Preliminary Environmental Assessment

Compton High School Reconstruction Project
601 South Acacia Avenue and
301 to 339 West Alondra Boulevard
Compton, California

Compton Unified School District

429 South Oleander Street | Compton, California 90220

April 30, 2020 | Project No. 210886001











Geotechnical | Environmental | Construction Inspection & Testing | Forensic Engineering & Expert Witness

Geophysics | Engineering Geology | Laboratory Testing | Industrial Hygiene | Occupational Safety | Air Quality | GIS





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No. 3489

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1 INTRODUCTION

This report is the Preliminary Environmental Assessment (PEA) for the Compton High School Reconstruction Project located at 601 South Acacia Avenue and 301 to 339 West Alondra Boulevard in the city of Compton, Los Angeles County, California (hereinafter referred to as the site; Figure 1) and is being submitted to the Department of Toxic Substances Control (DTSC) by Ninyo & Moore on behalf of the Compton Unified School District (hereinafter referred to as the District).

The site consists of 12 parcels and totals approximately 43 acres. The site is located at 601 South Acacia Avenue and 301 to 339 West Alondra Boulevard in Compton, California. The site is bound by Compton Creek to the west, Alondra Boulevard to the south, Acacia Avenue to the East, and by West Myrrh Street and residential properties to the north (Figure 2). The following Table 1 provides the current site addresses, assessor parcel numbers (APNs), and ownership information for the site.

Table 1 – Site Parcel Location and Identification			
APN	Address	Acres	Property Owners
6161-020-900	601 South Acacia Avenue	25.44	Compton Unified School District
6160-005-901	601 South Acacia Avenue	15.96	Compton Unified School District
6160-006-001	339 West Alondra Boulevard	0.19	Compton Unified School District
6160-006-002	333 West Alondra Boulevard	0.2	Compton Unified School District
6160-006-003	329 West Alondra Boulevard	0.1	Compton Unified School District
6160-006-004	325 West Alondra Boulevard	0.11	Compton Unified School District
6160-006-005	321 West Alondra Boulevard	0.11	Compton Unified School District
6160-006-006	317 West Alondra Boulevard	0.11	Compton Unified School District
6160-006-007	313 West Alondra Boulevard	0.12	Tejeda, Jose Luis
6160-006-008	309 West Alondra Boulevard	0.12	Garavito, Rudy
6160-006-009	305 West Alondra Boulevard	0.12	Garavito, Rudy
6160-006-010	301 West Alondra Boulevard	0.12	Berry, Melanie

Based on the review of historical records included in the site Phase I Environmental Site Assessments (ESAs, Section 3.1), the portion of the site included in the Compton High School property was developed with residential structures by 1884. Compton Union High School was developed on the eastern parcel by 1907. The school property was expanded and identified as Compton Junior College by the late 1930s. By the 1950s, the school was expanded again to its current footprint and reported as Compton Senior High (Converse, 2018). Properties to the south of Compton High School along West Alondra Boulevard were developed with several of the current residential structures by 1953, and the structures were in their current configuration by 2009. The property at 339 West Alondra was occupied by various gasoline service stations, automotive repair shops, and car wash facilities from 1938 to 2018, when structures at the property were removed (SCS, 2017i).

2 PRELIMINARY ENVIRONMENTAL ASSESSMENT OBJECTIVES

According to Education Code section 17213.1, a determination of no further action must be obtained from the DTSC before a new school site or an addition is approved for acquisition and/or construction by a school district. The District entered into a DTSC Environmental Oversight Agreement (Section 3.2) for oversight review and concurrence during further investigation of the recognized environmental conditions (RECs) for the site as reported in SCS' Phase I ESAs dated December 2, 2017, and Converse Consultant's (Converse's) Phase I ESA dated January 3, 2018 (Section 3.1). DTSC oversight is to ensure that the PEA is being conducted in accordance with the DTSC's PEA Guidance Manual, dated January 1994 (Interim Final – Revised October 2015) and subsequent DTSC guidelines. The objectives of the PEA are:

- Evaluating historical information for indications of the past use, storage, disposal, or release
 of hazardous wastes/substances at the site.
- Establishing, through a field sampling and analysis program, the nature of chemicals of
 potential concern (COPCs) that may be present in the soil, soil vapor, or groundwater at
 the site, their concentrations, and general extent.
- Estimating the potential threat to public health and/or the environment posed by COPCs at the site using a residential land-use scenario.

Based on information developed during the PEA and the conservative human and ecological risk evaluation, DTSC will then make an informed decision regarding potential risks posed by the site. Possible outcomes of the PEA decision include: the requirement for further assessment through the Remedial Investigation/Feasibility Study process if the site is found to be significantly affected by hazardous substances release(s); the need to perform a "Removal Action" if localized impacts by hazardous substances release(s) are found; and issuance of a "No Further Action" finding if the site is found not to be significantly affected, and risks to human health and the environment are found to be within acceptable levels based on the conservative screening level risk assessment.

3 BACKGROUND RESEARCH

Previous environmental investigations were reviewed as part of the background research for the development of this PEA.

3.1 Previous Environmental Evaluations

Previous environmental evaluations conducted for the site include SCS Engineers' (SCS) 2017 Phase I ESAs for properties adjoining Compton High School to the south, Converse's 2018 Phase I ESA for Compton High School, and SCS's 2018 Phase II ESA for the former El Patron Car Wash (339 West Alondra Boulevard adjoining Compton High School to the south). The

Phase I ESAs presented current and past land uses and practices that may have involved the handling, use, storage, and/or disposal of hazardous substances or wastes. The Phase Is were conducted in accordance with ASTM International (ASTM) Standard Practice for ESAs on Commercial Real Estate E1527-13 and federal guidelines for All Appropriate Inquiry (AAI). The Phase II ESA presented the results of an evaluation for the presence and general location of COPCs at the former car wash property.

3.1.1 Phase I ESAs – 301 to 339 West Alondra Boulevard

On behalf of the District, SCS prepared 10 Phase I ESAs, all dated December 21, 2017, for the site parcels along West Alondra Boulevard, which were planned for purchase to expanding the Compton High School campus. The Phase I ESAs were performed in accordance with the ASTM International, Standard Practice for Environmental Site Assessment: Phase I Environmental Site Assessment Process Designation E 1527-13.

The following sections summarize the results of the Phase I ESAs.

301, 305, and 309 West Alondra Boulevard – Multi-Family Residences

These properties were each developed with a one-story, four-unit apartment complex and a four-car garage. The properties were undeveloped from 1896 to 1924. The site address 309 West Alondra was occupied by a cabinet shop in 1924. A residential structure was developed on each property by 1925, and each structure was redeveloped with an apartment complex by 1953. RECs were not reported for the properties (SCS, 2017a, 2107b, 2017c).

313 and 317 West Alondra Boulevard – Multi-Family Residences

The site addresses 313 and 317 West Alondra Boulevard were developed with a one-story, four-unit apartment complex, and a one-story, six-unit apartment complex, respectively, each with a four-car garage. The properties were undeveloped from 1896 and developed with the apartment complexes by 1953. RECs were not reported for the properties (SCS, 2017d, 2017e).

321 West Alondra Boulevard – Single-Family Residence

The site address 321 West Alondra Boulevard was developed with a one-story, single-family residence. The property was undeveloped from 1896 to 1928, when it was developed as a residence. RECs were not reported for the property (SCS, 2017f).

325 West Alondra Boulevard - Multi-Family Residence

The site address 325 West Alondra Boulevard was developed with a one-story, three-unit apartment complex and a three-car garage. The property was undeveloped from 1896 and

developed with apartment complexes by 1963. RECs were not reported for the property (SCS, 2017g).

329 and 333 West Alondra Boulevard - Parking Lot and Associated Church

The site address 329 West Alondra Boulevard was developed as a parking lot associated with the church building located at 333 West Alondra Boulevard. Both parcels were undeveloped from 1896 to 1943, when 333 West Alondra Boulevard was developed as a church, and 329 West Alondra Boulevard was developed with a residential structure. The residential structure was removed by 2001. The 329 West Alondra Boulevard parcels were redeveloped as a parking lot by 2009. RECs were not reported for the properties (SCS, 2017h, 2017i).

339 West Alondra Boulevard – El Patron Car Wash

The site address 339 West Alondra Boulevard was undeveloped from 1896 to 1925. A residential structure was developed on the property by 1928, with an additional residence and service station developed on the property by 1938. By 1954, the residence was demolished, the service station relocated, and a bathroom structure was developed on the property. A café on the property was demolished in 1955 and replaced by a service station in 1958. By 1964, the property was developed with a one-story car wash building, detached canopy, and parking lot, which were demolished and removed in 2018. The following RECs were reported for the property (SCS, 2017j):

- The former service stations at the property were considered RECs;
- Based on the construction date of buildings on the property circa 1964, asbestoscontaining materials (ACMs) and lead-based paints (LBPs) were likely present; and
- SCS recommended further investigation to evaluate the potential environmental impact of the site by past uses (Section 3.1.3).

3.1.2 Phase I ESA – Compton High School

On behalf of the District, Converse conducted a Phase I ESA of the Compton High School campus. The Phase I ESA was performed in accordance with the ASTM International, Standard Practice for Environmental Site Assessment: Phase I Environmental Site Assessment Process Designation E 527-3.

According to Converse, the following RECs were currently or historically located on-site or in the site vicinity:

 The historical use of the former Manual Arts Building as a machine shop, auto repair shop, and carpentry shop;

- Potential LBP residues from structures; and
- Potential termiticides near structures.

Converse recommended further investigation at the former Manual Arts Building, the El Patron Car Wash adjoining the high school to the south, and around buildings on the school property to evaluate the potential presence of COPCs associated with the reported RECs (Converse, 2018).

3.1.3 Phase II ESA – 339 West Alondra Boulevard

SCS conducted a Phase II ESA of the El Patron Car Wash adjoining Compton High School to the south in order to evaluate the presence of COPCs at the property based on the following reported RECs:

- Evidence of two former hydraulic lifts without a record of an investigation of release at the property;
- The potential presence of LBP residues near structures built prior to 1980;
- The presence of clarifiers currently on the property for the existing car wash facility; and
- The deficiency in previous investigations associated with the removal of seven USTs at
 the property, including the lack of record as to the removal of piping associated with the
 USTs and failure to sample beneath piping and former dispenser locations. Additionally,
 some analyses required for a No-Further-Action designation were not performed at the
 time of the tank removals.

The Phase II ESA consisted of advancing 18 soil borings to approximately 20 feet below ground surface (bgs), with soil samples collected at various depths from 1 to 20 feet in each boring. Samples collected at 1 foot bgs were analyzed for Title 22 Metals in accordance with United States Environmental Protection Agency (EPA) Method 6010B/7471A. Deeper samples were analyzed for total petroleum hydrocarbons (TPHs) and volatile organic compounds (VOCs) in accordance with EPA Methods 8015B/5035 and 8260B/5035, respectively. Soil vapor probes were installed at approximately 5 feet bgs in nine locations on the site. At three of these locations, soil vapor probes were also installed at 15 feet bgs. Based on the analytical results, SCS concluded:

- Detected metals in soil samples collected from a depth of 1-foot bgs were considered normal background levels for California soils.
- Elevated concentrations of TPHs and VOCs were encountered in soil samples, as follows:

- In boring B2 at 8 feet bgs, soil analyses resulted in a benzene concentration of 57.4 micrograms per kilogram (μg/kg), above the Los Angeles Regional Water Quality Control Board (RWQCB) soil screening level (SSL) of 18 μg/kg.
- 10-foot samples from borings B18 and B19 resulted in benzene concentrations of 26.2 μg/kg and 20.6 μg/kg, respectively.
- 15 and 20-foot samples from boring B6 resulted in elevated concentrations of ethylbenzene, total xylenes, n-butylbenzene, sec-butylbenzene, 1,2,4trimethylbenzene, 1,3,5-trimethylbenzene, isopropyltoluene, n-propylbenzene, and/or naphthalene.
- Ethylbenzene was detected in five soil vapor samples collected at 5 feet bgs at concentrations ranging from 0.75 to 5.9 micrograms per liter (µg/l). Detections of VOCs in soil vapor were below the DTSC future commercial/industrial recommended soil vapor screening levels. Benzene was detected in soil vapor well SV2 at 15 feet bgs at a concentration of 0.10 µg/l.

SCS recommended additional soil investigation to evaluate the extent of COPC-impacted soil at the property (SCS, 2018).

3.2 DTSC Environmental Oversight Agreement

DTSC prepared an Agreement to oversee the District's performance of the PEA on September 18, 2018 (DTSC, 2018a). The purpose of the Agreement was to establish DTSC's oversight of the District's PEA activities and to specify the financial obligation to the DTSC for services provided. PEA activities were designed to evaluate the presence and extent of hazardous substances at the site as a result of releases from past or current hazardous material or hazardous waste management practices. Site impacts reported in the Agreement included LBP, organochlorine pesticides (OCPs), TPHs, and VOCs in soil at the site and VOCs in soil vapor at the former car wash location.

4 GEOLOGY AND HYDROLOGY

The following sections provide a description of the site geology and hydrology.

4.1 Geology

The site is relatively flat at an elevation of approximately 60 feet above mean sea level (MSL) with surface topography sloping towards the southeast (United States Geological Survey [USGS], US Topo 7.5-Minute South Gate Quadrangle Map, 2018). The site is underlain by marine and non-marine (continental) sediments of the Pleistocene age containing older alluvium, lake, playa and deposits (Division of Mines and Geology, Geologic Map of California, 2010).

4.2 Site Hydrology

The following sections discuss the site hydrology in terms of both surface waters and groundwater.

4.2.1 Surface Waters

Based on information obtained from the United States Fish and Wildlife Service webpage (http://www.fws.gov/wetlands/data/Mapper.html), Compton Creek adjoins the site to the west. Other natural surface water bodies, including ponds, streams, or other bodies of water, are not shown within the site vicinity.

4.2.2 Groundwater

The nearest groundwater well to the site is located on the central portion of the site on the western parcel. Los Angeles County, Department of Public Works (DPW) well number 871E was last measured on April 25, 2003. At that time, the depth to groundwater was recorded at 99.30 feet bgs. The surface elevation was recorded at -28.20 feet and flows in a southeasterly direction. Groundwater was encountered during this PEA at approximately 40 feet bgs.

5 FIELD SAMPLING PLAN

Field sampling activities were performed in general accordance with the sampling plan presented in the PEA work plan (Ninyo and Moore, 2019). The PEA work plan was prepared in accordance with decisions made during the PEA scoping meeting held on January 11, 2019, and was attended by representatives from the District, the District's counsel, DTSC, and Ninyo & Moore. The PEA Scoping Meeting included a site walkthrough where sample locations were selected by DTSC representatives. The PEA work plan was reviewed and approved by DTSC on April 9, 2019 (Appendix C). The strategy used to design the initial field sampling plan was based on the areas of concern (AOCs) described in Table 2. Sampling locations are shown on Figures 3 through 7B.

Table 2 – Initial Soil Sampling Strategy			
Soil Boring Locations	Rationale	Sample Depths (feet bgs)	Specified Analysis
AOC1-W-B1 to B48	Assess potential impacts in shallow soil from LBP and OCPs around the site buildings.	0.5, 1.5, & 2.5	Lead and OCPs
AOC1-E-B1 to B42	Assess potential impacts in shallow soil from LBP and OCPs around the site buildings.	0.5, 1.5, & 2.5	Lead and OCPs
AOC2-B1 and B2	Assess potential impacts from the UST in the Administration Building basement.	5, 10, and 15	Title 22 Metals, TPHs, and VOCs
AOC3-B1 to B5	Assess potential impacts from former auto repair and machine shop.	5, 10, 15, and 20	Title 22 Metals, TPHs, and VOCs
AOC4-B2, B6, B18, B19	Assess potential impacts from former USTs and clarifiers at the former car wash.	5, 10, 15, and 20	Title 22 Metals, TPHs, and VOCs

Table 2 – Initial Soil Sampling Strategy				
Soil Boring Locations	Rationale	Sample Depths (feet bgs)	Specified Analysis	
AOC5-B1 to B44	Assess potential impacts in shallow soil from LBP and OCPs around the site buildings.	0.5, 1.5, & 2.5	Lead and OCPs	
Duplicate samples were collected Equipment blanks were collected AOC – area of concern bgs – below ground surface LBP – lead-based paint OCPs – organochlorine pesticit TPHs – total petroleum hydroca UST – underground storage tar VOCs – volatile organic compo	ed each day for each test method and sampling technique des arbons nk			

5.1 Objectives

The objectives of the field sampling plan were to:

- Evaluate on-site sources of suspected impact (from AOCs identified during the evaluation) in soil, soil vapor, and/or groundwater beneath the site.
- Evaluate the vertical and lateral extent of on-site COPCs.

5.2 Sample Identification

Boring locations were identified, referencing the AOC that they are targeting. Borings were identified with the letter 'B' followed by a unique number for each boring. For example, a boring labeled 'AOC2-B1' is a boring within AOC2. Soil sample identifications consisted of the boring identification followed by the depth of the sample collected. For example, the sample 'AOC1-B1-2' indicates a soil sample collected at an interval of 1.5 to 2 feet below ground surface (bgs). Borings advanced for soil vapor sampling only (if any) were identified with the AOC followed by 'SV,' followed by a unique number. For example, a boring for soil vapor sampling only would be labeled 'AOC3-SV1' and would be a soil vapor boring within AOC3. Soil vapor samples collected from these borings were labeled as the boring identification followed by the sample depth. For example, the sample 'AOC3-SV1-5.0' indicates a soil vapor sample collected at an interval of 4.5 to 5.0 feet bgs.

Soil vapor samples collected from soil borings were labeled with their AOC, the letters "SV," their boring number, and sample depth (AOC4-SV6-N1-5').

Step-out borings were identified using the boring identification of the initial boring, followed by a directional letter. For example, AOC5-B5S would be a step out boring to the south of boring AOC5-B5, and AOC5-B5SS would be a step out boring to the south of boring AOC5-B5S. Generally, for ease of viewing the step-out borings have not been plotted on the figures.

Soil samples collected from AOC4 were named according to their AOC followed by their original SCS boring number, followed by their compass direction from the original boring and depth of the sample (e.g., AOC4-B2-W1-5' refers to the step-out boring west of the original sampling location, SCS's B2).

5.3 Sampling Activities

On April 19, 2019, Ninyo & Moore notified DTSC that sampling would begin on April 29, 2019.

Initial Sampling Activities

From April 29, 2019 through May 9, 2019, under observation by Ninyo & Moore, Strongarm Environmental (Strongarm) of Norwalk, California, advanced 45 soil borings by hand auger and direct-push rig at the site. Soil samples were collected and transported to Enthalpy Analytical, Inc. (Enthalpy) for analysis, with select soil samples analyzed for lead, Title 22 Metals, OCPs, TPHs, and VOCs in accordance with EPA Methods 6010B, 6010B/7471A, 8081A, 8015B/5035, and 8260B/5035, respectively.

Temporary nested soil vapor probes were also installed in nine borings and allowed to equilibrate for at least 48 hours before collected soil vapor samples on May 14, 2019. Soil vapor samples were analyzed for VOCs and gasoline range organics (GRO) by EPA Method 8260B by Jones Environmental, Inc. (Jones).

Due to access issues, soil sampling was not conducted at the four residential properties at 301 to 313 West Alondra Boulevard during the initial PEA field sampling activities. They were conducted at a later date once access to the properties was authorized.

Step-Out Boring Field Activities

Laboratory analytical results from the sampling conducted from April 29 through May 14, 2019, indicated the following elevated concentrations:

- Lead in shallow soil around perimeters of several buildings at Compton High School (AOC1) and the accessible residential buildings along West Alondra Boulevard (AOC5).
- TPHs and VOCs in soil and soil vapor in the basement of the administration building (AOC2), former manual arts building (AOC3), and the former car wash facility (AOC4).

Based on these results, in accordance with the approved PEA Work Plan, and discussions with DTSC, Strongarm advanced 139 step-out borings by hand auger and direct-push rig from September 3 through September 13, 2019, under observation of Ninyo & Moore. The step-out borings were advanced in order to evaluate the lateral and vertical extent of lead, TPH, and VOC-

impacted soil and/or soil vapor and to evaluate the potential TPH and VOC impact to groundwater. Soil and groundwater samples collected were transported to Enthalpy for analysis.

Temporary nested soil vapor probes were also installed in 16 borings and allowed to equilibrate for at least 48 hours before collecting soil vapor samples on September 17 through 19, 2019. Soil vapor samples were analyzed by Jones.

Additional Step-Out Boring Field Activities

Laboratory analytical results from the step-out boring sampling conducted from September 3, 2019 through September 19, 2019, indicated additional elevated concentrations of:

- Lead in shallow soil around several perimeters of buildings at Compton High School (AOC1) and the residential buildings along West Alondra Boulevard (AOC5).
- TPHs and VOCs in soil and soil vapor at the former car wash facility (AOC4).

Based on these results, in accordance with the approved PEA Work Plan, and discussions with DTSC, Strongarm advanced 72 more step-out borings by hand auger and direct-push rig from December 5 through December 9, 2019, under observation of Ninyo & Moore. The step-out borings were advanced in order to further evaluate the lateral and vertical extent of lead, TPH, and VOC-impacted soil, soil vapor, and/or groundwater. Soil and groundwater samples collected were transported to Enthalpy for analysis

Temporary nested soil vapor probes were also installed in three borings and allowed to equilibrate for at least 48 hours before collecting soil vapor samples on December 10, 2019. Soil vapor samples were analyzed by Jones.

301 to 313 West Alondra Boulevard Field Sampling Activities

On March 16, 2020, under observation by Ninyo & Moore, Strongarm advanced 18 soil borings by hand auger at the four remaining residential properties at 301, 305, 309, and 313 West Alondra Boulevard. Soil samples were collected and transported to Enthalpy for analysis, with soil samples analyzed for lead and OCPs.

A detailed discussion of field and laboratory data collection activities that addresses these AOCs is presented in the following sections. Boring logs are included as Appendix B. Site photographs are included as Appendix D. Laboratory reports are included as Appendix E.

5.3.1 Shallow Soil Sampling for OCPs and Lead (AOC1 East and West)

From April 29, 2019 through May 9, 2019, shallow soil borings were advanced at 90 locations (AOC1-W-B1 through AOC1-W-B48 and AOC1-E-B1 through AOC1-E-B42) in areas around

site buildings to sample shallow soil for lead and OCPs. Figures 3 through 3C (AOC1 West) and 4 through 4B (AOC1 East) show the approximate locations of borings advanced for initial lead and OCP sample collection around the site buildings.

Soil samples were collected from 0 to 0.5 feet bgs, 1.5 bgs, and 2.5 feet bgs. Soil samples were collected in areas of exposed soil at the base of building walls where OCPs may have been deposited from application of termiticides, or in areas of exposed soil near the buildings perimeter where runoff from rain may have deposited lead from building paint. If exposed soil was not available, boring locations were concrete cored. Samples from up to four borings were homogenized and composited by the analytical laboratory from four sides of the buildings, at two intervals of 0.5 feet and from 2.5 feet bgs. Composite samples (CG1-0.5'/2.5' through CG24-0.5'/2.5') were analyzed for OCPs. Buildings with more than four borings around the perimeter were split into two composite samples.

Individual, discrete soil samples were transported to Enthalpy to be analyzed for lead by EPA Method 6010B. The surficial soil samples were analyzed by the analytical laboratory, while the 1.5- and 2.5-foot soil samples were placed on hold. If a surficial soil sample exceeded the screening level, the 1.5- and subsequently 2.5-foot soil were analyzed for lead, where applicable.

As discussed in Section 5.3, step-out borings were advanced from September 3, 2019 to September 13, 2019 and December 5, 2019 to December 9, 2019, at locations of elevated concentrations of lead detected around each site building in the first round of sampling (Figures 3 through 4B). Step-out borings for lead were advanced to depths of 0.5, 1.5, and 2.5 feet bgs.

5.3.2 Borings for Soil and Soil Vapor for UST at Administration Building (AOC2)

On May 2, 2019, two soil borings (AOC2-B1 and AOC2-B2) were drilled down to approximately 15 feet bgs to evaluate the subsurface in the vicinity of the UST associated with the Administration Building (Figure 5). Boring AOC2-B1 was located southwest of the Administration Building in the vicinity of the UST, and boring AOC2-B2 to the east of the UST, in the basement of the Administration Building. The borings were advanced using a hand auger to 5 feet bgs and direct-push rig to a total depth of up to 15 feet bgs. Boring AOC2-B2 was drilled to approximately 10 feet bgs due to encountered groundwater at approximately 8 feet bgs.

Soil samples were collected at approximately 5, 10, and 15 feet bgs in each boring and were field-screened for VOCs using a calibrated photo-ionization detector (PID). The samples were analyzed for TPH, VOCs, and Title 22 Metals in accordance with EPA Methods 8015B/5035, 8260B/5035, and 6010B/7471A. Where physical signs of contamination were observed, they were noted on the boring logs (Appendix B).

Temporary nested soil gas probes were installed in boring AOC2-B1 at approximately 5 and 11 feet bgs and in boring AOC2-B2 at approximately 7 feet bgs, as shown in Appendix F. Soil vapor samples were collected from each probe and analyzed for VOCs and GRO by EPA Method 8260B using a mobile laboratory operated by Jones.

As discussed in Section 5.3, two step-out borings (AOC2-B2W and AOC2-B2E) were advanced on September 9, 2019, in the basement of the Administration Building due to elevated COPCs encountered in boring AOC2-B2. Boring AOC2-B2W was advanced to groundwater at approximately 8 feet bgs, with the groundwater sample analyzed for TPH and VOCs in accordance with EPA Methods 8015B and 8260B, respectively. Boring AOC2-B2E was advanced to 5 feet bgs, with a temporary soil vapor probe installed at approximately 5 feet bgs (Figure 5).

5.3.3 Borings for Soil and Soil Vapor Near the Former Auto Repair Shop and Machine Shop (AOC3)

On May 2, 2019 and May 6, 2019, five soil borings (AOC3-B1 through AOC3-B5) were drilled down to approximately 20 feet bgs to characterize the extent of contamination from the former auto repair shop and machine shop (Figure 5). The borings were advanced using a hand auger to 5 feet bgs and direct-push rig down to 20 feet bgs. Three of the borings were colocated with borings from AOC1 (AOC1-E-B32/AOC3-B1, AOC1-E-34/AOC3-B2, and AOC1-E-36/AOC3-B3).

Soil samples were collected at approximately 5, 10, 15, and 20 feet bgs from each boring and were field-screened for VOCs using a calibrated PID. The 5- and 15-foot soil samples were analyzed for TPH, VOCs, and Title 22 Metals in accordance with EPA Methods 8015B/5035, 8260B/5035, and 6010B/7471A. Where physical signs of contamination were observed, they were recorded on the boring logs (Appendix B).

Temporary nested soil gas probes were installed in each boring at approximately 5 and 15 feet bgs, as shown in Appendix F. Soil vapor samples were collected from each probe and analyzed for VOCs and GRO by EPA Method 8260B using a mobile laboratory operated by Jones.

As discussed in Section 5.3, eight step-out borings were drilled on September 10, 2019, due to elevated COPCs (TPH and VOCs) encountered in boring AOC3-B1 through B3. The step-out borings were drilled to approximately 20 feet bgs, with temporary nested soil vapor probes installed at approximately 5 and 15 feet bgs (Figure 5).

5.3.4 Borings for Soil and Soil Vapor at the Former Car Wash (AOC4)

From May 6, 2019 through 8, 2019, 15 soil borings and four soil vapor borings (AOC4-SV10 through AOC4–SV13) were drilled down to approximately 20 feet bgs to characterize the extent of contamination from the former detailing area (Figure 6). The borings were advanced using a hand auger to 5 feet bgs and direct-push rig down to 20 feet bgs.

Soil samples were collected at approximately 5, 10, 15, and 20 feet bgs from each boring and were field-screened for VOCs using a calibrated PID. The 5 and 15-foot soil samples were analyzed for TPH, VOCs, and Title 22 Metals using EPA Methods 8015B/5035, 8260B/5035, and 6010B/7471A. Where physical signs of contamination were observed, they were noted on the boring logs (Appendix B).

Temporary nested soil gas probes were installed in the soil vapor borings at approximately 5 and 15 feet bgs, as shown in Appendix F. Soil vapor samples were collected from each probe and analyzed for VOCs and GRO by EPA Method 8260B using a mobile laboratory operated by Jones. Due to tight soil conditions, several soil vapor probes were either installed at different depths or not installed. Vapor probes were installed using modified DTSC guidelines for tight soil by extending length of sand pack in AOC4-SV10, AOC4-SV10N, AOC4-SV10W, AOC4-SV11E, AOC4-SV11S, AOC4-SV12W, AOC4-SV12A, and AOC4-SV13B. Vapor probes were not installed in AOC4-SV10S and AOC4-SV11N.

As discussed in Section 5.3, step-out borings were advanced from September 11, 2019 to September 13, 2019 and December 6, 2019, at locations of elevated concentrations of TPH and VOCs detected in soil and soil vapor in the first-round of sampling. Step-out borings were drilled down to approximately 45 feet bgs, with temporary nested soil vapor probes installed in nine of the borings at approximately 5, 15, and/or 25 feet bgs (Figure 6). Four borings were drilled down to groundwater at approximately 40 feet bgs, with the groundwater samples analyzed for TPH and VOCs using EPA Methods 8015B and 8260B, respectively.

5.3.5 Shallow Soil Sampling for OCPs and Lead (AOC5)

On May 9, 2019, shallow soil borings were drilled at 25 locations (AOC5-B1 through AOC5-B25) in areas around site buildings for lead and OCPs analysis. Figures 7A and 7B show the approximate locations of the borings in the first-round of sampling. As discussed in Section

5.3, soil sampling was not conducted at the four residential properties at 301 to 313 West Alondra Boulevard during the first-round of sampling. Soil sampling at these properties was conducted on March 16, 2020.

Soil samples were collected from surficial soils (0 to 0.5 feet bgs), 1.5 bgs, and 2.5 feet bgs. Soil samples were collected in areas of exposed soil at the base of building walls where OCPs may have been deposited from application of termiticides, or in areas of exposed soil near the buildings perimeter where runoff from rain may have deposited lead from building paint. If exposed soil was not available, boring locations were concrete cored. Samples from up to four borings were homogenized and composited by the analytical laboratory from four sides of the buildings, at two intervals of 0.5 feet and from 2.5 feet bgs. Composite samples (CG25-0.5'/2.5' through CG29-0.5'/2.5') were analyzed for OCPs.

Individual, discrete soil samples were transported to Enthalpy to be analyzed for lead by EPA Method 6010B. The surficial samples were initially analyzed by the analytical laboratory, while the 1.5- and 2.5-foot soil samples were placed on hold. If a surficial soil sample exceeded the screening level, the 1.5- and subsequently 2.5-foot soil were analyzed for lead, where applicable.

As discussed in Section 5.3, step-out borings were drilled from September 6, 2019 to September 9, 2019 and December 5, 2019, at locations of elevated concentrations of lead detected around each site building in the first-round of sampling (Figures 7A and 7B). Step-out borings for lead were drilled down to 2.5 feet bgs.

5.4 Sample Handling

Collected soil, soil vapor, and groundwater samples were all labeled with the project number, sample identification, sample depth, collection date and time, and sampler's initials. Soil and groundwater samples were placed in coolers containing ice and transported under chain-of-custody to Enthalpy, a California-certified environmental laboratory (ELAP Number 2896). Soil vapor samples were analyzed by a mobile laboratory operated by Jones, a California-certified environmental laboratory (ELAP Number 2882).

5.5 Quality Control Samples

Duplicate soil and soil vapor samples were collected at a rate of 10 percent. Duplicate groundwater samples were not collected due to slow groundwater recharge rates. Field equipment was decontaminated using industry standard practices between sample locations and equipment blank samples were collected at the end of each day (Tables 3 through 7). Trip blank

samples were included for analysis on days when soil samples were collected for VOC analysis (Table 5).

5.6 Field Variances

As conditions in the field vary, it became necessary to modify sampling originally contemplated in in PEA Work Plan. When appropriate, the DTSC PM was notified of the modifications, and a verbal approval was obtained before implementing the modifications. The following variances from the PEA Work Plan were made:

- May 2, 2019; Boring AOC2-B2 collapsed at approximately 8 feet bgs after encountering groundwater. One soil vapor probe was installed at 7 feet bgs instead of the projected two soil vapor probes at 5 feet and 15 feet bgs.
- May 14, 2019; Two soil vapor probes from two borings collected on (AOC3-B1 and AOC3-B3, did not have enough flow to collect soil vapor samples (likely due to tight clay soil). These two borings were re-drilled and re-sampled near the existing locations, with precautions taken with the intent to prevent a "no-flow" result from occurring again (e.g., installing probes at different depths or performing alternative sampling methods). GRO/VOC impacts were also observed in some of the probes where the flow was sufficient to collect samples.
- September 10, 2019; Boring AOC3-B3 collapsed at approximately 11 feet bgs after encountering groundwater. One soil vapor probe was installed at 5 feet bgs instead of the projected two soil vapor probes at 5 feet and 15 feet bgs.
- September 17, 2019; Soil vapor probe AOC3-B2-15' encountered low flow, so a Tedlar bag sample was collected instead of a full sample, so that tests could still be run.
- Although collection and analysis of groundwater samples were not included, the PEA Work
 Plan specified collection of duplicate samples at a rate of 10 percent of the sample set.
 However, a duplicate groundwater sample was not collected due to slow groundwater
 recharge rates.

6 INVESTIGATION-DERIVED WASTES

Drill cuttings and decontamination water were stored on-site in a secure area in Department of Transportation approved drums, pending chemical analyses. Based on the analytical results, the drums were transported to an approved disposal facility as non-hazardous waste. Copies of the waste manifests are included in Appendix G. The remaining waste manifests were not available at the time of this report and will be provided separately.

7 RESULTS

The following sections present the results of the PEA. Analytical results are presented in Tables 3 through 9. Laboratory reports are presented in Appendix E. Soils encountered consisted of silty sand, clayey silt, sandy clay, well-graded sand, and poorly graded sand. Groundwater was encountered in AOC2 at approximately 8 feet bgs and in AOC4 at approximately 40 feet bgs. The maximum depth explored at the site was approximately 55 feet bgs. Soil analytical results were

compared to EPA Regional Screening Levels (RSLs) for residential soil (EPA, 2019) and the DTSC Human and Ecological Risk Office (HERO) Human Health Risk Assessment (HHRA) Note 3 screening levels for residential soil (DTSC, 2019c). Groundwater analytical results were compared to the San Francisco Bay Regional Water Quality Control Board (RWQCB) Environmental Screening Levels (ESLs)¹ (San Francisco Bay RWQCB, 2019). Soil vapor analytical results were compared to modified EPA RSLs and DTSC HERO HHRA screening levels for residential soil. EPA RSLs were modified using an attenuation factor of 0.03, and DTSC HERO HHRA screening levels were modified using an attenuation factor of 0.001.

7.1 Shallow Soil Sampling for OCPs and Lead (AOC1 East and West and AOC5)

OCPs (4,4'-DDD, 4,4'-DDE, 4,4'-DDT, chlordane, endrin ketone, and heptachlor epoxide) were reported in several composite soil samples collected from AOC1 East, AOC1 West, and AOC5. OCP concentrations did not exceed their respective screening levels (Table 7).

For AOC1 East and West, concentrations of lead ranged from non-detect to 9,340 mg/kg, with 81 of the surficial soil sample concentrations above the DTSC HERO HHRA screening level of 80 mg/kg. Of the corresponding 1.5-foot soil samples, five sample concentrations were above the screening level. The corresponding 2.5-foot soil samples did not have concentrations above the screening level (Table 4).

For AOC5, concentrations of lead ranged from non-detect to 3,370 mg/kg, with 57 of the surficial soil samples above the DTSC HERO HHRA screening level of 80 mg/kg. Of the corresponding 1.5-foot soil samples subsequently analyzed, eight sample concentrations were above the screening level. The corresponding 2.5-foot soil samples analyzed did not have concentrations above the screening level (Table 4).

7.2 Soil, Groundwater, and Soil Vapor Testing for UST at Administration Building (AOC2)

The following sections discuss the soil, groundwater, and soil vapor analytical results for AOC2.

7.2.1 Soil Analytical Results

Detectable concentrations of several Title 22 Metals were reported in the four soil samples analyzed from AOC2. Detected Title 22 Metals concentrations did not exceed their respective screening levels, with the exception of thallium in several samples (Table 3). The close range of concentrations suggests these detections may reflect background concentrations of

¹ DTSC and RWQCB are implementing state-wide guidelines, and have temporarily defaulted to San Francisco Bay ESLs, which have been used in this PEA.

thallium or somewhat ubiquitous deposition in soil from combustion of heating fuels or petroleum hydrocarbons.

Detectable concentrations of several VOCs were reported in the seven soil samples analyzed from AOC2. Naphthalene exceeded the EPA RSL of 3,800 micrograms per kilogram (μ g/kg) and the DTSC HERO HHRA of 2,000 μ g/kg in sample AOC2-B2-5 at a concentration of 6,000 μ g/kg. The other detected VOC concentrations did not exceed their respective screening levels (Table 5).

Detectable concentrations of TPH as gasoline (TPHg), TPH as diesel (TPHd), and TPH as motor oil (TPHo) were reported in five soil samples analyzed from AOC2. TPHg at a concentration of 210J milligrams per kilogram (mg/kg) and TPHd at a concentration of 202B mg/kg exceeded their respective EPA RSLs in sample AOC2-B2-5. Samples with a "J" flag are estimated values by the laboratory. Samples with a "B" flag indicate the analyte was present in the associated method blank. Other detected TPH concentrations did not exceed their respective levels (Table 6).

7.2.2 Groundwater Analytical Results

Detectable concentrations of VOCs and TPHs were reported in the groundwater sample analyzed from boring AOC2-B2W. The following analytes were above their respective San Francisco Bay RWQCB ESLs

- Benzene at a concentration of 5.2 micrograms per liter (μg/l), above the ESL of 0.42 μg/l.
- Naphthalene at a concentration of 16 μg/l, above the ESL of 0.17 μg/l.
- TPHg at a concentration of 0.27 milligrams per liter (mg/l), above the ESL of 0.1 mg/l.
- TPHd at a concentration of 1.1 mg/l, above the ESL of 0.1 mg/l.

The remaining VOC and TPH concentrations were below their respective ESLs (Table 8).

7.2.3 Soil Vapor Analytical Results

Detectable concentrations of VOCs and gasoline range organics (GRO) were reported in the four soil vapor samples (and two replicates) analyzed from AOC2. The following analytes exceeded their respective modified EPA ESLs and/or DTSC HERO HHRA screening levels for residential air:

Benzene in three samples (and one replicate) at concentrations ranging from 20 to 1,480 micrograms per cubic meter (μg/m³), above the modified EPA RSL of 12 μg/m³.

- Ethylbenzene in two samples (and one replicate) at concentrations ranging from 71 to 285 μg/m³, above the modified EPA RSL of 37 μg/m³.
- GRO in two samples at concentrations of 3,650 and 109,000 μg/m³, above the modified EPA RSL of 1,033 μg/m³.

The remaining VOC concentrations were below their respective modified screening levels (Table 9).

7.3 Soil and Soil Vapor Testing Near the Former Auto Repair Shop and Machine Shop (AOC3)

The following sections discuss the soil and soil vapor analytical results for AOC3.

7.3.1 Soil Analytical Results

Detectable concentrations of several Title 22 Metals were reported in the 10 soil samples analyzed from AOC3. Detected Title 22 Metals concentrations did not exceed their respective screening levels, with the exception of thallium in several samples (Table 3). (See Section 7.2.1.)

Detectable concentrations of several VOCs were reported in the soil samples analyzed from AOC3. The detected VOC concentrations did not exceed their respective screening levels (Table 5).

TPHg was not detected in the soil samples analyzed from AOC3. Detectable concentrations of TPHd and TPHo were reported in several soil samples analyzed from AOC3. Detected TPH concentrations did not exceed their respective levels (Table 6).

7.3.2 Soil Vapor Analytical Results

Detectable concentrations of VOCs and GRO were reported in the four soil vapor samples (and two replicates) analyzed from AOC2. The following analytes exceeded their respective modified EPA ESLs and/or DTSC HERO HHRA screening levels for residential air:

- Benzene in two samples at concentrations of 20 and 93 $\mu g/m^3$, above the modified EPA RSL of 12 $\mu g/m^3$.
- Chloroform in 12 samples at concentrations ranging from 8 to 56 μ g/m³, above the modified EPA RSL of 4 μ g/m³.
- Ethylbenzene in two samples at concentrations of 83 and 226 $\mu g/m^3$, above the modified EPA RSL of 37 $\mu g/m^3$.
- GRO in two samples at concentrations of 3,140 and 10,000 $\mu g/m^3$, above the modified EPA RSL of 1,033 $\mu g/m^3$.

The remaining VOC concentrations were below their respective modified screening levels (Table 9).

7.4 Soil, Groundwater, and Soil Vapor Testing at the Former Car Wash (AOC4)

The following sections discuss the soil, groundwater, and soil vapor analytical results for AOC4.

7.4.1 Soil Analytical Results

Detectable concentrations of several Title 22 Metals were reported in the soil samples analyzed from AOC4. Detected Title 22 Metals concentrations did not exceed their respective screening levels, with the exception of lead in one sample (see below) and thallium in several samples (Table 3). (See Section 7.2.1)

Concentrations of lead ranged from 2.67 to 166 mg/kg, with two of the 5-foot soil samples above the DTSC HERO HHRA screening level of 80 mg/kg. The corresponding 7.5-foot and 10-foot soil samples did not have concentrations above the screening level (Table 4).

Detectable concentrations of several VOCs were reported in the soil samples analyzed from AOC4. The following analytes exceeded their respective EPA ESLs and/or DTSC HERO HHRA screening levels:

- Benzene in 11 samples at concentrations of not detected (ND)<347 to ND<8,333.5 $\mu g/kg$, above the DTSC HERO HHRA of 330 $\mu g/kg$.
- Ethylbenzene in four samples at concentrations ranging from 6,500 to 24,000 μg/kg, above the EPA RSL of 5,800 μg/kg.
- Methylene chloride in one sample at a concentration of ND<8,333.5, above the DTSC HERO HHRA of 2,200 μg/kg.
- Naphthalene in four samples at concentrations ranging from 3,300 to 15,000 μg/kg, above the DTSC HERO HHRA of 2,000 μg/kg.

The remaining VOC concentrations did not exceed their respective screening levels (Table 5).

Detectable concentrations of TPHg, TPHd, and TPHo were reported in several soil samples analyzed from AOC4. TPHg was detected in 19 samples at concentrations ranging from 160 to 3,600 mg/kg, above the EPA RSL of 82 mg/kg. TPHd was detected in six samples at concentrations ranging from 120 to 1,100 mg/kg, above the EPA RSL of 110 mg/kg. Detected concentrations of TPHo did not exceed the screening level (Table 6).

7.4.2 Groundwater Analytical Results

Detectable concentrations of VOCs and TPHs were reported in the groundwater sample analyzed from AOC4. The following analytes were above their respective San Francisco Bay RWQCB ESLs:

- Chloroform in one sample at a concentration of 6.5 μg/l, above the ESL of 0.81 μg/l.
- TPHd in two samples at concentrations of 0.13D1 and 0.79B, D1 mg/l, above the ESL of 0.1 mg/l. Samples with a "B" flag indicate the analyte was present in the associated method blank. Samples with a "D1" flag indicated a lesser amount of sample was used due to insufficient amount of sample supplies.

The remaining VOC and TPH concentrations were below their respective ESLs (Table 8).

7.4.3 Soil Vapor Analytical Results

Detectable concentrations of VOCs and GRO were reported in several soil vapor samples analyzed from AOC2. The following analytes exceeded their respective modified EPA ESLs and/or DTSC HERO HHRA screening levels for residential air:

- Benzene in three samples at concentrations ranging from 143 to 22,800 $\mu g/m^3$, above the modified EPA RSL of 12 $\mu g/m^3$.
- Chloroform in two samples at concentrations of 212 and 295 μ g/m3, above the modified EPA RSL of 4 μ g/m³.
- 1,2-dichloroethane in one sample at a concentration of 74 μ g/m³, above the modified EPA RSL of 3.6 μ g/m³.
- Ethylbenzene in five samples at concentrations ranging from 72 to 305,000 μg/m³, above the modified EPA RSL of 37 μg/m³.
- Isopropylbenzene in one sample at a concentration of 58,200 $\mu g/m^3$, above the modified EPA RSL of 14,000 $\mu g/m^3$.
- 1,2,4-trimethylbenzene in three samples at concentrations ranging from 3,700 to $38,600 \mu g/m^3$, above the modified EPA RSL of 2,100 $\mu g/m^3$.
- 1,3,5-trimethylbenzene in one sample at a concentration of 21,000 μg/m³, above the modified EPA RSL of 2,100 μg/m³.
- m,p-xylenes in two samples at concentrations of 46,000 and 57,800 μg/m³, above the modified EPA RSL of 33,333 μg/m³.
- GRO in three samples at concentrations ranging from 6,870 and 510,000 μg/m³, above the modified EPA RSL of 1,033 μg/m³.

The remaining VOC concentrations were below their respective modified screening levels (Table 9).

8 QUALITY ASSURANCE PROJECT PLAN

An integral part of the sampling and analysis plan is the Quality Assurance Project Plan (QAPP) to ensure the reliability and compatibility of data generated during the PEA activities. The QAPP was included in the PEA work plan (Ninyo & Moore, 2019). During the field work, a variety of data was collected. Field quality control (QC) data consisted of equipment blanks, trip blanks, and field duplicates submitted blind to Enthalpy and Jones for the same analyses as the primary sample. In accordance with DTSC guidelines, a Level II Data Validation Memorandum was prepared, which evaluates the procedures followed and data developed during the PEA (Appendix H).

The review of the QC program was divided into two parts: basic QC procedures and QC samples. No findings were identified affecting the quality of the samples collected or the resulting data results. No observations of significance were reported by the laboratory or review of the field data.

The exceptions are the relative percent differences between the primary and duplicate results in 16 sample pairs that exceeded the QAPP criteria. Variations in soil concentrations are mostly attributable to sample inhomogeneity. Therefore, these results were not excluded from the sample population.

Based on this Level II validation, the data collected through implementation of the QAPP satisfy data quality requirements specified for the COPC investigation. The analyses followed the approved method. Some matrix effects were noted, which are typical of real environmental samples. The relevant QA/QC results were satisfactory and acceptable. No outstanding issues were identified during the course of the data validation review. Overall, the presented data (including the qualified results) are reliable and useable for project decision making.

It is recommended that the data be used to characterize the nature and extent of contamination, support screening risk evaluation, evaluate the response action need, or assist in determination of additional actions.

9 HUMAN HEALTH SCREENING EVALUATION (HHSE)

The PEA screening evaluation for human health effects involves identifying COPCs, evaluating exposure pathways and media of concern, assessing chemical toxicity, and then characterizing risk. Estimated health risks are based on a calculated dose, which integrates exposure parameters for the receptors of concern with chemical specific toxicity criteria. The calculated risks are then compared to health-based guidelines developed by the EPA and DTSC. For the purpose of the PEA screening evaluation, the potential dose is calculated for a resident (adult and child) occupying the site.

Exposure to COPCs can only occur if there is a complete pathway by which the COPCs in soil, water, or air can be contacted by humans. Therefore, the evaluation of exposure pathways is the first step in the human health screening evaluation. Potential health hazards and risk are then calculated based on an evaluation of potential exposure concentrations and the toxicity of the COPCs. The findings of the human health screening evaluation are summarized in the risk characterization summary.

9.1 Exposure Pathways and Media of Concern

As discussed in previous sections, the current use of the site is Compton High School and residential properties. It is understood that this school and residential properties will be demolished, and a new high school will be constructed.

Consistent with DTSC guidance for baseline risk assessments, it is assumed that the site is uncovered, and bare soil is available for contact. However, the site is planned to be redeveloped as a high school. For the purpose of this PEA it is assumed that hypothetical residents at the site may be exposed to site chemicals through incidental ingestion, dermal contact, and inhalation of soil particulates containing COPCs. In accordance with PEA guidelines, exposures to COPCs were evaluated assuming hypothetical residential exposure. Figure 8 presents the Conceptual Site Model (CSM) that links soil COPCs with hypothetical receptors at the site.

9.1.1 Soil Exposure Pathways

COPCs discovered at the site include traces of pesticide residues, TPH, lead and a few VOCs. These chemicals were detected in surficial- and subsurface soil; therefore, the potential exists for exposure to humans by dermal contact and incidental soil ingestion.

9.1.2 Water Exposure Pathways

Groundwater was encountered and sampled at the site. Depth to perched water was encountered at approximately 8 feet bgs beneath the basement of the Administration building. Groundwater is estimated at depths approximately 40 feet bgs in other portions of the site. Groundwater is not considered to be a complete exposure pathway because of the current depth, and the relatively impermeable soil that separates groundwater from the surface. Also, permanent surface water bodies do not occur on, or near the site, therefore, surface water is not expected to be a consideration.

9.1.3 Air Exposure Pathways

The following sections discuss the air exposure pathways.

Fugitive Dust Inhalation

A few pesticides, lead and TPH were detected in soil at the site (see Tables 3 through 7). Exposure to these chemicals may occur via inhalation of contaminated fugitive dust. Inhalation exposure to non-volatile compounds is typically minor in fugitive dust when compared to direct ingestion exposure (DTSC 2015). Nevertheless, a relationship must be estimated between the chemical concentration in soil and the concentration in air due to fugitive dust emissions from surface soil.

The EPA (2002) and DTSC (2015) recommend using a particulate emission factor (PEF) to model COPC concentrations in airborne dust. The PEF represents an annual average emission rate based on wind erosion. Default PEF values for residential exposure scenarios published by the DTSC (2019b) were used in this risk evaluation. The residential PEF value of 1.316E+09 cubic meters per kilogram (m³/kg) was used to estimate dust emissions for the recreational receptors. The ambient chemical air concentration due to dust emissions was obtained by dividing the soil chemical concentrations by the PEF. The estimated ambient air exposure point concentrations were used to estimate dust inhalation exposures for onsite receptors.

Outdoor Vapor Inhalation

A few VOCs were detected in a soil and soil vapor samples collected at the site (Tables 5 and 9, respectively). Because these compounds are volatile, humans could potentially be exposed to vapors migrating through the soil to the surface. Therefore, the outdoor air exposure pathway was evaluated for VOCs detected in soil as discussed below.

The potential migration of vapors from subsurface soil to outdoor air for residential exposures was estimated using the volatilization factor (Equation 8: *Derivation of the VF*), as presented in Section 2.5.2 of the *Soil Screening Guidance* (EPA, 2002). Default parameters for the Los Angeles Area were used. The estimated volatilization factor used in the evaluation is presented in Table 10-1.

Indoor Vapor Inhalation

Screening-level models were used to predict indoor air concentrations that may result from the chemical vapors potentially released from soil vapor under the site. The estimated vapor flux and indoor air concentrations were then used to estimate potential health risks that may result from onsite exposures. For purposes of this evaluation, it was assumed the land use would be residential now and into the foreseeable future.

In this evaluation, maximum detected soil vapor chemical concentrations (Table 9) were considered representative of chemical concentrations present in soil vapor under the site.

The DTSC guidance recommends that multiple lines of evidence be used when evaluating the potential risk and hazards posed by vapor intrusion. DTSC recommends that the indoor air chemical concentrations that can result from vapor intrusion be estimated using the following equation:

$$AF = \frac{C_{indoor}}{C_{soil\ vapor}}$$

Where:

AF = Attenuation factor (unitless)

 C_{indoor} = Indoor air concentration (micrograms per cubic meter [µg/m³])

 $C_{\text{soil vapor}}$ = Soil vapor concentration (ug/m³)

Using the above equation, the indoor air chemical concentration can be estimated by multiplying the known soil vapor concentration by the default attenuation factor (AF).

In accordance with DTSC (2019c) guidance, the default AF of 0.03 was used in the evaluation for chemicals detected in soil vapor at a depth of five feet bgs. Estimated indoor air chemical concentrations that might result from vapor intrusion from VOCs detected at a depth of five feet bgs are presented in Table 10-2.

It is well known that soils have the capacity to reduce vapor flow in the subsurface. The vapor flow mitigating capacity of soils is directly proportional to the depth of the soil layer that separates the building from the source of VOCs. Specifically, the soil's combined physical, chemical and/or lithological properties act to reduce or limit the migration of VOCs through the soil's pore spaces (Little, Daisey and Nazaroff, 1992). The natural ability of soils to reduce vapor migration is taken into consideration in this evaluation by using an AF of 0.001 for VOCs detected at a depth of 15 feet bgs.

The AF of 0.001 was developed by the DTSC (2011) based on empirical observations of DTSC case workers for hundreds of properties throughout California. The attenuation factors published in Table 2 of the VI Guidance (2011) are applicable to California properties having VOC sources located at depths of 5 feet or more. Based on this information the default AF of 0.001 is deemed to be the most appropriate for samples collected at a depth of 15 feet bgs.

Estimated indoor air chemical concentrations that might result from vapor intrusion from VOCs detected at a depth of 15 feet bgs are presented in Table 10-3.

9.1.4 Summary of Selected Exposure Pathways

For the purpose of this PEA screening evaluation, the hypothetical resident was assumed to be exposed to pesticides, TPH, lead and VOCs through direct dermal contact, incidental ingestion, and inhalation of volatiles and airborne particulates. Exposure to groundwater and surface water is deemed to be an incomplete pathway, therefore, is not a consideration. Exposure parameters used to characterize hypothetical onsite residential receptors are presented in Table 10-4.

9.2 Exposure Concentrations and Chemicals

Tables 3 through 7 present the chemicals detected in soil at the site. In accordance with the DTSC (2015) guidance, the maximum detected COPC concentrations were evaluated as potential exposure point concentrations (EPCs). These EPCs were used in the risk calculations. Soil data collected from surface and subsurface soils were combined in the evaluation of risks. That is, all soil samples collected at the site were included in the calculation of risks regardless of the depth where the samples were collected. An assumption was made that an individual may come in contact with the entire soil profile if the site was re-graded.

Site-specific background metals data are not available for the site. Therefore, it is unknown whether metals detected in soil at the site are within natural background concentrations, of if are present in soil due to contamination from human activities. With the exception of arsenic, all metals detected in soil at the site were evaluated in this HHRE. Arsenic was not included because the maximum detected concentration (10.70 mg/kg) is lower than the upper-limit California background concentration of 12 mg/kg.

In accordance with DTSC (2015) risk assessment guidance, only the metals found at the site at a concentration significantly higher than their corresponding background concentrations should be included as COPCs in this risk evaluation. Given the uncertainty associated with ambient soil metal concentrations, the metal risk and hazard calculations were conducted separately. The results of the metal risk evaluation are presented and discussed separately at the end of Section 9.0 below.

9.3 Toxicity Values

The toxicity assessment characterizes the relationship between the magnitude of exposure to a COPC and the nature and magnitude of adverse health effects that may result from such exposure. For the purposes of calculating exposure criteria to be used in risk assessments, adverse health effects are classified into two broad categories – carcinogens and non-

carcinogens. Toxicity values/exposure criteria are generally developed based on the threshold approach for non-carcinogenic effects and the non-threshold approach for carcinogenic effects. Toxicity values may be based on epidemiological studies, short-term human studies, and subchronic or chronic animal data.

In this assessment, chronic toxicity criteria were selected in accordance with the DTSC Regulation "Toxicity Criteria for Human Health Risk Assessment" (effective September 2018) (https://dtsc.ca.gov/LawsRegsPolicies/Regs/Toxicity-Criteria-for-Human-Health-Risk-Assessment). Toxicity information was obtained from the DTSC Human and Ecological Risk Office (HERO) Human Health Risk Assessment (HHRA) Note 10, Toxicity Criteria (DTSC, 2019d).

9.3.1 Carcinogenic Effects

Certain chemicals are regulated as carcinogens based on the likelihood that exposure may cause cancer in humans. Numerical estimates of cancer potency for these chemicals are presented as cancer slope factors (CSFs). The CSF defines the cancer risk due to constant lifetime exposure to one unit of a carcinogen (units of risk per mg/kg-day). CSFs are derived by calculating the 95%UCL on the slope of the linearized portion of the dose-response curve using the multistage cancer model on the study data. Use of the 95%UCL of the slope means that there is only a 5% chance that the probability of a response could be greater than the estimated value for the experimental data used. This is a conservative approach and may overestimate the actual risk given that the actual risk is expected to be between zero and the calculated value. Carcinogenic slope factors assume no threshold for effect, i.e. all exposures to a chemical are assumed to be associated with some risk. Table 10-5 presents the CSFs used in this assessment.

For inhalation exposures cancer slope factors are expressed as inhalation unit risk (IUR) for a chemical. The IUR, which is expressed in units of inverse micrograms per cubic meter (ug/m³)-¹, is the 95% Upper Confidence Limit (UCL) of the probability of carcinogenic response per unit daily exposure to a given chemical concentration over a lifetime. The IUR multiplied by the lifetime exposure concentration of the chemical provides an estimate of the 95% UCL of the theoretical cancer risk for the specific chemical. The IURs used in this evaluation to estimate carcinogenic dose-assessment risks are presented in Table 10-5.

9.3.2 Noncarcinogenic Effects

For the purpose of assessing risk associated with noncarcinogenic effects, the EPA has adopted a science policy position that protective mechanisms such as repair, detoxification, and compensation must be overcome before an adverse health effect is manifested.

Therefore, a range of exposures exists from zero to some finite value (a threshold) that can be tolerated by the organism without appreciable risk of adverse effects occurring.

Noncarcinogenic effects were evaluated using reference doses (RfDs) developed by the EPA. The RfD is a health-based criterion based on the assumption that thresholds exist for noncarcinogenic toxic effects. In general, the RfD is an estimate (with uncertainty) of a daily exposure to the human population that is likely to be without appreciable risk of chronic effects during a lifetime of exposure. RfDs are expressed as acceptable daily doses in milligrams of compound per kilogram of body weight per day (mg/kg-day). Most RfDs are based on oral exposure data. Table 10-5 presents the RfDs used in this assessment.

A reference concentration (RfC) is an exposure concentration in air that is not expected to cause adverse health effects over a lifetime of daily exposure in the most sensitive population. All RfCs used in this evaluation to estimate non-carcinogenic chronic health hazards are presented in Table 10-5.

9.3.3 Health Risk Evaluation for Lead Exposure

The carcinogenic and non-carcinogenic toxicity criteria described above do not apply to inorganic lead. RfD, RfC, IUR and CSF are not applicable because of incomplete knowledge of the complex physiological dynamics of lead in the body (USEPA, 1996). Alternative methods have been developed to evaluate potential health risks from exposures to inorganic lead. These methods are based on establishing a target blood-lead level that is not expected to result in toxicity. The target level approach is considered appropriate because lead toxicity effects are typically only observed above certain blood-lead levels.

9.4 Risk Characterization Summary

Risk characterization involves estimating the magnitude of the potential adverse health effects of the hazardous chemicals under study and making judgments about the nature of the health threat to the defined receptor populations. It combines the results of the dose-response (toxicity) and exposure assessment.

Excess cancer risks were estimated by multiplying the lifetime-average daily dose (LADD) by the chemical carcinogenic toxicity criteria. The equation used to estimate the excess cancer risk is:

Excess Cancer Risk = LADD x CSF

The excess cancer risks are then compared to the risk level considered acceptable by the DTSC (1E-06).

Hazard quotients were estimated by calculating the ratio of the average daily dose (ADD) to the corresponding chronic reference dose for noncarcinogenic effects. The equation used to estimate the hazard quotient is:

$$Hazard\ Quotient = \frac{ADD}{RfD}$$

The hazard quotients are then compared to an acceptable hazard level. Hazard quotients less than the benchmark hazard level of 1 indicate that no adverse health effects are predicted from exposure to COPCs at the site.

The only COPCs identified in soil at the site were lead, a few pesticides and TPH. The chemical-specific and pathway-specific cancer risks estimated for the site are presented in Table 10-6; while the chemical-specific and pathway-specific hazard quotients and hazard index (HIs) for the site are also summarized in Table 10-6. The detailed cancer risk and non-cancer hazard calculation tables are presented in Appendix I.

Using maximum detected concentrations for all chemicals detected in soil at the site, the total incremental cancer risk for hypothetical residential exposure to site-related chemicals was estimated to be 3.2E-06 (Table 10-6). Results of the screening human health screening evaluation indicated that the maximum detected naphthalene concentration in soil is associated with an incremental cancer risk that slightly exceeds DTSC's acceptable benchmark.

Using the maximum VOC concentrations detected in soil vapor, the cancer risks estimated to result from vapor intrusion were:

- 5E-04 for VOCs detected in soil vapor at a depth of 5 feet bgs (Table 7-7).
- 9E-05 for VOCs detected in soil vapor at a depth of 15 feet bgs (Table 7-8).

Both cancer risks estimated to result from indoor air vapor intrusion exceed the acceptable cancer risk of 1E-06. The chemicals responsible for the exceedance are benzene, ethylbenzene, chloroform, naphthalene and tetrachloroethylene (Tables 10-7 and 10-8).

Using maximum detected soil chemical concentrations, the total hazard index for hypothetical residential exposure to site-related chemicals was estimated to be 1.6 (Table 10-6). The estimated hazard index slightly exceeds the acceptable hazard index of 1. However, none of the individual chemicals detected in soil had a hazard index that that exceeded 1 (Table 10-6). Supporting calculations for each COPC are presented in Appendix I.

Using the maximum VOC concentrations detected in soil vapor, the hazard indices estimated to result from vapor intrusion were:

- 15 for VOCs detected in soil vapor at a depth of 5 feet bgs (Table 10-7).
- 2 for VOCs detected in soil vapor at a depth of 15 feet bgs (Table 10-8).

Both hazard indices estimated to result from indoor air vapor intrusion exceed the acceptable hazard index of 1. The chemicals responsible for the exceedance are benzene, ethylbenzene and xylenes (Tables 10-7 and 10-8).

In accordance with DTSC (2015) risk assessment guidance, only the metals found at the site at a concentration significantly higher than their corresponding background concentrations should be included as COPCs in this risk evaluation. Given the uncertainty associated with ambient soil metal concentrations, the metal risk and hazard calculations were conducted separately. The results of the metal risk evaluation are presented in Table 10-8. Using maximum detected soil metal concentrations, the estimated cancer risks for all metal carcinogens were below 1E-06. As for hazard indices, the only metal with an estimated hazard index that exceeded the acceptable value of 1 was thallium.

9.5 Lead Exposure Health Hazards

Given the unique toxicological and pharmacological properties of lead, the Hazard Quotient method is inappropriate for this chemical. For lead, the DTSC (2015) recommends comparing detected soil lead concentrations to published soil screening levels. For this evaluation, the soil screening levels published by the DTSC (2019c) was used as the soil screening concentration. The soil lead screening level for residential exposure scenarios has been set at 80 mg/kg (DTSC, 2019c). The 95 percent upper confidence limit (95UCL) soil lead concentration was estimated to be 174 mg/kg. Since this value exceeds the than the DTSC's screening level, it is concluded that lead in soil could pose a health threat to hypothetical onsite residents.

9.6 Uncertainty Analysis

It is important to fully specify the assumptions and uncertainties inherent in the risk assessment for two reasons: (1) to place the risk estimates in proper perspective, and (2) to identify key site-related variables and assumptions that contribute most to the conclusions reached in the risk assessment. The focus of this section is also to highlight parameters and site conditions that contribute most to the predicted risks.

The frequency and duration of soil contact activities would be a significant factor affecting the potential for adverse human health impacts from the site.

This health risk evaluation was based on the application of conservative methods and assumptions in all phases of the assessment. Because exposure point concentrations were derived from fate and transport modeling, conservative assumptions and methodology were necessarily employed to eliminate the possibility of underestimating risks. This practice, although commonly used in the risk assessment process to eliminate the possibility of underestimating risk, necessarily introduces a significant level of conservatism in the conclusions derived from the assessment. Examples of some of the conservatism in this assessment include:

- It was assumed that future receptors at the site would be exposed to chemicals in soil and dust 100 percent of the time while at the site. In reality, receptors at the site are not likely to be there for more than eight hours a day, five days a week.
- It was assumed that future occupants of the site would have contact with soil. However, it is known that most, if not all, the site surface area will be occupied by buildings, asphalt or landscaped. Thus, future contact with soil will be minimal.
- Carcinogenic risks for all pathways were based on a residential exposure of 350 days per year for 26 years. A more realistic exposure scenario for a school site would be to assume an exposure frequency of 250 days per year for a duration of 6 years, representing a typical school exposure scenario.

A risk assessment that relies upon conservative input values can be used as a valuable tool when risks are shown to be *de minimus*, as reported in this risk assessment. The reader of this risk assessment can confidently interpret the reported risk as a conservative overestimate of any site-related risks.

10 ECOLOGICAL SCREENING EVALUATION

The purpose of an ecological screening evaluation is to provide a qualitative evaluation of the potential risk to non-human receptors from the COCs at the site. A biological evaluation was conducted during the Environmental Impact Report (EIR) for the Compton High School Reconstruction Project. The only mitigation measure for biological resources proposed was for a survey to be prepared for migratory bird nests, if construction was during January 15 and August 31. The impact to migratory birds from the detected site COPCs is not considered significant, because the detected COPCs are in the subsurface. An ecological risk evaluation was not conducted for the site also because the site is located in a long-term, fully developed urban setting and does not maintain natural resources required to support wildlife habitats.

11 COMMUNITY PROFILE

During the Environmental Impact Report preparation for the Compton High School Project significant community concerns were limited to air quality, greenhouse gas emissions, cultural

resources, land use planning, hazards and hazardous materials, noise, and transportation and traffic.

Public participation was necessary and will be necessary at various times during the PEA process. Public participation allows the public to voice any concerns they may have regarding the PEA process and includes the following measures for notifying the local public of the PEA activities, which will be taking place or have already taken place:

- Distribution of a notice of Field Work three to five days prior to the start of field activities to properties within line of sight (up to a one-eighth mile) from the site. The Notice of Field Work was prepared on District letterhead under DTSC guidance, and double-sided, with the back translated in Spanish (Appendix A).
- Publication of a notice in a local public English-speaking newspaper and local Spanish-speaking newspaper indicating that a Draft PEA Report has been prepared for the site. The notice will provide information, including the locations where a copy of the Draft PEA report will be available for review during a 30-day public review period. These locations may include the DTSC's local office, and the District's office or posted to the District's website. The newspaper publication will also announce a public hearing date and location (pending Center for Disease Control [CDC], state and local guidelines due to the COVID-19 Pandemic), and describe how the public may submit comments to the District regarding the PEA report.
- A public hearing will be held towards the end of the 30-day public comment period (pending CDC, state, and local guidelines) where the public will have an opportunity to make comments on the Draft PEA Report. Public comments submitted to the District and the minutes from the public hearing will be forwarded to the DTSC on the District letterhead.

12 OPINION OF THE ENVIRONMENTAL PROFESSIONAL

This assessment has identified conditions indicative of releases or threatened releases of hazardous substances in conditions indicative of releases and threatened releases of pollutants, contaminants, petroleum and petroleum products, and controlled substances (as defined in 21 U.S.C. § 802) on, at, in, or to the subject property. No data gaps have been identified during this assessment.

13 CONCLUSIONS AND RECOMMENDATIONS

Based on the results of this investigation, Ninyo & Moore provides the following conclusions and recommendations:

- Indications of off-site migration of COPCs in soil, groundwater, or soil vapor from on-site activities were not observed.
- The close range of thallium concentrations suggests these detections may reflect background concentrations of thallium or somewhat ubiquitous deposition in soil from combustion of heating fuels or petroleum hydrocarbons.
- Elevated lead was encountered in soil around site buildings primarily in AOC1 East, AOC1 West, and AOC5, with a couple samples of elevated lead observed in AOC4.

- Low detected concentrations of OCP analytes in the soil composite samples analyzed within the limits of this investigation do not represent a significant impact to the site.
- Using maximum detected concentrations for all chemicals detected in soil at the site, the total incremental cancer risk for hypothetical residential exposure to site-related chemicals was estimated to be 3.2E-06. Results of the screening human health screening evaluation indicated that the maximum detected naphthalene concentration in soil is associated with an incremental cancer risk that slightly exceeds DTSC's acceptable benchmark. Using the maximum VOC concentrations detected in soil vapor, the cancer risks estimated to result from vapor intrusion were: 5E-04 for VOCs detected in soil vapor at a depth of 5 feet bgs; and 9E-05 for VOCs detected in soil vapor at a depth of 15 feet bgs. Both cancer risks estimated to result from indoor air vapor intrusion exceed the acceptable cancer risk of 1E-06. The chemicals responsible for the exceedance are benzene, ethylbenzene, chloroform, naphthalene and tetrachloroethylene.
- Using maximum detected soil chemical concentrations, the total hazard index for hypothetical residential exposure to site-related chemicals was estimated to be 1.6. The estimated hazard index slightly exceeds the acceptable hazard index of 1. However, none of the individual chemicals detected in soil had a hazard index that that exceeded 1. Using the maximum VOC concentrations detected in soil vapor, the hazard indices estimated to result from vapor intrusion were: 15 for VOCs detected in soil vapor at a depth of 5 feet bgs; and 2 for VOCs detected in soil vapor at a depth of 15 feet bgs. Both hazard indices estimated to result from indoor air vapor intrusion exceed the acceptable hazard index of 1. The chemicals responsible for the exceedance are benzene, ethylbenzene and xylenes.
- The 95UCL soil lead concentration was estimated to be 174 mg/kg. Since this value exceeds the DTSC's screening level, it is concluded that lead in soil could pose a health threat to hypothetical onsite residents.
- Based on the results of the initial analytical results, elevated lead concentrations were identified in "hot spots" around most of the perimeters of the site buildings. Figures 3 through 7B show these limits of "hot spots". These "hot spots" are where lead concentrations in shallow soil exceed the DTSC HERO HHRA screening level of 80 mg/kg, assuming residential land use. The limits of these "hot spots" have generally been defined. In some instances, additional sampling to further define the lateral extent was obstructed by building walls, equipment, vehicles, and/or project schedule.
- Lead-impacted soil from surface to 2.5 feet bgs (and 10 feet bgs in AOC4) can be mitigated by removing/excavating impacted soil to appropriate depths around each building. Lead-impacted soil should be excavated and disposed as either non-hazardous or hazardous waste or capped with a manner approved by DTSC (e.g., pavement, and seal as a parking lot). This would require a land use restriction and operations maintenance plan. Based on areas where the lateral extent of elevated lead could not be delineated due to obstructions or project schedule, additional confirmation samples should be collected during removal to confirm removal of soil elevated lead.
- TPH and VOC-impacted soil, soil vapor, and groundwater in AOC4 can be mitigated by capping with a manner approved by DTSC (e.g., pavement, and seal as a parking lot). This would require a land use covenant and operations maintenance plan.
- The site is adequately investigated; however, remediation is required. Given that students, staff, and the public are actually not exposed to the contaminated soils, there is no immediate public health or environmental endangerment and no need for an expedited response action. The site is currently vacant and school operations have gone to distance learning, as a result of the COVID-19 pandemic. The District should submit a written request to amend the existing EOA with DTSC and enter into a Voluntary Cleanup Agreement or School Cleanup Agreement (SCA) with DTSC for the remedial actions. The remedial action considered is likely a Removal Action, for which a Removal Action Workplan (RAW) should be prepared and submitted to DTSC for approval.

14 LIMITATIONS

The environmental services described in this report have been conducted in general accordance with current regulatory guidelines and the standard-of-care exercised by environmental consultants performing similar work in the project area. No warranty, expressed or implied, is made regarding the professional opinions presented in this report. Variations in site conditions may exist and conditions not observed or described in this report may be encountered during subsequent activities. Please also note that this study did not include an evaluation of geotechnical conditions or potential geologic hazards.

Ninyo & Moore's opinions and recommendations regarding environmental conditions, as presented in this report, are based on limited subsurface assessment and chemical analysis. Further assessment of potential adverse environmental impacts from past on-site and/or nearby use of hazardous materials may be accomplished by a more comprehensive assessment. The samples collected and used for testing, and the observations made, are believed to be representative of the area(s) evaluated; however, conditions can vary significantly between sampling locations. Variations in soil, soil vapor, and/or groundwater conditions will exist beyond the points explored in this evaluation.

The environmental interpretations and opinions contained in this report are based on the results of laboratory tests and analyses intended to detect the presence and concentration of specific chemical or physical constituents in samples collected from the subject Site. The testing and analyses have been conducted by an independent laboratory, which is certified by the State of California to conduct such tests. Ninyo & Moore has no involvement in, or control over, such testing and analysis. Ninyo & Moore, therefore, disclaims responsibility for any inaccuracy in such laboratory results.

Our conclusions, recommendations, and opinions are based on an analysis of the observed site conditions. It should be understood that the conditions of a Site could change with time as a result of natural processes or the activities of man at the subject site or nearby sites. In addition, changes to the applicable laws, regulations, codes, and standards of practice may occur due to government action or the broadening of knowledge. The findings of this report may, therefore, be invalidated over time, in part or in whole, by changes over which Ninyo & Moore has no control.

This document is intended to be used only in its entirety. No portion of the document, by itself, is designed to completely represent any aspect of the project described herein. Ninyo & Moore should be contacted if the reader requires any additional information, or has questions regarding content, interpretations presented, or completeness of this document.

This report is intended exclusively for use by the client. Any use or reuse of the findings, conclusions, and/or recommendations of this report by parties other than the client is undertaken at said parties' sole risk.

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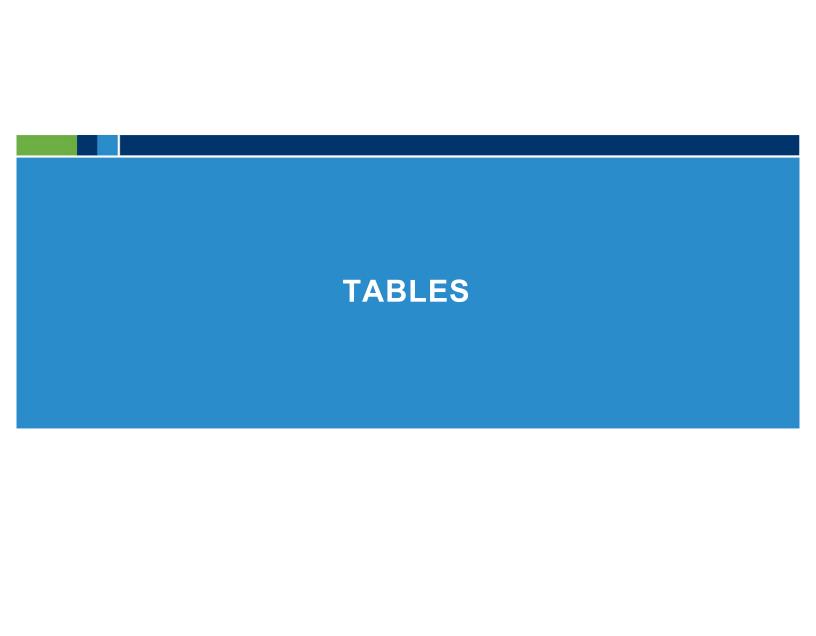
16 PROFESSIONAL STATEMENT

As required by 40 CFR §312.21(d) and Section 12.13 of ASTM 1527-13, the following statement is included:

I declare that, to the best of my professional knowledge and belief, I meet the definition of Environmental Professional as defined by §312.10 of 40 CFR 312. I have the specific qualifications based on education, training, and experience to assess a property of the nature, history, and setting of the subject property. I have developed and performed the all appropriate inquiries in conformance with the standards and practices set forth in 40 CFR Part 312.

John Jay Roberts, PG, CEG

Principal Geologist



										EPA Met	hod 6010B/7471	IA (mg/kg)							
Sample ID	Sample Depth (feet bgs)	Date Sample Collected	Antimony	Arsenic	Barium	Beryllium	Cadmium	Chromium	Cobalt	Copper	Fead	Mercury	Molybdenum	Nickel	Selenium	Silver	Thallium	Vanadium	Zinc
									AOC2										
DC2-B1-5'	5	05/02/2019	ND<3	2.10	87.5	ND<0.5	0.54	12.7	8.14	11.2	3.48	ND<0.14	ND<1	7.87	ND<3	ND<0.5	1.24 J	29.1	36.4
OC2-B1-15'	15	05/02/2019	1.63 J	2.87	161	ND<0.5	0.59	17.2	12.3	16.6	3.69	0.04 J	ND<1	12.6	ND<3	ND<0.5	1.98 J	39.9	50.
OC2-B2-5'	5	05/02/2019	1.36 J	3.02	190	ND<0.5	1.02	24.9	14.4	29.6	6.22	0.07 J	ND<1	17.4	ND<3	ND<0.5	2.31 J	49.6	66.
OC2-B2-10'	10	05/02/2019	2.25 J	3.10	113	ND<0.5	0.60	13.4	7.93	17.6	3.14	ND<0.14	2.48	11.1	ND<3	ND<0.5	ND<3	30.6	37.
									AOC3										
OC3-B1-5'	5	05/06/2019	0.48 B1,J	0.87 J	108	ND<0.5	0.48 J	13.5	9.30	13.5 B	5.99	ND<0.14	ND<1	9.01	ND<3	ND<0.5	2.06 B1,J	34.1	56.
OC3-B1-15'	15	05/06/2019	ND<3	2.74	109	ND<0.5	0.46 J	16.9	10.4	15.3 B	3.18	0.04 J	ND<1	11.3	ND<3	ND<0.5	2.53 B1,J	40.9	50.
OC3-B2-5'	5	05/06/2019	0.93 B1,J	2.62	95.8	ND<0.5	0.46 J	12.5	8.82	11.1 B	0.97 B1,J	ND<0.14	ND<1	8.11	ND<3	ND<0.5	1.58 B1,J	32.1	42.
OC3-B2-15'	15	05/06/2019	2.32 B1,J	2.15	128	ND<0.5	0.44 J	16.0	10.6	14.7 B	1.09	ND<0.14	ND<1	10.8	ND<3	ND<0.5	2.10 B1,J	42.2	49.
OC3-B3-5'	5	05/06/2019	4.42	1.81	106	ND<0.5	0.47 J	13.1	9.76	13.5 B	2.83	0.04 J	1.20	8.96	ND<3	ND<0.5	1.92 B1,J	34.9	43.
OC3-B3-15'	15	05/06/2019	2.74 B1,J	1.24	129	ND<0.5	0.54	16.7	10.5	16.6 B	0.88 B1,J	0.07 J	1.29	11.4	ND<3	ND<0.5	2.45 B1,J	41.7	50.
OC3-B4-5'	5	05/02/2019	ND<3	2.21	213	ND<0.5	0.82	22.7	15.8	33.3	4.57	0.06 J	1.25	15.9	ND<3	ND<0.5	2.57 J	54.0	62.
OC3-B4-15'	15	05/02/2019	5.57	2.73	134	ND<0.5	0.82	17.8	12.1	20.0	4.79	ND<0.14	0.69 J	12.0	ND<3	ND<0.5	1.94 J	36.8	41.
OC3-B5-5'	5	05/02/2019	1.12 J	1.54	156	ND<0.5	0.51	16.6	11.3	16.4	3.83	ND<0.14	1.07	11.1	ND<3	ND<0.5	2.12 J	37.2	48.
OC3-B5-15'	15	05/02/2019	1.26 J	1.51	143	ND<0.5	0.60	18.2	11.6	18.1	3.96	0.04 J	ND<1	12.9	ND<3	ND<0.5	1.30 J	39.7	52.
									AOC4										
DC4-B2-N1-5'	5	05/07/2019	0.45 B1,J	ND<1	116	ND<0.5	0.47 J	17.9	9.87	12.8 B	3.62	ND<0.14	ND<1	10.9	ND<3	ND<0.5	3.13	33.6	44.
DC4-B2-N1-15'	15	05/07/2019	0.80 B1,J	3.42	105	ND<0.5	0.69	24.4	11.8	27.3 B	5.72	0.06 J	ND<1	19.0	ND<3	ND<0.5	2.53 J	41.1	58.
OC4-B2-S1-5'	5	05/07/2019	1.85 B1,J	2.14	108	ND<0.5	0.49 J	14.0	8.73	12.1 B	4.45	0.04 J	ND<1	8.48	ND<3	ND<0.5	1.67 J	31.9	39.
DC4-B2-S1-15'	15	05/07/2019	1.95 B1,J	9.17	137	ND<0.5	0.77	26.5	14.5	41.7 B	9.33	ND<0.14	0.16 B1,J	21.8	ND<3	ND<0.5	3.59	60.2	61.
OC4-B2-E1-5'	5	05/07/2019	1.10 B1,J	2.00	118	ND<0.5	0.48 J	13.6	9.32	12.1 B	4.72	0.04 J	ND<1	8.79	ND<3	ND<0.5	2.77 J	30.4	40.
OC4-B2-E1-15'	15	05/07/2019	2.11 B1,J	5.28	89.9	ND<0.5	0.90	20.0	9.22	27.5 B	5.72	0.09 J	ND<1	15.8	ND<3	ND<0.5	1.55 J	39.1	43.
UP-18	15	05/07/2019	1.28 B1,J	2.35	103	ND<0.5	0.76	29.2	11.5	31.1 B	6.88	0.09 J	ND<1	20.9	ND<3	ND<0.5	2.57 J	42.7	62.
OC4-B2-W1-5'	5	05/07/2019	3.56	1.49	126	ND<0.5	0.60	17.2	12.1	15.9 B	4.91	0.04 J	0.80 B1,J	11.9	ND<3	ND<0.5	3.34	39.1	55.
OC4-B2-W1-15'	15	05/07/2019	3.42	5.47	117	ND<0.5	0.86	23.8	11.7	32.6 B	7.07	0.06 J	ND<1	19.0	ND<3	ND<0.5	1.86 J	48.3	52.
OC4-B6-N1-5'	5	05/06/2019	2.21 B1,J	7.48	173	ND<0.5	0.76	19.0	10.5	18.1 B	12.5	0.04 J	0.86 B1,J	12.5	ND<3	ND<0.5	2.67 B1,J	39.0	97.
OC4-B6-N1-15'	15	05/06/2019	ND<3	5.04	131	ND<0.5	0.55	21.5	11.4	30.7 B	6.79	0.06 J	ND<1	18.0	ND<3	ND<0.5	1.86 B1,J	54.9	55.
OC4-B6-S1-5'	5	05/06/2019	0.49 B1,J	1.66	89.4	ND<0.5	0.47 J	14.7	8.19	15.0 B	23.2	0.05 J	0.24 B1,J	9.31	ND<3	ND<0.5	1.34 B1,J	29.2	58.
DC4-B6-S1-15'	15	05/06/2019	3.31	7.47	141	ND<0.5	0.59	19.7	10.5	22.6 B	0.96 B1,J	0.04 J	ND<1	14.7	ND<3	ND<0.5	2.03 B1,J	46.5	46.
DC4-B6-E1-5'	5	05/06/2019	1.04 B1,J	2.47	85.2	ND<0.5	0.45 J	11.6	7.44	15.0 B	21.4	0.04 J	ND<1	7.92	ND<3	ND<0.5	1.65 B1,J	28.0	56.
DC4-B6-E1-15'	15	05/06/2019	1.73 B1,J	8.68	136	ND<0.5	0.58	18.8	10.2	21.7 B	14.1	0.04 J	ND<1	14.4	ND<3	ND<0.5	2.06 B1,J	38.3	46.
DC4-B6-W1-5'	5	05/06/2019	2.81 B1,J	2.95	94.6	ND<0.5	0.45 J	10.4	6.98	13.3 B	15.6	0.04 J	0.64 B1,J	7.51	ND<3	ND<0.5	1.77 B1,J	26.0	50.
JP-16	5	05/06/2019	0.96 B1,J	1.07	96.8	ND<0.5	0.46 J	13.7	7.74	14.5 B	15.6	0.04 J	ND<1	8.74	ND<3	ND<0.5	1.92 B1,J	31.6	50.
DC4-B6-W1-15'	15	05/06/2019	2.42 B1,J	8.48	142	ND<0.5	0.58	21.5	10.8	28.2 B	3.66	0.09 J	ND<1	16.5	ND<3	ND<0.5	2.75 B1,J	59.1	52.
DC4-B18-S1-5'	5	05/08/2019	ND<3	10.7	132	ND<0.5	0.79	17.9	11.7	19.0	121	0.05 J	0.19 J	12.3	ND<3	ND<0.5	ND<3	37.4	144
DC4-B18-S1-15'	15	05/08/2019	ND<3	7.04	105	ND<0.5	0.78	29.2	14.7	35.5	7.12	ND<0.14	0.43 J	23.7	ND<3	ND<0.5	ND<3	58.3	71.
OC4-B18-E1-5'	5	05/07/2019	1.03 B1,J	4.51	132	ND<0.5	0.56	18.8	10.0	17.6 B	11.7	0.06 J	ND<1	12.4	ND<3	ND<0.5	2.54 J	39.1	53
DC4-B18-E1-15'	15	05/07/2019	1.52 B1,J	2.55	94.5	ND<0.5	0.75	22.2	11.2	20.5 B	7.33	ND<0.14	ND<1	14.3	ND<3	ND<0.5	2.13 J	50.1	67.
JP-20	15	05/07/2019	1.88 B1,J	ND<1	348	ND<0.5	0.99	28.3	13.2	22.2 B	7.31	ND<0.14	ND<1	17.3	ND<3	ND<0.5	3.68	50.9	84.
DC4-B18-W1-5'	5	05/07/2019	5.44	1.17	117	ND<0.5	0.50	14.2	9.98	13.2 B	4.41	ND<0.14	0.32 B1,J	9.40	ND<3	ND<0.5	3.08	33.8	45.
DC4-B18-W1-15'	15	05/07/2019	2.14 B1,J	8.56	208	ND<0.5	1.04	33.6	20.5	46.2 B	10.1	0.06 J	1.31	28.1	ND<3	ND<0.5	3.04	71.4	79.
JP-19	15	05/07/2019	ND<3	1.67	136	ND<0.5	0.74	29.9	17.5	32.5 B	8.52	0.04 J	0.57 B1,J	23.6	ND<3	ND<0.5	2.71 J	48.3	70.
DC4-B19-N1-5'	5	05/08/2019	ND<3	1.43	98.9	ND<0.5	0.54	14.2	10.1	11.4	3.56	ND<0.14	ND<1	9.26	ND<3	ND<0.5	0.55 J	31.0	44.
DC4-B19-N1-15'	15	05/08/2019	ND<3	4.10	238	ND<0.5	1.07	29.4	21.9	22.4	9.34	ND<0.14	0.42 J	18.3	ND<3	ND<0.5	ND<3	60.2	77.
C4-B19-S1-5'	5	05/08/2019	ND<3	1.40	90.1	ND<0.5	0.42	12.6	9.07	10.0	3.12	ND<0.14	0.39 J	8.52	ND<3	ND<0.5	ND<3	28.6	39.
DC4-B19-S1-15'	15	05/08/2019	ND<3	4.94	116	ND<0.5	0.75	25.2	11.2	19.2	6.27	ND<0.14	ND<1	15.8	ND<3	ND<0.5	1.44 J	49.0	68.
C4-B19-E1-5'	5	05/08/2019	0.62 B1,J	1.40	120	ND<0.5	0.63	14.9	10.7	12.5	3.64	ND<0.14	0.42 J	9.87	ND<3	ND<0.5	3.25	36.2	48

Table 3 - So	oil Sample /	Analytica	l Results	– Title 2	22 Metals	S													
										EPA Met	hod 6010B/7471	1A (mg/kg)							
Sample ID	Sample Depth (feet bgs)	Date Sample Collected	Antimony	Arsenic	Barium	Beryllium	Cadmium	Chromium	Cobalt	Copper	Lead	Mercury	Molybdenum	Nickel	Selenium	Silver	Thallium	Vanadium	Zinc
AOC4-B19-E1-15'	15	05/08/2019	1.08 B1,J	3.55	97.4	ND<0.5	1.00	19.9	10.0	22.1	5.16	0.04 J	0.97 J	17.1	ND<3	ND<0.5	2.29 J	37.6	42.9
AOC4-B19-W1-5'	5	05/08/2019	ND<3	1.31	126	ND<0.5	0.60	14.8	10.3	11.7	3.92	ND<0.14	0.25 J	9.63	ND<3	ND<0.5	2.10 J	34.4	45.6
AOC4-B19-W1-15'	15	05/08/2019	ND<3	4.96	159	ND<0.5	1.37	24.8	22.3	23.0	9.83	ND<0.14	1.43	20.2	ND<3	ND<0.5	1.04 J	61.4	82.7
Waste Characterizat	ion Sample																		
WC-1	NA	05/14/2019	1.34 B1,J	2.26	122	ND<0.5	0.82	17.2	10.2	21.5	22.1	0.05 J	0.36 B1,J	13.0	ND<3	ND<0.5	2.86 B1,J	33.6	88.1
Quality Control Sam	ples (mg/l)																		
EB-050219A	NA	5/2/2019	0.019 J	ND<0.01	ND<0.01	ND<0.005	ND<0.005	ND<0.01	ND<0.005	0.007 J	ND<0.01	ND<0.4	ND<0.01	ND<0.02	ND<0.03	ND<0.005	ND<0.05	ND<0.005	ND<0.05
EB-050219B	NA	5/2/2019	ND<0.04	ND<0.01	ND<0.01	ND<0.005	ND<0.005	ND<0.01	ND<0.005	0.006 J	ND<0.01	ND<0.4	ND<0.01	ND<0.02	ND<0.03	ND<0.005	ND<0.05	ND<0.005	ND<0.05
EB-050619A	NA	5/6/2019	0.018 J	ND<0.01	ND<0.01	ND<0.005	ND<0.005	ND<0.01	ND<0.005	0.03	ND<0.01	ND<0.4	ND<0.01	ND<0.02	ND<0.03	ND<0.005	ND<0.05	ND<0.005	ND<0.05
EB-050619B	NA	5/6/2019	ND<0.04	ND<0.01	ND<0.01	ND<0.005	ND<0.005	ND<0.01	ND<0.005	0.02	ND<0.01	ND<0.4	ND<0.01	ND<0.02	ND<0.03	ND<0.005	ND<0.05	ND<0.005	ND<0.05
EB-050719A	NA	5/7/2019	ND<0.04	ND<0.01	ND<0.01	ND<0.005	ND<0.005	ND<0.01	ND<0.005	0.01	ND<0.01	ND<0.4	0.02	ND<0.02	ND<0.03	ND<0.005	0.06	ND<0.005	ND<0.05
EB-050719B	NA	5/7/2019	ND<0.04	ND<0.01	ND<0.01	ND<0.005	ND<0.005	ND<0.01	ND<0.005	0.009 J	ND<0.01	ND<0.4	0.02	ND<0.02	ND<0.03	ND<0.005	ND<0.05	ND<0.005	ND<0.05
EB-050819A	NA	5/8/2019	ND<0.04	ND<0.01	ND<0.01	ND<0.005	ND<0.005	ND<0.01	ND<0.005	0.01	0.006 J	ND<0.4	ND<0.1	ND<0.02	ND<0.03	ND<0.005	ND<0.05	ND<0.005	ND<0.05
EB-050819B	NA	5/8/2019	ND<0.04	ND<0.01	0.003 J	ND<0.005	ND<0.005	ND<0.01	ND<0.005	0.01	ND<0.01	ND<0.4	ND<0.1	ND<0.02	ND<0.03	ND<0.005	ND<0.05	ND<0.005	ND<0.05
Regulatory Screenin	g Levels (mg/kg)																		
EPA RSLs (Residentia	al Soil)		31*	0.68	15,000*	160	71	120,000 ⁽¹⁾	23	3,100*	400	11*	390*	1,500*	390*	390*	0.78*	390*	23,000*
DTSC HERO HHRA (Residential Soil)		NL	0.11	NL	1,600*	910	NL	NL	NL	80*	1.0*	NL	15,000	NL	NL	NL	NL	NL
DTSC Acceptable Cle	an Up Level		NA	12	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Bold indicates value is above screening level

(1) Chromium (III),Insoluble salts values shown

* non-cancer endpoint

B - analyte was present in an associated method blank

B1 - analyte was present in a sample and associated method blank greater than the method detection limit but less than the reporting detection limit

bgs - below ground surface

DTSC Acceptable Clean Up Levels - DTSC's Determination of a Southern California Regional Background Arsenic concentrations in soil (March, 2008)

DTSC HERO HHRA - Department of Toxic Substances Control Human and Ecological Risk Office Human Health Risk Assessment, Note 3, Recommended Screening Levels for Soil (April 2019)

DUP - duplicate of the sample listed above

EPA - United States Environmental Protection Agency

ID - Identification

J - report value is estimated

mg/kg - milligrams per kilogram

mg/l - milligrams per liter

NA - not applicable

NL - Not listed

ND< - not detected above the laboratory reporting limit

RSLs - United States Environmental Protection Agency Regional Screening Levels (November 2019)

Table 4 - Soil S	Sample Analytical Ro	esults – Lead		
Sample ID	Sample Depth (feet bgs)	Date Sample Collected	Lab Sample ID	EPA Method 6010B/7471A (mg/kg)
		A004 Feet		Lead
		AOC1-East AOC1-E-B1		
AOC1-E-B1-0.5'	0.5	4/29/2019	414777-013	1,530
AOC1-E-B1-0.5 AOC1-E-B1-1.5'	1.5	4/29/2019	414777-013	8.16
AOC1-E-B1-1.5 AOC1-E-B1E-0.5'	0.5			13.4
	0.5	9/4/2019 9/4/2019	419028-007	
AOC1-E-B1N-0.5'	0.5	12/5/2019	419028-004	49.8 36.7
AOC1-E-B1NW-0.5 AOC1-E-B1S-0.5'	0.5		422350-109	
	0.5	9/4/2019	419028-010	48.1 165
AOC1-E-B1W-0.5'		9/4/2019	419028-001	166
DUP-32 AOC1-E-B1WW-0.5	0.5 0.5	9/4/2019 12/5/2019	419028-067 422350-112	330
AOC1-E-B1WW-1.5	1.5	12/5/2019 AOC1-E-B2	422350-113	5.38
1001 E D2 0 E'	0.5		414777-016	219
AOC1-E-B2-0.5' DUP-2	0.5	4/29/2019 4/29/2019	414777-016	251
AOC1-E-B2-1.5'	0.5 1.5	4/29/2019	414777-083	8.42
AOC1-E-B2E-0.5'	0.5	9/4/2019	419028-019	18.2
AOC1-E-B2E-0.5 AOC1-E-B2N-0.5'	0.5			184
AOC1-E-B2N-0.5 AOC1-E-B2N-1.5'	1.5	9/4/2019 9/4/2019	419028-016 419028-017	ND<1
AOC1-E-B2NN-0.5	0.5	12/5/2019	422350-103	41.5
AOC1-E-B2NE-0.5	0.5	12/5/2019	422350-106	38.1
AOC1-E-B2S-0.5'	0.5	9/4/2019	419028-013	145
AOC1-E-B2S-1.5'	1.5	9/4/2019	419028-014	3.86
AOC1-E-B2SS-0.5	0.5	12/5/2019 AOC1-E-B3	422350-097	35.9
AOC1-E-B3-0.5'	0.5	4/29/2019	414777-019	179
DUP-3	0.5	4/29/2019	414777-019	168
AOC1-E-B3-1.5'	1.5	4/29/2019	414777-020	4.38
AOC1-E-B3E-0.5	0.5	9/4/2019	419028-028	23.9
	0.5	9/4/2019	419028-025	15.5
AOC1-E-B3N-0.5'	0.5	9/4/2019	419028-022	
AOC1-E-B3S-0.5	0.5	9/4/2019 AOC1-E-B4	419020-022	67.5
AOC1-E-B4-0.5'	0.5	4/29/2019	414777-007	308
OUP-1	0.5	4/29/2019	414777-082	112
AOC1-E-B4-1.5'	1.5	4/29/2019	414777-002	21.8
AOC1-E-B4-1.5 AOC1-E-B4E-0.5'	0.5	9/4/2019	419028-031	109
DUP-36	0.5	9/4/2019	419028-071	90.5
AOC1-E-B4E-1.5'	1.5	9/4/2019	419028-032	65.3
AOC1-E-B4EE-0.5	0.5	12/9/2019	422549-015	96.5
AOC1-E-B4EE-0.5 AOC1-E-B4EE-1.5	1.5	12/9/2019	422549-015	12.8
AOC1-E-B4S-0.5'	0.5	9/4/2019	419028-034	81.9
OUP-36	0.5	9/4/2019	419028-071	90.5
AOC1-E-B4S-1.5'	1.5	9/4/2019	419028-035	90.5 2.19
AOC1-E-B4S-1.5 AOC1-E-B4SW-0.5	0.5	12/9/2019	422549-006	38.6
OUP-68	0.5	12/9/2019	422549-063	38.3
AOC1-E-B4SS-0.5	0.5		422549-009	110
AOC1-E-B4SS-0.5 AOC1-E-B4SS-1.5	1.5	12/9/2019 12/9/2019	422549-009	10.8
AOC1-E-B4SS-1.5 AOC1-E-B4SE-0.5	0.5	12/9/2019	422549-010	24.3
AOC1-E-B4W-0.5'	0.5	9/4/2019	419028-037	123
AOC1-E-B4W-0.5'	1.5	9/4/2019	419028-037	6.95
1001-E-D4VV-1.3	1.0	31 4 12013	413020-030	0.90

				EPA Method 6010B/7471A (mg/kg	
Sample ID	Sample Depth (feet bgs)	Date Sample Collected	Lab Sample ID	Lead	
OC1-E-B4NW-0.5'*	0.5	12/9/2019	422549-003	164	
OC1-E-B4NW-1.5'*	1.5	12/9/2019	422549-004	72.8	
		AOC1-E-B5			
AOC1-E-B5-0.5'	0.5	5/1/2019	414852-049	68.8	
		AOC1-E-B6			
AOC1-E-B6-0.5'	0.5	4/29/2019	414777-010	130	
AOC1-E-B6-1.5'	1.5	4/29/2019	414777-011	78.0	
AOC1-E-B6E-0.5'	0.5	9/4/2019	419028-040	117	
DUP-33	0.5	9/4/2019	419028-068	312	
AOC1-E-B6E-1.5'	1.5	9/4/2019	419028-041	1.49	
AOC1-E-B6N-0.5'	0.5	9/4/2019	419028-046	28.2	
AOC1-E-B6NW-0.5	0.5	12/5/2019	422350-115	46.2	
AOC1-E-B6W-0.5'	0.5	9/4/2019	419028-043	98.2	
AOC1-E-B6W-1.5'	1.5	9/4/2019	419028-044	38.4	
AOC1-E-B6WW-0.5	0.5	12/5/2019	422350-132	11.6	
OUP-67	0.5	12/5/2019	422350-131	58.6	
		AOC1-E-B7			
AOC1-E-B7-0.5'	0.5	4/29/2019	414777-022	93.4	
OUP-4	0.5	4/29/2019	414777-085	166	
AOC1-E-B7-1.5'	1.5	4/29/2019	414777-023	12.3	
AOC1-E-B7E-0.5	0.5	9/4/2019	419028-052	17.5	
AOC1-E-B7N-0.5'	0.5	9/4/2019	419028-049	13.4	
OUP-34	0.5	9/4/2019	419028-069	63.4	
AOC1-E-B7S-0.5'	0.5	9/4/2019	419028-055	52.3	
		AOC1-E-B8			
AOC1-E-B8-0.5'	0.5	4/29/2019	414777-025	681	
OUP-5	0.5	4/29/2019	414777-086	103	
AOC1-E-B8-1.5'	1.5	4/29/2019	414777-026	18.1	
AOC1-E-B8E-0.5'	0.5	9/3/2019	418957-004	280	
AOC1-E-B8E-1.5'	1.5	9/3/2019	418957-005	4.91	
AOC1-E-B8N-0.5'	0.5	9/3/2019	418957-007	323	
OC1-E-B8N-1.5'	1.5	9/3/2019	418957-008	7.53	
AOC1-E-B8NN-0.5	0.5	12/5/2019	422350-091	61.4	
AOC1-E-B8W-0.5'	0.5	9/3/2019	418957-001	343	
AOC1-E-B8W-1.5'	1.5	9/3/2019	418957-002	7.32	
		AOC1-E-B9			
AOC1-E-B9-0.5'	0.5	4/29/2019	414777-028	229	
OUP-6	0.5	4/29/2019	414777-087	33.0	
AOC1-E-B9-1.5'	1.5	4/29/2019	414777-029	7.95	
AOC1-E-B9E-0.5'	0.5	9/3/2019	418957-016	600	
AOC1-E-B9E-1.5'	1.5	9/3/2019	418957-017	2.67	
OC1-E-B9N-0.5'	0.5	9/3/2019	418957-013	178	
OC1-E-B9N-1.5'	1.5	9/3/2019	418957-014	5.30	
OC1-E-B9NW-0.5'	0.5	12/5/2019	422350-094	31.8	
OUP-65	0.5	12/5/2019	422350-129	35.0	
AOC1-E-B9W-0.5'	0.5	9/3/2019	418957-010	168	
AOC1-E-B9W-1.5'	1.5	9/3/2019	418957-011	3.00	
		AOC1-E-B10			
AOC1-E-B10-0.5'	0.5	4/29/2019	414777-079	434	
	- · · -	=*.*		***	

				EPA Method 6010B/7471A (mg/kg		
Sample ID	Sample Depth (feet bgs)	Date Sample Collected	Lab Sample ID	Lead		
OC1-E-B10-2.5'	2.5	4/29/2019	414777-081	26.1		
AOC1-E-B10N-0.5'	0.5	9/3/2019	418957-019	222		
AOC1-E-B10N-1.5'	1.5	9/3/2019	418957-020	2.29		
AOC1-E-B10S-0.5'	0.5	9/3/2019	418957-025	112		
AOC1-E-B10S-1.5'	1.5	9/3/2019	418957-026	1.06		
AOC1-E-B10W-0.5'	0.5	9/3/2019	418957-022	90.8		
AOC1-E-B10W01.5'	1.5	9/3/2019	418957-023	1.08		
		AOC1-E-B11				
AOC1-E-B11-0.5'	0.5	4/29/2019	414777-073	140		
AOC1-E-B11-1.5'	1.5	4/29/2019	414777-074	61.5		
AOC1-E-B11E-0.5'	0.5	9/3/2019	418957-034	136		
AOC1-E-B11E-1.5'	1.5	9/3/2019	418957-035	1.75		
AOC1-E-B11S-0.5'	0.5	9/3/2019	418957-031	127		
AOC1-E-B11S-1.5'	1.5	9/3/2019	418957-032	1.26		
AOC1-E-B11SS-0.5	0.5	12/5/2019	422350-118	102		
AOC1-E-B11SS-1.5	1.5	12/5/2019	422350-119	17.5		
AOC1-E-B11W-0.5'	0.5	9/3/2019	418957-028	295		
AOC1-E-B11W-0.5	1.5	9/3/2019	418957-029	0.89		
TOOLE DITTO	1.0	AOC1-E-B12	110001 020	0.00		
AOC1-E-B12-0.5'	0.5	4/29/2019	414777-076	154		
AOC1-E-B12-1.5'	1.5	4/29/2019	414777-077	101		
AOC1-E-B12-2.5'	2.5	4/29/2019	414777-078	64.0		
AOC1-E-B12E-0.5'	0.5	9/3/2019	418957-043	437		
AOC1-E-B12E-1.5'	1.5	9/3/2019	418957-044	24.8		
AOC1-E-B12S-0.5'	0.5	9/3/2019	418957-040	165		
AOC1-E-B12S-1.5'	1.5	9/3/2019	418957-041	17.4		
AOC1-E-B12SS-0.5	0.5	12/5/2019	422350-088	56.5		
OUP-66	0.5	12/5/2019	422350-000	48.2		
AOC1-E-B12W-0.5'	0.5	9/3/2019	418957-037	129		
AOC1-E-B12W-0.5	1.5	9/3/2019	418957-038	37.4		
AOC1-E-B12W-1.3	1.0	9/3/2019 AOC1-E-B13	410957-030	37.4		
AOC1-E-B13-0.5'	0.5	5/1/2019	414852-064	27.4		
1001 2 210 0.0	0.0	AOC1-E-B15		21.1		
AOC1-E-B15-0.5'	0.5	5/1/2019	414852-061	29.6		
		AOC1-E-B17				
AOC1-E-B17-0.5'	0.5	5/1/2019	414852-067	67.7		
		AOC1-E-B19				
AOC1-E-B19-0.5'	0.5	5/1/2019	414852-046	2,650		
AOC1-E-B19-1.5'	1.5	5/1/2019	414852-047	7.13		
AOC1-E-B19E-0.5'	0.5	9/3/2019	418957-052	23.0		
AOC1-E-B19N-0.5'	0.5	9/3/2019	418957-046	27.5		
AOC1-E-B19S-0.5'	0.5	9/3/2019	418957-055	69.8		
AOC1-E-B19W-0.5'	0.5	9/3/2019	418957-049	16.4		
		AOC1-E-B20				
AOC1-E-B20-0.5'	0.5	4/29/2019	414777-001	204		
AOC1-E-B20-1.5'	1.5	4/29/2019	414777-002	22.3		
AOC1-E-B20E-0.5'	0.5	9/4/2019	419028-061	40.5		
OUP-35	0.5	9/4/2019	419028-070	26.9		
AOC1-E-B20N-0.5'	0.5	9/4/2019	419028-058	30.3		
AOC1-E-B20S-0.5'	0.5	9/4/2019	419028-064	64.7		

	Sample Analytical Ro			FDA Mathead CO40D/7474A /
Sample ID	Sample Depth (feet bgs)	Date Sample Collected	Lab Sample ID	EPA Method 6010B/7471A (mg/kg)
		AOC1-E-B22		Lead
OC1-E-B22-0.5'	0.5	4/29/2019	414777-004	46.5
1001 2 322 0.0	0.0	AOC1-E-B23	77 1777 007	10.0
AOC1-E-B23-0.5'	0.5	5/6/2019	415002-029	22.9
		AOC1-E-B24		
AOC1-E-B24-0.5'	0.5	5/1/2019	414852-052	12.4
		AOC1-E-B25		
AOC1-E-B25-0.5'	0.5	5/1/2019	414852-058	31.0
		AOC1-E-B26		
AOC1-E-B26-0.5'	0.5	5/1/2019	414852-055	42.4
		AOC1-E-B27		
AOC1-E-B27-0.5'	0.5	5/3/2019	414945-037	5.61
		AOC1-E-B28		
AOC1-E-B28-0.5'	0.5	5/3/2019	414945-043	6.00
		AOC1-E-B29		
AOC1-E-B29-0.5'	0.5	5/3/2019	414945-040	42.4
		AOC1-E-B30		
OC1-E-B30-0.5'	0.5	5/3/2019	414945-046	74.4
		AOC1-E-B31		
AOC1-E-B31-0.5'	0.5	5/3/2019	414945-019	159
AOC1-E-B31-1.5'	1.5	5/3/2019	414945-020	24.1
AOC1-E-B31E-0.5'	0.5	9/3/2019	418957-064	84.4
AOC1-E-B31E-1.5'	1.5	9/3/2019	418957-065	4.64
AOC1-E-B31EE-0.5	0.5	12/9/2019	422549-027	57.2
AOC1-E-B31N-0.5'	0.5	9/3/2019	418957-058	28.4
AOC1-E-B31NE-0.5	0.5	12/9/2019	422549-024	39.8
OUP-72	0.5	12/9/2019	422549-065	32.4
AOC1-E-B31W-0.5'	0.5	9/3/2019	418957-061	62.9
		AOC1-E-B32		
AOC1-E-B32-0.5'	0.5	5/3/2019	414945-022	151
AOC1-E-B32-1.5'	1.5	5/3/2019	414945-023	7.6
AOC1-E-B32E-0.5'	0.5	9/3/2019	418957-070	55.8
AOC1-E-B32N-0.5'	0.5	9/3/2019	418957-067	36.6
AOC1-E-B32W-0.5'	0.5	9/3/2019	418957-073	153
AOC1-E-B32W-1.5'	1.5	9/3/2019	418957-074	ND<1
		AOC1-E-B33		
OC1-E-B33-0.5'	0.5	5/3/2019	414945-025	156
AOC1-E-B33-1.5'	1.5	5/3/2019	414945-026	46.9
AOC1-E-B33E-0.5'	0.5	9/3/2019	418957-079	156
OUP-31	0.5	9/3/2019	418957-104	87.0
OC1-E-B33E-1.5'	1.5	9/3/2019	418957-080	12.0
OC1-E-B33EE-0.5	0.5	12/9/2019	422549-033	40.4
OC1-E-B33N-0.5'	0.5	9/3/2019	418957-076	71.2
OC1-E-B33NE-0.5	0.5	12/9/2019	422549-030	57.8
AOC1-E-B33S-0.5'	0.5	9/3/2019	418957-082	177
AOC1-E-B33S-1.5'	1.5	9/3/2019	418957-083	3.70
AOC1-E-B33SE-0.5	0.5	12/9/2019	422549-036	76.4
DUP-73	0.5	12/9/2019	422549-066	71.1
AOC1-E-B33SS-0.5	0.5	12/9/2019	422549-039	123
AOC1-E-B33SS-1.5	1.5	12/9/2019	422549-040	17.4
	-112	_,		

Sample ID	Sample Depth (feet bgs)	Data Sample Collected	Lah Sample ID	EPA Method 6010B/7471A (mg/kg	
Sample ID	Sample Depth (feet bgs)	Date Sample Collected	Lab Sample ID	Lead	
		AOC1-E-B34			
AOC1-E-B34-0.5'	0.5	5/3/2019	414945-028	164	
AOC1-E-B34-1.5'	1.5	5/3/2019	414945-029	15.1	
AOC1-E-B34E-0.5'	0.5	9/3/2019	418957-088	76.3	
AOC1-E-B34N-0.5'	0.5	9/3/2019	418957-085	136	
AOC1-E-B34N-1.5'	1.5	9/3/2019	418957-086	5.96	
AOC1-E-B34NN-0.5	0.5	12/9/2019	422549-042	63.2	
OC1-E-B34NE-0.5	0.5	12/9/2019	422549-045	57.4	
OC1-E-B34S-0.5'	0.5	9/3/2019	418957-091	8.72	
		AOC1-E-B35			
OC1-E-B35-0.5'	0.5	5/3/2019	414945-031	19.6	
		AOC1-E-B36			
OC1-E-B36-0.5'	0.5	5/3/2019	414945-034	187	
AOC1-E-B36-1.5'	1.5	5/3/2019	414945-035	33.3	
OC1-E-B36E-0.5'	0.5	9/3/2019	418957-100	50.4	
OUP-30	0.5	9/3/2019	418957-103	128	
AOC1-E-B36S-0.5'	0.5	9/3/2019	418957-097	34.2	
AOC1-E-B36SE-0.5	0.5	12/9/2019	422549-048	20.0	
OUP-74	0.5	12/9/2019	422549-067	26.4	
AOC1-E-B36W-0.5'	0.5	9/3/2019	418957-094	21.2	
1001-L-D30W-0.3	0.5	AOC1-E-B37	410337-034	21.2	
AOC1-E-B37-0.5'	0.5	5/3/2019	414945-007	84.6	
AOC1-E-B37-0.5	1.5	5/3/2019	414945-007	18.5	
AOC1-E-B37E-0.5'	0.5	9/5/2019	419100-001	37.0	
AOC1-E-B37N-0.5'	0.5	9/5/2019	419100-004	54.6	
AOC1-E-B37W-0.5'	0.5	9/5/2019	419100-007	63.7	
004 5 800 0 5	0.5	AOC1-E-B38	444045.004	440	
AOC1-E-B38-0.5'	0.5	5/3/2019	414945-004	142	
AOC1-E-B38-1.5'	1.5	5/3/2019	414945-005	22.1	
AOC1-E-B38E-0.5'	0.5	9/5/2019	419100-013	16.8	
AOC1-E-B38N-0.5'	0.5	9/5/2019	419100-010	66.9	
AOC1-E-B38S-0.5'	0.5	9/5/2019	419100-016	45.8	
004 = 000 0 =	<u> </u>	AOC1-E-B39	444045-004		
AOC1-E-B39-0.5'	0.5	5/3/2019	414945-001	297	
OC1-E-B39-1.5'	1.5	5/3/2019	414945-002	24.2	
AOC1-E-B39E-0.5'	0.5	9/5/2019	419100-019	205	
OUP-37	0.5	9/5/2019	419100-082	102	
AOC1-E-B39E-1.5'	1.5	9/5/2019	419100-020	ND<1	
AOC1-E-B39EE-0.5	0.5	12/9/2019	422549-057	74.2	
)UP-75	0.5	12/9/2019	422549-068	48.7	
AOC1-E-B39N-0.5'	0.5	9/5/2019	419100-022	81.2	
OC1-E-B39N-1.5'	1.5	9/5/2019	419100-023	ND<1	
OC1-E-B39NN-0.5	0.5	12/9/2019	422549-051	107	
OC1-E-B39NN-1.5	1.5	12/9/2019	422549-052	7.27	
OC1-E-B39NE-0.5	0.5	12/9/2019	422549-054	46.1	
OC1-E-B39S-0.5'	0.5	9/5/2019	419100-025	296	
AOC1-E-B39S-1.5'	1.5	9/5/2019	419100-026	ND<1	
AOC1-E-B39SE-0.5	0.5	12/9/2019	422549-060	15.8	
		AOC1-E-B40			

Sample ID	Sample Donth (feet bee)	Data Sample Collected	Lab Sample ID	EPA Method 6010B/7471A (mg/kg)	
Sample ID	Sample Depth (feet bgs)	Date Sample Collected	Lab Sample ID	Lead	
		AOC1-E-B41			
AOC1-E-B41-0.5'	0.5	5/3/2019	414945-013	11.7	
		AOC1-E-B42			
AOC1-E-B42-0.5'	0.5	5/3/2019	414945-010	7.72	
		AOC1-West			
		AOC1-W-B1			
AOC1-W-B1-0.5'	0.5	5/1/2019	414852-031	131	
AOC1-W-B1-1.5'	0.5	5/1/2019	414852-032	6.64	
AOC1-W-B1E-0.5'	0.5	9/5/2019	419100-034	63.3	
AOC1-W-B1N-0.5'	0.5	9/5/2019	419100-028	29.2	
AOC1-W-B1W-0.5'	0.5	9/5/2019	419100-031	35.8	
		AOC1-W-B2			
AOC1-W-B2-0.5'	0.5	5/1/2019	414852-027	311	
AOC1-W-B2-1.5'	1.5	5/1/2019	414852-028	26.2	
AOC1-W-B2E-0.5'	0.5	9/5/2019	419100-043	18.2	
DUP-38	0.5	9/5/2019	419100-083	62.1	
AOC1-W-B2N-0.5'	0.5	9/5/2019	419100-037	8.30	
AOC1-W-B2W-0.5'	0.5	9/5/2019	419100-040	9.01	
		AOC1-W-B3			
AOC1-W-B3-0.5'	0.5	5/1/2019	414852-030	47.2	
		AOC1-W-B4			
AOC1-W-B4-0.5'	0.5	5/1/2019	414852-021	34.1	
		AOC1-W-B5			
AOC1-W-B5-0.5'	0.5	5/1/2019	414852-024	64.4	
1004 W D0 0 5	A 5	AOC1-W-B6	444050.047	201	
AOC1-W-B6-0.5'	0.5	5/1/2019	414852-017	221	
AOC1-W-B6E-0.5'	0.5	9/5/2019	419100-046	250	
AOC1-W-B6E-1.5'	1.5	9/5/2019	419100-047	2.32	
AOC1-W-B6S-0.5'	0.5	9/5/2019	419100-049	12.2	
AOC1-W-B6SW-0.5'	0.5	12/6/2019	422519-049	10.0	
AOC1-W-B6SS-0.5'	0.5	12/6/2019	422519-052	7.39	
AOC1-W-B6SE-0.5'	0.5	12/6/2019	422519-055	31.2	
AOC1-W-B6W-0.5'	0.5	9/5/2019	419100-052	236	
OUP-39	0.5	9/5/2019	419100-084	125	
OC1-W-B6W-1.5'	1.5	9/5/2019	419100-053	2.98	
OC4 W D7 O 5	٥٢	AOC1-W-B7	444000 040	440	
AOC1-W-B7-0.5'	0.5	5/1/2019	414852-018	116	
AOC1-W-B7-1.5'	1.5	5/1/2019	414852-019	20.3	
AOC1-W-B7E-0.5'	0.5	9/5/2019	419100-055	337	
AOC1-W-B7E-1.5'	1.5	9/5/2019	419100-056	1.18	
OC1-W-B7EE-0.5	0.5	12/9/2019	422549-021	13.2	
OC1-W-B7S-0.5'	0.5	9/5/2019	419100-058	52.8	
OC1-W-B7SE-0.5	0.5	12/9/2019	422549-018	9.30	
OO4 NV BZINV 0.51	0.5	12/9/2019	422549-064	27.2	
OC1-W-B7W-0.5'	0.5	9/5/2019	419100-061	86.1	
AOC1-W-B7W-1.5'	1.5	9/5/2019	419100-062	1.40	
1004 W 50 0 =:	2 -	AOC1-W-B8	444050.000	211	
AOC1-W-B8-0.5'	0.5	5/1/2019	414852-014	24.4	
1004 W 50 0 =:	^-	AOC1-W-B9	444050.000	07.1	
AOC1-W-B9-0.5'	0.5	5/1/2019	414852-013	37.1	

Sample ID	Sample Depth (feet bgs)	Date Sample Collected	Lab Sample ID	EPA Method 6010B/7471A (mg/kg)
Sample 10	Sample Depth (leet bys)		Lab Sample ID	Lead
		AOC1-W-B10		
OC1-W-B10-0.5'	0.5	5/1/2019	414852-034	59.2
		AOC1-W-B12		
AOC1-W-B12-0.5'	0.5	4/29/2019	414777-034	38.4
		AOC1-W-B13		
AOC1-W-B13-0.5'	0.5	4/29/2019	414777-037	81.8
AOC1-W-B13-1.5'	1.5	4/29/2019	414777-038	104
AOC1-W-B13-2.5'	2.5	4/29/2019	414777-039	9.36
AOC1-W-B13N-0.5'	0.5	9/5/2019	419100-070	52.6
)UP-40	0.5	9/5/2019	419100-085	64.5
OC1-W-B13S-0.5'	0.5	9/5/2019	419100-067	42.6
OC1-W-B13W-0.5'	0.5	9/5/2019	419100-064	44.1
		AOC1-W-B14		
OC1-W-B14-0.5'	0.5	4/29/2019	414777-040	46.2
22111212	A =	AOC1-W-B15	11100: 5:5	
AOC1-W-B15-0.5'	0.5	4/30/2019	414821-049	75.8
004.00 = 10.0 = :	2 -	AOC1-W-B16	111001 0==	
AOC1-W-B16-0.5'	0.5	4/30/2019	414821-058	62.3
	^ -	AOC1-W-B17		
AOC1-W-B17-0.5'	0.5	4/29/2019	414777-031	53.2
	^ -	AOC1-W-B18	4440-0-0-	40.0
AOC1-W-B18-0.5'	0.5	5/1/2019	414852-007	40.3
004 W B40 0 F	2.5	AOC1-W-B19	444050.004	70.0
AOC1-W-B19-0.5'	0.5	5/1/2019	414852-001	72.6
1004 W D00 0 FL	0.5	AOC1-W-B20	444050 004	50.0
AOC1-W-B20-0.5'	0.5	5/1/2019 AOC1-W-B21	414852-004	53.8
0004 W D04 0 EL	0.5		444004 055	20.0
AOC1-W-B21-0.5'	0.5	4/30/2019	414821-055	28.6
004 W B00 0 FL	0.5	AOC1-W-B22	44.4777.040	00.0
AOC1-W-B22-0.5'	0.5	4/29/2019	414777-043	96.0
AOC1-W-B22-1.5'	1.5	4/29/2019	414777-044	8.98
AOC1-W-B22E-0.5' AOC1-W-B22N-0.5'	0.5	9/5/2019	419100-073	64.3
	0.5	9/5/2019	419100-076	28.4
AOC1-W-B22NW-0.5'	0.5	12/6/2019	422519-022 422519-023	100
AOC1-W-B22NW-1.5' AOC1-W-B22W-0.5'	1.5 0.5	12/6/2019		7.82
OUP-41	0.5	9/5/2019	419100-079	33.4 102
		9/5/2019	419100-086	
AOC1-W-B22W-1.5' AOC1-W-B22WW-0.5'	1.5 0.5	9/5/2019 12/6/2019	419100-080 422519-025	8.96 66.8
0.0-1-44-0224444-0.3	υ.υ 	AOC1-W-B23	422019-020	00.0
OC1-W-B23-0.5'	0.5	4/30/2019	414821-052	403
AOC1-W-B23-0.5	1.5	9/6/2019	419160-038	14.7
OC1-W-B23E-0.5'	0.5	9/6/2019	419160-038	9,340
OC1-W-B23E-0.5	1.5	9/6/2019	419160-044	9,340 131
OC1-W-B23E-1.5	2.5	9/6/2019	419160-045	4.65
OC1-W-B23EE-0.5'	2.5 0.5			
AOC1-W-B23EE-0.5	0.5	12/6/2019 9/6/2019	422519-034 419160-040	29.1 23.5
AOC1-W-B23NW-0.5	0.5 0.5	12/6/2019	422519-028	23.5 12.5
AOC1-W-B23NE-0.5'	0.5			34.4
OUP-69	0.5	12/6/2019 12/6/2019	422519-031 422519-058	36.6
JUF-03	0.0	12/6/2019	422319-030	30.0

Table 4 – Soil Sample Analytical Results – Lead									
Sample ID	Sample Depth (feet bgs)	Date Sample Collected	Lab Sample ID	EPA Method 6010B/7471A (mg/kg)					
				Lead					
OC1-W-B23W-0.5'	0.5	9/6/2019	419160-037	93.5					
OC1-W-B23W-1.5'	1.5	9/6/2019	419160-038	1.94					
		AOC1-W-B24							
OC1-W-B24-0.5'	0.5	4/29/2019	414777-052	67.0					
		AOC1-W-B25							
OC1-W-B25-0.5'	0.5	4/29/2019	414777-055	41.4					
)UP-7	0.5	4/29/2019	414777-088	44.1					
		AOC1-W-B26							
OC1-W-B26-0.5'	0.5	4/29/2019	414777-049	119					
OC1-W-B26-1.5'	1.5	4/29/2019	414777-050	8.46					
OC1-W-B26E-0.5'	0.5	9/6/2019	419160-001	50.7					
OC1-W-B26S-0.5'	0.5	9/6/2019	419160-007	29.0					
)UP-42	0.5	9/6/2019	419160-094	64.6					
OC1-W-B26SW-0.5'	0.5	12/6/2019	422519-040	38.6					
OC1-W-B26W-0.5'	0.5	9/6/2019	419160-004	87.6					
OC1-W-B26W-1.5'	1.5	9/6/2019	419160-005	5.92					
OC1-W-B26WW-0.5'	0.5	12/6/2019	422519-037	17.6					
		AOC1-W-B27							
OC1-W-B27-0.5'	0.5	4/29/2019	414777-046	275					
OC1-W-B27-1.5'	1.5	4/29/2019	414777-047	92.9					
OC1-W-B27-2.5'	2.5	4/29/2019	414777-048	7.82					
OC1-W-B27E-0.5'	0.5	9/6/2019	419160-010	270					
OC1-W-B27E-1.5'	1.5	9/6/2019	419160-011	34.1					
OC1-W-B27EE-0.5'	0.5	12/6/2019	422519-043	63.2					
OC1-W-B27S-0.5'	0.5	9/6/2019	419160-013	19.1					
OC1-W-B27SE-0.5'	0.5	12/6/2019	422519-046	48.5					
DUP-70	0.5	12/6/2019	422519-059	58.5					
OC1-W-B27W-0.5'	0.5	9/6/2019	419160-016	10.4					
		AOC1-W-B28							
.OC1-W-B28-0.5'	0.5	4/30/2019	414821-031	48.6					
	V. V	AOC1-W-B29							
OC1-W-B29-0.5'	0.5	4/30/2019	414821-040	23.7					
	•	AOC1-W-B30							
OC1-W-B30-0.5'	0.5	4/30/2019	414821-046	22.9					
1001 11 200 0.0	0.0	AOC1-W-B31		22.0					
OC1-W-B31-0.5'	0.5	4/29/2019	414777-058	43.2					
1001 W B01 0.0	0.0	AOC1-W-B32		10.2					
OC1-W-B32-0.5'	0.5	4/29/2019	414777-061	49.9					
001-11-032-0.5	0.5	4/25/2015 AOC1-W-B33		40.0					
OC1-W-B33-0.5'	0.5	4/29/2019	414777-067	43.1					
UP-8	0.5	4/29/2019	414777-089	46.2					
-O1 -O	0.0	4/29/2019 AOC1-W-B34		40.2					
OC1 W D24 O 5	0.5			22.5					
OC1-W-B34-0.5'	0.5	4/30/2019	414821-043	33.5					
OC4 W D25 O 5	0.5	AOC1-W-B35		20.0					
OC1-W-B35-0.5'	0.5	4/30/2019	414821-034	29.6					
004 W 500 6 =:	2.5	AOC1-W-B36							
AOC1-W-B36-0.5'	0.5	4/30/2019	414821-037	7.51					

Sample ID	Sample Depth (feet bgs)	Date Sample Collected Lab Sample ID		EPA Method 6010B/7471A (mg/kg	
Sample 10	Sample Depth (leet bys)		Lab Sample ID	Lead	
20111120		AOC1-W-B37	44400:		
OC1-W-B37-0.5'	0.5	4/30/2019	414821-007	12.8	
004 W 000 0 5	0.5	AOC1-W-B39	44.4777.004	07.0	
OC1-W-B39-0.5'	0.5	4/29/2019	414777-064	37.2	
004 W D40 0 5	0.5	AOC1-W-B40	444004.004	400	
AOC1-W-B40-0.5'	0.5	4/30/2019	414821-004	106	
AOC1-W-B40-1.5'	1.5	4/30/2019	414821-005	18.4	
OC1-W-B40E-0.5'	0.5	9/6/2019	419160-022	68.0	
OC1-W-B40N-0.5'	0.5	9/6/2019	419160-019	75.9	
OC1-W-B40S-0.5'	0.5	9/6/2019 AOC1-W-B41	419160-025	64.1	
OC1-W-B41-0.5'	0.5	4/30/2019	414821-001	27.3	
	0.5				
OUP-9	0.5	4/30/2019 AOC1-W-B42	414821-061	26.4	
OC1-W-B42-0.5'	0.5	4/29/2019	414777-070	44.5	
10C1-W-D4Z-0.3	0.5	AOC1-W-B43	414111-010	44.5	
OC1-W-B43-0.5'	0.5	4/30/2019	414821-013	43.8	
(OC1-VV-D43-0.3	0.3	4/30/2019 AOC1-W-B44	414021-013	40.0	
AOC1-W-B44-0.5'	0.5	4/30/2019	414821-016	20.3	
1001 W B++ 0.0	0.0	AOC1-W-B45	414021 010	20.0	
OC1-W-B45-0.5'	0.5	4/30/2019	414821-019	20.5	
1001 W B 10 0.0	0.0	AOC1-W-B46	111021 010	20.0	
OC1-W-B46-0.5'	0.5	4/30/2019	414821-022	16.4	
		AOC1-W-B47			
OC1-W-B47-0.5'	0.5	4/30/2019	414821-025	16.8	
		AOC1-W-B48			
OC1-W-B48-0.5'	0.5	4/30/2019	414821-028	108	
OC1-W-B48-1.5'	1.5	4/30/2019	414821-029	24.9	
OC1-W-B48E-0.5'	0.5	9/6/2019	419160-028	50.1	
OC1-W-B48N-0.5'	0.5	9/6/2019	419160-031	36.6	
)UP-43	0.5	9/6/2019	419160-095	32.7	
OC1-W-B48W-0.5'	0.5	9/6/2019	419160-034	30.3	
		AOC2			
		AOC2-B1			
AOC2-B1-5'	5	5/2/2019	414915-003	3.48	
OC2-B1-15'	15	5/2/2019	414915-005	3.69	
		AOC2-B2			
OC2-B2-5'	5	5/2/2019	414915-001	6.22	
OC2-B2-10'	10	5/2/2019	414915-002	3.14	
		AOC3			
		AOC3-B1			
OC3-B1-5'	5	5/6/2019	415002-021	5.99	
OC3-B1-15'	15	5/6/2019	415002-023	3.18	
000 P0 =:		AOC3-B2	445000 0:-	222	
OC3-B2-5'	5	5/6/2019	415002-017	0.97 B1,J	
OC3-B2-15'	15	5/6/2019	415002-019	1.09	
000 80 5	_	AOC3-B3	445000 005	0.00	
OC3-B3-5'	5	5/6/2019	415002-025	2.83	
AOC3-B3-15'	15	5/6/2019	415002-027	0.88 B1,J	

		EPA Method 6010B/7471A (mg/kg		
Sample ID	Sample Depth (feet bgs)	Date Sample Collected	Lab Sample ID	Lead
		AOC3-B4		
OC3-B4-5'	5	5/2/2019	414915-010	4.57
OC3-B4-15'	15	5/2/2019	414915-012	4.79
		AOC3-B5		
OC3-B5-5'	5	5/2/2019	414915-006	3.83
OC3-B5-15'	15	5/2/2019	414915-008	3.96
		AOC4		
		AOC4-B2		
OC4-B2-E1-5'	5	5/7/2019	415051-005	4.72
OC4-B2-E1-15'	15	5/7/2019	415051-007	5.72
UP-18	15	5/7/2019	415051-025	6.88
OC4-B2-N1-5'	5	5/7/2019	415051-013	3.62
OC4-B2-N1-15'	15	5/7/2019	415051-015	5.72
OC4-B2-S1-5'	5	5/7/2019	415051-009	4.45
OC4-B2-S1-15'	15	5/7/2019	415051-011	9.33
OC4-B2-W1-5'	5	5/7/2019	415051-001	4.91
OC4-B2-W1-15'	15	5/7/2019	415051-003	7.07
004 PC 54 5	-	AOC4-B6	445000 010	24.4
OC4-B6-E1-5'	5	5/6/2019	415002-013	21.4
OC4-B6-E1-15'	15	5/6/2019	415002-015	14.1
OC4-B6-N1-5'	5	5/6/2019	415002-001	12.5
OC4-B6-N1-15'	15	5/6/2019	415002-003	6.79
OC4-B6-S1-5'	5	5/6/2019	415002-009	23.2
OC4-B6-S1-15'	15	5/6/2019	415002-011	0.96 B1,J
OC4-B6-W1-5'	5	5/6/2019	415002-005	15.6
UP-16	5	5/6/2019	415002-030	15.6
OC4-B6-W1-15'	15	5/6/2019	415002-007	3.66
		AOC4-B18		
OC4-B18-E1-5'	5	5/7/2019	415051-017	11.7
OC4-B18-E1-15'	15	5/7/2019	415051-019	7.33
UP-20	15	5/7/2019	415051-027	7.31
OC4-B18-S1-5'	5	5/8/2019	415102-001	121
OC4-B18-S1-10'	10	5/8/2019	415102-002	4.86
OC4-B18-S1-15'	15	5/8/2019	415102-003	7.12
OC4-B18-S1E-1'	1	9/13/2019	419425-021	12.0
OC4-B18-S1E-2.5'	2.5	9/13/2019	419425-022	14.8
OC4-B18-S1E-5'	5	9/13/2019	419425-023	166
OC4-B18-S1E-7.5'	7.5	9/13/2019	419425-024	7.65
OC4-B18-S1N-1'	1	9/13/2019	419425-017	25.2
OC4-B18-S1N-2.5'	2.5	9/13/2019	419425-018	6.32
OC4-B18-S1N-5'	5	9/13/2019	419425-019	4.91
OC4-B18-S1N-7.5'	7.5	9/13/2019	419425-020	4.48
JP-58	7.5	9/13/2019	419425-032	2.69
OC4-B18-S1S-1'	1	9/13/2019	419425-013	19.5
OC4-B18-S1S-2.5'	2.5	9/13/2019	419425-014	5.38
OC4-B18-S1S-5'	5	9/13/2019	419425-015	3.21
OC4-B18-S1S-7.5'	7.5	9/13/2019	419425-016	7.08
OC4-B18-S1W-1'	1	9/13/2019	419425-025	7.78
OC4-B18-S1W-2.5'	2.5	9/13/2019	419425-026	6.84
UP-57	2.5	9/13/2019	419425-031	5.70

				EPA Method 6010B/7471A (mg/kg)
Sample ID	Sample Depth (feet bgs)	Date Sample Collected	Lab Sample ID	Lead
AOC4-B18-S1W-5'	5	9/13/2019	419425-027	2.67
AOC4-B18-S1W-7.5'	7.5	9/13/2019	419425-028	6.98
AOC4-B18-W1-5'	5	5/7/2019	415051-021	4.41
AOC4-B18-W1-15'	15	5/7/2019	415051-023	10.1
DUP-19	15	5/7/2019	415051-026	8.52
		AOC4-B19		0.02
AOC4-B19-E1-5'	5	5/8/2019	415102-009	3.64
AOC4-B19-E1-15'	15	5/8/2019	415102-011	5.16
AOC4-B19-N1-5'	5	5/8/2019	415102-017	3.56
AOC4-B19-N1-15'	15	5/8/2019	415102-019	9.34
AOC4-B19-S1-5'	5	5/8/2019	415102-005	3.12
AOC4-B19-S1-15'	15	5/8/2019	415102-007	6.27
AOC4-B19-W1-5'	5	5/8/2019	415102-013	3.92
AOC4-B19-W1-15'	15	5/8/2019	415102-015	9.83
		AOC5		
		AOC5-B1		
AOC5-B1-0.5'	0.5	5/9/2019	415126-019	155
AOC5-B1-1.5'	1.5	5/9/2019	415126-020	7.35
AOC5-B1N-0.5	0.5	9/9/2019	419195-007	22.0
AOC5-B1S-0.5	0.5	9/9/2019	419195-001	12.2
AOC5-B1W-0.5	0.5	9/9/2019	419195-004	67.7
		AOC5-B2		
AOC5-B2-0.5'	0.5	5/9/2019	415126-022	50.1
		AOC5-B3		
AOC5-B3-0.5'	0.5	5/9/2019	415126-025	69.9
		AOC5-B5		
AOC5-B5-0.5'	0.5	5/9/2019	415126-028	81.0
AOC5-B5-1.5'	1.5	5/9/2019	415126-029	10.2
AOC5-B5E-0.5	0.5	9/9/2019	419195-013	34.2
AOC5-B5S-0.5	0.5	9/9/2019	419195-010	120
AOC5-B5S-1.5	1.5	9/9/2019	419195-011	1.05
AOC5-B5SW-0.5	0.5	12/5/2019	422350-001	10.4
AOC5-B5SS-0.5	0.5	12/5/2019	422350-004	23.2
AOC5-B5SE-0.5	0.5	12/5/2019	422350-007	106
AOC5-B5SE-1.5	1.5	12/5/2019	422350-008	8.03
		AOC5-B7		
AOC5-B7-0.5'	0.5	5/9/2019	415126-031	61.9
		AOC5-B8		
AOC5-B8-0.5'	0.5	5/9/2019	415126-034	81.0
AOC5-B8-1.5'	1.5	5/9/2019	415126-035	32.4
AOC5-B8E-0.5	0.5	12/5/2019	422350-010	46.9
AOC5-B8N-0.5	0.5	9/9/2019	419195-022	92.5
AOC5-B8N-1.5	1.5	9/9/2019	419195-023	32.2
AOC5-B8NE-0.5	0.5	12/5/2019	422350-016	15.1
AOC5-B8NN-0.5	0.5	12/5/2019	422350-019	90.7
AOC5-B8NN-1.5	1.5	12/5/2019	422350-020	10.7
AOC5-B8NW-0.5	0.5	12/5/2019	422350-022	99.6
AOC5-B8NW-1.5	1.5	12/5/2019	422350-023	49.0
AOC5-B8S-0.5	0.5	9/9/2019	419195-016	89.5
AOC5-B8S-1.5	1.5	9/9/2019	419195-017	44.9

1 able 4 - 3011	Sample Analytical R	esuits – Lead							
Sample ID	Sample Depth (feet bgs)	Date Sample Collected	Lab Sample ID	EPA Method 6010B/7471A (mg/kg) Lead					
AOC5-B8SE-0.5	0.5	12/5/2019	422350-013	11.8					
AOC5-B8SS-0.5	0.5	12/5/2019	422350-031	18.8					
AOC5-B8SW-0.5	0.5	12/5/2019	422350-025	17.9					
AOC5-B8W-0.5	0.5	9/9/2019	419195-019	111					
AOC5-B8WW-0.5	0.5	12/5/2019	422350-028	79.2					
DUP-59	0.5	12/5/2019	422350-123	82.7					
	0.0	AOC5-B10	122000 120						
AOC5-B10-0.5'	0.5	5/9/2019	415126-040	110					
AOC5-B10-1.5'	1.5	5/9/2019	415126-041	15.7					
AOC5-B10E-0.5	0.5	9/9/2019	419195-028	28.6					
AOC5-B10S-0.5	0.5	9/9/2019	419195-025	66.6					
		AOC5-B11							
AOC5-B11-0.5'	0.5	5/9/2019	415126-037	119					
AOC5-B11-1.5'	1.5	5/9/2019	415126-038	9.29					
AOC5-B11N-0.5	0.5	9/9/2019	419195-031	63.4					
AOC5-B11S-0.5	0.5	9/9/2019	419195-034	51.4					
DUP-48	0.5	9/9/2019	419195-060	27.6					
		AOC5-B12							
AOC5-B12-0.5'	0.5	5/9/2019	415126-043	109					
AOC5-B12-1.5'	1.5	5/9/2019	415126-044	13.3					
AOC5-B12N-0.5'	0.5	9/6/2019	419160-046	70.3					
OC5-B12S-0.5'	0.5	9/6/2019	419160-049	126					
OUP-47	0.5	9/6/2019	419160-099	149					
AOC5-B12S-1.5'	1.5	9/6/2019	419160-100	4.50					
AOC5-B12SW-0.5	0.5	12/5/2019	422350-034	43.3					
AOC5-B12SS-0.5	0.5	12/5/2019	422350-037	94.3					
AOC5-B12SS-1.5	1.5	12/5/2019	422350-038	13.9					
AOC5-B12SE-0.5	0.5	12/5/2019	422350-040	92.5					
AOC5-B12SE-1.5	1.5	12/5/2019	422350-041	8.68					
		AOC5-B13							
AOC5-B13-0.5'	0.5	5/9/2019	415126-046	98.0					
OC5-B13-1.5'	1.5	5/9/2019	415126-047	15.2					
AOC5-B13E-0.5'	0.5	9/6/2019	419160-055	71.3					
AOC5-B13S-0.5'	0.5	9/6/2019	419160-058	95.3					
OUP-46	0.5	9/6/2019	419160-098	66.4					
OC5-B13S-1.5'	1.5	9/6/2019	419160-099	2.46					
AOC5-B13SW-0.5	0.5	12/5/2019	422350-046	87.6					
OUP-60	0.5	12/5/2019	422350-124	95.6					
AOC5-B13SW-1.5	1.5	12/5/2019	422350-047	15.9					
OC5-B13SS-0.5	0.5	12/5/2019	422350-049	65.6					
OC5-B13SE-0.5	0.5	12/5/2019	422350-052	75.8					
OC5-B13W-0.5'	0.5	9/6/2019	419160-052	93.0					
OC5-B13W-1.5'	1.5	9/6/2019	419160-053	9.70					
OC5-B13WW-0.5	0.5	12/5/2019	422350-043	163					
OC5-B13WW-1.5	1.5	12/5/2019	422350-044	23.2					
		AOC5-B14							
AOC5-B14-0.5'	0.5	5/9/2019	415126-049	123					
AOC5-B14-1.5'	1.5	5/9/2019	415126-050	155					
AOC5-B14-2.5'	2.5	5/9/2019	415126-051	27.3					
AOC5-B14N-0.5	0.5	9/9/2019	419195-037	204					

0	Occupie Develope	Data Carried Bull and	1-1-0	EPA Method 6010B/7471A (mg/kg					
Sample ID	Sample Depth (feet bgs)	Date Sample Collected	Lab Sample ID	Lead					
OC5-B14N-1.5	1.5	9/9/2019	419195-038	8.78					
AOC5-B14NN-0.5	0.5	12/5/2019	422350-064	170					
OUP-61	0.5	12/5/2019	422350-125	188					
AOC5-B14NN-1.5	1.5	12/5/2019	422350-065	80.6					
AOC5-B14NN-2.5	2.5	12/5/2019	422350-066	3.17					
AOC5-B14NW-0.5	0.5	12/5/2019	422350-067	71.4					
AOC5-B14S-0.5	0.5	9/9/2019	419195-040	3,370					
AOC5-B14S-1.5	1.5	9/9/2019	419195-041	ND<1					
AOC5-B14SW-0.5	0.5	12/5/2019	422350-055	98.6					
AOC5-B14SW-1.5	1.5	12/5/2019	422350-056						
AOC5-B14SS-0.5	0.5	12/5/2019	422350-061	108					
AOC5-B14SS-1.5	1.5	12/5/2019	422350-062	31.8					
AOC5-B14SSS-0.5	0.5	12/5/2019	422350-058	107					
AOC5-B14SSS-1.5	1.5	12/5/2019	422350-059	102					
AOC5-B14SSS-2.5	2.5	12/5/2019	422350-060	15.5					
AOC5-B14W-0.5	0.5	9/9/2019	419195-043	174					
AOC5-B14W-1.5	1.5	9/9/2019	419195-044	ND<1					
.555 5.117 1.0	1.0	AOC5-B15	110100 077	140 -1					
AOC5-B15-0.5'	0.5	5/9/2019	415126-052	243					
AOC5-B15-1.5'	1.5	5/9/2019	415126-053	151					
AOC5-B15-2.5'	2.5	5/9/2019	415126-054	17.0					
AOC5-B15N-0.5	0.5	9/9/2019	419195-046	71.0					
AOC5-B15S-0.5	0.5	9/9/2019	419195-049	71.0 321					
AOC5-B15S-1.5	1.5	9/9/2019	419195-050	1.50					
AOC5-B15W-0.5	0.5	9/9/2019	419195-052	49.9					
1000 1000 0.0	0.0	AOC5-B17	110100 002	10.0					
AOC5-B17-0.5'	0.5	5/9/2019	415126-058	122					
AOC5-B17-1.5'	1.5	5/9/2019	415126-059	31.4					
AOC5-B17E-0.5'	0.5	9/6/2019	419160-064	84.5					
AOC5-B17E-1.5'	1.5	9/6/2019	419160-065	ND<1					
AOC5-B17EE-0.5'**	0.5	12/5/2019	422350-073	13.6					
OUP-62	0.5	12/5/2019	422350-073	26.6					
AOC5-B17N-0.5'	0.5	9/6/2019	419160-067	101					
OUP-45	0.5	9/6/2019	419160-007	118					
AOC5-B17NE-0.5	0.5	12/5/2019	422350-070	64.3					
AOC5-B17W-0.5'	0.5	9/6/2019	419160-061	9.24					
	0.0	AOC5-B18	+ 13100-001	J.27					
AOC5-B18-0.5	0.5	5/9/2019	415126-061	54.9					
1000 2 10 0.0	0.0	AOC5-B21	110120 001	<u> </u>					
AOC5-B21-0.5'	0.5	5/9/2019	415126-007	179					
AOC5-B21-1.5'	1.5	5/9/2019	415126-008	118					
OC5-B21-2.5'	2.5	5/9/2019	415126-009	44.0					
OC5-B21E-0.5'	0.5	9/6/2019	419160-076	61.5					
OC5-B21NW-0.5	0.5	12/5/2019	422350-082	85.7					
OC5-B21NW-1.5	1.5	12/5/2019	422350-083	23.7					
OC5-B21S-0.5'	0.5	9/6/2019	419160-073	57.5					
AOC5-B21SW-0.5	0.5	12/5/2019	422350-079	95.9					
OUP-64	0.5	12/5/2019	422350-079	95.9					
	1.5								
AOC5-B21SW-1.5	6.1	12/5/2019 9/6/2019	422350-080	17.4					

				EPA Method 6010B/7471A (mg/kg)					
Sample ID	Sample Depth (feet bgs)	Date Sample Collected	Lab Sample ID	Lead					
OC5-B21W-1.5'	1.5	9/6/2019	419160-071	2.77					
OC5-B21WW-0.5	0.5	12/5/2019	422350-085	49.4					
1000 B21WW 0.0	0.0	AOC5-B22	122000 000	10.1					
AOC5-B22-0.5'	0.5	5/9/2019	415126-001	48.1					
		AOC5-B23	110120 001						
AOC5-B23-0.5'	0.5	5/9/2019	415126-010	126					
OUP-27	0.5	5/9/2019	415126-070	262					
AOC5-B23-1.5'	1.5	5/9/2019	415126-011	9.63					
AOC5-B23N-0.5'	0.5	9/6/2019	419160-085	22.9					
OUP-44	0.5	9/6/2019	419160-096	30.4					
AOC5-B23S-0.5'	0.5	9/6/2019	419160-079	48.0					
AOC5-B23W-0.5'	0.5	9/6/2019	419160-082	70.7					
1000 B2011 0:0	0.0	AOC5-B24	110100 002	70					
OC5-B24-0.5'	0.5	5/9/2019	415126-013	14.3					
OUP-28	0.5	5/9/2019	415126-071	72.4					
	3.0	AOC5-B25							
AOC5-B25-0.5'	0.5	5/9/2019	415126-016	160					
OUP-29	0.5	5/9/2019	415126-072	152					
AOC5-B25-1.5'	1.5	5/9/2019	415126-017	165					
AOC5-B25-2.5'	2.5	5/9/2019	415126-018	22.7					
AOC5-B25E-0.5'	0.5	9/6/2019	419160-088	2.90					
AOC5-B25W-0.5'	0.5	9/6/2019	419160-091						
AOC5-B25W-1.5'	1.5	9/6/2019	419160-092	43.9					
AOC5-B25WW-0.5	0.5	12/5/2019	422350-076	106					
OUP-63	0.5	12/5/2019	422350-127	56.6					
AOC5-B25WW-1.5	1.5	12/5/2019	422350-077	151					
AOC5-B25WW-2.5	2.5	12/5/2019	422350-078	21.2					
1000 B201111 2.0	2.0	AOC5-B26	122000 010	21.2					
AOC5-B26-0.5	0.5	3/16/2020	425982-001	210					
AOC5-B26-1.5	1.5	3/16/2020	425982-002	6.7					
1000 B20 1.0	1.0	AOC5-B27	120002 002	5. .					
AOC5-B27-0.5	0.5	3/16/2020	425982-004	71					
		AOC5-B28							
AOC5-B28-0.5	0.5	3/16/2020	425982-007	45					
		AOC5-B29							
AOC5-B29-0.5	0.5	3/16/2020	425982-010	8.7					
		AOC5-B30							
AOC5-B30-0.5	0.5	3/16/2020	425982-013	85					
OUP-76	0.5	3/16/2020	425982-058	28					
AOC5-B30-1.5	1.5	3/16/2020	425982-014	57					
		AOC5-B31							
OC5-B31-0.5	0.5	3/16/2020	425982-016	130					
)UP-77	0.5	3/16/2020	425982-059	75					
OC5-B31-1.5	1.5	3/16/2020	425982-017	15					
		AOC5-B32							
AOC5-B32-0.5	0.5	3/16/2020	425982-019	90					
AOC5-B32-1.5	1.5	3/16/2020	425982-020	28					
		AOC5-B33							
	0.5	3/16/2020	425982-022	40					

EPA Method 6010B/7471A (mg/										
Sample ID	Sample Depth (feet bgs)	Date Sample Collected	Lab Sample ID	EPA Method 6010B/7471A (mg/kg						
		AOC5-B34		Leau						
AOC5-B34-0.5	0.5	3/16/2020	425982-025	95						
AOC5-B34-1.5	1.5	3/16/2020	425982-026	8.0						
		AOC5-B35								
AOC5-B35-0.5	0.5	3/16/2020	425982-028	200						
AOC5-B35-1.5	1.5	3/16/2020	425982-029	7.2						
		AOC5-B36								
AOC5-B36-0.5	0.5	3/16/2020	425982-031	140						
AOC5-B36-1.5	1.5	3/16/2020	425982-032	31						
		AOC5-B37								
AOC5-B37-0.5	0.5	3/16/2020	425982-034	200						
AOC5-B37-1.5	1.5	3/16/2020	425982-034	14						
		AOC5-B38								
AOC5-B38-0.5	0.5	3/16/2020	425982-037	600						
DUP-78	0.5	3/16/2020	425982-060	280						
AOC5-B38-1.5	1.5	3/16/2020	425982-038	6.0						
		AOC5-B39								
AOC5-B39-0.5	0.5	3/16/2020	425982-040	220						
DUP-79	0.5	3/16/2020	425982-061	250						
AOC5-B39-1.5	1.5	3/16/2020	425982-041	50						
		AOC5-B40								
AOC5-B40-0.5	0.5	3/16/2020	425982-043	120						
DUP-80	0.5	3/16/2020	425982-062	100						
AOC5-B40-1.5	1.5	3/16/2020	425982-044	87						
AOC5-B40-2.5	2.5	3/16/2020	425982-045	4.4						
		AOC5-B41								
AOC5-B41-0.5	0.5	3/16/2020	425982-046	750						
AOC5-B41-1.5	1.5	3/16/2020	425982-047	36						
		AOC5-B43								
AOC5-B43-0.5	0.5	3/16/2020	425982-052	250						
AOC5-B43-1.5	1.5	3/16/2020	425982-053	9.0						
		AOC5-B44								
AOC5-B44-0.5	0.5	3/16/2020	425982-055	140						
AOC5-B44-1.5	1.5	3/16/2020	425982-056	37						
Quality Control Sam										
EB-042919	NA	4/29/2019	414777-090	ND<0.01						
EB-043019	NA	4/30/2019	414821-065	0.015						
EB-050119A	NA	5/1/2019	414852-073	0.006 J						
EB-050119B	NA	5/1/2019	414852-074	ND<0.01						
EB-050219A	NA	5/2/2019	414915-014	ND<0.01						
EB-050219B	NA	5/2/2019	414915-015	ND<0.01						
B-050319	NA	5/3/2019	414945-049	ND<0.01						
B-050619A	NA	5/6/2019	415002-032	ND<0.01						
B-050619B	NA	5/6/2019	415002-033	ND<0.01						
B-050619C	NA	5/6/2019	415002-034	ND<0.01						
B-050719A	NA	5/7/2019	415051-028	ND<0.01						
EB-050719B	NA	5/7/2019	415051-029	ND<0.01						
EB-050819A	NA	5/8/2019	415102-021	0.006 J						
EB-050819B	NA	5/8/2019	415102-022	ND<0.01						

Sample ID	Sample Depth (feet bgs)	Date Sample Collected	Lab Sample ID	EPA Method 6010B/7471A (mg/kg)
Sample 1D	Sample Depth (leet bys)	Date Sample Conected	Lab Sample ID	Lead
EB-050919A	NA	5/9/2019	415126-088	0.006 J
EB-050919B	NA	5/9/2019	415126-089	0.008 J
B-050819A	NA	5/8/2019	415102-021	0.006 J
B-050819B	NA	5/8/2019	415102-022	ND<0.01
EB-050919A	NA	5/9/2019	415126-088	0.006 J
EB-050919B	NA	5/9/2019	415126-089	0.008 J
EB-090319A	NA	9/3/2019	418957-105	ND<0.01
EB-090319B	NA	9/3/2019	418957-106	ND<0.01
EB-090419	NA	9/4/2019	419028-072	ND<0.01
EB-090519	NA	9/5/2019	419100-087	ND<0.01
EB-090619	NA	9/6/2019	419160-100	ND<0.01
EB-090919	NA	9/9/2019	419195-061	ND<0.01
EB-090519	NA	9/5/2019	419100-087	ND<0.01
EB-120519A	NA	12/5/2019	422350-121	ND<0.01
EB-120519B	NA	12/5/2019	422350-122	ND<0.01
EB-120619A	NA	12/6/2019	422519-060	ND<0.01
EB-120919A	NA	12/9/2019	422549-001	ND<0.01
EB-120919B	NA	12/9/2019	422549-002	ND<0.01
Regulatory Screenin	g Levels (mg/kg)			
PA RSLs (Residentia	al Soil)			400
OTSC HERO HHRA (I	Residential Soil)			80***

Bold indicates value is above screening level

B1 - analyte was present in a sample and associated method blank greater than the method detection limit but less than the reporting detection limit

bgs - below ground surface

DTSC HERO HHRA - Department of Toxic Substances Control Human and Ecological Risk Office Human Health Risk Assessment, Note 3, Recommended Screening Levels for Soil (November 2019)

DUP - duplicate of the sample listed above

EPA - United States Environmental Protection Agency

ID - Identification

J - report value is estimated

mg/kg - milligrams per kilogram

mg/l - milligrams per liter

NA - not applicable

ND< - not detected above the laboratory reporting limit

RSLs - United States Environmental Protection Agency Regional Screening Levels (November 2019)

^{*} AOC1-B4WW was mislabeled as AOC1-B4NW

^{**} AOC5-B17EE was mislabeled as AOC5-B17E

^{***} non-cancer endpoint

Table 5 – Soil	Sample Ar	nalytical R	lesults – V	OCs																			
												VOC	EPA Metho	od 8260B (բ	ıg/kg)								
Sample ID	Sample Depth (feet bgs)	Date Sample Collected	Lab Sample ID	1,2,4-Trimethylbenzene	1,3,5-Trimethylbenzene	2-Butanone (MEK)	4-Isopropyltoluene	Acetone	Benzene	Ethylbenzene	Isopropylbenzene	m and p-Xylene	Methylene chloride	N-butylbenzene	N-propylbenzene	Naphthalene	o-Xylene	Sec-butylbenzene	t-Butyl alcohol (TBA)	Toluene	Trichlorofluoromethane	Xylenes (Total)	Other VOCs
											AOC2												
AOC2-B1-5'	5	05/02/2019	414915-003	ND<4.5	ND<4.5	2.4 J	ND<4.5	ND<90	2.2 J	ND<4.5	ND<4.5	ND<4.5	ND<4.5	ND<4.5	ND<4.5	ND<4.5	ND<4.5	ND<4.5	9.0	0.74 J	ND<4.5	ND<4.5	ND
AOC2-B1-10'	10	05/02/2019	414915-004	ND<4	ND<4	2.8 J	ND<4	ND<80	2.9 J	ND<4	ND<4	ND<4	ND<4	ND<4	ND<4	ND<4	ND<4	ND<4	ND<8	0.86 J	ND<4	ND<4	ND
AOC2-B1-15'	15	05/02/2019	414915-005	ND<4	ND<4	ND<80	ND<4	ND<80	0.59 J	ND<4	ND<4	ND<4	ND<4	ND<4	ND<4	ND<4	ND<4	ND<4	ND<8	0.28 J	ND<4	ND<4	ND
AOC2-B2-5'	5	05/02/2019	414915-001	8,300	2,500	ND<17,860	ND<893	ND<17,860	72 J	750 J	270 J	3400	ND<893	2,500	810 J	6,000	1,600	820 J	ND<1,786	530 J	ND<893	5,000	ND
AOC2-B2-10'	10	05/02/2019	414915-002	500	160 J	ND<4,240	37 J	ND<4,240	ND<212	37 J	15 J	170 J	ND<212	180 J	47 J	350	140 J	74 J	ND<424	31 J	ND<212	310	ND
AOC2-B2E-5	5	ND<70	419195-055	310 E	100	ND<80	20	ND<80	22 ND 44	66 ND 44	14 ND 44	120	ND<4	110	34	ND<212	120	28	ND<8	19 ND 44	ND<4	240	ND
AOC2-B2W-5	5	09/09/2019	419195-057	6.0	ND<4	ND<80	4.7	ND<80	ND<4	ND<4	ND<4	ND<4	ND<4	ND<4	ND<4	ND<4	ND<4	6.4	ND<8	ND<4	ND<4	ND<4	ND
4.000 P4 FI	F	05/00/0040	445000 004	0.40.1	ND 45	0.0.1	ND 45	ND -00	0.54.1	ND 4.5		ND 45	ND 45	ND 45	ND 4.5	ND 4.5	ND 4.5	ND 45	ND .0	0.00.1	0.05.1	ND 4.5	NID
AOC3-B1-5'	5	05/06/2019	415002-021	0.42 J	ND<4.5	2.3 J	ND<4.5	ND<90	0.54 J	ND<4.5	ND<4.5	ND<4.5	ND<4.5	ND<4.5	ND<4.5	ND<4.5	ND<4.5	ND<4.5	ND<9	0.33 J	0.35 J	ND<4.5	ND
AOC3-B1-15'	15	05/06/2019	415002-023	ND<4	ND<4	ND<80	ND<4	ND<80	1.8 J	ND<4	ND<4	ND<4	0.66 J	ND<4	ND<4	ND<4	ND<4	ND<4	ND<8	0.93 J	ND<4	ND<4	ND
AOC3-B1N-10'	10	09/10/2019	419243-002	ND<4	ND<4	ND<80	ND<4	150 S3	11 S3	ND<4	ND<4	ND<4	ND<4	ND<4	ND<4	ND<4	ND<4	ND<4	ND<8	5.8 S3	ND<4	ND<4	ND
AOC3-B1N-15'	15	09/10/2019	419243-003	ND<4	ND<4	ND<80	ND<4	ND<80	5.6 S3	ND<4	ND<4	ND<4	ND<4	ND<4	ND<4	ND<4	ND<4	ND<4	ND<8	ND<4	ND<4	ND<4	ND
AOC3-B1E-15' AOC3-B1E-20'	15 20	09/10/2019 09/10/2019	419243-007 419243-008	ND<4 ND<3.5	ND<4 ND<3.5	ND<80 ND<70	ND<4 ND<3.5	ND<80 ND<70	ND<4 ND<3.5	ND<4 ND<3.5	ND<4 ND<3.5	ND<4 ND<3.5	ND<4 ND<3.5	ND<4 ND<3.5	ND<4 ND<3.5	ND<4 ND<3.5	ND<4 ND<3.5	ND<4 ND<3.5	ND<8 ND<7	ND<4 ND<3.5	ND<4 ND<3.5	ND<4 ND<3.5	ND ND
AOC3-B1E-20	5	05/06/2019	415002-017	0.69	ND<5.5	3.7	ND<6.5	ND<130	ND<5.5	0.33	ND<5.5	ND<5.5	ND<5.5	ND<5.5	ND<5.5	0.42	ND<5.5	ND<5.5	ND<13	0.40	ND<5.5	ND<5.5	ND
AOC3-B2-15'	15	05/06/2019	415002-017	0.09	ND<0.5	2.7	ND<0.5	ND<90	3.0	0.53	ND<0.5	0.77	7.1	ND<0.5	ND<0.5 ND<4.5	0.42	0.35	ND<0.5	ND<13	3.0	ND<0.5	1.12	ND
AOC3-B2E-10'	10	09/10/2019	419243-014	ND<4	ND<4	ND<80	ND<4	ND<80	4.2 S3	ND<4	ND<4	ND<4	ND<4	ND<4	ND<4	ND<4	0.55 ND<4	ND<4	ND<8	ND<4	ND<4	ND<4	ND
AOC3-B2E-15'	15	09/10/2019	419243-015	ND<4	ND<4	ND<80	ND<4	ND<80	4.2 00 ND<4	ND<4	ND<4	ND<4	ND<4	ND<4	ND<4	ND<4	ND<4	ND<4	ND<8	ND<4	ND<4	ND<4	ND
DUP-49	15	09/10/2019	419243-033	ND<5	ND<5	ND<100	ND<5	ND<100	ND<5	ND<5	ND<5	ND<5	ND<5	ND<5	ND<5	ND<5	ND<5	ND<5	ND<10	ND<5	ND<5	ND<5	ND
AOC3-B2N-5'	5	09/10/2019	419243-017	ND<4	ND<4	ND<80	ND<4	ND<80	ND<4	ND<4	ND<4	ND<4	ND<4	ND<4	ND<4	ND<4	ND<4	ND<4	ND<8	ND<4	ND<4	ND<4	ND
DUP-50	5	09/10/2019	419243-034	ND<5.5	ND<5.5	ND<110	ND<5.5	ND<110	ND<5.5	ND<5.5	ND<5.5	ND<5.5	ND<5.5	ND<5.5	ND<5.5	ND<5.5	ND<5.5	ND<5.5	ND<11	ND<5.5	ND<5.5	ND<5.5	ND
AOC3-B2N-10'	10	09/10/2019	419243-018	ND<4	ND<4	ND<80	ND<4	ND<80	4.3	ND<4	ND<4	ND<4	ND<4	ND<4	ND<4	ND<4	ND<4	ND<4	ND<8	ND<4	ND<4	ND<4	ND
AOC3-B2S-10'	10	09/10/2019	419243-010	ND<3.5	ND<3.5	ND<70	ND<3.5	ND<70	ND<3.5	ND<3.5	ND<3.5	ND<3.5	ND<3.5	ND<3.5	ND<3.5	ND<3.5	ND<3.5	ND<3.5	ND<7	ND<3.5	ND<3.5	ND<3.5	ND
AOC3-B2S-15'	15	09/10/2019	419243-011	ND<4.5	ND<4.5	ND<90	ND<4.5	ND<90	ND<4.5	ND<4.5	ND<4.5	ND<4.5	ND<4.5	ND<4.5	ND<4.5	ND<4.5	ND<4.5	ND<4.5	ND<9	ND<4.5	ND<4.5	ND<4.5	ND
AOC3-B3-5'	5	05/06/2019	415002-025	ND<5.5	ND<5.5	4.1 J	ND<5.5	370	2.3 J	ND<5.5	ND<5.5	ND<5.5	3.6 J	ND<5.5	ND<5.5	ND<5.5	ND<5.5	ND<5.5	10 J	1.2 J	ND<5.5	ND<5.5	ND
AOC3-B3-15'	15	05/06/2019	415002-027	ND<4.5	ND<4.5	3.6 J	ND<4.5	83 J	1.8 J	0.23 J	ND<4.5	ND<4.5	8.3	ND<4.5	ND<4.5	ND<4.5	ND<4.5	ND<4.5	ND<9	1.4 J	ND<4.5	ND<4.5	ND
AOC3-B3E-10'	10	09/10/2019	419243-030	ND<4	ND<4	ND<80	ND<4	ND<80	ND<4	ND<4	ND<4	ND<4	ND<4	ND<4	ND<4	ND<4	ND<4	ND<4	ND<8	ND<4	ND<4	ND<4	ND
AOC3-B3E-15'	15	09/10/2019	419243-031	ND<4	ND<4	ND<80	ND<4	ND<80	5.0	ND<4	ND<4	ND<4	ND<4	ND<4	ND<4	ND<4	ND<4	ND<4	ND<8	ND<4	ND<4	ND<4	ND
AOC3-B3S-10'	10	09/10/2019	419243-026	ND<3.5	ND<3.5	ND<70	ND<3.5	85 S3	11 S3	ND<3.5	ND<3.5	ND<3.5	ND<3.5	ND<3.5	ND<3.5	ND<3.5	ND<3.5	ND<3.5	ND<7	5.0 S3	ND<3.5	ND<3.5	ND
AOC3-B3S-20'	20	09/10/2019	419243-028	ND<4	ND<4	ND<80	ND<4	ND<80	ND<4	ND<4	ND<4	ND<4	ND<4	ND<4	ND<4	ND<4	ND<4	ND<4	ND<8	ND<4	ND<4	ND<4	ND
DUP-52	20	09/10/2019	419243-036	ND<4.5	ND<4.5	ND<90	ND<4.5	ND<90	ND<4.5	ND<4.5	ND<4.5	ND<4.5	ND<4.5	ND<4.5	ND<4.5	ND<4.5	ND<4.5	ND<4.5	ND<9	ND<4.5	ND<4.5	ND<4.5	ND
AOC3-B3W-5'	5	09/10/2019	419243-021	ND<4	ND<4	ND<80	ND<4	ND<80	ND<4	ND<4	ND<4	ND<4	ND<4	ND<4	ND<4	ND<4	ND<4	ND<4	ND<8	ND<4	ND<4	ND<4	ND
DUP-51	5	09/10/2019	419243-035	ND<4	ND<4	ND<80	ND<4	ND<80	ND<4	ND<4	ND<4	ND<4	ND<4	ND<4	ND<4	ND<4	ND<4	ND<4	ND<8	ND<4	ND<4	ND<4	ND
AOC3-B3W-15'	15	09/10/2019	419243-023	ND<5	ND<5	ND<100	ND<5	ND<100	ND<5	ND<5	ND<5	ND<5	ND<5	ND<5	ND<5	ND<5	ND<5	ND<5	ND<10	ND<5	ND<5	ND<5	ND
AOC3-B4-5'	5	05/02/2019	414915-010	ND<3.5	ND<3.5	1.6 J	ND<3.5	ND<70	1.1 J	ND<3.5	ND<3.5	ND<3.5	ND<3.5	ND<3.5	ND<3.5	ND<3.5	ND<3.5	ND<3.5	ND<7	0.36 J	ND<3.5	ND<3.5	ND

												VOC	s EPA Metho	od 8260B (µ	ıg/kg)								
Sample ID	Sample Depth (feet bgs)	Date Sample Collected	Lab Sample ID	1,2,4-Trimethylbenzene	1,3,5-Trimethylbenzene	2-Butanone (MEK)	4-Isopropyltoluene	Acetone	Benzene	Ethylbenzene	Isopropylbenzene	m and p-Xylene	Methylene chloride	N-butylbenzene	N-propylbenzene	Naphthalene	o-Xylene	Sec-butylbenzene	t-Butyl alcohol (TBA)	Toluene	Trichlorofluoromethane	Xylenes (Total)	Other VOCs
AOC3-B4-15'	15	05/02/2019	414915-012	ND<4	ND<4	1.7 J	ND<4	ND<80	2.3 J	0.35 J	ND<4	0.44 J	ND<4	ND<4	ND<4	ND<4	0.16 J	ND<4	ND<8	2.2 J	ND<4	0.6 J	ND
AOC3-B5-5'	5	5/2/2019	414915-006	ND<4.5	ND<4.5	2.1 J	ND<4.5	ND<90	1.8 J	0.26 J	ND<4.5	0.38 J	ND<4.5	ND<4.5	ND<4.5	ND<4.5	ND<4.5	ND<4.5	9.6	1.6 J	ND<4.5	0.38 J	ND
AOC3-B5-15'	15	05/02/2019	414915-008	ND<3.5	ND<3.5	ND<70	ND<3.5	ND<70	0.76 J	ND<3.5	ND<3.5	ND<3.5	ND<3.5	ND<3.5	ND<3.5	ND<3.5	ND<3.5	ND<3.5	ND<7	0.43 J	ND<3.5	ND<3.5	ND
											AOC4												
AOC4-B2-N1-5'	5	05/07/2019	415051-013	ND<4	ND<4	3.7 J	ND<4	ND<80	3.1 J	0.28 J	ND<4	0.39 J	ND<4	ND<4	ND<4	ND<4	ND<4	ND<4	ND<8	1.8 J	ND<4	0.39 J	ND
AOC4-B2-N1-15'	15	05/07/2019	415051-015	ND<4	ND<4	1.4 J	ND<4	ND<80	0.52 J	ND<4	ND<4	ND<4	ND<4	ND<4	ND<4	ND<4	ND<4	ND<4	ND<8	0.31 J	ND<4	ND<4	ND
AOC4-B2-S1-5'	5	05/07/2019	415051-009	ND<4.5	ND<4.5	3.6 J	ND<4.5	50 J	2.4 J	ND<4.5	ND<4.5	ND<4.5	ND<4.5	ND<4.5	ND<4.5	ND<4.5	ND<4.5	ND<4.5	8.4 J	1.0 J	ND<4.5	ND<4.5	ND
AOC4-B2-S1-15'	15	05/07/2019	415051-011	ND<4	ND<4	ND<80	ND<4	ND<80	ND<4	ND<4	ND<4	ND<4	ND<4	ND<4	ND<4	ND<4	ND<4	ND<4	ND<8	ND<4	ND<4	ND<4	ND
AOC4-B2-E1-5'	5	05/07/2019	415051-005	ND<4.5	ND<4.5	2.9 J	ND<4.5	52 J	2.5 J	0.31 J	ND<4.5	0.38 J	ND<4.5	ND<4.5	ND<4.5	ND<4.5	ND<4.5	ND<4.5	9.7	1.7 J	ND<4.5	0.38 J	ND
AOC4-B2-E1-15'	15	05/07/2019	415051-007	ND<4	ND<4	ND<80	ND<4	ND<80	0.23 J	ND<4	ND<4	ND<4	ND<4	ND<4	ND<4	ND<4	ND<4	ND<4	ND<8	0.17 J	ND<4	ND<4	ND
DUP-18	15	05/07/2019	415051-025	ND<5	ND<5	ND<100	ND<5	65 J	0.52 J	ND<5	ND<5	ND<5	3.5 J	ND<5	ND<5	ND<5	ND<5	ND<5	ND<10	0.36 J	ND<5	ND<5	ND
AOC4-B2-W1-5'	5	05/07/2019	415051-001	ND<4.5	ND<4.5	2.4 J	ND<4.5	ND<90	1.3 J	ND<4.5	ND<4.5	ND<4.5	ND<4.5	ND<4.5	ND<4.5	ND<4.5	ND<4.5	ND<4.5	9.5	0.78 J	ND<4.5	ND<4.5	ND
AOC4-B2-W1-15'	15	05/07/2019	415051-003	ND<4	ND<4	1.7 J	ND<4	ND<80	ND<4	ND<4	ND<4	ND<4	ND<4	ND<4	ND<4	ND<4	ND<4	ND<4	ND<8	ND<4	0.23 J	ND<4	ND
AOC4-B6-N1-5'	5	05/06/2019	415002-001	ND<4	ND<4	2.3 J	ND<4	ND<80	1.3 J	ND<4	ND<4	ND<4	ND<4	ND<4	ND<4	ND<4	ND<4	ND<4	ND<8	0.59 J	ND<4	ND<4	ND
AOC4-B6-N1-15'	15	05/06/2019	415002-003	1.4 J	0.23 J	3.0 J	ND<4	ND<80	0.40 J	64	9.6	ND<4	ND<4	4.8	30	1.9 J	0.44 J	3.3 J	ND<8	0.25 J	ND<4	0.44 J	ND
AOC4-B6-S1-5' AOC4-B6-S1-15'	5 15	05/06/2019 05/06/2019	415002-009 415002-011	2.8 240	0.70 17	2.1 1.8 J	ND<4 4.2	ND<80 ND<80	1.1 1.0 J	0.61 73	ND<4 9.6	0.77 75	ND<4 ND<4	0.45 6.3	0.54 20	1.7 10	0.42 31	ND<4 2.6 J	ND<8 ND<8	0.42 0.42 J	ND<4 ND<4	1.19 106	ND ND
AOC4-B6-S1-15 AOC4-B6-E1-5'	5	05/06/2019	415002-011	0.61	ND<3.5	1.8	ND<3.5	ND<70	0.79	0.23	9.0 ND<3.5	ND<3.5	ND<4	0.36	0.30	0.57	ND<3.5	0.66	ND<7	0.42 3	ND<4	ND<3.5	ND
AOC4-B6-E1-10'	10	05/06/2019	415002-013	ND<3.5	ND<3.5	2.9 J	ND<3.5	ND<70	0.79 0.67 J	ND<3.5	ND<3.5	ND<3.5	ND<3.5	ND<3.5	ND<3.5	ND<3.5	ND<3.5	ND<3.5	ND<7	0.23 J	ND<3.5	ND<3.5	ND
AOC4-B6-E1-15'	15	05/06/2019	415002-014	54,000	11,000	ND<37.880	1,300 J	ND<37,880		24,000	4,500	24,000	ND<1,894	8,000	16,000	15,000	7,300	1,800 J	ND<3,788	92 J	ND<1,894	31,300	ND
AOC4-B6-E1-20'	20	05/06/2019	415002-016	8,600	1,900	ND<20,490	460 J		ND<1,024.5	5,300	650 J	13,000	ND<1024.5	840 J	1,600	1,500	6,600	380 J	ND<2.049	37 J	ND<1,024.5		ND
AOC4-B6-E1E-10'	10	09/12/2019	419372-010	ND<4	ND<4	ND<80	ND<4	ND<80	ND<4	ND<4	ND<4	ND<4	ND<4	ND<4	ND<4	ND<4	ND<4	ND<4	ND<8	ND<4	ND<4	ND<4	ND
AOC4-B6-E1E-15'	15	09/12/2019	419372-011	ND<240.5	ND<240.5		ND<240.5		ND<240.5	1,300	260	ND<240.5		350	890	610	ND<240.5	ND<240.5	ND<481	ND<240.5	ND<240.5	ND<240.5	ND
AOC4-B6-E1E-20'	20	09/12/2019	419372-012	ND<352	ND<352	ND<7,040	560	ND<7,040	ND<352	11,000	1,100	ND<352	ND<352	590	2,000	980	ND<352	620	ND<704	ND<352	ND<352	ND<352	ND
AOC4-B6-E1N-10'	10	09/12/2019	419372-014	ND<4	ND<4	ND<80	ND<4	ND<80	24	ND<4	ND<4	ND<4	ND<4	ND<4	ND<4	ND<4	ND<4	ND<4	ND<8	14	ND<4	ND<4	ND
AOC4-B6-E1N-15'	15	09/12/2019	419372-015	47	ND<4	ND<80	ND<4	ND<80	ND<4	560	23	27	ND<4	9.4	72	160	23	5.7	ND<8	ND<4	ND<4	50	ND
AOC4-B6-E1N-20'	20	09/12/2019	419372-016	ND<4	ND<4	ND<80	5.0	ND<80	ND<4	1,100	98	ND<4	ND<4	4.3	250	6.7	ND<4	37	ND<8	ND<4	ND<4	ND<4	ND
AOC4-B6-E1S-10'	10	09/12/2019	419372-006	ND<893	ND<893	ND<17,860	1,200	ND<17,860	ND<893	2,000	930	ND<893	ND<893	1,900	2,900	4,000	ND<893	990	ND<1,786	ND<893	ND<893	ND<893	ND
AOC4-B6-E1S-15'	15	09/12/2019	419372-007	52,000	17,000	ND<166,670	10,000	ND<16,6670	ND<8,333.5	21,000	ND<8,333.5	29,000	ND<8,333.5	ND<8,333.5	13,000	12,000	9,800	ND<8,333.5	ND<16,667	ND<8,333.5	ND<8,333.5	39,000	ND
AOC4-B6-E1S-20'	20	09/12/2019	419372-008	9,100	ND<1,202	ND<24,040	1,800	ND<24,040	ND<1,202	5,800	1,500	4,200	ND<1,202	1500	2,300	ND<1,202	ND<1,202	ND<1,202	ND<2,404	ND<1,202	ND<1,202	4,200	ND
AOC4-B6-W1-5'	5	05/06/2019	415002-005	ND<3.5	ND<3.5	1.3 J	ND<3.5	ND<70	0.89 J	0.27 J	ND<3.5	ND<3.5	ND<3.5	ND<3.5	ND<3.5	ND<3.5	ND<3.5	ND<3.5	ND<7	0.30 J	ND<3.5	ND<3.5	ND
DUP-16	5	05/06/2019	415002-030	ND<5.5	ND<5.5	5.1 J	ND<5.5	ND<110	1.7 J	ND<5.5	ND<5.5	ND<5.5	1.9 J	ND<5.5	ND<5.5	ND<5.5	ND<5.5	ND<5.5	18	1.1 J	ND<5.5	ND<5.5	ND
AOC4-B6-W1-10'	10	05/06/2019	415002-006	ND<3.5	ND<3.5	1.5 J	ND<3.5	ND<70	0.81 J	ND<3.5	ND<3.5	ND<3.5	ND<3.5	ND<3.5	ND<3.5	ND<3.5	ND<3.5	ND<3.5	ND<7	0.27 J	ND<3.5	ND<3.5	ND
AOC4-B6-W1-15'	15	05/06/2019	415002-007	1,600	300	ND<3,570	22 J	ND<3,570		580	140 J	300	ND<178.5	250	560	940	150 J	85 J	ND<357	ND<178.5	ND<178.5	450	ND
AOC4-B6-W1-20'	20	05/06/2019	415002-008	9,400	110 J	ND<18,940	280 J	ND<18,940	ND<947	6,500	610 J	440 J	ND<947	150 J	1,700	1,100	48 J	210 J	ND<1,894	ND<947	ND<947	488 J	ND
AOC4-B18-S1-5'	5	05/08/2019	415102-001	ND<3.5	ND<3.5	5.3 J	ND<3.5	38 J	3.7	0.24 J	ND<3.5	0.31 J	ND<3.5	ND<3.5	ND<3.5	ND<3.5	ND<3.5	ND<3.5	ND<7	1.9 J	ND<3.5	0.31 J	ND
AOC4-B18-S1-15'	15	05/08/2019	415102-003	ND<4	ND<4	1.5 J	ND<4	ND<80	ND<4	ND<4	ND<4	ND<4	ND<4	ND<4	ND<4	ND<4	ND<4	ND<4	ND<8	ND<4	ND<4	ND<4	ND
AOC4-B18-E1-5'	5	05/07/2019	415051-017	ND<4.5	ND<4.5	6.3 J	ND<4.5	61 J	2.5 J	ND<4.5	ND<4.5	ND<4.5	ND<4.5	ND<4.5	ND<4.5	ND<4.5	ND<4.5	ND<4.5	ND<9	1.1 J	ND<4.5	ND<4.5	ND

												VOC	s EPA Meth	od 8260B (µ	ıg/kg)								
Sample ID	Sample Depth (feet bgs)	Date Sample Collected	Lab Sample ID	1,2,4-Trimethylbenzene	1,3,5-Trimethylbenzene	2-Butanone (MEK)	4-Isopropyltoluene	Acetone	Benzene	Ethylbenzene	Isopropylbenzene	m and p-Xylene	Methylene chloride	N-butylbenzene	N-propylbenzene	Naphthalene	o-Xylene	Sec-butylbenzene	t-Butyl alcohol (TBA)	Toluene	Trichlorofluoromethane	Xylenes (Total)	Other VOCs
AOC4-B18-E1-15'	15	05/07/2019	415051-019	ND<4	ND<4	1.4 J	ND<4	ND<80	0.19 J	ND<4	ND<4	ND<4	ND<4	ND<4	ND<4	ND<4	ND<4	ND<4	ND<8	ND<4	ND<4	ND<4	ND
DUP-20	15	05/07/2019	415051-027	ND<5	ND<5	1.2 J	ND<5	ND<100	0.24 J	ND<5	ND<5	ND<5	ND<5	ND<5	ND<5	ND<5	ND<5	ND<5	ND<10	0.33 J	ND<5	ND<5	ND
AOC4-B18-W1-5'	5	05/07/2019	415051-021	ND<4.5	ND<4.5	2.9 J	ND<4.5	ND<90	0.95 J	ND<4.5	ND<4.5	ND<4.5	ND<4.5	ND<4.5	ND<4.5	ND<4.5	ND<4.5	ND<4.5	ND<9	0.66 J	ND<4.5	ND<4.5	ND
AOC4-B18-W1-15'	15	05/07/2019	415051-023	ND<4.5	ND<4.5	ND<90	ND<4.5	ND<90	ND<4.5	ND<4.5	ND<4.5	ND<4.5	ND<4.5	ND<4.5	ND<4.5	ND<4.5	ND<4.5	ND<4.5	ND<9	ND<4.5	ND<4.5	ND<4.5	ND
DUP-19	15	05/07/2019	415051-026	ND<6.5	ND<6.5	2.9 J	ND<6.5	ND<130	0.28 J	ND<6.5	ND<6.5	ND<6.5	ND<6.5	ND<6.5	ND<6.5	ND<6.5	ND<6.5	ND<6.5	ND<13	0.56 J	ND<6.5	ND<6.5	ND
AOC4-B19-N1-5'	5	05/08/2019	415102-017	ND<6	ND<6	4.0 J	ND<6	180	1.9 J	ND<6	ND<6	ND<6	9.1	ND<6	ND<6	ND<6	ND<6	ND<6	ND<12	0.97 J	ND<6	ND<6	ND
AOC4-B19-N1-15'	15	05/08/2019	415102-019	ND<5	ND<5	3.2 J	ND<5	120	0.24 J	ND<5	ND<5	ND<5	8.5	ND<5	ND<5	ND<5	ND<5	ND<5	ND<10	0.34 J	ND<5	ND<5	ND
AOC4-B19-S1-5'	5	05/08/2019	415102-005	ND<6.5	ND<6.5	4.9 J	ND<6.5	ND<130	2.1 J	ND<6.5	ND<6.5	ND<6.5	ND<6.5	ND<6.5	ND<6.5	ND<6.5	ND<6.5	ND<6.5	ND<13	1.3 J	ND<6.5	ND<6.5	ND
AOC4-B19-S1-15'	15	05/08/2019	415102-007	ND<4.5	ND<4.5	ND<90	ND<4.5	ND<90	ND<4.5	ND<4.5	ND<4.5	ND<4.5	ND<4.5	ND<4.5	ND<4.5	ND<4.5	ND<4.5	ND<4.5	ND<9	0.18 J	ND<4.5	ND<4.5	ND
AOC4-B19-E1-5'	5	05/08/2019	415102-009	ND<5.5	ND<5.5	3.7 J	ND<5.5	130	2.5 J	ND<5.5	ND<5.5	ND<5.5	9.4	ND<5.5	ND<5.5	ND<5.5	ND<5.5	ND<5.5	ND<11	1.9 J	ND<5.5	ND<5.5	ND
AOC4-B19-E1-15'	15	05/08/2019	415102-011	ND<5	ND<5	ND<100	ND<5	ND<100	ND<5	ND<5	ND<5	ND<5	ND<5	ND<5	ND<5	ND<5	ND<5	ND<5	ND<10	ND<5	ND<5	ND<5	ND
AOC4-B19-W1-5'	5	05/08/2019	415102-013	ND<5	ND<5	ND<100	ND<5	82 J	0.91 J	ND<5	ND<5	ND<5	0.68 J	ND<5	ND<5	ND<5	ND<5	ND<5	ND<10	0.68 J	ND<5	ND<5	ND
AOC4-B19-W1-15'	15	05/08/2019	415102-015	ND<3.5	ND<3.5	ND<70	ND<3.5	37 J	0.18 J	ND<3.5	ND<3.5	ND<3.5	ND<3.5	ND<3.5	ND<3.5	ND<3.5	ND<3.5	ND<3.5	ND<7	ND<3.5	ND<3.5	ND<3.5	ND
AOC4-SV10N-5' DUP-56	5 5	09/13/2019 09/13/2019	419425-005	ND<4.5 ND<3.5	ND<4.5 ND<3.5	ND<90 ND<70	ND<4.5 ND<3.5	ND<90 ND<70	ND<4.5	ND<4.5 ND<3.5	ND<4.5	ND<4.5 ND<3.5	ND<4.5	ND<4.5 ND<3.5	ND<4.5 ND<3.5	ND<4.5 ND<3.5	ND<4.5 ND<3.5	ND<4.5 ND<3.5	ND<9 ND<7	ND<4.5	ND<4.5	ND<4.5 ND<3.5	ND
AOC4-SV10N-15'	15	09/13/2019	419425-030 419425-007	ND<3.5	ND<3.5	ND<80	ND<3.5	ND<80	ND<3.5 ND<4	ND<4	ND<3.5 ND<4	ND<4	ND<3.5 ND<4	ND<3.5	ND<3.5	ND<3.5	ND<3.5	ND<3.5	ND<7	ND<3.5 ND<4	ND<3.5 ND<4	ND<3.5	ND ND
AOC4-SV10N-15	25	09/13/2019	419313-015	ND<4	ND<4 ND<3.5	ND<70	ND<4	ND<70	ND<4	ND<4	ND<4	ND<3.5	ND<4 ND<3.5	ND<4	ND<4	ND<4	ND<4	17	10 S3	ND<4	ND<4	ND<4	ND
AOC4-SV10S-30'	30	09/11/2019	419313-016	ND<205	ND<205	ND<4100	ND<205	ND<4100	ND<205	ND<205	ND<205	ND<205	ND<205	ND<205	ND<205	ND<205	ND<205	350 D2	ND<410	ND<205	ND<205	ND<205	ND
AOC4-SV10S-35'	35	09/11/2019	419313-017	ND<3.5	ND<3.5	ND<70	ND<3.5	ND<70	ND<3.5	ND<3.5	ND<3.5	ND<3.5	ND<3.5	ND<3.5	ND<3.5	ND<3.5	ND<3.5	5.5	ND<7	ND<3.5	ND<3.5	ND<3.5	ND
AOC4-SV10S-40'	40	09/11/2019	419313-018	ND<4	ND<4	ND<80	ND<4	ND<80	ND<4	ND<4	ND<4	ND<4	ND<4	ND<4	ND<4	ND<4	ND<4	ND<4	ND<8	ND<4	ND<4	ND<4	ND
AOC4-SV10W-5'	5	09/13/2019	419425-001	ND<5.5	ND<5.5	ND<110	ND<5.5	ND<110	ND<5.5	ND<5.5	ND<5.5	ND<5.5	ND<5.5	ND<5.5	ND<5.5	ND<5.5	ND<5.5	ND<5.5	ND<11	ND<5.5	ND<5.5	ND<5.5	ND
AOC4-SV10W-15'	15	09/13/2019	419425-003	ND<4	ND<4	ND<80	ND<4	ND<80	ND<4	ND<4	ND<4	ND<4	ND<4	ND<4	ND<4	ND<4	ND<4	ND<4	ND<8	ND<4	ND<4	ND<4	ND
DUP-55	15	09/13/2019	419425-029	ND<3.5	ND<3.5	ND<70	ND<3.5	ND<70	ND<3.5	ND<3.5	ND<3.5	ND<3.5	ND<3.5	ND<3.5	ND<3.5	ND<3.5	ND<3.5	ND<3.5	ND<7	ND<3.5	ND<3.5	ND<3.5	ND
AOC4-SV11E-15'	15	09/13/2019	419425-011	ND<219.5	ND<219.5	ND<4,390	ND<219.5	ND<4,390	ND<219.5	ND<219.5	ND<219.5	ND<219.5	ND<219.5	ND<219.5	ND<219.5	460	ND<219.5	ND<219.5	ND<439	ND<219.5	ND<219.5	ND<219.5	ND
AOC4-SV11E-20'	20	09/13/2019	419425-012	ND<347	ND<347	ND<6,940	ND<347	ND<6,940	ND<347	ND<347	860	ND<347	420 C	ND<347	1,100	ND<347	ND<347	690	ND<694	ND<347	ND<347	ND<347	ND
AOC4-SV11N-35'	35	09/11/2019	419313-007	ND<4.5	ND<4.5	ND<90	ND<4.5	ND<90	ND<4.5	ND<4.5	ND<4.5	ND<4.5	ND<4.5	ND<4.5	ND<4.5	ND<4.5	ND<4.5	ND<4.5	ND<9	ND<4.5	ND<4.5	ND<4.5	ND
DUP-53	35	09/11/2019	419313-033	ND<4	ND<4	ND<80	ND<4	ND<80	ND<4	ND<4	ND<4	ND<4	ND<4	ND<4	ND<4	ND<4	ND<4	ND<4	ND<8	ND<4	ND<4	ND<4	ND
AOC4-SV11N-45'	45	09/11/2019	419313-009	ND<3.5	ND<3.5	ND<70	ND<3.5	ND<70	ND<3.5	ND<3.5	ND<3.5	ND<3.5	ND<3.5	ND<3.5	ND<3.5	ND<3.5	ND<3.5	ND<3.5	ND<7	ND<3.5	ND<3.5	ND<3.5	ND
AOC4-SV11S-15'	15	09/12/2019	419372-003	22,000	7,300	ND<39,680	3,600	ND<39,680	ND<1,984	3,000	ND<1,984	7,700	ND<1,984	ND<1,984	3,700	3,300	ND<1,984	ND<1,984	ND<3,968	ND<1,984	ND<1,984	7,700	ND
AOC4-SV11S-20'	20	09/12/2019	419372-004	7,600	ND<893	ND<17,860	1,500	ND<17,860	ND<893	4,200	1,300	1,900	ND<893	1,200	1,900	ND<893	ND<893	ND<893	ND<1,786	ND<893	ND<893	1,900	ND
AOC4-SV12E-30'	30	09/11/2019	419313-026	ND<184	ND<184	ND<3,680	ND<184	ND<3,680	ND<184	220	1,000	ND<184	ND<184	350	1,100	ND<184	ND<184	490	ND<368	ND<184	ND<184	ND<184	ND
AOC4-SV12E-35'	35	09/11/2019	419313-027	ND<4	ND<4	ND<80	4.4	ND<80	ND<4	16	42	ND<4	ND<4	4.3	34	ND<4	ND<4	9.9	ND<8	ND<4	ND<4	ND<4	ND
AOC4-SV12E-40'	40	09/11/2019	419313-028	ND<3.5	ND<3.5	ND<70	ND<3.5	ND<70	ND<3.5	ND<3.5	3.5	ND<3.5	ND<3.5	ND<3.5	3.9	ND<3.5	ND<3.5	ND<3.5	ND<7	ND<3.5	ND<3.5	ND<3.5	ND
AOC4-SV12N-20'	20	09/12/2019	419372-020	ND<4	ND<4	ND<80	ND<4	ND<80	ND<4	ND<4	ND<4	ND<4	ND<4	ND<4	ND<4	ND<4	ND<4	ND<4	ND<8	ND<4	ND<4	ND<4	ND
AOC4-SV12N-25'	25	09/12/2019	419372-021	ND<3.5	ND<3.5	ND<70	ND<3.5	ND<70	ND<3.5	ND<3.5	ND<3.5	ND<3.5	ND<3.5	ND<3.5	ND<3.5	ND<3.5	ND<3.5	ND<3.5	ND<7	ND<3.5	ND<3.5	ND<3.5	ND
AOC4-SV12S-20'	20	09/12/2019	419372-025	ND<3.5	ND<3.5	ND<70	ND<3.5	ND<70	ND<3.5	ND<3.5	ND<3.5	ND<3.5	ND<3.5	ND<3.5	ND<3.5	ND<3.5	ND<3.5	7.7	ND<7	ND<3.5	ND<3.5	ND<3.5	ND
AOC4-SV12S-25'	25	09/12/2019	419372-026	ND<4	ND<4	ND<80	ND<4	ND<80	ND<4	ND<4	ND<4	ND<4	ND<4	ND<4	ND<4	ND<4	ND<4	ND<4	ND<8	ND<4	ND<4	ND<4	ND
DUP-54	25	09/12/2019	419372-032	ND<4	ND<4	ND<80	ND<4	ND<80	ND<4	ND<4	ND<4	ND<4	ND<4	ND<4	ND<4	ND<4	ND<4	ND<4	ND<8	ND<4	ND<4	ND<4	ND

Table 5 – Soi	l Sample Ar	nalytical R	esults – V	OCs																			
												VOCs	EPA Metho	od 8260B (ug/kg)								
Sample ID	Sample Depth (feet bgs)	Date Sample Collected	Lab Sample ID	1,2,4-Trimethylbenzene	1,3,5-Trimethylbenzene	2-Butanone (MEK)	4-Isopropyltoluene	Acetone	Benzene	Ethylbenzene	Isopropylbenzene	m and p-Xylene	Methylene chloride	N-butylbenzene	N-propylbenzene	Naphthalene	o-Xylene	Sec-butylbenzene	t-Butyl alcohol (TBA)	Toluene	Trichlorofluoromethane	Xylenes (Total)	Other VOCs
AOC4-SV12W-20'	20	09/12/2019	419372-030	2,800	ND<416.5	ND<8,330	970	ND<8,330	ND<416.5	1,400	850	ND<416.5	ND<416.5	670	ND<416.5	ND<416.5	ND<416.5	550	ND<833	ND<416.5	ND<416.5	ND<416.5	ND
AOC4-SV12W-25'	25	09/12/2019	419372-031	ND<198.5	ND<198.5	ND<3,970	310	ND<3,970	ND<198.5	870	370	ND<198.5	ND<198.5	220	480	ND<198.5	ND<198.5	200	ND<397	ND<198.5	ND<198.5	ND<198.5	ND
Waste Characteria	zation Sample																						
WC-1	NA	05/14/2019	415272-001	ND<5	ND<5	ND<100	ND<5	ND<100	ND<5	ND<5	ND<5	ND<5	ND<5	ND<5	ND<5	ND<5	0.23 J	ND<5	ND<10	ND<5	ND<5	ND<5	ND
Quality Control S	amples (mg/l)																						
EB-050219A	NA	5/2/2019	414915-014	ND<5	ND<5	ND<100	ND<5	ND<100	ND<1	ND<5	ND<5	ND<5	5.6	ND<5	ND<5	ND<5	ND<5	ND<5	ND<10	ND<5	ND<5	ND<5	ND
EB-050219B	NA	43587	414915-015	ND<5	ND<5	5.9 J	ND<5	ND<100	ND<1	ND<5	ND<5	ND<5	6.3	ND<5	ND<5	ND<5	ND<5	ND<5	ND<10	ND<5	ND<5	ND<5	ND
EB-050619A	NA	43591	415002-032	ND<5	ND<5	8.0 J	ND<5	ND<100	ND<1	ND<5	ND<5	ND<5	ND<5	ND<5	ND<5	ND<5	ND<5	ND<5	7.5 J	ND<5	ND<5	ND<5	ND
EB-050619B	NA	43591	415002-033	ND<5	ND<5	7.5 J	ND<5	ND<100	ND<1	ND<5	ND<5	ND<5	ND<5	ND<5	ND<5	ND<5	ND<5	ND<5	ND<10	ND<5	ND<5	ND<5	ND
EB-050719A	NA	43592	415051-028	ND<5	ND<5	8.2 J	ND<5	ND<100	ND<1	ND<5	ND<5	ND<5	ND<5	ND<5	ND<5	ND<5	ND<5	ND<5	ND<10	ND<5	ND<5	ND<5	ND
EB-050719B	NA	43592	415051-029	ND<5	ND<5	ND<100	ND<5	ND<100	ND<1	ND<5	ND<5	ND<5	ND<5	ND<5	ND<5	ND<5	ND<5	ND<5	ND<10	ND<5	ND<5	ND<5	ND
EB-050819A	NA	43593	415102-021	ND<5	ND<5	ND<100	ND<5	ND<100	ND<1	ND<5	ND<5	ND<5	ND<5	ND<5	ND<5	ND<5	ND<5	ND<5	ND<10	ND<5	ND<5	ND<5	ND
EB-050819B	NA	43593	415102-022	ND<5	ND<5	ND<100	ND<5	ND<100	ND<1	ND<5	ND<5	ND<5	ND<5	ND<5	ND<5	ND<5	ND<5	ND<5	ND<10	ND<5	ND<5	ND<5	ND
Trip Blank	NA	43587	414915-016	ND<5	ND<5	ND<100	ND<5	ND<100	ND<1	ND<5	ND<5	ND<5	6.8	ND<5	ND<5	ND<5	ND<5	ND<5	ND<10	ND<5	ND<5	ND<5	ND
Trip Blank A	NA	43591	415002-035	ND<5	ND<5	ND<100	ND<5	ND<100	ND<1	ND<5	ND<5	ND<5	ND<5	ND<5	ND<5	ND<5	ND<5	ND<5	ND<10	ND<5	ND<5	ND<5	ND
Trip Blank B Trip Blank - A	NA NA	43591 43592	415002-036 415051-030	ND<5 ND<5	ND<5 ND<5	ND<100 ND<100	ND<5 ND<5	ND<100 ND<100	ND<1 ND<1	ND<5 ND<5	ND<5 ND<5	ND<5 ND<5	ND<5 ND<5	ND<5 ND<5	ND<5 ND<5	ND<5 ND<5	ND<5 ND<5	ND<5 ND<5	ND<10 ND<10	ND<5 ND<5	ND<5 ND<5	ND<5 ND<5	ND ND
Trip Blank - A	NA NA	43592	415051-030	ND<5	ND<5	ND<100	ND<5	ND<100	ND<1	ND<5	ND<5	ND<5		ND<5	ND<5	ND<5	ND<5	ND<5	ND<10	ND<5	ND<5	ND<5	
•							ND<5		ND<1				ND<5				ND<5						ND
Trip Blank Trip Blank	NA NA	43593 43593	414915-016 414915-016	ND<5 ND<5	ND<5 ND<5	ND<100 ND<100	ND<5	ND<100 ND<100	ND<1	ND<5 ND<5	ND<5 ND<5	ND<5 ND<5	ND<5 ND<5	ND<5 ND<5	ND<5 ND<5	ND<5 ND<5	ND<5	ND<5 ND<5	ND<10 ND<10	ND<5 ND<5	ND<5 ND<5	ND<5 ND<5	ND ND
Regulatory Scree			414313-010	נייטוו	נייטוו	ואט~וטט	טייטוו	ואט< וטט	ויטעו	טייטאו	נייעוו	נייעוו	נייעוו	נייעוו	נייטאו	נייטוו	נייטאו	טייעוו	טוייטאו	נייעוו	נייטוו	מיישוו	אט
EPA RSLs (Resident		a)		300,000*	270,000*	27,000,000*	NL	61.000.0000	1,200	5,800	1,900,000*	550.000*	57,000	3,900,000*	3,800,000*	3,800	650.000*	7,800,000*	NL	4,900,000*	23,000,000*	580,000*	Various
DTSC HERO HHRA	,			NL	NL	NL	NL	NL	330	NL	NL	NL	2,200	NL	NL	2,000	NL	2,200,000*	NL	1,100,000*	1,200,000*	NL	Various
	, : :::::::::::::::::::::::::::::::::::										• • •		_,			_,,,,,		_,,_,		.,,	.,=00,000		

Bold indicates value is above screening level

B - analyte was present in an associated method blank

B1 - analyte was present in a sample and associated method blank greater than the method detection limit but less than the reporting detection limit

bgs - below ground surface

C - Possible laboratory contamination.

D2 - Reporting limit is elevated due to sample matrix.

DTSC HERO HHRA - Department of Toxic Substances Control Human and Ecological Risk Office Human Health Risk Assessment, Note 3, Recommended Screening Levels for Soil (April 2019)

DUP - duplicate of the sample listed above

EPA - United States Environmental Protection Agency

ID - Identification

J - report value is estimated

NA - not applicable

NL - not listed

ND< - not detected above the laboratory reporting limit

RSLs - United States Environmental Protection Agency Regional Screening Levels (November 2019)

S3 - Internal standard did not meet recovery limits. Analyte concentration is estimated.

VOCs - Volatile organic compounds

μg/kg - microgram per kilogram

^{*} non-cancer endpoint

Commis ID	Commis Double (foot book)	Date Sample	Lab Camula ID	EPA	EPA Method 8015B (mg/kg)					
Sample ID	Sample Depth (feet bgs)	Collected	Lab Sample ID	TPH Gasoline	TPH Diesel	TPH Motor Oi				
			AOC2							
OC2-B1-5'	5	05/02/2019	414915-003	ND<2.82	58.7 B	47.2				
OC2-B1-10'	10	05/02/2019	414915-004	ND<2.34	2.64 B	ND<5				
OC2-B1-15'	15	05/02/2019	414915-005	ND<2.43	3.45 B	ND<5				
OC2-B2-5'	5	05/02/2019	414915-001	210 J	202 B	18.7 J				
OC2-B2-10'	10	05/02/2019	414915-002	8.1	31.0 B	3.93 J				
			AOC3							
OC3-B1-5'	5	05/06/2019	415002-021	ND<3.42	4.04	3.32				
OC3-B1-15'	15	05/06/2019	415002-023	ND<2.79	2.62	ND<5				
OC3-B1E-15'	15	09/10/2019	419243-007	ND<2.7	ND<10	ND<10				
OC3-B1E-20'	20	09/10/2019	419243-008	ND<2.4	ND<10	ND<10				
OC3-B1N-10'	10	09/10/2019	419243-002	ND<3.6	ND<10	ND<10				
OC3-B1N-15'	15	09/10/2019	419243-003	ND<2.7	ND<10	ND<10				
OC3-B2-5'	5	05/06/2019	415002-017	ND<3.27	4.61	3.53				
OC3-B2-15'	15	05/06/2019	415002-019	ND<2.82	2.36	ND<5				
OC3-B2E-10'	10	09/10/2019	419243-014	ND<2.4	ND<10	ND<10				
OC3-B2E-10	15	09/10/2019	419243-015	ND<2.4	ND<10	ND<10				
UP-49	15	09/10/2019	419243-033	ND<3	ND<10	ND<10				
OC3-B2N-5'	5	09/10/2019	419243-017	ND<3	ND<10	ND<10				
UP-50	5	09/10/2019	419243-034	ND<2.7	ND<10	ND<10				
OC3-B2N-10'	10	09/10/2019	419243-018	ND<2.1	ND<10	ND<10				
OC3-B2S-10'	10	09/10/2019	419243-010	ND<2.1	ND<10	ND<10				
OC3-B2S-15'	15	09/10/2019	419243-011	ND<2.1	ND<10	ND<10				
OC3-B2-15	5	05/06/2019	415002-025	ND<2.4	2.30	ND<10				
OC3-B3-15'	15	05/06/2019	415002-025	ND<2.67 ND<2.49	1.90	ND<5				
OC3-B3E-10'	10		419243-030	ND<2.49	ND<10					
OC3-B3E-10	15	09/10/2019 09/10/2019	419243-030	ND<2.4 ND<2.4	ND<10	ND<10 ND<10				
	10			ND<2.4 ND<2.1	ND<10	ND<10				
OC3-B3S-10'		09/10/2019	419243-026							
OC3-B3S-20'	20	09/10/2019	419243-028	ND<2.7	ND<10	ND<10				
UP-52	20	09/10/2019	419243-036	ND<2.7	ND<10	ND<10				
OC3-B3W-5'	5	09/10/2019	419243-021	ND<2.4	ND<10	ND<10				
UP-51	5	09/10/2019	419243-035	ND<2.4	ND<10	ND<10				
OC3-B3W-15'	15	09/10/2019	419243-023	ND<3.75	ND<10	ND<10				
OC3-B4-5'	5	05/02/2019	414915-010	ND<2.34	4.08 B	6.60				
OC3-B4-15'	15	05/02/2019	414915-012	ND<2.34	4.29 B	ND<5				
OC3-B5-5'	5	05/02/2019	414915-006	ND<3.12	1.55 B,J	ND<5				
OC3-B5-15'	15	05/02/2019	414915-008	ND<2.43	1.23 B,J	ND<5				
OC4-B2-E1-5'	5	05/07/0040	A0C4	ND <0.00	2.47 D	ND «E				
OC4-B2-E1-15'	15	05/07/2019 05/07/2019	415051-005	ND<2.88	3.17 B	ND<5				
JC4-B2-E1-13 JP-18			415051-007	ND<2.25	1.96 B	ND<5				
	15	05/07/2019	415051-025	ND<3.27	4.88 B	ND<5				
OC4-B2-N1-5'	5 15	05/07/2019	415051-013	ND<2.67	3.72 B	ND<5				
OC4-B2-N1-15' OC4-B2-S1-5'	15 5	05/07/2019	415051-015	ND<2.49	3.58 B	ND<5				
	5 15	05/07/2019	415051-009	ND<2.67	4.09 B	6.71				
OC4-B2-S1-15'		05/07/2019	415051-011	ND<2.82	3.35 B	ND<5				
OC4-B2-W1-5'	5 15	05/07/2019	415051-001	ND<2.58	1.99 B	ND<5				
OC4-B2-W1-15'	15	05/07/2019	415051-003	ND<2.34	2.71 B	ND<5				
OC4-B6-E1-5'	5	05/06/2019	415002-013	ND<2.34	7.45	5.48				
OC4-B6-E1-10'	10	05/06/2019	415002-014	ND<2.31	184 B	255				
OC4-B6-E1-15'	15	05/06/2019	415002-015	1,300	30.1	13.6				
DC4-B6-E1-20'	20	05/06/2019	415002-016	260	24.6 B	4.53 J				
OC4-B6-E1E-10'	10	09/12/2019	419372-010	2.7	81	130				
DC4-B6-E1E-15'	15	09/12/2019	419372-011	ND<63	31	35				
OC4-B6-E1E-20'	20	09/12/2019	419372-012	350	81	ND<10				
OC4-B6-E1N-10'	10	09/12/2019	419372-014	ND<2.7	ND<10	ND<10				
OC4-B6-E1N-15'	15	09/12/2019	419372-015	ND<2.4	ND<10	ND<10				

0	Comple Booth (f. 11	Date Sample	1 -1 -0 1 -10	EPA	Method 8015B (mg/kg	g)
Sample ID	Sample Depth (feet bgs)	Collected	Lab Sample ID	TPH Gasoline	TPH Diesel	TPH Motor Oi
AOC4-B6-E1N-20'	20	09/12/2019	419372-016	75	16	ND<10
OC4-B6-E1S-10'	10	09/12/2019	419372-006	440	45	ND<10
OC4-B6-E1S-15'	15	09/12/2019	419372-007	3,600	1,100	ND<50
OC4-B6-E1S-20'	20	09/12/2019	419372-008	770	160	ND<10
OC4-B6-N1-5'	5	05/06/2019	415002-001	ND<2.34	10.4 B	17.2
OC4-B6-N1-15'	15	05/06/2019	415002-001	0.573 J	3.69	ND<5
OC4-B6-S1-5'	5	05/06/2019	415002-009	ND<2.46	9.25	7.19
OC4-B6-S1-15'	15	05/06/2019	415002-009	2.8	4.09	7.19 ND<5
OC4-B6-W1-5'	5	05/06/2019	415002-011	ND<2.28	5.80	7.89
DUP-16	5					
		05/06/2019	415002-030	ND<3.48	3.82	3.53
OC4-B6-W1-10'	10	05/06/2019	415002-006	ND<2.13	8.35 B	10.3
OC4-B6-W1-15'	15	05/06/2019	415002-007	31 J	5.21	2.22
OC4-B6-W1-20'	20	05/06/2019	415002-008	310	1.95 B,J	ND<5
OC4-B18-S1-5'	5	05/08/2019	415102-001	ND<2.73	60.4 B	138
OC4-B18-S1-15'	15	05/08/2019	415102-003	ND<2.88	0.9 B,J	ND<5
OC4-B18-E1-5'	5	05/07/2019	415051-017	ND<2.67	27.8 B	72.2
OC4-B18-E1-15'	15	05/07/2019	415051-019	ND<2.34	4.91 B	ND<5
UP-20	15	05/07/2019	415051-027	ND<3.06	3.69 B	ND<5
OC4-B18-W1-5'	5	05/07/2019	415051-021	ND<2.88	2.52 B	ND<5
OC4-B18-W1-15'	15	05/07/2019	415051-023	ND<2.67	2.43 B	ND<5
UP-19	15	05/07/2019	415051-026	ND<3.06	3.99 B	ND<5
OC4-B19-N1-5'	5	05/08/2019	415102-017	ND<3.42	1.99 B,J	ND<5
OC4-B19-N1-15'	15	05/08/2019	415102-019	ND<2.94	2.55 B,J	ND<5
OC4-B19-S1-5'	5	05/08/2019	415102-005	ND<3.33	3.63 B	ND<5
OC4-B19-S1-15'	15	05/08/2019	415102-007	ND<2.49	2.43 B,J	ND<5
OC4-B19-E1-5'	5	05/08/2019	415102-007	ND<3.18	2.09 B,J	ND<5
OC4-B19-E1-15'	15	05/08/2019	415102-009	ND<3.16	1.65 B,J	ND<5
OC4-B19-W1-5'	5			ND<2.94 ND<3.27		ND<5
OC4-B19-W1-3	15	05/08/2019	415102-013		2.19 B,J	
		05/08/2019	415102-015	ND<2.43	2.26 B,J	ND<5
OC4-SV10N-5'	5	09/13/2019	419425-005	ND<2.7	ND<10	ND<10
UP-56	5	09/13/2019	419425-030	ND<3	ND<10	ND<10
OC4-SV10N-15'	15	09/13/2019	419425-007	ND<2.7	ND<10	ND<10
OC4-SV10S-25'	25	09/11/2019	419313-015	11	ND<10	ND<10
OC4-SV10S-30'	30	09/11/2019	419313-016	320	11	ND<10
OC4-SV10S-35'	35	09/11/2019	419313-017	2.3	ND<10	ND<10
OC4-SV10S-40'	40	09/11/2019	419313-018	ND<2.25	ND<10	ND<10
OC4-SV10W-5'	5	09/13/2019	419425-001	ND<2.7	ND<10	ND<10
OC4-SV10W-15'	15	09/13/2019	419425-003	ND<2.4	ND<10	ND<10
UP-55	15	09/13/2019	419425-029	ND<2.4	ND<10	ND<10
OC4-SV11E-15'	15	09/13/2019	419425-011	3.4	ND<10	ND<10
OC4-SV11E-20'	20	09/13/2019	419425-012	420	30	ND<10
OC4-SV11N-35'	35	09/11/2019	419313-007	ND<2.55	ND<10	ND<10
UP-53	35	09/11/2019	419313-033	ND<2.4	ND<10	ND<10
OC4-SV11N-45'	45	09/11/2019	419313-009	ND<2.4	ND<10	ND<10
OC4-SV11N-45	15	09/11/2019	419372-003	1,100	380	ND<10
				680		
OC4-SV11S-20'	20	09/12/2019	419372-004		110 ND-10	ND<10
OC4-SV11SS-25'	25	12/6/2019	422519-015	1,200	ND<10	ND<10
OC4-SV11SS-30'	30	12/6/2019	422519-016	2,400	ND<10	ND<10
OC4-SV11SS-35'	35	12/6/2019	422519-017	1,700	ND<10	ND<10
OC4-SV11SS-40'	40	12/6/2019	422519-018	0.62	ND<10	ND<10
OC4-SV12E-30'	30	09/11/2019	419313-026	440	120	ND<10
OC4-SV12E-35'	35	09/11/2019	419313-027	6.8	41	ND<10
OC4-SV12E-40'	40	09/11/2019	419313-028	ND<3.3	ND<10	ND<10
OC4-SV12N-20'	20	09/12/2019	419372-020	3.2	ND<10	ND<10
OC4-SV12N-25'	25	09/12/2019	419372-021	ND<2.4	ND<10	ND<10
OC4-SV12S-20'	20	09/12/2019	419372-025	9.4	ND<10	ND<10

Comple ID	Comple Doubh (foot bas)	Date Sample	Lab Camula ID	EPA Method 8015B (mg/kg)					
Sample ID	Sample Depth (feet bgs)	Collected	Lab Sample ID	TPH Gasoline	TPH Diesel	TPH Motor Oil			
AOC4-SV12S-25'	25	09/12/2019	419372-026	ND<2.4	ND<10	ND<10			
DUP-54	25	09/12/2019	419372-032	ND<3	ND<10	ND<10			
AOC4-SV12W-20'	20	09/12/2019	419372-030	310	21	ND<10			
AOC4-SV12W-25'	25	09/12/2019	419372-031	160	ND<10	ND<10			
AOC4-SV12WW-15'	15	12/6/2019	422519-003	ND<2.4	ND<10	ND<10			
AOC4-SV12WW-20'	20	12/6/2019	422519-004	120	ND<10	ND<10			
AOC4-SV12WW-25'	25	12/6/2019	422519-005	5.1	ND<10	ND<10			
AOC4-SV12WW-30'	30	12/6/2019	422519-006	300	ND<10	ND<10			
AOC4-SV12WW-35'	35	12/6/2019	422519-007	0.56	ND<10	ND<10			
Vaste Characterization Samp	le								
VC-1	NA	05/14/2019	415272-001	ND<3	2.55 B	5.16			
Quality Control Samples (mg/	l)								
B-050219A	NA	5/2/2019	414915-014	ND<50	ND<0.1	ND<0.3			
EB-050219B	NA	5/2/2019	414915-015	ND<50	ND<0.1	ND<0.3			
B-050619A	NA	5/6/2019	415002-032	ND<50	ND<0.1	ND<0.3			
EB-050619B	NA	5/6/2019	415002-033	ND<50	0.05 J	ND<0.3			
EB-050719A	NA	5/7/2019	415051-028	ND<50	0.06 J	ND<0.3			
EB-050719B	NA	5/7/2019	415051-029	ND<50	ND<0.2	ND<0.3			
EB-050819A	NA	5/8/2019	415102-021	ND<50	ND<0.1	ND<0.3			
EB-050819B	NA	5/8/2019	415102-022	ND<50	ND<0.1	ND<0.3			
Regulatory Screening Levels	(mg/kg)								
EPA RSLs (Residential Soil)				82*	110*	2,500*			
DTSC HERO HHRA (Residentia	al Soil)			NL	NL	NL			

Bold indicates value is above screening level

B - Analyte was present in an associated method blank.

bgs - below ground surface

DTSC HERO HHRA - Department of Toxic Substances Control Human and Ecological Risk Office Human Health Risk Assessment,

Note 3, Recommended Screening Levels for Soil (April 2019)

DUP - duplicate of the sample listed above

EPA - United States Environmental Protection Agency

ID - Identification

J - report value is estimated

mg/kg - milligrams per kilogram

mg/l - milligrams per liter

NA - not applicable

ND< - not detected above the laboratory reporting limit

RSLs - United States Environmental Protection Agency Regional Screening Levels (November 2019)

TPHs - Total petroleum hydrocarbons

^{*} aromatic fraction

Table 1-			lytical Res	Janto – C	- OI 3									
Commis ID	Sample Depth (feet	Date			EPA Method 8081A (μg/kg)									
Sample ID	bgs)	Sample Collected	4,4'-DDD	4,4'-DDE	4,4'-DDT	Chlordane (technical)	Dieldrin	Endrin Ketone	Heptachlor epoxide	Other OCPs				
CG1-0.5'	0.5	04/29/2019	ND<5	23	21	ND<50	ND<5	ND<5	ND<5	ND				
COMP DUP-1	0.5	04/29/2019	ND<5	30	26	ND<50	ND<5	ND<5	ND<5	ND				
CG1-2.5'	2.5	04/29/2019	ND<5	ND<5	ND<5	ND<50	ND<5	ND<5	ND<5	ND				
CG2-0.5'	0.5	05/01/2019	ND<5	18	6.1	ND<50	ND<5	ND<5	ND<5	ND				
CG2-2.5'	2.5	05/01/2019	ND<5	ND<5	ND<5	ND<50	ND<5	ND<5	ND<5	ND				
CG3-0.5'	0.5	04/29/2019	ND<25	11 J	62	ND<250	ND<25	ND<25	ND<25	ND				
COMP DUP-2	0.5	04/29/2019	ND<5	ND<5	7.3	ND<50	2.7 J	ND<5	ND<5	ND				
CG3-2.5'	2.5	04/29/2019	ND<5	ND<5	ND<5	ND<50	ND<5	ND<5	ND<5	ND				
CG4-0.5'	0.5													
		04/29/2019	ND<25	19 J,D2	18 J,D2	ND<250	ND<25	ND<25	ND<25	ND				
CG4-2.5'	2.5	04/29/2019	ND<5	4.4 J	ND<5	ND<50	ND<5	ND<5	ND<5	ND				
CG5-0.5'	0.5	05/01/2019	ND<5	4.9 J	3.4 J	ND<50	ND<5	ND<5	ND<5	ND				
COMP DUP-5	0.5	05/01/2019	ND<5	11	5.8	ND<50	ND<5	ND<5	ND<5	ND				
CG5-2.5'	2.5	05/01/2019	ND<5	ND<5	ND<5	ND<50	ND<5	ND<5	ND<5	ND				
CG6-0.5'	0.5	05/03/2019	ND<10	ND<10	ND<10	ND<100	ND<10	ND<10	ND<10	ND				
CG6-2.5'	2.5	05/03/2019	ND<5	ND<5	ND<5	ND<50	ND<5	ND<5	ND<5	ND				
CG8-0.5'	0.5	05/01/2019	ND<10	ND<10	ND<10	ND<100	ND<10	ND<10	ND<10	ND				
CG8-2.5'	2.5	05/01/2019	ND<5	ND<5	ND<5	ND<50	ND<5	ND<5	ND<5	ND				
CG9-0.5'	0.5	05/06/2019	ND<10	ND<10	ND<10	ND<100	ND<10	ND<10	ND<10	ND				
CG10-0.5'	0.5	05/03/2019	ND<10	5.1 J	12	ND<100	ND<10	ND<10	ND<10	ND				
CG10-0.5 CG10-2.5'	2.5	05/03/2019	ND<10	ND<5	ND<5	ND<50	ND<5	ND<10	ND<5	ND				
CG11-0.5'	0.5	05/03/2019	ND<10	4.8 J	6.5 J	ND<100	ND<10	ND<10	ND<10	ND				
CG11-2.5'	2.5	05/03/2019	ND<5	ND<5	ND<5	ND<50	ND<5	ND<5	ND<5	ND				
CG12-0.5'	0.5	05/03/2019	ND<10	13	22	ND<100	ND<10	ND<10	ND<10	ND				
CG12-2.5'	2.5	05/03/2019	ND<5	ND<5	ND<5	ND<50	ND<5	ND<5	ND<5	ND				
CG13-0.5'	0.5	05/03/2019	ND<10	ND<10	ND<10	ND<100	ND<10	ND<10	ND<10	ND				
CG13-2.5'	2.5	05/03/2019	ND<25	ND<25	ND<25	ND<250	ND<25	ND<25	ND<25	ND				
CG14-0.5'	0.5	05/01/2019	7.4 J	11	47	200	ND<10	ND<10	ND<10	ND				
CG14-2.5'	2.5	05/01/2019	ND<10	ND<10	ND<10	ND<100	ND<10	ND<10	ND<10	ND				
CG15-0.5'	0.5	05/01/2019	4.8 J	30	18	ND<100	ND<10	ND<10	ND<10	ND				
CG15-2.5'	2.5					ND<50	ND<5		ND<5					
		05/01/2019	ND<5	ND<5	ND<5			ND<5		ND				
CG16-0.5'	0.5	05/01/2019	ND<25	ND<25	ND<25	ND<250	ND<25	ND<25	ND<25	ND				
CG16-2.5'	2.5	05/01/2019	ND<5	ND<5	ND<5	ND<50	ND<5	ND<5	ND<5	ND				
CG17-0.5'	0.5	04/30/2019	ND<10	11	9.5 J	ND<100	ND<10	ND<10	ND<10	ND				
CG17-2.5'	2.5	04/30/2019	ND<5	ND<5	ND<5	ND<50	ND<5	ND<5	ND<5	ND				
CG18-0.5'	0.5	05/01/2019	ND<5	28	16	ND<100	ND<10	ND<10	ND<10	ND				
CG18-2.5'	2.5	05/01/2019	ND<5	ND<5	ND<5	ND<50	ND<5	ND<5	ND<5	ND				
CG18A-0.5'	0.5	05/01/2019	ND<25	20 J	19 J	ND<250	ND<25	ND<25	ND<25	ND				
CG18A2.5'	2.5	05/01/2019	ND<5	ND<5	ND<5	ND<50	ND<5	ND<5	ND<5	ND				
CG19-0.5'	0.5	04/30/2019	ND<10	35	35	340	ND<10	ND<10	ND<10	ND				
CG-19-2.5'	2.5	04/30/2019	ND<10	ND<5	ND<5	ND<50	ND<5	ND<5	ND<5	ND				
CG19A-0.5'	0.5													
		05/01/2019	ND<10	41	39	540	ND<10	ND<10	ND<10	ND				
CG19A-2.5'	2.5	05/01/2019	ND<5	2.9 J	ND<5	ND<50	ND<5	ND<5	ND<5	ND				
CG20-0.5'	0.5	04/30/2019	ND<10	ND<10	23	560	ND<10	ND<10	ND<10	ND				
CG20-2.5'	2.5	04/30/2019	ND<5	ND<5	12	210	ND<5	ND<5	ND<5	ND				
CG21-0.5'	0.5	04/30/2019	ND<25	ND<25	17 J	ND<250	ND<25	ND<25	ND<25	ND				
COMP DUP-3	0.5	04/30/2019	ND<25	13 J	ND<25	ND<250	ND<25	ND<25	ND<25	ND				
CG21-2.5'	2.5	04/30/2019	ND<10	ND<10	ND<10	ND<100	ND<10	ND<10	ND<10	ND				
CG22-0.5'	0.5	04/30/2019	ND<5	ND<5	ND<5	ND<50	ND<5	ND<5	ND<5	ND				
COMP DUP-4	0.5	04/30/2019	ND<5	ND<5	ND<5	ND<50	ND<5	ND<5	ND<5	ND				
CG22-2.5'	2.5	04/30/2019	ND<5	ND<5	ND<5	ND<50	ND<5	ND<5	ND<5	ND				
CG22-2.5 CG23-0.5'														
	0.5	04/30/2019	ND<10	ND<10	ND<10	320	ND<10	ND<10	ND<10	ND				
CG23-2.5'	2.5	04/30/2019	ND<5	ND<5	ND<5	ND<50	ND<5	ND<5	ND<5	ND				
CG24-0.5'	0.5	04/30/2019	ND<5	3.3 J	ND<5	ND<50	ND<5	ND<5	ND<5	ND				
CG24-2.5'	2.5	04/30/2019	ND<5	ND<5	ND<5	ND<50	ND<5	ND<5	ND<5	ND				
CG25-0.5'	0.5	05/09/2019	ND<5	33	22	86	ND<5	ND<5	ND<5	ND				
CG25-2.5'	2.5	05/09/2019	ND<5	ND<5	ND<5	ND<50	ND<5	ND<5	ND<5	ND				
CG26-0.5'	0.5	05/09/2019	8.2 J	71	59	ND<100	ND<10	ND<10	ND<10	ND				
COMP DUP-6	0.5	05/09/2019	2.6 J	ND<5	39	ND<50	ND<5	ND<5	ND<5	ND				
CG26-2.5'							ND<5							
	2.5	05/09/2019	ND<5	2.4 J	ND<5	ND<50		ND<5	ND<5	ND				
CG27-0.5'	0.5	05/09/2019	9.6	200	110	ND<50	ND<5	ND<5	ND<5	ND				
CG27-2.5'	2.5	05/09/2019	ND<5	12	11	ND<50	ND<5	ND<5	ND<5	ND				
CG28-0.5'	0.5	05/09/2019	ND<5	7.0	ND<5	ND<50	ND<5	ND<5	ND<5	ND				
COMP DUP-7	0.5	05/09/2019	2.7 J	80	57	190	ND<5	ND<5	ND<5	ND				
	2.5	05/09/2019	ND<5	ND<5	ND<5	ND<50	ND<5	ND<5	ND<5	ND				
CG28-2.5'	2.5													
CG28-2.5' CG29-0.5'	0.5	05/09/2019	ND<5	15	40	1200	ND<5	ND<5	7.0	ND				

Sample Date EPA Method 8081A (µg/kg)													
Sample ID	Depth (feet bgs)	Sample Collected	4,4'-DDD	4,4'-DDE	4,4'-DDT	Chlordane (technical)	Dieldrin	Endrin Ketone	Heptachlor epoxide	Other OCP			
CG29-2.5'	2.5	05/09/2019	ND<5	ND<5	ND<5	ND<50	ND<5	ND<5	ND<5	ND			
CG30-0.5	0.5	3/16/2020	ND<25	ND<25	ND<25	ND<250	ND<25	ND<25	ND<25	ND			
CG30-2.5	2.5	3/16/2020	ND<5	ND<5	ND<5	ND<50	ND<5	ND<5	ND<5	ND			
CG31-0.5	0.5	3/16/2020	ND<5	ND<5	ND<5	ND<50	ND<5	ND<5	ND<5	ND			
CG31-2.5	2.5	3/16/2020	ND<5	ND<5	ND<5	ND<50	ND<5	ND<5	ND<5	ND			
CG32-0.5	0.5	3/16/2020	ND<25	ND<25	ND<25	ND<250	ND<25	ND<25	ND<25	ND			
COMP DUP-9	0.5	3/16/2020	ND<9.8	ND<9.8	ND<9.8	ND<98	ND<9.8	ND<9.8	ND<9.8	ND			
CG32-1.5	1.5	3/16/2020	ND<5	ND<5	ND<5	ND<50	ND<5	ND<5	ND<5	ND			
CG33-0.5	0.5	3/16/2020	ND<5	6.3	11	160	3.5 J	ND<5	ND<5	ND			
CG33-2.5	2.5	3/16/2020	ND<5	ND<5	ND<5	ND<50	ND<5	ND<5	ND<5	ND			
CG34-0.5	0.5	3/16/2020	ND<5	3.6 C,J	9.0	160	25	ND<5	ND<5	ND			
CG34-2.5	2.5	3/16/2020	ND<5	ND<5	ND<5	ND<50	3.7 J	ND<5	ND<5	ND			
CG35-0.5	0.5	3/16/2020	ND<9.9	ND<9.9	ND<9.9	ND<99	ND<9.9	ND<9.9	ND<9.9	ND			
CG35-2.5	2.5	3/16/2020	ND<5	ND<5	ND<5	ND<50	ND<5	ND<5	ND<5	ND			
CG36-0.5	0.5	3/16/2020	ND<25	ND<25	15 J	ND<250	ND<25	ND<25	ND<25	ND			
COMP DUP-10	0.5	3/16/2020	ND<9.9	ND<9.9	6.4 J	ND<99	ND<9.9	ND<9.9	ND<9.9	ND			
CG36-2.5	2.5	3/16/2020	ND<5	ND<5	ND<5	ND<50	ND<5	ND<5	ND<5	ND			
CG37-0.5	0.5	3/16/2020	ND<9.9	16	16	79	ND<9.9	ND<9.9	ND<9.9	ND			
CG37-2.5	2.5	3/16/2020	ND<5	ND<5	ND<5	ND<50	ND<5	ND<5	ND<5	ND			
Quality Control	Samples (µg/l)											
EB-042919	NA	4/29/2019	ND<0.1	ND<0.1	ND<0.1	ND<1	ND<0.1	ND<0.1	ND<0.1	ND			
EB-043019	NA	4/30/2019	ND<0.1	ND<0.1	ND<0.1	ND<1	ND<0.1	ND<0.1	ND<0.1	ND			
EB-050119A	NA	5/1/2019	ND<0.1	ND<0.1	ND<0.1	ND<1	ND<0.1	ND<0.1	ND<0.1	ND			
EB-050119B	NA	5/1/2019	ND<0.1	ND<0.1	ND<0.1	ND<1	ND<0.1	ND<0.1	ND<0.1	ND			
EB-050319	NA	5/3/2019	ND<0.1	ND<0.1	ND<0.1	ND<1	ND<0.1	ND<0.1	ND<0.1	ND			
EB-050619C	NA	5/6/2019	ND<0.1	ND<0.1	ND<0.1	ND<1	ND<0.1	ND<0.1	ND<0.1	ND			
EB-050919A	NA	5/9/2019	ND<0.1	ND<0.1	ND<0.1	ND<1	ND<0.1	ND<0.1	ND<0.1	ND			
EB-050919B	NA	5/9/2019	ND<0.1	ND<0.1	ND<0.1	ND<1	ND<0.1	ND<0.1	ND<0.1	ND			
Regulatory Scre	ening Levels	(µg/kg)											
EPA RSLs (Resid	,		1,900	2,000	1,900	1,700	34	19,000	70	Various			
DTSC HERO HH	RA (Residentia	al Soil)	2,300	2,000	1,900	1,700	34	NL	70	Various			

Bold indicates value is above screening level

bgs - below ground surface

D2 - Reporting limit is elevated due to sample matrix. Target analyte was not detected above the elevated reporting limit.

DTSC HERO HHRA - Department of Toxic Substances Control Human and Ecological Risk Office Human Health Risk Assessment, Note 3, Recommended Screening Levels for Soil (April 2019)

DUP - duplicate of the sample listed above

EPA - United States Environmental Protection Agency

ID - Identification

J - report value is estimated

ND< - not detected above the laboratory reporting limit

OCPs - organochlorine pesticides

RSLs - United States Environmental Protection Agency Regional Screening Levels (November 2019)

μg/kg - microgram per kilogram

 $\mu g/I$ - microgram per liter

Table 8 - Groundwater Sample Analytical Results - VOCs and TPH																		
Sample ID	Sample Depth (feet bgs)	Date Sample Collected		VOCs EPA Method 8260B (μg/l)											EPA Method 8015B (mg/l)			
			Lab Sample ID	1,2,4- Trimethylbenzene	1,3,5- Trimethylbenzene	Benzene	Chloroform	Ethylbenzene	m and p-Xylene	Methylene chloride	Naphthalene	o-Xylene	Toluene	Xylenes (Total)	Other VOCs	TPH Gasoline	TPH Diesel	TPH Motor Oil
AOC2-B2W-GW	NA	9/9/2019	419195-001	18	5.4	5.2	ND<5	ND<5	7.4	5.2	16	11	ND<5	18	ND	0.27	1.1	ND<0.45
AOC4-SV10S-GW	NA	9/11/2019	419313-032	ND<5	ND<5	ND<1	ND<5	ND<5	ND<5	ND<5	ND<5	ND<5	ND<5	ND<5	ND	ND<0.050	ND<0.53	ND<1.59
AOC4-SV11N-GW	NA	9/11/2019	419313-010	ND<5	ND<5	ND<1	6.5	ND<5	ND<5	ND<5	ND<5	ND<5	ND<5	ND<5	ND	ND<0.050	ND<0.18	ND<0.54
AOC4-SV12E-GW	NA	9/11/2019	419313-031	ND<5	ND<5	ND<1	ND<5	ND<5	ND<5	ND<5	ND<5	ND<5	ND<5	ND<5	ND	ND<0.050	0.13 D1	ND<0.39
AOC4-SV12WW_GW	NA	12/6/2019	422519-010	ND<5	ND<5	0.3 J	0.38 J	0.28 J	ND<5	2.8 J	ND<5	ND<5	0.36 J	ND<5	ND	ND<0.050	0.79 B, D1	ND<2.223
Regulatory Screenin	Regulatory Screening Levels (μg/l)																(mg/l)	
San Francisco Bay RWC	CB ESLs			NL	NL	0.42	0.81	3.5	NL	5.0	0.17	NL	40	20	Various	0.1	0.1	NL
EPA RSLs (Residential S	Soil)			NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	Various	NL	NL	NL
DTSC HERO HHRA (Residential Soil)			NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	Various	NL	NL	NL	

Bold indicates value is above screening level

* non-cancer endpoint

B - analyte was present in an associated method blank

bgs - below ground surface

D1 - Lesser amount of sample was used due to insufficient amount of sample supplies.

DTSC HERO HHRA - Department of Toxic Substances Control Human and Ecological Risk Office Human Health Risk Assessment, Note 3, Recommended Screening Levels for Soil (April 2019)

EPA - United States Environmental Protection Agency

ID - Identification

J - report value is estimated

mg/l - milligrams per liter

NA - not applicable

NL - not listed

ND< - not detected above the laboratory reporting limit

RSLs - United States Environmental Protection Agency Regional Screening Levels (November 2019)

San Francisco bay RWQCB ESLs - San Francisco Bay Regional Water Quality Control Board Environmental Screening Levels (January 2019)

VOCs - volatile organic compounds

 $\mu\text{g/l}$ - micrograms per liter

													PA Method	8260B (µg/n	n³)									
Sample ID	Sample Depth (feet bgs)	Date Sample Collected	Benzene	n-Butylbenzene	sec-Butylbenzene	tert-Butylbenzene	Chloroform	2-Chlorotoluene	1,1-Dichloroethane	1,2-Dichloroethane	1,1-Dichloropropene	Ethylbenzene	Isopropylbenzene	4-Isopropytoluene	Naphthalene	n-Propylbenzene	Tetrachloroethene	Toluene	1,2,4-Trimethylbenzene	1,3,5-Trimethylbenzene	m,p-Xylene	o-Xylene	Gasoline Range Organics (C4-C12)	Other VOCs
											AOC2													
AOC2-B1-5'	5	5/14/2019	ND<8	ND<12	ND<12	ND<12	ND<8	ND<12	ND<8	ND<8	ND<10	22	ND<8	ND<8	ND<40	ND<8	ND<8	79	16	ND<8	74	22	ND<2,000	ND
AOC2-B1-5' REP	5	5/14/2019	ND<8	ND<12	ND<12	ND<12	ND<8	ND<12	ND<8	ND<8	ND<10	18	ND<8	ND<8	ND<40	ND<8	ND<8	60	13	ND<8	54	16	ND<2,000	ND
AOC2-B1-11'	11	5/14/2019	20	ND<12	ND<12	ND<12	ND<8	ND<12	ND<8	ND<8	ND<10	18	ND<8	ND<8	ND<40	ND<8	13	66	10	ND<8	40	14	3,650	ND
AOC2-B2-7'	7	5/14/2019	113	ND<12	ND<12	ND<12	ND<8	ND<12	ND<8	ND<8	ND<10	71	ND<8	14	ND<40	ND<8	87	279	98	65	258	110	109,000	ND
AOC2-B2E-5'	5	9/17/2019	1,480	ND<12	131	ND<12	ND<8	ND<12	ND<8	ND<8	ND<10	285	ND<8	181	ND<40	ND<8	ND<8	278	ND<8	359	537	210	ND<2,000	ND
AOC2-B2E-5' REP	5	9/17/2019	1,190	ND<12	102	ND<12	ND<8	ND<12	ND<8	ND<8	ND<10	207	ND<8	168	ND<40	ND<8	ND<8	220	ND<8	226	432	176	ND<2,000	ND
2000 P4 5	_	EU 1/00 10	ND 0	ND 40	ND 40	ND 40	40	ND 40	NID 12	ND 0	AOC3	NID. O	ND 0	ND 0	ND -10	NID 0	40	ND 2	ND 0	ND 0	ND 42	ND 410	NID (0.000	
AOC3-B1-5'	5	5/14/2019	ND<8	ND<12	ND<12	ND<12	10	ND<12	ND<8	ND<8	ND<10	ND<8	ND<8	ND<8	ND<40	ND<8	10	ND<8	ND<8	ND<8	ND<16	ND<16	ND<2,000	ND
AOC3-B1-15'	15	5/14/2019	93	8 ND <10	ND<12	ND<12	ND<8	ND<12	ND<8	ND<8	ND<10	226	12 ND <0	ND<8	ND<40	30 ND <0	58	1,010	108	43	803	251 ND <16	10,000	ND
AOC3-B1N-5'	5	9/17/2019	ND<8	ND<12	ND<12	ND<12	49	ND<12	ND<8	ND<8	ND<10	ND<8	ND<8	ND<8	ND<40	ND<8	ND<8	ND<8	ND<8	ND<8	ND<16	ND<16	ND<2,000	ND
AOC3-B1N-5' REP	5	9/17/2019	ND<8	ND<12	ND<12	ND<12	56	ND<12	ND<8	ND<8	ND<10	ND<8	ND<8	ND<8	ND<40	ND<8	ND<8	ND<8	ND<8	ND<8	ND<16	ND<16	ND<2,000	ND
AOC3-B1N-15'	15	9/17/2019	ND<8	ND<12	ND<12	ND<12	15	ND<12	ND<8	ND<8	ND<10	ND<8	ND<8	ND<8	ND<40	ND<8	ND<8	ND<8	ND<8	ND<8	ND<16	ND<16	ND<2,000	ND
AOC3-B1E-5'	5	9/17/2019	ND<8	ND<12	ND<12	ND<12	17	ND<12	ND<8	ND<8	ND<10	ND<8	ND<8	ND<8	ND<40	ND<8	ND<8	ND<8	ND<8	ND<8	ND<16	ND<16	ND<2,000	ND
AOC3-B1E-15'	15	9/17/2019	ND<8	ND<12	ND<12	ND<12	10	ND<12	ND<8	ND<8	ND<10	ND<8	ND<8	ND<8	ND<40	ND<8	ND<8	ND<8	ND<8	ND<8	ND<16	ND<16	ND<2,000	ND
AOC3-B2N-5' AOC3-B2N-15'	5 15	9/17/2019	ND<8 ND<8	ND<12 ND<12	ND<12 ND<12	ND<12 ND<12	11 ND<8	ND<12 ND<12	ND<8 ND<8	ND<8 ND<8	ND<10 ND<10	ND<8 ND<8	ND<8 ND<8	ND<8 ND<8	ND<40 ND<40	ND<8 ND<8	ND<8 ND<8	10 ND<8	ND<8 ND<8	ND<8 ND<8	ND<16	ND<16 ND<16	ND<2,000 ND<2,000	ND ND
AOC3-B2E-5'	5	9/17/2019 9/17/2019	ND<8	ND<12 ND<12	ND<12	ND<12	23	ND<12 ND<12	ND<8	ND<8	ND<10	ND<8	ND<8	ND<8	ND<40	ND<8	ND<8	ND<8	ND<8	ND<8	ND<16 ND<16	ND<16	ND<2,000	ND
AOC3-B2E-15'	15	9/17/2019	ND<8	ND<12 ND<12	ND<12 ND<12	ND<12 ND<12	ND<8	ND<12 ND<12	ND<8	ND<8	ND<10	ND<8	ND<8	ND<8	ND<40	ND<8	ND<8	ND<8	ND<8	ND<8	ND<16	ND<16	ND<2,000	ND
AOC3-B2S-5'	5	9/17/2019	ND<8	ND<12 ND<12	ND<12	ND<12	ND<8	ND<12	ND<8	ND<8	ND<10	ND<8	ND<8	ND<8	ND<40	ND<8	ND<8	ND<8	ND<8	ND<8	ND<16	ND<16	ND<2,000	ND
AOC3-B2S-15'	15	9/17/2019	ND<8	ND<12	ND<12	ND<12	ND<8	ND<12	ND<8	ND<8	ND<10	ND<8	ND<8	ND<8	ND<40	ND<8	16	ND<8	ND<8	ND<8	ND<16	ND<16	ND<2,000	ND
AOC3-B3N-5'	5	9/17/2019	ND<8	ND<12	ND<12	ND<12	15	ND<12	ND<8	ND<8	ND<10	ND<8	ND<8	ND<8	ND<40	ND<8	16	ND<8	ND<8	ND<8	ND<16	ND<16	ND<2,000	ND
AOC3-B3E-5'	5	9/17/2019	ND<8	ND<12	ND<12	ND<12	ND<8	ND<12	ND<8	ND<8	ND<10	ND<8	ND<8	ND<8	ND<40	ND<8	ND<8	ND<8	ND<8	ND<8	ND<16	ND<16	ND<2,000	ND
AOC3-B3S-5'	5	9/17/2019	ND<8	ND<12	ND<12	ND<12	9	ND<12	ND<8	ND<8	ND<10	ND<8	ND<8	ND<8	ND<40	ND<8	ND<8	ND<8	ND<8	ND<8	ND<16	ND<16	ND<2,000	ND
AOC3-B4-5'	5	5/14/2019	ND<8	12	ND<12	ND<12	ND<8	ND<12	ND<8	ND<8	ND<10	83	ND<8	ND<8	ND<40	28	14	189	69	23	296	88	ND<2,000	ND
AOC3-B4-11'	11	5/14/2019	20	ND<12	ND<12	ND<12	ND<8	ND<12	ND<8	ND<8	ND<10	24	ND<8	ND<8	ND<40	12	28	79	9	ND<8	41	14	3,140	ND
AOC3-B5-5'	5	5/14/2019	ND<8	ND<12	ND<12	ND<12	ND<8	ND<12	ND<8	ND<8	ND<10	ND<8	ND<8	ND<8	ND<40	ND<8	ND<8	ND<8	ND<8	ND<8	ND<16	ND<16	ND<2,000	ND
AOC3-B5-12'	12	5/14/2019	ND<8	ND<12	ND<12	ND<12	9	ND<12	ND<8	ND<8	ND<10	11	ND<8	ND<8	ND<40	ND<8	ND<8	12	ND<8	ND<8	21	ND<16	ND<2,000	ND
AOC3-B5-12' REP	12	5/14/2019	ND<8	ND<12	ND<12	ND<12	8	ND<12	ND<8	ND<8	ND<10	9	ND<8	ND<8	ND<40	ND<8	ND<8	ND<8	ND<8	ND<8	ND<16	ND<16	ND<2,000	ND
											AOC4													
AOC4-SV10-19.5'	19.5	5/14/2019	9	ND<12	ND<12	ND<12	ND<8	ND<12	ND<8	ND<8	ND<10	29	ND<8	ND<8	ND<40	ND<8	ND<8	94	23	ND<8	90	28	25,300	ND
AOC4-SV10N-5'	5	9/18/2019	ND<8	ND<12	ND<12	ND<12	ND<8	ND<12	ND<8	ND<8	ND<10	ND<8	ND<8	ND<8	ND<40	ND<8	18	ND<8	ND<8	ND<8	ND<16	ND<16	ND<2,000	ND
AOC4-SV10N-5' REP	5	9/18/2019	ND<8	ND<12	ND<12	ND<12	ND<8	ND<12	ND<8	ND<8	ND<10	ND<8	ND<8	ND<8	ND<40	ND<8	22	ND<8	ND<8	ND<8	ND<16	ND<16	ND<2,000	ND
AOC4-SV10N-15'	15	9/18/2019	ND<8	ND<12	ND<12	ND<12	ND<8	ND<12	ND<8	ND<8	ND<10	ND<8	ND<8	ND<8	ND<40	ND<8	ND<8	21	ND<8	ND<8	ND<16	ND<16	ND<2,000	ND
AOC4-SV10W-5'	5	9/18/2019	ND<8	ND<12	ND<12	ND<12	ND<8	ND<12	ND<8	ND<8	ND<10	ND<8	ND<8	ND<8	ND<40	ND<8	ND<8	ND<8	ND<8	ND<8	ND<16	ND<16	ND<2,000	ND
AOC4-SV10W-15'	15	9/18/2019	12	ND<12	ND<12	ND<12	ND<8	ND<12	ND<8	ND<8	ND<10	ND<8	ND<8	8	ND<40	ND<8	ND<8	48	ND<8	ND<8	ND<16	ND<16	ND<2,000	ND
AOC4-SV10E-5'	5	9/18/2019	ND<8	ND<12	ND<12	ND<12	ND<8	ND<12	ND<8	ND<8	ND<10	ND<8	ND<8	ND<8	ND<40	ND<8	ND<8	ND<8	ND<8	ND<8	ND<16	ND<16	ND<2,000	ND
AOC4-SV10E-15'	15	9/18/2019	ND<8	495	142	ND<12	ND<8	1,990	ND<8	ND<8	ND<10	1,030	282	16	203	ND<8	ND<8	ND<8	ND<8	ND<8	ND<16	ND<16	ND<2,000	ND
AOC4-SV11-5'	5	5/14/2019	ND<8	ND<12	ND<12	ND<12	ND<8	ND<12	ND<8	ND<8	ND<10	11	ND<8	ND<8	ND<40	ND<8	57	21	ND<8	ND<8	ND<16	ND<16	ND<2,000	ND
AOC4-SV11S-5'	5	9/18/2019	ND<8	ND<12	ND<12	ND<12	ND<8	ND<12	ND<8	ND<8	ND<10	ND<8	ND<8	ND<8	ND<40	ND<8	ND<8	9	ND<8	ND<8	ND<16	ND<16	ND<2,000	ND
AOC4-SV11S-15'	15	9/18/2019	843	4,290	2,900	ND<12	ND<8	ND<12	ND<8	ND<8	ND<10	34,600	9,430	4,070	ND<40	ND<8	ND<8	ND<8	38,600	21,000	57,800	ND<16	ND<2,000	ND
AOC4-SV11SS-5'	5	12/10/2019	ND<8	ND<12	ND<12	ND<12	ND<8	ND<12	ND<8	ND<8	ND<10	ND<8	ND<8	ND<8	ND<40	ND<8	55	ND<8	ND<8	ND<8	ND<16	ND<16	ND<2,000	ND
OC4-SV11SS-5' REP	5	12/10/2019	ND<8	ND<12	ND<12	ND<12	ND<8	ND<12	ND<8	ND<8	ND<10	ND<8	ND<8	ND<8	ND<40	ND<8	50	ND<8	ND<8	ND<8	ND<16	ND<16	ND<2,000	ND
OC4-SV11WW-5'	5	12/10/2019	10	ND<12	ND<12	ND<12	40	ND<12	16	ND<8	ND<10	11	ND<8	ND<8	ND<40	ND<8	64	13	ND<8	ND<8	ND<16	ND<16	ND<2,000	ND
OC4-SV11-15'	15	5/14/2019	ND<8	26,600	ND<12	ND<12	ND<8	ND<12	ND<8	ND<8	ND<10	83,000	15,200	1,460	ND<40	50,800	ND<8	ND<8	10,700	4,300	ND<16	ND<16	6,850,000	ND
OC4-SV11WW-15'	15	12/10/2019	12	ND<12	ND<12	ND<12	9	ND<12	10	ND<8	80	ND<8	ND<8	ND<8	ND<40	ND<8	46	14	ND<8	ND<8	ND<16	ND<16	ND<2,000	ND

			EPA Method 8260B (μg/m³)																					
Sample ID	Sample Depth (feet bgs)	Date Sample Collected	Benzene	n-Butylbenzene	sec-Butylbenzene	tert-Butylbenzene	Chloroform	2-Chlorotoluene	1,1-Dichloroethane	1,2-Dichloroethane	1,1-Dichloropropene	Ethylbenzene	Isopropylbenzene	4-IsopropyItoluene	Naphthalene	n-Propylbenzene	Tetrachloroethene	Toluene	1,2,4-Trimethylbenzene	1,3,5-Trimethylbenzene	m,p-Xylene	o-Xylene	Gasoline Range Organics (C4-C12)	Other VOCs
AOC4-SV12-5'	5	5/14/2019	ND<8	133	ND<12	ND<12	ND<8	ND<12	ND<8	ND<8	ND<10	267	46	ND<8	ND<40	221	12	63	70	10	77	23	11,800	ND
AOC4-SV12A-25'	25	9/18/2019	ND<8	ND<12	2,150	ND<12	ND<8	ND<12	ND<8	ND<8	ND<10	ND<8	ND<8	ND<8	ND<40	ND<8	ND<8	ND<8	ND<8	ND<8	ND<16	ND<16	ND<2,000	ND
AOC4-SV12W-5'	5	9/18/2019	ND<8	ND<12	ND<12	ND<12	ND<8	ND<12	ND<8	ND<8	ND<10	ND<8	ND<8	ND<8	ND<40	ND<8	ND<8	ND<8	ND<8	ND<8	ND<16	ND<16	ND<2,000	ND
AOC4-SV12W-15'	15	9/18/2019	143	ND<12	1,600	ND<12	ND<8	ND<12	ND<8	ND<8	ND<10	9,010	3,650	2,930	ND<40	ND<8	ND<8	141	16,100	1,210	5,550	ND<16	ND<2,000	ND
AOC4-SV12W-25'	25	9/18/2019	22,800	ND<12	10,000	ND<12	ND<8	ND<12	ND<8	ND<8	ND<10	305,000	58,200	9,900	ND<40	ND<8	ND<8	ND<8	3,700	ND<8	46,000	ND<16	ND<2,000	ND
AOC4-SV12S-5'	5	9/19/2019	ND<8	ND<12	ND<12	ND<12	ND<8	ND<12	ND<8	ND<8	ND<10	ND<8	ND<8	ND<8	ND<40	ND<8	ND<8	ND<8	ND<8	ND<8	ND<16	ND<16	ND<2,000	ND
AOC4-SV12S-5' REP	5	9/19/2019	ND<8	ND<12	ND<12	ND<12	ND<8	ND<12	ND<8	ND<8	ND<10	ND<8	ND<8	ND<8	ND<40	ND<8	ND<8	ND<8	ND<8	ND<8	ND<16	ND<16	ND<2,000	ND
AOC4-SV12S-15'	15	9/19/2019	ND<8	ND<12	ND<12	ND<12	ND<8	ND<12	ND<8	ND<8	ND<10	14	ND<8	ND<8	ND<40	ND<8	ND<8	ND<8	20	ND<8	21	ND<16	6,870	ND
AOC4-SV12S-25'	25	9/19/2019	ND<8	ND<12	256	ND<12	295	ND<12	ND<8	74	ND<10	ND<8	ND<8	ND<8	ND<40	ND<8	ND<8	12	ND<8	ND<8	ND<16	ND<16	238,000	ND
AOC4-SV12N-5'	5	9/19/2019	ND<8	ND<12	ND<12	ND<12	ND<8	ND<12	ND<8	ND<8	ND<10	ND<8	ND<8	ND<8	ND<40	ND<8	ND<8	ND<8	ND<8	ND<8	ND<16	ND<16	ND<2,000	ND
AOC4-SV12N-15'	15	9/19/2019	ND<8	ND<12	ND<12	ND<12	ND<8	ND<12	ND<8	ND<8	ND<10	ND<8	ND<8	ND<8	ND<40	ND<8	ND<8	ND<8	ND<8	ND<8	ND<16	ND<16	ND<2,000	ND
AOC4-SV12N-25'	25	9/19/2019	ND<8	ND<12	937	321	212	ND<12	ND<8	ND<8	ND<10	ND<8	ND<8	ND<8	ND<40	ND<8	ND<8	ND<8	ND<8	ND<8	ND<16	ND<16	510,000	ND
AOC4-SV13-5'	5	5/14/2019	ND<8	15	ND<12	ND<12	ND<8	ND<12	ND<8	ND<8	ND<10	28	ND<8	ND<8	ND<40	22	44	21	10	ND<8	22	ND<16	ND<2,000	ND
AOC4-SV13-5' REP	5	5/14/2019	ND<8	10	ND<12	ND<12	ND<8	ND<12	ND<8	ND<8	ND<10	18	ND<8	ND<8	ND<40	13	46	28	45	ND<8	27	8	ND<2,000	ND
AOC4-SV13A-15'	15	9/18/2019	ND<8	ND<12	ND<12	ND<12	ND<8	ND<12	ND<8	ND<8	ND<10	95	29	ND<8	ND<40	ND<8	ND<8	14	42	ND<8	38	ND<16	ND<2,000	ND
AOC4-SV13A-15' REP	15	9/18/2019	ND<8	ND<12	ND<12	ND<12	ND<8	ND<12	ND<8	ND<8	ND<10	72	19	ND<8	ND<40	ND<8	ND<8	10	ND<8	ND<8	32	ND<16	ND<2,000	ND
Regulatory Screening Le	evels [†] (µg/m³)																							
Modified EPA RSLs (Resid	dential Air)1		12	NL	NL	NL	4	NL	60	3.6	NL	37	14,000	NL	NL	33,333*	367	173,333	2,100	2,100	33,333	3,333	1,033	Various
Modified DTSC HERO HH	IRA (Residential A	Air)²	97	7,000	NL	NL	NL	NL			NL	NL	NL	NL	NL	NL	460	310,000	NL	NL	NL	NL	NL	Various

Bold text indicates result in exceedance of screening level

^T regulatory screening level values reflect cancer endpoint values, except when not available; in which case non-cancer endpoint values are shown

² Attenuation factor of 0.001 applied to DTSC HERO HHRA residential screening levels

bgs - below ground surface

DTSC HERO HHRA - Department of Toxic Substances Control Human and Ecological Risk Office Human Health Risk Assessment, Note 3, Recommended Screening Levels (April 2019)

EPA - United States Environmental Protection Agency

ID - Identification

ND< - not detected above the laboratory reporting limit

NL - not liste

RSLs - United States Environmental Protection Agency Regional Screening Levels (November 2019)

VOCs - Volatile organic compounds

µg/m³ - micrograms per cubic meter

¹ Attenuation factor of 0.03 applied to EPA RSLs

Table 10-1 – Volatilization Emission Factor Calculation – Residential Exposure Scenario								
Soil Parameters	Value Used	Units	Reference					
Water filled soil porosity (Theta w)	0.34	(Lwater-Lsoil)	Default					
Total soil porosity (n)	0.44	(Lpore-Lsoil)	Default					
Air filled soil porosity (Theta a)	0.10	(Lair-Lsoil)	Default					
Soil particle density (ps)	2.69	g/cm ³	Default					
Exposure Interval (T)	9.50E+08	sec	Default (EPA 1996)					
Soil Bulk Density (Pb)	1.5	g/cm ³	Default					
Fraction organic carbon in soil	3.00E-03	unitless	Default					
Inverse of mean concentration (Q/C) (for VF)	68.81	(g/m²-s per kg/m³)	Default for a 10-acre site in Los Angeles (EPA 1996)					

Compound	Diffusivity in air (Di) (cm^2/sec)	Henry's Law Const (H') (dimensionless)	Diffusivity in water (Dw) (cm^2/sec)	Soil-water partition coefficient (Kd) (cm^3/g)	Soil organic carbon partition coefficient (Koc) (cm^3/g)	Apparent Diffusivity (Da)	Volatilization Factor (VF)
			VOCs				
Acetone	1.2E-01	1.6E-03	1.1E-05	1.7E-03	5.8E-01	6.1E-06	5.0E+04
Benzene	8.8E-02	2.3E-01	9.8E-06	1.9E-01	6.2E+01	7.7E-05	1.4E+04
Ethylbenzene	7.5E-02	3.2E-01	7.8E-06	6.1E-01	2.0E+02	4.6E-05	1.8E+04
Isopropylbenzenes	7.5E-02	4.9E+01	7.1E-06	6.6E-01	2.2E+02	1.4E-03	3.3E+03
Methylene chloride	1.0E-01	9.0E-02	1.2E-05	3.0E-02	1.0E+01	5.9E-05	1.6E+04
n-Butylbenzene	7.5E-02	5.4E-01	7.8E-06	8.5E+00	2.8E+03	7.4E-06	4.6E+04
n-Propylbenzene	7.5E-02	5.4E-01	7.8E-06	8.5E+00	2.8E+03	7.4E-06	4.6E+04
Naphthalene	5.9E-02	2.0E-02	7.5E-06	3.6E+00	1.2E+03	6.7E-07	1.5E+05
sec-Butylbenzene	7.5E-02	7.7E-01	7.8E-06	6.5E+00	2.2E+03	1.4E-05	3.4E+04
tert-butyl alcohol	9.0E-02	1.1E-03	9.8E-06	1.4E-02	4.5E+00	4.5E-06	5.8E+04
Toluene	8.7E-02	2.7E-01	8.6E-06	4.2E-01	1.4E+02	5.8E-05	1.6E+04
Trichlorofluoromethane	8.7E-02	4.0E+00	1.3E-05	4.8E-01	1.6E+02	5.7E-04	5.2E+03
Trichlorotrifluoroethane	2.9E-02	2.1E+01	8.1E-06	4.8E-01	1.6E+02	4.6E-04	5.8E+03
Xylenes, total	7.0E-02	3.0E-01	7.8E-06	5.9E-01	2.0E+02	4.1E-05	1.9E+04

VOC Equation:

VF = Q/C * $((3.14 * D_a * T)^{1/2} * 10^{-4})/(2 * Pb * D_a))$

Table 10-2 – Indoor Air Exposure Point Concentrations – Estimated Using a Default Attenuation Factor of 0.03 and Maximum Concentrations Detected at 5 Feet

Chemical of Potential Concern (COPC)	CAS Number	Maximum Detected Soil Gas Concentration (μg/m³)	Default Indoor Chemical Air Concentration (ug/m³)	Estimated Site-Specific Indoor Chemical Air Concentration (ug/m³)
1,1-Dichloroethane	75343	16	4.80E-01	4.80E-01
1,2,4-Trimethylbenzene	95636	98	2.94E+00	2.94E+00
1,3,5-Trimethylbenzene	108678	359	1.08E+01	1.08E+01
4-Isopropyltoluene	98828	181	5.43E+00	5.43E+00
Benzene	71432	1480	4.44E+01	4.44E+01
Chloroform	67663	56	1.68E+00	1.68E+00
Ethylbenzene	100414	285	8.55E+00	8.55E+00
Isopropylbenzene	98828	46	1.38E+00	1.38E+00
n-Butylbenzene	104518	133	3.99E+00	3.99E+00
n-Propylbenzene	103651	221	6.63E+00	6.63E+00
sec-Butylbenzene	135988	131	3.93E+00	3.93E+00
Tetrachloroethylene	127184	87	2.61E+00	2.61E+00
Toluene	108883	279	8.37E+00	8.37E+00
Xylenes, total	95476	747	2.24E+01	2.24E+01
Notes: Attenuation factor (unitless) = Ceiling height (feet) = Building ventilation rate (AE/hr) = µg/L = micrograms per liter NA = Not applicable or not available	0.03 8 0.5			

Table 10-3 – Indoor Air Exposure Point Concentrations – Estimated Using a Default Attenuation Factor of 0.001 and Maximum Concentrations Detected at 15 Feet

Chemical of Potential Concern (COPC)	CAS Number	Maximum Detected Soil Gas Concentration (μg/m³)	Default Indoor Chemical Air Concentration (ug/m³)	Estimated Site-Specific Indoor Chemical Air Concentration (ug/m³)
1,1-Dichloroethane	75343	10	1.00E-02	1.00E-02
1,1-Dichloropropene	542756	80	8.00E-02	8.00E-02
1,2,4-Trimethylbenzene	95636	38600	3.86E+01	3.86E+01
1,3,5-Trimethylbenzene	108678	21000	2.10E+01	2.10E+01
2-Chlorotoluene	95498	1990	1.99E+00	1.99E+00
4-Isopropyltoluene	98828	4070	4.07E+00	4.07E+00
Benzene	71432	843	8.43E-01	8.43E-01
Chloroform	67663	15	1.50E-02	1.50E-02
Ethylbenzene	100414	83000	8.30E+01	8.30E+01
Isopropylbenzene	98828	15200	1.52E+01	1.52E+01
n-Butylbenzene	104518	26600	2.66E+01	2.66E+01
n-Propylbenzene	103651	50800	5.08E+01	5.08E+01
Naphthalene	91203	203	2.03E-01	2.03E-01
sec-Butylbenzene	135988	2900	2.90E+00	2.90E+00
Tetrachloroethylene	127184	58	5.80E-02	5.80E-02
Toluene	108883	1010	1.01E+00	1.01E+00
Xylenes, total	95476	57800	5.78E+01	5.78E+01
TBD	123456789	0	0.00E+00	0.00E+00
TBD	123456789	0	0.00E+00	0.00E+00
TBD	123456789	0	0.00E+00	0.00E+00
Notes: Attenuation factor (unitless) = Ceiling height (feet) = Building ventilation rate (AE/hr) = µg/L = micrograms per liter	0.001 8 0.5			

NA = Not applicable or not available

Table 10-4 – Exposure Parameters for Onsite Receptors – Residential Exposure Scenario									
Exposure Parameters	Units		Residential Sc	enario					
Exposure Farameters	Ullits	Adult	Child	Source					
Soil Ingestion Rate (IR-S)	mg/day	100	200	DTSC 2019					
Skin Surface Area (SA)	cm ² /day	6,032	2,900	DTSC 2019					
Skin Adsorption Factor (ABS)	unitless	chem-specific	chem-specific	DTSC 1994/USEPA 1997a					
Adherence Factor (AF)	mg/cm ²	0.07	0.20	DTSC 2019					
Fraction of Soil Exposed (FE)	unitless	1.0	1.0	DTSC 2019					
Inhalation Rate of Air (IR-A)	m³/day	20	10	DTSC 2019					
Exposure Frequency (EF)	days/year	350	350	DTSC 2019					
Exposure Frequency (dermal; EFd)	days/year	350	350	DTSC 2019					
Exposure Duration (ED)	years	20	6	DTSC 2019					
Exposure Time (ET)	hours/day	24	24	USEPA 2009					
Conversion Factor (CF)	kg/mg	1.0E-06	1.0E-06						
Body Weight (BW)	kg	80	15	DTSC 2019					
Averaging Time for Noncarcinogens (AT _n)	days	7,300	2,190	USEPA 1989 (ED*365 dys/yr)					
Averaging Hours for Noncarcinogens (AT _n)	hours	175,200	52,560	USEPA 2009					
Averaging Time for Carcinogens (AT _c)	days	25,550	25,550	USEPA 1989					
Averaging Hours for Carcinogens (AT _c)	hours	613,200	613,200	USEPA 2009					

Table 10-5 – Toxicity Criteria of Chemicals of Potential Concern – Residential Exposure Scenario							
Chemical	Chronic Oral Reference Dose (RfDo)	Inhalation Reference Concentration (RfCi)	Oral Cancer Slope Factor (CSFo)	Inhalation Unit Risk (IUR)			
	[mg/kg-day]	[ug/m^3]	[mg/kg-day] ⁻¹	[ug/m^3] ⁻¹			
		Pesticides					
4,4'-DDD	3.0E-05	NA	2.4E-01	6.9E-05			
4,4'-DDE	3.0E-04	1.2E+00	3.4E-01	9.7E-05			
4,4'-DDT	5.0E-04	NA	3.4E-01	9.7E-05			
Chlordane (technical)	5.0E-04	7.0E-01	3.5E-01	1.0E-04			
Dieldrin	5.0E-05	2.0E-01	1.6E+01	4.6E-03			
Endrin Ketone	3.0E-04	NA	NA	NA			
Heptachlor epoxide	1.3E-05	5.2E-02	9.1E+00	2.6E-03			
		TPH					
TPH (C17-C32 aromatic high)	4.0E-02	NA	NA	NA			
TPH (C19-C32 aliphatic high)	3.0E+00	NA	NA	NA			
TPH (C5-C8 aliphatic low)	NA	6.0E+02	NA	NA			
TPH (C6-C8 aromatic low)	4.0E-03	3.0E+01	NA	NA			
TPH (C9-C16 aromatic medium)	4.0E-03	3.0E+00	NA	NA			
TPH (C9-C18 aliphatic medium)	1.0E-02	1.0E+02	NA	NA			
		VOCs					
Acetone	9.0E-01	3.1E+04	NA	NA			
Benzene	4.0E-03	3.0E+00	1.0E-01	2.9E-05			
Ethylbenzene	1.0E-01	1.0E+03	1.1E-02	2.5E-06			
Isopropylbenzenes	1.0E-01	4.0E+02	NA	NA			
Methylene chloride	6.0E-03	4.0E+02	2.0E-03	1.0E-06			
N-butylbenzene	5.0E-02	2.0E+02	NA	NA			
N-propylbenzene	1.0E-01	1.0E+03	NA	NA			
Naphthalene	2.0E-02	3.0E+00	1.2E-01	3.4E-05			
Sec-butylbenzene	1.0E-01	4.0E+02	NA	NA			
tert-Butyl alcohol	1.0E-01	4.0E+02	NA	NA			
Toluene	8.0E-02	3.0E+02	NA	NA			
Trichlorofluoromethane	3.0E-01	1.2E+03	NA	NA			
Xylenes, Total	2.0E-01	1.0E+02	NA	NA			

Toxicity Values taken from HHRA Note No. 10, 2019

NA = Not available or not applicable.

Table 10-6 – Estimated Cumulative Risks and Hazards – Residential Exposure Scenario								
	F	Residential Exposure Sce	nario					
COPC	Maximum Detected	Cancer Risk	Hazard Index					
	Concentration (mg/kg)	Adult & Child	Child					
	Pesticides	5						
4,4'-DDD	0.0096	4.4E-09	5.3E-03					
4,4'-DDE	0.2	1.3E-07	1.1E-02					
4,4'-DDT	0.11	5.9E-08	3.1E-03					
Chlordane (technical)	1.2	8.0E-07	4.0E-02					
Dieldrin	0.0027	8.2E-08	8.9E-04					
Endrin Ketone	0.0044		2.4E-04					
Heptachlor epoxide	0.007	1.2E-07	8.9E-03					
	ТРН							
TPH (C17-C32 aromatic high)	128		5.3E-02					
TPH (C19-C32 aliphatic high)	128		7.0E-04					
TPH (C5-C8 aliphatic low)	220		2.6E-07					
TPH (C6-C8 aromatic low)	220		9.1E-01					
TPH (C9-C16 aromatic medium)	101		4.2E-01					
TPH (C9-C18 aliphatic medium)	101		1.7E-01					
	VOCs							
Acetone	0.37		7.0E-06					
Benzene	0.072	6.6E-08	1.9E-03					
Ethylbenzene	2	1.4E-07	4.3E-04					
Isopropylbenzenes	2.13		1.9E-03					
Methylene chloride	0.0094	2.4E-10	2.7E-05					
N-butylbenzene	2.5		1.1E-03					
N-propylbenzene	2.9		5.4E-04					
Naphthalene	6	1.8E-06	1.8E-02					
Sec-butylbenzene	0.99		2.3E-04					
tert-Butyl alcohol	0.018		3.7E-06					
Toluene	0.53		2.1E-04					
Trichlorofluoromethane	0.00035		7.3E-08					
Xylenes, Total	5		2.9E-03					
Total Risks and Hazards		3.2E-06	1.6E+00					

Includes Incidental Soil Ingestion, Dermal Contact, and Fugitive Dust Inhalation for metals, PAHs, pesticides, TPH and VOCs

EPC: Exposure Point Concentration in milligrams per kilogram used in the risk and hazard calculations

[&]quot; * " compound not a COPC; " -- " Not Applicable

Table 10-7 – Cumulative Cancer Risks and Health Hazards – Estimated Using a Default Attenuation Factor of 0.03 and Maximum Concentrations Detected at 5 Feet

		Residential Exposure Scena	ario
COPC	Estimated Indoor Air Conc. (ug/m³)	Cancer Risk	Hazard Quotient
		VOCs	
1,1-Dichloroethane	4.8E-01	3.E-07	6.E-04
1,2,4-Trimethylbenzene	2.9E+00	NA	5.E-02
1,3,5-Trimethylbenzene	1.1E+01	NA	2.E-01
4-Isopropyltoluene	5.4E+00	NA	1.E-02
Benzene	4.4E+01	5.E-04	1.E+01
Chloroform	1.7E+00	1.E-05	2.E-02
Ethylbenzene	8.6E+00	8.E-06	8.E-03
Isopropylbenzene	1.4E+00	NA	3.E-03
n-Butylbenzene	4.0E+00	NA	2.E-02
n-Propylbenzene	6.6E+00	NA	6.E-03
sec-Butylbenzene	3.9E+00	NA	9.E-03
Tetrachloroethylene	2.6E+00	6.E-06	6.E-02
Toluene	8.4E+00	NA	3.E-02
Xylenes, total	2.2E+01	NA	2.E-01
Total Risks and Hazards		5.E-04	1.5E+01

" * " compound not a COPC; " -- " Not Applicable

Includes Outdoor Inhalation of VOCs.

EPC: Exposure Point Concentration in milligrams per cubic meter of air.

Table 10-8 – Cumulative Cancer Risks and Health Hazards – Estimated Using a Default Attenuation Factor of 0.001 and Maximum Concentrations Detected at 15 Feet

COPC	Residential	Exposure Scenario	
COPC	Estimated Indoor Air Conc. (ug/m³)	Cancer Risk	Hazard Quotient
	VOCs		
1,1-Dichloroethane	1.0E-02	6.E-09	1.E-05
1,1-Dichloropropene	8.0E-02	1.E-07	4.E-03
1,2,4-Trimethylbenzene	3.9E+01	NA	6.E-01
1,3,5-Trimethylbenzene	2.1E+01	NA	3.E-01
2-Chlorotoluene	2.0E+00	NA	2.E-02
4-Isopropyltoluene	4.1E+00	NA	1.E-02
Benzene	8.4E-01	9.E-06	3.E-01
Chloroform	1.5E-02	1.E-07	1.E-04
Ethylbenzene	8.3E+01	7.E-05	8.E-02
Isopropylbenzene	1.5E+01	NA	4.E-02
n-Butylbenzene	2.7E+01	NA	1.E-01
n-Propylbenzene	5.1E+01	NA	5.E-02
Naphthalene	2.0E-01	2.E-06	6.E-02
sec-Butylbenzene	2.9E+00	NA	7.E-03
Tetrachloroethylene	5.8E-02	1.E-07	1.E-03
Toluene	1.0E+00	NA	3.E-03
Xylenes, total	5.8E+01	NA	6.E-01
Total Risks and Hazards		9.E-05	2.E+00

Includes Outdoor Inhalation of VOCs.

EPC: Exposure Point Concentration in milligrams per cubic meter of air.

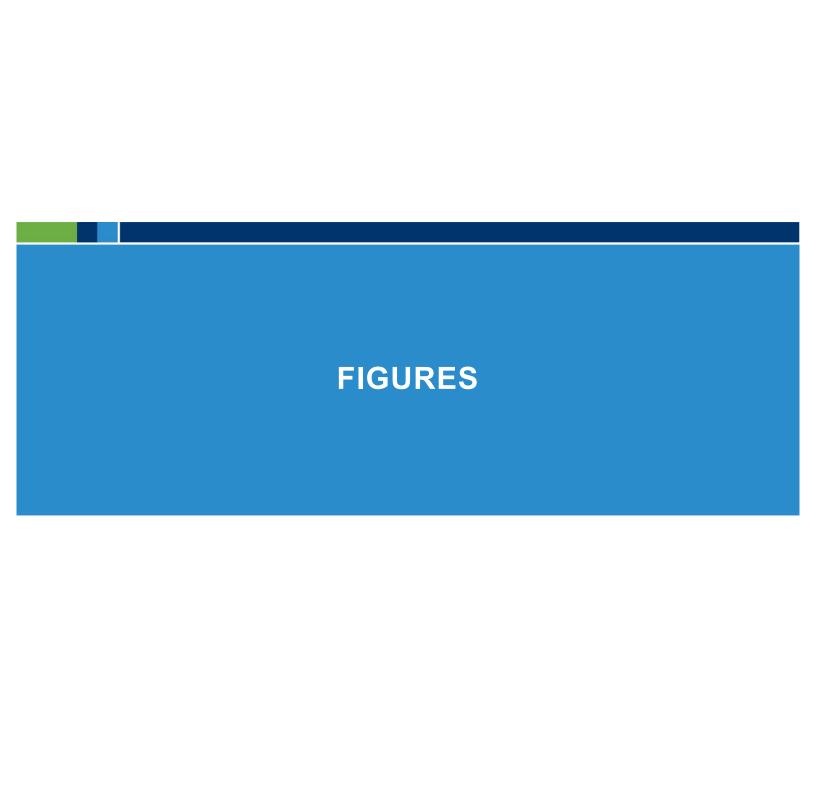
[&]quot;*" compound not a COPC; "--" Not Applicable

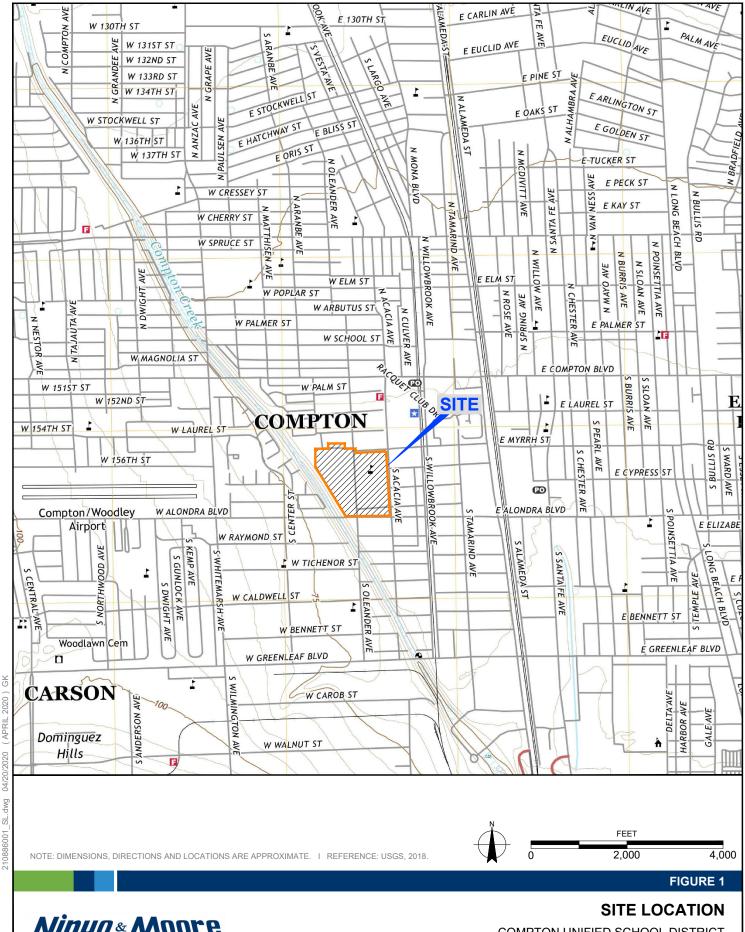
Table 10-9 – Estimated Cumulative Risks and Hazards – Residential Exposure Scenario								
	io							
COPC	Maximum Detected	Cancer Risk	Hazard Index					
	Concentration (mg/kg)	Adult & Child	Child					
	Metals							
Antimony	5.57		2.E-01					
Barium	348		3.E-02					
Cadmium	1.37	2.E-09	2.E-02					
Chromium	33.6							
Cobalt	22.3	5.E-08	1.E+00					
Copper	35.5		1.E-02					
Molybdenum	2.48		8.E-03					
Nickel	28	2.E-09	4.E-02					
Thallium	4		6.E+00					
Vanadium	71		2.E-01					
Zinc	144		8.E-03					

Includes Incidental Soil Ingestion, Dermal Contact, and Fugitive Dust Inhalation for metals, PAHs, pesticides, TPH and VOCs

EPC: Exposure Point Concentration in milligrams per kilogram used in the risk and hazard calculations

[&]quot;*" compound not a COPC; " -- " Not Applicable





Winyo & Moore Geotechnical & Environmental Sciences Consultants

COMPTON UNIFIED SCHOOL DISTRICT 601 SOUTH ACACIA AVENUE COMPTON, CALIFORNIA 210886001 | 4/20

SITE BOUNDARY

UST UNDERGROUND STORAGE TANK

NOTE: DIMENSIONS, DIRECTIONS AND LOCATIONS ARE APPROXIMATE. | REFERENCE: GOOGLE EARTH, 2018.





FIGURE 2

500

SITE MAP

COMPTON UNIFIED SCHOOL DISTRICT 601 SOUTH ACACIA AVENUE COMPTON, CALIFORNIA 210886001 | 4/20

210886001_SM.dwg 04/20/2020 G



AOC BOUNDARY

mg/kg MILLIGRAMS PER KILOGRAM

B48 ⊕

LEAD/OCP BORING WITH LEAD LEVELS>80mg/kg

347 ⊕

LEAD/OCP BORING WITH LEAD LEVELS<80mg/kg

B39 ⊕

LEAD BORING WITH LEAD LEVELS<80mg/kg

 \oplus

OCP BORING

NOTE: DIMENSIONS, DIRECTIONS AND LOCATIONS ARE APPROXIMATE. I REFERENCE: GOOGLE EARTH, 2018.

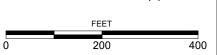


FIGURE 3

AOC1 - WEST PORTION BORING LOCATIONS

COMPTON UNIFIED SCHOOL DISTRICT 601 SOUTH ACACIA AVENUE COMPTON, CALIFORNIA 210886001 | 4/20

210886001 BL4.dwg 04/30/2020 (APRIL 2020) GK,





AOC BOUNDARY

B7 ⊕

LEAD/OCP BORING WITH LEAD LEVELS>80mg/kg

B4 ϕ

LEAD/OCP BORING WITH LEAD LEVELS<80mg/kg

mg/kg MILLIGRAMS PER KILOGRAM

COMPLETED STEP-OUT BORING (LEAD) WITH LEAD LEVELS>80mg/kg

ASSUMED LIMIT OF LEAD IMPACTED SOIL



NON DELINEATED AREA OF LEAD IMPACTED SOIL



FIGURE 3A

AOC1 - WEST PORTION BORING LOCATIONS

COMPTON UNIFIED SCHOOL DISTRICT 601 SOUTH ACACIA AVENUE COMPTON, CALIFORNIA 210886001 | 4/20



AOC BOUNDARY

OCP/LEAD BORING WITH LEAD LEVELS>80mg/kg

> COMPLETED STEP-OUT BORING (LEAD) WITH LEAD LEVELS>80mg/kg

mg/kg MILLIGRAMS PER KILOGRAM

LEAD/OCP BORING WITH LEAD LEVELS<80mg/kg

B25 ⊕

LEAD BORING WITH LEAD LEVELS<80mg/kg

NON DELINEATED AREA OF LEAD IMPACTED SOIL ASSUMED LIMIT OF LEAD IMPACTED SOIL

FEET 100 50

NOTE: DIMENSIONS, DIRECTIONS AND LOCATIONS ARE APPROXIMATE. I REFERENCE: GOOGLE EARTH, 2018.

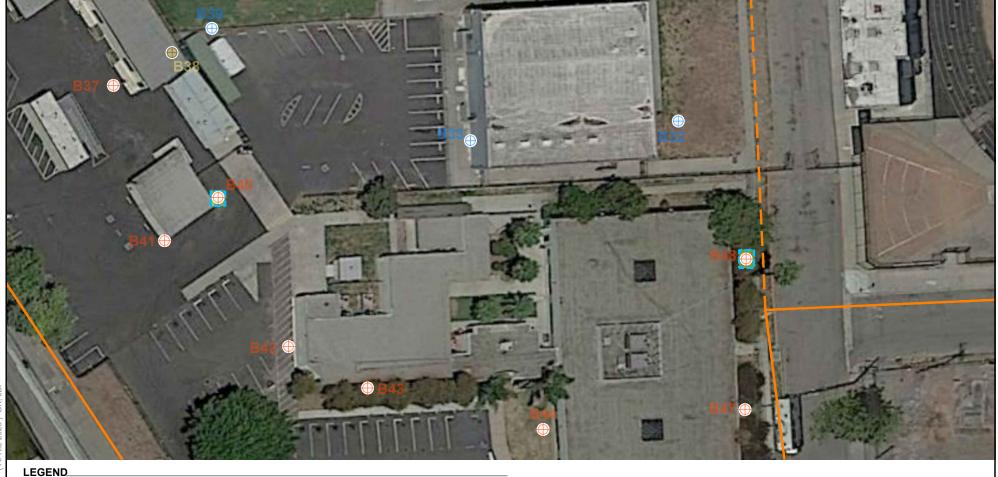
FIGURE 3B

AOC1 - WEST PORTION BORING BORING LOCATIONS

COMPTON UNIFIED SCHOOL DISTRICT 601 SOUTH ACACIA AVENUE COMPTON, CALIFORNIA 210886001 I 4/20

(APRIL 2020) GK. 04/30/2020 210886001 BL6.dwg





AOC BOUNDARY

LEAD BORING WITH LEAD LEVELS>80mg/kg

LEAD BORING WITH LEAD LEVELS<80mg/kg

mg/kg MILLIGRAMS PER KILOGRAM

LEAD/OCP BORING WITH LEAD LEVELS<80mg/kg

OCP BORING

ASSUMED LIMIT OF LEAD IMPACTED SOIL

NOTE: DIMENSIONS, DIRECTIONS AND LOCATIONS ARE APPROXIMATE. I REFERENCE: GOOGLE EARTH, 2018.



FIGURE 3C

AOC1 - WEST PORTION BORING LOCATIONS

COMPTON UNIFIED SCHOOL DISTRICT **601 SOUTH ACACIA AVENUE** COMPTON, CALIFORNIA 210886001 I 4/20



LEAD BORING WITH LEAD **B17** ⊕

LEVELS<80mg/kg MATE. I REFERENCE: GOOGLE EARTH, 2018

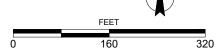


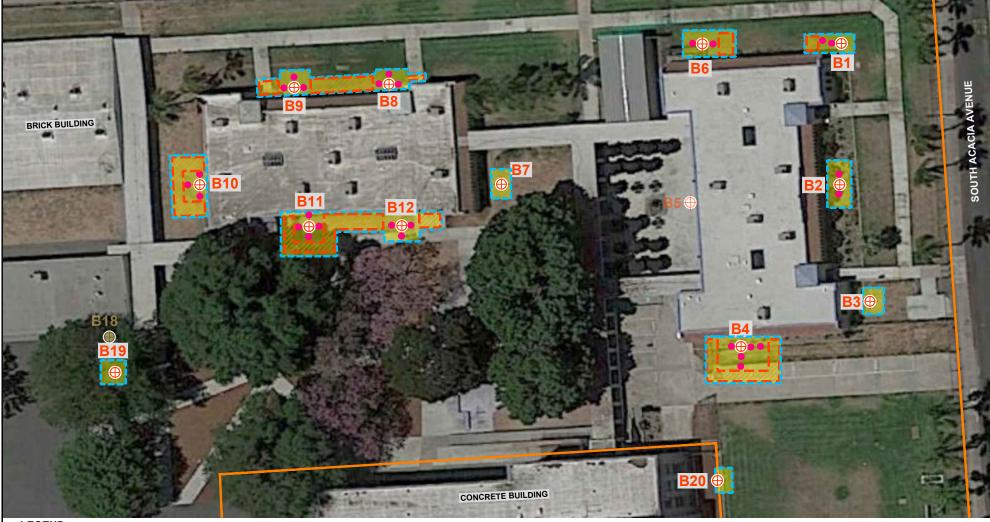
FIGURE 4

AOC1 EAST PORTION BORING LOCATIONS

COMPTON UNIFIED SCHOOL DISTRICT **601 SOUTH ACACIA AVENUE** COMPTON, CALIFORNIA 210886001 I 4/20

(APRIL 2020) GK, 04/30/2020 210886001 BL1.dwg

JDP



AOC BOUNDARY

LEAD BORING (AOC1/AOC3 WITH LEAD LEVELS>80mg/kg

LEAD/OCP BORING WITH LEAD LEVELS<80mg/kg

mg/kg MILLIGRAMS PER KILOGRAM

COMPLETED STEP-OUT BORING (LEAD) WITH LEAD LEVELS>80mg/kg

OCP BORING

NOTE: DIMENSIONS, DIRECTIONS AND LOCATIONS ARE APPROXIMATE. I REFERENCE: GOOGLE EARTH, 2018.

ASSUMED LIMIT OF LEAD IMPACTED SOIL

NON DELINEATED AREA OF LEAD IMPACTED SOIL



FIGURE 4A

AOC1 EAST PORTION BORING LOCATIONS

COMPTON UNIFIED SCHOOL DISTRICT 601 SOUTH ACACIA AVENUE COMPTON, CALIFORNIA 210886001 I 4/20



Geotechnical & Environmental Sciences Consultants

AOC BOUNDARY

LEAD/OCP BORING WITH LEAD LEVELS>80mg/kg **B39** ⊕

LEAD BORING (AOC1/AOC3) WITH LEAD LEVELS>80mg/kg

mg/kg MILLIGRAMS PER KILOGRAM

LEAD/OCP BORING WITH LEAD LEVELS<80mg/kg

NOTE: DIMENSIONS, DIRECTIONS AND LOCATIONS ARE APPROXIMATE. I REFERENCE: GOOGLE EARTH, 2018.

COMPLETED STEP-OUT BORING (LEAD) WITH LEAD LEVELS>80mg/kg

NON DELINEATED AREA OF LEAD IMPACTED SOIL ASSUMED LIMIT OF LEAD IMPACTED SOIL

FEET

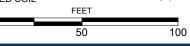


FIGURE 4B



Geotechnical & Environmental Sciences Consultants

AOC1 EAST PORTION BORING LOCATIONS

COMPTON UNIFIED SCHOOL DISTRICT 601 SOUTH ACACIA AVENUE COMPTON, CALIFORNIA 210886001 I 4/20

(APRIL 2020) GK. JDP 05/01/2020 210886001 BL3.dwg



B2 Φ AOC1-B36/ AOC3-B3 AOC2 BORING

COLOCATED BORING AOC1-W / AOC3 **AOC BOUNDARY**

UNDERGROUND STORAGE TANK

COMPLETED STEP-OUT GROUNDWATER BORING

COMPLETED STEP-OUT SV BORING

NOTE: DIMENSIONS, DIRECTIONS AND LOCATIONS ARE APPROXIMATE. I REFERENCE: GOOGLE EARTH, 2018.

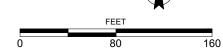


FIGURE 5

AOC2 AND AOC3 - UST ADMINISTRATION BUILDING AND MANUAL ARTS BUILDING BORING LOCATIONS

B5 ⊕ AOC3 BORING

COMPTON UNIFIED SCHOOL DISTRICT 601 SOUTH ACACIA AVENUE COMPTON, CALIFORNIA 210886001 I 4/20

04/30/2020 (APRIL 2020) GK, JDP 210886001 BL12.dwg





AOC BOUNDARY

COMPLETED STEP-OUT BORING (LEAD) WITH LEAD LEVELS>80mg/kg

mg/kg MILLIGRAMS PER KILOGRAM

ASSUMED LIMIT OF LEAD IMPACTED SOIL

NON DELINEATED AREA OF LEAD IMPACTED SOIL

18-S1 igoplus LEAD BORING WITH LEAD LEVELS>80mg/kg

ESTIMATED LIMITS OF TPH IMPACTED SOIL

COMPLETED STEP-OUT BORING (TPH)

PH TOTAL PETROLEUM HYDROCARBONS



NOTE: DIMENSIONS, DIRECTIONS AND LOCATIONS ARE APPROXIMATE. | REFERENCE: GOOGLE EARTH, 2018.



FIGURE 6



COMPTON UNIFIED SCHOOL DISTRICT 601 SOUTH ACACIA AVENUE COMPTON, CALIFORNIA 210886001 | 4/20





B25⊕

AOC BOUNDARY

LEAD/OCP BORING WITH LEAD LEVELS>80mg/kg

← LEAD BORING WITH LEAD LEVELS>80mg/kg

OCP BORING

311 ⊕ ¦

NOTE: DIMENSIONS, DIRECTIONS AND LOCATIONS ARE APPROXIMATE. | REFERENCE: GOOGLE EARTH, 2018.

LEAD/OCP BORING WITH LEAD LEVELS<80mg/kg

19

LEAD BORING WITH LEAD LEVELS<80mg/kg

COMPLETED STEP-OUT BORING (LEAD) WITH LEAD LEVELS>80mg/kg

mg/kg MILLIGRAMS PER KILOGRAM

ASSUMED LIMIT OF LEAD IMPACTED SOIL



NON DELINEATED AREA OF LEAD IMPACTED SOIL



FIGURE 7A

AOC5 - CHURCH / RESIDENTIAL LOTS BORING LOCATIONS

COMPTON UNIFIED SCHOOL DISTRICT 601 SOUTH ACACIA AVENUE COMPTON, CALIFORNIA 210886001 | 4/20



AOC BOUNDARY

LEAD/OCP BORING WITH LEAD LEVELS>80mg/kg

LEAD/OCP BORING WITH LEAD LEVELS<80mg/kg

LEAD BORING WITH LEAD LEVELS<80mg/kg

⊕ 0

NOTE: DIMENSIONS, DIRECTIONS AND LOCATIONS ARE APPROXIMATE. | REFERENCE: GOOGLE EARTH, 2018.

OCP BORING

COMPLETED STEP-OUT BORING (LEAD) WITH LEAD LEVELS>80mg/kg

mg/kg MILLIGRAMS PER KILOGRAM



ASSUMED LIMIT OF LEAD IMPACTED SOIL



NON DELINEATED AREA OF LEAD IMPACTED SOIL



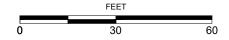


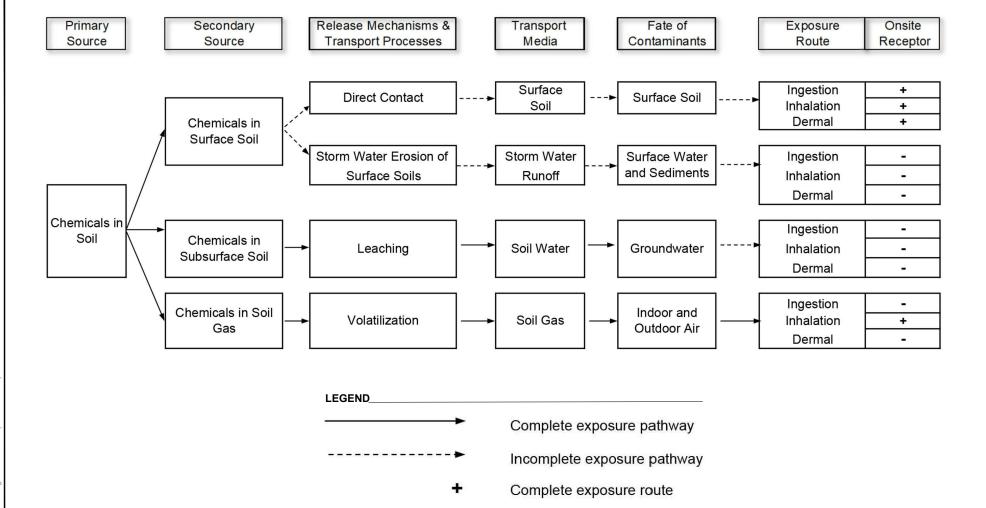
FIGURE 7B

AOC5 - CHURCH / RESIDENTIAL LOTS BORING LOCATIONS

COMPTON UNIFIED SCHOOL DISTRICT 601 SOUTH ACACIA AVENUE COMPTON, CALIFORNIA 210886001 | 4/20

Ninyo & Moore

Geotechnical & Environmental Sciences Consultants



Incomplete exposure route

NOTE: DIMENSIONS, DIRECTIONS AND LOCATIONS ARE APPROXIMATE.

FIGURE 8

CONCEPTUAL SITE MODEL

COMPTON UNIFIED SCHOOL DISTRICT 601 SOUTH ACACIA AVENUE COMPTON, CALIFORNIA 210886001 | 4/20



APPENDIX A

Notice of Field Work



COMPTON UNIFIED SCHOOL DISTRICT

BUSINESS & ADMINISTRATIVE SERVICES

Facilities, Maintenance, Operations, & Transportation Department (FMOT) 429 S. Oleander Avenue Compton, CA 90220

Telephone: (310) 639-4321 Ext. 55350

Fax: (310) 631-9871

E-Mail: nholt@compton.k12.ca.us

COMPTON UNIFIED SCHOOL DISTRICT COMPTON HIGH SCHOOL PRELIMINARY ENVIRONMENTAL ASSESSMENT NOTIFICATION

4/22/2019

TO: Neighbors and Community Members of the Compton High School

FROM: Compton Unified School District

REGARDING: Environmental Investigation at Compton High School

We would like to provide you with advance notice of an environmental investigation which will be conducted at the Compton High School at 601 South Acacia Avenue and south adjoining properties along West Alondra Boulevard, California. The investigation will be performed by a licensed contractor under the oversight of the California Environmental Protection Agency, Department of Toxic Substances Control (DTSC). The investigation will consist of the sampling of soils for any hazardous materials. Although an assessment will be conducted, this does not mean hazardous substances are located on this property. Recently enacted state laws now require that all proposed new school sites undergo a complete environmental review, and if necessary, a cleanup to protect students, faculty and staff who will occupy the school.

Field work is scheduled to begin on Monday, April 29, 2019, and is expected to take up to approximately 7 days to complete. Field work will generally be conducted during normal business hours; however, a portion of the field work may be conducted during weekends. It is not expected that any street closures will be necessary during the investigation.

The District will submit the results of this Preliminary Environmental Assessment (PEA) as a draft to DTSC for review and approval of a final draft. The PEA will include an assessment of whether hazardous materials are present and, if so, whether the materials are present in concentrations that would require some type of cleanup before renovation proceedings occur. If the District elects to proceed with school renovation, the District will hold a 30-day public review and comment period on the PEA, will hold a public hearing to discuss the investigation results, and will take public comment. All comments received in this process shall be forwarded to DTSC for consideration. When the public participation process is complete, DTSC will issue a final determination with regard to the PEA.

If you have any questions concerning the upcoming soil investigation or other activities at Compton High School, address noted above, please contact Nathaniel Holt at (310) 639-4321.



COMPTON UNIFIED SCHOOL DISTRICT

BUSINESS & ADMINISTRATIVE SERVICES

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E-Mail: nholt@compton.k12.ca.us

DISTRITO ESCOLAR UNIFICADO de COMPTON ESCUELA SECUNDARIA de COMPTON NOTIFICACION de EVALUACIÓN AMBIENTAL PRELIMINAR

22 de abril 2019

A: Vecinos y miembros de la comunidad de escuela secundaria de compton

DE: Distrito Escolar Unificado de Compton

ASUNTO: Evaluación Ambiental Preliminar de Escuela secundaria de compton

Querríamos proporcionarle con aviso previo de una investigación ambiental que será realizada en escuela secundaria de compton, en 601 South Acacia Avenue y propiedades adyacentes al sur a lo largo de West Alondra Boulevard, California. La investigación será realizada por un contratista licenciado bajo el descuido de la Agencia de Protección Ambiental de California, el Departamento de Control de Sustancias Tóxicas (DTSC). La investigación consistirá en el muestreo de tierras para materiales peligrosos. Aunque una investigación será realizada, esto no significa que sustancias peligrosas son situadas en esta propiedad. Las leyes recientemente decretadas por el estado requieren que todos los nuevos sitios y proyectos de renovación propuestos para escuela, realizen una evaluación ambiental completa, y si necesario, una limpieza general para proteger a estudiantes, la facultad y el personal que ocuparán la escuela.

La investigación sobre el terreno esta programado para empezar el lunes 29 de abril, 2019, y es esperado tomar a aproximadamente 7 días para completar. La investigación será realizada generalmente durante horas de oficina normales; sin embargo una porción del trabajo puede ser realizada durante fines de semana. No se anticipa la necesidad para cierres de calle durante esta investigación.

El Distrito presentera los resultados de esta Evaluación Ambiental Preliminar (PEA) en un reporte a DTSC para revisión y aprobación. El PEA incluirá una evaluación sobre si materiales peligrosos son presentes y, si eso es el caso, si los materiales son presentes en concentraciones que requerirían algún tipo de limpieza general antes que actos de renovación ocurran. Si el Distrito elige a continuar con renovaciónes en la escuela, el Distrito tendrá un período público de 30 días de revisión y comentario con respecto al PEA, tendrá una audición pública para discutir los resultados de la investigación y tomar comentario público. Todos los comentarios recibidos en este proceso serán presentados a DTSC. Cuando el proceso público de participación termine, DTSC publicará una determinación final con respecto al PEA.

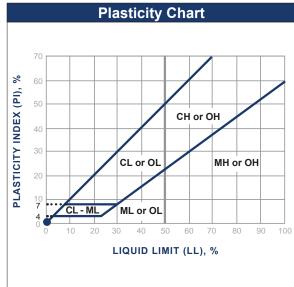
Si tiene cualquier pregunta con respecto a la investigación u otras actividades en escuela secundaria de compton, por favor de contactar a Nathaniel Holt al (310) 639-4321.

APPENDIX B

Boring Logs

	Soil Clas	sification C	hart	Per AST	M D 2488
	wine a mr. Divis	ione		Seco	ndary Divisions
P	rimary Divis	SIONS	Gro	up Symbol	Group Name
		CLEAN GRAVEL		GW	well-graded GRAVEL
		less than 5% fines		GP	poorly graded GRAVEL
	GRAVEL			GW-GM	well-graded GRAVEL with silt
	more than 50% of	GRAVEL with DUAL		GP-GM	poorly graded GRAVEL with silt
	coarse	CLASSIFICATIONS 5% to 12% fines		GW-GC	well-graded GRAVEL with clay
	retained on No. 4 sieve			GP-GC	poorly graded GRAVEL with
	No. 4 Sieve	GRAVEL with		GM	silty GRAVEL
COARSE- GRAINED		FINES more than		GC	clayey GRAVEL
SOILS more than		12% fines		GC-GM	silty, clayey GRAVEL
50% retained		CLEAN SAND		SW	well-graded SAND
on No. 200 sieve		less than 5% fines		SP	poorly graded SAND
				SW-SM	well-graded SAND with silt
	SAND 50% or more	SAND with DUAL		SP-SM	poorly graded SAND with silt
	of coarse fraction	CLASSIFICATIONS 5% to 12% fines		SW-SC	well-graded SAND with clay
	passes No. 4 sieve			SP-SC	poorly graded SAND with clay
		SAND with FINES		SM	silty SAND
		more than 12% fines		SC	clayey SAND
		1270 IIIIC3		SC-SM	silty, clayey SAND
				CL	lean CLAY
	SILT and	INORGANIC	17.77	ML	SILT
	CLAY liquid limit			CL-ML	silty CLAY
FINE- GRAINED	less than 50%	ORGANIC		OL (PI > 4)	organic CLAY
SOILS		0110711110		OL (PI < 4)	organic SILT
50% or more passes		INORGANIC	//	СН	fat CLAY
No. 200 sieve	SILT and CLAY			МН	elastic SILT
	liquid limit 50% or more	ORGANIC		OH (plots on or above "A"-line)	organic CLAY
		ONOAINO		OH (plots below "A"-line)	organic SILT
	Highly (Organic Soils		PT	Peat

Grain Size											
Desci	ription	Sieve Size	Grain Size	Approximate Size							
Bou	lders	> 12"	> 12"	Larger than basketball-sized							
Cob	obles	3 - 12"	3 - 12"	Fist-sized to basketball-sized							
Gravel	Coarse	3/4 - 3"	3/4 - 3"	Thumb-sized to fist-sized							
Gravei	Fine	#4 - 3/4"	0.19 - 0.75"	Pea-sized to thumb-sized							
	Coarse	#10 - #4	0.079 - 0.19"	Rock-salt-sized to pea-sized							
Sand	Medium	#40 - #10	0.017 - 0.079"	Sugar-sized to rock-salt-sized							
	Fine	#200 - #40	0.0029 - 0.017"	Flour-sized to sugar-sized							
Fir	nes	Passing #200	< 0.0029"	Flour-sized and smaller							



Apparent Density - Coarse-Grained Soil										
	Spooling C	able or Cathead	Automatic Trip Hammer							
Apparent Density	SPT (blows/foot)	Modified Split Barrel (blows/foot)	SPT (blows/foot)	Modified Split Barrel (blows/foot)						
Very Loose	≤ 4	≤ 8	≤ 3	≤ 5						
Loose	5 - 10	9 - 21	4 - 7	6 - 14						
Medium Dense	11 - 30	22 - 63	8 - 20	15 - 42						
Dense	31 - 50	64 - 105	21 - 33	43 - 70						
Very Dense	> 50	> 105	> 33	> 70						

Consistency - Fine-Grained Soil										
	Spooling Ca	able or Cathead	Automatic Trip Hammer							
Consis- tency	SPT (blows/foot)	Modified Split Barrel (blows/foot)	SPT (blows/foot)	Modified Split Barrel (blows/foot)						
Very Soft	< 2	< 3	< 1	< 2						
Soft	2 - 4	3 - 5	1 - 3	2 - 3						
Firm	5 - 8	6 - 10	4 - 5	4 - 6						
Stiff	9 - 15	11 - 20	6 - 10	7 - 13						
Very Stiff	16 - 30	21 - 39	11 - 20	14 - 26						
Hard	> 30	> 39	> 20	> 26						



DEPTH (feet)	Bulk SAMPLES	BLOWS/FOOT	MOISTURE (%)	DRY DENSITY (PCF)	SYMBOL	CLASSIFICATION U.S.C.S.	BORING LOG EXPLANATION SHEET
0							Bulk sample.
-							Modified split-barrel drive sampler.
-							No recovery with modified split-barrel drive sampler.
-							Sample retained by others.
-							Standard Penetration Test (SPT).
5-							No recovery with a SPT.
-		XX/XX					Shelby tube sample. Distance pushed in inches/length of sample recovered in inches.
							No recovery with Shelby tube sampler.
-							Continuous Push Sample.
			Ş				Seepage.
10-			<u></u>				Groundwater encountered during drilling. Groundwater measured after drilling.
					FFFFFFF	214	
						SM	MAJOR MATERIAL TYPE (SOIL): Solid line denotes unit change.
						CL	Dashed line denotes material change.
						OL	Dashed line denotes material change.
							Attitudes: Strike/Dip
							b: Bedding c: Contact
15-	H						j: Joint
	$ \ \ $						f: Fracture F: Fault
'							cs: Clay Seam
	Ш						s: Shear bss: Basal Slide Surface
	$ \ \ $						sf: Shear Fracture
-							sz: Shear Zone sbs: Shear Bedding Surface
-					<i>(///</i>		The total depth line is a solid line that is drawn at the bottom of the boring.
20-	ш			l			



DEPTH (feet)	Bulk SAMPLES Driven	SAMPLE TIME	SAMPLE ID	PID READING (ppm)	MOISTURE	SYMBOL	CLASSIFICATION U.S.C.S.	DATE DRILLED 5/9/19 BORING NO. AOC1-E-B1 GROUND ELEVATION 59' ± (MSL) SHEET 1 OF 1 METHOD OF DRILLING Hand Auger DROP - DRIVE WEIGHT - DROP - - SAMPLED BY KMH LOGGED BY AUC REVIEWED BY JJR DESCRIPTION/INTERPRETATION
0		13:40 13:45	B1-0.5' B1-1.5'				ML	FILL: Dark brown, moist, loose, micaceous sandy SILT.
- 10 - -		13:47	B1-2.5'					Total Depth = 2.5 feet bgs. Groundwater not encountered during drilling. Backfilled with hydrated No. 8 granular bentonite to surface on 5/9/19. Notes: Groundwater, though not encountered at the time of drilling, may rise to a higher level due to seasonal variations in precipitation and several other factors as discussed in the report. The ground elevation shown above is an estimation only. It is based on our interpretations of published maps and other documents reviewed for the purposes of this evaluation. It is not sufficiently accurate for preparing construction bids and design documents.
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DEPTH (feet)	Bulk SAMPLES	SAMPLE TIME	SAMPLE ID	PID READING (ppm)	MOISTURE	SYMBOL	CLASSIFICATION U.S.C.S.	DATE DRILLED 9/4/19 BORING NO. AOC1-E-B1W GROUND ELEVATION 60' ± (MSL) SHEET 1 OF 1 METHOD OF DRILLING Hand Auger (Strongarm) DROP - - DRIVE WEIGHT - DROP - SAMPLED BY KMH LOGGED BY KMH REVIEWED BY JJR DESCRIPTION/INTERPRETATION
-		09:55	DUP-32 B1W-1.5' B1W-2.5'				SP	Medium brown, dry, loose, micaceous silty SAND with some roots. Medium brown, dry, loose, poorly graded medium SAND. Total Depth = 2.5 feet bgs. Groundwater not encountered during drilling. Backfilled with No. 8 granular bentonite to surface on 9/4/19. Notes: Groundwater, though not encountered at the time of drilling, may rise to a higher level
- 10 — -								due to seasonal variations in precipitation and several other factors as discussed in the report. The ground elevation shown above is an estimation only. It is based on our interpretations of published maps and other documents reviewed for the purposes of this evaluation. It is not sufficiently accurate for preparing construction bids and design documents.
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DEPTH (feet)	Bulk SAMPLES Driven	SAMPLE TIME	SAMPLE ID	PID READING (ppm)	MOISTURE	SYMBOL	CLASSIFICATION U.S.C.S.	DATE DRILLED 9/4/19 BORING NO. AOC1-E-B1N GROUND ELEVATION 60' ± (MSL) SHEET 1 OF 1 METHOD OF DRILLING Hand Auger (Strongarm) DROP - - DRIVE WEIGHT - DROP - SAMPLED BY KMH LOGGED BY KMH REVIEWED BY JJR DESCRIPTION/INTERPRETATION DROP - - -
0		10:02 10:03					SM	FILL: Medium brown, moist, loose, micaceous silty SAND with some roots.
-		10:04			_		SP	Medium brown, slightly moist, loose, poorly graded medium SAND. Total Depth = 2.5 feet bgs.
-		-						Groundwater not encountered during drilling. Backfilled with No. 8 granular bentonite to surface on 9/4/19.
-		-						Notes: Groundwater, though not encountered at the time of drilling, may rise to a higher level
-		_						due to seasonal variations in precipitation and several other factors as discussed in the report.
10 -		_						The ground elevation shown above is an estimation only. It is based on our interpretations of published maps and other documents reviewed for the purposes of
								this evaluation. It is not sufficiently accurate for preparing construction bids and design documents.
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DEPTH (feet)	Bulk SAMPLES Driven	SAMPLE TIME	SAMPLE ID	PID READING (ppm)	MOISTURE	SYMBOL	CLASSIFICATION U.S.C.S.	DATE DRILLED 9/4/19 BORING NO. AOC1-E-B1E GROUND ELEVATION 60' ± (MSL) SHEET 1 OF 1 METHOD OF DRILLING Hand Auger (Strongarm) DROP - - DRIVE WEIGHT - DROP - SAMPLED BY KMH LOGGED BY KMH REVIEWED BY JJR DESCRIPTION/INTERPRETATION
0		10:09 10:11					SM	FILL: Dark brown, slightly moist, loose, micaceous silty SAND.
-		10:13	B1E-2.5'				SP	Medium brown, dry, loose, poorly graded SAND. Total Depth = 2.5 feet bgs.
-		-						Groundwater not encountered during drilling. Backfilled with No. 8 granular bentonite to surface on 9/4/19.
-								Notes: Groundwater, though not encountered at the time of drilling, may rise to a higher level due to seasonal variations in precipitation and several other factors as discussed in the report.
10 -		-						The ground elevation shown above is an estimation only. It is based on our interpretations of published maps and other documents reviewed for the purposes of this evaluation. It is not sufficiently accurate for preparing construction bids and design documents.
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DEPTH (feet)	Bulk SAMPLES Driven	SAMPLE TIME	SAMPLE ID	PID READING (ppm)	MOISTURE	SYMBOL	CLASSIFICATION U.S.C.S.	DATE DRILLED 9/4/19 BORING NO. AOC1-E-B1S GROUND ELEVATION 60' ± (MSL) SHEET 1 OF 1 METHOD OF DRILLING Hand Auger (Strongarm) DROP - - DRIVE WEIGHT - DROP - SAMPLED BY KMH LOGGED BY KMH REVIEWED BY JJR DESCRIPTION/INTERPRETATION
0		10:17 10:19	B1S-0.5' B1S-1.5'				SM	FILL: Dark brown, slightly moist, loose, micaceous silty SAND with some roots.
-		10:20	B1S-2.5'				SP	Medium brown, somewhat dry, loose, poorly graded medium SAND. Total Depth = 2.5 feet bgs.
-		-						Groundwater not encountered during drilling. Backfilled with No. 8 granular bentonite to surface on 9/4/19.
-		_						Notes: Groundwater, though not encountered at the time of drilling, may rise to a higher level due to seasonal variations in precipitation and several other factors as discussed in the report.
10 -								The ground elevation shown above is an estimation only. It is based on our interpretations of published maps and other documents reviewed for the purposes of this evaluation. It is not sufficiently accurate for preparing construction bids and design documents.
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DEPTH (feet)	Bulk SAMPLES Driven	SAMPLE TIME	SAMPLE ID	PID READING (ppm)	MOISTURE	SYMBOL	CLASSIFICATION U.S.C.S.	DATE DRILLED 12/5/19 BORING NO. AOC1-E-B1NW GROUND ELEVATION 71' ± (MSL) SHEET 1 OF 1 METHOD OF DRILLING Hand Auger (Strongarm) DROP - SAMPLED BY AUC REVIEWED BY JJR DESCRIPTION/INTERPRETATION DESCRIPTION/INTERPRETATION AOC1-E-B1NW AOC1-E-B1NW
0			B1NW-0.5' B1NW-1.5'				SM	FILL: Dark brown, moist, loose, silty SAND.
- - - 10 –		14:44	B1NW-2.5'			HILLIAN HERE AND ADDRESS OF THE PARTY OF THE		Light brown; dry. Total Depth = 2.5 feet bgs. Groundwater not encountered during drilling. Backfilled with hydrated No. 8 granular bentonite to surface on 12/5/19. Notes: Groundwater, though not encountered at the time of drilling, may rise to a higher level due to seasonal variations in precipitation and several other factors as discussed in the report. The ground elevation shown above is an estimation only. It is based on our interpretations of published maps and other documents reviewed for the purposes of
-								this evaluation. It is not sufficiently accurate for preparing construction bids and design documents.
30 -								



DEPTH (feet)	Bulk SAMPLES Driven	SAMPLE ID	PID READING (ppm)	MOISTURE	SYMBOL	CLASSIFICATION U.S.C.S.	DATE DRILLED 12/5/19 BORING NO. AOC1-E-B1WW GROUND ELEVATION 71' ± (MSL) SHEET 1 OF 1 METHOD OF DRILLING Hand Auger (Strongarm) DROP - SAMPLED BY AUC REVIEWED BY JJR DESCRIPTION/INTERPRETATION DESCRIPTION/INTERPRETATION AOC1-E-B1WW AOC1-E-B1WW
0		B1WW-0.5' B1WW-1.5'				SM	FILL: Dark brown, moist, loose, silty SAND.
10 -		B1WW-2.5'					Light brown; dry. Total Depth = 2.5 feet bgs. Groundwater not encountered during drilling. Backfilled with hydrated No. 8 granular bentonite to surface on 12/5/19. Notes: Groundwater, though not encountered at the time of drilling, may rise to a higher level due to seasonal variations in precipitation and several other factors as discussed in the report. The ground elevation shown above is an estimation only. It is based on our interpretations of published maps and other documents reviewed for the purposes of this evaluation. It is not sufficiently accurate for preparing construction bids and design documents.
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DEPTH (feet)	Bulk SAMPLES Driven	SAMPLE TIME	SAMPLE ID	PID READING (ppm)	MOISTURE	SYMBOL	CLASSIFICATION U.S.C.S.	DATE DRILLED 5/9/19 BORING NO. AOC1-E-B2 GROUND ELEVATION 59' ± (MSL) SHEET 1 OF 1 METHOD OF DRILLING Hand Auger DROP - - DRIVE WEIGHT - DROP - SAMPLED BY KMH LOGGED BY AUC REVIEWED BY JJR DESCRIPTION/INTERPRETATION
0 -		13:52 13:56 14:00	B2-0.5' DUP-2 B2-1.5' B2-2.5'				ML	FILL: Dark brown, moist, loose, micaceous sandy SILT with minor caliche.
- - 10 - -		14.00	DZ Z.3					Total Depth = 2.5 feet bgs. Groundwater not encountered during drilling. Backfilled with hydrated No. 8 granular bentonite to surface on 5/9/19. Notes: Groundwater, though not encountered at the time of drilling, may rise to a higher level due to seasonal variations in precipitation and several other factors as discussed in the report. The ground elevation shown above is an estimation only. It is based on our interpretations of published maps and other documents reviewed for the purposes of this evaluation. It is not sufficiently accurate for preparing construction bids and design documents.
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DEPTH (feet)	Bulk SAMPLES Driven	SAMPLE TIME	SAMPLE ID	PID READING (ppm)	MOISTURE	SYMBOL	CLASSIFICATION U.S.C.S.	DATE DRILLED 9/4/19 BORING NO. AOC1-E-B2N GROUND ELEVATION 60' ± (MSL) SHEET 1 OF 1 METHOD OF DRILLING Hand Auger (Strongarm) DROP - SAMPLED BY KMH LOGGED BY KMH REVIEWED BY JJR DESCRIPTION/INTERPRETATION
-		09:08 09:10 09:12	B2N-1.5'				SM	FILL: Dark brown, moist, loose, micaceous silty SAND with trace clay. Medium brown; no clay. Total Depth = 2.5 feet bgs.
-		-						Groundwater not encountered during drilling. Backfilled with No. 8 granular bentonite to surface on 9/4/19. Notes:
-		-						Groundwater, though not encountered at the time of drilling, may rise to a higher level due to seasonal variations in precipitation and several other factors as discussed in the report.
10 -		_						The ground elevation shown above is an estimation only. It is based on our interpretations of published maps and other documents reviewed for the purposes of this evaluation. It is not sufficiently accurate for preparing construction bids and design documents.
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	Bulk SAMPLES		SAMPLE ID	PID READING (ppm)	MOISTURE	SYMBOL	CLASSIFICATION U.S.C.S.	DATE DRILLED 9/4/19 BORING NO. AOC1-E-B2S GROUND ELEVATION 60' ± (MSL) SHEET 1 OF 1 METHOD OF DRILLING Hand Auger (Strongarm) DROP - - DRIVE WEIGHT - DROP - SAMPLED BY KMH LOGGED BY KMH REVIEWED BY JJR DESCRIPTION/INTERPRETATION
0		09:03 09:05	B2S-0.5' B2S-1.5'				SM	FILL: Dark brown, moist, loose, micaceous silty SAND with trace clay.
10 -		09:07	B2S-2.5'					Total Depth = 2.5 feet bgs. Groundwater not encountered during drilling. Backfilled with No. 8 granular bentonite to surface on 9/4/19. Notes: Groundwater, though not encountered at the time of drilling, may rise to a higher level due to seasonal variations in precipitation and several other factors as discussed in the report. The ground elevation shown above is an estimation only. It is based on our interpretations of published maps and other documents reviewed for the purposes of this evaluation. It is not sufficiently accurate for preparing construction bids and design documents.
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eet)	SAI	IME	<u></u>	PID READING (ppm)	<u>۳</u>	٦,	CLASSIFICATION U.S.C.S.	GROUND ELEVATION 60' ± (MSL) SHEET 1 OF 1
DEPTH (feet)	_	SAMPLE TIME	SAMPLE ID	DIIO	MOISTURE	SYMBOL	SIFICA S.C.S	METHOD OF DRILLING Hand Auger (Strongarm)
DEP	Bulk	SAMI	SAI	RE4	₩ W	S	LASS U.	DRIVE WEIGHT DROP
				JI.			Ö	SAMPLED BY KMH LOGGED BY KMH REVIEWED BY JJR DESCRIPTION/INTERPRETATION
0		09:14 09:16						FILL: Medium brown, dry, loose, micaceous silty SAND.
-		09:18						Medium to light brown, somewhat dry, loose, poorly graded medium SAND.
-								Total Depth = 2.5 feet bgs. Groundwater not encountered during drilling. Backfilled with No. 8 granular bentonite to surface on 9/4/19.
-								Notes: Groundwater, though not encountered at the time of drilling, may rise to a higher level due to seasonal variations in precipitation and several other factors as discussed in the report.
10 -								The ground elevation shown above is an estimation only. It is based on our interpretations of published maps and other documents reviewed for the purposes of this evaluation. It is not sufficiently accurate for preparing construction bids and design documents.
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DEPTH (feet)	Bulk SAMPLES Driven	SAMPLE TIME	SAMPLE ID	PID READING (ppm)	MOISTURE	SYMBOL	CLASSIFICATION U.S.C.S.	DATE DRILLED 12/5/19 BORING NO. AOC1-E-B2NE GROUND ELEVATION 71' ± (MSL) SHEET 1 OF 1 METHOD OF DRILLING Hand Auger (Strongarm) DROP - SAMPLED BY AUC REVIEWED BY JJR DESCRIPTION/INTERPRETATION DESCRIPTION/INTERPRETATION AOC1-E-B2NE AOC1-E-B2NE
0		14:29	B2NE-0.5' B2NE-1.5'				SM	FILL: Dark brown, moist, loose, silty SAND.
10 -		14:31	B2NE-2.5'					Total Depth = 2.5 feet bgs. Groundwater not encountered during drilling. Backfilled with hydrated No. 8 granular bentonite to surface on 12/5/19. Notes: Groundwater, though not encountered at the time of drilling, may rise to a higher level due to seasonal variations in precipitation and several other factors as discussed in the report. The ground elevation shown above is an estimation only. It is based on our interpretations of published maps and other documents reviewed for the purposes of this evaluation. It is not sufficiently accurate for preparing construction bids and design documents.
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DEPTH (feet)	Bulk SAMPLES Driven	SAMPLE TIME	SAMPLE ID	PID READING (ppm)	MOISTURE	SYMBOL	CLASSIFICATION U.S.C.S.	DATE DRILLED 12/5/19 BORING NO. AOC1-E-B2NN GROUND ELEVATION 71' ± (MSL) SHEET 1 OF 1 METHOD OF DRILLING Hand Auger (Strongarm) DROP - SAMPLED BY LNT LNT REVIEWED BY JJR DESCRIPTION/INTERPRETATION
0		14:31	B2NN-0.5' B2NN-1.5'				SM	FILL: Dark brown, moist, loose, silty SAND. Dry.
10 -		14:24	B2NN-2.5'					Total Depth = 2.5 feet bgs. Groundwater not encountered during drilling. Backfilled with hydrated No. 8 granular bentonite to surface on 12/5/19. Notes: Groundwater, though not encountered at the time of drilling, may rise to a higher level due to seasonal variations in precipitation and several other factors as discussed in the report. The ground elevation shown above is an estimation only. It is based on our interpretations of published maps and other documents reviewed for the purposes of this evaluation. It is not sufficiently accurate for preparing construction bids and design documents.
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DEPTH (feet)	Bulk SAMPLES Driven		SAMPLE ID	PID READING (ppm)	MOISTURE	SYMBOL	CLASSIFICATION U.S.C.S.	DATE DRILLED 12/5/19 BORING NO. AOC1-E-B2SE GROUND ELEVATION 71' ± (MSL) SHEET 1 OF 1 METHOD OF DRILLING Hand Auger (Strongarm) DROP - SAMPLED BY LNT LOGGED BY LNT REVIEWED BY JJR DESCRIPTION/INTERPRETATION
0 -		14:21	B2SE-0.5' B2SE-1.5' B2SE-2.5'				SM	FILL: Dark brown, moist, loose, micaceous silty SAND.
- - 10 - -		17.22	DEGL Z.O			111111		Total Depth = 2.5 feet bgs. Groundwater not encountered during drilling. Backfilled with hydrated No. 8 granular bentonite to surface on 12/5/19. Notes: Groundwater, though not encountered at the time of drilling, may rise to a higher level due to seasonal variations in precipitation and several other factors as discussed in the report. The ground elevation shown above is an estimation only. It is based on our interpretations of published maps and other documents reviewed for the purposes of this evaluation. It is not sufficiently accurate for preparing construction bids and design documents.
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DEPTH (feet)	Bulk SAMPLES Driven	SAMPLE TIME	SAMPLE ID	PID READING (ppm)	MOISTURE	SYMBOL	CLASSIFICATION U.S.C.S.	DATE DRILLED 12/5/19 BORING NO. AOC1-E-B2SS GROUND ELEVATION 71' ± (MSL) SHEET 1 OF 1 METHOD OF DRILLING Hand Auger (Strongarm) DROP - SAMPLED BY LNT LNT REVIEWED BY JJR DESCRIPTION/INTERPRETATION
0		14:22	B2SS-0.5' B2SS-1.5'				SM	FILL: Dark brown, moist, loose, micaceous silty SAND. Dry.
10 -		14:25	B2SS-2.5'					Total Depth = 2.5 feet bgs. Groundwater not encountered during drilling. Backfilled with hydrated No. 8 granular bentonite to surface on 12/5/19. Notes: Groundwater, though not encountered at the time of drilling, may rise to a higher level due to seasonal variations in precipitation and several other factors as discussed in the report. The ground elevation shown above is an estimation only. It is based on our interpretations of published maps and other documents reviewed for the purposes of this evaluation. It is not sufficiently accurate for preparing construction bids and design documents.
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DEPTH (feet)	Bulk SAMPLES Driven	SAMPLE TIME	SAMPLE ID	PID READING (ppm)	MOISTURE	SYMBOL	CLASSIFICATION U.S.C.S.	DATE DRILLED 4/29/19 BORING NO. AOC1-E-B3 GROUND ELEVATION 72' ± (MSL) SHEET 1 OF 1 METHOD OF DRILLING Hand Auger DROP - - DRIVE WEIGHT - DROP - SAMPLED BY KMH LOGGED BY AUC REVIEWED BY JJR DESCRIPTION/INTERPRETATION
0 -		14:07 14:10 14:12	B3-0.5' DUP-3 B3-1.5'				ML	FILL: Dark brown, moist, loose, micaceous sandy SILT.
10 —		14.12	B3-2.3 ,					Total Depth = 2.5 feet bgs. Groundwater not encountered during drilling. Backfilled with hydrated No. 8 granular bentonite to surface on 5/9/19. Notes: Groundwater, though not encountered at the time of drilling, may rise to a higher level due to seasonal variations in precipitation and several other factors as discussed in the report. The ground elevation shown above is an estimation only. It is based on our interpretations of published maps and other documents reviewed for the purposes of this evaluation. It is not sufficiently accurate for preparing construction bids and design documents.
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DEPTH (feet)	Bulk SAMPLES Driven	SAMPLE TIME	SAMPLE ID	PID READING (ppm)	MOISTURE	SYMBOL	CLASSIFICATION U.S.C.S.	DATE DRILLED 9/4/19 BORING NO. AOC1-E-B3N GROUND ELEVATION 61' ± (MSL) SHEET 1 OF 1 METHOD OF DRILLING Hand Auger (Strongarm) DROP - SAMPLED BY KMH LOGGED BY KMH REVIEWED BY JJR DESCRIPTION/INTERPRETATION
0		08:35 08:36 08:37					SM	FILL: Dark brown, slightly moist, loose, micaceous silty SAND. Medium brown.
- - 10 - - -			DOIN Z.O			133133		Total Depth = 2.5 feet bgs. Groundwater not encountered during drilling. Backfilled with No. 8 granular bentonite to surface on 9/4/19. Notes: Groundwater, though not encountered at the time of drilling, may rise to a higher level due to seasonal variations in precipitation and several other factors as discussed in the report. The ground elevation shown above is an estimation only. It is based on our interpretations of published maps and other documents reviewed for the purposes of this evaluation. It is not sufficiently accurate for preparing construction bids and design documents.
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DEPTH (feet)	Bulk SAMPLES Driven	SAMPLE TIME	SAMPLE ID	PID READING (ppm)	MOISTURE	SYMBOL	CLASSIFICATION U.S.C.S.	DATE DRILLED 9/4/19 BORING NO. AOC1-E-B3E GROUND ELEVATION 61' ± (MSL) SHEET 1 OF 1 METHOD OF DRILLING Hand Auger (Strongarm) DROP - SAMPLED BY KMH LOGGED BY KMH REVIEWED BY JJR DESCRIPTION/INTERPRETATION
0		08:39 08:40 08:41	B3E-0.5' B3E-1.5' B3E-2.5'				SM	FILL: Dark brown, moist, loose, micaceous silty SAND with trace clay. No clay; medium brown. Total Depth = 2.5 feet bgs.
-		-						Groundwater not encountered during drilling. Backfilled with No. 8 granular bentonite to surface on 9/4/19. Notes:
-								Groundwater, though not encountered at the time of drilling, may rise to a higher level due to seasonal variations in precipitation and several other factors as discussed in the report.
10 -		-						The ground elevation shown above is an estimation only. It is based on our interpretations of published maps and other documents reviewed for the purposes of this evaluation. It is not sufficiently accurate for preparing construction bids and design documents.
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	Bulk SAMPLES		SAMPLE ID	PID READING (ppm)	MOISTURE	SYMBOL	CLASSIFICATION U.S.C.S.	DATE DRILLED 9/4/19 BORING NO. AOC1-E-B3S GROUND ELEVATION 61' ± (MSL) SHEET 1 OF 1 METHOD OF DRILLING Hand Auger (Strongarm) DROP - SAMPLED BY KMH LOGGED BY KMH REVIEWED BY JJR DESCRIPTION/INTERPRETATION
0 -		08:30 08:32 08:33	B3S-1.5'				SM	FILL: Medium to dark brown, somewhat dry, loose, micaceous, silty SAND.
 10 			B33-2.3					Total Depth = 2.5 feet bgs. Groundwater not encountered during drilling. Backfilled with No. 8 granular bentonite to surface on 9/4/19. Notes: Groundwater, though not encountered at the time of drilling, may rise to a higher level due to seasonal variations in precipitation and several other factors as discussed in the report. The ground elevation shown above is an estimation only. It is based on our interpretations of published maps and other documents reviewed for the purposes of this evaluation. It is not sufficiently accurate for preparing construction bids and design documents.
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DEPTH (feet)	Bulk SAMPLES	SAMPLE TIME	SAMPLE ID	PID READING (ppm)	MOISTURE	SYMBOL	CLASSIFICATION U.S.C.S.	DATE DRILLED 4/29/19 BORING NO. AOC1-E-B4 GROUND ELEVATION 72' ± (MSL) SHEET 1 OF 1 METHOD OF DRILLING Hand Auger DROP - - DRIVE WEIGHT - DROP - SAMPLED BY KMH LOGGED BY AUC REVIEWED BY JJR DESCRIPTION/INTERPRETATION DROP - - -
0		12:40 12:46	B4-0.5' DUP-1 B4-1.5'				ML	FILL: Dark brown, slightly moist, loose, micaceous sandy SILT with some roots.
- - 10 - -		12:50	B4-2.5'					Total Depth = 2.5 feet bgs. Groundwater not encountered during drilling. Backfilled with hydrated No. 8 granular bentonite to surface on 5/9/19. Notes: Groundwater, though not encountered at the time of drilling, may rise to a higher level due to seasonal variations in precipitation and several other factors as discussed in the report. The ground elevation shown above is an estimation only. It is based on our interpretations of published maps and other documents reviewed for the purposes of this evaluation. It is not sufficiently accurate for preparing construction bids and design documents.
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	SAMPLES			(mo			Z	DATE DRILLED 9/4/19 BORING NO. AOC1-E-B4E
DEPTH (feet)		SAMPLE TIME	SAMPLE ID	PID READING (ppm)	MOISTURE	SYMBOL	CLASSIFICATION U.S.C.S.	GROUND ELEVATION 61' ± (MSL) SHEET1 OF1 METHOD OF DRILLING Hand Auger (Strongarm)
DEPT	Bulk	AMP	SAM	REAL	MOIS	SYI	ASSI U.S	DRIVE WEIGHT DROP
	B Z			PID	PID R		CL	SAMPLED BY KMH LOGGED BY KMH REVIEWED BY JJR DESCRIPTION/INTERPRETATION
0 -		13:46 13:47	B4E-0.5' B4E-1.5'				SM	FILL: Medium brown, dry, loose, micaceous silty SAND.
-		13:48	B4E-2.5'					Total Depth = 2.5 feet bgs. Groundwater not encountered during drilling. Backfilled with No. 8 granular bentonite to surface on 9/4/19.
-								Notes: Groundwater, though not encountered at the time of drilling, may rise to a higher level due to seasonal variations in precipitation and several other factors as discussed in the report.
10 -								The ground elevation shown above is an estimation only. It is based on our interpretations of published maps and other documents reviewed for the purposes of this evaluation. It is not sufficiently accurate for preparing construction bids and design documents.
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DEPTH (feet)	Bulk SAMPLES Driven	SAMPLE TIME	SAMPLE ID	PID READING (ppm)	MOISTURE	SYMBOL	CLASSIFICATION U.S.C.S.	DATE DRILLED 9/4/19 BORING NO. AOC1-E-B4S GROUND ELEVATION 61' ± (MSL) SHEET 1 OF 1 METHOD OF DRILLING Hand Auger (Strongarm) DROP - SAMPLED BY KMH LOGGED BY KMH REVIEWED BY JJR DESCRIPTION/INTERPRETATION
-		13:50 13:52 13:54	B4S-1.5'				SM	FILL: Dark brown, moist, loose, micaceous silty SAND. Medium brown; slightly moist. Total Depth = 2.5 feet bgs.
-								Groundwater not encountered during drilling. Backfilled with No. 8 granular bentonite to surface on 9/4/19. Notes: Groundwater, though not encountered at the time of drilling, may rise to a higher level due to seasonal variations in precipitation and several other factors as discussed in
10 -								the report. The ground elevation shown above is an estimation only. It is based on our interpretations of published maps and other documents reviewed for the purposes of this evaluation. It is not sufficiently accurate for preparing construction bids and design documents.
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DEPTH (feet)	Bulk SAMPLES Driven	SAMPLE TIME	SAMPLE ID	PID READING (ppm)	MOISTURE	SYMBOL	CLASSIFICATION U.S.C.S.	DATE DRILLED 9/4/19 BORING NO. AOC1-E-B4W GROUND ELEVATION 61' ± (MSL) SHEET 1 OF 1 METHOD OF DRILLING Hand Auger (Strongarm) DROP - - DRIVE WEIGHT - DROP - SAMPLED BY KMH LOGGED BY KMH REVIEWED BY JJR DESCRIPTION/INTERPRETATION
0		13:57 13:59	B4W-0.5' B4W-1.5'				SM	FILL: Dark brown, dry, loose, micaceous silty SAND.
10 -			B4W-2.5'					Total Depth = 2.5 feet bgs. Groundwater not encountered during drilling. Backfilled with No. 8 granular bentonite to surface on 9/4/19. Notes: Groundwater, though not encountered at the time of drilling, may rise to a higher level due to seasonal variations in precipitation and several other factors as discussed in the report. The ground elevation shown above is an estimation only. It is based on our interpretations of published maps and other documents reviewed for the purposes of this evaluation. It is not sufficiently accurate for preparing construction bids and design documents.
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SAMPLED BY LIVE DESCRIPTION OF STANDARD SAMPLE ID SAMPLE	D BY LNT REVIEWED BY JJR IPTION/INTERPRETATION
0 8:01 B4EE-0.5' SM FILL: Medium brown, dry, loose, micaced Medium brown, dry, loose, micaced	ous silty SAND.
Notes: Groundwater, though not encounte due to seasonal variations in precip the report. The ground elevation shown above interpretations of published maps a	ng drilling. nular bentonite to surface on 12/9/19. ered at the time of drilling, may rise to a higher level pitation and several other factors as discussed in e is an estimation only. It is based on our and other documents reviewed for the purposes of accurate for preparing construction bids and design
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DEPTH (feet)	Bulk SAMPLES Driven		SAMPLE ID	PID READING (ppm)	MOISTURE	SYMBOL	CLASSIFICATION U.S.C.S.	DATE DRILLED 12/9/19 BORING NO. AOC1-E-B4NW GROUND ELEVATION 71' ± (MSL) SHEET 1 OF 1 METHOD OF DRILLING Hand Auger (Strongarm) DROP - SAMPLED BY LNT LOGGED BY LNT REVIEWED BY JJR DESCRIPTION/INTERPRETATION
0		07:57	B4NW-0.5' B4NW-1.5'				SM	FILL: Medium brown, slightly moist, loose, micaceous silty SAND.
- - 10 - -		07:59	B4NW-2.5'					Total Depth = 2.5 feet bgs. Groundwater not encountered during drilling. Backfilled with hydrated No. 8 granular bentonite to surface on 12/9/19. Notes: Groundwater, though not encountered at the time of drilling, may rise to a higher level due to seasonal variations in precipitation and several other factors as discussed in the report. The ground elevation shown above is an estimation only. It is based on our interpretations of published maps and other documents reviewed for the purposes of this evaluation. It is not sufficiently accurate for preparing construction bids and design documents.
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DEPTH (feet) Bulk SAMPLES	SAMPLE TIME	SAMPLE ID	PID READING (ppm)	MOISTURE	SYMBOL	CLASSIFICATION U.S.C.S.	DATE DRILLED 12/9/19 BORING NO. AOC1-E-B4SE GROUND ELEVATION 71' ± (MSL) SHEET 1 OF 1 METHOD OF DRILLING Hand Auger (Strongarm) DROP - - DRIVE WEIGHT - DROP - - SAMPLED BY LNT REVIEWED BY JJR DESCRIPTION/INTERPRETATION DROP - -
	08:07	B4SE-0.5' B4SE-1.5'				SM	FILL: Dark brown, dry, loose, micaceous silty SAND.
10	08:08	B4SE-2.5'					Total Depth = 2.5 feet bgs. Groundwater not encountered during drilling. Backfilled with hydrated No. 8 granular bentonite to surface on 12/9/19. Notes: Groundwater, though not encountered at the time of drilling, may rise to a higher level due to seasonal variations in precipitation and several other factors as discussed in the report. The ground elevation shown above is an estimation only. It is based on our interpretations of published maps and other documents reviewed for the purposes of this evaluation. It is not sufficiently accurate for preparing construction bids and design documents.
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DEPTH (feet)	Bulk SAMPLES		SAMPLE ID	PID READING (ppm)	MOISTURE	SYMBOL	CLASSIFICATION U.S.C.S.	DATE DRILLED 12/9/19 BORING NO. AOC1-E-B4SS GROUND ELEVATION 71' ± (MSL) SHEET 1 OF 1 METHOD OF DRILLING Hand Auger (Strongarm) DROP - - DRIVE WEIGHT - DROP - SAMPLED BY AUC LOGGED BY AUC REVIEWED BY JJR DESCRIPTION/INTERPRETATION
0			B4SS-0.5' B4SS-1.5'				SM	FILL: Dark brown, moist, loose, micaceous silty SAND.
10 -			B4SS-2.5'					Total Depth = 2.5 feet bgs. Groundwater not encountered during drilling. Backfilled with hydrated No. 8 granular bentonite to surface on 12/9/19. Notes: Groundwater, though not encountered at the time of drilling, may rise to a higher level due to seasonal variations in precipitation and several other factors as discussed in the report. The ground elevation shown above is an estimation only. It is based on our interpretations of published maps and other documents reviewed for the purposes of this evaluation. It is not sufficiently accurate for preparing construction bids and design documents.
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DEPTH (feet)	Bulk SAMPLES		SAMPLE ID	PID READING (ppm)	MOISTURE	SYMBOL	CLASSIFICATION U.S.C.S.	DATE DRILLED 12/9/19 BORING NO. AOC1-E-B4SW GROUND ELEVATION 71' ± (MSL) SHEET 1 OF 1 METHOD OF DRILLING Hand Auger (Strongarm) DROP
0			B4SW-0.5' B4SW-1.5'				SM	FILL: Dark brown, moist, loose, micaceous silty SAND.
	Ħ		B4SW-2.5'					Total Depth = 2.5 feet bgs.
		_						Groundwater not encountered during drilling. Backfilled with hydrated No. 8 granular bentonite to surface on 12/9/19. Notes: Groundwater, though not encountered at the time of drilling, may rise to a higher level due to seasonal variations in precipitation and several other factors as discussed in the report.
10 ⁻		_						The ground elevation shown above is an estimation only. It is based on our interpretations of published maps and other documents reviewed for the purposes of this evaluation. It is not sufficiently accurate for preparing construction bids and design documents.
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DEPTH (feet)	Bulk SAMPLES Driven	SAMPLE TIME	SAMPLE ID	PID READING (ppm)	MOISTURE	SYMBOL	CLASSIFICATION U.S.C.S.	DATE DRILLED 4/29/19 BORING NO. AOC1-E-B6 GROUND ELEVATION 72' ± (MSL) SHEET 1 OF 1 METHOD OF DRILLING Hand Auger DROP - - DRIVE WEIGHT - DROP - SAMPLED BY KMH LOGGED BY AUC REVIEWED BY JJR DESCRIPTION/INTERPRETATION
0 -		13:25 13:30 13:33	B6-0.5' B6-1.5' B6-2.5'				ML	FILL: Dark brown, moist, loose, micaceous sandy SILT with abundant red brick fragments.
- - 10 - -			B0-2.3					Total Depth = 2.5 feet bgs. Groundwater not encountered during drilling. Backfilled with hydrated No. 8 granular bentonite to surface on 5/9/19. Notes: Groundwater, though not encountered at the time of drilling, may rise to a higher level due to seasonal variations in precipitation and several other factors as discussed in the report. The ground elevation shown above is an estimation only. It is based on our interpretations of published maps and other documents reviewed for the purposes of this evaluation. It is not sufficiently accurate for preparing construction bids and design documents.
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DEPTH (feet)	Bulk SAMPLES Driven	SAMPLE TIME	SAMPLE ID	PID READING (ppm)	MOISTURE	SYMBOL	CLASSIFICATION U.S.C.S.	DATE DRILLED 9/4/19 BORING NO. AOC1-E-B6E GROUND ELEVATION 60' ± (MSL) SHEET 1 OF 1 METHOD OF DRILLING Hand Auger (Strongarm) DROP - - DRIVE WEIGHT - DROP - SAMPLED BY KMH LOGGED BY KMH REVIEWED BY JJR DESCRIPTION/INTERPRETATION
0		10:31 10:32	B6E-0.5' B6E-1.5'				SM	FILL: Dark brown, slightly moist, loose, micaceous silty SAND.
-		10:33	B6E-2.5'		_		SP	Medium brown, somewhat dry, loose, poorly graded medium SAND. Total Depth = 2.5 feet bgs.
-		-						Groundwater not encountered during drilling. Backfilled with No. 8 granular bentonite to surface on 9/4/19.
-								Notes: Groundwater, though not encountered at the time of drilling, may rise to a higher level due to seasonal variations in precipitation and several other factors as discussed in the report.
10 -								The ground elevation shown above is an estimation only. It is based on our interpretations of published maps and other documents reviewed for the purposes of this evaluation. It is not sufficiently accurate for preparing construction bids and design documents.
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DEPTH (feet)	Bulk SAMPLES	SAMPLE TIME	SAMPLE ID	PID READING (ppm)	MOISTURE	SYMBOL	CLASSIFICATION U.S.C.S.	DATE DRILLED 9/4/19 BORING NO. AOC1-E-B6W GROUND ELEVATION 60' ± (MSL) SHEET 1 OF 1 METHOD OF DRILLING Hand Auger (Strongarm) DROP - - DRIVE WEIGHT - DROP - SAMPLED BY KMH LOGGED BY KMH REVIEWED BY JJR DESCRIPTION/INTERPRETATION
0		10:39					SM	FILL:
		10:40	B6W-1.5' B6W-2.5'		<u> </u>		 SP	Dark brown, slightly moist, loose, micaceous silty SAND. Medium brown, slightly moist, loose, poorly graded fine SAND.
10 -		-	BOW 2.3					Total Depth = 2.5 feet bgs. Groundwater not encountered during drilling. Backfilled with No. 8 granular bentonite to surface on 9/4/19. Notes: Groundwater, though not encountered at the time of drilling, may rise to a higher level due to seasonal variations in precipitation and several other factors as discussed in the report. The ground elevation shown above is an estimation only. It is based on our interpretations of published maps and other documents reviewed for the purposes of this evaluation. It is not sufficiently accurate for preparing construction bids and design documents.
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DEPTH (feet)	Bulk SAMPLES Driven	SAMPLE TIME	SAMPLE ID	PID READING (ppm)	MOISTURE	SYMBOL	CLASSIFICATION U.S.C.S.	DATE DRILLED 9/4/19 BORING NO. AOC1-E-B6N GROUND ELEVATION 60' ± (MSL) SHEET 1 OF 1 METHOD OF DRILLING Hand Auger (Strongarm) DROP - - DRIVE WEIGHT - DROP - SAMPLED BY KMH LOGGED BY KMH REVIEWED BY JJR DESCRIPTION/INTERPRETATION
0		10:44 10:45	B6N-0.5' B6N-1.5'				SM	FILL: Dark brown, slightly moist, loose, micaceous silty SAND.
-		10:46	B6N-2.5'				SP	Medium brown, slightly moist, loose, poorly graded, fine SAND. Total Depth = 2.5 feet bgs.
-		_						Groundwater not encountered during drilling. Backfilled with No. 8 granular bentonite to surface on 9/4/19.
-		-						Notes: Groundwater, though not encountered at the time of drilling, may rise to a higher level due to seasonal variations in precipitation and several other factors as discussed in the report.
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DEPTH (feet)	Bulk SAMPLES Driven		SAMPLE ID	PID READING (ppm)	MOISTURE	SYMBOL	CLASSIFICATION U.S.C.S.	DATE DRILLED 12/5/19 BORING NO. AOC1-E-B6NW GROUND ELEVATION 71' ± (MSL) SHEET 1 OF 1 METHOD OF DRILLING Hand Auger (Strongarm) DROP - SAMPLED BY LNT LNT REVIEWED BY JJR DESCRIPTION/INTERPRETATION DROP - - DROP - - DROP - - DROP - -
0		14:46	B6NW-0.5' B6NW-1.5' B6NW-2.5'				SM	FILL: Dark brown, slightly moist, loose, micaceous silty SAND. Dry.
10 -		14.40	BOIWV-2.3			######		Total Depth = 2.5 feet bgs. Groundwater not encountered during drilling. Backfilled with hydrated No. 8 granular bentonite to surface on 12/5/19. Notes: Groundwater, though not encountered at the time of drilling, may rise to a higher level due to seasonal variations in precipitation and several other factors as discussed in the report. The ground elevation shown above is an estimation only. It is based on our interpretations of published maps and other documents reviewed for the purposes of this evaluation. It is not sufficiently accurate for preparing construction bids and design documents.
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DEPTH (feet)	Bulk SAMPLES Driven		SAMPLE ID	PID READING (ppm)	MOISTURE	SYMBOL	CLASSIFICATION U.S.C.S.	DATE DRILLED 12/5/19 BORING NO. AOC1-E-B6WW GROUND ELEVATION 71' ± (MSL) SHEET 1 OF 1 METHOD OF DRILLING Hand Auger (Strongarm) DROP - SAMPLED BY LNT LNT REVIEWED BY JJR DESCRIPTION/INTERPRETATION DROP - - DROP - - DROP - - - DROP - - DROP - -
0		14:54	B6WW-0.5' DUP-67 B6WW-1.5'				SM	FILL: Dark brown, moist, loose, micaceous silty SAND. Dry.
10 -		14:56	B6WW-2.5'			###		Total Depth = 2.5 feet bgs. Groundwater not encountered during drilling. Backfilled with hydrated No. 8 granular bentonite to surface on 12/5/19. Notes: Groundwater, though not encountered at the time of drilling, may rise to a higher level due to seasonal variations in precipitation and several other factors as discussed in the report. The ground elevation shown above is an estimation only. It is based on our interpretations of published maps and other documents reviewed for the purposes of this evaluation. It is not sufficiently accurate for preparing construction bids and design documents.
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DEPTH (feet)	Bulk SAMPLES	SAMPLE TIME	SAMPLE ID	PID READING (ppm)	MOISTURE	SYMBOL	CLASSIFICATION U.S.C.S.	DATE DRILLED 4/29/19 BORING NO. AOC1-E-B7 GROUND ELEVATION 72' ± (MSL) SHEET 1 OF 1 METHOD OF DRILLING Hand Auger DROP - - DRIVE WEIGHT - DROP - SAMPLED BY KMH LOGGED BY AUC REVIEWED BY JJR DESCRIPTION/INTERPRETATION DROP - - -
-		14:33	B7-1.5' B7-2.5'				ML	FILL: Dark brown, moist, loose, micaceous sandy SILT with some gravel and concrete fragments; approximately 1 inch diameter. Total Depth = 2.5 feet bgs. Groundwater not encountered during drilling. Backfilled with hydrated No. 8 granular bentonite to surface on 5/9/19.
-		_						Notes: Groundwater, though not encountered at the time of drilling, may rise to a higher level due to seasonal variations in precipitation and several other factors as discussed in the report.
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DEPTH (feet)	Bulk SAMPLES Driven	SAMPLE TIME	SAMPLE ID	PID READING (ppm)	MOISTURE	SYMBOL	CLASSIFICATION U.S.C.S.	DATE DRILLED 9/4/19 BORING NO. AOC1-E-B7N GROUND ELEVATION 61' ± (MSL) SHEET 1 OF 1 METHOD OF DRILLING Hand Auger (Strongarm) DROP - SAMPLED BY KMH LOGGED BY KMH REVIEWED BY JJR DESCRIPTION/INTERPRETATION
10 -		11:33 11:34 11:35	B7N-0.5' DUP-34 B7N-1.5' B7N-2.5'				SM	PILL: Medium brown, dry, loose, micaceous silty SAND. Dark brown; moist. Total Depth = 2.5 feet bgs. Groundwater not encountered during drilling. Backfilled with No. 8 granular bentonite to surface on 9/4/19. Notes: Groundwater, though not encountered at the time of drilling, may rise to a higher level due to seasonal variations in precipitation and several other factors as discussed in the report. The ground elevation shown above is an estimation only. It is based on our interpretations of published maps and other documents reviewed for the purposes of this evaluation. It is not sufficiently accurate for preparing construction bids and design documents.
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DEPTH (feet)	Bulk SAMPLES Driven	SAMPLE TIME	SAMPLE ID	PID READING (ppm)	MOISTURE	SYMBOL	CLASSIFICATION U.S.C.S.	DATE DRILLED 9/4/19 BORING NO. AOC1-E-B7E GROUND ELEVATION 61' ± (MSL) SHEET 1 OF 1 METHOD OF DRILLING Hand Auger (Strongarm) DROP - SAMPLED BY KMH LOGGED BY KMH REVIEWED BY JJR DESCRIPTION/INTERPRETATION
-		11:37 11:38 11:40					SM	FILL: Dark brown, dry, loose, micaceous silty SAND. Total Depth = 2.5 feet bgs.
-								Groundwater not encountered during drilling. Backfilled with No. 8 granular bentonite to surface on 9/4/19. Notes:
-								Groundwater, though not encountered at the time of drilling, may rise to a higher level due to seasonal variations in precipitation and several other factors as discussed in the report.
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DEPTH (feet)	Bulk SAMPLES Driven	SAMPLE TIME	SAMPLE ID	PID READING (ppm)	MOISTURE	SYMBOL	CLASSIFICATION U.S.C.S.	DATE DRILLED 9/4/19 BORING NO. AOC1-E-B7S GROUND ELEVATION 61' ± (MSL) SHEET 1 OF 1 METHOD OF DRILLING Hand Auger (Strongarm) DROP - - DRIVE WEIGHT - DROP - SAMPLED BY KMH LOGGED BY KMH REVIEWED BY JJR DESCRIPTION/INTERPRETATION
0 		11:45 11:47 11:48	B7S-1.5'	a.			SM	
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DEPTH (feet)	Bulk SAMPLES Driven	SAMPLE TIME	SAMPLE ID	PID READING (ppm)	MOISTURE	SYMBOL	CLASSIFICATION U.S.C.S.	DATE DRILLED 4/29/19 BORING NO. AOC1-E-B8 GROUND ELEVATION 71' ± (MSL) SHEET 1 OF 1 METHOD OF DRILLING Hand Auger DROP - - DRIVE WEIGHT - DROP - SAMPLED BY KMH LOGGED BY AUC REVIEWED BY JJR DESCRIPTION/INTERPRETATION
0 -		14:42 14:46 14:50	B8-0.5' DUP-5 B8-1.5' B8-2.5'				ML	FILL: Dark brown, moist, loose, micaceous sandy SILT with minor roots and red brick fragments. Total Depth = 2.5 feet bgs.
-								Groundwater not encountered during drilling. Backfilled with hydrated No. 8 granular bentonite to surface on 5/9/19. Notes: Groundwater, though not encountered at the time of drilling, may rise to a higher level due to seasonal variations in precipitation and several other factors as discussed in the report.
10 -								The ground elevation shown above is an estimation only. It is based on our interpretations of published maps and other documents reviewed for the purposes of this evaluation. It is not sufficiently accurate for preparing construction bids and design documents.
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DEPTH (feet)	Bulk SAMPLES Driven	SAMPLE TIME	SAMPLE ID	PID READING (ppm)	MOISTURE	SYMBOL	CLASSIFICATION U.S.C.S.	DATE DRILLED 9/3/19 BORING NO. AOC1-E-B8N GROUND ELEVATION 60' ± (MSL) SHEET 1 OF 1 METHOD OF DRILLING Hand Auger to 2.5' bgs (Strongarm) DRIVE WEIGHT - DROP - SAMPLED BY AUC REVIEWED BY JJR DESCRIPTION/INTERPRETATION
0		14:00 14:02					SM	FILL: Medium brown, dry, loose, silty SAND.
10 -		14:04	B8N-2.5'					Total Depth = 2.5 feet bgs. Groundwater not encountered during drilling. Backfilled with hydrated No. 8 granular bentonite to surface on 9/4/19. Notes: Groundwater, though not encountered at the time of drilling, may rise to a higher level due to seasonal variations in precipitation and several other factors as discussed in the report. The ground elevation shown above is an estimation only. It is based on our interpretations of published maps and other documents reviewed for the purposes of this evaluation. It is not sufficiently accurate for preparing construction bids and design documents.
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0 III 13:50 B8W-0.5' SM FILL:	R
13:53 B8W-1.5' Medium brown, dry, loose, silty SAND.	
Total Depth = 2.5 feet bgs. Groundwater not encountered during drilling. Backfilled with hydrated No. 8 granular bentonite to surface on 9/4/19. Notes: Groundwater, though not encountered at the time of drilling, may rise to a hig due to seasonal variations in precipitation and several other factors as discust the report. The ground elevation shown above is an estimation only. It is based on our interpretations of published maps and other documents reviewed for the purpthis evaluation. It is not sufficiently accurate for preparing construction bids a documents.	ssed in
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	Bulk SAMPLES		SAMPLE ID	PID READING (ppm)	MOISTURE	SYMBOL	CLASSIFICATION U.S.C.S.	DATE DRILLED 9/3/19 BORING NO. AOC1-E-B8E GROUND ELEVATION 60' ± (MSL) SHEET 1 OF 1 METHOD OF DRILLING Hand Auger to 2.5' bgs (Strongarm) DROP - - SAMPLED BY AUC LOGGED BY AUC REVIEWED BY JJR DESCRIPTION/INTERPRETATION
0 -		13:43 13:44 13:47	B8E-1.5'				SM	FILL: Medium brown, dry, loose, silty SAND.
 10 		15.47	BOE-2.3					Total Depth = 2.5 feet bgs. Groundwater not encountered during drilling. Backfilled with hydrated granular bentonite to surface on 9/4/19. Notes: Groundwater, though not encountered at the time of drilling, may rise to a higher level due to seasonal variations in precipitation and several other factors as discussed in the report. The ground elevation shown above is an estimation only. It is based on our interpretations of published maps and other documents reviewed for the purposes of this evaluation. It is not sufficiently accurate for preparing construction bids and design documents.
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DEPTH (feet)	Bulk SAMPLES Driven	SAMPLE TIME	SAMPLE ID	PID READING (ppm)	MOISTURE	SYMBOL	CLASSIFICATION U.S.C.S.	DATE DRILLED 12/5/19 BORING NO. AOC1-E-B8NE GROUND ELEVATION 71' ± (MSL) SHEET 1 OF 1 METHOD OF DRILLING Hand Auger (Strongarm) DROP - SAMPLED BY LNT LNT REVIEWED BY JJR DESCRIPTION/INTERPRETATION
10 -			B8NE-1.5' B8NE-2.5'				SM	FILL: Dark brown, moist, loose, silty SAND. Total Depth = 2.5 feet bgs. Groundwater not encountered during drilling. Backfilled with hydrated No. 8 granular bentonite to surface on 12/5/19. Notes: Groundwater, though not encountered at the time of drilling, may rise to a higher level due to seasonal variations in precipitation and several other factors as discussed in the report. The ground elevation shown above is an estimation only. It is based on our interpretations of published maps and other documents reviewed for the purposes of this evaluation. It is not sufficiently accurate for preparing construction bids and design documents.
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DEPTH (feet)	Bulk SAMPLES Driven	SAMPLE TIME	SAMPLE ID	PID READING (ppm)	MOISTURE	SYMBOL	CLASSIFICATION U.S.C.S.	DATE DRILLED 4/29/19 BORING NO. AOC1-E-B9 GROUND ELEVATION 71' ± (MSL) SHEET 1 OF 1 METHOD OF DRILLING Hand Auger DROP - - DRIVE WEIGHT - DROP - SAMPLED BY KMH LOGGED BY AUC REVIEWED BY JJR DESCRIPTION/INTERPRETATION
0 -		14:52 14:56	B9-0.5' DUP-6 B9-1.5'				ML	FILL: Dark brown, moist, loose, micaceous sandy SILT.
- - 10 - - -		14:58	B9-2.5'					Total Depth = 2.5 feet bgs. Groundwater not encountered during drilling. Backfilled with hydrated No. 8 granular bentonite to surface on 5/9/19. Notes: Groundwater, though not encountered at the time of drilling, may rise to a higher level due to seasonal variations in precipitation and several other factors as discussed in the report. The ground elevation shown above is an estimation only. It is based on our interpretations of published maps and other documents reviewed for the purposes of this evaluation. It is not sufficiently accurate for preparing construction bids and design documents.
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0 -		09:15	B9-W-0.5' B9-W-1.5' B9-W-2.5'				SM	FILL: Medium brown, dry, loose, silty SAND.
- - 10 - -		05-10	53 W 2.3			111111111111111111111111111111111111111		Total Depth = 2.5 feet bgs. Groundwater not encountered during drilling. Backfilled with hydrated No. 8 granular bentonite to surface on 9/3/19. Notes: Groundwater, though not encountered at the time of drilling, may rise to a higher level due to seasonal variations in precipitation and several other factors as discussed in the report. The ground elevation shown above is an estimation only. It is based on our interpretations of published maps and other documents reviewed for the purposes of this evaluation. It is not sufficiently accurate for preparing construction bids and design documents.
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DEPTH (feet)	Bulk SAMPLES	SAMPLE TIME	SAMPLE ID	PID READING (ppm)	MOISTURE	SYMBOL	CLASSIFICATION U.S.C.S.	DATE DRILLED 9/3/19 BORING NO. AOC1-E-B9-N GROUND ELEVATION 60' ± (MSL) SHEET 1 OF 1 METHOD OF DRILLING Hand Auger to 2.5' bgs (Strongarm) DRIVE WEIGHT - DROP - SAMPLED BY AUC REVIEWED BY JJR DESCRIPTION/INTERPRETATION
0			B9-N-0.5' B9-N-1.5'				SM	FILL: Medium brown, dry, loose, silty SAND.
 10 -			B9-N-2.5'					Total Depth = 2.5 feet bgs. Groundwater not encountered during drilling. Backfilled with hydrated granular bentonite to surface on 9/3/19. Notes: Groundwater, though not encountered at the time of drilling, may rise to a higher level due to seasonal variations in precipitation and several other factors as discussed in the report. The ground elevation shown above is an estimation only. It is based on our interpretations of published maps and other documents reviewed for the purposes of this evaluation. It is not sufficiently accurate for preparing construction bids and design documents.
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DEPTH (feet)	Bulk SAMPLES	SAMPLE TIME	SAMPLE ID	PID READING (ppm)	MOISTURE	SYMBOL	CLASSIFICATION U.S.C.S.	DATE DRILLED 9/3/19 BORING NO. AOC1-E-B9-E GROUND ELEVATION 60' ± (MSL) SHEET 1 OF 1 METHOD OF DRILLING Hand Auger to 2.5' bgs (Strongarm) DROP - SAMPLED BY AUC REVIEWED BY JJR DESCRIPTION/INTERPRETATION DESCRIPTION/INTERPRETATION AOC1-E-B9-E AOC1-E-B9-E AOC1-E-B9-E
0		09:27 09:30	B9-E-0.5' B9-E-1.5'				SM	FILL: Medium brown, dry, loose, silty SAND.
10 -		09:32	B9-E-2.5'					Total Depth = 2.5 feet bgs. Groundwater not encountered during drilling. Backfilled with hydrated granular bentonite to surface on 9/3/19. Notes: Groundwater, though not encountered at the time of drilling, may rise to a higher level due to seasonal variations in precipitation and several other factors as discussed in the report. The ground elevation shown above is an estimation only. It is based on our interpretations of published maps and other documents reviewed for the purposes of this evaluation. It is not sufficiently accurate for preparing construction bids and design documents.
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DEPTH (feet)	Bulk SAMPLES Driven	SAMPLE ID	PID READING (ppm)	MOISTURE	SYMBOL	CLASSIFICATION U.S.C.S.	DATE DRILLED 12/5/19 BORING NO. AOC1-E-B9NW GROUND ELEVATION 71' ± (MSL) SHEET 1 OF 1 METHOD OF DRILLING Hand Auger (Strongarm) DROP - SAMPLED BY LNT LNT REVIEWED BY JJR DESCRIPTION/INTERPRETATION
0		B9NW-0.5' B9NW-1.5'				SM	FILL: Dark grown, moist, loose, silty SAND.
10 -		B9NW-2.5'					Total Depth = 2.5 feet bgs. Groundwater not encountered during drilling. Backfilled with hydrated No. 8 granular bentonite to surface on 12/5/19. Notes: Groundwater, though not encountered at the time of drilling, may rise to a higher level due to seasonal variations in precipitation and several other factors as discussed in the report. The ground elevation shown above is an estimation only. It is based on our interpretations of published maps and other documents reviewed for the purposes of this evaluation. It is not sufficiently accurate for preparing construction bids and design documents.
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	Bulk SAMPLES		SAMPLE ID	PID READING (ppm)	MOISTURE	SYMBOL	CLASSIFICATION U.S.C.S.	DATE DRILLED 9/3/19 BORING NO. AOC1-E-B10-N GROUND ELEVATION 60' ± (MSL) SHEET 1 OF 1 METHOD OF DRILLING Hand Auger to 2.5' bgs (Strongarm) DRIVE WEIGHT - DROP - SAMPLED BY AUC LOGGED BY AUC REVIEWED BY JJR DESCRIPTION/INTERPRETATION
0			B10-N-0.5' B10-N-1.5'				SM	FILL: Medium brown, dry, loose, silty SAND.
10		08:45	B10-N-2.5'					Total Depth = 2.5 feet bgs. Groundwater not encountered during drilling. Backfilled with hydrated granular bentonite to surface on 9/3/19. Notes: Groundwater, though not encountered at the time of drilling, may rise to a higher level due to seasonal variations in precipitation and several other factors as discussed in the report. The ground elevation shown above is an estimation only. It is based on our interpretations of published maps and other documents reviewed for the purposes of this evaluation. It is not sufficiently accurate for preparing construction bids and design documents.
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DEPTH (feet)		SAMPLE TIME	SAMPLE ID	PID READING (ppm)	MOISTURE	SYMBOL	CLASSIFICATION U.S.C.S.	GROUND ELEVATION 60' ± (MSL) SHEET 1 0F 1 METHOD OF DRILLING Hand Auger to 2.5' bgs (Strongarm)
DEPT	Bulk	AMP	SAM	REAI	MO	SYI	ASSI U.S	DRIVE WEIGHT DROP
	B Q			PID			CL	SAMPLED BY AUC LOGGED BY AUC REVIEWED BY JJR DESCRIPTION/INTERPRETATION
0		08:51	B10-W-0.5' B10-W-1.5'				SM	FILL: Medium brown, dry, loose, silty SAND.
-		08:53	B10-W-2.5'					Total Depth = 2.5 feet bgs. Groundwater not encountered during drilling. Backfilled with hydrated granular bentonite to surface on 9/3/19. Notes:
-								Groundwater, though not encountered at the time of drilling, may rise to a higher level due to seasonal variations in precipitation and several other factors as discussed in the report.
10 -								The ground elevation shown above is an estimation only. It is based on our interpretations of published maps and other documents reviewed for the purposes of this evaluation. It is not sufficiently accurate for preparing construction bids and design documents.
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DEPTH (feet)	Bulk SAMPLES Driven	SAMPLE TIME	SAMPLE ID	PID READING (ppm)	MOISTURE	SYMBOL	CLASSIFICATION U.S.C.S.	DATE DRILLED 9/3/19 BORING NO. AOC1-E-B10-S GROUND ELEVATION 60' ± (MSL) SHEET 1 OF 1 METHOD OF DRILLING Hand Auger to 2.5' bgs (Strongarm) DROP - SAMPLED BY AUC REVIEWED BY JJR DESCRIPTION/INTERPRETATION DESCRIPTION/INTERPRETATION AOC1-E-B10-S AOC1-E-B10-S
0		08:58	B10-S-0.5' B10-S-1.5'				SM	FILL: Medium brown, dry, loose, silty SAND.
10 -		09:01	B10-S-2.5'					Total Depth = 2.5 feet bgs. Groundwater not encountered during drilling. Backfilled with hydrated granular bentonite to surface on 9/3/19. Notes: Groundwater, though not encountered at the time of drilling, may rise to a higher level due to seasonal variations in precipitation and several other factors as discussed in the report. The ground elevation shown above is an estimation only. It is based on our interpretations of published maps and other documents reviewed for the purposes of this evaluation. It is not sufficiently accurate for preparing construction bids and design documents.
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DEPTH (feet)	Bulk SAMPLES Driven		SAMPLE ID	PID READING (ppm)	MOISTURE	SYMBOL	CLASSIFICATION U.S.C.S.	DATE DRILLED 9/3/19 BORING NO. AOC1-E-B11-W GROUND ELEVATION 60' ± (MSL) SHEET 1 OF 1 METHOD OF DRILLING Hand Auger to 2.5' bgs (Strongarm) DROP - - SAMPLED BY AUC LOGGED BY AUC REVIEWED BY JJR DESCRIPTION/INTERPRETATION
0		10:59	B11-W-0.5' B11-W-1.5'				SM	FILL: Medium brown, dry, loose, silty SAND.
10 -		11:00	B11-W-2.5'			#######################################		Total Depth = 2.5 feet bgs. Groundwater not encountered during drilling. Backfilled with hydrated granular bentonite to surface on 9/3/19. Notes: Groundwater, though not encountered at the time of drilling, may rise to a higher level due to seasonal variations in precipitation and several other factors as discussed in the report. The ground elevation shown above is an estimation only. It is based on our interpretations of published maps and other documents reviewed for the purposes of this evaluation. It is not sufficiently accurate for preparing construction bids and design documents.
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DEPTH (feet)	Bulk SAMPLES Driven		SAMPLE ID	PID READING (ppm)	MOISTURE	SYMBOL	CLASSIFICATION U.S.C.S.	DATE DRILLED 9/3/19 BORING NO. AOC1-E-B11-S GROUND ELEVATION 60' ± (MSL) SHEET 1 OF 1 METHOD OF DRILLING Hand Auger to 2.5' bgs (Strongarm) DROP - - SAMPLED BY AUC LOGGED BY AUC REVIEWED BY JJR DESCRIPTION/INTERPRETATION
0		11:07	B11-S-0.5' B11-S-1.5'				SM	FILL: Medium brown, dry, loose, silty SAND.
10 -		11:09	B11-S-2.5'					Total Depth = 2.5 feet bgs. Groundwater not encountered during drilling. Backfilled with hydrated granular bentonite to surface on 9/3/19. Notes: Groundwater, though not encountered at the time of drilling, may rise to a higher level due to seasonal variations in precipitation and several other factors as discussed in the report. The ground elevation shown above is an estimation only. It is based on our interpretations of published maps and other documents reviewed for the purposes of this evaluation. It is not sufficiently accurate for preparing construction bids and design documents.
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DEPTH (feet)	Bulk SAMPLES Driven		SAMPLE ID	PID READING (ppm)	MOISTURE	SYMBOL	CLASSIFICATION U.S.C.S.	DATE DRILLED 9/3/19 BORING NO. AOC1-E-B11-E GROUND ELEVATION 60' ± (MSL) SHEET 1 OF 1 METHOD OF DRILLING Hand Auger to 2.5' bgs (Strongarm) DROP - - SAMPLED BY AUC LOGGED BY AUC REVIEWED BY JJR DESCRIPTION/INTERPRETATION
0 -		11:16	B11-E-0.5' B11-E-1.5' B11-E-2.5'				SM	FILL: Medium brown, dry, loose, silty SAND.
-			22					Total Depth = 2.5 feet bgs. Groundwater not encountered during drilling. Backfilled with hydrated granular bentonite to surface on 9/3/19. Notes: Groundwater, though not encountered at the time of drilling, may rise to a higher level due to seasonal variations in precipitation and several other factors as discussed in the report. The ground elevation shown above is an estimation only. It is based on our interpretations of published maps and other documents reviewed for the purposes of
- - -								this evaluation. It is not sufficiently accurate for preparing construction bids and design documents.
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DEPTH (feet)	Bulk SAMPLES Driven		SAMPLE ID	PID READING (ppm)	MOISTURE	SYMBOL	CLASSIFICATION U.S.C.S.	DATE DRILLED 12/5/19 BORING NO. AOC1-E-B11SS GROUND ELEVATION 71' ± (MSL) SHEET 1 OF 1 METHOD OF DRILLING Hand Auger (Strongarm) DROP - SAMPLED BY LNT LNT REVIEWED BY JJR DESCRIPTION/INTERPRETATION
0			B11SS-0.5' B11SS-1.5'				SM	FILL: Dark brown, moist, loose, silty SAND.
- - 10 - -		13:33	B11SS-2.5'					Total Depth = 2.5 feet bgs. Groundwater not encountered during drilling. Backfilled with hydrated No. 8 granular bentonite to surface on 12/5/19. Notes: Groundwater, though not encountered at the time of drilling, may rise to a higher level due to seasonal variations in precipitation and several other factors as discussed in the report. The ground elevation shown above is an estimation only. It is based on our interpretations of published maps and other documents reviewed for the purposes of this evaluation. It is not sufficiently accurate for preparing construction bids and design documents.
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DEPTH (feet)	Bulk SAMPLES Driven		SAMPLE ID	PID READING (ppm)	MOISTURE	SYMBOL	CLASSIFICATION U.S.C.S.	DATE DRILLED 9/3/19 BORING NO. AOC1-E-B12-W GROUND ELEVATION 60' ± (MSL) SHEET 1 OF 1 METHOD OF DRILLING Hand Auger to 2.5' bgs (Strongarm) DROP - - SAMPLED BY AUC LOGGED BY AUC REVIEWED BY JJR DESCRIPTION/INTERPRETATION
0		11:33	B12-W-0.5' B12-W-1.5'					FILL: Medium brown, dry, loose, silty SAND.
10 -		11:34	B12-W-2.5'					Total Depth = 2.5 feet bgs. Groundwater not encountered during drilling. Backfilled with hydrated granular bentonite to surface on 9/3/19. Notes: Groundwater, though not encountered at the time of drilling, may rise to a higher level due to seasonal variations in precipitation and several other factors as discussed in the report. The ground elevation shown above is an estimation only. It is based on our interpretations of published maps and other documents reviewed for the purposes of this evaluation. It is not sufficiently accurate for preparing construction bids and design documents.
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0			B12-S-0.5' B12-S-1.5'					FILL: Medium brown, dry, loose, silty SAND.
10 -		11:48	B12-S-2.5'					Total Depth = 2.5 feet bgs. Groundwater not encountered during drilling. Backfilled with hydrated granular bentonite to surface on 9/3/19. Notes: Groundwater, though not encountered at the time of drilling, may rise to a higher level due to seasonal variations in precipitation and several other factors as discussed in the report. The ground elevation shown above is an estimation only. It is based on our interpretations of published maps and other documents reviewed for the purposes of this evaluation. It is not sufficiently accurate for preparing construction bids and design documents.
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DEPTH (feet)	Bulk SAMPLES Driven	SAMPLE TIME	SAMPLE ID	PID READING (ppm)	MOISTURE	SYMBOL	CLASSIFICATION U.S.C.S.	DATE DRILLED 9/3/19 BORING NO. AOC1-E-B12-E GROUND ELEVATION 60' ± (MSL) SHEET 1 OF 1 METHOD OF DRILLING Hand Auger to 2.5' bgs (Strongarm) DRIVE WEIGHT - DROP - SAMPLED BY AUC REVIEWED BY JJR DESCRIPTION/INTERPRETATION
-		11:55	B12-E-0.5' B12-E-1.5' B12-E-2.5'				SM	FILL: Medium brown, dry, loose, silty SAND. Total Depth = 2.5 feet bgs.
-								Groundwater not encountered during drilling. Backfilled with hydrated granular bentonite to surface on 9/3/19. Notes: Groundwater, though not encountered at the time of drilling, may rise to a higher level due to seasonal variations in precipitation and several other factors as discussed in the report.
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DEPTH (feet)	Bulk SAMPLES Driven	SAMPLE TIME	SAMPLE ID	PID READING (ppm)	MOISTURE	SYMBOL	CLASSIFICATION U.S.C.S.	DATE DRILLED 12/5/19 BORING NO. AOC1-E-B12SS GROUND ELEVATION 71' ± (MSL) SHEET 1 OF 1 METHOD OF DRILLING Hand Auger (Strongarm) DROP - SAMPLED BY LNT LNT REVIEWED BY JJR DESCRIPTION/INTERPRETATION
0 -		13:30	B12SS-0.5' B12SS-1.5' B12SS-2.5'				SM	FILL: Dark brown, moist, loose, silty SAND.
- - 10 -		10.02	B1200 2.0					Total Depth = 2.5 feet bgs. Groundwater not encountered during drilling. Backfilled with hydrated No. 8 granular bentonite to surface on 12/5/19. Notes: Groundwater, though not encountered at the time of drilling, may rise to a higher level due to seasonal variations in precipitation and several other factors as discussed in the report. The ground elevation shown above is an estimation only. It is based on our interpretations of published maps and other documents reviewed for the purposes of this evaluation. It is not sufficiently accurate for preparing construction bids and design documents.
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DEPTH (feet)	Bulk SAMPLES Driven	SAMPLE TIME	SAMPLE ID	PID READING (ppm)	MOISTURE	SYMBOL	CLASSIFICATION U.S.C.S.	DATE DRILLED 5/1/19 BORING NO. AOC1-E-B13 GROUND ELEVATION 59' ± (MSL) SHEET 1 OF 1 METHOD OF DRILLING Hand Auger DROP - - DRIVE WEIGHT - DROP - SAMPLED BY KMH LOGGED BY AUC REVIEWED BY JJR DESCRIPTION/INTERPRETATION
0 -		11:32 11:36 11:44	B13-0.5' DUP-14 B13-1.5' B13-2.5'				SM	FILL: Dark brown, dry, medium dense, silty SAND.
-								Total Depth = 2.5 feet bgs. Groundwater not encountered during drilling. Backfilled with hydrated No. 8 granular bentonite to surface on 5/1/19. Notes: Groundwater, though not encountered at the time of drilling, may rise to a higher level due to seasonal variations in precipitation and several other factors as discussed in the report. The ground elevation shown above is an estimation only. It is based on our
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DEPTH (feet)	Bulk SAMPLES Driven	SAMPLE TIME	SAMPLE ID	PID READING (ppm)	MOISTURE	SYMBOL	CLASSIFICATION U.S.C.S.	DATE DRILLED 5/1/19 BORING NO. AOC1-E-B14 GROUND ELEVATION 61' ± (MSL) SHEET 1 OF 1 METHOD OF DRILLING Hand Auger DROP - DRIVE WEIGHT - DROP - SAMPLED BY KMH LOGGED BY AUC REVIEWED BY JJR DESCRIPTION/INTERPRETATION
0		15:49 15:51	B14-0.5' / B14-1.5'				SM	ASPHALT: Approximately 4.5 inches thick. FILL:
-		15:53	B14-2.5'					Medium brown, dry, medium dense, silty SAND. Moist. Total Depth = 2.5 feet bgs. Groundwater not encountered during drilling. Backfilled with hydrated No. 8 granular bentonite to surface on 5/1/19. Notes:
due to seasonal variations in pre	Groundwater, though not encountered at the time of drilling, may rise to a higher level due to seasonal variations in precipitation and several other factors as discussed in							
10 -								The ground elevation shown above is an estimation only. It is based on our interpretations of published maps and other documents reviewed for the purposes of this evaluation. It is not sufficiently accurate for preparing construction bids and design documents.
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DEPTH (feet)	Bulk SAMPLES Driven	SAMPLE TIME	SAMPLE ID	PID READING (ppm)	MOISTURE	SYMBOL	CLASSIFICATION U.S.C.S.	DATE DRILLED 5/1/19 BORING NO. AOC1-E-B15 GROUND ELEVATION 60' ± (MSL) SHEET 1 OF 1 METHOD OF DRILLING Hand Auger DROP - - DRIVE WEIGHT - DROP - SAMPLED BY KMH LOGGED BY AUC REVIEWED BY JJR DESCRIPTION/INTERPRETATION
0 -		10:51 10:58 11:03	B15-0.5' DUP-13 B15-1.5' B15-2.5'				SM	FILL: Medium brown, dry, medium dense, silty SAND. Total Depth = 2.5 feet bgs.
-								Groundwater not encountered during drilling. Backfilled with hydrated No. 8 granular bentonite to surface on 5/1/19. Notes: Groundwater, though not encountered at the time of drilling, may rise to a higher level due to seasonal variations in precipitation and several other factors as discussed in the report.
10 -								The ground elevation shown above is an estimation only. It is based on our interpretations of published maps and other documents reviewed for the purposes of this evaluation. It is not sufficiently accurate for preparing construction bids and design documents.
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DEPTH (feet)	Bulk SAMPLES	SAMPLE TIME	SAMPLE ID	PID READING (ppm)	MOISTURE	SYMBOL	CLASSIFICATION U.S.C.S.	DATE DRILLED 5/1/19 BORING NO. AOC1-E-B16 GROUND ELEVATION 60' ± (MSL) SHEET 1 OF 1 METHOD OF DRILLING Hand Auger DROP - - DRIVE WEIGHT - DROP - SAMPLED BY KMH LOGGED BY AUC REVIEWED BY JJR DESCRIPTION/INTERPRETATION
0		3:29 3:31	B16-0.5' B16-1.5'				SM	FILL: Dark brown, dry, medium dense, silty SAND.
-		3:33	B16-2.5'					Moist. Total Depth = 2.5 feet bgs.
-		_						Groundwater not encountered during drilling. Backfilled with hydrated No. 8 granular bentonite to surface on 5/1/19.
-		-						Notes: Groundwater, though not encountered at the time of drilling, may rise to a higher level due to seasonal variations in precipitation and several other factors as discussed in the report.
10 -		_						The ground elevation shown above is an estimation only. It is based on our interpretations of published maps and other documents reviewed for the purposes of this evaluation. It is not sufficiently accurate for preparing construction bids and design documents.
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0		11:58 12:05 12:44	B17-1.5'				SM	FILL: Medium brown, dry, medium dense, silty SAND; some trash (chip bags); abundant gravel.
 10 						111111		Total Depth = 2.5 feet bgs. Groundwater not encountered during drilling. Backfilled with hydrated No. 8 granular bentonite to surface on 5/1/19. Notes: Groundwater, though not encountered at the time of drilling, may rise to a higher level due to seasonal variations in precipitation and several other factors as discussed in the report. The ground elevation shown above is an estimation only. It is based on our interpretations of published maps and other documents reviewed for the purposes of this evaluation. It is not sufficiently accurate for preparing construction bids and design documents.
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DEPTH (feet)	Bulk SAMPLES Driven	SAMPLE TIME	SAMPLE ID	PID READING (ppm)	MOISTURE	SYMBOL	CLASSIFICATION U.S.C.S.	DATE DRILLED 5/1/19 BORING NO. AOC1-E-B18 GROUND ELEVATION 60' ± (MSL) SHEET 1 OF 1 METHOD OF DRILLING Hand Auger DROP - - DRIVE WEIGHT - DROP - SAMPLED BY KMH LOGGED BY AUC REVIEWED BY JJR DESCRIPTION/INTERPRETATION DROP - - DROP -
0		3:35	B18-0.5'				SM	ASPHALT: Approximately 8 inches thick.
-		3:38 3:40	B18-1.5' B18-2.5'				SIVI	FILL:
		0.10	<u> </u>			1111111		Medium brown, dry, medium dense, silty SAND. Moist.
-								Total Depth = 2.5 feet bgs. Groundwater not encountered during drilling. Backfilled with hydrated No. 8 granular bentonite to surface on 5/1/19.
-								Notes:
-								Groundwater, though not encountered at the time of drilling, may rise to a higher level due to seasonal variations in precipitation and several other factors as discussed in the report.
10 -								The ground elevation shown above is an estimation only. It is based on our interpretations of published maps and other documents reviewed for the purposes of this evaluation. It is not sufficiently accurate for preparing construction bids and design documents.
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DEPTH (feet)	Bulk SAMPLES Driven	SAMPLE TIME	SAMPLE ID	PID READING (ppm)	MOISTURE	SYMBOL	CLASSIFICATION U.S.C.S.	DATE DRILLED 5/1/19 BORING NO. AOC1-E-B19 GROUND ELEVATION 60' ± (MSL) SHEET 1 OF 1 METHOD OF DRILLING Hand Auger DROP - - DRIVE WEIGHT - DROP - SAMPLED BY KMH LOGGED BY AUC REVIEWED BY JJR DESCRIPTION/INTERPRETATION
0 -		3:59 4:01 4:03	B19-0.5' B19-1.5' B19-2.5'				SM	FILL: Medium brown, slightly moist, medium dense, silty SAND.
-								Total Depth = 2.5 feet bgs. Groundwater not encountered during drilling. Backfilled with hydrated No. 8 granular bentonite to surface on 5/1/19. Notes: Groundwater, though not encountered at the time of drilling, may rise to a higher level due to seasonal variations in precipitation and several other factors as discussed in the report.
10 - - -								The ground elevation shown above is an estimation only. It is based on our interpretations of published maps and other documents reviewed for the purposes of this evaluation. It is not sufficiently accurate for preparing construction bids and design documents.
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	Bulk SAMPLES		SAMPLE ID	PID READING (ppm)	MOISTURE	SYMBOL	CLASSIFICATION U.S.C.S.	DATE DRILLED 9/3/19 BORING NO. AOC1-E-B19-N GROUND ELEVATION 60' ± (MSL) SHEET 1 OF 1 METHOD OF DRILLING Hand Auger to 2.5' bgs (Strongarm) DROP - - SAMPLED BY AUC LOGGED BY AUC REVIEWED BY JJR DESCRIPTION/INTERPRETATION DIAMETER DESCRIPTION/INTERPRETATION DIAMETER DESCRIPTION/INTERPRETATION
0		10:00	B19-N-0.5' B19-N-1.5'				SM	FILL: Medium brown, dry, loose, silty SAND; fragments of brick.
10 -		10:02	B19-N-2.5'					Total Depth = 2.5 feet bgs. Groundwater not encountered during drilling. Backfilled with hydrated granular bentonite to surface on 9/3/19. Notes: Groundwater, though not encountered at the time of drilling, may rise to a higher level due to seasonal variations in precipitation and several other factors as discussed in the report. The ground elevation shown above is an estimation only. It is based on our interpretations of published maps and other documents reviewed for the purposes of this evaluation. It is not sufficiently accurate for preparing construction bids and design documents.
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DEPTH (feet)	Bulk SAMPLES Driven		SAMPLE ID	PID READING (ppm)	MOISTURE	SYMBOL	CLASSIFICATION U.S.C.S.	DATE DRILLED 9/3/19 BORING NO. AOC1-E-B19-W GROUND ELEVATION 60' ± (MSL) SHEET 1 OF 1 METHOD OF DRILLING Hand Auger to 2.5' bgs (Strongarm) DROP - - SAMPLED BY AUC LOGGED BY AUC REVIEWED BY JJR DESCRIPTION/INTERPRETATION
0			B19-W-0.5' B19-W-1.5'				SM	FILL: Medium brown, dry, loose, silty SAND.
10 -		10:12	B19-W-2.5'					Total Depth = 2.5 feet bgs. Groundwater not encountered during drilling. Backfilled with hydrated granular bentonite to surface on 9/3/19. Notes: Groundwater, though not encountered at the time of drilling, may rise to a higher level due to seasonal variations in precipitation and several other factors as discussed in the report. The ground elevation shown above is an estimation only. It is based on our interpretations of published maps and other documents reviewed for the purposes of this evaluation. It is not sufficiently accurate for preparing construction bids and design documents.
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DEPTH (feet)	Bulk SAMPLES Driven	SAMPLE TIME	SAMPLE ID	PID READING (ppm)	MOISTURE	SYMBOL	CLASSIFICATION U.S.C.S.	DATE DRILLED 9/3/19 BORING NO. AOC1-E-B19-E GROUND ELEVATION 60' ± (MSL) SHEET 1 OF 1 METHOD OF DRILLING Hand Auger to 2.5' bgs (Strongarm) DRIVE WEIGHT - DROP - SAMPLED BY AUC REVIEWED BY JJR DESCRIPTION/INTERPRETATION
0		10:20	B19-E-0.5' B19-E-1.5' B19-E-2.5'				SM	FILL: Medium brown, dry, loose, silty SAND. Dark brown; roots. Total Depth = 2.5 feet bgs. Groundwater not encountered during drilling. Backfilled with hydrated granular bentonite to surface on 9/3/19. Notes: Groundwater, though not encountered at the time of drilling, may rise to a higher level due to seasonal variations in precipitation and several other factors as discussed in the report. The ground elevation shown above is an estimation only. It is based on our interpretations of published maps and other documents reviewed for the purposes of this evaluation. It is not sufficiently accurate for preparing construction bids and design documents.



	Bulk SAMPLES		SAMPLE ID	PID READING (ppm)	MOISTURE	SYMBOL	CLASSIFICATION U.S.C.S.	DATE DRILLED 9/3/19 BORING NO. AOC1-E-B19-S GROUND ELEVATION 60' ± (MSL) SHEET 1 OF 1 METHOD OF DRILLING Hand Auger to 2.5' bgs (Strongarm) DROP - - SAMPLED BY AUC LOGGED BY AUC REVIEWED BY JJR DESCRIPTION/INTERPRETATION DIAMETER DESCRIPTION/INTERPRETATION DIAMETER DESCRIPTION/INTERPRETATION
0		10:32	B19-S-0.5' B19-S-1.5'				SM	FILL: Medium brown, dry, loose, silty SAND.
- - 10 - -		10:39	B19-S-2.5'					Total Depth = 2.5 feet bgs. Groundwater not encountered during drilling. Backfilled with hydrated granular bentonite to surface on 9/3/19. Notes: Groundwater, though not encountered at the time of drilling, may rise to a higher level due to seasonal variations in precipitation and several other factors as discussed in the report. The ground elevation shown above is an estimation only. It is based on our interpretations of published maps and other documents reviewed for the purposes of this evaluation. It is not sufficiently accurate for preparing construction bids and design documents.
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DEPTH (feet)	Bulk SAMPLES	SAMPLE TIME	SAMPLE ID	PID READING (ppm)	MOISTURE	SYMBOL	CLASSIFICATION U.S.C.S.	DATE DRILLED 4/29/19 BORING NO. AOC1-E-B20 GROUND ELEVATION 72' ± (MSL) SHEET 1 OF 1 METHOD OF DRILLING Hand Auger DROP - - DRIVE WEIGHT - DROP - SAMPLED BY KMH LOGGED BY AUC REVIEWED BY JJR DESCRIPTION/INTERPRETATION
0		11:46 11:48 11:50	B20-0.5' B20-1.5' B20-2.5'				ML	FILL: Dark brown, slightly moist, loose, micaceous sandy SILT.
- 10 -		-	220 2.10					Total Depth = 2.5 feet bgs. Groundwater not encountered during drilling. Backfilled with hydrated No. 8 granular bentonite to surface on 5/9/19. Notes: Groundwater, though not encountered at the time of drilling, may rise to a higher level due to seasonal variations in precipitation and several other factors as discussed in the report. The ground elevation shown above is an estimation only. It is based on our interpretations of published maps and other documents reviewed for the purposes of this evaluation. It is not sufficiently accurate for preparing construction bids and design
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DEPTH (feet)	Bulk SAMPLES Driven	SAMPLE TIME	SAMPLE ID	PID READING (ppm)	MOISTURE	SYMBOL	CLASSIFICATION U.S.C.S.	DATE DRILLED 9/4/19 BORING NO. AOC1-E-B20N GROUND ELEVATION 61' ± (MSL) SHEET 1 OF 1 METHOD OF DRILLING Hand Auger (Strongarm) DROP - SAMPLED BY KMH LOGGED BY KMH REVIEWED BY JJR DESCRIPTION/INTERPRETATION
0		13:20	B20N-0.5' B20N-1.5' B20N-2.5'				SM	FILL: Dark brown, somewhat dry, loose, micaceous silty SAND. Slightly moist; some red brick fragments and caliche.
- - 10 -								Total Depth = 2.5 feet bgs. Groundwater not encountered during drilling. Backfilled with No. 8 granular bentonite to surface on 9/4/19. Notes: Groundwater, though not encountered at the time of drilling, may rise to a higher level due to seasonal variations in precipitation and several other factors as discussed in the report. The ground elevation shown above is an estimation only. It is based on our interpretations of published maps and other documents reviewed for the purposes of this evaluation. It is not sufficiently accurate for preparing construction bids and design documents.
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DEPTH (feet)	Bulk SAMPLES Driven	SAMPLE TIME	SAMPLE ID	PID READING (ppm)	MOISTURE	SYMBOL	CLASSIFICATION U.S.C.S.	DATE DRILLED 9/4/19 BORING NO. AOC1-E-B20E GROUND ELEVATION 61' ± (MSL) SHEET 1 OF 1 METHOD OF DRILLING Hand Auger (Strongarm) DROP - - DRIVE WEIGHT - DROP - SAMPLED BY KMH LOGGED BY KMH REVIEWED BY JJR DESCRIPTION/INTERPRETATION
10 -		13:30	B20E-0.5' B20E-1.5' B20E-2.5'				SM	
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	SAMPLES			(mc			NO	DATE DRILLED 9/4/19 BORING NO. AOC1-E-B20S
DEPTH (feet)		SAMPLE TIME	SAMPLE ID	PID READING (ppm)	MOISTURE	SYMBOL	CLASSIFICATION U.S.C.S.	GROUND ELEVATION 61' ± (MSL) SHEET1 OF1 METHOD OF DRILLING Hand Auger (Strongarm)
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	B 7			PID			CL	SAMPLED BY KMH LOGGED BY KMH REVIEWED BY JJR DESCRIPTION/INTERPRETATION
0 -		13:37	B20S-0.5' B20S-1.5' B20S-2.5'				SM	FILL: Dark brown, moist, loose, micaceous silty SAND.
-		13.39	B203-2.3					Total Depth = 2.5 feet bgs. Groundwater not encountered during drilling. Backfilled with No. 8 granular bentonite to surface on 9/4/19.
-								Notes: Groundwater, though not encountered at the time of drilling, may rise to a higher level due to seasonal variations in precipitation and several other factors as discussed in the report.
10 -								The ground elevation shown above is an estimation only. It is based on our interpretations of published maps and other documents reviewed for the purposes of this evaluation. It is not sufficiently accurate for preparing construction bids and design documents.
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DEPTH (feet)	Bulk SAMPLES Driven	SAMPLE TIME	SAMPLE ID	PID READING (ppm)	MOISTURE	SYMBOL	CLASSIFICATION U.S.C.S.	DATE DRILLED 4/29/19 BORING NO. AOC1-E-B22 GROUND ELEVATION 72' ± (MSL) SHEET 1 OF 1 METHOD OF DRILLING Hand Auger DROP - - SAMPLED BY KMH LOGGED BY AUC REVIEWED BY JJR DESCRIPTION/INTERPRETATION
10 -		11:58 12:00 12:04	B22-0.5' B22-1.5' B22-2.5'				ML	DESCRIPTION/INTERPRETATION FILL: Dark brown, slightly moist, loose, micaceous sandy SILT. Total Depth = 2.5 feet bgs. Groundwater not encountered during drilling. Backfilled with hydrated No. 8 granular bentonite to surface on 5/9/19. Notes: Groundwater, though not encountered at the time of drilling, may rise to a higher level due to seasonal variations in precipitation and several other factors as discussed in the report. The ground elevation shown above is an estimation only. It is based on our interpretations of published maps and other documents reviewed for the purposes of this evaluation. It is not sufficiently accurate for preparing construction bids and design documents.
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DEPTH (feet)	Bulk SAMPLES	SAMPLE TIME	SAMPLE ID	PID READING (ppm)	MOISTURE	SYMBOL	CLASSIFICATION U.S.C.S.	DATE DRILLED 5/6/19 BORING NO. AOC1-E-B23 GROUND ELEVATION 72' ± (MSL) SHEET 1 OF 1 METHOD OF DRILLING Hand Auger DRIVE WEIGHT DROP SAMPLED BY KMH LOGGED BY AUC REVIEWED BY JJR
0		16:10	B23-0.5				SM	DESCRIPTION/INTERPRETATION CONCRETE:
-								Approximately 4 inches thick. FILL: Dark brown, slightly moist, loose, micaceous silty SAND with some gravel. Refusal due to concrete slab. Total Depth = 1 foot bgs. Refusal at 1 foot bgs due to concrete slab. Backfilled with hydrated No. 8 granular bentonite to surface on 5/6/19. Notes: Groundwater, though not encountered at the time of drilling, may rise to a higher level due to seasonal variations in precipitation and several other factors as discussed in the report.
10 -								The ground elevation shown above is an estimation only. It is based on our interpretations of published maps and other documents reviewed for the purposes of this evaluation. It is not sufficiently accurate for preparing construction bids and design documents.
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DEPTH (feet)	Bulk SAMPLES	SAMPLE TIME	SAMPLE ID	PID READING (ppm)	MOISTURE	SYMBOL	CLASSIFICATION U.S.C.S.	DATE DRILLED 5/3/19 BORING NO. AOC1-E-B27 GROUND ELEVATION 59' ± (MSL) SHEET 1 OF 1 METHOD OF DRILLING Hand Auger DROP - DRIVE WEIGHT - DROP - - SAMPLED BY KMH LOGGED BY AUC REVIEWED BY JJR DESCRIPTION/INTERPRETATION
0		10:55	B27-0.5'				SM	ASPHALT: Approximately 2 inches thick.
-		10:58 11:00	B27-1.5' B27-2.5'					FILL: Medium brown, dry, medium dense, silty SAND. Moist.
-		-						Total Depth = 2.5 feet bgs. Groundwater not encountered during drilling. Backfilled with hydrated No. 8 granular bentonite to surface on 5/1/19.
-								Notes: Groundwater, though not encountered at the time of drilling, may rise to a higher level due to seasonal variations in precipitation and several other factors as discussed in the report.
10 -		_						The ground elevation shown above is an estimation only. It is based on our interpretations of published maps and other documents reviewed for the purposes of this evaluation. It is not sufficiently accurate for preparing construction bids and design documents.
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DEPTH (feet)	Bulk SAMPLES Driven	SAMPLE TIME	SAMPLE ID	PID READING (ppm)	MOISTURE	SYMBOL	CLASSIFICATION U.S.C.S.	DATE DRILLED 5/3/19 BORING NO. AOC1-E-B28 GROUND ELEVATION 59' ± (MSL) SHEET 1 OF 1 METHOD OF DRILLING Hand Auger DRIVE WEIGHT DROP
0		11:15 11:19	B28-0.5' / B28-1.5'				SM	ASPHALT: Approximately 4 inches thick.
10 -		11:21	B28-2.5'					FILL: Medium/dark brown mix, some red coloring, moist, medium dense, silty SAND. Total Depth = 2.5 feet bgs. Groundwater not encountered during drilling. Backfilled with hydrated No. 8 granular bentonite to surface on 5/1/19. Notes: Groundwater, though not encountered at the time of drilling, may rise to a higher level due to seasonal variations in precipitation and several other factors as discussed in the report. The ground elevation shown above is an estimation only. It is based on our interpretations of published maps and other documents reviewed for the purposes of this evaluation. It is not sufficiently accurate for preparing construction bids and design documents.
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0 11:05 B29-0.5' SM FILL:	y SAND.
due to seasonal variations in precipite the report. The ground elevation shown above is interpretations of published maps and	g drilling. lar bentonite to surface on 5/1/19. ed at the time of drilling, may rise to a higher level tation and several other factors as discussed in as an estimation only. It is based on our ad other documents reviewed for the purposes of ccurate for preparing construction bids and design
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DEPTH (feet)	Bulk SAMPLES Driven	SAMPLE TIME	SAMPLE ID	PID READING (ppm)	MOISTURE	SYMBOL	CLASSIFICATION U.S.C.S.	DATE DRILLED 5/3/19 BORING NO. AOC1-E-B30 GROUND ELEVATION 59' ± (MSL) SHEET 1 OF 1 METHOD OF DRILLING Hand Auger DRIVE WEIGHT
0		11:27 11:30	B30-0.5' / B30-1.5'				SM	CONCRETE: Approximately 5 inches thick.
-		11:32	B30-2.5'					FILL: Dark brown, moist, medium dense, silty SAND. Total Depth = 2.5 feet bgs.
-								Groundwater not encountered during drilling. Backfilled with hydrated No. 8 granular bentonite to surface on 5/1/19.
-								Notes: Groundwater, though not encountered at the time of drilling, may rise to a higher level due to seasonal variations in precipitation and several other factors as discussed in the report.
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DEPTH (feet)	Bulk SAMPLES Driven	SAMPLE TIME	SAMPLE ID	PID READING (ppm)	MOISTURE	SYMBOL	CLASSIFICATION U.S.C.S.	DATE DRILLED 5/3/19 BORING NO. AOC1-E-B31 GROUND ELEVATION 59' ± (MSL) SHEET 1 OF 1 METHOD OF DRILLING Hand Auger DROP - - DRIVE WEIGHT - DROP - SAMPLED BY KMH LOGGED BY AUC REVIEWED BY JJR DESCRIPTION/INTERPRETATION
0		9:41 9:43	B31-0.5' B31-1.5'				SM	FILL: Medium brown, moist, medium dense, silty SAND with brick fragments.
 10 -		9:47	B31-2.5'					Total Depth = 2.5 feet bgs. Groundwater not encountered during drilling. Backfilled with hydrated No. 8 granular bentonite to surface on 5/1/19. Notes: Groundwater, though not encountered at the time of drilling, may rise to a higher level due to seasonal variations in precipitation and several other factors as discussed in the report. The ground elevation shown above is an estimation only. It is based on our interpretations of published maps and other documents reviewed for the purposes of this evaluation. It is not sufficiently accurate for preparing construction bids and design documents.
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	SAMPLES	111		(mc			NO	DATE DRILLED 9/3/19 BORING NO. AOC1-E-B31E
DEPTH (feet)		SAMPLE TIME	SAMPLE ID	PID READING (ppm)	MOISTURE	SYMBOL	CLASSIFICATION U.S.C.S.	GROUND ELEVATION 61' ± (MSL) SHEET1 OF1 METHOD OF DRILLING Hand Auger (Strongarm)
DEP.	Bulk	SAME	SAN	REA	MOIS	SY	ASS U.	DRIVE WEIGHT DROP
	D			PID				SAMPLED BY KMH LOGGED BY KMH REVIEWED BY JJR DESCRIPTION/INTERPRETATION
0 -		13:46	B31E-0.5' B31E-1.5'				SM	FILL: Medium brown, somewhat dry, loose, micaceous silty SAND.
-		13.46	B31E-2.5'					Total Depth = 2.5 feet bgs. Groundwater not encountered during drilling. Backfilled with hydrated No. 8 granular bentonite to surface on 9/3/19.
-								Notes: Groundwater, though not encountered at the time of drilling, may rise to a higher level due to seasonal variations in precipitation and several other factors as discussed in the report.
10 -								The ground elevation shown above is an estimation only. It is based on our interpretations of published maps and other documents reviewed for the purposes of this evaluation. It is not sufficiently accurate for preparing construction bids and design documents.
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DEPTH (feet)	Bulk SAMPLES Driven	SAMPLE TIME	SAMPLE ID	PID READING (ppm)	MOISTURE	SYMBOL	CLASSIFICATION U.S.C.S.	DATE DRILLED 9/3/19 BORING NO. AOC1-E-B31W GROUND ELEVATION 61' ± (MSL) SHEET 1 OF 1 METHOD OF DRILLING Hand Auger (Strongarm) DROP - SAMPLED BY KMH LOGGED BY KMH REVIEWED BY JJR DESCRIPTION/INTERPRETATION
-		13:53	B31W-0.5' B31W-1.5' B31W-2.5'				SM	FILL: Medium brown, somewhat dry, loose, micaceous silty SAND. Slightly moist. Moist. Total Depth = 2.5 feet bgs.
-								Groundwater not encountered during drilling. Backfilled with hydrated No. 8 granular bentonite to surface on 9/3/19. Notes: Groundwater, though not encountered at the time of drilling, may rise to a higher level due to seasonal variations in precipitation and several other factors as discussed in the report.
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DEPTH (feet)	Bulk SAMPLES Driven	SAMPLE TIME	SAMPLE ID	PID READING (ppm)	MOISTURE	SYMBOL	CLASSIFICATION U.S.C.S.	DATE DRILLED 9/3/19 BORING NO. AOC1-E-B31N GROUND ELEVATION 61' ± (MSL) SHEET 1 OF 1 METHOD OF DRILLING Hand Auger (Strongarm) DROP - SAMPLED BY KMH LOGGED BY KMH REVIEWED BY JJR DESCRIPTION/INTERPRETATION DROP - - DROP - - DROP - - - DROP -
-		14:02	B31N-0.5' B31N-1.5' B31N-2.5'				SM	FILL: Medium brown, somewhat dry, loose, micaceous silty SAND. Slightly moist. Moist. Total Depth = 2.5 feet bgs.
-								Groundwater not encountered during drilling. Backfilled with hydrated No. 8 granular bentonite to surface on 9/3/19. Notes: Groundwater, though not encountered at the time of drilling, may rise to a higher level
10 -								due to seasonal variations in precipitation and several other factors as discussed in the report. The ground elevation shown above is an estimation only. It is based on our interpretations of published maps and other documents reviewed for the purposes of this evaluation. It is not sufficiently accurate for preparing construction bids and design
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DEPTH (feet)	Bulk SAMPLES Driven	SAMPLE TIME	SAMPLE ID	PID READING (ppm)	MOISTURE	SYMBOL	CLASSIFICATION U.S.C.S.	DATE DRILLED 12/9/19 BORING NO. AOC1-E-B31EE GROUND ELEVATION 71' ± (MSL) SHEET 1 OF 1 METHOD OF DRILLING Hand Auger (Strongarm) DROP - - DRIVE WEIGHT - DROP - - SAMPLED BY LNT LNT REVIEWED BY JJR DESCRIPTION/INTERPRETATION
0 -		09:22	B31EE-0.5' B31EE-1.5' B31EE-2.5'				SM	FILL: Dark brown, slightly moist, loose, micaceous silty SAND.
- - 10 -		-	BOTEL-2.3					Total Depth = 2.5 feet bgs. Groundwater not encountered during drilling. Backfilled with hydrated No. 8 granular bentonite to surface on 12/9/19. Notes: Groundwater, though not encountered at the time of drilling, may rise to a higher level due to seasonal variations in precipitation and several other factors as discussed in the report. The ground elevation shown above is an estimation only. It is based on our interpretations of published maps and other documents reviewed for the purposes of this evaluation. It is not sufficiently accurate for preparing construction bids and design documents.
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	SAMPLES			(md			NO	DATE DRILLED 12/9/19 BORING NO. AOC1-E-B31NE
DEPTH (feet)		SAMPLE TIME	SAMPLE ID	PID READING (ppm)	MOISTURE	SYMBOL	CLASSIFICATION U.S.C.S.	GROUND ELEVATION 71' ± (MSL) SHEET 1 0F 1 METHOD OF DRILLING Hand Auger (Strongarm)
DEP	Bulk	SAMI	SAI	RE	D REA	S	AS9. U.	DRIVE WEIGHT DROP
							Ö	SAMPLED BY LNT LOGGED BY LNT REVIEWED BY JJR DESCRIPTION/INTERPRETATION
0 _		09:23	B31NE-0.5' B31NE-1.5'				SM	FILL: Dark brown, slightly moist, loose, silty SAND.
_		09:25	B31NE-2.5'					Total Depth = 2.5 feet bgs. Groundwater not encountered during drilling. Backfilled with hydrated No. 8 granular bentonite to surface on 12/9/19.
-								Notes: Groundwater, though not encountered at the time of drilling, may rise to a higher level due to seasonal variations in precipitation and several other factors as discussed in the report.
10 -								The ground elevation shown above is an estimation only. It is based on our interpretations of published maps and other documents reviewed for the purposes of this evaluation. It is not sufficiently accurate for preparing construction bids and design documents.
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DEPTH (feet)	Bulk SAMPLES	SAMPLE TIME	SAMPLE ID	PID READING (ppm)	MOISTURE	SYMBOL	CLASSIFICATION U.S.C.S.	DATE DRILLED 5/3/19 BORING NO. AOC1-E-B32 GROUND ELEVATION 59' ± (MSL) SHEET 1 OF 1 METHOD OF DRILLING Hand Auger DROP - - DRIVE WEIGHT - DROP - SAMPLED BY KMH LOGGED BY AUC REVIEWED BY JJR DESCRIPTION/INTERPRETATION
0		9:55 9:57	B32-0.5' B32-1.5'				SM	FILL: Dark brown, dry, medium dense, silty SAND.
10 -		9:58	B32-2.5'					Total Depth = 2.5 feet bgs. Groundwater not encountered during drilling. Backfilled with hydrated No. 8 granular bentonite to surface on 5/1/19. Notes: Groundwater, though not encountered at the time of drilling, may rise to a higher level due to seasonal variations in precipitation and several other factors as discussed in the report. The ground elevation shown above is an estimation only. It is based on our interpretations of published maps and other documents reviewed for the purposes of this evaluation. It is not sufficiently accurate for preparing construction bids and design documents.
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DEPTH (feet)	Bulk SAMPLES Driven	SAMPLE TIME	SAMPLE ID	PID READING (ppm)	MOISTURE	SYMBOL	CLASSIFICATION U.S.C.S.	DATE DRILLED 9/3/19 BORING NO. AOC1-E-B32N GROUND ELEVATION 61' ± (MSL) SHEET 1 OF 1 METHOD OF DRILLING Hand Auger (Strongarm) DROP - SAMPLED BY KMH LOGGED BY KMH REVIEWED BY JJR DESCRIPTION/INTERPRETATION
0			B32N-0.5' B32N-1.5'				SM	FILL: Dark brown, moist, loose, micaceous silty SAND with some clay and roots.
-		- $-$	B32N-2.5'				SP	Medium brown, slightly moist, loose, poorly graded medium SAND. Total Depth = 2.5 feet bgs.
-		_						Groundwater not encountered during drilling. Backfilled with hydrated No. 8 granular bentonite to surface on 9/3/19.
-								Notes: Groundwater, though not encountered at the time of drilling, may rise to a higher level due to seasonal variations in precipitation and several other factors as discussed in
-		-						the report. The ground elevation shown above is an estimation only. It is based on our
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DEPTH (feet)	Bulk SAMPLES Driven	SAMPLE TIME	SAMPLE ID	PID READING (ppm)	MOISTURE	SYMBOL	CLASSIFICATION U.S.C.S.	DATE DRILLED 9/3/19 BORING NO. AOC1-E-B32E GROUND ELEVATION 61' ± (MSL) SHEET 1 OF 1 METHOD OF DRILLING Hand Auger (Strongarm) DROP - SAMPLED BY KMH LOGGED BY KMH REVIEWED BY JJR DESCRIPTION/INTERPRETATION DROP - - DROP - - DROP - - - - DROP -
0			B32E-0.5' B32E-1.5'				SM	FILL: Dark brown, moist, loose, micaceous silty SAND with some roots and trace clay.
-		- $-$	B32E-1.5		_		SP	Medium brown, slightly moist, loose, poorly graded medium SAND. Total Depth = 2.5 feet bgs.
-		-						Groundwater not encountered during drilling. Backfilled with hydrated No. 8 granular bentonite to surface on 9/3/19.
-								Notes: Groundwater, though not encountered at the time of drilling, may rise to a higher level due to seasonal variations in precipitation and several other factors as discussed in the report.
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DEPTH (feet)	Bulk SAMPLES Driven	SAMPLE TIME	SAMPLE ID	PID READING (ppm)	MOISTURE	SYMBOL	CLASSIFICATION U.S.C.S.	DATE DRILLED 9/3/19 BORING NO. AOC1-E-B32W GROUND ELEVATION 61' ± (MSL) SHEET 1 OF 1 METHOD OF DRILLING Hand Auger (Strongarm) DROP - SAMPLED BY KMH LOGGED BY KMH REVIEWED BY JJR DESCRIPTION/INTERPRETATION
0			B32W-0.5' B32W-1.5'				SM	FILL: Medium brown, somewhat dry, loose, micaceous silty SAND with some roots.
-		11:41	B32W-2.5'				SP	Medium brown, slightly moist, loose, poorly graded medium SAND. Total Depth = 2.5 feet bgs.
-		_						Groundwater not encountered during drilling. Backfilled with hydrated No. 8 granular bentonite to surface on 9/3/19.
-								Notes: Groundwater, though not encountered at the time of drilling, may rise to a higher level due to seasonal variations in precipitation and several other factors as discussed in the report.
10 -		-						The ground elevation shown above is an estimation only. It is based on our interpretations of published maps and other documents reviewed for the purposes of this evaluation. It is not sufficiently accurate for preparing construction bids and design documents.
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DEPTH (feet)	Bulk SAMPLES Driven	SAMPLE TIME	SAMPLE ID	PID READING (ppm)	MOISTURE	SYMBOL	CLASSIFICATION U.S.C.S.	DATE DRILLED 5/3/19 BORING NO. AOC1-E-B33 GROUND ELEVATION 59' ± (MSL) SHEET 1 OF 1 METHOD OF DRILLING Hand Auger DROP - - DRIVE WEIGHT - DROP - SAMPLED BY KMH LOGGED BY AUC REVIEWED BY JJR DESCRIPTION/INTERPRETATION
0		10:00 10:05 10:07	B33-0.5' B33-1.5' B33-2.5'				SM	FILL: Medium brown, dry, medium dense, silty SAND.
- - 10 - -			300 2.0					Total Depth = 2.5 feet bgs. Groundwater not encountered during drilling. Backfilled with hydrated No. 8 granular bentonite to surface on 5/1/19. Notes: Groundwater, though not encountered at the time of drilling, may rise to a higher level due to seasonal variations in precipitation and several other factors as discussed in the report. The ground elevation shown above is an estimation only. It is based on our interpretations of published maps and other documents reviewed for the purposes of this evaluation. It is not sufficiently accurate for preparing construction bids and design documents.
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	Bulk SAMPLES Driven		SAMPLE ID	PID READING (ppm)	MOISTURE	SYMBOL	CLASSIFICATION U.S.C.S.	DATE DRILLED 9/3/19 BORING NO. AOC1-E-B33N GROUND ELEVATION 59' ± (MSL) SHEET 1 OF 1 METHOD OF DRILLING Hand Auger (Strongarm) DROP - DRIVE WEIGHT - DROP - SAMPLED BY KMH LOGGED BY KMH REVIEWED BY JJR DESCRIPTION/INTERPRETATION
0 -		11:29	B33N-0.5' B33N-1.5' B33N-2.5'				SM	FILL: Medium brown, somewhat dry, loose, micaceous silty SAND with some roots.
- - - 10 –								Total Depth = 2.5 feet bgs. Groundwater not encountered during drilling. Backfilled with hydrated No. 8 granular bentonite to surface on 9/3/19. Notes: Groundwater, though not encountered at the time of drilling, may rise to a higher level due to seasonal variations in precipitation and several other factors as discussed in the report. The ground elevation shown above is an estimation only. It is based on our interpretations of published maps and other documents reviewed for the purposes of
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DEPTH (feet)	Bulk SAMPLES Driven	SAMPLE TIME	SAMPLE ID	PID READING (ppm)	MOISTURE	SYMBOL	CLASSIFICATION U.S.C.S.	DATE DRILLED 9/3/19 BORING NO. AOC1-E-B33E GROUND ELEVATION 59' ± (MSL) SHEET 1 OF 1 METHOD OF DRILLING Hand Auger (Strongarm) DROP - SAMPLED BY KMH LOGGED BY KMH REVIEWED BY JJR DESCRIPTION/INTERPRETATION
0		11:18	B33E-0.5' B33E-1.5' B33E-2.5'				SM	FILL: Medium brown, somewhat dry, loose, micaceous silty SAND with some roots.
10 -		11.20	D33E-2.5					Total Depth = 2.5 feet bgs. Groundwater not encountered during drilling. Backfilled with hydrated No. 8 granular bentonite to surface on 9/3/19. Notes: Groundwater, though not encountered at the time of drilling, may rise to a higher level due to seasonal variations in precipitation and several other factors as discussed in the report. The ground elevation shown above is an estimation only. It is based on our interpretations of published maps and other documents reviewed for the purposes of this evaluation. It is not sufficiently accurate for preparing construction bids and design documents.
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	Bulk SAMPLES		SAMPLE ID	PID READING (ppm)	MOISTURE	SYMBOL	CLASSIFICATION U.S.C.S.	DATE DRILLED 9/3/19 BORING NO. AOC1-E-B33S GROUND ELEVATION 59' ± (MSL) SHEET 1 OF 1 METHOD OF DRILLING Hand Auger (Strongarm) DROP - - DRIVE WEIGHT - DROP - SAMPLED BY KMH LOGGED BY KMH REVIEWED BY JJR DESCRIPTION/INTERPRETATION
0 -		11:10	B33S-0.5' B33S-1.5' B33S-2.5'				SM	FILL: Medium brown, somewhat dry, loose, micaceous silty SAND with some roots. Some caliche.
-								Total Depth = 2.5 feet bgs. Groundwater not encountered during drilling. Backfilled with hydrated No. 8 granular bentonite to surface on 9/3/19. Notes: Groundwater, though not encountered at the time of drilling, may rise to a higher level due to seasonal variations in precipitation and several other factors as discussed in the report.
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DEPTH (feet)		SAMPLE TIME	SAMPLE ID	PID READING (ppm)	MOISTURE	SYMBOL	CLASSIFICATION U.S.C.S.	GROUND ELEVATION 71' ± (MSL) SHEET 1 0F 1 METHOD OF DRILLING Hand Auger (Strongarm)
DEP	Bulk	SAME	SAN	REA	MO	S	ASS U.	DRIVE WEIGHT DROP
				OIA			10	SAMPLED BY LNT LOGGED BY LNT REVIEWED BY JJR DESCRIPTION/INTERPRETATION
0		09:32	B33EE-0.5' B33EE-1.5'				SM	FILL: Medium brown, slightly moist, loose, micaceous silty SAND.
-		09:33	B33EE-2.5'					Total Depth = 2.5 feet bgs. Groundwater not encountered during drilling. Backfilled with hydrated No. 8 granular bentonite to surface on 12/9/19.
								Notes: Groundwater, though not encountered at the time of drilling, may rise to a higher level due to seasonal variations in precipitation and several other factors as discussed in the report.
10 -								The ground elevation shown above is an estimation only. It is based on our interpretations of published maps and other documents reviewed for the purposes of this evaluation. It is not sufficiently accurate for preparing construction bids and design documents.
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	Bulk SAMPLES		SAMPLE ID	PID READING (ppm)	MOISTURE	SYMBOL	CLASSIFICATION U.S.C.S.	DATE DRILLED 12/9/19 BORING NO. AOC1-E-B33NE GROUND ELEVATION 71' ± (MSL) SHEET 1 OF 1 METHOD OF DRILLING Hand Auger (Strongarm) DROP - - DRIVE WEIGHT - DROP - SAMPLED BY LNT LOGGED BY LNT REVIEWED BY JJR DESCRIPTION/INTERPRETATION
0 -		09:35	B33NE-0.5' B33NE-1.5' B33NE-2.5'				SM	FILL: Dark brown, slightly moist, loose, micaceous silty SAND. Total Depth = 2.5 feet bgs.
-								Groundwater not encountered during drilling. Backfilled with hydrated No. 8 granular bentonite to surface on 12/9/19. Notes: Groundwater, though not encountered at the time of drilling, may rise to a higher level due to seasonal variations in precipitation and several other factors as discussed in the report.
10 -								The ground elevation shown above is an estimation only. It is based on our interpretations of published maps and other documents reviewed for the purposes of this evaluation. It is not sufficiently accurate for preparing construction bids and design documents.
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DEPTH (feet)	Bulk SAMPLES		SAMPLE ID	PID READING (ppm)	MOISTURE	SYMBOL	CLASSIFICATION U.S.C.S.	DATE DRILLED 12/9/19 BORING NO. AOC1-E-B33SE GROUND ELEVATION 71' ± (MSL) SHEET 1 OF 1 METHOD OF DRILLING Hand Auger (Strongarm) DROP - SAMPLED BY AUC REVIEWED BY JJR DESCRIPTION/INTERPRETATION DESCRIPTION/INTERPRETATION AOC1-E-B33SE AOC1-E-B33SE
0			B33SE-0.5' B33SE-1.5'				SM	FILL: Dark brown, moist, loose, silty SAND.
- - 10 - -		09:35	B33SE-2.5'					Total Depth = 2.5 feet bgs. Groundwater not encountered during drilling. Backfilled with hydrated No. 8 granular bentonite to surface on 12/9/19. Notes: Groundwater, though not encountered at the time of drilling, may rise to a higher level due to seasonal variations in precipitation and several other factors as discussed in the report. The ground elevation shown above is an estimation only. It is based on our interpretations of published maps and other documents reviewed for the purposes of this evaluation. It is not sufficiently accurate for preparing construction bids and design documents.
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DEPTH (feet)	Bulk SAMPLES Driven	SAMPLE TIME	SAMPLE ID	PID READING (ppm)	MOISTURE	SYMBOL	CLASSIFICATION U.S.C.S.	DATE DRILLED 12/9/19 BORING NO. AOC1-E-B33SS GROUND ELEVATION 71' ± (MSL) SHEET 1 OF 1 METHOD OF DRILLING Hand Auger (Strongarm) DROP - SAMPLED BY AUC REVIEWED BY JJR DESCRIPTION/INTERPRETATION DESCRIPTION/INTERPRETATION AOC1-E-B33SS AOC1-E-B33SS
10 -		09:40	B33SS-0.5' B33SS-1.5' B33SS-2.5'				SM	FILL: Dark brown, moist, loose, micaceous silty SAND. Total Depth = 2.5 feet bgs. Groundwater not encountered during drilling. Backfilled with hydrated No. 8 granular bentonite to surface on 12/9/19. Notes: Groundwater, though not encountered at the time of drilling, may rise to a higher level due to seasonal variations in precipitation and several other factors as discussed in the report. The ground elevation shown above is an estimation only. It is based on our interpretations of published maps and other documents reviewed for the purposes of this evaluation. It is not sufficiently accurate for preparing construction bids and design documents.
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DEPTH (feet)	Bulk SAMPLES Driven	SAMPLE TIME	SAMPLE ID	PID READING (ppm)	MOISTURE	SYMBOL	CLASSIFICATION U.S.C.S.	DATE DRILLED 5/3/19 BORING NO. AOC1-E-B34 GROUND ELEVATION 59' ± (MSL) SHEET 1 OF 1 METHOD OF DRILLING Hand Auger DROP - - DRIVE WEIGHT - DROP - SAMPLED BY KMH LOGGED BY AUC REVIEWED BY JJR DESCRIPTION/INTERPRETATION
0		10:12 10:15					SM	FILL: Medium brown, dry, medium dense, silty SAND.
10 -		10:17						Total Depth = 2.5 feet bgs. Groundwater not encountered during drilling. Backfilled with hydrated No. 8 granular bentonite to surface on 5/1/19. Notes: Groundwater, though not encountered at the time of drilling, may rise to a higher level due to seasonal variations in precipitation and several other factors as discussed in the report. The ground elevation shown above is an estimation only. It is based on our interpretations of published maps and other documents reviewed for the purposes of this evaluation. It is not sufficiently accurate for preparing construction bids and design documents.
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	Bulk SAMPLES		SAMPLE ID	PID READING (ppm)	MOISTURE	SYMBOL	CLASSIFICATION U.S.C.S.	DATE DRILLED 9/3/19 BORING NO. AOC1-E-B34N GROUND ELEVATION 59' ± (MSL) SHEET 1 OF 1 METHOD OF DRILLING Hand Auger (Strongarm) DROP - SAMPLED BY KMH LOGGED BY KMH REVIEWED BY JJR DESCRIPTION/INTERPRETATION DROP - DR
0 -		11:03	B34N-0.5' B34N-1.5' B34N-2.5'				SM	FILL: Medium brown, somewhat dry, loose, micaceous silty SAND with some roots.
- - 10 - -								Total Depth = 2.5 feet bgs. Groundwater not encountered during drilling. Backfilled with hydrated No. 8 granular bentonite to surface on 9/3/19. Notes: Groundwater, though not encountered at the time of drilling, may rise to a higher level due to seasonal variations in precipitation and several other factors as discussed in the report. The ground elevation shown above is an estimation only. It is based on our interpretations of published maps and other documents reviewed for the purposes of this evaluation. It is not sufficiently accurate for preparing construction bids and design documents.
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DEPTH (feet)	Bulk SAMPLES Driven	SAMPLE TIME	SAMPLE ID	PID READING (ppm)	MOISTURE	SYMBOL	CLASSIFICATION U.S.C.S.	DATE DRILLED 9/3/19 BORING NO. AOC1-E-B34E GROUND ELEVATION 59' ± (MSL) SHEET 1 OF 1 METHOD OF DRILLING Hand Auger (Strongarm) DROP - - DRIVE WEIGHT - DROP - - SAMPLED BY KMH LOGGED BY KMH REVIEWED BY JJR DESCRIPTION/INTERPRETATION
0			B34E-0.5' B34E-1.5'				SM	FILL: Dark brown, slightly moist, loose, micaceous silty SAND with some roots.
10 -		10:54	B34E-2.5'					Total Depth = 2.5 feet bgs. Groundwater not encountered during drilling. Backfilled with hydrated No. 8 granular bentonite to surface on 9/3/19. Notes: Groundwater, though not encountered at the time of drilling, may rise to a higher level due to seasonal variations in precipitation and several other factors as discussed in the report. The ground elevation shown above is an estimation only. It is based on our interpretations of published maps and other documents reviewed for the purposes of this evaluation. It is not sufficiently accurate for preparing construction bids and design documents.
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DEPTH (feet)	Bulk SAMPLES Driven	SAMPLE TIME	SAMPLE ID	PID READING (ppm)	MOISTURE	SYMBOL	CLASSIFICATION U.S.C.S.	DATE DRILLED 9/3/19 BORING NO. AOC1-E-B34S GROUND ELEVATION 59' ± (MSL) SHEET 1 OF 1 METHOD OF DRILLING Hand Auger (Strongarm) DROP - SAMPLED BY KMH LOGGED BY KMH REVIEWED BY JJR DESCRIPTION/INTERPRETATION
0			B34S-0.5' B34S-1.5'				SM	FILL: Dark brown, moist, loose, micaceous silty SAND with some roots.
10 -		09:50	B34S-2.5'					Total Depth = 2.5 feet bgs. Groundwater not encountered during drilling. Backfilled with hydrated No. 8 granular bentonite to surface on 9/3/19. Notes: Groundwater, though not encountered at the time of drilling, may rise to a higher level due to seasonal variations in precipitation and several other factors as discussed in the report. The ground elevation shown above is an estimation only. It is based on our interpretations of published maps and other documents reviewed for the purposes of this evaluation. It is not sufficiently accurate for preparing construction bids and design documents.
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	Bulk SAMPLES Driven		SAMPLE ID	PID READING (ppm)	MOISTURE	SYMBOL	CLASSIFICATION U.S.C.S.	DATE DRILLED 12/9/19 BORING NO. AOC1-E-B34NE GROUND ELEVATION 71' ± (MSL) SHEET 1 OF 1 METHOD OF DRILLING Hand Auger (Strongarm) DROP - - DRIVE WEIGHT - DROP - SAMPLED BY LNT LOGGED BY LNT REVIEWED BY JJR DESCRIPTION/INTERPRETATION
0 -		09:40	B34NE-0.5' B34NE-1.5' B34NE-2.5'				SM	FILL: Dark brown, slightly moist, loose, micaceous silty SAND with some roots.
-								Total Depth = 2.5 feet bgs. Groundwater not encountered during drilling. Backfilled with hydrated No. 8 granular bentonite to surface on 12/9/19. Notes: Groundwater, though not encountered at the time of drilling, may rise to a higher level due to seasonal variations in precipitation and several other factors as discussed in the report.
10								The ground elevation shown above is an estimation only. It is based on our interpretations of published maps and other documents reviewed for the purposes of this evaluation. It is not sufficiently accurate for preparing construction bids and design documents.
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DEPTH (feet)	Bulk SAMPLES Driven		SAMPLE ID	PID READING (ppm)	MOISTURE	SYMBOL	CLASSIFICATION U.S.C.S.	DATE DRILLED 12/9/19 BORING NO. AOC1-E-B34NN GROUND ELEVATION 71' ± (MSL) SHEET 1 OF 1 METHOD OF DRILLING Hand Auger (Strongarm) DRIVE WEIGHT - DROP - SAMPLED BY LNT LOGGED BY LNT REVIEWED BY JJR DESCRIPTION/INTERPRETATION
0 -		09:45	B34NN-0.5' B34NN-1.5' B34NN-2.5'				SM	FILL: Dark brown, slightly moist, loose, micaceous silty SAND with some roots. Total Depth = 2.5 feet bgs.
-								Groundwater not encountered during drilling. Backfilled with hydrated No. 8 granular bentonite to surface on 12/9/19. Notes: Groundwater, though not encountered at the time of drilling, may rise to a higher level due to seasonal variations in precipitation and several other factors as discussed in the report.
10		-						The ground elevation shown above is an estimation only. It is based on our interpretations of published maps and other documents reviewed for the purposes of this evaluation. It is not sufficiently accurate for preparing construction bids and design documents.
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DEPTH (feet)	Bulk Driven	SAMPLE TIME	SAMPLE ID	PID READING (ppm)	MOISTURE	SYMBOL	CLASSIFICATION U.S.C.S.	DATE DRILLED 5/3/19 BORING NO. AOC1-E-B35 GROUND ELEVATION 59' ± (MSL) SHEET 1 OF 1 METHOD OF DRILLING Hand Auger DROP - - DRIVE WEIGHT - DROP - SAMPLED BY KMH LOGGED BY AUC REVIEWED BY JJR DESCRIPTION/INTERPRETATION
0		10:25 10:28	B35-0.5' B35-1.5'				SM	FILL: Dark brown, dry, medium dense, silt SAND.
		10:31	B35-1.5					Slightly moist.
10 -								Total Depth = 2.5 feet bgs. Groundwater not encountered during drilling. Backfilled with hydrated No. 8 granular bentonite to surface on 5/1/19. Notes: Groundwater, though not encountered at the time of drilling, may rise to a higher level due to seasonal variations in precipitation and several other factors as discussed in the report. The ground elevation shown above is an estimation only. It is based on our interpretations of published maps and other documents reviewed for the purposes of this evaluation. It is not sufficiently accurate for preparing construction bids and design documents.
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DEPTH (feet)	Bulk SAMPLES Driven	SAMPLE TIME	SAMPLE ID	PID READING (ppm)	MOISTURE	SYMBOL	CLASSIFICATION U.S.C.S.	DATE DRILLED 5/3/19 BORING NO. AOC1-E-B36 GROUND ELEVATION 59' ± (MSL) SHEET 1 OF 1 METHOD OF DRILLING Hand Auger DRIVE WEIGHT DROP
0		10:40 10:42 10:45	B36-0.5' B36-1.5' B36-2.5'				SM	FILL: Dark brown, dry, medium dense, silt SAND.
- - 10 -								Total Depth = 2.5 feet bgs. Groundwater not encountered during drilling. Backfilled with hydrated No. 8 granular bentonite to surface on 5/1/19. Notes: Groundwater, though not encountered at the time of drilling, may rise to a higher level due to seasonal variations in precipitation and several other factors as discussed in the report. The ground elevation shown above is an estimation only. It is based on our interpretations of published maps and other documents reviewed for the purposes of this evaluation. It is not sufficiently accurate for preparing construction bids and design documents.
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Decreasing clay. O9:36 B36W-2.5' Total Depth = 2.5 feet bgs. Groundwater not encountered during drilling. Backfilled with hydrated No. 8 granular bentonite to surface on 9/3/19. Notes: Groundwater, though not encountered at the time of drilling, may rise to a high due to seasonal variations in precipitation and several other factors as discuss the report. The ground elevation shown above is an estimation only. It is based on our interpretations of published maps and other documents reviewed for the purpose.	DEPTH (feet)	Bulk SAMPLES Driven		SAMPLE ID	PID READING (ppm)	MOISTURE	SYMBOL	CLASSIFICATION U.S.C.S.	DATE DRILLED 9/3/19 BORING NO. AOC1-E-B36W GROUND ELEVATION 58' ± (MSL) SHEET 1 OF 1 METHOD OF DRILLING Hand Auger (Strongarm) DROP -
Total Depth = 2.5 feet bgs. Groundwater not encountered during drilling. Backfilled with hydrated No. 8 granular bentonite to surface on 9/3/19. Notes: Groundwater, though not encountered at the time of drilling, may rise to a high due to seasonal variations in precipitation and several other factors as discuss the report. The ground elevation shown above is an estimation only. It is based on our interpretations of published maps and other documents reviewed for the purpor this evaluation. It is not sufficiently accurate for preparing construction bids an documents.	0		09:34	B36W-1.5'				SM	Very dark brown, moist, loose, micaceous silty SAND with some clay and roots.
	10 -		09:36	B36W-2.5'					Total Depth = 2.5 feet bgs. Groundwater not encountered during drilling. Backfilled with hydrated No. 8 granular bentonite to surface on 9/3/19. Notes: Groundwater, though not encountered at the time of drilling, may rise to a higher level due to seasonal variations in precipitation and several other factors as discussed in the report. The ground elevation shown above is an estimation only. It is based on our interpretations of published maps and other documents reviewed for the purposes of this evaluation. It is not sufficiently accurate for preparing construction bids and design
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DEPTH (feet)	Bulk SAMPLES Driven	SAMPLE TIME	SAMPLE ID	PID READING (ppm)	MOISTURE	SYMBOL	CLASSIFICATION U.S.C.S.	DATE DRILLED 9/3/19 BORING NO. AOC1-E-B36S GROUND ELEVATION 58' ± (MSL) SHEET 1 OF 1 METHOD OF DRILLING Hand Auger (Strongarm) DROP - - DRIVE WEIGHT - DROP - - SAMPLED BY KMH LOGGED BY KMH REVIEWED BY JJR DESCRIPTION/INTERPRETATION
0		09:10 09:13	B36S-0.5' B36S-1.5' B36S-2.5'	QIA			SM	
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DEPTH (feet)	Bulk SAMPLES Driven		SAMPLE ID	PID READING (ppm)	MOISTURE	SYMBOL	CLASSIFICATION U.S.C.S.	DATE DRILLED 9/3/19 BORING NO. AOC1-E-B36E GROUND ELEVATION 58' ± (MSL) SHEET 1 OF 1 METHOD OF DRILLING Hand Auger (Strongarm) DROP - - DRIVE WEIGHT - DROP - - SAMPLED BY KMH LOGGED BY KMH REVIEWED BY JJR DESCRIPTION/INTERPRETATION - - - -
0			B36E-0.5' B36E-1.5'				SM	FILL: Dark brown, moist, loose, micaceous silty SAND with some roots and trace clay.
-			B36E-2.5'					Increasing clay. No clay. Total Depth = 2.5 feet bgs.
-		-						Groundwater not encountered during drilling. Backfilled with hydrated No. 8 granular bentonite to surface on 9/3/19.
-								Notes: Groundwater, though not encountered at the time of drilling, may rise to a higher level due to seasonal variations in precipitation and several other factors as discussed in the report.
10 -		-						The ground elevation shown above is an estimation only. It is based on our interpretations of published maps and other documents reviewed for the purposes of
-		-						this evaluation. It is not sufficiently accurate for preparing construction bids and design documents.
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DEPTH (feet)	Bulk SAMPLES		SAMPLE ID	PID READING (ppm)	MOISTURE	SYMBOL	CLASSIFICATION U.S.C.S.	DATE DRILLED 12/9/19 BORING NO. AOC1-E-B36SE GROUND ELEVATION 71' ± (MSL) SHEET 1 OF 1 METHOD OF DRILLING Hand Auger (Strongarm) DROP - SAMPLED BY AUC REVIEWED BY JJR DESCRIPTION/INTERPRETATION DESCRIPTION/INTERPRETATION AOC1-E-B36SE AOC1-E-B36SE
0			B36SE-0.5' B36SE-1.5'				SM	FILL: Dark brown, moist, loose, silty SAND.
10 -		09:53	B36SE-2.5'					Total Depth = 2.5 feet bgs. Groundwater not encountered during drilling. Backfilled with hydrated No. 8 granular bentonite to surface on 12/9/19. Notes: Groundwater, though not encountered at the time of drilling, may rise to a higher level due to seasonal variations in precipitation and several other factors as discussed in the report. The ground elevation shown above is an estimation only. It is based on our interpretations of published maps and other documents reviewed for the purposes of this evaluation. It is not sufficiently accurate for preparing construction bids and design documents.
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DEPTH (feet)		SAMPLE TIME	SAMPLE ID	PID READING (ppm)	MOISTURE	SYMBOL	CLASSIFICATION U.S.C.S.	GROUND ELEVATION 59' ± (MSL) SHEET 1 OF 1 METHOD OF DRILLING Hand Auger
DEP	Bulk	SAME	SAN	REA	MO	SY	_ASS U.	DRIVE WEIGHT DROP
				PIC				SAMPLED BY KMH LOGGED BY AUC REVIEWED BY JJR DESCRIPTION/INTERPRETATION
0		8:05 8:57 8:59	B37-0.5' B37-1.5' B37-2.5'				SM	FILL: Medium brown, very dry, medium dense, silty SAND.
		0.59	<u> </u>					Total Depth = 2.5 feet bgs. Groundwater not encountered during drilling. Backfilled with hydrated No. 8 granular bentonite to surface on 5/1/19.
								Notes: Groundwater, though not encountered at the time of drilling, may rise to a higher level due to seasonal variations in precipitation and several other factors as discussed in the report.
10 -		_						The ground elevation shown above is an estimation only. It is based on our interpretations of published maps and other documents reviewed for the purposes of this evaluation. It is not sufficiently accurate for preparing construction bids and design documents.
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DEPTH (feet)	Bulk SAMPLES Driven	SAMPLE TIME	SAMPLE ID	PID READING (ppm)	MOISTURE	SYMBOL	CLASSIFICATION U.S.C.S.	DATE DRILLED 9/5/19 BORING NO. AOC1-E-B37E GROUND ELEVATION 59' ± (MSL) SHEET 1 OF 1 METHOD OF DRILLING Hand Auger (Strongarm) DROP - SAMPLED BY KMH LOGGED BY KMH REVIEWED BY JJR DESCRIPTION/INTERPRETATION DROP - - DROP - - DROP - - - DROP -
0			B37E-0.5' B37E-1.5'					FILL: Dark brown, dry, loose, micaceous silty SAND with some roots.
10 -			B37E-2.5'					Medium brown, slightly moist, loose, poorly graded medium SAND. Total Depth = 2.5 feet bgs. Groundwater not encountered during drilling. Backfilled with No. 8 granular bentonite to surface on 9/5/19. Notes: Groundwater, though not encountered at the time of drilling, may rise to a higher level due to seasonal variations in precipitation and several other factors as discussed in the report. The ground elevation shown above is an estimation only. It is based on our interpretations of published maps and other documents reviewed for the purposes of this evaluation. It is not sufficiently accurate for preparing construction bids and design documents.
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DEPTH (feet)	Bulk SAMPLES Driven	SAMPLE TIME	SAMPLE ID	PID READING (ppm)	MOISTURE	SYMBOL	CLASSIFICATION U.S.C.S.	DATE DRILLED 9/5/19 BORING NO. AOC1-E-B37N GROUND ELEVATION 59' ± (MSL) SHEET 1 OF 1 METHOD OF DRILLING Hand Auger (Strongarm) DROP - - DRIVE WEIGHT - DROP - SAMPLED BY KMH LOGGED BY KMH REVIEWED BY JJR DESCRIPTION/INTERPRETATION
0			B37N-0.5' B37N-1.5'				SM	FILL: Dark brown, dry, loose, micaceous silty SAND.
-		\vdash $ -$	B37N-2.5'				SP	Medium brown, dry, loose, poorly graded medium SAND. Total Depth = 2.5 feet bgs.
-								Groundwater not encountered during drilling. Backfilled with No. 8 granular bentonite to surface on 9/5/19.
-		_						Notes: Groundwater, though not encountered at the time of drilling, may rise to a higher level due to seasonal variations in precipitation and several other factors as discussed in the report.
10 -		-						The ground elevation shown above is an estimation only. It is based on our interpretations of published maps and other documents reviewed for the purposes of this evaluation. It is not sufficiently accurate for preparing construction bids and design documents.
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DEPTH (feet)	Bulk SAMPLES Driven	SAMPLE TIME	SAMPLE ID	PID READING (ppm)	MOISTURE	SYMBOL	CLASSIFICATION U.S.C.S.	DATE DRILLED 9/5/19 BORING NO. AOC1-E-B37W GROUND ELEVATION 59' ± (MSL) SHEET 1 OF 1 METHOD OF DRILLING Hand Auger (Strongarm) DROP - SAMPLED BY KMH LOGGED BY KMH REVIEWED BY JJR DESCRIPTION/INTERPRETATION
0 -		09:13	B37W-0.5' B37W-1.5' B37W-2.5'				SM — SP	FILL: Dark brown, dry, loose, micaceous silty SAND. Medium brown, dry, loose, poorly graded medium SAND.
-		-						Total Depth = 2.5 feet bgs. Groundwater not encountered during drilling. Backfilled with No. 8 granular bentonite to surface on 9/5/19. Notes: Groundwater, though not encountered at the time of drilling, may rise to a higher
_		-						level due to seasonal variations in precipitation and several other factors as discussed in the report.
10 -		_						The ground elevation shown above is an estimation only. It is based on our interpretations of published maps and other documents reviewed for the purposes of this evaluation. It is not sufficiently accurate for preparing construction bids and design documents.
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DEPTH (feet)	Bulk SAMPLES	SAMPLE TIME	SAMPLE ID	PID READING (ppm)	MOISTURE	SYMBOL	CLASSIFICATION U.S.C.S.	DATE DRILLED 5/3/19 BORING NO. AOC1-E-B38 GROUND ELEVATION 58' ± (MSL) SHEET 1 OF 1 METHOD OF DRILLING Hand Auger DRIVE WEIGHT
0		8:48 8:50	B38-0.5' B38-1.5'				SM	FILL: Medium brown, dry, medium dense, silty SAND.
10 -		8:53	B38-2.5'					Total Depth = 2.5 feet bgs. Groundwater not encountered during drilling. Backfilled with hydrated No. 8 granular bentonite to surface on 5/1/19. Notes: Groundwater, though not encountered at the time of drilling, may rise to a higher level due to seasonal variations in precipitation and several other factors as discussed in the report. The ground elevation shown above is an estimation only. It is based on our interpretations of published maps and other documents reviewed for the purposes of this evaluation. It is not sufficiently accurate for preparing construction bids and design documents.
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DEPTH (feet)	Bulk SAMPLES Driven	SAMPLE TIME	SAMPLE ID	PID READING (ppm)	MOISTURE	SYMBOL	CLASSIFICATION U.S.C.S.	DATE DRILLED 9/5/19 BORING NO. AOC1-E-B38N GROUND ELEVATION 58' ± (MSL) SHEET 1 OF 1 METHOD OF DRILLING Hand Auger (Strongarm) DROP - SAMPLED BY KMH LOGGED BY KMH REVIEWED BY JJR DESCRIPTION/INTERPRETATION
0		08:53	B38N-0.5' B38N-1.5' B38N-2.5'				SM	FILL: Dark brown, dry, loose, micaceous silty SAND. Rounded gravel fragment; approximately 3 inch diameter.
- - 10 - -		06.55	B36N-2.5					Total Depth = 2.5 feet bgs. Groundwater not encountered during drilling. Backfilled with No. 8 granular bentonite to surface on 9/5/19. Notes: Groundwater, though not encountered at the time of drilling, may rise to a higher level due to seasonal variations in precipitation and several other factors as discussed in the report. The ground elevation shown above is an estimation only. It is based on our interpretations of published maps and other documents reviewed for the purposes of this evaluation. It is not sufficiently accurate for preparing construction bids and design documents.
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DEPTH (feet)	Bulk SAMPLES Driven	SAMPLE TIME	SAMPLE ID	PID READING (ppm)	MOISTURE	SYMBOL	CLASSIFICATION U.S.C.S.	DATE DRILLED 9/5/19 BORING NO. AOC1-E-B38E GROUND ELEVATION 58' ± (MSL) SHEET 1 OF 1 METHOD OF DRILLING Hand Auger (Strongarm) DROP - - DRIVE WEIGHT - DROP - SAMPLED BY KMH LOGGED BY KMH REVIEWED BY JJR DESCRIPTION/INTERPRETATION
0			B38E-0.5' B38E-1.5'				SM	FILL: Dark brown, dry, loose, micaceous silty SAND.
10 -			B38E-2.5'				SP	Medium brown, slightly moist, loose, poorly graded medium SAND. Total Depth = 2.5 feet bgs. Groundwater not encountered during drilling. Backfilled with No. 8 granular bentonite to surface on 9/5/19. Notes: Groundwater, though not encountered at the time of drilling, may rise to a higher level due to seasonal variations in precipitation and several other factors as discussed in the report. The ground elevation shown above is an estimation only. It is based on our interpretations of published maps and other documents reviewed for the purposes of this evaluation. It is not sufficiently accurate for preparing construction bids and design documents.
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DEPTH (feet)	Bulk SAMPLES Driven	SAMPLE TIME	SAMPLE ID	PID READING (ppm)	MOISTURE	SYMBOL	CLASSIFICATION U.S.C.S.	DATE DRILLED 9/5/19 BORING NO. AOC1-E-B38S GROUND ELEVATION 58' ± (MSL) SHEET 1 OF 1 METHOD OF DRILLING Hand Auger (Strongarm) DROP - SAMPLED BY KMH LOGGED BY KMH REVIEWED BY JJR DESCRIPTION/INTERPRETATION
0			B38S-0.5' B38S-1.5'				SM	FILL: Dark brown, dry, loose, micaceous silty SAND.
-			B38S-2.5'				SP	Medium brown, slightly moist, loose, poorly graded medium SAND. Total Depth = 2.5 feet bgs.
-		-						Groundwater not encountered during drilling. Backfilled with No. 8 granular bentonite to surface on 9/5/19.
-								Notes: Groundwater, though not encountered at the time of drilling, may rise to a higher level due to seasonal variations in precipitation and several other factors as discussed in the report.
10 -		_						The ground elevation shown above is an estimation only. It is based on our interpretations of published maps and other documents reviewed for the purposes of this evaluation. It is not sufficiently accurate for preparing construction bids and design documents.
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DEPTH (feet)	Bulk SAMPLES	SAMPLE TIME	SAMPLE ID	PID READING (ppm)	MOISTURE	SYMBOL	CLASSIFICATION U.S.C.S.	DATE DRILLED 5/3/19 BORING NO. AOC1-E-B39 GROUND ELEVATION 58' ± (MSL) SHEET 1 OF 1 METHOD OF DRILLING Hand Auger DROP - - DRIVE WEIGHT - DROP - SAMPLED BY KMH LOGGED BY AUC REVIEWED BY JJR DESCRIPTION/INTERPRETATION
0		8:40 8:43	B39-0.5' B39-1.5'				SM	ALLUVIUM: Medium brown, dry, medium dense, silty SAND.
10 -		8:45	B39-2.5'					Total Depth = 2.5 feet bgs. Groundwater not encountered during drilling. Backfilled with hydrated No. 8 granular bentonite to surface on 5/1/19. Notes: Groundwater, though not encountered at the time of drilling, may rise to a higher level due to seasonal variations in precipitation and several other factors as discussed in the report. The ground elevation shown above is an estimation only. It is based on our interpretations of published maps and other documents reviewed for the purposes of this evaluation. It is not sufficiently accurate for preparing construction bids and design documents.
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DEPTH (feet)	Bulk SAMPLES	SAMPLE TIME	SAMPLE ID	PID READING (ppm)	MOISTURE	SYMBOL	CLASSIFICATION U.S.C.S.	DATE DRILLED 9/5/19 BORING NO. AOC1-E-B39E GROUND ELEVATION 58' ± (MSL) SHEET 1 OF 1 METHOD OF DRILLING Hand Auger (Strongarm) DROP - SAMPLED BY KMH LOGGED BY KMH REVIEWED BY JJR DESCRIPTION/INTERPRETATION
20 -		08:27 08:29 08:30	B39E-0.5' DUP-37 B39E-1.5' B39E-2.5'				SM SP	EILL: Dark brown, dry, loose, micaceous silty SAND. Slightly moist. Medium brown, slightly moist, loose, poorly graded medium SAND. Total Depth = 2.5 feet bgs. Groundwater not encountered during drilling. Backfilled with No. 8 granular bentonite to surface on 9/5/19. Notes: Groundwater, though not encountered at the time of drilling, may rise to a higher level due to seasonal variations in precipitation and several other factors as discussed in the report. The ground elevation shown above is an estimation only. It is based on our interpretations of published maps and other documents reviewed for the purposes of this evaluation. It is not sufficiently accurate for preparing construction bids and design documents.



DEPTH (feet)	Bulk SAMPLES Driven	SAMPLE TIME	SAMPLE ID	PID READING (ppm)	MOISTURE	SYMBOL	CLASSIFICATION U.S.C.S.	DATE DRILLED 9/5/19 BORING NO. AOC1-E-B39N GROUND ELEVATION 58' ± (MSL) SHEET 1 OF 1 METHOD OF DRILLING Hand Auger (Strongarm) DROP - SAMPLED BY KMH LOGGED BY KMH REVIEWED BY JJR DESCRIPTION/INTERPRETATION
0			B39N-0.5' B39N-1.5'				SM	FILL: Dark brown, dry, loose, micaceous silty SAND.
10 -		08:25	B39N-2.5'					Total Depth = 2.5 feet bgs. Groundwater not encountered during drilling. Backfilled with No. 8 granular bentonite to surface on 9/5/19. Notes: Groundwater, though not encountered at the time of drilling, may rise to a higher level due to seasonal variations in precipitation and several other factors as discussed in the report. The ground elevation shown above is an estimation only. It is based on our interpretations of published maps and other documents reviewed for the purposes of this evaluation. It is not sufficiently accurate for preparing construction bids and design documents.
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DEPTH (feet)	Bulk SAMPLES Driven	SAMPLE TIME	SAMPLE ID	PID READING (ppm)	MOISTURE	SYMBOL	CLASSIFICATION U.S.C.S.	DATE DRILLED 9/5/19 BORING NO. AOC1-E-B39S GROUND ELEVATION 58' ± (MSL) SHEET 1 OF 1 METHOD OF DRILLING Hand Auger (Strongarm) DROP - SAMPLED BY KMH LOGGED BY KMH REVIEWED BY JJR DESCRIPTION/INTERPRETATION
0		08:19	B39S-0.5' B39S-1.5'				SM	FILL: Dark brown, dry, loose, micaceous silty SAND. Trace clay.
10 -		08:22	B39S-2.5'					Total Depth = 2.5 feet bgs. Groundwater not encountered during drilling. Backfilled with No. 8 granular bentonite to surface on 9/5/19. Notes: Groundwater, though not encountered at the time of drilling, may rise to a higher level due to seasonal variations in precipitation and several other factors as discussed in the report. The ground elevation shown above is an estimation only. It is based on our interpretations of published maps and other documents reviewed for the purposes of this evaluation. It is not sufficiently accurate for preparing construction bids and design documents.
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DEPTH (feet)	Bulk SAMPLES Driven	SAMPLE TIME	SAMPLE ID	PID READING (ppm)	MOISTURE	SYMBOL	CLASSIFICATION U.S.C.S.	DATE DRILLED 12/9/19 BORING NO. AOC1-E-B39EE GROUND ELEVATION 71' ± (MSL) SHEET 1 OF 1 METHOD OF DRILLING Hand Auger (Strongarm) DROP - - DRIVE WEIGHT - DROP - - SAMPLED BY AUC REVIEWED BY JJR DESCRIPTION/INTERPRETATION DROP - -
0		10:30	B39EE-0.5' B39EE-1.5'				SM	FILL: Dark brown, moist, loose, silty SAND.
- - 10 -		10:31	B39EE-2.5'					Total Depth = 2.5 feet bgs. Groundwater not encountered during drilling. Backfilled with hydrated No. 8 bentonite to surface on 12/9/19. Notes: Groundwater, though not encountered at the time of drilling, may rise to a higher level due to seasonal variations in precipitation and several other factors as discussed in the report. The ground elevation shown above is an estimation only. It is based on our interpretations of published maps and other documents reviewed for the purposes of this evaluation. It is not sufficiently accurate for preparing construction bids and design documents.
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DEPTH (feet)	Bulk SAMPLES Driven		SAMPLE ID	PID READING (ppm)	MOISTURE	SYMBOL	CLASSIFICATION U.S.C.S.	DATE DRILLED 12/9/19 BORING NO. AOC1-E-B39NE GROUND ELEVATION 71' ± (MSL) SHEET 1 OF 1 METHOD OF DRILLING Hand Auger (Strongarm) DROP - - DRIVE WEIGHT - DROP - - SAMPLED BY AUC REVIEWED BY JJR DESCRIPTION/INTERPRETATION
0		10:36	B39NE-0.5' B39NE-1.5'				SM	FILL: Dark brown, moist, loose, silty SAND.
- - 10 -		10:37	B39NE-2.5'					Total Depth = 2.5 feet bgs. Groundwater not encountered during drilling. Backfilled with hydrated bentonite to surface on 12/9/19. Notes: Groundwater, though not encountered at the time of drilling, may rise to a higher level due to seasonal variations in precipitation and several other factors as discussed in the report. The ground elevation shown above is an estimation only. It is based on our interpretations of published maps and other documents reviewed for the purposes of this evaluation. It is not sufficiently accurate for preparing construction bids and design documents.
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	Bulk SAMPLES		SAMPLE ID	PID READING (ppm)	MOISTURE	SYMBOL	CLASSIFICATION U.S.C.S.	DATE DRILLED 12/9/19 BORING NO. AOC1-E-B39NN GROUND ELEVATION 71' ± (MSL) SHEET 1 OF 1 METHOD OF DRILLING Hand Auger (Strongarm) DROP - - DRIVE WEIGHT - DROP - SAMPLED BY LNT LOGGED BY LNT REVIEWED BY JJR DESCRIPTION/INTERPRETATION
0 -		10:34	B39NN-0.5' B39NN-1.5' B39NN-2.5'				SM	FILL: Dark brown, slightly moist, loose, micaceous silty SAND.
-								Total Depth = 2.5 feet bgs. Groundwater not encountered during drilling. Backfilled with hydrated No. 8 granular bentonite to surface on 12/9/19. Notes: Groundwater, though not encountered at the time of drilling, may rise to a higher level due to seasonal variations in precipitation and several other factors as discussed in the report.
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DEPTH (feet)	Bulk SAMPLES Driven	SAMPLE TIME	SAMPLE ID	PID READING (ppm)	MOISTURE	SYMBOL	CLASSIFICATION U.S.C.S.	DATE DRILLED 12/9/19 BORING NO. AOC1-E-B39SE GROUND ELEVATION 71' ± (MSL) SHEET 1 OF 1 METHOD OF DRILLING Hand Auger (Strongarm) DROP - - DRIVE WEIGHT - DROP - - SAMPLED BY LNT LNT REVIEWED BY JJR DESCRIPTION/INTERPRETATION
0		10:30	B39SE-0.5' B39SE-1.5'				SM	FILL: Dark brown, slightly moist, loose, micaceous silty SAND.
- - 10 -		10:31	B39SE-2.5'					Total Depth = 2.5 feet bgs. Groundwater not encountered during drilling. Backfilled with hydrated No. 8 granular bentonite to surface on 12/9/19. Notes: Groundwater, though not encountered at the time of drilling, may rise to a higher level due to seasonal variations in precipitation and several other factors as discussed in the report. The ground elevation shown above is an estimation only. It is based on our interpretations of published maps and other documents reviewed for the purposes of this evaluation. It is not sufficiently accurate for preparing construction bids and design documents.
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DEPTH (feet)	Bulk SAMPLES Driven	SAMPLE TIME	SAMPLE ID	PID READING (ppm)	MOISTURE	SYMBOL	CLASSIFICATION U.S.C.S.	DATE DRILLED 5/3/19 BORING NO. AOC1-E-B40 GROUND ELEVATION 58' ± (MSL) SHEET 1 OF 1 METHOD OF DRILLING Hand Auger DROP - - DRIVE WEIGHT - DROP - SAMPLED BY KMH LOGGED BY AUC REVIEWED BY JJR DESCRIPTION/INTERPRETATION
0 -		9:27 9:29 9:30	B40-0.5' B40-1.5' B40-2.5'				SM	ASPHALT: Approximately 6 inches thick. FILL: Madium brown, dry, madium dense, silty SAND.
- 10 — -		3.30	D40/2.3			#111111		Medium brown, dry, medium dense, silty SAND. Total Depth = 2.5 feet bgs. Groundwater not encountered during drilling. Backfilled with hydrated No. 8 granular bentonite to surface on 5/1/19. Notes: Groundwater, though not encountered at the time of drilling, may rise to a higher level due to seasonal variations in precipitation and several other factors as discussed in the report. The ground elevation shown above is an estimation only. It is based on our interpretations of published maps and other documents reviewed for the purposes of this evaluation. It is not sufficiently accurate for preparing construction bids and design documents.
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DEPTH (feet)	Bulk Driven	SAMPLE TIME	SAMPLEID	PID READING (ppm)	MOISTURE	SYMBOL	CLASSIFICATION U.S.C.S.	GROUND ELEVATION 59' ± (MSL) SHEET
0		9:20	B41-0.5'				SM	ASPHALT:
_		9:23	B41-1.5'				SIVI	Approximately 6 inches thick. FILL:
-		9:25	B41-2.5'					Medium brown, very dry, medium dense, silty SAND. Total Depth = 2.5 feet bgs. Groundwater not encountered during drilling. Backfilled with hydrated No. 8 granular bentonite to surface on 5/1/19. Notes: Groundwater, though not encountered at the time of drilling, may rise to a higher level due to seasonal variations in precipitation and several other factors as discussed in the report. The ground elevation shown above is an estimation only. It is based on our interpretations of published maps and other documents reviewed for the purposes of this evaluation. It is not sufficiently accurate for preparing construction bids and design documents.
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DEPTH (feet)	Bulk SAMPLES Driven		SAMPLE ID	PID READING (ppm)	MOISTURE	SYMBOL	CLASSIFICATION U.S.C.S.	DATE DRILLED 5/3/19 BORING NO. AOC1-E-B42 GROUND ELEVATION 59' ± (MSL) SHEET 1 OF 1 METHOD OF DRILLING Hand Auger DROP - DRIVE WEIGHT - DROP - - SAMPLED BY KMH LOGGED BY AUC REVIEWED BY JJR DESCRIPTION/INTERPRETATION
0		<u>√9:09</u> 9:11	B42-0.5' <i>F</i>				SM	ASPHALT: Approximately 2 inches thick.
-		9:15	B42-2.5'					CONCRETE: Approximately 2 inches thick. FILL:
-								Medium brown, dry, medium dense, silty SAND. Total Depth = 2.5 feet bgs. Groundwater not encountered during drilling. Backfilled with hydrated No. 8 granular bentonite to surface on 5/1/19.
10 –								Notes: Groundwater, though not encountered at the time of drilling, may rise to a higher level due to seasonal variations in precipitation and several other factors as discussed in the report.
-								The ground elevation shown above is an estimation only. It is based on our interpretations of published maps and other documents reviewed for the purposes of this evaluation. It is not sufficiently accurate for preparing construction bids and design documents.
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	Bulk SAMPLES Driven		SAMPLE ID	PID READING (ppm)	MOISTURE	SYMBOL	CLASSIFICATION U.S.C.S.	DATE DRILLED 5/1/19 BORING NO. AOC1-W-B1 GROUND ELEVATION 62' ± (MSL) SHEET 1 OF 1 METHOD OF DRILLING Hand Auger DROP - - DRIVE WEIGHT - DROP - SAMPLED BY KMH LOGGED BY AUC REVIEWED BY JJR DESCRIPTION/INTERPRETATION DROP - - -
-		14:52 14:53 14:54	B1-0.5' B1-1.0' B1-2.5'				SM	FILL: Dark brown, dry, medium dense, silty SAND. Moist. Total Depth = 2.5 feet bgs.
-								Groundwater not encountered during drilling. Backfilled with hydrated No. 8 granular bentonite to surface on 5/1/19. Notes: Groundwater, though not encountered at the time of drilling, may rise to a higher level due to seasonal variations in precipitation and several other factors as discussed in the report.
10 - - -								The ground elevation shown above is an estimation only. It is based on our interpretations of published maps and other documents reviewed for the purposes of this evaluation. It is not sufficiently accurate for preparing construction bids and design documents.
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DEPTH (feet)	Bulk SAMPLES Driven	SAMPLE TIME	SAMPLE ID	PID READING (ppm)	MOISTURE	SYMBOL	CLASSIFICATION U.S.C.S.	DATE DRILLED 9/5/19 BORING NO. AOC1-W-B1N GROUND ELEVATION 61' ± (MSL) SHEET 1 OF 1 METHOD OF DRILLING Hand Auger (Strongarm) DROP - SAMPLED BY KMH LOGGED BY KMH REVIEWED BY JJR DESCRIPTION/INTERPRETATION
0		10:36	B1N-0.5'				SM	FILL: Dark brown, slightly moist, dense, micaceous silty SAND with trace clay.
-		10:38	B1N-1.5'					
-		10:39	B1N-2.5'				SP	Medium brown, slightly moist, loose, poorly graded medium SAND.
-								Total Depth = 2.5 feet bgs. Groundwater not encountered during drilling. Backfilled with No. 8 granular bentonite to surface on 9/5/19.
5 –								Notes: Groundwater, though not encountered at the time of drilling, may rise to a higher level due to seasonal variations in precipitation and several other factors as discussed in the report.
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DEPTH (feet)	Bulk SAMPLES Driven	SAMPLE TIME	SAMPLE ID	PID READING (ppm)	MOISTURE	SYMBOL	CLASSIFICATION U.S.C.S.	DATE DRILLED 9/5/19 BORING NO. AOC1-W-B1W GROUND ELEVATION 61' ± (MSL) SHEET
0		10:28	B1W-0.5'				SM	FILL: Very dark brown, slightly moist, dense, micaceous silty SAND with some clay.
-		10:30	B1W-1.5'					
-		10:32	B1W-2.5'				SP	Medium brown, slightly moist, loose, poorly graded medium SAND.
-								Total Depth = 2.5 feet bgs. Groundwater not encountered during drilling. Backfilled with No. 8 granular bentonite to surface on 9/5/19.
5 –								Notes: Groundwater, though not encountered at the time of drilling, may rise to a higher level due to seasonal variations in precipitation and several other factors as discussed in the report.
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DEPTH (feet)	Bulk SAMPLES	SAMPLE TIME	SAMPLE ID	PID READING (ppm)	MOISTURE	SYMBOL	CLASSIFICATION U.S.C.S.	DATE DRILLED 9/5/19 BORING NO. AOC1-W-B1E GROUND ELEVATION 61' ± (MSL) SHEET 1 OF 1 METHOD OF DRILLING Hand Auger (Strongarm) DROP - SAMPLED BY KMH LOGGED BY KMH REVIEWED BY JJR DESCRIPTION/INTERPRETATION
0		10:20	B1E-0.5'				SM	FILL: Dark brown, somewhat dry, loose, micaceous silty SAND.
-		10:23	B1E-1.5'					Slightly moist; trace clay.
-		10:24	B1E-2.5'				SP	Medium brown, slightly moist, loose, poorly graded medium SAND.
-								Total Depth = 2.5 feet bgs. Groundwater not encountered during drilling. Backfilled with No. 8 granular bentonite to surface on 9/5/19.
5 -								Notes: Groundwater, though not encountered at the time of drilling, may rise to a higher level due to seasonal variations in precipitation and several other factors as discussed in the report.
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	Bulk SAMPLES Driven		SAMPLE ID	PID READING (ppm)	MOISTURE	SYMBOL	CLASSIFICATION U.S.C.S.	DATE DRILLED 5/1/19 BORING NO. AOC1-W-B2 GROUND ELEVATION 62' ± (MSL) SHEET 1 OF 1 METHOD OF DRILLING Hand Auger DROP - - DRIVE WEIGHT - DROP - SAMPLED BY KMH LOGGED BY AUC REVIEWED BY JJR DESCRIPTION/INTERPRETATION
-		14:15 14:20 14:25	B2-0.5' B2-1.0' B2-2.0'				SM	FILL: Dark brown, dry, medium dense, silty SAND. Moist. Total Depth = 2.5 feet bgs.
-								Groundwater not encountered during drilling. Backfilled with hydrated No. 8 granular bentonite to surface on 5/1/19. Notes: Groundwater, though not encountered at the time of drilling, may rise to a higher level due to seasonal variations in precipitation and several other factors as discussed in the report.
10 -								The ground elevation shown above is an estimation only. It is based on our interpretations of published maps and other documents reviewed for the purposes of this evaluation. It is not sufficiently accurate for preparing construction bids and design documents.
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DEPTH (feet)	Bulk SAMPLES Driven	SAMPLE TIME	SAMPLE ID	PID READING (ppm)	MOISTURE	SYMBOL	CLASSIFICATION U.S.C.S.	DATE DRILLED 9/5/19 BORING NO. AOC1-W-B2N GROUND ELEVATION 61' ± (MSL) SHEET 1 OF 1 METHOD OF DRILLING Hand Auger (Strongarm) DRIVE WEIGHT
0		10:08	B2N-0.5'				SM	ASPHALT:
-		10:10	B2N-1.5'					Degraded; approximately 2.5 inches thick. FILL: Very dark brown, slightly moist, loose, micaceous silty SAND with trace clay. Dark brown. Medium brown, slightly moist, loose, poorly graded medium SAND.
=		10:11	B2N-2.5'				SP	
-								Total Depth = 2.5 feet bgs. Groundwater not encountered during drilling. Backfilled with No. 8 granular bentonite to surface on 9/5/19.
5 -								Notes: Groundwater, though not encountered at the time of drilling, may rise to a higher level due to seasonal variations in precipitation and several other factors as discussed in the report.
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0		10:01	B2W-0.5'				SM	FILL: Very dark brown, slightly moist, loose, micaceous silty SAND.
-		10:03	B2W-1.5'					Dark brown.
-		10:04	B2W-2.5'				SP	Medium brown, slightly moist, loose, poorly graded medium SAND.
-								Total Depth = 2.5 feet bgs. Groundwater not encountered during drilling. Backfilled with No. 8 granular bentonite to surface on 9/5/19.
5 –								Notes: Groundwater, though not encountered at the time of drilling, may rise to a higher level due to seasonal variations in precipitation and several other factors as discussed in the report.
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DEPTH (feet)	Bulk SAMPLES Driven	SAMPLE TIME	SAMPLE ID	PID READING (ppm)	MOISTURE	SYMBOL	CLASSIFICATION U.S.C.S.	DATE DRILLED 9/5/19 BORING NO. AOC1-W-B2E GROUND ELEVATION 61' ± (MSL) SHEET 1 OF 1 METHOD OF DRILLING Hand Auger (Strongarm) DROP - SAMPLED BY KMH LOGGED BY KMH REVIEWED BY JJR DESCRIPTION/INTERPRETATION
0		09:54	B2E-0.5' DUP-38				SM	FILL: Very dark brown, slightly moist, loose, micaceous silty SAND.
-		09:55	B2E-1.5'					
-		09:57	B2E-2.5'				SP	Medium brown, slightly moist, loose, poorly graded medium SAND.
-								Total Depth = 2.5 feet bgs. Groundwater not encountered during drilling. Backfilled with No. 8 granular bentonite to surface on 9/5/19.
5 -								Notes: Groundwater, though not encountered at the time of drilling, may rise to a higher level due to seasonal variations in precipitation and several other factors as discussed in the report.
-								The ground elevation shown above is an estimation only. It is based on our interpretations of published maps and other documents reviewed for the purposes of this evaluation. It is not sufficiently accurate for preparing construction bids and design documents.
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DEPTH (feet)	Bulk SAMPLES Driven	SAMPLE TIME	SAMPLE ID	PID READING (ppm)	MOISTURE	SYMBOL	CLASSIFICATION U.S.C.S.	DATE DRILLED 5/1/19 BORING NO. AOC1-W-B3 GROUND ELEVATION 62' ± (MSL) SHEET 1 OF 1 METHOD OF DRILLING Hand Auger DROP - - DRIVE WEIGHT - DROP - SAMPLED BY KMH LOGGED BY AUC REVIEWED BY JJR DESCRIPTION/INTERPRETATION DROP - - -
0			B3-0.5'				CL-ML	ASPHALT:
- - 10 - -							OL IIII	Approximately 4 inches thick. FILL: Dark brown, dry, firm, silty CLAY. Total Depth = 1 foot bgs (Refusal). Groundwater not encountered during drilling. Backfilled with hydrated No. 8 granular bentonite to surface on 5/1/19. Notes: Groundwater, though not encountered at the time of drilling, may rise to a higher level due to seasonal variations in precipitation and several other factors as discussed in the report. The ground elevation shown above is an estimation only. It is based on our interpretations of published maps and other documents reviewed for the purposes of this evaluation. It is not sufficiently accurate for preparing construction bids and design documents.
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DEPTH (feet)	Bulk SAMPLES Driven		SAMPLE ID	PID READING (ppm)	MOISTURE	SYMBOL	CLASSIFICATION U.S.C.S.	DATE DRILLED 5/1/19 BORING NO. AOC1-W-B5 GROUND ELEVATION 59' ± (MSL) SHEET 1 OF 1 METHOD OF DRILLING Hand Auger DRIVE WEIGHT - DROP - SAMPLED BY KMH LOGGED BY AUC REVIEWED BY JJR DESCRIPTION/INTERPRETATION
0		4:16 4:19	B5-0.5' , B5-1.0'				SM	ASPHALT: Approximately 4.5 inches thick. FILL:
10 -		4:22	B5-2.5'					Dark brown, slightly moist, medium dense, silty SAND. Total Depth = 2.5 feet bgs. Groundwater not encountered during drilling. Backfilled with hydrated No. 8 granular bentonite to surface on 5/1/19. Notes: Groundwater, though not encountered at the time of drilling, may rise to a higher level due to seasonal variations in precipitation and several other factors as discussed in the report. The ground elevation shown above is an estimation only. It is based on our interpretations of published maps and other documents reviewed for the purposes of this evaluation. It is not sufficiently accurate for preparing construction bids and design documents.
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DEPTH (feet)	Bulk SAMPLES Driven	SAMPLE TIME	SAMPLE ID	PID READING (ppm)	MOISTURE	SYMBOL	CLASSIFICATION U.S.C.S.	DATE DRILLED 9/5/19 BORING NO. AOC1-W-B6E GROUND ELEVATION 59' ± (MSL) SHEET 1 OF 1 METHOD OF DRILLING Hand Auger (Strongarm) DROP -
0		11:11	B6E-0.5'				CL-ML	ASPHALT:
-		11:13	B6E-1.5'					Approximately 2.5 inches thick. FILL: Dark brown, slightly moist, somewhat soft, silty CLAY.
-		11:15	B6E-2.5'				SP	Medium brown, slightly moist, dense, poorly graded SAND.
- 5 —								Total Depth = 2.5 feet bgs. Groundwater not encountered during drilling. Backfilled with No. 8 granular bentonite to top of soil and capped with cold-patch asphalt on 9/5/19. Notes: Groundwater, though not encountered at the time of drilling, may rise to a higher level due to seasonal variations in precipitation and several other factors as discussed in the report.
- - -		-						The ground elevation shown above is an estimation only. It is based on our interpretations of published maps and other documents reviewed for the purposes of this evaluation. It is not sufficiently accurate for preparing construction bids and design documents.
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DEPTH (feet)	Bulk SAMPLES Driven	SAMPLE TIME	SAMPLE ID	PID READING (ppm)	MOISTURE	SYMBOL	CLASSIFICATION U.S.C.S.	DATE DRILLED 9/5/19 BORING NO. AOC1-W-B6S GROUND ELEVATION 59' ± (MSL) SHEET 1 OF 1 METHOD OF DRILLING Hand Auger (Strongarm) DROP -
0		11:05	B6S-0.5'			7454	CL-ML	ASPHALT:
-		11:07	B6S-1.5'					Approximately 2.5 inches thick. FILL: Very dark brown, slightly moist, soft silty CLAY.
-		11:09	B6S-2.5'				SP	Medium brown, slightly moist, dense, poorly graded medium SAND.
-								Total Depth = 2.5 feet bgs. Groundwater not encountered during drilling. Backfilled with No. 8 granular bentonite to surface on 9/5/19.
5 -								Notes: Groundwater, though not encountered at the time of drilling, may rise to a higher level due to seasonal variations in precipitation and several other factors as discussed in the report.
-								The ground elevation shown above is an estimation only. It is based on our interpretations of published maps and other documents reviewed for the purposes of this evaluation. It is not sufficiently accurate for preparing construction bids and design documents.
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DEPTH (feet)	Bulk SAMPLES Driven	SAMPLE TIME	SAMPLE ID	PID READING (ppm)	MOISTURE	SYMBOL	CLASSIFICATION U.S.C.S.	DATE DRILLED 9/5/19 BORING NO. AOC1-W-B6W GROUND ELEVATION 59' ± (MSL) SHEET 1 OF 1 METHOD OF DRILLING Hand Auger (Strongarm) DROP -
0		10:58	B6W-0.5'			11111	CL-ML	ASPHALT: Approximately 3 inches thick.
-		11:00	B6W-1.5'					FILL: Dark brown, slightly moist, soft, silty CLAY.
=		11:01	B6W-2.5'				SP	Medium brown, slightly moist, dense, poorly graded SAND.
- 5 —						E		Total Depth = 2.5 feet bgs. Groundwater not encountered during drilling. Backfilled with No. 8 granular bentonite to top of soil and capped with cold-patch asphalt on 9/5/19. Notes: Groundwater, though not encountered at the time of drilling, may rise to a higher level due to seasonal variations in precipitation and several other factors as discussed in
-								the report. The ground elevation shown above is an estimation only. It is based on our interpretations of published maps and other documents reviewed for the purposes of this evaluation. It is not sufficiently accurate for preparing construction bids and design documents.
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DEPTH (feet)	Bulk SAMPLES Driven	SAMPLE TIME	SAMPLE ID	PID READING (ppm)	MOISTURE	SYMBOL	CLASSIFICATION U.S.C.S.	DATE DRILLED 12/6/19 BORING NO. AOC1-W-B6SE GROUND ELEVATION 70' ± (MSL) SHEET 1 OF 1 METHOD OF DRILLING Hand Auger (Strongarm) DROP - - DRIVE WEIGHT - DROP - - SAMPLED BY CX LOGGED BY CX REVIEWED BY JJR DESCRIPTION/INTERPRETATION
0		13:17	B6SE-0.5'				SM	ASPHALT: Approximately 2.5 inches thick.
-		13:19	B6SE-1.5'					EILL: Dark brown, moist, loose, silty SAND with few to little gravel. No gravel.
-		13:22	B6SE-2.5'					
-								Total Depth = 2.5 feet bgs. Groundwater not encountered during drilling. Backfilled with hydrated bentonite from 2.5 to 0.5 feet bgs and capped with cold-patch asphalt to match existing surface on 12/6/19.
5 –								Notes: Groundwater, though not encountered at the time of drilling, may rise to a higher level due to seasonal variations in precipitation and several other factors as discussed in the report.
-								The ground elevation shown above is an estimation only. It is based on our interpretations of published maps and other documents reviewed for the purposes of this evaluation. It is not sufficiently accurate for preparing construction bids and design documents.
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DEPTH (feet)	Bulk SAMPLES Driven	SAMPLE TIME	SAMPLE ID	PID READING (ppm)	MOISTURE	SYMBOL	CLASSIFICATION U.S.C.S.	DATE DRILLED 12/6/19 BORING NO. AOC1-W-B6SS GROUND ELEVATION 70' ± (MSL) SHEET 1 OF 1 METHOD OF DRILLING Hand Auger (Strongarm) DROP - SAMPLED BY CX REVIEWED BY JJR DESCRIPTION/INTERPRETATION DESCRIPTION/INTERPRETATION AOC1-W-B6SS AOC1-W-B6SS
0		13:09	B6SS-0.5'				SM	ASPHALT:
-		13:12	B6SS-1.5'					Approximately 2.5 inches thick. FILL: Brown, moist, loose, silty SAND with few to little gravel. No gravel.
-		13:13	B6SS-2.5'					
-								Total Depth = 2.5 feet bgs. Groundwater not encountered during drilling. Backfilled with hydrated bentonite from 2.5 to 0.5 feet bgs and capped with cold-patch asphalt to match existing surface on 12/6/19.
5 -								Notes: Groundwater, though not encountered at the time of drilling, may rise to a higher level due to seasonal variations in precipitation and several other factors as discussed in the report.
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DEPTH (feet)	Bulk SAMPLES Driven	SAMPLE TIME	SAMPLE ID	PID READING (ppm)	MOISTURE	SYMBOL	CLASSIFICATION U.S.C.S.	DATE DRILLED 12/6/19 BORING NO. AOC1-W-B6SW GROUND ELEVATION 70' ± (MSL) SHEET 1 OF 1 METHOD OF DRILLING Hand Auger (Strongarm) DROP - - DRIVE WEIGHT - DROP - - SAMPLED BY CX LOGGED BY CX REVIEWED BY JJR DESCRIPTION/INTERPRETATION DROP - - -
0		13:01	B6SW-0.5'				SM	ASPHALT:
-		13:03	B6SW-1.5'					Approximately 2.5 inches thick. FILL: Brown, moist, loose, silty SAND.
-		13:06	B6SW-2.5'					
-								Total Depth = 2.5 feet bgs. Groundwater not encountered during drilling. Backfilled with hydrated bentonite from 2.5 to 0.5 feet bgs and capped with cold-patch asphalt to match existing surface on 12/6/19.
5 –								Notes: Groundwater, though not encountered at the time of drilling, may rise to a higher level due to seasonal variations in precipitation and several other factors as discussed in the report.
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DEPTH (feet)	Bulk SAMPLES Driven	SAMPLE TIME	SAMPLE ID	PID READING (ppm)	MOISTURE	SYMBOL	CLASSIFICATION U.S.C.S.	DATE DRILLED 9/5/19 BORING NO. AOC1-W-B7E GROUND ELEVATION 59' ± (MSL) SHEET 1 OF 1 METHOD OF DRILLING Hand Auger (Strongarm) DRIVE WEIGHT
0		11:35	B7E-0.5'			10/10	CL-ML	ASPHALT:
-		11:37	B7E-1.5'				02 W.E	Approximately 2.5 inches thick. FILL: Dark brown, slightly moist, somewhat soft, silty CLAY.
=		11:38	B7E-2.5'				SP	Medium brown, slightly moist, dense, poorly graded medium SAND.
- 5 -								Total Depth = 2.5 feet bgs. Groundwater not encountered during drilling. Backfilled with No. 8 granular bentonite to top of soil and capped with cold-patch asphalt on 9/5/19. Notes: Groundwater, though not encountered at the time of drilling, may rise to a higher level due to seasonal variations in precipitation and several other factors as discussed in the report.
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DEPTH (feet)	Bulk SAMPLES Driven	SAMPLE TIME	SAMPLE ID	PID READING (ppm)	MOISTURE	SYMBOL	CLASSIFICATION U.S.C.S.	DATE DRILLED 9/5/19 BORING NO. AOC1-W-B7S GROUND ELEVATION 59' ± (MSL) SHEET 1 OF 1 METHOD OF DRILLING Hand Auger (Strongarm) DROP -
0		11:29	B7S-0.5'		H		CL-ML	ASPHALT: Approximately 3 inches thick.
-		11:31	B7S-1.5'					FILL: Dark brown, slightly moist, somewhat stiff, silty CLAY.
-		11:32	B7S-2.5'					
-								Total Depth = 2.5 feet bgs. Groundwater not encountered during drilling. Backfilled with No. 8 granular bentonite to top of soil and capped with cold-patch asphalt on 9/5/19.
5 -		_						Notes: Groundwater, though not encountered at the time of drilling, may rise to a higher level due to seasonal variations in precipitation and several other factors as discussed in the report.
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DEPTH (feet)	Bulk SAMPLES Driven	SAMPLE TIME	SAMPLE ID	PID READING (ppm)	MOISTURE	SYMBOL	CLASSIFICATION U.S.C.S.	DATE DRILLED 9/5/19 BORING NO. AOC1-W-B7W GROUND ELEVATION 59' ± (MSL) SHEET
0		11:21	B7W-0.5'				CL-ML	ASPHALT:
-		11:22	B7W-1.5'					Approximately 2.5 inches thick. FILL: Dark brown, slightly moist, somewhat soft, silty CLAY.
-		11:23	B7W-2.5'				SP	Medium brown, slightly moist, dense, poorly graded medium SAND.
-								Total Depth = 2.5 feet bgs. Groundwater not encountered during drilling. Backfilled with No. 8 granular bentonite to surface and capped with cold-patch asphalt on 9/5/19. Notes: Groundwater, though not encountered at the time of drilling, may rise to a higher level
5 -								due to seasonal variations in precipitation and several other factors as discussed in the report.
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DEPTH (feet) Bulk	Driven SAMPLES	SAMPLE TIME	SAMPLE ID	PID READING (ppm)	MOISTURE	SYMBOL	CLASSIFICATION U.S.C.S.	DATE DRILLED 12/9/19 BORING NO. AOC1-W-B7EE GROUND ELEVATION 70' ± (MSL) SHEET 1 OF 1 METHOD OF DRILLING Hand Auger (Strongarm) DRIVE WEIGHT
0		\08:40	B7EE-0.5'			711	CL-ML	ASPHALT: Approximately 1 inch thick.
		08:41	B7EE-1.5'					FILL: Dark brown, slightly moist, stiff, silty CLAY.
		08:43	B7EE-2.5'					
								Total Depth = 2.5 feet bgs. Groundwater not encountered during drilling. Backfilled with hydrated No. 8 granular bentonite from 2.5 to 0.5 feet bgs and capped with cold-patch asphalt on 12/9/19.
5								Notes: Groundwater, though not encountered at the time of drilling, may rise to a higher level due to seasonal variations in precipitation and several other factors as discussed in the report.
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GROUND ELEVATION 70' ± (MSL) SAMPLE ID SAMPLED BY DESCRIPTION/INTERPRETATION DEPTH SAMPLE DO SAMPLED BY DESCRIPTION/INTERPRETATION	-
0 08:40 B7SE-0.5' CL-ML ASPHALT: Approximately 1 inch thick.	
08:42 B7SE-1.5' FILL: Dark brown, slightly moist, stiff, silty CLAY.	
08:44 B7SE-2.5' Dry.	
Total Depth = 2.5 feet bgs. Groundwater not encountered during drilling. Backfilled with hydrated No. 8 granular bentonite from 2.5 to 0.5 feet with cold-patch asphalt on 12/9/19.	bgs and capped
Notes: Groundwater, though not encountered at the time of drilling, may rise level due to seasonal variations in precipitation and several other facin the report.	
The ground elevation shown above is an estimation only. It is based interpretations of published maps and other documents reviewed for this evaluation. It is not sufficiently accurate for preparing construction documents.	the purposes of
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DEPTH (feet)	Bulk SAMPLES Driven	SAMPLE TIME	SAMPLE ID	PID READING (ppm)	MOISTURE	SYMBOL	CLASSIFICATION U.S.C.S.	DATE DRILLED 5/1/19 BORING NO. AOC1-W-B10 GROUND ELEVATION 59' ± (MSL) SHEET 1 OF 1 METHOD OF DRILLING Hand Auger DRIVE WEIGHT
0		15:07 15:09	B10-0.5' /				SM	ASPHALT: Approximately 3 inches thick.
-		15:11	B10-2.5'					FILL: Dark brown, moist, medium dense, silty SAND. Total Depth = 2.5 feet bgs.
-								Groundwater not encountered during drilling. Backfilled with hydrated No. 8 granular bentonite to surface on 5/1/19.
-								Notes: Groundwater, though not encountered at the time of drilling, may rise to a higher level due to seasonal variations in precipitation and several other factors as discussed in the report.
10 -								The ground elevation shown above is an estimation only. It is based on our interpretations of published maps and other documents reviewed for the purposes of this evaluation. It is not sufficiently accurate for preparing construction bids and design documents.
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DEPTH (feet)	Bulk SAMPLES Driven	SAMPLE TIME	SAMPLE ID	PID READING (ppm)	MOISTURE	SYMBOL	CLASSIFICATION U.S.C.S.	DATE DRILLED 9/5/19 BORING NO. AOC1-W-B13W GROUND ELEVATION 60' ± (MSL) SHEET 1 OF 1 METHOD OF DRILLING Hand Auger (Strongarm) DROP - SAMPLED BY KMH LOGGED BY KMH REVIEWED BY JJR DESCRIPTION/INTERPRETATION DROP - - DROP - - DROP - - - DROP -
0		13:20	B13W-0.5'					FILL: Dark brown, dry, loose, micaceous silty SAND with some roots.
-		13:22	B13W-1.5'					
-		13:24	B13W-2.5'					
-								Total Depth = 2.5 feet bgs. Groundwater not encountered during drilling. Backfilled with No. 8 granular bentonite to surface on 9/5/19.
5 –								Notes: Groundwater, though not encountered at the time of drilling, may rise to a higher level due to seasonal variations in precipitation and several other factors as discussed in the report.
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DEPTH (feet)	Bulk SAMPLES Driven	SAMPLE TIME	SAMPLE ID	PID READING (ppm)	MOISTURE	SYMBOL	CLASSIFICATION U.S.C.S.	DATE DRILLED 9/5/19 BORING NO. AOC1-W-B13S GROUND ELEVATION 60' ± (MSL) SHEET 1 OF 1 METHOD OF DRILLING Hand Auger (Strongarm) DROP - SAMPLED BY KMH LOGGED BY KMH REVIEWED BY JJR DESCRIPTION/INTERPRETATION
0		13:12	B13S-0.5'				SP	FILL: Medium brown, dry, loose, poorly graded medium SAND.
-		13:14	B13S-1.5'				SM	Dark brown, slightly moist, loose, micaceous silty SAND.
-		13:16	B13S-2.5'					
-								Total Depth = 2.5 feet bgs. Groundwater not encountered during drilling. Backfilled with No. 8 granular bentonite to surface on 9/5/19.
5 –								Notes: Groundwater, though not encountered at the time of drilling, may rise to a higher level due to seasonal variations in precipitation and several other factors as discussed in the report.
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DEPTH (feet)	Bulk SAMPLES Driven	SAMPLE TIME	SAMPLE ID	PID READING (ppm)	MOISTURE	SYMBOL	CLASSIFICATION U.S.C.S.	DATE DRILLED 9/5/19 BORING NO. AOC1-W-B13N GROUND ELEVATION 60' ± (MSL) SHEET 1 OF 1 METHOD OF DRILLING Hand Auger (Strongarm) DROP - SAMPLED BY KMH LOGGED BY KMH REVIEWED BY JJR DESCRIPTION/INTERPRETATION
0		13:05	B13N-0.5' DUP-40				SM	FILL: Dark brown, somewhat dry, loose, micaceous silty SAND.
-		13:06	B13N-1.5'					
-		13:09	B13N-2.5'					Very dark brown; some clay.
-								Total Depth = 2.5 feet bgs. Groundwater not encountered during drilling. Backfilled with No. 8 granular bentonite to surface on 9/5/19.
-								Notes: Groundwater, though not encountered at the time of drilling, may rise to a higher level
5 -								due to seasonal variations in precipitation and several other factors as discussed in the report.
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DEPTH (feet)	Bulk SAMPLES Driven	SAMPLE TIME	SAMPLE ID	PID READING (ppm)	MOISTURE	SYMBOL	CLASSIFICATION U.S.C.S.	DATE DRILLED 9/5/19 BORING NO. AOC1-W-B22E GROUND ELEVATION 60' ± (MSL) SHEET 1 OF 1 METHOD OF DRILLING Hand Auger (Strongarm) DROP - SAMPLED BY KMH LOGGED BY KMH REVIEWED BY JJR DESCRIPTION/INTERPRETATION
0		13:51	B22E-0.5'				SM	ASPHALT: Approximately 3 inches thick.
-		13:53	B22E-1.5'				CL-ML	FILL: Very dark brown, slightly moist, dense, micaceous silty SAND with some clay. Very dark brown, slightly moist, dense, micaceous silty CLAY.
=		13:55	B22E-2.5'				SM	Medium brown, slightly moist, dense, micaceous silty SAND with some clay.
-								Total Depth = 2.5 feet bgs. Groundwater not encountered during drilling. Backfilled with No. 8 granular bentonite to top of soil and capped with cold-patch asphalt on on 9/5/19. Notes:
5 -								Groundwater, though not encountered at the time of drilling, may rise to a higher level due to seasonal variations in precipitation and several other factors as discussed in the report.
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DEPTH (feet)	Bulk SAMPLES Driven	SAMPLE TIME	SAMPLE ID	PID READING (ppm)	MOISTURE	SYMBOL	CLASSIFICATION U.S.C.S.	DATE DRILLED 9/5/19 BORING NO. AOC1-W-B22N GROUND ELEVATION 60' ± (MSL) SHEET 1 OF 1 METHOD OF DRILLING Hand Auger (Strongarm) DROP - SAMPLED BY KMH LOGGED BY KMH REVIEWED BY JJR DESCRIPTION/INTERPRETATION
0		13:44	B22N-0.5'					ASPHALT:
-		13:46	B22N-1.5'				SM CL-ML	Approximately 4 inches thick. FILL: Very dark brown, slightly moist, dense, micaceous silty SAND with some clay. Very dark brown, slightly moist, dense, micaceous silty CLAY.
=		13:48	B22N-2.5'			批		Medium brown.
5 —						иши		Total Depth = 2.5 feet bgs. Groundwater not encountered during drilling. Backfilled with No. 8 granular bentonite to top of soil and capped with cold-patch asphalt on on 9/5/19. Notes: Groundwater, though not encountered at the time of drilling, may rise to a higher level due to seasonal variations in precipitation and several other factors as discussed in
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DEPTH (feet)	Bulk SAMPLES Driven	SAMPLE TIME	SAMPLE ID	PID READING (ppm)	MOISTURE	SYMBOL	CLASSIFICATION U.S.C.S.	DATE DRILLED 9/5/19 BORING NO. AOC1-W-B22W GROUND ELEVATION 60' ± (MSL) SHEET 1 OF 1 METHOD OF DRILLING Hand Auger (Strongarm) DROP - SAMPLED BY KMH LOGGED BY KMH REVIEWED BY JJR DESCRIPTION/INTERPRETATION
0		13:37	B22W-0.5' \ DUP-41				CL-ML	ASPHALT: Approximately 3 inches thick.
-		13:38	B22W-1.5'					FILL: Very dark brown, slightly moist, dense, micaceous silty CLAY.
=		13:40	B22W-2.5'				SM	Medium brown, slightly moist, dense, micaceous silty SAND.
-								Total Depth = 2.5 feet bgs. Groundwater not encountered during drilling. Backfilled with No. 8 granular bentonite to top of soil and capped with cold-patch asphalt on on 9/5/19.
5 -								Notes: Groundwater, though not encountered at the time of drilling, may rise to a higher level due to seasonal variations in precipitation and several other factors as discussed in the report.
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DEPTH (feet)	Bulk SAMPLES Driven	SAMPLE TIME	SAMPLE ID	PID READING (ppm)	MOISTURE	SYMBOL	CLASSIFICATION U.S.C.S.	DATE DRILLED 12/6/19 BORING NO. AOC1-W-B22NW GROUND ELEVATION 70' ± (MSL) SHEET 1 OF 1 METHOD OF DRILLING Hand Auger (Strongarm) DRIVE WEIGHT
0		08:39	B22NW-0.5'			188888	014	ASPHALT:
-		08:57	B22NW-1.5'				SM	Approximately 4 inches thick. FILL: Dark brown, moist, loose, silty SAND. Brown.
-		08:59	B22NW-2.5'					
-								Total Depth = 2.5 feet bgs. Groundwater not encountered during drilling. Backfilled with hydrated bentonite from 2.5 to 0.5 feet bgs and capped with cold-patch asphalt to match existing surface on 12/6/19.
5 -		-						Notes: Groundwater, though not encountered at the time of drilling, may rise to a higher level due to seasonal variations in precipitation and several other factors as discussed in the report.
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DEPTH (feet)	Bulk SAMPLES	SAMPLE TIME	SAMPLE ID	PID READING (ppm)	MOISTURE	SYMBOL	CLASSIFICATION U.S.C.S.	DATE DRILLED 12/6/19 BORING NO. AOC1-W-B22WW GROUND ELEVATION 70' ± (MSL) SHEET 1 OF 1 METHOD OF DRILLING Hand Auger (Strongarm) DROP - - DRIVE WEIGHT - DROP - - SAMPLED BY CX REVIEWED BY JJR DESCRIPTION/INTERPRETATION DROP - -
0		09:02				IBBEBB	014	ASPHALT:
-		09:04	0.5' B22WW- 1.5'				SM	Approximately 3 inches thick. FILL: Dark brown, moist, loose, silty SAND.
-		09:06	B22WW- 2.5'					Yellowish brown.
-			2.0					Total Depth = 2.5 feet bgs. Groundwater not encountered during drilling. Backfilled with hydrated bentonite from 2.5 to 0.5 feet bgs and capped with cold-patch asphalt to match existing surface on 12/6/19. Notes:
5 -		_						Groundwater, though not encountered at the time of drilling, may rise to a higher level due to seasonal variations in precipitation and several other factors as discussed in the report.
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DEPTH (feet)	Bulk SAMPLES Driven	SAMPLE TIME	SAMPLE ID	PID READING (ppm)	MOISTURE	SYMBOL	CLASSIFICATION U.S.C.S.	DATE DRILLED 9/6/19 BORING NO. AOC1-W-B23W GROUND ELEVATION 59' ± (MSL) SHEET 1 OF 1 METHOD OF DRILLING Hand Auger (Strongarm) DROP SAMPLED BY KMH LOGGED BY KMH REVIEWED BY JJR DESCRIPTION/INTERPRETATION
0		08:33	B23W-0.5'			270		CONCRETE:
-		08:34	B23W-1.5'				SM	Approximately 3.5 inches thick. BASE: Pea gravel; approximately 2 inches thick. FILL:
-		08:35	B23W-2.5'					Dark brown, slightly moist, dense, silty SAND with some clay.
-		-						Total Depth = 2.5 feet bgs. Groundwater not encountered during drilling. Backfilled with No. 8 granular bentonite to top of soil and capped with concrete on 9/6/19.
5 –								Notes: Groundwater, though not encountered at the time of drilling, may rise to a higher level due to seasonal variations in precipitation and several other factors as discussed in the report.
-								The ground elevation shown above is an estimation only. It is based on our interpretations of published maps and other documents reviewed for the purposes of this evaluation. It is not sufficiently accurate for preparing construction bids and design documents.
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DEPTH (feet)	Bulk SAMPLES Driven	SAMPLE TIME	SAMPLE ID	PID READING (ppm)	MOISTURE	SYMBOL	CLASSIFICATION U.S.C.S.	DATE DRILLED 9/6/19 BORING NO. AOC1-W-B23N GROUND ELEVATION 59' ± (MSL) SHEET
0		08:23	B23N-0.5'			220		CONCRETE:
-		08:24	B23N-1.5'				SM	Approximately 4 inches thick. BASE: Pea gravel; approximately 2 inches thick. FILL:
-		08:25	B23N-2.5'					Dark brown, slightly moist, dense, silty SAND with some clay.
-								Total Depth = 2.5 feet bgs. Groundwater not encountered during drilling. Backfilled with No. 8 granular bentonite to top of soil and capped with concrete on 9/6/19.
5 -								Notes: Groundwater, though not encountered at the time of drilling, may rise to a higher level due to seasonal variations in precipitation and several other factors as discussed in the report.
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0		08:17	B23E-0.5'			250		CONCRETE:
-		08:18	B23E-1.5'				SM	Approximately 3.5 inches thick. BASE: Pea gravel; approximately 2 inches thick. FILL:
-		08:20	B23E-2.5'					Dark brown, slightly moist, dense, silty SAND with some clay.
-								Total Depth = 2.5 feet bgs. Groundwater not encountered during drilling. Backfilled with No. 8 granular bentonite to top of soil and capped with concrete on 9/6/19.
5 –		-						Notes: Groundwater, though not encountered at the time of drilling, may rise to a higher level due to seasonal variations in precipitation and several other factors as discussed in the report.
-		-						The ground elevation shown above is an estimation only. It is based on our interpretations of published maps and other documents reviewed for the purposes of this evaluation. It is not sufficiently accurate for preparing construction bids and design documents.
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DEPTH (feet)	Bulk SAMPLES Driven	SAMPLE TIME	SAMPLE ID	PID READING (ppm)	MOISTURE	SYMBOL	CLASSIFICATION U.S.C.S.	DATE DRILLED 12/6/19 BORING NO. AOC1-W-B23EE GROUND ELEVATION 70' ± (MSL) SHEET 1 OF 1 METHOD OF DRILLING Hand Auger (Strongarm) DROP - - DRIVE WEIGHT - DROP - - SAMPLED BY CX LOGGED BY CX REVIEWED BY JJR DESCRIPTION/INTERPRETATION DROP - - DROP -
0		09:46	B23EE-0.5'				SM	ASPHALT:
-		09:49	B23EE-1.5'				Sivi	Approximately 3.5 inches thick. FILL: Brown/reddish yellow, moist, loose, silty SAND with some gravel. Dark brown; no gravel.
-		09:51	B23EE-2.5'					Brown.
-								Total Depth = 2.5 feet bgs. Groundwater not encountered during drilling. Backfilled with hydrated bentonite from 2.5 to 0.5 feet bgs and capped with cold-patch asphalt to match existing surface on 12/6/19.
5 -								Notes: Groundwater, though not encountered at the time of drilling, may rise to a higher level due to seasonal variations in precipitation and several other factors as discussed in the report.
-								The ground elevation shown above is an estimation only. It is based on our interpretations of published maps and other documents reviewed for the purposes of this evaluation. It is not sufficiently accurate for preparing construction bids and design documents.
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	SAMPLES			(in				DATE DRILLED 12/6/19 BORING NO. AOC1-W-B23NE
DEPTH (feet)	SA	E TIME	SAMPLE ID	PID READING (ppm)	MOISTURE	SYMBOL	CLASSIFICATION U.S.C.S.	GROUND ELEVATION 70' ± (MSL) SHEET1 OF1 METHOD OF DRILLING Hand Auger (Strongarm)
DEPTH	Bulk	SAMPLE	SAMP	READI	MOIS.	SYM	ASSIF U.S.(DRIVE WEIGHT DROP
				PID			J	SAMPLED BY CX LOGGED BY CX REVIEWED BY JJR DESCRIPTION/INTERPRETATION
0		09:28	B23NE-0.5' \ DUP-69 /				SM	ASPHALT: Approximately 4 inches thick.
-		09:32	B23NE-1.5'				J	FILL: Brown, moist, loose, silty SAND.
-		09:36	B23NE-2.5'					
_								Total Depth = 2.5 feet bgs. Groundwater not encountered during drilling.
								Backfilled with hydrated bentonite from 2.5 to 0.5 feet bgs and capped with cold-patch asphalt to match existing surface on 12/6/19.
								Notes: Groundwater, though not encountered at the time of drilling, may rise to a higher leve
5 –		_						due to seasonal variations in precipitation and several other factors as discussed in the report.
-		_						The ground elevation shown above is an estimation only. It is based on our interpretations of published maps and other documents reviewed for the purposes of
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DEPTH (feet)	Bulk SAMPLES Driven	SAMPLE TIME	SAMPLE ID	PID READING (ppm)	MOISTURE	SYMBOL	CLASSIFICATION U.S.C.S.	DATE DRILLED 12/6/19 BORING NO. AOC1-W-B23NW GROUND ELEVATION 70' ± (MSL) SHEET 1 OF 1 METHOD OF DRILLING Hand Auger (Strongarm) DROP - - DRIVE WEIGHT - DROP - - SAMPLED BY CX LOGGED BY CX REVIEWED BY JJR DESCRIPTION/INTERPRETATION DROP - - DROP -
0		09:21	B23NW-0.5'				014	ASPHALT:
-		09:23	B23NW-1.5'				SM	Approximately 4 inches thick. FILL: Brown, moist, loose, silty SAND.
-		09:26	B23NW-2.5'					Light brown.
-		-						Total Depth = 2.5 feet bgs. Groundwater not encountered during drilling. Backfilled with hydrated bentonite from 2.5 to 0.5 feet bgs and capped with cold-patch asphalt to match existing surface on 12/6/19.
5 -		-						Notes: Groundwater, though not encountered at the time of drilling, may rise to a higher level due to seasonal variations in precipitation and several other factors as discussed in the report.
-								The ground elevation shown above is an estimation only. It is based on our interpretations of published maps and other documents reviewed for the purposes of this evaluation. It is not sufficiently accurate for preparing construction bids and design documents.
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DEPTH (feet)	Bulk SAMPLES Driven	SAMPLE TIME	SAMPLE ID	PID READING (ppm)	MOISTURE	SYMBOL	CLASSIFICATION U.S.C.S.	DATE DRILLED 5/1/19 BORING NO. AOC1-W-B24 GROUND ELEVATION 62' ± (MSL) SHEET 1 OF 1 METHOD OF DRILLING Hand Auger DROP - - DRIVE WEIGHT - DROP - SAMPLED BY KMH LOGGED BY AUC REVIEWED BY JJR DESCRIPTION/INTERPRETATION
0		4:45 4:49	B24-0.5' B24-1.5'				SM	FILL: Light/medium brown, dry, medium dense, silty SAND.
- - 10 -		4:51	B24-2.5'					Moist. Total Depth = 2.5 feet bgs. Groundwater not encountered during drilling. Backfilled with hydrated No. 8 granular bentonite to surface on 5/1/19. Notes: Groundwater, though not encountered at the time of drilling, may rise to a higher level due to seasonal variations in precipitation and several other factors as discussed in the report. The ground elevation shown above is an estimation only. It is based on our interpretations of published maps and other documents reviewed for the purposes of this evaluation. It is not sufficiently accurate for preparing construction bids and design documents.
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DEPTH (feet)	Bulk SAMPLES Driven	SAMPLE TIME	SAMPLE ID	PID READING (ppm)	MOISTURE	SYMBOL	CLASSIFICATION U.S.C.S.	DATE DRILLED 5/1/19 BORING NO. AOC1-W-B25 GROUND ELEVATION 62' ± (MSL) SHEET 1 OF 1 METHOD OF DRILLING Hand Auger DROP - - DRIVE WEIGHT - DROP - SAMPLED BY KMH LOGGED BY AUC REVIEWED BY JJR DESCRIPTION/INTERPRETATION
0		5:23 5:28	B25-0.5' / B25-1.5'				SM	ASPHALT: Approximately 2 inches thick.
-		5:30	B25-2.5'					CONCRETE: Approximately 4 inches thick.
-								FILL: Dark brown, dry, medium dense, silty SAND. Moist.
-								Total Depth = 2.5 feet bgs. Groundwater not encountered during drilling. Backfilled with hydrated No. 8 granular bentonite to surface on 5/1/19.
10 -								Notes: Groundwater, though not encountered at the time of drilling, may rise to a higher level due to seasonal variations in precipitation and several other factors as discussed in the report.
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DEPTH (feet)	Bulk SAMPLES Driven	SAMPLE TIME	SAMPLE ID	PID READING (ppm)	MOISTURE	SYMBOL	CLASSIFICATION U.S.C.S.	DATE DRILLED 5/1/19 BORING NO. AOC1-W-B26 GROUND ELEVATION 61' ± (MSL) SHEET 1 OF 1 METHOD OF DRILLING Hand Auger DRIVE WEIGHT - DROP - SAMPLED BY KMH LOGGED BY AUC REVIEWED BY JJR DESCRIPTION/INTERPRETATION
0		\5:00 5:03	B26-0.5' / B26-1.5'				SM	ASPHALT: Approximately 4 inches thick.
-		5:07	B26-2.5'					FILL: Dark brown, moist, medium dense, silty SAND. Moist.
-								Total Depth = 2.5 feet bgs. Groundwater not encountered during drilling. Backfilled with hydrated No. 8 granular bentonite to surface on 5/1/19.
-								Notes: Groundwater, though not encountered at the time of drilling, may rise to a higher level due to seasonal variations in precipitation and several other factors as discussed in the report.
10 -								The ground elevation shown above is an estimation only. It is based on our interpretations of published maps and other documents reviewed for the purposes of this evaluation. It is not sufficiently accurate for preparing construction bids and design documents.
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DEPTH (feet)	Bulk SAMPLES Driven	SAMPLE TIME	SAMPLE ID	PID READING (ppm)	MOISTURE	SYMBOL	CLASSIFICATION U.S.C.S.	DATE DRILLED 9/6/19 BORING NO. AOC1-W-B26W GROUND ELEVATION 59' ± (MSL) SHEET 1 OF 1 METHOD OF DRILLING Hand Auger (Strongarm) DROP -
0		08:57	B26W-0.5'				SM	FILL: Dark brown, somewhat dry, loose, silty SAND.
-		08:58	B26W-1.5'					Slightly moist; trace clay.
-		08:59	B26W-2.5'					
-								Total Depth = 2.5 feet bgs. Groundwater not encountered during drilling. Backfilled with No. 8 granular bentonite to surface on 9/6/19.
5 –								Notes: Groundwater, though not encountered at the time of drilling, may rise to a higher level due to seasonal variations in precipitation and several other factors as discussed in the report.
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DEPTH (feet)	Bulk SAMPLES Driven	SAMPLE TIME	SAMPLE ID	PID READING (ppm)	MOISTURE	SYMBOL	CLASSIFICATION U.S.C.S.	DATE DRILLED 9/6/19 BORING NO. AOC1-W-B26E GROUND ELEVATION 59' ± (MSL) SHEET
0		09:01	B26E-0.5'				SM	FILL: Medium brown, dry, loose, silty SAND.
-		09:03	B26E-1.5'					Trace clay.
-		09:04	B26E-2.5'					
-								Total Depth = 2.5 feet bgs. Groundwater not encountered during drilling. Backfilled with No. 8 granular bentonite to surface on 9/6/19.
5 -								Notes: Groundwater, though not encountered at the time of drilling, may rise to a higher level due to seasonal variations in precipitation and several other factors as discussed in the report
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DEPTH (feet)	Bulk SAMPLES Driven	SAMPLE TIME	SAMPLE ID	PID READING (ppm)	MOISTURE	SYMBOL	CLASSIFICATION U.S.C.S.	DATE DRILLED 9/6/19 BORING NO. AOC1-W-B26S GROUND ELEVATION 59' ± (MSL) SHEET 1 OF 1 METHOD OF DRILLING Hand Auger (Strongarm) DRIVE WEIGHT
0		08:52	B26S-0.5' \ DUP-42 /				SM	CONCRETE: Approximately 4 inches thick.
-		08:53	B26S-1.5'				SIVI	FILL: Dark brown, slightly moist, dense, silty SAND with some clay.
-		08:55	B26S-2.5'					
-								Total Depth = 2.5 feet bgs. Groundwater not encountered during drilling. Backfilled with No. 8 granular bentonite to surface on 9/6/19.
5 -								Notes: Groundwater, though not encountered at the time of drilling, may rise to a higher level due to seasonal variations in precipitation and several other factors as discussed in the report.
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DEPTH (feet)	Bulk SAMPLES Driven	SAMPLE TIME	SAMPLE ID	PID READING (ppm)	MOISTURE	SYMBOL	CLASSIFICATION U.S.C.S.	DATE DRILLED 12/6/19 BORING NO. AOC1-W-B26SW GROUND ELEVATION 70' ± (MSL) SHEET 1 OF 1 METHOD OF DRILLING Hand Auger (Strongarm) DROP - - DRIVE WEIGHT - DROP - - SAMPLED BY CX LOGGED BY CX REVIEWED BY JJR DESCRIPTION/INTERPRETATION DROP - - DROP -
0		10:13	B26SW-0.5'			188888	014	ASPHALT:
-		10:15	B26SW-1.5'				SM	Approximately 4 inches thick. FILL: Brown, moist, loose, silty SAND. Light brown.
-		10:18	B26SW-2.5'					
-								Total Depth = 2.5 feet bgs. Groundwater not encountered during drilling. Backfilled with hydrated bentonite from 2.5 to 0.5 feet bgs and capped with cold-patch asphalt to match existing surface on 12/6/19.
5 –								Notes: Groundwater, though not encountered at the time of drilling, may rise to a higher level due to seasonal variations in precipitation and several other factors as discussed in the report.
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DEPTH (feet)	/S	E TIME	SAMPLE ID	PID READING (ppm)	MOISTURE	SYMBOL	CLASSIFICATION U.S.C.S.	GROUND ELEVATION 70' ± (MSL) SHEET 1 OF 1 METHOD OF DRILLING Hand Auger (Strongarm)
DEPT	Bulk	SAMPLE	SAME	READ	MOIS	SYN	ASSIF U.S.	DRIVE WEIGHT DROP
		0)		PID			J	SAMPLED BY CX LOGGED BY CX REVIEWED BY JJR DESCRIPTION/INTERPRETATION
0		10:25	B26WW- \ 0.5'				SM	ASPHALT: Approximately 4 inches thick.
-		10:26	B26WW- 1.5'					FILL: Brown, moist, loose, silty SAND. Light brown.
-		10:29	B26WW- 2.5'					
-								Total Depth = 2.5 feet bgs. Groundwater not encountered during drilling. Backfilled with hydrated bentonite from 2.5 to 0.5 feet bgs and capped with cold-patc asphalt to match existing surface on 12/6/19.
5 -								Notes: Groundwater, though not encountered at the time of drilling, may rise to a higher level due to seasonal variations in precipitation and several other factors as discussed in the report.
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O9:30 B27E-0.5' O9:31 B27E-1.5' O9:32 B27E-2.5' Total Depth = 2.5 feet bgs. Groundwater not encountered during drilling. Backfilled with No. 8 granular bentonite to surface on 9/6/19. Notes: Groundwater, though not encountered at the time of drilling, may rise to a higher due to seasonal variations in precipitation and several other factors as discussed the report. The ground elevation shown above is an estimation only. It is based on our	
O9:31 B27E-1.5' O9:32 B27E-2.5' Total Depth = 2.5 feet bgs. Groundwater not encountered during drilling. Backfilled with No. 8 granular bentonite to surface on 9/6/19. Notes: Groundwater, though not encountered at the time of drilling, may rise to a higher due to seasonal variations in precipitation and several other factors as discussed the report.	
Total Depth = 2.5 feet bgs. Groundwater not encountered during drilling. Backfilled with No. 8 granular bentonite to surface on 9/6/19. Notes: Groundwater, though not encountered at the time of drilling, may rise to a higher due to seasonal variations in precipitation and several other factors as discussed the report.	
Groundwater not encountered during drilling. Backfilled with No. 8 granular bentonite to surface on 9/6/19. Notes: Groundwater, though not encountered at the time of drilling, may rise to a higher due to seasonal variations in precipitation and several other factors as discussed the report.	
Groundwater, though not encountered at the time of drilling, may rise to a higher due to seasonal variations in precipitation and several other factors as discussed the report.	
interpretations of published maps and other documents reviewed for the purpose this evaluation. It is not sufficiently accurate for preparing construction bids and documents.	
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DEPTH (feet)	Bulk SAMPLES Driven	SAMPLE TIME	SAMPLE ID	PID READING (ppm)	MOISTURE	SYMBOL	CLASSIFICATION U.S.C.S.	DATE DRILLED 9/6/19 BORING NO. AOC1-W-B27S GROUND ELEVATION 59' ± (MSL) SHEET 1 OF 1 METHOD OF DRILLING Hand Auger (Strongarm) DROP - SAMPLED BY KMH LOGGED BY KMH REVIEWED BY JJR DESCRIPTION/INTERPRETATION
0		09:25	B27S-0.5'			188888		CONCRETE:
-		09:26	B27S-1.5'				SM	Approximately 4 inches thick. FILL: Very dark brown, slightly moist, dense, silty SAND with abundant clay. Decreasing clay.
-		09:28	B27S-2.5'					
-								Total Depth = 2.5 feet bgs. Groundwater not encountered during drilling. Backfilled with No. 8 granular bentonite to surface on 9/6/19.
5 –								Notes: Groundwater, though not encountered at the time of drilling, may rise to a higher level due to seasonal variations in precipitation and several other factors as discussed in the report.
-								The ground elevation shown above is an estimation only. It is based on our interpretations of published maps and other documents reviewed for the purposes of this evaluation. It is not sufficiently accurate for preparing construction bids and design documents.
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DEPTH (feet)	Bulk SAMPLES Driven	SAMPLE TIME	SAMPLE ID	PID READING (ppm)	MOISTURE	SYMBOL	CLASSIFICATION U.S.C.S.	DATE DRILLED 9/6/19 BORING NO. AOC1-W-B27W GROUND ELEVATION 59' ± (MSL) SHEET
0		09:19	B27W-0.5'			IRRRER		CONCRETE:
-		09:20	B27W-1.5'				SM	Approximately 4 inches thick. FILL: Very dark brown, slightly moist, dense, silty SAND with abundant clay. Decreasing clay.
-		09:22	B27W-2.5'					
-								Total Depth = 2.5 feet bgs. Groundwater not encountered during drilling. Backfilled with No. 8 granular bentonite to surface on 9/6/19.
5 –								Notes: Groundwater, though not encountered at the time of drilling, may rise to a higher level due to seasonal variations in precipitation and several other factors as discussed in the report.
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0		10:46	B27EE-0.5'				SP	FILL: Light brown, moist, loose, poorly graded SAND.
-		10:47	B27EE-1.5'					Brown.
-		10:49	B27EE-2.5'					
-								Total Depth = 2.5 feet bgs. Groundwater not encountered during drilling. Backfilled with hydrated bentonite to surface on 12/6/19.
5 –								Notes: Groundwater, though not encountered at the time of drilling, may rise to a higher level due to seasonal variations in precipitation and several other factors as discussed in the report.
-								The ground elevation shown above is an estimation only. It is based on our interpretations of published maps and other documents reviewed for the purposes of this evaluation. It is not sufficiently accurate for preparing construction bids and design documents.
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0		10:52 \10:53	B27SE-0.5' DUP-70 /				SM	ASPHALT: Approximately 4 inches thick.
-		10:55	B27SE-1.5'				SIVI	FILL: Brown, moist, loose, silty SAND.
								Blown, moist, loose, silty SAND.
=		10:57	B27SE-2.5'					Total Donth 2.5 foot has
-								Total Depth = 2.5 feet bgs. Groundwater not encountered during drilling. Backfilled with hydrated bentonite to from 2.5 to 0.5 feet bgs and capped with cold-
_								patch asphalt to match existing surface on 12/6/19.
								Notes: Groundwater, though not encountered at the time of drilling, may rise to a higher level
5 –								due to seasonal variations in precipitation and several other factors as discussed in the report.
-		_						The ground elevation shown above is an estimation only. It is based on our
-		-						interpretations of published maps and other documents reviewed for the purposes of this evaluation. It is not sufficiently accurate for preparing construction bids and design
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DEPTH (feet)	Bulk SAMPLES Driven	SAMPLE TIME	SAMPLE ID	PID READING (ppm)	MOISTURE	SYMBOL	CLASSIFICATION U.S.C.S.	DATE DRILLED 9/6/19 BORING NO. AOC1-W-B40N GROUND ELEVATION 59' ± (MSL) SHEET
0		11:20	B40N-0.5'			11/11	CL-ML	ASPHALT:
-		11:22	B40N-1.5'					Approximately 2.5 inches thick. FILL: Very dark brown, slightly moist, soft, silty CLAY.
-		11:24	B40N-2.5				SM	Dark brown, slightly moist, dense, silty SAND.
-								Total Depth = 2.5 feet bgs. Groundwater not encountered during drilling. Backfilled with No. 8 granular bentonite to top of soil and capped with cold-patch asphalt on 9/6/19. Notes: Groundwater, though not encountered at the time of drilling, may rise to a higher level
5 -		_						due to seasonal variations in precipitation and several other factors as discussed in the report.
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DEPTH (feet)	Bulk SAMPLES Driven	SAMPLE TIME	SAMPLE ID	PID READING (ppm)	MOISTURE	SYMBOL	CLASSIFICATION U.S.C.S.	DATE DRILLED 9/6/19 BORING NO. AOC1-W-B40E GROUND ELEVATION 59' ± (MSL) SHEET
0		11:14	B40E-0.5'			11/11	CL-ML	ASPHALT:
-		11:15	B40E-1.5'					Approximately 2.5 inches thick. FILL: Very dark brown, slightly moist, soft, silty CLAY.
-		11:17	B40E-2.5				SM	Dark brown, slightly moist, dense, silty SAND.
- 5 —								Total Depth = 2.5 feet bgs. Groundwater not encountered during drilling. Backfilled with No. 8 granular bentonite to top of soil and capped with cold-patch asphalt on 9/6/19. Notes: Groundwater, though not encountered at the time of drilling, may rise to a higher level
3								due to seasonal variations in precipitation and several other factors as discussed in the report.
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DEPTH (feet)	Bulk SAMPLES Driven	SAMPLE TIME	SAMPLE ID	PID READING (ppm)	MOISTURE	SYMBOL	CLASSIFICATION U.S.C.S.	DATE DRILLED 9/6/19 BORING NO. AOC1-W-B40S GROUND ELEVATION 59' ± (MSL) SHEET 1 OF 1 METHOD OF DRILLING Hand Auger (Strongarm) DRIVE WEIGHT
0		11:06	B40S-0.5'			1011	CL-ML	ASPHALT: Approximately 2.5 inches thick.
-		11:08	B40S-1.5'					FILL: Very dark brown, slightly moist, dense, silty CLAY.
-		11:10	B40S-2.5					
-								Total Depth = 2.5 feet bgs. Groundwater not encountered during drilling. Backfilled with No. 8 granular bentonite to top of soil and capped with cold-patch asphalt on 9/6/19.
5 -								Notes: Groundwater, though not encountered at the time of drilling, may rise to a higher level due to seasonal variations in precipitation and several other factors as discussed in the report.
-								The ground elevation shown above is an estimation only. It is based on our interpretations of published maps and other documents reviewed for the purposes of this evaluation. It is not sufficiently accurate for preparing construction bids and design documents.
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DEPTH (feet)	Bulk SAMPLES Driven	SAMPLE TIME	SAMPLE ID	PID READING (ppm)	MOISTURE	SYMBOL	CLASSIFICATION U.S.C.S.	DATE DRILLED 9/6/19 BORING NO. AOC1-W-B48E GROUND ELEVATION 59' ± (MSL) SHEET 1 OF 1 METHOD OF DRILLING Hand Auger (Strongarm) DROP - SAMPLED BY KMH LOGGED BY KMH REVIEWED BY JJR DESCRIPTION/INTERPRETATION DROP - - DROP - - DROP - - - - DROP -
0		10:51	B48E-0.5'				SM	FILL: Dark brown, dry, loose, silty SAND with some roots.
-		10:53	B48E-1.5'					
-		10:54	B48E-2.5					
-								Total Depth = 2.5 feet bgs. Groundwater not encountered during drilling. Backfilled with No. 8 granular bentonite to surface on 9/6/19.
5 –								Notes: Groundwater, though not encountered at the time of drilling, may rise to a higher level due to seasonal variations in precipitation and several other factors as discussed in the report.
-								The ground elevation shown above is an estimation only. It is based on our interpretations of published maps and other documents reviewed for the purposes of this evaluation. It is not sufficiently accurate for preparing construction bids and design documents.
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DEPTH (feet)	Bulk SAMPLES Driven	SAMPLE TIME	SAMPLE ID	PID READING (ppm)	MOISTURE	SYMBOL	CLASSIFICATION U.S.C.S.	DATE DRILLED 9/6/19 BORING NO. AOC1-W-B48N GROUND ELEVATION 59' ± (MSL) SHEET 1 OF 1 METHOD OF DRILLING Hand Auger (Strongarm) DRIVE WEIGHT
0		10:42	B48N-0.5'				SM	FILL: Dark brown, dry, loose, silty SAND with some roots.
-		10:44	B48N-1.5'					
-		10:46	B48N-2.5					
-								Total Depth = 2.5 feet bgs. Groundwater not encountered during drilling. Backfilled with No. 8 granular bentonite to surface on 9/6/19.
-								Notes: Groundwater, though not encountered at the time of drilling, may rise to a higher level
5 –								due to seasonal variations in precipitation and several other factors as discussed in the report.
-								The ground elevation shown above is an estimation only. It is based on our interpretations of published maps and other documents reviewed for the purposes of
-								this evaluation. It is not sufficiently accurate for preparing construction bids and design documents.
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DEPTH (feet)	Bulk SAMPLES Driven	SAMPLE TIME	SAMPLE ID	PID READING (ppm)	MOISTURE	SYMBOL	CLASSIFICATION U.S.C.S.	DATE DRILLED 9/6/19 BORING NO. AOC1-W-B48W GROUND ELEVATION 59' ± (MSL) SHEET 1 OF 1 METHOD OF DRILLING Hand Auger (Strongarm) DRIVE WEIGHT
0		10:32	B48W-0.5'				SM	FILL: Dark brown, dry, loose, silty SAND with some roots.
-		10:34	B48W-1.5'					
-		10:36	B48W-2.5					
-								Total Depth = 2.5 feet bgs. Groundwater not encountered during drilling. Backfilled with No. 8 granular bentonite to surface on 9/6/19.
5 -								Notes: Groundwater, though not encountered at the time of drilling, may rise to a higher level due to seasonal variations in precipitation and several other factors as discussed in the report.
-								The ground elevation shown above is an estimation only. It is based on our interpretations of published maps and other documents reviewed for the purposes of this evaluation. It is not sufficiently accurate for preparing construction bids and design documents.
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et)	SAMPLES	TIME	QI =	(mdd)	ш			DATE DRILLED 5/2/19 BORING NO. AOC2-B1 GROUND ELEVATION 60' ± (MSL) SHEET 1 OF 1
DEPTH (feet)	Bulk	쁘	SAMPLE ID	PID READING (ppm)	MOISTURE	SYMBOL	CLASSIFICATION U.S.C.S.	METHOD OF DRILLING Hand Auger to 4.5'; Direct Push to 16' (5400 GP) DRIVE WEIGHT DROP
	D B	S		PIDI			CL,	SAMPLED BY KMH LOGGED BY AUC REVIEWED BY JJR DESCRIPTION/INTERPRETATION
-							SM	ASPHALT: Approximately 4 inches thick. FILL: Dark brown, dry, medium dense, silty SAND.
-		15:08	B1-5'	0.1		#	CL-ML SP	ALLUVIUM: Dark brown, moist, stiff, silty CLAY; mica present. Light brown, dry, loose, poorly graded SAND.
10 -		10.10	51-10				CL	Very dark brown, stiff, lean CLAY.
-		15:25	B1-15'	0.0			SP	Very moist; wet. Light brown, slightly moist, loose, poorly graded SAND. Wet. Total Depth = 16 feet bgs.
20 -								Groundwater encountered at approximately 15 feet bgs after 15 minutes of drilling. Backfilled with No. 8 granular bentonite 16 to 14.5 feet and 13.5 to 5.5 feet and 4.5 feet to soil. Backfilled with No. 3 Sandmex sand 14.5 to 13.5 feet and 5.5 to 4.5 feet and capped with cold set asphalt to surface. Vapor probes set at 5 and 11 feet.
-								Notes: Groundwater may rise to a level higher than that measured in borehole due to seasonal variations in precipitation and several other factors as discussed in the report.
-								The ground elevation shown above is an estimation only. It is based on our interpretations of published maps and other documents reviewed for the purposes of this evaluation. It is not sufficiently accurate for preparing construction bids and design documents.
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	Bulk SAMPLES Driven	SAMPLE TIME	SAMPLE ID	PID READING (ppm)	MOISTURE	SYMBOL	CLASSIFICATION U.S.C.S.	DATE DRILLED 5/2/19 BORING NO. AOC2-B2 GROUND ELEVATION 49' ± (MSL) SHEET 1 OF 1 METHOD OF DRILLING Hand Auger DROP - DRIVE WEIGHT - DROP - - SAMPLED BY KMH LOGGED BY AUC REVIEWED BY JJR DESCRIPTION/INTERPRETATION
		11:06	B2-5'	63.0			CL-ML	CONCRETE: Approximately 6.5 inches thick. BASE: Approximately 1.5 inches thick/ ALLUVIUM: Very dark brown, slightly moist, silty CLAY; with mica. Gray/dark brown, very moist, stiff, lean CLAY. Wet.
20 —								Total Depth = 10.5 feet bgs. Groundwater encountered at approximately 8.5 feet after 30 minutes. Vapor probes installed at 7 and 5 feet. Backfilled with hydrated No. 8 bentonite to 7.5 and 6.5 feet to 3.5 and 4.5 feet to top of soil. Backfilled with No. 3 Sandmex sand from 7.5 to 6.5 and 5.5 to 4.5 feet and capped with cold set asphalt to surface. Notes: Groundwater may rise to a level higher than that measured in borehole due to seasonal variations in precipitation and several other factors as discussed in the report. The ground elevation shown above is an estimation only. It is based on our interpretations of published maps and other documents reviewed for the purposes of this evaluation. It is not sufficiently accurate for preparing construction bids and design documents.
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DEPTH (feet)	k en SAMPLES	SAMPLE TIME	SAMPLE ID	PID READING (ppm)	MOISTURE	SYMBOL	CLASSIFICATION U.S.C.S.	DATE DRILLED 9/9/19 BORING NO. AOC2-B2E GROUND ELEVATION 60' ± (MSL) SHEET 1 OF 1 METHOD OF DRILLING Hand Auger to 4.5' bgs, slide hammer to 7' bgs (Strongarm)
	Bulk	SA	S	PIDR	2		CLA	DRIVE WEIGHT DROP SAMPLED BYAUC REVIEWED BYJJR DESCRIPTION/INTERPRETATION
-		14:26	B2E-5'				CL	CONCRETE: Approximately 6 inches thick. FILL: Dark brown, moist, stiff, silty CLAY; gravel present on top 2.5 feet; strong hydrocarbon ordor; micaceous.
10		14:32	B2E-7'					Very moist. Total Depth = 7 feet bgs. Groundwater not encountered during drilling. Vapor probe installed at 5 feet bgs. Backfilled dry bentonite 7 feet to 6 feet bgs, #3 sand 6 feet to 4.5 feet bgs, 4.5 feet to 4 feet dry benotite, 4 feet to surface hydrated benotite to surface on 9/9/19. Notes: Groundwater, though not encountered at the time of drilling, may rise to a higher level due to seasonal variations in precipitation and several other factors as discussed in the report. The ground elevation shown above is an estimation only. It is based on our interpretations of published maps and other documents reviewed for the purposes of this evaluation. It is not sufficiently accurate for preparing construction bids and design documents.
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et)	SAMPLES	ME	Q	(mdd)	ш		NOI	DATE DRILLED 9/9/19 BORING NO. AOC2-B2W GROUND ELEVATION 60' ± (MSL) SHEET 1 OF 1
DEPTH (feet)		SAMPLE TIME	SAMPLE ID	PID READING (ppm)	MOISTURE	SYMBOL	CLASSIFICATION U.S.C.S.	METHOD OF DRILLING Hand Auger to 4.5' bgs, slide hammer to 10.5' bgs (Strongarm)
DEP	Bulk	SAME	SAN	REA	MO	S	LASS U.	DRIVE WEIGHT DROP
				3			O	SAMPLED BY AUC LOGGED BY AUC REVIEWED BY JJR DESCRIPTION/INTERPRETATION
0							GP	CONCRETE: Approximately 6 inches thick.
-						W	CL-ML	FILL: Black, moist, loose, poorly-graded GRAVEL; some silty clay. Black, moist, stiff, silty CLAY; some gravel; strong hydrocarbon odor.
-		45.40					SM	Gray, moist, medium dense, silty SAND; micaceous; hydrocarbon odor.
-		15:10	B2W-5'					Very moist.
		15:15	B2W-7'					
-			B2W-GW					Wet.
10 -		-					CL	Black, wet, stiff, lean CLAY; micaceous; expansive; very elastic.
								Total Depth = 10.5 feet bgs. Groundwater encountered at approximately 7 feet bgs during drilling. Backfilled with
=								grout (95% cement, 5% bentonite) to approximately 2 feet bgs (gravel layer). Backfilled with dry bentonite from 2' to top of soil (gravel) on 9/11/19.
-								Notes:
_								Groundwater may rise to a level higher than that measured in borehole due to seasonal variations in precipitation and several other factors as discussed in the
								report.
-		-						The ground elevation shown above is an estimation only. It is based on our interpretations of published maps and other documents reviewed for the purposes of
20 -								this evaluation. It is not sufficiently accurate for preparing construction bids and design documents.
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	SAMPLES		₽ C	(mo			N OF C	DATE DRILLED 5/6/19 BORING NO. AOC3-B1
DEPTH (feet)		SAMPLE TIME	SAMPLE ID	PID READING (ppm)	MOISTURE	SYMBOL	CLASSIFICATION U.S.C.S.	GROUND ELEVATION 58' ± (MSL) SHEET OF METHOD OF DRILLING Hand Auger to 4.5'; Direct Push to TD (5400 Geoprobe)
DEP.	Bulk	SAME	SAN	REA	MO	SΥ	LASS U.	DRIVE WEIGHT DROP
				PIC				SAMPLED BY KMH LOGGED BY AUC REVIEWED BY JJR DESCRIPTION/INTERPRETATION
-							SW	FILL: Light brown, dry, loose, well graded SAND.
		∖16:40	B1-5'	0.1			SM	ALLUVIUM:
-								Dark brown, moist, medium dense, silty SAND. Medium brown; wet.
10 -		16:50	B1-10' DUP17	0.3			CL -	Dark brown, moist, stiff, lean CLAY.
_					_		CL-ML	Medium brown, dry, firm, silty CLAY.
-		17:00	B1-15'	0.1				Moist.
20 –		17:14	B1-20'	0.1				Wet. Total Depth = 20 feet bgs.
-								DUP-17 at 10 feet. Groundwater not encountered during drilling. Backfilled with hydrated No. 8 bentonite 20 to 14.5 feet and 13.5 to 15.5 feet and 4.5 feet to soil. Vapor probes installed at 5 and 15 feet. Backfilled with No. 3 Sandmex sand 14.5 to 13.5 feet and 5.5 to 4.5 feet.
_								Notes: Groundwater, though not encountered at the time of drilling, may rise to a higher level due to seasonal variations in precipitation and several other factors as discussed in the report.
30 –		-						The ground elevation shown above is an estimation only. It is based on our interpretations of published maps and other documents reviewed for the purposes of this evaluation. It is not sufficiently accurate for preparing construction bids and design
								documents.
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DEPTH (feet)	Bulk SAMPLES Driven	SAMPLE TIME	SAMPLE ID	PID READING (ppm)	MOISTURE	SYMBOL	CLASSIFICATION U.S.C.S.	DATE DRILLED 9/10/19 BORING NO. AOC3-B1N GROUND ELEVATION 59' ± (MSL) SHEET 1 OF 1 METHOD OF DRILLING Hand Auger to 4.5' bgs, Geoprobe 6620DT track rig to 20' bgs DROP - - DRIVE WEIGHT - DROP - - SAMPLED BY KMH LOGGED BY AUC REVIEWED BY JJR DESCRIPTION/INTERPRETATION
0		08:08	B1N-0.5'				SM	FILL: Dark brown, moist, dense, silty SAND with trace clay; some roots; micaceous.
-							SP	Medium brown, slightly moist, loose, poorly-graded medium SAND.
-		08:30	B1N-5'	0.0				Wet; micaceous
40		08:35	B1N-10'	0.5			CL-ML	ALLUVIUM: Dark brown, wet, stiff, silty CLAY; micaceous.
10 -					-			Medium brown, moist, dense, silty SAND with trace clay; micaceous.
-	-	08:37	B1N-15'	0.3				Gray brown.
		00.40	D4N 20'			#	CL-ML	Gray, moist, stiff, silty CLAY.
20 -		08:40	B1N-20'	0.0				Total Depth = 20 feet bgs. Groundwater not encountered during drilling. Backfilled with hydrated bentonite from 20 to 15.5 feet bgs, #3 sand from 15.5 to 14.5 feet bgs, hydrated bentonite from 14.5 to 5.5 feet; #3 sand from 5.5 to 4.5 feet bgs, and hydrated bentontite to surface on 9/10/19.
-								Notes: Groundwater, though not encountered at the time of drilling, may rise to a higher level due to seasonal variations in precipitation and several other factors as discussed in the report.
30 -		-						The ground elevation shown above is an estimation only. It is based on our interpretations of published maps and other documents reviewed for the purposes of this evaluation. It is not sufficiently accurate for preparing construction bids and design documents.
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DEPTH (feet)	Bulk SAMPLES Driven	SAMPLE TIME	SAMPLE ID	PID READING (ppm)	MOISTURE	SYMBOL	CLASSIFICATION U.S.C.S.	DATE DRILLED 9/10/19 BORING NO. AOC3-B1E GROUND ELEVATION 50' ± (MSL) SHEET 1 OF 1 METHOD OF DRILLING Hand Auger to 4.5' bgs, Geoprobe 6620DT track rig to 20' bgs DRIVE WEIGHT - DROP - SAMPLED BY KMH LOGGED BY AUC REVIEWED BY JJR DESCRIPTION/INTERPRETATION
0		08:20	B1E-0.5'				SM	FILL: Dark brown, moist, dense, silty SAND with trace clay; some roots; micaceous.
-		08:47	B1E-5'	0.6			SP	Medium brown, moist, medium dense, poorly-graded medium SAND; >10mm brick fragement. Light brown.
10 -		09:01	B1E-10'	0.3			CL-ML	ALLUVIUM: Dark brown, wet, stiff, silty CLAY; micaceous.
-		09:06	B1E-15'	0.8		7	SM	Medium brown, moist, dense, silty SAND; micaceous.
20 -		09:08	B1E-20'	0.6		Ш	CL-ML	Gray, moist, stiff, silty CLAY.
30 -								Total Depth = 20 feet bgs. Groundwater not encountered during drilling. Vapor probes installed at 5 and 15 feet bgs. Backfilled with hydrated bentonite from 20 to 15.5 feet bgs, #3 sand from 15.5 to 14.5 feet bgs, hydrated bentonite from 14.5 to 5.5 feet; #3 sand from 5.5 to 4.5 feet bgs, and hydrated bentonite to surface on 9/10/19. Notes: Groundwater, though not encountered at the time of drilling, may rise to a higher level due to seasonal variations in precipitation and several other factors as discussed in the report. The ground elevation shown above is an estimation only. It is based on our interpretations of published maps and other documents reviewed for the purposes of this evaluation. It is not sufficiently accurate for preparing construction bids and design documents.
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	SAMPLES	SAMPLES	m)	щ		N OIF	DATE DRILLED 5/6/19 BORING NO. AOC3-B2	
DEPTH (feet)	\S	SAMPLE TIME	SAMPLE ID	PID READING (ppm)	MOISTURE	SYMBOL	CLASSIFICATION U.S.C.S.	GROUND ELEVATION 58' ± (MSL) SHEET 1 OF 1 METHOD OF DRILLING Hand Auger to 4.5'; Direct Push to TD (5400 Geoprobe)
DEPT	Bulk	SAMP	SAM	REAL	MOIS	SYI	ASSI U.S	DRIVE WEIGHT DROP
				PID			ਹੋ	SAMPLED BY KMH LOGGED BY AUC REVIEWED BY JJR DESCRIPTION/INTERPRETATION
0 -		-					SM	FILL: Medium brown, dry, medium dense, silty SAND.
-		15:50	B2-5'	0.1			CL	ALLUVIUM: Dark brown, moist, very stiff, lean CLAY.
10 -		16:03	B2-10'	0.0	_		CL-ML	Dark brown/black, wet, firm, silty CLAY.
-	-	16:15	B2-15'	0.0				Medium brown.
20 —		16:30	AOC3-B2-	0.0				Wet.
-		-	20'					Total Depth = 20 feet bgs. Groundwater not encountered during drilling. Vapor probes installed at 5 and 15 feet. Backfilled with hydrated No. 8 granular bentonite 20 to 12.5 feet and 11.5 to 5.5 feet and 4.5 feet to soil.
-		-						Notes: Groundwater, though not encountered at the time of drilling, may rise to a higher level due to seasonal variations in precipitation and several other factors as discussed in the report.
30 –								The ground elevation shown above is an estimation only. It is based on our interpretations of published maps and other documents reviewed for the purposes of this evaluation. It is not sufficiently accurate for preparing construction bids and design documents.
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DEPTH (feet)	Bulk SAMPLES	SAMPLE TIME	SAMPLEID	PID READING (ppm)	MOISTURE	SYMBOL	CLASSIFICATION U.S.C.S.	DATE DRILLED 9/10/19 BORING NO. AOC3-B2S GROUND ELEVATION 59' ± (MSL) SHEET 1 OF 1 METHOD OF DRILLING Hand Auger to 4.5' bgs, Geoprobe 6620DT track rig to 20' bgs DRIVE WEIGHT - DROP -
0				Δ.			CM	SAMPLED BY KMH LOGGED BY AUC REVIEWED BY JJR DESCRIPTION/INTERPRETATION
-		10:12	B2S-5'	0.0			SM SP	FILL: Dark brown, moist, loose, silty SAND; >10mm brick fragments in up 2 feet bgs; clay traces. Medium brown, moist, medium dense, poorly-graded medium SAND; >10mm brick fragement. Medium brown; medium dense; micaceous. Dark brown.
10 -		10:16	B2S-10'	0.1			CL-ML	ALLUVIUM: Dark brown, moist, stiff, silty CLAY; micaceous.
-		10:18	B2S-15'	0.7			SM	Light brown, moist, dense, silty SAND; micaceous. Dry.
						141	CL-ML	Gray, moist, stiff, silty CLAY; micaceous.
30 -		10:21	B2S-20'	0.0				Black. Total Depth = 20 feet bgs. Groundwater not encountered during drilling. Vapor probes installed at 5 and 15 feet bgs. Backfilled with hydrated bentonite from 20 to 15.5 feet bgs, #3 sand from 15.5 to 14.5 feet bgs, hydrated bentonite from 14.5 to 5.5 feet; #3 sand from 5.5 to 4.5 feet bgs, and hydrated bentonitie to surface on 9/10/19. Notes: Groundwater, though not encountered at the time of drilling, may rise to a higher level due to seasonal variations in precipitation and several other factors as discussed in the report. The ground elevation shown above is an estimation only. It is based on our interpretations of published maps and other documents reviewed for the purposes of this evaluation. It is not sufficiently accurate for preparing construction bids and design documents.



et)	SAMPLES	ME	QIII	DATE DRILLED 9/10/19 BORING NO. AOC3-B2	DATE DRILLED 9/10/19 BORING NO. AOC3-B2E GROUND ELEVATION 59' ± (MSL) SHEET 1 OF 1			
DEPTH (feet)	Bulk	SAMPLE TIME	SAMPLE ID	PID READING (ppm)	MOISTURE	SYMBOL	CLASSIFICATION U.S.C.S.	METHOD OF DRILLING Hand Auger to 4.5' bgs, Geoprobe 6620DT track rig to 20' bgs DRIVE WEIGHT DROP
				۵				SAMPLED BY KMH LOGGED BY AUC REVIEWED BY JJR DESCRIPTION/INTERPRETATION
0							CL-ML	FILL: Dark brown, moist, stiff, silty CLAY; micaceous; some grass roots in upper 0.5 feet bgs.
-							SM	Medium brown, moist, medium dense, silty SAND; micaceous.
-		10:38	B2E-5'	1.7				Wet.
						CL-ML SM	ALLUVIUM: Medium brown, moist, stiff, silty CLAY; micaceous.	
-							Dark brown, moist, dense, silty SAND; micaceous.	
10 -		10:42	B2E-10'	2.8			CL-ML	Medium brown, moist, stiff, silty CLAY; micaceous.
-					<u> </u>	111		Light brown, moist, dense, silty SAND; micaceous.
		10:45	B2E-15'	2.0				Dry.
								Wet.
-						///	CL-ML	Gray, wet, stiff, silty CLAY; micaceous.
20 -		10:49	B2E-20'	1.5		עואוו		Black. Total Depth = 20 feet bgs. Groundwater not encountered during drilling.
								Vapor probes installed at 5 and 15 feet bgs. Backfilled with hydrated bentonite from 20 to 15.5 feet bgs, #3 sand from 15.5 to 14.5
-								feet bgs, hydrated bentonite from 14.5 to 5.5 feet; #3 sand from 5.5 to 4.5 feet bgs, and hydrated bentontite to surface on 9/10/19.
-								Notes: Groundwater, though not encountered at the time of drilling, may rise to a higher level due to seasonal variations in precipitation and several other factors as discussed in
-								the report. The ground elevation shown above is an estimation only. It is based on our
30 -								interpretations of published maps and other documents reviewed for the purposes of this evaluation. It is not sufficiently accurate for preparing construction bids and design documents.
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DEPTH (feet)	Bulk SAMPLES Driven	SAMPLE TIME	SAMPLE ID	PID READING (ppm)	MOISTURE	SYMBOL	CLASSIFICATION U.S.C.S.	DATE DRILLED 9/10/19 BORING NO. AOC3-B2N GROUND ELEVATION 59' ± (MSL) SHEET 1 OF 1 METHOD OF DRILLING Hand Auger to 4.5' bgs, Geoprobe 6620DT track rig to 20' bgs DRIVE WEIGHT - DROP - SAMPLED BY KMH LOGGED BY AUC REVIEWED BY JJR DESCRIPTION/INTERPRETATION
0		11.10	B2N-5'	1.9			SM	FILL: Light brown, dry, loose, silty SAND with some roots in upper 1 foot. Micaceous.
-		11:18	BZIN-3	1.9			CL-ML	ALLUVIUM: Medium brown, moist, stiff, silty CLAY.
10 -		11:21	B2N-10'	1.5		<u> </u>	SM	Dark brown, moist, dense, silty SAND; micaceous. Wet. Moist.
-		11:24	B2N-15'	1.5				Light brown; slightly moist. Dry. Wet.
-							CL-ML	Gray, wet, stiff, silty CLAY.
20 -		11:27	B2N-20'	1.1				Total Depth = 20 feet bgs. Groundwater not encountered during drilling. Vapor probes installed at 5 and 15 feet bgs. Backfilled with hydrated bentonite from 20 to 15.5 feet bgs, #3 sand from 15.5 to 14.5 feet bgs, hydrated bentonite from 14.5 to 5.5 feet; #3 sand from 5.5 to 4.5 feet bgs, and hydrated bentontite to surface on 9/10/19. Notes:
_								Groundwater, though not encountered at the time of drilling, may rise to a higher level due to seasonal variations in precipitation and several other factors as discussed in the report.
30 –								The ground elevation shown above is an estimation only. It is based on our interpretations of published maps and other documents reviewed for the purposes of this evaluation. It is not sufficiently accurate for preparing construction bids and design documents.
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DEPTH (feet)	SAMPLES	SAMPLE TIME	SAMPLE ID	PID READING (ppm)	MOISTURE	SYMBOL	CLASSIFICATION U.S.C.S.	DATE DRILLED 5/6/19 BORING NO. AOC3-B3 GROUND ELEVATION 58' ± (MSL) SHEET 1 OF 1 METHOD OF DRILLING Hand Auger to 4.5'; Direct Push to TD
	Bulk	SAMI	SAI	PID RE	MO	S	CLASS U.	DRIVE WEIGHT - DROP - SAMPLED BY KMH LOGGED BY AUC REVIEWED BY JJR DESCRIPTION/INTERPRETATION
0		-					SM	FILL: Medium brown, moist, medium dense, silty SAND.
-		17:30	B3-5'	0.1			CL	ALLUVIUM: Dark brown, moist, firm, lean CLAY.
10 -		17:37	B3-10'	0.4			CL-ML	Dark brown, moist, firm, silty CLAY. Medium brown; wet. Moist.
		17:55 B3-15' 0.2		CL	Dark brown, wet, firm, lean CLAY.			
							CL-ML	Dark brown, dry, firm, silty CLAY.
20 –		18:02	B3-20'	0.1			CL	Dark brown, dry, lean CLAY; some black lenses.
_								Total Depth = 21 feet bgs. Groundwater encountered at approximatel7 17 and 21 feet. Vapor probes installed at 5 and 15 feet. Backfilled with hydrated No. 8 granular bentonite 21 to 12.5 feet and 11.5 to 5.5 feet and 4.5 feet to soil. Notes:
_								Groundwater may rise to a level higher than that measured in borehole due to seasonal variations in precipitation and several other factors as discussed in the report.
30 –		-						Groundwater may rise to a level higher than that measured in borehole due to seasonal variations in precipitation and several other factors as discussed in the report.
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eet)	SAMPLES	TIME	Q	(mdd)	ZE	١,	S.C.S.	DATE DRILLED 9/10/19 BORING NO. AOC3-B3W GROUND ELEVATION 58' ± (MSL) SHEET 1 OF 1
DEPTH (feet)	Bulk	쁘	SAMPLE ID	PID READING (ppm)	MOISTURE	SYMBOL	CLASSIFICATION U.S.C.S.	METHOD OF DRILLING Hand Auger to 4.5' bgs, Geoprobe 6620DT track rig to 20' bgs DRIVE WEIGHT DROP
				٦				SAMPLED BY KMH LOGGED BY AUC REVIEWED BY JJR DESCRIPTION/INTERPRETATION
0		-					SM	FILL: Dark brown, moist, loose, silty SAND with traces of clay. Light brown.
_		13:22	B3W-5' DUP-51	0.0			ML	ALLUVIUM: Medium brown, moist, stiff, SILT with clay traces. Dark brown; micaceous.
10 -		13:25	B3W-10' 	0.0	<u></u>			Boring collapsed at 11 feet bgs. Medium brown, moist, medium dense, silty SAND with trace clay; micaceous.
- - -		13:28	B3W-15'	0.0				Dry. Wet.
20 –		13:30	B3W-20'	0.0			CL-ML	Gray, moist, stiff, silty CLAY.
-								Total Depth = 20 feet bgs. Groundwater encountered after drilling at 9 feet bgs after 15 minutes. Boring collapsed at 11 feet bgs with 2 feet of water above collapse. Vapor probes installed at 5 feet bgs. Backfilled with hydrated bentonite from 20 to 15.5 feet bgs, #3 sand from 15.5 to 14.5 feet bgs, hydrated bentonite from 14.5 to 5.5 feet; #3 sand from 5.5 to 4.5 feet bgs, and hydrated bentontite to surface on 9/10/19.
-								Notes: Groundwater may rise to a level higher than that measured in borehole due to seasonal variations in precipitation and several other factors as discussed in the report.
30 -							The ground elevation shown above is an estimation only. It is based on our interpretations of published maps and other documents reviewed for the purposes of this evaluation. It is not sufficiently accurate for preparing construction bids and design documents.	
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DEPTH (feet)	Bulk SAMPLES Driven	SAMPLE TIME	SAMPLE ID	PID READING (ppm)	MOISTURE	SYMBOL	CLASSIFICATION U.S.C.S.	DATE DRILLED 9/10/19 BORING NO. AOC3-B3E GROUND ELEVATION 58' ± (MSL) SHEET 1 OF 1 METHOD OF DRILLING Hand Auger to 4.5' bgs, Geoprobe 6620DT track rig to 20' bgs DRIVE WEIGHT - DROP - SAMPLED BY KMH LOGGED BY AUC REVIEWED BY JJR
0							SM	DESCRIPTION/INTERPRETATION FILL: Dark brown, moist, loose, silty SAND with traces of clay.
-			B3E-5'	0.0				Light brown.
-		14:28	B3E-10'	0.3			ML	ALLUVIUM: Medium brown, moist, stiff, SILT with clay traces; micaceous.
10 -			B3E-10	0.3	<u></u>			@10.5': Groundwater encountered after 15 minutes. Light brown, wet, dense, silty SAND; micaceous.
-		14:30	B3E-15'	0.4				Dry.
		14:32	B3E-20'	0.0			CL-ML	Gray, moist, stiff, silty CLAY.
20 -		14.32	B3E-20	0.0				Total Depth = 20 feet bgs. Groundwater encountered after drilling at 10.5 feet bgs after 15 minutes. Vapor probes installed at 5 feet bgs. Backfilled with hydrated bentonite from 20 to 15.5 feet bgs, #3 sand from 15.5 to 14.5 feet bgs, hydrated bentonite from 14.5 to 5.5 feet; #3 sand from 5.5 to 4.5 feet bgs, and hydrated bentonitie to surface on 9/10/19.
-								Notes: Groundwater may rise to a level higher than that measured in borehole due to seasonal variations in precipitation and several other factors as discussed in the report.
30 -								The ground elevation shown above is an estimation only. It is based on our interpretations of published maps and other documents reviewed for the purposes of this evaluation. It is not sufficiently accurate for preparing construction bids and design documents.
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TH (fee	Driven	SAMPLE TIME	SAMPLE ID	PID READING (ppm)	MOISTURE	SYMBOL	CLASSIFICATION U.S.C.S.	DATE DRILLED 9/10/19 BORING NO. AOC3-B3S GROUND ELEVATION 58' ± (MSL) SHEET 1 OF 1 METHOD OF DRILLING Hand Auger to 4.5' bgs, Geoprobe 6620DT track rig to 20' bgs DRIVE WEIGHT - DROP - SAMPLED BY KMH LOGGED BY AUC REVIEWED BY JJR DESCRIPTION/INTERPRETATION
0							SM	FILL: Dark brown, moist, loose, silty SAND with trace clay.
		13:35	B3S-5'	0.0				Light brown. Wet; micaceous.
							ML	ALLUVIUM: Medium brown, wet, stiff, SILT with clay traces; micaceous.
		40.00	DOC 401				SM	Medium brown, wet, stiff, silty SAND; micaceous.
10		13:38	B3S-10'	0.0	<u>*</u>			@10.5': Groundwater encountered after 15 minutes.
		13:41	B3S-15'	0.0				Trace clay.
		13:56	BES-20'	0.1				Fully saturated.
20 —		10.00	DUP-52	0.1		333333		Total Depth = 20 feet bgs. Groundwater encountered after drilling at 10.5 feet bgs after 15 minutes. Boring collapsed at 11 feet bgs with 0.5 feet of water/mud above collapse. Vapor probes installed at 5 feet bgs. Backfilled with hydrated bentonite from 20 to 15.5 feet bgs, #3 sand from 15.5 to 14.5 feet bgs, hydrated bentonite from 14.5 to 5.5 feet; #3 sand from 5.5 to 4.5 feet bgs, and hydrated bentonite to surface on 9/10/19. Notes: Groundwater may rise to a level higher than that measured in borehole due to seasonal variations in precipitation and several other factors as discussed in the report.
30 —								The ground elevation shown above is an estimation only. It is based on our interpretations of published maps and other documents reviewed for the purposes of this evaluation. It is not sufficiently accurate for preparing construction bids and design documents.



	Bulk SAMPLES	SAMPLE TIME	SAMPLE ID	PID READING (ppm)	MOISTURE	SYMBOL	CLASSIFICATION U.S.C.S.	DATE DRILLED 5/2/19 BORING NO. AOC3-B4 GROUND ELEVATION 59' ± (MSL) SHEET 1 OF 1 METHOD OF DRILLING Hand Auger to 5'; Direct Push (GP5400TB) DROP - DRIVE WEIGHT - DROP - SAMPLED BY KMH LOGGED BY AUC REVIEWED BY JJR DESCRIPTION/INTERPRETATION
0 -							SM	ASPHALT: Approximately 3 inches thick. FILL: Dark brown, dry, medium dense, silty SAND.
_		17:48	B4-5'	0.0			CL-ML	ALLUVIUM: Dark brown, moist, firm, silty CLAY; with mica.
10 -		17:55	B4-10'	0.1				
_		18:00	B4-15'	0.1				Light brown, dry, loose, well graded SAND.
20 -		18:10	B4-20'	0.0			SVV	Total Depth = 20 feet bgs. Groundwater not encountered during drilling. Vapor probes installed at 5 and 11 feet bgs. Backfilled with hydrated No. 8 granular bentonite from 20 to 12.5 feet and 11.5 to 5.5 feet and 4.5 feet to soil level. Backfilled with No. 3 Sandmex sand from 12.5 to 11.5 feet and 5.5 to 4.5 feet and capped with cool set asphalt. Collapsed at 12 feet bgs. Notes: Groundwater, though not encountered at the time of drilling, may rise to a higher level due to seasonal variations in precipitation and several other factors as discussed in the report.
30 -								The ground elevation shown above is an estimation only. It is based on our interpretations of published maps and other documents reviewed for the purposes of this evaluation. It is not sufficiently accurate for preparing construction bids and design documents.



DEPTH (feet)	Bulk SAMPLES Driven	SAMPLE TIME	SAMPLE ID	PID READING (ppm)	MOISTURE	SYMBOL	CLASSIFICATION U.S.C.S.	DATE DRILLED 5/2/19 BORING NO. AOC3-B5 GROUND ELEVATION 59' ± (MSL) SHEET 1 OF 1 METHOD OF DRILLING Hand Auger to 5'; Direct Push (GP5400TB) DROP - - DRIVE WEIGHT - DROP - - SAMPLED BY KMH LOGGED BY AUC REVIEWED BY JJR DESCRIPTION/INTERPRETATION
-		16:15	B5-5'	0.0			SM	ASPHALT: Approximately 2.5 inches thick. FILL: Dark brown, dry, loose, silty SAND.
10 -		16:25	B5-10'	0.0			CL-ML	ALLUVIUM: Dark brown, dry, firm, silty CLAY; with mica. Wet.
20 -		16:30	B5-20	0.0				Total Depth = 20 feet bgs. Groundwater encountered at approximately 14 feet bgs. Vapor probes installed at 5 and 12 feet bgs. Backfilled with hydrated No. 8 granular bentonite from 20 to 12.5 feet and 11.5 to 5.5 feet and 4.5 feet to top of soil. Notes: Groundwater may rise to a level higher than that measured in borehole due to seasonal variations in precipitation and several other factors as discussed in the report. The ground elevation shown above is an estimation only. It is based on our interpretations of published maps and other documents reviewed for the purposes of this evaluation. It is not sufficiently accurate for preparing construction bids and design documents.
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	SAMPLES		0	(E)	ZE		Z	DATE DRILLED 5/7/19 BORING NO. AOC4-B2-E1
DEPTH (feet)	/S	E TIME	SAMPLE ID	PID READING (ppm)	MOISTURE	SYMBOL	CLASSIFICATION U.S.C.S.	GROUND ELEVATION 70' ± (MSL) SHEET 1 OF 1 METHOD OF DRILLING Hand Auger to 4.5'; Direct Push to TD (Geoprobe 5400)
ЕРТ	Bulk	SAMPLE	SAMP	EAD	NOIS.	SYM	SSIF U.S.U	
	BI	/S		PID R	_		CLA	DRIVE WEIGHT DROP SAMPLED BYAUCLOGGED BYKMHREVIEWED BYJJR DESCRIPTION/INTERPRETATION
0							CL	ASPHALT: Approximately 3 inches thick.
_								ALLUVIUM: Very dark gray, slightly moist, dense, micaceous CLAY with some silt and mild hydrocarbon odor.
_		10:20	B2-E1-5'	17.2			 SP	Medium brown, slightly moist, loose, poorly graded medium SAND.
_							CL	Medium brown, slightly moist, soft, micaceous CLAY with some black staining.
10 -		10:27	B2-E1-10'	26.3			SM _ CL	Medium brown, slightly moist, somewhat loose, micaceous silty SAND. Very dark gray, slightly moist, soft CLAY with very light organic odor.
								Dark brown; stiff.
								Somewhat soft. Medium brown; stiff; some gravel.
-								
		10:35	B2-E1-15'	·E1-15' 21.3				Some gravel.
-								Expansive.
-								Some gravel.
			B2-E1-20'					Some gravel.
20 –		10:47	BZ-L 1-20	19.5		///		Total Depth = 20 feet bgs.
_								Groundwater not encountered during drilling. Backfilled with hydrated No. 8 granular bentonite to surface on 5/7/19.
								Notes: Groundwater, though not encountered at the time of drilling, may rise to a higher level
								due to seasonal variations in precipitation and several other factors as discussed in the report.
								The ground elevation shown above is an estimation only. It is based on our
_								interpretations of published maps and other documents reviewed for the purposes of this evaluation. It is not sufficiently accurate for preparing construction bids and design documents.
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	SAMPLES			т)			7	DATE DRILLED 5/7/19 BORING NO AOC4-B2-N1
feet)	SA	TIME	₽	PID READING (ppm)	RE	7	CLASSIFICATION U.S.C.S.	GROUND ELEVATION 70' ± (MSL) SHEET1 OF1
DEPTH (feet)		SAMPLE TIME	SAMPLE	ADING	MOISTURE	SYMBOL	SIFIC,	METHOD OF DRILLING Hand Auger to 4.5'; Direct Push to TD (Geoprobe 5400)
DEF	Bulk	SAM	SA	O RE,	MO	Ś	LAS. U	DRIVE WEIGHT DROP
				Ы				SAMPLED BY AUC LOGGED BY KMH REVIEWED BY JJR DESCRIPTION/INTERPRETATION
0						717	SP	CONCRETE: Approximately 7 inches thick.
-		-					CL-ML	ALLUVIUM: Medium brown, slightly moist, loose, poorly graded fine SAND.
						AM	SP	Dark brown, slightly moist, soft, micaceous silty CLAY. Light brown, slightly moist, dense, poorly graded fine SAND.
-		12:20	B2-N1-5'	12.2				3 · · · · , · 3 · , · · · · · · · · · ·
-								
							SM	Medium brown, slightly moist, dense, micaceous silty SAND.
-							<u>CL</u> SP	Medium brown, slightly moist, soft, micaceous CLAY. Medium brown, slightly moist, loose, poorly graded medium SAND.
10 -		12:26	B2-N1-10'	12.2			CL	Very dark gray, slightly moist, soft CLAY. Medium brown; very stiff.
-								Minor gravel.
_		<u> </u>			L_			Very dark gray; very light organic odor; very soft. Light brown; very stiff.
		12:40	B2-N1-15'	18.1			<u>SM</u> CL	Expansive. Medium brown, slightly moist, loose, micaceous silty SAND. Medium brown, dry year etiff CLAY
-		-						Medium brown, dry, very stiff, CLAY. Expansive.
								Very dark gray; very soft. Medium brown; very stiff.
20 –		12:55	B2-N1-20'	12.7				Total Depth = 20 feet bgs.
								Groundwater not encountered during drilling. Backfilled with hydrated No. 8 granular bentonite to surface on 5/7/19.
_								Notes:
-		-						Groundwater, though not encountered at the time of drilling, may rise to a higher level
								due to seasonal variations in precipitation and several other factors as discussed in the report.
								The ground elevation shown above is an estimation only. It is based on our
-								interpretations of published maps and other documents reviewed for the purposes of this evaluation. It is not sufficiently accurate for preparing construction bids and design
								documents.
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	Bulk SAMPLES Driven	SAMPLE TIME	SAMPLEID	PID READING (ppm)	MOISTURE	SYMBOL	CLASSIFICATION U.S.C.S.	DATE DRILLED 5/7/19 BORING NO. AOC4-B2-S1 GROUND ELEVATION 70' ± (MSL) SHEET 1 OF 1 METHOD OF DRILLING Direct Push (Geoprobe 5400) DROP - SAMPLED BY AUC LOGGED BY KMH REVIEWED BY JJR DESCRIPTION/INTERPRETATION
-		11:28	B2-S1-5'	25.4			SM CL-ML SP	ASPHALT: Approximately 3 inches thick. ALLUVIUM: Dark brown, dry, loose, silty SAND with abundant gravel. Dark brown, slightly moist, soft, micaceous silty CLAY. Medium brown, slightly moist, loose, poorly graded, medium SAND.
10 -		11:34	B2-S1-10'	26.7			CL	Very dark gray, slightly moist, soft, micaceous CLAY. Medium brown; stiff. Expansive.
-			B2-S1-15'	17.2				Black staining. Medium brown. Some gravel. Very dark brown; gray; soft. Medium brown; stiff. Some gravel.
20 -		12:02	52-01-20					Total Depth = 20 feet bgs. Groundwater not encountered during drilling. Backfilled with hydrated No. 8 granular bentonite to surface on 5/7/19. Notes: Groundwater, though not encountered at the time of drilling, may rise to a higher level due to seasonal variations in precipitation and several other factors as discussed in the report.
30 -								The ground elevation shown above is an estimation only. It is based on our interpretations of published maps and other documents reviewed for the purposes of this evaluation. It is not sufficiently accurate for preparing construction bids and design documents.



DEPTH (feet)	Bulk SAMPLES Driven	SAMPLE TIME	SAMPLE ID	PID READING (ppm)	MOISTURE	SYMBOL	CLASSIFICATION U.S.C.S.	DATE DRILLED 5/7/19 BORING NO. AOC4-B2-S1X GROUND ELEVATION 70' ± (MSL) SHEET 1 OF 1 METHOD OF DRILLING Hand Auger DROP - DRIVE WEIGHT - DROP - SAMPLED BY AUC LOGGED BY KMH REVIEWED BY JJR DESCRIPTION/INTERPRETATION
10 -							CL	CONCRETE: Approximately 6 inches thick. FILL: Very dark brown, slightly moist, soft micaceous CLAY. Refusal at 3 feet bgs due to concrete slab. Total Depth = 3 feet bgs (Refusal). Groundwater not encountered during drilling. Backfilled with hydrated No. 8 granular bentonite to surface on 5/7/19. Notes: Groundwater, though not encountered at the time of drilling, may rise to a higher level due to seasonal variations in precipitation and several other factors as discussed in the report. The ground elevation shown above is an estimation only. It is based on our interpretations of published maps and other documents reviewed for the purposes of this evaluation. It is not sufficiently accurate for preparing construction bids and design documents.
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at)	SAMPLES	√E	Q	(mdd			ATION S.	DATE DRILLED 5/7/19 BORING NO. AOC4-B2-W1 GROUND ELEVATION 69' ± (MSL) SHEET 1 OF 1
DEPTH (feet)	Bulk	SAMPLE TIME	SAMPLE ID	PID READING (ppm)	MOISTURE	SYMBOL	CLASSIFICATION U.S.C.S.	METHOD OF DRILLING Hand Auger to 4.5'; Direct Push to TD (Geoprobe 5400) DRIVE WEIGHT DROP SAMPLED BYAUCLOGGED BYKMHREVIEWED BYJJR DESCRIPTION/INTERPRETATION
0						71/71	CL-ML	CONCRETE: Approximately 5.5 inches thick.
-		09:03	B2-W1-5'	22.7			SP	ALLUVIUM: Dark brown, slightly moist, loose, silty CLAY. Medium brown, slightly moist, loose, poorly graded SAND.
-							SM	Medium brown, slightly moist, dense, micaceous silty SAND with some gray and black staining.
-					<u> </u>		CL 	Medium brown, slightly moist, soft micaceous CLAY. Black staining (no odor).
10 -		09:10	B2-W1-10'	33.5			CL	Black staining (no odor). Medium brown, slightly moist, loose, micaceous silty SAND. Very dark brown, slightly moist, soft, micaceous CLAY.
								Stiff.
-							SM	Some gravel and rust-colored staining. Medium brown, slightly moist, very dense, silty SAND. Medium brown, slightly moist, ctiff CLAY
-		09:40	B2-W1-15'	21.8			CL	Medium brown, slightlý moist, stiff CLAY. Very stiff.
20 -			B2-W1-20'	253				Some gravel. Expansive. Gray; light hydrocarbon odor. Slightly moist.
_						Y///		Total Depth = 21 feet bgs. Groundwater not encountered during drilling.
								Backfilled with hydrated No. 8 granular bentonite to surface on 5/7/19.
-								Notes: Groundwater, though not encountered at the time of drilling, may rise to a higher level due to seasonal variations in precipitation and several other factors as discussed in the report.
-								The ground elevation shown above is an estimation only. It is based on our interpretations of published maps and other documents reviewed for the purposes of this evaluation. It is not sufficiently accurate for preparing construction bids and design
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	SAMPLES		0	(E				DATE DRILLED 5/6/19 BORING NO. AOC4-B6-E1
(feet)	/S	SAMPLE TIME	ы. П	PID READING (ppm)	URE	SOL	CLASSIFICATION U.S.C.S.	GROUND ELEVATION 69' ± (MSL) SHEET 1 OF 1
DEPTH (feet)	ೱ	MPLE	SAMPLE ID	ADIN	MOISTURE	SYMBOL	SSIFIC U.S.C	METHOD OF DRILLING Hand Auger to 4.5'; Direct Push to TD (Geoprobe 5400)
	Bulk	SAI	Ś	ID RE	Σ		CLAS	DRIVE WEIGHT DROP
				Δ.				SAMPLED BY AUC LOGGED BY KMH REVIEWED BY JJR DESCRIPTION/INTERPRETATION
0							SM	ASPHALT: Approximately 3 inches thick.
-								FILL: (within bounds of former UST excavation) Medium brown, slightly moist, loose, silty SAND with some gravel, up to 1/2 inch
								diameter. Asphalt fragments; up to 1 inch diameter.
_		13:08	B6-E1-5'	2.7		Dark brown; some clay.		Dark brown; some clay.
-		1						
								Some black staining and rust-colored orange staining.
-								
10 -		13:15	B6-E1-10'	46.2				Dark gray staining; hydrocarbon odor.
-								
-					.94		CL	Dark gray, slightly moist, soft, micaceous CLAY with strong hydrocarbon odor. Light gray gravel fragments 1/8 inch diameter.
		13:25	B6-E1-15'	25.94				
-								
-		-						
		13:50	B6-E1-20'	67.5				
20 –		10.00		07.0				Total Depth = 20 feet bgs. Groundwater not encountered during drilling.
-								Backfilled with hydrated No. 8 granular bentonite to surface on 5/6/19.
								Notes: Groundwater, though not encountered at the time of drilling, may rise to a higher level
-								due to seasonal variations in precipitation and several other factors as discussed in
-								the report.
								The ground elevation shown above is an estimation only. It is based on our interpretations of published maps and other documents reviewed for the purposes of
								this evaluation. It is not sufficiently accurate for preparing construction bids and design documents.
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DEPTH (feet)	Bulk SAMPLES Driven	SAMPLE TIME	SAMPLE ID	PID READING (ppm)	MOISTURE	SYMBOL	CLASSIFICATION U.S.C.S.	DATE DRILLED 5/6/19 BORING NO. AOC4-B6-N1/AOC4-SV11 GROUND ELEVATION 69' ± (MSL) SHEET 1 OF 1 METHOD OF DRILLING Hand Auger to 4.5'; Direct Push to TD (Geoprobe 5400) DROP - DRIVE WEIGHT - DROP - SAMPLED BY AUC LOGGED BY KMH REVIEWED BY JJR DESCRIPTION/INTERPRETATION
0							SM	ASPHALT: Approximately 4.5 inches thick.
-		1043	AOC4-B6- N1-5'	0.3			CL-ML	FILL: (within bounds of former UST excavation) Medium brown, slightly moist, loose, silty SAND with some gravel up to 1/2 inch diameter. Abundant asphalt fragments. Very dark brown, slightly moist, somewhat soft, micaceous silty CLAY with some dark staining; some rust-colored orange staining.
10 -		1048	AOC4-B6- N1-10'	2.1			SM	Medium brown, slightly moist, dense, silty SAND.
_								Dark gray staining; minor hydrocarbon odor. Strong hydrocarbon odor.
-		1052	AOC4-B6- N1-15'	4.6				Very stiff; expansive.
20 -		1103	AOC4-B6- _N1-20'	26.9		1111111 1111111 1111111		Total Depth = 20 feet bgs. Groundwater not encountered during drilling. Vapor probes installed at 5 and 15 feet bgs. Backfilled with hydrated No. 8 granular bentonite to surface on 5/6/19. Notes: Groundwater, though not encountered at the time of drilling, may rise to a higher level due to seasonal variations in precipitation and several other factors as discussed in the report. The ground elevation shown above is an estimation only. It is based on our
30 -								The ground elevation shown above is an estimation only. It is based on our interpretations of published maps and other documents reviewed for the purposes of this evaluation. It is not sufficiently accurate for preparing construction bids and design documents.
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	Bulk SAMPLES Driven	SAMPLE TIME	SAMPLE ID	PID READING (ppm)	MOISTURE	SYMBOL	CLASSIFICATION U.S.C.S.	DATE DRILLED 5/6/19 BORING NO. AOC4-B6-S1 GROUND ELEVATION 69' ± (MSL) SHEET 1 OF 1 METHOD OF DRILLING Hand Auger to 4.5'; Direct Push to TD (Geoprobe 5400) DROP - DRIVE WEIGHT - DROP - SAMPLED BY AUC LOGGED BY KMH REVIEWED BY JJR DESCRIPTION/INTERPRETATION
10 -		1220	AOC4-B6- S1-10'	0.7			SM CL	ASPHALT: Approximately 5 inches thick. FILL: (within bounds of former UST excavation) Medium brown, slightly moist, loose, silty SAND with some gravel up to 1/2 inch diameter. Obsidian fragment, 2 inch diameter. No gravel. Medium brown, moist, soft, micaceous CLAY. Black staining. Medium brown. Medium gray; stiff. Soft. Medium brown, slightly moist, dense, silty SAND. Light gray, slightly moist, somewhat stiff CLAY with minor gravel; minor hydrocarbon odor. Medium gray; strong hydrocarbon odor.
20		1245	AOC4-B6- S1-20' ∫	1199				Total Depth = 20 feet bgs. Groundwater not encountered during drilling. Backfilled with hydrated No. 8 granular bentonite to surface on 5/6/19. Notes: Groundwater, though not encountered at the time of drilling, may rise to a higher level due to seasonal variations in precipitation and several other factors as discussed in the report. The ground elevation shown above is an estimation only. It is based on our interpretations of published maps and other documents reviewed for the purposes of this evaluation. It is not sufficiently accurate for preparing construction bids and design documents.



DEPTH (feet)	Bulk SAMPLES	SAMPLE TIME	SAMPLE ID	PID READING (ppm)	MOISTURE	SYMBOL	CLASSIFICATION U.S.C.S.	DATE DRILLED 5/6/19 BORING NO. AOC4-B6-W1 GROUND ELEVATION 69' ± (MSL) SHEET
10 -		11:40	B6-W1-5' DUP-16	0.3				ASPHALT: Approximately 3 inches thick. FILL: (within bounds of former UST excavation) Dark gray, slightly moist, dense, silty SAND with abundant clay and some gravel; minor hydrocarbon odor. Medium brown; minor black staining and some oxidized iron staining. No clay. Micaceous; abundant clay. Some gravel, 1/4 inch diameter. Minor oxidized iron staining. Dark gray, slightly moist, soft, micaceous silty CLAY with mild hydrocarbon odors. Tube stuck in drill pipe; no data. Strong hydrocarbon odors. Light gray.
20 - - - 30 -		12:00	B6-W1-20	243				Total Depth = 20 feet bgs. Groundwater not encountered during drilling. Backfilled with hydrated No. 8 granular bentonite to surface on 5/6/19. Notes: Groundwater, though not encountered at the time of drilling, may rise to a higher level due to seasonal variations in precipitation and several other factors as discussed in the report. Total Depth = 20 feet bgs. Groundwater not encountered during drilling. Backfilled with hydrated No. 8 granular bentonite to surface on 5/6/19. Notes: Groundwater, though not encountered at the time of drilling, may rise to a higher level due to seasonal variations in precipitation and several other factors as discussed in the report.



DEPTH (feet)	Bulk SAMPLES Driven	SAMPLE TIME	SAMPLE ID	PID READING (ppm)	MOISTURE	SYMBOL	CLASSIFICATION U.S.C.S.	DATE DRILLED 9/12/19 BORING NO. AOC4-B6-E1N GROUND ELEVATION 59' ± (MSL) SHEET 1 OF 1 METHOD OF DRILLING Hand Auger to 4.5'; Direct Push to TD (Geoprobe 6620 DT) DRIVE WEIGHT - DROP - SAMPLED BY AUC LOGGED BY KMH REVIEWED BY JJR DESCRIPTION/INTERPRETATION
0							SM SP	ASPHALT: Approximately 3 inches thick. IFILL:
-	-	10:12	B6-E1N-5'	1.6			SM	HULE: (Within boundary of former UST excavation.) Reddish brown, slightly moist, dense, silty SAND. Light brown, slightly moist, loose, poorly graded medium SAND. Medium brown, slightly moist, dense, silty SAND with abundant angular gravel.
10 —		10:16	B6-E1N-10'	3.3				Dark gray; moderate hydrocarbon odor.
_								Moist; micaceous; some soft clay.
-		10:18	B6-E1N-15'	43.8			CL-ML	Medium gray, dry, very stiff, silty CLAY with moderate hydrocarbon odor; continuous to 20 feet bgs.
20 –		10:20	B6-E1N-20'	2321				Total Depth = 20 feet bgs.
_		-						Groundwater not encountered during drilling. Backfilled with grout (95% cement, 5% bentonite) to surface on 9/12/19.
_		_						Notes: Groundwater, though not encountered at the time of drilling, may rise to a higher level due to seasonal variations in precipitation and several other factors as discussed in the report.
-		_						The ground elevation shown above is an estimation only. It is based on our interpretations of published maps and other documents reviewed for the purposes of this evaluation. It is not sufficiently accurate for preparing construction bids and design documents.
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	Bulk SAMPLES Driven	SAMPLE TIME	SAMPLE ID	PID READING (ppm)	MOISTURE	SYMBOL	CLASSIFICATION U.S.C.S.	DATE DRILLED 9/11/19 BORING NO. AOC4-B6-E1E GROUND ELEVATION 59' ± (MSL) SHEET 1 OF 1 METHOD OF DRILLING Hand Auger to 4.5'; Direct Push to TD (Geoprobe 6620 DT) DRIVE WEIGHT - DROP - SAMPLED BY AUC LOGGED BY KMH REVIEWED BY JJR DESCRIPTION/INTERPRETATION
0							SM	ASPHALT: Approximately 3 inches thick.
- - -		09:45	B6-E1E-5'	1.2				FILL: (Within boundary of former UST excavation.) Reddish brown, slightly moist, dense, silty SAND with some angular gravel. Medium brown; somewhat dry; no gravel. Dark brown.
10 -		09:48	B6-E1E-10'	160.0				
-			B6-E1E-15'				CL	DEGRADED ASPHALT: FILL: Medium gray, somewhat dry, very stiff, silty CLAY with moderate hydrocarbon odor; continuous to 20 feet bgs.
20 –		09.55	D0-L1L-20					Total Depth = 20 feet bgs. Groundwater not encountered during drilling.
30 -								Backfilled with grout (95% cement, 5% bentonite to surface) on 9/12/19. Notes: Groundwater, though not encountered at the time of drilling, may rise to a higher level due to seasonal variations in precipitation and several other factors as discussed in the report. The ground elevation shown above is an estimation only. It is based on our interpretations of published maps and other documents reviewed for the purposes of this evaluation. It is not sufficiently accurate for preparing construction bids and design documents.
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	Bulk SAMPLES Driven	SAMPLE TIME	SAMPLE ID	PID READING (ppm)	MOISTURE	SYMBOL	CLASSIFICATION U.S.C.S.	DATE DRILLED 9/12/19 BORING NO. AOC4-B6-E1S GROUND ELEVATION 58' ± (MSL) SHEET 1 OF 1 METHOD OF DRILLING Hand Auger to 4.5'; Direct Push to TD (Geoprobe 6620 DT) DRIVE WEIGHT - DROP - SAMPLED BY AUC LOGGED BY KMH REVIEWED BY JJR DESCRIPTION/INTERPRETATION
0							SM	ASPHALT: Approximately 3.5 inches thick. FILL:
-		08:40	B6-E1S-5'	2.1				(Within boundary of former UST excavation.) Medium brown, slightly moist, dense, silty SAND with some angular gravel fragments; approximately 1- to 2-inch diameter. Very dark brown; moderate sour odor (possibly degraded hydrocarbons).
-								Black, slightly moist, very soft CLAY with strong sour odor (possibly degraded hydrocarbons).
10 -		08:45	B6-E1S-10'	713			CL-ML	Medium gray, somewhat dry, very dense, silty CLAY with strong hydrocarbon odor; continuous to 20 feet bgs.
-		08:51	B6-E1S-15'	8.011				
20 –		08:55	B6-E1S-20'	1301				Total Depth = 20 feet bgs. Groundwater not encountered during drilling.
-								Backfilled with grout (95% cement, 5% bentonite to surface) on 9/12/19. Notes:
-								Groundwater, though not encountered at the time of drilling, may rise to a higher level due to seasonal variations in precipitation and several other factors as discussed in the report.
-								The ground elevation shown above is an estimation only. It is based on our interpretations of published maps and other documents reviewed for the purposes of
30 -		-						this evaluation. It is not sufficiently accurate for preparing construction bids and design documents.
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	SAMPLES			(u			7	DATE DRILLED 5/7/19 BORING NO AOC4-B18-E1
feet)	SA	TIME	Q	PID READING (ppm)	RE	기	CLASSIFICATION U.S.C.S.	GROUND ELEVATION 70' ± (MSL) SHEET1 OF1
DEPTH (feet)	ے ای	SAMPLE TIME	SAMPLE ID	ADING	MOISTURE	SYMBOL	SIFIC, J.S.C.	METHOD OF DRILLING Hand Auger to 4.5'; Direct Push to TD (Geoprobe 5400)
DEF	Bulk	SAN	SA	D RE	M	S	SLAS	DRIVE WEIGHT DROP
				Ы				SAMPLED BY AUC LOGGED BY KMH REVIEWED BY JJR DESCRIPTION/INTERPRETATION
0						עוע	SP	ALLUVIUM: Light brown, dry, loose, poorly graded fine SAND with some gravel.
-		-					CL-ML	Dark brown, dry, stiff, silty CLAY.
_							CL	Dark gray, slightly moist, soft CLAY with some hydrocarbon odor.
		15:37	B18-E1-5'	6.8	_		SM	Medium brown, slightly moist, dense, micaceous silty SAND.
								Some gray and rust-colored staining. Dark brown, moist, soft CLAY.
10 -		15:45	B18-E1-10'	3.3				Very dark gray (no odor). Dark brown; very stiff.
_		-						
								Medium brown; expansive.
		16:00	B18-E1-15' DUP-20	0.4				
-		-						Soft. Very stiff.
_		-						Dark gray.
		16:20	B18-E1-20'	2.2				Medium brown.
20 –		10.20						Total Depth = 20 feet bgs. Groundwater not encountered during drilling.
_		-						Backfilled with hydrated No. 8 granular bentonite to surface on 5/7/19.
_		-						Notes: Groundwater, though not encountered at the time of drilling, may rise to a higher level
_								due to seasonal variations in precipitation and several other factors as discussed in the report.
								The ground elevation shown above is an estimation only. It is based on our interpretations of published maps and other documents reviewed for the purposes of
-		-						this evaluation. It is not sufficiently accurate for preparing construction bids and design documents.
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DEPTH (feet)	Bulk SAMPLES Driven	SAMPLE TIME	SAMPLE ID	PID READING (ppm)	MOISTURE	SYMBOL	CLASSIFICATION U.S.C.S.	DATE DRILLED 5/7/19 Hand Auger; 5/8/19 BORING NO. AOC4-B18-S1 GROUND ELEVATION 70' ± (MSL) SHEET 1 OF 1 METHOD OF DRILLING Hand Auger to 4.5'; Direct Push to TD (Geoprobe 5400) DRIVE WEIGHT - DROP - SAMPLED BY AUC LOGGED BY KMH REVIEWED BY JJR DESCRIPTION/INTERPRETATION
0		08:10	B18-S1-5'	0.2			SPCL-MLCL	ASPHALT: Approximately 6 inches thick. FILL: Light brown, dry, loose, poorly graded fine SAND with some gravel. Dark brown, dry, stiff, silty CLAY. Dark gray, slightly moist, soft CLAY with some hydrocarbon odor. ALLUVIUM:
-		08.10	B10-31-3				CL	Medium brown, moist, dense, micaceous silty SAND with abundant gravel up to 1/2 inch diameter. Medium brown, moist, very soft, micaceous CLAY.
10 -		08:14	B18-S1-10'	0.1				Very dark brown; very light organic odor. Dark brown; stiff. Medium brown; very stiff; expansive.
-			B18-S1-15'	0.1				
20 -		08:40	B18-S1-20'	0.2		///		Total Depth = 20 feet bgs. Groundwater not encountered during drilling. Backfilled with hydrated No. 8 granular bentonite to surface on 5/7/19.
_		_						Notes: Groundwater, though not encountered at the time of drilling, may rise to a higher level due to seasonal variations in precipitation and several other factors as discussed in the report.
_		-						The ground elevation shown above is an estimation only. It is based on our interpretations of published maps and other documents reviewed for the purposes of this evaluation. It is not sufficiently accurate for preparing construction bids and design documents.
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	SAMPLES			(E				DATE DRILLED 5/7/19 BORING NO AOC4-B18-W1
DEPTH (feet)	S	TIME	SAMPLE ID	PID READING (ppm)	MOISTURE	30L	CLASSIFICATION U.S.C.S.	GROUND ELEVATION 70' ± (MSL) SHEET 1 OF 1
ЕРТН	en E	SAMPLE	AMPI	ADII	IOIST	SYMBOL	SSIFI U.S.C	METHOD OF DRILLING Hand Auger to 4.5'; Direct Push to TD (Geoprobe 5400)
DE	Bulk	SA	Ø	를 왕	Σ		CLA	DRIVE WEIGHT DROP
				п.				SAMPLED BYAUC LOGGED BYKMH REVIEWED BYJJR DESCRIPTION/INTERPRETATION
0						XIV	CL-ML	CONCRETE: Approximately 5.5 inches thick.
-							CL	ALLUVIUM: Medium brown, slightly moist, soft, silty CLAY.
								Dark brown
-		14:39	B18-W1-5'	7.7	 		SM SP	Very dark brown, slightly moist, soft CLAY. Medium brown, slightly moist, loose, micaceous silty SAND. Light brown, slightly moist, loose, poorly graded medium SAND.
_							SF	
					<u> </u>			Medium brown, slightly moist, dense, silty SAND with some gray and black staining
-					==			(no odor)
10 -		14:44	B18-W1-10'	10.9			CL	Medium brown, moist, soft, micaceous CLAY. Very dark; very soft.
								Dark brown; very stiff.
-								Light brown; expansive.
_					3			
		14:55	B18-W1-15'	6.3				
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20 –		15:21	B18-W1-20'	5.0				Total Depth = 20 feet bgs.
								Groundwater not encountered during drilling. Backfilled with hydrated No. 8 granular bentonite to surface on 5/7/19.
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=								Notes: Groundwater, though not encountered at the time of drilling, may rise to a higher level
								due to seasonal variations in precipitation and several other factors as discussed in the report.
-								The ground elevation shown above is an estimation only. It is based on our
_								interpretations of published maps and other documents reviewed for the purposes of
								this evaluation. It is not sufficiently accurate for preparing construction bids and design documents.
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DEPTH (feet)	Bulk SAMPLES Driven	SAMPLE TIME	SAMPLE ID	PID READING (ppm)	MOISTURE	SYMBOL	CLASSIFICATION U.S.C.S.	DATE DRILLED 9/13/19 BORING NO. AOC4-B18-S1E GROUND ELEVATION '± (MSL) SHEET 1 OF 1 METHOD OF DRILLING Hand Auger (Strongarm) DROP - DRIVE WEIGHT DROP - SAMPLED BY AUC LOGGED BY AUC REVIEWED BY JJR DESCRIPTION/INTERPRETATION
0		12:17	B18-S1E-1'				SM	ASPHALT: Approximately 6 inches thick.
-		12:19	B18-S1E- 2.5'					ALLUVIUM: Dark brown, dry, loose, silty SAND; micaceous.
-		12:24	B18-S1E-5'				CL-ML	Dark brown/black, moist, soft, silty CLAY; micaceous; hydrocarbon odor (faint).
		12:28	B18-S1E- ,					
-			7.5'					Total Depth = 7.5 feet bgs. Groundwater not encountered during drilling. Backfilled with hydrated granular bentonite to surface on 9/13/19.
10 -								Notes:
-								Groundwater, though not encountered at the time of drilling, may rise to a higher level due to seasonal variations in precipitation and several other factors as discussed in the report.
-								The ground elevation shown above is an estimation only. It is based on our interpretations of published maps and other documents reviewed for the purposes of this evaluation. It is not sufficiently accurate for preparing construction bids and design
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(t)	SAMPLES	Æ	0	(mdd			NOI	DATE DRILLED 9/13/19 BORING NO. AOC4-B18-S1W GROUND ELEVATION ' ± (MSL) SHEET 1 OF 1
DEPTH (feet)		SAMPLE TIME	SAMPLE ID	PID READING (ppm)	MOISTURE	SYMBOL	CLASSIFICATION U.S.C.S.	METHOD OF DRILLING Hand Auger (Strongarm)
H	Bulk	SAM	SA) RE/	MO	S	LAS8 U	DRIVE WEIGHT DROP
0				II			0	SAMPLED BY AUC LOGGED BY AUC REVIEWED BY JJR DESCRIPTION/INTERPRETATION
		11:47	B18-S1W-1'				GP-GM	ASPHALT: Approximately 4 inches thick.
-		11:49	B18-S1W- 2.5' DUP-57				SM	BASE: Medium brown, dry, loose, poorly graded GRAVEL with silt. Dark brown, dry, loose, silty SAND; micaceous.
-		11:52	B18-S1W-5'					Medium brown.
		12:00	B18-S1W- 7.5'			XVX	CL-ML	Moist. Dark brown, moist, stiff, silty CLAY; micaceous. Total Depth = 7.5 feet bgs.
10 -								Groundwater not encountered during drilling. Backfilled with hydrated granular bentonite to surface on 9/13/19.
10								Notes: Groundwater, though not encountered at the time of drilling, may rise to a higher level
-								due to seasonal variations in precipitation and several other factors as discussed in the report.
-								The ground elevation shown above is an estimation only. It is based on our interpretations of published maps and other documents reviewed for the purposes of
-								this evaluation. It is not sufficiently accurate for preparing construction bids and design documents.
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DEPTH (feet)	Bulk SAMPLES Driven	SAMPLE TIME	SAMPLE ID	PID READING (ppm)	MOISTURE	SYMBOL	CLASSIFICATION U.S.C.S.	DATE DRILLED 9/13/19 BORING NO. AOC4-B18-S1N GROUND ELEVATION '± (MSL) SHEET 1 OF 1 METHOD OF DRILLING Hand Auger (Strongarm) DROP DRIVE WEIGHT DROP SAMPLED BY AUC LOGGED BY AUC REVIEWED BY JJR DESCRIPTION/INTERPRETATION
0		12:33	B18-S1N-1'				CL-ML	ASPHALT: Approximately 6 inches thick.
-		12:34	B18-S1N- 2.5'					ALLUVIUM: Medium brown/black, moist, stiff, silty CLAY; micaceous. Black.
-		12:37	B18-S1N-5'			11/	SM	Medium brown/black, moist, loose, micaceous silty SAND.
		12:40	B18-S1N-			ИV	CL-ML	Black, moist, stiff, silty CLAY; micaceous.
-			7.5' DUP-58					Total Depth = 7.5 feet bgs. Groundwater not encountered during drilling. Backfilled with hydrated granular bentonite to surface on 9/13/19.
10 -		-						Notes:
-		-						Groundwater, though not encountered at the time of drilling, may rise to a higher level due to seasonal variations in precipitation and several other factors as discussed in the report.
-		-						The ground elevation shown above is an estimation only. It is based on our
-								interpretations of published maps and other documents reviewed for the purposes of this evaluation. It is not sufficiently accurate for preparing construction bids and design documents.
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DEPTH (feet)	Bulk SAMPLES Driven	SAMPLE TIME	SAMPLE ID	PID READING (ppm)	MOISTURE	SYMBOL	CLASSIFICATION U.S.C.S.	DATE DRILLED 9/13/19 BORING NO. AOC4-B18-S1S GROUND ELEVATION '± (MSL) SHEET 1 OF 1 METHOD OF DRILLING Hand Auger (Strongarm) DROP - SAMPLED BY AUC REVIEWED BY JJR DESCRIPTION/INTERPRETATION DROP
0		12:04	B18-S1S-1'				\GP-GM	ASPHALT: Approximately 4 inches thick.
-		12:05	B18-S1S- 2.5'				SM	BASE: Medium brown, dry, loose, poorly graded GRAVEL with silt.
-		12:07	B18-S1S-5'					Black, dry, loose, silty SAND; micaceous. Medium brown.
-		12:12	B18-S1S- \7.5'			זעוזגע	CL-ML	Dark brown/black, moist, stiff, micaceous silty SAND. Total Depth = 7.5 feet bgs.
10 -		_						Groundwater not encountered during drilling. Backfilled with hydrated granular bentonite to surface on 9/13/19.
-		_						Notes: Groundwater, though not encountered at the time of drilling, may rise to a higher level due to seasonal variations in precipitation and several other factors as discussed in the report.
-								The ground elevation shown above is an estimation only. It is based on our interpretations of published maps and other documents reviewed for the purposes of
-		_						this evaluation. It is not sufficiently accurate for preparing construction bids and design documents.
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DEPTH (feet)	Bulk SAMPLES Driven	SAMPLE TIME	SAMPLE ID	PID READING (ppm)	MOISTURE	SYMBOL	CLASSIFICATION U.S.C.S.	DATE DRILLED 5/8/19 BORING NO. AOC4-B19-E1 GROUND ELEVATION 70' ± (MSL) SHEET 1 OF 1 METHOD OF DRILLING Hand Auger to 4.5'; Direct Push to TD (Geoprobe 5400) DRIVE WEIGHT - DROP - SAMPLED BY AUC LOGGED BY KMH REVIEWED BY JJR DESCRIPTION/INTERPRETATION
0							SM CL	CONCRETE: Approximately 5.5 inches thick. ALLUVIUM: Medium brown, slightly moist, loose, silty SAND. Very dark gray, moist, very soft, micaceous CLAY.
-		= = = 10:25	B19-E1-5'	=======================================			SM	Medium brown, slightly moist, loose, micaceous silty SAND. Very dark brown, slightly moist, soft CLAY with mild organic odor. Light brown, slightly moist, loose, poorly graded medium SAND. Medium brown, slightly moist, dense, micaceous silty SAND with gray and reddish-brown staining.
10 -		10:30	B19-E1-10'	0.3				Very moist. Medium brown, moist, soft, micaceous CLAY. Very dark gray. Dark brown.
-			B19-E1-15'	0.2			SM	Medium brown, slightly moist, loose, micaceous silty SAND. Very dark brown, moist, very soft, micaceous CLAY. Very stiff; expansive.
20 -		10:57	B19-E1-20'	0.1		///		Total Depth = 20 feet bgs. Groundwater not encountered during drilling. Backfilled with hydrated No. 8 granular bentonite to surface on 5/8/19.
=								Notes: Groundwater, though not encountered at the time of drilling, may rise to a higher level due to seasonal variations in precipitation and several other factors as discussed in the report.
-		-						The ground elevation shown above is an estimation only. It is based on our interpretations of published maps and other documents reviewed for the purposes of this evaluation. It is not sufficiently accurate for preparing construction bids and design documents.
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DEPTH (feet)	Bulk SAMPLES Driven	SAMPLE TIME	SAMPLE ID	PID READING (ppm)	MOISTURE	SYMBOL	CLASSIFICATION U.S.C.S.	DATE DRILLED 5/8/19 BORING NO. AOC4-B19-N1 GROUND ELEVATION 70' ± (MSL) SHEET 1 OF 1 METHOD OF DRILLING Hand Auger to 4.5'; Direct Push to TD (Geoprobe 5400) DROP - SAMPLED BY AUC LOGGED BY KMH REVIEWED BY JJR DESCRIPTION/INTERPRETATION
-		12:58	B19-N1-5'				SMCL	CONCRETE: Approximately 5.5 inches thick. ALLUVIUM: Medium brown, slightly moist, loose, micaceous silty SAND with some clay and some gravel. Very dark brown, slightly moist, somewhat soft, micaceous CLAY. Medium brown, slightly moist, loose, micaceous silty SAND. Light brown, slightly moist, loose, poorly graded medium SAND with some reddish
-			B19-N1-10'				SP SM CL	brown staining. Medium brown, slightly moist, dense, silty SAND with gray and reddish brown staining. Medium brown, very moist, soft, micaceous CLAY. Very dark gray (no odor); moist.
10 -								Dark brown. Dry; very stiff. Expansive (2 feet of clay filling; 4-foot sample sleeves). Some gravel.
_			B19-N1-15'					Some gravel. Some dark gray staining.
20 -		12:25	B19-N1-20'					Total Depth = 20 feet bgs. Groundwater not encountered during drilling. Backfilled with hydrated No. 8 granular bentonite to surface on 5/8/19. Notes: Groundwater, though not encountered at the time of drilling, may rise to a higher level
-								due to seasonal variations in precipitation and several other factors as discussed in the report. The ground elevation shown above is an estimation only. It is based on our interpretations of published maps and other documents reviewed for the purposes of this evaluation. It is not sufficiently accurate for preparing construction bids and design documents.
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	Bulk SAMPLES Driven	SAMPLE TIME	SAMPLE ID	PID READING (ppm)	MOISTURE	SYMBOL	CLASSIFICATION U.S.C.S.	DATE DRILLED 5/8/19 BORING NO. AOC4-B19-S1 GROUND ELEVATION 70' ± (MSL) SHEET 1 OF 1 METHOD OF DRILLING Hand Auger to 4.5'; Direct Push to TD (Geoprobe 5400) DRIVE WEIGHT - DROP - SAMPLED BY AUC LOGGED BY KMH REVIEWED BY JJR DESCRIPTION/INTERPRETATION
0							CL-ML	CONCRETE: Approximately 5.5 inches thick. ALLUVIUM: Dark brown, slightly moist, soft, micaceous silty CLAY with mild organic odor.
-		0910	AOC4-B19- S1-5'	0.1			SP	Light brown, slightly moist, loose, poorly graded medium SAND.
-						777	SM _	Medium brown, slightly moist, dense, micaceous silty SAND with gray and reddish- brown staining.
10 -		0914	AOC4-B19- S1-10'	0.2			SP CL	Dark brown, somewhat dry, very stiff, CLAY. Light brown, slightly moist, loose, poorly graded medium SAND. Medium brown, slightly moist. Very dark gray; soft; light organic odor. Dark brown; stiff. Soft. Medium brown; very stiff; expansive.
-			AOC4-B19- S1-15'	0.0				
20 -		0940	AOC4-B19- \S1-20'f	0.1		(///		Total Depth = 20 feet bgs. Groundwater not encountered during drilling. Backfilled with hydrated No. 8 granular bentonite to surface on 5/8/19.
-		_						Notes: Groundwater, though not encountered at the time of drilling, may rise to a higher level due to seasonal variations in precipitation and several other factors as discussed in the report.
_								The ground elevation shown above is an estimation only. It is based on our interpretations of published maps and other documents reviewed for the purposes of this evaluation. It is not sufficiently accurate for preparing construction bids and design documents.
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	SAMPLES	ш		pm)			NO	DATE DRILLED 5/8/19 BORING NO AOC4-B19-W1					
DEPTH (feet)		SAMPLE TIME	SAMPLE ID	PID READING (ppm)	MOISTURE	SYMBOL	CLASSIFICATION U.S.C.S.	GROUND ELEVATION 70' ± (MSL) SHEET 1 OF 1 METHOD OF DRILLING Hand Auger to 4.5'; Direct Push to TD (Geoprobe 5400) DRIVE WEIGHT					
0	H							DESCRIPTION/INTERPRETATION CONCRETE:					
-							SM	Approximately 5.5 inches thick. ALLUVIUM: Medium brown, slightly moist, loose, micaceous silty SAND. Very dark gray, slightly moist, soft, micaceous CLAY with light organic odor. Medium brown.					
-		11:20	B19-W1-5'	0.2			SP	Light brown, slightly moist, loose, poorly graded medium SAND with some reddish brown staining.					
-							SM 	Medium brown, slightly moist, dense, silty SAND with gray, black, nd reddish-brown staining. Some black staining.					
10 -		11:27	B19-W1-10'	0.2			CL	Medium brown, moist, soft, CLAY. Very dark gray. Dark brown; stiff.					
				====	==		SM	Medium brown, slightly moist, dense, micaceous silty SAND. Dark brown, moist, soft, micaceous CLAY.					
-	•	11:38	B19-W1-15'	5' 0.1			CL SM _,	Dark brown, moist, soft, micaceous CLAY. Light brown, slightly moist, dense, silty SAND. Dark grown, dry, very stiff CLAY; expansive. Some black staining. Medium brown.					
20 -		11:52	B19-W1-20'	0.1				Total Depth = 20 feet bgs.					
-								Groundwater not encountered during drilling. Backfilled with hydrated No. 8 granular bentonite to surface on 5/8/19.					
-								Notes: Groundwater, though not encountered at the time of drilling, may rise to a higher level due to seasonal variations in precipitation and several other factors as discussed in the report.					
-								The ground elevation shown above is an estimation only. It is based on our interpretations of published maps and other documents reviewed for the purposes of this evaluation. It is not sufficiently accurate for preparing construction bids and design documents.					
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	SAMPLES			(E			Z	DATE DRILLED 5/8/19 BORING NO AOC4-SV10
(feet)	S	SAMPLE TIME	<u>ш</u>	PID READING (ppm)	URE	2 SOL	CLASSIFICATION U.S.C.S.	GROUND ELEVATION 69' ± (MSL) SHEET 1 OF 1
DEPTH (feet)	≚ 5	MPLE	SAMPLE ID	EADIN	MOISTURE	SYMBOL	SSIFIC U.S.C	METHOD OF DRILLING Hand Auger to 4.5'; Direct Push to TD (Geoprobe 5400)
	Bulk	SA	S	ND RI	2		CLA	DRIVE WEIGHT DROP
								SAMPLED BY AUC LOGGED BY KMH REVIEWED BY JJR DESCRIPTION/INTERPRETATION
0							CL	ASPHALT: Approximately inches thick.
-							CL-ML	FILL: Very dark gray, somewhat dry, soft, CLAY with light hydrocarbon odor. Medium brown, slightly moist, dense silty CLAY with abundant gravel; up to 1/2 inch diameter.
-				0.0_				Medium brown, slightly moist, dense, micaceous silty SAND. Dark brown, slightly moist, somewhat stiff, micaceous.
-		_						Concrete fragments; diameter >2 inches. Rock fragments; diameter >2 inches.
10 -				0.0/	_			Abundant gravel. Medium brown, slightly moist, dense, micaceous silty SAND.
-				0.0			CL-ML	Medium brown, moist, somewhat soft, micaceous silty CLAY. Very moist. Very soft. Light brown; very stiff. Some gravel; somewhat dry. No gravel.
20 -				0.0				Gray stained; very light hydrocarbon odor. Total Depth = 20 feet bgs.
-								Groundwater not encountered during drilling. Vapor probes installed at 5 and 19.5 feet bgs. Backfilled with hydrated No. 8 granular bentonite from 19 to 5.5 feet and from 4.5 to
-								top of soil. Backfilled with Cemex No. 3 sand from 20 to 19 feet and from 5.5 to 4. 5 feet. Capped with cold-patch asphalt on 5/8/19.
-								Notes: Groundwater, though not encountered at the time of drilling, may rise to a higher level due to seasonal variations in precipitation and several other factors as discussed in the report.
30 -								The ground elevation shown above is an estimation only. It is based on our
30								interpretations of published maps and other documents reviewed for the purposes of this evaluation. It is not sufficiently accurate for preparing construction bids and design documents.
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	Bulk SAMPLES Driven	SAMPLE TIME	SAMPLE ID	PID READING (ppm)	MOISTURE	SYMBOL	CLASSIFICATION U.S.C.S.	DATE DRILLED 9/13/19 BORING NO. AOC4-SV10N GROUND ELEVATION 58' ± (MSL) SHEET
-		08:55	SV10N-5' DUP-56	1.2			CL SP	ASPHALT: Approximately 3 inches thick. BASE: Approximately 2 inches thick. ALLUVIUM: Very dark brown, somewhat dry, slightly stiff micaceous CLAY. Light brown, slightly moist, loose, poorly graded SAND with some fines.
10 -	-	08:58	SV10N-10'	0.5			CL CL-ML	Black, slightly moist, soft CLAY; no odor. Dark brown, somewhat dry, very stiff, expansive, silty CLAY; no odor; continuous to 20 feet.
-		09:01	SV10N-15'	0.9				
20 -		09:02	SV10N-20'	0.4				Total Depth = 20 feet bgs. Groundwater not encountered during drilling. Vapor probes installed at approximately 5 and 15 feet bgs. Backfilled with No. 3 Monterey sand from 17 to 13 feet bgs and from 7 to 3 feet bgs. Backfilled with hydrated No. 8 granular bentonite from 20 to 17 feet, from 13 to 7 feet, and from 3 feet to top of soil. Capped with No. 3 Monterey sand on 9/13/19. Notes: Groundwater, though not encountered at the time of drilling, may rise to a higher level due to seasonal variations in precipitation and several other factors as discussed in
30 -								the report. The ground elevation shown above is an estimation only. It is based on our interpretations of published maps and other documents reviewed for the purposes of this evaluation. It is not sufficiently accurate for preparing construction bids and design documents.
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	Bulk SAMPLES Driven	SAMPLE TIME	SAMPLE ID	PID READING (ppm)	MOISTURE	SYMBOL	CLASSIFICATION U.S.C.S.	DATE DRILLED 9/13/19 BORING NO. AOC4-SV10W GROUND ELEVATION 58' ± (MSL) SHEET 1 OF 1 METHOD OF DRILLING Hand Auger to 4.5'; Direct Push to TD (Geoprobe 6620 DT) DRIVE WEIGHT - DROP - SAMPLED BY AUC LOGGED BY KMH REVIEWED BY JJR DESCRIPTION/INTERPRETATION
0							CL	ASPHALT: Approximately 3 inches thick.
-		08:12	SV10W-5'	0.8			SP	BASE: Light gray, dry, well graded SAND with angular gravel; approximately 3 inches thick. ALLUVIUM: Very dark brown, slightly moist, somewhat soft, micaceous CLAY. Medium brown, slightly moist, loose, poorly graded, micaceous, medium SAND with some fines.
_							CL	Black, slightly moist, soft, CLAY; no odor.
10 -		08:15	SV10W-10'	0.2			CL-ML	Dark brown, somewhat dry, very stiff, silty CLAY; no staining; no odors; continuous to 20 feet bgs. Medium brown.
- - -		08:18	SV10W-15'	0.7				
20 -		08:20	SV10W-20'	0.6				Total Depth = 20 feet bgs. Groundwater not encountered during drilling. Vapor probes installed at approximately 5 and 15 feet bgs. Backfilled with No. 3 Monterey sand from 17 to 13 feet bgs and from 7 to 3 feet bgs. Backfilled with hydrated No. 8 granular bentonite from 20 to 17 feet, from 13 to 7 feet, and from 3 feet to top of soil. Connect with No. 3 Monterey and on 0/12/10
_								Capped with No. 3 Monterey sand on 9/13/19. Notes:
-		-						Groundwater, though not encountered at the time of drilling, may rise to a higher level due to seasonal variations in precipitation and several other factors as discussed in the report.
30 -		_						The ground elevation shown above is an estimation only. It is based on our interpretations of published maps and other documents reviewed for the purposes of this evaluation. It is not sufficiently accurate for preparing construction bids and design
-		-						documents.
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	Bulk SAMPLES	SAMPLE TIME	SAMPLE ID	PID READING (ppm)	MOISTURE	SYMBOL	CLASSIFICATION U.S.C.S.	DATE DRILLED 9/11/19 BORING NO. AOC4-SV10S GROUND ELEVATION 58' ± (MSL) SHEET 1 OF 2 METHOD OF DRILLING Hand Auger to 4.5'; Direct Push to TD (Geoprobe 6620 DT) DRIVE WEIGHT - DROP - SAMPLED BY AUC LOGGED BY KMH REVIEWED BY JJR DESCRIPTION/INTERPRETATION
0							CL	ASPHALT: Approximately 3 inches thick.
-	-	10:25	SV10S-5'	1.8			SM	BASE: Medium brown, dry, loose, well graded SAND with angular coarse grains; approximately 3 inches thick. ALLUVIUM: Very dark brown, slightly moist, soft CLAY. Medium brown, slightly moist.
10 -	-	10:27	SV10S-10'	1.4			CL CL	Very dark gray stain (approximately 6 inches thick); very light, decayed organic odor. Medium brown, somewhat dry, stiff, very expansive CLAY.
- -	-	10:28	SV10S-15'	1.2				
20 -		10:30	SV10S-20'	2.5				Gray staining; light hydrocarbon odor (continuous).
-		10:37	SV10S-25'	77.1				Medium gray, dry, very dense, silty SAND with moderate hydrocarbon odor.
30 -		10:45	SV10S-30'	143.2			CL-ML	Medium gray, slightly moist, somewhat stiff silty CLAY with moderate hydrocarbon odor. Medium brown and greenish gray.
-		T					CL	Medium brown and greenish gray, somewhat dry, stiff CLAY with some silt and mild hydrocarbon odor.
- -		10:50	SV10S-35'	418.0			CL-ML	Medium gray, somewhat dry, stiff, silty CLAY with moderate hydrocarbon odor
40 -		11:40	SV10S-40'	7.7		עהעו	SM	Medium gray, somewhat dry, loose, micaceous silty SAND with mild hydrocarbon odor.



DEPTH (feet)	Bulk SAMPLES Driven	SAMPLE TIME	SAMPLE ID	PID READING (ppm)	MOISTURE	SYMBOL	CLASSIFICATION U.S.C.S.	DATE DRILLED 9/11/19 BORING NO. AOC4-SV10S GROUND ELEVATION 58' ± (MSL) SHEET 2 OF 2 METHOD OF DRILLING Hand Auger to 4.5'; Direct Push to TD (Geoprobe 6620 DT) DRIVE WEIGHT - DROP -
40				₫				SAMPLED BY AUC LOGGED BY KMH REVIEWED BY JJR DESCRIPTION/INTERPRETATION
-		11:51	SV10S-45'	1.9	<u>.</u>		SM	ALLUVIUM: (Continued) Medium gray, somewhat dry, loose, micaceous silty SAND with mild hydrocarbon odor. Medium brown. Wet; trace clay. Moist.
-							CL-ML	Greenish gray, somewhat dry, stiff, silty CLAY; no odor.
50		11:57	SV10S-50'	2.6				Total Depth = 50 feet bgs. Groundwater encountered at approximately 42 feet bgs, approximately 3 hours after drilling. Hole collapsed to approximately 43 feet bgs after drilling. Backfilled with grout (95% cement, 5% concrete) to surface on 9/11/19. Notes: The ground elevation shown above is an estimation only. It is based on our interpretations of published maps and other documents reviewed for the purposes of this evaluation. It is not sufficiently accurate for preparing construction bids and design documents.
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	Bulk SAMPLES Driven	SAMPLE TIME	SAMPLE ID	PID READING (ppm)	MOISTURE	SYMBOL	CLASSIFICATION U.S.C.S.	DATE DRILLED 9/13/19 BORING NO. AOC4-SV11E GROUND ELEVATION 59' ± (MSL) SHEET 1 OF 1 METHOD OF DRILLING Hand Auger to 4.5' (Strongarm) DROP - - DRIVE WEIGHT - DROP - - SAMPLED BY AUC LOGGED BY KMH REVIEWED BY JJR DESCRIPTION/INTERPRETATION
0							SW SP	ASPHALT: Approximately 3.5 inches thick.
-		09:51	SV11E-5'	0.6				BASE: Reddish brown, slightly moist, well graded SAND with some angular gravel. ALLUVIUM: Light brown, slightly moist.
40		09:56	SV11E-10'	13.4				Moist; some rounded coarse grains.
10 -		00.00	07112 10	10.1				Dark stained; moderate hydrocarbon odor; some clay.
-		09:58	SV11E-15'	56.3			CL-ML	Dark gray, somewhat dry, very stiff, silty CLAY with moderate hydrocarbon odor; continuous to 20 feet bgs. Medium gray.
20 –		10:00	SV11E-20'	255				Total Depth = 20 feet bgs. Groundwater not encountered during drilling.
30 -								Vapor probes installed at approximately 5 and 15 feet bgs. Backfilled with No. 3 Monterey sand from approximately 17 to 13 feet bgs, and from 7 to 3 feet bgs. Backfilled with hydrated, No. 8 granular bentonite from 20 to 17 feet bgs, from 13 to 7 feet bgs, and from 3 feet bgs to top of soil. Capped with No. 3 Monterey sand on 9/13/19. Notes: Groundwater, though not encountered at the time of drilling, may rise to a higher level due to seasonal variations in precipitation and several other factors as discussed in the report. The ground elevation shown above is an estimation only. It is based on our interpretations of published maps and other documents reviewed for the purposes of this evaluation. It is not sufficiently accurate for preparing construction bids and design documents.
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DEPTH (feet)	Bulk SAMPLES Driven	SAMPLE TIME	SAMPLE ID	PID READING (ppm)	MOISTURE	SYMBOL	CLASSIFICATION U.S.C.S.	DATE DRILLED 9/12/19 BORING NO. AOC4-SV11S GROUND ELEVATION 58' ± (MSL) SHEET 1 OF 1 METHOD OF DRILLING Hand Auger to 4.5'; Direct Push to TD (Geoprobe 6620 DT) DRIVE WEIGHT - DROP - SAMPLED BY AUC LOGGED BY KMH REVIEWED BY JJR DESCRIPTION/INTERPRETATION
0							SM	ASPHALT: Approximately 4 inches thick.
_		-						FILL: (Within former UST excavation boundary.) Medium brown, slightly moist, dense, micaceous silty SAND.
		08:05	SV11S-5'	1.3	 			Black, slightly moist, very soft CLAY.
-		08:07	SV11S-10'	10			CL-ML	Medium gray, somewhat dry, very stiff CLAY with strong hydrocarbon odor; continuous to 20 feet.
10 -				1.8				
-			SV11S-15'	3182				
20 –		00.10	0711020					Total Depth = 20 feet bgs. Groundwater not encountered during drilling.
-		-						Vapor probes installed at approximately 5 and 15 feet bgs. Backfilled with No. 3 Monterey sand from approximately 17 to 13 feet bgs, and from 7
-		_						to 3 feet bgs. Backfilled with hydrated, No. 8 granular bentonite from 20 to 17 feet bgs, from 13 to 7
								feet bgs, and from 3 feet bgs to top of soil. Capped with No. 3 Monterey sand on 9/12/19.
								Notes: Groundwater, though not encountered at the time of drilling, may rise to a higher level
-		_						due to seasonal variations in precipitation and several other factors as discussed in the report.
30 –		_						The ground elevation shown above is an estimation only. It is based on our interpretations of published maps and other documents reviewed for the purposes of
-		_						this evaluation. It is not sufficiently accurate for preparing construction bids and design documents.
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40 –								



DEPTH (feet)	Bulk SAMPLES	SAMPLE TIME	SAMPLE ID	PID READING (ppm)	MOISTURE	SYMBOL	CLASSIFICATION U.S.C.S.	DATE DRILLED 9/11/19 BORING NO. AOC4-SV11N GROUND ELEVATION 59' ± (MSL) SHEET 1 OF 2 METHOD OF DRILLING Hand Auger to 4.5' (Strongarm) DRIVE WEIGHT - DROP - SAMPLED BY AUC LOGGED BY KMH REVIEWED BY JJR DESCRIPTION/INTERPRETATION
0						11/1	SW	ASPHALT: Approximately 3 inches thick.
-		0817	SV11N-5'	0.0			CL-ML SM	BASE: Medium brown, dry, loose, well graded SAND with angular coarse grains up to ½-inch diameter. ALLUVIUM: Very dark brown, somewhat dry, stiff, silty CLAY. Medium brown, slightly moist, dense, micaceous silty SAND. Medium brown, slightly moist, somewhat soft, very expansive CLAY with minor dark gray staining.
- 10 - -		08:20	SV11N-10'	0.0				No staining.
-		08:23	SV11N-15'	0.0				
20 -		08:25	SV11N-20'	0.0				
-		08:34	SV11N-25'	0.0				Medium brown, somewhat dry, dense, silty SAND.
30 -		08:36	SV11N-30'	0.0			CL	Medium brown, somewhat dry, stiff CLAY.
-		08:50	SV11N-35' DUP-53	 1.2			CL-ML	Medium brown, slightly moist, somewhat stiff, silty CLAY. Very light gray staining (not continuous).
40 -		08:55	SV11N-40'	0.0		עויעו	SM	Medium brown, slightly moist, dense, silty SAND.



DEPTH (feet)	Bulk SAMPLES	SAMPLE TIME	SAMPLE ID	PID READING (ppm)	MOISTURE	SYMBOL	CLASSIFICATION U.S.C.S.	DATE DRILLED 9/11/19 BORING NO. AOC4-SV11N GROUND ELEVATION 59' ± (MSL) SHEET 2 OF 2 METHOD OF DRILLING Hand Auger to 4.5' (Strongarm) DRIVE WEIGHT - DROP - SAMPLED BY AUC LOGGED BY KMH REVIEWED BY JJR DESCRIPTION/INTERPRETATION
40 		-	SV11N-45'	0.4			SM	ALLUVIUM: (Continued) ALLUVIUM: (Continued) Medium brown, slightly moist, dense, silty SAND. Saturated. Slightly moist. Total Depth = 46 feet bgs. Groundwater encountered at approximately 41 feet bgs during drilling. Backfilled with grout (95% cement; 5% bentonite) to surface on 9/11/19. Notes: Groundwater may rise to a level higher than that measured in borehole due to seasonal variations in precipitation and several other factors as discussed in the report. The ground elevation shown above is an estimation only. It is based on our interpretations of published maps and other documents reviewed for the purposes of this evaluation. It is not sufficiently accurate for preparing construction bids and design documents.
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DEPTH (feet)	Bulk SAMPLES	SAMPLE TIME	SAMPLE ID	PID READING (ppm)	MOISTURE	SYMBOL	CLASSIFICATION U.S.C.S.	DATE DRILLED 12/6/19 BORING NO. AOC4-SV11SS GROUND ELEVATION 69' ± (MSL) SHEET 1 OF 2 METHOD OF DRILLING Hand Auger to 4.5' bgs, 6620 DT Direct Push Rig to 55' bgs DRIVE WEIGHT - DROP - SAMPLED BY AUC LOGGED BY AUC REVIEWED BY JJR DESCRIPTION/INTERPRETATION
-							SM	ASPHALT: Approximately 2.5 inches thick. FILL: Medium brown, dry, loose, silty SAND.
		13:15	SV11SS-5'	5.2				
10 -		13:21	SV11SS-10'	13.8			CL	ALLUVIUM: Medium brown, moist, stiff CLAY.
-		13:29	SV11SS-15'	3312				Gray/green; hydrocarbon odor.
20 -		13:34	SV11SS-20'	3800			CL-ML	Gray, moist, soft, silty CLAY.
						111		
-		13:41	SV11SS-25'	3515			CL	Gray, moist, very stiff CLAY. Very expansive/tight.
30 -		13:52	SV11SS-30'	15000				
-		14:02	SV11SS-35'	15000				
40 -		14:15	SV11SS-40'	125.8			SM	Gray, moist, loose, silty SAND.



	SAMPLES			(c			_	DATE DRILLED 12/6/19 BORING NO. AOC4-SV11SS					
feet)	SAI	TIME	Q	PID READING (ppm)	JRE	ا ا	CLASSIFICATION U.S.C.S.	GROUND ELEVATION 69' ± (MSL) SHEET 2 OF 2					
DEPTH (feet)	√ =	SAMPLE TIME	SAMPLE ID	ADIN	MOISTURE	SYMBOL	SIFIC J.S.C.	METHOD OF DRILLING Hand Auger to 4.5' bgs, 6620 DT Direct Push Rig to 55' bgs					
DE	Bulk	SAN	18	ID RE	Ĭ	0)	CLAS	DRIVE WEIGHT DROP					
								SAMPLED BY AUC LOGGED BY AUC REVIEWED BY JJR DESCRIPTION/INTERPRETATION					
40							SM	ALLUVIUM: (Continued) Gray, moist, loose, silty SAND.					
-		-											
_							CL	Gray, moist, very stiff CLAY; very tight/expansive.					
		14:29	SV11SS-45'	3.3									
-													
_													
50 -		14:50	SV11SS-50'	V11SS-50' 2.8									
-													
-		45.47	0) (4.400 55)	0.4									
_		15:17	SV11SS-55'	3.4		<i>Y//</i>		Total Depth = 55 feet bgs. Groundwater not encountered during drilling.					
								Backfilled with grout (95% cement, 5% concrete) to surface on 12/6/19.					
_		1						Notes: Groundwater, though not encountered at the time of drilling, may rise to a higher level					
60 –								due to seasonal variations in precipitation and several other factors as discussed in the report.					
_								The ground elevation shown above is an estimation only. It is based on our					
								interpretations of published maps and other documents reviewed for the purposes of this evaluation. It is not sufficiently accurate for preparing construction bids and design					
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DEPTH (feet)	Bulk SAMPLES Driven	SAMPLE TIME	SAMPLE ID	PID READING (ppm)	MOISTURE	SYMBOL	CLASSIFICATION U.S.C.S.	DATE DRILLED 5/8/19 BORING NO. AOC4-SV12 GROUND ELEVATION 69' ± (MSL) SHEET 1 OF 1 METHOD OF DRILLING Hand Auger to 4.5'; Direct Push to TD (Geoprobe 5400) DROP - SAMPLED BY AUC LOGGED BY KMH REVIEWED BY JJR DESCRIPTION/INTERPRETATION
-							SP SM CL	CONCRETE: Approximately inches thick. ALLUVIUM: Dark brown, slightly moist, CLAY. Medium brown, slightly moist, loose, silty SAND. Light brown, somewhat dry, loose, poorly graded medium SAND. Medium brown, slightly moist, dense, micaceous silty SAND with some black staining. Medium brown; moist. Black; soft. Dark brown; very stiff.
10 -				0.0				Medium brown. Expansive.
-				0.0				Gray-stained; strong hydrocarbon odor.
20 -				466				Total Depth = 20 feet bgs. Groundwater not encountered during drilling. Vapor probes installed at 5 and 19.5 feet bgs. Backfilled with hydrated No. 8 granular bentonite from 19.5 to 5.5 feet, and from 4.5 feet to top of soil. Backfilled with Cemex No. 3 sand from 20 to 19 feet bgs and from 5.5 to 4.5 feet bgs. Capped with cold-patch asphalt on 5/8/19. Notes: Groundwater, though not encountered at the time of drilling, may rise to a higher level due to seasonal variations in precipitation and several other factors as discussed in the report.
30 -								The ground elevation shown above is an estimation only. It is based on our interpretations of published maps and other documents reviewed for the purposes of this evaluation. It is not sufficiently accurate for preparing construction bids and design documents.



DEPTH (feet)	Bulk SAMPLES Driven	SAMPLE TIME	SAMPLE ID	PID READING (ppm)	MOISTURE	SYMBOL	CLASSIFICATION U.S.C.S.	DATE DRILLED 9/11/19 BORING NO. AOC4-SV12E GROUND ELEVATION 59' ± (MSL) SHEET 1 OF 2 METHOD OF DRILLING Hand Auger to 4.5'; Direct Push to TD (Geoprobe 6620 DT) DRIVE WEIGHT
0							CL	CONCRETE: Approximately 5.5 inches thick.
-		12:27	SV12E-5'	1.7			SM	ALLUVIUM: Very dark brown, somewhat dry, stiff CLAY with some sand. Medium brown, slightly moist, loose, micaceous silty SAND.
10 -		12:30	SV12E-10'	1.6			CL	Very dark brown, moist, very soft CLAY. Medium brown; dry; stiff; very expansive.
-		12:31	SV12E-15'	1.1				
20 -		12:34	SV12E-20'	3.8				Medium brown and greenish gray, dry, dense, silty SAND with some clay and moderate hydrocarbon odor.
-		12:40	SV12E-25'	5.4				Medium brown; no odor detected. Medium gray; faint hydrocarbon odor.
-						! }	CL-ML	Medium gray, somewhat dry, stiff, silty CLAY with moderate hydrocarbon odor.
30 -		12:48	SV12E-30'	1742				Medium brown and greenish gray.
-		12:53	SV12E-35'	1168				Moderate sour odor (possibly decayed organic); continuous to 47.5 feet.
-						#		Medium brown; no odor.
40 -		13:04	SV12E-40'	9.6	<u> </u>			Medium gray, dry, dense, silty SAND with mild sour odor.



DEPTH (feet)	Bulk SAMPLES	SAMPLE TIME	SAMPLE ID	PID READING (ppm)	MOISTURE	SYMBOL	CLASSIFICATION U.S.C.S.	DATE DRILLED 9/11/19 BORING NO. AOC4-SV12E GROUND ELEVATION 59' ± (MSL) SHEET 2 OF 2 METHOD OF DRILLING Hand Auger to 4.5'; Direct Push to TD (Geoprobe 6620 DT) DRIVE WEIGHT - DROP - SAMPLED BY AUC LOGGED BY KMH REVIEWED BY JJR DESCRIPTION/INTERPRETATION
40 40 50 - 50 - 60 - 70 - 60 - 60 - 60 - 60 - 60 - 6			SV12E-45'	2.0	▼ :		SM SM	ALLUYIUM: (Continued) Medium gray, dry, dense, silty SAND with mild sour odor. Medium brown; micaceous; moist; no odor. Slightly moist. Medium gray, slightly moist, somewhat soft CLAY; no odor. Total Depth = 50 feet bgs. Groundwater encountered at approximately 48 feet bgs, 1 hour after drilling. Backfilled with grout (95% cement, 5% bentonite) to surface on 9/11/19. Notes: Groundwater may rise to a level higher than that measured in borehole due to seasonal variations in precipitation and several other factors as discussed in the report. The ground elevation shown above is an estimation only. It is based on our interpretations of published maps and other documents reviewed for the purposes of this evaluation. It is not sufficiently accurate for preparing construction bids and design documents.
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DEPTH (feet)	Bulk SAMPLES	SAMPLE TIME	SAMPLE ID	PID READING (ppm)	MOISTURE	SYMBOL	CLASSIFICATION U.S.C.S.	DATE DRILLED 9/12/19 BORING NO. AOC4-SV12W GROUND ELEVATION 58' ± (MSL) SHEET 1 OF 1 METHOD OF DRILLING Hand Auger to 4.5'; Direct Push to TD (Geoprobe 6620 DT) DRIVE WEIGHT - DROP - SAMPLED BY AUC LOGGED BY KMH REVIEWED BY JJR DESCRIPTION/INTERPRETATION
0							SW	ASPHALT: Approximately 3.5 inches thick.
-		13:43	SV12W-5'	1.1			<u>CL</u> SP	BASE: Light gray, dry, well graded SAND with angular coarse grains; approximately 3 inches thick. ALLUVIUM: Very dark brown; slightly moist. Medium brown; slightly moist.
							CL	Black, slightly moist, very soft CLAY; no odor.
						\mathcal{H}	CL-ML	Very dark brown, dry, very stiff, silty CLAY.
10 -		13:48	SV12W-10'	0.4				Medium to dark brown.
-		13:51	SV12W-15'	2.4				Medium gray; mild hydrocarbon odor.
20 -		13:53	SV12W-20'	330.2				Moderate hydrocarbon odor; continuous.
-		13:59	SV12W-25'	213.1			SM	Medium gray, somewhat dry, silty SAND with moderate hydrocarbon odor.
30 -						HEREFEE		Total Depth = 27 feet bgs. Groundwater not encountered during drilling. Vapor probes installed at 5, 15, and 25 feet bgs. Backfilled with No. 3 Monterey sand from 27 to 23 feet, from 17 to 13 feet, and from 7 to 3 feet bgs. Backfilled with hydrated, No. 8 granular bentonite from 23 to 17 feet, from 13 to 7 feet, and from 3 feet bgs to top of soil. Capped with No. 3 Monterey sand on 9/12/19.
-								Notes: Groundwater, though not encountered at the time of drilling, may rise to a higher level due to seasonal variations in precipitation and several other factors as discussed in the report.
-								The ground elevation shown above is an estimation only. It is based on our interpretations of published maps and other documents reviewed for the purposes of this evaluation. It is not sufficiently accurate for preparing construction bids and design documents.



DEPTH (feet)	Bulk	SAMPLE TIME	SAMPLE ID	PID READING (ppm)	MOISTURE	SYMBOL	CLASSIFICATION U.S.C.S.	DATE DRILLED 9/12/19 BORING NO. AOC4-SV12S GROUND ELEVATION 58' ± (MSL) SHEET 1 OF 1 METHOD OF DRILLING Hand Auger to 4.5'; Direct Push to TD (Geoprobe 6620 DT) DRIVE WEIGHT - DROP - SAMPLED BY AUC LOGGED BY KMH REVIEWED BY JJR DESCRIPTION/INTERPRETATION
-		12:45	SV12S-5'				CL SP	CONCRETE: Approximately 5 inches thick. ALLUVIUM: Very dark brown, slightly moist, somewhat soft, micaceous CLAY with some silt. Light brown, slightly moist, loose, poorly graded SAND with some fines. Black, slightly moist, very soft CLAY; no odor.
10 -	-	12:48	SV12S-10'	1.1			CL-ML	Dark brown, dry, very stiff, silty CLAY. Medium brown.
-	_	12:50	SV12S-15'	0.3				
20 -		12:53	SV12S-20'	54.4				Medium gray; mild hydrocarbon odor; continuous to 26 feet.
-		13:02	SV12S-25'	4.3 		#		Medium gray, somewhat dry, very dense, silty SAND with mild hydrocarbon odor.
30 -							Sivi	Total Depth = 27 feet bgs. Groundwater not encountered during drilling. Vapor probes installed at 5, 15, and 25 feet bgs. Backfilled with No. 3 Monterey sand from 27 to 23 feet bgs, from 17 to 13 feet bgs, and from 7 to 3 feet bgs. Backfilled with hydrated, No. 8 granular bentonite from 23 to 17 feet bgs, from 13 to 7 feet bgs, and from 3 feet bgs to top of soil. Capped with No. 3 Monterey sand to surface on 9/12/19.
-								Notes: Groundwater, though not encountered at the time of drilling, may rise to a higher level due to seasonal variations in precipitation and several other factors as discussed in the report. The ground elevation shown above is an estimation only. It is based on our interpretations of published maps and other documents reviewed for the purposes of this evaluation. It is not sufficiently accurate for preparing construction bids and design documents.



DEPTH (feet)	Bulk SAMPLES Driven	SAMPLE TIME	SAMPLE ID	PID READING (ppm)	MOISTURE	SYMBOL	CLASSIFICATION U.S.C.S.	DATE DRILLED 9/12/19 BORING NO. AOC4-SV12N GROUND ELEVATION 58' ± (MSL) SHEET 1 OF 1 METHOD OF DRILLING Hand Auger to 4.5'; Direct Push to TD (Geoprobe 6620 DT) DRIVE WEIGHT - DROP - SAMPLED BY AUC LOGGED BY KMH REVIEWED BY JJR DESCRIPTION/INTERPRETATION
-		10:53	SV12N-5'	0.6			CL SM	CONCRETE: Approximately 5 inches thick. ALLUVIUM: Medium brown, somewhat dry, soft, micaceous CLAY with some silt. Dark brown. Medium brown, slightly moist, loose, micaceous silty SAND.
10 -		10:54	SV12N-10'	0.0			CL CL-ML	Black, slightly moist, very soft CLAY; no odor. Very dark brown, dry, very stiff, very expansive silty CLAY.
-		10:56	SV12N-15'	0.2				
20 -		10:59	SV12N-20'	28.8				Medium gray; light hydrocarbon odor; continuous to 26 feet bgs.
-		11:05	SV12N-25'	5.0				Talal Danilla 00 feet land
30 -								Total Depth = 26 feet bgs. Groundwater not encountered during drilling. Soil vapor probes installed at 5, 15, and 25 feet bgs. Backfilled with No. 3 Monterey sand from 26 to 23 feet bgs, from 17 to 13 feet bgs, and from 7 to 3 feet bgs. Backfilled with hydrated, No. 8 granular bentonite from 23 to 17 feet bgs, from 13 to 7 feet bgs, and from 3 feet bgs to top of soil. Capped with No. 3 Monterey sand to surface on 9/12/19. Notes: Groundwater, though not encountered at the time of drilling, may rise to a higher level
- - - 40 –								due to seasonal variations in precipitation and several other factors as discussed in the report. The ground elevation shown above is an estimation only. It is based on our interpretations of published maps and other documents reviewed for the purposes of this evaluation. It is not sufficiently accurate for preparing construction bids and design documents.



DEPTH (feet)	Bulk SAMPLES Driven	SAMPLE TIME	SAMPLE ID	PID READING (ppm)	MOISTURE	SYMBOL	CLASSIFICATION U.S.C.S.	DATE DRILLED 9/12/19 BORING NO. AOC4-SV12A GROUND ELEVATION 58' ± (MSL) SHEET 1 OF 1 METHOD OF DRILLING Hand Auger to 4.5'; Direct Push to TD (Geoprobe 6620 DT) DRIVE WEIGHT - DROP - SAMPLED BY - LOGGED BY KMH REVIEWED BY JJR DESCRIPTION/INTERPRETATION
0							CL	CONCRETE: ALLUVIUM:
-					<u> </u>			Very dark brown, slightly moist, somewhat stiff CLAY with some silt. Medium brown, slightly moist, loose, poorly graded medium SAND with some fines.
-								
_							CL	Black, slightly moist, very soft CLAY; no odor.
							CL-ML	Dark brown, somewhat dry, very stiff, silty CLAY.
10								Medium brown; expansive.
-								Medium gray; mild hydrocarbon odor.
								Strong hydrocarbon odor.
20 -								Strong hydrocarbon odor.
_							SM	Medium gray, somewhat dry, very dense, silty SAND with moderate hydrocarbon odor.
_								Moderate hydrocarbon odor.
_						1:13131		Total Depth = 27 feet bgs. Groundwater not encountered during drilling.
30 -								Vapor probe installed at 25 feet bgs. Backfilled with No. 3 Monterey sand from 27 to 23 feet bgs. Backfilled with hydrated, No. 3 granular bentonite from 23 feet bgs to top of soil. Capped with No. 3 Monterey sand on 9/12/19.
-								Notes: Groundwater, though not encountered at the time of drilling, may rise to a higher level due to seasonal variations in precipitation and several other factors as discussed in the report.
<u>-</u>		-						The ground elevation shown above is an estimation only. It is based on our interpretations of published maps and other documents reviewed for the purposes of this evaluation. It is not sufficiently accurate for preparing construction bids and design documents.
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DEPTH (feet)	Bulk SAMPLES Driven	SAMPLE TIME	SAMPLE ID	PID READING (ppm)	MOISTURE	SYMBOL	CLASSIFICATION U.S.C.S.	DATE DRILLED 12/6/19 BORING NO. AOC4-SV12WW GROUND ELEVATION 69' ± (MSL) SHEET 1 OF 2 METHOD OF DRILLING Hand Auger to 4.5'; 6620 DT Direct Push Rig to 45' (Strongarm) DROP - DRIVE WEIGHT - DROP - SAMPLED BY AUC REVIEWED BY JJR DESCRIPTION/INTERPRETATION
0							SM	ASPHALT: Approximately 3 inches thick. FILL: Medium brown, dry, loose, silty SAND.
-		10:03	SV12WW-5'	2.1				
10 -		10:06	SV12WW- 10'	30.8			CL	ALLUVIUM: Black, moist, stiff CLAY. Medium brown; somewhat dry.
-		10:11	SV12WW- 15'	2.0				Gray/green;moist; faint hydrocarbon odor.
20 -			SV12WW- 20'	5822				Dry.
-		10:21	SV12WW- 25'	136.2			CL-ML	Gray, moist, soft, silty CLAY.
30 -		10:29	SV12WW- 30'	1019				Description areas maint, stiff CLAVI years proposite
-		10:38	SV12WW- 35'	68.4			CL	Brownish gray, moist, stiff CLAY; very expansive. Medium brown. Gray.
40 -		10:50	SV12WW-	17.5	<u> </u>			Gray, moist, loose, silty SAND.



DEPTH (feet)	Bulk SAMPLES	SAMPLE TIME	SAMPLE ID	PID READING (ppm)	MOISTURE	SYMBOL	CLASSIFICATION U.S.C.S.	DATE DRILLED 12/6/19 BORING NO. AOC4-SV12WW GROUND ELEVATION 69' ± (MSL) SHEET 2 OF 2 METHOD OF DRILLING Hand Auger to 4.5'; 6620 DT Direct Push Rig to 45' (Strongarm) DROP - DRIVE WEIGHT - DROP - SAMPLED BY AUC REVIEWED BY JJR DESCRIPTION/INTERPRETATION
40		11:03	SV12WW- 45'	10.5	\(\frac{\top}{-} \)		SM SM	ALLUVIUM: (Continued) Gray, moist, loose, silty SAND. Saturated. Gray, slightly moist, stiff CLAY. Total Depth = 45 feet bgs. Groundwater encountered at approximately 42 feet bgs, approximately 2.5 hours after drilling. Backfilled with grout (95% cement, 5% concrete) to surface on 12/6/19. Notes: Groundwater may rise to a level higher than that measured in borehole due to relatively slow rate of seepage in clay and several other factors as discussed in the report. Please refer to the report for groundwater monitoring recommendations. The ground elevation shown above is an estimation only. It is based on our interpretations of published maps and other documents reviewed for the purposes of this evaluation. It is not sufficiently accurate for preparing construction bids and design documents.



	SAMPLES			m)			7	DATE DRILLED 5/9/19 BORING NO AOC4-SV13				
DEPTH (feet)	SA	E TIME	'LE ID	PID READING (ppm)	MOISTURE	SYMBOL	CLASSIFICATION U.S.C.S.	GROUND ELEVATION 70' ± (MSL) SHEET 1 OF 1 METHOD OF DRILLING Direct Push (Geoprobe 5400)				
)EPT	Bulk Driven	SAMPLE -	SAMPLE	READI	MOIS	SYM	ASSIF U.S.	DRIVE WEIGHT DROP				
	B Dr	Ø		PIDI			S	SAMPLED BY LOGGED BYKMH REVIEWED BY DESCRIPTION/INTERPRETATION				
0							SM	CONCRETE: Approximately 6 inches thick.				
-					<u> </u>			ALLUVIUM:				
_					_		SM	Medium brown, slightly moist, loose, micaceous silty SAND. Very dark brown, somewhat dry, somewhat stiff, micaceous clay. Increasing sand and silt. Medium brown, slightly moist, loose, micaceous silty SAND.				
_				4.6*				Dense.				
-								Gray and reddish-brown staining; very dense. □ Dark brown, moist, soft, micaceous clay.				
10 -				7.2				Very moist. Moist. Very dark brown; moist (no odor). Dark brown; very stiff.				
-							SM	Medium brown, slightly moist, dense, silty SAND. Medium brown, moist, soft, micaceous clay. Very stiff.				
				2.3				Some gravel.				
-								Some gravel and rust-colored staining.				
20 –								Total Depth = 20 feet bgs. Groundwater not encountered during drilling.				
_								Vapor probes installed at 5 and 15 feet bgs. Backfilled with hydrated No. 8 granular bentonite from Total Depth to 15.5 feet, from 14.5 to 5.5 feet, and from 4.5 feet to top of soil. Backfilled with Cemex No. 3 sand from 15.5 to 14.5 feet and from 5.5 to 4.5 feet.				
								Capped with cold patch asphalt on 5/9/19.				
_								Notes: Groundwater, though not encountered at the time of drilling, may rise to a higher level due to seasonal variations in precipitation and several other factors as discussed in the report.				
								The ground elevation shown above is an estimation only. It is based on our				
30 –								interpretations of published maps and other documents reviewed for the purposes of this evaluation. It is not sufficiently accurate for preparing construction bids and design				
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DEPTH (feet)	Bulk SAMPLES Driven	SAMPLE TIME	SAMPLE ID	PID READING (ppm)	MOISTURE	SYMBOL	CLASSIFICATION U.S.C.S.	DATE DRILLED 9/13/19 BORING NO. AOC4-SV13B GROUND ELEVATION 58' ± (MSL) SHEET 1 OF 1 METHOD OF DRILLING Hand Auger to 4.5'; Direct Push to TD (Geoprobe 6620 DT) DRIVE WEIGHT - DROP - SAMPLED BY LOGGED BY KMH REVIEWED BY JJR DESCRIPTION/INTERPRETATION
0							CL	CONCRETE: Approximately 6 inches thick.
-							SP	BASE: Approximately 3 inches thick. ALLUVIUM: Very dark brown, slightly moist, soft, micaceous CLAY. Light brown, slightly moist, loose, poorly graded, micaceous, medium SAND with some fines.
_							CL	Black, slightly moist, soft CLAY; no odor.
10 -							CL-ML	Medium brown, somewhat dry, very stiff, silty CLAY; no odor; continuous to 17 feet bgs.
_								Total Depth = 17 feet bgs. Groundwater not encountered during drilling.
20 -								Vapor probe installed at 15 feet bgs. Backfilled with No. 3 Monterey sand from 17 to 13 feet bgs, and with hydrated, No. 8 granular bentonite from 13 feet bgs to top of soil. Capped with No. 3 Monterey sand on 9/13/19. Notes: Groundwater, though not encountered at the time of drilling, may rise to a higher level due to seasonal variations in precipitation and several other factors as discussed in the report.
_								The ground elevation shown above is an estimation only. It is based on our
_								interpretations of published maps and other documents reviewed for the purposes of this evaluation. It is not sufficiently accurate for preparing construction bids and design documents.
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DEPTH (feet)	Bulk SAMPLES Driven	SAMPLE TIME	SAMPLE ID	PID READING (ppm)	MOISTURE	SYMBOL	CLASSIFICATION U.S.C.S.	DATE DRILLED 5/9/19 BORING NO. AOC5-B1 GROUND ELEVATION 59' ± (MSL) SHEET 1 OF 1 METHOD OF DRILLING Hand Auger DROP DRIVE WEIGHT DROP SAMPLED BY KMH LOGGED BY AUC REVIEWED BY JJR DESCRIPTION/INTERPRETATION
0		929	B1-0.5' /				SM	CONCRETE: Approximately 5 inches thick.
- - -		9:35	B1-2.5'				SW	FILL: Dark brown, slightly moist, loose, silty SAND; with some gravel mixed. Moist; medium dense. Medium brown, moist, loose, well graded SAND. Total Depth = 2.5 feet bgs. Groundwater not encountered during drilling. Backfilled with hydrated No. 8 granular bentonite to surface on 5/9/19. Notes: Groundwater, though not encountered at the time of drilling, may rise to a higher level
10 -								due to seasonal variations in precipitation and several other factors as discussed in the report.
-								The ground elevation shown above is an estimation only. It is based on our interpretations of published maps and other documents reviewed for the purposes of this evaluation. It is not sufficiently accurate for preparing construction bids and design documents.
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DEPTH (feet)	Bulk SAMPLES Driven	SAMPLE TIME	SAMPLE ID	PID READING (ppm)	MOISTURE	SYMBOL	CLASSIFICATION U.S.C.S.	DATE DRILLED 9/9/19 BORING NO. AOC5-B1S GROUND ELEVATION 60' ± (MSL) SHEET 1 OF 1 METHOD OF DRILLING Hand Auger to 2.5' bgs (Strongarm) DRIVE WEIGHT - DROP - SAMPLED BY AUC REVIEWED BY JJR DESCRIPTION/INTERPRETATION
0		09:39	B1S-0.5'				SM	FILL: Dark brown, moist, loose, micaceous silty SAND.
-		09:40	B1S-1.5'					
-		09:42	B1S-2.5'					
-								Total Depth = 2.5 feet bgs. Groundwater not encountered during drilling. Backfilled with hydrated granular bentonite to surface on 9/9/19.
5 -								Notes: Groundwater, though not encountered at the time of drilling, may rise to a higher level due to seasonal variations in precipitation and several other factors as discussed in the report.
-								The ground elevation shown above is an estimation only. It is based on our interpretations of published maps and other documents reviewed for the purposes of this evaluation. It is not sufficiently accurate for preparing construction bids and design documents.
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DEPTH (feet)	Bulk SAMPLES Driven	SAMPLE TIME	SAMPLE ID	PID READING (ppm)	MOISTURE	SYMBOL	CLASSIFICATION U.S.C.S.	DATE DRILLED 9/9/19 BORING NO. AOC5-B1W GROUND ELEVATION 60' ± (MSL) SHEET 1 OF 1 METHOD OF DRILLING Hand Auger to 2.5' bgs (Strongarm) DRIVE WEIGHT
0		09:44	B1W-0.5'				SM	FILL: Dark brown, moist, loose, micaceous silty SAND.
-		09:45	B1W-1.5'					
-		09:47	B1W-2.5'					
-						П		Total Depth = 2.5 feet bgs. Groundwater not encountered during drilling. Backfilled with hydrated granular bentonite to surface on 9/9/19.
5 -								Notes: Groundwater, though not encountered at the time of drilling, may rise to a higher level due to seasonal variations in precipitation and several other factors as discussed in the report.
-								The ground elevation shown above is an estimation only. It is based on our interpretations of published maps and other documents reviewed for the purposes of this evaluation. It is not sufficiently accurate for preparing construction bids and design documents.
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DEPTH (feet)	Bulk SAMPLES Driven	SAMPLE TIME	SAMPLE ID	PID READING (ppm)	MOISTURE	SYMBOL	CLASSIFICATION U.S.C.S.	DATE DRILLED 9/9/19 BORING NO. AOC5-B1N GROUND ELEVATION 60' ± (MSL) SHEET 1 OF 1 METHOD OF DRILLING Hand Auger to 2.5' bgs (Strongarm) DROP - SAMPLED BY AUC REVIEWED BY JJR DESCRIPTION/INTERPRETATION DESCRIPTION/INTERPRETATION AOC5-B1N AOC5-B1N AOC5-B1N
0		09:48	B1N-0.5'				SM	FILL: Dark brown, moist, loose, micaceous silty SAND.
-		09:50	B1N-1.5'					
-		09:52	B1N-2.5'					
-		-						Total Depth = 2.5 feet bgs. Groundwater not encountered during drilling. Backfilled with hydrated granular bentonite to surface on 9/9/19.
5 -								Notes: Groundwater, though not encountered at the time of drilling, may rise to a higher level due to seasonal variations in precipitation and several other factors as discussed in the report.
-								The ground elevation shown above is an estimation only. It is based on our interpretations of published maps and other documents reviewed for the purposes of this evaluation. It is not sufficiently accurate for preparing construction bids and design documents.
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DEPTH (feet)	Bulk SAMPLES Driven	SAMPLE TIME	SAMPLE ID	PID READING (ppm)	MOISTURE	SYMBOL	CLASSIFICATION U.S.C.S.	DATE DRILLED 5/9/19 BORING NO. AOC5-B2 GROUND ELEVATION 59' ± (MSL) SHEET 1 OF 1 METHOD OF DRILLING Hand Auger DRIVE WEIGHT DROP
0		\9:36 9:40 9:43	B2-0.5'				SM CL-ML SW	CONCRETE: Approximately 2 inches thick. FILL: Dark brown, slightly moist, loose, silty SAND with gravel. Dark brown, almost black, firm, silty CLAY. Medium brown, slightly moist, loose, well graded SAND. Total Depth = 2.5 feet bgs. Groundwater not encountered during drilling. Backfilled with hydrated No. 8 granular bentonite to surface on 5/9/19. Notes: Groundwater, though not encountered at the time of drilling, may rise to a higher level due to seasonal variations in precipitation and several other factors as discussed in the report. The ground elevation shown above is an estimation only. It is based on our interpretations of published maps and other documents reviewed for the purposes of this evaluation. It is not sufficiently accurate for preparing construction bids and design documents.
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	SAMPLES			بر (۳			7	DATE DRILLED 5/9/19 BORING NO AOC5-B3
DEPTH (feet)	SA	E TIME	SAMPLE ID	PID READING (ppm)	MOISTURE	SYMBOL	CLASSIFICATION U.S.C.S.	GROUND ELEVATION 59' ± (MSL) SHEET 1 0F 1 METHOD OF DRILLING Hand Auger
EPT	Bulk	SAMPLE	SAMF	READ	MOIS	SYN	ASSIF U.S.	DRIVE WEIGHT DROP
П	B Z	Ś	, ,	PID			CLA	SAMPLED BY KMH LOGGED BY AUC REVIEWED BY JJR DESCRIPTION/INTERPRETATION
0		9:51	B3-0.5'				SM	FILL: Dark brown, moist, dense, silty SAND with some clay elements in matrix.
-		9: <u>53</u> 9:56	B3-1.5' B3-2.5'		 		SW	Light brown, moist, medium dense, well graded SAND.
-			20 2.0					Total Depth = 2.5 feet bgs. Groundwater not encountered during drilling. Backfilled with hydrated No. 8 granular bentonite to surface on 5/9/19. Notes:
-								Groundwater, though not encountered at the time of drilling, may rise to a higher level due to seasonal variations in precipitation and several other factors as discussed in the report.
10 -								The ground elevation shown above is an estimation only. It is based on our interpretations of published maps and other documents reviewed for the purposes of this evaluation. It is not sufficiently accurate for preparing construction bids and design documents.
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DEPTH (feet)	Bulk SAMPLES Driven	SAMPLE TIME	SAMPLE ID	PID READING (ppm)	MOISTURE	SYMBOL	CLASSIFICATION U.S.C.S.	DATE DRILLED 5/9/19 BORING NO. AOC5-B5 GROUND ELEVATION 59' ± (MSL) SHEET 1 OF 1 METHOD OF DRILLING Hand Auger DROP -
10 -		10:00	B5-0.5' B5-1.5' B5-2.5'				SM	FILL: Light brown, slightly moist, medium dense, silty SAND. Dark brown; moist; with clay in matrix (> 10%). Light brown, slightly moist, medium dense, well graded SAND. Total Depth = 2.5 feet bgs. Groundwater not encountered during drilling. Backfilled with hydrated No. 8 granular bentonite to surface on 5/9/19. Notes: Groundwater, though not encountered at the time of drilling, may rise to a higher level due to seasonal variations in precipitation and several other factors as discussed in the report. The ground elevation shown above is an estimation only. It is based on our interpretations of published maps and other documents reviewed for the purposes of this evaluation. It is not sufficiently accurate for preparing construction bids and design documents.
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DEPTH (feet)	Bulk SAMPLES Driven	SAMPLE TIME	SAMPLE ID	PID READING (ppm)	MOISTURE	SYMBOL	CLASSIFICATION U.S.C.S.	DATE DRILLED 9/9/19 BORING NO. AOC5-B5S GROUND ELEVATION 59' ± (MSL) SHEET 1 OF 1 METHOD OF DRILLING Hand Auger to 2.5' bgs (Strongarm) DRIVE WEIGHT DROP
0		13:27	B5S-0.5'				SM	FILL: Dark brown, dry, loose, micaceous silty SAND.
-		13:29	B5S-1.5'					
=		13:30	B5S-2.5'					
-								Total Depth = 2.5 feet bgs. Groundwater not encountered during drilling. Backfilled with hydrated granular bentonite to surface on 9/9/19.
5 -								Notes: Groundwater, though not encountered at the time of drilling, may rise to a higher level due to seasonal variations in precipitation and several other factors as discussed in the report.
-								The ground elevation shown above is an estimation only. It is based on our interpretations of published maps and other documents reviewed for the purposes of this evaluation. It is not sufficiently accurate for preparing construction bids and design documents.
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DEPTH (feet)	Bulk SAMPLES Driven	SAMPLE TIME	SAMPLE ID	PID READING (ppm)	MOISTURE	SYMBOL	CLASSIFICATION U.S.C.S.	DATE DRILLED 9/9/19 BORING NO. AOC5-B5E GROUND ELEVATION 59' ± (MSL) SHEET 1 OF 1 METHOD OF DRILLING Hand Auger to 2.5' bgs (Strongarm) DRIVE WEIGHT - DROP - SAMPLED BY AUC REVIEWED BY JJR DESCRIPTION/INTERPRETATION
0		13:31	B5E-0.5'				SM	FILL: Dark brown, dry, loose, micaceous silty SAND.
-		13:32	B5E-1.5'					Medium brown.
-		13:33	B5E-2.5'					
-								Total Depth = 2.5 feet bgs. Groundwater not encountered during drilling. Backfilled with hydrated granular bentonite to surface on 9/9/19.
5 –								Notes: Groundwater, though not encountered at the time of drilling, may rise to a higher level due to seasonal variations in precipitation and several other factors as discussed in the report.
-								The ground elevation shown above is an estimation only. It is based on our interpretations of published maps and other documents reviewed for the purposes of this evaluation. It is not sufficiently accurate for preparing construction bids and design documents.
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DEPTH (feet)	Bulk SAMPLES Driven	SAMPLE TIME	SAMPLE ID	PID READING (ppm)	MOISTURE	SYMBOL	CLASSIFICATION U.S.C.S.	DATE DRILLED 12/5/19 BORING NO. AOC5-B5SE GROUND ELEVATION 70' ± (MSL) SHEET 1 OF 1 METHOD OF DRILLING Hand Auger to 2.5' bgs (Strongarm) DRIVE WEIGHT DROP SAMPLED BYAUC LOGGED BYAUC REVIEWED BY JJR
0		08:14	B5SE-0.5'				SM	FILL: Dark brown, moist, soft, micaceous silty SAND.
-		08:20	B5SE-1.5'					
-		08:23	B5SE-2.5'					Dry.
-								Total Depth = 2.5 feet bgs. Groundwater not encountered during drilling. Backfilled with hydrated No. 8 granular bentonite to surface on 12/5/19.
5 –								Notes: Groundwater, though not encountered at the time of drilling, may rise to a higher level due to seasonal variations in precipitation and several other factors as discussed in the report.
-								The ground elevation shown above is an estimation only. It is based on our interpretations of published maps and other documents reviewed for the purposes of this evaluation. It is not sufficiently accurate for preparing construction bids and design documents.
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DEPTH (feet)	Bulk SAMPLES Driven	SAMPLE TIME	SAMPLE ID	PID READING (ppm)	MOISTURE	SYMBOL	CLASSIFICATION U.S.C.S.	DATE DRILLED 12/5/19 BORING NO. AOC5-B5SS GROUND ELEVATION 70' ± (MSL) SHEET 1 OF 1 METHOD OF DRILLING Hand Auger (Strongarm) DROP - - DRIVE WEIGHT - DROP - SAMPLED BY AUC REVIEWED BY JJR DESCRIPTION/INTERPRETATION
0		08:27	B5SS-0.5'				SM	FILL: Dark brown, moist, loose, micaceous silty SAND.
-		08:29	B5SS-1.5'					Dry.
-		08:32	B5SS-2.5'					
-								Total Depth = 2.5 feet bgs. Groundwater not encountered during drilling. Backfilled with hydrated No. 8 granular bentonite to surface on 12/5/19.
-		_						Notes:
5 –		-						Groundwater, though not encountered at the time of drilling, may rise to a higher level due to seasonal variations in precipitation and several other factors as discussed in the report.
-		_						The ground elevation shown above is an estimation only. It is based on our interpretations of published maps and other documents reviewed for the purposes of
-								this evaluation. It is not sufficiently accurate for preparing construction bids and design documents.
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DEPTH (feet)	Bulk SAMPLES Driven	SAMPLE TIME	SAMPLE ID	PID READING (ppm)	MOISTURE	SYMBOL	CLASSIFICATION U.S.C.S.	DATE DRILLED 12/5/19 BORING NO. AOC5-B5SW GROUND ELEVATION 70' ± (MSL) SHEET 1 OF 1 METHOD OF DRILLING Hand Auger (Strongarm) DRIVE WEIGHT
0		08:20	B5SW-0.5'				SM	FILL: Dark brown, moist, loose, micaceous silty SAND.
-		08:24	B5SW-1.5'					Trace brick.
-		08:27	B5SW-2.5'					
-								Total Depth = 2.5 feet bgs. Groundwater not encountered during drilling. Backfilled with hydrated No. 8 granular bentonite to surface on 12/5/19.
5 –								Notes: Groundwater, though not encountered at the time of drilling, may rise to a higher level due to seasonal variations in precipitation and several other factors as discussed in the report.
-								The ground elevation shown above is an estimation only. It is based on our interpretations of published maps and other documents reviewed for the purposes of this evaluation. It is not sufficiently accurate for preparing construction bids and design documents.
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	SAMPLES			(u			_	DATE DRILLED 5/9/19 BORING NO AOC5-B7
(feet)	SAI	TIME	E ID	PID READING (ppm)	JRE	OL	CLASSIFICATION U.S.C.S.	GROUND ELEVATION 59' ± (MSL) SHEET 1 OF 1
DEPTH (feet)	~ =	SAMPLE	SAMPLE ID	ADIN	MOISTURE	SYMBOL	SIFIC J.S.C.	METHOD OF DRILLING Hand Auger
DE	Bulk	SAN	SA	D RE	×	S	SLAS	DRIVE WEIGHT DROP
				Ы				SAMPLED BY KMH LOGGED BY AUC REVIEWED BY JJR DESCRIPTION/INTERPRETATION
0		10:12 10:14	B7-0.5' B7-1.5'				SM	FILL: Dark brown, moist, dense, silty SAND with clay in matrix (> 5%).
		10:18	B7-2.5'				SW	Light brown, slightly moist, medium dense, well graded SAND. Total Depth = 2.5 feet bgs.
-		_						Groundwater not encountered during drilling. Backfilled with hydrated No. 8 granular bentonite to surface on 5/9/19.
								Notes: Groundwater, though not encountered at the time of drilling, may rise to a higher level due to seasonal variations in precipitation and several other factors as discussed in the report.
10 -		-						The ground elevation shown above is an estimation only. It is based on our interpretations of published maps and other documents reviewed for the purposes of this evaluation. It is not sufficiently accurate for preparing construction bids and design documents.
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DEPTH (feet)	Bulk SAMPLES Driven	SAMPLE TIME	SAMPLE ID	PID READING (ppm)	MOISTURE	SYMBOL	CLASSIFICATION U.S.C.S.	DATE DRILLED 5/9/19 BORING NO. AOC5-B8 GROUND ELEVATION 59' ± (MSL) SHEET 1 OF 1 METHOD OF DRILLING Hand Auger DROP - DRIVE WEIGHT - DROP - SAMPLED BY KMH LOGGED BY AUC REVIEWED BY JJR DESCRIPTION/INTERPRETATION
10 -		10:20	B8-0.5' B8-1.5' B8-2.5'				SM	FILL: Medium brown, slightly moist, medium dense, silty SAND with gravel in matrix. Light brown, dry, loose, well graded SAND. Total Depth = 2.5 feet bgs. Groundwater not encountered during drilling. Backfilled with hydrated No. 8 granular bentonite to surface on 5/9/19. Notes: Groundwater, though not encountered at the time of drilling, may rise to a higher level due to seasonal variations in precipitation and several other factors as discussed in the report. The ground elevation shown above is an estimation only. It is based on our interpretations of published maps and other documents reviewed for the purposes of this evaluation. It is not sufficiently accurate for preparing construction bids and design documents.
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DEPTH (feet)	Bulk SAMPLES Driven	SAMPLE TIME	SAMPLE ID	PID READING (ppm)	MOISTURE	SYMBOL	CLASSIFICATION U.S.C.S.	DATE DRILLED 9/9/19 BORING NO. AOC5-B8N GROUND ELEVATION 59' ± (MSL) SHEET 1 OF 1 METHOD OF DRILLING Hand Auger to 2.5' bgs (Strongarm) DRIVE WEIGHT DROP SAMPLED BYAUC LOGGED BYAUC REVIEWED BYJJR DESCRIPTION/INTERPRETATION
0		11:40	B8N-0.5'				SM	FILL: Dark brown, dry, loose, micaceous silty SAND.
-		11:42	B8N-1.5'					Medium brown.
-		11:44	B8N-2.5'					
-								Total Depth = 2.5 feet bgs. Groundwater not encountered during drilling. Backfilled with hydrated No. 8 granular bentonite to surface on 9/9/19.
5 –								Notes: Groundwater, though not encountered at the time of drilling, may rise to a higher level due to seasonal variations in precipitation and several other factors as discussed in the report.
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DEPTH (feet)	Bulk SAMPLES Driven	SAMPLE TIME	SAMPLE ID	PID READING (ppm)	MOISTURE	SYMBOL	CLASSIFICATION U.S.C.S.	DATE DRILLED 9/9/19 BORING NO. AOC5-B8W GROUND ELEVATION 59' ± (MSL) SHEET 1 OF 1 METHOD OF DRILLING Hand Auger to 2.5' bgs (Strongarm) DRIVE WEIGHT DROP SAMPLED BYAUC LOGGED BYAUC REVIEWED BYJJR
0		11:35	B8W-0.5'				SM	FILL: Medium brown, dry, loose, micaceous silty SAND.
-		11:37	B8W-1.5'					Dark brown.
-		11:38	B8W-2.5'					
-								Total Depth = 2.5 feet bgs. Groundwater not encountered during drilling. Backfilled with hydrated No. 8 granular bentonite to surface on 9/9/19.
5 -								Notes: Groundwater, though not encountered at the time of drilling, may rise to a higher level due to seasonal variations in precipitation and several other factors as discussed in the report.
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DEPTH (feet)	Bulk SAMPLES Driven	SAMPLE TIME	SAMPLE ID	PID READING (ppm)	MOISTURE	SYMBOL	CLASSIFICATION U.S.C.S.	DATE DRILLED 9/9/19 BORING NO. AOC5-B8S GROUND ELEVATION 59' ± (MSL) SHEET 1 OF 1 METHOD OF DRILLING Hand Auger to 2.5' bgs (Strongarm) DRIVE WEIGHT
0		11:25	B8S-0.5'				SM	FILL: Dark brown, dry, loose, micaceous silty SAND.
-		11:26	B8S-1.5'					
-		11:28	B8S-2.5'					
-						пини		Total Depth = 2.5 feet bgs. Groundwater not encountered during drilling. Backfilled with hydrated No. 8 granular bentonite to surface on 9/9/19. Notes:
5 –								Groundwater, though not encountered at the time of drilling, may rise to a higher level due to seasonal variations in precipitation and several other factors as discussed in the report.
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DEPTH (feet)	Bulk SAMPLES Driven	SAMPLE TIME	SAMPLE ID	PID READING (ppm)	MOISTURE	SYMBOL	CLASSIFICATION U.S.C.S.	DATE DRILLED 12/5/19 BORING NO. AOC5-B8E GROUND ELEVATION 70' ± (MSL) SHEET 1 OF 1 METHOD OF DRILLING Hand Auger to 2.5' bgs (Strongarm) DRIVE WEIGHT
0		08:40	B8E-0.5'				SM	FILL: Dark brown, dry, loose, micaceous silty SAND.
-		08:45	B8E-1.5'					
-		08:47	B8E-2.5'					
-								Total Depth = 2.5 feet bgs. Groundwater not encountered during drilling. Backfilled with hydrated No. 8 granular bentonite to surface on 12/5/19.
5 -								Notes: Groundwater, though not encountered at the time of drilling, may rise to a higher level due to seasonal variations in precipitation and several other factors as discussed in the report.
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0		08:49	B8NE-0.5'				SM	FILL: Dark brown, dry, loose, micaceous silty SAND.
-		08:52	B8NE-1.5'					
-		08:55	B8NE-2.5'					
-								Total Depth = 2.5 feet bgs. Groundwater not encountered during drilling. Backfilled with hydrated No. 8 granular bentonite to surface on 12/5/19.
5 –								Notes: Groundwater, though not encountered at the time of drilling, may rise to a higher level due to seasonal variations in precipitation and several other factors as discussed in the report.
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0		08:59	B8NN-0.5'				SM	FILL: Dark brown, moist, loose, micaceous silty SAND.					
-		09:02	B8NN-1.5'										
-		09:05	B8NN-2.5'										
-				Total Depth = 2.5 feet bgs. Groundwater not encountered during drilling. Backfilled with hydrated No. 8 granular bentonite to surface on 1:									
-								Notes:					
5 –								Groundwater, though not encountered at the time of drilling, may rise to a higher level due to seasonal variations in precipitation and several other factors as discussed in the report.					
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0		09:07	B8NW-0.5'				SM	FILL: Dark brown, moist, loose, micaceous silty SAND.
-		09:10	B8NW-1.5'					
-		09:12	B8NW-2.5'					
-								Total Depth = 2.5 feet bgs. Groundwater not encountered during drilling. Backfilled with hydrated No. 8 granular bentonite to surface on 12/5/19.
-								Notes:
5 –								Groundwater, though not encountered at the time of drilling, may rise to a higher level due to seasonal variations in precipitation and several other factors as discussed in the report.
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0		08:42	B8SE-0.5'				SM	FILL: Dark brown, dry, loose, micaceous silty SAND.					
-		08:44	B8SE-1.5'										
-		08:46	B8SE-2.5'										
-						Lasta		Total Depth = 2.5 feet bgs. Groundwater not encountered during drilling.					
-								Backfilled with hydrated No. 8 granular bentonite to surface on 12/5/19. Notes:					
5 –								Groundwater, though not encountered at the time of drilling, may rise to a higher level due to seasonal variations in precipitation and several other factors as discussed in the report.					
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DEPTH (feet)	Bulk SAMPLES Driven	SAMPLE TIME	SAMPLE ID	PID READING (ppm)	MOISTURE	SYMBOL	CLASSIFICATION U.S.C.S.	DATE DRILLED 12/5/19 BORING NO. AOC5-B8SS GROUND ELEVATION 70' ± (MSL) SHEET 1 OF 1 METHOD OF DRILLING Hand Auger (Strongarm) DROP - - DRIVE WEIGHT - DROP - SAMPLED BY LNT REVIEWED BY JJR DESCRIPTION/INTERPRETATION		
0		09:21	B8SS-0.5'				SM	FILL: Dark brown, moist, loose, micaceous silty SAND.		
-		09:23	B8SS-1.5'					Dry.		
-		09:26	B8SS-2.5'							
-								Total Depth = 2.5 feet bgs. Groundwater not encountered during drilling. Backfilled with hydrated No. 8 granular bentonite to surface on 12/5/19.		
-								Notes:		
5 –								Groundwater, though not encountered at the time of drilling, may rise to a higher level due to seasonal variations in precipitation and several other factors as discussed in the report.		
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DEPTH (feet)	Bulk SAMPLES Driven	SAMPLE TIME	SAMPLE ID	PID READING (ppm)	MOISTURE	SYMBOL	CLASSIFICATION U.S.C.S.	DATE DRILLED 12/5/19 BORING NO. AOC5-B8SW GROUND ELEVATION 70' ± (MSL) SHEET 1 OF 1 METHOD OF DRILLING Hand Auger (Strongarm) DROP - - DRIVE WEIGHT - DROP - SAMPLED BY LNT REVIEWED BY JJR DESCRIPTION/INTERPRETATION
0		09:10	B8SW-0.5'				SM	FILL: Dark brown, moist, loose, micaceous silty SAND.
-		09:13	B8SW-1.5'					
-		09:15	B8SW-2.5'					
-								Total Depth = 2.5 feet bgs. Groundwater not encountered during drilling. Backfilled with hydrated No. 8 granular bentonite to surface on 12/5/19.
-								Notes:
5 –								Groundwater, though not encountered at the time of drilling, may rise to a higher level due to seasonal variations in precipitation and several other factors as discussed in the report.
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DEPTH (feet)	Bulk SAMPLES Driven	SAMPLE TIME	SAMPLE ID	PID READING (ppm)	MOISTURE	SYMBOL	CLASSIFICATION U.S.C.S.	DATE DRILLED 12/5/19 BORING NO. AOC5-B8WW GROUND ELEVATION 70' ± (MSL) SHEET 1 OF 1 METHOD OF DRILLING Hand Auger (Strongarm) DRIVE WEIGHT					
0		09:17	B8WW-0.5' DUP-59				SM	FILL: Dark brown, moist, loose, micaceous silty SAND.					
-		09:20	B8WW-1.5'										
-		09:22	B8WW-2.5'					Dry. Total Depth = 2.5 feet bgs.					
-								Groundwater not encountered during drilling. Backfilled with hydrated No. 8 granular bentonite to surface on 12/5/19.					
5 -								Notes: Groundwater, though not encountered at the time of drilling, may rise to a higher level due to seasonal variations in precipitation and several other factors as discussed in the report.					
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DEPTH (feet)	Bulk SAMPLES	SAMPLE TIME	SAMPLE ID	PID READING (ppm)	MOISTURE	SYMBOL	CLASSIFICATION U.S.C.S.	DATE DRILLED 5/9/19 BORING NO. AOC5-B10 GROUND ELEVATION 59' ± (MSL) SHEET 1 OF 1 METHOD OF DRILLING Hand Auger DRIVE WEIGHT DROP
20 -		10:42 10:45 10:49	B10-0.5' DUP-21 B10-1.5' B10-2.5'				SM SW	EILL: Medium brown, slightly moist, loose, well graded SAND. Light brown, slightly moist, loose, well graded SAND. Total Depth = 2.5 feet bgs. Groundwater not encountered during drilling. Backfilled with hydrated No. 8 granular bentonite to surface on 5/9/19. Notes: Groundwater, though not encountered at the time of drilling, may rise to a higher level due to seasonal variations in precipitation and several other factors as discussed in the report. The ground elevation shown above is an estimation only. It is based on our interpretations of published maps and other documents reviewed for the purposes of this evaluation. It is not sufficiently accurate for preparing construction bids and design documents.



DEPTH (feet)	Bulk SAMPLES Driven	SAMPLE TIME	SAMPLE ID	PID READING (ppm)	MOISTURE	SYMBOL	CLASSIFICATION U.S.C.S.	DATE DRILLED 9/9/19 BORING NO. AOC5-B10S GROUND ELEVATION 59' ± (MSL) SHEET 1 OF 1 METHOD OF DRILLING Hand Auger to 2.5' bgs (Strongarm) DRIVE WEIGHT - DROP - SAMPLED BY AUC REVIEWED BY JJR DESCRIPTION/INTERPRETATION
0		13:09	B10S-0.5'				SM	FILL: Dark brown, moist, loose, micaceous silty SAND.
-		13:10	B10S-1.5'					Medium brown.
-		13:11	B10S-2.5'					
-								Total Depth = 2.5 feet bgs. Groundwater not encountered during drilling. Backfilled with hydrated No. 8 granular bentonite to surface on 9/9/19.
5 –								Notes: Groundwater, though not encountered at the time of drilling, may rise to a higher level due to seasonal variations in precipitation and several other factors as discussed in the report.
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DEPTH (feet)	Bulk SAMPLES Driven	SAMPLE TIME	SAMPLE ID	PID READING (ppm)	MOISTURE	SYMBOL	CLASSIFICATION U.S.C.S.	DATE DRILLED 9/9/19 BORING NO. AOC5-B10E GROUND ELEVATION 59' ± (MSL) SHEET 1 OF 1 METHOD OF DRILLING Hand Auger to 2.5' bgs (Strongarm) DRIVE WEIGHT - DROP - SAMPLED BY AUC REVIEWED BY JJR DESCRIPTION/INTERPRETATION
0		13:14	B10E-0.5'				SM	FILL: Dark brown, moist, loose, micaceous silty SAND.
-		13:15	B10E-1.5'					
-		13:16	B10E-2.5'					Light brown.
-								Total Depth = 2.5 feet bgs. Groundwater not encountered during drilling. Backfilled with hydrated No. 8 granular bentonite to surface on 9/9/19.
-								Notes: Groundwater, though not encountered at the time of drilling, may rise to a higher level due to seasonal variations in precipitation and several other factors as discussed in
5 -								the report.
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0		10:30 10:34	B11-0.5' DUP-22 B11-1.5'				SM	FILL: Medium brown, slightly moist, medium dense, silty SAND.
- 10 — -		10:36	B11-2.5'					Total Depth = 2.5 feet bgs. Groundwater not encountered during drilling. Backfilled with hydrated No. 8 granular bentonite to surface on 5/9/19. Notes: Groundwater, though not encountered at the time of drilling, may rise to a higher level due to seasonal variations in precipitation and several other factors as discussed in the report. The ground elevation shown above is an estimation only. It is based on our interpretations of published maps and other documents reviewed for the purposes of this evaluation. It is not sufficiently accurate for preparing construction bids and design documents.
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DEPTH (feet)	Bulk SAMPLES Driven	SAMPLE TIME	SAMPLE ID	PID READING (ppm)	MOISTURE	SYMBOL	CLASSIFICATION U.S.C.S.	DATE DRILLED 9/9/19 BORING NO. AOC5-B11N GROUND ELEVATION 59' ± (MSL) SHEET 1 OF 1 METHOD OF DRILLING Hand Auger to 2.5' bgs (Strongarm) DRIVE WEIGHT - DROP - SAMPLED BY AUC REVIEWED BY JJR DESCRIPTION/INTERPRETATION
0		09:09	B11N-0.5'				SM	FILL: Dark brown, dry, loose, micaceous silty SAND.
-		09:10	B11N-1.5'					Medium brown.
-		09:11	B11N-2.5'					Light brown.
-								Total Depth = 2.5 feet bgs. Groundwater not encountered during drilling.
								Backfilled with hydrated No. 8 granular bentonite to surface on 9/9/19.
5 –								Notes: Groundwater, though not encountered at the time of drilling, may rise to a higher level due to seasonal variations in precipitation and several other factors as discussed in the report.
-		_						The ground elevation shown above is an estimation only. It is based on our interpretations of published maps and other documents reviewed for the purposes of this evaluation. It is not sufficiently accurate for preparing construction bids and design
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0		09:16	B11S-0.5' DUP-48				SM	FILL: Dark brown, slightly moist, loose, silty SAND.
-		09:17	B11S-1.5'					Medium brown.
-		09:18	B11S-2.5'					Light brown.
-								Total Depth = 2.5 feet bgs. Groundwater not encountered during drilling. Backfilled with hydrated No. 8 granular bentonite to surface on 9/9/19.
-								Notes:
5 –		_						Groundwater, though not encountered at the time of drilling, may rise to a higher level due to seasonal variations in precipitation and several other factors as discussed in the report.
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DEPTH (feet)	Bulk SAMPLES Driven	SAMPLE TIME	SAMPLEID	PID READING (ppm)	MOISTURE	SYMBOL	CLASSIFICATION U.S.C.S.	DATE DRILLED 5/9/19 BORING NO. AOC5-B12 GROUND ELEVATION 59' ± (MSL) SHEET 1 OF 1 METHOD OF DRILLING Hand Auger DROP - - DRIVE WEIGHT - DROP - SAMPLED BY KMH LOGGED BY AUC REVIEWED BY JJR DESCRIPTION/INTERPRETATION
0 -		11:00 11:03 11:06	B12-0.5' DUP-23 B12-1.5' B12-2.5'				SM	FILL: Medium brown, slightly moist, medium dense, silty SAND; some dark coloring mixed in matrix (> 2%).
- - 10 - -			Б12-2.5					Total Depth = 2.5 feet bgs. Groundwater not encountered during drilling. Backfilled with hydrated No. 8 granular bentonite to surface on 5/9/19. Notes: Groundwater, though not encountered at the time of drilling, may rise to a higher level due to seasonal variations in precipitation and several other factors as discussed in the report. The ground elevation shown above is an estimation only. It is based on our interpretations of published maps and other documents reviewed for the purposes of this evaluation. It is not sufficiently accurate for preparing construction bids and design documents.
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DEPTH (feet)	Bulk SAMPLES Driven	SAMPLE TIME	SAMPLE ID	PID READING (ppm)	MOISTURE	SYMBOL	CLASSIFICATION U.S.C.S.	DATE DRILLED 9/6/19 BORING NO. AOC5-B12N GROUND ELEVATION 59' ± (MSL) SHEET 1 OF 1 METHOD OF DRILLING Hand Auger (Strongarm) DROP - - DRIVE WEIGHT - DROP - - SAMPLED BY KMH LOGGED BY KMH REVIEWED BY JJR DESCRIPTION/INTERPRETATION
0		15:06	B12N-0.5'				SM	FILL: Dark brown, dry, loose, micaceous silty SAND.
-		15:07	B12N-1.5'					
-		15:08	B12N-2.5'					
-								Total Depth = 2.5 feet bgs. Groundwater not encountered during drilling. Backfilled with hydrated No. 8 granular bentonite to surface on 9/6/19.
5 –								Notes: Groundwater, though not encountered at the time of drilling, may rise to a higher level due to seasonal variations in precipitation and several other factors as discussed in the report.
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DEPTH (feet)	Bulk SAMPLES Driven	SAMPLE TIME	SAMPLE ID	PID READING (ppm)	MOISTURE	SYMBOL	CLASSIFICATION U.S.C.S.	DATE DRILLED 9/6/19 BORING NO. AOC5-B12S GROUND ELEVATION 59' ± (MSL) SHEET 1 OF 1 METHOD OF DRILLING Hand Auger (Strongarm) DRIVE WEIGHT
0		14:59	B12S-0.5' DUP-47				SM	FILL: Dark brown, dry, loose, micaceous silty SAND.
-		15:01	B12S-1.5'					Very dark brown; slightly moist.
-		15:02	B12S-2.5'					
-								Total Depth = 2.5 feet bgs. Groundwater not encountered during drilling. Backfilled with hydrated No. 8 granular bentonite to surface on 9/6/19.
5 -								Notes: Groundwater, though not encountered at the time of drilling, may rise to a higher level due to seasonal variations in precipitation and several other factors as discussed in the report.
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DEPTH (feet)	Bulk SAMPLES Driven	SAMPLE TIME	SAMPLE ID	PID READING (ppm)	MOISTURE	SYMBOL	CLASSIFICATION U.S.C.S.	DATE DRILLED 12/5/19 BORING NO. AOC5-B12SE GROUND ELEVATION 70' ± (MSL) SHEET 1 OF 1 METHOD OF DRILLING Hand Auger (Strongarm) DROP - SAMPLED BY AUC REVIEWED BY JJR DESCRIPTION/INTERPRETATION
0		09:54	B12SE-0.5'				SM	FILL: Dark brown, dry, loose, micaceous silty SAND.
-		09:57	B12SE-1.5'					
-		10:01	B12SE-2.5'					
-								Total Depth = 2.5 feet bgs. Groundwater not encountered during drilling. Backfilled with hydrated No. 8 granular bentonite to surface on 12/5/19.
5 –								Notes: Groundwater, though not encountered at the time of drilling, may rise to a higher level due to seasonal variations in precipitation and several other factors as discussed in the report.
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DEPTH (feet)	Bulk SAMPLES Driven	SAMPLE TIME	SAMPLE ID	PID READING (ppm)	MOISTURE	SYMBOL	CLASSIFICATION U.S.C.S.	DATE DRILLED 12/5/19 BORING NO. AOC5-B12SS GROUND ELEVATION 70' ± (MSL) SHEET 1 OF 1 METHOD OF DRILLING Hand Auger (Strongarm) DROP - SAMPLED BY AUC REVIEWED BY JJR DESCRIPTION/INTERPRETATION DESCRIPTION/INTERPRETATION AOC5-B12SS AOC5-B12SS AOC5-B12SS
0		09:46	B12SS-0.5'				SM	FILL: Medium brown, dry, loose, micaceous silty SAND.
-		09:50	B12SS-1.5'					
-		09:54	B12SS-2.5'					
-								Total Depth = 2.5 feet bgs. Groundwater not encountered during drilling. Backfilled with hydrated No. 8 granular bentonite to surface on 12/5/19.
-								Notes: Groundwater, though not encountered at the time of drilling, may rise to a higher level
5 -								due to seasonal variations in precipitation and several other factors as discussed in the report.
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1 (feet)	SA	SAMPLE TIME	SAMPLE ID	PID READING (ppm)	TURE	SYMBOL	CLASSIFICATION U.S.C.S.	GROUND ELEVATION 70' ± (MSL) SHEET 1 0F 1 METHOD OF DRILLING Hand Auger (Strongarm)
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		0)		PID			귕	SAMPLED BY AUC LOGGED BY AUC REVIEWED BY JJR DESCRIPTION/INTERPRETATION
0		09:42	B12SW-0.5'				SM	FILL: Medium brown, dry, loose, micaceous silty SAND.
-		09:45	B12SW-1.5'					
=		09:46	B12SW-2.5'					
-								Total Depth = 2.5 feet bgs. Groundwater not encountered during drilling.
								Backfilled with hydrated No. 8 granular bentonite to surface on 12/5/19.
5 –							Notes: Groundwater, though not encountered at the time of drilling, may rise to a higher leve due to seasonal variations in precipitation and several other factors as discussed in the report.	
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Bulk SAMPLES Driven	SAMPLE TIME	SAMPLE ID	PID READING (ppm)	MOISTURE	SYMBOL	CLASSIFICATION U.S.C.S.	DATE DRILLED 5/9/19 BORING NO. AOC5-B13 GROUND ELEVATION 59' ± (MSL) SHEET 1 OF 1 METHOD OF DRILLING Hand Auger DROP - DRIVE WEIGHT - DROP - - SAMPLED BY KMH LOGGED BY AUC REVIEWED BY JJR DESCRIPTION/INTERPRETATION
	11:10 11:12	B13-0.5' DUP-24 B13-1.5'				SM	FILL: Medium brown, slightly moist, medium dense, silty SAND.
		B13/2.3					Total Depth = 2.5 feet bgs. Groundwater not encountered during drilling. Backfilled with hydrated No. 8 granular bentonite to surface on 5/9/19. Notes: Groundwater, though not encountered at the time of drilling, may rise to a higher level due to seasonal variations in precipitation and several other factors as discussed in the report. The ground elevation shown above is an estimation only. It is based on our interpretations of published maps and other documents reviewed for the purposes of
							this evaluation. It is not sufficiently accurate for preparing construction bids and design documents.
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DEPTH (feet)	Bulk SAMPLES Driven	SAMPLE TIME	SAMPLE ID	PID READING (ppm)	MOISTURE	SYMBOL	CLASSIFICATION U.S.C.S.	DATE DRILLED 9/6/19 BORING NO. AOC5-B13W GROUND ELEVATION 58' ± (MSL) SHEET 1 OF 1 METHOD OF DRILLING Hand Auger (Strongarm) DRIVE WEIGHT
0		14:44	B13W-0.5'				SM	FILL: Dark brown, dry, loose, micaceous silty SAND.
		14:45	B13W-1.5'					
-		14:47	B13W-2.5'					
-								Total Depth = 2.5 feet bgs. Groundwater not encountered during drilling. Backfilled with No. 8 granular bentonite to surface on 9/6/19.
5 -								Notes: Groundwater, though not encountered at the time of drilling, may rise to a higher level due to seasonal variations in precipitation and several other factors as discussed in the report.
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DEPTH (feet)	Bulk SAMPLES Driven	SAMPLE TIME	SAMPLE ID	PID READING (ppm)	MOISTURE	SYMBOL	CLASSIFICATION U.S.C.S.	DATE DRILLED 9/6/19 BORING NO. AOC5-B13E GROUND ELEVATION 58' ± (MSL) SHEET 1 OF 1 METHOD OF DRILLING Hand Auger (Strongarm) DROP - - DRIVE WEIGHT - DROP - - SAMPLED BY KMH LOGGED BY KMH REVIEWED BY JJR DESCRIPTION/INTERPRETATION
0		14:39	B13E-0.5'				SM	FILL: Dark brown, dry, loose, micaceous silty SAND.
-		14:40	B13E-1.5'					
-		14:41	B13E-2.5'					
-								Total Depth = 2.5 feet bgs. Groundwater not encountered during drilling. Backfilled with No. 8 granular bentonite to surface on 9/6/19.
-								Notes: Groundwater, though not encountered at the time of drilling, may rise to a higher level due to seasonal variations in precipitation and several other factors as discussed in
5 –								the report.
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DEPTH (feet)	Bulk SAMPLES Driven	SAMPLE TIME	SAMPLE ID	PID READING (ppm)	MOISTURE	SYMBOL	CLASSIFICATION U.S.C.S.	DATE DRILLED 9/6/19 BORING NO. AOC5-B13S GROUND ELEVATION 58' ± (MSL) SHEET 1 OF 1 METHOD OF DRILLING Hand Auger (Strongarm) DROP - SAMPLED BY KMH LOGGED BY KMH REVIEWED BY JJR DESCRIPTION/INTERPRETATION
0		14:35	B13S-0.5' DUP-46				SM	FILL: Dark brown, dry, loose, micaceous silty SAND.
-		14:36	B13S-1.5'					
-		14:37	B13S-2.5'					
-								Total Depth = 2.5 feet bgs. Groundwater not encountered during drilling. Backfilled with No. 8 granular bentonite to surface on 9/6/19.
-								Notes: Groundwater, though not encountered at the time of drilling, may rise to a higher level
5 –								due to seasonal variations in precipitation and several other factors as discussed in the report.
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DEPTH (feet)	Bulk SAMPLES Driven	SAMPLE TIME	SAMPLE ID	PID READING (ppm)	MOISTURE	SYMBOL	CLASSIFICATION U.S.C.S.	DATE DRILLED 12/5/19 BORING NO. AOC5-B13SE GROUND ELEVATION 70' ± (MSL) SHEET 1 OF 1 METHOD OF DRILLING Hand Auger (Strongarm) DROP - SAMPLED BY LNT DROP - SAMPLED BY LNT LOGGED BY LNT REVIEWED BY JJR DESCRIPTION/INTERPRETATION
0		10:22	B13SE-0.5'				SM	FILL: Dark brown, moist, loose, micaceous silty SAND.
-		10:24	B13SE-1.5'					
-		10:27	B13SE-2.5'					
-					Total Depth = 2.5 feet bgs. Groundwater not encountered during drilling. Backfilled with hydrated No. 8 granular bentonite to surface on 12/5/19.			
-								Notes: Groundwater, though not encountered at the time of drilling, may rise to a higher level
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DEPTH (feet)	Bulk SAMPLES Driven	SAMPLE TIME	SAMPLE ID	PID READING (ppm)	MOISTURE	SYMBOL	CLASSIFICATION U.S.C.S.	DATE DRILLED 12/5/19 BORING NO. AOC5-B13SS GROUND ELEVATION 70' ± (MSL) SHEET 1 OF 1 METHOD OF DRILLING Hand Auger to 2.5' bgs (Strongarm) DROP - SAMPLED BY LNT LNT REVIEWED BY JJR DESCRIPTION/INTERPRETATION
0		10:09	B13SS-0.5'				SM	FILL: Dark brown, dry, loose, micaceous silty SAND.
-		10:13	B13SS-1.5'					Light brown.
-		10:16	B13SS-2.5'					
-								Total Depth = 2.5 feet bgs. Groundwater not encountered during drilling. Backfilled with hydrated No. 8 granular bentonite to surface on 12/5/19.
5 –								Notes: Groundwater, though not encountered at the time of drilling, may rise to a higher level due to seasonal variations in precipitation and several other factors as discussed in the report.
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0		10:09	B13SW-0.5' DUP-60				SM	FILL: Dark brown, dry, loose, micaceous silty SAND.
-		10:12	B13SW-1.5'					Light brown.
-		10:15	B13SW-2.5'					
-								Total Depth = 2.5 feet bgs. Groundwater not encountered during drilling. Backfilled with hydrated No. 8 granular bentonite to surface on 12/5/19.
5 –								Notes: Groundwater, though not encountered at the time of drilling, may rise to a higher level due to seasonal variations in precipitation and several other factors as discussed in the report.
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0		09:57	B13WW- 0.5'				SM	FILL: Dark brown, dry, loose, micaceous silty SAND.
-		10:00	B13WW- 1.5'					
-		10:04	B13WW- 2.5'					Total Depth = 2.5 feet bgs.
-							Groundwater not encountered during drilling. Backfilled with hydrated No. 8 granular bentonite to surface on 12/5/19.	
5 –								Notes: Groundwater, though not encountered at the time of drilling, may rise to a higher level due to seasonal variations in precipitation and several other factors as discussed in the report.
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DEPTH (feet)	Bulk SAMPLES	SAMPLE TIME	SAMPLE ID	PID READING (ppm)	MOISTURE	SYMBOL	CLASSIFICATION U.S.C.S.	DATE DRILLED 5/9/19 BORING NO. AOC5-B14 GROUND ELEVATION 59' ± (MSL) SHEET 1 OF 1 METHOD OF DRILLING Hand Auger DROP - - SAMPLED BY KMH LOGGED BY AUC REVIEWED BY JJR DESCRIPTION/INTERPRETATION
20 -		12:02					SM	FILL: Medium brown, dry, loose, silty SAND with gravel sized brick and concrete. Dark brown; moist; medium dense. Medium brown. Total Depth = 2.5 feet bgs. Groundwater not encountered during drilling. Backfilled with hydrated No. 8 granular bentonite to surface on 5/9/19. Notes: Groundwater, though not encountered at the time of drilling, may rise to a higher level due to seasonal variations in precipitation and several other factors as discussed in the report. The ground elevation shown above is an estimation only. It is based on our interpretations of published maps and other documents reviewed for the purposes of this evaluation. It is not sufficiently accurate for preparing construction bids and design documents.



DEPTH (feet)	Bulk SAMPLES Driven	SAMPLE TIME	SAMPLE ID	PID READING (ppm)	MOISTURE	SYMBOL	CLASSIFICATION U.S.C.S.	DATE DRILLED 9/9/19 BORING NO. AOC5-B14W GROUND ELEVATION 59' ± (MSL) SHEET 1 OF 1 METHOD OF DRILLING Hand Auger to 2.5' bgs (Strongarm) DRIVE WEIGHT - DROP - SAMPLED BY AUC REVIEWED BY JJR DESCRIPTION/INTERPRETATION
0		11:00	B14W-0.5'				SM	FILL: Dark brown, dry, loose, micaceous silty SAND.
-		11:01	B14W-1.5'					Medium brown.
-		11:03	B14W-2.5'					
-								Total Depth = 2.5 feet bgs. Groundwater not encountered during drilling. Backfilled with hydrated No. 8 granular bentonite to surface on 9/9/19.
5 –								Notes: Groundwater, though not encountered at the time of drilling, may rise to a higher level due to seasonal variations in precipitation and several other factors as discussed in the report.
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0		08:58	B14N-0.5'				SM	FILL: Dark brown, slightly moist, loose, micaceous silty SAND.
-		08:59	B14N-1.5'					Medium brown.
-		09:01	B14N-2.5'					Light brown.
-								Total Depth = 2.5 feet bgs. Groundwater not encountered during drilling. Backfilled with hydrated No. 8 granular bentonite to surface on 9/9/19.
5 -								Notes: Groundwater, though not encountered at the time of drilling, may rise to a higher level due to seasonal variations in precipitation and several other factors as discussed in the report.
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0		09:03	B14S-0.5'				SM	FILL: Dark brown, dry, loose, micaceous silty SAND.
-		09:04	B14S-1.5'					Light brown.
-		09:05	B14S-2.5'					
-								Total Depth = 2.5 feet bgs. Groundwater not encountered during drilling. Backfilled with hydrated No. 8 granular bentonite to surface on 9/9/19.
5 –								Notes: Groundwater, though not encountered at the time of drilling, may rise to a higher level due to seasonal variations in precipitation and several other factors as discussed in the report.
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0		10:39	B14SSS- 0.5'				SM	FILL: Dark brown, moist, loose, micaceous silty SAND.						
-		10:40	B14SSS- 1.5'					Dry.						
-		10:42	B14SSS- 2.5'					Total Depth = 2.5 feet bgs.						
-								Groundwater not encountered during drilling. Backfilled with hydrated No. 8 granular bentonite to surface on 12/5/19.						
5 -								Notes: Groundwater, though not encountered at the time of drilling, may rise to a higher level due to seasonal variations in precipitation and several other factors as discussed in the report.						
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0		10:39	B14NN-0.5' DUP-61 B14NN-1.5' B14NN-2.5'	A Old			SM	



DEPTH (feet)	Bulk SAMPLES Driven	SAMPLE TIME	SAMPLE ID	PID READING (ppm)	MOISTURE	SYMBOL	CLASSIFICATION U.S.C.S.	DATE DRILLED 12/5/19 BORING NO. AOC5-B14NW GROUND ELEVATION 70' ± (MSL) SHEET 1 OF 1 METHOD OF DRILLING Hand Auger (Strongarm) DROP - SAMPLED BY AUC REVIEWED BY JJR DESCRIPTION/INTERPRETATION
0			B14NW-0.5'				SM	FILL: Dark brown, moist, loose, micaceous silty SAND.
			B14NW-1.5'					
-		10:55	B14NW-2.5'					Dry. Total Depth = 2.5 feet bgs. Groundwater not encountered during drilling.
-								Backfilled with hydrated No. 8 granular bentonite to surface on 12/5/19. Notes:
5 –								Groundwater, though not encountered at the time of drilling, may rise to a higher level due to seasonal variations in precipitation and several other factors as discussed in the report.
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DEPTH (feet)	Bulk SAMPLES Driven	SAMPLE TIME	SAMPLE ID	PID READING (ppm)	MOISTURE	SYMBOL	CLASSIFICATION U.S.C.S.	DATE DRILLED 12/5/19 BORING NO. AOC5-B14SS GROUND ELEVATION 70' ± (MSL) SHEET
0			B14SS-0.5'				SM	FILL: Dark brown, moist, loose, micaceous silty SAND.
-			B14SS-1.5' B14SS-2.5'					
-		10:50	61455-2.5					Total Depth = 2.5 feet bgs. Groundwater not encountered during drilling. Backfilled with hydrated No. 8 granular bentonite to surface on 12/5/19.
5 -								Notes: Groundwater, though not encountered at the time of drilling, may rise to a higher level due to seasonal variations in precipitation and several other factors as discussed in the report.
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0		10:25	B14SW-0.5'				SM	FILL: Dark brown, moist, loose, micaceous silty SAND.					
-		10:27	B14SW-1.5'										
-		10:29	B14SW-2.5'					Light brown; dry. Total Depth = 2.5 feet bgs.					
-								Groundwater not encountered during drilling. Backfilled with hydrated No. 8 granular bentonite to surface on 12/5/19.					
5 –								Notes: Groundwater, though not encountered at the time of drilling, may rise to a higher level due to seasonal variations in precipitation and several other factors as discussed in the report.					
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DEPTH (feet)	Bulk SAMPLES Driven	SAMPLE TIME	SAMPLE ID	PID READING (ppm)	MOISTURE	SYMBOL	CLASSIFICATION U.S.C.S.	DATE DRILLED 5/9/19 BORING NO. AOC5-B15 GROUND ELEVATION 59' ± (MSL) SHEET 1 OF 1 METHOD OF DRILLING Hand Auger DRIVE WEIGHT - DROP - SAMPLED BY KMH LOGGED BY AUC REVIEWED BY JJR DESCRIPTION/INTERPRETATION
0		12:14 12:18					SM	FILL: Medium brown, dry, loose, silty SAND. Moist; medium dense.
- - 10 - -		12:21	B15-2.5'					Total Depth = 2.5 feet bgs. Groundwater not encountered during drilling. Backfilled with hydrated No. 8 granular bentonite to surface on 5/9/19. Notes: Groundwater, though not encountered at the time of drilling, may rise to a higher level due to seasonal variations in precipitation and several other factors as discussed in the report. The ground elevation shown above is an estimation only. It is based on our interpretations of published maps and other documents reviewed for the purposes of this evaluation. It is not sufficiently accurate for preparing construction bids and design documents.
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DEPTH (feet)	Bulk SAMPLES Driven	SAMPLE TIME	SAMPLE ID	PID READING (ppm)	MOISTURE	SYMBOL	CLASSIFICATION U.S.C.S.	DATE DRILLED 9/9/19 BORING NO. AOC5-B15W GROUND ELEVATION 59' ± (MSL) SHEET 1 OF 1 METHOD OF DRILLING Hand Auger to 2.5' bgs (Strongarm) DRIVE WEIGHT - DROP - SAMPLED BY AUC REVIEWED BY JJR DESCRIPTION/INTERPRETATION					
0		10:46	B15W-0.5'				SM	FILL: Dark brown, slightly moist, loose, micaceous silty SAND.					
-		10:54	B15W-1.5'										
-		10:55	B15W-2.5'					Light brown.					
_								Total Depth = 2.5 feet bgs. Groundwater not encountered during drilling. Backfilled with hydrated No. 8 granular bentonite to surface on 9/9/19.					
-								Notes: Groundwater, though not encountered at the time of drilling, may rise to a higher level					
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DEPTH (feet)	Bulk SAMPLES	SAMPLE TIME	SAMPLE ID	PID READING (ppm)	MOISTURE	SYMBOL	CLASSIFICATION U.S.C.S.	DATE DRILLED 9/9/19 BORING NO. AOC5-B15S GROUND ELEVATION 59' ± (MSL) SHEET 1 OF 1 METHOD OF DRILLING Hand Auger to 2.5' bgs (Strongarm) DRIVE WEIGHT
0		08:52	B15S-0.5'				SM	FILL: Dark brown, slightly moist, loose, micaceous silty SAND.
-		08:54	B15S-1.5'					Medium brown.
-		08:55	B15S-2.5'					Light brown
		00.55	D100-2.0					Light brown. Total Depth = 2.5 feet bgs.
-								Groundwater not encountered during drilling. Backfilled with hydrated No. 8 granular bentonite to surface on 9/9/19.
-		_						Notes: Groundwater, though not encountered at the time of drilling, may rise to a higher level
5 -		_						due to seasonal variations in precipitation and several other factors as discussed in the report.
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DEPTH (feet)	Bulk SAMPLES Driven	SAMPLE TIME	SAMPLE ID	PID READING (ppm)	MOISTURE	SYMBOL	CLASSIFICATION U.S.C.S.	DATE DRILLED 9/9/19 BORING NO. AOC5-B15N GROUND ELEVATION 59' ± (MSL) SHEET 1 OF 1 METHOD OF DRILLING Hand Auger to 2.5' bgs (Strongarm) DRIVE WEIGHT - DROP - SAMPLED BY AUC REVIEWED BY JJR DESCRIPTION/INTERPRETATION
0		08:45	B15N-0.5'				SM	FILL: Dark brown, slightly moist, loose, micaceous silty SAND.
-		08:48	B15N-1.5'					
-		08:50	B15N-2.5'					Light brown.
-								Total Depth = 2.5 feet bgs. Groundwater not encountered during drilling. Backfilled with hydrated No. 8 granular bentonite to surface on 9/9/19.
5 –								Notes: Groundwater, though not encountered at the time of drilling, may rise to a higher level due to seasonal variations in precipitation and several other factors as discussed in the report.
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DEPTH (feet)	Bulk SAMPLES Driven	SAMPLE TIME	SAMPLE ID	PID READING (ppm)	MOISTURE	SYMBOL	CLASSIFICATION U.S.C.S.	DATE DRILLED 5/9/19 BORING NO. AOC5-B16 GROUND ELEVATION 59' ± (MSL) SHEET 1 OF 1 METHOD OF DRILLING Hand Auger DRIVE WEIGHT
0		12:40	B16-0.5' /				SM	CONCRETE: Approximately 4 inches thick. FILL:
- - -		12:46	B16-2.5' <i>j</i>				SW	Dark brown, moist, medium dense, silty SAND. Light brown, slightly moist, loose, well graded SAND. Total Depth = 2.5 feet bgs. Groundwater not encountered during drilling. Backfilled with hydrated No. 8 granular bentonite to surface on 5/9/19. Notes: Groundwater, though not encountered at the time of drilling, may rise to a higher level due to seasonal variations in precipitation and several other factors as discussed in
10 -								the report. The ground elevation shown above is an estimation only. It is based on our interpretations of published maps and other documents reviewed for the purposes of this evaluation. It is not sufficiently accurate for preparing construction bids and design documents.
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DEPTH (feet)	Bulk SAMPLES Driven	SAMPLE TIME	SAMPLE ID	PID READING (ppm)	MOISTURE	SYMBOL	CLASSIFICATION U.S.C.S.	DATE DRILLED 5/9/19 BORING NO. AOC5-B17 GROUND ELEVATION 59' ± (MSL) SHEET 1 OF 1 METHOD OF DRILLING Hand Auger DRIVE WEIGHT - DROP - SAMPLED BY KMH LOGGED BY AUC REVIEWED BY JJR DESCRIPTION/INTERPRETATION
0		12:51 12:55	B17-0.5' B17-1.5'				SM	FILL: Medium brown, slightly moist, medium dense, silty SAND.
10 -		12:58	B17-2.5'					Total Depth = 2.5 feet bgs. Groundwater not encountered during drilling. Backfilled with hydrated No. 8 granular bentonite to surface on 5/9/19. Notes: Groundwater, though not encountered at the time of drilling, may rise to a higher level due to seasonal variations in precipitation and several other factors as discussed in the report. The ground elevation shown above is an estimation only. It is based on our interpretations of published maps and other documents reviewed for the purposes of this evaluation. It is not sufficiently accurate for preparing construction bids and design documents.
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DEPTH (feet)	Bulk SAMPLES Driven	SAMPLE TIME	SAMPLE ID	PID READING (ppm)	MOISTURE	SYMBOL	CLASSIFICATION U.S.C.S.	DATE DRILLED 9/6/19 BORING NO. AOC5-B17W GROUND ELEVATION 59' ± (MSL) SHEET 1 OF 1 METHOD OF DRILLING Hand Auger (Strongarm) DRIVE WEIGHT						
0		14:18	B17W-0.5'				SM	FILL: Dark brown, dry, loose, micaceous silty SAND.						
-		14:19	B17W-1.5'											
-		14:20	B17W-2.5'											
-								Total Depth = 2.5 feet bgs. Groundwater not encountered during drilling. Backfilled with hydrated No. 8 granular bentonite to surface on 9/6/19.						
-								Notes: Groundwater, though not encountered at the time of drilling, may rise to a higher level						
5 –								due to seasonal variations in precipitation and several other factors as discussed in the report.						
-								The ground elevation shown above is an estimation only. It is based on our interpretations of published maps and other documents reviewed for the purposes of						
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DEPTH (feet)	Bulk SAMPLES Driven	SAMPLE TIME	SAMPLE ID	PID READING (ppm)	MOISTURE	SYMBOL	CLASSIFICATION U.S.C.S.	DATE DRILLED 9/6/19 BORING NO. AOC5-B17E GROUND ELEVATION 59' ± (MSL) SHEET 1 OF 1 METHOD OF DRILLING Hand Auger (Strongarm) DRIVE WEIGHT
0		14:10	B17E-0.5'				SM	FILL: Medium brown, dry, loose, micaceous silty SAND.
-		14:12	B17E-1.5'					
-		14:13	B17E-2.5'					
-		-						Total Depth = 2.5 feet bgs. Groundwater not encountered during drilling. Backfilled with hydrated No. 8 granular bentonite to surface on 9/6/19.
-		-						Notes: Groundwater, though not encountered at the time of drilling, may rise to a higher level
5 -		-						due to seasonal variations in precipitation and several other factors as discussed in the report.
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DEPTH (feet)	Bulk SAMPLES	SAMPLE TIME	SAMPLE ID	PID READING (ppm)	MOISTURE	SYMBOL	CLASSIFICATION U.S.C.S.	DATE DRILLED 9/6/19 BORING NO. AOC5-B17N GROUND ELEVATION 59' ± (MSL) SHEET 1 OF 1 METHOD OF DRILLING Hand Auger (Strongarm) DROP - - DRIVE WEIGHT - DROP - - SAMPLED BY KMH LOGGED BY KMH REVIEWED BY JJR DESCRIPTION/INTERPRETATION
0		14:04	B17N-0.5' DUP-45				SM	FILL: Dark brown, dry, loose, micaceous silty SAND.
-		14:06	B17N-1.5'					
-		14:07 B17N-2.5'		Medium brown. Total Depth = 2.5 feet bgs.				
-		_						Groundwater not encountered during drilling. Backfilled with hydrated No. 8 granular bentonite to surface on 9/6/19.
5 -		_						Notes: Groundwater, though not encountered at the time of drilling, may rise to a higher level due to seasonal variations in precipitation and several other factors as discussed in the report.
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DEPTH (feet)	Bulk SAMPLES Driven	SAMPLE TIME	SAMPLE ID	PID READING (ppm)	MOISTURE	SYMBOL	CLASSIFICATION U.S.C.S.	DATE DRILLED 12/5/19 BORING NO. AOC5-B17E GROUND ELEVATION 70' ± (MSL) SHEET 1 OF 1 METHOD OF DRILLING Hand Auger (Strongarm) DROP - SAMPLED BY AUC REVIEWED BY JJR DESCRIPTION/INTERPRETATION DESCRIPTION/INTERPRETATION AOC5-B17E AOC5-B17E
0		11:15	B17E-0.5' DUP-62				SM	FILL: Dark brown, moist, loose, micaceous silty SAND.
-		11:18	B17E-1.5'					
-		11:21	B17E-2.5'					
-								Total Depth = 2.5 feet bgs. Groundwater not encountered during drilling. Backfilled with hydrated No. 8 granular bentonite to surface on 12/5/19.
-								Notes: Groundwater, though not encountered at the time of drilling, may rise to a higher level
5 –								due to seasonal variations in precipitation and several other factors as discussed in the report.
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DEPTH (feet)	Bulk SAMPLES Driven	SAMPLE TIME	SAMPLE ID	PID READING (ppm)	MOISTURE	SYMBOL	CLASSIFICATION U.S.C.S.	DATE DRILLED 12/5/19 BORING NO. AOC5-B17NE GROUND ELEVATION 70' ± (MSL) SHEET 1 OF 1 METHOD OF DRILLING Hand Auger (Strongarm) DRIVE WEIGHT
0		11:20	B17NE-0.5'				SM	FILL: Dark brown, moist, loose, micaceous silty SAND.
-		11:24	B17NE-1.5'					
-		11:28	B17NE-2.5'					
-		-						Total Depth = 2.5 feet bgs. Groundwater not encountered during drilling. Backfilled with hydrated No. 8 granular bentonite to surface on 12/5/19.
-								Notes: Groundwater, though not encountered at the time of drilling, may rise to a higher level
5 –								due to seasonal variations in precipitation and several other factors as discussed in the report.
-		-						The ground elevation shown above is an estimation only. It is based on our interpretations of published maps and other documents reviewed for the purposes of
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DEPTH (feet)	Bulk SAMPLES Driven	SAMPLE TIME	SAMPLE ID	PID READING (ppm)	MOISTURE	SYMBOL	CLASSIFICATION U.S.C.S.	DATE DRILLED 5/9/19 BORING NO. AOC5-B18 GROUND ELEVATION 59' ± (MSL) SHEET 1 OF 1 METHOD OF DRILLING Hand Auger DRIVE WEIGHT
0		13:01 13:05	B18-0.5' ,				SM	CONCRETE: Approximately 5 inches thick.
-		13:08						FILL: Dark brown, slightly moist, medium dense, silty SAND. Total Depth = 2.5 feet bgs.
-		-						Groundwater not encountered during drilling. Backfilled with hydrated No. 8 granular bentonite to surface on 5/9/19.
-								Notes: Groundwater, though not encountered at the time of drilling, may rise to a higher level due to seasonal variations in precipitation and several other factors as discussed in the report.
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DEPTH (feet)	Bulk SAMPLES Driven	SAMPLE TIME	SAMPLE ID	PID READING (ppm)	MOISTURE	SYMBOL	CLASSIFICATION U.S.C.S.	DATE DRILLED 5/9/19 BORING NO. AOC5-B20 GROUND ELEVATION 70' ± (MSL) SHEET 1 OF 1 METHOD OF DRILLING Hand Auger DROP - - DRIVE WEIGHT - DROP - SAMPLED BY - LOGGED BY KMH REVIEWED BY DESCRIPTION/INTERPRETATION
0		11:12 11:14 11:16	B20-0.5' DUP-26 B20-1.5' B20-2.5'				SM	CONCRETE: Approximately 3.5 inches thick. FILL: Very dark brown, slightly mist, loose, micaceous silty SAND. Total Depth = 2.5 feet bgs.
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DEPTH (feet)	Bulk SAMPLES Driven	SAMPLE TIME	SAMPLE ID	PID READING (ppm)	MOISTURE	SYMBOL	CLASSIFICATION U.S.C.S.	DATE DRILLED 5/9/19 BORING NO. AOC5-B21 GROUND ELEVATION 70' ± (MSL) SHEET 1 OF 1 METHOD OF DRILLING Hand Auger DRIVE WEIGHT DROP
0		11:19 11:20 11:21	B21-0.5' B21-1.5' B21-2.5'				SM	FILL: Dark brown, dry, loose, micaceous silty SAND.
- 10 — -		11.21	B21-2.3			111111111111111111111111111111111111111		Total Depth = 2.5 feet bgs. Groundwater not encountered during drilling. Backfilled with hydrated No. 8 granular bentonite to surface on 5/9/19. Notes: Groundwater, though not encountered at the time of drilling, may rise to a higher level due to seasonal variations in precipitation and several other factors as discussed in the report. The ground elevation shown above is an estimation only. It is based on our interpretations of published maps and other documents reviewed for the purposes of this evaluation. It is not sufficiently accurate for preparing construction bids and design documents.
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DEPTH (feet)	Bulk SAMPLES Driven	SAMPLE TIME	SAMPLE ID	PID READING (ppm)	MOISTURE	SYMBOL	CLASSIFICATION U.S.C.S.	DATE DRILLED 9/6/19 BORING NO. AOC5-B21W GROUND ELEVATION 59' ± (MSL) SHEET
0		13:50	B21W-0.5'				SM	FILL: Dark brown, slightly moist, dense, micaceous silty SAND.
-		13:52	B212-1.5'					Very dark brown.
-		13:53	B21W-2.5'					Medium brown.
-								Total Depth = 2.5 feet bgs. Groundwater not encountered during drilling. Backfilled with hydrated No. 8 granular bentonite to surface on 9/6/19.
5 –								Notes: Groundwater, though not encountered at the time of drilling, may rise to a higher level due to seasonal variations in precipitation and several other factors as discussed in the report.
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DEPTH (feet)	Bulk SAMPLES Driven	SAMPLE TIME	SAMPLE ID	PID READING (ppm)	MOISTURE	SYMBOL	CLASSIFICATION U.S.C.S.	DATE DRILLED 9/6/19 BORING NO. AOC5-B21S GROUND ELEVATION 59' ± (MSL) SHEET
0		13:42	B21S-0.5'				SM	FILL: Dark brown, slightly moist, dense, micaceous silty SAND.
_		13:44	B21S-1.5'					Medium brown.
-		13:45	B21S-2.5'					
_								Total Depth = 2.5 feet bgs. Groundwater not encountered during drilling. Backfilled with hydrated No. 8 granular bentonite to surface on 9/6/19.
5 —								Notes: Groundwater, though not encountered at the time of drilling, may rise to a higher level due to seasonal variations in precipitation and several other factors as discussed in the report.
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DEPTH (feet)	Bulk SAMPLES Driven	SAMPLE TIME	SAMPLE ID	PID READING (ppm)	MOISTURE	SYMBOL	CLASSIFICATION U.S.C.S.	DATE DRILLED 9/6/19 BORING NO. AOC5-B21E GROUND ELEVATION 59' ± (MSL) SHEET 1 OF 1 METHOD OF DRILLING Hand Auger (Strongarm) DROP - - DRIVE WEIGHT - DROP - - SAMPLED BY KMH LOGGED BY KMH REVIEWED BY JJR DESCRIPTION/INTERPRETATION
0		13:37	B21E-0.5'				SM	FILL: Very dark brown, slightly moist, dense, micaceous silty SAND with trace clay.
-		13:38	B21E-1.5'					
-		13:40	B21E-2.5'					Medium brown.
-								Total Depth = 2.5 feet bgs. Groundwater not encountered during drilling. Backfilled with hydrated No. 8 granular bentonite to surface on 9/6/19.
5 –								Notes: Groundwater, though not encountered at the time of drilling, may rise to a higher level due to seasonal variations in precipitation and several other factors as discussed in the report.
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DEPTH (feet)	Bulk SAMPLES Driven	SAMPLE TIME	SAMPLE ID	PID READING (ppm)	MOISTURE	SYMBOL	CLASSIFICATION U.S.C.S.	DATE DRILLED 12/5/19 BORING NO. AOC5-B21NW GROUND ELEVATION 70' ± (MSL) SHEET 1 OF 1 METHOD OF DRILLING Hand Auger (Strongarm) DRIVE WEIGHT
5 -		11:37	B21NW-0.5' B21NW-1.5' B21NW-2.5'				SM	EILL: Dark brown, moist, loose, micaceous silty SAND. Total Depth = 2.5 feet bgs. Groundwater not encountered during drilling. Backfilled with hydrated No. 8 granular bentonite to surface on 12/5/19. Notes: Groundwater, though not encountered at the time of drilling, may rise to a higher level due to seasonal variations in precipitation and several other factors as discussed in the report. The ground elevation shown above is an estimation only. It is based on our interpretations of published maps and other documents reviewed for the purposes of this evaluation. It is not sufficiently accurate for preparing construction bids and design documents.
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DEPTH (feet)	Bulk SAMPLES Driven	SAMPLE TIME	SAMPLE ID	PID READING (ppm)	MOISTURE	SYMBOL	CLASSIFICATION U.S.C.S.	DATE DRILLED 12/5/19 BORING NO. AOC5-B21SW GROUND ELEVATION 70' ± (MSL) SHEET 1 OF 1 METHOD OF DRILLING Hand Auger (Strongarm) DROP - - DRIVE WEIGHT - DROP - SAMPLED BY AUC LOGGED BY AUC REVIEWED BY JJR
0		11:29	B21SW-0.5' DUP-64 B21SW-1.5' B21SW-2.5'	ā			SM	SAMPLED BY AUC LOGGED BY AUC REVIEWED BY JJR DESCRIPTION/INTERPRETATION FILL: Medium brown, moist, loose, micaceous silty SAND. Total Depth = 2.5 feet bgs. Groundwater not encountered during drilling. Backfilled with hydrated No. 8 granular bentonite to surface on 12/5/19. Notes: Groundwater, though not encountered at the time of drilling, may rise to a higher level due to seasonal variations in precipitation and several other factors as discussed in the report. The ground elevation shown above is an estimation only. It is based on our interpretations of published maps and other documents reviewed for the purposes of this evaluation. It is not sufficiently accurate for preparing construction bids and design documents.



DEPTH (feet)	Bulk SAMPLES Driven	SAMPLE TIME	SAMPLE ID	PID READING (ppm)	MOISTURE	SYMBOL	CLASSIFICATION U.S.C.S.	DATE DRILLED 12/5/19 BORING NO. AOC5-B21WW GROUND ELEVATION 70' ± (MSL) SHEET 1 OF 1 METHOD OF DRILLING Hand Auger to 2.5' bgs (Strongarm) DRIVE WEIGHT
0		11:40	B21WW- 0.5'				SM	FILL: Dark brown, dry, loose, micaceous silty SAND.
-		11:43	B21WW- 1.5'					
-		11:45	B21WW- 2.5'					Total Depth = 2.5 feet bgs.
-								Groundwater not encountered during drilling. Backfilled with hydrated No. 8 granular bentonite to surface on 12/5/19.
5 -								Notes: Groundwater, though not encountered at the time of drilling, may rise to a higher level due to seasonal variations in precipitation and several other factors as discussed in the report.
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DEPTH (feet)	Bulk SAMPLES Driven	SAMPLE TIME	SAMPLE ID	PID READING (ppm)	MOISTURE	SYMBOL	CLASSIFICATION U.S.C.S.	DATE DRILLED 5/9/19 BORING NO. AOC5-B22 GROUND ELEVATION 69' ± (MSL) SHEET 1 OF 1 METHOD OF DRILLING Hand Auger DROP - - DRIVE WEIGHT - DROP - SAMPLED BY KMH LOGGED BY KMH REVIEWED BY JJR DESCRIPTION/INTERPRETATION
0		\10:58 11:00	B22-0.5' DUP-25 B22-1.5'				SM	CONCRETE: Approximately 3 inches thick. FILL:
10 -		11:04	B22-2.5'					Very dark brown, slightly moist, loose, micaceous silty SAND. Total Depth = 2.5 feet bgs. Groundwater not encountered during drilling. Backfilled with hydrated No. 8 granular bentonite to surface on 5/9/19. Notes: Groundwater, though not encountered at the time of drilling, may rise to a higher level due to seasonal variations in precipitation and several other factors as discussed in the report. The ground elevation shown above is an estimation only. It is based on our interpretations of published maps and other documents reviewed for the purposes of this evaluation. It is not sufficiently accurate for preparing construction bids and design documents.
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DEPTH (feet)	Bulk SAMPLES	SAMPLE TIME	SAMPLE ID	PID READING (ppm)	MOISTURE	SYMBOL	CLASSIFICATION U.S.C.S.	DATE DRILLED 5/9/19 BORING NO. AOC5-B23 GROUND ELEVATION 69' ± (MSL) SHEET 1 OF 1 METHOD OF DRILLING Hand Auger DROP - - DRIVE WEIGHT - DROP - SAMPLED BY KMH LOGGED BY KMH REVIEWED BY JJR DESCRIPTION/INTERPRETATION
0 -		11:28 11:32 11:34	B23-0.5' DUP-27 B23-1.5' B23-2.5'				SM	FILL: Dark brown, dry, loose, micaceous, silty SAND.
- - -								Total Depth = 2.5 feet bgs. Groundwater not encountered during drilling. Backfilled with hydrated No. 8 granular bentonite to surface on 5/9/19. Notes: Groundwater, though not encountered at the time of drilling, may rise to a higher level due to seasonal variations in precipitation and several other factors as discussed in the report. The ground elevation shown above is an estimation only. It is based on our interpretations of published maps and other documents reviewed for the purposes of this evaluation. It is not sufficiently accurate for preparing construction bids and design
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13:23 B23S-0.5 SM FILL: Very dark brown, slightly moist, loose, micaceous silty SAND. 13:26 B23S-1.5 Medium brown. 13:27 B23S-2.5 Medium brown. Total Depth = 2.5 feet bgs. Groundwater not encountered during drilling. Backfilled with hydrated No. 8 granular bentonite to surface on 9/6/19. Notes: Groundwater, though not encountered at the time of drilling, may rise to a higher lev due to seasonal variations in precipitation and several other factors as discussed in the report. The ground elevation shown above is an estimation only. It is based on our interpretations of published maps and other documents reviewed for the purposes of	DEPTH (feet)	Bulk SAMPLES Driven	SAMPLE TIME	SAMPLE ID	PID READING (ppm)	MOISTURE	SYMBOL	CLASSIFICATION U.S.C.S.	DATE DRILLED 9/6/19 BORING NO. AOC5-B23S GROUND ELEVATION 60' ± (MSL) SHEET 1 OF 1 METHOD OF DRILLING Hand Auger (Strongarm) DROP - SAMPLED BY KMH LOGGED BY KMH REVIEWED BY JJR DESCRIPTION/INTERPRETATION DROP - - - DROP -
	5 -		13:26	B23S-1.5'				SM	FILL: Very dark brown, slightly moist, loose, micaceous silty SAND. Medium brown. Total Depth = 2.5 feet bgs. Groundwater not encountered during drilling. Backfilled with hydrated No. 8 granular bentonite to surface on 9/6/19. Notes: Groundwater, though not encountered at the time of drilling, may rise to a higher level due to seasonal variations in precipitation and several other factors as discussed in the report. The ground elevation shown above is an estimation only. It is based on our interpretations of published maps and other documents reviewed for the purposes of this evaluation. It is not sufficiently accurate for preparing construction bids and design



DEPTH (feet)	Bulk SAMPLES Driven	SAMPLE TIME	SAMPLE ID	PID READING (ppm)	MOISTURE	SYMBOL	CLASSIFICATION U.S.C.S.	DATE DRILLED 9/6/19 BORING NO. AOC5-B23W GROUND ELEVATION 60' ± (MSL) SHEET 1 OF 1 METHOD OF DRILLING Hand Auger (Strongarm) DROP - SAMPLED BY KMH LOGGED BY KMH REVIEWED BY JJR DESCRIPTION/INTERPRETATION
0		13:16	B23W-0.5'				SM	FILL: Very dark brown, slightly moist, dense, micaceous silty SAND with trace clay.
-		13:17	B23W-1.5'					
-		13:18	B23W-2.5'					Medium brown.
-								Total Depth = 2.5 feet bgs. Groundwater not encountered during drilling. Backfilled with hydrated No. 8 granular bentonite to surface on 9/6/19.
5 –								Notes: Groundwater, though not encountered at the time of drilling, may rise to a higher level due to seasonal variations in precipitation and several other factors as discussed in the report.
-								The ground elevation shown above is an estimation only. It is based on our interpretations of published maps and other documents reviewed for the purposes of this evaluation. It is not sufficiently accurate for preparing construction bids and design documents.
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DEPTH (feet)	Bulk SAMPLES Driven	SAMPLE TIME	SAMPLE ID	PID READING (ppm)	MOISTURE	SYMBOL	CLASSIFICATION U.S.C.S.	DATE DRILLED 9/6/19 BORING NO. AOC5-B23N GROUND ELEVATION 60' ± (MSL) SHEET 1 OF 1 METHOD OF DRILLING Hand Auger (Strongarm) DRIVE WEIGHT
0		13:09	B23N-0.5' \ DUP-44 /				SM	CONCRETE: Approximately 4 inches thick.
-		13:12	B23N-1.5'				SIVI	FILL: Very dark brown, slightly moist, dense, micaceous silty SAND with trace clay.
-		13:13	B23N-2.5'					
-								Total Depth = 2.5 feet bgs. Groundwater not encountered during drilling. Backfilled with hydrated No. 8 granular bentonite to top of soil and capped with concrete on 9/6/19.
5 –								Notes: Groundwater, though not encountered at the time of drilling, may rise to a higher level due to seasonal variations in precipitation and several other factors as discussed in the report.
-								The ground elevation shown above is an estimation only. It is based on our interpretations of published maps and other documents reviewed for the purposes of this evaluation. It is not sufficiently accurate for preparing construction bids and design documents.
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DEPTH (feet)	Bulk SAMPLES	SAMPLE TIME	SAMPLE ID	PID READING (ppm)	MOISTURE	SYMBOL	CLASSIFICATION U.S.C.S.	DATE DRILLED 5/9/19 BORING NO. AOC5-B24 GROUND ELEVATION 69' ± (MSL) SHEET 1 OF 1 METHOD OF DRILLING Hand Auger DROP - - DRIVE WEIGHT - DROP - SAMPLED BY KMH LOGGED BY KMH REVIEWED BY JJR DESCRIPTION/INTERPRETATION DROP - - -
0 -		11:40 11:43 11:45	B24-0.5' DUP-28 B24-1.5' B24-2.5'				SM	CONCRETE: Approximately 4.5 inches thick. FILL: Very dark brown, slightly moist, loose, micaceous silty SAND.
10 -		11.40	DZ-T Z			131333		Very dark brown, slightly moist, loose, micaceous silty SAND. Total Depth = 2.5 feet bgs. Groundwater not encountered during drilling. Backfilled with hydrated No. 8 granular bentonite to surface on 5/9/19. Notes: Groundwater, though not encountered at the time of drilling, may rise to a higher level due to seasonal variations in precipitation and several other factors as discussed in the report. The ground elevation shown above is an estimation only. It is based on our interpretations of published maps and other documents reviewed for the purposes of this evaluation. It is not sufficiently accurate for preparing construction bids and design documents.
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	Bulk SAMPLES	SAMPLE TIME	SAMPLE ID	PID READING (ppm)	MOISTURE	SYMBOL	CLASSIFICATION U.S.C.S.	DATE DRILLED 5/9/19 BORING NO. AOC5-B25 GROUND ELEVATION 70' ± (MSL) SHEET 1 OF 1 METHOD OF DRILLING Hand Auger DROP - - DRIVE WEIGHT - DROP - SAMPLED BY KMH LOGGED BY KMH REVIEWED BY JJR DESCRIPTION/INTERPRETATION
0 -		11:55 11:59 12:02	B25-0.5' DUP-29 B25-1.5' B25-2.5'				SM	FILL: Dark brown, dry, loose, silty SAND.
-								Total Depth = 2.5 feet bgs. Groundwater not encountered during drilling. Backfilled with hydrated No. 8 granular bentonite to surface on 5/9/19. Notes: Groundwater, though not encountered at the time of drilling, may rise to a higher level due to seasonal variations in precipitation and several other factors as discussed in the report.
10 - -								The ground elevation shown above is an estimation only. It is based on our interpretations of published maps and other documents reviewed for the purposes of this evaluation. It is not sufficiently accurate for preparing construction bids and design documents.
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DEPTH (feet)	Bulk SAMPLES Driven	SAMPLE TIME	SAMPLE ID	PID READING (ppm)	MOISTURE	SYMBOL	CLASSIFICATION U.S.C.S.	DATE DRILLED 9/6/19 BORING NO. AOC5-B25E GROUND ELEVATION 58' ± (MSL) SHEET 1 OF 1 METHOD OF DRILLING Hand Auger (Strongarm) DROP - SAMPLED BY KMH LOGGED BY KMH REVIEWED BY JJR DESCRIPTION/INTERPRETATION
0		12:59	B25E-0.5'				SM	FILL: Dark brown, dry, loose, micaceous silty SAND.
-		13:01	B25E-1.5'					
-		13:02	B25E-2.5'					
-								Total Depth = 2.5 feet bgs. Groundwater not encountered during drilling. Backfilled with No. 8 granular bentonite to surface on 9/6/19.
5 –								Notes: Groundwater, though not encountered at the time of drilling, may rise to a higher level due to seasonal variations in precipitation and several other factors as discussed in the apparent.
-								in the report. The ground elevation shown above is an estimation only. It is based on our
-								interpretations of published maps and other documents reviewed for the purposes of this evaluation. It is not sufficiently accurate for preparing construction bids and design documents.
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DEPTH (feet)	Bulk SAMPLES Driven	SAMPLE TIME	SAMPLE ID	PID READING (ppm)	MOISTURE	SYMBOL	CLASSIFICATION U.S.C.S.	DATE DRILLED 9/6/19 BORING NO. AOC5-B25W GROUND ELEVATION 58' ± (MSL) SHEET 1 OF 1 METHOD OF DRILLING Hand Auger (Strongarm) DRIVE WEIGHT - DROP - SAMPLED BY KMH LOGGED BY KMH REVIEWED BY JJR DESCRIPTION/INTERPRETATION
0		12:52	B25W-0.5'					CONCRETE:
_		12:53	B25W-1.5'				SM	Approximately 5 inches thick. FILL: Dark brown, slightly moist, dense, micaceous silty SAND. Medium brown.
-		12:54	B25W-2.5'					
-								Total Depth = 2.5 feet bgs. Groundwater not encountered during drilling. Backfilled with No. 8 granular bentonite to top of soil and capped with concrete on 9/6/19.
5 –								Notes: Groundwater, though not encountered at the time of drilling, may rise to a higher level due to seasonal variations in precipitation and several other factors as discussed in the report.
-								The ground elevation shown above is an estimation only. It is based on our interpretations of published maps and other documents reviewed for the purposes of this evaluation. It is not sufficiently accurate for preparing construction bids and design documents.
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DEPTH (feet)	Bulk SAMPLES Driven	SAMPLE TIME	SAMPLE ID	PID READING (ppm)	MOISTURE	SYMBOL	CLASSIFICATION U.S.C.S.	DATE DRILLED 12/5/19 BORING NO. AOC5-B25WW GROUND ELEVATION 70' ± (MSL) SHEET 1 OF 1 METHOD OF DRILLING Hand Auger (Strongarm) DROP - SAMPLED BY LNT REVIEWED BY JJR DESCRIPTION/INTERPRETATION DESCRIPTION/INTERPRETATION DROP - DROP -
0		11:08	B25WW- 0.5' DUP-63 B25WW- 1.5' B25WW- 2.5'				SM	SAMPLED BY LNT DESCRIPTION/INTERPRETATION FILL: Dark brown, moist, loose, micaceous silty SAND. Total Depth = 2.5 feet bgs. Groundwater not encountered during drilling. Backfilled with hydrated No. 8 granular bentonite to surface on 12/5/19. Notes: Groundwater, though not encountered at the time of drilling, may rise to a higher level due to seasonal variations in precipitation and several other factors as discussed in the report. The ground elevation shown above is an estimation only. It is based on our interpretations of published maps and other documents reviewed for the purposes of this evaluation. It is not sufficiently accurate for preparing construction bids and design documents.
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DEPTH (feet)	Bulk SAMPLES	SAMPLE TIME	SAMPLE ID	PID READING (ppm)	MOISTURE	SYMBOL	CLASSIFICATION U.S.C.S.	DATE DRILLED 3/16/20 BORING NO. AOC5-B26 GROUND ELEVATION 69' ± (MSL) SHEET 1 OF 1 METHOD OF DRILLING Hand Auger (Strongarm) DROP - SAMPLED BY CX REVIEWED BY JJR DESCRIPTION/INTERPRETATION DESCRIPTION/INTERPRETATION AOC5-B26 AOC5-B26 AOC5-B26
10 -		09:11	AOC5-B26- 1.5 AOC5-B26- 2.5				SP	EILL: Brown, little moist, loose, poorly graded SAND; no odor. Light brown. Total Depth = 2.5 feet. Groundwater was not encountered during drilling. Backfilled with hydrated bentonite on 3/16/20. Notes: Groundwater, though not encountered at the time of drilling, may rise to a higher level due to seasonal variations in precipitation and several other factors as discussed in the report. The ground elevation shown above is an estimation only. It is based on our interpretations of published maps and other documents reviewed for the purposes of this evaluation. It is not sufficiently accurate for preparing construction bids and design documents.



DEPTH (feet)	Bulk SAMPLES	SAMPLE TIME	SAMPLE ID	PID READING (ppm)	MOISTURE	SYMBOL	CLASSIFICATION U.S.C.S.	DATE DRILLED 3/16/20 BORING NO. AOC5-B27 GROUND ELEVATION 69' ± (MSL) SHEET 1 OF 1 METHOD OF DRILLING Hand Auger (Strongarm) DROP - SAMPLED BY CX REVIEWED BY JJR DESCRIPTION/INTERPRETATION DROP - DROP - DROP -
10 -		09:21	AOC5-B27- 0.5 AOC5-B27- 1.5 AOC5-B27- 2.5				SP	ALLUVIUM: Dark brown, little moist, loose, poorly graded SAND, with trace silt, roots and gravels; no odor. Brown; with few to little gravels. Total Depth = 2.5 feet. Groundwater was not encountered during drilling. Backfilled with hydrated bentonite on 3/16/20. Notes: Groundwater, though not encountered at the time of drilling, may rise to a higher level due to seasonal variations in precipitation and several other factors as discussed in the report. The ground elevation shown above is an estimation only. It is based on our interpretations of published maps and other documents reviewed for the purposes of this evaluation. It is not sufficiently accurate for preparing construction bids and design documents.



DEPTH (feet)	Bulk SAMPLES	SAMPLE TIME	SAMPLE ID	PID READING (ppm)	MOISTURE	SYMBOL	CLASSIFICATION U.S.C.S.	DATE DRILLED 3/16/20 BORING NO. AOC5-B28 GROUND ELEVATION 69' ± (MSL) SHEET 1 OF 1 METHOD OF DRILLING Hand Auger (Strongarm) DROP - SAMPLED BY CX REVIEWED BY JJR DESCRIPTION/INTERPRETATION DESCRIPTION/INTERPRETATION AOC5-B28 AOC5-B28
10 -		08:42	AOC5-B28- 1.5 AOC5-B28- 2.5				SP	EILL: Brown, little moist, loose, poorly graded SAND, with trace building debris; no odor. Light brown. Total Depth = 2.5 feet. Groundwater was not encountered during drilling. Backfilled with hydrated bentonite on 3/16/20. Notes: Groundwater, though not encountered at the time of drilling, may rise to a higher level due to seasonal variations in precipitation and several other factors as discussed in the report. The ground elevation shown above is an estimation only. It is based on our interpretations of published maps and other documents reviewed for the purposes of this evaluation. It is not sufficiently accurate for preparing construction bids and design documents.



DEPTH (feet)	Bulk SAMPLES	SAMPLE TIME	SAMPLE ID	PID READING (ppm)	MOISTURE	SYMBOL	CLASSIFICATION U.S.C.S.	DATE DRILLED 3/16/20 BORING NO. AOC5-B29 GROUND ELEVATION 69' ± (MSL) SHEET 1 OF 1 METHOD OF DRILLING Hand Auger (Strongarm) DRIVE WEIGHT - DROP - SAMPLED BY CX REVIEWED BY JJR DESCRIPTION/INTERPRETATION DROP -
10 -		08:54	AOC5-B29- 0.5 AOC5-B29- 1.5 AOC5-B29- 2.5				SP	EILL: Brown, little moist, loose, poorly graded SAND. Light brown. Total Depth = 2.5 feet. Groundwater was not encountered during drilling. Backfilled with hydrated bentonite on 3/16/20. Notes: Groundwater, though not encountered at the time of drilling, may rise to a higher level due to seasonal variations in precipitation and several other factors as discussed in the report. The ground elevation shown above is an estimation only. It is based on our interpretations of published maps and other documents reviewed for the purposes of this evaluation. It is not sufficiently accurate for preparing construction bids and design documents.



£	SAMPLES	/E		(mdd			N O	DATE DRILLED 3/16/20 BORING NO. AOC5-B30 GROUND ELEVATION 69' ± (MSL) SHEET 1 OF 1
DEPTH (feet)	Bulk	SAMPLE TIME	SAMPLE ID	PID READING (ppm)	MOISTURE	SYMBOL	CLASSIFICATION U.S.C.S.	METHOD OF DRILLING Hand Auger (Strongarm) DRIVE WEIGHT
5 -		10:06	AOC5-B30- 0.5 DUP-76 AOC5-B30- 1.5 AOC5-B30- 2.5				SP	FILL: Brown, moist, loose, poorly graded SAND with silt, with trace asphalt; no odor. Total Depth = 2.5 feet. Groundwater was not encountered during drilling. Backfilled with hydrated bentonite on 3/16/20. Notes: Groundwater, though not encountered at the time of drilling, may rise to a higher level due to seasonal variations in precipitation and several other factors as discussed in the report. The ground elevation shown above is an estimation only. It is based on our interpretations of published maps and other documents reviewed for the purposes of this evaluation. It is not sufficiently accurate for preparing construction bids and design
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DEPTH (feet)	Bulk SAMPLES	SAMPLE TIME	SAMPLE ID	PID READING (ppm)	MOISTURE	SYMBOL	CLASSIFICATION U.S.C.S.	DATE DRILLED 3/16/20 BORING NO. AOC5-B31 GROUND ELEVATION 69' ± (MSL) SHEET 1 OF 1 METHOD OF DRILLING Hand Auger (Strongarm) DROP - SAMPLED BY AUC REVIEWED BY JJR DESCRIPTION/INTERPRETATION DESCRIPTION/INTERPRETATION AOC5-B31 AOC5-B31 AOC5-B31
5 -		08:43	AOC5-B31- 0.5 DUP-77 AOC5-B31- 1.5 AOC5-B31- 2.5					FILL: Dark brown, moist, loose, micaceous silty SAND. Total Depth = 2.5 feet. Groundwater was not encountered during drilling. Backfilled with hydrated bentonite on 3/16/20. Notes: Groundwater, though not encountered at the time of drilling, may rise to a higher level due to seasonal variations in precipitation and several other factors as discussed in the report. The ground elevation shown above is an estimation only. It is based on our interpretations of published maps and other documents reviewed for the purposes of this evaluation. It is not sufficiently accurate for preparing construction bids and design documents.
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t)	SAMPLES	Ē		(mdd			NOI	DATE DRILLED 3/16/20 BORING NO. AOC5-B32 GROUND ELEVATION 69' ± (MSL) SHEET 1 OF 1
DEPTH (feet)	Bulk	SAMPLE TIME	SAMPLE ID	PID READING (ppm)	MOISTURE	SYMBOL	CLASSIFICATION U.S.C.S.	METHOD OF DRILLING Hand Auger (Strongarm) DRIVE WEIGHT
10 - 15 - 15 - 15 - 15 - 15 - 15 - 15 -	Bulk Driver	09:50	AOC5-B32- 0.5 AOC5-B32- 1.5 AOC5-B32- 2.5		OW	AS CONTRACTOR OF THE PROPERTY	CLASS	
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DEPTH (feet)	Bulk SAMPLES	SAMPLE TIME	SAMPLE ID	PID READING (ppm)	MOISTURE	SYMBOL	CLASSIFICATION U.S.C.S.	DATE DRILLED 3/16/20 BORING NO. AOC5-B33 GROUND ELEVATION 69' ± (MSL) SHEET 1 OF 1 METHOD OF DRILLING Hand Auger (Strongarm) DROP - SAMPLED BY CX REVIEWED BY JJR DESCRIPTION/INTERPRETATION DROP - - DROP - - DROP - - - DROP - - - - DROP -
0		09:31	AOC5-B33- 0.5 AOC5-B33- 1.5 AOC5-B33- 2.5				SP	ALLUVIUM: Brown, little moist, loose, poorly graded SAND, with trace silt and roots; no odor. Total Depth = 2.5 feet. Groundwater was not encountered during drilling. Backfilled with hydrated bentonite on 3/16/20. Notes: Groundwater, though not encountered at the time of drilling, may rise to a higher level due to seasonal variations in precipitation and several other factors as discussed in the report. The ground elevation shown above is an estimation only. It is based on our interpretations of published maps and other documents reviewed for the purposes of this evaluation. It is not sufficiently accurate for preparing construction bids and design documents.



it)	SAMPLES	ΛE		(mdd			NOI	DATE DRILLED 3/16/20 BORING NO. AOC5-B34 GROUND ELEVATION 69' ± (MSL) SHEET 1 OF 1
DEPTH (feet)	Bulk	SAMPLE TIME	SAMPLE ID	PID READING (ppm)	MOISTURE	SYMBOL	CLASSIFICATION U.S.C.S.	METHOD OF DRILLING Hand Auger (Strongarm) DRIVE WEIGHT
0		00.30	AOC5-B34-			28371	SP-SM	DESCRIPTION/INTERPRETATION
		03.33	0.5				SP-SIVI	ALLUVIUM: Brown, little moist, loose, poorly graded SAND with silt; no odor.
-		09:40	AOC5-B34- 1.5			1200		Poorly graded SAND.
-		00:41	AOC5-B34-					
		03.41	2.5			Jactes		Total Depth = 2.5 feet.
-		-						Groundwater was not encountered during drilling. Backfilled with hydrated bentonite on 3/16/20.
								Notes:
_								Groundwater, though not encountered at the time of drilling, may rise to a higher level due to seasonal variations in precipitation and several other factors as discussed in
5 -								the report.
-								The ground elevation shown above is an estimation only. It is based on our interpretations of published maps and other documents reviewed for the purposes of
								this evaluation. It is not sufficiently accurate for preparing construction bids and design documents.
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DEPTH (feet)	Bulk SAMPLES Driven	SAMPLE TIME	SAMPLE ID	PID READING (ppm)	MOISTURE	SYMBOL	CLASSIFICATION U.S.C.S.	DATE DRILLED 3/16/20 BORING NO. AOC5-B35 GROUND ELEVATION 69' ± (MSL) SHEET 1 OF 1 METHOD OF DRILLING Hand Auger (Strongarm) DROP - - DRIVE WEIGHT - DROP - SAMPLED BY AUC LOGGED BY AUC REVIEWED BY JJR DESCRIPTION/INTERPRETATION
5-		09:04	AOC5-B35- 0.5 AOC5-B35- 1.5 AOC5-B35- 2.5				SM	FILL: Dark brown, moist, loose, silty SAND. Total Depth = 2.5 feet. Groundwater was not encountered during drilling. Backfilled with hydrated bentonite on 3/16/20. Notes: Groundwater, though not encountered at the time of drilling, may rise to a higher level due to seasonal variations in precipitation and several other factors as discussed in the report. The ground elevation shown above is an estimation only. It is based on our interpretations of published maps and other documents reviewed for the purposes of this evaluation. It is not sufficiently accurate for preparing construction bids and design documents.
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DEPTH (feet)	Bulk SAMPLES Driven	SAMPLE TIME	SAMPLE ID	PID READING (ppm)	MOISTURE	SYMBOL	CLASSIFICATION U.S.C.S.	DATE DRILLED 3/16/20 BORING NO. AOC5-B36 GROUND ELEVATION 69' ± (MSL) SHEET 1 OF 1 METHOD OF DRILLING Hand Auger (Strongarm) DROP - SAMPLED BY AUC REVIEWED BY JJR DESCRIPTION/INTERPRETATION DESCRIPTION/INTERPRETATION AOC5-B36 AOC5-B36 AOC5-B36
5 -	Bu	08:53	AOC5-B36- 0.5 AOC5-B36- 1.5 AOC5-B36- 2.5				CLA	
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DEPTH (feet)	Bulk SAMPLES Driven		SAMPLE ID	PID READING (ppm)	MOISTURE	SYMBOL	CLASSIFICATION U.S.C.S.	DATE DRILLED 3/16/20 BORING NO. AOC5-B37 GROUND ELEVATION 69' ± (MSL) SHEET 1 OF 1 METHOD OF DRILLING Hand Auger (Strongarm) DROP - - DRIVE WEIGHT - DROP - SAMPLED BY CX LOGGED BY CX REVIEWED BY JJR DESCRIPTION/INTERPRETATION
0		10:14	AOC5-B37- 0.5 AOC5-B37- 1.5 AOC5-B37- 2.5				SP SP	SAMPLED BY CX DESCRIPTION/INTERPRETATION FILL: Brown, little moist, loose, poorly graded SAND. Total Depth = 2.5 feet. Groundwater was not encountered during drilling. Backfilled with hydrated bentonite on 3/16/20. Notes: Groundwater, though not encountered at the time of drilling, may rise to a higher level due to seasonal variations in precipitation and several other factors as discussed in the report. The ground elevation shown above is an estimation only. It is based on our interpretations of published maps and other documents reviewed for the purposes of this evaluation. It is not sufficiently accurate for preparing construction bids and design documents.
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DEPTH (feet)	Bulk SAMPLES Driven	SAMPLE TIME	SAMPLE ID	PID READING (ppm)	MOISTURE	SYMBOL	CLASSIFICATION U.S.C.S.	DATE DRILLED 3/16/20 BORING NO. AOC5-B38 GROUND ELEVATION 69' ± (MSL) SHEET 1 OF 1 METHOD OF DRILLING Hand Auger (Strongarm) DROP - SAMPLED BY AUC REVIEWED BY JJR DESCRIPTION/INTERPRETATION DESCRIPTION/INTERPRETATION AOC5-B38 AOC5-B38 AOC5-B38
5 -		09:49	AOC5-B38- 0.5 DUP-78 AOC5-B38- 1.5 AOC5-B38- 2.5				OT OT	
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DEPTH (feet)	Bulk SAMPLES Driven	SAMPLE TIME	SAMPLE ID	PID READING (ppm)	MOISTURE	SYMBOL	CLASSIFICATION U.S.C.S.	DATE DRILLED 3/16/20 BORING NO. AOC5-B39 GROUND ELEVATION 69' ± (MSL) SHEET 1 OF 1 METHOD OF DRILLING Hand Auger (Strongarm) DROP - SAMPLED BY AUC REVIEWED BY JJR DESCRIPTION/INTERPRETATION DESCRIPTION/INTERPRETATION AOC5-B39 AOC5-B39 AOC5-B39
-		10:03	AOC5-B39- 0.5 DUP-79 AOC5-B39- 1.5 AOC5-B39- 2.5					FILL: Dark brown, moist, loose, silty SAND. Total Depth = 2.5 feet.
5 -		-						Groundwater was not encountered during drilling. Backfilled with hydrated bentonite on 3/16/20. Notes: Groundwater, though not encountered at the time of drilling, may rise to a higher level due to seasonal variations in precipitation and several other factors as discussed in the report.
-								The ground elevation shown above is an estimation only. It is based on our interpretations of published maps and other documents reviewed for the purposes of this evaluation. It is not sufficiently accurate for preparing construction bids and design documents.
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DEPTH (feet)	Bulk SAMPLES Driven	SAMPLE TIME	SAMPLE ID	PID READING (ppm)	MOISTURE	SYMBOL	CLASSIFICATION U.S.C.S.	DATE DRILLED 3/16/20 BORING NO. AOC5-B40 GROUND ELEVATION 69' ± (MSL) SHEET 1 OF 1 METHOD OF DRILLING Hand Auger (Strongarm) DROP - SAMPLED BY AUC REVIEWED BY JJR DESCRIPTION/INTERPRETATION DESCRIPTION/INTERPRETATION AOC5-B40 AOC5-B40 AOC5-B40
-		09:41	AOC5-B40- 0.5 DUP-80 AOC5-B40- 1.5 AOC5-B40- 2.5					FILL: Dark brown, moist, loose, silty SAND. Total Depth = 2.5 feet. Groundwater was not encountered during drilling.
5 -								Backfilled with hydrated bentonite on 3/16/20. Notes: Groundwater, though not encountered at the time of drilling, may rise to a higher level due to seasonal variations in precipitation and several other factors as discussed in the report. The ground elevation shown above is an estimation only. It is based on our interpretations of published maps and other documents reviewed for the purposes of this evaluation. It is not sufficiently accurate for preparing construction bids and design
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DEPTH (feet)	Bulk SAMPLES Driven	SAMPLE TIME	SAMPLE ID	PID READING (ppm)	MOISTURE	SYMBOL	CLASSIFICATION U.S.C.S.	DATE DRILLED 3/16/20 BORING NO. AOC5-B41 GROUND ELEVATION 69' ± (MSL) SHEET 1 OF 1 METHOD OF DRILLING Hand Auger (Strongarm) DROP - SAMPLED BY AUC REVIEWED BY JJR DESCRIPTION/INTERPRETATION DESCRIPTION/INTERPRETATION AOC5-B41 AOC5-B41 AOC5-B41
5 -		09:46	AOC5-B41- 0.5 AOC5-B41- 1.5 AOC5-B41- 2.5					FILL: Dark brown, moist, loose, silty SAND. Total Depth = 2.5 feet. Groundwater was not encountered during drilling. Backfilled with hydrated bentonite on 3/16/20. Notes: Groundwater, though not encountered at the time of drilling, may rise to a higher level due to seasonal variations in precipitation and several other factors as discussed in the report. The ground elevation shown above is an estimation only. It is based on our interpretations of published maps and other documents reviewed for the purposes of this evaluation. It is not sufficiently accurate for preparing construction bids and design documents.
15 -								



DEPTH (feet)	Bulk SAMPLES Driven		SAMPLE ID	PID READING (ppm)	MOISTURE	SYMBOL	CLASSIFICATION U.S.C.S.	DATE DRILLED 3/16/20 BORING NO. AOC5-B42 GROUND ELEVATION 69' ± (MSL) SHEET 1 OF 1 METHOD OF DRILLING Hand Auger (Strongarm) DRIVE WEIGHT - DROP - SAMPLED BY AUC LOGGED BY AUC REVIEWED BY JJR DESCRIPTION/INTERPRETATION
5 -		10:10	AOC5-B42- 0.5 AOC5-B42- 1.5 AOC5-B42- 2.5				CLA	SAMPLED BY AUC LOGGED BY AUC REVIEWED BY JJR
15 -								



DEPTH (feet)	Bulk SAMPLES Driven	SAMPLE TIME	SAMPLE ID	PID READING (ppm)	MOISTURE	SYMBOL	CLASSIFICATION U.S.C.S.	DATE DRILLED 3/16/20 BORING NO. AOC5-B43 GROUND ELEVATION 69' ± (MSL) SHEET 1 OF 1 METHOD OF DRILLING Hand Auger (Strongarm) DROP - SAMPLED BY AUC LOGGED BY AUC REVIEWED BY JJR DESCRIPTION/INTERPRETATION
0		09:28	AOC5-B43- 0.5 AOC5-B43- 1.5 AOC5-B43- 2.5				SM	FILL: Dark brown, moist, loose, silty SAND. Total Depth = 2.5 feet. Groundwater was not encountered during drilling.
5 -								Backfilled with hydrated bentonite on 3/16/20. Notes: Groundwater, though not encountered at the time of drilling, may rise to a higher level due to seasonal variations in precipitation and several other factors as discussed in the report. The ground elevation shown above is an estimation only. It is based on our interpretations of published maps and other documents reviewed for the purposes of
-		-						this evaluation. It is not sufficiently accurate for preparing construction bids and design documents.
10 -								
15 -								
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DEPTH (feet)	Bulk SAMPLES Driven	SAMPLE TIME	SAMPLE ID	PID READING (ppm)	MOISTURE	SYMBOL	CLASSIFICATION U.S.C.S.	DATE DRILLED 3/16/20 BORING NO. AOC5-B44 GROUND ELEVATION 69' ± (MSL) SHEET 1 OF 1 METHOD OF DRILLING Hand Auger (Strongarm) DROP - SAMPLED BY AUC REVIEWED BY JJR DESCRIPTION/INTERPRETATION DESCRIPTION/INTERPRETATION AOC5-B44 AOC5-B44 AOC5-B44
0		09:18	AOC5-B44- 0.5 AOC5-B44- 1.5 AOC5-B44- 2.5				SM	FILL: Dark brown/black, moist, loose, silty SAND. Total Depth = 2.5 feet.
5 -								Groundwater was not encountered during drilling. Backfilled with hydrated bentonite on 3/16/20. Notes: Groundwater, though not encountered at the time of drilling, may rise to a higher level due to seasonal variations in precipitation and several other factors as discussed in the report.
-								The ground elevation shown above is an estimation only. It is based on our interpretations of published maps and other documents reviewed for the purposes of this evaluation. It is not sufficiently accurate for preparing construction bids and design documents.
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APPENDIX C DTSC's Work Plan Approval Letter





Jared Blumenfeld
Secretary for
Environmental Protection

Department of Toxic Substances Control



Gavin Newsom Governor

Meredith Williams, Ph.D. Acting Director 5796 Corporate Avenue Cypress, California 90630

April 9, 2019

Mr. Nathaniel Holt Facility Director Facility and Operations Compton Unified School District 501 S. Santa Fe Avenue Compton, California 90220

APPROVAL OF PRELIMINARY ENVIRONMENTAL ASSESSMENT WORK PLAN, COMPTON HIGH SCHOOL RECONSTRUCTION PROJECT, 601 SOUTH ACACIA AVENUE AND 301 TO 339 WEST ALONDRA BOULEVARD, COMPTON (SITE CODE: 304670)

Dear Mr. Holt:

The Department of Toxic Substances Control (DTSC) has reviewed the Response to Comments (RTC) (Ninyo & Moore, March 26, 2019) for the Compton High School construction project (Site). The RTC, received via e-mail on March 26, 2019, was prepared to address DTSC's comments, dated March 8, 2019, on the Preliminary Environmental Assessment Workplan (Workplan).

The Site consists of 12 parcels and totals approximately 43 acres. The Site is located at 601 South Acacia Avenue and 301 to 339 West Alondra Boulevard in Compton, California. The Site is bound by a railroad to the west, Alondra Boulevard to the south, Acacia Avenue to the East, and by residential properties to the north. Based on the review of historical records included in the site Phase I Environmental Site Assessments (ESA), the portion of the site included in the Compton High School property was developed with residential structures by 1894. Compton Union High School was developed on the eastern parcel by 1907. The school property was extended and reported as Compton Junior College by the late 1930s. By the 1950s, the school was expanded to its current footprint and reported as Compton Senior High. The portion of the Site consisting of properties adjoining Compton High School to the south were developed with several of the current residential structures by 1953 and the structures were in approximately their current configuration by 2009. The property at 339 West

Mr. Nathaniel Holt April 9, 2019 Page 2

Alondra was occupied by various gas service stations, automotive repair shops, and car wash facilities from 1938 to 2018, when structures at the property were removed.

The Phase I ESAs and Phase II ESA were conducted at the site and were submitted to DTSC. Based on its review, DTSC determined that a PEA was required for the site and should address the following recognized environmental concerns (RECs):

- An Underground Storage Tank, elevator hoist, historical auto repair/machine shop, and carpenter shop operations at Compton High School;
- The gasoline service stations, automotive repair shops, and car wash facilities at the 339 Parcel (339 West Alondra Boulevard);
- Lead from lead based paint (LBP) and organochlorine pesticides (OCPs) from the termiticide application; and
- Impacted soil at the 339 Parcel.

On January 11, 2019, DTSC met with Ninyo & Moore and the District at the Site to discuss proposed sampling activities associated with the PEA. The scoping meeting included a site reconnaissance to evaluate potential sampling areas. The Workplan was prepared to address sampling activities for the RECs.

The RTC has satisfactorily addressed DTSC's comments. DTSC hereby approves the Workplan as amended by the RTC. Please notify DTSC a minimum of 7 days in advance of field work so that DTSC staff can be present at the Site during field activities.

If you have any questions, please contact Mr. Joe Hwong, Project Manager, at (714) 484-5449 or by email at Joe.Hwong@dtsc.ca.gov, or contact me at (714) 484-5368 or by email at Shahir.Haddad@dtsc.ca.gov.

Sincerely.

Shahir Haddad, P.E. Supervising Engineer

Brownfield Restoration and School Evaluation Branch Brownfields and Environmental Restoration Program

ar/sh/jh

cc: John Jay Roberts, PG. CEG. (via e-mail)

Principal Geologist Ninyo & Moore

jroberts@ninyoandmoore.com

APPENDIX D

Photographs



Photograph 1: Area view of AOC1-E-B8 and B9 on Compton High School main campus.



Photograph 2: Section view of AOC1-E-B1 on Compton High School main campus.



Photograph 3: Section view of AOC1-E-B2 on Compton High School main campus.



Photograph 4: Section view of AOC1-E-B6 on Compton High School main campus.



Photograph 5: Area view of AOC1-E-B11 and B12 on Compton High School main campus.



Photograph 6: Section view of AOC1-W-B6 on Compton High School main campus.





Photograph 7: Section view of AOC1-W-B7 on Compton High School main campus.



Photograph 8: Section view of AOC1-E-B31 on Compton High School main campus.





Photograph 9: Area view of AOC1-E-B31 and B32 on Compton High School main campus.



Photograph 10: Section view of AOC1-E-B33 on Compton High School main campus.





Photograph 11: Area view of AOC1-E-B33 and AOC3-B2 on Compton High School main campus.



Photograph 12: Section view of AOC1-E-B36/AOC3-B3 on Compton High School main campus.



Photograph 13: Soil Vapor probes being installed at AOC3-B1 on Compton High School main campus.



Photograph 14: Section view of AOC1-E-B39 on Compton High School main campus.