



## Department of Energy

Portsmouth/Paducah Project Office  
1017 Majestic Drive, Suite 200  
Lexington, Kentucky 40513  
(859) 219-4000

April 14, 2023

Ms. Jamie Nielsen, Supervisor  
Permit Administration Section  
Division of Waste Management, Solid Waste Branch  
Kentucky Department for Environmental Protection  
300 Sower Boulevard, 2nd Floor  
Frankfort, Kentucky 40601

PPPO-02-10024206-23B

Dear Ms. Nielsen:

**C-746-S&T AND C-746-U SOLID WASTE LANDFILLS FIRST QUARTER  
CALENDAR YEAR 2023 WASTE OPERATING REPORT, PADUCAH GASEOUS  
DIFFUSION PLANT, PADUCAH, KENTUCKY, FRNP-RPT-0283/V1, SOLID WASTE  
PERMIT NO. SW07300014, SW07300015, SW07300045, AGENCY INTEREST NO. 3059**

The U.S. Department of Energy has prepared the first quarter operating report for calendar year 2023 for the C-746-S&T Landfills and the C-746-U Landfill at the Paducah Gaseous Diffusion Plant. Kentucky Solid Waste Regulation 401 KAR 47:190 § 8(1) and Solid Waste Permit No. SW07300014, SW07300015, SW07300045, Permit Condition ACTV0006, Special Condition 10, require submittal of quarterly reports from operators of solid waste landfills.

The groundwater data, surface water data, and methane monitoring results are submitted as separate reports for the C-746-S&T Landfills and the C-746-U Landfill.

If you have any questions or require additional information, please contact Ryan Callihan at (740) 970-0255.

Sincerely,

**APRIL LADD** Digitally signed by APRIL LADD  
Date: 2023.04.14 13:26:05  
-05'00'

April Ladd  
Acting Paducah Site Lead  
Portsmouth/Paducah Project Office

Enclosures:

1. Certification Page
2. *C-746-S&T and C-746-U Solid Waste Landfills First Quarter Calendar Year 2023 Waste Operating Report, Paducah Gaseous Diffusion Plant, Paducah, Kentucky, FRNP-RPT-0283/V1*

cc w/enclosures:

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## CERTIFICATION

**Document Identification:** *C-746-S&T and C-746-U Solid Waste Landfills First Quarter Calendar Year 2023 Waste Operating Report, Paducah Gaseous Diffusion Plant, Paducah, Kentucky, FRNP-RPT-0283/V1, Solid Waste Permit SW07300014, SW07300015, SW07300045, Agency Interest No. 3059, April 2023*

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for such violations.

Four Rivers Nuclear Partnership, LLC  
Permittee (Operator)

**MYRNA REDFIELD (Affiliate)** Digitally signed by MYRNA REDFIELD (Affiliate)  
Date: 2023.04.11 13:40:21 -05'00'

Myrna E. Redfield, Program Manager  
Four Rivers Nuclear Partnership, LLC

Date Signed

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for such violations.

U.S. Department of Energy

**APRIL LADD**

Digitally signed by APRIL LADD  
Date: 2023.04.11 14:08:41 -05'00'

April Ladd, Acting Paducah Site Lead  
Portsmouth/Paducah Project Office  
U.S. Department of Energy

Date Signed

**C-746-S&T and C-746-U Solid Waste Landfills  
First Quarter Calendar Year 2023  
Waste Operating Report  
Paducah Gaseous Diffusion Plant,  
Paducah, Kentucky**



This document is approved for public release per review by:

*Danell Evans* 04/13/2023  
FRNP Classification Support Date



**C-746-S&T and C-746-U Solid Waste Landfills  
First Quarter Calendar Year 2023  
Waste Operating Report  
Paducah Gaseous Diffusion Plant,  
Paducah, Kentucky**

Date Issued—April 2023

U.S. DEPARTMENT OF ENERGY  
Office of Environmental Management

Prepared by  
FOUR RIVERS NUCLEAR PARTNERSHIP, LLC,  
managing the  
Deactivation and Remediation Project at the  
Paducah Gaseous Diffusion Plant  
under Contract DE-EM0004895

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## REPORT SUMMARY

The information contained herein is submitted in accordance with the requirements of Solid Waste Permit Number SW07300014, SW07300015, SW07300045, and 401 *KAR* 47:190 § 8(1)(a) through (c) and (e), for the first quarter of calendar year 2023 for the Paducah Gaseous Diffusion Plant, McCracken County, Kentucky.

In the first quarter of calendar year 2023, a total of 290.01 tons of industrial waste was disposed of in the C-746-U Contained Landfill. There were 13.25 tons of asbestos-containing materials disposed of as part of the 290.01 total tons of waste dispositioned. No special waste or spill-residue-containing materials were disposed of in the landfill this quarter. As directed by the Cabinet, the Waste Quantity Report, DEP-7046-Q, is submitted as a separate report.

Analytical results for surface water monitoring, groundwater monitoring, and methane monitoring are submitted in separate quarterly Compliance Monitoring Reports for the C-746-U Landfill and C-746-S&T Landfills [401 *KAR* 47:190 § 8(1)(d)].

The C-746-S Residential Landfill has been inactive since July 1995, and the C-746-T Inert Landfill has been inactive since June 1992.

### Leachate Collection and Disposition

Leachate is primarily stored in five holding tanks (F-001, F-002, F-007, F-008, and F-009) with a total capacity of 104,200 gal. In the event that leachate cannot be managed solely with the primary tanks, 64,000 gal of additional storage capacity is available in reserve tanks F-010, F-011, F-012, and F-013. Tank F-004 is a 2,500-gal surge tank for the leachate treatment system. Storage tanks F-005 and F-006 were removed from service in 2014. The total leachate storage capacity is 170,700 gal.

The tank volume reported on the leachate log is the volume at the time of measurement. Calculation of the next day tank volume by subtraction of disposal volume may not reflect the measured tank volume because additional leachate had entered the system. A total of 404,000 gal of leachate from the C-746-U Landfill was treated at the C-746-U15 Leachate Treatment Facility this quarter. Zero gal of leachate from the C-746-S Landfill was treated at the C-746-U15 Leachate Treatment Facility this quarter. There was no leachate transported to the other treatment facilities.

Annual leachate samples were taken on February 15, 2023, from the C-746-S Landfill and the C-746-U Landfill, and additional field measurements were taken on April 4, 2023. The leachate was sampled and tested in accordance with the conditions described in the Solid Waste Permit issued on May 21, 2021.

### Construction Activities and Cover Maintenance

There were no construction or cover maintenance activities associated with the C-746-S&T Landfills [401 *KAR* 47:190 § 8(1)(a)]. The C-746-S&T Landfills were inspected for subsidence in accordance with the cover requirements [401 *KAR* 48:080 § 9(6)(f)]. No repairs were necessary during the quarter.

There were no construction or cover maintenance activities at the C-746-U Landfill [401 *KAR* 47:190 § 8(1)(a)]. The landfill was inspected for subsidence in accordance with the cover requirements [401 *KAR* 48:080 § 9(6)(f)]. No repairs were necessary during the quarter.

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## FACILITY INFORMATION SHEET

Sampling Date: February 15, 2023, and April 4, 2023

County: McCracken Permit No.: SW07300014, SW07300015,  
SW07300045  
Facility Name: U.S. Department of Energy—Paducah Gaseous Diffusion Plant  
(as officially shown on DWM permit face)

Site Address: 5501 Hobbs Road Kevil, Kentucky 42053  
Street City/State Zip

Phone No.: (270) 441-6800 Latitude: N 37° 07' 45" Longitude: W 88° 47' 55"

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### OWNER INFORMATION

Facility Owner: U.S. DOE, Joel Bradburne, Manager Phone No.: (859) 219-4000

Contact Person: Gary Hines Phone No.: (270) 816-4164

Contact Person Title: Landfill Manager,  
Four Rivers Nuclear Partnership, LLC

Mailing Address: 5511 Hobbs Road Kevil, Kentucky 42053  
Street City/State Zip

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### SAMPLING PERSONNEL (if other than landfill or laboratory)

Company: GEO Consultants, LLC

Contact Person: Jason Boulton Phone No. (270) 441-6756

Mailing Address: 325 Kentucky Avenue Kevil, Kentucky 42053  
Street City/State Zip

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### LABORATORY RECORD #1

Laboratory: GEL Laboratories, LLC Lab ID No.: KY90129

Contact Person: Valerie Davis Phone No.: (843) 769-7391

Mailing Address: P.O. Box 30712 Charleston, South Carolina 29417  
Street City/State Zip

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### LABORATORY RECORD #2

Laboratory: N/A Lab ID No.: N/A

Contact Person: N/A Phone No.: N/A

Mailing Address: N/A City/State Zip  
Street City/State Zip

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## **COVER LOG**

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**CP3-WM-0017-F02 - COVER LOG**

DEPARTMENT OF ENERGY  
 COUNTY: McCracken

PERMIT NUMBER: 073-00045  
 Month & Year: January 2023

Day of Month	Daily Cell Location	Daily Cover Applied?	Interim Cover	Long Term Cover	Final Cap	Temporary Diversion Ditch Yes/No
1						
2						
3						
4						
5						
6						
7		There were no waste disposal activities during the month of January 2023				
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## CP3-WM-0017-F02 - COVER LOG

DEPARTMENT OF ENERGY  
 COUNTY: McCracken

PERMIT NUMBER: 073-00045  
 Month & Year: February 2023

Day of Month	Daily Cell Location	Daily Cover Applied?	Interim Cover	Long Term Cover	Final Cap	Temporary Diversion Ditch Yes/No
1						
2						
3						
4						
5						
6						
7	E2	YES	YES	NO	NO	YES
8						
9						
10						
11						
12						
13						
14						
15						
16						
17						
18						
19						
20						
21	E2/D2	YES	YES	NO	NO	YES
22						
23						
24						
25						
26						
27						
28						
29						
30						
31						

**CP3-WM-0017-F02 - COVER LOG**

**DEPARTMENT OF ENERGY**  
**COUNTY: McCracken**

**PERMIT NUMBER: 073-00045**  
**Month & Year: March 2023**

Day of Month	Daily Cell Location	Daily Cover Applied?	Interim Cover	Long Term Cover	Final Cap	Temporary Diversion Ditch Yes/No
1						
2						
3						
4						
5						
6						
7	<b>E2</b>	<b>YES</b>	<b>YES</b>	<b>NO</b>	<b>NO</b>	<b>YES</b>
8						
9						
10						
11						
12						
13						
14	<b>D3</b>	<b>YES</b>	<b>YES</b>	<b>NO</b>	<b>NO</b>	<b>YES</b>
15	<b>E2</b>	<b>YES</b>	<b>YES</b>	<b>NO</b>	<b>NO</b>	<b>YES</b>
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## **LEACHATE LOG**

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**CP3-WM-0018-F01 - PGDP SOLID WASTE LANDFILL – LEACHATE LOG**

Permit No. 073-00045

McCracken County, Kentucky

Month January

Year 2023

Date	Phase	Collection Tank Number	Mobile Tanker	Tank Volume (Gallons)	Disposal Volume (Gallons)	Disposal Method*
1-03-23	1,2,3,4,5,6,7	F-001		29800	9900	L
1-03-23	1,2,3,4,5,6,7	F-002		5800		
1-03-23	1,2,3,4,5,6,7	F-007		1200		
1-03-23	1,2,3,4,5,6,7	F-008		1200		
1-03-23	1,2,3,4,5,6,7	F-009		0		
1-04-23	1,2,3,4,5,6,7	F-001		19900	10500	L
1-04-23	1,2,3,4,5,6,7	F-002		10200		
1-04-23	1,2,3,4,5,6,7	F-007		1200		
1-04-23	1,2,3,4,5,6,7	F-008		1200		
1-04-23	1,2,3,4,5,6,7	F-009		0		
1-05-23	1,2,3,4,5,6,7	F-001		9400		
1-05-23	1,2,3,4,5,6,7	F-002		22300	19300	L
1-05-23	1,2,3,4,5,6,7	F-007		1200		
1-05-23	1,2,3,4,5,6,7	F-008		1200		
1-05-23	1,2,3,4,5,6,7	F-009		0		
1-09-23	1,2,3,4,5,6,7	F-001		20200	5200	L
1-09-23	1,2,3,4,5,6,7	F-002		3000		
1-09-23	1,2,3,4,5,6,7	F-007		1200		
1-09-23	1,2,3,4,5,6,7	F-008		1200		
1-09-23	1,2,3,4,5,6,7	F-009		0		
1-10-23	1,2,3,4,5,6,7	F-001		15000		
1-10-23	1,2,3,4,5,6,7	F-002		5800		
1-10-23	1,2,3,4,5,6,7	F-007		1200		
1-10-23	1,2,3,4,5,6,7	F-008		1200		
1-10-23	1,2,3,4,5,6,7	F-009		0		
1-11-23	1,2,3,4,5,6,7	F-001		15000		
1-11-23	1,2,3,4,5,6,7	F-002		7300		

**CP3-WM-0018-F01 - PGDP SOLID WASTE LANDFILL – LEACHATE LOG**

Permit No. 073-00045

McCracken County, Kentucky

Month January

Year 2023

Date	Phase	Collection Tank Number	Mobile Tanker	Tank Volume (Gallons)	Disposal Volume (Gallons)	Disposal Method*
1-11-23	1,2,3,4,5,6,7	F-007		1200		
1-11-23	1,2,3,4,5,6,7	F-008		1200		
1-11-23	1,2,3,4,5,6,7	F-009		0		
1-12-23	1,2,3,4,5,6,7	F-001		15000		
1-12-23	1,2,3,4,5,6,7	F-002		8900		
1-12-23	1,2,3,4,5,6,7	F-007		1200		
1-12-23	1,2,3,4,5,6,7	F-008		1200		
1-12-23	1,2,3,4,5,6,7	F-009		0		
1-17-23	1,2,3,4,5,6,7	F-001		15000		
1-17-23	1,2,3,4,5,6,7	F-002		16800	9500	L
1-17-23	1,2,3,4,5,6,7	F-007		1200		
1-17-23	1,2,3,4,5,6,7	F-008		1200		
1-17-23	1,2,3,4,5,6,7	F-009		0		
1-18-23	1,2,3,4,5,6,7	F-001		16500	10500	L
1-18-23	1,2,3,4,5,6,7	F-002		7300		
1-18-23	1,2,3,4,5,6,7	F-007		1200		
1-18-23	1,2,3,4,5,6,7	F-008		1200		
1-18-23	1,2,3,4,5,6,7	F-009		0		
1-19-23	1,2,3,4,5,6,7	F-001		6000		
1-19-23	1,2,3,4,5,6,7	F-002		15900	10900	L
1-19-23	1,2,3,4,5,6,7	F-007		1200		
1-19-23	1,2,3,4,5,6,7	F-008		1200		
1-19-23	1,2,3,4,5,6,7	F-009		0		
1-23-23	1,2,3,4,5,6,7	F-001		23100	10300	L
1-23-23	1,2,3,4,5,6,7	F-002		5000		
1-23-23	1,2,3,4,5,6,7	F-007		1200		
1-23-23	1,2,3,4,5,6,7	F-008		1200		

**CP3-WM-0018-F01 - PGDP SOLID WASTE LANDFILL – LEACHATE LOG**

Permit No. 073-00045

McCracken County, Kentucky

Month January

Year 2023

Date	Phase	Collection Tank Number	Mobile Tanker	Tank Volume (Gallons)	Disposal Volume (Gallons)	Disposal Method*
1-23-23	1,2,3,4,5,6,7	F-009		0		
1-24-23	1,2,3,4,5,6,7	F-001		12800	10700	L
1-24-23	1,2,3,4,5,6,7	F-002		7500		
1-24-23	1,2,3,4,5,6,7	F-007		1200		
1-24-23	1,2,3,4,5,6,7	F-008		1200		
1-24-23	1,2,3,4,5,6,7	F-009		0		
1-25-23	1,2,3,4,5,6,7	F-001		2100		
1-25-23	1,2,3,4,5,6,7	F-002		10800	8900	L
1-25-23	1,2,3,4,5,6,7	F-007		1200		
1-25-23	1,2,3,4,5,6,7	F-008		1200		
1-25-23	1,2,3,4,5,6,7	F-009		0		
1-26-23	1,2,3,4,5,6,7	F-001		12800	10900	L
1-26-23	1,2,3,4,5,6,7	F-002		1900		
1-26-23	1,2,3,4,5,6,7	F-007		1200		
1-26-23	1,2,3,4,5,6,7	F-008		1200		
1-26-23	1,2,3,4,5,6,7	F-009		0		
1-30-23	1,2,3,4,5,6,7	F-001		1900		
1-30-23	1,2,3,4,5,6,7	F-002		22600	11000	L
1-30-23	1,2,3,4,5,6,7	F-007		1200		
1-30-23	1,2,3,4,5,6,7	F-008		1200		
1-30-23	1,2,3,4,5,6,7	F-009		0		
1-31-23	1,2,3,4,5,6,7	F-001		7000		
1-31-23	1,2,3,4,5,6,7	F-002		11600		
1-31-23	1,2,3,4,5,6,7	F-007		1200		
1-31-23	1,2,3,4,5,6,7	F-008		1200		
1-31-23	1,2,3,4,5,6,7	F-009		0		
		<i>TW 1/31/23</i>				



**CP3-WM-0018-F01 - PGDP SOLID WASTE LANDFILL – LEACHATE LOG**

Permit No. 073-00045

McCracken County, Kentucky

Month February

Year 2023

Date	Phase	Collection Tank Number	Mobile Tanker	Tank Volume (Gallons)	Disposal Volume (Gallons)	Disposal Method*
2-01-23	1,2,3,4,5,6,7	F-001		10500		
2-01-23	1,2,3,4,5,6,7	F-002		11600		
2-01-23	1,2,3,4,5,6,7	F-007		1200		
2-01-23	1,2,3,4,5,6,7	F-008		1200		
2-01-23	1,2,3,4,5,6,7	F-009		0		
2-02-23	1,2,3,4,5,6,7	F-001		13900		
2-02-23	1,2,3,4,5,6,7	F-002		11600		
2-02-23	1,2,3,4,5,6,7	F-007		1200		
2-02-23	1,2,3,4,5,6,7	F-008		1200		
2-02-23	1,2,3,4,5,6,7	F-009		0		
2-06-23	1,2,3,4,5,6,7	F-001		28900	11900	L
2-06-23	1,2,3,4,5,6,7	F-002		11600		
2-06-23	1,2,3,4,5,6,7	F-007		1200		
2-06-23	1,2,3,4,5,6,7	F-008		1200		
2-06-23	1,2,3,4,5,6,7	F-009		0		
2-07-23	1,2,3,4,5,6,7	F-001		17000	10500	L
2-07-23	1,2,3,4,5,6,7	F-002		15600		
2-07-23	1,2,3,4,5,6,7	F-007		1200		
2-07-23	1,2,3,4,5,6,7	F-008		1200		
2-07-23	1,2,3,4,5,6,7	F-009		0		
2-08-23	1,2,3,4,5,6,7	F-001		6500		
2-08-23	1,2,3,4,5,6,7	F-002		18800	11000	L
2-08-23	1,2,3,4,5,6,7	F-007		1200		
2-08-23	1,2,3,4,5,6,7	F-008		1200		
2-08-23	1,2,3,4,5,6,7	F-009		0		
2-09-23	1,2,3,4,5,6,7	F-001		17900	10600	L
2-09-23	1,2,3,4,5,6,7	F-002		7800		

**CP3-WM-0018-F01 - PGDP SOLID WASTE LANDFILL – LEACHATE LOG**

Permit No. 073-00045

McCracken County, Kentucky

Month February

Year 2023

Date	Phase	Collection Tank Number	Mobile Tanker	Tank Volume (Gallons)	Disposal Volume (Gallons)	Disposal Method*
2-09-23	1,2,3,4,5,6,7	F-007		1200		
2-09-23	1,2,3,4,5,6,7	F-008		1200		
2-09-23	1,2,3,4,5,6,7	F-009		0		
2-13-23	1,2,3,4,5,6,7	F-001		19000		
2-13-23	1,2,3,4,5,6,7	F-002		29600	11400	L
2-13-23	1,2,3,4,5,6,7	F-007		1200		
2-13-23	1,2,3,4,5,6,7	F-008		1200		
2-13-23	1,2,3,4,5,6,7	F-009		0		
2-14-23	1,2,3,4,5,6,7	F-001		23700	11800	L
2-14-23	1,2,3,4,5,6,7	F-002		18200		
2-14-23	1,2,3,4,5,6,7	F-007		1200		
2-14-23	1,2,3,4,5,6,7	F-008		1200		
2-14-23	1,2,3,4,5,6,7	F-009		0		
2-15-23	1,2,3,4,5,6,7	F-001		11900		
2-15-23	1,2,3,4,5,6,7	F-002		22600	11000	L
2-15-23	1,2,3,4,5,6,7	F-007		1200		
2-15-23	1,2,3,4,5,6,7	F-008		1200		
2-15-23	1,2,3,4,5,6,7	F-009		0		
2-16-23	1,2,3,4,5,6,7	F-001		15600	10600	L
2-16-23	1,2,3,4,5,6,7	F-002		11600		
2-16-23	1,2,3,4,5,6,7	F-007		1200		
2-16-23	1,2,3,4,5,6,7	F-008		1200		
2-16-23	1,2,3,4,5,6,7	F-009		0		
2-20-23	1,2,3,4,5,6,7	F-001		17900		
2-20-23	1,2,3,4,5,6,7	F-002		29600	12800	L
2-20-23	1,2,3,4,5,6,7	F-007		1200		
2-20-23	1,2,3,4,5,6,7	F-008		1200		

**CP3-WM-0018-F01 - PGDP SOLID WASTE LANDFILL – LEACHATE LOG**

Permit No. 073-00045

McCracken County, Kentucky

Month February

Year 2023

Date	Phase	Collection Tank Number	Mobile Tanker	Tank Volume (Gallons)	Disposal Volume (Gallons)	Disposal Method*
2-20-23	1,2,3,4,5,6,7	F-009		0		
2-21-23	1,2,3,4,5,6,7	F-001		22900	10400	L
2-21-23	1,2,3,4,5,6,7	F-002		16800		
2-21-23	1,2,3,4,5,6,7	F-007		1200		
2-21-23	1,2,3,4,5,6,7	F-008		1200		
2-21-23	1,2,3,4,5,6,7	F-009		0		
2-22-23	1,2,3,4,5,6,7	F-001		12500		
2-22-23	1,2,3,4,5,6,7	F-002		20700	10700	L
2-22-23	1,2,3,4,5,6,7	F-007		1200		
2-22-23	1,2,3,4,5,6,7	F-008		1200		
2-22-23	1,2,3,4,5,6,7	F-009		0		
2-23-23	1,2,3,4,5,6,7	F-001		15900	10400	L
2-23-23	1,2,3,4,5,6,7	F-002		10000		
2-23-23	1,2,3,4,5,6,7	F-007		1200		
2-23-23	1,2,3,4,5,6,7	F-008		1200		
2-23-23	1,2,3,4,5,6,7	F-009		0		
2-27-23	1,2,3,4,5,6,7	F-001		5500		
2-27-23	1,2,3,4,5,6,7	F-002		22600	3600	L
2-27-23	1,2,3,4,5,6,7	F-007		1200		
2-27-23	1,2,3,4,5,6,7	F-008		1200		
2-27-23	1,2,3,4,5,6,7	F-009		0		
2-28-23	1,2,3,4,5,6,7	F-001		6300		
2-28-23	1,2,3,4,5,6,7	F-002		19000		
2-28-23	1,2,3,4,5,6,7	F-007		1200		
2-28-23	1,2,3,4,5,6,7	F-008		1200		
2-28-23	1,2,3,4,5,6,7	F-009		0		

**CP3-WM-0018-F01 - PGDP SOLID WASTE LANDFILL – LEACHATE LOG**

Permit No. 073-00045

McCracken County, Kentucky

Month March

Year 2023

Date	Phase	Collection Tank Number	Mobile Tanker	Tank Volume (Gallons)	Disposal Volume (Gallons)	Disposal Method*
3-01-23	1,2,3,4,5,6,7	F-001		11300		
3-01-23	1,2,3,4,5,6,7	F-002		19000		
3-01-23	1,2,3,4,5,6,7	F-007		1200		
3-01-23	1,2,3,4,5,6,7	F-008		1200		
3-01-23	1,2,3,4,5,6,7	F-009		0		
3-02-23	1,2,3,4,5,6,7	F-001		13300		
3-02-23	1,2,3,4,5,6,7	F-002		19000	9000	L
3-02-23	1,2,3,4,5,6,7	F-007		1200		
3-02-23	1,2,3,4,5,6,7	F-008		1200		
3-02-23	1,2,3,4,5,6,7	F-009		0		
3-06-23	1,2,3,4,5,6,7	F-001		27900	10600	L
3-06-23	1,2,3,4,5,6,7	F-002		18200		
3-06-23	1,2,3,4,5,6,7	F-007		1200		
3-06-23	1,2,3,4,5,6,7	F-008		1200		
3-06-23	1,2,3,4,5,6,7	F-009		0		
3-07-23	1,2,3,4,5,6,7	F-001		17300		
3-07-23	1,2,3,4,5,6,7	F-002		23700	12700	L
3-07-23	1,2,3,4,5,6,7	F-007		1200		
3-07-23	1,2,3,4,5,6,7	F-008		1200		
3-07-23	1,2,3,4,5,6,7	F-009		0		
3-08-23	1,2,3,4,5,6,7	F-001		21800	10500	L
3-08-23	1,2,3,4,5,6,7	F-002		11000		
3-08-23	1,2,3,4,5,6,7	F-007		1200		
3-08-23	1,2,3,4,5,6,7	F-008		1200		
3-08-23	1,2,3,4,5,6,7	F-009		0		
3-09-23	1,2,3,4,5,6,7	F-001		11300		
3-09-23	1,2,3,4,5,6,7	F-002		15600	12400	L

**CP3-WM-0018-F01 - PGDP SOLID WASTE LANDFILL – LEACHATE LOG**

Permit No. 073-00045

McCracken County, Kentucky

Month March

Year 2023

Date	Phase	Collection Tank Number	Mobile Tanker	Tank Volume (Gallons)	Disposal Volume (Gallons)	Disposal Method*
3-09-23	1,2,3,4,5,6,7	F-007		1200		
3-09-23	1,2,3,4,5,6,7	F-008		1200		
3-09-23	1,2,3,4,5,6,7	F-009		0		
3-13-23	1,2,3,4,5,6,7	F-001		24200	10900	L
3-13-23	1,2,3,4,5,6,7	F-002		3200		
3-13-23	1,2,3,4,5,6,7	F-007		1200		
3-13-23	1,2,3,4,5,6,7	F-008		1200		
3-13-23	1,2,3,4,5,6,7	F-009		0		
3-14-23	1,2,3,4,5,6,7	F-001		13300	11400	L
3-14-23	1,2,3,4,5,6,7	F-002		6500		
3-14-23	1,2,3,4,5,6,7	F-007		1200		
3-14-23	1,2,3,4,5,6,7	F-008		1200		
3-14-23	1,2,3,4,5,6,7	F-009		0		
3-15-23	1,2,3,4,5,6,7	F-001		1900		
3-15-23	1,2,3,4,5,6,7	F-002		8600	6700	L
3-15-23	1,2,3,4,5,6,7	F-007		1200		
3-15-23	1,2,3,4,5,6,7	F-008		1200		
3-15-23	1,2,3,4,5,6,7	F-009		0		
3-16-23	1,2,3,4,5,6,7	F-001		4100		
3-16-23	1,2,3,4,5,6,7	F-002		1900		
3-16-23	1,2,3,4,5,6,7	F-007		1200		
3-16-23	1,2,3,4,5,6,7	F-008		1200		
3-16-23	1,2,3,4,5,6,7	F-009		0		
3-20-23	1,2,3,4,5,6,7	F-001		14500	11900	L
3-20-23	1,2,3,4,5,6,7	F-002		1900		
3-20-23	1,2,3,4,5,6,7	F-007		1200		
3-20-23	1,2,3,4,5,6,7	F-008		1200		

**CP3-WM-0018-F01 - PGDP SOLID WASTE LANDFILL – LEACHATE LOG**

Permit No. 073-00045

McCracken County, Kentucky

Month March

Year 2023

Date	Phase	Collection Tank Number	Mobile Tanker	Tank Volume (Gallons)	Disposal Volume (Gallons)	Disposal Method*
3-20-23	1,2,3,4,5,6,7	F-009		0		
3-21-23	1,2,3,4,5,6,7	F-001		2600		
3-21-23	1,2,3,4,5,6,7	F-002		3900		
3-21-23	1,2,3,4,5,6,7	F-007		1200		
3-21-23	1,2,3,4,5,6,7	F-008		1200		
3-21-23	1,2,3,4,5,6,7	F-009		0		
3-22-23	1,2,3,4,5,6,7	F-001		2600		
3-22-23	1,2,3,4,5,6,7	F-002		6800		
3-22-23	1,2,3,4,5,6,7	F-007		1200		
3-22-23	1,2,3,4,5,6,7	F-008		1200		
3-22-23	1,2,3,4,5,6,7	F-009		0		
3-23-23	1,2,3,4,5,6,7	F-001		2600		
3-23-23	1,2,3,4,5,6,7	F-002		8900		
3-23-23	1,2,3,4,5,6,7	F-007		1200		
3-23-23	1,2,3,4,5,6,7	F-008		1200		
3-23-23	1,2,3,4,5,6,7	F-009		0		
3-27-23	1,2,3,4,5,6,7	F-001		28500		
3-27-23	1,2,3,4,5,6,7	F-002		29800	10800	L
3-27-23	1,2,3,4,5,6,7	F-007		1200		
3-27-23	1,2,3,4,5,6,7	F-008		1200		
3-27-23	1,2,3,4,5,6,7	F-009		0		
3-28-23	1,2,3,4,5,6,7	F-001		28500		
3-28-23	1,2,3,4,5,6,7	F-002		19000	10900	L
3-28-23	1,2,3,4,5,6,7	F-007		1200		
3-28-23	1,2,3,4,5,6,7	F-008		1200		
3-28-23	1,2,3,4,5,6,7	F-009		6300		
3-29-23	1,2,3,4,5,6,7	F-001		28500	5400	L

**CP3-WM-0018-F01 - PGDP SOLID WASTE LANDFILL – LEACHATE LOG**

Permit No. 073-00045

McCracken County, Kentucky

Month March

Year 2023

Date	Phase	Collection Tank Number	Mobile Tanker	Tank Volume (Gallons)	Disposal Volume (Gallons)	Disposal Method*
3-29-23	1,2,3,4,5,6,7	F-002		8100	6400	L
3-29-23	1,2,3,4,5,6,7	F-007		1200		
3-29-23	1,2,3,4,5,6,7	F-008		1200		
3-29-23	1,2,3,4,5,6,7	F-009		11300		
3-30-23	1,2,3,4,5,6,7	F-001		23100	10100	L
3-30-23	1,2,3,4,5,6,7	F-002		1700		
3-30-23	1,2,3,4,5,6,7	F-007		1200		
3-30-23	1,2,3,4,5,6,7	F-008		1200		
3-30-23	1,2,3,4,5,6,7	F-009		12600		
<div style="border: 1px solid black; width: 100%; height: 100%; transform: rotate(45deg); position: relative;"> <span style="position: absolute; top: 50%; left: 50%; transform: translate(-50%, -50%); font-size: 2em;">                     LEW 3/30/23                 </span> </div>						

## **LEACHATE ANALYTICAL RESULTS**



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## Paducah OREIS Report for SLS23-01

**SLS23-01-01**

from: C-746-S

on 2/15/2023

Media: WW

SmpMethod: GR

Comments: Leachate Cell 2 sample

Analysis	Results	Units	Result Qual	Foot Note	Reporting Limit	Counting Error	TPU**	Method	LabCode	V/V/A*
<b>ANION</b>										
Bromide	0.2	mg/L	U		0.2			SW846-9056A	GEL	/X/
Chloride	8.27	mg/L	J		250			SW846-9056A	GEL	/X/
Fluoride	0.699	mg/L	J		4			SW846-9056A	GEL	/X/
Nitrate as Nitrogen	10	mg/L	UW		10			SW846-9056A	GEL	/X/
Sulfate	87.8	mg/L			8			SW846-9056A	GEL	/X/
<b>FS</b>										
Conductivity	1025	umho/cm						FS	FS	//
Dissolved Oxygen	5.03	mg/L						FS	FS	//
Oxidation Reduction Potential	-214	mV						FS	FS	//
pH	6.9	Std Unit						FS	FS	//
Temperature	57.3	deg F						FS	FS	//
<b>METAL</b>										
Aluminum	0.05	mg/L	U		0.05			SW846-6020B	GEL	/X/
Antimony	0.003	mg/L	U		0.003			SW846-6020B	GEL	/X/
Arsenic	0.005	mg/L	U		0.005			SW846-6020B	GEL	/X/
Barium	0.243	mg/L			0.004			SW846-6020B	GEL	/X/
Beryllium	0.0005	mg/L	U		0.0005			SW846-6020B	GEL	/X/
Boron	0.0311	mg/L			0.015			SW846-6020B	GEL	/X/
Cadmium	0.001	mg/L	U		0.001			SW846-6020B	GEL	/X/
Calcium	172	mg/L			2			SW846-6020B	GEL	/X/
Chromium	0.01	mg/L	U		0.01			SW846-6020B	GEL	/X/
Cobalt	0.001	mg/L	U		0.001			SW846-6020B	GEL	/X/
Copper	0.000513	mg/L	J		0.002			SW846-6020B	GEL	/X/
Iron	0.135	mg/L			0.1			SW846-6020B	GEL	/X/
Lead	0.002	mg/L	U		0.002			SW846-6020B	GEL	/X/
Magnesium	24	mg/L			0.03			SW846-6020B	GEL	/X/
Manganese	0.00604	mg/L			0.005			SW846-6020B	GEL	/X/
Mercury	0.0002	mg/L	U		0.0002			SW846-7470A	GEL	/X/
Molybdenum	0.00127	mg/L			0.001			SW846-6020B	GEL	/X/
Nickel	0.0016	mg/L	J		0.002			SW846-6020B	GEL	/X/
Phosphorous	0.432	mg/L	N		0.05			EPA-365.4	GEL	/X/
Potassium	1.25	mg/L			0.3			SW846-6020B	GEL	/X/
Rhodium	0.005	mg/L	U		0.005			SW846-6020B	GEL	/X/
Selenium	0.005	mg/L	U		0.005			SW846-6020B	GEL	/X/
Silver	0.001	mg/L	U		0.001			SW846-6020B	GEL	/X/
Sodium	40.7	mg/L			0.25			SW846-6020B	GEL	/X/
Tantalum	0.005	mg/L	U		0.005			SW846-6020B	GEL	/X/
Thallium	0.002	mg/L	U		0.002			SW846-6020B	GEL	/X/
Tin	0.005	mg/L	U		0.005			SW846-6020B	GEL	/X/
Titanium	0.01	mg/L	U		0.01			SW846-6020B	GEL	/X/
Uranium	0.0153	mg/L			0.0002			SW846-6020B	GEL	/X/
Vanadium	0.02	mg/L	U		0.02			SW846-6020B	GEL	/X/
Zinc	0.02	mg/L	U		0.02			SW846-6020B	GEL	/X/
<b>METAL-D</b>										
Antimony, Dissolved	0.003	mg/L	U		0.003			SW846-6020B	GEL	/X/
Arsenic, Dissolved	0.00206	mg/L	J		0.005			SW846-6020B	GEL	/X/
Barium, Dissolved	0.242	mg/L			0.004			SW846-6020B	GEL	/X/
Cadmium, Dissolved	0.001	mg/L	U		0.001			SW846-6020B	GEL	/X/
Chromium, Dissolved	0.01	mg/L	U		0.01			SW846-6020B	GEL	/X/

**Paducah OREIS Report for SLS23-01**

Cobalt, Dissolved	0.001	mg/L	U	0.001			SW846-6020B	GEL	/X/
Copper, Dissolved	0.000933	mg/L	J	0.002			SW846-6020B	GEL	/X/
Lead, Dissolved	0.002	mg/L	U	0.002			SW846-6020B	GEL	/X/
Manganese, Dissolved	0.00136	mg/L	J	0.005			SW846-6020B	GEL	S/X/
Nickel, Dissolved	0.00155	mg/L	J	0.002			SW846-6020B	GEL	/X/
Selenium, Dissolved	0.00188	mg/L	J	0.005			SW846-6020B	GEL	S/X/
Silver, Dissolved	0.001	mg/L	U	0.001			SW846-6020B	GEL	/X/
Tin, Dissolved	0.005	mg/L	U	0.005			SW846-6020B	GEL	/X/
Titanium, Dissolved	0.01	mg/L	U	0.01			SW846-6020B	GEL	/X/
Uranium, Dissolved	0.0143	mg/L		0.0002			SW846-6020B	GEL	/X/
Vanadium, Dissolved	0.02	mg/L	U	0.02			SW846-6020B	GEL	/X/
Zinc, Dissolved	0.02	mg/L	U	0.02			SW846-6020B	GEL	/X/

**OTHOR**

Oil and Grease	2.38	mg/L	J	4.95			EPA-1664A	GEL	/X/
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**PCCB**

PCB-1016	0.0976	ug/L	U	0.0976			SW846-8082A	GEL	/X/
PCB-1221	0.0976	ug/L	U	0.0976			SW846-8082A	GEL	/X/
PCB-1232	0.0976	ug/L	U	0.0976			SW846-8082A	GEL	/X/
PCB-1242	0.0976	ug/L	U	0.0976			SW846-8082A	GEL	/X/
PCB-1248	0.0976	ug/L	U	0.0976			SW846-8082A	GEL	/X/
PCB-1254	0.0976	ug/L	U	0.0976			SW846-8082A	GEL	/X/
PCB-1260	0.0976	ug/L	Y1UY2	0.0976			SW846-8082A	GEL	/X/
PCB-1268	0.0976	ug/L	U	0.0976			SW846-8082A	GEL	/X/
Polychlorinated biphenyl	0.0976	ug/L	Y2U	0.0976			SW846-8082A	GEL	/X/

**RADS**

Alpha activity	5.2	pCi/L	U	14.2	8.08	8.13	SW846-9310	GEL	/X/
Americium-241	-0.105	pCi/L	U	0.596	0.228	0.229	HASL 300, Am-05-RC M	GEL	/X/
Beta activity	-1.51	pCi/L	U	8.04	4.08	4.08	SW846-9310	GEL	/X/
Cesium-137	1.37	pCi/L	U	3.42	1.9	2	EPA-901.1	GEL	/X/
Cobalt-60	0.622	pCi/L	U	3.63	1.97	1.99	EPA-901.1	GEL	/X/
Dissolved Alpha	5.31	pCi/L		2.86	2.54	2.68	SW846-9310	GEL	/X/
Dissolved Beta	3.87	pCi/L		2.08	1.49	1.63	SW846-9310	GEL	/X/
Neptunium-237	-0.193	pCi/L	U	1.6	0.551	0.552	ASTM-1475-00M	GEL	/X/
Plutonium-239/240	-0.112	pCi/L	U	1.09	0.465	0.465	HASL 300, Pu-11-RC M	GEL	/X/
Radium-226	0.251	pCi/L	U	0.496	0.33	0.331	AN-1418	GEL	/X/
Radium-228	3.08	pCi/L	U	4.89	2.95	3.05	EPA-904-M	GEL	/X/
Strontium-90	1.05	pCi/L	U	7.54	4.15	4.16	EPA-905.0-M	GEL	/X/
Technetium-99	2.96	pCi/L	U	20.6	12	12	HASL 300, Tc-02-RC M	GEL	/X/
Thorium-230	-0.247	pCi/L	U	2.07	0.78	0.781	HASL 300, Tc-02-RC M	GEL	/X/
Thorium-232	-0.0852	pCi/L	U	1.33	0.55	0.551	HASL 300, Tc-02-RC M	GEL	/X/
Thorium-234	15.8	pCi/L	U	47	81.5	81.6	EPA-901.1	GEL	/X/
Tritium	79.2	pCi/L	U	199	118	119	EPA-906.0-M	GEL	/X/
Uranium	11.7	pCi/L		2.41	2.93	3.12	HASL 300, U-02-RC M	GEL	S/X/
Uranium-234	4.91	pCi/L		1.64	1.91	2.03	HASL 300, U-02-RC M	GEL	/X/
Uranium-235	0.661	pCi/L	U	1.23	0.903	0.908	HASL 300, U-02-RC M	GEL	/X/
Uranium-238	6.08	pCi/L		1.26	2.03	2.19	HASL 300, U-02-RC M	GEL	/X/

**RADS-D**

Americium-241, Dissolved	0.182	pCi/L	U	1.6	0.817	0.818	HASL 300, Am-05-RC M	GEL	/X/
Cesium-137, Dissolved	-2.21	pCi/L	U	8.53	5.7	5.79	EPA-901.1	GEL	/X/
Cobalt, Dissolved	-2.99	pCi/L	U	9.68	5.65	5.82	EPA-901.1	GEL	/X/
Neptunium-237, Dissolved	-0.171	pCi/L	U	1.62	0.582	0.583	ASTM-1475-00M	GEL	/X/
Plutonium-239/240, Dissolved	-0.256	pCi/L	U	2.83	1.1	1.1	HASL 300, Pu-11-RC M	GEL	/X/
Technetium-99, Dissolved	0.321	pCi/L	U	19.7	11.4	11.4	HASL 300, Tc-02-RC M	GEL	/X/
Thorium-230, Dissolved	2.22	pCi/L	U	4.12	2.82	2.87	HASL 300, Tc-02-RC M	GEL	/X/
Thorium-234, Dissolved	66.5	pCi/L	U	372	341	343	EPA-901.1	GEL	/X/

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Uranium, Dissolved	12.3	pCi/L		1.88	2.83	3.02	HASL 300, U-02-RC M	GEL	/ X/
Uranium-234, Dissolved	5.74	pCi/L		1.33	1.92	2.07	HASL 300, U-02-RC M	GEL	/ X/
Uranium-235, Dissolved	1.4	pCi/L		1.03	1.1	1.12	HASL 300, U-02-RC M	GEL	/ X/
Uranium-238, Dissolved	5.18	pCi/L		0.832	1.77	1.9	HASL 300, U-02-RC M	GEL	/ X/
<b>VOA</b>									
1,1,1,2-Tetrachloroethane	1	ug/L	U	1			EPA-624.1	GEL	/ X/
1,1,1-Trichloroethane	1	ug/L	U	1			EPA-624.1	GEL	/ X/
1,1,2,2-Tetrachloroethane	1	ug/L	U	1			EPA-624.1	GEL	/ X/
1,1,2-Trichloroethane	1	ug/L	U	1			EPA-624.1	GEL	/ X/
1,1-Dichloroethane	1	ug/L	U	1			EPA-624.1	GEL	/ X/
1,1-Dichloroethene	1	ug/L	U	1			EPA-624.1	GEL	/ X/
1,2,3-Trichloropropane	1	ug/L	U	1			EPA-624.1	GEL	/ X/
1,2-Dibromo-3-chloropropane	0.0188	ug/L	U	0.0188			SW846-8011	GEL	/ X/
1,2-Dibromoethane	1	ug/L	U	1			EPA-624.1	GEL	/ X/
1,2-Dichlorobenzene	1	ug/L	U	1			EPA-624.1	GEL	/ X/
1,2-Dichloroethane	1	ug/L	U	1			EPA-624.1	GEL	/ X/
1,2-Dichloropropane	1	ug/L	U	1			EPA-624.1	GEL	/ X/
1,2-Dimethylbenzene	1	ug/L	U	1			EPA-624.1	GEL	/ X/
1,4-Dichlorobenzene	1	ug/L	U	1			EPA-624.1	GEL	/ X/
2-Butanone	5	ug/L	U	5			EPA-624.1	GEL	/ X/
2-Hexanone	5	ug/L	U	5			EPA-624.1	GEL	/ X/
4-Methyl-2-pentanone	5	ug/L	U	5			EPA-624.1	GEL	/ X/
Acetone	5	ug/L	U	5			EPA-624.1	GEL	/ X/
Acrolein	5	ug/L	U	5			EPA-624.1	GEL	/ X/
Acrylonitrile	5	ug/L	U	5			EPA-624.1	GEL	/ X/
Benzene	1	ug/L	U	1			EPA-624.1	GEL	/ X/
Bromochloromethane	1	ug/L	U	1			EPA-624.1	GEL	/ X/
Bromodichloromethane	1	ug/L	U	1			EPA-624.1	GEL	/ X/
Bromoform	1	ug/L	U	1			EPA-624.1	GEL	/ X/
Bromomethane	1	ug/L	U	1			EPA-624.1	GEL	/ X/
Carbon disulfide	5	ug/L	U	5			EPA-624.1	GEL	/ X/
Carbon tetrachloride	1	ug/L	U	1			EPA-624.1	GEL	/ X/
Chlorobenzene	1	ug/L	U	1			EPA-624.1	GEL	/ X/
Chloroethane	1	ug/L	U	1			EPA-624.1	GEL	/ X/
Chloroform	1	ug/L	U	1			EPA-624.1	GEL	/ X/
Chloromethane	1	ug/L	U	1			EPA-624.1	GEL	/ X/
cis-1,2-Dichloroethene	1	ug/L	U	1			EPA-624.1	GEL	/ X/
cis-1,3-Dichloropropene	1	ug/L	U	1			EPA-624.1	GEL	/ X/
Dibromochloromethane	1	ug/L	U	1			EPA-624.1	GEL	/ X/
Dibromomethane	1	ug/L	U	1			EPA-624.1	GEL	/ X/
Ethylbenzene	1	ug/L	U	1			EPA-624.1	GEL	/ X/
Iodomethane	5	ug/L	U	5			EPA-624.1	GEL	/ X/
m,p-Xylene	2	ug/L	U	2			EPA-624.1	GEL	/ X/
Methylene chloride	0.69	ug/L	BJ	2			EPA-624.1	GEL	S / X/
Styrene	1	ug/L	U	1			EPA-624.1	GEL	/ X/
Tetrachloroethene	1	ug/L	U	1			EPA-624.1	GEL	/ X/
Toluene	1	ug/L	U	1			EPA-624.1	GEL	/ X/
Total Xylene	3	ug/L	U	3			EPA-624.1	GEL	/ X/
trans-1,2-Dichloroethene	1	ug/L	U	1			EPA-624.1	GEL	/ X/
trans-1,3-Dichloropropene	1	ug/L	U	1			EPA-624.1	GEL	/ X/
Trans-1,4-Dichloro-2-butene	5	ug/L	U	5			EPA-624.1	GEL	/ X/
Trichloroethene	1	ug/L	U	1			EPA-624.1	GEL	/ X/
Trichlorofluoromethane	1	ug/L	U	1			EPA-624.1	GEL	/ X/
Vinyl acetate	5	ug/L	U	5			EPA-624.1	GEL	/ X/
Vinyl chloride	1	ug/L	U	1			EPA-624.1	GEL	/ X/

**WETCHEM**

### Paducah OREIS Report for SLS23-01

Carbonaceous Biochemical Oxygen Demand (CBOD)	1.64	mg/L	J	2	SM-5210 B	GEL	/X/
Chemical Oxygen Demand (COD)	20	mg/L	U	20	EPA-410.4	GEL	/X/
Cyanide	0.2	mg/L	U	0.2	SW846-9012B	GEL	/X/
Dissolved Solids	596	mg/L		10	EPA-160.1	GEL	/X/
Hardness - Total as CaCO3	525	mg/L		2	EPA-130.2	GEL	/X/
Iodide	0.5	mg/L	U	0.5	EPA-300.0	GEL	/X/
Suspended Solids	2.5	mg/L	U	2.5	EPA-160.2	GEL	/X/
Total Organic Carbon (TOC)	2.96	mg/L		2	SW846-9060A	GEL	/X/
Total Organic Halides (TOX)	19.5	ug/L	*	10	SW846-9020B	GEL	/X/

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## Paducah OREIS Report for SLS23-01

**SLS23-01-02**

from: C-746-S

on 2/15/2023

Media: WW

SmpMethod: GR

Comments:

Water out of cell is stained. MH 2-15-23. Leachate Cell 3 sample

Analysis	Results	Units	Result Qual	Foot Note	Reporting Limit	Counting Error	TPU**	Method	LabCode	V/V/A*
<b>ANION</b>										
Bromide	1	mg/L	U		1			SW846-9056A	GEL	/X/
Chloride	20	mg/L	J		250			SW846-9056A	GEL	/X/
Fluoride	0.401	mg/L	J		4			SW846-9056A	GEL	/X/
Nitrate as Nitrogen	10	mg/L	WU		10			SW846-9056A	GEL	/X/
Sulfate	182	mg/L			8			SW846-9056A	GEL	/X/
<b>FS</b>										
Conductivity	894	umho/cm						FS	FS	//
Dissolved Oxygen	4	mg/L						FS	FS	//
Oxidation Reduction Potential	-201	mV						FS	FS	//
pH	6.8	Std Unit						FS	FS	//
Temperature	56.6	deg F						FS	FS	//
<b>METAL</b>										
Aluminum	0.0262	mg/L	J		0.05			SW846-6020B	GEL	/X/
Antimony	0.003	mg/L	U		0.003			SW846-6020B	GEL	/X/
Arsenic	0.00728	mg/L			0.005			SW846-6020B	GEL	/X/
Barium	0.45	mg/L			0.004			SW846-6020B	GEL	/X/
Beryllium	0.0005	mg/L	U		0.0005			SW846-6020B	GEL	/X/
Boron	0.0318	mg/L			0.015			SW846-6020B	GEL	/X/
Cadmium	0.001	mg/L	U		0.001			SW846-6020B	GEL	/X/
Calcium	148	mg/L			2			SW846-6020B	GEL	/X/
Chromium	0.01	mg/L	U		0.01			SW846-6020B	GEL	/X/
Cobalt	0.0012	mg/L			0.001			SW846-6020B	GEL	/X/
Copper	0.000983	mg/L	J		0.002			SW846-6020B	GEL	/X/
Iron	59.6	mg/L			1			SW846-6020B	GEL	/X/
Lead	0.002	mg/L	U		0.002			SW846-6020B	GEL	/X/
Magnesium	37.1	mg/L			0.03			SW846-6020B	GEL	/X/
Manganese	1.64	mg/L			0.05			SW846-6020B	GEL	/X/
Mercury	0.0002	mg/L	U		0.0002			SW846-7470A	GEL	/X/
Molybdenum	0.000368	mg/L	J		0.001			SW846-6020B	GEL	/X/
Nickel	0.00163	mg/L	J		0.002			SW846-6020B	GEL	/X/
Phosphorous	0.05	mg/L	UN		0.05			EPA-365.4	GEL	/X/
Potassium	3.59	mg/L			0.3			SW846-6020B	GEL	/X/
Rhodium	0.005	mg/L	U		0.005			SW846-6020B	GEL	/X/
Selenium	0.005	mg/L	U		0.005			SW846-6020B	GEL	/X/
Silver	0.001	mg/L	U		0.001			SW846-6020B	GEL	/X/
Sodium	31.1	mg/L			0.25			SW846-6020B	GEL	/X/
Tantalum	0.005	mg/L	U		0.005			SW846-6020B	GEL	/X/
Thallium	0.002	mg/L	U		0.002			SW846-6020B	GEL	/X/
Tin	0.005	mg/L	U		0.005			SW846-6020B	GEL	/X/
Titanium	0.01	mg/L	U		0.01			SW846-6020B	GEL	/X/
Uranium	0.00218	mg/L			0.0002			SW846-6020B	GEL	/X/
Vanadium	0.02	mg/L	U		0.02			SW846-6020B	GEL	/X/
Zinc	0.00675	mg/L	J		0.02			SW846-6020B	GEL	/X/
<b>METAL-D</b>										
Antimony, Dissolved	0.003	mg/L	U		0.003			SW846-6020B	GEL	/X/
Arsenic, Dissolved	0.0022	mg/L	J		0.005			SW846-6020B	GEL	/X/
Barium, Dissolved	0.352	mg/L			0.004			SW846-6020B	GEL	/X/
Cadmium, Dissolved	0.001	mg/L	U		0.001			SW846-6020B	GEL	/X/
Chromium, Dissolved	0.01	mg/L	U		0.01			SW846-6020B	GEL	/X/

**Paducah OREIS Report for SLS23-01**

Cobalt, Dissolved	0.0012	mg/L		0.001			SW846-6020B	GEL	/ X/
Copper, Dissolved	0.000316	mg/L	J	0.002			SW846-6020B	GEL	S / X/
Lead, Dissolved	0.002	mg/L	U	0.002			SW846-6020B	GEL	/ X/
Manganese, Dissolved	1.63	mg/L		0.05			SW846-6020B	GEL	/ X/
Nickel, Dissolved	0.00163	mg/L	J	0.002			SW846-6020B	GEL	/ X/
Selenium, Dissolved	0.005	mg/L	U	0.005			SW846-6020B	GEL	/ X/
Silver, Dissolved	0.001	mg/L	U	0.001			SW846-6020B	GEL	/ X/
Tin, Dissolved	0.005	mg/L	U	0.005			SW846-6020B	GEL	/ X/
Titanium, Dissolved	0.01	mg/L	U	0.01			SW846-6020B	GEL	/ X/
Uranium, Dissolved	0.00202	mg/L		0.0002			SW846-6020B	GEL	/ X/
Vanadium, Dissolved	0.02	mg/L	U	0.02			SW846-6020B	GEL	/ X/
Zinc, Dissolved	0.02	mg/L	U	0.02			SW846-6020B	GEL	/ X/

**OTHOR**

Oil and Grease	1.98	mg/L	J	4.72			EPA-1664A	GEL	/ X/
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**PCCB**

PCB-1016	0.1	ug/L	U	0.1			SW846-8082A	GEL	/ X/
PCB-1221	0.1	ug/L	U	0.1			SW846-8082A	GEL	/ X/
PCB-1232	0.1	ug/L	U	0.1			SW846-8082A	GEL	/ X/
PCB-1242	0.1	ug/L	U	0.1			SW846-8082A	GEL	/ X/
PCB-1248	0.1	ug/L	U	0.1			SW846-8082A	GEL	/ X/
PCB-1254	0.1	ug/L	U	0.1			SW846-8082A	GEL	/ X/
PCB-1260	0.1	ug/L	Y1UY2	0.1			SW846-8082A	GEL	/ X/
PCB-1268	0.1	ug/L	U	0.1			SW846-8082A	GEL	/ X/
Polychlorinated biphenyl	0.1	ug/L	Y2U	0.1			SW846-8082A	GEL	/ X/

**RADS**

Alpha activity	1.61	pCi/L	U	13.2	6.51	6.52	SW846-9310	GEL	/ X/
Americium-241	0.911	pCi/L	U	1.46	1.02	1.02	HASL 300, Am-05-RC M	GEL	/ X/
Beta activity	-3.07	pCi/L	U	13.9	7.37	7.37	SW846-9310	GEL	/ X/
Cesium-137	-0.242	pCi/L	U	1.18	0.671	0.68	EPA-901.1	GEL	/ X/
Cobalt-60	-0.684	pCi/L	U	0.98	0.634	0.707	EPA-901.1	GEL	/ X/
Dissolved Alpha	2.8	pCi/L	U	2.9	2.04	2.09	SW846-9310	GEL	/ X/
Dissolved Beta	4.8	pCi/L		1.63	1.33	1.55	SW846-9310	GEL	/ X/
Neptunium-237	-0.452	pCi/L	U	1.94	0.77	0.77	ASTM-1475-00M	GEL	/ X/
Plutonium-239/240	-0.647	pCi/L	U	3.34	1.41	1.41	HASL 300, Pu-11-RC M	GEL	/ X/
Radium-226	0.908	pCi/L	U	1.12	0.896	0.897	AN-1418	GEL	/ X/
Radium-228	3.33	pCi/L	U	4.89	3	3.11	EPA-904-M	GEL	/ X/
Strontium-90	4.22	pCi/L	U	4.87	3.05	3.13	EPA-905.0-M	GEL	/ X/
Technetium-99	-8.95	pCi/L	U	21.1	11.9	11.9	HASL 300, Tc-02-RC M	GEL	/ X/
Thorium-230	0.146	pCi/L	U	4.12	1.93	1.93	HASL 300, Tc-02-RC M	GEL	/ X/
Thorium-232	0.366	pCi/L	U	2.82	1.58	1.58	HASL 300, Tc-02-RC M	GEL	/ X/
Thorium-234	33.1	pCi/L	U	39	45.1	48.3	EPA-901.1	GEL	/ X/
Tritium	-29.4	pCi/L	U	214	121	121	EPA-906.0-M	GEL	/ X/
Uranium	1.27	pCi/L	U	1.96	1.29	1.3	HASL 300, U-02-RC M	GEL	/ X/
Uranium-234	-0.105	pCi/L	U	1.7	0.757	0.758	HASL 300, U-02-RC M	GEL	/ X/
Uranium-235	0.196	pCi/L	U	0.589	0.552	0.553	HASL 300, U-02-RC M	GEL	/ X/
Uranium-238	1.07	pCi/L		0.761	0.887	0.898	HASL 300, U-02-RC M	GEL	/ X/

**RADS-D**

Americium-241, Dissolved	0.0504	pCi/L	U	1.1	0.527	0.528	HASL 300, Am-05-RC M	GEL	/ X/
Cesium-137, Dissolved	1.42	pCi/L	U	7.14	3.48	3.55	EPA-901.1	GEL	/ X/
Cobalt, Dissolved	-2.58	pCi/L	U	5.38	3.24	3.45	EPA-901.1	GEL	/ X/
Neptunium-237, Dissolved	1.63	pCi/L	U	2.89	2.02	2.02	ASTM-1475-00M	GEL	/ X/
Plutonium-239/240, Dissolved	-0.214	pCi/L	U	3.03	1.2	1.21	HASL 300, Pu-11-RC M	GEL	/ X/
Technetium-99, Dissolved	-0.694	pCi/L	U	19.8	11.5	11.5	HASL 300, Tc-02-RC M	GEL	/ X/
Thorium-230, Dissolved	1.24	pCi/L	U	2.23	1.54	1.56	HASL 300, Tc-02-RC M	GEL	/ X/
Thorium-234, Dissolved	141	pCi/L	U	235	233	235	EPA-901.1	GEL	/ X/

## Paducah OREIS Report for SLS23-01

Uranium, Dissolved	1.66	pCi/L	U	1.98	1.36	1.37	HASL 300, U-02-RC M	GEL	/ X/
Uranium-234, Dissolved	0.371	pCi/L	U	1.24	0.737	0.74	HASL 300, U-02-RC M	GEL	/ X/
Uranium-235, Dissolved	0.0569	pCi/L	U	1.24	0.595	0.595	HASL 300, U-02-RC M	GEL	/ X/
Uranium-238, Dissolved	1.24	pCi/L		0.91	0.976	0.99	HASL 300, U-02-RC M	GEL	/ X/
<b>VOA</b>									
1,1,1,2-Tetrachloroethane	1	ug/L	U	1			EPA-624.1	GEL	/ X/
1,1,1-Trichloroethane	1	ug/L	U	1			EPA-624.1	GEL	/ X/
1,1,2,2-Tetrachloroethane	1	ug/L	U	1			EPA-624.1	GEL	/ X/
1,1,2-Trichloroethane	1	ug/L	U	1			EPA-624.1	GEL	/ X/
1,1-Dichloroethane	1	ug/L	U	1			EPA-624.1	GEL	/ X/
1,1-Dichloroethene	1	ug/L	U	1			EPA-624.1	GEL	/ X/
1,2,3-Trichloropropane	1	ug/L	U	1			EPA-624.1	GEL	/ X/
1,2-Dibromo-3-chloropropane	0.0187	ug/L	U	0.0187			SW846-8011	GEL	/ X/
1,2-Dibromoethane	1	ug/L	U	1			EPA-624.1	GEL	/ X/
1,2-Dichlorobenzene	1	ug/L	U	1			EPA-624.1	GEL	/ X/
1,2-Dichloroethane	1	ug/L	U	1			EPA-624.1	GEL	/ X/
1,2-Dichloropropane	1	ug/L	U	1			EPA-624.1	GEL	/ X/
1,2-Dimethylbenzene	1	ug/L	U	1			EPA-624.1	GEL	/ X/
1,4-Dichlorobenzene	1	ug/L	U	1			EPA-624.1	GEL	/ X/
2-Butanone	5	ug/L	U	5			EPA-624.1	GEL	/ X/
2-Hexanone	5	ug/L	U	5			EPA-624.1	GEL	/ X/
4-Methyl-2-pentanone	5	ug/L	U	5			EPA-624.1	GEL	/ X/
Acetone	4.88	ug/L	J	5			EPA-624.1	GEL	/ X/
Acrolein	5	ug/L	U	5			EPA-624.1	GEL	/ X/
Acrylonitrile	5	ug/L	U	5			EPA-624.1	GEL	/ X/
Benzene	1	ug/L	U	1			EPA-624.1	GEL	/ X/
Bromochloromethane	1	ug/L	U	1			EPA-624.1	GEL	/ X/
Bromodichloromethane	1	ug/L	U	1			EPA-624.1	GEL	/ X/
Bromoform	1	ug/L	U	1			EPA-624.1	GEL	/ X/
Bromomethane	1	ug/L	U	1			EPA-624.1	GEL	/ X/
Carbon disulfide	5	ug/L	U	5			EPA-624.1	GEL	/ X/
Carbon tetrachloride	1	ug/L	U	1			EPA-624.1	GEL	/ X/
Chlorobenzene	1.97	ug/L		1			EPA-624.1	GEL	/ X/
Chloroethane	1	ug/L	U	1			EPA-624.1	GEL	/ X/
Chloroform	1	ug/L	U	1			EPA-624.1	GEL	/ X/
Chloromethane	1	ug/L	U	1			EPA-624.1	GEL	/ X/
cis-1,2-Dichloroethene	1	ug/L	U	1			EPA-624.1	GEL	/ X/
cis-1,3-Dichloropropene	1	ug/L	U	1			EPA-624.1	GEL	/ X/
Dibromochloromethane	1	ug/L	U	1			EPA-624.1	GEL	/ X/
Dibromomethane	1	ug/L	U	1			EPA-624.1	GEL	/ X/
Ethylbenzene	1	ug/L	U	1			EPA-624.1	GEL	/ X/
Iodomethane	5	ug/L	U	5			EPA-624.1	GEL	/ X/
m,p-Xylene	2	ug/L	U	2			EPA-624.1	GEL	/ X/
Methylene chloride	0.87	ug/L	BJ	2			EPA-624.1	GEL	S / X/
Styrene	1	ug/L	U	1			EPA-624.1	GEL	/ X/
Tetrachloroethene	1	ug/L	U	1			EPA-624.1	GEL	/ X/
Toluene	1	ug/L	U	1			EPA-624.1	GEL	/ X/
Total Xylene	3	ug/L	U	3			EPA-624.1	GEL	/ X/
trans-1,2-Dichloroethene	1	ug/L	U	1			EPA-624.1	GEL	/ X/
trans-1,3-Dichloropropene	1	ug/L	U	1			EPA-624.1	GEL	/ X/
Trans-1,4-Dichloro-2-butene	5	ug/L	U	5			EPA-624.1	GEL	/ X/
Trichloroethene	1	ug/L	U	1			EPA-624.1	GEL	/ X/
Trichlorofluoromethane	1	ug/L	U	1			EPA-624.1	GEL	/ X/
Vinyl acetate	5	ug/L	U	5			EPA-624.1	GEL	/ X/
Vinyl chloride	1	ug/L	U	1			EPA-624.1	GEL	/ X/

**WETCHEM**



### Paducah OREIS Report for SLS23-01

Carbonaceous Biochemical Oxygen Demand (CBOD)	5.86	mg/L		2	SM-5210 B	GEL	/X/
Chemical Oxygen Demand (COD)	20.3	mg/L		20	EPA-410.4	GEL	/X/
Cyanide	0.2	mg/L	U	0.2	SW846-9012B	GEL	/X/
Dissolved Solids	670	mg/L		20	EPA-160.1	GEL	/X/
Hardness - Total as CaCO3	802	mg/L		50	EPA-130.2	GEL	S/X/
Iodide	1.01	mg/L		0.5	EPA-300.0	GEL	/X/
Suspended Solids	60.8	mg/L		10	EPA-160.2	GEL	/X/
Total Organic Carbon (TOC)	8.93	mg/L		2	SW846-9060A	GEL	/X/
Total Organic Halides (TOX)	55.6	ug/L	*	10	SW846-9020B	GEL	/X/

## Paducah OREIS Report for SLS23-01

**FBSLS23-01**

from: QC

on 2/15/2023

Media: WQ

SmpMethod:

Comments:

Analysis	Results	Units	Result Qual	Foot Note	Reporting Limit	Counting Error	TPU**	Method	LabCode	V/V/A*
<b>ANION</b>										
Bromide	0.2	mg/L	U		0.2			SW846-9056A	GEL	/X/
Chloride	250	mg/L	U		250			SW846-9056A	GEL	/X/
Fluoride	4	mg/L	U		4			SW846-9056A	GEL	/X/
Nitrate as Nitrogen	10	mg/L	UW		10			SW846-9056A	GEL	/X/
Sulfate	0.4	mg/L	U		0.4			SW846-9056A	GEL	/X/
<b>METAL</b>										
Aluminum	0.05	mg/L	U		0.05			SW846-6020B	GEL	/X/
Antimony	0.003	mg/L	U		0.003			SW846-6020B	GEL	/X/
Arsenic	0.005	mg/L	U		0.005			SW846-6020B	GEL	/X/
Barium	0.004	mg/L	U		0.004			SW846-6020B	GEL	/X/
Beryllium	0.0005	mg/L	U		0.0005			SW846-6020B	GEL	/X/
Boron	0.015	mg/L	U		0.015			SW846-6020B	GEL	/X/
Cadmium	0.001	mg/L	U		0.001			SW846-6020B	GEL	/X/
Calcium	0.2	mg/L	U		0.2			SW846-6020B	GEL	/X/
Chromium	0.01	mg/L	U		0.01			SW846-6020B	GEL	/X/
Cobalt	0.001	mg/L	U		0.001			SW846-6020B	GEL	/X/
Copper	0.002	mg/L	U		0.002			SW846-6020B	GEL	/X/
Iron	0.1	mg/L	U		0.1			SW846-6020B	GEL	/X/
Lead	0.002	mg/L	U		0.002			SW846-6020B	GEL	/X/
Magnesium	0.03	mg/L	U		0.03			SW846-6020B	GEL	/X/
Manganese	0.005	mg/L	U		0.005			SW846-6020B	GEL	/X/
Mercury	0.0002	mg/L	U		0.0002			SW846-7470A	GEL	/X/
Molybdenum	0.001	mg/L	U		0.001			SW846-6020B	GEL	/X/
Nickel	0.002	mg/L	U		0.002			SW846-6020B	GEL	/X/
Phosphorous	0.05	mg/L	UN		0.05			EPA-365.4	GEL	/X/
Potassium	0.3	mg/L	U		0.3			SW846-6020B	GEL	/X/
Rhodium	0.005	mg/L	U		0.005			SW846-6020B	GEL	/X/
Selenium	0.005	mg/L	U		0.005			SW846-6020B	GEL	/X/
Silver	0.001	mg/L	U		0.001			SW846-6020B	GEL	/X/
Sodium	0.25	mg/L	U		0.25			SW846-6020B	GEL	/X/
Tantalum	0.005	mg/L	U		0.005			SW846-6020B	GEL	/X/
Thallium	0.002	mg/L	U		0.002			SW846-6020B	GEL	/X/
Tin	0.005	mg/L	U		0.005			SW846-6020B	GEL	/X/
Titanium	0.01	mg/L	U		0.01			SW846-6020B	GEL	/X/
Uranium	0.0002	mg/L	U		0.0002			SW846-6020B	GEL	/X/
Vanadium	0.02	mg/L	U		0.02			SW846-6020B	GEL	/X/
Zinc	0.02	mg/L	U		0.02			SW846-6020B	GEL	/X/
<b>OTHOR</b>										
Oil and Grease	4.67	mg/L	U		4.67			EPA-1664A	GEL	/X/
<b>PPCB</b>										
PCB-1016	0.0973	ug/L	U		0.0973			SW846-8082A	GEL	/X/
PCB-1221	0.0973	ug/L	U		0.0973			SW846-8082A	GEL	/X/
PCB-1232	0.0973	ug/L	U		0.0973			SW846-8082A	GEL	/X/
PCB-1242	0.0973	ug/L	U		0.0973			SW846-8082A	GEL	/X/
PCB-1248	0.0973	ug/L	U		0.0973			SW846-8082A	GEL	/X/
PCB-1254	0.0973	ug/L	U		0.0973			SW846-8082A	GEL	/X/
PCB-1260	0.0973	ug/L	U		0.0973			SW846-8082A	GEL	/X/
PCB-1268	0.0973	ug/L	U		0.0973			SW846-8082A	GEL	/X/
Polychlorinated biphenyl	0.0973	ug/L	U		0.0973			SW846-8082A	GEL	/X/

**Paducah OREIS Report for SLS23-01**

<b>RADS</b>									
Alpha activity	2.11	pCi/L	U	8.88	4.71	4.72	SW846-9310	GEL	/X/
Americium-241	0.241	pCi/L	U	1.13	0.627	0.627	HASL 300, Am-05-RC M	GEL	/X/
Beta activity	2.33	pCi/L	U	12.8	7.22	7.23	SW846-9310	GEL	/X/
Cesium-137	-0.315	pCi/L	U	1.18	0.697	0.712	EPA-901.1	GEL	/X/
Cobalt-60	0.429	pCi/L	U	1.25	0.663	0.692	EPA-901.1	GEL	/X/
Neptunium-237	-0.388	pCi/L	U	2.66	0.899	0.9	ASTM-1475-00M	GEL	/X/
Plutonium-239/240	0.282	pCi/L	U	2.25	1.18	1.18	HASL 300, Pu-11-RC M	GEL	/X/
Radium-226	0.146	pCi/L	U	0.488	0.288	0.288	AN-1418	GEL	/X/
Radium-228	0.974	pCi/L	U	4.88	2.72	2.73	EPA-904-M	GEL	/X/
Strontium-90	-0.872	pCi/L	U	5.19	2.58	2.58	EPA-905.0-M	GEL	/X/
Technetium-99	-0.113	pCi/L	U	19.8	11.5	11.5	HASL 300, Tc-02-RC M	GEL	/X/
Thorium-230	-1.42	pCi/L	U	4.29	1.12	1.12	HASL 300, Tc-02-RC M	GEL	/X/
Thorium-232	1.37	pCi/L	U	1.87	1.86	1.87	HASL 300, Tc-02-RC M	GEL	/X/
Thorium-234	40.1	pCi/L	U	40.5	43.5	48.1	EPA-901.1	GEL	/X/
Tritium	114	pCi/L	U	216	129	131	EPA-906.0-M	GEL	/X/
Uranium	0.961	pCi/L	U	2.33	1.37	1.38	HASL 300, U-02-RC M	GEL	/X/
Uranium-234	0.184	pCi/L	U	1.57	0.797	0.799	HASL 300, U-02-RC M	GEL	/X/
Uranium-235	0.183	pCi/L	U	1.16	0.688	0.688	HASL 300, U-02-RC M	GEL	/X/
Uranium-238	0.593	pCi/L	U	1.29	0.88	0.884	HASL 300, U-02-RC M	GEL	/X/

<b>VOA</b>									
1,1,1,2-Tetrachloroethane	1	ug/L	U	1			EPA-624.1	GEL	/X/
1,1,1-Trichloroethane	1	ug/L	U	1			EPA-624.1	GEL	/X/
1,1,2,2-Tetrachloroethane	1	ug/L	U	1			EPA-624.1	GEL	/X/
1,1,2-Trichloroethane	1	ug/L	U	1			EPA-624.1	GEL	/X/
1,1-Dichloroethane	1	ug/L	U	1			EPA-624.1	GEL	/X/
1,1-Dichloroethene	1	ug/L	U	1			EPA-624.1	GEL	/X/
1,2,3-Trichloropropane	1	ug/L	U	1			EPA-624.1	GEL	/X/
1,2-Dibromo-3-chloropropane	0.0188	ug/L	U	0.0188			SW846-8011	GEL	/X/
1,2-Dibromoethane	1	ug/L	U	1			EPA-624.1	GEL	/X/
1,2-Dichlorobenzene	1	ug/L	U	1			EPA-624.1	GEL	/X/
1,2-Dichloroethane	1	ug/L	U	1			EPA-624.1	GEL	/X/
1,2-Dichloropropane	1	ug/L	U	1			EPA-624.1	GEL	/X/
1,2-Dimethylbenzene	1	ug/L	U	1			EPA-624.1	GEL	/X/
1,4-Dichlorobenzene	1	ug/L	U	1			EPA-624.1	GEL	/X/
2-Butanone	5	ug/L	U	5			EPA-624.1	GEL	/X/
2-Hexanone	5	ug/L	U	5			EPA-624.1	GEL	/X/
4-Methyl-2-pentanone	5	ug/L	U	5			EPA-624.1	GEL	/X/
Acetone	5	ug/L	U	5			EPA-624.1	GEL	/X/
Acrolein	5	ug/L	U	5			EPA-624.1	GEL	/X/
Acrylonitrile	5	ug/L	U	5			EPA-624.1	GEL	/X/
Benzene	1	ug/L	U	1			EPA-624.1	GEL	/X/
Bromochloromethane	1	ug/L	U	1			EPA-624.1	GEL	/X/
Bromodichloromethane	1	ug/L	U	1			EPA-624.1	GEL	/X/
Bromoform	1	ug/L	U	1			EPA-624.1	GEL	/X/
Bromomethane	1	ug/L	U	1			EPA-624.1	GEL	/X/
Carbon disulfide	5	ug/L	U	5			EPA-624.1	GEL	/X/
Carbon tetrachloride	1	ug/L	U	1			EPA-624.1	GEL	/X/
Chlorobenzene	1	ug/L	U	1			EPA-624.1	GEL	/X/
Chloroethane	1	ug/L	U	1			EPA-624.1	GEL	/X/
Chloroform	1	ug/L	U	1			EPA-624.1	GEL	/X/
Chloromethane	1	ug/L	U	1			EPA-624.1	GEL	/X/
cis-1,2-Dichloroethene	1	ug/L	U	1			EPA-624.1	GEL	/X/
cis-1,3-Dichloropropene	1	ug/L	U	1			EPA-624.1	GEL	/X/
Dibromochloromethane	1	ug/L	U	1			EPA-624.1	GEL	/X/
Dibromomethane	1	ug/L	U	1			EPA-624.1	GEL	/X/

### Paducah OREIS Report for SLS23-01

Ethylbenzene	1	ug/L	U	1	EPA-624.1	GEL	/X/
Iodomethane	5	ug/L	U	5	EPA-624.1	GEL	/X/
m,p-Xylene	2	ug/L	U	2	EPA-624.1	GEL	/X/
Methylene chloride	0.81	ug/L	BJ	2	EPA-624.1	GEL	/X/
Styrene	1	ug/L	U	1	EPA-624.1	GEL	/X/
Tetrachloroethene	1	ug/L	U	1	EPA-624.1	GEL	/X/
Toluene	1	ug/L	U	1	EPA-624.1	GEL	/X/
Total Xylene	3	ug/L	U	3	EPA-624.1	GEL	/X/
trans-1,2-Dichloroethene	1	ug/L	U	1	EPA-624.1	GEL	/X/
trans-1,3-Dichloropropene	1	ug/L	U	1	EPA-624.1	GEL	/X/
Trans-1,4-Dichloro-2-butene	5	ug/L	U	5	EPA-624.1	GEL	/X/
Trichloroethene	1	ug/L	U	1	EPA-624.1	GEL	/X/
Trichlorofluoromethane	1	ug/L	U	1	EPA-624.1	GEL	/X/
Vinyl acetate	5	ug/L	U	5	EPA-624.1	GEL	/X/
Vinyl chloride	1	ug/L	U	1	EPA-624.1	GEL	/X/
<b>WETCHEM</b>							
Chemical Oxygen Demand (COD)	20	mg/L	U	20	EPA-410.4	GEL	/X/
Hardness - Total as CaCO3	33.7	mg/L		2	EPA-130.2	GEL	/X/
Iodide	0.5	mg/L	U	0.5	EPA-300.0	GEL	/X/
Total Organic Carbon (TOC)	2	mg/L	U	2	SW846-9060A	GEL	/X/

**Paducah OREIS Report for SLS23-01**

**TBSLS23-01**

from: QC

on 2/15/2023

Media: WQ

SmpMethod:

Comments:

Analysis	Results	Units	Result Qual	Foot Note	Reporting Limit	Counting Error	TPU**	Method	LabCode	V/V/A*
<b>VOA</b>										
1,1,1,2-Tetrachloroethane	1	ug/L	U		1			EPA-624.1	GEL	/X/
1,1,1-Trichloroethane	1	ug/L	U		1			EPA-624.1	GEL	/X/
1,1,2,2-Tetrachloroethane	1	ug/L	U		1			EPA-624.1	GEL	/X/
1,1,2-Trichloroethane	1	ug/L	U		1			EPA-624.1	GEL	/X/
1,1-Dichloroethane	1	ug/L	U		1			EPA-624.1	GEL	/X/
1,1-Dichloroethene	1	ug/L	U		1			EPA-624.1	GEL	/X/
1,2,3-Trichloropropane	1	ug/L	U		1			EPA-624.1	GEL	/X/
1,2-Dibromo-3-chloropropane	0.0187	ug/L	U		0.0187			SW846-8011	GEL	/X/
1,2-Dibromoethane	1	ug/L	U		1			EPA-624.1	GEL	/X/
1,2-Dichlorobenzene	1	ug/L	U		1			EPA-624.1	GEL	/X/
1,2-Dichloroethane	1	ug/L	U		1			EPA-624.1	GEL	/X/
1,2-Dichloropropane	1	ug/L	U		1			EPA-624.1	GEL	/X/
1,2-Dimethylbenzene	1	ug/L	U		1			EPA-624.1	GEL	/X/
1,4-Dichlorobenzene	1	ug/L	U		1			EPA-624.1	GEL	/X/
2-Butanone	5	ug/L	U		5			EPA-624.1	GEL	/X/
2-Hexanone	5	ug/L	U		5			EPA-624.1	GEL	/X/
4-Methyl-2-pentanone	5	ug/L	U		5			EPA-624.1	GEL	/X/
Acetone	5	ug/L	U		5			EPA-624.1	GEL	/X/
Acrolein	5	ug/L	U		5			EPA-624.1	GEL	/X/
Acrylonitrile	5	ug/L	U		5			EPA-624.1	GEL	/X/
Benzene	1	ug/L	U		1			EPA-624.1	GEL	/X/
Bromochloromethane	1	ug/L	U		1			EPA-624.1	GEL	/X/
Bromodichloromethane	1	ug/L	U		1			EPA-624.1	GEL	/X/
Bromoform	1	ug/L	U		1			EPA-624.1	GEL	/X/
Bromomethane	1	ug/L	U		1			EPA-624.1	GEL	/X/
Carbon disulfide	5	ug/L	U		5			EPA-624.1	GEL	/X/
Carbon tetrachloride	1	ug/L	U		1			EPA-624.1	GEL	/X/
Chlorobenzene	1	ug/L	U		1			EPA-624.1	GEL	/X/
Chloroethane	1	ug/L	U		1			EPA-624.1	GEL	/X/
Chloroform	1	ug/L	U		1			EPA-624.1	GEL	/X/
Chloromethane	1	ug/L	U		1			EPA-624.1	GEL	/X/
cis-1,2-Dichloroethene	1	ug/L	U		1			EPA-624.1	GEL	/X/
cis-1,3-Dichloropropene	1	ug/L	U		1			EPA-624.1	GEL	/X/
Dibromochloromethane	1	ug/L	U		1			EPA-624.1	GEL	/X/
Dibromomethane	1	ug/L	U		1			EPA-624.1	GEL	/X/
Ethylbenzene	1	ug/L	U		1			EPA-624.1	GEL	/X/
Iodomethane	5	ug/L	U		5			EPA-624.1	GEL	/X/
m,p-Xylene	2	ug/L	U		2			EPA-624.1	GEL	/X/
Methylene chloride	0.96	ug/L	BJ		2			EPA-624.1	GEL	/X/
Styrene	1	ug/L	U		1			EPA-624.1	GEL	/X/
Tetrachloroethene	1	ug/L	U		1			EPA-624.1	GEL	/X/
Toluene	1	ug/L	U		1			EPA-624.1	GEL	/X/
Total Xylene	3	ug/L	U		3			EPA-624.1	GEL	/X/
trans-1,2-Dichloroethene	1	ug/L	U		1			EPA-624.1	GEL	/X/
trans-1,3-Dichloropropene	1	ug/L	U		1			EPA-624.1	GEL	/X/
Trans-1,4-Dichloro-2-butene	5	ug/L	U		5			EPA-624.1	GEL	/X/
Trichloroethene	1	ug/L	U		1			EPA-624.1	GEL	/X/
Trichlorofluoromethane	1	ug/L	U		1			EPA-624.1	GEL	/X/
Vinyl acetate	5	ug/L	U		5			EPA-624.1	GEL	/X/
Vinyl chloride	1	ug/L	U		1			EPA-624.1	GEL	/X/

\*Verification/Validation/Assessment \*\* TPUs reported at 1.96 sigma

**Paducah OREIS Report for SLS23-01**

<b>Cell 2 Sample</b>	from: C-746-S	on 4/4/2023	Media: WW	SmpMethod:
Comments:	Collected from Cell #2			

Analysis	Results	Units	Result Qual	Foot Note	Reporting Limit	Counting Error	TPU **	Method	LabCode	V/V/A*
<b>FS</b>										
Conductivity	908	umhos/cm								//
Dissolved Oxygen	3.98	mg/L								//
Eh (approx)	407.2	mV								//
pH	6.68	Std Units								//
Temperature	59.9	deg F								//

<b>Cell 3 Sample</b>	from: C-746-S	on 4/4/2023	Media: WW	SmpMethod:
Comments:	Collected from Cell #3			

Analysis	Results	Units	Result Qual	Foot Note	Reporting Limit	Counting Error	TPU **	Method	LabCode	V/V/A*
<b>FS</b>										
Conductivity	1238	umhos/cm								//
Dissolved Oxygen	1.53	mg/L								//
Eh (approx)	106.3	mV								//
pH	6.33	Std Units								//
Temperature	56.1	deg F								//

## Paducah OREIS Report for ULS23-01

**ULS23-01-01**

from: C-746-U

on 2/15/2023

Media: WW

SmpMethod: GR

Comments: Sample taken at HV98. MH 2-15-23

Analysis	Results	Units	Result Qual	Foot Note	Reporting Limit	Counting Error	TPU**	Method	LabCode	V/V/A*
<b>ANION</b>										
Bromide	1	mg/L	U		1			SW846-9056A	GEL	/X/
Chloride	34.7	mg/L	J		250			SW846-9056A	GEL	/X/
Fluoride	0.566	mg/L	J		4			SW846-9056A	GEL	/X/
Nitrate as Nitrogen	3.23	mg/L	WJ		10			SW846-9056A	GEL	/X/
Sulfate	232	mg/L			20			SW846-9056A	GEL	/X/
<b>FS</b>										
Conductivity	1240	umho/cm						FS	FS	//
Dissolved Oxygen	9.95	mg/L						FS	FS	//
Oxidation Reduction Potential	-180	mV						FS	FS	//
pH	7.27	Std Unit						FS	FS	//
Temperature	61.8	deg F						FS	FS	//
<b>METAL</b>										
Aluminum	0.123	mg/L			0.05			SW846-6020B	GEL	/X/
Antimony	0.003	mg/L	U		0.003			SW846-6020B	GEL	/X/
Arsenic	0.0022	mg/L	J		0.005			SW846-6020B	GEL	/X/
Barium	0.116	mg/L			0.004			SW846-6020B	GEL	/X/
Beryllium	0.000339	mg/L	J		0.0005			SW846-6020B	GEL	/X/
Boron	1.73	mg/L			0.3			SW846-6020B	GEL	/X/
Cadmium	0.001	mg/L	U		0.001			SW846-6020B	GEL	/X/
Calcium	132	mg/L			4			SW846-6020B	GEL	/X/
Chromium	0.01	mg/L	U		0.01			SW846-6020B	GEL	/X/
Cobalt	0.0015	mg/L			0.001			SW846-6020B	GEL	/X/
Copper	0.0018	mg/L	J		0.002			SW846-6020B	GEL	/X/
Iron	0.142	mg/L			0.1			SW846-6020B	GEL	/X/
Lead	0.002	mg/L	U		0.002			SW846-6020B	GEL	/X/
Magnesium	38.5	mg/L			0.03			SW846-6020B	GEL	/X/
Manganese	0.0508	mg/L			0.005			SW846-6020B	GEL	/X/
Mercury	0.0002	mg/L	U		0.0002			SW846-7470A	GEL	/X/
Molybdenum	0.00112	mg/L			0.001			SW846-6020B	GEL	/X/
Nickel	0.00603	mg/L			0.002			SW846-6020B	GEL	/X/
Phosphorous	0.05	mg/L	UN		0.05			EPA-365.4	GEL	/X/
Potassium	4.36	mg/L			0.3			SW846-6020B	GEL	/X/
Rhodium	0.005	mg/L	U		0.005			SW846-6020B	GEL	/X/
Selenium	0.005	mg/L	U		0.005			SW846-6020B	GEL	/X/
Silver	0.001	mg/L	U		0.001			SW846-6020B	GEL	/X/
Sodium	84.7	mg/L			5			SW846-6020B	GEL	/X/
Tantalum	0.005	mg/L	U		0.005			SW846-6020B	GEL	/X/
Thallium	0.002	mg/L	U		0.002			SW846-6020B	GEL	/X/
Tin	0.005	mg/L	U		0.005			SW846-6020B	GEL	/X/
Titanium	0.01	mg/L	U		0.01			SW846-6020B	GEL	/X/
Uranium	0.181	mg/L			0.0002			SW846-6020B	GEL	/X/
Vanadium	0.02	mg/L	U		0.02			SW846-6020B	GEL	/X/
Zinc	0.0243	mg/L			0.02			SW846-6020B	GEL	/X/
<b>METAL-D</b>										
Antimony, Dissolved	0.003	mg/L	U		0.003			SW846-6020B	GEL	/X/
Arsenic, Dissolved	0.00213	mg/L	J		0.005			SW846-6020B	GEL	/X/
Barium, Dissolved	0.117	mg/L			0.004			SW846-6020B	GEL	/X/
Cadmium, Dissolved	0.001	mg/L	U		0.001			SW846-6020B	GEL	/X/
Chromium, Dissolved	0.01	mg/L	U		0.01			SW846-6020B	GEL	/X/

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Cobalt, Dissolved	0.00142	mg/L		0.001			SW846-6020B	GEL	/X/
Copper, Dissolved	0.00222	mg/L		0.002			SW846-6020B	GEL	/X/
Lead, Dissolved	0.002	mg/L	U	0.002			SW846-6020B	GEL	/X/
Manganese, Dissolved	0.0487	mg/L		0.005			SW846-6020B	GEL	/X/
Nickel, Dissolved	0.00635	mg/L		0.002			SW846-6020B	GEL	/X/
Selenium, Dissolved	0.005	mg/L	U	0.005			SW846-6020B	GEL	/X/
Silver, Dissolved	0.001	mg/L	U	0.001			SW846-6020B	GEL	/X/
Tin, Dissolved	0.005	mg/L	U	0.005			SW846-6020B	GEL	/X/
Titanium, Dissolved	0.01	mg/L	U	0.01			SW846-6020B	GEL	/X/
Uranium, Dissolved	0.179	mg/L		0.0002			SW846-6020B	GEL	/X/
Vanadium, Dissolved	0.02	mg/L	U	0.02			SW846-6020B	GEL	/X/
Zinc, Dissolved	0.0227	mg/L		0.02			SW846-6020B	GEL	/X/

**OTHOR**

Oil and Grease	1.98	mg/L	J	4.72			EPA-1664A	GEL	/X/
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**PCCB**

PCB-1016	0.0952	ug/L	U	0.0952			SW846-8082A	GEL	/X/
PCB-1221	0.0952	ug/L	U	0.0952			SW846-8082A	GEL	/X/
PCB-1232	0.0952	ug/L	U	0.0952			SW846-8082A	GEL	/X/
PCB-1242	0.0952	ug/L	U	0.0952			SW846-8082A	GEL	/X/
PCB-1248	0.0952	ug/L	U	0.0952			SW846-8082A	GEL	/X/
PCB-1254	0.0952	ug/L	U	0.0952			SW846-8082A	GEL	/X/
PCB-1260	0.0952	ug/L	UY2Y1	0.0952			SW846-8082A	GEL	/X/
PCB-1268	0.0952	ug/L	U	0.0952			SW846-8082A	GEL	/X/
Polychlorinated biphenyl	0.0952	ug/L	UY2	0.0952			SW846-8082A	GEL	/X/

**RADS**

Alpha activity	57.1	pCi/L		11.5	16.5	19	SW846-9310	GEL	/X/
Americium-241	0.362	pCi/L	U	1.19	0.709	0.71	HASL 300, Am-05-RC M	GEL	/X/
Beta activity	55.9	pCi/L		11.1	11.1	14.6	SW846-9310	GEL	/X/
Cesium-137	1.85	pCi/L	U	2.28	1.19	1.46	EPA-901.1	GEL	/X/
Cobalt-60	0.636	pCi/L	U	2.33	1.24	1.28	EPA-901.1	GEL	/X/
Dissolved Alpha	37.9	pCi/L		2.81	6.56	9.08	SW846-9310	GEL	/X/
Dissolved Beta	35.6	pCi/L		2.61	3.27	6.89	SW846-9310	GEL	/X/
Neptunium-237	-0.167	pCi/L	U	2.81	1.16	1.16	ASTM-1475-00M	GEL	/X/
Plutonium-239/240	-0.201	pCi/L	U	1.96	0.838	0.838	HASL 300, Pu-11-RC M	GEL	/X/
Radium-226	0.189	pCi/L	U	0.559	0.335	0.335	AN-1418	GEL	/X/
Radium-228	7.05	pCi/L		4.99	3.43	3.88	EPA-904-M	GEL	/X/
Strontium-90	-0.164	pCi/L	U	4.12	2.09	2.09	EPA-905.0-M	GEL	/X/
Technetium-99	18.1	pCi/L	U	20.8	12.6	12.7	HASL 300, Tc-02-RC M	GEL	/X/
Thorium-230	1.84	pCi/L	U	3.21	2.26	2.29	HASL 300, Th-01-RC M	GEL	/X/
Thorium-232	0.941	pCi/L	U	2.71	1.74	1.75	HASL 300, Th-01-RC M	GEL	/X/
Thorium-234	8.63	pCi/L	U	24.9	40.9	41	EPA-901.1	GEL	/X/
Tritium	-6.6	pCi/L	U	200	115	115	EPA-906.0-M	GEL	/X/
Uranium	84	pCi/L		2.27	8.16	12.8	HASL 300, U-02-RC M	GEL	/X/
Uranium-234	15	pCi/L		1.4	3.46	4.1	HASL 300, U-02-RC M	GEL	/X/
Uranium-235	2.74	pCi/L		0.746	1.69	1.74	HASL 300, U-02-RC M	GEL	/X/
Uranium-238	66.2	pCi/L		1.62	7.19	12	HASL 300, U-02-RC M	GEL	/X/

**RADS-D**

Americium-241, Dissolved	0.259	pCi/L	U	1.52	0.811	0.812	HASL 300, Am-05-RC M	GEL	/X/
Cesium-137, Dissolved	-0.775	pCi/L	U	9.66	5.01	5.02	EPA-901.1	GEL	/X/
Cobalt, Dissolved	-2.2	pCi/L	U	8.26	4.68	4.78	EPA-901.1	GEL	/X/
Neptunium-237, Dissolved	0.0486	pCi/L	U	1.88	0.866	0.867	ASTM-1475-00M	GEL	/X/
Plutonium-239/240, Dissolved	0.586	pCi/L	U	0.879	0.997	1	HASL 300, Pu-11-RC M	GEL	/X/
Technetium-99, Dissolved	15.8	pCi/L	U	20.9	12.6	12.7	HASL 300, Tc-02-RC M	GEL	/X/
Thorium-230, Dissolved	1.36	pCi/L	U	2.06	1.49	1.52	HASL 300, Th-01-RC M	GEL	/X/
Thorium-234, Dissolved	257	pCi/L	U	362	398	403	EPA-901.1	GEL	/X/



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Uranium, Dissolved	86.3	pCi/L		2.76	8.67	13.7	HASL 300, U-02-RC M	GEL	/ X/
Uranium-234, Dissolved	15.2	pCi/L		2.01	3.71	4.37	HASL 300, U-02-RC M	GEL	/ X/
Uranium-235, Dissolved	2.18	pCi/L		0.817	1.61	1.64	HASL 300, U-02-RC M	GEL	/ X/
Uranium-238, Dissolved	68.8	pCi/L		1.71	7.67	12.9	HASL 300, U-02-RC M	GEL	/ X/
<b>VOA</b>									
1,1,1,2-Tetrachloroethane	1	ug/L	U	1			EPA-624.1	GEL	/ X/
1,1,1-Trichloroethane	1	ug/L	U	1			EPA-624.1	GEL	/ X/
1,1,2,2-Tetrachloroethane	1	ug/L	U	1			EPA-624.1	GEL	/ X/
1,1,2-Trichloroethane	1	ug/L	U	1			EPA-624.1	GEL	/ X/
1,1-Dichloroethane	1	ug/L	U	1			EPA-624.1	GEL	/ X/
1,1-Dichloroethene	1	ug/L	U	1			EPA-624.1	GEL	/ X/
1,2,3-Trichloropropane	1	ug/L	U	1			EPA-624.1	GEL	/ X/
1,2-Dibromo-3-chloropropane	0.0187	ug/L	U	0.0187			SW846-8011	GEL	/ X/
1,2-Dibromoethane	1	ug/L	U	1			EPA-624.1	GEL	/ X/
1,2-Dichlorobenzene	1	ug/L	U	1			EPA-624.1	GEL	/ X/
1,2-Dichloroethane	1	ug/L	U	1			EPA-624.1	GEL	/ X/
1,2-Dichloropropane	1	ug/L	U	1			EPA-624.1	GEL	/ X/
1,2-Dimethylbenzene	1	ug/L	U	1			EPA-624.1	GEL	/ X/
1,4-Dichlorobenzene	1	ug/L	U	1			EPA-624.1	GEL	/ X/
2-Butanone	5	ug/L	U	5			EPA-624.1	GEL	/ X/
2-Hexanone	5	ug/L	U	5			EPA-624.1	GEL	/ X/
4-Methyl-2-pentanone	5	ug/L	U	5			EPA-624.1	GEL	/ X/
Acetone	5	ug/L	U	5			EPA-624.1	GEL	/ X/
Acrolein	5	ug/L	U	5			EPA-624.1	GEL	/ X/
Acrylonitrile	5	ug/L	U	5			EPA-624.1	GEL	/ X/
Benzene	1	ug/L	U	1			EPA-624.1	GEL	/ X/
Bromochloromethane	1	ug/L	U	1			EPA-624.1	GEL	/ X/
Bromodichloromethane	1	ug/L	U	1			EPA-624.1	GEL	/ X/
Bromoform	1	ug/L	U	1			EPA-624.1	GEL	/ X/
Bromomethane	1	ug/L	U	1			EPA-624.1	GEL	/ X/
Carbon disulfide	5	ug/L	U	5			EPA-624.1	GEL	/ X/
Carbon tetrachloride	1	ug/L	U	1			EPA-624.1	GEL	/ X/
Chlorobenzene	1	ug/L	U	1			EPA-624.1	GEL	/ X/
Chloroethane	1	ug/L	U	1			EPA-624.1	GEL	/ X/
Chloroform	1	ug/L	U	1			EPA-624.1	GEL	/ X/
Chloromethane	1	ug/L	U	1			EPA-624.1	GEL	/ X/
cis-1,2-Dichloroethene	1	ug/L	U	1			EPA-624.1	GEL	/ X/
cis-1,3-Dichloropropene	1	ug/L	U	1			EPA-624.1	GEL	/ X/
Dibromochloromethane	1	ug/L	U	1			EPA-624.1	GEL	/ X/
Dibromomethane	1	ug/L	U	1			EPA-624.1	GEL	/ X/
Ethylbenzene	1	ug/L	U	1			EPA-624.1	GEL	/ X/
Iodomethane	5	ug/L	U	5			EPA-624.1	GEL	/ X/
m,p-Xylene	2	ug/L	U	2			EPA-624.1	GEL	/ X/
Methylene chloride	0.92	ug/L	BJ	2			EPA-624.1	GEL	/ X/
Styrene	1	ug/L	U	1			EPA-624.1	GEL	/ X/
Tetrachloroethene	1	ug/L	U	1			EPA-624.1	GEL	/ X/
Toluene	1	ug/L	U	1			EPA-624.1	GEL	/ X/
Total Xylene	3	ug/L	U	3			EPA-624.1	GEL	/ X/
trans-1,2-Dichloroethene	1	ug/L	U	1			EPA-624.1	GEL	/ X/
trans-1,3-Dichloropropene	1	ug/L	U	1			EPA-624.1	GEL	/ X/
Trans-1,4-Dichloro-2-butene	5	ug/L	U	5			EPA-624.1	GEL	/ X/
Trichloroethene	1	ug/L	U	1			EPA-624.1	GEL	/ X/
Trichlorofluoromethane	1	ug/L	U	1			EPA-624.1	GEL	/ X/
Vinyl acetate	5	ug/L	U	5			EPA-624.1	GEL	/ X/
Vinyl chloride	1	ug/L	U	1			EPA-624.1	GEL	/ X/

**WETCHEM**

**Paducah OREIS Report for ULS23-01**

Carbonaceous Biochemical Oxygen Demand (CBOD)	2	mg/L	XU	2	SM-5210 B	GEL	/X/
Chemical Oxygen Demand (COD)	20	mg/L	U	20	EPA-410.4	GEL	/X/
Cyanide	0.005	mg/L	U	0.005	SW846-9012B	GEL	/X/
Dissolved Solids	760	mg/L		20	EPA-160.1	GEL	/X/
Hardness - Total as CaCO3	475	mg/L		2	EPA-130.2	GEL	/X/
Iodide	0.5	mg/L	U	0.5	EPA-300.0	GEL	/X/
Suspended Solids	5	mg/L	U	5	EPA-160.2	GEL	/X/
Total Organic Carbon (TOC)	7	mg/L		2	SW846-9060A	GEL	/X/
Total Organic Halides (TOX)	70.4	ug/L	*	10	SW846-9020B	GEL	/X/

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## Paducah OREIS Report for ULS23-01

**FBULS23-01**

from: QC

on 2/15/2023

Media: WQ

SmpMethod:

Comments:

Analysis	Results	Units	Result Qual	Foot Note	Reporting Limit	Counting Error	TPU**	Method	LabCode	V/V/A*
<b>ANION</b>										
Bromide	0.2	mg/L	U		0.2			SW846-9056A	GEL	/X/
Chloride	250	mg/L	U		250			SW846-9056A	GEL	/X/
Fluoride	4	mg/L	U		4			SW846-9056A	GEL	/X/
Nitrate as Nitrogen	10	mg/L	WU		10			SW846-9056A	GEL	/X/
Sulfate	0.4	mg/L	U		0.4			SW846-9056A	GEL	/X/
<b>METAL</b>										
Aluminum	0.05	mg/L	U		0.05			SW846-6020B	GEL	/X/
Antimony	0.003	mg/L	U		0.003			SW846-6020B	GEL	/X/
Arsenic	0.005	mg/L	U		0.005			SW846-6020B	GEL	/X/
Barium	0.004	mg/L	U		0.004			SW846-6020B	GEL	/X/
Beryllium	0.0005	mg/L	U		0.0005			SW846-6020B	GEL	/X/
Boron	0.015	mg/L	U		0.015			SW846-6020B	GEL	/X/
Cadmium	0.001	mg/L	U		0.001			SW846-6020B	GEL	/X/
Calcium	0.2	mg/L	U		0.2			SW846-6020B	GEL	/X/
Chromium	0.01	mg/L	U		0.01			SW846-6020B	GEL	/X/
Cobalt	0.001	mg/L	U		0.001			SW846-6020B	GEL	/X/
Copper	0.002	mg/L	U		0.002			SW846-6020B	GEL	/X/
Iron	0.1	mg/L	U		0.1			SW846-6020B	GEL	/X/
Lead	0.002	mg/L	U		0.002			SW846-6020B	GEL	/X/
Magnesium	0.03	mg/L	U		0.03			SW846-6020B	GEL	/X/
Manganese	0.005	mg/L	U		0.005			SW846-6020B	GEL	/X/
Mercury	0.0002	mg/L	U		0.0002			SW846-7470A	GEL	/X/
Molybdenum	0.001	mg/L	U		0.001			SW846-6020B	GEL	/X/
Nickel	0.002	mg/L	U		0.002			SW846-6020B	GEL	/X/
Phosphorous	0.05	mg/L	UN		0.05			EPA-365.4	GEL	/X/
Potassium	0.3	mg/L	U		0.3			SW846-6020B	GEL	/X/
Rhodium	0.005	mg/L	U		0.005			SW846-6020B	GEL	/X/
Selenium	0.005	mg/L	U		0.005			SW846-6020B	GEL	/X/
Silver	0.001	mg/L	U		0.001			SW846-6020B	GEL	/X/
Sodium	0.25	mg/L	U		0.25			SW846-6020B	GEL	/X/
Tantalum	0.005	mg/L	U		0.005			SW846-6020B	GEL	/X/
Thallium	0.002	mg/L	U		0.002			SW846-6020B	GEL	/X/
Tin	0.005	mg/L	U		0.005			SW846-6020B	GEL	/X/
Titanium	0.01	mg/L	U		0.01			SW846-6020B	GEL	/X/
Uranium	0.000095	mg/L	J		0.0002			SW846-6020B	GEL	/X/
Vanadium	0.02	mg/L	U		0.02			SW846-6020B	GEL	/X/
Zinc	0.02	mg/L	U		0.02			SW846-6020B	GEL	/X/
<b>OTHOR</b>										
Oil and Grease	1.98	mg/L	J		4.72			EPA-1664A	GEL	/X/
<b>PPCB</b>										
PCB-1016	0.0943	ug/L	U		0.0943			SW846-8082A	GEL	/X/
PCB-1221	0.0943	ug/L	U		0.0943			SW846-8082A	GEL	/X/
PCB-1232	0.0943	ug/L	U		0.0943			SW846-8082A	GEL	/X/
PCB-1242	0.0943	ug/L	U		0.0943			SW846-8082A	GEL	/X/
PCB-1248	0.0943	ug/L	U		0.0943			SW846-8082A	GEL	/X/
PCB-1254	0.0943	ug/L	U		0.0943			SW846-8082A	GEL	/X/
PCB-1260	0.0943	ug/L	UY2Y1		0.0943			SW846-8082A	GEL	/X/
PCB-1268	0.0943	ug/L	U		0.0943			SW846-8082A	GEL	/X/
Polychlorinated biphenyl	0.0943	ug/L	UY2		0.0943			SW846-8082A	GEL	/X/

**Paducah OREIS Report for ULS23-01**

<b>RADS</b>									
Alpha activity	-0.83	pCi/L	U	9.71	4.31	4.31	SW846-9310	GEL	/X/
Americium-241	0.165	pCi/L	U	1.83	0.948	0.948	HASL 300, Am-05-RC M	GEL	/X/
Beta activity	-3.9	pCi/L	U	13.5	7.03	7.03	SW846-9310	GEL	/X/
Cesium-137	0.037	pCi/L	U	1.76	1.02	1.02	EPA-901.1	GEL	/X/
Cobalt-60	-1.04	pCi/L	U	1.59	0.998	1.11	EPA-901.1	GEL	/X/
Neptunium-237	-0.786	pCi/L	U	2.83	1.1	1.1	ASTM-1475-00M	GEL	/X/
Plutonium-239/240	-0.532	pCi/L	U	2.04	0.903	0.903	HASL 300, Pu-11-RC M	GEL	/X/
Radium-226	0.237	pCi/L	U	0.492	0.33	0.33	AN-1418	GEL	/X/
Radium-228	5.31	pCi/L		4.96	3.25	3.52	EPA-904-M	GEL	/X/
Strontium-90	1.87	pCi/L	U	5.84	3.37	3.38	EPA-905.0-M	GEL	/X/
Technetium-99	-8.86	pCi/L	U	20.5	11.6	11.6	HASL 300, Tc-02-RC M	GEL	/X/
Thorium-230	0.217	pCi/L	U	2.6	1.38	1.38	HASL 300, Th-01-RC M	GEL	/X/
Thorium-232	1.28	pCi/L	U	1.57	1.26	1.27	HASL 300, Th-01-RC M	GEL	/X/
Thorium-234	15.3	pCi/L	U	48.7	41.1	41.8	EPA-901.1	GEL	/X/
Tritium	106	pCi/L	U	197	117	119	EPA-906.0-M	GEL	/X/
Uranium	1.23	pCi/L	U	2.52	1.48	1.5	HASL 300, U-02-RC M	GEL	/X/
Uranium-234	1.16	pCi/L	U	1.4	1.14	1.15	HASL 300, U-02-RC M	GEL	/X/
Uranium-235	0.0702	pCi/L	U	1.53	0.734	0.735	HASL 300, U-02-RC M	GEL	/X/
Uranium-238	-0.0406	pCi/L	U	1.42	0.609	0.61	HASL 300, U-02-RC M	GEL	/X/

<b>VOA</b>									
1,1,1,2-Tetrachloroethane	1	ug/L	U	1			EPA-624.1	GEL	/X/
1,1,1-Trichloroethane	1	ug/L	U	1			EPA-624.1	GEL	/X/
1,1,2,2-Tetrachloroethane	1	ug/L	U	1			EPA-624.1	GEL	/X/
1,1,2-Trichloroethane	1	ug/L	U	1			EPA-624.1	GEL	/X/
1,1-Dichloroethane	1	ug/L	U	1			EPA-624.1	GEL	/X/
1,1-Dichloroethene	1	ug/L	U	1			EPA-624.1	GEL	/X/
1,2,3-Trichloropropane	1	ug/L	U	1			EPA-624.1	GEL	/X/
1,2-Dibromo-3-chloropropane	0.0189	ug/L	U	0.0189			SW846-8011	GEL	/X/
1,2-Dibromoethane	1	ug/L	U	1			EPA-624.1	GEL	/X/
1,2-Dichlorobenzene	1	ug/L	U	1			EPA-624.1	GEL	/X/
1,2-Dichloroethane	1	ug/L	U	1			EPA-624.1	GEL	/X/
1,2-Dichloropropane	1	ug/L	U	1			EPA-624.1	GEL	/X/
1,2-Dimethylbenzene	1	ug/L	U	1			EPA-624.1	GEL	/X/
1,4-Dichlorobenzene	1	ug/L	U	1			EPA-624.1	GEL	/X/
2-Butanone	5	ug/L	U	5			EPA-624.1	GEL	/X/
2-Hexanone	5	ug/L	U	5			EPA-624.1	GEL	/X/
4-Methyl-2-pentanone	5	ug/L	U	5			EPA-624.1	GEL	/X/
Acetone	5	ug/L	U	5			EPA-624.1	GEL	/X/
Acrolein	5	ug/L	U	5			EPA-624.1	GEL	/X/
Acrylonitrile	5	ug/L	U	5			EPA-624.1	GEL	/X/
Benzene	1	ug/L	U	1			EPA-624.1	GEL	/X/
Bromochloromethane	1	ug/L	U	1			EPA-624.1	GEL	/X/
Bromodichloromethane	1	ug/L	U	1			EPA-624.1	GEL	/X/
Bromoform	1	ug/L	U	1			EPA-624.1	GEL	/X/
Bromomethane	1	ug/L	U	1			EPA-624.1	GEL	/X/
Carbon disulfide	5	ug/L	U	5			EPA-624.1	GEL	/X/
Carbon tetrachloride	1	ug/L	U	1			EPA-624.1	GEL	/X/
Chlorobenzene	1	ug/L	U	1			EPA-624.1	GEL	/X/
Chloroethane	1	ug/L	U	1			EPA-624.1	GEL	/X/
Chloroform	1	ug/L	U	1			EPA-624.1	GEL	/X/
Chloromethane	1	ug/L	U	1			EPA-624.1	GEL	/X/
cis-1,2-Dichloroethene	1	ug/L	U	1			EPA-624.1	GEL	/X/
cis-1,3-Dichloropropene	1	ug/L	U	1			EPA-624.1	GEL	/X/
Dibromochloromethane	1	ug/L	U	1			EPA-624.1	GEL	/X/
Dibromomethane	1	ug/L	U	1			EPA-624.1	GEL	/X/

**Paducah OREIS Report for ULS23-01**

Ethylbenzene	1	ug/L	U	1	EPA-624.1	GEL	/X/
Iodomethane	5	ug/L	U	5	EPA-624.1	GEL	/X/
m,p-Xylene	2	ug/L	U	2	EPA-624.1	GEL	/X/
Methylene chloride	0.82	ug/L	BJ	2	EPA-624.1	GEL	/X/
Styrene	1	ug/L	U	1	EPA-624.1	GEL	/X/
Tetrachloroethene	1	ug/L	U	1	EPA-624.1	GEL	/X/
Toluene	1	ug/L	U	1	EPA-624.1	GEL	/X/
Total Xylene	3	ug/L	U	3	EPA-624.1	GEL	/X/
trans-1,2-Dichloroethene	1	ug/L	U	1	EPA-624.1	GEL	/X/
trans-1,3-Dichloropropene	1	ug/L	U	1	EPA-624.1	GEL	/X/
Trans-1,4-Dichloro-2-butene	5	ug/L	U	5	EPA-624.1	GEL	/X/
Trichloroethene	1	ug/L	U	1	EPA-624.1	GEL	/X/
Trichlorofluoromethane	1	ug/L	U	1	EPA-624.1	GEL	/X/
Vinyl acetate	5	ug/L	U	5	EPA-624.1	GEL	/X/
Vinyl chloride	1	ug/L	U	1	EPA-624.1	GEL	/X/
<b>WETCHEM</b>							
Chemical Oxygen Demand (COD)	20	mg/L	U	20	EPA-410.4	GEL	/X/
Hardness - Total as CaCO3	15.6	mg/L		2	EPA-130.2	GEL	/X/
Iodide	0.5	mg/L	U	0.5	EPA-300.0	GEL	/X/
Total Organic Carbon (TOC)	0.441	mg/L	J	2	SW846-9060A	GEL	/X/

## Paducah OREIS Report for ULS23-01

**TBULS23-01**

from: QC

on 2/15/2023

Media: WQ

SmpMethod:

Comments:

Analysis	Results	Units	Result Qual	Foot Note	Reporting Limit	Counting Error	TPU**	Method	LabCode	V/V/A*
<b>VOA</b>										
1,1,1,2-Tetrachloroethane	1	ug/L	U		1			EPA-624.1	GEL	/X/
1,1,1-Trichloroethane	1	ug/L	U		1			EPA-624.1	GEL	/X/
1,1,2,2-Tetrachloroethane	1	ug/L	U		1			EPA-624.1	GEL	/X/
1,1,2-Trichloroethane	1	ug/L	U		1			EPA-624.1	GEL	/X/
1,1-Dichloroethane	1	ug/L	U		1			EPA-624.1	GEL	/X/
1,1-Dichloroethene	1	ug/L	U		1			EPA-624.1	GEL	/X/
1,2,3-Trichloropropane	1	ug/L	U		1			EPA-624.1	GEL	/X/
1,2-Dibromo-3-chloropropane	0.0188	ug/L	U		0.0188			SW846-8011	GEL	/X/
1,2-Dibromoethane	1	ug/L	U		1			EPA-624.1	GEL	/X/
1,2-Dichlorobenzene	1	ug/L	U		1			EPA-624.1	GEL	/X/
1,2-Dichloroethane	1	ug/L	U		1			EPA-624.1	GEL	/X/
1,2-Dichloropropane	1	ug/L	U		1			EPA-624.1	GEL	/X/
1,2-Dimethylbenzene	1	ug/L	U		1			EPA-624.1	GEL	/X/
1,4-Dichlorobenzene	1	ug/L	U		1			EPA-624.1	GEL	/X/
2-Butanone	5	ug/L	U		5			EPA-624.1	GEL	/X/
2-Hexanone	5	ug/L	U		5			EPA-624.1	GEL	/X/
4-Methyl-2-pentanone	5	ug/L	U		5			EPA-624.1	GEL	/X/
Acetone	5	ug/L	U		5			EPA-624.1	GEL	/X/
Acrolein	5	ug/L	U		5			EPA-624.1	GEL	/X/
Acrylonitrile	5	ug/L	U		5			EPA-624.1	GEL	/X/
Benzene	1	ug/L	U		1			EPA-624.1	GEL	/X/
Bromochloromethane	1	ug/L	U		1			EPA-624.1	GEL	/X/
Bromodichloromethane	1	ug/L	U		1			EPA-624.1	GEL	/X/
Bromoform	1	ug/L	U		1			EPA-624.1	GEL	/X/
Bromomethane	1	ug/L	U		1			EPA-624.1	GEL	/X/
Carbon disulfide	5	ug/L	U		5			EPA-624.1	GEL	/X/
Carbon tetrachloride	1	ug/L	U		1			EPA-624.1	GEL	/X/
Chlorobenzene	1	ug/L	U		1			EPA-624.1	GEL	/X/
Chloroethane	1	ug/L	U		1			EPA-624.1	GEL	/X/
Chloroform	1	ug/L	U		1			EPA-624.1	GEL	/X/
Chloromethane	1	ug/L	U		1			EPA-624.1	GEL	/X/
cis-1,2-Dichloroethene	1	ug/L	U		1			EPA-624.1	GEL	/X/
cis-1,3-Dichloropropene	1	ug/L	U		1			EPA-624.1	GEL	/X/
Dibromochloromethane	1	ug/L	U		1			EPA-624.1	GEL	/X/
Dibromomethane	1	ug/L	U		1			EPA-624.1	GEL	/X/
Ethylbenzene	1	ug/L	U		1			EPA-624.1	GEL	/X/
Iodomethane	5	ug/L	U		5			EPA-624.1	GEL	/X/
m,p-Xylene	2	ug/L	U		2			EPA-624.1	GEL	/X/
Methylene chloride	0.88	ug/L	BJ		2			EPA-624.1	GEL	/X/
Styrene	1	ug/L	U		1			EPA-624.1	GEL	/X/
Tetrachloroethene	1	ug/L	U		1			EPA-624.1	GEL	/X/
Toluene	1	ug/L	U		1			EPA-624.1	GEL	/X/
Total Xylene	3	ug/L	U		3			EPA-624.1	GEL	/X/
trans-1,2-Dichloroethene	1	ug/L	U		1			EPA-624.1	GEL	/X/
trans-1,3-Dichloropropene	1	ug/L	U		1			EPA-624.1	GEL	/X/
Trans-1,4-Dichloro-2-butene	5	ug/L	U		5			EPA-624.1	GEL	/X/
Trichloroethene	1	ug/L	U		1			EPA-624.1	GEL	/X/
Trichlorofluoromethane	1	ug/L	U		1			EPA-624.1	GEL	/X/
Vinyl acetate	5	ug/L	U		5			EPA-624.1	GEL	/X/
Vinyl chloride	1	ug/L	U		1			EPA-624.1	GEL	/X/

## Paducah OREIS Report for ULS23-01

U-Landfill Leachate	from: C-746-U	on 4/4/2023	Media: WW	SmpMethod:
Comments:	Collected from HV98			

Analysis	Results	Units	Result Qual	Foot Note	Reporting Limit	Counting Error	TPU **	Method	LabCode	V/V/A*
<b>FS</b>										
Conductivity	1234	mg/L								/ /
Dissolved Oxygen	9.3	mg/L								/ /
Eh (approx)	195.9	mV								/ /
pH	7.36	Std Units								/ /
Temperature	61.8	deg F								/ /

Division of Waste Management  
Solid Waste Branch  
Quarterly Waste Quantity Report - DEP 7046-Q  
Electronic Submittal

\*\*This eForm is not applicable to Transfer stations or Convenience Centers. Those reports still need to be sent in the mail.

**Agency/Site Information:**

Agency Interest #(*) <input type="text" value="3059"/>	Facility Name <input type="text" value="Dept of Energy-Paducah Gaseous"/>	Report for the Months of(*) <input type="text" value="Jan, Feb, Mar"/>	Year(*) <input type="text" value="2023"/>
---	--	---	--

County where landfill is located: <input type="text" value="McCracken"/>	LandFill(*) <input type="text" value="Contained Landfill(ACTV6)/07300045"/>
---	--

**CONTAINED LANDFILL**

**Editing the Grid: You may click in each cell to edit the value.**  
**You may navigate the grid items by using the tab and arrow keys or you may press the enter key to enable editing of a cell.**

	Waste Source	*Municipal Solid Waste	*Industrial Waste	*Special Waste	**Waste Used as Alternate Daily Cover As Approved	Delete
1	MCCRACKEN, KY	0	290.01	0	0	Delete
+						

**Total tonnage: 290.01**

<b>Total Fee :</b>	<input type="text" value="507.518"/>
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\*Does not include waste used as Alternate Daily Cover.  
\*\*Indicate the amount of waste used as Alternate Daily Cover. Please note this requires prior approval by the Cabinet.

- For this calendar quarter, please check this box if no waste has been collected at the Solid Waste Disposal Facility.
- Check this box if you elect to submit a check or money order instead of paying this fee online, or payment is not required for this activity type. Payments shall be made payable to the Kentucky State Treasurer, and mailed to:

Division of Waste Management  
Solid Waste Branch  
300 Sower Blvd., Second Floor  
Frankfort, Kentucky 40601

**Certification:**

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for such violations.

Signature: (*)	Pin: (*)	Title: (*)
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Signature		PIN	Program Manager	
First Name:(*) Myrna		M.I.: E	Last Name:(*) Redfield	
eMail Address:(*) myrna.redfield@pad.pppo.gov		Business Phone:(*) 270-441-5113	Alternate Phone: 270-217-2529	Signature Date:(*) Date
<a href="#">Click to Save Values for Future Retrieval</a> <a href="#">Submit</a>				