



## Department of Energy

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

**JUL 12 2018**

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-02-4973382-18A

Dear Ms. Nielsen:

**C-746-S&T AND C-746-U SOLID WASTE LANDFILLS SECOND QUARTER  
CALENDAR YEAR 2018 WASTE OPERATING REPORT, PADUCAH GASEOUS  
DIFFUSION PLANT, PADUCAH, KENTUCKY, FRNP-RPT-0032/V2, PERMIT NO.  
SW07300014, SW07300015, SW07300045, AGENCY INTEREST NO. 3059**

The U.S. Department of Energy has prepared the second quarter operating report for calendar year 2018 for the C-746-S&T and C-746-U Landfills at the Paducah Gaseous Diffusion Plant. Kentucky Solid Waste Regulation 401 KAR 47:190 § 8(1) and Solid Waste Permit SW07300014, SW07300015, and SW07300045 require submittal of quarterly reports from operators of solid waste landfills.

The Paducah Site was issued a minor permit modification for the Solid Waste Permit on June 12, 2018. In accordance with Condition ACTV0006, Standard Requirement 4 of the modification, methane monitoring data have been included in the subject report.

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

If you have any questions or require additional information, please contact David Dollins at (270) 441-6819.

Sincerely,

*April Ladd*

for Jennifer Woodard  
Paducah Site Lead  
Portsmouth/Paducah Project Office

Enclosures:

1. Certification Page
2. C-746-S&T and C-746-U Solid Waste Landfill Second Quarter CY 2018 Waste Operating Report, FRNP-RPT-0032/V2

e-copy w/enclosures:

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CERTIFICATION

**Document Identification:** *C-746-S&T and C-746-U Solid Waste Landfills Second Quarter Calendar Year 2018 Waste Operating Report, Paducah Gaseous Diffusion Plant, Paducah, Kentucky, FRNP-RPT-0032/V2, (Reference: AI 3059/CMN20180003)*

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



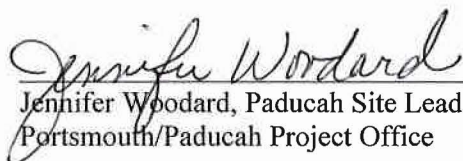
Myrna E. Redfield, Deputy Program Manager  
Four Rivers Nuclear Partnership, LLC



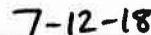
Date Signed

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



Jennifer Woodard, Paducah Site Lead  
Portsmouth/Paducah Project Office



Date Signed

**C-746-S&T and C-746-U Solid Waste Landfills  
Second Quarter Calendar Year 2018  
Waste Operating Report  
Paducah Gaseous Diffusion Plant,  
Paducah, Kentucky**



This document is approved for public release per review by:

David Harder                      7-10-18  
FRNP Classification Support                      Date



**C-746-S&T and C-746-U Solid Waste Landfills  
Second Quarter Calendar Year 2018  
Waste Operating Report  
Paducah Gaseous Diffusion Plant,  
Paducah, Kentucky**

Date Issued—July 2018

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 SW07300045, SW07300014, SW07300015 and 401 KAR 47:190 § 8(1)(a) through (c) and (e), for the second quarter of calendar year 2018 for the Paducah Gaseous Diffusion Plant, McCracken County, Kentucky.

In the second quarter of calendar year 2018, a total of 179.99 tons of industrial waste generated from environmental remediation activities was disposed of in the C-746-U Contained Landfill. No special waste or spill residue-containing materials were placed in the landfill this quarter. No asbestos-containing materials were dispositioned.

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.

Analytical results for surface water and groundwater 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)]. No other data/results for site-specific conditions were generated in this reporting period.

### Leachate Collection and Disposition

On January 4, 2017, the Landfill Manager notified Kentucky Division of Waste Management that leachate would be transported to the C-615 Wastewater Treatment Facility until further notice. During the second quarter of calendar year 2018, a total of 374,300 gal of leachate from the C-746-U Landfill and a total of 7,500 gal of leachate from the C-746-S Landfill were transported to the C-615 Wastewater Treatment Facility for treatment and discharge.

Leachate samples were obtained on April 10, 2018, during this quarter from the leachate transported to the C-615 Wastewater Treatment Facility. Analytical results of the April sampling event are provided in this report. Analytical results of leachate samples from the first quarter of calendar year 2018 that were not available during the previous reporting period are included in this report.

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.

### Construction Activities and Cover Maintenance

There were no construction 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.

There were no construction activities for either the C-746-S or C-746-T Landfills. The 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.

### Methane Monitoring

Methane monitoring was conducted at the C-746-U Landfill and C-746-S Landfill on May 29, 2018 [401 KAR 48:090 § 5]. Monitoring identified 0% of the lower explosive limit of methane at all locations,

which is compliant with the regulatory requirement of < 100% lower explosive limit at boundary locations and < 25% lower explosive limit at all other locations. The results are provided in this report.

## FACILITY INFORMATION SHEET

Leachate: April 10, 2018  
Sampling Date: Methane: May 29, 2018

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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—Robert E. Edwards III, Manager Phone No.: (859) 227-5020

Contact Person: James Miller Phone No.: (270) 441-5068

Contact Person Title: Director, Waste, Materials, and Environmental Services Project,  
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: Sam Martin Phone No.: (270) 441-6755

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  
Street City/State Zip

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**C-746-U LANDFILL  
COVER LOG**

**APRIL, MAY, JUNE 2018**

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# CP3-WM-0017-F02 - COVER LOG

DEPARTMENT OF ENERGY  
 COUNTY: McCracken

PERMIT NUMBER: 073-00045  
 Month & Year: April 2018

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						
8						
9						
10						
11						
12						
13						
14						
15						
16						
17						
18						
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24						
25						
26						
27						
28						
29						
30	<b>D-4</b>	<b>YES</b>	<b>NO</b>	<b>NO</b>	<b>NO</b>	<b>YES</b>
31						



# CP3-WM-0017-F02 - COVER LOG

DEPARTMENT OF ENERGY

PERMIT NUMBER: 073-00045

COUNTY: McCracken

Month & Year: May 2018

Day of Month	Daily Cell Location	Daily Cover Applied?	Interim Cover	Long Term Cover	Final Cap	Temporary Diversion Ditch Yes/No
1	D-4	YES	NO	NO	NO	YES
2	D-4	YES	NO	NO	NO	YES
3						
4						
5						
6						
7						
8	D-4	YES	NO	NO	NO	YES
9	D-4	YES	YES	NO	NO	YES
10						
11						
12						
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30						
31						

# CP3-WM-0017-F02 - COVER LOG

DEPARTMENT OF ENERGY  
 COUNTY: McCracken

PERMIT NUMBER: 073-00045  
 Month & Year: June 2018

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	<b>D-4&amp;C-4</b>	<b>YES</b>	<b>YES</b>	<b>NO</b>	<b>NO</b>	<b>YES</b>
6						
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8						
9						
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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 April Year 2018

Date	Phase	Collection Tank Number	Mobile Tanker	Tank Volume (Gallons)	Disposal Volume (Gallons)	Disposal Method*
04-02-18	1,2,3,4,5	F-001		30300	11000	W
04-02-18	1,2,3,4,5	F-002		15600		
04-02-18	1,2,3,4,5	F-007		0		
04-02-18	1,2,3,4,5	F-008		0		
04-02-18	1,2,3,4,5	F-009		500		
04-03-18	1,2,3,4,5	F-001		19600	12300	W
04-03-18	1,2,3,4,5	F-002		23700		
04-03-18	1,2,3,4,5	F-007		0		
04-03-18	1,2,3,4,5	F-008		0		
04-03-18	1,2,3,4,5	F-009		500		
04-04-18	1,2,3,4,5	F-001		9700		
04-04-18	1,2,3,4,5	F-002		30300	13700	W
04-04-18	1,2,3,4,5	F-007		0		
04-04-18	1,2,3,4,5	F-008		0		
04-04-18	1,2,3,4,5	F-009		500		
04-05-18	1,2,3,4,5	F-001		22500		
04-05-18	1,2,3,4,5	F-002		16600	7300	W
04-05-18	1,2,3,4,5	F-007		0		
04-05-18	1,2,3,4,5	F-008		0		
04-05-18	1,2,3,4,5	F-009		500		
04-09-18	1,2,3,4,5	F-001		30200		
04-09-18	1,2,3,4,5	F-002		24700	13600	W
04-09-18	1,2,3,4,5	F-007		0		
04-09-18	1,2,3,4,5	F-008		0		
04-09-18	1,2,3,4,5	F-009		800		
04-10-18	1,2,3,4,5	F-001		30200	1300	W
04-10-18	1,2,3,4,5	F-002		11100	10600	W

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

Permit No. 073-00045

McCracken County, Kentucky

Month April Year 2018

Date	Phase	Collection Tank Number	Mobile Tanker	Tank Volume (Gallons)	Disposal Volume (Gallons)	Disposal Method*
04-10-18	1,2,3,4,5	F-007		0		
04-10-18	1,2,3,4,5	F-008		0		
04-10-18	1,2,3,4,5	F-009		7000		
04-11-18	1,2,3,4,5	F-001		28900	15500	W
04-11-18	1,2,3,4,5	F-002		500		
04-11-18	1,2,3,4,5	F-007		0		
04-11-18	1,2,3,4,5	F-008		0		
04-11-18	1,2,3,4,5	F-009		10900		
04-12-18	1,2,3,4,5	F-001		13400	12900	W
04-12-18	1,2,3,4,5	F-002		500	1000	W
04-12-18	1,2,3,4,5	F-007		0		
04-12-18	1,2,3,4,5	F-008		0		
04-12-18	1,2,3,4,5	F-009		15600		
04-16-18	1,2,3,4,5	F-001		17100	7600	W
04-16-18	1,2,3,4,5	F-002		1100		
04-16-18	1,2,3,4,5	F-007		0		
04-16-18	1,2,3,4,5	F-008		0		
04-16-18	1,2,3,4,5	F-009		15600		
04-17-18	1,2,3,4,5	F-001		9500	9000	W
04-17-18	1,2,3,4,5	F-002		5300		
04-17-18	1,2,3,4,5	F-007		0		
04-17-18	1,2,3,4,5	F-008		0		
04-17-18	1,2,3,4,5	F-009		15600	3800	W
04-18-18	1,2,3,4,5	F-001		500		
04-18-18	1,2,3,4,5	F-002		9400		
04-18-18	1,2,3,4,5	F-007		0		
04-18-18	1,2,3,4,5	F-008		0		

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

Permit No. 073-00045

McCracken County, Kentucky

Month April Year 2018

Date	Phase	Collection Tank Number	Mobile Tanker	Tank Volume (Gallons)	Disposal Volume (Gallons)	Disposal Method*
04-18-18	1,2,3,4,5	F-009		11800	9500	W
04-19-18	1,2,3,4,5	F-001		500		
04-19-18	1,2,3,4,5	F-002		13700	4500	W
04-19-18	1,2,3,4,5	F-007		0		
04-19-18	1,2,3,4,5	F-008		0		
04-19-18	1,2,3,4,5	F-009		2300	1800	W
04-23-18	1,2,3,4,5	F-001		25700		
04-23-18	1,2,3,4,5	F-002		9200		
04-23-18	1,2,3,4,5	F-007		0		
04-23-18	1,2,3,4,5	F-008		0		
04-23-18	1,2,3,4,5	F-009		500		
04-24-18	1,2,3,4,5	F-001		30100	16900	W
04-24-18	1,2,3,4,5	F-002		16600		
04-24-18	1,2,3,4,5	F-007		0		
04-24-18	1,2,3,4,5	F-008		0		
04-24-18	1,2,3,4,5	F-009		500		
04-25-18	1,2,3,4,5	F-001		15400		
04-25-18	1,2,3,4,5	F-002		30100	14400	W
04-25-18	1,2,3,4,5	F-007		0		
04-25-18	1,2,3,4,5	F-008		0		
04-25-18	1,2,3,4,5	F-009		500		
04-26-18	1,2,3,4,5	F-001		27300	7700	W
04-26-18	1,2,3,4,5	F-002		15700		
04-26-18	1,2,3,4,5	F-007		0		
04-26-18	1,2,3,4,5	F-008		0		
04-26-18	1,2,3,4,5	F-009		500		
04-30-18	1,2,3,4,5	F-001		25300	17200	W





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

Permit No. 073-00045

McCracken County, Kentucky

Month May Year 2018

Date	Phase	Collection Tank Number	Mobile Tanker	Tank Volume (Gallons)	Disposal Volume (Gallons)	Disposal Method*
05-01-18	1,2,3,4,5	F-001		10300	9800	W
05-01-18	1,2,3,4,5	F-002		30100	2200	W
05-01-18	1,2,3,4,5	F-007		0		
05-01-18	1,2,3,4,5	F-008		0		
05-01-18	1,2,3,4,5	F-009		9900		
05-02-18	1,2,3,4,5	F-001		2700		
05-02-18	1,2,3,4,5	F-002		28000		
05-02-18	1,2,3,4,5	F-007		0		
05-02-18	1,2,3,4,5	F-008		0		
05-02-18	1,2,3,4,5	F-009		11900	11400	W
05-03-18	1,2,3,4,5	F-001		7000		
05-03-18	1,2,3,4,5	F-002		28000	7100	W
05-03-18	1,2,3,4,5	F-007		0		
05-03-18	1,2,3,4,5	F-008		0		
05-03-18	1,2,3,4,5	F-009		500		
05-07-18	1,2,3,4,5	F-001		21000		
05-07-18	1,2,3,4,5	F-002		21100	7700	W
05-07-18	1,2,3,4,5	F-007		0		
05-07-18	1,2,3,4,5	F-008		0		
05-07-18	1,2,3,4,5	F-009		500		
05-08-18	1,2,3,4,5	F-001		24000		
05-08-18	1,2,3,4,5	F-002		13400	7800	W
05-08-18	1,2,3,4,5	F-007		0		
05-08-18	1,2,3,4,5	F-008		0		
05-08-18	1,2,3,4,5	F-009		500		
05-09-18	1,2,3,4,5	F-001		26800	10500	W
05-09-18	1,2,3,4,5	F-002		5600	5100	W

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

Permit No. 073-00045

McCracken County, Kentucky

Month May Year 2018

Date	Phase	Collection Tank Number	Mobile Tanker	Tank Volume (Gallons)	Disposal Volume (Gallons)	Disposal Method*
05-09-18	1,2,3,4,5	F-007		0		
05-09-18	1,2,3,4,5	F-008		0		
05-09-18	1,2,3,4,5	F-009		500		
05-10-18	1,2,3,4,5	F-001		16300	11800	W
05-10-18	1,2,3,4,5	F-002		3200		
05-10-18	1,2,3,4,5	F-007		0		
05-10-18	1,2,3,4,5	F-008		0		
05-10-18	1,2,3,4,5	F-009		500		
05-14-18	1,2,3,4,5	F-001		4500	3100	W
05-14-18	1,2,3,4,5	F-002		13700		
05-14-18	1,2,3,4,5	F-007		0		
05-14-18	1,2,3,4,5	F-008		0		
05-14-18	1,2,3,4,5	F-009		500		
05-15-18	1,2,3,4,5	F-001		1400	900	W
05-15-18	1,2,3,4,5	F-002		15200	8300	W
05-15-18	1,2,3,4,5	F-007		0		
05-15-18	1,2,3,4,5	F-008		0		
05-15-18	1,2,3,4,5	F-009		500		
05-16-18	1,2,3,4,5	F-001		2500		
05-16-18	1,2,3,4,5	F-002		6900	3000	W
05-16-18	1,2,3,4,5	F-007		0		
05-16-18	1,2,3,4,5	F-008		0		
05-16-18	1,2,3,4,5	F-009		500		
05-17-18	1,2,3,4,5	F-001		5000	2900	W
05-17-18	1,2,3,4,5	F-002		3900	3400	W
05-17-18	1,2,3,4,5	F-007		0		
05-17-18	1,2,3,4,5	F-008		0		

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

Permit No. 073-00045

McCracken County, Kentucky

Month May Year 2018

Date	Phase	Collection Tank Number	Mobile Tanker	Tank Volume (Gallons)	Disposal Volume (Gallons)	Disposal Method*
05-17-18	1,2,3,4,5	F-009		500		
05-21-18	1,2,3,4,5	F-001		2100	1600	W
05-21-18	1,2,3,4,5	F-002		8600	4700	W
05-21-18	1,2,3,4,5	F-007		0		
05-21-18	1,2,3,4,5	F-008		0		
05-21-18	1,2,3,4,5	F-009		500		
05-22-18	1,2,3,4,5	F-001		2800	700	W
05-22-18	1,2,3,4,5	F-002		3900	3400	W
05-22-18	1,2,3,4,5	F-007		0		
05-22-18	1,2,3,4,5	F-008		0		
05-22-18	1,2,3,4,5	F-009		500		
05-23-18	1,2,3,4,5	F-001		2100	1600	W
05-23-18	1,2,3,4,5	F-002		2300	1500	W
05-23-18	1,2,3,4,5	F-007		0		
05-23-18	1,2,3,4,5	F-008		0		
05-23-18	1,2,3,4,5	F-009		500		
05-24-18	1,2,3,4,5	F-001		2200	1700	W
05-24-18	1,2,3,4,5	F-002		800	300	W
05-24-18	1,2,3,4,5	F-007		0		
05-24-18	1,2,3,4,5	F-008		0		
05-24-18	1,2,3,4,5	F-009		500		
05-29-18	1,2,3,4,5	F-001		8700	4600	W
05-29-18	1,2,3,4,5	F-002		500		
05-29-18	1,2,3,4,5	F-007		0		
05-29-18	1,2,3,4,5	F-008		0		
05-29-18	1,2,3,4,5	F-009		500		
05-30-18	1,2,3,4,5	F-001		4100	3200	W



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

Permit No. 073-00045

McCracken County, Kentucky

Month June Year 2018

Date	Phase	Collection Tank Number	Mobile Tanker	Tank Volume (Gallons)	Disposal Volume (Gallons)	Disposal Method*
06-04-18	1,2,3,4,5	F-001		17100	6300	W
06-04-18	1,2,3,4,5	F-002		700		
06-04-18	1,2,3,4,5	F-007		0		
06-04-18	1,2,3,4,5	F-008		0		
06-04-18	1,2,3,4,5	F-009		500		
06-05-18	1,2,3,4,5	F-001		10800	6000	W
06-05-18	1,2,3,4,5	F-002		2300		
06-05-18	1,2,3,4,5	F-007		0		
06-05-18	1,2,3,4,5	F-008		0		
06-05-18	1,2,3,4,5	F-009		500		
06-06-18	1,2,3,4,5	F-001		4800	4300	W
06-06-18	1,2,3,4,5	F-002		5100		
06-06-18	1,2,3,4,5	F-007		0		
06-06-18	1,2,3,4,5	F-008		0		
06-06-18	1,2,3,4,5	F-009		500		
06-07-18	1,2,3,4,5	F-001		500		
06-07-18	1,2,3,4,5	F-002		7400	6400	W
06-07-18	1,2,3,4,5	F-007		0		
06-07-18	1,2,3,4,5	F-008		0		
06-07-18	1,2,3,4,5	F-009		500		
06-11-18	1,2,3,4,5	F-001		500		
06-11-18	1,2,3,4,5	F-002		8500	5000	W
06-11-18	1,2,3,4,5	F-007		0		
06-11-18	1,2,3,4,5	F-008		0		
06-11-18	1,2,3,4,5	F-009		500		
06-12-18	1,2,3,4,5	F-001		2600		
06-12-18	1,2,3,4,5	F-002		3500	3000	W

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

Permit No. 073-00045

McCracken County, Kentucky

Month June Year 2018

Date	Phase	Collection Tank Number	Mobile Tanker	Tank Volume (Gallons)	Disposal Volume (Gallons)	Disposal Method*
06-12-18	1,2,3,4,5	F-007		0		
06-12-18	1,2,3,4,5	F-008		0		
06-12-18	1,2,3,4,5	F-009		500		
06-13-18	1,2,3,4,5	F-001		4600		
06-13-18	1,2,3,4,5	F-002		500		
06-13-18	1,2,3,4,5	F-007		0		
06-13-18	1,2,3,4,5	F-008		0		
06-13-18	1,2,3,4,5	F-009		500		
06-14-18	1,2,3,4,5	F-001		4600	1500	W
06-14-18	1,2,3,4,5	F-002		2200		
06-14-18	1,2,3,4,5	F-007		0		
06-14-18	1,2,3,4,5	F-008		0		
06-14-18	1,2,3,4,5	F-009		500		
06-18-18	1,2,3,4,5	F-001		3100	2600	W
06-18-18	1,2,3,4,5	F-002		8300	1500	W
06-18-18	1,2,3,4,5	F-007		0		
06-18-18	1,2,3,4,5	F-008		0		
06-18-18	1,2,3,4,5	F-009		500		
06-19-18	1,2,3,4,5	F-001		2300		
06-19-18	1,2,3,4,5	F-002		6800	2500	W
06-19-18	1,2,3,4,5	F-007		0		
06-19-18	1,2,3,4,5	F-008		0		
06-19-18	1,2,3,4,5	F-009		500		
06-20-18	1,2,3,4,5	F-001		3200	600	W
06-20-18	1,2,3,4,5	F-002		4300	3800	W
06-20-18	1,2,3,4,5	F-007		0		
06-20-18	1,2,3,4,5	F-008		0		

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

Permit No. 073-00045

McCracken County, Kentucky

Month June Year 2018

Date	Phase	Collection Tank Number	Mobile Tanker	Tank Volume (Gallons)	Disposal Volume (Gallons)	Disposal Method*
06-20-18	1,2,3,4,5	F-009		500		
06-21-18	1,2,3,4,5	F-001		2600	2100	W
06-21-18	1,2,3,4,5	F-002		2700	2200	W
06-21-18	1,2,3,4,5	F-007		0		
06-21-18	1,2,3,4,5	F-008		0		
06-21-18	1,2,3,4,5	F-009		500		
06-25-18	1,2,3,4,5	F-001		8000		
06-25-18	1,2,3,4,5	F-002		500		
06-25-18	1,2,3,4,5	F-007		0		
06-25-18	1,2,3,4,5	F-008		0		
06-25-18	1,2,3,4,5	F-009		500		
06-26-18	1,2,3,4,5	F-001		10600	6000	W
06-26-18	1,2,3,4,5	F-002		500		
06-26-18	1,2,3,4,5	F-007		0		
06-26-18	1,2,3,4,5	F-008		0		
06-26-18	1,2,3,4,5	F-009		500		
06-27-18	1,2,3,4,5	F-001		4600	4100	W
06-27-18	1,2,3,4,5	F-002		7800		
06-27-18	1,2,3,4,5	F-007		0		
06-27-18	1,2,3,4,5	F-008		0		
06-27-18	1,2,3,4,5	F-009		500		
06-28-18	1,2,3,4,5	F-001		500		
06-28-18	1,2,3,4,5	F-002		14000		
06-28-18	1,2,3,4,5	F-007		0		
06-28-18	1,2,3,4,5	F-008		0		
06-28-18	1,2,3,4,5	F-009		500		
			<i>Jammy Smith</i>	<i>6-28-18</i>		



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## **LEACHATE DATA**

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## Paducah OREIS Report for SLS18-01

**SLS18-01-01**

from: C-746-S

on 2/20/2018

Media: WW

SmpMethod: GR

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	UW		0.2			SW846-9056	GEL	/X/
Chloride	7.58	mg/L			0.2			SW846-9056	GEL	/X/
Fluoride	0.64	mg/L			0.1			SW846-9056	GEL	/X/
Nitrate as Nitrogen	0.5	mg/L	U		0.5			SW846-9056	GEL	/X/
Sulfate	72.2	mg/L			2			SW846-9056	GEL	/X/
<b>FS</b>										
Conductivity	995	umho/cm						FS	FS	//
Dissolved Oxygen	4.07	mg/L						FS	FS	//
pH	6.56	Std Unit						FS	FS	//
Redox	362	mV						FS	FS	//
Temperature	51.6	deg F						FS	FS	//
<b>METAL</b>										
Aluminum	0.05	mg/L	U		0.05			SW846-6020	GEL	/X/
Antimony	0.003	mg/L	U		0.003			SW846-6020	GEL	/X/
Arsenic	0.005	mg/L	U		0.005			SW846-6020	GEL	/X/
Barium	0.185	mg/L			0.002			SW846-6020	GEL	/X/
Beryllium	0.0005	mg/L	U		0.0005			SW846-6020	GEL	/X/
Boron	0.0189	mg/L			0.015			SW846-6020	GEL	/X/
Cadmium	0.001	mg/L	U		0.001			SW846-6020	GEL	/X/
Calcium	179	mg/L			4			SW846-6020	GEL	/X/
Chromium	0.01	mg/L	U		0.01			SW846-6020	GEL	/X/
Cobalt	0.001	mg/L	U		0.001			SW846-6020	GEL	/X/
Copper	0.00044	mg/L	J		0.001			SW846-6020	GEL	/X/
Iron	0.1	mg/L	U		0.1			SW846-6020	GEL	/X/
Lead	0.002	mg/L	U		0.002			SW846-6020	GEL	/X/
Magnesium	20.8	mg/L			0.03			SW846-6020	GEL	/X/
Manganese	0.00168	mg/L	J		0.005			SW846-6020	GEL	S/X/
Mercury	0.0002	mg/L	U		0.0002			SW846-7470A	GEL	/X/
Molybdenum	0.00095	mg/L	B		0.0005			SW846-6020	GEL	/X/
Nickel	0.00092	mg/L	J		0.002			SW846-6020	GEL	/X/
Phosphorous	0.0587	mg/L			0.05			EPA-365.4	GEL	/X/
Potassium	1.16	mg/L			0.3			SW846-6020	GEL	/X/
Rhodium	0.005	mg/L	U		0.005			SW846-6020	GEL	/X/
Selenium	0.005	mg/L	U		0.005			SW846-6020	GEL	/X/
Silver	0.001	mg/L	U		0.001			SW846-6020	GEL	/X/
Sodium	28.9	mg/L			0.25			SW846-6020	GEL	/X/
Tantalum	0.005	mg/L	U		0.005			SW846-6020	GEL	/X/
Thallium	0.002	mg/L	U		0.002			SW846-6020	GEL	/X/
Tin	0.005	mg/L	U		0.005			SW846-6020	GEL	/X/
Titanium	0.01	mg/L	U		0.01			SW846-6020	GEL	/X/
Uranium	0.0142	mg/L			0.0002			SW846-6020	GEL	/X/
Vanadium	0.01	mg/L	U		0.01			SW846-6020	GEL	/X/
Zinc	0.01	mg/L	U		0.01			SW846-6020	GEL	/X/
<b>METAL-D</b>										
Antimony, Dissolved	0.003	mg/L	U		0.003			SW846-6020	GEL	/X/
Arsenic, Dissolved	0.005	mg/L	U		0.005			SW846-6020	GEL	/X/
Barium, Dissolved	0.175	mg/L			0.002			SW846-6020	GEL	/X/
Cadmium, Dissolved	0.001	mg/L	U		0.001			SW846-6020	GEL	/X/
Chromium, Dissolved	0.01	mg/L	U		0.01			SW846-6020	GEL	/X/

**Paducah OREIS Report for SLS18-01**

Cobalt, Dissolved	0.001	mg/L	U	0.001			SW846-6020	GEL	/X/
Copper, Dissolved	0.00147	mg/L		0.001			SW846-6020	GEL	/X/
Lead, Dissolved	0.002	mg/L	U	0.002			SW846-6020	GEL	/X/
Manganese, Dissolved	0.00143	mg/L	J	0.005			SW846-6020	GEL	S/X/
Nickel, Dissolved	0.00092	mg/L	J	0.002			SW846-6020	GEL	/X/
Selenium, Dissolved	0.005	mg/L	U	0.005			SW846-6020	GEL	/X/
Silver, Dissolved	0.001	mg/L	U	0.001			SW846-6020	GEL	/X/
Tin, Dissolved	0.005	mg/L	U	0.005			SW846-6020	GEL	/X/
Titanium, Dissolved	0.01	mg/L	U	0.01			SW846-6020	GEL	/X/
Uranium, Dissolved	0.014	mg/L		0.0002			SW846-6020	GEL	/X/
Vanadium, Dissolved	0.01	mg/L	U	0.01			SW846-6020	GEL	/X/
Zinc, Dissolved	0.01	mg/L	U	0.01			SW846-6020	GEL	/X/

**OTHOR**

Oil and Grease	3.97	mg/L	U	3.97			EPA-1664A	GEL	/X/
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**PCCB**

PCB-1016	0.105	ug/L	UY2	0.105			SW846-8082	GEL	/X/
PCB-1221	0.105	ug/L	U	0.105			SW846-8082	GEL	/X/
PCB-1232	0.105	ug/L	U	0.105			SW846-8082	GEL	/X/
PCB-1242	0.105	ug/L	U	0.105			SW846-8082	GEL	/X/
PCB-1248	0.105	ug/L	U	0.105			SW846-8082	GEL	/X/
PCB-1254	0.105	ug/L	U	0.105			SW846-8082	GEL	/X/
PCB-1260	0.105	ug/L	UY2	0.105			SW846-8082	GEL	/X/
PCB-1268	0.105	ug/L	U	0.105			SW846-8082	GEL	/X/
Polychlorinated biphenyl	0.105	ug/L	UY2	0.105			SW846-8082	GEL	/X/

**RADS**

Alpha activity	16.8	pCi/L		12.3	9.99	10.4	SW846-9310	GEL	I/X/
Americium-241	0.0502	pCi/L	U	1.09	0.525	0.525	HASL 300, AM-05-RC M	GEL	/X/
Beta activity	3.27	pCi/L	U	10.7	6.16	6.19	SW846-9310	GEL	/X/
Cesium-137	0.389	pCi/L	U	1.43	0.79	0.81	EPA-901.1	GEL	/X/
Cobalt-60	0.339	pCi/L	U	1.75	0.948	0.961	EPA-901.1	GEL	/X/
Dissolved Alpha	5.07	pCi/L		3	2.78	2.9	SW846-9310	GEL	/X/
Dissolved Beta	1.69	pCi/L	U	1.81	1.21	1.25	SW846-9310	GEL	/X/
Neptunium-237	-0.413	pCi/L	U	2.28	0.877	0.878	Alpha Spectroscopy	GEL	/X/
Plutonium-239/240	0.367	pCi/L	U	1.67	0.922	0.924	HASL 300, Pu-11-RC M	GEL	/X/
Radium-226	0.109	pCi/L	U	0.638	0.341	0.341	AN-1418	GEL	/X/
Strontium-90	-0.219	pCi/L	U	3.57	1.8	1.8	EPA-905.0-M	GEL	/X/
Technetium-99	9.26	pCi/L	U	16.3	9.71	9.76	HASL 300, Tc-02-RC M	GEL	/X/
Thorium-230	0.847	pCi/L	U	1.55	1.03	1.05	HASL 300, Th-01-RC M	GEL	/X/
Thorium-234	64.4	pCi/L	U	67.9	84.7	86.1	EPA-901.1	GEL	/X/
Tritium	132	pCi/L	U	253	151	153	EPA-906.0-M	GEL	/X/
Uranium	12.2	pCi/L		2.07	3.29	3.5	HASL 300, U-02-RC M	GEL	/X/
Uranium-234	5.61	pCi/L		1.34	2.2	2.35	HASL 300, U-02-RC M	GEL	/X/
Uranium-235	0.514	pCi/L	U	0.771	0.881	0.884	HASL 300, U-02-RC M	GEL	/X/
Uranium-238	6.04	pCi/L		1.37	2.28	2.44	HASL 300, U-02-RC M	GEL	/X/

**RADS-D**

Americium-241, Dissolved	0.0892	pCi/L	U	0.95	0.496	0.496	HASL 300, AM-05-RC M	GEL	/X/
Cesium-137, Dissolved	2.66	pCi/L	U	6.35	6.29	6.3	EPA-901.1	GEL	/X/
Cobalt-60, Dissolved	-1.48	pCi/L	U	7.07	4.08	4.14	EPA-901.1	GEL	/X/
Neptunium-237, Dissolved	-0.45	pCi/L	U	2.25	0.892	0.893	Alpha Spectroscopy	GEL	/X/
Plutonium-239/240, Dissolved	0.39	pCi/L	U	1.26	0.776	0.777	HASL 300, Pu-11-RC M	GEL	/X/
Technetium-99, Dissolved	3.53	pCi/L	U	15.5	9.09	9.09	HASL 300, Tc-02-RC M	GEL	/X/
Thorium-230, Dissolved	0.802	pCi/L	U	1.39	0.927	0.946	HASL 300, Th-01-RC M	GEL	/X/
Thorium-234, Dissolved	91	pCi/L	U	357	189	195	EPA-901.1	GEL	/X/
Uranium, Dissolved	11.1	pCi/L		2.76	3.58	3.8	HASL 300, U-02-RC M	GEL	/X/
Uranium-234, Dissolved	6.84	pCi/L		2.17	2.78	2.98	HASL 300, U-02-RC M	GEL	/X/

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Uranium-235, Dissolved	0.317	pCi/L	U	0.951	0.892	0.893	HASL 300, U-02-RC M	GEL	/X/
Uranium-238, Dissolved	3.98	pCi/L		1.42	2.08	2.17	HASL 300, U-02-RC M	GEL	/X/
<b>VOA</b>									
1,1,1,2-Tetrachloroethane	1	ug/L	U	1			EPA-624	GEL	/X/
1,1,1-Trichloroethane	1	ug/L	U	1			EPA-624	GEL	/X/
1,1,2,2-Tetrachloroethane	1	ug/L	U	1			EPA-624	GEL	/X/
1,1,2-Trichloroethane	1	ug/L	U	1			EPA-624	GEL	/X/
1,1-Dichloroethane	1	ug/L	U	1			EPA-624	GEL	/X/
1,1-Dichloroethene	1	ug/L	U	1			EPA-624	GEL	/X/
1,2,3-Trichloropropane	1	ug/L	U	1			EPA-624	GEL	/X/
1,2-Dibromo-3-chloropropane	0.0201	ug/L	U	0.0201			SW846-8011	GEL	/X/
1,2-Dibromoethane	1	ug/L	U	1			EPA-624	GEL	/X/
1,2-Dichlorobenzene	1	ug/L	U	1			EPA-624	GEL	/X/
1,2-Dichloroethane	1	ug/L	U	1			EPA-624	GEL	/X/
1,2-Dichloropropane	1	ug/L	U	1			EPA-624	GEL	/X/
1,2-Dimethylbenzene	1	ug/L	U	1			EPA-624	GEL	/X/
1,4-Dichlorobenzene	1	ug/L	U	1			EPA-624	GEL	/X/
2-Butanone	5	ug/L	U	5			EPA-624	GEL	/X/
2-Hexanone	5	ug/L	U	5			EPA-624	GEL	/X/
4-Methyl-2-pentanone	5	ug/L	U	5			EPA-624	GEL	/X/
Acetone	1.77	ug/L	J	5			EPA-624	GEL	S/X/
Acrolein	5	ug/L	U	5			EPA-624	GEL	/X/
Acrylonitrile	5	ug/L	U	5			EPA-624	GEL	/X/
Benzene	1	ug/L	U	1			EPA-624	GEL	/X/
Bromochloromethane	1	ug/L	U	1			EPA-624	GEL	/X/
Bromodichloromethane	1	ug/L	U	1			EPA-624	GEL	/X/
Bromoform	1	ug/L	U	1			EPA-624	GEL	/X/
Bromomethane	1	ug/L	U	1			EPA-624	GEL	/X/
Carbon disulfide	5	ug/L	U	5			EPA-624	GEL	/X/
Carbon tetrachloride	1	ug/L	U	1			EPA-624	GEL	/X/
Chlorobenzene	1	ug/L	U	1			EPA-624	GEL	/X/
Chloroethane	1	ug/L	U	1			EPA-624	GEL	/X/
Chloroform	1	ug/L	U	1			EPA-624	GEL	/X/
Chloromethane	1	ug/L	U	1			EPA-624	GEL	/X/
cis-1,2-Dichloroethene	1	ug/L	U	1			EPA-624	GEL	/X/
cis-1,3-Dichloropropene	1	ug/L	U	1			EPA-624	GEL	/X/
Dibromochloromethane	1	ug/L	U	1			EPA-624	GEL	/X/
Dibromomethane	1	ug/L	U	1			EPA-624	GEL	/X/
Ethylbenzene	1	ug/L	U	1			EPA-624	GEL	/X/
Iodomethane	5	ug/L	U	5			EPA-624	GEL	/X/
m,p-Xylene	2	ug/L	U	2			EPA-624	GEL	/X/
Methylene chloride	2	ug/L	U	2			EPA-624	GEL	/X/
Styrene	1	ug/L	U	1			EPA-624	GEL	/X/
Tetrachloroethene	1	ug/L	U	1			EPA-624	GEL	/X/
Toluene	1	ug/L	U	1			EPA-624	GEL	/X/
Total Xylene	3	ug/L	U	3			EPA-624	GEL	/X/
trans-1,2-Dichloroethene	1	ug/L	U	1			EPA-624	GEL	/X/
trans-1,3-Dichloropropene	1	ug/L	U	1			EPA-624	GEL	/X/
Trans-1,4-Dichloro-2-butene	5	ug/L	U	5			EPA-624	GEL	/X/
Trichloroethene	1	ug/L	U	1			EPA-624	GEL	/X/
Trichlorofluoromethane	1	ug/L	U	1			EPA-624	GEL	/X/
Vinyl acetate	5	ug/L	U	5			EPA-624	GEL	/X/
Vinyl chloride	1	ug/L	U	1			EPA-624	GEL	/X/
<b>WETCHEM</b>									
Carbonaceous Biochemical Oxygen Demand (CBOD)	2	mg/L	UX	2			SM-5210 B	GEL	/X/

### Paducah OREIS Report for SLS18-01

Chemical Oxygen Demand (COD)	17.6	mg/L	J	20	EPA-410.4	GEL	/X/
Cyanide	0.2	mg/L	U	0.2	SW846-9012B	GEL	/X/
Dissolved Solids	757	mg/L	B	14.3	EPA-160.1	GEL	/X/
Hardness - Total as CaCO3	392	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)	3.62	mg/L		2	SW846-9060A	GEL	/X/
Total Organic Halides (TOX)	7.68	ug/L	J	10	SW846-9020B	GEL	S/X/

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## Paducah OREIS Report for SLS18-01

**SLS18-01-02**

from: C-746-S

on 2/20/2018

Media: WW

SmpMethod: GR

Comments:

Water has a strong odor to it. SF 2-20-18

Analysis	Results	Units	Result Qual	Foot Note	Reporting Limit	Counting Error	TPU	Method	LabCode	V/V/A*
<b>ANION</b>										
Bromide	0.166	mg/L	JW		0.2			SW846-9056	GEL	/X/
Chloride	18.1	mg/L			1			SW846-9056	GEL	/X/
Fluoride	0.389	mg/L			0.1			SW846-9056	GEL	/X/
Nitrate as Nitrogen	0.5	mg/L	U		0.5			SW846-9056	GEL	/X/
Sulfate	77	mg/L			2			SW846-9056	GEL	/X/
<b>FS</b>										
Conductivity	964	umho/cm						FS	FS	//
Dissolved Oxygen	1.5	mg/L						FS	FS	//
pH	6.48	Std Unit						FS	FS	//
Redox	25	mV						FS	FS	//
Temperature	52.1	deg F						FS	FS	//
<b>METAL</b>										
Aluminum	0.05	mg/L	U		0.05			SW846-6020	GEL	/X/
Antimony	0.003	mg/L	U		0.003			SW846-6020	GEL	/X/
Arsenic	0.00682	mg/L			0.005			SW846-6020	GEL	/X/
Barium	0.343	mg/L			0.002			SW846-6020	GEL	/X/
Beryllium	0.0005	mg/L	U		0.0005			SW846-6020	GEL	/X/
Boron	0.0177	mg/L			0.015			SW846-6020	GEL	/X/
Cadmium	0.001	mg/L	U		0.001			SW846-6020	GEL	/X/
Calcium	141	mg/L			4			SW846-6020	GEL	/X/
Chromium	0.01	mg/L	U		0.01			SW846-6020	GEL	/X/
Cobalt	0.00286	mg/L			0.001			SW846-6020	GEL	/X/
Copper	0.000549	mg/L	J		0.001			SW846-6020	GEL	/X/
Iron	25	mg/L			0.1			SW846-6020	GEL	/X/
Lead	0.002	mg/L	U		0.002			SW846-6020	GEL	/X/
Magnesium	20.9	mg/L			0.03			SW846-6020	GEL	/X/
Manganese	0.711	mg/L			0.005			SW846-6020	GEL	/X/
Mercury	0.0002	mg/L	U		0.0002			SW846-7470A	GEL	/X/
Molybdenum	0.000572	mg/L	B		0.0005			SW846-6020	GEL	/X/
Nickel	0.0023	mg/L			0.002			SW846-6020	GEL	/X/
Phosphorous	0.0884	mg/L			0.05			EPA-365.4	GEL	/X/
Potassium	4.23	mg/L			0.3			SW846-6020	GEL	/X/
Rhodium	0.005	mg/L	U		0.005			SW846-6020	GEL	/X/
Selenium	0.005	mg/L	U		0.005			SW846-6020	GEL	/X/
Silver	0.001	mg/L	U		0.001			SW846-6020	GEL	/X/
Sodium	22.7	mg/L			0.25			SW846-6020	GEL	/X/
Tantalum	0.005	mg/L	U		0.005			SW846-6020	GEL	/X/
Thallium	0.002	mg/L	U		0.002			SW846-6020	GEL	/X/
Tin	0.005	mg/L	U		0.005			SW846-6020	GEL	/X/
Titanium	0.01	mg/L	U		0.01			SW846-6020	GEL	/X/
Uranium	0.00291	mg/L			0.0002			SW846-6020	GEL	/X/
Vanadium	0.01	mg/L	U		0.01			SW846-6020	GEL	/X/
Zinc	0.00971	mg/L	J		0.01			SW846-6020	GEL	/X/
<b>METAL-D</b>										
Antimony, Dissolved	0.003	mg/L	U		0.003			SW846-6020	GEL	/X/
Arsenic, Dissolved	0.00289	mg/L	J		0.005			SW846-6020	GEL	/X/
Barium, Dissolved	0.277	mg/L			0.002			SW846-6020	GEL	/X/
Cadmium, Dissolved	0.001	mg/L	U		0.001			SW846-6020	GEL	/X/
Chromium, Dissolved	0.01	mg/L	U		0.01			SW846-6020	GEL	/X/



**Paducah OREIS Report for SLS18-01**

Cobalt, Dissolved	0.00268	mg/L		0.001			SW846-6020	GEL	/X/
Copper, Dissolved	0.00112	mg/L		0.001			SW846-6020	GEL	/X/
Lead, Dissolved	0.002	mg/L	U	0.002			SW846-6020	GEL	/X/
Manganese, Dissolved	0.696	mg/L		0.005			SW846-6020	GEL	/X/
Nickel, Dissolved	0.00242	mg/L		0.002			SW846-6020	GEL	/X/
Selenium, Dissolved	0.005	mg/L	U	0.005			SW846-6020	GEL	/X/
Silver, Dissolved	0.001	mg/L	U	0.001			SW846-6020	GEL	/X/
Tin, Dissolved	0.005	mg/L	U	0.005			SW846-6020	GEL	/X/
Titanium, Dissolved	0.01	mg/L	U	0.01			SW846-6020	GEL	/X/
Uranium, Dissolved	0.00282	mg/L		0.0002			SW846-6020	GEL	/X/
Vanadium, Dissolved	0.01	mg/L	U	0.01			SW846-6020	GEL	/X/
Zinc, Dissolved	0.01	mg/L	U	0.01			SW846-6020	GEL	/X/

**OTHOR**

Oil and Grease	4.5	mg/L	U	4.5			EPA-1664A	GEL	/X/
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**PCCB**

PCB-1016	0.099	ug/L	UY2	0.099			SW846-8082	GEL	/X/
PCB-1221	0.099	ug/L	U	0.099			SW846-8082	GEL	/X/
PCB-1232	0.099	ug/L	U	0.099			SW846-8082	GEL	/X/
PCB-1242	0.099	ug/L	U	0.099			SW846-8082	GEL	/X/
PCB-1248	0.099	ug/L	U	0.099			SW846-8082	GEL	/X/
PCB-1254	0.099	ug/L	U	0.099			SW846-8082	GEL	/X/
PCB-1260	0.099	ug/L	UY2	0.099			SW846-8082	GEL	/X/
PCB-1268	0.099	ug/L	U	0.099			SW846-8082	GEL	/X/
Polychlorinated biphenyl	0.099	ug/L	UY2	0.099			SW846-8082	GEL	/X/

**RADS**

Alpha activity	6.62	pCi/L	U	11.8	7.3	7.38	SW846-9310	GEL	/X/
Americium-241	0.0435	pCi/L	U	0.948	0.454	0.455	HASL 300, AM-05-RC M	GEL	/X/
Beta activity	8.08	pCi/L	U	9.48	6.09	6.24	SW846-9310	GEL	/X/
Cesium-137	0.302	pCi/L	U	1.36	1.85	1.86	EPA-901.1	GEL	/X/
Cobalt-60	-0.0684	pCi/L	U	1.23	0.683	0.683	EPA-901.1	GEL	/X/
Dissolved Alpha	2.43	pCi/L	U	2.93	2.08	2.12	SW846-9310	GEL	/X/
Dissolved Beta	3.19	pCi/L	U	2.18	1.53	1.62	SW846-9310	GEL	/X/
Neptunium-237	-0.491	pCi/L	U	2.26	0.692	0.693	Alpha Spectroscopy	GEL	/X/
Plutonium-239/240	0.182	pCi/L	U	1.6	0.817	0.818	HASL 300, Pu-11-RC M	GEL	/X/
Radium-226	0.904	pCi/L	U	0.633	0.615	0.619	AN-1418	GEL	/X/
Strontium-90	3.92	pCi/L	U	4.96	3.1	3.16	EPA-905.0-M	GEL	/X/
Technetium-99	5.81	pCi/L	U	16	9.42	9.44	HASL 300, Tc-02-RC M	GEL	/X/
Thorium-230	0.0999	pCi/L	U	1.84	0.899	0.901	HASL 300, Th-01-RC M	GEL	/X/
Thorium-234	0	pCi/L	UX	72.7	76.4	87.3	EPA-901.1	GEL	/X/
Tritium	-16.6	pCi/L	U	261	137	137	EPA-906.0-M	GEL	/X/
Uranium	4.1	pCi/L	U	2.01	2.08	2.11	HASL 300, U-02-RC M	GEL	/X/
Uranium-234	1.52	pCi/L	U	1.49	1.28	1.3	HASL 300, U-02-RC M	GEL	/X/
Uranium-235	0.948	pCi/L	U	1.21	1.12	1.13	HASL 300, U-02-RC M	GEL	/X/
Uranium-238	1.63	pCi/L	U	0.612	1.2	1.23	HASL 300, U-02-RC M	GEL	/X/

**RADS-D**

Americium-241, Dissolved	0.35	pCi/L	U	0.939	0.62	0.621	HASL 300, AM-05-RC M	GEL	/X/
Cesium-137, Dissolved	-1.06	pCi/L	U	9.86	5.23	5.25	EPA-901.1	GEL	/X/
Cobalt-60, Dissolved	1.03	pCi/L	U	10	5	5.02	EPA-901.1	GEL	/X/
Neptunium-237, Dissolved	0.113	pCi/L	U	1.77	0.871	0.871	Alpha Spectroscopy	GEL	/X/
Plutonium-239/240, Dissolved	-0.149	pCi/L	U	1.26	0.45	0.451	HASL 300, Pu-11-RC M	GEL	/X/
Technetium-99, Dissolved	0.631	pCi/L	U	18.6	10.8	10.8	HASL 300, Tc-02-RC M	GEL	/X/
Thorium-230, Dissolved	0.242	pCi/L	U	1.73	0.898	0.903	HASL 300, Th-01-RC M	GEL	/X/
Thorium-234, Dissolved	-142	pCi/L	U	400	244	255	EPA-901.1	GEL	/X/
Uranium, Dissolved	3.96	pCi/L	U	2.28	2.24	2.27	HASL 300, U-02-RC M	GEL	/X/
Uranium-234, Dissolved	1.29	pCi/L	U	1.67	1.31	1.33	HASL 300, U-02-RC M	GEL	/X/

**Paducah OREIS Report for SLS18-01**

Uranium-235, Dissolved	1.15	pCi/L		0.863	1.27	1.28	HASL 300, U-02-RC M	GEL	/X/
Uranium-238, Dissolved	1.52	pCi/L		1.29	1.3	1.32	HASL 300, U-02-RC M	GEL	/X/
<b>VOA</b>									
1,1,1,2-Tetrachloroethane	1	ug/L	U	1			EPA-624	GEL	/X/
1,1,1-Trichloroethane	1	ug/L	U	1			EPA-624	GEL	/X/
1,1,2,2-Tetrachloroethane	1	ug/L	U	1			EPA-624	GEL	/X/
1,1,2-Trichloroethane	1	ug/L	U	1			EPA-624	GEL	/X/
1,1-Dichloroethane	1	ug/L	U	1			EPA-624	GEL	/X/
1,1-Dichloroethene	1	ug/L	U	1			EPA-624	GEL	/X/
1,2,3-Trichloropropane	1	ug/L	U	1			EPA-624	GEL	/X/
1,2-Dibromo-3-chloropropane	0.0199	ug/L	U	0.0199			SW846-8011	GEL	/X/
1,2-Dibromoethane	1	ug/L	U	1			EPA-624	GEL	/X/
1,2-Dichlorobenzene	1	ug/L	U	1			EPA-624	GEL	/X/
1,2-Dichloroethane	1	ug/L	U	1			EPA-624	GEL	/X/
1,2-Dichloropropane	1	ug/L	U	1			EPA-624	GEL	/X/
1,2-Dimethylbenzene	1	ug/L	U	1			EPA-624	GEL	/X/
1,4-Dichlorobenzene	1.12	ug/L		1			EPA-624	GEL	/X/
2-Butanone	5	ug/L	U	5			EPA-624	GEL	/X/
2-Hexanone	5	ug/L	U	5			EPA-624	GEL	/X/
4-Methyl-2-pentanone	5	ug/L	U	5			EPA-624	GEL	/X/
Acetone	9.71	ug/L		5			EPA-624	GEL	/X/
Acrolein	5	ug/L	U	5			EPA-624	GEL	/X/
Acrylonitrile	5	ug/L	U	5			EPA-624	GEL	/X/
Benzene	1	ug/L	U	1			EPA-624	GEL	/X/
Bromochloromethane	1	ug/L	U	1			EPA-624	GEL	/X/
Bromodichloromethane	1	ug/L	U	1			EPA-624	GEL	/X/
Bromoform	1	ug/L	U	1			EPA-624	GEL	/X/
Bromomethane	1	ug/L	U	1			EPA-624	GEL	/X/
Carbon disulfide	5	ug/L	U	5			EPA-624	GEL	/X/
Carbon tetrachloride	1	ug/L	U	1			EPA-624	GEL	/X/
Chlorobenzene	1	ug/L	U	1			EPA-624	GEL	/X/
Chloroethane	1	ug/L	U	1			EPA-624	GEL	/X/
Chloroform	1	ug/L	U	1			EPA-624	GEL	/X/
Chloromethane	1	ug/L	U	1			EPA-624	GEL	/X/
cis-1,2-Dichloroethene	1	ug/L	U	1			EPA-624	GEL	/X/
cis-1,3-Dichloropropene	1	ug/L	U	1			EPA-624	GEL	/X/
Dibromochloromethane	1	ug/L	U	1			EPA-624	GEL	/X/
Dibromomethane	1	ug/L	U	1			EPA-624	GEL	/X/
Ethylbenzene	1	ug/L	U	1			EPA-624	GEL	/X/
Iodomethane	5	ug/L	U	5			EPA-624	GEL	/X/
m,p-Xylene	2	ug/L	U	2			EPA-624	GEL	/X/
Methylene chloride	2	ug/L	U	2			EPA-624	GEL	/X/
Styrene	1	ug/L	U	1			EPA-624	GEL	/X/
Tetrachloroethene	1	ug/L	U	1			EPA-624	GEL	/X/
Toluene	1	ug/L	U	1			EPA-624	GEL	/X/
Total Xylene	3	ug/L	U	3			EPA-624	GEL	/X/
trans-1,2-Dichloroethene	1	ug/L	U	1			EPA-624	GEL	/X/
trans-1,3-Dichloropropene	1	ug/L	U	1			EPA-624	GEL	/X/
Trans-1,4-Dichloro-2-butene	5	ug/L	U	5			EPA-624	GEL	/X/
Trichloroethene	1	ug/L	U	1			EPA-624	GEL	/X/
Trichlorofluoromethane	1	ug/L	U	1			EPA-624	GEL	/X/
Vinyl acetate	5	ug/L	U	5			EPA-624	GEL	/X/
Vinyl chloride	1	ug/L	U	1			EPA-624	GEL	/X/
<b>WETCHEM</b>									
Carbonaceous Biochemical Oxygen Demand (CBOD)	1.15	mg/L	JX	2			SM-5210 B	GEL	/X/

### Paducah OREIS Report for SLS18-01

Chemical Oxygen Demand (COD)	59.5	mg/L		20	EPA-410.4	GEL	/X/
Cyanide	0.2	mg/L	U	0.2	SW846-9012B	GEL	/X/
Dissolved Solids	567	mg/L	B	14.3	EPA-160.1	GEL	/X/
Hardness - Total as CaCO3	468	mg/L		10	EPA-130.2	GEL	/X/
Iodide	0.856	mg/L		0.5	EPA-300.0	GEL	/X/
Suspended Solids	50	mg/L		25	EPA-160.2	GEL	/X/
Total Organic Carbon (TOC)	11.9	mg/L		2	SW846-9060A	GEL	/X/
Total Organic Halides (TOX)	13.7	ug/L		10	SW846-9020B	GEL	/X/

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**Paducah OREIS Report for SLS18-01**

<b>FBSLS18-01</b>	from: QC	on 2/20/2018	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	UW		0.2			SW846-9056	GEL	/X/
Chloride	0.096	mg/L	J		0.2			SW846-9056	GEL	/X/
Fluoride	0.1	mg/L	U		0.1			SW846-9056	GEL	/X/
Nitrate as Nitrogen	0.1	mg/L	U		0.1			SW846-9056	GEL	/X/
Sulfate	0.4	mg/L	U		0.4			SW846-9056	GEL	/X/
<b>METAL</b>										
Aluminum	0.05	mg/L	U		0.05			SW846-6020	GEL	/X/
Antimony	0.003	mg/L	U		0.003			SW846-6020	GEL	/X/
Arsenic	0.005	mg/L	U		0.005			SW846-6020	GEL	/X/
Barium	0.002	mg/L	U		0.002			SW846-6020	GEL	/X/
Beryllium	0.0005	mg/L	U		0.0005			SW846-6020	GEL	/X/
Boron	0.015	mg/L	U		0.015			SW846-6020	GEL	/X/
Cadmium	0.001	mg/L	U		0.001			SW846-6020	GEL	/X/
Calcium	0.2	mg/L	U		0.2			SW846-6020	GEL	/X/
Chromium	0.01	mg/L	U		0.01			SW846-6020	GEL	/X/
Cobalt	0.001	mg/L	U		0.001			SW846-6020	GEL	/X/
Copper	0.001	mg/L	U		0.001			SW846-6020	GEL	/X/
Iron	0.1	mg/L	U		0.1			SW846-6020	GEL	/X/
Lead	0.002	mg/L	U		0.002			SW846-6020	GEL	/X/
Magnesium	0.03	mg/L	U		0.03			SW846-6020	GEL	/X/
Manganese	0.005	mg/L	U		0.005			SW846-6020	GEL	/X/
Mercury	0.0002	mg/L	U		0.0002			SW846-7470A	GEL	/X/
Molybdenum	0.0005	mg/L	U		0.0005			SW846-6020	GEL	/X/
Nickel	0.002	mg/L	U		0.002			SW846-6020	GEL	/X/
Phosphorous	0.07	mg/L			0.05			EPA-365.4	GEL	/X/
Potassium	0.3	mg/L	U		0.3			SW846-6020	GEL	/X/
Rhodium	0.005	mg/L	U		0.005			SW846-6020	GEL	/X/
Selenium	0.005	mg/L	U		0.005			SW846-6020	GEL	/X/
Silver	0.001	mg/L	U		0.001			SW846-6020	GEL	/X/
Sodium	0.25	mg/L	U		0.25			SW846-6020	GEL	/X/
Tantalum	0.005	mg/L	U		0.005			SW846-6020	GEL	/X/
Thallium	0.002	mg/L	U		0.002			SW846-6020	GEL	/X/
Tin	0.005	mg/L	U		0.005			SW846-6020	GEL	/X/
Titanium	0.01	mg/L	U		0.01			SW846-6020	GEL	/X/
Uranium	0.0002	mg/L	U		0.0002			SW846-6020	GEL	/X/
Vanadium	0.01	mg/L	U		0.01			SW846-6020	GEL	/X/
Zinc	0.01	mg/L	U		0.01			SW846-6020	GEL	/X/
<b>OTHOR</b>										
Oil and Grease	4.07	mg/L	U		4.07			EPA-1664A	GEL	/X/
<b>PPCB</b>										
PCB-1016	0.0943	ug/L	UY2		0.0943			SW846-8082	GEL	/X/
PCB-1221	0.0943	ug/L	U		0.0943			SW846-8082	GEL	/X/
PCB-1232	0.0943	ug/L	U		0.0943			SW846-8082	GEL	/X/
PCB-1242	0.0943	ug/L	U		0.0943			SW846-8082	GEL	/X/
PCB-1248	0.0943	ug/L	U		0.0943			SW846-8082	GEL	/X/
PCB-1254	0.0943	ug/L	U		0.0943			SW846-8082	GEL	/X/
PCB-1260	0.0943	ug/L	UY2		0.0943			SW846-8082	GEL	/X/
PCB-1268	0.0943	ug/L	U		0.0943			SW846-8082	GEL	/X/
Polychlorinated biphenyl	0.0943	ug/L	UY2		0.0943			SW846-8082	GEL	/X/

**Paducah OREIS Report for SLS18-01**

**RADS**

Alpha activity	2.96	pCi/L	U	8.54	4.78	4.81	SW846-9310	GEL	/X/
Americium-241	0	pCi/L	U	0.467	0.314	0.314	HASL 300, AM-05-RC M	GEL	/X/
Beta activity	4.45	pCi/L	U	8.86	5.29	5.34	SW846-9310	GEL	/X/
Cesium-137	-0.263	pCi/L	U	1.51	0.9	0.908	EPA-901.1	GEL	/X/
Cobalt-60	0.48	pCi/L	U	1.69	0.904	0.931	EPA-901.1	GEL	/X/
Neptunium-237	-0.169	pCi/L	U	1.22	0.457	0.458	Alpha Spectroscopy	GEL	/X/
Plutonium-239/240	0.739	pCi/L	U	0.943	0.871	0.877	HASL 300, Pu-11-RC M	GEL	/X/
Radium-226	0.217	pCi/L	U	0.378	0.313	0.314	AN-1418	GEL	/X/
Strontium-90	-0.602	pCi/L	U	4.89	2.37	2.37	EPA-905.0-M	GEL	/X/
Technetium-99	-0.367	pCi/L	U	15.9	9.14	9.14	HASL 300, Tc-02-RC M	GEL	/X/
Thorium-230	0.708	pCi/L	U	1.38	0.956	0.975	HASL 300, Th-01-RC M	GEL	/X/
Thorium-234	71.1	pCi/L	U	94.9	134	135	EPA-901.1	GEL	/X/
Tritium	1.62	pCi/L	U	259	138	138	EPA-906.0-M	GEL	/X/
Uranium	2.82	pCi/L		2.25	1.79	1.82	HASL 300, U-02-RC M	GEL	/X/
Uranium-234	1.61	pCi/L		1.51	1.29	1.32	HASL 300, U-02-RC M	GEL	/X/
Uranium-235	0.184	pCi/L	U	1.16	0.691	0.692	HASL 300, U-02-RC M	GEL	/X/
Uranium-238	1.04	pCi/L	U	1.2	1.03	1.04	HASL 300, U-02-RC M	GEL	/X/

**VOA**

1,1,1,2-Tetrachloroethane	1	ug/L	U	1			EPA-624	GEL	/X/
1,1,1-Trichloroethane	1	ug/L	U	1			EPA-624	GEL	/X/
1,1,2,2-Tetrachloroethane	1	ug/L	U	1			EPA-624	GEL	/X/
1,1,2-Trichloroethane	1	ug/L	U	1			EPA-624	GEL	/X/
1,1-Dichloroethane	1	ug/L	U	1			EPA-624	GEL	/X/
1,1-Dichloroethene	1	ug/L	U	1			EPA-624	GEL	/X/
1,2,3-Trichloropropane	1	ug/L	U	1			EPA-624	GEL	/X/
1,2-Dibromo-3-chloropropane	0.0201	ug/L	U	0.0201			SW846-8011	GEL	/X/
1,2-Dibromoethane	1	ug/L	U	1			EPA-624	GEL	/X/
1,2-Dichlorobenzene	1	ug/L	U	1			EPA-624	GEL	/X/
1,2-Dichloroethane	1	ug/L	U	1			EPA-624	GEL	/X/
1,2-Dichloropropane	1	ug/L	U	1			EPA-624	GEL	/X/
1,2-Dimethylbenzene	1	ug/L	U	1			EPA-624	GEL	/X/
1,4-Dichlorobenzene	1	ug/L	U	1			EPA-624	GEL	/X/
2-Butanone	20.5	ug/L		5			EPA-624	GEL	/X/
2-Hexanone	5.53	ug/L		5			EPA-624	GEL	/X/
4-Methyl-2-pentanone	5	ug/L	U	5			EPA-624	GEL	/X/
Acetone	12.7	ug/L		5			EPA-624	GEL	/X/
Acrolein	5	ug/L	U	5			EPA-624	GEL	/X/
Acrylonitrile	5	ug/L	U	5			EPA-624	GEL	/X/
Benzene	1	ug/L	U	1			EPA-624	GEL	/X/
Bromochloromethane	1	ug/L	U	1			EPA-624	GEL	/X/
Bromodichloromethane	1	ug/L	U	1			EPA-624	GEL	/X/
Bromoform	1	ug/L	U	1			EPA-624	GEL	/X/
Bromomethane	1	ug/L	U	1			EPA-624	GEL	/X/
Carbon disulfide	5	ug/L	U	5			EPA-624	GEL	/X/
Carbon tetrachloride	1	ug/L	U	1			EPA-624	GEL	/X/
Chlorobenzene	1	ug/L	U	1			EPA-624	GEL	/X/
Chloroethane	1	ug/L	U	1			EPA-624	GEL	/X/
Chloroform	1	ug/L	U	1			EPA-624	GEL	/X/
Chloromethane	1	ug/L	U	1			EPA-624	GEL	/X/
cis-1,2-Dichloroethene	1	ug/L	U	1			EPA-624	GEL	/X/
cis-1,3-Dichloropropene	1	ug/L	U	1			EPA-624	GEL	/X/
Dibromochloromethane	1	ug/L	U	1			EPA-624	GEL	/X/
Dibromomethane	1	ug/L	U	1			EPA-624	GEL	/X/
Ethylbenzene	1	ug/L	U	1			EPA-624	GEL	/X/
Iodomethane	5	ug/L	U	5			EPA-624	GEL	/X/

### Paducah OREIS Report for SLS18-01

m,p-Xylene	2	ug/L	U	2	EPA-624	GEL	/X/
Methylene chloride	2	ug/L	U	2	EPA-624	GEL	/X/
Styrene	1	ug/L	U	1	EPA-624	GEL	/X/
Tetrachloroethene	1	ug/L	U	1	EPA-624	GEL	/X/
Toluene	1	ug/L	U	1	EPA-624	GEL	/X/
Total Xylene	3	ug/L	U	3	EPA-624	GEL	/X/
trans-1,2-Dichloroethene	1	ug/L	U	1	EPA-624	GEL	/X/
trans-1,3-Dichloropropene	1	ug/L	U	1	EPA-624	GEL	/X/
Trans-1,4-Dichloro-2-butene	5	ug/L	U	5	EPA-624	GEL	/X/
Trichloroethene	1	ug/L	U	1	EPA-624	GEL	/X/
Trichlorofluoromethane	1	ug/L	U	1	EPA-624	GEL	/X/
Vinyl acetate	5	ug/L	U	5	EPA-624	GEL	/X/
Vinyl chloride	1	ug/L	U	1	EPA-624	GEL	/X/

**WETCHEM**

Chemical Oxygen Demand (COD)	35.3	mg/L		20	EPA-410.4	GEL	/X/
Hardness - Total as CaCO3	2	mg/L	U	2	EPA-130.2	GEL	/X/
Iodide	0.5	mg/L	U	0.5	EPA-300.0	GEL	/X/
Total Organic Carbon (TOC)	0.664	mg/L	J	2	SW846-9060A	GEL	/X/

**Paducah OREIS Report for SLS18-01**

**TBSLS18-01**

from: QC

on 2/20/2018

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	GEL	/X/
1,1,1-Trichloroethane	1	ug/L	U		1			EPA-624	GEL	/X/
1,1,2,2-Tetrachloroethane	1	ug/L	U		1			EPA-624	GEL	/X/
1,1,2-Trichloroethane	1	ug/L	U		1			EPA-624	GEL	/X/
1,1-Dichloroethane	1	ug/L	U		1			EPA-624	GEL	/X/
1,1-Dichloroethene	1	ug/L	U		1			EPA-624	GEL	/X/
1,2,3-Trichloropropane	1	ug/L	U		1			EPA-624	GEL	/X/
1,2-Dibromo-3-chloropropane	0.0196	ug/L	U		0.0196			SW846-8011	GEL	/X/
1,2-Dibromoethane	1	ug/L	U		1			EPA-624	GEL	/X/
1,2-Dichlorobenzene	1	ug/L	U		1			EPA-624	GEL	/X/
1,2-Dichloroethane	1	ug/L	U		1			EPA-624	GEL	/X/
1,2-Dichloropropane	1	ug/L	U		1			EPA-624	GEL	/X/
1,2-Dimethylbenzene	1	ug/L	U		1			EPA-624	GEL	/X/
1,4-Dichlorobenzene	1	ug/L	U		1			EPA-624	GEL	/X/
2-Butanone	5	ug/L	U		5			EPA-624	GEL	/X/
2-Hexanone	5	ug/L	U		5			EPA-624	GEL	/X/
4-Methyl-2-pentanone	5	ug/L	U		5			EPA-624	GEL	/X/
Acetone	4.1	ug/L	J		5			EPA-624	GEL	/X/
Acrolein	5	ug/L	U		5			EPA-624	GEL	/X/
Acrylonitrile	5	ug/L	U		5			EPA-624	GEL	/X/
Benzene	1	ug/L	U		1			EPA-624	GEL	/X/
Bromochloromethane	1	ug/L	U		1			EPA-624	GEL	/X/
Bromodichloromethane	1	ug/L	U		1			EPA-624	GEL	/X/
Bromoform	1	ug/L	U		1			EPA-624	GEL	/X/
Bromomethane	1	ug/L	U		1			EPA-624	GEL	/X/
Carbon disulfide	5	ug/L	U		5			EPA-624	GEL	/X/
Carbon tetrachloride	1	ug/L	U		1			EPA-624	GEL	/X/
Chlorobenzene	1	ug/L	U		1			EPA-624	GEL	/X/
Chloroethane	1	ug/L	U		1			EPA-624	GEL	/X/
Chloroform	1	ug/L	U		1			EPA-624	GEL	/X/
Chloromethane	1	ug/L	U		1			EPA-624	GEL	/X/
cis-1,2-Dichloroethene	1	ug/L	U		1			EPA-624	GEL	/X/
cis-1,3-Dichloropropene	1	ug/L	U		1			EPA-624	GEL	/X/
Dibromochloromethane	1	ug/L	U		1			EPA-624	GEL	/X/
Dibromomethane	1	ug/L	U		1			EPA-624	GEL	/X/
Ethylbenzene	1	ug/L	U		1			EPA-624	GEL	/X/
Iodomethane	5	ug/L	U		5			EPA-624	GEL	/X/
m,p-Xylene	2	ug/L	U		2			EPA-624	GEL	/X/
Methylene chloride	2	ug/L	U		2			EPA-624	GEL	/X/
Styrene	1	ug/L	U		1			EPA-624	GEL	/X/
Tetrachloroethene	1	ug/L	U		1			EPA-624	GEL	/X/
Toluene	1	ug/L	U		1			EPA-624	GEL	/X/
Total Xylene	3	ug/L	U		3			EPA-624	GEL	/X/
trans-1,2-Dichloroethene	1	ug/L	U		1			EPA-624	GEL	/X/
trans-1,3-Dichloropropene	1	ug/L	U		1			EPA-624	GEL	/X/
Trans-1,4-Dichloro-2-butene	5	ug/L	U		5			EPA-624	GEL	/X/
Trichloroethene	1	ug/L	U		1			EPA-624	GEL	/X/
Trichlorofluoromethane	1	ug/L	U		1			EPA-624	GEL	/X/
Vinyl acetate	5	ug/L	U		5			EPA-624	GEL	/X/
Vinyl chloride	1	ug/L	U		1			EPA-624	GEL	/X/

## Paducah OREIS Report for ULS18-01

**ULS18-01-01**

from: C-746-U

on 2/22/2018

Media: WW

SmpMethod: GR

Comments:

Leachate water was circulating through F-002. Sample was collected from valve HV-012. CB 2-22-18

Analysis	Results	Units	Result Qual	Foot Note	Reporting Limit	Counting Error	TPU	Method	LabCode	V/V/A*
<b>ANION</b>										
Bromide	0.0756	mg/L	J		0.2			SW846-9056	GEL	S / X /
Chloride	16.7	mg/L			1			SW846-9056	GEL	/ X /
Fluoride	0.46	mg/L			0.1			SW846-9056	GEL	/ X /
Nitrate as Nitrogen	2.21	mg/L			0.5			SW846-9056	GEL	/ X /
Sulfate	183	mg/L			8			SW846-9056	GEL	/ X /
<b>FS</b>										
Conductivity	941	umho/cm						FS	FS	/ /
Dissolved Oxygen	8.77	mg/L						FS	FS	/ /
pH	6.72	Std Unit						FS	FS	/ /
Redox	370	mV						FS	FS	/ /
Temperature	61.4	deg F						FS	FS	/ /
<b>METAL</b>										
Aluminum	0.726	mg/L			0.05			SW846-6020	GEL	/ X /
Antimony	0.003	mg/L	U		0.003			SW846-6020	GEL	/ X /
Arsenic	0.00299	mg/L	J		0.005			SW846-6020	GEL	/ X /
Barium	0.083	mg/L			0.002			SW846-6020	GEL	/ X /
Beryllium	0.000514	mg/L			0.0005			SW846-6020	GEL	/ X /
Boron	0.541	mg/L			0.15			SW846-6020	GEL	/ X /
Cadmium	0.001	mg/L	U		0.001			SW846-6020	GEL	/ X /
Calcium	113	mg/L			2			SW846-6020	GEL	/ X /
Chromium	0.00328	mg/L	J		0.01			SW846-6020	GEL	/ X /
Cobalt	0.004	mg/L			0.001			SW846-6020	GEL	/ X /
Copper	0.00158	mg/L			0.001			SW846-6020	GEL	/ X /
Iron	0.501	mg/L			0.1			SW846-6020	GEL	/ X /
Lead	0.002	mg/L	U		0.002			SW846-6020	GEL	/ X /
Magnesium	30.8	mg/L			0.03			SW846-6020	GEL	/ X /
Manganese	0.271	mg/L			0.005			SW846-6020	GEL	/ X /
Mercury	0.0002	mg/L	U		0.0002			SW846-7470A	GEL	/ X /
Molybdenum	0.000828	mg/L			0.0005			SW846-6020	GEL	/ X /
Nickel	0.00761	mg/L			0.002			SW846-6020	GEL	/ X /
Phosphorous	0.0823	mg/L			0.05			EPA-365.4	GEL	/ X /
Potassium	3.39	mg/L			0.3			SW846-6020	GEL	/ X /
Rhodium	0.005	mg/L	U		0.005			SW846-6020	GEL	/ X /
Selenium	0.005	mg/L	U		0.005			SW846-6020	GEL	/ X /
Silver	0.001	mg/L	U		0.001			SW846-6020	GEL	/ X /
Sodium	47.1	mg/L			2.5			SW846-6020	GEL	/ X /
Tantalum	0.005	mg/L	UN		0.005			SW846-6020	GEL	/ X /
Thallium	0.002	mg/L	U		0.002			SW846-6020	GEL	/ X /
Tin	0.005	mg/L	U		0.005			SW846-6020	GEL	/ X /
Titanium	0.0073	mg/L	J		0.01			SW846-6020	GEL	/ X /
Uranium	0.352	mg/L	B		0.0002			SW846-6020	GEL	1 / X /
Vanadium	0.00562	mg/L	J		0.01			SW846-6020	GEL	/ X /
Zinc	0.034	mg/L			0.01			SW846-6020	GEL	/ X /
<b>METAL-D</b>										
Antimony, Dissolved	0.003	mg/L	U		0.003			SW846-6020	GEL	/ X /
Arsenic, Dissolved	0.00256	mg/L	J		0.005			SW846-6020	GEL	/ X /
Barium, Dissolved	0.0771	mg/L			0.002			SW846-6020	GEL	S / X /
Cadmium, Dissolved	0.001	mg/L	U		0.001			SW846-6020	GEL	/ X /
Chromium, Dissolved	0.01	mg/L	U		0.01			SW846-6020	GEL	/ X /



**Paducah OREIS Report for ULS18-01**

Cobalt, Dissolved	0.00296	mg/L		0.001			SW846-6020	GEL	/X/
Copper, Dissolved	0.00179	mg/L		0.001			SW846-6020	GEL	/X/
Lead, Dissolved	0.002	mg/L	U	0.002			SW846-6020	GEL	/X/
Manganese, Dissolved	0.216	mg/L		0.005			SW846-6020	GEL	/X/
Nickel, Dissolved	0.00645	mg/L		0.002			SW846-6020	GEL	/X/
Selenium, Dissolved	0.005	mg/L	U	0.005			SW846-6020	GEL	/X/
Silver, Dissolved	0.001	mg/L	U	0.001			SW846-6020	GEL	/X/
Tin, Dissolved	0.005	mg/L	U	0.005			SW846-6020	GEL	/X/
Titanium, Dissolved	0.01	mg/L	U	0.01			SW846-6020	GEL	/X/
Uranium, Dissolved	0.336	mg/L	B	0.0002			SW846-6020	GEL	/X/
Vanadium, Dissolved	0.00552	mg/L	J	0.01			SW846-6020	GEL	/X/
Zinc, Dissolved	0.0235	mg/L		0.01			SW846-6020	GEL	/X/

**OTHOR**

Oil and Grease	4.13	mg/L	U	4.13			EPA-1664A	GEL	/X/
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**PCCB**

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

**RADS**

Alpha activity	135	pCi/L		12.3	24.1	32.7	SW846-9310	GEL	/X/
Americium-241	0.206	pCi/L	U	0.985	0.568	0.569	HASL 300, AM-05-RC M	GEL	/X/
Beta activity	98.8	pCi/L		13.4	14.3	21.7	SW846-9310	GEL	/X/
Cesium-137	0	pCi/L	UX	1.52	1.18	1.19	EPA-901.1	GEL	/X/
Cobalt-60	0.134	pCi/L	U	1.67	0.894	0.897	EPA-901.1	GEL	/X/
Dissolved Alpha	65.7	pCi/L		2.98	8.37	13.7	SW846-9310	GEL	/X/
Dissolved Beta	28.3	pCi/L		2.79	3.4	6.06	SW846-9310	GEL	/X/
Neptunium-237	0.051	pCi/L	U	1.23	0.581	0.581	Alpha Spectroscopy	GEL	/X/
Plutonium-239/240	-0.111	pCi/L	U	1.27	0.504	0.504	HASL 300, Pu-11-RC M	GEL	/X/
Radium-226	0.345	pCi/L	U	0.492	0.394	0.395	AN-1418	GEL	/X/
Strontium-90	2.2	pCi/L	U	3.78	2.28	2.31	EPA-905.0-M	GEL	/X/
Technetium-99	16.5	pCi/L	U	22.5	13.6	13.7	HASL 300, Tc-02-RC M	GEL	/X/
Thorium-230	-0.582	pCi/L	U	2.08	0.774	0.775	HASL 300, Th-01-RC M	GEL	/X/
Thorium-234	58	pCi/L	U	121	136	136	EPA-901.1	GEL	/X/
Tritium	-19.8	pCi/L	U	257	135	135	EPA-906.0-M	GEL	/X/
Uranium	150	pCi/L		4.34	14.3	26.9	HASL 300, U-02-RC M	GEL	/X/
Uranium-234	21.1	pCi/L		2.87	5.46	6.65	HASL 300, U-02-RC M	GEL	/X/
Uranium-235	1.84	pCi/L	U	2.62	2.1	2.13	HASL 300, U-02-RC M	GEL	/X/
Uranium-238	127	pCi/L		1.92	13	26	HASL 300, U-02-RC M	GEL	/X/

**RADS-D**

Americium-241, Dissolved	0.19	pCi/L	U	0.906	0.522	0.523	HASL 300, AM-05-RC M	GEL	/X/
Cesium-137, Dissolved	-0.546	pCi/L	U	7.47	3.97	3.97	EPA-901.1	GEL	/X/
Cobalt-60, Dissolved	0.0702	pCi/L	U	8.04	3.73	3.73	EPA-901.1	GEL	/X/
Neptunium-237, Dissolved	-0.275	pCi/L	U	1.41	0.443	0.444	Alpha Spectroscopy	GEL	/X/
Plutonium-239/240, Dissolved	0.296	pCi/L	U	1.87	0.982	0.983	HASL 300, Pu-11-RC M	GEL	/X/
Technetium-99, Dissolved	18.8	pCi/L	U	19.5	11.9	12.1	HASL 300, Tc-02-RC M	GEL	/X/
Thorium-230, Dissolved	-0.218	pCi/L	U	1.52	0.591	0.592	HASL 300, Th-01-RC M	GEL	/X/
Thorium-234, Dissolved	60.4	pCi/L	U	404	413	413	EPA-901.1	GEL	/X/
Uranium, Dissolved	111	pCi/L		2.83	10.7	18.1	HASL 300, U-02-RC M	GEL	/X/
Uranium-234, Dissolved	17.5	pCi/L		2.22	4.33	5.15	HASL 300, U-02-RC M	GEL	/X/

**Paducah OREIS Report for ULS18-01**

Uranium-235, Dissolved	2.6	pCi/L		0.975	1.92	1.96	HASL 300, U-02-RC M	GEL	/X/
Uranium-238, Dissolved	90.9	pCi/L		1.46	9.61	17.3	HASL 300, U-02-RC M	GEL	/X/
<b>VOA</b>									
1,1,1,2-Tetrachloroethane	1	ug/L	U	1			EPA-624	GEL	/X/
1,1,1-Trichloroethane	1	ug/L	U	1			EPA-624	GEL	/X/
1,1,2,2-Tetrachloroethane	1	ug/L	U	1			EPA-624	GEL	/X/
1,1,2-Trichloroethane	1	ug/L	U	1			EPA-624	GEL	/X/
1,1-Dichloroethane	1	ug/L	U	1			EPA-624	GEL	/X/
1,1-Dichloroethene	1	ug/L	U	1			EPA-624	GEL	/X/
1,2,3-Trichloropropane	1	ug/L	U	1			EPA-624	GEL	/X/
1,2-Dibromo-3-chloropropane	0.0196	ug/L	U	0.0196			SW846-8011	GEL	/X/
1,2-Dibromoethane	1	ug/L	U	1			EPA-624	GEL	/X/
1,2-Dichlorobenzene	1	ug/L	U	1			EPA-624	GEL	/X/
1,2-Dichloroethane	1	ug/L	U	1			EPA-624	GEL	/X/
1,2-Dichloropropane	1	ug/L	U	1			EPA-624	GEL	/X/
1,2-Dimethylbenzene	1	ug/L	U	1			EPA-624	GEL	/X/
1,4-Dichlorobenzene	1	ug/L	U	1			EPA-624	GEL	/X/
2-Butanone	5	ug/L	U	5			EPA-624	GEL	/X/
2-Hexanone	5	ug/L	U	5			EPA-624	GEL	/X/
4-Methyl-2-pentanone	5	ug/L	U	5			EPA-624	GEL	/X/
Acetone	5	ug/L	U	5			EPA-624	GEL	/X/
Acrolein	5	ug/L	HU	5			EPA-624	GEL	T/X/
Acrylonitrile	5	ug/L	HU	5			EPA-624	GEL	T/X/
Benzene	1	ug/L	U	1			EPA-624	GEL	/X/
Bromochloromethane	1	ug/L	U	1			EPA-624	GEL	/X/
Bromodichloromethane	1	ug/L	U	1			EPA-624	GEL	/X/
Bromoform	1	ug/L	U	1			EPA-624	GEL	/X/
Bromomethane	1	ug/L	U	1			EPA-624	GEL	/X/
Carbon disulfide	5	ug/L	U	5			EPA-624	GEL	/X/
Carbon tetrachloride	1	ug/L	U	1			EPA-624	GEL	/X/
Chlorobenzene	1	ug/L	U	1			EPA-624	GEL	/X/
Chloroethane	1	ug/L	U	1			EPA-624	GEL	/X/
Chloroform	1	ug/L	U	1			EPA-624	GEL	/X/
Chloromethane	1	ug/L	U	1			EPA-624	GEL	/X/
cis-1,2-Dichloroethene	1	ug/L	U	1			EPA-624	GEL	/X/
cis-1,3-Dichloropropene	1	ug/L	U	1			EPA-624	GEL	/X/
Dibromochloromethane	1	ug/L	U	1			EPA-624	GEL	/X/
Dibromomethane	1	ug/L	U	1			EPA-624	GEL	/X/
Ethylbenzene	1	ug/L	U	1			EPA-624	GEL	/X/
Iodomethane	5	ug/L	U	5			EPA-624	GEL	/X/
m,p-Xylene	2	ug/L	U	2			EPA-624	GEL	/X/
Methylene chloride	2	ug/L	U	2			EPA-624	GEL	/X/
Styrene	1	ug/L	U	1			EPA-624	GEL	/X/
Tetrachloroethene	1	ug/L	U	1			EPA-624	GEL	/X/
Toluene	1	ug/L	U	1			EPA-624	GEL	/X/
Total Xylene	3	ug/L	U	3			EPA-624	GEL	/X/
trans-1,2-Dichloroethene	1	ug/L	U	1			EPA-624	GEL	/X/
trans-1,3-Dichloropropene	1	ug/L	U	1			EPA-624	GEL	/X/
Trans-1,4-Dichloro-2-butene	5	ug/L	U	5			EPA-624	GEL	/X/
Trichloroethene	1	ug/L	U	1			EPA-624	GEL	/X/
Trichlorofluoromethane	0.66	ug/L	J	1			EPA-624	GEL	S/X/
Vinyl acetate	5	ug/L	U	5			EPA-624	GEL	/X/
Vinyl chloride	1	ug/L	U	1			EPA-624	GEL	/X/
<b>WETCHEM</b>									
Carbonaceous Biochemical Oxygen Demand (CBOD)	2	mg/L	UX	2			SM-5210 B	GEL	/X/

### Paducah OREIS Report for ULS18-01

Chemical Oxygen Demand (COD)	12.2	mg/L	J	20	EPA-410.4	GEL	/X/
Cyanide	0.005	mg/L	U	0.005	SW846-9012B	GEL	/X/
Dissolved Solids	611	mg/L		14.3	EPA-160.1	GEL	/X/
Hardness - Total as CaCO3	373	mg/L	N	2	EPA-130.2	GEL	/X/
Iodide	0.5	mg/L	U	0.5	EPA-300.0	GEL	/X/
Suspended Solids	13.5	mg/L	*	2.63	EPA-160.2	GEL	/X/
Total Organic Carbon (TOC)	6.36	mg/L		2	SW846-9060A	GEL	/X/
Total Organic Halides (TOX)	24.1	ug/L		10	SW846-9020B	GEL	/X/

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**Paducah OREIS Report for ULS18-01**

**FBULS18-01**

from: QC

on 2/22/2018

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			SW846-9056	GEL	/X/
Chloride	0.0811	mg/L	J		0.2			SW846-9056	GEL	/X/
Fluoride	0.1	mg/L	U		0.1			SW846-9056	GEL	/X/
Nitrate as Nitrogen	0.0355	mg/L	J		0.1			SW846-9056	GEL	/X/
Sulfate	0.4	mg/L	U		0.4			SW846-9056	GEL	/X/
<b>METAL</b>										
Aluminum	0.05	mg/L	U		0.05			SW846-6020	GEL	/X/
Antimony	0.003	mg/L	U		0.003			SW846-6020	GEL	/X/
Arsenic	0.005	mg/L	U		0.005			SW846-6020	GEL	/X/
Barium	0.002	mg/L	U		0.002			SW846-6020	GEL	/X/
Beryllium	0.0005	mg/L	U		0.0005			SW846-6020	GEL	/X/
Boron	0.015	mg/L	U		0.015			SW846-6020	GEL	/X/
Cadmium	0.001	mg/L	U		0.001			SW846-6020	GEL	/X/
Calcium	0.2	mg/L	U		0.2			SW846-6020	GEL	/X/
Chromium	0.01	mg/L	U		0.01			SW846-6020	GEL	/X/
Cobalt	0.001	mg/L	U		0.001			SW846-6020	GEL	/X/
Copper	0.000303	mg/L	J		0.001			SW846-6020	GEL	/X/
Iron	0.1	mg/L	U		0.1			SW846-6020	GEL	/X/
Lead	0.002	mg/L	U		0.002			SW846-6020	GEL	/X/
Magnesium	0.03	mg/L	U		0.03			SW846-6020	GEL	/X/
Manganese	0.005	mg/L	U		0.005			SW846-6020	GEL	/X/
Mercury	0.0002	mg/L	U		0.0002			SW846-7470A	GEL	/X/
Molybdenum	0.0005	mg/L	U		0.0005			SW846-6020	GEL	/X/
Nickel	0.002	mg/L	U		0.002			SW846-6020	GEL	/X/
Phosphorous	0.0719	mg/L			0.05			EPA-365.4	GEL	/X/
Potassium	0.3	mg/L	U		0.3			SW846-6020	GEL	/X/
Rhodium	0.005	mg/L	U		0.005			SW846-6020	GEL	/X/
Selenium	0.005	mg/L	U		0.005			SW846-6020	GEL	/X/
Silver	0.001	mg/L	U		0.001			SW846-6020	GEL	/X/
Sodium	0.25	mg/L	U		0.25			SW846-6020	GEL	/X/
Tantalum	0.005	mg/L	UN		0.005			SW846-6020	GEL	/X/
Thallium	0.002	mg/L	U		0.002			SW846-6020	GEL	/X/
Tin	0.005	mg/L	U		0.005			SW846-6020	GEL	/X/
Titanium	0.01	mg/L	U		0.01			SW846-6020	GEL	/X/
Uranium	0.000191	mg/L	BJ		0.0002			SW846-6020	GEL	/X/
Vanadium	0.00439	mg/L	J		0.01			SW846-6020	GEL	/X/
Zinc	0.01	mg/L	U		0.01			SW846-6020	GEL	/X/
<b>OTHOR</b>										
Oil and Grease	4.13	mg/L	U		4.13			EPA-1664A	GEL	/X/
<b>PPCB</b>										
PCB-1016	0.0952	ug/L	UY2		0.0952			SW846-8082	GEL	/X/
PCB-1221	0.0952	ug/L	U		0.0952			SW846-8082	GEL	/X/
PCB-1232	0.0952	ug/L	U		0.0952			SW846-8082	GEL	/X/
PCB-1242	0.0952	ug/L	U		0.0952			SW846-8082	GEL	/X/
PCB-1248	0.0952	ug/L	U		0.0952			SW846-8082	GEL	/X/
PCB-1254	0.0952	ug/L	U		0.0952			SW846-8082	GEL	/X/
PCB-1260	0.0952	ug/L	UY2		0.0952			SW846-8082	GEL	/X/
PCB-1268	0.0952	ug/L	U		0.0952			SW846-8082	GEL	/X/
Polychlorinated biphenyl	0.0952	ug/L	UY2		0.0952			SW846-8082	GEL	/X/

**Paducah OREIS Report for ULS18-01**

**RADS**

Alpha activity	6.03	pCi/L	U	8.72	5.69	5.77	SW846-9310	GEL	/X/
Americium-241	0.351	pCi/L	U	1.17	0.693	0.694	HASL 300, AM-05-RC M	GEL	/X/
Beta activity	3.86	pCi/L	U	10.3	6	6.03	SW846-9310	GEL	/X/
Cesium-137	0.23	pCi/L	U	1.45	0.813	0.82	EPA-901.1	GEL	/X/
Cobalt-60	0.345	pCi/L	U	1.57	0.944	0.957	EPA-901.1	GEL	/X/
Neptunium-237	0.331	pCi/L	U	1.79	0.962	0.962	Alpha Spectroscopy	GEL	/X/
Plutonium-239/240	-0.109	pCi/L	U	1.24	0.492	0.493	HASL 300, Pu-11-RC M	GEL	/X/
Radium-226	0.29	pCi/L	U	0.535	0.377	0.377	AN-1418	GEL	/X/
Strontium-90	0.227	pCi/L	U	4.09	2.13	2.13	EPA-905.0-M	GEL	/X/
Technetium-99	-5.65	pCi/L	U	20.7	11.7	11.7	HASL 300, Tc-02-RC M	GEL	/X/
Thorium-230	0.101	pCi/L	U	2.18	1.04	1.04	HASL 300, Th-01-RC M	GEL	/X/
Thorium-234	6.56	pCi/L	U	81.5	92.9	92.9	EPA-901.1	GEL	/X/
Tritium	-71.1	pCi/L	U	264	131	131	EPA-906.0-M	GEL	/X/
Uranium	1.23	pCi/L	U	2.04	1.33	1.34	HASL 300, U-02-RC M	GEL	/X/
Uranium-234	0.828	pCi/L	U	1.27	0.946	0.956	HASL 300, U-02-RC M	GEL	/X/
Uranium-235	0.392	pCi/L	U	1.07	0.771	0.773	HASL 300, U-02-RC M	GEL	/X/
Uranium-238	0.00721	pCi/L	U	1.19	0.535	0.535	HASL 300, U-02-RC M	GEL	/X/

**VOA**

1,1,1,2-Tetrachloroethane	1	ug/L	U	1			EPA-624	GEL	/X/
1,1,1-Trichloroethane	1	ug/L	U	1			EPA-624	GEL	/X/
1,1,2,2-Tetrachloroethane	1	ug/L	U	1			EPA-624	GEL	/X/
1,1,2-Trichloroethane	1	ug/L	U	1			EPA-624	GEL	/X/
1,1-Dichloroethane	1	ug/L	U	1			EPA-624	GEL	/X/
1,1-Dichloroethene	1	ug/L	U	1			EPA-624	GEL	/X/
1,2,3-Trichloropropane	1	ug/L	U	1			EPA-624	GEL	/X/
1,2-Dibromo-3-chloropropane	0.0194	ug/L	U	0.0194			SW846-8011	GEL	/X/
1,2-Dibromoethane	1	ug/L	U	1			EPA-624	GEL	/X/
1,2-Dichlorobenzene	1	ug/L	U	1			EPA-624	GEL	/X/
1,2-Dichloroethane	1	ug/L	U	1			EPA-624	GEL	/X/
1,2-Dichloropropane	1	ug/L	U	1			EPA-624	GEL	/X/
1,2-Dimethylbenzene	1	ug/L	U	1			EPA-624	GEL	/X/
1,4-Dichlorobenzene	1	ug/L	U	1			EPA-624	GEL	/X/
2-Butanone	5	ug/L	U	5			EPA-624	GEL	/X/
2-Hexanone	5	ug/L	U	5			EPA-624	GEL	/X/
4-Methyl-2-pentanone	5	ug/L	U	5			EPA-624	GEL	/X/
Acetone	2.91	ug/L	J	5			EPA-624	GEL	/X/
Acrolein	5	ug/L	HU	5			EPA-624	GEL	/X/
Acrylonitrile	5	ug/L	HU	5			EPA-624	GEL	/X/
Benzene	1	ug/L	U	1			EPA-624	GEL	/X/
Bromochloromethane	1	ug/L	U	1			EPA-624	GEL	/X/
Bromodichloromethane	1	ug/L	U	1			EPA-624	GEL	/X/
Bromoform	1	ug/L	U	1			EPA-624	GEL	/X/
Bromomethane	1	ug/L	U	1			EPA-624	GEL	/X/
Carbon disulfide	5	ug/L	U	5			EPA-624	GEL	/X/
Carbon tetrachloride	1	ug/L	U	1			EPA-624	GEL	/X/
Chlorobenzene	1	ug/L	U	1			EPA-624	GEL	/X/
Chloroethane	1	ug/L	U	1			EPA-624	GEL	/X/
Chloroform	1	ug/L	U	1			EPA-624	GEL	/X/
Chloromethane	1	ug/L	U	1			EPA-624	GEL	/X/
cis-1,2-Dichloroethene	1	ug/L	U	1			EPA-624	GEL	/X/
cis-1,3-Dichloropropene	1	ug/L	U	1			EPA-624	GEL	/X/
Dibromochloromethane	1	ug/L	U	1			EPA-624	GEL	/X/
Dibromomethane	1	ug/L	U	1			EPA-624	GEL	/X/
Ethylbenzene	1	ug/L	U	1			EPA-624	GEL	/X/
Iodomethane	5	ug/L	U	5			EPA-624	GEL	/X/

**Paducah OREIS Report for ULS18-01**

m,p-Xylene	2	ug/L	U	2	EPA-624	GEL	/X/
Methylene chloride	2	ug/L	U	2	EPA-624	GEL	/X/
Styrene	1	ug/L	U	1	EPA-624	GEL	/X/
Tetrachloroethene	1	ug/L	U	1	EPA-624	GEL	/X/
Toluene	1	ug/L	U	1	EPA-624	GEL	/X/
Total Xylene	3	ug/L	U	3	EPA-624	GEL	/X/
trans-1,2-Dichloroethene	1	ug/L	U	1	EPA-624	GEL	/X/
trans-1,3-Dichloropropene	1	ug/L	U	1	EPA-624	GEL	/X/
Trans-1,4-Dichloro-2-butene	5	ug/L	U	5	EPA-624	GEL	/X/
Trichloroethene	1	ug/L	U	1	EPA-624	GEL	/X/
Trichlorofluoromethane	1	ug/L	U	1	EPA-624	GEL	/X/
Vinyl acetate	5	ug/L	U	5	EPA-624	GEL	/X/
Vinyl chloride	1	ug/L	U	1	EPA-624	GEL	/X/

**WETCHEM**

Chemical Oxygen Demand (COD)	20	mg/L	U	20	EPA-410.4	GEL	/X/
Hardness - Total as CaCO3	2	mg/L	NU	2	EPA-130.2	GEL	/X/
Iodide	0.5	mg/L	U	0.5	EPA-300.0	GEL	/X/
Total Organic Carbon (TOC)	0.353	mg/L	J	2	SW846-9060A	GEL	/X/

**Paducah OREIS Report for ULS18-01**

**TBULS18-01**

from: QC

on 2/22/2018

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	GEL	/X/
1,1,1-Trichloroethane	1	ug/L	U		1			EPA-624	GEL	/X/
1,1,2,2-Tetrachloroethane	1	ug/L	U		1			EPA-624	GEL	/X/
1,1,2-Trichloroethane	1	ug/L	U		1			EPA-624	GEL	/X/
1,1-Dichloroethane	1	ug/L	U		1			EPA-624	GEL	/X/
1,1-Dichloroethene	1	ug/L	U		1			EPA-624	GEL	/X/
1,2,3-Trichloropropane	1	ug/L	U		1			EPA-624	GEL	/X/
1,2-Dibromo-3-chloropropane	0.0197	ug/L	U		0.0197			SW846-8011	GEL	/X/
1,2-Dibromoethane	1	ug/L	U		1			EPA-624	GEL	/X/
1,2-Dichlorobenzene	1	ug/L	U		1			EPA-624	GEL	/X/
1,2-Dichloroethane	1	ug/L	U		1			EPA-624	GEL	/X/
1,2-Dichloropropane	1	ug/L	U		1			EPA-624	GEL	/X/
1,2-Dimethylbenzene	1	ug/L	U		1			EPA-624	GEL	/X/
1,4-Dichlorobenzene	1	ug/L	U		1			EPA-624	GEL	/X/
2-Butanone	5	ug/L	U		5			EPA-624	GEL	/X/
2-Hexanone	5	ug/L	U		5			EPA-624	GEL	/X/
4-Methyl-2-pentanone	5	ug/L	U		5			EPA-624	GEL	/X/
Acetone	2.54	ug/L	J		5			EPA-624	GEL	/X/
Acrolein	5	ug/L	HU		5			EPA-624	GEL	/X/
Acrylonitrile	5	ug/L	HU		5			EPA-624	GEL	/X/
Benzene	1	ug/L	U		1			EPA-624	GEL	/X/
Bromochloromethane	1	ug/L	U		1			EPA-624	GEL	/X/
Bromodichloromethane	1	ug/L	U		1			EPA-624	GEL	/X/
Bromoform	1	ug/L	U		1			EPA-624	GEL	/X/
Bromomethane	1	ug/L	U		1			EPA-624	GEL	/X/
Carbon disulfide	5	ug/L	U		5			EPA-624	GEL	/X/
Carbon tetrachloride	1	ug/L	U		1			EPA-624	GEL	/X/
Chlorobenzene	1	ug/L	U		1			EPA-624	GEL	/X/
Chloroethane	1	ug/L	U		1			EPA-624	GEL	/X/
Chloroform	1	ug/L	U		1			EPA-624	GEL	/X/
Chloromethane	1	ug/L	U		1			EPA-624	GEL	/X/
cis-1,2-Dichloroethene	1	ug/L	U		1			EPA-624	GEL	/X/
cis-1,3-Dichloropropene	1	ug/L	U		1			EPA-624	GEL	/X/
Dibromochloromethane	1	ug/L	U		1			EPA-624	GEL	/X/
Dibromomethane	1	ug/L	U		1			EPA-624	GEL	/X/
Ethylbenzene	1	ug/L	U		1			EPA-624	GEL	/X/
Iodomethane	5	ug/L	U		5			EPA-624	GEL	/X/
m,p-Xylene	2	ug/L	U		2			EPA-624	GEL	/X/
Methylene chloride	2	ug/L	U		2			EPA-624	GEL	/X/
Styrene	1	ug/L	U		1			EPA-624	GEL	/X/
Tetrachloroethene	1	ug/L	U		1			EPA-624	GEL	/X/
Toluene	1	ug/L	U		1			EPA-624	GEL	/X/
Total Xylene	3	ug/L	U		3			EPA-624	GEL	/X/
trans-1,2-Dichloroethene	1	ug/L	U		1			EPA-624	GEL	/X/
trans-1,3-Dichloropropene	1	ug/L	U		1			EPA-624	GEL	/X/
Trans-1,4-Dichloro-2-butene	5	ug/L	U		5			EPA-624	GEL	/X/
Trichloroethene	1	ug/L	U		1			EPA-624	GEL	/X/
Trichlorofluoromethane	1	ug/L	U		1			EPA-624	GEL	/X/
Vinyl acetate	5	ug/L	U		5			EPA-624	GEL	/X/
Vinyl chloride	1	ug/L	U		1			EPA-624	GEL	/X/

**Paducah OREIS Report for USL18-02**

**USL18-02-02**

from: C-746-S

on 4/10/2018

Media: WW

SmpMethod: GR

Comments:

C-746-S Landfill Leachate WID. C-746-S Landfill, Cell #2. Water sampled was clear. Cell #2 appears to be full. Water level is about ground level. CH 4-10-18

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			SW846-9056	GEL	/X/
Chloride	8.93	mg/L	W		0.2			SW846-9056	GEL	/X/
Fluoride	0.705	mg/L			0.1			SW846-9056	GEL	/X/
Nitrate as Nitrogen	0.332	mg/L			0.2			SW846-9056	GEL	/X/
Sulfate	31.3	mg/L			0.8			SW846-9056	GEL	/X/
<b>FS</b>										
Conductivity	795	umho/cm						FS	FS	//
Dissolved Oxygen	4.54	mg/L						FS	FS	//
pH	6.85	Std Unit						FS	FS	//
Redox	460	mV						FS	FS	//
Temperature	50.6	deg F						FS	FS	//
Turbidity	10.9	NTU						FS	FS	//
<b>METAL</b>										
Aluminum	0.05	mg/L	U		0.05			SW846-6020	GEL	/X/
Antimony	0.003	mg/L	U		0.003			SW846-6020	GEL	/X/
Arsenic	0.005	mg/L	U		0.005			SW846-6020	GEL	/X/
Barium	0.205	mg/L			0.002			SW846-6020	GEL	/X/
Beryllium	0.0005	mg/L	U		0.0005			SW846-6020	GEL	/X/
Boron	0.0213	mg/L			0.015			SW846-6020	GEL	/X/
Cadmium	0.001	mg/L	U		0.001			SW846-6020	GEL	/X/
Calcium	137	mg/L			2			SW846-6020	GEL	/X/
Chromium	0.01	mg/L	U		0.01			SW846-6020	GEL	/X/
Cobalt	0.001	mg/L	U		0.001			SW846-6020	GEL	/X/
Copper	0.000748	mg/L	J		0.001			SW846-6020	GEL	/X/
Iron	0.592	mg/L			0.1			SW846-6020	GEL	/X/
Lead	0.002	mg/L	U		0.002			SW846-6020	GEL	/X/
Magnesium	14.8	mg/L			0.03			SW846-6020	GEL	/X/
Manganese	0.115	mg/L			0.005			SW846-6020	GEL	/X/
Mercury	0.0002	mg/L	U		0.0002			SW846-7470A	GEL	/X/
Molybdenum	0.000697	mg/L			0.0005			SW846-6020	GEL	/X/
Nickel	0.00224	mg/L			0.002			SW846-6020	GEL	/X/
Phosphorous	0.05	mg/L	U		0.05			EPA-365.4	GEL	/X/
Potassium	1.08	mg/L			0.3			SW846-6020	GEL	/X/
Rhodium	0.005	mg/L	U		0.005			SW846-6020	GEL	/X/
Selenium	0.005	mg/L	U		0.005			SW846-6020	GEL	/X/
Silver	0.001	mg/L	U		0.001			SW846-6020	GEL	/X/
Sodium	23.5	mg/L			0.25			SW846-6020	GEL	/X/
Tantalum	0.005	mg/L	U		0.005			SW846-6020	GEL	/X/
Thallium	0.002	mg/L	U		0.002			SW846-6020	GEL	/X/
Tin	0.005	mg/L	U		0.005			SW846-6020	GEL	/X/
Titanium	0.01	mg/L	U		0.01			SW846-6020	GEL	/X/
Total Uranium	6.01	pCi/L			3.05	2.61	2.68	HASL 300, U-02-RC M	GEL	/X/
Uranium	0.00321	mg/L			0.0002			SW846-6020	GEL	/X/
Vanadium	0.01	mg/L	U		0.01			SW846-6020	GEL	/X/
Zinc	0.0041	mg/L	J		0.01			SW846-6020	GEL	/X/
<b>METAL-D</b>										
Antimony, Dissolved	0.003	mg/L	U		0.003			SW846-6020	GEL	/X/
Arsenic, Dissolved	0.005	mg/L	U		0.005			SW846-6020	GEL	/X/
Barium, Dissolved	0.201	mg/L			0.002			SW846-6020	GEL	/X/



**Paducah OREIS Report for USL18-02**

Cadmium, Dissolved	0.001	mg/L	U	0.001			SW846-6020	GEL	/X/
Chromium, Dissolved	0.01	mg/L	U	0.01			SW846-6020	GEL	/X/
Cobalt, Dissolved	0.001	mg/L	U	0.001			SW846-6020	GEL	/X/
Copper, Dissolved	0.00153	mg/L		0.001			SW846-6020	GEL	/X/
Lead, Dissolved	0.002	mg/L	U	0.002			SW846-6020	GEL	/X/
Manganese, Dissolved	0.116	mg/L		0.005			SW846-6020	GEL	/X/
Nickel, Dissolved	0.00357	mg/L		0.002			SW846-6020	GEL	/X/
Selenium, Dissolved	0.005	mg/L	U	0.005			SW846-6020	GEL	/X/
Silver, Dissolved	0.001	mg/L	U	0.001			SW846-6020	GEL	/X/
Tin, Dissolved	0.005	mg/L	U	0.005			SW846-6020	GEL	/X/
Titanium, Dissolved	0.00264	mg/L	BJ	0.01			SW846-6020	GEL	/X/
Uranium, Dissolved	0.00365	mg/L		0.0002			SW846-6020	GEL	/X/
Vanadium, Dissolved	0.01	mg/L	U	0.01			SW846-6020	GEL	/X/
Zinc, Dissolved	0.00477	mg/L	J	0.01			SW846-6020	GEL	/X/
<b>OTHOR</b>									
Oil and Grease	4.27	mg/L	U	4.27			EPA-1664A	GEL	/X/
<b>PCCB</b>									
PCB-1016	0.099	ug/L	U	0.099			SW846-8082	GEL	/X/
PCB-1221	0.099	ug/L	U	0.099			SW846-8082	GEL	/X/
PCB-1232	0.099	ug/L	U	0.099			SW846-8082	GEL	/X/
PCB-1242	0.099	ug/L	U	0.099			SW846-8082	GEL	/X/
PCB-1248	0.099	ug/L	U	0.099			SW846-8082	GEL	/X/
PCB-1254	0.099	ug/L	U	0.099			SW846-8082	GEL	/X/
PCB-1260	0.099	ug/L	U	0.099			SW846-8082	GEL	/X/
PCB-1268	0.099	ug/L	U	0.099			SW846-8082	GEL	/X/
Polychlorinated biphenyl	0.099	ug/L	U	0.099			SW846-8082	GEL	/X/
<b>RADS</b>									
Alpha activity	3.15	pCi/L	U	11.7	6.26	6.28	SW846-9310	GEL	/X/
Americium-241	-0.04	pCi/L	U	1.4	0.6	0.601	HASL 300, AM-05-RC M	GEL	/X/
Beta activity	4.38	pCi/L	U	13.4	7.71	7.74	SW846-9310	GEL	/X/
Cesium-137	-0.624	pCi/L	U	1.5	0.92	0.963	EPA-901.1	GEL	/X/
Cobalt-60	-0.0534	pCi/L	U	1.53	0.876	0.876	EPA-901.1	GEL	/X/
Dissolved Alpha	2.7	pCi/L	U	11.8	6.33	6.35	SW846-9310	GEL	/X/
Dissolved Beta	8.43	pCi/L	U	9.7	6.13	6.29	SW846-9310	GEL	/X/
Neptunium-237	-0.179	pCi/L	U	1.23	0.414	0.414	Alpha Spectroscopy	GEL	/X/
Plutonium-239/240	0.576	pCi/L	U	0.906	0.729	0.733	HASL 300, Pu-11-RC M	GEL	/X/
Radium-226	0.0284	pCi/L	U	0.62	0.297	0.297	AN-1418	GEL	/X/
Strontium-90	-0.241	pCi/L	U	5.61	2.86	2.86	EPA-905.0-M	GEL	/X/
Technetium-99	-7.06	pCi/L	U	18.7	10.5	10.5	HASL 300, Tc-02-RC M	GEL	/X/
Thorium-230	2.45	pCi/L		1.85	1.88	1.99	HASL 300, Th-01-RC M	GEL	/X/
Thorium-234	-17.2	pCi/L	U	37.1	30.8	32	EPA-901.1	GEL	/X/
Tritium	105	pCi/L	U	193	115	117	EPA-906.0-M	GEL	/X/
Uranium-234	3.98	pCi/L		2.04	2.01	2.09	HASL 300, U-02-RC M	GEL	/X/
Uranium-235	0.58	pCi/L	U	1.55	1.03	1.03	HASL 300, U-02-RC M	GEL	/X/
Uranium-238	1.46	pCi/L	U	1.66	1.31	1.33	HASL 300, U-02-RC M	GEL	/X/
<b>RADS-D</b>									
Americium-241, Dissolved	-0.161	pCi/L	U	1.11	0.374	0.375	HASL 300, AM-05-RC M	GEL	/X/
Cesium-137, Dissolved	1.31	pCi/L	U	3.61	1.73	1.83	EPA-901.1	GEL	/X/
Cobalt-60, Dissolved	-0.329	pCi/L	U	3.96	1.99	2	EPA-901.1	GEL	/X/
Neptunium-237, Dissolved	0.00764	pCi/L	U	1.26	0.566	0.567	Alpha Spectroscopy	GEL	/X/
Plutonium-239/240, Dissolved	0.306	pCi/L	U	0.46	0.525	0.527	HASL 300, Pu-11-RC M	GEL	/X/
Technetium-99, Dissolved	-1.12	pCi/L	U	19.1	11	11	HASL 300, Tc-02-RC M	GEL	/X/
Thorium-230, Dissolved	0.0715	pCi/L	U	1.44	0.686	0.688	HASL 300, Th-01-RC M	GEL	/X/
Thorium-234, Dissolved	-47.6	pCi/L	U	233	127	130	EPA-901.1	GEL	/X/
Total Uranium, Dissolved	3.72	pCi/L		2.13	2.07	2.1	HASL 300, U-02-RC M	GEL	/X/

**Paducah OREIS Report for USL18-02**

Uranium-234, Dissolved	1.28	pCi/L	U	1.7	1.28	1.29	HASL 300, U-02-RC M	GEL	/X/
Uranium-235, Dissolved	0.79	pCi/L		0.79	1.04	1.05	HASL 300, U-02-RC M	GEL	/X/
Uranium-238, Dissolved	1.65	pCi/L		1.02	1.26	1.28	HASL 300, U-02-RC M	GEL	/X/

**VOA**

1,1,1,2-Tetrachloroethane	1	ug/L	U	1			EPA-624	GEL	/X/
1,1,1-Trichloroethane	1	ug/L	U	1			EPA-624	GEL	/X/
1,1,2,2-Tetrachloroethane	1	ug/L	U	1			EPA-624	GEL	/X/
1,1,2-Trichloroethane	1	ug/L	U	1			EPA-624	GEL	/X/
1,1-Dichloroethane	1	ug/L	U	1			EPA-624	GEL	/X/
1,1-Dichloroethene	1	ug/L	U	1			EPA-624	GEL	/X/
1,2,3-Trichloropropane	1	ug/L	U	1			EPA-624	GEL	/X/
1,2-Dibromo-3-chloropropane	0.0196	ug/L	U	0.0196			SW846-8011	GEL	/X/
1,2-Dibromoethane	1	ug/L	U	1			EPA-624	GEL	/X/
1,2-Dichlorobenzene	1	ug/L	U	1			EPA-624	GEL	/X/
1,2-Dichloroethane	1	ug/L	U	1			EPA-624	GEL	/X/
1,2-Dichloropropane	1	ug/L	U	1			EPA-624	GEL	/X/
1,2-Dimethylbenzene	1	ug/L	U	1			EPA-624	GEL	/X/
1,4-Dichlorobenzene	1	ug/L	U	1			EPA-624	GEL	/X/
2-Butanone	5	ug/L	U	5			EPA-624	GEL	/X/
2-Hexanone	5	ug/L	U	5			EPA-624	GEL	/X/
4-Methyl-2-pentanone	5	ug/L	U	5			EPA-624	GEL	/X/
Acetone	5	ug/L	U	5			EPA-624	GEL	/X/
Acrolein	5	ug/L	U	5			EPA-624	GEL	/X/
Acrylonitrile	5	ug/L	U	5			EPA-624	GEL	/X/
Benzene	1	ug/L	U	1			EPA-624	GEL	/X/
Bromochloromethane	1	ug/L	U	1			EPA-624	GEL	/X/
Bromodichloromethane	1	ug/L	U	1			EPA-624	GEL	/X/
Bromoform	1	ug/L	U	1			EPA-624	GEL	/X/
Bromomethane	1	ug/L	U	1			EPA-624	GEL	/X/
Carbon disulfide	5	ug/L	U	5			EPA-624	GEL	/X/
Carbon tetrachloride	1	ug/L	U	1			EPA-624	GEL	/X/
Chlorobenzene	1	ug/L	U	1			EPA-624	GEL	/X/
Chloroethane	1	ug/L	U	1			EPA-624	GEL	/X/
Chloroform	1	ug/L	U	1			EPA-624	GEL	/X/
Chloromethane	1	ug/L	U	1			EPA-624	GEL	/X/
cis-1,2-Dichloroethene	1	ug/L	U	1			EPA-624	GEL	/X/
cis-1,3-Dichloropropene	1	ug/L	U	1			EPA-624	GEL	/X/
Dibromochloromethane	1	ug/L	U	1			EPA-624	GEL	/X/
Dibromomethane	1	ug/L	U	1			EPA-624	GEL	/X/
Ethylbenzene	1	ug/L	U	1			EPA-624	GEL	/X/
Iodomethane	5	ug/L	U	5			EPA-624	GEL	/X/
m,p-Xylene	2	ug/L	U	2			EPA-624	GEL	/X/
Methylene chloride	2	ug/L	U	2			EPA-624	GEL	/X/
Styrene	1	ug/L	U	1			EPA-624	GEL	/X/
Tetrachloroethene	1	ug/L	U	1			EPA-624	GEL	/X/
Toluene	1	ug/L	U	1			EPA-624	GEL	/X/
Total Xylene	3	ug/L	U	3			EPA-624	GEL	/X/
trans-1,2-Dichloroethene	1	ug/L	U	1			EPA-624	GEL	/X/
trans-1,3-Dichloropropene	1	ug/L	U	1			EPA-624	GEL	/X/
Trans-1,4-Dichloro-2-butene	5	ug/L	U	5			EPA-624	GEL	/X/
Trichloroethene	1	ug/L	U	1			EPA-624	GEL	/X/
Trichlorofluoromethane	1	ug/L	U	1			EPA-624	GEL	/X/
Vinyl acetate	5	ug/L	U	5			EPA-624	GEL	/X/
Vinyl chloride	1	ug/L	U	1			EPA-624	GEL	/X/

**WETCHEM**

### Paducah OREIS Report for USL18-02

Carbonaceous Biochemical Oxygen Demand (CBOD)	2	mg/L	UX	2	SM-5210 B	GEL	/ X /
Chemical Oxygen Demand (COD)	22.7	mg/L		20	EPA-410.4	GEL	/ X /
Cyanide	0.005	mg/L	U	0.005	SW846-9012B	GEL	/ X /
Dissolved Solids	497	mg/L		14.3	EPA-160.1	GEL	/ X /
Hardness - Total as CaCO3	357	mg/L		2	EPA-130.2	GEL	/ X /
Iodide	0.5	mg/L	UW	0.5	EPA-300.0	GEL	/ X /
Suspended Solids	0.6	mg/L	J	2.5	EPA-160.2	GEL	/ X /
Total Organic Carbon (TOC)	2.38	mg/L		2	SW846-9060A	GEL	/ X /
Total Organic Halides (TOX)	12.5	ug/L		10	SW846-9020B	GEL	/ X /

**Paducah OREIS Report for USL18-02**

**USL18-02-01**

from: C-746-U

on 4/10/2018

Media: WW

SmpMethod: GR

Comments: C-746-U Landfill Leachate WID. C-746-U Tank #F001. Water sampled was a little cloudy & had a faint smell. CH 4-10-18

Analysis	Results	Units	Result Qual	Foot Note	Reporting Limit	Counting Error	TPU	Method	LabCode	V/V/A*
<b>ANION</b>										
Bromide	0.151	mg/L	J		0.2			SW846-9056	GEL	/X/
Chloride	27	mg/L	W		1			SW846-9056	GEL	/X/
Fluoride	0.429	mg/L			0.1			SW846-9056	GEL	/X/
Nitrate as Nitrogen	2.09	mg/L			0.5			SW846-9056	GEL	/X/
Sulfate	213	mg/L			8			SW846-9056	GEL	/X/
<b>FS</b>										
Conductivity	1170	umho/cm						FS	FS	//
Dissolved Oxygen	7.04	mg/L						FS	FS	//
pH	6.72	Std Unit						FS	FS	//
Redox	432	mV						FS	FS	//
Temperature	60.1	deg F						FS	FS	//
Turbidity	14.2	NTU						FS	FS	//
<b>METAL</b>										
Aluminum	0.171	mg/L			0.05			SW846-6020	GEL	/X/
Antimony	0.003	mg/L	U		0.003			SW846-6020	GEL	/X/
Arsenic	0.0033	mg/L	J		0.005			SW846-6020	GEL	/X/
Barium	0.104	mg/L			0.002			SW846-6020	GEL	/X/
Beryllium	0.000253	mg/L	J		0.0005			SW846-6020	GEL	/X/
Boron	0.617	mg/L			0.15			SW846-6020	GEL	/X/
Cadmium	0.001	mg/L	U		0.001			SW846-6020	GEL	/X/
Calcium	141	mg/L			2			SW846-6020	GEL	/X/
Chromium	0.01	mg/L	U		0.01			SW846-6020	GEL	/X/
Cobalt	0.00144	mg/L			0.001			SW846-6020	GEL	/X/
Copper	0.000978	mg/L	J		0.001			SW846-6020	GEL	/X/
Iron	0.108	mg/L			0.1			SW846-6020	GEL	/X/
Lead	0.002	mg/L	U		0.002			SW846-6020	GEL	/X/
Magnesium	39.4	mg/L			0.03			SW846-6020	GEL	/X/
Manganese	0.0633	mg/L			0.005			SW846-6020	GEL	/X/
Mercury	0.0002	mg/L	U		0.0002			SW846-7470A	GEL	/X/
Molybdenum	0.000762	mg/L			0.0005			SW846-6020	GEL	/X/
Nickel	0.00479	mg/L			0.002			SW846-6020	GEL	/X/
Phosphorous	0.0618	mg/L			0.05			EPA-365.4	GEL	/X/
Potassium	4.87	mg/L			0.3			SW846-6020	GEL	/X/
Rhodium	0.005	mg/L	U		0.005			SW846-6020	GEL	/X/
Selenium	0.005	mg/L	U		0.005			SW846-6020	GEL	/X/
Silver	0.001	mg/L	U		0.001			SW846-6020	GEL	/X/
Sodium	77.9	mg/L			2.5			SW846-6020	GEL	/X/
Tantalum	0.005	mg/L	U		0.005			SW846-6020	GEL	/X/
Thallium	0.002	mg/L	U		0.002			SW846-6020	GEL	/X/
Tin	0.005	mg/L	U		0.005			SW846-6020	GEL	/X/
Titanium	0.01	mg/L	U		0.01			SW846-6020	GEL	/X/
Total Uranium	153	pCi/L			3.11	13.6	25.3	HASL 300, U-02-RC M	GEL	/X/
Uranium	0.351	mg/L			0.0002			SW846-6020	GEL	/X/
Vanadium	0.01	mg/L	U		0.01			SW846-6020	GEL	/X/
Zinc	0.0183	mg/L			0.01			SW846-6020	GEL	/X/
<b>METAL-D</b>										
Antimony, Dissolved	0.003	mg/L	U		0.003			SW846-6020	GEL	/X/
Arsenic, Dissolved	0.005	mg/L	U		0.005			SW846-6020	GEL	/X/
Barium, Dissolved	0.107	mg/L			0.002			SW846-6020	GEL	/X/

**Paducah OREIS Report for USL18-02**

Cadmium, Dissolved	0.001	mg/L	U	0.001			SW846-6020	GEL	/X/
Chromium, Dissolved	0.01	mg/L	U	0.01			SW846-6020	GEL	/X/
Cobalt, Dissolved	0.00133	mg/L		0.001			SW846-6020	GEL	/X/
Copper, Dissolved	0.00338	mg/L		0.001			SW846-6020	GEL	/X/
Lead, Dissolved	0.002	mg/L	U	0.002			SW846-6020	GEL	/X/
Manganese, Dissolved	0.0554	mg/L		0.005			SW846-6020	GEL	/X/
Nickel, Dissolved	0.00654	mg/L		0.002			SW846-6020	GEL	/X/
Selenium, Dissolved	0.005	mg/L	U	0.005			SW846-6020	GEL	/X/
Silver, Dissolved	0.001	mg/L	U	0.001			SW846-6020	GEL	/X/
Tin, Dissolved	0.005	mg/L	U	0.005			SW846-6020	GEL	/X/
Titanium, Dissolved	0.01	mg/L	U	0.01			SW846-6020	GEL	/X/
Uranium, Dissolved	0.374	mg/L		0.0002			SW846-6020	GEL	/X/
Vanadium, Dissolved	0.01	mg/L	U	0.01			SW846-6020	GEL	/X/
Zinc, Dissolved	0.0159	mg/L		0.01			SW846-6020	GEL	/X/

**OTHOR**

Oil and Grease	4.2	mg/L	U	4.2			EPA-1664A	GEL	/X/
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**PCCB**

PCB-1016	0.0971	ug/L	U	0.0971			SW846-8082	GEL	/X/
PCB-1221	0.0971	ug/L	U	0.0971			SW846-8082	GEL	/X/
PCB-1232	0.0971	ug/L	U	0.0971			SW846-8082	GEL	/X/
PCB-1242	0.0971	ug/L	U	0.0971			SW846-8082	GEL	/X/
PCB-1248	0.0971	ug/L	U	0.0971			SW846-8082	GEL	/X/
PCB-1254	0.0971	ug/L	U	0.0971			SW846-8082	GEL	/X/
PCB-1260	0.0971	ug/L	U	0.0971			SW846-8082	GEL	/X/
PCB-1268	0.0971	ug/L	U	0.0971			SW846-8082	GEL	/X/
Polychlorinated biphenyl	0.0971	ug/L	U	0.0971			SW846-8082	GEL	/X/

**RADS**

Alpha activity	112	pCi/L		13.3	21.8	28.5	SW846-9310	GEL	/X/
Americium-241	0.113	pCi/L	U	0.712	0.423	0.424	HASL 300, AM-05-RC M	GEL	/X/
Beta activity	72.9	pCi/L		10	11.2	16.3	SW846-9310	GEL	/X/
Cesium-137	0.161	pCi/L	U	1.3	0.728	0.731	EPA-901.1	GEL	/X/
Cobalt-60	-0.142	pCi/L	U	1.19	0.649	0.652	EPA-901.1	GEL	/X/
Dissolved Alpha	106	pCi/L		14.5	22.8	29.2	SW846-9310	GEL	/X/
Dissolved Beta	58.3	pCi/L		11.7	10.9	14.7	SW846-9310	GEL	/X/
Neptunium-237	-0.195	pCi/L	U	1.66	0.59	0.591	Alpha Spectroscopy	GEL	/X/
Plutonium-239/240	0.581	pCi/L	U	1.26	0.861	0.865	HASL 300, Pu-11-RC M	GEL	/X/
Radium-226	0.218	pCi/L	U	0.546	0.353	0.354	AN-1418	GEL	/X/
Strontium-90	-3.59	pCi/L	U	5.48	2.57	2.57	EPA-905.0-M	GEL	/X/
Technetium-99	18.5	pCi/L	U	19.4	11.9	12.1	HASL 300, Tc-02-RC M	GEL	/X/
Thorium-230	0.333	pCi/L	U	1.7	0.915	0.922	HASL 300, Th-01-RC M	GEL	/X/
Thorium-234	93.8	pCi/L		57.1	81	83.9	EPA-901.1	GEL	/X/
Tritium	42.6	pCi/L	U	217	127	127	EPA-906.0-M	GEL	/X/
Uranium-234	27.5	pCi/L		1.8	5.76	7.42	HASL 300, U-02-RC M	GEL	/X/
Uranium-235	2.6	pCi/L		1.72	2.12	2.16	HASL 300, U-02-RC M	GEL	/X/
Uranium-238	123	pCi/L		1.86	12.1	24.1	HASL 300, U-02-RC M	GEL	/X/

**RADS-D**

Americium-241, Dissolved	-0.0956	pCi/L	U	0.811	0.289	0.289	HASL 300, AM-05-RC M	GEL	/X/
Cesium-137, Dissolved	-0.124	pCi/L	U	3.79	2.82	2.82	EPA-901.1	GEL	/X/
Cobalt-60, Dissolved	0.99	pCi/L	U	3.73	1.44	1.51	EPA-901.1	GEL	/X/
Neptunium-237, Dissolved	0.0917	pCi/L	U	0.976	0.509	0.51	Alpha Spectroscopy	GEL	/X/
Plutonium-239/240, Dissolved	0.512	pCi/L	U	0.889	0.737	0.74	HASL 300, Pu-11-RC M	GEL	/X/
Technetium-99, Dissolved	19.5	pCi/L		18.5	11.4	11.6	HASL 300, Tc-02-RC M	GEL	/X/
Thorium-230, Dissolved	1.22	pCi/L	U	1.38	1.1	1.13	HASL 300, Th-01-RC M	GEL	/X/
Thorium-234, Dissolved	-93.7	pCi/L	U	161	104	114	EPA-901.1	GEL	/X/
Total Uranium, Dissolved	146	pCi/L		2.11	10.7	20.4	HASL 300, U-02-RC M	GEL	/X/

**Paducah OREIS Report for USL18-02**

Uranium-234, Dissolved	23.9	pCi/L		1.62	4.38	5.59	HASL 300, U-02-RC M	GEL	/X/
Uranium-235, Dissolved	3.26	pCi/L		0.753	1.84	1.9	HASL 300, U-02-RC M	GEL	/X/
Uranium-238, Dissolved	118	pCi/L		1.12	9.62	19.6	HASL 300, U-02-RC M	GEL	/X/

**VOA**

1,1,1,2-Tetrachloroethane	1	ug/L	U	1			EPA-624	GEL	/X/
1,1,1-Trichloroethane	1	ug/L	U	1			EPA-624	GEL	/X/
1,1,2,2-Tetrachloroethane	1	ug/L	U	1			EPA-624	GEL	/X/
1,1,2-Trichloroethane	1	ug/L	U	1			EPA-624	GEL	/X/
1,1-Dichloroethane	1	ug/L	U	1			EPA-624	GEL	/X/
1,1-Dichloroethene	1	ug/L	U	1			EPA-624	GEL	/X/
1,2,3-Trichloropropane	1	ug/L	U	1			EPA-624	GEL	/X/
1,2-Dibromo-3-chloropropane	0.0199	ug/L	U	0.0199			SW846-8011	GEL	/X/
1,2-Dibromoethane	1	ug/L	U	1			EPA-624	GEL	/X/
1,2-Dichlorobenzene	1	ug/L	U	1			EPA-624	GEL	/X/
1,2-Dichloroethane	1	ug/L	U	1			EPA-624	GEL	/X/
1,2-Dichloropropane	1	ug/L	U	1			EPA-624	GEL	/X/
1,2-Dimethylbenzene	1	ug/L	U	1			EPA-624	GEL	/X/
1,4-Dichlorobenzene	1	ug/L	U	1			EPA-624	GEL	/X/
2-Butanone	5	ug/L	U	5			EPA-624	GEL	/X/
2-Hexanone	5	ug/L	U	5			EPA-624	GEL	/X/
4-Methyl-2-pentanone	5	ug/L	U	5			EPA-624	GEL	/X/
Acetone	5	ug/L	U	5			EPA-624	GEL	/X/
Acrolein	5	ug/L	U	5			EPA-624	GEL	/X/
Acrylonitrile	5	ug/L	U	5			EPA-624	GEL	/X/
Benzene	1	ug/L	U	1			EPA-624	GEL	/X/
Bromochloromethane	1	ug/L	U	1			EPA-624	GEL	/X/
Bromodichloromethane	1	ug/L	U	1			EPA-624	GEL	/X/
Bromoform	1	ug/L	U	1			EPA-624	GEL	/X/
Bromomethane	1	ug/L	U	1			EPA-624	GEL	/X/
Carbon disulfide	5	ug/L	U	5			EPA-624	GEL	/X/
Carbon tetrachloride	1	ug/L	U	1			EPA-624	GEL	/X/
Chlorobenzene	1	ug/L	U	1			EPA-624	GEL	/X/
Chloroethane	1	ug/L	U	1			EPA-624	GEL	/X/
Chloroform	1	ug/L	U	1			EPA-624	GEL	/X/
Chloromethane	1	ug/L	U	1			EPA-624	GEL	/X/
cis-1,2-Dichloroethene	1	ug/L	U	1			EPA-624	GEL	/X/
cis-1,3-Dichloropropene	1	ug/L	U	1			EPA-624	GEL	/X/
Dibromochloromethane	1	ug/L	U	1			EPA-624	GEL	/X/
Dibromomethane	1	ug/L	U	1			EPA-624	GEL	/X/
Ethylbenzene	1	ug/L	U	1			EPA-624	GEL	/X/
Iodomethane	5	ug/L	U	5			EPA-624	GEL	/X/
m,p-Xylene	2	ug/L	U	2			EPA-624	GEL	/X/
Methylene chloride	2	ug/L	U	2			EPA-624	GEL	/X/
Styrene	1	ug/L	U	1			EPA-624	GEL	/X/
Tetrachloroethene	1	ug/L	U	1			EPA-624	GEL	/X/
Toluene	1	ug/L	U	1			EPA-624	GEL	/X/
Total Xylene	3	ug/L	U	3			EPA-624	GEL	/X/
trans-1,2-Dichloroethene	1	ug/L	U	1			EPA-624	GEL	/X/
trans-1,3-Dichloropropene	1	ug/L	U	1			EPA-624	GEL	/X/
Trans-1,4-Dichloro-2-butene	5	ug/L	U	5			EPA-624	GEL	/X/
Trichloroethene	1	ug/L	U	1			EPA-624	GEL	/X/
Trichlorofluoromethane	0.79	ug/L	J	1			EPA-624	GEL	/X/
Vinyl acetate	5	ug/L	U	5			EPA-624	GEL	/X/
Vinyl chloride	1	ug/L	U	1			EPA-624	GEL	/X/

**WETCHEM**

### Paducah OREIS Report for USL18-02

Carbonaceous Biochemical Oxygen Demand (CBOD)	2	mg/L	UX	2	SM-5210 B	GEL	/ X /
Chemical Oxygen Demand (COD)	28.7	mg/L		20	EPA-410.4	GEL	/ X /
Cyanide	0.005	mg/L	U	0.005	SW846-9012B	GEL	/ X /
Dissolved Solids	807	mg/L		14.3	EPA-160.1	GEL	/ X /
Hardness - Total as CaCO3	481	mg/L		2	EPA-130.2	GEL	/ X /
Iodide	0.5	mg/L	UW	0.5	EPA-300.0	GEL	/ X /
Suspended Solids	2.6	mg/L		2.5	EPA-160.2	GEL	/ X /
Total Organic Carbon (TOC)	6.99	mg/L		2	SW846-9060A	GEL	/ X /
Total Organic Halides (TOX)	50.2	ug/L		10	SW846-9020B	GEL	/ X /

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**Paducah OREIS Report for USL18-02**

**USL18-02-BT**

from: QC

on 4/10/2018

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	GEL	/X/
1,1,1-Trichloroethane	1	ug/L	U		1			EPA-624	GEL	/X/
1,1,2,2-Tetrachloroethane	1	ug/L	U		1			EPA-624	GEL	/X/
1,1,2-Trichloroethane	1	ug/L	U		1			EPA-624	GEL	/X/
1,1-Dichloroethane	1	ug/L	U		1			EPA-624	GEL	/X/
1,1-Dichloroethene	1	ug/L	U		1			EPA-624	GEL	/X/
1,2,3-Trichloropropane	1	ug/L	U		1			EPA-624	GEL	/X/
1,2-Dibromo-3-chloropropane	0.0194	ug/L	U		0.0194			SW846-8011	GEL	/X/
1,2-Dibromoethane	1	ug/L	U		1			EPA-624	GEL	/X/
1,2-Dichlorobenzene	1	ug/L	U		1			EPA-624	GEL	/X/
1,2-Dichloroethane	1	ug/L	U		1			EPA-624	GEL	/X/
1,2-Dichloropropane	1	ug/L	U		1			EPA-624	GEL	/X/
1,2-Dimethylbenzene	1	ug/L	U		1			EPA-624	GEL	/X/
1,4-Dichlorobenzene	1	ug/L	U		1			EPA-624	GEL	/X/
2-Butanone	5	ug/L	U		5			EPA-624	GEL	/X/
2-Hexanone	5	ug/L	U		5			EPA-624	GEL	/X/
4-Methyl-2-pentanone	5	ug/L	U		5			EPA-624	GEL	/X/
Acetone	5	ug/L	U		5			EPA-624	GEL	/X/
Acrolein	5	ug/L	U		5			EPA-624	GEL	/X/
Acrylonitrile	5	ug/L	U		5			EPA-624	GEL	/X/
Benzene	1	ug/L	U		1			EPA-624	GEL	/X/
Bromochloromethane	1	ug/L	U		1			EPA-624	GEL	/X/
Bromodichloromethane	1	ug/L	U		1			EPA-624	GEL	/X/
Bromoform	1	ug/L	U		1			EPA-624	GEL	/X/
Bromomethane	1	ug/L	U		1			EPA-624	GEL	/X/
Carbon disulfide	5	ug/L	U		5			EPA-624	GEL	/X/
Carbon tetrachloride	1	ug/L	U		1			EPA-624	GEL	/X/
Chlorobenzene	1.32	ug/L			1			EPA-624	GEL	/X/
Chloroethane	1	ug/L	U		1			EPA-624	GEL	/X/
Chloroform	1	ug/L	U		1			EPA-624	GEL	/X/
Chloromethane	1	ug/L	U		1			EPA-624	GEL	/X/
cis-1,2-Dichloroethene	1	ug/L	U		1			EPA-624	GEL	/X/
cis-1,3-Dichloropropene	1	ug/L	U		1			EPA-624	GEL	/X/
Dibromochloromethane	1	ug/L	U		1			EPA-624	GEL	/X/
Dibromomethane	1	ug/L	U		1			EPA-624	GEL	/X/
Ethylbenzene	1	ug/L	U		1			EPA-624	GEL	/X/
Iodomethane	5	ug/L	U		5			EPA-624	GEL	/X/
m,p-Xylene	2	ug/L	U		2			EPA-624	GEL	/X/
Methylene chloride	2	ug/L	U		2			EPA-624	GEL	/X/
Styrene	1	ug/L	U		1			EPA-624	GEL	/X/
Tetrachloroethene	1	ug/L	U		1			EPA-624	GEL	/X/
Toluene	1	ug/L	U		1			EPA-624	GEL	/X/
Total Xylene	3	ug/L	U		3			EPA-624	GEL	/X/
trans-1,2-Dichloroethene	1	ug/L	U		1			EPA-624	GEL	/X/
trans-1,3-Dichloropropene	1	ug/L	U		1			EPA-624	GEL	/X/
Trans-1,4-Dichloro-2-butene	5	ug/L	U		5			EPA-624	GEL	/X/
Trichloroethene	1	ug/L	U		1			EPA-624	GEL	/X/
Trichlorofluoromethane	1	ug/L	U		1			EPA-624	GEL	/X/
Vinyl acetate	5	ug/L	U		5			EPA-624	GEL	/X/
Vinyl chloride	1	ug/L	U		1			EPA-624	GEL	/X/



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## **METHANE MONITORING DATA**

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**CP3-WM-0017-F04 - C-746-U LANDFILL METHANE MONITORING REPORT**

PADUCAH GASEOUS DIFFUSION PLANT

Permit #: 073-00045

McCracken County, Kentucky

<b>Date:</b>	<b>5/29/2018</b>	<b>Time:</b>	<b>0900am</b>	<b>Monitor:</b>	<b>Robert Kirby</b>
--------------	------------------	--------------	---------------	-----------------	---------------------

**Weather Conditions:**  
Mostly cloudy at 82 degrees with scattered showers


**Monitoring Equipment:**  
RAE Systems, Multi-RAE, Serial# 7971

<b>Monitoring Location</b>		<b>Reading (% LEL)</b>
C-746-U1	Checked at floor level	0
C-746-U2	Checked at floor level	0
C-746-U-T-14	Checked at floor level	0
C-746-U15	Checked at floor level	0
MG1	Dry casing	0
MG2	Dry casing	0
MG3	Dry casing	0
MG4	Dry casing	0
<b>Suspect or Problem Areas</b>	No problems noted	N/A

**Remarks:**

<b>Performed by:</b>	<i>Jimmy Smith</i>	<i>5/29/18</i>
	Signature	Date

**CP3-WM-0017-F03 - C-746-S & T LANDFILL METHANE MONITORING REPORT**

<b>Date:</b>	05/29/2018	<b>Time:</b>	0930am	<b>Monitor:</b>	Robert Kirby													
<b>Weather Conditions:</b> Mostly cloudy at 82 degrees with scattered showers																		
<b>Monitoring Equipment:</b> RAE Systems, Multi-RAE, Serial# 7971																		
<b>Monitoring Location</b>					<b>Reading (% LEL)</b>													
Ogden Landing Road Entrance	Checked at ground level				0													
North Landfill Gate	Checked at ground level				0													
West Side of Landfill: North 37° 07.652' West 88° 48.029'	Checked at ground level				0													
East Side of Landfill: North 37° 07.628' West 88° 47.798'	Checked at ground level				0													
Cell 1 Gas Vent (17)	1 0	2 0	3 0	4 0	5 0	6 0	7 0	8 0	9 0	10 0	11 0	12 0	13 0	14 0	15 0	16 0	17 0	0
Cell 2 Gas Vent (3)	1 0	2 0	3 0															0
Cell 3 Gas Vent (7)	1 0	2 0	3 0	4 0	5 0	6 0	7 0											0
Landfill Office	Checked at floor level				0													
Suspect or Problem Areas	No areas noted				N/A													
<b>Remarks:</b> ALL VENTS CHECKED 1" FROM THE MOUTH OF VENT																		
<b>Performed by:</b>																		
				5/29/18														
Signature				Date														



## Department of Energy

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

**JUL 12 2018**

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-02-4973936-18

Dear Ms. Nielsen:

**C-746-U SOLID WASTE LANDFILL SECOND QUARTER CALENDAR YEAR 2018  
WASTE QUANTITY REPORT, PERMIT NO. SW07300014, SW07300015, SW07300045,  
AGENCY INTEREST NO. 3059**

Enclosed is the subject report for the second quarter calendar year 2018. This report is required in accordance with Condition ACTV0006, Standard Requirement Number 9, of the Solid Waste Landfill Permit No. SW07300014, SW07300015, SW07300045, issued June 12, 2018.

If you have any questions or require additional information, please contact David Dollins at (270) 441-6819.

Sincerely,

*April Ladd*

for Jennifer Woodard  
Paducah Site Lead  
Portsmouth/Paducah Project Office

Enclosure:

C-746-U Solid Waste Landfill Second Quarter Calendar Year 2018 Waste Quantity Report

e-copy w/enclosure:

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Department for Environmental Protection / Division of Waste Management / Solid Waste Branch  
 Quarterly Waste Quantity Report - DEP 7046-Q (Revised 2-05)

Page 1 of 1

**WASTE ACTIVITY: CONTAINED LANDFILL**

Facility Name: U.S. Department of Energy- Paducah Gaseous Diffusion Plant Permit Number: SW07300045  
 County where landfill is located: McCracken Agency Interest Number: 3059  
 Report for the Months of: April, May, June For the Year of: 2018

Waste Source (County and State)	Type of Waste			**Waste Used as Alternate Daily Cover As Approved (Tons Only)
	*Municipal Solid Waste (Tons Only)	*Industrial Waste (Tons Only)	*Special Waste (Tons Only)	
Paducah Gaseous Diffusion Plant, McCracken County, Kentucky (April)	0.00	17.27	0.00	0.00
Paducah Gaseous Diffusion Plant, McCracken County, Kentucky (May)	0.00	116.56	0.00	0.00
Paducah Gaseous Diffusion Plant, McCracken County, Kentucky (June)	0.00	46.16	0.00	0.00
<b>Total for this page</b>	0.00	179.99	0.00	0.00
<b>Grand Total of all pages</b>	0.00	179.99	0.00	0.00

**\*Grand Total of Municipal, Industrial, and Special from all pages** 179.99

\*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.

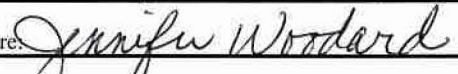
I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons directly responsible 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: 

Phone Number: (270) 441-5113

Name - Please Print: Myrna E. Redfield

Date: 7/12/18

Signature: 

Phone Number: (270) 441-6800

Name - Please Print: Jennifer Woodard

Date: 7-12-18

This Certification clause shall be signed by the responsible person(s) described in 401 KAR 47:160, Section 6(1), and/or (2) and is required by 401 KAR 47:160, Section 6(4).