REMEDIAL ACTION REPORT

For

OPERABLE UNIT 1 – REMEDIAL ACTION PHASE 2
FORMER KIL-TONE COMPANY SUPERFUND SITE
VINELAND, NEW JERSEY
PROPERTY ID: 014 – 527 E. Cherry Street

CONTRACT NO.: W912DQ-16-D-3003
Task Order: W912DQ-18-F-3031

PREPARED FOR:

USACE – Kansas City DISTRICT
601 East 12th Street
Kansas City, MO 64106

US Army Corps of Engineers

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bgs	below ground surface
CCIA	Cumberland County Improvement Authority
CERCLA	Comprehensive Environmental Response, Compensation and Liability Act of 1980
CQCSM	Contractor Quality Control Systems Manager
CY	Cubic yard
DGA	Dense graded aggregate
EPA	U.S. Environmental Protection Agency
FKTC	Former Kil-Tone Company
HDPE	High Density Polyethylene
µg/L	Microgram per Liter
mg/kg	Milligram per kilogram
NJDEP	New Jersey Department of Environmental Protection
NPL	National Priorities List
OU	Operable Unit
PAL	Project Action Limit
PCB	Polychlorinated biphenyl
PM	Project Manager
PPE	Personal protective equipment
QA	Quality assurance
QAPP	Quality Assurance Project Plan
QC	Quality control
RAR	Remedial Action Report
RDCSRS	Residential Direct Contact Soil Remediation Standards
RI	Remedial Investigation
RI/FS	Remedial Investigation/Feasibility Study
ROD	Record of Decision
RPM	Remedial Project Manager
SES	Sevenson Environmental Services, Inc.
SSHO	Site Safety and Health Officer
SVOC	Semi volatile organic compounds
TAL	Target Analyte List
USDA	United State Department of Agriculture
USACE	U.S. Army Corps of Engineers
USEPA	United States Environmental Protection Agency
VOC	Volatile organic compounds

1. INTRODUCTION

This Remedial Action Report (RAR) is being submitted by Sevenson Environmental Services, Inc. (SES) for the soils remediation component of Operable Unit 1- Phase 2 at the Former Kil-Tone Company (FKTC) Superfund site located in Vineland, New Jersey. The work was performed under Pre-Placed Remedial Action Contract (PRAC) W912DQ-16-D-3003 Task Order (TO) W912DQ-18-F-3031.

U.S. Army Corps of Engineers (USACE), Kansas City District provided technical support to the U.S. Environmental Protection Agency (EPA) during soils remediation of OU1-Phase 2 at the FKTC site. The final Remedial Design Analysis Report, contract drawings, and Specifications for Soils Remediation were completed by USACE Kansas City District on March 7, 2018. Field oversite and contract administration was provided by USACE, Philadelphia District. SES performed the remedial construction in accordance with the project design documents developed by USACE. All work was performed in accordance with site-specific project plans prepared by SES. Each plan was submitted to USACE for approval prior to commencement of specific field activities.

This contract addressed the remediation of OU-1, Phase II, site soils based on the remedial action selected in the Record of Decision (ROD) dated September 2016 for OU-1 soils:

- Excavation of an estimated 21,000 cubic yards of soil contaminated primarily with arsenic and lead from approximately 57 residential properties in the vicinity of the former Kil-Tone Company property
- Off-site disposal of excavated contaminated soil, and backfilling of excavated areas with clean fill
- Restoration of the affected properties

Representatives from EPA, USACE, and SES attended a pre-construction conference conducted at the site in August 2018. SES mobilized to the site for this Task Order in November 2018. Excavation activities started on February 13, 2019 and were substantially completed in March 2020. Remedial action construction started in December 2018 and was completed in May of 2020. On May 12, 2020, upon correction of all construction deficiencies and submittal of outstanding project documents, representatives of USACE and SES attended a final inspection. Attendance was kept minimal due to the ongoing COVID-19 pandemic.

1.1. REMEDIAL ACTION REPORT OBJECTIVES

The objectives of this report are summarized below:

- Provide a summary of pertinent background information including site description, history, and discussion of the OU.

- Present a detailed chronology of events for the remedial action effort.
- Present an extended summary of the project performance and construction quality control standards instituted by SES to ensure the successful completion of the remedial action.
- Present a summary of property specific remedial action activities completed over the course of the project.
- Present a summary of lessons learned.
- Present a summary of the project final inspection.
- Present a summary of the project costs.

1.2. SITE DESCRIPTION

The former Kil-Tone property encompasses approximately 4.08 acres at 527 East Chestnut Avenue in a mixed residential and commercial area. The FKTC property was used for pesticide manufacturing from the late 1910's until the 1930's. Contaminated soil has been identified on the property as well as surrounding residential and commercial properties. Surrounding soil, sediment, surface water and groundwater downgradient from the FKTC property have all been impacted from the FKTC. The property is bordered to the north by East Chestnut Avenue, to the east by S. 6th St., to the south by Paul St., and to the west by South East Boulevard, followed by railroad tracks. The surrounding area is both commercial and residential.

Residential properties in the area range in lot size from the smallest being .05 acres with larger lots ranging around .5 acres. Home construction dates range from 1890 to the newest being constructed as late as 1999. The majority of the properties contain single family dwellings although there are approximately 10 homes that are of duplex construction with two housing units sharing a common central wall. Most yards associated with the properties have a lawn, landscaping and impervious surfaces such as driveways, sidewalks, and patios. There are several commercial properties comingled amongst the residential properties including a fuel distribution facility, transmission service company, a salon, a restaurant and a market. In addition, there are also a few vacant lots and uninhabited properties within the residential properties.

A storm sewer located in the northwestern corner of the FKTC property receives storm water from the entire 4 acre property and discharges into the head of the Tarkiln Branch located just across South East Boulevard about 400 feet west of the property. The Tarkiln Branch is a tributary of the Parvin Branch which flows into the Maurice River which eventually flows into Union Lake. The Maurice River is located about 3.5 miles from the FKTC site while Union Lake is almost 10 miles.

1.3. SITE HISTORY

The Kil-Tone Company began operations at the property located at East Chestnut Avenue in Vineland, NJ around 1916. Kil-Tone manufactured the pesticide lead arsenate. In the mid-1920's, Kil-Tone was acquired by John Lucas & Company forming the Lucas Kil-Tone Company. The Lucas Kil-Tone Company absorbed the FKTC pesticide operations and continued manufacturing arsenic-based pesticides on the property. Around 1930, John Lucas & Company was acquired by the Sherwin Williams Company. Lucas Kil-Tone operated as a subsidiary of Sherwin Williams until they ceased operations at the property in the 1930's. Sanborn maps from 1919 to 1925 were used to identify the original site buildings used by the former Kil-Tone Company to manufacture pesticides. Buildings identified on the Sanborn maps included an acid plant, tank room, engine room, and manufacturing building for grinding, mixing, pressing and storage. A laboratory was constructed after 1919 on the southwest corner of the property.

Lead arsenate is a pentavalent form of inorganic arsenic, which exists normally as white crystals with no discernable odor, contains about 22% arsenic and is slightly soluble in cold water. Inorganic arsenicals are known to be acutely toxic. Lead arsenate was the most used of the arsenical insecticides. Information obtained from the Vineland Chamber of Commerce and the New Jersey Experiment Stations that dates between 1917 and 1926 indicates that specific products manufactured by the FKTC included Green Cross Dry Powdered Arsenate of Lead, Green Cross Standard Arsenate of Lead (paste), Green Cross Sulpho-arsenate Powder, Green Cross Sulphur and Arsenate of Lead Mixture, Modified Kil-Tone, Improved Kil-Tone, Fruit Kil-Tone, Bordeaux Mixture, Dry Powdered Arsenate of Zinc, and Beetle Mort. Based on the timeframe during which the FKTC operated, these products were regulated under the Insecticide Act of 1910. In September 1932, the US Department of Agriculture (USDA) issued a Notice of Judgement under the insecticide Act against the Lucas Kil-Tone Company for the adulteration and misbranding of Bordo (lead arsenate) and Green Cross Nico-Tone. In this judgement, the Lucas Kil-Tone Company pleaded guilty and paid a $490 fine. This action involved shipments of Bordo Lead Arsenate and Green Cross Nico-Tone that contained ingredients (for example calcium arsenate) that were not declared on the label and greater percentages of arsenic in water soluble form than declared on the label. In 1929 and 1930, Lucas kil-Tone was also issued a Notice of Judgement for adulteration and misbranding of Green Cross Beetle Mort. The products contained ingredients that were inconsistent with the label including, a greater amount of water soluble arsenic expressed as metallic. Lucas Kil-Tone continued to operate at the property until about 1933. Since Lucas Kil-Tone ceased operations, the property has undergone several property transfers. In 1949 and 1968 Sanborn maps indicate that the Uddo Taormina Company Food Products occupied the property and the configurations of the buildings had changed. Since that time, several entities have

operated on the property. The property is now owned by Urban Manufacturing, LLC, which purchased the property in 2008. Urban Sign & Crane, Inc. is the current tenant, and its operation includes the fabrication and installation of commercial signage.

The LERCO Company property is located directly across East Chestnut Avenue from the FKTC property. A fuel distribution facility operated on the LERCO property since the 1930's but is no longer in use. In 1989, a release of petroleum hydrocarbons was reported to NJDEP during the removal of a 20,000 gallon underground storage tank (UST) at the LERCO property. Since 1989, LERCO has performed remedial investigation activities on this property which included removal of several UST's, above ground storage tanks, light non-aqueous phase liquid remediation, and soil/groundwater sampling. Soil and groundwater sampling performed on the LERCO property identified high concentrations of benzene, toluene, ethylbenzene and xylenes, as well as arsenic and lead. Arsenic was identified in concentrations up to 20,500 milligrams per kilogram (mg/kg) and lead up to 28,700 mg/kg. The soil exceedances were mainly detected between 1.5 to 2 feet and 4.5 to 5 feet below ground surface (bgs) soil sampling intervals along the western and southern property boundaries. Since the initial investigation, several soil sampling events have been conducted at the LERCO property by environmental consulting companies including Aqua-Tex and RT Environmental. RT Environmental indicated that the metal compounds identified were not associated with the LERCO site operations. RT Environmental also stated that the historical operations on the LERCO site support that it has always been operated as a fueling station, with no evidence they would have generated arsenic or lead wastes. The presence of arsenic in conjunction with lead, indicate that it is likely that some portion of the lead contamination may not be petroleum-related.

In August 2014, NJDEP initiated a site investigation to determine if the lead and arsenic contamination could be attributed to the historic operations at the FKTC property. The NJDEP investigation found arsenic on the FKTC property at concentrations as high as 740 mg/kg in the top six inches of soil and at concentrations as high as 5,800 mg/kg at depths 3.5 to 4 bgs. Groundwater samples collected from the temporary well points on the FKTC property showed arsenic concentrations from 8.1 micrograms per liter (µg/L) to 14,000 µg/L. This discovery prompted NJDEP to refer the site to EPA on November 14, 2014. The site was proposed to the National Priorities List (NPL) on September 30, 2015 and was added to the NPL on April 5, 2016.

1.4. USACE AND EPA PROJECT MANAGEMENT

USACE Kansas City District was responsible for the project design and contracting support. USACE Philadelphia District was responsible for

construction oversight. USACE provided full-time on-site technical representatives throughout the duration of the project. USACE representatives were responsible for ensuring the project was executed in accordance with design documents and site-specific plans. USACE on-site representatives maintained a direct line of communication with SES's project management team and EPA Region II Remedial Project Manager (RPM). Weekly project meetings were held at the site throughout the duration of the field activities. Health and safety, work progress, field observations, problems and conflicts, schedule, submittals, quality control, changes, and community relations were discussed during these meetings.

Key project personnel included:

Caroline Kwan	EPA Region II - Remedial Project Manager
Dan Patel	EPA Region II - Remedial Project Manager
Steve Creighton	USACE – Philadelphia District – CO Representative
Ian Stewart	USACE – Philadelphia District-Project Engineer
Terry Mower	USACE – Philadelphia District – Construction Representative

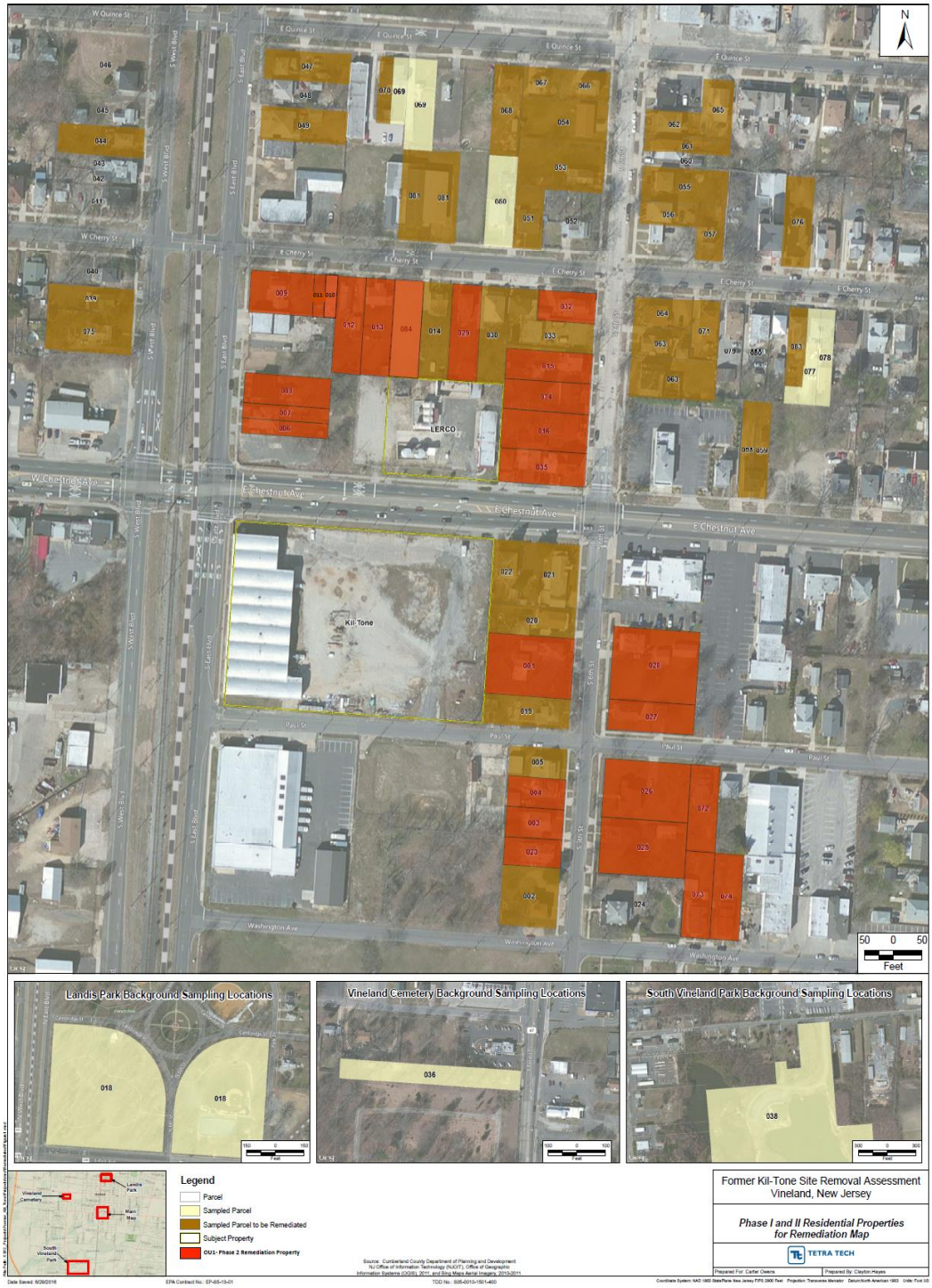
1.5. REMEDIATION GOALS

In accordance with the ROD, the EPA has adopted the following remediation goals for OU1 of the site, all of which are consistent with New Jersey Residential Direct Contact Soil Remediation Standards (RDCSRS).

Constituent in Soil	**Cleanup Goal (mg/kg)**
Lead	400*****
Arsenic	19
Dieldrin	0.04
Heptachlor epoxide	0.007
Benzo(a)pyrene	0.2
Benzo(a)anthracene	0.6
Benzo(b)flouranthene	0.6

***The action limit for lead was 400 mg/kg for any single point, however, the average across the surface of each individual property had a cleanup goal of less than or equal to 200 mg/kg.**

Figure 1- Site Map



2. REMEDIAL CONSTRUCTION ACTIVITIES

OU-1 Phase II remedial construction activities started in December 2018 and were completed in May 2020. A summary of the historical investigative & design steps, followed by the construction activities completed at the FKTC Superfund site during the soil remediation phase is presented below.

2.1. INVESTIGATIVE/DESIGN HISTORY OF OU-1

2.1.1. SITE GEOLOGY AND HYDROGEOLOGY

The topography of the site area is generally flat. The United States Department of Agriculture, Soil Conservation Service, Soil Survey of Cumberland County, New Jersey states that the site is located on Downer and Auro loamy sands. The Downer loamy sands are formed from fluviomarine deposits, located on river basins or hills. The Auro loamy sands occur with low hills and ancient stream terraces. The permeability is relatively slow to moderate for these soil associations. Parent material is described as loamy and gravelly alluvium. Much of the area is covered by houses, streets, driveways, buildings, parking lots and urban construction. During sampling activities, the soil types observed at the background and the residential areas included coarse sands, coarse sandy loams, coarse loamy sands, coarse sandy clays, coarse loamy sand and sand. In addition, background and residential soil samples collected during the residential soil sampling events were analyzed for grain size. The grain size analysis indicated that the background and residential soil samples are primarily sand. The percentage of sand in the background soil samples ranged from 61.4 percent to 63.9 percent. The percentage of sand in the residential soil samples ranged from 54.4 percent to 85 percent. The grain size analysis indicated that the background and residential soil samples also contained silt, clay, and colloids. During sampling activities, fill material was routinely encountered in some of the soil borings. The fill material included concrete, red brick, coarse sand, coarse black sand, coarse orange and orange black sand with asphalt, brick and rock shards, plastic, terra cotta, dark brown soil fill, various types of variegated dark brown soil and fill, coal fragments, coal ash, silt, small shards of coal, porcelain, slag and trash.

2.1.2. SITE CHARACTERIZATION SUMMARY & RESULTS

The preliminary sampling that was initiated in January 2015 was used to help delineate the nature and extent of contamination. To date, thousands of environmental samples have been collected from soil, sediment, groundwater and surface water. Sampling has occurred on publically

owned and commercial/residential properties in the vicinity of the FKTC property.

Soil samples collected from residential properties were analyzed for metals, VOC's, SVOC's, including PAH's, pesticides, and PCB's. The analytical results for residential soil samples were compared to NJDEP's RDCSRS. Based on the residential sampling data, lead and arsenic were detected most frequently and at the greatest concentrations above New Jersey RDCSRS of 400 mg/kg and 19 mg/kg, respectively. Soil samples had concentrations of arsenic and lead up to 1,000 mg/kg for arsenic and 5,700 mg/kg for lead. All VOC's were detected at levels below both NJDEP RDCSRS's and EPA risk-based levels. All metals other than lead and arsenic, all SVOC's, with the exception of three PAH's, and all but two pesticides were also detected below these two benchmarks. All analytical data are available in the RI and RI addendum reports in the administrative record.

The pesticides found at the residential properties at concentrations above their RDCSRS (and their respective standard) are dieldrin (.04 mg/kg) and heptachlor epoxide (0.07 mg/kg). Maximum concentrations were found to be .49 mg/kg for dieldrin and .38 mg/kg for heptachlor epoxide. The PAH's found at concentrations above their RDCSRS (and their respective standards) are benzo(a)pyrene (0.2 mg/kg), benzo(a)anthracene (0.6 mg/kg), and benzo(b)fluoranthene (0.6 mg/kg); these were detected at concentrations as high as .81 mg/kg, 2.1 mg/kg, and 2.2 mg/kg, respectively. These pesticides and PAH's were found less frequently than arsenic and lead at the residential properties at concentrations above RDCSRS.

Contamination is primarily found in shallow soil on residential properties, though some areas of deeper contamination were identified. Shallow soil is generally defined as the 0-2 foot depth interval, and the maximum depth of soil sampling was 6 feet. The estimated volume of soil to be addressed is approximately 21,000 cubic yards, though this volume may increase during planning and/or implementation of the remedial action if additional contamination associated with the site is found.

Contaminated soil on the residential properties is likely the result of surface water runoff and air dispersion from the FKTC property. A likely secondary cause for contamination of remedial properties would also include the use of excavated fill material from the FKTP as backfill material on nearby properties.

The RI report for OU1 of the site was finalized in July 2016.

2.1.3. ROD FINDINGS

In September 2016, the USEPA issued a ROD for OU-1. Based upon the requirements of CERCLA, the results of the site investigations, the detailed analysis of the alternatives, and public comments, EPA's selected remedy to address contaminated soil at the residential properties is remediation of the OU-1 contaminated Site soils. The response action selected in the ROD dated September 2016 for OU-1 soils includes:

-Excavation of an estimated 21,000 cubic yards of soil contaminated primarily with arsenic and lead from approximately 57 residential properties in the vicinity of the FKTC property, off-site disposal of contaminated soil and backfilling with clean fill; and

-Restoration of the affected properties

2.2. SITE SUBCONTRACTORS

SES began subcontractor selection by preparing an Invitation for Bid (IFB) for any items Sevenson would be utilizing a subcontractor for. Below are the listed subcontractors and description of work for the Kil-Tone OU1-Phase II remediation.

- Aliano Brothers-Vineland, NJ
    - Performed masonry work for the site including the garage construction at property ID 003 as well as the crawl space foundation construction for property ID 001.
    - Constructed all retaining walls on-site for property IDs 001, 003, and 004
- ATC Group Services, LLC-Burlington, NJ
    - ATC performed all compaction testing for the site along with on-site concrete testing and off-site compressive strength testing.
    - ATC also provided SES with proctors for backfill use on both the DGA and common backfill.
- B&B Drilling- Stanhope, NJ
    - B&B Drilling performed all mechanical core sampling for the project, mainly for property IDs 014 and 035 investigative sampling
- Capitol Environmental- Newark, DE
    - Capital performed all management for off-site disposal activates. They handled coordination with the Cumberland County Landfill and trucking associated with it.
    - Capital was also responsible for all aggregate deliveries to the site (DGA, #57 Stone)
- Chem-Tech- Clifton, NJ
    - Provided site analytical for all soil waste Characterization as well las analytical for clean source material

  - Provided all analytical for confirmation sampling PAHs and Pesticides
- Dun Rite Aggregate & Sand- Vineland, NJ
  - Provided common backfill and topsoil for the site
- East Coast Liner- Toms River, NJ
  - Installation of the 60 Mil HDPE liner used under the stockpile pad
- EB Fence- Sicklerville, NJ
  - All fence restoration completed on-site including chain-link, stockade and vinyl fence. This also included all installation of gates on-site
- Ehrlick Pest Control- Vineland, NJ
  - Conducted all rodent eradication before demolition of structures
- Eurofins- Savannah GA
  - Provided metals analytical support for the project
  - Provided wastewater characterization analytical for the project
- Giordanos Recycling- Vineland, NJ
  - Provided all demolition and construction debris removal for the project
- Master Locators- Glen Mills, PA
  - Conducted all Ground Penetrating Radar (GPR) for the site and provided findings on easy to identify drawings
- McVac Environmental- Laurence Harbor, NJ
  - Performed all vac truck remediation for under the crawl space of Property ID 001
- Mountainview Layout- Rockaway, NJ
  - Conducted all survey activities on-site including but not limited to; grade layout, excavation layout, as-built drawings, depth of excavation drawings and all topo surveys
- Pac Van- Indianapolis, IN
  - Site trailers
- Remington & Vernick Engineers- Haddonfield, NJ
  - Provided all engineering oversite for items such as retaining wall, CMU garage and deck designs. Additionally provided engineering for the support system of the crawl space at property ID 001
- Ricky Slade- Bridgeton, NJ
  - Provided all concrete restoration for the site
  - Provided all asphalt restoration for the site
- Rogers Cipollono Electric- Atco, NJ
  - Licensed electrician who provided all electrical installations or disconnects for the site
- Seismic Survey Incorporated- Frederick, MD
  - Provided all vibration and crack gauge monitoring for the project
  - Provided all pre-con photos of properties both interior and exterior if allowable
- Stella Contracting, Inc.- Elmer, NJ
  - Provided all clearing & grubbing activities for the site

- Stoltzfus Structures- Atglen, PA
  - Provided all garage and shed structure replacements for the site as needed
- Tony Campana Plumbing- Vineland, NJ
  - Licensed plumber who provided all plumbing repairs and installations for the site
- Tri-County Security- Vineland, NJ
  - Security company utilized for site security during non-working hours
- Turf Construction- Vineland, NJ
  - Provided all landscaping needs which included sod placement, hydro seeding, tree and shrub planting and all mulching.
  - Provided lawn maintenance under a 90 day maintenance period

2.3. DUST CONTROL/AIR MONITORING

Real time PM10 perimeter air monitoring was performed during intrusive remediation activities for dust and particulate matter less than 10 microns (PM10) in size using a TSI Dust Trak II Model 8530 Aerosol Monitors (DTs). Monitors were located around the perimeter of each excavation area which included, at a minimum, one unit downwind, one unit upwind and a unit on either side of the area being excavated.. The DTs measured fugitive dust emissions for PM10 particulates in real time. Monitor locations were based on wind direction and the configuration of the properties. The DTs were housed in enclosures equipped with Netronix telemetry transmitters (Thiamis-1000) capable of broadcasting data to the "cloud". The collected data was reviewed by the SSHO and summarized in the Daily Health and Safety Report.

In addition, the telemetry system was set up to alert the SSHO if the PM10 fugitive dust emission reached .075 mg/m^3. The telemetry system sent out an alert via text message and email to the Netronix telemetry system users, when an action level exceedance occurred. The DTs were calibrated annually by the manufacturer. Prior to each use, the DTs were zeroed using a zero-dust filter attached to the inlet.

Throughout the OU1 remedial action, best engineering practices (including air monitoring, dust control and erosion control) were used to ensure the safety of the surrounding community during construction. Water sprayed from on-site installed hydrants or hose bibs located at residence homes, was the primary method for dust suppression to limit migrating from the site during excavation/demolition. Other actions taken to minimize dust being generated included:

- Minimizing concurrent operations;
- Applying water on and sweeping haul roads;

- Wetting and misting equipment and structures;
- Spraying mist on buckets during material handling and dumping;
- Placing polyethylene on the ground surface where trucks are loaded, and material loaded into trucks was not be dropped from heights above the truck body;
- Hauling materials in properly covered containers;
- Covering stockpiled materials;
- Reducing the active work area surface and limiting the number of concurrent operations; and
- Regular washing of construction equipment.

2.4. SOIL SAMPLING AND ANALYSIS

Two distinct types of sampling were performed for the remediation of the properties. Pre-excavation sampling was conducted to aid in the remediation design, to establish boundaries between contaminated soils and non-contaminated soils. These sample results were utilized to establish boundaries before excavation. Confirmation sampling was conducted along the established excavation boundaries to confirm results below the Project Action Limits (PAL), delineating the extent of the contamination area. A majority of confirmation samples were also conducted prior to excavation to limit any areas where secondary excavation would be needed once an area was already backfilled. With both sample types, if a sample was found to be above the PAL, additional sampling was conducted until a sample was analyzed with results below the PAL. Any sidewall sample with results above the PAL were generally resampled with a 5' step-out until results below the PAL were achieved. Bottom samples with results above the PAL were generally resampled in 1' increments until results below the PAL were achieved.

Although most pre-excavation soil sampling took place prior to mobilization as part of the USACE/NWK-managed effort, additional pre-excavation samples were needed to better define the excavation areas and make the drawings compliant with NJDEP regulations. Additional samples were added to meet the NJDEP requirement for one sidewall sample at least every 30 linear feet as well as at least one bottom sample every 900 square feet. Sidewall samples were not required for any excavation depth changes of less than 1 foot. Field duplicate samples were also taken every 20 samples to ensure laboratory conformity. These same standards also held true for all confirmation sampling on the site. All pre-excavation samples were analyzed for lead and arsenic.

Additionally, investigative pre-excavation samples were also needed for property ID's 014 and 035. Property 035 investigation yielded eventual clean bottom

samples so remediation of the property could be achieved. Property 014 started with an initial round of sampling which identified contamination deeper than 16' around the dwelling. Additionally, extremely high amounts of arsenic and lead were found with a maximum of 13,000 mg/kg of arsenic and 31,000 mg/kg of lead were identified on property ID 014 (527 E Cherry St) in boring B081, approximately 6' bgs. This warranted 2 additional pre-excavation sampling rounds for property 014 which also included coring through the foundation of the house in the basement. Although results weren't near the maximum found prior, several areas under the building remained contaminated well above clean-up criteria. Eventually property ID 014 was removed from SES scope of work and pushed to a future phase of work.

Due to the contamination found on property ID 014, 2 additional rounds of pre-excavation sampling were also conducted on property IDs 029 and 084. Additional contaminated areas were identified which expanded the remediation for the properties. Additional quantities are listed in the property specific write-ups located in Section 3 of the RAR. A total of 1,009 pre-excavation samples were taken during OU1-Phase II of the Kil-Tone Superfund Site

A majority of post excavation sampling and analysis of soils (confirmation samples) were performed prior to excavation as described in the USACE-approved Sampling and Analysis Plan. Confirmation samples began to show several areas where PAH's were present, changing the way confirmation sampling was conducted. Per RFI #0013, SES was granted the approval to take confirmation samples in-situ, allowing identification areas of secondary excavation before the area was excavated. This in turn allowed SES to develop excavation lenses to include secondary excavation areas, expediting excavation and backfill operations within the residential remediation. All confirmation sampling included analysis for site specific PAH and pesticide COC's. Per EPA direction, any PAH or pesticide COC discovered 24" or deeper below ground surface without additional arsenic or lead contamination above the PAL's, remediation was not nesecarry as it posed no danger to human health at that depth.

Additionally, any exterior sidewall sample was also analyzed for lead and arsenic for record purposes. A total of 600 confirmation samples were taken during OU1-Phase II of the Kil-Tone superfund Site. All samples were collected and analyzed prior to the start of excavation.

3. PROPERTY SPECIFIC SUMMARY REPORTS

Section 3 covers all property specific summaries of work completed.

3.1. PROPERTY ID 014 REMEDIATION

This section provides a summary of the remedial action activities conducted at Property ID 014, located at 527 East Cherry St. (Block 4116, Lot 7). Due to pre-excavation sampling analysis of the property, it was determined that remedial action for the property would be moved to a future phase.

3.1.1. PROPERTY ID 014 PRE-EXCAVATION SAMPLING

Additional pre-excavation samples were needed to accommodate NJDEP regulations and collected from property 014 prior to excavation on December 17, 2018 with an additional secondary sample collected on February 4, 2019. Bottom and interior sidewall samples were collected from the predefined excavation lenses. All pre-excavation soil samples were analyzed for both arsenic and lead in accordance with the approved site QAPP.

Pre-excavation sample results for Property ID 014 are summarized in Table 3.1.1 below. Two interior sidewall samples were analyzed with one sample exceeding PALs. A secondary interior sidewall sample was collected and analyzed with results exceeding the PALs. At this point, it had been determined the property would be moved to a future phase, no additional samples were collected at this time. A total of five bottom samples were taken all of which were below PALs. Pre-excavation sample locations are shown in Figure 3.1.1.

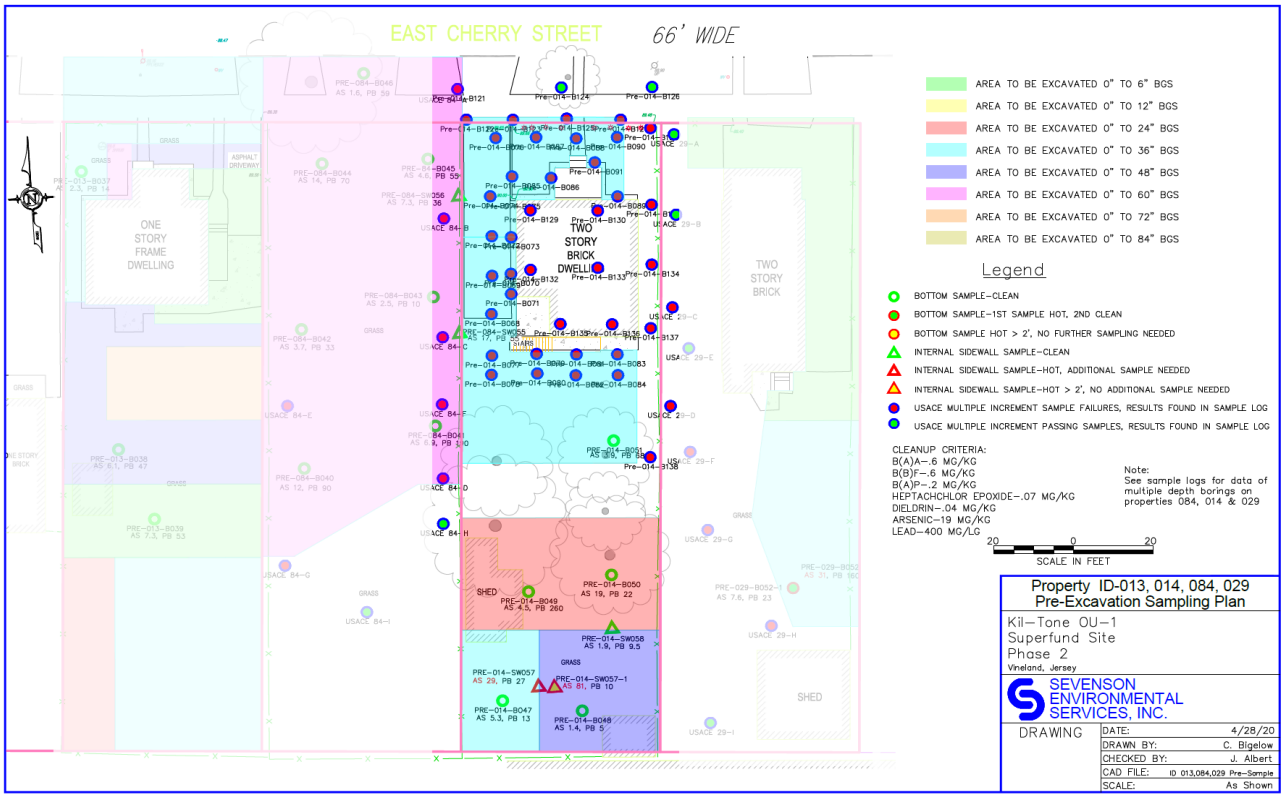
Table 3.1.1 Property ID 014 Pre-excavation Sample Results

Table 3.1.1 - *Kil-Tone Superfund Site-OU1-Phase II* **PROPERTY ID 014 PRE-EXCAVATION SAMPLE RESULTS**		ANALYTE	Benzo(a) anthracene	Benzo(b) fluoranthene	Benzo(a) pyrene	Dieldrin	Heptachlor epoxide	Arsenic	Lead
		PALs (mg/kg)[1]	0.6 mg/kg	0.6 mg/kg	0.2 mg/kg	0.04 mg/kg	0.07 mg/kg	19 mg/kg	400 mg/kg
SAMPLE ID	DATE	DEPTH							
PRE-014-B047-121718	12/17/2018	36"	N/A	N/A	N/A	N/A	N/A	5.3	13
PRE-014-B048-121718	12/17/2018	48"	N/A	N/A	N/A	N/A	N/A	1.4 J	5
PRE-014-B049-121718	12/17/2018	24"	N/A	N/A	N/A	N/A	N/A	4.5	260
PRE-014-B050-121718	12/17/2018	24"	N/A	N/A	N/A	N/A	N/A	19	22
PRE-014-B051-121718	12/17/2018	36"	N/A	N/A	N/A	N/A	N/A	3.9	68
PRE-014-SW057-121718	12/17/2018	36"-48"	N/A	N/A	N/A	N/A	N/A	***29***	27

Table 3.1.1 - *Kil-Tone Superfund Site-OU1-Phase II* **PROPERTY ID 014** **PRE-EXCAVATION SAMPLE RESULTS**		ANALYTE	Benzo(a) anthracene	Benzo(b) fluoranthene	Benzo(a) pyrene	Dieldrin	Heptachlor epoxide	Arsenic	Lead
		PALs (mg/kg)[1]	0.6 mg/kg	0.6 mg/kg	0.2 mg/kg	0.04 mg/kg	0.07 mg/kg	19 mg/kg	400 mg/kg
SAMPLE ID	DATE	DEPTH							
PRE-014-SW057-020419-1[2]	2/4/2019	36"-48"	N/A	N/A	N/A	N/A	N/A	***81***	110
PRE-014-SW058-121718	12/17/2018	24"-48"	N/A	N/A	N/A	N/A	N/A	1.9	9.5

NOTES:
[1] NJAC 7:26D Soil Remediation Criteria for Residential Direct Contact
[2] No further samples at this time, property moved to future phase
All sample results reported in mg/kg
mg/kg = milligram(s) per kilogram
U - Result not detected
J - Parameter not detected; quantitation is an estimation
N/A - Non-applicable
Bold Italicized results indicate an exceedance to Project Action Limits (PALs)

Figure 3.1.1 Property ID 014 Pre-Excavation Sample Locations



3.1.2. PROPERTY ID 014 INVESTIGATION SAMPLING

Per contract drawings, additional investigation samples needed to be collected from around the house to determine excavation depths. Initially, a total of 24 boring locations were provided, to be sampled at 12" intervals or until the water table was reached. Arsenic levels analyzed from the

sampling event reached as high as 13,000 mg/kg while lead was 31,000 mg/kg, respectively.

A second mobilization for core sampling was made at the direction of USACE. An additional 18 boring locations were provided, to be sampled at 12" intervals or until the water table was reached. This also included six core samples through the basement floor. A majority of the sample locations resulted in some level of contamination with the highest concentration of arsenic at 9,500 mg/kg while lead had a high concentration of 12,000 mg/kg. All investigation core samples can be found below in table 3.1.2 with all sample locations shown in Figure 3.1.1, above.

Table 3.1.2 Property ID 014 Pre-excavation Investigation Sample Results

Table 3.1.2 - *Kil-Tone Superfund Site-OU1-Phase II* **PROPERTY ID 014** **PRE-EXCAVATION INVESTIGATION SAMPLE RESULTS**		ANALYTE	Benzo(a) anthracene	Benzo(b) fluoranthene	Benzo(a) pyrene	Dieldrin	Heptachlor epoxide	Arsenic	Lead
		PALs (mg/kg)[1]	0.6 mg/kg	0.6 mg/kg	0.2 mg/kg	0.04 mg/kg	0.07 mg/kg	19 mg/kg	400 mg/kg
SAMPLE ID	DATE	DEPTH							
PRE-014-B068-121818-1	12/18/2018	12"	N/A	N/A	N/A	N/A	N/A	***44***	170
PRE-014-B068-121818-2	12/18/2018	24"	N/A	N/A	N/A	N/A	N/A	5.2	45
PRE-014-B068-121818-3	12/18/2018	36"	N/A	N/A	N/A	N/A	N/A	3	7.1
PRE-014-B068-121818-4	12/18/2018	48"	N/A	N/A	N/A	N/A	N/A	9	98
PRE-014-B068-121818-5	12/18/2018	60"	N/A	N/A	N/A	N/A	N/A	16	100
PRE-014-B068-121818-6	12/18/2018	72"	N/A	N/A	N/A	N/A	N/A	***39***	44
PRE-014-B068-121818-7	12/18/2018	84"	N/A	N/A	N/A	N/A	N/A	***510***	6.7
PRE-014-B068-121818-8	12/18/2018	96"	N/A	N/A	N/A	N/A	N/A	***150***	5.3
PRE-014-B068-121818-9	12/18/2018	108"	N/A	N/A	N/A	N/A	N/A	***25***	5.7
PRE-014-B068-121818-10	12/18/2018	120"	N/A	N/A	N/A	N/A	N/A	***500***	11
PRE-014-B068-121818-11	12/18/2018	132"	N/A	N/A	N/A	N/A	N/A	***33***	2.8
PRE-014-B068-121818-12	12/18/2018	144"	N/A	N/A	N/A	N/A	N/A	***60***	2.9
PRE-014-B068-020519-13	2/5/2019	156"	N/A	N/A	N/A	N/A	N/A	***190***	2.1
PRE-014-B068-020519-14	2/5/2019	168"	N/A	N/A	N/A	N/A	N/A	***56***	3.7
PRE-014-B068-020519-15	2/5/2019	180"	N/A	N/A	N/A	N/A	N/A	11	6.4
PRE-014-B068-020519-16	2/5/2019	192"	N/A	N/A	N/A	N/A	N/A	1.6	5.9
PRE-014-B069-121818-1	12/18/2018	12"	N/A	N/A	N/A	N/A	N/A	***25***	180
PRE-014-B069-121818-2	12/18/2018	24"	N/A	N/A	N/A	N/A	N/A	***130***	150
PRE-014-B069-121818-2-1*	12/18/2018	24"	N/A	N/A	N/A	N/A	N/A	***130***	130
PRE-014-B069-121818-3	12/18/2018	36"	N/A	N/A	N/A	N/A	N/A	7	8.6
PRE-014-B069-121818-4	12/18/2018	48"	N/A	N/A	N/A	N/A	N/A	6.4	11
PRE-014-B069-121818-5	12/18/2018	60"	N/A	N/A	N/A	N/A	N/A	1.8	18
PRE-014-B069-121818-6	12/18/2018	72"	N/A	N/A	N/A	N/A	N/A	***350***	240
PRE-014-B069-121818-7	12/18/2018	84"	N/A	N/A	N/A	N/A	N/A	***190***	7.5
PRE-014-B069-121818-8	12/18/2018	96"	N/A	N/A	N/A	N/A	N/A	***190***	3.5
PRE-014-B069-121818-9	12/18/2018	108"	N/A	N/A	N/A	N/A	N/A	***220***	2.1
PRE-014-B069-121818-10	12/18/2018	120"	N/A	N/A	N/A	N/A	N/A	***87***	1.2
PRE-014-B069-121818-11	12/18/2018	132"	N/A	N/A	N/A	N/A	N/A	***52***	1.8
PRE-014-B069-121818-12	12/18/2018	144"	N/A	N/A	N/A	N/A	N/A	***310***	6
PRE-014-B069-020519-13	2/5/2019	156"	N/A	N/A	N/A	N/A	N/A	***71***	3.3
PRE-014-B069-020519-14	2/5/2019	168"	N/A	N/A	N/A	N/A	N/A	4.3	4.8
PRE-014-B069-020519-15	2/5/2019	180"	N/A	N/A	N/A	N/A	N/A	2.4	5.5
PRE-014-B069-020519-16	2/5/2019	192"	N/A	N/A	N/A	N/A	N/A	3.7	2
PRE-014-B070-121818-1	12/18/2018	12"	N/A	N/A	N/A	N/A	N/A	***580***	***740***
PRE-014-B070-121818-2	12/18/2018	24"	N/A	N/A	N/A	N/A	N/A	14	12
PRE-014-B070-121818-3	12/18/2018	36"	N/A	N/A	N/A	N/A	N/A	1.3	4.6
PRE-014-B070-121818-4	12/18/2018	48"	N/A	N/A	N/A	N/A	N/A	7.8	15
PRE-014-B070-121818-5	12/18/2018	60"	N/A	N/A	N/A	N/A	N/A	1.5	11
PRE-014-B070-121818-6	12/18/2018	72"	N/A	N/A	N/A	N/A	N/A	***110***	180
PRE-014-B070-121818-7	12/18/2018	84"	N/A	N/A	N/A	N/A	N/A	***9500***	***3600***

Table 3.1.2 - *Kil-Tone Superfund Site-OU1-Phase II* **PROPERTY ID 014** **PRE-EXCAVATION INVESTIGATION SAMPLE RESULTS**		ANALYTE	Benzo(a) anthracene	Benzo(b) fluoranthene	Benzo(a) pyrene	Dieldrin	Heptachlor epoxide	Arsenic	Lead
		PALs (mg/kg)[1]	0.6 mg/kg	0.6 mg/kg	0.2 mg/kg	0.04 mg/kg	0.07 mg/kg	19 mg/kg	400 mg/kg
SAMPLE ID	DATE	DEPTH							
PRE-014-B070-121818-8	12/18/2018	96"	N/A	N/A	N/A	N/A	N/A	***320***	5.1
PRE-014-B070-121818-9	12/18/2018	108"	N/A	N/A	N/A	N/A	N/A	***330***	6.3
PRE-014-B070-121818-10	12/18/2018	120"	N/A	N/A	N/A	N/A	N/A	***89***	3.3
PRE-014-B070-121818-10-1*	12/18/2018	120"	N/A	N/A	N/A	N/A	N/A	***160***	1.8
PRE-014-B070-121818-11	12/18/2018	132"	N/A	N/A	N/A	N/A	N/A	***85***	1.3
PRE-014-B070-121818-12	12/18/2018	144"	N/A	N/A	N/A	N/A	N/A	***75***	1.9
PRE-014-B070-020519-14	12/18/2018	168"	N/A	N/A	N/A	N/A	N/A	***95***	2.7
PRE-014-B070-020519-15	2/5/2019	180"	N/A	N/A	N/A	N/A	N/A	***160***	4.3
PRE-014-B070-020519-16	2/5/2019	192"	N/A	N/A	N/A	N/A	N/A	***170***	6.5
PRE-014-B071-121818-1	12/18/2018	12"	N/A	N/A	N/A	N/A	N/A	***42***	89
PRE-014-B071-121818-2	12/18/2018	24"	N/A	N/A	N/A	N/A	N/A	2.7	25
PRE-014-B071-121818-3	12/18/2018	36"	N/A	N/A	N/A	N/A	N/A	5.3	45
PRE-014-B071-121818-4	12/18/2018	48"	N/A	N/A	N/A	N/A	N/A	5.7	***490***
PRE-014-B071-121818-5	12/18/2018	60"	N/A	N/A	N/A	N/A	N/A	4.3	33
PRE-014-B071-121818-6	12/18/2018	72"	N/A	N/A	N/A	N/A	N/A	13	37
PRE-014-B071-121818-7	12/18/2018	84"	N/A	N/A	N/A	N/A	N/A	***1100***	8.9
PRE-014-B071-121818-8	12/18/2018	96"	N/A	N/A	N/A	N/A	N/A	***170***	5.5
PRE-014-B071-121818-9	12/18/2018	108"	N/A	N/A	N/A	N/A	N/A	***210***	38
PRE-014-B071-121818-10	12/18/2018	120"	N/A	N/A	N/A	N/A	N/A	***89***	61
PRE-014-B071-121818-11	12/18/2018	132"	N/A	N/A	N/A	N/A	N/A	***110***	3.8
PRE-014-B071-121818-12	12/18/2018	144"	N/A	N/A	N/A	N/A	N/A	***55***	1.6
PRE-014-B071-020519-13	2/5/2019	156"	N/A	N/A	N/A	N/A	N/A	***140***	3
PRE-014-B071-020519-14	2/5/2019	168"	N/A	N/A	N/A	N/A	N/A	***120***	3.7
PRE-014-B071-020519-15	2/5/2019	180"	N/A	N/A	N/A	N/A	N/A	***130***	4.6
PRE-014-B071-020519-16	2/5/2019	192"	N/A	N/A	N/A	N/A	N/A	***130***	3
PRE-014-B072-121818-1	12/18/2018	12"	N/A	N/A	N/A	N/A	N/A	14	45
PRE-014-B072-121818-2	12/18/2018	24"	N/A	N/A	N/A	N/A	N/A	14	55
PRE-014-B072-121818-3	12/18/2018	36"	N/A	N/A	N/A	N/A	N/A	6.8	22
PRE-014-B072-121818-4	12/18/2018	48"	N/A	N/A	N/A	N/A	N/A	4.4	12
PRE-014-B072-121818-5	12/18/2018	60"	N/A	N/A	N/A	N/A	N/A	***74***	***1300***
PRE-014-B072-121818-6	12/18/2018	72"	N/A	N/A	N/A	N/A	N/A	***360***	110
PRE-014-B072-121818-6-1*	12/18/2018	72"	N/A	N/A	N/A	N/A	N/A	***360***	60
PRE-014-B072-121818-7	12/18/2018	84"	N/A	N/A	N/A	N/A	N/A	***200***	4.3
PRE-014-B072-121818-8	12/18/2018	96"	N/A	N/A	N/A	N/A	N/A	7.1	5.8
PRE-014-B072-121818-9	12/18/2018	108"	N/A	N/A	N/A	N/A	N/A	16	39
PRE-014-B072-121818-10	12/18/2018	120"	N/A	N/A	N/A	N/A	N/A	***21***	1.4
PRE-014-B072-121818-11	12/18/2018	132"	N/A	N/A	N/A	N/A	N/A	***37***	1.6
PRE-014-B072-121818-12	12/18/2018	144"	N/A	N/A	N/A	N/A	N/A	***72***	2.9
PRE-014-B072-020519-13	2/5/2019	156"	N/A	N/A	N/A	N/A	N/A	***98***	3.9
PRE-014-B072-020519-14	2/5/2019	168"	N/A	N/A	N/A	N/A	N/A	5.8	3.8

Table 3.1.2 - *Kil-Tone Superfund Site-OU1-Phase II* **PROPERTY ID 014** **PRE-EXCAVATION INVESTIGATION SAMPLE RESULTS**		ANALYTE	Benzo(a) anthracene	Benzo(b) fluoranthene	Benzo(a) pyrene	Dieldrin	Heptachlor epoxide	Arsenic	Lead
		PALs (mg/kg)[1]	0.6 mg/kg	0.6 mg/kg	0.2 mg/kg	0.04 mg/kg	0.07 mg/kg	19 mg/kg	400 mg/kg
SAMPLE ID	DATE	DEPTH							
PRE-014-B072-020519-15	2/5/2019	180"	N/A	N/A	N/A	N/A	N/A	13	4.8
PRE-014-B072-020519-16	2/5/2019	192"	N/A	N/A	N/A	N/A	N/A	5.6	8.4
PRE-014-B073-121918-1	12/19/2018	12"	N/A	N/A	N/A	N/A	N/A	***150***	220
PRE-014-B073-121918-2	12/19/2018	24"	N/A	N/A	N/A	N/A	N/A	***28***	84
PRE-014-B073-121918-3	12/19/2018	36"	N/A	N/A	N/A	N/A	N/A	***370***	***1100***
PRE-014-B073-121918-4	12/19/2018	48"	N/A	N/A	N/A	N/A	N/A	***330***	***1100***
PRE-014-B073-121918-5	12/19/2018	60"	N/A	N/A	N/A	N/A	N/A	***210***	9.3
PRE-014-B073-121918-6	12/19/2018	72"	N/A	N/A	N/A	N/A	N/A	***130***	37
PRE-014-B073-121918-7	12/19/2018	84"	N/A	N/A	N/A	N/A	N/A	***670***	6.5
PRE-014-B073-121918-8	12/19/2018	96"	N/A	N/A	N/A	N/A	N/A	***41***	4.9
PRE-014-B073-121918-9	12/19/2018	108"	N/A	N/A	N/A	N/A	N/A	***40***	3.3
PRE-014-B073-121918-10	12/19/2018	120"	N/A	N/A	N/A	N/A	N/A	18	1.6
PRE-014-B073-121918-11	12/19/2018	132"	N/A	N/A	N/A	N/A	N/A	15	30
PRE-014-B073-121918-12	12/19/2018	144"	N/A	N/A	N/A	N/A	N/A	***67***	3.3
PRE-014-B073-020519-13	2/5/2019	156"	N/A	N/A	N/A	N/A	N/A	***160***	3.3
PRE-014-B073-020519-14	2/5/2019	168"	N/A	N/A	N/A	N/A	N/A	***150***	8.9
PRE-014-B073-020519-15	2/5/2019	180"	N/A	N/A	N/A	N/A	N/A	***94***	4.2
PRE-014-B073-020519-16	2/5/2019	192"	N/A	N/A	N/A	N/A	N/A	***33***	5.3
PRE-014-B074-121918-1	12/19/2018	12"	N/A	N/A	N/A	N/A	N/A	***21***	36
PRE-014-B074-121918-2	12/19/2018	24"	N/A	N/A	N/A	N/A	N/A	5.4	140
PRE-014-B074-121918-2-1*	12/19/2018	24"	N/A	N/A	N/A	N/A	N/A	6.6	150
PRE-014-B074-121918-3	12/19/2018	36"	N/A	N/A	N/A	N/A	N/A	4.3	18
PRE-014-B074-121918-4	12/19/2018	48"	N/A	N/A	N/A	N/A	N/A	16	15
PRE-014-B074-121918-5	12/19/2018	60"	N/A	N/A	N/A	N/A	N/A	***1200***	***2000***
PRE-014-B074-121918-6	12/19/2018	72"	N/A	N/A	N/A	N/A	N/A	***210***	33
PRE-014-B074-121918-7	12/19/2018	84"	N/A	N/A	N/A	N/A	N/A	***52***	4
PRE-014-B074-121918-8	12/19/2018	96"	N/A	N/A	N/A	N/A	N/A	***21***	5
PRE-014-B074-121918-9	12/19/2018	108"	N/A	N/A	N/A	N/A	N/A	***41***	8
PRE-014-B074-121918-10	12/19/2018	120"	N/A	N/A	N/A	N/A	N/A	2.5	.93 J
PRE-014-B074-121918-11	12/19/2018	132"	N/A	N/A	N/A	N/A	N/A	3.2	1.1
PRE-014-B074-121918-12	12/19/2018	144"	N/A	N/A	N/A	N/A	N/A	***75***	4.9
PRE-014-B074-020519-13	2/5/2019	156"	N/A	N/A	N/A	N/A	N/A	***55***	4.7
PRE-014-B074-020519-14	2/5/2019	168"	N/A	N/A	N/A	N/A	N/A	1.9	3.2
PRE-014-B074-020519-15	2/5/2019	180"	N/A	N/A	N/A	N/A	N/A	1.9	5.2
PRE-014-B074-020519-16	2/5/2019	192"	N/A	N/A	N/A	N/A	N/A	2.9	4.7
PRE-014-B075-121918-1	12/19/2018	12"	N/A	N/A	N/A	N/A	N/A	***22***	110
PRE-014-B075-121918-2	12/19/2018	24"	N/A	N/A	N/A	N/A	N/A	15	150
PRE-014-B075-121918-3	12/19/2018	36"	N/A	N/A	N/A	N/A	N/A	16	73
PRE-014-B075-121918-4	12/19/2018	48"	N/A	N/A	N/A	N/A	N/A	***72***	57
PRE-014-B075-121918-5	12/19/2018	60"	N/A	N/A	N/A	N/A	N/A	7.2	18

Table 3.1.2 - *Kil-Tone Superfund Site-OU1-Phase II* **PROPERTY ID 014** **PRE-EXCAVATION INVESTIGATION SAMPLE RESULTS**		ANALYTE	Benzo(a) anthracene	Benzo(b) fluoranthene	Benzo(a) pyrene	Dieldrin	Heptachlor epoxide	Arsenic	Lead
		PALs (mg/kg)[1]	0.6 mg/kg	0.6 mg/kg	0.2 mg/kg	0.04 mg/kg	0.07 mg/kg	19 mg/kg	400 mg/kg
SAMPLE ID	DATE	DEPTH							
PRE-014-B075-121918-6	12/19/2018	72"	N/A	N/A	N/A	N/A	N/A	***47***	9.7
PRE-014-B075-121918-7	12/19/2018	84"	N/A	N/A	N/A	N/A	N/A	***38***	11
PRE-014-B075-121918-8	12/19/2018	96"	N/A	N/A	N/A	N/A	N/A	***28***	2.2
PRE-014-B075-121918-9	12/19/2018	108"	N/A	N/A	N/A	N/A	N/A	***72***	29
PRE-014-B075-121918-10	12/19/2018	120"	N/A	N/A	N/A	N/A	N/A	15	3.7
PRE-014-B075-121918-10-1*	12/19/2018	120"	N/A	N/A	N/A	N/A	N/A	12	4.3
PRE-014-B075-121918-11	12/19/2018	132"	N/A	N/A	N/A	N/A	N/A	***64***	3.5
PRE-014-B075-121918-12	12/19/2018	144"	N/A	N/A	N/A	N/A	N/A	***110***	2.6
PRE-014-B075-020519-13	2/5/2019	156"	N/A	N/A	N/A	N/A	N/A	***230***	3.6
PRE-014-B075-020519-14	2/5/2019	168"	N/A	N/A	N/A	N/A	N/A	***200***	5.7
PRE-014-B075-020519-15	2/5/2019	180"	N/A	N/A	N/A	N/A	N/A	***110***	4.1
PRE-014-B075-020519-16	2/5/2019	192"	N/A	N/A	N/A	N/A	N/A	***91***	4.2
PRE-014-B076-121918-1	12/19/2018	12"	N/A	N/A	N/A	N/A	N/A	7.4	25
PRE-014-B076-121918-2	12/19/2018	24"	N/A	N/A	N/A	N/A	N/A	***93***	390
PRE-014-B076-121918-3	12/19/2018	36"	N/A	N/A	N/A	N/A	N/A	***75***	89
PRE-014-B076-121918-4	12/19/2018	48"	N/A	N/A	N/A	N/A	N/A	4.7	63
PRE-014-B076-121918-5	12/19/2018	60"	N/A	N/A	N/A	N/A	N/A	7	7.3
PRE-014-B076-121918-6	12/19/2018	72"	N/A	N/A	N/A	N/A	N/A	4.7	120
PRE-014-B076-121918-7	12/19/2018	84"	N/A	N/A	N/A	N/A	N/A	1.9 U	4.7
PRE-014-B076-121918-8	12/19/2018	96"	N/A	N/A	N/A	N/A	N/A	1.8 U	1.8
PRE-014-B076-121918-9	12/19/2018	108"	N/A	N/A	N/A	N/A	N/A	1.9 U	1.6
PRE-014-B076-121918-10	12/19/2018	120"	N/A	N/A	N/A	N/A	N/A	1.2 J	7.1
PRE-014-B076-121918-11	12/19/2018	132"	N/A	N/A	N/A	N/A	N/A	***60***	1
PRE-014-B076-121918-12	12/19/2018	144"	N/A	N/A	N/A	N/A	N/A	8.7	4.5
PRE-014-B077-121918-1	12/19/2018	12"	N/A	N/A	N/A	N/A	N/A	15	120
PRE-014-B077-121918-2	12/19/2018	24"	N/A	N/A	N/A	N/A	N/A	11	18
PRE-014-B077-121918-3	12/19/2018	36"	N/A	N/A	N/A	N/A	N/A	2.3	7.3
PRE-014-B077-121918-4	12/19/2018	48"	N/A	N/A	N/A	N/A	N/A	7	12
PRE-014-B077-121918-5	12/19/2018	60"	N/A	N/A	N/A	N/A	N/A	***42***	60
PRE-014-B077-121918-6	12/19/2018	72"	N/A	N/A	N/A	N/A	N/A	***800***	66
PRE-014-B077-121918-6-1*	12/19/2018	72"	N/A	N/A	N/A	N/A	N/A	***1000***	170
PRE-014-B077-121918-7	12/19/2018	84"	N/A	N/A	N/A	N/A	N/A	***370***	7.3
PRE-014-B077-121918-8	12/19/2018	96"	N/A	N/A	N/A	N/A	N/A	***270***	5.4
PRE-014-B077-121918-9	12/19/2018	108"	N/A	N/A	N/A	N/A	N/A	***130***	2.3
PRE-014-B077-121918-10	12/19/2018	120"	N/A	N/A	N/A	N/A	N/A	***52***	1.4
PRE-014-B077-121918-11	12/19/2018	132"	N/A	N/A	N/A	N/A	N/A	***150***	3.5
PRE-014-B077-121918-12	12/19/2018	144"	N/A	N/A	N/A	N/A	N/A	***170***	2.9
PRE-014-B077-020519-13	2/5/2019	156"	N/A	N/A	N/A	N/A	N/A	3	5
PRE-014-B078-121918-1	12/19/2018	12"	N/A	N/A	N/A	N/A	N/A	18	150
PRE-014-B078-121918-2	12/19/2018	24"	N/A	N/A	N/A	N/A	N/A	6.3	11

Table 3.1.2 - *Kil-Tone Superfund Site-OU1-Phase II* **PROPERTY ID 014** **PRE-EXCAVATION INVESTIGATION SAMPLE RESULTS**		ANALYTE	Benzo(a) anthracene	Benzo(b) fluoranthene	Benzo(a) pyrene	Dieldrin	Heptachlor epoxide	Arsenic	Lead
		PALs (mg/kg)[1]	0.6 mg/kg	0.6 mg/kg	0.2 mg/kg	0.04 mg/kg	0.07 mg/kg	19 mg/kg	400 mg/kg
SAMPLE ID	DATE	DEPTH							
PRE-014-B078-121918-3	12/19/2018	36"	N/A	N/A	N/A	N/A	N/A	4.5	28
PRE-014-B078-121918-4	12/19/2018	48"	N/A	N/A	N/A	N/A	N/A	4.2	13
PRE-014-B078-121918-5	12/19/2018	60"	N/A	N/A	N/A	N/A	N/A	5.9	13
PRE-014-B078-121918-6	12/19/2018	72"	N/A	N/A	N/A	N/A	N/A	***1100***	25
PRE-014-B078-121918-7	12/19/2018	84"	N/A	N/A	N/A	N/A	N/A	***350***	3.9
PRE-014-B078-121918-8	12/19/2018	96"	N/A	N/A	N/A	N/A	N/A	***110***	1.4
PRE-014-B078-121918-9	12/19/2018	108"	N/A	N/A	N/A	N/A	N/A	***100***	1.1
PRE-014-B078-121918-10	12/19/2018	120"	N/A	N/A	N/A	N/A	N/A	***50***	.96 J
PRE-014-B078-121918-11	12/19/2018	132"	N/A	N/A	N/A	N/A	N/A	***47***	2.8
PRE-014-B078-121918-12	12/19/2018	144"	N/A	N/A	N/A	N/A	N/A	***130***	4.1
PRE-014-B078-020519-13	2/5/2019	156"	N/A	N/A	N/A	N/A	N/A	***25***	8.3
PRE-014-B078-020519-14	2/5/2019	168"	N/A	N/A	N/A	N/A	N/A	13	5.9
PRE-014-B078-020519-15	2/5/2019	180"	N/A	N/A	N/A	N/A	N/A	8.7	9.7
PRE-014-B078-020519-16	2/5/2019	192"	N/A	N/A	N/A	N/A	N/A	3.1	4.2
PRE-014-B079-121918-1	12/19/2018	12"	N/A	N/A	N/A	N/A	N/A	***43***	98
PRE-014-B079-121918-2	12/19/2018	24"	N/A	N/A	N/A	N/A	N/A	5.8	16
PRE-014-B079-121918-2-1*	12/19/2018	24"	N/A	N/A	N/A	N/A	N/A	6.5	17
PRE-014-B079-121918-3	12/19/2018	36"	N/A	N/A	N/A	N/A	N/A	7.9	19
PRE-014-B079-121918-4	12/19/2018	48"	N/A	N/A	N/A	N/A	N/A	***23***	53
PRE-014-B079-121918-5	12/19/2018	60"	N/A	N/A	N/A	N/A	N/A	13	45
PRE-014-B079-121918-6	12/19/2018	72"	N/A	N/A	N/A	N/A	N/A	***220***	17
PRE-014-B079-121918-7	12/19/2018	84"	N/A	N/A	N/A	N/A	N/A	8.7	5.2
PRE-014-B079-121918-8	12/19/2018	96"	N/A	N/A	N/A	N/A	N/A	.94 J	0.34
PRE-014-B079-121918-9	12/19/2018	108"	N/A	N/A	N/A	N/A	N/A	1.9 U	1.5
PRE-014-B079-121918-10	12/19/2018	120"	N/A	N/A	N/A	N/A	N/A	8.6	3.2
PRE-014-B079-121918-11	12/19/2018	132"	N/A	N/A	N/A	N/A	N/A	***55***	2.8
PRE-014-B079-121918-12	12/19/2018	144"	N/A	N/A	N/A	N/A	N/A	***39***	3.9
PRE-014-B079-020519-13	2/5/2019	156"	N/A	N/A	N/A	N/A	N/A	***96***	3.7
PRE-014-B079-020519-14	2/5/2019	168"	N/A	N/A	N/A	N/A	N/A	4.6	7.5
PRE-014-B079-020519-15	2/5/2019	180"	N/A	N/A	N/A	N/A	N/A	5	4.9
PRE-014-B079-020519-16	2/5/2019	192"	N/A	N/A	N/A	N/A	N/A	5.1	7.8
PRE-014-B080-121918-1	12/19/2018	12"	N/A	N/A	N/A	N/A	N/A	12	76
PRE-014-B080-121918-2	12/19/2018	24"	N/A	N/A	N/A	N/A	N/A	4.4	8.3
PRE-014-B080-121918-3	12/19/2018	36"	N/A	N/A	N/A	N/A	N/A	5.4	8.9
PRE-014-B080-121918-4	12/19/2018	48"	N/A	N/A	N/A	N/A	N/A	4.4	59
PRE-014-B080-121918-5	12/19/2018	60"	N/A	N/A	N/A	N/A	N/A	3.3	12
PRE-014-B080-121918-6	12/19/2018	72"	N/A	N/A	N/A	N/A	N/A	***140***	47
PRE-014-B080-121918-7	12/19/2018	84"	N/A	N/A	N/A	N/A	N/A	3.1	6.4
PRE-014-B080-121918-8	12/19/2018	96"	N/A	N/A	N/A	N/A	N/A	1.5 J	1.4
PRE-014-B080-121918-9	12/19/2018	108"	N/A	N/A	N/A	N/A	N/A	2	4.2

Table 3.1.2 - *Kil-Tone Superfund Site-OU1-Phase II* **PROPERTY ID 014** **PRE-EXCAVATION INVESTIGATION SAMPLE RESULTS**		ANALYTE	Benzo(a) anthracene	Benzo(b) fluoranthene	Benzo(a) pyrene	Dieldrin	Heptachlor epoxide	Arsenic	Lead
		PALs (mg/kg)[1]	0.6 mg/kg	0.6 mg/kg	0.2 mg/kg	0.04 mg/kg	0.07 mg/kg	19 mg/kg	400 mg/kg
SAMPLE ID	DATE	DEPTH							
PRE-014-B080-121918-10	12/19/2018	120"	N/A	N/A	N/A	N/A	N/A	***27***	2.1
PRE-014-B080-121918-10-1*	12/19/2018	120"	N/A	N/A	N/A	N/A	N/A	7.2	0.95
PRE-014-B080-121918-11	12/19/2018	132"	N/A	N/A	N/A	N/A	N/A	***53***	1.8
PRE-014-B080-121918-12	12/19/2018	144"	N/A	N/A	N/A	N/A	N/A	2.7	7
PRE-014-B081-121918-1	12/19/2018	12"	N/A	N/A	N/A	N/A	N/A	***41***	160
PRE-014-B081-121918-2	12/19/2018	24"	N/A	N/A	N/A	N/A	N/A	7.2	61
PRE-014-B081-121918-3	12/19/2018	36"	N/A	N/A	N/A	N/A	N/A	7.2	9.6
PRE-014-B081-121918-4	12/19/2018	48"	N/A	N/A	N/A	N/A	N/A	7.9	29
PRE-014-B081-121918-5	12/19/2018	60"	N/A	N/A	N/A	N/A	N/A	6.3	28
PRE-014-B081-121918-6	12/19/2018	72"	N/A	N/A	N/A	N/A	N/A	***13000***	***31000***
PRE-014-B081-121918-7	12/19/2018	84"	N/A	N/A	N/A	N/A	N/A	***98***	19
PRE-014-B081-121918-8	12/19/2018	96"	N/A	N/A	N/A	N/A	N/A	***22***	3.2
PRE-014-B081-121918-9	12/19/2018	108"	N/A	N/A	N/A	N/A	N/A	***170***	8.8
PRE-014-B081-121918-10	12/19/2018	120"	N/A	N/A	N/A	N/A	N/A	***180***	3.8
PRE-014-B081-121918-11	12/19/2018	132"	N/A	N/A	N/A	N/A	N/A	***27***	3.8
PRE-014-B081-121918-12	12/19/2018	144"	N/A	N/A	N/A	N/A	N/A	2.1	5.1
PRE-014-B082-121918-1	12/19/2018	12"	N/A	N/A	N/A	N/A	N/A	6.6	28
PRE-014-B082-121918-2	12/19/2018	24"	N/A	N/A	N/A	N/A	N/A	3.7	19
PRE-014-B082-121918-3	12/19/2018	36"	N/A	N/A	N/A	N/A	N/A	***370***	***850***
PRE-014-B082-121918-4	12/19/2018	48"	N/A	N/A	N/A	N/A	N/A	8.2	61
PRE-014-B082-121918-5	12/19/2018	60"	N/A	N/A	N/A	N/A	N/A	16	63
PRE-014-B082-121918-6	12/19/2018	72"	N/A	N/A	N/A	N/A	N/A	***440***	150
PRE-014-B082-121918-6-1*	12/19/2018	72"	N/A	N/A	N/A	N/A	N/A	***340***	53
PRE-014-B082-121918-7	12/19/2018	84"	N/A	N/A	N/A	N/A	N/A	***83***	10
PRE-014-B082-121918-8	12/19/2018	96"	N/A	N/A	N/A	N/A	N/A	***340***	130
PRE-014-B082-121918-9	12/19/2018	108"	N/A	N/A	N/A	N/A	N/A	***24***	4.2
PRE-014-B082-121918-10	12/19/2018	120"	N/A	N/A	N/A	N/A	N/A	4.3	5.9
PRE-014-B082-121918-11	12/19/2018	132"	N/A	N/A	N/A	N/A	N/A	1.8	1.6
PRE-014-B082-121918-12	12/19/2018	144"	N/A	N/A	N/A	N/A	N/A	1.4	2.3
PRE-014-B083-121918-1	12/19/2018	12"	N/A	N/A	N/A	N/A	N/A	***62***	170
PRE-014-B083-121918-2	12/19/2018	24"	N/A	N/A	N/A	N/A	N/A	***21***	56
PRE-014-B083-121918-3	12/19/2018	36"	N/A	N/A	N/A	N/A	N/A	***28***	170
PRE-014-B083-121918-4	12/19/2018	48"	N/A	N/A	N/A	N/A	N/A	14	26
PRE-014-B083-121918-5	12/19/2018	60"	N/A	N/A	N/A	N/A	N/A	1.6	16
PRE-014-B083-121918-6	12/19/2018	72"	N/A	N/A	N/A	N/A	N/A	11	39
PRE-014-B083-121918-7	12/19/2018	84"	N/A	N/A	N/A	N/A	N/A	2.5	16
PRE-014-B083-121918-8	12/19/2018	96"	N/A	N/A	N/A	N/A	N/A	1.1 J	7.9
PRE-014-B083-121918-9	12/19/2018	108"	N/A	N/A	N/A	N/A	N/A	1.5 J	11
PRE-014-B083-121918-10	12/19/2018	120"	N/A	N/A	N/A	N/A	N/A	2.1 U	6.1
PRE-014-B083-121918-11	12/19/2018	132"	N/A	N/A	N/A	N/A	N/A	1.3 J	4

Table 3.1.2 - *Kil-Tone Superfund Site-OU1-Phase II* **PROPERTY ID 014** **PRE-EXCAVATION INVESTIGATION SAMPLE RESULTS**		ANALYTE	Benzo(a) anthracene	Benzo(b) fluoranthene	Benzo(a) pyrene	Dieldrin	Heptachlor epoxide	Arsenic	Lead
		PALs (mg/kg)[1]	0.6 mg/kg	0.6 mg/kg	0.2 mg/kg	0.04 mg/kg	0.07 mg/kg	19 mg/kg	400 mg/kg
SAMPLE ID	DATE	DEPTH							
PRE-014-B083-121918-12	12/19/2018	144"	N/A	N/A	N/A	N/A	N/A	2.8	4.8
PRE-014-B084-121918-1	12/19/2018	12"	N/A	N/A	N/A	N/A	N/A	19	93
PRE-014-B084-121918-2	12/19/2018	24"	N/A	N/A	N/A	N/A	N/A	8.3	79
PRE-014-B084-121918-2-1*	12/19/2018	24"	N/A	N/A	N/A	N/A	N/A	6	130
PRE-014-B084-121918-3	12/19/2018	36"	N/A	N/A	N/A	N/A	N/A	7.7	150
PRE-014-B084-121918-4	12/19/2018	48"	N/A	N/A	N/A	N/A	N/A	1.6	22
PRE-014-B084-121918-5	12/19/2018	60"	N/A	N/A	N/A	N/A	N/A	2	28
PRE-014-B084-121918-6	12/19/2018	72"	N/A	N/A	N/A	N/A	N/A	***47***	59
PRE-014-B084-121918-7	12/19/2018	84"	N/A	N/A	N/A	N/A	N/A	3	41
PRE-014-B084-121918-8	12/19/2018	96"	N/A	N/A	N/A	N/A	N/A	1.3 J	18
PRE-014-B084-121918-9	12/19/2018	108"	N/A	N/A	N/A	N/A	N/A	1.8 U	2
PRE-014-B084-121918-10	12/19/2018	120"	N/A	N/A	N/A	N/A	N/A	1 J	7
PRE-014-B084-121918-11	12/19/2018	132"	N/A	N/A	N/A	N/A	N/A	1.9 U	5.9
PRE-014-B084-121918-12	12/19/2018	144"	N/A	N/A	N/A	N/A	N/A	1.9 U	5.7
PRE-014-B085-010719-1	12/19/2018	12"	N/A	N/A	N/A	N/A	N/A	7.6	17
PRE-014-B085-010719-2	1/7/2019	24"	N/A	N/A	N/A	N/A	N/A	7.7	88
PRE-014-B085-010719-3	1/7/2019	36"	N/A	N/A	N/A	N/A	N/A	***22***	52
PRE-014-B085-010719-4	1/7/2019	48"	N/A	N/A	N/A	N/A	N/A	18	40
PRE-014-B085-010719-5	1/7/2019	60"	N/A	N/A	N/A	N/A	N/A	***4100***	***2000***
PRE-014-B085-010719-6	1/7/2019	72"	N/A	N/A	N/A	N/A	N/A	***2200***	22
PRE-014-B085-010719-7	1/7/2019	84"	N/A	N/A	N/A	N/A	N/A	***470***	5
PRE-014-B085-010719-8	1/7/2019	96"	N/A	N/A	N/A	N/A	N/A	***370***	3.5
PRE-014-B085-010719-9	1/7/2019	108"	N/A	N/A	N/A	N/A	N/A	***180***	32
PRE-014-B085-010719-10	1/7/2019	120"	N/A	N/A	N/A	N/A	N/A	***92***	1.4
PRE-014-B085-010719-10-1*	1/7/2019	120"	N/A	N/A	N/A	N/A	N/A	***87***	1.2
PRE-014-B085-010719-11	1/7/2019	132"	N/A	N/A	N/A	N/A	N/A	***140***	7.4
PRE-014-B085-010719-12	1/7/2019	144"	N/A	N/A	N/A	N/A	N/A	***96***	1.2
PRE-014-B085-020519-13	2/5/2019	156"	N/A	N/A	N/A	N/A	N/A	***250***	2.5
PRE-014-B085-020519-14	2/5/2019	168"	N/A	N/A	N/A	N/A	N/A	***220***	3.8
PRE-014-B085-020519-15	2/5/2019	180"	N/A	N/A	N/A	N/A	N/A	***220***	4.7
PRE-014-B085-020519-16	2/5/2019	192"	N/A	N/A	N/A	N/A	N/A	***130***	3.9
PRE-014-B086-010719-1	1/7/2019	12"	N/A	N/A	N/A	N/A	N/A	4.3	9.8
PRE-014-B086-010719-2	1/7/2019	24"	N/A	N/A	N/A	N/A	N/A	6	170
PRE-014-B086-010719-3	1/7/2019	36"	N/A	N/A	N/A	N/A	N/A	11	160
PRE-014-B086-010719-4	1/7/2019	48"	N/A	N/A	N/A	N/A	N/A	15	130
PRE-014-B086-010719-5	1/7/2019	60"	N/A	N/A	N/A	N/A	N/A	***55***	***450***
PRE-014-B086-010719-6	1/7/2019	72"	N/A	N/A	N/A	N/A	N/A	***37***	42
PRE-014-B086-010719-7	1/7/2019	84"	N/A	N/A	N/A	N/A	N/A	1.9 U	2.4
PRE-014-B086-010719-8	1/7/2019	96"	N/A	N/A	N/A	N/A	N/A	2 U	2.9
PRE-014-B086-010719-9	1/7/2019	108"	N/A	N/A	N/A	N/A	N/A	2	2

Table 3.1.2 - *Kil-Tone Superfund Site-OU1-Phase II* **PROPERTY ID 014** **PRE-EXCAVATION INVESTIGATION SAMPLE RESULTS**		ANALYTE	Benzo(a) anthracene	Benzo(b) fluoranthene	Benzo(a) pyrene	Dieldrin	Heptachlor epoxide	Arsenic	Lead
		PALs (mg/kg)[1]	0.6 mg/kg	0.6 mg/kg	0.2 mg/kg	0.04 mg/kg	0.07 mg/kg	19 mg/kg	400 mg/kg
SAMPLE ID	DATE	DEPTH							
PRE-014-B086-010719-10	1/7/2019	120"	N/A	N/A	N/A	N/A	N/A	4.5	1.7
PRE-014-B086-010719-11	1/7/2019	132"	N/A	N/A	N/A	N/A	N/A	***21***	1.6
PRE-014-B086-010719-12	1/7/2019	144"	N/A	N/A	N/A	N/A	N/A	***260***	4.7
PRE-014-B086-020519-13	2/5/2019	156"	N/A	N/A	N/A	N/A	N/A	***260***	5.2
PRE-014-B086-020519-14	2/5/2019	168"	N/A	N/A	N/A	N/A	N/A	***100***	2.9
PRE-014-B086-020519-15	2/5/2019	180"	N/A	N/A	N/A	N/A	N/A	***260***	4.1
PRE-014-B086-020519-16	2/5/2019	192"	N/A	N/A	N/A	N/A	N/A	***170***	5.1
PRE-014-B087-010719-1	1/7/2019	12"	N/A	N/A	N/A	N/A	N/A	2.9	26
PRE-014-B087-010719-2	1/7/2019	24"	N/A	N/A	N/A	N/A	N/A	6.2	9.6
PRE-014-B087-010719-3	1/7/2019	36"	N/A	N/A	N/A	N/A	N/A	***71***	***520***
PRE-014-B087-010719-4	1/7/2019	48"	N/A	N/A	N/A	N/A	N/A	***130***	***2700***
PRE-014-B087-010719-5	1/7/2019	60"	N/A	N/A	N/A	N/A	N/A	***27***	130
PRE-014-B087-010719-6	1/7/2019	72"	N/A	N/A	N/A	N/A	N/A	1.3 J	8.5
PRE-014-B087-010719-6-1*	1/7/2019	72"	N/A	N/A	N/A	N/A	N/A	9.6	54
PRE-014-B087-010719-7	1/7/2019	84"	N/A	N/A	N/A	N/A	N/A	1.8 U	3.3
PRE-014-B087-010719-8	1/7/2019	96"	N/A	N/A	N/A	N/A	N/A	1.8 U	1.8
PRE-014-B087-010719-9	1/7/2019	108"	N/A	N/A	N/A	N/A	N/A	1.9 U	.7 J
PRE-014-B087-010719-10	1/7/2019	120"	N/A	N/A	N/A	N/A	N/A	2 U	1.3
PRE-014-B087-010719-11	1/7/2019	132"	N/A	N/A	N/A	N/A	N/A	***84***	2.3
PRE-014-B087-010719-12	1/7/2019	144"	N/A	N/A	N/A	N/A	N/A	***420***	4.9
PRE-014-B087-020519-13	2/5/2019	156"	N/A	N/A	N/A	N/A	N/A	***92***	4.8
PRE-014-B087-020519-14	2/5/2019	168"	N/A	N/A	N/A	N/A	N/A	***96***	1.8
PRE-014-B087-020519-15	2/5/2019	180"	N/A	N/A	N/A	N/A	N/A	***83***	3.2
PRE-014-B087-020519-16	2/5/2019	192"	N/A	N/A	N/A	N/A	N/A	***64***	2.9
PRE-014-B088-010719-1	1/7/2019	12"	N/A	N/A	N/A	N/A	N/A	14	110
PRE-014-B088-010719-2	1/7/2019	24"	N/A	N/A	N/A	N/A	N/A	***36***	***1200***
PRE-014-B088-010719-3	1/7/2019	36"	N/A	N/A	N/A	N/A	N/A	***99***	180
PRE-014-B088-010719-4	1/7/2019	48"	N/A	N/A	N/A	N/A	N/A	***390***	***500***
PRE-014-B088-010719-5	1/7/2019	60"	N/A	N/A	N/A	N/A	N/A	10	62
PRE-014-B088-010719-6	1/7/2019	72"	N/A	N/A	N/A	N/A	N/A	0.94 J	6.8
PRE-014-B088-010719-7	1/7/2019	84"	N/A	N/A	N/A	N/A	N/A	1.3 J	6.1
PRE-014-B088-010719-8	1/7/2019	96"	N/A	N/A	N/A	N/A	N/A	.84 J	5.5
PRE-014-B088-010719-9	1/7/2019	108"	N/A	N/A	N/A	N/A	N/A	1.9 U	1.3
PRE-014-B088-010719-10	1/7/2019	120"	N/A	N/A	N/A	N/A	N/A	2 U	3.2
PRE-014-B088-010719-11	1/7/2019	132"	N/A	N/A	N/A	N/A	N/A	3.1	3.3
PRE-014-B088-010719-12	1/7/2019	144"	N/A	N/A	N/A	N/A	N/A	1.9 U	3.1
PRE-014-B089-010719-1	1/7/2019	12"	N/A	N/A	N/A	N/A	N/A	7.5	100
PRE-014-B089-010719-2	1/7/2019	24"	N/A	N/A	N/A	N/A	N/A	6.8	130
PRE-014-B089-010719-2-1*	1/7/2019	24"	N/A	N/A	N/A	N/A	N/A	9.8	190
PRE-014-B089-010719-3	1/7/2019	36"	N/A	N/A	N/A	N/A	N/A	7.2	71

Table 3.1.2 - *Kil-Tone Superfund Site-OU1-Phase II* **PROPERTY ID 014** **PRE-EXCAVATION INVESTIGATION SAMPLE RESULTS**		ANALYTE	Benzo(a) anthracene	Benzo(b) fluoranthene	Benzo(a) pyrene	Dieldrin	Heptachlor epoxide	Arsenic	Lead
		PALs (mg/kg)[1]	0.6 mg/kg	0.6 mg/kg	0.2 mg/kg	0.04 mg/kg	0.07 mg/kg	19 mg/kg	400 mg/kg
SAMPLE ID	DATE	DEPTH							
PRE-014-B089-010719-4	1/7/2019	48"	N/A	N/A	N/A	N/A	N/A	***29***	200
PRE-014-B089-010719-5	1/7/2019	60"	N/A	N/A	N/A	N/A	N/A	17	47
PRE-014-B089-010719-6	1/7/2019	72"	N/A	N/A	N/A	N/A	N/A	***23***	55
PRE-014-B089-010719-7	1/7/2019	84"	N/A	N/A	N/A	N/A	N/A	3.9	6.7
PRE-014-B089-010719-8	1/7/2019	96"	N/A	N/A	N/A	N/A	N/A	1.8 U	3.3
PRE-014-B089-010719-9	1/7/2019	108"	N/A	N/A	N/A	N/A	N/A	1.8 U	2.5
PRE-014-B089-010719-10	1/7/2019	120"	N/A	N/A	N/A	N/A	N/A	2 U	.8 J
PRE-014-B089-010719-11	1/7/2019	132"	N/A	N/A	N/A	N/A	N/A	2.6	4.1
PRE-014-B089-010719-12	1/7/2019	144"	N/A	N/A	N/A	N/A	N/A	4.6	4.4
PRE-014-B090-010719-1	1/7/2019	12"	N/A	N/A	N/A	N/A	N/A	15	76
PRE-014-B090-010719-2	1/7/2019	24"	N/A	N/A	N/A	N/A	N/A	19	***5000***
PRE-014-B090-010719-3	1/7/2019	36"	N/A	N/A	N/A	N/A	N/A	***36***	150
PRE-014-B090-010719-4	1/7/2019	48"	N/A	N/A	N/A	N/A	N/A	***48***	***520***
PRE-014-B090-010719-5	1/7/2019	60"	N/A	N/A	N/A	N/A	N/A	4.7	390
PRE-014-B090-010719-6	1/7/2019	72"	N/A	N/A	N/A	N/A	N/A	6.1	42
PRE-014-B090-010719-7	1/7/2019	84"	N/A	N/A	N/A	N/A	N/A	2 U	4.7
PRE-014-B090-010719-8	1/7/2019	96"	N/A	N/A	N/A	N/A	N/A	1.8 U	3.3
PRE-014-B090-010719-9	1/7/2019	108"	N/A	N/A	N/A	N/A	N/A	2 U	1.3
PRE-014-B090-010719-10	1/7/2019	120"	N/A	N/A	N/A	N/A	N/A	2 U	.91 J
PRE-014-B090-010719-10-1*	1/7/2019	120"	N/A	N/A	N/A	N/A	N/A	1.9 U	.92 J
PRE-014-B090-010719-11	1/7/2019	132"	N/A	N/A	N/A	N/A	N/A	1.7	8.2
PRE-014-B090-010719-12	1/7/2019	144"	N/A	N/A	N/A	N/A	N/A	2.2	5
PRE-014-B091-010719-1	6/10/2019	12"	N/A	N/A	N/A	N/A	N/A	5.1	30
PRE-014-B091-010719-2	1/7/2019	24"	N/A	N/A	N/A	N/A	N/A	6.9	18
PRE-014-B091-010719-3	1/7/2019	36"	N/A	N/A	N/A	N/A	N/A	2.6 U	2.3
PRE-014-B091-010719-4	1/7/2019	48"	N/A	N/A	N/A	N/A	N/A	***46***	***990***
PRE-014-B091-010719-5	1/7/2019	60"	N/A	N/A	N/A	N/A	N/A	***98***	92
PRE-014-B091-010719-6	1/7/2019	72"	N/A	N/A	N/A	N/A	N/A	7.9	3.3
PRE-014-B091-010719-7	1/7/2019	84"	N/A	N/A	N/A	N/A	N/A	1.2 J	5.1
PRE-014-B091-010719-8	1/7/2019	96"	N/A	N/A	N/A	N/A	N/A	0.96 J	4.7
PRE-014-B091-010719-9	1/7/2019	108"	N/A	N/A	N/A	N/A	N/A	1.9 U	0.97
PRE-014-B091-010719-10	1/7/2019	120"	N/A	N/A	N/A	N/A	N/A	1.9 U	2.1
PRE-014-B091-010719-11	1/7/2019	132"	N/A	N/A	N/A	N/A	N/A	1.9 U	2.1
PRE-014-B091-010719-12	1/7/2019	144"	N/A	N/A	N/A	N/A	N/A	1.7 J	2.6
PRE-014-B121-061019-1	6/10/2019	12"	N/A	N/A	N/A	N/A	N/A	14	94
PRE-014-B121-061019-2	6/10/2019	24"	N/A	N/A	N/A	N/A	N/A	***21***	260
PRE-014-B121-061019-3	6/10/2019	36"	N/A	N/A	N/A	N/A	N/A	***45***	190
PRE-014-B121-061019-4	6/10/2019	48"	N/A	N/A	N/A	N/A	N/A	7.2	42
PRE-014-B121-061019-5	6/10/2019	60"	N/A	N/A	N/A	N/A	N/A	3.8	140
PRE-014-B121-061019-6	6/10/2019	72"	N/A	N/A	N/A	N/A	N/A	5.1	56

Table 3.1.2 - *Kil-Tone Superfund Site-OU1-Phase II* **PROPERTY ID 014** **PRE-EXCAVATION INVESTIGATION SAMPLE RESULTS**		ANALYTE	Benzo(a) anthracene	Benzo(b) fluoranthene	Benzo(a) pyrene	Dieldrin	Heptachlor epoxide	Arsenic	Lead
		PALs (mg/kg)[1]	0.6 mg/kg	0.6 mg/kg	0.2 mg/kg	0.04 mg/kg	0.07 mg/kg	19 mg/kg	400 mg/kg
SAMPLE ID	DATE	DEPTH							
PRE-014-B121-061019-7	6/10/2019	84"	N/A	N/A	N/A	N/A	N/A	1.9 U	3.6
PRE-014-B121-061019-8	6/10/2019	96"	N/A	N/A	N/A	N/A	N/A	2.1	3.7
PRE-014-B121-061019-9	6/10/2019	108"	N/A	N/A	N/A	N/A	N/A	2.7	8.2
PRE-014-B121-061019-10	6/10/2019	120"	N/A	N/A	N/A	N/A	N/A	1.2 J	2.1
PRE-014-B121-061019-11	6/10/2019	132"	N/A	N/A	N/A	N/A	N/A	2	1.6
PRE-014-B121-061019-12	6/10/2019	144"	N/A	N/A	N/A	N/A	N/A	2.3	2.6
PRE-014-B122-061019-1	6/10/2019	12"	N/A	N/A	N/A	N/A	N/A	12	63
PRE-014-B122-061019-2	6/10/2019	24"	N/A	N/A	N/A	N/A	N/A	7.7	51
PRE-014-B122-061019-2-1*	6/10/2019	24"	N/A	N/A	N/A	N/A	N/A	11	43
PRE-014-B122-061019-3	6/10/2019	36"	N/A	N/A	N/A	N/A	N/A	3.8	62
PRE-014-B122-061019-4	6/10/2019	48"	N/A	N/A	N/A	N/A	N/A	6.1	38
PRE-014-B122-061019-5	6/10/2019	60"	N/A	N/A	N/A	N/A	N/A	9	61
PRE-014-B122-061019-6	6/10/2019	72"	N/A	N/A	N/A	N/A	N/A	***20***	7.6
PRE-014-B122-061019-7	6/10/2019	84"	N/A	N/A	N/A	N/A	N/A	2.1	3.6
PRE-014-B122-061019-8	6/10/2019	96"	N/A	N/A	N/A	N/A	N/A	1 J	3.1
PRE-014-B122-061019-9	6/10/2019	108"	N/A	N/A	N/A	N/A	N/A	1.8 J	5.8
PRE-014-B122-061019-10	6/10/2019	120"	N/A	N/A	N/A	N/A	N/A	.95 J	2.8
PRE-014-B122-061019-11	6/10/2019	132"	N/A	N/A	N/A	N/A	N/A	1.4	2.3
PRE-014-B122-061019-12	6/10/2019	144"	N/A	N/A	N/A	N/A	N/A	1.8 J	2.8
PRE-014-B123-061019-1	6/10/2019	12"	N/A	N/A	N/A	N/A	N/A	4.8	3.7
PRE-014-B123-061019-1-1*	6/10/2019	12"	N/A	N/A	N/A	N/A	N/A	6.9	16
PRE-014-B123-061019-2	6/10/2019	24"	N/A	N/A	N/A	N/A	N/A	***45***	39
PRE-014-B123-061019-3	6/10/2019	36"	N/A	N/A	N/A	N/A	N/A	14	230
PRE-014-B123-061019-4	6/10/2019	48"	N/A	N/A	N/A	N/A	N/A	8.1	***500***
PRE-014-B123-061019-5	6/10/2019	60"	N/A	N/A	N/A	N/A	N/A	***35***	56
PRE-014-B123-061019-6	6/10/2019	72"	N/A	N/A	N/A	N/A	N/A	1.2 J	12
PRE-014-B123-061019-7	6/10/2019	84"	N/A	N/A	N/A	N/A	N/A	1.8 U	3.2
PRE-014-B123-061019-8	6/10/2019	96"	N/A	N/A	N/A	N/A	N/A	1.8 U	2.2
PRE-014-B123-061019-9	6/10/2019	108"	N/A	N/A	N/A	N/A	N/A	1.9 U	1.7
PRE-014-B123-061019-10	6/10/2019	120"	N/A	N/A	N/A	N/A	N/A	1.9 U	3.3
PRE-014-B123-061019-11	6/10/2019	132"	N/A	N/A	N/A	N/A	N/A	***30***	.95 J
PRE-014-B123-061019-12	6/10/2019	144"	N/A	N/A	N/A	N/A	N/A	***97***	3.1
PRE-014-B124-061019-1	6/10/2019	12"	N/A	N/A	N/A	N/A	N/A	8.6	120
PRE-014-B124-061019-2	6/10/2019	24"	N/A	N/A	N/A	N/A	N/A	12	120
PRE-014-B124-061019-3	6/10/2019	36"	N/A	N/A	N/A	N/A	N/A	14	110
PRE-014-B124-061019-4	6/10/2019	48"	N/A	N/A	N/A	N/A	N/A	13	120
PRE-014-B124-061019-5	6/10/2019	60"	N/A	N/A	N/A	N/A	N/A	11	120
PRE-014-B124-061019-6	6/10/2019	72"	N/A	N/A	N/A	N/A	N/A	1.8 U	6.3
PRE-014-B124-061019-7	6/10/2019	84"	N/A	N/A	N/A	N/A	N/A	1.4 J	5.6
PRE-014-B124-061019-8	6/10/2019	96"	N/A	N/A	N/A	N/A	N/A	1.8 U	2

Table 3.1.2 - *Kil-Tone Superfund Site-OU1-Phase II* **PROPERTY ID 014** **PRE-EXCAVATION INVESTIGATION SAMPLE RESULTS**		ANALYTE	Benzo(a) anthracene	Benzo(b) fluoranthene	Benzo(a) pyrene	Dieldrin	Heptachlor epoxide	Arsenic	Lead
		PALs (mg/kg)[1]	0.6 mg/kg	0.6 mg/kg	0.2 mg/kg	0.04 mg/kg	0.07 mg/kg	19 mg/kg	400 mg/kg
SAMPLE ID	DATE	DEPTH							
PRE-014-B124-061019-8-1*	6/10/2019	96"	N/A	N/A	N/A	N/A	N/A	.77 J	1.7
PRE-014-B124-061019-9	6/10/2019	108"	N/A	N/A	N/A	N/A	N/A	12	17
PRE-014-B124-061019-10	6/10/2019	120"	N/A	N/A	N/A	N/A	N/A	.89 J	2.8
PRE-014-B124-061019-11	6/10/2019	132"	N/A	N/A	N/A	N/A	N/A	5.5	2.8
PRE-014-B124-061019-12	6/10/2019	144"	N/A	N/A	N/A	N/A	N/A	1.9 J	4.8
PRE-014-B125-061019-1	6/10/2019	12"	N/A	N/A	N/A	N/A	N/A	6.6	87
PRE-014-B125-061019-2	6/10/2019	24"	N/A	N/A	N/A	N/A	N/A	7.2	48
PRE-014-B125-061019-3	6/10/2019	36"	N/A	N/A	N/A	N/A	N/A	***48***	***1600***
PRE-014-B125-061019-4	6/10/2019	48"	N/A	N/A	N/A	N/A	N/A	***40***	***2800***
PRE-014-B125-061019-5	6/10/2019	60"	N/A	N/A	N/A	N/A	N/A	***100***	***500***
PRE-014-B125-061019-6	6/10/2019	72"	N/A	N/A	N/A	N/A	N/A	7.1	64
PRE-014-B125-061019-7	6/10/2019	84"	N/A	N/A	N/A	N/A	N/A	.79 J	5.1
PRE-014-B125-061019-8	6/10/2019	96"	N/A	N/A	N/A	N/A	N/A	1.8 U	2.7
PRE-014-B125-061019-9	6/10/2019	108"	N/A	N/A	N/A	N/A	N/A	1.9 U	1.9
PRE-014-B125-061019-10	6/10/2019	120"	N/A	N/A	N/A	N/A	N/A	.78 J	2.9
PRE-014-B125-061019-11	6/10/2019	132"	N/A	N/A	N/A	N/A	N/A	1.7 J	4
PRE-014-B125-061019-12	6/10/2019	144"	N/A	N/A	N/A	N/A	N/A	.76 J	3.7
PRE-014-B126-061019-1	6/10/2019	12"	N/A	N/A	N/A	N/A	N/A	11	120
PRE-014-B126-061019-2	6/10/2019	24"	N/A	N/A	N/A	N/A	N/A	6	66
PRE-014-B126-061019-3	6/10/2019	36"	N/A	N/A	N/A	N/A	N/A	11	110
PRE-014-B126-061019-4	6/10/2019	48"	N/A	N/A	N/A	N/A	N/A	8.6	47
PRE-014-B126-061019-5	6/10/2019	60"	N/A	N/A	N/A	N/A	N/A	6.2	41
PRE-014-B126-061019-6	6/10/2019	72"	N/A	N/A	N/A	N/A	N/A	2.2	37
PRE-014-B126-061019-7	6/10/2019	84"	N/A	N/A	N/A	N/A	N/A	0.91	3.5
PRE-014-B126-061019-8	6/10/2019	96"	N/A	N/A	N/A	N/A	N/A	0.73 J	3.1
PRE-014-B126-061019-9	6/10/2019	108"	N/A	N/A	N/A	N/A	N/A	2 U	1.3
PRE-014-B126-061019-10	6/10/2019	120"	N/A	N/A	N/A	N/A	N/A	2 U	1.2
PRE-014-B126-061019-11	6/10/2019	132"	N/A	N/A	N/A	N/A	N/A	1.8 J	2.5
PRE-014-B126-061019-12	6/10/2019	144"	N/A	N/A	N/A	N/A	N/A	1.6 J	4.4
PRE-014-B127-061019-1	6/10/2019	12"	N/A	N/A	N/A	N/A	N/A	***51***	***490***
PRE-014-B127-061019-2	6/10/2019	24"	N/A	N/A	N/A	N/A	N/A	***20***	200
PRE-014-B127-061019-3	6/10/2019	36"	N/A	N/A	N/A	N/A	N/A	***28***	130
PRE-014-B127-061019-4	6/10/2019	48"	N/A	N/A	N/A	N/A	N/A	***46***	230
PRE-014-B127-061019-5	6/10/2019	60"	N/A	N/A	N/A	N/A	N/A	***32***	***12000***
PRE-014-B127-061019-6	6/10/2019	72"	N/A	N/A	N/A	N/A	N/A	1.8 U	83
PRE-014-B127-061019-7	6/10/2019	84"	N/A	N/A	N/A	N/A	N/A	1.9 U	3.6
PRE-014-B127-061019-8	6/10/2019	96"	N/A	N/A	N/A	N/A	N/A	1.9 U	1.5
PRE-014-B127-061019-9	6/10/2019	108"	N/A	N/A	N/A	N/A	N/A	2 U	25
PRE-014-B127-061019-9-1*	6/10/2019	108"	N/A	N/A	N/A	N/A	N/A	1.9 U	1.3
PRE-014-B127-061019-10	6/10/2019	120"	N/A	N/A	N/A	N/A	N/A	1.9 U	2.3

Table 3.1.2 - *Kil-Tone Superfund Site-OU1-Phase II* **PROPERTY ID 014** **PRE-EXCAVATION INVESTIGATION SAMPLE RESULTS**		ANALYTE	Benzo(a) anthracene	Benzo(b) fluoranthene	Benzo(a) pyrene	Dieldrin	Heptachlor epoxide	Arsenic	Lead
		PALs (mg/kg)[1]	0.6 mg/kg	0.6 mg/kg	0.2 mg/kg	0.04 mg/kg	0.07 mg/kg	19 mg/kg	400 mg/kg
SAMPLE ID	DATE	DEPTH							
PRE-014-B127-061019-11	6/10/2019	132"	N/A	N/A	N/A	N/A	N/A	1.3 J	2.7
PRE-014-B127-061019-12	6/10/2019	144"	N/A	N/A	N/A	N/A	N/A	2.5	4.5
PRE-014-B128-061119-1	6/11/2019	12"	N/A	N/A	N/A	N/A	N/A	***44***	140
PRE-014-B128-061119-2	6/11/2019	24"	N/A	N/A	N/A	N/A	N/A	***49***	47
PRE-014-B128-061119-3	6/11/2019	36"	N/A	N/A	N/A	N/A	N/A	***29***	***730***
PRE-014-B128-061119-4	6/11/2019	48"	N/A	N/A	N/A	N/A	N/A	5.4	81
PRE-014-B128-061119-5	6/11/2019	60"	N/A	N/A	N/A	N/A	N/A	7.3	140
PRE-014-B128-061119-6	6/11/2019	72"	N/A	N/A	N/A	N/A	N/A	.9 J	5.1
PRE-014-B128-061119-7	6/11/2019	84"	N/A	N/A	N/A	N/A	N/A	1.8 U	2.7
PRE-014-B128-061119-8	6/11/2019	96"	N/A	N/A	N/A	N/A	N/A	1.9 U	2.8
PRE-014-B128-061119-9	6/11/2019	108"	N/A	N/A	N/A	N/A	N/A	1.9 U	1.8
PRE-014-B128-061119-10	6/11/2019	120"	N/A	N/A	N/A	N/A	N/A	1.8 U	3.9
PRE-014-B128-061119-11	6/11/2019	132"	N/A	N/A	N/A	N/A	N/A	2 U	0.61
PRE-014-B128-061119-12	6/11/2019	144"	N/A	N/A	N/A	N/A	N/A	1.4 J	3.5
PRE-014-B129-061219-1	6/12/2019	12"	N/A	N/A	N/A	N/A	N/A	***20***	80
PRE-014-B129-061219-2	6/12/2019	24"	N/A	N/A	N/A	N/A	N/A	***72***	26
PRE-014-B129-061219-3	6/12/2019	36"	N/A	N/A	N/A	N/A	N/A	3.4	4
PRE-014-B129-061219-4	6/12/2019	48"	N/A	N/A	N/A	N/A	N/A	5.9	3.1
PRE-014-B129-061219-5	6/12/2019	60"	N/A	N/A	N/A	N/A	N/A	2.7	1.7
PRE-014-B129-061219-6	6/12/2019	72"	N/A	N/A	N/A	N/A	N/A	4.5	1.5
PRE-014-B129-061219-7	6/12/2019	84"	N/A	N/A	N/A	N/A	N/A	9.2	1
PRE-014-B130-061219-1	6/12/2019	12"	N/A	N/A	N/A	N/A	N/A	3.8	32
PRE-014-B130-061219-2	6/12/2019	24"	N/A	N/A	N/A	N/A	N/A	***9500***	***4300***
PRE-014-B130-061219-3	6/12/2019	36"	N/A	N/A	N/A	N/A	N/A	***230***	37
PRE-014-B130-061219-4	6/12/2019	48"	N/A	N/A	N/A	N/A	N/A	***150***	4
PRE-014-B130-061219-5	6/12/2019	60"	N/A	N/A	N/A	N/A	N/A	***52***	4.1
PRE-014-B130-061219-6	6/12/2019	72"	N/A	N/A	N/A	N/A	N/A	5.8	3
PRE-014-B130-061219-7	6/12/2019	84"	N/A	N/A	N/A	N/A	N/A	1.4 J	2.9
PRE-014-B131-061119-1	6/11/2019	12"	N/A	N/A	N/A	N/A	N/A	***20***	190
PRE-014-B131-061119-2	6/11/2019	24"	N/A	N/A	N/A	N/A	N/A	***24***	120
PRE-014-B131-061119-3	6/11/2019	36"	N/A	N/A	N/A	N/A	N/A	7.3	43
PRE-014-B131-061119-4	6/11/2019	48"	N/A	N/A	N/A	N/A	N/A	9.2	94
PRE-014-B131-061119-5	6/11/2019	60"	N/A	N/A	N/A	N/A	N/A	***400***	54
PRE-014-B131-061119-5-1*	6/11/2019	60"	N/A	N/A	N/A	N/A	N/A	***410***	81
PRE-014-B131-061119-6	6/11/2019	72"	N/A	N/A	N/A	N/A	N/A	***210***	7.6
PRE-014-B131-061119-7	6/11/2019	84"	N/A	N/A	N/A	N/A	N/A	***300***	11
PRE-014-B131-061119-8	6/11/2019	96"	N/A	N/A	N/A	N/A	N/A	***110***	6.3
PRE-014-B131-061119-9	6/11/2019	108"	N/A	N/A	N/A	N/A	N/A	***56***	3.6
PRE-014-B132-061119-1	6/11/2019	12"	N/A	N/A	N/A	N/A	N/A	***250***	260
PRE-014-B132-061119-2	6/11/2019	24"	N/A	N/A	N/A	N/A	N/A	***380***	52

Table 3.1.2 - *Kil-Tone Superfund Site-OU1-Phase II* **PROPERTY ID 014** **PRE-EXCAVATION INVESTIGATION SAMPLE RESULTS**		ANALYTE	Benzo(a) anthracene	Benzo(b) fluoranthene	Benzo(a) pyrene	Dieldrin	Heptachlor epoxide	Arsenic	Lead
		PALs (mg/kg)[1]	0.6 mg/kg	0.6 mg/kg	0.2 mg/kg	0.04 mg/kg	0.07 mg/kg	19 mg/kg	400 mg/kg
SAMPLE ID	DATE	DEPTH							
PRE-014-B132-061119-3	6/11/2019	36"	N/A	N/A	N/A	N/A	N/A	***170***	6.1
PRE-014-B132-061119-4	6/11/2019	48"	N/A	N/A	N/A	N/A	N/A	***66***	2.1
PRE-014-B132-061119-5	6/11/2019	60"	N/A	N/A	N/A	N/A	N/A	***72***	2.1
PRE-014-B132-061119-6	6/11/2019	72"	N/A	N/A	N/A	N/A	N/A	17	0.9
PRE-014-B132-061119-7	6/11/2019	84"	N/A	N/A	N/A	N/A	N/A	***90***	1.1
PRE-014-B132-061119-8	6/11/2019	96"	N/A	N/A	N/A	N/A	N/A	***130***	1.6
PRE-014-B133-061219-1	6/12/2019	12"	N/A	N/A	N/A	N/A	N/A	***26***	***640***
PRE-014-B133-061219-2	6/12/2019	24"	N/A	N/A	N/A	N/A	N/A	***380***	76
PRE-014-B133-061219-3	6/12/2019	36"	N/A	N/A	N/A	N/A	N/A	***49***	9.9
PRE-014-B133-061219-4	6/12/2019	48"	N/A	N/A	N/A	N/A	N/A	1.9 U	2.6
PRE-014-B133-061219-5	6/12/2019	60"	N/A	N/A	N/A	N/A	N/A	2 U	1.9
PRE-014-B133-061219-6	6/12/2019	72"	N/A	N/A	N/A	N/A	N/A	2 U	3.9
PRE-014-B133-061219-7	6/12/2019	84"	N/A	N/A	N/A	N/A	N/A	1.9 U	3.1
PRE-014-B133-061219-7-1*	6/12/2019	84"	N/A	N/A	N/A	N/A	N/A	13	2.9
PRE-014-B134-061219-1	6/12/2019	12"	N/A	N/A	N/A	N/A	N/A	9.2	120
PRE-014-B134-061219-2	6/12/2019	24"	N/A	N/A	N/A	N/A	N/A	7.4	79
PRE-014-B134-061219-3	6/12/2019	36"	N/A	N/A	N/A	N/A	N/A	4.9	28
PRE-014-B134-061219-4	6/12/2019	48"	N/A	N/A	N/A	N/A	N/A	4.8	37
PRE-014-B134-061219-5	6/12/2019	60"	N/A	N/A	N/A	N/A	N/A	3.5	120
PRE-014-B134-061219-6	6/12/2019	72"	N/A	N/A	N/A	N/A	N/A	13	36
PRE-014-B134-061219-7	6/12/2019	84"	N/A	N/A	N/A	N/A	N/A	***170***	9.8
PRE-014-B134-061219-8	6/12/2019	96"	N/A	N/A	N/A	N/A	N/A	1.4 J	2.4
PRE-014-B134-061219-9	6/12/2019	108"	N/A	N/A	N/A	N/A	N/A	7.5	13
PRE-014-B135-061219-1	6/12/2019	12"	N/A	N/A	N/A	N/A	N/A	3.3	25
PRE-014-B135-061219-2	6/12/2019	24"	N/A	N/A	N/A	N/A	N/A	***180***	340
PRE-014-B135-061219-3	6/12/2019	36"	N/A	N/A	N/A	N/A	N/A	***130***	8.1
PRE-014-B135-061219-4	6/12/2019	48"	N/A	N/A	N/A	N/A	N/A	.86 J	3.3
PRE-014-B135-061219-5	6/12/2019	60"	N/A	N/A	N/A	N/A	N/A	***47***	8.5
PRE-014-B135-061219-6	6/12/2019	72"	N/A	N/A	N/A	N/A	N/A	***140***	3.1
PRE-014-B135-061219-7	6/12/2019	84"	N/A	N/A	N/A	N/A	N/A	***45***	3.2
PRE-014-B135-061219-8	6/12/2019	96"	N/A	N/A	N/A	N/A	N/A	***43***	3.1
PRE-014-B136-061219-1	6/12/2019	12"	N/A	N/A	N/A	N/A	N/A	3.1	23
PRE-014-B136-061219-2	6/12/2019	24"	N/A	N/A	N/A	N/A	N/A	***23***	44
PRE-014-B136-061219-3	6/12/2019	36"	N/A	N/A	N/A	N/A	N/A	2 U	6.3
PRE-014-B136-061219-4	6/12/2019	48"	N/A	N/A	N/A	N/A	N/A	2.1 U	6.4
PRE-014-B136-061219-5	6/12/2019	60"	N/A	N/A	N/A	N/A	N/A	.9 J	5.1
PRE-014-B136-061219-6	6/12/2019	72"	N/A	N/A	N/A	N/A	N/A	.96 J	5.2
PRE-014-B136-061219-7	6/12/2019	84"	N/A	N/A	N/A	N/A	N/A	1.5 J	4.9
PRE-014-B136-061219-7	6/12/2019	84"	N/A	N/A	N/A	N/A	N/A	1 J	4.2
PRE-014-B136-061219-8	6/12/2019	96"	N/A	N/A	N/A	N/A	N/A	2.1 U	3.6

Table 3.1.2 - *Kil-Tone Superfund Site-OU1-Phase II* **PROPERTY ID 014** **PRE-EXCAVATION INVESTIGATION SAMPLE RESULTS**		ANALYTE	Benzo(a) anthracene	Benzo(b) fluoranthene	Benzo(a) pyrene	Dieldrin	Heptachlor epoxide	Arsenic	Lead
		PALs (mg/kg)[1]	0.6 mg/kg	0.6 mg/kg	0.2 mg/kg	0.04 mg/kg	0.07 mg/kg	19 mg/kg	400 mg/kg
SAMPLE ID	DATE	DEPTH							
PRE-014-B137-061119-1	6/11/2019	12"	N/A	N/A	N/A	N/A	N/A	***20***	120
PRE-014-B137-061119-2	6/11/2019	24"	N/A	N/A	N/A	N/A	N/A	***23***	140
PRE-014-B137-061119-3	6/11/2019	36"	N/A	N/A	N/A	N/A	N/A	2.9	34
PRE-014-B137-061119-4	6/11/2019	48"	N/A	N/A	N/A	N/A	N/A	1.8 J	12
PRE-014-B137-061119-5	6/11/2019	60"	N/A	N/A	N/A	N/A	N/A	10	59
PRE-014-B137-061119-6	6/11/2019	72"	N/A	N/A	N/A	N/A	N/A	***38***	0.86
PRE-014-B137-061119-7	6/11/2019	84"	N/A	N/A	N/A	N/A	N/A	3.3	19
PRE-014-B137-061119-8	6/11/2019	96"	N/A	N/A	N/A	N/A	N/A	1.8 U	1.5
PRE-014-B137-061119-9	6/11/2019	108"	N/A	N/A	N/A	N/A	N/A	.86 J	4.2
PRE-014-B137-061119-10	6/11/2019	120"	N/A	N/A	N/A	N/A	N/A	1.9 U	3.3
PRE-014-B138-061119-1	6/11/2019	12"	N/A	N/A	N/A	N/A	N/A	***26***	130
PRE-014-B138-061119-2	6/11/2019	24"	N/A	N/A	N/A	N/A	N/A	***23***	130
PRE-014-B138-061119-3	6/11/2019	36"	N/A	N/A	N/A	N/A	N/A	***20***	150
PRE-014-B138-061119-4	6/11/2019	48"	N/A	N/A	N/A	N/A	N/A	2.8	29
PRE-014-B138-061119-5	6/11/2019	60"	N/A	N/A	N/A	N/A	N/A	15	240
PRE-014-B138-061119-6	6/11/2019	72"	N/A	N/A	N/A	N/A	N/A	3.5	13
PRE-014-B138-061119-7	6/11/2019	84"	N/A	N/A	N/A	N/A	N/A	1.8 U	4.6
PRE-014-B138-061119-8	6/11/2019	96"	N/A	N/A	N/A	N/A	N/A	1.9 U	2
PRE-014-B138-061119-9	6/11/2019	108"	N/A	N/A	N/A	N/A	N/A	.9 J	3.5
PRE-014-B138-061119-10	6/11/2019	120"	N/A	N/A	N/A	N/A	N/A	4.5	6
PRE-014-B138-061119-11	6/11/2019	132"	N/A	N/A	N/A	N/A	N/A	1.1 J	5.3
PRE-014-B138-061119-12	6/11/2019	144"	N/A	N/A	N/A	N/A	N/A	6.5	5.9
PRE-014-B138-061119-12-1*	6/11/2019	144"	N/A	N/A	N/A	N/A	N/A	11	3.9

NOTES:
[1] NJAC 7:26D Soil Remediation Criteria for Residential Direct Contact
All sample results reported in mg/kg
mg/kg = milligram(s) per kilogram
U - Result not detected
J - Parameter not detected; quantitation is an estimation
N/A - Non-applicable
Bold Italicized results indicate an exceedance to Project Action Limits (PALs)
*Indicates duplicate sample

4. CONTACT INFORMATION

Table 4.1 summarizes the key project personnel contacts.

Table 4.1 Key Project Contacts

Name	Title	Organization	Address
Caroline Kwan	Project Manager	EPA	290 Broadway, 18th Floor New York, NY 10007-1866
Dan Patel	Project Manager	EPA	290 Broadway, 18th Floor New York, NY 10007-1866
Steve Creighton	CO Representative	USACE	1405 N Mill Road Vineland, NJ 08360
Ian Stewart	Project Engineer	USACE	1405 N Mill Road Vineland, NJ 08360
Terry Mower	Construction Representative	USACE	1405 N Mill Road Vineland, NJ 08360
Jesse Albert	Project Manager	SES	2749 Lockport Road Niagara Fall, NY 14305
Perry Novak	Site Superintendent	SES	2749 Lockport Road Niagara Fall, NY 14305
Eric Delellis	Site CQCSM	SES	2749 Lockport Road Niagara Fall, NY 14305
Mira Juengling	Site SSHO	SES	2749 Lockport Road Niagara Fall, NY 14305

5. REFERENCES

USEPA September 2016, Record of Decision for OU1

Sevenson Environmental Services, Inc. Site Specific Work Plans:

- Site Safety and Health Plan (including Activity Hazard Analysis Plan)
- Accident Prevention Plan
- Environmental Protection Plan
- Perimeter Air Monitoring Plan
- Sampling and Analysis Plan
- Contractor Quality Control Plan
- Temporary Site Facility Layout Plan
- Security Plan
- Excavation and Handling Plan
- Traffic Control and Transportation Plan
- Waste Management Plan
- Soil Erosion and Sediment Control Plan
- Dewatering Work Plan
- Dust Control Plan
- Spill Prevention and Control Plan
- Excavation and Support Plan
- Quality Assurance Plan (QAPP)

Appendix A Signed Access Form

CONSENT FOR ACCESS
Former Kil-Tone Company Superfund Site

Property Owner(s) Frodicio + Mildred Ramos

Address of Property: 527 E Cherry St Vineland NJ

I am the owner of the property listed above. I understand that EPA is conducting a remedial design and remedial action for the Former Kil-Tone Company Superfund Site under its response and enforcement responsibilities as authorized by the Superfund law, also known as the Comprehensive Environmental Response, Compensation, and Liability Act, 42 U.S.C. §§ 9601-9675.

I also understand that EPA needs access to my property to conduct response activities in connection with the Former Kil-Tone Company Superfund Site.

I hereby consent to allow officers, employees and authorized representatives of EPA to enter and have access to my property in order to perform remedial activities including, but not limited to, the following tasks: 1) the collection of soil samples; 2) the excavation of contaminated soil; 3) off-site disposal of contaminated soil; and 4) backfill of excavated areas with clean fill.

I understand that such representatives may include contractors and/or subcontractors hired by EPA, other federal and state agencies, and their agents. I also understand and agree that the above-mentioned representatives may enter upon my property at reasonable times as mutually scheduled.

I recognize that performance of such actions may require some disturbance to the property and EPA will minimize any disturbance as much as possible. Areas of disturbance will be restored to prior conditions by EPA.

I understand that EPA requires its contractors to maintain comprehensive vehicle liability insurance and comprehensive general liability insurance.

This written permission is given by me voluntarily and without threats or promises of any kind. By my signature, I also acknowledge that I am fully authorized to grant such access.

By: Mildred Ramos

Name

11/1/18

Date

Main Contact Telephone Number

856-332-5398

Best time to call:

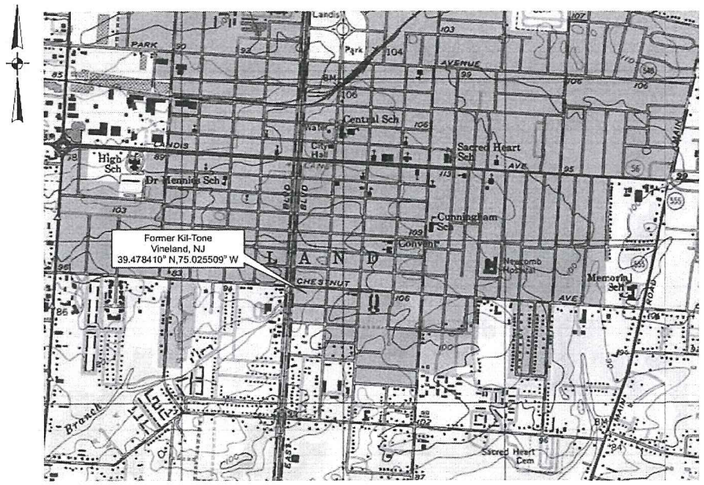
Tenant Name (if applicable)

Tenant Contact Telephone Number (if applicable)

Appendix B Design Drawings

KIL-TONE OU-1 SUPERFUND SITE PHASE 2
VINELAND, NEW JERSEY

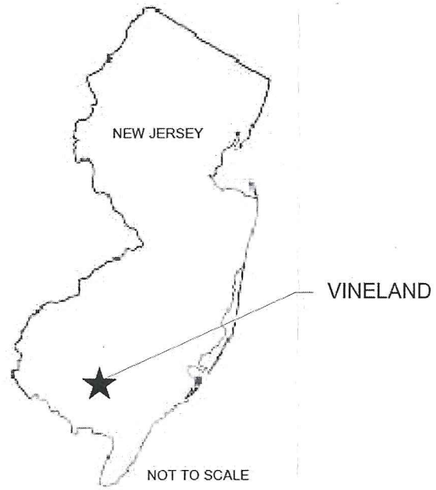
PROPERTY ID NOS. 001, 003, 004, 006, 007, 008, 009, 010, 011, 012, 013, 014, 015, 016, 023, 025, 026, 027, 028, 029, 032, 034, 035, 072, 073, 074, 084



SITE LOCATION MAP
APPROXIMATE SCALE IN FEET
0 1000 2000 3000

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

US Army Corps of Engineers



NOT TO SCALE

VICINITY MAP
NOT TO SCALE

February 2018

SIGNATURES AFFIXED BELOW INDICATE OFFICIAL RECOMMENDATION AND APPROVAL OF DRAWINGS IN THIS SET AS INDEXED ON THIS PLATE

APPROVAL RECOMMENDED: 3-2-2018
CHIEF, ENVIRONMENTAL ENGINEERING BRANCH DATE

APPROVED: 3/7/18
CHIEF, ENGINEERING DIVISION, P.E. DATE

THIS PROJECT WAS DESIGNED BY THE KANSAS CITY DISTRICT OF THE U.S. ARMY CORPS OF ENGINEERS. THE INITIALS OR SIGNATURES AND REGISTRATION DESIGNATIONS OF INDIVIDUALS THAT APPEAR ON THESE PROJECT DOCUMENTS ARE WITHIN THE SCOPE OF THEIR EMPLOYMENT AS REQUIRED BY ER 1110-1-8152.

U.S. Army Corps of Engineers
KANSAS CITY DISTRICT

MARK	DESCRIPTION	DATE

DESIGNED BY: A. MASON
DRAWN BY: C. BOWSER
CHECKED BY: D. MELLEMA
SUBMITTED BY: J. LEIBBERT
SIZE:
ISSUE DATE:
SOLICITATION NO.:
CONTRACT NO.:

KANSAS CITY DISTRICT
601 E 12th STREET
Kansas City, MO 64106

OU-1 REMEDIAL DESIGN PHASE 2
KIL-TONE SUPERFUND SITE
VINELAND, NJ

COVER SHEET

SHEET ID
G-01

DRAWING INDEX

GENERAL NOTES

1. CONTRACTOR SHALL PROTECT EXISTING FEATURES NOT DESIGNATED TO BE REMOVED AND RESTORE FROM DAMAGE. AT THE DIRECTION OF THE COR, CONTRACTOR SHALL REPLACE OR REPAIR ANY DAMAGED FEATURE.
2. THE CONTRACTOR SHALL INVENTORY AND CLEAR EACH OWNER'S PROPERTY FROM WITHIN THE WORK AREA AND SAFELY STORE ON-SITE. FOLLOWING THE COMPLETION OF THE WORK, THE CONTRACTOR SHALL RETURN ITEMS TO THEIR ORIGINAL LOCATIONS. CONTRACTOR SHALL REPAIR OR REPLACE ANY ITEMS DAMAGED DURING STORAGE OR RELOCATION OF EACH OWNER'S PROPERTY. THE CONTRACTOR SHALL COORDINATE TEMPORARY OFF-SITE STORAGE OF OWNER'S PROPERTY WITH COR, IF NECESSARY.
3. CONTRACTOR SHALL REMOVE PORTIONS OF THE EXISTING FENCE TO ACCOMMODATE THE EXCAVATION ACTIVITIES. CONTRACTOR SHALL REMOVE FENCE, POSTS, GATES, AND APPURTENANCES. CLEAN AND STOCKPILE MATERIALS FOR REUSE OR REPLACE WITH EQUIVALENT IN ACCORDANCE WITH LOCAL CODES AS PART OF THE SITE RESTORATION. CONTRACTOR SHALL INSTALL TEMPORARY FENCING UNTIL PERMANENT FENCING IS REINSTALLED.
4. CONTRACTOR SHALL PERFORM SOIL EROSION AND SEDIMENT CONTROL IN ACCORDANCE WITH SECTION 01356A.
5. PROPERTY BOUNDARIES ON THESE MAPS ARE CONSIDERED APPROXIMATE.
6. THE HORIZONTAL DATUM COORDINATE SYSTEM IS THE NEW JERSEY STATE PLANE COORDINATE SYSTEM, NORTH AMERICAN DATUM OF 1983, CT (NAD83).
7. BASE MAPPING AND BORING LOCATIONS WERE PROVIDED BY TETRATECH. PROPERTY BOUNDARIES WERE SURVEYED IN 2017.

EXCAVATION NOTES

1. CONTRACTOR SHALL ESTABLISH ON-SITE SURVEY CONTROL TO ACCURATELY RESTORE THE SITE TO THE ORIGINAL GRADES, ELEVATIONS, AND CONDITIONS. AT THE CONCLUSION OF THE WORK, CONTRACTOR SHALL DEVELOP A DETAILED FINAL AS-BUILT DRAWING. THIS DRAWING WILL BE USED IN CONJUNCTION WITH THE EXISTING SITE SURVEY TO DETERMINE WORK QUANTITIES.
2. CONTRACTOR SHALL PROVIDE TEMPORARY ACCESS TO AND FROM THE SITE TO EFFECTIVELY PERFORM THE WORK. CONTRACTOR SHALL PROTECT CURBS ADJACENT TO PROJECT SITE. CONTRACTOR SHALL CLEAN ACCESS WAYS AS NEEDED DURING AND AT THE CONCLUSION OF THE WORK. UNLESS OTHERWISE NOTED, ANY CURB OR CONCRETE DAMAGED SHALL BE REPLACED BY THE CONTRACTOR AT THE DIRECTION OF THE COR. CONTRACTOR SHALL COORDINATE ACCESS WITH THE PROPERTY OWNERS PRIOR TO MOBILIZATION.
3. EXCAVATIONS ADJACENT TO ALL BUILDING FOUNDATION AND CRAWL SPACES SHALL BE PERFORMED IN ACCORDANCE WITH THE TYPICAL EXCAVATION SECTION FOOTING DETAIL SHOWN ON DRAWING TD-1. IF THE EXCAVATION EXTENDS BELOW THE FOOTING OR INTO THE CRAWL SPACE. THE CONTRACTOR SHALL NOTIFY THE COR AND THE EXCAVATION SHALL PROGRESS AS DIRECTED BY THE COR.
4. CONTRACTOR SHALL COLLECT, TREAT AND DISPOSE OF GROUNDWATER AND SURFACE WATER THAT ACCUMULATES IN EXCAVATION AREAS IN ACCORDANCE WITH SECTION 02310. GROUNDWATER IS ANTICIPATED TO BE BELOW THE EXCAVATION LIMITS. NO DEWATERING IS ANTICIPATED DURING EXCAVATION ACTIVITIES
5. CONTRACTOR SHALL PROVIDE ALL SHORING, SHEETING, AND BRACING NECESSARY TO CONDUCT THE WORK SAFELY AND PREVENT DAMAGE TO ADJACENT UTILITIES AND STRUCTURES.
6. INSPECT BASEMENT WALLS AND REPORT STRUCTURAL DEFECTS OR CRACKS. PROVIDE INFORMATION TO DOCUMENT AND MONITOR MOVEMENT OF STRUCTURAL CRACKS EXCEEDING ⅛" DURING DEMOLITION AND CONSTRUCTION.
7. COORDINATES FOR THE LAYOUT OF THE EXCAVATION AREAS CAN BE OBTAINED FROM THE BASE MAP FILES AND WILL BE PROVIDED TO THE SELECTED CONTRACTOR.

RESTORATION NOTES

1. CONTRACTOR SHALL RESTORE ALL DISTURBED AND EXCAVATED AREAS TO PRE-CONSTRUCTION GRADES AND ELEVATIONS UNLESS OTHERWISE NOTED OR SPECIFIED.
2. CONTRACTOR SHALL REINSTALL, OR REPLACE WITH EQUIVALENT, CHAIN LINK OR WOOD PANEL FENCE TO THEIR ORIGINAL LOCATIONS AND IN ACCORDANCE WITH LOCAL CODES. POSTS SHALL BE RESET AT ORIGINAL LOCATIONS IN CONCRETE FOR POST SUPPORT. ANY DAMAGED MATERIALS SHALL BE REPLACED AS DIRECTED BY THE COR.
3. CONTRACTOR SHALL REINSTALL, OR REPLACE ALL FEATURES TEMPORARILY REMOVED FROM THE LIMITS OF CONSTRUCTION.
4. CONTRACTOR SHALL RESTORE ADJACENT PROPERTIES DISTURBED DURING THE WORK TO PRE-CONSTRUCTION CONDITIONS.
5. CONTRACTOR SHALL REMOVE EROSION CONTROL MEASURES AND CLEAN SITE FOLLOWING RESTORATION.
6. CONTRACTOR SHALL REPLACE TREES REMOVED DURING REMEDIATION ACTIVITIES.
7. PROTECT ALL TREES. TREES SHALL ONLY BE REMOVED AT THE DIRECTION OF THE COR. PROVIDE A SUBMITTAL FROM A NEW JERSEY CERTIFIED TREE EXPERT. THE SUBMITTAL SHALL REPORT THE CONDITION OF ALL TREES ON THE PROPERTY. REPORT SHALL ADDRESS LIKELIHOOD OF TREE SURVIVAL/ OUTCOME BASED ON CURRENT CONDITION AND THE IMPACT OF EXPECTED EXCAVATION DEPTH SURROUNDING THE TREE. ADDRESS THE STABILITY OF THE TREE BASED ON WIND LOAD AND EXCAVATION DEPTH. PROVIDE RECOMMENDATION FOR REMOVAL AND REPLANTING NEW TREE BASED ON PROXIMITY TO STRUCTURES SCHEDULED FOR DEMOLITION AND RECONSTRUCTION.
8. DEMOLISH AND REPLACE OR MOVE AND REINSTALL FEATURES OUTSIDE THE FOOTPRINT OF THE HOUSE (GARAGES, SHEDS, PLAY SETS, ETC.) IN ACCORDANCE WITH THE APPROVED DEMOLITION PLAN AND AT THE DIRECTION OF THE COR.
9. EXCAVATION NEAR UTILITY POLES SHALL BE COORDINATED WITH UTILITY FOR BRACING REQUIREMENTS AND ANY OTHER REQUIREMENTS.
10. RESTORE IN KIND IN ACCORDANCE WITH THE APPROVED RESTORATION PLAN AT THE DIRECTION OF THE COR. SEE PROPERTY INVENTORY REPORTS ATTACHED TO DRAWINGS FOR INVENTORY OF ITEMS AT EACH PROPERTY.

LEGEND (10 SCALE)

×	SOIL SAMPLE LOCATION
(19, 400) @ 0-6"	(AS, PB) CONCENTRATIONS (ppm) @ DEPTH
158.66 CONC.MON.FND.	CONCRETE MONUMENT FOUND
158.66 CAPPED REBAR FND.	CAPPED REBAR FOUND
158.38 REBAR FND.	REBAR FOUND
159.46 DRILL HOLE FND.	DRILL HOLE FOUND
158.57 I.P.FND.	IRON PIPE FOUND
158.7 FENCE POST.PROPCOR	OLD FENCE POST
173.34 X-CUT FND. 30060	X-MARK FOUND
173.46 MAG NAIL FND. 30050	MAG NAIL FOUND
173.52 MAG NAIL SET 30051	MAG NAIL SET
GND LT	GROUND LIGHT
158.82 LP	LIGHT POLE
CB 20"x36" GRATE=158.82'	CATCH BASIN 20"x36" (CURB)
153.74 FLOORDRAIN	FLOOR DRAIN
175.69 GV	GAS VALVE
158.82 CO	SANITARY CLEANOUT
SAN MH RIM=158.90'	SANITARY MANHOLE
POST	POST (WOOD/METAL)
ROOF DRAIN W/SPOUT	ROOF DRAIN WITH DOWN SPOUT
158.82	SIGN
TEL MH RIM=158.06'	TELEPHONE MANHOLE
TRAF.SIGNAL POLE	TRAFFIC SIGNAL SUPPORT POLE
POWER POLE	POWER POLE
185.7 UP 12000X-XXXXX	UTILITY POLE WITH LIGHT
193.6	GUY ANCHOR
158.82 FH	FIRE HYDRANT
205.69 WATER METER	WATER METER
236.89 WV	WATER VALVE
159.8 4' SHRUB	SHRUB WITH SIZE
159.5 12" TREE	PINE TREE WITH SIZE
	TREE STUMP
12" TREE	DECIDUOUS TREE WITH SIZE
	HEDGE LINE
	PROPERTY LINE
	CURB
	BUILDING WALL
	CONCRETE WALK/PAD/PAVEMENT
SAN	SANITARY SEWER LINE
G	GAS LINE
W	WATER LINE
OE	OVERHEAD ELECTRIC
UE	UNDERGROUND ELECTRIC
COMM	OVERHEAD COMMUNICATION
U	UNKNOWN LINE
x x	FENCE

U.S. Army Corps of Engineers
KANSAS CITY DISTRICT

MARK	DESCRIPTION	DATE

DESIGNED BY: A. MASON
DRAWN BY: C. BONNEY
CHECKED BY:
SUBMITTED BY: J.J. LEIBBERT
ISSUE DATE:
SOLICITATION NO.:
CONTRACT NO.:
SIZE:

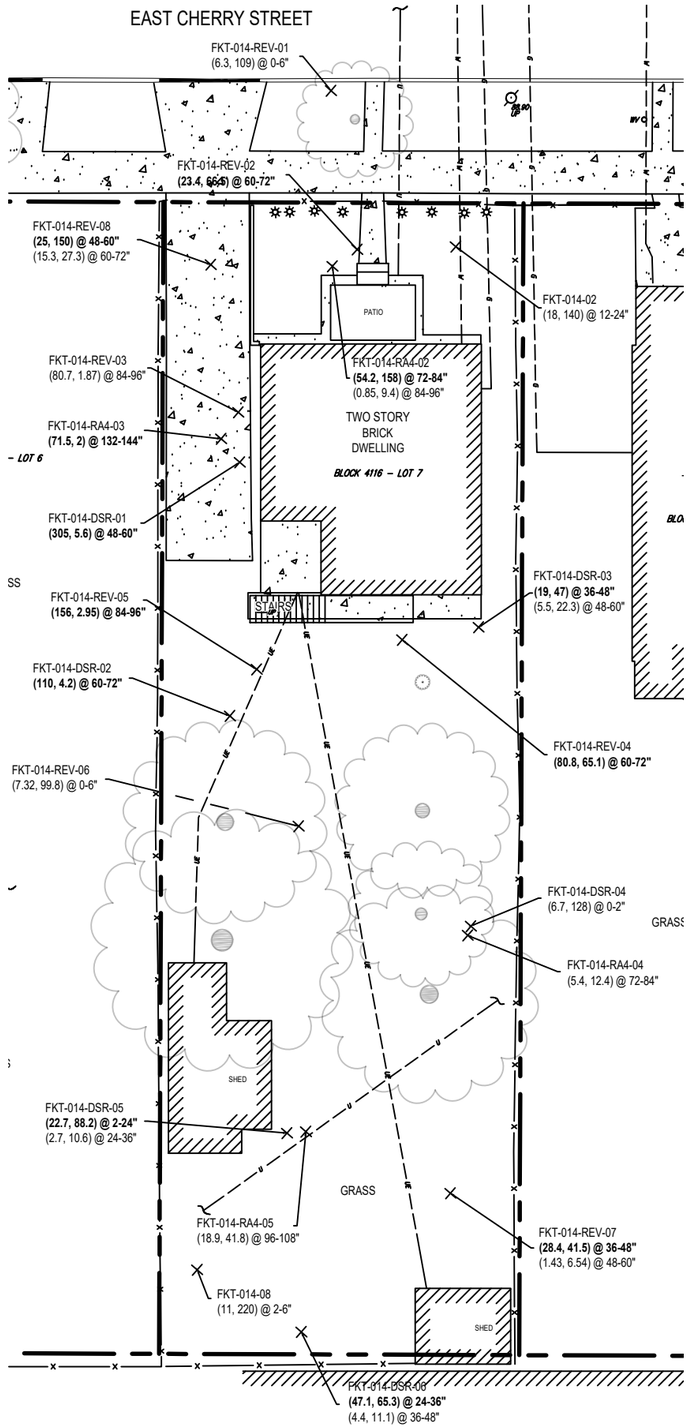
KANSAS CITY DISTRICT
601 E. 12th STREET
Kansas City, MO 64106

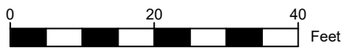
OU-1 REMEDIAL DESIGN PHASE 2
KIL-TONE SUPERFUND SITE
WINELAND, NJ

DRAWING INDEX, LEGEND, AND NOTES

SHEET ID
G-02

PROPERTY 014		
SOIL BORING LOCATIONS		
ID#	Y = NORTHING	X = EASTING
FKT-014-02	235921.6071	343953.0623
FKT-014-08	235782.088	343908.0505
FKT-014-DSR-01	235893.642	343921.1791
FKT-014-DSR-02	235858.5656	343917.5528
FKT-014-DSR-03	235868.6338	343952.8021
FKT-014-DSR-04	235827.2595	343949.0485
FKT-014-DSR-05	235800.2225	343921.7077
FKT-014-DSR-06	235772.5238	343921.9219
FKT-014-RA4-02	235919.9857	343935.7835
FKT-014-RA4-03	235897.0708	343918.8159
FKT-014-RA4-04	235826.0276	343948.5364
FKT-014-RA4-05	235800.254	343924.3442
FKT-014-REV-01	235944.3436	343937.1591
FKT-014-REV-02	235922.0901	343939.3589
FKT-014-REV-03	235900.5921	343921.4337
FKT-014-REV-04	235867.5787	343942.1007
FKT-014-REV-05	235864.7893	343921.6667
FKT-014-REV-06	235842.6729	343926.0797
FKT-014-REV-07	235790.423	343943.8261
FKT-014-REV-08	235921.2984	343918.9423





U.S. Army Corps of Engineers
KANSAS CITY DISTRICT

DATE | DESCRIPTION | MARK

DESIGNED BY: A. MASON
DRAWN BY: C. BONNEY
CHECKED BY: M. BRETTHAUER
SUBMITTED BY: J.J. LEIBBERT
SIZE:
ISSUE DATE:
SOLICITATION NO.:
CONTRACT NO.:

KANSAS CITY DISTRICT
601 E. 12th STREET
Kansas City, MO 64106

OU-1 REMEDIAL DESIGN PHASE 2
KIL-TONE SUPERFUND SITE
WIELAND, NJ

PROPERTY ID 014
BLOCK 4116 - LOT 7
EXISTING CONDITIONS / BORING PLAN

SHEET ID
G-17A

PROPERTY 014		
SOIL BORING LOCATIONS		
ID#	Y = NORTHING	X = EASTING
FKT-014-02	235921.6071	343953.0623
FKT-014-08	235782.088	343908.0505
FKT-014-DSR-01	235893.642	343921.1791
FKT-014-DSR-02	235858.5656	343917.5528
FKT-014-DSR-03	235868.6338	343952.8021
FKT-014-DSR-04	235827.2595	343949.0485
FKT-014-DSR-05	235800.2225	343921.7077
FKT-014-DSR-06	235772.5238	343921.9219
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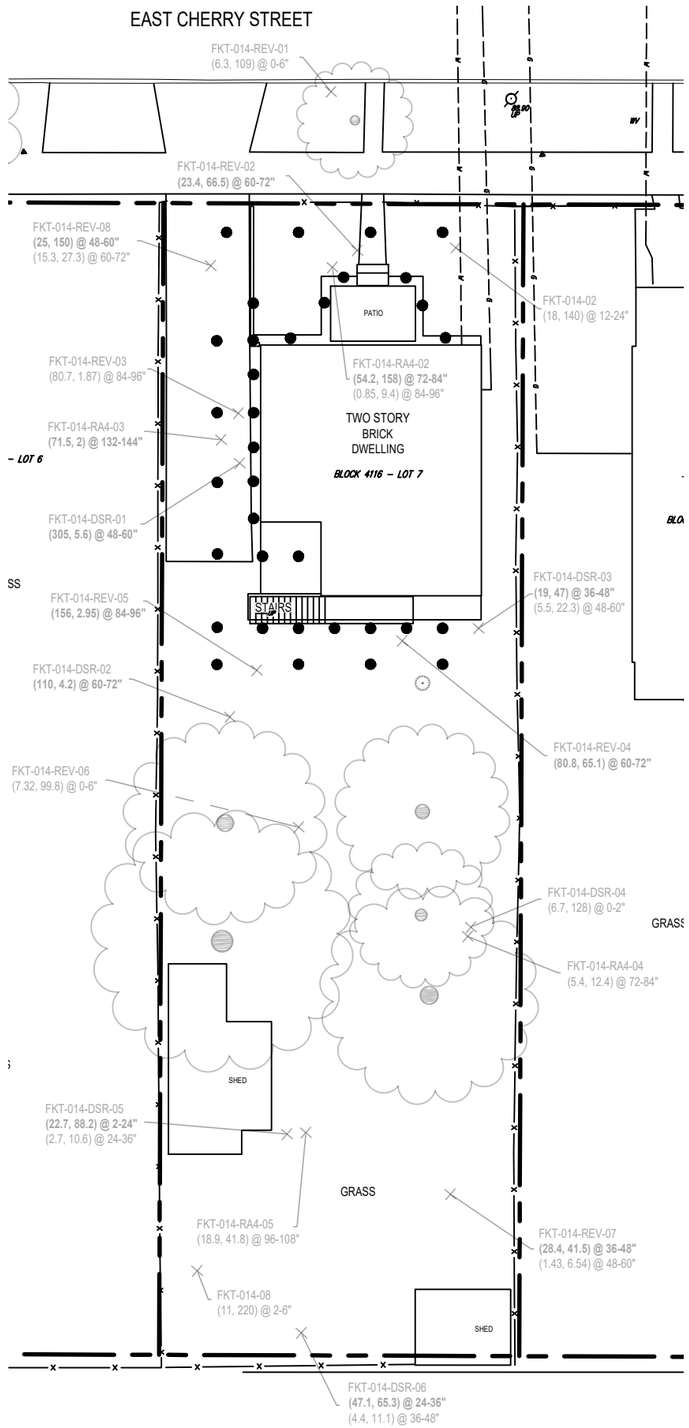
FKT-014-RA4-04	235826.0276	343948.5364
FKT-014-RA4-05	235800.254	343924.3442
FKT-014-REV-01	235944.3436	343937.1591
FKT-014-REV-02	235922.0901	343939.3589
FKT-014-REV-03	235900.5921	343921.4337
FKT-014-REV-04	235867.5787	343942.1007
FKT-014-REV-05	235864.7893	343921.6667
FKT-014-REV-06	235842.6729	343926.0797
FKT-014-REV-07	235790.423	343943.8261
FKT-014-REV-08	235921.2984	343918.9423

NOTES:
ADDITIONAL SAMPLES SHALL BE COLLECTED AT POINTS: ● TO CONFIRM DEPTH OF EXCAVATION AROUND THE TWO STORY BRICK DWELLING. THE BORINGS ARE TO BE COMPLETED AND ANALYZED PRIOR TO FINALIZING THE EXCAVATION AND RESTORATION PLAN FOR THE PROPERTY.
SAMPLES SHALL BE COLLECTED IN 12 INCH INTERVALS UP TO 144 INCHES.



0 20 40 Feet

U.S. Army Corps of Engineers
KANSAS CITY DISTRICT

MARK	DESCRIPTION	DATE

DESIGNED BY: A. MASON
DRAWN BY: C. BONNEY
CHECKED BY:
SUBMITTED BY: J. LEIBBERT
SIZE:
ISSUE DATE:
SOLICITATION NO.:
CONTRACT NO.:

KANSAS CITY DISTRICT
601 E. 12TH STREET
Kansas City, MO 64106

OU-1 REMEDIAL DESIGN PHASE 2
KIL-TONE SUPERFUND SITE
VINELAND, NJ

PROPERTY ID 014
BLOCK 4116 - LOT 7
PLAN FOR SUPPLEMENTAL SAMPLING

SHEET ID
G-17B

PROPERTY 014 EXCAVATION PLAN DRAWING NOTE:
EXCAVATION AREAS ADJACENT TO THE HOME MAY EXTEND BEYOND THE FOOTERS. CONTRACTOR SHALL PREPARE THE STRUCTURAL SUPPORT DESIGN FOR EXCAVATION NEXT TO AND UNDER THE HOME.

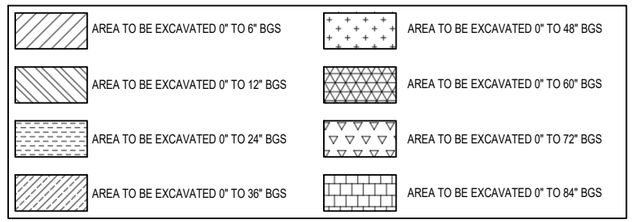
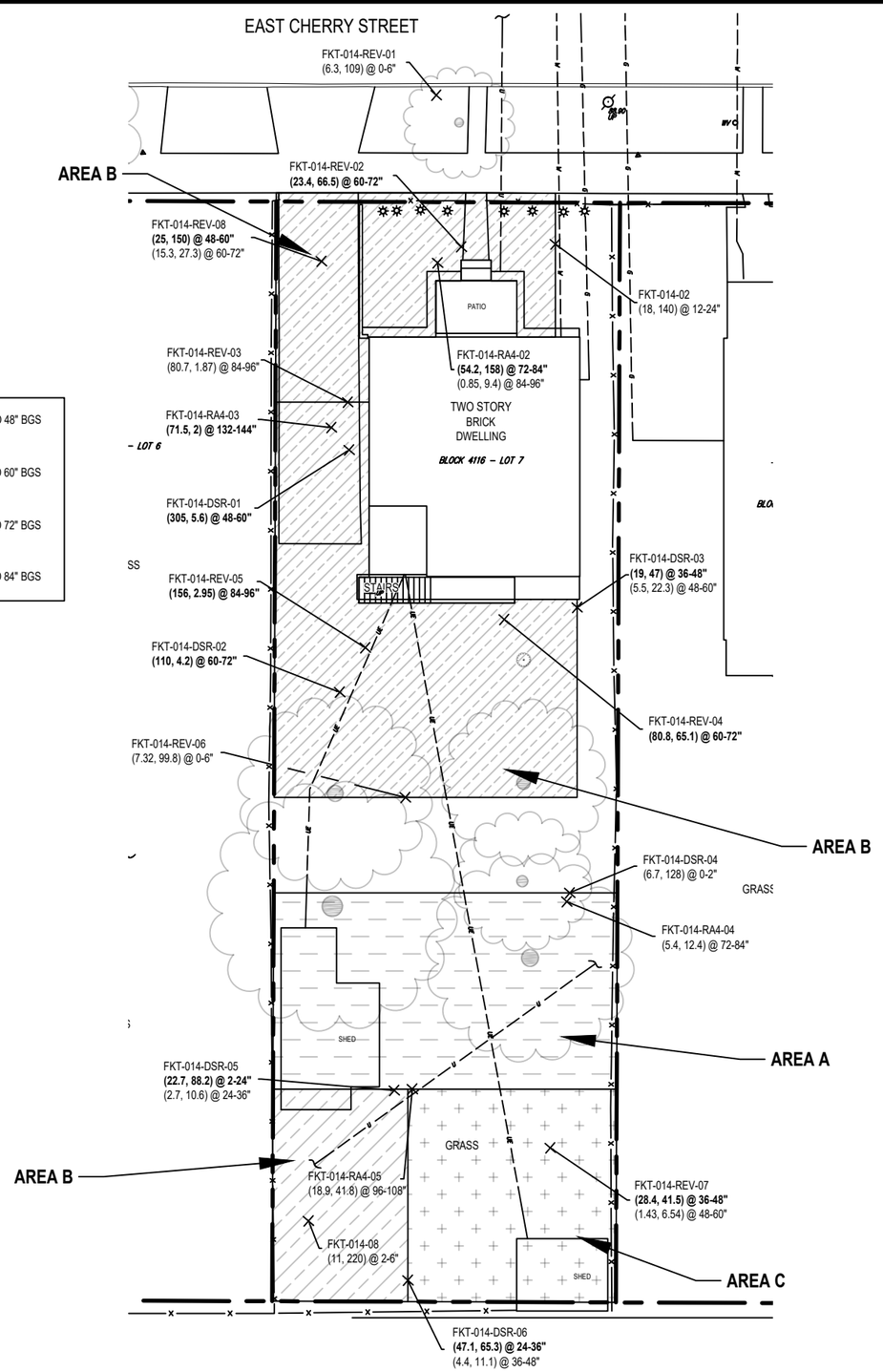


TABLE 1 - VOLUME OF EXCAVATION

AREA	SQ FT	VOLUME (CY)
A	1427	106
B	3123	347
C	939	139
TOTAL VOLUME		592

0 20 40 Feet



U.S. Army Corps of Engineers
KANSAS CITY DISTRICT

MARK	DESCRIPTION	DATE

DESIGNED BY: A. MASON
DRAWN BY: C. BONNEY
CHECKED BY: M. BRETTMAN
QA/QC PERFORMED BY: J.J. LEIBBERT
SIZE:
ISSUE DATE:
SOLICITATION NO.:
CONTRACT NO.:

KANSAS CITY DISTRICT
601 E. 12th STREET
Kansas City, MO 64106

OU-1 REMEDIAL DESIGN PHASE 2
KIL-TONE SUPERFUND SITE
WIELAND, NJ

PROPERTY ID 014
BLOCK 4116 - LOT 7
EXCAVATION PLAN

SHEET ID
G-17C

PROPERTY 014		
SOIL BORING LOCATIONS		
ID#	Y = NORTHING	X = EASTING
FKT-014-02	235921.6071	343953.0623
FKT-014-08	235782.088	343908.0505
FKT-014-DSR-01	235893.642	343921.1791
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NOTES:
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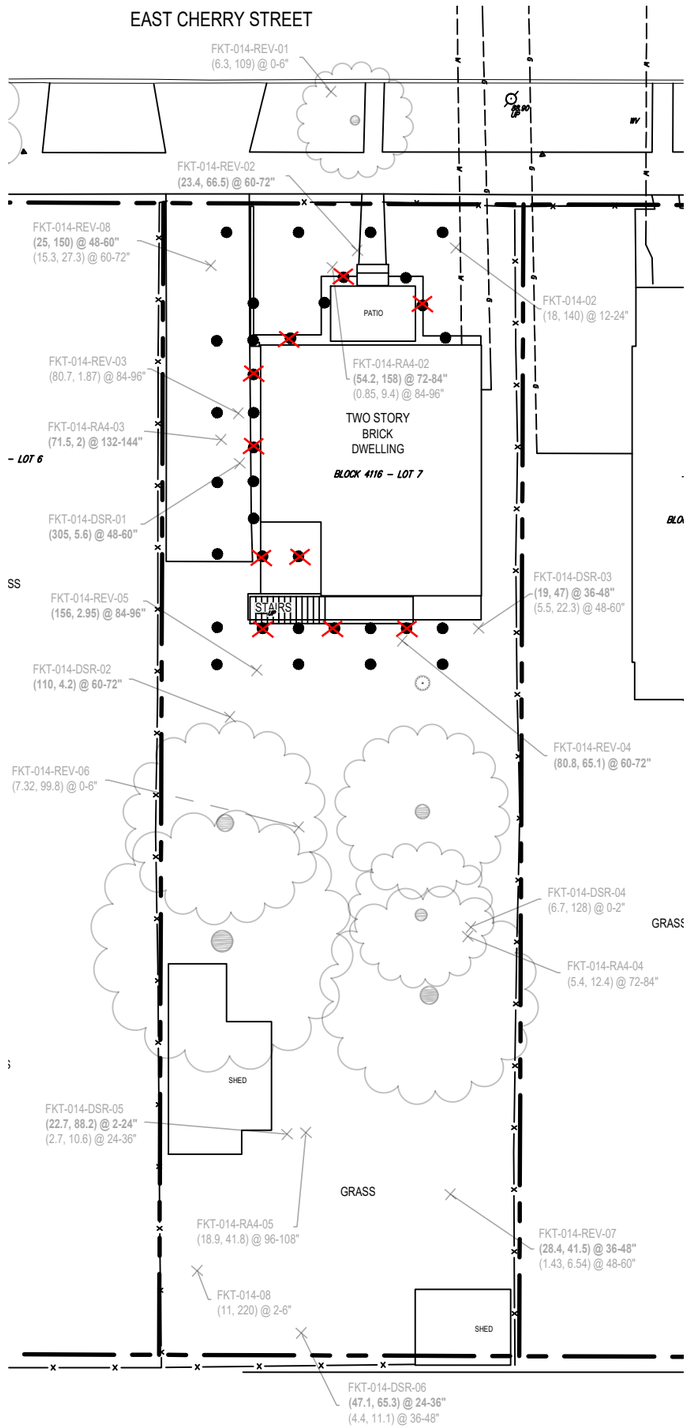
SAMPLES SHALL BE COLLECTED IN 12 INCH INTERVALS UP TO 144 INCHES.



U.S. Army Corps of Engineers
KANSAS CITY DISTRICT

MARK	DESCRIPTION	DATE

ISSUE DATE:
SOLICITATION NO.:
CONTRACT NO.:

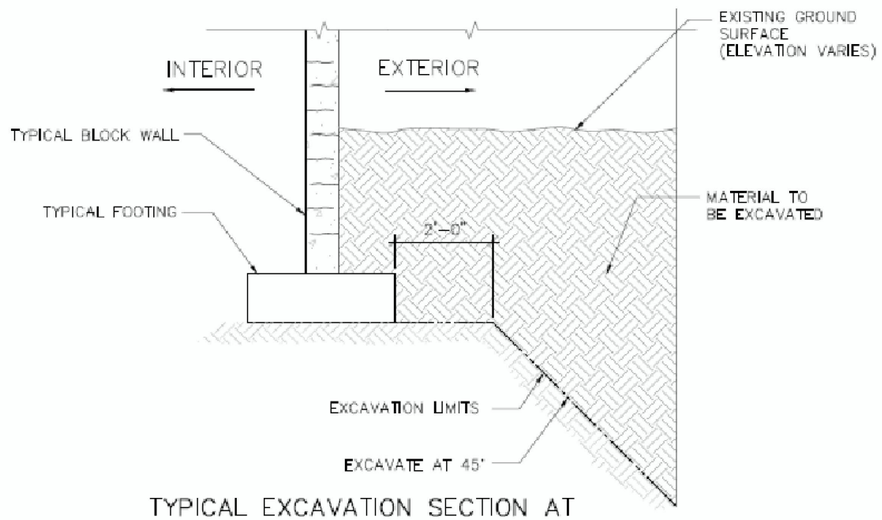
DESIGNED BY: A. MASON
DRAWN BY: C. BONNEY
CHECKED BY:
SUBMITTED BY: J. LEIBBERT
SIZE:

KANSAS CITY DISTRICT
601 E. 12TH STREET
Kansas City, MO 64106

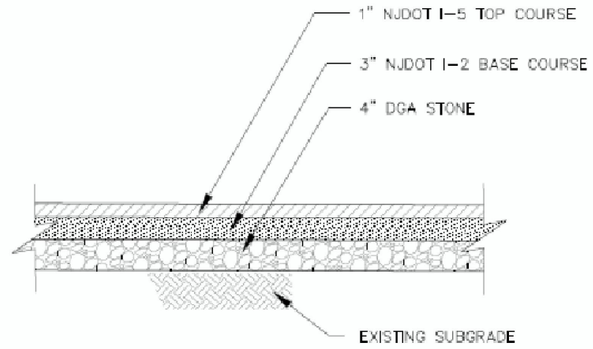
OU-1 REMEDIAL DESIGN PHASE 2
KIL-TONE SUPERFUND SITE
VINELAND, NJ

PROPERTY ID 014
BLOCK 4116 - LOT 7
PLAN FOR SUPPLEMENTAL SAMPLING

SHEET ID
G-17B



TYPICAL EXCAVATION SECTION AT FOOTING DETAIL
NOT TO SCALE



TYPICAL DRIVEWAY RESTORATION DETAIL
NOT TO SCALE

NOTES:

1. DETAIL ASSUMES STANDARD FOOTING. CONSTRUCTION LAYOUT WILL VARY IN FIELD APPLICATION.
2. CONTRACTOR SHALL NOT EXCAVATE BELOW THE LIMITS SHOWN WITHOUT PRIOR APPROVAL FROM THE CONTRACTING OFFICER.

U.S. Army Corps of Engineers KANSAS CITY DISTRICT

MARK | DESCRIPTION | DATE

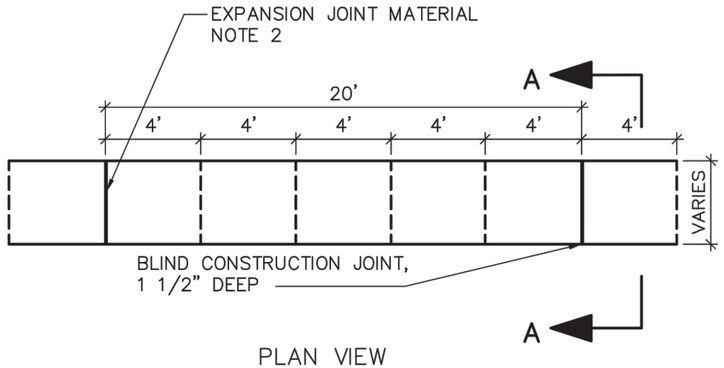
DESIGNED BY: A. MASON
DRAWN BY: C. BONNEY
CHECKED BY: S. BRETTMAN
SUBMITTED BY: J.J. LEIBBERT
ISSUE DATE:
SOLICITATION NO.:
CONTRACT NO.:
SIZE:

KANSAS CITY DISTRICT
601 E. 12TH STREET
Kansas City, MO 64106

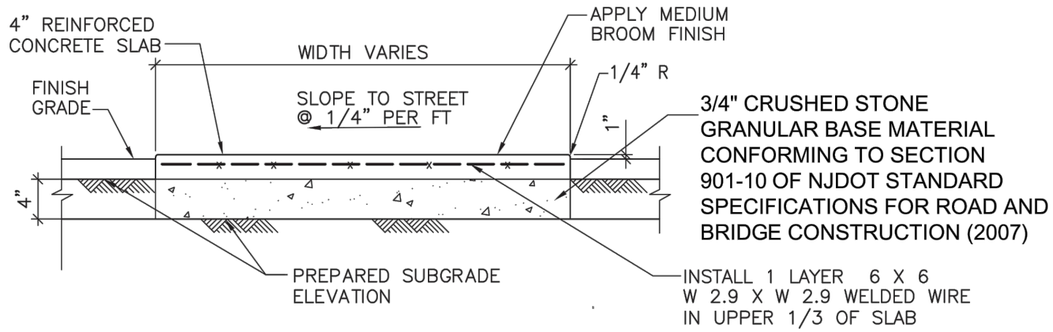
OU-1 REMEDIAL DESIGN PHASE 2
KIL-TONE SUPERFUND SITE
WHELAND, NJ

TYPICAL DETAILS

SHEET ID
G-33



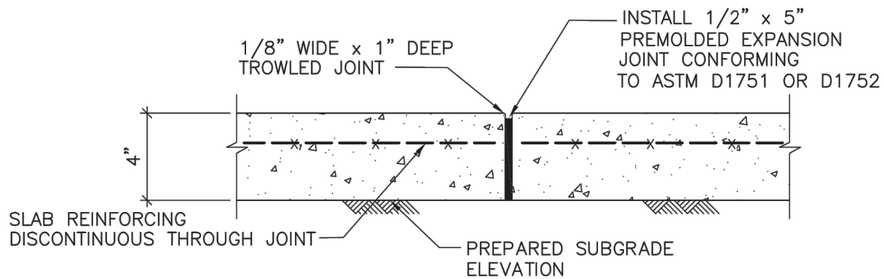
PLAN VIEW



SECTION A–A

TYPICAL CONCRETE SIDEWALK DETAIL

NOTES:
1. AT DRIVEWAY CROSSINGS, SIDEWALK SHALL BE 6" THICK.
2. EXPANSION JOINTS SHALL BE PROVIDED AT 20' (MAX.) INTERVALS. JOINTS SHALL BE FILLED WITH ½" BIT. EXPANSION JOINT FILLER. EXPANSION JOINTS SHALL BE PROVIDED BETWEEN ALL CURB AND SIDEWALKS.



TYPICAL EXPANSION JOINT DETAIL

NOT TO SCALE

GENERAL NOTE:
1. CONDUCT WORK IN ACCORDANCE WITH THE FOLLOWING:

NJDOT STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION (2007) (http://www.state.nj.us/transportation/eng/specs/2007/pdf/StandSpecRoadBridge.pdf)
*SPECIFICATION 606 FOR SIDEWALKS, DRIVEWAYS, AND ISLANDS IS ATTACHED

NJDOT STANDARD CONSTRUCTION DETAILS FOR ROADWAYS (2016) (http://www.state.nj.us/transportation/eng/CADD/v8/pdf/StandConstDetails.pdf):
*DETAIL CD606-5 FOR CONCRETE AND HMA, DRIVEWAYS AND SIDEWALKS IS ATTACHED

U.S. Army Corps of Engineers
KANSAS CITY DISTRICT

MARK | DESCRIPTION | DATE

DESIGNED BY: A. MASON
DRAWN BY: C. BONNEY
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SUBMITTED BY: J.J. LEIBBERT
ISSUE DATE:
SOLICITATION NO.:
CONTRACT NO.:
SIZE:

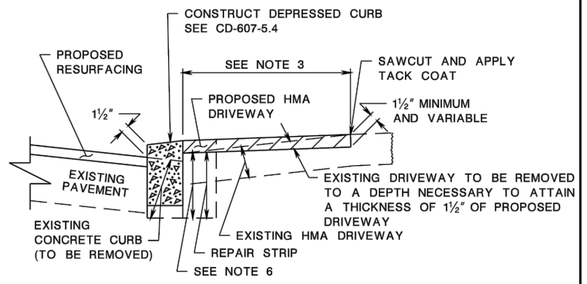
KANSAS CITY DISTRICT
601 E. 12TH STREET
Kansas City, MO 64106

OU-1 REMEDIAL DESIGN PHASE 2
KIL-TONE SUPERFUND SITE
WHELAND, NJ

TYPICAL DETAILS

SHEET ID
G-34

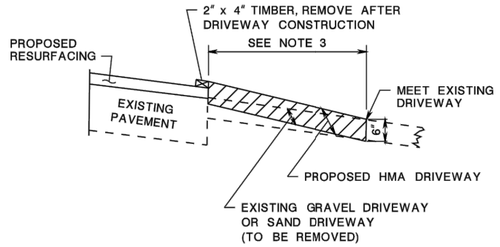
Concrete Sidewalk Detail



TYPE (A)

RESURFACING OF EXISTING HMA DRIVEWAY (WITH DEPRESSED CURB)

CD-606-5.1



TYPE (D)

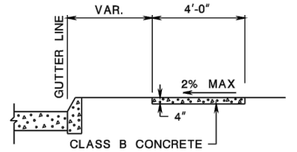
CONSTRUCTION OF HMA DRIVEWAY OR CONVERSION OF EXISTING GRAVEL DRIVEWAY (WITHOUT DEPRESSED CURB)

CD-606-5.4

GENERAL NOTES:

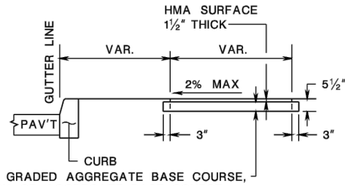
1. ALL MATERIAL, REPAIR STRIPS, AND EXCAVATION FOR DRIVEWAY CONSTRUCTION TO BE INCLUDED IN THE BID PRICE FOR HMA DRIVEWAY, CONCRETE DRIVEWAY, OR CONCRETE CURB.
2. USE HMA SURFACE COURSE FOR HMA DRIVEWAY.
3. CONSTRUCT 5 FEET LONG DRIVEWAY UNLESS OTHERWISE SHOWN ON PLANS OR AS DIRECTED.
4. MAINTAIN EXISTING DIRECTION OF FLOW ON DRIVEWAY.
5. USE DENSE GRADED AGGREGATE BASE COURSE TO PROVIDE TEMPORARY ACCESS DURING DRIVEWAY CONSTRUCTION.
6. DENSE GRADED AGGREGATE BASE COURSE.
7. WHERE SIDEWALK CROSSES DRIVEWAY PROVIDE A 2% MAXIMUM SIDEWALK CROSS SLOPE WITHIN DRIVEWAY AREA.

CD-606-5.7



CONCRETE SIDEWALK, 4" THICK

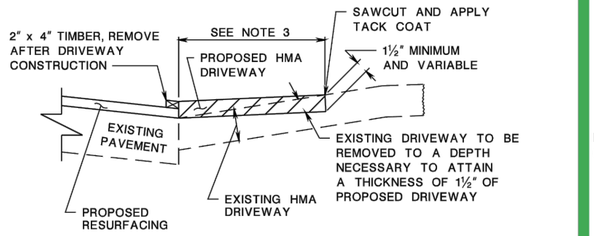
CD-606-5.9



DENSE GRADED AGGREGATE BASE COURSE, 4" THICK OR AGGREGATE BASE COURSE. 4" THICK AGGREGATE BASE COURSE IS SOIL AGGREGATE, DESIGNATION I-5.

HMA SIDEWALK, 5 1/2" THICK

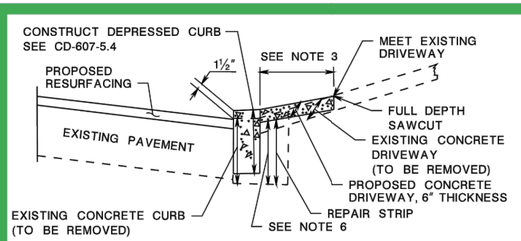
CD-606-5.10



TYPE (B)

RESURFACING OF EXISTING HMA DRIVEWAY (WITHOUT DEPRESSED CURB)

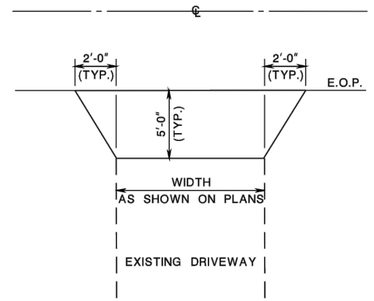
CD-606-5.2



TYPE (E)

RECONSTRUCTION OF CONCRETE DRIVEWAY (WITH DEPRESSED CURB)

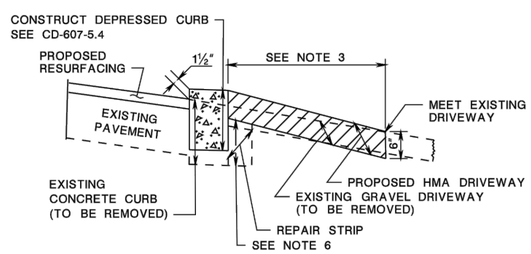
CD-606-5.5



TYPICAL DRIVEWAY TREATMENT

PLAN VIEW

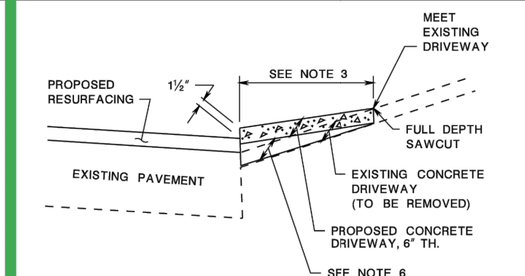
CD-606-5.8



TYPE (C)

CONSTRUCTION OF HMA DRIVEWAY OR CONVERSION OF EXISTING GRAVEL DRIVEWAY (WITH DEPRESSED CURB)

CD-606-5.3



TYPE (F)

RECONSTRUCTION OF CONCRETE DRIVEWAY (WITHOUT DEPRESSED CURB)

CD-606-5.6

Concrete Driveway Details

CONCRETE AND HMA, DRIVEWAY AND SIDEWALK

N.T.S.

HMA = HOT MIX ASPHALT

CD-606-5

NEW JERSEY DEPARTMENT OF TRANSPORTATION

CONSTRUCTION DETAILS

56
164

U.S. Army Corps of Engineers
KANSAS CITY DISTRICT

DATE
DESCRIPTION
MARK

ISSUE DATE:
SOLICITATION NO.:
CONTRACT NO.:

DESIGNED BY: A. MASON
DRAWN BY: C. BONNEY
CHECKED BY:
SUBMITTED BY: J. LEIBBERT
SIZE:

KANSAS CITY DISTRICT
700 E. 9TH STREET
Kansas City, MO 64106

OU-1 REMEDIAL DESIGN PHASE 2
KIL-TONE SUPERFUND SITE
VINELAND, NJ

TYPICAL DETAILS

SHEET ID
G-35