Department of Energy

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

APR 13 2017

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

PPPO-02-4140707-17A

Dear Ms. Young:

C-746-S&T AND C-746-U SOLID WASTE LANDFILLS FIRST QUARTER CALENDAR YEAR 2017 WASTE QUANTITY AND OPERATING REPORT, PADUCAH GASEOUS DIFFUSION PLANT, PADUCAH, KENTUCKY, FPDP-RPT-0085/V1

The U.S. Department of Energy has prepared the First Quarter Operating Report for Calendar Year 2017 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, SW07300045 require submittal of quarterly reports from operators of solid waste landfills. The contained landfill (C-746-U) is an active landfill. The residential landfill (C-746-S) has been inactive since July 1995 and the inert landfill (C-746-T) has been inactive since June 1992.

This report contains operating information for First Quarter Calendar Year 2017. Per correspondence dated February 8, 2005, from Ron Gruzesky, Manager, Solid Waste Branch, an additional C-746-U Quarterly Waste Quantity Report form is included as a separate report in this submittal.

The groundwater analysis data, surface water data and methane monitoring results 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 April Ladd at (270) 441-6843.

Sincerely,

Jennifer Woodard

Jennifer Woodard
Paducah Site Lead
Portsmouth/Paducah Project Office

Enclosures:

1. C-746-S&T and C-746-U Solid Waste Landfill First Quarter CY 2017 Waste Quantity and Operating Report
2. Waste Quantity Report Form

e-copy w/enclosures:
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C-746-S&T and C-746-U Solid Waste Landfill
First Quarter Calendar Year 2017
Waste Quantity and Operating Report
Paducah Gaseous Diffusion Plant,
Paducah, Kentucky

FLUOR®

This document is approved for public release per review by:

James Sheppard — 4-11-17

FPDP Classification Support — Date

FPDP-RPT-0085/V1

C-746-S&T and C-746-U Solid Waste Landfill
First Quarter Calendar Year 2017
Waste Quantity and Operating Report
Paducah Gaseous Diffusion Plant,
Paducah, Kentucky

Date Issued—April 2017

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

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CONTENTS

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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 first quarter of calendar year 2017 for the Paducah Gaseous Diffusion Plant, McCracken County, Kentucky.

In the first quarter of calendar year 2017, 50.19 tons of industrial waste 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. There were 2.18 tons of asbestos-containing materials disposed of as part of the 50.19 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

There was no leachate from the C-746-U Landfill or the C-746-S Landfill treated at the C-746-U15 Leachate Treatment Facility, which discharges to Kentucky Pollutant Discharge Elimination System Outfall 020. 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. There was a total of 376,000 gal of leachate from the C-746-U Landfill transported to the C-615 Wastewater Treatment Facility for treatment and discharge this quarter. Additionally, there were 7,300 gal of leachate from the C-746-S Landfill transported to the C-615 Wastewater Treatment Facility for treatment and discharge this quarter. There was no leachate transported to off-site treatment facilities for treatment and discharge this quarter.

Leachate samples were obtained on January 4, 5, 10, and 17, 2017, and March 23, 2017, during this quarter from the leachate transported to the C-615 Wastewater Treatment Facility. Analytical results of the January sampling events are provided in this report. Analytical results of the March sampling event were not available for inclusion in this report by the regulatory deadline; these results will be provided in the next quarterly 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 has entered the system.

Annual leachate samples were collected on February 27, 2017. Analytical results for the leachate samples were not available for inclusion in this report by the regulatory deadline; these results will be provided in the next quarterly report.

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.

FACILITY INFORMATION SHEET

Sampling Date: January 4, 5, 10, and 17, 2017; February 27, 2017; and March 23, 2017

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 (Street) Kevil, Kentucky (City/State) 42053 (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, Manager Phone No.: (859) 227-5020

Contact Person: Myrna E. Redfield Phone No.: (270) 441-5113

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

Mailing Address: 5511 Hobbs Road (Street) Kevil, Kentucky (City/State) 42053 (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 (Street) Kevil, Kentucky (City/State) 42053 (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 (Street) Charleston, South Carolina (City/State) 29417 (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)

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QUARTERLY WASTE QUANTITY REPORT

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

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: 2017

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	50.19	0.00	0.00
Paducah Gaseous Diffusion Plant (February)	0.00	0.00	0.00	0.00
Paducah Gaseous Diffusion Plant (March)	0.00	0.00	0.00	0.00
Total for this page	0.00	50.19	0.00	0.00
Grand Total of all pages	0.00	50.19	0.00	0.00

***Grand Total of Municipal, Industrial, and Special from all pages** 50.19

***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) 441-5113

Name—Please Print: Myrna E. Redfield Date: 4/13/17

Signature: Jennifer Woodard Phone Number (270) 441-6800

Name—Please Print: Jennifer Woodard Date: 4/13/2017

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).

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COVER LOG

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JANUARY, FEBRUARY, MARCH 2017

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COVER LOG

DEPARTMENT OF ENERGY PERMIT NUMBER: 073-00045
COUNTY: McCracken Month & Year: January 2017

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	D-5	YES	YES	NO	NO	YES
10						
11						
12						
13						
14						
15						
16						
17						
18						
19						
20						
21						
22						
23						
24						
25	D-5	YES	NO	NO	NO	YES
26	D-5	YES	NO	NO	NO	YES
27						
28						
29						
30	D-5	YES	NO	NO	NO	YES
31	D-5/D-4/C-5	YES	YES	NO	NO	YES

COVER LOG

DEPARTMENT OF ENERGY
COUNTY: McCracken

PERMIT NUMBER: 073-00045
Month & Year: February 2017

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						
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30						
31						

There were no waste disposal or cover activities during the month of February 2017

COVER LOG

DEPARTMENT OF ENERGY
COUNTY: McCracken

PERMIT NUMBER: 073-00045
Month & Year: March 2017

Day of Month	Daily Cell Location	Daily Cover Applied?	Interim Cover	Long Term Cover	Final Cap	Temporary Diversion Ditch Yes/No
1						
2						
3						
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There were no waste disposal or cover activities during the month of March 2017

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LEACHATE LOG

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Month January Year 2017

Date	Phase	Collection Tank Number	Mobile Tanker	Tank Volume (Gallons)	Disposal Volume (Gallons)	Disposal Method*
01-03-17	1,2,3,4,5	F-001		30500		
01-03-17	1,2,3,4,5	F-002		25700		
01-03-17	1,2,3,4,5	F-007		12600		
01-03-17	1,2,3,4,5	F-008		2600		
01-03-17	1,2,3,4,5	F-009		11300		
01-04-17	1,2,3,4,5	F-001		30500		
01-04-17	1,2,3,4,5	F-002		29100		
01-04-17	1,2,3,4,5	F-007		12600		
01-04-17	1,2,3,4,5	F-008		7500		
01-04-17	1,2,3,4,5	F-009		15900		
01-05-17	1,2,3,4,5	F-001		30500		
01-05-17	1,2,3,4,5	F-002		29100	15000	W
01-05-17	1,2,3,4,5	F-007		12600		
01-05-17	1,2,3,4,5	F-008		12400		
01-05-17	1,2,3,4,5	F-009		15900		
01-09-17	1,2,3,4,5	F-001		30500	16500	W
01-09-17	1,2,3,4,5	F-002		25100		
01-09-17	1,2,3,4,5	F-007		12600		
01-09-17	1,2,3,4,5	F-008		12400		
01-09-17	1,2,3,4,5	F-009		15900		
01-10-17	1,2,3,4,5	F-001		14000	14000	W
01-10-17	1,2,3,4,5	F-002		30400	4500	W
01-10-17	1,2,3,4,5	F-007		8500		
01-10-17	1,2,3,4,5	F-008		12400		
01-10-17	1,2,3,4,5	F-009		7900		
01-11-17	1,2,3,4,5	F-001		500		
01-11-17	1,2,3,4,5	F-002		25900	19500	W

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

Permit No. 073-00045 **PGDP SOLID WASTE LANDFILL – LEACHATE LOG** McCracken County, Kentucky

Month January Year 2017

Date	Phase	Collection Tank Number	Mobile Tanker	Tank Volume (Gallons)	Disposal Volume (Gallons)	Disposal Method*
01-11-17	1,2,3,4,5	F-007		10900		
01-11-17	1,2,3,4,5	F-008		7400		
01-11-17	1,2,3,4,5	F-009		500		
01-12-17	1,2,3,4,5	F-001		500		
01-12-17	1,2,3,4,5	F-002		6400	6400	W
01-12-17	1,2,3,4,5	F-007		12900		
01-12-17	1,2,3,4,5	F-008		1500		
01-12-17	1,2,3,4,5	F-009		500		
01-17-17	1,2,3,4,5	F-001		30100		
01-17-17	1,2,3,4,5	F-002		5500		
01-17-17	1,2,3,4,5	F-007		3900		
01-17-17	1,2,3,4,5	F-008		1500		
01-17-17	1,2,3,4,5	F-009		500		
01-18-17	1,2,3,4,5	F-001		30100	19500	W
01-18-17	1,2,3,4,5	F-002		30600		
01-18-17	1,2,3,4,5	F-007		3900		
01-18-17	1,2,3,4,5	F-008		1500		
01-18-17	1,2,3,4,5	F-009		10000		
01-19-17	1,2,3,4,5	F-001		10600	10600	W
01-19-17	1,2,3,4,5	F-002		30600	3000	W
01-19-17	1,2,3,4,5	F-007		12900		
01-19-17	1,2,3,4,5	F-008		1700		
01-19-17	1,2,3,4,5	F-009		10000		
01-23-17	1,2,3,4,5	F-001		19900		
01-23-17	1,2,3,4,5	F-002		27600	15000	W
01-23-17	1,2,3,4,5	F-007		12900		
01-23-17	1,2,3,4,5	F-008		1700		

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

Month January Year 2017

Date	Phase	Collection Tank Number	Mobile Tanker	Tank Volume (Gallons)	Disposal Volume (Gallons)	Disposal Method*
01-23-17	1,2,3,4,5	F-009		10000		
01-24-17	1,2,3,4,5	F-001		24700		
01-24-17	1,2,3,4,5	F-002		12600	12600	W
01-24-17	1,2,3,4,5	F-007		12900		
01-24-17	1,2,3,4,5	F-008		1700		
01-24-17	1,2,3,4,5	F-009		10000		
01-25-17	1,2,3,4,5	F-001		30100		
01-25-17	1,2,3,4,5	F-002		700		
01-25-17	1,2,3,4,5	F-007		12900	3000	W
01-25-17	1,2,3,4,5	F-008		1700		
01-25-17	1,2,3,4,5	F-009		10000		
01-26-17	1,2,3,4,5	F-001		30100		
01-26-17	1,2,3,4,5	F-002		4700		
01-26-17	1,2,3,4,5	F-007		9900	7500	W
01-26-17	1,2,3,4,5	F-008		1700		
01-26-17	1,2,3,4,5	F-009		10000		
01-30-17	1,2,3,4,5	F-001		30100		
01-30-17	1,2,3,4,5	F-002		18000		
01-30-17	1,2,3,4,5	F-007		2400	1100	W
01-30-17	1,2,3,4,5	F-008		1700		
01-30-17	1,2,3,4,5	F-009		10000	7500	W
01-31-17	1,2,3,4,5	F-001		30100	10500	W
01-31-17	1,2,3,4,5	F-002		20500		
01-31-17	1,2,3,4,5	F-007		1500		
01-31-17	1,2,3,4,5	F-008		1500		
01-31-17	1,2,3,4,5	F-009		2500	2000	W
			Tommy Smith	1-31-17		

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

Month February Year 2017

Date	Phase	Collection Tank Number	Mobile Tanker	Tank Volume (Gallons)	Disposal Volume (Gallons)	Disposal Method*
02-01-17	1,2,3,4,5	F-001		19600	7500	W
02-01-17	1,2,3,4,5	F-002		24000		
02-01-17	1,2,3,4,5	F-007		1500		
02-01-17	1,2,3,4,5	F-008		1500		
02-01-17	1,2,3,4,5	F-009		500		
02-02-17	1,2,3,4,5	F-001		12100	9000	W
02-02-17	1,2,3,4,5	F-002		25300		
02-02-17	1,2,3,4,5	F-007		1500		
02-02-17	1,2,3,4,5	F-008		1500		
02-02-17	1,2,3,4,5	F-009		500		
02-06-17	1,2,3,4,5	F-001		6000	5500	W
02-06-17	1,2,3,4,5	F-002		30400		
02-06-17	1,2,3,4,5	F-007		1500		
02-06-17	1,2,3,4,5	F-008		1500		
02-06-17	1,2,3,4,5	F-009		500		
02-07-17	1,2,3,4,5	F-001		500		
02-07-17	1,2,3,4,5	F-002		30400		
02-07-17	1,2,3,4,5	F-007		1500		
02-07-17	1,2,3,4,5	F-008		1500		
02-07-17	1,2,3,4,5	F-009		4400		
02-08-17	1,2,3,4,5	F-001		3900		
02-08-17	1,2,3,4,5	F-002		30400	3000	W
02-08-17	1,2,3,4,5	F-007		1500		
02-08-17	1,2,3,4,5	F-008		1500		
02-08-17	1,2,3,4,5	F-009		4400		
02-09-17	1,2,3,4,5	F-001		6800		
02-09-17	1,2,3,4,5	F-002		27400	10500	W

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

Month February Year 2017

Date	Phase	Collection Tank Number	Mobile Tanker	Tank Volume (Gallons)	Disposal Volume (Gallons)	Disposal Method*
02-09-17	1,2,3,4,5	F-007		1500		
02-09-17	1,2,3,4,5	F-008		1500		
02-09-17	1,2,3,4,5	F-009		4400		
02-13-17	1,2,3,4,5	F-001		16900		
02-13-17	1,2,3,4,5	F-002		16900	10500	W
02-13-17	1,2,3,4,5	F-007		1500		
02-13-17	1,2,3,4,5	F-008		1500		
02-13-17	1,2,3,4,5	F-009		4400		
02-14-17	1,2,3,4,5	F-001		1900		
02-14-17	1,2,3,4,5	F-002		6400	5900	W
02-14-17	1,2,3,4,5	F-007		1500		
02-14-17	1,2,3,4,5	F-008		1500		
02-14-17	1,2,3,4,5	F-009		4400		
02-15-17	1,2,3,4,5	F-001		20400	3000	W
02-15-17	1,2,3,4,5	F-002		500		
02-15-17	1,2,3,4,5	F-007		1500		
02-15-17	1,2,3,4,5	F-008		1500		
02-15-17	1,2,3,4,5	F-009		4400		
02-16-17	1,2,3,4,5	F-001		17400	6000	W
02-16-17	1,2,3,4,5	F-002		3700		
02-16-17	1,2,3,4,5	F-007		1500		
02-16-17	1,2,3,4,5	F-008		1500		
02-16-17	1,2,3,4,5	F-009		4400		
02-20-17	1,2,3,4,5	F-001		11400	6000	W
02-20-17	1,2,3,4,5	F-002		11200		
02-20-17	1,2,3,4,5	F-007		1500		
02-20-17	1,2,3,4,5	F-008		1500		

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

Permit No. 073-00045 **PGDP SOLID WASTE LANDFILL – LEACHATE LOG** McCracken County, Kentucky

Month February Year 2017

Date	Phase	Collection Tank Number	Mobile Tanker	Tank Volume (Gallons)	Disposal Volume (Gallons)	Disposal Method*
02-20-17	1,2,3,4,5	F-009		4400		
02-21-17	1,2,3,4,5	F-001		5400	4900	W
02-21-17	1,2,3,4,5	F-002		13500		
02-21-17	1,2,3,4,5	F-007		1500		
02-21-17	1,2,3,4,5	F-008		1500		
02-21-17	1,2,3,4,5	F-009		4400		
02-22-17	1,2,3,4,5	F-001		500		
02-22-17	1,2,3,4,5	F-002		15200	4500	W
02-22-17	1,2,3,4,5	F-007		1500		
02-22-17	1,2,3,4,5	F-008		1500		
02-22-17	1,2,3,4,5	F-009		4400		
02-23-17	1,2,3,4,5	F-001		3600		
02-23-17	1,2,3,4,5	F-002		10700	3000	W
02-23-17	1,2,3,4,5	F-007		1500		
02-23-17	1,2,3,4,5	F-008		1500		
02-23-17	1,2,3,4,5	F-009		4400		
02-27-17	1,2,3,4,5	F-001		11000		
02-27-17	1,2,3,4,5	F-002		7700	3000	W
02-27-17	1,2,3,4,5	F-007		1500		
02-27-17	1,2,3,4,5	F-008		1500		
02-27-17	1,2,3,4,5	F-009		4400		
02-28-17	1,2,3,4,5	F-001		11000		
02-28-17	1,2,3,4,5	F-002		4700		
02-28-17	1,2,3,4,5	F-007		1500		
02-28-17	1,2,3,4,5	F-008		1500		
02-28-17	1,2,3,4,5	F-009		6100		
			Tommy Smith 2-28-17			

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

Month March Year 2017

Date	Phase	Collection Tank Number	Mobile Tanker	Tank Volume (Gallons)	Disposal Volume (Gallons)	Disposal Method*
03-01-17	1,2,3,4,5	F-001		11000		
03-01-17	1,2,3,4,5	F-002		5300		
03-01-17	1,2,3,4,5	F-007		1500		
03-01-17	1,2,3,4,5	F-008		1500		
03-01-17	1,2,3,4,5	F-009		6100		
03-02-17	1,2,3,4,5	F-001		16500		
03-02-17	1,2,3,4,5	F-002		5300		
03-02-17	1,2,3,4,5	F-007		1500		
03-02-17	1,2,3,4,5	F-008		1500		
03-02-17	1,2,3,4,5	F-009		6100		
03-06-17	1,2,3,4,5	F-001		26000	9000	W
03-06-17	1,2,3,4,5	F-002		5500		
03-06-17	1,2,3,4,5	F-007		1500		
03-06-17	1,2,3,4,5	F-008		1500		
03-06-17	1,2,3,4,5	F-009		6100		
03-07-17	1,2,3,4,5	F-001		17000		
03-07-13	1,2,3,4,5	F-002		16300		
03-07-17	1,2,3,4,5	F-007		1500		
03-07-17	1,2,3,4,5	F-008		1500		
03-07-17	1,2,3,4,5	F-009		6100		
03-08-17	1,2,3,4,5	F-001		20000	12000	W
03-08-17	1,2,3,4,5	F-002		29000		
03-08-17	1,2,3,4,5	F-007		1500		
03-08-17	1,2,3,4,5	F-008		1500		
03-08-17	1,2,3,4,5	F-009		6100		
03-09-17	1,2,3,4,5	F-001		8000	7500	W
03-09-17	1,2,3,4,5	F-002		29000	6500	W

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

Month March Year 2017

Date	Phase	Collection Tank Number	Mobile Tanker	Tank Volume (Gallons)	Disposal Volume (Gallons)	Disposal Method*
03-09-17	1,2,3,4,5	F-007		1800		
03-09-17	1,2,3,4,5	F-008		1500		
03-09-17	1,2,3,4,5	F-009		16000		
03-13-17	1,2,3,4,5	F-001		20100		
03-13-17	1,2,3,4,5	F-002		22500	12000	W
03-13-17	1,2,3,4,5	F-007		1800		
03-13-17	1,2,3,4,5	F-008		1500		
03-13-17	1,2,3,4,5	F-009		16000		
03-14-17	1,2,3,4,5	F-001		24000	4500	W
03-14-17	1,2,3,4,5	F-002		10500	10000	W
03-14-17	1,2,3,4,5	F-007		1800		
03-14-17	1,2,3,4,5	F-008		1500		
03-14-17	1,2,3,4,5	F-009		16000		
03-15-17	1,2,3,4,5	F-001		19500	6000	W
03-15-17	1,2,3,4,5	F-002		5300		
03-15-17	1,2,3,4,5	F-007		1800		
03-15-13	1,2,3,4,5	F-008		1500		
03-15-17	1,2,3,4,5	F-009		16000		
03-16-17	1,2,3,4,5	F-001		13500	6000	W
03-16-17	1,2,3,4,5	F-002		8400		
03-16-17	1,2,3,4,5	F-007		1800		
03-16-17	1,2,3,4,5	F-008		1500		
03-16-17	1,2,3,4,5	F-009		16000		
03-20-17	1,2,3,4,5	F-001		7500	7000	W
03-20-17	1,2,3,4,5	F-002		19900	1500	W
03-20-17	1,2,3,4,5	F-007		4300		
03-20-17	1,2,3,4,5	F-008		2700		

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

Month March Year 2017

Date	Phase	Collection Tank Number	Mobile Tanker	Tank Volume (Gallons)	Disposal Volume (Gallons)	Disposal Method*
03-20-17	1,2,3,4,5	F-009		16000		
03-21-17	1,2,3,4,5	F-001		3700		
03-21-17	1,2,3,4,5	F-002		19600		
03-21-17	1,2,3,4,5	F-007		4300		
03-21-17	1,2,3,4,5	F-008		2700		
03-21-17	1,2,3,4,5	F-009		16000		
03-22-17	1,2,3,4,5	F-001		6600		
03-22-17	1,2,3,4,5	F-002		19600	3000	W
03-22-17	1,2,3,4,5	F-007		4300		
03-22-17	1,2,3,4,5	F-008		2700		
03-22-17	1,2,3,4,5	F-009		16000		
03-23-17	1,2,3,4,5	F-001		8400		
03-23-17	1,2,3,4,5	F-002		16600	1500	W
03-23-17	1,2,3,4,5	F-007		4300	2800	W
03-23-17	1,2,3,4,5	F-008		2700	1200	W
03-23-17	1,2,3,4,5	F-009		16000	500	W
03-27-17	1,2,3,4,5	F-001		16800		
03-27-17	1,2,3,4,5	F-002		15100	3000	W
03-27-17	1,2,3,4,5	F-007		1500		
03-27-17	1,2,3,4,5	F-008		1500		
03-27-17	1,2,3,4,5	F-009		15500		
03-28-17	1,2,3,4,5	F-001		20200	3400	W
03-28-17	1,2,3,4,5	F-002		12100	11600	W
03-28-17	1,2,3,4,5	F-007		1500		
03-28-17	1,2,3,4,5	F-008		1500		
03-28-17	1,2,3,4,5	F-009		15500		
03-29-17	1,2,3,4,5	F-001		16800	10500	W

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

Permit No. 073-00045 **PGDP SOLID WASTE LANDFILL – LEACHATE LOG** McCracken County, Kentucky

Month March Year 2017

Date	Phase	Collection Tank Number	Mobile Tanker	Tank Volume (Gallons)	Disposal Volume (Gallons)	Disposal Method*
03-29-17	1,2,3,4,5	F-002		4200		
03-29-17	1,2,3,4,5	F-007		1500		
03-29-17	1,2,3,4,5	F-008		1500		
03-29-17	1,2,3,4,5	F-009		15500		
03-30-17	1,2,3,4,5	F-001		6300	5800	W
03-30-17	1,2,3,4,5	F-002		7000	200	W
03-30-17	1,2,3,4,5	F-007		1500		
03-30-17	1,2,3,4,5	F-008		1500		
03-30-17	1,2,3,4,5	F-009		15500		

Tammy Smith 3-30-17

CP3-WM-0018-F01 Rev. 0

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

LEACHATE DATA

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Paducah OREIS Report for UL17-01

UL17-01-120969F001 from: C-746-U on 1/5/2017 Media: WW SmpMethod: GR

Comments:

Analysis	Results	Units	Result Qual	Foot Note	Reporting Limit	Counting Error	TPU	Method	LabCode	V/V/A*
ANION										
Chloride	18.3	mg/L			1			EPA-300.0	GEL	/ X /
Nitrate as Nitrogen	2.86	mg/L			0.5			EPA-300.0	GEL	/ X /
FS										
Conductivity	931	umho/cm						FS	FS	/ /
Dissolved Oxygen	7.72	mg/L						FS	FS	/ /
pH	5.79	Std Unit						FS	FS	/ /
Redox	454	mV						FS	FS	/ /
Temperature	56.3	deg F						FS	FS	/ /
Turbidity	46.3	NTU						FS	FS	/ /
METAL										
Antimony	0.003	mg/L	U		0.003			EPA-200.8	GEL	/ X /
Arsenic	0.005	mg/L	U		0.005			EPA-200.8	GEL	/ X /
Cadmium	0.001	mg/L	U		0.001			EPA-200.8	GEL	/ X /
Chromium	0.01	mg/L	U		0.01			EPA-200.8	GEL	/ X /
Cobalt	0.0013	mg/L			0.001			EPA-200.8	GEL	/ X /
Copper	0.00122	mg/L			0.001			EPA-200.8	GEL	/ X /
Lead	0.002	mg/L	U		0.002			EPA-200.8	GEL	/ X /
Manganese	0.077	mg/L			0.005			EPA-200.8	GEL	/ X /
Nickel	0.00405	mg/L			0.002			EPA-200.8	GEL	/ X /
Phosphorous	0.0628	mg/L			0.05			EPA-365.4	GEL	/ X / FDUP-OUT
Selenium	0.005	mg/L	U		0.005			EPA-200.8	GEL	/ X /
Silver	0.001	mg/L	U		0.001			EPA-200.8	GEL	/ X /
Tin	0.005	mg/L	U		0.005			EPA-200.8	GEL	/ X /
Titanium	0.0096	mg/L	J		0.01			EPA-200.8	GEL	/ X /
Total Uranium	0.389	mg/L			0.00254	0.0059	0.0373	ASTM-C1345-08M	GEL	/ X /
Uranium	0.377	mg/L			0.0002			EPA-200.8	GEL	/ X /
Uranium-235	0.225	wt %						ASTM-C1345-08M	GEL	/ X /
Vanadium	0.01	mg/L	U		0.01			EPA-200.8	GEL	/ X /
Zinc	0.0166	mg/L			0.01			EPA-200.8	GEL	/ X /
METAL-D										
Antimony, Dissolved	0.003	mg/L	U		0.003			EPA-200.8	GEL	/ X /
Arsenic, Dissolved	0.005	mg/L	U		0.005			EPA-200.8	GEL	/ X /
Cadmium, Dissolved	0.001	mg/L	U		0.001			EPA-200.8	GEL	/ X /
Chromium, Dissolved	0.01	mg/L	U		0.01			EPA-200.8	GEL	/ X /
Cobalt, Dissolved	0.000551	mg/L	J		0.001			EPA-200.8	GEL	/ X /
Copper, Dissolved	0.00101	mg/L	B		0.001			EPA-200.8	GEL	/ X /
Lead, Dissolved	0.002	mg/L	U		0.002			EPA-200.8	GEL	/ X /
Manganese, Dissolved	0.036	mg/L			0.005			EPA-200.8	GEL	/ X /
Nickel, Dissolved	0.00325	mg/L			0.002			EPA-200.8	GEL	/ X /
Selenium, Dissolved	0.005	mg/L	U		0.005			EPA-200.8	GEL	/ X /
Silver, Dissolved	0.001	mg/L	U		0.001			EPA-200.8	GEL	/ X /
Tin, Dissolved	0.005	mg/L	U		0.005			EPA-200.8	GEL	/ X /
Titanium, Dissolved	0.01	mg/L	U		0.01			EPA-200.8	GEL	/ X /
Uranium, Dissolved	0.37	mg/L			0.0002			EPA-200.8	GEL	/ X /
Vanadium, Dissolved	0.01	mg/L	U		0.01			EPA-200.8	GEL	/ X /
Zinc, Dissolved	0.0129	mg/L			0.01			EPA-200.8	GEL	/ X /
OTHOR										
Oil and Grease	1.49	mg/L	J		4.13			EPA-1664A	GEL	/ X /

*Verification/Validation/Assessment

Paducah OREIS Report for UL17-01

PPCB									
PCB-1016	0.0481	ug/L	U	0.0481			SW846-8082	GEL	/ X /
PCB-1221	0.0481	ug/L	U	0.0481			SW846-8082	GEL	/ X /
PCB-1232	0.0481	ug/L	U	0.0481			SW846-8082	GEL	/ X /
PCB-1242	0.0481	ug/L	U	0.0481			SW846-8082	GEL	/ X /
PCB-1248	0.0481	ug/L	U	0.0481			SW846-8082	GEL	/ X /
PCB-1254	0.0481	ug/L	U	0.0481			SW846-8082	GEL	/ X /
PCB-1260	0.0481	ug/L	U	0.0481			SW846-8082	GEL	/ X /
PCB-1268	0.0481	ug/L	U	0.0481			SW846-8082	GEL	/ X /
Polychlorinated biphenyl	0.0481	ug/L	U	0.0481			SW846-8082	GEL	/ X /
RADS									
Alpha activity	166	pCi/L		14.7	25.3	37.2	SW846-9310	GEL	/ X /
Americium-241	0	pCi/L	U	0.504	0.339	0.339	HASL 300, AM-05-RC M	GEL	/ X /
Beta activity	105	pCi/L		6.91	11	20.9	SW846-9310	GEL	/ X /
Cesium-137	0.486	pCi/L	U	2.1	1.16	1.18	EPA-901.1	GEL	/ X /
Cobalt-60	-0.229	pCi/L	U	2.1	1	1.01	EPA-901.1	GEL	/ X /
Neptunium-237	-0.0742	pCi/L	U	1.45	0.619	0.62	Alpha Spectroscopy	GEL	/ X /
Plutonium-239/240	0.277	pCi/L	U	1.01	0.636	0.637	HASL 300, Pu-11-RC M	GEL	/ X /
Technetium-99	42.7	pCi/L		11.1	7.73	9.06	HASL 300, Tc-02-RC M	GEL	/ X /
Thorium-230	-0.00302	pCi/L	U	3.76	1.79	1.79	HASL 300, Th-01-RC M	GEL	/ X /
Thorium-234	90.1	pCi/L	U	119	133	134	EPA-901.1	GEL	/ X /
Total Uranium	150	pCi/L		2.81	11	21.5	HASL 300, U-02-RC M	GEL	/ X /
Uranium-234	21.1	pCi/L		1.61	4.17	5.16	HASL 300, U-02-RC M	GEL	/ X /
Uranium-235	2.39	pCi/L		1.57	1.69	1.72	HASL 300, U-02-RC M	GEL	/ X / FDUP-OUT
Uranium-238	126	pCi/L		1.68	10.1	20.8	HASL 300, U-02-RC M	GEL	/ X /
RADS-D									
Americium-241, Dissolved	0.00753	pCi/L	U	1.24	0.558	0.559	HASL 300, AM-05-RC M	GEL	/ X /
Cesium-137, Dissolved	-0.173	pCi/L	U	1.72	1.01	1.02	EPA-901.1	GEL	/ X /
Cobalt-60, Dissolved	0.199	pCi/L	U	1.92	1.04	1.05	EPA-901.1	GEL	/ X /
Dissolved Alpha	201	pCi/L		14.9	26.7	42.3	SW846-9310	GEL	/ X /
Dissolved Beta	97.9	pCi/L		14.9	10.7	20.2	SW846-9310	GEL	/ X /
Neptunium-237, Dissolved	-0.346	pCi/L	U	2.55	0.853	0.855	Alpha Spectroscopy	GEL	/ X /
Plutonium-239/240, Dissolved	0.312	pCi/L	U	0.85	0.614	0.615	HASL 300, Pu-11-RC M	GEL	/ X /
Technetium-99, Dissolved	34.5	pCi/L		16.8	10.8	11.5	HASL 300, Tc-02-RC M	GEL	/ X /
Thorium-230, Dissolved	2.33	pCi/L	U	2.56	1.95	2.01	HASL 300, Th-01-RC M	GEL	/ X /
Thorium-234, Dissolved	130	pCi/L	U	146	148	162	EPA-901.1	GEL	/ X /
Total Uranium, Dissolved	135	pCi/L		1.47	9.45	17.8	HASL 300, U-02-RC M	GEL	/ X /
Uranium-234, Dissolved	22.1	pCi/L		0.51	3.81	4.82	HASL 300, U-02-RC M	GEL	/ X /
Uranium-235, Dissolved	2.47	pCi/L		1.01	1.49	1.53	HASL 300, U-02-RC M	GEL	/ X /
Uranium-238, Dissolved	111	pCi/L		1.68	8.51	17.1	HASL 300, U-02-RC M	GEL	/ X /
VOA									
1,1,1-Trichloroethane	1	ug/L	U	1			EPA-624	GEL	/ X /
1,1,2-Trichloroethane	1	ug/L	U	1			EPA-624	GEL	/ X /
1,2-Dimethylbenzene	1	ug/L	U	1			EPA-624	GEL	/ X /
m,p-Xylene	2	ug/L	U	2			EPA-624	GEL	/ X /
Trichloroethene	1	ug/L	U	1			EPA-624	GEL	/ X /
WETCHEM									
Carbonaceous Biochemical Oxygen Demand (CBOD)	2	mg/L	UX	2			SM-5210 B 17	GEL	/ X /
Chemical Oxygen Demand (COD)	20	mg/L	U	20			EPA-410.4	GEL	/ X /
Hardness - Total as CaCO3	355	mg/L		2			EPA-130.2	GEL	/ X /
Suspended Solids	8.8	mg/L		2.5			EPA-160.2	GEL	/ X /

Paducah OREIS Report for UL17-01

UL17-01-120969F001-2 from: C-746-U on 1/17/2017 Media: WW SmpMethod: GR

Comments:

Analysis	Results	Units	Result Qual	Foot Note	Reporting Limit	Counting Error	TPU	Method	LabCode	V/V/A*
ANION										
Chloride	20.7	mg/L			1			EPA-300.0	GEL	/ X /
Nitrate as Nitrogen	2.62	mg/L			0.5			EPA-300.0	GEL	/ X /
FS										
Conductivity	982	umho/cm						FS	FS	/ /
Dissolved Oxygen	8.85	mg/L						FS	FS	/ /
pH	5.58	Std Unit						FS	FS	/ /
Redox	450	mV						FS	FS	/ /
Temperature	61.5	deg F						FS	FS	/ /
Turbidity	6.6	NTU						FS	FS	/ /
METAL										
Antimony	0.003	mg/L	U		0.003			EPA-200.8	GEL	/ X /
Arsenic	0.005	mg/L	U		0.005			EPA-200.8	GEL	/ X /
Cadmium	0.001	mg/L	U		0.001			EPA-200.8	GEL	/ X /
Chromium	0.01	mg/L	U		0.01			EPA-200.8	GEL	/ X /
Cobalt	0.00425	mg/L			0.001			EPA-200.8	GEL	/ X /
Copper	0.000939	mg/L	J		0.001			EPA-200.8	GEL	/ X /
Lead	0.002	mg/L	U		0.002			EPA-200.8	GEL	/ X /
Manganese	0.226	mg/L			0.005			EPA-200.8	GEL	/ X /
Nickel	0.00841	mg/L			0.002			EPA-200.8	GEL	/ X /
Phosphorous	0.0224	mg/L	J		0.05			EPA-365.4	GEL	/ X /
Selenium	0.005	mg/L	U		0.005			EPA-200.8	GEL	/ X /
Silver	0.001	mg/L	U		0.001			EPA-200.8	GEL	/ X /
Tin	0.005	mg/L	U		0.005			EPA-200.8	GEL	/ X /
Titanium	0.01	mg/L	U		0.01			EPA-200.8	GEL	/ X /
Total Uranium	0.322	mg/L			0.00222	0.0218	0.037	ASTM-C1345-08M	GEL	/ X /
Uranium	0.349	mg/L			0.002			EPA-200.8	GEL	/ X /
Uranium-235	0.228	wt %						ASTM-C1345-08M	GEL	/ X /
Vanadium	0.01	mg/L	U		0.01			EPA-200.8	GEL	/ X /
Zinc	0.0315	mg/L			0.01			EPA-200.8	GEL	/ X /
METAL-D										
Antimony, Dissolved	0.003	mg/L	U		0.003			EPA-200.8	GEL	/ X /
Arsenic, Dissolved	0.005	mg/L	U		0.005			EPA-200.8	GEL	/ X /
Cadmium, Dissolved	0.001	mg/L	U		0.001			EPA-200.8	GEL	/ X /
Chromium, Dissolved	0.01	mg/L	U		0.01			EPA-200.8	GEL	/ X /
Cobalt, Dissolved	0.001	mg/L	U		0.001			EPA-200.8	GEL	/ X /
Copper, Dissolved	0.000495	mg/L	J		0.001			EPA-200.8	GEL	/ X /
Lead, Dissolved	0.002	mg/L	U		0.002			EPA-200.8	GEL	/ X /
Manganese, Dissolved	0.005	mg/L	U		0.005			EPA-200.8	GEL	/ X /
Nickel, Dissolved	0.002	mg/L	U		0.002			EPA-200.8	GEL	/ X /
Selenium, Dissolved	0.005	mg/L	U		0.005			EPA-200.8	GEL	/ X /
Silver, Dissolved	0.001	mg/L	U		0.001			EPA-200.8	GEL	/ X /
Tin, Dissolved	0.005	mg/L	U		0.005			EPA-200.8	GEL	/ X /
Titanium, Dissolved	0.01	mg/L	U		0.01			EPA-200.8	GEL	/ X /
Uranium, Dissolved	0.0002	mg/L	U		0.0002			EPA-200.8	GEL	/ X /
Vanadium, Dissolved	0.01	mg/L	U		0.01			EPA-200.8	GEL	/ X /
Zinc, Dissolved	0.00408	mg/L	J		0.01			EPA-200.8	GEL	/ X /
OTHOR										
Oil and Grease	1.5	mg/L	J		3.94			EPA-1664A	GEL	/ X /

*Verification/Validation/Assessment

PPCB									
PCB-1016	0.0476	ug/L	U	0.0476			SW846-8082	GEL	/ X /
PCB-1221	0.0476	ug/L	U	0.0476			SW846-8082	GEL	/ X /
PCB-1232	0.0476	ug/L	U	0.0476			SW846-8082	GEL	/ X /
PCB-1242	0.0476	ug/L	U	0.0476			SW846-8082	GEL	/ X /
PCB-1248	0.0476	ug/L	U	0.0476			SW846-8082	GEL	/ X /
PCB-1254	0.0476	ug/L	U	0.0476			SW846-8082	GEL	/ X /
PCB-1260	0.0476	ug/L	U	0.0476			SW846-8082	GEL	/ X /
PCB-1268	0.0476	ug/L	U	0.0476			SW846-8082	GEL	/ X /
Polychlorinated biphenyl	0.0476	ug/L	U	0.0476			SW846-8082	GEL	/ X /
RADS									
Alpha activity	181	pCi/L		13.9	27.1	40.2	SW846-9310	GEL	/ X /
Americium-241	-0.0439	pCi/L	U	1.05	0.504	0.504	HASL 300, AM-05-RC M	GEL	/ X /
Beta activity	53.9	pCi/L		10.7	9.88	13.7	SW846-9310	GEL	/ X /
Cesium-137	0.112	pCi/L	U	1.57	0.906	0.908	EPA-901.1	GEL	/ X /
Cobalt-60	-0.16	pCi/L	U	1.57	0.821	0.825	EPA-901.1	GEL	/ X /
Neptunium-237	-0.227	pCi/L	U	1.05	0.32	0.32	Alpha Spectroscopy	GEL	/ X /
Plutonium-239/240	0.036	pCi/L	U	0.383	0.2	0.2	HASL 300, Pu-11-RC M	GEL	/ X /
Technetium-99	34.8	pCi/L		0.468	8.2	9.06	HASL 300, Tc-02-RC M	GEL	/ X /
Thorium-230	-0.0851	pCi/L	U	3.21	1.43	1.43	HASL 300, Th-01-RC M	GEL	/ X /
Thorium-234	44.1	pCi/L	U	44.9	58.4	59.2	EPA-901.1	GEL	/ X /
Total Uranium	133	pCi/L		0.929	6.6	17.6	HASL 300, U-02-RC M	GEL	/ X /
Uranium-234	20.4	pCi/L		0.557	2.58	3.92	HASL 300, U-02-RC M	GEL	/ X /
Uranium-235	2.25	pCi/L		0.579	0.986	1.04	HASL 300, U-02-RC M	GEL	/ X /
Uranium-238	111	pCi/L		0.468	6	17.1	HASL 300, U-02-RC M	GEL	/ X /
RADS-D									
Americium-241, Dissolved	0.342	pCi/L	U	0.499	0.378	0.381	HASL 300, AM-05-RC M	GEL	/ X /
Cesium-137, Dissolved	-0.496	pCi/L	U	1.81	1.22	1.24	EPA-901.1	GEL	/ X /
Cobalt-60, Dissolved	0.551	pCi/L	U	1.85	0.957	0.989	EPA-901.1	GEL	/ X /
Dissolved Alpha	190	pCi/L		14.9	27.1	41.3	SW846-9310	GEL	/ X /
Dissolved Beta	59.3	pCi/L		6.92	8.75	13.6	SW846-9310	GEL	/ X /
Neptunium-237, Dissolved	-0.156	pCi/L	U	1.13	0.423	0.423	Alpha Spectroscopy	GEL	/ X /
Plutonium-239/240, Dissolved	0.333	pCi/L	U	0.335	0.339	0.342	HASL 300, Pu-11-RC M	GEL	/ X /
Technetium-99, Dissolved	25.5	pCi/L		12.3	7.91	8.41	HASL 300, Tc-02-RC M	GEL	/ X /
Thorium-230, Dissolved	0.416	pCi/L	U	0.963	0.613	0.623	HASL 300, Th-01-RC M	GEL	/ X /
Thorium-234, Dissolved	55	pCi/L	U	137	137	140	EPA-901.1	GEL	/ X /
Total Uranium, Dissolved	118	pCi/L		0.803	5.63	14.7	HASL 300, U-02-RC M	GEL	/ X /
Uranium-234, Dissolved	19	pCi/L		0.425	2.26	3.45	HASL 300, U-02-RC M	GEL	/ X /
Uranium-235, Dissolved	1.85	pCi/L		0.476	0.811	0.849	HASL 300, U-02-RC M	GEL	/ X /
Uranium-238, Dissolved	97	pCi/L		0.488	5.1	14.2	HASL 300, U-02-RC M	GEL	/ X /
VOA									
1,1,1-Trichloroethane	1	ug/L	U	1			EPA-624	GEL	/ X /
1,1,2-Trichloroethane	1	ug/L	U	1			EPA-624	GEL	/ X /
1,2-Dimethylbenzene	1	ug/L	U	1			EPA-624	GEL	/ X /
m,p-Xylene	2	ug/L	U	2			EPA-624	GEL	/ X /
Trichloroethene	1	ug/L	U	1			EPA-624	GEL	/ X /
WETCHEM									
Carbonaceous Biochemical Oxygen Demand (CBOD)	1.1	mg/L	J	2			SM-5210 B 17	GEL	/ X /
Chemical Oxygen Demand (COD)	12.3	mg/L	J	20			EPA-410.4	GEL	/ X /
Hardness - Total as CaCO3	398	mg/L		2			EPA-130.2	GEL	/ X /
Suspended Solids	2.1	mg/L	J	2.5			EPA-160.2	GEL	/ X /

Paducah OREIS Report for UL17-01

UL17-01-120969F001D from: C-746-U on 1/5/2017 Media: WW SmpMethod: GR

Comments: field duplicate

Analysis	Results	Units	Result Qual	Foot Note	Reporting Limit	Counting Error	TPU	Method	LabCode	V/V/A*
ANION										
Chloride	18.3	mg/L			1			EPA-300.0	GEL	/ X /
Nitrate as Nitrogen	2.85	mg/L			0.5			EPA-300.0	GEL	/ X /
FS										
Conductivity	931	umho/cm						FS	FS	/ /
Dissolved Oxygen	7.72	mg/L						FS	FS	/ /
pH	5.79	Std Unit						FS	FS	/ /
Redox	454	mV						FS	FS	/ /
Temperature	56.3	deg F						FS	FS	/ /
Turbidity	46.3	NTU						FS	FS	/ /
METAL										
Antimony	0.003	mg/L	U		0.003			EPA-200.8	GEL	/ X /
Arsenic	0.005	mg/L	U		0.005			EPA-200.8	GEL	/ X /
Cadmium	0.001	mg/L	U		0.001			EPA-200.8	GEL	/ X /
Chromium	0.01	mg/L	U		0.01			EPA-200.8	GEL	/ X /
Cobalt	0.00123	mg/L			0.001			EPA-200.8	GEL	/ X /
Copper	0.00139	mg/L			0.001			EPA-200.8	GEL	/ X /
Lead	0.002	mg/L	U		0.002			EPA-200.8	GEL	/ X /
Manganese	0.0746	mg/L			0.005			EPA-200.8	GEL	/ X /
Nickel	0.00417	mg/L			0.002			EPA-200.8	GEL	/ X /
Phosphorous	0.0362	mg/L	J		0.05			EPA-365.4	GEL	/ X / FDUP-OUT
Selenium	0.005	mg/L	U		0.005			EPA-200.8	GEL	/ X /
Silver	0.001	mg/L	U		0.001			EPA-200.8	GEL	/ X /
Tin	0.005	mg/L	U		0.005			EPA-200.8	GEL	/ X /
Titanium	0.00943	mg/L	J		0.01			EPA-200.8	GEL	/ X /
Total Uranium	0.398	mg/L			0.00259	0.00706	0.0359	ASTM-C1345-08M	GEL	/ X /
Uranium	0.367	mg/L			0.0002			EPA-200.8	GEL	/ X /
Uranium-235	0.223	wt %						ASTM-C1345-08M	GEL	/ X /
Vanadium	0.01	mg/L	U		0.01			EPA-200.8	GEL	/ X /
Zinc	0.0171	mg/L			0.01			EPA-200.8	GEL	/ X /
METAL-D										
Antimony, Dissolved	0.003	mg/L	U		0.003			EPA-200.8	GEL	/ X /
Arsenic, Dissolved	0.005	mg/L	U		0.005			EPA-200.8	GEL	/ X /
Cadmium, Dissolved	0.001	mg/L	U		0.001			EPA-200.8	GEL	/ X /
Chromium, Dissolved	0.01	mg/L	U		0.01			EPA-200.8	GEL	/ X /
Cobalt, Dissolved	0.000495	mg/L	J		0.001			EPA-200.8	GEL	/ X /
Copper, Dissolved	0.000875	mg/L	BJ		0.001			EPA-200.8	GEL	/ X /
Lead, Dissolved	0.002	mg/L	U		0.002			EPA-200.8	GEL	/ X /
Manganese, Dissolved	0.035	mg/L			0.005			EPA-200.8	GEL	/ X /
Nickel, Dissolved	0.00327	mg/L			0.002			EPA-200.8	GEL	/ X /
Selenium, Dissolved	0.005	mg/L	U		0.005			EPA-200.8	GEL	/ X /
Silver, Dissolved	0.001	mg/L	U		0.001			EPA-200.8	GEL	/ X /
Tin, Dissolved	0.005	mg/L	U		0.005			EPA-200.8	GEL	/ X /
Titanium, Dissolved	0.01	mg/L	U		0.01			EPA-200.8	GEL	/ X /
Uranium, Dissolved	0.363	mg/L			0.0002			EPA-200.8	GEL	/ X /
Vanadium, Dissolved	0.01	mg/L	U		0.01			EPA-200.8	GEL	/ X /
Zinc, Dissolved	0.0123	mg/L			0.01			EPA-200.8	GEL	/ X /
OTHOR										
Oil and Grease	1.8	mg/L	J		4.1			EPA-1664A	GEL	/ X /

*Verification/Validation/Assessment

PPCB									
PCB-1016	0.0481	ug/L	U	0.0481			SW846-8082	GEL	/ X /
PCB-1221	0.0481	ug/L	U	0.0481			SW846-8082	GEL	/ X /
PCB-1232	0.0481	ug/L	U	0.0481			SW846-8082	GEL	/ X /
PCB-1242	0.0481	ug/L	U	0.0481			SW846-8082	GEL	/ X /
PCB-1248	0.0481	ug/L	U	0.0481			SW846-8082	GEL	/ X /
PCB-1254	0.0481	ug/L	U	0.0481			SW846-8082	GEL	/ X /
PCB-1260	0.0481	ug/L	U	0.0481			SW846-8082	GEL	/ X /
PCB-1268	0.0481	ug/L	U	0.0481			SW846-8082	GEL	/ X /
Polychlorinated biphenyl	0.0481	ug/L	U	0.0481			SW846-8082	GEL	/ X /
RADS									
Alpha activity	192	pCi/L		13.4	27.4	43	SW846-9310	GEL	/ X /
Americium-241	0.169	pCi/L	U	1.07	0.634	0.635	HASL 300, AM-05-RC M	GEL	/ X /
Beta activity	118	pCi/L		11.1	12.2	23	SW846-9310	GEL	/ X /
Cesium-137	0.764	pCi/L	U	1.57	0.835	0.903	EPA-901.1	GEL	/ X /
Cobalt-60	-0.44	pCi/L	U	1.55	1.18	1.2	EPA-901.1	GEL	/ X /
Neptunium-237	-0.0351	pCi/L	U	1.23	0.582	0.583	Alpha Spectroscopy	GEL	/ X /
Plutonium-239/240	-0.235	pCi/L	U	1.37	0.444	0.445	HASL 300, Pu-11-RC M	GEL	/ X /
Technetium-99	48.9	pCi/L		11.4	8.08	9.73	HASL 300, Tc-02-RC M	GEL	/ X /
Thorium-230	0.51	pCi/L	U	3.88	2	2.01	HASL 300, Th-01-RC M	GEL	/ X /
Thorium-234	0	pCi/L	UX	68.9	89.2	91.7	EPA-901.1	GEL	/ X /
Total Uranium	120	pCi/L		2.07	9.59	17.2	HASL 300, U-02-RC M	GEL	/ X /
Uranium-234	19.6	pCi/L		1.21	3.89	4.78	HASL 300, U-02-RC M	GEL	/ X /
Uranium-235	1.16	pCi/L	U	1.17	1.18	1.19	HASL 300, U-02-RC M	GEL	/ X / FDUP-OUT
Uranium-238	99.1	pCi/L		1.21	8.69	16.5	HASL 300, U-02-RC M	GEL	/ X /
RADS-D									
Americium-241, Dissolved	0.085	pCi/L	U	0.906	0.472	0.473	HASL 300, AM-05-RC M	GEL	/ X /
Cesium-137, Dissolved	0.578	pCi/L	U	1.91	1.04	1.08	EPA-901.1	GEL	/ X /
Cobalt-60, Dissolved	0.315	pCi/L	U	1.95	1.04	1.05	EPA-901.1	GEL	/ X /
Dissolved Alpha	173	pCi/L		14.2	25.2	38.2	SW846-9310	GEL	/ X /
Dissolved Beta	94.4	pCi/L		8.83	10.6	19.7	SW846-9310	GEL	/ X /
Neptunium-237, Dissolved	-0.191	pCi/L	U	1.58	0.546	0.547	Alpha Spectroscopy	GEL	/ X /
Plutonium-239/240, Dissolved	0.327	pCi/L	U	1.06	0.651	0.653	HASL 300, Pu-11-RC M	GEL	/ X /
Technetium-99, Dissolved	43.2	pCi/L		15.2	10.2	11.3	HASL 300, Tc-02-RC M	GEL	/ X /
Thorium-230, Dissolved	0.44	pCi/L	U	2.11	1.16	1.17	HASL 300, Th-01-RC M	GEL	/ X /
Thorium-234, Dissolved	77.9	pCi/L	U	96.3	129	130	EPA-901.1	GEL	/ X /
Total Uranium, Dissolved	142	pCi/L		2.44	9.94	19.1	HASL 300, U-02-RC M	GEL	/ X /
Uranium-234, Dissolved	23.6	pCi/L		1.44	4.07	5.21	HASL 300, U-02-RC M	GEL	/ X /
Uranium-235, Dissolved	1.99	pCi/L		1.45	1.45	1.48	HASL 300, U-02-RC M	GEL	/ X /
Uranium-238, Dissolved	116	pCi/L		1.32	8.95	18.3	HASL 300, U-02-RC M	GEL	/ X /
VOA									
1,1,1-Trichloroethane	1	ug/L	U	1			EPA-624	GEL	/ X /
1,1,2-Trichloroethane	1	ug/L	U	1			EPA-624	GEL	/ X /
1,2-Dimethylbenzene	1	ug/L	U	1			EPA-624	GEL	/ X /
m,p-Xylene	2	ug/L	U	2			EPA-624	GEL	/ X /
Trichloroethene	1	ug/L	U	1			EPA-624	GEL	/ X /
WETCHEM									
Carbonaceous Biochemical Oxygen Demand (CBOD)	2	mg/L	UX	2			SM-5210 B 17	GEL	/ X /
Chemical Oxygen Demand (COD)	20	mg/L	U	20			EPA-410.4	GEL	/ X /
Hardness - Total as CaCO3	361	mg/L		2			EPA-130.2	GEL	/ X /
Suspended Solids	7.4	mg/L		5			EPA-160.2	GEL	/ X /

Paducah OREIS Report for UL17-01

UL17-01-120970F002 from: C-746-U on 1/4/2017 Media: WW SmpMethod: GR

Comments:

Analysis	Results	Units	Result Qual	Foot Note	Reporting Limit	Counting Error	TPU	Method	LabCode	V/V/A*
ANION										
Chloride	20.5	mg/L			1			EPA-300.0	GEL	/ X /
Nitrate as Nitrogen	2.96	mg/L			0.1			EPA-300.0	GEL	/ X /
FS										
Conductivity	933	umho/cm						FS	FS	/ /
Dissolved Oxygen	8.14	mg/L						FS	FS	/ /
pH	6.46	Std Unit						FS	FS	/ /
Redox	472	mV						FS	FS	/ /
Temperature	56	deg F						FS	FS	/ /
Turbidity	30.5	NTU						FS	FS	/ /
METAL										
Antimony	0.003	mg/L	U		0.003			EPA-200.8	GEL	/ X /
Arsenic	0.005	mg/L	U		0.005			EPA-200.8	GEL	/ X /
Cadmium	0.001	mg/L	U		0.001			EPA-200.8	GEL	/ X /
Chromium	0.01	mg/L	U		0.01			EPA-200.8	GEL	/ X /
Cobalt	0.000638	mg/L	J		0.001			EPA-200.8	GEL	/ X /
Copper	0.000889	mg/L	J		0.001			EPA-200.8	GEL	/ X /
Lead	0.002	mg/L	U		0.002			EPA-200.8	GEL	/ X /
Manganese	0.0266	mg/L			0.005			EPA-200.8	GEL	/ X /
Nickel	0.00286	mg/L			0.002			EPA-200.8	GEL	/ X /
Phosphorous	0.05	mg/L	U		0.05			EPA-365.4	GEL	/ X /
Selenium	0.005	mg/L	U		0.005			EPA-200.8	GEL	/ X /
Silver	0.001	mg/L	U		0.001			EPA-200.8	GEL	/ X /
Tin	0.005	mg/L	U		0.005			EPA-200.8	GEL	/ X /
Titanium	0.01	mg/L	U		0.01			EPA-200.8	GEL	/ X /
Total Uranium	0.326	mg/L			0.00236	0.00828	0.0337	ASTM-C1345-08M	GEL	/ X /
Uranium	0.347	mg/L			0.0002			EPA-200.8	GEL	/ X /
Uranium-235	0.223	wt %						ASTM-C1345-08M	GEL	/ X /
Vanadium	0.01	mg/L	U		0.01			EPA-200.8	GEL	/ X /
Zinc	0.0141	mg/L			0.01			EPA-200.8	GEL	/ X /
METAL-D										
Antimony, Dissolved	0.003	mg/L	U		0.003			EPA-200.8	GEL	/ X /
Arsenic, Dissolved	0.005	mg/L	U		0.005			EPA-200.8	GEL	/ X /
Cadmium, Dissolved	0.001	mg/L	U		0.001			EPA-200.8	GEL	/ X /
Chromium, Dissolved	0.01	mg/L	U		0.01			EPA-200.8	GEL	/ X /
Cobalt, Dissolved	0.000642	mg/L	J		0.001			EPA-200.8	GEL	/ X /
Copper, Dissolved	0.00152	mg/L	B		0.001			EPA-200.8	GEL	/ X /
Lead, Dissolved	0.002	mg/L	U		0.002			EPA-200.8	GEL	/ X /
Manganese, Dissolved	0.0183	mg/L			0.005			EPA-200.8	GEL	/ X /
Nickel, Dissolved	0.00401	mg/L			0.002			EPA-200.8	GEL	/ X /
Selenium, Dissolved	0.005	mg/L	U		0.005			EPA-200.8	GEL	/ X /
Silver, Dissolved	0.001	mg/L	U		0.001			EPA-200.8	GEL	/ X /
Tin, Dissolved	0.005	mg/L	U		0.005			EPA-200.8	GEL	/ X /
Titanium, Dissolved	0.01	mg/L	U		0.01			EPA-200.8	GEL	/ X /
Uranium, Dissolved	0.324	mg/L			0.001			EPA-200.8	GEL	/ X /
Vanadium, Dissolved	0.01	mg/L	U		0.01			EPA-200.8	GEL	/ X /
Zinc, Dissolved	0.0136	mg/L			0.01			EPA-200.8	GEL	/ X /
OTHOR										
Oil and Grease	4.07	mg/L	U		4.07			EPA-1664A	GEL	/ X /

*Verification/Validation/Assessment

PPCB									
PCB-1016	0.0485	ug/L	U	0.0485			SW846-8082	GEL	/ X /
PCB-1221	0.0485	ug/L	U	0.0485			SW846-8082	GEL	/ X /
PCB-1232	0.0485	ug/L	U	0.0485			SW846-8082	GEL	/ X /
PCB-1242	0.0485	ug/L	U	0.0485			SW846-8082	GEL	/ X /
PCB-1248	0.0485	ug/L	U	0.0485			SW846-8082	GEL	/ X /
PCB-1254	0.0485	ug/L	U	0.0485			SW846-8082	GEL	/ X /
PCB-1260	0.0485	ug/L	U	0.0485			SW846-8082	GEL	/ X /
PCB-1268	0.0485	ug/L	U	0.0485			SW846-8082	GEL	/ X /
Polychlorinated biphenyl	0.0485	ug/L	U	0.0485			SW846-8082	GEL	/ X /
RADS									
Alpha activity	205	pCi/L		13.7	28.2	44	SW846-9310	GEL	/ X /
Americium-241	0.0414	pCi/L	U	0.902	0.432	0.433	HASL 300, AM-05-RC M	GEL	/ X /
Beta activity	108	pCi/L		11.5	12.2	21.7	SW846-9310	GEL	/ X /
Cesium-137	0.136	pCi/L	U	4.14	2.13	2.13	EPA-901.1	GEL	/ X /
Cobalt-60	-0.676	pCi/L	U	5.07	2.73	2.74	EPA-901.1	GEL	/ X /
Neptunium-237	-0.406	pCi/L	U	1.46	0.484	0.484	Alpha Spectroscopy	GEL	/ X /
Plutonium-239/240	0.368	pCi/L	U	1.75	0.971	0.973	HASL 300, Pu-11-RC M	GEL	/ X /
Technetium-99	45	pCi/L		12.3	8.41	9.78	HASL 300, Tc-02-RC M	GEL	/ X /
Thorium-230	0.000178	pCi/L	U	0.869	0.412	0.414	HASL 300, Th-01-RC M	GEL	/ X /
Thorium-234	19.8	pCi/L	U	68.4	73.8	74	EPA-901.1	GEL	/ X /
Total Uranium	138	pCi/L		1.92	9.67	18.2	HASL 300, U-02-RC M	GEL	/ X /
Uranium-234	22.5	pCi/L		1.15	3.92	4.96	HASL 300, U-02-RC M	GEL	/ X /
Uranium-235	3.35	pCi/L		1.2	1.75	1.81	HASL 300, U-02-RC M	GEL	/ X /
Uranium-238	112	pCi/L		0.967	8.67	17.4	HASL 300, U-02-RC M	GEL	/ X /
RADS-D									
Americium-241, Dissolved	0.384	pCi/L	U	0.575	0.657	0.659	HASL 300, AM-05-RC M	GEL	/ X /
Cesium-137, Dissolved	-0.962	pCi/L	U	2.91	1.67	1.72	EPA-901.1	GEL	/ X /
Cobalt-60, Dissolved	-0.16	pCi/L	U	3.18	1.75	1.75	EPA-901.1	GEL	/ X /
Dissolved Alpha	190	pCi/L		13	27.1	41.4	SW846-9310	GEL	/ X /
Dissolved Beta	80.2	pCi/L		8.77	9.58	16.3	SW846-9310	GEL	/ X /
Neptunium-237, Dissolved	-0.205	pCi/L	U	1.95	0.698	0.699	Alpha Spectroscopy	GEL	/ X /
Plutonium-239/240, Dissolved	0.149	pCi/L	U	0.942	0.508	0.509	HASL 300, Pu-11-RC M	GEL	/ X /
Technetium-99, Dissolved	34.7	pCi/L		12.4	8.18	9.04	HASL 300, Tc-02-RC M	GEL	/ X /
Thorium-230, Dissolved	0.565	pCi/L	U	2.49	1.39	1.4	HASL 300, Th-01-RC M	GEL	/ X /
Thorium-234, Dissolved	23.8	pCi/L	U	134	151	151	EPA-901.1	GEL	/ X /
Total Uranium, Dissolved	130	pCi/L		1.69	8.71	16.7	HASL 300, U-02-RC M	GEL	/ X /
Uranium-234, Dissolved	18.1	pCi/L		1.3	3.29	4.04	HASL 300, U-02-RC M	GEL	/ X /
Uranium-235, Dissolved	2.6	pCi/L		0.557	1.41	1.45	HASL 300, U-02-RC M	GEL	/ X /
Uranium-238, Dissolved	109	pCi/L		0.918	7.94	16.2	HASL 300, U-02-RC M	GEL	/ X /
VOA									
1,1,1-Trichloroethane	1	ug/L	U	1			EPA-624	GEL	/ X /
1,1,2-Trichloroethane	1	ug/L	U	1			EPA-624	GEL	/ X /
1,2-Dimethylbenzene	1	ug/L	U	1			EPA-624	GEL	/ X /
m,p-Xylene	2	ug/L	U	2			EPA-624	GEL	/ X /
Trichloroethene	1	ug/L	U	1			EPA-624	GEL	/ X /
WETCHEM									
Carbonaceous Biochemical Oxygen Demand (CBOD)	2	mg/L	UX	2			SM-5210 B 17	GEL	/ X /
Chemical Oxygen Demand (COD)	35.4	mg/L		20			EPA-410.4	GEL	/ X /
Hardness - Total as CaCO3	359	mg/L		2			EPA-130.2	GEL	/ X /
Suspended Solids	5	mg/L	U	5			EPA-160.2	GEL	/ X /

Paducah OREIS Report for UL17-01

UL17-01-120970F002-2 from: C-746-U on 1/10/2017 Media: WW SmpMethod: GR

Comments:

Analysis	Results	Units	Result Qual	Foot Note	Reporting Limit	Counting Error	TPU	Method	LabCode	V/V/A*
ANION										
Chloride	25	mg/L			1			EPA-300.0	GEL	/ X /
Nitrate as Nitrogen	2.79	mg/L			0.5			EPA-300.0	GEL	/ X /
FS										
Conductivity	968	umho/cm						FS	FS	/ /
Dissolved Oxygen	7.61	mg/L						FS	FS	/ /
pH	6.22	Std Unit						FS	FS	/ /
Redox	405	mV						FS	FS	/ /
Temperature	54.9	deg F						FS	FS	/ /
Turbidity	32.6	NTU						FS	FS	/ /
METAL										
Antimony	0.003	mg/L	U		0.003			EPA-200.8	GEL	/ X /
Arsenic	0.005	mg/L	U		0.005			EPA-200.8	GEL	/ X /
Cadmium	0.001	mg/L	U		0.001			EPA-200.8	GEL	/ X /
Chromium	0.01	mg/L	U		0.01			EPA-200.8	GEL	/ X /
Cobalt	0.00286	mg/L			0.001			EPA-200.8	GEL	/ X /
Copper	0.0016	mg/L			0.001			EPA-200.8	GEL	/ X /
Lead	0.00068	mg/L	J		0.002			EPA-200.8	GEL	/ X /
Manganese	0.167	mg/L			0.005			EPA-200.8	GEL	/ X /
Nickel	0.0067	mg/L			0.002			EPA-200.8	GEL	/ X /
Phosphorous	0.0581	mg/L			0.05			EPA-365.4	GEL	/ X /
Selenium	0.005	mg/L	U		0.005			EPA-200.8	GEL	/ X /
Silver	0.001	mg/L	U		0.001			EPA-200.8	GEL	/ X /
Tin	0.005	mg/L	U		0.005			EPA-200.8	GEL	/ X /
Titanium	0.0143	mg/L			0.01			EPA-200.8	GEL	/ X /
Total Uranium	0.325	mg/L			0.00261	0.00652	0.0282	ASTM-C1345-08M	GEL	/ X /
Uranium	0.296	mg/L			0.0002			EPA-200.8	GEL	/ X /
Uranium-235	0.222	wt %						ASTM-C1345-08M	GEL	/ X /
Vanadium	0.01	mg/L	U		0.01			EPA-200.8	GEL	/ X /
Zinc	0.0249	mg/L			0.01			EPA-200.8	GEL	/ X /
METAL-D										
Antimony, Dissolved	0.003	mg/L	U		0.003			EPA-200.8	GEL	/ X /
Arsenic, Dissolved	0.005	mg/L	U		0.005			EPA-200.8	GEL	/ X /
Cadmium, Dissolved	0.001	mg/L	U		0.001			EPA-200.8	GEL	/ X /
Chromium, Dissolved	0.01	mg/L	U		0.01			EPA-200.8	GEL	/ X /
Cobalt, Dissolved	0.00129	mg/L			0.001			EPA-200.8	GEL	/ X /
Copper, Dissolved	0.000857	mg/L	J		0.001			EPA-200.8	GEL	/ X /
Lead, Dissolved	0.002	mg/L	U		0.002			EPA-200.8	GEL	/ X /
Manganese, Dissolved	0.0776	mg/L			0.005			EPA-200.8	GEL	/ X /
Nickel, Dissolved	0.00469	mg/L			0.002			EPA-200.8	GEL	/ X /
Selenium, Dissolved	0.005	mg/L	U		0.005			EPA-200.8	GEL	/ X /
Silver, Dissolved	0.001	mg/L	U		0.001			EPA-200.8	GEL	/ X /
Tin, Dissolved	0.005	mg/L	U		0.005			EPA-200.8	GEL	/ X /
Titanium, Dissolved	0.01	mg/L	U		0.01			EPA-200.8	GEL	/ X /
Uranium, Dissolved	0.29	mg/L			0.0002			EPA-200.8	GEL	/ X /
Vanadium, Dissolved	0.01	mg/L	U		0.01			EPA-200.8	GEL	/ X /
Zinc, Dissolved	0.0101	mg/L			0.01			EPA-200.8	GEL	/ X /
OTHOR										
Oil and Grease	1.52	mg/L	J		4			EPA-1664A	GEL	/ X /

*Verification/Validation/Assessment

PPCB									
PCB-1016	0.0943	ug/L	U	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	U	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	U	0.0943			SW846-8082	GEL	/ X /
RADS									
Alpha activity	155	pCi/L		14.8	27.8	37.7	SW846-9310	GEL	/ X /
Americium-241	-0.0373	pCi/L	U	1.31	0.559	0.56	HASL 300, AM-05-RC M	GEL	/ X /
Beta activity	85.7	pCi/L		5.69	10.6	18.2	SW846-9310	GEL	/ X /
Cesium-137	-0.339	pCi/L	U	1.79	1.07	1.08	EPA-901.1	GEL	/ X /
Cobalt-60	0.422	pCi/L	U	1.9	1.01	1.03	EPA-901.1	GEL	/ X /
Neptunium-237	0.0862	pCi/L	U	1.14	0.557	0.557	Alpha Spectroscopy	GEL	/ X /
Plutonium-239/240	-0.259	pCi/L	U	1.33	0.417	0.418	HASL 300, Pu-11-RC M	GEL	/ X /
Technetium-99	24.5	pCi/L		16	10.1	10.5	HASL 300, Tc-02-RC M	GEL	/ X /
Thorium-230	0.222	pCi/L	U	1.82	0.933	0.938	HASL 300, Th-01-RC M	GEL	/ X /
Thorium-234	0	pCi/L	UX	104	148	152	EPA-901.1	GEL	/ X /
Total Uranium	94.2	pCi/L		1.59	7.1	12.2	HASL 300, U-02-RC M	GEL	/ X /
Uranium-234	15	pCi/L		0.905	2.84	3.4	HASL 300, U-02-RC M	GEL	/ X /
Uranium-235	1.95	pCi/L		0.94	1.21	1.23	HASL 300, U-02-RC M	GEL	/ X /
Uranium-238	77.3	pCi/L		0.905	6.4	11.6	HASL 300, U-02-RC M	GEL	/ X /
RADS-D									
Americium-241, Dissolved	0.336	pCi/L	U	0.504	0.576	0.578	HASL 300, AM-05-RC M	GEL	/ X /
Cesium-137, Dissolved	-0.537	pCi/L	U	1.46	0.859	0.893	EPA-901.1	GEL	/ X /
Cobalt-60, Dissolved	0.0925	pCi/L	U	1.9	0.736	0.737	EPA-901.1	GEL	/ X /
Dissolved Alpha	159	pCi/L		13.5	28.5	39	SW846-9310	GEL	/ X /
Dissolved Beta	54.3	pCi/L		12.4	10.2	13.6	SW846-9310	GEL	/ X /
Neptunium-237, Dissolved	-0.294	pCi/L	U	1.24	0.37	0.37	Alpha Spectroscopy	GEL	/ X /
Plutonium-239/240, Dissolved	0.0525	pCi/L	U	1.15	0.549	0.55	HASL 300, Pu-11-RC M	GEL	/ X /
Technetium-99, Dissolved	27.3	pCi/L		14.7	9.43	9.9	HASL 300, Tc-02-RC M	GEL	/ X /
Thorium-230, Dissolved	0.462	pCi/L	U	1.19	0.746	0.757	HASL 300, Th-01-RC M	GEL	/ X /
Thorium-234, Dissolved	59.9	pCi/L	U	89.8	84.9	90.1	EPA-901.1	GEL	/ X /
Total Uranium, Dissolved	109	pCi/L		1.85	8.21	14.7	HASL 300, U-02-RC M	GEL	/ X /
Uranium-234, Dissolved	16.1	pCi/L		1.11	3.17	3.81	HASL 300, U-02-RC M	GEL	/ X /
Uranium-235, Dissolved	2.01	pCi/L		1.2	1.34	1.37	HASL 300, U-02-RC M	GEL	/ X /
Uranium-238, Dissolved	91.2	pCi/L		0.877	7.46	14.1	HASL 300, U-02-RC M	GEL	/ X /
VOA									
1,1,1-Trichloroethane	1	ug/L	U	1			EPA-624	GEL	/ X /
1,1,2-Trichloroethane	1	ug/L	U	1			EPA-624	GEL	/ X /
1,2-Dimethylbenzene	1	ug/L	U	1			EPA-624	GEL	/ X /
m,p-Xylene	2	ug/L	U	2			EPA-624	GEL	/ X /
Trichloroethene	1	ug/L	U	1			EPA-624	GEL	/ X /
WETCHEM									
Carbonaceous Biochemical Oxygen Demand (CBOD)	1.45	mg/L	J	2			SM-5210 B 17	GEL	/ X /
Chemical Oxygen Demand (COD)	33.8	mg/L		20			EPA-410.4	GEL	/ X /
Hardness - Total as CaCO3	401	mg/L		2			EPA-130.2	GEL	/ X /
Suspended Solids	7.4	mg/L	*	2.5			EPA-160.2	GEL	/ X /

Paducah OREIS Report for UL17-01

UL17-01-BE from: QC on 1/4/2017 Media: WQ SmpMethod:

Comments: equipment rinseate

Analysis	Results	Units	Result Qual	Foot Note	Reporting Limit	Counting Error	TPU	Method	LabCode	V/V/A*
ANION										
Chloride	0.347	mg/L			0.2			EPA-300.0	GEL	/ X /
Nitrate as Nitrogen	0.0457	mg/L	J		0.1			EPA-300.0	GEL	/ X /
METAL										
Antimony	0.003	mg/L	U		0.003			EPA-200.8	GEL	/ X /
Arsenic	0.005	mg/L	U		0.005			EPA-200.8	GEL	/ X /
Cadmium	0.001	mg/L	U		0.001			EPA-200.8	GEL	/ X /
Chromium	0.01	mg/L	U		0.01			EPA-200.8	GEL	/ X /
Cobalt	0.001	mg/L	U		0.001			EPA-200.8	GEL	/ X /
Copper	0.001	mg/L	U		0.001			EPA-200.8	GEL	/ X /
Lead	0.002	mg/L	U		0.002			EPA-200.8	GEL	/ X /
Manganese	0.005	mg/L	U		0.005			EPA-200.8	GEL	/ X /
Nickel	0.000774	mg/L	J		0.002			EPA-200.8	GEL	/ X /
Phosphorous	0.0254	mg/L	J		0.05			EPA-365.4	GEL	/ X /
Selenium	0.005	mg/L	U		0.005			EPA-200.8	GEL	/ X /
Silver	0.001	mg/L	U		0.001			EPA-200.8	GEL	/ X /
Tin	0.005	mg/L	U		0.005			EPA-200.8	GEL	/ X /
Titanium	0.01	mg/L	U		0.01			EPA-200.8	GEL	/ X /
Uranium	0.000386	mg/L			0.0002			EPA-200.8	GEL	/ X /
Vanadium	0.01	mg/L	U		0.01			EPA-200.8	GEL	/ X /
Zinc	0.01	mg/L	U		0.01			EPA-200.8	GEL	/ X /
OTHOR										
Oil and Grease	4.07	mg/L	U		4.07			EPA-1664A	GEL	/ X /
RADS										
Alpha activity	2.87	pCi/L	U		11	5.76	5.78	SW846-9310	GEL	/ X /
Beta activity	3.99	pCi/L	U		9.13	5.51	5.58	SW846-9310	GEL	/ X /
VOA										
1,1,1-Trichloroethane	1	ug/L	U		1			EPA-624	GEL	/ X /
1,1,2-Trichloroethane	1	ug/L	U		1			EPA-624	GEL	/ X /
1,2-Dimethylbenzene	1	ug/L	U		1			EPA-624	GEL	/ X /
m,p-Xylene	2	ug/L	U		2			EPA-624	GEL	/ X /
Trichloroethene	1	ug/L	U		1			EPA-624	GEL	/ X /
WETCHEM										
Chemical Oxygen Demand (COD)	31.6	mg/L			20			EPA-410.4	GEL	/ X /
Hardness - Total as CaCO3	1.85	mg/L	J		2			EPA-130.2	GEL	/ X /

*Verification/Validation/Assessment

Paducah OREIS Report for UL17-01

UL17-01-BEP from: QC on 1/4/2017 Media: SQ SmpMethod:

Comments: equipment rinseate PCB wipe

Analysis	Results	Units	Result Qual	Foot Note	Reporting Limit	Counting Error	TPU	Method	LabCode	V/V/A*
PPCB										
PCB-1016	0.1	ug/Sampl	U		0.1			SW846-8082	GEL	/ X /
PCB-1221	0.1	ug/Sampl	U		0.1			SW846-8082	GEL	/ X /
PCB-1232	0.1	ug/Sampl	U		0.1			SW846-8082	GEL	/ X /
PCB-1242	0.1	ug/Sampl	U		0.1			SW846-8082	GEL	/ X /
PCB-1248	0.1	ug/Sampl	U		0.1			SW846-8082	GEL	/ X /
PCB-1254	0.1	ug/Sampl	U		0.1			SW846-8082	GEL	/ X /
PCB-1260	0.1	ug/Sampl	U		0.1			SW846-8082	GEL	/ X /
PCB-1268	0.1	ug/Sampl	U		0.1			SW846-8082	GEL	/ X /
Polychlorinated biphenyl	0.1	ug/Sampl	U		0.1			SW846-8082	GEL	/ X /

*Verification/Validation/Assessment

Paducah OREIS Report for UL17-01

UL17-01-BF from: QC on 1/4/2017 Media: WQ SmpMethod:

Comments: field blank

Analysis	Results	Units	Result Qual	Foot Note	Reporting Limit	Counting Error	TPU	Method	LabCode	V/V/A*
ANION										
Chloride	0.107	mg/L	J		0.2			EPA-300.0	GEL	/ X /
Nitrate as Nitrogen	0.0395	mg/L	J		0.1			EPA-300.0	GEL	/ X /
METAL										
Antimony	0.003	mg/L	U		0.003			EPA-200.8	GEL	/ X /
Arsenic	0.005	mg/L	U		0.005			EPA-200.8	GEL	/ X /
Cadmium	0.001	mg/L	U		0.001			EPA-200.8	GEL	/ X /
Chromium	0.01	mg/L	U		0.01			EPA-200.8	GEL	/ X /
Cobalt	0.001	mg/L	U		0.001			EPA-200.8	GEL	/ X /
Copper	0.001	mg/L	U		0.001			EPA-200.8	GEL	/ X /
Lead	0.002	mg/L	U		0.002			EPA-200.8	GEL	/ X /
Manganese	0.005	mg/L	U		0.005			EPA-200.8	GEL	/ X /
Nickel	0.002	mg/L	U		0.002			EPA-200.8	GEL	/ X /
Phosphorous	0.023	mg/L	J		0.05			EPA-365.4	GEL	/ X /
Selenium	0.005	mg/L	U		0.005			EPA-200.8	GEL	/ X /
Silver	0.001	mg/L	U		0.001			EPA-200.8	GEL	/ X /
Tin	0.005	mg/L	U		0.005			EPA-200.8	GEL	/ X /
Titanium	0.01	mg/L	U		0.01			EPA-200.8	GEL	/ X /
Uranium	0.0002	mg/L	U		0.0002			EPA-200.8	GEL	/ X /
Vanadium	0.01	mg/L	U		0.01			EPA-200.8	GEL	/ X /
Zinc	0.01	mg/L	U		0.01			EPA-200.8	GEL	/ X /
OTHOR										
Oil and Grease	4.42	mg/L	U		4.42			EPA-1664A	GEL	/ X /
PPCB										
PCB-1016	0.0485	ug/L	U		0.0485			SW846-8082	GEL	/ X /
PCB-1221	0.0485	ug/L	U		0.0485			SW846-8082	GEL	/ X /
PCB-1232	0.0485	ug/L	U		0.0485			SW846-8082	GEL	/ X /
PCB-1242	0.0485	ug/L	U		0.0485			SW846-8082	GEL	/ X /
PCB-1248	0.0485	ug/L	U		0.0485			SW846-8082	GEL	/ X /
PCB-1254	0.0485	ug/L	U		0.0485			SW846-8082	GEL	/ X /
PCB-1260	0.0485	ug/L	U		0.0485			SW846-8082	GEL	/ X /
PCB-1268	0.0485	ug/L	U		0.0485			SW846-8082	GEL	/ X /
Polychlorinated biphenyl	0.0485	ug/L	U		0.0485			SW846-8082	GEL	/ X /
RADS										
Alpha activity	-0.636	pCi/L	U		8.89	4.14	4.14	SW846-9310	GEL	/ X /
Beta activity	-2.19	pCi/L	U		9.71	5.15	5.15	SW846-9310	GEL	/ X /
VOA										
1,1,1-Trichloroethane	1	ug/L	U		1			EPA-624	GEL	/ X /
1,1,2-Trichloroethane	1	ug/L	U		1			EPA-624	GEL	/ X /
1,2-Dimethylbenzene	1	ug/L	U		1			EPA-624	GEL	/ X /
m,p-Xylene	0.67	ug/L	J		2			EPA-624	GEL	/ X /
Trichloroethene	1	ug/L	U		1			EPA-624	GEL	/ X /
WETCHEM										
Chemical Oxygen Demand (COD)	41.2	mg/L			20			EPA-410.4	GEL	/ X /
Hardness - Total as CaCO3	9.25	mg/L			2			EPA-130.2	GEL	/ X /

*Verification/Validation/Assessment

Paducah OREIS Report for UL17-01

UL17-01-BT from: QC on 1/4/2017 Media: WQ SmpMethod:

Comments: trip blank

Analysis	Results	Units	Result Qual	Foot Note	Reporting Limit	Counting Error	TPU	Method	LabCode	V/V/A*
VOA										
1,1,1-Trichloroethane	1	ug/L	U		1			EPA-624	GEL	/ X /
1,1,2-Trichloroethane	1	ug/L	U		1			EPA-624	GEL	/ X /
1,2-Dimethylbenzene	1	ug/L	U		1			EPA-624	GEL	/ X /
m,p-Xylene	0.72	ug/L	J		2			EPA-624	GEL	/ X /
Trichloroethene	1	ug/L	U		1			EPA-624	GEL	/ X /

UL17-01-BT2 from: QC on 1/5/2017 Media: WQ SmpMethod:

Comments: trip blank

Analysis	Results	Units	Result Qual	Foot Note	Reporting Limit	Counting Error	TPU	Method	LabCode	V/V/A*
VOA										
1,1,1-Trichloroethane	1	ug/L	U		1			EPA-624	GEL	/ X /
1,1,2-Trichloroethane	1	ug/L	U		1			EPA-624	GEL	/ X /
1,2-Dimethylbenzene	1	ug/L	U		1			EPA-624	GEL	/ X /
m,p-Xylene	0.74	ug/L	J		2			EPA-624	GEL	/ X /
Trichloroethene	1	ug/L	U		1			EPA-624	GEL	/ X /

UL17-01-BT3 from: QC on 1/10/2017 Media: WQ SmpMethod:

Comments: trip blank

Analysis	Results	Units	Result Qual	Foot Note	Reporting Limit	Counting Error	TPU	Method	LabCode	V/V/A*
VOA										
1,1,1-Trichloroethane	1	ug/L	U		1			EPA-624	GEL	/ X /
1,1,2-Trichloroethane	1	ug/L	U		1			EPA-624	GEL	/ X /
1,2-Dimethylbenzene	1	ug/L	U		1			EPA-624	GEL	/ X /
m,p-Xylene	2	ug/L	U		2			EPA-624	GEL	/ X /
Trichloroethene	1	ug/L	U		1			EPA-624	GEL	/ X /

UL17-01-BT4 from: QC on 1/17/2017 Media: WQ SmpMethod:

Comments: trip blank

Analysis	Results	Units	Result Qual	Foot Note	Reporting Limit	Counting Error	TPU	Method	LabCode	V/V/A*
VOA										
1,1,1-Trichloroethane	1	ug/L	U		1			EPA-624	GEL	/ X /
1,1,2-Trichloroethane	1	ug/L	U		1			EPA-624	GEL	/ X /
1,2-Dimethylbenzene	0.34	ug/L	J		1			EPA-624	GEL	/ X /
m,p-Xylene	2	ug/L	U		2			EPA-624	GEL	/ X /
Trichloroethene	1	ug/L	U		1			EPA-624	GEL	/ X /

*Verification/Validation/Assessment

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

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: 2017

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	50.19	0.00	0.00
Paducah Gaseous Diffusion Plant (February)	0.00	0.00	0.00	0.00
Paducah Gaseous Diffusion Plant (March)	0.00	0.00	0.00	0.00
Total for this page	0.00	50.19	0.00	0.00
Grand Total of all pages	0.00	50.19	0.00	0.00

***Grand Total of Municipal, Industrial, and Special from all pages** 50.19

***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) 441-5113

Name—Please Print: Myrna E. Redfield Date: 4/13/17

Signature: Jennifer Woodard Phone Number (270) 441-6800

Name—Please Print: Jennifer Woodard Date: 4/13/2017

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).

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