APPENDIX A1
REMEDIAL INVESTIGATION FIELD PROGRAM

APPENDIX A1: REMEDIAL INVESTIGATION FIELD PROGRAM

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TABLES

A1.1 INTRODUCTION

This appendix provides an overview of the implementation of the field investigation and technical methodologies followed during the Remedial Investigation/Feasibility Study (RI/FS) at the Nevada Environmental Response Trust (NERT or "the Trust") Site located in Henderson, Nevada (the "Site"). The RI was conducted under three phases of field investigation within portions of the NERT RI Study Area designated as Operable Unit 1 (OU-1), OU-2, and OU-3. This report specifically discusses results obtained from OU-1 and OU-2; however, many of the RI field activities have been implemented simultaneously and the history of the field program is quite complex. As such, some field activities referenced and documented in this report include work completed in OU-3. Specific results obtained from the investigation of OU-3 will be detailed in a subsequent RI Report for OU-3.

The Phase 1 RI scope of work was originally proposed in the Remedial Investigation and Feasibility Study Work Plan, Revision 2 (ENVIRON 2014a; the "RI/FS work plan"). The Phase 1 RI field program was conducted between October 2014 and May 2015. Details regarding the work completed during the Phase 1 RI and the initial scope of work for the Phase 2 RI were provided in the document entitled Technical Memorandum, Remedial Investigation Data Evaluation (Ramboll Environ 2016). The initial scope of the Phase 2 RI field program began in February 2017 and ended in November 2017. As detailed in Section 6 of the RI Report, the initial Phase 2 RI scope of work was modified through 15 RI Modification Technical Memoranda approved by the Nevada Division of Environmental Protection (NDEP). Field activities associated with the Phase 2 RI modifications were completed in April 2019. The scope of work for the Phase 3 RI was documented in the RI/FS Work Plan Addendum: Phase 3 Remedial Investigation, Revision 1 (Ramboll Environ 2017j). The initial Phase 3 RI field program began in December 2017 and ended in November 2018. As detailed in Section 6 of the RI Report, the Phase 3 RI scope of work was modified through 15 RI Modification Technical Memoranda approved by NDEP. Specific details regarding each of the Phase 2 and Phase 3 RI modifications are summarized in Section 6 of the RI Report. Phase 3 RI Modification Nos. 8, 10, 11, 12, 13, 14, and 15 pertain to OU-3 and the results obtained from these modifications will be discussed in the forthcoming RI Report for OU-3. Additionally, multiple treatability studies associated with the FS were initiated during the RI field investigation time frame and are currently in progress. Results from these studies will be reported separately.

Investigations at the NERT Site associated with the Phase 1 RI, Phase 2 RI (inclusive of the Unit 4 and 5 Buildings Investigation), Phase 3 RI, Downgradient Study Area investigation, and all RI modifications discussed throughout this appendix were conducted in accordance with the procedures described in multiple documents that have been updated over the course of the RI. Current versions of these documents are referenced herein. The RI/FS Work Plan includes a Sampling and Analysis Plan (SAP), which comprises the Field Sampling Plan (FSP), Revision 1 (FSP; ENVIRON 2014c), the Quality Assurance Project Plan, Revision 6[1] (QAPP; Ramboll 2021a), the Health and Safety Plan, Revision 1 (HASP; Ramboll Environ 2017l), and the HASP Addendum for the Phase 3 RI (Ramboll Environ 2017m). Where appropriate, some activities (e.g., dust control, excavation work, etc.) were completed in

[1] The QAPP has been revised several times over the course of the RI. Previous versions of the document are as follows: QAPP, Revision 1 (ENVIRON 2014b); QAPP, Revision 2 (Ramboll Environ 2017l); QAPP, Revision 3 (Ramboll 2019b); QAPP, Revision 4 (Ramboll 2019e); and QAPP, Revision 5 (Ramboll 2020c). Much of the work described as part of the OU-1 and OU-2 RI was conducted under QAPP, Revisions 1 - 3.

accordance with the SMP that was current at the time (revised annually) (Ramboll 2018b; 2019f; 2020f; 2023).

An overview of RI investigation activities and the technical field procedures followed during the implementation of these investigative activities is provided in the following sections.

Drilling, monitoring well installation, and well development for the three phases of the RI and the Unit 4/Unit 5 Investigation was largely conducted by Cascade Drilling, LP (Cascade, formerly National Exploration Wells & Pumps). Some drilling and monitoring well installations during the Unit 4/Unit 5 Investigation were conducted by Walker-Hill Environmental, Inc. All soil borings and monitoring well installations were completed using rotary sonic drilling methods. Soil gas probe installations were completed by Cascade using direct push methods. Each soil boring was logged by a qualified geologist using the Unified Soil Classification System (USCS). Underground Service Alert North One-Call System was notified to identify the location of public subsurface utilities prior to advancing the soil borings and well pilot borings. In addition, a private utility locator, Ground Penetrating Radar Systems, located and marked the traceable and identifiable private subsurface utilities in the work areas. Locations within the EMD leasehold were additionally located and cleared by a designated EMD (or Tronox for efforts before the assignment of the Tronox lease) Engineering or Maintenance Supervisor. Hand auger or air knife utility clearance for all RI drilling locations was conducted by Cascade prior to commencing drilling. Surveying of the boring and well coordinates and elevations was conducted by Atkins North America, Inc., a Nevada Licensed Land Surveyor.

Soil and groundwater chemical analyses were conducted by Eurofins Environment Testing TestAmerica (Eurofins TestAmerica, formerly TestAmerica Laboratories, Inc.). Most samples were analyzed at Eurofins TestAmerica facilities located in Irvine, California; Sacramento, California; and St. Louis, Missouri. Eurofins TestAmerica sent some samples to their facilities located in Denver, Colorado; Buffalo, New York; and Phoenix, Arizona. Phase 1 RI soil gas samples were analyzed by McCampbell Analytical, Inc, located in Antioch, California. Phase 2 and 3 soil gas samples were analyzed by Eurofins TestAmerica in Irvine, California and Eurofins Air Toxics in Folsom, California, respectively. Some radionuclides were analyzed by ALS, located in Fort Collins, Colorado. Soil asbestos analysis was conducted by EMSL Analytical, Inc. located in Cinnaminson, New Jersey. Soil physical testing was conducted by PTS Laboratories located in Houston, Texas and Core Laboratories LP located in Bakersfield, California. Data validation was performed by Laboratory Data Consultants (LDC) located in Carlsbad, California. These data have been validated in accordance with NDEP requirements.

Concurrent with the multiple phases of the RI, NERT has completed a source area investigation of soil and groundwater beneath the Unit 4 and 5 Buildings between 2015 and 2019. The scope of work for the Unit 4 and 5 Buildings Investigation was described in the Unit 4 and 5 Buildings Investigation Work Plan (Tetra Tech 2015) and in the Tetra Tech Phase 2 RI Modification No. 7 Technical Memorandum (Tetra Tech 2017). Results of the Unit 4 and 5 Buildings investigation were provided in the revised Unit Building 4 and 5 Buildings Investigation Source Area Characterization Report (Tetra Tech 2020), which was approved by NDEP on January 13, 2020. Soil and groundwater chemical analyses for samples collected within the Unit 4 and 5 Buildings Investigation Area were conducted by Eurofins TestAmerica facilities located in Irvine and Sacramento, California, and Seattle, Washington. Geotechnical testing was conducted by Geotechnical & Environmental

Services, Inc. and Silver State Analytical Services located in Las Vegas, Nevada. Chemical sample data validation was conducted by Tetra Tech with the additional use of LDC Automated Data Review software.

A1.2 DRILLING, SOIL SAMPLING, AND MONITORING WELL INSTALLATION/DEVELOPMENT

A1.2.1 Overview of the RI Drilling Program

The following sections provide details regarding the drilling activities that have been conducted during the RI from Phase 1 through Phase 3. Surveyed coordinates and elevations for drilling locations completed during Phase 1 through Phase 3 are provided in Tables A1-1 through A1-4 and monitoring well construction details are provided in Tables A1-5 through A1-7. Water levels and groundwater elevations for wells located in OU-1, the western portion of OU-2, and the eastern portion of OU-2 are provided in Tables A1-8, A1-9, and A1-10, respectively. The locations of the RI field investigation areas are identified in Section 6 of the RI report and are shown on figures presented in Section 6. Soil boring logs and well construction logs are provided in Appendix A2.

A1.2.1.1 Phase 1 RI

To define workflow for the Phase 1 RI the overall project area (pre-OU designation) was originally divided into separate specific areas – Areas 1 through 8, as described in Section 6 of the RI Report. The scope of work for the Phase 1 RI study in OU-1, OU-2, and OU-3 included the following:

OU-1:

- Fifty-six soil borings with grab groundwater samples were drilled in OU-1 (RISB-9 through RISB-11, RISB-12A, RISB-12B, and RISB-13 through RISB-63). Soil samples were collected at the surface, at intervals of five feet, and at any depth where field screening or observations indicated potential impacts, with the deepest sample collected at the capillary fringe above the groundwater table. A grab groundwater sample was collected from each boring via a temporary PVC well casing.
- Three test pits (RIT-1, RIT-2, and RIT-3) were completed in the OU-1 Leasehold Debris Pile (Area 3).
- Eight groundwater monitoring wells were installed in OU-1 (M-161D, M-162D, M-186D, and M-189 through M-193).
- Slug tests were conducted at 23 wells in OU-1(M-117, M-118, M-149 through M-154, M-156, M-161, M-161D, M-162, M-162D, M-181, M-186, M-186D, MC-MW-18, MC-MW-39, MC-MW-42, TR-2, TR-4, TR-7, and TR-9).

OU-2:

- Nine groundwater monitoring wells were installed in OU-2 (PC-134D, PC-137D, PC-151 through PC-154, and PC-158 through PC-160). Note that PC-153 was destroyed by construction activity in February 2017 and was decommissioned and replaced by PC-153R in March 2017. In addition, one soil sample was collected from off-site well pilot boring PC-152 based on field observations of discolored soil.
- Six soil gas sampling probes were installed at three locations in OU-2 (RISG-1, RISG-2, and RISG-3) with one shallow (5 ft) and one deeper (13-15 ft) soil gas probe at each location.

OU-3:

- Six groundwater monitoring wells were installed in OU-3 (PC-155A/B, PC-156A/B, and PC-157A/B).

Approximately 190 existing and new groundwater monitoring wells were sampled in OU-1, OU-2, and OU-3 during the Phase 1 RI.

The initial scope of work for Area 1 called for the drilling of eight shallow soil borings (RISB-1 through RISB-8) to facilitate collection of soil and grab groundwater samples. Investigation of this area was deferred until completion of the AP-5 Pond decommissioning, which was completed in September 2018. After decommissioning of the AP-5 Pond, the initial scope of work for Area 1 was reconsidered and a revised scope of work was submitted to NDEP in November 2018 as Phase 2 RI Modification No. 15. The approved revised scope of work was implemented in the first quarter of 2019, as documented in Section 6 of the RI Report and summarized below in Section A1.2.1.2 of this appendix.

A1.2.1.2 Phase 2 RI

The initial scope of work for the Phase 2 RI included the following:

- Twenty-eight (28) shallow soil borings were drilled in OU-1 (RI-1 through RI-28).
- Twenty-nine (29) deep soil borings were drilled in OU-1 (RIDB-1 through RIDB-29).
- Fourteen (14) deep soil borings were drilled in OU-2/OU-3 (PCDB-1 through PCDB-14).
- Soil sampling was conducted at 10 locations in the vicinity of the SWF (SWF-01 through SWF-10). One surface soil sample and one shallow subsurface soil sample (approximately 0.5 to 1.0 feet) were collected at each location using a hand trowel. The 20 samples were analyzed for perchlorate. The intended purpose of this scope of work was to evaluate white salt deposits observed within a low-lying area surrounding the former seep capture sump. At the time of sample collection, the seep capture area had recently been covered by a thick layer of soil produced during the construction of the diversion channel associated with the Sunrise Mountain Weir project by the SNWA.
- Fifty-eight (58) monitoring wells were installed in OU-1 (M-5D, M-14D, M-21D, M-22D, M-36D, M-65D, M-66D, M-72D, M-81D, M-83D, M-125D, M-140D, and M-195 through M-240).
- Forty (40) monitoring wells were installed in OU-2/OU-3 (PC-153R, PC-161 through PC-170, PC-170R, PC-171 through PC-187, PC-187R, and PC-188 through PC-197).

The Phase 2 RI scope of work modifications are summarized in Section 6 of the RI Report. A summary of modifications that changed the initially planned study or added scope to the Phase 2 drilling program is provided below. Phase 2 RI Modification Nos. 3, 7, 9, 10, and 14 did not change or add scope to the drilling program and are not discussed herein.

- Phase 2 RI Modification No. 1 (Ramboll Environ 2017a) added to the initial scope with the installation of five additional groundwater monitoring wells (M-242, M-243, M-244, M-245 and M-246) in OU-1 just west of the GW-11 Pond to better define VOC concentrations identified based on VOC analytical results for soil samples collected from soil borings RIDB-6 and RIDB-7.

- Phase 2 RI Modification No. 2 (Ramboll Environ 2017b) added to the initial scope by extending the depth of three initially planned soil borings near the Seep Well Field (SWF). Based on the discovery of perchlorate in the soil samples from the Upper Muddy Creek formation (UMCf) near the SWF, PCDB-1, PCDB-2, and PCDB-3 were extended to 150 feet below ground surface (ft bgs) and soil samples were collected at 10-foot intervals from 50 to 150 ft bgs and analyzed for perchlorate.
- Phase 2 RI Modification No. 4 (Ramboll Environ 2017d) added to the initial scope by extending the total depth for the pilot borings and the well screens for six initially planned monitoring wells within OU-1 (M-194 through M-199). Due to access limitations resulting from underground and overhead utilities, well M-194 was not installed.
- Phase 2 RI Modification No. 5 (Ramboll Environ 2017e) added to the initial scope by adjusting the well screen depths for six initially planned OU-1 wells (M-200, M-230, and M-235 through M-238) and adjusting the location of planned well M-234.
- Phase 2 RI Modification No. 6 (Ramboll Environ 2017f) added to the initial scope and included completion of a soil background study which included the drilling of five soil borings outside of the known area of environmental impact west of OU-1 (RIBK-7, RIBK-8, RIBK-10, RIBK-12, and RIBK-13).
- Phase 2 RI Modification No. 8 (Ramboll Environ 2017g) added to the initial scope by adjusting the proposed well screen depths for three initially planned OU-1 wells (M-224, M-227, and M-228).
- Phase 2 RI Modification No. 11 (Ramboll 2018b) added to the initial scope by proposing a soil gas sampling program that that included soil gas probe installation and sampling at 30 locations in OU-1 and OU-2 to support the Baseline Health Risk Assessment (BHRA). The scope of work included installation of soil gas sampling probes at 17 locations in OU-1 (RISG-10 through RISG-26) and 13 locations in OU-2 (RISG-1 through RISG-9 and RISG-27 through RISG-30). Note that RISG-1, RISG-2, and RISG-3 were re-installed in the original Phase 1 locations.
- Phase 2 RI Modification No. 12 (Ramboll 2018c) added to the initial scope and included a soil, soil gas, and groundwater sampling program at Parcel E, located in the northwestern portion of OU-1. The scope of work included soil sampling at seven locations (RISB-EJ-01, RISB-EJ-02, RISB-EJ-03, RISB-EJ-04, RISB-ER-01, RISB-ER-02, and RISB-ER-03), collection of soil gas samples at four locations (RISG-31, RISG-32, RISG-33, and RISG-34), and collection of groundwater samples from five existing monitoring wells (MC-09R, MC-29, MC-94, MC-97, and MC-111). The soil gas and groundwater sampling were intended to fill data needs for the Parcel E BHRA.
- Phase 2 RI Modification No. 13 (Ramboll 2018d) added to the initial scope with the drilling of deep soil borings and installation of additional monitoring wells along the northern boundary of OU-1. Four 150-foot-deep soil borings (RIDB-30 through RIDB-33) were first drilled along the property boundary. Based on the evaluation of lithologic conditions and perchlorate analyses from soil samples collected from these borings, well screen depths were selected for nine groundwater monitoring wells (M-260 through M-268).
- Phase 2 RI Modification No. 15 (Ramboll 2018f) added to the initial scope with the drilling of additional deeper investigation soil borings and installation of deeper monitoring wells in the Phase 1 RI Area 1 (former AP-5 Pond). The Modification No. 15 scope of work retained five of the initially planned shallow soil borings with grab

groundwater samples (RISB-1 through RISB-5). The revised plan included additional drilling of three 150-foot-deep borings (RIDB-34, RIDB-35, and RIDB-36) and installation of three groundwater monitoring well (M-269, M-270, and M-271).

A1.2.1.3 Phase 3 RI

The initial scope of work for the Phase 3 RI included the following:

- Eighteen (18) planned soil borings in OU-2 (ESB-1 through ESB-18) and four additional exploratory soil borings in OU-2 (ESB-1X, ES-2-PB1, ES-2-PB2, and ES-2-PB-3).
- Fifty-seven (57) paleochannel exploratory soil borings were drilled at six separate transects in OU-2, including 11 soil borings along Transect A, nine soil borings along Transect B, nine soil borings along Transect C, eight soil borings along Transect E, 10 soil borings along Transect F, and 10 soil borings along Transect G.
- Seven paleochannel exploratory soil borings in the Northeast Sub-Area in OU-3 along Transect D.
- Twenty-seven (27) monitoring wells were installed in OU-2 (ES-1 through ES-7, ES-8A, ES-8B, ES-9 through ES-13, ES-14A, ES-14B, ES-15 through ES-20, and ES-28 through ES-32). Eleven (11) monitoring wells were installed in OU-3 (ES-21A, ES-21B, ES-22A, ES-22B, ES-23A, ES-23B, ES-24, ES-25A, ES-25B, ES-26, and ES-27).

The Phase 3 RI scope of work modifications are summarized in Section 6 of the RI Report. A summary of modifications that changed the initially planned study or added scope to the Phase 3 drilling program is described below. Phase 3 RI Modification Nos. 1 and 3 did not change or add scope to the Phase 3 drilling program and are not discussed below.

- Phase 3 RI Modification No. 2 (Ramboll 2018g) added to the initial scope and included the installation of nine groundwater monitoring wells in the Downgradient Study Area within OU-3 (NERT5.91S1, NERT5.49S1, NERT5.11S1, NERT4.93S1, NERT4.71S1, NERT4.51S1, NERT4.38N1, NERT4.21N1, NERT3.80S1, NERT3.65S1). The wells were installed in accordance with AECOM's Data Gap Investigation Plan – Phase I Groundwater Monitoring Well Installation in the Downgradient Study Area (AECOM 2018). A tenth planed monitoring well (NERT3.65S1) was not installed because bedrock was encountered at a depth of 2 ft bgs.
- Phase 3 RI Modification No. 4 (Ramboll 2018i) added to the initial scope and included the drilling of four 200-foot-deep soil borings (ESB-24 through ESB-27) in OU-3 near the Phase 3 RI paleochannel investigation Transect D. Eight monitoring wells (ES-45 through ES-52) were installed along Transect D to evaluate the presence and vertical and lateral extent of investigative chemicals of potential concern (COPCs) in the alluvium and UMCf.
- Phase 3 RI Modification No. 5 (Ramboll 2018j) added to the initial scope and included the drilling of three 150-foot-deep soil borings (PCDB-15, PCDB-16, and PCDB-17) and the installation of two monitoring wells (PC-198 and PC-199) in OU-3 near the SWF to better delineate the lateral and vertical extent of perchlorate and other NERT COPCs in deeper (i.e., greater than 50 feet bgs) UMCf soils.
- Phase 3 RI Modification No. 6 (Ramboll 2019a) added to the initial scope and included installation of 14 groundwater monitoring wells (NERT4.65N1, NERT4.64N1, NERT4.70N1, NERT4.71N1, NERT4.71S2, NERT4.64S1, NERT3.98S1, NERT3.63S1,

NERT3.60S1, NERT3.58S1, NERT3.40S1, NERT3.35S1, NERT3.60N1, and NERT3.58N1). These wells were installed as part of AECOM's Data Gap Investigation Plan – Phase II Groundwater Monitoring Well Installation in the Downgradient Study Area (AECOM 2019). Additionally, 11 2-inch diameter observation wells were installed to support AECOM's initially planned aquifer pumping tests; four each centered around the previously identified primary wells NERT4.64S1, NERT3.60S1, and NERT3.58S1.

- Phase 3 RI Modification No. 7 (Ramboll 2019c) added to the initial scope and included the installation and sampling of soil gas probes at 17 locations in OU-3 (RISG-35 through RISG-51). Two probes were installed at most locations, one at 5 ft bgs and the other at either 10 or 15 ft bgs. At two locations, RISG-35 and RISG-40, deeper soil gas probes were not installed due to the presence of shallow groundwater and shallow refusal, respectively. This modification also included the installation of three new groundwater monitoring wells (PC-200, PC-201, and PC-202) and the collection of groundwater samples from the three new wells and one existing piezometer (PZ-2S).
- Phase 3 RI Modification No. 8[2] (Ramboll 2020a) added to the initial scope and included 1) the installation of 37 new groundwater monitoring wells primarily in OU-3[3]; 2) the drilling of twelve soil borings along two paleochannel investigation transects (Transects H and I) to define paleochannels identified through previous geophysical investigations; and 3) a comprehensive round of groundwater sampling from 268 new and existing groundwater monitoring wells to evaluate the current distribution of perchlorate and other COPCs in OU-3, as detailed further below.

  Nine groundwater monitoring wells (NERT6.21N1, NERT5.83N1, NERT5.26N1, NERT4.29N1, NERT4.29N2, NERT3.94N1, NERT-FM01A, NERT-FM01B, and NERT-FM02A) were installed at seven drilling locations on the north side of the Las Vegas Wash. Pilot borings (NERT3.94N, NERT4.29N, NERT5.26N, NERT5.83N, NERT6.21N, NERT-FM01, and NERT-FM02) were drilled at each of the seven locations with samples collected at 10-foot intervals for chlorate and perchlorate analyses. On the south side of the Las Vegas Wash, 18 wells (NERT5.80S1, NERT5.80S2, NERT5.63S1, NERT5.63S2, NERT5.63S3, NERT5.20S1, NERT5.20S2, NERT5.20S3, ES-55A, ES-55B, ES-55C, ES-56A, ES-56B, ES-56C, ES-57A, ES-57B, ES-58A, and ES-58B) were installed at seven drilling locations. Pilot borings (ES-55, ES-56, ES-57, ES-58, NERT5.80S, NERT5.63S, and NERT5.20S) were drilled at each of the seven locations with samples collected at 10-foot intervals for chlorate and perchlorate analyses. Additionally, on the south side of the Las Vegas Wash, six wells (NERT2.60S2, NERT5.11S2, NERT5.49S2, NERT5.91S2, NERT5.91S3, and PC-157C) were installed adjacent to six existing monitoring wells to define perchlorate concentrations and vertical hydraulic gradients. Two deeper wells (PC-203 and PC-204) were installed adjacent to existing wells in the vicinity of the SWF to define perchlorate concentrations and vertical hydraulic gradients. In addition, two monitoring wells (ES-53 and ES-54) were installed along Galleria Drive within OU-2[4]

[2] At the time Revision 0 of this report was submitted to NDEP (July 9, 2021), some of the Phase 3 RI modifications (Phase 3 RI Modification Nos. 8, 10, 11, 12, 13, 14, and 15), which are solely within OU-3, had not yet been implemented. These modifications have since been completed and information pertaining to these Phase 3 RI modifications will be detailed in the forthcoming OU-3 RI Report.

[3] Two of the Phase 3 RI Modification No. 8 wells (ES-53 and ES-54) are located in OU-2.

[4] While these wells are located within OU-2, the data obtained from them will be evaluated and reported in the RI Report for OU-3 and are not included in Revision 1 of this report.

between an approximate 4,000-foot gap in coverage near the OU-2/OU-3 boundary to define perchlorate concentrations and hydraulic conditions within this area.

Twelve soil borings were drilled along two paleochannel investigation transects (Transects H and I) to define paleochannels identified through previous geophysical investigations. Six soil borings were drilled at each transect; TB-H1 through TB-H6 at Transect H, and TB-I1 through TB-I6 at Transect I. Two of the soil borings at each transect location (TB-H1, TB-H6, TB-I1, and TB-I2) were advanced to 90 ft bgs with soil samples collected at 10-foot intervals for chlorate and perchlorate analyses. The four additional soil borings at each transect were advanced to depths sufficient to visually identify the paleochannels.

To evaluate the current distribution of perchlorate and other COPCs in OU-3, a comprehensive round of groundwater samples was collected from 266 groundwater monitoring wells. The list of wells included the 37 new Phase 3 RI Modification No. 8 wells and 229 existing monitoring wells in OU-3. Note that six wells (ES-55A, ES-56A, NERT-FM01A, NERT-FM01B, NERT5.20S1, and PC-1) were dry and groundwater samples could not be collected. In addition, well M-15 located along Galleria Drive near the closed City of Henderson landfill was not located and appears to have been destroyed. Groundwater collected from wells located west of Pabco Road in the NERT Off-Site Study Area portion of OU-3 were proposed to be analyzed for perchlorate, chlorate, chromium, and chloroform. Groundwater collected from wells located east of Pabco Road were proposed to be analyzed for perchlorate, chlorate, and chromium. Note that the final analyte list for the comprehensive groundwater sampling event was modified by Phase 3 RI Modification No. 13, as described below. To characterize general groundwater chemistry in OU-3, all wells were also tested for general chemistry and field parameters.

- Phase 3 RI Modification No. 9 (Ramboll 2019d) added to the initial scope and included the installation and sampling of soil gas probes at 12 locations in OU-1 (RISG-79 through RISG-90) and 27 locations in OU-2 (RISG-52 through RISG-78). Phase 3 RI Modification No. 9 also included collection of additional soil gas samples at the original 34 soil gas probe locations previously described as Phase 2 RI Modification Nos. 11 and 12. Soil gas samples were analyzed for VOCs using USEPA TO-15 and TO-15 in selected ion monitoring (SIM) mode.
- Phase 3 RI Modification No. 10 (Ramboll 2020b) added to the initial scope by incorporating high-frequency surface water sampling in the Las Vegas Wash to characterize temporal variation in perchlorate, chlorate, and TDS concentrations and mass loading. The planned sampling locations were co-located with United States Geological Survey (USGS) stream gage stations so that stream flow rates were known at each location. The same sampling locations were used during two sampling events, one conducted in the summer, and one conducted in the winter. Two sampling events were conducted, one in the summer and one in the winter. For each event, hourly sampling was conducted for 48 hours at 12 sampling locations situated at six key locations within the Las Vegas Wash using portable automated sampler technology. The sampling locations and samples included Duck Creek (LVW 7.2), Pabco Road (LVW 6.05), Historic Lateral (LVW 5.3N, LVW 5.3C, and LVW 5.3S), Homestead (LVW 4.2N, LVW 4.2C, and LVW 4.2S), Rainbow Gardens (LVW 3.5N, LVW 3.5C, and LVW 3.5S), and Northshore Road (LVW 0.55). Samples were collected using a programable peristaltic pump. Samples were analyzed for perchlorate, chlorate, and TDS. Work performed in

connection with this RI modification and OU-3 in general will be further described within the forthcoming RI Report for OU-3.

- Phase 3 RI Modification No. 11 (Ramboll 2020d) added to the initial scope and included additional planned soil and groundwater characterization adjacent to and north of the SWF within OU-3. The scope of work included installation of additional soil borings and monitoring wells at three locations (total of five wells) located generally between the SWF and Las Vegas Wash to evaluate the vertical extent of perchlorate. At each drilling location, a pilot soil boring was drilled to 90 ft bgs, and soil samples were collected at 10-ft intervals from 10 ft bgs to the total boring depth and analyzed for chlorate and perchlorate. The new Phase 3 RI Modification No. 11 wells (PC-94D, PC-205A, PC-205B, NERT5.98S1, and NERT5.98S2) were sampled consistent with the OU-3 comprehensive groundwater monitoring program previously described as part of Phase 3 RI Modification No. 8. Work performed in connection with this RI modification and OU-3 in general will be further described within the forthcoming RI Report for OU-3.

- Phase 3 RI Modification No. 12 (Ramboll 2021b) added to the initial scope with the addition of three existing wells (PC-200, PC-201, and PC-202) located in OU-3 to the comprehensive groundwater monitoring program previously described as part of Phase 3 RI Modification Nos. 8 and 11. These three wells were previously installed as part of Phase 3 RI Modification No. 7. Note that during completion of the comprehensive groundwater sampling event, monitoring well PC-200 was dry and a sample could not be collected. Work performed in connection with this RI Modification and OU-3 in general will be further described within the forthcoming RI Report for OU-3.

- Phase 3 RI Modification No. 13 (Ramboll 2021c) amended the Phase 3 RI Modification No. 8 scope of work by adding additional groundwater analytical parameters and soil sampling on the west side of Pabco Road to support the evaluation of the nature and extent of contamination in OU-3 and assist the assessment of human health risks in OU-3 in the forthcoming OU-3 BHRA. Consistent with the approved Phase 3 RI Modification No. 8, as previously described, groundwater samples collected from approximately 65 monitoring wells located west of Pabco Road were initially planned to be analyzed for perchlorate, chlorate, chromium, and chloroform, as well as general groundwater chemistry parameters and field parameters. Phase 3 RI Modification No. 13 added the following analytes that were detected in groundwater above their screening level in OU-2 to the analysis of groundwater samples collected from wells located west of Pabco Road: bromide, nitrate, nitrite, arsenic, boron, iron, magnesium, manganese, strontium, and vanadium. The list of VOC analyses was expanded to include the full VOC analytical suite evaluated in OU-2.

- Phase 3 RI Modification No. 14 (Ramboll 2021d) added to the Phase 3 RI Modification No. 8 scope of work with the installation and sampling of two shallow monitoring wells in the paleochannel near Transect I (NERT5.15S1 and NERT5.15S2) within OU-3. Additionally, Phase 3 RI Modification No. 14 included the slug testing of 16 shallow monitoring wells near Las Vegas Wash (NERT3.94N1, NERT4.21N1, NERT4.29N1, NERT4.29N2, NERT4.64N1, NERT4.71N1, NERT5.15S1, NERT5.15S2, NERT5.26N1, NERT5.63S1, NERT5.63S2, NERT5.63S3, NERT5.80S1, NERT5.80S2, NERT5.83N1, and NERT5.21N1). The collection of this additional data was necessary to fully characterize perchlorate concentrations in groundwater within the Transect I paleochannel and provide additional hydraulic property data near the Las Vegas Wash. Work performed in connection with

this RI modification and OU-3 in general will be further described within the forthcoming RI Report for OU-3.

- Phase 3 RI Modification No. 15 (Ramboll 2022) added to the Phase 3 RI scope of work by incorporating a supplemental soil gas investigation to assess human health risk and represent a worst case or Reasonable Maximum Exposure (RME) condition in the OU-3 area west of Pabco Road and north of Galleria Drive. This included the installation of multi-level soil gas probes at two locations (RISG-91 and RISG-92) within the interior of the NERT core plume area in this portion of OU-3. Soil gas samples were then collected from the new locations and at 10 existing locations (RISG-35, RISG-36, RISG-37, RISG-38, RISG-39, RISG-40, RISG-42, RISG-43, RISG-44, and RISG-45) installed as part of Phase 3 RI Modification No. 7. Soil gas samples were analyzed for VOCs using USEPA Method TO-15. Work performed in connection with this RI modification and OU-3 in general will be further described within the forthcoming RI Report for OU-3.

A1.2.2 Drilling Procedures

Drilling for the RI field program was performed to install soil borings for the collection of soil samples, installation of groundwater monitoring wells, and soil gas sampling probes. Drilling and monitoring well installation for the RI was conducted by Cascade Drilling, LP (Cascade, formerly National Exploration Wells & Pumps [National EWP]) under the oversight of Ramboll personnel. Most soil borings and monitoring well installations were completed using rotary sonic drilling methods. Soil gas probes were installed using a combination of hand auger, air vacuum (air knife), and hydraulic direct push technology (DPT).

Prior to drilling activities at each location, preliminary utility clearance was initiated by establishing dig tickets through the Underground Service Alert (USA) North One-Call System (#811). Private and municipal utility location services were contracted as necessary to establish the estimated location of subsurface utilities relative to planned drilling locations. Direct utility clearance was conducted using a combination of third-party utility location services (i.e., ground penetrating radar [GPR] and electrical line locating) and direct underground clearance via either hand auger clearance to 5 ft bgs or air vacuum (air knife) clearance to 10- to 15-ft bgs. Locations within the EMD Acquisition LLC (EMD; formerly Tronox) facility were additionally located and cleared by a designated EMD/Tronox Maintenance Supervisor and drilling was conducted under the formal EMD/Tronox groundbreaking permitting process.

Drilling was conducted in accordance with procedures outlined in the FSP, as described below.

A1.2.2.1 Sonic Drilling

Soil borings and monitoring well installations were completed primarily using rotary sonic (Sonic) drilling methods. The primary Sonic drilling equipment used consisted of a Gus Pech GP-24-400RS and a track-mounted Boart Longyear LS 600. Sonic drilling utilizes high-frequency vibration aided by downward pressure and rotation to advance sample tooling (core barrels) and steel conductor casing into the subsurface formation. Using an oscillator or drilling head with eccentric weights, a Sonic drilling rig can vary the frequency of vibration of the core barrel allowing for optimum penetration through the subsurface formation. A dual-string assembly allows advancement of an outer conductor casing along with an inner core barrel for soil sample collection. A typical set up would use a 4-inch or 6-

inch diameter core barrel with 6-inch or 8-inch diameter conductor casing, respectively. Core barrels are advanced ahead of conductor casing to retrieve undisturbed subsurface soil samples and the outer conductor casing is advanced to maintain the integrity of the borehole as it is advanced to depth.

Investigation-derived waste (IDW), including soil cuttings and logged soil core, were transported to the NERT Site and stored in lined and covered bulk storage containers (roll-off containers) prior to characterization and off-site disposal as discussed in Section A1.10 of this appendix.

A1.2.2.2 Direct Push

The deeper soil gas sampling probe installations were completed by Cascade using DPT. DPT uses a combination of static force (e.g., weight of the DPT rig) and percussion hammer to advance small diameter sampling tools. The DPT was used to install the deeper soil gas sampling probes at each location as further detailed in Section 6 of the RI Report and below in Section A1.6 of this appendix.

A1.2.2.3 Soil Sampling

Throughout the RI drilling program soil samples were collected for chemical and physical testing and for geological interpretation using either 4-inch diameter or 6-inch diameter core barrels. Typically, soil core was vibrated from the core barrels directly into 2.5-foot length plastic sleeves and retained in wooden core boxes or on the ground for processing by project geologists.

The 2.5-foot soil core plastic sleeves were cut by logging personnel and then the soil core was split to expose the inner portions of the core not in contact with the inside of the core barrels. A sample aliquot was retained in foil-covered glass jars for volatile vapor screening using 10.6 electronvolt (eV) and 11.7 eV photoionization detectors (PIDs). The soil samples collected for chemical testing were placed directly into sampling jars provided by the laboratory and samples collected for physical testing were either retained in zip-lock bags (loose soil) or wrapped in plastic and aluminum foil (cohesive soil). Soil cores retained from each soil boring were logged by a geologist using the Unified Soil Classification System (USCS) and all boring logs were reviewed by a senior geologist for quality control (QC) purposes. Soil boring logs for the RI wells are provided in Appendix A2.

Additionally, during the Phase 2 RI drilling, soil samples collected for volatile organic compound (VOC) analyses were obtained by driving 18-inch long 2-inch outer diameter split-barrel samplers ahead of the outer conductor casing.

A1.2.2.4 Monitoring Well Installation

Monitoring wells were installed in accordance with procedures outlined in the FSP, as described herein. In many cases, monitoring well pilot borings were over drilled to collect deeper soil samples for chemical/physical analyses and/or geological descriptions. These borings were backfilled to a depth appropriate for the planned well installation using bentonite chips topped with 1 to 2 feet of filter pack sand. Pilot borings that were not over drilled for sampling purposes were usually over drilled by approximately 6- to 12-inches and filled with 6- to 12-inches of filter pack sand as a base for the well bottom.

Once the appropriate depth was achieved, drilling personnel handling well materials donned clean gloves to ensure that contaminants were not introduced into the borehole during installation. Well screen and blank (riser) casing were carefully lowered into the ground section by section (well string) through the conductor casing. Each section of the well (either 5-foot or 10-foot sections) was constructed of flush-threaded water-tight joints that were fully tightened to ensure well integrity. The well string was centered and suspended in the borehole to ensure that the well was sufficiently plumb and straight. Well screen filter pack sand was then gently poured into the annulus while using a weighted tape to measure progress. The top of the filter pack sand was typically extended to 2 feet above the top of the well screen. A bentonite chip seal (well seal) was then installed above the well screen, again using the weighted tape to monitor progress. Well seals were typically extended to 5 feet above the sand filter pack and were hydrated with clean water as necessary. The remainder of the borehole annulus above the well seal was then backfilled using neat cement grout. During construction of the sand filter pack and bentonite seal, the conductor casing was slowly removed to ensure the integrity of the borehole while preventing bridging of the sand and bentonite.

Wells were constructed of factory-sealed commercially available well screen and blank casing. Most of the wells installed during the RI were constructed of 4-inch diameter Schedule 40 polyvinyl chloride (PVC). Some OU-2 wells (18 in Phase 1 and 17 in Phase 2) were constructed of 2-inch diameter Schedule 40 PVC. Four Phase 2 replacement monitoring wells (M-224R, M-225R, M-227R, and M-228R) located in the central part of OU-1 were constructed of 4-inch diameter stainless steel. In general, shallow wells screening the alluvium were constructed using 0.02-inch slotted screen with #3 size filter pack sand. Wells screening the UMCf were constructed using 0.01-inch slotted screen with #2/12 size filter pack sand.

The type of surface completions for the new wells was dependent on location and land usage. In low-traffic non-vehicle areas, an aboveground completion consisting of an 8-foot long (approximately 5 feet below ground and 3 feet of stickup) lockable steel surface casing was installed with a concrete apron. In high traffic areas, the surface completion consisted of a flush-with-grade traffic-rated vault. All wells were capped with water-tight locking caps. Well construction diagrams for the RI wells are provided in Appendix A2.

A1.2.3 Monitoring Well Development

Well development was conducted by Cascade, using specifically designed development equipment (i.e., development rig) under the supervision of Ramboll personnel. Development of new wells, or at times older wells requiring re-development, was conducted at various times throughout the Phase 1 RI in 2015 and the Phase 2/3 RIs between February 2017 and March 2019. Typically, well development was conducted in groups when there were a sufficient number of newly installed wells to ensure time and cost efficiency. The general methodology for conducting well development is described below.

Prior to beginning well development, as-built well construction logs were used to provide general well information such as total depth, well screen interval, well diameter, and anticipated depth to water. The initial depth to water was then measured using an electronic water level indicator with an accuracy of ± 0.01 foot. Well construction and water level information were entered onto a well development logging form where the well casing volume and the expected total well purging volume were calculated.

For new monitoring wells, well development began no sooner than 48 hours after installation. Well development was initiated by using surge block and bailing techniques to agitate the well screen to remove fine- and coarse-grained material from the filter pack. The surge block consisted of a 4.5-foot long 1.5-inch diameter rubber plunger attached to a PVC rod. The stainless-steel bailers used to purge the suspended material from the 4-inch diameter wells were 6 feet long and 3.5 inches in diameter and were equipped with a check ball valve. For 2-inch diameter monitoring wells, the bailers used were 5 feet long and 1.5 inches in diameter. Surging/bailing cycles were conducted until sand and sediments within the well were visibly reduced. The wells were then pumped using a PVC Typhoon submersible pump until well development was completed.

During well development, pH, specific conductivity, temperature, and turbidity (water quality parameters) were monitored frequently to determine when natural conditions were obtained indicating that a well was sufficiently developed. Drawdown and relative recovery were monitored throughout the development process and documented on the well development form. Well development generally continued until at least 10 casing volumes had been removed. The criteria for determining the level of development of a well was the production of relatively clear water [goal of less than 5 Nephelometric Turbidity Units (NTUs)] and stabilized water quality parameters within 10 percent between well volumes.

Purge water produced during the well development process was containerized and transported to the NERT Site and placed in the GW-11 Pond in coordination with Envirogen Technologies Inc (EIT) for subsequent treatment in the on-site Groundwater Extraction and Treatment System (GWETS).

A1.2.4 Surveying

Soil borings, monitoring wells, and soil gas probe locations were surveyed by a licensed Nevada surveyor from Atkins North America, Inc (Atkins). Horizontal coordinates were surveyed to an accuracy of at least 0.1 foot and referenced to the North American Datum of 1983 (NAD 83). Vertical elevations were surveyed to an accuracy of ± 0.01 foot relative to the North American Vertical Datum of 1988 (NAVD 88) and referenced to a City of Henderson benchmark. Survey information for the RI monitoring wells is provided in Tables A1-1 through A1-3 of this appendix. Survey information for RI soil gas probes is provided in Table A1-4 of this appendix.

A1.3 TRENCHING/TEST PIT SAMPLING

Three exploratory trenches/test pits (RIT-1, RIT-2, and RIT-3) were excavated within the debris pile (Phase 1, Area 3) to allow observation of the materials in the debris pile and shallow soils underlying the debris pile. A backhoe was used to trench/excavate test pits into the debris pile. Visual observations of the material encountered and PID readings were used to select locations to collect samples from the test pits. Five grab soil samples were collected from each of the exploratory trench/test pit locations, for a total of 15 samples.

A1.4 GROUNDWATER SAMPLING

Groundwater sampling was performed throughout the RI field program. The approximate number of wells sampled during the three phases of the RI are:

Phase 1: 142 existing wells and 23 newly installed Phase 1 RI wells.

Phase 2: 56 existing wells and 137 newly installed Phase 2 RI wells.

Phase 3: 345 existing wells and 85 newly installed Phase 3 RI wells.

During the Phase 1 RI and during the Phase 2 AP-5 Pond investigation (Phase 2 RI Modification No. 15), approximately 50 one-time grab groundwater samples (including QC samples) were also collected utilizing temporary observation wells installed in shallow soil borings.

During the Phase 1 and Phase 2 RI programs, groundwater sampling was primarily conducted by Blaine Tech Services, Inc. (Blaine Tech) under the supervision of Ramboll personnel. Blaine Tech provided sampling personnel and specialized sampling vehicles to conduct low-flow groundwater sampling. During the Phase 3 RI, some of the initial sampling of new monitoring wells was conducted by Ramboll personnel utilizing volumetric sampling techniques after the completion of well development using the Cascade well development pumps. Groundwater sampling during the Phase 3 RI was completed by both Blaine Tech and OGI Environmental LLC (OGI) using the low-flow sampling procedures. The procedures followed to collect groundwater samples are discussed below.

A1.4.1 Low-Flow Sampling

Monitoring wells were purged and sampled in accordance with FSP field guidance document No. 006 using low-flow techniques that utilized QED Sample Pro bladder pumps and YSI 556 flow-through cells to monitor groundwater quality parameters. Prior to beginning low-flow sampling, as-built well construction logs were used to provide general well information such as total depth, well screen interval, well diameter, and anticipated depth to water. The initial depth to water was then measured using an electronic water level indicator with an accuracy of ±0.01 foot. Well construction and water level information were recorded on a Low-Flow Purging and Sampling Log.

To initiate sampling, the pump was lowered into the well and secured at approximately the mid-point of the well screen and the pump tubing, and flow through cells were connected. Pumping would typically begin with a flow rate between approximately 0.1 and 0.5 liters per minute and then would be slowly increased as necessary. Water levels were monitored during pumping to ensure that a drawdown of less than 0.3 feet was maintained. If drawdown exceeded 0.3 feet, the flow rate was lowered until the target drawdown was achieved. Discharge rates and water levels were measured approximately every three minutes and recorded on the sampling log.

After purging a minimum of one tubing volume (including the volume of water in the pump and flow-through cell), measurements of water quality parameters would begin. Temperature, pH, specific conductivity, dissolved oxygen (DO), turbidity, and oxidation-reduction potential (ORP) were measured at approximately 3-minute intervals. Water quality parameter measurements were recorded on the sampling log. Purging continued until stabilization of the water quality parameters, as identified below:

- Temperature: ± 3%

- pH: ± 0.1 pH unit
- Specific conductivity: ± 3% Siemens per centimeter (S/cm)
- DO: ± 0.3 milligrams per liter (mg/L)
- Turbidity: ±10% Nephelometric Turbidity Units (NTUs)
- ORP: ±10 millivolts (mV)

Once stabilization was achieved, the flow-through cell was disconnected, and groundwater samples were collected from the discharge line into the appropriate laboratory-supplied sample containers. For samples requiring filtering, after collection of non-filtered samples, a 0.45-micron inline filter was attached to the pump discharge line and the line was flushed with approximately 0.5 to 1.0 liters of groundwater. The filtered sample was then collected using the appropriate laboratory-supplied containers.

A1.4.2 Volumetric Sampling

During the Phase 3 RI, the initial sampling of many new wells was conducted using a volumetric sampling technique immediately following completion of well development, as VOC sample analyses was not required. These samples were collected in general accordance with FSP field guidance document No. 004. This technique involved collecting samples after well development had been completed and after a final minimum of three well volumes were removed, and water quality parameters were determined to be stabilized. Measurement and documentation of water quality parameters, stabilization requirements, and sample collection procedures were the same as previously described for low-flow sampling.

A1.4.3 Grab Sampling

One-time grab groundwater sampling was conducted at OU-1 during the installation of shallow soil borings associated with the Phase 1 and Phase 2 RI (Modification No. 15). Grab samples were collected in accordance the FSP field guidance document No. 004. Temporary 2-inch PVC well points with 5- to 10-foot well screens were lowered into the shallow soil borings and allowed sufficient time for formation water to enter the well (at least 30 minutes to overnight). Grab samples were collected by lowering a new disposable polyethylene bailer into the well. Upon retrieval of the bailer, groundwater samples were transferred to their appropriate laboratory-supplied containers. Upon collection of the grab sample, the PVC well material was removed, and the boreholes were sealed with neat cement and/or bentonite chips.

A1.5 SOIL GAS SAMPLING

The Phase 1 RI scope of work included sampling at three soil gas sampling locations in OU-2 (RISG-1, RISG-2, and RISG-3). The Phase 2 RI scope of work included 17 soil gas sampling locations within OU-1 (RISG-10 through RISG-26) and 13 soil gas sampling locations within OU-2 (RISG-1 through RISG-9 and RISG-27 through RISG-30).[5] At 24 of the 30 planned locations, soil gas samples were collected from depths of 5 ft bgs and 15 ft bgs. At four OU-1 locations in the Unit 4 Building basement (RISG-16 through RISG-19), the planned soil gas sampling depth was 5 feet below the basement floor (approximately 13 feet below natural ground surface). At OU-2 locations RISG-7 and RISG-9, the deeper soil gas sample probes were only installed to 10 ft bgs and 13 ft bgs, respectively, because of shallow groundwater conditions. A soil gas sample was not collected from the deeper probes at RISG-8 and RISG-9 because the probes contained groundwater.

Phase 2 RI Modification No. 12 included installation and sampling of seven soil gas probes at four locations (RISG-31 through RISG-34) on Parcel E located in the northwestern portion OU-1. Soil gas probes within Parcel E were installed at 5 ft bgs and approximately 15 ft bgs, with the exception of RISG-31 where the deeper probe was not installed due to shallow groundwater conditions. Phase 3 RI Modification No. 7 included soil gas probe installation and sampling at 17 locations in OU-3 (RISG-35 through RISG-51). Phase 3 RI Modification No. 9 included the installation and sampling of additional soil gas sampling probes in both OU-1 and OU-2. In OU-1, soil gas probes were installed at 12 locations (RISG-79 through RISG-90). In OU-2, soil gas probes were installed at 27 locations (RISG-52 through RISG-78). Soil gas probes were installed at depths of 5 ft bgs and 15 ft bgs, with the exception of location RISG-61 where the deeper probe had to be re-installed at 10 ft bgs due to the occurrence of shallow groundwater at 11 ft bgs. The Phase 3 RI Modification No. 9 investigation included additional sampling of the original Phase 2 soil gas sampling probes. Phase 3 RI Modification No. 15 included the installation of multi-level soil gas probes at two locations (RISG-91 and RISG-92) within the interior of the NERT core plume area in OU-3. Soil gas samples were then collected from the new Phase 3 RI Modification No. 15 locations and at 10 existing locations (RISG-35, RISG-36, RISG-37, RISG-38, RISG-39, RISG-40, RISG-42, RISG-43, RISG-44, and RISG-45) installed as part of Phase 3 RI Modification No. 7.

Soil gas sampling probes were installed in general accordance with the guidelines set forth by the American Society for Testing and Materials (ASTM) Standard D7648/D7648M-18 (ASTM International 2018). Two probes were installed in separate boreholes at each soil gas sampling location, one shallow and one deeper. The shallow borehole was advanced to 5.5 feet with a hand-auger. The deeper borehole was cleared to 5 feet with the hand-auger, or to 10 feet with the air knife, and then advanced to depth (0.5 below the probe target depth) using DPT. At each borehole, approximately 6-inches of sand was placed in the bottom of the borehole. A stainless-steel sampling probe connected to Teflon tubing was placed on top of the sand layer at a depth of 5 ft bgs or 15 ft bgs (or at total depth for those probes altered due to the presence of shallow groundwater) and an additional 6-inches of sand was placed on top of the sampling probe. The sand was then covered with dry granular bentonite filling the remaining borehole annulus. The granular bentonite was

[5] Per Phase 2 Modification No. 11, the Phase 2 soil gas sampling program included re-installation and sampling at locations RISG-1, RISG-2, and RISG-3 which were originally sampled as part of the Phase 1 investigation.

hydrated with potable water during installation to ensure that the probes were properly sealed from the surface. Probes were not sampled sooner than 48 hours after installation.

To initiate soil gas sampling after the minimum 48-hour wait period, an air-tight valve was placed on the end of each length of Teflon tubing and the probe was allowed to equilibrate with subsurface conditions for a minimum period of two hours. The soil vapor samples were collected using a 1-liter or 6-liter Summa canister fitted with a flow controller regulating the flow to 100 to 200 milliliters per minute. All Summa canisters and flow controllers were certified individually clean by the analytical laboratory for the sample analytes. For quality control, a shut-in test was performed on the sampling equipment train prior to sampling and a helium leak check shroud was applied to the sampling equipment train during purging and throughout sampling at each location. The helium concentration in the shroud was maintained at approximately 20 percent and recorded every five minutes during sampling. If helium was detected in a sample by the laboratory, an ambient air leak analysis was performed to ensure the sample's helium concentration was less than five percent of the lowest recorded helium concentration in the shroud in accordance with California Environmental Protection Agency's (CalEPA's) soil gas investigation guidance (CalEPA 2015).

A1.6 HYDRAULIC TESTING

A1.6.1 Slug Testing

The RI slug testing program was implemented over multiple field events conducted between 2015 and 2019. In all, slug tests have been conducted on 378 wells as part of the RI. A list of tested wells and well construction parameters is provided in Table D-1 in Appendix D.

Slug testing was performed in accordance with ASTM Standard D4044-15/D4044M-15 (ASTM International 2015a). Slug tests were conducted by quickly lowering (falling head test) or raising (rising head test) a weighted slug with an approximate displacement factor of 1-gallon into the well, resulting in an instantaneous change in water level. During each round of testing, different slugs were used to produce appropriate initial displacements in wells of differing casing radii. A subset of wells was tested with at least two slugs of different sizes to induce different initial displacements. The slugs used generally included a 3.1-foot long by 3-inch diameter slug for 4-inch diameter wells and a 4.0-foot long by 1.5-inch diameter slug for 2-inch diameter wells. The slugs were raised and lowered using a custom well sampling reel equipped with a stainless-steel cable, which allowed for rapidly raising and lowering the slugs once the slug was positioned in the well.

Prior to conducting each slug test, the water level in each well was measured manually with an electronic water level probe with an accuracy of ±0.01 foot to determine the static groundwater level. An In-Situ Level TROLL 700 pressure transducer with integral datalogger was then suspended in the well at least 10 feet below the measured static groundwater level or no deeper than approximately one foot from the bottom of the well. The pressure transducer was securely deployed by a vented direct-read cable allowing real-time observation and monitoring of data. Water levels were then monitored electronically for approximately 10 minutes to one hour prior to commencement of testing to ensure that static water level conditions had been established.

A falling-head test was then conducted by smoothly lowering the weighted slug into the well, securing it in place above the transducer, and electronically recording the rate of water level decrease. Once groundwater returned to approximately the initial static conditions, a rising-head test was conducted by removing the slug and allowing the water level to again recover to static conditions while electronically recording the rate of water level recovery.

In general, each test (either rising-head or falling-head) was run until the water level fully stabilized. Stabilization was defined as achieving 95% of the original water level or when observations of the water level change was measured to be less than 0.01 foot in 10 minutes. Stabilization was achieved before initiating the next test in the sequence. A typical slug testing sequence involved conducting four tests per well (two pairs of slug-in/slug-out tests). For roughly 5-10% of tests performed, the test was repeated with a slug producing a different initial displacement as a QC test (e.g., smaller diameter slug in a 4-inch diameter well). Higher conductivity wells were selected for conducting these QC tests, where possible.

At the end of each test, the pressure transducer was removed from the well and the water level displacement data was downloaded to a laptop computer. The data was interpreted using AQTESOLV for Windows (Duffield 2007). Both the falling-head and rising-head data were analyzed to cross-check the interpretation results.

To prevent cross-contamination, the well slugs, transducers, water level indicators, direct-read transducer cables, and other downhole equipment were decontaminated prior to and

between uses by washing with a Liquinox™ and water solution followed by distilled water rinses.

In general, slug testing did not generate wastewater that had to be managed and disposed. Minor volumes of water used to decontaminate equipment was retained in buckets and placed in the GW-11 Pond at the NERT Site for subsequent treatment in the on-site GWETS.

A1.6.2 Borehole Dilution Testing

Single-borehole dilution tests were conducted in June and August 2018 as part of the Phase 3 RI in two Phase 3 RI wells (ES-3 and ES-10). A single-borehole dilution test is a simple hydrogeological technique used to estimate horizontal flow velocity in the aquifer. The dilution tests were conducted by introducing deionized water into the test well to displace formation water and then measuring the increase in specific conductivity over time.

The deionized water was delivered into the well through a custom-made deployment device consisting of a 2-inch PVC well casing with a 20-foot screened interval and a custom-made PVC end cap. A 1¼-inch well casing was inserted into the 2-inch well casing and secured into the end cap. The connection between the 1¼-inch well casing and 2-inch well end cap was designed to be watertight yet could easily be broken so the 1¼-inch casing could be quickly removed from the well.

Specific conductivity was measured during borehole dilution testing using In-Situ Aqua TROLL 200 pressure transducers with integral dataloggers. The pressure transducers were attached to the exterior of the deployment device at approximately 5-foot increments along the 20-foot screened interval of the deployment device (e.g., at 0, 5, 10, 15, and 20 feet).

Prior to installing the deployment device, depth to water was measured using an electronic water level meter with an accuracy of ±0.01 foot. The deployment device was then lowered into the well until it came to rest on the bottom of the test well. Depth to water was monitored until pre-deployment levels were observed.

The 1¼-inch well casing was then filled with deionized water. Specific conductivity and water level monitoring was started before deployment of the deionized water to document that the inner well casing was watertight, and no deionized water escaped the inner casing before beginning the test. The borehole dilution test was then initiated by breaking the inner well casing/end cap seal and removing the inner casing from the well. This allowed the deionized water to be released into the test well and mix with groundwater. Specific conductivity measurement continued until

reaching approximately 95% of the starting value, at which time the test was determined to be complete.

A1.7 NUCLEAR MAGNETIC RESONANCE LOGGING

The Nuclear Magnetic Resonance (NMR) scope of work was submitted to NDEP in May 2018 as Phase 3 RI Modification No. 3. In the modification, 139 well locations within OU-1, OU-2, and OU-3 were proposed for NMR logging. An additional 16 locations were suggested by NDEP in their Modification No. 3 approval letter. Some NMR tests were not conducted due to accessibility difficulties, obstructions or casing curvature within older wells, artesian conditions, or having been plugged and abandoned. Many of the wells selected for NMR logging were installed as part of the NERT RI (Phases 1, 2, and 3) and the Downgradient Study Area investigation. Several previously existing wells were also added to supplement older boring log data. At clustered well locations, the deepest well was selected. As the RI scope expanded, additional wells installed per RI modifications were added to the NMR logging program. In all, NMR logging was conducted in approximately 268 wells. Results of the NMR logging conducted during the RI are discussed in detail in Appendix E. Additional NMR logging was conducted by Tetra Tech as detailed in their Unit Building investigation report (Tetra Tech 2019).

NMR technology can be used in open or PVC-cased wells to provide high-resolution downhole estimates of hydraulic conductivity, total water content, and relative pore-size distributions below the water table. The NMR signal is emitted directly by hydrogen nuclei in groundwater and is only detected if groundwater is present. The NMR logging results have been compared with other data collected at these locations (e.g., slug tests, boring logs, and soil physical tests).

Ramboll used the NMR Javelin system developed by Vista Clara, Inc. (Vista Clara) to collect NMR data. The specific Javelin tool used depended on the diameter of the well because larger diameter wells require a larger tool that has a larger radius of investigation. At the beginning of the program Vista Clara provided Ramboll with onsite training using their Javelin system and provided support and data processing services throughout the program.

NMR testing was performed in accordance with the ASTM Standard E2977-15 (ASTM International 2015b). Prior to conducting each NMR test, the water level was measured manually with an electronic water level probe with an accuracy of ±0.01 foot to determine the static groundwater level. The NMR probe was then lowered to the bottom of the test well. The NMR logging was then initiated, and measurements were collected at every 0.5-meter interval from the bottom to just above the top of the water column. The accuracy of the NMR probe significantly decreases outside of the water column, therefore once the probe was above the water column the log was stopped. The data collected from NMR logging was then processed to develop logs that show the estimated hydraulic conductivity, lithology, and water content.

A1.8 SAMPLE HANDLING, DOCUMENTATION AND SHIPPING

Per the FSP, soil and groundwater samples were collected, handled, and stored in such a manner to ensure that they were representative of their original condition and chemical composition. Samples were maintained and shipped following routine chain-of-custody (COC) procedures and documentation to protect sample integrity.

Upon collection of samples, labelled sample containers were placed in Ziploc™ containers and placed in a garbage bag lined cooler. Coolers used to ship soil and groundwater samples were filled with Ziploc™ bags filled with ice in sufficient quantity to ensure samples were maintained at a temperature of 4° (±2) Celsius during shipment to the laboratory. Soil gas samples were collected into 1-liter or 6-liter, individually certified stainless-steel Summa™ canisters. The canisters were shipped to the laboratory in coolers that did not require ice.

Sample coolers were secured with COC documentation and submitted to the appropriate laboratories via courier and FedEx. Some samples with short holding times were shipped for same day delivery via Southwest Airlines. Samples collected for physical testing were shipped directly to the appropriate laboratories via FedEx.

A1.9 DECONTAMINATION

Drilling and soil sampling equipment (drill pipe and soil core barrels) were decontaminated between drilling locations using a high-pressure steam wash within a centralized decontamination pad on the NERT Site. Split-barrel samplers used to collect samples for VOC analyses were cleaned between samples with an Alconox™ wash followed by potable water rinse.

New sample tubing was used during low-flow and volumetric sampling except where existing dedicated pumps/tubing were present and accessible for the RI sampling. Other equipment, including water level meters, pumps, flow-through cells, etc. were decontaminated using a combination of steam cleaning and Alconox™ wash followed by a deionized water rinse. All decontamination fluid was retained within Blaine Tech or Cascade tanks and placed in the GW-11 Pond on the NERT Site for subsequent treatment in the on-site GWETS. Minor decontamination fluids created during decontamination of slug testing equipment or NMR equipment were retained in 5-gallon buckets and were emptied into the GW-11 Pond for subsequent treatment in the on-site GWETS.

A1.10 MANAGEMENT OF INVESTIGATION-DERIVED WASTE

IDW, including soil cuttings and logged soil core, was transported to the NERT Site and stored in lined and covered bulk storage containers (roll-off containers). To characterize the soils for off-site disposal for toxicity, corrosivity, and ignitability, composite soil samples were collected from every roll-off container and submitted to Eurofins TestAmerica. Composite IDW samples were analyzed for regulatory required parameters, parameters identified as a requirement of the disposal facility, and for known investigative COPCs. Upon approval for disposal, classified IDW containers were loaded directly onto trucks and transported under manifest for off-site disposal at Republic Services Apex Regional Landfill located in Las Vegas, Nevada.

Fluids produced during decontamination activities, well development, and groundwater sampling were transported to the NERT Site and discharged to the GW-11 Pond for subsequent treatment in the on-site GWETS.

A1.11 REFERENCES

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TABLES

TABLE A1-1. SURVEYED COORDINATES AND ELEVATIONS,
NEW SOIL BORINGS AND MONITORING WELLS - PHASE 1 RI
OU-1/OU-2 RI Report
Nevada Environmental Response Trust Site; Henderson, Nevada

Boring or Well ID	Date Surveyed	Nevada State Plane[1] (feet)		Elevation[2] (feet msl)	
		Y-coord (N)	X-coord (E)	Ground	TOC
Remedial Investigation Data Gap Soil Borings					
Area 2 - Soil Borings Between Debris Pile and Pond AP-5					
RISB-15	5/8/2015	26,719,525.95	827,763.33	1757.52	NA
RISB-16	5/8/2015	26,719,545.25	827,858.33	1758.03	NA
RISB-17	10/13/2014	26,719,560.07	827,979.93	1756.90	NA
RISB-18	5/8/2015	26,719,583.43	828,098.76	1756.07	NA
RISB-19	10/13/2014	26,719,603.51	828,218.13	1754.39	NA
RISB-20	5/8/2015	26,719,633.09	827,782.11	1754.17	NA
RISB-21	10/13/2014	26,719,652.30	827,901.56	1753.84	NA
RISB-22	10/13/2014	26,719,674.03	828,020.68	1753.80	NA
RISB-23	10/13/2014	26,719,695.76	828,139.70	1753.25	NA
RISB-24	10/13/2014	26,719,717.51	828,258.77	1752.81	NA
RISB-25	10/13/2014	26,719,722.78	827,704.16	1752.33	NA
RISB-26	10/13/2014	26,719,744.51	827,823.20	1752.26	NA
RISB-27	10/13/2014	26,719,766.43	827,942.27	1752.20	NA
RISB-28	10/13/2014	26,719,788.03	828,061.36	1751.78	NA
RISB-29	10/13/2014	26,719,809.85	828,180.44	1750.94	NA
Area 3 - Debris Pile Test Pits					
RIT-1	5/8/2015	26,719,849.65	828,481.66	1745.97	NA
RIT-2	5/8/2015	26,719,898.85	828,610.71	1749.66	NA
RIT-3	5/8/2015	26,719,832.79	828,549.13	1746.53	NA
Area 3 - Debris Pile Area Soil Borings					
RISB-9	10/13/2014	26,719,537.80	828,434.87	1757.96	NA
RISB-10	5/8/2015	26,719,681.80	828,416.47	1754.85	NA
RISB-11	10/13/2014	26,719,673.48	828,589.67	1752.98	NA
RISB-12A	5/8/2015	26,719,861.98	828,379.76	1742.36	NA
RISB-12B	5/8/2015	26,719,863.00	828,379.93	1742.08	NA
RISB-13	10/13/2014	26,719,799.18	828,682.61	1743.33	NA
RISB-14	5/8/2015	26,719,946.57	828,609.49	1745.15	NA
Area 4 - Soil Borings West of Pond Mn-1					
RISB-30	10/13/2014	26,718,842.10	828,453.69	1772.34	NA
RISB-31	10/13/2014	26,718,923.37	828,526.74	1771.85	NA
RISB-32	5/8/2015	26,718,876.50	828,353.19	1772.19	NA
RISB-33	10/13/2014	26,718,946.05	828,419.89	1770.69	NA
RISB-34	5/8/2015	26,719,023.40	828,500.93	1769.65	NA
RISB-35	5/8/2015	26,718,968.77	828,323.67	1770.47	NA
RISB-36	10/13/2014	26,719,049.95	828,386.07	1767.85	NA
RISB-37	10/13/2014	26,719,131.29	828,459.08	1766.35	NA

TABLE A1-1. SURVEYED COORDINATES AND ELEVATIONS, NEW SOIL BORINGS AND MONITORING WELLS - PHASE 1 RI
OU-1/OU-2 RI Report
Nevada Environmental Response Trust Site; Henderson, Nevada

Boring or Well ID	Date Surveyed	Nevada State Plane[1] (feet)		Elevation[2] (feet msl)	
		Y-coord (N)	X-coord (E)	Ground	TOC
Area 5 - Soil Borings North of WC-East Pond					
RISB-38	10/13/2014	26,720,933.21	827,827.00	1725.51	NA
RISB-39	10/13/2014	26,720,803.95	827,944.50	1728.41	NA
RISB-40	10/13/2014	26,720,793.32	828,054.95	1728.63	NA
RISB-41	10/13/2014	26,720,780.64	828,200.39	1730.73	NA
RISB-42	5/8/2015	26,721,062.55	827,804.35	1723.01	NA
RISB-43	10/13/2014	26,721,018.19	827,930.02	1723.94	NA
RISB-44	5/8/2015	26,720,966.47	828,052.86	1724.72	NA
RISB-45	5/8/2015	26,720,916.82	828,180.10	1726.60	NA
RISB-46	5/8/2015	26,720,907.17	828,315.64	1727.81	NA
RISB-47	5/8/2015	26,720,836.61	828,433.42	1729.52	NA
RISB-48	5/8/2015	26,720,784.11	828,555.32	1729.13	NA
RISB-49	10/13/2015	26,721,149.91	827,907.92	1721.94	NA
Area 6 - Soil Borings Southwest of GW-11 Pond					
RISB-50	10/13/2014	26,719,726.35	826,341.33	1754.57	NA
RISB-51	10/13/2014	26,719,752.72	826,412.39	1752.71	NA
RISB-52	10/13/2014	26,719,857.74	826,444.80	1752.76	NA
Area 7 - Soil Borings Northwest of L'Hoist					
RISB-53	5/8/2015	26,718,448.06	827,606.56	1777.34	NA
RISB-54	5/8/2015	26,718,444.30	827,723.25	1778.64	NA
RISB-55	5/8/2015	26,718,454.84	827,802.58	1779.06	NA
Area 8a - Soil Borings North of the Unit Buildings					
RISB-56	5/8/2015	26,717,586.03	828,165.14	1812.40	NA
RISB-57	5/8/2015	26,717,604.90	828,599.91	1812.77	NA
Area 8b - Soil Borings in the Leach Plant Area					
RISB-58	5/8/2015	26,718,274.07	828,397.25	1796.59	NA
RISB-59	5/8/2015	26,718,126.08	828,580.22	1805.50	NA
RISB-60	5/8/2015	26,718,176.10	828,889.04	1798.45	NA
RISB-61	5/8/2015	26,717,984.05	828,403.17	1799.20	NA
RISB-62	5/8/2015	26,717,836.03	828,630.73	1798.53	NA
RISB-63	5/8/2015	26,717,894.25	828,902.54	1798.14	NA

TABLE A1-1. SURVEYED COORDINATES AND ELEVATIONS, NEW SOIL BORINGS AND MONITORING WELLS - PHASE 1 RI
OU-1/OU-2 RI Report
Nevada Environmental Response Trust Site; Henderson, Nevada

Boring or Well ID	Date Surveyed	Nevada State Plane[1] (feet)		Elevation[2] (feet msl)	
		Y-coord (N)	X-coord (E)	Ground	TOC
New Onsite Monitoring Wells					
Middle WBZ / Upper Muddy Creek Formation Wells					
M-161D	1/15/2015	26,719,894.08	827,237.39	1748.22	1750.26
M-162D	1/15/2015	26,719,954.88	827,774.02	1745.25	1747.27
M-186D	1/15/2015	26,718,347.70	829,025.58	1798.16	1800.81
Wells Near the Unit Buildings					
M-189	1/15/2015	26,717,101.09	828,371.74	1813.00	1812.48
M-190	1/15/2015	26,717,162.19	828,816.12	1813.36	1812.79
M-191	1/15/2015	26,717,253.84	828,087.42	1813.46	1812.84
M-192	1/15/2015	26,717,297.62	828,393.86	1813.03	1812.56
M-193	1/15/2015	26,717,398.56	828,805.73	1812.79	1812.56
New Offsite Monitoring Wells					
Downgradient Area Wells					
PC-134D	1/15/2015	26,728,169.62	828,857.19	1618.65	1618.39
PC-137D	1/15/2015	26,728,198.40	829,522.61	1618.71	1618.28
PC-151	1/15/2015	26,726,718.53	826,961.80	1638.86	1638.54
PC-152	1/15/2015	26,726,722.47	827,332.80	1637.38	1636.95
PC-153	1/15/2015	26,726,720.74	827,665.99	1636.10	1635.78
PC-154	1/15/2015	26,728,095.12	827,203.72	1625.23	1624.72
PC-158	1/15/2015	26,728,109.85	827,714.18	1620.49	1620.02
PC-159	1/15/2015	26,728,109.44	827,903.69	1620.86	1620.19
PC-160	1/15/2015	26,728,119.76	828,112.26	1617.00	1619.23
Las Vegas Wash Wells					
PC-155A	1/15/2015	26,734,078.00	830,687.23	1552.48	1555.54
PC-155B	1/15/2015	26,734,087.57	830,681.67	1552.77	1555.96
PC-156A	1/15/2015	26,733,839.62	831,227.78	1546.75	1549.68
PC-156B	1/15/2015	26,733,845.94	831,220.07	1546.97	1550.51
PC-157A	1/15/2015	26,733,942.99	831,609.81	1544.79	1547.95
PC-157B	1/15/2015	26,733,955.90	831,603.79	1544.77	1547.96

Notes:

(1) NAD83 FIPS Zone 2701

(2) Elevation is in feet, Mean Sea Level datum (NAVD 88).

Ground = Ground surface

TOC = Top of well casing

NA = Not Applicable

Surveying was conducted by Atkins North America, Inc., Licensed Land Surveyor.

TABLE A1-2. SURVEYED COORDINATES AND ELEVATIONS, NEW SOIL BORINGS AND MONITORING WELLS - PHASE 2 RI

OU-1/OU-2 RI Report

Nevada Environmental Response Trust Site; Henderson, Nevada

Boring or Well ID	Date Surveyed	Nevada State Plane[1] (feet)		Elevation[2] (feet msl)	
		Y-coord (N)	X-coord (E)	Ground	TOC
NERT Site (OU-1)					
Phase 2 RI On-Site Monitoring Wells (OU-1)					
M-5D	10/24/2017	26,720,001.76	826,166.58	1,744.95	1,747.53
M-14D	10/24/2017	26,719,391.63	827,043.47	1,758.39	1,760.67
M-21D	10/31/2017	26,718,312.55	827,818.90	1,787.89	1,789.79
M-22D	10/24/2017	26,719,521.24	828,294.81	1,756.90	1,758.83
M-36D	10/24/2017	26,719,581.91	828,052.50	1,756.41	1,758.65
M-65D	10/24/2017	26,719,756.15	827,909.54	1,752.30	1,754.50
M-66D	10/24/2017	26,719,797.14	828,165.83	1,751.72	1,754.00
M-72D	10/24/2017	26,719,974.69	828,139.65	1,745.60	1,747.79
M-81D	10/25/2017	26,720,184.91	828,136.93	1,743.04	1,745.10
M-83D	10/25/2017	26,720,169.60	827,574.15	1,738.86	1,741.03
M-125D	10/24/2017	26,718,988.25	826,504.82	1,767.60	1,769.91
M-140D	10/24/2017	26,719,900.33	827,430.94	1,744.67	1,746.89
M-155	9/7/2017	26,720,827.89	827,635.70	1,728.14	1,727.66
M-195	10/25/2017	26,717,837.42	828,628.33	1,798.65	1,798.28
M-196	10/25/2017	26,717,993.22	828,400.10	1,799.29	1,798.79
M-197	10/25/2017	26,718,035.14	828,948.18	1,798.72	1,798.26
M-198	10/25/2017	26,718,193.69	828,454.23	1,797.49	1,796.88
M-199	10/25/2017	26,718,384.56	828,562.90	1,783.84	1,786.02
M-200	10/25/2017	26,718,880.05	828,830.26	1,772.83	1,772.50
M-201	10/24/2017	26,718,487.14	826,921.55	1,782.21	1,784.65
M-202	10/24/2017	26,719,081.31	826,856.19	1,765.32	1,767.88
M-203	10/24/2017	26,720,488.83	826,279.27	1,728.39	1,731.08
M-204	10/24/2017	26,720,995.04	826,060.48	1,732.57	1,732.06
M-205	10/24/2017	26,720,961.49	826,457.24	1,731.95	1,731.61
M-206	10/24/2017	26,720,918.32	826,915.80	1,731.10	1,730.78
M-207	10/24/2017	26,720,881.05	827,341.58	1,729.55	1,729.23
M-208	10/24/2017	26,720,850.40	827,657.20	1,729.32	1,728.82
M-209	10/24/2017	26,720,849.46	827,667.40	1,729.24	1,728.88
M-210	10/24/2017	26,720,849.08	827,677.41	1,729.31	1,728.90
M-211	10/24/2017	26,720,816.38	828,018.47	1,730.47	1,730.10
M-212	10/24/2017	26,720,814.73	828,028.20	1,730.54	1,730.22
M-213	10/24/2017	26,720,813.88	828,038.26	1,730.59	1,730.29
M-214	10/25/2017	26,720,699.96	828,348.83	1,741.19	1,740.77
M-215	10/25/2017	26,720,356.28	827,626.89	1,732.11	1,734.26
M-216	10/25/2017	26,720,336.24	827,874.36	1,732.15	1,734.18
M-217	10/25/2017	26,720,334.99	827,888.23	1,732.11	1,734.14
M-218	10/25/2017	26,720,333.89	827,902.51	1,732.04	1,734.13
M-219	10/25/2017	26,720,311.28	828,200.57	1,732.50	1,734.45

TABLE A1-2. SURVEYED COORDINATES AND ELEVATIONS, NEW SOIL BORINGS AND MONITORING WELLS - PHASE 2 RI

OU-1/OU-2 RI Report

Nevada Environmental Response Trust Site; Henderson, Nevada

Boring or Well ID	Date Surveyed	Nevada State Plane[1] (feet)		Elevation[2] (feet msl)	
		Y-coord (N)	X-coord (E)	Ground	TOC
M-220	10/25/2017	26,720,372.16	828,714.00	1,747.34	1,749.42
M-221	10/24/2017	26,719,758.81	827,921.37	1,752.32	1,754.35
M-222	10/24/2017	26,719,761.17	827,932.21	1,752.57	1,754.80
M-223	10/24/2017	26,718,329.67	826,881.59	1,779.78	1,782.39
M-224[3]	10/24/2017	26,718,329.30	826,890.78	1,779.85	1,782.37
M-224R[3]	1/25/2018	26,718,318.02	826,889.38	1,780.24	1,782.08
M-225[3]	10/24/2017	26,718,328.70	826,900.67	1,779.89	1,782.41
M-225R[3]	1/25/2018	26,718,318.23	826,902.09	1,780.29	1,782.22
M-226	10/24/2017	26,718,092.20	826,918.76	1,786.36	1,785.92
M-227[3]	10/24/2017	26,718,101.72	826,917.56	1,786.28	1,785.98
M-227R[3]	1/25/2018	26,718,103.47	826,926.18	1,786.32	1,785.83
M-228[3]	10/24/2017	26,718,111.82	826,916.53	1,786.17	1,785.84
M-228R	1/25/2018	26,718,112.40	826,924.83	1,786.18	1,785.78
M-229	10/24/2017	26,718,914.25	827,086.96	1,757.45	1,760.14
M-230	10/24/2017	26,718,917.59	827,096.04	1,757.50	1,759.95
M-231	10/24/2017	26,718,922.06	827,105.43	1,757.48	1,760.03
M-232	10/24/2017	26,718,258.66	827,400.86	1,783.36	1,786.07
M-233	10/25/2017	26,718,454.52	827,763.29	1,779.40	1,781.29
M-234	10/31/2017	26,717,762.10	826,979.25	1,794.51	1,797.14
M-235	10/24/2017	26,717,567.87	827,152.10	1,797.53	1,799.90
M-236	10/24/2017	26,717,824.98	827,361.64	1,797.85	1,797.94
M-237	10/25/2017	26,717,397.48	827,336.81	1,812.58	1,815.00
M-238	10/24/2017	26,717,394.02	827,360.46	1,813.08	1,816.05
M-239	10/24/2017	26,717,451.14	827,750.78	1,813.46	1,813.09
M-240	10/25/2017	26,717,455.23	827,769.53	1,813.53	1,813.07
M-242	10/24/2017	26,720,223.63	826,141.84	1,736.11	1,738.65
M-243	10/24/2017	26,720,225.17	826,153.06	1,736.02	1,738.56
M-244	10/24/2017	26,720,226.19	826,163.98	1,736.13	1,738.52
M-245	10/24/2017	26,720,216.21	826,443.78	1,736.66	1,739.21
M-246	10/24/2017	26,720,216.81	826,454.71	1,736.63	1,739.24
M-260	2/7/2019	26,720,995.70	826,068.43	1,732.41	1,732.04
M-261	2/7/2019	26,720,962.44	826,445.91	1,731.97	1,731.86
M-262	2/7/2019	26,720,961.98	826,451.33	1,731.94	1,731.77
M-263	2/7/2019	26,720,917.97	826,925.32	1,731.00	1,730.71
M-264	2/7/2019	26,720,917.35	826,930.96	1,730.95	1,730.76
M-265	2/7/2019	26,720,880.76	827,346.35	1,729.51	1,729.02
M-266	2/7/2019	26,720,879.77	827,355.08	1,729.44	1,729.06
M-267	2/21/2019	26,720,707.77	828,348.44	1,741.19	1,740.75
M-268	2/21/2019	26,720,705.02	828,352.04	1,741.26	1,740.71
M-269	2/7/2019	26,719,342.53	827,621.77	1,761.02	1,763.74

TABLE A1-2. SURVEYED COORDINATES AND ELEVATIONS, NEW SOIL BORINGS AND MONITORING WELLS - PHASE 2 RI

OU-1/OU-2 RI Report

Nevada Environmental Response Trust Site; Henderson, Nevada

Boring or Well ID	Date Surveyed	Nevada State Plane[1] (feet)		Elevation[2] (feet msl)	
		Y-coord (N)	X-coord (E)	Ground	TOC
M-270	2/7/2019	26,719,348.66	827,620.00	1,760.73	1,763.58
M-271	2/7/2019	26,719,355.55	827,618.80	1,760.54	1,763.43
M-39R	2/21/2019	26,719,533.15	828,543.36	1,757.02	1,758.91
Phase 2 RI On-Site Soil Borings (OU-1)					
RI-1	1/11/2017	26,718,637.27	826,552.12	1,775.85	NA
RI-2	1/11/2017	26,718,065.12	826,600.27	1,784.48	NA
RI-3	1/11/2017	26,718,325.91	826,874.80	1,779.79	NA
RI-4	1/11/2017	26,718,094.64	826,856.08	1,785.87	NA
RI-5	1/11/2017	26,718,921.27	827,100.89	1,757.65	NA
RI-6	11/15/2017	26,718,687.85	827,150.87	1,774.44	NA
RI-7	1/11/2017	26,718,510.55	827,221.86	1,781.19	NA
RI-8	1/11/2017	26,718,221.38	827,046.38	1,785.28	NA
RI-9	1/11/2017	26,718,388.88	827,393.37	1,779.75	NA
RI-10	1/11/2017	26,718,156.40	827,315.12	1,786.13	NA
RI-11	6/13/2017	26,718,716.55	827,693.91	1,782.29	NA
RI-12	11/15/2017	26,718,454.88	827,802.60	1,779.18	NA
RI-13	6/13/2017	26,718,275.72	827,861.17	1,786.97	NA
RI-14	6/13/2017	26,718,779.75	828,025.96	1,780.33	NA
RI-15	6/13/2017	26,718,417.68	828,136.17	1,792.28	NA
RI-16	1/11/2017	26,719,069.33	828,077.18	1,757.44	NA
RI-17	11/15/2017	26,718,821.38	828,268.71	1,774.41	NA
RI-18	1/11/2017	26,717,763.31	826,990.50	1,794.52	NA
RI-19	1/11/2017	26,717,538.62	827,096.74	1,797.99	NA
RI-20	1/11/2017	26,717,984.45	827,312.35	1,798.16	NA
RI-21	1/11/2017	26,717,788.59	827,436.35	1,798.25	NA
RI-22	11/15/2017	26,716,965.38	827,357.62	1,813.20	NA
RI-23	11/15/2017	26,717,008.73	827,840.74	1,812.84	NA
RI-24	1/11/2017	26,717,336.99	827,057.83	1,812.92	NA
RI-25	1/11/2017	26,717,390.95	827,402.89	1,812.88	NA
RI-26	11/15/2017	26,717,452.40	827,760.48	1,813.17	NA
RI-27	6/13/2017	26,717,146.90	827,300.92	1,812.12	NA
RI-28	6/13/2017	26,717,199.29	827,655.09	1,812.68	NA
RIDB-1	1/9/2017	26,720,750.35	826,093.74	1,727.69	NA
RIDB-2	11/13/2017	26,720,768.68	826,283.55	1,728.39	NA
RIDB-3	1/9/2017	26,720,750.49	826,450.03	1,728.84	NA
RIDB-4	1/9/2017	26,720,513.95	826,137.44	1,728.72	NA
RIDB-5	1/9/2017	26,720,521.37	826,460.90	1,728.50	NA
RIDB-6	1/9/2017	26,720,212.29	826,152.02	1,736.60	NA
RIDB-7	1/9/2017	26,720,204.94	826,450.19	1,737.16	NA
RIDB-8	1/9/2017	26,719,898.22	827,539.70	1,745.75	NA

TABLE A1-2. SURVEYED COORDINATES AND ELEVATIONS, NEW SOIL BORINGS AND MONITORING WELLS - PHASE 2 RI

OU-1/OU-2 RI Report

Nevada Environmental Response Trust Site; Henderson, Nevada

Boring or Well ID	Date Surveyed	Nevada State Plane[1] (feet)		Elevation[2] (feet msl)	
		Y-coord (N)	X-coord (E)	Ground	TOC
RIDB-9	1/9/2017	26,719,920.14	827,700.41	1,746.94	NA
RIDB-10	1/11/2017	26,719,963.65	828,046.08	1,747.12	NA
RIDB-11	6/13/2017	26,720,011.23	828,353.32	1,742.86	NA
RIDB-12	6/13/2017	26,720,026.92	828,524.04	1,741.24	NA
RIDB-13	1/9/2017	26,720,006.51	827,611.21	1,744.07	NA
RIDB-14	1/11/2017	26,720,036.26	827,888.19	1,744.52	NA
RIDB-15	1/11/2017	26,720,071.00	828,155.28	1,744.82	NA
RIDB-16	1/11/2017	26,720,073.97	827,511.89	1,742.18	NA
RIDB-17	1/11/2017	26,720,110.22	827,979.02	1,743.21	NA
RIDB-18	1/11/2017	26,720,155.55	828,289.70	1,743.11	NA
RIDB-19	1/11/2017	26,720,203.06	828,482.95	1,741.28	NA
RIDB-20	1/11/2017	26,720,148.18	827,570.94	1,739.64	NA
RIDB-21	1/11/2017	26,720,254.86	827,680.73	1,732.63	NA
RIDB-22	1/11/2017	26,720,261.64	827,844.60	1,732.67	NA
RIDB-23	1/11/2017	26,720,259.73	827,995.34	1,732.60	NA
RIDB-24	1/11/2017	26,720,309.29	828,351.90	1,732.47	NA
RIDB-25	1/11/2017	26,720,342.98	828,527.55	1,732.52	NA
RIDB-26	1/11/2017	26,720,529.78	828,375.77	1,731.54	NA
RIDB-27	1/11/2017	26,720,200.18	828,743.21	1,746.21	NA
RIDB-28	1/11/2017	26,720,372.23	828,714.02	1,747.06	NA
RIDB-29	6/13/2017	26,720,626.66	828,645.71	1,735.76	NA
NERT Off-Site RI Study Area (OU-2)					
Phase 2 RI Off-Site Monitoring Wells (OU-2)					
PC-153R[4]	9/7/2017	26,726,723.98	827,665.62	1,636.07	1,635.67
PC-161	10/20/2017	26,726,014.91	827,259.81	1,645.06	1,644.82
PC-162	10/20/2017	26,725,991.61	827,698.77	1,644.52	1,644.18
PC-163	10/20/2017	26,725,983.51	828,746.75	1,643.24	1,642.79
PC-164	10/20/2017	26,725,990.28	829,707.27	1,646.46	1,646.12
PC-165	10/23/2017	26,725,165.16	826,389.35	1,660.46	1,660.13
PC-166	10/20/2017	26,725,168.00	827,154.57	1,656.06	1,655.80
PC-167	10/20/2017	26,724,669.72	828,620.96	1,659.27	1,658.99
PC-168	4/26/2018	26,724,613.40	829,464.63	1,664.01	1,663.66
PC-169	10/20/2017	26,724,817.60	829,957.74	1,663.32	1,662.85
PC-170[5]	8/16/2017	26,723,994.94	826,301.63	1,677.34	1,677.12
PC-170R[5]	12/4/2017	26,724,010.94	826,301.40	1,676.96	1,676.77
PC-171	10/20/2017	26,723,883.43	826,951.90	1,675.98	1,675.57
PC-172	10/23/2017	26,723,849.65	829,763.03	1,677.87	1,677.52
PC-172D	4/26/2018	26,723,849.60	829,770.40	1,677.87	1,677.47
PC-173[6]	8/16/2017	26,723,015.54	826,206.72	1,692.23	1,692.02
PC-174	10/23/2017	26,722,709.81	828,531.19	1,695.99	1,695.58

TABLE A1-2. SURVEYED COORDINATES AND ELEVATIONS, NEW SOIL BORINGS AND MONITORING WELLS - PHASE 2 RI

OU-1/OU-2 RI Report

Nevada Environmental Response Trust Site; Henderson, Nevada

Boring or Well ID	Date Surveyed	Nevada State Plane[1] (feet)		Elevation[2] (feet msl)	
		Y-coord (N)	X-coord (E)	Ground	TOC
PC-175	10/23/2017	26,722,813.93	829,294.08	1,693.07	1,692.76
PC-176	4/26/2018	26,726,728.60	828,508.70	1,633.52	1,633.19
PC-177	10/20/2017	26,727,152.97	829,465.29	1,628.09	1,627.72
PC-179	10/23/2017	26,723,708.18	827,911.03	1,675.45	1,675.12
PC-180	8/16/2017	26,722,685.90	826,665.53	1,696.44	1,696.08
PC-181	8/16/2017	26,722,686.53	826,672.32	1,696.43	1,696.22
PC-182	8/16/2017	26,722,686.70	826,679.20	1,696.45	1,696.19
PC-183	8/16/2017	26,722,688.73	826,911.43	1,695.38	1,694.72
PC-184	8/16/2017	26,722,689.07	826,918.12	1,695.55	1,695.24
PC-185	8/16/2017	26,722,689.54	826,925.52	1,695.48	1,695.18
PC-186	10/20/2017	26,722,690.91	827,649.97	1,694.02	1,693.40
PC-187[7]	8/16/2017	26,722,690.91	827,649.97	1,694.02	1,693.40
PC-187R[7]	12/4/2017	26,722,191.90	827,122.59	1,703.72	1,703.47
PC-188	10/20/2017	26,721,422.85	827,786.61	1,717.15	1,716.71
PC-189	10/20/2017	26,721,326.40	828,286.76	1,718.70	1,718.34
PC-190	10/20/2017	26,726,372.97	827,758.31	1,640.12	1,639.80
PC-192	10/23/2017	26,723,971.86	828,787.63	1,674.04	1,673.74
PC-193	10/20/2017	26,725,983.28	828,735.61	1,643.19	1,642.84
PC-194	10/20/2017	26,726,725.63	828,017.92	1,634.85	1,634.49
PC-195	10/23/2017	26,728,440.41	828,659.53	1,612.93	1,615.34
PC-196	10/23/2017	26,728,468.17	829,063.83	1,612.93	1,615.44
PC-197	10/23/2017	26,728,648.39	829,518.00	1,610.40	1,609.79
Phase 2 RI Off-Site Soil Borings (OU-2)					
PCDB-4	10/23/2017	26,728,468.17	829,063.83	1,612.93	NA
PCDB-5	10/23/2017	26,728,648.39	829,518.00	1,610.40	NA
PCDB-6	4/26/2018	26,726,728.60	828,508.70	1,633.52	NA
PCDB-7	10/20/2017	26,727,152.97	829,465.29	1,628.09	NA
PCDB-8	10/23/2017	26,723,971.86	828,787.63	1,674.04	NA
PCDB-9	11/13/2017	26,722,945.25	827,177.94	1,689.38	NA
PCDB-10	8/16/2017	26,722,473.38	826,457.92	1,701.13	NA
PCDB-11	8/16/2017	26,722,514.91	826,850.84	1,698.82	NA
PCDB-12	8/16/2017	26,722,319.19	826,745.94	1,702.80	NA
PCDB-13	8/16/2017	26,722,168.80	826,627.24	1,705.95	NA
PCDB-14	10/20/2017	26,721,422.85	827,786.61	1,717.15	NA
Phase 2 Other Surveyed Replacement Wells and Retrofitted Wells (OU-2)[8]					
H-49R	10/20/2017	26,723,484.52	826,517.55	1,684.04	1,683.66
H-56R	10/20/2017	26,724,009.15	825,845.28	1,678.98	1,678.96
H-58R	10/20/2017	26,723,131.96	825,282.33	1,694.82	1,694.45
MC-MW-37R2	12/4/2017	26,722,135.65	826,160.14	1,709.13	1,708.80
MC-65R2	12/4/2017	26,722,147.29	826,131.63	1,708.90	1,708.60

TABLE A1-2. SURVEYED COORDINATES AND ELEVATIONS, NEW SOIL BORINGS AND MONITORING WELLS - PHASE 2 RI

OU-1/OU-2 RI Report
Nevada Environmental Response Trust Site; Henderson, Nevada

Boring or Well ID	Date Surveyed	Nevada State Plane[1] (feet)		Elevation[2] (feet msl)	
		Y-coord (N)	X-coord (E)	Ground	TOC
PC-40R	12/4/2017	26,723,920.75	826,511.22	1,677.56	1,677.45
PC-71	4/26/2018	26,722,688.14	826,805.39	1,695.98	1,695.61
PC-72	4/26/2018	26,722,688.85	826,604.45	1,696.70	1,696.50
M-44	4/26/2018	26,722,699.07	827,005.56	1,695.63	1,695.32
M-152	4/26/2018	26,722,690.68	826,973.35	1,695.46	1,695.39
M-156	4/26/2018	26,722,690.76	826,964.16	1,695.53	1,695.52
PC-21A	4/26/2018	26,721,336.20	829,267.35	1,722.50	1,722.11
NERT Off-Site RI Study Area (OU-3)					
Phase 2 RI Off-Site Monitoring Wells (OU-3)					
PC-178	10/23/2017	26,730,239.00	829,662.32	1,595.12	1,595.03
PC-191	10/23/2017	26,728,788.95	828,201.37	1,602.35	1,601.93
Phase 2 RI Off-Site Soil Borings in (OU-3)					
PCDB-1	11/13/2017	26,732,227.78	830,290.68	1,575.94	NA
PCDB-2	11/13/2017	26,732,187.00	830,613.52	1,575.24	NA
PCDB-3	11/13/2017	26,732,112.15	830,977.94	1,574.67	NA

Notes:

(1) NAD83 FIPS Zone 2701

(2) Elevation is in feet, Mean Sea Level datum (NAVD 88).

Ground = Ground surface

TOC = Top of well casing

(3) Wells M-224, M-225, M-227, and M-228 were compromised, were decommissioned per Nevada regulations, and were replaced by stainless steel wells M-224R, M-225R, M-227R, and M-228R.

(4) PC-153R replaced Phase 1 well PC-153 that was destroyed by street construction activity. PC-153 was decommissioned per Nevada regulations.

(5) PC-170R replaced PC-170. Drilling was conducted by Eagle Drilling per the direction of Landwell. Eagle decommissioned PC-170 per Nevada regulations.

(6) PC-173 was a temporary well; it was not replaced after being decommissioned per Nevada regulations.

(7) Several wells were deommissioned, replaced, and altered based on sale of the Parcel A/B property and the NERT well repair program. These wells were re-surveyed.

NA = Not Applicable

Surveying was conducted by Atkins North America, Inc., Licensed Land Surveyor.

TABLE A1-3. SURVEYED COORDINATES AND ELEVATIONS, NEW SOIL BORINGS AND MONITORING WELLS - PHASE 3 RI
OU-1/OU-2 RI Report
Nevada Environmental Response Trust Site; Henderson, Nevada

Boring or Well ID	Date Surveyed	Nevada State Plane[1] (feet)		Elevation[2] (feet msl)	
		Y-coord (N)	X-coord (E)	Ground	TOC
Eastside Sub-Area (OU-2)					
Phase 3 RI Monitoring Wells (OU-2)					
ES-1	1/25/2018	26,720,247.99	831,068.03	1,753.54	1,755.57
ES-2	1/25/2018	26,721,263.23	831,474.03	1,736.23	1,738.06
ES-3	1/25/2018	26,721,654.03	830,702.56	1,722.66	1,724.66
ES-4	1/25/2018	26,721,583.57	831,228.81	1,726.94	1,728.79
ES-5	1/25/2018	26,723,491.09	831,093.61	1,690.42	1,692.31
ES-6	1/25/2018	26,725,467.31	830,695.51	1,658.65	1,660.84
ES-7	1/25/2018	26,725,608.57	833,810.27	1,678.43	1,680.45
ES-8A	3/29/2018	26,724,135.49	835,755.84	1,716.68	1,718.86
ES-8B	3/29/2018	26,724,142.40	835,743.11	1,716.60	1,718.56
ES-9	3/29/2018	26,726,278.80	835,860.89	1,681.57	1,681.15
ES-10	3/29/2018	26,728,252.65	831,010.98	1,621.27	1,620.87
ES-11	3/29/2018	26,728,619.00	832,629.88	1,621.90	1,621.60
ES-12	1/25/2018	26,729,785.84	832,743.14	1,605.18	1,607.24
ES-13	1/25/2018	26,728,997.78	834,911.16	1,630.62	1,632.52
ES-14A[3]	3/29/2018	26,727,285.70	835,854.81	1,661.45	1,661.71
ES-14B[3]	3/29/2018	26,727,300.91	835,854.75	1,661.17	1,661.33
ES-15	3/29/2018	26,728,091.96	836,663.80	1,655.28	1,654.91
ES-16	3/29/2018	26,728,120.10	837,795.33	1,660.84	1,660.56
ES-17	3/29/2018	26,728,096.46	838,317.31	1,666.55	1,666.15
ES-18	3/29/2018	26,728,133.54	839,215.94	1,679.58	1,679.25
ES-19	3/29/2018	26,728,425.58	840,084.16	1,685.46	1,685.15
ES-20	3/29/2018	26,727,738.94	840,584.03	1,716.20	1,718.10
ES-28	1/25/2018	26,720,624.95	833,324.53	1,758.96	1,761.00
ES-29[4]	1/25/2018	26,721,162.00	835,197.47	1,763.49	1,765.54
ES-30	1/25/2018	26,725,401.87	831,683.05	1,665.33	1,667.45
ES-31	1/25/2018	26,726,968.30	832,204.06	1,643.92	1,646.08
ES-32	3/29/2018	26,723,507.75	832,493.20	1,695.93	1,697.91
ES-33	5/10/2018	26,727,819.66	830,688.49	1,623.97	1,626.39
ES-34	5/10/2018	26,727,878.60	831,294.61	1,627.42	1,630.03
ES-35	5/10/2018	26,727,994.68	831,812.43	1,625.92	1,628.35
ES-36	5/10/2018	26,728,075.74	832,531.15	1,628.61	1,630.83
ES-37	6/14/2019	26,727,252.08	830,634.29	1,631.56	1,634.21
ES-38	6/14/2019	26,727,641.10	831,828.20	1,625.48	1,628.11
ES-39	6/14/2019	26,727,422.09	832,407.53	1,635.06	1,637.87

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Boring or Well ID	Date Surveyed	Nevada State Plane[1] (feet)		Elevation[2] (feet msl)	
		Y-coord (N)	X-coord (E)	Ground	TOC
ES-40	2/7/2019	26,727,820.26	830,695.81	1,623.87	1,626.51
ES-41	2/7/2019	26,727,877.34	831,287.95	1,627.59	1,629.54
ES-42	2/7/2019	26,728,076.75	832,538.42	1,628.70	1,631.53
ES-43	2/7/2019	26,727,649.55	831,830.20	1,625.57	1,628.25
ES-44	2/7/2019	26,727,880.89	831,301.61	1,627.54	1,630.16
ES-53	9/10/2021	26,728,071.39	834,152.28	1,641.98	1,641.61
ES-54	9/10/2021	26,728,072.86	835,431.09	1,647.80	1,647.87
Phase 3 RI Soil Borings (OU-2)					
ESB-1	1/22/2018	26,722,632.08	832,872.78	1,712.89	NA
ESB-1X	1/22/2018	26,722,602.47	832,980.72	1,712.69	NA
ESB-2	11/28/2017	26,723,709.00	832,506.19	1,695.14	NA
ES-2-PB1	1/22/2018	26,721,268.09	831,470.75	1,735.44	NA
ES-2-PB2	1/22/2018	26,721,262.79	831,462.36	1,735.40	NA
ES-2-PB3	1/22/2018	26,721,275.92	831,474.78	1,735.06	NA
ESB-3	11/28/2017	26,724,847.97	831,820.38	1,673.13	NA
ESB-4	11/28/2017	26,725,197.42	832,700.51	1,674.00	NA
ESB-5	11/28/2017	26,725,197.35	834,882.47	1,694.28	NA
ESB-6	11/28/2017	26,725,197.44	835,685.83	1,702.58	NA
ESB-7	11/28/2017	26,726,565.02	831,389.53	1,643.45	NA
ESB-8	11/28/2017	26,726,021.80	833,480.71	1,665.98	NA
ESB-9	11/28/2017	26,726,702.68	834,443.24	1,666.76	NA
ESB-10	3/19/2018	26,726,258.69	837,065.03	1,693.16	NA
ESB-11	11/28/2017	26,726,159.18	838,046.75	1,703.61	NA
ESB-12	3/19/2018	26,726,905.43	837,949.39	1,684.16	NA
ESB-13	11/29/2017	26,727,283.23	831,294.72	1,635.03	NA
ESB-14	4/26/2018	26,729,127.93	831,749.10	1,610.54	NA
ESB-15	11/29/2017	26,729,079.05	832,463.81	1,613.70	NA
ESB-16	11/29/2017	26,728,021.62	833,419.38	1,636.28	NA
ESB-17	11/29/2017	26,728,059.08	834,189.53	1,642.22	NA
ESB-18	11/29/2017	26,728,070.79	835,145.54	1,646.98	NA
Phase 3 RI Paleochannel Transect Soil Borings (OU-2)					
Transect A					
TB-A1	4/26/2018	26,728,108.27	831,391.71	1,623.63	NA
TB-A2	11/29/2017	26,728,160.47	831,588.88	1,622.65	NA
TB-A3	11/29/2017	26,728,203.15	831,764.23	1,623.49	NA
TB-A3A	2/28/2018	26,728,225.04	831,852.47	1,624.03	NA
TB-A3B	2/28/2018	26,728,235.65	831,894.03	1,624.33	NA

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		Y-coord (N)	X-coord (E)	Ground	TOC
TB-A3C	2/28/2018	26,728,241.35	831,917.66	1,624.08	NA
TB-A4	11/29/2017	26,728,245.69	831,939.81	1,624.08	NA
TB-A4A	2/28/2018	26,728,253.00	831,972.11	1,623.90	NA
TB-A4C	2/28/2018	26,728,255.60	832,012.55	1,625.11	NA
TB-A5	11/29/2017	26,728,289.96	832,168.08	1,625.50	NA
TB-A6	11/29/2017	26,728,330.72	832,290.73	1,624.05	NA
Transect B					
TB-B00	3/19/2018	26,729,001.09	834,805.31	1,630.47	NA
TB-B0	2/28/2018	26,729,039.16	835,036.16	1,628.71	NA
TB-B1	11/29/2017	26,729,048.34	835,139.74	1,627.45	NA
TB-B2	11/29/2017	26,729,056.24	835,198.14	1,627.64	NA
TB-B3	11/29/2017	26,729,067.51	835,282.97	1,628.48	NA
TB-B3A	2/28/2018	26,729,072.44	835,326.21	1,628.98	NA
TB-B4	11/29/2017	26,729,078.96	835,369.62	1,628.77	NA
TB-B5	11/29/2017	26,729,090.22	835,453.51	1,628.15	NA
TB-B6	11/29/2017	26,729,099.46	835,522.97	1,629.67	NA
Transect C					
TB-C0	4/26/2018	26,727,851.04	836,476.79	1,659.00	NA
TB-C1	3/19/2018	26,727,852.14	836,536.80	1,659.10	NA
TB-C2	3/19/2018	26,727,853.14	836,597.67	1,659.40	NA
TB-C2A	3/19/2018	26,727,853.86	836,627.87	1,659.64	NA
TB-C3	3/19/2018	26,727,854.25	836,657.48	1,659.83	NA
TB-C3A	3/19/2018	26,727,855.53	836,687.68	1,660.36	NA
TB-C4	3/19/2018	26,727,856.43	836,718.12	1,660.20	NA
TB-C5	3/19/2018	26,727,858.22	836,777.81	1,660.47	NA
TB-C6	3/19/2018	26,727,858.46	836,837.98	1,659.67	NA
Transect E					
TB-E1	11/28/2017	26,724,448.65	830,712.17	1,673.40	NA
TB-E2	11/28/2017	26,724,530.46	830,712.21	1,672.59	NA
TB-E3	11/28/2017	26,724,594.79	830,712.15	1,671.69	NA
TB-E3A	4/26/2018	26,724,674.22	830,711.64	1,670.60	NA
TB-E3B	4/26/2018	26,724,655.77	830,709.97	1,670.69	NA
TB-E4	11/28/2017	26,724,693.93	830,712.13	1,669.53	NA
TB-E5	11/28/2017	26,724,775.68	830,712.30	1,666.12	NA
TB-E6	11/28/2017	26,724,857.43	830,712.14	1,667.01	NA

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Boring or Well ID	Date Surveyed	Nevada State Plane[1] (feet)		Elevation[2] (feet msl)	
		Y-coord (N)	X-coord (E)	Ground	TOC
Transect F					
TB-F1	11/28/2017	26,722,804.74	830,720.75	1,699.48	NA
TB-F2	11/28/2017	26,722,869.45	830,720.71	1,697.48	NA
TB-F3	11/28/2017	26,722,934.09	830,720.62	1,697.33	NA
TB-F3A	1/22/2018	26,722,965.45	830,723.62	1,695.88	NA
TB-F3B	1/22/2018	26,722,977.58	830,722.90	1,695.54	NA
TB-F4	1/22/2018	26,722,987.91	830,721.11	1,695.07	NA
TB-F4A	1/22/2018	26,723,014.05	830,719.75	1,694.59	NA
TB-F4B	1/22/2018	26,723,031.54	830,720.15	1,694.08	NA
TB-F5	11/28/2017	26,723,063.48	830,720.41	1,693.99	NA
TB-F6	11/28/2017	26,723,128.26	830,720.39	1,694.28	NA
Transect G					
TB-G1	4/26/2018	26,719,330.09	832,592.22	1,786.26	NA
TB-G2	11/28/2017	26,719,294.90	832,270.66	1,784.45	NA
TB-G3	11/28/2017	26,719,301.88	832,335.03	1,784.74	NA
TB-G4	11/28/2017	26,719,308.99	832,399.40	1,785.20	NA
TB-G4A	2/28/2018	26,719,312.92	832,424.83	1,785.43	NA
TB-G4B	2/28/2018	26,719,313.92	832,442.26	1,785.84	NA
TB-G5	11/28/2017	26,719,316.07	832,463.77	1,786.14	NA
TB-G5A	2/28/2018	26,719,317.62	832,482.35	1,786.27	NA
TB-G5B	2/28/2018	26,719,320.41	832,501.90	1,786.51	NA
TB-G6	11/28/2017	26,719,323.11	832,528.12	1,786.22	NA
Northeast Sub-Area (OU-3)					
Phase 3 RI Monitoring Wells (OU-3)					
ES-21A	10/25/2018	26,730,354.03	836,764.30	1,593.82	1,593.44
ES-21B	10/25/2018	26,730,362.32	836,761.38	1,593.57	1,593.01
ES-22A	10/25/2018	26,729,378.29	838,215.09	1,640.48	1,640.00
ES-22B	10/25/2018	26,729,386.04	838,219.47	1,640.18	1,639.56
ES-23A	10/25/2018	26,730,541.86	840,103.88	1,602.52	1,602.09
ES-23B	10/25/2018	26,730,539.18	840,112.56	1,602.46	1,602.05
ES-24	10/25/2018	26,731,540.00	838,489.46	1,562.74	1,562.20
ES-25A	4/26/2018	26,732,670.29	838,620.20	1,532.00	1,534.12
ES-25B	4/26/2018	26,732,670.53	838,629.68	1,532.14	1,534.06
ES-26	4/26/2018	26,733,027.08	839,156.96	1,532.66	1,534.74

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		Y-coord (N)	X-coord (E)	Ground	TOC
ES-27	4/26/2018	26,733,933.52	839,754.54	1,539.45	1,541.88
ES-45	8/28/2019	26,732,696.41	839,162.84	1,532.61	1,535.31
ES-46	8/28/2019	26,732,696.91	839,179.73	1,532.58	1,535.09
ES-47	8/28/2019	26,732,719.16	839,463.80	1,533.30	1,535.72
ES-48	8/28/2019	26,732,719.59	839,477.18	1,533.50	1,535.72
ES-49	8/28/2019	26,732,719.83	839,485.42	1,533.30	1,535.92
ES-50	8/28/2019	26,732,703.08	839,601.91	1,533.87	1,536.19
ES-51	8/28/2019	26,732,721.86	839,716.68	1,533.92	1,536.52
ES-52	8/28/2019	26,732,717.80	839,728.95	1,534.12	1,536.78
Phase 3 RI Soil Borings (OU-3)					
ESB-24	8/28/2019	26,732,696.91	839,170.47	1,532.60	NA
ESB-25	8/28/2019	26,732,719.38	839,470.45	1,533.10	NA
ESB-26	8/28/2019	26,732,702.30	839,608.83	1,533.61	NA
ESB-27	8/28/2019	26,732,720.25	839,721.91	1,533.77	NA
Phase 3 RI Paleochannel Transect Soil Borings (OU-3)					
Transect D					
TB-D1	2/28/2018	26,732,674.21	839,796.63	1,535.39	NA
TB-D2	2/28/2018	26,732,672.63	839,714.85	1,533.92	NA
TB-D3	2/28/2018	26,732,671.02	839,633.12	1,533.82	NA
TB-D4	2/28/2018	26,732,669.27	839,551.48	1,533.75	NA
TB-D5	2/28/2018	26,732,667.51	839,469.67	1,533.46	NA
TB-D6	2/28/2018	26,732,665.93	839,387.78	1,533.21	NA
TB-D7	3/19/2018	26,732,664.10	839,305.21	1,533.20	NA
NERT Off-Site Study Area (OU-3)					
Phase 3 RI Monitoring Wells (OU-3)					
ES-55C	9/13/2021	26,731,528.12	831,732.58	1,578.82	1,578.28
ES-56A	9/3/2021	26,731,814.86	832,552.08	1,569.94	1,569.39
ES-56B	9/2/2021	26,731,814.25	832,547.61	1,570.04	1,569.69
ES-56C	9/8/2021	26,731,813.08	832,542.42	1,569.88	1,569.43
ES-57A	11/30/2021	26,731,460.68	834,773.45	1,564.53	1,564.13
ES-57B	12/3/2021	26,731,455.66	834,771.59	1,564.65	1,564.38
ES-58A	11/30/2021	26,729,762.87	835,238.23	1,591.08	1,590.75
ES-58B	11/30/2021	26,729,759.13	835,241.41	1,591.23	1,590.81
PC-94D	10/28/2021	26,733,123.08	832,183.14	1,549.91	1,549.12
PC-157C	10/21/2021	26,733,952.90	831,612.18	1,545.32	1,548.17
PC-198	8/28/2019	26,733,075.32	831,215.66	1,554.29	1,553.99
PC-199	8/28/2019	26,733,078.35	831,225.50	1,553.96	1,553.36
PC-203	9/14/2021	26,733,144.60	830,838.28	1,554.66	1,557.04
PC-204	8/24/2021	26,733,188.52	831,273.88	1,550.78	1,550.51
PC-205A	11/22/2021	26,733,646.83	831,399.62	1,549.48	1,549.12

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		Y-coord (N)	X-coord (E)	Ground	TOC
PC-205B	11/23/2021	26,733,653.78	831,405.08	1,549.52	1,549.00
Phase 3 RI Soil Borings (OU-3)					
PCDB-15	8/28/2019	26,733,043.39	831,034.88	1,554.42	NA
PCDB-16	8/28/2019	26,733,083.56	831,218.98	1,553.28	NA
PCDB-17	8/28/2019	26,733,084.40	831,843.42	1,552.06	NA
ES-55	8/18/2021	26,731,520.19	831,728.85	1,578.85	NA
ES-56	8/17/2021	26,731,820.69	832,570.89	1,569.97	NA
ES-57	10/22/2021	26,731,465.50	834,775.70	1,564.50	NA
ES-58	10/20/2021	26,729,767.32	835,233.38	1,590.94	NA
PC-205	10/7/2021	26,733,660.16	831,410.31	1,549.42	NA
PC-94D_PB	8/19/2021	26,733,122.18	832,192.97	1,549.64	NA
Downgadient Study Area (OU-3)					
Phase 3 RI Monitoring Wells (OU-3)					
NERT3.35S1	4/26/2019	26,738,372.78	845,391.59	1,470.53	1,470.44
NERT3.40S1	4/16/2019	26,738,206.49	845,198.15	1,474.87	1,474.58
NERT3.58N1	4/23/2019	26,738,048.58	844,188.45	1,476.55	1,476.49
NERT3.58S1	3/28/2019	26,737,583.50	844,695.30	1,474.51	1,474.30
NERT3.58S1A	4/24/2019	26,737,588.02	844,690.03	1,474.98	1,474.53
NERT3.58S1B	4/24/2019	26,737,593.51	844,702.73	1,474.33	1,473.94
NERT3.58S1C	4/25/2019	26,737,579.78	844,700.21	1,474.64	1,474.27
NERT3.60N1	4/9/2019	26,737,827.79	844,016.02	1,483.14	1,483.08
NERT3.60S1	3/27/2019	26,737,409.27	844,579.55	1,478.48	1,478.23
NERT3.60S1A	4/23/2019	26,737,412.04	844,575.89	1,478.60	1,478.50
NERT3.60S1B	4/22/2019	26,737,416.28	844,585.91	1,478.50	1,478.24
NERT3.60S1C	4/23/2019	26,737,396.28	844,596.77	1,479.16	1,478.74
NERT3.60S1D	4/22/2019	26,737,431.86	844,597.60	1,478.38	1,478.31
NERT3.60S2	9/16/2021	26,737,402.48	844,575.23	1,478.42	1,478.28
NERT3.63S1	4/17/2019	26,737,071.55	844,152.61	1,461.96	1,461.78
NERT3.80S1	4/4/2019	26,736,780.10	843,700.76	1,461.09	1,460.54
NERT3.94N1	12/17/2021	26,737,318.57	842,708.11	1,494.72	1,494.59
NERT3.98S1	4/2/2019	26,736,678.95	842,522.48	1,466.49	1,466.27
NERT4.21N1	4/4/2019	26,736,954.70	841,309.13	1,502.29	1,502.07
NERT4.29N1	12/15/2021	26,737,449.89	840,793.63	1,504.00	1,503.72
NERT4.29N2	12/14/2021	26,737,449.01	840,788.21	1,504.04	1,503.62
NERT4.38N1	4/4/2019	26,737,140.64	840,337.59	1,505.27	1,505.04
NERT4.51S1	4/4/2019	26,735,857.15	840,138.03	1,506.79	1,506.24
NERT4.64N1	4/4/2019	26,736,269.47	839,271.62	1,511.88	1,511.58
NERT4.64S1	3/26/2019	26,735,740.74	839,508.39	1,513.21	1,513.00
NERT4.64S1A	4/26/2019	26,735,746.28	839,506.16	1,512.95	1,512.73

TABLE A1-3. SURVEYED COORDINATES AND ELEVATIONS, NEW SOIL BORINGS AND MONITORING WELLS - PHASE 3 RI
OU-1/OU-2 RI Report
Nevada Environmental Response Trust Site; Henderson, Nevada

Boring or Well ID	Date Surveyed	Nevada State Plane[1] (feet)		Elevation[2] (feet msl)	
		Y-coord (N)	X-coord (E)	Ground	TOC
NERT4.64S1B	4/26/2019	26,735,747.15	839,522.29	1,513.04	1,512.55
NERT4.64S1C	4/26/2019	26,735,735.18	839,510.44	1,513.32	1,512.98
NERT4.64S1D	4/25/2019	26,735,756.29	839,544.60	1,512.90	1,512.63
NERT4.65N1	4/10/2019	26,736,244.72	839,107.82	1,513.34	1,513.01
NERT4.70N1	4/11/2019	26,736,143.64	838,871.67	1,515.37	1,514.91
NERT4.71N1	4/5/2019	26,736,123.87	838,600.29	1,519.06	1,518.72
NERT4.71S1	4/25/2019	26,735,349.66	838,991.63	1,519.64	1,519.29
NERT4.71S2	4/1/2019	26,735,408.27	838,770.32	1,518.59	1,518.22
NERT4.93S1	4/25/2019	26,734,990.31	837,979.18	1,523.83	1,523.33
NERT5.11S1	4/25/2019	26,734,881.04	837,144.38	1,523.18	1,522.88
NERT5.11S2	10/25/2021	26,734,884.50	837,153.66	1,523.12	1,522.65
NERT5.15S1	5/5/2022	26,733,892.03	837,311.97	1,527.83	1,527.63
NERT5.15S2	5/4/2022	26,733,894.21	837,294.40	1,527.73	1,527.71
NERT5.20S1	11/5/2021	26,734,625.01	836,595.95	1,532.03	1,531.60
NERT5.20S2	11/15/2021	26,734,625.22	836,605.38	1,532.11	1,531.71
NERT5.20S3	11/18/2021	26,734,624.96	836,615.48	1,532.08	1,531.79
NERT5.26N1	12/13/2021	26,735,579.06	836,158.38	1,526.17	1,525.62
NERT5.49S1	4/25/2019	26,734,325.76	835,451.85	1,543.73	1,543.37
NERT5.49S2	10/27/2021	26,734,335.89	835,451.69	1,543.87	1,543.24
NERT5.63S1	11/8/2021	26,733,643.74	834,948.54	1,542.59	1,542.10
NERT5.63S2	11/8/2021	26,733,644.87	834,943.56	1,542.65	1,542.15
NERT5.63S3	11/9/2021	26,733,646.21	834,939.06	1,542.65	1,542.14
NERT5.80S1	12/28/2021	26,733,470.23	834,115.79	1,543.47	1,543.05
NERT5.80S2	12/27/2021	26,733,469.68	834,103.96	1,543.52	1,543.17
NERT5.83N1	12/8/2021	26,734,560.75	833,483.92	1,542.13	1,541.75
NERT5.91S1	4/26/2019	26,733,845.83	833,571.59	1,537.10	1,536.76
NERT5.91S2	10/21/2021	26,733,844.42	833,566.89	1,537.29	1,536.92
NERT5.91S3	10/22/2021	26,733,846.86	833,576.69	1,537.04	1,536.71
NERT5.98S1	10/29/2021	26,733,541.35	832,840.58	1,543.37	1,542.58
NERT5.98S2	11/5/2021	26,733,542.24	832,851.02	1,543.21	1,542.69
NERT6.21N1	12/7/2021	26,734,613.41	831,951.28	1,544.23	1,543.72
NERT-FM01A	12/22/2021	26,737,421.83	835,616.11	1,562.93	1,562.57
NERT-FM01B	12/22/2021	26,737,421.82	835,625.86	1,562.79	1,562.29
NERT-FM02A	12/22/2021	26,737,456.24	837,437.07	1,550.00	1,549.48
Phase 3 RI Soil Borings (OU-3)					
NERT3.94N	10/18/2021	26,737,318.88	842,701.31	1,494.76	NA
NERT4.29N	10/15/2021	26,737,447.51	840,779.97	1,503.99	NA
NERT5.20S	10/11/2021	26,734,629.30	836,610.23	1,532.12	NA
NERT5.26N	10/12/2021	26,735,579.15	836,162.47	1,525.95	NA

TABLE A1-3. SURVEYED COORDINATES AND ELEVATIONS, NEW SOIL BORINGS AND MONITORING WELLS - PHASE 3 RI
OU-1/OU-2 RI Report
Nevada Environmental Response Trust Site; Henderson, Nevada

Boring or Well ID	Date Surveyed	Nevada State Plane[1] (feet)		Elevation[2] (feet msl)	
		Y-coord (N)	X-coord (E)	Ground	TOC
NERT5.63S	10/6/2021	26,733,648.89	834,945.86	1,542.75	NA
NERT5.80S	10/27/2021	26,733,473.45	834,109.78	1,543.81	NA
NERT5.83N	10/13/2021	26,734,558.13	833,488.01	1,542.34	NA
NERT5.98S	10/5/2021	26,733,538.02	832,845.95	1,543.25	NA
NERT6.21N	10/12/2021	26,734,615.10	831,946.99	1,544.31	NA
NERT-FM01	10/14/2021	26,737,417.66	835,621.24	1,562.81	NA
NERT-FM02	10/19/2021	26,737,451.77	837,435.39	1,549.47	NA
Phase 3 RI Paleochannel Transect Soil Borings (OU-3)					
Transect H					
TB-H1	10/7/2021	26,733,460.08	834,033.50	1,543.28	NA
TB-H2	10/8/2021	26,733,461.59	834,059.45	1,542.85	NA
TB-H3	10/11/2021	26,733,464.68	834,085.60	1,543.09	NA
TB-H4	10/11/2021	26,733,464.76	834,108.48	1,543.06	NA
TB-H5	10/12/2021	26,733,465.44	834,132.87	1,543.03	NA
TB-H6	10/12/2021	26,733,467.74	834,153.93	1,543.11	NA
Transect I					
TB-I1	10/13/2021	26,733,900.07	837,294.10	1,527.65	NA
TB-I2	10/13/2021	26,733,896.78	837,312.23	1,527.56	NA
TB-I3	10/14/2021	26,733,893.29	837,333.01	1,527.32	NA
TB-I4	10/14/2021	26,733,902.51	837,277.02	1,527.92	NA
TB-I5	10/15/2021	26,733,904.10	837,259.35	1,528.20	NA
TB-I6	10/15/2021	26,733,907.02	837,238.99	1,528.10	NA

Notes:

(1) NAD83 FIPS Zone 2701

(2) Elevation is in feet, Mean Sea Level datum (NAVD 88).
Ground = Ground surface
TOC = Top of well casing

(3) Wells ES-14A and ES-14B were lowered post-construction as planned, completed flush-with-grade, and re-surveyed in September 2019.

(4) Well ES-29 was decommissioned after collection of the second planned round of groundwater sampling per the request of Landwell due to residential construction. A replacement well was not installed.

NA = Not Applicable

Surveying was conducted by Atkins North America, Inc., Licensed Land Surveyor.

TABLE A1-4. SURVEYED COORDINATES AND ELEVATIONS, SOIL GAS PROBE LOCATIONS

OU-1/OU-2 RI Report

Nevada Environmental Response Trust Site; Henderson, Nevada

Boring or Well ID	Date Surveyed	Nevada State Plane[1] (feet)		Elevation[2] (feet msl)	
		Y-coord (N)	X-coord (E)	Ground	TOC
NERT Site (OU-1)					
RISG-10	6/28/2019	26,719,501.90	826,571.50	1,756.77	NA
RISG-11	6/28/2019	26,718,985.50	826,513.32	1,767.81	NA
RISG-12	6/28/2019	26,718,387.77	826,513.81	1,777.04	NA
RISG-13	8/28/2019	26,718,484.45	827,588.37	1,776.08	NA
RISG-14	4/22/2019	26,717,246.77	828,088.10	1,813.61	NA
RISG-15	4/22/2019	26,717,291.29	828,395.33	1,812.99	NA
RISG-16 [3]	4/22/2019	26,717,348.66	828,318.86	1,805.43	NA
RISG-17 [3]	4/22/2019	26,717,325.09	828,171.65	1,805.33	NA
RISG-18 [3]	4/22/2019	26,717,220.32	828,186.18	1,805.51	NA
RISG-19 [3]	4/22/2019	26,717,245.76	828,336.63	1,805.44	NA
RISG-20	8/28/2019	26,718,001.98	828,398.46	1,798.93	NA
RISG-21	8/28/2019	26,718,833.80	828,509.23	1,773.05	NA
RISG-22	8/28/2019	26,718,772.67	828,026.61	1,780.48	NA
RISG-23	6/28/2019	26,719,064.73	828,078.60	1,757.49	NA
RISG-24	6/28/2019	26,719,969.89	828,137.74	1,745.43	NA
RISG-25	6/28/2019	26,720,219.62	826,150.60	1,736.38	NA
RISG-26	6/28/2019	26,718,314.67	826,896.27	1,779.80	NA
RISG-31	8/28/2019	26,721,419.72	825,830.19	1,723.43	NA
RISG-32	8/28/2019	26,721,574.26	825,900.88	1,720.07	NA
RISG-33	8/28/2019	26,721,504.64	825,563.39	1,722.12	NA
RISG-34	8/28/2019	26,721,911.19	825,458.79	1,710.31	NA
RISG-79	1/6/2020	26,720,346.36	827,628.88	1,732.09	NA
RISG-80	1/6/2020	26,719,903.97	826,347.02	1,748.99	NA
RISG-81	1/6/2020	26,719,910.93	827,348.84	1,745.35	NA
RISG-82	1/6/2020	26,719,745.04	827,713.32	1,752.32	NA
RISG-83	1/6/2020	26,719,322.68	826,339.08	1,762.67	NA
RISG-84	1/6/2020	26,718,229.87	826,436.51	1,781.88	NA
RISG-85	1/6/2020	26,718,325.13	827,640.10	1,791.36	NA
RISG-86	1/21/2020	26,717,403.22	827,449.36	1,813.78	NA
RISG-87	1/21/2020	26,717,147.23	827,292.83	1,812.31	NA
RISG-88	1/6/2020	26,717,185.48	827,682.88	1,812.52	NA
RISG-89	1/21/2020	26,717,398.30	828,803.75	1,812.89	NA
RISG-90	1/6/2020	26,716,648.71	827,669.47	1,827.50	NA
NERT Off-Site RI Study Area (OU-2)					
RISG-1	6/28/2019	26,723,849.33	829,207.37	1,674.38	NA
RISG-2	6/28/2019	26,726,734.46	829,524.62	1,633.98	NA
RISG-3	6/28/2019	26,721,333.16	829,266.14	1,722.51	NA
RISG-4	6/28/2019	26,723,847.93	829,765.54	1,677.82	NA
RISG-5	6/28/2019	26,724,814.45	829,957.16	1,663.45	NA
RISG-6	6/28/2019	26,728,143.15	829,676.00	1,618.48	NA
RISG-7	6/28/2019	26,724,667.21	828,621.31	1,659.31	NA

TABLE A1-4. SURVEYED COORDINATES AND ELEVATIONS, SOIL GAS PROBE LOCATIONS

OU-1/OU-2 RI Report

Nevada Environmental Response Trust Site; Henderson, Nevada

Boring or Well ID	Date Surveyed	Nevada State Plane[1] (feet)		Elevation[2] (feet msl)	
		Y-coord (N)	X-coord (E)	Ground	TOC
RISG-8	6/28/2019	26,723,706.57	827,913.24	1,675.54	NA
RISG-9	6/28/2019	26,725,169.96	827,153.60	1,656.17	NA
RISG-27	6/28/2019	26,721,323.07	828,287.70	1,718.90	NA
RISG-28	6/28/2019	26,722,688.54	827,650.54	1,693.98	NA
RISG-29	6/28/2019	26,722,814.22	829,291.83	1,693.12	NA
RISG-30	6/28/2019	26,726,726.99	828,327.12	1,633.47	NA
RISG-52	12/20/2019	26,728,303.90	829,324.60	1,619.75	NA
RISG-53	12/20/2019	26,727,323.83	829,039.60	1,624.56	NA
RISG-54	12/20/2019	26,727,360.67	829,489.40	1,626.79	NA
RISG-55	12/20/2019	26,726,731.07	828,954.66	1,633.72	NA
RISG-56	12/20/2019	26,726,736.83	830,131.12	1,636.51	NA
RISG-57	12/20/2019	26,726,403.38	829,347.95	1,639.21	NA
RISG-58	12/20/2019	26,726,082.02	829,554.60	1,644.73	NA
RISG-59	12/20/2019	26,726,052.33	830,072.35	1,646.55	NA
RISG-60	12/20/2019	26,725,824.32	829,724.64	1,650.08	NA
RISG-61	12/20/2019	26,725,373.13	828,525.61	1,651.18	NA
RISG-62	12/20/2019	26,725,446.43	829,085.23	1,651.84	NA
RISG-63	12/20/2019	26,725,446.23	830,189.36	1,657.35	NA
RISG-64	12/20/2019	26,725,200.16	829,509.09	1,657.42	NA
RISG-65	12/20/2019	26,724,865.00	827,749.07	1,659.25	NA
RISG-66	12/20/2019	26,724,879.40	829,263.39	1,657.62	NA
RISG-67	12/20/2019	26,725,053.13	829,933.91	1,660.29	NA
RISG-68	12/20/2019	26,724,363.52	829,651.24	1,668.44	NA
RISG-69	12/20/2019	26,723,969.62	828,785.49	1,674.03	NA
RISG-70	12/20/2019	26,723,293.40	828,746.21	1,683.15	NA
RISG-71	12/20/2019	26,723,315.90	829,181.51	1,683.37	NA
RISG-72	12/20/2019	26,723,319.97	829,906.79	1,686.58	NA
RISG-73	12/20/2019	26,722,970.13	828,563.41	1,689.53	NA
RISG-74	12/20/2019	26,723,069.83	829,750.27	1,689.91	NA
RISG-75	12/20/2019	26,722,868.90	830,199.20	1,696.01	NA
RISG-76	12/20/2019	26,722,194.89	827,127.19	1,704.02	NA
RISG-77	12/20/2019	26,722,218.81	829,238.52	1,705.60	NA
RISG-78	12/20/2019	26,722,220.42	830,102.81	1,709.19	NA
NERT Off-Site Study Area (OU-3)					
Phase 3 RI Soil Gas Probes (OU-3)					
RISG-35	5/22/2020	26,728,792.27	828,203.36	1,602.39	NA
RISG-36	5/22/2020	26,730,205.11	829,114.80	1,596.75	NA
RISG-37	5/22/2020	26,728,611.00	829,461.69	1,615.47	NA
RISG-38	5/22/2020	26,729,269.30	830,677.10	1,607.86	NA
RISG-39	5/22/2020	26,729,288.78	830,032.18	1,605.26	NA
RISG-40	5/22/2020	26,729,663.52	830,691.65	1,604.10	NA
RISG-41	5/22/2020	26,729,917.92	831,632.00	1,596.55	NA

TABLE A1-4. SURVEYED COORDINATES AND ELEVATIONS, SOIL GAS PROBE LOCATIONS

OU-1/OU-2 RI Report

Nevada Environmental Response Trust Site; Henderson, Nevada

Boring or Well ID	Date Surveyed	Nevada State Plane[1] (feet)		Elevation[2] (feet msl)	
		Y-coord (N)	X-coord (E)	Ground	TOC
RISG-42	5/22/2020	26,730,352.84	831,163.68	1,597.52	NA
RISG-43	5/22/2020	26,730,214.59	830,444.89	1,594.32	NA
RISG-44	5/22/2020	26,730,228.94	829,941.97	1,593.62	NA
RISG-45	5/22/2020	26,731,395.43	830,543.92	1,579.38	NA
RISG-46	5/22/2020	26,731,242.04	832,027.41	1,583.81	NA
RISG-47	5/22/2020	26,731,949.79	832,047.10	1,574.72	NA
RISG-48	5/22/2020	26,732,296.41	830,636.18	1,573.41	NA
RISG-49	5/22/2020	26,733,092.54	832,188.97	1,550.77	NA
RISG-50	5/22/2020	26,734,080.97	830,682.07	1,552.75	NA
RISG-51	5/22/2020	26,733,554.81	829,029.89	1,567.15	NA
RISG-91	10/17/2022	26,728,951.96	829,627.42	1,607.42	NA
RISG-92	10/17/2022	26,729,643.58	829,819.80	1,601.97	NA

Notes:

(1) NAD83 FIPS Zone 2701

(2) Elevation is in feet, Mean Sea Level datum (NAVD 88).
Ground = Ground surface
TOC = Top of well casing

(3) RISG-16, 17, 18, and 19 were installed 5 ft below the Unit 4 Building basement slab.

NA = Not Applicable

Surveying was conducted by Atkins North America, Inc., Licensed Land Surveyor.

TABLE A1-5. NEW RI MONITORING WELL CONSTRUCTION DETAILS - PHASE 1 RI
OU-1/OU-2 RI Report
Nevada Environmental Response Trust Site; Henderson, Nevada

Well ID	Installed by	Date Installed	Ground Surface (ft msl)	TOC (ft msl)	Borehole Diameter (inches)	Borehole Depth (ft bgs)	Surface Cement Seal Interval (ft bgs)	Cement/ Bentonite Seal Interval (ft bgs)	Bentonite Pellet Seal Interval (ft bgs)	Filter Pack Interval (ft bgs)	Perforated Interval (ft bgs)	Well Casing Material	Slot Size (in.)	Filter Pack Sand Size
On-Site Wells (OU-1)														
M-161D	National EWP	12/5/14	1747.78	1750.26	8	150	0 - 15	15 - 123	123 - 128	128 - 141	130 - 140	4" Sch 40 PVC	0.010	#2/12
M-162D	National EWP	12/11/14	1745.25	1747.27	8	140	0 - 8	8 - 124	124 - 128	128 - 140	130 - 140	4" Sch 40 PVC	0.010	#2/12
M-186D	National EWP	12/10/14	1798.16	1800.81	8	179	0 - 10	10 - 147	147 - 151	151 - 173	153 - 173	4" Sch 40 PVC	0.010	#2/12
M-189	National EWP	12/2/14	1813.00	1812.48	6	51	NA	0 - 30	30 - 33	33 - 51	35 - 50	2" Sch 40 PVC	0.020	#3
M-190	National EWP	12/5/14	1813.36	1813.06	6	50	NA	0 - 30	30 - 33	33 - 50	35 - 50	2" Sch 40 PVC	0.020	#3
M-191	National EWP	12/1/14	1813.46	1813.11	6	51	NA	0 - 30	30 - 33	33 - 51	35 - 50	2" Sch 40 PVC	0.010	#3
M-192	National EWP	12/3/14	1813.03	1812.56	6	50	NA	0 - 30	30 - 33	33 - 50	35 - 50	2" Sch 40 PVC	0.020	#3
M-193	National EWP	12/4/14	1813.08	1812.56	6	50	NA	0 - 30	30 - 33	33 - 50	35 - 50	2" Sch 40 PVC	0.020	#3
Off-Site Wells (OU-2)														
PC-134D	National EWP	1/5/15	1618.65	1618.39	8	90	0 - 8	8 - 74	74 - 78	78 - 90	80 - 90	4" Sch 40 PVC	0.010	#2/12
PC-137D	National EWP	1/9/15	1618.71	1618.28	8	90	0 - 6	6 - 74	74 - 78	78 - 90	80 - 90	4" Sch 40 PVC	0.010	#2/12
PC-151	National EWP	12/17/14	1638.86	1638.54	6	30	NA	0 - 5	5 - 7	7 - 28	8 - 28	2" Sch 40 PVC	0.020	#3
PC-152	National EWP	12/16/14	1637.38	1637.03	6	31.5	NA	0 - 5	5 - 8	8 - 30	10 - 30	2" Sch 40 PVC	0.020	#3
PC-153	National EWP	12/15/14	1636.10	1635.78	6	40	0 - 6	NA	6 - 8	8 - 31	10 - 30	2" Sch 40 PVC	0.020	#3
PC-154	National EWP	12/18/14	1625.23	1624.72	6	30	0 - 5	NA	5 - 7	7 - 24	8 - 23	2" Sch 40 PVC	0.020	#3
PC-158	National EWP	11/6/14	1620.49	1620.02	6	23	0 - 1	1 - 3	3 - 5	5 - 23	7 - 22	2" Sch 40 PVC	0.020	#3
PC-159	National EWP	11/4/14	1620.86	1620.19	6	30	0 - 1	1 - 6	6 - 8	8 - 26	10 - 25	2" Sch 40 PVC	0.020	#3
PC-160	National EWP	11/7/14	1617.72	1619.23	6	30	0 - 5	NA	5 - 7	7 - 25	9 - 24	2" Sch 40 PVC	0.020	#3
Off-Site Wells (OU-3)														
PC-155A	National EWP	4/20/15	1552.48	1555.54	6	30	0 - 6	NA	6 - 8	8 - 30	10 - 30	2" Sch 40 PVC	0.020	#3
PC-155B	National EWP	4/20/15	1552.77	1556.06	6	50	0 - 5	5 - 33	33 - 36	36 - 48	38 - 48	2" Sch 40 PVC	0.020	#3
PC-156A	National EWP	4/22/15	1546.75	1549.68	6	20	0 - 5	NA	5 - 8	8 - 20	10 - 20	2" Sch 40 PVC	0.020	#3
PC-156B	National EWP	4/22/15	1547.12	1550.51	6	50	0 - 5	5 - 21	21 - 23	23 - 45	25 - 45	2" Sch 40 PVC	0.020	#3
PC-157A	National EWP	4/21/15	1544.79	1548.05	6	25	0 - 5	NA	5 - 7	7 - 24	9 - 24	2" Sch 40 PVC	0.020	#3
PC-157B	National EWP	4/21/15	1544.77	1548.04	6	50	0 - 5	5 - 20	20 - 28	28 - 40	30 - 40	2" Sch 40 PVC	0.020	#3

Notes:

All depths are in feet below ground surface (ft bgs).

ft msl = Elevation is in feet, Mean Sea Level datum (NAVD 88).

NA = Not Applicable

PVC = Polyvinyl Chloride

Where the borehole depth is deeper than the bottom of the filter pack, the open borehole interval beneath the filter pack was backfilled with bentonite pellets and/or slough prior to placement of the filter pack.

TABLE A1-6. NEW RI MONITORING WELL CONSTRUCTION DETAILS - PHASE 2 RI
OU-1/OU-2 RI Report
Nevada Environmental Response Trust Site; Henderson, Nevada

Well ID	Installed by	Date Installed	Ground Surface (ft msl)	TOC (ft msl)	Borehole Diameter (inches)	Borehole Depth (ft bgs)	Cement/ Bentonite Seal Interval (ft bgs)	Bentonite Pellet Seal Interval (ft bgs)	Filter Pack Interval (ft bgs)	Perforated Interval (ft bgs)	Well Casing Material	Slot Size (in.)	Filter Pack Sand Size
On-Site RI Wells (OU-1)													
M-5D	Cascade	2/21/2017	1744.95	1747.53	8	71	0 - 53	53 - 58	58 - 71	60 - 70	4" PVC	0.01	#2/12
M-14D	Cascade	3/26/2017	1758.39	1760.67	8	81	0 - 63	63 - 68	68 - 81	70 - 80	4" PVC	0.01	#2/12
M-21D	Cascade	4/12/2017	1787.89	1789.79	8	57	0 - 33	33 - 38	38 - 57	40 - 55	4" PVC	0.01	#2/12
M-22D	Cascade	2/11/2017	1756.90	1758.83	8	68	0 - 48	48 - 53	53 - 66	55 - 65	4" PVC	0.01	#2/12
M-36D	Cascade	3/26/2017	1756.41	1758.65	8	85	0 - 48	48 - 53	53 - 67	55 - 65	4" PVC	0.01	#2/12
M-39R[(1)]	Cascade	12/19/2018	1757.02	1758.91	8	41	0 - 18	18 - 23	23 - 41	25 - 40	4" PVC	0.01	#2/12
M-65D	Cascade	2/12/2017	1752.30	1754.50	8	71	0 - 53	53 - 58	58 - 71	60 - 70	4" PVC	0.01	#2/12
M-66D	Cascade	2/10/2017	1751.72	1754.00	8	71	0 - 53	53 - 58	58 - 71	60 - 70	4" PVC	0.01	#2/12
M-72D	Cascade	2/8/2017	1745.60	1747.79	8	71	0 - 53	53 - 58	58 - 71	60 - 70	4" PVC	0.01	#2/12
M-81D	Cascade	3/7/2017	1743.04	1745.10	8	71	0 - 53	53 - 58	58 - 71	60 - 70	4" PVC	0.01	#2/12
M-83D	Cascade	3/1/2017	1738.86	1741.03	8	71	0 - 53	53 - 58	58 - 71	60 - 70	4" PVC	0.01	#2/12
M-125D	Cascade	2/25/2017	1767.60	1769.91	8	71	0 - 53	53 - 58	58 - 71	60 - 70	4" PVC	0.01	#2/12
M-140D	Cascade	2/9/2017	1744.67	1746.89	8	71	0 - 53	53 - 58	58 - 71	60 - 70	4" PVC	0.01	#2/12
M-195	Cascade	7/18/2017	1798.65	1798.28	8	150	0 - 88	88 - 93	93 - 111	95 - 110	4" PVC	0.01	#2/12
M-196	Cascade	6/21/2017	1799.29	1798.79	8	150	0 - 83	83 - 88	88 - 106	90 - 105	4" PVC	0.01	#2/12
M-197	Cascade	7/13/2017	1798.72	1798.26	8	150	0 - 93	93 - 98	98 - 115	100 - 115	4" PVC	0.01	#2/12
M-198	Cascade	6/19/2017	1797.49	1796.88	8	150	0 - 93	93 - 98	98 - 118	100 - 115	4" PVC	0.01	#2/12
M-199	Cascade	6/27/2017	1783.84	1786.02	8	150	0 - 83	83 - 88	88 - 105	90 - 105	4" PVC	0.01	#2/12
M-200	Cascade	6/6/2017	1772.83	1772.50	8	121	0 - 90	90 - 95	95 - 112	97 - 112	4" PVC	0.01	#2/12
M-201	Cascade	2/27/2017	1782.21	1784.65	8	73	0 - 55	55 - 60	60 - 73	62 - 72	4" PVC	0.01	#2/12
M-202	Cascade	2/26/2017	1765.32	1767.88	8	56	0 - 33	33 - 38	38 - 56	40 - 55	4" PVC	0.01	#2/12
M-203	Cascade	3/14/2017	1728.39	1731.08	8	51	0 - 23	23 - 28	28 - 51	30 - 50	4" PVC	0.01	#2/12
M-204	Cascade	5/17/2017	1732.57	1732.06	8	111	0 - 93	93 - 98	98 - 111	100 - 110	4" PVC	0.01	#2/12
M-205	Cascade	5/10/2017	1731.95	1731.61	8	51	0 - 23	23 - 28	28 - 51	30 - 50	4" PVC	0.01	#2/12
M-206	Cascade	5/18/2017	1731.10	1730.78	8	51	0 - 23	23 - 28	28 - 51	30 - 50	4" PVC	0.01	#2/12
M-207	Cascade	5/23/2017	1729.55	1729.23	8	46	0 - 18	18 - 23	23 - 46	25 - 45	4" PVC	0.01	#2/12
M-208	Cascade	5/22/2017	1729.32	1728.82	8	46	0 - 18	18 - 23	23 - 46	25 - 45	4" PVC	0.01	#2/12
M-209	Cascade	5/21/2017	1729.24	1728.88	8	61	0 - 43	43 - 47	47 - 61	50 - 60	4" PVC	0.01	#2/12

TABLE A1-6. NEW RI MONITORING WELL CONSTRUCTION DETAILS - PHASE 2 RI
OU-1/OU-2 RI Report
Nevada Environmental Response Trust Site; Henderson, Nevada

Well ID	Installed by	Date Installed	Ground Surface (ft msl)	TOC (ft msl)	Borehole Diameter (inches)	Borehole Depth (ft bgs)	Cement/ Bentonite Seal Interval (ft bgs)	Bentonite Pellet Seal Interval (ft bgs)	Filter Pack Interval (ft bgs)	Perforated Interval (ft bgs)	Well Casing Material	Slot Size (in.)	Filter Pack Sand Size
M-210	Cascade	5/20/2017	1729.31	1728.90	8	83	0 - 63	63 - 68	68 - 83	70 - 80	4" PVC	0.01	#2/12
M-211	Cascade	5/18/2017	1730.47	1730.10	8	46	0 - 18	18 - 23	23 - 46	25 - 45	4" PVC	0.01	#2/12
M-212	Cascade	5/17/2017	1730.54	1730.22	8	72	0 - 53	53 - 58	58 - 72	60 - 70	4" PVC	0.01	#2/12
M-213	Cascade	5/10/2017	1730.59	1730.29	8	111	0 - 93	93 - 98	98 - 111	100 - 110	4" PVC	0.01	#2/12
M-214	Cascade	5/31/2017	1741.19	1740.77	8	51	0 - 23	23 - 28	28 - 51	30 - 50	4" PVC	0.01	#2/12
M-215	Cascade	3/28/2017	1732.11	1734.26	8	46	0 - 18	18 - 23	23 - 46	25 - 45	4" PVC	0.01	#2/12
M-216	Cascade	4/12/2017	1732.15	1734.18	8	46	0 - 18	18 - 23	23 - 46	25 - 45	4" PVC	0.01	#2/12
M-217	Cascade	4/7/2017	1732.11	1734.14	8	66	0 - 48	48 - 53	53 - 66	55 - 65	4" PVC	0.01	#2/12
M-218	Cascade	4/4/2017	1732.04	1734.13	8	111	0 - 93	93 - 98	98 - 111	100 - 110	4" PVC	0.01	#2/12
M-219	Cascade	3/29/2017	1732.50	1734.45	8	46	0 - 18	18 - 23	23 - 46	25 - 45	4" PVC	0.01	#2/12
M-220	Cascade	3/28/2017	1747.34	1749.42	8	71	0 - 53	53 - 58	58 - 71	60 - 70	4" PVC	0.01	#2/12
M-221	Cascade	2/13/2017	1752.32	1754.35	8	91	0 - 68	68 - 73	73 - 86	75 - 85	4" PVC	0.01	#2/12
M-222	Cascade	2/14/2017	1752.57	1754.80	8	111	0 - 93	93 - 98	98 - 111	100 - 110	4" PVC	0.01	#2/12
M-223	Cascade	7/17/2017	1779.78	1782.39	8	56	0 - 33	33 - 38	38 - 56	40 - 55	4" PVC	0.01	#2/12
M-224R	Cascade	1/21/2018	1780.24	1782.08	8	85	0 - 52	52 - 57	57 - 83	60 - 80	4" SS	0.01	#2/12
M-225R[(2)]	Cascade	1/19/2018	1780.29	1782.22	8	125	0 - 92	92 - 97	97 - 123	100 - 120	4" SS	0.01	#2/12
M-226	Cascade	7/15/2017	1786.36	1785.92	8	56	0 - 33	33 - 38	38 - 56	40 - 55	4" PVC	0.01	#2/12
M-227R[(2)]	Cascade	1/24/2018	1786.32	1785.83	8	85	0 - 52	52 - 57	57 - 82	60 - 80	4" SS	0.01	#2/12
M-228R[(2)]	Cascade	1/23/2018	1786.18	1785.78	8	119	0 - 88	88 - 93	93 - 119	96 - 116	4" SS	0.01	#2/12
M-229	Cascade	6/5/2017	1757.45	1760.14	8	57	0 - 33	33 - 38	38 - 57	40 - 55	4" PVC	0.01	#2/12
M-230	Cascade	6/29/2017	1757.50	1759.95	8	91	0 - 63	63 - 68	68 - 91	70 - 90	4" PVC	0.01	#2/12
M-231	Cascade	6/4/2017	1757.48	1760.03	8	121	0 - 93	93 - 98	98 - 121	100 - 120	4" PVC	0.01	#2/12
M-232	Cascade	7/15/2017	1783.36	1786.07	8	121	0 - 93	93 - 98	98 - 121	100 - 120	4" PVC	0.01	#2/12
M-233	Cascade	7/24/2017	1779.40	1781.29	8	121	0 - 93	93 - 98	98 - 121	100 - 120	4" PVC	0.01	#2/12
M-234	Cascade	6/30/2017	1794.51	1797.14	8	86	0 - 58	58 - 63	63 - 86	65 - 85	4" PVC	0.01	#2/12
M-235	Cascade	7/15/2017	1797.53	1799.90	8	106	0 - 78	78 - 83	83 - 106	85 - 105	4" PVC	0.01	#2/12
M-236	Cascade	7/11/2017	1797.85	1797.94	8	106	0 - 78	78 - 83	83 - 106	85 - 105	4" PVC	0.01	#2/12
M-237	Cascade	7/1/2017	1812.58	1815.00	8	61	0 - 38	38 - 43	43 - 61	45 - 60	4" PVC	0.01	#2/12
M-238	Cascade	7/14/2017	1813.08	1816.05	8	111	0 - 83	83 - 88	88 - 111	90 - 110	4" PVC	0.01	#2/12

TABLE A1-6. NEW RI MONITORING WELL CONSTRUCTION DETAILS - PHASE 2 RI
OU-1/OU-2 RI Report
Nevada Environmental Response Trust Site; Henderson, Nevada

Well ID	Installed by	Date Installed	Ground Surface (ft msl)	TOC (ft msl)	Borehole Diameter (inches)	Borehole Depth (ft bgs)	Cement/ Bentonite Seal Interval (ft bgs)	Bentonite Pellet Seal Interval (ft bgs)	Filter Pack Interval (ft bgs)	Perforated Interval (ft bgs)	Well Casing Material	Slot Size (in.)	Filter Pack Sand Size
M-239	Cascade	7/25/2017	1813.46	1813.09	8	86	0 - 58	58 - 63	63 - 86	65 - 85	4" PVC	0.01	#2/12
M-240	Cascade	7/26/2017	1813.53	1813.07	8	116	0 - 88	88 - 93	93 - 116	95 - 115	4" PVC	0.01	#2/12
M-242	Cascade	5/8/2017	1736.11	1738.65	8	55	0 - 31	31 - 36	36 - 55	38 - 53	4" PVC	0.01	#2/12
M-243	Cascade	5/8/2017	1736.02	1738.56	8	71	0 - 53	53 - 58	58 - 71	60 - 70	4" PVC	0.01	#2/12
M-244	Cascade	5/6/2017	1736.13	1738.52	8	131	0 - 83	83 - 88	88 - 106	90 - 105	4" PVC	0.01	#2/12
M-245	Cascade	5/8/2017	1736.66	1739.21	8	51	0 - 28	28 - 33	33 - 51	35 - 50	4" PVC	0.01	#2/12
M-246	Cascade	5/6/2017	1736.63	1739.24	8	71	0 - 53	53 - 58	58 - 71	60 - 70	4" PVC	0.01	#2/12
M-260	Cascade	11/28/2018	1732.41	1732.04	8	76	0 - 58	58 - 63	63 - 76	65 - 75	4" PVC	0.01	#2/12
M-261	Cascade	11/29/2018	1731.97	1731.86	8	76	0 - 53	53 - 58	58 - 76	60 - 75	4" PVC	0.01	#2/12
M-262	Cascade	11/30/2018	1731.94	1731.77	8	91	0 - 73	73 - 78	78 - 91	80 - 90	4" PVC	0.01	#2/12
M-263	Cascade	11/30/2018	1731.00	1730.71	8	71	0 - 53	53 - 58	58 - 71	60 - 70	4" PVC	0.01	#2/12
M-264	Cascade	12/3/2018	1730.95	1730.76	8	96	0 - 78	78 - 83	83 - 96	85 - 95	4" PVC	0.01	#2/12
M-265	Cascade	12/4/2018	1729.51	1729.02	8	71	0 - 53	53 - 58	58 - 71	60 - 70	4" PVC	0.01	#2/12
M-266	Cascade	12/5/2018	1729.44	1729.06	8	101	0 - 83	83 - 88	88 - 101	90 - 100	4" PVC	0.01	#2/12
M-267	Cascade	12/20/2018	1741.19	1740.75	8	96	0 - 73	73 - 78	78 - 96	80 - 95	4" PVC	0.01	#2/12
M-268	Cascade	12/11/2018	1741.26	1740.71	8	116	0 - 93	93 - 98	98 - 116	100 - 115	4" PVC	0.01	#2/12
M-269	Cascade	1/25/2019	1761.02	1763.74	8	71	0 - 53	53 - 58	58 - 71	60 - 70	4" PVC	0.01	#2/12
M-270	Cascade	1/24/2019	1760.73	1763.58	8	101	0 - 83	83 - 88	88 - 101	90 - 100	4" PVC	0.01	#2/12
M-271	Cascade	1/23/2019	1760.54	1763.43	8	136	0 - 118	118 - 123	123 - 136	125 - 135	4" PVC	0.01	#2/12
Off-Site RI Wells (OU-2)													
PC-153R[(3)]	Cascade	9/18/2017	1636.07	1635.67	8	31	0 - 1	1 - 8	8 - 31	10 - 30	2" PVC	0.02	#3
PC-161	Cascade	8/23/2017	1645.06	1644.82	6	51	0 - 1	1 - 7	7 - 35	9 - 34	2" PVC	0.02	#3
PC-162	Cascade	8/24/2017	1644.52	1644.18	6	55	0 - 1	1 - 8	8 - 45	10 - 45	2" PVC	0.02	#3
PC-163	Cascade	8/24/2017	1643.24	1642.79	6	26	0 - 1	1 - 8	8 - 26	10 - 25	2" PVC	0.02	#3
PC-164	Cascade	9/13/2017	1646.46	1646.12	8	40	0 - 8	8 - 13	13 - 31	15 - 30	2" PVC	0.02	#3
PC-165	Cascade	9/21/2017	1660.46	1660.13	8	39	0 - 1	1 - 11	11 - 38	13 - 38	2" PVC	0.02	#3
PC-166	Cascade	9/5/2017	1656.06	1655.80	6	46	0 - 1	1 - 10	10 - 33	12 - 32	2" PVC	0.02	#3
PC-167	Cascade	8/11/2017	1659.27	1658.99	6	36	0 - 8	8 - 13	13 - 36	15 - 35	2" PVC	0.02	#3
PC-168	Cascade	3/30/2018	1664.01	1663.66	6	45	0 - 1	1 - 13	13 - 36	15 - 35	2" PVC	0.02	#3

TABLE A1-6. NEW RI MONITORING WELL CONSTRUCTION DETAILS - PHASE 2 RI
OU-1/OU-2 RI Report
Nevada Environmental Response Trust Site; Henderson, Nevada

Well ID	Installed by	Date Installed	Ground Surface (ft msl)	TOC (ft msl)	Borehole Diameter (inches)	Borehole Depth (ft bgs)	Cement/ Bentonite Seal Interval (ft bgs)	Bentonite Pellet Seal Interval (ft bgs)	Filter Pack Interval (ft bgs)	Perforated Interval (ft bgs)	Well Casing Material	Slot Size (in.)	Filter Pack Sand Size
PC-169	Cascade	8/22/2017	1663.32	1662.85	6	36	0 - 1	1 - 13	13 - 31	15 - 30	2" PVC	0.02	#3
PC-170R[4]	Eagle	11/29/2017	1676.96	1676.77	8	51	0 - 9	9 - 12	12 - 51	15 - 50	2" PVC	0.02	#3
PC-171	Cascade	8/23/2017	1675.98	1675.57	8	46	0 - 1	1 - 13	13 - 30	15 - 30	2" PVC	0.02	#3
PC-172	Cascade	8/24/2017	1677.87	1677.52	6	36	0 - 1	1 - 7	7 - 25	9 - 24	2" PVC	0.02	#3
PC-172D	Cascade	3/29/2018	1677.87	1677.47	6	51	0 - 23	23 - 28	28 - 51	30 - 50	2" PVC	0.01	#2/12
PC-173[5]	Cascade	8/14/2017	1692.23	1692.02	6	51	0 - 8	8 - 13	13 - 51	15 - 50	2" PVC	0.02	#3
PC-174	Cascade	8/25/2017	1695.99	1695.58	6	31	0 - 1	1 - 8	8 - 26	10 - 25	2" PVC	0.02	#3
PC-175	Cascade	9/7/2017	1693.07	1692.76	6	41	0 - 1	1 - 12	12 - 40	14 - 39	2" PVC	0.02	#3
PC-176	Cascade	3/28/2018	1633.52	1633.19	8	90	0 - 53	53 - 58	58 - 76	60 - 75	4" PVC	0.01	#2/12
PC-177	Cascade	7/29/2017	1628.09	1627.72	8	90	0 - 38	38 - 43	43 - 60	45 - 60	4" PVC	0.01	#2/12
PC-179	Cascade	9/11/2017	1675.45	1675.12	8	51	0 - 28	28 - 33	33 - 51	35 - 50	4" PVC	0.01	#2/12
PC-180	Cascade	8/10/2017	1696.44	1696.08	8	46	0 - 28	28 - 33	33 - 46	35 - 45	4" PVC	0.01	#2/12
PC-181	Cascade	8/9/2017	1696.43	1696.22	8	86	0 - 48	48 - 53	53 - 66	55 - 65	4" PVC	0.01	#2/12
PC-182	Cascade	8/8/2017	1696.45	1696.19	8	86	0 - 68	68 - 73	73 - 86	75 - 85	4" PVC	0.01	#2/12
PC-183	Cascade	8/12/2017	1695.38	1694.72	8	46	0 - 28	28 - 33	33 - 46	35 - 45	4" PVC	0.01	#2/12
PC-184	Cascade	8/10/2017	1695.55	1695.24	8	66	0 - 48	48 - 53	53 - 66	55 - 65	4" PVC	0.01	#2/12
PC-185	Cascade	8/8/2017	1695.48	1695.18	8	86	0 - 68	68 - 73	73 - 86	75 - 85	4" PVC	0.01	#2/12
PC-186	Cascade	8/28/2017	1694.02	1693.40	8	36	0 - 13	13 - 18	18 - 36	20 - 35	4" PVC	0.01	#2/12
PC-187R[6]	Eagle	11/29/2017	1703.72	1703.47	8	56	0 - 40	40 - 43	43 - 56	45 - 55	4" PVC	0.02	#3
PC-188	Cascade	8/26/2017	1717.15	1716.71	8	91	0 - 43	43 - 48	48 - 61	50 - 60	4" PVC	0.01	#2/12
PC-189	Cascade	8/27/2017	1718.70	1718.34	8	61	0 - 43	43 - 48	48 - 61	50 - 60	4" PVC	0.01	#2/12
PC-190	Cascade	9/8/2017	1640.12	1639.80	6	51	0 - 1	1 - 12	12 - 35	14 - 34	2" PVC	0.02	#3
PC-192	Cascade	9/20/2017	1674.04	1673.74	8	90	0 - 28	28 - 33	33 - 50	35 - 50	4" PVC	0.01	#2/12
PC-193	Cascade	8/25/2017	1643.19	1642.84	8	51	0 - 28	28 - 33	33 - 51	35 - 50	4" PVC	0.01	#2/12
PC-194	Cascade	9/12/2017	1634.85	1634.49	8	63	0 - 35	35 - 40	40 - 61	44 - 59	4" PVC	0.01	#2/12
PC-195	Cascade	8/1/2017	1612.93	1615.34	8	76	0 - 53	53 - 58	58 - 76	60 - 75	4" PVC	0.01	#2/12
PC-196	Cascade	7/31/2017	1612.93	1615.44	8	91	0 - 53	53 - 58	58 - 75	60 - 75	4" PVC	0.01	#2/12
PC-197	Cascade	8/16/2017	1610.40	1609.79	8	90	0 - 53	53 - 58	58 - 75	60 - 75	4" PVC	0.01	#2/12

TABLE A1-6. NEW RI MONITORING WELL CONSTRUCTION DETAILS - PHASE 2 RI
OU-1/OU-2 RI Report
Nevada Environmental Response Trust Site; Henderson, Nevada

Well ID	Installed by	Date Installed	Ground Surface (ft msl)	TOC (ft msl)	Borehole Diameter (inches)	Borehole Depth (ft bgs)	Cement/ Bentonite Seal Interval (ft bgs)	Bentonite Pellet Seal Interval (ft bgs)	Filter Pack Interval (ft bgs)	Perforated Interval (ft bgs)	Well Casing Material	Slot Size (in.)	Filter Pack Sand Size
Off-Site RI Wells (OU-3)													
PC-178	Cascade	8/1/2017	1595.12	1595.03	8	75	0 - 48	48 - 53	53 - 71	55 - 70	4" PVC	0.01	#2/12
PC-191	Cascade	8/21/2017	1602.35	1601.93	6	31	0 - 1	1 - 8	8 - 26	10 - 25	2" PVC	0.02	#3

Notes:

All depths are in feet below ground surface (ft bgs).

ft msl = Elevation is in feet, Mean Sea Level datum (NAVD 88).
NA = Not Applicable
PVC = Polyvinyl Chloride. Unless indicated otherwise, Schedule 40 PVC well casing was installed.
SS = Stainless Steel

(1) M-39R replaced well M-39 on EMD leasehold property in December 2018 as part of the well repair program.
(2) Wells M-224, M-225, M-227, and M-228 were compromised, were decommissioned per Nevada regulations, and were replaced by stainless steel wells M-224R, M-225R, M-227R, and M-228R.
(3) PC-153R replaced Phase 1 well PC-153 that was destroyed by street construction activity. PC-153 was decommissioned per Nevada regulations.
(4) PC-170R replaced PC-170. Drilling was conducted by Eagle Drilling per the direction of Landwell. Eagle decommissioned PC-170 per Nevada regulations.
(5) PC-173 was a temporary well; it was not replaced after being decommissioned per Nevada regulations.
(6) PC-187R replaced PC-187. Drilling was conducted by Eagle Drilling per the direction of Landwell. Eagle decommissioned PC-187 per Nevada regulations.

Where the borehole depth is deeper than the bottom of the filter pack, the open borehole interval beneath the filter pack was backfilled with bentonite pellets and/or slough prior to placement of the filter pack.

TABLE A1-7. NEW RI MONITORING WELL CONSTRUCTION DETAILS - PHASE 3 RI
OU-1/OU-2 RI Report
Nevada Environmental Response Trust Site; Henderson, Nevada

Well ID	Installed by	Date Installed	Ground Surface (ft msl)	TOC (ft msl)	Borehole Diameter (inches)	Borehole Depth (ft bgs)	Cement/ Bentonite Seal Interval (ft bgs)	Bentonite Pellet Seal Interval (ft bgs)	Filter Pack Interval (ft bgs)	Perforated Interval (ft bgs)	Well Casing Material	Slot Size (in.)	Filter Pack Sand Size
Eastside Sub-Area Wells (OU-2)													
ES-1	Cascade	1/9/2018	1753.54	1755.57	8	120	0 - 88	88 - 93	93 - 111	95 - 110	4" PVC	0.01	#2/12
ES-2	Cascade	12/20/2017	1736.23	1738.06	8	65	0 - 28	28 - 33	33 - 56	35 - 55	4" PVC	0.01	#2/12
ES-3	Cascade	12/13/2017	1722.66	1724.66	8	46	0 - 18	18 - 23	23 - 46	25 - 45	4" PVC	0.02	#3
ES-4	Cascade	12/14/2017	1726.94	1728.79	8	120	0 - 63	63 - 68	68 - 91	70 - 90	4" PVC	0.01	#2/12
ES-5	Cascade	12/16/2017	1690.42	1692.31	8	122	0 - 63	63 - 68	68 - 86	70 - 85	4" PVC	0.01	#2/12
ES-6	Cascade	1/3/2018	1658.65	1660.84	8	120	0 - 48	48 - 53	53 - 76	55 - 75	4" PVC	0.01	#2/12
ES-7	Cascade	1/9/2018	1678.43	1680.45	8	120	0 - 53	53 - 58	58 - 81	60 - 80	4" PVC	0.01	#2/12
ES-8A	Cascade	2/17/2018	1716.68	1718.86	8	81	0 - 53	53 - 58	58 - 81	60 - 80	4" PVC	0.01	#2/12
ES-8B	Cascade	2/16/2018	1716.60	1718.56	8	120	0 - 83	83 - 88	88 - 111	90 - 110	4" PVC	0.01	#2/12
ES-9	Cascade	2/21/2018	1681.57	1681.15	8	120	0 - 73	73 - 78	78 - 101	80 - 100	4" PVC	0.01	#2/12
ES-10	Cascade	1/17/2018	1621.27	1620.87	8	67	0 - 38	38 - 43	43 - 66	45 - 65	4" PVC	0.01	#2/12
ES-11	Cascade	2/20/2018	1621.90	1621.60	8	60	0 - 28	28 - 33	33 - 56	35 - 55	4" PVC	0.01	#2/12
ES-12	Cascade	1/22/2018	1605.18	1607.24	8	66	0 - 38	38 - 43	43 - 66	45 - 65	4" PVC	0.01	#2/12
ES-13	Cascade	1/24/2018	1630.62	1632.52	8	120	0 - 83	83 - 88	88 - 106	90 - 105	4" PVC	0.01	#2/12
ES-14A	Cascade	2/19/2018	1666.30	1668.51	8	71	0 - 43	43 - 48	48 - 71	50 - 70	4" PVC	0.01	#2/12
ES-14B	Cascade	2/18/2018	1665.37	1667.46	8	120	0 - 93	93 - 98	98 - 116	100 - 115	4" PVC	0.01	#2/12
ES-15	Cascade	3/20/2018	1655.28	1654.91	8	120	0 - 63	63 - 68	68 - 91	70 - 90	4" PVC	0.01	#2/12
ES-16	Cascade	3/1/2018	1660.84	1660.56	8	121	0 - 70	70 - 77	77 - 103	80 - 100	4" PVC	0.01	#2/12
ES-17	Cascade	3/20/2018	1666.55	1666.15	8	120	0 - 73	73 - 78	78 - 101	80 - 100	4" PVC	0.01	#2/12
ES-18	Cascade	3/5/2018	1679.58	1679.25	8	120	0 - 80	80 - 87	87 - 112	90 - 110	4" PVC	0.01	#2/12
ES-19	Cascade	3/5/2018	1685.46	1685.15	8	200	0 - 150	150 - 155	155 - 178	157 - 177	4" PVC	0.01	#2/12
ES-20	Cascade	2/2/2018	1716.20	1718.10	8	125	0 - 84	84 - 89	89 - 112	91 - 111	4" PVC	0.01	#2/12
ES-28	Cascade	1/7/2018	1758.96	1761.00	8	120	0 - 58	58 - 63	63 - 86	65 - 85	4" PVC	0.01	#2/12
ES-29[(1)]	Cascade	1/6/2018	1763.49	1765.54	8	120	0 - 53	53 - 58	58 - 81	60 - 80	4" PVC	0.01	#2/12
ES-30	Cascade	1/7/2018	1665.33	1667.45	8	94	0 - 66	66 - 71	71 - 94	73 - 93	4" PVC	0.01	#2/12
ES-31	Cascade	1/4/2018	1643.92	1646.08	8	120	0 - 48	48 - 53	53 - 76	55 - 75	4" PVC	0.01	#2/12
ES-32	Cascade	2/3/2018	1695.93	1697.91	8	95	0 - 65	65 - 70	70 - 93	72 - 92	4" PVC	0.01	#2/12
ES-53	BC2 Environmental	9/2/2021	1641.98	1641.61	8	60	0 - 25	25 - 28	32 - 50	30 - 50	4" PVC	0.01	#2/12
ES-54	BC2 Environmental	9/1/2021	1647.80	1647.87	8	70	0 - 42	42 - 45	45 - 67	47 - 67	4" PVC	0.01	#2/12

TABLE A1-7. NEW RI MONITORING WELL CONSTRUCTION DETAILS - PHASE 3 RI
OU-1/OU-2 RI Report
Nevada Environmental Response Trust Site; Henderson, Nevada

Well ID	Installed by	Date Installed	Ground Surface (ft msl)	TOC (ft msl)	Borehole Diameter (inches)	Borehole Depth (ft bgs)	Cement/ Bentonite Seal Interval (ft bgs)	Bentonite Pellet Seal Interval (ft bgs)	Filter Pack Interval (ft bgs)	Perforated Interval (ft bgs)	Well Casing Material	Slot Size (in.)	Filter Pack Sand Size
Northeast Sub-Area Wells (OU-3)													
ES-21A	Cascade	8/8/2018	1593.82	1593.44	8	52	0 - 23	23 - 28	28 - 51	30 - 50	4" PVC	0.01	#2/12
ES-21B	Cascade	8/7/2018	1593.57	1593.01	8	120	0 - 53	53 - 58	58 - 81	60 - 80	4" PVC	0.01	#2/12
ES-22A	Cascade	8/9/2018	1640.48	1640.00	8	52	0 - 23	23 - 28	28 - 51	30 - 50	4" PVC	0.01	#2/12
ES-22B	Cascade	8/2/2018	1640.18	1639.56	8	120	0 - 53	53 - 58	58 - 81	60 - 80	4" PVC	0.01	#2/12
ES-23A	Cascade	8/16/2018	1602.52	1602.09	8	51	0 - 23	23 - 28	28 - 51	30 - 50	4" PVC	0.01	#2/12
ES-23B	Cascade	8/16/2018	1602.46	1602.05	8	200	0 - 163	163 - 168	168 - 191	170 - 190	4" PVC	0.01	#2/12
ES-24	Cascade	7/31/2018	1562.74	1562.20	8	120	0 - 53	53 - 58	58 - 81	60 - 80	4" PVC	0.01	#2/12
ES-25A	Cascade	3/7/2018	1531.43	1534.12	8	60	0 - 22	22 - 28	28 - 52	30 - 50	4" PVC	0.01	#2/12
ES-25B	Cascade	3/6/2018	1531.53	1534.06	8	120	0 - 51	51 - 57	57 - 82	60 - 80	4" PVC	0.01	#2/12
ES-26	Cascade	3/6/2018	1532.66	1534.74	8	120	0 - 53	53 - 58	58 - 81	60 - 80	4" PVC	0.01	#2/12
ES-27	Cascade	3/7/2018	1539.45	1541.88	8	120	0 - 53	53 - 58	58 - 81	60 - 80	4" PVC	0.01	#2/12
ES-45	Cascade	7/17/2019	1532.61	1535.31	8	56	0 - 28	28 - 33	33 - 56	35 - 55	4" PVC	0.01	#2/12
ES-46	Cascade	7/10/2019	1532.58	1535.09	8	196	0 - 168	168 - 173	173 - 196	175 - 195	4" PVC	0.01	#2/12
ES-47	Cascade	7/15/2019	1533.30	1535.72	8	46	0 - 18	18 - 23	23 - 46	25 - 45	4" PVC	0.01	#2/12
ES-48	Cascade	7/16/2019	1533.50	1535.72	8	75	0 - 53	53 - 58	58 - 71	60 - 70	4" PVC	0.01	#2/12
ES-49	Cascade	7/12/2019	1533.30	1535.92	8	126	0 - 108	108 - 113	113 - 126	115 - 125	4" PVC	0.01	#2/12
ES-50	Cascade	7/18/2019	1533.87	1536.19	8	101	0 - 73	73 - 78	78 - 101	80 - 100	4" PVC	0.01	#2/12
ES-51	Cascade	7/19/2019	1533.92	1536.52	8	55	0 - 18	18 - 23	23 - 46	25 - 45	4" PVC	0.01	#2/12
ES-52	Cascade	7/19/2019	1534.12	1536.78	8	95	0 - 61	61 - 66	66 - 91	68.6 - 88.6	4" PVC	0.01	#2/12
Downgadient Study Area (OU-3)													
NERT3.35S1	Cascade	4/26/2019	1470.53	1470.44	8.5	57	0 - 29	29 - 33	33 - 57	35 - 55	4" PVC	0.02	#3
NERT3.40S1	Cascade	4/16/2019	1474.87	1474.58	8	65	0 - 28	28 - 33	33 - 56	35 - 55	4" PVC	0.02	#3
NERT3.58N1	Cascade	4/23/2019	1476.55	1474.30	8.5	62	0 - 33.5	33.5 - 38	38 - 62	40 - 60	4" PVC	0.02	#3
NERT3.58S1	Cascade	3/28/2019	1474.51	1474.30	8	70	0 - 30	30 - 33	33 - 56	35 - 55	4" PVC	0.02	#3
NERT3.58S1A	Cascade	4/24/2019	1474.98	1474.53	6	45	0 - 19	19 - 23	23 - 45	25 - 45	2" PVC	0.02	#3
NERT3.58S1B	Cascade	4/24/2019	1474.33	1473.94	6	45	0 - 19	19 - 23	23 - 45	25 - 45	2" PVC	0.02	#3
NERT3.58S1C	Cascade	4/25/2019	1474.64	1474.27	6	55	0 - 29	29 - 33	33 - 55	35 - 55	2" PVC	0.02	#3
NERT3.60N1	Cascade	4/9/2019	1483.14	1483.08	8	90	0 - 27	27 - 30	30 - 53	32 - 52	4" PVC	0.02	#3
NERT3.60S1	Cascade	3/27/2019	1478.48	1478.23	8	90	0 - 30	30 - 33	33 - 56	35 - 55	4" PVC	0.02	#3

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NERT3.60S1A	Cascade	4/23/2019	1478.60	1478.50	6	55	0 - 29	29 - 33	33 - 55	35 - 55	2" PVC	0.02	#3
NERT3.60S1B	Cascade	4/22/2019	1478.50	1478.24	6	55	0 - 29	29 - 33	33 - 55	35 - 55	2" PVC	0.02	#3
NERT3.60S1C	Cascade	4/23/2019	1479.16	1478.74	6	55	0 - 29	29 - 33	33 - 55	35 - 55	2" PVC	0.02	#3
NERT3.60S1D	Cascade	4/22/2019	1478.38	1478.31	6	55	0 - 29	29 - 33	33 - 55	35 - 55	2" PVC	0.02	#3
NERT3.63S1	Cascade	4/17/2019	1461.96	1461.78	8	60	0 - 8	8 - 13	13 - 36	15 - 35	4" PVC	0.02	#3
NERT3.80S1	Cascade	6/28/2018	1461.09	1460.54	8	55	0 6.5	6.5 8	8 20	10 20	4" PVC	0.02	#3
NERT3.94N1	BC2 Environmental	12/17/2021	1494.72	1494.59	8	40	0 - 14	14 - 17	17 - 40	20 - 40	4" PVC	0.02	#3
NERT3.98S1	Cascade	4/2/2019	1466.49	1466.27	8	55	0 - 8	8 - 13	13 - 36	15 - 35	4" PVC	0.02	#3
NERT4.21N1	Cascade	6/19/2018	1502.29	1502.07	8	90	0 40	40 43	43 55	45 55	4" PVC	0.02	#3
NERT4.29N1	BC2 Environmental	12/15/2021	1504	1503.72	8	45	0 - 23	23 - 27	27 - 45	30 - 45	4" PVC	0.02	#3
NERT4.29N2	BC2 Environmental	12/14/2021	1504.04	1503.62	8	61	0 - 44	44 - 48	48 - 60	50 - 60	4" PVC	0.01	#2/12
NERT4.38N1	Cascade	6/21/2018	1505.27	1505.04	8	60	0 - 26	26 - 28	28 - 40	30 - 40	4" PVC	0.02	#3
NERT4.51S1	Cascade	6/28/2018	1506.79	1506.24	8	57.5	0 - 34.5	34.5 - 37.5	37.5 - 51	40 - 50	4" PVC	0.02	#3
NERT4.64N1	Cascade	4/4/2019	1511.88	1511.58	8	90	0 - 20	20 - 23	23 - 46	25 - 45	4" PVC	0.02	#3
NERT4.64S1	Cascade	3/26/2019	1513.21	1513.00	8	56	0 - 30	30 - 33	33 - 56	35 - 55	4" PVC	0.02	#3
NERT4.64S1A	Cascade	4/26/2019	1512.95	1512.73	6	55	0 - 29	29 - 33	33 - 55	35 - 55	2" PVC	0.02	#3
NERT4.64S1B	Cascade	4/26/2019	1513.04	1512.55	6	55	0 - 29	29 - 33	33 - 55	35 - 55	2" PVC	0.02	#3
NERT4.64S1C	Cascade	4/26/2019	1513.32	1512.98	6	55	0 - 29	29 - 33	33 - 55	35 - 55	2" PVC	0.02	#3
NERT4.64S1D	Cascade	4/25/2019	1512.90	1512.63	6	55	0 - 29	29 - 33	33 - 55	35 - 55	2" PVC	0.02	#3
NERT4.65N1	Cascade	4/10/2019	1513.34	1513.01	8	90	0 - 18	18 - 23	23 - 47	25 - 45	4" PVC	0.02	#3
NERT4.70N1	Cascade	4/11/2019	1515.37	1514.91	8	82	0 - 18	18 - 23	23 - 46	25 - 45	4" PVC	0.02	#3
NERT4.71N1	Cascade	4/5/2019	1519.06	1476.50	8	90	0 - 18	18 - 23	23 - 46	25 - 45	4" PVC	0.02	#3
NERT4.71S1	Cascade	6/27/2018	1519.64	1519.29	8	90	0 - 35	35 - 38	38 - 50	40 - 50	4" PVC	0.02	#3
NERT4.71S2	Cascade	4/1/2019	1518.59	1518.22	8	56	0 - 30	30 - 33	33 - 56	35 - 55	4" PVC	0.02	#3
NERT4.93S1	Cascade	6/16/2018	1523.83	1523.33	8	65	0 - 40	40 - 43	43 - 55	45 - 55	4" PVC	0.02	#3
NERT5.11S1	Cascade	6/17/2018	1523.18	1522.88	8	90	0 - 30	30 - 33	33 - 45	35 - 45	4" PVC	0.02	#3
NERT5.11S2	BC2 Environmental	10/25/2021	1523.12	1522.65	8	70	0 - 51	51 - 58	58 - 70	60 - 70	4" PVC	0.02	#3
NERT5.15S1	BC2 Environmental	5/5/2022	1527.83	1527.63	8	30	0 - 10	10 - 12	12 - 30	15 - 30	4" PVC	0.02	#3
NERT5.15S2	BC2 Environmental	5/4/2022	1527.73	1527.71	8	45	0 - 29	29 - 32	32 - 45	35 - 45	4" PVC	0.01	#2/12
NERT5.20S1	BC2 Environmental	11/5/2021	1532.03	1531.6	8	26	0 - 10	10 - 13	13 - 25	15 - 25	4" PVC	0.02	#3

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OU-1/OU-2 RI Report
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Well ID	Installed by	Date Installed	Ground Surface (ft msl)	TOC (ft msl)	Borehole Diameter (inches)	Borehole Depth (ft bgs)	Cement/ Bentonite Seal Interval (ft bgs)	Bentonite Pellet Seal Interval (ft bgs)	Filter Pack Interval (ft bgs)	Perforated Interval (ft bgs)	Well Casing Material	Slot Size (in.)	Filter Pack Sand Size
NERT5.20S2	BC2 Environmental	11/15/2021	1532.11	1531.71	8	50	0 - 31	31 - 38	38 - 50	40 - 50	4" PVC	0.02	#3
NERT5.20S3	BC2 Environmental	11/18/2021	1532.08	1531.79	8	72.5	0 - 50	50 - 58	58 - 72	60 - 70	4" PVC	0.01	#2/12
NERT5.26N1	BC2 Environmental	12/13/2021	1526.17	1525.62	8	60	0 - 45	45 - 48	48 - 60	50 - 60	4" PVC	0.01	#2/12
NERT5.49S1	Cascade	6/19/2018	1543.73	1543.37	8	90	0 - 25	25 - 28	28 - 40	30 - 40	4" PVC	0.02	
NERT5.49S2	BC2 Environmental	10/27/2021	1543.87	1543.24	8	77	0 - 57	57 - 60	60 - 77	65 - 75	4" PVC	0.01	#2/12
NERT5.63S1	BC2 Environmental	11/8/2021	1542.59	1542.1	8	30.5	0 - 9	9 - 11	11 - 30	15 - 30	4" PVC	0.01	#2/12
NERT5.63S2	BC2 Environmental	11/8/2021	1542.65	1542.15	8	50.5	0 - 30	30 - 33	33 - 50	35 - 50	4" PVC	0.01	#2/12
NERT5.63S3	BC2 Environmental	11/9/2021	1542.65	1542.14	8	71	0 - 54	54 - 57	57 - 71	60 - 70	4" PVC	0.01	#2/12
NERT5.80S1	BC2 Environmental	12/28/2021	1543.47	1543.05	8	30	0 - 15	15 - 18	18 - 30	20 - 30	4" PVC	0.02	#3
NERT5.80S2	BC2 Environmental	12/27/2021	1543.52	1543.17	8	60	0 - 40	40 - 43	43 - 60	45 - 60	4" PVC	0.02	#3
NERT5.83N1	BC2 Environmental	12/8/2021	1542.13	1541.75	8	65	0 - 48	48 - 53	53 - 60	55 - 65	4" PVC	0.01	#2/12
NERT5.91S1	Cascade	6/18/2018	1537.1	1536.76	8	90	0 - 35	35 - 38	38 - 50	40 - 50	4" PVC	0.02	
NERT5.91S2	BC2 Environmental	10/21/2021	1537.29	1536.92	8	26	0 - 8	8 - 13	13 - 26	15 - 25	4" PVC	0.01	#2/12
NERT5.91S3	BC2 Environmental	10/22/2021	1537.04	1536.71	8	71	0 - 54	54 - 57	57 - 71	60 - 70	4" PVC	0.01	#2/12
NERT5.98S1	BC2 Environmental	10/29/2021	1543.37	1542.58	8	31.5	0 - 9	9 - 13	13 - 31	15 - 30	4" PVC	0.02	#3
NERT5.98S2	BC2 Environmental	11/5/2021	1543.21	1542.69	8	70	0 - 52	52 - 57	57 - 70	60 - 70	4" PVC	0.01	#2/12
NERT6.21N1	BC2 Environmental	12/7/2021	1544.23	1543.72	8	45	0 - 21	21 - 28	28 - 45	30 - 45	4" PVC	0.02	#3
NERT-FM01A	BC2 Environmental	12/22/2021	1562.93	1562.57	8	35	0 - 19	19 - 22	22 - 35	25 - 35	4" PVC	0.02	#3
NERT-FM01B	BC2 Environmental	12/22/2021	1562.79	1562.29	8	75	0 - 54	54 - 57	57 - 75	60 - 75	4" PVC	0.01	#2/12
NERT-FM02A	BC2 Environmental	12/22/2021	1550	1549.48	8	35	0 - 19	19 - 23	23 - 35	25 - 35	4" PVC	0.02	#3
NERT Off-Site Study Area (OU-3)													
ES-55A	BC2 Environmental	9/10/2021	1578.91	1578.55	8	26.5	0 - 7	7 - 13	13 - 25	15 - 25	4" PVC	0.02	#3
ES-55B	BC2 Environmental	9/9/2021	1578.92	1578.51	8	55	0 - 28	28 - 36	36 - 53	38 - 53	4" PVC	0.01	#2/12
ES-55C	BC2 Environmental	9/13/2021	1578.82	1578.28	8	90	0 - 50	50 - 58	58 - 70	60 - 70	4" PVC	0.01	#2/12
ES-56A	BC2 Environmental	9/3/2021	1569.94	1569.39	8	25	0 - 8	8 - 10	10 - 25	13 - 23	4" PVC	0.02	#3
ES-56B	BC2 Environmental	9/2/2021	1570.04	1569.69	8	50	0 - 30	30 - 33	33 - 50	35 - 50	4" PVC	0.01	#2/12
ES-56C	BC2 Environmental	9/8/2021	1569.88	1569.43	8	90	0 - 49	49 - 58	58 - 70	60 - 70	4" PVC	0.01	#2/12
ES-57A	BC2 Environmental	11/30/2021	1564.53	1564.13	8	30	0 - 13	13 - 17	17 - 30	19 - 29	4" PVC	0.02	#2/12
ES-57B	BC2 Environmental	12/3/2021	1564.65	1564.38	8	51	0 - 30	30 - 38	38 - 50	40 - 50	4" PVC	0.01	#2/12
ES-58A	BC2 Environmental	11/30/2021	1591.08	1590.75	8	30	0 - 13	13 - 17	17 - 30	19 - 29	4" PVC	0.01	#2/12

TABLE A1-7. NEW RI MONITORING WELL CONSTRUCTION DETAILS - PHASE 3 RI
OU-1/OU-2 RI Report
Nevada Environmental Response Trust Site; Henderson, Nevada

Well ID	Installed by	Date Installed	Ground Surface (ft msl)	TOC (ft msl)	Borehole Diameter (inches)	Borehole Depth (ft bgs)	Cement/ Bentonite Seal Interval (ft bgs)	Bentonite Pellet Seal Interval (ft bgs)	Filter Pack Interval (ft bgs)	Perforated Interval (ft bgs)	Well Casing Material	Slot Size (in.)	Filter Pack Sand Size
ES-58B	BC2 Environmental	11/30/2021	1591.23	1590.81	8	50.5	0 - 33	33 - 38	38 - 50	40 - 50	4" PVC	0.01	#2/12
PC-94D	BC2 Environmental	10/28/2021	1549.91	1549.12	8	90	0 - 38	38 - 42	42 - 60	45 - 60	4" PVC	0.01	#2/12
PC-157C	BC2 Environmental	10/21/2021	1545.32	1548.17	8	64	0 - 48	48 - 51	51 - 64	53 - 63	4" PVC	0.01	#3
PC-198	Cascade	5/14/2019	1554.29	1553.99	8	71	0 - 53	53 - 58	58 - 61	60 - 70	4" PVC	0.01	#2/12
PC-199	Cascade	5/14/2019	1553.96	1553.36	8	106	0 - 83	83 - 88	88 - 91	90 - 105	4" PVC	0.01	#2/12
PC-200	Cascade	2/25/2020	1607.90	1607.73	8	35	0 - 11	11 - 16	16 - 29	18 - 28	4" PVC	0.01	#2/12
PC-201	Cascade	1/23/2020	1579.14	1581.64	8	35	0 - 12	12 - 17	17 - 30	19 - 29	4" PVC	0.01	#2/12
PC-203	BC2 Environmental	9/14/2021	1554.66	1557.04	8	67.5	0 - 47	47 - 53	53 - 65	55 - 65	4" PVC	0.01	#2/12
PC-204	BC2 Environmental	8/24/2021	1550.78	1550.51	8	65	0 - 46	46 - 51	51 - 65	54 - 64	4" PVC	0.01	#2/12
PC-205A	BC2 Environmental	11/22/2021	1549.48	1549.12	8	31	0 - 13	13 - 17	17 - 31	20 - 30	4" PVC	0.02	#3
PC-205B	BC2 Environmental	11/23/2021	1549.52	1549	8	82.5	0 - 38	38 - 43	43 - 60	45 - 60	4" PVC	0.02	#3

Notes:

All depths are in feet below ground surface (ft bgs).

ft msl = Elevation is in feet, Mean Sea Level datum (NAVD 88).

NA = Not Applicable

PVC = Polyvinyl Chloride. Unless indicated otherwise, Schedule 40 PVC well casing was installed.

Note that twelve wells (ES-33 through ES-44) were installed as part of the ZVI-Enhanced In-Situ Bioremediation Treatability Study; therefore, they are not listed herein. Well construction details for these wells will be provided in a forthcoming treatability study report.

(1) Well ES-29 was decommissioned after its second round of sampling at the request of Landwell due to residential construction. A replacement well was not installed.

Where the borehole depth is deeper than the bottom of the filter pack, the open borehole interval beneath the filter pack was backfilled with bentonite pellets and/or slough prior to placement of the filter pack.

TABLE A1-8. SUMMARY OF GROUNDWATER ELEVATIONS FOR ON-SITE MONITORING WELLS
OU-1/OU-2 RI Report
Nevada Environmental Response Trust Site; Henderson, Nevada

On-Site Monitoring Well ID	Surveyed Elevations		Well Screen		Stratigraphic Unit		Groundwater Elevation			
	Top of Casing (ft msl)	Ground Surface (ft msl)	Top (ft bgs)	Bottom (ft bgs)	Screened Unit(s)	GW table in Unit	Date Sampled	Depth (ft btoc)	Depth (ft bgs)	Elevation (ft msl)
SHALLOW WATER-BEARING ZONE WELLS (0 - 90 ft bgs)										
H-28A	1732.94	1731.06	28	45	Qal	Qal	05/14/18	38.45	36.57	1694.49
M-2A	1781.29	1780.34	36	46	Qal	Qal	05/07/18	41.10	40.15	1740.19
M-5A	1751.84	1749.26	40	50	UMCf-fg1	UMCf-fg1	05/07/18	37.72	35.14	1714.12
M-5D	1747.53	1744.95	60	70	UMCf-fg1	na (1)	10/20/17	33.44	30.86	1714.09
M-6A	1733.28	1731.24	27	43	Qal/ UMCf-fg1	UMCf-fg1	05/07/18	38.25	36.21	1695.03
M-7B	1732.93	1730.64	26	51	Qal/ UMCf-fg1	UMCf-fg1	05/07/18	35.64	33.35	1697.29
M-10	1835.10	1833.94	43	63	UMCf-fg1	UMCf-fg1	05/07/18	52.90	51.74	1782.20
M-11	1815.23	1813.70	33	53	Qal/ UMCf-fg1	Qal	05/07/18	44.13	42.60	1771.10
M-12A	1812.53	1812.87	40	50	UMCf-fg1	UMCf-fg1	05/07/18	41.73	42.07	1770.80
M-13	1812.02	1812.98	28	48	Qal/ UMCf-fg1	UMCf-fg1	05/07/18	45.14	46.10	1769.82
M-14A	1760.92	1758.50	20	40	Qal/ UMCf-fg1	UMCf-fg1	05/07/18	32.81	30.39	1728.11
M-14D	1760.67	1758.39	70	80	UMCf-fg1	na (1)	10/18/17	31.63	29.35	1729.04
M-19	1766.89	1764.51	15	35	Qal/ UMCf-fg1	UMCf-fg1	05/07/18	34.16	31.78	1732.73
M-21	1792.18	1790.59	18	38	Qal/ UMCf-fg1	UMCf-fg1	05/07/18	37.45	35.86	1754.73
M-21D	1789.79	1787.89	40	55	UMCf-fg1	UMCf-fg1	11/01/17	37.30	35.40	1752.49
M-22A	1759.46	1758.97	16	36	Qal/ UMCf-fg1	UMCf-fg1	05/07/18	30.20	29.71	1729.26
M-22D	1758.83	1756.90	55	65	UMCf-fg1	na (1)	10/20/17	29.50	27.57	1729.33
M-23	1720.56	1717.27	9	37	Qal	Qal	05/07/18	35.34	32.05	1685.22
M-25	1759.99	1756.86	24	39	Qal/ UMCf-fg1	UMCf-fg1	05/07/18	34.60	31.47	1725.39
M-29	1806.60	1816.60	22	42	Qal/ UMCf-fg1	nm	05/20/16	---	---	---
M-31A	1796.73	1797.10	35	55	Qal/ UMCf-fg1	UMCf-fg1	05/07/18	44.65	45.02	1752.36
M-32	1795.56	1791.60	30	45	Qal/ UMCf-fg1	UMCf-fg1	05/07/18	43.46	39.50	1752.10
M-33	1795.67	1791.80	30	45	Qal/ UMCf-fg1	UMCf-fg1	05/17/18	44.04	40.17	1751.63
M-35	1772.85	1773.36	25	40	Qal/ UMCf-fg1	Qal	05/07/18	31.94	32.45	1740.91
M-36	1759.82	1756.89	20	35	Qal/ UMCf-fg1	nm	05/07/18	---	---	---
M-36D	1758.65	1756.41	55	65	UMCf-fg1	UMCf-fg1	10/18/17	32.09	29.85	1726.56
M-37	1760.45	1757.98	20	35	Qal/ UMCf-fg1	UMCf-fg1	05/07/18	34.71	32.24	1725.74
M-38	1759.76	1758.44	20	35	Qal/ UMCf-fg1	UMCf-fg1	05/07/18	31.24	29.92	1728.52
M-39R	1758.91	1757.02	25	40	Qal/ UMCf-fg1	UMCf-fg1	01/09/19	30.02	28.13	1728.89
M-52	1802.45	1799.30	35	45	UMCf-fg1	UMCf-fg1	05/07/18	41.07	37.92	1761.38
M-55	1751.01	1749.26	15	45	Qal/ UMCf-fg1	Qal	05/07/18	30.03	28.28	1720.98
M-57A	1753.28	1751.32	20	40	Qal/ UMCf-fg1	UMCf-fg1	05/07/18	29.71	27.75	1723.71
M-58	1751.31	1748.95	15	45	Qal/ UMCf-fg1	Qal	05/07/18	29.54	27.18	1721.77
M-64	1752.37	1752.63	13	38	Qal/ UMCf-fg1	UMCf-fg1	06/01/18	29.90	30.16	1722.47
M-65	1754.01	1752.10	14	39	Qal/ UMCf-fg1	UMCf-fg1	06/01/18	32.92	31.01	1721.09
M-65D	1754.50	1752.30	60	70	UMCf-fg1	na (1)	02/09/18	32.85	30.65	1721.65
M-66	1754.03	1751.68	18	43	Qal/ UMCf-fg1	Qal	06/01/18	31.15	28.80	1722.88
M-66D	1754.00	1751.72	60	70	UMCf-fg1	na (1)	10/16/17	31.36	29.08	1722.64

TABLE A1-8. SUMMARY OF GROUNDWATER ELEVATIONS FOR ON-SITE MONITORING WELLS
OU-1/OU-2 RI Report
Nevada Environmental Response Trust Site; Henderson, Nevada

On-Site Monitoring Well ID	Surveyed Elevations		Well Screen		Stratigraphic Unit		Groundwater Elevation			
	Top of Casing (ft msl)	Ground Surface (ft msl)	Top (ft bgs)	Bottom (ft bgs)	Screened Unit(s)	GW table in Unit	Date Sampled	Depth (ft btoc)	Depth (ft bgs)	Elevation (ft msl)
M-67	1745.97	1744.05	8	38	Qal/ UMCf-fg1	Qal	06/01/18	22.03	20.11	1723.94
M-68	1750.37	1748.35	11	40	Qal/ UMCf-fg1	Qal	06/01/18	26.20	24.18	1724.17
M-69	1749.84	1747.99	20	40	Qal/ UMCf-fg1	UMCf-fg1	06/01/18	34.33	32.48	1715.51
M-70	1748.31	1746.82	15	40	Qal/ UMCf-fg1	UMCf-fg1	06/01/18	35.94	34.45	1712.37
M-71	1747.11	1744.94	18	42	Qal/ UMCf-fg1	UMCf-fg1	06/01/18	35.67	33.50	1711.44
M-72	1746.51	1745.01	10	35	Qal/ UMCf-fg1	UMCf-fg1	06/01/18	31.97	30.47	1714.54
M-72D	1747.79	1745.60	60	70	UMCf-fg1	na (1)	10/18/17	31.82	29.63	1715.97
M-73	1743.14	1743.62	11	36	Qal/ UMCf-fg1	UMCf-fg1	06/01/18	28.61	29.09	1712.64
M-74	1745.24	1742.41	9	39	Qal/ UMCf-fg1	UMCf-fg1	06/01/18	28.10	25.27	1717.14
M-75	1784.22	1782.14	35	50	Qal/ UMCf-fg1	Qal	05/07/18	42.18	40.10	1742.04
M-76	1785.23	1781.73	35	50	Qal/ UMCf-fg1	Qal	05/07/18	39.10	35.60	1746.13
M-77	1801.79	1798.20	29	44	Qal/ UMCf-fg1	Qal	05/07/18	36.69	33.10	1765.10
M-79	1744.86	1743.29	11	35	Qal/ UMCf-fg1	UMCf-fg1	05/07/18	32.04	30.47	1712.82
M-80	1746.15	1744.01	12	42	Qal/ UMCf-fg1	UMCf-fg1	05/07/18	36.43	34.29	1709.72
M-81A	1742.49	1743.09	30	40	Qal/ UMCf-fg1	UMCf-fg1	05/07/18	35.75	36.35	1708.49
M-81D	1745.10	1743.04	60	70	UMCf-fg1	na (1)	10/23/17	34.70	32.64	1710.40
M-83	1742.22	1739.04	11	40	Qal/ UMCf-fg1	Qal	05/07/18	32.20	29.02	1710.02
M-83D	1741.03	1738.86	60	70	UMCf-fg1	na (1)	11/02/17	29.61	27.44	1711.42
M-92	1800.82	1798.28	35	45	UMCf-fg1	UMCf-fg1	05/07/18	36.09	33.55	1764.73
M-93	1797.56	1797.70	35	45	UMCf-fg1	UMCf-fg1	05/07/18	35.18	35.32	1762.38
M-97	1800.92	1798.56	35	45	UMCf-fg1	UMCf-fg1	05/07/18	39.41	37.05	1761.51
M-98	1731.94	1731.43	19	29	Qal	nm (dry)	05/07/18	---	---	---
M-99	1730.81	1728.98	16	31	Qal/ UMCf-fg1	nm (dry)	05/07/18	---	---	---
M-100	1730.99	1728.99	19	29	Qal	nm (dry)	05/07/18	---	---	---
M-101	1730.87	1729.18	17	27	Qal	nm (dry)	05/07/18	---	---	---
M-103	1866.87	1864.39	70	90	UMCf-fg1	UMCf-fg1	05/18/16	76.33	73.85	1790.58
M-115	1783.22	1781.12	35	45	Qal/ UMCf-fg1	UMCf-fg1	05/07/18	37.58	35.48	1745.64
M-120	1878.63	1875.86	80	100	UMCf-cg1	UMCf-cg1	05/07/18	83.00	80.23	1795.63
M-121	1875.65	1873.08	77	97	UMCf-cg1	UMCf-cg1	05/07/18	78.35	75.78	1797.30
M-123	1785.15	1782.50	36	51	UMCf-fg1	UMCf-fg1	05/07/18	40.72	38.07	1744.43
M-124	1787.63	1785.30	34	49	UMCf-fg1	UMCf-fg1	05/07/18	36.27	33.94	1751.36
M-125	1771.41	1768.55	35	50	UMCf-fg1	UMCf-fg1	05/07/18	37.58	34.72	1733.83
M-125D	1769.91	1767.60	60	70	UMCf-fg1	na (1)	10/20/17	34.70	32.39	1735.21
M-126	1759.12	1756.44	20	40	Qal/ UMCf-fg1	UMCf-fg1	05/07/18	32.21	29.53	1726.91
M-128	1783.86	1781.35	40	55	UMCf-fg1	UMCf-fg1	05/25/16	36.03	33.52	1747.77
M-129	1747.40	1747.67	20	40	Qal/ UMCf-fg1	UMCf-fg1	05/07/18	28.87	29.14	1718.53
M-132	1744.60	1742.64	80	90	UMCf-fg1	UMCf-fg1	05/07/18	25.88	23.92	1718.72
M-133	1743.76	1741.41	60	70	UMCf-fg1	UMCf-fg1	05/07/18	26.39	24.04	1717.37
M-134	1752.22	1749.64	60	70	UMCf-fg1	UMCf-fg1	05/07/18	34.87	32.29	1717.35

TABLE A1-8. SUMMARY OF GROUNDWATER ELEVATIONS FOR ON-SITE MONITORING WELLS
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On-Site Monitoring Well ID	Surveyed Elevations		Well Screen		Stratigraphic Unit		Groundwater Elevation			
	Top of Casing (ft msl)	Ground Surface (ft msl)	Top (ft bgs)	Bottom (ft bgs)	Screened Unit(s)	GW table in Unit	Date Sampled	Depth (ft btoc)	Depth (ft bgs)	Elevation (ft msl)
M-135	1752.01	1749.38	29	39	Qal/ UMCf-fg1	UMCf-fg1	05/07/18	34.99	32.36	1717.02
M-136	1751.96	1749.26	80	90	UMCf-fg1	na (1)	05/07/18	29.95	27.25	1722.01
M-137	1847.73	1844.93	52	72	UMCf-cg1	UMCf-cg1	05/07/18	58.51	55.71	1789.22
M-138	1846.53	1843.81	50	65	UMCf-cg1	UMCf-cg1	05/07/18	57.41	54.69	1789.12
M-139	1813.26	1813.83	45	60	UMCf-fg1	UMCf-fg1	05/07/18	37.13	37.70	1776.13
M-140	1748.27	1745.82	24	44	Qal/ UMCf-fg1	Qal	05/17/18	35.75	33.30	1712.52
M-140D	1746.89	1744.67	60	70	UMCf-fg1	na (1)	10/18/17	33.37	31.15	1713.52
M-141	1796.88	1797.47	40	50	Qal/ UMCf-fg1	UMCf-fg1	05/07/18	41.77	42.36	1755.55
M-142	1773.71	1774.00	30	45	UMCf-fg1	UMCf-fg1	05/07/18	30.64	30.93	1743.07
M-144	1813.38	1813.26	35	45	UMCf-fg1	UMCf-fg1	05/07/18	38.10	37.98	1775.28
M-145	1812.42	1812.68	45	60	UMCf-fg1	UMCf-fg1	05/07/18	39.16	39.42	1773.14
M-146	1812.55	1812.97	40	50	UMCf-fg1	UMCf-fg1	05/27/16	36.22	36.64	1776.26
M-147	1777.55	1775.06	25	40	Qal/ UMCf-fg1	UMCf-fg1	05/07/18	34.97	32.48	1742.58
M-148A	1800.10	1797.84	40	50	Qal/ UMCf-fg1	Qal	05/07/18	46.20	43.94	1753.90
M-159	1754.89	1752.78	65	75	UMCf-fg1	na (1)	03/12/19	31.56	29.45	1723.33
M-160	1754.69	1752.26	40	50	UMCf-fg1	na (1)	03/12/19	31.46	29.03	1723.23
M-163	1747.96	1745.62	80	90	UMCf-fg1	na (1)	05/07/18	28.41	26.07	1719.55
M-164	1747.66	1745.16	60	70	UMCf-fg1	na (1)	05/07/18	35.05	32.55	1712.61
M-182	1761.84	1759.42	80	90	UMCf-fg1	na (1)	05/07/18	31.38	28.96	1730.46
M-189	1812.71	1813.21	35	50	UMCf-fg1	UMCf-fg1	05/07/18	35.15	35.65	1777.56
M-190	1813.06	1813.45	35	50	UMCf-fg1	UMCf-fg1	05/07/18	35.91	36.30	1777.15
M-191	1813.11	1813.64	35	50	UMCf-fg1	UMCf-fg1	05/07/18	38.13	38.66	1774.98
M-192	1812.83	1813.19	35	50	UMCf-fg1	UMCf-fg1	05/07/18	38.71	39.07	1774.12
M-193	1812.69	1813.08	35	50	UMCf-fg1	UMCf-fg1	05/07/18	38.83	39.22	1773.86
M-201	1784.65	1782.21	62	72	UMCf-fg1	na (1)	10/19/17	38.40	35.96	1746.25
M-202	1767.88	1765.32	40	55	UMCf-fg1	UMCf-fg1	10/20/17	33.30	30.74	1734.58
M-203	1731.08	1728.39	30	50	UMCf-fg1	UMCf-fg1	10/20/17	23.00	20.31	1708.08
M-205	1731.61	1731.95	30	50	UMCf-fg1	UMCf-fg1	11/03/17	31.57	31.91	1700.04
M-206	1730.78	1731.10	30	50	UMCf-fg1	UMCf-fg1	11/03/17	31.67	31.99	1699.11
M-207	1729.23	1729.55	25	45	UMCf-fg1	UMCf-fg1	11/03/17	33.81	34.13	1695.42
M-208	1728.82	1729.32	25	45	Qal/ UMCf-fg1	UMCf-fg1	11/06/17	34.39	34.89	1694.43
M-209	1728.88	1729.24	50	60	UMCf-fg1	na (1)	11/06/17	34.54	34.90	1694.34
M-210	1728.90	1729.31	70	80	UMCf-fg1	na (1)	11/06/17	34.43	34.84	1694.47
M-211	1730.10	1730.47	25	45	Qal/ UMCf-fg1	UMCf-fg1	11/06/17	37.23	37.60	1692.87
M-212	1730.22	1730.54	60	70	UMCf-fg1	na (1)	11/06/17	36.99	37.31	1693.23
M-214	1740.77	1741.19	30	50	UMCf-fg1	UMCf-fg1	11/03/17	44.50	44.92	1696.27
M-215	1734.26	1732.11	25	45	UMCf-fg1	UMCf-fg1	11/02/17	28.80	26.65	1705.46
M-216	1734.18	1732.15	25	45	UMCf-fg1	UMCf-fg1	11/02/17	27.68	25.65	1706.50
M-217	1734.14	1732.11	55	65	UMCf-fg1	na (1)	11/02/17	27.40	25.37	1706.74

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On-Site Monitoring Well ID	Surveyed Elevations		Well Screen		Stratigraphic Unit		Groundwater Elevation			
	Top of Casing (ft msl)	Ground Surface (ft msl)	Top (ft bgs)	Bottom (ft bgs)	Screened Unit(s)	GW table in Unit	Date Sampled	Depth (ft btoc)	Depth (ft bgs)	Elevation (ft msl)
M-219	1734.45	1732.50	25	45	UMCf-fg1	UMCf-fg1	10/23/17	27.89	25.94	1706.56
M-220	1749.42	1747.34	60	70	UMCf-fg1	na (1)	11/02/17	40.10	38.02	1709.32
M-221	1754.35	1752.32	75	85	UMCf-fg1	na (1)	02/09/18	32.47	30.44	1721.88
M-223	1782.39	1779.78	40	55	UMCf-fg1	na (1)	11/07/17	33.78	31.17	1748.61
M-224R	1782.08	1780.24	60	80	UMCf-fg1	na (1)	04/13/18	33.10	31.26	1748.98
M-226	1785.92	1786.36	40	55	UMCf-fg1	na (1)	10/23/17	30.90	31.34	1755.02
M-227R	1785.83	1786.32	60	80	UMCf-fg1	na (1)	04/13/18	31.10	31.59	1754.73
M-229	1760.14	1757.45	40	55	UMCf-fg1	na (1)	11/07/17	20.48	17.79	1739.66
M-230	1759.95	1757.50	70	90	UMCf-fg1	na (1)	11/07/17	20.20	17.75	1739.75
M-234	1797.14	1794.51	65	85	UMCf-fg1	na (1)	11/06/17	35.83	33.20	1761.31
M-237	1815.00	1812.58	45	60	UMCf-fg1	UMCf-fg1	11/06/17	46.31	43.89	1768.69
M-239	1813.09	1813.46	65	85	UMCf-fg1	na (1)	11/01/17	41.63	42.00	1771.46
M-242	1738.65	1736.11	38	53	UMCf-fg1	UMCf-fg1	10/27/17	28.22	25.68	1710.43
M-243	1738.56	1736.02	60	70	UMCf-fg1	na (1)	10/27/17	27.86	25.32	1710.70
M-245	1739.21	1736.66	35	50	UMCf-fg1	UMCf-fg1	10/27/17	24.37	21.82	1714.84
M-246	1739.24	1736.63	60	70	UMCf-fg1	na (1)	10/27/17	24.71	22.10	1714.53
M-247-60	1813.22	1813.78	61	71	UMCf-fg1	na (1)	11/03/17	34.93	35.49	1778.29
M-249-60	1813.17	1813.52	60	70	UMCf-fg1	na (1)	11/13/17	39.60	39.95	1773.57
M-251-60	1808.37	1808.94	53	63	UMCf-fg1	na (1)	11/13/17	34.90	35.47	1773.47
M-253-60	1811.45	1812.17	61	71	UMCf-fg1	na (1)	11/07/17	35.91	36.63	1775.54
M-255-60	1812.79	1812.79	60	70	UMCf-fg1	na (1)	11/09/17	41.75	41.75	1771.04
M-256-60	1811.80	1812.27	60	70	UMCf-fg1	na (1)	11/15/17	39.00	39.47	1772.80
M-259-60	1812.27	1812.81	61	71	UMCf-fg1	na (1)	11/13/17	42.00	42.54	1770.27
M-260	1732.04	1732.41	65	75	UMCf-fg1	na (1)	03/13/19	36.28	36.65	1695.76
M-261	1731.86	1731.97	60	75	UMCf-fg1	na (1)	03/13/19	32.52	32.63	1699.34
M-262	1731.77	1731.94	80	90	UMCf-fg1	na (1)	03/14/19	31.88	32.05	1699.89
M-263	1730.71	1731.00	60	70	UMCf-fg1	na (1)	03/14/19	32.25	32.54	1698.46
M-264	1730.76	1730.95	85	95	UMCf-fg1	na (1)	03/14/19	30.31	30.50	1700.45
M-265	1729.02	1729.51	60	70	UMCf-fg1	na (1)	03/15/19	33.11	33.60	1695.91
M-267	1740.75	1741.19	80	95	UMCf-fg1	na (1)	03/14/19	43.45	43.89	1697.30
M-269	1763.74	1761.02	60	70	UMCf-fg1	na (1)	03/11/19	33.18	30.46	1730.56
M-270	1763.58	1760.73	90	100	UMCf-fg1	na (1)	03/12/19	33.34	30.49	1730.24
MC-29	1723.40	NA	38	50	Qal/ UMCf-fg1	Qal	05/12/16	37.84	---	1685.61
MC-45	1710.98	NA	30	34	Qal	Qal	05/12/16	29.64	---	1681.32
MC-50	1713.28	1712.03	24	49	Qal	Qal	05/07/18	29.72	28.47	1683.56
MC-51	1716.00	1714.93	24	49	Qal/ UMCf-fg1	Qal	05/07/18	31.15	30.08	1684.85
MC-53	1715.32	1713.68	20	40	Qal/ UMCf-fg1	Qal	05/07/18	31.91	30.27	1683.41
MC-93	1719.32	1717.96	32	42	Qal/ UMCf-fg1	Qal	05/07/18	33.56	32.20	1685.76
MC-97	1723.95	1723.05	31	41	Qal/ UMCf-fg1	Qal	05/07/18	36.65	35.75	1687.30

TABLE A1-8. SUMMARY OF GROUNDWATER ELEVATIONS FOR ON-SITE MONITORING WELLS
OU-1/OU-2 RI Report
Nevada Environmental Response Trust Site; Henderson, Nevada

On-Site Monitoring Well ID	Surveyed Elevations		Well Screen		Stratigraphic Unit		Groundwater Elevation			
	Top of Casing (ft msl)	Ground Surface (ft msl)	Top (ft bgs)	Bottom (ft bgs)	Screened Unit(s)	GW table in Unit	Date Sampled	Depth (ft btoc)	Depth (ft bgs)	Elevation (ft msl)
MW-16	1754.82	1752.25	25	40	Qal/ UMCf-fg1	UMCf-fg1	05/07/18	32.68	30.11	1722.14
TR-6	1800.38	1797.74	60	80	UMCf-cg1	UMCf-cg1	05/07/18	36.88	34.24	1763.50
TR-8	1829.27	1826.74	63	93	UMCf-cg1	UMCf-cg1	05/07/18	49.09	46.56	1780.18
TR-10	1854.23	1851.79	80	100	UMCf-cg1	UMCf-cg1	05/16/18	62.62	60.18	1791.61
MIDDLE WATER-BEARING ZONE WELLS (~90 - 130 ft bgs)										
M-149	1796.96	1797.21	100	120	UMCf-fg1	na (1)	05/07/18	43.91	44.16	1753.05
M-150	1759.12	1756.45	125	145	UMCf-fg1	na (1)	05/07/18	23.10	20.43	1736.02
M-151	1731.08	1728.39	125	145	UMCf-fg1	na (1)	05/07/18	18.90	16.21	1712.18
M-161	1752.51	1749.91	100	110	UMCf-fg1	na (1)	05/07/18	23.95	21.35	1728.56
M-162	1747.87	1745.69	100	110	UMCf-fg1	na (1)	05/07/18	23.72	21.54	1724.15
M-165	1743.89	1741.62	110	120	UMCf-fg1	na (1)	05/07/18	22.10	19.83	1721.79
M-181	1761.74	1759.36	105	115	UMCf-fg1	na (1)	05/07/18	28.15	25.77	1733.59
M-186	1800.65	1798.00	105	115	UMCf-fg1	na (1)	05/07/18	45.27	42.62	1755.38
M-195	1798.28	1798.65	95	110	UMCf-fg1	na (1)	10/31/17	33.03	33.40	1765.25
M-196	1798.79	1799.29	90	105	UMCf-fg1	na (1)	10/31/17	37.33	37.83	1761.46
M-197	1798.26	1798.72	100	115	UMCf-fg1	na (1)	10/31/17	36.23	36.69	1762.03
M-198	1796.88	1797.49	100	115	UMCf-fg1	na (1)	10/31/17	40.30	40.91	1756.58
M-199	1786.02	1783.84	90	105	UMCf-fg1	na (1)	10/31/17	35.24	33.06	1750.78
M-200	1772.50	1772.83	97	112	UMCf-fg1	na (1)	11/01/17	20.20	20.53	1752.30
M-204	1732.06	1732.57	100	110	UMCf-fg1	na (1)	11/02/17	29.34	29.85	1702.72
M-213	1730.29	1730.59	100	110	UMCf-fg1	na (1)	11/07/17	36.40	36.70	1693.89
M-218	1734.13	1732.04	100	110	UMCf-fg1	na (1)	11/02/17	16.70	14.61	1717.43
M-222	1754.80	1752.57	100	110	UMCf-fg1	na (1)	02/09/18	34.56	32.33	1720.24
M-225R	1782.22	1780.29	100	120	UMCf-fg1	na (1)	04/13/18	30.50	28.57	1751.72
M-228R	1785.78	1786.18	96	116	UMCf-fg1	na (1)	04/13/18	29.10	29.50	1756.68
M-231	1760.03	1757.48	100	120	UMCf-fg1	na (1)	11/07/17	15.22	12.67	1744.81
M-232	1786.07	1783.36	100	120	UMCf-fg1	na (1)	11/06/17	33.71	31.00	1752.36
M-233	1781.29	1779.40	100	120	UMCf-fg1	na (1)	11/01/17	26.90	25.01	1754.39
M-235	1799.90	1797.53	85	105	UMCf-fg1	na (1)	11/06/17	34.55	32.18	1765.35
M-236	1797.94	1797.85	85	105	UMCf-fg1	na (1)	11/07/17	36.30	36.21	1761.64
M-238	1816.05	1813.08	90	110	UMCf-fg1	na (1)	11/06/17	47.02	44.05	1769.03
M-240	1813.07	1813.53	95	115	UMCf-fg1	na (1)	11/01/17	41.70	42.16	1771.37
M-244	1738.52	1736.13	90	105	UMCf-fg1	na (1)	10/27/17	26.72	24.33	1711.80
M-247-100	1813.26	1813.78	101	111	UMCf-fg1	na (1)	11/03/17	39.11	39.63	1774.15
M-249-100	1813.14	1813.41	100	110	UMCf-fg1	na (1)	11/10/17	40.30	40.57	1772.84
M-251-100	1808.24	1808.92	93	103	UMCf-fg1	na (1)	11/14/17	43.10	43.78	1765.14
M-253-100	1811.56	1812.16	101	111	UMCf-fg1	na (1)	11/08/17	35.76	36.36	1775.80
M-255-100	1812.50	1812.77	100	110	UMCf-fg1	na (1)	11/01/17	46.82	47.09	1765.68
M-256-100	1811.84	1812.26	100	110	UMCf-fg1	na (1)	11/07/16	47.12	47.54	1764.72

TABLE A1-8. SUMMARY OF GROUNDWATER ELEVATIONS FOR ON-SITE MONITORING WELLS
OU-1/OU-2 RI Report
Nevada Environmental Response Trust Site; Henderson, Nevada

On-Site Monitoring Well ID	Surveyed Elevations		Well Screen		Stratigraphic Unit		Groundwater Elevation			
	Top of Casing (ft msl)	Ground Surface (ft msl)	Top (ft bgs)	Bottom (ft bgs)	Screened Unit(s)	GW table in Unit	Date Sampled	Depth (ft btoc)	Depth (ft bgs)	Elevation (ft msl)
M-259-100	1812.26	1812.82	101	111	UMCf-fg1	na (1)	11/06/17	46.92	47.48	1765.34
M-266	1729.06	1729.44	90	100	UMCf-fg1	na (1)	03/15/19	30.17	30.55	1698.89
M-268	1740.71	1741.26	100	115	UMCf-fg1	na (1)	03/14/19	44.70	45.25	1696.01
M-271	1763.43	1760.54	125	135	UMCf-fg1	na (1)	03/12/19	21.85	18.96	1741.58
TR-4	1772.65	1770.20	125	145	UMCf-fg1	na (1)	05/07/18	34.93	32.48	1737.72
MIDDLE WATER-BEARING ZONE WELLS (~130 - 300 ft bgs)										
M-117	1880.49	1878.12	130	150	UMCf-fg1	na (1)	05/07/18	69.51	67.14	1810.98
M-118	1876.84	1874.46	138	158	UMCf-fg1	na (1)	05/07/18	64.09	61.71	1812.75
M-153	1796.98	1797.21	150	170	UMCf-fg1	na (1)	05/07/18	29.13	29.36	1767.85
M-154	1759.05	1756.51	175	195	UMCf-fg1	na (1)	05/07/18	11.16	8.62	1747.89
M-155	1727.66	1728.14	200	220	UMCf-cg2	na (1)	05/07/18	-1.85	-1.37	1729.51
M-161D	1750.36	1747.78	130	140	UMCf-fg1	na (1)	05/07/18	16.41	13.83	1733.95
M-162D	1747.44	1745.04	130	140	UMCf-fg1	na (1)	05/07/18	10.43	8.03	1737.01
M-186D	1800.96	1798.16	153	173	UMCf-fg1	na (1)	05/07/18	30.91	28.11	1770.05
M-241	1812.54	1812.88	145	150	UMCf-fg1	na (1)	11/10/17	37.75	38.09	1774.62
M-248	1813.50	1813.76	140	150	UMCf-fg1	na (1)	11/06/17	51.82	52.08	1761.68
M-250	1812.91	1813.21	139	149	UMCf-fg1	na (1)	11/17/17	34.78	35.08	1778.13
M-252	1808.28	1808.84	132	142	UMCf-fg1	na (1)	11/16/17	40.18	40.74	1768.10
M-254	1811.86	1812.25	138	148	UMCf-fg1	na (1)	11/16/17	31.23	31.62	1780.63
M-257	1811.97	1812.31	140	150	UMCf-fg1	na (1)	11/14/17	47.62	47.96	1764.35
M-258	1812.59	1812.86	140	150	UMCf-fg1	na (1)	11/17/17	32.46	32.73	1780.13
TR-1	1747.98	1749.56	282	312	UMCf-cg2	na (1)	05/07/18	-25.60	-24.02	1773.58
TR-2	1751.72	1749.48	145	175	UMCf-fg1	na (1)	05/07/18	24.96	22.72	1726.76
TR-3	1769.21	1770.20	220	250	UMCf-cg2	na (1)	05/07/18	-16.40	-15.41	1785.61
TR-5	1796.45	1797.49	221	251	UMCf-cg2	na (1)	05/30/18	-11.55	-10.51	1808.00
TR-7	1829.13	1826.71	260	290	UMCf-cg2	na (1)	05/07/18	6.91	4.49	1822.22
TR-9	1854.41	1851.85	230	250	UMCf-cg2	na (1)	05/16/18	32.15	29.59	1822.26
TR-11	1713.54	1714.37	210	230	UMCf-cg2	na (1)	05/30/18	-10.86	-10.03	1724.40

Notes:

ft msl: feet above mean sea level

ft bgs: feet below ground surface

ft btoc: feet below top of casing

GW table: Groundwater table

NA: not available

na (1): not applicable; deeper well screened below the water table.

nm: not measured

"---" means a groundwater elevation was not obtained.

TABLE A1-9. SUMMARY OF GROUNDWATER ELEVATIONS FOR OFF-SITE MONITORING WELLS
OU-1/OU-2 RI Report
Nevada Environmental Response Trust Site; Henderson, Nevada

Off-Site Monitoring Well ID	Surveyed Elevations		Well Screen		Stratigraphic Unit		Groundwater Elevation			
	Top of Casing (ft msl)	Ground Surface (ft msl)	Top (ft bgs)	Bottom (ft bgs)	Screened Unit(s)	GW table in Unit	Date Sampled	Depth (ft btoc)	Depth (ft bgs)	Elevation (ft msl)
OU-2 Shallow Groundwater Wells										
BHE1-10	1680.70	1680.70	10	30	Qal/ UMCf-fg1	Qal	01/14/15	12.40	12.40	1668.30
H-48	1684.30	1681.68	33	43	na	Qal	10/26/17	26.10	23.48	1658.20
H-49A	1687.96	1685.64	28	48	Qal	Qal	10/26/17	27.14	24.82	1660.82
H-49R	1683.66	1684.04	17	37	Qal	Qal	10/25/17	24.21	24.59	1659.45
H-56A	1684.13	1681.68	28	58	Qal	Qal	10/26/17	24.10	21.65	1660.03
H-56R	1678.96	1678.98	19	49	Qal	Qal	05/07/18	19.16	19.18	1659.80
H-58A	1693.43	1691.04	37	57	Qal/ UMCf-fg1	Qal	10/26/17	30.20	27.81	1663.23
H-58R	1694.45	1694.82	20	40	Qal/ UMCf-fg1	Qal	05/07/18	28.58	28.95	1665.87
M-44	1695.32	1695.63	5	35	Qal/ UMCf-fg1	UMCf-fg1	05/07/18	23.12	23.43	1672.20
M-48A	1718.45	1718.63	20	40	Qal/ UMCf-fg1	Qal	05/07/18	30.44	30.62	1688.01
M-95	1694.14	1695.11	12	22	Qal	Qal	05/07/18	---	---	---
MC-61	1706.36	1704.89	27	47	Qal/ UMCf-fg1	Qal	10/25/17	33.13	31.66	1673.23
MC-62	1700.54	1699.00	25	50	Qal/ UMCf-fg1	Qal	10/25/17	32.86	31.32	1667.68
MC-63	1699.33	1697.93	25	52	Qal	Qal	10/25/17	32.20	30.80	1667.13
MC-64	na	1695.45	---	---	na	nm	---	---	---	---
MC-65	1705.51	1703.73	20	41	Qal/ UMCf-fg1	Qal	10/26/17	35.12	33.34	1670.39
MC-65R	1707.42	1707.65	20	40	Qal/ UMCf-fg1	UMCf-fg1	10/25/17	31.49	31.72	1675.93
MC-65R2	1708.60	1708.90	21	41	Qal/ UMCf-fg1	UMCf-fg1	05/07/18	31.55	31.85	1677.05
MC-66	1702.41	1700.73	27	47	Qal/ UMCf-fg1	Qal	10/26/17	33.84	32.16	1668.57
MC-67	na	na	---	---	na	nm	---	---	---	---
MW-K4	1614.87	1615.38	10	50	Qal/ UMCf-fg1	Qal	05/07/18	32.28	32.79	1582.59
PC-18	1618.57	1618.54	12	52	Qal	Qal	06/01/18	36.21	36.18	1582.36
PC-21A	1722.11	1722.50	14	34	Qal	Qal	05/07/18	29.32	29.71	1692.79
PC-24	1633.60	1634.11	15	30	Qal/ UMCf-fg1	Qal	05/07/18	21.45	21.96	1612.15
PC-28	1650.80	1651.19	10	20	Qal/ UMCf-fg1	Qal	05/07/18	13.24	13.63	1637.56
PC-31	1657.92	1658.17	15	50	Qal	Qal	05/07/18	11.05	11.30	1646.87
PC-37	1707.84	1706.61	17	42	Qal/ UMCf-fg1	Qal	11/06/17	---	---	---
PC-40	1679.11	1676.89	15	55	Qal	Qal	10/26/17	23.00	20.78	1656.11
PC-40R	1677.45	1677.56	15	55	Qal	Qal	05/07/18	21.21	21.32	1656.24
PC-50	1633.48	1633.75	12	42	Qal/ UMCf-fg1	Qal	05/07/18	13.65	13.92	1619.83
PC-54	1704.17	1704.40	10	35	Qal/ UMCf-fg1	Qal	05/07/18	25.60	25.83	1678.57
PC-55	1618.55	1618.08	15	55	Qal/ UMCf-fg1	Qal	06/01/18	34.93	34.46	1583.62
PC-64	1675.33	1675.64	4	19	Qal	Qal	05/07/18	12.16	12.47	1663.17
PC-65	1675.20	1676.10	4	19	Qal	Qal	05/07/18	12.50	13.40	1662.70
PC-66	1673.65	1674.04	7	27	Qal/ UMCf-fg1	Qal	05/07/18	15.51	15.90	1658.14
PC-67	1674.00	1674.51	11	36	Qal	Qal	05/07/18	16.04	16.55	1657.96
PC-71	1695.61	1695.98	13	28	Qal/ UMCf-fg1	Qal	05/07/18	25.68	26.05	1669.93
PC-72	1696.50	1696.70	15	35	Qal/ UMCf-fg1	Qal	05/07/18	28.42	28.62	1668.08

TABLE A1-9. SUMMARY OF GROUNDWATER ELEVATIONS FOR OFF-SITE MONITORING WELLS
OU-1/OU-2 RI Report
Nevada Environmental Response Trust Site; Henderson, Nevada

Off-Site Monitoring Well ID	Surveyed Elevations		Well Screen		Stratigraphic Unit		Groundwater Elevation			
	Top of Casing (ft msl)	Ground Surface (ft msl)	Top (ft bgs)	Bottom (ft bgs)	Screened Unit(s)	GW table in Unit	Date Sampled	Depth (ft btoc)	Depth (ft bgs)	Elevation (ft msl)
PC-73	1699.53	1697.50	20	45	Qal/ UMCf-fg1	Qal	11/06/17	---	---	---
PC-101R	1618.58	1618.85	20	50	Qal	Qal	05/07/18	36.71	36.98	1581.87
PC-122	1618.14	1618.51	23	38	Qal/ UMCf-fg1	Qal	06/01/18	33.28	33.65	1584.86
PC-123	1626.58	1626.90	20	35	Qal/ UMCf-fg1	Qal	05/07/18	23.23	23.55	1603.35
PC-124	1635.84	1636.44	20	35	Qal/ UMCf-fg1	Qal	05/07/18	25.74	26.34	1610.10
PC-125	1635.22	1635.61	19	34	Qal/ UMCf-fg1	Qal	05/07/18	23.96	24.35	1611.26
PC-126	1634.55	1634.90	20	35	Qal	Qal	05/07/18	22.79	23.14	1611.76
PC-127	1632.49	1633.12	15	35	Qal/ UMCf-fg1	Qal	05/07/18	19.48	20.11	1613.01
PC-128	1633.47	1633.78	15	35	Qal/ UMCf-fg1	Qal	05/07/18	19.40	19.71	1614.07
PC-129	1633.99	1634.39	13	38	Qal	Qal	05/07/18	19.83	20.23	1614.16
PC-130	1633.23	1633.65	15	50	Qal/ UMCf-fg1	Qal	05/07/18	21.12	21.54	1612.11
PC-131	1633.62	1634.45	10	40	Qal	Qal	05/07/18	12.13	12.96	1621.49
PC-132	1634.88	1635.20	10	40	Qal/ UMCf-fg1	Qal	05/07/18	10.24	10.56	1624.64
PC-135A	1618.69	1618.99	31	51	Qal/ UMCf-fg1	Qal	05/07/18	36.32	36.62	1582.37
PC-136	1618.37	1618.82	22	42	Qal/ UMCf-fg1	Qal	05/07/18	34.20	34.65	1584.17
PC-142	1619.69	1617.08	22	32	Qal	Qal	05/07/18	31.77	29.16	1587.92
PC-143	1619.30	1619.35	30	65	Qal/ UMCf-fg1	Qal	05/07/18	36.55	36.60	1582.75
PC-144	1618.76	1619.02	30	40	Qal/ UMCf-fg1	Qal	05/07/18	36.05	36.31	1582.71
PC-145	1617.99	1618.20	25	45	Qal/ UMCf-fg1	Qal	05/07/18	34.20	34.41	1583.79
PC-148	1618.13	1618.20	25	45	Qal/ UMCf-fg1	UMCf-fg1	05/07/18	32.56	32.63	1585.57
PC-149	1619.08	1619.16	25	45	Qal/ UMCf-fg1	UMCf-fg1	05/07/18	33.89	33.97	1585.19
PC-153	1635.89	1636.21	10	30	Qal	Qal	11/08/16	9.85	10.17	1625.93
PC-153R	1635.67	1636.07	10	30	Qal	Qal	05/07/18	9.82	10.22	1625.85
PC-160	1619.37	1617.72	9	24	Qal	Qal	05/07/18	13.99	12.34	1605.38
PC-161	1644.82	1645.06	9	34	Qal	Qal	10/31/17	7.02	7.26	1637.80
PC-162	1644.18	1644.52	10	45	Qal/ UMCf-fg1	Qal	10/31/17	8.18	8.52	1636.00
PC-163	1642.79	1643.24	10	25	Qal/ UMCf-fg1	UMCf-fg1	10/31/17	16.36	16.81	1626.43
PC-164	1646.12	1646.46	15	30	Qal	Qal	10/30/17	21.50	21.84	1624.62
PC-165	1660.13	1660.46	13	38	Qal	Qal	11/01/17	12.23	12.56	1647.90
PC-166	1655.80	1656.06	12	32	Qal	Qal	10/30/17	12.32	12.58	1643.48
PC-167	1658.99	1659.27	15	35	Qal/ UMCf-fg1	nm	---	---	---	---
PC-168	1663.66	1664.01	15	35	Qal	Qal	11/14/18	19.59	19.94	1644.07
PC-169	1662.85	1663.32	15	30	Qal	Qal	10/30/17	23.39	23.86	1639.46
PC-170	1677.12	1677.34	15	50	Qal/ UMCf-fg1	Qal	10/24/17	20.20	20.42	1656.92
PC-170R	1676.77	1676.96	15	50	Qal/ UMCf-fg1	Qal	03/29/18	19.23	19.42	1657.54
PC-171	1675.57	1675.98	15	30	Qal/ UMCf-fg1	Qal	10/17/17	20.58	20.99	1654.99
PC-172	1677.52	1677.87	9	24	Qal	nm (dry)	---	---	---	---
PC-172D	1677.47	1677.87	30	50	UMCf-fg1	Qal	11/14/18	24.13	24.53	1653.34
PC-173	1692.02	1692.23	15	50	Qal	Qal	10/24/17	26.56	26.77	1665.46

TABLE A1-9. SUMMARY OF GROUNDWATER ELEVATIONS FOR OFF-SITE MONITORING WELLS
OU-1/OU-2 RI Report
Nevada Environmental Response Trust Site; Henderson, Nevada

Off-Site Monitoring Well ID	Surveyed Elevations		Well Screen		Stratigraphic Unit		Groundwater Elevation			
	Top of Casing (ft msl)	Ground Surface (ft msl)	Top (ft bgs)	Bottom (ft bgs)	Screened Unit(s)	GW table in Unit	Date Sampled	Depth (ft btoc)	Depth (ft bgs)	Elevation (ft msl)
PC-174	1695.58	1695.99	10	25	Qal	Qal	10/30/17	22.71	23.12	1672.87
PC-175	1692.76	1693.07	14	39	Qal	Qal	11/02/17	22.89	23.20	1669.87
PC-186	1693.40	1694.02	20	35	Qal	Qal	11/03/17	18.42	19.04	1674.98
PC-187	1703.54	1703.77	45	55	UMCf-fg1	Qal	10/24/17	25.70	25.93	1677.84
PC-187R	1703.47	1703.72	45	55	UMCf-fg1	Qal	03/29/18	25.80	26.05	1677.67
PC-190	1639.80	1640.12	14	34	Qal	Qal	10/30/17	11.31	11.63	1628.49
RI Wells West of OU-2 Boundary										
PC-151	1638.66	1638.90	8	28	Qal/ UMCf-fg1	Qal	05/07/18	7.41	7.65	1631.25
PC-152	1637.03	1637.46	10	30	Qal/ UMCf-fg1	Qal	05/07/18	8.70	9.13	1628.33
PC-154	1624.81	1625.12	8	23	Qal/ UMCf-fg1	Qal	05/07/18	10.18	10.49	1614.63
PC-158	1620.10	1620.39	7	22	Qal/ UMCf-fg1	Qal	05/07/18	12.55	12.84	1607.55
PC-159	1620.33	1620.73	10	25	Qal	Qal	05/07/18	14.86	15.26	1605.47
AWF Extraction and Monitoring Wells										
ARP-1	1613.44	1613.48	14	44	Qal/ UMCf-fg1	Qal	05/07/18	30.19	30.23	1583.25
ARP-2A	1614.34	1614.66	24	54	Qal/ UMCf-fg1	Qal	05/07/18	31.48	31.80	1582.86
ARP-3A	1614.74	1614.96	21	41	Qal	Qal	05/07/18	32.05	32.27	1582.69
ARP-4A	1615.60	1615.74	18	33	Qal/ UMCf-fg1	UMCf-fg1	05/07/18	32.56	32.70	1583.04
ARP-5A	1616.23	1616.51	13	38	Qal/ UMCf-fg1	Qal	05/07/18	33.31	33.59	1582.92
ARP-6B	1615.52	1615.90	28	43	Qal/ UMCf-fg1	Qal	05/07/18	32.83	33.21	1582.69
ARP-7	1613.71	1614.57	14	39	Qal	Qal	05/07/18	30.90	31.76	1582.81
ART-1	1614.56	1615.76	14	54	Qal/ UMCf-fg1	Qal	06/05/18	31.72	32.92	1582.84
ART-1A	1614.54	1615.81	19	54	Qal	Qal	06/05/18	33.30	34.57	1581.24
ART-2	1617.20	1618.31	19	54	Qal	Qal	06/05/18	35.50	36.61	1581.70
ART-2A	1616.93	1617.99	21	56	Qal	Qal	06/05/18	36.19	37.25	1580.74
ART-3	1618.02	1619.04	16	46	Qal/ UMCf-fg1	Qal	06/05/18	37.03	38.05	1580.99
ART-3A	1617.67	1618.94	18	53	Qal/ UMCf-fg1	UMCf-fg1	06/05/18	51.21	52.48	1566.46
ART-4	1617.53	1618.59	19	44	Qal	Qal	06/05/18	39.67	40.73	1577.86
ART-4A	1617.50	1618.62	18	43	Qal	Qal	06/05/18	35.56	36.68	1581.94
ART-6	1615.45	1620.10	18	38	Qal/ UMCf-fg1	Qal	06/05/18	30.41	35.06	1585.04
ART-7	1613.96	1618.26	19	39	Qal	Qal	12/07/16	---	---	---
ART-7A	1614.84	1618.43	20	40	Qal	Qal	06/05/18	30.44	34.03	1584.40
ART-7B	1615.93	1618.24	30	45	Qal	UMCf-fg1	06/05/18	37.80	40.11	1578.13
ART-8	1617.72	1618.94	18	48	Qal	Qal	06/05/18	36.40	37.62	1581.32
ART-8A	1617.21	1618.96	22	52	Qal	Qal	06/05/18	43.67	45.42	1573.54
ART-9	1615.01	1618.81	23	43	Qal/ UMCf-fg1	Qal	06/05/18	36.42	40.22	1578.59
PC-150	1616.15	1618.59	20	40	Qal/ UMCf-fg1	UMCf-fg1	06/05/18	35.60	38.04	1580.55
OU-2 Shallow WBZ (UMCf, ~45-90 ft bgs) Wells										
MC-MW-36	1702.38	1702.66	53	63	UMCf-fg1	na (1)	10/26/17	28.82	29.10	1673.56
MC-MW-37	1703.91	1704.13	53	63	UMCf-fg1	na (1)	10/26/17	32.20	32.42	1671.71

TABLE A1-9. SUMMARY OF GROUNDWATER ELEVATIONS FOR OFF-SITE MONITORING WELLS
OU-1/OU-2 RI Report
Nevada Environmental Response Trust Site; Henderson, Nevada

Off-Site Monitoring Well ID	Surveyed Elevations		Well Screen		Stratigraphic Unit		Groundwater Elevation			
	Top of Casing (ft msl)	Ground Surface (ft msl)	Top (ft bgs)	Bottom (ft bgs)	Screened Unit(s)	GW table in Unit	Date Sampled	Depth (ft btoc)	Depth (ft bgs)	Elevation (ft msl)
MC-MW-37R	1707.59	1707.61	45	65	UMCf-fg1	na (1)	10/25/17	29.70	29.72	1677.89
MC-MW-37R2	1708.80	1709.13	53	63	UMCf-fg1	na (1)	03/29/18	30.97	31.30	1677.83
MC-MW-38	1709.41	1709.46	48	58	UMCf-fg1	na (1)	10/25/17	30.01	30.06	1679.40
PC-134A	1618.72	1618.94	60	70	UMCf-fg1	na (1)	05/07/18	36.05	36.27	1582.67
PC-134D	1618.56	1618.82	80	90	UMCf-fg1	na (1)	05/07/18	30.23	30.49	1588.33
PC-137	1618.53	1618.89	63	73	UMCf-fg1	na (1)	05/07/18	33.38	33.74	1585.15
PC-137D	1618.41	1618.79	80	90	UMCf-fg1	na (1)	05/07/18	31.46	31.84	1586.95
PC-176	1633.19	1633.52	60	75	UMCf-fg1	na (1)	11/14/18	21.18	21.51	1612.01
PC-177	1627.72	1628.09	45	60	UMCf-fg1	na (1)	10/31/17	22.02	22.39	1605.70
PC-179	1675.12	1675.45	35	50	UMCf-fg1	na (1)	10/30/17	12.02	12.35	1663.10
PC-180	1696.08	1696.44	35	45	UMCf-fg1	na (1)	10/24/17	27.20	27.56	1668.88
PC-181	1696.22	1696.43	55	65	UMCf-fg1	na (1)	10/24/17	26.40	26.61	1669.82
PC-182	1696.19	1696.45	75	85	UMCf-fg1	na (1)	10/24/17	26.60	26.86	1669.59
PC-183	1694.72	1695.38	35	45	UMCf-fg1	na (1)	10/24/17	23.04	23.70	1671.68
PC-184	1695.24	1695.55	55	65	UMCf-fg1	na (1)	10/24/17	24.42	24.73	1670.82
PC-185	1695.18	1695.48	75	85	UMCf-fg1	na (1)	10/24/17	24.70	25.00	1670.48
PC-188	1716.71	1717.15	50	60	UMCf-fg1	na (1)	11/02/17	32.04	32.48	1684.67
PC-189	1718.34	1718.70	50	60	UMCf-fg1	na (1)	11/02/17	30.01	30.37	1688.33
PC-192	1673.74	1674.04	35	50	UMCf-fg1	na (1)	10/30/17	15.51	15.81	1658.23
PC-193	1642.84	1643.19	35	50	UMCf-fg1	na (1)	10/31/17	16.24	16.59	1626.60
PC-194	1634.49	1634.85	44	59	UMCf-fg1	na (1)	10/31/17	10.13	10.49	1624.36
PC-195	1615.34	1612.93	60	75	UMCf-fg1	na (1)	11/01/17	30.12	27.71	1585.22
PC-196	1615.44	1612.93	60	75	UMCf-fg1	na (1)	11/01/17	30.74	28.23	1584.70
PC-197	1609.79	1610.40	60	75	UMCf-fg1	na (1)	11/02/17	27.08	27.69	1582.71
OU-2 Middle WBZ Wells										
M-152	1695.39	1695.46	125	145	UMCf-fg1	na (1)	05/07/18	24.95	25.02	1670.44
M-156	1695.52	1695.53	175	195	UMCf-fg1	na (1)	05/07/18	18.52	18.53	1677.00
TR-12	1692.09	1693.18	272	292	UMCf-cg2	na (1)	05/30/18	-16.17	-15.08	1708.26
OU-3 Wells in NERT Off-Site Study Area										
COH-2B	1547.08	1544.42	---	---	na	Qal	04/05/16	16.98	14.32	1529.97
MCF-18A	1577.53	1574.20	360	400	UMCf-fg1	Qal	04/04/16	22.93	19.60	1554.60
MW-K5	1598.91	1595.66	29	44	UMCf-fg1	UMCf-fg1	05/07/18	28.92	25.67	1569.99
PC-2	1596.30	1594.65	17	32	Qal	Qal	05/07/18	24.99	23.34	1571.31
PC-4	1599.47	1597.60	18	43	Qal	Qal	05/07/18	32.00	30.13	1567.47
PC-53	1595.17	1593.52	13	33	Qal/ UMCf-fg1	Qal	05/07/18	25.54	23.89	1569.63
PC-56	1576.67	1573.53	5	55	Qal	Qal	05/07/18	20.10	16.96	1556.57
PC-58	1576.54	1574.21	8	33	Qal	Qal	05/07/18	20.72	18.39	1555.82
PC-59	1575.88	1573.18	5	35	Qal	Qal	05/07/18	18.88	16.18	1557.00
PC-60	1576.19	1573.64	5	40	Qal	Qal	05/07/18	19.31	16.76	1556.88

TABLE A1-9. SUMMARY OF GROUNDWATER ELEVATIONS FOR OFF-SITE MONITORING WELLS
OU-1/OU-2 RI Report
Nevada Environmental Response Trust Site; Henderson, Nevada

Off-Site Monitoring Well ID	Surveyed Elevations		Well Screen		Stratigraphic Unit		Groundwater Elevation			
	Top of Casing (ft msl)	Ground Surface (ft msl)	Top (ft bgs)	Bottom (ft bgs)	Screened Unit(s)	GW table in Unit	Date Sampled	Depth (ft btoc)	Depth (ft bgs)	Elevation (ft msl)
PC-62	1575.57	1573.23	8	38	Qal	Qal	05/07/18	18.22	15.88	1557.35
PC-68	1575.98	1573.94	10	55	Qal	Qal	10/11/16	18.10	16.06	1558.29
PC-79	1573.18	1570.83	35	45	Qal	Qal	05/07/18	17.13	14.78	1556.05
PC-82	1568.69	1565.17	47	57	Qal	Qal	05/07/18	16.56	13.04	1552.13
PC-86	1561.14	1559.17	18	28	Qal	Qal	06/01/18	13.43	11.46	1547.71
PC-88	1550.83	1550.90	40	50	Qal	Qal	05/07/18	6.57	6.64	1544.26
PC-90	1550.39	1550.64	5	15	Qal	Qal	06/01/18	6.85	7.10	1543.54
PC-91	1552.17	1552.30	12	22	Qal	Qal	06/01/18	11.26	11.39	1540.91
PC-92	1551.83	1551.96	27	37	Qal	Qal	05/04/16	10.70	10.83	1541.35
PC-94	1549.79	1550.08	10	20	Qal	Qal	05/07/18	12.99	13.28	1535.93
PC-96	1552.37	1552.52	29	39	Qal	Qal	05/07/18	6.50	6.65	1545.87
PC-97	1548.42	1548.88	23	33	Qal	Qal	06/01/18	5.64	6.10	1542.78
PC-98R	1593.15	1593.18	20	35	Qal	Qal	05/07/18	21.98	22.01	1571.17
PC-99R2/R3	1552.59	1551.74	11	50	Qal	Qal	06/06/18	13.14	12.29	1539.45
PC-103	1599.35	1597.06	9	29	Qal	Qal	05/07/18	22.75	20.46	1576.60
PC-115R	1554.76	1554.54	10	50	Qal	Qal	06/06/18	13.13	12.91	1541.63
PC-116R	1552.08	1551.95	10	50	Qal/ UMCf-fg1	Qal	06/06/18	16.40	16.27	1535.68
PC-117	1550.66	1550.75	10	49	Qal	Qal	06/06/18	15.90	15.99	1534.76
PC-118	1553.05	1552.98	7	46	Qal	Qal	06/06/18	8.62	8.55	1544.43
PC-119	1553.10	1559.06	15	44	Qal	Qal	06/06/18	7.72	13.68	1545.38
PC-120	1553.16	1558.64	14	45	Qal	Qal	06/06/18	6.64	12.12	1546.52
PC-121	1554.05	1557.06	7	37	Qal	Qal	06/06/18	6.05	9.06	1548.00
PC-133	1550.23	1551.52	3	38	Qal	Qal	06/06/18	11.00	12.29	1539.23
PC-155A	1555.63	1552.65	10	30	Qal	Qal	05/07/18	14.71	11.73	1540.92
PC-155B	1556.06	1552.88	38	48	Qal/ UMCf-fg1	Qal	05/07/18	14.30	11.12	1541.76
PC-156A	1549.79	1546.86	10	20	Qal	Qal	05/07/18	9.10	6.17	1540.69
PC-156B	1550.54	1547.12	25	45	Qal/ UMCf-fg1	Qal	05/07/18	11.42	8.00	1539.12
PC-157A	1548.05	1544.95	9	24	Qal	Qal	05/07/18	10.08	6.98	1537.97
PC-157B	1548.04	1544.96	30	40	Qal	Qal	05/07/18	10.97	7.89	1537.07
PC-178	1595.03	1595.12	55	70	UMCf-fg1	na (1)	11/01/17	22.08	22.17	1572.95
PC-191	1601.93	1602.35	10	25	Qal	Qal	11/01/17	10.43	10.85	1591.50
WMW6.15S	1545.08	1542.90	8	18	Qal	Qal	04/05/16	10.28	8.10	1534.80
WMW6.55S	1559.25	1557.15	18	43	Qal/ UMCf-fg1	Qal	04/05/16	16.03	13.93	1543.22

Notes:

ft msl: feet above mean sea level

ft bgs: feet below ground surface

ft btoc: feet below top of casing

GW table: Groundwater table

NA: not available

na (1): not applicable; deeper well screened below the water table.

nm: not measured

"---" means a groundwater elevation was not obtained.

TABLE A1-10. SUMMARY OF GROUNDWATER ELEVATIONS FOR EASTSIDE MONITORING WELLS
OU-1/OU-2 RI Report
Nevada Environmental Response Trust Site; Henderson, Nevada

Eastside Monitoring Well ID	Surveyed Elevations		Well Screen		Stratigraphic Unit		Groundwater Elevation			
	Top of Casing (ft msl)	Ground Surface (ft msl)	Top (ft bgs)	Bottom (ft bgs)	Screened Unit(s)	GW table in Unit	Date Sampled	Depth (ft btoc)	Depth (ft bgs)	Elevation (ft msl)
OU-2 Eastside Water Table Wells										
AA-01	1757.16	1755.02	29	49	Qal	Qal	05/07/18	48.85	46.71	1708.31
AA-09	1695.87	1694.26	30	65	Qal	Qal	04/05/18	39.40	37.79	1656.47
AA-13	1724.69	1722.37	38	58	Qal/ UMCf-fg1	na	---	---	---	---
AA-18	1669.00	1665.60	45	65	Qal/ UMCf-fg1	Qal	03/29/18	58.90	55.50	1610.10
AA-20	1628.46	1625.98	10	30	Qal/ UMCf-fg1	UMCf-fg1	04/07/16	31.56	29.08	1596.90
AA-27	1789.43	1787.03	62	82	Qal	Qal	03/27/18	68.01	65.61	1721.42
AA-UW1	1774.45	1771.22	55	65	UMCf-fg1	Qal	03/27/18	52.41	49.18	1722.04
AA-UW2	1821.36	1817.63	55	75	Qal/ UMCf-fg1	UMCf-fg1	03/27/18	67.00	63.27	1754.36
AA-UW3	1812.72	1809.07	60	80	Qal/ UMCf-fg1	na	---	---	---	---
AA-UW4	1800.28	1796.79	35	55	UMCf-fg1	UMCf-fg1	03/27/18	40.99	37.50	1759.29
AA-UW5	1768.68	1765.05	37	57	Qal/ UMCf-fg1	Qal	03/27/18	45.60	41.97	1723.08
AA-UW6	1740.81	1737.01	37	57	UMCf-fg1	na	---	---	---	---
BEC-5	1689.64	1689.66	54	69	Qal/ UMCf-fg1	UMCf-fg1	04/05/18	58.60	58.62	1631.04
BEC-7	1662.82	1662.82	45	60	Qal/ UMCf-fg1	UMCf-fg1	04/05/18	56.20	56.20	1606.62
BEC-9	1647.41	1647.74	44	59	UMCf-fg1	UMCf-fg1	04/05/18	51.00	51.33	1596.74
BEC-10	1657.39	1657.38	73	88	UMCf-fg1	UMCf-fg1	04/02/18	56.32	56.31	1601.07
BEC-12	1683.84	1683.50	45	60	UMCf-fg1	UMCf-fg1	04/05/18	51.71	51.37	1632.13
DBMW-1	1626.60	1624.13	19	49	Qal/ UMCf-fg1	Qal	04/02/18	36.14	33.67	1590.46
DBMW-3	1625.86	1623.40	19	39	Qal/ UMCf-fg1	Qal	04/02/18	27.52	25.06	1598.34
DBMW-4	1605.83	1603.49	10	30	Qal/ UMCf-fg1	Qal	05/07/18	25.44	23.10	1580.39
DBMW-5	1609.61	1606.65	15	35	UMCf-fg1	UMCf-fg1	04/02/18	27.45	24.49	1582.16
DBMW-6	1632.43	1629.55	30	50	Qal/ UMCf-fg1	nm (dry)	---	---	---	---
DBMW-7	1631.61	1628.99	50	70	UMCf-fg1	UMCf-fg1	04/03/18	57.94	55.32	1573.67
DBMW-8	1632.03	1628.99	48	68	UMCf-fg1	UMCf-fg1	04/03/18	56.88	53.84	1575.15
DBMW-9	1659.92	1656.76	54	74	UMCf-fg1	UMCf-fg1	03/29/18	59.41	56.25	1600.51
DBMW-10	1663.96	1660.83	55	75	Qal/ UMCf-fg1	Qal	03/29/18	61.63	58.50	1602.33
DBMW-11	1667.46	1664.20	45	75	UMCf-fg1	na	---	---	---	---
DBMW-12	1669.68	1666.36	45	75	UMCf-fg1	UMCf-fg1	03/29/18	44.97	41.65	1624.71
DBMW-13	1678.79	1675.93	45	75	UMCf-fg1	UMCf-fg1	03/30/18	45.10	42.24	1633.69
DBMW-14	1684.96	1681.89	35	65	Qal/ UMCf-fg1	Qal	04/10/18	33.21	30.14	1651.75
DBMW-15	1693.20	1690.25	40	65	UMCf-fg1	Qal	03/30/18	36.70	33.75	1656.50
DBMW-17	1712.38	1709.57	52	72	Qal/ UMCf-fg1	Qal	04/03/18	63.32	60.51	1649.06
DBMW-18	1717.15	1714.11	45	65	Qal/ UMCf-fg1	UMCf-fg1	03/30/18	60.17	57.13	1656.98
DM-1	1727.21	1729.11	30	55	Qal	Qal	04/12/18	49.70	51.60	1677.51
ES-2	1738.06	1736.23	35	55	Qal/ UMCf-fg1	Qal	04/04/18	45.87	44.04	1692.19
ES-3	1724.66	1722.66	25	45	Qal	Qal	03/28/18	36.20	34.20	1688.46
ES-10	1620.87	1621.27	45	65	UMCf-fg1	UMCf-fg1	04/02/18	33.51	33.91	1587.36
ES-11	1621.60	1621.90	35	55	UMCf-fg1	UMCf-fg1	04/02/18	29.78	30.08	1591.82

TABLE A1-10. SUMMARY OF GROUNDWATER ELEVATIONS FOR EASTSIDE MONITORING WELLS
OU-1/OU-2 RI Report
Nevada Environmental Response Trust Site; Henderson, Nevada

Eastside Monitoring Well ID	Surveyed Elevations		Well Screen		Stratigraphic Unit		Groundwater Elevation			
	Top of Casing (ft msl)	Ground Surface (ft msl)	Top (ft bgs)	Bottom (ft bgs)	Screened Unit(s)	GW table in Unit	Date Sampled	Depth (ft btoc)	Depth (ft bgs)	Elevation (ft msl)
ES-12	1607.24	1605.18	45	65	UMCf-fg1	UMCf-fg1	04/02/18	29.33	27.27	1577.91
ES-14A	1668.51	1666.30	50	70	UMCf-fg1	UMCf-fg1	06/13/19	53.07	50.86	1615.44
ES-36	1630.83	1628.61	30	45	UMCf-fg1	UMCf-fg1	05/22/18	36.27	34.05	1594.56
HMW-18	1734.90	1732.50	---	---	na	na	04/12/18	51.80	49.40	1683.10
HMWWT1	1729.21	1729.66	51	66	UMCf-fg1	UMCf-fg1	03/28/18	49.20	49.65	1680.01
HMWWT6	1774.04	1774.31	36	51	UMCf-fg1	UMCf-fg1	---	---	---	---
MCF-06C	1632.95	1630.28	44	59	UMCf-fg1	UMCf-fg1	04/12/18	57.14	54.47	1575.81
MCF-16C	1691.98	1689.88	53	73	Qal/ UMCf-fg1	Qal	04/04/18	63.97	61.87	1628.01
POD7	1690.92	1692.78	48	53	Qal/ UMCf-fg1	UMCf-fg1	---	---	---	---
POD7-R	1698.60	1698.60	---	---	na	Qal	04/12/18	47.00	47.00	1651.60
POD8	1691.33	1691.16	43	73	Qal	Qal	04/04/18	68.73	68.56	1622.60
POU3	1728.51	1728.00	35	65	Qal/ UMCf-fg1	Qal	04/04/18	39.78	39.27	1688.73
OU-2 Eastside Shallow WBZ (UMCf, ~55-90 ft bgs) Wells										
ES-4	1728.79	1726.94	70	90	UMCf-fg1	na (1)	04/04/18	40.31	38.46	1688.48
ES-5	1692.31	1690.42	70	85	UMCf-fg1	na (1)	04/05/18	36.64	34.75	1655.67
ES-6	1660.84	1658.65	55	75	UMCf-fg1	na (1)	04/12/18	32.70	30.51	1628.14
ES-7	1680.45	1678.43	60	80	UMCf-fg1	na (1)	04/12/18	54.34	52.32	1626.11
ES-8A	1718.86	1716.68	60	80	UMCf-fg1	na (1)	03/27/18	49.56	47.38	1669.30
ES-9	1681.15	1681.57	80	100	UMCf-fg1	na (1)	06/13/19	61.70	62.12	1619.45
ES-15	1654.91	1655.28	70	90	UMCf-fg1	na (1)	07/31/19	56.32	56.69	1598.59
ES-16	1660.56	1660.84	80	100	UMCf-fg1	na (1)	07/31/19	54.30	54.58	1606.26
ES-17	1666.15	1666.55	80	100	UMCf-fg1	na (1)	07/31/19	48.55	48.95	1617.60
ES-28	1761.00	1758.96	65	85	UMCf-fg1	na (1)	04/09/18	62.90	60.86	1698.10
ES-29	1765.54	1763.49	60	80	UMCf-fg1	na (1)	02/17/18	56.70	54.65	1708.84
ES-30	1667.45	1665.33	73	93	UMCf-fg1	na (1)	04/09/18	54.35	52.23	1613.10
ES-31	1646.08	1643.92	55	75	UMCf-fg1	na (1)	04/09/18	45.00	42.84	1601.08
ES-32	1697.91	1695.93	72	92	UMCf-fg1	na (1)	04/12/18	48.79	46.81	1649.12
MCF-01B	1756.28	1753.95	55	85	UMCf-fg1	na (1)	03/26/18	47.99	45.66	1708.29
MCF-03B	1785.72	1783.46	57	77	UMCf-fg1	na (1)	03/27/18	44.10	41.84	1741.62
MCF-06B	1633.01	1630.27	67	82	UMCf-fg1	na (1)	04/07/16	57.86	55.12	1575.15
MCF-12B	1714.88	1712.74	64	84	UMCf-fg1	na (1)	---	---	---	---
OU-2 Eastside Middle WBZ Wells										
DBMW-16	1694.14	1691.08	85	110	Qal/ UMCf-fg1	na (1)	03/30/18	88.00	84.94	1606.14
ES-1	1755.57	1753.54	95	110	UMCf-fg1	na (1)	03/26/18	46.80	44.77	1708.77
ES-8B	1718.56	1716.60	90	110	UMCf-fg1	na (1)	04/09/18	50.93	48.97	1667.63
ES-13	1632.52	1630.62	90	105	UMCf-fg1	na (1)	04/02/18	60.41	58.51	1572.11
ES-14B	1667.46	1665.37	100	115	UMCf-fg1	na (1)	06/13/19	72.65	70.56	1594.81
ES-18	1679.25	1679.58	90	110	UMCf-fg1	na (1)	07/31/19	39.77	40.10	1639.48
ES-19	1685.15	1685.46	157	177	UMCf-fg1	na (1)	07/31/19	62.55	62.86	1622.60

TABLE A1-10. SUMMARY OF GROUNDWATER ELEVATIONS FOR EASTSIDE MONITORING WELLS
OU-1/OU-2 RI Report
Nevada Environmental Response Trust Site; Henderson, Nevada

Eastside Monitoring Well ID	Surveyed Elevations		Well Screen		Stratigraphic Unit		Groundwater Elevation			
	Top of Casing (ft msl)	Ground Surface (ft msl)	Top (ft bgs)	Bottom (ft bgs)	Screened Unit(s)	GW table in Unit	Date Sampled	Depth (ft btoc)	Depth (ft bgs)	Elevation (ft msl)
ES-20	1718.10	1716.20	91	111	UMCf-fg1	na (1)	04/10/18	61.00	59.10	1657.10
MCF-05	1627.26	1625.00	221	231	UMCf-fg1	na (1)	04/03/18	53.53	51.27	1573.73
MCF-09B	1695.77	1693.00	105	125	UMCf-fg1	na (1)	04/05/18	39.40	36.63	1656.37
MCF-11	1659.95	1657.75	94	104	UMCf-fg1	na (1)	04/12/18	31.50	29.30	1628.45
MCF-16B	1692.26	1689.75	284	314	UMCf-fg1	na (1)	04/04/18	61.13	58.62	1631.13
MCF-24B	1684.60	1680.00	150	170	UMCf-fg1	na (1)	04/05/18	72.40	67.80	1612.20
MCF-32B	1732.70	1728.31	140	160	UMCf-fg1	na (1)	03/27/18	54.22	49.83	1678.48
OU-2 Eastside Deep WBZ Wells										
MCF-01A	1756.61	1754.44	335	355	UMCf-fg1	na (1)	03/26/18	34.08	31.91	1722.53
MCF-03A	1784.06	1783.23	364	384	UMCf-fg1	na (1)	03/27/18	28.34	27.51	1755.72
MCF-06A-R	1632.77	1630.00	353	373	UMCf-fg1	na (1)	04/09/18	102.55	99.78	1530.22
MCF-09A	1695.87	1694.26	270	290	UMCf-fg1	na (1)	04/05/18	41.39	39.78	1654.48
MCF-16A	1691.66	1689.67	365	385	UMCf-fg1	na (1)	04/03/18	39.97	37.98	1651.69
MCF-20A	1626.23	1622.99	340	380	UMCf-fg1	na (1)	04/03/18	72.59	69.35	1553.64
MCF-24A	1676.98	1674.07	355	375	UMCf-fg1	na (1)	04/04/18	65.99	63.08	1610.99
MCF-27	1789.43	1787.03	362	382	UMCf-fg1	na (1)	03/27/18	0	-2.40	1789.43
MCF-32A	1732.26	1727.88	350	370	UMCf-fg1	na (1)	03/28/18	13.93	9.55	1718.33

Notes:

ft msl: feet above mean sea level

ft bgs: feet below ground surface

ft btoc: feet below top of casing

GW table: Groundwater table

NA: not available

na (1): not applicable; deeper well screened below the water table.

nm: not measured

"---" means a groundwater elevation was not obtained.