

December 3, 2025

Illinois Environmental Protection Agency
Division of Water Pollution Control
Compliance Assurance Section
2520 West Iles Avenue
Springfield, Illinois 62704

Illinois Environmental Protection Agency
Collinsville FOS
1101 Eastport Plaza Dr, Suite 100
Collinsville, Illinois 62234

**Shell Oil Products US Steam Enhanced Extraction Pretreatment System - Treated Water Analytical Data
Village of Roxana Wastewater Treatment Plant
Water Pollution Control Permit No. 2023-EE-68012
November 2025 Analytical**

To Whom It May Concern:

AECOM Technical Services, Inc. (AECOM), on behalf of Shell Oil Products US (Shell), is submitting this letter as required by Water Pollution Control Permit No. 2023-EE-68012, Special Condition 8(B). This Permit is for the pre-treatment and discharge of the steam enhanced extraction (SEE) wastewater to the Village of Roxana Wastewater Treatment Plant (WWTP). Special Condition 8(B) of the Permit requires monitoring of the system discharges and submittal of analytical results to the Illinois Environmental Protection Agency (IEPA). Wastewater treated through the pretreatment system is sampled on a weekly basis in accordance with Condition 13 of the August 22, 2022, letter from Illinois EPA, Permit Section, Division of Land Pollution Control (Log N. B-43R-CA-107).

The SEE system was winterized and sat idle during the winter months. System startup activities began in March 2025. During system operation activities in November 2025, six (6) samples of treated wastewater discharge was analyzed. The table below summarizes the samples and corresponding results.

Sample ID	Sample Date	Benzene (mg/L)
PWYSEE-WaterEff-110425	11/4/2025	0.0016
PWYSEE-WaterEff-110725	11/7/2025	0.0004 J
PWYSEE-WaterEff-111125	11/11/2025	Not detected
PWYSEE-WaterEff-111425	11/14/2025	Not detected
PWYSEE-WaterEff-111825	11/18/2025	Not detected
PWYSEE-WaterEff-112425	11/24/2025	Not detected

"J" qualifier indicates that benzene detection was estimated between the reporting limit and method detection limit

Please contact Ms. Wendy Pennington (wendy.pennington@aecom.com; 314-452-8929) with any questions.

Sincerely,



Wendy Pennington, P.E.
Compliance Manager
AECOM



Samuel Fisher, CHMM
Task Manager
AECOM

encl: Applicable results pages from Teklab Work Orders 25110292, 25110774, 25110954, 25111313, 25111586, 25112109

cc: Buddy Bealer (Shell)
Scott Schmidt (Village of Roxana)
Jason Woody (Village of Roxana)
Project File

Client: AECOM Technical Services Inc.

Work Order: 25110292

Client Project: PWY SEE 2026 Water & Waste / 60771235-7.2.2

Report Date: 06-Nov-25

Lab ID: 25110292-001

Client Sample ID: PWYSEE-WaterEff-110425

Matrix: AQUEOUS

Collection Date: 11/04/2025 10:55

Analyses	Certification	MDL	RL	Qual	Result	Units	DF	Date Analyzed	Batch
SW-846 5030B, 8260B, VOLATILE ORGANIC COMPOUNDS BY GC/MS									
Benzene	NELAP	0.1	0.5		1.6	µg/L	1	11/05/2025 08:18	247409
Surr: 1,2-Dichloroethane-d4	*	0	80-120		101.6	%REC	1	11/05/2025 08:18	247409
Surr: 4-Bromofluorobenzene	*	0	80-120		101.8	%REC	1	11/05/2025 08:18	247409
Surr: Dibromofluoromethane	*	0	80-120		95.0	%REC	1	11/05/2025 08:18	247409
Surr: Toluene-d8	*	0	80-120		105.6	%REC	1	11/05/2025 08:18	247409

Client: AECOM Technical Services Inc.

Work Order: 25110774

Client Project: PWY SEE 2026 Water & Waste / 60771235-7.2.2

Report Date: 10-Nov-25

Lab ID: 25110774-001

Client Sample ID: PWYSEE-WaterEff-110725

Matrix: AQUEOUS

Collection Date: 11/07/2025 13:20

Analyses	Certification	MDL	RL	Qual	Result	Units	DF	Date Analyzed	Batch
SW-846 5030B, 8260B, VOLATILE ORGANIC COMPOUNDS BY GC/MS									
Benzene	NELAP	0.1	0.5	J	0.4	µg/L	1	11/10/2025 08:56	247671
Surr: 1,2-Dichloroethane-d4	*	0	80-120		118.2	%REC	1	11/10/2025 08:56	247671
Surr: 4-Bromofluorobenzene	*	0	80-120		89.8	%REC	1	11/10/2025 08:56	247671
Surr: Dibromofluoromethane	*	0	80-120		105.6	%REC	1	11/10/2025 08:56	247671
Surr: Toluene-d8	*	0	80-120		92.3	%REC	1	11/10/2025 08:56	247671

Client: AECOM Technical Services Inc.

Work Order: 25110954

Client Project: PWY SEE 2026 Water & Waste / 60771235-7.2.2

Report Date: 12-Nov-25

Lab ID: 25110954-001

Client Sample ID: PWYSEE-WaterEff-111125

Matrix: AQUEOUS

Collection Date: 11/11/2025 10:00

Analyses	Certification	MDL	RL	Qual	Result	Units	DF	Date Analyzed	Batch
SW-846 5030B, 8260B, VOLATILE ORGANIC COMPOUNDS BY GC/MS									
Benzene	NELAP	0.1	0.5		ND	µg/L	1	11/12/2025 12:11	247834
Surr: 1,2-Dichloroethane-d4	*	0	80-120		101.0	%REC	1	11/12/2025 12:11	247834
Surr: 4-Bromofluorobenzene	*	0	80-120		99.5	%REC	1	11/12/2025 12:11	247834
Surr: Dibromofluoromethane	*	0	80-120		99.0	%REC	1	11/12/2025 12:11	247834
Surr: Toluene-d8	*	0	80-120		99.4	%REC	1	11/12/2025 12:11	247834

Client: AECOM Technical Services Inc.

Work Order: 25111313

Client Project: PWY SEE 2026 Water & Waste / 60771235-7.2.2

Report Date: 17-Nov-25

Lab ID: 25111313-001

Client Sample ID: PWYSEE-WaterEff-111425

Matrix: AQUEOUS

Collection Date: 11/14/2025 13:15

Analyses	Certification	MDL	RL	Qual	Result	Units	DF	Date Analyzed	Batch
SW-846 5030B, 8260B, VOLATILE ORGANIC COMPOUNDS BY GC/MS									
Benzene	NELAP	0.1	0.5		ND	µg/L	1	11/17/2025 09:46	248044
Surr: 1,2-Dichloroethane-d4	*	0	80-120		88.9	%REC	1	11/17/2025 09:46	248044
Surr: 4-Bromofluorobenzene	*	0	80-120		96.6	%REC	1	11/17/2025 09:46	248044
Surr: Dibromofluoromethane	*	0	80-120		97.6	%REC	1	11/17/2025 09:46	248044
Surr: Toluene-d8	*	0	80-120		99.7	%REC	1	11/17/2025 09:46	248044

Client: AECOM Technical Services Inc.**Work Order:** 25111586**Client Project:** PWY SEE 2026 Water & Waste / 60771235-7.2.2**Report Date:** 19-Nov-25**Lab ID:** 25111586-001**Client Sample ID:** PWYSEE-WaterEff-111825**Matrix:** AQUEOUS**Collection Date:** 11/18/2025 11:50

Analyses	Certification	MDL	RL	Qual	Result	Units	DF	Date Analyzed	Batch
SW-846 5030B, 8260B, VOLATILE ORGANIC COMPOUNDS BY GC/MS									
Benzene	NELAP	0.1	0.5		ND	µg/L	1	11/19/2025 08:09	248192
Surr: 1,2-Dichloroethane-d4	*	0	80-120		87.7	%REC	1	11/19/2025 08:09	248192
Surr: 4-Bromofluorobenzene	*	0	80-120		95.0	%REC	1	11/19/2025 08:09	248192
Surr: Dibromofluoromethane	*	0	80-120		98.2	%REC	1	11/19/2025 08:09	248192
Surr: Toluene-d8	*	0	80-120		98.4	%REC	1	11/19/2025 08:09	248192

Client: AECOM Technical Services Inc.

Work Order: 25112109

Client Project: PWY SEE 2026 Water & Waste / 60771235-7.2.2

Report Date: 26-Nov-25

Lab ID: 25112109-001

Client Sample ID: PWYSEE-WaterEff-112425

Matrix: AQUEOUS

Collection Date: 11/24/2025 12:00

Analyses	Certification	MDL	RL	Qual	Result	Units	DF	Date Analyzed	Batch
SW-846 5030B, 8260B, VOLATILE ORGANIC COMPOUNDS BY GC/MS									
Benzene	NELAP	0.1	0.5		ND	µg/L	1	11/25/2025 11:20	248519
Surr: 1,2-Dichloroethane-d4	*	0	80-120		103.1	%REC	1	11/25/2025 11:20	248519
Surr: 4-Bromofluorobenzene	*	0	80-120		102.1	%REC	1	11/25/2025 11:20	248519
Surr: Dibromofluoromethane	*	0	80-120		100.0	%REC	1	11/25/2025 11:20	248519
Surr: Toluene-d8	*	0	80-120		99.3	%REC	1	11/25/2025 11:20	248519