pH/TDS/CRVI</u>	<u>pH/TDS/NO3</u>	<u>pH/TDS/CRVI/NO3</u>
Bottles:	<u>1 Bottle</u>	<u>1 Bottle</u>	<u>1 Bottle</u>	<u>1 Bottle</u>	<u>1 Bottle</u>	<u>1 Bottle</u>

TOTAL Bottles - 3



# Water Sampling Field Log

Well No.: PC-122

Project No.: \_\_\_\_\_ Site: NERT PROJECT- HENDERSON, NEVADA

Sampling Team: Michele Brown Janel Rivera Date: 11/11/15

Sampling Method:  Electric Pump  Dedicated Bailer  Non Dedicated Bailer  Ready Flo 2" O

Weather Conditions: Sunny, warm

## Well Information:

Total Well Depth: 37.9 feet Time: 845

Depth to Water: 31.36 feet

Height of Water Column (L): 6.54 feet

Well Diameter (circle one)  
 2-in.  4-in.  6-in.

Well Volume (WV)  Purge Factor  Purge Volume

= 1.04 gal. \* 3 = 3 gal.

## Field Measurements:

Depth Purging From: 2 ft. below depth to water

Time	Cumulative Volume Purged	pH	Specific Conductivity	Temp	Observations
<u>846</u>	-----	-----	-----	-----	
<u>847</u>	<u>1 gal</u>	<u>7.82</u>	<u>9.73 MS/cm</u>	<u>22.1 °C</u>	<u>clear</u>
<u>848</u>	<u>2 gal</u>	<u>7.78</u>	<u>9.63 MS/cm</u>	<u>23.3 °C</u>	<u>clear</u>
<u>849</u>	<u>3 gal</u>	<u>7.69</u>	<u>9.69 MS/cm</u>	<u>°C</u>	<u>clear</u>
	<u>gal</u>				
	<u>gal</u>				
	<u>gal</u>				<u>Field pH = 7.69</u>

Sample Appearance: clear

Sample Collection - Time Start: 851 Time Finished: 851

Analyses: CLO4 TDS TDS/pH CR  
 Bottles: 1 BTL 1 BTL 1 BTL 1 BTL

Screen 22.5 - 37.5

TOTAL BOTTLES: 3

Comments:

# Water Sampling Field Log

Well No.: PC-123

Project No.: \_\_\_\_\_ Site: NERT PROJECT- HENDERSON, NEVADA

Sampling Team: Janel Rivera, Michele Brown Date: 11-3-15

Sampling Method:  Electric Pump  Dedicated Bailer  Non Dedicated Bailer  Ready Flo 2" O

Weather Conditions: dark windy

**Well Information:**

Total Well Depth: 34.70 feet Time: 450

Depth to Water: 23.33 feet

Height of Water Column (L): 11.37 feet

Well Diameter (circle one)  
 2-in.  4-in.  6-in.

Well Volume (WV) = 1.82 gal. \* x 3 = 5.46 gal

**Field Measurements:**

Depth Purging From: 2 ft. below depth to water

Time	Cumulative Volume Purged	pH	Specific Conductivity	Temp	Observations
<u>452</u>	-----	-----	-----	-----	
<u>454</u>	<u>2</u> gal	<u>7.55</u>	<u>7.52</u> mS/cm	<u>23.6</u> °C	<u>clear</u>
<u>456</u>	<u>4</u> gal	<u>7.56</u>	<u>7.49</u> mS/cm	<u>23.7</u> °C	<u>clear</u>
<u>457</u>	<u>5</u> gal	<u>7.55</u>	<u>7.46</u> mS/cm	<u>24.1</u> °C	<u>clear</u>

FIELD pH = 7.55

Sample Appearance: clear

Sample Collection - Time Start: 459 Time Finished: 459

Analyses:	<input checked="" type="checkbox"/> CLO4	<input checked="" type="checkbox"/> TDS	<input checked="" type="checkbox"/> CR	TDS / CRVI	TDS / CRVI / NO3	TDS / NO3	CL03
Bottles:	1 BTL	1 BTL	1 BTL	1 BTL	1 BTL	1 BTL	1 BTL

TOTAL BOTTLES: 3

Comments: Top of screen - 20

# Water Sampling Field Log

Well No.: PC-124

Project No.: \_\_\_\_\_ Site: NERT PROJECT- HENDERSON, NEVADA

Sampling Team: Janel Rivera, Michele Brown Date: 11/4/15

Sampling Method: Electric Pump  Dedicated Bailer  Non Dedicated Bailer  Ready Flo 2"

Weather Conditions: Cool breezy

**Well Information:**

Total Well Depth: 34.60 feet Time: 540

Depth to Water: 25.38 feet

Height of Water Column (L): 9.22 feet \* 0.16 gal/ft \* 0.65 gal/ft \* 1.47 gal/ft = 1.47 gal. \* x 3 = 4 gal

Well Diameter (circle one)  
 2-in.      4-in.      6-in.  
 Well Volume (WV)

**Field Measurements:**

Depth Purging From: 2 ft. below depth to water

Time	Cumulative Volume Purged	pH	Specific Conductivity	Temp	Observations
544	-----	-----	-----	-----	
546	2 gal	6.75	10.71 <u>ms/cm</u>	22.4 °C	Clear
547	3 gal	6.93	10.70 <u>ms/cm</u>	23.0 °C	Clear
548	4 gal	6.96	10.74 <u>ms/cm</u>	23.4 °C	Clear
					FIELD pH = <u>6.96</u>

Sample Appearance: \_\_\_\_\_

Sample Collection - Time Start: 550 Time Finished: 550

Analyses:	CLO4	TDS	CR	TDS / CRVI	TDS / CRVI / NO3	TDS / NO3	CL03
Bottles:	1 BTL	1 BTL	1 BTL	1 BTL	1 BTL	1 BTL	1 BTL

TOTAL BOTTLES: 3

Comments: Top of screen - 20.3

# Water Sampling Field Log

Well No.: PC-125

Project No.: \_\_\_\_\_ Site: NERT PROJECT- HENDERSON, NEVADA

Sampling Team: Janel Rivera, Michele Brown Date: 11.3.15

Sampling Method: Electric Pump  Dedicated Bailer  Non Dedicated Bailer  Ready Flo 2"

Weather Conditions: windy cool

**Well Information:**

Total Well Depth: 33.50 feet Time: 0712

Depth to Water: 23.56 feet

Well Diameter (circle one) Well Volume (WV)  
 2-in. 4-in. 6-in.  
 Height of Water Column (L): 9.94 feet \* 0.16 gal/ft \* 0.65 gal/ft \* 1.47 gal/ft = 1.59 gal. \* x 3 = 5gal

**Field Measurements:**

Depth Purging From: 2 ft. below depth to water

Time	Cumulative Volume Purged	pH	Specific Conductivity	Temp	Observations
<u>714</u>	----	----	----	----	
<u>716</u>	<u>2</u> gal	<u>7.94</u>	<u>7.92</u> mS/cm	<u>21.8</u> °C	<u>Clear</u>
<u>718</u>	<u>4</u> gal	<u>7.79</u>	<u>7.77</u> mS/cm	<u>22.2</u> °C	<u>Clear</u>
<u>719</u>	<u>5</u> gal	<u>7.73</u>	<u>7.76</u> mS/cm	<u>22.9</u> °C	<u>Clear</u>

FIELD pH = 7.73

Sample Appearance: Clear

Sample Collection - Time Start: 721 Time Finished: 721

Analyses:	CLO4	TDS	CR	TDS / CRVI	TDS / CRVI / NO3	TDS / NO3	CL03
Bottles:	1 BTL	1 BTL	1 BTL	1 BTL	1 BTL	1 BTL	1 BTL

TOTAL BOTTLES: 3

Comments: Top of Screen - 18.7

# Water Sampling Field Log

Well No.: PC-126

Project No.: \_\_\_\_\_ Site: NERT PROJECT- HENDERSON, NEVADA

Sampling Team: Janel Rivera, Michele Brown Date: 11.3.15

Sampling Method:  Electric Pump  Dedicated Bailer  Non Dedicated Bailer  Ready Flo 2"

Weather Conditions: windy cool

**Well Information:**

Total Well Depth: 34.35 feet Time: 7:28

Depth to Water: 22.5 feet

Height of Water Column (L): 11.85 feet \* 0.16 gal/ft \* 0.65 gal/ft \* 1.47 gal/ft = 1.89 gal. \* x 3 = 6gal

Well Diameter (circle one)  
 2-in.  4-in.  6-in.  
 Well Volume (WV)

**Field Measurements:**

Depth Purging From: 2 ft. below depth to water

Time	Cumulative Volume Purged	pH	Specific Conductivity	Temp	Observations
0730	----	----	----	----	
732	2 gal	7.69	11.85 <i>ms/cm</i>	21.3 °C	clear
734	4 gal	7.64	11.77 <i>ms/cm</i>	21.7 °C	clear
736	6 gal	7.57	11.85 <i>ms/cm</i>	21.7 °C	clear
					FIELD pH = <u>7.57</u>

Sample Appearance: clear

Sample Collection Time Start: 0738 Time Finished: 0738

Analyses:	CLO4	TDS	CR	TDS / CRVI	TDS / CRVI / NO3	TDS / NO3	CL03
Bottles:	1 BTL	1 BTL	1 BTL	1 BTL	1 BTL	1 BTL	1 BTL

TOTAL BOTTLES: 3

Comments: Top of screen - 19.5

# Water Sampling Field Log

Well No.: PC-127

Project No.: \_\_\_\_\_ Site: NERT PROJECT- HENDERSON, NEVADA

Sampling Team: Janel Rivera, Michele Brown Date: 11.3.15

Sampling Method:  Electric Pump  Dedicated Bailer  Non Dedicated Bailer  Ready Flo 2" O

Weather Conditions: cool windy

## Well Information:

Total Well Depth: 34.70 feet Time: 750

Depth to Water: 19.15 feet Well Volume (WV)

Height of Water Column (L): 15.55 feet

Well Diameter (circle one)		
2-in.	4-in.	6-in.
* 0.16 gal/ft	* 0.65 gal/ft	* 1.47 gal/ft

= 2.48 gal. \* x 3 = 7 gal

## Field Measurements:

Depth Purging From: 2 ft. below depth to water

Time	Cumulative Volume Purged	pH	Specific Conductivity	Temp	Observations
<u>0752</u>	----	----	----	----	
<u>0755</u>	<u>3 gal</u>	<u>7.83</u>	<u>7.29</u>	<u>22.7 °C</u>	<u>clear</u>
<u>0757</u>	<u>5 gal</u>	<u>7.72</u>	<u>7.12</u>	<u>23.6 °C</u>	<u>clear</u>
<u>0759</u>	<u>7 gal</u>	<u>7.66</u>	<u>7.19</u>	<u>°C</u>	<u>clear</u>
					FIELD pH = <u>7.66</u>

Sample Appearance: clear

Sample Collection - Time Start: 0801 Time Finished: 0801

Analyses:	CLO4	TDS	CR	TDS / CRVI	TDS / CRVI / NO3	TDS / NO3	CL03
Bottles:	1 BTL	1 BTL	1 BTL	1 BTL	1 BTL	1 BTL	1 BTL

TOTAL BOTTLES: 3

Comments:

Top of Screen -15

Closing PC 7.01

# Water Sampling Field Log

Well No.: PC-128

Project No.: \_\_\_\_\_ Site: NERT PROJECT- HENDERSON, NEVADA

Sampling Team: Janel Rivera, Michele Brown Date: 11.3.15

Sampling Method:  Electric Pump  Dedicated Bailer  Non Dedicated Bailer  Ready Flo 2" O

Weather Conditions: Windy cold

**Well Information:**

Total Well Depth: 34.70 feet Time: 508

Depth to Water: 18.83 feet

Height of Water Column (L): 16.37 feet

Well Diameter (circle one)	Well Volume (VV)
<input checked="" type="radio"/> 2-in. <input type="radio"/> 4-in. <input type="radio"/> 6-in.	
* 0.16 gal/ft    * 0.65 gal/ft    * 1.47 gal/ft	
	= <u>2.61</u> gal. * x 3 <u>8 gal</u>

**Field Measurements:**

Depth Purging From: 2 ft. below depth to water

Time	Cumulative Volume Purged	pH	Specific Conductivity	Temp	Observations
512	----	----	----	----	
515	3 gal	7.74	6.92 mS/cm	23.3 °C	clear
518	6 gal	7.74	7.08 mS/cm	23.0 °C	clear
520	8 gal	7.70	6.97 mS/cm	24.5 °C	clear
					FIELD pH = <u>7.70</u>

Sample Appearance: Clear

Sample Collection - Time Start: 522 Time Finished: 522

Analyses:	<u>CLO4</u>	<u>TDS</u>	<u>CR</u>	TDS / CRVI	TDS / CRVI / NO3	TDS / NO3	CL03
Bottles:	1 BTL	1 BTL	1 BTL	1 BTL	1 BTL	1 BTL	1 BTL

TOTAL BOTTLES: 3

Comments:

Top of Screen - 14.8

# Water Sampling Field Log

Well No.: PC-129

Project No.: \_\_\_\_\_ Site: NERT PROJECT- HENDERSON, NEVADA

Sampling Team: Michele Brown Janet Rweira

Date: 11/3/15

Sampling Method:  Electric Pump  Dedicated Bailer O  Non Dedicated Bailer O  Ready Flo 2" O

Weather Conditions: Windy cold

**Well Information:**

Total Well Depth: 37.70 feet Time: 529

Depth to Water: 18.85 feet

Height of Water Column (L): 18.85 feet

Well Diameter (circle one)			Well	Purge	Purge
2-in.	4-in.	6-in.	Volume (VV)	Factor	Volume
* 0.16 gal/ft	* 0.65 gal/ft	* 1.47 gal/ft	= <u>3.01</u> gal.	* <u>3</u>	= <u>9</u> gal

**Field Measurements:**

Depth Purging From: 2 ft. below depth to water

Time	Cumulative Volume Purged	pH	Specific Conductivity	Temp	Observations
531	-----	-----	-----	-----	
534	3 gal	7.72	7.13 <sup>MS/cm</sup>	22.2 <sup>o</sup>	Clear
537	6 gal	7.67	7.28 <sup>MS/cm</sup>	22.9 <sup>o</sup>	Clear
540	9 gal	7.60	7.60 <sup>MS/cm</sup>	22.7 <sup>o</sup>	Clear
	gal				
	gal				
	gal				field pH 7.60

Sample Appearance: Clear yellow cloudy

Sample Collection - Time Start: 542 Time Finished: 542

Analyses: CLQ4 TDS TDS/pH CR  
 Bottles: 1 BTL 1 BTL 1 BTL 1 BTL

TOTAL BOTTLES: 3

Comments: Top of screen - 38





# Water Sampling Field Log

Well No.: PC-131

Project No.: \_\_\_\_\_ Site: NERT PROJECT- HENDERSON, NEVADA

Sampling Team: Janel Rivera, Michele Brown Date: 11.3.15

Sampling Method:  Electric Pump  Dedicated Bailer  Non Dedicated Bailer  Ready Flo 2" O

Weather Conditions: Sunny Cool

**Well Information:**

Total Well Depth: 39.40 feet Time: 619

Depth to Water: 11.50 feet

Well Diameter (circle one) Well Volume (VV)  
 2-in.  4-in.  6-in.  
 Height of Water Column (L): 27.9 feet \* 0.16 gal/ft \* 0.65 gal/ft \* 1.47 gal/ft = 4.64 gal. \* x 3 = 14 gal

**Field Measurements:**

Depth Purging From: 2 ft. below depth to water

Time	Cumulative Volume Purged	pH	Specific Conductivity	Temp	Observations
<u>0621</u>	---	---	---	---	
<u>0626</u>	<u>5</u> gal	<u>7.75</u>	<u>13.71</u> <u>MS/cm</u>	<u>22.6</u> °C	<u>Clear</u>
<u>0631</u>	<u>10</u> gal	<u>7.70</u>	<u>13.47</u> <u>MS/cm</u>	<u>23.5</u> °C	<u>Clear</u>
<u>0635</u>	<u>14</u> gal	<u>7.64</u>	<u>13.65</u> <u>MS/cm</u>	<u>23.6</u> °C	<u>Clear</u>
					FIELD pH = <u>7.64</u>

Sample Appearance: Clear

Sample Collection - Time Start: 0637 Time Finished: 0637

Analyses:	<u>CLO4</u>	<u>TDS</u>	<u>CR</u>	TDS / CRVI	TDS / CRVI / NO3	TDS / NO3	CL03
Bottles:	<u>1 BTL</u>	<u>1 BTL</u>	<u>1 BTL</u>	1 BTL	1 BTL	1 BTL	1 BTL

TOTAL BOTTLES: 3

Comments:  
Top of Screen - 9.8

# Water Sampling Field Log

Well No.: PC-132

Project No.: \_\_\_\_\_ Site: NERT PROJECT- HENDERSON, NEVADA

Sampling Team: Janel Rivera, Michele Brown Date: 11-3-15

Sampling Method:  Electric Pump  Dedicated Bailer  Non Dedicated Bailer  Ready Flo 2"

Weather Conditions: windy cool

**Well Information:**

Total Well Depth: 39.56 feet Time: 810

Depth to Water: 10.01 feet

Height of Water Column (L): 29.55 feet

Well Diameter (circle one)			Well Volume (WV)	
2-in.	4-in.	6-in.		
* 0.16 gal/ft	* 0.65 gal/ft	* 1.47 gal/ft	= <u>4.72</u> gal.	* x 3 = <u>14gal</u>

**Field Measurements:**

Depth Purging From: 2 ft. below depth to water

Time	Cumulative Volume Purged	pH	Specific Conductivity	Temp	Observations
812	----	----	----	----	
817	5 gal	7.69	13.20 <u>ms/cm</u>	24.1 °C	clear
822	10 gal	7.69	13.19 <u>ms/cm</u>	24.1 °C	clear
826	14 gal	7.69	13.16 <u>ms/cm</u>	24.0 °C	clear

FIELD pH = 7.69

Sample Appearance: clear

Sample Collection - Time Start: 828 Time Finished: 828

Analyses:	<u>CLO4</u>	<u>TDS</u>	<u>CR</u>	TDS / CRVI	TDS / CRVI / NO3	TDS / NO3	CL03
Bottles:	<u>1 BTL</u>	<u>1 BTL</u>	<u>1 BTL</u>	1 BTL	1 BTL	1 BTL	1 BTL

TOTAL BOTTLES: 3

Comments: Top of Screen - 9.8

Water Sampling Field Log

Well No.: PC-133

Project No.: \_\_\_\_\_ Site: NERT PROJECT- HENDERSON, NEVADA

Sampling Team: Michele Brown, Janel Rivera Date: 11/2/15

Sampling Method:  Sample Port  Disposable Bailer  Electric pump

Weather Conditions: clear

Well Information: \_\_\_\_\_ 11/18/15

Total Well Depth: 40.20 feet Time: 1003

Depth to Water: \_\_\_\_\_ feet

Water Column (L): _____ feet	X	Well Diameter (circle one)			= _____
		2-in.	4-in.	6-in.	
		0.4893	1.9	4.41	

Field Measurements: Depth Purging From: 2 ft below DTW

Time	gals	ms/cm	pH	Temp	Observations of Sample
<u>934</u>		<u>894</u>	<u>7.50</u>	<u>84.8</u>	<u>clear</u>

Comments:

unable to obtain DTW Reading.  
Equipment installed in well prevents DTW probe from passing by.

Sample Collection Time - 934 Field pH 7.50

Analyses:	<u>CR</u>	<u>CLO4</u>	<u>pH/TDS</u>	<u>pH / TDS/ CRVI</u>	<u>pH/ TDS / NO3</u>	<u>pH / TDS / CRVI / NO3</u>
Bottles:	<u>1 Bottle</u>	<u>1 Bottle</u>	<u>1 Bottle</u>	<u>1 Bottle</u>	<u>1 Bottle</u>	<u>1 Bottle</u>

TOTAL Bottles- 3

Water Sampling Field Log

Well No.: PC-135 A

Project No.: \_\_\_\_\_ Site: NERT PROJECT- HENDERSON, NEVADA

Sampling Team: Janel Rivera, Michele Brown Date: 11/4/15

Sampling Method:  Electric Pump  Dedicated Bailer  Non Dedicated Bailer  Ready Flo 2" O

Weather Conditions: Cool breezy

Well Information:

Total Well Depth: 50.80 feet Time: 647

Depth to Water: 27.96 feet

Well Diameter (circle one) 2-in. 4-in. 6-in. Well Volume (WV) = 3.65 gal. \* x 3 = 11 gal

Field Measurements:

Depth Purging From: 2 ft. below depth to water

Table with columns: Time, Cumulative Volume Purged, pH, Specific Conductivity, Temp, Observations. Rows include data for times 648, 652, 656, 659 and a summary row for FIELD pH = 7.47.

Sample Appearance: Clear

Sample Collection - Time Start: 702 Time Finished: 702

Analyses: CLO4 TDS CR TDS / CRVI TDS / CRVI / NO3 TDS / NO3 CL03  
Bottles: 1 BTL 1 BTL 1 BTL 1 BTL 1 BTL 1 BTL 1 BTL

TOTAL BOTTLES: 3

Comments:

Top of Screen - 30.7

# Water Sampling Field Log

Well No.: PC-136

Project No.: \_\_\_\_\_ Site: NERT PROJECT- HENDERSON, NEVADA

Sampling Team: Janel Rivera, Michele Brown Date: 11/4/15

Sampling Method:  Electric Pump  Dedicated Bailer  Non Dedicated Bailer  Ready Flo 2" O

Weather Conditions: Cool breezy

**Well Information:**

Total Well Depth: 40.30 feet Time: 631

Depth to Water: 32.79 feet

Height of Water Column (L): 7.51 feet

Well Diameter (circle one)			Well
2-in.	4-in.	6-in.	Volume (VV)
* 0.16 gal/ft	* 0.65 gal/ft	* 1.47 gal/ft	= <u>1.20</u> gal. * x 3 <u>4gal</u>

**Field Measurements:**

Depth Purging From: 2 ft. below depth to water

Time	Cumulative Volume Purged	pH	Specific Conductivity	Temp	Observations
<u>632</u>	----	----	----	----	
<u>634</u>	<u>2 gal</u>	<u>7.52</u>	<u>7.25 mS/cm</u>	<u>21.8 °C</u>	<u>clear</u>
<u>635</u>	<u>3 gal</u>	<u>7.55</u>	<u>7.23 mS/cm</u>	<u>23.3 °C</u>	<u>clear</u>
<u>636</u>	<u>4 gal</u>	<u>7.54</u>	<u>7.20 mS/cm</u>	<u>23.7 °C</u>	<u>clear</u>
FIELD pH = <u>7.54</u>					

Sample Appearance: clear

Sample Collection - Time Start: 638 Time Finished: 638

Analyses:	<u>CLO4</u>	<u>TDS</u>	<u>CR</u>	TDS / CRVI	TDS / CRVI / NO3	TDS / NO3	CL03
Bottles:	1 BTL	1 BTL	1 BTL	1 BTL	1 BTL	1 BTL	1 BTL

TOTAL BOTTLES: 3

Comments: Top of screen - 21.0 Dump EC 638  
23.6 7.20

# Water Sampling Field Log

Well No.: PC-144

Project No.: \_\_\_\_\_ Site: NERT PROJECT- HENDERSON, NEVADA

Sampling Team: Janel Rivera, Michele Brown Date: 11/12/15

Sampling Method:  Electric Pump  Dedicated Bailer  Non Dedicated Bailer  Ready Flo 2" O

Weather Conditions: Sunny, cool

**Well Information:**

Total Well Depth: 39.70 feet Time: 853

Depth to Water: 28.70 feet

Height of Water Column (L): 11.00 feet \* 2-in.  0.16 gal/ft \* 4-in.  0.65 gal/ft \* 6-in.  1.47 gal/ft = 1.76 gal. \* x 3 = 5 gal

Well Diameter (circle one) Well Volume (WV)

**Field Measurements:**

Depth Purging From: 2 ft. below depth to water

Time	Cumulative Volume Purged	pH	Specific Conductivity	Temp	Observations
855	-----	-----	-----	-----	
857	2 gal	7.68	11.30 $\mu S/cm$	22.2 °C	clear
859 <sup>JR</sup>	4 gal	7.65	11.19 $\mu S/cm$	24.0 °C	clear
900	5 gal	7.57	11.03 $\mu S/cm$	23.7 °C	clear
					FIELD pH = <u>7.57</u>

Sample Appearance: Clear

Sample Collection - Time Start: 902 Time Finished: 902

Analyses:	<u>CLO4</u>	<u>TDS</u>	<u>CR</u>	TDS / CRVI	TDS / CRVI / NO3	TDS / NO3	CL03
Bottles:	1 BTL	1 BTL	1 BTL	1 BTL	1 BTL	1 BTL	1 BTL

TOTAL BOTTLES: 3

Comments: Top of screen - 29.7

# Water Sampling Field Log

Well No.: PC-148

Project No.: \_\_\_\_\_ Site: NERT PROJECT- HENDERSON, NEVADA

Sampling Team: Janel Rivera, Michele Brown Date: 11/5/15

Sampling Method:  Electric Pump  Dedicated Bailer  Disposable Bailer  Ready Flo 2" O

Weather Conditions: Cold, breezy

**Well Information:**

Total Well Depth: 50.20 feet Time: 526

Depth to Water: 27.29 feet

Well Diameter (circle one) Volume (VV)  
 2-in. 4-in. 6-in.  
 Height of Water Column (L) 22.91 feet \* 0.16 gal/ft \* 0.65 gal/ft \* (1.47 gal/ft) = 34 gal. \* x 3 = 101 gal.

**Field Measurements:**

Depth Purging From: 2 ft. below depth to water

Time	Cumulative Volume Purged	pH	Specific Conductivity	Temp	Observations
530	-----	-----	-----	-----	
540	10 gal	7.83	878 $\mu S/cm$	21.0°C	Clear
550	20 gal	7.74	879 $\mu S/cm$	21.1°C	Clear
<del>500</del> 600	30 gal	7.74	889 $\mu S/cm$	21.7°C	Clear

FIELD pH = 7.74

Sample Appearance: clear

Sample Collection - Time Start: 602 Time Finished: 602

Analyses: CL04 TDS CR TDS / CRVI TDS / CRVI / NO3 TDS / NO3 CL03  
 Bottles: 1 BTL 1 BTL 1 BTL 1 BTL 1 BTL 1 BTL 1 BTL

TOTAL BOTTLES: 3

Comments: Top of Screen - 24.5

historically well is slow to recharge  
 purged 30 gallons before sampling



# Water Sampling Field Log

Well No.: PC-149

Project No.: \_\_\_\_\_ Site: NERT PROJECT- HENDERSON, NEVADA

Sampling Team: Janel Rivera, Michele Brown Date: 11/5/15

Sampling Method:  Electric Pump  Dedicated Bailer  Disposable Bailer  Ready Flo 2" O

Weather Conditions: Cold, breezy

**Well Information:**

Total Well Depth: 50.0 feet Time: 613

Depth to Water: 28.78 feet

Well Diameter (circle one) Well Volume (WV)  
 2-in. 4-in. 6-in.

Height of Water Column (L): 21.22 feet \* 0.16 gal/ft \* 0.65 gal/ft \* 1.47 gal/ft = 31 gal. \* x 3 94 gal

**Field Measurements:**

Depth Purging From: 2 ft. below depth to water

Time	Cumulative Volume Purged	pH	Specific Conductivity	Temp	Observations
<u>615</u>	----	----	----	----	
<u>625</u>	<u>10</u> gal	<u>7.71</u>	<u>5.36 mS/cm</u>	<u>21.3</u> °C	<u>clear</u>
<u>635</u>	<u>20</u> gal	<u>7.69</u>	<u>5.35 mS/cm</u>	<u>21.4</u> °C	<u>clear</u>
<u>645</u>	<u>30</u> gal	<u>7.64</u>	<u>5.47 mS/cm</u>	<u>22.1</u> °C	<u>Cloudy</u>
					FIELD pH = <u>7.64</u>

Sample Appearance: Cloudy

Sample Collection - Time Start: 647 Time Finished: 647

Analyses: QLO4 TDS CR TDS / CRVI TDS / CRVI / NO3 TDS / NO3 CL03  
 Bottles: 1 BTL 1 BTL 1-BTL 1 BTL 1 BTL 1 BTL 1 BTL

TOTAL BOTTLES: 3

Comments: Top of screen - 24.5  
well historically slow to recharge  
sampled after purging 30 gallons

# Water Sampling Field Log

Well No.: PC-150

Project No.: \_\_\_\_\_ Site: NERT PROJECT- HENDERSON, NEVADA

Sampling Team: Janel Rivera Date: 11/2/15

Sampling Method: Sample collected from Sample Port  Disposable Bailer

Weather Conditions: Clear Sunny

## Well Information:

Total Well Depth: 45.7 feet Time: 643

Depth to Water: \_\_\_\_\_ feet  
Well Diameter (circle one)  
 2-in.  4-in.  6-in

Height of Water Column (L): \_\_\_\_\_ feet \* 0.16 gal/ft \* 0.65 gal/ft \* 1.47 gal/ft

*Unable to obtain DTW  
equipment installed  
in well prevents  
probe from passing*

## Field Measurements:

Time	pH <sub>JR</sub>	Specific Conductivity	Temp	ORP	DO	COMMENTS
<del>819 JR</del>	<del>7.56</del>	-----	-----	-----	-----	-----
<u>11/2/15 819</u>	<u>7.56</u>	<u>7.07</u>	<u>20.9</u>	<u>JR</u>		

Sample Appearance: Clear

Sample Collection - Time Start: 819 Time Finished: 819

Analyses: CLO4 TDS/pH CR TDS/CRVI  
Bottles: 1 BTL 1 BTL 1 BTL 1 BTL

TOTAL BOTTLES: 3

COMMENTS:

Semi-Annual Remedial Performance Report  
For Chromium and Perchlorate  
Nevada Environmental Response Trust Site  
Henderson, Nevada

**APPENDIX D**

**DATA VALIDATION SUMMARY REPORT (DVSR)  
(AVAILABLE ELECTRONICALLY ON CD)**

**Data Validation Summary Report  
July through December 2015  
Semi-Annual Remedial Performance Sampling  
Nevada Environmental Response Trust (NERT)  
Henderson, Nevada**

Prepared for

**Ramboll Environ**  
Emeryville, California

Prepared by

**Laboratory Data Consultants, Inc.**  
27010 Loker Avenue West, Suite 220  
Carlsbad, California 92010

March 31, 2016

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## LIST OF ACRONYMS AND ABBREVIATIONS

CCB	Continuing Calibration Blank
DQO	Data Quality Objectives
DNR	Do Not Report
DUP	Duplicate
DVSR	Data Validation Summary Report
EB	Equipment Blank
FB	Field Blank
FD	Field Duplicate
ICB	Initial Calibration Blank
ICV	Initial Calibration Verification
LCS/LCSD	Laboratory Control Sample / Laboratory Control Sample Duplicate
LDC	Laboratory Data Consultants, Inc.
MS/MSD	Matrix Spike / Matrix Spike Duplicate
PARCCS	Precision, Accuracy, Representativeness, Comparability, Completeness, Sensitivity
PQL	Practical Quantitation Limit
QA/QC	Quality Assurance / Quality Control
QAPP	Quality Assurance Project Plan
RPD	Relative Percent Difference
SDG	Sample Delivery Group
SQL	Sample Quantitation Limit
TDS	Total Dissolved Solids
TIN	Total Inorganic Nitrogen
TOC	Total Organic Carbon
TOX	Total Organic Halides
USEPA	United States Environmental Protection Agency
ug/L	Micrograms per Liter
mg/L	Milligram per Liter
%D	Percent Difference
%R	Percent Recovery

## 1.0 INTRODUCTION

This data validation summary report (DVSR) has been prepared by Laboratory Data Consultants, Inc. (LDC) to assess the validity and usability of laboratory analytical data from the Semi-Annual Remedial Performance Sampling conducted at the Nevada Environmental Response Trust (NERT) site in Henderson, Nevada. The assessment was performed by Ramboll Environ as a part of the *Revised Phase B Quality Assurance Project Plan Tronox LLC Facility, Henderson, Nevada* dated May 2009 and included the collection and analyses of 504 environmental and quality control (QC) samples. The analyses were performed by the following methods:

Metals by Environmental Protection Agency (EPA) Method 200.7

Wet Chemistry:

Hexavalent Chromium by EPA Method 218.6

Chloride, Nitrate as Nitrogen, Nitrite as Nitrogen, and Sulfate (Anions) by EPA Method 300.0

Chlorate by EPA Method 300.1B

Perchlorate by EPA Method 314.0

Ammonia as Nitrogen by EPA Method 350.1

Phenolics by EPA Method 420.1

Phenols by EPA Method 420.4

Nitrate/Nitrite as Nitrogen and Total Inorganic Nitrogen (TIN) by Calculation Method

Specific Conductance by Standard Method 2510B

Total Dissolved Solids (TDS) by Standard Method 2540C

pH by Standard Method 4500 H+B

Total Organic Carbon (TOC) by Standard Method 5310C

Total Organic Halides (TOX) by EPA SW-846 Method 9020B

Laboratory analytical services were provided by TestAmerica, Inc. The samples were grouped into sample delivery groups (SDGs). The water samples are associated with QA/QC samples designed to document the data quality of the entire SDG or a sub-group of samples within an SDG. Table I is a cross-reference table listing each sample, analysis, SDG, collection date, laboratory sample number, matrix, and validation level. Table II is a reference table that identifies the QC elements reviewed for each validation level per method, as applicable.

The laboratory analytical data were validated in accordance with procedures described in the Nevada Division of Environmental Protection (NDEP) *Data Verification and Validation Requirements - Supplement* established for the BMI Plant Sites and Common Areas Projects, Henderson, Nevada, April 13, 2009. Consistent with the NDEP requirements, approximately ninety percent of the analytical data were validated according to Stage 2B data validation procedures and ten percent of the analytical data were validated according to Stage 4 data validation procedures. The analytical data were evaluated for quality assurance and quality control (QA/QC) based on the following documents: *Basic Remediation Company (BRC) Standard Operating Procedures (SOP) 40 Data Review/Validation*, Revision 4, May 2009; *Revised Phase B Quality Assurance Project Plan Tronox LLC Facility, Henderson, Nevada (QAPP)*, Revision, May 2009; Nevada Department of Environmental Protection (NDEP) *Revised Guidance on Qualifying Data due to Blank Contamination for the BMI Complex and Common Areas*, January 5 2012; *Contract Laboratory Program National Functional Guidelines for Inorganic Data Review*, October 2004; and the *EPA SW 846 Third Edition, Test Methods for Evaluating Solid Waste*, update I, July 1992; update IIA, August 1993; update II, September 1994; update IIB, January 1995; update III, December 1996; update IV, February 2007.

This report summarizes the QA/QC evaluation of the data according to precision, accuracy, representativeness, completeness, comparability, and sensitivity (PARCCS) relative to the project data quality objectives (DQOs). This report provides a quantitative and qualitative assessment of the data and



identifies potential sources of error, uncertainty, and bias that may affect the overall usability.

The PARCCS summary report evaluates and summarizes the results of QA/QC data validation for the entire sampling program. Each analytical fraction has a separate section for each of the PARCCS criteria. These sections interpret specific QC deviations and their effects on both individual data points and the analyses as a whole. Section 5.0 presents a summary of the PARCCS criteria by comparing quantitative parameters with acceptability criteria defined in the project DQO's. Qualitative PARCCS criteria are also summarized in this section.

### **Precision and Accuracy of Environmental Data**

Environmental data quality depends on sample collection procedures, analytical methods and instrumentation, documentation, and sample matrix properties. Both sampling procedures and laboratory analyses contain potential sources of uncertainty, error, and/or bias, which affect the overall quality of a measurement. Errors for sample data may result from incomplete equipment decontamination, inappropriate sampling techniques, sample heterogeneity, improper filtering, and improper preservation. The accuracy of analytical results is dependent on selecting appropriate analytical methods, maintaining equipment properly, and complying with QC requirements. The sample matrix also is an important factor in the ability to obtain precise and accurate results within a given media.

Environmental and laboratory QA/QC samples assess the effects of sampling procedures and evaluate laboratory contamination, laboratory performance, and matrix effects. QA/QC samples include: equipment blanks (EBs), field blanks (FBs), field duplicates (FDs), method blanks, laboratory control samples/laboratory control sample duplicates (LCS/LCSDs), laboratory duplicates (DUP), and matrix spike/matrix spike duplicates (MS/MSDs).

Before conducting the PARCCS evaluation, the analytical data were validated according to the BRC SOP-40 (July 2007), QAPP (May 2009), Functional Guidelines (USEPA 2004), and EPA SW 846 Test Methods. Samples not meeting the acceptance criteria were qualified with a flag, an abbreviation indicating a deficiency with the data. The following are flags used in data validation.

- J- Estimated The associated numerical value is an estimated quantity with a negative bias. The analyte was detected but the reported value may not be accurate or precise.
- J+ Estimated The associated numerical value is an estimated quantity with a positive bias. The analyte was detected but the reported value may not be accurate or precise.
- J Estimated The associated numerical value is an estimated quantity. It is not possible to assess the direction of the potential bias. The analyte was detected but the reported value may not be accurate or precise. The "J" qualification indicates the data fell outside the QC limits or any result that is detected in an environmental sample and associated blank at less than the required action level, but the exceedance was not sufficient to cause rejection of the data.
- R Rejected The data is unusable (the analyte may or may not be present). Use of the "R" qualifier indicates a significant variance from functional guideline acceptance criteria. Either resampling or reanalysis is necessary to determine the presence or absence of the rejected analyte. The "R" designation is also applied to yield only one complete set of data for a given sample and eliminate redundant data.
- U Nondetected Analyses were performed for the analyte, but it was not detected.

- UJ Estimated/Nondetected Analyses were performed for the analyte, but it was not detected and the sample quantitation or detection limit is an estimated quantity due to poor accuracy or precision. This qualification is also used to flag possible false negative results in the case where low bias in the analytical system is indicated by low calibration response, surrogate, or other spike recovery.
- DNR Do Not Report A more appropriate result is reported from another analysis or dilution.
- None Indicates the data was not significantly impacted by the finding, therefore qualification was not required.
- A Indicates the finding is based upon technical validation criteria.
- P Indicates the finding is related to a protocol/contractual deviation.

The hierarchy of flags is listed below:

- R > J The R flag will always take precedence over the J qualifier.
- J+ The high bias (J+) flag is applied only to detected results.
- J > J+ or J- A non-biased (J) flag will always supersede biased (J+ or J-) flags since it is not possible to assess the direction of the potential bias.
- J = J+ plus J- Adding biased (J+, J-) flags with opposite signs will result in a non-biased flag (J).
- UJ = U plus J or J- The UJ flag is used when a non-detected (U) flag is added to a biased (J-) or non-biased flag (J).

Table III lists the reason codes used. Reason codes explain why flags have been applied and identify possible limitations of data use. Reason codes are cumulative except when one of the flags is R then only the reason code associated to the R flag will be used.

Table IV presents the overall qualified results after all the flags or validation qualifiers and associated reason codes have been applied.

Once the data are reviewed and qualified according to the BRC SOP-40, QAPP, functional guidelines, and EPA Test Methods, the data set is then evaluated using PARCCS criteria. PARCCS criteria provide an evaluation of overall data usability. The following is a discussion of PARCCS criteria as related to the project DQOs.

**Precision** is a measure of the agreement or reproducibility of analytical results under a given set of conditions. It is a quantity that cannot be measured directly but is calculated from percent recovery data. Precision is expressed as the relative percent difference (RPD):

$$RPD = (D1-D2)/\{1/2(D1+D2)\} \times 100$$

where:

- D1 = reported concentration for the sample
- D2 = reported concentration for the duplicate

Precision is primarily assessed by calculating an RPD from the percent recoveries of the spiked compounds for each sample in the MS/MSD pair. In the absence of an MS/MSD pair, a laboratory duplicate or LCS/LCSD pair can be analyzed as an alternative means of assessing precision. An additional measure of sampling precision was obtained by collecting and analyzing field duplicate samples, which were compared using the RPD result as the evaluation criteria.

MS and MSD samples are field samples spiked by the laboratory with target analytes prior to preparation and analysis. These samples measure the overall efficiency of the analytical method in recovering target analytes from an environmental matrix. A LCS is similar to an MS/MSD sample in that the LCS is spiked with the same target analytes prior to preparation and analysis. However, the LCS is prepared using a controlled interference-free matrix instead of a field sample aliquot. Laboratory reagent water is used to prepare aqueous LCS. The LCS measures laboratory efficiency in recovering target analytes from either an aqueous matrix in the absence of matrix interferences.

One primary sample is analyzed and accompanied by an unspiked laboratory duplicate. The data reviewer compares the reported results of the primary analysis and the laboratory duplicate, then calculates RPDs, which are used to assess laboratory precision.

Laboratory and field sampling precision are evaluated by calculating RPDs for aqueous field sample duplicate pairs. The sampler collects two field samples at the same location and under identically controlled conditions. The laboratory then analyzes the samples under identical conditions.

An RPD outside the numerical QC limit in either MS/MSD samples or LCS/LCSD indicates imprecision. Imprecision is the variance in the consistency with which the laboratory arrives at a particular reported result. Thus, the actual analyte concentration may be higher or lower than the reported result.

Possible causes of poor precision include sample matrix interference, improper sample collection or handling, inconsistent sample preparation, and poor instrument stability. In some duplicate pairs, results maybe reported in either the primary or duplicate samples at levels below the practical quantitation limit (PQL) or non-detected. Since these values are considered to be estimates, RPD exceedances from these duplicate pairs do not suggest a significant impact on the data quality.

**Accuracy** is a measure of the agreement of an experimental determination and the true value of the parameter being measured. It is used to identify bias in a given measurement system. Recoveries outside acceptable QC limits may be caused by factors such as instrumentation, analyst error, or matrix interference. Accuracy is assessed through the analysis of MS, MSD, LCS, and LCSD. In some cases, samples from multiple SDGs were within one QC batch and therefore are associated with the same laboratory QC samples. Accuracy of inorganic analyses is determined using the percent recoveries of MS and LCS analyses.

Percent recovery (%R) is calculated using the following equation:

$$\%R = (A-B)/C \times 100$$

where:

A = measured concentration in the spiked sample

B = measured concentration of the spike compound in the unspiked sample

C = concentration of the spike

The percent recovery of each analyte spiked in MS/MSD samples and LCS/LCSD is evaluated with the acceptance criteria specified by the previously noted documents. Spike recoveries outside the acceptable QC accuracy limits provide an indication of bias, where the reported data may overestimate or underestimate the actual concentration of compounds detected or quantitation limits reported for environmental samples.

**Representativeness** is a qualitative parameter that expresses the degree to which the sample data are characteristic of a population. It is evaluated by reviewing the QC results of blanks, samples and holding times. Positive detects of compounds in the blank samples identify compounds that may have been introduced into the samples during sample collection, transport, preparation, or analysis. The QA/QC blanks collected and analyzed are method blanks, calibration blanks, EBs, and FBs.

A method blank is a laboratory grade water or solid matrix that contains the method reagents and has undergone the same preparation and analysis as the environmental samples. The method blank provides a measure of the combined contamination derived from the laboratory source water, glassware, instruments, reagents, and sample preparation steps. Method blanks are prepared for each sample of a similar matrix extracted by the same method at a similar concentration level.

Initial and continuing calibration blanks (ICB/CCBs) consist of acidified laboratory grade water, which are injected at the beginning and at a regular frequency during each 12 - hour sample analysis run. These blanks estimate residual contaminants from the previous sample or standards analysis and measure baseline shifts that commonly occur in emission and absorption spectroscopy.

Equipment blanks consist of analyte-free water poured over or through the sample collection equipment. The water is collected in a sample container for laboratory analysis. These blanks are collected after the sampling equipment is decontaminated and measure efficiency of the decontamination procedure. Equipment blanks were collected and analyzed for all target analytes.

Field blanks consist of analyte-free source water stored at the sample collection site. The water is collected from each source water used during each sampling event. Field blanks were collected and analyzed for all target analytes.

Contaminants found in both the environmental sample and the blank sample are assumed to be laboratory artifacts if both values are less than the PQL or if a sample result and blank contaminant value were greater than the PQL and less than 10 times the blank contaminant value. The blanks and associated samples were evaluated according to the NDEP *BMI Plant Sites and Common Areas Projects, Henderson, Nevada, Revised Guidance on Qualifying Data due to Blank Contamination for the BMI Complex and Common Areas*, January 5, 2012.

Holding times are evaluated to assure that the sample integrity is intact for accurate sample preparation and analysis. Holding times will be specific for each method and matrix analyzed. Holding time exceedance can cause loss of sample constituents due to biodegradation, precipitation, volatilization, and chemical degradation. In accordance with EPA guidance (USEPA 2004), sample results for analyses that were performed after the method holding time but less than two times the method holding time were qualified as estimated (J- or UJ) and sample results for analyses that were performed after two times the method holding time were qualified as rejected (R).

**Comparability** is a qualitative expression of the confidence with which one data set may be compared to another. It provides an assessment of the equivalence of the analytical results to data obtained from other analyses. It is important that data sets be comparable if they are used in conjunction with other data sets. The factors affecting comparability include the following: sample collection and handling techniques, matrix type, and analytical method. If these aspects of sampling and analysis are carried out according to standard analytical procedures, the data are considered comparable. Comparability is also dependent upon other PARCCS criteria, because only when precision, accuracy, and representativeness are known can data sets be compared with confidence.

**Completeness** is defined as the percentage of acceptable sample results compared to the total number of sample results. Completeness is evaluated to determine if an acceptable amount of usable data were obtained so that a valid scientific site assessment can be completed. Completeness equals the total

number of sample results for each fraction minus the total number of rejected sample results divided by the total number of sample results multiplied by 100. As specified in the project DQOs, the goal for completeness for target analytes in each analytical fraction is 90 percent.

Percent completeness is calculated using the following equation:

$$\%C = (T - R)/T \times 100$$

where:

%C = percent completeness

T = total number of sample results

R = total number of rejected sample results

Completeness is also determined by comparing the planned number of samples per method and matrix as specified in the QAPP, with the number determined above.

**Sensitivity** is the ability of an analytical method or instrument to discriminate between measurement responses representing different concentrations. This capability is established during the planning phase to meet the DQOs. It is important that calibration requirements, detection limits (DLs), and PQLs presented in the QAPP are achieved and that target analytes can be detected at concentrations necessary to support the DQOs. The method detection limits (MDLs) represent the minimum concentration of a substance that can be measured and reported with 99 percent confidence that the analyte concentration is greater than zero. Sample quantitation limits (SQLs) are adjusted MDL values that reflect sample specific actions, such as dilutions or varying aliquot sizes. PQLs are the lowest level at which the entire analytical system gives a recognizable signal and acceptable calibration point for the analyte. The laboratory is required to report detected analytes down to the MDL for this project. The laboratory uses a formatter that reports estimated values down to the MDL. In addition, sample results are compared to method blank and field blank results to identify potential effects of laboratory background and field procedures on sensitivity.

The following sections present a review of QC data for each analytical method.

## **2.0 METALS**

A total of 361 water samples were analyzed for metals by EPA Method 200.7. All metals data were assessed to be valid since none of the 381 total results were rejected based on holding time and QC exceedances. This section discusses the QA/QC supporting documentation as defined by the PARCCS criteria and evaluated based on the DQOs.

### **2.1 Precision and Accuracy**

#### **2.1.1 Instrument Calibration**

Initial and continuing calibration verification results provide a means of evaluating accuracy within a particular SDG. Correlation coefficient (r) and percent recovery (%R) are the two major parameters used to measure the effectiveness of instrument calibration. The correlation coefficient indicates the linearity of the calibration curve. %R is used to verify the ongoing calibration acceptability of the analytical system. The most critical of the two calibration parameters, r, has the potential to affect data accuracy across an SDG when it is outside the acceptable QC limits. %R exceedances suggest more routine instrumental anomalies, which typically impact all sample results for the affected analytes.

The correlation coefficients in the initial calibrations were within the acceptance criteria of  $\geq 0.995$ . No data were qualified due to a high continuing calibration verification %R outside the acceptance criteria of 90-110% since the associated sample results were not detected.

### **2.1.2 MS/MSD Samples**

Due to a low MSD %R outside of acceptance criteria as stated in the QAPP, the chromium result for sample M-80 (sampled on 8/6/15) was qualified as detected estimated (J-). The details regarding the qualification of results are presented in Attachment A, Section VI.

### **2.1.3 LCS/LCSD Samples**

All LCS/LCSD %Rs and RPDs met acceptance criteria as stated in the QAPP.

### **2.1.4 ICP Interference Check Sample**

All ICP interference check %Rs met acceptance criteria as stated in the QAPP.

### **2.1.5 FD Samples**

The field duplicate samples were evaluated for acceptable precision with RPDs or difference in instances the results were less than five times the reporting limit for the analytes. The chromium results were qualified as detected estimated (J) due to difference outside of acceptance criteria in field duplicate pair M-37 and DUP-6 (both sampled on 8/10/15). The details regarding the qualification of results are presented in Attachment A, Section X.

### **2.1.6 Analyte Quantitation and Target Identification**

Raw data were evaluated for the Stage 4 samples. All analyte quantitation and target identifications were acceptable.

## **2.2 Representativeness**

### **2.2.1 Sample Preservation and Holding Times**

The evaluation of holding times to verify compliance with the method was conducted. All samples met the 180-day analysis holding time criteria for metals.

### **2.2.2 Blanks**

Method blanks, ICB/CCBs, EBs, and FBs were analyzed to evaluate representativeness. The concentration for an individual target analyte in any of the types of QA/QC blanks was used for data qualification.

If contaminants were detected in a blank, corrective actions were made for the chemical analytical data during data validation. The corrective action consisted of amending the laboratory reported results based on the following criteria.

Results Below the PQL If a sample result and blank contaminant value were less than the PQL, the sample result was amended as estimated (J) at the concentration reported in the sample results.

Results Above the PQL If a sample result and blank contaminant value were greater than the PQL and less than 10 times the blank contaminant value, the sample result was qualified as detected estimated (J+) at the concentration reported in the sample results.

No Action If blank contaminant values were less than the PQL and associated sample results were greater than the PQL, or if blank contaminant values were greater than the PQL and associated sample results were greater than 10 times the blank contaminant value, the result was not amended.

#### **2.2.2.1 Method and Calibration Blanks**

No data were qualified due to the contaminants detected in the method and calibration blanks for this analysis.

#### **2.2.2.2 EBs and FBs**

No data were qualified due to the contaminant detected in two equipment blanks. No contaminants were detected in the field blanks for this analysis.

### **2.3 Comparability**

The laboratory used standard analytical methods for all of the analyses. In all cases, the SQLs attained were at or below the PQLs. Target analytes detected below the PQLs flagged (J) by the laboratory should be considered estimated. The comparability of the metals data is regarded as acceptable.

### **2.4 Completeness**

The completeness level attained for metal field samples was 100 percent. This percentage was calculated as the total number of accepted sample results divided by the total number of sample results multiplied by 100.

### **2.5 Sensitivity**

The calibration was evaluated for instrument sensitivity and was determined to be technically acceptable. All laboratory PQLs met the specified requirements described in the QAPP.

## **3.0 WET CHEMISTRY**

A total of 107 water samples were analyzed for hexavalent chromium by EPA Method 218.6; 6 water samples were analyzed for anions by EPA Method 300.0; 501 water samples were analyzed for perchlorate by EPA Method 314.0; 2 water samples were analyzed for chlorate by EPA Method 300.1B, ammonia as nitrogen by EPA Method 350.1, phenolics by EPA Method 420.1, phenols by EPA Method 420.4, nitrate/nitrite as nitrogen by Calculation Method and TIN by Calculation Method; 4 water samples were analyzed for specific conductance by Standard Method 2510, TOC by Standard Method 5310C, and TOX by EPA SW-846 Method 9020; 496 water samples were analyzed for TDS by Standard Method 2540C; and 389 water samples were analyzed for pH by Standard Method 4500 H+B. All wet chemistry data were assessed to be valid with the exception of one of the 1,531 total results which were rejected based on holding time exceedances. This section discusses the QA/QC supporting documentation as defined by the PARCCS criteria and evaluated based on the DQOs.

### **3.1 Precision and Accuracy**

#### **3.1.1 Instrument Calibration**

As previously discussed in Section 2.1.1, initial and continuing calibration results provide a means of evaluating accuracy.

Instrument calibrations were evaluated for all wet chemistry methods. The correlation coefficients in the initial calibrations were within the acceptance criteria of  $\geq 0.995$ .

The hexavalent chromium result in sample I-AD (sampled on 12/7/15) was qualified as estimated (J+) due to a high continuing calibration verification %R outside the acceptance criteria of 90-110%. The details regarding the qualification of results are presented in Attachment B, Section III.

### **3.1.2 Surrogate**

Surrogates were evaluated for chlorate analysis by EPA Method 300.1B. All surrogate %Rs met the acceptance criteria as stated in the QAPP.

### **3.1.3 MS/MSD Samples**

MS/MSD samples were evaluated for hexavalent chromium by EPA Method 218.6, anions by EPA Method 300.0, and TOX by EPA SW-846 Method 9020B. Due to low MS/MSD %Rs outside of acceptance criteria as stated in the QAPP, the chloride result in sample M-10 (sampled on 8/6/15) was qualified as detected estimated (J-). The details regarding the qualification of results are presented in Attachment B, Section VII.

### **3.1.4 DUP Samples**

DUP samples were evaluated for specific conductance by Standard Method 2510, and TDS by Standard Method 2540C. All DUP RPDs met the acceptance criteria as stated in the QAPP.

### **3.1.5 LCS Samples**

LCS samples were evaluated for all wet chemistry methods. All LCS %Rs met the acceptance criteria as stated in the QAPP.

### **3.1.6 FD Samples**

FD samples were evaluated for hexavalent chromium by EPA Method 218.6, perchlorate by EPA Method 314.0, TDS by Standard Method 2540C, and pH by Standard Method 4500 H+B. The field duplicate samples were evaluated for acceptable precision with RPDs. The field duplicate RPDs were within the acceptance criteria. The field duplicates are presented in detail in Attachment B, Section X.

### **3.1.7 Analyte Quantitation and Target Identification**

Raw data were evaluated for the Stage 4 samples. All analyte quantitation and target identifications were acceptable.

In instances where data exceeded the calibration range and was subsequently diluted, the data was qualified as not reportable by the validators in order to yield only one complete set of data for a given sample. The details regarding the qualification of results are presented in Attachment B, Section XII.

## **3.2 Representativeness**

### **3.2.1 Sample Preservation and Holding Times**

The evaluation of holding times to verify compliance with all wet chemistry methods was conducted. All water samples met the 48-hour analysis holding time criteria for nitrate as nitrogen, nitrite as nitrogen and pH, the 7-day analysis holding time criteria for TDS, and the 28-day analysis holding time criteria for



ammonia as nitrogen, chlorate, chloride, sulfate, phenolics, phenols, specific conductance, TOC, and perchlorate.

Due to a severe holding time criteria exceedance (>2X holding time criteria), the hexavalent chromium result for sample EB-4 (sampled on 8/7/15) was qualified as rejected (R). Additionally, 12 hexavalent chromium and two TOX results were qualified as detected estimated (J-) or non-detected estimated (UJ). The analysis holding time criteria is 24 hours for hexavalent chromium for an unpreserved water sample. When the water sample has been preserved to a pH of > 8, the hexavalent chromium analysis holding time is extended to 14 days. The analysis holding time criteria is 28 days for TOX when water sample is preserved to a pH of <2. The details regarding the qualification of results are presented in Attachment B, Section I.

### **3.2.2 Blanks**

As previously discussed in Section 2.2.2, method blanks, ICB/CCBs, EBs, and FBs were analyzed to evaluate representativeness.

#### **3.2.2.1 Method and Calibration Blanks**

No contaminants were detected in the method or calibration blanks for this analysis.

#### **3.2.2.2 EBs and FBs**

No data were qualified due to the contaminants detected in four equipment blanks. No contaminants were detected in the field blanks for this analysis.

### **3.3 Comparability**

The laboratory used standard analytical methods for all of the analyses. In all cases, the SQLs attained were at or below the PQLs. Target analytes detected below the PQLs flagged (J) by the laboratory should be considered estimated. The comparability of the data is regarded as acceptable.

### **3.4 Completeness**

The completeness level attained for wet chemistry field samples was 99.9 percent. This percentage was calculated as the total number of accepted sample results divided by the total number of sample results multiplied by 100.

### **3.5 Sensitivity**

The calibration was evaluated for instrument sensitivity and was determined to be technically acceptable. All laboratory PQLs met the specified requirements described in the QAPP.

## **4.0 VARIANCES IN ANALYTICAL PERFORMANCE**

The laboratory used standard analytical methods for all of the analyses throughout the project. No systematic variances in analytical performance were noted in the laboratory case narratives.

## **5.0 SUMMARY OF PARCCS CRITERIA**

The validation reports present the PARCCS results for all SDGs. Each PARCCS criterion is discussed in detail in the following sections.

## 5.1 Precision and Accuracy

Precision and accuracy were evaluated using data quality indicators such as calibration, surrogates, MS/MSD, DUP, LCS/LCSD, and field duplicates. The precision and accuracy of the data set were considered acceptable after integration of result qualification.

All calibrations were performed as required and met the acceptance criteria with the exceptions noted in Section 3.1.1. All surrogate, MS/MSD, DUP, LCS, and field duplicate percent recoveries, RPDs, and difference met acceptance criteria with the exceptions noted in Sections 2.1.2, 2.1.5, 3.1.3, and 3.1.6. All ICP interference check sample %Rs met acceptance criteria.

## 5.2 Representativeness

All samples for each method and matrix were evaluated for holding time compliance. All samples were associated with a method blank in each individual SDG. The representativeness of the project data is considered acceptable after integration of result qualification.

## 5.3 Comparability

Sampling frequency requirements were met in obtaining necessary equipment blanks, field blanks and field duplicates. The laboratory used standard analytical methods for the analyses. The analytical results were reported in correct standard units. Sample integrity criteria were met. Sample preservation and holding times were within QC criteria with the exceptions noted in Section 3.2.1. The overall comparability is considered acceptable after integration of result qualification.

## 5.4 Completeness

Of the 1,912 total analytes reported, one sample result was rejected. The completeness for the SDGs is as follows:

Parameter	Total Analytes	No. of Rejects	% Completeness
Metals	381	0	100
Wet Chemistry	1,531	1	99.9
<b>Total</b>	<b>1,912</b>	<b>1</b>	<b>99.9</b>

The completeness percentage based on rejected data met the 90 percent DQO goal.

## 5.5 Sensitivity

Sensitivity was achieved by the laboratory to support the DQOs. Calibration concentrations and PQLs met the project requirements and low level contamination in the method blanks, calibration blanks, equipment blanks, and field blanks did not affect sensitivity.

## 6.0 CONCLUSIONS AND RECOMMENDATIONS

The analytical data quality assessment for the water sample laboratory analytical results generated during the Semi-Annual Remedial Performance Sampling at the Nevada Environmental Response Trust (NERT) site in Henderson, Nevada established that the overall project requirements and completeness levels were met. The sample result that was found to be rejected (R) is unusable for all purposes. Sample results that were found to be estimated (J) are usable for limited purposes only. Based upon the Stage 2B and Stage 4 data validation all other results are considered valid and usable for all purposes.

## 7.0 REFERENCES

- NDEP 2009. Data Verification and Validation Requirements - Supplement established for the BMI Plant Sites and Common Areas Projects, Henderson, Nevada. April 13.
- NDEP 2012. Revised Guidance on Qualifying Data due to Blank Contamination for the BMI Complex and Common Areas. January 5.
- Basic Remediation Company (BRC), 2009. Standard Operating Procedures, SOP-40 Data Review/Validation. Revision 4. May.
- Revised Phase B Quality Assurance Project Plan Tronox LLC Facility, Henderson, Nevada (QAPP), Revision. May 2009.
- Region 9 Superfund Data Evaluation/Validation Guidance, R6QA/006.1, Draft. December 2001.
- USEPA 2004. Contract Laboratory Program National Functional Guidelines for Inorganic Data Review. October.
- \_\_\_\_\_.1983. EPA Methods for Chemical Analysis of Water and Wastes, EPA-600/4-79-020, Cincinnati, Ohio. March.
- \_\_\_\_\_.1996. EPA SW 846 Third Edition, Test Methods for Evaluating Solid Waste, update I, July 1992; update IIA, August 1993; update II, September 1994; update IIB, January 1995; update III, December 1996; update IV, February 2007.
- (Eaton et al., 1998) *Standard Method for the Examination of Water and Wastewater* (20th ed.). Washington, DC: American Public Health Association.

**TABLE I**

Table I. Sample Cross Reference

SDG	Client Sample ID	Laboratory Sample ID	Matrix	Sample Date	QC Type	Validation Level	Metals (200.7)	Cr (200.7)	Cr6+ (218.6)	Cl,SO <sub>4</sub> , NO <sub>3</sub> -N,NO <sub>2</sub> -N (300.0)	NO <sub>3</sub> -N, NO <sub>2</sub> -N (Calc)
440-114425-1	ART-1	440-114425-1	Water	07/06/15		Stage 4					
440-114425-1	ART-1DUP	440-114425-1DUP	Water	07/06/15	DUP	Stage 4					
440-114425-1	ART-2	440-114425-2	Water	07/06/15		Stage 4					
440-114425-1	ART-3	440-114425-3	Water	07/06/15		Stage 4					
440-114425-1	ART-4	440-114425-4	Water	07/06/15		Stage 4					
440-114425-1	ART-6	440-114425-5	Water	07/06/15		Stage 4					
440-114425-1	ART-7B	440-114425-6	Water	07/06/15		Stage 4					
440-114425-1	ART-8	440-114425-7	Water	07/06/15		Stage 4					
440-114425-1	ART-9	440-114425-8	Water	07/06/15		Stage 4					
440-114425-1	PC-99R2/R3	440-114425-9	Water	07/06/15		Stage 4					
440-114425-1	PC-115R	440-114425-10	Water	07/06/15		Stage 4					
440-114425-1	PC-116R	440-114425-11	Water	07/06/15		Stage 4					
440-114425-1	PC-116RDUP	440-114425-11DUP	Water	07/06/15	DUP	Stage 4					
440-114425-1	PC-117	440-114425-12	Water	07/06/15		Stage 4					
440-114425-1	PC-118	440-114425-13	Water	07/06/15		Stage 4					
440-114425-1	PC-119	440-114425-14	Water	07/06/15		Stage 4					
440-114425-1	PC-120	440-114425-15	Water	07/06/15		Stage 4					
440-114425-1	PC-121	440-114425-16	Water	07/06/15		Stage 4					
440-114425-1	PC-133	440-114425-17	Water	07/06/15		Stage 4					
440-114425-1	PC-150	440-114425-18	Water	07/06/15		Stage 4					
440-115183-1	M-83	440-115183-1	Water	07/13/15		Stage 2B					
440-115183-1	M-83DUP	440-115183-1DUP	Water	07/13/15	DUP	Stage 2B					
440-115183-1	PC-97	440-115183-2	Water	07/14/15		Stage 2B					
440-115183-1	PC-90	440-115183-3	Water	07/14/15		Stage 2B					
440-115183-1	PC-91	440-115183-4	Water	07/14/15		Stage 2B					
440-115183-1	PC-58	440-115183-5	Water	07/14/15		Stage 2B					
440-115183-1	PC-56	440-115183-6	Water	07/14/15		Stage 2B					
440-115183-1	PC-60	440-115183-7	Water	07/14/15		Stage 2B					
440-115183-1	PC-59	440-115183-8	Water	07/14/15		Stage 2B					
440-115183-1	PC-62	440-115183-9	Water	07/14/15		Stage 2B					
440-115249-1	M-33	440-115249-1	Water	07/14/15		Stage 2B		X			
440-115249-1	M-32	440-115249-2	Water	07/14/15		Stage 2B		X			
440-115418-1	PC-68	440-115418-1	Water	07/15/15		Stage 2B					
440-115418-1	PC-103	440-115418-2	Water	07/15/15		Stage 2B					
440-115418-1	PC-98R	440-115418-3	Water	07/15/15		Stage 2B					
440-115418-1	ARP-2A	440-115418-4	Water	07/15/15		Stage 2B					
440-115418-1	ARP-3A	440-115418-5	Water	07/15/15		Stage 2B					

Table I. Sample Cross Reference

SDG	Client Sample ID	Laboratory Sample ID	Matrix	Sample Date	QC Type	Validation Level	Metals (200.7)	Cr (200.7)	Cr6+ (218.6)	Cl,SO <sub>4</sub> , NO <sub>3</sub> -N,NO <sub>2</sub> -N (300.0)	NO <sub>3</sub> -N, NO <sub>2</sub> -N (Calc)
440-115418-1	MW-K4	440-115418-6	Water	07/15/15		Stage 2B					
440-115418-1	PC-101R	440-115418-7	Water	07/15/15		Stage 2B					
440-115418-1	ARP-4A	440-115418-8	Water	07/15/15		Stage 2B					
440-115418-1	ARP-5A	440-115418-9	Water	07/15/15		Stage 2B					
440-115418-1	ARP-5ADUP	440-115418-9DUP	Water	07/15/15	DUP	Stage 2B					
440-115418-1	ARP-6B	440-115418-10	Water	07/15/15		Stage 2B					
440-115418-1	ARP-7	440-115418-11	Water	07/15/15		Stage 2B					
440-115418-1	PC-53	440-115418-12	Water	07/15/15		Stage 2B					
440-115418-1	PC-86	440-115418-13	Water	07/15/15		Stage 2B					
440-115418-1	PC-122	440-115418-14	Water	07/15/15		Stage 2B					
440-115418-1	MW-K5	440-115418-15	Water	07/15/15		Stage 2B					
440-115418-1	MEB-1	440-115418-16	Water	07/15/15	EB	Stage 2B					
440-115483-1	ARP-1	440-115483-1	Water	07/16/15		Stage 2B					
440-115483-1	ARP-1DUP	440-115483-1DUP	Water	07/16/15	DUP	Stage 2B					
440-115483-1	PC-18	440-115483-2	Water	07/16/15		Stage 2B					
440-115483-1	PC-55	440-115483-3	Water	07/16/15		Stage 2B					
440-116828-1	ART-1	440-116828-1	Water	08/03/15		Stage 2B		X			
440-116828-1	ART-1DUP	440-116828-1DUP	Water	08/03/15	DUP	Stage 2B					
440-116828-1	ART-2	440-116828-2	Water	08/03/15		Stage 2B		X			
440-116828-1	ART-2MS	440-116828-2MS	Water	08/03/15	MS	Stage 2B		X			
440-116828-1	ART-2MSD	440-116828-2MSD	Water	08/03/15	MSD	Stage 2B		X			
440-116828-1	ART-3A	440-116828-3	Water	08/03/15		Stage 2B		X			
440-116828-1	ART-4	440-116828-4	Water	08/03/15		Stage 2B		X			
440-116828-1	ART-6	440-116828-5	Water	08/03/15		Stage 2B		X			
440-116828-1	ART-7B	440-116828-6	Water	08/03/15		Stage 2B		X			
440-116828-1	ART-8	440-116828-7	Water	08/03/15		Stage 2B		X			
440-116828-1	ART-9	440-116828-8	Water	08/03/15		Stage 2B		X			
440-116828-1	PC-99R2/R3	440-116828-9	Water	08/03/15		Stage 2B		X			
440-116828-1	PC-115R	440-116828-10	Water	08/03/15		Stage 2B		X			
440-116828-1	PC-116R	440-116828-11	Water	08/03/15		Stage 2B		X			
440-116828-1	PC-116RDUP	440-116828-11DUP	Water	08/03/15	DUP	Stage 2B					
440-116828-1	PC-117	440-116828-12	Water	08/03/15		Stage 2B		X			
440-116828-1	PC-117MS	440-116828-12MS	Water	08/03/15	MS	Stage 2B		X			
440-116828-1	PC-117MSD	440-116828-12MSD	Water	08/03/15	MSD	Stage 2B		X			
440-116828-1	PC-118	440-116828-13	Water	08/03/15		Stage 2B		X			
440-116828-1	PC-119	440-116828-14	Water	08/03/15		Stage 2B		X			
440-116828-1	PC-120	440-116828-15	Water	08/03/15		Stage 2B		X			

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440-116828-1	PC-121	440-116828-16	Water	08/03/15		Stage 2B		X			
440-116828-1	PC-133	440-116828-17	Water	08/03/15		Stage 2B		X			
440-116828-1	PC-150	440-116828-18	Water	08/03/15		Stage 2B		X			
440-116828-1	ART-7A	440-116828-19	Water	08/03/15		Stage 2B		X			
440-116832-1	I-O	440-116832-1	Water	08/03/15		Stage 4		X			
440-116832-1	I-ODUP	440-116832-1DUP	Water	08/03/15	DUP	Stage 4					
440-116832-1	I-OMS	440-116832-1MS	Water	08/03/15	MS	Stage 4		X			
440-116832-1	I-OMSD	440-116832-1MSD	Water	08/03/15	MSD	Stage 4		X			
440-116832-1	I-W	440-116832-2	Water	08/03/15		Stage 4		X			
440-116832-1	I-P	440-116832-3	Water	08/03/15		Stage 4		X			
440-116832-1	I-H	440-116832-4	Water	08/03/15		Stage 4		X			
440-116832-1	I-U	440-116832-5	Water	08/03/15		Stage 4		X			
440-116832-1	I-T	440-116832-6	Water	08/03/15		Stage 4		X			
440-116832-1	I-G	440-116832-7	Water	08/03/15		Stage 4		X			
440-116832-1	I-Q	440-116832-8	Water	08/03/15		Stage 4		X			
440-116832-1	I-F	440-116832-9	Water	08/03/15		Stage 4		X			
440-116832-1	I-X	440-116832-10	Water	08/03/15		Stage 4		X			
440-116832-1	I-N	440-116832-11	Water	08/03/15		Stage 4		X			
440-116832-1	I-NDUP	440-116832-11DUP	Water	08/03/15	DUP	Stage 4					
440-116832-1	I-NMS	440-116832-11MS	Water	08/03/15	MS	Stage 4		X			
440-116832-1	I-NMSD	440-116832-11MSD	Water	08/03/15	MSD	Stage 4		X			
440-116832-1	I-E	440-116832-12	Water	08/03/15		Stage 4		X			
440-116832-1	I-M	440-116832-13	Water	08/03/15		Stage 4		X			
440-116832-1	I-D	440-116832-14	Water	08/03/15		Stage 4		X			
440-116832-1	I-C	440-116832-15	Water	08/03/15		Stage 4		X			
440-116832-1	I-S	440-116832-16	Water	08/03/15		Stage 4		X			
440-116832-1	I-L	440-116832-17	Water	08/03/15		Stage 4		X			
440-116832-1	I-Y	440-116832-18	Water	08/03/15		Stage 4		X			
440-116832-1	I-R	440-116832-19	Water	08/03/15		Stage 4		X			
440-116832-1	I-B	440-116832-20	Water	08/03/15		Stage 4		X			
440-116832-1	I-AB	440-116832-21	Water	08/03/15		Stage 4		X			
440-116832-1	I-AA	440-116832-22	Water	08/03/15		Stage 4		X			
440-116832-1	I-AR	440-116832-23	Water	08/03/15		Stage 4		X			
440-117105-1	EB-1	440-117105-1	Water	08/04/15	EB	Stage 4		X	X		
440-117105-1	EB-1DUP	440-117105-1DUP	Water	08/04/15	DUP	Stage 4					
440-117105-1	EB-1MS	440-117105-1MS	Water	08/04/15	MS	Stage 4		X	X		
440-117105-1	EB-1MSD	440-117105-1MSD	Water	08/04/15	MSD	Stage 4		X	X		

Table I. Sample Cross Reference

SDG	Client Sample ID	Laboratory Sample ID	Matrix	Sample Date	QC Type	Validation Level	Metals (200.7)	Cr (200.7)	Cr6+ (218.6)	Cl,SO <sub>4</sub> , NO <sub>3</sub> -N,NO <sub>2</sub> -N (300.0)	NO <sub>3</sub> -N, NO <sub>2</sub> -N (Calc)
440-117105-1	PC-71	440-117105-2	Water	08/04/15		Stage 4		X			
440-117105-1	PC-72	440-117105-3	Water	08/04/15		Stage 4		X			
440-117105-1	FB-1	440-117105-4	Water	08/04/15	FB	Stage 4		X	X		
440-117105-1	PC-73	440-117105-5	Water	08/04/15		Stage 4		X			
440-117105-1	PC-37	440-117105-6	Water	08/04/15		Stage 4		X			
440-117105-1	M-23	440-117105-7	Water	08/04/15		Stage 4		X			
440-117106-1	PC-123	440-117106-1	Water	08/04/15		Stage 2B		X			
440-117106-1	PC-129	440-117106-2	Water	08/04/15	FD1	Stage 2B		X			
440-117106-1	PC-130	440-117106-3	Water	08/04/15		Stage 2B		X			
440-117106-1	PC-131	440-117106-4	Water	08/04/15		Stage 2B		X			
440-117106-1	PC-131DUP	440-117106-4DUP	Water	08/04/15	DUP	Stage 2B					
440-117106-1	PC-132	440-117106-5	Water	08/04/15		Stage 2B		X			
440-117106-1	PC-124	440-117106-6	Water	08/04/15		Stage 2B		X			
440-117106-1	PC-124MS	440-117106-6MS	Water	08/04/15	MS	Stage 2B		X			
440-117106-1	PC-124MSD	440-117106-6MSD	Water	08/04/15	MSD	Stage 2B		X			
440-117106-1	PC-125	440-117106-7	Water	08/04/15		Stage 2B		X			
440-117106-1	PC-126	440-117106-8	Water	08/04/15		Stage 2B		X			
440-117106-1	PC-127	440-117106-9	Water	08/04/15		Stage 2B		X			
440-117106-1	PC-54	440-117106-10	Water	08/04/15		Stage 2B		X			
440-117106-1	M-48	440-117106-11	Water	08/04/15		Stage 2B		X			
440-117106-1	DUP-1	440-117106-12	Water	08/04/15	FD1	Stage 2B		X			
440-117270-1	EB2	440-117270-1	Water	08/05/15	EB	Stage 2B		X	X		
440-117270-1	EB2DUP	440-117270-1DUP	Water	08/05/15	DUP	Stage 2B					
440-117270-1	M-71	440-117270-2	Water	08/05/15		Stage 2B		X			
440-117270-1	M-71MS	440-117270-2MS	Water	08/05/15	MS	Stage 2B		X			
440-117270-1	M-71MSD	440-117270-2MSD	Water	08/05/15	MSD	Stage 2B		X			
440-117270-1	M-72	440-117270-3	Water	08/05/15		Stage 2B		X			
440-117270-1	M-22A	440-117270-4	Water	08/05/15		Stage 2B		X			
440-117274-1	M-64	440-117274-1	Water	08/05/15		Stage 2B		X			
440-117274-1	M-65	440-117274-2	Water	08/05/15		Stage 2B		X			
440-117274-1	M-65MS	440-117274-2MS	Water	08/05/15	MS	Stage 2B		X			
440-117274-1	M-65MSD	440-117274-2MSD	Water	08/05/15	MSD	Stage 2B		X			
440-117274-1	M-66	440-117274-3	Water	08/05/15		Stage 2B		X			
440-117274-1	M-79	440-117274-4	Water	08/05/15		Stage 2B		X			
440-117274-1	M-69	440-117274-5	Water	08/05/15		Stage 2B		X			
440-117274-1	M-135	440-117274-6	Water	08/05/15		Stage 2B		X			
440-117274-1	M-131	440-117274-7	Water	08/05/15		Stage 2B		X			



Table I. Sample Cross Reference

SDG	Client Sample ID	Laboratory Sample ID	Matrix	Sample Date	QC Type	Validation Level	Metals (200.7)	Cr (200.7)	Cr6+ (218.6)	Cl,SO <sub>4</sub> , NO <sub>3</sub> -N,NO <sub>2</sub> -N (300.0)	NO <sub>3</sub> -N, NO <sub>2</sub> -N (Calc)
440-117274-1	M-131DUP	440-117274-7DUP	Water	08/05/15	DUP	Stage 2B					
440-117274-1	M-57A	440-117274-8	Water	08/05/15		Stage 2B		X			
440-117274-1	M-14A	440-117274-9	Water	08/05/15		Stage 2B		X			
440-117274-1	M-25	440-117274-10	Water	08/05/15		Stage 2B		X			
440-117274-1	M-70	440-117274-11	Water	08/05/15		Stage 2B		X			
440-117286-1	M-5A	440-117286-1	Water	08/05/15		Stage 2B	X			X	
440-117286-1	M-7B	440-117286-2	Water	08/05/15		Stage 2B	X			X	
440-117286-2	M-5A	440-117286-1	Water	08/05/15		Stage 2B					
440-117286-2	M-5AMS	440-117286-1MS	Water	08/05/15	MS	Stage 2B					
440-117286-2	M-5AMSD	440-117286-1MSD	Water	08/05/15	MSD	Stage 2B					
440-117286-2	M-7B	440-117286-2	Water	08/05/15		Stage 2B					
440-117351-1	DUP-5	440-117351-1	Water	08/06/15	FD2	Stage 2B		X	X		
440-117351-1	M-38	440-117351-2	Water	08/06/15	FD2	Stage 2B		X	X		
440-117353-1	M-10	440-117353-1	Water	08/06/15		Stage 4	X		X	X	X
440-117353-1	M-10MS	440-117353-1MS	Water	08/06/15	MS	Stage 4	X		X	X	
440-117353-1	M-10MSD	440-117353-1MSD	Water	08/06/15	MSD	Stage 4	X		X	X	
440-117359-1	M-52	440-117359-1	Water	08/06/15		Stage 2B		X			
440-117359-1	M-19	440-117359-2	Water	08/06/15		Stage 2B		X			
440-117359-1	M-68	440-117359-3	Water	08/06/15		Stage 2B		X			
440-117359-1	M-68MS	440-117359-3MS	Water	08/06/15	MS	Stage 2B		X			
440-117359-1	M-68MSD	440-117359-3MSD	Water	08/06/15	MSD	Stage 2B		X			
440-117359-1	M-67	440-117359-4	Water	08/06/15		Stage 2B		X			
440-117359-1	M-74	440-117359-5	Water	08/06/15		Stage 2B		X			
440-117359-1	M-73	440-117359-6	Water	08/06/15		Stage 2B		X			
440-117359-1	M-73DUP	440-117359-6DUP	Water	08/06/15	DUP	Stage 2B					
440-117359-1	M-81A	440-117359-7	Water	08/06/15		Stage 2B		X			
440-117359-1	M-83	440-117359-8	Water	08/06/15		Stage 2B		X			
440-117359-1	M-11	440-117359-9	Water	08/06/15		Stage 2B		X	X		
440-117359-1	EB-3	440-117359-10	Water	08/06/15	EB	Stage 2B		X	X		
440-117359-1	M-80	440-117359-11	Water	08/06/15		Stage 2B		X	X		
440-117359-1	M-80MS	440-117359-11MS	Water	08/06/15	MS	Stage 2B		X			
440-117359-1	M-80MSD	440-117359-11MSD	Water	08/06/15	MSD	Stage 2B		X			
440-117359-1	M-12A	440-117359-12	Water	08/06/15		Stage 2B		X	X		
440-117491-1	I-AD	440-117491-1	Water	08/07/15		Stage 2B		X			
440-117491-1	I-ADDUP	440-117491-1DUP	Water	08/07/15	DUP	Stage 2B					
440-117491-1	I-K	440-117491-2	Water	08/07/15		Stage 2B		X			
440-117491-1	I-J	440-117491-3	Water	08/07/15		Stage 2B		X			

Table I. Sample Cross Reference

SDG	Client Sample ID	Laboratory Sample ID	Matrix	Sample Date	QC Type	Validation Level	Metals (200.7)	Cr (200.7)	Cr6+ (218.6)	Cl,SO <sub>4</sub> , NO <sub>3</sub> -N,NO <sub>2</sub> -N (300.0)	NO <sub>3</sub> -N, NO <sub>2</sub> -N (Calc)
440-117491-1	I-Z	440-117491-4	Water	08/07/15		Stage 2B		X			
440-117491-1	I-I	440-117491-5	Water	08/07/15		Stage 2B		X			
440-117491-1	I-V	440-117491-6	Water	08/07/15		Stage 2B		X			
440-117491-1	M-35	440-117491-7	Water	08/07/15		Stage 2B		X			
440-117491-1	M-31A	440-117491-8	Water	08/07/15	FD3	Stage 2B		X			
440-117491-1	M-32	440-117491-9	Water	08/07/15		Stage 2B		X			
440-117491-1	DUP-3	440-117491-10	Water	08/07/15	FD3	Stage 2B		X			
440-117491-1	DUP-3MS	440-117491-10MS	Water	08/07/15	MS	Stage 2B		X			
440-117491-1	DUP-3MSD	440-117491-10MSD	Water	08/07/15	MSD	Stage 2B		X			
440-117491-1	EB-4	440-117491-11	Water	08/07/15	EB	Stage 2B		X	X		
440-117491-1	EB-4DUP	440-117491-11	Water	08/07/15	DUP	Stage 2B					
440-117519-1	H-28A	440-117519-1	Water	08/07/15		Stage 2B	X			X	
440-117588-1	PC-128	440-117588-1	Water	08/10/15		Stage 2B		X			
440-117588-1	PC-128DUP	440-117588-1DUP	Water	08/10/15	DUP	Stage 2B					
440-117588-1	PC-128MS	440-117588-1MS	Water	08/10/15	MS	Stage 2B		X			
440-117588-1	PC-128MSD	440-117588-1MSD	Water	08/10/15	MSD	Stage 2B		X			
440-117588-1	PC-148	440-117588-2	Water	08/10/15		Stage 2B		X			
440-117588-1	PC-149	440-117588-3	Water	08/10/15		Stage 2B		X			
440-117588-1	PC-135A	440-117588-4	Water	08/10/15		Stage 2B		X			
440-117588-1	PC-144	440-117588-5	Water	08/10/15		Stage 2B		X			
440-117588-1	EB-5	440-117588-6	Water	08/10/15	EB	Stage 2B		X	X		
440-117588-1	PC-136	440-117588-7	Water	08/10/15		Stage 2B		X			
440-117588-1	M-44	440-117588-8	Water	08/10/15	FD4	Stage 2B		X	X		
440-117588-1	M-95	440-117588-9	Water	08/10/15		Stage 2B		X	X		
440-117588-1	M-37	440-117588-10	Water	08/10/15	FD5	Stage 2B		X	X		
440-117588-1	DUP-2	440-117588-11	Water	08/10/15	FD4	Stage 2B		X	X		
440-117588-1	DUP-2MS	440-117588-11MS	Water	08/10/15	MS	Stage 2B		X			
440-117588-1	DUP-2MSD	440-117588-11MSD	Water	08/10/15	MSD	Stage 2B		X			
440-117588-1	DUP-6	440-117588-12	Water	08/10/15	FD5	Stage 2B		X	X		
440-117588-1	DUP-6DUP	440-117588-12DUP	Water	08/10/15	DUP	Stage 2B					
440-117588-1	DUP-6MS	440-117588-12MS	Water	08/10/15	MS	Stage 2B			X		
440-117588-1	DUP-6MSD	440-117588-12MSD	Water	08/10/15	MSD	Stage 2B			X		
440-117602-1	M-6A	440-117602-1	Water	08/10/15		Stage 2B	X			X	
440-117602-1	M-6ADUP	440-117602-1DUP	Water	08/10/15	DUP	Stage 2B					
440-117759-1	PC-97	440-117759-1	Water	08/11/15		Stage 2B		X			
440-117759-1	PC-97MS	440-117759-1MS	Water	08/11/15	MS	Stage 2B		X			
440-117759-1	PC-97MSD	440-117759-1MSD	Water	08/11/15	MSD	Stage 2B		X			

Table I. Sample Cross Reference

SDG	Client Sample ID	Laboratory Sample ID	Matrix	Sample Date	QC Type	Validation Level	Metals (200.7)	Cr (200.7)	Cr6+ (218.6)	ClSO <sub>4</sub> , NO <sub>3</sub> -N, NO <sub>2</sub> -N (300.0)	NO <sub>3</sub> -N, NO <sub>2</sub> -N (Calc)
440-117759-1	PC-90	440-117759-2	Water	08/11/15		Stage 2B		X			
440-117759-1	PC-91	440-117759-3	Water	08/11/15		Stage 2B		X			
440-117759-1	PC-94	440-117759-4	Water	08/11/15		Stage 2B		X			
440-117759-1	PC-58	440-117759-5	Water	08/11/15		Stage 2B		X			
440-117759-1	PC-56	440-117759-6	Water	08/11/15		Stage 2B		X			
440-117759-1	PC-56DUP	440-117759-6DUP	Water	08/11/15	DUP	Stage 2B					
440-117759-1	PC-60	440-117759-7	Water	08/11/15		Stage 2B		X			
440-117759-1	PC-59	440-117759-8	Water	08/11/15		Stage 2B		X			
440-117759-1	PC-62	440-117759-9	Water	08/11/15		Stage 2B		X			
440-117759-1	PC-68	440-117759-10	Water	08/11/15		Stage 2B		X			
440-117759-1	PC-86	440-117759-11	Water	08/11/15		Stage 2B		X			
440-117759-1	PC-86MS	440-117759-11MS	Water	08/11/15	MS	Stage 2B		X			
440-117759-1	PC-86MSD	440-117759-11MSD	Water	08/11/15	MSD	Stage 2B		X			
440-117940-1	PC-18	440-117940-1	Water	08/12/15	FD6	Stage 2B		X			
440-117940-1	PC-18MS	440-117940-1MS	Water	08/12/15	MS	Stage 2B		X			
440-117940-1	PC-18MSD	440-117940-1MSD	Water	08/12/15	MSD	Stage 2B		X			
440-117940-1	ARP-1	440-117940-2	Water	08/12/15		Stage 2B		X			
440-117940-1	PC-122	440-117940-3	Water	08/12/15		Stage 2B		X			
440-117940-1	PC-53	440-117940-4	Water	08/12/15		Stage 2B		X			
440-117940-1	MW-K5	440-117940-5	Water	08/12/15		Stage 2B		X			
440-117940-1	ARP-7	440-117940-6	Water	08/12/15		Stage 2B		X			
440-117940-1	ARP-6B	440-117940-7	Water	08/12/15		Stage 2B		X			
440-117940-1	ARP-6BDUP	440-117940-7DUP	Water	08/12/15	DUP	Stage 2B					
440-117940-1	ARP-5A	440-117940-8	Water	08/12/15		Stage 2B		X			
440-117940-1	ARP-4A	440-117940-9	Water	08/12/15		Stage 2B		X			
440-117940-1	PC-101R	440-117940-10	Water	08/12/15		Stage 2B		X			
440-117940-1	MW-K4	440-117940-11	Water	08/12/15		Stage 2B		X			
440-117940-1	MW-K4MS	440-117940-11MS	Water	08/12/15	MS	Stage 2B		X			
440-117940-1	MW-K4MSD	440-117940-11MSD	Water	08/12/15	MSD	Stage 2B		X			
440-117940-1	ARP-3A	440-117940-12	Water	08/12/15		Stage 2B		X			
440-117940-1	MEB-1	440-117940-13	Water	08/12/15	EB	Stage 2B					
440-117940-1	ARP-2A	440-117940-14	Water	08/12/15		Stage 2B		X			
440-117940-1	PC-103	440-117940-15	Water	08/12/15		Stage 2B		X			
440-117940-1	DUP 4	440-117940-16	Water	08/12/15	FD6	Stage 2B		X			
440-118033-1	PC-55	440-118033-1	Water	08/13/15		Stage 2B		X			
440-118033-1	PC-98R	440-118033-2	Water	08/13/15		Stage 2B		X			
440-120251-1	ART-1	440-120251-1	Water	09/08/15		Stage 2B					

Table I. Sample Cross Reference

SDG	Client Sample ID	Laboratory Sample ID	Matrix	Sample Date	QC Type	Validation Level	Metals (200.7)	Cr (200.7)	Cr6+ (218.6)	Cl,SO <sub>4</sub> , NO <sub>3</sub> -N,NO <sub>2</sub> -N (300.0)	NO <sub>3</sub> -N, NO <sub>2</sub> -N (Calc)
440-120251-1	ART-1DUP	440-120251-1DUP	Water	09/08/15	DUP	Stage 2B					
440-120251-1	ART-2	440-120251-2	Water	09/08/15		Stage 2B					
440-120251-1	ART-3	440-120251-3	Water	09/08/15		Stage 2B					
440-120251-1	ART-4	440-120251-4	Water	09/08/15		Stage 2B					
440-120251-1	ART-6	440-120251-5	Water	09/08/15		Stage 2B					
440-120251-1	ART-7B	440-120251-6	Water	09/08/15		Stage 2B					
440-120251-1	ART-8	440-120251-7	Water	09/08/15		Stage 2B					
440-120251-1	ART-9	440-120251-8	Water	09/08/15		Stage 2B					
440-120251-1	PC-99R2/R3	440-120251-9	Water	09/08/15		Stage 2B					
440-120251-1	PC-115R	440-120251-10	Water	09/08/15		Stage 2B					
440-120251-1	PC-116R	440-120251-11	Water	09/08/15		Stage 2B					
440-120251-1	PC-116RDUP	440-120251-11DUP	Water	09/08/15	DUP	Stage 2B					
440-120251-1	PC-117	440-120251-12	Water	09/08/15		Stage 2B					
440-120251-1	PC-118	440-120251-13	Water	09/08/15		Stage 2B					
440-120251-1	PC-119	440-120251-14	Water	09/08/15		Stage 2B					
440-120251-1	PC-120	440-120251-15	Water	09/08/15		Stage 2B					
440-120251-1	PC-121	440-120251-16	Water	09/08/15		Stage 2B					
440-120251-1	PC-133	440-120251-17	Water	09/08/15		Stage 2B					
440-120251-1	PC-150	440-120251-18	Water	09/08/15		Stage 2B					
440-121299-1	PC-97	440-121299-1	Water	09/15/15		Stage 2B					
440-121299-1	PC-97DUP	440-121299-1DUP	Water	09/15/15	DUP	Stage 2B					
440-121299-1	PC-90	440-121299-2	Water	09/15/15		Stage 2B					
440-121299-1	PC-91	440-121299-3	Water	09/15/15		Stage 2B					
440-121299-1	PC-58	440-121299-4	Water	09/15/15		Stage 2B					
440-121299-1	PC-56	440-121299-5	Water	09/15/15		Stage 2B					
440-121299-1	PC-60	440-121299-6	Water	09/15/15		Stage 2B					
440-121299-1	PC-59	440-121299-7	Water	09/15/15		Stage 2B					
440-121299-1	PC-62	440-121299-8	Water	09/15/15		Stage 2B					
440-121299-1	PC-68	440-121299-9	Water	09/15/15		Stage 2B					
440-121299-1	PC-86	440-121299-10	Water	09/15/15		Stage 2B					
440-121445-1	M-83	440-121445-1	Water	09/16/15		Stage 2B					
440-121445-1	M-83DUP	440-121445-1DUP	Water	09/16/15	DUP	Stage 2B					
440-121445-1	PC-18	440-121445-2	Water	09/16/15		Stage 2B					
440-121445-1	ARP-1	440-121445-3	Water	09/16/15		Stage 2B					
440-121445-1	PC-122	440-121445-4	Water	09/16/15		Stage 2B					
440-121445-1	PC-53	440-121445-5	Water	09/16/15		Stage 2B					
440-121445-1	MW-K5	440-121445-6	Water	09/16/15		Stage 2B					

Table I. Sample Cross Reference

SDG	Client Sample ID	Laboratory Sample ID	Matrix	Sample Date	QC Type	Validation Level	Metals (200.7)	Cr (200.7)	Cr6+ (218.6)	Cl,SO <sub>4</sub> , NO <sub>3</sub> -N,NO <sub>2</sub> -N (300.0)	NO <sub>3</sub> -N, NO <sub>2</sub> -N (Calc)
440-121445-1	ARP-7	440-121445-7	Water	09/16/15		Stage 2B					
440-121445-1	ARP-6B	440-121445-8	Water	09/16/15		Stage 2B					
440-121445-1	ARP-5A	440-121445-9	Water	09/16/15		Stage 2B					
440-121445-1	ARP-4A	440-121445-10	Water	09/16/15		Stage 2B					
440-121454-1	PC-55	440-121454-1	Water	09/17/15		Stage 2B					
440-121454-1	PC-55DUP	440-121454-1DUP	Water	09/17/15	DUP	Stage 2B					
440-121454-1	PC-103	440-121454-2	Water	09/17/15		Stage 2B					
440-121454-1	PC-98R	440-121454-3	Water	09/17/15		Stage 2B					
440-121454-1	ARP-2A	440-121454-4	Water	09/17/15		Stage 2B					
440-121454-1	ARP-3A	440-121454-5	Water	09/17/15		Stage 2B					
440-121454-1	MEB-1	440-121454-6	Water	09/17/15	EB	Stage 2B					
440-121454-1	MW-K4	440-121454-7	Water	09/17/15		Stage 2B					
440-121454-1	PC-101R	440-121454-8	Water	09/17/15		Stage 2B					
440-123412-1	PC-99R2/R3	440-123412-1	Water	10/05/15		Stage 2B					
440-123412-1	PC-115R	440-123412-2	Water	10/05/15		Stage 2B					
440-123412-1	PC-115RDUP	440-123412-2DUP	Water	10/05/15	DUP	Stage 2B					
440-123412-1	PC-116R	440-123412-3	Water	10/05/15		Stage 2B					
440-123412-1	PC-117	440-123412-4	Water	10/05/15		Stage 2B					
440-123412-1	PC-118	440-123412-5	Water	10/05/15		Stage 2B					
440-123412-1	PC-119	440-123412-6	Water	10/05/15		Stage 2B					
440-123412-1	PC-120	440-123412-7	Water	10/05/15		Stage 2B					
440-123412-1	PC-121	440-123412-8	Water	10/05/15		Stage 2B					
440-123412-1	PC-133	440-123412-9	Water	10/05/15		Stage 2B					
440-123760-1	ART-1	440-123760-1	Water	10/06/15		Stage 2B					
440-123760-1	ART-1DUP	440-123760-1DUP	Water	10/06/15	DUP	Stage 2B					
440-123760-1	ART-2	440-123760-2	Water	10/06/15		Stage 2B					
440-123760-1	ART-3	440-123760-3	Water	10/06/15		Stage 2B					
440-123760-1	ART-4	440-123760-4	Water	10/06/15		Stage 2B					
440-123760-1	ART-6	440-123760-5	Water	10/06/15		Stage 2B					
440-123760-1	ART-7	440-123760-6	Water	10/06/15		Stage 2B					
440-123760-1	ART-8	440-123760-7	Water	10/06/15		Stage 2B					
440-123760-1	ART-9	440-123760-8	Water	10/06/15		Stage 2B					
440-123760-1	PC-150	440-123760-9	Water	10/06/15		Stage 2B					
440-124556-1	PC-55	440-124556-1	Water	10/15/15		Stage 2B					
440-124556-1	PC-103	440-124556-2	Water	10/15/15		Stage 2B					
440-124556-1	PC-98R	440-124556-3	Water	10/15/15		Stage 2B					
440-124580-1	M-83	440-124580-1	Water	10/13/15		Stage 2B					

Table I. Sample Cross Reference

SDG	Client Sample ID	Laboratory Sample ID	Matrix	Sample Date	QC Type	Validation Level	Metals (200.7)	Cr (200.7)	Cr6+ (218.6)	Cl,SO <sub>4</sub> , NO <sub>3</sub> -N,NO <sub>2</sub> -N (300.0)	NO <sub>3</sub> -N, NO <sub>2</sub> -N (Calc)
440-124580-1	PC-97	440-124580-2	Water	10/13/15		Stage 2B					
440-124580-1	PC-90	440-124580-3	Water	10/13/15		Stage 2B					
440-124580-1	PC-91	440-124580-4	Water	10/13/15		Stage 2B					
440-124580-1	PC-58	440-124580-5	Water	10/13/15		Stage 2B					
440-124580-1	PC-56	440-124580-6	Water	10/13/15		Stage 2B					
440-124580-1	PC-60	440-124580-7	Water	10/13/15		Stage 2B					
440-124580-1	PC-59	440-124580-8	Water	10/13/15		Stage 2B					
440-124580-1	PC-62	440-124580-9	Water	10/13/15		Stage 2B					
440-124580-1	PC-68	440-124580-10	Water	10/13/15		Stage 2B					
440-124580-1	PC-86	440-124580-11	Water	10/13/15		Stage 2B					
440-124580-1	ARP-1	440-124580-12	Water	10/13/15		Stage 2B					
440-124580-1	PC-18	440-124580-13	Water	10/14/15		Stage 2B					
440-124580-1	PC-122	440-124580-14	Water	10/14/15		Stage 2B					
440-124580-1	PC-122DUP	440-124580-14DUP	Water	10/14/15	DUP	Stage 2B					
440-124580-1	PC-53	440-124580-15	Water	10/14/15		Stage 2B					
440-124580-1	MW-K5	440-124580-16	Water	10/14/15		Stage 2B					
440-124580-1	MEB-1	440-124580-17	Water	10/14/15	EB	Stage 2B					
440-124580-1	ARP-7	440-124580-18	Water	10/14/15		Stage 2B					
440-124580-1	ARP-6B	440-124580-19	Water	10/14/15		Stage 2B					
440-124580-1	ARP-5A	440-124580-20	Water	10/14/15		Stage 2B					
440-124580-1	ARP-4A	440-124580-21	Water	10/14/15		Stage 2B					
440-124580-1	PC-101R	440-124580-22	Water	10/14/15		Stage 2B					
440-124580-1	MW-K4	440-124580-23	Water	10/14/15		Stage 2B					
440-124580-1	ARP-3A	440-124580-24	Water	10/14/15		Stage 2B					
440-124580-1	ARP-2A	440-124580-25	Water	10/14/15		Stage 2B					
440-124580-1	ARP-2ADUP	440-124580-25DUP	Water	10/14/15	DUP	Stage 2B					
440-126184-1	ART-2	440-126184-1	Water	11/02/15		Stage 2B		X			
440-126184-1	ART-2DUP	440-126184-1DUP	Water	11/02/15	DUP	Stage 2B					
440-126184-1	ART-3	440-126184-2	Water	11/02/15		Stage 2B		X			
440-126184-1	ART-4	440-126184-3	Water	11/02/15		Stage 2B		X			
440-126184-1	ART-6	440-126184-4	Water	11/02/15		Stage 2B		X			
440-126184-1	ART-7B	440-126184-5	Water	11/02/15		Stage 2B		X			
440-126184-1	ART-8	440-126184-6	Water	11/02/15		Stage 2B		X			
440-126184-1	ART-9	440-126184-7	Water	11/02/15		Stage 2B		X			
440-126184-1	PC-99R2/R3	440-126184-8	Water	11/02/15		Stage 2B		X			
440-126184-1	PC-115R	440-126184-9	Water	11/02/15		Stage 2B		X			
440-126184-1	PC-116R	440-126184-10	Water	11/02/15		Stage 2B		X			

Table I. Sample Cross Reference

SDG	Client Sample ID	Laboratory Sample ID	Matrix	Sample Date	QC Type	Validation Level	Metals (200.7)	Cr (200.7)	Cr6+ (218.6)	Cl,SO <sub>4</sub> , NO <sub>3</sub> -N,NO <sub>2</sub> -N (300.0)	NO <sub>3</sub> -N, NO <sub>2</sub> -N (Calc)
440-126184-1	PC-116RMS	440-126184-10MS	Water	11/02/15	MS	Stage 2B		X			
440-126184-1	PC-116RMSD	440-126184-10MSD	Water	11/02/15	MSD	Stage 2B		X			
440-126184-1	PC-117	440-126184-11	Water	11/02/15		Stage 2B		X			
440-126184-1	PC-117DUP	440-126184-11DUP	Water	11/02/15	DUP	Stage 2B					
440-126184-1	PC-118	440-126184-12	Water	11/02/15		Stage 2B		X			
440-126184-1	PC-119	440-126184-13	Water	11/02/15		Stage 2B		X			
440-126184-1	PC-120	440-126184-14	Water	11/02/15		Stage 2B		X			
440-126184-1	PC-121	440-126184-15	Water	11/02/15		Stage 2B		X			
440-126184-1	PC-133	440-126184-16	Water	11/02/15		Stage 2B		X			
440-126184-1	PC-150	440-126184-17	Water	11/02/15		Stage 2B		X			
440-126191-1	I-O	440-126191-1	Water	11/02/15		Stage 2B		X			
440-126191-1	I-P	440-126191-2	Water	11/02/15		Stage 2B		X			
440-126191-1	I-H	440-126191-3	Water	11/02/15		Stage 2B		X			
440-126191-1	I-U	440-126191-4	Water	11/02/15		Stage 2B		X			
440-126191-1	I-UDUP	440-126191-4DUP	Water	11/02/15	DUP	Stage 2B					
440-126191-1	I-G	440-126191-5	Water	11/02/15		Stage 2B		X			
440-126191-1	I-F	440-126191-6	Water	11/02/15		Stage 2B		X			
440-126191-1	I-N	440-126191-7	Water	11/02/15		Stage 2B		X			
440-126191-1	I-E	440-126191-8	Water	11/02/15		Stage 2B		X			
440-126191-1	I-M	440-126191-9	Water	11/02/15		Stage 2B		X			
440-126191-1	I-D	440-126191-10	Water	11/02/15		Stage 2B		X			
440-126191-1	I-DMS	440-126191-10MS	Water	11/02/15	MS	Stage 2B		X			
440-126191-1	I-DMSD	440-126191-10MSD	Water	11/02/15	MSD	Stage 2B		X			
440-126191-1	I-S	440-126191-11	Water	11/02/15		Stage 2B		X			
440-126191-1	I-L	440-126191-12	Water	11/02/15		Stage 2B		X			
440-126191-1	I-Y	440-126191-13	Water	11/02/15		Stage 2B		X			
440-126191-1	I-R	440-126191-14	Water	11/02/15		Stage 2B		X			
440-126191-1	I-RDUP	440-126191-14DUP	Water	11/02/15	DUP	Stage 2B					
440-126191-1	I-B	440-126191-15	Water	11/02/15		Stage 2B		X			
440-126191-1	I-AB	440-126191-16	Water	11/02/15		Stage 2B		X			
440-126191-1	I-AA	440-126191-17	Water	11/03/15		Stage 2B		X			
440-126312-1	PC-123	440-126312-1	Water	11/03/15		Stage 2B		X			
440-126312-1	PC-128	440-126312-2	Water	11/03/15		Stage 2B		X			
440-126312-1	PC-129	440-126312-3	Water	11/03/15		Stage 2B		X			
440-126312-1	PC-130	440-126312-4	Water	11/03/15		Stage 2B		X			
440-126312-1	PC-131	440-126312-5	Water	11/03/15		Stage 2B		X			
440-126312-1	PC-125	440-126312-6	Water	11/03/15		Stage 2B		X			

Table I. Sample Cross Reference

SDG	Client Sample ID	Laboratory Sample ID	Matrix	Sample Date	QC Type	Validation Level	Metals (200.7)	Cr (200.7)	Cr6+ (218.6)	Cl,SO <sub>4</sub> , NO <sub>3</sub> -N,NO <sub>2</sub> -N (300.0)	NO <sub>3</sub> -N, NO <sub>2</sub> -N (Calc)
440-126312-1	PC-126	440-126312-7	Water	11/03/15		Stage 2B		X			
440-126312-1	PC-126DUP	440-126312-7DUP	Water	11/03/15	DUP	Stage 2B					
440-126312-1	PC-127	440-126312-8	Water	11/03/15		Stage 2B		X			
440-126312-1	PC-127MS	440-126312-8MS	Water	11/03/15	MS	Stage 2B		X			
440-126312-1	PC-127MSD	440-126312-8MSD	Water	11/03/15	MSD	Stage 2B		X			
440-126312-1	PC-132	440-126312-9	Water	11/03/15		Stage 2B		X			
440-126312-1	PC-54	440-126312-10	Water	11/03/15		Stage 2B		X			
440-126312-1	M-48A	440-126312-11	Water	11/03/15		Stage 2B		X			
440-126312-1	EB-1	440-126312-12	Water	11/03/15	EB	Stage 2B		X	X		
440-126312-1	EB-1MS	440-126312-12MS	Water	11/03/15	MS	Stage 2B			X		
440-126312-1	EB-1MSD	440-126312-12MSD	Water	11/03/15	MSD	Stage 2B			X		
440-126312-1	PC-71	440-126312-13	Water	11/03/15		Stage 2B		X			
440-126312-1	PC-72	440-126312-14	Water	11/03/15		Stage 2B		X			
440-126312-1	PC-73	440-126312-15	Water	11/03/15		Stage 2B		X			
440-126312-1	PC-37	440-126312-16	Water	11/03/15		Stage 2B		X			
440-126312-1	M-95	440-126312-17	Water	11/03/15	FD7	Stage 2B		X	X		
440-126312-1	M-95DUP	440-126312-17DUP	Water	11/03/15	DUP	Stage 2B					
440-126312-1	M-44	440-126312-18	Water	11/03/15		Stage 2B		X	X		
440-126312-1	M-44MS	440-126312-18MS	Water	11/03/15	MS	Stage 2B		X			
440-126312-1	M-44MSD	440-126312-18MSD	Water	11/03/15	MSD	Stage 2B		X			
440-126312-1	DUP-1	440-126312-19	Water	11/03/15	FD7	Stage 2B		X	X		
440-126559-1	PC-124	440-126559-1	Water	11/04/15		Stage 2B		X			
440-126559-1	PC-136	440-126559-2	Water	11/04/15		Stage 2B		X			
440-126559-1	PC-135A	440-126559-3	Water	11/04/15		Stage 2B		X			
440-126559-1	M-23	440-126559-4	Water	11/04/15		Stage 2B		X			
440-126559-1	ART-1	440-126559-5	Water	11/04/15		Stage 2B		X			
440-126559-1	EB-1	440-126559-6	Water	11/04/15	EB	Stage 2B		X	X		
440-126718-1	M-64	440-126718-1	Water	11/05/15		Stage 2B		X			
440-126718-1	M-64DUP	440-126718-1DUP	Water	11/05/15	DUP	Stage 2B					
440-126718-1	M-64MS	440-126718-1MS	Water	11/05/15	MS	Stage 2B		X			
440-126718-1	M-64MSD	440-126718-1MSD	Water	11/05/15	MSD	Stage 2B		X			
440-126718-1	PC-148	440-126718-2	Water	11/05/15		Stage 2B		X			
440-126718-1	PC-149	440-126718-3	Water	11/05/15		Stage 2B		X			
440-126718-1	PC-149MS	440-126718-3MS	Water	11/05/15	MS	Stage 2B		X			
440-126718-1	PC-149MSD	440-126718-3MSD	Water	11/05/15	MSD	Stage 2B		X			
440-126718-1	M-65	440-126718-4	Water	11/05/15		Stage 2B		X			
440-126718-1	M-66	440-126718-5	Water	11/05/15	FD9	Stage 2B		X			



Table I. Sample Cross Reference

SDG	Client Sample ID	Laboratory Sample ID	Matrix	Sample Date	QC Type	Validation Level	Metals (200.7)	Cr (200.7)	Cr6+ (218.6)	Cl,SO <sub>4</sub> , NO <sub>3</sub> -N,NO <sub>2</sub> -N (300.0)	NO <sub>3</sub> -N, NO <sub>2</sub> -N (Calc)
440-126718-1	DUP3	440-126718-6	Water	11/05/15	FD9	Stage 2B		X			
440-126718-1	M-79	440-126718-7	Water	11/05/15		Stage 2B		X			
440-126718-1	M-69	440-126718-8	Water	11/05/15		Stage 2B		X			
440-126718-1	M-135	440-126718-9	Water	11/05/15		Stage 2B		X			
440-126718-1	M-131	440-126718-10	Water	11/05/15		Stage 2B		X			
440-126718-1	M-57A	440-126718-11	Water	11/05/15		Stage 2B		X			
440-126718-1	M-57ADUP	440-126718-11DUP	Water	11/05/15	DUP	Stage 2B					
440-126718-1	M-57AMS	440-126718-11MS	Water	11/05/15	MS	Stage 2B		X			
440-126718-1	M-57AMSD	440-126718-11MSD	Water	11/05/15	MSD	Stage 2B		X			
440-126718-1	M-25	440-126718-12	Water	11/05/15		Stage 2B		X			
440-126718-1	M-37	440-126718-13	Water	11/05/15	FD8	Stage 2B		X	X		
440-126718-1	I-C	440-126718-14	Water	11/05/15		Stage 2B		X			
440-126718-1	I-T	440-126718-15	Water	11/05/15		Stage 2B		X			
440-126718-1	EB-3	440-126718-16	Water	11/05/15	EB	Stage 2B		X	X		
440-126718-1	DUP-2	440-126718-17	Water	11/05/15	FD8	Stage 2B		X	X		
440-126840-1	M-31A	440-126840-1	Water	11/06/15		Stage 2B		X			
440-126840-1	M-31ADUP	440-126840-1DUP	Water	11/06/15	DUP	Stage 2B					
440-126840-1	M-31AMS	440-126840-1MS	Water	11/06/15	MS	Stage 2B		X			
440-126840-1	M-31AMSD	440-126840-1MSD	Water	11/06/15	MSD	Stage 2B		X			
440-126840-1	M-52	440-126840-2	Water	11/06/15		Stage 2B		X			
440-126840-1	M-35	440-126840-3	Water	11/06/15		Stage 2B		X			
440-126840-1	M-19	440-126840-4	Water	11/06/15		Stage 2B		X			
440-126840-1	M-68	440-126840-5	Water	11/06/15		Stage 2B		X			
440-126840-1	I-K	440-126840-6	Water	11/06/15	FD10	Stage 2B		X			
440-126840-1	DUP 4	440-126840-7	Water	11/06/15	FD10	Stage 2B		X			
440-126840-1	M-83	440-126840-8	Water	11/06/15		Stage 2B		X			
440-126840-1	M-74	440-126840-9	Water	11/06/15		Stage 2B		X			
440-126840-1	I-J	440-126840-10	Water	11/06/15		Stage 2B		X			
440-126840-1	I-Z	440-126840-11	Water	11/06/15		Stage 2B		X			
440-126840-1	I-ZDUP	440-126840-11DUP	Water	11/06/15	DUP	Stage 2B					
440-126840-1	I-ZMS	440-126840-11MS	Water	11/06/15	MS	Stage 2B		X			
440-126840-1	I-ZMSD	440-126840-11MSD	Water	11/06/15	MSD	Stage 2B		X			
440-126840-1	FB-1	440-126840-12	Water	11/06/15	FB	Stage 2B		X	X		
440-126840-1	FB-1MS	440-126840-12MS	Water	11/06/15	MS	Stage 2B			X		
440-126840-1	FB-1MSD	440-126840-12MSD	Water	11/06/15	MSD	Stage 2B			X		
440-126840-1	M-67	440-126840-13	Water	11/06/15		Stage 2B		X			
440-126840-1	M-73	440-126840-14	Water	11/06/15		Stage 2B		X			

Table I. Sample Cross Reference

SDG	Client Sample ID	Laboratory Sample ID	Matrix	Sample Date	QC Type	Validation Level	Metals (200.7)	Cr (200.7)	Cr6+ (218.6)	Cl,SO <sub>4</sub> , NO <sub>3</sub> -N,NO <sub>2</sub> -N (300.0)	NO <sub>3</sub> -N, NO <sub>2</sub> -N (Calc)
440-126840-1	I-V	440-126840-15	Water	11/06/15		Stage 2B		X			
440-126840-1	I-I	440-126840-16	Water	11/06/15		Stage 2B		X			
440-126840-1	M-81A	440-126840-17	Water	11/06/15		Stage 2B		X			
440-126840-1	EB-4	440-126840-18	Water	11/06/15	EB	Stage 2B		X	X		
440-126840-1	M-80	440-126840-19	Water	11/06/15		Stage 2B		X	X		
440-126840-1	I-AR	440-126840-20	Water	11/06/15		Stage 2B		X			
440-127054-1	M-10	440-127054-1	Water	11/09/15		Stage 4	X		X	X	X
440-127054-1	M-10MS	440-127054-1MS	Water	11/09/15	MS	Stage 4	X		X		
440-127054-1	M-10MSD	440-127054-1MSD	Water	11/09/15	MSD	Stage 4	X		X		
440-127055-1	M-14A	440-127055-1	Water	11/09/15	FD11	Stage 2B		X			
440-127055-1	M-14ADUP	440-127055-1DUP	Water	11/09/15	DUP	Stage 2B					
440-127055-1	M-14AMS	440-127055-1MS	Water	11/09/15	MS	Stage 2B		X			
440-127055-1	M-14AMSD	440-127055-1MSD	Water	11/09/15	MSD	Stage 2B		X			
440-127055-1	M-70	440-127055-2	Water	11/09/15		Stage 2B		X			
440-127055-1	M-71	440-127055-3	Water	11/09/15		Stage 2B		X			
440-127055-1	M-72	440-127055-4	Water	11/09/15		Stage 2B		X			
440-127055-1	M-22A	440-127055-5	Water	11/09/15		Stage 2B		X			
440-127055-1	M-38	440-127055-6	Water	11/09/15		Stage 2B		X	X		
440-127055-1	M-12A	440-127055-7	Water	11/09/15		Stage 2B		X	X		
440-127055-1	M-11	440-127055-8	Water	11/09/15		Stage 2B		X	X		
440-127055-1	DUP-5	440-127055-9	Water	11/09/15	FD11	Stage 2B		X			
440-127055-1	EB-5	440-127055-10	Water	11/09/15	EB	Stage 2B		X	X		
440-127055-1	EB-5MS	440-127055-10MS	Water	11/09/15	MS	Stage 2B			X		
440-127055-1	EB-5MSD	440-127055-10MSD	Water	11/09/15	MSD	Stage 2B			X		
440-127487-1	I-AD	440-127487-1	Water	11/10/15		Stage 2B		X			
440-127487-1	I-ADMS	440-127487-1MS	Water	11/10/15	MS	Stage 2B		X			
440-127487-1	I-ADMSD	440-127487-1MSD	Water	11/10/15	MSD	Stage 2B		X			
440-127487-1	PC-97	440-127487-2	Water	11/10/15		Stage 2B		X			
440-127487-1	PC-90	440-127487-3	Water	11/10/15		Stage 2B		X			
440-127487-1	PC-91	440-127487-4	Water	11/10/15		Stage 2B		X			
440-127487-1	PC-58	440-127487-5	Water	11/10/15		Stage 2B		X			
440-127487-1	PC-56	440-127487-6	Water	11/10/15		Stage 2B		X			
440-127487-1	PC-60	440-127487-7	Water	11/10/15		Stage 2B		X			
440-127487-1	PC-60DUP	440-127487-7DUP	Water	11/10/15	DUP	Stage 2B					
440-127487-1	PC-59	440-127487-8	Water	11/10/15		Stage 2B		X			
440-127487-1	PC-62	440-127487-9	Water	11/10/15		Stage 2B		X			
440-127487-1	PC-68	440-127487-10	Water	11/10/15		Stage 2B		X			

Table I. Sample Cross Reference

SDG	Client Sample ID	Laboratory Sample ID	Matrix	Sample Date	QC Type	Validation Level	Metals (200.7)	Cr (200.7)	Cr6+ (218.6)	Cl,SO <sub>4</sub> , NO <sub>3</sub> -N,NO <sub>2</sub> -N (300.0)	NO <sub>3</sub> -N, NO <sub>2</sub> -N (Calc)
440-127487-1	PC-86	440-127487-11	Water	11/10/15		Stage 2B		X			
440-127487-1	PC-86MS	440-127487-11MS	Water	11/10/15	MS	Stage 2B		X			
440-127487-1	PC-86MSD	440-127487-11MSD	Water	11/10/15	MSD	Stage 2B		X			
440-127487-1	PC-94	440-127487-13	Water	11/10/15		Stage 2B		X			
440-127619-1	PC-18	440-127619-1	Water	11/11/15		Stage 2B		X			
440-127619-1	PC-18MS	440-127619-1MS	Water	11/11/15	MS	Stage 2B		X			
440-127619-1	PC-18MSD	440-127619-1MSD	Water	11/11/15	MSD	Stage 2B		X			
440-127619-1	ARP-1	440-127619-2	Water	11/11/15		Stage 2B		X			
440-127619-1	PC-122	440-127619-3	Water	11/11/15		Stage 2B		X			
440-127619-1	PC-53	440-127619-4	Water	11/11/15		Stage 2B		X			
440-127619-1	MW-K5	440-127619-5	Water	11/11/15		Stage 2B		X			
440-127619-1	ARP-7	440-127619-6	Water	11/11/15		Stage 2B		X			
440-127619-1	ARP-6B	440-127619-7	Water	11/11/15		Stage 2B		X			
440-127619-1	ARP-5A	440-127619-8	Water	11/11/15		Stage 2B		X			
440-127619-1	ARP-4A	440-127619-9	Water	11/11/15		Stage 2B		X			
440-127619-1	ARP-4ADUP	440-127619-9DUP	Water	11/11/15	DUP	Stage 2B					
440-127619-1	MW-K4	440-127619-10	Water	11/11/15		Stage 2B		X			
440-127619-1	ARP-3A	440-127619-11	Water	11/11/15		Stage 2B		X			
440-127619-1	ARP-3AMS	440-127619-11MS	Water	11/11/15	MS	Stage 2B		X			
440-127619-1	ARP-3AMSD	440-127619-11MSD	Water	11/11/15	MSD	Stage 2B		X			
440-127619-1	ARP-2A	440-127619-12	Water	11/11/15		Stage 2B		X			
440-127656-1	PC-55	440-127656-1	Water	11/12/15		Stage 2B		X			
440-127656-1	PC-98R	440-127656-2	Water	11/12/15		Stage 2B		X			
440-127656-1	PC-103	440-127656-3	Water	11/12/15		Stage 2B		X			
440-127656-1	PC-103MS	440-127656-3MS	Water	11/12/15	MS	Stage 2B		X			
440-127656-1	PC-103MSD	440-127656-3MSD	Water	11/12/15	MSD	Stage 2B		X			
440-127656-1	PC-101R	440-127656-4	Water	11/12/15		Stage 2B		X			
440-127656-1	PC-144	440-127656-5	Water	11/12/15		Stage 2B		X			
440-128067-1	I-W	440-128067-1	Water	11/16/15		Stage 2B		X			
440-128067-1	I-X	440-128067-2	Water	11/16/15		Stage 2B		X			
440-128067-1	I-XDUP	440-128067-2DUP	Water	11/16/15	DUP	Stage 2B					
440-128067-1	I-XMS	440-128067-2MS	Water	11/16/15	MS	Stage 2B		X			
440-128067-1	I-XMSD	440-128067-2MSD	Water	11/16/15	MSD	Stage 2B		X			
440-128396-1	I-Q	440-128396-1	Water	11/18/15		Stage 2B		X			
440-129811-1	ART-1	440-129811-1	Water	12/03/15		Stage 2B		X			
440-129811-1	ART-1DUP	440-129811-1DUP	Water	12/03/15	DUP	Stage 2B					
440-129811-1	ART-2	440-129811-2	Water	12/03/15		Stage 2B		X			

Table I. Sample Cross Reference

SDG	Client Sample ID	Laboratory Sample ID	Matrix	Sample Date	QC Type	Validation Level	Metals (200.7)	Cr (200.7)	Cr6+ (218.6)	Cl,SO <sub>4</sub> , NO <sub>3</sub> -N,NO <sub>2</sub> -N (300.0)	NO <sub>3</sub> -N, NO <sub>2</sub> -N (Calc)
440-129811-1	ART-3	440-129811-3	Water	12/03/15		Stage 2B		X			
440-129811-1	ART-4	440-129811-4	Water	12/03/15		Stage 2B		X			
440-129811-1	ART-7B	440-129811-5	Water	12/03/15		Stage 2B		X			
440-129811-1	ART-8	440-129811-6	Water	12/03/15		Stage 2B		X			
440-129811-1	ART-9	440-129811-7	Water	12/03/15		Stage 2B		X			
440-129811-1	PC-99R2/R3	440-129811-8	Water	12/03/15		Stage 2B		X			
440-129811-1	PC-115R	440-129811-9	Water	12/03/15		Stage 2B		X			
440-129811-1	PC-116R	440-129811-10	Water	12/03/15		Stage 2B		X			
440-129811-1	PC-116RMS	440-129811-10MS	Water	12/03/15	MS	Stage 2B		X			
440-129811-1	PC-116RMSD	440-129811-10MSD	Water	12/03/15	MSD	Stage 2B		X			
440-129811-1	PC-117	440-129811-11	Water	12/03/15		Stage 2B		X			
440-129811-1	PC-117DUP	440-129811-11DUP	Water	12/03/15	DUP	Stage 2B					
440-129811-1	PC-118	440-129811-12	Water	12/03/15		Stage 2B		X			
440-129811-1	PC-119	440-129811-13	Water	12/03/15		Stage 2B		X			
440-129811-1	PC-120	440-129811-14	Water	12/03/15		Stage 2B		X			
440-129811-1	PC-121	440-129811-15	Water	12/03/15		Stage 2B		X			
440-129811-1	PC-133	440-129811-16	Water	12/03/15		Stage 2B		X			
440-129811-1	PC-150	440-129811-17	Water	12/03/15		Stage 2B		X			
440-130086-1	I-V	440-130086-1	Water	12/07/15		Stage 2B		X			
440-130086-1	I-VDUP	440-130086-1DUP	Water	12/07/15	DUP	Stage 2B					
440-130086-1	I-VMS	440-130086-1MS	Water	12/07/15	MS	Stage 2B		X			
440-130086-1	I-VMSD	440-130086-1MSD	Water	12/07/15	MSD	Stage 2B		X			
440-130086-1	I-Z	440-130086-2	Water	12/07/15		Stage 2B		X			
440-130086-1	I-J	440-130086-3	Water	12/07/15		Stage 2B		X			
440-130086-1	I-K	440-130086-4	Water	12/07/15		Stage 2B		X			
440-130086-1	I-AD	440-130086-5	Water	12/07/15		Stage 2B		X			
440-130086-1	I-O	440-130086-6	Water	12/07/15		Stage 2B		X			
440-130086-1	I-W	440-130086-7	Water	12/07/15		Stage 2B		X			
440-130086-1	I-P	440-130086-8	Water	12/07/15		Stage 2B		X			
440-130086-1	I-H	440-130086-9	Water	12/07/15		Stage 2B		X			
440-130086-1	I-U	440-130086-10	Water	12/07/15		Stage 2B		X			
440-130086-1	I-T	440-130086-11	Water	12/07/15		Stage 2B		X			
440-130086-1	I-TDUP	440-130086-11DUP	Water	12/07/15	DUP	Stage 2B					
440-130086-1	I-TMS	440-130086-11MS	Water	12/07/15	MS	Stage 2B		X			
440-130086-1	I-TMSD	440-130086-11MSD	Water	12/07/15	MSD	Stage 2B		X			
440-130086-1	I-G	440-130086-12	Water	12/07/15		Stage 2B		X			
440-130086-1	I-Q	440-130086-13	Water	12/07/15		Stage 2B		X			

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SDG	Client Sample ID	Laboratory Sample ID	Matrix	Sample Date	QC Type	Validation Level	Metals (200.7)	Cr (200.7)	Cr6+ (218.6)	Cl,SO <sub>4</sub> , NO <sub>3</sub> -N,NO <sub>2</sub> -N (300.0)	NO <sub>3</sub> -N, NO <sub>2</sub> -N (Calc)
440-130086-1	ART-6	440-130086-14	Water	12/07/15		Stage 2B		X			
440-130236-1	I-F	440-130236-1	Water	12/08/15		Stage 2B		X			
440-130236-1	I-FDUP	440-130236-1DUP	Water	12/08/15	DUP	Stage 2B					
440-130236-1	I-FMS	440-130236-1MS	Water	12/08/15	MS	Stage 2B		X			
440-130236-1	I-FMSD	440-130236-1MSD	Water	12/08/15	MSD	Stage 2B		X			
440-130236-1	I-X	440-130236-2	Water	12/08/15		Stage 2B		X			
440-130236-1	I-N	440-130236-3	Water	12/08/15		Stage 2B		X			
440-130236-1	I-E	440-130236-4	Water	12/08/15		Stage 2B		X			
440-130236-1	I-M	440-130236-5	Water	12/08/15		Stage 2B		X			
440-130236-1	I-D	440-130236-6	Water	12/08/15		Stage 2B		X			
440-130236-1	I-C	440-130236-7	Water	12/08/15		Stage 2B		X			
440-130236-1	I-S	440-130236-8	Water	12/08/15		Stage 2B		X			
440-130236-1	I-L	440-130236-9	Water	12/08/15		Stage 2B		X			
440-130236-1	I-Y	440-130236-10	Water	12/08/15		Stage 2B		X			
440-130236-1	I-R	440-130236-11	Water	12/08/15		Stage 2B		X			
440-130236-1	I-RDUP	440-130236-11DUP	Water	12/08/15	DUP	Stage 2B					
440-130236-1	I-RMS	440-130236-11MS	Water	12/08/15	MS	Stage 2B		X			
440-130236-1	I-RMSD	440-130236-11MSD	Water	12/08/15	MSD	Stage 2B		X			
440-130236-1	I-B	440-130236-12	Water	12/08/15		Stage 2B		X			
440-130236-1	I-AB	440-130236-13	Water	12/08/15		Stage 2B		X			
440-130236-1	I-AA	440-130236-14	Water	12/08/15		Stage 2B		X			
440-130236-1	I-AR	440-130236-15	Water	12/08/15		Stage 2B		X			
440-130236-1	I-I	440-130236-16	Water	12/08/15		Stage 2B		X			
440-130491-1	M-83	440-130491-1	Water	12/09/15		Stage 2B		X			
440-130491-1	PC-97	440-130491-2	Water	12/09/15		Stage 2B		X			
440-130491-1	PC-90	440-130491-3	Water	12/09/15		Stage 2B		X			
440-130491-1	PC-91	440-130491-4	Water	12/09/15		Stage 2B		X			
440-130491-1	PC-91DUP	440-130491-4DUP	Water	12/09/15	DUP	Stage 2B					
440-130491-1	PC-58	440-130491-5	Water	12/09/15		Stage 2B		X			
440-130491-1	PC-56	440-130491-6	Water	12/09/15		Stage 2B		X			
440-130491-1	MEB-1	440-130491-7	Water	12/09/15	EB	Stage 2B					
440-130491-1	PC-60	440-130491-8	Water	12/09/15		Stage 2B		X			
440-130491-1	PC-59	440-130491-9	Water	12/09/15		Stage 2B		X			
440-130491-1	PC-59MS	440-130491-9MS	Water	12/09/15	MS	Stage 2B		X			
440-130491-1	PC-59MSD	440-130491-9MSD	Water	12/09/15	MSD	Stage 2B		X			
440-130634-1	PC-53	440-130634-1	Water	12/10/15		Stage 2B		X			
440-130634-1	PC-53DUP	440-130634-1DUP	Water	12/10/15	DUP	Stage 2B					

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SDG	Client Sample ID	Laboratory Sample ID	Matrix	Sample Date	QC Type	Validation Level	Metals (200.7)	Cr (200.7)	Cr6+ (218.6)	Cl,SO <sub>4</sub> , NO <sub>3</sub> -N,NO <sub>2</sub> -N (300.0)	NO <sub>3</sub> -N, NO <sub>2</sub> -N (Calc)
440-130634-1	PC-53MS	440-130634-1MS	Water	12/10/15	MS	Stage 2B		X			
440-130634-1	PC-53MSD	440-130634-1MSD	Water	12/10/15	MSD	Stage 2B		X			
440-130634-1	MW-K5	440-130634-2	Water	12/10/15		Stage 2B		X			
440-130634-1	PC-122	440-130634-3	Water	12/10/15		Stage 2B		X			
440-130634-1	ARP-7	440-130634-4	Water	12/10/15		Stage 2B		X			
440-130634-1	ARP-6B	440-130634-5	Water	12/10/15		Stage 2B		X			
440-130634-1	ARP-5A	440-130634-6	Water	12/10/15		Stage 2B		X			
440-130634-1	ARP-4A	440-130634-7	Water	12/10/15		Stage 2B		X			
440-130634-1	MWK4	440-130634-8	Water	12/10/15		Stage 2B		X			
440-130634-1	PC-101R	440-130634-9	Water	12/10/15		Stage 2B		X			
440-130634-1	ARP-3A	440-130634-10	Water	12/10/15		Stage 2B		X			
440-130634-1	ARP-2A	440-130634-11	Water	12/10/15		Stage 2B		X			
440-130634-1	ARP-2ADUP	440-130634-11DUP	Water	12/10/15	DUP	Stage 2B					
440-130634-1	ARP-2AMS	440-130634-11MS	Water	12/10/15	MS	Stage 2B		X			
440-130634-1	ARP-2AMSD	440-130634-11MSD	Water	12/10/15	MSD	Stage 2B		X			
440-130634-1	PC-98R	440-130634-12	Water	12/10/15		Stage 2B		X			
440-130634-1	PC-103	440-130634-13	Water	12/10/15		Stage 2B		X			
440-130766-1	PC-62	440-130766-1	Water	12/11/15		Stage 4		X			
440-130766-1	PC-62DUP	440-130766-1DUP	Water	12/11/15	DUP	Stage 4					
440-130766-1	PC-68	440-130766-W	Water	12/11/15		Stage 4		X			
440-130766-1	PC-86	440-130766-3	Water	12/11/15		Stage 4		X			
440-130766-1	PC-18	440-130766-4	Water	12/11/15		Stage 4		X			
440-130766-1	ARP-1	440-130766-5	Water	12/11/15		Stage 4		X			
440-130766-1	PC-55	440-130766-6	Water	12/11/15		Stage 4		X			
440-129634-1/15-6872	ART-1	440-129634-1/6872-1A	Water	12/03/15		Stage 2B			X		
440-129634-1/15-6872	ART-2	440-129634-2/6872-2A	Water	12/03/15		Stage 2B			X		
440-129634-1/15-6872	ART-3	440-129634-3/6872-3A	Water	12/03/15		Stage 2B			X		
440-129634-1/15-6872	ART-4	440-129634-4/6872-4A	Water	12/03/15		Stage 2B			X		
440-129634-1/15-6872	ART-7B	440-129634-5/6872-5A	Water	12/03/15		Stage 2B			X		
440-129634-1/15-6872	ART-8	440-129634-6/6872-6A	Water	12/03/15		Stage 2B			X		
440-129634-1/15-6872	ART-9	440-129634-7/6872-7A	Water	12/03/15		Stage 2B			X		
440-129634-1/15-6872	PC-99R2/R3	440-129634-8/6872-8A	Water	12/03/15		Stage 2B			X		
440-129634-1/15-6872	PC-115R	440-129634-9/6872-9A	Water	12/03/15		Stage 2B			X		
440-129634-1/15-6872	PC-116R	440-129634-10/6872-10A	Water	12/03/15		Stage 2B			X		
440-129634-1/15-6872	PC-117	440-129634-11/6872-11A	Water	12/03/15		Stage 2B			X		
440-129634-1/15-6872	PC-118	440-129634-12/6872-12A	Water	12/03/15		Stage 2B			X		
440-129634-1/15-6872	PC-119	440-129634-13/6872-13A	Water	12/03/15		Stage 2B			X		

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SDG	Client Sample ID	Laboratory Sample ID	Matrix	Sample Date	QC Type	Validation Level	Metals (200.7)	Cr (200.7)	Cr6+ (218.6)	Cl,SO <sub>4</sub> , NO <sub>3</sub> -N,NO <sub>2</sub> -N (300.0)	NO <sub>3</sub> -N, NO <sub>2</sub> -N (Calc)
440-129634-1/15-6872	PC-120	440-129634-14/6872-14A	Water	12/03/15		Stage 2B			X		
440-129634-1/15-6872	PC-121	440-129634-15/6872-15A	Water	12/03/15		Stage 2B			X		
440-129634-1/15-6872	PC-133	440-129634-16/6872-16A	Water	12/03/15		Stage 2B			X		
440-129634-1/15-6872	PC-150	440-129634-17/6872-17A	Water	12/03/15		Stage 2B			X		
440-129634-1/15-6872	ART-1MS	440-129634-1/6872-1AMS	Water	12/03/15	MS	Stage 2B			X		
440-129634-1/15-6872	ART-1MSD	440-129634-1/6872-1AMSD	Water	12/03/15	MSD	Stage 2B			X		
440-129634-1/15-6872	ART-3MS	440-129634-3/6872-3AMS	Water	12/03/15	MS	Stage 2B			X		
440-129634-1/15-6872	ART-3MSD	440-129634-3/6872-3AMSD	Water	12/03/15	MSD	Stage 2B			X		
440-130398-1/15-7024	M-83	440-130398-1/7024-1A	Water	12/09/15		Stage 2B			X		
440-130398-1/15-7024	PC-97	440-130398-2/7024-2A	Water	12/09/15		Stage 2B			X		
440-130398-1/15-7024	PC-90	440-130398-3/7024-3A	Water	12/09/15		Stage 2B			X		
440-130398-1/15-7024	PC-91	440-130398-4/7024-4A	Water	12/09/15		Stage 2B			X		
440-130398-1/15-7024	PC-58	440-130398-5/7024-5A	Water	12/09/15		Stage 2B			X		
440-130398-1/15-7024	PC-56	440-130398-6/7024-6A	Water	12/09/15		Stage 2B			X		
440-130398-1/15-7024	PC-60	440-130398-7/7024-7A	Water	12/09/15		Stage 2B			X		
440-130398-1/15-7024	PC-59	440-130398-8/7024-8A	Water	12/09/15		Stage 2B			X		
440-130398-1/15-7024	PC-97MS	440-130398-2/7024-2AMS	Water	12/09/15	MS	Stage 2B			X		
440-130398-1/15-7024	PC-97MSD	440-130398-2/7024-2AMSD	Water	12/09/15	MSD	Stage 2B			X		
440-130571-1/15-7085	PC-53	440-130571-1/7085-1A	Water	12/10/15		Stage 2B			X		
440-130571-1/15-7085	MW-K5	440-130571-2/7085-2A	Water	12/10/15		Stage 2B			X		
440-130571-1/15-7085	PC-122	440-130571-3/7085-3A	Water	12/10/15		Stage 2B			X		
440-130571-1/15-7085	ARP-7	440-130571-4/7085-4A	Water	12/10/15		Stage 2B			X		
440-130571-1/15-7085	ARP-6B	440-130571-5/7085-5A	Water	12/10/15		Stage 2B			X		
440-130571-1/15-7085	ARP-5A	440-130571-6/7085-6A	Water	12/10/15		Stage 2B			X		
440-130571-1/15-7085	ARP-4A	440-130571-7/7085-7A	Water	12/10/15		Stage 2B			X		
440-130571-1/15-7085	MW-K4	440-130571-8/7085-8A	Water	12/10/15		Stage 2B			X		
440-130571-1/15-7085	PC-101R	440-130571-10/7085-9A	Water	12/10/15		Stage 2B			X		
440-130571-1/15-7085	ARP-3A	440-130571-11/7085-10A	Water	12/10/15		Stage 2B			X		
440-130571-1/15-7085	ARP-2A	440-130571-12/7085-11A	Water	12/10/15		Stage 2B			X		
440-130571-1/15-7085	PC-98R	440-130571-13/7085-12A	Water	12/10/15		Stage 2B			X		
440-130571-1/15-7085	PC-103	440-130571-14/7085-13A	Water	12/10/15		Stage 2B			X		
440-130821-1/15-7127	PC-62	440-130821-1/7217-1A	Water	12/11/15		Stage 2B			X		
440-130821-1/15-7127	PC-68	440-130821-2/7217-2A	Water	12/11/15		Stage 2B			X		
440-130821-1/15-7127	PC-86	440-130821-3/7217-3A	Water	12/11/15		Stage 2B			X		
440-130821-1/15-7127	PC-18	440-130821-4/7217-4A	Water	12/11/15		Stage 2B			X		
440-130821-1/15-7127	ARP-1	440-130821-5/7217-5A	Water	12/11/15		Stage 2B			X		
440-130821-1/15-7127	PC-55	440-130821-6/7217-6A	Water	12/11/15		Stage 2B			X		

Table I. Sample Cross Reference

SDG	Client Sample ID	Laboratory Sample ID	Matrix	Sample Date	QC Type	Validation Level	Metals (200.7)	Cr (200.7)	Cr6+ (218.6)	ClSO <sub>4</sub> , NO <sub>3</sub> -N, NO <sub>2</sub> -N (300.0)	NO <sub>3</sub> -N, NO <sub>2</sub> -N (Calc)
440-130821-1/15-7127	PC-55MS	440-130821-6/7217-6AMS	Water	12/11/15	MS	Stage 2B			X		
440-130821-1/15-7127	PC-55MSD	440-130821-6/7217-6AMSD	Water	12/11/15	MSD	Stage 2B			X		
440-140153-1/15-6943	I-V	440-140153-1/15-6943-1A	Water	12/07/15		Stage 2B			X		
440-140153-1/15-6943	I-Z	440-140153-2/15-6943-2A	Water	12/07/15		Stage 4			X		
440-140153-1/15-6943	I-J	440-140153-3/15-6943-3A	Water	12/07/15		Stage 2B			X		
440-140153-1/15-6943	I-K	440-140153-4/15-6943-4A	Water	12/07/15		Stage 2B			X		
440-140153-1/15-6943	I-AD	440-140153-5/15-6943-5A	Water	12/07/15		Stage 4			X		
440-140153-1/15-6943	I-O	440-140153-6/15-6943-6A	Water	12/07/15		Stage 4			X		
440-140153-1/15-6943	I-W	440-140153-7/15-6943-7A	Water	12/07/15		Stage 2B			X		
440-140153-1/15-6943	I-P	440-140153-8/15-6943-8A	Water	12/07/15		Stage 2B			X		
440-140153-1/15-6943	I-H	440-140153-9/15-6943-9A	Water	12/07/15		Stage 4			X		
440-140153-1/15-6943	I-U	440-140153-10/15-6943-10A	Water	12/07/15		Stage 2B			X		
440-140153-1/15-6943	I-T	440-140153-11/15-6943-11A	Water	12/07/15		Stage 2B			X		
440-140153-1/15-6943	I-G	440-140153-12/15-6943-12A	Water	12/07/15		Stage 4			X		
440-140153-1/15-6943	I-Q	440-140153-13/15-6943-13A	Water	12/07/15		Stage 2B			X		
440-140153-1/15-6943	ART-6	440-140153-14/15-6943-14A	Water	12/07/15		Stage 4			X		
440-140153-1/15-6943	ART-6MS	440-140153-14/15-6943-14AMS	Water	12/07/15	MS	Stage 4			X		
440-140153-1/15-6943	ART-6MSD	440-140153-14/15-6943-14AMSD	Water	12/07/15	MSD	Stage 4			X		
440-140156-1/15-6995	I-F	440-140156-1/15-6995-1A	Water	12/08/15		Stage 2B			X		
440-140156-1/15-6995	I-X	440-140156-2/15-6995-2A	Water	12/08/15		Stage 2B			X		
440-140156-1/15-6995	I-N	440-140156-3/15-6995-3A	Water	12/08/15		Stage 2B			X		
440-140156-1/15-6995	I-E	440-140156-4/15-6995-4A	Water	12/08/15		Stage 2B			X		
440-140156-1/15-6995	I-M	440-140156-5/15-6995-5A	Water	12/08/15		Stage 2B			X		
440-140156-1/15-6995	I-D	440-140156-6/15-6995-6A	Water	12/08/15		Stage 2B			X		
440-140156-1/15-6995	I-C	440-140156-7/15-6995-7A	Water	12/08/15		Stage 2B			X		
440-140156-1/15-6995	I-S	440-140156-8/15-6995-8A	Water	12/08/15		Stage 2B			X		
440-140156-1/15-6995	I-L	440-140156-9/15-6995-9A	Water	12/08/15		Stage 2B			X		
440-140156-1/15-6995	I-Y	440-140156-10/15-6995-10A	Water	12/08/15		Stage 2B			X		
440-140156-1/15-6995	I-R	440-140156-11/15-6995-11A	Water	12/08/15		Stage 2B			X		
440-140156-1/15-6995	I-B	440-140156-12/15-6995-12A	Water	12/08/15		Stage 2B			X		
440-140156-1/15-6995	I-AB	440-140156-13/15-6995-13A	Water	12/08/15		Stage 2B			X		
440-140156-1/15-6995	I-AA	440-140156-14/15-6995-14A	Water	12/08/15		Stage 2B			X		
440-140156-1/15-6995	I-AR	440-140156-15/15-6995-15A	Water	12/08/15		Stage 2B			X		
440-140156-1/15-6995	I-I	440-140156-16/15-6995-16A	Water	12/08/15		Stage 2B			X		
440-140156-1/15-6995	I-XMS	440-140156-2/15-6995-2AMS	Water	12/08/15	MS	Stage 2B			X		
440-140156-1/15-6995	I-XMSD	440-140156-2/15-6995-2AMSD	Water	12/08/15	MSD	Stage 2B			X		



Table I. Sample Cross Reference

SDG	Client Sample ID	Laboratory Sample ID	Matrix	Sample Date	QC Type	Validation Level	ClO3 (300.1B)	ClO4 (314.0)	NH3-N (350.1)	Phenolics (420.1)	Phenols (420.4)	TIN (NTOTAL)
440-114425-1	ART-1	440-114425-1	Water	07/06/15		Stage 4		X				
440-114425-1	ART-1DUP	440-114425-1DUP	Water	07/06/15	DUP	Stage 4						
440-114425-1	ART-2	440-114425-2	Water	07/06/15		Stage 4		X				
440-114425-1	ART-3	440-114425-3	Water	07/06/15		Stage 4		X				
440-114425-1	ART-4	440-114425-4	Water	07/06/15		Stage 4		X				
440-114425-1	ART-6	440-114425-5	Water	07/06/15		Stage 4		X				
440-114425-1	ART-7B	440-114425-6	Water	07/06/15		Stage 4		X				
440-114425-1	ART-8	440-114425-7	Water	07/06/15		Stage 4		X				
440-114425-1	ART-9	440-114425-8	Water	07/06/15		Stage 4		X				
440-114425-1	PC-99R2/R3	440-114425-9	Water	07/06/15		Stage 4		X				
440-114425-1	PC-115R	440-114425-10	Water	07/06/15		Stage 4		X				
440-114425-1	PC-116R	440-114425-11	Water	07/06/15		Stage 4		X				
440-114425-1	PC-116RDUP	440-114425-11DUP	Water	07/06/15	DUP	Stage 4						
440-114425-1	PC-117	440-114425-12	Water	07/06/15		Stage 4		X				
440-114425-1	PC-118	440-114425-13	Water	07/06/15		Stage 4		X				
440-114425-1	PC-119	440-114425-14	Water	07/06/15		Stage 4		X				
440-114425-1	PC-120	440-114425-15	Water	07/06/15		Stage 4		X				
440-114425-1	PC-121	440-114425-16	Water	07/06/15		Stage 4		X				
440-114425-1	PC-133	440-114425-17	Water	07/06/15		Stage 4		X				
440-114425-1	PC-150	440-114425-18	Water	07/06/15		Stage 4		X				
440-115183-1	M-83	440-115183-1	Water	07/13/15		Stage 2B		X				
440-115183-1	M-83DUP	440-115183-1DUP	Water	07/13/15	DUP	Stage 2B						
440-115183-1	PC-97	440-115183-2	Water	07/14/15		Stage 2B		X				
440-115183-1	PC-90	440-115183-3	Water	07/14/15		Stage 2B		X				
440-115183-1	PC-91	440-115183-4	Water	07/14/15		Stage 2B		X				
440-115183-1	PC-58	440-115183-5	Water	07/14/15		Stage 2B		X				
440-115183-1	PC-56	440-115183-6	Water	07/14/15		Stage 2B		X				
440-115183-1	PC-60	440-115183-7	Water	07/14/15		Stage 2B		X				
440-115183-1	PC-59	440-115183-8	Water	07/14/15		Stage 2B		X				
440-115183-1	PC-62	440-115183-9	Water	07/14/15		Stage 2B		X				
440-115249-1	M-33	440-115249-1	Water	07/14/15		Stage 2B		X				
440-115249-1	M-32	440-115249-2	Water	07/14/15		Stage 2B		X				
440-115418-1	PC-68	440-115418-1	Water	07/15/15		Stage 2B		X				
440-115418-1	PC-103	440-115418-2	Water	07/15/15		Stage 2B		X				
440-115418-1	PC-98R	440-115418-3	Water	07/15/15		Stage 2B		X				
440-115418-1	ARP-2A	440-115418-4	Water	07/15/15		Stage 2B		X				
440-115418-1	ARP-3A	440-115418-5	Water	07/15/15		Stage 2B		X				

Table I. Sample Cross Reference

SDG	Client Sample ID	Laboratory Sample ID	Matrix	Sample Date	QC Type	Validation Level	ClO3 (300.1B)	ClO4 (314.0)	NH3-N (350.1)	Phenolics (420.1)	Phenols (420.4)	TIN (TOTAL)
440-115418-1	MW-K4	440-115418-6	Water	07/15/15		Stage 2B		X				
440-115418-1	PC-101R	440-115418-7	Water	07/15/15		Stage 2B		X				
440-115418-1	ARP-4A	440-115418-8	Water	07/15/15		Stage 2B		X				
440-115418-1	ARP-5A	440-115418-9	Water	07/15/15		Stage 2B		X				
440-115418-1	ARP-5ADUP	440-115418-9DUP	Water	07/15/15	DUP	Stage 2B						
440-115418-1	ARP-6B	440-115418-10	Water	07/15/15		Stage 2B		X				
440-115418-1	ARP-7	440-115418-11	Water	07/15/15		Stage 2B		X				
440-115418-1	PC-53	440-115418-12	Water	07/15/15		Stage 2B		X				
440-115418-1	PC-86	440-115418-13	Water	07/15/15		Stage 2B		X				
440-115418-1	PC-122	440-115418-14	Water	07/15/15		Stage 2B		X				
440-115418-1	MW-K5	440-115418-15	Water	07/15/15		Stage 2B		X				
440-115418-1	MEB-1	440-115418-16	Water	07/15/15	EB	Stage 2B		X				
440-115483-1	ARP-1	440-115483-1	Water	07/16/15		Stage 2B		X				
440-115483-1	ARP-1DUP	440-115483-1DUP	Water	07/16/15	DUP	Stage 2B						
440-115483-1	PC-18	440-115483-2	Water	07/16/15		Stage 2B		X				
440-115483-1	PC-55	440-115483-3	Water	07/16/15		Stage 2B		X				
440-116828-1	ART-1	440-116828-1	Water	08/03/15		Stage 2B		X				
440-116828-1	ART-1DUP	440-116828-1DUP	Water	08/03/15	DUP	Stage 2B						
440-116828-1	ART-2	440-116828-2	Water	08/03/15		Stage 2B		X				
440-116828-1	ART-2MS	440-116828-2MS	Water	08/03/15	MS	Stage 2B						
440-116828-1	ART-2MSD	440-116828-2MSD	Water	08/03/15	MSD	Stage 2B						
440-116828-1	ART-3A	440-116828-3	Water	08/03/15		Stage 2B		X				
440-116828-1	ART-4	440-116828-4	Water	08/03/15		Stage 2B		X				
440-116828-1	ART-6	440-116828-5	Water	08/03/15		Stage 2B		X				
440-116828-1	ART-7B	440-116828-6	Water	08/03/15		Stage 2B		X				
440-116828-1	ART-8	440-116828-7	Water	08/03/15		Stage 2B		X				
440-116828-1	ART-9	440-116828-8	Water	08/03/15		Stage 2B		X				
440-116828-1	PC-99R2/R3	440-116828-9	Water	08/03/15		Stage 2B		X				
440-116828-1	PC-115R	440-116828-10	Water	08/03/15		Stage 2B		X				
440-116828-1	PC-116R	440-116828-11	Water	08/03/15		Stage 2B		X				
440-116828-1	PC-116RDUP	440-116828-11DUP	Water	08/03/15	DUP	Stage 2B						
440-116828-1	PC-117	440-116828-12	Water	08/03/15		Stage 2B		X				
440-116828-1	PC-117MS	440-116828-12MS	Water	08/03/15	MS	Stage 2B						
440-116828-1	PC-117MSD	440-116828-12MSD	Water	08/03/15	MSD	Stage 2B						
440-116828-1	PC-118	440-116828-13	Water	08/03/15		Stage 2B		X				
440-116828-1	PC-119	440-116828-14	Water	08/03/15		Stage 2B		X				
440-116828-1	PC-120	440-116828-15	Water	08/03/15		Stage 2B		X				

Table I. Sample Cross Reference

SDG	Client Sample ID	Laboratory Sample ID	Matrix	Sample Date	QC Type	Validation Level	ClO3 (300.1B)	ClO4 (314.0)	NH3-N (350.1)	Phenolics (420.1)	Phenols (420.4)	TIN (NTOTAL)
440-116828-1	PC-121	440-116828-16	Water	08/03/15		Stage 2B		X				
440-116828-1	PC-133	440-116828-17	Water	08/03/15		Stage 2B		X				
440-116828-1	PC-150	440-116828-18	Water	08/03/15		Stage 2B		X				
440-116828-1	ART-7A	440-116828-19	Water	08/03/15		Stage 2B		X				
440-116832-1	I-O	440-116832-1	Water	08/03/15		Stage 4		X				
440-116832-1	I-ODUP	440-116832-1DUP	Water	08/03/15	DUP	Stage 4						
440-116832-1	I-OMS	440-116832-1MS	Water	08/03/15	MS	Stage 4						
440-116832-1	I-OMSD	440-116832-1MSD	Water	08/03/15	MSD	Stage 4						
440-116832-1	I-W	440-116832-2	Water	08/03/15		Stage 4		X				
440-116832-1	I-P	440-116832-3	Water	08/03/15		Stage 4		X				
440-116832-1	I-H	440-116832-4	Water	08/03/15		Stage 4		X				
440-116832-1	I-U	440-116832-5	Water	08/03/15		Stage 4		X				
440-116832-1	I-T	440-116832-6	Water	08/03/15		Stage 4		X				
440-116832-1	I-G	440-116832-7	Water	08/03/15		Stage 4		X				
440-116832-1	I-Q	440-116832-8	Water	08/03/15		Stage 4		X				
440-116832-1	I-F	440-116832-9	Water	08/03/15		Stage 4		X				
440-116832-1	I-X	440-116832-10	Water	08/03/15		Stage 4		X				
440-116832-1	I-N	440-116832-11	Water	08/03/15		Stage 4		X				
440-116832-1	I-NDUP	440-116832-11DUP	Water	08/03/15	DUP	Stage 4						
440-116832-1	I-NMS	440-116832-11MS	Water	08/03/15	MS	Stage 4						
440-116832-1	I-NMSD	440-116832-11MSD	Water	08/03/15	MSD	Stage 4						
440-116832-1	I-E	440-116832-12	Water	08/03/15		Stage 4		X				
440-116832-1	I-M	440-116832-13	Water	08/03/15		Stage 4		X				
440-116832-1	I-D	440-116832-14	Water	08/03/15		Stage 4		X				
440-116832-1	I-C	440-116832-15	Water	08/03/15		Stage 4		X				
440-116832-1	I-S	440-116832-16	Water	08/03/15		Stage 4		X				
440-116832-1	I-L	440-116832-17	Water	08/03/15		Stage 4		X				
440-116832-1	I-Y	440-116832-18	Water	08/03/15		Stage 4		X				
440-116832-1	I-R	440-116832-19	Water	08/03/15		Stage 4		X				
440-116832-1	I-B	440-116832-20	Water	08/03/15		Stage 4		X				
440-116832-1	I-AB	440-116832-21	Water	08/03/15		Stage 4		X				
440-116832-1	I-AA	440-116832-22	Water	08/03/15		Stage 4		X				
440-116832-1	I-AR	440-116832-23	Water	08/03/15		Stage 4		X				
440-117105-1	EB-1	440-117105-1	Water	08/04/15	EB	Stage 4		X				
440-117105-1	EB-1DUP	440-117105-1DUP	Water	08/04/15	DUP	Stage 4						
440-117105-1	EB-1MS	440-117105-1MS	Water	08/04/15	MS	Stage 4						
440-117105-1	EB-1MSD	440-117105-1MSD	Water	08/04/15	MSD	Stage 4						

Table I. Sample Cross Reference

SDG	Client Sample ID	Laboratory Sample ID	Matrix	Sample Date	QC Type	Validation Level	ClO3 (300.1B)	ClO4 (314.0)	NH3-N (350.1)	Phenolics (420.1)	Phenols (420.4)	TIN (NTOTAL)
440-117105-1	PC-71	440-117105-2	Water	08/04/15		Stage 4		X				
440-117105-1	PC-72	440-117105-3	Water	08/04/15		Stage 4		X				
440-117105-1	FB-1	440-117105-4	Water	08/04/15	FB	Stage 4		X				
440-117105-1	PC-73	440-117105-5	Water	08/04/15		Stage 4		X				
440-117105-1	PC-37	440-117105-6	Water	08/04/15		Stage 4		X				
440-117105-1	M-23	440-117105-7	Water	08/04/15		Stage 4		X				
440-117106-1	PC-123	440-117106-1	Water	08/04/15		Stage 2B		X				
440-117106-1	PC-129	440-117106-2	Water	08/04/15	FD1	Stage 2B		X				
440-117106-1	PC-130	440-117106-3	Water	08/04/15		Stage 2B		X				
440-117106-1	PC-131	440-117106-4	Water	08/04/15		Stage 2B		X				
440-117106-1	PC-131DUP	440-117106-4DUP	Water	08/04/15	DUP	Stage 2B						
440-117106-1	PC-132	440-117106-5	Water	08/04/15		Stage 2B		X				
440-117106-1	PC-124	440-117106-6	Water	08/04/15		Stage 2B		X				
440-117106-1	PC-124MS	440-117106-6MS	Water	08/04/15	MS	Stage 2B						
440-117106-1	PC-124MSD	440-117106-6MSD	Water	08/04/15	MSD	Stage 2B						
440-117106-1	PC-125	440-117106-7	Water	08/04/15		Stage 2B		X				
440-117106-1	PC-126	440-117106-8	Water	08/04/15		Stage 2B		X				
440-117106-1	PC-127	440-117106-9	Water	08/04/15		Stage 2B		X				
440-117106-1	PC-54	440-117106-10	Water	08/04/15		Stage 2B		X				
440-117106-1	M-48	440-117106-11	Water	08/04/15		Stage 2B		X				
440-117106-1	DUP-1	440-117106-12	Water	08/04/15	FD1	Stage 2B		X				
440-117270-1	EB2	440-117270-1	Water	08/05/15	EB	Stage 2B		X				
440-117270-1	EB2DUP	440-117270-1DUP	Water	08/05/15	DUP	Stage 2B						
440-117270-1	M-71	440-117270-2	Water	08/05/15		Stage 2B		X				
440-117270-1	M-71MS	440-117270-2MS	Water	08/05/15	MS	Stage 2B						
440-117270-1	M-71MSD	440-117270-2MSD	Water	08/05/15	MSD	Stage 2B						
440-117270-1	M-72	440-117270-3	Water	08/05/15		Stage 2B		X				
440-117270-1	M-22A	440-117270-4	Water	08/05/15		Stage 2B		X				
440-117274-1	M-64	440-117274-1	Water	08/05/15		Stage 2B		X				
440-117274-1	M-65	440-117274-2	Water	08/05/15		Stage 2B		X				
440-117274-1	M-65MS	440-117274-2MS	Water	08/05/15	MS	Stage 2B						
440-117274-1	M-65MSD	440-117274-2MSD	Water	08/05/15	MSD	Stage 2B						
440-117274-1	M-66	440-117274-3	Water	08/05/15		Stage 2B		X				
440-117274-1	M-79	440-117274-4	Water	08/05/15		Stage 2B		X				
440-117274-1	M-69	440-117274-5	Water	08/05/15		Stage 2B		X				
440-117274-1	M-135	440-117274-6	Water	08/05/15		Stage 2B		X				
440-117274-1	M-131	440-117274-7	Water	08/05/15		Stage 2B		X				

Table I. Sample Cross Reference

SDG	Client Sample ID	Laboratory Sample ID	Matrix	Sample Date	QC Type	Validation Level	ClO3 (300.1B)	ClO4 (314.0)	NH3-N (350.1)	Phenolics (420.1)	Phenols (420.4)	TIN (NTOTAL)
440-117274-1	M-131DUP	440-117274-7DUP	Water	08/05/15		DUP						
440-117274-1	M-57A	440-117274-8	Water	08/05/15		Stage 2B		X				
440-117274-1	M-14A	440-117274-9	Water	08/05/15		Stage 2B		X				
440-117274-1	M-25	440-117274-10	Water	08/05/15		Stage 2B		X				
440-117274-1	M-70	440-117274-11	Water	08/05/15		Stage 2B		X				
440-117286-1	M-5A	440-117286-1	Water	08/05/15		Stage 2B		X			X	
440-117286-1	M-7B	440-117286-2	Water	08/05/15		Stage 2B		X			X	
440-117286-2	M-5A	440-117286-1	Water	08/05/15		Stage 2B						
440-117286-2	M-5AMS	440-117286-1MS	Water	08/05/15	MS	Stage 2B						
440-117286-2	M-5AMSD	440-117286-1MSD	Water	08/05/15	MSD	Stage 2B						
440-117286-2	M-7B	440-117286-2	Water	08/05/15		Stage 2B						
440-117351-1	DUP-5	440-117351-1	Water	08/06/15	FD2	Stage 2B		X				
440-117351-1	M-38	440-117351-2	Water	08/06/15	FD2	Stage 2B		X				
440-117353-1	M-10	440-117353-1	Water	08/06/15		Stage 4	X	X	X			X
440-117353-1	M-10MS	440-117353-1MS	Water	08/06/15	MS	Stage 4						
440-117353-1	M-10MSD	440-117353-1MSD	Water	08/06/15	MSD	Stage 4						
440-117359-1	M-52	440-117359-1	Water	08/06/15		Stage 2B		X				
440-117359-1	M-19	440-117359-2	Water	08/06/15		Stage 2B		X				
440-117359-1	M-68	440-117359-3	Water	08/06/15		Stage 2B		X				
440-117359-1	M-68MS	440-117359-3MS	Water	08/06/15	MS	Stage 2B						
440-117359-1	M-68MSD	440-117359-3MSD	Water	08/06/15	MSD	Stage 2B						
440-117359-1	M-67	440-117359-4	Water	08/06/15		Stage 2B		X				
440-117359-1	M-74	440-117359-5	Water	08/06/15		Stage 2B		X				
440-117359-1	M-73	440-117359-6	Water	08/06/15		Stage 2B		X				
440-117359-1	M-73DUP	440-117359-6DUP	Water	08/06/15	DUP	Stage 2B						
440-117359-1	M-81A	440-117359-7	Water	08/06/15		Stage 2B		X				
440-117359-1	M-83	440-117359-8	Water	08/06/15		Stage 2B		X				
440-117359-1	M-11	440-117359-9	Water	08/06/15		Stage 2B		X				
440-117359-1	EB-3	440-117359-10	Water	08/06/15	EB	Stage 2B		X				
440-117359-1	M-80	440-117359-11	Water	08/06/15		Stage 2B		X				
440-117359-1	M-80MS	440-117359-11MS	Water	08/06/15	MS	Stage 2B						
440-117359-1	M-80MSD	440-117359-11MSD	Water	08/06/15	MSD	Stage 2B						
440-117359-1	M-12A	440-117359-12	Water	08/06/15		Stage 2B		X				
440-117491-1	I-AD	440-117491-1	Water	08/07/15		Stage 2B		X				
440-117491-1	I-ADDUP	440-117491-1DUP	Water	08/07/15	DUP	Stage 2B						
440-117491-1	I-K	440-117491-2	Water	08/07/15		Stage 2B		X				
440-117491-1	I-J	440-117491-3	Water	08/07/15		Stage 2B		X				

Table I. Sample Cross Reference

SDG	Client Sample ID	Laboratory Sample ID	Matrix	Sample Date	QC Type	Validation Level	ClO3 (300.1B)	ClO4 (314.0)	NH3-N (350.1)	Phenolics (420.1)	Phenols (420.4)	TIN (TOTAL)
440-117491-1	I-Z	440-117491-4	Water	08/07/15		Stage 2B		X				
440-117491-1	I-I	440-117491-5	Water	08/07/15		Stage 2B		X				
440-117491-1	I-V	440-117491-6	Water	08/07/15		Stage 2B		X				
440-117491-1	M-35	440-117491-7	Water	08/07/15		Stage 2B		X				
440-117491-1	M-31A	440-117491-8	Water	08/07/15	FD3	Stage 2B		X				
440-117491-1	M-32	440-117491-9	Water	08/07/15		Stage 2B		X				
440-117491-1	DUP-3	440-117491-10	Water	08/07/15	FD3	Stage 2B		X				
440-117491-1	DUP-3MS	440-117491-10MS	Water	08/07/15	MS	Stage 2B						
440-117491-1	DUP-3MSD	440-117491-10MSD	Water	08/07/15	MSD	Stage 2B						
440-117491-1	EB-4	440-117491-11	Water	08/07/15	EB	Stage 2B		X				
440-117491-1	EB-4DUP	440-117491-11	Water	08/07/15	DUP	Stage 2B						
440-117519-1	H-28A	440-117519-1	Water	08/07/15		Stage 2B		X	X			
440-117588-1	PC-128	440-117588-1	Water	08/10/15		Stage 2B		X				
440-117588-1	PC-128DUP	440-117588-1DUP	Water	08/10/15	DUP	Stage 2B						
440-117588-1	PC-128MS	440-117588-1MS	Water	08/10/15	MS	Stage 2B						
440-117588-1	PC-128MSD	440-117588-1MSD	Water	08/10/15	MSD	Stage 2B						
440-117588-1	PC-148	440-117588-2	Water	08/10/15		Stage 2B		X				
440-117588-1	PC-149	440-117588-3	Water	08/10/15		Stage 2B		X				
440-117588-1	PC-135A	440-117588-4	Water	08/10/15		Stage 2B		X				
440-117588-1	PC-144	440-117588-5	Water	08/10/15		Stage 2B		X				
440-117588-1	EB-5	440-117588-6	Water	08/10/15	EB	Stage 2B		X				
440-117588-1	PC-136	440-117588-7	Water	08/10/15		Stage 2B		X				
440-117588-1	M-44	440-117588-8	Water	08/10/15	FD4	Stage 2B		X				
440-117588-1	M-95	440-117588-9	Water	08/10/15		Stage 2B		X				
440-117588-1	M-37	440-117588-10	Water	08/10/15	FD5	Stage 2B		X				
440-117588-1	DUP-2	440-117588-11	Water	08/10/15	FD4	Stage 2B		X				
440-117588-1	DUP-2MS	440-117588-11MS	Water	08/10/15	MS	Stage 2B						
440-117588-1	DUP-2MSD	440-117588-11MSD	Water	08/10/15	MSD	Stage 2B						
440-117588-1	DUP-6	440-117588-12	Water	08/10/15	FD5	Stage 2B		X				
440-117588-1	DUP-6DUP	440-117588-12DUP	Water	08/10/15	DUP	Stage 2B						
440-117588-1	DUP-6MS	440-117588-12MS	Water	08/10/15	MS	Stage 2B						
440-117588-1	DUP-6MSD	440-117588-12MSD	Water	08/10/15	MSD	Stage 2B						
440-117602-1	M-6A	440-117602-1	Water	08/10/15		Stage 2B		X	X			
440-117602-1	M-6ADUP	440-117602-1DUP	Water	08/10/15	DUP	Stage 2B						
440-117759-1	PC-97	440-117759-1	Water	08/11/15		Stage 2B		X				
440-117759-1	PC-97MS	440-117759-1MS	Water	08/11/15	MS	Stage 2B						
440-117759-1	PC-97MSD	440-117759-1MSD	Water	08/11/15	MSD	Stage 2B						

Table I. Sample Cross Reference

SDG	Client Sample ID	Laboratory Sample ID	Matrix	Sample Date	QC Type	Validation Level	ClO3 (300.1B)	ClO4 (314.0)	NH3-N (350.1)	Phenolics (420.1)	Phenols (420.4)	TIN (NTOTAL)
440-117759-1	PC-90	440-117759-2	Water	08/11/15		Stage 2B		X				
440-117759-1	PC-91	440-117759-3	Water	08/11/15		Stage 2B		X				
440-117759-1	PC-94	440-117759-4	Water	08/11/15		Stage 2B		X				
440-117759-1	PC-58	440-117759-5	Water	08/11/15		Stage 2B		X				
440-117759-1	PC-56	440-117759-6	Water	08/11/15		Stage 2B		X				
440-117759-1	PC-56DUP	440-117759-6DUP	Water	08/11/15	DUP	Stage 2B						
440-117759-1	PC-60	440-117759-7	Water	08/11/15		Stage 2B		X				
440-117759-1	PC-59	440-117759-8	Water	08/11/15		Stage 2B		X				
440-117759-1	PC-62	440-117759-9	Water	08/11/15		Stage 2B		X				
440-117759-1	PC-68	440-117759-10	Water	08/11/15		Stage 2B		X				
440-117759-1	PC-86	440-117759-11	Water	08/11/15		Stage 2B		X				
440-117759-1	PC-86MS	440-117759-11MS	Water	08/11/15	MS	Stage 2B						
440-117759-1	PC-86MSD	440-117759-11MSD	Water	08/11/15	MSD	Stage 2B						
440-117940-1	PC-18	440-117940-1	Water	08/12/15	FD6	Stage 2B		X				
440-117940-1	PC-18MS	440-117940-1MS	Water	08/12/15	MS	Stage 2B						
440-117940-1	PC-18MSD	440-117940-1MSD	Water	08/12/15	MSD	Stage 2B						
440-117940-1	ARP-1	440-117940-2	Water	08/12/15		Stage 2B		X				
440-117940-1	PC-122	440-117940-3	Water	08/12/15		Stage 2B		X				
440-117940-1	PC-53	440-117940-4	Water	08/12/15		Stage 2B		X				
440-117940-1	MW-K5	440-117940-5	Water	08/12/15		Stage 2B		X				
440-117940-1	ARP-7	440-117940-6	Water	08/12/15		Stage 2B		X				
440-117940-1	ARP-6B	440-117940-7	Water	08/12/15		Stage 2B		X				
440-117940-1	ARP-6BDUP	440-117940-7DUP	Water	08/12/15	DUP	Stage 2B						
440-117940-1	ARP-5A	440-117940-8	Water	08/12/15		Stage 2B		X				
440-117940-1	ARP-4A	440-117940-9	Water	08/12/15		Stage 2B		X				
440-117940-1	PC-101R	440-117940-10	Water	08/12/15		Stage 2B		X				
440-117940-1	MW-K4	440-117940-11	Water	08/12/15		Stage 2B		X				
440-117940-1	MW-K4MS	440-117940-11MS	Water	08/12/15	MS	Stage 2B						
440-117940-1	MW-K4MSD	440-117940-11MSD	Water	08/12/15	MSD	Stage 2B						
440-117940-1	ARP-3A	440-117940-12	Water	08/12/15		Stage 2B		X				
440-117940-1	MEB-1	440-117940-13	Water	08/12/15	EB	Stage 2B		X				
440-117940-1	ARP-2A	440-117940-14	Water	08/12/15		Stage 2B		X				
440-117940-1	PC-103	440-117940-15	Water	08/12/15		Stage 2B		X				
440-117940-1	DUP 4	440-117940-16	Water	08/12/15	FD6	Stage 2B		X				
440-118033-1	PC-55	440-118033-1	Water	08/13/15		Stage 2B		X				
440-118033-1	PC-98R	440-118033-2	Water	08/13/15		Stage 2B		X				
440-120251-1	ART-1	440-120251-1	Water	09/08/15		Stage 2B		X				

Table I. Sample Cross Reference

SDG	Client Sample ID	Laboratory Sample ID	Matrix	Sample Date	QC Type	Validation Level	C1O3 (300.1B)	C1O4 (314.0)	NH3-N (350.1)	Phenolics (420.1)	Phenols (420.4)	TIN (NTOTAL)
440-120251-1	ART-1DUP	440-120251-1DUP	Water	09/08/15	DUP	Stage 2B						
440-120251-1	ART-2	440-120251-2	Water	09/08/15		Stage 2B		X				
440-120251-1	ART-3	440-120251-3	Water	09/08/15		Stage 2B		X				
440-120251-1	ART-4	440-120251-4	Water	09/08/15		Stage 2B		X				
440-120251-1	ART-6	440-120251-5	Water	09/08/15		Stage 2B		X				
440-120251-1	ART-7B	440-120251-6	Water	09/08/15		Stage 2B		X				
440-120251-1	ART-8	440-120251-7	Water	09/08/15		Stage 2B		X				
440-120251-1	ART-9	440-120251-8	Water	09/08/15		Stage 2B		X				
440-120251-1	PC-99R2/R3	440-120251-9	Water	09/08/15		Stage 2B		X				
440-120251-1	PC-115R	440-120251-10	Water	09/08/15		Stage 2B		X				
440-120251-1	PC-116R	440-120251-11	Water	09/08/15		Stage 2B		X				
440-120251-1	PC-116RDUP	440-120251-11DUP	Water	09/08/15	DUP	Stage 2B						
440-120251-1	PC-117	440-120251-12	Water	09/08/15		Stage 2B		X				
440-120251-1	PC-118	440-120251-13	Water	09/08/15		Stage 2B		X				
440-120251-1	PC-119	440-120251-14	Water	09/08/15		Stage 2B		X				
440-120251-1	PC-120	440-120251-15	Water	09/08/15		Stage 2B		X				
440-120251-1	PC-121	440-120251-16	Water	09/08/15		Stage 2B		X				
440-120251-1	PC-133	440-120251-17	Water	09/08/15		Stage 2B		X				
440-120251-1	PC-150	440-120251-18	Water	09/08/15		Stage 2B		X				
440-121299-1	PC-97	440-121299-1	Water	09/15/15		Stage 2B		X				
440-121299-1	PC-97DUP	440-121299-1DUP	Water	09/15/15	DUP	Stage 2B						
440-121299-1	PC-90	440-121299-2	Water	09/15/15		Stage 2B		X				
440-121299-1	PC-91	440-121299-3	Water	09/15/15		Stage 2B		X				
440-121299-1	PC-58	440-121299-4	Water	09/15/15		Stage 2B		X				
440-121299-1	PC-56	440-121299-5	Water	09/15/15		Stage 2B		X				
440-121299-1	PC-60	440-121299-6	Water	09/15/15		Stage 2B		X				
440-121299-1	PC-59	440-121299-7	Water	09/15/15		Stage 2B		X				
440-121299-1	PC-62	440-121299-8	Water	09/15/15		Stage 2B		X				
440-121299-1	PC-68	440-121299-9	Water	09/15/15		Stage 2B		X				
440-121299-1	PC-86	440-121299-10	Water	09/15/15		Stage 2B		X				
440-121445-1	M-83	440-121445-1	Water	09/16/15		Stage 2B		X				
440-121445-1	M-83DUP	440-121445-1DUP	Water	09/16/15	DUP	Stage 2B						
440-121445-1	PC-18	440-121445-2	Water	09/16/15		Stage 2B		X				
440-121445-1	ARP-1	440-121445-3	Water	09/16/15		Stage 2B		X				
440-121445-1	PC-122	440-121445-4	Water	09/16/15		Stage 2B		X				
440-121445-1	PC-53	440-121445-5	Water	09/16/15		Stage 2B		X				
440-121445-1	MW-K5	440-121445-6	Water	09/16/15		Stage 2B		X				



Table I. Sample Cross Reference

SDG	Client Sample ID	Laboratory Sample ID	Matrix	Sample Date	QC Type	Validation Level	C103 (300.1B)	C104 (314.0)	NH3-N (350.1)	Phenolics (420.1)	Phenols (420.4)	TIN (NTOTAL)
440-121445-1	ARP-7	440-121445-7	Water	09/16/15		Stage 2B		X				
440-121445-1	ARP-6B	440-121445-8	Water	09/16/15		Stage 2B		X				
440-121445-1	ARP-5A	440-121445-9	Water	09/16/15		Stage 2B		X				
440-121445-1	ARP-4A	440-121445-10	Water	09/16/15		Stage 2B		X				
440-121454-1	PC-55	440-121454-1	Water	09/17/15		Stage 2B		X				
440-121454-1	PC-55DUP	440-121454-1DUP	Water	09/17/15	DUP	Stage 2B						
440-121454-1	PC-103	440-121454-2	Water	09/17/15		Stage 2B		X				
440-121454-1	PC-98R	440-121454-3	Water	09/17/15		Stage 2B		X				
440-121454-1	ARP-2A	440-121454-4	Water	09/17/15		Stage 2B		X				
440-121454-1	ARP-3A	440-121454-5	Water	09/17/15		Stage 2B		X				
440-121454-1	MEB-1	440-121454-6	Water	09/17/15	EB	Stage 2B		X				
440-121454-1	MW-K4	440-121454-7	Water	09/17/15		Stage 2B		X				
440-121454-1	PC-101R	440-121454-8	Water	09/17/15		Stage 2B		X				
440-123412-1	PC-99R2/R3	440-123412-1	Water	10/05/15		Stage 2B		X				
440-123412-1	PC-115R	440-123412-2	Water	10/05/15		Stage 2B		X				
440-123412-1	PC-115RDUP	440-123412-2DUP	Water	10/05/15	DUP	Stage 2B						
440-123412-1	PC-116R	440-123412-3	Water	10/05/15		Stage 2B		X				
440-123412-1	PC-117	440-123412-4	Water	10/05/15		Stage 2B		X				
440-123412-1	PC-118	440-123412-5	Water	10/05/15		Stage 2B		X				
440-123412-1	PC-119	440-123412-6	Water	10/05/15		Stage 2B		X				
440-123412-1	PC-120	440-123412-7	Water	10/05/15		Stage 2B		X				
440-123412-1	PC-121	440-123412-8	Water	10/05/15		Stage 2B		X				
440-123412-1	PC-133	440-123412-9	Water	10/05/15		Stage 2B		X				
440-123760-1	ART-1	440-123760-1	Water	10/06/15		Stage 2B		X				
440-123760-1	ART-1DUP	440-123760-1DUP	Water	10/06/15	DUP	Stage 2B						
440-123760-1	ART-2	440-123760-2	Water	10/06/15		Stage 2B		X				
440-123760-1	ART-3	440-123760-3	Water	10/06/15		Stage 2B		X				
440-123760-1	ART-4	440-123760-4	Water	10/06/15		Stage 2B		X				
440-123760-1	ART-6	440-123760-5	Water	10/06/15		Stage 2B		X				
440-123760-1	ART-7	440-123760-6	Water	10/06/15		Stage 2B		X				
440-123760-1	ART-8	440-123760-7	Water	10/06/15		Stage 2B		X				
440-123760-1	ART-9	440-123760-8	Water	10/06/15		Stage 2B		X				
440-123760-1	PC-150	440-123760-9	Water	10/06/15		Stage 2B		X				
440-124556-1	PC-55	440-124556-1	Water	10/15/15		Stage 2B		X				
440-124556-1	PC-103	440-124556-2	Water	10/15/15		Stage 2B		X				
440-124556-1	PC-98R	440-124556-3	Water	10/15/15		Stage 2B		X				
440-124580-1	M-83	440-124580-1	Water	10/13/15		Stage 2B		X				

Table I. Sample Cross Reference

SDG	Client Sample ID	Laboratory Sample ID	Matrix	Sample Date	QC Type	Validation Level	ClO3 (300.1B)	ClO4 (314.0)	NH3-N (350.1)	Phenolics (420.1)	Phenols (420.4)	TIN (NTOTAL)
440-124580-1	PC-97	440-124580-2	Water	10/13/15		Stage 2B		X				
440-124580-1	PC-90	440-124580-3	Water	10/13/15		Stage 2B		X				
440-124580-1	PC-91	440-124580-4	Water	10/13/15		Stage 2B		X				
440-124580-1	PC-58	440-124580-5	Water	10/13/15		Stage 2B		X				
440-124580-1	PC-56	440-124580-6	Water	10/13/15		Stage 2B		X				
440-124580-1	PC-60	440-124580-7	Water	10/13/15		Stage 2B		X				
440-124580-1	PC-59	440-124580-8	Water	10/13/15		Stage 2B		X				
440-124580-1	PC-62	440-124580-9	Water	10/13/15		Stage 2B		X				
440-124580-1	PC-68	440-124580-10	Water	10/13/15		Stage 2B		X				
440-124580-1	PC-86	440-124580-11	Water	10/13/15		Stage 2B		X				
440-124580-1	ARP-1	440-124580-12	Water	10/13/15		Stage 2B		X				
440-124580-1	PC-18	440-124580-13	Water	10/14/15		Stage 2B		X				
440-124580-1	PC-122	440-124580-14	Water	10/14/15		Stage 2B		X				
440-124580-1	PC-122DUP	440-124580-14DUP	Water	10/14/15	DUP	Stage 2B						
440-124580-1	PC-53	440-124580-15	Water	10/14/15		Stage 2B		X				
440-124580-1	MW-K5	440-124580-16	Water	10/14/15		Stage 2B		X				
440-124580-1	MEB-1	440-124580-17	Water	10/14/15	EB	Stage 2B		X				
440-124580-1	ARP-7	440-124580-18	Water	10/14/15		Stage 2B		X				
440-124580-1	ARP-6B	440-124580-19	Water	10/14/15		Stage 2B		X				
440-124580-1	ARP-5A	440-124580-20	Water	10/14/15		Stage 2B		X				
440-124580-1	ARP-4A	440-124580-21	Water	10/14/15		Stage 2B		X				
440-124580-1	PC-101R	440-124580-22	Water	10/14/15		Stage 2B		X				
440-124580-1	MW-K4	440-124580-23	Water	10/14/15		Stage 2B		X				
440-124580-1	ARP-3A	440-124580-24	Water	10/14/15		Stage 2B		X				
440-124580-1	ARP-2A	440-124580-25	Water	10/14/15		Stage 2B		X				
440-124580-1	ARP-2ADUP	440-124580-25DUP	Water	10/14/15	DUP	Stage 2B						
440-126184-1	ART-2	440-126184-1	Water	11/02/15		Stage 2B		X				
440-126184-1	ART-2DUP	440-126184-1DUP	Water	11/02/15	DUP	Stage 2B						
440-126184-1	ART-3	440-126184-2	Water	11/02/15		Stage 2B		X				
440-126184-1	ART-4	440-126184-3	Water	11/02/15		Stage 2B		X				
440-126184-1	ART-6	440-126184-4	Water	11/02/15		Stage 2B		X				
440-126184-1	ART-7B	440-126184-5	Water	11/02/15		Stage 2B		X				
440-126184-1	ART-8	440-126184-6	Water	11/02/15		Stage 2B		X				
440-126184-1	ART-9	440-126184-7	Water	11/02/15		Stage 2B		X				
440-126184-1	PC-99R2/R3	440-126184-8	Water	11/02/15		Stage 2B		X				
440-126184-1	PC-115R	440-126184-9	Water	11/02/15		Stage 2B		X				
440-126184-1	PC-116R	440-126184-10	Water	11/02/15		Stage 2B		X				

Table I. Sample Cross Reference

SDG	Client Sample ID	Laboratory Sample ID	Matrix	Sample Date	QC Type	Validation Level	C103 (300.1B)	C104 (314.0)	NH3-N (350.1)	Phenolics (420.1)	Phenols (420.4)	TIN (NTOTAL)
440-126184-1	PC-116RMS	440-126184-10MS	Water	11/02/15	MS	Stage 2B						
440-126184-1	PC-116RMSD	440-126184-10MSD	Water	11/02/15	MSD	Stage 2B						
440-126184-1	PC-117	440-126184-11	Water	11/02/15		Stage 2B		X				
440-126184-1	PC-117DUP	440-126184-11DUP	Water	11/02/15	DUP	Stage 2B						
440-126184-1	PC-118	440-126184-12	Water	11/02/15		Stage 2B		X				
440-126184-1	PC-119	440-126184-13	Water	11/02/15		Stage 2B		X				
440-126184-1	PC-120	440-126184-14	Water	11/02/15		Stage 2B		X				
440-126184-1	PC-121	440-126184-15	Water	11/02/15		Stage 2B		X				
440-126184-1	PC-133	440-126184-16	Water	11/02/15		Stage 2B		X				
440-126184-1	PC-150	440-126184-17	Water	11/02/15		Stage 2B		X				
440-126191-1	I-O	440-126191-1	Water	11/02/15		Stage 2B		X				
440-126191-1	I-P	440-126191-2	Water	11/02/15		Stage 2B		X				
440-126191-1	I-H	440-126191-3	Water	11/02/15		Stage 2B		X				
440-126191-1	I-U	440-126191-4	Water	11/02/15		Stage 2B		X				
440-126191-1	I-UDUP	440-126191-4DUP	Water	11/02/15	DUP	Stage 2B						
440-126191-1	I-G	440-126191-5	Water	11/02/15		Stage 2B		X				
440-126191-1	I-F	440-126191-6	Water	11/02/15		Stage 2B		X				
440-126191-1	I-N	440-126191-7	Water	11/02/15		Stage 2B		X				
440-126191-1	I-E	440-126191-8	Water	11/02/15		Stage 2B		X				
440-126191-1	I-M	440-126191-9	Water	11/02/15		Stage 2B		X				
440-126191-1	I-D	440-126191-10	Water	11/02/15		Stage 2B		X				
440-126191-1	I-DMS	440-126191-10MS	Water	11/02/15	MS	Stage 2B						
440-126191-1	I-DMSD	440-126191-10MSD	Water	11/02/15	MSD	Stage 2B						
440-126191-1	I-S	440-126191-11	Water	11/02/15		Stage 2B		X				
440-126191-1	I-L	440-126191-12	Water	11/02/15		Stage 2B		X				
440-126191-1	I-Y	440-126191-13	Water	11/02/15		Stage 2B		X				
440-126191-1	I-R	440-126191-14	Water	11/02/15		Stage 2B		X				
440-126191-1	I-RDUP	440-126191-14DUP	Water	11/02/15	DUP	Stage 2B						
440-126191-1	I-B	440-126191-15	Water	11/02/15		Stage 2B		X				
440-126191-1	I-AB	440-126191-16	Water	11/02/15		Stage 2B		X				
440-126191-1	I-AA	440-126191-17	Water	11/03/15		Stage 2B		X				
440-126312-1	PC-123	440-126312-1	Water	11/03/15		Stage 2B		X				
440-126312-1	PC-128	440-126312-2	Water	11/03/15		Stage 2B		X				
440-126312-1	PC-129	440-126312-3	Water	11/03/15		Stage 2B		X				
440-126312-1	PC-130	440-126312-4	Water	11/03/15		Stage 2B		X				
440-126312-1	PC-131	440-126312-5	Water	11/03/15		Stage 2B		X				
440-126312-1	PC-125	440-126312-6	Water	11/03/15		Stage 2B		X				

Table I. Sample Cross Reference

SDG	Client Sample ID	Laboratory Sample ID	Matrix	Sample Date	QC Type	Validation Level	C103 (300.1B)	C104 (314.0)	NH3-N (350.1)	Phenolics (420.1)	Phenols (420.4)	TIN (TOTAL)
440-126312-1	PC-126	440-126312-7	Water	11/03/15		Stage 2B		X				
440-126312-1	PC-126DUP	440-126312-7DUP	Water	11/03/15	DUP	Stage 2B						
440-126312-1	PC-127	440-126312-8	Water	11/03/15		Stage 2B		X				
440-126312-1	PC-127MS	440-126312-8MS	Water	11/03/15	MS	Stage 2B						
440-126312-1	PC-127MSD	440-126312-8MSD	Water	11/03/15	MSD	Stage 2B						
440-126312-1	PC-132	440-126312-9	Water	11/03/15		Stage 2B		X				
440-126312-1	PC-54	440-126312-10	Water	11/03/15		Stage 2B		X				
440-126312-1	M-48A	440-126312-11	Water	11/03/15		Stage 2B		X				
440-126312-1	EB-1	440-126312-12	Water	11/03/15	EB	Stage 2B		X				
440-126312-1	EB-1MS	440-126312-12MS	Water	11/03/15	MS	Stage 2B						
440-126312-1	EB-1MSD	440-126312-12MSD	Water	11/03/15	MSD	Stage 2B						
440-126312-1	PC-71	440-126312-13	Water	11/03/15		Stage 2B		X				
440-126312-1	PC-72	440-126312-14	Water	11/03/15		Stage 2B		X				
440-126312-1	PC-73	440-126312-15	Water	11/03/15		Stage 2B		X				
440-126312-1	PC-37	440-126312-16	Water	11/03/15		Stage 2B		X				
440-126312-1	M-95	440-126312-17	Water	11/03/15	FD7	Stage 2B		X				
440-126312-1	M-95DUP	440-126312-17DUP	Water	11/03/15	DUP	Stage 2B						
440-126312-1	M-44	440-126312-18	Water	11/03/15		Stage 2B		X				
440-126312-1	M-44MS	440-126312-18MS	Water	11/03/15	MS	Stage 2B						
440-126312-1	M-44MSD	440-126312-18MSD	Water	11/03/15	MSD	Stage 2B						
440-126312-1	DUP-1	440-126312-19	Water	11/03/15	FD7	Stage 2B		X				
440-126559-1	PC-124	440-126559-1	Water	11/04/15		Stage 2B		X				
440-126559-1	PC-136	440-126559-2	Water	11/04/15		Stage 2B		X				
440-126559-1	PC-135A	440-126559-3	Water	11/04/15		Stage 2B		X				
440-126559-1	M-23	440-126559-4	Water	11/04/15		Stage 2B		X				
440-126559-1	ART-1	440-126559-5	Water	11/04/15		Stage 2B		X				
440-126559-1	EB-1	440-126559-6	Water	11/04/15	EB	Stage 2B		X				
440-126718-1	M-64	440-126718-1	Water	11/05/15		Stage 2B		X				
440-126718-1	M-64DUP	440-126718-1DUP	Water	11/05/15	DUP	Stage 2B						
440-126718-1	M-64MS	440-126718-1MS	Water	11/05/15	MS	Stage 2B						
440-126718-1	M-64MSD	440-126718-1MSD	Water	11/05/15	MSD	Stage 2B						
440-126718-1	PC-148	440-126718-2	Water	11/05/15		Stage 2B		X				
440-126718-1	PC-149	440-126718-3	Water	11/05/15		Stage 2B		X				
440-126718-1	PC-149MS	440-126718-3MS	Water	11/05/15	MS	Stage 2B						
440-126718-1	PC-149MSD	440-126718-3MSD	Water	11/05/15	MSD	Stage 2B						
440-126718-1	M-65	440-126718-4	Water	11/05/15		Stage 2B		X				
440-126718-1	M-66	440-126718-5	Water	11/05/15	FD9	Stage 2B		X				

Table I. Sample Cross Reference

SDG	Client Sample ID	Laboratory Sample ID	Matrix	Sample Date	QC Type	Validation Level	ClO3 (300.1B)	ClO4 (314.0)	NH3-N (350.1)	Phenolics (420.1)	Phenols (420.4)	TIN (NTOTAL)
440-126718-1	DUP3	440-126718-6	Water	11/05/15	FD9	Stage 2B		X				
440-126718-1	M-79	440-126718-7	Water	11/05/15		Stage 2B		X				
440-126718-1	M-69	440-126718-8	Water	11/05/15		Stage 2B		X				
440-126718-1	M-135	440-126718-9	Water	11/05/15		Stage 2B		X				
440-126718-1	M-131	440-126718-10	Water	11/05/15		Stage 2B		X				
440-126718-1	M-57A	440-126718-11	Water	11/05/15		Stage 2B		X				
440-126718-1	M-57ADUP	440-126718-11DUP	Water	11/05/15	DUP	Stage 2B						
440-126718-1	M-57AMS	440-126718-11MS	Water	11/05/15	MS	Stage 2B						
440-126718-1	M-57AMSD	440-126718-11MSD	Water	11/05/15	MSD	Stage 2B						
440-126718-1	M-25	440-126718-12	Water	11/05/15		Stage 2B		X				
440-126718-1	M-37	440-126718-13	Water	11/05/15	FD8	Stage 2B		X				
440-126718-1	I-C	440-126718-14	Water	11/05/15		Stage 2B		X				
440-126718-1	I-T	440-126718-15	Water	11/05/15		Stage 2B		X				
440-126718-1	EB-3	440-126718-16	Water	11/05/15	EB	Stage 2B		X				
440-126718-1	DUP-2	440-126718-17	Water	11/05/15	FD8	Stage 2B		X				
440-126840-1	M-31A	440-126840-1	Water	11/06/15		Stage 2B		X				
440-126840-1	M-31ADUP	440-126840-1DUP	Water	11/06/15	DUP	Stage 2B						
440-126840-1	M-31AMS	440-126840-1MS	Water	11/06/15	MS	Stage 2B						
440-126840-1	M-31AMSD	440-126840-1MSD	Water	11/06/15	MSD	Stage 2B						
440-126840-1	M-52	440-126840-2	Water	11/06/15		Stage 2B		X				
440-126840-1	M-35	440-126840-3	Water	11/06/15		Stage 2B		X				
440-126840-1	M-19	440-126840-4	Water	11/06/15		Stage 2B		X				
440-126840-1	M-68	440-126840-5	Water	11/06/15		Stage 2B		X				
440-126840-1	I-K	440-126840-6	Water	11/06/15	FD10	Stage 2B		X				
440-126840-1	DUP 4	440-126840-7	Water	11/06/15	FD10	Stage 2B		X				
440-126840-1	M-83	440-126840-8	Water	11/06/15		Stage 2B		X				
440-126840-1	M-74	440-126840-9	Water	11/06/15		Stage 2B		X				
440-126840-1	I-J	440-126840-10	Water	11/06/15		Stage 2B		X				
440-126840-1	I-Z	440-126840-11	Water	11/06/15		Stage 2B		X				
440-126840-1	I-ZDUP	440-126840-11DUP	Water	11/06/15	DUP	Stage 2B						
440-126840-1	I-ZMS	440-126840-11MS	Water	11/06/15	MS	Stage 2B						
440-126840-1	I-ZMSD	440-126840-11MSD	Water	11/06/15	MSD	Stage 2B						
440-126840-1	FB-1	440-126840-12	Water	11/06/15	FB	Stage 2B		X				
440-126840-1	FB-1MS	440-126840-12MS	Water	11/06/15	MS	Stage 2B						
440-126840-1	FB-1MSD	440-126840-12MSD	Water	11/06/15	MSD	Stage 2B						
440-126840-1	M-67	440-126840-13	Water	11/06/15		Stage 2B		X				
440-126840-1	M-73	440-126840-14	Water	11/06/15		Stage 2B		X				

Table I. Sample Cross Reference

SDG	Client Sample ID	Laboratory Sample ID	Matrix	Sample Date	QC Type	Validation Level	ClO3 (300.1B)	ClO4 (314.0)	NH3-N (350.1)	Phenolics (420.1)	Phenols (420.4)	TIN (NTOTAL)
440-126840-1	I-V	440-126840-15	Water	11/06/15		Stage 2B		X				
440-126840-1	I-I	440-126840-16	Water	11/06/15		Stage 2B		X				
440-126840-1	M-81A	440-126840-17	Water	11/06/15		Stage 2B		X				
440-126840-1	EB-4	440-126840-18	Water	11/06/15	EB	Stage 2B		X				
440-126840-1	M-80	440-126840-19	Water	11/06/15		Stage 2B		X				
440-126840-1	I-AR	440-126840-20	Water	11/06/15		Stage 2B		X				
440-127054-1	M-10	440-127054-1	Water	11/09/15		Stage 4	X	X	X			X
440-127054-1	M-10MS	440-127054-1MS	Water	11/09/15	MS	Stage 4						
440-127054-1	M-10MSD	440-127054-1MSD	Water	11/09/15	MSD	Stage 4						
440-127055-1	M-14A	440-127055-1	Water	11/09/15	FD11	Stage 2B		X				
440-127055-1	M-14ADUP	440-127055-1DUP	Water	11/09/15	DUP	Stage 2B						
440-127055-1	M-14AMS	440-127055-1MS	Water	11/09/15	MS	Stage 2B						
440-127055-1	M-14AMSD	440-127055-1MSD	Water	11/09/15	MSD	Stage 2B						
440-127055-1	M-70	440-127055-2	Water	11/09/15		Stage 2B		X				
440-127055-1	M-71	440-127055-3	Water	11/09/15		Stage 2B		X				
440-127055-1	M-72	440-127055-4	Water	11/09/15		Stage 2B		X				
440-127055-1	M-22A	440-127055-5	Water	11/09/15		Stage 2B		X				
440-127055-1	M-38	440-127055-6	Water	11/09/15		Stage 2B		X				
440-127055-1	M-12A	440-127055-7	Water	11/09/15		Stage 2B		X				
440-127055-1	M-11	440-127055-8	Water	11/09/15		Stage 2B		X				
440-127055-1	DUP-5	440-127055-9	Water	11/09/15	FD11	Stage 2B		X				
440-127055-1	EB-5	440-127055-10	Water	11/09/15	EB	Stage 2B		X				
440-127055-1	EB-5MS	440-127055-10MS	Water	11/09/15	MS	Stage 2B						
440-127055-1	EB-5MSD	440-127055-10MSD	Water	11/09/15	MSD	Stage 2B						
440-127487-1	I-AD	440-127487-1	Water	11/10/15		Stage 2B		X				
440-127487-1	I-ADMS	440-127487-1MS	Water	11/10/15	MS	Stage 2B						
440-127487-1	I-ADMSD	440-127487-1MSD	Water	11/10/15	MSD	Stage 2B						
440-127487-1	PC-97	440-127487-2	Water	11/10/15		Stage 2B		X				
440-127487-1	PC-90	440-127487-3	Water	11/10/15		Stage 2B		X				
440-127487-1	PC-91	440-127487-4	Water	11/10/15		Stage 2B		X				
440-127487-1	PC-58	440-127487-5	Water	11/10/15		Stage 2B		X				
440-127487-1	PC-56	440-127487-6	Water	11/10/15		Stage 2B		X				
440-127487-1	PC-60	440-127487-7	Water	11/10/15		Stage 2B		X				
440-127487-1	PC-60DUP	440-127487-7DUP	Water	11/10/15	DUP	Stage 2B						
440-127487-1	PC-59	440-127487-8	Water	11/10/15		Stage 2B		X				
440-127487-1	PC-62	440-127487-9	Water	11/10/15		Stage 2B		X				
440-127487-1	PC-68	440-127487-10	Water	11/10/15		Stage 2B		X				

Table I. Sample Cross Reference

SDG	Client Sample ID	Laboratory Sample ID	Matrix	Sample Date	QC Type	Validation Level	ClO3 (300.1B)	ClO4 (314.0)	NH3-N (350.1)	Phenolics (420.1)	Phenols (420.4)	TIN (NTOTAL)
440-127487-1	PC-86	440-127487-11	Water	11/10/15		Stage 2B		X				
440-127487-1	PC-86MS	440-127487-11MS	Water	11/10/15	MS	Stage 2B						
440-127487-1	PC-86MSD	440-127487-11MSD	Water	11/10/15	MSD	Stage 2B						
440-127487-1	PC-94	440-127487-13	Water	11/10/15		Stage 2B		X				
440-127619-1	PC-18	440-127619-1	Water	11/11/15		Stage 2B		X				
440-127619-1	PC-18MS	440-127619-1MS	Water	11/11/15	MS	Stage 2B						
440-127619-1	PC-18MSD	440-127619-1MSD	Water	11/11/15	MSD	Stage 2B						
440-127619-1	ARP-1	440-127619-2	Water	11/11/15		Stage 2B		X				
440-127619-1	PC-122	440-127619-3	Water	11/11/15		Stage 2B		X				
440-127619-1	PC-53	440-127619-4	Water	11/11/15		Stage 2B		X				
440-127619-1	MW-K5	440-127619-5	Water	11/11/15		Stage 2B		X				
440-127619-1	ARP-7	440-127619-6	Water	11/11/15		Stage 2B		X				
440-127619-1	ARP-6B	440-127619-7	Water	11/11/15		Stage 2B		X				
440-127619-1	ARP-5A	440-127619-8	Water	11/11/15		Stage 2B		X				
440-127619-1	ARP-4A	440-127619-9	Water	11/11/15		Stage 2B		X				
440-127619-1	ARP-4ADUP	440-127619-9DUP	Water	11/11/15	DUP	Stage 2B						
440-127619-1	MW-K4	440-127619-10	Water	11/11/15		Stage 2B		X				
440-127619-1	ARP-3A	440-127619-11	Water	11/11/15		Stage 2B		X				
440-127619-1	ARP-3AMS	440-127619-11MS	Water	11/11/15	MS	Stage 2B						
440-127619-1	ARP-3AMSD	440-127619-11MSD	Water	11/11/15	MSD	Stage 2B						
440-127619-1	ARP-2A	440-127619-12	Water	11/11/15		Stage 2B		X				
440-127656-1	PC-55	440-127656-1	Water	11/12/15		Stage 2B		X				
440-127656-1	PC-98R	440-127656-2	Water	11/12/15		Stage 2B		X				
440-127656-1	PC-103	440-127656-3	Water	11/12/15		Stage 2B		X				
440-127656-1	PC-103MS	440-127656-3MS	Water	11/12/15	MS	Stage 2B						
440-127656-1	PC-103MSD	440-127656-3MSD	Water	11/12/15	MSD	Stage 2B						
440-127656-1	PC-101R	440-127656-4	Water	11/12/15		Stage 2B		X				
440-127656-1	PC-144	440-127656-5	Water	11/12/15		Stage 2B		X				
440-128067-1	I-W	440-128067-1	Water	11/16/15		Stage 2B		X				
440-128067-1	I-X	440-128067-2	Water	11/16/15		Stage 2B		X				
440-128067-1	I-XDUP	440-128067-2DUP	Water	11/16/15	DUP	Stage 2B						
440-128067-1	I-XMS	440-128067-2MS	Water	11/16/15	MS	Stage 2B						
440-128067-1	I-XMSD	440-128067-2MSD	Water	11/16/15	MSD	Stage 2B						
440-128396-1	I-Q	440-128396-1	Water	11/18/15		Stage 2B		X				
440-129811-1	ART-1	440-129811-1	Water	12/03/15		Stage 2B		X				
440-129811-1	ART-1DUP	440-129811-1DUP	Water	12/03/15	DUP	Stage 2B						
440-129811-1	ART-2	440-129811-2	Water	12/03/15		Stage 2B		X				

Table I. Sample Cross Reference

SDG	Client Sample ID	Laboratory Sample ID	Matrix	Sample Date	QC Type	Validation Level	ClO3 (300.1B)	ClO4 (314.0)	NH3-N (350.1)	Phenolics (420.1)	Phenols (420.4)	TIN (NTOTAL)
440-129811-1	ART-3	440-129811-3	Water	12/03/15		Stage 2B		X				
440-129811-1	ART-4	440-129811-4	Water	12/03/15		Stage 2B		X				
440-129811-1	ART-7B	440-129811-5	Water	12/03/15		Stage 2B		X				
440-129811-1	ART-8	440-129811-6	Water	12/03/15		Stage 2B		X				
440-129811-1	ART-9	440-129811-7	Water	12/03/15		Stage 2B		X				
440-129811-1	PC-99R2/R3	440-129811-8	Water	12/03/15		Stage 2B		X				
440-129811-1	PC-115R	440-129811-9	Water	12/03/15		Stage 2B		X				
440-129811-1	PC-116R	440-129811-10	Water	12/03/15		Stage 2B		X				
440-129811-1	PC-116RMS	440-129811-10MS	Water	12/03/15	MS	Stage 2B						
440-129811-1	PC-116RMSD	440-129811-10MSD	Water	12/03/15	MSD	Stage 2B						
440-129811-1	PC-117	440-129811-11	Water	12/03/15		Stage 2B		X				
440-129811-1	PC-117DUP	440-129811-11DUP	Water	12/03/15	DUP	Stage 2B						
440-129811-1	PC-118	440-129811-12	Water	12/03/15		Stage 2B		X				
440-129811-1	PC-119	440-129811-13	Water	12/03/15		Stage 2B		X				
440-129811-1	PC-120	440-129811-14	Water	12/03/15		Stage 2B		X				
440-129811-1	PC-121	440-129811-15	Water	12/03/15		Stage 2B		X				
440-129811-1	PC-133	440-129811-16	Water	12/03/15		Stage 2B		X				
440-129811-1	PC-150	440-129811-17	Water	12/03/15		Stage 2B		X				
440-130086-1	I-V	440-130086-1	Water	12/07/15		Stage 2B		X				
440-130086-1	I-VDUP	440-130086-1DUP	Water	12/07/15	DUP	Stage 2B						
440-130086-1	I-VMS	440-130086-1MS	Water	12/07/15	MS	Stage 2B						
440-130086-1	I-VMSD	440-130086-1MSD	Water	12/07/15	MSD	Stage 2B						
440-130086-1	I-Z	440-130086-2	Water	12/07/15		Stage 2B		X				
440-130086-1	I-J	440-130086-3	Water	12/07/15		Stage 2B		X				
440-130086-1	I-K	440-130086-4	Water	12/07/15		Stage 2B		X				
440-130086-1	I-AD	440-130086-5	Water	12/07/15		Stage 2B		X				
440-130086-1	I-O	440-130086-6	Water	12/07/15		Stage 2B		X				
440-130086-1	I-W	440-130086-7	Water	12/07/15		Stage 2B		X				
440-130086-1	I-P	440-130086-8	Water	12/07/15		Stage 2B		X				
440-130086-1	I-H	440-130086-9	Water	12/07/15		Stage 2B		X				
440-130086-1	I-U	440-130086-10	Water	12/07/15		Stage 2B		X				
440-130086-1	I-T	440-130086-11	Water	12/07/15		Stage 2B		X				
440-130086-1	I-TDUP	440-130086-11DUP	Water	12/07/15	DUP	Stage 2B						
440-130086-1	I-TMS	440-130086-11MS	Water	12/07/15	MS	Stage 2B						
440-130086-1	I-TMSD	440-130086-11MSD	Water	12/07/15	MSD	Stage 2B						
440-130086-1	I-G	440-130086-12	Water	12/07/15		Stage 2B		X				
440-130086-1	I-Q	440-130086-13	Water	12/07/15		Stage 2B		X				



Table I. Sample Cross Reference

SDG	Client Sample ID	Laboratory Sample ID	Matrix	Sample Date	QC Type	Validation Level	ClO3 (300.1B)	ClO4 (314.0)	NH3-N (350.1)	Phenolics (420.1)	Phenols (420.4)	TIN (NTOTAL)
440-130086-1	ART-6	440-130086-14	Water	12/07/15		Stage 2B		X				
440-130236-1	I-F	440-130236-1	Water	12/08/15		Stage 2B		X				
440-130236-1	I-FDUP	440-130236-1DUP	Water	12/08/15	DUP	Stage 2B						
440-130236-1	I-FMS	440-130236-1MS	Water	12/08/15	MS	Stage 2B						
440-130236-1	I-FMSD	440-130236-1MSD	Water	12/08/15	MSD	Stage 2B						
440-130236-1	I-X	440-130236-2	Water	12/08/15		Stage 2B		X				
440-130236-1	I-N	440-130236-3	Water	12/08/15		Stage 2B		X				
440-130236-1	I-E	440-130236-4	Water	12/08/15		Stage 2B		X				
440-130236-1	I-M	440-130236-5	Water	12/08/15		Stage 2B		X				
440-130236-1	I-D	440-130236-6	Water	12/08/15		Stage 2B		X				
440-130236-1	I-C	440-130236-7	Water	12/08/15		Stage 2B		X				
440-130236-1	I-S	440-130236-8	Water	12/08/15		Stage 2B		X				
440-130236-1	I-L	440-130236-9	Water	12/08/15		Stage 2B		X				
440-130236-1	I-Y	440-130236-10	Water	12/08/15		Stage 2B		X				
440-130236-1	I-R	440-130236-11	Water	12/08/15		Stage 2B		X				
440-130236-1	I-RDUP	440-130236-11DUP	Water	12/08/15	DUP	Stage 2B						
440-130236-1	I-RMS	440-130236-11MS	Water	12/08/15	MS	Stage 2B						
440-130236-1	I-RMSD	440-130236-11MSD	Water	12/08/15	MSD	Stage 2B						
440-130236-1	I-B	440-130236-12	Water	12/08/15		Stage 2B		X				
440-130236-1	I-AB	440-130236-13	Water	12/08/15		Stage 2B		X				
440-130236-1	I-AA	440-130236-14	Water	12/08/15		Stage 2B		X				
440-130236-1	I-AR	440-130236-15	Water	12/08/15		Stage 2B		X				
440-130236-1	I-I	440-130236-16	Water	12/08/15		Stage 2B		X				
440-130491-1	M-83	440-130491-1	Water	12/09/15		Stage 2B		X				
440-130491-1	PC-97	440-130491-2	Water	12/09/15		Stage 2B		X				
440-130491-1	PC-90	440-130491-3	Water	12/09/15		Stage 2B		X				
440-130491-1	PC-91	440-130491-4	Water	12/09/15		Stage 2B		X				
440-130491-1	PC-91DUP	440-130491-4DUP	Water	12/09/15	DUP	Stage 2B						
440-130491-1	PC-58	440-130491-5	Water	12/09/15		Stage 2B		X				
440-130491-1	PC-56	440-130491-6	Water	12/09/15		Stage 2B		X				
440-130491-1	MEB-1	440-130491-7	Water	12/09/15	EB	Stage 2B		X				
440-130491-1	PC-60	440-130491-8	Water	12/09/15		Stage 2B		X				
440-130491-1	PC-59	440-130491-9	Water	12/09/15		Stage 2B		X				
440-130491-1	PC-59MS	440-130491-9MS	Water	12/09/15	MS	Stage 2B						
440-130491-1	PC-59MSD	440-130491-9MSD	Water	12/09/15	MSD	Stage 2B						
440-130634-1	PC-53	440-130634-1	Water	12/10/15		Stage 2B		X				
440-130634-1	PC-53DUP	440-130634-1DUP	Water	12/10/15	DUP	Stage 2B						

Table I. Sample Cross Reference

SDG	Client Sample ID	Laboratory Sample ID	Matrix	Sample Date	QC Type	Validation Level	ClO3 (300.1B)	ClO4 (314.0)	NH3-N (350.1)	Phenolics (420.1)	Phenols (420.4)	TIN (NTOTAL)
440-130634-1	PC-53MS	440-130634-1MS	Water	12/10/15	MS	Stage 2B						
440-130634-1	PC-53MSD	440-130634-1MSD	Water	12/10/15	MSD	Stage 2B						
440-130634-1	MW-K5	440-130634-2	Water	12/10/15		Stage 2B		X				
440-130634-1	PC-122	440-130634-3	Water	12/10/15		Stage 2B		X				
440-130634-1	ARP-7	440-130634-4	Water	12/10/15		Stage 2B		X				
440-130634-1	ARP-6B	440-130634-5	Water	12/10/15		Stage 2B		X				
440-130634-1	ARP-5A	440-130634-6	Water	12/10/15		Stage 2B		X				
440-130634-1	ARP-4A	440-130634-7	Water	12/10/15		Stage 2B		X				
440-130634-1	MWK4	440-130634-8	Water	12/10/15		Stage 2B		X				
440-130634-1	PC-101R	440-130634-9	Water	12/10/15		Stage 2B		X				
440-130634-1	ARP-3A	440-130634-10	Water	12/10/15		Stage 2B		X				
440-130634-1	ARP-2A	440-130634-11	Water	12/10/15		Stage 2B		X				
440-130634-1	ARP-2ADUP	440-130634-11DUP	Water	12/10/15	DUP	Stage 2B						
440-130634-1	ARP-2AMS	440-130634-11MS	Water	12/10/15	MS	Stage 2B						
440-130634-1	ARP-2AMSD	440-130634-11MSD	Water	12/10/15	MSD	Stage 2B						
440-130634-1	PC-98R	440-130634-12	Water	12/10/15		Stage 2B		X				
440-130634-1	PC-103	440-130634-13	Water	12/10/15		Stage 2B		X				
440-130766-1	PC-62	440-130766-1	Water	12/11/15		Stage 4		X				
440-130766-1	PC-62DUP	440-130766-1DUP	Water	12/11/15	DUP	Stage 4						
440-130766-1	PC-68	440-130766-W	Water	12/11/15		Stage 4		X				
440-130766-1	PC-86	440-130766-3	Water	12/11/15		Stage 4		X				
440-130766-1	PC-18	440-130766-4	Water	12/11/15		Stage 4		X				
440-130766-1	ARP-1	440-130766-5	Water	12/11/15		Stage 4		X				
440-130766-1	PC-55	440-130766-6	Water	12/11/15		Stage 4		X				
440-129634-1/15-6872	ART-1	440-129634-1/6872-1A	Water	12/03/15		Stage 2B						
440-129634-1/15-6872	ART-2	440-129634-2/6872-2A	Water	12/03/15		Stage 2B						
440-129634-1/15-6872	ART-3	440-129634-3/6872-3A	Water	12/03/15		Stage 2B						
440-129634-1/15-6872	ART-4	440-129634-4/6872-4A	Water	12/03/15		Stage 2B						
440-129634-1/15-6872	ART-7B	440-129634-5/6872-5A	Water	12/03/15		Stage 2B						
440-129634-1/15-6872	ART-8	440-129634-6/6872-6A	Water	12/03/15		Stage 2B						
440-129634-1/15-6872	ART-9	440-129634-7/6872-7A	Water	12/03/15		Stage 2B						
440-129634-1/15-6872	PC-99R2/R3	440-129634-8/6872-8A	Water	12/03/15		Stage 2B						
440-129634-1/15-6872	PC-115R	440-129634-9/6872-9A	Water	12/03/15		Stage 2B						
440-129634-1/15-6872	PC-116R	440-129634-10/6872-10A	Water	12/03/15		Stage 2B						
440-129634-1/15-6872	PC-117	440-129634-11/6872-11A	Water	12/03/15		Stage 2B						
440-129634-1/15-6872	PC-118	440-129634-12/6872-12A	Water	12/03/15		Stage 2B						
440-129634-1/15-6872	PC-119	440-129634-13/6872-13A	Water	12/03/15		Stage 2B						

Table I. Sample Cross Reference

SDG	Client Sample ID	Laboratory Sample ID	Matrix	Sample Date	QC Type	Validation Level	CIO3 (300.1B)	CIO4 (314.0)	NH3-N (350.1)	Phenolics (420.1)	Phenols (420.4)	TIN (NTOTAL)
440-129634-1/15-6872	PC-120	440-129634-14/6872-14A	Water	12/03/15		Stage 2B						
440-129634-1/15-6872	PC-121	440-129634-15/6872-15A	Water	12/03/15		Stage 2B						
440-129634-1/15-6872	PC-133	440-129634-16/6872-16A	Water	12/03/15		Stage 2B						
440-129634-1/15-6872	PC-150	440-129634-17/6872-17A	Water	12/03/15		Stage 2B						
440-129634-1/15-6872	ART-1MS	440-129634-1/6872-1AMS	Water	12/03/15	MS	Stage 2B						
440-129634-1/15-6872	ART-1MSD	440-129634-1/6872-1AMSD	Water	12/03/15	MSD	Stage 2B						
440-129634-1/15-6872	ART-3MS	440-129634-3/6872-3AMS	Water	12/03/15	MS	Stage 2B						
440-129634-1/15-6872	ART-3MSD	440-129634-3/6872-3AMSD	Water	12/03/15	MSD	Stage 2B						
440-130398-1/15-7024	M-83	440-130398-1/7024-1A	Water	12/09/15		Stage 2B						
440-130398-1/15-7024	PC-97	440-130398-2/7024-2A	Water	12/09/15		Stage 2B						
440-130398-1/15-7024	PC-90	440-130398-3/7024-3A	Water	12/09/15		Stage 2B						
440-130398-1/15-7024	PC-91	440-130398-4/7024-4A	Water	12/09/15		Stage 2B						
440-130398-1/15-7024	PC-58	440-130398-5/7024-5A	Water	12/09/15		Stage 2B						
440-130398-1/15-7024	PC-56	440-130398-6/7024-6A	Water	12/09/15		Stage 2B						
440-130398-1/15-7024	PC-60	440-130398-7/7024-7A	Water	12/09/15		Stage 2B						
440-130398-1/15-7024	PC-59	440-130398-8/7024-8A	Water	12/09/15		Stage 2B						
440-130398-1/15-7024	PC-97MS	440-130398-2/7024-2AMS	Water	12/09/15	MS	Stage 2B						
440-130398-1/15-7024	PC-97MSD	440-130398-2/7024-2AMSD	Water	12/09/15	MSD	Stage 2B						
440-130571-1/15-7085	PC-53	440-130571-1/7085-1A	Water	12/10/15		Stage 2B						
440-130571-1/15-7085	MW-K5	440-130571-2/7085-2A	Water	12/10/15		Stage 2B						
440-130571-1/15-7085	PC-122	440-130571-3/7085-3A	Water	12/10/15		Stage 2B						
440-130571-1/15-7085	ARP-7	440-130571-4/7085-4A	Water	12/10/15		Stage 2B						
440-130571-1/15-7085	ARP-6B	440-130571-5/7085-5A	Water	12/10/15		Stage 2B						
440-130571-1/15-7085	ARP-5A	440-130571-6/7085-6A	Water	12/10/15		Stage 2B						
440-130571-1/15-7085	ARP-4A	440-130571-7/7085-7A	Water	12/10/15		Stage 2B						
440-130571-1/15-7085	MW-K4	440-130571-8/7085-8A	Water	12/10/15		Stage 2B						
440-130571-1/15-7085	PC-101R	440-130571-10/7085-9A	Water	12/10/15		Stage 2B						
440-130571-1/15-7085	ARP-3A	440-130571-11/7085-10A	Water	12/10/15		Stage 2B						
440-130571-1/15-7085	ARP-2A	440-130571-12/7085-11A	Water	12/10/15		Stage 2B						
440-130571-1/15-7085	PC-98R	440-130571-13/7085-12A	Water	12/10/15		Stage 2B						
440-130571-1/15-7085	PC-103	440-130571-14/7085-13A	Water	12/10/15		Stage 2B						
440-130821-1/15-7127	PC-62	440-130821-1/7217-1A	Water	12/11/15		Stage 2B						
440-130821-1/15-7127	PC-68	440-130821-2/7217-2A	Water	12/11/15		Stage 2B						
440-130821-1/15-7127	PC-86	440-130821-3/7217-3A	Water	12/11/15		Stage 2B						
440-130821-1/15-7127	PC-18	440-130821-4/7217-4A	Water	12/11/15		Stage 2B						
440-130821-1/15-7127	ARP-1	440-130821-5/7217-5A	Water	12/11/15		Stage 2B						
440-130821-1/15-7127	PC-55	440-130821-6/7217-6A	Water	12/11/15		Stage 2B						

Table I. Sample Cross Reference

SDG	Client Sample ID	Laboratory Sample ID	Matrix	Sample Date	QC Type	Validation Level	ClO3 (300.1B)	ClO4 (314.0)	NH3-N (350.1)	Phenolics (420.1)	Phenols (420.4)	TIN (NTOTAL)
440-130821-1/15-7127	PC-55MS	440-130821-6/7217-6AMS	Water	12/11/15	MS	Stage 2B						
440-130821-1/15-7127	PC-55MSD	440-130821-6/7217-6AMSD	Water	12/11/15	MSD	Stage 2B						
440-140153-1/15-6943	I-V	440-140153-1/15-6943-1A	Water	12/07/15		Stage 2B						
440-140153-1/15-6943	I-Z	440-140153-2/15-6943-2A	Water	12/07/15		Stage 4						
440-140153-1/15-6943	I-J	440-140153-3/15-6943-3A	Water	12/07/15		Stage 2B						
440-140153-1/15-6943	I-K	440-140153-4/15-6943-4A	Water	12/07/15		Stage 2B						
440-140153-1/15-6943	I-AD	440-140153-5/15-6943-5A	Water	12/07/15		Stage 4						
440-140153-1/15-6943	I-O	440-140153-6/15-6943-6A	Water	12/07/15		Stage 4						
440-140153-1/15-6943	I-W	440-140153-7/15-6943-7A	Water	12/07/15		Stage 2B						
440-140153-1/15-6943	I-P	440-140153-8/15-6943-8A	Water	12/07/15		Stage 2B						
440-140153-1/15-6943	I-H	440-140153-9/15-6943-9A	Water	12/07/15		Stage 4						
440-140153-1/15-6943	I-U	440-140153-10/15-6943-10A	Water	12/07/15		Stage 2B						
440-140153-1/15-6943	I-T	440-140153-11/15-6943-11A	Water	12/07/15		Stage 2B						
440-140153-1/15-6943	I-G	440-140153-12/15-6943-12A	Water	12/07/15		Stage 4						
440-140153-1/15-6943	I-Q	440-140153-13/15-6943-13A	Water	12/07/15		Stage 2B						
440-140153-1/15-6943	ART-6	440-140153-14/15-6943-14A	Water	12/07/15		Stage 4						
440-140153-1/15-6943	ART-6MS	440-140153-14/15-6943-14AMS	Water	12/07/15	MS	Stage 4						
440-140153-1/15-6943	ART-6MSD	440-140153-14/15-6943-14AMSD	Water	12/07/15	MSD	Stage 4						
440-140156-1/15-6995	I-F	440-140156-1/15-6995-1A	Water	12/08/15		Stage 2B						
440-140156-1/15-6995	I-X	440-140156-2/15-6995-2A	Water	12/08/15		Stage 2B						
440-140156-1/15-6995	I-N	440-140156-3/15-6995-3A	Water	12/08/15		Stage 2B						
440-140156-1/15-6995	I-E	440-140156-4/15-6995-4A	Water	12/08/15		Stage 2B						
440-140156-1/15-6995	I-M	440-140156-5/15-6995-5A	Water	12/08/15		Stage 2B						
440-140156-1/15-6995	I-D	440-140156-6/15-6995-6A	Water	12/08/15		Stage 2B						
440-140156-1/15-6995	I-C	440-140156-7/15-6995-7A	Water	12/08/15		Stage 2B						
440-140156-1/15-6995	I-S	440-140156-8/15-6995-8A	Water	12/08/15		Stage 2B						
440-140156-1/15-6995	I-L	440-140156-9/15-6995-9A	Water	12/08/15		Stage 2B						
440-140156-1/15-6995	I-Y	440-140156-10/15-6995-10A	Water	12/08/15		Stage 2B						
440-140156-1/15-6995	I-R	440-140156-11/15-6995-11A	Water	12/08/15		Stage 2B						
440-140156-1/15-6995	I-B	440-140156-12/15-6995-12A	Water	12/08/15		Stage 2B						
440-140156-1/15-6995	I-AB	440-140156-13/15-6995-13A	Water	12/08/15		Stage 2B						
440-140156-1/15-6995	I-AA	440-140156-14/15-6995-14A	Water	12/08/15		Stage 2B						
440-140156-1/15-6995	I-AR	440-140156-15/15-6995-15A	Water	12/08/15		Stage 2B						
440-140156-1/15-6995	I-I	440-140156-16/15-6995-16A	Water	12/08/15		Stage 2B						
440-140156-1/15-6995	I-XMS	440-140156-2/15-6995-2AMS	Water	12/08/15	MS	Stage 2B						
440-140156-1/15-6995	I-XMSD	440-140156-2/15-6995-2AMSD	Water	12/08/15	MSD	Stage 2B						

Table I. Sample Cross Reference

SDG	Client Sample ID	Laboratory Sample ID	Matrix	Sample Date	QC Type	Validation Level	Specific Cond. (SM2510)	TDS (SM2540C)	pH (SM4500-H+B)	TOC (SM5310C)	TOX (9020B)
440-114425-1	ART-1	440-114425-1	Water	07/06/15		Stage 4		X			
440-114425-1	ART-1DUP	440-114425-1DUP	Water	07/06/15	DUP	Stage 4		X			
440-114425-1	ART-2	440-114425-2	Water	07/06/15		Stage 4		X			
440-114425-1	ART-3	440-114425-3	Water	07/06/15		Stage 4		X			
440-114425-1	ART-4	440-114425-4	Water	07/06/15		Stage 4		X			
440-114425-1	ART-6	440-114425-5	Water	07/06/15		Stage 4		X			
440-114425-1	ART-7B	440-114425-6	Water	07/06/15		Stage 4		X			
440-114425-1	ART-8	440-114425-7	Water	07/06/15		Stage 4		X			
440-114425-1	ART-9	440-114425-8	Water	07/06/15		Stage 4		X			
440-114425-1	PC-99R2/R3	440-114425-9	Water	07/06/15		Stage 4		X			
440-114425-1	PC-115R	440-114425-10	Water	07/06/15		Stage 4		X			
440-114425-1	PC-116R	440-114425-11	Water	07/06/15		Stage 4		X			
440-114425-1	PC-116RDUP	440-114425-11DUP	Water	07/06/15	DUP	Stage 4		X			
440-114425-1	PC-117	440-114425-12	Water	07/06/15		Stage 4		X			
440-114425-1	PC-118	440-114425-13	Water	07/06/15		Stage 4		X			
440-114425-1	PC-119	440-114425-14	Water	07/06/15		Stage 4		X			
440-114425-1	PC-120	440-114425-15	Water	07/06/15		Stage 4		X			
440-114425-1	PC-121	440-114425-16	Water	07/06/15		Stage 4		X			
440-114425-1	PC-133	440-114425-17	Water	07/06/15		Stage 4		X			
440-114425-1	PC-150	440-114425-18	Water	07/06/15		Stage 4		X			
440-115183-1	M-83	440-115183-1	Water	07/13/15		Stage 2B		X			
440-115183-1	M-83DUP	440-115183-1DUP	Water	07/13/15	DUP	Stage 2B		X			
440-115183-1	PC-97	440-115183-2	Water	07/14/15		Stage 2B		X			
440-115183-1	PC-90	440-115183-3	Water	07/14/15		Stage 2B		X			
440-115183-1	PC-91	440-115183-4	Water	07/14/15		Stage 2B		X			
440-115183-1	PC-58	440-115183-5	Water	07/14/15		Stage 2B		X			
440-115183-1	PC-56	440-115183-6	Water	07/14/15		Stage 2B		X			
440-115183-1	PC-60	440-115183-7	Water	07/14/15		Stage 2B		X			
440-115183-1	PC-59	440-115183-8	Water	07/14/15		Stage 2B		X			
440-115183-1	PC-62	440-115183-9	Water	07/14/15		Stage 2B		X			
440-115249-1	M-33	440-115249-1	Water	07/14/15		Stage 2B		X	X		
440-115249-1	M-32	440-115249-2	Water	07/14/15		Stage 2B		X	X		
440-115418-1	PC-68	440-115418-1	Water	07/15/15		Stage 2B		X			
440-115418-1	PC-103	440-115418-2	Water	07/15/15		Stage 2B		X			
440-115418-1	PC-98R	440-115418-3	Water	07/15/15		Stage 2B		X			
440-115418-1	ARP-2A	440-115418-4	Water	07/15/15		Stage 2B		X			
440-115418-1	ARP-3A	440-115418-5	Water	07/15/15		Stage 2B		X			

Table I. Sample Cross Reference

SDG	Client Sample ID	Laboratory Sample ID	Matrix	Sample Date	QC Type	Validation Level	Specific Cond. (SM2510)	TDS (SM2540C)	pH (SM4500-H+B)	TOC (SM5310C)	TOX (9020B)
440-115418-1	MW-K4	440-115418-6	Water	07/15/15		Stage 2B		X			
440-115418-1	PC-101R	440-115418-7	Water	07/15/15		Stage 2B		X			
440-115418-1	ARP-4A	440-115418-8	Water	07/15/15		Stage 2B		X			
440-115418-1	ARP-5A	440-115418-9	Water	07/15/15		Stage 2B		X			
440-115418-1	ARP-5ADUP	440-115418-9DUP	Water	07/15/15	DUP	Stage 2B		X			
440-115418-1	ARP-6B	440-115418-10	Water	07/15/15		Stage 2B		X			
440-115418-1	ARP-7	440-115418-11	Water	07/15/15		Stage 2B		X			
440-115418-1	PC-53	440-115418-12	Water	07/15/15		Stage 2B		X			
440-115418-1	PC-86	440-115418-13	Water	07/15/15		Stage 2B		X			
440-115418-1	PC-122	440-115418-14	Water	07/15/15		Stage 2B		X			
440-115418-1	MW-K5	440-115418-15	Water	07/15/15		Stage 2B		X			
440-115418-1	MEB-1	440-115418-16	Water	07/15/15	EB	Stage 2B					
440-115483-1	ARP-1	440-115483-1	Water	07/16/15		Stage 2B		X			
440-115483-1	ARP-1DUP	440-115483-1DUP	Water	07/16/15	DUP	Stage 2B		X			
440-115483-1	PC-18	440-115483-2	Water	07/16/15		Stage 2B		X			
440-115483-1	PC-55	440-115483-3	Water	07/16/15		Stage 2B		X			
440-116828-1	ART-1	440-116828-1	Water	08/03/15		Stage 2B		X	X		
440-116828-1	ART-1DUP	440-116828-1DUP	Water	08/03/15	DUP	Stage 2B		X			
440-116828-1	ART-2	440-116828-2	Water	08/03/15		Stage 2B		X	X		
440-116828-1	ART-2MS	440-116828-2MS	Water	08/03/15	MS	Stage 2B					
440-116828-1	ART-2MSD	440-116828-2MSD	Water	08/03/15	MSD	Stage 2B					
440-116828-1	ART-3A	440-116828-3	Water	08/03/15		Stage 2B		X	X		
440-116828-1	ART-4	440-116828-4	Water	08/03/15		Stage 2B		X	X		
440-116828-1	ART-6	440-116828-5	Water	08/03/15		Stage 2B		X	X		
440-116828-1	ART-7B	440-116828-6	Water	08/03/15		Stage 2B		X	X		
440-116828-1	ART-8	440-116828-7	Water	08/03/15		Stage 2B		X	X		
440-116828-1	ART-9	440-116828-8	Water	08/03/15		Stage 2B		X	X		
440-116828-1	PC-99R2/R3	440-116828-9	Water	08/03/15		Stage 2B		X	X		
440-116828-1	PC-115R	440-116828-10	Water	08/03/15		Stage 2B		X	X		
440-116828-1	PC-116R	440-116828-11	Water	08/03/15		Stage 2B		X	X		
440-116828-1	PC-116RDUP	440-116828-11DUP	Water	08/03/15	DUP	Stage 2B		X			
440-116828-1	PC-117	440-116828-12	Water	08/03/15		Stage 2B		X	X		
440-116828-1	PC-117MS	440-116828-12MS	Water	08/03/15	MS	Stage 2B					
440-116828-1	PC-117MSD	440-116828-12MSD	Water	08/03/15	MSD	Stage 2B					
440-116828-1	PC-118	440-116828-13	Water	08/03/15		Stage 2B		X	X		
440-116828-1	PC-119	440-116828-14	Water	08/03/15		Stage 2B		X	X		
440-116828-1	PC-120	440-116828-15	Water	08/03/15		Stage 2B		X	X		

Table I. Sample Cross Reference

SDG	Client Sample ID	Laboratory Sample ID	Matrix	Sample Date	QC Type	Validation Level	Specific Cond. (SM2510)	TDS (SM2540C)	pH (SM4500-H+B)	TOC (SM5310C)	TOX (9020B)
440-116828-1	PC-121	440-116828-16	Water	08/03/15		Stage 2B		X	X		
440-116828-1	PC-133	440-116828-17	Water	08/03/15		Stage 2B		X	X		
440-116828-1	PC-150	440-116828-18	Water	08/03/15		Stage 2B		X	X		
440-116828-1	ART-7A	440-116828-19	Water	08/03/15		Stage 2B		X	X		
440-116832-1	I-O	440-116832-1	Water	08/03/15		Stage 4		X	X		
440-116832-1	I-ODUP	440-116832-1DUP	Water	08/03/15	DUP	Stage 4		X			
440-116832-1	I-OMS	440-116832-1MS	Water	08/03/15	MS	Stage 4					
440-116832-1	I-OMSD	440-116832-1MSD	Water	08/03/15	MSD	Stage 4					
440-116832-1	I-W	440-116832-2	Water	08/03/15		Stage 4		X	X		
440-116832-1	I-P	440-116832-3	Water	08/03/15		Stage 4		X	X		
440-116832-1	I-H	440-116832-4	Water	08/03/15		Stage 4		X	X		
440-116832-1	I-U	440-116832-5	Water	08/03/15		Stage 4		X	X		
440-116832-1	I-T	440-116832-6	Water	08/03/15		Stage 4		X	X		
440-116832-1	I-G	440-116832-7	Water	08/03/15		Stage 4		X	X		
440-116832-1	I-Q	440-116832-8	Water	08/03/15		Stage 4		X	X		
440-116832-1	I-F	440-116832-9	Water	08/03/15		Stage 4		X	X		
440-116832-1	I-X	440-116832-10	Water	08/03/15		Stage 4		X	X		
440-116832-1	I-N	440-116832-11	Water	08/03/15		Stage 4		X	X		
440-116832-1	I-NDUP	440-116832-11DUP	Water	08/03/15	DUP	Stage 4		X			
440-116832-1	I-NMS	440-116832-11MS	Water	08/03/15	MS	Stage 4					
440-116832-1	I-NMSD	440-116832-11MSD	Water	08/03/15	MSD	Stage 4					
440-116832-1	I-E	440-116832-12	Water	08/03/15		Stage 4		X	X		
440-116832-1	I-M	440-116832-13	Water	08/03/15		Stage 4		X	X		
440-116832-1	I-D	440-116832-14	Water	08/03/15		Stage 4		X	X		
440-116832-1	I-C	440-116832-15	Water	08/03/15		Stage 4		X	X		
440-116832-1	I-S	440-116832-16	Water	08/03/15		Stage 4		X	X		
440-116832-1	I-L	440-116832-17	Water	08/03/15		Stage 4		X	X		
440-116832-1	I-Y	440-116832-18	Water	08/03/15		Stage 4		X	X		
440-116832-1	I-R	440-116832-19	Water	08/03/15		Stage 4		X	X		
440-116832-1	I-B	440-116832-20	Water	08/03/15		Stage 4		X	X		
440-116832-1	I-AB	440-116832-21	Water	08/03/15		Stage 4		X	X		
440-116832-1	I-AA	440-116832-22	Water	08/03/15		Stage 4		X	X		
440-116832-1	I-AR	440-116832-23	Water	08/03/15		Stage 4		X	X		
440-117105-1	EB-1	440-117105-1	Water	08/04/15	EB	Stage 4		X	X		
440-117105-1	EB-1DUP	440-117105-1DUP	Water	08/04/15	DUP	Stage 4		X			
440-117105-1	EB-1MS	440-117105-1MS	Water	08/04/15	MS	Stage 4					
440-117105-1	EB-1MSD	440-117105-1MSD	Water	08/04/15	MSD	Stage 4					

Table I. Sample Cross Reference

SDG	Client Sample ID	Laboratory Sample ID	Matrix	Sample Date	QC Type	Validation Level	Specific Cond. (SM2510)	TDS (SM2540C)	pH (SM4500-H+B)	TOC (SM5310C)	TOX (9020B)
440-117105-1	PC-71	440-117105-2	Water	08/04/15		Stage 4		X	X		
440-117105-1	PC-72	440-117105-3	Water	08/04/15		Stage 4		X	X		
440-117105-1	FB-1	440-117105-4	Water	08/04/15	FB	Stage 4		X	X		
440-117105-1	PC-73	440-117105-5	Water	08/04/15		Stage 4		X	X		
440-117105-1	PC-37	440-117105-6	Water	08/04/15		Stage 4		X	X		
440-117105-1	M-23	440-117105-7	Water	08/04/15		Stage 4		X	X		
440-117106-1	PC-123	440-117106-1	Water	08/04/15		Stage 2B		X	X		
440-117106-1	PC-129	440-117106-2	Water	08/04/15	FD1	Stage 2B		X	X		
440-117106-1	PC-130	440-117106-3	Water	08/04/15		Stage 2B		X	X		
440-117106-1	PC-131	440-117106-4	Water	08/04/15		Stage 2B		X	X		
440-117106-1	PC-131DUP	440-117106-4DUP	Water	08/04/15	DUP	Stage 2B		X			
440-117106-1	PC-132	440-117106-5	Water	08/04/15		Stage 2B		X	X		
440-117106-1	PC-124	440-117106-6	Water	08/04/15		Stage 2B		X	X		
440-117106-1	PC-124MS	440-117106-6MS	Water	08/04/15	MS	Stage 2B					
440-117106-1	PC-124MSD	440-117106-6MSD	Water	08/04/15	MSD	Stage 2B					
440-117106-1	PC-125	440-117106-7	Water	08/04/15		Stage 2B		X	X		
440-117106-1	PC-126	440-117106-8	Water	08/04/15		Stage 2B		X	X		
440-117106-1	PC-127	440-117106-9	Water	08/04/15		Stage 2B		X	X		
440-117106-1	PC-54	440-117106-10	Water	08/04/15		Stage 2B		X	X		
440-117106-1	M-48	440-117106-11	Water	08/04/15		Stage 2B		X	X		
440-117106-1	DUP-1	440-117106-12	Water	08/04/15	FD1	Stage 2B		X	X		
440-117270-1	EB2	440-117270-1	Water	08/05/15	EB	Stage 2B		X	X		
440-117270-1	EB2DUP	440-117270-1DUP	Water	08/05/15	DUP	Stage 2B		X			
440-117270-1	M-71	440-117270-2	Water	08/05/15		Stage 2B		X	X		
440-117270-1	M-71MS	440-117270-2MS	Water	08/05/15	MS	Stage 2B					
440-117270-1	M-71MSD	440-117270-2MSD	Water	08/05/15	MSD	Stage 2B					
440-117270-1	M-72	440-117270-3	Water	08/05/15		Stage 2B		X	X		
440-117270-1	M-22A	440-117270-4	Water	08/05/15		Stage 2B		X	X		
440-117274-1	M-64	440-117274-1	Water	08/05/15		Stage 2B		X	X		
440-117274-1	M-65	440-117274-2	Water	08/05/15		Stage 2B		X	X		
440-117274-1	M-65MS	440-117274-2MS	Water	08/05/15	MS	Stage 2B					
440-117274-1	M-65MSD	440-117274-2MSD	Water	08/05/15	MSD	Stage 2B					
440-117274-1	M-66	440-117274-3	Water	08/05/15		Stage 2B		X	X		
440-117274-1	M-79	440-117274-4	Water	08/05/15		Stage 2B		X	X		
440-117274-1	M-69	440-117274-5	Water	08/05/15		Stage 2B		X	X		
440-117274-1	M-135	440-117274-6	Water	08/05/15		Stage 2B		X	X		
440-117274-1	M-131	440-117274-7	Water	08/05/15		Stage 2B		X	X		



Table I. Sample Cross Reference

SDG	Client Sample ID	Laboratory Sample ID	Matrix	Sample Date	QC Type	Validation Level	Specific Cond. (SM2510)	TDS (SM2540C)	pH (SM4500-H+B)	TOC (SM5310C)	TOX (9020B)
440-117274-1	M-131DUP	440-117274-7DUP	Water	08/05/15	DUP	Stage 2B		X			
440-117274-1	M-57A	440-117274-8	Water	08/05/15		Stage 2B		X	X		
440-117274-1	M-14A	440-117274-9	Water	08/05/15		Stage 2B		X	X		
440-117274-1	M-25	440-117274-10	Water	08/05/15		Stage 2B		X	X		
440-117274-1	M-70	440-117274-11	Water	08/05/15		Stage 2B		X	X		
440-117286-1	M-5A	440-117286-1	Water	08/05/15		Stage 2B	X	X	X	X	
440-117286-1	M-7B	440-117286-2	Water	08/05/15		Stage 2B	X	X	X	X	
440-117286-2	M-5A	440-117286-1	Water	08/05/15		Stage 2B					X
440-117286-2	M-5AMS	440-117286-1MS	Water	08/05/15	MS	Stage 2B					X
440-117286-2	M-5AMSD	440-117286-1MSD	Water	08/05/15	MSD	Stage 2B					X
440-117286-2	M-7B	440-117286-2	Water	08/05/15		Stage 2B					X
440-117351-1	DUP-5	440-117351-1	Water	08/06/15	FD2	Stage 2B		X	X		
440-117351-1	M-38	440-117351-2	Water	08/06/15	FD2	Stage 2B		X	X		
440-117353-1	M-10	440-117353-1	Water	08/06/15		Stage 4		X	X		
440-117353-1	M-10MS	440-117353-1MS	Water	08/06/15	MS	Stage 4					
440-117353-1	M-10MSD	440-117353-1MSD	Water	08/06/15	MSD	Stage 4					
440-117359-1	M-52	440-117359-1	Water	08/06/15		Stage 2B		X	X		
440-117359-1	M-19	440-117359-2	Water	08/06/15		Stage 2B		X	X		
440-117359-1	M-68	440-117359-3	Water	08/06/15		Stage 2B		X	X		
440-117359-1	M-68MS	440-117359-3MS	Water	08/06/15	MS	Stage 2B					
440-117359-1	M-68MSD	440-117359-3MSD	Water	08/06/15	MSD	Stage 2B					
440-117359-1	M-67	440-117359-4	Water	08/06/15		Stage 2B		X	X		
440-117359-1	M-74	440-117359-5	Water	08/06/15		Stage 2B		X	X		
440-117359-1	M-73	440-117359-6	Water	08/06/15		Stage 2B		X	X		
440-117359-1	M-73DUP	440-117359-6DUP	Water	08/06/15	DUP	Stage 2B		X			
440-117359-1	M-81A	440-117359-7	Water	08/06/15		Stage 2B		X	X		
440-117359-1	M-83	440-117359-8	Water	08/06/15		Stage 2B		X	X		
440-117359-1	M-11	440-117359-9	Water	08/06/15		Stage 2B		X	X		
440-117359-1	EB-3	440-117359-10	Water	08/06/15	EB	Stage 2B		X	X		
440-117359-1	M-80	440-117359-11	Water	08/06/15		Stage 2B		X	X		
440-117359-1	M-80MS	440-117359-11MS	Water	08/06/15	MS	Stage 2B					
440-117359-1	M-80MSD	440-117359-11MSD	Water	08/06/15	MSD	Stage 2B					
440-117359-1	M-12A	440-117359-12	Water	08/06/15		Stage 2B		X	X		
440-117491-1	I-AD	440-117491-1	Water	08/07/15		Stage 2B		X	X		
440-117491-1	I-ADDUP	440-117491-1DUP	Water	08/07/15	DUP	Stage 2B		X			
440-117491-1	I-K	440-117491-2	Water	08/07/15		Stage 2B		X	X		
440-117491-1	I-J	440-117491-3	Water	08/07/15		Stage 2B		X	X		

Table I. Sample Cross Reference

SDG	Client Sample ID	Laboratory Sample ID	Matrix	Sample Date	QC Type	Validation Level	Specific Cond. (SM2510)	TDS (SM2540C)	pH (SM4500-H+B)	TOC (SM5310C)	TOX (9020B)
440-117491-1	I-Z	440-117491-4	Water	08/07/15		Stage 2B		X	X		
440-117491-1	I-I	440-117491-5	Water	08/07/15		Stage 2B		X	X		
440-117491-1	I-V	440-117491-6	Water	08/07/15		Stage 2B		X	X		
440-117491-1	M-35	440-117491-7	Water	08/07/15		Stage 2B		X	X		
440-117491-1	M-31A	440-117491-8	Water	08/07/15	FD3	Stage 2B		X	X		
440-117491-1	M-32	440-117491-9	Water	08/07/15		Stage 2B		X	X		
440-117491-1	DUP-3	440-117491-10	Water	08/07/15	FD3	Stage 2B		X	X		
440-117491-1	DUP-3MS	440-117491-10MS	Water	08/07/15	MS	Stage 2B					
440-117491-1	DUP-3MSD	440-117491-10MSD	Water	08/07/15	MSD	Stage 2B					
440-117491-1	EB-4	440-117491-11	Water	08/07/15	EB	Stage 2B		X	X		
440-117491-1	EB-4DUP	440-117491-11	Water	08/07/15	DUP	Stage 2B		X			
440-117519-1	H-28A	440-117519-1	Water	08/07/15		Stage 2B	X	X	X	X	X
440-117588-1	PC-128	440-117588-1	Water	08/10/15		Stage 2B		X	X		
440-117588-1	PC-128DUP	440-117588-1DUP	Water	08/10/15	DUP	Stage 2B		X			
440-117588-1	PC-128MS	440-117588-1MS	Water	08/10/15	MS	Stage 2B					
440-117588-1	PC-128MSD	440-117588-1MSD	Water	08/10/15	MSD	Stage 2B					
440-117588-1	PC-148	440-117588-2	Water	08/10/15		Stage 2B		X	X		
440-117588-1	PC-149	440-117588-3	Water	08/10/15		Stage 2B		X	X		
440-117588-1	PC-135A	440-117588-4	Water	08/10/15		Stage 2B		X	X		
440-117588-1	PC-144	440-117588-5	Water	08/10/15		Stage 2B		X	X		
440-117588-1	EB-5	440-117588-6	Water	08/10/15	EB	Stage 2B		X	X		
440-117588-1	PC-136	440-117588-7	Water	08/10/15		Stage 2B		X	X		
440-117588-1	M-44	440-117588-8	Water	08/10/15	FD4	Stage 2B		X	X		
440-117588-1	M-95	440-117588-9	Water	08/10/15		Stage 2B		X	X		
440-117588-1	M-37	440-117588-10	Water	08/10/15	FD5	Stage 2B		X	X		
440-117588-1	DUP-2	440-117588-11	Water	08/10/15	FD4	Stage 2B		X	X		
440-117588-1	DUP-2MS	440-117588-11MS	Water	08/10/15	MS	Stage 2B					
440-117588-1	DUP-2MSD	440-117588-11MSD	Water	08/10/15	MSD	Stage 2B					
440-117588-1	DUP-6	440-117588-12	Water	08/10/15	FD5	Stage 2B		X	X		
440-117588-1	DUP-6DUP	440-117588-12DUP	Water	08/10/15	DUP	Stage 2B		X			
440-117588-1	DUP-6MS	440-117588-12MS	Water	08/10/15	MS	Stage 2B					
440-117588-1	DUP-6MSD	440-117588-12MSD	Water	08/10/15	MSD	Stage 2B					
440-117602-1	M-6A	440-117602-1	Water	08/10/15		Stage 2B	X	X	X	X	X
440-117602-1	M-6ADUP	440-117602-1DUP	Water	08/10/15	DUP	Stage 2B	X				
440-117759-1	PC-97	440-117759-1	Water	08/11/15		Stage 2B		X	X		
440-117759-1	PC-97MS	440-117759-1MS	Water	08/11/15	MS	Stage 2B					
440-117759-1	PC-97MSD	440-117759-1MSD	Water	08/11/15	MSD	Stage 2B					

Table I. Sample Cross Reference

SDG	Client Sample ID	Laboratory Sample ID	Matrix	Sample Date	QC Type	Validation Level	Specific Cond. (SM2510)	TDS (SM2540C)	pH (SM4500-H+B)	TOC (SM5310C)	TOX (9020B)
440-117759-1	PC-90	440-117759-2	Water	08/11/15		Stage 2B		X	X		
440-117759-1	PC-91	440-117759-3	Water	08/11/15		Stage 2B		X	X		
440-117759-1	PC-94	440-117759-4	Water	08/11/15		Stage 2B		X	X		
440-117759-1	PC-58	440-117759-5	Water	08/11/15		Stage 2B		X	X		
440-117759-1	PC-56	440-117759-6	Water	08/11/15		Stage 2B		X	X		
440-117759-1	PC-56DUP	440-117759-6DUP	Water	08/11/15	DUP	Stage 2B		X			
440-117759-1	PC-60	440-117759-7	Water	08/11/15		Stage 2B		X	X		
440-117759-1	PC-59	440-117759-8	Water	08/11/15		Stage 2B		X	X		
440-117759-1	PC-62	440-117759-9	Water	08/11/15		Stage 2B		X	X		
440-117759-1	PC-68	440-117759-10	Water	08/11/15		Stage 2B		X	X		
440-117759-1	PC-86	440-117759-11	Water	08/11/15		Stage 2B		X	X		
440-117759-1	PC-86MS	440-117759-11MS	Water	08/11/15	MS	Stage 2B					
440-117759-1	PC-86MSD	440-117759-11MSD	Water	08/11/15	MSD	Stage 2B					
440-117940-1	PC-18	440-117940-1	Water	08/12/15	FD6	Stage 2B		X	X		
440-117940-1	PC-18MS	440-117940-1MS	Water	08/12/15	MS	Stage 2B					
440-117940-1	PC-18MSD	440-117940-1MSD	Water	08/12/15	MSD	Stage 2B					
440-117940-1	ARP-1	440-117940-2	Water	08/12/15		Stage 2B		X	X		
440-117940-1	PC-122	440-117940-3	Water	08/12/15		Stage 2B		X	X		
440-117940-1	PC-53	440-117940-4	Water	08/12/15		Stage 2B		X	X		
440-117940-1	MW-K5	440-117940-5	Water	08/12/15		Stage 2B		X	X		
440-117940-1	ARP-7	440-117940-6	Water	08/12/15		Stage 2B		X	X		
440-117940-1	ARP-6B	440-117940-7	Water	08/12/15		Stage 2B		X	X		
440-117940-1	ARP-6BDUP	440-117940-7DUP	Water	08/12/15	DUP	Stage 2B		X			
440-117940-1	ARP-5A	440-117940-8	Water	08/12/15		Stage 2B		X	X		
440-117940-1	ARP-4A	440-117940-9	Water	08/12/15		Stage 2B		X	X		
440-117940-1	PC-101R	440-117940-10	Water	08/12/15		Stage 2B		X	X		
440-117940-1	MW-K4	440-117940-11	Water	08/12/15		Stage 2B		X	X		
440-117940-1	MW-K4MS	440-117940-11MS	Water	08/12/15	MS	Stage 2B					
440-117940-1	MW-K4MSD	440-117940-11MSD	Water	08/12/15	MSD	Stage 2B					
440-117940-1	ARP-3A	440-117940-12	Water	08/12/15		Stage 2B		X	X		
440-117940-1	MEB-1	440-117940-13	Water	08/12/15	EB	Stage 2B			X		
440-117940-1	ARP-2A	440-117940-14	Water	08/12/15		Stage 2B		X	X		
440-117940-1	PC-103	440-117940-15	Water	08/12/15		Stage 2B		X	X		
440-117940-1	DUP 4	440-117940-16	Water	08/12/15	FD6	Stage 2B		X	X		
440-118033-1	PC-55	440-118033-1	Water	08/13/15		Stage 2B		X	X		
440-118033-1	PC-98R	440-118033-2	Water	08/13/15		Stage 2B		X	X		
440-120251-1	ART-1	440-120251-1	Water	09/08/15		Stage 2B		X			

Table I. Sample Cross Reference

SDG	Client Sample ID	Laboratory Sample ID	Matrix	Sample Date	QC Type	Validation Level	Specific Cond. (SM2510)	TDS (SM2540C)	pH (SM4500-H+B)	TOC (SM5310C)	TOX (9020B)
440-120251-1	ART-1DUP	440-120251-1DUP	Water	09/08/15	DUP	Stage 2B		X			
440-120251-1	ART-2	440-120251-2	Water	09/08/15		Stage 2B		X			
440-120251-1	ART-3	440-120251-3	Water	09/08/15		Stage 2B		X			
440-120251-1	ART-4	440-120251-4	Water	09/08/15		Stage 2B		X			
440-120251-1	ART-6	440-120251-5	Water	09/08/15		Stage 2B		X			
440-120251-1	ART-7B	440-120251-6	Water	09/08/15		Stage 2B		X			
440-120251-1	ART-8	440-120251-7	Water	09/08/15		Stage 2B		X			
440-120251-1	ART-9	440-120251-8	Water	09/08/15		Stage 2B		X			
440-120251-1	PC-99R2/R3	440-120251-9	Water	09/08/15		Stage 2B		X			
440-120251-1	PC-115R	440-120251-10	Water	09/08/15		Stage 2B		X			
440-120251-1	PC-116R	440-120251-11	Water	09/08/15		Stage 2B		X			
440-120251-1	PC-116RDUP	440-120251-11DUP	Water	09/08/15	DUP	Stage 2B		X			
440-120251-1	PC-117	440-120251-12	Water	09/08/15		Stage 2B		X			
440-120251-1	PC-118	440-120251-13	Water	09/08/15		Stage 2B		X			
440-120251-1	PC-119	440-120251-14	Water	09/08/15		Stage 2B		X			
440-120251-1	PC-120	440-120251-15	Water	09/08/15		Stage 2B		X			
440-120251-1	PC-121	440-120251-16	Water	09/08/15		Stage 2B		X			
440-120251-1	PC-133	440-120251-17	Water	09/08/15		Stage 2B		X			
440-120251-1	PC-150	440-120251-18	Water	09/08/15		Stage 2B		X			
440-121299-1	PC-97	440-121299-1	Water	09/15/15		Stage 2B		X	X		
440-121299-1	PC-97DUP	440-121299-1DUP	Water	09/15/15	DUP	Stage 2B		X			
440-121299-1	PC-90	440-121299-2	Water	09/15/15		Stage 2B		X	X		
440-121299-1	PC-91	440-121299-3	Water	09/15/15		Stage 2B		X	X		
440-121299-1	PC-58	440-121299-4	Water	09/15/15		Stage 2B		X	X		
440-121299-1	PC-56	440-121299-5	Water	09/15/15		Stage 2B		X	X		
440-121299-1	PC-60	440-121299-6	Water	09/15/15		Stage 2B		X	X		
440-121299-1	PC-59	440-121299-7	Water	09/15/15		Stage 2B		X	X		
440-121299-1	PC-62	440-121299-8	Water	09/15/15		Stage 2B		X	X		
440-121299-1	PC-68	440-121299-9	Water	09/15/15		Stage 2B		X	X		
440-121299-1	PC-86	440-121299-10	Water	09/15/15		Stage 2B		X	X		
440-121445-1	M-83	440-121445-1	Water	09/16/15		Stage 2B		X	X		
440-121445-1	M-83DUP	440-121445-1DUP	Water	09/16/15	DUP	Stage 2B		X			
440-121445-1	PC-18	440-121445-2	Water	09/16/15		Stage 2B		X	X		
440-121445-1	ARP-1	440-121445-3	Water	09/16/15		Stage 2B		X	X		
440-121445-1	PC-122	440-121445-4	Water	09/16/15		Stage 2B		X	X		
440-121445-1	PC-53	440-121445-5	Water	09/16/15		Stage 2B		X	X		
440-121445-1	MW-K5	440-121445-6	Water	09/16/15		Stage 2B		X	X		

Table I. Sample Cross Reference

SDG	Client Sample ID	Laboratory Sample ID	Matrix	Sample Date	QC Type	Validation Level	Specific Cond. (SM2510)	TDS (SM2540C)	pH (SM4500-H+B)	TOC (SM5310C)	TOX (9020B)
440-121445-1	ARP-7	440-121445-7	Water	09/16/15		Stage 2B		X	X		
440-121445-1	ARP-6B	440-121445-8	Water	09/16/15		Stage 2B		X	X		
440-121445-1	ARP-5A	440-121445-9	Water	09/16/15		Stage 2B		X	X		
440-121445-1	ARP-4A	440-121445-10	Water	09/16/15		Stage 2B		X	X		
440-121454-1	PC-55	440-121454-1	Water	09/17/15		Stage 2B		X	X		
440-121454-1	PC-55DUP	440-121454-1DUP	Water	09/17/15	DUP	Stage 2B		X			
440-121454-1	PC-103	440-121454-2	Water	09/17/15		Stage 2B		X	X		
440-121454-1	PC-98R	440-121454-3	Water	09/17/15		Stage 2B		X	X		
440-121454-1	ARP-2A	440-121454-4	Water	09/17/15		Stage 2B		X	X		
440-121454-1	ARP-3A	440-121454-5	Water	09/17/15		Stage 2B		X	X		
440-121454-1	MEB-1	440-121454-6	Water	09/17/15	EB	Stage 2B			X		
440-121454-1	MW-K4	440-121454-7	Water	09/17/15		Stage 2B		X	X		
440-121454-1	PC-101R	440-121454-8	Water	09/17/15		Stage 2B		X	X		
440-123412-1	PC-99R2/R3	440-123412-1	Water	10/05/15		Stage 2B		X	X		
440-123412-1	PC-115R	440-123412-2	Water	10/05/15		Stage 2B		X	X		
440-123412-1	PC-115RDUP	440-123412-2DUP	Water	10/05/15	DUP	Stage 2B		X			
440-123412-1	PC-116R	440-123412-3	Water	10/05/15		Stage 2B		X	X		
440-123412-1	PC-117	440-123412-4	Water	10/05/15		Stage 2B		X	X		
440-123412-1	PC-118	440-123412-5	Water	10/05/15		Stage 2B		X	X		
440-123412-1	PC-119	440-123412-6	Water	10/05/15		Stage 2B		X	X		
440-123412-1	PC-120	440-123412-7	Water	10/05/15		Stage 2B		X	X		
440-123412-1	PC-121	440-123412-8	Water	10/05/15		Stage 2B		X	X		
440-123412-1	PC-133	440-123412-9	Water	10/05/15		Stage 2B		X	X		
440-123760-1	ART-1	440-123760-1	Water	10/06/15		Stage 2B		X	X		
440-123760-1	ART-1DUP	440-123760-1DUP	Water	10/06/15	DUP	Stage 2B		X			
440-123760-1	ART-2	440-123760-2	Water	10/06/15		Stage 2B		X	X		
440-123760-1	ART-3	440-123760-3	Water	10/06/15		Stage 2B		X	X		
440-123760-1	ART-4	440-123760-4	Water	10/06/15		Stage 2B		X	X		
440-123760-1	ART-6	440-123760-5	Water	10/06/15		Stage 2B		X	X		
440-123760-1	ART-7	440-123760-6	Water	10/06/15		Stage 2B		X	X		
440-123760-1	ART-8	440-123760-7	Water	10/06/15		Stage 2B		X	X		
440-123760-1	ART-9	440-123760-8	Water	10/06/15		Stage 2B		X	X		
440-123760-1	PC-150	440-123760-9	Water	10/06/15		Stage 2B		X	X		
440-124556-1	PC-55	440-124556-1	Water	10/15/15		Stage 2B		X	X		
440-124556-1	PC-103	440-124556-2	Water	10/15/15		Stage 2B		X	X		
440-124556-1	PC-98R	440-124556-3	Water	10/15/15		Stage 2B		X	X		
440-124580-1	M-83	440-124580-1	Water	10/13/15		Stage 2B		X	X		

Table I. Sample Cross Reference

SDG	Client Sample ID	Laboratory Sample ID	Matrix	Sample Date	QC Type	Validation Level	Specific Cond. (SM2510)	TDS (SM2540C)	pH (SM4500-H+B)	TOC (SM5310C)	TOX (9020B)
440-124580-1	PC-97	440-124580-2	Water	10/13/15		Stage 2B		X	X		
440-124580-1	PC-90	440-124580-3	Water	10/13/15		Stage 2B		X	X		
440-124580-1	PC-91	440-124580-4	Water	10/13/15		Stage 2B		X	X		
440-124580-1	PC-58	440-124580-5	Water	10/13/15		Stage 2B		X	X		
440-124580-1	PC-56	440-124580-6	Water	10/13/15		Stage 2B		X	X		
440-124580-1	PC-60	440-124580-7	Water	10/13/15		Stage 2B		X	X		
440-124580-1	PC-59	440-124580-8	Water	10/13/15		Stage 2B		X	X		
440-124580-1	PC-62	440-124580-9	Water	10/13/15		Stage 2B		X	X		
440-124580-1	PC-68	440-124580-10	Water	10/13/15		Stage 2B		X	X		
440-124580-1	PC-86	440-124580-11	Water	10/13/15		Stage 2B		X	X		
440-124580-1	ARP-1	440-124580-12	Water	10/13/15		Stage 2B		X	X		
440-124580-1	PC-18	440-124580-13	Water	10/14/15		Stage 2B		X	X		
440-124580-1	PC-122	440-124580-14	Water	10/14/15		Stage 2B		X	X		
440-124580-1	PC-122DUP	440-124580-14DUP	Water	10/14/15	DUP	Stage 2B		X			
440-124580-1	PC-53	440-124580-15	Water	10/14/15		Stage 2B		X	X		
440-124580-1	MW-K5	440-124580-16	Water	10/14/15		Stage 2B		X	X		
440-124580-1	MEB-1	440-124580-17	Water	10/14/15	EB	Stage 2B			X		
440-124580-1	ARP-7	440-124580-18	Water	10/14/15		Stage 2B		X	X		
440-124580-1	ARP-6B	440-124580-19	Water	10/14/15		Stage 2B		X	X		
440-124580-1	ARP-5A	440-124580-20	Water	10/14/15		Stage 2B		X	X		
440-124580-1	ARP-4A	440-124580-21	Water	10/14/15		Stage 2B		X	X		
440-124580-1	PC-101R	440-124580-22	Water	10/14/15		Stage 2B		X	X		
440-124580-1	MW-K4	440-124580-23	Water	10/14/15		Stage 2B		X	X		
440-124580-1	ARP-3A	440-124580-24	Water	10/14/15		Stage 2B		X	X		
440-124580-1	ARP-2A	440-124580-25	Water	10/14/15		Stage 2B		X	X		
440-124580-1	ARP-2ADUP	440-124580-25DUP	Water	10/14/15	DUP	Stage 2B		X			
440-126184-1	ART-2	440-126184-1	Water	11/02/15		Stage 2B		X	X		
440-126184-1	ART-2DUP	440-126184-1DUP	Water	11/02/15	DUP	Stage 2B		X			
440-126184-1	ART-3	440-126184-2	Water	11/02/15		Stage 2B		X	X		
440-126184-1	ART-4	440-126184-3	Water	11/02/15		Stage 2B		X	X		
440-126184-1	ART-6	440-126184-4	Water	11/02/15		Stage 2B		X	X		
440-126184-1	ART-7B	440-126184-5	Water	11/02/15		Stage 2B		X	X		
440-126184-1	ART-8	440-126184-6	Water	11/02/15		Stage 2B		X	X		
440-126184-1	ART-9	440-126184-7	Water	11/02/15		Stage 2B		X	X		
440-126184-1	PC-99R2/R3	440-126184-8	Water	11/02/15		Stage 2B		X	X		
440-126184-1	PC-115R	440-126184-9	Water	11/02/15		Stage 2B		X	X		
440-126184-1	PC-116R	440-126184-10	Water	11/02/15		Stage 2B		X	X		

Table I. Sample Cross Reference

SDG	Client Sample ID	Laboratory Sample ID	Matrix	Sample Date	QC Type	Validation Level	Specific Cond. (SM2510)	TDS (SM2540C)	pH (SM4500-H+B)	TOC (SM5310C)	TOX (9020B)
440-126184-1	PC-116RMS	440-126184-10MS	Water	11/02/15	MS	Stage 2B					
440-126184-1	PC-116RMSD	440-126184-10MSD	Water	11/02/15	MSD	Stage 2B					
440-126184-1	PC-117	440-126184-11	Water	11/02/15		Stage 2B		X	X		
440-126184-1	PC-117DUP	440-126184-11DUP	Water	11/02/15	DUP	Stage 2B		X			
440-126184-1	PC-118	440-126184-12	Water	11/02/15		Stage 2B		X	X		
440-126184-1	PC-119	440-126184-13	Water	11/02/15		Stage 2B		X	X		
440-126184-1	PC-120	440-126184-14	Water	11/02/15		Stage 2B		X	X		
440-126184-1	PC-121	440-126184-15	Water	11/02/15		Stage 2B		X	X		
440-126184-1	PC-133	440-126184-16	Water	11/02/15		Stage 2B		X	X		
440-126184-1	PC-150	440-126184-17	Water	11/02/15		Stage 2B		X	X		
440-126191-1	I-O	440-126191-1	Water	11/02/15		Stage 2B		X	X		
440-126191-1	I-P	440-126191-2	Water	11/02/15		Stage 2B		X	X		
440-126191-1	I-H	440-126191-3	Water	11/02/15		Stage 2B		X	X		
440-126191-1	I-U	440-126191-4	Water	11/02/15		Stage 2B		X	X		
440-126191-1	I-UDUP	440-126191-4DUP	Water	11/02/15	DUP	Stage 2B		X			
440-126191-1	I-G	440-126191-5	Water	11/02/15		Stage 2B		X	X		
440-126191-1	I-F	440-126191-6	Water	11/02/15		Stage 2B		X	X		
440-126191-1	I-N	440-126191-7	Water	11/02/15		Stage 2B		X	X		
440-126191-1	I-E	440-126191-8	Water	11/02/15		Stage 2B		X	X		
440-126191-1	I-M	440-126191-9	Water	11/02/15		Stage 2B		X	X		
440-126191-1	I-D	440-126191-10	Water	11/02/15		Stage 2B		X	X		
440-126191-1	I-DMS	440-126191-10MS	Water	11/02/15	MS	Stage 2B					
440-126191-1	I-DMSD	440-126191-10MSD	Water	11/02/15	MSD	Stage 2B					
440-126191-1	I-S	440-126191-11	Water	11/02/15		Stage 2B		X	X		
440-126191-1	I-L	440-126191-12	Water	11/02/15		Stage 2B		X	X		
440-126191-1	I-Y	440-126191-13	Water	11/02/15		Stage 2B		X	X		
440-126191-1	I-R	440-126191-14	Water	11/02/15		Stage 2B		X	X		
440-126191-1	I-RDUP	440-126191-14DUP	Water	11/02/15	DUP	Stage 2B		X			
440-126191-1	I-B	440-126191-15	Water	11/02/15		Stage 2B		X	X		
440-126191-1	I-AB	440-126191-16	Water	11/02/15		Stage 2B		X	X		
440-126191-1	I-AA	440-126191-17	Water	11/03/15		Stage 2B		X	X		
440-126312-1	PC-123	440-126312-1	Water	11/03/15		Stage 2B		X	X		
440-126312-1	PC-128	440-126312-2	Water	11/03/15		Stage 2B		X	X		
440-126312-1	PC-129	440-126312-3	Water	11/03/15		Stage 2B		X	X		
440-126312-1	PC-130	440-126312-4	Water	11/03/15		Stage 2B		X	X		
440-126312-1	PC-131	440-126312-5	Water	11/03/15		Stage 2B		X	X		
440-126312-1	PC-125	440-126312-6	Water	11/03/15		Stage 2B		X	X		

Table I. Sample Cross Reference

SDG	Client Sample ID	Laboratory Sample ID	Matrix	Sample Date	QC Type	Validation Level	Specific Cond. (SM2510)	TDS (SM2540C)	pH (SM4500-H+B)	TOC (SM5310C)	TOX (9020B)
440-126312-1	PC-126	440-126312-7	Water	11/03/15		Stage 2B		X	X		
440-126312-1	PC-126DUP	440-126312-7DUP	Water	11/03/15	DUP	Stage 2B		X			
440-126312-1	PC-127	440-126312-8	Water	11/03/15		Stage 2B		X	X		
440-126312-1	PC-127MS	440-126312-8MS	Water	11/03/15	MS	Stage 2B					
440-126312-1	PC-127MSD	440-126312-8MSD	Water	11/03/15	MSD	Stage 2B					
440-126312-1	PC-132	440-126312-9	Water	11/03/15		Stage 2B		X	X		
440-126312-1	PC-54	440-126312-10	Water	11/03/15		Stage 2B		X	X		
440-126312-1	M-48A	440-126312-11	Water	11/03/15		Stage 2B		X	X		
440-126312-1	EB-1	440-126312-12	Water	11/03/15	EB	Stage 2B		X	X		
440-126312-1	EB-1MS	440-126312-12MS	Water	11/03/15	MS	Stage 2B					
440-126312-1	EB-1MSD	440-126312-12MSD	Water	11/03/15	MSD	Stage 2B					
440-126312-1	PC-71	440-126312-13	Water	11/03/15		Stage 2B		X	X		
440-126312-1	PC-72	440-126312-14	Water	11/03/15		Stage 2B		X	X		
440-126312-1	PC-73	440-126312-15	Water	11/03/15		Stage 2B		X	X		
440-126312-1	PC-37	440-126312-16	Water	11/03/15		Stage 2B		X	X		
440-126312-1	M-95	440-126312-17	Water	11/03/15	FD7	Stage 2B		X	X		
440-126312-1	M-95DUP	440-126312-17DUP	Water	11/03/15	DUP	Stage 2B		X			
440-126312-1	M-44	440-126312-18	Water	11/03/15		Stage 2B		X	X		
440-126312-1	M-44MS	440-126312-18MS	Water	11/03/15	MS	Stage 2B					
440-126312-1	M-44MSD	440-126312-18MSD	Water	11/03/15	MSD	Stage 2B					
440-126312-1	DUP-1	440-126312-19	Water	11/03/15	FD7	Stage 2B		X	X		
440-126559-1	PC-124	440-126559-1	Water	11/04/15		Stage 2B		X	X		
440-126559-1	PC-136	440-126559-2	Water	11/04/15		Stage 2B		X	X		
440-126559-1	PC-135A	440-126559-3	Water	11/04/15		Stage 2B		X	X		
440-126559-1	M-23	440-126559-4	Water	11/04/15		Stage 2B		X	X		
440-126559-1	ART-1	440-126559-5	Water	11/04/15		Stage 2B		X	X		
440-126559-1	EB-1	440-126559-6	Water	11/04/15	EB	Stage 2B		X	X		
440-126718-1	M-64	440-126718-1	Water	11/05/15		Stage 2B		X	X		
440-126718-1	M-64DUP	440-126718-1DUP	Water	11/05/15	DUP	Stage 2B		X			
440-126718-1	M-64MS	440-126718-1MS	Water	11/05/15	MS	Stage 2B					
440-126718-1	M-64MSD	440-126718-1MSD	Water	11/05/15	MSD	Stage 2B					
440-126718-1	PC-148	440-126718-2	Water	11/05/15		Stage 2B		X	X		
440-126718-1	PC-149	440-126718-3	Water	11/05/15		Stage 2B		X	X		
440-126718-1	PC-149MS	440-126718-3MS	Water	11/05/15	MS	Stage 2B					
440-126718-1	PC-149MSD	440-126718-3MSD	Water	11/05/15	MSD	Stage 2B					
440-126718-1	M-65	440-126718-4	Water	11/05/15		Stage 2B		X	X		
440-126718-1	M-66	440-126718-5	Water	11/05/15	FD9	Stage 2B		X	X		



Table I. Sample Cross Reference

SDG	Client Sample ID	Laboratory Sample ID	Matrix	Sample Date	QC Type	Validation Level	Specific Cond. (SM2510)	TDS (SM2540C)	pH (SM4500-H+B)	TOC (SM5310C)	TOX (9020B)
440-126718-1	DUP3	440-126718-6	Water	11/05/15	FD9	Stage 2B		X	X		
440-126718-1	M-79	440-126718-7	Water	11/05/15		Stage 2B		X	X		
440-126718-1	M-69	440-126718-8	Water	11/05/15		Stage 2B		X	X		
440-126718-1	M-135	440-126718-9	Water	11/05/15		Stage 2B		X	X		
440-126718-1	M-131	440-126718-10	Water	11/05/15		Stage 2B		X	X		
440-126718-1	M-57A	440-126718-11	Water	11/05/15		Stage 2B		X	X		
440-126718-1	M-57ADUP	440-126718-11DUP	Water	11/05/15	DUP	Stage 2B		X			
440-126718-1	M-57AMS	440-126718-11MS	Water	11/05/15	MS	Stage 2B					
440-126718-1	M-57AMSD	440-126718-11MSD	Water	11/05/15	MSD	Stage 2B					
440-126718-1	M-25	440-126718-12	Water	11/05/15		Stage 2B		X	X		
440-126718-1	M-37	440-126718-13	Water	11/05/15	FD8	Stage 2B		X	X		
440-126718-1	I-C	440-126718-14	Water	11/05/15		Stage 2B		X	X		
440-126718-1	I-T	440-126718-15	Water	11/05/15		Stage 2B		X	X		
440-126718-1	EB-3	440-126718-16	Water	11/05/15	EB	Stage 2B		X	X		
440-126718-1	DUP-2	440-126718-17	Water	11/05/15	FD8	Stage 2B		X	X		
440-126840-1	M-31A	440-126840-1	Water	11/06/15		Stage 2B		X	X		
440-126840-1	M-31ADUP	440-126840-1DUP	Water	11/06/15	DUP	Stage 2B		X			
440-126840-1	M-31AMS	440-126840-1MS	Water	11/06/15	MS	Stage 2B					
440-126840-1	M-31AMSD	440-126840-1MSD	Water	11/06/15	MSD	Stage 2B					
440-126840-1	M-52	440-126840-2	Water	11/06/15		Stage 2B		X	X		
440-126840-1	M-35	440-126840-3	Water	11/06/15		Stage 2B		X	X		
440-126840-1	M-19	440-126840-4	Water	11/06/15		Stage 2B		X	X		
440-126840-1	M-68	440-126840-5	Water	11/06/15		Stage 2B		X	X		
440-126840-1	I-K	440-126840-6	Water	11/06/15	FD10	Stage 2B		X	X		
440-126840-1	DUP 4	440-126840-7	Water	11/06/15	FD10	Stage 2B		X	X		
440-126840-1	M-83	440-126840-8	Water	11/06/15		Stage 2B		X	X		
440-126840-1	M-74	440-126840-9	Water	11/06/15		Stage 2B		X	X		
440-126840-1	I-J	440-126840-10	Water	11/06/15		Stage 2B		X	X		
440-126840-1	I-Z	440-126840-11	Water	11/06/15		Stage 2B		X	X		
440-126840-1	I-ZDUP	440-126840-11DUP	Water	11/06/15	DUP	Stage 2B		X			
440-126840-1	I-ZMS	440-126840-11MS	Water	11/06/15	MS	Stage 2B					
440-126840-1	I-ZMSD	440-126840-11MSD	Water	11/06/15	MSD	Stage 2B					
440-126840-1	FB-1	440-126840-12	Water	11/06/15	FB	Stage 2B		X	X		
440-126840-1	FB-1MS	440-126840-12MS	Water	11/06/15	MS	Stage 2B					
440-126840-1	FB-1MSD	440-126840-12MSD	Water	11/06/15	MSD	Stage 2B					
440-126840-1	M-67	440-126840-13	Water	11/06/15		Stage 2B		X	X		
440-126840-1	M-73	440-126840-14	Water	11/06/15		Stage 2B		X	X		

Table I. Sample Cross Reference

SDG	Client Sample ID	Laboratory Sample ID	Matrix	Sample Date	QC Type	Validation Level	Specific Cond. (SM2510)	TDS (SM2540C)	pH (SM4500-H+B)	TOC (SM5310C)	TOX (9020B)
440-126840-1	I-V	440-126840-15	Water	11/06/15		Stage 2B		X	X		
440-126840-1	I-I	440-126840-16	Water	11/06/15		Stage 2B		X	X		
440-126840-1	M-81A	440-126840-17	Water	11/06/15		Stage 2B		X	X		
440-126840-1	EB-4	440-126840-18	Water	11/06/15	EB	Stage 2B		X	X		
440-126840-1	M-80	440-126840-19	Water	11/06/15		Stage 2B		X	X		
440-126840-1	I-AR	440-126840-20	Water	11/06/15		Stage 2B		X	X		
440-127054-1	M-10	440-127054-1	Water	11/09/15		Stage 4		X			
440-127054-1	M-10MS	440-127054-1MS	Water	11/09/15	MS	Stage 4					
440-127054-1	M-10MSD	440-127054-1MSD	Water	11/09/15	MSD	Stage 4					
440-127055-1	M-14A	440-127055-1	Water	11/09/15	FD11	Stage 2B		X	X		
440-127055-1	M-14ADUP	440-127055-1DUP	Water	11/09/15	DUP	Stage 2B		X			
440-127055-1	M-14AMS	440-127055-1MS	Water	11/09/15	MS	Stage 2B					
440-127055-1	M-14AMSD	440-127055-1MSD	Water	11/09/15	MSD	Stage 2B					
440-127055-1	M-70	440-127055-2	Water	11/09/15		Stage 2B		X	X		
440-127055-1	M-71	440-127055-3	Water	11/09/15		Stage 2B		X	X		
440-127055-1	M-72	440-127055-4	Water	11/09/15		Stage 2B		X	X		
440-127055-1	M-22A	440-127055-5	Water	11/09/15		Stage 2B		X	X		
440-127055-1	M-38	440-127055-6	Water	11/09/15		Stage 2B		X	X		
440-127055-1	M-12A	440-127055-7	Water	11/09/15		Stage 2B		X	X		
440-127055-1	M-11	440-127055-8	Water	11/09/15		Stage 2B		X	X		
440-127055-1	DUP-5	440-127055-9	Water	11/09/15	FD11	Stage 2B		X	X		
440-127055-1	EB-5	440-127055-10	Water	11/09/15	EB	Stage 2B		X	X		
440-127055-1	EB-5MS	440-127055-10MS	Water	11/09/15	MS	Stage 2B					
440-127055-1	EB-5MSD	440-127055-10MSD	Water	11/09/15	MSD	Stage 2B					
440-127487-1	I-AD	440-127487-1	Water	11/10/15		Stage 2B		X	X		
440-127487-1	I-ADMS	440-127487-1MS	Water	11/10/15	MS	Stage 2B					
440-127487-1	I-ADMSD	440-127487-1MSD	Water	11/10/15	MSD	Stage 2B					
440-127487-1	PC-97	440-127487-2	Water	11/10/15		Stage 2B		X	X		
440-127487-1	PC-90	440-127487-3	Water	11/10/15		Stage 2B		X	X		
440-127487-1	PC-91	440-127487-4	Water	11/10/15		Stage 2B		X	X		
440-127487-1	PC-58	440-127487-5	Water	11/10/15		Stage 2B		X	X		
440-127487-1	PC-56	440-127487-6	Water	11/10/15		Stage 2B		X	X		
440-127487-1	PC-60	440-127487-7	Water	11/10/15		Stage 2B		X	X		
440-127487-1	PC-60DUP	440-127487-7DUP	Water	11/10/15	DUP	Stage 2B		X			
440-127487-1	PC-59	440-127487-8	Water	11/10/15		Stage 2B		X	X		
440-127487-1	PC-62	440-127487-9	Water	11/10/15		Stage 2B		X	X		
440-127487-1	PC-68	440-127487-10	Water	11/10/15		Stage 2B		X	X		

Table I. Sample Cross Reference

SDG	Client Sample ID	Laboratory Sample ID	Matrix	Sample Date	QC Type	Validation Level	Specific Cond. (SM2510)	TDS (SM2540C)	pH (SM4500-H+B)	TOC (SM5310C)	TOX (9020B)
440-127487-1	PC-86	440-127487-11	Water	11/10/15		Stage 2B		X	X		
440-127487-1	PC-86MS	440-127487-11MS	Water	11/10/15	MS	Stage 2B					
440-127487-1	PC-86MSD	440-127487-11MSD	Water	11/10/15	MSD	Stage 2B					
440-127487-1	PC-94	440-127487-13	Water	11/10/15		Stage 2B		X	X		
440-127619-1	PC-18	440-127619-1	Water	11/11/15		Stage 2B		X	X		
440-127619-1	PC-18MS	440-127619-1MS	Water	11/11/15	MS	Stage 2B					
440-127619-1	PC-18MSD	440-127619-1MSD	Water	11/11/15	MSD	Stage 2B					
440-127619-1	ARP-1	440-127619-2	Water	11/11/15		Stage 2B		X	X		
440-127619-1	PC-122	440-127619-3	Water	11/11/15		Stage 2B		X	X		
440-127619-1	PC-53	440-127619-4	Water	11/11/15		Stage 2B		X	X		
440-127619-1	MW-K5	440-127619-5	Water	11/11/15		Stage 2B		X	X		
440-127619-1	ARP-7	440-127619-6	Water	11/11/15		Stage 2B		X	X		
440-127619-1	ARP-6B	440-127619-7	Water	11/11/15		Stage 2B		X	X		
440-127619-1	ARP-5A	440-127619-8	Water	11/11/15		Stage 2B		X	X		
440-127619-1	ARP-4A	440-127619-9	Water	11/11/15		Stage 2B		X	X		
440-127619-1	ARP-4ADUP	440-127619-9DUP	Water	11/11/15	DUP	Stage 2B		X			
440-127619-1	MW-K4	440-127619-10	Water	11/11/15		Stage 2B		X	X		
440-127619-1	ARP-3A	440-127619-11	Water	11/11/15		Stage 2B		X	X		
440-127619-1	ARP-3AMS	440-127619-11MS	Water	11/11/15	MS	Stage 2B					
440-127619-1	ARP-3AMSD	440-127619-11MSD	Water	11/11/15	MSD	Stage 2B					
440-127619-1	ARP-2A	440-127619-12	Water	11/11/15		Stage 2B		X	X		
440-127656-1	PC-55	440-127656-1	Water	11/12/15		Stage 2B		X	X		
440-127656-1	PC-98R	440-127656-2	Water	11/12/15		Stage 2B		X	X		
440-127656-1	PC-103	440-127656-3	Water	11/12/15		Stage 2B		X	X		
440-127656-1	PC-103MS	440-127656-3MS	Water	11/12/15	MS	Stage 2B					
440-127656-1	PC-103MSD	440-127656-3MSD	Water	11/12/15	MSD	Stage 2B					
440-127656-1	PC-101R	440-127656-4	Water	11/12/15		Stage 2B		X	X		
440-127656-1	PC-144	440-127656-5	Water	11/12/15		Stage 2B		X	X		
440-128067-1	I-W	440-128067-1	Water	11/16/15		Stage 2B		X	X		
440-128067-1	I-X	440-128067-2	Water	11/16/15		Stage 2B		X	X		
440-128067-1	I-XDUP	440-128067-2DUP	Water	11/16/15	DUP	Stage 2B		X			
440-128067-1	I-XMS	440-128067-2MS	Water	11/16/15	MS	Stage 2B					
440-128067-1	I-XMSD	440-128067-2MSD	Water	11/16/15	MSD	Stage 2B					
440-128396-1	I-Q	440-128396-1	Water	11/18/15		Stage 2B		X	X		
440-129811-1	ART-1	440-129811-1	Water	12/03/15		Stage 2B		X			
440-129811-1	ART-1DUP	440-129811-1DUP	Water	12/03/15	DUP	Stage 2B		X			
440-129811-1	ART-2	440-129811-2	Water	12/03/15		Stage 2B		X			

Table I. Sample Cross Reference

SDG	Client Sample ID	Laboratory Sample ID	Matrix	Sample Date	QC Type	Validation Level	Specific Cond. (SM2510)	TDS (SM2540C)	pH (SM4500-H+B)	TOC (SM5310C)	TOX (9020B)
440-129811-1	ART-3	440-129811-3	Water	12/03/15		Stage 2B		X			
440-129811-1	ART-4	440-129811-4	Water	12/03/15		Stage 2B		X			
440-129811-1	ART-7B	440-129811-5	Water	12/03/15		Stage 2B		X			
440-129811-1	ART-8	440-129811-6	Water	12/03/15		Stage 2B		X			
440-129811-1	ART-9	440-129811-7	Water	12/03/15		Stage 2B		X			
440-129811-1	PC-99R2/R3	440-129811-8	Water	12/03/15		Stage 2B		X			
440-129811-1	PC-115R	440-129811-9	Water	12/03/15		Stage 2B		X			
440-129811-1	PC-116R	440-129811-10	Water	12/03/15		Stage 2B		X			
440-129811-1	PC-116RMS	440-129811-10MS	Water	12/03/15	MS	Stage 2B					
440-129811-1	PC-116RMSD	440-129811-10MSD	Water	12/03/15	MSD	Stage 2B					
440-129811-1	PC-117	440-129811-11	Water	12/03/15		Stage 2B		X			
440-129811-1	PC-117DUP	440-129811-11DUP	Water	12/03/15	DUP	Stage 2B		X			
440-129811-1	PC-118	440-129811-12	Water	12/03/15		Stage 2B		X			
440-129811-1	PC-119	440-129811-13	Water	12/03/15		Stage 2B		X			
440-129811-1	PC-120	440-129811-14	Water	12/03/15		Stage 2B		X			
440-129811-1	PC-121	440-129811-15	Water	12/03/15		Stage 2B		X			
440-129811-1	PC-133	440-129811-16	Water	12/03/15		Stage 2B		X			
440-129811-1	PC-150	440-129811-17	Water	12/03/15		Stage 2B		X			
440-130086-1	I-V	440-130086-1	Water	12/07/15		Stage 2B		X			
440-130086-1	I-VDUP	440-130086-1DUP	Water	12/07/15	DUP	Stage 2B		X			
440-130086-1	I-VMS	440-130086-1MS	Water	12/07/15	MS	Stage 2B					
440-130086-1	I-VMSD	440-130086-1MSD	Water	12/07/15	MSD	Stage 2B					
440-130086-1	I-Z	440-130086-2	Water	12/07/15		Stage 2B		X			
440-130086-1	I-J	440-130086-3	Water	12/07/15		Stage 2B		X			
440-130086-1	I-K	440-130086-4	Water	12/07/15		Stage 2B		X			
440-130086-1	I-AD	440-130086-5	Water	12/07/15		Stage 2B		X			
440-130086-1	I-O	440-130086-6	Water	12/07/15		Stage 2B		X			
440-130086-1	I-W	440-130086-7	Water	12/07/15		Stage 2B		X			
440-130086-1	I-P	440-130086-8	Water	12/07/15		Stage 2B		X			
440-130086-1	I-H	440-130086-9	Water	12/07/15		Stage 2B		X			
440-130086-1	I-U	440-130086-10	Water	12/07/15		Stage 2B		X			
440-130086-1	I-T	440-130086-11	Water	12/07/15		Stage 2B		X			
440-130086-1	I-TDUP	440-130086-11DUP	Water	12/07/15	DUP	Stage 2B		X			
440-130086-1	I-TMS	440-130086-11MS	Water	12/07/15	MS	Stage 2B					
440-130086-1	I-TMSD	440-130086-11MSD	Water	12/07/15	MSD	Stage 2B					
440-130086-1	I-G	440-130086-12	Water	12/07/15		Stage 2B		X			
440-130086-1	I-Q	440-130086-13	Water	12/07/15		Stage 2B		X			

Table I. Sample Cross Reference

SDG	Client Sample ID	Laboratory Sample ID	Matrix	Sample Date	QC Type	Validation Level	Specific Cond. (SM2510)	TDS (SM2540C)	pH (SM4500-H+B)	TOC (SM5310C)	TOX (9020B)
440-130086-1	ART-6	440-130086-14	Water	12/07/15		Stage 2B		X			
440-130236-1	I-F	440-130236-1	Water	12/08/15		Stage 2B		X			
440-130236-1	I-FDUP	440-130236-1DUP	Water	12/08/15	DUP	Stage 2B		X			
440-130236-1	I-FMS	440-130236-1MS	Water	12/08/15	MS	Stage 2B					
440-130236-1	I-FMSD	440-130236-1MSD	Water	12/08/15	MSD	Stage 2B					
440-130236-1	I-X	440-130236-2	Water	12/08/15		Stage 2B		X			
440-130236-1	I-N	440-130236-3	Water	12/08/15		Stage 2B		X			
440-130236-1	I-E	440-130236-4	Water	12/08/15		Stage 2B		X			
440-130236-1	I-M	440-130236-5	Water	12/08/15		Stage 2B		X			
440-130236-1	I-D	440-130236-6	Water	12/08/15		Stage 2B		X			
440-130236-1	I-C	440-130236-7	Water	12/08/15		Stage 2B		X			
440-130236-1	I-S	440-130236-8	Water	12/08/15		Stage 2B		X			
440-130236-1	I-L	440-130236-9	Water	12/08/15		Stage 2B		X			
440-130236-1	I-Y	440-130236-10	Water	12/08/15		Stage 2B		X			
440-130236-1	I-R	440-130236-11	Water	12/08/15		Stage 2B		X			
440-130236-1	I-RDUP	440-130236-11DUP	Water	12/08/15	DUP	Stage 2B		X			
440-130236-1	I-RMS	440-130236-11MS	Water	12/08/15	MS	Stage 2B					
440-130236-1	I-RMSD	440-130236-11MSD	Water	12/08/15	MSD	Stage 2B					
440-130236-1	I-B	440-130236-12	Water	12/08/15		Stage 2B		X			
440-130236-1	I-AB	440-130236-13	Water	12/08/15		Stage 2B		X			
440-130236-1	I-AA	440-130236-14	Water	12/08/15		Stage 2B		X			
440-130236-1	I-AR	440-130236-15	Water	12/08/15		Stage 2B		X			
440-130236-1	I-I	440-130236-16	Water	12/08/15		Stage 2B		X			
440-130491-1	M-83	440-130491-1	Water	12/09/15		Stage 2B		X	X		
440-130491-1	PC-97	440-130491-2	Water	12/09/15		Stage 2B		X	X		
440-130491-1	PC-90	440-130491-3	Water	12/09/15		Stage 2B		X	X		
440-130491-1	PC-91	440-130491-4	Water	12/09/15		Stage 2B		X	X		
440-130491-1	PC-91DUP	440-130491-4DUP	Water	12/09/15	DUP	Stage 2B		X			
440-130491-1	PC-58	440-130491-5	Water	12/09/15		Stage 2B		X	X		
440-130491-1	PC-56	440-130491-6	Water	12/09/15		Stage 2B		X	X		
440-130491-1	MEB-1	440-130491-7	Water	12/09/15	EB	Stage 2B			X		
440-130491-1	PC-60	440-130491-8	Water	12/09/15		Stage 2B		X	X		
440-130491-1	PC-59	440-130491-9	Water	12/09/15		Stage 2B		X	X		
440-130491-1	PC-59MS	440-130491-9MS	Water	12/09/15	MS	Stage 2B					
440-130491-1	PC-59MSD	440-130491-9MSD	Water	12/09/15	MSD	Stage 2B					
440-130634-1	PC-53	440-130634-1	Water	12/10/15		Stage 2B		X	X		
440-130634-1	PC-53DUP	440-130634-1DUP	Water	12/10/15	DUP	Stage 2B		X			

Table I. Sample Cross Reference

SDG	Client Sample ID	Laboratory Sample ID	Matrix	Sample Date	QC Type	Validation Level	Specific Cond. (SM2510)	TDS (SM2540C)	pH (SM4500-H+B)	TOC (SM5310C)	TOX (9020B)
440-130634-1	PC-53MS	440-130634-1MS	Water	12/10/15	MS	Stage 2B					
440-130634-1	PC-53MSD	440-130634-1MSD	Water	12/10/15	MSD	Stage 2B					
440-130634-1	MW-K5	440-130634-2	Water	12/10/15		Stage 2B		X	X		
440-130634-1	PC-122	440-130634-3	Water	12/10/15		Stage 2B		X	X		
440-130634-1	ARP-7	440-130634-4	Water	12/10/15		Stage 2B		X	X		
440-130634-1	ARP-6B	440-130634-5	Water	12/10/15		Stage 2B		X	X		
440-130634-1	ARP-5A	440-130634-6	Water	12/10/15		Stage 2B		X	X		
440-130634-1	ARP-4A	440-130634-7	Water	12/10/15		Stage 2B		X	X		
440-130634-1	MWK4	440-130634-8	Water	12/10/15		Stage 2B		X	X		
440-130634-1	PC-101R	440-130634-9	Water	12/10/15		Stage 2B		X	X		
440-130634-1	ARP-3A	440-130634-10	Water	12/10/15		Stage 2B		X	X		
440-130634-1	ARP-2A	440-130634-11	Water	12/10/15		Stage 2B		X	X		
440-130634-1	ARP-2ADUP	440-130634-11DUP	Water	12/10/15	DUP	Stage 2B		X			
440-130634-1	ARP-2AMS	440-130634-11MS	Water	12/10/15	MS	Stage 2B					
440-130634-1	ARP-2AMSD	440-130634-11MSD	Water	12/10/15	MSD	Stage 2B					
440-130634-1	PC-98R	440-130634-12	Water	12/10/15		Stage 2B		X	X		
440-130634-1	PC-103	440-130634-13	Water	12/10/15		Stage 2B		X	X		
440-130766-1	PC-62	440-130766-1	Water	12/11/15		Stage 4		X	X		
440-130766-1	PC-62DUP	440-130766-1DUP	Water	12/11/15	DUP	Stage 4		X			
440-130766-1	PC-68	440-130766-W	Water	12/11/15		Stage 4		X	X		
440-130766-1	PC-86	440-130766-3	Water	12/11/15		Stage 4		X	X		
440-130766-1	PC-18	440-130766-4	Water	12/11/15		Stage 4		X	X		
440-130766-1	ARP-1	440-130766-5	Water	12/11/15		Stage 4		X	X		
440-130766-1	PC-55	440-130766-6	Water	12/11/15		Stage 4		X	X		
440-129634-1/15-6872	ART-1	440-129634-1/6872-1A	Water	12/03/15		Stage 2B					
440-129634-1/15-6872	ART-2	440-129634-2/6872-2A	Water	12/03/15		Stage 2B					
440-129634-1/15-6872	ART-3	440-129634-3/6872-3A	Water	12/03/15		Stage 2B					
440-129634-1/15-6872	ART-4	440-129634-4/6872-4A	Water	12/03/15		Stage 2B					
440-129634-1/15-6872	ART-7B	440-129634-5/6872-5A	Water	12/03/15		Stage 2B					
440-129634-1/15-6872	ART-8	440-129634-6/6872-6A	Water	12/03/15		Stage 2B					
440-129634-1/15-6872	ART-9	440-129634-7/6872-7A	Water	12/03/15		Stage 2B					
440-129634-1/15-6872	PC-99R2/R3	440-129634-8/6872-8A	Water	12/03/15		Stage 2B					
440-129634-1/15-6872	PC-115R	440-129634-9/6872-9A	Water	12/03/15		Stage 2B					
440-129634-1/15-6872	PC-116R	440-129634-10/6872-10A	Water	12/03/15		Stage 2B					
440-129634-1/15-6872	PC-117	440-129634-11/6872-11A	Water	12/03/15		Stage 2B					
440-129634-1/15-6872	PC-118	440-129634-12/6872-12A	Water	12/03/15		Stage 2B					
440-129634-1/15-6872	PC-119	440-129634-13/6872-13A	Water	12/03/15		Stage 2B					

Table I. Sample Cross Reference

SDG	Client Sample ID	Laboratory Sample ID	Matrix	Sample Date	QC Type	Validation Level	Specific Cond. (SM2510)	TDS (SM2540C)	pH (SM4500-H+B)	TOC (SM5310C)	TOX (9020B)
440-129634-1/15-6872	PC-120	440-129634-14/6872-14A	Water	12/03/15		Stage 2B					
440-129634-1/15-6872	PC-121	440-129634-15/6872-15A	Water	12/03/15		Stage 2B					
440-129634-1/15-6872	PC-133	440-129634-16/6872-16A	Water	12/03/15		Stage 2B					
440-129634-1/15-6872	PC-150	440-129634-17/6872-17A	Water	12/03/15		Stage 2B					
440-129634-1/15-6872	ART-1MS	440-129634-1/6872-1AMS	Water	12/03/15	MS	Stage 2B					
440-129634-1/15-6872	ART-1MSD	440-129634-1/6872-1AMSD	Water	12/03/15	MSD	Stage 2B					
440-129634-1/15-6872	ART-3MS	440-129634-3/6872-3AMS	Water	12/03/15	MS	Stage 2B					
440-129634-1/15-6872	ART-3MSD	440-129634-3/6872-3AMSD	Water	12/03/15	MSD	Stage 2B					
440-130398-1/15-7024	M-83	440-130398-1/7024-1A	Water	12/09/15		Stage 2B					
440-130398-1/15-7024	PC-97	440-130398-2/7024-2A	Water	12/09/15		Stage 2B					
440-130398-1/15-7024	PC-90	440-130398-3/7024-3A	Water	12/09/15		Stage 2B					
440-130398-1/15-7024	PC-91	440-130398-4/7024-4A	Water	12/09/15		Stage 2B					
440-130398-1/15-7024	PC-58	440-130398-5/7024-5A	Water	12/09/15		Stage 2B					
440-130398-1/15-7024	PC-56	440-130398-6/7024-6A	Water	12/09/15		Stage 2B					
440-130398-1/15-7024	PC-60	440-130398-7/7024-7A	Water	12/09/15		Stage 2B					
440-130398-1/15-7024	PC-59	440-130398-8/7024-8A	Water	12/09/15		Stage 2B					
440-130398-1/15-7024	PC-97MS	440-130398-2/7024-2AMS	Water	12/09/15	MS	Stage 2B					
440-130398-1/15-7024	PC-97MSD	440-130398-2/7024-2AMSD	Water	12/09/15	MSD	Stage 2B					
440-130571-1/15-7085	PC-53	440-130571-1/7085-1A	Water	12/10/15		Stage 2B					
440-130571-1/15-7085	MW-K5	440-130571-2/7085-2A	Water	12/10/15		Stage 2B					
440-130571-1/15-7085	PC-122	440-130571-3/7085-3A	Water	12/10/15		Stage 2B					
440-130571-1/15-7085	ARP-7	440-130571-4/7085-4A	Water	12/10/15		Stage 2B					
440-130571-1/15-7085	ARP-6B	440-130571-5/7085-5A	Water	12/10/15		Stage 2B					
440-130571-1/15-7085	ARP-5A	440-130571-6/7085-6A	Water	12/10/15		Stage 2B					
440-130571-1/15-7085	ARP-4A	440-130571-7/7085-7A	Water	12/10/15		Stage 2B					
440-130571-1/15-7085	MW-K4	440-130571-8/7085-8A	Water	12/10/15		Stage 2B					
440-130571-1/15-7085	PC-101R	440-130571-10/7085-9A	Water	12/10/15		Stage 2B					
440-130571-1/15-7085	ARP-3A	440-130571-11/7085-10A	Water	12/10/15		Stage 2B					
440-130571-1/15-7085	ARP-2A	440-130571-12/7085-11A	Water	12/10/15		Stage 2B					
440-130571-1/15-7085	PC-98R	440-130571-13/7085-12A	Water	12/10/15		Stage 2B					
440-130571-1/15-7085	PC-103	440-130571-14/7085-13A	Water	12/10/15		Stage 2B					
440-130821-1/15-7127	PC-62	440-130821-1/7217-1A	Water	12/11/15		Stage 2B					
440-130821-1/15-7127	PC-68	440-130821-2/7217-2A	Water	12/11/15		Stage 2B					
440-130821-1/15-7127	PC-86	440-130821-3/7217-3A	Water	12/11/15		Stage 2B					
440-130821-1/15-7127	PC-18	440-130821-4/7217-4A	Water	12/11/15		Stage 2B					
440-130821-1/15-7127	ARP-1	440-130821-5/7217-5A	Water	12/11/15		Stage 2B					
440-130821-1/15-7127	PC-55	440-130821-6/7217-6A	Water	12/11/15		Stage 2B					

Table I. Sample Cross Reference

SDG	Client Sample ID	Laboratory Sample ID	Matrix	Sample Date	QC Type	Validation Level	Specific Cond. (SM2510)	TDS (SM2540C)	pH (SM4500-H+B)	TOC (SM5310C)	TOX (9020B)
440-130821-1/15-7127	PC-55MS	440-130821-6/7217-6AMS	Water	12/11/15	MS	Stage 2B					
440-130821-1/15-7127	PC-55MSD	440-130821-6/7217-6AMSD	Water	12/11/15	MSD	Stage 2B					
440-140153-1/15-6943	I-V	440-140153-1/15-6943-1A	Water	12/07/15		Stage 2B					
440-140153-1/15-6943	I-Z	440-140153-2/15-6943-2A	Water	12/07/15		Stage 4					
440-140153-1/15-6943	I-J	440-140153-3/15-6943-3A	Water	12/07/15		Stage 2B					
440-140153-1/15-6943	I-K	440-140153-4/15-6943-4A	Water	12/07/15		Stage 2B					
440-140153-1/15-6943	I-AD	440-140153-5/15-6943-5A	Water	12/07/15		Stage 4					
440-140153-1/15-6943	I-O	440-140153-6/15-6943-6A	Water	12/07/15		Stage 4					
440-140153-1/15-6943	I-W	440-140153-7/15-6943-7A	Water	12/07/15		Stage 2B					
440-140153-1/15-6943	I-P	440-140153-8/15-6943-8A	Water	12/07/15		Stage 2B					
440-140153-1/15-6943	I-H	440-140153-9/15-6943-9A	Water	12/07/15		Stage 4					
440-140153-1/15-6943	I-U	440-140153-10/15-6943-10A	Water	12/07/15		Stage 2B					
440-140153-1/15-6943	I-T	440-140153-11/15-6943-11A	Water	12/07/15		Stage 2B					
440-140153-1/15-6943	I-G	440-140153-12/15-6943-12A	Water	12/07/15		Stage 4					
440-140153-1/15-6943	I-Q	440-140153-13/15-6943-13A	Water	12/07/15		Stage 2B					
440-140153-1/15-6943	ART-6	440-140153-14/15-6943-14A	Water	12/07/15		Stage 4					
440-140153-1/15-6943	ART-6MS	440-140153-14/15-6943-14AMS	Water	12/07/15	MS	Stage 4					
440-140153-1/15-6943	ART-6MSD	440-140153-14/15-6943-14AMSD	Water	12/07/15	MSD	Stage 4					
440-140156-1/15-6995	I-F	440-140156-1/15-6995-1A	Water	12/08/15		Stage 2B					
440-140156-1/15-6995	I-X	440-140156-2/15-6995-2A	Water	12/08/15		Stage 2B					
440-140156-1/15-6995	I-N	440-140156-3/15-6995-3A	Water	12/08/15		Stage 2B					
440-140156-1/15-6995	I-E	440-140156-4/15-6995-4A	Water	12/08/15		Stage 2B					
440-140156-1/15-6995	I-M	440-140156-5/15-6995-5A	Water	12/08/15		Stage 2B					
440-140156-1/15-6995	I-D	440-140156-6/15-6995-6A	Water	12/08/15		Stage 2B					
440-140156-1/15-6995	I-C	440-140156-7/15-6995-7A	Water	12/08/15		Stage 2B					
440-140156-1/15-6995	I-S	440-140156-8/15-6995-8A	Water	12/08/15		Stage 2B					
440-140156-1/15-6995	I-L	440-140156-9/15-6995-9A	Water	12/08/15		Stage 2B					
440-140156-1/15-6995	I-Y	440-140156-10/15-6995-10A	Water	12/08/15		Stage 2B					
440-140156-1/15-6995	I-R	440-140156-11/15-6995-11A	Water	12/08/15		Stage 2B					
440-140156-1/15-6995	I-B	440-140156-12/15-6995-12A	Water	12/08/15		Stage 2B					
440-140156-1/15-6995	I-AB	440-140156-13/15-6995-13A	Water	12/08/15		Stage 2B					
440-140156-1/15-6995	I-AA	440-140156-14/15-6995-14A	Water	12/08/15		Stage 2B					
440-140156-1/15-6995	I-AR	440-140156-15/15-6995-15A	Water	12/08/15		Stage 2B					
440-140156-1/15-6995	I-I	440-140156-16/15-6995-16A	Water	12/08/15		Stage 2B					
440-140156-1/15-6995	I-XMS	440-140156-2/15-6995-2AMS	Water	12/08/15	MS	Stage 2B					
440-140156-1/15-6995	I-XMSD	440-140156-2/15-6995-2AMSD	Water	12/08/15	MSD	Stage 2B					



**TABLE II**

**Table IIa. Stage 2B Validation Elements**

Quality Control Elements	Stage 2B	
	Metals	Wet Chemistry
Sample Receipt & Technical Holding Time	√	√
Initial Calibration (ICAL)	√	√
Initial Calibration Verification (ICV)	√	√
Continuing Calibration Verification (CCV)	√	√
Laboratory Blanks	√	√
Initial Calibration Blank and Continuing Calibration Blank (ICB/CCB)	√	√
Field Blanks	√	√
Inductively Coupled Plasma (ICP) Interference Check Sample	√	N/A
Surrogate Spikes	N/A	√
Matrix Spike (MS), Matrix Spike Duplicate (MSD)	√	√
Laboratory Duplicate (DUP)	N/A	√
Laboratory Control Sample (LCS)/ Laboratory Control Sample Duplicate (LCSD)	√	√
Serial Dilution	√	N/A
Field Duplicate	√	√
Project Quantitation Limits (QL)	√	√
Multiple Results for One Sample	√	√
Sample Result Verification	-	-
Overall Data Usability Assessment	√	√

√ = Reviewed for Stage 2B review

N/A = Not applicable to method or not performed during this sampling event

- = Not applicable for Stage 2B review

**Table IIb. Stage 4 Validation Elements**

Quality Control Elements	Stage 4	
	Metals	Wet Chemistry
Sample Receipt & Technical Holding Time	√	√
Initial Calibration (ICAL)	√	√
Initial Calibration Verification (ICV)	√	√
Continuing Calibration Verification (CCV)	√	√
Laboratory Blanks	√	√
Initial Calibration Blank and Continuing Calibration Blank (ICB/CCB)	√	√
Field Blanks	√	√
Inductively Coupled Plasma (ICP) Interference Check Sample	√	N/A
Surrogate Spikes	N/A	√
Matrix Spike (MS), Matrix Spike Duplicate (MSD)	√	√
Laboratory Duplicate (DUP)	N/A	√
Laboratory Control Sample (LCS)/ Laboratory Control Sample Duplicate (LCSD)	√	√
Serial Dilution	√	N/A
Field Duplicate	√	√
Project Quantitation Limits (QL)	√	√
Multiple Results for One Sample	√	√
Sample Result Verification	√	√
Overall Data Usability Assessment	√	√

√ = Reviewed for Stage 4 review

N/A = Not applicable to method or not performed during this sampling event

**TABLE III**

**Table III. Qualification Codes and Definitions**

<b>Reason Code</b>	<b>Explanation</b>
a	qualified due to low abundance ( radiochemical activity)
be	qualified due to equipment blank contamination
bf	qualified due to field blank contamination
bl	qualified due to lab blank contamination
bt	qualified due to trip blank contamination
bp	qualified due to pump blank contamination (wells w/o dedicated pumps, when contamination is detected in the Pump Blk)
br	qualified due to filter blank contamination (aqueous Hexavalent Chromium and Dissolved sample fractions)
c	qualified due to calibration problems
cp	qualified due to insufficient ingrowth (radiochemical only)
dc	duel column confirmation %D exceeded
e	concentration exceeded the calibration range
fd	qualified due to field duplicate imprecision
h	qualified due to holding time exceedance
i	qualified due to internal standard areas
k	qualified as Estimated Maximum Possible Concentrations (dioxins and PCB congeners)
l	qualified due to LCS recoveries
ld	qualified due to lab duplicate imprecision (matrix duplicate, MSD, LCSD)
m	qualified due to matrix spike recoveries
nb	qualified due to negative lab blank contamination (nondetect results only)
nd	qualified due to non-detected target analyte
o	other
p	qualified as a false positive due to contamination during shipping
pH	sample preservation not within acceptance range
q	qualified due to quantitation problem
s	qualified due to surrogate recoveries
sd	serial dilution did not meet control criteria
sp	detected value reported >SQL <PQL
st	sample receipt temperature exceeded
t	qualified due to elevated helium tracer concentrations
vh	volatile headspace detected in aqueous sample containers submitted for VOC analysis
x	qualified due to low % solids
z	qualified due to ICS results

**TABLE IV**

Table IV. Overall Qualified Results

SDG	Client Sample ID	Sample Date	Method	Client Analyte ID	Analyte	Lab Result	Lab Qualifier	SQL	PQL	Units	Validator Qualifier	Reason Code	Reason Code Definition	Qualification Finding	
440-117106-1	PC-131	08/04/15	200.7	7440-47-3	Chromium	0.0034	J	0.0025	0.0050	mg/l	J	sp	Detect <PQL	--	--
440-117359-1	EB-3	08/06/15	200.7	7440-47-3	Chromium	0.0043	J	0.0025	0.0050	mg/l	J	sp	Detect <PQL	--	--
440-117359-1	M-80	08/06/15	200.7	7440-47-3	Chromium	1.8	F1	0.0025	0.0050	mg/l	J-	m	Matrix Spike %R	60	%
440-117588-1	DUP-6	08/10/15	200.7	7440-47-3	Chromium	0.0078		0.0025	0.0050	mg/l	J	fd	Field Duplicate Difference	0.0542	mg/L
440-117588-1	M-37	08/10/15	200.7	7440-47-3	Chromium	0.062		0.0025	0.0050	mg/l	J	fd	Field Duplicate Difference	0.0542	mg/L
440-117759-1	PC-56	08/11/15	200.7	7440-47-3	Chromium	0.0031	J	0.0025	0.0050	mg/l	J	sp	Detect <PQL	--	--
440-117940-1	ARP-1	08/12/15	200.7	7440-47-3	Chromium	0.0041	J	0.0025	0.0050	mg/l	J	sp	Detect <PQL	--	--
440-117940-1	ARP-4A	08/12/15	200.7	7440-47-3	Chromium	0.0028	J	0.0025	0.0050	mg/l	J	sp	Detect <PQL	--	--
440-126718-1	EB-3	11/05/15	200.7	7440-47-3	Chromium	0.0027	J	0.0025	0.0050	mg/l	J	sp	Detect <PQL	--	--
440-127487-1	PC-56	11/10/15	200.7	7440-47-3	Chromium	0.0027	J	0.0025	0.0050	mg/l	J	sp	Detect <PQL	--	--
440-127619-1	ARP-3A	11/11/15	200.7	7440-47-3	Chromium	0.013	J	0.013	0.025	mg/l	J	sp	Detect <PQL	--	--
440-127619-1	ARP-4A	11/11/15	200.7	7440-47-3	Chromium	0.0025	J	0.0025	0.0050	mg/l	J	sp	Detect <PQL	--	--
440-127656-1	PC-55	11/12/15	200.7	7440-47-3	Chromium	0.017	J	0.013	0.025	mg/l	J	sp	Detect <PQL	--	--
440-129811-1	PC-99R2/R3	12/03/15	200.7	7440-47-3	Chromium	0.0031	J	0.0025	0.0050	mg/l	J	sp	Detect <PQL	--	--
440-117105-1	EB-1	08/04/15	218.6	18540-29-9	Chromium, hexavalent		UH	0.25	1.0	ug/l	UJ	h	Holding Time	38.52	Hours
440-117105-1	FB-1	08/04/15	218.6	18540-29-9	Chromium, hexavalent		UH	0.25	1.0	ug/l	UJ	h	Holding Time	38.65	Hours
440-117270-1	EB2	08/05/15	218.6	18540-29-9	Chromium, hexavalent		UH	0.25	1.0	ug/l	UJ	h	Holding Time	40.23	Hours
440-117353-1	M-10	08/06/15	218.6	18540-29-9	Chromium, hexavalent	0.25	J	0.25	1.0	ug/l	J	sp	Detect <PQL	--	--
440-117359-1	M-11	08/06/15	218.6	18540-29-9	Chromium, hexavalent	1100	H	13	50	ug/l	J-	h	Holding Time	24.37	Hours
440-117491-1	EB-4	08/07/15	218.6	18540-29-9	Chromium, hexavalent		UH	0.25	1.0	ug/l	R	h	Holding Time	109.28	Hours
440-117588-1	EB-5	08/10/15	218.6	18540-29-9	Chromium, hexavalent		UH	0.25	1.0	ug/l	UJ	h	Holding Time	24.87	Hours
440-117588-1	M-95	08/10/15	218.6	18540-29-9	Chromium, hexavalent	550	H	2.5	10	ug/l	J-	h	Holding Time	24.12	Hours
440-126559-1	EB-1	11/04/15	218.6	18540-29-9	Chromium, hexavalent		UH	0.25	1.0	ug/l	UJ	h	Holding Time	25.28	Hours
440-126840-1	EB-4	11/06/15	218.6	18540-29-9	Chromium, hexavalent		UH	0.25	1.0	ug/l	UJ	h	Holding Time	28.47	Hours
440-126840-1	FB-1	11/06/15	218.6	18540-29-9	Chromium, hexavalent		UH	0.25	1.0	ug/l	UJ	h	Holding Time	29.52	Hours
440-126840-1	M-80	11/06/15	218.6	18540-29-9	Chromium, hexavalent	1600	H	5.0	20	ug/l	J-	h	Holding Time	27.53	Hours
440-127055-1	EB-5	11/09/15	218.6	18540-29-9	Chromium, hexavalent		UH	0.25	1.0	ug/l	UJ	h	Holding Time	26.73	Hours
440-140153-1/ 15-6943	ART-6	12/07/15	218.6	18540-29-9	Chromium, hexavalent	0.51		0.0019	0.01	mg/l	J-	h	Holding Time	15	Days
440-140153-1/ 15-6943	I-AD	12/07/15	218.6	18540-29-9	Chromium, hexavalent	0.037		0.0001	0.001	mg/l	J+	c	Continuing Calibration %R	111	%
440-117353-1	M-10	08/06/15	300.0	16887-00-6	Chloride	230	F1	25	50	mg/l	J-	m	Matrix Spike %R	56/72	%
440-127487-1	PC-68	11/10/15	314.0	14797-73-0	Perchlorate	0.79	J	0.50	1.0	ug/l	J	sp	Detect <PQL	--	--
440-130766-1	PC-62	12/11/15	314.0	14797-73-0	Perchlorate	0.87	J	0.50	1.0	ug/l	J	sp	Detect <PQL	--	--
440-127054-1	M-10	11/09/15	350.1	7664-41-70	Ammonia (as N)	0.13	J	0.10	0.20	mg/l	J	sp	Detect <PQL	--	--
440-117286-1	M-5A	08/05/15	420.4	64743-03-9	Phenols, Total	6.7	J	5.0	10	ug/l	J	sp	Detect <PQL	--	--
440-117286-1	M-7B	08/05/15	420.4	64743-03-9	Phenols, Total	5.3	J	5.0	10	ug/l	J	sp	Detect <PQL	--	--
440-117286-2	M-5A	08/05/15	9020B	TOH	TOX Quad	14000	JHF1	3900	15000	ug/l	J-	h	Holding Time	30	Days
440-117286-2	M-7B	08/05/15	9020B	TOH	TOX Quad	4100	H	770	3000	ug/l	J-	h	Holding Time	30	Days

**ATTACHMENT A**

**Metals Data Validation Report**



## Metals by EPA Method 200.7

### I. Sample Receipt and Technical Holding Times

All samples were received in good condition.

All technical holding time requirements were met.

### II. Instrument Calibration

Initial and continuing calibrations were performed as required by the method.

The initial calibration verification (ICV) and continuing calibration verification (CCV) standards were within QC limits with the following exceptions:

SDG	Date	Standard ID	Analyte	%R (Limits)	Associated Samples	Flag	A or P
440-130634-1 440-130766-1	12/17/15	CCV (12:47)	Chromium	116 (90-110)	PC-103 PC-62 PC-68 PC-86 ARP-1 PC-55	NA	-

### III. ICP Interference Check Sample Analysis

The frequency of interference check sample (ICS) analysis was met. All criteria were within QC limits.

### IV. Laboratory Blanks

Laboratory blanks were analyzed as required by the method. No contaminants were found in the laboratory blanks with the following exceptions:

SDG	Blank ID	Analyte	Maximum Concentration	Associated Samples
440-117602-1	PB (prep blank)	Sodium	0.408 mg/L	M-6A
440-127054-1	PB (prep blank)	Iron	0.0125 mg/L	M-10
440-127054-1	ICB/CCB	Iron	0.0101 mg/L	M-10

Sample concentrations were compared to concentrations detected in the laboratory blanks. No data were qualified when the laboratory blank concentrations were less than the practical quantitation limit (PQL) and the concentrations in the associated samples were greater than the PQL.

## V. Field Blanks

Samples EB-1 (from SDGs 440-117105-1, 440-126312-1, and 440-126559-1), EB2 (from SDG 440-117270-1), EB-3 (from SDGs 440-117359-1, and 440-126718-1), EB-4 (from SDGs 440-117491-1 and 440-126840-1), and EB-5 (from SDGs 440-117588-1 and 440-127055-1) were identified as equipment blanks. No contaminants were found with the following exceptions:

SDG	Blank ID	Collection Date	Analyte	Concentration	Associated Samples
440-117353-1 440-117359-1	EB-3	08/06/15	Chromium	0.0043 mg/L	M-10 M-52 M-19 M-68 M-67 M-74 M-73 M-81A M-83 M-11 M-80 M-12A
440-126718-1	EB-3	11/05/15	Chromium	0.0027 mg/L	M-64 PC-148 PC-149 M-65 M-66 DUP3 M-79 M-69 M-135 M-131 M-57A M-25 M-37 I-C I-T DUP-2

Sample FB-1 (from SDGs 440-117105-1 and 440-126840-1) was identified as a field blank. No contaminants were found.

Sample concentrations were compared to concentrations detected in the field blanks. No data were qualified when the field blank concentrations were less than the practical quantitation limit (PQL) and the concentrations in the associated samples were greater than the PQL.

## VI. Matrix Spike/Matrix Spike Duplicates

Matrix spike (MS) and matrix spike duplicate (MSD) sample analysis was performed on an associated project sample. Percent recoveries (%R) were within QC limits with the following exceptions:

SDG	Spike ID (Associated Samples)	Analyte	MS (%R) (Limits)	MSD (%R) (Limits)	Flag	A or P
440-117359-1	M-80MS/MSD (M-80)	Chromium	-	60 (70-130)	J- (all detects)	A

For M-65MS/MSD (from SDG 440-117274-1), I-DMS/MSD (from SDG 440-126191-1), M-64MS/MSD (from SDG 440-126718-1), M-31AMS/MSD, I-ZMS/MSD (both from SDG 440-126840-1), I-XMS/MSD (from SDG 440-128067-1), I-FMS/MSD (from SDG 440-130236-1), I-VMS/MSD, and I-TMS/MSD (both from SDG 440-130086-1) no data were qualified for Chromium percent recoveries (%R) outside the QC limits since the parent sample results were greater than 4X the spike concentration.

For M-10MS/MSD (from SDGs 440-117353-1 and 440-127054-1), no data were qualified for Iron percent recoveries (%R) outside the QC limits since the parent sample results were greater than 4X the spike concentration.

Relative percent differences (RPD) were within QC limits.

## VII. Duplicate Sample Analysis

The laboratory has indicated that there were no duplicate (DUP) analyses specified for the samples in these SDGs, and therefore duplicate analyses were not performed for these SDGs.

## VIII. Serial Dilution

Serial dilution was not performed for these SDGs.

## IX. Laboratory Control Samples

Laboratory control samples (LCS) and laboratory control samples duplicates (LCSD) were analyzed as required by the method. Percent recoveries (%R) were within QC limits. Relative percent differences (RPD) were within QC limits.

## X. Field Duplicates

Samples PC-129 and DUP-1 (both from SDG 440-117106-1), samples DUP-5 and M-38 (both from SDG 440-117351-1), samples M-31A and DUP-3 (both from SDG 440-117491-1), samples M-44 and DUP-2 (both from SDG 440-117588-1), samples M-37 and DUP-6 (both from SDG 440-117588-1), samples PC-18 and DUP-4 (both from SDG 440-117940-1), samples M-95 and DUP-1 (both from SDG 440-126312-1), samples M-66 and DUP3 (both from SDG 440-126718-1), samples M-37 and DUP-2 (both from SDG 440-126718-1), samples I-K and DUP-4 (both from SDG 440-126840-1), and samples M-14A and DUP-5 (both from SDG 440-127055-1), were identified as field duplicates. No results were detected in any of the samples with the following exceptions:

SDG	Analyte	Concentration (mg/L)		RPD (Limits)	Difference (Limits)	Flag	A or P
		PC-129	DUP-1				
440-117106-1	Chromium	0.51	0.59	15 (≤30)	-	-	-

SDG	Analyte	Concentration (mg/L)		RPD (Limits)	Difference (Limits)	Flag	A or P
		DUP-5	M-38				
440-117351-1	Chromium	19	20	5 (≤30)	-	-	-

SDG	Analyte	Concentration (mg/L)		RPD (Limits)	Difference (Limits)	Flag	A or P
		M-31A	DUP-3				
440-117491-1	Chromium	4.5	4.3	5 (≤30)	-	-	-

SDG	Analyte	Concentration (mg/L)		RPD (Limits)	Difference (Limits)	Flag	A or P
		M-44	DUP-2				
440-117588-1	Chromium	0.97	0.88	10 (≤30)	-	-	-

SDG	Analyte	Concentration (mg/L)		RPD (Limits)	Difference (Limits)	Flag	A or P
		M-37	DUP-6				
440-117588-1	Chromium	0.062	0.0078	-	0.0542 (≤0.0050)	J (all detects)	A

SDG	Analyte	Concentration (mg/L)		RPD (Limits)	Difference (Limits)	Flag	A or P
		PC-18	DUP-4				
440-117940-1	Chromium	0.093	0.091	2 ( $\leq 30$ )	-	-	-

SDG	Analyte	Concentration (mg/L)		RPD (Limits)	Difference (Limits)	Flag	A or P
		M-95	DUP-1				
440-126312-1	Chromium	0.59	0.54	9 ( $\leq 30$ )	-	-	-

SDG	Analyte	Concentration (mg/L)		RPD (Limits)	Difference (Limits)	Flag	A or P
		M-66	DUP3				
440-126718-1	Chromium	21	21	0 ( $\leq 30$ )	-	-	-

SDG	Analyte	Concentration (mg/L)		RPD (Limits)	Difference (Limits)	Flag	A or P
		M-37	DUP-2				
440-126718-1	Chromium	0.019	0.014	-	0.0050 ( $\leq 0.0050$ )	-	-

SDG	Analyte	Concentration (mg/L)		RPD (Limits)	Difference (Limits)	Flag	A or P
		I-K	DUP-4				
440-126840-1	Chromium	2.0	2.0	0 ( $\leq 30$ )	-	-	-

SDG	Analyte	Concentration (mg/L)		RPD (Limits)	Difference (Limits)	Flag	A or P
		M-14A	DUP-5				
440-127055-1	Chromium	0.041	0.044	7 ( $\leq 30$ )	-	-	-

## XI. Sample Result Verification

All sample result verifications were acceptable for samples which underwent Stage 4 validation. Raw data were not reviewed for Stage 2B validation.

## **XII. Overall Assessment of Data**

The analysis was conducted within all specifications of the method. No results were rejected in these SDGs.

Due to MS/MSD %R and field duplicate difference, data were qualified as estimated in three samples.

The quality control criteria reviewed, other than those discussed above, were met and are considered acceptable. Sample results that were found to be estimated (J) are usable for limited purposes only. Based upon the data validation all other results are considered valid and usable for all purposes.

**NERT Compliance**

**Metals - Data Qualification Summary - SDGs 440-115249-1, 440-116828-1, 440-116832-1, 440-117105-1, 440-117106-1, 440-117270-1, 440-117274-1, 440-117286-1, 440-117351-1, 440-117353-1, 440-117359-1, 440-117491-1, 440-117519-1, 440-117588-1, 440-117602-1, 440-117759-1, 440-117940-1, 440-118033-1, 440-126184-1, 440-126191-1, 440-126312-1, 440-126559-1, 440-126718-1, 440-126840-1, 440-127054-1, 440-127055-1, 440-127487-1, 440-127619-1, 440-127656-1, 440-128067-1, 440-128396-1, 440-129811-1, 440-130086-1, 440-130236-1, 440-130491-1, 440-130634-1, 440-130766-1**

SDG	Sample	Analyte	Flag	A or P	Reason (Code)
440-117359-1	M-80	Chromium	J- (all detects)	A	Matrix spike/Matrix spike duplicate (%R) (m)
440-117588-1	M-37 DUP-6	Chromium	J (all detects)	A	Field duplicates (difference) (fd)

**NERT Compliance**

**Metals - Laboratory Blank Data Qualification Summary - SDGs 440-115249-1, 440-116828-1, 440-116832-1, 440-117105-1, 440-117106-1, 440-117270-1, 440-117274-1, 440-117286-1, 440-117351-1, 440-117353-1, 440-117359-1, 440-117491-1, 440-117519-1, 440-117588-1, 440-117602-1, 440-117759-1, 440-117940-1, 440-118033-1, 440-126184-1, 440-126191-1, 440-126312-1, 440-126559-1, 440-126718-1, 440-126840-1, 440-127054-1, 440-127055-1, 440-127487-1, 440-127619-1, 440-127656-1, 440-128067-1, 440-128396-1, 440-129811-1, 440-130086-1, 440-130236-1, 440-130491-1, 440-130634-1, 440-130766-1**

No Sample Data Qualified in these SDGs

**NERT Compliance**

**Metals - Field Blank Data Qualification Summary - SDGs 440-115249-1, 440-116828-1, 440-116832-1, 440-117105-1, 440-117106-1, 440-117270-1, 440-117274-1, 440-117286-1, 440-117351-1, 440-117353-1, 440-117359-1, 440-117491-1, 440-117519-1, 440-117588-1, 440-117602-1, 440-117759-1, 440-117940-1, 440-118033-1, 440-126184-1, 440-126191-1, 440-126312-1, 440-126559-1, 440-126718-1, 440-126840-1, 440-127054-1, 440-127055-1, 440-127487-1, 440-127619-1, 440-127656-1, 440-128067-1, 440-128396-1, 440-129811-1, 440-130086-1, 440-130236-1, 440-130491-1, 440-130634-1, 440-130766-1**

No Sample Data Qualified in these SDGs

**ATTACHMENT B**

**Wet Chemistry Data Validation Report**



**Hexavalent Chromium by EPA Method 218.6**  
**Chloride, Nitrate as Nitrogen, and Nitrite as Nitrogen, and Sulfate by EPA Method 300.0**  
**Chlorate by EPA Method 300.1B**  
**Perchlorate by EPA Method 314.0**  
**Ammonia as Nitrogen by EPA Method 350.1**  
**Phenolics by EPA Method 420.1**  
**Phenols by EPA Method 420.4**  
**Nitrate/Nitrite as Nitrogen and Total Inorganic Nitrogen by Calculation**  
**Specific Conductance and Resistivity by Standard Method 2510B**  
**Total Dissolved Solids by Standard Method 2540C**  
**pH by Standard Method 4500 H+B**  
**Total Organic Carbon by Standard Method 5310C**  
**Total Organic Halides by EPA SW 846 Method 9020B**

**I. Sample Receipt and Technical Holding Times**

All samples were received in good condition.

All technical holding time requirements were met with the following exceptions:

SDG	Sample	Analyte	Total Time From Sample Collection Until Analysis	Required Holding Time From Sample Collection Until Analysis	Flag	A or P
440-117105-1	EB-1	Hexavalent chromium	38.52 hours	24 hours	UJ (all non-detects)	P
440-117105-1	FB-1	Hexavalent chromium	38.65 hours	24 hours	UJ (all non-detects)	P
440-117270-1	EB-2	Hexavalent chromium	40.23 hours	24 hours	UJ (all non-detects)	P
440-117359-1	M-11	Hexavalent chromium	24.37 hours	24 hours	J- (all detects)	P
440-117491-1	EB-4	Hexavalent chromium	109.28 hours	24 hours	R (all non-detects)	P
440-117588-1	EB-5	Hexavalent chromium	24.87 hours	24 hours	UJ (all non-detects)	P
440-117588-1	M-95	Hexavalent chromium	24.12 hours	24 hours	J- (all detects)	P
440-126559-1	EB-1	Hexavalent chromium	25.28 hours	24 hours	UJ (all non-detects)	P
440-126840-1	FB-1	Hexavalent chromium	29.52 hours	24 hours	UJ (all non-detects)	P
440-126840-1	EB-4	Hexavalent chromium	28.47 hours	24 hours	UJ (all non-detects)	P
440-126840-1	M-80	Hexavalent chromium	27.53 hours	24 hours	J- (all detects)	P
440-127055-1	EB-5	Hexavalent chromium	26.73 hours	24 hours	UJ (all non-detects)	P

SDG	Sample	Analyte	Total Time From Sample Collection Until Analysis	Required Holding Time From Sample Collection Until Analysis	Flag	A or P
440-140153-1/ 15-6943	ART-6	Hexavalent chromium	15 days	14 days	J- (all detects)	A
440-117286-2	M-5A M-7B	Toxic organic halides	30 days	28 days	J- (all detects)	P

All samples in SDGs 440-129634-1/15-6872, 440-130398-1/15-7024, 440-130571-1/15-7085, 440-130821-1/15-7127, 440-140153-1/15-6943, and 440-140156-1/15-6995 were preserved to a pH of 9, which is outside the pH criteria of 9.3-9.7 for EPA Method 218.6. However, EPA Method 218.7, which utilizes the same instrumentation and is comparable to EPA Method 218.6, allows the samples to be preserved to a pH of greater than 8 to extend the holding time to 14 days. Using professional judgement, no data were qualified due to the preservation non-conformance.

## II. Initial Calibration

All criteria for the initial calibration of each method were met.

## III. Continuing Calibration

Continuing calibration frequency criteria were met with the following exceptions:

SDG	Sample	Analyte	Finding	Criteria
440-140153-1/ 15-6943 440-140156-1/ 15-6995	ART-6 I-S I-L I-Y I-R I-B I-AB I-AA I-AR	Hexavalent chromium	No ICV/CCV was performed before the samples after reslope.	ICV/CCV must be performed before the samples.

Continuing calibration analysis criteria were met with the following exceptions:

SDG	Date	Lab. Reference/ID	Analyte	%R (Limits)	Associated Samples	Flag	A or P
440-140153-1/ 15-6943	12/08/15	CCV (00:42)	Hexavalent chromium	111 (90-110)	I-AD	J+ (all detects)	P

#### IV. Laboratory Blanks

Laboratory blanks were analyzed as required by the methods with the following exceptions:

SDG	Sample	Analyte	Finding	Criteria
440-140153-1/ 15-6943 440-140156-1/ 15-6995	ART-6 I-S I-L I-Y I-R I-B I-AB I-AA I-AR	Hexavalent chromium	No ICB/CCB was performed before the samples after reslope.	ICB/CCB must be performed before the samples.

No contaminants were found in the laboratory blanks.

#### V. Field Blanks

Samples MEB-1 (from SDGs 440-115418-1, 440-117940-1, 440-121454-1, 440-124580-1, and 440-130491-1), EB-1 (from SDGs 440-117105-1, 440-126312-1, and 440-126559-1), EB-2 (from SDG 440-117270-1), EB-3 (from SDGs 440-117359-1 and 440-126718-1), EB-4 (from SDGs 440-117491-1 and 440-126840-1), and EB-5 (from SDGs 440-117588-1 and 440-127055-1) were identified as equipment blanks. No contaminants were found with the following exceptions:

SDG	Blank ID	Collection Date	Analyte	Concentration	Associated Samples
440-117588-1 440-117602-1	EB-5	08/10/15	Total dissolved solids	400 mg/L	PC-128 PC-148 PC-149 PC-135A PC-144 PC-136 M-44 M-95 M-37 DUP-2 DUP-6 M-6A M-6ADUP

SDG	Blank ID	Collection Date	Analyte	Concentration	Associated Samples
440-117940-1	MEB-1	08/12/15	Perchlorate	2.9 ug/L	PC-18 ARP-1 PC-122 PC-53 MW-K5 ARP-7 ARP-6B ARP-5A ARP-4A PC-101R MW-K4 ARP-3A ARP-2A PC-103 DUP 4
440-121454-1	MEB-1	09/17/15	Perchlorate	1.2 ug/L	PC-55 PC-103 PC-98R ARP-2A ARP-3A MW-K4 PC-101R
440-130491-1	MEB-1	12/09/15	Perchlorate	3.7 ug/L	M-83 PC-97 PC-90 PC-91 PC-58 PC-56 PC-60 PC-59

Sample FB-1 (from SDGs 440-117105-1 and 440-126840-1) was identified as a field blank. No contaminants were found.

Sample concentrations were compared to concentrations detected in the field blanks. No data were qualified when the sample concentrations were significantly greater (>10X blank contaminants) than the concentrations found in the field blanks.

## VI. Surrogates

Surrogates were added to all samples as required by the methods. All surrogate recoveries (%R) were within QC limits.

## VII. Matrix Spike/Matrix Spike Duplicates

Matrix spike (MS) and matrix spike duplicate (MSD) sample analysis was performed on an associated project sample. Percent recoveries (%R) were within QC limits with the following exceptions:

SDG	Spike ID (Associated Samples)	Analyte	MS (%R) (Limits)	MSD (%R) (Limits)	Flag	A or P
440-117353-1	M-10MS/MSD (M-10)	Chloride	56 (80-120)	72 (80-120)	J- (all detects)	A

Relative percent differences (RPD) were within QC limits.

### VIII. Duplicates

Duplicate (DUP) sample analysis was performed on an associated project sample. Results were within QC limits.

### IX. Laboratory Control Samples

Laboratory control samples (LCS) were analyzed as required by the methods. Percent recoveries (%R) were within QC limits.

### X. Field Duplicates

Samples PC-129 and DUP-1 (both from SDG 440-117106-1), samples DUP-5 and M-38 (both from SDG 440-117351-1), samples M-31A and DUP-3 (both from SDG 440-117491-1), samples M-44 and DUP-2 (both from SDG 440-117588-1), samples M-37 and DUP-6 (both from SDG 440-117588-1), samples PC-18 and DUP 4 (both from SDG 440-117940-1), samples M-95 and DUP-1 (both from SDG 440-126312-1), samples M-66 and DUP3 (both from SDG 440-126718-1), samples M-37 and DUP-2 (both from SDG 440-126718-1), samples I-K and DUP 4 (both from SDG 440-126840-1), and samples M-14A and DUP 5 (both from SDG 440-127055-1) were identified as field duplicates. No results were detected in any of the samples with the following exceptions:

SDG	Analyte	Concentration		RPD (Limits)	Flag	A or P
		PC-129	DUP-1			
440-117106-1	pH	7.33 SU	7.33 SU	0 (≤30)	-	-
440-117106-1	Perchlorate	270000 ug/L	270000 ug/L	0 (≤30)	-	-
440-117106-1	Total dissolved solids	6800 mg/L	6900 mg/L	1 (≤30)	-	-

SDG	Analyte	Concentration		RPD (Limits)	Flag	A or P
		DUP-5	M-38			
440-117351-1	Hexavalent chromium	18000 ug/L	19000 ug/L	5 (≤30)	-	-

SDG	Analyte	Concentration		RPD (Limits)	Flag	A or P
		DUP-5	M-38			
440-117351-1	pH	7.01 SU	7.01 SU	0 (≤30)	-	-
440-117351-1	Perchlorate	680000 ug/L	660000 ug/L	3 (≤30)	-	-
440-117351-1	Total dissolved solids	11000 mg/L	12000 mg/L	9 (≤30)	-	-

SDG	Analyte	Concentration		RPD (Limits)	Flag	A or P
		M-31A	DUP-3			
440-117491-1	pH	7.39 SU	7.39 SU	0 (≤30)	-	-
440-117491-1	Perchlorate	680000 ug/L	590000 ug/L	14 (≤30)	-	-
440-117491-1	Total dissolved solids	6500 mg/L	6800 mg/L	5 (≤30)	-	-

SDG	Analyte	Concentration		RPD (Limits)	Flag	A or P
		M-44	DUP-2			
440-117588-1	Hexavalent chromium	860 ug/L	860 ug/L	0 (≤30)	-	-
440-117588-1	pH	7.37 SU	7.37 SU	0 (≤30)	-	-
440-117588-1	Perchlorate	670000 ug/L	610000 ug/L	9 (≤30)	-	-
440-117588-1	Total dissolved solids	11000 mg/L	9800 mg/L	12 (≤30)	-	-

SDG	Analyte	Concentration		RPD (Limits)	Flag	A or P
		M-37	DUP-6			
440-117588-1	Hexavalent chromium	6.2 ug/L	6.2 ug/L	0 (≤30)	-	-
440-117588-1	pH	6.79 SU	6.79 SU	0 (≤30)	-	-
440-117588-1	Perchlorate	1100000 ug/L	1000000 ug/L	10 (≤30)	-	-
440-117588-1	Total dissolved solids	5600 mg/L	5500 mg/L	2 (≤30)	-	-

SDG	Analyte	Concentration		RPD (Limits)	Flag	A or P
		PC-18	DUP 4			
440-117940-1	pH	7.13 SU	7.13 SU	0 (≤30)	-	-
440-117940-1	Perchlorate	92000 ug/L	93000 ug/L	1 (≤30)	-	-
440-117940-1	Total dissolved solids	11000 mg/L	10000 mg/L	10 (≤30)	-	-

SDG	Analyte	Concentration		RPD (Limits)	Flag	A or P
		M-95	DUP-1			
440-126312-1	pH	7.46 SU	7.63 SU	2 (≤30)	-	-
440-126312-1	Total dissolved solids	6400 mg/L	6400 mg/L	0 (≤30)	-	-
440-126312-1	Hexavalent chromium	540 ug/L	550 ug/L	2 (≤30)	-	-
440-126312-1	Perchlorate	300000 ug/L	330000 ug/L	10 (≤30)	-	-

SDG	Analyte	Concentration		RPD (Limits)	Flag	A or P
		M-66	DUP3			
440-126718-1	Total dissolved solids	14000 mg/L	13000 mg/L	7 (≤30)	-	-
440-126718-1	Perchlorate	2100000 ug/L	2100000 ug/L	0 (≤30)	-	-

SDG	Analyte	Concentration		RPD (Limits)	Flag	A or P
		M-37	DUP-2			
440-126718-1	Total dissolved solids	4600 mg/L	4500 mg/L	2 (≤30)	-	-
440-126718-1	Hexavalent chromium	10 ug/L	13 ug/L	26 (≤30)	-	-
440-126718-1	Perchlorate	1100000 ug/L	850000 ug/L	26 (≤30)	-	-

SDG	Analyte	Concentration		RPD (Limits)	Flag	A or P
		I-K	DUP 4			
440-126840-1	pH	7.41 SU	7.41 SU	0 (≤30)	-	-

SDG	Analyte	Concentration		RPD (Limits)	Flag	A or P
		I-K	DUP 4			
440-126840-1	Total dissolved solids	6400 mg/L	6400 mg/L	0 (≤30)	-	-
440-126840-1	Perchlorate	260000 ug/L	270000 ug/L	4 (≤30)	-	-

SDG	Analyte	Concentration		RPD (Limits)	Flag	A or P
		M-14A	DUP 5			
440-127055-1	pH	7.75 SU	7.75 SU	0 (≤30)	-	-
440-127055-1	Total dissolved solids	3200 mg/L	3100 mg/L	3 (≤30)	-	-
440-127055-1	Perchlorate	250000 ug/L	250000 ug/L	0 (≤30)	-	-

## XI. Sample Result Verification

All sample result verifications were acceptable for samples which underwent Stage 4 validation. Raw data were not reviewed for Stage 2B validation.

## XII. Overall Assessment of Data

The analysis was conducted within all specifications of the methods.

Due to holding time exceedance, data was rejected in one sample.

In the case where more than one result was reported for an individual sample, the least technically acceptable results were deemed unusable as follows:

SDG	Sample	Compound	Flag	A or P
440-117353-1	M-10DL	Nitrate as N Nitrite as N	R R	A

Due to holding time exceedance, continuing calibration %R, and MS/MSD %R, data were qualified as estimated in seventeen samples.

The quality control criteria reviewed, other than those discussed above, were met and are considered acceptable. Sample results that were found to be rejected (R) are unusable for all purposes. Sample results that were found to be estimated (J) are usable for limited purposes only. Based upon the data validation all other results are considered valid and usable for all purposes.



## NERT Compliance

**Wet Chemistry - Data Qualification Summary - SDGs 440-114425-1, 440-115183-1, 440-115249-1, 440-115418-1, 440-115483-1, 440-116828-1, 440-116832-1, 440-117105-1, 440-117106-1, 440-117270-1, 440-117274-1, 440-117286-1, 440-117286-2, 440-117351-1, 440-117353-1, 440-117359-1, 440-117491-1, 440-117519-1, 440-117588-1, 440-117602-1, 440-117759-1, 440-117940-1, 440-118033-1, 440-120251-1, 440-121299-1, 440-121445-1, 440-121454-1, 440-123412-1, 440-123760-1, 440-124556-1, 440-124580-1, 440-126184-1, 440-126191-1, 440-126312-1, 440-126559-1, 440-126718-1, 440-126840-1, 440-127054-1, 440-127055-1, 440-127487-1, 440-127619-1, 440-127656-1, 440-128067-1, 440-128396-1, 440-129811-1, 440-130086-1, 440-130236-1, 440-130491-1, 440-130634-1, 440-130766-1, 440-129634-1/15-6872, 440-130398-1/15-7024, 440-130571-1/15-7085, 440-130821-1/15-7127, 440-140153-1/15-6943, 440-140156-1/15-6995**

SDG	Sample	Analyte	Flag	A or P	Reason (Code)
440-117105-1 440-117270-1 440-126840-1 440-117588-1	EB-1 FB-1 EB-2 EB-4 EB-5	Hexavalent chromium	UJ (all non-detects)	P	Technical holding time (exceedance) (h)
440-117491-1	EB-4	Hexavalent chromium	R (all non-detects)	P	Technical holding time (exceedance) (h)
440-126559-1 440-126840-1 440-127055-1	EB-1 FB-1 EB-5	Hexavalent chromium	UJ (all non-detects)	P	Technical holding time (exceedance) (h)
440-117359-1 440-117588-1 440-126840-1	M-11 M-95 M-80	Hexavalent chromium	J- (all detects)	P	Technical holding time (exceedance) (h)
440-140153-1/ 15-6943	ART-6	Hexavalent chromium	J- (all detects)	A	Technical holding time (exceedance) (h)
440-117286-2	M-5A M-7B	Toxic organic halides	J- (all detects)	P	Technical holding time (exceedance) (h)
440-140153-1/ 15-6943	I-AD	Hexavalent chromium	J+ (all detects)	P	Continuing calibration (%R) (c)
440-117353-1	M-10	Chloride	J- (all detects)	A	Matrix spike/Matrix spike duplicate (%R) (m)
440-117353-1	M-10DL	Nitrate as N Nitrite as N	R R	A	Overall assessment of data (o)

**NERT Compliance**

**Wet Chemistry - Laboratory Blank Data Qualification Summary – SDGs 440-114425-1, 440-115183-1, 440-115249-1, 440-115418-1, 440-115483-1, 440-116828-1, 440-116832-1, 440-117105-1, 440-117106-1, 440-117270-1, 440-117274-1, 440-117286-1, 440-117286-2, 440-117351-1, 440-117353-1, 440-117359-1, 440-117491-1, 440-117519-1, 440-117588-1, 440-117602-1, 440-117759-1, 440-117940-1, 440-118033-1, 440-120251-1, 440-121299-1, 440-121445-1, 440-121454-1, 440-123412-1, 440-123760-1, 440-124556-1, 440-124580-1, 440-126184-1, 440-126191-1, 440-126312-1, 440-126559-1, 440-126718-1, 440-126840-1, 440-127054-1, 440-127055-1, 440-127487-1, 440-127619-1, 440-127656-1, 440-128067-1, 440-128396-1, 440-129811-1, 440-130086-1, 440-130236-1, 440-130491-1, 440-130634-1, 440-130766-1, 440-129634-1/15-6872, 440-130398-1/15-7024, 440-130571-1/15-7085, 440-130821-1/15-7127, 440-140153-1/15-6943, 440-140156-1/15-6995**

No Sample Data Qualified in these SDGs

**NERT Compliance**

**Wet Chemistry - Field Blank Data Qualification Summary – SDGs 440-114425-1, 440-115183-1, 440-115249-1, 440-115418-1, 440-115483-1, 440-116828-1, 440-116832-1, 440-117105-1, 440-117106-1, 440-117270-1, 440-117274-1, 440-117286-1, 440-117286-2, 440-117351-1, 440-117353-1, 440-117359-1, 440-117491-1, 440-117519-1, 440-117588-1, 440-117602-1, 440-117759-1, 440-117940-1, 440-118033-1, 440-120251-1, 440-121299-1, 440-121445-1, 440-121454-1, 440-123412-1, 440-123760-1, 440-124556-1, 440-124580-1, 440-126184-1, 440-126191-1, 440-126312-1, 440-126559-1, 440-126718-1, 440-126840-1, 440-127054-1, 440-127055-1, 440-127487-1, 440-127619-1, 440-127656-1, 440-128067-1, 440-128396-1, 440-129811-1, 440-130086-1, 440-130236-1, 440-130491-1, 440-130634-1, 440-130766-1, 440-129634-1/15-6872, 440-130398-1/15-7024, 440-130571-1/15-7085, 440-130821-1/15-7127, 440-140153-1/15-6943, 440-140156-1/15-6995**

No Sample Data Qualified in these SDGs

Semi-Annual Remedial Performance Report  
For Chromium and Perchlorate  
Nevada Environmental Response Trust Site  
Henderson, Nevada

**APPENDIX E**  
**ELECTRONIC DATA DELIVERABLE (EDD)**

**Comments Regarding Appendix E:**

There is no available well screen information in the January 2014 All Wells Database for well H-28A. The sample depth fields in the Electronic Data Deliverable (EDD) have been left blank and the sample\_comment field notes: No screen information available. In future EDDs, the Trust will include sample depths for these wells when that information becomes available.

Semi-Annual Remedial Performance Report  
For Chromium and Perchlorate  
Nevada Environmental Response Trust Site  
Henderson, Nevada

## **APPENDIX F**

### **ENVIRONMENTAL FOOTPRINT ANALYSIS**

## **Environmental Footprint Analysis**

On behalf of the Nevada Environmental Response Trust (the "Trust" or "NERT"), Ramboll Environ US Corporation (Ramboll Environ) is providing this inventory of the energy and materials used, wastes generated, and activities and services conducted at the NERT site for the purpose of an Environmental Footprint Analysis for July through December 2015. Much of the information used for this analysis was obtained from internal records maintained by the Trust and the current operator of the treatment plant, Envirogen Technologies, Inc. (Envirogen). In addition, existing documents produced by Ramboll Environ (e.g., the 2015 Semi-Annual Performance Report for Chromium and Perchlorate) and Tetra Tech (e.g., GWETS Operation Monthly Reports) were used for general treatment process information. As necessary to fill remaining data gaps, Ramboll Environ solicited input from Envirogen. In cases where specific information was not available, estimates have been provided based on professional judgement.

**Energy Usage**

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<b>Energy Used On-Site</b>	<b>Notes</b>	<b>Amount</b>	<b>Units</b>	<b>Source</b>	<b>Ref.</b>
Grid electricity					
Treatment plant	A	1,971,642	kWh	Colorado River Commission of NV	1
Wells and lift stations	B	672,481	kWh	Nevada Energy	1
Natural gas	C	NA			
Diesel fuel	D	10	gal	Estimated Value	2
Gasoline	E	940	gal	Estimated Value	2
Other fuel/energy sources	F	NA			2
Renewable fuel/energy sources	F	NA			2

kWh = kilowatt hours

gal = gallons

NA = Not Applicable

**Notes:**

A) Colorado River Commission of Nevada purchases power on the open market to support the manufacturing companies that comprise the Basic Management Industries (BMI) complex. (<http://crc.nv.gov/index.asp?m=faq&s=eneg#q2>)

B) Nevada Energy is listed as the electricity provider on invoices for the off-site wells and pump stations.

C) Natural gas is not used on-site.

D) Personnel with Envirogen Technologies, Inc. (Envirogen) indicated approximately 20 gallons of diesel are used per year for operation of the back up air compressor at the groundwater treatment plant (GWTP). Based on this, an estimated 10 gallons were used during the reporting period.

E) Personnel with Envirogen provided information on routine truck use, which was used to estimate gasoline consumption based on an assumed fuel efficiency of 12 miles per gallon. Fuel efficiency was estimated based on information available from Vehicle Analysis Reports provided by Envirogen.

F) Personnel with Envirogen indicated that no additional energy sources are used on-site.

**Materials Usage**

Materials Used On-Site	Notes	Amount	Units	Location of Manufacture	% from Recycle	Ref.
Ferrous sulfate (FeSO <sub>4</sub> )	A	6,256	gal	California	Not reported	2
Polymer ICS-DW 2533	A	150	gal	Arizona	Not reported	2
Dry Polymer Dewatering ICS-6545	A	2,775	lbs	Arizona	Not reported	2
DAF polymer ICS-2835B	A	1,974	gal	Arizona	Not reported	2
Lime (hydrated lime)	A	5,475	lbs	Missouri	Not reported	2
Ethanol (190 proof)	A	41,978	gal	Illinois	Not reported	2
Phosphoric acid (H <sub>3</sub> PO <sub>4</sub> )	A	2,130	gal	China	Not reported	2
pH Adjustment (NaOH)	A	18,030	gal	Nevada	Not reported	2
Micronutrients (VWNA micronutrient)	A	5,820	gal	California	Not reported	2
Hydrogen peroxide (H <sub>2</sub> O <sub>2</sub> )	A	11,220	gal	Washington	Not reported	2
Ferric chloride (FeCl <sub>3</sub> )	A	5,130	gal	California	Not reported	2
Nessler Reagent	A	10	gal	Colorado	Not reported	2
Ammonia	B	0	gal	NA	NA	2
Granulated activated carbon (GAC)	C	0	lbs	Not reported	Not reported	2
Filter materials	D	NA				2
Other consumable materials	E	NA				2

gal = gallons

lbs = pounds

NA = Not Applicable

**Notes:**

Quantity information was provided by Envirogen personnel based on electronic outputs from their process control systems. All information about specifications and formulations was obtained from Safety Data Sheets maintained at the site.

A) Table 1 (below) provides information on the specifications and formulations of process materials.

B) Envirogen personnel reported that ammonia is present in sufficiently high concentrations in extracted water such that an external source of ammonia has not been necessary during this period of performance.

C) According to Envirogen personnel, the GAC is tested annually for potential contaminant breakthrough and is replaced only if breakthrough is observed. The GAC was not replaced during the reporting period.

D) Envirogen personnel reported that there are no waste streams from other filter materials. Solids captured by the sand filter are recycled in the treatment plant.

E) No other process materials are used in significant quantities.



**Table 1: Specifications and Formulations of Process Materials**

Material	Specification	Formulation
Ferrous sulfate (FeSO <sub>4</sub> )	Aqueous solution; Specific gravity 1.203 @20°C; Density 10.02 lbs/gal	Ferrous sulfate, heptahydrate 30 ± 2% by weight; Sulfuric acid 0.3 ± 0.1% by weight
Polymer ICS-DW 2533	Aqueous solution; Specific gravity 1.02-1.07; Density 8.5-9 lbs/gal	Light distillate 20-40%; Ethoxylated alcohol 1-10%
Dry Polymer Dewatering ICS-6545	Powder	Not reported
DAF polymer ICS-2835B	Aqueous solution; Specific gravity 1.02-1.03; Density 8.5-8.6 lbs/gal	Light distillate 20-40%; Ethoxylated alcohol 1-10%
Lime (hydrated lime)	Powder; Specific gravity 2.2	Calcium hydroxide; Crystalline silica (quartz) <0.10-0.2%
Ethanol (190 proof)	Aqueous solution; Specific gravity 0.817 @60°F	Ethanol 91.1% by volume; Water 4.8% by volume; Ethyl acetate 4.1% by volume
Phosphoric acid (H <sub>3</sub> PO <sub>4</sub> )	Aqueous solution; Specific gravity 1.20-1.26 @20°C; Density 10.0-10.5 lbs/gal	Phosphoric acid 30-40% by weight
pH Adjustment (NaOH)	Aqueous solution; Specific gravity 1.33 @20°C; Density 1.33 g/cm <sup>3</sup>	Sodium hydroxide 10-30%
Micronutrients (VWNA micronutrient)	Aqueous solution; Specific gravity 1.1075 @20°C; Density 9.24 lbs/gal	Hydrochloric acid; Ferrous sulfate; Sodium molybdate; Manganese sulfate monohydrate; Aluminum sulfate; Copper sulfate; Zinc sulfate monohydrate; Nickel chloride hexahydrate
Hydrogen peroxide (H <sub>2</sub> O <sub>2</sub> )	Aqueous solution; Specific gravity 1.1327 @18°C; Density 9.44 lbs/gal	Hydrogen peroxide 35% by weight
Ferric chloride (FeCl <sub>3</sub> )	Aqueous solution; Specific gravity 1.26-1.48	Ferric chloride 37-42%; Hydrochloric acid <=1%
Nessler Reagent	Aqueous solution; Specific gravity 1.265	Sodium Hydroxide 10-20% by weight; Mercuric Iodide 5-10% by weight; Sodium Iodide 5-10% by weight

cm<sup>3</sup> = cubic centimeter  
°C = degrees Celsius  
°F = degrees Fahrenheit  
gal = gallons  
g = grams  
lbs = pounds

**Water Usage**

<b>Water Used On-Site</b>	<b>Notes</b>	<b>Amount</b>	<b>Units</b>	<b>Use/Fate</b>	<b>Ref.</b>
Groundwater	A	866	gpm	treat & discharge to LV Wash	3
Lake Mead	B	8,638,807	gal	treat & discharge to LV Wash	4
Other water source	C	NA			2

**Losses**

GW-11 evaporation	D	See Table 2 below for evaporation rates			3/5
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gpm = gallons per minute

gal = gallons

NA = Not Applicable

**Notes:**

A) Figure 5 of the 2015 Semi-Annual Performance Report notes an effluent discharge of 917 gpm from the treatment system to the Las Vegas Wash and a groundwater extraction rate of 866 gpm for the three well fields (combined average) from July through December 2015. The discrepancy is due to flow into and out of GW-11 as well as additions of stabilized Lake Mead water, which are used for various maintenance procedures.

B) Lake Mead water is used for GAC backwash events, which occur on average three times per month. Lake Mead water is also used for Fluidized Bed Reactor (FBR) polymer additions, GWTP polymer additions, washing down equipment in the treatment plant, sanitary water, seal water for FBR pumps, and keeping solids covered in AP-5. After use, Lake Mead water is discharged to GW-11 and then eventually treated and discharged to the Las Vegas Wash, except for sanitary water which is discharged to an on-site septic system.

C) Personnel with Envirogen indicated that no other sources of water are used at the site.

D) There are no significant water losses other than evaporation from GW-11. No water is discharged to the local Publicly Owned Treatment Works (POTW). Using historic pan evaporation data (Shevenell 1996) and GW-11 stage area estimates by Envirogen, the following evaporation rates were calculated for GW-11:

**Table 2: Estimated Evaporation Rates for GW-11**

<b>Month</b>	<b>Inches/month</b>	<b>Million gallons/month</b>
July	15.8	5.7
August	13.7	4.9
September	11.1	4.0
October	7.6	2.7
November	4.6	1.6
December	3.3	1.2
<b>Total</b>	<b>56.1</b>	<b>20.0</b>

**Waste Generated**

<b>Waste Generated</b>	<b>Hazardous Waste</b>	<b>Notes</b>	<b>Amount</b>	<b>Units</b>	<b>Treatment/disposal Site</b>	<b>Ref.</b>
FBR sludge	No	A	44.24	metric tons	Disposed at Apex Industrial Solid Landfill in Apex, NV	6
GWTP sludge	No		0.238	tons/day	Disposed at Apex Industrial Solid Landfill in Apex, NV	2
Spent GAC	NA	B	0	lbs	Disposal on a non-routine basis	2
Spent Nessler Reagent	Yes		10	gal	Picked up from the Site and disposed of by Safety Kleen	2
Other wastes generated	NA	C	NA			2

lbs = pounds

gal = gallons

NA = Not Applicable

**Notes:**

A) This value is the total dry metric tons of FBR sludge disposed of as waste during the period between July and December 2015. This value is based on information compiled as part of the 4th Quarter 2015 National Pollutant Discharge Elimination System (NPDES) permit submittal.

B) According to Envirogen personnel, the GAC is tested annually for potential contaminant breakthrough and is replaced only if breakthrough is observed. The GAC was not replaced during the reporting period.

C) According to Envirogen personnel, no other process wastes were generated.

**Personnel Transportation**

Personnel/Activities	Notes	Number of Personnel	Estimated Trips to Site per Person	Average One-way Distance to Site (miles)	Ref.
GWETS operations and maintenance		5	78	15	7
Extraction well and conveyance maintenance		2	124	15	7
Groundwater monitoring		1	124	15	7
General site management		2	121	15	7
Director of Remediation		1	126	5	8
Other personnel site visits					
Chicago	A	1	6	1,510	8
Denver	A	2	2	630	9
		1	3		
Las Vegas Area		1	13	10	9
		1	47		
Los Angeles	A	1	1	240	8
Milwaukee	A	1	1	1520	8
Nashville	A	1	6	1580	8
Phoenix	A	2	2	260	8
Salt Lake City	A	1	3	370	9
		1	1		
San Francisco Bay Area	A	4	2	410	8
Seattle	A	1	1	870	8

**Notes:**

A) Air travel required.

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### Laboratory Analyses

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Please see Table 3 (below) for a complete list of all analytes tested at the NERT site. The table provides estimated numbers of samples collected and analyzed between July and December 2015. The table was compiled based on information available from the Site's Analytical Database maintained by Ramboll Environ, and does not include one-time only samples. Estimates of the number of blanks and duplicates required for routine sampling are also included.

Certain analytes are grouped as part of an analytical suite, designated in the table as follows:

**Organochlorine pesticides (OCPs):** 4,4'-DDD, 4,4'-DDE, 4,4'-DDT, Aldrin, Aroclor-1016, Aroclor-1221, Aroclor-1232, Aroclor-1242, Aroclor-1248, Aroclor-1254, Aroclor-1260, Chlordane (total), Dieldrin, Endosulfan I, Endosulfan II, Endosulfan sulfate, Endrin, Endrin aldehyde, Heptachlor, Heptachlor epoxide, Methoxychlor, Toxaphene, alpha-BHC, beta-BHC, delta-BHC, gamma-BHC

**Semivolatile Organic Compounds (SVOCs):** 1,2,4-Trichlorobenzene, 1,2-Dichlorobenzene, 1,2-Diphenylhydrazine, 1,3-Dichlorobenzene, 1,4-Dichlorobenzene, 2,4,6-Trichlorophenol, 2,4-Dichlorophenol, 2,4-Dimethylphenol, 2,4-Dinitrophenol, 2,4-Dinitrotoluene, 2,6-Dinitrotoluene, 2-Chloronaphthalene, 2-Chlorophenol, 2-Nitrophenol, 3,3'-Dichlorobenzidine, 4,6-Dinitro-2-methylphenol, 4-Bromophenyl-phenyl ether, 4-Chloro-3-methylphenol, 4-Chlorophenyl-phenyl ether, 4-Nitrophenol, Acenaphthene, Acenaphthylene, Aniline, Anthracene, Benzidine, Benzo(a)anthracene, Benzo(a)pyrene, Benzo(b)fluoranthene, Benzo(g,h,i)perylene, Benzo(k)fluoranthene, Butylbenzylphthalate, Chrysene, Di-n-butylphthalate, Di-n-octylphthalate, Dibenz(a,h)anthracene, Diethylphthalate, Dimethylphthalate, Fluoranthene, Fluorene, Hexachlorobenzene, Hexachlorobutadiene, Hexachlorocyclopentadiene, Hexachloroethane, Indeno(1,2,3-cd)pyrene, Isophorone, Naphthalene, Nitrobenzene, Pentachlorophenol, Phenanthrene, Phenol, Pyrene, bis(2-Chloro-1-methylethyl) ether, bis(2-Chloroethoxy)methane, bis(2-Chloroethyl) ether, bis(2-Ethylhexyl)phthalate, n-Nitroso-di-n-propylamine, n-Nitrosodimethylamine, n-Nitrosodiphenylamine

**Volatile Organic Compounds (VOCs):** 1,1,1-Trichloroethane, 1,1,2,2-Tetrachloroethane, 1,1,2-Trichloroethane, 1,1-Dichloroethane, 1,1-Dichloroethene, 1,2-Dichloroethane, 1,2-Dichloropropane, 2-Chloroethylvinyl ether, Acrolein, Acrylonitrile, Benzene, Bromodichloromethane, Bromoform, Bromomethane, Carbon tetrachloride, Chlorobenzene, Chloroethane, Chloroform, Chloromethane, Dibromochloromethane, Ethyl benzene, Methylene Chloride, Tetrachloroethene, Toluene, Trichloroethene, Vinyl chloride, cis-1,2-Dichloroethene, cis-1,3-Dichloropropene, trans-1,2-Dichloroethene, trans-1,3-Dichloropropene

**Table 3: Laboratory Analyses by Analyte, July - December 2015**

Chemical	Number of Samples
2,3,7,8-Tetrachlorodibenzofuran	6
2,3,7,8-Tetrachlorodibenzo-p-dioxin	6
Ammonia (as N)	87
Antimony	6
Apparent Color	60
Arsenic	6
Asbestos	2
Beryllium	6
Boron	18
Cadmium	6
Calcium	3
Carbon	4
Carbonaceous Biochemical Oxygen Demand	54
Chlorate	49
Chloride	21
Chromium (total)	514
Chromium VI	249
Conductivity	4
Copper	6
Dissolved Oxygen	27
Dissolved Solids (total)	532
Field pH	457
Hexane extractable material	6
Iron	45
Lead	6
Manganese	18
Mercury	6
Nickel	6
Nitrate	107
Nitrite	107
Nitrogen, Nitrate-Nitrite	107
OCPs	6
Organic Halides (total)	4
Perchlorate	669
pH	66
Phenolics, Recoverable (total)	4
Phosphorus (total)	69
Selenium	6
Silver	6
Sodium	2
Sulfate	19
Sulfide (total)	12
SVOCs	6
Thallium	6
Total Inorganic Nitrogen (calculated)	72
Total Kjeldahl Nitrogen	54
Total Suspended Solids	30
VOCs	8
Weak acid dissociable cyanide	6
Zinc	6

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**Contaminants Removed or Destroyed**

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<b>Contaminant</b>	<b>Notes</b>	<b>Amount Removed or Destroyed</b>	<b>Units</b>	<b>Ref.</b>
Perchlorate	A	107	tons	9
Total chromium	A	0.63	tons	9

**Notes:**

A) Mass removal estimates were calculated by Tetra Tech and are presented in the GWETS Operation Monthly Reports for July through December 2015.

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### References

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- 1) Energy invoices provided by the Nevada Environmental Response Trust.
- 2) Internal Envirogen documents and verbal communications with Envirogen personnel.
- 3) 2015 Semi-Annual Remedial Performance Report for Chromium and Perchlorate.
- 4) GWETS Field Sheet, maintained by Envirogen and Tetra Tech.
- 5) Shevenell, Lisa, 1996. Nevada Bureau of Mines and Geology, Report 48: Statewide Potential Evapotranspiration Maps for Nevada.
- 6) Supporting documentation for quarterly permit submittals for NPDES Permit NV0023060.
- 7) Estimates of travel by Envirogen personnel.
- 8) Estimates of travel by Ramboll Environ.
- 9) Estimates provided by Tetra Tech or compiled based on information contained in the July through December GWETS Operation Monthly Reports prepared by Tetra Tech.



Semi-Annual Remedial Performance Report  
For Chromium and Perchlorate  
Nevada Environmental Response Trust Site  
Henderson, Nevada

**ATTACHMENT A**  
**PHASE 4 GROUNDWATER MODEL REFINEMENT**

Semi-Annual Remedial Performance Report  
For Chromium and Perchlorate  
Nevada Environmental Response Trust Site  
Henderson, Nevada

**ATTACHMENT B**  
**2016 GROUNDWATER MONITORING OPTIMIZATION PLAN**