



24-Jun-2024

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

Re: **USS Midwest - EBSP 06.18.24**

Work Order: **24060884**

Dear Tim,

ALS Environmental received 9 samples on 18-Jun-2024 01:15 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 48.

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,

Electronically approved by: Amanda Grzybowski

Amanda Grzybowski  
Project Manager

## Report of Laboratory Analysis

Certificate No: IN: C-MI-08

ALS GROUP USA, CORP Part of the ALS Laboratory Group A Campbell Brothers Limited Company

**Client:** U.S. Steel - Gary Works  
**Project:** USS Midwest - E BSP 06.18.24  
**Work Order:** 24060884

**Work Order Sample Summary**

<u>Lab Samp ID</u>	<u>Client Sample ID</u>	<u>Matrix</u>	<u>Tag Number</u>	<u>Collection Date</u>	<u>Date Received</u>	<u>Hold</u>
24060884-01	MCXX_06182024	Aqueous		6/18/2024 06:50	6/18/2024 12:36	<input type="checkbox"/>
24060884-02	KMXX_06182024	Aqueous		6/18/2024 07:22	6/18/2024 12:36	<input type="checkbox"/>
24060884-03	IDBW_06182024	Aqueous		6/18/2024 07:50	6/18/2024 12:36	<input type="checkbox"/>
24060884-04	BDMZ_06182024	Aqueous		6/18/2024 09:00	6/18/2024 12:36	<input type="checkbox"/>
24060884-05	BDXX_06182024	Aqueous		6/18/2024 09:17	6/18/2024 12:36	<input type="checkbox"/>
24060884-06	AMOG_06182024	Aqueous		6/18/2024 08:35	6/18/2024 12:36	<input type="checkbox"/>
24060884-07	AWGB_06182024	Aqueous		6/18/2024 10:30	6/18/2024 12:36	<input type="checkbox"/>
24060884-08	KMXX_06182024_DUP	Aqueous		6/18/2024 07:22	6/18/2024 12:36	<input type="checkbox"/>
24060884-09	KMXX_06182024_FB	Aqueous		6/18/2024 07:22	6/18/2024 12:36	<input type="checkbox"/>

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**Client:** U.S. Steel - Gary Works  
**Project:** USS Midwest - EBSP 06.18.24  
**Work Order:** 24060884

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**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.

218.6 Cr6 analysis was subcontracted to ALS Middletown.

**ALS Group, USA**

Date: 24-Jun-24

**Client:** U.S. Steel - Gary Works  
**Project:** USS Midwest - EBSP 06.18.24  
**Sample ID:** MCXX\_06182024  
**Collection Date:** 6/18/2024 06:50 AM

**Work Order:** 24060884  
**Lab ID:** 24060884-01  
**Matrix:** AQUEOUS

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
<b>PH (FIELD)</b>							Analyst: <b>ALS</b>
pH (field)	7.68		0		s.u.	1	6/18/2024 06:50
<b>FIELD TEMPERATURE</b>							Analyst: <b>ALS</b>
Field Temperature	70.1		0		°F	1	6/18/2024 06:50
<b>TURBIDITY (FIELD)</b>							Analyst: <b>ALS</b>
Turbidity (field)	2.02		1.0	1.0	n.t.u.	1	6/18/2024 06:50
<b>CYANOBACTERIA IN RECREATIONAL WATER</b>							Analyst: <b>JH</b>
Microcystins and Nodularins	U		1.0	1.0	µg/L	1	6/20/2024 13:30
<b>E. COLI BY COLILERT QUANTI-TRAY/2000</b>							Analyst: <b>JH</b>
Escherichia coli	2.00		1.0	1.0	MPN/100mL	1	6/19/2024 14:03
<b>TOTAL SUSPENDED SOLIDS</b>							Analyst: <b>MGW</b>
Total Suspended Solids	0.900	J	0.300	2.00	mg/L	1	6/19/2024 17:00
<b>METALS BY ICP-MS</b>							Analyst: <b>JLK</b>
Chromium	0.483	J	0.433	2.00	ug/L	1	6/19/2024 09:13
<b>SUBCONTRACTED ANALYSES</b>							Analyst: <b>ALS</b>
Subcontracted Analyses	0.14		0		ug/L	1	6/18/2024

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

**ALS Group, USA**

Date: 24-Jun-24

**Client:** U.S. Steel - Gary Works  
**Project:** USS Midwest - EBSP 06.18.24  
**Sample ID:** KMXX\_06182024  
**Collection Date:** 6/18/2024 07:22 AM

**Work Order:** 24060884  
**Lab ID:** 24060884-02  
**Matrix:** AQUEOUS

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
<b>PH (FIELD)</b>							Analyst: <b>ALS</b>
pH (field)	7.75		0		s.u.	1	6/18/2024 07:22
<b>FIELD TEMPERATURE</b>							Analyst: <b>ALS</b>
Field Temperature	69.6		0		°F	1	6/18/2024 07:22
<b>TURBIDITY (FIELD)</b>							Analyst: <b>ALS</b>
Turbidity (field)	1.41		1.0	1.0	n.t.u.	1	6/18/2024 07:22
<b>CYANOBACTERIA IN RECREATIONAL WATER</b>							Analyst: <b>JH</b>
Microcystins and Nodularins	U		1.0	1.0	µg/L	1	6/20/2024 13:30
<b>E. COLI BY COLILERT QUANTI-TRAY/2000</b>							Analyst: <b>JH</b>
Escherichia coli	2.00		1.0	1.0	MPN/100mL	1	6/19/2024 14:03
<b>TOTAL SUSPENDED SOLIDS</b>							Analyst: <b>MGW</b>
Total Suspended Solids	1.30	J	0.300	2.00	mg/L	1	6/19/2024 17:00
<b>METALS BY ICP-MS</b>							Analyst: <b>JLK</b>
Chromium	0.537	J	0.433	2.00	ug/L	1	6/19/2024 09:19
<b>SUBCONTRACTED ANALYSES</b>							Analyst: <b>ALS</b>
Subcontracted Analyses	0.14		0		ug/L	1	6/18/2024

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

**ALS Group, USA**

Date: 24-Jun-24

**Client:** U.S. Steel - Gary Works  
**Project:** USS Midwest - EBSP 06.18.24  
**Sample ID:** IDBW\_06182024  
**Collection Date:** 6/18/2024 07:50 AM

**Work Order:** 24060884  
**Lab ID:** 24060884-03  
**Matrix:** AQUEOUS

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
<b>PH (FIELD)</b>							Analyst: <b>ALS</b>
pH (field)	7.76		0		s.u.	1	6/18/2024 07:50
<b>FIELD TEMPERATURE</b>							Analyst: <b>ALS</b>
Field Temperature	69.1		0		°F	1	6/18/2024 07:50
<b>TURBIDITY (FIELD)</b>							Analyst: <b>ALS</b>
Turbidity (field)	1.88		1.0	1.0	n.t.u.	1	6/18/2024 07:50
<b>CYANOBACTERIA IN RECREATIONAL WATER</b>							Analyst: <b>JH</b>
Microcystins and Nodularins	U		1.0	1.0	µg/L	1	6/20/2024 13:30
<b>E. COLI BY COLILERT QUANTI-TRAY/2000</b>							Analyst: <b>JH</b>
Escherichia coli	4.10		1.0	1.0	MPN/100mL	1	6/19/2024 14:03
<b>TOTAL SUSPENDED SOLIDS</b>							Analyst: <b>MGW</b>
Total Suspended Solids	1.30	J	0.300	2.00	mg/L	1	6/19/2024 17:00
<b>METALS BY ICP-MS</b>							Analyst: <b>JLK</b>
Chromium	0.594	J	0.433	2.00	ug/L	1	6/19/2024 09:21
<b>SUBCONTRACTED ANALYSES</b>							Analyst: <b>ALS</b>
Subcontracted Analyses	0.14		0		ug/L	1	6/18/2024

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

**ALS Group, USA**

Date: 24-Jun-24

**Client:** U.S. Steel - Gary Works  
**Project:** USS Midwest - EBSP 06.18.24  
**Sample ID:** BDMZ\_06182024  
**Collection Date:** 6/18/2024 09:00 AM

**Work Order:** 24060884  
**Lab ID:** 24060884-04  
**Matrix:** AQUEOUS

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
<b>PH (FIELD)</b>							Analyst: <b>ALS</b>
pH (field)	7.52		0		s.u.	1	6/18/2024 09:00
<b>FIELD TEMPERATURE</b>							Analyst: <b>ALS</b>
Field Temperature	77.5		0		°F	1	6/18/2024 09:00
<b>TURBIDITY (FIELD)</b>							Analyst: <b>ALS</b>
Turbidity (field)	9.79		1.0	1.0	n.t.u.	1	6/18/2024 09:00
<b>CYANOBACTERIA IN RECREATIONAL WATER</b>							Analyst: <b>JH</b>
Microcystins and Nodularins	U		1.0	1.0	µg/L	1	6/20/2024 13:30
<b>E. COLI BY COLILERT QUANTI-TRAY/2000</b>							Analyst: <b>JH</b>
Escherichia coli	32.2		1.0	1.0	MPN/100mL	1	6/19/2024 14:03
<b>TOTAL SUSPENDED SOLIDS</b>							Analyst: <b>MGW</b>
Total Suspended Solids	11.1		0.300	2.00	mg/L	1	6/19/2024 17:00
<b>METALS BY ICP-MS</b>							Analyst: <b>JLK</b>
Chromium	0.817	J	0.433	2.00	ug/L	1	6/19/2024 09:22
<b>SUBCONTRACTED ANALYSES</b>							Analyst: <b>ALS</b>
Subcontracted Analyses	0.079		0		ug/L	1	6/18/2024

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

**ALS Group, USA**

Date: 24-Jun-24

**Client:** U.S. Steel - Gary Works  
**Project:** USS Midwest - EBSP 06.18.24  
**Sample ID:** BDXX\_06182024  
**Collection Date:** 6/18/2024 09:17 AM

**Work Order:** 24060884  
**Lab ID:** 24060884-05  
**Matrix:** AQUEOUS

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
<b>PH (FIELD)</b>							Analyst: <b>ALS</b>
pH (field)	7.56		0		s.u.	1	6/18/2024 09:17
<b>FIELD TEMPERATURE</b>							Analyst: <b>ALS</b>
Field Temperature	78.8		0		°F	1	6/18/2024 09:17
<b>TURBIDITY (FIELD)</b>							Analyst: <b>ALS</b>
Turbidity (field)	7.55		1.0	1.0	n.t.u.	1	6/18/2024 09:17
<b>CYANOBACTERIA IN RECREATIONAL WATER</b>							Analyst: <b>JH</b>
Microcystins and Nodularins	U		1.0	1.0	µg/L	1	6/20/2024 13:30
<b>E. COLI BY COLILERT QUANTI-TRAY/2000</b>							Analyst: <b>JH</b>
Escherichia coli	81.0		1.0	1.0	MPN/100mL	1	6/19/2024 14:03
<b>TOTAL SUSPENDED SOLIDS</b>							Analyst: <b>MGW</b>
Total Suspended Solids	9.00		0.300	2.00	mg/L	1	6/19/2024 17:00
<b>METALS BY ICP-MS</b>							Analyst: <b>JLK</b>
Chromium	0.899	J	0.433	2.00	ug/L	1	6/19/2024 09:24
<b>SUBCONTRACTED ANALYSES</b>							Analyst: <b>ALS</b>
Subcontracted Analyses	0.054		0		ug/L	1	6/18/2024

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



**ALS Group, USA**

Date: 24-Jun-24

**Client:** U.S. Steel - Gary Works  
**Project:** USS Midwest - EBSP 06.18.24  
**Sample ID:** AMOG\_06182024  
**Collection Date:** 6/18/2024 08:35 AM

**Work Order:** 24060884  
**Lab ID:** 24060884-06  
**Matrix:** AQUEOUS

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
<b>PH (FIELD)</b>							Analyst: <b>ALS</b>
pH (field)	7.83		0		s.u.	1	6/18/2024 08:35
<b>FIELD TEMPERATURE</b>							Analyst: <b>ALS</b>
Field Temperature	68.7		0		°F	1	6/18/2024 08:35
<b>TURBIDITY (FIELD)</b>							Analyst: <b>ALS</b>
Turbidity (field)	3.46		1.0	1.0	n.t.u.	1	6/18/2024 08:35
<b>CYANOBACTERIA IN RECREATIONAL WATER</b>							Analyst: <b>JH</b>
Microcystins and Nodularins	U		1.0	1.0	µg/L	1	6/20/2024 13:30
<b>E. COLI BY COLILERT QUANTI-TRAY/2000</b>							Analyst: <b>JH</b>
Escherichia coli	<1		1.0	1.0	MPN/100mL	1	6/19/2024 14:03
<b>TOTAL SUSPENDED SOLIDS</b>							Analyst: <b>MGW</b>
Total Suspended Solids	0.800	J	0.300	2.00	mg/L	1	6/19/2024 17:00
<b>METALS BY ICP-MS</b>							Analyst: <b>JLK</b>
Chromium	0.593	J	0.433	2.00	ug/L	1	6/19/2024 09:26
<b>SUBCONTRACTED ANALYSES</b>							Analyst: <b>ALS</b>
Subcontracted Analyses	0.16		0		ug/L	1	6/18/2024

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

**ALS Group, USA**

Date: 24-Jun-24

**Client:** U.S. Steel - Gary Works  
**Project:** USS Midwest - EBSP 06.18.24  
**Sample ID:** AWGB\_06182024  
**Collection Date:** 6/18/2024 10:30 AM

**Work Order:** 24060884  
**Lab ID:** 24060884-07  
**Matrix:** AQUEOUS

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
<b>PH (FIELD)</b>							Analyst: <b>ALS</b>
pH (field)	8.32		0		s.u.	1	6/18/2024 10:30
<b>FIELD TEMPERATURE</b>							Analyst: <b>ALS</b>
Field Temperature	69.2		0		°F	1	6/18/2024 10:30
<b>TURBIDITY (FIELD)</b>							Analyst: <b>ALS</b>
Turbidity (field)	1.97		1.0	1.0	n.t.u.	1	6/18/2024 10:30
<b>CYANOBACTERIA IN RECREATIONAL WATER</b>							Analyst: <b>JH</b>
Microcystins and Nodularins	U		1.0	1.0	µg/L	1	6/20/2024 13:30
<b>E. COLI BY COLILERT QUANTI-TRAY/2000</b>							Analyst: <b>JH</b>
Escherichia coli	1.00		1.0	1.0	MPN/100mL	1	6/19/2024 14:03
<b>TOTAL SUSPENDED SOLIDS</b>							Analyst: <b>MGW</b>
Total Suspended Solids	0.800	J	0.300	2.00	mg/L	1	6/19/2024 17:00
<b>METALS BY ICP-MS</b>							Analyst: <b>JLK</b>
Chromium	0.789	J	0.433	2.00	ug/L	1	6/19/2024 09:33
<b>SUBCONTRACTED ANALYSES</b>							Analyst: <b>ALS</b>
Subcontracted Analyses	0.21		0		ug/L	1	6/18/2024

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

**ALS Group, USA**

Date: 24-Jun-24

**Client:** U.S. Steel - Gary Works  
**Project:** USS Midwest - EBSP 06.18.24  
**Sample ID:** KMXX\_06182024\_DUP  
**Collection Date:** 6/18/2024 07:22 AM

**Work Order:** 24060884  
**Lab ID:** 24060884-08  
**Matrix:** AQUEOUS

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
<b>PH (FIELD)</b>							Analyst: <b>ALS</b>
pH (field)	7.79		0		s.u.	1	6/18/2024 07:22
<b>FIELD TEMPERATURE</b>							Analyst: <b>ALS</b>
Field Temperature	69.5		0		°F	1	6/18/2024 07:22
<b>TURBIDITY (FIELD)</b>							Analyst: <b>ALS</b>
Turbidity (field)	1.54		1.0	1.0	n.t.u.	1	6/18/2024 07:22
<b>CYANOBACTERIA IN RECREATIONAL WATER</b>							Analyst: <b>JH</b>
Microcystins and Nodularins	U		1.0	1.0	µg/L	1	6/20/2024 13:30
<b>E. COLI BY COLILERT QUANTI-TRAY/2000</b>							Analyst: <b>JH</b>
Escherichia coli	3.10		1.0	1.0	MPN/100mL	1	6/19/2024 14:03
<b>TOTAL SUSPENDED SOLIDS</b>							Analyst: <b>MGW</b>
Total Suspended Solids	1.50	J	0.300	2.00	mg/L	1	6/19/2024 17:00
<b>METALS BY ICP-MS</b>							Analyst: <b>JLK</b>
Chromium	0.869	J	0.433	2.00	ug/L	1	6/19/2024 09:35
<b>SUBCONTRACTED ANALYSES</b>							Analyst: <b>ALS</b>
Subcontracted Analyses	0.14		0		ug/L	1	6/18/2024

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

**ALS Group, USA**

Date: 24-Jun-24

**Client:** U.S. Steel - Gary Works  
**Project:** USS Midwest - EBSP 06.18.24  
**Sample ID:** KMXX\_06182024\_FB  
**Collection Date:** 6/18/2024 07:22 AM

**Work Order:** 24060884  
**Lab ID:** 24060884-09  
**Matrix:** AQUEOUS

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
<b>CYANOBACTERIA IN RECREATIONAL WATER</b>				Method: <b>ABRAXIS 520022</b>			Analyst: <b>JH</b>
Microcystins and Nodularins	U		1.0	1.0	µg/L	1	6/20/2024 13:30
<b>E. COLI BY COLILERT QUANTI-TRAY/2000</b>				Method: <b>A9223B</b>		Prep: Incubation / 6/18/24	Analyst: <b>JH</b>
Escherichia coli	<1		1.0	1.0	MPN/100mL	1	6/19/2024 14:03
<b>TOTAL SUSPENDED SOLIDS</b>				Method: <b>A2540 D-15</b>		Prep: A2540 D-15 / 6/19/24	Analyst: <b>MGW</b>
Total Suspended Solids	<b>0.300</b>	J	<b>0.300</b>	<b>2.00</b>	mg/L	1	6/19/2024 17:00
<b>METALS BY ICP-MS</b>				Method: <b>E200.8</b>		Prep: CEM-NPDES / 6/19/24	Analyst: <b>JLK</b>
Chromium	<b>0.456</b>	J	<b>0.433</b>	<b>2.00</b>	ug/L	1	6/19/2024 09:37
<b>SUBCONTRACTED ANALYSES</b>				Method: <b>SUBCONTRACT</b>			Analyst: <b>ALS</b>
Subcontracted Analyses	<b>&lt;0.0072</b>		<b>0</b>		ug/L	1	6/18/2024

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



Main Site: 301 Fulling Mill Road | Middletown, PA 17057 | Phone: 717-944-5541 | Fax: 717-944-1430 | [www.alsglobal.com](http://www.alsglobal.com)  
 Associated Site: 20 Riverside Drive | Spring City, PA 19475 | Phone: 610-948-4903 | Fax: 717-944-1430 |

NELAP Certifications: NJ PA010 , NY 11759 , PA 22-293 DoD ELAP: PJLA 74618  
 State Certifications: FL E871113 , WA C999 , MD 128 , VA 460157 , WV DW 9961-C , WV 343, NJ PA101

Analytical Results Report For **ALS Environmental-Holland**  
 Project US STEEL 24060884  
 Workorder 3365255  
 Report ID 330370 on 6/21/2024

### Certificate of Analysis

Enclosed are the analytical results for samples received by the laboratory on Jun 20, 2024.

The ALS Environmental laboratory in Middletown, Pennsylvania is a National Environmental Laboratory Accreditation Program (NELAP) accredited laboratory and as such, certifies that all applicable test results meet the requirements of NELAP.

If you have any questions regarding this certificate of analysis, please contact Sarah Leung (Project Coordinator) at (717) 944-5541.

Analyses were performed according to our laboratory's NELAP-approved quality assurance program and any applicable state requirements. The test results meet requirements of the current NELAP standards or state requirements, where applicable. For a specific list of accredited analytes, refer to the certifications section of the ALS website at [www.alsglobal.com/en/Our-Services/Life-Sciences/Environmental/Downloads](http://www.alsglobal.com/en/Our-Services/Life-Sciences/Environmental/Downloads).

This laboratory report may not be reproduced, except in full, without the written approval of ALS Global.  
 ALS Middletown: 301 Fulling Mill Road, Middletown, PA 17057 : 717-944-5541.

Recipient(s):  
 Amanda Grzybowski - ALS Environmental-Holland  
 Les Arnold - ALS Environmental-Holland

*Sarah Leung*

**Sarah Leung**  
 Project Coordinator

(ALS Digital Signature)

*This page is included as part of the Analytical Report and must be retained as a permanent record thereof.*



### Sample Summary

<u>Lab ID</u>	<u>Sample ID</u>	<u>Matrix</u>	<u>Date Collected</u>	<u>Date Received</u>	<u>Collector</u>	<u>Collection Company</u>
3365255001	24060884-01	Water	06/18/2024 06:50	06/20/2024 09:04	CBC	Collected By Client
3365255002	24060884-02	Water	06/18/2024 07:22	06/20/2024 09:04	CBC	Collected By Client
3365255003	24060884-03	Water	06/18/2024 07:50	06/20/2024 09:04	CBC	Collected By Client
3365255004	24060884-04	Water	06/18/2024 09:00	06/20/2024 09:04	CBC	Collected By Client
3365255005	24060884-05	Water	06/18/2024 09:17	06/20/2024 09:04	CBC	Collected By Client
3365255006	24060884-06	Water	06/18/2024 08:35	06/20/2024 09:04	CBC	Collected By Client
3365255007	24060884-07	Water	06/18/2024 10:30	06/20/2024 09:04	CBC	Collected By Client
3365255008	24060884-08	Water	06/18/2024 07:22	06/20/2024 09:04	CBC	Collected By Client
3365255009	24060884-09	Water	06/18/2024 07:22	06/20/2024 09:04	CBC	Collected By Client



Reference

Notes

- Samples collected by ALS personnel are done so in accordance with the procedures set forth in the ALS Field Sampling Plan (20 - Field Services Sampling Plan).
- Except as qualified, Clean Water Act sample analyses are consistent with methodology requirements in 40 CFR Part 136, including but not limited to the following EPA Method reference revisions:  
 EPA 300.1 Rev. 1.0-1997  
 EPA 300.0 Rev. 2.1-1993  
 EPA 353.2 Rev. 2.0-1993  
 EPA 410.4 Rev. 1.0-1993  
 EPA 420.4 Rev. 1.0-1993  
 EPA 365.1 Rev. 2.0-1993  
 EPA 200.7 Rev. 4.4-1994  
 EPA 200.8 Rev. 5.4-1994  
 EPA 245.1 Rev. 3.0-1994
- Except as qualified, Safe Drinking Water Act sample analyses are consistent with methodology requirements in 40 CFR Part 141.
- The Chain of Custody document is included as part of this report.
- All Library Search analytes should be regarded as tentative identifications based on the presumptive evidence of the mass spectra. Concentrations reported are estimated values.
- Parameters identified as "analyze immediately" require analysis within 15 minutes of collection. Any "analyze immediately" parameters not listed under the header "Field Parameters" are performed in the laboratory and are therefore analyzed out of hold time.
- Method references listed on this report beginning with the prefix "S" followed by a method number (such as S2310B-97) refer to methods from "Standard Methods for the Examination of Water and Wastewater".
- For microbiological analyses, the "Prepared" value is the date/time into the incubator and the "Analyzed" value is the date/time out the incubator.
- An Analysis-Prep Method Cross Reference Table is included after Analytical Results & Qualifiers section in this report.
- Unless otherwise noted, all quantitative results for soils are reported on a dry weight basis.

Standard Acronyms/Flags

J	Indicates an estimated value between the Method Detection Limit (MDL) and the Practical Quantitation Limit (PQL) for the analyte
U	Indicates that the analyte was Not Detected (ND) above the MDL
N	Indicates presumptive evidence of the presence of a compound
MDL	Method Detection Limit
PQL	Practical Quantitation Limit
RDL	Practical Quantitation Limit for this Project
ND	Not Detected - indicates that the analyte was Not Detected
Cntr	Analysis was performed using this container
RegLmt	Regulatory Limit
LCS	Laboratory Control Sample
MS	Matrix Spike
MSD	Matrix Spike Duplicate
DUP	Sample Duplicate
%Rec	Percent Recovery
RPD	Relative Percent Difference
LOD	DoD Limit of Detection
LOQ	DoD Limit of Quantitation
DL	DoD Detection Limit
I	Indicates reported value is greater than or equal to the Method Detection Limit (MDL) but less than the Report Detection Limit (RDL)
(S)	Surrogate Compound
NC	Not Calculated
*	Result outside of QC limits
#	Please reference the result in the Results Section for analyte-level flags.



**Project Notations**

**Sample Notations**

**Lab ID**      **Sample ID**

**Result Notations**

**Notation Ref.**





### Detected Results Summary

Client Sample ID	24060884-01	Collected	06/18/2024 06:50
Lab Sample ID	3365255001	Lab Receipt	06/20/2024 09:04

<u>Compound</u>	<u>Result</u>	<u>Units</u>	<u>RDL</u>	<u>MDL</u>	<u>Method</u>	<u>Flag</u>
<b>WET CHEMISTRY</b>						
Hexavalent Chromium	0.14	ug/L	0.020	0.0072	EPA 218.6	#



### Detected Results Summary

Client Sample ID	24060884-02	Collected	06/18/2024 07:22
Lab Sample ID	3365255002	Lab Receipt	06/20/2024 09:04

<u>Compound</u>	<u>Result</u>	<u>Units</u>	<u>RDL</u>	<u>MDL</u>	<u>Method</u>	<u>Flag</u>
<b>WET CHEMISTRY</b>						
Hexavalent Chromium	0.14	ug/L	0.020	0.0072	EPA 218.6	#



### Detected Results Summary

Client Sample ID	24060884-03	Collected	06/18/2024 07:50
Lab Sample ID	3365255003	Lab Receipt	06/20/2024 09:04

<u>Compound</u>	<u>Result</u>	<u>Units</u>	<u>RDL</u>	<u>MDL</u>	<u>Method</u>	<u>Flag</u>
<b>WET CHEMISTRY</b>						
Hexavalent Chromium	0.14	ug/L	0.020	0.0072	EPA 218.6	#



### Detected Results Summary

Client Sample ID	24060884-04	Collected	06/18/2024 09:00
Lab Sample ID	3365255004	Lab Receipt	06/20/2024 09:04

<u>Compound</u>	<u>Result</u>	<u>Units</u>	<u>RDL</u>	<u>MDL</u>	<u>Method</u>	<u>Flag</u>
<b>WET CHEMISTRY</b>						
Hexavalent Chromium	0.079	ug/L	0.020	0.0072	EPA 218.6	#



### Detected Results Summary

Client Sample ID	24060884-05	Collected	06/18/2024 09:17
Lab Sample ID	3365255005	Lab Receipt	06/20/2024 09:04

<u>Compound</u>	<u>Result</u>	<u>Units</u>	<u>RDL</u>	<u>MDL</u>	<u>Method</u>	<u>Flag</u>
<b>WET CHEMISTRY</b>						
Hexavalent Chromium	0.054	ug/L	0.020	0.0072	EPA 218.6	#



### Detected Results Summary

Client Sample ID	24060884-06	Collected	06/18/2024 08:35
Lab Sample ID	3365255006	Lab Receipt	06/20/2024 09:04

<u>Compound</u>	<u>Result</u>	<u>Units</u>	<u>RDL</u>	<u>MDL</u>	<u>Method</u>	<u>Flag</u>
<b>WET CHEMISTRY</b>						
Hexavalent Chromium	0.16	ug/L	0.020	0.0072	EPA 218.6	#



### Detected Results Summary

Client Sample ID	24060884-07	Collected	06/18/2024 10:30
Lab Sample ID	3365255007	Lab Receipt	06/20/2024 09:04

<u>Compound</u>	<u>Result</u>	<u>Units</u>	<u>RDL</u>	<u>MDL</u>	<u>Method</u>	<u>Flag</u>
<b>WET CHEMISTRY</b>						
Hexavalent Chromium	0.21	ug/L	0.020	0.0072	EPA 218.6	#



### Detected Results Summary

Client Sample ID	24060884-08	Collected	06/18/2024 07:22
Lab Sample ID	3365255008	Lab Receipt	06/20/2024 09:04

<u>Compound</u>	<u>Result</u>	<u>Units</u>	<u>RDL</u>	<u>MDL</u>	<u>Method</u>	<u>Flag</u>
<b>WET CHEMISTRY</b>						
Hexavalent Chromium	0.14	ug/L	0.020	0.0072	EPA 218.6	#



**Project** US STEEL 24060884  
**Workorder** 3365255



## Results

Client Sample ID	24060884-01	Collected	06/18/2024 06:50
Lab Sample ID	3365255001	Lab Receipt	06/20/2024 09:04

### WET CHEMISTRY

<u>Compound</u>	<u>Result</u>	<u>Flag</u>	<u>Units</u>	<u>RDL</u>	<u>MDL</u>	<u>Method</u>	<u>Dilution</u>	<u>Analysis Date/Time</u>	<u>By</u>	<u>Cntr</u>
Hexavalent Chromium	0.14		ug/L	0.020	0.0072	EPA 218.6	1	06/20/2024 18:31	DMG	A

**Project** US STEEL 24060884  
**Workorder** 3365255



## Results

Client Sample ID	24060884-02	Collected	06/18/2024 07:22
Lab Sample ID	3365255002	Lab Receipt	06/20/2024 09:04

### WET CHEMISTRY

<u>Compound</u>	<u>Result</u>	<u>Flag</u>	<u>Units</u>	<u>RDL</u>	<u>MDL</u>	<u>Method</u>	<u>Dilution</u>	<u>Analysis Date/Time</u>	<u>By</u>	<u>Cntr</u>
Hexavalent Chromium	0.14		ug/L	0.020	0.0072	EPA 218.6	1	06/20/2024 18:39	DMG	A

**Project** US STEEL 24060884  
**Workorder** 3365255



## Results

Client Sample ID	24060884-03	Collected	06/18/2024 07:50
Lab Sample ID	3365255003	Lab Receipt	06/20/2024 09:04

### WET CHEMISTRY

<u>Compound</u>	<u>Result</u>	<u>Flag</u>	<u>Units</u>	<u>RDL</u>	<u>MDL</u>	<u>Method</u>	<u>Dilution</u>	<u>Analysis Date/Time</u>	<u>By</u>	<u>Cntr</u>
Hexavalent Chromium	0.14		ug/L	0.020	0.0072	EPA 218.6	1	06/20/2024 18:48	DMG	A

**Project** US STEEL 24060884  
**Workorder** 3365255



## Results

Client Sample ID	24060884-04	Collected	06/18/2024 09:00
Lab Sample ID	3365255004	Lab Receipt	06/20/2024 09:04

### WET CHEMISTRY

<u>Compound</u>	<u>Result</u>	<u>Flag</u>	<u>Units</u>	<u>RDL</u>	<u>MDL</u>	<u>Method</u>	<u>Dilution</u>	<u>Analysis Date/Time</u>	<u>By</u>	<u>Cntr</u>
Hexavalent Chromium	0.079		ug/L	0.020	0.0072	EPA 218.6	1	06/20/2024 18:56	DMG	A

**Project** US STEEL 24060884  
**Workorder** 3365255



## Results

Client Sample ID	24060884-05	Collected	06/18/2024 09:17
Lab Sample ID	3365255005	Lab Receipt	06/20/2024 09:04

### WET CHEMISTRY

<u>Compound</u>	<u>Result</u>	<u>Flag</u>	<u>Units</u>	<u>RDL</u>	<u>MDL</u>	<u>Method</u>	<u>Dilution</u>	<u>Analysis Date/Time</u>	<u>By</u>	<u>Cntr</u>
Hexavalent Chromium	0.054		ug/L	0.020	0.0072	EPA 218.6	1	06/20/2024 19:04	DMG	A

**Project** US STEEL 24060884  
**Workorder** 3365255



## Results

Client Sample ID	24060884-06	Collected	06/18/2024 08:35
Lab Sample ID	3365255006	Lab Receipt	06/20/2024 09:04

### WET CHEMISTRY

<u>Compound</u>	<u>Result</u>	<u>Flag</u>	<u>Units</u>	<u>RDL</u>	<u>MDL</u>	<u>Method</u>	<u>Dilution</u>	<u>Analysis Date/Time</u>	<u>By</u>	<u>Cntr</u>
Hexavalent Chromium	0.16		ug/L	0.020	0.0072	EPA 218.6	1	06/20/2024 19:12	DMG	A

**Project** US STEEL 24060884  
**Workorder** 3365255



## Results

Client Sample ID	24060884-07	Collected	06/18/2024 10:30
Lab Sample ID	3365255007	Lab Receipt	06/20/2024 09:04

### WET CHEMISTRY

<u>Compound</u>	<u>Result</u>	<u>Flag</u>	<u>Units</u>	<u>RDL</u>	<u>MDL</u>	<u>Method</u>	<u>Dilution</u>	<u>Analysis Date/Time</u>	<u>By</u>	<u>Cntr</u>
Hexavalent Chromium	0.21		ug/L	0.020	0.0072	EPA 218.6	1	06/20/2024 19:20	DMG	A

**Project** US STEEL 24060884  
**Workorder** 3365255



## Results

Client Sample ID	24060884-08	Collected	06/18/2024 07:22
Lab Sample ID	3365255008	Lab Receipt	06/20/2024 09:04

### WET CHEMISTRY

<u>Compound</u>	<u>Result</u>	<u>Flag</u>	<u>Units</u>	<u>RDL</u>	<u>MDL</u>	<u>Method</u>	<u>Dilution</u>	<u>Analysis Date/Time</u>	<u>By</u>	<u>Cntr</u>
Hexavalent Chromium	0.14		ug/L	0.020	0.0072	EPA 218.6	1	06/20/2024 19:28	DMG	A



**Project** US STEEL 24060884  
**Workorder** 3365255



## Results

Client Sample ID	24060884-09	Collected	06/18/2024 07:22
Lab Sample ID	3365255009	Lab Receipt	06/20/2024 09:04

### WET CHEMISTRY

<u>Compound</u>	<u>Result</u>	<u>Flag</u>	<u>Units</u>	<u>RDL</u>	<u>MDL</u>	<u>Method</u>	<u>Dilution</u>	<u>Analysis Date/Time</u>	<u>By</u>	<u>Cntr</u>
Hexavalent Chromium	ND	ND	ug/L	0.020	0.0072	EPA 218.6	1	06/20/2024 19:36	DMG	A



### Sample - Method Cross Reference Table

Lab ID	Sample ID	Analysis Method	Preparation Method	Leachate Method
3365255001	24060884-01	EPA 218.6	N/A	
3365255002	24060884-02	EPA 218.6	N/A	
3365255003	24060884-03	EPA 218.6	N/A	
3365255004	24060884-04	EPA 218.6	N/A	
3365255005	24060884-05	EPA 218.6	N/A	
3365255006	24060884-06	EPA 218.6	N/A	
3365255007	24060884-07	EPA 218.6	N/A	
3365255008	24060884-08	EPA 218.6	N/A	
3365255009	24060884-09	EPA 218.6	N/A	



**QUALITY CONTROL SAMPLES**

**WET CHEMISTRY**

QC Batch			
QC Batch	1224331	Prep Method	N/A
Date	N/A	Analysis Method	EPA 218.6
Tech.			

Associated Samples			
3365255001	3365255002	3365255003	3365255004
3365255005	3365255006	3365255007	3365255008
3365255009			

**Matrix Spike** 3841607 (MS) 3365256001 (non-Project Sample) For QC Batch 1224331

\*\*\*\*NOTE - The Original Result shown below is a raw result and is only used for the purpose of calculating Matrix Spike percent recoveries. This result is not a final value and cannot be used as such.

**Matrix Spike Duplicate** 3841608 (MSD) 3365256001 (non-Project Sample) For QC Batch 1224331

**RESULTS**

Compound	CAS No		Result (ug/L)	Orig. Result (ug/L)	Spk Added (ug/L)	Rec. (%)	Limits (%)	RPD Limit (%)	Qualifiers
Hexavalent Chromium	CR6	MS	5.40	0.16	5	104	90 - 110		
Hexavalent Chromium	CR6	MSD	5.30	0.16	5	104	90 - 110	RPD <u>0.11</u> (Max-20)	

**Matrix Spike** 3842190 (MS) 3365259002 (non-Project Sample) For QC Batch 1224331

\*\*\*\*NOTE - The Original Result shown below is a raw result and is only used for the purpose of calculating Matrix Spike percent recoveries. This result is not a final value and cannot be used as such.

**Matrix Spike Duplicate** 3842191 (MSD) 3365259002 (non-Project Sample) For QC Batch 1224331

**RESULTS**

Compound	CAS No		Result (ug/L)	Orig. Result (ug/L)	Spk Added (ug/L)	Rec. (%)	Limits (%)	RPD Limit (%)	Qualifiers
Hexavalent Chromium	CR6	MS	5.30	0.0740	5	105	90 - 110		
Hexavalent Chromium	CR6	MSD	5.40	0.0740	5	106	90 - 110	RPD <u>1.24</u> (Max-20)	

**Method Blank** 3841605 (MB) Created on 06/19/2024 13:57 For QC Batch 1224331

**RESULTS**

Compound	CAS No	Result	Units	RDL	Qualifiers
Hexavalent Chromium	CR6	BLK	ND ug/L	0.020	ND

**Lab Control Standard** 3841606 (LCS) Created on 06/19/2024 13:57 For QC Batch 1224331

**RESULTS**

Compound	CAS No		Result (ug/L)	Orig. Result (ug/L)	Spk Added (ug/L)	Rec. (%)	Limits (%)	RPD Limit (%)	Qualifiers
Hexavalent Chromium	CR6	LCS	5.20		5	103	90 - 110		



**QUALITY CONTROL SAMPLES**

**WET CHEMISTRY (cont.)**

**Method Blank** 3841610 (MB) Created on 06/19/2024 13:57 For QC Batch 1224331

*RESULTS*

Compound	CAS No		Result	Units	RDL	Qualifiers
Hexavalent Chromium	CR6	BLK	ND	ug/L	0.020	ND

**Lab Control Standard** 3842194 (LCS) Created on 06/20/2024 11:30 For QC Batch 1224331

*RESULTS*

Compound	CAS No		Result (ug/L)	Orig. Result (ug/L)	Spk Added (ug/L)	Rec. (%)	Limits (%)	RPD Limit (%)	Qualifiers
Hexavalent Chromium	CR6	LCS	5.10		5	102	90 - 110		



### QUALITY CONTROL DATA CROSS REFERENCE TABLE

Lab ID	Sample ID	Preparation Method	Prep Batch	Prep Date/Time	By	Analysis Method	Anly Batch
3365255001	24060884-01	N/A	N/A	N/A		EPA 218.6	1224331
3365255002	24060884-02	N/A	N/A	N/A		EPA 218.6	1224331
3365255003	24060884-03	N/A	N/A	N/A		EPA 218.6	1224331
3365255004	24060884-04	N/A	N/A	N/A		EPA 218.6	1224331
3365255005	24060884-05	N/A	N/A	N/A		EPA 218.6	1224331
3365255006	24060884-06	N/A	N/A	N/A		EPA 218.6	1224331
3365255007	24060884-07	N/A	N/A	N/A		EPA 218.6	1224331
3365255008	24060884-08	N/A	N/A	N/A		EPA 218.6	1224331
3365255009	24060884-09	N/A	N/A	N/A		EPA 218.6	1224331



Subcontractor:  
ALS Environmental  
301 Filling Mill Road  
Middletown, PA 17057

TEL: (717) 944-5641  
FAX: (717) 944-1430  
Acct #:



3365255  
Logged By: MJE  
PM: SSL

Date: 19-Jun-24  
COC ID: 26179  
Due Date: 20-Jun-24



Customer Information: Les Arnold

Project Information: 24060884

Project Name: 24060884

Project Number: 24060884

Bill To Company: ALS Group USA, Corp

Inv Attn: Accounts Payable

Address: 3352 128th Ave

City/State/Zip: Holland, Michigan 49424

Phone: (616) 399-6070

Fax: (616) 399-6185

eMail Address: Amanda.grzybowski@alsglobal.com

ALS Sample ID	Client Sample ID	Matrix	Collection Date 24hr	Bottle	A	B	C	D	E
24060884-01C	MCXX_06182024	Aqueous	18/Jun/2024 6:50	(1) 125PNH4	X				
24060884-02C	KMXX_06182024	Aqueous	18/Jun/2024 7:22	(1) 125PNH4	X				
24060884-03C	IDBW_06182024	Aqueous	18/Jun/2024 7:50	(1) 125PNH4	X				
24060884-04C	BDMZ_06182024	Aqueous	18/Jun/2024 9:00	(1) 125PNH4	X				
24060884-05C	BDXX_06182024	Aqueous	18/Jun/2024 9:17	(1) 125PNH4	X				
24060884-06C	AMOG_06182024	Aqueous	18/Jun/2024 8:35	(1) 125PNH4	X				
24060884-07C	AWGB_06182024	Aqueous	18/Jun/2024 10:30	(1) 125PNH4	X				
24060884-08C	KMXX_06182024_DUP	Aqueous	18/Jun/2024 7:22	(1) 125PNH4	X				
24060884-09C	KMXX_06182024_FB	Aqueous	18/Jun/2024 7:22	(1) 125PNH4	X				

Temp By: MSE / WO Temp (°C) 0°

Therm ID: 5769

Receipt Info Completed By: MJE

Cooler Custody Seal Intact: Y N NA

Sample Custody Seal Intact: Y N NA

Received on Ice: Y N NA

Cooler & Samples Intact: Y N NA

Correct Containers Provided: Y N NA

Sample Label/COC Agree: Y N NA

Adequate Sample Volumes: Y N NA

CR6 Samples Filtered: Y N NA

OP Samples Filtered: Y N NA

VOA Trip Blank: Y N NA

NIS: 4 Days? Y N NA

Rad Screen (uCi): Y N NA

Courier/Tracking #: 7694843380

SDWA Compliance: Y (N)

PWSID: Y (N)

WV Containers @ 6°C: Y (N)

\*No Samples @ 6°C: Y (N)

6/20/24

Comments: 218.6 Cr6 need MDL 0.013 ug/L and RL 0.035 ug/L. 1 day rush TAT

Relinquished by: Fedex Date/Time: 6/20/24 9:04

Received by: Fedex Date/Time: 6/20/24 9:04

Relinquished by: Fedex Date/Time: 6/20/24 9:04

Received by: Fedex Date/Time: 6/20/24 9:04

Cooler IDs: Std

Report/QC Level: Std

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**Client:** U.S. Steel - Gary Works  
**Project:** USS Midwest - EBSP 06.18.24  
**WorkOrder:** 24060884

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**QUALIFIERS,  
ACRONYMS, UNITS**

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<u>Qualifier</u>	<u>Description</u>
*	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.

<u>Acronym</u>	<u>Description</u>
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

<u>Units Reported</u>	<u>Description</u>
°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



---

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ug/L      Micrograms per Liter

**Client:** U.S. Steel - Gary Works  
**Work Order:** 24060884  
**Project:** USS Midwest - EBSP 06.18.24

**QC BATCH REPORT**

Batch ID: **242191** Instrument ID **VAL-TSS** Method: **A2540 D-15**

<b>MBLK</b>	Sample ID: <b>MBLK-242191-242191</b>				Units: <b>mg/L</b>		Analysis Date: <b>6/19/2024 05:00 PM</b>			
Client ID:	Run ID: <b>VAL-TSS_240619A</b>			SeqNo: <b>10875095</b>		Prep Date: <b>6/19/2024</b>		DF: <b>1</b>		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Total Suspended Solids U 2.0

<b>LCS</b>	Sample ID: <b>LCS-242191-242191</b>				Units: <b>mg/L</b>		Analysis Date: <b>6/19/2024 05:00 PM</b>			
Client ID:	Run ID: <b>VAL-TSS_240619A</b>			SeqNo: <b>10875094</b>		Prep Date: <b>6/19/2024</b>		DF: <b>1</b>		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Total Suspended Solids 99 20 100 0 99 80-115 0

The following samples were analyzed in this batch:

24060884-01A	24060884-02A	24060884-03A
24060884-04A	24060884-05A	24060884-06A
24060884-07A	24060884-08A	24060884-09A

**Client:** U.S. Steel - Gary Works  
**Work Order:** 24060884  
**Project:** USS Midwest - EBSP 06.18.24

# QC BATCH REPORT

Batch ID: **242261**      Instrument ID **VAL-WC**      Method: **A9223B**

<b>MBLK</b>	Sample ID: <b>MBLK-242261-242261</b>			Units: <b>MPN/100mL</b>	Analysis Date: <b>6/19/2024 02:03 PM</b>					
Client ID:	Run ID: <b>VAL-WC_240619B</b>		SeqNo: <b>10877392</b>	Prep Date: <b>6/18/2024</b>	DF: <b>1</b>					
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:**

24060884-01B	24060884-02B	24060884-03B
24060884-04B	24060884-05B	24060884-06B
24060884-07B	24060884-08B	24060884-09B

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

Client: U.S. Steel - Gary Works  
 Work Order: 24060884  
 Project: USS Midwest - EBSP 06.18.24

# QC BATCH REPORT

Batch ID: **R406287** Instrument ID **VAL-WC** Method: **Abraxis 520022**

MBLK		Sample ID: <b>MB-R406287-R406287</b>				Units: <b>µg/L</b>		Analysis Date: <b>6/20/2024 01:30 PM</b>		
Client ID:		Run ID: <b>VAL-WC_240620C</b>				SeqNo: <b>10880956</b>		Prep Date:		DF: <b>1</b>
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: <b>LCS-R406287-R406287</b>				Units: <b>µg/L</b>		Analysis Date: <b>6/20/2024 01:30 PM</b>		
Client ID:		Run ID: <b>VAL-WC_240620C</b>				SeqNo: <b>10880957</b>		Prep Date:		DF: <b>1</b>
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: <b>24060884-01E DUP</b>				Units: <b>µg/L</b>		Analysis Date: <b>6/20/2024 01:30 PM</b>		
Client ID: <b>MCXX_06182024</b>		Run ID: <b>VAL-WC_240620C</b>				SeqNo: <b>10880959</b>		Prep Date:		DF: <b>1</b>
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 0 0 20

DUP		Sample ID: <b>24060955-02E DUP</b>				Units: <b>µg/L</b>		Analysis Date: <b>6/20/2024 01:30 PM</b>		
Client ID:		Run ID: <b>VAL-WC_240620C</b>				SeqNo: <b>10880970</b>		Prep Date:		DF: <b>1</b>
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 0 0 20

LCS2		Sample ID: <b>LCS2-R406287</b>				Units: <b>µg/L</b>		Analysis Date: <b>6/20/2024 01:30 PM</b>		
Client ID:		Run ID: <b>VAL-WC_240620C</b>				SeqNo: <b>10880975</b>		Prep Date:		DF: <b>1</b>
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:

24060884-01E	24060884-02E	24060884-03E
24060884-04E	24060884-05E	24060884-06E
24060884-07E	24060884-08E	24060884-09E

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

Client: U.S. Steel - Gary Works  
 Work Order: 24060884  
 Project: USS Midwest - EBSP 06.18.24

# QC BATCH REPORT

Batch ID: **242166** Instrument ID **VAL-ICPMS** Method: **E200.8**

MBLK		Sample ID: <b>MBLK-242166-242166</b>				Units: <b>mg/L</b>		Analysis Date: <b>6/19/2024 09:10 AM</b>			
Client ID:		Run ID: <b>VAL-ICPMS_240619A</b>		SeqNo: <b>10875572</b>		Prep Date: <b>6/19/2024</b>		DF: <b>1</b>			
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: <b>LCS-242166-242166</b>				Units: <b>mg/L</b>		Analysis Date: <b>6/19/2024 09:12 AM</b>			
Client ID:		Run ID: <b>VAL-ICPMS_240619A</b>		SeqNo: <b>10875573</b>		Prep Date: <b>6/19/2024</b>		DF: <b>1</b>			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	
Chromium	0.1039	0.0050	0.1	0	104	85-115	0				

MS		Sample ID: <b>24060884-01D MS</b>				Units: <b>mg/L</b>		Analysis Date: <b>6/19/2024 09:15 AM</b>			
Client ID: <b>MCXX_06182024</b>		Run ID: <b>VAL-ICPMS_240619A</b>		SeqNo: <b>10875575</b>		Prep Date: <b>6/19/2024</b>		DF: <b>1</b>			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	
Chromium	0.1052	0.0050	0.1	0.0004828	105	70-130	0				

MSD		Sample ID: <b>24060884-01D MSD</b>				Units: <b>mg/L</b>		Analysis Date: <b>6/19/2024 09:17 AM</b>			
Client ID: <b>MCXX_06182024</b>		Run ID: <b>VAL-ICPMS_240619A</b>		SeqNo: <b>10875576</b>		Prep Date: <b>6/19/2024</b>		DF: <b>1</b>			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	
Chromium	0.1046	0.0050	0.1	0.0004828	104	70-130	0.1052	0.652	20		

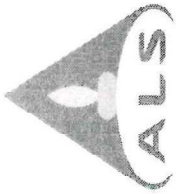
The following samples were analyzed in this batch:

24060884-01D	24060884-02D	24060884-03D
24060884-04D	24060884-05D	24060884-06D
24060884-07D	24060884-08D	24060884-09D

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

Chain of Custody Form

Page 1 of 1



Customer Information			Project Information			ALS Project Manager: Amanda Grzybowski			Parameter/Method Request for Analysis																			
Purchase Order	Project Name	USS Midwest EBSP	A	TSS (2540D)	I L Plastic - Neat	Work Order	Project Number	E. Coli (9223B)	B	(2) 100ml Plastic - Bacti	Company Name	USS / Ramboll	USS	C	HexChrome (218.6) [Field Filtered]	125ml Plastic - NH4	Send Report To	Tim Sullivan	Invoice Attn.	D	Total Chrome (200.8)	250ml Plastic - HNO3	Address	6300 US-12	E	Cyano Bacteria (Abraxis)	Clear Vial - Neat	
City/State/Zip	Portage, IN 46368	City/State/Zip	F	pH - Field Test (See Field Log)	G	Temp - Field Test (See Field Log)	H	Turbidity - Field Test (See Field Log)	I	J	Phone	219-763-5022	Phone					e-Mail Address										
No.	Sample Description	Date	Time	Matrix	Pres. Key Numbers	# Bottles	A	B	C	D	E	F	G	H	I	J	Hold											
1	MCXX_ 06182024	6/18/24	0650	AQ	2, 7, 8	6	X	X	X	X	X	X	X	X	X	X												
2	KMXX_	6/17/24	0722	AQ	2, 7, 8	6	X	X	X	X	X	X	X	X	X	X												
3	IDBW_	6/17/24	0750	AQ	2, 7, 8	6	X	X	X	X	X	X	X	X	X	X												
4	BDMZ_	6/17/24	0900	AQ	2, 7, 8	6	X	X	X	X	X	X	X	X	X	X												
5	BDXX_	6/17/24	0917	AQ	2, 7, 8	6	X	X	X	X	X	X	X	X	X	X												
6	AMOG_	6/17/24	0835	AQ	2, 7, 8	6	X	X	X	X	X	X	X	X	X	X												
7	AWGB_	6/17/24	1030	AQ	2, 7, 8	6	X	X	X	X	X	X	X	X	X	X												
8	KMXX_	6/17/24	0722	AQ	2, 7, 8	6	X	X	X	X	X	X	X	X	X	X												
9	KMXX_ 06182024	6/17/24	0722	AQ	2, 7, 8	6	X	X	X	X	X	X	X	X	X	X												
10																												
11																												
12																												
13																												
14																												
15																												

Sampler(s) Please Print & Sign		Shipments Method:		Required Turnaround Time: (Check Box)		Results Due Date:			
Relinquished by:	Date: 6/17/24	Time: 12:36	Received by:	Date: 6/18/24	Time: 1256	<input type="checkbox"/> 10 Wk Days	<input checked="" type="checkbox"/> 5 Wk Days	<input type="checkbox"/> 2 Wk Days	<input type="checkbox"/> 24 Hour
Relinquished by:	Date:	Time:	Received by (Laboratory):	Date:	Time:	Notes:			
Relinquished by:	Date:	Time:	Checked by (Laboratory):	Date:	Time:	Notes:			
Logged by (Laboratory):	Date: 6/18/24	Time: 1302	ALS Cooler ID	ALS Cooler Temp	QC Package: (Check Box Below)	Other:			
				3.2 / 4.6	<input checked="" type="checkbox"/> Level II: Standard QC	Level III: Raw Data			
				1.8 / 3.2	<input checked="" type="checkbox"/> TRRP LRC	Level IV: SW846 Methods/CLP like			
					<input type="checkbox"/> Level IV: SW846 Methods/CLP like	Other:			

Preservative Key: 1-HCl 2-HNO<sub>3</sub> 3-H<sub>2</sub>SO<sub>4</sub> 4-NaOH 5-Na<sub>2</sub>S<sub>2</sub>O<sub>3</sub> 6-NaHSO<sub>4</sub> 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.

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

Date: ~~6-18-24~~ <sup>AK</sup> 6-18-24

Field Team Members: B. Fyfe / B. Owen

Weather Conditions: Mostly Cldy, lt. rain Air Temp °F: 77

Field Test Meters:	Thermo Scientific Orion Star A121	Traceable Kangaroo Thermocouple Thermometer	HACH 2100P Turbidometer
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Field Calibration Form Completed? YES / NO If NO, Why?:

Site	Time	pH s.u.	Temp °F	Turbidity NTU
MCXX	0650	7.68	70.1	2.02
KMXX	0722	7.75	69.6	1.41
Standard Check	0724	7.00= 7.04		20= 20.7
IDBW	<del>0650</del> <sup>0724</sup>	7.76	69.1	1.88
BDMZ	0900	7.52	77.5	9.79
Standard Check	0837	7.00= 7.02		20= 20.4
BDXX	0917	<del>7.88</del> <sup>BP</sup> 7.56	<del>75.6</del> <sup>7.88</sup>	7.55
AMOG	0835	7.83	68.7	3.46
Standard Check	0920	7.00= 7.04		20= 20.6
AWGL (AWGB)	1030	8.32	69.2	1.97
KMXX -DUP	0722	7.79	69.5	1.54
Standard Check	1033	7.00= 7.07		20= 20.8

Notes/Observations:

Sample Receipt Checklist

Client Name: **USS-GARY**

Date/Time Received: **18-Jun-24 13:15**

Work Order: **24060884**

Received by: **JBT**

Checklist completed by Jacob Tucker  
eSignature

18-Jun-24  
Date

Reviewed by: Amanda Przybowski  
eSignature

18-Jun-24  
Date

Matrices: **AQUEOUS**

Carrier name: **ALSHN**

Shipping container/cooler in good condition?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	Not Present <input type="checkbox"/>
Custody seals intact on shipping container/cooler?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	Not Present <input checked="" type="checkbox"/>
Custody seals intact on sample bottles?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	Not Present <input checked="" type="checkbox"/>
Chain of custody present?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Chain of custody signed when relinquished and received?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Chain of custody agrees with sample labels?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Samples in proper container/bottle?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Sample containers intact?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Sufficient sample volume for indicated test?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
All samples received within holding time?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Container/Temp Blank temperature in compliance?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Sample(s) received on ice?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Temperature(s)/Thermometer(s):	<input type="text" value="3.2/4.6, 1.8/3.2C"/>		<input type="text" value="VR-1"/>
Cooler(s)/Kit(s):	<input type="text"/>		
Date/Time sample(s) sent to storage:	<input type="text" value="6/18/2024 1:02:15 PM"/>		
Water - VOA vials have zero headspace?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	No VOA vials submitted <input checked="" type="checkbox"/>
Water - pH acceptable upon receipt?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	N/A <input type="checkbox"/>
pH adjusted?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>	N/A <input type="checkbox"/>
pH adjusted by:	<input type="text"/>		

Login Notes:

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Client Contacted: Date Contacted: Person Contacted:

Contacted By: Regarding:

Comments:

CorrectiveAction: