TETRA TECH

TECHNICAL MEMORANDUM

To:	**Nevada Division of Environmental Protection**
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Date:	May 6, 2016
Subject:	Unit 4 and 5 Buildings Investigation First Mobilization

1.0 INTRODUCTION

On behalf of the Nevada Environmental Response Trust (NERT), Tetra Tech has prepared this Unit 4 and 5 Buildings Investigation First Mobilization Technical Memorandum (Tech Memo). The purpose of this Tech Memo is to summarize the field activities and analytical results of the first environmental investigation field mobilization performed in the area of the Unit 4 and 5 buildings (Investigation Area), present three dimensional visualizations of the preliminary data, and propose an implementation plan for the second field mobilization.

The Unit 4 and 5 buildings are located on the portion of the NERT property (Site) that is leased by Tronox LLC (Tronox). The Site is located within the Black Mountain Industrial (BMI) Complex in Henderson, Nevada. The location of the Site is shown on Figure 1, and the location of the Investigation Area within the Tronox-leased portion of the Site is shown on Figure 2.

The Unit 4 and 5 Buildings Investigation Work Plan (Work Plan) was submitted to the Nevada Division of Environmental Protection (NDEP) on March 30, 2015 (Tetra Tech, 2015). In an email dated April 9, 2015, NDEP outlined three primary comments to the Work Plan: 1) Decision criteria and distance for step out borings; 2) Additional/supplemental laboratory analyses; and 3) Soil sampling frequency. Following receipt of comments from NDEP on April 9, 2015 a conference call was conducted on April 10, 2015 with NDEP, NERT, and Tetra Tech. During the April 10, 2015 conference call, NERT and Tetra Tech adequately addressed NDEPs comments 1 and 3 and there was no change in the scope of work pertaining to those comments. NERT agreed to analyze shallow soil samples for additional analyses as requested by NDEP in comment 2.

The Scope of Work performed during the first mobilization is the first of three Unit 4 and 5 Investigation Area field mobilizations. These mobilizations are described in the Work Plan submitted to the NDEP on March 30, 2015, and supplemented during a conference call with NDEP on April 10, 2015. The Unit 4 and 5 building environmental investigation is a component of the NERT Remedial Investigation/Feasibility Study (RI/FS).

Implementation of the Unit 4 and 5 Buildings Investigation Work Plan was divided into three field mobilizations. A brief description of the Scope of Work and objectives for each of the three field events is provided below.

First Field Mobilization:

The first mobilization consisted of advancing four boreholes around the four exterior corners of the Unit 4 Cell Building. The goal of the first mobilization was to obtain preliminary baseline data that will be used to direct and refine implementation of the second field mobilization. Both lithologic and analytical data from the first mobilization were used to finalize the depth of the borings and analytical procedures to be followed during the second mobilization, and to establish the framework of the investigation. Specifically, this will include verification of the depths of lithologic contacts; depth to first groundwater; and depth to the base of the Shallow Water Bearing Zone. This Tech Memo presents the results of the first mobilization and provides recommendations for borehole completion depths and analytical procedures to be implemented during the second mobilization.

Second Field Mobilization:

The second field mobilization will occur following the completion of the Unit 4 cell floor demolition, which began in March 2016, and NDEP concurrence with the proposed approach to implement the second mobilization. The majority of the Unit 4 and 5 investigation work will be conducted during the second mobilization. The second mobilization consists of the advancement of approximately 50-60 boreholes along five parallel transects. As described in the Work Plan, one transect is placed on the upgradient (south) side of the Unit 4 and 5 Cell Buildings, one transect on the downgradient (north) side of the Unit 4 and 5 Cell Buildings, and three transects through the center of the Unit 4 cell floor basement and on the outside of the Unit 4 and 5 Cell Buildings, as shown on Figure 3. Following completion of the second mobilization, a Second Mobilization Technical Memorandum will be prepared. The Second Mobilization Technical Memorandum will include a summary of the results and recommendations for the placement of additional soil borings necessary to improve the delineation of elevated perchlorate in the subsurface and groundwater monitoring wells around the Unit 4 and Unit 5 buildings.

Third Field Mobilization:

The third mobilization will include the installation of five to seven groundwater monitoring wells strategically placed around the Unit 4 and Unit 5 buildings and will commence following NDEP concurrence of the location and design of the proposed groundwater monitoring wells. Following the completion of the third mobilization, Tetra Tech will prepare a comprehensive report summarizing the results derived from all three field mobilizations that will be incorporated into the NERT Remedial Investigation (RI) Report.

This Tech Memo presents the results of the first mobilization and recommendations for the implementation of the second mobilization. It is organized as follows:

- Section 2.0 presents a description of the work performed, including:
    - Borehole siting, notification, permitting, and surveying;
    - Drilling, sampling, and temporary well installation; and
    - Investigation derived waste (IDW) management.
- Section 3.0 presents a description of field variances from the Work Plan;
- Section 4.0 presents a summary of the results of the first mobilization;
- Section 5.0 presents recommendations for the second mobilization; and
- Section 6.0 presents a listing of references.
- Following Section 6.0, the report certification and list of acronyms is provided.

2.0 WORK PERFORMED

This section of the Tech Memo provides a summary of field activities performed during the first mobilization. The first mobilization consisted of advancing four boreholes outside the four corners of the Unit 4 Cell Building. The locations of the four boreholes are shown on Figure 4. The following activities were performed during the first mobilization, between October 20, 2015 and December 7, 2015:

- Borehole siting, notification, permitting, and surveying;
- Drilling, sampling, and temporary well installation; and
- IDW management.

The work was conducted in accordance with the Unit 4 and 5 Buildings Investigation Work Plan and under the direction of a Nevada Certified Environmental Manager. A description of each of these tasks is presented in the following sections.

2.1 BOREHOLE LOCATION SITING, NOTIFICATION, PERMITTING, AND SURVEYING

Prior to the commencement of subsurface invasive activities, Tetra Tech field-marked the four borehole locations and submitted a groundbreaking permit application to Tronox for review and approval. Following approval of the groundbreaking permit, the first mobilization began, consisting of the advancement of four boreholes, the collection of soil and groundwater samples, and the abandonment of each borehole. Because no permanent monitoring wells were constructed during the first mobilization, well permits were not required. No other permits were required as part of the first mobilization.

The locations for each of the four boreholes (U4U5-1 to U4U5-4) were outside of the four corners of the Unit 4 Cell Building, as described in the Work Plan and shown on Figure 4.

Prior to drilling, the location of each borehole was surveyed on October 20, 2015. Atkins, a licensed Nevada land surveyor, surveyed the borehole locations for coordinates and elevation according to the North American Datum of 1983 (NAD 83) State Coordinate System and North American Vertical Datum of 1988 (NAVD 88). The well coordinates and elevations are summarized in Table 1.

2.2 DRILLING, SAMPLING, AND TEMPORARY WELL INSTALLATION

This section of the report provides a summary of the field activities associated with subsurface utility clearance, borehole drilling, soil sampling, temporary well installation, and discrete-depth groundwater sampling. The geophysical utility clearance was performed by Ground Penetrating Radar Systems, Inc. (GPRS) on October 13, 2015. Concrete coring, hydro-vacuum utility clearance, drilling, soil sampling, temporary well installation, discrete-depth groundwater sampling, and borehole abandonment at U4U5-1, U4U5-2, U4U5-3, and U4U5-4 were performed by National EWP, Inc. between October 28, 2015 and November 6, 2015.

2.2.1 Subsurface Geophysical Utility Clearance

Prior to drilling, each borehole location was cleared for subsurface utilities and other potential subsurface obstructions using a geophysical utility clearance contractor. A Tetra Tech representative marked the proposed boring locations, and the geophysical utility clearance contractor cleared each of the planned borehole locations.

2.2.2 Coring

Three of the four boring locations (U4U5-1, U4U5-2, and U4U5-3) were on asphalt surfaces and required coring prior to hydro-vacuum services and drilling. Borehole location U4U5-4 was on soil and required no coring.

2.2.3 Hydro-Vacuum Utility Clearance

Geophysical techniques do not detect all potential subsurface utilities or obstructions; therefore, as an additional precaution, Tetra Tech contracted the services of National EWP to perform hydro-vacuum services in the upper portion of each borehole. Hydro-vacuum is a minimally invasive method to advance the upper portion of a borehole without damaging subsurface utilities if encountered. The hydro-vacuum uses injected water to dislodge soil within the borehole and a vacuum to extract the soil from the borehole and transfer it to a holding tank located at the surface. Each of the four boreholes were cleared to a depth of 12 feet using a hydro-vacuum prior to drilling.

At two of the planned borehole locations (U4U5-2 and U4U5-3), inactive clay pipelines were encountered within the upper 12 feet and the borehole locations were relocated to avoid these obstructions. Borehole location U4U5-2 was moved three times and borehole location U4U5-3 was moved four times before reaching a depth of 12 feet below ground surface (bgs) with no obstruction. Borehole locations U4U5-1 and U4U5-4 were cleared by the hydro-vacuum to 12 feet bgs without any obstructions.

2.2.4 Drilling, Discrete-Depth Soil Sampling, and Lithologic Logging

Drilling was accomplished through conventional roto-sonic drilling methods. Roto-sonic drilling consists of advancing the borehole by pushing and rotating the drill string while simultaneously vibrating the drill head. The drill string consists of an inner core barrel that is used to collect and recover soil samples and an outer casing that maintains borehole stability while soil collected in the inner core barrel is retrieved. The inner core barrel is advanced in 5 to 10-foot increments ahead of the outer casing, and then the outer casing is advanced. Once the outer casing is advanced to the same depth as the inner core barrel, the inner core barrel is retrieved to the surface for lithologic logging and sampling. Following recovery of the sample core, the inner core barrel is returned to the head of the drill string and the borehole is advanced to the next target depth. A nominal 6-inch diameter borehole was advanced to collect continuous soil core samples for lithologic logging, soil samples for analytical testing, and discrete-depth groundwater samples.

As mentioned above, the hydro-vacuum was utilized to advance each borehole from ground surface to a depth of 12 feet bgs. While advancing each borehole with the hydro-vacuum, soil samples were collected at 2.5-foot depth intervals for lithologic logging and analytical purposes. In the upper 12 feet, soil samples were collected in stainless steel sleeves using a slide hammer sampling tool.

Following completion of the hydro-vacuum utility clearance to a depth of 12 feet bgs, continuous soil samples were collected using a roto-sonic drill rig from 12 feet bgs to the total investigation depth of 90 feet bgs. A Tetra Tech field geologist logged the entire soil profile from ground surface to total depth. Soil samples were collected for laboratory analysis at 2.5-foot depth intervals from ground surface to the top of groundwater. If visible staining or discoloration were observed, additional soil samples for laboratory analysis would have been performed; however, as there was no visible staining or discoloration observed throughout the soil column, no additional soil samples were collected. All four of the boreholes were advanced to a total depth of 90 feet bgs.

The soil samples were logged in accordance with the Unified Soil Classification System (USCS) and utilized the modified American Society of Testing and Materials (ASTM) Method D-2488 as follows: textural classification of soil, color classification of soil, grain type, grading, roundness, matrix, plasticity, cementation, strength, and lithologic contact. Field equipment used during logging included the following items: Munsell™ color chart, USCS classification chart, grain size chart, and sample collection bags. Copies of the borehole logs are provided in Attachment A.

The deepest soil sample collected for laboratory analysis from U4U5-1 was 35 feet bgs, from U4U5-2 was 40 feet bgs, from U4U5-3 was 45 feet bgs, and U4U5-4 was 40 feet bgs. In addition to the collection of soil samples for analytical testing at 2.5-foot intervals, an additional soil sample was planned to be collected at a depth of 1-foot bgs, below the asphalt surface. The 1-foot samples were successfully collected from boreholes U4U5-1, U4U5-2, and U4U5-4; however, due to an abundance of gravel below the asphalt surface, the 1-foot bgs sample from U4U5-3 could not be obtained. Soil samples for laboratory analysis were collected in laboratory-supplied containers, labeled, placed in sealed bags, and stored in a cooler, on ice for transport to the project analytical laboratory (Test America, Inc.) under chain-of-custody.

Soil samples collected for laboratory analysis were submitted to Test America, Inc. for the following analyses:

- Perchlorate by United States Environmental Protection Agency (USEPA) Method 314.0;
- Hexavalent chromium by USEPA Method 7199;
- Total chromium by USEPA Method 6010B;
- Volatile Organic Compounds (VOCs) by USEPA Method 8260B; and
- Ammonia as Nitrogen (N) by SM4500NH3_D.

The table below summarizes the laboratory analysis that was performed in accordance with the Work Plan.

Sample Collection Intervals

Soil Analyses	**Depth – Feet Below Ground Surface**															
	U4U5-1				**U4U5-2**					**U4U5-3**			**U4U5-4**			
	1	**2.5**	**5**	**7.5-35[A]**	**1**	**2.5**	**5**	**7.5**	**11-40[A]**	**2.5**	**5**	**7.5-45[A]**	**1**	**2.5**	**5**	**7.5-40[A]**
Perchlorate	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Hexavalent chromium	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Total chromium	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
VOCs	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Ammonia as N	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X

A – Soil samples collected at 2.5-foot intervals at depths indicated

Additionally, as requested by NDEP, additional/supplemental soil samples were collected in the upper 7.5 feet of each borehole. As discussed above in Section 1.0, on April 9, 2015 NDEP transmitted an email requesting a conference call to discuss a few remaining questions/comments pertaining to the Work Plan. The conference call was held on April 10, 2015. One of the items discussed was NDEP's request to analyze for a broader list of analytes than proposed in the Work Plan. Specifically, NDEP requested the analysis of selected soil samples for asbestos, dioxins/furans, poly-chlorinated biphenyls (PCBs), and radionuclides. The discussion resulted in an expansion to the list of analytes presented in the Work Plan.

The additional supplemental soil sampling and analysis consisted of the collection of selected soil samples from the four soil boreholes advanced during the first mobilization to be analyzed for the following:

- Asbestos by USEPA Method 600/R-93-116 and 600/M4-82-020;
- Dioxins/furans by USEPA Method 8290;
- PCBs by USEPA Method 8082; and
- Radionuclides by USEPA Method 9315, 9320, and US Department of Energy Method A-01-R.

The table below summarizes the supplemental samples that were collected and submitted for analysis. The intervals that were not sampled are discussed in the field variance section below.

Supplemental Sample Collection Intervals

Soil Analyses	Depth – Feet Below Ground Surface											
	U4U5-1			U4U5-2				U4U5-3		U4U5-4		
	1	2.5	5	1	2.5	5	7.5	2.5	5	1	2.5	5
Asbestos	X	X	X	X	X	X	X	X	X	X	X	X
Dioxins/furans	X	X	X	X	X	X	X	X	X	X	X	X
PCBs	X	X	X	X	X	X	X	X	X	X	X	X
Radionuclides	X	X	X	X	X	X	X	X	X	X	X	X

2.2.5 Discrete-Depth Groundwater Sampling and Temporary Well Construction

Within each borehole, three discrete-depth groundwater samples were collected following the construction of a temporary well. The discrete-depth groundwater samples were collected at the top, middle, and bottom of the Shallow Water Bearing Zone. The depth of the shallow groundwater sample was based on the depth groundwater was first encountered in each borehole. The depth of the deepest groundwater sample was based on the depth of the bottom of the Upper Water Bearing Zone (e.g. 90 feet bgs, as defined by NDEP). The intermediate depth groundwater sample was collected at a depth interval between the shallow and deep discrete-depth groundwater samples. The groundwater samples were collected at the following depths:

- U4U5-1: 45 feet bgs, 70 feet bgs, and 90 feet bgs;
- U4U5-2: 50 feet bgs, 70 feet bgs, and 90 feet bgs;
- U4U5-3: 50 feet bgs, 70 feet bgs, and 90 feet bgs; and
- U4U5-4: 50 feet bgs, 70 feet bgs, and 90 feet bgs.

A temporary well was constructed at each discrete-depth groundwater sampling depth. Each temporary well consisted of a manufacturer-supplied 2-inch polyvinyl chloride (PVC) well casing with 5 feet of 0.010-inch slot screen at the bottom of the well. An appropriately sized filter pack (#2/12 sand) was installed around the well screen and placed to a level of at least two feet above the top of the screen interval. Three to five feet of hydrated bentonite was installed above the top of the filter pack.

Each temporary well was purged prior to collecting the discrete-depth sample. A minimum of three casing volumes of water were purged prior to sampling using a submersible pump. Throughout well purging, field parameters consisting of temperature, pH, turbidity, and electrical conductivity were collected and recorded on field sampling forms. Following the completion of purging, a small diameter bailer was lowered into the well to retrieve the groundwater sample. The collected groundwater sample was immediately transferred into a clean laboratory-supplied container. Groundwater samples to be analyzed for perchlorate were also field filtered using a syringe and a 0.2 micron filter, in accordance with NDEP guidance and the ENVIRON International Corporation (ENVIRON) Quality Assurance Project Plan. If the water appeared turbid before filtering, a 45-micron filter was used before the 0.2 micron filter.

Discrete-depth groundwater samples were submitted to Test America, Inc. for the following analyses:

- Perchlorate by USEPA Method 314.0;
- Hexavalent chromium by USEPA Method 7199;

- Total chromium by USEPA Method 200.7;
- Total dissolved solids (TDS) analysis by Method SM2540C; and
- VOCs by USEPA Method 8260B.

The analytical results are discussed in Section 4.0.

All sampling equipment was decontaminated before and after the collection of each groundwater sample. The PVC casing used to construct the temporary wells was decontaminated after the collection of each discrete-depth groundwater sample and disposed of as solid waste in a licensed municipal landfill.

Following the collection of the first and second discrete-depth groundwater sample, the temporary well casing was removed from the borehole and the borehole was advanced to the next discrete-depth sampling interval. Upon collection of the third discrete-depth groundwater sample, the well casing was pulled from the borehole and the filter pack and bentonite were removed from the borehole by drilling. Following the removal of the filter pack and bentonite from the borehole, the borehole was plugged in accordance with the State of Nevada Department of Conservation and Natural Resources (NDCNR) regulations. Each borehole was plugged with a bentonite grout from the bottom of the borehole to the surface, using a tremie pipe as required in the “Regulations for Water Well and Related Drilling” provided by NDCNR. The top of the seal material for each borehole was finished to approximately six inches below the surrounding grade. After the seal material was set, a concrete patch was installed to match grade and dyed black to match the surrounding asphalt.

2.3 INVESTIGATION-DERIVED WASTE MANAGEMENT

The IDW included soil cuttings, temporary well casing and well screen, personal protective equipment, equipment decontamination water, disposable bailers, and groundwater generated during discrete-depth groundwater sampling. All IDW was contained, labeled, and stored in United States Department of Transportation-approved containers. Solid waste materials were stored separately from liquid waste materials. Solid waste was containerized on-site in a roll-off bin and one 55-gallon steel drum, which was transferred to the roll-off bin prior to disposal. The IDW containers were labeled to indicate contents, source, date, and when accumulation begun. All containers used to hold drilling-derived waste were secured at the drill site by closing and securing the lids. Solid materials such as personal protective equipment and refuse generated during the drilling activities were containerized and disposed of as solid waste in a licensed municipal landfill.

The soil waste was profiled and disposed of at Las Vegas Paving Corporation. Liquid IDW was transported from the Investigation Area and discharged to the GW-11 pond for on-site treatment in the Groundwater Extraction and Treatment System.

3.0 FIELD VARIANCES

This section of the Tech Memo presents a summary of variances to the Unit 4 and Unit 5 Buildings Investigation Work Plan.

As described in the Work Plan, it was planned to collect soil samples at 2.5-foot intervals and to submit samples from the upper 7.5 feet for additional/supplemental analyses. Although every attempt was made to achieve this goal, there were some cases where this was not possible. A summary of the variances to the NDEP-approved soil sampling plan (and discussed in Section 2.2.4) are outlined below:

- U4U5-1
    - Insufficient soil was recovered from the 7.5 feet bgs interval to submit samples for supplementary analysis.
    - The soil samples collected at the 22.5 feet bgs interval for perchlorate, ammonia, hexavalent chromium, and chromium analysis were lost in transit to the laboratory following sample delivery to the laboratory courier.

- U4U5-2
  - Due to insufficient soil recovery at the 10 feet bgs interval, the prescribed soil sample from the 10 foot bgs was collected at 11 feet bgs.
- U4U5-3
  - Insufficient soil was recovered from the 1 foot bgs interval. Sampling continued at the next sample interval at 2.5 feet bgs.
  - Insufficient soil was recovered from the 7.5 feet bgs interval to submit samples for supplementary analysis.
- U4U5-4
  - Insufficient soil was recovered from the 7.5 feet bgs interval to submit samples for supplementary analysis.
  - Insufficient soil was recovered from the 27.5 feet bgs interval to submit samples for analyses.

4.0 RESULTS

This section of the Tech Memo summarizes the results of the first mobilization including lithology, soil analytical results, additional/supplemental soil sampling results, and discrete-depth groundwater sampling results.

As presented in the Work Plan, data generated during each field mobilization will also be evaluated through the development of three-dimensional visualization and analysis (3DVA). Figures 5 through 11 present the preliminary framework of the 3DVA which incorporates data generated during the first mobilization. As additional data is collected, new figures will be prepared displaying the distribution of perchlorate and hexavalent chromium in the subsurface. Figure 5 depicts the locations of the four boreholes and soil samples and groundwater samples collected in relation to previously advanced boreholes in the Investigation Area. Figures 6 and 7 presents a summary of the perchlorate and hexavalent chromium soil concentrations. Figures 8 and 9 presents a summary of the perchlorate and hexavalent chromium discrete-depth groundwater concentrations. Figures 10 and 11 present interpolations of the extent of perchlorate and hexavalent chromium in soil that include data collected previously during other investigations at the Site. The overall extent of contamination for any constituent detected during the Unit 4 and 5 Buildings Investigation will be determined in the forthcoming RI Report.

4.1 Lithology

Sedimentary deposits beneath Henderson are more than 4,000 feet thick (Plume, 1989), and consist of Quaternary alluvial deposits, transitional Muddy Creek Formation (xMCf), and Pleistocene Upper Muddy Creek Formation (UMCf). The alluvium consists of discontinuous layers of sand and gravel with minor amounts of silt, clay, and caliche. The thickness of these alluvial deposits ranges from less than one foot to more than 50 feet beneath the Site (ENVIRON, 2014). At the base of the alluvium, the xMCf is encountered at some locations, and consists of reworked sediments derived from the UMCf.

The UMCf underlies the xMCf or alluvium, and consists of interbedded coarse-grained and fine-grained sediments. The contact between the base of the sandy alluvium and the top of the underlying silty first fine-grained facies of the Upper Muddy Creek Formation (UMCf-fg1), in the vicinity of the Investigation Area, is encountered at a depth of approximately 27 to 45 feet bgs (ENSR, 2005). The lithology encountered in the four boreholes advanced during the first mobilization consists of interlayered clays, silts, sands, and gravels of varying thicknesses. This is characteristic of Quaternary alluvial deposits and Muddy Creek Formation deposits described in previous investigations. The contact between the Quaternary alluvium deposits and the Muddy Creek Formation in the Investigation Area was observed to occur between 27 and 47 feet bgs, which is within the depth intervals expected based on the contacts observed in other nearby boreholes. Intervals of predominantly coarse-grained water-bearing sand and/or gravel and intervals of predominantly fine-grained silt and/or clay units were identified throughout the boreholes. The lithologic log for each borehole is provided in Attachment A.

4.2 SOIL SAMPLING RESULTS

Soil samples were collected during the advancement of each borehole from 1-foot bgs to the top of groundwater (35 to 45 feet bgs). Collected soil samples were analyzed at 1 foot bgs and at 2.5-foot intervals thereafter for perchlorate, ammonia as N, hexavalent chromium, total chromium, percent moisture, and VOCs. A summary of the soil sample analytical results from boreholes U4U5-1, U4U5-2, U4U5-3, and U4U5-4 is presented below and provided on Tables 2, 3, 4, and 5, respectively.

The highest perchlorate concentrations were observed in boreholes U4U5-3 and U4U5-4. Perchlorate concentrations as high as 540 milligrams per kilogram (mg/kg) were observed in borehole U4U5-3 at 45 feet bgs. Perchlorate concentrations in soil are posted on Figure 6.

Hexavalent chromium concentrations were non-detect in most samples. The highest hexavalent chromium concentration of 7.6 mg/kg was observed at a depth of 40 feet bgs in U4U5-2. Hexavalent chromium soil concentrations are posted on Figure 7.

Total chromium was detected in all of the boreholes, with total chromium concentrations ranging from 12 mg/kg at a depth of 7.5 feet bgs in borehole U4U5-1 and at a depth of 37.5 feet bgs in borehole U4U5-3, to 110 mg/kg at a depth of 32.5 feet bgs in borehole U4U5-2.

Chloroform was detected in one or more soil samples from each of the four boreholes. Chloroform was consistently detected in boreholes U4U5-1 and U4U5-2. In borehole U4U5-1 chloroform was detected continuously between 20 and 35 feet bgs. Chloroform was detected in all soil samples collected in borehole U4U5-2 with the highest concentration of 380 micrograms per kilogram (µg/kg) observed at a depth of 35 feet bgs.

A summary of the concentration ranges of detected analytes in each borehole is presented below.

Concentration Range in Soil*

Analyte	U4U5-1	U4U5-2	U4U5-3	U4U5-4
Perchlorate (mg/kg)	0.026 – 8.6	0.020 – 270	8.3 – 540	35 – 520
Ammonia (mg/kg)	ND	3.7 – 16	ND	2.2 – 3.8
Hexavalent Chromium (mg/kg)	0.28	0.16 – 7.6	0.16 – 0.25	0.18 – 0.72
Total Chromium (mg/kg)	12 – 67	14 – 110	12 – 34	14 – 50
Chloroform (µg/kg)	1.8 - 71	1.1 - 380	0.83 – 1.8	ND – 7.8

*Laboratory flags are not included on the summary table, but are provided in Tables 2, 3, 4, and 5.

In addition to the analytes summarized above, VOCs were detected in soil, including 1,2,3-trichlorobenzene, acetone, naphthalene, n-butylbenzene, 2-butanone, cis-1,2-dichloroethene, and trichlorofluoromethane.

For comparison purposes, the Leaching-based Basic Comparison Levels (LBCLs), USEPA Regional Screening Levels (RSL), and Basic Comparison Levels (BCLs) have been included on Tables 2 through 5. If the concentration of a particular constituent was detected above one of these screening levels the result is highlighted in these tables for ease of identification. The LBCLs were developed as a technical screening tool to aid in multiple components of the risk assessment process, including but not limited to the determination of the extent of contamination and the identification of chemicals of potential concern (NDEP, 2015). LBCLs address the migration-to-groundwater pathway and are back-calculated from groundwater concentration limits. The LCBLs with a dilution attenuation factor (DAF) of 1 and a DAF of 20 have been included for reference. The LBCL with a DAF of 1, the most conservative screening level and the primary comparison point, is the lowest concentration to be leached from soil to groundwater that would result in an exceedance of the groundwater BCLs. If an LBCL was not available for a constituent, the USEPA RSL for the soil to groundwater pathway is referenced on the tables. The RSL is similar to the LBCL, in that it is a screening level for soil that is protective of groundwater. When the RSLs are referenced on the tables, values are provided for a DAF of 1 as well as a calculated value for a DAF of 20, consistent with the listed LCBLs. In instances when there is neither an LBCL nor an RSL available for reference, the Industrial/Commercial Worker BCL for the constituent is provided for reference. The BCL is protective of direct contact with the constituent, and generally provides a less conservative screening level than the LBCLs and RSLs.

4.2.1 Additional/Supplementary Soil Sampling Results

At the request of NDEP and as discussed above in Section 2.2.4, soil samples from the upper 7.5 feet of each borehole were analyzed for asbestos, dioxins/furans, PCBs, and radionuclides. A summary of these results is discussed below and presented on Tables 6 and 7.

Dioxins/Furans

There are 17 dioxins and furans included in USEPA Method 8290 analysis. NDEP has established a dioxin direct contact screening level for the Site of 1,000 picograms per gram (pg/g) total dioxin toxicity equivalents (TEQ), an expression of dioxins and furans in terms of the most toxic form of dioxin, 2,3,7,8-tetrachlorodibenzo-p-dioxin (2,3,7,8-TCDD). The TEQ is a calculated value, composed of the sum of dioxin and furan concentrations, each multiplied by its own toxic equivalence factor (TEF) (USEPA, 2010). The TEF effectively scales the potency of dioxins/furans relative to each other. Table 6 presents a summary of the dioxin/furan concentrations, their respective TEFs, and the TEQ for each sample.

TEQs ranged from 0.00867 pg/g in borehole U4U5-3 at a depth of 2.5 feet bgs to 19.0725 pg/g in borehole U4U5-2 at a depth of 5 feet bgs. None of the samples analyzed had TEQ values exceeding the NDEP screening level of 1,000 pg/g.

PCBs

There are seven PCBs included in the USEPA Method 8082 analysis (Table 6). None of the PCBs were detected with the exception of Aroclor 1254, which was detected at a concentration of 200 µg/kg in borehole U4U5-2 at a depth of 5 feet bgs. The detection of Aroclor 1254 was below the direct-contact BCL of 1,150 µg/kg.

Asbestos

Asbestos was not detected in any of the samples analyzed.

Radionuclides

There are eight radionuclides included in the USEPA Method 600/R-93-116 and 600/M4-82-020 analysis including two isotopes of radium, three isotopes of thorium, and three isotopes of uranium. Although there are NDEP established LBCLs for total radium and total uranium, and individual LBCLs for each isotope of thorium, it has been established that background concentrations of these radionuclides are present above their respective LBCLs (Environ, 2014). Therefore, radionuclide activities are compared to their respective established background activities, as defined in Appendix D of the 2014 Environ RI/FS Work Plan.

Radium-226 and radium-228 isotopes were detected in all of the soil samples collected. Total radium activities ranged from 1.203 picocuries per gram (pCi/g) to 2.85 pCi/g, all of which are within background activities for radium.

Thorium-228, thorium-230, and thorium-232 were detected in all samples analyzed. Thorium-228 activities ranged from 1.38 pCi/g to 2.09 pCi/g, thorium-230 activities ranged from 0.940 pCi/g to 1.59 pCi/g, and thorium-232 activities ranged from 1.34 pCi/g to 1.98 pCi/g. All of these activities are within established background activities for thorium.

Uranium-233/234, uranium-235/236, and uranium-238 were detected in all of the samples analyzed. Total uranium activities ranged from 1.7429 pCi/g to 2.8265 pCi/g, all of which are all within the background activities for uranium.

A summary of the radionuclide results is presented on Table 7.

4.3 DISCRETE-DEPTH GROUNDWATER SAMPLING RESULTS

Discrete-depth groundwater samples were collected from each of the four boreholes advanced during the first mobilization. Discrete-depth groundwater samples were collected by constructing a temporary 2-inch diameter PVC well with five-feet of perforated casing to selectively sample a discrete interval of the Upper Water Bearing Zone. Discrete-depth groundwater samples were collected at the top of groundwater, the base of the Upper Water Bearing Unit (defined by NDEP at a depth of 90 feet bgs), and at a depth interval between the shallow and deep groundwater sampling interval. In general, discrete-depth groundwater samples were collected at approximately 45 to 50 feet bgs, 70 feet bgs, and 90 feet bgs. Groundwater was first encountered in each borehole at depths between 37 and 44.5 feet bgs. Following installation of the temporary wells, depth to groundwater stabilized between 37.5 and 43 feet bgs.

Collected groundwater samples were analyzed for perchlorate by USEPA Method 314.0, hexavalent chromium by USEPA Method 7199, total chromium by USEPA Method 200.7, VOCs by USEPA Method 8260B, and TDS by Method SM2540C. A discussion of the discrete-depth analytical results is provided below in Section 4.4. The discrete-depth groundwater results are presented on Table 8. Perchlorate and hexavalent chromium concentrations in the groundwater samples are posted on Figures 8 and 9, respectively.

A summary of the range of concentrations from the discrete-depth groundwater samples is presented on the following table.

Concentration Range in Groundwater*

Analyte	U4U5-1	U4U5-2	U4U5-3	U4U5-4
Perchlorate (µg/L)	1,300 – 4,300	69,000 – 1,300,000	65,000 – 470,000	1,300 – 11,000
Hexavalent Chromium (µg/L)	1.0 – 74	2,500 – 39,000	200 – 1,900	28 – 470
Total Chromium (µg/L)	78 – 340	2,700 – 39,000	200 – 2,000	75 – 460
Chloroform (µg/L)	3.0 – 9.9	62 – 3,700	12 – 99	2.8 – 20
TDS (mg/L)	2,100 – 3,600	4,300 – 20,000	2,100 – 3,000	1,400 – 2,300

*Laboratory flags are not included on the summary table, but are provided in Tables 2, 3, 4, and 5.
µg/L: micrograms per liter
mg/L: milligrams per liter

4.4 DISCUSSION OF RESULTS

This section of the Tech Memo provides a brief discussion of the results derived from the first mobilization sampling effort of the Unit 4 and 5 Buildings Investigation. Ultimately, the RI Report will define the extent of contamination of all constituents originating from the NERT site.

The analytical results from the first four boreholes indicate that perchlorate is distributed throughout the soil column, with the highest concentrations present between 25 and 45 feet bgs (Figure 6). The highest perchlorate concentrations were observed in boreholes U4U5-3 and U4U5-4, located between the Unit 4 and Unit 5 buildings. The highest perchlorate concentration in soil was 540 mg/kg in borehole U4U5-3 at a depth of 45 feet bgs. In general, the soil sample results obtained from boreholes advanced during the first mobilization were higher than soil samples obtained from other boreholes advanced near the Unit 4 building. The exceptions are boreholes SA161, which was advanced in the vicinity of U4U5-2 but closer to the Unit 4 cell floor, and RSAR7, advanced near U4U5-3 between the Unit 4 and Unit 5 buildings. The maximum perchlorate soil concentration in borehole SA161 was 890 mg/kg and the maximum perchlorate soil concentration at RSAR7 was 2,970 mg/kg. An interpolation of perchlorate distribution in soil is provided in Figure 10. Figure 10 provides a three-dimensional representation of the extent of perchlorate at 18.5 mg/kg and 185 mg/kg, showing the highest concentrations below Unit 4 and 5. The concentrations depicted represent perchlorate present in the soil at three and four orders of magnitude greater than the LBCL.

Hexavalent chromium in soil was detected in all four boreholes. The highest hexavalent chromium concentration in soil was 7.6 mg/kg in borehole U4U5-2 at a depth of 40 feet bgs. The hexavalent chromium soil concentrations from other boreholes advanced near the Unit 4 cell floor were similar to the soil samples collected during the first mobilization, with the exception of a soil sample collected from borehole RSAR6, which was advanced closer to the Unit 4 cell floor building and contained hexavalent chromium at a concentration of 36.4 mg/kg. An interpolation of hexavalent chromium distribution is provided in Figure 11. Figure 11 provides a three dimensional representation of the extent of hexavalent chromium at 2 mg/kg and 20 mg/kg, showing the highest concentration adjacent to the northwest corner of the Unit 4 cell floor. The highest total chromium concentration of 110 mg/kg was detected at a depth of 32.5 feet bgs borehole U4U5-2.

Chloroform was detected in soil samples collected from all four boreholes. These concentrations are consistent with the range of chloroform concentrations near the Unit 4 building presented in the 2015 Ramboll Environ Technical Memorandum, Preliminary Evaluation of Chloroform Sampling Data (Ramboll Environ, 2015). The highest chloroform concentration of 380 µg/kg was observed in borehole U4U5-2 at a depth of 35 feet bgs.

All of the supplemental samples for radionuclides, dioxins/furans, PCBs, and asbestos were either below established Site LBCLs or within regional background concentrations.

Discrete-depth groundwater results for perchlorate ranged from 1,300 µg/L at 70 feet bgs from U4U5-1 to 1,300,000 µg/L at 90 feet bgs from U4U5-2. With the exception of borehole U4U5-1, the highest perchlorate concentrations in groundwater were detected in the deep groundwater sampling interval (90 feet bgs). Boreholes U4U5-2 and U4U5-3 located downgradient of the Unit 4 Cell Building at 90 feet bgs contained perchlorate at the highest concentrations of 1,300,000 µg/L and 470,000 µg/L, respectively.

Total chromium, hexavalent chromium, and chloroform in groundwater exhibited a similar distribution pattern as perchlorate with the highest concentrations observed in boreholes U4U5-2 and U4U5-3 at 90 feet bgs. The highest total chromium concentration in groundwater was 39,000 µg/L at 90 feet bgs in U4U5-2. The highest hexavalent chromium concentration in groundwater was 39,000 µg/L at 90 feet bgs from U4U5-2. The highest chloroform concentration in groundwater was 3,700 µg/L at 90 feet bgs from U4U5-2.

5.0 RECOMMENDATION FOR SECOND MOBILIZATION

As described in the Work Plan and subsequent correspondence with both NDEP and the Trust, data generated from the first mobilization will be used to direct and refine implementation of the second mobilization. The data collected during the first mobilization included:

- Depth of lithologic unit contacts (alluvium, Transitional Upper Muddy Creek Formation (xUMCf), and UMCf);
- Depth to first groundwater;

- Distribution of perchlorate, hexavalent chromium, and chloroform in soil and groundwater; and
- Concentration and vertical distribution in shallow soil of dioxin/furans, PCBs, asbestos, and radionuclides.

The depth of lithologic contacts (alluvium, xUMCf, and UMCf) in each borehole was encountered within the expected depth range based on the lithology of the region and of the depth of contacts observed in adjacent boreholes.

As mentioned above in Section 4.0, the highest perchlorate, total chromium, and hexavalent chromium concentrations were observed in the 90 foot bgs groundwater sample in three of the four boreholes. In addition, the highest chloroform concentration was observed in the 90 foot bgs sample in one of the four boreholes. Additional information on the distribution of these chemicals in the UMCf is being developed as part of the RI data gap investigation. As discussed in the separate Draft RI Evaluation Technical Memorandum, a silty sand layer has been encountered in the UMCf within the depth interval of 100 to 120 feet bgs in deeper monitoring wells located northwest and north of the Unit 4 and Unit 5 buildings. Monitoring wells screened in this silty sand layer contain perchlorate and VOCs. Concentrations of these chemicals are significantly lower in deeper wells screened below this layer.

Based on the vertical distribution of perchlorate, total chromium, and hexavalent chromium, it is proposed to increase the depth of three of the planned boreholes during the second mobilization. To minimize the potential for vertical cross contamination, the three deeper boreholes will be advanced up to a maximum of 115 feet bgs, approximately 5 feet below the projected base of the silty sand layer below the Unit buildings. The primary purpose of advancing three boreholes to a greater depth is to further evaluate the vertical extent of perchlorate and hexavalent chromium in the Unit 4 and Unit 5 building area. In addition, the samples from these boreholes will be analyzed for VOCs to support the RI investigation. In order to provide a more detailed vertical profile of chemical concentrations, soil samples will be collected from the deeper boreholes at intervals of 10 feet from the water table to the total depth of the borehole. An additional groundwater sample will be collected from a discrete-depth interval at approximately 100 to 110 feet bgs. The discrete-depth groundwater sample interval may be adjusted to screen across the silty sand layer, if encountered. The deeper boreholes will be positioned in areas of expected higher perchlorate and hexavalent concentrations, as shown in Figure 3. The placement and spacing of the remaining boreholes will remain as proposed in the Work Plan and as shown in Figure 3.

Asbestos was not detected in any of the soil samples collected. PCBs were not detected in soil samples with the exception of Aroclor 1254, which was detected at a concentration of 200 µg/kg in the soil sample collected from borehole U4U5-2 at a depth of 5 feet bgs. The concentration of Aroclor 1254 detected was below the direct-contact BCL of 1,150 µg/kg. Based on the absence of these compounds, PCB and asbestos analysis is not proposed for the second field mobilization.

Dioxin/furans were detected in several samples collected during the first mobilization. The TEQ values were all below the NDEP BCL of 1,000 pg/g. Based on the fact that TEQ values were below the NDEP BCLs, dioxin/furans analysis is not proposed for the second field mobilization.

Radionuclides including radium-226, radium 228, thorium-228, thorium-230, thorium-232, uranium 233/234, uranium 235/236, and uranium 238 were detected in all samples analyzed with activities that were within local background concentrations. Based on the occurrence of these radionuclides below background concentrations, sampling for these radionuclides is not proposed for the second mobilization.

In summary, based on the results of the first field mobilization, Tetra Tech proposes that the second mobilization include the following:

- Advancement of boreholes to a total depth of 90 feet bgs, boreholes advanced in the Unit 4 basement will be advanced to a total depth of 82 feet bgs to account for the lower starting elevation of these boreholes;
    - Collection of soil samples at 2.5-foot intervals from the surface to the top of the water table;
    - Collection of discrete-depth groundwater samples from three intervals in each borehole within the Upper Water Bearing Zone collected at the top, middle, and base at approximately 50, 70, and 90 feet bgs;
- Advancement of three boreholes to a total depth of up to 115 feet bgs;
    - Collection of soil samples at 2.5-foot intervals from the surface to the top of the water table;
    - Collection of soil samples at 10-foot intervals from the water table to total borehole depth; and
    - Collection of a discrete-depth groundwater samples from four intervals in each borehole at approximately 50, 70, 90, and 100 to 110 feet bgs.

Data generated during the second mobilization will be evaluated through the use of 3DVA to identify data gaps and additional boreholes, if needed. The 3DVA used during the second mobilization will incorporate data generated from the first mobilization as well as data generated from other investigation work conducted in the area. Throughout the second mobilization, Tetra Tech will update the 3DVA framework with lithologic data and analytical results.

Tetra Tech will implement the second mobilization following completion of the Unit 4 Cell Building floor demolition and concurrence from NDEP and USEPA with the proposed second mobilization implementation plan, as described above.

6.0 REFERENCES

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CERTIFICATION

At the direction of the Nevada Environmental Response Trust (NERT or Trust), Tetra Tech, Inc. (Tetra Tech) has prepared this Technical Memorandum detailing the Unit 4 and 5 Buildings Investigation First Mobilization.

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

Description of Services Provided: Technical Memorandum Unit 4 and 5 Buildings Investigation First Mobilization, Nevada Environmental Trust Site, Henderson, Nevada.

Kyle S. Hansen

Kyle Hansen, CEM
Field Operations Manager
Tetra Tech, Inc.

May 6, 2016
Date

Nevada CEM Certificate Number: 2167
Nevada CEM Expiration Date: September 18, 2016

LIST OF ACRONYMS

Acronym/Abbreviations	Definition
2,3,7,8-TCDD	2,3,7,8-tetrachlorodibenzo-p-dioxin
3DVA	three-dimensional visualization and analysis
ASTM	American Society of Testing and Materials
BCL	basic comparison level
bgs	below ground surface
BMI	Black Mountain Industrial
DAF	dilution attenuation factor
ENVIRON	ENVIRON International Corporation
GPRS	Ground Penetrating Radar Systems
IDW	investigation-derived waste
LBCL	leaching-based basic comparison level
mg/kg	milligrams per kilogram
mg/L	milligrams per liter
N	Nitrogen
NAD 83	North American Datum of 1983
NAVD 88	North American Vertical Datum of 1988
NDCNR	State of Nevada Department of Conservation and Natural Resources
NDEP	Nevada Division of Environmental Protection
NERT	Nevada Environmental Response Trust
PCBs	poly-chlorinated biphenyls
pCi/g	pico curies per gram
pg/g	picograms per gram
PVC	polyvinyl chloride
RI	remedial investigation
RI/FS	remedial investigation/feasibility study

Acronym/Abbreviations	Definition
RSL	Regional Screening Level
TDS	Total dissolved solids
TEF	toxic equivalence factor
TEQ	toxicity equivalents
µg/kg	micrograms per kilogram
µg/L	micrograms per liter
UMCf	Upper Muddy Creek Formation
UMCf-fg1	Upper Muddy Creek Formation, first fine-grained facies
USCS	Unified Soil Classification System
USEPA	United States Environmental Protection Agency
VOCs	Volatile organic compounds
xMCf	Transitional Muddy Creek Formation
xUMCf	Transitional Upper Muddy Creek Formation

Tables

Table 1
Borehole Survey Coordinates

Borehole Name	X Coordinates	Y Coordinates	Surface Elevation (Feet AMSL)	Location	Total Depth (Feet BGS)
U4U5-1	828509.4810	26717146.8900	1813.8390	Southwest of the Unit 4 Building	90
U4U5-2	828424.7070	26717362.8520	1813.2510	Northwest of the Unit 4 Building	90
U4U5-3	828058.3150	26717307.9700	1812.7200	Northeast of the Unit 4 Building	90
U4U5-4	828092.4900	26717098.7050	1812.6790	Southeast of the Unit 4 Building	90

Notes:

AMSL - above mean sea level

BGS - Below Ground Surface

Coordinates are provided in State Plan NAD83, Nevada East Zone (2701)

Table 2
Borehole U4U5-1 Soil Analytical Results

Analyte	Units	LBCL[a]		RSL		BCL		Depth Below Ground Surface														
		DAF 1	DAF 20	DAF 1[b]	DAF 20[c]	DAF 1[d]	DAF 20[e]	1'	2.5'	5'	7.5'	10'	12.5'	15'	17.5'	20'	22.5'	25'	27.5'	30'	32.5'	35'
Perchlorate	mg/kg	0.0185	0.371	--	--	--	--	**0.047**	**0.057**	**0.026 J**	ND(0.012)	ND(0.011)	**0.27**	**0.23**	**8.6**	**7.7**	**NA**	**2.4**	**3.0**	**2.1**	**2.1**	**8.5**
Ammonia (as N)	mg/kg	--	--	--	--	100,000	2,000,000	ND(2.3)	ND(2.2)	ND(2.3)	ND(2.4)	ND(2.4)	ND(2.2)	ND(2.2)	ND(2.3)	ND(2.9)	**NA**	ND(2.4)	ND(3.3)	ND(3.2)	ND(2.9)	ND(3.1)
Hexavalent chromium	mg/kg	2	40	--	--	--	--	ND(0.17)	ND(0.17)	ND(0.17)	ND(0.18)	ND(0.18)	ND(0.16)	ND(0.17)	ND(0.17)	**0.28 J**	**NA**	ND(0.18)	ND(0.25)	ND(0.24)	ND(0.22)	ND(0.23)
Chromium	mg/kg	--	--	4,000,000	80,000,000	--	--	**23**	**16**	**15**	**12**	**15**	**14**	**14**	**49**	**58**	**NA**	**48**	**49**	**57**	**46**	**67**
Percent Moisture	%	--	--	--	--	--	--	**14**	**9.6**	**13**	**18**	**16**	**8.6**	**10**	**11**	**31**	**NA**	**15**	**39**	**37**	**32**	**35**
VOCs																						
1,1,1,2-Tetrachloroethane	µg/kg	--	--	0.22	4.4	--	--	ND(0.88)	ND(0.98)	ND(0.96)	ND(1.0)	ND(1.0)	ND(0.95)	ND(0.95)	ND(0.89)	ND(1.8)	ND(1.1)	ND(1.2)	ND(2.1)	ND(1.5)	ND(1.2)	ND(1.4) H
1,1,1-Trichloroethane	µg/kg	100	2,000	--	--	--	--	ND(0.88)	ND(0.98)	ND(0.96)	ND(1.0)	ND(1.0)	ND(0.95)	ND(0.95)	ND(0.89)	ND(1.8)	ND(1.1)	ND(1.2)	ND(2.1)	ND(1.5)	ND(1.2)	ND(1.4) H
1,1,2,2-Tetrachloroethane	µg/kg	0.2	4	--	--	--	--	ND(0.88)	ND(0.98)	ND(0.96)	ND(1.0)	ND(1.0)	ND(0.95)	ND(0.95)	ND(0.89)	ND(1.8)	ND(1.1)	ND(1.2)	ND(2.1)	ND(1.5)	ND(1.2)	ND(1.4) H
1,1,2-Trichloroethane	µg/kg	0.9	18	--	--	--	--	ND(0.88)	ND(0.98)	ND(0.96)	ND(1.0)	ND(1.0)	ND(0.95)	ND(0.95)	ND(0.89)	ND(1.8)	ND(1.1)	ND(1.2)	ND(2.1)	ND(1.5)	ND(1.2)	ND(1.4) H
1,1-Dichloroethane	µg/kg	1,000	20,000	--	--	--	--	ND(0.88)	ND(0.98)	ND(0.96)	ND(1.0)	ND(1.0)	ND(0.95)	ND(0.95)	ND(0.89)	ND(1.8)	ND(1.1)	ND(1.2)	ND(2.1)	ND(1.5)	ND(1.2)	ND(1.4) H
1,1-Dichloroethene	µg/kg	3	60	--	--	--	--	ND(0.88)	ND(0.98)	ND(0.96)	ND(1.0)	ND(1.0)	ND(0.95)	ND(0.95)	ND(0.89)	ND(1.8)	ND(1.1)	ND(1.2)	ND(2.1)	ND(1.5)	ND(1.2)	ND(1.4) H
1,1-Dichloropropene	µg/kg	--	--	--	--	--	--	ND(0.88)	ND(0.98)	ND(0.96)	ND(1.0)	ND(1.0)	ND(0.95)	ND(0.95)	ND(0.89)	ND(1.8)	ND(1.1)	ND(1.2)	ND(2.1)	ND(1.5)	ND(1.2)	ND(1.4) H
1,2,3-Trichlorobenzene	µg/kg	--	--	2.1	42	--	--	ND(0.88)	**1.1 J**	ND(0.96)	ND(1.0)	ND(1.0)	ND(0.95)	ND(0.95)	ND(0.89)	ND(1.8)	ND(1.1)	ND(1.2)	ND(2.1)	ND(1.5)	ND(1.2)	ND(1.4) H
1,2,3-Trichloropropane	µg/kg	--	--	0.00032	0.0064	--	--	ND(0.88)	ND(0.98)	ND(0.96)	ND(1.0)	ND(1.0)	ND(0.95)	ND(0.95)	ND(0.89)	ND(1.8)	ND(1.1)	ND(1.2)	ND(2.1)	ND(1.5)	ND(1.2)	ND(1.4) H
1,2,4-Trichlorobenzene	µg/kg	300	6,000	--	--	--	--	ND(0.88)	ND(0.98)	ND(0.96)	ND(1.0)	ND(1.0)	ND(0.95)	ND(0.95)	ND(0.89)	ND(1.8)	ND(1.1)	ND(1.2)	ND(2.1)	ND(1.5)	ND(1.2)	ND(1.4) H
1,2,4-Trimethylbenzene	µg/kg	--	--	2.1	42	--	--	ND(0.88)	ND(0.98)	ND(0.96)	ND(1.0)	ND(1.0)	ND(0.95)	ND(0.95)	ND(0.89)	ND(1.8)	ND(1.1)	ND(1.2)	ND(2.1)	ND(1.5)	ND(1.2)	ND(1.4) H
1,2-Dibromo-3-Chloropropane	µg/kg	--	--	0.00014	0.0028	--	--	ND(1.8)	ND(2.0)	ND(1.9)	ND(2.1)	ND(2.0)	ND(1.9)	ND(1.9)	ND(1.8)	ND(3.5)	ND(2.3)	ND(2.5)	ND(4.1)	ND(2.9)	ND(2.4)	ND(2.7) H
1,2-Dibromoethane (EDB)	µg/kg	--	--	0.0021	0.042	--	--	ND(0.88)	ND(0.98)	ND(0.96)	ND(1.0)	ND(1.0)	ND(0.95)	ND(0.95)	ND(0.89)	ND(1.8)	ND(1.1)	ND(1.2)	ND(2.1)	ND(1.5)	ND(1.2)	ND(1.4) H
1,2-Dichlorobenzene	µg/kg	900	18,000	--	--	--	--	ND(0.88)	ND(0.98)	ND(0.96)	ND(1.0)	ND(1.0)	ND(0.95)	ND(0.95)	ND(0.89)	ND(1.8)	ND(1.1)	ND(1.2)	ND(2.1)	ND(1.5)	ND(1.2)	ND(1.4) H
1,2-Dichloroethane	µg/kg	1	20	--	--	--	--	ND(0.88)	ND(0.98)	ND(0.96)	ND(1.0)	ND(1.0)	ND(0.95)	ND(0.95)	ND(0.89)	ND(1.8)	ND(1.1)	ND(1.2)	ND(2.1)	ND(1.5)	ND(1.2)	ND(1.4) H
1,2-Dichloropropane	µg/kg	1	20	--	--	--	--	ND(0.88)	ND(0.98)	ND(0.96)	ND(1.0)	ND(1.0)	ND(0.95)	ND(0.95)	ND(0.89)	ND(1.8)	ND(1.1)	ND(1.2)	ND(2.1)	ND(1.5)	ND(1.2)	ND(1.4) H
1,3,5-Trimethylbenzene	µg/kg	--	--	17	340	--	--	ND(0.88)	ND(0.98)	ND(0.96)	ND(1.0)	ND(1.0)	ND(0.95)	ND(0.95)	ND(0.89)	ND(1.8)	ND(1.1)	ND(1.2)	ND(2.1)	ND(1.5)	ND(1.2)	ND(1.4) H
1,3-Dichlorobenzene	µg/kg	--	--	--	--	373,000	7,460,000	ND(0.88)	ND(0.98)	ND(0.96)	ND(1.0)	ND(1.0)	ND(0.95)	ND(0.95)	ND(0.89)	ND(1.8)	ND(1.1)	ND(1.2)	ND(2.1)	ND(1.5)	ND(1.2)	ND(1.4) H
1,3-Dichloropropane	µg/kg	1	20	--	--	--	--	ND(0.88)	ND(0.98)	ND(0.96)	ND(1.0)	ND(1.0)	ND(0.95)	ND(0.95)	ND(0.89)	ND(1.8)	ND(1.1)	ND(1.2)	ND(2.1)	ND(1.5)	ND(1.2)	ND(1.4) H
1,4-Dichlorobenzene	µg/kg	100	2,000	--	--	--	--	ND(0.88)	ND(0.98)	ND(0.96)	ND(1.0)	ND(1.0)	ND(0.95)	ND(0.95)	ND(0.89)	ND(1.8)	ND(1.1)	ND(1.2)	ND(2.1)	ND(1.5)	ND(1.2)	ND(1.4) H
2,2-Dichloropropane	µg/kg	--	--	--	--	--	--	ND(0.88)	ND(0.98)	ND(0.96)	ND(1.0)	ND(1.0)	ND(0.95)	ND(0.95)	ND(0.89)	ND(1.8)	ND(1.1)	ND(1.2)	ND(2.1)	ND(1.5)	ND(1.2)	ND(1.4) H
2-Butanone (MEK)	µg/kg	--	--	120	2,400	--	--	ND(4.4)	ND(4.9)	ND(4.8)	ND(5.2)	ND(5.0)	ND(4.8)	ND(4.7)	ND(4.4)	ND(8.8)	ND(5.7)	ND(6.2)	ND(10)	ND(7.3)	ND(6.0)	ND(6.8) H
2-Chlorotoluene	µg/kg	--	--	23	460	--	--	ND(0.88)	ND(0.98)	ND(0.96)	ND(1.0)	ND(1.0)	ND(0.95)	ND(0.95)	ND(0.89)	ND(1.8)	ND(1.1)	ND(1.2)	ND(2.1)	ND(1.5)	ND(1.2)	ND(1.4) H
2-Hexanone	µg/kg	--	--	0.88	17.6	--	--	ND(4.4)	ND(4.9)	ND(4.8)	ND(5.2)	ND(5.0)	ND(4.8)	ND(4.7)	ND(4.4)	ND(8.8)	ND(5.7)	ND(6.2)	ND(10)	ND(7.3)	ND(6.0)	ND(6.8) H
4-Chlorotoluene	µg/kg	--	--	24	480	--	--	ND(0.88)	ND(0.98)	ND(0.96)	ND(1.0)	ND(1.0)	ND(0.95)	ND(0.95)	ND(0.89)	ND(1.8)	ND(1.1)	ND(1.2)	ND(2.1)	ND(1.5)	ND(1.2)	ND(1.4) H
4-Methyl-2-pentanone (MIBK)	µg/kg	--	--	140	2,800	--	--	ND(2.2)	ND(2.5)	ND(2.4)	ND(2.6)	ND(2.5)	ND(2.4)	ND(2.4)	ND(2.2)	ND(4.4)	ND(2.8)	ND(3.1)	ND(5.2)	ND(3.6)	ND(3.0)	ND(3.4) H
Acetone	µg/kg	800	16,000	--	--	--	--	ND(7.0)	ND(7.8)	ND(7.7)	ND(8.3)	ND(8.0)	**7.7 J**	ND(7.6)	ND(7.1)	ND(14)	ND(9.1) *	**19 J**	ND(17)	ND(12)	ND(9.6)	ND(11) H
Benzene	µg/kg	2	40	--	--	--	--	ND(0.88)	ND(0.98)	ND(0.96)	ND(1.0)	ND(1.0)	ND(0.95)	ND(0.95)	ND(0.89)	ND(1.8)	ND(1.1)	ND(1.2)	ND(2.1)	ND(1.5)	ND(1.2)	ND(1.4) H
Bromobenzene	µg/kg	--	--	4.2	84	--	--	ND(0.88)	ND(0.98)	ND(0.96)	ND(1.0)	ND(1.0)	ND(0.95)	ND(0.95)	ND(0.89)	ND(1.8)	ND(1.1)	ND(1.2)	ND(2.1)	ND(1.5)	ND(1.2)	ND(1.4) H
Bromochloromethane	µg/kg	--	--	2.1	42	--	--	ND(0.88)	ND(0.98)	ND(0.96)	ND(1.0)	ND(1.0)	ND(0.95)	ND(0.95)	ND(0.89)	ND(1.8)	ND(1.1)	ND(1.2)	ND(2.1)	ND(1.5)	ND(1.2)	ND(1.4) H
Bromodichloromethane	µg/kg	30	600	--	--	--	--	ND(0.88)	ND(0.98)	ND(0.96)	ND(1.0)	ND(1.0)	ND(0.95)	ND(0.95)	ND(0.89)	ND(1.8)	ND(1.1)	ND(1.2)	ND(2.1)	ND(1.5)	ND(1.2)	ND(1.4) H
Bromoform	µg/kg	40	800	--	--	--	--	ND(1.8)	ND(2.0)	ND(1.9)	ND(2.1)	ND(2.0)	ND(1.9)	ND(1.9)	ND(1.8)	ND(3.5)	ND(2.3)	ND(2.5)	ND(4.1)	ND(2.9)	ND(2.4)	ND(2.7) H
Bromomethane	µg/kg	10	200	--	--	--	--	ND(0.88)	ND(0.98)	ND(0.96)	ND(1.0)	ND(1.0)	ND(0.95)	ND(0.95)	ND(0.89)	ND(1.8)	ND(1.1)	ND(1.2)	ND(2.1)	ND(1.5)	ND(1.2)	ND(1.4) H
Carbon tetrachloride	µg/kg	3	60	--	--	--	--	ND(0.88)	ND(0.98)	ND(0.96)	ND(1.0)	ND(1.0)	ND(0.95)	ND(0.95)	ND(0.89)	ND(1.8)	ND(1.1)	ND(1.2)	ND(2.1)	ND(1.5)	ND(1.2)	ND(1.4) H
Chlorobenzene	µg/kg	70	1,400	--	--	--	--	ND(0.88)	ND(0.98)	ND(0.96)	ND(1.0)	ND(1.0)	ND(0.95)	ND(0.95)	ND(0.89)	ND(1.8)	ND(1.1)	ND(1.2)	ND(2.1)	ND(1.5)	ND(1.2)	ND(1.4) H
Chloroethane	µg/kg	--	--	590	11,800	--	--	ND(1.8)	ND(2.0)	ND(1.9)	ND(2.1)	ND(2.0)	ND(1.9)	ND(1.9)	ND(1.8)	ND(3.5)	ND(2.3)	ND(2.5)	ND(4.1)	ND(2.9)	ND(2.4)	ND(2.7) H
Chloroform	µg/kg	30	600	--	--	--	--	ND(0.88)	ND(0.98)	ND(0.96)	ND(1.0)	ND(1.0)	ND(0.95)	**1.8 J**	ND(0.89)	**6.7**	**2.4**	**4.5**	**33**	**71**	**42**	**14 H**
Chloromethane	µg/kg	--	--	4.9	98	--	--	ND(0.88)	ND(0.98)	ND(0.96)	ND(1.0)	ND(1.0)	ND(0.95)	ND(0.95)	ND(0.89)	ND(1.8)	ND(1.1)	ND(1.2)	ND(2.1)	ND(1.5)	ND(1.2)	ND(1.4) H
cis-1,2-Dichloroethene	µg/kg	20	400	--	--	--	--	ND(0.88)	ND(0.98)	ND(0.96)	ND(1.0)	ND(1.0)	ND(0.95)	ND(0.95)	ND(0.89)	ND(1.8)	ND(1.1)	ND(1.2)	ND(2.1)	ND(1.5)	ND(1.2)	ND(1.4) H
cis-1,3-Dichloropropene	µg/kg	--	--	--	--	--	--	ND(0.88)	ND(0.98)	ND(0.96)	ND(1.0)	ND(1.0)	ND(0.95)	ND(0.95)	ND(0.89)	ND(1.8)	ND(1.1)	ND(1.2)	ND(2.1)	ND(1.5)	ND(1.2)	ND(1.4) H
Dibromochloromethane	µg/kg	20	400	--	--	--	--	ND(0.88)	ND(0.98)	ND(0.96)	ND(1.0)	ND(1.0)	ND(0.95)	ND(0.95)	ND(0.89)	ND(1.8)	ND(1.1)	ND(1.2)	ND(2.1)	ND(1.5)	ND(1.2)	ND(1.4) H
Dibromomethane	µg/kg	--	--	0.21	4.2	--	--	ND(0.88)	ND(0.98)	ND(0.96)	ND(1.0)	ND(1.0)	ND(0.95)	ND(0.95)	ND(0.89)	ND(1.8)	ND(1.1)	ND(1.2)	ND(2.1)	ND(1.5)	ND(1.2)	ND(1.4) H
Dichlorodifluoromethane	µg/kg	--	--	30	600	--	--	ND(1.8)	ND(2.0)	ND(1.9)	ND(2.1)	ND(2.0)	ND(1.9)	ND(1.9)	ND(1.8)	ND(3.5)	ND(2.3)	ND(2.5)	ND(4.1)	ND(2.9)	ND(2.4)	ND(2.7) H
Ethylbenzene	µg/kg	700	14,000	--	--	--	--	ND(0.88)	ND(0.98)	ND(0.96)	ND(1.0)	ND(1.0)	ND(0.95)	ND(0.95)	ND(0.89)	ND(1.8)	ND(1.1)	ND(1.2)	ND(2.1)	ND(1.5)	ND(1.2)	ND(1.4) H
Ethyl-t-butyl ether (ETBE)	µg/kg	--	--	--	--	--	--	ND(0.88)	ND(0.98)	ND(0.96)	ND(1.0)	ND(1.0)	ND(0.95)	ND(0.95)	ND(0.89)	ND(1.8)	ND(1.1)	ND(1.2)	ND(2.1)	ND(1.5)	ND(1.2)	ND(1.4) H
Hexachlorobutadiene	µg/kg	100	2,000	--	--	--	--	ND(0.88)	ND(0.98)	ND(0.96)	ND(1.0)	ND(1.0)	ND(0.95)	ND(0.95)	ND(0.89)	ND(1.8)	ND(1.1)	ND(1.2)	ND(2.1)	ND(1.5)	ND(1.2)	ND(1.4) H
Isopropyl Ether (DIPE)	µg/kg	--	--	37	740	--	--	ND(0.88)	ND(0.98)	ND(0.96)	ND(1.0)	ND(1.0)	ND(0.95)	ND(0.95)	ND(0.89)	ND(1.8)	ND(1.1)	ND(1.2)	ND(2.1)	ND(1.5)	ND(1.2)	ND(1.4) H
Isopropylbenzene	µg/kg	--	--	74	1,480	--	--	ND(0.88)	ND(0.98)	ND(0.96)	ND(1.0)	ND(1.0)	ND(0.95)	ND(0.95)	ND(0.89)	ND(1.8)	ND(1.1)	ND(1.2)	ND(2.1)	ND(1.5)	ND(1.2)	ND(1.4) H
m,p-Xylene	µg/kg	10,000[f]	200,000[g]	--	--	--	--	ND(1.8)	ND(2.0)	ND(1.9)	ND(2.1)	ND(2.0)	ND(1.9)	ND(1.9)	ND(1.8)	ND(3.5)	ND(2.3)	ND(2.5)	ND(4.1)	ND(2.9)	ND(2.4)	ND(2.7) H
Methylene Chloride	µg/kg	1	20	--	--	--	--	ND(4.4)	ND(4.9)	ND(4.8)	ND(5.2)	ND(5.0)	ND(4.8)	ND(4.7)	ND(4.4)	ND(8.8)	ND(5.7)	ND(6.2)	ND(10)	ND(7.3)	ND(6.0)	ND(6.8) H
Methyl-t-Butyl Ether (MTBE)	µg/kg	--	--	3.2	64	--	--	ND(0.88)	ND(0.98)	ND(0.96)	ND(1.0)	ND(1.0)	ND(0.95)	ND(0.95)	ND(0.89)	ND(1.8)	ND(1.1)	ND(1.2)	ND(2.1)	ND(1.5)	ND(1.2)	ND(1.4) H
Naphthalene	µg/kg	4,000	80,000	--	--	--	--	ND(1.8)	**2.6 J**	ND(1.9)	ND(2.1)	ND(2.0)	ND(1.9)	ND(1.9)	ND(1.8)	ND(3.5)	ND(2.3)	ND(2.5)	ND(4.1)	ND(2.9)	ND(2.4)	ND(2.7) H
n-Butylbenzene	µg/kg	--	--	320	6,400	--	--	ND(0.88)	**1.2 J**	ND(0.96)	ND(1.0)	ND(1.0)	ND(0.95)	ND(0.95)	ND(0.89)	ND(1.8)	ND(1.1)	ND(1.2)	ND(2.1)	ND(1.5)	ND(1.2)	ND(1.4) H
N-Propylbenzene	µg/kg	--	--	120	2,400	--	--	ND(0.88)	ND(0.98)	ND(0.96)	ND(1.0)	ND(1.0)	ND(0.95)	ND(0.95)	ND(0.89)	ND(1.8)	ND(1.1)	ND(1.2)	ND(2.1)	ND(1.5)	ND(1.2)	ND(1.4) H
o-Xylene	µg/kg	9,000	180,000	--	--	--	--	ND(0.88)	ND(0.98)	ND(0.96)	ND(1.0)	ND(1.0)	ND(0.95)	ND(0.95)	ND(0.89)	ND(1.8)	ND(1.1)	ND(1.2)	ND(2.1)	ND(1.5)	ND(1.2)	ND(1.4) H
p-Isopropyltoluene	µg/kg	--	--	--	--	647,000	12,940,000	ND(0.88)	ND(0.98)	ND(0.96)	ND(1.0)	ND(1.0)	ND(0.95)	ND(0.95)	ND(0.89)	ND(1.8)	ND(1.1)	ND(1.2)	ND(2.1)	ND(1.5)	ND(1.2)	ND(1.4) H
sec-Butylbenzene	µg/kg	--	--	590	11,800	--	--	ND(0.88)	ND(0.98)	ND(0.96)	ND(1.0)	ND(1.0)	ND(0.95)	ND(0.95)	ND(0.89)	ND(1.8)	ND(1.1)	ND(1.2)	ND(2.1)	ND(1.5)	ND(1.2)	ND(1.4) H
Styrene	µg/kg	200	4,000	--	--	--	--	ND(0.88)	ND(0.98)	ND(0.96)	ND(1.0)	ND(1.0)	ND(0.95)	ND(0.95)	ND(0.89)	ND(1.8)	ND(1.1)	ND(1.2)	ND(2.1)	ND(1.5)	ND(1.2)	ND(1.4) H
Tert-amyl-methyl ether (TAME)	µg/kg	--	--	--	--	--	--	ND(0.88)	ND(0.98)	ND(0.96)	ND(1.0)	ND(1.0)	ND(0.95)	ND(0.95)	ND(0.89)	ND(1.8)	ND(1.1)	ND(1.2)	ND(2.1)	ND(1.5)	ND(1.2)	ND(1.4) H
tert-Butyl alcohol (TBA)	µg/kg	--	--	--	--	21,300,000	426,000,000	ND(8.8)	ND(9.8)	ND(9.6)	ND(10)	ND(10)	ND(9.5)	ND(9.5)	ND(8.9)	ND(18)	ND(11)	ND(12)	ND(21)	ND(15)	ND(12)	ND(14) H
tert-Butylbenzene	µg/kg	--	--	160	3,200	--	--	ND(0.88)	ND(0.98)	ND(0.96)	ND(1.0)	ND(1.0)	ND(0.95)	ND(0.95)	ND(0.89)	ND(1.8)	ND(1.1)	ND(1.2)	ND(2.1)	ND(1.5)	ND(1.2)	ND(1.4) H
Tetrachloroethene	µg/kg	3	60	--	--	--	--	ND(0.88)	ND(0.98)	ND(0.96)	ND(1.0)	ND(1.0)	ND(0.95)	ND(0.95)	ND(0.89)	ND(1.8)	ND(1.1)	ND(1.2)	ND(2.1)	ND(1.5)	ND(1.2)	ND(1.4) H
Toluene	µg/kg	600	12,000	--	--	--	--	ND(0.88)	ND(0.98)	ND(0.96)	ND(1.0)	ND(1.0)	ND(0.95)	ND(0.95)	ND(0.89)	ND(1.8)	ND(1.1)	ND(1.2)	ND(2.1)	ND(1.5)	ND(1.2)	ND(1.4) H

Table 2
Borehole U4U5-1 Soil Analytical Results

Analyte	Units	LBCL[a]		RSL		BCL		Depth Below Ground Surface														
		DAF 1	DAF 20	DAF 1[b]	DAF 20[c]	DAF 1[d]	DAF 20[e]	1'	2.5'	5'	7.5'	10'	12.5'	15'	17.5'	20'	22.5'	25'	27.5'	30'	32.5'	35'
trans-1,2-Dichloroethene	µg/kg	30	600	--	--	--	--	ND(0.88)	ND(0.98)	ND(0.96)	ND(1.0)	ND(1.0)	ND(0.95)	ND(0.95)	ND(0.89)	ND(1.8)	ND(1.1)	ND(1.2)	ND(2.1)	ND(1.5)	ND(1.2)	ND(1.4) H
trans-1,3-Dichloropropene	µg/kg	--	--	--	--	--	--	ND(0.88)	ND(0.98)	ND(0.96)	ND(1.0)	ND(1.0)	ND(0.95)	ND(0.95)	ND(0.89)	ND(1.8)	ND(1.1)	ND(1.2)	ND(2.1)	ND(1.5)	ND(1.2)	ND(1.4) H
Trichloroethene	µg/kg	3	60	--	--	--	--	ND(0.88)	ND(0.98)	ND(0.96)	ND(1.0)	ND(1.0)	ND(0.95)	ND(0.95)	ND(0.89)	ND(1.8)	ND(1.1)	ND(1.2)	ND(2.1)	ND(1.5)	ND(1.2)	ND(1.4) H
Trichlorofluoromethane	µg/kg	--	--	330	6,600	--	--	ND(0.88)	ND(0.98)	ND(0.96)	ND(1.0)	ND(1.0)	ND(0.95)	ND(0.95)	ND(0.89)	ND(1.8)	ND(1.1)	ND(1.2)	ND(2.1)	ND(1.5)	ND(1.2)	ND(1.4) H
Vinyl chloride	µg/kg	0.7	14	--	--	--	--	ND(0.88)	ND(0.98)	ND(0.96)	ND(1.0)	ND(1.0)	ND(0.95)	ND(0.95)	ND(0.89)	ND(1.8)	ND(1.1)	ND(1.2)	ND(2.1)	ND(1.5)	ND(1.2)	ND(1.4) H
Xylenes, Total	µg/kg	10,000	200,000	--	--	--	--	ND(1.8)	ND(2.0)	ND(1.9)	ND(2.1)	ND(2.0)	ND(1.9)	ND(1.9)	ND(1.8)	ND(3.5)	ND(2.3)	ND(2.5)	ND(4.1)	ND(2.9)	ND(2.4)	ND(2.7) H

Notes:

If no LBCL value was available then RSL value was recorded. If no RSL value was available then BCL value was recorded.

Bold value indicates analyte was detected above the MDL

Yellow cells indicate an exceedance of the LBCL DAF 1, RSL DAF 1, or the BCL DAF 1

* - LCS or LCSD is outside acceptance limits

a - The LBCLs are found in the table, "Nevada Division of Environmental Protection, Basic Comparison Levels" dated February 20, 2015

b - The RSLs for DAF 1 are the Risk-Based SSLs (soil screening levels) found in the table, "Regional Screening Level Resident Soil to Groundwater Table (TR=1E-06, HQ=0.1) November 2015"

c - The RSLs for DAF 20 are calculated by multiplying the RSL DAF 1 by 20. The BCLs for DAF 20 are calculated by multiplying the BCL DAF 1 by 20.

d - Industrial/Commercial Worker BCL value found in the table, "Nevada Division of Environmental Protection, Basic Comparison Levels" dated February 20, 2015

e - Industrial/Commercial Worker BCL DAF 20 value calculated by multiplying the DAF 1 value by 20

f - The DAF 1 LBCL is 10,000 µg/L for m-xylene and 10,000 µg/L for p-xylene

g - The DAF 20 LBCL is 200,000 µg/L for m-xylene and 200,000 µg/L for p-xylene

BCL - Basic Comparison Level

DAF - Dilution Attenuation Factor

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

J - Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value

LBCL - Leaching-based Basic Comparison Level

LCS - Laboratory Control Sample

LCSD - Laboratory Control Sample Duplicates

MDL - method detection limit

mg/kg - milligram per kilogram

NA - not analyzed

ND (1.0) - non-detect at the laboratory method detection limit shown in parentheses

RL - reporting limit

RSL - Regional Screening Level

µg/kg - microgram per kilogram

VOCs - Volatile Organic Compounds

Table 3
Borehole U4U5-2 Soil Analytical Results

Analyte	Units	LBCL[a]		RSL		BCL		Depth Below Ground Surface																
		DAF 1	DAF 20	DAF 1[b]	DAF 20[c]	DAF 1[d]	DAF 20[e]	1'	2.5'	5'	7.5'	11'	12.5'	15'	17.5'	20'	22.5'	25'	27.5'	30'	32.5'	35'	37.5'	40'
Perchlorate	mg/kg	0.0185	0.371	--	--	--	--	**0.082**	**0.16**	**0.34**	**0.020 J**	**0.094 F1**	**0.56**	**0.34**	**0.17**	**0.28**	**0.23**	**13**	**170**	**270**	**130**	**140**	**95**	**120**
Ammonia (as N)	mg/kg	--	--	--	--	100,000	2,000,000	ND(2.2)	ND(2.2)	ND(2.3)	ND(2.3)	ND(2.4)	ND(2.2)	ND(2.2)	ND(2.1)	ND(2.2)	ND(2.2)	ND(3.0)	**3.7 J**	ND(3.3)	ND(3.1)	ND(3.4)	**10 J**	**16 J**
Hexavalent chromium	mg/kg	2	40	--	--	--	--	ND(0.16)	ND(0.17)	**0.64**	ND(0.18)	ND(0.18)	**0.24 J**	**0.46**	ND(0.16)	**0.16 J**	**0.21 J**	**0.59**	**2.0**	**3.8**	**3.9**	**3.6**	**5.3**	**7.6**
Chromium	mg/kg	--	--	4,000,000	80,000,000	--	--	**15**	**15**	**23**	**19**	**14**	**19**	**21**	**22**	**20**	**18**	**43**	**30**	**51**	**110**	**57**	**39**	**37**
Percent Moisture	%	--	--	--	--	--	--	**8.4**	**11**	**13**	**15**	**16**	**9.9**	**9.8**	**6.2**	**9.6**	**8.8**	**33**	**25**	**39**	**36**	**41**	**37**	**42**
VOCs																								
1,1,1,2-Tetrachloroethane	µg/kg	--	--	0.22	4.4	--	--	ND(0.94)	ND(1.1)	ND(0.94)	ND(1.0)	ND(1.3)	ND(1.0)	ND(0.96)	ND(0.91)	ND(1.1)	ND(0.80)	ND(1.2)	ND(1.1)	ND(1.3)	ND(1.5)	ND(1.6)	ND(1.4)	ND(1.5)
1,1,1-Trichloroethane	µg/kg	100	2,000	--	--	--	--	ND(0.94)	ND(1.1)	ND(0.94)	ND(1.0)	ND(1.3)	ND(1.0)	ND(0.96)	ND(0.91)	ND(1.1)	ND(0.80)	ND(1.2)	ND(1.1)	ND(1.3)	ND(1.5)	ND(1.6)	ND(1.4)	ND(1.5)
1,1,2,2-Tetrachloroethane	µg/kg	0.2	4	--	--	--	--	ND(0.94)	ND(1.1)	ND(0.94)	ND(1.0)	ND(1.3)	ND(1.0)	ND(0.96)	ND(0.91)	ND(1.1)	ND(0.80)	ND(1.2)	ND(1.1)	ND(1.3)	ND(1.5)	ND(1.6)	ND(1.4)	ND(1.5)
1,1,2-Trichloroethane	µg/kg	0.9	18	--	--	--	--	ND(0.94)	ND(1.1)	ND(0.94)	ND(1.0)	ND(1.3)	ND(1.0)	ND(0.96)	ND(0.91)	ND(1.1)	ND(0.80)	ND(1.2)	ND(1.1)	ND(1.3)	ND(1.5)	ND(1.6)	ND(1.4)	ND(1.5)
1,1-Dichloroethane	µg/kg	1,000	20,000	--	--	--	--	ND(0.94)	ND(1.1)	ND(0.94)	ND(1.0)	ND(1.3)	ND(1.0)	ND(0.96)	ND(0.91)	ND(1.1)	ND(0.80)	ND(1.2)	ND(1.1)	ND(1.3)	ND(1.5)	ND(1.6)	ND(1.4)	ND(1.5)
1,1-Dichloroethene	µg/kg	3	60	--	--	--	--	ND(0.94)	ND(1.1)	ND(0.94)	ND(1.0)	ND(1.3)	ND(1.0)	ND(0.96)	ND(0.91)	ND(1.1)	ND(0.80)	ND(1.2)	ND(1.1)	ND(1.3)	ND(1.5)	ND(1.6)	ND(1.4)	ND(1.5)
1,1-Dichloropropene	µg/kg	--	--	--	--	--	--	ND(0.94)	ND(1.1)	ND(0.94)	ND(1.0)	ND(1.3)	ND(1.0)	ND(0.96)	ND(0.91)	ND(1.1)	ND(0.80)	ND(1.2)	ND(1.1)	ND(1.3)	ND(1.5)	ND(1.6)	ND(1.4)	ND(1.5)
1,2,3-Trichlorobenzene	µg/kg	--	--	2.1	42	--	--	ND(0.94)	ND(1.1)	ND(0.94)	ND(1.0)	ND(1.3)	ND(1.0)	ND(0.96)	ND(0.91)	ND(1.1)	ND(0.80)	ND(1.2)	ND(1.1)	ND(1.3)	ND(1.5)	ND(1.6)	ND(1.4)	ND(1.5)
1,2,3-Trichloropropane	µg/kg	--	--	0.00032	0.0064	--	--	ND(0.94)	ND(1.1)	ND(0.94)	ND(1.0)	ND(1.3)	ND(1.0)	ND(0.96)	ND(0.91)	ND(1.1)	ND(0.80)	ND(1.2)	ND(1.1)	ND(1.3)	ND(1.5)	ND(1.6)	ND(1.4)	ND(1.5)
1,2,4-Trichlorobenzene	µg/kg	300	6,000	--	--	--	--	ND(0.94)	ND(1.1)	ND(0.94)	ND(1.0)	ND(1.3)	ND(1.0)	ND(0.96)	ND(0.91)	ND(1.1)	ND(0.80)	ND(1.2)	ND(1.1)	ND(1.3)	ND(1.5)	ND(1.6)	ND(1.4)	ND(1.5)
1,2,4-Trimethylbenzene	µg/kg	--	--	2.1	42	--	--	ND(0.94)	ND(1.1)	ND(0.94)	ND(1.0)	ND(1.3)	ND(1.0)	ND(0.96)	ND(0.91)	ND(1.1)	ND(0.80)	ND(1.2)	ND(1.1)	ND(1.3)	ND(1.5)	ND(1.6)	ND(1.4)	ND(1.5)
1,2-Dibromo-3-Chloropropane	µg/kg	--	--	0.00014	0.0028	--	--	ND(1.9)	ND(2.1)	ND(1.9)	ND(2.0)	ND(2.5)	ND(2.0)	ND(1.9)	ND(1.8)	ND(2.2)	ND(1.6)	ND(2.5)	ND(2.1)	ND(2.6)	ND(3.0)	ND(3.2)	ND(2.8)	ND(3.0)
1,2-Dibromoethane (EDB)	µg/kg	--	--	0.0021	0.042	--	--	ND(0.94)	ND(1.1)	ND(0.94)	ND(1.0)	ND(1.3)	ND(1.0)	ND(0.96)	ND(0.91)	ND(1.1)	ND(0.80)	ND(1.2)	ND(1.1)	ND(1.3)	ND(1.5)	ND(1.6)	ND(1.4)	ND(1.5)
1,2-Dichlorobenzene	µg/kg	900	18,000	--	--	--	--	ND(0.94)	ND(1.1)	ND(0.94)	ND(1.0)	ND(1.3)	ND(1.0)	ND(0.96)	ND(0.91)	ND(1.1)	ND(0.80)	ND(1.2)	ND(1.1)	ND(1.3)	ND(1.5)	ND(1.6)	ND(1.4)	ND(1.5)
1,2-Dichloroethane	µg/kg	1	20	--	--	--	--	ND(0.94)	ND(1.1)	ND(0.94)	ND(1.0)	ND(1.3)	ND(1.0)	ND(0.96)	ND(0.91)	ND(1.1)	ND(0.80)	ND(1.2)	ND(1.1)	ND(1.3)	ND(1.5)	ND(1.6)	ND(1.4)	ND(1.5)
1,2-Dichloropropane	µg/kg	1	20	--	--	--	--	ND(0.94)	ND(1.1)	ND(0.94)	ND(1.0)	ND(1.3)	ND(1.0)	ND(0.96)	ND(0.91)	ND(1.1)	ND(0.80)	ND(1.2)	ND(1.1)	ND(1.3)	ND(1.5)	ND(1.6)	ND(1.4)	ND(1.5)
1,3,5-Trimethylbenzene	µg/kg	--	--	17	340	--	--	ND(0.94)	ND(1.1)	ND(0.94)	ND(1.0)	ND(1.3)	ND(1.0)	ND(0.96)	ND(0.91)	ND(1.1)	ND(0.80)	ND(1.2)	ND(1.1)	ND(1.3)	ND(1.5)	ND(1.6)	ND(1.4)	ND(1.5)
1,3-Dichlorobenzene	µg/kg	--	--	--	--	373,000	7,460,000	ND(0.94)	ND(1.1)	ND(0.94)	ND(1.0)	ND(1.3)	ND(1.0)	ND(0.96)	ND(0.91)	ND(1.1)	ND(0.80)	ND(1.2)	ND(1.1)	ND(1.3)	ND(1.5)	ND(1.6)	ND(1.4)	ND(1.5)
1,3-Dichloropropane	µg/kg	1	20	--	--	--	--	ND(0.94)	ND(1.1)	ND(0.94)	ND(1.0)	ND(1.3)	ND(1.0)	ND(0.96)	ND(0.91)	ND(1.1)	ND(0.80)	ND(1.2)	ND(1.1)	ND(1.3)	ND(1.5)	ND(1.6)	ND(1.4)	ND(1.5)
1,4-Dichlorobenzene	µg/kg	100	2,000	--	--	--	--	ND(0.94)	ND(1.1)	ND(0.94)	ND(1.0)	ND(1.3)	ND(1.0)	ND(0.96)	ND(0.91)	ND(1.1)	ND(0.80)	ND(1.2)	ND(1.1)	ND(1.3)	ND(1.5)	ND(1.6)	ND(1.4)	ND(1.5)
2,2-Dichloropropane	µg/kg	--	--	--	--	--	--	ND(0.94)	ND(1.1)	ND(0.94)	ND(1.0)	ND(1.3)	ND(1.0)	ND(0.96)	ND(0.91)	ND(1.1)	ND(0.80)	ND(1.2)	ND(1.1)	ND(1.3)	ND(1.5)	ND(1.6)	ND(1.4)	ND(1.5)
2-Butanone (MEK)	µg/kg	--	--	120	2,400	--	--	ND(4.7)	ND(5.3)	ND(4.7)	ND(5.0)	ND(6.3)	ND(5.0)	ND(4.8)	ND(4.6)	ND(5.4)	ND(4.0)	ND(6.2)	ND(5.3)	ND(6.6)	ND(7.4)	ND(7.9)	ND(7.0)	ND(7.5)
2-Chlorotoluene	µg/kg	--	--	23	460	--	--	ND(0.94)	ND(1.1)	ND(0.94)	ND(1.0)	ND(1.3)	ND(1.0)	ND(0.96)	ND(0.91)	ND(1.1)	ND(0.80)	ND(1.2)	ND(1.1)	ND(1.3)	ND(1.5)	ND(1.6)	ND(1.4)	ND(1.5)
2-Hexanone	µg/kg	--	--	0.88	17.6	--	--	ND(4.7)	ND(5.3)	ND(4.7)	ND(5.0)	ND(6.3)	ND(5.0)	ND(4.8)	ND(4.6)	ND(5.4)	ND(4.0)	ND(6.2)	ND(5.3)	ND(6.6)	ND(7.4)	ND(7.9)	ND(7.0) F1	ND(7.5) F1
4-Chlorotoluene	µg/kg	--	--	24	480	--	--	ND(0.94)	ND(1.1)	ND(0.94)	ND(1.0)	ND(1.3)	ND(1.0)	ND(0.96)	ND(0.91)	ND(1.1)	ND(0.80)	ND(1.2)	ND(1.1)	ND(1.3)	ND(1.5)	ND(1.6)	ND(1.4)	ND(1.5)
4-Methyl-2-pentanone (MIBK)	µg/kg	--	--	140	2,800	--	--	ND(2.3)	ND(2.7)	ND(2.4)	ND(2.5)	ND(3.1)	ND(2.5)	ND(2.4)	ND(2.3)	ND(2.7)	ND(2.0)	ND(3.1)	ND(2.7)	ND(3.3)	ND(3.7)	ND(4.0)	ND(3.5) F1	ND(3.7) F1
Acetone	µg/kg	800	16,000	--	--	--	--	ND(7.5)	ND(8.5)	ND(7.5)	ND(8.0)	ND(10)	ND(8.0)	ND(7.7)	**9.6 J**	**12 J**	ND(6.4)	ND(9.9)	ND(8.5)	ND(11) F1	ND(12)	ND(13)	ND(11) F1	ND(12) F1
Benzene	µg/kg	2	40	--	--	--	--	ND(0.94)	ND(1.1)	ND(0.94)	ND(1.0)	ND(1.3)	ND(1.0)	ND(0.96)	ND(0.91)	ND(1.1)	ND(0.80)	ND(1.2)	ND(1.1)	ND(1.3)	ND(1.5)	ND(1.6)	ND(1.4)	ND(1.5)
Bromobenzene	µg/kg	--	--	4.2	84	--	--	ND(0.94)	ND(1.1)	ND(0.94)	ND(1.0)	ND(1.3)	ND(1.0)	ND(0.96)	ND(0.91)	ND(1.1)	ND(0.80)	ND(1.2)	ND(1.1)	ND(1.3)	ND(1.5)	ND(1.6)	ND(1.4)	ND(1.5)
Bromochloromethane	µg/kg	--	--	2.1	42	--	--	ND(0.94)	ND(1.1)	ND(0.94)	ND(1.0)	ND(1.3)	ND(1.0)	ND(0.96)	ND(0.91)	ND(1.1)	ND(0.80)	ND(1.2)	ND(1.1)	ND(1.3)	ND(1.5)	ND(1.6)	ND(1.4)	ND(1.5)
Bromodichloromethane	µg/kg	30	600	--	--	--	--	ND(0.94)	ND(1.1)	ND(0.94)	ND(1.0)	ND(1.3)	ND(1.0)	ND(0.96)	ND(0.91)	ND(1.1)	ND(0.80)	ND(1.2)	ND(1.1)	ND(1.3)	ND(1.5)	ND(1.6)	ND(1.4)	ND(1.5)
Bromoform	µg/kg	40	800	--	--	--	--	ND(1.9)	ND(2.1)	ND(1.9)	ND(2.0)	ND(2.5)	ND(2.0)	ND(1.9)	ND(1.8)	ND(2.2)	ND(1.6)	ND(2.5)	ND(2.1)	ND(2.6)	ND(3.0)	ND(3.2)	ND(2.8)	ND(3.0)
Bromomethane	µg/kg	10	200	--	--	--	--	ND(0.94)	ND(1.1)	ND(0.94)	ND(1.0)	ND(1.3)	ND(1.0)	ND(0.96)	ND(0.91)	ND(1.1)	ND(0.80)	ND(1.2)	ND(1.1)	ND(1.3)	ND(1.5)	ND(1.6)	ND(1.4)	ND(1.5)
Carbon tetrachloride	µg/kg	3	60	--	--	--	--	ND(0.94)	ND(1.1)	ND(0.94)	ND(1.0)	ND(1.3)	ND(1.0)	ND(0.96)	ND(0.91)	ND(1.1)	ND(0.80)	ND(1.2)	ND(1.1)	ND(1.3)	ND(1.5)	ND(1.6)	ND(1.4)	ND(1.5)
Chlorobenzene	µg/kg	70	1,400	--	--	--	--	ND(0.94)	ND(1.1)	ND(0.94)	ND(1.0)	ND(1.3)	ND(1.0)	ND(0.96)	ND(0.91)	ND(1.1)	ND(0.80)	ND(1.2)	ND(1.1)	ND(1.3)	ND(1.5)	ND(1.6)	ND(1.4)	ND(1.5)
Chloroethane	µg/kg	--	--	590	11,800	--	--	ND(1.9)	ND(2.1)	ND(1.9)	ND(2.0)	ND(2.5)	ND(2.0)	ND(1.9)	ND(1.8)	ND(2.2)	ND(1.6)	ND(2.5)	ND(2.1)	ND(2.6)	ND(3.0)	ND(3.2)	ND(2.8)	ND(3.0)
Chloroform	µg/kg	30	600	--	--	--	--	**1.8 J**	**3.7**	**2.3**	**2.2**	**1.4 J**	**1.5 J**	**1.8 J**	**1.1 J**	**1.9 J**	**5.4**	**41**	**34**	**260 F1**	**160**	**380**	**94**	**120**
Chloromethane	µg/kg	--	--	4.9	98	--	--	ND(0.94)	ND(1.1)	ND(0.94)	ND(1.0)	ND(1.3)	ND(1.0)	ND(0.96)	ND(0.91)	ND(1.1)	ND(0.80)	ND(1.2)	ND(1.1)	ND(1.3)	ND(1.5)	ND(1.6)	ND(1.4)	ND(1.5)
cis-1,2-Dichloroethene	µg/kg	20	400	--	--	--	--	ND(0.94)	ND(1.1)	ND(0.94)	ND(1.0)	ND(1.3)	ND(1.0)	ND(0.96)	ND(0.91)	ND(1.1)	ND(0.80)	ND(1.2)	ND(1.1)	ND(1.3)	ND(1.5)	ND(1.6)	ND(1.4)	ND(1.5)
cis-1,3-Dichloropropene	µg/kg	--	--	--	--	--	--	ND(0.94)	ND(1.1)	ND(0.94)	ND(1.0)	ND(1.3)	ND(1.0)	ND(0.96)	ND(0.91)	ND(1.1)	ND(0.80)	ND(1.2)	ND(1.1)	ND(1.3)	ND(1.5)	ND(1.6)	ND(1.4)	ND(1.5)
Dibromochloromethane	µg/kg	20	400	--	--	--	--	ND(0.94)	ND(1.1)	ND(0.94)	ND(1.0)	ND(1.3)	ND(1.0)	ND(0.96)	ND(0.91)	ND(1.1)	ND(0.80)	ND(1.2)	ND(1.1)	ND(1.3)	ND(1.5)	ND(1.6)	ND(1.4)	ND(1.5)
Dibromomethane	µg/kg	--	--	0.21	4.2	--	--	ND(0.94)	ND(1.1)	ND(0.94)	ND(1.0)	ND(1.3)	ND(1.0)	ND(0.96)	ND(0.91)	ND(1.1)	ND(0.80)	ND(1.2)	ND(1.1)	ND(1.3)	ND(1.5)	ND(1.6)	ND(1.4)	ND(1.5)
Dichlorodifluoromethane	µg/kg	--	--	30	600	--	--	ND(1.9)	ND(2.1)	ND(1.9)	ND(2.0)	ND(2.5)	ND(2.0)	ND(1.9)	ND(1.8)	ND(2.2)	ND(1.6)	ND(2.5)	ND(2.1)	ND(2.6)	ND(3.0)	ND(3.2)	ND(2.8)	ND(3.0)
Ethylbenzene	µg/kg	700	14,000	--	--	--	--	ND(0.94)	ND(1.1)	ND(0.94)	ND(1.0)	ND(1.3)	ND(1.0)	ND(0.96)	ND(0.91)	ND(1.1)	ND(0.80)	ND(1.2)	ND(1.1)	ND(1.3)	ND(1.5)	ND(1.6)	ND(1.4)	ND(1.5)
Ethyl-t-butyl ether (ETBE)	µg/kg	--	--	--	--	--	--	ND(0.94)	ND(1.1)	ND(0.94)	ND(1.0)	ND(1.3)	ND(1.0)	ND(0.96)	ND(0.91)	ND(1.1)	ND(0.80)	ND(1.2)	ND(1.1)	ND(1.3)	ND(1.5)	ND(1.6)	ND(1.4)	ND(1.5)
Hexachlorobutadiene	µg/kg	100	2,000	--	--	--	--	ND(0.94)	ND(1.1)	ND(0.94)	ND(1.0)	ND(1.3)	ND(1.0)	ND(0.96)	ND(0.91)	ND(1.1)	ND(0.80)	ND(1.2)	ND(1.1)	ND(1.3)	ND(1.5)	ND(1.6)	ND(1.4)	ND(1.5)
Isopropyl Ether (DIPE)	µg/kg	--	--	37	740	--	--	ND(0.94)	ND(1.1)	ND(0.94)	ND(1.0)	ND(1.3)	ND(1.0)	ND(0.96)	ND(0.91)	ND(1.1)	ND(0.80)	ND(1.2)	ND(1.1)	ND(1.3)	ND(1.5)	ND(1.6)	ND(1.4)	ND(1.5)
Isopropylbenzene	µg/kg	--	--	74	1,480	--	--	ND(0.94)	ND(1.1)	ND(0.94)	ND(1.0)	ND(1.3)	ND(1.0)	ND(0.96)	ND(0.91)	ND(1.1)	ND(0.80)	ND(1.2)	ND(1.1)	ND(1.3)	ND(1.5)	ND(1.6)	ND(1.4)	ND(1.5)
m,p-Xylene	µg/kg	10,000[f]	200,000[g]	--	--	--	--	ND(1.9)	ND(2.1)	ND(1.9)	ND(2.0)	ND(2.5)	ND(2.0)	ND(1.9)	ND(1.8)	ND(2.2)	ND(1.6)	ND(2.5)	ND(2.1)	ND(2.6)	ND(3.0)	ND(3.2)	ND(2.8)	ND(3.0)
Methylene Chloride	µg/kg	1	20	--	--	--	--	ND(4.7)	ND(5.3)	ND(4.7)	ND(5.0)	ND(6.3)	ND(5.0)	ND(4.8)	ND(4.6)	ND(5.4)	ND(4.0)	ND(6.2)	ND(5.3)	ND(6.6)	ND(7.4)	ND(7.9)	ND(7.0)	ND(7.5)
Methyl-t-Butyl Ether (MTBE)	µg/kg	--	--	3.2	64	--	--	ND(0.94)	ND(1.1)	ND(0.94)	ND(1.0)	ND(1.3)	ND(1.0)	ND(0.96)	ND(0.91)	ND(1.1)	ND(0.80)	ND(1.2)	ND(1.1)	ND(1.3)	ND(1.5)	ND(1.6)	ND(1.4)	ND(1.5)
Naphthalene	µg/kg	4,000	80,000	--	--	--	--	ND(1.9)	ND(2.1)	ND(1.9)	ND(2.0)	ND(2.5)	ND(2.0)	ND(1.9)	ND(1.8)	ND(2.2)	ND(1.6)	ND(2.5)	ND(2.1)	ND(2.6)	ND(3.0)	ND(3.2)	ND(2.8)	ND(3.0)
n-Butylbenzene	µg/kg	--	--	320	6,400	--	--	ND(0.94)	ND(1.1)	ND(0.94)	ND(1.0)	ND(1.3)	ND(1.0)	ND(0.96)	ND(0.91)	ND(1.1)	ND(0.80)	ND(1.2)	ND(1.1)	ND(1.3)	ND(1.5)	ND(1.6)	ND(1.4)	ND(1.5)
N-Propylbenzene	µg/kg	--	--	120	2,400	--	--	ND(0.94)	ND(1.1)	ND(0.94)	ND(1.0)	ND(1.3)	ND(1.0)	ND(0.96)	ND(0.91)	ND(1.1)	ND(0.80)	ND(1.2)	ND(1.1)	ND(1.3)	ND(1.5)	ND(1.6)	ND(1.4)	ND(1.5)
o-Xylene	µg/kg	9,000	180,000	--	--	--	--	ND(0.94)	ND(1.1)	ND(0.94)	ND(1.0)	ND(1.3)	ND(1.0)	ND(0.96)	ND(0.91)	ND(1.1)	ND(0.80)	ND(1.2)	ND(1.1)	ND(1.3)	ND(1.5)	ND(1.6)	ND(1.4)	ND(1.5)
p-Isopropyltoluene	µg/kg	--	--	--	--	647,000	12,940,000	ND(0.94)	ND(1.1)	ND(0.94)	ND(1.0)	ND(1.3)	ND(1.0)	ND(0.96)	ND(0.91)	ND(1.1)	ND(0.80)	ND(1.2)	ND(1.1)	ND(1.3)	ND(1.5)	ND(1.6)	ND(1.4)	ND(1.5)
sec-Butylbenzene	µg/kg	--	--	590	11,800	--	--	ND(0.94)	ND(1.1)	ND(0.94)	ND(1.0)	ND(1.3)	ND(1.0)	ND(0.96)	ND(0.91)	ND(1.1)	ND(0.80)	ND(1.2)	ND(1.1)	ND(1.3)	ND(1.5)	ND(1.6)	ND(1.4)	ND(1.5)
Styrene	µg/kg	200	4,000	--	--	--	--	ND(0.94)	ND(1.1)	ND(0.94)	ND(1.0)	ND(1.3)	ND(1.0)	ND(0.96)	ND(0.91)	ND(1.1)	ND(0.80)	ND(1.2)	ND(1.1)	ND(1.3)	ND(1.5)	ND(1.6)	ND(1.4)	ND(1.5)
Tert-amyl-methyl ether (TAME)	µg/kg	--	--	--	--	--	--	ND(0.94)	ND(1.1)	ND(0.94)	ND(1.0)	ND(1.3)	ND(1.0)	ND(0.96)	ND(0.91)	ND(1.1)	ND(0.80)	ND(1.2)	ND(1.1)	ND(1.3)	ND(1.5)	ND(1.6)	ND(1.4)	ND(1.5)
tert-Butyl alcohol (TBA)	µg/kg	--	--	--	--	21,300,000	426,000,000	ND(9.4)	ND(11)	ND(9.4)	ND(10)	ND(13)	ND(10)	ND(9.6)	ND(9.1)	ND(11)	ND(8.0)	ND(12)	ND(11)	ND(13)	ND(15)	ND(16)	ND(14)	ND(15)
tert-Butylbenzene	µg/kg	--	--	160	3,200	--	--	ND(0.94)	ND(1.1)	ND(0.94)	ND(1.0)	ND(1.3)	ND(1.0)	ND(0.96)	ND(0.91)	ND(1.1)	ND(0.80)	ND(1.2)	ND(1.1)	ND(1.3)	ND(1.5)	ND(1.6)	ND(1.4)	ND(1.5)
Tetrachloroethene	µg/kg	3	60	--	--	--	--	ND(0.94)	ND(1.1)	ND(0.94)	ND(1.0)	ND(1.3)	ND(1.0)	ND(0.96)	ND(0.91)	ND(1.1)	ND(0.80)	ND(1.2)	ND(1.1)	ND(1.3)	ND(1.5)	ND(1.6)	ND(1.4)	ND(1.5)
Toluene	µg/kg	600	12,000	--	--	--	--	ND(0.94)	ND(1.1)	ND(0.94)	ND(1.0)	ND(1.3)	ND(1.0)	ND(0.96)	ND(0.91)	ND(1.1)	ND(0.80)	ND(1.2)	ND(1.1)	ND(1.3)	ND(1.5)	ND(1.6)	ND(1.4)	ND(1.5)

Table 3
Borehole U4U5-2 Soil Analytical Results

Analyte	Units	LBCL[a]		RSL		BCL		Depth Below Ground Surface																
		DAF 1	DAF 20	DAF 1[b]	DAF 20[c]	DAF 1[d]	DAF 20[e]	1'	2.5'	5'	7.5'	11'	12.5'	15'	17.5'	20'	22.5'	25'	27.5'	30'	32.5'	35'	37.5'	40'
trans-1,2-Dichloroethene	µg/kg	30	600	--	--	--	--	ND(0.94)	ND(1.1)	ND(0.94)	ND(1.0)	ND(1.3)	ND(1.0)	ND(0.96)	ND(0.91)	ND(1.1)	ND(0.80)	ND(1.2)	ND(1.1)	ND(1.3)	ND(1.5)	ND(1.6)	ND(1.4)	ND(1.5)
trans-1,3-Dichloropropene	µg/kg	--	--	--	--	--	--	ND(0.94)	ND(1.1)	ND(0.94)	ND(1.0)	ND(1.3)	ND(1.0)	ND(0.96)	ND(0.91)	ND(1.1)	ND(0.80)	ND(1.2)	ND(1.1)	ND(1.3)	ND(1.5)	ND(1.6)	ND(1.4)	ND(1.5)
Trichloroethene	µg/kg	3	60	--	--	--	--	ND(0.94)	ND(1.1)	ND(0.94)	ND(1.0)	ND(1.3)	ND(1.0)	ND(0.96)	ND(0.91)	ND(1.1)	ND(0.80)	ND(1.2)	ND(1.1)	ND(1.3)	ND(1.5)	ND(1.6)	ND(1.4)	ND(1.5)
Trichlorofluoromethane	µg/kg	--	--	330	6,600	--	--	ND(0.94)	ND(1.1)	ND(0.94)	ND(1.0)	ND(1.3)	ND(1.0)	ND(0.96)	ND(0.91)	ND(1.1)	ND(0.80)	ND(1.2)	ND(1.1)	ND(1.3)	ND(1.5)	ND(1.6)	ND(1.4)	ND(1.5)
Vinyl chloride	µg/kg	0.7	14	--	--	--	--	ND(0.94)	ND(1.1)	ND(0.94)	ND(1.0)	ND(1.3)	ND(1.0)	ND(0.96)	ND(0.91)	ND(1.1)	ND(0.80)	ND(1.2)	ND(1.1)	ND(1.3)	ND(1.5)	ND(1.6)	ND(1.4)	ND(1.5)
Xylenes, Total	µg/kg	10,000	200,000	--	--	--	--	ND(1.9)	ND(2.1)	ND(1.9)	ND(2.0)	ND(2.5)	ND(2.0)	ND(1.9)	ND(1.8)	ND(2.2)	ND(1.6)	ND(2.5)	ND(2.1)	ND(2.6)	ND(3.0)	ND(3.2)	ND(2.8)	ND(3.0)

Notes:

If no LBCL value was available then RSL value was recorded. If no RSL value was available then BCL value was recorded.

Bold value indicates analyte was detected above the MDL

Yellow cells indicate an exceedance of the LBCL DAF 1, RSL DAF 1, or the BCL DAF 1

a - The LBCLs are found in the table, "Nevada Division of Environmental Protection, Basic Comparison Levels" dated February 20, 2015

b - The RSLs for DAF 1 are the Risk-Based SSLs (soil screening levels) found in the table, "Regional Screening Level Resident Soil to Groundwater Table (TR=1E-06, HQ=0.1) November 2015"

c - The RSLs for DAF 20 are calculated by multiplying the RSL DAF 1 by 20. The BCLs for DAF 20 are calculated by multiplying the BCL DAF 1 by 20.

d - Industrial/Commercial Worker BCL value found in the table, "Nevada Division of Environmental Protection, Basic Comparison Levels" dated February 20, 2015

e - Industrial/Commercial Worker BCL DAF 20 value calculated by multiplying the DAF 1 value by 20

f - The DAF 1 LBCL is 10,000 µg/L for m-xylene and 10,000 µg/L for p-xylene

g - The DAF 20 LBCL is 200,000 µg/L for m-xylene and 200,000 µg/L for p-xylene

BCL - Basic Comparison Level

DAF - Dilution Attenuation Factor

F1 - MS and/or MSD Recovery is outside acceptance limits

J - Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value

LBCL - Leaching-based Basic Comparison Level

MDL - method detection limit

MS/MSD - Matrix Spike/Matrix Spike Duplicate

mg/kg - milligram per kilogram

ND (1.0) - non-detect at the laboratory method detection limit shown in parentheses

RL - reporting limit

RSL - Regional Screening Level

µg/kg - microgram per kilogram

VOCs - Volatile Organic Compounds

Table 4
Borehole U4U5-3 Soil Analytical Results

Analyte	Units	LBCL[a]		RSL		BCL		Depth Below Ground Surface																	
		DAF 1	DAF 20	DAF 1[b]	DAF 20[c]	DAF 1[d]	DAF 20[e]	2.5'	5'	7.5'	10'	12.5'	15'	17.5'	20'	22.5'	25'	27.5'	30'	32.5'	35'	37.5'	40'	42.5'	45'
Perchlorate	mg/kg	0.0185	0.371	--	--	--	--	**97**	**150**	**59**	**32**	**39**	**100**	**110**	**99**	**92**	**72**	**8.3**	**8.4**	**20**	**280**	**50**	**110**	**290**	**540**
Ammonia (as N)	mg/kg	--	--	--	--	100,000	2,000,000	ND(2.2)	ND(2.3)	ND(2.3)	ND(2.3)	ND(2.2)	ND(2.2)	ND(2.2)	ND(2.2)	ND(2.1)	ND(2.1)	ND(2.1)	ND(2.1)	ND(2.1)	ND(2.5)	ND(2.1)	ND(2.2)	ND(2.2)	ND(2.2)
Hexavalent chromium	mg/kg	2	40	--	--	--	--	**0.25 J**	**0.25 J**	**0.19 J**	ND(0.17)	**0.16 J**	ND(0.17)	**0.17 J**	ND(0.16)	ND(0.16)	ND(0.16)	ND(0.16)	ND(0.16)	ND(0.16)	**0.23 J**	ND(0.16)	ND(0.17)	ND(0.17)	ND(0.17)
Chromium	mg/kg	--	--	4,000,000	80,000,000	--	--	**15**	**19**	**18**	**15**	**16**	**17**	**16**	**14**	**13**	**13**	**13**	**13**	**16**	**34**	**12**	**16**	**20**	**21**
Percent Moisture	%	--	--	--	--	--	--	**11**	**12**	**12**	**13**	**8.7**	**8.7**	**7.9**	**7.0**	**6.2**	**6.1**	**4.9**	**6.0**	**4.7**	**21**	**5.3**	**9.2**	**10**	**11**
VOCs																									
1,1,1,2-Tetrachloroethane	µg/kg	--	--	0.22	4.4	--	--	ND(0.85)	ND(1.0)	ND(0.89)	ND(0.92)	ND(0.92)	ND(0.94)	ND(1.0)	ND(0.89)	ND(0.81)	ND(0.84)	ND(0.88)	ND(0.84)	ND(0.86)	ND(1.1)	ND(1.0)	ND(0.87)	ND(1.0)	ND(0.87)
1,1,1-Trichloroethane	µg/kg	100	2,000	--	--	--	--	ND(0.85)	ND(1.0)	ND(0.89)	ND(0.92)	ND(0.92)	ND(0.94)	ND(1.0)	ND(0.89)	ND(0.81)	ND(0.84)	ND(0.88)	ND(0.84)	ND(0.86)	ND(1.1)	ND(1.0)	ND(0.87)	ND(1.0)	ND(0.87)
1,1,2,2-Tetrachloroethane	µg/kg	0.2	4	--	--	--	--	ND(0.85)	ND(1.0)	ND(0.89)	ND(0.92)	ND(0.92)	ND(0.94)	ND(1.0)	ND(0.89)	ND(0.81)	ND(0.84)	ND(0.88)	ND(0.84)	ND(0.86)	ND(1.1)	ND(1.0)	ND(0.87)	ND(1.0)	ND(0.87)
1,1,2-Trichloroethane	µg/kg	0.9	18	--	--	--	--	ND(0.85)	ND(1.0)	ND(0.89)	ND(0.92)	ND(0.92)	ND(0.94)	ND(1.0)	ND(0.89)	ND(0.81)	ND(0.84)	ND(0.88)	ND(0.84)	ND(0.86)	ND(1.1)	ND(1.0)	ND(0.87)	ND(1.0)	ND(0.87)
1,1-Dichloroethane	µg/kg	1,000	20,000	--	--	--	--	ND(0.85)	ND(1.0)	ND(0.89)	ND(0.92)	ND(0.92)	ND(0.94)	ND(1.0)	ND(0.89)	ND(0.81)	ND(0.84)	ND(0.88)	ND(0.84)	ND(0.86)	ND(1.1)	ND(1.0)	ND(0.87)	ND(1.0)	ND(0.87)
1,1-Dichloroethene	µg/kg	3	60	--	--	--	--	ND(0.85)	ND(1.0)	ND(0.89)	ND(0.92)	ND(0.92)	ND(0.94)	ND(1.0)	ND(0.89)	ND(0.81)	ND(0.84)	ND(0.88)	ND(0.84)	ND(0.86)	ND(1.1)	ND(1.0)	ND(0.87)	ND(1.0)	ND(0.87)
1,1-Dichloropropene	µg/kg	--	--	--	--	--	--	ND(0.85)	ND(1.0)	ND(0.89)	ND(0.92)	ND(0.92)	ND(0.94)	ND(1.0)	ND(0.89)	ND(0.81)	ND(0.84)	ND(0.88)	ND(0.84)	ND(0.86)	ND(1.1)	ND(1.0)	ND(0.87)	ND(1.0)	ND(0.87)
1,2,3-Trichlorobenzene	µg/kg	--	--	2.1	42	--	--	ND(0.85)	ND(1.0)	ND(0.89)	ND(0.92)	ND(0.92)	ND(0.94)	ND(1.0)	ND(0.89)	ND(0.81)	ND(0.84)	ND(0.88)	ND(0.84)	ND(0.86)	ND(1.1)	ND(1.0)	ND(0.87)	ND(1.0)	ND(0.87)
1,2,3-Trichloropropane	µg/kg	--	--	0.00032	0.0064	--	--	ND(0.85)	ND(1.0)	ND(0.89)	ND(0.92)	ND(0.92)	ND(0.94)	ND(1.0)	ND(0.89)	ND(0.81)	ND(0.84)	ND(0.88)	ND(0.84)	ND(0.86)	ND(1.1)	ND(1.0)	ND(0.87)	ND(1.0)	ND(0.87)
1,2,4-Trichlorobenzene	µg/kg	300	6,000	--	--	--	--	ND(0.85)	ND(1.0)	ND(0.89)	ND(0.92)	ND(0.92)	ND(0.94)	ND(1.0)	ND(0.89)	ND(0.81)	ND(0.84)	ND(0.88)	ND(0.84)	ND(0.86)	ND(1.1)	ND(1.0)	ND(0.87)	ND(1.0)	ND(0.87)
1,2,4-Trimethylbenzene	µg/kg	--	--	2.1	42	--	--	ND(0.85)	ND(1.0)	ND(0.89)	ND(0.92)	ND(0.92)	ND(0.94)	ND(1.0)	ND(0.89)	ND(0.81)	ND(0.84)	ND(0.88)	ND(0.84)	ND(0.86)	ND(1.1)	ND(1.0)	ND(0.87)	ND(1.0)	ND(0.87)
1,2-Dibromo-3-Chloropropane	µg/kg	--	--	0.00014	0.0028	--	--	ND(1.7)	ND(2.0)	ND(1.8)	ND(1.8)	ND(1.8)	ND(1.9)	ND(2.0)	ND(1.8)	ND(1.6)	ND(1.7)	ND(1.8)	ND(1.7)	ND(1.7)	ND(2.2)	ND(2.0)	ND(1.7)	ND(2.0)	ND(1.7)
1,2-Dibromoethane (EDB)	µg/kg	--	--	0.0021	0.042	--	--	ND(0.85)	ND(1.0)	ND(0.89)	ND(0.92)	ND(0.92)	ND(0.94)	ND(1.0)	ND(0.89)	ND(0.81)	ND(0.84)	ND(0.88)	ND(0.84)	ND(0.86)	ND(1.1)	ND(1.0)	ND(0.87)	ND(1.0)	ND(0.87)
1,2-Dichlorobenzene	µg/kg	900	18,000	--	--	--	--	ND(0.85)	ND(1.0)	ND(0.89)	ND(0.92)	ND(0.92)	ND(0.94)	ND(1.0)	ND(0.89)	ND(0.81)	ND(0.84)	ND(0.88)	ND(0.84)	ND(0.86)	ND(1.1)	ND(1.0)	ND(0.87)	ND(1.0)	ND(0.87)
1,2-Dichloroethane	µg/kg	1	20	--	--	--	--	ND(0.85)	ND(1.0)	ND(0.89)	ND(0.92)	ND(0.92)	ND(0.94)	ND(1.0)	ND(0.89)	ND(0.81)	ND(0.84)	ND(0.88)	ND(0.84)	ND(0.86)	ND(1.1)	ND(1.0)	ND(0.87)	ND(1.0)	ND(0.87)
1,2-Dichloropropane	µg/kg	1	20	--	--	--	--	ND(0.85)	ND(1.0)	ND(0.89)	ND(0.92)	ND(0.92)	ND(0.94)	ND(1.0)	ND(0.89)	ND(0.81)	ND(0.84)	ND(0.88)	ND(0.84)	ND(0.86)	ND(1.1)	ND(1.0)	ND(0.87)	ND(1.0)	ND(0.87)
1,3,5-Trimethylbenzene	µg/kg	--	--	17	340	--	--	ND(0.85)	ND(1.0)	ND(0.89)	ND(0.92)	ND(0.92)	ND(0.94)	ND(1.0)	ND(0.89)	ND(0.81)	ND(0.84)	ND(0.88)	ND(0.84)	ND(0.86)	ND(1.1)	ND(1.0)	ND(0.87)	ND(1.0)	ND(0.87)
1,3-Dichlorobenzene	µg/kg	--	--	--	--	373,000	7,460,000	ND(0.85)	ND(1.0)	ND(0.89)	ND(0.92)	ND(0.92)	ND(0.94)	ND(1.0)	ND(0.89)	ND(0.81)	ND(0.84)	ND(0.88)	ND(0.84)	ND(0.86)	ND(1.1)	ND(1.0)	ND(0.87)	ND(1.0)	ND(0.87)
1,3-Dichloropropane	µg/kg	1	20	--	--	--	--	ND(0.85)	ND(1.0)	ND(0.89)	ND(0.92)	ND(0.92)	ND(0.94)	ND(1.0)	ND(0.89)	ND(0.81)	ND(0.84)	ND(0.88)	ND(0.84)	ND(0.86)	ND(1.1)	ND(1.0)	ND(0.87)	ND(1.0)	ND(0.87)
1,4-Dichlorobenzene	µg/kg	100	2,000	--	--	--	--	ND(0.85)	ND(1.0)	ND(0.89)	ND(0.92)	ND(0.92)	ND(0.94)	ND(1.0)	ND(0.89)	ND(0.81)	ND(0.84)	ND(0.88)	ND(0.84)	ND(0.86)	ND(1.1)	ND(1.0)	ND(0.87)	ND(1.0)	ND(0.87)
2,2-Dichloropropane	µg/kg	--	--	--	--	--	--	ND(0.85)	ND(1.0)	ND(0.89)	ND(0.92)	ND(0.92)	ND(0.94)	ND(1.0)	ND(0.89)	ND(0.81)	ND(0.84)	ND(0.88)	ND(0.84)	ND(0.86)	ND(1.1)	ND(1.0)	ND(0.87)	ND(1.0)	ND(0.87)
2-Butanone (MEK)	µg/kg	--	--	120	2,400	--	--	ND(4.2)	ND(5.1)	ND(4.5)	ND(4.6)	ND(4.6)	ND(4.7)	ND(5.0)	ND(4.5)	ND(4.0)	ND(4.2)	ND(4.4)	ND(4.2)	ND(4.3)	ND(5.5)	ND(5.0)	ND(4.4)	**9.0 J**	ND(4.4)
2-Chlorotoluene	µg/kg	--	--	23	460	--	--	ND(0.85)	ND(1.0)	ND(0.89)	ND(0.92)	ND(0.92)	ND(0.94)	ND(1.0)	ND(0.89)	ND(0.81)	ND(0.84)	ND(0.88)	ND(0.84)	ND(0.86)	ND(1.1)	ND(1.0)	ND(0.87)	ND(1.0)	ND(0.87)
2-Hexanone	µg/kg	--	--	0.88	17.6	--	--	ND(4.2)	ND(5.1)	ND(4.5)	ND(4.6)	ND(4.6)	ND(4.7)	ND(5.0)	ND(4.5)	ND(4.0)	ND(4.2)	ND(4.4)	ND(4.2)	ND(4.3) F1	ND(5.5)	ND(5.0)	ND(4.4)	ND(5.1)	ND(4.4)
4-Chlorotoluene	µg/kg	--	--	24	480	--	--	ND(0.85)	ND(1.0)	ND(0.89)	ND(0.92)	ND(0.92)	ND(0.94)	ND(1.0)	ND(0.89)	ND(0.81)	ND(0.84)	ND(0.88)	ND(0.84)	ND(0.86)	ND(1.1)	ND(1.0)	ND(0.87)	ND(1.0)	ND(0.87)
4-Methyl-2-pentanone (MIBK)	µg/kg	--	--	140	2,800	--	--	ND(2.1)	ND(2.5)	ND(2.2)	ND(2.3)	ND(2.3)	ND(2.4)	ND(2.5)	ND(2.2)	ND(2.0)	ND(2.1)	ND(2.2)	ND(2.1)	ND(2.2) F1	ND(2.8)	ND(2.5)	ND(2.2)	ND(2.4)	ND(2.2)
Acetone	µg/kg	800	16,000	--	--	--	--	ND(6.8)	ND(8.1)	**8.1 J**	ND(7.3)	ND(7.4)	ND(7.5)	ND(8.0)	ND(7.1)	ND(6.5)	ND(6.7)	**30**	**30**	ND(6.9) F1	ND(8.8)	**31**	**34**	**170**	**7.7 J**
Benzene	µg/kg	2	40	--	--	--	--	ND(0.85)	ND(1.0)	ND(0.89)	ND(0.92)	ND(0.92)	ND(0.94)	ND(1.0)	ND(0.89)	ND(0.81)	ND(0.84)	ND(0.88)	ND(0.84)	ND(0.86)	ND(1.1)	ND(1.0)	ND(0.87)	ND(1.0)	ND(0.87)
Bromobenzene	µg/kg	--	--	4.2	84	--	--	ND(0.85)	ND(1.0)	ND(0.89)	ND(0.92)	ND(0.92)	ND(0.94)	ND(1.0)	ND(0.89)	ND(0.81)	ND(0.84)	ND(0.88)	ND(0.84)	ND(0.86)	ND(1.1)	ND(1.0)	ND(0.87)	ND(1.0)	ND(0.87)
Bromochloromethane	µg/kg	--	--	2.1	42	--	--	ND(0.85)	ND(1.0)	ND(0.89)	ND(0.92)	ND(0.92)	ND(0.94)	ND(1.0)	ND(0.89)	ND(0.81)	ND(0.84)	ND(0.88)	ND(0.84)	ND(0.86)	ND(1.1)	ND(1.0)	ND(0.87)	ND(1.0)	ND(0.87)
Bromodichloromethane	µg/kg	30	600	--	--	--	--	ND(0.85)	ND(1.0)	ND(0.89)	ND(0.92)	ND(0.92)	ND(0.94)	ND(1.0)	ND(0.89)	ND(0.81)	ND(0.84)	ND(0.88)	ND(0.84)	ND(0.86)	ND(1.1)	ND(1.0)	ND(0.87)	ND(1.0)	ND(0.87)
Bromoform	µg/kg	40	800	--	--	--	--	ND(1.7)	ND(2.0)	ND(1.8)	ND(1.8)	ND(1.8)	ND(1.9)	ND(2.0)	ND(1.8)	ND(1.6)	ND(1.7)	ND(1.8)	ND(1.7)	ND(1.7)	ND(2.2)	ND(2.0)	ND(1.7)	ND(2.0)	ND(1.7)
Bromomethane	µg/kg	10	200	--	--	--	--	ND(0.85)	ND(1.0)	ND(0.89)	ND(0.92)	ND(0.92)	ND(0.94)	ND(1.0)	ND(0.89)	ND(0.81)	ND(0.84)	ND(0.88)	ND(0.84)	ND(0.86)	ND(1.1)	ND(1.0)	ND(0.87)	ND(1.0)	ND(0.87)
Carbon tetrachloride	µg/kg	3	60	--	--	--	--	ND(0.85)	ND(1.0)	ND(0.89)	ND(0.92)	ND(0.92)	ND(0.94)	ND(1.0)	ND(0.89)	ND(0.81)	ND(0.84)	ND(0.88)	ND(0.84)	ND(0.86)	ND(1.1)	ND(1.0)	ND(0.87)	ND(1.0)	ND(0.87)
Chlorobenzene	µg/kg	70	1,400	--	--	--	--	ND(0.85)	ND(1.0)	ND(0.89)	ND(0.92)	ND(0.92)	ND(0.94)	ND(1.0)	ND(0.89)	ND(0.81)	ND(0.84)	ND(0.88)	ND(0.84)	ND(0.86)	ND(1.1)	ND(1.0)	ND(0.87)	ND(1.0)	ND(0.87)
Chloroethane	µg/kg	--	--	590	11,800	--	--	ND(1.7)	ND(2.0)	ND(1.8)	ND(1.8)	ND(1.8)	ND(1.9)	ND(2.0)	ND(1.8)	ND(1.6)	ND(1.7)	ND(1.8)	ND(1.7)	ND(1.7)	ND(2.2)	ND(2.0)	ND(1.7)	ND(2.0)	ND(1.7)
Chloroform	µg/kg	30	600	--	--	--	--	ND(0.85)	ND(1.0)	ND(0.89)	ND(0.92)	ND(0.92)	ND(0.94)	ND(1.0)	**1.6 J**	**0.83 J**	**0.85 J**	ND(0.88)	ND(0.84)	ND(0.86)	**1.8 J**	ND(1.0)	ND(0.87)	ND(1.0)	ND(0.87)
Chloromethane	µg/kg	--	--	4.9	98	--	--	ND(0.85)	ND(1.0)	ND(0.89)	ND(0.92)	ND(0.92)	ND(0.94)	ND(1.0)	ND(0.89)	ND(0.81)	ND(0.84)	ND(0.88)	ND(0.84)	ND(0.86)	ND(1.1)	ND(1.0)	ND(0.87)	ND(1.0)	ND(0.87)
cis-1,2-Dichloroethene	µg/kg	20	400	--	--	--	--	ND(0.85)	ND(1.0)	ND(0.89)	ND(0.92)	ND(0.92)	ND(0.94)	ND(1.0)	ND(0.89)	ND(0.81)	ND(0.84)	ND(0.88)	ND(0.84)	ND(0.86)	ND(1.1)	ND(1.0)	ND(0.87)	ND(1.0)	ND(0.87)
cis-1,3-Dichloropropene	µg/kg	--	--	--	--	--	--	ND(0.85)	ND(1.0)	ND(0.89)	ND(0.92)	ND(0.92)	ND(0.94)	ND(1.0)	ND(0.89)	ND(0.81)	ND(0.84)	ND(0.88)	ND(0.84)	ND(0.86)	ND(1.1)	ND(1.0)	ND(0.87)	ND(1.0)	ND(0.87)
Dibromochloromethane	µg/kg	20	400	--	--	--	--	ND(0.85)	ND(1.0)	ND(0.89)	ND(0.92)	ND(0.92)	ND(0.94)	ND(1.0)	ND(0.89)	ND(0.81)	ND(0.84)	ND(0.88)	ND(0.84)	ND(0.86)	ND(1.1)	ND(1.0)	ND(0.87)	ND(1.0)	ND(0.87)
Dibromomethane	µg/kg	--	--	0.21	4.2	--	--	ND(0.85)	ND(1.0)	ND(0.89)	ND(0.92)	ND(0.92)	ND(0.94)	ND(1.0)	ND(0.89)	ND(0.81)	ND(0.84)	ND(0.88)	ND(0.84)	ND(0.86)	ND(1.1)	ND(1.0)	ND(0.87)	ND(1.0)	ND(0.87)
Dichlorodifluoromethane	µg/kg	--	--	30	600	--	--	ND(1.7)	ND(2.0)	ND(1.8)	ND(1.8)	ND(1.8)	ND(1.9)	ND(2.0)	ND(1.8)	ND(1.6)	ND(1.7)	ND(1.8)	ND(1.7)	ND(1.7)	ND(2.2)	ND(2.0)	ND(1.7)	ND(2.0)	ND(1.7)
Ethylbenzene	µg/kg	700	14,000	--	--	--	--	ND(0.85)	ND(1.0)	ND(0.89)	ND(0.92)	ND(0.92)	ND(0.94)	ND(1.0)	ND(0.89)	ND(0.81)	ND(0.84)	ND(0.88)	ND(0.84)	ND(0.86)	ND(1.1)	ND(1.0)	ND(0.87)	ND(1.0)	ND(0.87)
Ethyl-t-butyl ether (ETBE)	µg/kg	--	--	--	--	--	--	ND(0.85)	ND(1.0)	ND(0.89)	ND(0.92)	ND(0.92)	ND(0.94)	ND(1.0)	ND(0.89)	ND(0.81)	ND(0.84)	ND(0.88)	ND(0.84)	ND(0.86)	ND(1.1)	ND(1.0)	ND(0.87)	ND(1.0)	ND(0.87)
Hexachlorobutadiene	µg/kg	100	2,000	--	--	--	--	ND(0.85)	ND(1.0)	ND(0.89)	ND(0.92)	ND(0.92)	ND(0.94)	ND(1.0)	ND(0.89)	ND(0.81)	ND(0.84)	ND(0.88)	ND(0.84)	ND(0.86) F1 F2	ND(1.1)	ND(1.0)	ND(0.87)	ND(1.0)	ND(0.87)
Isopropyl Ether (DIPE)	µg/kg	--	--	37	740	--	--	ND(0.85)	ND(1.0)	ND(0.89)	ND(0.92)	ND(0.92)	ND(0.94)	ND(1.0)	ND(0.89)	ND(0.81)	ND(0.84)	ND(0.88)	ND(0.84)	ND(0.86)	ND(1.1)	ND(1.0)	ND(0.87)	ND(1.0)	ND(0.87)
Isopropylbenzene	µg/kg	--	--	74	1,480	--	--	ND(0.85)	ND(1.0)	ND(0.89)	ND(0.92)	ND(0.92)	ND(0.94)	ND(1.0)	ND(0.89)	ND(0.81)	ND(0.84)	ND(0.88)	ND(0.84)	ND(0.86)	ND(1.1)	ND(1.0)	ND(0.87)	ND(1.0)	ND(0.87)
m,p-Xylene	µg/kg	10,000[f]	200,000[g]	--	--	--	--	ND(1.7)	ND(2.0)	ND(1.8)	ND(1.8)	ND(1.8)	ND(1.9)	ND(2.0)	ND(1.8)	ND(1.6)	ND(1.7)	ND(1.8)	ND(1.7)	ND(1.7)	ND(2.2)	ND(2.0)	ND(1.7)	ND(2.0)	ND(1.7)
Methylene Chloride	µg/kg	1	20	--	--	--	--	ND(4.2)	ND(5.1)	ND(4.5)	ND(4.6)	ND(4.6)	ND(4.7)	ND(5.0)	ND(4.5)	ND(4.0)	ND(4.2)	ND(4.4)	ND(4.2)	ND(4.3)	ND(5.5)	ND(5.0)	ND(4.4)	ND(5.1)	ND(4.4)
Methyl-t-Butyl Ether (MTBE)	µg/kg	--	--	3.2	64	--	--	ND(0.85)	ND(1.0)	ND(0.89)	ND(0.92)	ND(0.92)	ND(0.94)	ND(1.0)	ND(0.89)	ND(0.81)	ND(0.84)	ND(0.88)	ND(0.84)	ND(0.86)	ND(1.1)	ND(1.0)	ND(0.87)	ND(1.0)	ND(0.87)
Naphthalene	µg/kg	4,000	80,000	--	--	--	--	ND(1.7)	ND(2.0)	ND(1.8)	ND(1.8)	ND(1.8)	ND(1.9)	ND(2.0)	ND(1.8)	ND(1.6)	ND(1.7)	ND(1.8)	ND(1.7)	ND(1.7)	ND(2.2)	ND(2.0)	ND(1.7)	ND(2.0)	ND(1.7)
n-Butylbenzene	µg/kg	--	--	320	6,400	--	--	ND(0.85)	ND(1.0)	ND(0.89)	ND(0.92)	ND(0.92)	ND(0.94)	ND(1.0)	ND(0.89)	ND(0.81)	ND(0.84)	ND(0.88)	ND(0.84)	ND(0.86)	ND(1.1)	ND(1.0)	ND(0.87)	ND(1.0)	ND(0.87)
N-Propylbenzene	µg/kg	--	--	120	2,400	--	--	ND(0.85)	ND(1.0)	ND(0.89)	ND(0.92)	ND(0.92)	ND(0.94)	ND(1.0)	ND(0.89)	ND(0.81)	ND(0.84)	ND(0.88)	ND(0.84)	ND(0.86)	ND(1.1)	ND(1.0)	ND(0.87)	ND(1.0)	ND(0.87)
o-Xylene	µg/kg	9,000	180,000	--	--	--	--	ND(0.85)	ND(1.0)	ND(0.89)	ND(0.92)	ND(0.92)	ND(0.94)	ND(1.0)	ND(0.89)	ND(0.81)	ND(0.84)	ND(0.88)	ND(0.84)	ND(0.86)	ND(1.1)	ND(1.0)	ND(0.87)	ND(1.0)	ND(0.87)
p-Isopropyltoluene	µg/kg	--	--	--	--	647,000	12,940,000	ND(0.85)	ND(1.0)	ND(0.89)	ND(0.92)	ND(0.92)	ND(0.94)	ND(1.0)	ND(0.89)	ND(0.81)	ND(0.84)	ND(0.88)	ND(0.84)	ND(0.86)	ND(1.1)	ND(1.0)	ND(0.87)	ND(1.0)	ND(0.87)
sec-Butylbenzene	µg/kg	--	--	590	11,800	--	--	ND(0.85)	ND(1.0)	ND(0.89)	ND(0.92)	ND(0.92)	ND(0.94)	ND(1.0)	ND(0.89)	ND(0.81)	ND(0.84)	ND(0.88)	ND(0.84)	ND(0.86)	ND(1.1)	ND(1.0)	ND(0.87)	ND(1.0)	ND(0.87)
Styrene	µg/kg	200	4,000	--	--	--	--	ND(0.85)	ND(1.0)	ND(0.89)	ND(0.92)	ND(0.92)	ND(0.94)	ND(1.0)	ND(0.89)	ND(0.81)	ND(0.84)	ND(0.88)	ND(0.84)	ND(0.86)	ND(1.1)	ND(1.0)	ND(0.87)	ND(1.0)	ND(0.87)
Tert-amyl-methyl ether (TAME)	µg/kg	--	--	--	--	--	--	ND(0.85)	ND(1.0)	ND(0.89)	ND(0.92)	ND(0.92)	ND(0.94)	ND(1.0)	ND(0.89)	ND(0.81)	ND(0.84)	ND(0.88)	ND(0.84)	ND(0.86)	ND(1.1)	ND(1.0)	ND(0.87)	ND(1.0)	ND(0.87)
tert-Butyl alcohol (TBA)	µg/kg	--	--	--	--	21,300,000	426,000,000	ND(8.5)	ND(10)	ND(8.9)	ND(9.2)	ND(9.2)	ND(9.4)	ND(10)	ND(8.9)	ND(8.1)	ND(8.4)	ND(8.8)	ND(8.4)	ND(8.6)	ND(11)	ND(10)	ND(8.7)	ND(10)	ND(8.7)
tert-Butylbenzene	µg/kg	--	--	160	3,200	--	--	ND(0.85)	ND(1.0)	ND(0.89)	ND(0.92)	ND(0.92)	ND(0.94)	ND(1.0)	ND(0.89)	ND(0.81)	ND(0.84)	ND(0.88)	ND(0.84)	ND(0.86)	ND(1.1)	ND(1.0)	ND(0.87)	ND(1.0)	ND(0.87)
Tetrachloroethene	µg/kg	3	60	--	--	--	--	ND(0.85)	ND(1.0)	ND(0.89)	ND(0.92)	ND(0.92)	ND(0.94)	ND(1.0)	ND(0.89)	ND(0.81)	ND(0.84)	ND(0.88)	ND(0.84)	ND(0.86)	ND(1.1)	ND(1.0)	ND(0.87)	ND(1.0)	ND(0.87)
Toluene	µg/kg	600	12,000	--	--	--	--	ND(0.85)	ND(1.0)	ND(0.89)	ND(0.92)	ND(0.92)	ND(0.94)	ND(1.0)	ND(0.89)	ND(0.81)	ND(0.84)	ND(0.88)	ND(0.84)	ND(0.86)	ND(1.1)	ND(1.0)	ND(0.87)	ND(1.0)	ND(0.87)

Table 4
Borehole U4U5-3 Soil Analytical Results

Analyte	Units	LBCL[a]		RSL		BCL		Depth Below Ground Surface																	
		DAF 1	DAF 20	DAF 1[b]	DAF 20[c]	DAF 1[d]	DAF 20[e]	2.5'	5'	7.5'	10'	12.5'	15'	17.5'	20'	22.5'	25'	27.5'	30'	32.5'	35'	37.5'	40'	42.5'	45'
trans-1,2-Dichloroethene	µg/kg	30	600	--	--	--	--	ND(0.85)	ND(1.0)	ND(0.89)	ND(0.92)	ND(0.92)	ND(0.94)	ND(1.0)	ND(0.89)	ND(0.81)	ND(0.84)	ND(0.88)	ND(0.84)	ND(0.86)	ND(1.1)	ND(1.0)	ND(0.87)	ND(1.0)	ND(0.87)
trans-1,3-Dichloropropene	µg/kg	--	--	--	--	--	--	ND(0.85)	ND(1.0)	ND(0.89)	ND(0.92)	ND(0.92)	ND(0.94)	ND(1.0)	ND(0.89)	ND(0.81)	ND(0.84)	ND(0.88)	ND(0.84)	ND(0.86)	ND(1.1)	ND(1.0)	ND(0.87)	ND(1.0)	ND(0.87)
Trichloroethene	µg/kg	3	60	--	--	--	--	ND(0.85)	ND(1.0)	ND(0.89)	ND(0.92)	ND(0.92)	ND(0.94)	ND(1.0)	ND(0.89)	ND(0.81)	ND(0.84)	ND(0.88)	ND(0.84)	ND(0.86)	ND(1.1)	ND(1.0)	ND(0.87)	ND(1.0)	ND(0.87)
Trichlorofluoromethane	µg/kg	--	--	330	6,600	--	--	ND(0.85)	ND(1.0)	ND(0.89)	ND(0.92)	ND(0.92)	ND(0.94)	ND(1.0)	ND(0.89)	ND(0.81)	ND(0.84)	ND(0.88)	ND(0.84)	ND(0.86)	ND(1.1)	ND(1.0)	ND(0.87)	ND(1.0)	ND(0.87)
Vinyl chloride	µg/kg	0.7	14	--	--	--	--	ND(0.85)	ND(1.0)	ND(0.89)	ND(0.92)	ND(0.92)	ND(0.94)	ND(1.0)	ND(0.89)	ND(0.81)	ND(0.84)	ND(0.88)	ND(0.84)	ND(0.86)	ND(1.1)	ND(1.0)	ND(0.87)	ND(1.0)	ND(0.87)
Xylenes, Total	µg/kg	10,000	200,000	--	--	--	--	ND(1.7)	ND(2.0)	ND(1.8)	ND(1.8)	ND(1.8)	ND(1.9)	ND(2.0)	ND(1.8)	ND(1.6)	ND(1.7)	ND(1.8)	ND(1.7)	ND(1.7)	ND(2.2)	ND(2.0)	ND(1.7)	ND(2.0)	ND(1.7)

Notes:

If no LBCL value was available then RSL value was recorded. If no RSL value was available then BCL value was recorded.

Bold value indicates analyte was detected above the MDL

Yellow cells indicate an exceedance of the LBCL DAF 1, RSL DAF 1, or the BCL DAF 1

a - The LBCLs are found in the table, "Nevada Division of Environmental Protection, Basic Comparison Levels" dated February 20, 2015

b - The RSLs for DAF 1 are the Risk-Based SSLs (soil screening levels) found in the table, "Regional Screening Level Resident Soil to Groundwater Table (TR=1E-06, HQ=0.1) November 2015"

c - The RSLs for DAF 20 are calculated by multiplying the RSL DAF 1 by 20. The BCLs for DAF 20 are calculated by multiplying the BCL DAF 1 by 20.

d - Industrial/Commercial Worker BCL value found in the table, "Nevada Division of Environmental Protection, Basic Comparison Levels" dated February 20, 2015

e - Industrial/Commercial Worker BCL DAF 20 value calculated by multiplying the DAF 1 value by 20

f - The DAF 1 LBCL is 10,000 µg/L for m-xylene and 10,000 µg/L for p-xylene

g - The DAF 20 LBCL is 200,000 µg/L for m-xylene and 200,000 µg/L for p-xylene

BCL - Basic Comparison Level

DAF - Dilution Attenuation Factor

F1 - MS and/or MSD Recovery is outside acceptance limits

F2 - MS/MSD RPD exceeds control limits

J - Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value

LBCL - Leaching-based Basic Comparison Level

MDL - method detection limit

MS/MSD - Matrix Spike/Matrix Spike Duplicate

mg/kg - milligram per kilogram

ND (1.0) - non-detect at the laboratory method detection limit shown in parentheses

RL - reporting limit

RPD - Relative Percent Difference

RSL - Regional Screening Level

µg/kg - microgram per kilogram

VOCs - Volatile Organic Compounds

Table 5
Borehole U4U5-4 Soil Analytical Results

Analyte	Units	LBCL[a]		RSL		BCL		Depth Below Ground Surface															
		DAF 1	DAF 20	DAF 1[b]	DAF 20[c]	DAF 1[d]	DAF 20[e]	1'	2.5'	5'	7.5'	10'	12.5'	15'	17.5'	20'	22.5'	25'	30'	32.5'	35'	37.5'	40'
Perchlorate	mg/kg	0.0185	0.371	--	--	--	--	**180**	**140**	**110**	**47**	**48**	**59**	**47**	**52**	**40**	**180**	**520**	**380**	**140**	**58**	**35**	**50**
Ammonia (as N)	mg/kg	--	--	--	--	100,000	2,000,000	ND(2.2)	ND(2.2)	ND(2.2)	ND(2.2)	ND(2.1)	**2.4 J**	**2.2 J**	ND(2.2)	ND(2.2)	ND(2.6)	**3.8 J**	ND(3.0)	ND(2.7)	ND(2.5)	ND(2.2)	ND(2.4)
Hexavalent chromium	mg/kg	2	40	--	--	--	--	ND(0.16)	ND(0.17)	**0.18 J**	**0.41**	ND(0.16)	ND(0.16)	ND(0.16)	ND(0.16)	ND(0.16)	ND(0.19)	ND(0.24)	ND(0.23)	ND(0.20)	**0.19 J**	ND(0.16)	**0.72**
Chromium	mg/kg	--	--	4,000,000	80,000,000	--	--	**16**	**16**	**14**	**15**	**16**	**19**	**18**	**15**	**16**	**42**	**50**	**40**	**50**	**31**	**15**	**22**
Percent Moisture	%	--	--	--	--	--	--	**7.1**	**9.5**	**7.3**	**7.5**	**6.8**	**8.3**	**8.0**	**7.8**	**7.9**	**23**	**39**	**34**	**25**	**21**	**8.5**	**17**
VOCs																							
1,1,1,2-Tetrachloroethane	µg/kg	--	--	0.22	4.4	--	--	ND(0.98)	ND(1.0)	ND(0.89)	ND(0.91)	ND(0.94)	ND(0.81)	ND(0.94)	ND(0.79)	ND(0.81)	ND(1.2)	ND(1.5)	ND(1.5)	ND(1.1)	ND(0.88)	ND(0.81)	ND(0.95)
1,1,1-Trichloroethane	µg/kg	100	2,000	--	--	--	--	ND(0.98)	ND(1.0)	ND(0.89)	ND(0.91)	ND(0.94)	ND(0.81)	ND(0.94)	ND(0.79)	ND(0.81)	ND(1.2)	ND(1.5)	ND(1.5)	ND(1.1)	ND(0.88)	ND(0.81)	ND(0.95)
1,1,2,2-Tetrachloroethane	µg/kg	0.2	4	--	--	--	--	ND(0.98)	ND(1.0)	ND(0.89)	ND(0.91)	ND(0.94)	ND(0.81)	ND(0.94)	ND(0.79)	ND(0.81)	ND(1.2)	ND(1.5)	ND(1.5)	ND(1.1)	ND(0.88)	ND(0.81)	ND(0.95)
1,1,2-Trichloroethane	µg/kg	0.9	18	--	--	--	--	ND(0.98)	ND(1.0)	ND(0.89)	ND(0.91)	ND(0.94)	ND(0.81)	ND(0.94)	ND(0.79)	ND(0.81)	ND(1.2)	ND(1.5)	ND(1.5)	ND(1.1)	ND(0.88)	ND(0.81)	ND(0.95)
1,1-Dichloroethane	µg/kg	1,000	20,000	--	--	--	--	ND(0.98)	ND(1.0)	ND(0.89)	ND(0.91)	ND(0.94)	ND(0.81)	ND(0.94)	ND(0.79)	ND(0.81)	ND(1.2)	ND(1.5)	ND(1.5)	ND(1.1)	ND(0.88)	ND(0.81)	ND(0.95)
1,1-Dichloroethene	µg/kg	3	60	--	--	--	--	ND(0.98)	ND(1.0)	ND(0.89)	ND(0.91)	ND(0.94)	ND(0.81)	ND(0.94)	ND(0.79)	ND(0.81)	ND(1.2)	ND(1.5)	ND(1.5)	ND(1.1)	ND(0.88)	ND(0.81)	ND(0.95)
1,1-Dichloropropene	µg/kg	--	--	--	--	--	--	ND(0.98)	ND(1.0)	ND(0.89)	ND(0.91)	ND(0.94)	ND(0.81)	ND(0.94)	ND(0.79)	ND(0.81)	ND(1.2)	ND(1.5)	ND(1.5)	ND(1.1)	ND(0.88)	ND(0.81)	ND(0.95)
1,2,3-Trichlorobenzene	µg/kg	--	--	2.1	42	--	--	ND(0.98)	ND(1.0)	ND(0.89)	ND(0.91)	ND(0.94)	ND(0.81)	ND(0.94)	ND(0.79)	ND(0.81)	ND(1.2) F2	ND(1.5)	ND(1.5)	ND(1.1)	ND(0.88)	ND(0.81)	ND(0.95)
1,2,3-Trichloropropane	µg/kg	--	--	0.00032	0.0064	--	--	ND(0.98)	ND(1.0)	ND(0.89)	ND(0.91)	ND(0.94)	ND(0.81)	ND(0.94)	ND(0.79)	ND(0.81)	ND(1.2)	ND(1.5)	ND(1.5)	ND(1.1)	ND(0.88)	ND(0.81)	ND(0.95)
1,2,4-Trichlorobenzene	µg/kg	300	6,000	--	--	--	--	ND(0.98)	ND(1.0)	ND(0.89)	ND(0.91)	ND(0.94)	ND(0.81)	ND(0.94)	ND(0.79)	ND(0.81)	ND(1.2) F1 F2	ND(1.5)	ND(1.5)	ND(1.1)	ND(0.88)	ND(0.81)	ND(0.95)
1,2,4-Trimethylbenzene	µg/kg	--	--	2.1	42	--	--	ND(0.98)	ND(1.0)	ND(0.89)	ND(0.91)	ND(0.94)	ND(0.81)	ND(0.94)	ND(0.79)	ND(0.81)	ND(1.2)	ND(1.5)	ND(1.5)	ND(1.1)	ND(0.88)	ND(0.81)	ND(0.95)
1,2-Dibromo-3-Chloropropane	µg/kg	--	--	0.00014	0.0028	--	--	ND(2.0)	ND(2.1)	ND(1.8)	ND(1.8)	ND(1.9)	ND(1.6)	ND(1.9)	ND(1.6)	ND(1.6)	ND(2.4)	ND(3.0)	ND(2.9)	ND(2.2)	ND(1.8)	ND(1.6)	ND(1.9)
1,2-Dibromoethane (EDB)	µg/kg	--	--	0.0021	0.042	--	--	ND(0.98)	ND(1.0)	ND(0.89)	ND(0.91)	ND(0.94)	ND(0.81)	ND(0.94)	ND(0.79)	ND(0.81)	ND(1.2)	ND(1.5)	ND(1.5)	ND(1.1)	ND(0.88)	ND(0.81)	ND(0.95)
1,2-Dichlorobenzene	µg/kg	900	18,000	--	--	--	--	ND(0.98)	ND(1.0)	ND(0.89)	ND(0.91)	ND(0.94)	ND(0.81)	ND(0.94)	ND(0.79)	ND(0.81)	ND(1.2)	ND(1.5)	ND(1.5)	ND(1.1)	ND(0.88)	ND(0.81)	ND(0.95)
1,2-Dichloroethane	µg/kg	1	20	--	--	--	--	ND(0.98)	ND(1.0)	ND(0.89)	ND(0.91)	ND(0.94)	ND(0.81)	ND(0.94)	ND(0.79)	ND(0.81)	ND(1.2)	ND(1.5)	ND(1.5)	ND(1.1)	ND(0.88)	ND(0.81)	ND(0.95)
1,2-Dichloropropane	µg/kg	1	20	--	--	--	--	ND(0.98)	ND(1.0)	ND(0.89)	ND(0.91)	ND(0.94)	ND(0.81)	ND(0.94)	ND(0.79)	ND(0.81)	ND(1.2)	ND(1.5)	ND(1.5)	ND(1.1)	ND(0.88)	ND(0.81)	ND(0.95)
1,3,5-Trimethylbenzene	µg/kg	--	--	17	340	--	--	ND(0.98)	ND(1.0)	ND(0.89)	ND(0.91)	ND(0.94)	ND(0.81)	ND(0.94)	ND(0.79)	ND(0.81)	ND(1.2)	ND(1.5)	ND(1.5)	ND(1.1)	ND(0.88)	ND(0.81)	ND(0.95)
1,3-Dichlorobenzene	µg/kg	--	--	--	--	373,000	7,460,000	ND(0.98)	ND(1.0)	ND(0.89)	ND(0.91)	ND(0.94)	ND(0.81)	ND(0.94)	ND(0.79)	ND(0.81)	ND(1.2)	ND(1.5)	ND(1.5)	ND(1.1)	ND(0.88)	ND(0.81)	ND(0.95)
1,3-Dichloropropane	µg/kg	1	20	--	--	--	--	ND(0.98)	ND(1.0)	ND(0.89)	ND(0.91)	ND(0.94)	ND(0.81)	ND(0.94)	ND(0.79)	ND(0.81)	ND(1.2)	ND(1.5)	ND(1.5)	ND(1.1)	ND(0.88)	ND(0.81)	ND(0.95)
1,4-Dichlorobenzene	µg/kg	100	2,000	--	--	--	--	ND(0.98)	ND(1.0)	ND(0.89)	ND(0.91)	ND(0.94)	ND(0.81)	ND(0.94)	ND(0.79)	ND(0.81)	ND(1.2)	ND(1.5)	ND(1.5)	ND(1.1)	ND(0.88)	ND(0.81)	ND(0.95)
2,2-Dichloropropane	µg/kg	--	--	--	--	--	--	ND(0.98)	ND(1.0)	ND(0.89)	ND(0.91)	ND(0.94)	ND(0.81)	ND(0.94)	ND(0.79)	ND(0.81)	ND(1.2)	ND(1.5)	ND(1.5)	ND(1.1)	ND(0.88)	ND(0.81)	ND(0.95)
2-Butanone (MEK)	µg/kg	--	--	120	2,400	--	--	ND(4.9)	ND(5.2)	ND(4.5)	ND(4.6)	ND(4.7)	ND(4.1)	ND(4.7)	ND(3.9)	ND(4.0)	ND(6.0)	ND(7.6)	ND(7.4)	ND(5.4)	ND(4.4)	ND(4.0)	ND(4.8)
2-Chlorotoluene	µg/kg	--	--	23	460	--	--	ND(0.98)	ND(1.0)	ND(0.89)	ND(0.91)	ND(0.94)	ND(0.81)	ND(0.94)	ND(0.79)	ND(0.81)	ND(1.2)	ND(1.5)	ND(1.5)	ND(1.1)	ND(0.88)	ND(0.81)	ND(0.95)
2-Hexanone	µg/kg	--	--	0.88	17.6	--	--	ND(4.9)	ND(5.2)	ND(4.5)	ND(4.6)	ND(4.7)	ND(4.1)	ND(4.7)	ND(3.9)	ND(4.0)	ND(6.0)	ND(7.6)	ND(7.4)	ND(5.4)	ND(4.4)	ND(4.0)	ND(4.8)
4-Chlorotoluene	µg/kg	--	--	24	480	--	--	ND(0.98)	ND(1.0)	ND(0.89)	ND(0.91)	ND(0.94)	ND(0.81)	ND(0.94)	ND(0.79)	ND(0.81)	ND(1.2)	ND(1.5)	ND(1.5)	ND(1.1)	ND(0.88)	ND(0.81)	ND(0.95)
4-Methyl-2-pentanone (MIBK)	µg/kg	--	--	140	2,800	--	--	ND(2.5)	ND(2.6)	ND(2.2)	ND(2.3)	ND(2.4)	ND(2.0)	ND(2.4)	ND(2.0)	ND(2.0)	ND(3.0)	ND(3.8)	ND(3.7)	ND(2.7)	ND(2.2)	ND(2.0)	ND(2.4)
Acetone	µg/kg	800	16,000	--	--	--	--	ND(7.8)	ND(8.3)	ND(7.1)	ND(7.3)	ND(7.5)	**8.7 J**	ND(7.5)	**18**	**37**	ND(9.7)	ND(12)	**22 J**	ND(8.7)	ND(7.1)	ND(6.5)	ND(7.6)
Benzene	µg/kg	2	40	--	--	--	--	ND(0.98)	ND(1.0)	ND(0.89)	ND(0.91)	ND(0.94)	ND(0.81)	ND(0.94)	ND(0.79)	ND(0.81)	ND(1.2)	ND(1.5)	ND(1.5)	ND(1.1)	ND(0.88)	ND(0.81)	ND(0.95)
Bromobenzene	µg/kg	--	--	4.2	84	--	--	ND(0.98)	ND(1.0)	ND(0.89)	ND(0.91)	ND(0.94)	ND(0.81)	ND(0.94)	ND(0.79)	ND(0.81)	ND(1.2)	ND(1.5)	ND(1.5)	ND(1.1)	ND(0.88)	ND(0.81)	ND(0.95)
Bromochloromethane	µg/kg	--	--	2.1	42	--	--	ND(0.98)	ND(1.0)	ND(0.89)	ND(0.91)	ND(0.94)	ND(0.81)	ND(0.94)	ND(0.79)	ND(0.81)	ND(1.2)	ND(1.5)	ND(1.5)	ND(1.1)	ND(0.88)	ND(0.81)	ND(0.95)
Bromodichloromethane	µg/kg	30	600	--	--	--	--	ND(0.98)	ND(1.0)	ND(0.89)	ND(0.91)	ND(0.94)	ND(0.81)	ND(0.94)	ND(0.79)	ND(0.81)	ND(1.2)	ND(1.5)	ND(1.5)	ND(1.1)	ND(0.88)	ND(0.81)	ND(0.95)
Bromoform	µg/kg	40	800	--	--	--	--	ND(2.0)	ND(2.1)	ND(1.8)	ND(1.8)	ND(1.9)	ND(1.6)	ND(1.9)	ND(1.6)	ND(1.6)	ND(2.4)	ND(3.0)	ND(2.9)	ND(2.2)	ND(1.8)	ND(1.6)	ND(1.9)
Bromomethane	µg/kg	10	200	--	--	--	--	ND(0.98)	ND(1.0)	ND(0.89)	ND(0.91)	ND(0.94)	ND(0.81)	ND(0.94)	ND(0.79)	ND(0.81)	ND(1.2)	ND(1.5)	ND(1.5)	ND(1.1)	ND(0.88)	ND(0.81)	ND(0.95)
Carbon tetrachloride	µg/kg	3	60	--	--	--	--	ND(0.98)	ND(1.0)	ND(0.89)	ND(0.91)	ND(0.94)	ND(0.81)	ND(0.94)	ND(0.79)	ND(0.81)	ND(1.2)	ND(1.5)	ND(1.5)	ND(1.1)	ND(0.88)	ND(0.81)	ND(0.95)
Chlorobenzene	µg/kg	70	1,400	--	--	--	--	ND(0.98)	ND(1.0)	ND(0.89)	ND(0.91)	ND(0.94)	ND(0.81)	ND(0.94)	ND(0.79)	ND(0.81)	ND(1.2)	ND(1.5)	ND(1.5)	ND(1.1)	ND(0.88)	ND(0.81)	ND(0.95)
Chloroethane	µg/kg	--	--	590	11,800	--	--	ND(2.0)	ND(2.1)	ND(1.8)	ND(1.8)	ND(1.9)	ND(1.6)	ND(1.9)	ND(1.6)	ND(1.6)	ND(2.4)	ND(3.0)	ND(2.9)	ND(2.2)	ND(1.8)	ND(1.6)	ND(1.9)
Chloroform	µg/kg	30	600	--	--	--	--	ND(0.98)	ND(1.0)	ND(0.89)	ND(0.91)	ND(0.94)	ND(0.81)	ND(0.94)	ND(0.79)	ND(0.81)	ND(1.2)	**7.8**	ND(1.5)	ND(1.1)	ND(0.88)	ND(0.81)	ND(0.95)
Chloromethane	µg/kg	--	--	4.9	98	--	--	ND(0.98)	ND(1.0)	ND(0.89)	ND(0.91)	ND(0.94)	ND(0.81)	ND(0.94)	ND(0.79)	ND(0.81)	ND(1.2)	ND(1.5)	ND(1.5)	ND(1.1)	ND(0.88)	ND(0.81)	ND(0.95)
cis-1,2-Dichloroethene	µg/kg	20	400	--	--	--	--	ND(0.98)	ND(1.0)	ND(0.89)	ND(0.91)	ND(0.94)	ND(0.81)	ND(0.94)	ND(0.79)	ND(0.81)	ND(1.2)	ND(1.5)	ND(1.5)	ND(1.1)	ND(0.88)	**0.81 J**	ND(0.95)
cis-1,3-Dichloropropene	µg/kg	--	--	--	--	--	--	ND(0.98)	ND(1.0)	ND(0.89)	ND(0.91)	ND(0.94)	ND(0.81)	ND(0.94)	ND(0.79)	ND(0.81)	ND(1.2)	ND(1.5)	ND(1.5)	ND(1.1)	ND(0.88)	ND(0.81)	ND(0.95)
Dibromochloromethane	µg/kg	20	400	--	--	--	--	ND(0.98)	ND(1.0)	ND(0.89)	ND(0.91)	ND(0.94)	ND(0.81)	ND(0.94)	ND(0.79)	ND(0.81)	ND(1.2)	ND(1.5)	ND(1.5)	ND(1.1)	ND(0.88)	ND(0.81)	ND(0.95)
Dibromomethane	µg/kg	--	--	0.21	4.2	--	--	ND(0.98)	ND(1.0)	ND(0.89)	ND(0.91)	ND(0.94)	ND(0.81)	ND(0.94)	ND(0.79)	ND(0.81)	ND(1.2)	ND(1.5)	ND(1.5)	ND(1.1)	ND(0.88)	ND(0.81)	ND(0.95)
Dichlorodifluoromethane	µg/kg	--	--	30	600	--	--	ND(2.0)	ND(2.1)	ND(1.8)	ND(1.8)	ND(1.9)	ND(1.6)	ND(1.9)	ND(1.6)	ND(1.6)	ND(2.4)	ND(3.0)	ND(2.9)	ND(2.2)	ND(1.8)	ND(1.6)	ND(1.9)
Ethylbenzene	µg/kg	700	14,000	--	--	--	--	ND(0.98)	ND(1.0)	ND(0.89)	ND(0.91)	ND(0.94)	ND(0.81)	ND(0.94)	ND(0.79)	ND(0.81)	ND(1.2)	ND(1.5)	ND(1.5)	ND(1.1)	ND(0.88)	ND(0.81)	ND(0.95)
Ethyl-t-butyl ether (ETBE)	µg/kg	--	--	--	--	--	--	ND(0.98)	ND(1.0)	ND(0.89)	ND(0.91)	ND(0.94)	ND(0.81)	ND(0.94)	ND(0.79)	ND(0.81)	ND(1.2)	ND(1.5)	ND(1.5)	ND(1.1)	ND(0.88)	ND(0.81)	ND(0.95)
Hexachlorobutadiene	µg/kg	100	2,000	--	--	--	--	ND(0.98)	ND(1.0)	ND(0.89)	ND(0.91)	ND(0.94)	ND(0.81)	ND(0.94)	ND(0.79)	ND(0.81)	ND(1.2)	ND(1.5)	ND(1.5)	ND(1.1)	ND(0.88)	ND(0.81)	ND(0.95)
Isopropyl Ether (DIPE)	µg/kg	--	--	37	740	--	--	ND(0.98)	ND(1.0)	ND(0.89)	ND(0.91)	ND(0.94)	ND(0.81)	ND(0.94)	ND(0.79)	ND(0.81)	ND(1.2)	ND(1.5)	ND(1.5)	ND(1.1)	ND(0.88)	ND(0.81)	ND(0.95)
Isopropylbenzene	µg/kg	--	--	74	1,480	--	--	ND(0.98)	ND(1.0)	ND(0.89)	ND(0.91)	ND(0.94)	ND(0.81)	ND(0.94)	ND(0.79)	ND(0.81)	ND(1.2)	ND(1.5)	ND(1.5)	ND(1.1)	ND(0.88)	ND(0.81)	ND(0.95)
m,p-Xylene	µg/kg	10,000[f]	200,000[g]	--	--	--	--	ND(2.0)	ND(2.1)	ND(1.8)	ND(1.8)	ND(1.9)	ND(1.6)	ND(1.9)	ND(1.6)	ND(1.6)	ND(2.4)	ND(3.0)	ND(2.9)	ND(2.2)	ND(1.8)	ND(1.6)	ND(1.9)
Methylene Chloride	µg/kg	1	20	--	--	--	--	ND(4.9)	ND(5.2)	ND(4.5)	ND(4.6)	ND(4.7)	ND(4.1)	ND(4.7)	ND(3.9)	ND(4.0)	ND(6.0)	ND(7.6)	ND(7.4)	ND(5.4)	ND(4.4)	ND(4.0)	ND(4.8)
Methyl-t-Butyl Ether (MTBE)	µg/kg	--	--	3.2	64	--	--	ND(0.98)	ND(1.0)	ND(0.89)	ND(0.91)	ND(0.94)	ND(0.81)	ND(0.94)	ND(0.79)	ND(0.81)	ND(1.2)	ND(1.5)	ND(1.5)	ND(1.1)	ND(0.88)	ND(0.81)	ND(0.95)
Naphthalene	µg/kg	4,000	80,000	--	--	--	--	ND(2.0)	ND(2.1)	ND(1.8)	ND(1.8)	ND(1.9)	ND(1.6)	ND(1.9)	ND(1.6)	ND(1.6)	ND(2.4)	ND(3.0)	ND(2.9)	ND(2.2)	ND(1.8)	ND(1.6)	ND(1.9)
n-Butylbenzene	µg/kg	--	--	320	6,400	--	--	ND(0.98)	ND(1.0)	ND(0.89)	ND(0.91)	ND(0.94)	ND(0.81)	ND(0.94)	ND(0.79)	ND(0.81)	ND(1.2)	ND(1.5)	ND(1.5)	ND(1.1)	ND(0.88)	ND(0.81)	ND(0.95)
N-Propylbenzene	µg/kg	--	--	120	2,400	--	--	ND(0.98)	ND(1.0)	ND(0.89)	ND(0.91)	ND(0.94)	ND(0.81)	ND(0.94)	ND(0.79)	ND(0.81)	ND(1.2)	ND(1.5)	ND(1.5)	ND(1.1)	ND(0.88)	ND(0.81)	ND(0.95)
o-Xylene	µg/kg	9,000	180,000	--	--	--	--	ND(0.98)	ND(1.0)	ND(0.89)	ND(0.91)	ND(0.94)	ND(0.81)	ND(0.94)	ND(0.79)	ND(0.81)	ND(1.2)	ND(1.5)	ND(1.5)	ND(1.1)	ND(0.88)	ND(0.81)	ND(0.95)
p-Isopropyltoluene	µg/kg	--	--	--	--	647,000	12,940,000	ND(0.98)	ND(1.0)	ND(0.89)	ND(0.91)	ND(0.94)	ND(0.81)	ND(0.94)	ND(0.79)	ND(0.81)	ND(1.2)	ND(1.5)	ND(1.5)	ND(1.1)	ND(0.88)	ND(0.81)	ND(0.95)
sec-Butylbenzene	µg/kg	--	--	590	11,800	--	--	ND(0.98)	ND(1.0)	ND(0.89)	ND(0.91)	ND(0.94)	ND(0.81)	ND(0.94)	ND(0.79)	ND(0.81)	ND(1.2)	ND(1.5)	ND(1.5)	ND(1.1)	ND(0.88)	ND(0.81)	ND(0.95)
Styrene	µg/kg	200	4,000	--	--	--	--	ND(0.98)	ND(1.0)	ND(0.89)	ND(0.91)	ND(0.94)	ND(0.81)	ND(0.94)	ND(0.79)	ND(0.81)	ND(1.2)	ND(1.5)	ND(1.5)	ND(1.1)	ND(0.88)	ND(0.81)	ND(0.95)
Tert-amyl-methyl ether (TAME)	µg/kg	--	--	--	--	--	--	ND(0.98)	ND(1.0)	ND(0.89)	ND(0.91)	ND(0.94)	ND(0.81)	ND(0.94)	ND(0.79)	ND(0.81)	ND(1.2)	ND(1.5)	ND(1.5)	ND(1.1)	ND(0.88)	ND(0.81)	ND(0.95)
tert-Butyl alcohol (TBA)	µg/kg	--	--	--	--	21,300,000	426,000,000	ND(9.8)	ND(10)	ND(8.9)	ND(9.1)	ND(9.4)	ND(8.1)	ND(9.4)	ND(7.9)	ND(8.1)	ND(12)	ND(15)	ND(15)	ND(11)	ND(8.8)	ND(8.1)	ND(9.5)
tert-Butylbenzene	µg/kg	--	--	160	3,200	--	--	ND(0.98)	ND(1.0)	ND(0.89)	ND(0.91)	ND(0.94)	ND(0.81)	ND(0.94)	ND(0.79)	ND(0.81)	ND(1.2)	ND(1.5)	ND(1.5)	ND(1.1)	ND(0.88)	ND(0.81)	ND(0.95)
Tetrachloroethene	µg/kg	3	60	--	--	--	--	ND(0.98)	ND(1.0)	ND(0.89)	ND(0.91)	ND(0.94)	ND(0.81)	ND(0.94)	ND(0.79)	ND(0.81)	ND(1.2)	ND(1.5)	ND(1.5)	ND(1.1)	ND(0.88)	ND(0.81)	ND(0.95)
Toluene	µg/kg	600	12,000	--	--	--	--	ND(0.98)	ND(1.0)	ND(0.89)	ND(0.91)	ND(0.94)	ND(0.81)	ND(0.94)	ND(0.79)	ND(0.81)	ND(1.2)	ND(1.5)	ND(1.5)	ND(1.1)	ND(0.88)	ND(0.81)	ND(0.95)

Table 5
Borehole U4U5-4 Soil Analytical Results

Analyte	Units	LBCL[a]		RSL		BCL		Depth Below Ground Surface															
		DAF 1	DAF 20	DAF 1[b]	DAF 20[c]	DAF 1[d]	DAF 20[e]	1'	2.5'	5'	7.5'	10'	12.5'	15'	17.5'	20'	22.5'	25'	30'	32.5'	35'	37.5'	40'
trans-1,2-Dichloroethene	µg/kg	30	600	--	--	--	--	ND(0.98)	ND(1.0)	ND(0.89)	ND(0.91)	ND(0.94)	ND(0.81)	ND(0.94)	ND(0.79)	ND(0.81)	ND(1.2)	ND(1.5)	ND(1.5)	ND(1.1)	ND(0.88)	ND(0.81)	ND(0.95)
trans-1,3-Dichloropropene	µg/kg	--	--	--	--	--	--	ND(0.98)	ND(1.0)	ND(0.89)	ND(0.91)	ND(0.94)	ND(0.81)	ND(0.94)	ND(0.79)	ND(0.81)	ND(1.2)	ND(1.5)	ND(1.5)	ND(1.1)	ND(0.88)	ND(0.81)	ND(0.95)
Trichloroethene	µg/kg	3	60	--	--	--	--	ND(0.98)	ND(1.0)	ND(0.89)	ND(0.91)	ND(0.94)	ND(0.81)	ND(0.94)	ND(0.79)	ND(0.81)	ND(1.2)	ND(1.5)	ND(1.5)	ND(1.1)	ND(0.88)	ND(0.81)	ND(0.95)
Trichlorofluoromethane	µg/kg	--	--	330	6,600	--	--	ND(0.98)	ND(1.0)	ND(0.89)	ND(0.91)	ND(0.94)	ND(0.81)	ND(0.94)	**1.5 J**	ND(0.81)	**1.6 J**	ND(1.5)	ND(1.5)	ND(1.1)	ND(0.88)	ND(0.81)	ND(0.95)
Vinyl chloride	µg/kg	0.7	14	--	--	--	--	ND(0.98)	ND(1.0)	ND(0.89)	ND(0.91)	ND(0.94)	ND(0.81)	ND(0.94)	ND(0.79)	ND(0.81)	ND(1.2)	ND(1.5)	ND(1.5)	ND(1.1)	ND(0.88)	ND(0.81)	ND(0.95)
Xylenes, Total	µg/kg	10,000	200,000	--	--	--	--	ND(2.0)	ND(2.1)	ND(1.8)	ND(1.8)	ND(1.9)	ND(1.6)	ND(1.9)	ND(1.6)	ND(1.6)	ND(2.4)	ND(3.0)	ND(2.9)	ND(2.2)	ND(1.8)	ND(1.6)	ND(1.9)

Notes:

If no LBCL value was available then RSL value was recorded. If no RSL value was available then BCL value was recorded.

Bold value indicates analyte was detected above the MDL

Yellow cells indicate an exceedance of the LBCL DAF 1, RSL DAF 1, or the BCL DAF 1

a - The LBCLs are found in the table, "Nevada Division of Environmental Protection, Basic Comparison Levels" dated February 20, 2015

b - The RSLs for DAF 1 are the Risk-Based SSLs (soil screening levels) found in the table, "Regional Screening Level Resident Soil to Groundwater Table (TR=1E-06, HQ=0.1) November 2015"

c - The RSLs for DAF 20 are calculated by multiplying the RSL DAF 1 by 20. The BCLs for DAF 20 are calculated by multiplying the BCL DAF 1 by 20.

d - Industrial/Commercial Worker BCL value found in the table, "Nevada Division of Environmental Protection, Basic Comparison Levels" dated February 20, 2015

e - Industrial/Commercial Worker BCL DAF 20 value calculated by multiplying the DAF 1 value by 20

f - The DAF 1 LBCL is 10,000 µg/L for m-xylene and 10,000 µg/L for p-xylene

g - The DAF 20 LBCL is 200,000 µg/L for m-xylene and 200,000 µg/L for p-xylene

BCL - Basic Comparison Level

DAF - Dilution Attenuation Factor

F1 - MS and/or MSD Recovery is outside acceptance limits

F2 - MS/MSD RPD exceeds control limits

J - Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value

LBCL - Leaching-based Basic Comparison Level

MDL - method detection limit

MS/MSD - Matrix Spike/Matrix Spike Duplicate

mg/kg - milligram per kilogram

ND (1.0) - non-detect at the laboratory method detection limit shown in parentheses

RL - reporting limit

RPD - Relative Percent Difference

RSL - Regional Screening Level

µg/kg - microgram per kilogram

VOCs - Volatile Organic Compounds

Table 6
Supplementary Soil Sampling Analytical Results - Dioxins, Furans, PCBs, and Asbestos

Analyte	Units	TEF[a]	NDEP Screening Standard	RSL		Asbestos Screening Standard	Depth Below Ground Surface											
							U4U5-1			U4U5-2				U4U5-3		U4U5-4		
				DAF 1[b]	DAF 20[c]		1'	2.5'	5'	1'	2.5'	5'	7.5'	2.5'	5'	1'	2.5'	5'
Dioxins & Furans																		
1,2,3,4,6,7,8-HpCDD	pg/g	0.01	--	--	--	--	**0.39 J B**	**0.16 J B**	**0.14 J B q**	**1.4 J B**	**12 B**	**9.4 B**	**0.18 J B**	**0.24 J B**	**0.29 J B**	**5.7 B**	**0.11 J B**	**0.15 J B**
1,2,3,4,6,7,8-HpCDF	pg/g	0.01	--	--	--	--	**1.5 J B**	**0.35 J B q**	**0.28 J B**	**14**	**3.4 J**	**120**	**0.89 J**	ND(0.054)	**1.0 J q**	**73**	**0.14 J q**	**0.092 J**
1,2,3,4,7,8,9-HpCDF	pg/g	0.01	--	--	--	--	ND(0.078)	**0.17 J q**	ND(0.051)	**5.1**	**1.0 J**	**39**	**0.41 J**	ND(0.020)	**0.48 J**	**26**	ND(0.016)	ND(0.020)
1,2,3,4,7,8-HxCDD	pg/g	0.1	--	--	--	--	ND(0.040)	ND(0.043)	ND(0.038)	**0.13 J q**	**2.5 J**	**1.6 J**	ND(0.024)	ND(0.026)	**0.056 J**	**0.72 J**	ND(0.022)	ND(0.026)
1,2,3,4,7,8-HxCDF	pg/g	0.1	--	--	--	--	**0.54 J B**	**0.19 J B**	**0.17 J B**	**5.3**	**1.4 J**	**40**	**0.32 J**	ND(0.039)	**0.43 J**	**23**	ND(0.030)	ND(0.037)
1,2,3,6,7,8-HxCDD	pg/g	0.1	--	--	--	--	**0.13 J**	ND(0.035)	**0.093 J q**	**0.33 J**	**6.4**	**2.7 J**	**0.14 J**	**0.057 J**	**0.088 J q**	**1.4 J**	**0.049 J**	ND(0.021)
1,2,3,6,7,8-HxCDF	pg/g	0.1	--	--	--	--	**0.39 J**	**0.12 J q**	**0.077 J q**	**3.4 J**	**0.85 J**	**30**	**0.29 J**	ND(0.031)	**0.31 J**	**17**	ND(0.024)	ND(0.030)
1,2,3,7,8,9-HxCDD	pg/g	0.1	--	--	--	--	**0.13 J q**	ND(0.033)	**0.14 J q**	**0.35 J**	**9.5**	**2.6 J**	**0.21 J**	ND(0.020)	**0.17 J**	**1.5 J**	**0.076 J q**	**0.11 J q**
1,2,3,7,8,9-HxCDF	pg/g	0.1	--	--	--	--	ND(0.080)	ND(0.063)	ND(0.052)	**0.58 J * q**	ND(0.12) *	**3.7 J ***	**0.20 J ***	ND(0.038) *	**0.21 J ***	**2.2 J ***	ND(0.029) *	ND(0.036) *
1,2,3,7,8-PeCDD	pg/g	1	--	--	--	--	ND(0.062)	ND(0.061)	ND(0.058)	**0.14 J q**	**6.2**	**1.6 J**	ND(0.037)	ND(0.032)	ND(0.041)	**0.81 J**	ND(0.029)	ND(0.033)
1,2,3,7,8-PeCDF	pg/g	0.03	--	--	--	--	**0.26 J**	ND(0.048)	ND(0.042)	**2.5 J**	**0.53 J**	**23**	ND(0.038)	ND(0.026)	**0.29 J**	**13**	ND(0.024)	ND(0.024)
2,3,4,6,7,8-HxCDF	pg/g	0.1	--	--	--	--	ND(0.076)	ND(0.060)	ND(0.050)	**0.89 J q**	**0.18 J q**	**7.0**	**0.090 J q**	ND(0.036)	**0.16 J q**	**4.4 J**	ND(0.028)	ND(0.034)
2,3,4,7,8-PeCDF	pg/g	0.3	--	--	--	--	ND(0.085)	ND(0.050)	ND(0.044)	**1.1 J q**	**0.29 J**	**11**	ND(0.040)	ND(0.028)	**0.15 J**	**6.2**	ND(0.025)	ND(0.025)
2,3,7,8-TCDD	pg/g	1	--	--	--	--	ND(0.046)	ND(0.047)	ND(0.038)	ND(0.044)	**0.92 J**	**0.79 J**	ND(0.021)	ND(0.031)	ND(0.033)	ND(0.070)	ND(0.021)	ND(0.022)
2,3,7,8-TCDF	pg/g	0.1	--	--	--	--	**0.25 J**	**0.066 J q**	**0.072 J**	**1.6**	**0.58 J**	**21**	**0.15 J**	ND(0.027)	**0.36 J**	**11**	ND(0.024)	ND(0.028)
OCDD	pg/g	0.0003	--	--	--	--	**1.8 J B**	**0.62 J B**	**2.2 J B**	**3.9 J B**	**10 B**	**15 B**	**0.57 J B q**	**1.7 J B**	**1.2 J B**	**11 B**	**0.71 J B**	**1.1 J B**
OCDF	pg/g	0.0003	--	--	--	--	**4.7 J B**	**1.0 J B**	**0.68 J B**	**37 B**	**9.3 J B**	**480 B**	**2.6 J B**	**0.20 J B**	**5.5 J B**	**200 B**	**0.27 J B**	**0.21 J B**
TCDD TEQ	pg/g		1,000			--	**0.17265**	**0.044886**	**0.060264**	**2.02027**	**9.53369**	**19.0725**	**0.155751**	**0.00867**	**0.25181**	**10.2923**	**0.015294**	**0.013813**
PCBs																		
Aroclor 1016	µg/kg			13	260	--	ND(19)	ND(18)	ND(20)	ND(19)	ND(19)	ND(41)	ND(39)	ND(19)	ND(19)	ND(18)	ND(19)	ND(19)
Aroclor 1221	µg/kg			0.08	1.6	--	ND(19)	ND(18)	ND(20)	ND(19)	ND(19)	ND(41)	ND(39)	ND(19)	ND(19)	ND(18)	ND(19)	ND(19)
Aroclor 1232	µg/kg			0.08	1.6	--	ND(19)	ND(18)	ND(20)	ND(19)	ND(19)	ND(41)	ND(39)	ND(19)	ND(19)	ND(18)	ND(19)	ND(19)
Aroclor 1242	µg/kg			1.2	24	--	ND(19)	ND(18)	ND(20)	ND(19)	ND(19)	ND(41)	ND(39)	ND(19)	ND(19)	ND(18)	ND(19)	ND(19)
Aroclor 1248	µg/kg			1.2	24	--	ND(19)	ND(18)	ND(20)	ND(19)	ND(19)	ND(41)	ND(39)	ND(19)	ND(19)	ND(18)	ND(19)	ND(19)
Aroclor 1254	µg/kg			2.1	42	--	ND(19)	ND(18)	ND(20)	ND(19)	ND(19)	**200**	ND(39)	ND(19)	ND(19)	ND(18)	ND(19)	ND(19)
Aroclor 1260	µg/kg			5.5	110	--	ND(19)	ND(18)	ND(20)	ND(19)	ND(19) F1	ND(41)	ND(39)	ND(19)	ND(19)	ND(18)	ND(19)	ND(19)
Asbestos																		
Asbestos Content	%			--	--	1	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

Notes:

Bold value indicates analyte was detected above the MDL

Yellow cells indicate an exceedance of the RSL DAF 1

* - LCS or LCSD is outside acceptance limits

a - The TEFs are found in Table 2 the EPA document "Recommended Toxicity Equivalence Factors (TEFs) for Human Health Risk Assessments of 2,3,7,8-Tetrachlorodibenzo-p-dioxin and Dioxin-like Compounds"

b - The RSLs for DAF 1 are the Risk-Based SSLs (soil screening levels) found in the table, "Regional Screening Level Resident Soil to Groundwater Table (TR=1E-06, HQ=0.1) November 2015"

c - The RSLs for DAF 20 are calculated by multiplying the RSL DAF 1 by 20

B - Compound was found in the blank and sample

DAF - Dilution Attenuation Factor

F1 - MS and/or MSD Recovery is outside acceptance limits

J - Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value

LCS - Laboratory Control Sample

LCSD - Laboratory Control Sample Duplicates

MDL - method detection limit

MS/MSD - Matrix Spike/Matrix Spike Duplicate

ND (19) - non-detect at the laboratory method detection limit shown in parentheses

PCBs - polychlorinated biphenyls

pg/g - picogram per gram

q - The reported result is the estimated maximum possible concentration of this analyte, quantitated using the theoretical ion ration. The measured ion ratio does not meet qualitative identification criteria and indicates a possible interference

RL - reporting limit

RSL - Regional Screening Level

TEF - toxic equivalency factor

TEQ - toxic equivalency factor

µg/kg - microgram per kilogram

Table 7
Supplementary Soil Sampling Analytical Results - Radionuclides

Analyte	Units	Maximum Background Soil Concentrations	Depth Below Ground Surface											
			U4U5-1			U4U5-2				U4U5-3		U4U5-4		
			1'	2.5'	5'	1'	2.5'	5'	7.5'	2.5'	5'	1'	2.5'	5'
Radionuclides														
Radium-226	pCi/g	2.36	**0.999**	**1.16**	**0.916**	**1.00**	**0.681**	**0.995**	**1.15**	**1.04**	**0.713**	**0.733**	**0.758**	**0.884**
Radium-228	pCi/g	2.92	**0.548**	**1.03**	**0.577**	**1.85**	**0.522**	**0.451**	**1.59**	**1.00**	**0.710**	**1.62**	**0.687**	**0.985**
Thorium-228	pCi/g	2.28	**1.65**	**1.90**	**1.81**	**1.79**	**1.42**	**1.80**	**1.73**	**1.94**	**1.38**	**1.50**	**2.09**	**1.66**
Thorium-230	pCi/g	3.01	**1.15**	**1.59**	**1.16**	**1.03**	**1.01**	**0.940**	**1.16**	**1.30**	**1.03**	**1.13**	**1.02**	**1.11**
Thorium-232	pCi/g	2.23	**1.53**	**1.77**	**1.84**	**1.73**	**1.46**	**1.98**	**1.63**	**1.72**	**1.34**	**1.45**	**1.89**	**1.73**
Uranium-233/234	pCi/g	2.84	**0.870**	**1.48**	**1.19**	**0.924**	**0.881**	**1.34**	**0.978**	**0.864**	**0.907**	**0.814**	**1.14**	**1.33**
Uranium-235/236	pCi/g	0.210	**0.0739**	**0.0565**	**0.0431**	**0.123**	**0.0584**	**0.0998**	**0.0476 U**	**0.0536 U**	**0.0691**	**0.0882**	**0.0409**	**0.0416**
Uranium-238	pCi/g	2.37	**0.799**	**1.29**	**1.06**	**1.09**	**0.994**	**1.24**	**1.06**	**0.934**	**0.818**	**0.869**	**1.10**	**1.02**

Notes:

Bold value indicates analyte was detected above the MDL

pCi/g - picocurie per gram

U - Result is less than the sample detection limit

Table 8
Depth-Discrete Groundwater Analytical Results

Analyte	Units	BCL[a]	Depth Below Ground Surface											
			U4U5-1			U4U5-2			U4U5-3			U4U5-4		
			45'	70'	90'	50'	70'	90'	50'	70'	90'	50'	70'	90'
Perchlorate	µg/L	18	**4,300**	**1,300 F1**	**1,500**	**140,000**	**69,000**	**1,300,000**	**65,000**	**72,000**	**470,000**	**1,300**	**3,500**	**11,000**
Hexavalent chromium	µg/L	100	**13**	**1.0 J H**	**74 H**	**7,900**	**2,500 H**	**39,000 H**	**200**	**380**	**1,900 H**	**28**	**88**	**470**
Chromium	µg/L	100	**78**	**270**	**340**	**8,900**	**2,700 B**	**39,000**	**200**	**560**	**2,000**	**75**	**200**	**460**
Total Dissolved Solids	mg/L	--	**3,600**	**2,400**	**2,100**	**6,500**	**4,300**	**20,000**	**2,600**	**2,100**	**3,000**	**2,300**	**1,900**	**1,400**
VOCs														
1,1,1,2-Tetrachloroethane	µg/L	0.605	ND(0.25)	ND(0.25)	ND(0.25)	ND(0.25)	ND(0.25)	ND(0.25)	ND(0.25)	ND(0.25)	ND(0.25)	ND(0.25)	ND(0.25)	ND(0.25)
1,1,1-Trichloroethane	µg/L	200	ND(0.25)	ND(0.25)	ND(0.25)	ND(0.25)	ND(0.25)	ND(0.25)	ND(0.25)	ND(0.25)	ND(0.25)	ND(0.25)	ND(0.25)	ND(0.25)
1,1,2,2-Tetrachloroethane	µg/L	0.0775	ND(0.25)	ND(0.25)	ND(0.25)	ND(0.25)	ND(0.25)	ND(0.25)	ND(0.25)	ND(0.25)	ND(0.25)	ND(0.25)	ND(0.25)	ND(0.25)
1,1,2-Trichloroethane	µg/L	5	ND(0.25)	ND(0.25)	ND(0.25)	ND(0.25)	ND(0.25)	ND(0.25)	ND(0.25)	ND(0.25)	ND(0.25)	ND(0.25)	ND(0.25)	ND(0.25)
1,1-Dichloroethane	µg/L	2.79	ND(0.25)	ND(0.25)	ND(0.25)	ND(0.25)	ND(0.25)	ND(0.25)	ND(0.25)	ND(0.25)	ND(0.25)	ND(0.25)	ND(0.25)	ND(0.25)
1,1-Dichloroethene	µg/L	7	ND(0.25)	ND(0.25)	ND(0.25)	ND(0.25)	ND(0.25)	ND(0.25)	ND(0.25)	ND(0.25)	ND(0.25)	ND(0.25)	ND(0.25)	ND(0.25)
1,1-Dichloropropene	µg/L	--	ND(0.25)	ND(0.25)	ND(0.25)	ND(0.25)	ND(0.25)	ND(0.25)	ND(0.25)	ND(0.25)	ND(0.25)	ND(0.25)	ND(0.25)	ND(0.25)
1,2,3-Trichlorobenzene	µg/L	--	ND(0.40)	ND(0.40)	ND(0.40)	ND(0.40)	ND(0.40)	ND(0.40)	ND(0.40)	ND(0.40)	ND(0.40)	ND(0.40)	ND(0.40)	ND(0.40)
1,2,3-Trichloropropane	µg/L	0.0026	ND(0.25)	ND(0.25)	ND(0.25)	ND(0.25)	ND(0.25)	ND(0.25)	ND(0.25)	ND(0.25)	ND(0.25)	ND(0.25)	ND(0.25)	ND(0.25)
1,2,4-Trichlorobenzene	µg/L	70	ND(0.40)	ND(0.40)	ND(0.40)	ND(0.40)	ND(0.40)	ND(0.40)	ND(0.40)	ND(0.40)	ND(0.40)	ND(0.40)	ND(0.40)	ND(0.40)
1,2,4-Trimethylbenzene	µg/L	14.6	ND(0.25)	ND(0.25)	ND(0.25)	ND(0.25)	ND(0.25)	ND(0.25)	ND(0.25)	ND(0.25)	ND(0.25)	ND(0.25)	ND(0.25)	ND(0.25)
1,2-Dibromo-3-Chloropropane	µg/L	0.000927	ND(0.50)	ND(0.50)	ND(0.50)	ND(0.50)	ND(0.50)	ND(0.50)	ND(0.50)	ND(0.50)	ND(0.50)	ND(0.50)	ND(0.50)	ND(0.50)
1,2-Dibromoethane (EDB)	µg/L	0.00755	ND(0.25)	ND(0.25)	ND(0.25)	ND(0.25)	ND(0.25)	ND(0.25)	ND(0.25)	ND(0.25)	ND(0.25)	ND(0.25)	ND(0.25)	ND(0.25)
1,2-Dichlorobenzene	µg/L	600	ND(0.25)	ND(0.25)	ND(0.25)	ND(0.25)	ND(0.25)	ND(0.25)	ND(0.25)	ND(0.25)	ND(0.25)	ND(0.25)	ND(0.25)	ND(0.25)
1,2-Dichloroethane	µg/L	5	ND(0.25)	ND(0.25)	ND(0.25)	ND(0.25)	ND(0.25)	ND(0.25)	ND(0.25)	ND(0.25)	ND(0.25)	ND(0.25)	ND(0.25)	ND(0.25)
1,2-Dichloropropane	µg/L	5	ND(0.25)	ND(0.25)	ND(0.25)	ND(0.25)	ND(0.25)	ND(0.25)	ND(0.25)	ND(0.25)	ND(0.25)	ND(0.25)	ND(0.25)	ND(0.25)
1,3,5-Trimethylbenzene	µg/L	14.5	ND(0.25)	ND(0.25)	ND(0.25)	ND(0.25)	ND(0.25)	ND(0.25)	ND(0.25)	ND(0.25)	ND(0.25)	ND(0.25)	ND(0.25)	ND(0.25)
1,3-Dichlorobenzene	µg/L	80.7	ND(0.25)	ND(0.25)	ND(0.25)	ND(0.25)	ND(0.25)	ND(0.25)	ND(0.25)	ND(0.25)	ND(0.25)	ND(0.25)	ND(0.25)	ND(0.25)
1,3-Dichloropropane	µg/L	8.24	ND(0.25)	ND(0.25)	ND(0.25)	ND(0.25)	ND(0.25)	ND(0.25)	ND(0.25)	ND(0.25)	ND(0.25)	ND(0.25)	ND(0.25)	ND(0.25)
1,4-Dichlorobenzene	µg/L	75	ND(0.25)	ND(0.25)	ND(0.25)	ND(0.25)	ND(0.25)	ND(0.25)	ND(0.25)	ND(0.25)	ND(0.25)	ND(0.25)	ND(0.25)	ND(0.25)
2,2-Dichloropropane	µg/L	--	ND(0.40)	ND(0.40)	ND(0.40)	ND(0.40)	ND(0.40)	ND(0.40)	ND(0.40)	ND(0.40)	ND(0.40)	ND(0.40)	ND(0.40)	ND(0.40)
2-Butanone (MEK)	µg/L	6,860	ND(2.5)	ND(2.5)	ND(2.5)	ND(2.5)	ND(2.5)	ND(2.5)	ND(2.5)	ND(2.5)	ND(2.5)	ND(2.5)	ND(2.5)	ND(2.5)
2-Chlorotoluene	µg/L	90.2	ND(0.25)	ND(0.25)	ND(0.25)	ND(0.25)	ND(0.25)	ND(0.25)	ND(0.25)	ND(0.25)	ND(0.25)	ND(0.25)	ND(0.25)	ND(0.25)
2-Hexanone	µg/L	62.6	ND(2.5)	ND(2.5) F1	ND(2.5)	ND(2.5) F1	ND(2.5)	ND(2.5)	ND(2.5)	ND(2.5)	ND(2.5)	ND(2.5)	ND(2.5)	ND(2.5)
4-Chlorotoluene	µg/L	--	ND(0.25)	ND(0.25)	ND(0.25)	ND(0.25)	ND(0.25)	ND(0.25)	ND(0.25)	ND(0.25)	ND(0.25)	ND(0.25)	ND(0.25)	ND(0.25)
4-Methyl-2-pentanone (MIBK)	µg/L	1,870	ND(2.5)	ND(2.5) F1	ND(2.5)	ND(2.5) F1	ND(2.5) *	**3.6 J**	ND(2.5)	ND(2.5)	ND(2.5)	ND(2.5)	ND(2.5)	ND(2.5)
Acetone	µg/L	20,500	**11 J**	**15 J**	ND(10)	ND(10)	**13 J**	**49**	ND(10)	**11 J**	ND(10)	ND(10)	**11 J**	ND(10)
Benzene	µg/L	5	ND(0.25)	ND(0.25)	ND(0.25)	ND(0.25)	ND(0.25)	ND(0.25)	ND(0.25)	ND(0.25)	ND(0.25)	ND(0.25)	ND(0.25)	ND(0.25)
Bromobenzene	µg/L	85.2	ND(0.25)	ND(0.25)	ND(0.25)	ND(0.25)	ND(0.25)	ND(0.25)	ND(0.25)	ND(0.25)	ND(0.25)	ND(0.25)	ND(0.25)	ND(0.25)
Bromochloromethane	µg/L	--	ND(0.25)	ND(0.25)	ND(0.25)	ND(0.25)	ND(0.25)	ND(0.25)	ND(0.25)	ND(0.25)	ND(0.25)	ND(0.25)	ND(0.25)	ND(0.25)
Bromodichloromethane	µg/L	0.135	ND(0.25)	ND(0.25)	**0.26 J**	**0.41 J**	**0.28 J**	**3.9**	**0.27 J**	ND(0.25)	**0.55**	ND(0.25)	**0.28 J**	**0.32 J**
Bromoform	µg/L	9.86	ND(0.40)	ND(0.40)	ND(0.40)	ND(0.40)	ND(0.40)	**2.4**	ND(0.40)	ND(0.40)	ND(0.40)	ND(0.40)	ND(0.40)	ND(0.40)
Bromomethane	µg/L	8.53	ND(0.25)	ND(0.25)	ND(0.25)	ND(0.25)	ND(0.25)	ND(0.25)	ND(0.25)	ND(0.25)	ND(0.25)	ND(0.25)	ND(0.25)	ND(0.25)
Carbon tetrachloride	µg/L	5	ND(0.25)	ND(0.25)	ND(0.25)	ND(0.25)	ND(0.25)	**1.5**	ND(0.25)	ND(0.25)	ND(0.25)	ND(0.25)	ND(0.25)	ND(0.25)
Chlorobenzene	µg/L	100	ND(0.25)	ND(0.25)	ND(0.25)	ND(0.25)	ND(0.25)	ND(0.25)	ND(0.25)	ND(0.25)	ND(0.25)	ND(0.25)	ND(0.25)	ND(0.25)
Chloroethane	µg/L	26.9	ND(0.40)	ND(0.40)	ND(0.40)	ND(0.40)	ND(0.40)	ND(0.40)	ND(0.40)	ND(0.40)	ND(0.40)	ND(0.40)	ND(0.40)	ND(0.40)
Chloroform	µg/L	0.223	**9.9**	**3.0**	**6.4**	**110**	**62**	**3,700**	**12**	**21**	**99**	**2.8**	**6.6**	**20**
Chloromethane	µg/L	3.12	ND(0.25)	ND(0.25)	ND(0.25)	ND(0.25)	ND(0.25)	ND(0.25)	ND(0.25)	ND(0.25)	ND(0.25)	ND(0.25)	ND(0.25)	ND(0.25)

Table 8
Depth-Discrete Groundwater Analytical Results

Analyte	Units	BCL[a]	Depth Below Ground Surface											
			U4U5-1			U4U5-2			U4U5-3			U4U5-4		
			45'	70'	90'	50'	70'	90'	50'	70'	90'	50'	70'	90'
cis-1,2-Dichloroethene	µg/L	70	ND(0.25)	ND(0.25)	ND(0.25)	ND(0.25)	ND(0.25)	ND(0.25)	ND(0.25)	ND(0.25)	ND(0.25)	ND(0.25)	ND(0.25)	ND(0.25)
cis-1,3-Dichloropropene	µg/L	--	ND(0.25)	ND(0.25)	ND(0.25)	ND(0.25)	ND(0.25)	ND(0.25)	ND(0.25)	ND(0.25)	ND(0.25)	ND(0.25)	ND(0.25)	ND(0.25)
Dibromochloromethane	µg/L	0.17	ND(0.25)	ND(0.25)	ND(0.25)	ND(0.25)	ND(0.25)	**1.7**	ND(0.25)	ND(0.25)	ND(0.25)	ND(0.25)	ND(0.25)	ND(0.25)
Dibromomethane	µg/L	8.14	ND(0.25)	ND(0.25)	ND(0.25)	ND(0.25)	ND(0.25)	ND(0.25)	ND(0.25)	ND(0.25)	ND(0.25)	ND(0.25)	ND(0.25)	ND(0.25)
Dichlorodifluoromethane	µg/L	393	ND(0.25)	ND(0.25)	ND(0.25)	ND(0.25)	ND(0.25)	ND(0.25)	ND(0.25)	ND(0.25)	ND(0.25)	ND(0.25)	ND(0.25)	ND(0.25)
Ethylbenzene	µg/L	700	ND(0.25)	ND(0.25)	ND(0.25)	ND(0.25)	ND(0.25)	ND(0.25)	ND(0.25)	ND(0.25)	ND(0.25)	ND(0.25)	ND(0.25)	ND(0.25)
Ethyl-t-butyl ether (ETBE)	µg/L	--	ND(0.25)	ND(0.25)	ND(0.25)	ND(0.25)	ND(0.25)	ND(0.25)	ND(0.25)	ND(0.25)	ND(0.25)	ND(0.25)	ND(0.25)	ND(0.25)
Hexachlorobutadiene	µg/L	0.999	ND(0.25)	ND(0.25)	ND(0.25)	ND(0.25)	ND(0.25)	ND(0.25)	ND(0.25)	ND(0.25)	ND(0.25)	ND(0.25)	ND(0.25)	ND(0.25)
Isopropyl Ether (DIPE)	µg/L	--	ND(0.25)	ND(0.25)	ND(0.25)	ND(0.25)	ND(0.25)	ND(0.25)	ND(0.25)	ND(0.25)	ND(0.25)	ND(0.25)	ND(0.25)	ND(0.25)
Isopropylbenzene	µg/L	667	ND(0.25)	ND(0.25)	ND(0.25)	ND(0.25)	ND(0.25)	ND(0.25)	ND(0.25)	ND(0.25)	ND(0.25)	ND(0.25)	ND(0.25)	ND(0.25)
m,p-Xylene	µg/L	1,200[b]	ND(0.50)	ND(0.50)	ND(0.50)	ND(0.50)	ND(0.50)	ND(0.50)	ND(0.50)	ND(0.50)	ND(0.50)	ND(0.50)	ND(0.50)	ND(0.50)
Methylene Chloride	µg/L	5	ND(0.88)	ND(0.88)	ND(0.88)	**1.0 J**	ND(0.88)	ND(0.88)	ND(0.88)	ND(0.88)	ND(0.88)	ND(0.88)	ND(0.88)	ND(0.88)
Methyl-t-Butyl Ether (MTBE)	µg/L	14.4	ND(0.25)	ND(0.25)	ND(0.25)	ND(0.25)	ND(0.25)	ND(0.25)	ND(0.25)	ND(0.25)	ND(0.25)	ND(0.25)	ND(0.25)	ND(0.25)
Naphthalene	µg/L	0.165	ND(0.40)	ND(0.40)	ND(0.40)	ND(0.40)	**0.70 J**	ND(0.40)	ND(0.40)	ND(0.40)	ND(0.40)	ND(0.40)	ND(0.40)	ND(0.40)
n-Butylbenzene	µg/L	238	ND(0.40)	ND(0.40)	ND(0.40)	ND(0.40)	ND(0.40)	ND(0.40)	ND(0.40)	ND(0.40)	ND(0.40)	ND(0.40)	ND(0.40)	ND(0.40)
N-Propylbenzene	µg/L	238	ND(0.25)	ND(0.25)	ND(0.25)	ND(0.25)	ND(0.25)	ND(0.25)	ND(0.25)	ND(0.25)	ND(0.25)	ND(0.25)	ND(0.25)	ND(0.25)
o-Xylene	µg/L	1,200	ND(0.25)	ND(0.25)	ND(0.25)	ND(0.25)	ND(0.25)	ND(0.25)	ND(0.25)	ND(0.25)	ND(0.25)	ND(0.25)	ND(0.25)	ND(0.25)
p-Isopropyltoluene	µg/L	834	ND(0.25)	ND(0.25)	ND(0.25)	ND(0.25)	ND(0.25)	ND(0.25)	ND(0.25)	ND(0.25)	ND(0.25)	ND(0.25)	ND(0.25)	ND(0.25)
sec-Butylbenzene	µg/L	238	ND(0.25)	ND(0.25)	ND(0.25)	ND(0.25)	ND(0.25)	ND(0.25)	ND(0.25)	ND(0.25)	ND(0.25)	ND(0.25)	ND(0.25)	ND(0.25)
Styrene	µg/L	100	ND(0.25)	ND(0.25)	ND(0.25)	ND(0.25)	ND(0.25)	ND(0.25)	ND(0.25)	ND(0.25)	ND(0.25)	ND(0.25)	ND(0.25)	ND(0.25)
Tert-amyl-methyl ether (TAME)	µg/L	--	ND(0.25)	ND(0.25)	ND(0.25)	ND(0.25)	ND(0.25)	ND(0.25)	ND(0.25)	ND(0.25)	ND(0.25)	ND(0.25)	ND(0.25)	ND(0.25)
tert-Butyl alcohol (TBA)	µg/L	62,600	ND(5.0)	ND(5.0)	ND(5.0)	ND(5.0)	ND(5.0)	**5.0 J ID**	ND(5.0)	ND(5.0)	ND(5.0)	ND(5.0)	ND(5.0)	ND(5.0)
tert-Butylbenzene	µg/L	238	ND(0.25)	ND(0.25)	ND(0.25)	ND(0.25)	ND(0.25)	ND(0.25)	ND(0.25)	ND(0.25)	ND(0.25)	ND(0.25)	ND(0.25)	ND(0.25)
Tetrachloroethene (PCE)	µg/L	5	**0.27 J**	ND(0.25)	ND(0.25)	**0.49 J**	**0.64**	**0.62**	ND(0.25)	ND(0.25)	ND(0.25)	ND(0.25)	ND(0.25)	ND(0.25)
Toluene	µg/L	1,000	**0.70**	ND(0.25)	ND(0.25)	ND(0.25)	ND(0.25)	ND(0.25)	ND(0.25)	ND(0.25)	ND(0.25)	ND(0.25)	ND(0.25)	ND(0.25)
trans-1,2-Dichloroethene	µg/L	100	ND(0.25)	ND(0.25)	ND(0.25)	ND(0.25)	ND(0.25)	ND(0.25)	ND(0.25)	ND(0.25)	ND(0.25)	ND(0.25)	ND(0.25)	ND(0.25)
trans-1,3-Dichloropropene	µg/L	--	ND(0.25)	ND(0.25)	ND(0.25)	ND(0.25)	ND(0.25)	ND(0.25)	ND(0.25)	ND(0.25)	ND(0.25)	ND(0.25)	ND(0.25)	ND(0.25)
Trichloroethene (TCE)	µg/L	5	ND(0.25)	ND(0.25)	ND(0.25)	ND(0.25)	ND(0.25)	**0.62**	ND(0.25)	ND(0.25)	ND(0.25)	ND(0.25)	ND(0.25)	ND(0.25)
Trichlorofluoromethane	µg/L	1,270	ND(0.25)	ND(0.25)	ND(0.25)	ND(0.25)	ND(0.25)	ND(0.25)	ND(0.25)	ND(0.25)	ND(0.25)	ND(0.25)	ND(0.25)	ND(0.25)
Vinyl chloride	µg/L	2	ND(0.25)	ND(0.25)	ND(0.25)	ND(0.25)	ND(0.25)	ND(0.25)	ND(0.25)	ND(0.25)	ND(0.25)	ND(0.25)	ND(0.25)	ND(0.25)
Xylenes, Total	µg/L	10,000	ND(0.50)	ND(0.50)	ND(0.50)	ND(0.50)	ND(0.50)	ND(0.50)	ND(0.50)	ND(0.50)	ND(0.50)	ND(0.50)	ND(0.50)	ND(0.50)

Notes:
Bold value indicates analyte was detected above the MDL
Yellow cells indicate an exceedance of the BCL
* - LCS or LCSD is outside acceptance limits
a - The BCLs are found in the table, "Nevada Division of Environmental Protection, Basic Comparison Levels" dated February 20, 2015
b - The BCL for m-xylene is 1,200 µg/L and the BCL for p-xylene is 1,200 µg/L
B - Compound was found in the blank and sample
BCL - Basic Comparison Level
F1 - MS and/or MSD Recovery is outside acceptance limits
H - Sample was prepped or analyzed beyond the specified holding time
ID - Analyte identified by RT & presence of single mass ion
J - Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value
LCS - Laboratory Control Sample
LCSD - Laboratory Control Sample Duplicates
MDL - method detection limit
MS/MSD - Matrix Spike/Matrix Spike Duplicate
mg/L - milligram per liter
ND (0.25) - non-detect at the laboratory method detection limit shown in parentheses
RL - reporting limit
RT - retention time
µg/L - microgram per liter
VOCs - Volatile Organic Compounds

Figures

🟦 Nevada Environmental Response Trust Site

🟥 Unit 4 and 5 Buildings Investigation Area

Notes:
(1) Basemap and Inset: ESRI Street Map, 2014
(2) Coordinate System: NAD 1983 State Plane Nevada East, U.S. Survey Feet

TITLE: **NERT Location Map**

LOCATION: **Nevada Environmental Response Trust**
Henderson, Nevada

TETRA TECH

APPROVED	SB	FIGURE
DRAFTED	SC	1
PROJECT#	114-520225	
DATE	3-18-2015	

Service Layer Credits: Source: Esri, DigitalGlobe, GeoEye, i-cubed, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AEX, Getmapping, Aerogrid, IGN, IGP, swisstopo, and the GIS User Community
Sources: Esri, HERE, DeLorme, USGS, Intermap, increment P Corp., NRCAN, Esri Japan, METI, Esri China (Hong Kong), Esri (Thailand), TomTom, MapmyIndia, © OpenStreetMap contributors, and the GIS User Community
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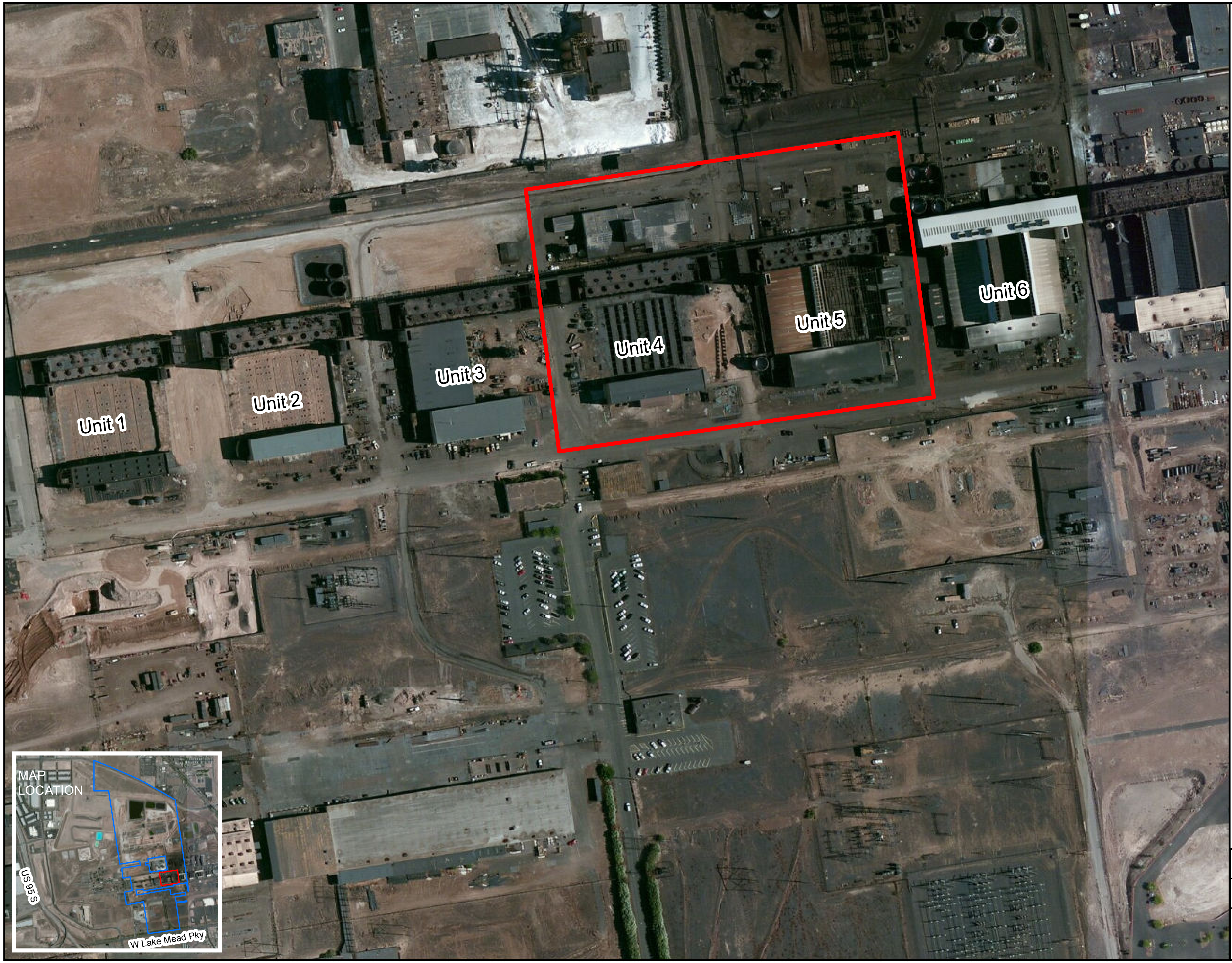

Legend

🟥 Unit 4 and 5 Buildings Investigation Area

Service Layer Credits: Source: Esri, DigitalGlobe, GeoEye, i-cubed, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AEX, Getmapping, Aerogrid, IGN, IGP, swisstopo, and the GIS User Community

N

0 125 250 500 Feet

TITLE:

Unit 4 and 5 Buildings Investigation Area

LOCATION:

Nevada Environmental Response Trust
Henderson, Nevada

TETRA TECH

APPROVED	JW	FIGURE
DRAFTED	MM	2
PROJECT#	117-0504158	
DATE	3-27-2015	

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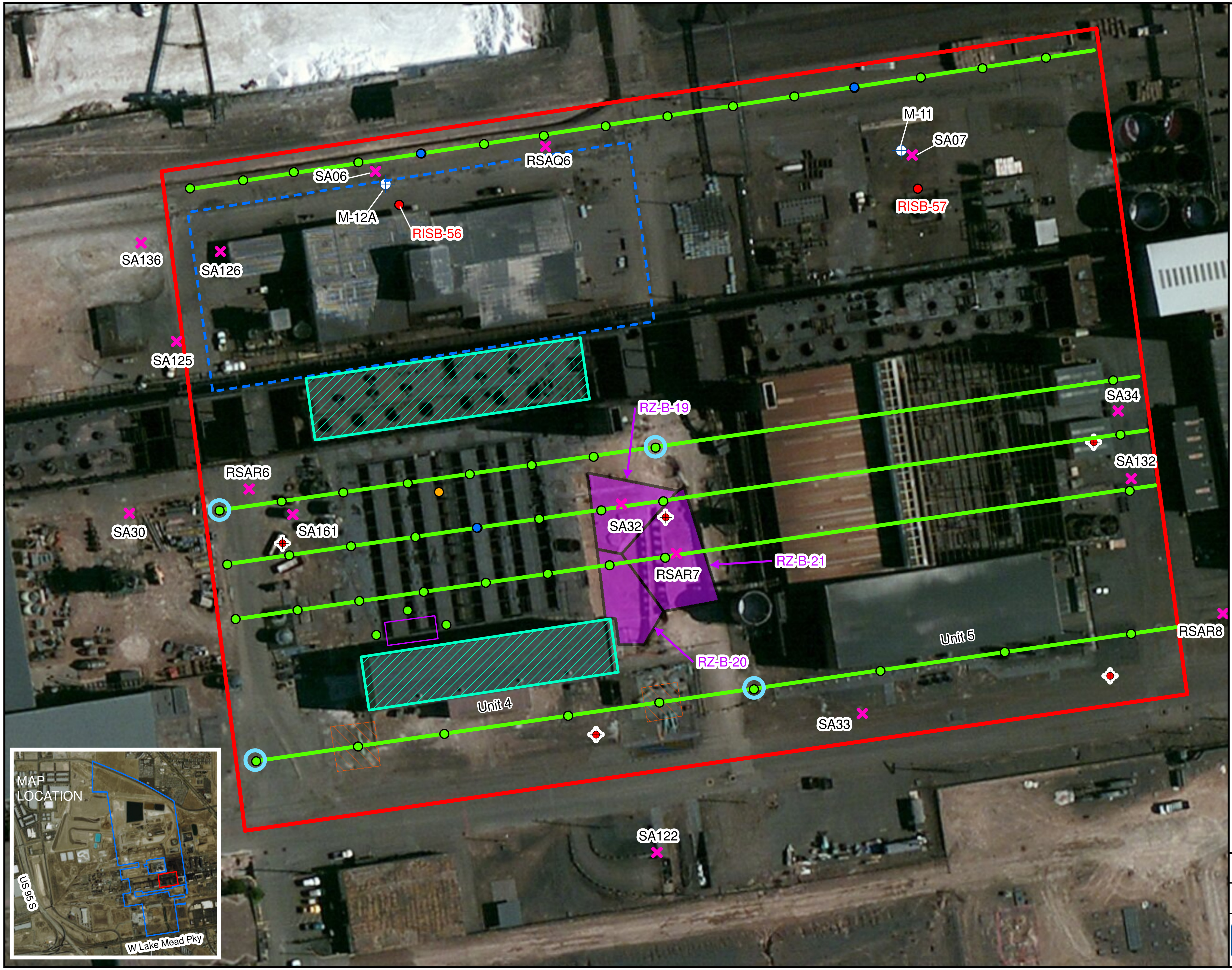

Legend

×	Previous Soil Boring/Soil Sampling Locations (Approximate)
●	Soil Boring Locations
◎	First Field Mobilization Boreholes - 4 Locations
⊕	Existing Shallow Groundwater Monitoring Well Locations (Approximate)
●	Proposed Environ Soil Borings (Approximate)
⊕	Proposed Environ Monitoring Wells (Approximate)
●	Historical Boring
●	Deeper Soil Borings (approximately 115 feet)
━	Sampling Transects
☐	Southwest Basement Sump (Approximate Location)
▨	Historic Perchlorate Loading and Unloading Stations
▨	Existing Unit 4 Building (Not to be demolished). Active tenant area.
⬚	Department of Homeland Security Restricted Area
■	Remedation Zone (RZ) Polygons
☐	Unit 4 and 5 Buildings Investigation Area

Area

Additional boreholes will be sited based on visual observations of potential pathways, i.e. sumps, cracks, drains, or similar features.

Additional step out borings will be advanced as needed based on "real time" analytical results.

Actual borehole locations may vary depending on field conditions

Polygon RZ-B-19 has been excavated to 1.5' bgs, while RZ-B-20 and RZ- B-21 have been excvated to 6' to 10' bgs.

Service Layer Credits: Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AEX, Getmapping, Aerogrid, IGN, IGP, swisstopo, and the GIS User Community

N

0 50 100 200
Feet

TITLE:
Proposed Investigation Locations

LOCATION:
Nevada Environmental Response Trust
Henderson, Nevada

TETRA TECH

APPROVED	JW	FIGURE
DRAFTED	MM	3
PROJECT#	117-0504158	
DATE	4-11-2016	

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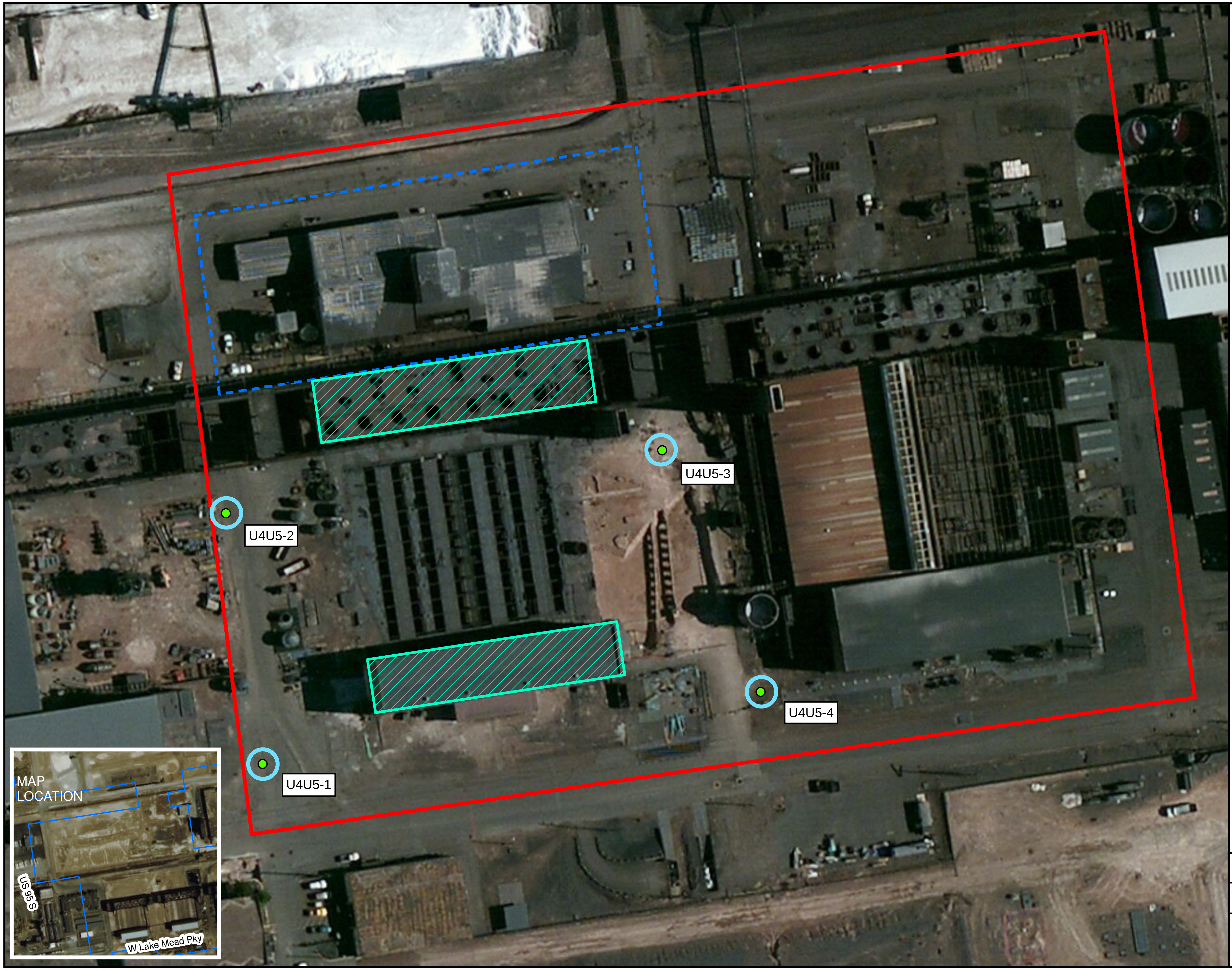

Legend

●	First Field Mobilization Boreholes - 4 Locations
▨	Existing Unit 4 Building (Not to be demolished). Active tenant area.
🟥	Unit 4 and 5 Buildings Investigation
⬚	Department of Homeland Security Restricted Area

Service Layer Credits: Source: Esri, DigitalGlobe, GeoEye, i-cubed, USDA, USGS, AEX, Getmapping, Aerogrid, IGN, IGP, swisstopo, and the GIS User Community

TITLE: **First Mobilization Borehole Locations**

LOCATION: **Nevada Environmental Response Trust**
Henderson, Nevada

TETRA TECH

APPROVED	JW
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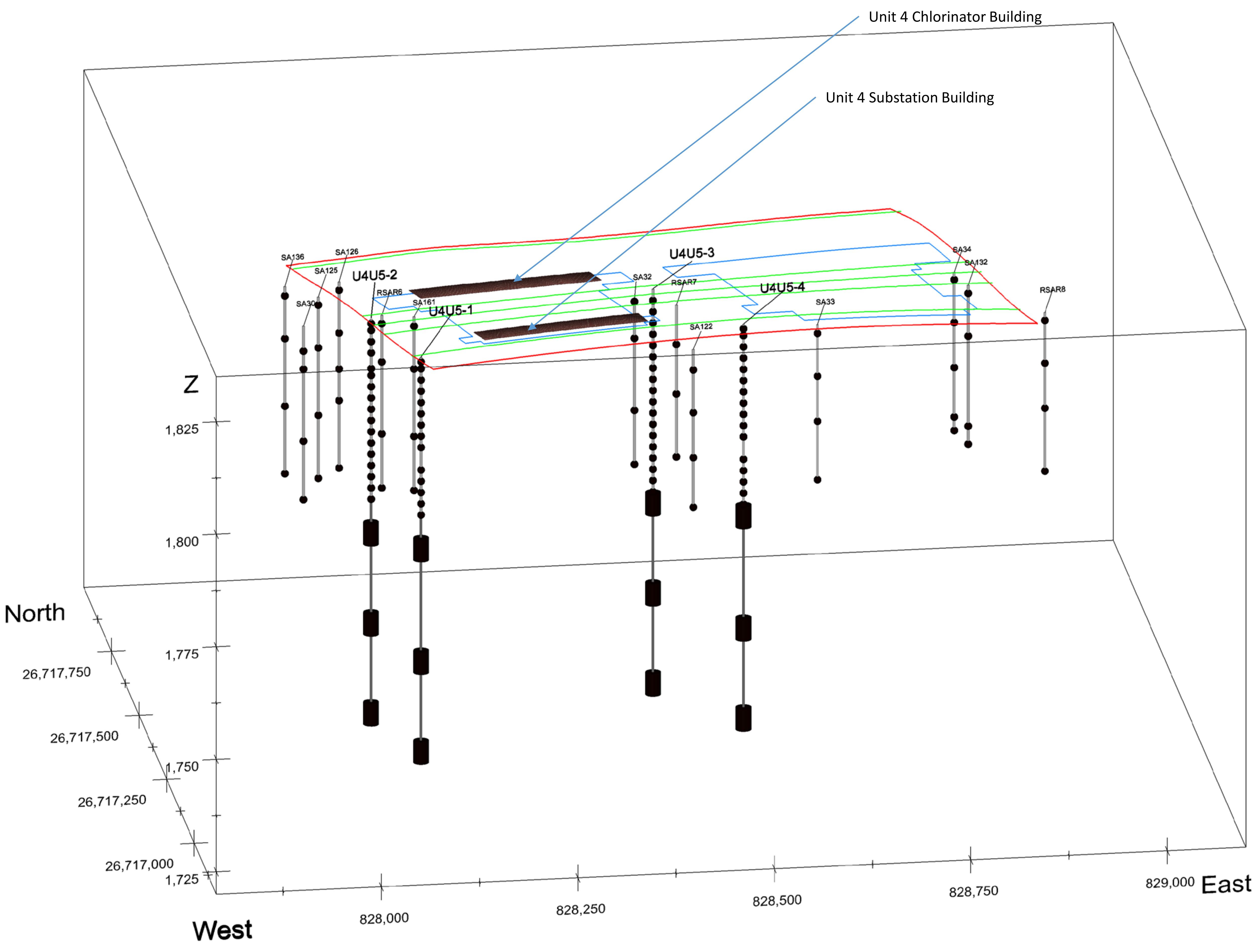
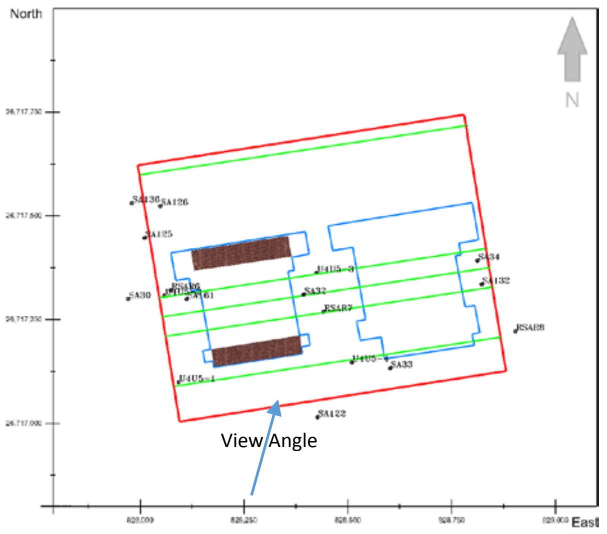
PROJECT#	117-0504158
DATE	3-27-2015

FIGURE
4

Document Path: M:\NERT\GIS\Figure 3 Proposed Investigation Locations.mxd





— Proposed Transects

— Investigation Area

— Building Outline

| U4U5-4 Boring Trace and Name

▮ Temporary Well Screen Interval

● Soil Sample Location

Notes:
Vertical Exaggeration: 6:1 (vertical:horizontal)
Oblique View to the Northeast, Azimuth 19^0 from Horizontal
Major Tick Mark Spacing 250 feet
Historic and First Mobilization Data Used

TITLE: Soil and Discrete-Depth Groundwater Sample Locations

LOCATION: Nevada Environmental Response Trust
Henderson, Nevada

TETRA TECH

		FIGURE
APPROVED	JW	5
DRAFTED	EBD	
PROJECT#	117-0504158	
DATE	2-22-2016	

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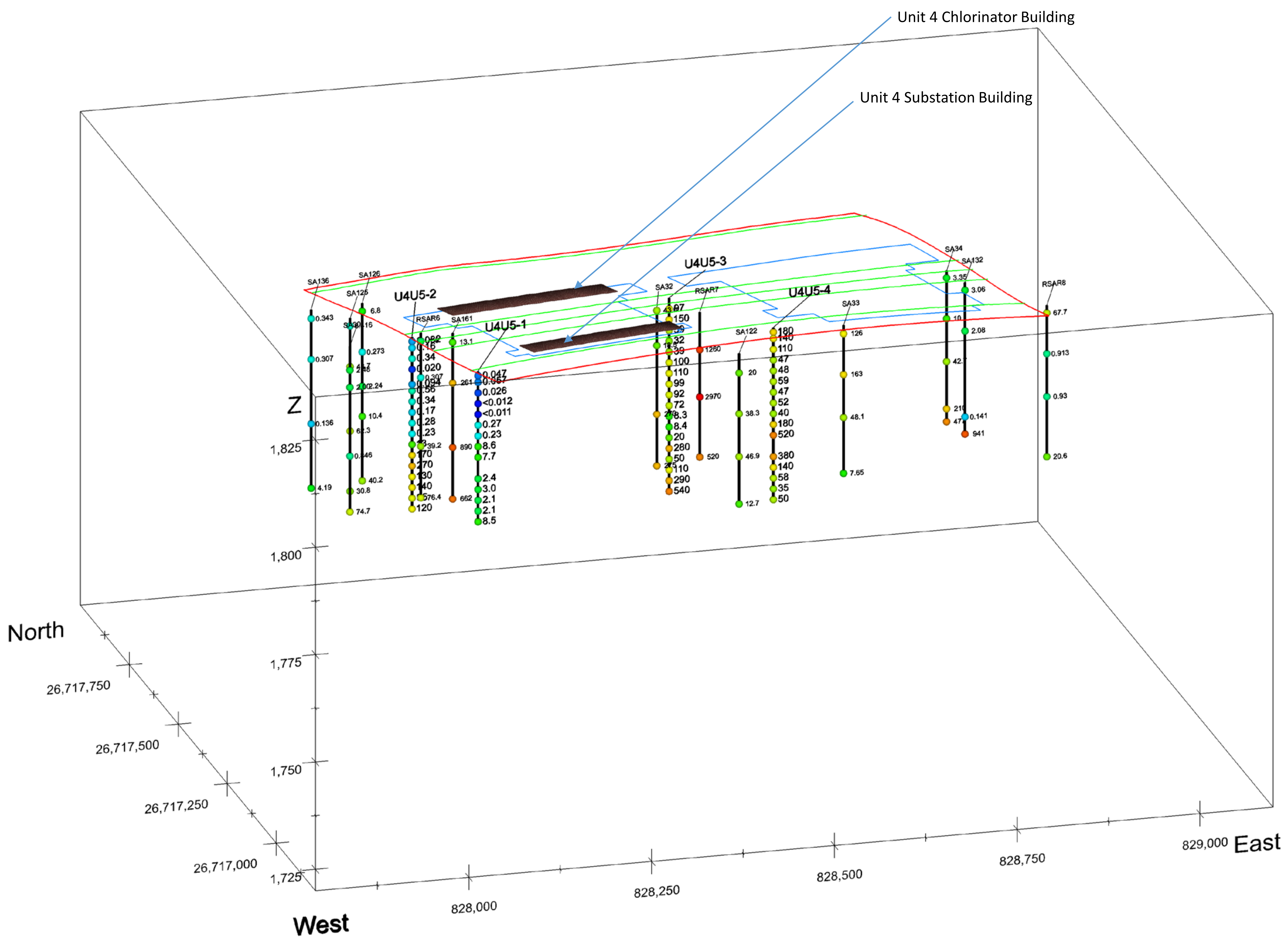
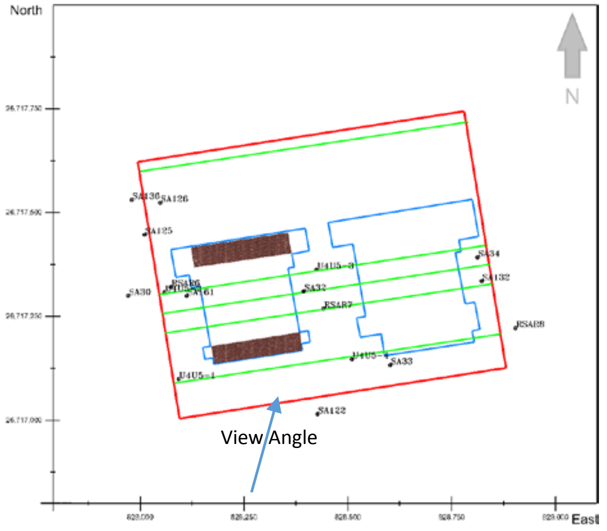
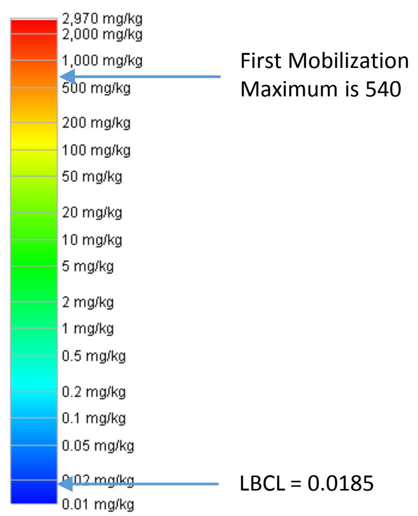




Concentration Scale



Proposed Transects

Investigation Area

Building Outline

U4U5-4 Boring Trace and Name

● 180 Soil Sample Location and Concentration (mg/kg)

Notes:
Vertical Exaggeration: 6:1 (vertical:horizontal)
Oblique View to the Northeast, Azimuth 19^0 from Horizontal
Major Tick Mark Spacing 250 feet
Historic and First Mobilization Data Used
Data qualifiers not included. See tables for data qualifiers.
<0.012: non-detect at the laboratory method detection limit
LBCL: Leaching-based Basic Comparison Level
mg/kg: milligram per kilogram

TITLE: Perchlorate Soil Sample Results

LOCATION: Nevada Environmental Response Trust
Henderson, Nevada

TETRA TECH

APPROVED	JW	FIGURE
DRAFTED	EBD	6
PROJECT#	117-0504158	
DATE	2-22-2016	

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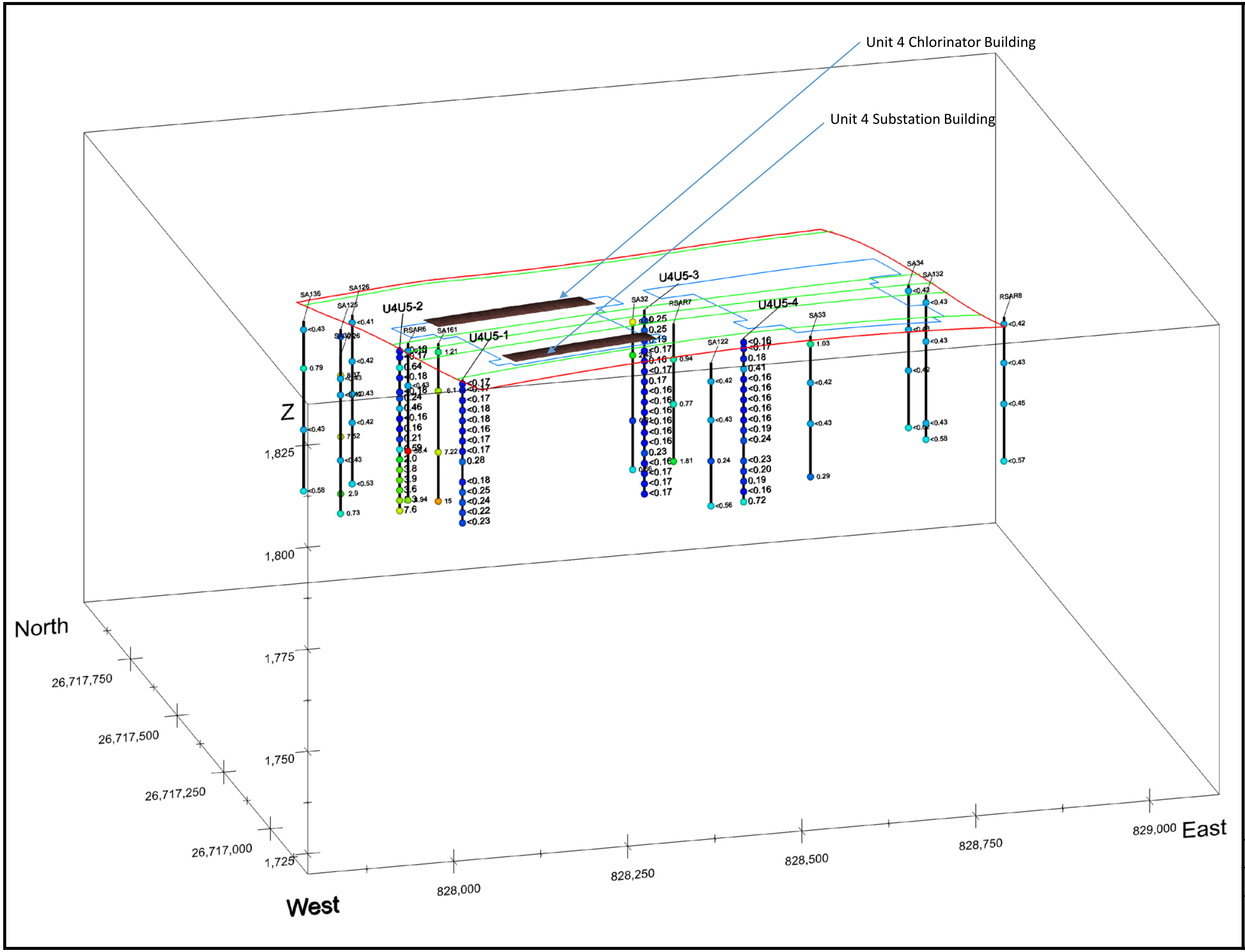
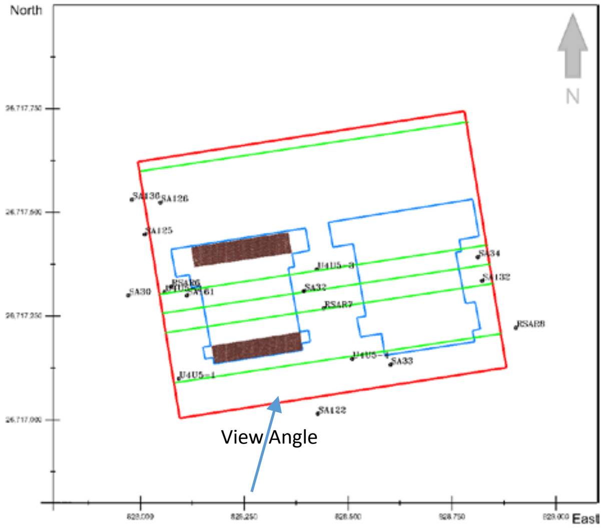
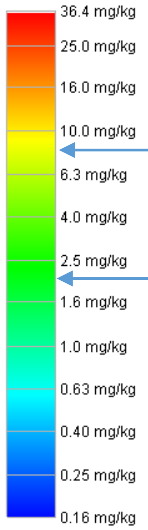




Concentration Scale



Mobilization 1 Maximum is 7.6

LBCL = 2

🟩	Proposed Transects
🟧	Investigation Area
🟦	Building Outline
U4U5-4	Boring Trace and Name
● 0.18	Soil Sample Location and Concentration (mg/kg)

Notes:
Vertical Exaggeration: 6:1 (vertical:horizontal)
Oblique View to the Northeast, Azimuth 19^0 from Horizontal
Major Tick Mark Spacing 250 feet
Historic and First Mobilization Data Used
Data qualifiers not included. See tables for data qualifiers.
<0.012: non-detect at the laboratory method detection limit
LBCL: Leaching-based Basic Comparison Level
mg/kg: milligram per kilogram

TITLE: Hexavalent Chromium Soil Sample Results

LOCATION: Nevada Environmental Response Trust
Henderson, Nevada

TETRA TECH

APPROVED	JW	FIGURE
DRAFTED	EBD	7
PROJECT#	117-0504158	
DATE	2-22-2016	

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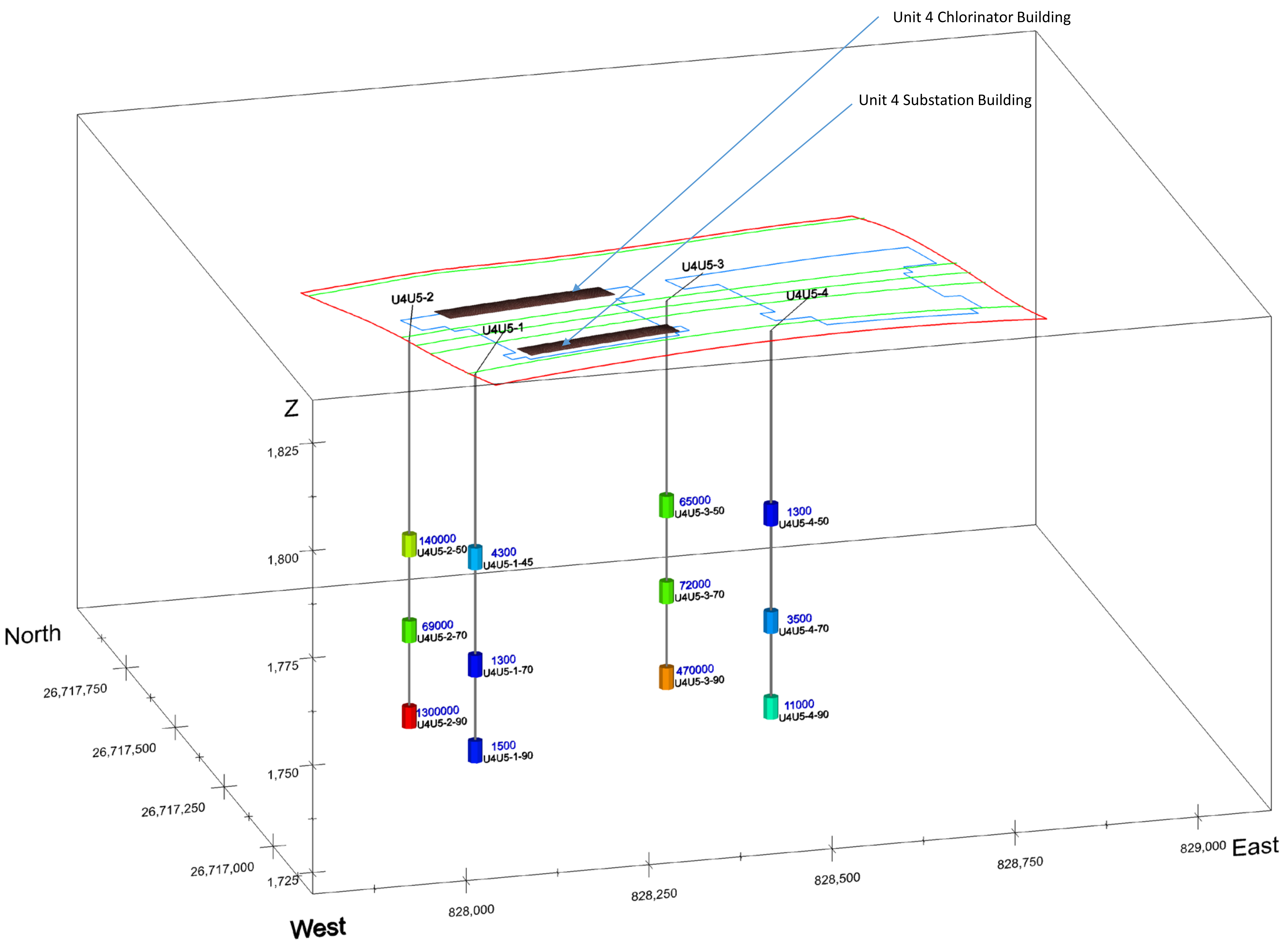
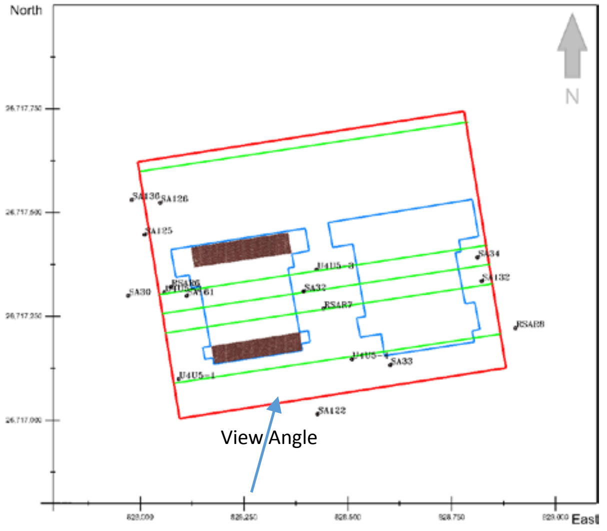
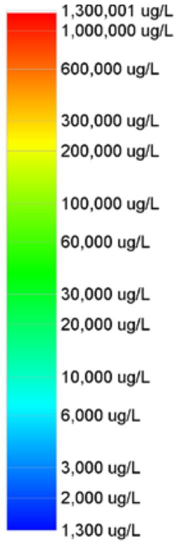




Concentration Scale



—	Proposed Transects
—	Investigation Area
—	Building Outline
U4U5-4	Boring Trace and Name
1300 U4U5-4-50	Temporary Well Screen Interval, Name, and Concentration (ug/L)

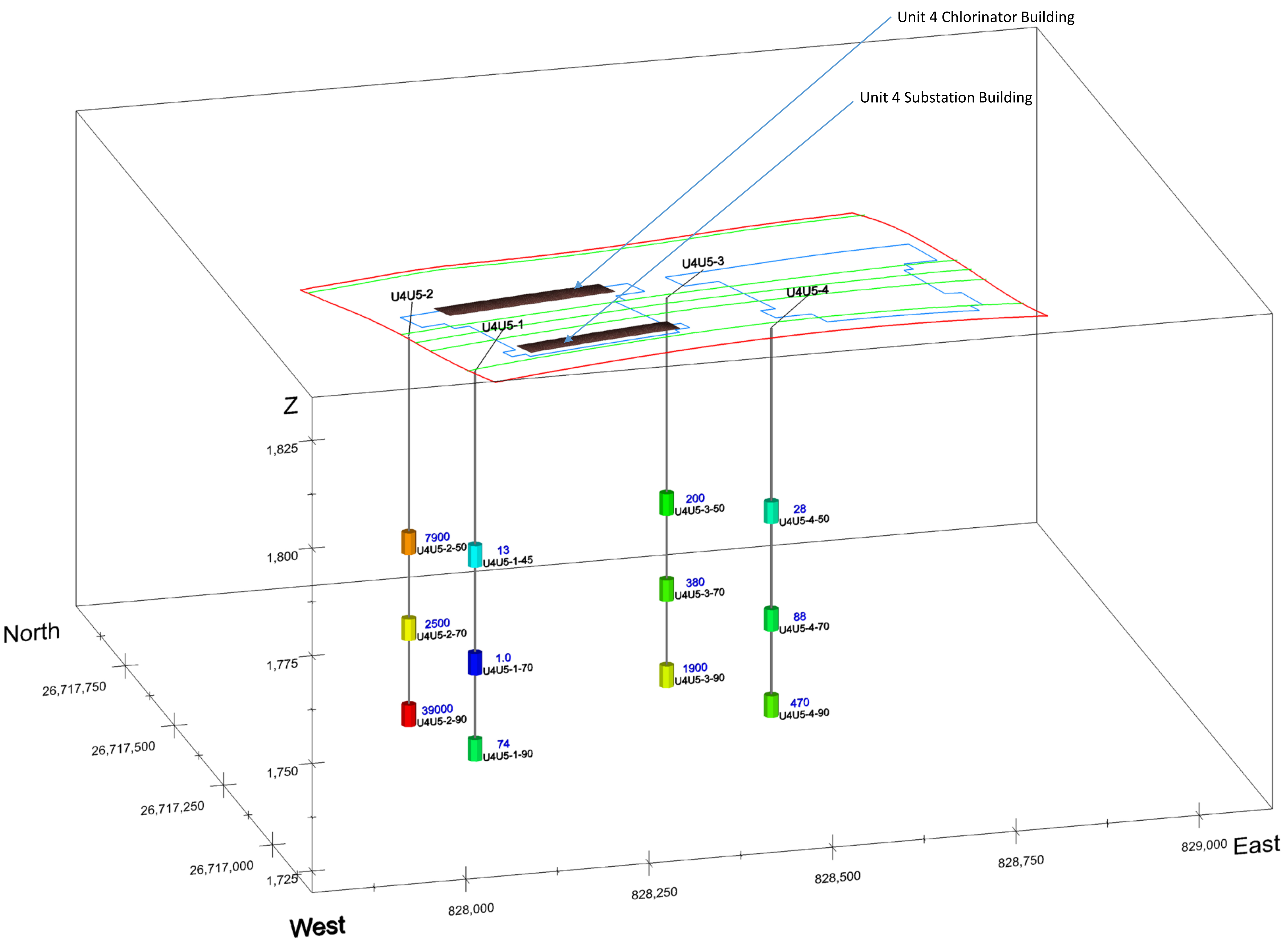
Notes:
Vertical Exaggeration: 6:1 (vertical:horizontal)
Oblique View to the Northeast, Azimuth 19^{0} from Horizontal
Major Tick Mark Spacing 250 feet
First Mobilization Data Used
Data qualifiers not included. See tables for data qualifiers.
ug/L: microgram per liter

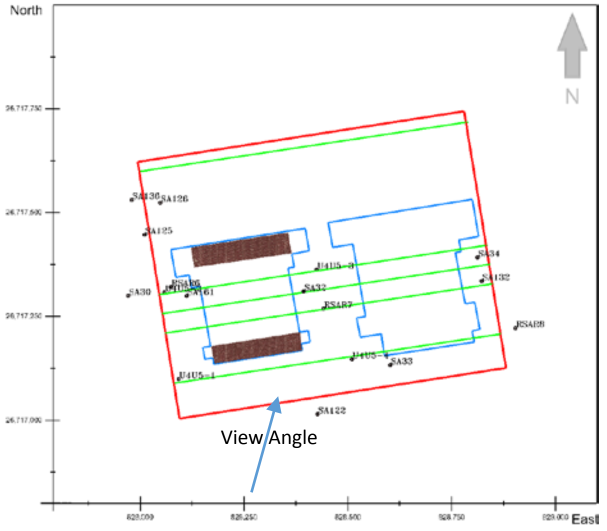
TITLE:
Perchlorate Discrete-Depth Groundwater Sample Results

LOCATION:
Nevada Environmental Response Trust
Henderson, Nevada

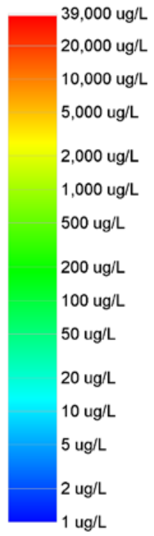
TETRA TECH

APPROVED	JW	FIGURE
DRAFTED	EBD	8
PROJECT#	117-0504158	
DATE	2-22-2016	





Concentration Scale



Proposed Transects

Investigation Area

Building Outline

U4U5-4 Boring Trace and Name

28 U4U5-4-50 Temporary Well Screen Interval, Name, and Concentration (ug/L)

Notes:
Vertical Exaggeration: 6:1 (vertical:horizontal)
Oblique View to the Northeast, Azimuth 19^0 from Horizontal
Major Tick Mark Spacing 250 feet
First Mobilization Data Used
Data qualifiers not included. See tables for data qualifiers.
ug/L: microgram per liter

TITLE: Hexavalent Chromium Discrete-Depth Groundwater Sample Results

LOCATION: Nevada Environmental Response Trust
Henderson, Nevada

TETRA TECH

APPROVED	JW
DRAFTED	EBD
PROJECT#	117-0504158
DATE	2-22-2016

FIGURE
9

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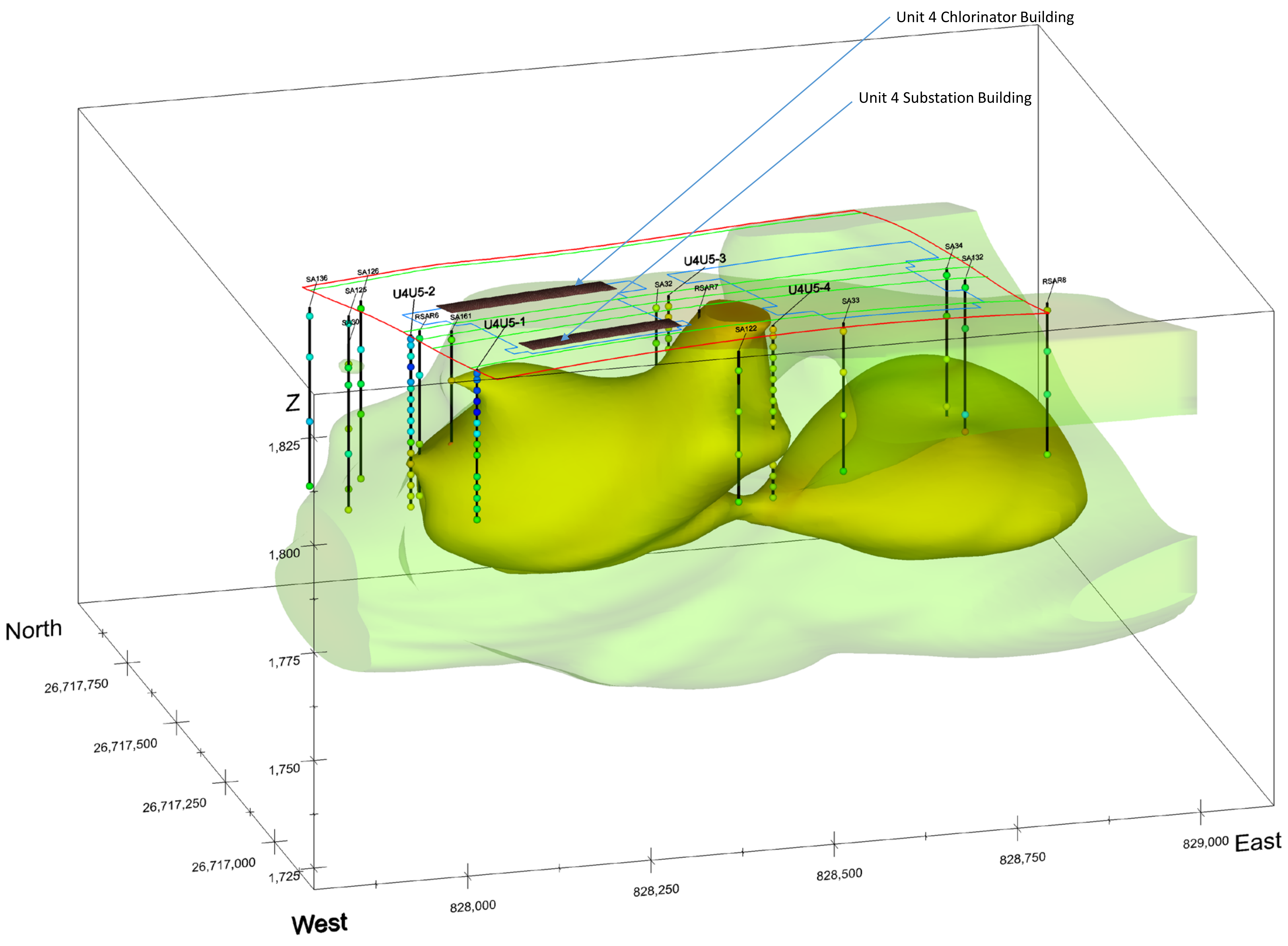
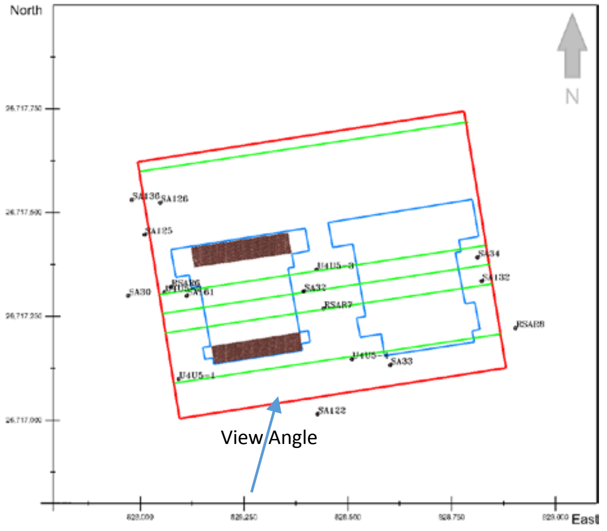
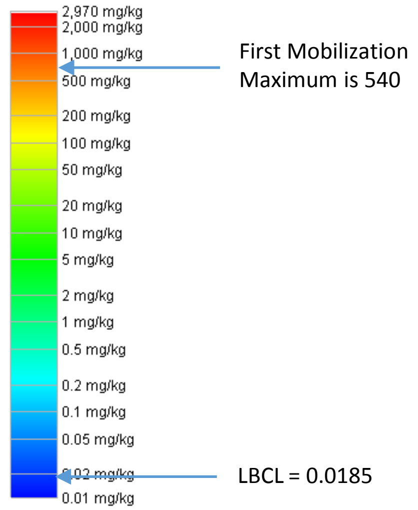




Concentration Scale



🟩	Proposed Transects
🟧	Investigation Area
🟦	Boundary Outline
U4U5-4	Boring Trace and Name
●	Soil Sample Location

Notes:
Vertical Exaggeration: 6:1 (vertical:horizontal)
Oblique View to the Northeast, Azimuth 19^0 from Horizontal
Major Tick Mark Spacing 250 feet
Historic and First Mobilization Data Used
Iso-Concentration Shell for 185 mg/kg Plume is Translucent
LBCL: Leaching-based Basic Comparison Level
mg/kg: milligram per kilogram

TITLE:
Perchlorate Interpolation in Soil

LOCATION:
Nevada Environmental Response Trust
Henderson, Nevada

TETRA TECH

APPROVED	JW	FIGURE
DRAFTED	EBD	10
PROJECT#	117-0504158	
DATE	2-22-2016	

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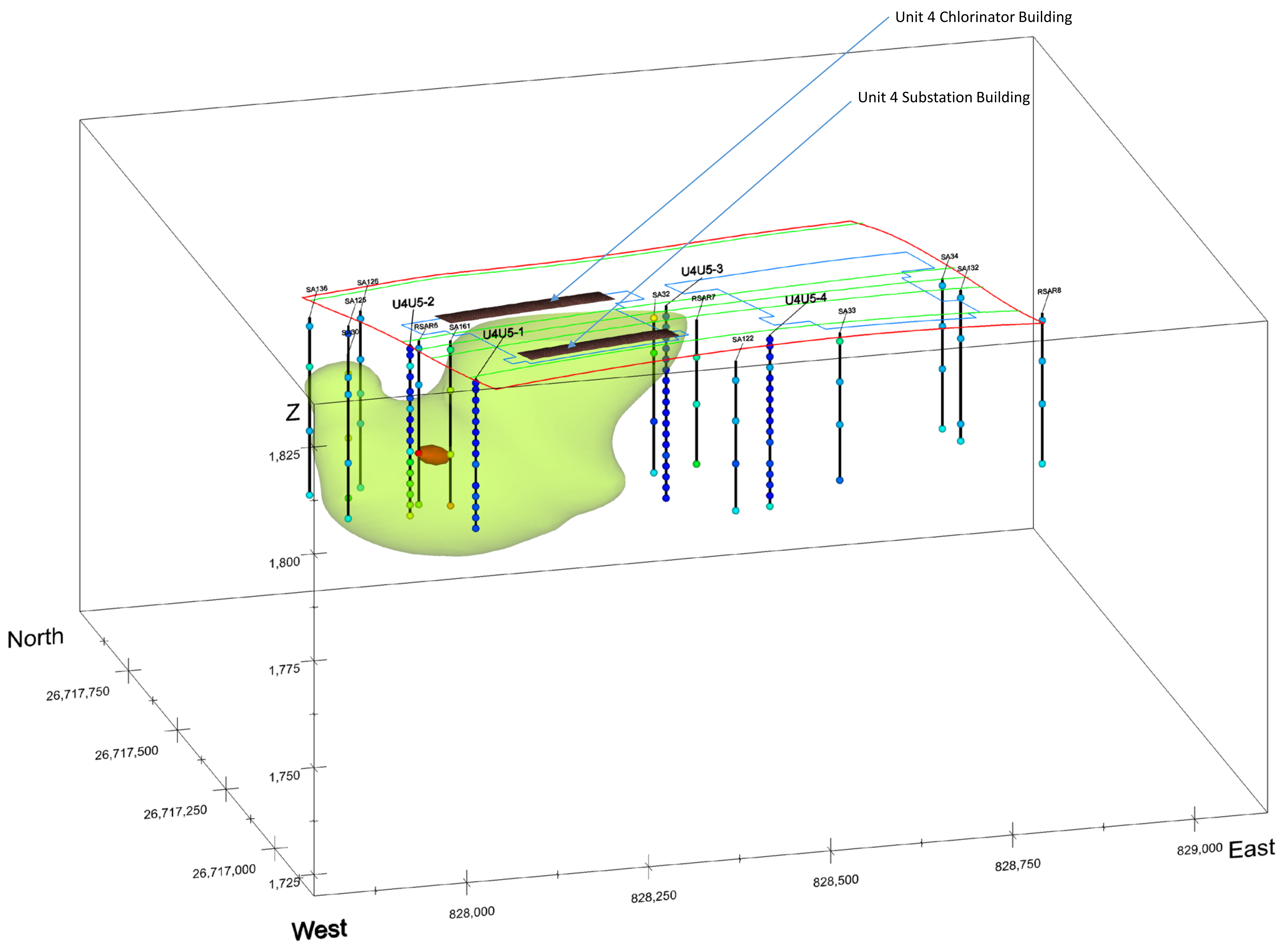

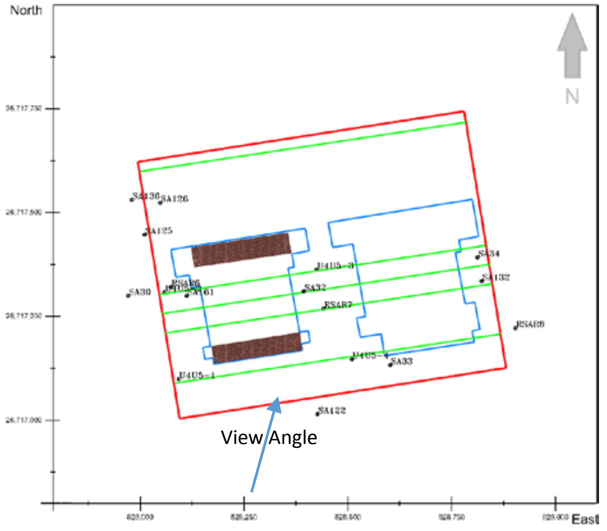

Concentration Scale

- 36.4 mg/kg
- 25.0 mg/kg
- 16.0 mg/kg
- 10.0 mg/kg
- 6.3 mg/kg
- 4.0 mg/kg
- 2.5 mg/kg
- 1.6 mg/kg
- 1.0 mg/kg
- 0.63 mg/kg
- 0.40 mg/kg
- 0.25 mg/kg
- 0.16 mg/kg

Mobilization 1
Maximum is 7.6

LBCL = 2

Proposed Transects

Investigation Area

Building Outline

U4U5-4 Boring Trace and Name

● Soil Sample Location

Notes:
Vertical Exaggeration: 6:1 (vertical:horizontal)
Oblique View to the Northeast, Azimuth 19^0 from Horizontal
Major Tick Mark Spacing 250 feet
Historic and First Mobilization 1 Data Used
Iso-Concentration Shell for 2 mg/kg Plume is Translucent
LBCL: Leaching-based Basic Comparison Level
mg/kg: milligram per kilogram

TITLE:
Hexavalent Chromium Interpolation in Soil

LOCATION:
Nevada Environmental Response Trust
Henderson, Nevada

TETRA TECH

APPROVED	JW	FIGURE
DRAFTED	EBD	11
PROJECT#	117-0504158	
DATE	2-22-2016	

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Attachment A
Lithologic Borehole Logs

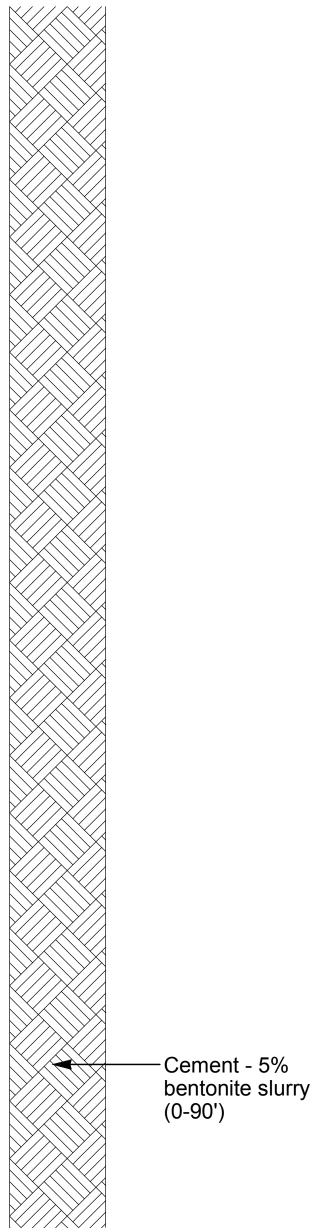
TETRA TECH, INC.

WELL CONSTRUCTION LOG

PROJECT NUMBER 114-520225-2015-M02.GEO-M02
BORING/WELL NUMBER U4U5-1
PROJECT NAME Unit 4 and Unit 5 Source Area Investigation
DATE DRILLING BEGAN 10/28/2015
LOCATION Tronox, Henderson, Nevada
DATE DRILLING ENDED 10/30/2015
DRILLING METHOD Sonic Drilling, 6" drill bit
NORTHING 26717146.8900
SAMPLING METHOD Core Barrel
EASTING 828509.4810
DEPTH TO SATURATED SOIL (ft) 37
GROUND SURFACE ELEVATION (ft, MSL) 1812.679
STATIC WATER DEPTH (ft) 39
TOC ELEVATION (ft, MSL) NA
LOGGED BY James Walker
CASING DIAMETER/TYPE Temporary 2" / Sch. 40 PVC
REMARKS Temporary wells installed to 45', 70', and 90' bgs.

PID (ppm)	RECOVERY (ft)	DEPTH (ft. BGL)	U.S.C.S.	GRAPHIC LOG	LITHOLOGIC DESCRIPTION (percent gravel, sand, silt, clay) (percent coarse, medium, fine sand)
					0-0.5' **ASPHALT**
0.5 0.4 0.4		5	SM		0.5-7.5' **SILTY SAND**: Yellowish brown (10YR5/4); (10,60,30,0); (0,60,40); Subangular-subrounded grains; Medium dense; No plasticity; Dry; Flecks of red paint. Below 5' - Dark yellowish brown (10YR4/4); (10,75,15,0); (20,60,20); Poorly graded sand; Rounded-subangular grains; Medium dense; Damp (from hydrovac).
0.9			SM		7.5-10' **SILTY SAND with GRAVEL**: Dark yellowish brown (10YR3/4); (15,60,20,5); (20,60,20); Gravel, sand, and silt mixture; Rounded-subangular grains; No plasticity; Loose.
1.6		10	SM		10-12' **SILTY SAND**: Dark yellowish brown (10YR4/4); (5,55,40,0); (10,40,50); Rounded-subrounded grains; No plasticity; Loose.
0.4			SM		12-14' **SILTY SAND with GRAVEL**: Light brown (7YR6/3); (30,40,30,0); (20,40,40); Coarse gravel; Subrounded-subangular.
			ML		14-15' **SANDY SILT**: Yellowish brown (10YR5/4); (0,35,65,0); (15,30,55); Subrounded-rounded; No plasticity; Loose; Slightly moist.
0.4		15	SM		15-16' **SILTY SAND**: Pinkish gray (7.5YR7/2); (10,55,35,0); (10,40,50); Medium-coarse gravel; Moderately hard; Dry; Crushed caliche; Bedding visible in gravel.
			ML		16-17' **SANDY SILT**: Dark yellowish brown (10YR3/6); (5,30,65,0); (0,20,80); No plasticity; Hard silt; Slightly moist.
0.5			SM		17-19' **SILTY SAND**: Pinkish gray (7.5YR6/2); (5,55,40,0); (15,35,50); Angular-subrounded; No plasticity; Loose; Dry.
			ML		19-20' **SILT**: Light yellowish brown (10YR6/4); (0,10,90,0); (0,0,100); Low plasticity; No toughness; Soft; Slightly moist.
1.8 0.9		20	ML		20-25' **SANDY SILT**: Light yellowish brown (10YR6/4); (0,30,70,0); (0,0,100); Low-no plasticity; Soft; No toughness; Slightly moist.
0.6 0.7 0.8 0.6		25 30	ML		25-35' **SILT**: Light yellowish brown (10YR6/4); (0,5,90,5); (0,0,100); No plasticity; No toughness; Very soft; Slightly moist. Below 29' - Stiff; Very moist; Capillary fringe.
0.6		35	ML		35-40' **SILT with GRAVEL**: Light yellowish brown (10YR6/4); (15,10,75,0); (30,30,40); No plasticity; No toughness; Very soft; Saturated. Below 37' - Water.
1.1		40	ML		40-42.5' **SILT**: Light yellowish brown (10YR6/4); (0,5,85,10); (0,0,100); Low plasticity; No toughness; Very soft; Saturated.
1.5 1.8		45			42.5-52.5' **SILT**: Light yellowish brown (10YR6/4); (0,5,95,0); (0,0,100); No plasticity; No toughness; Very soft; Very moist.

WELL DIAGRAM



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TETRA TECH, INC.

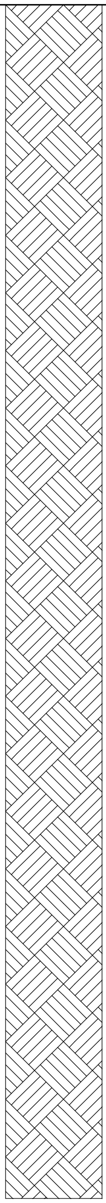
WELL CONSTRUCTION LOG

PROJECT NUMBER 114-520225-2015-M02.GEO-M02
PROJECT NAME Unit 4 and Unit 5 Source Area Investigation
LOCATION Tronox, Henderson, Nevada
DRILLING METHOD Sonic Drilling, 6" drill bit
SAMPLING METHOD Core Barrel
DEPTH TO SATURATED SOIL (ft) 37
STATIC WATER DEPTH (ft) 39
LOGGED BY James Walker
REMARKS Temporary wells installed to 45', 70', and 90' bgs.

BORING/WELL NUMBER U4U5-1
DATE DRILLING BEGAN 10/28/2015
DATE DRILLING ENDED 10/30/2015
NORTHING 26717146.8900
EASTING 828509.4810
GROUND SURFACE ELEVATION (ft, MSL) 1812.679
TOC ELEVATION (ft, MSL) NA
CASING DIAMETER/TYPE Temporary 2" / Sch. 40 PVC

PID (ppm)	RECOVERY (ft)	DEPTH (ft. BGL)	U.S.C.S.	GRAPHIC LOG	LITHOLOGIC DESCRIPTION (percent gravel, sand, silt, clay) (percent coarse, medium, fine sand)
2.0 2.1 1.7		50	ML		Below 46' - Pink (7.5YR7/4); Medium toughness; Intermittent caliche deposits. Below 47.5' - Light yellowish brown (10YR6/4); No toughness.
1.5			SM		52.5-55' **SILTY SAND**: Light yellowish brown (10YR6/4); (2,53,45,0); (10,30,60); No plasticity; No toughness; Loose; Saturated.
1.2		55	ML		55-57.5' **SILT**: Olive brown (2.5Y4/3); (0,5,95,0); (0,0,100); No plasticity; No toughness; Very moist.
0.7 0.8 0.6 0.7		60 65	**CL ML**		57.5-67' **CLAYEY SILT**: Olive brown (2.5Y4/3); (0,10,65,25); (0,0,100); Medium plasticity; Low toughness; Very moist. Below 64' - Saturated.
0.8			ML		67-70' **SILT**: Olive brown (2.5Y4/3); (0,5,90,5); (0,0,100); Medium plasticity; Low toughness; Very moist.
0.6		70	SM		70-72' **SILTY SAND**: Olive brown (2.5Y4/3); (0,70,30,0); (20,60,20); Subrounded-subangular; Loose; Saturated.
0.4			ML		72-75' **SANDY SILT**: Olive brown (2.5Y4/3); (0,30,70,0); (0,20,80); No plasticity; Low toughness; Firm; Moist.
0.6		75	SM		75-77' **SILTY SAND**: Olive brown (2.5Y4/3); (0,60,40,0); (10,40,50); No plasticity; Loose; Moist. Below 76' - Dark brown (10YR3/3); (0,80,20,0); (30,50,20); Subrounded-rounded; Saturated.
0.7 0.5		80	ML		77-81' **SILT with SAND**: Olive brown (2.5Y4/3); (0,15,80,5); (0,20,80); No plasticity; Low toughness; Soft; Moist.
			ML		81-82.5' **SILT with GRAVEL**: Olive brown (2.5Y4/3); (15,10,75,0); (0,20,80); No plasticity; Low toughness; Soft; Moist; Caliche fragments <30mm diameter.
0.4		85 90	ML		82.5-90' **SILT**: Olive brown (2.5Y4/3); (0,5,95,0); (0,0,100); No plasticity; Firm; Slightly moist.

WELL DIAGRAM



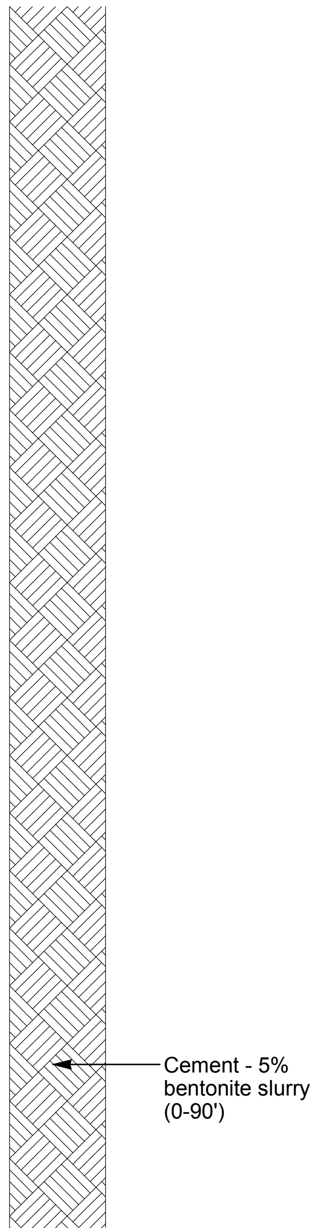
TETRA TECH, INC.

WELL CONSTRUCTION LOG

PROJECT NUMBER 114-520225-2015-M02.GEO-M02
PROJECT NAME Unit 4 and Unit 5 Source Area Investigation
LOCATION Tronox, Henderson, Nevada
DRILLING METHOD Sonic Drilling, 6" drill bit
SAMPLING METHOD Core Barrel
DEPTH TO SATURATED SOIL (ft) 41
STATIC WATER DEPTH (ft) 40
LOGGED BY James Walker and Bryan Shams
BORING/WELL NUMBER U4U5-2
DATE DRILLING BEGAN 10/30/2015
DATE DRILLING ENDED 11/6/2015
NORTHING 26717362.8520
EASTING 828424.7070
GROUND SURFACE ELEVATION (ft, MSL) 1812.72
TOC ELEVATION (ft, MSL) NA
CASING DIAMETER/TYPE Temporary 2" / Sch. 40 PVC
REMARKS Temporary wells installed to 50', 70', and 90' bgs.

PID (ppm)	RECOVERY (ft)	DEPTH (ft. BGL)	U.S.C.S.	GRAPHIC LOG	LITHOLOGIC DESCRIPTION (percent gravel, sand, silt, clay) (percent coarse, medium, fine sand)
					0-0.5' **ASPHALT**
2.2					0.5-22' **SILTY SAND**: Light gray (10YR7/2); (3,70,27,0); (10,60,30); Fine-coarse grained sand; Fine-coarse gravel; Well rounded-subangular; Loose.
0.8					Below 2.5' - Well rounded-angular.
0.8		5			Below 5' - Very dark brown (10YR2/2); (5,70,25,0); (6,55,39); Well rounded-subangular.
0.6					Below 7.5' - Light gray (10YR7/2); (3,70,27,0); (15,50,35); Fine gravel.
		10			
0.5			SM		Below 11' - (3,80,17,0); (5,45,50); Moist from hydrovac.
2.9					Below 12.5' - Light yellowish brown (10YR6/4); (5,65,30,0); (20,50,30); Subrounded-angular; Dry; Gravel <60mm diameter.
2.7		15			Below 15' - (0,60,40,0); (10,40,50); Loose-dense.
0.8					
0.9		20			Below 21' - Dense.
0.6			ML		22-25' **SANDY SILT**: Dark yellowish brown (10YR4/6); (0,40,60,0); (10,40,50); Subrounded-rounded; Slightly moist. Below 24' - 2" Caliche layer: White (10YR8/1); (30,70,0,0); (30,30,40); 60cm cobble present.
0.2		25			
0.4			SM		25-30' **SILTY SAND**: Very pale brown (10YR7/3); (0,80,20,0); (15,30,55); Subrounded-rounded; Loose; Slightly moist. Below 25.5' - Brown (7.5YR5/4); (0,70,30,0); (5,30,65).
					Below 29' - (0,20,80,0); (0,20,80); No plasticity; Medium toughness.
0.4		30			30-49' **SILT with SAND**: Brown (7.5YR5/4); (0,20,80,0); (0,0,100); No plasticity; Soft; Slightly moist.
0.4					
0.3		35			Below 35' - Strong brown (7.5YR4/6); (0,15,85,0); (0,10,90); Low plasticity; Medium toughness.
0.4					
0.3		40	ML		
					Below 41' - Wet.
0.3					
0.3		45			

WELL DIAGRAM



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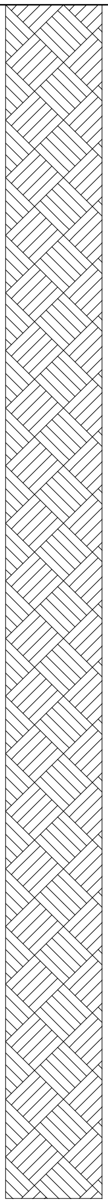
TETRA TECH, INC.

WELL CONSTRUCTION LOG

PROJECT NUMBER 114-520225-2015-M02.GEO-M02
BORING/WELL NUMBER U4U5-2
PROJECT NAME Unit 4 and Unit 5 Source Area Investigation
DATE DRILLING BEGAN 10/30/2015
LOCATION Tronox, Henderson, Nevada
DATE DRILLING ENDED 11/6/2015
DRILLING METHOD Sonic Drilling, 6" drill bit
NORTHING 26717362.8520
SAMPLING METHOD Core Barrel
EASTING 828424.7070
DEPTH TO SATURATED SOIL (ft) 41
GROUND SURFACE ELEVATION (ft, MSL) 1812.72
STATIC WATER DEPTH (ft) 40
TOC ELEVATION (ft, MSL) NA
LOGGED BY James Walker and Bryan Shams
CASING DIAMETER/TYPE Temporary 2" / Sch. 40 PVC
REMARKS Temporary wells installed to 50', 70', and 90' bgs.

PID (ppm)	RECOVERY (ft)	DEPTH (ft. BGL)	U.S.C.S.	LITHOLOGIC DESCRIPTION (percent gravel, sand, silt, clay) (percent coarse, medium, fine sand)
0.2				
0.4		50	GC	49-50' **CLAYEY GRAVEL with SAND**: Strong brown (7.5YR4/6); (50,15,10,25); (30,30,40); Medium plasticity; Soft; Wet; Caliche fragments with clay.
0.5				50-54' **NO RECOVERY**
0.6		55		54-71' **SILT with SAND**: Brown (7.5YR5/4); (0,25,70,5); (0,10,90); Low plasticity; Soft-medium; Wet.
0.9				
0.8		60		Below 60' - (0,35,60,5); (0,20,80); Low-no plasticity; Soft. Below 61' - (5,30,60,5); Caliche fragments <40mm diameter.
1.3			ML	Below 63' - (0,35,60,5); No caliche fragments.
1.4		65		
1.5				
1.7		70		
1.6			ML SM	71-72' **GRAVELLY SILT with SAND**: Light brown (7.5YR6/3); (35,15,40,10); (25,30,45); Very soft; Moist; Gravel composed of caliche fragments <50mm diameter. 72-75' **SILTY SAND**: Light brown (7.5YR6/4); (0,70,30,0); (20,30,50); Subrounded-rounded; Medium dense; Very moist-wet.
1.5		75		75-80' **CLAYEY SILT**: Brown (7.5YR5/4); (0,10,50,40); (0,0,100); Medium-high plasticity; Stiff; Slightly moist-moist.
1.6			**CL ML**	
2.1		80		80-85' **SILTY CLAY**: Brown (7.5YR5/4); (0,0,40,60); Medium-high plasticity; Very stiff; Slightly moist.
1.4			**CL ML**	
1.7		85	ML	85-87.5' **SANDY SILT**: Brown (7.5YR5/4); (0,30,60,10); (0,25,75); Subrounded-rounded; Low plasticity; Stiff; Wet.
1.2			**CL ML**	87.5-90' **CLAYEY SILT**: Brown (7.5YR5/4); (0,10,70,20); (0,0,100); Low-medium plasticity; Stiff-very stiff; Slightly moist-very moist.
0.7		90		

WELL DIAGRAM



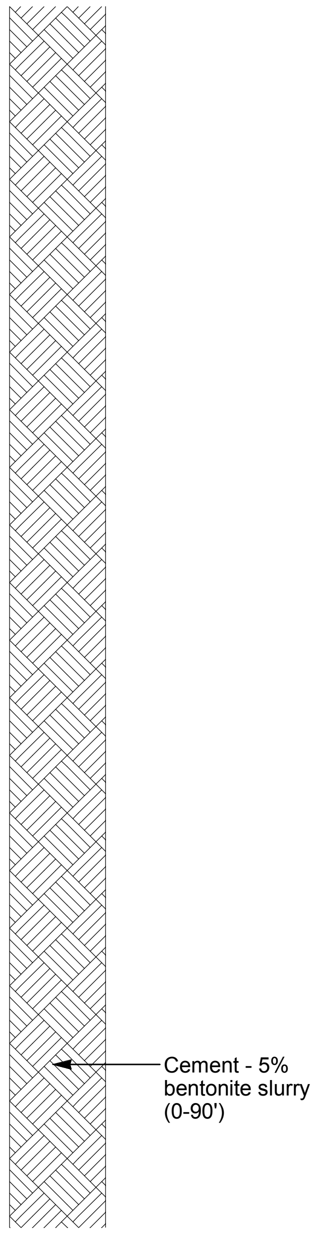
TETRA TECH, INC.

WELL CONSTRUCTION LOG

PROJECT NUMBER 114-520225-2015-M02.GEO-M02
PROJECT NAME Unit 4 and Unit 5 Source Area Investigation
LOCATION Tronox, Henderson, Nevada
DRILLING METHOD Sonic Drilling, 6" drill bit
SAMPLING METHOD Core Barrel
DEPTH TO SATURATED SOIL (ft) 40
STATIC WATER DEPTH (ft) 43
LOGGED BY Bryan Shams
BORING/WELL NUMBER U4U5-3
DATE DRILLING BEGAN 10/29/2015
DATE DRILLING ENDED 11/3/2015
NORTHING 26717307.9700
EASTING 828058.3150
GROUND SURFACE ELEVATION (ft, MSL) 1813.251
TOC ELEVATION (ft, MSL) NA
CASING DIAMETER/TYPE Temporary 2" / Sch. 40 PVC
REMARKS Temporary wells installed to 50', 70', and 90' bgs.

PID (ppm)	RECOVERY (ft)	DEPTH (ft. BGL)	U.S.C.S.	GRAPHIC LOG	LITHOLOGIC DESCRIPTION (percent gravel, sand, silt, clay) (percent coarse, medium, fine sand)
					0-0.5' **ASPHALT**
0.7			**SW SM**		0.5-12.5' **SAND with SILT and GRAVEL**: Yellowish brown (10YR5/4); (15,75,10,0); (20,30,50); Fine-coarse grained sand; Well rounded-subangular; Fine gravel; Loose; Dry.
1.0		5			Below 5' - Dark brown (10YR3/3); (20,70,10,0); (15,35,50).
0.2					
1.5		10			Below 10' - (25,50,25); Moist from hydrovac.
0.6			SM		12.5-20' **SILTY SAND**: Light gray (10YR7/2); (5,80,15,0); (20,35,45); Fine-coarse gravel (5-50mm diameter); Loose.
0.3		15			Below 15' - (5,35,60); Fine gravel (5mm diameter).
0.6					Below 17.5' - (10,30,60); Fine-coarse gravel (5-75mm diameter).
0.6		20	**SW SM**		20-22.5 **SAND with SILT and GRAVEL**: Light gray (10YR7/2); (15,75,10,0); (20,30,50); Fine-coarse grained sand; 80mm diameter cobble present.
0.2			SM		22.5-47.5' **SILTY SAND**: Light gray (10YR7/2); (5,80,15,0); (20,35,45); Fine-coarse gravel (5-40mm diameter); Well rounded-subangular.
0.3		25			
0.2					Below 27.5' - (2,85,13,0); (5,20,75); Stiff.
0.3		30			
3.4					
0.4		35			Below 35' - (5,75,20,0); (10,30,60); Soft. Below 35.5' - 6" Caliche layer; 70mm diameter coarse caliche gravel. Below 36' - No caliche. Below 37.5' - Stiff.
1.0					
0.4		40			Below 40' - (10,75,15,0).
0.5					Below 42.5' - (5,80,15,0).
0.3		45			Below 45' - (7,80,13,0); Subrounded-angular.

WELL DIAGRAM



TT MONITORING WELL_NO BLOW COUNTS/NAMES NERT PHASE I LITHOLOGY LOGS.GPJ LAEWNN01.GDT 2/23/16

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TETRA TECH, INC.

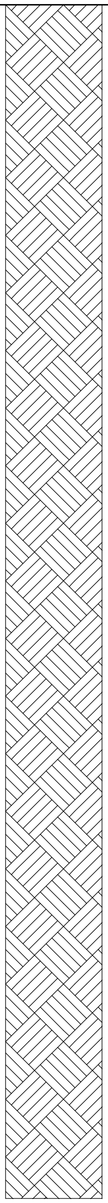
WELL CONSTRUCTION LOG

PROJECT NUMBER 114-520225-2015-M02.GEO-M02
PROJECT NAME Unit 4 and Unit 5 Source Area Investigation
LOCATION Tronox, Henderson, Nevada
DRILLING METHOD Sonic Drilling, 6" drill bit
SAMPLING METHOD Core Barrel
DEPTH TO SATURATED SOIL (ft) 40
STATIC WATER DEPTH (ft) 43
LOGGED BY Bryan Shams
REMARKS Temporary wells installed to 50', 70', and 90' bgs.

BORING/WELL NUMBER U4U5-3
DATE DRILLING BEGAN 10/29/2015
DATE DRILLING ENDED 11/3/2015
NORTHING 26717307.9700
EASTING 828058.3150
GROUND SURFACE ELEVATION (ft, MSL) 1813.251
TOC ELEVATION (ft, MSL) NA
CASING DIAMETER/TYPE Temporary 2" / Sch. 40 PVC

PID (ppm)	RECOVERY (ft)	DEPTH (ft. BGL)	U.S.C.S.	GRAPHIC LOG	LITHOLOGIC DESCRIPTION (percent gravel, sand, silt, clay) (percent coarse, medium, fine sand)
0.2			ML		47.5-57.5' **SILT**: Strong brown (7.5YR4/6); (1,10,75,14); Fine grained sand; Low plasticity.
0.2		50			Below 50' - Moist.
0.2					
0.2		55			Below 55' - (0,10,80,10).
0.1			ML		57.5-62.5' **SILT with SAND**: Strong brown (7.5YR4/6); (0,15,75,10); Low plasticity; Moist.
0.1		60			
0.2			**CL ML**		62.5-70' **CLAYEY SILT**: Strong brown (7.5YR4/6); (0,5,70,25); Fine grained sand; Low plasticity; Moist.
0.1		65			
0.1					
0.1		70	SM		70-71' **SILTY SAND**: Strong brown (7.5YR4/6); (0,80,20,0); Fine-coarse grained sand; Saturated.
0.1			ML		71-77.5' **SILT**: Strong brown (7.5YR4/6); (0,10,90,0); Fine grained sand; Medium toughness.
0.1		75			
0.4			**CL ML**		77.5-80' **CLAYEY SILT**: Strong brown (7.5YR4/6); (0,3,72,25); Low plasticity; Medium toughness; Very moist.
0.3		80	SM		80-81' **SILTY SAND**: Black (7.5YR2.5/1); (0,80,20,0); (10,60,30); Fine-coarse grained sand; Loose; Very moist-saturated.
0.2			**CL ML**		81-85' **CLAYEY SILT**: Strong brown (7.5YR4/6); (0,3,72,25); Low plasticity; Medium toughness; Very moist. Below 82.5' - (0,5,80,15); Moist.
0.4		85	ML		85-90' **SILT**: Strong brown (7.5YR4/6); (0,5,90,5); Low plasticity; Stiff; Moist.
0.3					
0.3		90			

WELL DIAGRAM



TETRA TECH, INC.

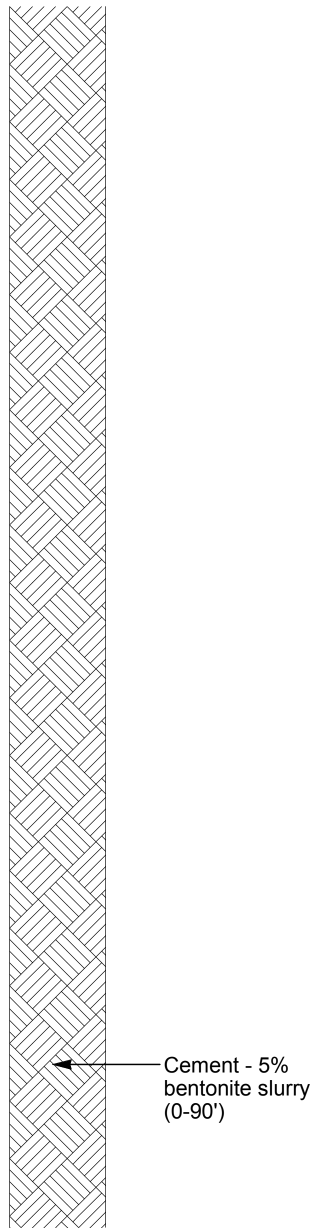
WELL CONSTRUCTION LOG

PROJECT NUMBER 114-520225-2015-M02.GEO-M02
PROJECT NAME Unit 4 and Unit 5 Source Area Investigation
LOCATION Tronox, Henderson, Nevada
DRILLING METHOD Sonic Drilling
SAMPLING METHOD Drive Hammer, 6" drill bit
DEPTH TO SATURATED SOIL (ft) 44.5
STATIC WATER DEPTH (ft) 37.5
LOGGED BY James Walker
REMARKS Temporary wells installed to 45', 70', and 90' bgs.

BORING/WELL NUMBER U4U5-4
DATE DRILLING BEGAN 10/30/2015
DATE DRILLING ENDED 11/4/2015
NORTHING 26717098.7050
EASTING 828092.4900
GROUND SURFACE ELEVATION (ft, MSL) 1813.839
TOC ELEVATION (ft, MSL) NA
CASING DIAMETER/TYPE Temporary 2" / Sch. 40 PVC

PID (ppm)	RECOVERY (ft)	DEPTH (ft. BGL)	U.S.C.S.	GRAPHIC LOG	LITHOLOGIC DESCRIPTION (percent gravel, sand, silt, clay) (percent coarse, medium, fine sand)
0.3			**SW SM**		0.5-2.5' **SAND with SILT**: Pale brown (10YR6/3); (13,80,7,0); (10,30,60); Fine-coarse grained sand; Fine gravel; Well rounded-subangular.
0.3			SM		2.5-5' **SILTY SAND**: Pale brown (10YR6/3); (6,80,14,0); (15,30,55); Fine-coarse grained sand; Fine gravel; Well rounded-subangular; Loose.
0.1 0.2 0.3		5 10	SW		5-12.5' **SAND**: Pale brown (10YR6/3); (11,85,4,0); (15,30,55); Fine-coarse grained sand; Fine-coarse gravel; Well rounded-subangular; Loose. Below 7.5' - (15,35,50). Below 10' - (15,80,5,0); (10,35,55).
0.7 0.7 0.9		15	SM		12.5-20' **SILTY SAND**: Light yellowish brown (10YR6/4); (5,60,35,0); (15,30,55); Subrounded-rounded; No plasticity; Loose; Dry; Gravel <30mm diameter. Below 17.5' - (5,70,25,0); (20,40,40); Gravel <50mm diameter.
1.0		20	**SW SM**		20-22.5' **SAND with SILT and GRAVEL**: Pink (7.5YR7/3); (30,60,10,0); (30,50,20); Angular-subangular; Dry; Evaporite deposits coat gravel.
0.4			SM		22.5-24' **SILTY SAND**: Brown (7YR5/4); (0,70,30,0); (10,30,60); Subrounded-rounded; No plasticity; Slightly moist.
			ML		24-25' **SANDY SILT**: Yellowish brown (10YR5/8); (0,35,65,0); (0,0,100); Low plasticity; Medium toughness; Slightly moist.
0.4 0.3		25			25-29' **NO RECOVERY**
			ML		29-30' **SILT**: Yellowish brown (10YR5/8); (0,5,95,0); (0,0,100); No plasticity; Medium toughness; Slightly moist.
0.5 0.5		30	ML		30-35' **SILT with SAND**: Yellowish brown (10YR5/8); (0,25,75,0); (20,20,60); Soft; Slightly moist. Below 33' - (0,20,80,0); (0,20,80); No plasticity; Medium toughness.
0.4 0.5 0.4		35 40	SM		35-42' **SILTY SAND**: Yellowish brown (10YR5/8); (5,60,35,0); (35,40,25); Subrounded-subangular; Loose; Slightly moist; Gravel <20mm diameter. Below40' - Gravel <50mm diameter.
0.5			ML		42-44.5' **SANDY SILT**: Yellowish brown (10YR5/8); (0,30,70,0); (0,30,70); Soft; Very moist.
0.4		45	SM		44.5-45' **SILTY SAND**: Dark brown (10YR3/3); (0,65,35,0); (30,40,30);

WELL DIAGRAM



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TETRA TECH, INC.

WELL CONSTRUCTION LOG

PROJECT NUMBER 114-520225-2015-M02.GEO-M02
PROJECT NAME Unit 4 and Unit 5 Source Area Investigation
LOCATION Tronox, Henderson, Nevada
DRILLING METHOD Sonic Drilling
SAMPLING METHOD Drive Hammer, 6" drill bit
DEPTH TO SATURATED SOIL (ft) 44.5
STATIC WATER DEPTH (ft) 37.5
LOGGED BY James Walker
REMARKS Temporary wells installed to 45', 70', and 90' bgs.

BORING/WELL NUMBER U4U5-4
DATE DRILLING BEGAN 10/30/2015
DATE DRILLING ENDED 11/4/2015
NORTHING 26717098.7050
EASTING 828092.4900
GROUND SURFACE ELEVATION (ft, MSL) 1813.839
TOC ELEVATION (ft, MSL) NA
CASING DIAMETER/TYPE Temporary 2" / Sch. 40 PVC

PID (ppm)	RECOVERY (ft)	DEPTH (ft. BGL)	U.S.C.S.	GRAPHIC LOG	LITHOLOGIC DESCRIPTION (percent gravel, sand, silt, clay) (percent coarse, medium, fine sand)
					Subrounded-subangular; Loose-medium dense; Saturated.
1.2 0.8 1.1		50	CL ML		45-55' **CLAYEY SILT**: Dark yellowish brown (10YR4/6); (0,5,50,45); (0,0,100); Medium plasticity; Medium-soft; Slightly moist. Below 49' - Caliche fragments <30mm diameter. Below 52' - No caliche fragments.
0.8		55	ML		55-57' **SANDY SILT**: Dark yellowish brown (10YR4/6); (0,30,70,0); (10,40,50); No plasticity; Soft; Slightly moist.
0.7			SM		57-59' **SILTY SAND**: Dark yellowish brown (10YR4/6); (5,55,40,0); (20,40,40); No plasticity; Loose; Saturated; Caliche fragments <20mm diameter.
0.8		60	ML		59-60' **SANDY SILT**: Dark yellowish brown (10YR4/4); (0,35,65,0); (5,30,65); Stiff; Slightly moist.
			ML		60-61' **SILT**: Dark yellowish brown (10YR4/4); (0,5,95,0); (0,0,100); Stiff; Slightly moist.
0.8 1.0 0.9		65	ML		61-69.5' **SILT with SAND**: Dark yellowish brown (10YR4/4); (5,20,75,0); (0,20,80); Loose; Saturated; Gravel composed of caliche fragments <20mm in diameter. Below 63' - Very moist.
0.7 0.4 0.4 0.9		70 75	SM		69.5-78' **SILTY SAND**: Dark yellowish brown (10YR4/4); (0,70,30,0); (20,70,10); Subrounded-subangular; Medium dense; Saturated.
0.9		80	CL ML		78-81' **CLAYEY SILT**: Pale yellowish brown (10YTR4/4); (0,10,60,30); (0,0,100); Stiff; Slightly moist.
0.7			SM		81-83' **SILTY SAND**: Pale yellowish brown (10YR4/4); (0,60,30,10); (0,20,80); Rounded-subrounded; Medium dense; Saturated.
0.9 0.9 0.9		85 90	CL ML		83-90' **CLAYEY SILT**: Pale yellowish brown (10YTR4/4); (0,10,60,30); (0,0,100); Stiff; Slightly moist.

WELL DIAGRAM