	On-Site	Storage	of PCS
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### Iowa Department of Natural Resources

# PETROLEUM CONTAMINATED SOIL LANDFARMING AND STORAGE NOTIFICATION FORM



Mulituse and single-use landfarming agencies shall submit the following notification form to the department and department field office with jurisdiction over the landfarm before land application; however, at least 30 days' notification is encouraged. Petroleum Contaminated Soil (PCS) from an emergency cleanup supervised by the department pursuant to subrule 120.6(1), however, shall be reported within 7 days of the emergency cleanup.

Send the completed application with attached information to:

Solid Waste Section Land Quality Bureau Iowa Department of Natural Resources 502 E 9th Street Des Moines, IA 50319 Fax: (515) 725-8202

Visit <a href="http://www.iowadnr.gov/InsideDNR/DNRStaffOffices.aspx">http://www.iowadnr.gov/InsideDNR/DNRStaffOffices.aspx</a> for a listing of field offices addresses and jurisdictions

Questions contact Matt Graesch at (515) 725-8331 or matt.graesch@dnr.iowa.gov

For information on Emergency Response Spills, call (515) 725-8694 or visit <a href="http://www.iowadnr.gov/About-DNR/DNR-Staff-Offices/Environmental-Field-Offices/Emergency-Response-Unit">http://www.iowadnr.gov/About-DNR/DNR-Staff-Offices/Emergency-Response-Unit</a>

SECTION 1. CONT	ACT INFORMATION	Provide the	name, addres	s and telephone	numbe	r for the follo	wing):		
Landfarming Ager	ncy Owner(s) urce, LLC								
Street Address:	1001 Raccoon Street	t							
City: Des Moine	es		State:	lowa	Z	Zip Code:	50309		
Phone Number:	(515) 250-6695	E-	mail: darre	n@ecosourceiowa	a.com		e <del></del>		
	mit Number for Agend	cv: 77	- SDF	- 74-20P	-PCS	S			
PCS Landfarming, Name: Bud Jos Street Address:	/Storage Location Ow nes 122 E Ayers St	ner	6,						
<u>***</u> *********************************			State:	lowa		Zip Code:	50213		
City: Osceola  Phone Number:	(641) 342-3413	E-		st@mediacombb					
	on of Property that wi legal description from your			ng/Storage:					
NE ¼ of	NW % of N	N 1/4 2	21	72	_ N _2	.6	$\mathbf{X}$	Clarke	
			Section	Township		Range		County	

SECTION 2: PCS LANDFARMING AND STORAGE INFORMATION
Petroleum product contaminating soil (check all that apply):
Gasoline Diesel X Waste Oil X Kerosene Det Fuel Other * Note: Storage of non-standard PCS requires a permit amendment request
Predominant texture of the contaminated soil: Does PCS contain or have the potential to produce tar balls:
X Clay       Sand       Silt       Gravel       Yes       X No         Other       * PCS that has the potential to produce tar balls shall not be landfarmed
Estimated volume of PCS to be stored: 180 Cubic Yards
Date PCS is expected to be delivered for storage: 4/24/24
Date PCS is expected to be land applied: 4/24/24
Is this project part of a department-supervised emergency cleanup?:
If yes, provide the spill number
Petroleum Contaminated Site or Facility
Name: First Christian Church of Osceola
Street Address: 300 S Main Street
City: Osceola State: Iowa Zip Code: 50213
Phone Number: 641-342-2921 E-mail:
NE % of NW % of NW % 21 72 N 26 Range Clarke  Underground Storage Tank Owner, if applicable  Name: Osceola First Christian Church
Street Address: 300 S Main Street
City:         Osceola         State:         IA         Zip Code:         50213           Phone Number:         641-342-2921         E-mail:
Phone Number: 641-342-2921 E-mail:
031 Registration Number, it applicable.
LUST Registration Number, if applicable: N/A
SECTION 3. NOTIFICATION FORM CHECKLIST
Checking the appropriate boxes below certifies that the attachments submitted in conjunction with this application form are complete and in compliance with the applicable chapters of the lowa Administrative Code. While some of the attachments below may have been submitted previously, updated copies of each is required to be provided with each notification form.
Required Document
<ul> <li>Section A. Topographical Map of Landfarm [IAC 567 Chapter 120.11(1) "b" (2)]</li> <li>Section B. Soil Map of Landfarm with Key [IAC 567 Chapter 120.11(1) "b" (2)]</li> <li>Section C. 100-Year Flood Plain Map [IAC 567 Chapter 120.11(1) "b" (2)]</li> <li>Section D. Map of Landfarm Plot to be Utilized [IAC 567 Chapter 120.11(1) "b" (2)]</li> <li>Section E. Application Rate Calculations Pursuant to 120.9(6) [IAC 567 Chapter 120.11(1) "b"(3)]</li> <li>Section F. Chemical Analysis of Petroleum Contaminated Soil [IAC 567 Chapter 120.11(1) "c"]</li> </ul>

### SECTION 4. LANDFARMING AGENCY OWNER CERTIFICATION FOR LANDFARMING AND STORAGE OF PCS

I certify under penalty of law that I am the owner of the landfarming agency for which this Petroleum Contaminated Soil Landfarming and Storage Notification Form is submitted, and that I have examined and am familiar with the requirements of landfarming and storage of petroleum contaminated soil in accordance with lowa Administrative Code 567-Chapter 120, and that the information I have provided is true, accurate and complete.

Signature: Printed Name:	Darren Fife	Date:	
SECTION 5. LAND	FARMING SITE OWNER CERTIFICATION FOR LANDFARMING AND STOR	AGE OF PCS	
	application or storage site for the petroleum contaminated soil referened in this notification must conform with the requirements contained in		
120.	/ with the requirements contained in		structure (inte) code son chapter
Signature:	20 An	Date:	5-22-24
Printed Name:	Bud Jones		

#### DOCUMENTS TO BE ATTACHED

#### SECTION A. TOPOGRAPHICAL MAP OF LANDFARM (ONLY APPLICABLE FOR SINGLE USE LANDFARM)

- ✓ Provide a topographical map that includes at least a ¼ mile radius around the landfarm site. Clearly mark the following on the map:
  - a. Application site boundary
  - b. Water wells and occupied structures within 1/4 mile of the application site
  - c. Streams, lakes, ponds, drainage ditches, sinkholes and tile line surface intakes that are located within a ¼ mile of the application site

#### SECTION B. SOIL MAP OF LANDFARM (ONLY APPLICABLE FOR SINGLE USE LANDFARM)

✓ Provide a soil map with key showing where the PCS will be applied and the landfarm site boundary. If PCS is planned to be stored, mark the location on the soil map. Soil maps can be obtained from the local Natural Resource Conservation Service (NRCS) office.

PCS shall not be applied on Loamy Sand, Sand, and Silt for single-use landfarms and Clay, Sandy Clay, Sandy Clay Loam, Sandy Loam, Loamy Sand, Sand, and Silt for multiuse landfarms as classified by the USDA Textural Classification Chart for Soils. Soils in the operating area shall have a pH greater than 6 and less than 9, free of debris larger than 4 inches in diameter, and have a minimum of 6 feet of soil over bedrock.

#### SECTION C. FLOOD PLAIN MAP (ONLY APPLICABLE FOR SINGLE-USE LANDFARM)

✓ Provide a 100-year flood plain map showing where the PCS will be applied and the landfarm site boundary.

### SECTION D. MAP OF LANDFARM PLOT TO BE UTILIZED (ONLY APPLICABLE FOR MULTIUSE LANDFARM)

✓ Provide a map illustrating the multiuse landfarm site and indicating the landfarm plot which the PCS is to be applied.

# SECTION E. APPLICATION RATE CALCULATIONS PURSUANT TO IAC 567-120.9(6) (APPLICABLE TO SINGLE- USE AND MULTIUSE LANDFARM)

- ✓ PCS shall be land applied at a rate that is as uniform as practical over an area sufficient to satisfy the greater of the following area requirements. However, PCS from an emergency cleanup supervised by the department pursuant to subrule 120.6(1) may instead be land applied at a rate of 162 ft² of landfarm area per cubic yard (yd³) of PCS, that is as uniform as practical, and in which no layer of unincorporated PCS is thicker than 2 inches.
  - a. Petroleum constituents. PCS shall be land applied over the largest area required by the following:
    - (1) Benzene. PCS contaminated with benzene shall be land applied in accordance with Table 1. The average concentration of benzene in the PCS shall be used to determine the landfarm area (ft²) required per cubic yard (yd³) of PCS to be land applied. The average concentration of benzene shall be calculated from all soil boring test results that are within the PCS excavation area. The application shall be as uniform as practical over the area required.

Table 1				
Average concentration of benzene (mg/kg)	Ft <sup>2</sup> of landfarm area per yd <sup>3</sup> of PCS applied	Maximum thickness of unincorporated PCS	Yd <sup>3</sup> of PCS per acre of landfarm	
0 < mg/kg < 10	81 ft2	4 inches	537 yd <sup>3</sup>	
10 < mg/kg < 20	162 ft2	2 inches	268 yd <sup>3</sup>	
20 < mg/kg	324 ft2	1 inch	134 yd <sup>3</sup>	

- (2) Toluene, ethylbenzene, xylene, and TEH-diesel. PCS that is not contaminated with benzene or MTBE, but is contaminated with toluene, ethylbenzene, xylene, THE-diesel, or some combination thereof, shall be land applied at a rate of 81 ft² of landfarm area per cubic yard (yd3) of PCS. The application shall be as uniform as practical, and no layer of unincorporated PCS shall be thicker than 4 inches.
- b. Total heavy metals. PCS that has been tested for heavy metals pursuant to subparagraph 120.6(2)"c"(4) shall be applied at a rate that is as uniform as practical, that results in no layer of PCS is thicker than 4 inches, and that upon incorporation produces a landfarm soil that satisfies the following requirements. This analysis requires prior testing of background levels of heavy metals at the proposed landfarm site.
  - (1) Total heavy metals are less than 2,500 milligrams per kilogram (mg/kg).
  - (2) Any particular concentration of a heavy metal is less than the appropriate statewide standard for soil developed pursuant to 567—Chapter 137.

#### SECTION F. CHEMICAL ANALYSIS OF PETROLEUM CONTAMINATED SOIL (APPLICABLE TO SINGLE-USE AND MULTIUSE LANDFARM)

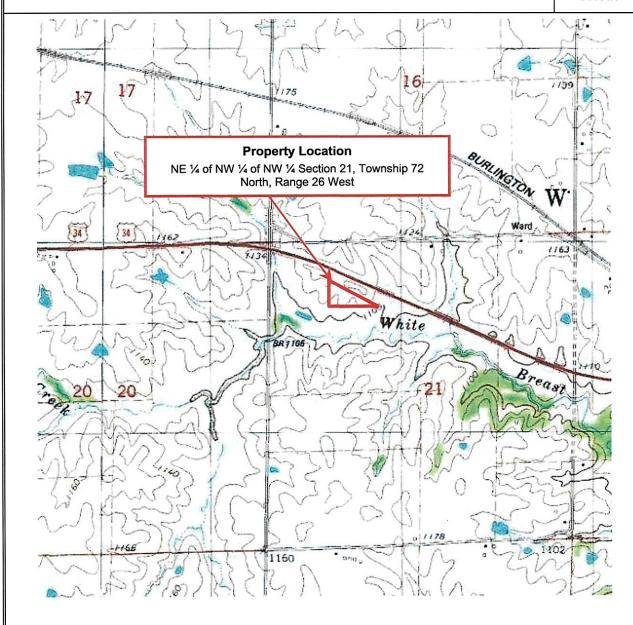
- ✓ The following analyses shall be performed. Samples shall be acquired, stored, handled, tested and reported in accordance with
  the required methodology and accepted scientific procedures. A laboratory certified for UST petroleum analyses pursuant to
  IAC 567-Chapter 83 shall test samples. The analysis shall utilize the most recent version of Method OA-1 (GCMS), "Method for
  Determination of Volatile Petroleum Hydrocarbons (Gasoline)," University of Iowa Hygienic Laboratory.
  - a. BTEX testing. The PCS shall be tested for benzene, toluene, ethylbenzene and xylene.
  - b. TEH-diesel testing. The PCS shall be tested for total extractable hydrocarbons.
  - c. MTBE testing. The PCS shall be tested for methyl tertiary-butyl ether unless prior analysis at the site, pursuant to IAC 567-Chapter 135.15(455B), has shown that MTBE is not present in the soil or groundwater.
  - d. Total metals testing. If the history of the petroleum contaminated site is known to have included solvents, batteries, leaded fuel, waste oil or a gas station in operation prior to 1985, then the PCS shall be tested for total Resource Conservation and Recovery Act (RCRA) metals.

# Section A Topographical Map of Landfarm

# PROPERTY TOPOGRAPHIC MAP Section A



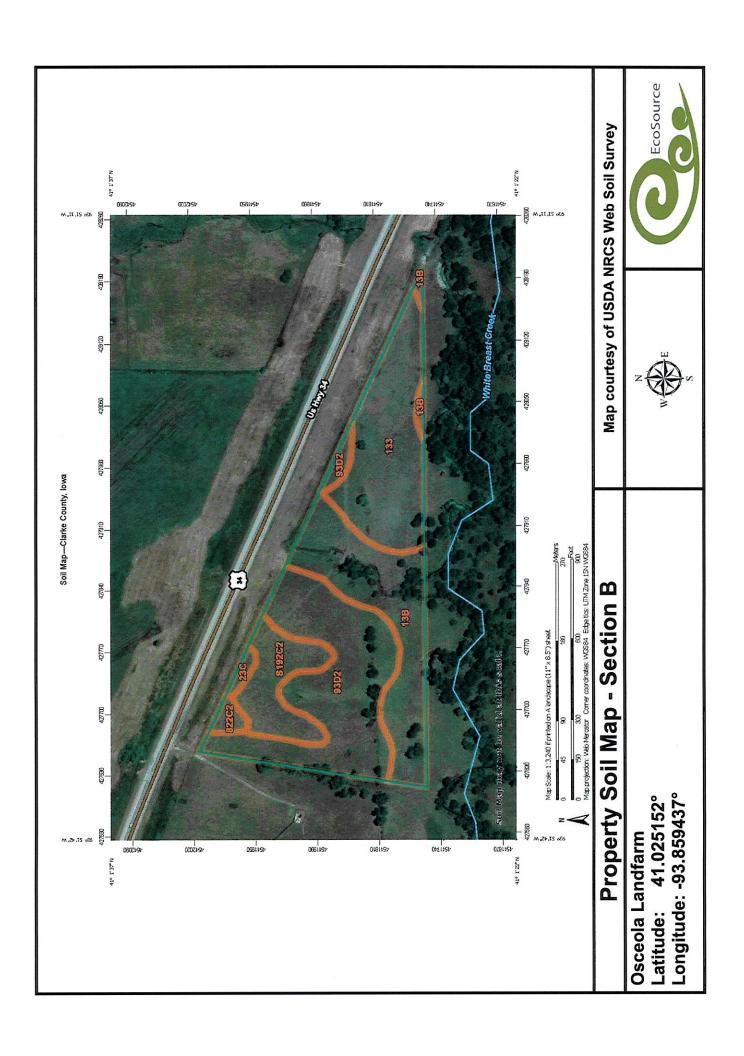
North



## **Property Topographic Map**



# Section B Soil Map of Landfarm



## PROPERTY SOIL MAP **Section B**



North

#### MAP LEGEND

Spoil Area

Stony Spot

Very Stony Spot

Wet Spot 0

Interstate Highways

US Routes

Major Roads

Local Roads

Aerial Photography

Other

Water Features

Transportation

Background

#### Area of Interest (AOI)

Area of Interest (AOI) Soils

Soil Map Unit Polygons Soil Map Unit Lines

Soil Map Unit Points

#### Special Point Features (b) Blowout

Borrow Pit

Clay Spot

Closed Depression 0 Gravel Pit

Gravelly Spot

0 Landfill

Lava Flow 1

Marsh or swamp de Mine or Quarry

僚 Miscellaneous Water

Perennial Water 0

Rock Outcrop

Saline Spot +

::: Sandy Spot

Severely Eroded Spot

Sinkhole

Slide or Slip

Sodic Spot

#### MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:15,800.

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

Please rety on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service Web Soil Survey URL: Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Clarke County, Iowa Survey Area Data: Version 24, Sep 7, 2018

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Jul 26, 2012—Sep 28, 2017

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

## **Property Soil Map**



# PROPERTY SOIL MAP Section B



North

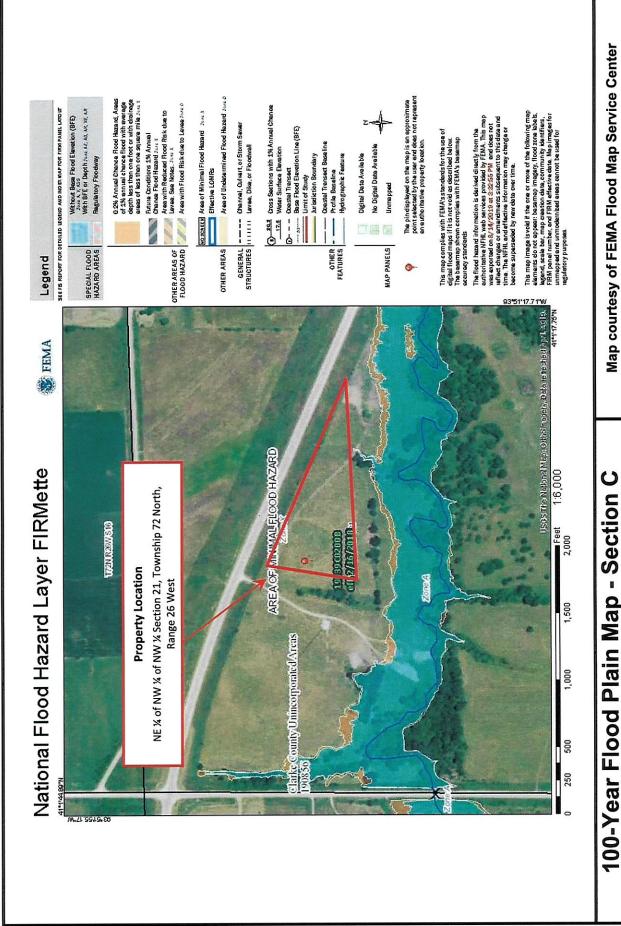
## **Map Unit Legend**

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
13B	Olmitz-Zook-Colo complex, 0 to 5 percent slopes	5.0	26.4%
23C	Arispe silty clay loam, 5 to 9 percent slopes	0.2	1.0%
93D2	Shelby-Adair complex, 9 to 14 percent slopes, moderately eroded	6.5	34.7%
133	Colo silty clay loam, heavy till, 0 to 2 percent slopes, occasionally flooded	4.7	25.0%
822C2	Lamoni clay loam, 5 to 9 percent slopes, moderately eroded	0.3	1.5%
S192C2	Adair clay loam, heavy till, 5 to 9 percent slopes, moderately eroded	2.1	11.3%
Totals for Area of Interest		18.8	100.0%

**Property Soil Map** 



# Section C 100-Year Flood Plain Map



Osceola Landfarm Latitude: 41.025152°

Longitude: -93.859437°





# Section D Map of Landfarm to be Utilized

# PROPERTY LANDFARM PLOT TO BE UTILIZED MAP Section D



North



## Property Landfarm Plot to be Utilized Map



## **Section E**

## **Application Rate Calculations**

Due to lack of analytics received from the lab at the time of application. A minimum rate of 1-inch during application was utilized

# Section F Chemical Analysis of Petroleum Contaminated Soil