



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

March 23, 2021

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-02-10009789-21B

Dear Ms. Nielsen:

**TRANSMITTAL OF ERRATA PAGES FOR THE C-746-S&T AND C-746-U SOLID WASTE LANDFILLS FIRST QUARTER CALENDAR YEAR 2016 WASTE QUANTITY AND OPERATING REPORT, PADUCAH GASEOUS DIFFUSION PLANT, PADUCAH, KENTUCKY, FPDP-RPT-0023/V1, SOLID WASTE PERMIT NO. SW07300014, SW07300015, SW07300045, AGENCY INTEREST NO. 3059**

Reference: Letter from J. Woodard to R. Green, "C-746-S&T and C-746-U Solid Waste Landfill First Quarter Calendar Year 2016 Waste Quantity and Operating Report, Paducah Gaseous Diffusion Plant, Paducah, Kentucky, FPDP-RPT-0023/V1," (PPPO-02-3502362-16A), dated April 13, 2016

Enclosed are the certified errata pages for the subject document. The errata pages have been uploaded to the Kentucky eForms portal via the Kentucky Online Gateway. Other recipients outside the Solid Waste Branch are receiving the errata pages via e-mail distribution (see distribution list). The enclosed errata pages have been prepared to correct reporting errors related to the volume of leachate in Tank F-009 that was recorded on March 23, 2016, from 8,900 gal to 9,800 gal. This revision has no resulting consequence on the total amount of leachate treated and discharged as reported.

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

Sincerely,

A handwritten signature in cursive script that reads "Jennifer Woodard".

Jennifer Woodard  
Paducah Site Lead  
Portsmouth/Paducah Project Office

Enclosures:

1. Certification Page
2. Errata pages for the C-746-S&T and C-746-U Solid Waste Landfills First Quarter Calendar Year 2016 Waste Quantity and Operating Report

cc w/enclosures:

abigail.parish@pppo.gov, PPPO  
april.ladd@pppo.gov, PPPO  
arcorrespondence@pad.pppo.gov  
brian.begley@ky.gov, KDEP  
bruce.ford@pad.pppo.gov, FRNP  
dave.dollins@pppo.gov, PPPO  
dennis.greene@pad.pppo.gov, FRNP  
frnpcorrespondence@pad.pppo.gov  
gary.hines@pad.pppo.gov, FRNP  
james.miller@pad.pppo.gov, FRNP  
jennifer.woodard@pppo.gov, PPPO  
jerry.arnzen@pad.pppo.gov, FRNP  
joel.bradburne@pppo.gov, PPPO  
leo.williamson@ky.gov, KDEP  
lisa.crabtree@pad.pppo.gov, FRNP  
myrna.redfield@pad.pppo.gov, FRNP  
pad.rmc@pad.pppo.gov  
robert.edwards@pppo.gov, PPPO  
tammy.smith@pad.pppo.gov, FRNP  
tracey.duncan@pppo.gov, PPPO

cc via KY eForms portal:

danny.anderson@ky.gov, KDEP  
jamie.nielsen@ky.gov, KDEP  
teresa.osborne@ky.gov, KDEP


**CERTIFICATION**

**Document Identification:** *Errata Pages for the C-746-S&T and C-746-U Solid Waste Landfill First Quarter Calendar Year 2016 Waste Quantity and Operating Report, Paducah Gaseous Diffusion Plant, Paducah, Kentucky, FPDP-RPT-0023/V1, Solid Waste Permit SW07300014, SW07300015, SW07300045, Agency Interest No. 3059, March 2021*

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

Four Rivers Nuclear Partnership, LLC  
Permittee (Operator)

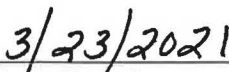
  
\_\_\_\_\_  
Myrna E. Redfield, Program Manager  
Four Rivers Nuclear Partnership, LLC

  
\_\_\_\_\_  
Date Signed

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

U.S. Department of Energy

  
\_\_\_\_\_  
Jennifer Woodard, Paducah Site Lead  
Portsmouth/Paducah Project Office  
U.S. Department of Energy

  
\_\_\_\_\_  
Date Signed

## **ERRATA SHEET**

***C-746-S&T and C-746-U Solid Waste Landfill  
First Quarter Calendar Year 2016  
Waste Operating Report  
Paducah Gaseous Diffusion Plant,  
Paducah, Kentucky  
FPDP-RPT-0023/V1, issued April 2016***

The following three corrections should be incorporated into the document.

1. Cover Page: The cover was modified to indicate errata were issued for this report.
2. Title Page: The title page was modified to indicate errata were issued for this report on the date specified.
3. Leachate log, page 28, Tank F-009: Corrected leachate volume for March 23, 2016, from 8,900 gal to 9,800 gal.

**C-746-S&T and C-746-U Solid Waste Landfill  
First Quarter Calendar Year 2016  
Waste Quantity and Operating Report  
Paducah Gaseous Diffusion Plant,  
Paducah, Kentucky**



This document is approved for public release per review by:

\_\_\_\_\_  
FPDP Classification Support

\_\_\_\_\_  
Date



**C-746-S&T and C-746-U Solid Waste Landfill  
First Quarter Calendar Year 2016  
Waste Quantity and Operating Report  
Paducah Gaseous Diffusion Plant,  
Paducah, Kentucky**

Date Issued—April 2016

**Errata Issued—March 2021**

U.S. DEPARTMENT OF ENERGY  
Office of Environmental Management

Prepared by  
FLUOR FEDERAL SERVICES, INC.,  
Paducah Deactivation Project  
managing the  
Deactivation Project at the  
Paducah Gaseous Diffusion Plant  
under Task Order DE-DT0007774

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

**CLEARED FOR PUBLIC RELEASE**

**THIS PAGE INTENTIONALLY LEFT BLANK**



# CONTENTS

REPORT SUMMARY.....	v
FACILITY INFORMATION SHEET.....	1
QUARTERLY WASTE QUANTITY REPORT.....	3
COVER LOG.....	7
LEACHATE LOG.....	15
LEACHATE DATA.....	31

**THIS PAGE INTENTIONALLY LEFT BLANK**

## **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 first quarter of calendar year 2016 for the Paducah Gaseous Diffusion Plant, McCracken County, Kentucky.

In the first quarter of calendar year 2016, 837.88 tons of industrial wastes were 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 a part of the 837.88 total tons of waste 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, groundwater, and methane monitoring are submitted in separate quarterly Compliance Monitoring Reports for the C-746-U Landfill and C-746-S&T Landfills [401 KAR 47:190 § 8(1)(d)].

### **Leachate Collection and Disposition**

A total of 418,300 gal of leachate from the C-746-U Landfill was treated at the C-746-U15 Leachate Treatment Facility, which discharges to Kentucky Pollutant Discharge Elimination System Outfall 020. There was no leachate transported to off-site treatment facilities for treatment and discharge this quarter.

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 has entered the system.

Annual leachate samples were collected on February 24, 2016, and analytical results are included in this report.

A total of 4,400 gal of leachate from the C-746-S Landfill was treated at the C-746-U15 Leachate Treatment Facility this quarter.

### **Construction Activities and Cover Maintenance**

Construction activities at the C-746-U Landfill included expansion of the road leading to the active cell [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. Landfill personnel performed grass seeding.

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.

**THIS PAGE INTENTIONALLY LEFT BLANK**

## FACILITY INFORMATION SHEET

Sampling Date: February 24, 2016

County: McCracken Permit No.: SW07300014; SW07300015;  
SW07300045

Facility Name: U.S. DOE—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"

---

### OWNER INFORMATION

Facility Owner: U.S. DOE—Robert E. Edwards III, Acting Manager Phone No.: (859) 227-5020

Contact Person: Mark J. Duff Phone No.: (270) 441-6127

Contact Person Title: Director, Environmental Management, Fluor Federal Services, Inc.

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

---

### 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

---

### 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, SC 29417  
Street City/State Zip

---

### 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

**THIS PAGE INTENTIONALLY LEFT BLANK**

## **QUARTERLY WASTE QUANTITY REPORT**

**THIS PAGE INTENTIONALLY LEFT BLANK**



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

Page 1 of 1

**WASTE ACTIVITY-CONTAINED LANDFILL**

Facility Name: U.S. Department of Energy Permit Number SW07300045  
 County where landfill is located: McCracken (PGDP) Agency Interest Number: 3059  
 Report for the Months of: January, February, March For the Year of: 2016


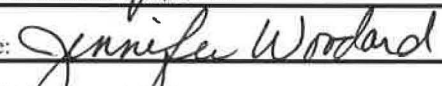
Waste Source (County and State)	Type of Waste			**Waste Used as Alternate Daily Cover as Approved (Tons Only)
	*Municipal Solid Waste (Tons Only)	*Industrial Waste (Tons Only)	*Special Waste (Tons Only)	
Paducah Gaseous Diffusion Plant (January)	0.00	196.93	0.00	0.00
Paducah Gaseous Diffusion Plant (February)	0.00	231.95	0.00	0.00
Paducah Gaseous Diffusion Plant (March)	0.00	409.00	0.00	0.00
<b>Total for this page</b>	0.00	837.88	0.00	0.00
<b>Grand Total of all pages</b>	0.00	837.88	0.00	0.00

\*Grand Total of Municipal, Industrial, and Special from all pages 837.88

\*Does not include waste used as Alternate Daily Cover.

\*\*Indicate the amount 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) 441-6127  
 Name - Please Print: Mark J. Duff Date: 4-13-16  
 Signature:  Phone Number (270) 441-6800  
 Name - Please Print: Jennifer Woodard Date: 4/13/16

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).

**THIS PAGE INTENTIONALLY LEFT BLANK**

## **COVER LOG**

**THIS PAGE INTENTIONALLY LEFT BLANK**

**JANUARY, FEBRUARY, MARCH 2016**

**THIS PAGE INTENTIONALLY LEFT BLANK**

# COVER LOG

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

**PERMIT NUMBER: 073-00045**  
**Month & Year: January 2016**

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	<b>C-5</b>	<b>YES</b>	<b>NO</b>	<b>NO</b>	<b>NO</b>	<b>YES</b>
5	<b>C-5</b>	<b>YES</b>	<b>NO</b>	<b>NO</b>	<b>NO</b>	<b>YES</b>
6	<b>C-5</b>	<b>YES</b>	<b>NO</b>	<b>NO</b>	<b>NO</b>	<b>YES</b>
7	<b>C-5</b>	<b>YES</b>	<b>NO</b>	<b>NO</b>	<b>NO</b>	<b>YES</b>
8						
9						
10						
11						
12						
13						
14						
15						
16						
17						
18						
19						
20						
21						
22						
23						
24						
25						
26						
27						
28	<b>C-5</b>	<b>YES</b>	<b>NO</b>	<b>NO</b>	<b>NO</b>	<b>YES</b>
29	<b>C-5</b>	<b>YES</b>	<b>YES</b>	<b>NO</b>	<b>NO</b>	<b>YES</b>
30						
31						

# COVER LOG

DEPARTMENT OF ENERGY

PERMIT NUMBER: 073-00045

COUNTY: McCracken

Month & Year: February 2016

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	<b>C-5 &amp; C-6</b>	<b>YES</b>	<b>YES</b>	<b>NO</b>	<b>NO</b>	<b>YES</b>
12	<b>C-6</b>	<b>YES</b>	<b>NO</b>	<b>NO</b>	<b>NO</b>	<b>YES</b>
13						
14						
15						
16						
17						
18						
19						
20						
21						
22						
23						
24						
25						
26						
27						
28						
29	<b>C-6</b>	<b>YES</b>	<b>YES</b>	<b>NO</b>	<b>NO</b>	<b>YES</b>
30						
31						



# COVER LOG

DEPARTMENT OF ENERGY  
 COUNTY: McCracken

PERMIT NUMBER: 073-00045  
 Month & Year: March 2016

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

**THIS PAGE INTENTIONALLY LEFT BLANK**

## **LEACHATE LOG**

**THIS PAGE INTENTIONALLY LEFT BLANK**

Month January Year 2016

Date	Phase	Collection Tank Number	Mobile Tanker	Tank Volume (Gallons)	Disposal Volume (Gallons)	Disposal Method*
01-04-16	1,2,3,4,5	F-001		27700	10900	L
01-04-16	1,2,3,4,5	F-002		26000		
01-04-16	1,2,3,4,5	F-007		11000		
01-04-16	1,2,3,4,5	F-008		2300		
01-04-16	1,2,3,4,5	F-009		4500		
01-05-16	1,2,3,4,5	F-001		18800	9200	L
01-05-16	1,2,3,4,5	F-002		26000		
01-05-16	1,2,3,4,5	F-007		11000		
01-05-16	1,2,3,4,5	F-008		2300		
01-05-16	1,2,3,4,5	F-009		7500		
01-06-16	1,2,3,4,5	F-001		11200	8100	L
01-06-16	1,2,3,4,5	F-002		26000		
01-06-16	1,2,3,4,5	F-007		11000		
01-06-16	1,2,3,4,5	F-008		2300		
01-06-16	1,2,3,4,5	F-009		10200		
01-07-16	1,2,3,4,5	F-001		4500	4000	L
01-07-16	1,2,3,4,5	F-002		26000	5000	L
01-07-16	1,2,3,4,5	F-007		11000		
01-07-16	1,2,3,4,5	F-008		2300		
01-07-16	1,2,3,4,5	F-009		11100		
01-08-16	1,2,3,4,5	F-001		3900		
01-08-16	1,2,3,4,5	F-002		21000	10000	L
01-08-16	1,2,3,4,5	F-007		11000		
01-08-16	1,2,3,4,5	F-008		2300		
01-08-16	1,2,3,4,5	F-009		11100		
01-11-16	1,2,3,4,5	F-001		30600		
01-11-16	1,2,3,4,5	F-002		11000	10500	L

Month January Year 2016

Date	Phase	Collection Tank Number	Mobile Tanker	Tank Volume (Gallons)	Disposal Volume (Gallons)	Disposal Method*
01-11-16	1,2,3,4,5	F-007		11000		
01-11-16	1,2,3,4,5	F-008		2300		
01-11-16	1,2,3,4,5	F-009		11100		
01-12-16	1,2,3,4,5	F-001		30600		
01-12-16	1,2,3,4,5	F-002		7900		
01-12-16	1,2,3,4,5	F-007		11000		
01-12-16	1,2,3,4,5	F-008		2300		
01-12-16	1,2,3,4,5	F-009		11100	7000	L
01-13-16	1,2,3,4,5	F-001		30600	4700	L
01-13-16	1,2,3,4,5	F-002		13000		
01-13-16	1,2,3,4,5	F-007		11000		
01-13-16	1,2,3,4,5	F-008		2300		
01-13-16	1,2,3,4,5	F-009		4100	3600	L
01-14-16	1,2,3,4,5	F-001		25900	9000	L
01-14-16	1,2,3,4,5	F-002		18600		
01-14-16	1,2,3,4,5	F-007		11000		
01-14-16	1,2,3,4,5	F-008		2300		
01-14-16	1,2,3,4,5	F-009		500		
01-15-16	1,2,3,4,5	F-001		16900	10000	L
01-15-16	1,2,3,4,5	F-002		23200		
01-15-16	1,2,3,4,5	F-007		11000		
01-15-16	1,2,3,4,5	F-008		2300		
01-15-16	1,2,3,4,5	F-009		500		
01-19-16	1,2,3,4,5	F-001		11200	1700	L
01-19-16	1,2,3,4,5	F-002		30100	2200	L
01-19-16	1,2,3,4,5	F-007		11000		
01-19-16	1,2,3,4,5	F-008		2300		

Month January Year 2016

Date	Phase	Collection Tank Number	Mobile Tanker	Tank Volume (Gallons)	Disposal Volume (Gallons)	Disposal Method*
01-19-16	1,2,3,4,5	F-009		500		
01-20-16	1,2,3,4,5	F-001		15000		
01-20-16	1,2,3,4,5	F-002		27900	9000	L
01-20-16	1,2,3,4,5	F-007		11000		
01-20-16	1,2,3,4,5	F-008		2300		
01-20-16	1,2,3,4,5	F-009		500		
01-21-16	1,2,3,4,5	F-001		17700		
01-21-16	1,2,3,4,5	F-002		18900	9700	L
01-21-16	1,2,3,4,5	F-007		11000		
01-21-16	1,2,3,4,5	F-008		2300		
01-21-16	1,2,3,4,5	F-009		500		
01-22-16	1,2,3,4,5	F-001		19800		
01-22-16	1,2,3,4,5	F-002		9200	8700	L
01-22-16	1,2,3,4,5	F-007		11000		
01-22-16	1,2,3,4,5	F-008		2300		
01-22-16	1,2,3,4,5	F-009		500		
01-25-16	1,2,3,4,5	F-001		27000	7400	L
01-25-16	1,2,3,4,5	F-002		500		
01-25-16	1,2,3,4,5	F-007		11000		
01-25-16	1,2,3,4,5	F-008		2300		
01-25-16	1,2,3,4,5	F-009		500		
01-26-16	1,2,3,4,5	F-001		19600	8100	L
01-26-16	1,2,3,4,5	F-002		3600		
01-26-16	1,2,3,4,5	F-007		11000		
01-26-16	1,2,3,4,5	F-008		2300		
01-26-16	1,2,3,4,5	F-009		500		
01-27-16	1,2,3,4,5	F-001		11500	8900	L

Month January Year 2016

Date	Phase	Collection Tank Number	Mobile Tanker	Tank Volume (Gallons)	Disposal Volume (Gallons)	Disposal Method*
01-27-16	1,2,3,4,5	F-002		7400		
01-27-16	1,2,3,4,5	F-007		11000		
01-27-16	1,2,3,4,5	F-008		2300		
01-27-16	1,2,3,4,5	F-009		500		
01-28-16	1,2,3,4,5	F-001		2600	2100	L
01-28-16	1,2,3,4,5	F-002		9100	4500	L
01-28-16	1,2,3,4,5	F-007		11000	200	L
01-28-16	1,2,3,4,5	F-008		2300	800	L
01-28-16	1,2,3,4,5	F-009		500		
01-29-16	1,2,3,4,5	F-001		4400	3900	L
01-29-16	1,2,3,4,5	F-002		4600	4100	L
01-29-16	1,2,3,4,5	F-007		10800		
01-29-16	1,2,3,4,5	F-008		1500		
01-29-16	1,2,3,4,5	F-009		500		
<i>Jammy Smith 1-29-16</i>						



Month February Year 2016

Date	Phase	Collection Tank Number	Mobile Tanker	Tank Volume (Gallons)	Disposal Volume (Gallons)	Disposal Method*
02-01-16	1,2,3,4,5	F-001		500		
02-01-16	1,2,3,4,5	F-002		6800	6300	L
02-01-16	1,2,3,4,5	F-007		10800		
02-01-16	1,2,3,4,5	F-008		1500		
02-01-16	1,2,3,4,5	F-009		500		
02-02-16	1,2,3,4,5	F-001		3400	2900	L
02-02-16	1,2,3,4,5	F-002		500		
02-02-16	1,2,3,4,5	F-007		10800		
02-02-16	1,2,3,4,5	F-008		1500		
02-02-16	1,2,3,4,5	F-009		500		
02-03-16	1,2,3,4,5	F-001		500		
02-03-16	1,2,3,4,5	F-002		3500	3000	L
02-03-16	1,2,3,4,5	F-007		10800		
02-03-16	1,2,3,4,5	F-008		1500		
02-03-16	1,2,3,4,5	F-009		500		
02-04-16	1,2,3,4,5	F-001		2700	2200	L
02-04-16	1,2,3,4,5	F-002		500		
02-04-16	1,2,3,4,5	F-007		10800		
02-04-16	1,2,3,4,5	F-008		1500		
02-04-16	1,2,3,4,5	F-009		500		
02-05-16	1,2,3,4,5	F-001		500		
02-05-16	1,2,3,4,5	F-002		2700		
02-05-16	1,2,3,4,5	F-007		10800		
02-05-16	1,2,3,4,5	F-008		1500		
02-05-16	1,2,3,4,5	F-009		500		
02-08-16	1,2,3,4,5	F-001		500		
02-08-16	1,2,3,4,5	F-002		7900	5300	L

Month February Year 2016

Date	Phase	Collection Tank Number	Mobile Tanker	Tank Volume (Gallons)	Disposal Volume (Gallons)	Disposal Method*
02-08-16	1,2,3,4,5	F-007		10800		
02-08-16	1,2,3,4,5	F-008		1500		
02-08-16	1,2,3,4,5	F-009		500		
02-09-16	1,2,3,4,5	F-001		2500		
02-09-16	1,2,3,4,5	F-002		2600	2100	L
02-09-16	1,2,3,4,5	F-007		10800		
02-09-16	1,2,3,4,5	F-008		1500		
02-09-16	1,2,3,4,5	F-009		500		
02-10-16	1,2,3,4,5	F-001		4300	2200	L
02-10-16	1,2,3,4,5	F-002		500		
02-10-16	1,2,3,4,5	F-007		10800		
02-10-16	1,2,3,4,5	F-008		1500		
02-10-16	1,2,3,4,5	F-009		500		
02-11-16	1,2,3,4,5	F-001		2100	1600	L
02-11-16	1,2,3,4,5	F-002		2500	2000	L
02-11-16	1,2,3,4,5	F-007		10800		
02-11-16	1,2,3,4,5	F-008		1500		
02-11-16	1,2,3,4,5	F-009		500		
02-12-16	1,2,3,4,5	F-001		2600		
02-12-16	1,2,3,4,5	F-002		500		
02-12-16	1,2,3,4,5	F-007		10800	5400	L
02-12-16	1,2,3,4,5	F-008		1500		
02-12-16	1,2,3,4,5	F-009		500		
02-16-16	1,2,3,4,5	F-001		8600		
02-16-16	1,2,3,4,5	F-002		500		
02-16-16	1,2,3,4,5	F-007		5400	3900	L
02-16-16	1,2,3,4,5	F-008		1500		

Month February Year 2016

Date	Phase	Collection Tank Number	Mobile Tanker	Tank Volume (Gallons)	Disposal Volume (Gallons)	Disposal Method*
02-16-16	1,2,3,4,5	F-009		500		
02-17-16	1,2,3,4,5	F-001		13000	5600	L
02-17-16	1,2,3,4,5	F-002		500		
02-17-16	1,2,3,4,5	F-007		1500		
02-17-16	1,2,3,4,5	F-008		1500		
02-17-16	1,2,3,4,5	F-009		500		
02-18-16	1,2,3,4,5	F-001		7400	6900	L
02-18-16	1,2,3,4,5	F-002		5900		
02-18-16	1,2,3,4,5	F-007		1500		
02-18-16	1,2,3,4,5	F-008		1500		
02-18-16	1,2,3,4,5	F-009		500		
02-19-16	1,2,3,4,5	F-001		500		
02-19-16	1,2,3,4,5	F-002		9500	3000	L
02-19-16	1,2,3,4,5	F-007		1500		
02-19-16	1,2,3,4,5	F-008		1500		
02-19-16	1,2,3,4,5	F-009		500		
02-22-16	1,2,3,4,5	F-001		8100		
02-22-16	1,2,3,4,5	F-002		6500	6000	L
02-22-16	1,2,3,4,5	F-007		1500		
02-22-16	1,2,3,4,5	F-008		1500		
02-22-16	1,2,3,4,5	F-009		500		
02-23-16	1,2,3,4,5	F-001		11700	6200	L
02-23-16	1,2,3,4,5	F-002		500		
02-23-16	1,2,3,4,5	F-007		1500		
02-23-16	1,2,3,4,5	F-008		1500		
02-23-16	1,2,3,4,5	F-009		500		
02-24-16	1,2,3,4,5	F-001		5500	2000	L

Month February

Year 2016

Date	Phase	Collection Tank Number	Mobile Tanker	Tank Volume (Gallons)	Disposal Volume (Gallons)	Disposal Method*
02-24-16	1,2,3,4,5	F-002		5900	5400	L
02-24-16	1,2,3,4,5	F-007		1500		
02-24-16	1,2,3,4,5	F-008		1500		
02-24-16	1,2,3,4,5	F-009		500		
02-25-16	1,2,3,4,5	F-001		15600	7000	L
02-25-16	1,2,3,4,5	F-002		500		
02-25-16	1,2,3,4,5	F-007		1500		
02-25-16	1,2,3,4,5	F-008		1500		
02-25-16	1,2,3,4,5	F-009		500		
02-26-16	1,2,3,4,5	F-001		8600	8100	L
02-26-16	1,2,3,4,5	F-002		9000		
02-26-16	1,2,3,4,5	F-007		1500		
02-26-16	1,2,3,4,5	F-008		1500		
02-26-16	1,2,3,4,5	F-009		500		
02-29-16	1,2,3,4,5	F-001		500		
02-29-16	1,2,3,4,5	F-002		23700	6800	L
02-29-16	1,2,3,4,5	F-007		1500		
02-29-16	1,2,3,4,5	F-008		1500		
02-29-16	1,2,3,4,5	F-009		500		

*Jimmy Smith 2-29-16*

\* R – Re-circulated to Working Phase  
W – Transported to Wastewater Treatment Facility  
L – Disposed at on-site Leachate Treatment Facility

Month March Year 2016

Date	Phase	Collection Tank Number	Mobile Tanker	Tank Volume (Gallons)	Disposal Volume (Gallons)	Disposal Method*
03-01-16	1,2,3,4,5	F-001		5000		
03-01-16	1,2,3,4,5	F-002		16900	8200	L
03-01-16	1,2,3,4,5	F-007		1500		
03-01-16	1,2,3,4,5	F-008		1500		
03-01-16	1,2,3,4,5	F-009		500		
03-02-16	1,2,3,4,5	F-001		8500		
03-02-16	1,2,3,4,5	F-002		8700	8200	L
03-02-16	1,2,3,4,5	F-007		1500		
03-02-16	1,2,3,4,5	F-008		1500		
03-02-16	1,2,3,4,5	F-009		500		
03-03-16	1,2,3,4,5	F-001		13100	5600	L
03-03-16	1,2,3,4,5	F-002		500		
03-03-16	1,2,3,4,5	F-007		1500		
03-03-16	1,2,3,4,5	F-008		1500		
03-03-16	1,2,3,4,5	F-009		500		
03-04-16	1,2,3,4,5	F-001		7500	7000	L
03-04-16	1,2,3,4,5	F-002		5700		
03-04-16	1,2,3,4,5	F-007		1500		
03-04-16	1,2,3,4,5	F-008		1500		
03-04-16	1,2,3,4,5	F-009		500		
03-07-16	1,2,3,4,5	F-001		500		
03-07-16	1,2,3,4,5	F-002		17300	7000	L
03-07-16	1,2,3,4,5	F-007		1500		
03-07-16	1,2,3,4,5	F-008		1500		
03-07-16	1,2,3,4,5	F-009		500		
03-08-16	1,2,3,4,5	F-001		4500		
03-08-16	1,2,3,4,5	F-002		10300	7000	L

Month MarchYear 2016

Date	Phase	Collection Tank Number	Mobile Tanker	Tank Volume (Gallons)	Disposal Volume (Gallons)	Disposal Method*
03-08-16	1,2,3,4,5	F-007		1500		
03-08-16	1,2,3,4,5	F-008		1500		
03-08-16	1,2,3,4,5	F-009		500		
03-09-16	1,2,3,4,5	F-001		7300		
03-09-16	1,2,3,4,5	F-002		3300	1000	L
03-09-16	1,2,3,4,5	F-007		1500		
03-09-16	1,2,3,4,5	F-008		1500		
03-09-16	1,2,3,4,5	F-009		500		
03-10-16	1,2,3,4,5	F-001		17900		
03-10-16	1,2,3,4,5	F-002		2300		
03-10-16	1,2,3,4,5	F-007		1500		
03-10-16	1,2,3,4,5	F-008		1500		
03-10-16	1,2,3,4,5	F-009		500		
03-11-16	1,2,3,4,5	F-001		17900		
03-11-16	1,2,3,4,5	F-002		25700	6000	L
03-11-16	1,2,3,4,5	F-007		1500		
03-11-16	1,2,3,4,5	F-008		1500		
03-11-16	1,2,3,4,5	F-009		500		
03-14-16	1,2,3,4,5	F-001		30300	6700	L
03-14-16	1,2,3,4,5	F-002		27600	2400	L
03-14-16	1,2,3,4,5	F-007		2300		
03-14-16	1,2,3,4,5	F-008		1500		
03-14-16	1,2,3,4,5	F-009		500		
03-15-16	1,2,3,4,5	F-001		27200	9000	L
03-15-16	1,2,3,4,5	F-002		30300		
03-15-16	1,2,3,4,5	F-007		2300		
03-15-16	1,2,3,4,5	F-008		1500		

Month MarchYear 2016

Date	Phase	Collection Tank Number	Mobile Tanker	Tank Volume (Gallons)	Disposal Volume (Gallons)	Disposal Method*
03-15-16	1,2,3,4,5	F-009		8400		
03-16-16	1,2,3,4,5	F-001		18200	8500	L
03-16-16	1,2,3,4,5	F-002		30300		
03-16-16	1,2,3,4,5	F-007		8800		
03-16-16	1,2,3,4,5	F-008		1500		
03-16-16	1,2,3,4,5	F-009		13300		
03-17-16	1,2,3,4,5	F-001		9700	3600	L
03-17-16	1,2,3,4,5	F-002		30300		
03-17-16	1,2,3,4,5	F-007		12800		
03-17-16	1,2,3,4,5	F-008		1500		
03-17-16	1,2,3,4,5	F-009		16000	4300	L
03-18-16	1,2,3,4,5	F-001		6100	5600	L
03-18-16	1,2,3,4,5	F-002		30300	1000	L
03-18-16	1,2,3,4,5	F-007		12800		
03-18-16	1,2,3,4,5	F-008		8700		
03-18-16	1,2,3,4,5	F-009		11700	1900	L
03-21-16	1,2,3,4,5	F-001		15900		
03-21-16	1,2,3,4,5	F-002		29300	6500	L
03-21-16	1,2,3,4,5	F-007		12800		
03-21-16	1,2,3,4,5	F-008		9000		
03-21-16	1,2,3,4,5	F-009		9800		
03-22-16	1,2,3,4,5	F-001		19300		
03-22-16	1,2,3,4,5	F-002		22800	7300	L
03-22-16	1,2,3,4,5	F-007		12800		
03-22-16	1,2,3,4,5	F-008		9000		
03-22-16	1,2,3,4,5	F-009		9800		
03-23-16	1,2,3,4,5	F-001		22900		

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

Permit No. 073-00045

McCracken County, Kentucky

Month March

Year 2016

Date	Phase	Collection Tank Number	Mobile Tanker	Tank Volume (Gallons)	Disposal Volume (Gallons)	Disposal Method*
03-23-16	1,2,3,4,5	F-002		15500	7400	L
03-23-16	1,2,3,4,5	F-007		12800		
03-23-16	1,2,3,4,5	F-008		9000		
03-23-16	1,2,3,4,5	F-009		9800		
03-24-16	1,2,3,4,5	F-001		27000		
03-24-16	1,2,3,4,5	F-002		8100	7600	L
03-24-16	1,2,3,4,5	F-007		12800		
03-24-16	1,2,3,4,5	F-008		9000		
03-24-16	1,2,3,4,5	F-009		9800		
03-25-16	1,2,3,4,5	F-001		27000	6500	L
03-25-16	1,2,3,4,5	F-002		10600		
03-25-16	1,2,3,4,5	F-007		12800		
03-25-16	1,2,3,4,5	F-008		9000		
03-25-16	1,2,3,4,5	F-009		9800		
03-28-16	1,2,3,4,5	F-001		20500	8600	L
03-28-16	1,2,3,4,5	F-002		24200		
03-28-16	1,2,3,4,5	F-007		12800		
03-28-16	1,2,3,4,5	F-008		9000		
03-28-16	1,2,3,4,5	F-009		9800		
03-29-16	1,2,3,4,5	F-001		14700	2000	L
03-29-16	1,2,3,4,5	F-002		24200	6200	L
03-29-16	1,2,3,4,5	F-007		12800		
03-29-16	1,2,3,4,5	F-008		9000		
03-29-16	1,2,3,4,5	F-009		9800		
03-30-16	1,2,3,4,5	F-001		15500		
03-30-16	1,2,3,4,5	F-002		18000	8000	L
03-30-16	1,2,3,4,5	F-007		12800		





**THIS PAGE INTENTIONALLY LEFT BLANK**

## **LEACHATE DATA**

**THIS PAGE INTENTIONALLY LEFT BLANK**

## Paducah OREIS Report for ULS16-01

**ULS16-01-01**

from: C-746-U

on 2/24/2016

Media: WW

SmpMethod: GR

Comments:

Analysis	Results	Counting Error	Units	Result Qual	Foot Note	Reporting Limit	TPU	Method	V/V/A*
<b>ANION</b>									
Bromide	0.183		mg/L	J		0.2		SW846-9056	S / X /
Chloride	32.2		mg/L			1		SW846-9056	/ X /
Fluoride	0.692		mg/L			0.1		SW846-9056	/ X /
Nitrate as Nitrogen	2.53		mg/L			0.5		SW846-9056	/ X /
Sulfate	192		mg/L			8		SW846-9056	/ X /
<b>FS</b>									
Conductivity	1060		umho/cm					FS	/ /
Dissolved Oxygen	8.47		mg/L					FS	/ /
pH	7.87		Std Unit					FS	/ /
Redox	104		mV					FS	/ /
Temperature	56.6		deg F					FS	/ /
<b>METAL</b>									
Aluminum	9.9		mg/L			0.05		SW846-6020	/ X /
Antimony	0.003		mg/L	U		0.003		SW846-6020	/ X /
Arsenic	0.00679		mg/L	B		0.005		SW846-6020	/ X /
Barium	0.144		mg/L			0.002		SW846-6020	/ X /
Beryllium	0.00318		mg/L			0.0005		SW846-6020	/ X /
Boron	0.732		mg/L			0.15		SW846-6020	/ X /
Cadmium	0.000141		mg/L	J		0.001		SW846-6020	S / X /
Calcium	139		mg/L			2		SW846-6020	/ X /
Chromium	0.0125		mg/L			0.01		SW846-6020	/ X /
Cobalt	0.0136		mg/L			0.001		SW846-6020	/ X /
Copper	0.0085		mg/L			0.001		SW846-6020	/ X /
Iron	9.76		mg/L			0.1		SW846-6020	/ X /
Lead	0.00526		mg/L			0.002		SW846-6020	/ X /
Magnesium	30.8		mg/L			0.03		SW846-6020	/ X /
Manganese	0.608		mg/L			0.005		SW846-6020	/ X /
Mercury	0.0002		mg/L	U		0.0002		SW846-7470A	/ X /
Molybdenum	0.000821		mg/L	B		0.0005		SW846-6020	S / X /
Nickel	0.0226		mg/L			0.002		SW846-6020	/ X /
Phosphorous	0.219		mg/L			0.05		EPA-365.4	/ X / J
Potassium	3.83		mg/L			0.3		SW846-6020	/ X /
Rhodium	0.005		mg/L	U		0.005		SW846-6020	/ X /
Selenium	0.00254		mg/L	J		0.005		SW846-6020	S / X /
Silver	0.001		mg/L	U		0.001		SW846-6020	/ X /
Sodium	70		mg/L			2.5		SW846-6020	/ X /
Tantalum	0.005		mg/L	UN		0.005		SW846-6020	/ X / R
Thallium	0.002		mg/L	U		0.002		SW846-6020	/ X /
Tin	0.005		mg/L	U		0.005		SW846-6020	/ X /
Titanium	0.0864		mg/L	N		0.01		SW846-6020	/ X /
Uranium	0.145		mg/L			0.0002		SW846-6020	/ X /
Vanadium	0.0197		mg/L			0.01		SW846-6020	S / X /
Zinc	0.127		mg/L			0.01		SW846-6020	/ X /
<b>METAL-D</b>									
Antimony, Dissolved	0.003		mg/L	U		0.003		SW846-6020	/ X /
Arsenic, Dissolved	0.00202		mg/L	BJ		0.005		SW846-6020	S / X /
Barium, Dissolved	0.0884		mg/L			0.002		SW846-6020	S / X /
Cadmium, Dissolved	0.001		mg/L	U		0.001		SW846-6020	/ X /
Chromium, Dissolved	0.01		mg/L	U		0.01		SW846-6020	/ X /

## Paducah OREIS Report for ULS16-01

Cobalt, Dissolved	0.00148		mg/L		0.001		SW846-6020	/ X /
Copper, Dissolved	0.00094		mg/L	J	0.001		SW846-6020	S / X /
Lead, Dissolved	0.002		mg/L	U	0.002		SW846-6020	/ X /
Manganese, Dissolved	0.12		mg/L		0.005		SW846-6020	/ X /
Nickel, Dissolved	0.00495		mg/L		0.002		SW846-6020	S / X /
Selenium, Dissolved	0.005		mg/L	U	0.005		SW846-6020	/ X /
Silver, Dissolved	0.001		mg/L	U	0.001		SW846-6020	/ X /
Tin, Dissolved	0.005		mg/L	U	0.005		SW846-6020	/ X /
Titanium, Dissolved	0.01		mg/L	UN	0.01		SW846-6020	/ X /
Uranium, Dissolved	0.133		mg/L		0.001		SW846-6020	/ X /
Vanadium, Dissolved	0.01		mg/L	U	0.01		SW846-6020	/ X /
Zinc, Dissolved	0.0117		mg/L		0.01		SW846-6020	S / X /

### OTHOR

Oil and Grease	3.94		mg/L	RU	3.94		EPA-1664A	/ X / R
----------------	------	--	------	----	------	--	-----------	---------

### PCCB

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

### RADS

Alpha activity	53.8	6.68	pCi/L		7.01	11.3	SW846-9310	I / X /
Americium-241	-0.0748	0.517	pCi/L	U	1.26	0.517	HASL 300, Am-05-RC M	/ X /
Beta activity	59.7	5.05	pCi/L		6.23	11.5	SW846-9310	/ X /
Cesium-137	0.3	1.43	pCi/L	U	2.15	1.43	EPA-901.1	/ X /
Cobalt-60	-0.25	1.3	pCi/L	U	2.31	1.31	EPA-901.1	/ X /
Neptunium-237	-0.0125	0.675	pCi/L	U	1.52	0.675	ASTM C 1476-00 Mod	/ X /
Plutonium-239/240	0.0401	0.419	pCi/L	U	0.874	0.419	HASL 300, Pu-11-RC M	/ X /
Radium-226	0.427	0.362	pCi/L		0.4	0.363	Alpha Spectroscopy	/ X /
Strontium-90	5.92	4.75	pCi/L	U	7.65	4.84	EPA-905.0-M	/ X /
Technetium-99	29.1	11.9	pCi/L		18.9	12.3	HASL 300, Tc-02-RC M	/ X /
Thorium-230	0.551	0.693	pCi/L	U	0.999	0.707	HASL 300, Th-01-RC M	/ X /
Thorium-234	27.5	42.3	pCi/L	U	37.3	42.7	EPA-901.1	/ X /
Total Uranium	61.6	5.98	pCi/L		1.8	9.13	HASL 300, U-02-RC M	/ X /
Tritium	-8.23	93.8	pCi/L	U	178	93.8	EPA-906.0-M	/ X /
Uranium-234	12	2.66	pCi/L		1.14	3.14	HASL 300, U-02-RC M	/ X /
Uranium-235	1.33	1.09	pCi/L		1.12	1.1	HASL 300, U-02-RC M	/ X /
Uranium-238	48.2	5.25	pCi/L		0.818	8.51	HASL 300, U-02-RC M	/ X /

### RADS-D

Americium-241, Dissolved	0.0429	0.448	pCi/L	U	0.935	0.449	HASL 300, Am-05-RC M	/ X /
Cesium-137, Dissolved	0.456	1.02	pCi/L	U	1.86	1.04	EPA-901.1	/ X /
Cobalt-60, Dissolved	0.531	1.1	pCi/L	U	1.82	1.13	EPA-901.1	/ X /
Dissolved Alpha	38.5	5.39	pCi/L		2.93	8.31	SW846-9310	/ X /
Dissolved Beta	28.2	2.63	pCi/L		1.97	5.39	SW846-9310	/ X /
Neptunium-237, Dissolved	-0.307	0.343	pCi/L	U	1.21	0.343	ASTM C 1476-00 Mod	/ X /
Plutonium-239/240, Dissolved	-0.0329	0.284	pCi/L	U	0.657	0.284	HASL 300, Pu-11-RC M	/ X /
Technetium-99, Dissolved	34.3	11.4	pCi/L		17.9	12.1	HASL 300, Tc-02-RC M	/ X /
Thorium-230, Dissolved	0.0922	0.955	pCi/L	U	2.01	0.958	HASL 300, Th-01-RC M	/ X /
Thorium-234, Dissolved	67.6	109	pCi/L	U	91.6	110	EPA-901.1	/ X /
Total Uranium, Dissolved	55.1	5.88	pCi/L		1.45	8.69	HASL 300, U-02-RC M	/ X /
Uranium-234, Dissolved	11	2.63	pCi/L		0.888	3.07	HASL 300, U-02-RC M	S / X /

## Paducah OREIS Report for ULS16-01

Uranium-235, Dissolved	0.793	0.874	pCi/L		0.595	0.881	HASL 300, U-02-RC M	S / X /
Uranium-235, Dissolved	43.3	5.19	pCi/L		0.979	8.09	HASL 300, U-02-RC M	S / X /
<b>VOA</b>								
1,1,1,2-Tetrachloroethane	1		ug/L	U	1		EPA-624	/ X /
1,1,1-Trichloroethane	1		ug/L	U	1		EPA-624	/ X /
1,1,2,2-Tetrachloroethane	1		ug/L	U	1		EPA-624	/ X /
1,1,2-Trichloroethane	1		ug/L	U	1		EPA-624	/ X /
1,1-Dichloroethane	1		ug/L	U	1		EPA-624	/ X /
1,1-Dichloroethene	1		ug/L	U	1		EPA-624	/ X /
1,2,3-Trichloropropane	1		ug/L	U	1		EPA-624	/ X /
1,2-Dibromo-3-chloropropane	0.0198		ug/L	U	0.0198		SW846-8011	/ X /
1,2-Dibromoethane	1		ug/L	U	1		EPA-624	/ X /
1,2-Dichlorobenzene	1		ug/L	U	1		EPA-624	/ X /
1,2-Dichloroethane	1		ug/L	U	1		EPA-624	/ X /
1,2-Dichloropropane	1		ug/L	U	1		EPA-624	/ X /
1,2-Dimethylbenzene	1		ug/L	U	1		EPA-624	/ X /
1,4-Dichlorobenzene	1		ug/L	U	1		EPA-624	/ X /
2-Butanone	5		ug/L	U	5		EPA-624	/ X /
2-Hexanone	5		ug/L	U	5		EPA-624	/ X /
4-Methyl-2-pentanone	5		ug/L	U	5		EPA-624	/ X /
Acetone	5		ug/L	U	5		EPA-624	/ X /
Acrolein	5		ug/L	U	5		EPA-624	/ X /
Acrylonitrile	5		ug/L	U	5		EPA-624	/ X /
Benzene	1		ug/L	U	1		EPA-624	/ X /
Bromochloromethane	1		ug/L	U	1		EPA-624	/ X /
Bromodichloromethane	1		ug/L	U	1		EPA-624	/ X /
Bromoform	1		ug/L	U	1		EPA-624	/ X /
Bromomethane	1		ug/L	U	1		EPA-624	/ X /
Carbon disulfide	5		ug/L	U	5		EPA-624	/ X /
Carbon tetrachloride	1		ug/L	U	1		EPA-624	/ X /
Chlorobenzene	1		ug/L	U	1		EPA-624	/ X /
Chloroethane	1		ug/L	U	1		EPA-624	/ X /
Chloroform	1		ug/L	U	1		EPA-624	/ X /
Chloromethane	1		ug/L	U	1		EPA-624	/ X /
cis-1,2-Dichloroethene	1		ug/L	U	1		EPA-624	/ X /
cis-1,3-Dichloropropene	1		ug/L	U	1		EPA-624	/ X /
Dibromochloromethane	1		ug/L	U	1		EPA-624	/ X /
Dibromomethane	1		ug/L	U	1		EPA-624	/ X /
Ethylbenzene	1		ug/L	U	1		EPA-624	/ X /
Iodomethane	5		ug/L	U	5		EPA-624	/ X /
m,p-Xylene	2		ug/L	U	2		EPA-624	/ X /
Methylene chloride	2		ug/L	U	2		EPA-624	/ X /
Styrene	1		ug/L	U	1		EPA-624	/ X /
Tetrachloroethene	1		ug/L	U	1		EPA-624	/ X /
Toluene	1		ug/L	U	1		EPA-624	/ X /
Total Xylene	3		ug/L	U	3		EPA-624	/ X /
trans-1,2-Dichloroethene	1		ug/L	U	1		EPA-624	/ X /
trans-1,3-Dichloropropene	1		ug/L	U	1		EPA-624	/ X /
Trans-1,4-Dichloro-2-butene	5		ug/L	U	5		EPA-624	/ X /
Trichloroethene	1		ug/L	U	1		EPA-624	/ X /
Trichlorofluoromethane	1		ug/L	U	1		EPA-624	/ X /
Vinyl acetate	5		ug/L	U	5		EPA-624	/ X /
Vinyl chloride	1		ug/L	U	1		EPA-624	/ X /
<b>WETCHEM</b>								
Carbonaceous Biochemical Oxygen Demand (CBOD)	1.55		mg/L	J	2		SM-5210 B	/ X /

## Paducah OREIS Report for ULS16-01

Chemical Oxygen Demand (COD)	19.6	mg/L	J	20	EPA-410.4	/X/
Cyanide	0.005	mg/L	U	0.005	SW846-9012B	/X/
Dissolved Solids	594	mg/L		14.3	EPA-160.1	/X/
Hardness - Total as CaCO3	472	mg/L		2	EPA-130.2	/X/
Iodide	0.5	mg/L	U	0.5	EPA-300.0	/X/
Suspended Solids	30.4	mg/L		5	EPA-160.2	/X/
Total Organic Carbon (TOC)	6.87	mg/L		2	SW846-9060A	/X/
Total Organic Halides (TOX)	38.9	ug/L		10	SW846-9020B	/X/

---



## Paducah OREIS Report for ULS16-01

**FBULS16-01**

from: QC

on 2/24/2016

Media: WQ

SmpMethod:

Comments:

Analysis	Results	Counting Error	Units	Result Qual	Foot Note	Reporting Limit	TPU	Method	V/V/A*
<b>ANION</b>									
Bromide	0.2		mg/L	U		0.2		SW846-9056	/X/
Chloride	0.108		mg/L	J		0.2		SW846-9056	/X/
Fluoride	0.1		mg/L	U		0.1		SW846-9056	/X/
Nitrate as Nitrogen	0.1		mg/L	U		0.1		SW846-9056	/X/
Sulfate	0.4		mg/L	U		0.4		SW846-9056	/X/
<b>METAL</b>									
Aluminum	0.05		mg/L	U		0.05		SW846-6020	/X/
Antimony	0.003		mg/L	U		0.003		SW846-6020	/X/
Arsenic	0.005		mg/L	U		0.005		SW846-6020	/X/
Barium	0.002		mg/L	U		0.002		SW846-6020	/X/
Beryllium	0.0005		mg/L	U		0.0005		SW846-6020	/X/
Boron	0.0151		mg/L			0.015		SW846-6020	/X/
Cadmium	0.001		mg/L	U		0.001		SW846-6020	/X/
Calcium	0.0727		mg/L	J		0.2		SW846-6020	/X/
Chromium	0.01		mg/L	U		0.01		SW846-6020	/X/
Cobalt	0.001		mg/L	U		0.001		SW846-6020	/X/
Copper	0.001		mg/L	U		0.001		SW846-6020	/X/
Iron	0.1		mg/L	U		0.1		SW846-6020	/X/
Lead	0.002		mg/L	U		0.002		SW846-6020	/X/
Magnesium	0.017		mg/L	J		0.03		SW846-6020	/X/
Manganese	0.005		mg/L	U		0.005		SW846-6020	/X/
Mercury	0.0002		mg/L	U		0.0002		SW846-7470A	/X/
Molybdenum	0.0005		mg/L	U		0.0005		SW846-6020	/X/
Nickel	0.002		mg/L	U		0.002		SW846-6020	/X/
Phosphorous	0.05		mg/L	U		0.05		EPA-365.4	/X/
Potassium	0.3		mg/L	U		0.3		SW846-6020	/X/
Rhodium	0.005		mg/L	U		0.005		SW846-6020	/X/
Selenium	0.005		mg/L	U		0.005		SW846-6020	/X/
Silver	0.001		mg/L	U		0.001		SW846-6020	/X/
Sodium	0.25		mg/L	U		0.25		SW846-6020	/X/
Tantalum	0.005		mg/L	UN		0.005		SW846-6020	/X/
Thallium	0.002		mg/L	U		0.002		SW846-6020	/X/
Tin	0.005		mg/L	U		0.005		SW846-6020	/X/
Titanium	0.01		mg/L	UN		0.01		SW846-6020	/X/
Uranium	0.0002		mg/L	U		0.0002		SW846-6020	/X/
Vanadium	0.01		mg/L	U		0.01		SW846-6020	/X/
Zinc	0.01		mg/L	U		0.01		SW846-6020	/X/
<b>OTHOR</b>									
Oil and Grease	4.24		mg/L	U		4.24		EPA-1664A	/X/
<b>PPCB</b>									
PCB-1016	0.098		ug/L	U		0.098		SW846-8082	/X/
PCB-1221	0.098		ug/L	U		0.098		SW846-8082	/X/
PCB-1232	0.098		ug/L	U		0.098		SW846-8082	/X/
PCB-1242	0.098		ug/L	U		0.098		SW846-8082	/X/
PCB-1248	0.098		ug/L	U		0.098		SW846-8082	/X/
PCB-1254	0.098		ug/L	U		0.098		SW846-8082	/X/
PCB-1260	0.098		ug/L	U		0.098		SW846-8082	/X/
PCB-1268	0.098		ug/L	U		0.098		SW846-8082	/X/
Polychlorinated biphenyl	0.098		ug/L	U		0.098		SW846-8082	/X/

## Paducah OREIS Report for ULS16-01

<b>RADS</b>								
Alpha activity	2.87	4.48	pCi/L	U	8.01	4.5	SW846-9310	/X/
Americium-241	0.156	0.44	pCi/L	U	0.469	0.44	HASL 300, Am-05-RC M	/X/
Beta activity	-0.927	4.65	pCi/L	U	9.14	4.65	SW846-9310	/X/
Cesium-137	-0.911	1.34	pCi/L	U	2.24	1.41	EPA-901.1	/X/
Cobalt-60	0.635	1.34	pCi/L	U	2.5	1.37	EPA-901.1	/X/
Neptunium-237	-0.308	0.93	pCi/L	U	2.64	0.932	ASTM C 1476-00 Mod	/X/
Plutonium-239/240	-0.217	0.412	pCi/L	U	1.27	0.413	HASL 300, Pu-11-RC M	/X/
Radium-226	0.312	0.292	pCi/L	U	0.341	0.292	Alpha Spectroscopy	/X/
Strontium-90	-1.37	3.95	pCi/L	U	7.71	3.95	EPA-905.0-M	/X/
Technetium-99	1.9	10.3	pCi/L	U	17.7	10.3	HASL 300, Tc-02-RC M	/X/
Thorium-230	0.776	1.31	pCi/L	U	2.21	1.33	HASL 300, Th-01-RC M	/X/
Thorium-234	39.2	40	pCi/L	U	59.8	44.9	EPA-901.1	/X/
Total Uranium	2.01	1.25	pCi/L		1.55	1.26	HASL 300, U-02-RC M	/X/
Tritium	9.59	92.6	pCi/L	U	171	92.6	EPA-906.0-M	/X/
Uranium-234	0.684	0.683	pCi/L	U	0.791	0.689	HASL 300, U-02-RC M	/X/
Uranium-235	0.608	0.791	pCi/L	U	1.12	0.795	HASL 300, U-02-RC M	/X/
Uranium-238	0.715	0.68	pCi/L	U	0.717	0.687	HASL 300, U-02-RC M	/X/
<b>VOA</b>								
1,1,1,2-Tetrachloroethane	1		ug/L	U	1		EPA-624	/X/
1,1,1-Trichloroethane	1		ug/L	U	1		EPA-624	/X/
1,1,2,2-Tetrachloroethane	1		ug/L	U	1		EPA-624	/X/
1,1,2-Trichloroethane	1		ug/L	U	1		EPA-624	/X/
1,1-Dichloroethane	1		ug/L	U	1		EPA-624	/X/
1,1-Dichloroethene	1		ug/L	U	1		EPA-624	/X/
1,2,3-Trichloropropane	1		ug/L	U	1		EPA-624	/X/
1,2-Dibromo-3-chloropropane	0.02		ug/L	U	0.02		SW846-8011	/X/
1,2-Dibromoethane	1		ug/L	U	1		EPA-624	/X/
1,2-Dichlorobenzene	1		ug/L	U	1		EPA-624	/X/
1,2-Dichloroethane	1		ug/L	U	1		EPA-624	/X/
1,2-Dichloropropane	1		ug/L	U	1		EPA-624	/X/
1,2-Dimethylbenzene	1		ug/L	U	1		EPA-624	/X/
1,4-Dichlorobenzene	1		ug/L	U	1		EPA-624	/X/
2-Butanone	5		ug/L	U	5		EPA-624	/X/
2-Hexanone	5		ug/L	U	5		EPA-624	/X/
4-Methyl-2-pentanone	5		ug/L	U	5		EPA-624	/X/
Acetone	5		ug/L	U	5		EPA-624	/X/
Acrolein	5		ug/L	U	5		EPA-624	/X/
Acrylonitrile	5		ug/L	U	5		EPA-624	/X/
Benzene	1		ug/L	U	1		EPA-624	/X/
Bromochloromethane	1		ug/L	U	1		EPA-624	/X/
Bromodichloromethane	1		ug/L	U	1		EPA-624	/X/
Bromoform	1		ug/L	U	1		EPA-624	/X/
Bromomethane	1		ug/L	U	1		EPA-624	/X/
Carbon disulfide	5		ug/L	U	5		EPA-624	/X/
Carbon tetrachloride	1		ug/L	U	1		EPA-624	/X/
Chlorobenzene	1		ug/L	U	1		EPA-624	/X/
Chloroethane	1		ug/L	U	1		EPA-624	/X/
Chloroform	1		ug/L	U	1		EPA-624	/X/
Chloromethane	1		ug/L	U	1		EPA-624	/X/
cis-1,2-Dichloroethene	1		ug/L	U	1		EPA-624	/X/
cis-1,3-Dichloropropene	1		ug/L	U	1		EPA-624	/X/
Dibromochloromethane	1		ug/L	U	1		EPA-624	/X/
Dibromomethane	1		ug/L	U	1		EPA-624	/X/
Ethylbenzene	1		ug/L	U	1		EPA-624	/X/
Iodomethane	5		ug/L	U	5		EPA-624	/X/

## Paducah OREIS Report for ULS16-01

m,p-Xylene	2	ug/L	U	2	EPA-624	/X/
Methylene chloride	2	ug/L	U	2	EPA-624	/X/
Styrene	1	ug/L	U	1	EPA-624	/X/
Tetrachloroethene	1	ug/L	U	1	EPA-624	/X/
Toluene	1	ug/L	U	1	EPA-624	/X/
Total Xylene	3	ug/L	U	3	EPA-624	/X/
trans-1,2-Dichloroethene	1	ug/L	U	1	EPA-624	/X/
trans-1,3-Dichloropropene	1	ug/L	U	1	EPA-624	/X/
Trans-1,4-Dichloro-2-butene	5	ug/L	U	5	EPA-624	/X/
Trichloroethene	1	ug/L	U	1	EPA-624	/X/
Trichlorofluoromethane	1	ug/L	U	1	EPA-624	/X/
Vinyl acetate	5	ug/L	U	5	EPA-624	/X/
Vinyl chloride	1	ug/L	U	1	EPA-624	/X/
<b>WETCHEM</b>						
Chemical Oxygen Demand (COD)	20	mg/L	U	20	EPA-410.4	/X/
Hardness - Total as CaCO3	2	mg/L	U	2	EPA-130.2	/X/
Iodide	0.5	mg/L	U	0.5	EPA-300.0	/X/
Total Organic Carbon (TOC)	0.415	mg/L	J	2	SW846-9060A	/X/

## Paducah OREIS Report for ULS16-01

**TBULS16-01**

from: QC

on 2/24/2016

Media: WQ

SmpMethod:

Comments:

Analysis	Results	Counting Error	Units	Result Qual	Foot Note	Reporting Limit	TPU	Method	V/V/A*
<b>VOA</b>									
1,1,1,2-Tetrachloroethane	1		ug/L	U		1		EPA-624	/X/
1,1,1-Trichloroethane	1		ug/L	U		1		EPA-624	/X/
1,1,2,2-Tetrachloroethane	1		ug/L	U		1		EPA-624	/X/
1,1,2-Trichloroethane	1		ug/L	U		1		EPA-624	/X/
1,1-Dichloroethane	1		ug/L	U		1		EPA-624	/X/
1,1-Dichloroethene	1		ug/L	U		1		EPA-624	/X/
1,2,3-Trichloropropane	1		ug/L	U		1		EPA-624	/X/
1,2-Dibromo-3-chloropropane	0.02		ug/L	U		0.02		SW846-8011	/X/
1,2-Dibromoethane	1		ug/L	U		1		EPA-624	/X/
1,2-Dichlorobenzene	1		ug/L	U		1		EPA-624	/X/
1,2-Dichloroethane	1		ug/L	U		1		EPA-624	/X/
1,2-Dichloropropane	1		ug/L	U		1		EPA-624	/X/
1,2-Dimethylbenzene	1		ug/L	U		1		EPA-624	/X/
1,4-Dichlorobenzene	1		ug/L	U		1		EPA-624	/X/
2-Butanone	5		ug/L	U		5		EPA-624	/X/
2-Hexanone	5		ug/L	U		5		EPA-624	/X/
4-Methyl-2-pentanone	5		ug/L	U		5		EPA-624	/X/
Acetone	5		ug/L	U		5		EPA-624	/X/
Acrolein	5		ug/L	U		5		EPA-624	/X/
Acrylonitrile	5		ug/L	U		5		EPA-624	/X/
Benzene	1		ug/L	U		1		EPA-624	/X/
Bromochloromethane	1		ug/L	U		1		EPA-624	/X/
Bromodichloromethane	1		ug/L	U		1		EPA-624	/X/
Bromoform	1		ug/L	U		1		EPA-624	/X/
Bromomethane	1		ug/L	U		1		EPA-624	/X/
Carbon disulfide	5		ug/L	U		5		EPA-624	/X/
Carbon tetrachloride	1		ug/L	U		1		EPA-624	/X/
Chlorobenzene	1		ug/L	U		1		EPA-624	/X/
Chloroethane	1		ug/L	U		1		EPA-624	/X/
Chloroform	1		ug/L	U		1		EPA-624	/X/
Chloromethane	1		ug/L	U		1		EPA-624	/X/
cis-1,2-Dichloroethene	1		ug/L	U		1		EPA-624	/X/
cis-1,3-Dichloropropene	1		ug/L	U		1		EPA-624	/X/
Dibromochloromethane	1		ug/L	U		1		EPA-624	/X/
Dibromomethane	1		ug/L	U		1		EPA-624	/X/
Ethylbenzene	1		ug/L	U		1		EPA-624	/X/
Iodomethane	5		ug/L	U		5		EPA-624	/X/
m,p-Xylene	2		ug/L	U		2		EPA-624	/X/
Methylene chloride	2		ug/L	U		2		EPA-624	/X/
Styrene	1		ug/L	U		1		EPA-624	/X/
Tetrachloroethene	1		ug/L	U		1		EPA-624	/X/
Toluene	1		ug/L	U		1		EPA-624	/X/
Total Xylene	3		ug/L	U		3		EPA-624	/X/
trans-1,2-Dichloroethene	1		ug/L	U		1		EPA-624	/X/
trans-1,3-Dichloropropene	1		ug/L	U		1		EPA-624	/X/
Trans-1,4-Dichloro-2-butene	5		ug/L	U		5		EPA-624	/X/
Trichloroethene	1		ug/L	U		1		EPA-624	/X/
Trichlorofluoromethane	1		ug/L	U		1		EPA-624	/X/
Vinyl acetate	5		ug/L	U		5		EPA-624	/X/
Vinyl chloride	1		ug/L	U		1		EPA-624	/X/

## Paducah OREIS Report for SLS16-01

**SLS16-01-01**

from: C-746-S

on 2/24/2016

Media: WW

SmpMethod: GR

Comments:

Analysis	Results	Counting Error	Units	Result Qual	Foot Note	Reporting Limit	TPU	Method	V/V/A*
<b>ANION</b>									
Bromide	0.103		mg/L	J		0.2		SW846-9056	S / X /
Chloride	8.42		mg/L			0.2		SW846-9056	/ X /
Fluoride	0.713		mg/L			0.1		SW846-9056	/ X /
Nitrate as Nitrogen	0.166		mg/L	J		0.5		SW846-9056	S / X /
Sulfate	51.4		mg/L			2		SW846-9056	/ X /
<b>FS</b>									
Conductivity	966		umho/cm					FS	/ /
Dissolved Oxygen	4.82		mg/L					FS	/ /
pH	7.31		Std Unit					FS	/ /
Redox	421		mV					FS	/ /
Temperature	48.2		deg F					FS	/ /
<b>METAL</b>									
Aluminum	0.05		mg/L	U		0.05		SW846-6020	/ X /
Antimony	0.003		mg/L	U		0.003		SW846-6020	/ X /
Arsenic	0.00195		mg/L	BJ		0.005		SW846-6020	/ X /
Barium	0.184		mg/L			0.002		SW846-6020	/ X /
Beryllium	0.0005		mg/L	U		0.0005		SW846-6020	/ X /
Boron	0.0277		mg/L			0.015		SW846-6020	S / X /
Cadmium	0.001		mg/L	U		0.001		SW846-6020	/ X /
Calcium	173		mg/L			2		SW846-6020	/ X /
Chromium	0.01		mg/L	U		0.01		SW846-6020	/ X /
Cobalt	0.001		mg/L	U		0.001		SW846-6020	/ X /
Copper	0.000388		mg/L	J		0.001		SW846-6020	S / X /
Iron	0.11		mg/L			0.1		SW846-6020	/ X /
Lead	0.002		mg/L	U		0.002		SW846-6020	/ X /
Magnesium	21.2		mg/L			0.03		SW846-6020	/ X /
Manganese	0.0378		mg/L			0.005		SW846-6020	/ X /
Mercury	0.0002		mg/L	U		0.0002		SW846-7470A	/ X /
Molybdenum	0.000662		mg/L	B		0.0005		SW846-6020	S / X /
Nickel	0.000838		mg/L	J		0.002		SW846-6020	S / X /
Phosphorous	0.05		mg/L	U		0.05		EPA-365.4	/ X /
Potassium	1.1		mg/L			0.3		SW846-6020	/ X /
Rhodium	0.005		mg/L	U		0.005		SW846-6020	/ X /
Selenium	0.005		mg/L	U		0.005		SW846-6020	/ X /
Silver	0.001		mg/L	U		0.001		SW846-6020	/ X /
Sodium	30.1		mg/L			0.25		SW846-6020	/ X /
Tantalum	0.005		mg/L	U		0.005		SW846-6020	/ X /
Thallium	0.002		mg/L	U		0.002		SW846-6020	/ X /
Tin	0.005		mg/L	U		0.005		SW846-6020	/ X /
Titanium	0.01		mg/L	U		0.01		SW846-6020	/ X /
Uranium	0.00747		mg/L			0.0002		SW846-6020	/ X /
Vanadium	0.01		mg/L	U		0.01		SW846-6020	/ X /
Zinc	0.01		mg/L	U		0.01		SW846-6020	/ X /
<b>METAL-D</b>									
Antimony, Dissolved	0.003		mg/L	U		0.003		SW846-6020	/ X /
Arsenic, Dissolved	0.00186		mg/L	BJ		0.005		SW846-6020	/ X /
Barium, Dissolved	0.181		mg/L			0.002		SW846-6020	/ X /
Cadmium, Dissolved	0.001		mg/L	U		0.001		SW846-6020	/ X /
Chromium, Dissolved	0.01		mg/L	U		0.01		SW846-6020	/ X /

## Paducah OREIS Report for SLS16-01

Cobalt, Dissolved	0.001		mg/L	U	0.001		SW846-6020	/ X /
Copper, Dissolved	0.00053		mg/L	J	0.001		SW846-6020	S / X /
Lead, Dissolved	0.002		mg/L	U	0.002		SW846-6020	/ X /
Manganese, Dissolved	0.0288		mg/L		0.005		SW846-6020	/ X /
Nickel, Dissolved	0.000808		mg/L	J	0.002		SW846-6020	S / X /
Selenium, Dissolved	0.005		mg/L	U	0.005		SW846-6020	/ X /
Silver, Dissolved	0.001		mg/L	U	0.001		SW846-6020	/ X /
Tin, Dissolved	0.005		mg/L	U	0.005		SW846-6020	/ X /
Titanium, Dissolved	0.01		mg/L	U	0.01		SW846-6020	/ X /
Uranium, Dissolved	0.00731		mg/L		0.0002		SW846-6020	/ X /
Vanadium, Dissolved	0.01		mg/L	U	0.01		SW846-6020	/ X /
Zinc, Dissolved	0.01		mg/L	U	0.01		SW846-6020	/ X /

### OTHOR

Oil and Grease	4		mg/L	U	4		EPA-1664A	/ X /
----------------	---	--	------	---	---	--	-----------	-------

### PCCB

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

### RADS

Alpha activity	4.47	7.01	pCi/L	U	12.5	7.05	SW846-9310	/ X /
Americium-241	0.156	0.438	pCi/L	U	0.467	0.438	HASL 300, Am-05-RC M	/ X /
Beta activity	5.92	8.12	pCi/L	U	13.7	8.19	SW846-9310	/ X /
Cesium-137	-0.301	1.27	pCi/L	U	2.15	1.28	EPA-901.1	/ X /
Cobalt-60	0.132	1.31	pCi/L	U	2.36	1.31	EPA-901.1	/ X /
Neptunium-237	0.135	0.589	pCi/L	U	1.06	0.589	ASTM C 1476-00 Mod	/ X /
Plutonium-239/240	0.0514	0.537	pCi/L	U	1.12	0.538	HASL 300, Pu-11-RC M	/ X /
Radium-226	0.122	0.242	pCi/L	U	0.393	0.242	Alpha Spectroscopy	/ X /
Strontium-90	1.02	2.73	pCi/L	U	4.9	2.74	EPA-905.0-M	/ X /
Technetium-99	-1.56	10.5	pCi/L	U	18.3	10.5	HASL 300, Tc-02-RC M	/ X /
Thorium-230	0.575	0.802	pCi/L	U	1.18	0.817	HASL 300, Th-01-RC M	/ X /
Thorium-234	0	38.1	pCi/L	UI	34.5	40.5	EPA-901.1	/ X /
Total Uranium	5.1	1.85	pCi/L		1.36	1.91	HASL 300, U-02-RC M	/ X /
Tritium	64	101	pCi/L	U	175	102	EPA-906.0-M	/ X /
Uranium-234	2.39	1.23	pCi/L		0.726	1.27	HASL 300, U-02-RC M	/ X /
Uranium-235	0.33	0.648	pCi/L	U	0.898	0.649	HASL 300, U-02-RC M	/ X /
Uranium-238	2.39	1.23	pCi/L		0.726	1.27	HASL 300, U-02-RC M	/ X /

### RADS-D

Americium-241, Dissolved	0.175	0.492	pCi/L	U	0.525	0.493	HASL 300, Am-05-RC M	/ X /
Cesium-137, Dissolved	0.939	1.16	pCi/L	U	1.87	1.24	EPA-901.1	/ X /
Cobalt-60, Dissolved	-0.965	1.56	pCi/L	U	1.82	1.62	EPA-901.1	/ X /
Dissolved Alpha	2.12	1.4	pCi/L	U	2.21	1.44	SW846-9310	/ X /
Dissolved Beta	0.48	0.771	pCi/L	U	1.29	0.781	SW846-9310	/ X /
Neptunium-237, Dissolved	-0.0585	1.36	pCi/L	U	3.07	1.36	ASTM C 1476-00 Mod	/ X /
Plutonium-239/240, Dissolved	-0.135	0.457	pCi/L	U	1.19	0.457	HASL 300, Pu-11-RC M	/ X /
Technetium-99, Dissolved	-5.57	10.5	pCi/L	U	18.5	10.5	HASL 300, Tc-02-RC M	/ X /
Thorium-230, Dissolved	0.156	0.586	pCi/L	U	1.13	0.59	HASL 300, Th-01-RC M	/ X /
Thorium-234, Dissolved	0.248	55.4	pCi/L	U	71.7	55.4	EPA-901.1	/ X /
Total Uranium, Dissolved	6.82	2.02	pCi/L		1.57	2.12	HASL 300, U-02-RC M	/ X /
Uranium-234, Dissolved	4.24	1.53	pCi/L		0.828	1.63	HASL 300, U-02-RC M	S / X /

## Paducah OREIS Report for SLS16-01

Uranium-235, Dissolved	0.342	0.68	pCi/L	U	1.1	0.681	HASL 300, U-02-RC M	/X/
Uranium-238, Dissolved	2.24	1.13	pCi/L		0.75	1.17	HASL 300, U-02-RC M	/X/
<b>VOA</b>								
1,1,1,2-Tetrachloroethane	1		ug/L	U	1		EPA-624	/X/
1,1,1-Trichloroethane	1		ug/L	U	1		EPA-624	/X/
1,1,2,2-Tetrachloroethane	1		ug/L	U	1		EPA-624	/X/
1,1,2-Trichloroethane	1		ug/L	U	1		EPA-624	/X/
1,1-Dichloroethane	1		ug/L	U	1		EPA-624	/X/
1,1-Dichloroethene	1		ug/L	U	1		EPA-624	/X/
1,2,3-Trichloropropane	1		ug/L	U	1		EPA-624	/X/
1,2-Dibromo-3-chloropropane	0.02		ug/L	U	0.02		SW846-8011	/X/
1,2-Dibromoethane	1		ug/L	U	1		EPA-624	/X/
1,2-Dichlorobenzene	1		ug/L	U	1		EPA-624	/X/
1,2-Dichloroethane	1		ug/L	U	1		EPA-624	/X/
1,2-Dichloropropane	1		ug/L	U	1		EPA-624	/X/
1,2-Dimethylbenzene	1		ug/L	U	1		EPA-624	/X/
1,4-Dichlorobenzene	1		ug/L	U	1		EPA-624	/X/
2-Butanone	5		ug/L	U	5		EPA-624	/X/
2-Hexanone	5		ug/L	U	5		EPA-624	/X/
4-Methyl-2-pentanone	5		ug/L	U	5		EPA-624	/X/
Acetone	5		ug/L	U	5		EPA-624	/X/
Acrolein	5		ug/L	U	5		EPA-624	/X/
Acrylonitrile	5		ug/L	U	5		EPA-624	/X/
Benzene	1		ug/L	U	1		EPA-624	/X/
Bromochloromethane	1		ug/L	U	1		EPA-624	/X/
Bromodichloromethane	1		ug/L	U	1		EPA-624	/X/
Bromoform	1		ug/L	U	1		EPA-624	/X/
Bromomethane	1		ug/L	U	1		EPA-624	/X/
Carbon disulfide	5		ug/L	U	5		EPA-624	/X/
Carbon tetrachloride	1		ug/L	U	1		EPA-624	/X/
Chlorobenzene	1		ug/L	U	1		EPA-624	/X/
Chloroethane	1		ug/L	U	1		EPA-624	/X/
Chloroform	1		ug/L	U	1		EPA-624	/X/
Chloromethane	1		ug/L	U	1		EPA-624	/X/
cis-1,2-Dichloroethene	1		ug/L	U	1		EPA-624	/X/
cis-1,3-Dichloropropene	1		ug/L	U	1		EPA-624	/X/
Dibromochloromethane	1		ug/L	U	1		EPA-624	/X/
Dibromomethane	1		ug/L	U	1		EPA-624	/X/
Ethylbenzene	1		ug/L	U	1		EPA-624	/X/
Iodomethane	5		ug/L	U	5		EPA-624	/X/
m,p-Xylene	2		ug/L	U	2		EPA-624	/X/
Methylene chloride	2		ug/L	U	2		EPA-624	/X/
Styrene	1		ug/L	U	1		EPA-624	/X/
Tetrachloroethene	1		ug/L	U	1		EPA-624	/X/
Toluene	1		ug/L	U	1		EPA-624	/X/
Total Xylene	3		ug/L	U	3		EPA-624	/X/
trans-1,2-Dichloroethene	1		ug/L	U	1		EPA-624	/X/
trans-1,3-Dichloropropene	1		ug/L	U	1		EPA-624	/X/
Trans-1,4-Dichloro-2-butene	5		ug/L	U	5		EPA-624	/X/
Trichloroethene	1		ug/L	U	1		EPA-624	/X/
Trichlorofluoromethane	1		ug/L	U	1		EPA-624	/X/
Vinyl acetate	5		ug/L	U	5		EPA-624	/X/
Vinyl chloride	1		ug/L	U	1		EPA-624	/X/
<b>WETCHEM</b>								
Carbonaceous Biochemical Oxygen Demand (CBOD)	2		mg/L	Ud	2		SM-5210 B	/X/

### Paducah OREIS Report for SLS16-01

Chemical Oxygen Demand (COD)	20	mg/L	U	20	EPA-410.4	/X/
Cyanide	0.2	mg/L	U	0.2	SW846-9012B	/X/
Dissolved Solids	507	mg/L		14.3	EPA-160.1	S/X/
Hardness - Total as CaCO3	494	mg/L		2	EPA-130.2	/X/
Iodide	0.5	mg/L	U	0.5	EPA-300.0	/X/
Suspended Solids	2.5	mg/L	U	2.5	EPA-160.2	/X/
Total Organic Carbon (TOC)	3.3	mg/L		2	SW846-9060A	/X/
Total Organic Halides (TOX)	12.6	ug/L		10	SW846-9020B	/X/

---



## Paducah OREIS Report for SLS16-01

**SLS16-01-02**

from: C-746-S

on 2/24/2016

Media: WW

SmpMethod: GR

Comments:

Analysis	Results	Counting Error	Units	Result Qual	Foot Note	Reporting Limit	TPU	Method	V/V/A*
<b>ANION</b>									
Bromide	0.734		mg/L			0.2		SW846-9056	S / X /
Chloride	22		mg/L			1		SW846-9056	/ X /
Fluoride	0.262		mg/L			0.1		SW846-9056	/ X /
Nitrate as Nitrogen	0.5		mg/L	U		0.5		SW846-9056	/ X /
Sulfate	34.3		mg/L			2		SW846-9056	/ X /
<b>FS</b>									
Conductivity	1221		umho/cm					FS	/ /
Dissolved Oxygen	4.71		mg/L					FS	/ /
pH	7		Std Unit					FS	/ /
Redox	123		mV					FS	/ /
Temperature	50.2		deg F					FS	/ /
<b>METAL</b>									
Aluminum	0.05		mg/L	U		0.05		SW846-6020	/ X /
Antimony	0.003		mg/L	U		0.003		SW846-6020	/ X /
Arsenic	0.0141		mg/L	B		0.005		SW846-6020	/ X /
Barium	0.625		mg/L			0.002		SW846-6020	/ X /
Beryllium	0.0005		mg/L	U		0.0005		SW846-6020	/ X /
Boron	0.0346		mg/L			0.015		SW846-6020	S / X /
Cadmium	0.001		mg/L	U		0.001		SW846-6020	/ X /
Calcium	111		mg/L			2		SW846-6020	/ X /
Chromium	0.01		mg/L	U		0.01		SW846-6020	/ X /
Cobalt	0.00552		mg/L			0.001		SW846-6020	/ X /
Copper	0.001		mg/L	U		0.001		SW846-6020	/ X /
Iron	95		mg/L			1		SW846-6020	/ X /
Lead	0.002		mg/L	U		0.002		SW846-6020	/ X /
Magnesium	27.3		mg/L			0.03		SW846-6020	/ X /
Manganese	2		mg/L			0.05		SW846-6020	/ X /
Mercury	0.0002		mg/L	U		0.0002		SW846-7470A	/ X /
Molybdenum	0.000495		mg/L	BJ		0.0005		SW846-6020	S / X /
Nickel	0.00288		mg/L			0.002		SW846-6020	S / X /
Phosphorous	0.158		mg/L			0.05		EPA-365.4	/ X /
Potassium	4.48		mg/L			0.3		SW846-6020	/ X /
Rhodium	0.005		mg/L	U		0.005		SW846-6020	/ X /
Selenium	0.005		mg/L	U		0.005		SW846-6020	/ X /
Silver	0.001		mg/L	U		0.001		SW846-6020	/ X /
Sodium	33.1		mg/L			0.25		SW846-6020	/ X /
Tantalum	0.005		mg/L	U		0.005		SW846-6020	/ X /
Thallium	0.002		mg/L	U		0.002		SW846-6020	/ X /
Tin	0.005		mg/L	U		0.005		SW846-6020	/ X /
Titanium	0.01		mg/L	U		0.01		SW846-6020	/ X /
Uranium	0.00212		mg/L			0.0002		SW846-6020	/ X /
Vanadium	0.01		mg/L	U		0.01		SW846-6020	/ X /
Zinc	0.0123		mg/L			0.01		SW846-6020	S / X /
<b>METAL-D</b>									
Antimony, Dissolved	0.003		mg/L	U		0.003		SW846-6020	/ X /
Arsenic, Dissolved	0.00282		mg/L	BJ		0.005		SW846-6020	/ X /
Barium, Dissolved	0.394		mg/L			0.002		SW846-6020	S / X /
Cadmium, Dissolved	0.001		mg/L	U		0.001		SW846-6020	/ X /
Chromium, Dissolved	0.01		mg/L	U		0.01		SW846-6020	/ X /

## Paducah OREIS Report for SLS16-01

Cobalt, Dissolved	0.00561		mg/L		0.001		SW846-6020	/ X /
Copper, Dissolved	0.001		mg/L	U	0.001		SW846-6020	/ X /
Lead, Dissolved	0.002		mg/L	U	0.002		SW846-6020	/ X /
Manganese, Dissolved	1.98		mg/L		0.05		SW846-6020	/ X /
Nickel, Dissolved	0.00266		mg/L		0.002		SW846-6020	S / X /
Selenium, Dissolved	0.005		mg/L	U	0.005		SW846-6020	/ X /
Silver, Dissolved	0.001		mg/L	U	0.001		SW846-6020	/ X /
Tin, Dissolved	0.005		mg/L	U	0.005		SW846-6020	/ X /
Titanium, Dissolved	0.01		mg/L	U	0.01		SW846-6020	/ X /
Uranium, Dissolved	0.0019		mg/L		0.0002		SW846-6020	S / X /
Vanadium, Dissolved	0.01		mg/L	U	0.01		SW846-6020	/ X /
Zinc, Dissolved	0.0125		mg/L		0.01		SW846-6020	S / X /

### OTHOR

Oil and Grease	4		mg/L	U	4		EPA-1664A	/ X /
----------------	---	--	------	---	---	--	-----------	-------

### PCCB

PCB-1016	0.098		ug/L	U	0.098		SW846-8082	/ X /
PCB-1221	0.098		ug/L	U	0.098		SW846-8082	/ X /
PCB-1232	0.098		ug/L	U	0.098		SW846-8082	/ X /
PCB-1242	0.098		ug/L	U	0.098		SW846-8082	/ X /
PCB-1248	0.098		ug/L	U	0.098		SW846-8082	/ X /
PCB-1254	0.098		ug/L	U	0.098		SW846-8082	/ X /
PCB-1260	0.098		ug/L	U	0.098		SW846-8082	/ X /
PCB-1268	0.098		ug/L	U	0.098		SW846-8082	/ X /
Polychlorinated biphenyl	0.098		ug/L	U	0.098		SW846-8082	/ X /

### RADS

Alpha activity	-1.87	3.72	pCi/L	U	7.13	3.72	SW846-9310	/ X /
Americium-241	-0.0847	0.374	pCi/L	U	0.977	0.375	HASL 300, Am-05-RC M	/ X /
Beta activity	-0.261	2.79	pCi/L	U	4.76	2.8	SW846-9310	/ X /
Cesium-137	0.37	1.28	pCi/L	U	2.24	1.29	EPA-901.1	/ X /
Cobalt-60	0.0188	1.3	pCi/L	U	2.34	1.3	EPA-901.1	/ X /
Neptunium-237	0.188	0.504	pCi/L	U	0.867	0.504	ASTM C 1476-00 Mod	/ X /
Plutonium-239/240	0.574	0.746	pCi/L	U	1.06	0.75	HASL 300, Pu-11-RC M	/ X /
Radium-226	1.38	0.568	pCi/L		0.421	0.571	Alpha Spectroscopy	S / X /
Strontium-90	3.14	3.38	pCi/L	U	5.66	3.42	EPA-905.0-M	/ X /
Technetium-99	-3.08	10.2	pCi/L	U	17.9	10.2	HASL 300, Tc-02-RC M	/ X /
Thorium-230	0.37	0.666	pCi/L	U	1.11	0.675	HASL 300, Th-01-RC M	/ X /
Thorium-234	27.2	34.8	pCi/L	U	49	37.4	EPA-901.1	/ X /
Total Uranium	1.93	1.39	pCi/L		1.76	1.4	HASL 300, U-02-RC M	/ X /
Tritium	-39.7	86.5	pCi/L	U	172	86.5	EPA-906.0-M	/ X /
Uranium-234	1.35	1.06	pCi/L		1.11	1.08	HASL 300, U-02-RC M	/ X /
Uranium-235	0.158	0.593	pCi/L	U	0.997	0.593	HASL 300, U-02-RC M	/ X /
Uranium-238	0.424	0.673	pCi/L	U	0.931	0.676	HASL 300, U-02-RC M	/ X /

### RADS-D

Americium-241, Dissolved	0.687	0.892	pCi/L	U	1.27	0.898	HASL 300, Am-05-RC M	/ X /
Cesium-137, Dissolved	-0.159	1.22	pCi/L	U	2.12	1.22	EPA-901.1	/ X /
Cobalt-60, Dissolved	-0.454	1.38	pCi/L	U	2.44	1.39	EPA-901.1	/ X /
Dissolved Alpha	0.198	1.45	pCi/L	U	2.57	1.45	SW846-9310	/ X /
Dissolved Beta	5.25	1.11	pCi/L		1.66	1.44	SW846-9310	/ X /
Neptunium-237, Dissolved	0.0999	0.436	pCi/L	U	0.786	0.436	ASTM C 1476-00 Mod	/ X /
Plutonium-239/240, Dissolved	0.049	0.558	pCi/L	U	1.19	0.558	HASL 300, Pu-11-RC M	/ X /
Technetium-99, Dissolved	-3.44	10	pCi/L	U	17.6	10	HASL 300, Tc-02-RC M	/ X /
Thorium-230, Dissolved	0.428	0.706	pCi/L	U	1.09	0.717	HASL 300, Th-01-RC M	/ X /
Thorium-234, Dissolved	68.1	128	pCi/L	U	158	133	EPA-901.1	/ X /
Total Uranium, Dissolved	0.909	1.03	pCi/L	U	1.74	1.04	HASL 300, U-02-RC M	/ X /
Uranium-234, Dissolved	0.476	0.706	pCi/L	U	1.03	0.709	HASL 300, U-02-RC M	/ X /

## Paducah OREIS Report for SLS16-01

Uranium-235, Dissolved	-0.139	0.421	pCi/L	U	1.18	0.422	HASL 300, U-02-RC M	/X/
Uranium-238, Dissolved	0.432	0.623	pCi/L	U	0.751	0.626	HASL 300, U-02-RC M	/X/
<b>VOA</b>								
1,1,1,2-Tetrachloroethane	1		ug/L	U	1		EPA-624	/X/
1,1,1-Trichloroethane	1		ug/L	U	1		EPA-624	/X/
1,1,2,2-Tetrachloroethane	1		ug/L	U	1		EPA-624	/X/
1,1,2-Trichloroethane	1		ug/L	U	1		EPA-624	/X/
1,1-Dichloroethane	1		ug/L	U	1		EPA-624	/X/
1,1-Dichloroethene	1		ug/L	U	1		EPA-624	/X/
1,2,3-Trichloropropane	1		ug/L	U	1		EPA-624	/X/
1,2-Dibromo-3-chloropropane	0.0203		ug/L	U	0.0203		SW846-8011	/X/
1,2-Dibromoethane	1		ug/L	U	1		EPA-624	/X/
1,2-Dichlorobenzene	1		ug/L	U	1		EPA-624	/X/
1,2-Dichloroethane	1		ug/L	U	1		EPA-624	/X/
1,2-Dichloropropane	1		ug/L	U	1		EPA-624	/X/
1,2-Dimethylbenzene	1		ug/L	U	1		EPA-624	/X/
1,4-Dichlorobenzene	2.49		ug/L		1		EPA-624	S/X/
2-Butanone	5		ug/L	U	5		EPA-624	/X/
2-Hexanone	5		ug/L	U	5		EPA-624	/X/
4-Methyl-2-pentanone	5		ug/L	U	5		EPA-624	/X/
Acetone	5		ug/L	U	5		EPA-624	/X/
Acrolein	5		ug/L	U	5		EPA-624	/X/
Acrylonitrile	5		ug/L	U	5		EPA-624	/X/
Benzene	1		ug/L	U	1		EPA-624	/X/
Bromochloromethane	1		ug/L	U	1		EPA-624	/X/
Bromodichloromethane	1		ug/L	U	1		EPA-624	/X/
Bromoform	1		ug/L	U	1		EPA-624	/X/
Bromomethane	1		ug/L	U	1		EPA-624	/X/
Carbon disulfide	5		ug/L	U	5		EPA-624	/X/
Carbon tetrachloride	1		ug/L	U	1		EPA-624	/X/
Chlorobenzene	1.32		ug/L		1		EPA-624	S/X/
Chloroethane	1		ug/L	U	1		EPA-624	/X/
Chloroform	1		ug/L	U	1		EPA-624	/X/
Chloromethane	1		ug/L	U	1		EPA-624	/X/
cis-1,2-Dichloroethene	1		ug/L	U	1		EPA-624	/X/
cis-1,3-Dichloropropene	1		ug/L	U	1		EPA-624	/X/
Dibromochloromethane	1		ug/L	U	1		EPA-624	/X/
Dibromomethane	1		ug/L	U	1		EPA-624	/X/
Ethylbenzene	1		ug/L	U	1		EPA-624	/X/
Iodomethane	5		ug/L	U	5		EPA-624	/X/
m,p-Xylene	2		ug/L	U	2		EPA-624	/X/
Methylene chloride	2		ug/L	U	2		EPA-624	/X/
Styrene	1		ug/L	U	1		EPA-624	/X/
Tetrachloroethene	1		ug/L	U	1		EPA-624	/X/
Toluene	1		ug/L	U	1		EPA-624	/X/
Total Xylene	3		ug/L	U	3		EPA-624	/X/
trans-1,2-Dichloroethene	1		ug/L	U	1		EPA-624	/X/
trans-1,3-Dichloropropene	1		ug/L	U	1		EPA-624	/X/
Trans-1,4-Dichloro-2-butene	5		ug/L	U	5		EPA-624	/X/
Trichloroethene	1		ug/L	U	1		EPA-624	/X/
Trichlorofluoromethane	1		ug/L	U	1		EPA-624	/X/
Vinyl acetate	5		ug/L	U	5		EPA-624	/X/
Vinyl chloride	1		ug/L	U	1		EPA-624	/X/
<b>WETCHEM</b>								
Carbonaceous Biochemical Oxygen Demand (CBOD)	4.07		mg/L		2		SM-5210 B	/X/

## Paducah OREIS Report for SLS16-01

Chemical Oxygen Demand (COD)	45.3	mg/L		20	EPA-410.4	/ X /
Cyanide	0.2	mg/L	U	0.2	SW846-9012B	/ X /
Dissolved Solids	490	mg/L		14.3	EPA-160.1	S / X /
Hardness - Total as CaCO3	390	mg/L		2	EPA-130.2	/ X /
Iodide	1.33	mg/L		0.5	EPA-300.0	S / X /
Suspended Solids	88.8	mg/L		6.25	EPA-160.2	/ X /
Total Organic Carbon (TOC)	11.4	mg/L		2	SW846-9060A	/ X /
Total Organic Halides (TOX)	18.8	ug/L		10	SW846-9020B	/ X /

---

## Paducah OREIS Report for SLS16-01

**FBSLS16-01**

from: QC

on 2/24/2016

Media: WQ

SmpMethod:

Comments:

Analysis	Results	Counting Error	Units	Result Qual	Foot Note	Reporting Limit	TPU	Method	V/V/A*
<b>ANION</b>									
Bromide	0.2		mg/L	U		0.2		SW846-9056	/ X /
Chloride	0.0994		mg/L	J		0.2		SW846-9056	/ X /
Fluoride	0.1		mg/L	U		0.1		SW846-9056	/ X /
Nitrate as Nitrogen	0.1		mg/L	U		0.1		SW846-9056	/ X /
Sulfate	0.4		mg/L	U		0.4		SW846-9056	/ X /
<b>METAL</b>									
Aluminum	0.05		mg/L	U		0.05		SW846-6020	/ X /
Antimony	0.003		mg/L	U		0.003		SW846-6020	/ X /
Arsenic	0.005		mg/L	U		0.005		SW846-6020	/ X /
Barium	0.002		mg/L	U		0.002		SW846-6020	/ X /
Beryllium	0.0005		mg/L	U		0.0005		SW846-6020	/ X /
Boron	0.015		mg/L	U		0.015		SW846-6020	/ X /
Cadmium	0.001		mg/L	U		0.001		SW846-6020	/ X /
Calcium	0.2		mg/L	U		0.2		SW846-6020	/ X /
Chromium	0.01		mg/L	U		0.01		SW846-6020	/ X /
Cobalt	0.001		mg/L	U		0.001		SW846-6020	/ X /
Copper	0.001		mg/L	U		0.001		SW846-6020	/ X /
Iron	0.1		mg/L	U		0.1		SW846-6020	/ X /
Lead	0.002		mg/L	U		0.002		SW846-6020	/ X /
Magnesium	0.03		mg/L	U		0.03		SW846-6020	/ X /
Manganese	0.005		mg/L	U		0.005		SW846-6020	/ X /
Mercury	0.0002		mg/L	U		0.0002		SW846-7470A	/ X /
Molybdenum	0.0005		mg/L	U		0.0005		SW846-6020	/ X /
Nickel	0.002		mg/L	U		0.002		SW846-6020	/ X /
Phosphorous	0.0226		mg/L	J		0.05		EPA-365.4	/ X /
Potassium	0.3		mg/L	U		0.3		SW846-6020	/ X /
Rhodium	0.005		mg/L	U		0.005		SW846-6020	/ X /
Selenium	0.005		mg/L	U		0.005		SW846-6020	/ X /
Silver	0.001		mg/L	U		0.001		SW846-6020	/ X /
Sodium	0.25		mg/L	U		0.25		SW846-6020	/ X /
Tantalum	0.005		mg/L	U		0.005		SW846-6020	/ X /
Thallium	0.002		mg/L	U		0.002		SW846-6020	/ X /
Tin	0.005		mg/L	U		0.005		SW846-6020	/ X /
Titanium	0.01		mg/L	U		0.01		SW846-6020	/ X /
Uranium	0.0002		mg/L	U		0.0002		SW846-6020	/ X /
Vanadium	0.01		mg/L	U		0.01		SW846-6020	/ X /
Zinc	0.01		mg/L	U		0.01		SW846-6020	/ X /
<b>OTHOR</b>									
Oil and Grease	4.13		mg/L	U		4.13		EPA-1664A	/ X /
<b>PCCB</b>									
PCB-1016	0.099		ug/L	U		0.099		SW846-8082	/ X /
PCB-1221	0.099		ug/L	U		0.099		SW846-8082	/ X /
PCB-1232	0.099		ug/L	U		0.099		SW846-8082	/ X /
PCB-1242	0.099		ug/L	U		0.099		SW846-8082	/ X /
PCB-1248	0.099		ug/L	U		0.099		SW846-8082	/ X /
PCB-1254	0.099		ug/L	U		0.099		SW846-8082	/ X /
PCB-1260	0.099		ug/L	U		0.099		SW846-8082	/ X /
PCB-1268	0.099		ug/L	U		0.099		SW846-8082	/ X /
Polychlorinated biphenyl	0.099		ug/L	U		0.099		SW846-8082	/ X /

## Paducah OREIS Report for SLS16-01

<b>RADS</b>								
Alpha activity	-0.625	1.12	pCi/L	U	2.24	1.12	SW846-9310	/X/
Americium-241	0.214	0.59	pCi/L	U	1.02	0.591	HASL 300, Am-05-RC M	/X/
Beta activity	-1.42	2.39	pCi/L	U	4.25	2.39	SW846-9310	/X/
Cesium-137	-0.298	1.57	pCi/L	U	2.32	1.58	EPA-901.1	/X/
Cobalt-60	0.868	1.58	pCi/L	U	2.6	1.63	EPA-901.1	/X/
Neptunium-237	-0.0401	0.517	pCi/L	U	1.22	0.517	ASTM C 1476-00 Mod	/X/
Plutonium-239/240	0.079	0.51	pCi/L	U	1.04	0.511	HASL 300, Pu-11-RC M	/X/
Radium-226	0.11	0.407	pCi/L	U	0.683	0.407	Alpha Spectroscopy	/X/
Strontium-90	-0.323	2.45	pCi/L	U	4.75	2.45	EPA-905.0-M	/X/
Technetium-99	3.03	10.2	pCi/L	U	17.5	10.2	HASL 300, Tc-02-RC M	/X/
Thorium-230	-0.207	0.438	pCi/L	U	1.23	0.439	HASL 300, Th-01-RC M	/X/
Thorium-234	3.29	38.7	pCi/L	U	59.9	38.8	EPA-901.1	/X/
Total Uranium	0.785	0.898	pCi/L	U	1.33	0.901	HASL 300, U-02-RC M	/X/
Tritium	115	104	pCi/L	U	170	106	EPA-906.0-M	/X/
Uranium-234	0.168	0.463	pCi/L	U	0.803	0.464	HASL 300, U-02-RC M	/X/
Uranium-235	0.286	0.562	pCi/L	U	0.779	0.563	HASL 300, U-02-RC M	/X/
Uranium-238	0.331	0.526	pCi/L	U	0.728	0.528	HASL 300, U-02-RC M	/X/
<b>VOA</b>								
1,1,1,2-Tetrachloroethane	1		ug/L	U	1		EPA-624	/X/
1,1,1-Trichloroethane	1		ug/L	U	1		EPA-624	/X/
1,1,2,2-Tetrachloroethane	1		ug/L	U	1		EPA-624	/X/
1,1,2-Trichloroethane	1		ug/L	U	1		EPA-624	/X/
1,1-Dichloroethane	1		ug/L	U	1		EPA-624	/X/
1,1-Dichloroethene	1		ug/L	U	1		EPA-624	/X/
1,2,3-Trichloropropane	1		ug/L	U	1		EPA-624	/X/
1,2-Dibromo-3-chloropropane	0.0199		ug/L	U	0.0199		SW846-8011	/X/
1,2-Dibromoethane	1		ug/L	U	1		EPA-624	/X/
1,2-Dichlorobenzene	1		ug/L	U	1		EPA-624	/X/
1,2-Dichloroethane	1		ug/L	U	1		EPA-624	/X/
1,2-Dichloropropane	1		ug/L	U	1		EPA-624	/X/
1,2-Dimethylbenzene	1		ug/L	U	1		EPA-624	/X/
1,4-Dichlorobenzene	1		ug/L	U	1		EPA-624	/X/
2-Butanone	5		ug/L	U	5		EPA-624	/X/
2-Hexanone	5		ug/L	U	5		EPA-624	/X/
4-Methyl-2-pentanone	5		ug/L	U	5		EPA-624	/X/
Acetone	5		ug/L	U	5		EPA-624	/X/
Acrolein	5		ug/L	U	5		EPA-624	/X/
Acrylonitrile	5		ug/L	U	5		EPA-624	/X/
Benzene	1		ug/L	U	1		EPA-624	/X/
Bromochloromethane	1		ug/L	U	1		EPA-624	/X/
Bromodichloromethane	1		ug/L	U	1		EPA-624	/X/
Bromoform	1		ug/L	U	1		EPA-624	/X/
Bromomethane	1		ug/L	U	1		EPA-624	/X/
Carbon disulfide	5		ug/L	U	5		EPA-624	/X/
Carbon tetrachloride	1		ug/L	U	1		EPA-624	/X/
Chlorobenzene	1		ug/L	U	1		EPA-624	/X/
Chloroethane	1		ug/L	U	1		EPA-624	/X/
Chloroform	1		ug/L	U	1		EPA-624	/X/
Chloromethane	1		ug/L	U	1		EPA-624	/X/
cis-1,2-Dichloroethene	1		ug/L	U	1		EPA-624	/X/
cis-1,3-Dichloropropene	1		ug/L	U	1		EPA-624	/X/
Dibromochloromethane	1		ug/L	U	1		EPA-624	/X/
Dibromomethane	1		ug/L	U	1		EPA-624	/X/
Ethylbenzene	1		ug/L	U	1		EPA-624	/X/
Iodomethane	5		ug/L	U	5		EPA-624	/X/

## Paducah OREIS Report for SLS16-01

m,p-Xylene	2	ug/L	U	2	EPA-624	/X/
Methylene chloride	2	ug/L	U	2	EPA-624	/X/
Styrene	1	ug/L	U	1	EPA-624	/X/
Tetrachloroethene	1	ug/L	U	1	EPA-624	/X/
Toluene	1	ug/L	U	1	EPA-624	/X/
Total Xylene	3	ug/L	U	3	EPA-624	/X/
trans-1,2-Dichloroethene	1	ug/L	U	1	EPA-624	/X/
trans-1,3-Dichloropropene	1	ug/L	U	1	EPA-624	/X/
Trans-1,4-Dichloro-2-butene	5	ug/L	U	5	EPA-624	/X/
Trichloroethene	1	ug/L	U	1	EPA-624	/X/
Trichlorofluoromethane	1	ug/L	U	1	EPA-624	/X/
Vinyl acetate	5	ug/L	U	5	EPA-624	/X/
Vinyl chloride	1	ug/L	U	1	EPA-624	/X/
<b>WETCHEM</b>						
Chemical Oxygen Demand (COD)	20	mg/L	U	20	EPA-410.4	/X/
Hardness - Total as CaCO3	2	mg/L	U	2	EPA-130.2	/X/
Iodide	0.5	mg/L	U	0.5	EPA-300.0	/X/
Total Organic Carbon (TOC)	2	mg/L	U	2	SW846-9060A	/X/

## Paducah OREIS Report for SLS16-01

**TBSLS16-01**

from: QC

on 2/24/2016

Media: WQ

SmpMethod:

Comments:

Analysis	Results	Counting Error	Units	Result Qual	Foot Note	Reporting Limit	TPU	Method	V/V/A*
<b>VOA</b>									
1,1,1,2-Tetrachloroethane	1		ug/L	U		1		EPA-624	/X/
1,1,1-Trichloroethane	1		ug/L	U		1		EPA-624	/X/
1,1,2,2-Tetrachloroethane	1		ug/L	U		1		EPA-624	/X/
1,1,2-Trichloroethane	1		ug/L	U		1		EPA-624	/X/
1,1-Dichloroethane	1		ug/L	U		1		EPA-624	/X/
1,1-Dichloroethene	1		ug/L	U		1		EPA-624	/X/
1,2,3-Trichloropropane	1		ug/L	U		1		EPA-624	/X/
1,2-Dibromo-3-chloropropane	0.0197		ug/L	U		0.0197		SW846-8011	/X/
1,2-Dibromoethane	1		ug/L	U		1		EPA-624	/X/
1,2-Dichlorobenzene	1		ug/L	U		1		EPA-624	/X/
1,2-Dichloroethane	1		ug/L	U		1		EPA-624	/X/
1,2-Dichloropropane	1		ug/L	U		1		EPA-624	/X/
1,2-Dimethylbenzene	1		ug/L	U		1		EPA-624	/X/
1,4-Dichlorobenzene	1		ug/L	U		1		EPA-624	/X/
2-Butanone	5		ug/L	U		5		EPA-624	/X/
2-Hexanone	5		ug/L	U		5		EPA-624	/X/
4-Methyl-2-pentanone	5		ug/L	U		5		EPA-624	/X/
Acetone	5		ug/L	U		5		EPA-624	/X/
Acrolein	5		ug/L	U		5		EPA-624	/X/
Acrylonitrile	5		ug/L	U		5		EPA-624	/X/
Benzene	1		ug/L	U		1		EPA-624	/X/
Bromochloromethane	1		ug/L	U		1		EPA-624	/X/
Bromodichloromethane	1		ug/L	U		1		EPA-624	/X/
Bromoform	1		ug/L	U		1		EPA-624	/X/
Bromomethane	1		ug/L	U		1		EPA-624	/X/
Carbon disulfide	5		ug/L	U		5		EPA-624	/X/
Carbon tetrachloride	1		ug/L	U		1		EPA-624	/X/
Chlorobenzene	1		ug/L	U		1		EPA-624	/X/
Chloroethane	1		ug/L	U		1		EPA-624	/X/
Chloroform	1		ug/L	U		1		EPA-624	/X/
Chloromethane	1		ug/L	U		1		EPA-624	/X/
cis-1,2-Dichloroethene	1		ug/L	U		1		EPA-624	/X/
cis-1,3-Dichloropropene	1		ug/L	U		1		EPA-624	/X/
Dibromochloromethane	1		ug/L	U		1		EPA-624	/X/
Dibromomethane	1		ug/L	U		1		EPA-624	/X/
Ethylbenzene	1		ug/L	U		1		EPA-624	/X/
Iodomethane	5		ug/L	U		5		EPA-624	/X/
m,p-Xylene	2		ug/L	U		2		EPA-624	/X/
Methylene chloride	2		ug/L	U		2		EPA-624	/X/
Styrene	1		ug/L	U		1		EPA-624	/X/
Tetrachloroethene	1		ug/L	U		1		EPA-624	/X/
Toluene	1		ug/L	U		1		EPA-624	/X/
Total Xylene	3		ug/L	U		3		EPA-624	/X/
trans-1,2-Dichloroethene	1		ug/L	U		1		EPA-624	/X/
trans-1,3-Dichloropropene	1		ug/L	U		1		EPA-624	/X/
Trans-1,4-Dichloro-2-butene	5		ug/L	U		5		EPA-624	/X/
Trichloroethene	1		ug/L	U		1		EPA-624	/X/
Trichlorofluoromethane	1		ug/L	U		1		EPA-624	/X/
Vinyl acetate	5		ug/L	U		5		EPA-624	/X/
Vinyl chloride	1		ug/L	U		1		EPA-624	/X/



## Laboratory Footnotes and Qualifiers

### Footnote

- A. Insufficient uranium present in the sample to determine an assay.
- B. Maximum assay was used to calculate the MDA for total uranium activities.
- C. Normal assay was used to calculate the MDA for total uranium activities.
- D. Sample was analyzed by a non-destructive test per customer request.
- E. Gross activities are a calculated value. Gamma activity is converted to the corresponding gross alpha/beta measurement.
- F. Insufficient sample available/provided for gross beta analysis.
- G. TIMS assay used to calculate total uranium activity.
- H. No nuclide meet criteria for gross gamma.
- I. The MDA of all principle nuclide not identified and nuclide identified were summed to provide max, reportable activity
- J. No analysis result available. Sample signal too weak.
- K. No analysis result available. Total U below reporting limit.
- L. No minor isotope determination available. Signal strength insufficient.
- M. Result is biased high and MDA is biased low due to interfering lines and/or increases in BKG due to sample activity.
- N. Measured U-235 act/mass was below MDA therefore all other cal. U isotopes & U-total will be rpt as below their resp. MDAs.
- O. Gross Gamma has no output error.
- P. The max plant assay was assumed since the calculated assay was not within the range of the plant cascade assays.
- Q. Mass of U-235 is < or = MDM, thus mass of total U/U isotopes won't be reported. Total U/U isotopes will be < their MDAs  
Asbestos – Not Detected
- R. Cs-134 activity will be understated due to the short half-life and will exclude any previous site induced Cs-134.
- S. Gross gamma is a Cs-137 equivalence. Activity assumes branch yield and det eff of Cs-137 for all line in spectrum.
- T. Analyte is a common volatile laboratory contaminant
- T1. Sample analysis is below LCR for concent., however above report. limit for assay.
- T1Z1. Samp analysis below LCR concent, above report. limit assay/.05wt% = or >2 sigma?
- U. Method 5030A (Purge & Trap)
- Y. U/U-234 act are estimated. Assay used was determined by gamma. U/U-234 results can't be used for any NCS/NMC&A purposes. - Uranium
- Z. Std Dev is calculated based on controls (SRM) prepared and analyzed with each sample batch. SRM is ~0.711 wt% U-235.
- Z1. This 0.05 wt% value equal to or > 2 sigma for controls associated w/data.

### Inorganic Qualifiers

- \* Duplicate analysis not within control limits.
- + Method of standard additions (MSA) correlation coefficient less than 0.995.
- A Indicates that a TIC is suspected aldol-condensation product.
- B Applies when the analyte is found in the associated blank
- D All compounds identified in the analysis at the secondary dilution factor.
- E Result estimated due to interferences.
- J Indicates an estimated value
- M Duplicate injection precision not met.
- N Sample spike recovery not within control limits.
- Q No analytical result available or not required because total analyses < PQL.
- R QC indicates that data are not usable. Resampling and re-analysis are necessary for verification.
- S Result determined by method of standard additions (MSA).
- U Analyte analyzed for but not detected at or below the lowest concentration reported.
- W Post-digestion spike recovery out of control limits.
- X Other specific flags and footnotes may be required to properly define the results.

### Organic Qualifiers

- A Tentatively identified compound (TIC) is suspected aldol-condensation product.
- B Compound found in blank as well as sample.
- C Compound presence confirmed by GC/MS (GC/MS flag).
- D Compounds identified in an analysis at a secondary dilution filter.
- E Result exceeds calibration range (GC/MS flag).
- J Indicates an estimated value.
- N Presumption evidence of a compound GC/MS flag).
- P Difference between results from tow GC columns unacceptable.
- U Compound analyzed for but not detected at or below the lowest concentration reported.
- X Other specific flags and footnotes may be required to properly define the results.
- Y MS, MSD recovery and/or RPD failed acceptance criteria.
- Z (Reserved by CLP for a laboratory-defined organic date qualifier.)

### Rad Qualifiers

- A Analyzed but not detected at the analyte quantitation limit.
- B Method blank not statistically different from sample at 95% level of confidence.
- D Sample is statistically different from duplicate at 95% level of confidence.
- J Indicates an estimated value.
- L Expected and measured value for LCS is statistically different at 95% level of confidence.
- M Expected and measured value for MS is statistically different at 95% level of confidence.
- R QC indicates that data are not usable. Resampling and reanalysis are necessary for verification.
- T Tracer recovery is < or equal to 30% or > or equal to 105%.
- U Value reported is < the MDA and/or < 2 sigma TPE.
- X Other specific flags and footnotes may be required to properly define the results.

**THIS PAGE INTENTIONALLY LEFT BLANK**

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

Page 1 of 1

**WASTE ACTIVITY-CONTAINED LANDFILL**

Facility Name: U.S. Department of Energy Permit Number SW07300045  
 County where landfill is located: McCracken (PGDP) Agency Interest Number: 3059  
 Report for the Months of: January, February, March For the Year of: 2016


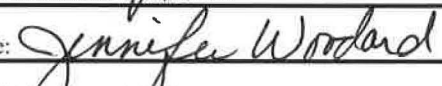
Waste Source (County and State)	Type of Waste			**Waste Used as Alternate Daily Cover as Approved (Tons Only)
	*Municipal Solid Waste (Tons Only)	*Industrial Waste (Tons Only)	*Special Waste (Tons Only)	
Paducah Gaseous Diffusion Plant (January)	0.00	196.93	0.00	0.00
Paducah Gaseous Diffusion Plant (February)	0.00	231.95	0.00	0.00
Paducah Gaseous Diffusion Plant (March)	0.00	409.00	0.00	0.00
<b>Total for this page</b>	0.00	837.88	0.00	0.00
<b>Grand Total of all pages</b>	0.00	837.88	0.00	0.00

\*Grand Total of Municipal, Industrial, and Special from all pages 837.88

\*Does not include waste used as Alternate Daily Cover.

\*\*Indicate the amount 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) 441-6127  
 Name - Please Print: Mark J. Duff Date: 4-13-16  
 Signature:  Phone Number (270) 441-6800  
 Name - Please Print: Jennifer Woodard Date: 4/13/16

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).

**THIS PAGE INTENTIONALLY LEFT BLANK**