01-Jul-2024

Tim Sullivan
U.S. Steel - Gary Works
1 North Broadway
Mail Station 70
Gary, IN 46402

Re: **USS Midwest - EBSP 06.24.24** Work Order: **24061164**

Dear Tim,

ALS Environmental received 9 samples on 24-Jun-2024 12:28 PM for the analyses presented in the following report.

The analytical data provided relates directly to the samples received by ALS Environmental - Holland and for only the analyses requested.

Sample results are compliant with industry accepted practices and Quality Control results achieved laboratory specifications. Any exceptions are noted in the Case Narrative, or noted with qualifiers in the report or QC batch information. Should this laboratory report need to be reproduced, it should be reproduced in full unless written approval has been obtained from ALS Environmental. Samples will be disposed in 30 days unless storage arrangements are made.

The total number of pages in this report is 22.

If you have any questions regarding this report, please feel free to contact me:

ADDRESS: 3352 128th Avenue, Holland, MI, USA
PHONE: +1 (616) 399-6070 FAX: +1 (616) 399-6185

Sincerely,

Amanda Grzybowski

Electronically approved by: Amanda Grzybowski

Amanda Grzybowski
Project Manager

ALS Group, USA

Date: 01-Jul-24

Client: U.S. Steel - Gary Works
Project: USS Midwest - EBSP 06.24.24
Work Order: **24061164**

Work Order Sample Summary

Lab Samp ID	Client Sample ID	Matrix	Tag Number	Collection Date	Date Received	Hold
24061164-01	MCXX_06242024	Aqueous		6/24/2024 06:28	6/24/2024 13:00	☐
24061164-02	KMXX_06242024	Aqueous		6/24/2024 06:55	6/24/2024 13:00	☐
24061164-03	IDBW_06242024	Aqueous		6/24/2024 07:40	6/24/2024 13:00	☐
24061164-04	BDMZ_06242024	Aqueous		6/24/2024 08:55	6/24/2024 13:00	☐
24061164-05	BDXX_06242024	Aqueous		6/24/2024 09:15	6/24/2024 13:00	☐
24061164-06	AMOG_06242024	Aqueous		6/24/2024 08:30	6/24/2024 13:00	☐
24061164-07	AWGB_06242024	Aqueous		6/24/2024 10:30	6/24/2024 13:00	☐
24061164-08	MCXX_06242024_DUP	Aqueous		6/24/2024 06:28	6/24/2024 13:00	☐
24061164-09	MCXX_06242024_FB	Aqueous		6/24/2024 06:28	6/24/2024 13:00	☐

ALS Group, USA

Date: 01-Jul-24

Client:	U.S. Steel - Gary Works
Project:	USS Midwest - EBSP 06.24.24
Work Order:	24061164

Case Narrative

Samples in this Work Order were received and analyzed at the ALS Valparaiso facility at 2400 Cumberland Drive, Valparaiso, Indiana; under Florida NELAP certification ID# E871119.

Any Batch MS/MSD results that are flagged, but not addressed in this Case Narrative, are not related to this project's sample(s); therefore the data does not require qualification.

ALS Group, USA

Date: *01-Jul-24*

Client: U.S. Steel - Gary Works
Project: USS Midwest - EBSP 06.24.24
Sample ID: MCXX_06242024
Collection Date: 6/24/2024 06:28 AM

Work Order: 24061164
Lab ID: 24061164-01
Matrix: AQUEOUS

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
PH (FIELD)			Method: **A4500-H B-11**				Analyst: **ALS**
pH (field)	**7.74**		**0**		**s.u.**	1	6/24/2024 06:28
FIELD TEMPERATURE			Method: **FIELD**				Analyst: **ALS**
Field Temperature	**68.7**		**0**		**°F**	1	6/24/2024 06:28
TURBIDITY (FIELD)			Method: **A2130 B-11**				Analyst: **ALS**
Turbidity (field)	**12.7**		**1.0**	**1.0**	**n.t.u.**	1	6/24/2024 06:28
METALS BY ICP-MS			Method: **E200.8**		Prep: CEM-NPDES / 6/25/24		Analyst: **STP**
Chromium	**0.000845**	J	**0.00043**	**0.0020**	**mg/L**	1	6/27/2024 17:08
CHROMIUM, HEXAVALENT (LOW LEVEL)			Method: **E218.6**				Analyst: **CHC**
Chromium, Hexavalent	**0.126**		**0.0130**	**0.0350**	**µg/L**	1	6/28/2024 10:44
CYANOBACTERIA IN RECREATIONAL WATER			Method: **ABRAXIS 520022**				Analyst: **JH**
Microcystins and Nodularins	U		1.0	1.0	µg/L	1	6/27/2024 11:40
E. COLI BY COLILERT QUANTI-TRAY/2000			Method: **A9223B**		Prep: Incubation / 6/24/24		Analyst: **JH**
Escherichia coli	**74.8**		**1.0**	**1.0**	**MPN/100mL**	1	6/25/2024 13:48
TOTAL SUSPENDED SOLIDS			Method: **A2540 D-15**		Prep: A2540 D-15 / 6/25/24		Analyst: **HTS**
Total Suspended Solids	**18.2**		**0.300**	**2.00**	**mg/L**	1	6/25/2024 17:00

Note: See Qualifiers page for a list of qualifiers and their definitions.

Client: U.S. Steel - Gary Works
Project: USS Midwest - EBSP 06.24.24
Sample ID: KMXX_06242024
Collection Date: 6/24/2024 06:55 AM

Work Order: 24061164
Lab ID: 24061164-02
Matrix: AQUEOUS

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
PH (FIELD)			Method: **A4500-H B-11**				Analyst: **ALS**
pH (field)	**7.78**		**0**		**s.u.**	1	6/24/2024 06:55
FIELD TEMPERATURE			Method: **FIELD**				Analyst: **ALS**
Field Temperature	**69.2**		**0**		**°F**	1	6/24/2024 06:55
TURBIDITY (FIELD)			Method: **A2130 B-11**				Analyst: **ALS**
Turbidity (field)	**5.97**		**1.0**	**1.0**	**n.t.u.**	1	6/24/2024 06:55
METALS BY ICP-MS			Method: **E200.8**		Prep: CEM-NPDES / 6/25/24		Analyst: **STP**
Chromium	**0.000519**	J	**0.00043**	**0.0020**	**mg/L**	1	6/27/2024 17:16
CHROMIUM, HEXAVALENT (LOW LEVEL)			Method: **E218.6**				Analyst: **CHC**
Chromium, Hexavalent	**0.132**		**0.0130**	**0.0350**	**µg/L**	1	6/28/2024 10:54
CYANOBACTERIA IN RECREATIONAL WATER			Method: **ABRAXIS 520022**				Analyst: **JH**
Microcystins and Nodularins	U		1.0	1.0	µg/L	1	6/27/2024 11:40
E. COLI BY COLILERT QUANTI-TRAY/2000			Method: **A9223B**		Prep: Incubation / 6/24/24		Analyst: **JH**
Escherichia coli	**8.60**		**1.0**	**1.0**	**MPN/100mL**	1	6/25/2024 13:48
TOTAL SUSPENDED SOLIDS			Method: **A2540 D-15**		Prep: A2540 D-15 / 6/25/24		Analyst: **HTS**
Total Suspended Solids	**5.70**		**0.300**	**2.00**	**mg/L**	1	6/25/2024 17:00

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: *01-Jul-24*

Client: U.S. Steel - Gary Works
Project: USS Midwest - EBSP 06.24.24
Sample ID: IDBW_06242024
Collection Date: 6/24/2024 07:40 AM

Work Order: 24061164
Lab ID: 24061164-03
Matrix: AQUEOUS

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
PH (FIELD)			Method: **A4500-H B-11**				Analyst: **ALS**
pH (field)	**7.84**		**0**		**s.u.**	1	6/24/2024 07:40
FIELD TEMPERATURE			Method: **FIELD**				Analyst: **ALS**
Field Temperature	**69.0**		**0**		**°F**	1	6/24/2024 07:40
TURBIDITY (FIELD)			Method: **A2130 B-11**				Analyst: **ALS**
Turbidity (field)	**2.34**		**1.0**	**1.0**	**n.t.u.**	1	6/24/2024 07:40
METALS BY ICP-MS			Method: **E200.8**		Prep: CEM-NPDES / 6/25/24		Analyst: **STP**
Chromium	**0.000667**	J	**0.00043**	**0.0020**	**mg/L**	1	6/27/2024 17:18
CHROMIUM, HEXAVALENT (LOW LEVEL)			Method: **E218.6**				Analyst: **CHC**
Chromium, Hexavalent	**0.130**		**0.0130**	**0.0350**	**µg/L**	1	6/28/2024 11:05
CYANOBACTERIA IN RECREATIONAL WATER			Method: **ABRAXIS 520022**				Analyst: **JH**
Microcystins and Nodularins	U		1.0	1.0	µg/L	1	6/27/2024 11:40
E. COLI BY COLILERT QUANTI-TRAY/2000			Method: **A9223B**		Prep: Incubation / 6/24/24		Analyst: **JH**
Escherichia coli	**1.00**		**1.0**	**1.0**	**MPN/100mL**	1	6/25/2024 13:48
TOTAL SUSPENDED SOLIDS			Method: **A2540 D-15**		Prep: A2540 D-15 / 6/25/24		Analyst: **HTS**
Total Suspended Solids	**4.50**		**0.300**	**2.00**	**mg/L**	1	6/25/2024 17:00

Note: See Qualifiers page for a list of qualifiers and their definitions.

Client: U.S. Steel - Gary Works
Project: USS Midwest - EBSP 06.24.24
Sample ID: BDMZ_06242024
Collection Date: 6/24/2024 08:55 AM

Work Order: 24061164
Lab ID: 24061164-04
Matrix: AQUEOUS

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
PH (FIELD)			Method: **A4500-H B-11**				Analyst: **ALS**
pH (field)	**7.37**		**0**		**s.u.**	1	6/24/2024 08:55
FIELD TEMPERATURE			Method: **FIELD**				Analyst: **ALS**
Field Temperature	**76.8**		**0**		**°F**	1	6/24/2024 08:55
TURBIDITY (FIELD)			Method: **A2130 B-11**				Analyst: **ALS**
Turbidity (field)	**15.7**		**1.0**	**1.0**	**n.t.u.**	1	6/24/2024 08:55
METALS BY ICP-MS			Method: **E200.8**		Prep: CEM-NPDES / 6/25/24		Analyst: **STP**
Chromium	**0.00140**	J	**0.00043**	**0.0020**	**mg/L**	1	6/27/2024 17:19
CHROMIUM, HEXAVALENT (LOW LEVEL)			Method: **E218.6**				Analyst: **CHC**
Chromium, Hexavalent	**0.0268**	J	**0.0130**	**0.0350**	**µg/L**	1	6/28/2024 11:16
CYANOBACTERIA IN RECREATIONAL WATER			Method: **ABRAXIS 520022**				Analyst: **JH**
Microcystins and Nodularins	U		1.0	1.0	µg/L	1	6/27/2024 11:40
E. COLI BY COLILERT QUANTI-TRAY/2000			Method: **A9223B**		Prep: Incubation / 6/24/24		Analyst: **JH**
Escherichia coli	**2,040**		**1.0**	**1.0**	**MPN/100mL**	1	6/25/2024 13:48
TOTAL SUSPENDED SOLIDS			Method: **A2540 D-15**		Prep: A2540 D-15 / 6/25/24		Analyst: **HTS**
Total Suspended Solids	**15.0**		**0.375**	**2.50**	**mg/L**	1	6/25/2024 17:00

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: *01-Jul-24*

Client: U.S. Steel - Gary Works
Project: USS Midwest - EBSP 06.24.24
Sample ID: BDXX_06242024
Collection Date: 6/24/2024 09:15 AM

Work Order: 24061164
Lab ID: 24061164-05
Matrix: AQUEOUS

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
PH (FIELD)			Method: **A4500-H B-11**				Analyst: **ALS**
pH (field)	**7.56**		**0**		**s.u.**	1	6/24/2024 09:15
FIELD TEMPERATURE			Method: **FIELD**				Analyst: **ALS**
Field Temperature	**79.2**		**0**		**°F**	1	6/24/2024 09:15
TURBIDITY (FIELD)			Method: **A2130 B-11**				Analyst: **ALS**
Turbidity (field)	**14.3**		**1.0**	**1.0**	**n.t.u.**	1	6/24/2024 09:15
METALS BY ICP-MS			Method: **E200.8**		Prep: CEM-NPDES / 6/25/24		Analyst: **STP**
Chromium	**0.000862**	J	**0.00043**	**0.0020**	**mg/L**	1	6/27/2024 17:21
CHROMIUM, HEXAVALENT (LOW LEVEL)			Method: **E218.6**				Analyst: **CHC**
Chromium, Hexavalent	**0.0268**	J	**0.0130**	**0.0350**	**µg/L**	1	6/28/2024 11:27
CYANOBACTERIA IN RECREATIONAL WATER			Method: **ABRAXIS 520022**				Analyst: **JH**
Microcystins and Nodularins	U		1.0	1.0	µg/L	1	6/27/2024 11:40
E. COLI BY COLILERT QUANTI-TRAY/2000			Method: **A9223B**		Prep: Incubation / 6/24/24		Analyst: **JH**
Escherichia coli	**4,880**		**1.0**	**1.0**	**MPN/100mL**	1	6/25/2024 13:48
TOTAL SUSPENDED SOLIDS			Method: **A2540 D-15**		Prep: A2540 D-15 / 6/25/24		Analyst: **HTS**
Total Suspended Solids	**15.0**		**0.375**	**2.50**	**mg/L**	1	6/25/2024 17:00

Note: See Qualifiers page for a list of qualifiers and their definitions.

Client: U.S. Steel - Gary Works
Project: USS Midwest - EBSP 06.24.24
Sample ID: AMOG_06242024
Collection Date: 6/24/2024 08:30 AM

Work Order: 24061164
Lab ID: 24061164-06
Matrix: AQUEOUS

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
PH (FIELD)			Method: **A4500-H B-11**				Analyst: **ALS**
pH (field)	**7.89**		**0**		**s.u.**	1	6/24/2024 08:30
FIELD TEMPERATURE			Method: **FIELD**				Analyst: **ALS**
Field Temperature	**68.8**		**0**		**°F**	1	6/24/2024 08:30
TURBIDITY (FIELD)			Method: **A2130 B-11**				Analyst: **ALS**
Turbidity (field)	**2.47**		**1.0**	**1.0**	**n.t.u.**	1	6/24/2024 08:30
METALS BY ICP-MS			Method: **E200.8**		Prep: CEM-NPDES / 6/25/24		Analyst: **STP**
Chromium	**0.000493**	J	**0.00043**	**0.0020**	**mg/L**	1	6/27/2024 17:23
CHROMIUM, HEXAVALENT (LOW LEVEL)			Method: **E218.6**				Analyst: **CHC**
Chromium, Hexavalent	**0.145**		**0.0130**	**0.0350**	**µg/L**	1	6/28/2024 11:38
CYANOBACTERIA IN RECREATIONAL WATER			Method: **ABRAXIS 520022**				Analyst: **JH**
Microcystins and Nodularins	U		1.0	1.0	µg/L	1	6/27/2024 11:40
E. COLI BY COLILERT QUANTI-TRAY/2000			Method: **A9223B**		Prep: Incubation / 6/24/24		Analyst: **JH**
Escherichia coli	**6.45**		**1.0**	**1.0**	**MPN/100mL**	1	6/25/2024 13:48
TOTAL SUSPENDED SOLIDS			Method: **A2540 D-15**		Prep: A2540 D-15 / 6/25/24		Analyst: **HTS**
Total Suspended Solids	**2.30**		**0.300**	**2.00**	**mg/L**	1	6/25/2024 17:00

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: *01-Jul-24*

Client: U.S. Steel - Gary Works
Project: USS Midwest - EBSP 06.24.24
Sample ID: AWGB_06242024
Collection Date: 6/24/2024 10:30 AM

Work Order: 24061164
Lab ID: 24061164-07
Matrix: AQUEOUS

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
PH (FIELD)			Method: **A4500-H B-11**				Analyst: **ALS**
pH (field)	**8.03**		**0**		**s.u.**	1	6/24/2024 10:30
FIELD TEMPERATURE			Method: **FIELD**				Analyst: **ALS**
Field Temperature	**73.4**		**0**		**°F**	1	6/24/2024 10:30
TURBIDITY (FIELD)			Method: **A2130 B-11**				Analyst: **ALS**
Turbidity (field)	**1.68**		**1.0**	**1.0**	**n.t.u.**	1	6/24/2024 10:30
METALS BY ICP-MS			Method: **E200.8**		Prep: CEM-NPDES / 6/25/24		Analyst: **STP**
Chromium	**0.000622**	J	**0.00043**	**0.0020**	**mg/L**	1	6/27/2024 17:24
CHROMIUM, HEXAVALENT (LOW LEVEL)			Method: **E218.6**				Analyst: **CHC**
Chromium, Hexavalent	**0.149**		**0.0130**	**0.0350**	**µg/L**	1	6/28/2024 11:49
CYANOBACTERIA IN RECREATIONAL WATER			Method: **ABRAXIS 520022**				Analyst: **JH**
Microcystins and Nodularins	U		1.0	1.0	µg/L	1	6/27/2024 11:40
E. COLI BY COLILERT QUANTI-TRAY/2000			Method: **A9223B**		Prep: Incubation / 6/24/24		Analyst: **JH**
Escherichia coli	**5.75**		**1.0**	**1.0**	**MPN/100mL**	1	6/25/2024 13:48
TOTAL SUSPENDED SOLIDS			Method: **A2540 D-15**		Prep: A2540 D-15 / 6/25/24		Analyst: **HTS**
Total Suspended Solids	**1.50**	J	**0.300**	**2.00**	**mg/L**	1	6/25/2024 17:00

Note: See Qualifiers page for a list of qualifiers and their definitions.

Client: U.S. Steel - Gary Works
Project: USS Midwest - EBSP 06.24.24
Sample ID: MCXX_06242024_DUP
Collection Date: 6/24/2024 06:28 AM

Work Order: 24061164
Lab ID: 24061164-08
Matrix: AQUEOUS

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
PH (FIELD)			Method: **A4500-H B-11**				Analyst: **ALS**
pH (field)	**7.71**		**0**		**s.u.**	1	6/24/2024 06:28
FIELD TEMPERATURE			Method: **FIELD**				Analyst: **ALS**
Field Temperature	**68.8**		**0**		**°F**	1	6/24/2024 06:28
TURBIDITY (FIELD)			Method: **A2130 B-11**				Analyst: **ALS**
Turbidity (field)	**12.4**		**1.0**	**1.0**	**n.t.u.**	1	6/24/2024 06:28
METALS BY ICP-MS			Method: **E200.8**		Prep: CEM-NPDES / 6/25/24		Analyst: **STP**
Chromium	**0.000762**	J	**0.00043**	**0.0020**	**mg/L**	1	6/27/2024 17:26
CHROMIUM, HEXAVALENT (LOW LEVEL)			Method: **E218.6**				Analyst: **CHC**
Chromium, Hexavalent	**0.128**		**0.0130**	**0.0350**	**µg/L**	1	6/28/2024 12:00
CYANOBACTERIA IN RECREATIONAL WATER			Method: **ABRAXIS 520022**				Analyst: **JH**
Microcystins and Nodularins	U		1.0	1.0	µg/L	1	6/27/2024 11:40
E. COLI BY COLILERT QUANTI-TRAY/2000			Method: **A9223B**		Prep: Incubation / 6/24/24		Analyst: **JH**
Escherichia coli	**43.1**		**1.0**	**1.0**	**MPN/100mL**	1	6/25/2024 13:48
TOTAL SUSPENDED SOLIDS			Method: **A2540 D-15**		Prep: A2540 D-15 / 6/25/24		Analyst: **HTS**
Total Suspended Solids	**16.9**		**0.300**	**2.00**	**mg/L**	1	6/25/2024 17:00

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group, USA

Date: *01-Jul-24*

Client: U.S. Steel - Gary Works
Project: USS Midwest - EBSP 06.24.24
Sample ID: MCXX_06242024_FB
Collection Date: 6/24/2024 06:28 AM

Work Order: 24061164
Lab ID: 24061164-09
Matrix: AQUEOUS

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
METALS BY ICP-MS		Method: **E200.8**			Prep: CEM-NPDES / 6/25/24		Analyst: **STP**
Chromium	U		0.00043	0.0020	mg/L	1	6/27/2024 17:27
CHROMIUM, HEXAVALENT (LOW LEVEL)		Method: **E218.6**					Analyst: **CHC**
Chromium, Hexavalent	U		0.0130	0.0350	µg/L	1	6/28/2024 12:33
CYANOBACTERIA IN RECREATIONAL WATER		Method: **ABRAXIS 520022**					Analyst: **JH**
Microcystins and Nodularins	U		1.0	1.0	µg/L	1	6/27/2024 11:40
E. COLI BY COLILERT QUANTI-TRAY/2000		Method: **A9223B**			Prep: Incubation / 6/24/24		Analyst: **JH**
Escherichia coli	*<1*		1.0	1.0	MPN/100mL	1	6/25/2024 13:48
TOTAL SUSPENDED SOLIDS		Method: **A2540 D-15**			Prep: A2540 D-15 / 6/25/24		Analyst: **HTS**
Total Suspended Solids	U		0.300	2.00	mg/L	1	6/25/2024 17:00

Note: See Qualifiers page for a list of qualifiers and their definitions.

Client:	U.S. Steel - Gary Works
Project:	USS Midwest - EBSP 06.24.24
WorkOrder:	**24061164**

QUALIFIERS, ACRONYMS, UNITS

Qualifier	Description
*	Value exceeds Regulatory Limit
**	Estimated Value
a	Analyte is non-accredited
B	Analyte detected in the associated Method Blank above the Reporting Limit
E	Value above quantitation range
H	Analyzed outside of Holding Time
Hr	BOD/CBOD - Sample was reset outside Hold Time, value should be considered estimated.
J	Analyte is present at an estimated concentration between the MDL and Report Limit
n	Analyte accreditation is not offered
ND	Not Detected at the Reporting Limit
O	Sample amount is > 4 times amount spiked
P	Dual Column results percent difference > 40%
R	RPD above laboratory control limit
S	Spike Recovery outside laboratory control limits
U	Analyzed but not detected above the MDL
X	Analyte was detected in the Method Blank between the MDL and Reporting Limit, sample results may exhibit background or reagent contamination at the observed level.

Acronym	Description
DUP	Method Duplicate
LCS	Laboratory Control Sample
LCSD	Laboratory Control Sample Duplicate
LOD	Limit of Detection (see MDL)
LOQ	Limit of Quantitation (see PQL)
MBLK	Method Blank
MDL	Method Detection Limit
MS	Matrix Spike
MSD	Matrix Spike Duplicate
PQL	Practical Quantitation Limit
RPD	Relative Percent Difference
TDL	Target Detection Limit
TNTC	Too Numerous To Count
A	APHA Standard Methods
D	ASTM
E	EPA
SW	SW-846 Update III

Units Reported	Description
°F	Degrees Fahrenheit
µg/L	Micrograms per Liter
mg/L	Milligrams per Liter
MPN/100mL	
n.t.u.	Nephelometric Turbidity Units
s.u.	Standard Units

QC BATCH REPORT

Batch ID: **242526** Instrument ID **ICPMS3** Method: **E200.8**

MBLK Sample ID: **MBLK-242526-242526** Units: **mg/L** Analysis Date: **6/27/2024 05:04 PM**

Client ID: Run ID: **ICPMS3_240627A** SeqNo: **10908385** Prep Date: **6/25/2024** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chromium	U	0.0050								

LCS Sample ID: **LCS-242526-242526** Units: **mg/L** Analysis Date: **6/27/2024 05:06 PM**

Client ID: Run ID: **ICPMS3_240627A** SeqNo: **10908386** Prep Date: **6/25/2024** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chromium	0.1018	0.0050	0.1	0	102	85-115	0			

MS Sample ID: **24061164-01D MS** Units: **mg/L** Analysis Date: **6/27/2024 05:09 PM**

Client ID: **MCXX_06242024** Run ID: **ICPMS3_240627A** SeqNo: **10908388** Prep Date: **6/25/2024** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chromium	0.1025	0.0050	0.1	0.0008448	102	70-130	0			

MSD Sample ID: **24061164-01D MSD** Units: **mg/L** Analysis Date: **6/27/2024 05:11 PM**

Client ID: **MCXX_06242024** Run ID: **ICPMS3_240627A** SeqNo: **10908389** Prep Date: **6/25/2024** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chromium	0.1015	0.0050	0.1	0.0008448	101	70-130	0.1025	1.06	20	

The following samples were analyzed in this batch:

24061164-01D	24061164-02D	24061164-03D
24061164-04D	24061164-05D	24061164-06D
24061164-07D	24061164-08D	24061164-09D

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: U.S. Steel - Gary Works
Work Order: 24061164
Project: USS Midwest - EBSP 06.24.24

QC BATCH REPORT

Batch ID: **242513** Instrument ID **VAL-WC** Method: **A9223B**

MBLK Sample ID: **MBLK-242513-242513** Units: **MPN/100mL** Analysis Date: **6/25/2024 01:48 PM**
Client ID: Run ID: **VAL-WC_240625A** SeqNo: **10896479** Prep Date: **6/24/2024** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Escherichia coli	U	1.0								

The following samples were analyzed in this batch:

24061164-01B	24061164-02B	24061164-03B
24061164-04B	24061164-05B	24061164-06B
24061164-07B	24061164-08B	24061164-09B

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: U.S. Steel - Gary Works
Work Order: 24061164
Project: USS Midwest - EBSP 06.24.24

QC BATCH REPORT

Batch ID: **242556** Instrument ID **VAL-TSS** Method: **A2540 D-15**

MBLK	Sample ID: **MBLK-242556-242556**				Units: **mg/L**			Analysis Date: **6/25/2024 05:00 PM**		
Client ID:	Run ID: **VAL-TSS_240625A**				SeqNo: **10896788**		Prep Date: **6/25/2024**		DF: **1**	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Total Suspended Solids	U	2.0								

LCS	Sample ID: **LCS-242556-242556**				Units: **mg/L**			Analysis Date: **6/25/2024 05:00 PM**		
Client ID:	Run ID: **VAL-TSS_240625A**				SeqNo: **10896787**		Prep Date: **6/25/2024**		DF: **1**	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Total Suspended Solids	102	20	100	0	102	80-115	0			

The following samples were analyzed in this batch:

24061164-01A	24061164-02A	24061164-03A
24061164-04A	24061164-05A	24061164-06A
24061164-07A	24061164-08A	24061164-09A

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: U.S. Steel - Gary Works
Work Order: 24061164
Project: USS Midwest - EBSP 06.24.24

QC BATCH REPORT

Batch ID: **R406787** Instrument ID **VAL-WC** Method: **Abraxis 520022**

MBLK Sample ID: **MB-R406787-R406787** Units: **µg/L** Analysis Date: **6/27/2024 11:40 AM**
Client ID: Run ID: **VAL-WC_240627A** SeqNo: **10904444** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Microcystins and Nodularins	U	1.0								

LCS Sample ID: **LCS-R406787-R406787** Units: **µg/L** Analysis Date: **6/27/2024 11:40 AM**
Client ID: Run ID: **VAL-WC_240627A** SeqNo: **10904445** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Microcystins and Nodularins	1	1.0	1	0	100		0			

DUP Sample ID: **24061164-01E DUP** Units: **µg/L** Analysis Date: **6/27/2024 11:40 AM**
Client ID: **MCXX_06242024** Run ID: **VAL-WC_240627A** SeqNo: **10904447** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Microcystins and Nodularins	U	1.0	0	0	0		0	0	20	

DUP Sample ID: **24061321-02E DUP** Units: **µg/L** Analysis Date: **6/27/2024 11:40 AM**
Client ID: Run ID: **VAL-WC_240627A** SeqNo: **10904458** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Microcystins and Nodularins	U	1.0	0	0	0		0	0	20	

LCS2 Sample ID: **LCS2-R406787** Units: **µg/L** Analysis Date: **6/27/2024 11:40 AM**
Client ID: Run ID: **VAL-WC_240627A** SeqNo: **10904463** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Microcystins and Nodularins	5	1.0	5	0	100	75-125	0			

The following samples were analyzed in this batch:

24061164-01E	24061164-02E	24061164-03E
24061164-04E	24061164-05E	24061164-06E
24061164-07E	24061164-08E	24061164-09E

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: U.S. Steel - Gary Works
Work Order: 24061164
Project: USS Midwest - EBSP 06.24.24

QC BATCH REPORT

Batch ID: **R406945** Instrument ID **VAL-IC** Method: **E218.6**

MBLK Sample ID: **MBLK-R406945** Units: **µg/L** Analysis Date: **6/28/2024 10:18 AM**
Client ID: Run ID: **VAL-IC_240628A** SeqNo: **10909947** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chromium, Hexavalent	U	0.050								

LCS Sample ID: **LCS-R406945** Units: **µg/L** Analysis Date: **6/28/2024 10:29 AM**
Client ID: Run ID: **VAL-IC_240628A** SeqNo: **10909948** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chromium, Hexavalent	0.8124	0.050	0.8	0	102	90-110	0			

MS Sample ID: **24061207-06A MS** Units: **µg/L** Analysis Date: **6/28/2024 02:34 PM**
Client ID: Run ID: **VAL-IC_240628A** SeqNo: **10909970** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chromium, Hexavalent	0.553	0.050	0.5	0.0161	107	90-110	0			

MS Sample ID: **24061323-01B MS** Units: **µg/L** Analysis Date: **6/28/2024 03:18 PM**
Client ID: Run ID: **VAL-IC_240628A** SeqNo: **10909974** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chromium, Hexavalent	0.5647	0.050	0.5	0.0062	112	90-110	0			S

MSD Sample ID: **24061207-06A MSD** Units: **µg/L** Analysis Date: **6/28/2024 02:45 PM**
Client ID: Run ID: **VAL-IC_240628A** SeqNo: **10909971** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chromium, Hexavalent	0.5546	0.050	0.5	0.0161	108	90-110	0.553	0.289	20	

MSD Sample ID: **24061323-01B MSD** Units: **µg/L** Analysis Date: **6/28/2024 03:29 PM**
Client ID: Run ID: **VAL-IC_240628A** SeqNo: **10909975** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chromium, Hexavalent	0.5583	0.050	0.5	0.0062	110	90-110	0.5647	1.14	20	S

The following samples were analyzed in this batch:

24061164-01C	24061164-02C	24061164-03C
24061164-04C	24061164-05C	24061164-06C
24061164-07C	24061164-08C	24061164-09C

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Chain of Custody Form

24061164

U.S. Steel - Gary Works

USS Midwest - EBSP 06.24.24

Page 1 of 1

ALS Project Manager: Amanda Grzybowski

Customer Information		Project Information	
Purchase Order		Project Name	USS Midwest EBSP
Work Order		Project Number	
Company Name	USS / Ramboll	Bill To Company	USS
Send Report To	Tim Sullivan	Invoice Attn.	
Address	6300 US-12	Address	
City/State/Zip	Portage, IN 46368	City/State/Zip	
Phone	219-763-5022	Phone	
Fax		Fax	
e-Mail Address			

	Parameter/Method Request for Analysis	
A	TSS (2540D)	1 L Plastic - Neat
B	E. Coli (9223B)	(2) 100ml Plastic - Bacti
C	HexChrome (218.6) [Field Filtered]	125ml Plastic - NH4
D	Total Chrome (200.8)	250ml Plastic - HNO3
E	Cyano Bacteria (Abraxis)	Clear Vial - Neat
F	pH - Field Test (See Field Log)	
G	Temp - Field Test (See Field Log)	
H	Turbidity - Field Test (See Field Log)	
I		
J		

No.	Sample Description	Date	Time	Matrix	Pres. Key Numbers	# Bottles	A	B	C	D	E	F	G	H	I	J	Hold
1	MCXX_ 0624 2024	6/24/24	0628	AQ	2, 7, 8	6	x	x	x	x	x	x	x	x			
2	KMXX_	6/24/24	0655	AQ	2, 7, 8	6	x	x	x	x	x	x	x	x			
3	IDBW_	6/24/24	0740	AQ	2, 7, 8	6	x	x	x	x	x	x	x	x			
4	BDMZ_	6/24/24	0855	AQ	2, 7, 8	6	x	x	x	x	x	x	x	x			
5	BDXX_	6/24/24	0915	AQ	2, 7, 8	6	x	x	x	x	x	x	x	x			
6	AMOG_	6/24/24	0830	AQ	2, 7, 8	6	x	x	x	x	x	x	x	x			
7	AWGB_	6/24/24	1030	AQ	2, 7, 8	6	x	x	x	x	x	x	x	x			
8	MCXX _DUP	6/24/24	0628	AQ	2, 7, 8	6	x	x	x	x	x	x	x	x			
9	MCXX 0624 2024 _FB	6/24/24	0628	AQ	2, 7, 8	6	x	x	x	x	x						
10																	
11																	
12																	
13																	
14																	
15																	

Sampler(s): Please Print & Sign: S. Fryl / ALS

Shipment Method:

Required Turnaround Time: (Check Box) ☐10 Wk Days ☑5 Wk Days ☐3 Wk Days ☐2 Wk Days ☐24 Hour

Results Due Date:

Relinquished by:	Date:	Time:	Received by:	Date:	Time:	Notes:
	6/24/24	1300	Jacob Tucker	6/24/24	1300	
Relinquished by:	Date:	Time:	Received by (Laboratory):	Date:	Time:	
Logged by (Laboratory): Jacob Tucker	Date: 6/24/24	Time: 1910	Checked by (Laboratory):			

ALS Cooler ID	Cooler Temp	QC Package: (Check Box Below)	
	3.7/5.1	☑Level II: Standard QC	☐Level III: Raw Data
	0.8/2.2	☐TRRP LRC	☑TRRP Level IV
		☐Level IV: SW846 Methods/CLP like	
		☐Other:	

Preservative Key: 1-HCl 2-HNO_3 3-H_2SO_4 4-NaOH 5-$Na_2S_2O_3$ 6-$NaHSO_4$ 7-Other 8-Neat, 0-6°C

Note: Any changes must be made in writing once samples and COC Form have been submitted to ALS Laboratory Group.

Project: U. S. Steel State-Only Environmentally Beneficial Project (SEBP), Lake Michigan's Indiana Shoreline Sampling

Date: 6-24-24

Field Team Members: B. Fryl / B. Owen

Weather Conditions: Sunny / calm Air Temp °F: 65

Field Test Meters:	Thermo Scientific Orion Star A121	Traceable Kangaroo Thermocouple Thermometer	HACH 2100P Turbidometer

Field Calibration Form Completed? YES / NO If NO, Why?:

Site	Time	pH s.u.	Temp °F	Turbidity NTU
MCXX	0628	7.74	68.7	12.7
KMXX	0655	7.78	69.2	5.97
Standard Check	0659	7.00= 7.08		20= 20.6
IDBW	0740	7.84	69.0	2.34
BDMZ	0855	7.37	76.8	15.7
Standard Check	0833	7.00= 7.03		20= 20.3
BDXX	0915	7.56	79.2	14.3
AMOG	0830	7.89	68.8	2.47
Standard Check	0919	7.00= 7.02		20= 20.8
AWGL / (AWGB)	1030	8.03	75.4	1.68
MCXX **-DUP**	0628	7.71	68.8	12.4
Standard Check	1033	7.00= 7.04		20= 20.5

Notes/Observations:

ALS Group, USA
Holland, Michigan

Sample Receipt Checklist

Client Name: **USS-GARY** Date/Time Received: **24-Jun-24 12:28**

Work Order: **24061164** Received by: **JBT**

Checklist completed by Jacob Tucker (eSignature) 24-Jun-24 (Date) Reviewed by: Amanda Grzybowski (eSignature) 25-Jun-24 (Date)

Matrices: AQUEOUS
Carrier name: ALSHN

Shipping container/cooler in good condition?	Yes ☑	No ☐	Not Present ☐
Custody seals intact on shipping container/cooler?	Yes ☐	No ☐	Not Present ☑
Custody seals intact on sample bottles?	Yes ☐	No ☐	Not Present ☑
Chain of custody present?	Yes ☑	No ☐	
Chain of custody signed when relinquished and received?	Yes ☑	No ☐	
Chain of custody agrees with sample labels?	Yes ☑	No ☐	
Samples in proper container/bottle?	Yes ☑	No ☐	
Sample containers intact?	Yes ☑	No ☐	
Sufficient sample volume for indicated test?	Yes ☑	No ☐	
All samples received within holding time?	Yes ☑	No ☐	
Container/Temp Blank temperature in compliance?	Yes ☑	No ☐	
Sample(s) received on ice?	Yes ☑	No ☐	
Temperature(s)/Thermometer(s):	3.7/5.1, 0.8/2.2C	VR-1	
Cooler(s)/Kit(s):			
Date/Time sample(s) sent to storage:	6/24/2024 2:09:48 PM		
Water - VOA vials have zero headspace?	Yes ☐	No ☐	No VOA vials submitted ☑
Water - pH acceptable upon receipt?	Yes ☑	No ☐	N/A ☐
pH adjusted?	Yes ☐	No ☑	N/A ☐
pH adjusted by:	-		

Login Notes:

Client Contacted: Date Contacted: Person Contacted:

Contacted By: Regarding:

Comments:

CorrectiveAction: