

From: Ziegelbauer, Heather <Heather.Ziegelbauer@jacobs.com>
Sent: Thursday, August 24, 2023 2:53 PM
To: Kleinberg, Andrew
Cc: Carey, Angela J - DNR; Denice Nelson; Krueger, Sarah E - DNR; Ryan Suennen; Finney, David
Subject: RE: WID006125215 Tyco - ChemDesign Building 67 Expansion Memo Review
Attachments: 20230824-RTC_ChemDesignBldg67.pdf

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Andrew,

On behalf of Tyco, the attached memorandum respond to the Agencies comments submitted via email on August 4, 2023 regarding the ChemDesign Building 67 Expansion Memo dated May 26, 2023 for the Tyco property located at One Stanton Street, Marinette, Wisconsin.

Please let us know if you have any question.

Thanks,

Heather Ziegelbauer, PE* | [Jacobs](#) | Project Manager
O:+1.262.644.6167 | M:+1.312.933.1017 | heather.ziegelbauer@jacobs.com
1610 N. 2nd Street, Suite 201 | Milwaukee, WI 53202 | USA
*Wisconsin

From: Kleinberg, Andrew <Kleinberg.Andrew@epa.gov>
Sent: Friday, August 4, 2023 1:03 PM
To: Ziegelbauer, Heather <Heather.Ziegelbauer@jacobs.com>
Cc: angela.carey@wisconsin.gov; Denice Nelson <denice.karen.nelson@jci.com>; Krueger, Sarah E - DNR <sarah.krueger@wisconsin.gov>; Clarizio, Richard <Clarizio.Richard@epa.gov>; Patel, Shilpa <patel.shilpa@epa.gov>
Subject: [EXTERNAL] WID006125215 Tyco - ChemDesign Building 67 Expansion Memo Review

Hello,

Please see attached the review for the ChemDesign Building 67 Expansion Memo submitted by Tyco. Let me know if you have any questions or concerns.

Thanks!

Andrew Kleinberg
Project Manager - Geologist
RCRA Corrective Action Section 2
Land, Chemicals & Redevelopment Division, Region 5, U.S. EPA

77 West Jackson Blvd. (LR-16J), Chicago, IL 60604
(312) 353-4374
Kleinberg.Andrew@epa.gov

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Response to EPA Review: ChemDesign Building 67 Expansion Memo

Date:	August 24, 2023	Jacobs Engineering Group Inc.
Project name:	Tyco Fire Products LP, One Stanton Street, Marinette, Wisconsin	1610 N 2nd Street
Project no:	D3766600	Suite 201
Attention:	Andrew Kleinberg	Milwaukee, WI 53212
Company:	U.S. Environmental Protection Agency	United States
Prepared by:	Jacobs	T +1.414.272.2426
Document no:	D3766600.306	F +1.414.272.4408
Copies to:	Sarah Krueger/WDNR Angela Carey, WDNR Ryan Suennen, Tyco Fire Products Denice Nelson, Johnson Controls Heather Ziegelbauer, Jacobs Dave Finney, Jacobs	www.jacobs.com

On behalf of Tyco Fire Products LP (Tyco), Jacobs Engineering Group Inc. (Jacobs) prepared this memorandum to respond to U.S. Environmental Protection Agency's (EPA's) and Wisconsin Department of Natural Resources (WDNR's) (collectively referred to as the Agencies) comments on the *Revision 1 – Changes to RCRA Site Components Due to ChemDesign Building 67 Expansion* memorandum dated May 26, 2023 (Jacobs 2023) located at the Tyco property at One Stanton Street, Marinette, Wisconsin. This memorandum responds to the Agencies comments submitted via email on August 4, 2023.

Tyco acknowledges all the comments provided by the Agencies. In addition, to the extent the comments request details regarding the work that was performed by ChemDesign beginning in March 2023, we note the following.

During the Building 67 expansion project, ChemDesign worked with Tyco and Waste Management for proper handling and disposal of soil to Arlington, Oregon. There are no field notes or photos for the soil management and disposal activities, but throughout the Building 67 project, we understand that ChemDesign's Director of Environmental Health and Safety, or a representative, attended all daily project meetings with site contractors to oversee soil handling, storage, disposal and safety issues. During the initial construction, the clean topsoil was removed to the geofabric and the geofabric was removed from within the new footprint (Figure 1); up to 8 to 10 feet outside the building footprint in some areas. The clean topsoil was stockpiled west of Building 67 and was stored on and covered with an impervious liner material.

A total of four soil gondolas were used to transport soil for disposal. The first two gondolas (CEFX 30504 CLFX 55144) were used for soil generated during foundation work that started around March 7, 2023. The soil was stored in a stockpile with the location shown in red on Figure 1. The pile was stored on and covered with an impervious liner material, and erosion control fencing placed around the stockpile to prevent migration of the soil. The gondola cars were loaded with approximately 107.5 tons of soil each on May 23, 2023, and manifested to Arlington, Oregon (Attachment 1).

Memorandum

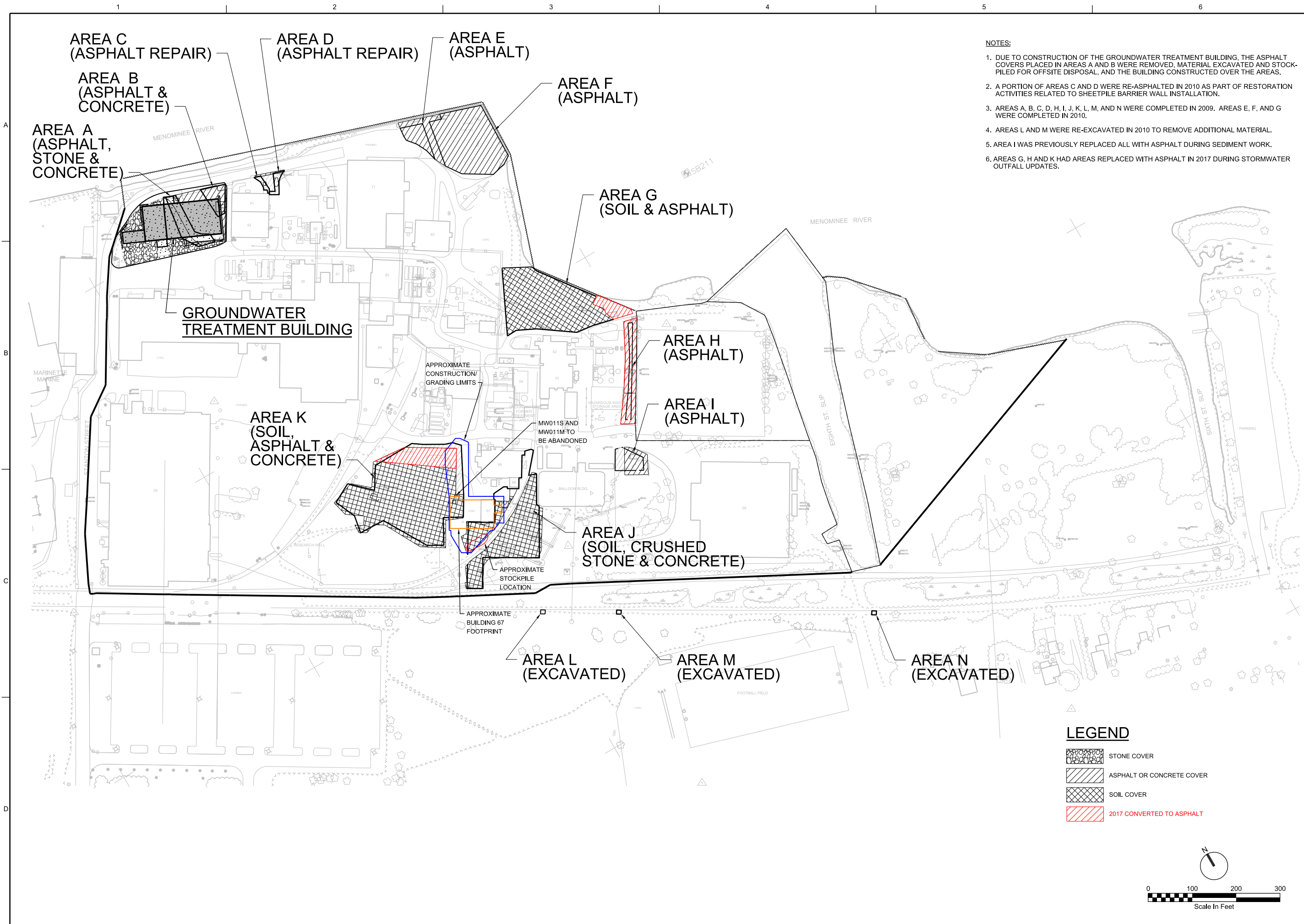
The other two gondolas (CEFX 30423 CLFX 55149) were used for the truck dock and valley gutter to the north and around Building 67 to the south and west that were installed to transport stormwater around and away from the building. This portion of the work started on July 10, 2023 and was completed by July 14, 2023. The gondola cars were directly loaded with approximately 115 tons of soil each, and manifested to Arlington, Oregon (Attachment 1).

Once construction was complete the geofabric was replaced on the west and south sides of Building 67 and backfilled with six inches of clean soil from the initial excavation of the clean top soil.

The following attachments are included as soil management documentation:

- Attachment 1 – Four manifests, one for each of the gondola cars. To date, two of the manifests have been signed and received back from the landfill.
- Attachment 2 – Waste characterization laboratory data. The data was collected from the foundation soil excavated during the construction of ChemDesign's Building 1, the recently constructed building west of Building 67.
- Attachment 3 – Waste Management waste profile.

Figure



JACOBS

**FIGURE 1
AREA LOCATION MAP**

TYCO FIRE PRODUCTS LP
Cover Maintenance Plan for
Onsite and Offsite Soil Areas at
the Tyco Fire Products LP Facility
Marquette, Wisconsin

SCALE: 1" = 200'
VERIFY SCALE
BAR IS ONE INCH ON ORIGINAL DRAWING.

DATE: DECEMBER 2018
PROJ: 704683

REVISION 1

DR: T. CHAPMAN
CHK: G. BOWLES
APVD: J. DANKO
H. ZIEGELBAUER

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PRELIMINARY

Attachment 1
Manifests



NON-HAZARDOUS MANIFEST

1. Generator's ID, EPA ID No. / Manifest No. / Page 1 of 1		W10988890266																																																			
1. Generator's Working Address: ChemDesign Products, Inc. 2 Stanton Street Marlboro, MA 04143		Generator's Site Address if different address																																																			
4. Generator's Phone: (715) 735-4333		A. Manifest Number																																																			
6. Transporter 1 Company Name: CM RAILWAY		B. State Generator's ID																																																			
7. Transporter 2 Company Name: BNSF Railway		C. EPA ID Number: ILR000180109																																																			
8. Designated Facility Name and Site Address: Columbia Ridge Landfill 18177 Cedar Springs Lane Arlington, OR 97112		D. EPA ID Number: MND048341788																																																			
		E. State Transporter's ID																																																			
		F. Transporter's Phone: (916) 733-4217																																																			
		G. State Transporter's ID																																																			
		H. Transporter's Phone																																																			
		I. State Facility Owner																																																			
		J. State Facility Phone: (541) 434-3535																																																			
<table border="1"> <thead> <tr> <th rowspan="2">Material Description</th> <th rowspan="2">Quantity</th> <th rowspan="2">EPA Code</th> <th colspan="2">Weight</th> <th rowspan="2">Other</th> </tr> <tr> <th>kg</th> <th>lb</th> </tr> </thead> <tbody> <tr> <td>a. Non-hazardous materials, construction soils</td> <td>1</td> <td>40</td> <td>25,000</td> <td></td> <td></td> </tr> <tr> <td>b. EPA Profile # 1327030R</td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>c.</td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>d.</td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>e.</td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>f.</td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>g. Additional description for materials listed above</td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> </tbody> </table>				Material Description	Quantity	EPA Code	Weight		Other	kg	lb	a. Non-hazardous materials, construction soils	1	40	25,000			b. EPA Profile # 1327030R						c.						d.						e.						f.						g. Additional description for materials listed above					
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d.																																																					
e.																																																					
f.																																																					
g. Additional description for materials listed above																																																					
20. Special Handling Instructions and Additional Information: <ol style="list-style-type: none"> PROFILE # 1327030R; NON-HAZARDOUS CONSTRUCTION SOILS; DICH = N/A CONDOLA CAR # LEFX30504 																																																					
Purchase Order # 678 Emergency Contact / Phone No. (916) 434-8208																																																					
19. GENERATOR'S CERTIFICATE I hereby certify that the above-described materials are not hazardous waste as defined by CFR Part 261 or any applicable state law, have been fully and accurately described, classified and packaged and are in proper condition for transportation according to applicable regulations.																																																					
Printed Name: Christopher Moore Signature: <i>Christopher Moore</i>		Date: Day: Year:																																																			
22. Transporter 1 Acknowledgment of Receipt of Materials Printed Name: _____ Signature: _____		Date: Day: Year:																																																			
23. Transporter 2 Acknowledgment of Receipt of Materials Printed Name: _____ Signature: _____		Date: Day: Year:																																																			
24. Certificate of Final Treatment/Disposal I certify, on behalf of the above listed treatment facility, that to the best of my knowledge, the above-described waste was managed in compliance with all applicable laws, regulations, permits and orders or the states listed above.																																																					
Printed Name: Victoria McKinnis Signature: <i>Victoria McKinnis</i>		Date: 7/16/23																																																			

WHITE: DESIGNATED FACILITY TO GENERATOR / YELLOW: DESIGNATED FACILITY / PUR: TRANSPORTER / ORANGE: GENERATOR RETAIN COPY



NON-HAZARDOUS MANIFEST

1. Generator's US EPA ID No. WID980898266		Manifest No. No.		2. Page 1 of 2	
3. Generator's Billing Address ChemDesign Products, Inc. 2 Stanton Street Northvale, NJ 07643		Generator's Site Address (if other than billing)		4. Manifest Number	
5. Generator's Phone (715) 735-6300				9. State Generator's ID	
6. Transporter 1 Company Name CN RAILWAY		A. US EPA ID Number 06000180109		C. State Transporter's ID	
7. Transporter 2 Company Name BNSF Railway		B. US EPA ID Number 060008341768		D. Transporter's Phone (201) 796-6113	
8. Designated facility name and site address Columbia Ridge Landfill 18177 Cedar Springs Lane Arlington, VA 97812		E. US EPA ID Number 06000173457		I. State Transporter's ID	
				J. Transporter's Phone	
				K. State Facility License	
				L. State Facility Phone (242) 494-6000	
13. Description of Waste Materials		14. Quantity		15. Date	
a. Non-hazardous materials, construction soil		16. EPA Code 132703OR		17. Date 7/16/23	
b.					
c.					
d.					
18. Additional Descriptions for Material Listed Above		19. Special Handling Instructions and Additional Information			
		1. PROFILE # 132703OR: NON-HAZARDOUS CONSTRUCTION SOILS; (EPC) - N/A			
		2. CONDOLA CAS # <u>CLFX55144</u>			
20. Generator's Certificate		21. Transporter 1 Acknowledgment of Receipt of Material		22. Facility Owner or Operator	
I hereby certify that the above-described materials are not hazardous wastes as defined by CFR Part 261 or any applicable state law, have been fully and accurately described, classified and packaged and are in proper condition for transportation according to applicable regulations.		Signature <i>[Signature]</i>		Date 7/16/23	
Printed Name Christophe Moore		Signature <i>[Signature]</i>		Date 7/16/23	
23. Facility Owner or Operator: Classification of receipt of non-hazardous materials covered by this manifest		Signature <i>[Signature]</i>		Date 7/16/23	
Printed Name Victoria McKinney		Signature <i>[Signature]</i>		Date 7/16/23	

NOTE: DESIGNATED FACILITY TO GENERATOR / YELLOW DESIGNATED FACILITY / PINK: TRANSPORTER / GREEN: GENERATOR INITIAL COPY



NON-HAZARDOUS MANIFEST

NON-HAZARDOUS MANIFEST		1. Generator's US EPA ID No. W I D 9 8 0 8 9 8 2 6 6		Manifest Doc No.		2. Page 1 of 1							
3. Generator's Mailing Address: ChemDesign Products, Inc. 2 Stanton Street Marinette, WI 54143			Generator's Site Address (if different than mailing):			A. Manifest Number							
4. Generator's Phone (715) 735-8393						B. State Generator's ID							
5. Transporter 1 Company Name CN RAILWAY			6. US EPA ID Number ILR000180109			C. State Transporter's ID							
						D. Transporter's Phone (906) 290-6117							
7. Transporter 2 Company Name BNSF Railway			8. US EPA ID Number MND048341788			E. State Transporter's ID							
						F. Transporter's Phone							
9. Designated Facility Name and Site Address Columbia Ridge Landfill 18177 Cedar Springs Lane Arlington, OR 97812			10. US EPA ID Number ORD987173457			G. State Facility License							
						H. State Facility Phone (541) 454-2030							
G E N E R A T O R	11. Description of Waste Materials					12. Containers		13. Total	14. Unit	I. Misc. Comments			
	a. Non-hazardous materials, construction soils					No.	Type	Quantity	Wt./Vol.				
	WM Profile # 132703OR					1	HG	230,000	P				
	b. Waste Name												
	WM Profile #												
	c. Waste Name												
WM Profile #													
d. Waste Name													
WM Profile #													
J. Additional Descriptions for Materials Listed Above					K. Disposal Location								
					Cell					Level			
					Grid								
15. Special Handling Instructions and Additional Information													
1. PROFILE # 132703OR: NON-HAZARDOUS CONSTRUCTION SOILS; ERG# = N/A													
2. GONDOLA CAR # <u>CEFX 30423</u>													
Purchase Order # N/A			EMERGENCY CONTACT / PHONE NO.: (800) 424-9300										
16. GENERATOR'S CERTIFICATE: I hereby certify that the above-described materials are not hazardous wastes as defined by CFR Part 261 or any applicable state law, have been fully and accurately described, classified and packaged and are in proper condition for transportation according to applicable regulations.													
Printed Name <u>Thomas Willis</u>				Signature "On behalf of"				Month	Day	Year			
								7	17	2023			
T R A N S P O R T E R	17. Transporter 1 Acknowledgement of Receipt of Materials												
	Printed Name				Signature				Month	Day	Year		
18. Transporter 2 Acknowledgement of Receipt of Materials													
Printed Name				Signature				Month	Day	Year			
F A C I L I T Y	19. Certificate of Final Treatment/Disposal I certify, on behalf of the above listed treatment facility, that to the best of my knowledge, the above-described waste was managed in compliance with all applicable laws, regulations, permits and licenses on the dates listed above.												
	20. Facility Owner or Operator: Certification of receipt of non-hazardous materials covered by this manifest.												
Printed Name				Signature				Month	Day	Year			

WHITE: DESIGNATED FACILITY TO GENERATOR / YELLOW: DESIGNATED FACILITY / PINK: TRANSPORTER / ORANGE: GENERATOR INITIAL COPY



NON-HAZARDOUS MANIFEST

NON-HAZARDOUS MANIFEST	1. Generator's US EPA ID No. W I D 9 8 0 8 9 8 2 6 6	Manifest Doc No.	2. Page 1 of 1
3. Generator's Mailing Address: ChemDesign Products, Inc. 2 Stanton Street Marinette, WI 54143	Generator's Site Address (if different than mailing):	A. Manifest Number	
		B. State Generator's ID	
4. Generator's Phone (715) 735-8393	5. Transporter 1 Company Name CN RAILWAY	6. US EPA ID Number ILR000180109	C. State Transporter's ID
7. Transporter 2 Company Name BNSF Railway	8. US EPA ID Number MND048341788	D. Transporter's Phone (906) 290-6117	
9. Designated Facility Name and Site Address Columbia Ridge Landfill 18177 Cedar Springs Lane Arlington, OR 97812	10. US EPA ID Number ORD987173457	E. State Transporter's ID	
		F. Transporter's Phone	
11. Description of Waste Materials	12. Containers		13. Total Quantity
	No.	Type	
a. Non-hazardous materials, construction soils WM Profile # 132703OR	1	HG	230,000 P
b. Waste Name WM Profile #			
c. Waste Name WM Profile #			
d. Waste Name WM Profile #			
J. Additional Descriptions for Materials Listed Above	K. Disposal Location		
	Cell		Level
	Grid		
15. Special Handling Instructions and Additional Information			
1. PROFILE # 132703OR: NON-HAZARDOUS CONSTRUCTION SOILS; ERG# = N/A			
2. GONDOLA CAR # <u>CLFX55149</u>			
Purchase Order # N/A	EMERGENCY CONTACT / PHONE NO.: (800) 424-9300		
16. GENERATOR'S CERTIFICATE: I hereby certify that the above-described materials are not hazardous wastes as defined by CFR Part 261 or any applicable state law, have been fully and accurately described, classified and packaged and are in proper condition for transportation according to applicable regulations.			
Printed Name <i>Thomas Willis</i>	Signature "On behalf of" 		Month 7
			Day 18
			Year 2023
T R A N S P O R T E R	17. Transporter 1 Acknowledgement of Receipt of Materials		
	Printed Name	Signature	Month Day Year
18. Transporter 2 Acknowledgement of Receipt of Materials	Printed Name	Signature	Month Day Year
F A C I L I T Y	19. Certificate of Final Treatment/Disposal I certify, on behalf of the above listed treatment facility, that to the best of my knowledge, the above-described waste was managed in compliance with all applicable laws, regulations, permits and licenses on the dates listed above.		
	20. Facility Owner or Operator: Certification of receipt of non-hazardous materials covered by this manifest.		
Printed Name	Signature	Month	Day Year

WHITE: DESIGNATED FACILITY TO GENERATOR / YELLOW: DESIGNATED FACILITY / PINK: TRANSPORTER / ORANGE: GENERATOR INITIAL COPY

Attachment 2
Waste Characterization Laboratory Data

ANALYTICAL REPORT

Eurofins TestAmerica, Chicago
2417 Bond Street
University Park, IL 60484
Tel: (708)534-5200

Laboratory Job ID: 500-177188-2
Client Project/Site: WI Site - Soil Testing

For:
ChemDesign
2 Stanton St.
Marinette, Wisconsin 54143

Attn: Mr. Tom Willis



Authorized for release by:
2/19/2020 3:15:49 PM

Jim Knapp, Project Manager II
(630)758-0262
jim.knapp@testamericainc.com

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The test results in this report meet all 2003 NELAC and 2009 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.



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Case Narrative

Client: ChemDesign
Project/Site: WI Site - Soil Testing

Job ID: 500-177188-2

Job ID: 500-177188-2

Laboratory: Eurofins TestAmerica, Chicago

Narrative

Job Narrative
500-177188-2

Comments

No additional comments.

Receipt

The sample was received on 1/31/2020 10:30 AM; the sample arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 2.3° C.

LCMS

Method 537 (modified): The method blank for preparation batch 320-354838 and analytical batch 320-356248 contained Perfluorobutanoic acid (PFBA) above the method detection limit. This target analyte concentration was less than the reporting limit (RL); therefore, re-extraction and re-analysis of the sample was not performed.

Method 537 (modified): M2-4:2 FTS, M2-6:2 FTS and M2-8:2 FTS Isotope Dilution Analyte (IDA) recoveries are above the method recommended limit for the following sample: CDPI-BLD1 (500-177188-1). Quantitation by isotope dilution generally precludes any adverse effect on data quality due to elevated IDA recoveries.

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

Organic Prep

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

Detection Summary

Client: ChemDesign
Project/Site: WI Site - Soil Testing

Job ID: 500-177188-2

Client Sample ID: CDPI-BLD1

Lab Sample ID: 500-177188-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluorobutanoic acid (PFBA)	1.5	B	0.24	0.034	ug/Kg	1	✳	537 (modified)	Total/NA
Perfluoropentanoic acid (PFPeA)	8.0		0.24	0.093	ug/Kg	1	✳	537 (modified)	Total/NA
Perfluorohexanoic acid (PFHxA)	4.5		0.24	0.051	ug/Kg	1	✳	537 (modified)	Total/NA
Perfluoroheptanoic acid (PFHpA)	5.9		0.24	0.035	ug/Kg	1	✳	537 (modified)	Total/NA
Perfluorooctanoic acid (PFOA)	3.9		0.24	0.10	ug/Kg	1	✳	537 (modified)	Total/NA
Perfluorononanoic acid (PFNA)	12		0.24	0.044	ug/Kg	1	✳	537 (modified)	Total/NA
Perfluorodecanoic acid (PFDA)	3.8		0.24	0.027	ug/Kg	1	✳	537 (modified)	Total/NA
Perfluoroundecanoic acid (PFUnA)	3.8		0.24	0.044	ug/Kg	1	✳	537 (modified)	Total/NA
Perfluorododecanoic acid (PFDoA)	1.1		0.24	0.081	ug/Kg	1	✳	537 (modified)	Total/NA
Perfluorotridecanoic acid (PFTriA)	0.42		0.24	0.062	ug/Kg	1	✳	537 (modified)	Total/NA
Perfluorotetradecanoic acid (PFTeA)	0.42		0.24	0.066	ug/Kg	1	✳	537 (modified)	Total/NA
Perfluorohexanesulfonic acid (PFHxS)	0.047	J	0.24	0.038	ug/Kg	1	✳	537 (modified)	Total/NA
Perfluorooctanesulfonic acid (PFOS)	4.0		0.61	0.24	ug/Kg	1	✳	537 (modified)	Total/NA
Perfluorooctanesulfonamide (FOSA)	0.57		0.24	0.099	ug/Kg	1	✳	537 (modified)	Total/NA
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	0.62	J	2.4	0.47	ug/Kg	1	✳	537 (modified)	Total/NA
6:2 FTS	11		2.4	0.18	ug/Kg	1	✳	537 (modified)	Total/NA
8:2 FTS	3.7		2.4	0.30	ug/Kg	1	✳	537 (modified)	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins TestAmerica, Chicago

Method Summary

Client: ChemDesign
Project/Site: WI Site - Soil Testing

Job ID: 500-177188-2

Method	Method Description	Protocol	Laboratory
537 (modified)	Fluorinated Alkyl Substances	EPA	TAL SAC
SHAKE	Shake Extraction with Ultrasonic Bath Extraction	SW846	TAL SAC

Protocol References:

EPA = US Environmental Protection Agency

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL SAC = Eurofins TestAmerica, Sacramento, 880 Riverside Parkway, West Sacramento, CA 95605, TEL (916)373-5600



Sample Summary

Client: ChemDesign
Project/Site: WI Site - Soil Testing

Job ID: 500-177188-2

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
500-177188-1	CDPI-BLD1	Solid	01/30/20 09:00	01/31/20 10:30	

1

2

3

4

5

6

7

8

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11

12

13

14

15

Client Sample Results

Client: ChemDesign
Project/Site: WI Site - Soil Testing

Job ID: 500-177188-2

Client Sample ID: CDPI-BLD1

Lab Sample ID: 500-177188-1

Date Collected: 01/30/20 09:00

Matrix: Solid

Date Received: 01/31/20 10:30

Percent Solids: 77.2

Method: 537 (modified) - Fluorinated Alkyl Substances

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	1.5	B	0.24	0.034	ug/Kg	☼	02/04/20 06:40	02/10/20 07:09	1
Perfluoropentanoic acid (PFPeA)	8.0		0.24	0.093	ug/Kg	☼	02/04/20 06:40	02/10/20 07:09	1
Perfluorohexanoic acid (PFHxA)	4.5		0.24	0.051	ug/Kg	☼	02/04/20 06:40	02/10/20 07:09	1
Perfluoroheptanoic acid (PFHpA)	5.9		0.24	0.035	ug/Kg	☼	02/04/20 06:40	02/10/20 07:09	1
Perfluorooctanoic acid (PFOA)	3.9		0.24	0.10	ug/Kg	☼	02/04/20 06:40	02/10/20 07:09	1
Perfluorononanoic acid (PFNA)	12		0.24	0.044	ug/Kg	☼	02/04/20 06:40	02/10/20 07:09	1
Perfluorodecanoic acid (PFDA)	3.8		0.24	0.027	ug/Kg	☼	02/04/20 06:40	02/10/20 07:09	1
Perfluoroundecanoic acid (PFUnA)	3.8		0.24	0.044	ug/Kg	☼	02/04/20 06:40	02/10/20 07:09	1
Perfluorododecanoic acid (PFDoA)	1.1		0.24	0.081	ug/Kg	☼	02/04/20 06:40	02/10/20 07:09	1
Perfluorotridecanoic acid (PFTriA)	0.42		0.24	0.062	ug/Kg	☼	02/04/20 06:40	02/10/20 07:09	1
Perfluorotetradecanoic acid (PFTeA)	0.42		0.24	0.066	ug/Kg	☼	02/04/20 06:40	02/10/20 07:09	1
Perfluorobutanesulfonic acid (PFBS)	<0.24		0.24	0.030	ug/Kg	☼	02/04/20 06:40	02/10/20 07:09	1
Perfluoropentanesulfonic acid (PFPeS)	<0.24		0.24	0.024	ug/Kg	☼	02/04/20 06:40	02/10/20 07:09	1
Perfluorohexanesulfonic acid (PFHxS)	0.047	J	0.24	0.038	ug/Kg	☼	02/04/20 06:40	02/10/20 07:09	1
Perfluoroheptanesulfonic Acid (PFHpS)	<0.24		0.24	0.042	ug/Kg	☼	02/04/20 06:40	02/10/20 07:09	1
Perfluorooctanesulfonic acid (PFOS)	4.0		0.61	0.24	ug/Kg	☼	02/04/20 06:40	02/10/20 07:09	1
Perfluorononanesulfonic acid (PFNS)	<0.24		0.24	0.024	ug/Kg	☼	02/04/20 06:40	02/10/20 07:09	1
Perfluorodecanesulfonic acid (PFDS)	<0.24		0.24	0.047	ug/Kg	☼	02/04/20 06:40	02/10/20 07:09	1
Perfluorooctanesulfonamide (FOSA)	0.57		0.24	0.099	ug/Kg	☼	02/04/20 06:40	02/10/20 07:09	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	0.62	J	2.4	0.47	ug/Kg	☼	02/04/20 06:40	02/10/20 07:09	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	<2.4		2.4	0.45	ug/Kg	☼	02/04/20 06:40	02/10/20 07:09	1
4:2 FTS	<2.4		2.4	0.45	ug/Kg	☼	02/04/20 06:40	02/10/20 07:09	1
6:2 FTS	11		2.4	0.18	ug/Kg	☼	02/04/20 06:40	02/10/20 07:09	1
8:2 FTS	3.7		2.4	0.30	ug/Kg	☼	02/04/20 06:40	02/10/20 07:09	1

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C4 PFBA	64		25 - 150	02/04/20 06:40	02/10/20 07:09	1
13C5 PFPeA	78		25 - 150	02/04/20 06:40	02/10/20 07:09	1
13C2 PFHxA	84		25 - 150	02/04/20 06:40	02/10/20 07:09	1
13C4 PFHpA	80		25 - 150	02/04/20 06:40	02/10/20 07:09	1
13C4 PFOA	87		25 - 150	02/04/20 06:40	02/10/20 07:09	1
13C5 PFNA	84		25 - 150	02/04/20 06:40	02/10/20 07:09	1
13C2 PFDA	91		25 - 150	02/04/20 06:40	02/10/20 07:09	1
13C2 PFUnA	82		25 - 150	02/04/20 06:40	02/10/20 07:09	1
13C2 PFDoA	70		25 - 150	02/04/20 06:40	02/10/20 07:09	1
13C2 PFTeDA	67		25 - 150	02/04/20 06:40	02/10/20 07:09	1
13C3 PFBS	101		25 - 150	02/04/20 06:40	02/10/20 07:09	1
18O2 PFHxS	94		25 - 150	02/04/20 06:40	02/10/20 07:09	1
13C4 PFOS	99		25 - 150	02/04/20 06:40	02/10/20 07:09	1
13C8 FOSA	77		25 - 150	02/04/20 06:40	02/10/20 07:09	1
d3-NMeFOSAA	73		25 - 150	02/04/20 06:40	02/10/20 07:09	1
d5-NEtFOSAA	74		25 - 150	02/04/20 06:40	02/10/20 07:09	1

Eurofins TestAmerica, Chicago

Client Sample Results

Client: ChemDesign
Project/Site: WI Site - Soil Testing

Job ID: 500-177188-2

Client Sample ID: CDPI-BLD1

Lab Sample ID: 500-177188-1

Date Collected: 01/30/20 09:00

Matrix: Solid

Date Received: 01/31/20 10:30

Percent Solids: 77.2

Method: 537 (modified) - Fluorinated Alkyl Substances (Continued)

<i>Isotope Dilution</i>	<i>%Recovery</i>	<i>Qualifier</i>	<i>Limits</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Dil Fac</i>
M2-6:2 FTS	174	*	25 - 150	02/04/20 06:40	02/10/20 07:09	1
M2-8:2 FTS	183	*	25 - 150	02/04/20 06:40	02/10/20 07:09	1
M2-4:2 FTS	196	*	25 - 150	02/04/20 06:40	02/10/20 07:09	1

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Definitions/Glossary

Client: ChemDesign
Project/Site: WI Site - Soil Testing

Job ID: 500-177188-2

Qualifiers

LCMS

Qualifier	Qualifier Description
*	Isotope Dilution analyte is outside acceptance limits.
B	Compound was found in the blank and sample.
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
CFL	Contains Free Liquid
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)
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
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)

QC Association Summary

Client: ChemDesign
Project/Site: WI Site - Soil Testing

Job ID: 500-177188-2

LCMS

Prep Batch: 354838

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-177188-1	CDPI-BLD1	Total/NA	Solid	SHAKE	
MB 320-354838/1-A	Method Blank	Total/NA	Solid	SHAKE	
LCS 320-354838/2-A	Lab Control Sample	Total/NA	Solid	SHAKE	

Analysis Batch: 356248

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-177188-1	CDPI-BLD1	Total/NA	Solid	537 (modified)	354838
MB 320-354838/1-A	Method Blank	Total/NA	Solid	537 (modified)	354838
LCS 320-354838/2-A	Lab Control Sample	Total/NA	Solid	537 (modified)	354838



QC Sample Results

Client: ChemDesign
Project/Site: WI Site - Soil Testing

Job ID: 500-177188-2

Method: 537 (modified) - Fluorinated Alkyl Substances

Lab Sample ID: MB 320-354838/1-A
Matrix: Solid
Analysis Batch: 356248

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 354838

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Perfluorobutanoic acid (PFBA)	0.0314	J	0.20	0.028	ug/Kg		02/04/20 06:40	02/10/20 05:32	1
Perfluoropentanoic acid (PFPeA)	<0.20		0.20	0.077	ug/Kg		02/04/20 06:40	02/10/20 05:32	1
Perfluorohexanoic acid (PFHxA)	<0.20		0.20	0.042	ug/Kg		02/04/20 06:40	02/10/20 05:32	1
Perfluoroheptanoic acid (PFHpA)	<0.20		0.20	0.029	ug/Kg		02/04/20 06:40	02/10/20 05:32	1
Perfluorooctanoic acid (PFOA)	<0.20		0.20	0.086	ug/Kg		02/04/20 06:40	02/10/20 05:32	1
Perfluorononanoic acid (PFNA)	<0.20		0.20	0.036	ug/Kg		02/04/20 06:40	02/10/20 05:32	1
Perfluorodecanoic acid (PFDA)	<0.20		0.20	0.022	ug/Kg		02/04/20 06:40	02/10/20 05:32	1
Perfluoroundecanoic acid (PFUnA)	<0.20		0.20	0.036	ug/Kg		02/04/20 06:40	02/10/20 05:32	1
Perfluorododecanoic acid (PFDoA)	<0.20		0.20	0.067	ug/Kg		02/04/20 06:40	02/10/20 05:32	1
Perfluorotridecanoic acid (PFTriA)	<0.20		0.20	0.051	ug/Kg		02/04/20 06:40	02/10/20 05:32	1
Perfluorotetradecanoic acid (PFTeA)	<0.20		0.20	0.054	ug/Kg		02/04/20 06:40	02/10/20 05:32	1
Perfluorobutanesulfonic acid (PFBS)	<0.20		0.20	0.025	ug/Kg		02/04/20 06:40	02/10/20 05:32	1
Perfluoropentanesulfonic acid (PFPeS)	<0.20		0.20	0.020	ug/Kg		02/04/20 06:40	02/10/20 05:32	1
Perfluorohexanesulfonic acid (PFHxS)	<0.20		0.20	0.031	ug/Kg		02/04/20 06:40	02/10/20 05:32	1
Perfluoroheptanesulfonic Acid (PFHpS)	<0.20		0.20	0.035	ug/Kg		02/04/20 06:40	02/10/20 05:32	1
Perfluorooctanesulfonic acid (PFOS)	<0.50		0.50	0.20	ug/Kg		02/04/20 06:40	02/10/20 05:32	1
Perfluorononanesulfonic acid (PFNS)	<0.20		0.20	0.020	ug/Kg		02/04/20 06:40	02/10/20 05:32	1
Perfluorodecanesulfonic acid (PFDS)	<0.20		0.20	0.039	ug/Kg		02/04/20 06:40	02/10/20 05:32	1
Perfluorooctanesulfonamide (FOSA)	<0.20		0.20	0.082	ug/Kg		02/04/20 06:40	02/10/20 05:32	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	<2.0		2.0	0.39	ug/Kg		02/04/20 06:40	02/10/20 05:32	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	<2.0		2.0	0.37	ug/Kg		02/04/20 06:40	02/10/20 05:32	1
4:2 FTS	<2.0		2.0	0.37	ug/Kg		02/04/20 06:40	02/10/20 05:32	1
6:2 FTS	<2.0		2.0	0.15	ug/Kg		02/04/20 06:40	02/10/20 05:32	1
8:2 FTS	<2.0		2.0	0.25	ug/Kg		02/04/20 06:40	02/10/20 05:32	1

Isotope Dilution	MB	MB	Limits	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier				
13C4 PFBA	96		25 - 150	02/04/20 06:40	02/10/20 05:32	1
13C5 PFPeA	90		25 - 150	02/04/20 06:40	02/10/20 05:32	1
13C2 PFHxA	97		25 - 150	02/04/20 06:40	02/10/20 05:32	1
13C4 PFHpA	99		25 - 150	02/04/20 06:40	02/10/20 05:32	1
13C4 PFOA	99		25 - 150	02/04/20 06:40	02/10/20 05:32	1
13C5 PFNA	97		25 - 150	02/04/20 06:40	02/10/20 05:32	1
13C2 PFDA	96		25 - 150	02/04/20 06:40	02/10/20 05:32	1
13C2 PFUnA	99		25 - 150	02/04/20 06:40	02/10/20 05:32	1
13C2 PFDoA	95		25 - 150	02/04/20 06:40	02/10/20 05:32	1
13C2 PFTeDA	96		25 - 150	02/04/20 06:40	02/10/20 05:32	1
13C3 PFBS	97		25 - 150	02/04/20 06:40	02/10/20 05:32	1
18O2 PFHxS	101		25 - 150	02/04/20 06:40	02/10/20 05:32	1
13C4 PFOS	103		25 - 150	02/04/20 06:40	02/10/20 05:32	1
13C8 FOSA	94		25 - 150	02/04/20 06:40	02/10/20 05:32	1
d3-NMeFOSAA	95		25 - 150	02/04/20 06:40	02/10/20 05:32	1
d5-NEtFOSAA	105		25 - 150	02/04/20 06:40	02/10/20 05:32	1
M2-6:2 FTS	121		25 - 150	02/04/20 06:40	02/10/20 05:32	1
M2-8:2 FTS	104		25 - 150	02/04/20 06:40	02/10/20 05:32	1
M2-4:2 FTS	114		25 - 150	02/04/20 06:40	02/10/20 05:32	1

Eurofins TestAmerica, Chicago

QC Sample Results

Client: ChemDesign
Project/Site: WI Site - Soil Testing

Job ID: 500-177188-2

Method: 537 (modified) - Fluorinated Alkyl Substances (Continued)

Lab Sample ID: LCS 320-354838/2-A
Matrix: Solid
Analysis Batch: 356248

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 354838

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Perfluorobutanoic acid (PFBA)	2.00	1.92		ug/Kg		96	76 - 136
Perfluoropentanoic acid (PFPeA)	2.00	1.91		ug/Kg		95	69 - 129
Perfluorohexanoic acid (PFHxA)	2.00	1.99		ug/Kg		99	71 - 131
Perfluoroheptanoic acid (PFHpA)	2.00	1.85		ug/Kg		92	71 - 131
Perfluorooctanoic acid (PFOA)	2.00	1.82		ug/Kg		91	72 - 132
Perfluorononanoic acid (PFNA)	2.00	2.09		ug/Kg		104	73 - 133
Perfluorodecanoic acid (PFDA)	2.00	1.91		ug/Kg		95	72 - 132
Perfluoroundecanoic acid (PFUnA)	2.00	1.87		ug/Kg		93	66 - 126
Perfluorododecanoic acid (PFDoA)	2.00	1.85		ug/Kg		93	71 - 131
Perfluorotridecanoic acid (PFTriA)	2.00	1.83		ug/Kg		92	71 - 131
Perfluorotetradecanoic acid (PFTeA)	2.00	2.01		ug/Kg		100	67 - 127
Perfluorobutanesulfonic acid (PFBS)	1.77	1.68		ug/Kg		95	69 - 129
Perfluoropentanesulfonic acid (PFPeS)	1.88	1.86		ug/Kg		99	66 - 126
Perfluorohexanesulfonic acid (PFHxS)	1.82	1.67		ug/Kg		92	62 - 122
Perfluoroheptanesulfonic Acid (PFHpS)	1.90	1.79		ug/Kg		94	76 - 136
Perfluorooctanesulfonic acid (PFOS)	1.86	1.96		ug/Kg		105	68 - 141
Perfluorononanesulfonic acid (PFNS)	1.92	1.76		ug/Kg		92	72 - 132
Perfluorodecanesulfonic acid (PFDS)	1.93	1.71		ug/Kg		89	71 - 131
Perfluorooctanesulfonamide (FOSA)	2.00	1.92		ug/Kg		96	77 - 137
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	2.00	2.03		ug/Kg		101	72 - 132
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	2.00	1.92	J	ug/Kg		96	72 - 132
4:2 FTS	1.87	1.51	J	ug/Kg		81	68 - 143
6:2 FTS	1.90	1.61	J	ug/Kg		85	73 - 139
8:2 FTS	1.92	1.63	J	ug/Kg		85	75 - 135

Isotope Dilution	LCS LCS		Limits
	%Recovery	Qualifier	
13C4 PFBA	95		25 - 150
13C5 PFPeA	89		25 - 150
13C2 PFHxA	90		25 - 150
13C4 PFHpA	98		25 - 150
13C4 PFOA	97		25 - 150
13C5 PFNA	91		25 - 150
13C2 PFDA	94		25 - 150
13C2 PFUnA	94		25 - 150
13C2 PFDoA	97		25 - 150
13C2 PFTeDA	95		25 - 150
13C3 PFBS	96		25 - 150
18O2 PFHxS	99		25 - 150

Eurofins TestAmerica, Chicago

QC Sample Results

Client: ChemDesign
Project/Site: WI Site - Soil Testing

Job ID: 500-177188-2

Method: 537 (modified) - Fluorinated Alkyl Substances (Continued)

Lab Sample ID: LCS 320-354838/2-A

Matrix: Solid

Analysis Batch: 356248

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 354838

<i>Isotope Dilution</i>	<i>LCS %Recovery</i>	<i>LCS Qualifier</i>	<i>Limits</i>
13C4 PFOS	105		25 - 150
13C8 FOSA	90		25 - 150
d3-NMeFOSAA	93		25 - 150
d5-NEtFOSAA	92		25 - 150
M2-6:2 FTS	107		25 - 150
M2-8:2 FTS	107		25 - 150
M2-4:2 FTS	108		25 - 150

Lab Chronicle

Client: ChemDesign
Project/Site: WI Site - Soil Testing

Job ID: 500-177188-2

Client Sample ID: CDPI-BLD1

Lab Sample ID: 500-177188-1

Date Collected: 01/30/20 09:00

Matrix: Solid

Date Received: 01/31/20 10:30

Percent Solids: 77.2

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	SHAKE			354838	02/04/20 06:40	AEC	TAL SAC
Total/NA	Analysis	537 (modified)		1	356248	02/10/20 07:09	D1R	TAL SAC

Laboratory References:

TAL SAC = Eurofins TestAmerica, Sacramento, 880 Riverside Parkway, West Sacramento, CA 95605, TEL (916)373-5600

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Accreditation/Certification Summary

Client: ChemDesign
Project/Site: WI Site - Soil Testing

Job ID: 500-177188-2

Laboratory: Eurofins TestAmerica, Chicago

The accreditations/certifications listed below are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Wisconsin	State	999580010	08-31-20

Laboratory: Eurofins TestAmerica, Sacramento

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Alaska (UST)	State	17-020	01-20-21
ANAB	Dept. of Defense ELAP	L2468	01-20-21
ANAB	Dept. of Energy	L2468.01	01-20-21
ANAB	ISO/IEC 17025	L2468	01-20-21
Arizona	State	AZ0708	08-11-20
Arkansas DEQ	State	19-042-0	06-17-20
California	State	2897	01-31-20 *
California	State	2897	01-31-22
Colorado	State	CA0004	08-31-20
Connecticut	State	PH-0691	06-30-21
Florida	NELAP	E87570	06-30-20
Georgia	State	4040	01-30-21
Hawaii	State	<cert No.>	01-29-20 *
Hawaii	State	<cert No.>	01-29-21
Illinois	NELAP	200060	03-17-20
Kansas	NELAP	E-10375	10-31-20 *
Louisiana	NELAP	01944	06-30-20
Maine	State	2018009	04-14-20
Michigan	State	9947	01-29-20 *
Nevada	State	CA000442020-1	07-31-20
New Hampshire	NELAP	2997	04-18-20
New Jersey	NELAP	CA005	06-30-20
New York	NELAP	11666	04-01-20
Oregon	NELAP	4040	01-29-21
Pennsylvania	NELAP	68-01272	03-31-20
Texas	NELAP	T104704399-19-13	05-31-20
US Fish & Wildlife	US Federal Programs	58448	07-31-20
USDA	US Federal Programs	P330-18-00239	07-31-21
Utah	NELAP	CA000442019-01	02-29-20
Vermont	State	VT-4040	04-16-20
Virginia	NELAP	460278	03-14-20 *
Washington	State	C581	05-05-20
West Virginia (DW)	State	9930C	12-31-19 *
West Virginia (DW)	State	9930C	12-31-20
Wyoming	State Program	8TMS-L	01-28-19 *

* Accreditation/Certification renewal pending - accreditation/certification considered valid.

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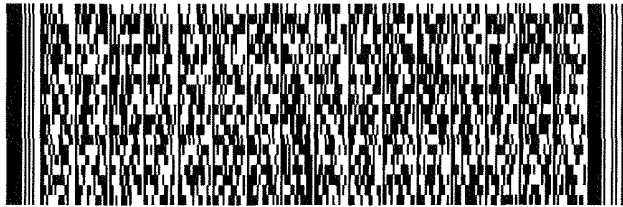
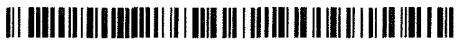
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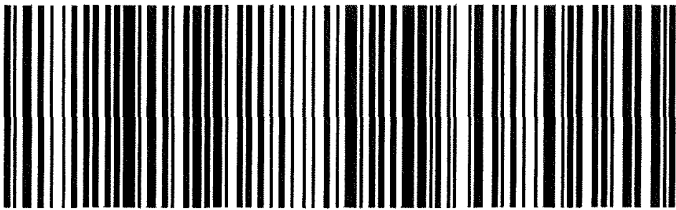


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3. Place label in shipping pouch and affix it to your shipment so that the barcode portion of the label can be read and scanned.

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Login Sample Receipt Checklist

Client: ChemDesign

Job Number: 500-177188-2

Login Number: 177188

List Source: Eurofins TestAmerica, Chicago

List Number: 1

Creator: Hernandez, Stephanie

Question	Answer	Comment
Radioactivity wasn't checked or is \leq background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
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.	True	
Cooler Temperature is recorded.	True	2.3
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	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	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <math><6\text{mm}</math> (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	



Login Sample Receipt Checklist

Client: ChemDesign

Job Number: 500-177188-2

Login Number: 177188

List Number: 2

Creator: Guzman, Juan

List Source: Eurofins TestAmerica, Sacramento

List Creation: 02/01/20 10:59 AM

Question	Answer	Comment
Radioactivity wasn't checked or is <=/ background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	970143
Sample custody seals, if present, are 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.	True	
Cooler Temperature is recorded.	True	5.6c
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	False	Received project as a subcontract.
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	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	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Isotope Dilution Summary

Client: ChemDesign
Project/Site: WI Site - Soil Testing

Job ID: 500-177188-2

Method: 537 (modified) - Fluorinated Alkyl Substances

Matrix: Solid

Prep Type: Total/NA

Percent Isotope Dilution Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	PFBA (25-150)	PFPeA (25-150)	PFHxA (25-150)	PFHpA (25-150)	PFOA (25-150)	PFNA (25-150)	PFDA (25-150)	PFUnA (25-150)
500-177188-1	CDPI-BLD1	64	78	84	80	87	84	91	82
LCS 320-354838/2-A	Lab Control Sample	95	89	90	98	97	91	94	94
MB 320-354838/1-A	Method Blank	96	90	97	99	99	97	96	99

Percent Isotope Dilution Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	PFDaA (25-150)	PFTDA (25-150)	3C3-PFBs (25-150)	PFHxS (25-150)	PFOS (25-150)	PFOSA (25-150)	d3-NMeFOSAA (25-150)	d5-NEtFOSAA (25-150)
500-177188-1	CDPI-BLD1	70	67	101	94	99	77	73	74
LCS 320-354838/2-A	Lab Control Sample	97	95	96	99	105	90	93	92
MB 320-354838/1-A	Method Blank	95	96	97	101	103	94	95	105

Percent Isotope Dilution Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	M262FTS (25-150)	M282FTS (25-150)	M242FTS (25-150)
500-177188-1	CDPI-BLD1	174 *	183 *	196 *
LCS 320-354838/2-A	Lab Control Sample	107	107	108
MB 320-354838/1-A	Method Blank	121	104	114

Surrogate Legend

PFBA = 13C4 PFBA
PFPeA = 13C5 PFPeA
PFHxA = 13C2 PFHxA
PFHpA = 13C4 PFHpA
PFOA = 13C4 PFOA
PFNA = 13C5 PFNA
PFDA = 13C2 PFDA
PFUnA = 13C2 PFUnA
PFDaA = 13C2 PFDaA
PFTDA = 13C2 PFTeDA
13C3-PFBs = 13C3 PFBS
PFHxS = 18O2 PFHxS
PFOS = 13C4 PFOS
PFOSA = 13C8 FOSA
d3-NMeFOSAA = d3-NMeFOSAA
d5-NEtFOSAA = d5-NEtFOSAA
M262FTS = M2-6:2 FTS
M282FTS = M2-8:2 FTS
M242FTS = M2-4:2 FTS

ANALYTICAL REPORT

Eurofins TestAmerica, Chicago
2417 Bond Street
University Park, IL 60484
Tel: (708)534-5200

Laboratory Job ID: 500-177188-1
Client Project/Site: WI Site - Soil Testing

For:
ChemDesign
2 Stanton St.
Marinette, Wisconsin 54143

Attn: Mr. Tom Willis



Authorized for release by:
2/21/2020 2:46:52 PM

Jim Knapp, Project Manager II
(630)758-0262
jim.knapp@testamericainc.com

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This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.



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Case Narrative

Client: ChemDesign
Project/Site: WI Site - Soil Testing

Job ID: 500-177188-1

Job ID: 500-177188-1

Laboratory: Eurofins TestAmerica, Chicago

Narrative

Job Narrative 500-177188-1

Comments

No additional comments.

Receipt

The sample was received on 1/31/2020 10:30 AM; the sample arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 2.3° C.

GC/MS VOA

Method 8260B: The following sample was prepared outside of preparation holding time CDPI-BLD1 (500-177188-1).

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

GC/MS Semi VOA

Method 8270D: The laboratory control sample (LCS) for preparation batch 500-530501 and analytical batch 500-530601 recovered outside control limits for the following analyte: Nitrobenzene. This analyte was biased high in the LCS and was not detected in the associated sample; therefore, the data have been reported.

Method 8270D: Surrogate recovery for the following QC samples and target samples were outside the upper control limit: CDPI-BLD1 (500-177188-1), (LB 500-530209/1-D), (LCS 500-530501/2-A) and (MB 500-530501/1-A). The associated sample did not contain any target analytes; therefore, re-extraction and/or re-analysis was not performed.

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

Metals

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

Organic Prep

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



Detection Summary

Client: ChemDesign
Project/Site: WI Site - Soil Testing

Job ID: 500-177188-1

Client Sample ID: CDPI-BLD1

Lab Sample ID: 500-177188-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	0.024	J	0.050	0.010	mg/L	1		6010D	TCLP
Barium	0.20	J	0.50	0.050	mg/L	1		6010D	TCLP
Cadmium	0.0033	J	0.0050	0.0020	mg/L	1		6010D	TCLP

This Detection Summary does not include radiochemical test results.

Eurofins TestAmerica, Chicago



Method Summary

Client: ChemDesign
Project/Site: WI Site - Soil Testing

Job ID: 500-177188-1

Method	Method Description	Protocol	Laboratory
8260B	Volatile Organic Compounds (GC/MS)	SW846	TAL CHI
8270D	Semivolatile Organic Compounds (GC/MS)	SW846	TAL CHI
6010D	Metals (ICP)	SW846	TAL CHI
7470A	Mercury (CVAA)	SW846	TAL CHI
Moisture	Percent Moisture	EPA	TAL CHI
1311	TCLP Extraction	SW846	TAL CHI
3010A	Preparation, Total Metals	SW846	TAL CHI
3510C	Liquid-Liquid Extraction (Separatory Funnel)	SW846	TAL CHI
5030B	Purge and Trap	SW846	TAL CHI
7470A	Preparation, Mercury	SW846	TAL CHI

Protocol References:

EPA = US Environmental Protection Agency

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL CHI = Eurofins TestAmerica, Chicago, 2417 Bond Street, University Park, IL 60484, TEL (708)534-5200

Sample Summary

Client: ChemDesign
Project/Site: WI Site - Soil Testing

Job ID: 500-177188-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
500-177188-1	CDPI-BLD1	Solid	01/30/20 09:00	01/31/20 10:30	

- 1
- 2
- 3
- 4
- 5
- 6
- 7
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- 9
- 10
- 11
- 12
- 13
- 14
- 15
- 16
- 17

Client Sample Results

Client: ChemDesign
Project/Site: WI Site - Soil Testing

Job ID: 500-177188-1

Client Sample ID: CDPI-BLD1

Lab Sample ID: 500-177188-1

Date Collected: 01/30/20 09:00

Matrix: Solid

Date Received: 01/31/20 10:30

Method: 8260B - Volatile Organic Compounds (GC/MS) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<20	H	20	10	ug/L			02/17/20 14:31	20
Carbon tetrachloride	<20	H	20	10	ug/L			02/17/20 14:31	20
Chlorobenzene	<20	H	20	10	ug/L			02/17/20 14:31	20
Chloroform	<40	H	40	20	ug/L			02/17/20 14:31	20
1,2-Dichloroethane	<20	H	20	10	ug/L			02/17/20 14:31	20
1,1-Dichloroethene	<20	H	20	10	ug/L			02/17/20 14:31	20
Methyl Ethyl Ketone	<100	H	100	50	ug/L			02/17/20 14:31	20
Tetrachloroethene	<20	H	20	10	ug/L			02/17/20 14:31	20
Trichloroethene	<20	H	20	10	ug/L			02/17/20 14:31	20
Vinyl chloride	<20	H	20	10	ug/L			02/17/20 14:31	20

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	97		75 - 126		02/17/20 14:31	20
Toluene-d8 (Surr)	96		75 - 120		02/17/20 14:31	20
4-Bromofluorobenzene (Surr)	89		72 - 124		02/17/20 14:31	20
Dibromofluoromethane (Surr)	98		75 - 120		02/17/20 14:31	20

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2-Methylphenol	<20	H	20	20	ug/L		02/19/20 17:51	02/20/20 13:31	1
3 & 4 Methylphenol	<20	H	20	20	ug/L		02/19/20 17:51	02/20/20 13:31	1
1,4-Dichlorobenzene	<20	H	20	20	ug/L		02/19/20 17:51	02/20/20 13:31	1
2,4-Dinitrotoluene	<10	H	10	10	ug/L		02/19/20 17:51	02/20/20 13:31	1
Hexachlorobenzene	<5.0	H	5.0	5.0	ug/L		02/19/20 17:51	02/20/20 13:31	1
Hexachlorobutadiene	<50	H	50	50	ug/L		02/19/20 17:51	02/20/20 13:31	1
Hexachloroethane	<50	H	50	50	ug/L		02/19/20 17:51	02/20/20 13:31	1
Nitrobenzene	<10	H *	10	10	ug/L		02/19/20 17:51	02/20/20 13:31	1
Pentachlorophenol	<200	H	200	200	ug/L		02/19/20 17:51	02/20/20 13:31	1
Pyridine	<200	H	200	200	ug/L		02/19/20 17:51	02/20/20 13:31	1
2,4,5-Trichlorophenol	<100	H	100	100	ug/L		02/19/20 17:51	02/20/20 13:31	1
2,4,6-Trichlorophenol	<50	H	50	50	ug/L		02/19/20 17:51	02/20/20 13:31	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorophenol (Surr)	56		27 - 110	02/19/20 17:51	02/20/20 13:31	1
Phenol-d5 (Surr)	39		20 - 100	02/19/20 17:51	02/20/20 13:31	1
Nitrobenzene-d5 (Surr)	150	X	36 - 120	02/19/20 17:51	02/20/20 13:31	1
2-Fluorobiphenyl (Surr)	94		34 - 110	02/19/20 17:51	02/20/20 13:31	1
2,4,6-Tribromophenol (Surr)	114		40 - 145	02/19/20 17:51	02/20/20 13:31	1
Terphenyl-d14 (Surr)	128		40 - 145	02/19/20 17:51	02/20/20 13:31	1

Method: 6010D - Metals (ICP) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.024	J	0.050	0.010	mg/L		02/19/20 14:45	02/20/20 10:31	1
Barium	0.20	J	0.50	0.050	mg/L		02/19/20 14:45	02/20/20 10:31	1
Cadmium	0.0033	J	0.0050	0.0020	mg/L		02/19/20 14:45	02/20/20 10:31	1
Chromium	<0.025		0.025	0.010	mg/L		02/19/20 14:45	02/20/20 10:31	1
Lead	<0.050		0.050	0.0075	mg/L		02/19/20 14:45	02/20/20 10:31	1
Selenium	<0.050		0.050	0.020	mg/L		02/19/20 14:45	02/20/20 10:31	1
Silver	<0.025		0.025	0.010	mg/L		02/19/20 14:45	02/20/20 10:31	1

Eurofins TestAmerica, Chicago

Client Sample Results

Client: ChemDesign
Project/Site: WI Site - Soil Testing

Job ID: 500-177188-1

Client Sample ID: CDPI-BLD1

Lab Sample ID: 500-177188-1

Date Collected: 01/30/20 09:00

Matrix: Solid

Date Received: 01/31/20 10:30

Method: 7470A - Mercury (CVAA) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.20		0.20	0.20	ug/L		02/19/20 17:10	02/20/20 18:49	1

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- 16
- 17

Definitions/Glossary

Client: ChemDesign
Project/Site: WI Site - Soil Testing

Job ID: 500-177188-1

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
H	Sample was prepped or analyzed beyond the specified holding time

GC/MS Semi VOA

Qualifier	Qualifier Description
*	LCS or LCSD is outside acceptance limits.
H	Sample was prepped or analyzed beyond the specified holding time
X	Surrogate is outside control limits

Metals

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.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
α	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
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)
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
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)

QC Association Summary

Client: ChemDesign
Project/Site: WI Site - Soil Testing

Job ID: 500-177188-1

GC/MS VOA

Leach Batch: 529799

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-177188-1	CDPI-BLD1	TCLP	Solid	1311	
LB 500-529799/1-A	Method Blank	TCLP	Solid	1311	

Analysis Batch: 529944

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-177188-1	CDPI-BLD1	TCLP	Solid	8260B	529799
LB 500-529799/1-A	Method Blank	TCLP	Solid	8260B	529799
MB 500-529944/6	Method Blank	Total/NA	Solid	8260B	
LCS 500-529944/4	Lab Control Sample	Total/NA	Solid	8260B	

GC/MS Semi VOA

Leach Batch: 530209

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-177188-1	CDPI-BLD1	TCLP	Solid	1311	
LB 500-530209/1-D	Method Blank	TCLP	Solid	1311	

Prep Batch: 530501

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-177188-1	CDPI-BLD1	TCLP	Solid	3510C	530209
LB 500-530209/1-D	Method Blank	TCLP	Solid	3510C	530209
MB 500-530501/1-A	Method Blank	Total/NA	Solid	3510C	
LCS 500-530501/2-A	Lab Control Sample	Total/NA	Solid	3510C	

Analysis Batch: 530601

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-177188-1	CDPI-BLD1	TCLP	Solid	8270D	530501
LB 500-530209/1-D	Method Blank	TCLP	Solid	8270D	530501
MB 500-530501/1-A	Method Blank	Total/NA	Solid	8270D	530501
LCS 500-530501/2-A	Lab Control Sample	Total/NA	Solid	8270D	530501

Metals

Leach Batch: 530209

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-177188-1	CDPI-BLD1	TCLP	Solid	1311	
LB 500-530209/1-C	Method Blank	TCLP	Solid	1311	
LB 500-530209/2-B	Method Blank	TCLP	Solid	1311	

Prep Batch: 530456

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-177188-1	CDPI-BLD1	TCLP	Solid	3010A	530209
LB 500-530209/1-C	Method Blank	TCLP	Solid	3010A	530209
LCS 500-530456/2-A	Lab Control Sample	Total/NA	Solid	3010A	

Prep Batch: 530498

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-177188-1	CDPI-BLD1	TCLP	Solid	7470A	530209
LB 500-530209/2-B	Method Blank	TCLP	Solid	7470A	530209
MB 500-530498/12-A	Method Blank	Total/NA	Solid	7470A	
LCS 500-530498/17-A	Lab Control Sample	Total/NA	Solid	7470A	

Eurofins TestAmerica, Chicago

QC Association Summary

Client: ChemDesign
Project/Site: WI Site - Soil Testing

Job ID: 500-177188-1

Metals

Analysis Batch: 530694

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-177188-1	CDPI-BLD1	TCLP	Solid	6010D	530456
LB 500-530209/1-C	Method Blank	TCLP	Solid	6010D	530456
LCS 500-530456/2-A	Lab Control Sample	Total/NA	Solid	6010D	530456

Analysis Batch: 530774

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-177188-1	CDPI-BLD1	TCLP	Solid	7470A	530498
LB 500-530209/2-B	Method Blank	TCLP	Solid	7470A	530498
MB 500-530498/12-A	Method Blank	Total/NA	Solid	7470A	530498
LCS 500-530498/17-A	Lab Control Sample	Total/NA	Solid	7470A	530498

General Chemistry

Analysis Batch: 529075

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-177188-1	CDPI-BLD1	Total/NA	Solid	Moisture	

Surrogate Summary

Client: ChemDesign
Project/Site: WI Site - Soil Testing

Job ID: 500-177188-1

Method: 8260B - Volatile Organic Compounds (GC/MS)

Matrix: Solid

Prep Type: Total/NA

Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)			
		DCA (75-126)	TOL (75-120)	BFB (72-124)	DBFM (75-120)
LCS 500-529944/4	Lab Control Sample	92	96	90	94
MB 500-529944/6	Method Blank	95	96	89	94

Surrogate Legend

DCA = 1,2-Dichloroethane-d4 (Surr)

TOL = Toluene-d8 (Surr)

BFB = 4-Bromofluorobenzene (Surr)

DBFM = Dibromofluoromethane (Surr)

Method: 8260B - Volatile Organic Compounds (GC/MS)

Matrix: Solid

Prep Type: TCLP

Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)			
		DCA (75-126)	TOL (75-120)	BFB (72-124)	DBFM (75-120)
500-177188-1	CDPI-BLD1	97	96	89	98
LB 500-529799/1-A	Method Blank	94	96	88	95

Surrogate Legend

DCA = 1,2-Dichloroethane-d4 (Surr)

TOL = Toluene-d8 (Surr)

BFB = 4-Bromofluorobenzene (Surr)

DBFM = Dibromofluoromethane (Surr)

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

Matrix: Solid

Prep Type: Total/NA

Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)					
		2FP (27-110)	PHL (20-100)	NBZ (36-120)	FBP (34-110)	TBP (40-145)	TPHL (40-145)
LCS 500-530501/2-A	Lab Control Sample	56	41	145 X	84	110	125
MB 500-530501/1-A	Method Blank	62	43	168 X	116 X	119	140

Surrogate Legend

2FP = 2-Fluorophenol (Surr)

PHL = Phenol-d5 (Surr)

NBZ = Nitrobenzene-d5 (Surr)

FBP = 2-Fluorobiphenyl (Surr)

TBP = 2,4,6-Tribromophenol (Surr)

TPHL = Terphenyl-d14 (Surr)

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

Matrix: Solid

Prep Type: TCLP

Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)					
		2FP (27-110)	PHL (20-100)	NBZ (36-120)	FBP (34-110)	TBP (40-145)	TPHL (40-145)
500-177188-1	CDPI-BLD1	56	39	150 X	94	114	128
LB 500-530209/1-D	Method Blank	63	39	157 X	99	124	126

Surrogate Legend

2FP = 2-Fluorophenol (Surr)

PHL = Phenol-d5 (Surr)

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Surrogate Summary

Client: ChemDesign

Project/Site: WI Site - Soil Testing

NBZ = Nitrobenzene-d5 (Surr)

FBP = 2-Fluorobiphenyl (Surr)

TBP = 2,4,6-Tribromophenol (Surr)

TPHL = Terphenyl-d14 (Surr)

Job ID: 500-177188-1

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QC Sample Results

Client: ChemDesign
Project/Site: WI Site - Soil Testing

Job ID: 500-177188-1

Method: 8260B - Volatile Organic Compounds (GC/MS)

Lab Sample ID: MB 500-529944/6
Matrix: Solid
Analysis Batch: 529944

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<1.0		1.0	0.50	ug/L			02/17/20 10:34	1
Carbon tetrachloride	<1.0		1.0	0.50	ug/L			02/17/20 10:34	1
Chlorobenzene	<1.0		1.0	0.50	ug/L			02/17/20 10:34	1
Chloroform	<2.0		2.0	1.0	ug/L			02/17/20 10:34	1
1,2-Dichloroethane	<1.0		1.0	0.50	ug/L			02/17/20 10:34	1
1,1-Dichloroethene	<1.0		1.0	0.50	ug/L			02/17/20 10:34	1
Methyl Ethyl Ketone	<5.0		5.0	2.5	ug/L			02/17/20 10:34	1
Tetrachloroethene	<1.0		1.0	0.50	ug/L			02/17/20 10:34	1
Trichloroethene	<1.0		1.0	0.50	ug/L			02/17/20 10:34	1
Vinyl chloride	<1.0		1.0	0.50	ug/L			02/17/20 10:34	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	95		75 - 126		02/17/20 10:34	1
Toluene-d8 (Surr)	96		75 - 120		02/17/20 10:34	1
4-Bromofluorobenzene (Surr)	89		72 - 124		02/17/20 10:34	1
Dibromofluoromethane (Surr)	94		75 - 120		02/17/20 10:34	1

Lab Sample ID: LCS 500-529944/4
Matrix: Solid
Analysis Batch: 529944

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	50.0	50.6		ug/L		101	70 - 120
Carbon tetrachloride	50.0	53.0		ug/L		106	59 - 133
Chlorobenzene	50.0	52.9		ug/L		106	70 - 120
Chloroform	50.0	48.3		ug/L		97	70 - 120
1,2-Dichloroethane	50.0	51.7		ug/L		103	68 - 127
1,1-Dichloroethene	50.0	53.9		ug/L		108	67 - 122
Methyl Ethyl Ketone	50.0	71.6		ug/L		143	46 - 144
Tetrachloroethene	50.0	54.1		ug/L		108	70 - 128
Trichloroethene	50.0	56.4		ug/L		113	70 - 125
Vinyl chloride	50.0	59.0		ug/L		118	64 - 126

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	92		75 - 126
Toluene-d8 (Surr)	96		75 - 120
4-Bromofluorobenzene (Surr)	90		72 - 124
Dibromofluoromethane (Surr)	94		75 - 120

Lab Sample ID: LB 500-529799/1-A
Matrix: Solid
Analysis Batch: 529944

Client Sample ID: Method Blank
Prep Type: TCLP

Analyte	LB Result	LB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<20		20	10	ug/L			02/17/20 11:00	20
Carbon tetrachloride	<20		20	10	ug/L			02/17/20 11:00	20
Chlorobenzene	<20		20	10	ug/L			02/17/20 11:00	20
Chloroform	<40		40	20	ug/L			02/17/20 11:00	20

Eurofins TestAmerica, Chicago

QC Sample Results

Client: ChemDesign
Project/Site: WI Site - Soil Testing

Job ID: 500-177188-1

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

Lab Sample ID: LB 500-529799/1-A
Matrix: Solid
Analysis Batch: 529944

Client Sample ID: Method Blank
Prep Type: TCLP

Analyte	LB	LB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
1,2-Dichloroethane	<20		20	10	ug/L			02/17/20 11:00	20
1,1-Dichloroethene	<20		20	10	ug/L			02/17/20 11:00	20
Methyl Ethyl Ketone	<100		100	50	ug/L			02/17/20 11:00	20
Tetrachloroethene	<20		20	10	ug/L			02/17/20 11:00	20
Trichloroethene	<20		20	10	ug/L			02/17/20 11:00	20
Vinyl chloride	<20		20	10	ug/L			02/17/20 11:00	20

Surrogate	LB	LB	Limits	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier				
1,2-Dichloroethane-d4 (Surr)	94		75 - 126		02/17/20 11:00	20
Toluene-d8 (Surr)	96		75 - 120		02/17/20 11:00	20
4-Bromofluorobenzene (Surr)	88		72 - 124		02/17/20 11:00	20
Dibromofluoromethane (Surr)	95		75 - 120		02/17/20 11:00	20

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

Lab Sample ID: MB 500-530501/1-A
Matrix: Solid
Analysis Batch: 530601

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 530501

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
2-Methylphenol	<2.0		2.0	2.0	ug/L		02/19/20 17:51	02/20/20 11:44	1
3 & 4 Methylphenol	<2.0		2.0	2.0	ug/L		02/19/20 17:51	02/20/20 11:44	1
1,4-Dichlorobenzene	<2.0		2.0	2.0	ug/L		02/19/20 17:51	02/20/20 11:44	1
2,4-Dinitrotoluene	<1.0		1.0	1.0	ug/L		02/19/20 17:51	02/20/20 11:44	1
Hexachlorobenzene	<0.50		0.50	0.50	ug/L		02/19/20 17:51	02/20/20 11:44	1
Hexachlorobutadiene	<5.0		5.0	5.0	ug/L		02/19/20 17:51	02/20/20 11:44	1
Hexachloroethane	<5.0		5.0	5.0	ug/L		02/19/20 17:51	02/20/20 11:44	1
Nitrobenzene	<1.0		1.0	1.0	ug/L		02/19/20 17:51	02/20/20 11:44	1
Pentachlorophenol	<20		20	20	ug/L		02/19/20 17:51	02/20/20 11:44	1
Pyridine	<20		20	20	ug/L		02/19/20 17:51	02/20/20 11:44	1
2,4,5-Trichlorophenol	<10		10	10	ug/L		02/19/20 17:51	02/20/20 11:44	1
2,4,6-Trichlorophenol	<5.0		5.0	5.0	ug/L		02/19/20 17:51	02/20/20 11:44	1

Surrogate	MB	MB	Limits	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier				
2-Fluorophenol (Surr)	62		27 - 110	02/19/20 17:51	02/20/20 11:44	1
Phenol-d5 (Surr)	43		20 - 100	02/19/20 17:51	02/20/20 11:44	1
Nitrobenzene-d5 (Surr)	168	X	36 - 120	02/19/20 17:51	02/20/20 11:44	1
2-Fluorobiphenyl (Surr)	116	X	34 - 110	02/19/20 17:51	02/20/20 11:44	1
2,4,6-Tribromophenol (Surr)	119		40 - 145	02/19/20 17:51	02/20/20 11:44	1
Terphenyl-d14 (Surr)	140		40 - 145	02/19/20 17:51	02/20/20 11:44	1

Lab Sample ID: LCS 500-530501/2-A
Matrix: Solid
Analysis Batch: 530601

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 530501

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
3 & 4 Methylphenol	40.0	32.7		ug/L		82	50 - 116

Eurofins TestAmerica, Chicago

QC Sample Results

Client: ChemDesign
Project/Site: WI Site - Soil Testing

Job ID: 500-177188-1

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

Lab Sample ID: LCS 500-530501/2-A
Matrix: Solid
Analysis Batch: 530601

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 530501

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,4-Dichlorobenzene	40.0	23.8		ug/L		59	23 - 110
2,4-Dinitrotoluene	40.0	47.3		ug/L		118	63 - 129
Hexachlorobenzene	40.0	40.9		ug/L		102	61 - 126
Hexachlorobutadiene	40.0	28.0		ug/L		70	20 - 100
Hexachloroethane	40.0	29.5		ug/L		74	20 - 100
Nitrobenzene	40.0	56.3	*	ug/L		141	54 - 121
Pentachlorophenol	80.0	91.5		ug/L		114	42 - 148
Pyridine	80.0	53.0		ug/L		66	15 - 110
2,4,5-Trichlorophenol	40.0	46.5		ug/L		116	63 - 124
2,4,6-Trichlorophenol	40.0	44.6		ug/L		112	62 - 121

Surrogate	LCS %Recovery	LCS Qualifier	Limits
2-Fluorophenol (Surr)	56		27 - 110
Phenol-d5 (Surr)	41		20 - 100
Nitrobenzene-d5 (Surr)	145	X	36 - 120
2-Fluorobiphenyl (Surr)	84		34 - 110
2,4,6-Tribromophenol (Surr)	110		40 - 145
Terphenyl-d14 (Surr)	125		40 - 145

Lab Sample ID: LB 500-530209/1-D
Matrix: Solid
Analysis Batch: 530601

Client Sample ID: Method Blank
Prep Type: TCLP
Prep Batch: 530501

Analyte	LB Result	LB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2-Methylphenol	<20		20	20	ug/L		02/19/20 17:51	02/20/20 11:17	1
3 & 4 Methylphenol	<20		20	20	ug/L		02/19/20 17:51	02/20/20 11:17	1
1,4-Dichlorobenzene	<20		20	20	ug/L		02/19/20 17:51	02/20/20 11:17	1
2,4-Dinitrotoluene	<10		10	10	ug/L		02/19/20 17:51	02/20/20 11:17	1
Hexachlorobenzene	<5.0		5.0	5.0	ug/L		02/19/20 17:51	02/20/20 11:17	1
Hexachlorobutadiene	<50		50	50	ug/L		02/19/20 17:51	02/20/20 11:17	1
Hexachloroethane	<50		50	50	ug/L		02/19/20 17:51	02/20/20 11:17	1
Nitrobenzene	<10		10	10	ug/L		02/19/20 17:51	02/20/20 11:17	1
Pentachlorophenol	<200		200	200	ug/L		02/19/20 17:51	02/20/20 11:17	1
Pyridine	<200		200	200	ug/L		02/19/20 17:51	02/20/20 11:17	1
2,4,5-Trichlorophenol	<100		100	100	ug/L		02/19/20 17:51	02/20/20 11:17	1
2,4,6-Trichlorophenol	<50		50	50	ug/L		02/19/20 17:51	02/20/20 11:17	1

Surrogate	LB %Recovery	LB Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorophenol (Surr)	63		27 - 110	02/19/20 17:51	02/20/20 11:17	1
Phenol-d5 (Surr)	39		20 - 100	02/19/20 17:51	02/20/20 11:17	1
Nitrobenzene-d5 (Surr)	157	X	36 - 120	02/19/20 17:51	02/20/20 11:17	1
2-Fluorobiphenyl (Surr)	99		34 - 110	02/19/20 17:51	02/20/20 11:17	1
2,4,6-Tribromophenol (Surr)	124		40 - 145	02/19/20 17:51	02/20/20 11:17	1
Terphenyl-d14 (Surr)	126		40 - 145	02/19/20 17:51	02/20/20 11:17	1

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QC Sample Results

Client: ChemDesign
Project/Site: WI Site - Soil Testing

Job ID: 500-177188-1

Method: 6010D - Metals (ICP)

Lab Sample ID: LCS 500-530456/2-A
Matrix: Solid
Analysis Batch: 530694

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 530456

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Arsenic	0.100	0.111		mg/L		111	80 - 120
Barium	0.500	0.490	J	mg/L		98	80 - 120
Cadmium	0.0500	0.0515		mg/L		103	80 - 120
Chromium	0.200	0.189		mg/L		95	80 - 120
Lead	0.100	0.0918		mg/L		92	80 - 120
Selenium	0.100	0.105		mg/L		105	80 - 120
Silver	0.0500	0.0498		mg/L		100	80 - 120

Lab Sample ID: LB 500-530209/1-C
Matrix: Solid
Analysis Batch: 530694

Client Sample ID: Method Blank
Prep Type: TCLP
Prep Batch: 530456

Analyte	LB Result	LB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.050		0.050	0.010	mg/L		02/19/20 14:45	02/20/20 09:26	1
Barium	<0.50		0.50	0.050	mg/L		02/19/20 14:45	02/20/20 09:26	1
Cadmium	<0.0050		0.0050	0.0020	mg/L		02/19/20 14:45	02/20/20 09:26	1
Chromium	<0.025		0.025	0.010	mg/L		02/19/20 14:45	02/20/20 09:26	1
Lead	<0.050		0.050	0.0075	mg/L		02/19/20 14:45	02/20/20 09:26	1
Selenium	<0.050		0.050	0.020	mg/L		02/19/20 14:45	02/20/20 09:26	1
Silver	<0.025		0.025	0.010	mg/L		02/19/20 14:45	02/20/20 09:26	1

Method: 7470A - Mercury (CVAA)

Lab Sample ID: MB 500-530498/12-A
Matrix: Solid
Analysis Batch: 530774

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 530498

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.20		0.20	0.20	ug/L		02/19/20 17:10	02/20/20 17:53	1

Lab Sample ID: LCS 500-530498/17-A
Matrix: Solid
Analysis Batch: 530774

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 530498

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Mercury	2.00	1.80		ug/L		90	80 - 120

Lab Sample ID: LB 500-530209/2-B
Matrix: Solid
Analysis Batch: 530774

Client Sample ID: Method Blank
Prep Type: TCLP
Prep Batch: 530498

Analyte	LB Result	LB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.20		0.20	0.20	ug/L		02/19/20 17:10	02/20/20 18:02	1

Lab Chronicle

Client: ChemDesign
Project/Site: WI Site - Soil Testing

Job ID: 500-177188-1

Client Sample ID: CDPI-BLD1

Lab Sample ID: 500-177188-1

Date Collected: 01/30/20 09:00

Matrix: Solid

Date Received: 01/31/20 10:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
TCLP	Leach	1311			529799	02/14/20 15:24	BEC	TAL CHI
TCLP	Analysis	8260B		20	529944	02/17/20 14:31	STW	TAL CHI
TCLP	Leach	1311			530209	02/18/20 12:38	BEC	TAL CHI
TCLP	Prep	3510C			530501	02/19/20 17:51	ACK	TAL CHI
TCLP	Analysis	8270D		1	530601	02/20/20 13:31	AJD	TAL CHI
TCLP	Leach	1311			530209	02/18/20 12:38	BEC	TAL CHI
TCLP	Prep	3010A			530456	02/19/20 14:45	BDE	TAL CHI
TCLP	Analysis	6010D		1	530694	02/20/20 10:31	JEF	TAL CHI
TCLP	Leach	1311			530209	02/18/20 12:38	BEC	TAL CHI
TCLP	Prep	7470A			530498	02/19/20 17:10	MJG	TAL CHI
TCLP	Analysis	7470A		1	530774	02/20/20 18:49	MJG	TAL CHI
Total/NA	Analysis	Moisture		1	529075	02/11/20 11:37	LWN	TAL CHI

Laboratory References:

TAL CHI = Eurofins TestAmerica, Chicago, 2417 Bond Street, University Park, IL 60484, TEL (708)534-5200



Accreditation/Certification Summary

Client: ChemDesign
Project/Site: WI Site - Soil Testing

Job ID: 500-177188-1

Laboratory: Eurofins TestAmerica, Chicago

The accreditations/certifications listed below are applicable to this report.

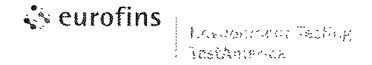
Authority	Program	Identification Number	Expiration Date
Wisconsin	State	999580010	08-31-20


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Eurofins TestAmerica, Chicago

2417 Bond Street
University Park, IL 60484
Phone: 708-534-5200 Fax: 708-534-5211

Chain of Custody Record



Client Information					Sampler: <i>Matt Smiley</i>		Lab PM: Knapp, Jim D		Carrier Tracking No(s):		COC No: 500-78680-36326.1				
Client Contact: Mr. Tom Willis					Phone: <i>715 735 8399</i>		E-Mail: jim.knapp@testamericainc.com				Page 1 of 1				
Company: ChemDesign					Analysis Requested  500-177188 COC TCLP SVOC / Metals 24-Panel PFOA / PFAS TCLP VOCs					Job #: <i>500-177188</i>					
Address: 2 Stanton St.										Due Date Requested:			Preservation Codes: A - HCL M - Hexane B - NaOH N - None C - Zn Acetate O - AsNaO2 D - Nitric Acid P - Na2O4S E - NaHSO4 Q - Na2SO3 F - MeOH R - Na2S2O3 G - Amchlor S - H2SO4 H - Ascorbic Acid T - TSP Dodecahydrate I - Ice U - Acetone J - DI Water V - MCAA K - EDTA W - pH 4-5 L - EDA Z - other (specify) Other:		
City: Marinette										TAT Requested (days):					
State, Zip: WI, 54143										PO #: Pre-Payment by CC Required					
Phone: 715-735-8263(Tel)										WO #:					
Email: twillis@chemdesign.com					Project #: 50017149			SSOW#:							
Project Name: WI Site - Soil Testing					Site:			Sample Identification							
					Sample Date			Sample Time		Sample Type (C=comp, G=grab)		Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)			
					Field Filtered Sample (Yes or No)			Perform MS/MSD (Yes or No)		Total Number of containers		Special Instructions/Note:			
					X			X		1		Ref Quote 50017142			
								X		1		Ref Quote 50017142			
								X		1		Ref Quote 50017142			

Possible Hazard Identification
 Non-Hazard Flammable Skin Irritant Poison B Unknown Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
 Return To Client Disposal By Lab Archive For 1 Months

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:
<i>C. Kan. Kula</i>			
Relinquished by:	Date/Time:	Company:	Received by:
<i>C. Kan. Kula</i>	<i>1/30/20 10:30 AM</i>	<i>ChemDesign</i>	<i>Stephanie Hernandez</i>
Relinquished by:	Date/Time:	Company:	Received by:

Custody Seals Intact: Yes No Custody Seal No.:
 Cooler Temperature(s) °C and Other Remarks: *2.3*



ORIGIN ID:GRBA (715) 735-8344
MATTHEW SMILEY
CHEMDESIGN PRODUCTS INC
2 STANTON ST

SHIP DATE: 30JAN20
ACTWGT: 21.00 LB
CAD: 7257117/INET4220

MARINETTE, WI 54143
UNITED STATES US

BILL SENDER

TO **EUROFINS TEST AMERICA**
EUROFINS TEST AMERICA
2417 BOND STREET

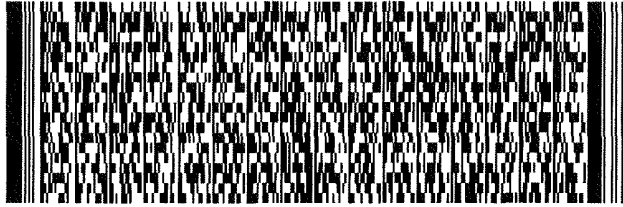
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UNIVERSITY PARK IL 60484

(708) 534-5200 REF SOIL SAMPLES
INV PO DEPT:



500-177188 Wayt

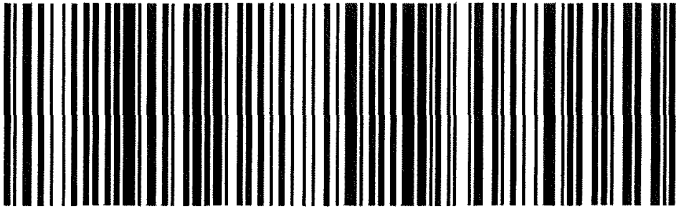


FRI - 31 JAN 10:30A
PRIORITY OVERNIGHT

TRK# **7776 4606 8531**
0201

NA JOTA

60484
IL-US **ORD**



36pt.

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2. Fold the printed page along the horizontal line.
3. Place label in shipping pouch and affix it to your shipment so that the barcode portion of the label can be read and scanned.

Warning: Use only the printed original label for shipping. Using a photocopy of this label for shipping purposes is fraudulent and could result in additional billing charges, along with the cancellation of your FedEx account number.

Use of this system constitutes your agreement to the service conditions in the current FedEx Service Guide, available on fedex.com. FedEx will not be responsible for any claim in excess of \$100 per package, whether the result of loss, damage, delay, non-delivery, misdelivery or misinformation, unless you declare a higher value, pay an additional charge, document your actual loss and file a timely claim. Limitations found in the current FedEx Service Guide apply. Your right to recover from FedEx for any loss, including intrinsic value of the package, loss of sales, income interest, profit, attorney's fees, costs, and other forms of damage whether direct, incidental, consequential, or special is limited to the greater of \$100 or the authorized declared value. Recovery cannot exceed actual documented loss. Maximum for items of extraordinary value is \$1,000, e.g. jewelry, precious metals, negotiable instruments and other items listed in our ServiceGuide. Written claims must be filed within strict time limits, see current FedEx Service Guide.





Chain of Custody Record

Client Information (Sub Contract Lab)		Sampler: Knapp, Jim D		Lab PM: Knapp, Jim D		Carrier Tracking No(s): 500-131356.1		COC No: 500-131356.1	
Client Contact: Shipping/Receiving		Phone:		E-Mail: jim.knapp@testamericainc.com		State of Origin: Wisconsin		Page: Page 1 of 1	
Company: TestAmerica Laboratories, Inc.		Address: 880 Riverside Parkway, West Sacramento, CA, 95605		City: West Sacramento		State: Wisconsin		Job #: 500-177188-1	
Phone: 916-373-5600(Tel) 916-372-1059(Fax)		Email:		Project #: 50017149		Due Date Requested: 2/18/2020		Preservation Codes:	
Site: WI Site - Soil Testing		SSOW#:		TAT Requested (days):		Analysis Requested		M - Hexane N - None O - AsNaO2 P - Na2O4S Q - Na2SO3 R - Na2S2O3 S - H2SO4 T - TSP Dodecahydrate U - Acetone V - MCAA W - pH 4-5 L - EDTA Z - other (Specify)	
Sample Identification - Client ID (Lab ID)		Sample Date		Sample Time		Sample Type (C=comp, G=grab)		Matrix (W=water, S=solid, O=wast/oil, BT=Tris, A=Al)	
CDPI-BLD1 (500-177188-1)		1/30/20		09:00 Central		Solid		Preservation Code:	
								Field Filtered Sample (Yes or No)	
								Perform MS/MSD (Yes or No)	
								Analytes	
								Moisture	
								Total Number of Containers	
								1	
								Special Instructions/Note:	

Note: Since laboratory accreditations are subject to change, Eurofins TestAmerica places the ownership of method, analyte & accreditation compliance upon out subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/test/matrix being analyzed, the samples must be shipped back to the Eurofins TestAmerica laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins TestAmerica attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said compliance to Eurofins TestAmerica.

Possible Hazard Identification
 Unconfirmed
 Deliverable Requested: I, II, III, IV, Other (specify)
 Empty Kit Relinquished by: _____ Date: _____
 Relinquished by: *Stephanie Hernandez* Date: 1/31/20 16:00
 Relinquished by: _____ Date/Time: _____
 Relinquished by: _____ Date/Time: _____
 Custody Seals Intact: _____ Custody Seal No.: _____
 Δ Yes Δ No

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
 Return To Client
 Disposal By Lab _____ Archive For _____ Months
 Special Instructions/QC Requirements:

Method of Shipment: _____
 Received by: *Juan Guzman* Date/Time: 2/1/20 - 9:35
 Received by: _____ Date/Time: _____
 Received by: _____ Date/Time: _____
 Cooler Temperature(s) °C and Other Remarks: *5.6*



Login Sample Receipt Checklist

Client: ChemDesign

Job Number: 500-177188-1

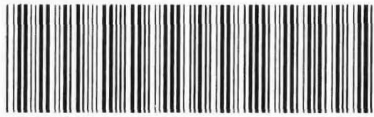
Login Number: 177188

List Source: Eurofins TestAmerica, Chicago

List Number: 1

Creator: Hernandez, Stephanie

Question	Answer	Comment
Radioactivity wasn't checked or is \leq background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
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.	True	
Cooler Temperature is recorded.	True	2.3
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	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	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <math><6\text{mm}</math> (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	



500-177188 Field Sheet

Tracking #: 1648-4105-2941

Job: _____

SO PO / FO / SAT / 2-Day / Ground / UPS / CDO / Courier
GSO / OnTrac / Goldstreak / USPS / Other _____

Use this form to record Sample Custody Seal, Cooler Custody Seal, Temperature & corrected Temperature & other observations.
File in the job folder with the COC.

Notes: _____

Therm. ID: JR/STEM Corr. Factor: (+/-) 0 °C

Ice Wet _____ Gel _____ Other _____

Cooler Custody Seal: 970143

Cooler ID: _____

Temp Observed: 5.6 °C Corrected: 5.6 °C
From: Temp Blank Sample

Opening/Processing The Shipment	Yes	No	NA
Cooler compromised/tampered with?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Cooler Temperature is acceptable?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Samples received within holding time?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Initials: JV Date: 2/1/20

Unpacking/Labeling The Samples	Yes	No	NA
CoC is complete w/o discrepancies?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Samples compromised/tampered with?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Sample containers have legible labels?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Sample custody seal?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Containers are not broken or leaking?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Sample date/times are provided?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Appropriate containers are used?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Sample bottles are completely filled?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Sample preservatives verified?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Samples w/o discrepancies?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Zero headspace?*	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Alkalinity has no headspace?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Perchlorate has headspace? (Methods 314, 331, 6850)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Multiphasic samples are not present?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Non-conformance	Yes	No	NA
NCM Filed?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Initials: JG Date: 2/1/20

*Containers requiring zero headspace have no headspace, or bubble < 6 mm (1/4")

WRI-G

Isotope Dilution Summary

Client: ChemDesign
Project/Site: WI Site - Soil Testing

Job ID: 500-177188-1

Method: 537 (modified) - Fluorinated Alkyl Substances

Matrix: Solid

Prep Type: Total/NA

Percent Isotope Dilution Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	PFBA (25-150)	PFPeA (25-150)	PFHxA (25-150)	PFHpA (25-150)	PFOA (25-150)	PFNA (25-150)	PFDA (25-150)	PFUnA (25-150)
500-177188-1	CDPI-BLD1	64	78	84	80	87	84	91	82
LCS 320-354838/2-A	Lab Control Sample	95	89	90	98	97	91	94	94
MB 320-354838/1-A	Method Blank	96	90	97	99	99	97	96	99

Percent Isotope Dilution Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	PFDaA (25-150)	PFTDA (25-150)	3C3-PFBs (25-150)	PFHxS (25-150)	PFOS (25-150)	PFOSA (25-150)	d3-NMeFOSAA (25-150)	d5-NEtFOSAA (25-150)
500-177188-1	CDPI-BLD1	70	67	101	94	99	77	73	74
LCS 320-354838/2-A	Lab Control Sample	97	95	96	99	105	90	93	92
MB 320-354838/1-A	Method Blank	95	96	97	101	103	94	95	105

Percent Isotope Dilution Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	M262FTS (25-150)	M282FTS (25-150)	M242FTS (25-150)
500-177188-1	CDPI-BLD1	174 *	183 *	196 *
LCS 320-354838/2-A	Lab Control Sample	107	107	108
MB 320-354838/1-A	Method Blank	121	104	114

Surrogate Legend

PFBA = 13C4 PFBA
PFPeA = 13C5 PFPeA
PFHxA = 13C2 PFHxA
PFHpA = 13C4 PFHpA
PFOA = 13C4 PFOA
PFNA = 13C5 PFNA
PFDA = 13C2 PFDA
PFUnA = 13C2 PFUnA
PFDaA = 13C2 PFDaA
PFTDA = 13C2 PFTeDA
13C3-PFBs = 13C3 PFBS
PFHxS = 18O2 PFHxS
PFOS = 13C4 PFOS
PFOSA = 13C8 FOSA
d3-NMeFOSAA = d3-NMeFOSAA
d5-NEtFOSAA = d5-NEtFOSAA
M262FTS = M2-6:2 FTS
M282FTS = M2-8:2 FTS
M242FTS = M2-4:2 FTS

Attachment 3
Waste Management Waste Profile



Requested Facility: Columbia Ridge Landfill Profile Number: 132703OR
Multiple Generator Locations (Attach Locations) Request Certificate of Disposal Renewal? Original Profile Number: 132703OR

A. GENERATOR INFORMATION (MATERIAL ORIGIN)

1. Generator Name: ChemDesign Products, Inc.
2. Generator Site Address: 2 Stanton Street (City, State, ZIP) Marinette WI 54143
3. County: Marinette
4. Contact Name: Christopher Moore
5. Email: cmoore@chemdesign.com
6. Phone: (715) 735-8346 7. Fax:
8. Generator EPA ID: WID980898266
9. State ID:

B. BILLING INFORMATION

SAME AS GENERATOR

1. Billing Name: ChemDesign Products, Inc.
2. Billing Address: 2 Stanton Street (City, State, ZIP) Marinette WI 54143
3. Contact Name: Christopher Moore
4. Email: cmoore@chemdesign.com
5. Phone: (715) 735-8346 6. Fax:
7. WM Hauled?
8. P.O. Number:
9. Payment Method: Credit Account Cash Credit Card

C. MATERIAL INFORMATION

1. Common Name: Construction Soil
Describe Process(es) Generating Material: See Attached
Removal of soils from a brownsfield site with possible soil contaminants. Previous waste analytical is still applicable due to there being no changes in contamination to the site.
2. Material Composition and Contaminants: See Attached
Table with 2 columns: Contaminant, Percentage
3. State Waste Codes:
4. Color: Brown
5. Physical State at 70°F: Solid Liquid Other:
6. Free Liquid Range Percentage: to
7. pH: to
8. Strong Odor: Yes No Describe:
9. Flash Point: <140°F 140°-199°F ≥200°

D. REGULATORY INFORMATION

1. EPA Hazardous Waste? Yes* No
2. State Hazardous Waste? Yes No
3. Is this material non-hazardous due to Treatment, Delisting, or an Exclusion? Yes* No
4. Contains Underlying Hazardous Constituents? Yes* No
5. From an industry regulated under Benzene NESHAP? Yes* No
6. Facility remediation subject to 40 CFR 63 GGGGG? Yes* No
7. CERCLA or State-mandated clean-up? Yes* No
8. NRC or State-regulated radioactive or NORM waste? Yes* No
9. Contains PCBs? -> If Yes, answer a, b and c. Yes No
a. Regulated by 40 CFR 761? Yes No
b. Remediation under 40 CFR 761.61 (a)? Yes No
c. Were PCB imported into the US? Yes No
10. Regulated and/or Untreated Medical/Infectious Waste? Yes No
11. Contains Asbestos? Yes No
-> If Yes: Non-Friable Non-Friable - Regulated Friable

E. ANALYTICAL AND OTHER REPRESENTATIVE INFORMATION

1. Analytical attached Yes
Please identify applicable samples and/or lab reports:
Lab Job ID: 500-177188-1 Also attached soil testing on possible PFA and PFOA contamination on "Other Information" attachment
2. Other information attached (such as MSDS)? Yes

F. SHIPPING AND DOT INFORMATION

1. One-Time Event Repeat Event/Ongoing Business
2. Estimated Quantity/Unit of Measure: 225
Tons Yards Drums Gallons Other:
3. Container Type and Size: 30-yard roll-off
4. USDOT Proper Shipping Name: N/A

G. GENERATOR CERTIFICATION (PLEASE READ AND CERTIFY BY SIGNATURE)

By signing this EZ Profile™ form, I hereby certify that all information submitted in this and all attached documents contain true and accurate descriptions of this material, and that all relevant information necessary for proper material characterization and to identify known and suspected hazards has been provided.

I am an Authorized Agent signing on behalf of the Generator, and I have confirmed with the Generator that information contained in this profile, as well as supporting documents provided, are accurate and complete.

Name (Print): Christopher Moore Date: 01/21/2022
Title: Waste Supervisor
Company: ChemDesign

Certification Signature

Handwritten signature: Christopher Moore
33738f1ae6f...