Analytical Resources, LLC
Analytical Chemists and Consultants

11 April 2025

Jeffrey Eis
Nucor Steel Corporation
2424 Andover SW
Seattle, WA 98106

RE: Nucor Steel Seattle NPDES

Please find enclosed sample receipt documentation and analytical results for samples from the project referenced above.

Sample analyses were performed according to ARI's Quality Assurance Plan and any provided project specific Quality Assurance Plan. Each analytical section of this report has been approved and reviewed by an analytical peer, the appropriate Laboratory Supervisor or qualified substitute, and a technical reviewer.

Should you have any questions or problems, please feel free to contact us at your convenience.

Associated Work Order(s)	Associated SDG ID(s)
25D0026	N/A

Phillip Bates
Digitally signed by Phillip Bates
Date: 2025.04.11 07:51:35 -07'00'

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed in the enclose Narrative. ARI, an accredited laboratory, certifies that the report results for which ARI is accredited meets all the requirements of the accrediting body. A list of certified analyses, accreditations, and expiration dates is included in this report.

Release of the data contained in this hardcopy data package has been authorized by the Laboratory Manager or his/her designee, as verified by the following signature.

Analytical Resources, LLC

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Phillip Bates For Kelly Bottem, Client Services Manager

ACCREDITED IN ACCORDANCE WITH nelac
Cert# 100006-012

Chain of Custody Record & Laboratory Analysis Request

ARI Assigned Number: 25D0026	Turn-around Requested: 5 day
ARI Client Company: Nucor Steel Seattle	Phone:206-933-2205
Client Contact: Jeffrey Eis	
Client Project Name: Nucor Steel Seattle NPDES	
Purchase Order#	Samplers:

Date:

Page: 1 of 1

No. of Coolers: 1 Cooler Temps: 13.4

Analytical Resources, Incorporated
Analytical Chemists and Consultants
4611 South 134th Place, Suite 100
Tukwila, WA 98168
206-695-6200 206-695-6201 (fax)

Sample ID	Date	Time	Matrix	No. Containers	Metals	pH (Nucor Sample Log)	PCB	Fats, Oils, and Greases					Notes/Comments
					Analysis Requested								
Nucor NPDES	4-1-25	1200	Water	4	x 1		x 2	x 1					**Metals EPA 200.8:**
													Copper, Zinc, Lead
													PCB - EPA 608:
													1016, 1221, 1232
													1242, 1248
													1254, 1260
													Oil & Grease
													Method 1664
													HEM total,NP,Polar

Comments/Special Instructions	Relinqushed by: (Signature)	Received by: (Signature)	Relinquished by: (Signature)	Received by: (Signature)
	Printed Name: J. Eis	Printed Name: Emma Stewart	Printed Name:	Printed Name:
	Company: Nucor Steel	Company: ARI	Company:	Company:
	Date & Time: 4-1-25 / 1609	Date & Time: 4/1/25 1609	Date & Time:	Date & Time:

Limits of Liability: *ARI will perform all requested services in accordance with appropriate methodology following ARI Standard Operating Procedures and the ARI Quality Assurance Program. This program meets standards for the industry. The total liability of ARI, its officers, agents, employees, or successors, arising out of or in connection with the requested services, shall not exceed the Invoiced amount for said services. The acceptance by the client of a proposal for services by ARI release ARI from any liability in excess thereof, not withstanding any provision to the contrary in any contract, purchase order or co-signed agreement between ARI and the Client.*

Sample Retention Policy: Unless specified by workorder or contract, all water/soil samples submitted to ARI will be discarded or returned, no sooner than 90 days after receipt or 60 days after submission of hardcopy data, whichever is longer. Sediment samples submitted under PSDDA/PSEP/SMS protocol will be stored frozen for up to one year and then discarded.

Nucor Steel Corporation	Project: Nucor Steel Seattle NPDES	
2424 Andover SW	Project Number: [none]	**Reported:**
Seattle, WA 98106	Project Manager: Jeffrey Eis	11-Apr-2025 07:45

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
Nucor NPDES	25D0026-01	Water	01-Apr-2025 12:00	01-Apr-2025 16:09

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Nucor Steel Corporation	Project: Nucor Steel Seattle NPDES	
2424 Andover SW	Project Number: [none]	**Reported:**
Seattle, WA 98106	Project Manager: Jeffrey Eis	11-Apr-2025 07:45

Case Narrative

Aroclor PCBs - EPA Method 608.3

The sample(s) were extracted and analyzed within the recommended holding times.

Initial and continuing calibrations were within method requirements.

Internal standard areas were within limits.

The surrogate percent recoveries were within control limits.

The method blank(s) were clean at the reporting limits.

The blank spike (BS/LCS) percent recoveries were within control limits with the exception of analytes flagged on the associated forms.

Total Metals - EPA Method 200.8

The sample(s) were digested and analyzed within the recommended holding times.

Initial and continuing calibrations including interference checks were within method requirements for reported elements.

The method blank(s) were clean at the reporting limits.

The blank spike (BS/LCS) percent recoveries were within control limits.

Wet Chemistry

The sample(s) were prepared and analyzed within the recommended holding times.

Initial and continuing calibrations were within method requirements.

The method blank(s) were clean at the reporting limits.

The blank spike (BS/LCS) percent recoveries were within control limits.

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Seattle, WA 98106	Project Manager: Jeffrey Eis	11-Apr-2025 07:45

Nucor NPDES

25D0026-01 (Water)

Aroclor PCB

Method: EPA 608.3 — Sampled: 04/01/2025 12:00

Instrument: ECD7 — Analyst: Nicholas Benuska — Analyzed: 03-Apr-2025 12:52

Analysis by: Analytical Resources, LLC

Sample Preparation:	Preparation Method: EPA 3510C SepF	
	Preparation Batch: BND0034	Sample Size: 1000 mL
	Prepared: 02-Apr-2025	Final Volume: 0.5 mL
Sample Cleanup:	Cleanup Method: Sulfuric Acid	
	Cleanup Batch: CND0020	Initial Volume: 0.5 uL
	Cleaned: 04-Apr-2025	Final Volume: 0.5 uL
Sample Cleanup:	Cleanup Method: Sulfur	
	Cleanup Batch: CND0021	Initial Volume: 0.5 uL
	Cleaned: 04-Apr-2025	Final Volume: 0.5 uL

Analyte	CAS Number	Dilution	Detection Limit	Reporting Limit	Result	Units	Notes
Aroclor 1016	12674-11-2	1	0.005	0.010	ND	ug/L	U
Aroclor 1221	11104-28-2	1	0.005	0.010	ND	ug/L	U
Aroclor 1232	11141-16-5	1	0.005	0.010	ND	ug/L	U
Aroclor 1242	53469-21-9	1	0.005	0.010	ND	ug/L	U
Aroclor 1248	12672-29-6	1	0.005	0.010	ND	ug/L	U
Aroclor 1254	11097-69-1	1	0.005	0.010	ND	ug/L	U
Aroclor 1260	11096-82-5	1	0.005	0.010	ND	ug/L	U
Aroclor 1262	37324-23-5	1	0.005	0.010	ND	ug/L	U
Aroclor 1268	11100-14-4	1	0.005	0.010	ND	ug/L	U
Surrogate: Decachlorobiphenyl				*21-120 %*	*71.9*	*%*	
Surrogate: Tetrachlorometaxylene				*19-120 %*	*110*	*%*	P1
Surrogate: Decachlorobiphenyl [2C]				*21-120 %*	*75.5*	*%*	
Surrogate: Tetrachlorometaxylene [2C]				*19-120 %*	*78.1*	*%*	P1

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Seattle, WA 98106	Project Manager: Jeffrey Eis	11-Apr-2025 07:45

Nucor NPDES

25D0026-01 (Water)

Metals and Metallic Compounds

Method: EPA 200.8 — Sampled: 04/01/2025 12:00

Instrument: ICPMS2 — Analyst: Matthew C. Brown — Analyzed: 08-Apr-2025 19:30

Analysis by: Analytical Resources, LLC — Signature:

Sample Preparation: Preparation Method: REN - EPA 3010A M
Preparation Batch: BND0139 — Sample Size: 25 mL
Prepared: 05-Apr-2025 — Final Volume: 25 mL

Analyte	CAS Number	Dilution	Reporting Limit	Result	Units	Notes
Copper UCT	7440-50-8	1	0.500	**2.12**	ug/L	
Lead	7439-92-1	1	0.200	ND	ug/L	U
Zinc UCT	7440-66-6	1	6.00	ND	ug/L	U

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2424 Andover SW	Project Number: [none]	**Reported:**
Seattle, WA 98106	Project Manager: Jeffrey Eis	11-Apr-2025 07:45

Nucor NPDES

25D0026-01 (Water)

Wet Chemistry

Method: EPA 1664B — Sampled: 04/01/2025 12:00

Instrument: Bal2 — Analyst: Leah McFadden — Analyzed: 02-Apr-2025 09:13

Analysis by: Analytical Resources, LLC

Sample Preparation: Preparation Method: EPA 3535A SPE (Solid Phase Extraction)
Preparation Batch: BND0033 — Sample Size: 995 mL
Prepared: 02-Apr-2025 — Final Volume: 1000 mL

Analyte	CAS Number	Dilution	Reporting Limit	Result	Units	Notes
HEM Oil & Grease		1	5	ND	mg/L	U
SGT-HEM NP Oil & Grease		1	5	ND	mg/L	U
HEM Polar Oil & Grease		1	5	ND	mg/L	U

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Nucor Steel Corporation	Project: Nucor Steel Seattle NPDES	
2424 Andover SW	Project Number: [none]	**Reported:**
Seattle, WA 98106	Project Manager: Jeffrey Eis	11-Apr-2025 07:45

Analysis by: Analytical Resources, LLC

Aroclor PCB - Quality Control

Batch BND0034 - EPA 3510C SepF

Instrument: ECD7 Analyst: NRB

QC Sample/Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Blank (BND0034-BLK1)				Prepared: 02-Apr-2025 Analyzed: 03-Apr-2025 12:10							
Aroclor 1016	ND	0.005	0.010	ug/L							U
Aroclor 1221	ND	0.005	0.010	ug/L							U
Aroclor 1232	ND	0.005	0.010	ug/L							U
Aroclor 1242	ND	0.005	0.010	ug/L							U
Aroclor 1248	ND	0.005	0.010	ug/L							U
Aroclor 1254	ND	0.005	0.010	ug/L							U
Aroclor 1260	ND	0.005	0.010	ug/L							U
Aroclor 1262	ND	0.005	0.010	ug/L							U
Aroclor 1268	ND	0.005	0.010	ug/L							U
Surrogate: Decachlorobiphenyl	0.0142			ug/L	*0.0200*		*71.1*	*21-120*			
Surrogate: Tetrachlorometaxylene	0.0206			ug/L	*0.0200*		*103*	*19-120*			*P1*
Surrogate: Decachlorobiphenyl [2C]	0.0144			ug/L	*0.0200*		*71.9*	*21-120*			
Surrogate: Tetrachlorometaxylene [2C]	0.0129			ug/L	*0.0200*		*64.3*	*19-120*			*P1*
LCS (BND0034-BS1)				Prepared: 02-Apr-2025 Analyzed: 03-Apr-2025 12:31							
Aroclor 1016	0.061	0.005	0.010	ug/L	0.0500		123	44-120			*
Aroclor 1260 [2C]	0.034	0.005	0.010	ug/L	0.0500		68.0	46-131			
Surrogate: Decachlorobiphenyl	0.0147			ug/L	*0.0200*		*73.6*	*21-120*			
Surrogate: Tetrachlorometaxylene	0.0227			ug/L	*0.0200*		*114*	*19-120*			*P1*
Surrogate: Decachlorobiphenyl [2C]	0.0154			ug/L	*0.0200*		*76.8*	*21-120*			
Surrogate: Tetrachlorometaxylene [2C]	0.0158			ug/L	*0.0200*		*78.8*	*19-120*			*P1*

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2424 Andover SW	Project Number: [none]	**Reported:**
Seattle, WA 98106	Project Manager: Jeffrey Eis	11-Apr-2025 07:45

Analysis by: Analytical Resources, LLC

Metals and Metallic Compounds - Quality Control

Batch BND0139 - REN - EPA 3010A M

Instrument: ICPMS1 Analyst: HAL

QC Sample/Analyte	Isotope	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Blank (BND0139-BLK2)			Prepared: 05-Apr-2025 Analyzed: 09-Apr-2025 20:50								
Copper UCT	63 UCT	ND	0.500	ug/L							U
Lead	208	ND	0.200	ug/L							U
Zinc UCT	66 UCT	ND	6.00	ug/L							U
LCS (BND0139-BS2)			Prepared: 05-Apr-2025 Analyzed: 09-Apr-2025 20:55								
Copper UCT	63 UCT	25.0	0.500	ug/L	25.0		100	85-115			
Lead	208	25.3	0.200	ug/L	25.0		101	85-115			
Zinc UCT	66 UCT	81.7	6.00	ug/L	80.0		102	85-115			

Instrument: ICPMS2 Analyst: MCB

QC Sample/Analyte	Isotope	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Blank (BND0139-BLK1)			Prepared: 05-Apr-2025 Analyzed: 08-Apr-2025 19:08								
Copper UCT	63 UCT	ND	0.500	ug/L							U
Lead	208	ND	0.200	ug/L							U
Zinc UCT	66 UCT	ND	6.00	ug/L							U
LCS (BND0139-BS1)			Prepared: 05-Apr-2025 Analyzed: 08-Apr-2025 19:12								
Copper UCT	63 UCT	25.7	0.500	ug/L	25.0		103	85-115			
Lead	208	26.0	0.200	ug/L	25.0		104	85-115			
Zinc UCT	66 UCT	83.9	6.00	ug/L	80.0		105	85-115			

Nucor Steel Corporation	Project: Nucor Steel Seattle NPDES	
2424 Andover SW	Project Number: [none]	**Reported:**
Seattle, WA 98106	Project Manager: Jeffrey Eis	11-Apr-2025 07:45

Analysis by: Analytical Resources, LLC

Wet Chemistry - Quality Control

Batch BND0033 - EPA 3535A SPE (Solid Phase Extraction)

Instrument: Bal2 Analyst: LLM

QC Sample/Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Blank (BND0033-BLK1)				Prepared: 02-Apr-2025 Analyzed: 02-Apr-2025 09:13						
HEM Oil & Grease	ND	5	mg/L							U
SGT-HEM NP Oil & Grease	ND	5	mg/L							U
HEM Polar Oil & Grease	ND	5	mg/L							U
LCS (BND0033-BS1)				Prepared: 02-Apr-2025 Analyzed: 02-Apr-2025 09:13						
HEM Oil & Grease	38	5	mg/L	42.14		89.7	78-114			
SGT-HEM NP Oil & Grease	18	5	mg/L	21.06		85.0	64-132			
HEM Polar Oil & Grease	20	5	mg/L	21.08		94.4	0-200			

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2424 Andover SW	Project Number: [none]	**Reported:**
Seattle, WA 98106	Project Manager: Jeffrey Eis	11-Apr-2025 07:45

Certified Analyses included in this Report

Analyte	Certifications
EPA 1664B in Water	
HEM Oil & Grease	WADOE,NELAP
SGT-HEM NP Oil & Grease	WADOE,NELAP
HEM Polar Oil & Grease	WADOE,NELAP
EPA 200.8 in Water	
Aluminum-27	NELAP,DoD-ELAP,WADOE
Antimony-121	NELAP,DoD-ELAP,WADOE
Antimony-123	NELAP,DoD-ELAP,WADOE
Arsenic-75a UCT	NELAP,DoD-ELAP,WADOE
Barium-135	NELAP,DoD-ELAP,WADOE
Barium-137	NELAP,DoD-ELAP,WADOE
Beryllium-9	NELAP,DoD-ELAP,WADOE
Cadmium-111 UCT	NELAP,DoD-ELAP,WADOE
Cadmium-114 UCT	NELAP,DoD-ELAP,WADOE
Calcium-44	NELAP,DoD-ELAP,WADOE
Chromium-52	NELAP,DoD-ELAP,WADOE
Chromium-53	NELAP,DoD-ELAP,WADOE
Cobalt-59 UCT	NELAP,DoD-ELAP,WADOE
Copper-63 UCT	NELAP,DoD-ELAP,WADOE
Copper-65 UCT	NELAP,DoD-ELAP,WADOE
Iron-54	NELAP,DoD-ELAP,WADOE
Iron-57	NELAP,DoD-ELAP,WADOE
Lead-208	NELAP,DoD-ELAP,WADOE
Magnesium-24	NELAP,DoD-ELAP,WADOE
Manganese-55	NELAP,DoD-ELAP,WADOE
Molybdenum-98 UCT	NELAP,DoD-ELAP,WADOE
Nickel-60 UCT	NELAP,DoD-ELAP,WADOE
Nickel-62 UCT	NELAP,DoD-ELAP,WADOE
Potassium-39	NELAP,DoD-ELAP,WADOE
Selenium-78 UCT	NELAP,DoD-ELAP,WADOE
Silver-107	NELAP,DoD-ELAP,WADOE
Sodium-23	NELAP,DoD-ELAP,WADOE
Thallium-205	NELAP,DoD-ELAP,WADOE
Vanadium-51a	NELAP,DoD-ELAP,WADOE
Vanadium-51b	NELAP,DoD-ELAP,WADOE

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Zinc-66 UCT	NELAP,DoD-ELAP,WADOE
Zinc-67 UCT	NELAP,DoD-ELAP,WADOE

EPA 608.3 in Water

Aroclor 1016	DoD-ELAP,WADOE
Aroclor 1016 [2C]	DoD-ELAP,WADOE
Aroclor 1221	DoD-ELAP,WADOE
Aroclor 1221 [2C]	DoD-ELAP,WADOE
Aroclor 1232	DoD-ELAP,WADOE
Aroclor 1232 [2C]	DoD-ELAP,WADOE
Aroclor 1242	DoD-ELAP,WADOE
Aroclor 1242 [2C]	DoD-ELAP,WADOE
Aroclor 1248	DoD-ELAP,WADOE
Aroclor 1248 [2C]	DoD-ELAP,WADOE
Aroclor 1254	DoD-ELAP,WADOE
Aroclor 1254 [2C]	DoD-ELAP,WADOE
Aroclor 1260	DoD-ELAP,WADOE
Aroclor 1260 [2C]	DoD-ELAP,WADOE
Aroclor 1262	DoD-ELAP,WADOE
Aroclor 1262 [2C]	DoD-ELAP,WADOE
Aroclor 1268	DoD-ELAP,WADOE
Aroclor 1268 [2C]	WADOE
Aroclor-1268 (4) [2C]	DoD-ELAP

Code	Description	Number	Expires
ADEC	Alaska Dept of Environmental Conservation	17-015	02/28/2026
DoD-ELAP	DoD-Environmental Laboratory Accreditation Program, PJLA Testing	66169	01/31/2026
NELAP	ORELAP - Oregon Laboratory Accreditation Program	WA100006-012	05/12/2025
WADOE	WA Dept of Ecology	C558	06/30/2025
WA-DW	Ecology - Drinking Water	C558	06/30/2025

Nucor Steel Corporation	Project: Nucor Steel Seattle NPDES	
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Notes and Definitions

*	Flagged value is not within established control limits.
D	The reported value is from a dilution
J	Estimated concentration value detected below the reporting limit.
P1	The reported value is greater than 40% difference between the concentrations determined on two GC columns where applicable.
U	This analyte is not detected above the reporting limit (RL) or if noted, not detected above the limit of detection (LOD).
DET	Analyte DETECTED
ND	Analyte NOT DETECTED at or above the reporting limit
NR	Not Reported
dry	Sample results reported on a dry weight basis
RPD	Relative Percent Difference
[2C]	Indicates this result was quantified on the second column on a dual column analysis.