Final Report

860 Unit Cooling Tower and Hartranft Street – Point Breeze South Yard
Former Philadelphia Energy Solutions Refinery
3144 Passyunk Avenue, Philadelphia, Pennsylvania
Facility ID No. 51-33620

Prepared for

Philadelphia Energy Solutions Refining and Marketing LLC
111 S. Wacker Drive, Suite 3000
Chicago, Illinois 60606

Prepared by

Terraphase Engineering Inc.
100 Canal Pointe Boulevard, Suite 108
Princeton, New Jersey 08540

March 2022

Project Number P044.001.004

terraphase engineering

Contents

Table

Figures

Appendices

Acronyms and Abbreviations

Act 2	Land Recycling and Environmental Remediation Standards Act (Pennsylvania Code Title 25, Chapter 250, "Administration of the Land Recycling Program")
mg/kg	milligrams per kilogram
NIR	Notice of Intent to Remediate
NorthStar	NorthStar Contracting Group, Inc.
PADEP	Pennsylvania Department of Environmental Protection
PESRM	Philadelphia Energy Solutions Refining and Marketing LLC
Property	former Philadelphia Energy Solutions Refinery, 3144 West Passyunk Avenue, Philadelphia, Pennsylvania
SHS	Statewide Health Standard
Site	petroleum release area near the 860 Unit and Hartranft Street – Point Breeze South Yard of the former Philadelphia Energy Solutions Refinery
Terraphase	Terraphase Engineering Inc.
TGM	*Technical Guidance Manual*

Certification

Pursuant to the requirements of the Pennsylvania Land Recycling and Environmental Remediation Standards Act, adopted May 19, 1995, which state that:

> Interpretation of geologic and hydrogeologic data shall be prepared by a professional geologist licensed in this Commonwealth.

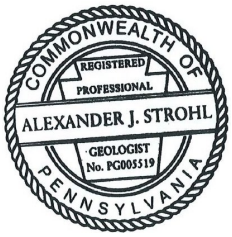
I hereby attest that, as a Professional Geologist licensed in the Commonwealth of Pennsylvania, I am familiar with, and have reviewed and/or prepared the interpretation of the geology and hydrogeology presented in this *Final Report, 860 Unit Cooling Towner and Hartranft Street – Point Breeze South Yard, Former Philadelphia Energy Solutions Refinery, 3144 West Passyunk Avenue, Philadelphia, Pennsylvania*, dated March 2022.

Based on the available data represented in this report, I believe that the geologic and hydrogeologic interpretations made herein are reasonable and accurate.

March 21, 2022

Alexander J. Strohl, PG
Senior Staff Geologist

Date



Executive Summary

In accordance with the requirements of Pennsylvania Code Title 25, Chapter 250, entitled "Administration of the Land Recycling Program,"[1] of the Land Recycling and Environmental Remediation Standards Act (Act 2), and on behalf of Philadelphia Energy Solutions Refining and Marketing LLC, Terraphase Engineering Inc. has prepared this report to detail the results of the environmental activities completed at the petroleum release area near the 860 Unit Cooling Tower and Hartranft Street in the Point Breeze South Yard (Site) of the former Philadelphia Energy Solutions Refinery at 3144 Passyunk Avenue, Philadelphia, Pennsylvania . This report follows the requirements of Section II.C. (7) of the Act 2 *Land Recycling Program Technical Guidance Manual*[2] and is submitted in accordance with Section 250.404 of the Act 2 regulations as a final report.

The Site is within the former Philadelphia Energy Solutions Refinery, an approximately 1,300-acre property situated in a highly developed area of Philadelphia. The refinery ceased operations in 2019 and has since been undergoing demolition and closure activities.

A petroleum release occurred during the removal of overhead pipelines within the pipe rack located near the Site. The pipeline that caused the release was an out of service line used to remove water from two aboveground storage tanks in the Point Breeze South Yard (i.e., PB 840 and PB 843). Both aboveground storage tanks were formerly used to store crude oil. The total area of the release was approximately 1,600 square feet, and 1,200 square feet of this area is an asphalt roadway. The remaining 400 square feet of the release occurred on soil where approximately 12 to 14 cubic yards of soil were removed and containerized in a roll-off container. Post-excavation soil sampling activities were conducted following the soil removal. The results of the sampling indicate the detection of several constituents of concern; however, the concentrations are less than the applicable Statewide Health Standards' "Medium Specific Concentrations"[3] for non-residential direct contact and non-residential soil migration to groundwater. The concentrations are also less than the applicable Statewide Health Standards' non-residential soil vapor intrusion screening values. Terraphase Engineering Inc. concludes that the requirements of Act 2 have been met, and as such, Philadelphia Energy Solutions Refining and Marketing LLC qualifies for the cleanup liability protection for certain petroleum constituents associated with the pipeline release.

[1] https://www.pacodeandbulletin.gov/Display/pacode?file=/secure/pacode/data/025/chapter250/chap250toc.html

[2] Philadelphia Department of Environmental Protection, Bureau of Environmental Cleanup and Brownfields. *Land Recycling Program Technical Guidance Manual*. 261-0300-101. March 26, 2021.

[3] https://www.dep.pa.gov/Business/Land/LandRecycling/Standards-Guidance-Procedures/Pages/Statewide-Health-Standards.aspx

1 Introduction

Terraphase Engineering Inc. (Terraphase) has prepared this Final Report, on behalf of Philadelphia Energy Solutions Refining and Marketing LLC (PESRM), to detail the results of the environmental activities following a petroleum release that occurred during the removal of overhead pipelines within the pipe rack located near the 860 Unit Cooling Tower and Hartranft Street in the Point Breeze South Yard (Site) of the approximately 1,300-acre former Philadelphia Energy Solutions Refinery at 3144 Passyunk Avenue, Philadelphia, Pennsylvania (the "Property") situated in a highly developed area of Philadelphia. The refinery ceased operations in 2019 and has since been undergoing demolition and closure activities. The Site is depicted on Figure 1. The cleanup activities were performed in accordance with the applicable provisions of the Land Recycling and Environmental Remediation Standards Act (Act 2),[4] administered by the Pennsylvania Department of Environmental Protection (PADEP), to obtain the associated release of environmental cleanup liability. While the Site is located within the Property, closure afforded by the approval of this Final Report will only apply to the Site.

The pipeline that caused the release was an out of service line used to remove water from two aboveground storage tanks used to store crude oil in the Point Breeze South Yard (i.e., PB 840 and PB 843). The total area of the release was approximately 1,600 square feet, and 1,200 square feet of this area is an asphalt roadway. NorthStar Contracting Group, Inc. (NorthStar) conducted immediate cleanup actions relating to the residual liquids remaining on the low-permeability asphalt. Soil located beneath this asphalt is not expected to have been impacted by the release. The remaining 400 square feet of the release occurred on soil adjacent to the asphalt.

Terraphase submitted a Notice of Intent to Remediate (NIR) to PADEP on March 4, 2022. A copy of the NIR was also submitted to the local municipality (City of Philadelphia) and a legal notification was published in the *Philadelphia Inquirer* with service to the area. The NIR indicates that Site soils will be remediated to the non-residential Statewide Health Standard (SHS).[5] In addition, notification of this Final Report submittal to PADEP was sent to the City of Philadelphia and a legal notification was published in the *Philadelphia Inquirer* with service to the area. Copies of the notification documents are included in Appendix A. This report was prepared in accordance with the Act 2 *Technical Guidance Manual*[6] (TGM) and is intended to provide the PADEP with a summary of the soil remediation activities performed at the Site. Section 2 details the Site setting, including geology and hydrogeology. Section 3 details the remediation and Site characterization activities. Section 4 provides an ecological screening evaluation. Section 5 provides a demonstration of attainment. Conclusions are presented in Section 6.

[4] https://www.pacodeandbulletin.gov/Display/pacode?file=/secure/pacode/data/025/chapter250/chap250toc.html

[5] https://www.dep.pa.gov/Business/Land/LandRecycling/Standards-Guidance-Procedures/Pages/Statewide-Health-Standards.aspx

[6] https://www.dep.pa.gov/Business/Land/LandRecycling/Standards-Guidance-Procedures/Guidance-Technical-Tools/Pages/Technical-Guidance-Manual.aspx

2 Site Setting

This section briefly describes the Site location, operational history of the Property, and the regional geology and hydrogeology of the Site, Property, and the surrounding area.

2.1 Site Description

PESRM owns the approximately 1,300-acre Property that is situated in a highly developed area of Philadelphia (Figure 1). The Property is developed with large tanks, buildings, pipelines, and roads and was formerly used as a petroleum refinery. The Site is located at the 860 Unit Cooling Tower and Hartranft Street in the Point Breeze South Yard. The nearest residential area is located approximately 0.5 miles east of the Site.

The Site is accessed from Hartranft Street and its central portion is covered with asphalt. There are no on-site surface water bodies, and the Schuylkill River is located approximately 900 feet west.

2.2 Operational History

The former petroleum refinery operated between 1860 and 2019. Since ceasing operations in 2019, the Property has been undergoing demolition and closure activities.

2.3 Topography

Topography at the Property is generally flat. Regional topography slopes gently to the west towards the Schuylkill River, the nearest water body to the Site, and to the south towards the Delaware River. The ground surface is approximately 10 feet above mean sea level.

2.4 Site Geology

The Site is situated in the Atlantic Coastal Plain Physiographic Province of southeastern Pennsylvania, with geology consisting of unconsolidated sediments underlain by schist, gneiss, and other metamorphic bedrock[7].

2.5 Site Hydrogeology

Based on previous environmental reporting at the Property,[8] shallow groundwater flows to the west toward the Schuylkill River. Groundwater was not encountered during remediation and Site characterization activities.

[7] elibrary.dcnr.pa.gov/GetDocument?docId=1752507&DocName=Map13_PhysProvs_Pa.pdf

[8] GHD Group Pty Ltd, Remedial Investigation Report – AOI-7 Girard Point Refinery, June 9, 2017.

3 Remediation and Site Characterization Activities

On October 11, 2021, a petroleum release occurred during the removal of overhead pipelines within the pipe rack located near the Site. NorthStar had been conducting tank and pipeline decommissioning activities in the area.

The pipeline that caused the release was an out of service line used to remove water from two aboveground storage tanks formerly used to store crude oil in the Point Breeze South Yard (i.e., PB 840 and PB 843). The total area of the release was approximately 1,600 square feet, and 1,200 square feet of this area is an asphalt roadway. The remaining 400 square feet of the release occurred on soil adjacent to the asphalt (Figure 2). On October 11, 2021, NorthStar reported a Notification of Release to the PADEP Southeast Regional Office of oily water directly to the road surface which migrated to the curb areas and contacted soil (Appendix B). NorthStar conducted immediate cleanup actions relating to the residual liquids remaining on the low-permeability asphalt. Soil located beneath this asphalt is not expected to have been impacted by the release.

NorthStar proceeded to conduct a limited soil excavation in the unpaved areas impacted by the release. Surficial soil up to 1 foot in depth was removed using an excavator and screened for signs of impact. Impacted soil was identified using a photoionization detector, olfactory evidence, and visual staining as indicators. Approximately 12 to 14 cubic yards of soil were removed and deposited in a roll-off container. Post-excavation soil sampling activities were also conducted by NorthStar.

Title 25 of Pennsylvania Code 250, Section707(b)(1)(B)(VI) states “For sites where there is a release to surface soils resulting in excavation of 50 cubic yards or less of contaminated soil, two samples shall be collected.” On October 12, 2021, as a conservative approach, NorthStar collected six post-excavation soil samples (more than required) from the excavation base, where no obvious signs of impact post-excavation were identified in remaining soil (Figure 2). A supplemental sampling event was conducted at the same six locations on November 29, 2021, by Ransom Consulting, LLC to collect samples for analysis of additional parameters.

Impacted and potentially impacted soil was transferred to a roll-off container. On January 6, 2022, the 16.3 tons of soil from the Site was disposed of at the Pure Soil Technologies facility in Jackson, New Jersey. Disposal documentation is provided in Appendix C.

Because Terraphase could not confirm the type of petroleum product released, soil samples were submitted for the following PADEP Short Lists of Petroleum Products inventory (Table III-5 of the TGM [March 2021]):

- **Leaded Gasoline, Aviation Gasoline and Jet Fuel:** benzene, toluene, ethyl benzene, xylenes (total), cumene, naphthalene, 1,2,4-trimethylbenzene, 1,3,5-trimethylbenzene, 1,2-dichloroethane, 1,2-dibromoethane, and lead.
- **Unleaded Gasoline:** benzene, toluene, ethyl benzene, xylenes (total), cumene, methyl tert-butyl ether, naphthalene, 1,2,4-trimethylbenzene, and 1,3,5-trimethylbenzene.

- **Kerosene, Fuel Oil No. 1:** benzene, toluene, ethyl benzene, cumene, methyl tert-butyl ether, naphthalene, 1,2,4-trimethylbenzene, and 1,3,5-trimethylbenzene.
- **Diesel Fuel and Fuel Oil No. 2:** benzene, toluene, ethyl benzene, cumene, methyl tert-butyl ether, naphthalene, 1,2,4-trimethyl benzene, and 1,3,5-trimethyl benzene.
- **Fuel Oil Nos. 4, 5, and 6, and Lubricating Oils and Fluids:** benzene, naphthalene, fluorene, anthracene, phenanthrene, pyrene, benzo(a)anthracene, chrysene, benzo(b)fluoranthene, benzo(a)pyrene, and benzo(g,h,i)perylene.

Laboratory analytical services were provided for the initial sampling of volatile organic compounds and lead by Eurofins Lancaster Laboratories Environmental, LLC of Lancaster, Pennsylvania, and for the follow-up samples collected for semi-volatile organic compounds by Alpha Analytical, Inc. of Westborough, Massachusetts; both Pennsylvania-accredited laboratories. Soil samples submitted for analyses during the Site characterization were placed directly into laboratory-provided glassware and stored on ice in a cooler under appropriate chain-of-custody protocol. Copies of the laboratory data deliverables are included as Appendix D. The results of this sampling are discussed in Section 3.2 below.

3.1 Selection of Standards

The analytical results for the soil samples were compared to the Pennsylvania SHS and vapor intrusion screening values listed below and are intended to evaluate potential soil exposure pathways based upon current and reasonably expected future use of the Site, as follows:

- State-Wide Health Non-residential Direct Contact Soil Standards (more stringent of 0–2 and 2–15 feet);
- State-Wide Health Non-residential Soil-to-Groundwater Standards for Used Aquifers (total dissolved solids less than 2,500 milligrams per liter); and
- State-Wide Health Non-residential Vapor Intrusion Soil Screening Values.

3.2 Site Characterization Results

Analytical results associated with the post-excavation soil sampling activities are summarized in Table 1. All the targeted constituents, except benzene, 1,2-dibromomethane, 1,2-dichloroenthane, methyl tert-butyl ether and toluene, were detected at concentrations greater than the laboratory reporting limits in at least one of the six post-excavation samples. However, all the reported detected concentrations were less than the applicable standards noted above.

4 Ecological Screening Evaluation

The following describes the ecological screening evaluation that was performed for the Site. This evaluation was conducted in accordance with Section II.B.5 of the PADEP TGM. The regulatory framework for conducting an ecological screening evaluation under the SHS is outlined in Section II.B.2(e) and summarized in the Ecological Screening Flow Chart provided in Figure II-16 of the TGM. The key elements of the screening procedure are comprised of nine steps.

The initial screening phase of the process consists of Steps 1 and 2, as follows:

- Step 1: Presence of Light Petroleum Product Constituents; and
- Step 2: Site Size.

As indicated on Figure II-16 of the TGM, after completion of the initial screen (Steps 1 and 2), the remediator may be able to determine that no further ecological screening is required.

Step 1: Presence of Light Petroleum Product Constituents

The first step in the ecological screening process is to determine whether the constituents present in on-site surface soils (soils at a depth of up to 2 feet) or sediments are related only to light petroleum products (i.e., gasoline, jet fuel A, kerosene, #2 fuel oil/diesel fuel), which have relatively low polycyclic aromatic hydrocarbon content (ASTM International E1739-95).[9] If light petroleum product constituents (including benzene, toluene, ethylbenzene, and xylene) are the only constituents detected on-site, then the screening process moves to Step 9 (Final Report: No Further Ecological Evaluation Required). Although light petroleum product constituents are present in the post-excavation soil samples, sampling results also indicate the presence of other constituents. The screening process continues to Step 2 (Site Size).

Step 2: Site Size

The second step in the ecological screening process is determining the area of exposed and contaminated surface soil (soil at a depth of up to 2 feet) and sediments that are of potential ecological concern. The minimum areas are: 2 acres of exposed and contaminated surface soil or 1,000 square feet of contaminated sediment. If the area of the site is smaller than the specified minimum areas, then the screening process moves to Step 9 (Final Report: No Further Ecological Evaluation Required).

Because no sediment is present at the Site and the area of the excavation encompassed 400 square feet (0.009 acres, less than the minimum), no further ecological evaluation is required.

[9] ASTM International, Standard Guide for Risk-Based Corrective Action Applied at Petroleum Release Sites, 2015.

5 Demonstration of Attainment

This section provides a summary of the soil constituents detected at the Site based on the characterization activities and demonstrates attainment of the SHS. Based on the characterization results, the Site has been remediated to the non-residential SHS.

Soil investigation results indicate concentrations of the following constituents of concern, with maximum detected concentrations shown, and attainment of a standard:

Soil			
Constituent	Maximum Concentration (mg/kg)	Location of Maximum Concentration	Selected Standards
Volatile Organic Compounds			
Cumene	0.49	CONF-SOIL-1	SHS
Ethyl Benzene	0.063 J	CONF-SOIL-4	SHS
Naphthalene	2.9	CONF-SOIL-4	SHS
1,2,4-Trimethylbenzene	6	CONF-SOIL-4	SHS
1,3,5-Trimethylbenzene	1.7	CONF-SOIL-4	SHS
Xylenes (Total)	0.62	CONF-SOIL-4	SHS
Semi-volatile Organic Compounds			
Anthracene	4	CONF-SOIL-6	SHS
Benzo(a)anthracene	7.5	CONF-SOIL-6	SHS
Benzo(a)pyrene	7.1	CONF-SOIL-6	SHS
Benzo(b)fluoranthene	9.6	CONF-SOIL-6	SHS
Benzo(g,h,i)perylene	4.3	CONF-SOIL-6	SHS
Chrysene	7.5	CONF-SOIL-6	SHS
Fluorene	5.3	CONF-SOIL-6	SHS
Phenanthrene	12	CONF-SOIL-6	SHS
Pyrene	14	CONF-SOIL-6	SHS
Metals			
Lead	45	CONF-SOIL-1	SHS

mg/kg = milligrams per kilogram

6 Conclusion

Soil remediation and characterization activities have been completed to address a petroleum release that occurred during the removal of overhead pipelines within the pipe rack located near the Site in accordance with Act 2. Based on the soil characterization results, the identified constituent concentrations in post-excavation soil samples are less than concentrations that would be considered by PADEP to be protective of nonresidential exposure. Terraphase concludes that all requirements of Act 2 have been met, and as such, PESRM qualifies for the cleanup liability protection under Act 2 for detected petroleum constituents in soil at the site of the pipeline release.

Table

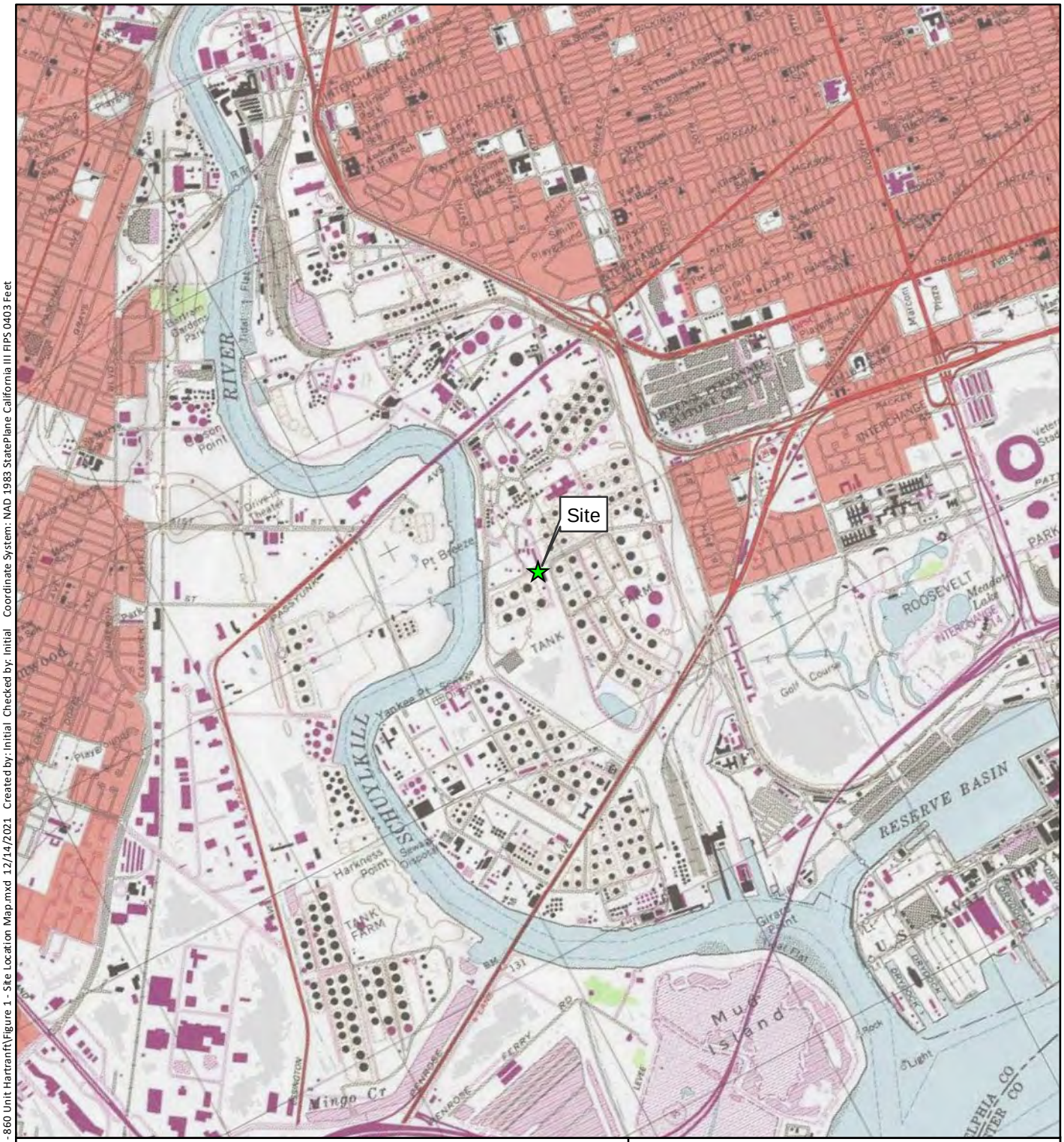
Table 1
Soil Analytical Results
860 Unit Hartranft - Pipeline Release
Philadelphia Energy Solutions Refining and Marketing, LLC, Philadelphia, PA

Location	Non-Residential Direct Contact MSCs for Soil	Non-Residential Soil to GW MSCs for Used Aquifers (TDS<=2500)	Non-Residential Soil Vapor Intrusion Screening Value	CONF-SOIL-1	CONF-SOIL-2	CONF-SOIL-3	CONF-SOIL-4	CONF-SOIL-5	CONF-SOIL-6
Sample Method				Grab	Grab	Grab	Grab	Grab	Grab
Comments				Post-Excavation[2]	Post-Excavation[2]	Post-Excavation[2]	Post-Excavation[2]	Post-Excavation[2]	Post-Excavation[2]
Volatile Organic Compounds									
Benzene	280	0.5	0.13	ND (0.39)	ND (0.31)	ND (0.3)	ND (0.3)	ND (0.28)	ND (0.36)
Cumene	10000	2500	2500	0.49 (0.39)	ND (0.31)	ND (0.3)	0.15 J (0.3)	ND (0.28)	0.039 J (0.36)
1,2-Dibromoethane	3.7	0.005	0.0013	ND (0.39)	ND (0.31)	ND (0.3)	ND (0.3)	ND (0.28)	ND (0.36)
1,2-Dichloroethane	85	0.5	0.1	ND (0.39)	ND (0.31)	ND (0.3)	ND (0.3)	ND (0.28)	ND (0.36)
Ethyl Benzene	880	70	46	0.036 J (0.39)	ND (0.31)	ND (0.3)	0.063 J (0.3)	ND (0.28)	ND (0.36)
Methyl tert-butyl ether	8500	96	1.4	ND (0.39)	ND (0.31)	ND (0.3)	ND (0.3)	ND (0.28)	ND (0.36)
Naphthalene	66	25	25	0.37 J (0.39)	ND (0.31)	ND (0.3)	2.9 (0.3)	ND (0.28)	0.65 (0.36)
Toluene	10000	100	44	ND (0.39)	ND (0.31)	ND (0.3)	ND (0.3)	ND (0.28)	ND (0.36)
1,2,4-Trimethylbenzene	4700	300	35	0.89 (0.39)	0.063 J (0.31)	0.05 J (0.3)	6 (0.3)	0.076 J (0.28)	0.23 J (0.36)
1,3,5-Trimethylbenzene	4700	93	210	0.37 J (0.39)	ND (0.31)	ND (0.3)	1.7 (0.3)	ND (0.28)	0.075 J (0.36)
Xylenes (total)	7900	1000	990	0.25 J (0.78)	ND (0.61)	ND (0.61)	0.62 (0.6)	ND (0.57)	ND (0.72)
Semi-Volatile Organic Compounds									
Anthracene	190000	350	--	ND (0.12)	ND (0.12)	0.14 (0.11)	ND (0.11)	ND (0.11)	4 (0.52)
Benzo(a)anthracene	130	340	--	0.071 J (0.12)	0.078 J (0.12)	0.45 (0.11)	ND (0.11)	ND (0.11)	7.5 (0.52)
Benzo(a)pyrene	91	46	--	0.09 J (0.16)	0.073 J (0.16)	0.45 (0.14)	ND (0.15)	ND (0.14)	7.1 (0.7)
Benzo(b)fluoranthene	76	170	--	0.12 (0.12)	0.089 J (0.12)	0.56 (0.11)	ND (0.11)	ND (0.11)	9.6 (0.52)
Benzo(g,h,i)perylene	190000	180	--	0.097 J (0.16)	0.043 J (0.16)	0.29 (0.14)	ND (0.15)	ND (0.14)	4.3 (0.7)
Chrysene	760	230	--	0.072 J (0.12)	0.068 J (0.12)	0.43 (0.11)	ND (0.11)	ND (0.11)	7.5 (0.52)
Fluorene	130000	3800	--	ND (0.21)	0.06 J (0.19)	ND (0.18)	ND (0.19)	ND (0.18)	5.3 (0.87)
Phenanthrene	190000	10000	--	0.071 J (0.12)	0.096 J (0.12)	0.48 (0.11)	ND (0.11)	0.028 J (0.11)	12 (0.52)
Pyrene	96000	2200	--	0.091 J (0.12)	0.11 J (0.12)	0.75 (0.11)	ND (0.11)	ND (0.11)	14 (0.52)
Metals									
Lead	1000	450	--	45 (1.4)	19 (1.5)	21 (1.6)	21 (1.2)	20 (1.4)	32 (1.8)

Notes:
1 All concentrations are presented in mg/kg (ppm). Detection limts are in parentheses.
2 Post-Excavation Soil Samples were collected from the surface of the bottom of the exavation.
3 The Non-Residential Direct Contact MSCs for Soil presented are the more stringent of the Non-Residential Direct Contact MSCs for Surface Soil (0-2 ft) and Non-Residential Direct Contact MSCs for Subsurface Soil (2-15 ft).
4 Volatile organic compounds and lead were sampled on 10/12/2021 and semi-volatile organic compounds were sampled on 11/29/2021.
5 None of the concentrations exceed the PADEP Non-Residential Direct Contact MSCs for Soil.
6 None of the concentrations exceed the PADEP Non-Residential Soil to Ground Water MSCs for Used Aquifers (TDS<=2500).
7 None of the concentrations exceed the PADEP Non-Residential Soil Vapor Intrusion Screening Value.

Abbreviations:
ND -- Not Detected.
J -- Estimated Concentration.

Figures



0 2,500 5,000 Feet

1 inch = 2,500 feet

N

Legend

Site Location

Base Map: USGS Philadelphia (1995) 7.5 Minute Quadrangle.

SAFETY FIRST

terraphase engineering

CLIENT:	Philadelphia Energy Solutions Refining and Marketing LLC
PROJECT:	Pipeline Release at 860 Unit Cooling Tower
PROJECT NUMBER:	P044.001.004

Site Location Map

FIGURE 1

File: N:\GIS\Prj\P044.001_PESRM-PES\MXDs\Pipeline Release - 860 Unit Hartranft\Figure 1 - Site Location Map.mxd 12/14/2021 Created by: Initial Checked by: Initial Coordinate System: NAD 1983 StatePlane California III FIPS 0403 Feet

CONF-SOIL-4
CONF-SOIL-5
CONF-SOIL-6
Hartranft Street
CONF-SOIL-1
CONF-SOIL-2
CONF-SOIL-3

Legend

- Confirmation Soil Sample Location
- Approximate Act 2 Site
- Soil Excavation Area

Notes:
Aerial imagery source Maxar 10/19/2019

0 20 40 Feet

1 inch = 20 feet

N

SAFETY FIRST

terraphase engineering

CLIENT:	Philadelphia Energy Solutions Refining and Marketing LLC
PROJECT:	Pipeline Release at 860 Unit Cooling Tower
PROJECT NUMBER:	P044.001.004

Site Layout and Sample Location Map

Figure 2

File: N:\GIS\Pri\P044.001_PESRM-PES\MXDs\Pipeline Release - 860 Unit Hartranft\Figure 2 - Site Layout and Sample Location Map.mxd 12/14/2021 Created by: MLC Checked by: RKW Coordinate System: NAD 1983 StatePlane Pennsylvania South FIPS 3702 Feet

Appendix A

Notice of Intent Documents

2610-FM-BECB0010 6/2014

pennsylvania DEPARTMENT OF ENVIRONMENTAL PROTECTION

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF ENVIRONMENTAL CLEANUP AND BROWNFIELDS

For DEP Use Only
PF #_____
Rem ID #_____

NOTICE OF INTENT TO REMEDIATE

Act 1995-2 requires four general information items to be included in the NIR: the general location, listing of contaminants, intended use of property, and proposed remediation measures. In addition, indicate the standard(s) to be obtained (if known) and attach a scaled site map (if available).

Property Name 860 Unit Cooling Tower and Hartranft Street – Point Breeze South Yard

Former Name(s) / AKA Former Philadelphia Energy Solutions Refinery

Address / Location 3144 Passyunk Avenue

City Philadelphia Zip Code 19153

Municipality(s) Philadelphia County(ies) Philadelphia County

Latitude 39 º (deg). 54 ‘ (min) 44.037 “ (sec) Longitude 75 º (deg). 12 ‘ (min) 1.219 “ (sec)

Horizontal Collection Method GIS

Horizontal Reference Datum NAD83 Reference Point see Figure 1 attached

☐ Wish to participate in the DEP/EPA MOA. Contact the Land Recycling Program Manager at landrecycling@pa.gov for details.

EPA ID#, if known

DEP ID#(s), if known 51-33620
(i.e., eFACTS site ID#, storage tank facility ID#, water quality permit #, watershed permit, air quality permit #, etc.)

Date Release Occurred (if known) October 11, 2021

Provide a brief description of the site contamination in plain language (e.g. fuel oil spill, historical chemical industrial area contamination), the names of any know primary contaminants to be addressed, and the intended future use of the property.

A petroleum release occurred during the removal of overhead pipelines within the pipe rack located near the 860 Unit Cooling Tower and Hartranft Street. The pipeline that caused the release was an out of service line used to remove water from two aboveground storage tanks (ASTs) in the Point Breeze South Yard (i.e., PB 840 and PB843). Both ASTs were formerly used to store crude oil. The total area of the release was approximately 1,600 square feet, 1,200 square feet of which is comprised of an asphalt roadway. The remaining 400 square feet of the release occurred on soil where approximately 12 to 14 cubic yards of soil were removed and containerized in a roll-off container and disposed of off-site. The future use of the property is expected to be non-residential.

Provide a general description of proposed remediation measures.

A prompt interim response, including removal of 12 to 14 cubic yards of soil, was conducted immediately following discovery of the release. The soil was staged in a roll-off container and transported to Pure Soil Technologies in Jackson, NJ for recycling. Post excavation sampling has revealed no exceedances of the non-residential Statewide Health Standard.

Remediation Standard(s) planned (if known at this time):

☐ Unknown at this time	☐ Soil	☐ Groundwater
☐ Background Contaminants:	☐ Soil	☐ Groundwater
☐ Statewide Health - Residential Contaminants:	☐ Soil	☐ Groundwater
☒ Statewide Health – Non-Residential Contaminants: petroleum constituents	☒ Soil	☐ Groundwater
☐ Site Specific Contaminants:	☐ Soil	☐ Groundwater
☐ Special Industrial Area* Contaminants:	☐ Soil	☐ Groundwater

*NOTE: Specific standard or Special Industrial Area require a 30-day municipal comment period

Remediator / Property Owner / Consultant. Complete the form below for ***each*** recipient obtaining a release of liability upon approval of the final report. Attach additional sheets as necessary.

Remediator

Contact Person/Title Anne Garr / Assistant Secretary — eFACTS Client ID* Facility No. 51-33620

Relationship to Site Owner — Client Type* LLC
(e.g. owner, remediator, participant in cleanup, consultant, etc.)

Phone Number (312) 283-4469 — Email Address agarr@hilcoglobal.com

Company Name Philadelphia Energy Solutions Refining and Marketing LLC — EIN or Federal ID #

Address (street, city, state, zip) 111 S Wacker Dr, Suite 3000, Chicago, IL, 60606

Property Owner

Contact Person/Title Anne Garr / Assistant Secretary — eFACTS Client ID* Facility No. 51-33620

Relationship to Site Owner — Client Type* LLC
(e.g. owner, remediator, participant in cleanup, consultant, etc.)

Phone Number (312) 283-4469 — Email Address agarr@hilcoglobal.com

Company Name Philadelphia Energy Solutions Refining and Marketing LLC — EIN or Federal ID #

Address (street, city, state, zip) 111 S Wacker Dr, Suite 3000, Chicago, IL, 60606

Consultant

Contact Person/Title Kevin Long / Principal Consultant — eFACTS Client ID*

Relationship to Site Consultant — Client Type* Corporation
(e.g. owner, remediator, participant in cleanup, consultant, etc.)

Phone Number 609-236-8171, ext 93 — Email Address kevin.long@terraphase.com

Company Name Terraphase Engineering Inc. — EIN or Federal ID # 27-3543127

Address (street, city, state, zip) 100 Canal Pointe Blvd, Suite 108, Princeton, NJ 08540

*Include eFACTS Client ID (if known) – "Client Types" below:

Association/Organization	Limited Liability company	Partnership-General
Authority	Limited Liability Partnership	Partnership-Limited
County	Municipality	School District
Estate/Trust	Non-Pennsylvania Government	Sole Proprietorship
Federal Agency	Other (Non-Government)	State Agency
Individual	Pennsylvania Corporation	

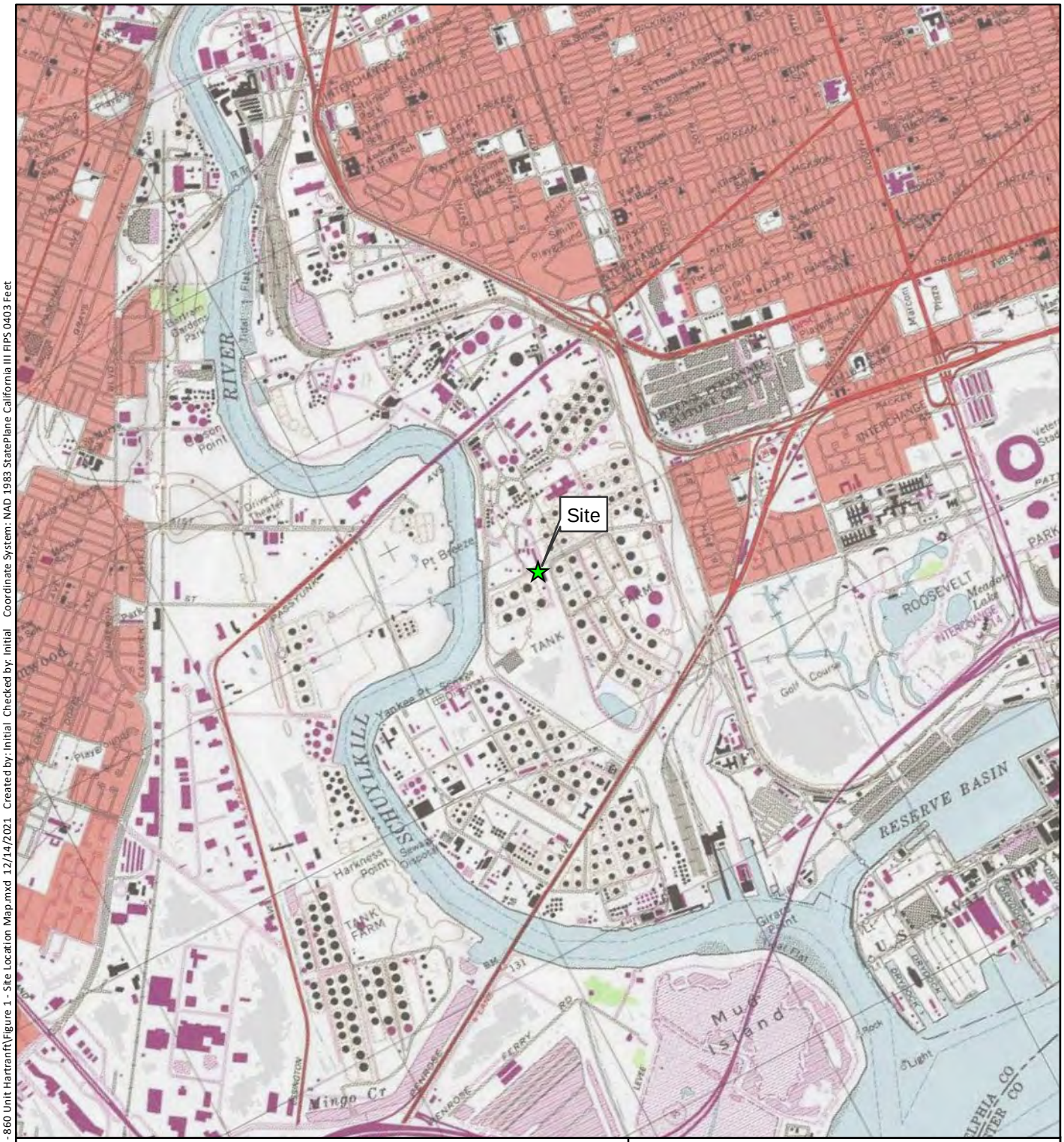
Preparer of Notice of Intent to Remediate

Name Kevin Long / Principal Consultant — Title Principal Consultant

Phone Number 609-236-8171, ext 93 — Email Address kevin.long@terraphase.com

Company Name Terraphase Engineering Inc. — eFACTS Client ID

Address (street, city, state, zip) 100 Canal Pointe Blvd, Suite 108, Princeton, NJ 08540



0 2,500 5,000 Feet

1 inch = 2,500 feet

N

Legend

Site Location

Base Map: USGS Philadelphia (1995) 7.5 Minute Quadrangle.

SAFETY FIRST

terraphase engineering

CLIENT:	Philadelphia Energy Solutions Refining and Marketing LLC
PROJECT:	Pipeline Release at 860 Unit Cooling Tower
PROJECT NUMBER:	P044.001.004

Site Location Map

FIGURE 1

File: N:\GIS\Prj\P044.001_PESRM-PES\MXDs\Pipeline Release - 860 Unit Hartranft\Figure 1 - Site Location Map.mxd 12/14/2021 Created by: Initial Checked by: Initial Coordinate System: NAD 1983 StatePlane California III FIPS 0403 Feet

March 1, 2022

Ms. Leigh Anne Rainford
Philadelphia Department of Public Health
Environmental Health Services
321 University Avenue – 2nd Floor
Philadelphia, PA 19104

sent via UPS, Proof of Delivery Requested

Subject: **Notice of Intent to Remediate**
860 Unit Cooling Tower and Hartranft Street – Point Breeze South Yard
Former Philadelphia Energy Solutions Refinery
3144 Passyunk Avenue
Philadelphia, PA 19153

Dear Ms. Rainford:

The Land Recycling and Environmental Remediation Standards Act (Act 2) requires that a Notice of Intent to Remediate (NIR) be provided to the municipality in which the site is located. In accordance with this provision of Act 2, Terraphase Engineering, Inc. (Terraphase), on behalf of Philadelphia Energy Solutions Refining and Marketing LLC (PESRM), is formally notifying you of PESRM's intent to remediate the above-referenced site to the non-residential Statewide Health Standard. A copy of the Notice of Intent to Remediate, which will be sent to the Department of Environmental Protection (DEP), is enclosed. This notice will also be published in the Pennsylvania Bulletin, and a summary of the notice will be placed in a local newspaper.

Notice is hereby given that Terraphase, on behalf of PESRM, will submit a final report to the Department of Environmental Protection for the site known as the Former Philadelphia Energy Solutions Refinery located at 3144 Passyunk Avenue, Philadelphia, Pennsylvania. The report indicates that the remediation performed has attained compliance with the statewide health cleanup standard.

This notice is made under the provision of the Land Recycling and Environmental Standards Act, the Act of May 19, 1995, P.L. 4, No. 2. Should you have any questions or comments regarding the proposed remediation, please contact me at kevin.long@terraphase.com or 609-236-8171, ext. 93.

Sincerely,

for Terraphase Engineering Inc.

Kevin L. Long
Principal Consultant

Enclosure: Notice of Intent to Remediate

KL:cs

cc: Julianna Connolly (jconnolly@hilcoglobal.com)
Joseph Jeray (jjeray@hilcoglobal.com)

Proof of Delivery

Dear Customer,

This notice serves as proof of delivery for the shipment listed below.

Tracking Number
1Z75YA673094272907

Weight
0.50 LBS

Service

UPS Next Day Air Saver®

Shipped / Billed On
03/01/2022

Delivered On

03/02/2022 10:14 A.M.

Delivered To
PHILADELPHIA, PA, US

Received By

CD MONROE

Left At
Office

Thank you for giving us this opportunity to serve you. Details are only available for shipments delivered within the last 120 days. Please print for your records if you require this information after 120 days.

Sincerely,

UPS

Tracking results provided by UPS: 03/02/2022 11:10 A.M. EST

Notice of an Intent
to Remediate to an Environmental Standard
and Notification of Receipt of a Final Report (for Statewide health standard).
(Sections 302(e)(1)(ii), Sections 302(e)(2),
303(h)(1)(ii), 303(h)(2),
304(n)(1)(i), and 305(c)(1))

Pursuant to the Land Recycling and Environmental Remediation Standards Act, the act of May 19, 1995, P.L. 4, No. 1995-2., notice is hereby given that Philadelphia Energy Solutions Refining and Marketing LLC will submit to the Pennsylvania Department of Environmental Protection a Notice of Intent to Remediate a site located at 3144 Passyunk Avenue, Philadelphia. This Notice of Intent to Remediate states that the site is the Former Philadelphia Energy Solutions Refinery. The site has been found to be contaminated with petroleum constituents which has contaminated soil on the Site. Philadelphia Energy Solutions Refining and Marketing LLC has indicated the proposed remediation measures will consist of soil excavation and disposal. The proposed future use of the property will be non-residential for commercial/industrial use.

Notice is hereby given that Philadelphia Energy Solutions Refining and Marketing LLC will submit a final report to the Pennsylvania Department of Environmental Protection, Southeast Regional Office, to demonstrate attainment of the Statewide health standard for a site located at located at 3144 Passyunk Avenue, Philadelphia, Pennsylvania. Philadelphia Energy Solutions Refining and Marketing LLC has indicated that the remediation measures taken have attained compliance with the Statewide health clean up standard established under the Land Recycling and Environmental Remediation Standards Act.

This notice is made under the provision of the Land Recycling and Environmental Remediation Standards Act, the Act of May 19, 1995, P.L. #4, No. 2.

The Philadelphia Inquirer

801 MARKET STREET, SUITE 300, PHILADELPHIA, PA 19107

Affidavit of Publication

On Behalf of:
TERRAPHASE ENGINEERING
1100 E HECTOR ST
SUITE 416
CONSHOHOCKEN, PA 19428

STATE OF PENNSYLVANIA COUNTY OF PHILADELPHIA:

Before the undersigned authority personally appeared the undersigned who, on oath represented a and say: that I am an employee of The Philadelphia Inquirer, LLC, and am authorized to make this affidavit of publication, and being duly sworn, I depose and say:

1. The Philadelphia Inquirer, LLC is the publisher of the Philadelphia Daily News, with its headquarters at 801 Market Street, Suite 300, Philadelphia, Pennsylvania 19107.
2. The Philadelphia Daily News is an edition of The Philadelphia Inquirer. The Philadelphia Daily News is continuously published and distributed Sunday-Friday in the City of Philadelphia, count and state aforesaid.
3. The printed notice or publication attached hereto set forth on attached
hereto was published in all regular print editions of the Philadelphia Daily News on

Legal Notices

as published in **Daily News Legals** in the issue(s) of:

3/4/2022

4. Under oath, I state that the following is true and correct, and that neither I nor The Philadelphia Inquirer, LLC have any is interest in the subject matter of the aforesaid notice or advertisement.

Helene Sweeney

Katherine V. Harley
Notary Public

My Commission Expires:

Commonwealth of Pennsylvania - Notary Seal
KATHERINE V. HARLEY, Notary Public
Philadelphia County
My Commission Expires May 25, 2025
Commission Number 1312829

Ad No: 98349
Customer No: 104799

COPY OF ADVERTISEMENT

Notice of an Intent to Remediate to an Environmental Standard and Notification of Receipt of a Final Report (for Statewide health standard). (Sections 302(e)(1)(ii), Sections 302(e)(2), 303(h)(1)(ii), 303(h)(2), 304(n)(1)(i), and 305(c)(1))

Pursuant to the Land Recycling and Environmental Remediation Standards Act, the act of May 19, 1995, P.L. 4, No. 1995-2., notice is hereby given that Philadelphia Energy Solutions Refining and Marketing LLC will submit to the Pennsylvania Department of Environmental Protection a Notice of Intent to Remediate a site located at 3144 Passyunk Avenue, Philadelphia. This Notice of Intent to Remediate states that the site is the Former Philadelphia Energy Solutions Refinery. The site has been found to be contaminated with petroleum constituents which has contaminated soil on the Site. Philadelphia Energy Solutions Refining and Marketing LLC has indicated the proposed remediation measures will consist of soil excavation and disposal. The proposed future use of the property will be non-residential for commercial/industrial use.

Notice is hereby given that Philadelphia Energy Solutions Refining and Marketing LLC will submit a final report to the Pennsylvania Department of Environmental Protection, Southeast Regional Office, to demonstrate attainment of the Statewide health standard for a site located at located at 3144 Passyunk Avenue, Philadelphia, Pennsylvania. Philadelphia Energy Solutions Refining and Marketing LLC has indicated that the remediation measures taken have attained compliance with the Statewide health clean up standard established under the Land Recycling and Environmental Remediation Standards Act.

This notice is made under the provision of the Land Recycling and Environmental Remediation Standards Act, the Act of May 19, 1995, P.L. #4, No. 2.

Appendix B

Notice of Release – Environmental Incident Report

ENVIRONMENTAL INCIDENT REPORT

Date of Incident: 10/11/2021 **Time of Incident:** 1030 hrs.

Date of Report: 10/11/2021 Updated 11/8/2021 **Report Author:** Robert Armstrong , Sr. Project Manager

Incident Location and Relevant Background Information:

The Incident occurred within the former PESRM Refinery where a pipe rack containinig various process lines crosses the roadway near the 860 unit cooling tower and Hartranft Street. The scheduled removal of the pipe lines within this pipe rack were in porgress at the time of the incident. The pipeline that caused the release was an out of service line used to remove water from AST's 840 & 843. The water was then directed to the Point Breeze BIO Plant for treatment. The location of the area affected by the release is just north and west of the CO2 spheres and AST's PB 840 & 843 (See figures & drawings tab for locations of key features). The total area affected by the release was roughly 1,600 square feet and 1,200 square feet of this area is an asphalt roadway. The remaining 400 square feet represents the impacted soil area and aprox. 12 to 14 cy of soil were removed.

Causes & Corrective Actions: (If Applicable - Provide Recognition for Notable and/or Positive Actions that Occurred During the Incident)	
Finding:	**Residual oil and water in pipeline was trapped in low spot of the pipeline. Low spot was not visually obvious without close observation and comparison to**
Potential Corrective Actions:	**a. If possible/practical determine existing low spots that may contain residual material and drain those areas prior to removal**
	b. If low spots cannot be determined or identified or provide adequate containment for material to drain to in order to prevent potential
	c. If access to drain areas of a pipeline suspected to contain residual material consider alternative methods such as a cold tap
	and divert or direct the flow to a vac truck or container.
Positive Feedback:	**At the time of the incident additional resources were immediately requested, resulting in preventing migration and reducing the environmental impact.**

Release / Incident Information (check one):

Waste: **Petroleum:** Residual Oil & Wash Water **Other:**

Chemical: **Gas/Vapor:**

Nuisance Complaints: N/A

Odor: **Fugitive Dust:** **Noise:**

Environmental Impact- sensitive receptors - (check all that apply):

Land: X **Air:** **Water:** **Community:**

Potential Impact to Gound Water:	YES:	NO:	X
Impact to Community:	YES:	NO:	X
Agency Notification Required:	YES: X	NO:	
Notification Made:	YES: X	NO:	

Time of Notification: 12:00 hrs. **Agency Notified:** The PADEP **Agency** Answering service (follow-up call from K. Bauer @12:30)

Additional Comments:

N/A

Follow-up Remedial Actions:

Confirmatory sampling and Analysis to be performed in the affected soil area

Equipment Utilized During Corrective/Remedial Actions:

Quantity	Description
1	skid steer
1	Vacuum Truck
1	Roll-Off Box
1	Roll-off Truck

Quantity	Description
2	CY sacks of sorbent material

Personnel	Position
3	Operators
6	Laborer
2	Supervisor

Analytical Data (received 11/04/2021)

Incident Date	Laboratory	Sample ID	Sample Collection Date	COC Date	Matrix	Results Comparison to: PA Tables 3a & 4a Residential	Analyses Requested
10/11/2021	Eurofins Lancaster	**See COC below:** a total of 6 confirmation grab samples and were collected following the cleanup. An additional 2 grab samples and a composite were collected from the roll-off containing the remediated soil.	10/12/2021	1/13/2021	SOL	see attached: (**Under review)**	Full Waste Characterization (Additional Paramters Pending)

Waste Disposition:

Water and Oil collected was sent to the PB BIO Plant for treatment (Completed)

TSDF and DOT Shipping information:Contaminated soil in Roll-off # RB44062RT - Submitting profile request to WM week of 11/8/21 (soil will be classified as Non-Haz) and will be shipped upon approval from the landfill. (In Progress)

COC & Table A Parameters + Total Benzene

eurofins | QC

CHAIN OF CUSTODY
Page 1 of 1

410-58999 Chain of Custody

702 Electronic Drive, Horsham, PA 19044-0962 — Phone: 215-355-3900 — Fax: 215-355-7231

Client/Acct. No.: NorthStar Contracting Group, Inc
Address: 3144 Passyunk Ave, Philadelphia PA 19145
City/State/Zip: 440-328-1524
Phone/Fax: rarmstrong@northstar.com
Client Contact:
PROJECT:

Bill to/Report to (if different):
Sampling Site Address (if different) Include State:
P.O. No.: PWSID #:
Quote #:
e-mail:

___ Ascorbic/HCL Vials # ___ HCl Vials
___ $Na_2S_2O_3$
___ Na OH/Zn acetate pH
___ HNO_3 pH
___ H_2SO_4 pH
___ NaOH pH
___ Unpreserved
___ HCl # ___ NH4Cl # ___ MeOH
___ DI Water

MATRIX CODES: DW DRINKING WATER; GW GROUND WATER; WW WASTEWATER; SO SOIL; SL SLUDGE; OIL OIL; SOL NON SOIL SOLID; MI MISCELLANEOUS; X OTHER

FIELD ID	Date	Military Time	GRAB	COMP	Matrix Code	Total	H_2SO_4	HCl	Vials	HNO_3	NaOH	ZnAc	UNPRE	BACT	ANALYSIS REQUESTED	Field pH, Temp (°C), DO, Cl2, Cond. etc.
Hartranft-10TH-CONF-SOIL-1-2021-10-12	10/12/21	1000	X		SO	5							5		Total Benzene	~~Use caution when working with these samples.~~
Hartranft-10TH-CONF-SOIL-2-2021-10-12	10/12/21	1005	X		SO	5							5		See attached Table A Parameters	
Hartranft-10TH-CONF-SOIL-3-2021-10-12	10/12/21	1007	X		SO	5							5			
Hartranft-10TH-CONF-SOIL-4-2021-10-12	10/12/21	1011	X		SO	5							5			
Hartranft-10TH-CONF-SOIL-5-2021-10-12	10/12/21	1012	X		SO	5							5			
Hartranft-10TH-CONF-SOIL-6-2021-10-12	10/12/21	1016	X		SO	5							5			
Hartranft-10TH-RB44062-RT-1-2021-10-12	10/12/21	1030	X		SO	5							5			
Hartranft-10TH-RB44062-RT-2-2021-10-12	10/12/21	1036	X		SO	5							5			
Hartranft-10TH-RB44062RT-3-2021-10-12	10/12/21	1038		X	SO	7							7			

SAMPLED BY: (Name/Company): Josh Subeye / North Star

TAT: ☐ STANDARD (10 DAY) or DUE DATE: ASAP

Report Format: ☐ Standard ☐ NJ-RDD ☐ SRP-RDD ☐ Standard + QC ☐ Forms ☐ EDD

Please call for pricing and availability for rush (<10 day) turnaround and for all but standard reporting format.

Field Parameters Analyzed By: Initials: Date/Time:

SAMPLE CUSTODY EXCHANGES MUST BE DOCUMENTED BELOW. USE FULL LEGAL SIGNATURE, DATE AND MILITARY TIME (24 HOUR CLOCK, I.E. 8AM IS 0800, 4 PM IS 1600)

Relinquished By	Date	Time	Received By	Date	Time
1. (signature) (Sampler)	10.13.21	1225	1. (signature)	10/13/21	1225
2. (signature)	10/13/21	1810	2.		
3.			3.		
4.			4.		
5.			5. (signature)	10/13/21	1810

DELIVERY: ☐ EQC COURIER ☐ CLIENT ☐ UPS ☐ FEDEX ☐ OTHER

Custody Seal Number:

Rec'd Temp.: 1.3° / 2.3° Initials: MR Ice (Y) N Location:
COMMENTS:
Hazardous: yes / no

TABLE A PARAMETERS

410-58998-02 Chain of Custody

	Parameter Name	Type	Category	Limits	Units	85% of Limit
❑	Ignitibility	As Received		>140	F	
❑	Oil & Grease	As Received			mg/kg	
❑	Paint Filter Test	As Received		No free liquids		
❑	PCB's	As Received		50		
❑	pH	As Received		2 - 12.5	S.U.	
❑	Reactive Cyanide	As Received		100		
❑	Reactive Sulfide	As Received		500		
❑	Total Solids	As Received				
❑	Total Volatile Solids	As Received				
❑	Ammonia-Nitrogen	ASTM		111111	mg/l	
❑	Chemical Oxygen Demand	ASTM				
❑	Oil & Grease	ASTM		88550	mg/l	
❑	Total Solids	ASTM				
❑	pH	TCLP				
❑	Arsenic	TCLP	Metals	5	mg/l	4.25
❑	Barium	TCLP	Metals	100	mg/l	85
❑	Cadmium	TCLP	Metals	1	mg/l	0.85
❑	Chromium	TCLP	Metals	5	mg/l	4.25
❑	Copper	TCLP	Metals	167	mg/l	142
❑	Lead	TCLP	Metals	5	mg/l	4.25
❑	Mercury	TCLP	Metals	0.2	mg/l	0.17
❑	Nickel	TCLP	Metals	242	mg/l	206
❑	Selenium	TCLP	Metals	1	mg/l	0.85
❑	Silver	TCLP	Metals	5	mg/l	4.25
❑	Zinc	TCLP	Metals	1875	mg/l	1594
❑	2,4-D	TCLP	Herb	10	mg/l	8.5
❑	2,4,5-TP	TCLP	Herb	1	mg/l	0.85
❑	Chlordane	TCLP	Pest	0.03	mg/l	0.0255
❑	Endrin	TCLP	Pest	0.02	mg/l	0.017
❑	Heptachlor	TCLP	Pest	0.008	mg/l	0.0068
❑	Heptachlor Epoxide	TCLP	Pest	0.008	mg/l	0.0068
❑	Lindane	TCLP	Pest	0.4	mg/l	0.34
❑	Methoxychlor	TCLP	Pest	10mg/l	8.5	
❑	Toxaphene	TCLP	Pest	0.5	mg/l	0.425
❑	2,4,5-trichlorophenol	TCLP	Acids	400	mg/l	340
❑	2,4,6-trichlorophenol	TCLP	Acids	2	mg/l	1.7
❑	m-cresol	TCLP	Acids	200	mg/l	170
❑	o-cresol	TCLP	Acids	200	mg/l	170
❑	p-cresol	TCLP	Acids	200	mg/l	170
❑	Pentachlorophenol	TCLP	Acids	100	mg/l	85
❑	2,4-dinitrotoluene	TCLP	Base/Neutral	0.13	mg/l	0.1105
❑	Hexachlorobenzene	TCLP	Base/Neutral	0.13	mg/l	0.1105
❑	Hexachlorobutadiene	TCLP	Base/Neutral	0.5	mg/l	0.425
❑	Hexachloroethane	TCLP	Base/Neutral	3	mg/l	2.55

TABLE A PARAMETERS

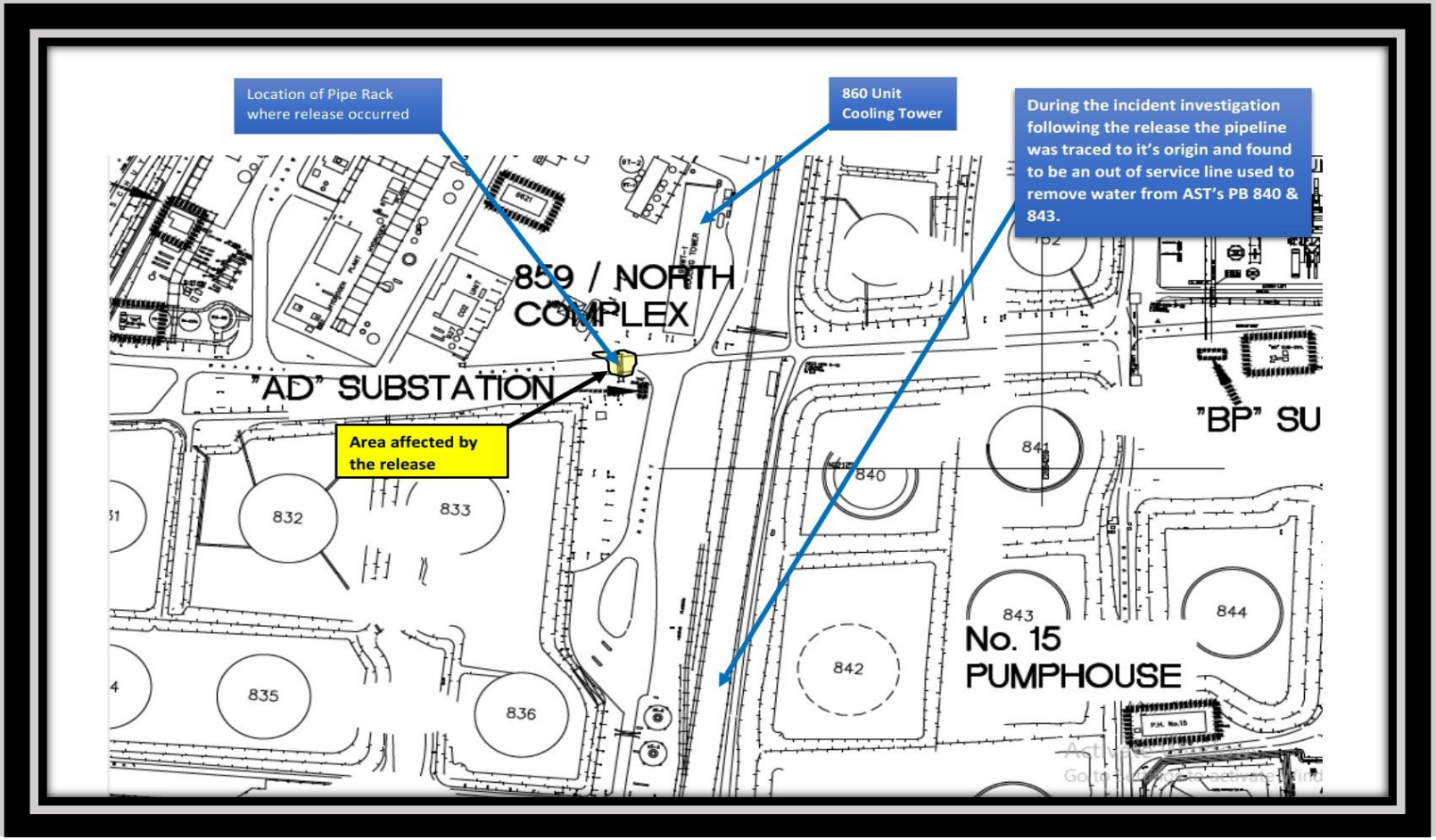
*Volatile Organic Compounds must be taken from discrete samples

	Parameter Name	Type	Category	Limits	Units	85% of Limit
❑	Nitrobenzene	TCLP	Base/Neutral	2	mg/l	1.7
❑	Pyridine	TCLP	Base/Neutral	5	mg/l	4.25
❑	*1,1-dichloroethylene	TCLP	Volatiles	0.7	mg/l	0.595
❑	*1,2-dichloroethane	TCLP	Volatiles	0.5	mg/l	0.425
❑	*1,4-dichlorobenzene	TCLP	Volatiles	7.5	mg/l	6.375
❑	*Benzene	TCLP	Volatiles	0.5	mg/l	0.425
❑	*Carbon Tetrachloride	TCLP	Volatiles	0.5	mg/l	0.425
❑	*Chlorobenzene	TCLP	Volatiles	100	mg/l	85
❑	*Chloroform	TCLP	Volatiles	8	mg/l	6.8
❑	*Methyl ethyl ketone	TCLP	Volatiles	200	mg/l	170
❑	*Tetrachloroethylene	TCLP	Volatiles	0.7	mg/l	0.595
❑	*Trichloroethylene	TCLP	Volatiles	0.5	mg/l	0.425
❑	*Vinyl Chloride	TCLP	Volatiles	0.2	mg/l	0.17

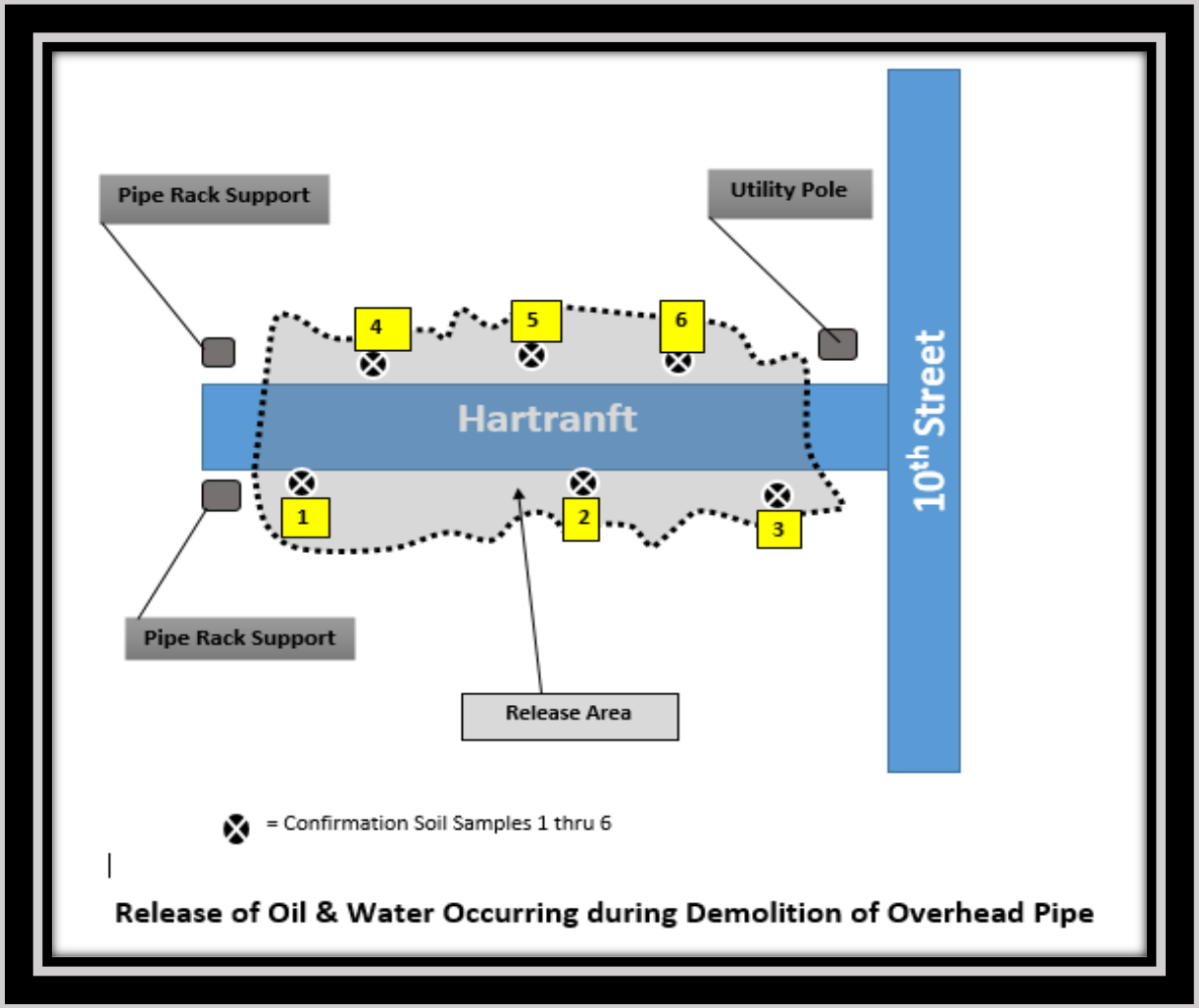
INCIDENT TIMELINE

DATE	TIME	ACTIVITY
10/11/2021	1015-1030	Demolition crew removing decommissioned pipes from pipe rack at 860 unit, a pipe previously flushed contained, but contained some residual oil and water in a low spot in the line. when the pipe was sheared it released residual water and oil directly to the road surface. the material then migrated to the curb areas making contact with soil.
	1030 - 1230	crews worked to vacuum the oil and water from curb areas and remove surface soil. Completed free liquid & soil removal at 1230hrs.
	1155 - 1210	Notification made to The PADEP. Message left with answering service. Answering service passed the information on to Mr. Kevin Bauer at the agency
	1230	Mr. Bauer returned the call and a brief summary of the incident was provided and he
	1255	Cleanup of the affected area to include the road surface is complete
10/12/2021	1000	Samples collected and prepared for pickup by lab
10/13/2021	1225	Samples transferred to custody of lab courier
11/4/2021	1120	Sample results received from Eurofins and under review.

INCIDENT LOCATION



Sample Locations: 6 grab confirmation samples (see COC for Sample ID's)



Release of Oil & Water Occurring during Demolition of Overhead Pipe

Appendix C

Disposal Documents

PURE SOIL TECHNOLOGIES
P.O. Drawer 43
Farmingdale, NJ 07727
Phone: 732.308.1113 Fax: 732.462.9626

151245

Weigh Scale Ticket #
 # escala de boleto

NON-HAZARDOUS MATERIAL MANIFEST

You must return 4 copies of this manifest upon delivery.

SITE INFORMATION

Site Name: PES
Address: 3144 PASSYUNK AVE
City, State, Zip: PHILADELPHIA, PA 19145

AGENT / CONSULTANT

Name: R&B DEBRIS LLC
Contact Name: PATRICK DURIA
Phone: (609) 261-8036

Approval Number	Description of Material
2112037	Non-Haz Contaminated Soil RB 40864 FT

*** Must be Initialed By Authorized Agent.*

	SITE	**INITIALS
Time Arrive:		
Time Depart:		

I hereby certify that the above named material does not contain free liquid as defined by 40 CFR Part 260.10 or any applicable state law, is not a hazardous waste as defined by 40 CFR Part 261 or any applicable state law, has been properly described, classified and packaged, and is in proper condition for transportation according to applicable regulations.

Authorized Agent for PES RM LLC
Robert Ansty
Generator/Authorized Agent Name (Print)

Signature

1/6/2022
Shipment Date

TRANSPORTER

Transporter Name: Liberty Waste & Recycling
Address: 576 W Landis
City, State, Zip: Mooreston NJ 08057

Driver Name (Print): Steven Dry
Vehicle License No/State/EPA No.:
Truck Number: 81

I hereby certify that the above named material was picked up at the generator site listed above.

Driver Signature

01/06/2022
Date

I hereby certify that the above named material was delivered without incident to the destination listed below.

Driver Signature

Date

DESTINATION

Site Name: PURE SOIL TECHNOLOGIES
Address: 656 SOUTH HOPE CHAPEL ROAD, JACKSON, NJ 08527
Phone: (732) 657-8551

Business hours are: Monday through Friday 7 AM to 5 PM. Saturday By Appointment Only.

I hereby certify that the above named material has been accepted and to the best of my knowledge the foregoing is true and accurate.

Name of Authorized Agent

Signature

Receipt Date

Form: PST CB

AGENT/GC COPY

PURE SOIL TECHNOLOGIES
P.O. Drawer 43
Farmingdale, NJ 07727
Phone: 732.308.1113 Fax: 732.462.9826

151245

NON-HAZARDOUS MATERIAL MANIFEST

You must return 4 copies of this manifest upon delivery.

Weigh Scale Ticket #
escala de boleto

SITE INFORMATION

Site Name: PES
Address: 144 PASSYUNK AVE
City, State, Zip: PHILADELPHIA PA 19145

AGENT / CONSULTANT

Name: RAB DEBRIS LLC
Contact Name: PATRICK DUBIA
Phone: (609) 261-8038

Approval Number	Description of Material
2112037	Non-Haz Contaminated Soil B&F FB'70864 FT

** *Must be Initialed By Authorized Agent.*

	SITE	**INITIALS
Time Arrive:		
Time Depart:		

I hereby certify that the above named material does not contain free liquid as defined by 40 CFR Part 260.10 or any applicable state law, is not a hazardous waste as defined by 40 CFR Part 261 or any applicable state law, has been properly described, classified and packaged, and is in proper condition for transportation according to applicable regulations.

Authorized Agent for PES RM, LLC
Robert [illegible] — Generator/Authorized Agent Name (Print)
[signature] — Signature
1/6/2022 — Shipment Date

TRANSPORTER

Transporter Name: [illegible]
Address: [illegible]
City, State, Zip: [illegible]
Driver Name (Print): [illegible]
Vehicle License No/State/EPA No.: AV625T
Truck Number: 81

I hereby certify that the above named material was picked up at the generator site listed above.

[signature] — Driver Signature
01/06/2022 — Date

I hereby certify that the above named material was delivered without incident to the destination listed below.

[signature] — Driver Signature
01/06/2022 — Date

DESTINATION

Site Name: PURE SOIL TECHNOLOGIES
Phone: (732) 657-5551
Address: 666 SOUTH HOPE CHAPEL ROAD, JACKSON, NJ 08527

Business hours are: Monday through Friday 7 AM to 5 PM. Saturday By Appointment Only.

I hereby certify that the above named material has been accepted and to the best of my knowledge the foregoing is true and accurate.

Name of Authorized Agent
[signature] — Signature
1/6/22 — Receipt Date

Form: PST CB

TRANSPORTER COPY

puresoil

Pure Soil Technologies
655 SOUTH HOPE CHAPEL RD
JACKSON, NJ 08527
732-657-8551

CUSTOMER:
R&B DEBRIS LLC
5900 SYLON BLVD
HAINESPORT NJ 08060
609-261-8036

CUSTOMER NO: 3880

TICKET NO: 298875
DATE: 01/06/22
TIME: 10:39 AM

JOB NAME:
PES
3144 PASSYUNK AVE
PHILADELPHIA PA 19145

JOB NO: 2112037
QUOTE NO: 2112-039

MANIFEST NO: 151245
PRODUCT: JR66
JR66 SOIL

CARRIER: LIBERTY WASTE
TRUCK NO: LIB61
LIC. PLATE: AU625T

DAILY LOADS	METRIC	TONNAGE
1	14.79	16.30
TO-DATE LOADS	METRIC	TONNAGE
1	14.79	16.30

	METRIC (MG)	ENGLISH (TN)
GROSS	32.33 Mg	35.64 TN
TARE	17.55 Mg	19.34 TN
NET	14.79 Mg	16.30 TN

*= manual weight

RATE: $0.00
TAX: $0.00
TOTAL: $0.00

RECIEVED BY: _____
WEIGHMASTER: JAMES MATTHEWS NJWMS #31489

Appendix D

Laboratories' Analytical Reports

eurofins | Environment Testing America

ANALYTICAL REPORT

Eurofins Lancaster Laboratories Env, LLC
2425 New Holland Pike
Lancaster, PA 17601
Tel: (717)656-2300

Laboratory Job ID: 410-58999-1
Client Project/Site: NorthStar Sampling
Revision: 1

For:
NorthStar Contracting Group, Inc.
2250 East Adams Avenue
Philadelphia, Pennsylvania 19124

Attn: Robert Armstrong

Authorized for release by:
11/17/2021 5:41:08 PM

Amek Carter, Project Manager
(717)556-7252
Loran.Carter@eurofinset.com

Analytical test results meet all requirements of the associated regulatory program (e.g., NELAC (TNI), DoD, and ISO 17025) unless otherwise noted under the individual analysis. Data qualifiers are applied to note exceptions. Noncompliant quality control (QC) is further explained in narrative comments.
· QC results that exceed the upper limits and are associated with non-detect samples are qualified but further narration is not required since the bias is high and does not change a non-detect result. Further narration is also not required with QC blank detection when the associated sample concentration is non-detect or more than ten times the level in the blank.
· Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD is performed, unless otherwise specified in the method.
· Surrogate and/or isotope dilution analyte recoveries (if applicable) which are outside of the QC window are confirmed unless attributed to a dilution or otherwise noted in the narrative.
Regulated compliance samples (e.g. SDWA, NPDES) must comply with the associated agency requirements/permits.

Measurement uncertainty values, as applicable, are available upon request.

Test results relate only to the sample tested. Clients should be aware that a critical step in a chemical or microbiological analysis is the collection of the sample. Unless the sample analyzed is truly representative of the bulk of material involved, the test results will be meaningless. If you have questions regarding the proper techniques of collecting samples, please contact us. We cannot be held responsible for sample integrity, however, unless sampling has been performed by a member of our staff. Times are local to the area of activity. Parameters listed in the 40 CFR Part 136 Table II as "analyze immediately" and tested in the laboratory are not performed within 15 minutes of collection.

This report shall not be reproduced except in full, without the written approval of the laboratory.

WARRANTY AND LIMITS OF LIABILITY - In accepting analytical work, we warrant the accuracy of test results for the sample as submitted. The foregoing express warranty is exclusive and is given in lieu of all other warranties, expressed or implied, except as otherwise agreed. We disclaim any other warranties, expressed or implied, including a warranty of fitness for particular purpose and warranty of merchantability. In no event shall Eurofins Lancaster Laboratories Environmental, LLC be liable for indirect, special, consequential, or incidental damages including, but not limited to, damages for loss of profit or goodwill regardless of (A) the negligence (either sole or concurrent) of Eurofins Lancaster Laboratories Environmental and (B) whether Eurofins Lancaster Laboratories Environmental has been informed of the possibility of such damages. We accept no legal responsibility for the purposes for which the client uses the test results. Except as otherwise agreed, no purchase order or other order for work shall be accepted by Eurofins Lancaster Laboratories Environmental which includes any conditions that vary from the Standard Terms and Conditions, and Eurofins Lancaster Laboratories Environmental hereby objects to any conflicting terms contained in any acceptance or order submitted by client.

Amek Carter
Project Manager
11/17/2021 5:41:08 PM

Table of Contents

Definitions/Glossary

Client: NorthStar Contracting Group, Inc. Job ID: 410-58999-1
Project/Site: NorthStar Sampling

Qualifiers

GC/MS VOA

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

GC Semi VOA

Qualifier	Qualifier Description
*1	LCS/LCSD RPD exceeds control limits.
^c	CCV Recovery is outside acceptance limits.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
p	The %RPD between the primary and confirmation column/detector is >40%. The lower value has been reported.
S1+	Surrogate recovery exceeds control limits, high biased.

Metals

Qualifier	Qualifier Description
*+	LCS and/or LCSD is outside acceptance limits, high biased.
^3+	Reporting Limit Check Standard is outside acceptance limits, high biased
B	Analyte was found in the blank.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

General Chemistry

Qualifier	Qualifier Description
!	Laboratory is not accredited for this parameter.
*-	LCS and/or LCSD is outside acceptance limits, low biased.
B	Analyte was found in the blank.
F3	Duplicate RPD exceeds the control limit
FH	MS and/or MSD recovery above control limits.
FL	MS and/or MSD recovery below control limits.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
1C	Result is from the primary column on a dual-column method.
2C	Result is from the confirmation column on a dual-column method.
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent

Glossary (Continued)

Abbreviation	These commonly used abbreviations may or may not be present in this report.
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Job ID: 410-58999-1

Laboratory: Eurofins Lancaster Laboratories Env, LLC

Narrative

Job Narrative
410-58999-1

Revision
The report being provided is a revision of the original report sent on 11/4/2021. The report (revision 1) is being revised due to: Add additional Volatiles and Total Lead.

Receipt
The samples were received on 10/13/2021 6:10 PM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperatures of the 2 coolers at receipt time were 1.3°C and 2.3°C

GC/MS VOA
Method 8260C: The following samples were diluted due to the abundance of non-target analytes: Hartranft-10TH-CONF-SOIL-1-2021-10-12 (410-58999-1), Hartranft-10TH-CONF-SOIL-2-2021-10-12 (410-58999-2), Hartranft-10TH-CONF-SOIL-3-2021-10-12 (410-58999-3), Hartranft-10TH-CONF-SOIL-4-2021-10-12 (410-58999-4), Hartranft-10TH-CONF-SOIL-5-2021-10-12 (410-58999-5), Hartranft-10TH-CONF-SOIL-6-2021-10-12 (410-58999-6), Hartranft-10TH-RB44062-RT-1-2021-10-12 (410-58999-7), Hartranft-10TH-RB44062-RT-2-2021-10-12 (410-58999-8) and Hartranft-10TH-RB44062-RT-3-2021-10-12 (410-58999-9). Elevated reporting limits (RLs) are provided.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

GC/MS Semi VOA
No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Herbicides
No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

PCBs
Method 8082A: The continuing calibration verification (CCV) associated with batch 410-183531 recovered outside control limit (+/-20%D) for DCB Decachlorobiphenyl. This surrogate is used for control purposes and the CCV and samples associated with this CCV have surrogate %R well within acceptance criteria; therefore, the data have been reported. Hartranft-10TH-CONF-SOIL-2-2021-10-12 (410-58999-2), Hartranft-10TH-CONF-SOIL-3-2021-10-12 (410-58999-3) and Hartranft-10TH-CONF-SOIL-4-2021-10-12 (410-58999-4)

Method 8082A: The DCB Decachlorobiphenyl surrogate recovery for the following samples was outside acceptance limits (high biased) on the primary column due to matrix interference: Hartranft-10TH-CONF-SOIL-3-2021-10-12 (410-58999-3). The recovery is within acceptance limits on the other column, indicating that the extraction process was in control.

Method 8082A: The continuing calibration verification (CCV) associated with batch 410-183928 recovered outside control limit (+/-20%D) for DCB Decachlorobiphenyl. This surrogate is used for control purposes and the CCV and samples associated with this CCV have surrogate %R well within acceptance criteria; therefore, the data have been reported. The associated samples are: Hartranft-10TH-CONF-SOIL-5-2021-10-12 (410-58999-5), Hartranft-10TH-CONF-SOIL-6-2021-10-12 (410-58999-6), Hartranft-10TH-RB44062-RT-1-2021-10-12 (410-58999-7), Hartranft-10TH-RB44062-RT-2-2021-10-12 (410-58999-8) and Hartranft-10TH-RB44062-RT-3-2021-10-12 (410-58999-9).

Method 8082A: The continuing calibration verification (CCV) associated with batch 410-184470 recovered outside acceptance criteria, high biased, for %D for DCB Decachlorobiphenyl (Surr) on one column. Results are confirmed on both columns and reported from the passing column. Since the associated sample was non-detect for this analyte, the data have been reported.Hartranft-10TH-CONF-SOIL-1-2021-10-12 (410-58999-1)

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Pesticides
Method 8081B: The following samples were diluted due to the nature of the sample matrix: Hartranft-10TH-CONF-SOIL-1-2021-10-12

Job ID: 410-58999-1 (Continued)

Laboratory: Eurofins Lancaster Laboratories Env, LLC (Conti

(410-58999-1), Hartranft-10TH-CONF-SOIL-2-2021-10-12 (410-58999-2), Hartranft-10TH-CONF-SOIL-3-2021-10-12 (410-58999-3), Hartranft-10TH-CONF-SOIL-4-2021-10-12 (410-58999-4), Hartranft-10TH-CONF-SOIL-5-2021-10-12 (410-58999-5), Hartranft-10TH-CONF-SOIL-6-2021-10-12 (410-58999-6), Hartranft-10TH-RB44062-RT-1-2021-10-12 (410-58999-7), Hartranft-10TH-RB44062-RT-2-2021-10-12 (410-58999-8) and Hartranft-10TH-RB44062-RT-3-2021-10-12 (410-58999-9). Elevated reporting limits (RLs) are provided.

Method 8081B: The continuing calibration verification (CCV) recovered above the upper control limit for Methoxychlor . The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported.
Hartranft-10TH-CONF-SOIL-1-2021-10-12 (410-58999-1), Hartranft-10TH-CONF-SOIL-2-2021-10-12 (410-58999-2), Hartranft-10TH-CONF-SOIL-3-2021-10-12 (410-58999-3), Hartranft-10TH-CONF-SOIL-4-2021-10-12 (410-58999-4), Hartranft-10TH-CONF-SOIL-5-2021-10-12 (410-58999-5), Hartranft-10TH-CONF-SOIL-6-2021-10-12 (410-58999-6), Hartranft-10TH-RB44062-RT-1-2021-10-12 (410-58999-7), Hartranft-10TH-RB44062-RT-2-2021-10-12 (410-58999-8) and Hartranft-10TH-RB44062-RT-3-2021-10-12 (410-58999-9).

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Metals

Method 6010C: The TCLP leachate blank for batch 410-183271 contained Barium, Nickel and Lead above the method detection limit (MDL) but below the reporting limit (RL). This target analyte concentration was less than the TCLP Regulatory Hazard Limit. The associated sample(s) were also below the TCLP Regulatory Hazard Limit for this analyte; therefore, re-extraction was not performed.Associated Sample(s):Hartranft-10TH-CONF-SOIL-1-2021-10-12 (410-58999-1), Hartranft-10TH-CONF-SOIL-2-2021-10-12 (410-58999-2), Hartranft-10TH-CONF-SOIL-3-2021-10-12 (410-58999-3), Hartranft-10TH-CONF-SOIL-4-2021-10-12 (410-58999-4), Hartranft-10TH-CONF-SOIL-5-2021-10-12 (410-58999-5), Hartranft-10TH-CONF-SOIL-6-2021-10-12 (410-58999-6), Hartranft-10TH-RB44062-RT-1-2021-10-12 (410-58999-7), Hartranft-10TH-RB44062-RT-2-2021-10-12 (410-58999-8) and Hartranft-10TH-RB44062-RT-3-2021-10-12 (410-58999-9)

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

General Chemistry

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Detection Summary

Client: NorthStar Contracting Group, Inc.
Project/Site: NorthStar Sampling

Job ID: 410-58999-1

Client Sample ID: Hartranft-10TH-CONF-SOIL-1-2021-10-12 — Lab Sample ID: 410-58999-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Ethylbenzene	36	J	390	31	ug/Kg	50	☼	8260C	Total/NA
Xylenes, Total	250	J	780	110	ug/Kg	50	☼	8260C	Total/NA
1,2,4-Trimethylbenzene	890		390	39	ug/Kg	50	☼	8260C	Total/NA
Naphthalene	370	J	390	160	ug/Kg	50	☼	8260C	Total/NA
Isopropylbenzene	490		390	31	ug/Kg	50	☼	8260C	Total/NA
1,3,5-Trimethylbenzene	370	J	390	39	ug/Kg	50	☼	8260C	Total/NA
PCB-1254 (2C)	21	J	22	8.3	ug/Kg	1	☼	8082A	Total/NA
PCB-1260 (2C)	32		22	8.3	ug/Kg	1	☼	8082A	Total/NA
Lead	45		1.4	0.58	mg/Kg	1	☼	6010C	Total/NA
Barium	0.74	B	0.050	0.010	mg/L	1		6010C	TCLP
Zinc	3.0		0.20	0.037	mg/L	1		6010C	TCLP
Nickel	0.022	J B	0.10	0.021	mg/L	1		6010C	TCLP
Total Solids	87		0.10	0.10	%	1		2540G-2011	Total/NA
Total Volatile Solids	33		0.10	0.10	%	1		2540G-2011	Total/NA
Ignitable to Air	No		1.0	1.0	NONE	1		261.21	Total/NA
Ignitable to Flame	No		1.0	1.0	NONE	1		261.21	Total/NA
Ignitable to Friction	No		1.0	1.0	NONE	1		261.21	Total/NA
Ignitable to Water	No		1.0	1.0	NONE	1		261.21	Total/NA
HEM (Oil & Grease)	3600	FH	760	250	mg/Kg	1	☼	9071B	Total/NA
Presence of Free Liquid	No				No Unit	1		9095B	Total/NA
pH	7.5		0.01	0.01	S.U.	1		9045D	Soluble
Corrosivity	No		0.01	0.01	NONE	1		9045D	Soluble
HEM (Oil & Grease)	2.7	J ! B	5.3	1.5	mg/L	1		1664B	ASTM Leach
Total Solids	100	!	42	14	mg/L	1		2540B-2011	ASTM Leach
Residue, Total	100	!	42	14	mg/L	1		2540B-2011	ASTM Leach
Chemical Oxygen Demand	45	J !	75	25	mg/L	1		410.4	ASTM Leach

Client Sample ID: Hartranft-10TH-CONF-SOIL-2-2021-10-12 — Lab Sample ID: 410-58999-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,2,4-Trimethylbenzene	63	J	310	31	ug/Kg	50	☼	8260C	Total/NA
PCB-1254 (2C)	9.1	J	19	7.1	ug/Kg	1	☼	8082A	Total/NA
PCB-1260 (2C)	10	J	19	7.1	ug/Kg	1	☼	8082A	Total/NA
Lead	19		1.5	0.62	mg/Kg	1	☼	6010C	Total/NA
Barium	0.28	B	0.050	0.010	mg/L	1		6010C	TCLP
Zinc	0.069	J	0.20	0.037	mg/L	1		6010C	TCLP
Total Solids	89		0.10	0.10	%	1		2540G-2011	Total/NA
Total Volatile Solids	2.2		0.10	0.10	%	1		2540G-2011	Total/NA
Ignitable to Air	No		1.0	1.0	NONE	1		261.21	Total/NA
Ignitable to Flame	No		1.0	1.0	NONE	1		261.21	Total/NA
Ignitable to Friction	No		1.0	1.0	NONE	1		261.21	Total/NA
Ignitable to Water	No		1.0	1.0	NONE	1		261.21	Total/NA
HEM (Oil & Grease)	1600		670	220	mg/Kg	1	☼	9071B	Total/NA
Presence of Free Liquid	No				No Unit	1		9095B	Total/NA
pH	9.3		0.01	0.01	S.U.	1		9045D	Soluble
Corrosivity	No		0.01	0.01	NONE	1		9045D	Soluble
Total Solids	130	!	42	14	mg/L	1		2540B-2011	ASTM Leach
Residue, Total	130	!	42	14	mg/L	1		2540B-2011	ASTM Leach
Chemical Oxygen Demand	39	J !	75	25	mg/L	1		410.4	ASTM Leach

This Detection Summary does not include radiochemical test results.

Detection Summary

Client: NorthStar Contracting Group, Inc.
Project/Site: NorthStar Sampling

Job ID: 410-58999-1

Client Sample ID: Hartranft-10TH-CONF-SOIL-3-2021-10-12 — Lab Sample ID: 410-58999-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,2,4-Trimethylbenzene	50	J	300	30	ug/Kg	50	☼	8260C	Total/NA
PCB-1254 (2C)	13	J p	19	7.2	ug/Kg	1	☼	8082A	Total/NA
PCB-1260 (2C)	47		19	7.2	ug/Kg	1	☼	8082A	Total/NA
Lead	21		1.6	0.64	mg/Kg	1	☼	6010C	Total/NA
Barium	0.43	B	0.050	0.010	mg/L	1		6010C	TCLP
Zinc	0.86		0.20	0.037	mg/L	1		6010C	TCLP
Total Solids	14		0.10	0.10	%	1		2540G-2011	Total/NA
Total Volatile Solids	97		0.10	0.10	%	1		2540G-2011	Total/NA
Ignitable to Air	No		1.0	1.0	NONE	1		261.21	Total/NA
Ignitable to Flame	No		1.0	1.0	NONE	1		261.21	Total/NA
Ignitable to Friction	No		1.0	1.0	NONE	1		261.21	Total/NA
Ignitable to Water	No		1.0	1.0	NONE	1		261.21	Total/NA
HEM (Oil & Grease)	2900		670	220	mg/Kg	1	☼	9071B	Total/NA
Presence of Free Liquid	No				No Unit	1		9095B	Total/NA
pH	9.5		0.01	0.01	S.U.	1		9045D	Soluble
Corrosivity	No		0.01	0.01	NONE	1		9045D	Soluble
HEM (Oil & Grease)	2.1	J ! B	5.2	1.5	mg/L	1		1664B	ASTM Leach
Total Solids	56	!	42	14	mg/L	1		2540B-2011	ASTM Leach
Residue, Total	56	!	42	14	mg/L	1		2540B-2011	ASTM Leach
Chemical Oxygen Demand	63	J !	75	25	mg/L	1		410.4	ASTM Leach

Client Sample ID: Hartranft-10TH-CONF-SOIL-4-2021-10-12 — Lab Sample ID: 410-58999-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Ethylbenzene	63	J	300	24	ug/Kg	50	☼	8260C	Total/NA
Xylenes, Total	620		600	83	ug/Kg	50	☼	8260C	Total/NA
1,2,4-Trimethylbenzene	6000		300	30	ug/Kg	50	☼	8260C	Total/NA
Naphthalene	2900		300	120	ug/Kg	50	☼	8260C	Total/NA
Isopropylbenzene	150	J	300	24	ug/Kg	50	☼	8260C	Total/NA
1,3,5-Trimethylbenzene	1700		300	30	ug/Kg	50	☼	8260C	Total/NA
PCB-1254 (2C)	8.6	J	18	6.9	ug/Kg	1	☼	8082A	Total/NA
PCB-1260 (2C)	7.9	J	18	6.9	ug/Kg	1	☼	8082A	Total/NA
Lead	21		1.2	0.49	mg/Kg	1	☼	6010C	Total/NA
Barium	0.37	B	0.050	0.010	mg/L	1		6010C	TCLP
Chromium	0.018	J	0.15	0.016	mg/L	1		6010C	TCLP
Lead	0.35	B	0.15	0.071	mg/L	1		6010C	TCLP
Zinc	2.3		0.20	0.037	mg/L	1		6010C	TCLP
Nickel	0.057	J B	0.10	0.021	mg/L	1		6010C	TCLP
Total Solids	89		0.10	0.10	%	1		2540G-2011	Total/NA
Total Volatile Solids	2.3		0.10	0.10	%	1		2540G-2011	Total/NA
Ignitable to Air	No		1.0	1.0	NONE	1		261.21	Total/NA
Ignitable to Flame	No		1.0	1.0	NONE	1		261.21	Total/NA
Ignitable to Friction	No		1.0	1.0	NONE	1		261.21	Total/NA
Ignitable to Water	No		1.0	1.0	NONE	1		261.21	Total/NA
HEM (Oil & Grease)	6500		650	220	mg/Kg	1	☼	9071B	Total/NA
Presence of Free Liquid	No				No Unit	1		9095B	Total/NA
pH	8.0		0.01	0.01	S.U.	1		9045D	Soluble
Corrosivity	No		0.01	0.01	NONE	1		9045D	Soluble
Total Solids	110	!	42	14	mg/L	1		2540B-2011	ASTM Leach
Residue, Total	110	!	42	14	mg/L	1		2540B-2011	ASTM Leach

This Detection Summary does not include radiochemical test results.

Detection Summary

Client: NorthStar Contracting Group, Inc.
Project/Site: NorthStar Sampling

Job ID: 410-58999-1

Client Sample ID: Hartranft-10TH-CONF-SOIL-5-2021-10-12 — Lab Sample ID: 410-58999-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,2,4-Trimethylbenzene	76	J	280	28	ug/Kg	50	☼	8260C	Total/NA
PCB-1260 (2C)	9.2	J	18	6.8	ug/Kg	1	☼	8082A	Total/NA
Lead	20		1.4	0.54	mg/Kg	1	☼	6010C	Total/NA
Barium	0.27	B	0.050	0.010	mg/L	1		6010C	TCLP
Zinc	1.9		0.20	0.037	mg/L	1		6010C	TCLP
Total Solids	93		0.10	0.10	%	1		2540G-2011	Total/NA
Total Volatile Solids	2.9		0.10	0.10	%	1		2540G-2011	Total/NA
Ignitable to Air	No		1.0	1.0	NONE	1		261.21	Total/NA
Ignitable to Flame	No		1.0	1.0	NONE	1		261.21	Total/NA
Ignitable to Friction	No		1.0	1.0	NONE	1		261.21	Total/NA
Ignitable to Water	No		1.0	1.0	NONE	1		261.21	Total/NA
HEM (Oil & Grease)	950		630	210	mg/Kg	1	☼	9071B	Total/NA
Presence of Free Liquid	No				No Unit	1		9095B	Total/NA
pH	8.7		0.01	0.01	S.U.	1		9045D	Soluble
Corrosivity	No		0.01	0.01	NONE	1		9045D	Soluble
HEM (Oil & Grease)	2.1	J ! B	5.3	1.5	mg/L	1		1664B	ASTM Leach
Total Solids	100	!	42	14	mg/L	1		2540B-2011	ASTM Leach
Residue, Total	100	!	42	14	mg/L	1		2540B-2011	ASTM Leach
Chemical Oxygen Demand	25	J !	75	25	mg/L	1		410.4	ASTM Leach

Client Sample ID: Hartranft-10TH-CONF-SOIL-6-2021-10-12 — Lab Sample ID: 410-58999-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,2,4-Trimethylbenzene	230	J	360	36	ug/Kg	50	☼	8260C	Total/NA
Naphthalene	650		360	140	ug/Kg	50	☼	8260C	Total/NA
Isopropylbenzene	39	J	360	29	ug/Kg	50	☼	8260C	Total/NA
1,3,5-Trimethylbenzene	75	J	360	36	ug/Kg	50	☼	8260C	Total/NA
PCB-1254 (2C)	23		21	7.8	ug/Kg	1	☼	8082A	Total/NA
Lead	32		1.8	0.72	mg/Kg	1	☼	6010C	Total/NA
Barium	0.40	B	0.050	0.010	mg/L	1		6010C	TCLP
Lead	0.15	B	0.15	0.071	mg/L	1		6010C	TCLP
Zinc	1.5		0.20	0.037	mg/L	1		6010C	TCLP
Total Solids	87		0.10	0.10	%	1		2540G-2011	Total/NA
Total Volatile Solids	12		0.10	0.10	%	1		2540G-2011	Total/NA
Ignitable to Air	No		1.0	1.0	NONE	1		261.21	Total/NA
Ignitable to Flame	No		1.0	1.0	NONE	1		261.21	Total/NA
Ignitable to Friction	No		1.0	1.0	NONE	1		261.21	Total/NA
Ignitable to Water	No		1.0	1.0	NONE	1		261.21	Total/NA
HEM (Oil & Grease)	3300		710	240	mg/Kg	1	☼	9071B	Total/NA
Presence of Free Liquid	No				No Unit	1		9095B	Total/NA
pH	7.6		0.01	0.01	S.U.	1		9045D	Soluble
Corrosivity	No		0.01	0.01	NONE	1		9045D	Soluble
HEM (Oil & Grease)	2.0	J ! B	5.3	1.5	mg/L	1		1664B	ASTM Leach
Total Solids	120	!	42	14	mg/L	1		2540B-2011	ASTM Leach
Residue, Total	120	!	42	14	mg/L	1		2540B-2011	ASTM Leach
Chemical Oxygen Demand	68	J !	75	25	mg/L	1		410.4	ASTM Leach

Client Sample ID: Hartranft-10TH-RB44062-RT-1-2021-10-12 — Lab Sample ID: 410-58999-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Ethylbenzene	57	J	360	28	ug/Kg	50	☼	8260C	Total/NA
Xylenes, Total	430	J	710	100	ug/Kg	50	☼	8260C	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins Lancaster Laboratories Env, LLC

Detection Summary

Client: NorthStar Contracting Group, Inc.
Project/Site: NorthStar Sampling

Job ID: 410-58999-1

Client Sample ID: Hartranft-10TH-RB44062-RT-1-2021-10-12 (Continued)

Lab Sample ID: 410-58999-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,2,4-Trimethylbenzene	2100		360	36	ug/Kg	50	☼	8260C	Total/NA
Naphthalene	570		360	140	ug/Kg	50	☼	8260C	Total/NA
Isopropylbenzene	770		360	28	ug/Kg	50	☼	8260C	Total/NA
1,3,5-Trimethylbenzene	770		360	36	ug/Kg	50	☼	8260C	Total/NA
PCB-1254 (2C)	11	J	21	7.8	ug/Kg	1	☼	8082A	Total/NA
PCB-1260 (1C)	13	J	21	7.8	ug/Kg	1	☼	8082A	Total/NA
Lead	28		1.6	0.64	mg/Kg	1	☼	6010C	Total/NA
Barium	0.54	B	0.050	0.010	mg/L	1		6010C	TCLP
Zinc	7.3		0.20	0.037	mg/L	1		6010C	TCLP
Nickel	0.11	B	0.10	0.021	mg/L	1		6010C	TCLP
Total Solids	80		0.10	0.10	%	1		2540G-2011	Total/NA
Total Volatile Solids	8.7		0.10	0.10	%	1		2540G-2011	Total/NA
Ignitable to Air	No		1.0	1.0	NONE	1		261.21	Total/NA
Ignitable to Flame	No		1.0	1.0	NONE	1		261.21	Total/NA
Ignitable to Friction	No		1.0	1.0	NONE	1		261.21	Total/NA
Ignitable to Water	No		1.0	1.0	NONE	1		261.21	Total/NA
HEM (Oil & Grease)	5000		710	240	mg/Kg	1	☼	9071B	Total/NA
Presence of Free Liquid	No				No Unit	1		9095B	Total/NA
pH	7.3		0.01	0.01	S.U.	1		9045D	Soluble
Corrosivity	No		0.01	0.01	NONE	1		9045D	Soluble
Total Solids	110	!	42	14	mg/L	1		2540B-2011	ASTM Leach
Residue, Total	110	!	42	14	mg/L	1		2540B-2011	ASTM Leach
Chemical Oxygen Demand	37	J !	75	25	mg/L	1		410.4	ASTM Leach

Client Sample ID: Hartranft-10TH-RB44062-RT-2-2021-10-12

Lab Sample ID: 410-58999-8

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Toluene	55	J	350	42	ug/Kg	50	☼	8260C	Total/NA
Ethylbenzene	160	J	350	28	ug/Kg	50	☼	8260C	Total/NA
Xylenes, Total	1300		700	99	ug/Kg	50	☼	8260C	Total/NA
1,2,4-Trimethylbenzene	3300		350	35	ug/Kg	50	☼	8260C	Total/NA
Naphthalene	790		350	140	ug/Kg	50	☼	8260C	Total/NA
Isopropylbenzene	1400		350	28	ug/Kg	50	☼	8260C	Total/NA
1,3,5-Trimethylbenzene	1200		350	35	ug/Kg	50	☼	8260C	Total/NA
PCB-1254 (2C)	11	J	20	7.7	ug/Kg	1	☼	8082A	Total/NA
PCB-1260 (2C)	16	J	20	7.7	ug/Kg	1	☼	8082A	Total/NA
Lead	25		1.6	0.66	mg/Kg	1	☼	6010C	Total/NA
Barium	0.52	B	0.050	0.010	mg/L	1		6010C	TCLP
Zinc	3.5		0.20	0.037	mg/L	1		6010C	TCLP
Nickel	0.044	J B	0.10	0.021	mg/L	1		6010C	TCLP
Mercury	0.00016	J	0.00020	0.000079	mg/L	1		7470A	TCLP
Total Solids	81		0.10	0.10	%	1		2540G-2011	Total/NA
Total Volatile Solids	8.8		0.10	0.10	%	1		2540G-2011	Total/NA
Ignitable to Air	No		1.0	1.0	NONE	1		261.21	Total/NA
Ignitable to Flame	No		1.0	1.0	NONE	1		261.21	Total/NA
Ignitable to Friction	No		1.0	1.0	NONE	1		261.21	Total/NA
Ignitable to Water	No		1.0	1.0	NONE	1		261.21	Total/NA
HEM (Oil & Grease)	6100		720	240	mg/Kg	1	☼	9071B	Total/NA
Presence of Free Liquid	No				No Unit	1		9095B	Total/NA
pH	6.9		0.01	0.01	S.U.	1		9045D	Soluble

This Detection Summary does not include radiochemical test results.

Client Sample ID: Hartranft-10TH-RB44062-RT-2-2021-10-12 (Continued)

Lab Sample ID: 410-58999-8

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Corrosivity	No		0.01	0.01	NONE	1		9045D	Soluble
HEM (Oil & Grease)	2.7	J ! B	5.3	1.5	mg/L	1		1664B	ASTM Leach
Total Solids	92	!	42	14	mg/L	1		2540B-2011	ASTM Leach
Residue, Total	92	!	42	14	mg/L	1		2540B-2011	ASTM Leach
Chemical Oxygen Demand	68	J !	75	25	mg/L	1		410.4	ASTM Leach

Client Sample ID: Hartranft-10TH-RB44062-RT-3-2021-10-12

Lab Sample ID: 410-58999-9

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Ethylbenzene	36	J	350	28	ug/Kg	50	☼	8260C	Total/NA
Xylenes, Total	330	J	710	99	ug/Kg	50	☼	8260C	Total/NA
1,2,4-Trimethylbenzene	1600		350	35	ug/Kg	50	☼	8260C	Total/NA
Naphthalene	410		350	140	ug/Kg	50	☼	8260C	Total/NA
Isopropylbenzene	500		350	28	ug/Kg	50	☼	8260C	Total/NA
1,3,5-Trimethylbenzene	610		350	35	ug/Kg	50	☼	8260C	Total/NA
PCB-1254 (2C)	12	J	20	7.7	ug/Kg	1	☼	8082A	Total/NA
PCB-1260 (2C)	22		20	7.7	ug/Kg	1	☼	8082A	Total/NA
Lead	33		1.7	0.67	mg/Kg	1	☼	6010C	Total/NA
Barium	0.44	B	0.050	0.010	mg/L	1		6010C	TCLP
Zinc	2.6		0.20	0.037	mg/L	1		6010C	TCLP
Nickel	0.11	B	0.10	0.021	mg/L	1		6010C	TCLP
Total Solids	81		0.10	0.10	%	1		2540G-2011	Total/NA
Total Volatile Solids	6.3		0.10	0.10	%	1		2540G-2011	Total/NA
Ignitable to Air	No		1.0	1.0	NONE	1		261.21	Total/NA
Ignitable to Flame	No		1.0	1.0	NONE	1		261.21	Total/NA
Ignitable to Friction	No		1.0	1.0	NONE	1		261.21	Total/NA
Ignitable to Water	No		1.0	1.0	NONE	1		261.21	Total/NA
HEM (Oil & Grease)	3500		720	240	mg/Kg	1	☼	9071B	Total/NA
Presence of Free Liquid	No				No Unit	1		9095B	Total/NA
pH	7.6		0.01	0.01	S.U.	1		9045D	Soluble
Corrosivity	No		0.01	0.01	NONE	1		9045D	Soluble
HEM (Oil & Grease)	1.9	J ! B	5.4	1.5	mg/L	1		1664B	ASTM Leach
Total Solids	73	!	42	14	mg/L	1		2540B-2011	ASTM Leach
Residue, Total	73	!	42	14	mg/L	1		2540B-2011	ASTM Leach
Chemical Oxygen Demand	35	J !	75	25	mg/L	1		410.4	ASTM Leach
Ammonia as N	0.061	J !	0.10	0.050	mg/L	1		EPA 350.1	ASTM Leach

This Detection Summary does not include radiochemical test results.

Client Sample ID: Hartranft-10TH-CONF-SOIL-1-2021-10-12

Lab Sample ID: 410-58999-1

Date Collected: 10/12/21 10:00

Matrix: Solid

Date Received: 10/13/21 18:10

Method: 8260C - Volatile Organic Compounds by GC/MS - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.020	0.0060	mg/L			10/20/21 03:08	20
Carbon tetrachloride	ND		0.020	0.0060	mg/L			10/20/21 03:08	20
Chlorobenzene	ND		0.020	0.0060	mg/L			10/20/21 03:08	20
Chloroform	ND		0.020	0.0060	mg/L			10/20/21 03:08	20
1,2-Dichloroethane	ND		0.020	0.0060	mg/L			10/20/21 03:08	20
1,1-Dichloroethene	ND		0.020	0.0060	mg/L			10/20/21 03:08	20
2-Butanone	ND		0.20	0.010	mg/L			10/20/21 03:08	20
Tetrachloroethene	ND		0.020	0.0060	mg/L			10/20/21 03:08	20
Trichloroethene	ND		0.020	0.0060	mg/L			10/20/21 03:08	20
Vinyl chloride	ND		0.020	0.0040	mg/L			10/20/21 03:08	20

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*104*		*80 - 120*		*10/20/21 03:08*	*20*
4-Bromofluorobenzene (Surr)	*95*		*80 - 120*		*10/20/21 03:08*	*20*
Dibromofluoromethane (Surr)	*102*		*80 - 120*		*10/20/21 03:08*	*20*
Toluene-d8 (Surr)	*104*		*80 - 120*		*10/20/21 03:08*	*20*

Method: 8270D - Semivolatile Organic Compounds (GC/MS) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dichlorobenzene	ND		0.010	0.0025	mg/L		10/19/21 17:40	10/20/21 14:53	1
2,4,5-Trichlorophenol	ND		0.010	0.0025	mg/L		10/19/21 17:40	10/20/21 14:53	1
2,4,6-Trichlorophenol	ND		0.010	0.0025	mg/L		10/19/21 17:40	10/20/21 14:53	1
2,4-Dinitrotoluene	ND		0.025	0.0050	mg/L		10/19/21 17:40	10/20/21 14:53	1
2-Methylphenol	ND		0.010	0.0025	mg/L		10/19/21 17:40	10/20/21 14:53	1
4-Methylphenol	ND		0.010	0.0025	mg/L		10/19/21 17:40	10/20/21 14:53	1
Hexachlorobenzene	ND		0.0025	0.00055	mg/L		10/19/21 17:40	10/20/21 14:53	1
Hexachlorobutadiene	ND		0.010	0.0025	mg/L		10/19/21 17:40	10/20/21 14:53	1
Hexachloroethane	ND		0.025	0.0025	mg/L		10/19/21 17:40	10/20/21 14:53	1
Nitrobenzene	ND		0.010	0.0025	mg/L		10/19/21 17:40	10/20/21 14:53	1
Pentachlorophenol	ND		0.025	0.0050	mg/L		10/19/21 17:40	10/20/21 14:53	1
Pyridine	ND		0.025	0.010	mg/L		10/19/21 17:40	10/20/21 14:53	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol (Surr)	*66*		*10 - 150*	*10/19/21 17:40*	*10/20/21 14:53*	*1*
2-Fluorobiphenyl (Surr)	*71*		*35 - 100*	*10/19/21 17:40*	*10/20/21 14:53*	*1*
2-Fluorophenol (Surr)	*22*		*10 - 78*	*10/19/21 17:40*	*10/20/21 14:53*	*1*
Nitrobenzene-d5 (Surr)	*76*		*22 - 117*	*10/19/21 17:40*	*10/20/21 14:53*	*1*
p-Terphenyl-d14 (Surr)	*76*		*31 - 119*	*10/19/21 17:40*	*10/20/21 14:53*	*1*
Phenol-d5 (Surr)	*19*		*10 - 67*	*10/19/21 17:40*	*10/20/21 14:53*	*1*

Method: 8081B - Organochlorine Pesticides (GC) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Endrin (1C)	ND		0.0010	0.00040	mg/L		10/19/21 17:27	10/20/21 09:30	10
gamma-BHC (Lindane) (1C)	ND	*1	0.00050	0.00010	mg/L		10/19/21 17:27	10/20/21 09:30	10
Heptachlor (1C)	ND		0.00050	0.00020	mg/L		10/19/21 17:27	10/20/21 09:30	10
Heptachlor epoxide (1C)	ND		0.00050	0.00012	mg/L		10/19/21 17:27	10/20/21 09:30	10
Methoxychlor (1C)	ND	^c	0.0050	0.0015	mg/L		10/19/21 17:27	10/20/21 09:30	10
Toxaphene (1C)	ND		0.15	0.050	mg/L		10/19/21 17:27	10/20/21 09:30	10
Chlordane (n.o.s.) (1C)	ND		0.025	0.0080	mg/L		10/19/21 17:27	10/20/21 09:30	10

Client Sample ID: Hartranft-10TH-CONF-SOIL-1-2021-10-12
Date Collected: 10/12/21 10:00
Date Received: 10/13/21 18:10

Lab Sample ID: 410-58999-1
Matrix: Solid

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl (Surr) (1C)	*88*		*21 - 130*	*10/19/21 17:27*	*10/20/21 09:30*	*10*
DCB Decachlorobiphenyl (Surr) (2C)	*91*		*21 - 130*	*10/19/21 17:27*	*10/20/21 09:30*	*10*
Tetrachloro-m-xylene (Surr) (1C)	*75*		*39 - 139*	*10/19/21 17:27*	*10/20/21 09:30*	*10*
Tetrachloro-m-xylene (Surr) (2C)	*68*		*39 - 139*	*10/19/21 17:27*	*10/20/21 09:30*	*10*

Method: 8151A - Herbicides (GC) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silvex (2,4,5-TP) (1C)	ND		0.0050	0.0010	mg/L		10/20/21 00:20	10/21/21 23:25	1
2,4-D (1C)	ND		0.050	0.016	mg/L		10/20/21 00:20	10/21/21 23:25	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4-Dichlorophenylacetic acid (Surr) (1C)	*96*		*26 - 136*	*10/20/21 00:20*	*10/21/21 23:25*	*1*
2,4-Dichlorophenylacetic acid (Surr) (2C)	*80*		*26 - 136*	*10/20/21 00:20*	*10/21/21 23:25*	*1*

Method: 6010C - Metals (ICP) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	ND	^3+	0.30	0.16	mg/L		10/18/21 04:53	10/19/21 14:59	1
Barium	**0.74**	**B**	0.050	0.010	mg/L		10/18/21 04:53	10/19/21 14:59	1
Cadmium	ND		0.050	0.010	mg/L		10/18/21 04:53	10/19/21 14:59	1
Chromium	ND		0.15	0.016	mg/L		10/18/21 04:53	10/19/21 14:59	1
Lead	ND	B	0.15	0.071	mg/L		10/18/21 04:53	10/19/21 14:59	1
Selenium	ND	*+	0.50	0.16	mg/L		10/18/21 04:53	10/19/21 14:59	1
Silver	ND		0.10	0.050	mg/L		10/18/21 04:53	10/19/21 14:59	1
Copper	ND		0.20	0.12	mg/L		10/18/21 04:53	10/19/21 14:59	1
Zinc	**3.0**		0.20	0.037	mg/L		10/18/21 04:53	10/19/21 14:59	1
Nickel	**0.022**	**J B**	0.10	0.021	mg/L		10/18/21 04:53	10/19/21 14:59	1

Method: 7470A - Mercury (CVAA) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020	0.000079	mg/L		10/18/21 05:04	10/18/21 18:35	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Solids	**87**		0.10	0.10	%			10/14/21 12:23	1
Total Volatile Solids	**33**		0.10	0.10	%			10/14/21 12:23	1
Percent Solids	**87**	**!**	0.10	0.10	%			10/14/21 12:23	1
Ignitable to Air	**No**		1.0	1.0	NONE			10/18/21 19:56	1
Ignitable to Flame	**No**		1.0	1.0	NONE			10/18/21 19:56	1
Ignitable to Friction	**No**		1.0	1.0	NONE			10/18/21 19:56	1
Ignitable to Water	**No**		1.0	1.0	NONE			10/18/21 19:56	1
Cyanide, Reactive	ND	*-	57	19	mg/Kg		10/15/21 07:55	10/15/21 15:00	1
Sulfide, Reactive	ND	!	150	51	mg/Kg		10/15/21 07:55	10/15/21 12:20	1
Presence of Free Liquid	**No**				No Unit			10/18/21 19:55	1
Percent Moisture	**22.8**	**!**	1.0	1.0	%			10/14/21 12:07	1

General Chemistry - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	**7.5**		0.01	0.01	S.U.			10/15/21 18:30	1
Corrosivity	**No**		0.01	0.01	NONE			10/15/21 18:30	1

Client Sample ID: Hartranft-10TH-CONF-SOIL-1-2021-10-12

Lab Sample ID: 410-58999-1
Date Collected: 10/12/21 10:00
Matrix: Solid
Date Received: 10/13/21 18:10

General Chemistry - ASTM Leach

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
HEM (Oil & Grease)	**2.7**	**J ! B**	5.3	1.5	mg/L			10/19/21 20:36	1
Total Solids	**100**	**!**	42	14	mg/L			10/18/21 06:25	1
Residue, Total	**100**	**!**	42	14	mg/L			10/18/21 06:25	1
Chemical Oxygen Demand	**45**	**J !**	75	25	mg/L			10/19/21 12:47	1
Ammonia as N	ND	!	0.10	0.050	mg/L			11/02/21 10:55	1

Client Sample ID: Hartranft-10TH-CONF-SOIL-1-2021-10-12

Lab Sample ID: 410-58999-1
Date Collected: 10/12/21 10:00
Matrix: Solid
Date Received: 10/13/21 18:10
Percent Solids: 77.2

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		390	39	ug/Kg	☼	10/14/21 11:18	10/18/21 14:27	50
Toluene	ND		390	47	ug/Kg	☼	10/14/21 11:18	10/18/21 14:27	50
Ethylbenzene	**36**	**J**	390	31	ug/Kg	☼	10/14/21 11:18	10/18/21 14:27	50
Xylenes, Total	**250**	**J**	780	110	ug/Kg	☼	10/14/21 11:18	10/18/21 14:27	50
1,2,4-Trimethylbenzene	**890**		390	39	ug/Kg	☼	10/14/21 11:18	10/18/21 14:27	50
Naphthalene	**370**	**J**	390	160	ug/Kg	☼	10/14/21 11:18	10/18/21 14:27	50
Isopropylbenzene	**490**		390	31	ug/Kg	☼	10/14/21 11:18	10/18/21 14:27	50
1,3,5-Trimethylbenzene	**370**	**J**	390	39	ug/Kg	☼	10/14/21 11:18	10/18/21 14:27	50
1,2-Dibromoethane	ND		390	31	ug/Kg	☼	10/14/21 11:18	10/18/21 14:27	50
Methyl tertiary butyl ether	ND		390	39	ug/Kg	☼	10/14/21 11:18	10/18/21 14:27	50
1,2-Dichloroethane	ND		390	47	ug/Kg	☼	10/14/21 11:18	10/18/21 14:27	50

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*103*		*54 - 135*	*10/14/21 11:18*	*10/18/21 14:27*	*50*
4-Bromofluorobenzene (Surr)	*105*		*50 - 131*	*10/14/21 11:18*	*10/18/21 14:27*	*50*
Dibromofluoromethane (Surr)	*94*		*50 - 141*	*10/14/21 11:18*	*10/18/21 14:27*	*50*
Toluene-d8 (Surr)	*105*		*52 - 141*	*10/14/21 11:18*	*10/18/21 14:27*	*50*

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016 (2C)	ND		22	6.8	ug/Kg	☼	10/18/21 18:09	10/19/21 08:52	1
PCB-1221 (2C)	ND		22	6.8	ug/Kg	☼	10/18/21 18:09	10/19/21 08:52	1
PCB-1232 (2C)	ND		22	6.8	ug/Kg	☼	10/18/21 18:09	10/19/21 08:52	1
PCB-1242 (2C)	ND		22	6.8	ug/Kg	☼	10/18/21 18:09	10/19/21 08:52	1
PCB-1248 (2C)	ND		22	6.8	ug/Kg	☼	10/18/21 18:09	10/19/21 08:52	1
PCB-1254 (2C)	**21**	**J**	22	8.3	ug/Kg	☼	10/18/21 18:09	10/19/21 08:52	1
PCB-1260 (2C)	**32**		22	8.3	ug/Kg	☼	10/18/21 18:09	10/19/21 08:52	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl (Surr) (1C)	*99*	*^c*	*45 - 143*	*10/18/21 18:09*	*10/19/21 08:52*	*1*
DCB Decachlorobiphenyl (Surr) (2C)	*91*		*45 - 143*	*10/18/21 18:09*	*10/19/21 08:52*	*1*
Tetrachloro-m-xylene (1C)	*61*		*53 - 140*	*10/18/21 18:09*	*10/19/21 08:52*	*1*
Tetrachloro-m-xylene (2C)	*58*		*53 - 140*	*10/18/21 18:09*	*10/19/21 08:52*	*1*

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	**45**		1.4	0.58	mg/Kg	☼	11/09/21 19:12	11/16/21 12:26	1

Client: NorthStar Contracting Group, Inc.
Project/Site: NorthStar Sampling

Job ID: 410-58999-1

Client Sample ID: Hartranft-10TH-CONF-SOIL-1-2021-10-12

Lab Sample ID: 410-58999-1
Date Collected: 10/12/21 10:00
Matrix: Solid
Date Received: 10/13/21 18:10
Percent Solids: 77.2

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
HEM (Oil & Grease)	3600	FH	760	250	mg/Kg	☼	10/18/21 23:57	10/20/21 10:30	1

Client Sample ID: Hartranft-10TH-CONF-SOIL-2-2021-10-12

Lab Sample ID: 410-58999-2
Date Collected: 10/12/21 10:05
Matrix: Solid
Date Received: 10/13/21 18:10

Method: 8260C - Volatile Organic Compounds by GC/MS - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.020	0.0060	mg/L			10/20/21 03:54	20
Carbon tetrachloride	ND		0.020	0.0060	mg/L			10/20/21 03:54	20
Chlorobenzene	ND		0.020	0.0060	mg/L			10/20/21 03:54	20
Chloroform	ND		0.020	0.0060	mg/L			10/20/21 03:54	20
1,2-Dichloroethane	ND		0.020	0.0060	mg/L			10/20/21 03:54	20
1,1-Dichloroethene	ND		0.020	0.0060	mg/L			10/20/21 03:54	20
2-Butanone	ND		0.20	0.010	mg/L			10/20/21 03:54	20
Tetrachloroethene	ND		0.020	0.0060	mg/L			10/20/21 03:54	20
Trichloroethene	ND		0.020	0.0060	mg/L			10/20/21 03:54	20
Vinyl chloride	ND		0.020	0.0040	mg/L			10/20/21 03:54	20

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*105*		*80 - 120*		*10/20/21 03:54*	*20*
4-Bromofluorobenzene (Surr)	*94*		*80 - 120*		*10/20/21 03:54*	*20*
Dibromofluoromethane (Surr)	*102*		*80 - 120*		*10/20/21 03:54*	*20*
Toluene-d8 (Surr)	*103*		*80 - 120*		*10/20/21 03:54*	*20*

Method: 8270D - Semivolatile Organic Compounds (GC/MS) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dichlorobenzene	ND		0.010	0.0025	mg/L		10/19/21 17:40	10/20/21 15:21	1
2,4,5-Trichlorophenol	ND		0.010	0.0025	mg/L		10/19/21 17:40	10/20/21 15:21	1
2,4,6-Trichlorophenol	ND		0.010	0.0025	mg/L		10/19/21 17:40	10/20/21 15:21	1
2,4-Dinitrotoluene	ND		0.025	0.0050	mg/L		10/19/21 17:40	10/20/21 15:21	1
2-Methylphenol	ND		0.010	0.0025	mg/L		10/19/21 17:40	10/20/21 15:21	1
4-Methylphenol	ND		0.010	0.0025	mg/L		10/19/21 17:40	10/20/21 15:21	1
Hexachlorobenzene	ND		0.0025	0.00055	mg/L		10/19/21 17:40	10/20/21 15:21	1
Hexachlorobutadiene	ND		0.010	0.0025	mg/L		10/19/21 17:40	10/20/21 15:21	1
Hexachloroethane	ND		0.025	0.0025	mg/L		10/19/21 17:40	10/20/21 15:21	1
Nitrobenzene	ND		0.010	0.0025	mg/L		10/19/21 17:40	10/20/21 15:21	1
Pentachlorophenol	ND		0.025	0.0050	mg/L		10/19/21 17:40	10/20/21 15:21	1
Pyridine	ND		0.025	0.010	mg/L		10/19/21 17:40	10/20/21 15:21	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol (Surr)	*85*		*10 - 150*	*10/19/21 17:40*	*10/20/21 15:21*	*1*
2-Fluorobiphenyl (Surr)	*69*		*35 - 100*	*10/19/21 17:40*	*10/20/21 15:21*	*1*
2-Fluorophenol (Surr)	*43*		*10 - 78*	*10/19/21 17:40*	*10/20/21 15:21*	*1*
Nitrobenzene-d5 (Surr)	*77*		*22 - 117*	*10/19/21 17:40*	*10/20/21 15:21*	*1*
p-Terphenyl-d14 (Surr)	*89*		*31 - 119*	*10/19/21 17:40*	*10/20/21 15:21*	*1*
Phenol-d5 (Surr)	*34*		*10 - 67*	*10/19/21 17:40*	*10/20/21 15:21*	*1*

Method: 8081B - Organochlorine Pesticides (GC) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Endrin (1C)	ND		0.0010	0.00040	mg/L		10/19/21 17:27	10/20/21 09:41	10

Client Sample ID: Hartranft-10TH-CONF-SOIL-2-2021-10-12
Date Collected: 10/12/21 10:05
Date Received: 10/13/21 18:10

Lab Sample ID: 410-58999-2
Matrix: Solid

Method: 8081B - Organochlorine Pesticides (GC) - TCLP (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
gamma-BHC (Lindane) (1C)	ND	*1	0.00050	0.00010	mg/L		10/19/21 17:27	10/20/21 09:41	10
Heptachlor (1C)	ND		0.00050	0.00020	mg/L		10/19/21 17:27	10/20/21 09:41	10
Heptachlor epoxide (1C)	ND		0.00050	0.00012	mg/L		10/19/21 17:27	10/20/21 09:41	10
Methoxychlor (1C)	ND	^c	0.0050	0.0015	mg/L		10/19/21 17:27	10/20/21 09:41	10
Toxaphene (1C)	ND		0.15	0.050	mg/L		10/19/21 17:27	10/20/21 09:41	10
Chlordane (n.o.s.) (1C)	ND		0.025	0.0080	mg/L		10/19/21 17:27	10/20/21 09:41	10

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl (Surr) (1C)	*78*		*21 - 130*	*10/19/21 17:27*	*10/20/21 09:41*	*10*
DCB Decachlorobiphenyl (Surr) (2C)	*83*		*21 - 130*	*10/19/21 17:27*	*10/20/21 09:41*	*10*
Tetrachloro-m-xylene (Surr) (1C)	*69*		*39 - 139*	*10/19/21 17:27*	*10/20/21 09:41*	*10*
Tetrachloro-m-xylene (Surr) (2C)	*61*		*39 - 139*	*10/19/21 17:27*	*10/20/21 09:41*	*10*

Method: 8151A - Herbicides (GC) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silvex (2,4,5-TP) (1C)	ND		0.0050	0.0010	mg/L		10/20/21 00:20	10/22/21 00:00	1
2,4-D (1C)	ND		0.050	0.016	mg/L		10/20/21 00:20	10/22/21 00:00	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4-Dichlorophenylacetic acid (Surr) (1C)	*99*		*26 - 136*	*10/20/21 00:20*	*10/22/21 00:00*	*1*
2,4-Dichlorophenylacetic acid (Surr) (2C)	*87*		*26 - 136*	*10/20/21 00:20*	*10/22/21 00:00*	*1*

Method: 6010C - Metals (ICP) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	ND	^3+	0.30	0.16	mg/L		10/18/21 04:53	10/19/21 15:08	1
Barium	**0.28**	**B**	0.050	0.010	mg/L		10/18/21 04:53	10/19/21 15:08	1
Cadmium	ND		0.050	0.010	mg/L		10/18/21 04:53	10/19/21 15:08	1
Chromium	ND		0.15	0.016	mg/L		10/18/21 04:53	10/19/21 15:08	1
Lead	ND	B	0.15	0.071	mg/L		10/18/21 04:53	10/19/21 15:08	1
Selenium	ND	*+	0.50	0.16	mg/L		10/18/21 04:53	10/19/21 15:08	1
Silver	ND		0.10	0.050	mg/L		10/18/21 04:53	10/19/21 15:08	1
Copper	ND		0.20	0.12	mg/L		10/18/21 04:53	10/19/21 15:08	1
Zinc	**0.069**	**J**	0.20	0.037	mg/L		10/18/21 04:53	10/19/21 15:08	1
Nickel	ND	B	0.10	0.021	mg/L		10/18/21 04:53	10/19/21 15:08	1

Method: 7470A - Mercury (CVAA) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020	0.000079	mg/L		10/18/21 05:04	10/18/21 18:37	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Solids	**89**		0.10	0.10	%			10/14/21 12:23	1
Total Volatile Solids	**2.2**		0.10	0.10	%			10/14/21 12:23	1
Percent Solids	**89**	**!**	0.10	0.10	%			10/14/21 12:23	1
Ignitable to Air	**No**		1.0	1.0	NONE			10/18/21 19:56	1
Ignitable to Flame	**No**		1.0	1.0	NONE			10/18/21 19:56	1
Ignitable to Friction	**No**		1.0	1.0	NONE			10/18/21 19:56	1
Ignitable to Water	**No**		1.0	1.0	NONE			10/18/21 19:56	1
Cyanide, Reactive	ND	*-	59	20	mg/Kg		10/15/21 07:55	10/15/21 14:32	1

Client Sample ID: Hartranft-10TH-CONF-SOIL-2-2021-10-12

Lab Sample ID: 410-58999-2
Date Collected: 10/12/21 10:05
Matrix: Solid
Date Received: 10/13/21 18:10

General Chemistry (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfide, Reactive	ND	! FL	160	53	mg/Kg		10/15/21 07:55	10/15/21 12:20	1
Presence of Free Liquid	**No**				No Unit			10/18/21 19:55	1
Percent Moisture	**10.8**	**!**	1.0	1.0	%			10/14/21 12:07	1

General Chemistry - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	**9.3**		0.01	0.01	S.U.			10/15/21 18:30	1
Corrosivity	**No**		0.01	0.01	NONE			10/15/21 18:30	1

General Chemistry - ASTM Leach

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
HEM (Oil & Grease)	ND	! B	5.2	1.5	mg/L			10/19/21 20:36	1
Total Solids	**130**	**!**	42	14	mg/L			10/18/21 06:25	1
Residue, Total	**130**	**!**	42	14	mg/L			10/18/21 06:25	1
Chemical Oxygen Demand	**39**	**J !**	75	25	mg/L			10/19/21 12:49	1
Ammonia as N	ND	!	0.10	0.050	mg/L			11/02/21 11:01	1

Client Sample ID: Hartranft-10TH-CONF-SOIL-2-2021-10-12

Lab Sample ID: 410-58999-2
Date Collected: 10/12/21 10:05
Matrix: Solid
Date Received: 10/13/21 18:10
Percent Solids: 89.2

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		310	31	ug/Kg	☼	10/14/21 11:18	10/18/21 14:48	50
Toluene	ND		310	37	ug/Kg	☼	10/14/21 11:18	10/18/21 14:48	50
Ethylbenzene	ND		310	25	ug/Kg	☼	10/14/21 11:18	10/18/21 14:48	50
Xylenes, Total	ND		610	86	ug/Kg	☼	10/14/21 11:18	10/18/21 14:48	50
1,2,4-Trimethylbenzene	**63**	**J**	310	31	ug/Kg	☼	10/14/21 11:18	10/18/21 14:48	50
Naphthalene	ND		310	120	ug/Kg	☼	10/14/21 11:18	10/18/21 14:48	50
Isopropylbenzene	ND		310	25	ug/Kg	☼	10/14/21 11:18	10/18/21 14:48	50
1,3,5-Trimethylbenzene	ND		310	31	ug/Kg	☼	10/14/21 11:18	10/18/21 14:48	50
1,2-Dibromoethane	ND		310	25	ug/Kg	☼	10/14/21 11:18	10/18/21 14:48	50
Methyl tertiary butyl ether	ND		310	31	ug/Kg	☼	10/14/21 11:18	10/18/21 14:48	50
1,2-Dichloroethane	ND		310	37	ug/Kg	☼	10/14/21 11:18	10/18/21 14:48	50

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*107*		*54 - 135*	*10/14/21 11:18*	*10/18/21 14:48*	*50*
4-Bromofluorobenzene (Surr)	*101*		*50 - 131*	*10/14/21 11:18*	*10/18/21 14:48*	*50*
Dibromofluoromethane (Surr)	*84*		*50 - 141*	*10/14/21 11:18*	*10/18/21 14:48*	*50*
Toluene-d8 (Surr)	*103*		*52 - 141*	*10/14/21 11:18*	*10/18/21 14:48*	*50*

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016 (2C)	ND		19	5.9	ug/Kg	☼	10/15/21 09:45	10/15/21 19:17	1
PCB-1221 (2C)	ND		19	5.9	ug/Kg	☼	10/15/21 09:45	10/15/21 19:17	1
PCB-1232 (2C)	ND		19	5.9	ug/Kg	☼	10/15/21 09:45	10/15/21 19:17	1
PCB-1242 (2C)	ND		19	5.9	ug/Kg	☼	10/15/21 09:45	10/15/21 19:17	1
PCB-1248 (2C)	ND		19	5.9	ug/Kg	☼	10/15/21 09:45	10/15/21 19:17	1
PCB-1254 (2C)	**9.1**	**J**	19	7.1	ug/Kg	☼	10/15/21 09:45	10/15/21 19:17	1
PCB-1260 (2C)	**10**	**J**	19	7.1	ug/Kg	☼	10/15/21 09:45	10/15/21 19:17	1

Client Sample ID: Hartranft-10TH-CONF-SOIL-2-2021-10-12

Lab Sample ID: 410-58999-2
Date Collected: 10/12/21 10:05
Matrix: Solid
Date Received: 10/13/21 18:10
Percent Solids: 89.2

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl (Surr) (1C)	*79*	*^c*	*45 - 143*	*10/15/21 09:45*	*10/15/21 19:17*	*1*
DCB Decachlorobiphenyl (Surr) (2C)	*68*		*45 - 143*	*10/15/21 09:45*	*10/15/21 19:17*	*1*
Tetrachloro-m-xylene (1C)	*65*		*53 - 140*	*10/15/21 09:45*	*10/15/21 19:17*	*1*
Tetrachloro-m-xylene (2C)	*60*		*53 - 140*	*10/15/21 09:45*	*10/15/21 19:17*	*1*

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	**19**		1.5	0.62	mg/Kg	☼	11/09/21 19:12	11/16/21 12:34	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
HEM (Oil & Grease)	**1600**		670	220	mg/Kg	☼	10/18/21 23:57	10/20/21 10:30	1

Client Sample ID: Hartranft-10TH-CONF-SOIL-3-2021-10-12

Lab Sample ID: 410-58999-3
Date Collected: 10/12/21 10:07
Matrix: Solid
Date Received: 10/13/21 18:10

Method: 8260C - Volatile Organic Compounds by GC/MS - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.020	0.0060	mg/L			10/20/21 04:17	20
Carbon tetrachloride	ND		0.020	0.0060	mg/L			10/20/21 04:17	20
Chlorobenzene	ND		0.020	0.0060	mg/L			10/20/21 04:17	20
Chloroform	ND		0.020	0.0060	mg/L			10/20/21 04:17	20
1,2-Dichloroethane	ND		0.020	0.0060	mg/L			10/20/21 04:17	20
1,1-Dichloroethene	ND		0.020	0.0060	mg/L			10/20/21 04:17	20
2-Butanone	ND		0.20	0.010	mg/L			10/20/21 04:17	20
Tetrachloroethene	ND		0.020	0.0060	mg/L			10/20/21 04:17	20
Trichloroethene	ND		0.020	0.0060	mg/L			10/20/21 04:17	20
Vinyl chloride	ND		0.020	0.0040	mg/L			10/20/21 04:17	20

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*104*		*80 - 120*		*10/20/21 04:17*	*20*
4-Bromofluorobenzene (Surr)	*95*		*80 - 120*		*10/20/21 04:17*	*20*
Dibromofluoromethane (Surr)	*103*		*80 - 120*		*10/20/21 04:17*	*20*
Toluene-d8 (Surr)	*102*		*80 - 120*		*10/20/21 04:17*	*20*

Method: 8270D - Semivolatile Organic Compounds (GC/MS) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dichlorobenzene	ND		0.010	0.0025	mg/L		10/19/21 17:40	10/20/21 15:50	1
2,4,5-Trichlorophenol	ND		0.010	0.0025	mg/L		10/19/21 17:40	10/20/21 15:50	1
2,4,6-Trichlorophenol	ND		0.010	0.0025	mg/L		10/19/21 17:40	10/20/21 15:50	1
2,4-Dinitrotoluene	ND		0.025	0.0050	mg/L		10/19/21 17:40	10/20/21 15:50	1
2-Methylphenol	ND		0.010	0.0025	mg/L		10/19/21 17:40	10/20/21 15:50	1
4-Methylphenol	ND		0.010	0.0025	mg/L		10/19/21 17:40	10/20/21 15:50	1
Hexachlorobenzene	ND		0.0025	0.00055	mg/L		10/19/21 17:40	10/20/21 15:50	1
Hexachlorobutadiene	ND		0.010	0.0025	mg/L		10/19/21 17:40	10/20/21 15:50	1
Hexachloroethane	ND		0.025	0.0025	mg/L		10/19/21 17:40	10/20/21 15:50	1
Nitrobenzene	ND		0.010	0.0025	mg/L		10/19/21 17:40	10/20/21 15:50	1
Pentachlorophenol	ND		0.025	0.0050	mg/L		10/19/21 17:40	10/20/21 15:50	1
Pyridine	ND		0.025	0.010	mg/L		10/19/21 17:40	10/20/21 15:50	1

Client Sample ID: Hartranft-10TH-CONF-SOIL-3-2021-10-12
Date Collected: 10/12/21 10:07
Date Received: 10/13/21 18:10

Lab Sample ID: 410-58999-3
Matrix: Solid

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol (Surr)	*56*		*10 - 150*	*10/19/21 17:40*	*10/20/21 15:50*	*1*
2-Fluorobiphenyl (Surr)	*71*		*35 - 100*	*10/19/21 17:40*	*10/20/21 15:50*	*1*
2-Fluorophenol (Surr)	*11*		*10 - 78*	*10/19/21 17:40*	*10/20/21 15:50*	*1*
Nitrobenzene-d5 (Surr)	*76*		*22 - 117*	*10/19/21 17:40*	*10/20/21 15:50*	*1*
p-Terphenyl-d14 (Surr)	*89*		*31 - 119*	*10/19/21 17:40*	*10/20/21 15:50*	*1*
Phenol-d5 (Surr)	*11*		*10 - 67*	*10/19/21 17:40*	*10/20/21 15:50*	*1*

Method: 8081B - Organochlorine Pesticides (GC) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Endrin (1C)	ND		0.0010	0.00040	mg/L		10/19/21 17:27	10/20/21 09:53	10
gamma-BHC (Lindane) (1C)	ND	*1	0.00050	0.00010	mg/L		10/19/21 17:27	10/20/21 09:53	10
Heptachlor (1C)	ND		0.00050	0.00020	mg/L		10/19/21 17:27	10/20/21 09:53	10
Heptachlor epoxide (1C)	ND		0.00050	0.00012	mg/L		10/19/21 17:27	10/20/21 09:53	10
Methoxychlor (1C)	ND	^c	0.0050	0.0015	mg/L		10/19/21 17:27	10/20/21 09:53	10
Toxaphene (1C)	ND		0.15	0.050	mg/L		10/19/21 17:27	10/20/21 09:53	10
Chlordane (n.o.s.) (1C)	ND		0.025	0.0080	mg/L		10/19/21 17:27	10/20/21 09:53	10

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl (Surr) (1C)	*90*		*21 - 130*	*10/19/21 17:27*	*10/20/21 09:53*	*10*
DCB Decachlorobiphenyl (Surr) (2C)	*92*		*21 - 130*	*10/19/21 17:27*	*10/20/21 09:53*	*10*
Tetrachloro-m-xylene (Surr) (1C)	*64*		*39 - 139*	*10/19/21 17:27*	*10/20/21 09:53*	*10*
Tetrachloro-m-xylene (Surr) (2C)	*58*		*39 - 139*	*10/19/21 17:27*	*10/20/21 09:53*	*10*

Method: 8151A - Herbicides (GC) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silvex (2,4,5-TP) (1C)	ND		0.0050	0.0010	mg/L		10/20/21 00:20	10/22/21 00:36	1
2,4-D (1C)	ND		0.050	0.016	mg/L		10/20/21 00:20	10/22/21 00:36	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4-Dichlorophenylacetic acid (Surr) (1C)	*98*		*26 - 136*	*10/20/21 00:20*	*10/22/21 00:36*	*1*
2,4-Dichlorophenylacetic acid (Surr) (2C)	*86*		*26 - 136*	*10/20/21 00:20*	*10/22/21 00:36*	*1*

Method: 6010C - Metals (ICP) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	ND	^3+	0.30	0.16	mg/L		10/18/21 04:53	10/19/21 15:11	1
Barium	**0.43**	**B**	0.050	0.010	mg/L		10/18/21 04:53	10/19/21 15:11	1
Cadmium	ND		0.050	0.010	mg/L		10/18/21 04:53	10/19/21 15:11	1
Chromium	ND		0.15	0.016	mg/L		10/18/21 04:53	10/19/21 15:11	1
Lead	ND	B	0.15	0.071	mg/L		10/18/21 04:53	10/19/21 15:11	1
Selenium	ND	*+	0.50	0.16	mg/L		10/18/21 04:53	10/19/21 15:11	1
Silver	ND		0.10	0.050	mg/L		10/18/21 04:53	10/19/21 15:11	1
Copper	ND		0.20	0.12	mg/L		10/18/21 04:53	10/19/21 15:11	1
Zinc	**0.86**		0.20	0.037	mg/L		10/18/21 04:53	10/19/21 15:11	1
Nickel	ND	B	0.10	0.021	mg/L		10/18/21 04:53	10/19/21 15:11	1

Method: 7470A - Mercury (CVAA) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020	0.000079	mg/L		10/18/21 05:04	10/18/21 18:39	1

Client Sample ID: Hartranft-10TH-CONF-SOIL-3-2021-10-12

Lab Sample ID: 410-58999-3
Date Collected: 10/12/21 10:07
Matrix: Solid
Date Received: 10/13/21 18:10

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Solids	**14**		0.10	0.10	%			10/14/21 12:23	1
Total Volatile Solids	**97**		0.10	0.10	%			10/14/21 12:23	1
Percent Solids	**14**	**!**	0.10	0.10	%			10/14/21 12:23	1
Ignitable to Air	**No**		1.0	1.0	NONE			10/18/21 19:56	1
Ignitable to Flame	**No**		1.0	1.0	NONE			10/18/21 19:56	1
Ignitable to Friction	**No**		1.0	1.0	NONE			10/18/21 19:56	1
Ignitable to Water	**No**		1.0	1.0	NONE			10/18/21 19:56	1
Cyanide, Reactive	ND	*-	58	19	mg/Kg		10/15/21 07:55	10/15/21 14:39	1
Sulfide, Reactive	ND	!	160	52	mg/Kg		10/15/21 07:55	10/15/21 12:20	1
Presence of Free Liquid	**No**				No Unit			10/18/21 19:55	1
Percent Moisture	**11.3**	**!**	1.0	1.0	%			10/14/21 12:07	1

General Chemistry - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	**9.5**		0.01	0.01	S.U.			10/15/21 18:30	1
Corrosivity	**No**		0.01	0.01	NONE			10/15/21 18:30	1

General Chemistry - ASTM Leach

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
HEM (Oil & Grease)	**2.1**	**J ! B**	5.2	1.5	mg/L			10/19/21 20:36	1
Total Solids	**56**	**!**	42	14	mg/L			10/18/21 06:25	1
Residue, Total	**56**	**!**	42	14	mg/L			10/18/21 06:25	1
Chemical Oxygen Demand	**63**	**J !**	75	25	mg/L			10/19/21 12:51	1
Ammonia as N	ND	!	0.10	0.050	mg/L			11/02/21 11:03	1

Client Sample ID: Hartranft-10TH-CONF-SOIL-3-2021-10-12

Lab Sample ID: 410-58999-3
Date Collected: 10/12/21 10:07
Matrix: Solid
Date Received: 10/13/21 18:10
Percent Solids: 88.7

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		300	30	ug/Kg	☼	10/14/21 11:18	10/18/21 15:08	50
Toluene	ND		300	37	ug/Kg	☼	10/14/21 11:18	10/18/21 15:08	50
Ethylbenzene	ND		300	24	ug/Kg	☼	10/14/21 11:18	10/18/21 15:08	50
Xylenes, Total	ND		610	85	ug/Kg	☼	10/14/21 11:18	10/18/21 15:08	50
1,2,4-Trimethylbenzene	**50**	**J**	300	30	ug/Kg	☼	10/14/21 11:18	10/18/21 15:08	50
Naphthalene	ND		300	120	ug/Kg	☼	10/14/21 11:18	10/18/21 15:08	50
Isopropylbenzene	ND		300	24	ug/Kg	☼	10/14/21 11:18	10/18/21 15:08	50
1,3,5-Trimethylbenzene	ND		300	30	ug/Kg	☼	10/14/21 11:18	10/18/21 15:08	50
1,2-Dibromoethane	ND		300	24	ug/Kg	☼	10/14/21 11:18	10/18/21 15:08	50
Methyl tertiary butyl ether	ND		300	30	ug/Kg	☼	10/14/21 11:18	10/18/21 15:08	50
1,2-Dichloroethane	ND		300	37	ug/Kg	☼	10/14/21 11:18	10/18/21 15:08	50

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*105*		*54 - 135*	*10/14/21 11:18*	*10/18/21 15:08*	*50*
4-Bromofluorobenzene (Surr)	*99*		*50 - 131*	*10/14/21 11:18*	*10/18/21 15:08*	*50*
Dibromofluoromethane (Surr)	*89*		*50 - 141*	*10/14/21 11:18*	*10/18/21 15:08*	*50*
Toluene-d8 (Surr)	*102*		*52 - 141*	*10/14/21 11:18*	*10/18/21 15:08*	*50*

Client Sample ID: Hartranft-10TH-CONF-SOIL-3-2021-10-12

Lab Sample ID: 410-58999-3

Date Collected: 10/12/21 10:07
Date Received: 10/13/21 18:10

Matrix: Solid
Percent Solids: 88.7

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016 (2C)	ND		19	5.9	ug/Kg	☼	10/15/21 09:45	10/15/21 19:28	1
PCB-1221 (2C)	ND		19	5.9	ug/Kg	☼	10/15/21 09:45	10/15/21 19:28	1
PCB-1232 (2C)	ND		19	5.9	ug/Kg	☼	10/15/21 09:45	10/15/21 19:28	1
PCB-1242 (2C)	ND		19	5.9	ug/Kg	☼	10/15/21 09:45	10/15/21 19:28	1
PCB-1248 (2C)	ND		19	5.9	ug/Kg	☼	10/15/21 09:45	10/15/21 19:28	1
PCB-1254 (2C)	**13**	**J p**	19	7.2	ug/Kg	☼	10/15/21 09:45	10/15/21 19:28	1
PCB-1260 (2C)	**47**		19	7.2	ug/Kg	☼	10/15/21 09:45	10/15/21 19:28	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl (Surr) (1C)	*155*	*S1+ ^c*	*45 - 143*	*10/15/21 09:45*	*10/15/21 19:28*	*1*
DCB Decachlorobiphenyl (Surr) (2C)	*136*		*45 - 143*	*10/15/21 09:45*	*10/15/21 19:28*	*1*
Tetrachloro-m-xylene (1C)	*71*		*53 - 140*	*10/15/21 09:45*	*10/15/21 19:28*	*1*
Tetrachloro-m-xylene (2C)	*68*		*53 - 140*	*10/15/21 09:45*	*10/15/21 19:28*	*1*

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	**21**		1.6	0.64	mg/Kg	☼	11/09/21 13:56	11/10/21 10:53	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
HEM (Oil & Grease)	**2900**		670	220	mg/Kg	☼	10/18/21 23:57	10/20/21 10:30	1

Client Sample ID: Hartranft-10TH-CONF-SOIL-4-2021-10-12

Lab Sample ID: 410-58999-4

Date Collected: 10/12/21 10:11
Date Received: 10/13/21 18:10

Matrix: Solid

Method: 8260C - Volatile Organic Compounds by GC/MS - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.020	0.0060	mg/L			10/20/21 04:40	20
Carbon tetrachloride	ND		0.020	0.0060	mg/L			10/20/21 04:40	20
Chlorobenzene	ND		0.020	0.0060	mg/L			10/20/21 04:40	20
Chloroform	ND		0.020	0.0060	mg/L			10/20/21 04:40	20
1,2-Dichloroethane	ND		0.020	0.0060	mg/L			10/20/21 04:40	20
1,1-Dichloroethene	ND		0.020	0.0060	mg/L			10/20/21 04:40	20
2-Butanone	ND		0.20	0.010	mg/L			10/20/21 04:40	20
Tetrachloroethene	ND		0.020	0.0060	mg/L			10/20/21 04:40	20
Trichloroethene	ND		0.020	0.0060	mg/L			10/20/21 04:40	20
Vinyl chloride	ND		0.020	0.0040	mg/L			10/20/21 04:40	20

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*105*		*80 - 120*		*10/20/21 04:40*	*20*
4-Bromofluorobenzene (Surr)	*94*		*80 - 120*		*10/20/21 04:40*	*20*
Dibromofluoromethane (Surr)	*102*		*80 - 120*		*10/20/21 04:40*	*20*
Toluene-d8 (Surr)	*103*		*80 - 120*		*10/20/21 04:40*	*20*

Method: 8270D - Semivolatile Organic Compounds (GC/MS) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dichlorobenzene	ND		0.010	0.0025	mg/L		10/19/21 17:40	10/20/21 16:19	1
2,4,5-Trichlorophenol	ND		0.010	0.0025	mg/L		10/19/21 17:40	10/20/21 16:19	1
2,4,6-Trichlorophenol	ND		0.010	0.0025	mg/L		10/19/21 17:40	10/20/21 16:19	1
2,4-Dinitrotoluene	ND		0.025	0.0050	mg/L		10/19/21 17:40	10/20/21 16:19	1

Client Sample ID: Hartranft-10TH-CONF-SOIL-4-2021-10-12

Lab Sample ID: 410-58999-4

Date Collected: 10/12/21 10:11
Matrix: Solid
Date Received: 10/13/21 18:10

Method: 8270D - Semivolatile Organic Compounds (GC/MS) - TCLP (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2-Methylphenol	ND		0.010	0.0025	mg/L		10/19/21 17:40	10/20/21 16:19	1
4-Methylphenol	ND		0.010	0.0025	mg/L		10/19/21 17:40	10/20/21 16:19	1
Hexachlorobenzene	ND		0.0025	0.00055	mg/L		10/19/21 17:40	10/20/21 16:19	1
Hexachlorobutadiene	ND		0.010	0.0025	mg/L		10/19/21 17:40	10/20/21 16:19	1
Hexachloroethane	ND		0.025	0.0025	mg/L		10/19/21 17:40	10/20/21 16:19	1
Nitrobenzene	ND		0.010	0.0025	mg/L		10/19/21 17:40	10/20/21 16:19	1
Pentachlorophenol	ND		0.025	0.0050	mg/L		10/19/21 17:40	10/20/21 16:19	1
Pyridine	ND		0.025	0.010	mg/L		10/19/21 17:40	10/20/21 16:19	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol (Surr)	*72*		*10 - 150*	*10/19/21 17:40*	*10/20/21 16:19*	*1*
2-Fluorobiphenyl (Surr)	*69*		*35 - 100*	*10/19/21 17:40*	*10/20/21 16:19*	*1*
2-Fluorophenol (Surr)	*16*		*10 - 78*	*10/19/21 17:40*	*10/20/21 16:19*	*1*
Nitrobenzene-d5 (Surr)	*76*		*22 - 117*	*10/19/21 17:40*	*10/20/21 16:19*	*1*
p-Terphenyl-d14 (Surr)	*90*		*31 - 119*	*10/19/21 17:40*	*10/20/21 16:19*	*1*
Phenol-d5 (Surr)	*13*		*10 - 67*	*10/19/21 17:40*	*10/20/21 16:19*	*1*

Method: 8081B - Organochlorine Pesticides (GC) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Endrin (1C)	ND		0.0010	0.00040	mg/L		10/19/21 17:27	10/20/21 10:04	10
gamma-BHC (Lindane) (1C)	ND	*1	0.00050	0.00010	mg/L		10/19/21 17:27	10/20/21 10:04	10
Heptachlor (1C)	ND		0.00050	0.00020	mg/L		10/19/21 17:27	10/20/21 10:04	10
Heptachlor epoxide (1C)	ND		0.00050	0.00012	mg/L		10/19/21 17:27	10/20/21 10:04	10
Methoxychlor (1C)	ND	^c	0.0050	0.0015	mg/L		10/19/21 17:27	10/20/21 10:04	10
Toxaphene (1C)	ND		0.15	0.050	mg/L		10/19/21 17:27	10/20/21 10:04	10
Chlordane (n.o.s.) (1C)	ND		0.025	0.0080	mg/L		10/19/21 17:27	10/20/21 10:04	10

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl (Surr) (1C)	*82*		*21 - 130*	*10/19/21 17:27*	*10/20/21 10:04*	*10*
DCB Decachlorobiphenyl (Surr) (2C)	*86*		*21 - 130*	*10/19/21 17:27*	*10/20/21 10:04*	*10*
Tetrachloro-m-xylene (Surr) (1C)	*60*		*39 - 139*	*10/19/21 17:27*	*10/20/21 10:04*	*10*
Tetrachloro-m-xylene (Surr) (2C)	*54*		*39 - 139*	*10/19/21 17:27*	*10/20/21 10:04*	*10*

Method: 8151A - Herbicides (GC) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silvex (2,4,5-TP) (1C)	ND		0.0050	0.0010	mg/L		10/20/21 00:20	10/22/21 01:11	1
2,4-D (1C)	ND		0.050	0.016	mg/L		10/20/21 00:20	10/22/21 01:11	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4-Dichlorophenylacetic acid (Surr) (1C)	*98*		*26 - 136*	*10/20/21 00:20*	*10/22/21 01:11*	*1*
2,4-Dichlorophenylacetic acid (Surr) (2C)	*83*		*26 - 136*	*10/20/21 00:20*	*10/22/21 01:11*	*1*

Method: 6010C - Metals (ICP) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	ND	^3+	0.30	0.16	mg/L		10/18/21 04:53	10/19/21 15:30	1
Barium	**0.37**	**B**	0.050	0.010	mg/L		10/18/21 04:53	10/19/21 15:30	1
Cadmium	ND		0.050	0.010	mg/L		10/18/21 04:53	10/19/21 15:30	1
Chromium	**0.018**	**J**	0.15	0.016	mg/L		10/18/21 04:53	10/19/21 15:30	1
Lead	**0.35**	**B**	0.15	0.071	mg/L		10/18/21 04:53	10/19/21 15:30	1

Client Sample ID: Hartranft-10TH-CONF-SOIL-4-2021-10-12

Lab Sample ID: 410-58999-4
Date Collected: 10/12/21 10:11
Matrix: Solid
Date Received: 10/13/21 18:10

Method: 6010C - Metals (ICP) - TCLP (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Selenium	ND	*+	0.50	0.16	mg/L		10/18/21 04:53	10/19/21 15:30	1
Silver	ND		0.10	0.050	mg/L		10/18/21 04:53	10/19/21 15:30	1
Copper	ND		0.20	0.12	mg/L		10/18/21 04:53	10/19/21 15:30	1
Zinc	**2.3**		0.20	0.037	mg/L		10/18/21 04:53	10/19/21 15:30	1
Nickel	**0.057**	**J B**	0.10	0.021	mg/L		10/18/21 04:53	10/19/21 15:30	1

Method: 7470A - Mercury (CVAA) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020	0.000079	mg/L		10/18/21 05:04	10/18/21 18:47	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Solids	**89**		0.10	0.10	%			10/14/21 12:23	1
Total Volatile Solids	**2.3**		0.10	0.10	%			10/14/21 12:23	1
Percent Solids	**89**	**!**	0.10	0.10	%			10/14/21 12:23	1
Ignitable to Air	**No**		1.0	1.0	NONE			10/18/21 19:56	1
Ignitable to Flame	**No**		1.0	1.0	NONE			10/18/21 19:56	1
Ignitable to Friction	**No**		1.0	1.0	NONE			10/18/21 19:56	1
Ignitable to Water	**No**		1.0	1.0	NONE			10/18/21 19:56	1
Cyanide, Reactive	ND	*-	58	19	mg/Kg		10/15/21 07:55	10/15/21 14:41	1
Sulfide, Reactive	ND	!	160	52	mg/Kg		10/15/21 07:55	10/15/21 12:20	1
Presence of Free Liquid	**No**				No Unit			10/18/21 19:55	1
Percent Moisture	**8.3**	**!**	1.0	1.0	%			10/14/21 12:07	1

General Chemistry - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	**8.0**		0.01	0.01	S.U.			10/15/21 18:30	1
Corrosivity	**No**		0.01	0.01	NONE			10/15/21 18:30	1

General Chemistry - ASTM Leach

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
HEM (Oil & Grease)	ND	! B	5.6	1.6	mg/L			10/19/21 20:36	1
Total Solids	**110**	**!**	42	14	mg/L			10/18/21 06:25	1
Residue, Total	**110**	**!**	42	14	mg/L			10/18/21 06:25	1
Chemical Oxygen Demand	ND	!	75	25	mg/L			10/19/21 12:52	1
Ammonia as N	ND	!	0.10	0.050	mg/L			11/02/21 11:05	1

Client Sample ID: Hartranft-10TH-CONF-SOIL-4-2021-10-12

Lab Sample ID: 410-58999-4
Date Collected: 10/12/21 10:11
Matrix: Solid
Date Received: 10/13/21 18:10
Percent Solids: 91.7

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		300	30	ug/Kg	☼	10/14/21 11:18	10/18/21 15:29	50
Toluene	ND		300	36	ug/Kg	☼	10/14/21 11:18	10/18/21 15:29	50
Ethylbenzene	**63**	**J**	300	24	ug/Kg	☼	10/14/21 11:18	10/18/21 15:29	50
Xylenes, Total	**620**		600	83	ug/Kg	☼	10/14/21 11:18	10/18/21 15:29	50
1,2,4-Trimethylbenzene	**6000**		300	30	ug/Kg	☼	10/14/21 11:18	10/18/21 15:29	50
Naphthalene	**2900**		300	120	ug/Kg	☼	10/14/21 11:18	10/18/21 15:29	50
Isopropylbenzene	**150**	**J**	300	24	ug/Kg	☼	10/14/21 11:18	10/18/21 15:29	50
1,3,5-Trimethylbenzene	**1700**		300	30	ug/Kg	☼	10/14/21 11:18	10/18/21 15:29	50

Client Sample ID: Hartranft-10TH-CONF-SOIL-4-2021-10-12

Lab Sample ID: 410-58999-4

Date Collected: 10/12/21 10:11
Date Received: 10/13/21 18:10

Matrix: Solid
Percent Solids: 91.7

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromoethane	ND		300	24	ug/Kg	☼	10/14/21 11:18	10/18/21 15:29	50
Methyl tertiary butyl ether	ND		300	30	ug/Kg	☼	10/14/21 11:18	10/18/21 15:29	50
1,2-Dichloroethane	ND		300	36	ug/Kg	☼	10/14/21 11:18	10/18/21 15:29	50

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*106*		*54 - 135*	*10/14/21 11:18*	*10/18/21 15:29*	*50*
4-Bromofluorobenzene (Surr)	*105*		*50 - 131*	*10/14/21 11:18*	*10/18/21 15:29*	*50*
Dibromofluoromethane (Surr)	*92*		*50 - 141*	*10/14/21 11:18*	*10/18/21 15:29*	*50*
Toluene-d8 (Surr)	*100*		*52 - 141*	*10/14/21 11:18*	*10/18/21 15:29*	*50*

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016 (2C)	ND		18	5.7	ug/Kg	☼	10/15/21 09:45	10/15/21 19:38	1
PCB-1221 (2C)	ND		18	5.7	ug/Kg	☼	10/15/21 09:45	10/15/21 19:38	1
PCB-1232 (2C)	ND		18	5.7	ug/Kg	☼	10/15/21 09:45	10/15/21 19:38	1
PCB-1242 (2C)	ND		18	5.7	ug/Kg	☼	10/15/21 09:45	10/15/21 19:38	1
PCB-1248 (2C)	ND		18	5.7	ug/Kg	☼	10/15/21 09:45	10/15/21 19:38	1
PCB-1254 (2C)	**8.6**	**J**	18	6.9	ug/Kg	☼	10/15/21 09:45	10/15/21 19:38	1
PCB-1260 (2C)	**7.9**	**J**	18	6.9	ug/Kg	☼	10/15/21 09:45	10/15/21 19:38	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl (Surr) (1C)	*89*	*^c*	*45 - 143*	*10/15/21 09:45*	*10/15/21 19:38*	*1*
DCB Decachlorobiphenyl (Surr) (2C)	*78*		*45 - 143*	*10/15/21 09:45*	*10/15/21 19:38*	*1*
Tetrachloro-m-xylene (1C)	*62*		*53 - 140*	*10/15/21 09:45*	*10/15/21 19:38*	*1*
Tetrachloro-m-xylene (2C)	*63*		*53 - 140*	*10/15/21 09:45*	*10/15/21 19:38*	*1*

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	**21**		1.2	0.49	mg/Kg	☼	11/09/21 19:12	11/16/21 12:18	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
HEM (Oil & Grease)	**6500**		650	220	mg/Kg	☼	10/18/21 23:57	10/20/21 10:30	1

Client Sample ID: Hartranft-10TH-CONF-SOIL-5-2021-10-12

Lab Sample ID: 410-58999-5

Date Collected: 10/12/21 10:12
Date Received: 10/13/21 18:10

Matrix: Solid

Method: 8260C - Volatile Organic Compounds by GC/MS - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.020	0.0060	mg/L			10/20/21 05:03	20
Carbon tetrachloride	ND		0.020	0.0060	mg/L			10/20/21 05:03	20
Chlorobenzene	ND		0.020	0.0060	mg/L			10/20/21 05:03	20
Chloroform	ND		0.020	0.0060	mg/L			10/20/21 05:03	20
1,2-Dichloroethane	ND		0.020	0.0060	mg/L			10/20/21 05:03	20
1,1-Dichloroethene	ND		0.020	0.0060	mg/L			10/20/21 05:03	20
2-Butanone	ND		0.20	0.010	mg/L			10/20/21 05:03	20
Tetrachloroethene	ND		0.020	0.0060	mg/L			10/20/21 05:03	20
Trichloroethene	ND		0.020	0.0060	mg/L			10/20/21 05:03	20
Vinyl chloride	ND		0.020	0.0040	mg/L			10/20/21 05:03	20

Client Sample ID: Hartranft-10TH-CONF-SOIL-5-2021-10-12

Lab Sample ID: 410-58999-5

Date Collected: 10/12/21 10:12

Matrix: Solid

Date Received: 10/13/21 18:10

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	*105*		*80 - 120*		*10/20/21 05:03*	*20*
4-Bromofluorobenzene (Surr)	*94*		*80 - 120*		*10/20/21 05:03*	*20*
Dibromofluoromethane (Surr)	*104*		*80 - 120*		*10/20/21 05:03*	*20*
Toluene-d8 (Surr)	*103*		*80 - 120*		*10/20/21 05:03*	*20*

Method: 8270D - Semivolatile Organic Compounds (GC/MS) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dichlorobenzene	ND		0.010	0.0025	mg/L		10/19/21 17:40	10/20/21 16:48	1
2,4,5-Trichlorophenol	ND		0.010	0.0025	mg/L		10/19/21 17:40	10/20/21 16:48	1
2,4,6-Trichlorophenol	ND		0.010	0.0025	mg/L		10/19/21 17:40	10/20/21 16:48	1
2,4-Dinitrotoluene	ND		0.025	0.0050	mg/L		10/19/21 17:40	10/20/21 16:48	1
2-Methylphenol	ND		0.010	0.0025	mg/L		10/19/21 17:40	10/20/21 16:48	1
4-Methylphenol	ND		0.010	0.0025	mg/L		10/19/21 17:40	10/20/21 16:48	1
Hexachlorobenzene	ND		0.0025	0.00055	mg/L		10/19/21 17:40	10/20/21 16:48	1
Hexachlorobutadiene	ND		0.010	0.0025	mg/L		10/19/21 17:40	10/20/21 16:48	1
Hexachloroethane	ND		0.025	0.0025	mg/L		10/19/21 17:40	10/20/21 16:48	1
Nitrobenzene	ND		0.010	0.0025	mg/L		10/19/21 17:40	10/20/21 16:48	1
Pentachlorophenol	ND		0.025	0.0050	mg/L		10/19/21 17:40	10/20/21 16:48	1
Pyridine	ND		0.025	0.010	mg/L		10/19/21 17:40	10/20/21 16:48	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol (Surr)	*67*		*10 - 150*	*10/19/21 17:40*	*10/20/21 16:48*	*1*
2-Fluorobiphenyl (Surr)	*55*		*35 - 100*	*10/19/21 17:40*	*10/20/21 16:48*	*1*
2-Fluorophenol (Surr)	*17*		*10 - 78*	*10/19/21 17:40*	*10/20/21 16:48*	*1*
Nitrobenzene-d5 (Surr)	*56*		*22 - 117*	*10/19/21 17:40*	*10/20/21 16:48*	*1*
p-Terphenyl-d14 (Surr)	*74*		*31 - 119*	*10/19/21 17:40*	*10/20/21 16:48*	*1*
Phenol-d5 (Surr)	*15*		*10 - 67*	*10/19/21 17:40*	*10/20/21 16:48*	*1*

Method: 8081B - Organochlorine Pesticides (GC) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Endrin (1C)	ND		0.0010	0.00040	mg/L		10/19/21 17:27	10/20/21 10:15	10
gamma-BHC (Lindane) (1C)	ND	*1	0.00050	0.00010	mg/L		10/19/21 17:27	10/20/21 10:15	10
Heptachlor (1C)	ND		0.00050	0.00020	mg/L		10/19/21 17:27	10/20/21 10:15	10
Heptachlor epoxide (1C)	ND		0.00050	0.00012	mg/L		10/19/21 17:27	10/20/21 10:15	10
Methoxychlor (1C)	ND	^c	0.0050	0.0015	mg/L		10/19/21 17:27	10/20/21 10:15	10
Toxaphene (1C)	ND		0.15	0.050	mg/L		10/19/21 17:27	10/20/21 10:15	10
Chlordane (n.o.s.) (1C)	ND		0.025	0.0080	mg/L		10/19/21 17:27	10/20/21 10:15	10

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl (Surr) (1C)	*80*		*21 - 130*	*10/19/21 17:27*	*10/20/21 10:15*	*10*
DCB Decachlorobiphenyl (Surr) (2C)	*90*		*21 - 130*	*10/19/21 17:27*	*10/20/21 10:15*	*10*
Tetrachloro-m-xylene (Surr) (1C)	*92*		*39 - 139*	*10/19/21 17:27*	*10/20/21 10:15*	*10*
Tetrachloro-m-xylene (Surr) (2C)	*82*		*39 - 139*	*10/19/21 17:27*	*10/20/21 10:15*	*10*

Method: 8151A - Herbicides (GC) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silvex (2,4,5-TP) (1C)	ND		0.0050	0.0010	mg/L		10/20/21 00:20	10/22/21 01:47	1
2,4-D (1C)	ND		0.050	0.016	mg/L		10/20/21 00:20	10/22/21 01:47	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4-Dichlorophenylacetic acid (Surr) (1C)	*99*		*26 - 136*	*10/20/21 00:20*	*10/22/21 01:47*	*1*

Client: NorthStar Contracting Group, Inc.
Project/Site: NorthStar Sampling

Job ID: 410-58999-1

Client Sample ID: Hartranft-10TH-CONF-SOIL-5-2021-10-12

Lab Sample ID: 410-58999-5

Date Collected: 10/12/21 10:12

Matrix: Solid

Date Received: 10/13/21 18:10

Method: 8151A - Herbicides (GC) - TCLP (Continued)

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4-Dichlorophenylacetic acid (Surr) (2C)	*95*		*26 - 136*	*10/20/21 00:20*	*10/22/21 01:47*	*1*

Method: 6010C - Metals (ICP) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	ND	^3+	0.30	0.16	mg/L		10/18/21 04:53	10/19/21 15:15	1
Barium	**0.27**	**B**	0.050	0.010	mg/L		10/18/21 04:53	10/19/21 15:15	1
Cadmium	ND		0.050	0.010	mg/L		10/18/21 04:53	10/19/21 15:15	1
Chromium	ND		0.15	0.016	mg/L		10/18/21 04:53	10/19/21 15:15	1
Lead	ND	B	0.15	0.071	mg/L		10/18/21 04:53	10/19/21 15:15	1
Selenium	ND	*+	0.50	0.16	mg/L		10/18/21 04:53	10/19/21 15:15	1
Silver	ND		0.10	0.050	mg/L		10/18/21 04:53	10/19/21 15:15	1
Copper	ND		0.20	0.12	mg/L		10/18/21 04:53	10/19/21 15:15	1
Zinc	**1.9**		0.20	0.037	mg/L		10/18/21 04:53	10/19/21 15:15	1
Nickel	ND	B	0.10	0.021	mg/L		10/18/21 04:53	10/19/21 15:15	1

Method: 7470A - Mercury (CVAA) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020	0.000079	mg/L		10/18/21 05:04	10/18/21 18:41	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Solids	**93**		0.10	0.10	%			10/14/21 12:23	1
Total Volatile Solids	**2.9**		0.10	0.10	%			10/14/21 12:23	1
Percent Solids	**93**	**!**	0.10	0.10	%			10/14/21 12:23	1
Ignitable to Air	**No**		1.0	1.0	NONE			10/18/21 19:56	1
Ignitable to Flame	**No**		1.0	1.0	NONE			10/18/21 19:56	1
Ignitable to Friction	**No**		1.0	1.0	NONE			10/18/21 19:56	1
Ignitable to Water	**No**		1.0	1.0	NONE			10/18/21 19:56	1
Cyanide, Reactive	ND	*-	59	20	mg/Kg		10/15/21 07:55	10/15/21 14:42	1
Sulfide, Reactive	ND	!	160	53	mg/Kg		10/15/21 07:55	10/15/21 12:20	1
Presence of Free Liquid	**No**				No Unit			10/18/21 19:55	1
Percent Moisture	**6.2**	**!**	1.0	1.0	%			10/14/21 12:07	1

General Chemistry - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	**8.7**		0.01	0.01	S.U.			10/15/21 18:30	1
Corrosivity	**No**		0.01	0.01	NONE			10/15/21 18:30	1

General Chemistry - ASTM Leach

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
HEM (Oil & Grease)	**2.1**	**J ! B**	5.3	1.5	mg/L			10/19/21 20:36	1
Total Solids	**100**	**!**	42	14	mg/L			10/18/21 06:25	1
Residue, Total	**100**	**!**	42	14	mg/L			10/18/21 06:25	1
Chemical Oxygen Demand	**25**	**J !**	75	25	mg/L			10/19/21 12:53	1
Ammonia as N	ND	!	0.10	0.050	mg/L			11/02/21 11:07	1

Client Sample ID: Hartranft-10TH-CONF-SOIL-5-2021-10-12 Lab Sample ID: 410-58999-5

Date Collected: 10/12/21 10:12 **Matrix: Solid**
Date Received: 10/13/21 18:10 **Percent Solids: 93.8**

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		280	28	ug/Kg	☼	10/14/21 11:18	10/18/21 15:50	50
Toluene	ND		280	34	ug/Kg	☼	10/14/21 11:18	10/18/21 15:50	50
Ethylbenzene	ND		280	23	ug/Kg	☼	10/14/21 11:18	10/18/21 15:50	50
Xylenes, Total	ND		570	80	ug/Kg	☼	10/14/21 11:18	10/18/21 15:50	50
1,2,4-Trimethylbenzene	**76**	**J**	280	28	ug/Kg	☼	10/14/21 11:18	10/18/21 15:50	50
Naphthalene	ND		280	110	ug/Kg	☼	10/14/21 11:18	10/18/21 15:50	50
Isopropylbenzene	ND		280	23	ug/Kg	☼	10/14/21 11:18	10/18/21 15:50	50
1,3,5-Trimethylbenzene	ND		280	28	ug/Kg	☼	10/14/21 11:18	10/18/21 15:50	50
1,2-Dibromoethane	ND		280	23	ug/Kg	☼	10/14/21 11:18	10/18/21 15:50	50
Methyl tertiary butyl ether	ND		280	28	ug/Kg	☼	10/14/21 11:18	10/18/21 15:50	50
1,2-Dichloroethane	ND		280	34	ug/Kg	☼	10/14/21 11:18	10/18/21 15:50	50

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*103*		*54 - 135*	*10/14/21 11:18*	*10/18/21 15:50*	*50*
4-Bromofluorobenzene (Surr)	*98*		*50 - 131*	*10/14/21 11:18*	*10/18/21 15:50*	*50*
Dibromofluoromethane (Surr)	*80*		*50 - 141*	*10/14/21 11:18*	*10/18/21 15:50*	*50*
Toluene-d8 (Surr)	*99*		*52 - 141*	*10/14/21 11:18*	*10/18/21 15:50*	*50*

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016 (1C)	ND		18	5.6	ug/Kg	☼	10/16/21 09:07	10/18/21 11:03	1
PCB-1221 (1C)	ND		18	5.6	ug/Kg	☼	10/16/21 09:07	10/18/21 11:03	1
PCB-1232 (1C)	ND		18	5.6	ug/Kg	☼	10/16/21 09:07	10/18/21 11:03	1
PCB-1242 (1C)	ND		18	5.6	ug/Kg	☼	10/16/21 09:07	10/18/21 11:03	1
PCB-1248 (1C)	ND		18	5.6	ug/Kg	☼	10/16/21 09:07	10/18/21 11:03	1
PCB-1254 (1C)	ND		18	6.8	ug/Kg	☼	10/16/21 09:07	10/18/21 11:03	1
PCB-1260 (2C)	**9.2**	**J**	18	6.8	ug/Kg	☼	10/16/21 09:07	10/18/21 11:03	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl (Surr) (1C)	*121*	*^c*	*45 - 143*	*10/16/21 09:07*	*10/18/21 11:03*	*1*
DCB Decachlorobiphenyl (Surr) (2C)	*102*		*45 - 143*	*10/16/21 09:07*	*10/18/21 11:03*	*1*
Tetrachloro-m-xylene (1C)	*73*		*53 - 140*	*10/16/21 09:07*	*10/18/21 11:03*	*1*
Tetrachloro-m-xylene (2C)	*69*		*53 - 140*	*10/16/21 09:07*	*10/18/21 11:03*	*1*

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	**20**		1.4	0.54	mg/Kg	☼	11/09/21 19:12	11/16/21 12:38	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
HEM (Oil & Grease)	**950**		630	210	mg/Kg	☼	10/18/21 23:57	10/20/21 10:30	1

Client Sample ID: Hartranft-10TH-CONF-SOIL-6-2021-10-12 Lab Sample ID: 410-58999-6

Date Collected: 10/12/21 10:16 **Matrix: Solid**
Date Received: 10/13/21 18:10

Method: 8260C - Volatile Organic Compounds by GC/MS - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.020	0.0060	mg/L			10/20/21 05:26	20
Carbon tetrachloride	ND		0.020	0.0060	mg/L			10/20/21 05:26	20
Chlorobenzene	ND		0.020	0.0060	mg/L			10/20/21 05:26	20

Client Sample ID: Hartranft-10TH-CONF-SOIL-6-2021-10-12

Lab Sample ID: 410-58999-6

Date Collected: 10/12/21 10:16
Matrix: Solid
Date Received: 10/13/21 18:10

Method: 8260C - Volatile Organic Compounds by GC/MS - TCLP (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloroform	ND		0.020	0.0060	mg/L			10/20/21 05:26	20
1,2-Dichloroethane	ND		0.020	0.0060	mg/L			10/20/21 05:26	20
1,1-Dichloroethene	ND		0.020	0.0060	mg/L			10/20/21 05:26	20
2-Butanone	ND		0.20	0.010	mg/L			10/20/21 05:26	20
Tetrachloroethene	ND		0.020	0.0060	mg/L			10/20/21 05:26	20
Trichloroethene	ND		0.020	0.0060	mg/L			10/20/21 05:26	20
Vinyl chloride	ND		0.020	0.0040	mg/L			10/20/21 05:26	20

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*104*		*80 - 120*		*10/20/21 05:26*	*20*
4-Bromofluorobenzene (Surr)	*94*		*80 - 120*		*10/20/21 05:26*	*20*
Dibromofluoromethane (Surr)	*101*		*80 - 120*		*10/20/21 05:26*	*20*
Toluene-d8 (Surr)	*103*		*80 - 120*		*10/20/21 05:26*	*20*

Method: 8270D - Semivolatile Organic Compounds (GC/MS) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dichlorobenzene	ND		0.010	0.0025	mg/L		10/19/21 17:40	10/20/21 17:17	1
2,4,5-Trichlorophenol	ND		0.010	0.0025	mg/L		10/19/21 17:40	10/20/21 17:17	1
2,4,6-Trichlorophenol	ND		0.010	0.0025	mg/L		10/19/21 17:40	10/20/21 17:17	1
2,4-Dinitrotoluene	ND		0.025	0.0050	mg/L		10/19/21 17:40	10/20/21 17:17	1
2-Methylphenol	ND		0.010	0.0025	mg/L		10/19/21 17:40	10/20/21 17:17	1
4-Methylphenol	ND		0.010	0.0025	mg/L		10/19/21 17:40	10/20/21 17:17	1
Hexachlorobenzene	ND		0.0025	0.00055	mg/L		10/19/21 17:40	10/20/21 17:17	1
Hexachlorobutadiene	ND		0.010	0.0025	mg/L		10/19/21 17:40	10/20/21 17:17	1
Hexachloroethane	ND		0.025	0.0025	mg/L		10/19/21 17:40	10/20/21 17:17	1
Nitrobenzene	ND		0.010	0.0025	mg/L		10/19/21 17:40	10/20/21 17:17	1
Pentachlorophenol	ND		0.025	0.0050	mg/L		10/19/21 17:40	10/20/21 17:17	1
Pyridine	ND		0.025	0.010	mg/L		10/19/21 17:40	10/20/21 17:17	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol (Surr)	*95*		*10 - 150*	*10/19/21 17:40*	*10/20/21 17:17*	*1*
2-Fluorobiphenyl (Surr)	*71*		*35 - 100*	*10/19/21 17:40*	*10/20/21 17:17*	*1*
2-Fluorophenol (Surr)	*49*		*10 - 78*	*10/19/21 17:40*	*10/20/21 17:17*	*1*
Nitrobenzene-d5 (Surr)	*77*		*22 - 117*	*10/19/21 17:40*	*10/20/21 17:17*	*1*
p-Terphenyl-d14 (Surr)	*82*		*31 - 119*	*10/19/21 17:40*	*10/20/21 17:17*	*1*
Phenol-d5 (Surr)	*39*		*10 - 67*	*10/19/21 17:40*	*10/20/21 17:17*	*1*

Method: 8081B - Organochlorine Pesticides (GC) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Endrin (1C)	ND		0.0010	0.00040	mg/L		10/19/21 17:27	10/20/21 10:26	10
gamma-BHC (Lindane) (1C)	ND	*1	0.00050	0.00010	mg/L		10/19/21 17:27	10/20/21 10:26	10
Heptachlor (1C)	ND		0.00050	0.00020	mg/L		10/19/21 17:27	10/20/21 10:26	10
Heptachlor epoxide (1C)	ND		0.00050	0.00012	mg/L		10/19/21 17:27	10/20/21 10:26	10
Methoxychlor (1C)	ND	^c	0.0050	0.0015	mg/L		10/19/21 17:27	10/20/21 10:26	10
Toxaphene (1C)	ND		0.15	0.050	mg/L		10/19/21 17:27	10/20/21 10:26	10
Chlordane (n.o.s.) (1C)	ND		0.025	0.0080	mg/L		10/19/21 17:27	10/20/21 10:26	10

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl (Surr) (1C)	*63*		*21 - 130*	*10/19/21 17:27*	*10/20/21 10:26*	*10*
DCB Decachlorobiphenyl (Surr) (2C)	*69*		*21 - 130*	*10/19/21 17:27*	*10/20/21 10:26*	*10*
Tetrachloro-m-xylene (Surr) (1C)	*83*		*39 - 139*	*10/19/21 17:27*	*10/20/21 10:26*	*10*

Client Sample ID: Hartranft-10TH-CONF-SOIL-6-2021-10-12
Date Collected: 10/12/21 10:16
Date Received: 10/13/21 18:10

Lab Sample ID: 410-58999-6
Matrix: Solid

Method: 8081B - Organochlorine Pesticides (GC) - TCLP (Continued)

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene (Surr) (2C)	*77*		*39 - 139*	*10/19/21 17:27*	*10/20/21 10:26*	*10*

Method: 8151A - Herbicides (GC) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silvex (2,4,5-TP) (1C)	ND		0.0050	0.0010	mg/L		10/20/21 00:20	10/22/21 02:22	1
2,4-D (1C)	ND		0.050	0.016	mg/L		10/20/21 00:20	10/22/21 02:22	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4-Dichlorophenylacetic acid (Surr) (1C)	*91*		*26 - 136*	*10/20/21 00:20*	*10/22/21 02:22*	*1*
2,4-Dichlorophenylacetic acid (Surr) (2C)	*81*		*26 - 136*	*10/20/21 00:20*	*10/22/21 02:22*	*1*

Method: 6010C - Metals (ICP) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	ND	^3+	0.30	0.16	mg/L		10/18/21 04:53	10/19/21 15:18	1
Barium	**0.40**	**B**	0.050	0.010	mg/L		10/18/21 04:53	10/19/21 15:18	1
Cadmium	ND		0.050	0.010	mg/L		10/18/21 04:53	10/19/21 15:18	1
Chromium	ND		0.15	0.016	mg/L		10/18/21 04:53	10/19/21 15:18	1
Lead	**0.15**	**B**	0.15	0.071	mg/L		10/18/21 04:53	10/19/21 15:18	1
Selenium	ND	*+	0.50	0.16	mg/L		10/18/21 04:53	10/19/21 15:18	1
Silver	ND		0.10	0.050	mg/L		10/18/21 04:53	10/19/21 15:18	1
Copper	ND		0.20	0.12	mg/L		10/18/21 04:53	10/19/21 15:18	1
Zinc	**1.5**		0.20	0.037	mg/L		10/18/21 04:53	10/19/21 15:18	1
Nickel	ND	B	0.10	0.021	mg/L		10/18/21 04:53	10/19/21 15:18	1

Method: 7470A - Mercury (CVAA) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020	0.000079	mg/L		10/18/21 05:04	10/18/21 18:43	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Solids	**87**		0.10	0.10	%			10/14/21 12:23	1
Total Volatile Solids	**12**		0.10	0.10	%			10/14/21 12:23	1
Percent Solids	**87**	**!**	0.10	0.10	%			10/14/21 12:23	1
Ignitable to Air	**No**		1.0	1.0	NONE			10/18/21 19:56	1
Ignitable to Flame	**No**		1.0	1.0	NONE			10/18/21 19:56	1
Ignitable to Friction	**No**		1.0	1.0	NONE			10/18/21 19:56	1
Ignitable to Water	**No**		1.0	1.0	NONE			10/18/21 19:56	1
Cyanide, Reactive	ND	*-	59	20	mg/Kg		10/15/21 07:55	10/15/21 14:43	1
Sulfide, Reactive	ND	!	160	53	mg/Kg		10/15/21 07:55	10/15/21 12:20	1
Presence of Free Liquid	**No**				No Unit			10/18/21 19:55	1
Percent Moisture	**18.1**	**!**	1.0	1.0	%			10/14/21 12:07	1

General Chemistry - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	**7.6**		0.01	0.01	S.U.			10/15/21 18:30	1
Corrosivity	**No**		0.01	0.01	NONE			10/15/21 18:30	1

Client Sample ID: Hartranft-10TH-CONF-SOIL-6-2021-10-12

Lab Sample ID: 410-58999-6
Date Collected: 10/12/21 10:16
Matrix: Solid
Date Received: 10/13/21 18:10

General Chemistry - ASTM Leach

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
HEM (Oil & Grease)	**2.0**	**J ! B**	5.3	1.5	mg/L			10/19/21 20:36	1
Total Solids	**120**	**!**	42	14	mg/L			10/18/21 06:25	1
Residue, Total	**120**	**!**	42	14	mg/L			10/18/21 06:25	1
Chemical Oxygen Demand	**68**	**J !**	75	25	mg/L			10/19/21 12:54	1
Ammonia as N	ND	!	0.10	0.050	mg/L			11/02/21 11:09	1

Client Sample ID: Hartranft-10TH-CONF-SOIL-6-2021-10-12

Lab Sample ID: 410-58999-6
Date Collected: 10/12/21 10:16
Matrix: Solid
Date Received: 10/13/21 18:10
Percent Solids: 81.9

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		360	36	ug/Kg	☼	10/14/21 11:18	10/18/21 16:11	50
Toluene	ND		360	43	ug/Kg	☼	10/14/21 11:18	10/18/21 16:11	50
Ethylbenzene	ND		360	29	ug/Kg	☼	10/14/21 11:18	10/18/21 16:11	50
Xylenes, Total	ND		720	100	ug/Kg	☼	10/14/21 11:18	10/18/21 16:11	50
1,2,4-Trimethylbenzene	**230**	**J**	360	36	ug/Kg	☼	10/14/21 11:18	10/18/21 16:11	50
Naphthalene	**650**		360	140	ug/Kg	☼	10/14/21 11:18	10/18/21 16:11	50
Isopropylbenzene	**39**	**J**	360	29	ug/Kg	☼	10/14/21 11:18	10/18/21 16:11	50
1,3,5-Trimethylbenzene	**75**	**J**	360	36	ug/Kg	☼	10/14/21 11:18	10/18/21 16:11	50
1,2-Dibromoethane	ND		360	29	ug/Kg	☼	10/14/21 11:18	10/18/21 16:11	50
Methyl tertiary butyl ether	ND		360	36	ug/Kg	☼	10/14/21 11:18	10/18/21 16:11	50
1,2-Dichloroethane	ND		360	43	ug/Kg	☼	10/14/21 11:18	10/18/21 16:11	50

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*108*		*54 - 135*	*10/14/21 11:18*	*10/18/21 16:11*	*50*
4-Bromofluorobenzene (Surr)	*103*		*50 - 131*	*10/14/21 11:18*	*10/18/21 16:11*	*50*
Dibromofluoromethane (Surr)	*100*		*50 - 141*	*10/14/21 11:18*	*10/18/21 16:11*	*50*
Toluene-d8 (Surr)	*106*		*52 - 141*	*10/14/21 11:18*	*10/18/21 16:11*	*50*

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016 (1C)	ND		21	6.4	ug/Kg	☼	10/16/21 09:07	10/18/21 11:14	1
PCB-1221 (1C)	ND		21	6.4	ug/Kg	☼	10/16/21 09:07	10/18/21 11:14	1
PCB-1232 (1C)	ND		21	6.4	ug/Kg	☼	10/16/21 09:07	10/18/21 11:14	1
PCB-1242 (1C)	ND		21	6.4	ug/Kg	☼	10/16/21 09:07	10/18/21 11:14	1
PCB-1248 (1C)	ND		21	6.4	ug/Kg	☼	10/16/21 09:07	10/18/21 11:14	1
PCB-1254 (2C)	**23**		21	7.8	ug/Kg	☼	10/16/21 09:07	10/18/21 11:14	1
PCB-1260 (1C)	ND		21	7.8	ug/Kg	☼	10/16/21 09:07	10/18/21 11:14	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl (Surr) (1C)	*97*	*^c*	*45 - 143*	*10/16/21 09:07*	*10/18/21 11:14*	*1*
DCB Decachlorobiphenyl (Surr) (2C)	*86*		*45 - 143*	*10/16/21 09:07*	*10/18/21 11:14*	*1*
Tetrachloro-m-xylene (1C)	*58*		*53 - 140*	*10/16/21 09:07*	*10/18/21 11:14*	*1*
Tetrachloro-m-xylene (2C)	*57*		*53 - 140*	*10/16/21 09:07*	*10/18/21 11:14*	*1*

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	**32**		1.8	0.72	mg/Kg	☼	11/09/21 19:12	11/16/21 12:30	1

Client: NorthStar Contracting Group, Inc.
Project/Site: NorthStar Sampling

Job ID: 410-58999-1

Client Sample ID: Hartranft-10TH-CONF-SOIL-6-2021-10-12

Lab Sample ID: 410-58999-6
Date Collected: 10/12/21 10:16
Matrix: Solid
Date Received: 10/13/21 18:10
Percent Solids: 81.9

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
HEM (Oil & Grease)	3300		710	240	mg/Kg	☼	10/18/21 23:57	10/20/21 10:30	1

Client Sample ID: Hartranft-10TH-RB44062-RT-1-2021-10-12

Lab Sample ID: 410-58999-7
Date Collected: 10/12/21 10:30
Matrix: Solid
Date Received: 10/13/21 18:10

Method: 8260C - Volatile Organic Compounds by GC/MS - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.020	0.0060	mg/L			10/20/21 05:49	20
Carbon tetrachloride	ND		0.020	0.0060	mg/L			10/20/21 05:49	20
Chlorobenzene	ND		0.020	0.0060	mg/L			10/20/21 05:49	20
Chloroform	ND		0.020	0.0060	mg/L			10/20/21 05:49	20
1,2-Dichloroethane	ND		0.020	0.0060	mg/L			10/20/21 05:49	20
1,1-Dichloroethene	ND		0.020	0.0060	mg/L			10/20/21 05:49	20
2-Butanone	ND		0.20	0.010	mg/L			10/20/21 05:49	20
Tetrachloroethene	ND		0.020	0.0060	mg/L			10/20/21 05:49	20
Trichloroethene	ND		0.020	0.0060	mg/L			10/20/21 05:49	20
Vinyl chloride	ND		0.020	0.0040	mg/L			10/20/21 05:49	20

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*106*		*80 - 120*		*10/20/21 05:49*	*20*
4-Bromofluorobenzene (Surr)	*93*		*80 - 120*		*10/20/21 05:49*	*20*
Dibromofluoromethane (Surr)	*104*		*80 - 120*		*10/20/21 05:49*	*20*
Toluene-d8 (Surr)	*103*		*80 - 120*		*10/20/21 05:49*	*20*

Method: 8270D - Semivolatile Organic Compounds (GC/MS) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dichlorobenzene	ND		0.010	0.0025	mg/L		10/19/21 17:40	10/20/21 17:46	1
2,4,5-Trichlorophenol	ND		0.010	0.0025	mg/L		10/19/21 17:40	10/20/21 17:46	1
2,4,6-Trichlorophenol	ND		0.010	0.0025	mg/L		10/19/21 17:40	10/20/21 17:46	1
2,4-Dinitrotoluene	ND		0.025	0.0050	mg/L		10/19/21 17:40	10/20/21 17:46	1
2-Methylphenol	ND		0.010	0.0025	mg/L		10/19/21 17:40	10/20/21 17:46	1
4-Methylphenol	ND		0.010	0.0025	mg/L		10/19/21 17:40	10/20/21 17:46	1
Hexachlorobenzene	ND		0.0025	0.00055	mg/L		10/19/21 17:40	10/20/21 17:46	1
Hexachlorobutadiene	ND		0.010	0.0025	mg/L		10/19/21 17:40	10/20/21 17:46	1
Hexachloroethane	ND		0.025	0.0025	mg/L		10/19/21 17:40	10/20/21 17:46	1
Nitrobenzene	ND		0.010	0.0025	mg/L		10/19/21 17:40	10/20/21 17:46	1
Pentachlorophenol	ND		0.025	0.0050	mg/L		10/19/21 17:40	10/20/21 17:46	1
Pyridine	ND		0.025	0.010	mg/L		10/19/21 17:40	10/20/21 17:46	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol (Surr)	*90*		*10 - 150*	*10/19/21 17:40*	*10/20/21 17:46*	*1*
2-Fluorobiphenyl (Surr)	*69*		*35 - 100*	*10/19/21 17:40*	*10/20/21 17:46*	*1*
2-Fluorophenol (Surr)	*41*		*10 - 78*	*10/19/21 17:40*	*10/20/21 17:46*	*1*
Nitrobenzene-d5 (Surr)	*77*		*22 - 117*	*10/19/21 17:40*	*10/20/21 17:46*	*1*
p-Terphenyl-d14 (Surr)	*83*		*31 - 119*	*10/19/21 17:40*	*10/20/21 17:46*	*1*
Phenol-d5 (Surr)	*34*		*10 - 67*	*10/19/21 17:40*	*10/20/21 17:46*	*1*

Method: 8081B - Organochlorine Pesticides (GC) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Endrin (1C)	ND		0.0010	0.00040	mg/L		10/19/21 17:27	10/20/21 10:37	10

Client Sample ID: Hartranft-10TH-RB44062-RT-1-2021-10-12
Date Collected: 10/12/21 10:30
Date Received: 10/13/21 18:10

Lab Sample ID: 410-58999-7
Matrix: Solid

Method: 8081B - Organochlorine Pesticides (GC) - TCLP (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
gamma-BHC (Lindane) (1C)	ND	*1	0.00050	0.00010	mg/L		10/19/21 17:27	10/20/21 10:37	10
Heptachlor (1C)	ND		0.00050	0.00020	mg/L		10/19/21 17:27	10/20/21 10:37	10
Heptachlor epoxide (1C)	ND		0.00050	0.00012	mg/L		10/19/21 17:27	10/20/21 10:37	10
Methoxychlor (1C)	ND	^c	0.0050	0.0015	mg/L		10/19/21 17:27	10/20/21 10:37	10
Toxaphene (1C)	ND		0.15	0.050	mg/L		10/19/21 17:27	10/20/21 10:37	10
Chlordane (n.o.s.) (1C)	ND		0.025	0.0080	mg/L		10/19/21 17:27	10/20/21 10:37	10

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl (Surr) (1C)	*95*		*21 - 130*	*10/19/21 17:27*	*10/20/21 10:37*	*10*
DCB Decachlorobiphenyl (Surr) (2C)	*100*		*21 - 130*	*10/19/21 17:27*	*10/20/21 10:37*	*10*
Tetrachloro-m-xylene (Surr) (1C)	*94*		*39 - 139*	*10/19/21 17:27*	*10/20/21 10:37*	*10*
Tetrachloro-m-xylene (Surr) (2C)	*88*		*39 - 139*	*10/19/21 17:27*	*10/20/21 10:37*	*10*

Method: 8151A - Herbicides (GC) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silvex (2,4,5-TP) (1C)	ND		0.0050	0.0010	mg/L		10/20/21 00:20	10/22/21 02:57	1
2,4-D (1C)	ND		0.050	0.016	mg/L		10/20/21 00:20	10/22/21 02:57	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4-Dichlorophenylacetic acid (Surr) (1C)	*98*		*26 - 136*	*10/20/21 00:20*	*10/22/21 02:57*	*1*
2,4-Dichlorophenylacetic acid (Surr) (2C)	*82*		*26 - 136*	*10/20/21 00:20*	*10/22/21 02:57*	*1*

Method: 6010C - Metals (ICP) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	ND	^3+	0.30	0.16	mg/L		10/18/21 04:53	10/19/21 15:27	1
Barium	**0.54**	**B**	0.050	0.010	mg/L		10/18/21 04:53	10/19/21 15:27	1
Cadmium	ND		0.050	0.010	mg/L		10/18/21 04:53	10/19/21 15:27	1
Chromium	ND		0.15	0.016	mg/L		10/18/21 04:53	10/19/21 15:27	1
Lead	ND	B	0.15	0.071	mg/L		10/18/21 04:53	10/19/21 15:27	1
Selenium	ND	*+	0.50	0.16	mg/L		10/18/21 04:53	10/19/21 15:27	1
Silver	ND		0.10	0.050	mg/L		10/18/21 04:53	10/19/21 15:27	1
Copper	ND		0.20	0.12	mg/L		10/18/21 04:53	10/19/21 15:27	1
Zinc	**7.3**		0.20	0.037	mg/L		10/18/21 04:53	10/19/21 15:27	1
Nickel	**0.11**	**B**	0.10	0.021	mg/L		10/18/21 04:53	10/19/21 15:27	1

Method: 7470A - Mercury (CVAA) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020	0.000079	mg/L		10/18/21 05:04	10/18/21 18:45	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Solids	**80**		0.10	0.10	%			10/14/21 12:23	1
Total Volatile Solids	**8.7**		0.10	0.10	%			10/14/21 12:23	1
Percent Solids	**80**	**!**	0.10	0.10	%			10/14/21 12:23	1
Ignitable to Air	**No**		1.0	1.0	NONE			10/18/21 19:56	1
Ignitable to Flame	**No**		1.0	1.0	NONE			10/18/21 19:56	1
Ignitable to Friction	**No**		1.0	1.0	NONE			10/18/21 19:56	1
Ignitable to Water	**No**		1.0	1.0	NONE			10/18/21 19:56	1
Cyanide, Reactive	ND	*-	58	19	mg/Kg		10/15/21 07:55	10/15/21 14:45	1

Client Sample ID: Hartranft-10TH-RB44062-RT-1-2021-10-12

Lab Sample ID: 410-58999-7
Date Collected: 10/12/21 10:30
Matrix: Solid
Date Received: 10/13/21 18:10

General Chemistry (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfide, Reactive	ND	!	150	52	mg/Kg		10/15/21 07:55	10/15/21 12:20	1
Presence of Free Liquid	**No**				No Unit			10/18/21 19:55	1
Percent Moisture	**18.2**	**!**	1.0	1.0	%			10/14/21 12:07	1

General Chemistry - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	**7.3**		0.01	0.01	S.U.			10/15/21 18:30	1
Corrosivity	**No**		0.01	0.01	NONE			10/15/21 18:30	1

General Chemistry - ASTM Leach

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
HEM (Oil & Grease)	ND	! B	5.3	1.5	mg/L			10/19/21 20:36	1
Total Solids	**110**	**!**	42	14	mg/L			10/18/21 06:25	1
Residue, Total	**110**	**!**	42	14	mg/L			10/18/21 06:25	1
Chemical Oxygen Demand	**37**	**J !**	75	25	mg/L			10/19/21 12:48	1
Ammonia as N	ND	!	0.10	0.050	mg/L			11/02/21 11:18	1

Client Sample ID: Hartranft-10TH-RB44062-RT-1-2021-10-12

Lab Sample ID: 410-58999-7
Date Collected: 10/12/21 10:30
Matrix: Solid
Date Received: 10/13/21 18:10
Percent Solids: 81.8

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		360	36	ug/Kg	☼	10/14/21 11:18	10/18/21 16:31	50
Toluene	ND		360	43	ug/Kg	☼	10/14/21 11:18	10/18/21 16:31	50
Ethylbenzene	**57**	**J**	360	28	ug/Kg	☼	10/14/21 11:18	10/18/21 16:31	50
Xylenes, Total	**430**	**J**	710	100	ug/Kg	☼	10/14/21 11:18	10/18/21 16:31	50
1,2,4-Trimethylbenzene	**2100**		360	36	ug/Kg	☼	10/14/21 11:18	10/18/21 16:31	50
Naphthalene	**570**		360	140	ug/Kg	☼	10/14/21 11:18	10/18/21 16:31	50
Isopropylbenzene	**770**		360	28	ug/Kg	☼	10/14/21 11:18	10/18/21 16:31	50
1,3,5-Trimethylbenzene	**770**		360	36	ug/Kg	☼	10/14/21 11:18	10/18/21 16:31	50
1,2-Dibromoethane	ND		360	28	ug/Kg	☼	10/14/21 11:18	10/18/21 16:31	50
Methyl tertiary butyl ether	ND		360	36	ug/Kg	☼	10/14/21 11:18	10/18/21 16:31	50
1,2-Dichloroethane	ND		360	43	ug/Kg	☼	10/14/21 11:18	10/18/21 16:31	50

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*104*		*54 - 135*	*10/14/21 11:18*	*10/18/21 16:31*	*50*
4-Bromofluorobenzene (Surr)	*108*		*50 - 131*	*10/14/21 11:18*	*10/18/21 16:31*	*50*
Dibromofluoromethane (Surr)	*92*		*50 - 141*	*10/14/21 11:18*	*10/18/21 16:31*	*50*
Toluene-d8 (Surr)	*107*		*52 - 141*	*10/14/21 11:18*	*10/18/21 16:31*	*50*

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016 (1C)	ND		21	6.4	ug/Kg	☼	10/16/21 09:07	10/18/21 11:24	1
PCB-1221 (1C)	ND		21	6.4	ug/Kg	☼	10/16/21 09:07	10/18/21 11:24	1
PCB-1232 (1C)	ND		21	6.4	ug/Kg	☼	10/16/21 09:07	10/18/21 11:24	1
PCB-1242 (1C)	ND		21	6.4	ug/Kg	☼	10/16/21 09:07	10/18/21 11:24	1
PCB-1248 (1C)	ND		21	6.4	ug/Kg	☼	10/16/21 09:07	10/18/21 11:24	1
PCB-1254 (2C)	**11**	**J**	21	7.8	ug/Kg	☼	10/16/21 09:07	10/18/21 11:24	1
PCB-1260 (1C)	**13**	**J**	21	7.8	ug/Kg	☼	10/16/21 09:07	10/18/21 11:24	1

Client Sample ID: Hartranft-10TH-RB44062-RT-1-2021-10-12

Lab Sample ID: 410-58999-7
Date Collected: 10/12/21 10:30
Matrix: Solid
Date Received: 10/13/21 18:10
Percent Solids: 81.8

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl (Surr) (1C)	*95*	*^c*	*45 - 143*	*10/16/21 09:07*	*10/18/21 11:24*	*1*
DCB Decachlorobiphenyl (Surr) (2C)	*84*		*45 - 143*	*10/16/21 09:07*	*10/18/21 11:24*	*1*
Tetrachloro-m-xylene (1C)	*63*		*53 - 140*	*10/16/21 09:07*	*10/18/21 11:24*	*1*
Tetrachloro-m-xylene (2C)	*61*		*53 - 140*	*10/16/21 09:07*	*10/18/21 11:24*	*1*

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	**28**		1.6	0.64	mg/Kg	☼	11/09/21 13:56	11/10/21 11:03	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
HEM (Oil & Grease)	**5000**		710	240	mg/Kg	☼	10/18/21 23:57	10/20/21 10:30	1

Client Sample ID: Hartranft-10TH-RB44062-RT-2-2021-10-12

Lab Sample ID: 410-58999-8
Date Collected: 10/12/21 10:36
Matrix: Solid
Date Received: 10/13/21 18:10

Method: 8260C - Volatile Organic Compounds by GC/MS - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.020	0.0060	mg/L			10/20/21 06:12	20
Carbon tetrachloride	ND		0.020	0.0060	mg/L			10/20/21 06:12	20
Chlorobenzene	ND		0.020	0.0060	mg/L			10/20/21 06:12	20
Chloroform	ND		0.020	0.0060	mg/L			10/20/21 06:12	20
1,2-Dichloroethane	ND		0.020	0.0060	mg/L			10/20/21 06:12	20
1,1-Dichloroethene	ND		0.020	0.0060	mg/L			10/20/21 06:12	20
2-Butanone	ND		0.20	0.010	mg/L			10/20/21 06:12	20
Tetrachloroethene	ND		0.020	0.0060	mg/L			10/20/21 06:12	20
Trichloroethene	ND		0.020	0.0060	mg/L			10/20/21 06:12	20
Vinyl chloride	ND		0.020	0.0040	mg/L			10/20/21 06:12	20

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*103*		*80 - 120*		*10/20/21 06:12*	*20*
4-Bromofluorobenzene (Surr)	*93*		*80 - 120*		*10/20/21 06:12*	*20*
Dibromofluoromethane (Surr)	*103*		*80 - 120*		*10/20/21 06:12*	*20*
Toluene-d8 (Surr)	*103*		*80 - 120*		*10/20/21 06:12*	*20*

Method: 8270D - Semivolatile Organic Compounds (GC/MS) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dichlorobenzene	ND		0.010	0.0025	mg/L		10/19/21 17:40	10/20/21 18:15	1
2,4,5-Trichlorophenol	ND		0.010	0.0025	mg/L		10/19/21 17:40	10/20/21 18:15	1
2,4,6-Trichlorophenol	ND		0.010	0.0025	mg/L		10/19/21 17:40	10/20/21 18:15	1
2,4-Dinitrotoluene	ND		0.025	0.0050	mg/L		10/19/21 17:40	10/20/21 18:15	1
2-Methylphenol	ND		0.010	0.0025	mg/L		10/19/21 17:40	10/20/21 18:15	1
4-Methylphenol	ND		0.010	0.0025	mg/L		10/19/21 17:40	10/20/21 18:15	1
Hexachlorobenzene	ND		0.0025	0.00055	mg/L		10/19/21 17:40	10/20/21 18:15	1
Hexachlorobutadiene	ND		0.010	0.0025	mg/L		10/19/21 17:40	10/20/21 18:15	1
Hexachloroethane	ND		0.025	0.0025	mg/L		10/19/21 17:40	10/20/21 18:15	1
Nitrobenzene	ND		0.010	0.0025	mg/L		10/19/21 17:40	10/20/21 18:15	1
Pentachlorophenol	ND		0.025	0.0050	mg/L		10/19/21 17:40	10/20/21 18:15	1
Pyridine	ND		0.025	0.010	mg/L		10/19/21 17:40	10/20/21 18:15	1

Client Sample ID: Hartranft-10TH-RB44062-RT-2-2021-10-12
Date Collected: 10/12/21 10:36
Date Received: 10/13/21 18:10

Lab Sample ID: 410-58999-8
Matrix: Solid

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol (Surr)	*82*		*10 - 150*	*10/19/21 17:40*	*10/20/21 18:15*	*1*
2-Fluorobiphenyl (Surr)	*70*		*35 - 100*	*10/19/21 17:40*	*10/20/21 18:15*	*1*
2-Fluorophenol (Surr)	*37*		*10 - 78*	*10/19/21 17:40*	*10/20/21 18:15*	*1*
Nitrobenzene-d5 (Surr)	*74*		*22 - 117*	*10/19/21 17:40*	*10/20/21 18:15*	*1*
p-Terphenyl-d14 (Surr)	*82*		*31 - 119*	*10/19/21 17:40*	*10/20/21 18:15*	*1*
Phenol-d5 (Surr)	*30*		*10 - 67*	*10/19/21 17:40*	*10/20/21 18:15*	*1*

Method: 8081B - Organochlorine Pesticides (GC) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Endrin (1C)	ND		0.0010	0.00040	mg/L		10/19/21 17:27	10/20/21 10:49	10
gamma-BHC (Lindane) (1C)	ND	*1	0.00050	0.00010	mg/L		10/19/21 17:27	10/20/21 10:49	10
Heptachlor (1C)	ND		0.00050	0.00020	mg/L		10/19/21 17:27	10/20/21 10:49	10
Heptachlor epoxide (1C)	ND		0.00050	0.00012	mg/L		10/19/21 17:27	10/20/21 10:49	10
Methoxychlor (1C)	ND	^c	0.0050	0.0015	mg/L		10/19/21 17:27	10/20/21 10:49	10
Toxaphene (1C)	ND		0.15	0.050	mg/L		10/19/21 17:27	10/20/21 10:49	10
Chlordane (n.o.s.) (1C)	ND		0.025	0.0080	mg/L		10/19/21 17:27	10/20/21 10:49	10

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl (Surr) (1C)	*99*		*21 - 130*	*10/19/21 17:27*	*10/20/21 10:49*	*10*
DCB Decachlorobiphenyl (Surr) (2C)	*103*		*21 - 130*	*10/19/21 17:27*	*10/20/21 10:49*	*10*
Tetrachloro-m-xylene (Surr) (1C)	*60*		*39 - 139*	*10/19/21 17:27*	*10/20/21 10:49*	*10*
Tetrachloro-m-xylene (Surr) (2C)	*56*		*39 - 139*	*10/19/21 17:27*	*10/20/21 10:49*	*10*

Method: 8151A - Herbicides (GC) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silvex (2,4,5-TP) (1C)	ND		0.0050	0.0010	mg/L		10/20/21 00:20	10/22/21 03:33	1
2,4-D (1C)	ND		0.050	0.016	mg/L		10/20/21 00:20	10/22/21 03:33	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4-Dichlorophenylacetic acid (Surr) (1C)	*96*		*26 - 136*	*10/20/21 00:20*	*10/22/21 03:33*	*1*
2,4-Dichlorophenylacetic acid (Surr) (2C)	*80*		*26 - 136*	*10/20/21 00:20*	*10/22/21 03:33*	*1*

Method: 6010C - Metals (ICP) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	ND	^3+	0.30	0.16	mg/L		10/18/21 04:53	10/19/21 15:33	1
Barium	**0.52**	**B**	0.050	0.010	mg/L		10/18/21 04:53	10/19/21 15:33	1
Cadmium	ND		0.050	0.010	mg/L		10/18/21 04:53	10/19/21 15:33	1
Chromium	ND		0.15	0.016	mg/L		10/18/21 04:53	10/19/21 15:33	1
Lead	ND	B	0.15	0.071	mg/L		10/18/21 04:53	10/19/21 15:33	1
Selenium	ND	*+	0.50	0.16	mg/L		10/18/21 04:53	10/19/21 15:33	1
Silver	ND		0.10	0.050	mg/L		10/18/21 04:53	10/19/21 15:33	1
Copper	ND		0.20	0.12	mg/L		10/18/21 04:53	10/19/21 15:33	1
Zinc	**3.5**		0.20	0.037	mg/L		10/18/21 04:53	10/19/21 15:33	1
Nickel	**0.044**	**J B**	0.10	0.021	mg/L		10/18/21 04:53	10/19/21 15:33	1

Method: 7470A - Mercury (CVAA) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	**0.00016**	**J**	0.00020	0.000079	mg/L		10/18/21 05:04	10/18/21 18:54	1

Client Sample ID: Hartranft-10TH-RB44062-RT-2-2021-10-12

Lab Sample ID: 410-58999-8

Date Collected: 10/12/21 10:36
Matrix: Solid
Date Received: 10/13/21 18:10

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Solids	**81**		0.10	0.10	%			10/14/21 12:23	1
Total Volatile Solids	**8.8**		0.10	0.10	%			10/14/21 12:23	1
Percent Solids	**81**	**!**	0.10	0.10	%			10/14/21 12:23	1
Ignitable to Air	**No**		1.0	1.0	NONE			10/18/21 19:56	1
Ignitable to Flame	**No**		1.0	1.0	NONE			10/18/21 19:56	1
Ignitable to Friction	**No**		1.0	1.0	NONE			10/18/21 19:56	1
Ignitable to Water	**No**		1.0	1.0	NONE			10/18/21 19:56	1
Cyanide, Reactive	ND	*-	59	20	mg/Kg		10/15/21 07:55	10/15/21 14:46	1
Sulfide, Reactive	ND	!	160	53	mg/Kg		10/15/21 07:55	10/15/21 12:20	1
Presence of Free Liquid	**No**				No Unit			10/18/21 19:55	1
Percent Moisture	**17.3**	**!**	1.0	1.0	%			10/14/21 12:07	1

General Chemistry - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	**6.9**		0.01	0.01	S.U.			10/15/21 18:30	1
Corrosivity	**No**		0.01	0.01	NONE			10/15/21 18:30	1

General Chemistry - ASTM Leach

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
HEM (Oil & Grease)	**2.7**	**J ! B**	5.3	1.5	mg/L			10/19/21 20:36	1
Total Solids	**92**	**!**	42	14	mg/L			10/18/21 06:25	1
Residue, Total	**92**	**!**	42	14	mg/L			10/18/21 06:25	1
Chemical Oxygen Demand	**68**	**J !**	75	25	mg/L			10/19/21 12:52	1
Ammonia as N	ND	!	0.10	0.050	mg/L			11/02/21 11:20	1

Client Sample ID: Hartranft-10TH-RB44062-RT-2-2021-10-12

Lab Sample ID: 410-58999-8

Date Collected: 10/12/21 10:36
Matrix: Solid
Date Received: 10/13/21 18:10
Percent Solids: 82.7

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		350	35	ug/Kg	☼	10/14/21 11:18	10/18/21 16:52	50
Toluene	**55**	**J**	350	42	ug/Kg	☼	10/14/21 11:18	10/18/21 16:52	50
Ethylbenzene	**160**	**J**	350	28	ug/Kg	☼	10/14/21 11:18	10/18/21 16:52	50
Xylenes, Total	**1300**		700	99	ug/Kg	☼	10/14/21 11:18	10/18/21 16:52	50
1,2,4-Trimethylbenzene	**3300**		350	35	ug/Kg	☼	10/14/21 11:18	10/18/21 16:52	50
Naphthalene	**790**		350	140	ug/Kg	☼	10/14/21 11:18	10/18/21 16:52	50
Isopropylbenzene	**1400**		350	28	ug/Kg	☼	10/14/21 11:18	10/18/21 16:52	50
1,3,5-Trimethylbenzene	**1200**		350	35	ug/Kg	☼	10/14/21 11:18	10/18/21 16:52	50
1,2-Dibromoethane	ND		350	28	ug/Kg	☼	10/14/21 11:18	10/18/21 16:52	50
Methyl tertiary butyl ether	ND		350	35	ug/Kg	☼	10/14/21 11:18	10/18/21 16:52	50
1,2-Dichloroethane	ND		350	42	ug/Kg	☼	10/14/21 11:18	10/18/21 16:52	50

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*104*		*54 - 135*	*10/14/21 11:18*	*10/18/21 16:52*	*50*
4-Bromofluorobenzene (Surr)	*127*		*50 - 131*	*10/14/21 11:18*	*10/18/21 16:52*	*50*
Dibromofluoromethane (Surr)	*95*		*50 - 141*	*10/14/21 11:18*	*10/18/21 16:52*	*50*
Toluene-d8 (Surr)	*111*		*52 - 141*	*10/14/21 11:18*	*10/18/21 16:52*	*50*

Client: NorthStar Contracting Group, Inc.
Project/Site: NorthStar Sampling

Job ID: 410-58999-1

Client Sample ID: Hartranft-10TH-RB44062-RT-2-2021-10-12

Lab Sample ID: 410-58999-8
Date Collected: 10/12/21 10:36
Matrix: Solid
Date Received: 10/13/21 18:10
Percent Solids: 82.7

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016 (1C)	ND		20	6.3	ug/Kg	☼	10/16/21 09:07	10/18/21 11:35	1
PCB-1221 (1C)	ND		20	6.3	ug/Kg	☼	10/16/21 09:07	10/18/21 11:35	1
PCB-1232 (1C)	ND		20	6.3	ug/Kg	☼	10/16/21 09:07	10/18/21 11:35	1
PCB-1242 (1C)	ND		20	6.3	ug/Kg	☼	10/16/21 09:07	10/18/21 11:35	1
PCB-1248 (1C)	ND		20	6.3	ug/Kg	☼	10/16/21 09:07	10/18/21 11:35	1
PCB-1254 (2C)	**11**	**J**	20	7.7	ug/Kg	☼	10/16/21 09:07	10/18/21 11:35	1
PCB-1260 (2C)	**16**	**J**	20	7.7	ug/Kg	☼	10/16/21 09:07	10/18/21 11:35	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl (Surr) (1C)	*92*	*^c*	*45 - 143*	*10/16/21 09:07*	*10/18/21 11:35*	*1*
DCB Decachlorobiphenyl (Surr) (2C)	*89*		*45 - 143*	*10/16/21 09:07*	*10/18/21 11:35*	*1*
Tetrachloro-m-xylene (1C)	*65*		*53 - 140*	*10/16/21 09:07*	*10/18/21 11:35*	*1*
Tetrachloro-m-xylene (2C)	*63*		*53 - 140*	*10/16/21 09:07*	*10/18/21 11:35*	*1*

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	**25**		1.6	0.66	mg/Kg	☼	11/09/21 19:12	11/16/21 12:22	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
HEM (Oil & Grease)	**6100**		720	240	mg/Kg	☼	10/18/21 23:57	10/20/21 10:30	1

Client Sample ID: Hartranft-10TH-RB44062-RT-3-2021-10-12

Lab Sample ID: 410-58999-9
Date Collected: 10/12/21 10:38
Matrix: Solid
Date Received: 10/13/21 18:10

Method: 8260C - Volatile Organic Compounds by GC/MS - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.020	0.0060	mg/L			10/20/21 06:35	20
Carbon tetrachloride	ND		0.020	0.0060	mg/L			10/20/21 06:35	20
Chlorobenzene	ND		0.020	0.0060	mg/L			10/20/21 06:35	20
Chloroform	ND		0.020	0.0060	mg/L			10/20/21 06:35	20
1,2-Dichloroethane	ND		0.020	0.0060	mg/L			10/20/21 06:35	20
1,1-Dichloroethene	ND		0.020	0.0060	mg/L			10/20/21 06:35	20
2-Butanone	ND		0.20	0.010	mg/L			10/20/21 06:35	20
Tetrachloroethene	ND		0.020	0.0060	mg/L			10/20/21 06:35	20
Trichloroethene	ND		0.020	0.0060	mg/L			10/20/21 06:35	20
Vinyl chloride	ND		0.020	0.0040	mg/L			10/20/21 06:35	20

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*105*		*80 - 120*		*10/20/21 06:35*	*20*
4-Bromofluorobenzene (Surr)	*94*		*80 - 120*		*10/20/21 06:35*	*20*
Dibromofluoromethane (Surr)	*104*		*80 - 120*		*10/20/21 06:35*	*20*
Toluene-d8 (Surr)	*103*		*80 - 120*		*10/20/21 06:35*	*20*

Method: 8270D - Semivolatile Organic Compounds (GC/MS) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dichlorobenzene	ND		0.010	0.0025	mg/L		10/19/21 17:40	10/20/21 18:44	1
2,4,5-Trichlorophenol	ND		0.010	0.0025	mg/L		10/19/21 17:40	10/20/21 18:44	1
2,4,6-Trichlorophenol	ND		0.010	0.0025	mg/L		10/19/21 17:40	10/20/21 18:44	1
2,4-Dinitrotoluene	ND		0.025	0.0050	mg/L		10/19/21 17:40	10/20/21 18:44	1

Client Sample ID: Hartranft-10TH-RB44062-RT-3-2021-10-12

Lab Sample ID: 410-58999-9

Date Collected: 10/12/21 10:38

Matrix: Solid

Date Received: 10/13/21 18:10

Method: 8270D - Semivolatile Organic Compounds (GC/MS) - TCLP (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2-Methylphenol	ND		0.010	0.0025	mg/L		10/19/21 17:40	10/20/21 18:44	1
4-Methylphenol	ND		0.010	0.0025	mg/L		10/19/21 17:40	10/20/21 18:44	1
Hexachlorobenzene	ND		0.0025	0.00055	mg/L		10/19/21 17:40	10/20/21 18:44	1
Hexachlorobutadiene	ND		0.010	0.0025	mg/L		10/19/21 17:40	10/20/21 18:44	1
Hexachloroethane	ND		0.025	0.0025	mg/L		10/19/21 17:40	10/20/21 18:44	1
Nitrobenzene	ND		0.010	0.0025	mg/L		10/19/21 17:40	10/20/21 18:44	1
Pentachlorophenol	ND		0.025	0.0050	mg/L		10/19/21 17:40	10/20/21 18:44	1
Pyridine	ND		0.025	0.010	mg/L		10/19/21 17:40	10/20/21 18:44	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol (Surr)	*77*		*10 - 150*	*10/19/21 17:40*	*10/20/21 18:44*	*1*
2-Fluorobiphenyl (Surr)	*70*		*35 - 100*	*10/19/21 17:40*	*10/20/21 18:44*	*1*
2-Fluorophenol (Surr)	*35*		*10 - 78*	*10/19/21 17:40*	*10/20/21 18:44*	*1*
Nitrobenzene-d5 (Surr)	*78*		*22 - 117*	*10/19/21 17:40*	*10/20/21 18:44*	*1*
p-Terphenyl-d14 (Surr)	*84*		*31 - 119*	*10/19/21 17:40*	*10/20/21 18:44*	*1*
Phenol-d5 (Surr)	*29*		*10 - 67*	*10/19/21 17:40*	*10/20/21 18:44*	*1*

Method: 8081B - Organochlorine Pesticides (GC) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Endrin (1C)	ND		0.0010	0.00040	mg/L		10/19/21 17:27	10/20/21 11:00	10
gamma-BHC (Lindane) (1C)	ND	*1	0.00050	0.00010	mg/L		10/19/21 17:27	10/20/21 11:00	10
Heptachlor (1C)	ND		0.00050	0.00020	mg/L		10/19/21 17:27	10/20/21 11:00	10
Heptachlor epoxide (1C)	ND		0.00050	0.00012	mg/L		10/19/21 17:27	10/20/21 11:00	10
Methoxychlor (1C)	ND	^c	0.0050	0.0015	mg/L		10/19/21 17:27	10/20/21 11:00	10
Toxaphene (1C)	ND		0.15	0.050	mg/L		10/19/21 17:27	10/20/21 11:00	10
Chlordane (n.o.s.) (1C)	ND		0.025	0.0080	mg/L		10/19/21 17:27	10/20/21 11:00	10

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl (Surr) (1C)	*86*		*21 - 130*	*10/19/21 17:27*	*10/20/21 11:00*	*10*
DCB Decachlorobiphenyl (Surr) (2C)	*93*		*21 - 130*	*10/19/21 17:27*	*10/20/21 11:00*	*10*
Tetrachloro-m-xylene (Surr) (1C)	*82*		*39 - 139*	*10/19/21 17:27*	*10/20/21 11:00*	*10*
Tetrachloro-m-xylene (Surr) (2C)	*78*		*39 - 139*	*10/19/21 17:27*	*10/20/21 11:00*	*10*

Method: 8151A - Herbicides (GC) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silvex (2,4,5-TP) (1C)	ND		0.0050	0.0010	mg/L		10/20/21 00:20	10/22/21 04:08	1
2,4-D (1C)	ND		0.050	0.016	mg/L		10/20/21 00:20	10/22/21 04:08	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4-Dichlorophenylacetic acid (Surr) (1C)	*96*		*26 - 136*	*10/20/21 00:20*	*10/22/21 04:08*	*1*
2,4-Dichlorophenylacetic acid (Surr) (2C)	*80*		*26 - 136*	*10/20/21 00:20*	*10/22/21 04:08*	*1*

Method: 6010C - Metals (ICP) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	ND	^3+	0.30	0.16	mg/L		10/18/21 04:53	10/19/21 15:52	1
Barium	**0.44**	**B**	0.050	0.010	mg/L		10/18/21 04:53	10/19/21 15:52	1
Cadmium	ND		0.050	0.010	mg/L		10/18/21 04:53	10/19/21 15:52	1
Chromium	ND		0.15	0.016	mg/L		10/18/21 04:53	10/19/21 15:52	1
Lead	ND	B	0.15	0.071	mg/L		10/18/21 04:53	10/19/21 15:52	1

Client Sample ID: Hartranft-10TH-RB44062-RT-3-2021-10-12 — **Lab Sample ID: 410-58999-9**
Date Collected: 10/12/21 10:38 — **Matrix: Solid**
Date Received: 10/13/21 18:10

Method: 6010C - Metals (ICP) - TCLP (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Selenium	ND	*+	0.50	0.16	mg/L		10/18/21 04:53	10/19/21 15:52	1
Silver	ND		0.10	0.050	mg/L		10/18/21 04:53	10/19/21 15:52	1
Copper	ND		0.20	0.12	mg/L		10/18/21 04:53	10/19/21 15:52	1
Zinc	**2.6**		0.20	0.037	mg/L		10/18/21 04:53	10/19/21 15:52	1
Nickel	**0.11**	**B**	0.10	0.021	mg/L		10/18/21 04:53	10/19/21 15:52	1

Method: 7470A - Mercury (CVAA) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020	0.000079	mg/L		10/18/21 05:04	10/18/21 19:04	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Solids	**81**		0.10	0.10	%			10/14/21 12:23	1
Total Volatile Solids	**6.3**		0.10	0.10	%			10/14/21 12:23	1
Percent Solids	**81**	**!**	0.10	0.10	%			10/14/21 12:23	1
Ignitable to Air	**No**		1.0	1.0	NONE			10/18/21 19:56	1
Ignitable to Flame	**No**		1.0	1.0	NONE			10/18/21 19:56	1
Ignitable to Friction	**No**		1.0	1.0	NONE			10/18/21 19:56	1
Ignitable to Water	**No**		1.0	1.0	NONE			10/18/21 19:56	1
Cyanide, Reactive	ND	*-	57	19	mg/Kg		10/15/21 07:55	10/15/21 14:48	1
Sulfide, Reactive	ND	!	150	51	mg/Kg		10/15/21 07:55	10/15/21 12:20	1
Presence of Free Liquid	**No**				No Unit			10/18/21 19:55	1
Percent Moisture	**17.5**	**!**	1.0	1.0	%			10/14/21 12:07	1

General Chemistry - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	**7.6**		0.01	0.01	S.U.			10/15/21 18:30	1
Corrosivity	**No**		0.01	0.01	NONE			10/15/21 18:30	1

General Chemistry - ASTM Leach

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
HEM (Oil & Grease)	**1.9**	**J ! B**	5.4	1.5	mg/L			10/19/21 20:36	1
Total Solids	**73**	**!**	42	14	mg/L			10/18/21 06:25	1
Residue, Total	**73**	**!**	42	14	mg/L			10/18/21 06:25	1
Chemical Oxygen Demand	**35**	**J !**	75	25	mg/L			10/19/21 12:45	1
Ammonia as N	**0.061**	**J !**	0.10	0.050	mg/L			11/02/21 12:49	1

Client Sample ID: Hartranft-10TH-RB44062-RT-3-2021-10-12 — **Lab Sample ID: 410-58999-9**
Date Collected: 10/12/21 10:38 — **Matrix: Solid**
Date Received: 10/13/21 18:10 — **Percent Solids: 82.5**

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		350	35	ug/Kg	☼	10/14/21 11:18	10/18/21 17:13	50
Toluene	ND		350	42	ug/Kg	☼	10/14/21 11:18	10/18/21 17:13	50
Ethylbenzene	**36**	**J**	350	28	ug/Kg	☼	10/14/21 11:18	10/18/21 17:13	50
Xylenes, Total	**330**	**J**	710	99	ug/Kg	☼	10/14/21 11:18	10/18/21 17:13	50
1,2,4-Trimethylbenzene	**1600**		350	35	ug/Kg	☼	10/14/21 11:18	10/18/21 17:13	50
Naphthalene	**410**		350	140	ug/Kg	☼	10/14/21 11:18	10/18/21 17:13	50
Isopropylbenzene	**500**		350	28	ug/Kg	☼	10/14/21 11:18	10/18/21 17:13	50
1,3,5-Trimethylbenzene	**610**		350	35	ug/Kg	☼	10/14/21 11:18	10/18/21 17:13	50

Client: NorthStar Contracting Group, Inc.
Project/Site: NorthStar Sampling

Job ID: 410-58999-1

Client Sample ID: Hartranft-10TH-RB44062-RT-3-2021-10-12
Date Collected: 10/12/21 10:38
Date Received: 10/13/21 18:10

Lab Sample ID: 410-58999-9
Matrix: Solid
Percent Solids: 82.5

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromoethane	ND		350	28	ug/Kg	☼	10/14/21 11:18	10/18/21 17:13	50
Methyl tertiary butyl ether	ND		350	35	ug/Kg	☼	10/14/21 11:18	10/18/21 17:13	50
1,2-Dichloroethane	ND		350	42	ug/Kg	☼	10/14/21 11:18	10/18/21 17:13	50

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*105*		*54 - 135*	*10/14/21 11:18*	*10/18/21 17:13*	*50*
4-Bromofluorobenzene (Surr)	*109*		*50 - 131*	*10/14/21 11:18*	*10/18/21 17:13*	*50*
Dibromofluoromethane (Surr)	*98*		*50 - 141*	*10/14/21 11:18*	*10/18/21 17:13*	*50*
Toluene-d8 (Surr)	*108*		*52 - 141*	*10/14/21 11:18*	*10/18/21 17:13*	*50*

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016 (1C)	ND		20	6.3	ug/Kg	☼	10/16/21 09:07	10/18/21 11:45	1
PCB-1221 (1C)	ND		20	6.3	ug/Kg	☼	10/16/21 09:07	10/18/21 11:45	1
PCB-1232 (1C)	ND		20	6.3	ug/Kg	☼	10/16/21 09:07	10/18/21 11:45	1
PCB-1242 (1C)	ND		20	6.3	ug/Kg	☼	10/16/21 09:07	10/18/21 11:45	1
PCB-1248 (1C)	ND		20	6.3	ug/Kg	☼	10/16/21 09:07	10/18/21 11:45	1
PCB-1254 (2C)	**12**	**J**	20	7.7	ug/Kg	☼	10/16/21 09:07	10/18/21 11:45	1
PCB-1260 (2C)	**22**		20	7.7	ug/Kg	☼	10/16/21 09:07	10/18/21 11:45	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl (Surr) (1C)	*97*	*^c*	*45 - 143*	*10/16/21 09:07*	*10/18/21 11:45*	*1*
DCB Decachlorobiphenyl (Surr) (2C)	*87*		*45 - 143*	*10/16/21 09:07*	*10/18/21 11:45*	*1*
Tetrachloro-m-xylene (1C)	*63*		*53 - 140*	*10/16/21 09:07*	*10/18/21 11:45*	*1*
Tetrachloro-m-xylene (2C)	*62*		*53 - 140*	*10/16/21 09:07*	*10/18/21 11:45*	*1*

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	**33**		1.7	0.67	mg/Kg	☼	11/09/21 13:56	11/10/21 11:07	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
HEM (Oil & Grease)	**3500**		720	240	mg/Kg	☼	10/18/21 23:57	10/20/21 10:30	1

Surrogate Summary

Client: NorthStar Contracting Group, Inc.
Project/Site: NorthStar Sampling

Job ID: 410-58999-1

Method: 8260C - Volatile Organic Compounds by GC/MS

Matrix: Solid — **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)			
		DCA	BFB	DBFM	TOL
Lab Sample ID	Client Sample ID	(54-135)	(50-131)	(50-141)	(52-141)
410-58999-1	Hartranft-10TH-CONF-SOIL-1-2	103	105	94	105
410-58999-2	Hartranft-10TH-CONF-SOIL-2-2 021-10-12	107	101	84	103
410-58999-3	Hartranft-10TH-CONF-SOIL-3-2 021-10-12	105	99	89	102
410-58999-4	Hartranft-10TH-CONF-SOIL-4-2 021-10-12	106	105	92	100
410-58999-5	Hartranft-10TH-CONF-SOIL-5-2 021-10-12	103	98	80	99
410-58999-6	Hartranft-10TH-CONF-SOIL-6-2 021-10-12	108	103	100	106
410-58999-7	Hartranft-10TH-RB44062-RT-1-2021-10-12	104	108	92	107
410-58999-8	Hartranft-10TH-RB44062-RT-2-2021-10-12	104	127	95	111
410-58999-9	Hartranft-10TH-RB44062-RT-3-2021-10-12	105	109	98	108
LCS 410-183894/4	Lab Control Sample	95	94	95	94
LCSD 410-183894/5	Lab Control Sample Dup	96	95	94	95
MB 410-183894/7	Method Blank	97	92	93	94

Surrogate Legend

DCA = 1,2-Dichloroethane-d4 (Surr)
BFB = 4-Bromofluorobenzene (Surr)
DBFM = Dibromofluoromethane (Surr)
TOL = Toluene-d8 (Surr)

Method: 8260C - Volatile Organic Compounds by GC/MS

Matrix: Solid — **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)			
		DCA	BFB	DBFM	TOL
Lab Sample ID	Client Sample ID	(80-120)	(80-120)	(80-120)	(80-120)
LCS 410-184674/4	Lab Control Sample	102	96	103	104
MB 410-184674/6	Method Blank	103	93	105	103

Surrogate Legend

DCA = 1,2-Dichloroethane-d4 (Surr)
BFB = 4-Bromofluorobenzene (Surr)
DBFM = Dibromofluoromethane (Surr)
TOL = Toluene-d8 (Surr)

Method: 8260C - Volatile Organic Compounds by GC/MS

Matrix: Solid — **Prep Type: TCLP**

		Percent Surrogate Recovery (Acceptance Limits)			
		DCA	BFB	DBFM	TOL
Lab Sample ID	Client Sample ID	(80-120)	(80-120)	(80-120)	(80-120)
410-58999-1	Hartranft-10TH-CONF-SOIL-1-2	104	95	102	104
410-58999-2	Hartranft-10TH-CONF-SOIL-2-2 021-10-12	105	94	102	103
410-58999-3	Hartranft-10TH-CONF-SOIL-3-2 021-10-12	104	95	103	102

Surrogate Summary

Client: NorthStar Contracting Group, Inc.
Project/Site: NorthStar Sampling

Job ID: 410-58999-1

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Matrix: Solid **Prep Type: TCLP**

		Percent Surrogate Recovery (Acceptance Limits)			
		DCA	BFB	DBFM	TOL
Lab Sample ID	Client Sample ID	(80-120)	(80-120)	(80-120)	(80-120)
410-58999-4	Hartranft-10TH-CONF-SOIL-4-2	105	94	102	103
410-58999-5	Hartranft-10TH-CONF-SOIL-5-2 021-10-12	105	94	104	103
410-58999-6	Hartranft-10TH-CONF-SOIL-6-2 021-10-12	104	94	101	103
410-58999-7	Hartranft-10TH-RB44062-RT-1-2021-10-12	106	93	104	103
410-58999-8	Hartranft-10TH-RB44062-RT-2-2021-10-12	103	93	103	103
410-58999-9	Hartranft-10TH-RB44062-RT-3-2021-10-12	105	94	104	103

Surrogate Legend

DCA = 1,2-Dichloroethane-d4 (Surr)
BFB = 4-Bromofluorobenzene (Surr)
DBFM = Dibromofluoromethane (Surr)
TOL = Toluene-d8 (Surr)

Method: 8260C - Volatile Organic Compounds by GC/MS

Matrix: Solid **Prep Type: TCLP**

		Percent Surrogate Recovery (Acceptance Limits)			
		DCA	BFB	DBFM	TOL
Lab Sample ID	Client Sample ID				
410-58999-1 MS	Hartranft-10TH-CONF-SOIL-1-2				

Surrogate Legend

DCA = 1,2-Dichloroethane-d4 (Surr)
BFB = 4-Bromofluorobenzene (Surr)
DBFM = Dibromofluoromethane (Surr)
TOL = Toluene-d8 (Surr)

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Matrix: Solid **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)					
		TBP	FBP	2FP	NBZ	TPHd14	PHL
Lab Sample ID	Client Sample ID	(10-150)	(35-100)	(10-78)	(22-117)	(31-119)	(10-67)
LCS 410-184616/2-A	Lab Control Sample	100	77	52	85	91	41
LCSD 410-184616/3-A	Lab Control Sample Dup	98	73	54	82	92	43
MB 410-184616/14-A	Method Blank	91	64	47	74	88	38

Surrogate Legend

TBP = 2,4,6-Tribromophenol (Surr)
FBP = 2-Fluorobiphenyl (Surr)
2FP = 2-Fluorophenol (Surr)
NBZ = Nitrobenzene-d5 (Surr)
TPHd14 = p-Terphenyl-d14 (Surr)
PHL = Phenol-d5 (Surr)

Surrogate Summary

Client: NorthStar Contracting Group, Inc.
Job ID: 410-58999-1
Project/Site: NorthStar Sampling

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Matrix: Solid
Prep Type: TCLP

		Percent Surrogate Recovery (Acceptance Limits)					
Lab Sample ID	Client Sample ID	TBP (10-150)	FBP (35-100)	2FP (10-78)	NBZ (22-117)	TPHd14 (31-119)	PHL (10-67)
410-58999-1	Hartranft-10TH-CONF-SOIL-1-2021-10-12	66	71	22	76	76	19
410-58999-2	Hartranft-10TH-CONF-SOIL-2-2021-10-12	85	69	43	77	89	34
410-58999-3	Hartranft-10TH-CONF-SOIL-3-2021-10-12	56	71	11	76	89	11
410-58999-4	Hartranft-10TH-CONF-SOIL-4-2021-10-12	72	69	16	76	90	13
410-58999-5	Hartranft-10TH-CONF-SOIL-5-2021-10-12	67	55	17	56	74	15
410-58999-6	Hartranft-10TH-CONF-SOIL-6-2021-10-12	95	71	49	77	82	39
410-58999-7	Hartranft-10TH-RB44062-RT-1-2021-10-12	90	69	41	77	83	34
410-58999-8	Hartranft-10TH-RB44062-RT-2-2021-10-12	82	70	37	74	82	30
410-58999-9	Hartranft-10TH-RB44062-RT-3-2021-10-12	77	70	35	78	84	29

Surrogate Legend

TBP = 2,4,6-Tribromophenol (Surr)
FBP = 2-Fluorobiphenyl (Surr)
2FP = 2-Fluorophenol (Surr)
NBZ = Nitrobenzene-d5 (Surr)
TPHd14 = p-Terphenyl-d14 (Surr)
PHL = Phenol-d5 (Surr)

Method: 8081B - Organochlorine Pesticides (GC)

Matrix: Solid
Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)			
Lab Sample ID	Client Sample ID	DCB1 (21-130)	DCB2 (21-130)	TCX1 (39-139)	TCX2 (39-139)
LCS 410-184649/2-A	Lab Control Sample	68	77	58	60
LCS 410-184649/2-A - RA	Lab Control Sample	85	77	84	81
LCSD 410-184649/3-A	Lab Control Sample Dup	61	69	60	63
LCSD 410-184649/3-A - RA	Lab Control Sample Dup	78	72	86	84
MB 410-184649/14-A	Method Blank	26	28	44	44
MB 410-184649/1-A	Method Blank	32	36	52	54

Surrogate Legend

DCB = DCB Decachlorobiphenyl (Surr)
TCX = Tetrachloro-m-xylene (Surr)

Method: 8081B - Organochlorine Pesticides (GC)

Matrix: Solid
Prep Type: TCLP

		Percent Surrogate Recovery (Acceptance Limits)			
Lab Sample ID	Client Sample ID	DCB1 (21-130)	DCB2 (21-130)	TCX1 (39-139)	TCX2 (39-139)
410-58999-1	Hartranft-10TH-CONF-SOIL-1-2021-10-12	88	91	75	68
410-58999-2	Hartranft-10TH-CONF-SOIL-2-2021-10-12	78	83	69	61
410-58999-3	Hartranft-10TH-CONF-SOIL-3-2021-10-12	90	92	64	58

Surrogate Summary

Client: NorthStar Contracting Group, Inc.
Project/Site: NorthStar Sampling

Job ID: 410-58999-1

Method: 8081B - Organochlorine Pesticides (GC) (Continued)

Matrix: Solid **Prep Type: TCLP**

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits) DCB1 (21-130)	DCB2 (21-130)	TCX1 (39-139)	TCX2 (39-139)
410-58999-4	Hartranft-10TH-CONF-SOIL-4-2	82	86	60	54
410-58999-5	Hartranft-10TH-CONF-SOIL-5-2 021-10-12	80	90	92	82
410-58999-6	Hartranft-10TH-CONF-SOIL-6-2 021-10-12	63	69	83	77
410-58999-7	Hartranft-10TH-RB44062-RT-1-2021-10-12	95	100	94	88
410-58999-8	Hartranft-10TH-RB44062-RT-2-2021-10-12	99	103	60	56
410-58999-9	Hartranft-10TH-RB44062-RT-3-2021-10-12	86	93	82	78

Surrogate Legend

DCB = DCB Decachlorobiphenyl (Surr)

TCX = Tetrachloro-m-xylene (Surr)

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Matrix: Solid **Prep Type: Total/NA**

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits) DCB1 (45-143)	DCB2 (45-143)	TCX1 (53-140)	TCX2 (53-140)
410-58999-1	Hartranft-10TH-CONF-SOIL-1-2	99 ^c	91	61	58
410-58999-2	Hartranft-10TH-CONF-SOIL-2-2 021-10-12	79 ^c	68	65	60
410-58999-3	Hartranft-10TH-CONF-SOIL-3-2 021-10-12	155 S1+ ^c	136	71	68
410-58999-4	Hartranft-10TH-CONF-SOIL-4-2 021-10-12	89 ^c	78	62	63
410-58999-5	Hartranft-10TH-CONF-SOIL-5-2 021-10-12	121 ^c	102	73	69
410-58999-6	Hartranft-10TH-CONF-SOIL-6-2 021-10-12	97 ^c	86	58	57
410-58999-7	Hartranft-10TH-RB44062-RT-1-2021-10-12	95 ^c	84	63	61
410-58999-8	Hartranft-10TH-RB44062-RT-2-2021-10-12	92 ^c	89	65	63
410-58999-9	Hartranft-10TH-RB44062-RT-3-2021-10-12	97 ^c	87	63	62
LCS 410-183168/2-A	Lab Control Sample	115	98	99	90
LCS 410-183581/2-A	Lab Control Sample	124	97	107	89
LCS 410-184122/2-A	Lab Control Sample	124	92	108	89
MB 410-183168/1-A	Method Blank	111	91	97	87
MB 410-183581/1-A	Method Blank	122	94	106	89
MB 410-184122/1-A	Method Blank	121	89	107	89

Surrogate Legend

DCB = DCB Decachlorobiphenyl (Surr)

TCX = Tetrachloro-m-xylene

Surrogate Summary

Client: NorthStar Contracting Group, Inc.
Project/Site: NorthStar Sampling

Job ID: 410-58999-1

Method: 8151A - Herbicides (GC)

Matrix: Solid

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)	
Lab Sample ID	Client Sample ID	DCPAA1 (26-136)	DCPAA2 (26-136)
LCS 410-184800/2-A	Lab Control Sample	97	84
LCSD 410-184800/3-A	Lab Control Sample Dup	89	76
MB 410-184800/1-A	Method Blank	95	82

Surrogate Legend

DCPAA = 2,4-Dichlorophenylacetic acid (Surr)

Method: 8151A - Herbicides (GC)

Matrix: Solid

Prep Type: TCLP

		Percent Surrogate Recovery (Acceptance Limits)	
Lab Sample ID	Client Sample ID	DCPAA1 (26-136)	DCPAA2 (26-136)
410-58999-1	Hartranft-10TH-CONF-SOIL-1-2	96	80
410-58999-2	Hartranft-10TH-CONF-SOIL-2-2021-10-12	99	87
410-58999-3	Hartranft-10TH-CONF-SOIL-3-2021-10-12	98	86
410-58999-4	Hartranft-10TH-CONF-SOIL-4-2021-10-12	98	83
410-58999-5	Hartranft-10TH-CONF-SOIL-5-2021-10-12	99	95
410-58999-6	Hartranft-10TH-CONF-SOIL-6-2021-10-12	91	81
410-58999-7	Hartranft-10TH-RB44062-RT-1-2021-10-12	98	82
410-58999-8	Hartranft-10TH-RB44062-RT-2-2021-10-12	96	80
410-58999-9	Hartranft-10TH-RB44062-RT-3-2021-10-12	96	80

Surrogate Legend

DCPAA = 2,4-Dichlorophenylacetic acid (Surr)

Method: 8260C - Volatile Organic Compounds by GC/MS

Lab Sample ID: MB 410-183894/7
Matrix: Solid
Analysis Batch: 183894

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		250	25	ug/Kg			10/18/21 11:34	50
Toluene	ND		250	30	ug/Kg			10/18/21 11:34	50
Ethylbenzene	ND		250	20	ug/Kg			10/18/21 11:34	50
Xylenes, Total	ND		500	70	ug/Kg			10/18/21 11:34	50
1,2,4-Trimethylbenzene	ND		250	25	ug/Kg			10/18/21 11:34	50
Naphthalene	ND		250	100	ug/Kg			10/18/21 11:34	50
Isopropylbenzene	ND		250	20	ug/Kg			10/18/21 11:34	50
1,3,5-Trimethylbenzene	ND		250	25	ug/Kg			10/18/21 11:34	50
1,2-Dibromoethane	ND		250	20	ug/Kg			10/18/21 11:34	50
Methyl tertiary butyl ether	ND		250	25	ug/Kg			10/18/21 11:34	50
1,2-Dichloroethane	ND		250	30	ug/Kg			10/18/21 11:34	50

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*97*		*54 - 135*		*10/18/21 11:34*	*50*
4-Bromofluorobenzene (Surr)	*92*		*50 - 131*		*10/18/21 11:34*	*50*
Dibromofluoromethane (Surr)	*93*		*50 - 141*		*10/18/21 11:34*	*50*
Toluene-d8 (Surr)	*94*		*52 - 141*		*10/18/21 11:34*	*50*

Lab Sample ID: LCS 410-183894/4
Matrix: Solid
Analysis Batch: 183894

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Benzene			1000	987		ug/Kg		99	80 - 120		
Toluene			1000	983		ug/Kg		98	80 - 120		
Ethylbenzene			1000	970		ug/Kg		97	78 - 120		
Xylenes, Total			3000	2950		ug/Kg		98	75 - 120		
1,2,4-Trimethylbenzene			1000	979		ug/Kg		98	73 - 120		
Naphthalene			1000	872		ug/Kg		87	48 - 130		
Isopropylbenzene			1000	1000		ug/Kg		100	77 - 120		
1,3,5-Trimethylbenzene			1000	978		ug/Kg		98	73 - 120		
1,2-Dibromoethane			1000	972		ug/Kg		97	76 - 120		
Methyl tertiary butyl ether			1000	930		ug/Kg		93	72 - 120		
1,2-Dichloroethane			1000	944		ug/Kg		94	71 - 128		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*95*		*54 - 135*
4-Bromofluorobenzene (Surr)	*94*		*50 - 131*
Dibromofluoromethane (Surr)	*95*		*50 - 141*
Toluene-d8 (Surr)	*94*		*52 - 141*

Lab Sample ID: LCSD 410-183894/5
Matrix: Solid
Analysis Batch: 183894

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene			1000	978		ug/Kg		98	80 - 120	1	30
Toluene			1000	984		ug/Kg		98	80 - 120	0	30

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: LCSD 410-183894/5
Matrix: Solid
Analysis Batch: 183894

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Ethylbenzene			1000	967		ug/Kg		97	78 - 120	0	30
Xylenes, Total			3000	2940		ug/Kg		98	75 - 120	0	30
1,2,4-Trimethylbenzene			1000	975		ug/Kg		97	73 - 120	0	30
Naphthalene			1000	879		ug/Kg		88	48 - 130	1	30
Isopropylbenzene			1000	990		ug/Kg		99	77 - 120	1	30
1,3,5-Trimethylbenzene			1000	967		ug/Kg		97	73 - 120	1	30
1,2-Dibromoethane			1000	967		ug/Kg		97	76 - 120	1	30
Methyl tertiary butyl ether			1000	930		ug/Kg		93	72 - 120	0	30
1,2-Dichloroethane			1000	929		ug/Kg		93	71 - 128	2	30

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*96*		*54 - 135*
4-Bromofluorobenzene (Surr)	*95*		*50 - 131*
Dibromofluoromethane (Surr)	*94*		*50 - 141*
Toluene-d8 (Surr)	*95*		*52 - 141*

Lab Sample ID: MB 410-184674/6
Matrix: Solid
Analysis Batch: 184674

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.0010	0.00030	mg/L			10/19/21 22:55	1
Carbon tetrachloride	ND		0.0010	0.00030	mg/L			10/19/21 22:55	1
Chlorobenzene	ND		0.0010	0.00030	mg/L			10/19/21 22:55	1
Chloroform	ND		0.0010	0.00030	mg/L			10/19/21 22:55	1
1,1-Dichloroethene	ND		0.0010	0.00030	mg/L			10/19/21 22:55	1
2-Butanone	ND		0.010	0.00050	mg/L			10/19/21 22:55	1
Tetrachloroethene	ND		0.0010	0.00030	mg/L			10/19/21 22:55	1
Trichloroethene	ND		0.0010	0.00030	mg/L			10/19/21 22:55	1
Vinyl chloride	ND		0.0010	0.00020	mg/L			10/19/21 22:55	1
1,2-Dichloroethane	ND		0.0010	0.00030	mg/L			10/19/21 22:55	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*103*		*80 - 120*		*10/19/21 22:55*	*1*
4-Bromofluorobenzene (Surr)	*93*		*80 - 120*		*10/19/21 22:55*	*1*
Dibromofluoromethane (Surr)	*105*		*80 - 120*		*10/19/21 22:55*	*1*
Toluene-d8 (Surr)	*103*		*80 - 120*		*10/19/21 22:55*	*1*

Lab Sample ID: LCS 410-184674/4
Matrix: Solid
Analysis Batch: 184674

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene			0.0200	0.0171		mg/L		85	80 - 120
1,1-Dichloroethene			0.0200	0.0171		mg/L		85	80 - 131
2-Butanone			0.250	0.205		mg/L		82	59 - 135
Trichloroethene			0.0200	0.0174		mg/L		87	80 - 120
Vinyl chloride			0.0200	0.0163		mg/L		81	56 - 120

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: LCS 410-184674/4
Matrix: Solid
Analysis Batch: 184674

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
1,2-Dichloroethane			0.0200	0.0190		mg/L		95	73 - 124		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*102*		*80 - 120*
4-Bromofluorobenzene (Surr)	*96*		*80 - 120*
Dibromofluoromethane (Surr)	*103*		*80 - 120*
Toluene-d8 (Surr)	*104*		*80 - 120*

Lab Sample ID: 410-58999-1 MS
Matrix: Solid
Analysis Batch: 184674

Client Sample ID: Hartranft-10TH-CONF-SOIL-1-2021-10-12
Prep Type: TCLP

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Benzene	ND		0.400	0.379		mg/L					
1,1-Dichloroethene	ND		0.400	0.403		mg/L					
2-Butanone	ND		5.00	3.97		mg/L					
Trichloroethene	ND		0.400	0.385		mg/L					
Vinyl chloride	ND		0.400	0.403		mg/L					
1,2-Dichloroethane	ND		0.400	0.398		mg/L					

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)			
4-Bromofluorobenzene (Surr)			
Dibromofluoromethane (Surr)			
Toluene-d8 (Surr)			

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Lab Sample ID: MB 410-184616/14-A
Matrix: Solid
Analysis Batch: 184885

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 184616

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dichlorobenzene	ND		0.010	0.0025	mg/L		10/19/21 17:40	10/20/21 11:30	1
2,4,5-Trichlorophenol	ND		0.010	0.0025	mg/L		10/19/21 17:40	10/20/21 11:30	1
2,4,6-Trichlorophenol	ND		0.010	0.0025	mg/L		10/19/21 17:40	10/20/21 11:30	1
2,4-Dinitrotoluene	ND		0.025	0.0050	mg/L		10/19/21 17:40	10/20/21 11:30	1
2-Methylphenol	ND		0.010	0.0025	mg/L		10/19/21 17:40	10/20/21 11:30	1
4-Methylphenol	ND		0.010	0.0025	mg/L		10/19/21 17:40	10/20/21 11:30	1
Hexachlorobenzene	ND		0.0025	0.00055	mg/L		10/19/21 17:40	10/20/21 11:30	1
Hexachlorobutadiene	ND		0.010	0.0025	mg/L		10/19/21 17:40	10/20/21 11:30	1
Hexachloroethane	ND		0.025	0.0025	mg/L		10/19/21 17:40	10/20/21 11:30	1
Nitrobenzene	ND		0.010	0.0025	mg/L		10/19/21 17:40	10/20/21 11:30	1
Pentachlorophenol	ND		0.025	0.0050	mg/L		10/19/21 17:40	10/20/21 11:30	1
Pyridine	ND		0.025	0.010	mg/L		10/19/21 17:40	10/20/21 11:30	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol (Surr)	*91*		*10 - 150*	*10/19/21 17:40*	*10/20/21 11:30*	*1*

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 410-184616/14-A
Matrix: Solid
Analysis Batch: 184885

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 184616

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl (Surr)	64		35 - 100	10/19/21 17:40	10/20/21 11:30	1
2-Fluorophenol (Surr)	47		10 - 78	10/19/21 17:40	10/20/21 11:30	1
Nitrobenzene-d5 (Surr)	74		22 - 117	10/19/21 17:40	10/20/21 11:30	1
p-Terphenyl-d14 (Surr)	88		31 - 119	10/19/21 17:40	10/20/21 11:30	1
Phenol-d5 (Surr)	38		10 - 67	10/19/21 17:40	10/20/21 11:30	1

Lab Sample ID: LCS 410-184616/2-A
Matrix: Solid
Analysis Batch: 184885

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 184616

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,4-Dichlorobenzene	0.250	0.178		mg/L		71	29 - 120
2,4,5-Trichlorophenol	0.250	0.234		mg/L		94	66 - 120
2,4,6-Trichlorophenol	0.250	0.234		mg/L		94	63 - 120
2,4-Dinitrotoluene	0.250	0.238		mg/L		95	71 - 120
2-Methylphenol	0.250	0.212		mg/L		85	51 - 120
4-Methylphenol	0.250	0.197		mg/L		79	44 - 120
Hexachlorobenzene	0.250	0.219		mg/L		88	65 - 120
Hexachlorobutadiene	0.250	0.165		mg/L		66	24 - 120
Hexachloroethane	0.250	0.160		mg/L		64	22 - 120
Nitrobenzene	0.250	0.217		mg/L		87	59 - 120
Pentachlorophenol	0.500	0.433		mg/L		87	48 - 123
Pyridine	0.500	0.242		mg/L		48	23 - 120

Surrogate	LCS %Recovery	LCS Qualifier	Limits
2,4,6-Tribromophenol (Surr)	100		10 - 150
2-Fluorobiphenyl (Surr)	77		35 - 100
2-Fluorophenol (Surr)	52		10 - 78
Nitrobenzene-d5 (Surr)	85		22 - 117
p-Terphenyl-d14 (Surr)	91		31 - 119
Phenol-d5 (Surr)	41		10 - 67

Lab Sample ID: LCSD 410-184616/3-A
Matrix: Solid
Analysis Batch: 184885

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 184616

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,4-Dichlorobenzene	0.250	0.165		mg/L		66	29 - 120	8	30
2,4,5-Trichlorophenol	0.250	0.236		mg/L		94	66 - 120	1	30
2,4,6-Trichlorophenol	0.250	0.236		mg/L		94	63 - 120	1	30
2,4-Dinitrotoluene	0.250	0.233		mg/L		93	71 - 120	2	30
2-Methylphenol	0.250	0.214		mg/L		86	51 - 120	1	30
4-Methylphenol	0.250	0.201		mg/L		81	44 - 120	2	30
Hexachlorobenzene	0.250	0.215		mg/L		86	65 - 120	2	30
Hexachlorobutadiene	0.250	0.158		mg/L		63	24 - 120	4	30
Hexachloroethane	0.250	0.149		mg/L		59	22 - 120	8	30
Nitrobenzene	0.250	0.213		mg/L		85	59 - 120	2	30
Pentachlorophenol	0.500	0.449		mg/L		90	48 - 123	4	30

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 410-184616/3-A
Matrix: Solid
Analysis Batch: 184885

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 184616

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Pyridine			0.500	0.246		mg/L		49	23 - 120	1	30

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
2,4,6-Tribromophenol (Surr)	*98*		*10 - 150*
2-Fluorobiphenyl (Surr)	*73*		*35 - 100*
2-Fluorophenol (Surr)	*54*		*10 - 78*
Nitrobenzene-d5 (Surr)	*82*		*22 - 117*
p-Terphenyl-d14 (Surr)	*92*		*31 - 119*
Phenol-d5 (Surr)	*43*		*10 - 67*

Method: 8081B - Organochlorine Pesticides (GC)

Lab Sample ID: MB 410-184649/14-A
Matrix: Solid
Analysis Batch: 184818

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 184649

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Endrin (1C)	ND		0.00010	0.000040	mg/L		10/19/21 17:27	10/20/21 11:11	1
gamma-BHC (Lindane) (1C)	ND		0.000050	0.000010	mg/L		10/19/21 17:27	10/20/21 11:11	1
Heptachlor (1C)	ND		0.000050	0.000020	mg/L		10/19/21 17:27	10/20/21 11:11	1
Heptachlor epoxide (1C)	ND		0.000050	0.000012	mg/L		10/19/21 17:27	10/20/21 11:11	1
Methoxychlor (1C)	ND		0.00050	0.00015	mg/L		10/19/21 17:27	10/20/21 11:11	1
Toxaphene (1C)	ND		0.015	0.0050	mg/L		10/19/21 17:27	10/20/21 11:11	1
Chlordane (n.o.s.) (1C)	ND		0.0025	0.00080	mg/L		10/19/21 17:27	10/20/21 11:11	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl (Surr) (1C)	*26*		*21 - 130*	*10/19/21 17:27*	*10/20/21 11:11*	*1*
DCB Decachlorobiphenyl (Surr) (2C)	*28*		*21 - 130*	*10/19/21 17:27*	*10/20/21 11:11*	*1*
Tetrachloro-m-xylene (Surr) (1C)	*44*		*39 - 139*	*10/19/21 17:27*	*10/20/21 11:11*	*1*
Tetrachloro-m-xylene (Surr) (2C)	*44*		*39 - 139*	*10/19/21 17:27*	*10/20/21 11:11*	*1*

Lab Sample ID: MB 410-184649/1-A
Matrix: Solid
Analysis Batch: 184818

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 184649

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Endrin (1C)	ND		0.00010	0.000040	mg/L		10/19/21 17:27	10/20/21 08:00	1
gamma-BHC (Lindane) (1C)	ND		0.000050	0.000010	mg/L		10/19/21 17:27	10/20/21 08:00	1
Heptachlor (1C)	ND		0.000050	0.000020	mg/L		10/19/21 17:27	10/20/21 08:00	1
Heptachlor epoxide (1C)	ND		0.000050	0.000012	mg/L		10/19/21 17:27	10/20/21 08:00	1
Methoxychlor (1C)	ND		0.00050	0.00015	mg/L		10/19/21 17:27	10/20/21 08:00	1
Toxaphene (1C)	ND		0.015	0.0050	mg/L		10/19/21 17:27	10/20/21 08:00	1
Chlordane (n.o.s.) (1C)	ND		0.0025	0.00080	mg/L		10/19/21 17:27	10/20/21 08:00	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl (Surr) (1C)	*32*		*21 - 130*	*10/19/21 17:27*	*10/20/21 08:00*	*1*
DCB Decachlorobiphenyl (Surr) (2C)	*36*		*21 - 130*	*10/19/21 17:27*	*10/20/21 08:00*	*1*
Tetrachloro-m-xylene (Surr) (1C)	*52*		*39 - 139*	*10/19/21 17:27*	*10/20/21 08:00*	*1*

Method: 8081B - Organochlorine Pesticides (GC) (Continued)

Lab Sample ID: MB 410-184649/1-A
Matrix: Solid
Analysis Batch: 184818

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 184649

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene (Surr) (2C)	54		39 - 139	10/19/21 17:27	10/20/21 08:00	1

Lab Sample ID: LCS 410-184649/2-A
Matrix: Solid
Analysis Batch: 184818

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 184649

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Endrin (1C)			0.000125	0.000136		mg/L		109	60 - 151		
gamma-BHC (Lindane) (2C)			0.000250	0.000226		mg/L		90	51 - 132		
Heptachlor (1C)			0.000250	0.000217		mg/L		87	24 - 133		
Heptachlor epoxide (2C)			0.000375	0.000366		mg/L		97	56 - 132		

Surrogate	LCS %Recovery	LCS Qualifier	Limits
DCB Decachlorobiphenyl (Surr) (1C)	68		21 - 130
DCB Decachlorobiphenyl (Surr) (2C)	77		21 - 130
Tetrachloro-m-xylene (Surr) (1C)	58		39 - 139
Tetrachloro-m-xylene (Surr) (2C)	60		39 - 139

Lab Sample ID: LCSD 410-184649/3-A
Matrix: Solid
Analysis Batch: 184818

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 184649

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Endrin (1C)			0.000125	0.000134		mg/L		107	60 - 151	1	30
gamma-BHC (Lindane) (2C)			0.000250	0.000200		mg/L		80	51 - 132	12	30
Heptachlor (1C)			0.000250	0.000212		mg/L		85	24 - 133	3	30
Heptachlor epoxide (1C)			0.000375	0.000330		mg/L		88	56 - 132	10	30

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
DCB Decachlorobiphenyl (Surr) (1C)	61		21 - 130
DCB Decachlorobiphenyl (Surr) (2C)	69		21 - 130
Tetrachloro-m-xylene (Surr) (1C)	60		39 - 139
Tetrachloro-m-xylene (Surr) (2C)	63		39 - 139

Method: 8081B - Organochlorine Pesticides (GC) - RA

Lab Sample ID: LCS 410-184649/2-A
Matrix: Solid
Analysis Batch: 185014

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 184649

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Methoxychlor (2C) - RA			0.00100	0.00143		mg/L		143	58 - 165		

Method: 8081B - Organochlorine Pesticides (GC) - RA (Continued)

Lab Sample ID: LCS 410-184649/2-A
Matrix: Solid
Analysis Batch: 185014

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 184649

Surrogate	LCS %Recovery	LCS Qualifier	Limits
DCB Decachlorobiphenyl (Surr) (1C) - RA	85		21 - 130
DCB Decachlorobiphenyl (Surr) (2C) - RA	77		21 - 130
Tetrachloro-m-xylene (Surr) (1C) - RA	84		39 - 139
Tetrachloro-m-xylene (Surr) (2C) - RA	81		39 - 139

Lab Sample ID: LCSD 410-184649/3-A
Matrix: Solid
Analysis Batch: 185014

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 184649

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Methoxychlor (2C) - RA			0.00100	0.00143		mg/L		142	58 - 165	0	30

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
DCB Decachlorobiphenyl (Surr) (1C) - RA	78		21 - 130
DCB Decachlorobiphenyl (Surr) (2C) - RA	72		21 - 130
Tetrachloro-m-xylene (Surr) (1C) - RA	86		39 - 139
Tetrachloro-m-xylene (Surr) (2C) - RA	84		39 - 139

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Lab Sample ID: MB 410-183168/1-A
Matrix: Solid
Analysis Batch: 183531

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 183168

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016 (2C)	ND		17	5.3	ug/Kg		10/15/21 09:45	10/15/21 17:22	1
PCB-1221 (2C)	ND		17	5.3	ug/Kg		10/15/21 09:45	10/15/21 17:22	1
PCB-1232 (2C)	ND		17	5.3	ug/Kg		10/15/21 09:45	10/15/21 17:22	1
PCB-1242 (2C)	ND		17	5.3	ug/Kg		10/15/21 09:45	10/15/21 17:22	1
PCB-1248 (2C)	ND		17	5.3	ug/Kg		10/15/21 09:45	10/15/21 17:22	1
PCB-1254 (2C)	ND		17	6.4	ug/Kg		10/15/21 09:45	10/15/21 17:22	1
PCB-1260 (2C)	ND		17	6.4	ug/Kg		10/15/21 09:45	10/15/21 17:22	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl (Surr) (1C)	111		45 - 143	10/15/21 09:45	10/15/21 17:22	1
DCB Decachlorobiphenyl (Surr) (2C)	91		45 - 143	10/15/21 09:45	10/15/21 17:22	1
Tetrachloro-m-xylene (1C)	97		53 - 140	10/15/21 09:45	10/15/21 17:22	1
Tetrachloro-m-xylene (2C)	87		53 - 140	10/15/21 09:45	10/15/21 17:22	1

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography (Continued)

Lab Sample ID: LCS 410-183168/2-A
Matrix: Solid
Analysis Batch: 183531

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 183168

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
PCB-1016 (2C)			167	129		ug/Kg		77	68 - 121		
PCB-1260 (2C)			168	157		ug/Kg		94	75 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
DCB Decachlorobiphenyl (Surr) (1C)	*115*		*45 - 143*
DCB Decachlorobiphenyl (Surr) (2C)	*98*		*45 - 143*
Tetrachloro-m-xylene (1C)	*99*		*53 - 140*
Tetrachloro-m-xylene (2C)	*90*		*53 - 140*

Lab Sample ID: MB 410-183581/1-A
Matrix: Solid
Analysis Batch: 183928

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 183581

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016 (1C)	ND		17	5.3	ug/Kg		10/16/21 09:07	10/18/21 10:22	1
PCB-1221 (1C)	ND		17	5.3	ug/Kg		10/16/21 09:07	10/18/21 10:22	1
PCB-1232 (1C)	ND		17	5.3	ug/Kg		10/16/21 09:07	10/18/21 10:22	1
PCB-1242 (1C)	ND		17	5.3	ug/Kg		10/16/21 09:07	10/18/21 10:22	1
PCB-1248 (1C)	ND		17	5.3	ug/Kg		10/16/21 09:07	10/18/21 10:22	1
PCB-1254 (1C)	ND		17	6.4	ug/Kg		10/16/21 09:07	10/18/21 10:22	1
PCB-1260 (1C)	ND		17	6.4	ug/Kg		10/16/21 09:07	10/18/21 10:22	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl (Surr) (1C)	*122*		*45 - 143*	*10/16/21 09:07*	*10/18/21 10:22*	*1*
DCB Decachlorobiphenyl (Surr) (2C)	*94*		*45 - 143*	*10/16/21 09:07*	*10/18/21 10:22*	*1*
Tetrachloro-m-xylene (1C)	*106*		*53 - 140*	*10/16/21 09:07*	*10/18/21 10:22*	*1*
Tetrachloro-m-xylene (2C)	*89*		*53 - 140*	*10/16/21 09:07*	*10/18/21 10:22*	*1*

Lab Sample ID: LCS 410-183581/2-A
Matrix: Solid
Analysis Batch: 183928

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 183581

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
PCB-1016 (1C)			167	156		ug/Kg		93	68 - 121		
PCB-1260 (1C)			168	196		ug/Kg		117	75 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
DCB Decachlorobiphenyl (Surr) (1C)	*124*		*45 - 143*
DCB Decachlorobiphenyl (Surr) (2C)	*97*		*45 - 143*
Tetrachloro-m-xylene (1C)	*107*		*53 - 140*
Tetrachloro-m-xylene (2C)	*89*		*53 - 140*

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography (Continued)

Lab Sample ID: MB 410-184122/1-A
Matrix: Solid
Analysis Batch: 184470

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 184122

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016 (2C)	ND		17	5.3	ug/Kg		10/18/21 18:09	10/19/21 07:39	1
PCB-1221 (2C)	ND		17	5.3	ug/Kg		10/18/21 18:09	10/19/21 07:39	1
PCB-1232 (2C)	ND		17	5.3	ug/Kg		10/18/21 18:09	10/19/21 07:39	1
PCB-1242 (2C)	ND		17	5.3	ug/Kg		10/18/21 18:09	10/19/21 07:39	1
PCB-1248 (2C)	ND		17	5.3	ug/Kg		10/18/21 18:09	10/19/21 07:39	1
PCB-1254 (2C)	ND		17	6.4	ug/Kg		10/18/21 18:09	10/19/21 07:39	1
PCB-1260 (2C)	ND		17	6.4	ug/Kg		10/18/21 18:09	10/19/21 07:39	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl (Surr) (1C)	*121*		*45 - 143*	*10/18/21 18:09*	*10/19/21 07:39*	*1*
DCB Decachlorobiphenyl (Surr) (2C)	*89*		*45 - 143*	*10/18/21 18:09*	*10/19/21 07:39*	*1*
Tetrachloro-m-xylene (1C)	*107*		*53 - 140*	*10/18/21 18:09*	*10/19/21 07:39*	*1*
Tetrachloro-m-xylene (2C)	*89*		*53 - 140*	*10/18/21 18:09*	*10/19/21 07:39*	*1*

Lab Sample ID: LCS 410-184122/2-A
Matrix: Solid
Analysis Batch: 184470

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 184122

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
PCB-1016 (2C)			167	122		ug/Kg		73	68 - 121		
PCB-1260 (2C)			168	150		ug/Kg		89	75 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
DCB Decachlorobiphenyl (Surr) (1C)	*124*		*45 - 143*
DCB Decachlorobiphenyl (Surr) (2C)	*92*		*45 - 143*
Tetrachloro-m-xylene (1C)	*108*		*53 - 140*
Tetrachloro-m-xylene (2C)	*89*		*53 - 140*

Method: 8151A - Herbicides (GC)

Lab Sample ID: MB 410-184800/1-A
Matrix: Solid
Analysis Batch: 185345

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 184800

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silvex (2,4,5-TP) (1C)	ND		0.0050	0.0010	mg/L		10/20/21 00:20	10/21/21 21:04	1
2,4-D (1C)	ND		0.050	0.016	mg/L		10/20/21 00:20	10/21/21 21:04	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4-Dichlorophenylacetic acid (Surr) (1C)	*95*		*26 - 136*	*10/20/21 00:20*	*10/21/21 21:04*	*1*
2,4-Dichlorophenylacetic acid (Surr) (2C)	*82*		*26 - 136*	*10/20/21 00:20*	*10/21/21 21:04*	*1*

Method: 8151A - Herbicides (GC) (Continued)

Lab Sample ID: LCS 410-184800/2-A
Matrix: Solid
Analysis Batch: 185345

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 184800

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Silvex (2,4,5-TP) (2C)			0.0250	0.0297		mg/L		119	58 - 148		
2,4-D (1C)			0.0250	0.0237	J	mg/L		95	42 - 147		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
2,4-Dichlorophenylacetic acid (Surr) (1C)	*97*		*26 - 136*
2,4-Dichlorophenylacetic acid (Surr) (2C)	*84*		*26 - 136*

Lab Sample ID: LCSD 410-184800/3-A
Matrix: Solid
Analysis Batch: 185345

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 184800

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Silvex (2,4,5-TP) (2C)			0.0250	0.0278		mg/L		111	58 - 148	7	30
2,4-D (1C)			0.0250	0.0222	J	mg/L		89	42 - 147	7	30

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
2,4-Dichlorophenylacetic acid (Surr) (1C)	*89*		*26 - 136*
2,4-Dichlorophenylacetic acid (Surr) (2C)	*76*		*26 - 136*

Method: 6010C - Metals (ICP)

Lab Sample ID: MB 410-192546/1-A
Matrix: Solid
Analysis Batch: 193090

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 192546

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	ND		1.5	0.60	mg/Kg		11/09/21 11:21	11/10/21 10:41	1

Lab Sample ID: LCS 410-192546/2-A
Matrix: Solid
Analysis Batch: 193090

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 192546

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Lead			5.00	5.33		mg/Kg		107	80 - 120		

Lab Sample ID: LCSD 410-192546/3-A
Matrix: Solid
Analysis Batch: 193090

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 192546

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Lead			5.00	5.25		mg/Kg		105	80 - 120	2	20

Method: 6010C - Metals (ICP) (Continued)

Lab Sample ID: MB 410-192756/1-A
Matrix: Solid
Analysis Batch: 195357

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 192756

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	ND		1.5	0.60	mg/Kg		11/09/21 19:12	11/16/21 11:54	1

Lab Sample ID: LCS 410-192756/2-A
Matrix: Solid
Analysis Batch: 195357

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 192756

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Lead	5.00	5.12		mg/Kg		102	80 - 120

Lab Sample ID: MB 410-183779/1-A
Matrix: Solid
Analysis Batch: 184654

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 183779

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	ND	^3+	0.30	0.16	mg/L		10/18/21 04:53	10/19/21 14:50	1
Barium	ND		0.050	0.010	mg/L		10/18/21 04:53	10/19/21 14:50	1
Cadmium	ND		0.050	0.010	mg/L		10/18/21 04:53	10/19/21 14:50	1
Chromium	ND		0.15	0.016	mg/L		10/18/21 04:53	10/19/21 14:50	1
Lead	ND		0.15	0.071	mg/L		10/18/21 04:53	10/19/21 14:50	1
Selenium	ND		0.50	0.16	mg/L		10/18/21 04:53	10/19/21 14:50	1
Silver	ND		0.10	0.050	mg/L		10/18/21 04:53	10/19/21 14:50	1
Copper	ND		0.20	0.12	mg/L		10/18/21 04:53	10/19/21 14:50	1
Zinc	ND		0.20	0.037	mg/L		10/18/21 04:53	10/19/21 14:50	1
Nickel	ND		0.10	0.021	mg/L		10/18/21 04:53	10/19/21 14:50	1

Lab Sample ID: LCS 410-183779/2-A
Matrix: Solid
Analysis Batch: 184654

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 183779

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Arsenic	5.00	5.53	^3+	mg/L		111	80 - 120
Barium	5.00	5.04		mg/L		101	80 - 120
Cadmium	0.500	0.518		mg/L		104	80 - 120
Chromium	5.00	5.15		mg/L		103	80 - 120
Lead	0.500	0.530		mg/L		106	80 - 120
Selenium	1.00	1.25	*+	mg/L		125	80 - 120
Silver	0.499	0.534		mg/L		107	80 - 120
Copper	5.00	5.14		mg/L		103	80 - 120
Zinc	5.00	5.12		mg/L		102	80 - 120
Nickel	5.00	5.22		mg/L		104	80 - 120

Lab Sample ID: LCSD 410-183779/3-A
Matrix: Solid
Analysis Batch: 184654

Client Sample ID: Lab Control Sample Dup
Prep Type: Total Recoverable
Prep Batch: 183779

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Arsenic	5.00	5.36	^3+	mg/L		107	80 - 120	3	20
Barium	5.00	4.98		mg/L		100	80 - 120	1	20
Cadmium	0.500	0.518		mg/L		104	80 - 120	0	20

Method: 6010C - Metals (ICP) (Continued)

Lab Sample ID: LCSD 410-183779/3-A
Matrix: Solid
Analysis Batch: 184654

Client Sample ID: Lab Control Sample Dup
Prep Type: Total Recoverable
Prep Batch: 183779

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chromium	5.00	5.09		mg/L		102	80 - 120	1	20
Lead	0.500	0.489		mg/L		98	80 - 120	8	20
Selenium	1.00	1.10		mg/L		110	80 - 120	12	20
Silver	0.499	0.529		mg/L		106	80 - 120	1	20
Copper	5.00	5.12		mg/L		102	80 - 120	1	20
Zinc	5.00	5.09		mg/L		102	80 - 120	1	20
Nickel	5.00	5.20		mg/L		104	80 - 120	0	20

Method: 7470A - Mercury (CVAA)

Lab Sample ID: MB 410-183781/1-A
Matrix: Solid
Analysis Batch: 184228

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 183781

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020	0.000079	mg/L		10/18/21 05:04	10/18/21 18:29	1

Lab Sample ID: LCS 410-183781/2-A
Matrix: Solid
Analysis Batch: 184228

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 183781

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	0.00100	0.000957		mg/L		96	80 - 118

Lab Sample ID: LCSD 410-183781/3-A
Matrix: Solid
Analysis Batch: 184228

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 183781

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Mercury	0.00100	0.000976		mg/L		98	80 - 118	2	20

Method: 1664B - HEM and SGT-HEM

Lab Sample ID: MB 410-184745/1
Matrix: Solid
Analysis Batch: 184745

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
HEM (Oil & Grease)	ND		5.0	1.4	mg/L			10/19/21 20:36	1

Lab Sample ID: LCS 410-184745/2
Matrix: Solid
Analysis Batch: 184745

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
HEM (Oil & Grease)	40.0	34.4		mg/L		86	78 - 114

Method: 1664B - HEM and SGT-HEM (Continued)

Lab Sample ID: LCSD 410-184745/3
Matrix: Solid
Analysis Batch: 184745

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
HEM (Oil & Grease)			40.0	35.0		mg/L		88	78 - 114	2	13

Lab Sample ID: LB 410-183273/1-B
Matrix: Solid
Analysis Batch: 184745

Client Sample ID: Method Blank
Prep Type: ASTM Leach

Analyte	LB Result	LB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
HEM (Oil & Grease)	2.02	J B	5.3	1.5	mg/L			10/19/21 20:36	1

Method: 2540B-2011 - Solids, Total

Lab Sample ID: MB 410-183795/1
Matrix: Solid
Analysis Batch: 183795

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Solids	ND		42	14	mg/L			10/18/21 06:25	1
Residue, Total	ND		42	14	mg/L			10/18/21 06:25	1

Lab Sample ID: LCS 410-183795/2
Matrix: Solid
Analysis Batch: 183795

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Total Solids			200	199		mg/L		99	91 - 112		
Residue, Total			200	199		mg/L		99	91 - 112		

Lab Sample ID: LCSD 410-183795/3
Matrix: Solid
Analysis Batch: 183795

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Total Solids			200	199		mg/L		99	91 - 112	0	3
Residue, Total			200	199		mg/L		99	91 - 112	0	3

Method: 2540G-2011 - Total, Fixed, and Volatile Solids

Lab Sample ID: LCS 410-182808/1
Matrix: Solid
Analysis Batch: 182808

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Total Solids			10.5	10.6		%		101	94 - 108		

Lab Sample ID: 410-58999-2 DU
Matrix: Solid
Analysis Batch: 182808

Client Sample ID: Hartranft-10TH-CONF-SOIL-2-2021-10-12
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Total Solids	89			87.2		%				2	5

Method: 2540G-2011 - Total, Fixed, and Volatile Solids (Continued)

Lab Sample ID: 410-58999-2 DU
Matrix: Solid
Analysis Batch: 182808

Client Sample ID: Hartranft-10TH-CONF-SOIL-2-2021-10-12
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Total Volatile Solids	2.2		2.76	F3	%		24	5
Percent Solids	89	!	87.2		%		2	5

Lab Sample ID: 410-58999-3 DU
Matrix: Solid
Analysis Batch: 182808

Client Sample ID: Hartranft-10TH-CONF-SOIL-3-2021-10-12
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Total Solids	14		14.3		%		1	5
Total Volatile Solids	97		97.9		%		1	5
Percent Solids	14	!	14.3		%		1	5

Method: 410.4 - COD

Lab Sample ID: MB 410-184548/4
Matrix: Solid
Analysis Batch: 184548

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chemical Oxygen Demand	ND		75	25	mg/L			10/19/21 12:33	1

Lab Sample ID: LCS 410-184548/5
Matrix: Solid
Analysis Batch: 184548

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chemical Oxygen Demand	500	515		mg/L		103	94 - 110

Lab Sample ID: 410-58999-9 MS
Matrix: Solid
Analysis Batch: 184548

Client Sample ID: Hartranft-10TH-RB44062-RT-3-2021-10-12
Prep Type: ASTM Leach

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Chemical Oxygen Demand	35	J !	400	453		mg/L		104	94 - 110

Lab Sample ID: 410-58999-9 DU
Matrix: Solid
Analysis Batch: 184548

Client Sample ID: Hartranft-10TH-RB44062-RT-3-2021-10-12
Prep Type: ASTM Leach

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Chemical Oxygen Demand	35	J !	37.9	J	mg/L		8	9

Method: 9012 - Cyanide, Reactive

Lab Sample ID: MB 410-183171/1-A
Matrix: Solid
Analysis Batch: 183419

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 183171

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Reactive	ND		60	20	mg/Kg		10/15/21 07:55	10/15/21 14:26	1

Method: 9012 - Cyanide, Reactive (Continued)

Lab Sample ID: LCS 410-183171/2-A
Matrix: Solid
Analysis Batch: 183419

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 183171

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Cyanide, Reactive			1000	ND	*-	mg/Kg		-0.5	0 - 5.14		

Lab Sample ID: 410-58999-2 MS
Matrix: Solid
Analysis Batch: 183419

Client Sample ID: Hartranft-10TH-CONF-SOIL-2-2021-10-12
Prep Type: Total/NA
Prep Batch: 183171

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Cyanide, Reactive	ND	*-	992	ND		mg/Kg		0	0 - 44		

Lab Sample ID: 410-58999-2 MSD
Matrix: Solid
Analysis Batch: 183419

Client Sample ID: Hartranft-10TH-CONF-SOIL-2-2021-10-12
Prep Type: Total/NA
Prep Batch: 183171

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Cyanide, Reactive	ND	*-	986	ND		mg/Kg		0	0 - 44	NC	11

Method: 9034 - Sulfide, Reactive

Lab Sample ID: MB 410-183171/1-A
Matrix: Solid
Analysis Batch: 183334

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 183171

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfide, Reactive	ND		160	54	mg/Kg		10/15/21 07:55	10/15/21 12:20	1

Lab Sample ID: LCS 410-183171/24-A
Matrix: Solid
Analysis Batch: 183334

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 183171

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Sulfide, Reactive			539	379		mg/Kg		70	56 - 104		

Lab Sample ID: 410-58999-2 MS
Matrix: Solid
Analysis Batch: 183334

Client Sample ID: Hartranft-10TH-CONF-SOIL-2-2021-10-12
Prep Type: Total/NA
Prep Batch: 183171

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Sulfide, Reactive	ND	! FL	535	269	FL	mg/Kg		50	56 - 104		

Lab Sample ID: 410-58999-2 MSD
Matrix: Solid
Analysis Batch: 183334

Client Sample ID: Hartranft-10TH-CONF-SOIL-2-2021-10-12
Prep Type: Total/NA
Prep Batch: 183171

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Sulfide, Reactive	ND	! FL	532	228	FL	mg/Kg		43	56 - 104	16	52

Method: 9045D - pH

Lab Sample ID: LCS 410-183472/1-A
Matrix: Solid
Analysis Batch: 183490

Client Sample ID: Lab Control Sample
Prep Type: Soluble

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
pH			7.00	7.0		S.U.		100	95 - 105		

Lab Sample ID: 410-58999-1 DU
Matrix: Solid
Analysis Batch: 183490

Client Sample ID: Hartranft-10TH-CONF-SOIL-1-2021-10-12
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
pH	7.5			7.4		S.U.				0.9	3
Corrosivity	No			No		NONE				NaN	3

Method: 9071B - HEM and SGT-HEM

Lab Sample ID: MB 410-184235/1-A
Matrix: Solid
Analysis Batch: 185016

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 184235

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
HEM (Oil & Grease)	ND		600	200	mg/Kg		10/18/21 23:57	10/20/21 10:30	1

Lab Sample ID: LCS 410-184235/2-A
Matrix: Solid
Analysis Batch: 185016

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 184235

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
HEM (Oil & Grease)			4980	4860		mg/Kg		98	91 - 111		

Lab Sample ID: 410-58999-1 MS
Matrix: Solid
Analysis Batch: 185016

Client Sample ID: Hartranft-10TH-CONF-SOIL-1-2021-10-12
Prep Type: Total/NA
Prep Batch: 184235

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
HEM (Oil & Grease)	3600	FH	6490	11400	FH	mg/Kg	☼	119	91 - 111		

Lab Sample ID: 410-58999-1 MSD
Matrix: Solid
Analysis Batch: 185016

Client Sample ID: Hartranft-10TH-CONF-SOIL-1-2021-10-12
Prep Type: Total/NA
Prep Batch: 184235

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
HEM (Oil & Grease)	3600	FH	6290	11200	FH	mg/Kg	☼	121	91 - 111	1	26

Lab Sample ID: 410-58999-1 DU
Matrix: Solid
Analysis Batch: 185016

Client Sample ID: Hartranft-10TH-CONF-SOIL-1-2021-10-12
Prep Type: Total/NA
Prep Batch: 184235

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
HEM (Oil & Grease)	3600	FH		3930		mg/Kg	☼			9	20

Method: 9095B - Paint Filter

Lab Sample ID: MB 410-184206/1
Matrix: Solid
Analysis Batch: 184206

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Presence of Free Liquid	No				No Unit			10/18/21 19:55	1

Method: EPA 350.1 - Nitrogen, Ammonia

Lab Sample ID: MB 410-189848/17
Matrix: Solid
Analysis Batch: 189848

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ammonia as N	ND		0.10	0.050	mg/L			11/02/21 10:40	1

Lab Sample ID: LCS 410-189848/15
Matrix: Solid
Analysis Batch: 189848

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Ammonia as N			3.00	2.92		mg/L		97	90 - 110		

Lab Sample ID: LCSD 410-189848/16
Matrix: Solid
Analysis Batch: 189848

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Ammonia as N			3.00	2.97		mg/L		99	90 - 110	2	15

GC/MS VOA

Prep Batch: 182777

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-58999-1	Hartranft-10TH-CONF-SOIL-1-2021-10-12	Total/NA	Solid	5030C	
410-58999-2	Hartranft-10TH-CONF-SOIL-2-2021-10-12	Total/NA	Solid	5030C	
410-58999-3	Hartranft-10TH-CONF-SOIL-3-2021-10-12	Total/NA	Solid	5030C	
410-58999-4	Hartranft-10TH-CONF-SOIL-4-2021-10-12	Total/NA	Solid	5030C	
410-58999-5	Hartranft-10TH-CONF-SOIL-5-2021-10-12	Total/NA	Solid	5030C	
410-58999-6	Hartranft-10TH-CONF-SOIL-6-2021-10-12	Total/NA	Solid	5030C	
410-58999-7	Hartranft-10TH-RB44062-RT-1-2021-10-12	Total/NA	Solid	5030C	
410-58999-8	Hartranft-10TH-RB44062-RT-2-2021-10-12	Total/NA	Solid	5030C	
410-58999-9	Hartranft-10TH-RB44062-RT-3-2021-10-12	Total/NA	Solid	5030C	

Leach Batch: 183239

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-58999-1	Hartranft-10TH-CONF-SOIL-1-2021-10-12	TCLP	Solid	1311	
410-58999-2	Hartranft-10TH-CONF-SOIL-2-2021-10-12	TCLP	Solid	1311	
410-58999-3	Hartranft-10TH-CONF-SOIL-3-2021-10-12	TCLP	Solid	1311	
410-58999-4	Hartranft-10TH-CONF-SOIL-4-2021-10-12	TCLP	Solid	1311	
410-58999-5	Hartranft-10TH-CONF-SOIL-5-2021-10-12	TCLP	Solid	1311	
410-58999-6	Hartranft-10TH-CONF-SOIL-6-2021-10-12	TCLP	Solid	1311	
410-58999-7	Hartranft-10TH-RB44062-RT-1-2021-10-12	TCLP	Solid	1311	
410-58999-8	Hartranft-10TH-RB44062-RT-2-2021-10-12	TCLP	Solid	1311	
410-58999-9	Hartranft-10TH-RB44062-RT-3-2021-10-12	TCLP	Solid	1311	
410-58999-1 MS	Hartranft-10TH-CONF-SOIL-1-2021-10-12	TCLP	Solid	1311	

Analysis Batch: 183894

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-58999-1	Hartranft-10TH-CONF-SOIL-1-2021-10-12	Total/NA	Solid	8260C	182777
410-58999-2	Hartranft-10TH-CONF-SOIL-2-2021-10-12	Total/NA	Solid	8260C	182777
410-58999-3	Hartranft-10TH-CONF-SOIL-3-2021-10-12	Total/NA	Solid	8260C	182777
410-58999-4	Hartranft-10TH-CONF-SOIL-4-2021-10-12	Total/NA	Solid	8260C	182777
410-58999-5	Hartranft-10TH-CONF-SOIL-5-2021-10-12	Total/NA	Solid	8260C	182777
410-58999-6	Hartranft-10TH-CONF-SOIL-6-2021-10-12	Total/NA	Solid	8260C	182777
410-58999-7	Hartranft-10TH-RB44062-RT-1-2021-10-12	Total/NA	Solid	8260C	182777
410-58999-8	Hartranft-10TH-RB44062-RT-2-2021-10-12	Total/NA	Solid	8260C	182777
410-58999-9	Hartranft-10TH-RB44062-RT-3-2021-10-12	Total/NA	Solid	8260C	182777
MB 410-183894/7	Method Blank	Total/NA	Solid	8260C	
LCS 410-183894/4	Lab Control Sample	Total/NA	Solid	8260C	
LCSD 410-183894/5	Lab Control Sample Dup	Total/NA	Solid	8260C	

Analysis Batch: 184674

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-58999-1	Hartranft-10TH-CONF-SOIL-1-2021-10-12	TCLP	Solid	8260C	183239
410-58999-2	Hartranft-10TH-CONF-SOIL-2-2021-10-12	TCLP	Solid	8260C	183239
410-58999-3	Hartranft-10TH-CONF-SOIL-3-2021-10-12	TCLP	Solid	8260C	183239
410-58999-4	Hartranft-10TH-CONF-SOIL-4-2021-10-12	TCLP	Solid	8260C	183239
410-58999-5	Hartranft-10TH-CONF-SOIL-5-2021-10-12	TCLP	Solid	8260C	183239
410-58999-6	Hartranft-10TH-CONF-SOIL-6-2021-10-12	TCLP	Solid	8260C	183239
410-58999-7	Hartranft-10TH-RB44062-RT-1-2021-10-12	TCLP	Solid	8260C	183239
410-58999-8	Hartranft-10TH-RB44062-RT-2-2021-10-12	TCLP	Solid	8260C	183239
410-58999-9	Hartranft-10TH-RB44062-RT-3-2021-10-12	TCLP	Solid	8260C	183239
MB 410-184674/6	Method Blank	Total/NA	Solid	8260C	
LCS 410-184674/4	Lab Control Sample	Total/NA	Solid	8260C	

GC/MS VOA (Continued)

Analysis Batch: 184674 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-58999-1 MS	Hartranft-10TH-CONF-SOIL-1-2021-10-12	TCLP	Solid	8260C	183239

GC/MS Semi VOA

Leach Batch: 183271

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-58999-1	Hartranft-10TH-CONF-SOIL-1-2021-10-12	TCLP	Solid	1311	
410-58999-2	Hartranft-10TH-CONF-SOIL-2-2021-10-12	TCLP	Solid	1311	
410-58999-3	Hartranft-10TH-CONF-SOIL-3-2021-10-12	TCLP	Solid	1311	
410-58999-4	Hartranft-10TH-CONF-SOIL-4-2021-10-12	TCLP	Solid	1311	
410-58999-5	Hartranft-10TH-CONF-SOIL-5-2021-10-12	TCLP	Solid	1311	
410-58999-6	Hartranft-10TH-CONF-SOIL-6-2021-10-12	TCLP	Solid	1311	
410-58999-7	Hartranft-10TH-RB44062-RT-1-2021-10-12	TCLP	Solid	1311	
410-58999-8	Hartranft-10TH-RB44062-RT-2-2021-10-12	TCLP	Solid	1311	
410-58999-9	Hartranft-10TH-RB44062-RT-3-2021-10-12	TCLP	Solid	1311	

Prep Batch: 184616

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-58999-1	Hartranft-10TH-CONF-SOIL-1-2021-10-12	TCLP	Solid	3510C	183271
410-58999-2	Hartranft-10TH-CONF-SOIL-2-2021-10-12	TCLP	Solid	3510C	183271
410-58999-3	Hartranft-10TH-CONF-SOIL-3-2021-10-12	TCLP	Solid	3510C	183271
410-58999-4	Hartranft-10TH-CONF-SOIL-4-2021-10-12	TCLP	Solid	3510C	183271
410-58999-5	Hartranft-10TH-CONF-SOIL-5-2021-10-12	TCLP	Solid	3510C	183271
410-58999-6	Hartranft-10TH-CONF-SOIL-6-2021-10-12	TCLP	Solid	3510C	183271
410-58999-7	Hartranft-10TH-RB44062-RT-1-2021-10-12	TCLP	Solid	3510C	183271
410-58999-8	Hartranft-10TH-RB44062-RT-2-2021-10-12	TCLP	Solid	3510C	183271
410-58999-9	Hartranft-10TH-RB44062-RT-3-2021-10-12	TCLP	Solid	3510C	183271
MB 410-184616/14-A	Method Blank	Total/NA	Solid	3510C	
LCS 410-184616/2-A	Lab Control Sample	Total/NA	Solid	3510C	
LCSD 410-184616/3-A	Lab Control Sample Dup	Total/NA	Solid	3510C	

Analysis Batch: 184885

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-58999-1	Hartranft-10TH-CONF-SOIL-1-2021-10-12	TCLP	Solid	8270D	184616
410-58999-2	Hartranft-10TH-CONF-SOIL-2-2021-10-12	TCLP	Solid	8270D	184616
410-58999-3	Hartranft-10TH-CONF-SOIL-3-2021-10-12	TCLP	Solid	8270D	184616
410-58999-4	Hartranft-10TH-CONF-SOIL-4-2021-10-12	TCLP	Solid	8270D	184616
410-58999-5	Hartranft-10TH-CONF-SOIL-5-2021-10-12	TCLP	Solid	8270D	184616
410-58999-6	Hartranft-10TH-CONF-SOIL-6-2021-10-12	TCLP	Solid	8270D	184616
410-58999-7	Hartranft-10TH-RB44062-RT-1-2021-10-12	TCLP	Solid	8270D	184616
410-58999-8	Hartranft-10TH-RB44062-RT-2-2021-10-12	TCLP	Solid	8270D	184616
410-58999-9	Hartranft-10TH-RB44062-RT-3-2021-10-12	TCLP	Solid	8270D	184616
MB 410-184616/14-A	Method Blank	Total/NA	Solid	8270D	184616
LCS 410-184616/2-A	Lab Control Sample	Total/NA	Solid	8270D	184616
LCSD 410-184616/3-A	Lab Control Sample Dup	Total/NA	Solid	8270D	184616

GC Semi VOA

Prep Batch: 183168

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-58999-2	Hartranft-10TH-CONF-SOIL-2-2021-10-12	Total/NA	Solid	3546	
410-58999-3	Hartranft-10TH-CONF-SOIL-3-2021-10-12	Total/NA	Solid	3546	

GC Semi VOA (Continued)

Prep Batch: 183168 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-58999-4	Hartranft-10TH-CONF-SOIL-4-2021-10-12	Total/NA	Solid	3546	
MB 410-183168/1-A	Method Blank	Total/NA	Solid	3546	
LCS 410-183168/2-A	Lab Control Sample	Total/NA	Solid	3546	

Leach Batch: 183271

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-58999-1	Hartranft-10TH-CONF-SOIL-1-2021-10-12	TCLP	Solid	1311	
410-58999-2	Hartranft-10TH-CONF-SOIL-2-2021-10-12	TCLP	Solid	1311	
410-58999-3	Hartranft-10TH-CONF-SOIL-3-2021-10-12	TCLP	Solid	1311	
410-58999-4	Hartranft-10TH-CONF-SOIL-4-2021-10-12	TCLP	Solid	1311	
410-58999-5	Hartranft-10TH-CONF-SOIL-5-2021-10-12	TCLP	Solid	1311	
410-58999-6	Hartranft-10TH-CONF-SOIL-6-2021-10-12	TCLP	Solid	1311	
410-58999-7	Hartranft-10TH-RB44062-RT-1-2021-10-12	TCLP	Solid	1311	
410-58999-8	Hartranft-10TH-RB44062-RT-2-2021-10-12	TCLP	Solid	1311	
410-58999-9	Hartranft-10TH-RB44062-RT-3-2021-10-12	TCLP	Solid	1311	

Analysis Batch: 183531

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-58999-2	Hartranft-10TH-CONF-SOIL-2-2021-10-12	Total/NA	Solid	8082A	183168
410-58999-3	Hartranft-10TH-CONF-SOIL-3-2021-10-12	Total/NA	Solid	8082A	183168
410-58999-4	Hartranft-10TH-CONF-SOIL-4-2021-10-12	Total/NA	Solid	8082A	183168
MB 410-183168/1-A	Method Blank	Total/NA	Solid	8082A	183168
LCS 410-183168/2-A	Lab Control Sample	Total/NA	Solid	8082A	183168

Prep Batch: 183581

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-58999-5	Hartranft-10TH-CONF-SOIL-5-2021-10-12	Total/NA	Solid	3546	
410-58999-6	Hartranft-10TH-CONF-SOIL-6-2021-10-12	Total/NA	Solid	3546	
410-58999-7	Hartranft-10TH-RB44062-RT-1-2021-10-12	Total/NA	Solid	3546	
410-58999-8	Hartranft-10TH-RB44062-RT-2-2021-10-12	Total/NA	Solid	3546	
410-58999-9	Hartranft-10TH-RB44062-RT-3-2021-10-12	Total/NA	Solid	3546	
MB 410-183581/1-A	Method Blank	Total/NA	Solid	3546	
LCS 410-183581/2-A	Lab Control Sample	Total/NA	Solid	3546	

Analysis Batch: 183928

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-58999-5	Hartranft-10TH-CONF-SOIL-5-2021-10-12	Total/NA	Solid	8082A	183581
410-58999-6	Hartranft-10TH-CONF-SOIL-6-2021-10-12	Total/NA	Solid	8082A	183581
410-58999-7	Hartranft-10TH-RB44062-RT-1-2021-10-12	Total/NA	Solid	8082A	183581
410-58999-8	Hartranft-10TH-RB44062-RT-2-2021-10-12	Total/NA	Solid	8082A	183581
410-58999-9	Hartranft-10TH-RB44062-RT-3-2021-10-12	Total/NA	Solid	8082A	183581
MB 410-183581/1-A	Method Blank	Total/NA	Solid	8082A	183581
LCS 410-183581/2-A	Lab Control Sample	Total/NA	Solid	8082A	183581

Prep Batch: 184122

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-58999-1	Hartranft-10TH-CONF-SOIL-1-2021-10-12	Total/NA	Solid	3546	
MB 410-184122/1-A	Method Blank	Total/NA	Solid	3546	
LCS 410-184122/2-A	Lab Control Sample	Total/NA	Solid	3546	

GC Semi VOA

Analysis Batch: 184470

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-58999-1	Hartranft-10TH-CONF-SOIL-1-2021-10-12	Total/NA	Solid	8082A	184122
MB 410-184122/1-A	Method Blank	Total/NA	Solid	8082A	184122
LCS 410-184122/2-A	Lab Control Sample	Total/NA	Solid	8082A	184122

Prep Batch: 184649

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-58999-1	Hartranft-10TH-CONF-SOIL-1-2021-10-12	TCLP	Solid	3510C	183271
410-58999-2	Hartranft-10TH-CONF-SOIL-2-2021-10-12	TCLP	Solid	3510C	183271
410-58999-3	Hartranft-10TH-CONF-SOIL-3-2021-10-12	TCLP	Solid	3510C	183271
410-58999-4	Hartranft-10TH-CONF-SOIL-4-2021-10-12	TCLP	Solid	3510C	183271
410-58999-5	Hartranft-10TH-CONF-SOIL-5-2021-10-12	TCLP	Solid	3510C	183271
410-58999-6	Hartranft-10TH-CONF-SOIL-6-2021-10-12	TCLP	Solid	3510C	183271
410-58999-7	Hartranft-10TH-RB44062-RT-1-2021-10-12	TCLP	Solid	3510C	183271
410-58999-8	Hartranft-10TH-RB44062-RT-2-2021-10-12	TCLP	Solid	3510C	183271
410-58999-9	Hartranft-10TH-RB44062-RT-3-2021-10-12	TCLP	Solid	3510C	183271
MB 410-184649/14-A	Method Blank	Total/NA	Solid	3510C	
MB 410-184649/1-A	Method Blank	Total/NA	Solid	3510C	
LCS 410-184649/2-A	Lab Control Sample	Total/NA	Solid	3510C	
LCS 410-184649/2-A - RA	Lab Control Sample	Total/NA	Solid	3510C	
LCSD 410-184649/3-A	Lab Control Sample Dup	Total/NA	Solid	3510C	
LCSD 410-184649/3-A - RA	Lab Control Sample Dup	Total/NA	Solid	3510C	

Prep Batch: 184800

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-58999-1	Hartranft-10TH-CONF-SOIL-1-2021-10-12	TCLP	Solid	8151A	183271
410-58999-2	Hartranft-10TH-CONF-SOIL-2-2021-10-12	TCLP	Solid	8151A	183271
410-58999-3	Hartranft-10TH-CONF-SOIL-3-2021-10-12	TCLP	Solid	8151A	183271
410-58999-4	Hartranft-10TH-CONF-SOIL-4-2021-10-12	TCLP	Solid	8151A	183271
410-58999-5	Hartranft-10TH-CONF-SOIL-5-2021-10-12	TCLP	Solid	8151A	183271
410-58999-6	Hartranft-10TH-CONF-SOIL-6-2021-10-12	TCLP	Solid	8151A	183271
410-58999-7	Hartranft-10TH-RB44062-RT-1-2021-10-12	TCLP	Solid	8151A	183271
410-58999-8	Hartranft-10TH-RB44062-RT-2-2021-10-12	TCLP	Solid	8151A	183271
410-58999-9	Hartranft-10TH-RB44062-RT-3-2021-10-12	TCLP	Solid	8151A	183271
MB 410-184800/1-A	Method Blank	Total/NA	Solid	8151A	
LCS 410-184800/2-A	Lab Control Sample	Total/NA	Solid	8151A	
LCSD 410-184800/3-A	Lab Control Sample Dup	Total/NA	Solid	8151A	

Analysis Batch: 184818

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-58999-1	Hartranft-10TH-CONF-SOIL-1-2021-10-12	TCLP	Solid	8081B	184649
410-58999-2	Hartranft-10TH-CONF-SOIL-2-2021-10-12	TCLP	Solid	8081B	184649
410-58999-3	Hartranft-10TH-CONF-SOIL-3-2021-10-12	TCLP	Solid	8081B	184649
410-58999-4	Hartranft-10TH-CONF-SOIL-4-2021-10-12	TCLP	Solid	8081B	184649
410-58999-5	Hartranft-10TH-CONF-SOIL-5-2021-10-12	TCLP	Solid	8081B	184649
410-58999-6	Hartranft-10TH-CONF-SOIL-6-2021-10-12	TCLP	Solid	8081B	184649
410-58999-7	Hartranft-10TH-RB44062-RT-1-2021-10-12	TCLP	Solid	8081B	184649
410-58999-8	Hartranft-10TH-RB44062-RT-2-2021-10-12	TCLP	Solid	8081B	184649
410-58999-9	Hartranft-10TH-RB44062-RT-3-2021-10-12	TCLP	Solid	8081B	184649
MB 410-184649/14-A	Method Blank	Total/NA	Solid	8081B	184649
MB 410-184649/1-A	Method Blank	Total/NA	Solid	8081B	184649
LCS 410-184649/2-A	Lab Control Sample	Total/NA	Solid	8081B	184649

GC Semi VOA (Continued)

Analysis Batch: 184818 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCSD 410-184649/3-A	Lab Control Sample Dup	Total/NA	Solid	8081B	184649

Analysis Batch: 185014

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 410-184649/2-A - RA	Lab Control Sample	Total/NA	Solid	8081B	184649
LCSD 410-184649/3-A - RA	Lab Control Sample Dup	Total/NA	Solid	8081B	184649

Analysis Batch: 185345

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-58999-1	Hartranft-10TH-CONF-SOIL-1-2021-10-12	TCLP	Solid	8151A	184800
410-58999-2	Hartranft-10TH-CONF-SOIL-2-2021-10-12	TCLP	Solid	8151A	184800
410-58999-3	Hartranft-10TH-CONF-SOIL-3-2021-10-12	TCLP	Solid	8151A	184800
410-58999-4	Hartranft-10TH-CONF-SOIL-4-2021-10-12	TCLP	Solid	8151A	184800
410-58999-5	Hartranft-10TH-CONF-SOIL-5-2021-10-12	TCLP	Solid	8151A	184800
410-58999-6	Hartranft-10TH-CONF-SOIL-6-2021-10-12	TCLP	Solid	8151A	184800
410-58999-7	Hartranft-10TH-RB44062-RT-1-2021-10-12	TCLP	Solid	8151A	184800
410-58999-8	Hartranft-10TH-RB44062-RT-2-2021-10-12	TCLP	Solid	8151A	184800
410-58999-9	Hartranft-10TH-RB44062-RT-3-2021-10-12	TCLP	Solid	8151A	184800
MB 410-184800/1-A	Method Blank	Total/NA	Solid	8151A	184800
LCS 410-184800/2-A	Lab Control Sample	Total/NA	Solid	8151A	184800
LCSD 410-184800/3-A	Lab Control Sample Dup	Total/NA	Solid	8151A	184800

Metals

Leach Batch: 183271

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-58999-1	Hartranft-10TH-CONF-SOIL-1-2021-10-12	TCLP	Solid	1311	
410-58999-2	Hartranft-10TH-CONF-SOIL-2-2021-10-12	TCLP	Solid	1311	
410-58999-3	Hartranft-10TH-CONF-SOIL-3-2021-10-12	TCLP	Solid	1311	
410-58999-4	Hartranft-10TH-CONF-SOIL-4-2021-10-12	TCLP	Solid	1311	
410-58999-5	Hartranft-10TH-CONF-SOIL-5-2021-10-12	TCLP	Solid	1311	
410-58999-6	Hartranft-10TH-CONF-SOIL-6-2021-10-12	TCLP	Solid	1311	
410-58999-7	Hartranft-10TH-RB44062-RT-1-2021-10-12	TCLP	Solid	1311	
410-58999-8	Hartranft-10TH-RB44062-RT-2-2021-10-12	TCLP	Solid	1311	
410-58999-9	Hartranft-10TH-RB44062-RT-3-2021-10-12	TCLP	Solid	1311	

Prep Batch: 183779

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-58999-1	Hartranft-10TH-CONF-SOIL-1-2021-10-12	TCLP	Solid	3005A	183271
410-58999-2	Hartranft-10TH-CONF-SOIL-2-2021-10-12	TCLP	Solid	3005A	183271
410-58999-3	Hartranft-10TH-CONF-SOIL-3-2021-10-12	TCLP	Solid	3005A	183271
410-58999-4	Hartranft-10TH-CONF-SOIL-4-2021-10-12	TCLP	Solid	3005A	183271
410-58999-5	Hartranft-10TH-CONF-SOIL-5-2021-10-12	TCLP	Solid	3005A	183271
410-58999-6	Hartranft-10TH-CONF-SOIL-6-2021-10-12	TCLP	Solid	3005A	183271
410-58999-7	Hartranft-10TH-RB44062-RT-1-2021-10-12	TCLP	Solid	3005A	183271
410-58999-8	Hartranft-10TH-RB44062-RT-2-2021-10-12	TCLP	Solid	3005A	183271
410-58999-9	Hartranft-10TH-RB44062-RT-3-2021-10-12	TCLP	Solid	3005A	183271
MB 410-183779/1-A	Method Blank	Total Recoverable	Solid	3005A	
LCS 410-183779/2-A	Lab Control Sample	Total Recoverable	Solid	3005A	
LCSD 410-183779/3-A	Lab Control Sample Dup	Total Recoverable	Solid	3005A	

Metals

Prep Batch: 183781

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-58999-1	Hartranft-10TH-CONF-SOIL-1-2021-10-12	TCLP	Solid	7470A	183271
410-58999-2	Hartranft-10TH-CONF-SOIL-2-2021-10-12	TCLP	Solid	7470A	183271
410-58999-3	Hartranft-10TH-CONF-SOIL-3-2021-10-12	TCLP	Solid	7470A	183271
410-58999-4	Hartranft-10TH-CONF-SOIL-4-2021-10-12	TCLP	Solid	7470A	183271
410-58999-5	Hartranft-10TH-CONF-SOIL-5-2021-10-12	TCLP	Solid	7470A	183271
410-58999-6	Hartranft-10TH-CONF-SOIL-6-2021-10-12	TCLP	Solid	7470A	183271
410-58999-7	Hartranft-10TH-RB44062-RT-1-2021-10-12	TCLP	Solid	7470A	183271
410-58999-8	Hartranft-10TH-RB44062-RT-2-2021-10-12	TCLP	Solid	7470A	183271
410-58999-9	Hartranft-10TH-RB44062-RT-3-2021-10-12	TCLP	Solid	7470A	183271
MB 410-183781/1-A	Method Blank	Total/NA	Solid	7470A	
LCS 410-183781/2-A	Lab Control Sample	Total/NA	Solid	7470A	
LCSD 410-183781/3-A	Lab Control Sample Dup	Total/NA	Solid	7470A	

Analysis Batch: 184228

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-58999-1	Hartranft-10TH-CONF-SOIL-1-2021-10-12	TCLP	Solid	7470A	183781
410-58999-2	Hartranft-10TH-CONF-SOIL-2-2021-10-12	TCLP	Solid	7470A	183781
410-58999-3	Hartranft-10TH-CONF-SOIL-3-2021-10-12	TCLP	Solid	7470A	183781
410-58999-4	Hartranft-10TH-CONF-SOIL-4-2021-10-12	TCLP	Solid	7470A	183781
410-58999-5	Hartranft-10TH-CONF-SOIL-5-2021-10-12	TCLP	Solid	7470A	183781
410-58999-6	Hartranft-10TH-CONF-SOIL-6-2021-10-12	TCLP	Solid	7470A	183781
410-58999-7	Hartranft-10TH-RB44062-RT-1-2021-10-12	TCLP	Solid	7470A	183781
410-58999-8	Hartranft-10TH-RB44062-RT-2-2021-10-12	TCLP	Solid	7470A	183781
410-58999-9	Hartranft-10TH-RB44062-RT-3-2021-10-12	TCLP	Solid	7470A	183781
MB 410-183781/1-A	Method Blank	Total/NA	Solid	7470A	183781
LCS 410-183781/2-A	Lab Control Sample	Total/NA	Solid	7470A	183781
LCSD 410-183781/3-A	Lab Control Sample Dup	Total/NA	Solid	7470A	183781

Analysis Batch: 184654

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-58999-1	Hartranft-10TH-CONF-SOIL-1-2021-10-12	TCLP	Solid	6010C	183779
410-58999-2	Hartranft-10TH-CONF-SOIL-2-2021-10-12	TCLP	Solid	6010C	183779
410-58999-3	Hartranft-10TH-CONF-SOIL-3-2021-10-12	TCLP	Solid	6010C	183779
410-58999-4	Hartranft-10TH-CONF-SOIL-4-2021-10-12	TCLP	Solid	6010C	183779
410-58999-5	Hartranft-10TH-CONF-SOIL-5-2021-10-12	TCLP	Solid	6010C	183779
410-58999-6	Hartranft-10TH-CONF-SOIL-6-2021-10-12	TCLP	Solid	6010C	183779
410-58999-7	Hartranft-10TH-RB44062-RT-1-2021-10-12	TCLP	Solid	6010C	183779
410-58999-8	Hartranft-10TH-RB44062-RT-2-2021-10-12	TCLP	Solid	6010C	183779
410-58999-9	Hartranft-10TH-RB44062-RT-3-2021-10-12	TCLP	Solid	6010C	183779
MB 410-183779/1-A	Method Blank	Total Recoverable	Solid	6010C	183779
LCS 410-183779/2-A	Lab Control Sample	Total Recoverable	Solid	6010C	183779
LCSD 410-183779/3-A	Lab Control Sample Dup	Total Recoverable	Solid	6010C	183779

Prep Batch: 192546

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-58999-3	Hartranft-10TH-CONF-SOIL-3-2021-10-12	Total/NA	Solid	3050B	
410-58999-7	Hartranft-10TH-RB44062-RT-1-2021-10-12	Total/NA	Solid	3050B	
410-58999-9	Hartranft-10TH-RB44062-RT-3-2021-10-12	Total/NA	Solid	3050B	
MB 410-192546/1-A	Method Blank	Total/NA	Solid	3050B	
LCS 410-192546/2-A	Lab Control Sample	Total/NA	Solid	3050B	
LCSD 410-192546/3-A	Lab Control Sample Dup	Total/NA	Solid	3050B	

QC Association Summary

Client: NorthStar Contracting Group, Inc.
Project/Site: NorthStar Sampling

Job ID: 410-58999-1

Metals

Prep Batch: 192756

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-58999-1	Hartranft-10TH-CONF-SOIL-1-2021-10-12	Total/NA	Solid	3050B	
410-58999-2	Hartranft-10TH-CONF-SOIL-2-2021-10-12	Total/NA	Solid	3050B	
410-58999-4	Hartranft-10TH-CONF-SOIL-4-2021-10-12	Total/NA	Solid	3050B	
410-58999-5	Hartranft-10TH-CONF-SOIL-5-2021-10-12	Total/NA	Solid	3050B	
410-58999-6	Hartranft-10TH-CONF-SOIL-6-2021-10-12	Total/NA	Solid	3050B	
410-58999-8	Hartranft-10TH-RB44062-RT-2-2021-10-12	Total/NA	Solid	3050B	
MB 410-192756/1-A	Method Blank	Total/NA	Solid	3050B	
LCS 410-192756/2-A	Lab Control Sample	Total/NA	Solid	3050B	

Analysis Batch: 193090

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-58999-3	Hartranft-10TH-CONF-SOIL-3-2021-10-12	Total/NA	Solid	6010C	192546
410-58999-7	Hartranft-10TH-RB44062-RT-1-2021-10-12	Total/NA	Solid	6010C	192546
410-58999-9	Hartranft-10TH-RB44062-RT-3-2021-10-12	Total/NA	Solid	6010C	192546
MB 410-192546/1-A	Method Blank	Total/NA	Solid	6010C	192546
LCS 410-192546/2-A	Lab Control Sample	Total/NA	Solid	6010C	192546
LCSD 410-192546/3-A	Lab Control Sample Dup	Total/NA	Solid	6010C	192546

Analysis Batch: 195357

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-58999-1	Hartranft-10TH-CONF-SOIL-1-2021-10-12	Total/NA	Solid	6010C	192756
410-58999-2	Hartranft-10TH-CONF-SOIL-2-2021-10-12	Total/NA	Solid	6010C	192756
410-58999-4	Hartranft-10TH-CONF-SOIL-4-2021-10-12	Total/NA	Solid	6010C	192756
410-58999-5	Hartranft-10TH-CONF-SOIL-5-2021-10-12	Total/NA	Solid	6010C	192756
410-58999-6	Hartranft-10TH-CONF-SOIL-6-2021-10-12	Total/NA	Solid	6010C	192756
410-58999-8	Hartranft-10TH-RB44062-RT-2-2021-10-12	Total/NA	Solid	6010C	192756
MB 410-192756/1-A	Method Blank	Total/NA	Solid	6010C	192756
LCS 410-192756/2-A	Lab Control Sample	Total/NA	Solid	6010C	192756

General Chemistry

Analysis Batch: 182800

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-58999-1	Hartranft-10TH-CONF-SOIL-1-2021-10-12	Total/NA	Solid	Moisture	
410-58999-2	Hartranft-10TH-CONF-SOIL-2-2021-10-12	Total/NA	Solid	Moisture	
410-58999-3	Hartranft-10TH-CONF-SOIL-3-2021-10-12	Total/NA	Solid	Moisture	
410-58999-4	Hartranft-10TH-CONF-SOIL-4-2021-10-12	Total/NA	Solid	Moisture	
410-58999-5	Hartranft-10TH-CONF-SOIL-5-2021-10-12	Total/NA	Solid	Moisture	
410-58999-6	Hartranft-10TH-CONF-SOIL-6-2021-10-12	Total/NA	Solid	Moisture	
410-58999-7	Hartranft-10TH-RB44062-RT-1-2021-10-12	Total/NA	Solid	Moisture	
410-58999-8	Hartranft-10TH-RB44062-RT-2-2021-10-12	Total/NA	Solid	Moisture	
410-58999-9	Hartranft-10TH-RB44062-RT-3-2021-10-12	Total/NA	Solid	Moisture	

Analysis Batch: 182808

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-58999-1	Hartranft-10TH-CONF-SOIL-1-2021-10-12	Total/NA	Solid	2540G-2011	
410-58999-2	Hartranft-10TH-CONF-SOIL-2-2021-10-12	Total/NA	Solid	2540G-2011	
410-58999-3	Hartranft-10TH-CONF-SOIL-3-2021-10-12	Total/NA	Solid	2540G-2011	
410-58999-4	Hartranft-10TH-CONF-SOIL-4-2021-10-12	Total/NA	Solid	2540G-2011	
410-58999-5	Hartranft-10TH-CONF-SOIL-5-2021-10-12	Total/NA	Solid	2540G-2011	
410-58999-6	Hartranft-10TH-CONF-SOIL-6-2021-10-12	Total/NA	Solid	2540G-2011	

General Chemistry (Continued)

Analysis Batch: 182808 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-58999-7	Hartranft-10TH-RB44062-RT-1-2021-10-12	Total/NA	Solid	2540G-2011	
410-58999-8	Hartranft-10TH-RB44062-RT-2-2021-10-12	Total/NA	Solid	2540G-2011	
410-58999-9	Hartranft-10TH-RB44062-RT-3-2021-10-12	Total/NA	Solid	2540G-2011	
LCS 410-182808/1	Lab Control Sample	Total/NA	Solid	2540G-2011	
410-58999-2 DU	Hartranft-10TH-CONF-SOIL-2-2021-10-12	Total/NA	Solid	2540G-2011	
410-58999-3 DU	Hartranft-10TH-CONF-SOIL-3-2021-10-12	Total/NA	Solid	2540G-2011	

Prep Batch: 183171

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-58999-1	Hartranft-10TH-CONF-SOIL-1-2021-10-12	Total/NA	Solid	7.3.3	
410-58999-2	Hartranft-10TH-CONF-SOIL-2-2021-10-12	Total/NA	Solid	7.3.3	
410-58999-3	Hartranft-10TH-CONF-SOIL-3-2021-10-12	Total/NA	Solid	7.3.3	
410-58999-4	Hartranft-10TH-CONF-SOIL-4-2021-10-12	Total/NA	Solid	7.3.3	
410-58999-5	Hartranft-10TH-CONF-SOIL-5-2021-10-12	Total/NA	Solid	7.3.3	
410-58999-6	Hartranft-10TH-CONF-SOIL-6-2021-10-12	Total/NA	Solid	7.3.3	
410-58999-7	Hartranft-10TH-RB44062-RT-1-2021-10-12	Total/NA	Solid	7.3.3	
410-58999-8	Hartranft-10TH-RB44062-RT-2-2021-10-12	Total/NA	Solid	7.3.3	
410-58999-9	Hartranft-10TH-RB44062-RT-3-2021-10-12	Total/NA	Solid	7.3.3	
MB 410-183171/1-A	Method Blank	Total/NA	Solid	7.3.3	
LCS 410-183171/24-A	Lab Control Sample	Total/NA	Solid	7.3.3	
LCS 410-183171/2-A	Lab Control Sample	Total/NA	Solid	7.3.3	
410-58999-2 MS	Hartranft-10TH-CONF-SOIL-2-2021-10-12	Total/NA	Solid	7.3.3	
410-58999-2 MS	Hartranft-10TH-CONF-SOIL-2-2021-10-12	Total/NA	Solid	7.3.3	
410-58999-2 MSD	Hartranft-10TH-CONF-SOIL-2-2021-10-12	Total/NA	Solid	7.3.3	
410-58999-2 MSD	Hartranft-10TH-CONF-SOIL-2-2021-10-12	Total/NA	Solid	7.3.3	

Leach Batch: 183273

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-58999-1	Hartranft-10TH-CONF-SOIL-1-2021-10-12	ASTM Leach	Solid	D3987-85	
410-58999-2	Hartranft-10TH-CONF-SOIL-2-2021-10-12	ASTM Leach	Solid	D3987-85	
410-58999-3	Hartranft-10TH-CONF-SOIL-3-2021-10-12	ASTM Leach	Solid	D3987-85	
410-58999-4	Hartranft-10TH-CONF-SOIL-4-2021-10-12	ASTM Leach	Solid	D3987-85	
410-58999-5	Hartranft-10TH-CONF-SOIL-5-2021-10-12	ASTM Leach	Solid	D3987-85	
410-58999-6	Hartranft-10TH-CONF-SOIL-6-2021-10-12	ASTM Leach	Solid	D3987-85	
410-58999-7	Hartranft-10TH-RB44062-RT-1-2021-10-12	ASTM Leach	Solid	D3987-85	
410-58999-8	Hartranft-10TH-RB44062-RT-2-2021-10-12	ASTM Leach	Solid	D3987-85	
410-58999-9	Hartranft-10TH-RB44062-RT-3-2021-10-12	ASTM Leach	Solid	D3987-85	
LB 410-183273/1-B	Method Blank	ASTM Leach	Solid	D3987-85	
410-58999-9 MS	Hartranft-10TH-RB44062-RT-3-2021-10-12	ASTM Leach	Solid	D3987-85	
410-58999-9 DU	Hartranft-10TH-RB44062-RT-3-2021-10-12	ASTM Leach	Solid	D3987-85	

Analysis Batch: 183334

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-58999-1	Hartranft-10TH-CONF-SOIL-1-2021-10-12	Total/NA	Solid	9034	183171
410-58999-2	Hartranft-10TH-CONF-SOIL-2-2021-10-12	Total/NA	Solid	9034	183171
410-58999-3	Hartranft-10TH-CONF-SOIL-3-2021-10-12	Total/NA	Solid	9034	183171
410-58999-4	Hartranft-10TH-CONF-SOIL-4-2021-10-12	Total/NA	Solid	9034	183171
410-58999-5	Hartranft-10TH-CONF-SOIL-5-2021-10-12	Total/NA	Solid	9034	183171
410-58999-6	Hartranft-10TH-CONF-SOIL-6-2021-10-12	Total/NA	Solid	9034	183171
410-58999-7	Hartranft-10TH-RB44062-RT-1-2021-10-12	Total/NA	Solid	9034	183171
410-58999-8	Hartranft-10TH-RB44062-RT-2-2021-10-12	Total/NA	Solid	9034	183171

General Chemistry (Continued)

Analysis Batch: 183334 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-58999-9	Hartranft-10TH-RB44062-RT-3-2021-10-12	Total/NA	Solid	9034	183171
MB 410-183171/1-A	Method Blank	Total/NA	Solid	9034	183171
LCS 410-183171/24-A	Lab Control Sample	Total/NA	Solid	9034	183171
410-58999-2 MS	Hartranft-10TH-CONF-SOIL-2-2021-10-12	Total/NA	Solid	9034	183171
410-58999-2 MSD	Hartranft-10TH-CONF-SOIL-2-2021-10-12	Total/NA	Solid	9034	183171

Analysis Batch: 183419

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-58999-1	Hartranft-10TH-CONF-SOIL-1-2021-10-12	Total/NA	Solid	9012	183171
410-58999-2	Hartranft-10TH-CONF-SOIL-2-2021-10-12	Total/NA	Solid	9012	183171
410-58999-3	Hartranft-10TH-CONF-SOIL-3-2021-10-12	Total/NA	Solid	9012	183171
410-58999-4	Hartranft-10TH-CONF-SOIL-4-2021-10-12	Total/NA	Solid	9012	183171
410-58999-5	Hartranft-10TH-CONF-SOIL-5-2021-10-12	Total/NA	Solid	9012	183171
410-58999-6	Hartranft-10TH-CONF-SOIL-6-2021-10-12	Total/NA	Solid	9012	183171
410-58999-7	Hartranft-10TH-RB44062-RT-1-2021-10-12	Total/NA	Solid	9012	183171
410-58999-8	Hartranft-10TH-RB44062-RT-2-2021-10-12	Total/NA	Solid	9012	183171
410-58999-9	Hartranft-10TH-RB44062-RT-3-2021-10-12	Total/NA	Solid	9012	183171
MB 410-183171/1-A	Method Blank	Total/NA	Solid	9012	183171
LCS 410-183171/2-A	Lab Control Sample	Total/NA	Solid	9012	183171
410-58999-2 MS	Hartranft-10TH-CONF-SOIL-2-2021-10-12	Total/NA	Solid	9012	183171
410-58999-2 MSD	Hartranft-10TH-CONF-SOIL-2-2021-10-12	Total/NA	Solid	9012	183171

Leach Batch: 183472

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-58999-1	Hartranft-10TH-CONF-SOIL-1-2021-10-12	Soluble	Solid	DI Leach	
410-58999-2	Hartranft-10TH-CONF-SOIL-2-2021-10-12	Soluble	Solid	DI Leach	
410-58999-3	Hartranft-10TH-CONF-SOIL-3-2021-10-12	Soluble	Solid	DI Leach	
410-58999-4	Hartranft-10TH-CONF-SOIL-4-2021-10-12	Soluble	Solid	DI Leach	
410-58999-5	Hartranft-10TH-CONF-SOIL-5-2021-10-12	Soluble	Solid	DI Leach	
410-58999-6	Hartranft-10TH-CONF-SOIL-6-2021-10-12	Soluble	Solid	DI Leach	
410-58999-7	Hartranft-10TH-RB44062-RT-1-2021-10-12	Soluble	Solid	DI Leach	
410-58999-8	Hartranft-10TH-RB44062-RT-2-2021-10-12	Soluble	Solid	DI Leach	
410-58999-9	Hartranft-10TH-RB44062-RT-3-2021-10-12	Soluble	Solid	DI Leach	
LCS 410-183472/1-A	Lab Control Sample	Soluble	Solid	DI Leach	
410-58999-1 DU	Hartranft-10TH-CONF-SOIL-1-2021-10-12	Soluble	Solid	DI Leach	

Analysis Batch: 183490

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-58999-1	Hartranft-10TH-CONF-SOIL-1-2021-10-12	Soluble	Solid	9045D	183472
410-58999-2	Hartranft-10TH-CONF-SOIL-2-2021-10-12	Soluble	Solid	9045D	183472
410-58999-3	Hartranft-10TH-CONF-SOIL-3-2021-10-12	Soluble	Solid	9045D	183472
410-58999-4	Hartranft-10TH-CONF-SOIL-4-2021-10-12	Soluble	Solid	9045D	183472
410-58999-5	Hartranft-10TH-CONF-SOIL-5-2021-10-12	Soluble	Solid	9045D	183472
410-58999-6	Hartranft-10TH-CONF-SOIL-6-2021-10-12	Soluble	Solid	9045D	183472
410-58999-7	Hartranft-10TH-RB44062-RT-1-2021-10-12	Soluble	Solid	9045D	183472
410-58999-8	Hartranft-10TH-RB44062-RT-2-2021-10-12	Soluble	Solid	9045D	183472
410-58999-9	Hartranft-10TH-RB44062-RT-3-2021-10-12	Soluble	Solid	9045D	183472
LCS 410-183472/1-A	Lab Control Sample	Soluble	Solid	9045D	183472
410-58999-1 DU	Hartranft-10TH-CONF-SOIL-1-2021-10-12	Soluble	Solid	9045D	183472

General Chemistry

Analysis Batch: 183795

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-58999-1	Hartranft-10TH-CONF-SOIL-1-2021-10-12	ASTM Leach	Solid	2540B-2011	183273
410-58999-2	Hartranft-10TH-CONF-SOIL-2-2021-10-12	ASTM Leach	Solid	2540B-2011	183273
410-58999-3	Hartranft-10TH-CONF-SOIL-3-2021-10-12	ASTM Leach	Solid	2540B-2011	183273
410-58999-4	Hartranft-10TH-CONF-SOIL-4-2021-10-12	ASTM Leach	Solid	2540B-2011	183273
410-58999-5	Hartranft-10TH-CONF-SOIL-5-2021-10-12	ASTM Leach	Solid	2540B-2011	183273
410-58999-6	Hartranft-10TH-CONF-SOIL-6-2021-10-12	ASTM Leach	Solid	2540B-2011	183273
410-58999-7	Hartranft-10TH-RB44062-RT-1-2021-10-12	ASTM Leach	Solid	2540B-2011	183273
410-58999-8	Hartranft-10TH-RB44062-RT-2-2021-10-12	ASTM Leach	Solid	2540B-2011	183273
410-58999-9	Hartranft-10TH-RB44062-RT-3-2021-10-12	ASTM Leach	Solid	2540B-2011	183273
MB 410-183795/1	Method Blank	Total/NA	Solid	2540B-2011	
LCS 410-183795/2	Lab Control Sample	Total/NA	Solid	2540B-2011	
LCSD 410-183795/3	Lab Control Sample Dup	Total/NA	Solid	2540B-2011	

Analysis Batch: 184206

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-58999-1	Hartranft-10TH-CONF-SOIL-1-2021-10-12	Total/NA	Solid	9095B	
410-58999-2	Hartranft-10TH-CONF-SOIL-2-2021-10-12	Total/NA	Solid	9095B	
410-58999-3	Hartranft-10TH-CONF-SOIL-3-2021-10-12	Total/NA	Solid	9095B	
410-58999-4	Hartranft-10TH-CONF-SOIL-4-2021-10-12	Total/NA	Solid	9095B	
410-58999-5	Hartranft-10TH-CONF-SOIL-5-2021-10-12	Total/NA	Solid	9095B	
410-58999-6	Hartranft-10TH-CONF-SOIL-6-2021-10-12	Total/NA	Solid	9095B	
410-58999-7	Hartranft-10TH-RB44062-RT-1-2021-10-12	Total/NA	Solid	9095B	
410-58999-8	Hartranft-10TH-RB44062-RT-2-2021-10-12	Total/NA	Solid	9095B	
410-58999-9	Hartranft-10TH-RB44062-RT-3-2021-10-12	Total/NA	Solid	9095B	
MB 410-184206/1	Method Blank	Total/NA	Solid	9095B	

Analysis Batch: 184207

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-58999-1	Hartranft-10TH-CONF-SOIL-1-2021-10-12	Total/NA	Solid	261.21	
410-58999-2	Hartranft-10TH-CONF-SOIL-2-2021-10-12	Total/NA	Solid	261.21	
410-58999-3	Hartranft-10TH-CONF-SOIL-3-2021-10-12	Total/NA	Solid	261.21	
410-58999-4	Hartranft-10TH-CONF-SOIL-4-2021-10-12	Total/NA	Solid	261.21	
410-58999-5	Hartranft-10TH-CONF-SOIL-5-2021-10-12	Total/NA	Solid	261.21	
410-58999-6	Hartranft-10TH-CONF-SOIL-6-2021-10-12	Total/NA	Solid	261.21	
410-58999-7	Hartranft-10TH-RB44062-RT-1-2021-10-12	Total/NA	Solid	261.21	
410-58999-8	Hartranft-10TH-RB44062-RT-2-2021-10-12	Total/NA	Solid	261.21	
410-58999-9	Hartranft-10TH-RB44062-RT-3-2021-10-12	Total/NA	Solid	261.21	

Prep Batch: 184235

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-58999-1	Hartranft-10TH-CONF-SOIL-1-2021-10-12	Total/NA	Solid	9071B	
410-58999-2	Hartranft-10TH-CONF-SOIL-2-2021-10-12	Total/NA	Solid	9071B	
410-58999-3	Hartranft-10TH-CONF-SOIL-3-2021-10-12	Total/NA	Solid	9071B	
410-58999-4	Hartranft-10TH-CONF-SOIL-4-2021-10-12	Total/NA	Solid	9071B	
410-58999-5	Hartranft-10TH-CONF-SOIL-5-2021-10-12	Total/NA	Solid	9071B	
410-58999-6	Hartranft-10TH-CONF-SOIL-6-2021-10-12	Total/NA	Solid	9071B	
410-58999-7	Hartranft-10TH-RB44062-RT-1-2021-10-12	Total/NA	Solid	9071B	
410-58999-8	Hartranft-10TH-RB44062-RT-2-2021-10-12	Total/NA	Solid	9071B	
410-58999-9	Hartranft-10TH-RB44062-RT-3-2021-10-12	Total/NA	Solid	9071B	
MB 410-184235/1-A	Method Blank	Total/NA	Solid	9071B	
LCS 410-184235/2-A	Lab Control Sample	Total/NA	Solid	9071B	

General Chemistry (Continued)

Prep Batch: 184235 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-58999-1 MS	Hartranft-10TH-CONF-SOIL-1-2021-10-12	Total/NA	Solid	9071B	
410-58999-1 MSD	Hartranft-10TH-CONF-SOIL-1-2021-10-12	Total/NA	Solid	9071B	
410-58999-1 DU	Hartranft-10TH-CONF-SOIL-1-2021-10-12	Total/NA	Solid	9071B	

Analysis Batch: 184548

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-58999-1	Hartranft-10TH-CONF-SOIL-1-2021-10-12	ASTM Leach	Solid	410.4	183273
410-58999-2	Hartranft-10TH-CONF-SOIL-2-2021-10-12	ASTM Leach	Solid	410.4	183273
410-58999-3	Hartranft-10TH-CONF-SOIL-3-2021-10-12	ASTM Leach	Solid	410.4	183273
410-58999-4	Hartranft-10TH-CONF-SOIL-4-2021-10-12	ASTM Leach	Solid	410.4	183273
410-58999-5	Hartranft-10TH-CONF-SOIL-5-2021-10-12	ASTM Leach	Solid	410.4	183273
410-58999-6	Hartranft-10TH-CONF-SOIL-6-2021-10-12	ASTM Leach	Solid	410.4	183273
410-58999-7	Hartranft-10TH-RB44062-RT-1-2021-10-12	ASTM Leach	Solid	410.4	183273
410-58999-8	Hartranft-10TH-RB44062-RT-2-2021-10-12	ASTM Leach	Solid	410.4	183273
410-58999-9	Hartranft-10TH-RB44062-RT-3-2021-10-12	ASTM Leach	Solid	410.4	183273
MB 410-184548/4	Method Blank	Total/NA	Solid	410.4	
LCS 410-184548/5	Lab Control Sample	Total/NA	Solid	410.4	
410-58999-9 MS	Hartranft-10TH-RB44062-RT-3-2021-10-12	ASTM Leach	Solid	410.4	183273
410-58999-9 DU	Hartranft-10TH-RB44062-RT-3-2021-10-12	ASTM Leach	Solid	410.4	183273

Analysis Batch: 184745

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-58999-1	Hartranft-10TH-CONF-SOIL-1-2021-10-12	ASTM Leach	Solid	1664B	183273
410-58999-2	Hartranft-10TH-CONF-SOIL-2-2021-10-12	ASTM Leach	Solid	1664B	183273
410-58999-3	Hartranft-10TH-CONF-SOIL-3-2021-10-12	ASTM Leach	Solid	1664B	183273
410-58999-4	Hartranft-10TH-CONF-SOIL-4-2021-10-12	ASTM Leach	Solid	1664B	183273
410-58999-5	Hartranft-10TH-CONF-SOIL-5-2021-10-12	ASTM Leach	Solid	1664B	183273
410-58999-6	Hartranft-10TH-CONF-SOIL-6-2021-10-12	ASTM Leach	Solid	1664B	183273
410-58999-7	Hartranft-10TH-RB44062-RT-1-2021-10-12	ASTM Leach	Solid	1664B	183273
410-58999-8	Hartranft-10TH-RB44062-RT-2-2021-10-12	ASTM Leach	Solid	1664B	183273
410-58999-9	Hartranft-10TH-RB44062-RT-3-2021-10-12	ASTM Leach	Solid	1664B	183273
LB 410-183273/1-B	Method Blank	ASTM Leach	Solid	1664B	183273
MB 410-184745/1	Method Blank	Total/NA	Solid	1664B	
LCS 410-184745/2	Lab Control Sample	Total/NA	Solid	1664B	
LCSD 410-184745/3	Lab Control Sample Dup	Total/NA	Solid	1664B	

Analysis Batch: 185016

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-58999-1	Hartranft-10TH-CONF-SOIL-1-2021-10-12	Total/NA	Solid	9071B	184235
410-58999-2	Hartranft-10TH-CONF-SOIL-2-2021-10-12	Total/NA	Solid	9071B	184235
410-58999-3	Hartranft-10TH-CONF-SOIL-3-2021-10-12	Total/NA	Solid	9071B	184235
410-58999-4	Hartranft-10TH-CONF-SOIL-4-2021-10-12	Total/NA	Solid	9071B	184235
410-58999-5	Hartranft-10TH-CONF-SOIL-5-2021-10-12	Total/NA	Solid	9071B	184235
410-58999-6	Hartranft-10TH-CONF-SOIL-6-2021-10-12	Total/NA	Solid	9071B	184235
410-58999-7	Hartranft-10TH-RB44062-RT-1-2021-10-12	Total/NA	Solid	9071B	184235
410-58999-8	Hartranft-10TH-RB44062-RT-2-2021-10-12	Total/NA	Solid	9071B	184235
410-58999-9	Hartranft-10TH-RB44062-RT-3-2021-10-12	Total/NA	Solid	9071B	184235
MB 410-184235/1-A	Method Blank	Total/NA	Solid	9071B	184235
LCS 410-184235/2-A	Lab Control Sample	Total/NA	Solid	9071B	184235
410-58999-1 MS	Hartranft-10TH-CONF-SOIL-1-2021-10-12	Total/NA	Solid	9071B	184235
410-58999-1 MSD	Hartranft-10TH-CONF-SOIL-1-2021-10-12	Total/NA	Solid	9071B	184235

General Chemistry (Continued)

Analysis Batch: 185016 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-58999-1 DU	Hartranft-10TH-CONF-SOIL-1-2021-10-12	Total/NA	Solid	9071B	184235

Leach Batch: 186751

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-58999-1	Hartranft-10TH-CONF-SOIL-1-2021-10-12	ASTM Leach	Solid	D3987-85	
410-58999-2	Hartranft-10TH-CONF-SOIL-2-2021-10-12	ASTM Leach	Solid	D3987-85	
410-58999-3	Hartranft-10TH-CONF-SOIL-3-2021-10-12	ASTM Leach	Solid	D3987-85	
410-58999-4	Hartranft-10TH-CONF-SOIL-4-2021-10-12	ASTM Leach	Solid	D3987-85	
410-58999-5	Hartranft-10TH-CONF-SOIL-5-2021-10-12	ASTM Leach	Solid	D3987-85	
410-58999-6	Hartranft-10TH-CONF-SOIL-6-2021-10-12	ASTM Leach	Solid	D3987-85	
410-58999-7	Hartranft-10TH-RB44062-RT-1-2021-10-12	ASTM Leach	Solid	D3987-85	
410-58999-8	Hartranft-10TH-RB44062-RT-2-2021-10-12	ASTM Leach	Solid	D3987-85	
410-58999-9	Hartranft-10TH-RB44062-RT-3-2021-10-12	ASTM Leach	Solid	D3987-85	

Analysis Batch: 189848

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-58999-1	Hartranft-10TH-CONF-SOIL-1-2021-10-12	ASTM Leach	Solid	EPA 350.1	186751
410-58999-2	Hartranft-10TH-CONF-SOIL-2-2021-10-12	ASTM Leach	Solid	EPA 350.1	186751
410-58999-3	Hartranft-10TH-CONF-SOIL-3-2021-10-12	ASTM Leach	Solid	EPA 350.1	186751
410-58999-4	Hartranft-10TH-CONF-SOIL-4-2021-10-12	ASTM Leach	Solid	EPA 350.1	186751
410-58999-5	Hartranft-10TH-CONF-SOIL-5-2021-10-12	ASTM Leach	Solid	EPA 350.1	186751
410-58999-6	Hartranft-10TH-CONF-SOIL-6-2021-10-12	ASTM Leach	Solid	EPA 350.1	186751
410-58999-7	Hartranft-10TH-RB44062-RT-1-2021-10-12	ASTM Leach	Solid	EPA 350.1	186751
410-58999-8	Hartranft-10TH-RB44062-RT-2-2021-10-12	ASTM Leach	Solid	EPA 350.1	186751
410-58999-9	Hartranft-10TH-RB44062-RT-3-2021-10-12	ASTM Leach	Solid	EPA 350.1	186751
MB 410-189848/17	Method Blank	Total/NA	Solid	EPA 350.1	
LCS 410-189848/15	Lab Control Sample	Total/NA	Solid	EPA 350.1	
LCSD 410-189848/16	Lab Control Sample Dup	Total/NA	Solid	EPA 350.1	

Client Sample ID: Hartranft-10TH-CONF-SOIL-1-2021-10-12 **Lab Sample ID: 410-58999-1**
Date Collected: 10/12/21 10:00 **Matrix: Solid**
Date Received: 10/13/21 18:10

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
TCLP	Leach	1311			183239	10/15/21 15:20	CZ7N	ELLE
TCLP	Analysis	8260C		20	184674	10/20/21 03:08	Y6ZN	ELLE
TCLP	Leach	1311			183271	10/15/21 15:14	CZ7N	ELLE
TCLP	Prep	3510C			184616	10/19/21 17:40	QQ3P	ELLE
TCLP	Analysis	8270D		1	184885	10/20/21 14:53	UWHS	ELLE
TCLP	Leach	1311			183271	10/15/21 15:14	CZ7N	ELLE
TCLP	Prep	3510C			184649	10/19/21 17:27	QQ3P	ELLE
TCLP	Analysis	8081B		10	184818	10/20/21 09:30	WN7O	ELLE
TCLP	Leach	1311			183271	10/15/21 15:14	CZ7N	ELLE
TCLP	Prep	8151A			184800	10/20/21 00:20	USL7	ELLE
TCLP	Analysis	8151A		1	185345	10/21/21 23:25	UAMZ	ELLE
TCLP	Leach	1311			183271	10/15/21 15:14	CZ7N	ELLE
TCLP	Prep	3005A			183779	10/18/21 04:53	UAMX	ELLE
TCLP	Analysis	6010C		1	184654	10/19/21 14:59	WJM9	ELLE
TCLP	Leach	1311			183271	10/15/21 15:14	CZ7N	ELLE
TCLP	Prep	7470A			183781	10/18/21 05:04	UAMX	ELLE
TCLP	Analysis	7470A		1	184228	10/18/21 18:35	UEFS	ELLE
ASTM Leach	Leach	D3987-85			183273	10/15/21 15:14	CZ7N	ELLE
ASTM Leach	Analysis	1664B		1	184745	10/19/21 20:36	QT6L	ELLE
ASTM Leach	Leach	D3987-85			183273	10/15/21 15:14	CZ7N	ELLE
ASTM Leach	Analysis	2540B-2011		1	183795	10/18/21 06:25	M98K	ELLE
Total/NA	Analysis	2540G-2011		1	182808	10/14/21 12:23	M98K	ELLE
Total/NA	Analysis	261.21		1	184207	10/18/21 19:56	DI9Q	ELLE
ASTM Leach	Leach	D3987-85			183273	10/15/21 15:14	CZ7N	ELLE
ASTM Leach	Analysis	410.4		1	184548	10/19/21 12:47	USAE	ELLE
Total/NA	Prep	7.3.3			183171	10/15/21 07:55	USE1	ELLE
Total/NA	Analysis	9012		1	183419	10/15/21 15:00	JCG7	ELLE
Total/NA	Prep	7.3.3			183171	10/15/21 07:55	USE1	ELLE
Total/NA	Analysis	9034		1	183334	10/15/21 12:20	USE1	ELLE
Soluble	Leach	DI Leach			183472	10/15/21 16:25	F8TI	ELLE
Soluble	Analysis	9045D		1	183490	10/15/21 18:30	F8TI	ELLE
Total/NA	Analysis	9095B		1	184206	10/18/21 19:55	DI9Q	ELLE
ASTM Leach	Leach	D3987-85			186751	10/25/21 15:55	CZ7N	ELLE
ASTM Leach	Analysis	EPA 350.1		1	189848	11/02/21 10:55	JCG7	ELLE
Total/NA	Analysis	Moisture		1	182800	10/14/21 12:07	UWC1	ELLE

Client Sample ID: Hartranft-10TH-CONF-SOIL-1-2021-10-12 **Lab Sample ID: 410-58999-1**
Date Collected: 10/12/21 10:00 **Matrix: Solid**
Date Received: 10/13/21 18:10 **Percent Solids: 77.2**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5030C			182777	10/14/21 11:18	JJT8	ELLE
Total/NA	Analysis	8260C		50	183894	10/18/21 14:27	USEJ	ELLE
Total/NA	Prep	3546			184122	10/18/21 18:09	QQ3P	ELLE
Total/NA	Analysis	8082A		1	184470	10/19/21 08:52	JC94	ELLE

Client Sample ID: Hartranft-10TH-CONF-SOIL-1-2021-10-12

Lab Sample ID: 410-58999-1

Date Collected: 10/12/21 10:00

Matrix: Solid

Date Received: 10/13/21 18:10

Percent Solids: 77.2

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			192756	11/09/21 19:12	UJLA	ELLE
Total/NA	Analysis	6010C		1	195357	11/16/21 12:26	WJM9	ELLE
Total/NA	Prep	9071B			184235	10/18/21 23:57	QT6L	ELLE
Total/NA	Analysis	9071B		1	185016	10/20/21 10:30	UYB0	ELLE

Client Sample ID: Hartranft-10TH-CONF-SOIL-2-2021-10-12

Lab Sample ID: 410-58999-2

Date Collected: 10/12/21 10:05

Matrix: Solid

Date Received: 10/13/21 18:10

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
TCLP	Leach	1311			183239	10/15/21 15:20	CZ7N	ELLE
TCLP	Analysis	8260C		20	184674	10/20/21 03:54	Y6ZN	ELLE
TCLP	Leach	1311			183271	10/15/21 15:14	CZ7N	ELLE
TCLP	Prep	3510C			184616	10/19/21 17:40	QQ3P	ELLE
TCLP	Analysis	8270D		1	184885	10/20/21 15:21	UWHS	ELLE
TCLP	Leach	1311			183271	10/15/21 15:14	CZ7N	ELLE
TCLP	Prep	3510C			184649	10/19/21 17:27	QQ3P	ELLE
TCLP	Analysis	8081B		10	184818	10/20/21 09:41	WN7O	ELLE
TCLP	Leach	1311			183271	10/15/21 15:14	CZ7N	ELLE
TCLP	Prep	8151A			184800	10/20/21 00:20	USL7	ELLE
TCLP	Analysis	8151A		1	185345	10/22/21 00:00	UAMZ	ELLE
TCLP	Leach	1311			183271	10/15/21 15:14	CZ7N	ELLE
TCLP	Prep	3005A			183779	10/18/21 04:53	UAMX	ELLE
TCLP	Analysis	6010C		1	184654	10/19/21 15:08	WJM9	ELLE
TCLP	Leach	1311			183271	10/15/21 15:14	CZ7N	ELLE
TCLP	Prep	7470A			183781	10/18/21 05:04	UAMX	ELLE
TCLP	Analysis	7470A		1	184228	10/18/21 18:37	UEFS	ELLE
ASTM Leach	Leach	D3987-85			183273	10/15/21 15:14	CZ7N	ELLE
ASTM Leach	Analysis	1664B		1	184745	10/19/21 20:36	QT6L	ELLE
ASTM Leach	Leach	D3987-85			183273	10/15/21 15:14	CZ7N	ELLE
ASTM Leach	Analysis	2540B-2011		1	183795	10/18/21 06:25	M98K	ELLE
Total/NA	Analysis	2540G-2011		1	182808	10/14/21 12:23	M98K	ELLE
Total/NA	Analysis	261.21		1	184207	10/18/21 19:56	DI9Q	ELLE
ASTM Leach	Leach	D3987-85			183273	10/15/21 15:14	CZ7N	ELLE
ASTM Leach	Analysis	410.4		1	184548	10/19/21 12:49	USAE	ELLE
Total/NA	Prep	7.3.3			183171	10/15/21 07:55	USE1	ELLE
Total/NA	Analysis	9012		1	183419	10/15/21 14:32	JCG7	ELLE
Total/NA	Prep	7.3.3			183171	10/15/21 07:55	USE1	ELLE
Total/NA	Analysis	9034		1	183334	10/15/21 12:20	USE1	ELLE
Soluble	Leach	DI Leach			183472	10/15/21 16:25	F8TI	ELLE
Soluble	Analysis	9045D		1	183490	10/15/21 18:30	F8TI	ELLE
Total/NA	Analysis	9095B		1	184206	10/18/21 19:55	DI9Q	ELLE
ASTM Leach	Leach	D3987-85			186751	10/25/21 15:55	CZ7N	ELLE
ASTM Leach	Analysis	EPA 350.1		1	189848	11/02/21 11:01	JCG7	ELLE
Total/NA	Analysis	Moisture		1	182800	10/14/21 12:07	UWC1	ELLE

Client Sample ID: Hartranft-10TH-CONF-SOIL-2-2021-10-12

Lab Sample ID: 410-58999-2

Date Collected: 10/12/21 10:05

Matrix: Solid

Date Received: 10/13/21 18:10

Percent Solids: 89.2

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5030C			182777	10/14/21 11:18	JJT8	ELLE
Total/NA	Analysis	8260C		50	183894	10/18/21 14:48	USEJ	ELLE
Total/NA	Prep	3546			183168	10/15/21 09:45	U9KU	ELLE
Total/NA	Analysis	8082A		1	183531	10/15/21 19:17	E9VJ	ELLE
Total/NA	Prep	3050B			192756	11/09/21 19:12	UJLA	ELLE
Total/NA	Analysis	6010C		1	195357	11/16/21 12:34	WJM9	ELLE
Total/NA	Prep	9071B			184235	10/18/21 23:57	QT6L	ELLE
Total/NA	Analysis	9071B		1	185016	10/20/21 10:30	UYB0	ELLE

Client Sample ID: Hartranft-10TH-CONF-SOIL-3-2021-10-12

Lab Sample ID: 410-58999-3

Date Collected: 10/12/21 10:07

Matrix: Solid

Date Received: 10/13/21 18:10

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
TCLP	Leach	1311			183239	10/15/21 15:20	CZ7N	ELLE
TCLP	Analysis	8260C		20	184674	10/20/21 04:17	Y6ZN	ELLE
TCLP	Leach	1311			183271	10/15/21 15:14	CZ7N	ELLE
TCLP	Prep	3510C			184616	10/19/21 17:40	QQ3P	ELLE
TCLP	Analysis	8270D		1	184885	10/20/21 15:50	UWHS	ELLE
TCLP	Leach	1311			183271	10/15/21 15:14	CZ7N	ELLE
TCLP	Prep	3510C			184649	10/19/21 17:27	QQ3P	ELLE
TCLP	Analysis	8081B		10	184818	10/20/21 09:53	WN7O	ELLE
TCLP	Leach	1311			183271	10/15/21 15:14	CZ7N	ELLE
TCLP	Prep	8151A			184800	10/20/21 00:20	USL7	ELLE
TCLP	Analysis	8151A		1	185345	10/22/21 00:36	UAMZ	ELLE
TCLP	Leach	1311			183271	10/15/21 15:14	CZ7N	ELLE
TCLP	Prep	3005A			183779	10/18/21 04:53	UAMX	ELLE
TCLP	Analysis	6010C		1	184654	10/19/21 15:11	WJM9	ELLE
TCLP	Leach	1311			183271	10/15/21 15:14	CZ7N	ELLE
TCLP	Prep	7470A			183781	10/18/21 05:04	UAMX	ELLE
TCLP	Analysis	7470A		1	184228	10/18/21 18:39	UEFS	ELLE
ASTM Leach	Leach	D3987-85			183273	10/15/21 15:14	CZ7N	ELLE
ASTM Leach	Analysis	1664B		1	184745	10/19/21 20:36	QT6L	ELLE
ASTM Leach	Leach	D3987-85			183273	10/15/21 15:14	CZ7N	ELLE
ASTM Leach	Analysis	2540B-2011		1	183795	10/18/21 06:25	M98K	ELLE
Total/NA	Analysis	2540G-2011		1	182808	10/14/21 12:23	M98K	ELLE
Total/NA	Analysis	261.21		1	184207	10/18/21 19:56	DI9Q	ELLE
ASTM Leach	Leach	D3987-85			183273	10/15/21 15:14	CZ7N	ELLE
ASTM Leach	Analysis	410.4		1	184548	10/19/21 12:51	USAE	ELLE
Total/NA	Prep	7.3.3			183171	10/15/21 07:55	USE1	ELLE
Total/NA	Analysis	9012		1	183419	10/15/21 14:39	JCG7	ELLE
Total/NA	Prep	7.3.3			183171	10/15/21 07:55	USE1	ELLE
Total/NA	Analysis	9034		1	183334	10/15/21 12:20	USE1	ELLE
Soluble	Leach	DI Leach			183472	10/15/21 16:25	F8TI	ELLE
Soluble	Analysis	9045D		1	183490	10/15/21 18:30	F8TI	ELLE

Lab Chronicle

Client: NorthStar Contracting Group, Inc.
Project/Site: NorthStar Sampling

Job ID: 410-58999-1

Client Sample ID: Hartranft-10TH-CONF-SOIL-3-2021-10-12 — Lab Sample ID: 410-58999-3

Date Collected: 10/12/21 10:07
Date Received: 10/13/21 18:10
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9095B		1	184206	10/18/21 19:55	DI9Q	ELLE
ASTM Leach	Leach	D3987-85			186751	10/25/21 15:55	CZ7N	ELLE
ASTM Leach	Analysis	EPA 350.1		1	189848	11/02/21 11:03	JCG7	ELLE
Total/NA	Analysis	Moisture		1	182800	10/14/21 12:07	UWC1	ELLE

Client Sample ID: Hartranft-10TH-CONF-SOIL-3-2021-10-12 — Lab Sample ID: 410-58999-3

Date Collected: 10/12/21 10:07
Date Received: 10/13/21 18:10
Matrix: Solid
Percent Solids: 88.7

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5030C			182777	10/14/21 11:18	JJT8	ELLE
Total/NA	Analysis	8260C		50	183894	10/18/21 15:08	USEJ	ELLE
Total/NA	Prep	3546			183168	10/15/21 09:45	U9KU	ELLE
Total/NA	Analysis	8082A		1	183531	10/15/21 19:28	E9VJ	ELLE
Total/NA	Prep	3050B			192546	11/09/21 13:56	UJLA	ELLE
Total/NA	Analysis	6010C		1	193090	11/10/21 10:53	WJM9	ELLE
Total/NA	Prep	9071B			184235	10/18/21 23:57	QT6L	ELLE
Total/NA	Analysis	9071B		1	185016	10/20/21 10:30	UYB0	ELLE

Client Sample ID: Hartranft-10TH-CONF-SOIL-4-2021-10-12 — Lab Sample ID: 410-58999-4

Date Collected: 10/12/21 10:11
Date Received: 10/13/21 18:10
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
TCLP	Leach	1311			183239	10/15/21 15:20	CZ7N	ELLE
TCLP	Analysis	8260C		20	184674	10/20/21 04:40	Y6ZN	ELLE
TCLP	Leach	1311			183271	10/15/21 15:14	CZ7N	ELLE
TCLP	Prep	3510C			184616	10/19/21 17:40	QQ3P	ELLE
TCLP	Analysis	8270D		1	184885	10/20/21 16:19	UWHS	ELLE
TCLP	Leach	1311			183271	10/15/21 15:14	CZ7N	ELLE
TCLP	Prep	3510C			184649	10/19/21 17:27	QQ3P	ELLE
TCLP	Analysis	8081B		10	184818	10/20/21 10:04	WN7O	ELLE
TCLP	Leach	1311			183271	10/15/21 15:14	CZ7N	ELLE
TCLP	Prep	8151A			184800	10/20/21 00:20	USL7	ELLE
TCLP	Analysis	8151A		1	185345	10/22/21 01:11	UAMZ	ELLE
TCLP	Leach	1311			183271	10/15/21 15:14	CZ7N	ELLE
TCLP	Prep	3005A			183779	10/18/21 04:53	UAMX	ELLE
TCLP	Analysis	6010C		1	184654	10/19/21 15:30	WJM9	ELLE
TCLP	Leach	1311			183271	10/15/21 15:14	CZ7N	ELLE
TCLP	Prep	7470A			183781	10/18/21 05:04	UAMX	ELLE
TCLP	Analysis	7470A		1	184228	10/18/21 18:47	UEFS	ELLE
ASTM Leach	Leach	D3987-85			183273	10/15/21 15:14	CZ7N	ELLE
ASTM Leach	Analysis	1664B		1	184745	10/19/21 20:36	QT6L	ELLE
ASTM Leach	Leach	D3987-85			183273	10/15/21 15:14	CZ7N	ELLE
ASTM Leach	Analysis	2540B-2011		1	183795	10/18/21 06:25	M98K	ELLE

Client Sample ID: Hartranft-10TH-CONF-SOIL-4-2021-10-12

Lab Sample ID: 410-58999-4

Date Collected: 10/12/21 10:11

Matrix: Solid

Date Received: 10/13/21 18:10

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	2540G-2011		1	182808	10/14/21 12:23	M98K	ELLE
Total/NA	Analysis	261.21		1	184207	10/18/21 19:56	DI9Q	ELLE
ASTM Leach	Leach	D3987-85			183273	10/15/21 15:14	CZ7N	ELLE
ASTM Leach	Analysis	410.4		1	184548	10/19/21 12:52	USAE	ELLE
Total/NA	Prep	7.3.3			183171	10/15/21 07:55	USE1	ELLE
Total/NA	Analysis	9012		1	183419	10/15/21 14:41	JCG7	ELLE
Total/NA	Prep	7.3.3			183171	10/15/21 07:55	USE1	ELLE
Total/NA	Analysis	9034		1	183334	10/15/21 12:20	USE1	ELLE
Soluble	Leach	DI Leach			183472	10/15/21 16:25	F8TI	ELLE
Soluble	Analysis	9045D		1	183490	10/15/21 18:30	F8TI	ELLE
Total/NA	Analysis	9095B		1	184206	10/18/21 19:55	DI9Q	ELLE
ASTM Leach	Leach	D3987-85			186751	10/25/21 15:55	CZ7N	ELLE
ASTM Leach	Analysis	EPA 350.1		1	189848	11/02/21 11:05	JCG7	ELLE
Total/NA	Analysis	Moisture		1	182800	10/14/21 12:07	UWC1	ELLE

Client Sample ID: Hartranft-10TH-CONF-SOIL-4-2021-10-12

Lab Sample ID: 410-58999-4

Date Collected: 10/12/21 10:11

Matrix: Solid

Date Received: 10/13/21 18:10

Percent Solids: 91.7

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5030C			182777	10/14/21 11:18	JJT8	ELLE
Total/NA	Analysis	8260C		50	183894	10/18/21 15:29	USEJ	ELLE
Total/NA	Prep	3546			183168	10/15/21 09:45	U9KU	ELLE
Total/NA	Analysis	8082A		1	183531	10/15/21 19:38	E9VJ	ELLE
Total/NA	Prep	3050B			192756	11/09/21 19:12	UJLA	ELLE
Total/NA	Analysis	6010C		1	195357	11/16/21 12:18	WJM9	ELLE
Total/NA	Prep	9071B			184235	10/18/21 23:57	QT6L	ELLE
Total/NA	Analysis	9071B		1	185016	10/20/21 10:30	UYB0	ELLE

Client Sample ID: Hartranft-10TH-CONF-SOIL-5-2021-10-12

Lab Sample ID: 410-58999-5

Date Collected: 10/12/21 10:12

Matrix: Solid

Date Received: 10/13/21 18:10

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
TCLP	Leach	1311			183239	10/15/21 15:20	CZ7N	ELLE
TCLP	Analysis	8260C		20	184674	10/20/21 05:03	Y6ZN	ELLE
TCLP	Leach	1311			183271	10/15/21 15:14	CZ7N	ELLE
TCLP	Prep	3510C			184616	10/19/21 17:40	QQ3P	ELLE
TCLP	Analysis	8270D		1	184885	10/20/21 16:48	UWHS	ELLE
TCLP	Leach	1311			183271	10/15/21 15:14	CZ7N	ELLE
TCLP	Prep	3510C			184649	10/19/21 17:27	QQ3P	ELLE
TCLP	Analysis	8081B		10	184818	10/20/21 10:15	WN7O	ELLE
TCLP	Leach	1311			183271	10/15/21 15:14	CZ7N	ELLE
TCLP	Prep	8151A			184800	10/20/21 00:20	USL7	ELLE
TCLP	Analysis	8151A		1	185345	10/22/21 01:47	UAMZ	ELLE

Client Sample ID: Hartranft-10TH-CONF-SOIL-5-2021-10-12

Lab Sample ID: 410-58999-5

Date Collected: 10/12/21 10:12

Matrix: Solid

Date Received: 10/13/21 18:10

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
TCLP	Leach	1311			183271	10/15/21 15:14	CZ7N	ELLE
TCLP	Prep	3005A			183779	10/18/21 04:53	UAMX	ELLE
TCLP	Analysis	6010C		1	184654	10/19/21 15:15	WJM9	ELLE
TCLP	Leach	1311			183271	10/15/21 15:14	CZ7N	ELLE
TCLP	Prep	7470A			183781	10/18/21 05:04	UAMX	ELLE
TCLP	Analysis	7470A		1	184228	10/18/21 18:41	UEFS	ELLE
ASTM Leach	Leach	D3987-85			183273	10/15/21 15:14	CZ7N	ELLE
ASTM Leach	Analysis	1664B		1	184745	10/19/21 20:36	QT6L	ELLE
ASTM Leach	Leach	D3987-85			183273	10/15/21 15:14	CZ7N	ELLE
ASTM Leach	Analysis	2540B-2011		1	183795	10/18/21 06:25	M98K	ELLE
Total/NA	Analysis	2540G-2011		1	182808	10/14/21 12:23	M98K	ELLE
Total/NA	Analysis	261.21		1	184207	10/18/21 19:56	DI9Q	ELLE
ASTM Leach	Leach	D3987-85			183273	10/15/21 15:14	CZ7N	ELLE
ASTM Leach	Analysis	410.4		1	184548	10/19/21 12:53	USAE	ELLE
Total/NA	Prep	7.3.3			183171	10/15/21 07:55	USE1	ELLE
Total/NA	Analysis	9012		1	183419	10/15/21 14:42	JCG7	ELLE
Total/NA	Prep	7.3.3			183171	10/15/21 07:55	USE1	ELLE
Total/NA	Analysis	9034		1	183334	10/15/21 12:20	USE1	ELLE
Soluble	Leach	DI Leach			183472	10/15/21 16:25	F8TI	ELLE
Soluble	Analysis	9045D		1	183490	10/15/21 18:30	F8TI	ELLE
Total/NA	Analysis	9095B		1	184206	10/18/21 19:55	DI9Q	ELLE
ASTM Leach	Leach	D3987-85			186751	10/25/21 15:55	CZ7N	ELLE
ASTM Leach	Analysis	EPA 350.1		1	189848	11/02/21 11:07	JCG7	ELLE
Total/NA	Analysis	Moisture		1	182800	10/14/21 12:07	UWC1	ELLE

Client Sample ID: Hartranft-10TH-CONF-SOIL-5-2021-10-12

Lab Sample ID: 410-58999-5

Date Collected: 10/12/21 10:12

Matrix: Solid

Date Received: 10/13/21 18:10

Percent Solids: 93.8

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5030C			182777	10/14/21 11:18	JJT8	ELLE
Total/NA	Analysis	8260C		50	183894	10/18/21 15:50	USEJ	ELLE
Total/NA	Prep	3546			183581	10/16/21 09:07	U9KU	ELLE
Total/NA	Analysis	8082A		1	183928	10/18/21 11:03	JC94	ELLE
Total/NA	Prep	3050B			192756	11/09/21 19:12	UJLA	ELLE
Total/NA	Analysis	6010C		1	195357	11/16/21 12:38	WJM9	ELLE
Total/NA	Prep	9071B			184235	10/18/21 23:57	QT6L	ELLE
Total/NA	Analysis	9071B		1	185016	10/20/21 10:30	UYB0	ELLE

Client Sample ID: Hartranft-10TH-CONF-SOIL-6-2021-10-12

Lab Sample ID: 410-58999-6

Date Collected: 10/12/21 10:16

Matrix: Solid

Date Received: 10/13/21 18:10

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
TCLP	Leach	1311			183239	10/15/21 15:20	CZ7N	ELLE
TCLP	Analysis	8260C		20	184674	10/20/21 05:26	Y6ZN	ELLE
TCLP	Leach	1311			183271	10/15/21 15:14	CZ7N	ELLE
TCLP	Prep	3510C			184616	10/19/21 17:40	QQ3P	ELLE
TCLP	Analysis	8270D		1	184885	10/20/21 17:17	UWHS	ELLE
TCLP	Leach	1311			183271	10/15/21 15:14	CZ7N	ELLE
TCLP	Prep	3510C			184649	10/19/21 17:27	QQ3P	ELLE
TCLP	Analysis	8081B		10	184818	10/20/21 10:26	WN7O	ELLE
TCLP	Leach	1311			183271	10/15/21 15:14	CZ7N	ELLE
TCLP	Prep	8151A			184800	10/20/21 00:20	USL7	ELLE
TCLP	Analysis	8151A		1	185345	10/22/21 02:22	UAMZ	ELLE
TCLP	Leach	1311			183271	10/15/21 15:14	CZ7N	ELLE
TCLP	Prep	3005A			183779	10/18/21 04:53	UAMX	ELLE
TCLP	Analysis	6010C		1	184654	10/19/21 15:18	WJM9	ELLE
TCLP	Leach	1311			183271	10/15/21 15:14	CZ7N	ELLE
TCLP	Prep	7470A			183781	10/18/21 05:04	UAMX	ELLE
TCLP	Analysis	7470A		1	184228	10/18/21 18:43	UEFS	ELLE
ASTM Leach	Leach	D3987-85			183273	10/15/21 15:14	CZ7N	ELLE
ASTM Leach	Analysis	1664B		1	184745	10/19/21 20:36	QT6L	ELLE
ASTM Leach	Leach	D3987-85			183273	10/15/21 15:14	CZ7N	ELLE
ASTM Leach	Analysis	2540B-2011		1	183795	10/18/21 06:25	M98K	ELLE
Total/NA	Analysis	2540G-2011		1	182808	10/14/21 12:23	M98K	ELLE
Total/NA	Analysis	261.21		1	184207	10/18/21 19:56	DI9Q	ELLE
ASTM Leach	Leach	D3987-85			183273	10/15/21 15:14	CZ7N	ELLE
ASTM Leach	Analysis	410.4		1	184548	10/19/21 12:54	USAE	ELLE
Total/NA	Prep	7.3.3			183171	10/15/21 07:55	USE1	ELLE
Total/NA	Analysis	9012		1	183419	10/15/21 14:43	JCG7	ELLE
Total/NA	Prep	7.3.3			183171	10/15/21 07:55	USE1	ELLE
Total/NA	Analysis	9034		1	183334	10/15/21 12:20	USE1	ELLE
Soluble	Leach	DI Leach			183472	10/15/21 16:25	F8TI	ELLE
Soluble	Analysis	9045D		1	183490	10/15/21 18:30	F8TI	ELLE
Total/NA	Analysis	9095B		1	184206	10/18/21 19:55	DI9Q	ELLE
ASTM Leach	Leach	D3987-85			186751	10/25/21 15:55	CZ7N	ELLE
ASTM Leach	Analysis	EPA 350.1		1	189848	11/02/21 11:09	JCG7	ELLE
Total/NA	Analysis	Moisture		1	182800	10/14/21 12:07	UWC1	ELLE

Client Sample ID: Hartranft-10TH-CONF-SOIL-6-2021-10-12

Lab Sample ID: 410-58999-6

Date Collected: 10/12/21 10:16

Matrix: Solid

Date Received: 10/13/21 18:10

Percent Solids: 81.9

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5030C			182777	10/14/21 11:18	JJT8	ELLE
Total/NA	Analysis	8260C		50	183894	10/18/21 16:11	USEJ	ELLE
Total/NA	Prep	3546			183581	10/16/21 09:07	U9KU	ELLE
Total/NA	Analysis	8082A		1	183928	10/18/21 11:14	JC94	ELLE

Client Sample ID: Hartranft-10TH-CONF-SOIL-6-2021-10-12

Lab Sample ID: 410-58999-6

Date Collected: 10/12/21 10:16

Matrix: Solid

Date Received: 10/13/21 18:10

Percent Solids: 81.9

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			192756	11/09/21 19:12	UJLA	ELLE
Total/NA	Analysis	6010C		1	195357	11/16/21 12:30	WJM9	ELLE
Total/NA	Prep	9071B			184235	10/18/21 23:57	QT6L	ELLE
Total/NA	Analysis	9071B		1	185016	10/20/21 10:30	UYB0	ELLE

Client Sample ID: Hartranft-10TH-RB44062-RT-1-2021-10-12

Lab Sample ID: 410-58999-7

Date Collected: 10/12/21 10:30

Matrix: Solid

Date Received: 10/13/21 18:10

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
TCLP	Leach	1311			183239	10/15/21 15:20	CZ7N	ELLE
TCLP	Analysis	8260C		20	184674	10/20/21 05:49	Y6ZN	ELLE
TCLP	Leach	1311			183271	10/15/21 15:14	CZ7N	ELLE
TCLP	Prep	3510C			184616	10/19/21 17:40	QQ3P	ELLE
TCLP	Analysis	8270D		1	184885	10/20/21 17:46	UWHS	ELLE
TCLP	Leach	1311			183271	10/15/21 15:14	CZ7N	ELLE
TCLP	Prep	3510C			184649	10/19/21 17:27	QQ3P	ELLE
TCLP	Analysis	8081B		10	184818	10/20/21 10:37	WN7O	ELLE
TCLP	Leach	1311			183271	10/15/21 15:14	CZ7N	ELLE
TCLP	Prep	8151A			184800	10/20/21 00:20	USL7	ELLE
TCLP	Analysis	8151A		1	185345	10/22/21 02:57	UAMZ	ELLE
TCLP	Leach	1311			183271	10/15/21 15:14	CZ7N	ELLE
TCLP	Prep	3005A			183779	10/18/21 04:53	UAMX	ELLE
TCLP	Analysis	6010C		1	184654	10/19/21 15:27	WJM9	ELLE
TCLP	Leach	1311			183271	10/15/21 15:14	CZ7N	ELLE
TCLP	Prep	7470A			183781	10/18/21 05:04	UAMX	ELLE
TCLP	Analysis	7470A		1	184228	10/18/21 18:45	UEFS	ELLE
ASTM Leach	Leach	D3987-85			183273	10/15/21 15:14	CZ7N	ELLE
ASTM Leach	Analysis	1664B		1	184745	10/19/21 20:36	QT6L	ELLE
ASTM Leach	Leach	D3987-85			183273	10/15/21 15:14	CZ7N	ELLE
ASTM Leach	Analysis	2540B-2011		1	183795	10/18/21 06:25	M98K	ELLE
Total/NA	Analysis	2540G-2011		1	182808	10/14/21 12:23	M98K	ELLE
Total/NA	Analysis	261.21		1	184207	10/18/21 19:56	DI9Q	ELLE
ASTM Leach	Leach	D3987-85			183273	10/15/21 15:14	CZ7N	ELLE
ASTM Leach	Analysis	410.4		1	184548	10/19/21 12:48	USAE	ELLE
Total/NA	Prep	7.3.3			183171	10/15/21 07:55	USE1	ELLE
Total/NA	Analysis	9012		1	183419	10/15/21 14:45	JCG7	ELLE
Total/NA	Prep	7.3.3			183171	10/15/21 07:55	USE1	ELLE
Total/NA	Analysis	9034		1	183334	10/15/21 12:20	USE1	ELLE
Soluble	Leach	DI Leach			183472	10/15/21 16:25	F8TI	ELLE
Soluble	Analysis	9045D		1	183490	10/15/21 18:30	F8TI	ELLE
Total/NA	Analysis	9095B		1	184206	10/18/21 19:55	DI9Q	ELLE
ASTM Leach	Leach	D3987-85			186751	10/25/21 15:55	CZ7N	ELLE
ASTM Leach	Analysis	EPA 350.1		1	189848	11/02/21 11:18	JCG7	ELLE
Total/NA	Analysis	Moisture		1	182800	10/14/21 12:07	UWC1	ELLE

Client Sample ID: Hartranft-10TH-RB44062-RT-1-2021-10-12

Lab Sample ID: 410-58999-7

Date Collected: 10/12/21 10:30

Matrix: Solid

Date Received: 10/13/21 18:10

Percent Solids: 81.8

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5030C			182777	10/14/21 11:18	JJT8	ELLE
Total/NA	Analysis	8260C		50	183894	10/18/21 16:31	USEJ	ELLE
Total/NA	Prep	3546			183581	10/16/21 09:07	U9KU	ELLE
Total/NA	Analysis	8082A		1	183928	10/18/21 11:24	JC94	ELLE
Total/NA	Prep	3050B			192546	11/09/21 13:56	UJLA	ELLE
Total/NA	Analysis	6010C		1	193090	11/10/21 11:03	WJM9	ELLE
Total/NA	Prep	9071B			184235	10/18/21 23:57	QT6L	ELLE
Total/NA	Analysis	9071B		1	185016	10/20/21 10:30	UYB0	ELLE

Client Sample ID: Hartranft-10TH-RB44062-RT-2-2021-10-12

Lab Sample ID: 410-58999-8

Date Collected: 10/12/21 10:36

Matrix: Solid

Date Received: 10/13/21 18:10

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
TCLP	Leach	1311			183239	10/15/21 15:20	CZ7N	ELLE
TCLP	Analysis	8260C		20	184674	10/20/21 06:12	Y6ZN	ELLE
TCLP	Leach	1311			183271	10/15/21 15:14	CZ7N	ELLE
TCLP	Prep	3510C			184616	10/19/21 17:40	QQ3P	ELLE
TCLP	Analysis	8270D		1	184885	10/20/21 18:15	UWHS	ELLE
TCLP	Leach	1311			183271	10/15/21 15:14	CZ7N	ELLE
TCLP	Prep	3510C			184649	10/19/21 17:27	QQ3P	ELLE
TCLP	Analysis	8081B		10	184818	10/20/21 10:49	WN7O	ELLE
TCLP	Leach	1311			183271	10/15/21 15:14	CZ7N	ELLE
TCLP	Prep	8151A			184800	10/20/21 00:20	USL7	ELLE
TCLP	Analysis	8151A		1	185345	10/22/21 03:33	UAMZ	ELLE
TCLP	Leach	1311			183271	10/15/21 15:14	CZ7N	ELLE
TCLP	Prep	3005A			183779	10/18/21 04:53	UAMX	ELLE
TCLP	Analysis	6010C		1	184654	10/19/21 15:33	WJM9	ELLE
TCLP	Leach	1311			183271	10/15/21 15:14	CZ7N	ELLE
TCLP	Prep	7470A			183781	10/18/21 05:04	UAMX	ELLE
TCLP	Analysis	7470A		1	184228	10/18/21 18:54	UEFS	ELLE
ASTM Leach	Leach	D3987-85			183273	10/15/21 15:14	CZ7N	ELLE
ASTM Leach	Analysis	1664B		1	184745	10/19/21 20:36	QT6L	ELLE
ASTM Leach	Leach	D3987-85			183273	10/15/21 15:14	CZ7N	ELLE
ASTM Leach	Analysis	2540B-2011		1	183795	10/18/21 06:25	M98K	ELLE
Total/NA	Analysis	2540G-2011		1	182808	10/14/21 12:23	M98K	ELLE
Total/NA	Analysis	261.21		1	184207	10/18/21 19:56	DI9Q	ELLE
ASTM Leach	Leach	D3987-85			183273	10/15/21 15:14	CZ7N	ELLE
ASTM Leach	Analysis	410.4		1	184548	10/19/21 12:52	USAE	ELLE
Total/NA	Prep	7.3.3			183171	10/15/21 07:55	USE1	ELLE
Total/NA	Analysis	9012		1	183419	10/15/21 14:46	JCG7	ELLE
Total/NA	Prep	7.3.3			183171	10/15/21 07:55	USE1	ELLE
Total/NA	Analysis	9034		1	183334	10/15/21 12:20	USE1	ELLE
Soluble	Leach	DI Leach			183472	10/15/21 16:25	F8TI	ELLE
Soluble	Analysis	9045D		1	183490	10/15/21 18:30	F8TI	ELLE

Lab Chronicle

Client: NorthStar Contracting Group, Inc.
Project/Site: NorthStar Sampling

Job ID: 410-58999-1

Client Sample ID: Hartranft-10TH-RB44062-RT-2-2021-10-12 — Lab Sample ID: 410-58999-8

Date Collected: 10/12/21 10:36
Date Received: 10/13/21 18:10
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9095B		1	184206	10/18/21 19:55	DI9Q	ELLE
ASTM Leach	Leach	D3987-85			186751	10/25/21 15:55	CZ7N	ELLE
ASTM Leach	Analysis	EPA 350.1		1	189848	11/02/21 11:20	JCG7	ELLE
Total/NA	Analysis	Moisture		1	182800	10/14/21 12:07	UWC1	ELLE

Client Sample ID: Hartranft-10TH-RB44062-RT-2-2021-10-12 — Lab Sample ID: 410-58999-8

Date Collected: 10/12/21 10:36
Date Received: 10/13/21 18:10
Matrix: Solid
Percent Solids: 82.7

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5030C			182777	10/14/21 11:18	JJT8	ELLE
Total/NA	Analysis	8260C		50	183894	10/18/21 16:52	USEJ	ELLE
Total/NA	Prep	3546			183581	10/16/21 09:07	U9KU	ELLE
Total/NA	Analysis	8082A		1	183928	10/18/21 11:35	JC94	ELLE
Total/NA	Prep	3050B			192756	11/09/21 19:12	UJLA	ELLE
Total/NA	Analysis	6010C		1	195357	11/16/21 12:22	WJM9	ELLE
Total/NA	Prep	9071B			184235	10/18/21 23:57	QT6L	ELLE
Total/NA	Analysis	9071B		1	185016	10/20/21 10:30	UYB0	ELLE

Client Sample ID: Hartranft-10TH-RB44062-RT-3-2021-10-12 — Lab Sample ID: 410-58999-9

Date Collected: 10/12/21 10:38
Date Received: 10/13/21 18:10
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
TCLP	Leach	1311			183239	10/15/21 15:20	CZ7N	ELLE
TCLP	Analysis	8260C		20	184674	10/20/21 06:35	Y6ZN	ELLE
TCLP	Leach	1311			183271	10/15/21 15:14	CZ7N	ELLE
TCLP	Prep	3510C			184616	10/19/21 17:40	QQ3P	ELLE
TCLP	Analysis	8270D		1	184885	10/20/21 18:44	UWHS	ELLE
TCLP	Leach	1311			183271	10/15/21 15:14	CZ7N	ELLE
TCLP	Prep	3510C			184649	10/19/21 17:27	QQ3P	ELLE
TCLP	Analysis	8081B		10	184818	10/20/21 11:00	WN7O	ELLE
TCLP	Leach	1311			183271	10/15/21 15:14	CZ7N	ELLE
TCLP	Prep	8151A			184800	10/20/21 00:20	USL7	ELLE
TCLP	Analysis	8151A		1	185345	10/22/21 04:08	UAMZ	ELLE
TCLP	Leach	1311			183271	10/15/21 15:14	CZ7N	ELLE
TCLP	Prep	3005A			183779	10/18/21 04:53	UAMX	ELLE
TCLP	Analysis	6010C		1	184654	10/19/21 15:52	WJM9	ELLE
TCLP	Leach	1311			183271	10/15/21 15:14	CZ7N	ELLE
TCLP	Prep	7470A			183781	10/18/21 05:04	UAMX	ELLE
TCLP	Analysis	7470A		1	184228	10/18/21 19:04	UEFS	ELLE
ASTM Leach	Leach	D3987-85			183273	10/15/21 15:14	CZ7N	ELLE
ASTM Leach	Analysis	1664B		1	184745	10/19/21 20:36	QT6L	ELLE
ASTM Leach	Leach	D3987-85			183273	10/15/21 15:14	CZ7N	ELLE
ASTM Leach	Analysis	2540B-2011		1	183795	10/18/21 06:25	M98K	ELLE

Lab Chronicle

Client: NorthStar Contracting Group, Inc.
Project/Site: NorthStar Sampling

Job ID: 410-58999-1

Client Sample ID: Hartranft-10TH-RB44062-RT-3-2021-10-12

Lab Sample ID: 410-58999-9

Date Collected: 10/12/21 10:38

Matrix: Solid

Date Received: 10/13/21 18:10

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	2540G-2011		1	182808	10/14/21 12:23	M98K	ELLE
Total/NA	Analysis	261.21		1	184207	10/18/21 19:56	DI9Q	ELLE
ASTM Leach	Leach	D3987-85			183273	10/15/21 15:14	CZ7N	ELLE
ASTM Leach	Analysis	410.4		1	184548	10/19/21 12:45	USAE	ELLE
Total/NA	Prep	7.3.3			183171	10/15/21 07:55	USE1	ELLE
Total/NA	Analysis	9012		1	183419	10/15/21 14:48	JCG7	ELLE
Total/NA	Prep	7.3.3			183171	10/15/21 07:55	USE1	ELLE
Total/NA	Analysis	9034		1	183334	10/15/21 12:20	USE1	ELLE
Soluble	Leach	DI Leach			183472	10/15/21 16:25	F8TI	ELLE
Soluble	Analysis	9045D		1	183490	10/15/21 18:30	F8TI	ELLE
Total/NA	Analysis	9095B		1	184206	10/18/21 19:55	DI9Q	ELLE
ASTM Leach	Leach	D3987-85			186751	10/25/21 15:55	CZ7N	ELLE
ASTM Leach	Analysis	EPA 350.1		1	189848	11/02/21 12:49	JCG7	ELLE
Total/NA	Analysis	Moisture		1	182800	10/14/21 12:07	UWC1	ELLE

Client Sample ID: Hartranft-10TH-RB44062-RT-3-2021-10-12

Lab Sample ID: 410-58999-9

Date Collected: 10/12/21 10:38

Matrix: Solid

Date Received: 10/13/21 18:10

Percent Solids: 82.5

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5030C			182777	10/14/21 11:18	JJT8	ELLE
Total/NA	Analysis	8260C		50	183894	10/18/21 17:13	USEJ	ELLE
Total/NA	Prep	3546			183581	10/16/21 09:07	U9KU	ELLE
Total/NA	Analysis	8082A		1	183928	10/18/21 11:45	JC94	ELLE
Total/NA	Prep	3050B			192546	11/09/21 13:56	UJLA	ELLE
Total/NA	Analysis	6010C		1	193090	11/10/21 11:07	WJM9	ELLE
Total/NA	Prep	9071B			184235	10/18/21 23:57	QT6L	ELLE
Total/NA	Analysis	9071B		1	185016	10/20/21 10:30	UYB0	ELLE

Laboratory References:

ELLE = Eurofins Lancaster Laboratories Env, LLC, 2425 New Holland Pike, Lancaster, PA 17601, TEL (717)656-2300

Accreditation/Certification Summary

Client: NorthStar Contracting Group, Inc. Job ID: 410-58999-1
Project/Site: NorthStar Sampling

Laboratory: Eurofins Lancaster Laboratories Env, LLC

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	Identification Number	Expiration Date
Pennsylvania	NELAP	36-00037	01-31-22

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
1664B		Solid	HEM (Oil & Grease)
2540B-2011		Solid	Residue, Total
2540B-2011		Solid	Total Solids
2540G-2011		Solid	Percent Solids
261.21		Solid	Ignitable to Air
261.21		Solid	Ignitable to Flame
261.21		Solid	Ignitable to Friction
261.21		Solid	Ignitable to Water
410.4		Solid	Chemical Oxygen Demand
9034	7.3.3	Solid	Sulfide, Reactive
9045D		Solid	Corrosivity
EPA 350.1		Solid	Ammonia as N
Moisture		Solid	Percent Moisture

Method Summary

Client: NorthStar Contracting Group, Inc.
Project/Site: NorthStar Sampling

Job ID: 410-58999-1

Method	Method Description	Protocol	Laboratory
8260C	Volatile Organic Compounds by GC/MS	SW846	ELLE
8270D	Semivolatile Organic Compounds (GC/MS)	SW846	ELLE
8081B	Organochlorine Pesticides (GC)	SW846	ELLE
8082A	Polychlorinated Biphenyls (PCBs) by Gas Chromatography	SW846	ELLE
8151A	Herbicides (GC)	SW846	ELLE
6010C	Metals (ICP)	SW846	ELLE
7470A	Mercury (CVAA)	SW846	ELLE
1664B	HEM and SGT-HEM	1664B	ELLE
2540B-2011	Solids, Total	SM	ELLE
2540G-2011	Total, Fixed, and Volatile Solids	SM	ELLE
261.21	Ignitability	40CFR261	ELLE
410.4	COD	MCAWW	ELLE
9012	Cyanide, Reactive	SW846	ELLE
9034	Sulfide, Reactive	SW846	ELLE
9045D	pH	SW846	ELLE
9071B	HEM and SGT-HEM	SW846	ELLE
9095B	Paint Filter	SW846	ELLE
EPA 350.1	Nitrogen, Ammonia	EPA	ELLE
Moisture	Percent Moisture	EPA	ELLE
1311	TCLP Extraction	SW846	ELLE
3005A	Preparation, Total Recoverable or Dissolved Metals	SW846	ELLE
3050B	Preparation, Metals	SW846	ELLE
3510C	Liquid-Liquid Extraction (Separatory Funnel)	SW846	ELLE
3546	Microwave Extraction	SW846	ELLE
5030C	Purge and Trap	SW846	ELLE
7.3.3	Cyanide, Reactive	SW846	ELLE
7.3.4	Sulfide, Reactive	SW846	ELLE
7470A	Preparation, Mercury	SW846	ELLE
8151A	Extraction (Herbicides)	SW846	ELLE
9071B	Preparation, HEM and SGT-HEM	SW846	ELLE
D3987-85	ASTM Leaching Procedure	ASTM	ELLE
DI Leach	Deionized Water Leaching Procedure	ASTM	ELLE

Protocol References:

1664B = EPA-821-98-002
40CFR261 = 40 CFR Part 261
ASTM = ASTM International
EPA = US Environmental Protection Agency
MCAWW = "Methods For Chemical Analysis Of Water And Wastes", EPA-600/4-79-020, March 1983 And Subsequent Revisions.
SM = "Standard Methods For The Examination Of Water And Wastewater"
SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

ELLE = Eurofins Lancaster Laboratories Env, LLC, 2425 New Holland Pike, Lancaster, PA 17601, TEL (717)656-2300

Sample Summary

Client: NorthStar Contracting Group, Inc.
Project/Site: NorthStar Sampling

Job ID: 410-58999-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
410-58999-1	Hartranft-10TH-CONF-SOIL-1-2021-10-12	Solid	10/12/21 10:00	10/13/21 18:10
410-58999-2	Hartranft-10TH-CONF-SOIL-2-2021-10-12	Solid	10/12/21 10:05	10/13/21 18:10
410-58999-3	Hartranft-10TH-CONF-SOIL-3-2021-10-12	Solid	10/12/21 10:07	10/13/21 18:10
410-58999-4	Hartranft-10TH-CONF-SOIL-4-2021-10-12	Solid	10/12/21 10:11	10/13/21 18:10
410-58999-5	Hartranft-10TH-CONF-SOIL-5-2021-10-12	Solid	10/12/21 10:12	10/13/21 18:10
410-58999-6	Hartranft-10TH-CONF-SOIL-6-2021-10-12	Solid	10/12/21 10:16	10/13/21 18:10
410-58999-7	Hartranft-10TH-RB44062-RT-1-2021-10-12	Solid	10/12/21 10:30	10/13/21 18:10
410-58999-8	Hartranft-10TH-RB44062-RT-2-2021-10-12	Solid	10/12/21 10:36	10/13/21 18:10
410-58999-9	Hartranft-10TH-RB44062-RT-3-2021-10-12	Solid	10/12/21 10:38	10/13/21 18:10

eurofins | QC

CHAIN OF CUSTODY

Page 1 of 1

410-58999 Chain of Custody

MATRIX CODES: DW: DRINKING WATER; GW: GROUND WATER; WW: WASTEWATER; SO: SOIL; SL: SLUDGE; OIL: OIL; SOL: NON SOIL SOLID; MI: MISCELLANEOUS; X: OTHER

Bill to/Report to (if different)

702 Electronic Drive Phone: 215-355-3900
Horsham, PA 19044-0962 Fax: 215-355-7231

Sampling Site Address (if different) Include State

Client/Acct. No. NorthStar Contracting Group, Inc
Address 3144 Passyunk Ave
Philadelphia PA, 19145
City/State/Zip 440-228-1524
Phone/Fax rarmstrong@Northstar.com
Client Contact:

P.O. No. PWSID #:
Quote #
e-mail:

___ Ascorbic/HCL Vials # ___ HCl Vials
___ $Na_2S_2O_3$ ___
___ Na OH/Zn acetate pH ___
___ HNO_3 pH ___
___ H_2SO_4 pH ___
___ NaOH pH ___
___ Unpreserved
___ HCl # ___NH4Cl # ___MeOH
___ DI Water

PROJECT / FIELD ID	Collection Date	Collection Military Time	GRAB	COMP	Matrix Code	Number of Containers: Total	H_2SO_4	HCl	Vials	HNO_3	NaOH	Znac	UNPRE	BACT	ANALYSIS REQUESTED	Field pH, Temp (°C), DO, Cl2, Cond. etc.
Hartranft-10TH-CONF-SOIL-1-2021-10-12	10/12/21	1000	X		SO	5							5		Total Benzene see attached Table A Parameters	Use caution when working with these samples.
Hartranft-10TH-CONF-SOIL-2-2021-10-12	10/12/21	1005	X		SO	5							5			
Hartranft-10TH-CONF-SOIL-3-2021-10-12	10/12/21	1007	X		SO	5							5			
Hartranft-10TH-CONF-SOIL-4-2021-10-12	10/12/21	1011	X		SO	5							5			
Hartranft-10TH-CONF-SOIL-5-2021-10-12	10/12/21	1012	X		SO	5							5			
Hartranft-10TH-CONF-SOIL-6-2021-10-12	10/12/21	1016	X		SO	5							5			
Hartranft-10TH-RB440612-RT-1-2021-10-12	10/12/21	1030	X		SO	5							5			
Hartranft-10TH-RB440612-RT-2-2021-10-12	10/12/21	1036	X		SO	5							5			
Hartranft-10TH-RB440612RT-3-2021-10-12	10/12/21	1038		X	SO	~~7~~							~~7~~ 5			

SAMPLED BY: (Name/Company) Josh Suboyl / North Star

TAT: ☐ STANDARD (10 DAY) or DUE DATE ASAP !

Report Format: ☐ Standard ☐ NJ-RDD ☐ SRP-RDD ☐ Standard + QC ☐ Forms ☐ EDD

Please call for pricing and availability for rush (<10 day) turnaround and for all but standard reporting format.

Field Parameters Analyzed By: Initials | Date/Time:

SAMPLE CUSTODY EXCHANGES MUST BE DOCUMENTED BELOW USE FULL LEGAL SIGNATURE, DATE AND MILITARY TIME (24 HOUR CLOCK, I.E. 8AM IS 0800, 4 PM IS 1600)

	RELINQUISHED BY SAMPLER	DATE	TIME	RECEIVED BY	DATE	TIME
1.		10.13.21	1225		10/13/21	1225
2.		10/13/21	1810			
3.						
4.						
5.					10/13/21	1810

DELIVERY: ☐ EQC COURIER ☐ CLIENT ☐UPS ☐FEDEX ☐OTHER ___ Custody Seal Number

Rec'd Temp.: 1.3, 2.3° Initials: MP Ice (Y) N Location:___
COMMENTS:

Hazardous: yes / no

WASTE MANAGEMENT

TABLE A PARAMETERS

410-58999-02 Chain of Custody

	Parameter Name	Type	Category	Limits	Units	85% of Limit
❑	Ignitibility	As Received		>140	F	
❑	Oil & Grease	As Received			mg/kg	
❑	Paint Filter Test	As Received		No free liquids		
❑	PCB's	As Received		50		
❑	pH	As Received		2 - 12.5	S.U.	
❑	Reactive Cyanide	As Received		100		
❑	Reactive Sulfide	As Received		500		
❑	Total Solids	As Received				
❑	Total Volatile Solids	As Received				
❑	Ammonia-Nitrogen	ASTM		111111	mg/l	
❑	Chemical Oxygen Demand	ASTM				
❑	Oil & Grease	ASTM		88550	mg/l	
❑	Total Solids	ASTM				
❑	pH	TCLP				
❑	Arsenic	TCLP	Metals	5	mg/l	4.25
❑	Barium	TCLP	Metals	100	mg/l	85
❑	Cadmium	TCLP	Metals	1	mg/l	0.85
❑	Chromium	TCLP	Metals	5	mg/l	4.25
❑	Copper	TCLP	Metals	167	mg/l	142
❑	Lead	TCLP	Metals	5	mg/l	4.25
❑	Mercury	TCLP	Metals	0.2	mg/l	0.17
❑	Nickel	TCLP	Metals	242	mg/l	206
❑	Selenium	TCLP	Metals	1	mg/l	0.85
❑	Silver	TCLP	Metals	5	mg/l	4.25
❑	Zinc	TCLP	Metals	1875	mg/l	1594
❑	2,4-D	TCLP	Herb	10	mg/l	8.5
❑	2,4,5-TP	TCLP	Herb	1	mg/l	0.85
❑	Chlordane	TCLP	Pest	0.03	mg/l	0.0255
❑	Endrin	TCLP	Pest	0.02	mg/l	0.017
❑	Heptachlor	TCLP	Pest	0.008	mg/l	0.0068
❑	Heptachlor Epoxide	TCLP	Pest	0.008	mg/l	0.0068
❑	Lindane	TCLP	Pest	0.4	mg/l	0.34
❑	Methoxychlor	TCLP	Pest	10mg/l	8.5	
❑	Toxaphene	TCLP	Pest	0.5	mg/l	0.425
❑	2,4,5-trichlorophenol	TCLP	Acids	400	mg/l	340
❑	2,4,6-trichlorophenol	TCLP	Acids	2	mg/l	1.7
❑	m-cresol	TCLP	Acids	200	mg/l	170
❑	o-cresol	TCLP	Acids	200	mg/l	170
❑	p-cresol	TCLP	Acids	200	mg/l	170
❑	Pentachlorophenol	TCLP	Acids	100	mg/l	85
❑	2,4-dinitrotoluene	TCLP	Base/Neutral	0.13	mg/l	0.1105
❑	Hexachlorobenzene	TCLP	Base/Neutral	0.13	mg/l	0.1105
❑	Hexachlorobutadiene	TCLP	Base/Neutral	0.5	mg/l	0.425
❑	Hexachloroethane	TCLP	Base/Neutral	3	mg/l	2.55

TABLE A PARAMETERS

*Volatile Organic Compounds must be taken from discrete samples

	Parameter Name	Type	Category	Limits	Units	85% of Limit
❑	Nitrobenzene	TCLP	Base/Neutral	2	mg/l	1.7
❑	Pyridine	TCLP	Base/Neutral	5	mg/l	4.25
❑	*1,1-dichloroethyiene	TCLP	Volatiles	0.7	mg/l	0.595
❑	*1,2-dichloroethane	TCLP	Volatiles	0.5	mg/l	0.425
❑	*1,4-dichlorobenzene	TCLP	Volatiles	7.5	mg/l	6.375
❑	*Benzene	TCLP	Volatiles	0.5	mg/l	0.425
❑	*Carbon Tetrachloride	TCLP	Volatiles	0.5	mg/l	0.425
❑	*Chlorobenzene	TCLP	Volatiles	100	mg/l	85
❑	*Chloroform	TCLP	Volatiles	8	mg/l	6.8
❑	*Methyl ethyl ketone	TCLP	Volatiles	200	mg/l	170
❑	*Tetrachloroethylene	TCLP	Volatiles	0.7	mg/l	0.595
❑	*Trichloroethylene	TCLP	Volatiles	0.5	mg/l	0.425
❑	*Vinyl Chloride	TCLP	Volatiles	0.2	mg/l	0.17

Login Sample Receipt Checklist

Client: NorthStar Contracting Group, Inc.

Job Number: 410-58999-1

Login Number: 58999
List Number: 1
Creator: Renner, Melissa

List Source: Eurofins Lancaster Laboratories Env, LLC

Question	Answer	Comment
The cooler's custody seal is intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable (</=6C, not frozen).	True	
Cooler Temperature is recorded.	True	
WV: Container Temperature is acceptable (</=6C, not frozen).	N/A	
WV: Container Temperature is recorded.	N/A	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
There are no discrepancies between the containers received and the COC.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
There is sufficient vol. for all requested analyses.	True	
Is the Field Sampler's name present on COC?	True	
Sample custody seals are intact.	N/A	

ANALYTICAL REPORT

Lab Number:	L2165357
Client:	Ransom/Hilco 99 Summer St. Suite 1110 Boston, MA 02110
ATTN:	Joe Jeray
Phone:	(978) 729-3209
Project Name:	PES REFINERY-860 RELEASE
Project Number:	200.00135.005.03
Report Date:	12/13/21

Certifications & Approvals: MA (M-MA086), NH NELAP (2064), CT (PH-0574), IL (200077), ME (MA00086), MD (348), NJ (MA935), NY (11148), NC (25700/666), PA (68-03671), RI (LAO00065), TX (T104704476), VT (VT-0935), VA (460195), USDA (Permit #P330-17-00196).

Eight Walkup Drive, Westborough, MA 01581-1019
508-898-9220 (Fax) 508-898-9193 800-624-9220 - www.alphalab.com

Project Name: PES REFINERY-860 RELEASE
Project Number: 200.00135.005.03

Lab Number: L2165357
Report Date: 12/13/21

Alpha Sample ID	Client ID	Matrix	Sample Location	Collection Date/Time	Receive Date
L2165357-01	HARTRANFT-10TH-CONF-SOIL-1-2021-11-29	SOIL	PHILADELPHIA, PA	11/29/21 10:00	11/29/21
L2165357-02	HARTRANFT-10TH-CONF-SOIL-2-2021-11-29	SOIL	PHILADELPHIA, PA	11/29/21 10:20	11/29/21
L2165357-03	HARTRANFT-10TH-CONF-SOIL-3-2021-11-29	SOIL	PHILADELPHIA, PA	11/29/21 10:50	11/29/21
L2165357-04	HARTRANFT-10TH-CONF-SOIL-4-2021-11-29	SOIL	PHILADELPHIA, PA	11/29/21 11:00	11/29/21
L2165357-05	HARTRANFT-10TH-CONF-SOIL-5-2021-11-29	SOIL	PHILADELPHIA, PA	11/29/21 11:05	11/29/21
L2165357-06	HARTRANFT-10TH-CONF-SOIL-6-2021-11-29	SOIL	PHILADELPHIA, PA	11/29/21 11:15	11/29/21

Project Name:	PES REFINERY-860 RELEASE	**Lab Number:**	L2165357
Project Number:	200.00135.005.03	**Report Date:**	12/13/21

Case Narrative

The samples were received in accordance with the Chain of Custody and no significant deviations were encountered during the preparation or analysis unless otherwise noted. Sample Receipt, Container Information, and the Chain of Custody are located at the back of the report.

Results contained within this report relate only to the samples submitted under this Alpha Lab Number and meet NELAP requirements for all NELAP accredited parameters unless otherwise noted in the following narrative. The data presented in this report is organized by parameter (i.e. VOC, SVOC, etc.). Sample specific Quality Control data (i.e. Surrogate Spike Recovery) is reported at the end of the target analyte list for each individual sample, followed by the Laboratory Batch Quality Control at the end of each parameter. Tentatively Identified Compounds (TICs), if requested, are reported for compounds identified to be present and are not part of the method/program Target Compound List, even if only a subset of the TCL are being reported. If a sample was re-analyzed or re-extracted due to a required quality control corrective action and if both sets of data are reported, the Laboratory ID of the re-analysis or re-extraction is designated with an "R" or "RE", respectively.

When multiple Batch Quality Control elements are reported (e.g. more than one LCS), the associated samples for each element are noted in the grey shaded header line of each data table. Any Laboratory Batch, Sample Specific % recovery or RPD value that is outside the listed Acceptance Criteria is bolded in the report. In reference to questions H (CAM) or 4 (RCP) when "NO" is checked, the performance criteria for CAM and RCP methods allow for some quality control failures to occur and still be within method compliance. In these instances, the specific failure is not narrated but noted in the associated QC Outlier Summary Report, located directly after the Case Narrative. QC information is also incorporated in the Data Usability Assessment table (Format 11) of our Data Merger tool, where it can be reviewed in conjunction with the sample result, associated regulatory criteria and any associated data usability implications.

Soil/sediments, solids and tissues are reported on a dry weight basis unless otherwise noted. Definitions of all data qualifiers and acronyms used in this report are provided in the Glossary located at the back of the report.

HOLD POLICY - For samples submitted on hold, Alpha's policy is to hold samples (with the exception of Air canisters) free of charge for 21 calendar days from the date the project is completed. After 21 calendar days, we will dispose of all samples submitted including those put on hold unless you have contacted your Alpha Project Manager and made arrangements for Alpha to continue to hold the samples. Air canisters will be disposed after 3 business days from the date the project is completed.

Please contact Project Management at 800-624-9220 with any questions.

Project Name:	PES REFINERY-860 RELEASE	**Lab Number:**	L2165357
Project Number:	200.00135.005.03	**Report Date:**	12/13/21

Case Narrative (continued)

Report Submission

All non-detect (ND) or estimated concentrations (J-qualified) have been quantitated to the limit noted in the MDL column.

Semivolatile Organics

L2165357-06D: The sample has elevated detection limits due to the dilution required by the sample matrix.

I, the undersigned, attest under the pains and penalties of perjury that, to the best of my knowledge and belief and based upon my personal inquiry of those responsible for providing the information contained in this analytical report, such information is accurate and complete. This certificate of analysis is not complete unless this page accompanies any and all pages of this report.

Authorized Signature: Sebastian Corbin

Title: Technical Director/Representative Date: 12/13/21

ORGANICS

SEMIVOLATILES

Project Name: PES REFINERY-860 RELEASE
Lab Number: L2165357
Project Number: 200.00135.005.03
Report Date: 12/13/21

SAMPLE RESULTS

Lab ID: L2165357-01
Client ID: HARTRANFT-10TH-CONF-SOIL-1-2021-11-29
Sample Location: PHILADELPHIA, PA

Date Collected: 11/29/21 10:00
Date Received: 11/29/21
Field Prep: Not Specified

Sample Depth:
Matrix: Soil
Analytical Method: 1,8270D
Analytical Date: 12/07/21 11:58
Analyst: JRW
Percent Solids: 79%

Extraction Method: EPA 3546
Extraction Date: 12/06/21 23:49

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Naphthalene	0.18	J	mg/kg	0.21	0.025	1
Fluorene	ND		mg/kg	0.21	0.020	1
Phenanthrene	0.071	J	mg/kg	0.12	0.025	1
Anthracene	ND		mg/kg	0.12	0.040	1
Pyrene	0.091	J	mg/kg	0.12	0.020	1
Benzo(a)anthracene	0.071	J	mg/kg	0.12	0.023	1
Chrysene	0.072	J	mg/kg	0.12	0.022	1
Benzo(b)fluoranthene	0.12		mg/kg	0.12	0.035	1
Benzo(a)pyrene	0.090	J	mg/kg	0.16	0.050	1
Benzo(ghi)perylene	0.097	J	mg/kg	0.16	0.024	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
Nitrobenzene-d5	91		23-120
2-Fluorobiphenyl	69		30-120
4-Terphenyl-d14	66		18-120

Project Name: PES REFINERY-860 RELEASE
Lab Number: L2165357
Project Number: 200.00135.005.03
Report Date: 12/13/21

SAMPLE RESULTS

Lab ID: L2165357-02
Client ID: HARTRANFT-10TH-CONF-SOIL-2-2021-11-29
Sample Location: PHILADELPHIA, PA

Date Collected: 11/29/21 10:20
Date Received: 11/29/21
Field Prep: Not Specified

Sample Depth:
Matrix: Soil
Analytical Method: 1,8270D
Analytical Date: 12/07/21 14:23
Analyst: JRW
Percent Solids: 85%

Extraction Method: EPA 3546
Extraction Date: 12/06/21 23:49

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Naphthalene	0.15	J	mg/kg	0.19	0.024	1
Fluorene	0.060	J	mg/kg	0.19	0.019	1
Phenanthrene	0.096	J	mg/kg	0.12	0.024	1
Anthracene	ND		mg/kg	0.12	0.038	1
Pyrene	0.11	J	mg/kg	0.12	0.019	1
Benzo(a)anthracene	0.078	J	mg/kg	0.12	0.022	1
Chrysene	0.068	J	mg/kg	0.12	0.020	1
Benzo(b)fluoranthene	0.089	J	mg/kg	0.12	0.033	1
Benzo(a)pyrene	0.073	J	mg/kg	0.16	0.047	1
Benzo(ghi)perylene	0.043	J	mg/kg	0.16	0.023	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
Nitrobenzene-d5	85		23-120
2-Fluorobiphenyl	78		30-120
4-Terphenyl-d14	87		18-120

Project Name: PES REFINERY-860 RELEASE
Lab Number: L2165357
Project Number: 200.00135.005.03
Report Date: 12/13/21

SAMPLE RESULTS

Lab ID: L2165357-03
Client ID: HARTRANFT-10TH-CONF-SOIL-3-2021-11-29
Sample Location: PHILADELPHIA, PA

Date Collected: 11/29/21 10:50
Date Received: 11/29/21
Field Prep: Not Specified

Sample Depth:
Matrix: Soil
Analytical Method: 1,8270D
Analytical Date: 12/07/21 14:48
Analyst: JRW
Percent Solids: 92%

Extraction Method: EPA 3546
Extraction Date: 12/06/21 23:49

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Naphthalene	0.47		mg/kg	0.18	0.022	1
Fluorene	ND		mg/kg	0.18	0.017	1
Phenanthrene	0.48		mg/kg	0.11	0.022	1
Anthracene	0.14		mg/kg	0.11	0.035	1
Pyrene	0.75		mg/kg	0.11	0.018	1
Benzo(a)anthracene	0.45		mg/kg	0.11	0.020	1
Chrysene	0.43		mg/kg	0.11	0.019	1
Benzo(b)fluoranthene	0.56		mg/kg	0.11	0.030	1
Benzo(a)pyrene	0.45		mg/kg	0.14	0.044	1
Benzo(ghi)perylene	0.29		mg/kg	0.14	0.021	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
Nitrobenzene-d5	107		23-120
2-Fluorobiphenyl	68		30-120
4-Terphenyl-d14	71		18-120

Project Name: PES REFINERY-860 RELEASE
Lab Number: L2165357
Project Number: 200.00135.005.03
Report Date: 12/13/21

SAMPLE RESULTS

Lab ID: L2165357-04
Client ID: HARTRANFT-10TH-CONF-SOIL-4-2021-11-29
Sample Location: PHILADELPHIA, PA

Date Collected: 11/29/21 11:00
Date Received: 11/29/21
Field Prep: Not Specified

Sample Depth:
Matrix: Soil
Analytical Method: 1,8270D
Analytical Date: 12/07/21 15:12
Analyst: JRW
Percent Solids: 88%

Extraction Method: EPA 3546
Extraction Date: 12/06/21 23:49

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Naphthalene	ND		mg/kg	0.19	0.023	1
Fluorene	ND		mg/kg	0.19	0.018	1
Phenanthrene	ND		mg/kg	0.11	0.023	1
Anthracene	ND		mg/kg	0.11	0.036	1
Pyrene	ND		mg/kg	0.11	0.019	1
Benzo(a)anthracene	ND		mg/kg	0.11	0.021	1
Chrysene	ND		mg/kg	0.11	0.020	1
Benzo(b)fluoranthene	ND		mg/kg	0.11	0.032	1
Benzo(a)pyrene	ND		mg/kg	0.15	0.046	1
Benzo(ghi)perylene	ND		mg/kg	0.15	0.022	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
Nitrobenzene-d5	86		23-120
2-Fluorobiphenyl	80		30-120
4-Terphenyl-d14	79		18-120

Project Name: PES REFINERY-860 RELEASE
Lab Number: L2165357
Project Number: 200.00135.005.03
Report Date: 12/13/21

SAMPLE RESULTS

Lab ID: L2165357-05
Client ID: HARTRANFT-10TH-CONF-SOIL-5-2021-11-29
Sample Location: PHILADELPHIA, PA

Date Collected: 11/29/21 11:05
Date Received: 11/29/21
Field Prep: Not Specified

Sample Depth:
Matrix: Soil
Analytical Method: 1,8270D
Analytical Date: 12/07/21 16:00
Analyst: JRW
Percent Solids: 92%

Extraction Method: EPA 3546
Extraction Date: 12/06/21 23:49

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Naphthalene	ND		mg/kg	0.18	0.022	1
Fluorene	ND		mg/kg	0.18	0.017	1
Phenanthrene	0.028	J	mg/kg	0.11	0.022	1
Anthracene	ND		mg/kg	0.11	0.035	1
Pyrene	ND		mg/kg	0.11	0.018	1
Benzo(a)anthracene	ND		mg/kg	0.11	0.020	1
Chrysene	ND		mg/kg	0.11	0.019	1
Benzo(b)fluoranthene	ND		mg/kg	0.11	0.030	1
Benzo(a)pyrene	ND		mg/kg	0.14	0.044	1
Benzo(ghi)perylene	ND		mg/kg	0.14	0.021	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
Nitrobenzene-d5	90		23-120
2-Fluorobiphenyl	76		30-120
4-Terphenyl-d14	74		18-120

Project Name: PES REFINERY-860 RELEASE
Lab Number: L2165357
Project Number: 200.00135.005.03
Report Date: 12/13/21

SAMPLE RESULTS

Lab ID: L2165357-06 D
Client ID: HARTRANFT-10TH-CONF-SOIL-6-2021-11-29
Sample Location: PHILADELPHIA, PA

Date Collected: 11/29/21 11:15
Date Received: 11/29/21
Field Prep: Not Specified

Sample Depth:
Matrix: Soil
Analytical Method: 1,8270D
Analytical Date: 12/11/21 14:47
Analyst: WR
Percent Solids: 95%

Extraction Method: EPA 3546
Extraction Date: 12/06/21 23:49

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Naphthalene	5.3		mg/kg	0.87	0.11	5
Fluorene	5.3		mg/kg	0.87	0.085	5
Phenanthrene	12.		mg/kg	0.52	0.10	5
Anthracene	4.0		mg/kg	0.52	0.17	5
Pyrene	14.		mg/kg	0.52	0.087	5
Benzo(a)anthracene	7.5		mg/kg	0.52	0.098	5
Chrysene	7.5		mg/kg	0.52	0.091	5
Benzo(b)fluoranthene	9.6		mg/kg	0.52	0.15	5
Benzo(a)pyrene	7.1		mg/kg	0.70	0.21	5
Benzo(ghi)perylene	4.3		mg/kg	0.70	0.10	5

Surrogate	% Recovery	Qualifier	Acceptance Criteria
Nitrobenzene-d5	120		23-120
2-Fluorobiphenyl	**29**	Q	30-120
4-Terphenyl-d14	29		18-120

Project Name: PES REFINERY-860 RELEASE
Project Number: 200.00135.005.03
Lab Number: L2165357
Report Date: 12/13/21

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8270D
Analytical Date: 12/07/21 10:45
Analyst: WR

Extraction Method: EPA 3546
Extraction Date: 12/06/21 23:49

Parameter	Result	Qualifier	Units	RL	MDL
Semivolatile Organics by GC/MS - Westborough Lab for sample(s): 01-06 Batch: WG1579872-1					
Naphthalene	ND		mg/kg	0.17	0.020
Fluorene	ND		mg/kg	0.17	0.016
Phenanthrene	ND		mg/kg	0.10	0.020
Anthracene	ND		mg/kg	0.10	0.032
Pyrene	ND		mg/kg	0.10	0.016
Benzo(a)anthracene	ND		mg/kg	0.10	0.019
Chrysene	ND		mg/kg	0.10	0.017
Benzo(b)fluoranthene	ND		mg/kg	0.10	0.028
Benzo(a)pyrene	ND		mg/kg	0.13	0.041
Benzo(ghi)perylene	ND		mg/kg	0.13	0.020

Surrogate	%Recovery	Qualifier	Acceptance Criteria
Nitrobenzene-d5	77		23-120
2-Fluorobiphenyl	75		30-120
4-Terphenyl-d14	81		18-120

Lab Control Sample Analysis

Batch Quality Control

Project Name: PES REFINERY-860 RELEASE

Project Number: 200.00135.005.03

Lab Number: L2165357

Report Date: 12/13/21

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Semivolatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-06 Batch: WG1579872-2 WG1579872-3								
Naphthalene	64		63		40-140	2		50
Fluorene	71		74		40-140	4		50
Phenanthrene	68		71		40-140	4		50
Anthracene	68		72		40-140	6		50
Pyrene	71		73		35-142	3		50
Benzo(a)anthracene	72		72		40-140	0		50
Chrysene	68		67		40-140	1		50
Benzo(b)fluoranthene	72		69		40-140	4		50
Benzo(a)pyrene	64		64		40-140	0		50
Benzo(ghi)perylene	72		72		40-140	0		50

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
Nitrobenzene-d5	72		73		23-120
2-Fluorobiphenyl	67		68		30-120
4-Terphenyl-d14	72		73		18-120

INORGANICS
&
MISCELLANEOUS

Project Name: PES REFINERY-860 RELEASE
Project Number: 200.00135.005.03
Lab Number: L2165357
Report Date: 12/13/21

SAMPLE RESULTS

Lab ID: L2165357-01
Client ID: HARTRANFT-10TH-CONF-SOIL-1-2021-11-29
Sample Location: PHILADELPHIA, PA
Sample Depth:
Matrix: Soil
Date Collected: 11/29/21 10:00
Date Received: 11/29/21
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	79.3		%	0.100	NA	1	-	12/01/21 08:41	121,2540G	RI

Project Name: PES REFINERY-860 RELEASE
Project Number: 200.00135.005.03
Lab Number: L2165357
Report Date: 12/13/21

SAMPLE RESULTS

Lab ID: L2165357-02
Client ID: HARTRANFT-10TH-CONF-SOIL-2-2021-11-29
Sample Location: PHILADELPHIA, PA
Date Collected: 11/29/21 10:20
Date Received: 11/29/21
Field Prep: Not Specified

Sample Depth:
Matrix: Soil

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	85.0		%	0.100	NA	1	-	12/01/21 08:41	121,2540G	RI

Project Name: PES REFINERY-860 RELEASE
Project Number: 200.00135.005.03
Lab Number: L2165357
Report Date: 12/13/21

SAMPLE RESULTS

Lab ID: L2165357-03
Client ID: HARTRANFT-10TH-CONF-SOIL-3-2021-11-29
Sample Location: PHILADELPHIA, PA
Sample Depth:
Matrix: Soil
Date Collected: 11/29/21 10:50
Date Received: 11/29/21
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	92.3		%	0.100	NA	1	-	12/01/21 08:41	121,2540G	RI

Project Name: PES REFINERY-860 RELEASE
Project Number: 200.00135.005.03
Lab Number: L2165357
Report Date: 12/13/21

SAMPLE RESULTS

Lab ID: L2165357-04
Client ID: HARTRANFT-10TH-CONF-SOIL-4-2021-11-29
Sample Location: PHILADELPHIA, PA
Sample Depth:
Matrix: Soil
Date Collected: 11/29/21 11:00
Date Received: 11/29/21
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	88.2		%	0.100	NA	1	-	12/01/21 08:41	121,2540G	RI

Project Name: PES REFINERY-860 RELEASE
Project Number: 200.00135.005.03
Lab Number: L2165357
Report Date: 12/13/21

SAMPLE RESULTS

Lab ID: L2165357-05
Client ID: HARTRANFT-10TH-CONF-SOIL-5-2021-11-29
Sample Location: PHILADELPHIA, PA
Date Collected: 11/29/21 11:05
Date Received: 11/29/21
Field Prep: Not Specified

Sample Depth:
Matrix: Soil

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	92.0		%	0.100	NA	1	-	12/01/21 08:41	121,2540G	RI

Project Name: PES REFINERY-860 RELEASE
Project Number: 200.00135.005.03
Lab Number: L2165357
Report Date: 12/13/21

SAMPLE RESULTS

Lab ID: L2165357-06
Client ID: HARTRANFT-10TH-CONF-SOIL-6-2021-11-29
Sample Location: PHILADELPHIA, PA
Sample Depth:
Matrix: Soil
Date Collected: 11/29/21 11:15
Date Received: 11/29/21
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	94.9		%	0.100	NA	1	-	12/01/21 08:41	121,2540G	RI

Lab Duplicate Analysis

Batch Quality Control

Project Name: PES REFINERY-860 RELEASE

Project Number: 200.00135.005.03

Lab Number: L2165357

Report Date: 12/13/21

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
General Chemistry - Westborough Lab Associated sample(s): 01-06 QC Batch ID: WG1577527-1 QC Sample: L2165357-01 Client ID: HARTRANFT-10TH-CONF-SOIL-1-2021-11-29						
Solids, Total	79.3	80.8	%	2		20

Project Name: PES REFINERY-860 RELEASE
Project Number: 200.00135.005.03

Lab Number: L2165357
Report Date: 12/13/21

Sample Receipt and Container Information

Were project specific reporting limits specified? YES

Cooler Information

Cooler	Custody Seal
A	Absent

Container Information

Container ID	Container Type	Cooler	Initial pH	Final pH	Temp deg C	Pres	Seal	Frozen Date/Time	Analysis(*)
L2165357-01A	Vial MeOH preserved	A	NA		3.3	Y	Absent		HOLD-8260HLW(14)
L2165357-01B	Vial water preserved	A	NA		3.3	Y	Absent	30-NOV-21 09:11	HOLD-8260HLW(14)
L2165357-01C	Vial water preserved	A	NA		3.3	Y	Absent	30-NOV-21 09:11	HOLD-8260HLW(14)
L2165357-01D	Plastic 2oz unpreserved for TS	A	NA		3.3	Y	Absent		TS(7)
L2165357-01E	Metals Only-Glass 60mL/2oz unpreserved	A	NA		3.3	Y	Absent		HOLD-METAL(180)
L2165357-01F	Glass 120ml/4oz unpreserved	A	NA		3.3	Y	Absent		PA-PAH(14)
L2165357-02A	Vial MeOH preserved	A	NA		3.3	Y	Absent		HOLD-8260HLW(14)
L2165357-02B	Vial water preserved	A	NA		3.3	Y	Absent	30-NOV-21 09:11	HOLD-8260HLW(14)
L2165357-02C	Vial water preserved	A	NA		3.3	Y	Absent	30-NOV-21 09:11	HOLD-8260HLW(14)
L2165357-02D	Plastic 2oz unpreserved for TS	A	NA		3.3	Y	Absent		TS(7)
L2165357-02E	Metals Only-Glass 60mL/2oz unpreserved	A	NA		3.3	Y	Absent		HOLD-METAL(180)
L2165357-02F	Glass 120ml/4oz unpreserved	A	NA		3.3	Y	Absent		PA-PAH(14)
L2165357-03A	Vial MeOH preserved	A	NA		3.3	Y	Absent		HOLD-8260HLW(14)
L2165357-03B	Vial water preserved	A	NA		3.3	Y	Absent	30-NOV-21 09:11	HOLD-8260HLW(14)
L2165357-03C	Vial water preserved	A	NA		3.3	Y	Absent	30-NOV-21 09:11	HOLD-8260HLW(14)
L2165357-03D	Plastic 2oz unpreserved for TS	A	NA		3.3	Y	Absent		TS(7)
L2165357-03E	Metals Only-Glass 60mL/2oz unpreserved	A	NA		3.3	Y	Absent		HOLD-METAL(180)
L2165357-03F	Glass 120ml/4oz unpreserved	A	NA		3.3	Y	Absent		PA-PAH(14)
L2165357-04A	Vial MeOH preserved	A	NA		3.3	Y	Absent		HOLD-8260HLW(14)
L2165357-04B	Vial water preserved	A	NA		3.3	Y	Absent	30-NOV-21 09:11	HOLD-8260HLW(14)
L2165357-04C	Vial water preserved	A	NA		3.3	Y	Absent	30-NOV-21 09:11	HOLD-8260HLW(14)
L2165357-04D	Plastic 2oz unpreserved for TS	A	NA		3.3	Y	Absent		TS(7)
L2165357-04E	Metals Only-Glass 60mL/2oz unpreserved	A	NA		3.3	Y	Absent		HOLD-METAL(180)

*Values in parentheses indicate holding time in days

Project Name: PES REFINERY-860 RELEASE
Project Number: 200.00135.005.03

Lab Number: L2165357
Report Date: 12/13/21

Container Information

Container ID	Container Type	Cooler	Initial pH	Final pH	Temp deg C	Pres	Seal	Frozen Date/Time	Analysis(*)
L2165357-04F	Glass 120ml/4oz unpreserved	A	NA		3.3	Y	Absent		PA-PAH(14)
L2165357-05A	Vial MeOH preserved	A	NA		3.3	Y	Absent		HOLD-8260HLW(14)
L2165357-05B	Vial water preserved	A	NA		3.3	Y	Absent	30-NOV-21 09:11	HOLD-8260HLW(14)
L2165357-05C	Vial water preserved	A	NA		3.3	Y	Absent	30-NOV-21 09:11	HOLD-8260HLW(14)
L2165357-05D	Plastic 2oz unpreserved for TS	A	NA		3.3	Y	Absent		TS(7)
L2165357-05E	Metals Only-Glass 60mL/2oz unpreserved	A	NA		3.3	Y	Absent		HOLD-METAL(180)
L2165357-05F	Glass 120ml/4oz unpreserved	A	NA		3.3	Y	Absent		PA-PAH(14)
L2165357-06A	Vial MeOH preserved	A	NA		3.3	Y	Absent		HOLD-8260HLW(14)
L2165357-06B	Vial water preserved	A	NA		3.3	Y	Absent	30-NOV-21 09:11	HOLD-8260HLW(14)
L2165357-06C	Vial water preserved	A	NA		3.3	Y	Absent	30-NOV-21 09:11	HOLD-8260HLW(14)
L2165357-06D	Plastic 2oz unpreserved for TS	A	NA		3.3	Y	Absent		TS(7)
L2165357-06E	Metals Only-Glass 60mL/2oz unpreserved	A	NA		3.3	Y	Absent		HOLD-METAL(180)
L2165357-06F	Glass 120ml/4oz unpreserved	A	NA		3.3	Y	Absent		PA-PAH(14)

*Values in parentheses indicate holding time in days

Project Name:	PES REFINERY-860 RELEASE	**Lab Number:**	L2165357
Project Number:	200.00135.005.03	**Report Date:**	12/13/21

GLOSSARY

Acronyms

DL - Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the limit of quantitation (LOQ). The DL includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)

EDL - Estimated Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The EDL includes any adjustments from dilutions, concentrations or moisture content, where applicable. The use of EDLs is specific to the analysis of PAHs using Solid-Phase Microextraction (SPME).

EMPC - Estimated Maximum Possible Concentration: The concentration that results from the signal present at the retention time of an analyte when the ions meet all of the identification criteria except the ion abundance ratio criteria. An EMPC is a worst-case estimate of the concentration.

EPA - Environmental Protection Agency.

LCS - Laboratory Control Sample: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.

LCSD - Laboratory Control Sample Duplicate: Refer to LCS.

LFB - Laboratory Fortified Blank: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.

LOD - Limit of Detection: This value represents the level to which a target analyte can reliably be detected for a specific analyte in a specific matrix by a specific method. The LOD includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)

LOQ - Limit of Quantitation: The value at which an instrument can accurately measure an analyte at a specific concentration. The LOQ includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)

Limit of Quantitation: The value at which an instrument can accurately measure an analyte at a specific concentration. The LOQ includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)

MDL - Method Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The MDL includes any adjustments from dilutions, concentrations or moisture content, where applicable.

MS - Matrix Spike Sample: A sample prepared by adding a known mass of target analyte to a specified amount of matrix sample for which an independent estimate of target analyte concentration is available. For Method 332.0, the spike recovery is calculated using the native concentration, including estimated values.

MSD - Matrix Spike Sample Duplicate: Refer to MS.

NA - Not Applicable.

NC - Not Calculated: Term is utilized when one or more of the results utilized in the calculation are non-detect at the parameter's reporting unit.

NDPA/DPA - N-Nitrosodiphenylamine/Diphenylamine.

NI - Not Ignitable.

NP - Non-Plastic: Term is utilized for the analysis of Atterberg Limits in soil.

NR - No Results: Term is utilized when 'No Target Compounds Requested' is reported for the analysis of Volatile or Semivolatile Organic TIC only requests.

RL - Reporting Limit: The value at which an instrument can accurately measure an analyte at a specific concentration. The RL includes any adjustments from dilutions, concentrations or moisture content, where applicable.

RPD - Relative Percent Difference: The results from matrix and/or matrix spike duplicates are primarily designed to assess the precision of analytical results in a given matrix and are expressed as relative percent difference (RPD). Values which are less than five times the reporting limit for any individual parameter are evaluated by utilizing the absolute difference between the values; although the RPD value will be provided in the report.

SRM - Standard Reference Material: A reference sample of a known or certified value that is of the same or similar matrix as the associated field samples.

STLP - Semi-dynamic Tank Leaching Procedure per EPA Method 1315.

TEF - Toxic Equivalency Factors: The values assigned to each dioxin and furan to evaluate their toxicity relative to 2,3,7,8-TCDD.

TEQ - Toxic Equivalent: The measure of a sample's toxicity derived by multiplying each dioxin and furan by its corresponding TEF and then summing the resulting values.

TIC - Tentatively Identified Compound: A compound that has been identified to be present and is not part of the target compound list (TCL) for the method and/or program. All TICs are qualitatively identified and reported as estimated concentrations.

Report Format: DU Report with 'J' Qualifiers

Project Name:	PES REFINERY-860 RELEASE	**Lab Number:**	L2165357
Project Number:	200.00135.005.03	**Report Date:**	12/13/21

Footnotes

1 - The reference for this analyte should be considered modified since this analyte is absent from the target analyte list of the original method.

Terms

Analytical Method: Both the document from which the method originates and the analytical reference method. (Example: EPA 8260B is shown as 1,8260B.) The codes for the reference method documents are provided in the References section of the Addendum.

Difference: With respect to Total Oxidizable Precursor (TOP) Assay analysis, the difference is defined as the Post-Treatment value minus the Pre-Treatment value.

Final pH: As it pertains to Sample Receipt & Container Information section of the report, Final pH reflects pH of container determined after adjustment at the laboratory, if applicable. If no adjustment required, value reflects Initial pH.

Frozen Date/Time: With respect to Volatile Organics in soil, Frozen Date/Time reflects the date/time at which associated Reagent Water-preserved vials were initially frozen. Note: If frozen date/time is beyond 48 hours from sample collection, value will be reflected in 'bold'.

Initial pH: As it pertains to Sample Receipt & Container Information section of the report, Initial pH reflects pH of container determined upon receipt, if applicable.

PAH Total: With respect to Alkylated PAH analyses, the 'PAHs, Total' result is defined as the summation of results for all or a subset of the following compounds: Naphthalene, C1-C4 Naphthalenes, 2-Methylnaphthalene, 1-Methylnaphthalene, Biphenyl, Acenaphthylene, Acenaphthene, Fluorene, C1-C3 Fluorenes, Phenanthrene, C1-C4 Phenanthrenes/Anthracenes, Anthracene, Fluoranthene, Pyrene, C1-C4 Fluoranthenes/Pyrenes, Benz(a)anthracene, Chrysene, C1-C4 Chrysenes, Benzo(b)fluoranthene, Benzo(j)+(k)fluoranthene, Benzo(e)pyrene, Benzo(a)pyrene, Perylene, Indeno(1,2,3-cd)pyrene, Dibenz(ah)+(ac)anthracene, Benzo(g,h,i)perylene. If a 'Total' result is requested, the results of its individual components will also be reported.

PFAS Total: With respect to PFAS analyses, the 'PFAS, Total (5)' result is defined as the summation of results for: PFHpA, PFHxS, PFOA, PFNA and PFOS. In addition, the 'PFAS, Total (6)' result is defined as the summation of results for: PFHpA, PFHxS, PFOA, PFNA, PFDA and PFOS. For MassDEP DW compliance analysis only, the 'PFAS, Total (6)' result is defined as the summation of results at or above the RL. Note: If a 'Total' result is requested, the results of its individual components will also be reported.

The target compound Chlordane (CAS No. 57-74-9) is reported for GC ECD analyses. Per EPA,this compound "refers to a mixture of chlordane isomers, other chlorinated hydrocarbons and numerous other components." (Reference: USEPA Toxicological Review of Chlordane, In Support of Summary Information on the Integrated Risk Information System (IRIS), December 1997.)

Total: With respect to Organic analyses, a 'Total' result is defined as the summation of results for individual isomers or Aroclors. If a 'Total' result is requested, the results of its individual components will also be reported. This is applicable to 'Total' results for methods 8260, 8081 and 8082.

Data Qualifiers

A - Spectra identified as "Aldol Condensates" are byproducts of the extraction/concentration procedures when acetone is introduced in the process.

B - The analyte was detected above the reporting limit in the associated method blank. Flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For MCP-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For DOD-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank AND the analyte was detected above one-half the reporting limit (or above the reporting limit for common lab contaminants) in the associated method blank. For NJ-Air-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte above the reporting limit. For NJ-related projects (excluding Air), flag only applies to associated field samples that have detectable concentrations of the analyte, which was detected above the reporting limit in the associated method blank or above five times the reporting limit for common lab contaminants (Phthalates, Acetone, Methylene Chloride, 2-Butanone).

C - Co-elution: The target analyte co-elutes with a known lab standard (i.e. surrogate, internal standards, etc.) for co-extracted analyses.

D - Concentration of analyte was quantified from diluted analysis. Flag only applies to field samples that have detectable concentrations of the analyte.

E - Concentration of analyte exceeds the range of the calibration curve and/or linear range of the instrument.

F - The ratio of quantifier ion response to qualifier ion response falls outside of the laboratory criteria. Results are considered to be an estimated maximum concentration.

G - The concentration may be biased high due to matrix interferences (i.e, co-elution) with non-target compound(s). The result should be considered estimated.

H - The analysis of pH was performed beyond the regulatory-required holding time of 15 minutes from the time of sample collection.

I - The lower value for the two columns has been reported due to obvious interference.

J - Estimated value. The Target analyte concentration is below the quantitation limit (RL), but above the Method Detection Limit (MDL) or Estimated Detection Limit (EDL) for SPME-related analyses. This represents an estimated concentration for Tentatively Identified Compounds (TICs).

M - Reporting Limit (RL) exceeds the MCP CAM Reporting Limit for this analyte.

ND - Not detected at the method detection limit (MDL) for the sample, or estimated detection limit (EDL) for SPME-related analyses.

Report Format: DU Report with 'J' Qualifiers

Project Name:	PES REFINERY-860 RELEASE	**Lab Number:**	L2165357
Project Number:	200.00135.005.03	**Report Date:**	12/13/21

Data Qualifiers

NJ - Presumptive evidence of compound. This represents an estimated concentration for Tentatively Identified Compounds (TICs), where the identification is based on a mass spectral library search.

P - The RPD between the results for the two columns exceeds the method-specified criteria.

Q - The quality control sample exceeds the associated acceptance criteria. For DOD-related projects, LCS and/or Continuing Calibration Standard exceedences are also qualified on all associated sample results. Note: This flag is not applicable for matrix spike recoveries when the sample concentration is greater than 4x the spike added or for batch duplicate RPD when the sample concentrations are less than 5x the RL. (Metals only.)

R - Analytical results are from sample re-analysis.

RE - Analytical results are from sample re-extraction.

S - Analytical results are from modified screening analysis.

V - The surrogate associated with this target analyte has a recovery outside the QC acceptance limits. (Applicable to MassDEP DW Compliance samples only.)

Z - The batch matrix spike and/or duplicate associated with this target analyte has a recovery/RPD outside the QC acceptance limits. (Applicable to MassDEP DW Compliance samples only.)

Report Format: DU Report with 'J' Qualifiers

Project Name:	PES REFINERY-860 RELEASE	**Lab Number:**	L2165357
Project Number:	200.00135.005.03	**Report Date:**	12/13/21

REFERENCES

1 Test Methods for Evaluating Solid Waste: Physical/Chemical Methods. EPA SW-846. Third Edition. Updates I - VI, 2018.

121 Standard Methods for the Examination of Water and Wastewater. APHA-AWWA-WEF. Standard Methods Online.

LIMITATION OF LIABILITIES

Alpha Analytical performs services with reasonable care and diligence normal to the analytical testing laboratory industry. In the event of an error, the sole and exclusive responsibility of Alpha Analytical shall be to re-perform the work at it's own expense. In no event shall Alpha Analytical be held liable for any incidental, consequential or special damages, including but not limited to, damages in any way connected with the use of, interpretation of, information or analysis provided by Alpha Analytical.

We strongly urge our clients to comply with EPA protocol regarding sample volume, preservation, cooling, containers, sampling procedures, holding time and splitting of samples in the field.

Certification Information

The following analytes are not included in our Primary NELAP Scope of Accreditation:

Westborough Facility
EPA 624/624.1: m/p-xylene, o-xylene, Naphthalene
EPA 625/625.1: alpha-Terpineol
EPA 8260C/8260D: NPW: 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene, Azobenzene; SCM: Iodomethane (methyl iodide), 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene.
EPA 8270D/8270E: NPW: Dimethylnaphthalene,1,4-Diphenylhydrazine, alpha-Terpineol; SCM: Dimethylnaphthalene,1,4-Diphenylhydrazine.
SM4500: NPW: Amenable Cyanide; SCM: Total Phosphorus, TKN, NO2, NO3.

Mansfield Facility
SM 2540D: TSS
EPA 8082A: NPW: PCB: 1, 5, 31, 87,101, 110, 141, 151, 153, 180, 183, 187.
EPA TO-15: Halothane, 2,4,4-Trimethyl-2-pentene, 2,4,4-Trimethyl-1-pentene, Thiophene, 2-Methylthiophene, 3-Methylthiophene, 2-Ethylthiophene, 1,2,3-Trimethylbenzene, Indan, Indene, 1,2,4,5-Tetramethylbenzene, Benzothiophene, 1-Methylnaphthalene.
Biological Tissue Matrix: EPA 3050B

The following analytes are included in our Massachusetts DEP Scope of Accreditation

Westborough Facility:

Drinking Water
EPA 300.0: Chloride, Nitrate-N, Fluoride, Sulfate; **EPA 353.2**: Nitrate-N, Nitrite-N; **SM4500NO3-F**: Nitrate-N, Nitrite-N; **SM4500F-C, SM4500CN-CE, EPA 180.1, SM2130B, SM4500Cl-D, SM2320B, SM2540C, SM4500H-B, SM4500NO2-B**
EPA 332: Perchlorate; **EPA 524.2:** THMs and VOCs; **EPA 504.1:** EDB, DBCP.
Microbiology: **SM9215B; SM9223-P/A, SM9223B-Colilert-QT,SM9222D**.

Non-Potable Water
SM4500H,B, EPA 120.1, SM2510B, SM2540C, SM2320B, SM4500CL-E, SM4500F-BC, SM4500NH3-BH: Ammonia-N and Kjeldahl-N, **EPA 350.1**: Ammonia-N, **LACHAT 10-107-06-1-B**: Ammonia-N, **EPA 351.1, SM4500NO3-F, EPA 353.2**: Nitrate-N, **SM4500P-E, SM4500P-B, E, SM4500SO4-E, SM5220D, EPA 410.4, SM5210B, SM5310C, SM4500CL-D, EPA 1664, EPA 420.1, SM4500-CN-CE, SM2540D, EPA 300: Chloride, Sulfate, Nitrate.**
EPA 624.1: Volatile Halocarbons & Aromatics,
EPA 608.3: Chlordane, Toxaphene, Aldrin, alpha-BHC, beta-BHC, gamma-BHC, delta-BHC, Dieldrin, DDD, DDE, DDT, Endosulfan I, Endosulfan II, Endosulfan sulfate, Endrin, Endrin Aldehyde, Heptachlor, Heptachlor Epoxide, PCBs
EPA 625.1: SVOC (Acid/Base/Neutral Extractables), **EPA 600/4-81-045**: PCB-Oil.
Microbiology: **SM9223B-Colilert-QT; Enterolert-QT, SM9221E, EPA 1600, EPA 1603, SM9222D.**

Mansfield Facility:

Drinking Water
EPA 200.7: Al, Ba, Cd, Cr, Cu, Fe, Mn, Ni, Na, Ag, Ca, Zn. **EPA 200.8:** Al, Sb, As, Ba, Be, Cd, Cr, Cu, Pb, Mn, Ni, Se, Ag, TL, Zn. **EPA 245.1** Hg.
EPA 522, EPA 537.1.

Non-Potable Water
EPA 200.7: Al, Sb, As, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Mg, Mn, Mo, Ni, K, Se, Ag, Na, Sr, TL, Ti, V, Zn.
EPA 200.8: Al, Sb, As, Be, Cd, Cr, Cu, Fe, Pb, Mn, Ni, K, Se, Ag, Na, TL, Zn.
EPA 245.1 Hg.
SM2340B

For a complete listing of analytes and methods, please contact your Alpha Project Manager.

CHAIN OF CUSTODY

PAGE 1 OF 1

ALPHA ANALYTICAL

Westborough, MA TEL: 508-898-9220 FAX: 508-898-9193
Mansfield, MA TEL: 508-822-9300 FAX: 508-822-3288

Date Rec'd in Lab: 1 11/30/21

ALPHA Job #: L2163357

Client Information

Client: Ransom Consulting, LLC
Address: 2127 Hamilton Avenue
Trenton, NJ 08619
Phone: 215-901-4974
Fax:
Email: William.Schmidt@ransomenv.com

☐ These samples have been Previously analyzed by Alpha

Project Information

Project Name: PES Refinery - 860 Release
Project Location: Philadelphia, PA
Project #: 200.00135.005.03
Project Manager: William Schmidt
ALPHA Quote #: 13161

Turn-Around Time

☒ Standard ☐ Rush (ONLY IF PRE-APPROVED)

Due Date: Time:

Report Information — Data Deliverables

☐ FAX ☒ EMAIL
☒ ADEx ☐ Add'l Deliverables

Billing Information

☒ Same as Client info PO #: 3894

Regulatory Requirements/Report Limits

State/Fed Program | Criteria

Other Project Specific Requirements/Comments/Detection Limits:
Report only project-specific (PADEP SVOC) analyte list per attached

Email results to edd@terraphase.com, William.Schmidt@ransomenv.com, and jjeray@hilcoglobal.com

ANALYSIS

PADEP Shortlist 1-5 (SVOC Portion)

SAMPLE HANDLING
Filtration
☐ Done
☒ Not Needed
☐ Lab to do
Preservation
☐ Lab to do
(Please specify below)

Sample Specific Comments

TOTAL # BOTTLES

ALPHA Lab ID (Lab Use Only)	Sample ID	Collection Date	Collection Time	Sample Matrix	Sampler's Initials	PADEP Shortlist 1-5 (SVOC Portion)	TOTAL # BOTTLES
65357-01	Hartranft-10th-CONF-SOIL-1-2021-11-29	~~11/28~~ 11/29	1000	S	TS	☒	#1
-02	Hartranft-10th-CONF-SOIL-2-2021-11-29	~~11/28~~	1020	S	TS	☒	1
-03	Hartranft-10th-CONF-SOIL-3-2021-11-29	~~11/28~~	1050	S	TS	☒	1
-04	Hartranft-10th-CONF-SOIL-4-2021-11-29	~~11/28~~	1100	S	TS	☒	1
-05	Hartranft-10th-CONF-SOIL-5-2021-11-29	~~11/28~~	1105	S	TS	☒	1
-06	Hartranft-10th-CONF-SOIL-6-2021-11-29	~~11/28~~	1115	S	TS	☒	1
						☐	
						☐	
						☐	
						☐	

Container Type
Preservative

Relinquished By:	Date/Time	Received By:	Date/Time
	11/29/21 1730		11/29/21 1650
	11-29-21 2000	Paul Mazzella	11/29/21 2020
Paul Mazzella	11/30/21 0050		11/30/21 0050

Please print clearly, legibly and completely. Samples can not be logged in and turnaround time clock will not start until any ambiguities are resolved. All samples submitted are subject to Alpha's Payment Terms.

FORM NO: 01-01(I-NJ) (rev. 5-JAN-12)