



# Illinois Environmental Protection Agency Laboratory

825 N. Rutledge Springfield, Illinois 62702 217.782.9780

## LABORATORY RESULTS

Name: CARUS CHEMICAL

Project/Facility Number: IL0002623

Date Received : 01/12/23

Funding Code: WP02

Visit Number:

Trip ID:

Temperature C: 2.00

Client Sample ID: A01

Lab Sample ID: 23A0126-01

Matrix: Water

Date/Time Collected: 01/11/23 16:30

Sample Type: Field pH: 8.3

Collected By: PDJ

### Biochemical Oxygen Demand, 5 day, by Standard Method 5210B

Method: 5210B

Prepared: 01/12/23 14:06

Units: mg/L

Analyzed: 01/17/23 09:02

<u>Analyte</u>	<u>Result</u>	<u>Qualifier</u>	<u>Reporting Limit</u>	<u>Regulatory Level</u>
BOD 5DAY	ND		2.00	

### Chloride by Ion Chromatography 300.0

Method: 300.0

Prepared: 01/17/23 09:57

Units: mg/L

Analyzed: 01/17/23 09:57

<u>Analyte</u>	<u>Result</u>	<u>Qualifier</u>	<u>Reporting Limit</u>	<u>Regulatory Level</u>
Chloride	41.7		1.00	

### Mercury by EPA Method 245.1

Method: 245.1

Prepared: 01/13/23 10:31

Units: ug/L

Analyzed: 01/17/23 11:03

<u>Analyte</u>	<u>Result</u>	<u>Qualifier</u>	<u>Reporting Limit</u>	<u>Regulatory Level</u>
Mercury	ND		0.06	2

IEPA-DIVISION OF RECORDS MANAGEMENT

RELEASABLE

FEBRAURY 9, 2023

REVIEWER

MED

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## LABORATORY RESULTS

Name: **CARUS CHEMICAL**

Project/Facility Number: IL0002623

Date Received : 01/12/23

Funding Code: WP02

Visit Number:

Trip ID:

Temperature C: 2.00

Client Sample ID: **A01**

Lab Sample ID: **23A0126-01**

Matrix: Water

Date/Time Collected: 01/11/23 16:30

Sample Type:

Field pH: 8.3

Collected By: PDJ

### Metals by EPA Method 200.7 - ICP/Hardness by Standard Method 2340B

Method: 200.7/2340B

Prepared: 01/17/23 07:39

Units: ug/L

Analyzed: 01/19/23 11:32

<u>Analyte</u>	<u>Result</u>	<u>Qualifier</u>	<u>Reporting Limit</u>	<u>Regulatory Level</u>
Aluminum	121		100	40000
Arsenic	ND		10.0	
Barium	76.6		5.00	
Beryllium	ND		1.00	
Boron	58.1		20.0	
Cadmium	ND		3.00	
Calcium	86100		500	100000
Chromium	ND		5.00	
Cobalt	ND		10.0	
Copper	ND		10.0	
Iron	ND		200	40000
Lead	ND		5.00	
Magnesium	36300		500	100000
Manganese	51.9		15.0	
Nickel	ND		5.00	
Potassium	2150		1400	100000
Selenium	ND	J6	100	
Silver	ND	J5	3.00	
Sodium	20700		1000	
Strontium	205		10.0	
Vanadium	ND		5.00	
Zinc	ND		25.0	
Hardness	364000		1980	

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## LABORATORY RESULTS

Name: **CARUS CHEMICAL**

Project/Facility Number: IL0002623 Date Received : 01/12/23

Funding Code: WP02 Visit Number:

Trip ID: Temperature C: 2.00

Client Sample ID: **A01** Lab Sample ID: **23A0126-01**

Matrix: Water Date/Time Collected: 01/11/23 16:30

Sample Type: Field pH: 8.3 Collected By: PDJ

### **Nitrate-Nitrite, Colorimetric, Automated Cadmium by EPA Method 353.2**

Method: 353.2 Prepared: 01/12/23 11:11

Units: mg/L Analyzed: 01/12/23 11:11

<u>Analyte</u>	<u>Result</u>	<u>Qualifier</u>	<u>Reporting Limit</u>	<u>Regulatory Level</u>
Nitrogen, Nitrite (NO <sub>2</sub> ) + Nitrate	6.34		0.100	

### **Nitrogen, Ammonia, Colorimetric, Automated Phenate by EPA Method 350.1**

Method: EPA 350.1 Prepared: 01/13/23 12:10

Units: mg/L Analyzed: 01/13/23 12:54

<u>Analyte</u>	<u>Result</u>	<u>Qualifier</u>	<u>Reporting Limit</u>	<u>Regulatory Level</u>
Ammonia as N	0.11		0.10	

### **Nitrogen, Kjeldahl, Total, Colorimetric, Semi- by EPA Method 351.2**

Method: 351.2 Prepared: 01/12/23 10:21

Units: mg/L Analyzed: 01/13/23 11:33

<u>Analyte</u>	<u>Result</u>	<u>Qualifier</u>	<u>Reporting Limit</u>	<u>Regulatory Level</u>
Nitrogen, Kjeldahl	ND	J3	0.50	

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## LABORATORY RESULTS

Name: **CARUS CHEMICAL**

Project/Facility Number: IL0002623 Date Received : 01/12/23

Funding Code: WP02 Visit Number:

Trip ID: Temperature C: 2.00

Client Sample ID: **A01** Lab Sample ID: **23A0126-01**

Matrix: Water Date/Time Collected: 01/11/23 16:30

Sample Type: Field pH: 8.3 Collected By: PDJ

### pH

Method: SM 4500H+B Prepared: 01/12/23 11:24

Units: pH Analyzed: 01/12/23 11:24

<u>Analyte</u>	<u>Result</u>	<u>Qualifier</u>	<u>Reporting Limit</u>	<u>Regulatory Level</u>
Laboratory pH	8.3	Q	0.1	
pH analysis sample temp°C	19.9			

### Phosphorus, All Forms, Colorimetric, Automated, by EPA Method 365.1

Method: 365.1 Prepared: 01/12/23 10:20

Units: mg/L Analyzed: 01/13/23 10:07

<u>Analyte</u>	<u>Result</u>	<u>Qualifier</u>	<u>Reporting Limit</u>	<u>Regulatory Level</u>
Phosphorus as P	0.074		0.005	

### Total Suspended Solids by Standard Method 2540D

Method: SM 2540D Prepared: 01/17/23 07:53

Units: mg/L Analyzed: 01/17/23 07:53

<u>Analyte</u>	<u>Result</u>	<u>Qualifier</u>	<u>Reporting Limit</u>	<u>Regulatory Level</u>
Total Suspended Solids	7		4	

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## LABORATORY RESULTS

Name: **CARUS CHEMICAL**

Project/Facility Number: IL0002623 Date Received : 01/12/23

Funding Code: WP02 Visit Number:

Trip ID: Temperature C: 2.00

Client Sample ID: **C01** Lab Sample ID: **23A0126-02**

Matrix: Water Date/Time Collected: 01/11/23 16:50

Sample Type: Field pH: 8.1 Collected By: PDJ

### Biochemical Oxygen Demand, 5 day, by Standard Method 5210B

Method: 5210B Prepared: 01/12/23 14:06

Units: mg/L Analyzed: 01/17/23 09:02

<u>Analyte</u>	<u>Result</u>	<u>Qualifier</u>	<u>Reporting Limit</u>	<u>Regulatory Level</u>
BOD 5DAY	ND		2.00	

### Chloride by Ion Chromatography 300.0

Method: 300.0 Prepared: 01/17/23 10:09

Units: mg/L Analyzed: 01/17/23 10:09

<u>Analyte</u>	<u>Result</u>	<u>Qualifier</u>	<u>Reporting Limit</u>	<u>Regulatory Level</u>
Chloride	44.2		1.00	

### Mercury by EPA Method 245.1

Method: 245.1 Prepared: 01/13/23 10:31

Units: ug/L Analyzed: 01/17/23 11:05

<u>Analyte</u>	<u>Result</u>	<u>Qualifier</u>	<u>Reporting Limit</u>	<u>Regulatory Level</u>
Mercury	ND		0.06	2

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Name: **CARUS CHEMICAL**

Project/Facility Number: IL0002623

Date Received : 01/12/23

Funding Code: WP02

Visit Number:

Trip ID:

Temperature C: 2.00

Client Sample ID: **C01**

Lab Sample ID: **23A0126-02**

Matrix: Water

Date/Time Collected: 01/11/23 16:50

Sample Type:

Field pH: 8.1

Collected By: PDJ

### Metals by EPA Method 200.7 - ICP/Hardness by Standard Method 2340B

Method: 200.7/2340B

Prepared: 01/17/23 07:39

Units: ug/L

Analyzed: 01/19/23 11:38

<u>Analyte</u>	<u>Result</u>	<u>Qualifier</u>	<u>Reporting Limit</u>	<u>Regulatory Level</u>
Aluminum	ND		100	40000
Arsenic	ND		10.0	
<b>Barium</b>	<b>73.7</b>		5.00	
Beryllium	ND		1.00	
<b>Boron</b>	<b>57.2</b>		20.0	
Cadmium	ND		3.00	
<b>Calcium</b>	<b>83300</b>		500	100000
Chromium	ND		5.00	
Cobalt	ND		10.0	
Copper	ND		10.0	
Iron	ND		200	40000
Lead	ND		5.00	
<b>Magnesium</b>	<b>34600</b>		500	100000
<b>Manganese</b>	<b>55.8</b>		15.0	
Nickel	ND		5.00	
<b>Potassium</b>	<b>2060</b>		1400	100000
Selenium	ND	J6	100	
Silver	ND	J5	3.00	
<b>Sodium</b>	<b>20900</b>		1000	
<b>Strontium</b>	<b>199</b>		10.0	
Vanadium	ND		5.00	
<b>Zinc</b>	<b>55.9</b>		25.0	
<b>Hardness</b>	<b>350000</b>		1980	

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Project/Facility Number: IL0002623 Date Received : 01/12/23

Funding Code: WP02 Visit Number:

Trip ID: Temperature C: 2.00

Client Sample ID: **C01** Lab Sample ID: **23A0126-02**

Matrix: Water Date/Time Collected: 01/11/23 16:50

Sample Type: Field pH: 8.1 Collected By: PDJ

### **Nitrate-Nitrite, Colorimetric, Automated Cadmium by EPA Method 353.2**

Method: 353.2 Prepared: 01/12/23 11:13

Units: mg/L Analyzed: 01/12/23 11:13

<u>Analyte</u>	<u>Result</u>	<u>Qualifier</u>	<u>Reporting Limit</u>	<u>Regulatory Level</u>
Nitrogen, Nitrite (NO <sub>2</sub> ) + Nitrate	6.25	J3	0.100	

### **Nitrogen, Ammonia, Colorimetric, Automated Phenate by EPA Method 350.1**

Method: EPA 350.1 Prepared: 01/13/23 12:10

Units: mg/L Analyzed: 01/13/23 12:54

<u>Analyte</u>	<u>Result</u>	<u>Qualifier</u>	<u>Reporting Limit</u>	<u>Regulatory Level</u>
Ammonia as N	ND		0.10	

### **Nitrogen, Kjeldahl, Total, Colorimetric, Semi- by EPA Method 351.2**

Method: 351.2 Prepared: 01/12/23 10:21

Units: mg/L Analyzed: 01/13/23 11:33

<u>Analyte</u>	<u>Result</u>	<u>Qualifier</u>	<u>Reporting Limit</u>	<u>Regulatory Level</u>
Nitrogen, Kjeldahl	0.88		0.50	

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Project/Facility Number: IL0002623 Date Received : 01/12/23

Funding Code: WP02 Visit Number:

Trip ID: Temperature C: 2.00

Client Sample ID: **C01** Lab Sample ID: **23A0126-02**

Matrix: Water Date/Time Collected: 01/11/23 16:50

Sample Type: Field pH: 8.1 Collected By: PDJ

### **pH**

Method: SM 4500H+B Prepared: 01/12/23 11:24

Units: pH Analyzed: 01/12/23 11:24

<u>Analyte</u>	<u>Result</u>	<u>Qualifier</u>	<u>Reporting Limit</u>	<u>Regulatory Level</u>
Laboratory pH	8.3	Q	0.1	
pH analysis sample temp°C	18.7			

### **Phosphorus, All Forms, Colorimetric, Automated, by EPA Method 365.1**

Method: 365.1 Prepared: 01/12/23 10:20

Units: mg/L Analyzed: 01/13/23 10:07

<u>Analyte</u>	<u>Result</u>	<u>Qualifier</u>	<u>Reporting Limit</u>	<u>Regulatory Level</u>
Phosphorus as P	0.077		0.005	

### **Total Suspended Solids by Standard Method 2540D**

Method: SM 2540D Prepared: 01/17/23 07:53

Units: mg/L Analyzed: 01/17/23 07:53

<u>Analyte</u>	<u>Result</u>	<u>Qualifier</u>	<u>Reporting Limit</u>	<u>Regulatory Level</u>
Total Suspended Solids	6		4	

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### LABORATORY RESULTS

Name: **CARUS CHEMICAL**

Project/Facility Number: IL0002623

Date Received : 01/12/23

Funding Code: WP02

Visit Number:

Trip ID:

Temperature C: 2.00

### **Notes and Definitions**

- Q Maximum holding time exceeded.
- J6 Blank spike failed high - possible high bias or false positive result.
- J5 Blank spike failed high, result was less than the reporting limit - impact on data may be minimal.
- J3 The reported value failed to meet the established quality control criteria for either precision or accuracy possibly due to matrix effects.
- ND Analyte NOT DETECTED at or above the reporting limit
- \* Non-NELAP accredited

Report Authorized by:

Tom Weiss  
Laboratory Manager

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IEPA - BW/DWPC/FOS - LAB SHEET

*Handwritten initials*

Field ID: A01

09-Funding Code: W P 0 2 10-Agency Routing P R 12-File Code: EMER 13-Sample Type: S

15-Reporting: B 16-DID: Basin D R County 0 9 9 Plant \_\_\_ 17-Sampling Program: ER

18-Facility/Sample Pt: CARUS CHEMICAL CO / A01  
(50-character limit)

19-Begin 2 3 0 1 1 1 20-Begin 1 6 3 0

Date: Y Y M M D D H H M M  
(24-hour clock)

23-Instructions to Lab: \_\_\_\_\_

21-Collected by: P D J 22-Transported by: K B P

27-Received by: \_\_\_\_\_ Date: \_\_\_\_\_  
Y Y M M D D

Received by: \_\_\_\_\_ Date: \_\_\_\_\_  
Y Y M M D D

Circle One: Effluent Stream Specials:  
Influent Process Flows WWTP  
Sludge Cooling Water Other

Program: \_\_\_\_\_

NPDES No. I L 0 0 0 2 6 2 3 BW ID: W 0 9 9 0 3 0 0 0 0 6

Receiving Stream Name: LITTLE VERMILION RIVER

Receiving Stream Conditions (velocity, etc): \_\_\_\_\_

Effluent Conditions: \_\_\_\_\_

Composite Sample

Ending Date: 5 2 9 F 0  
Y Y M M D D

Ending Time: 5 2 9 F 0  
H H M M  
(24-hour clock)

03-Lab Parameter Group: \_\_\_\_\_

Additional Lab Parameters:	Field Parameters:	Results
	501FO	
	Air Temp (°C)	
<u>BOD5</u>	502FO	
	Water Temp (°C)	<u>6.3°C</u>
<u>TSS</u>	504FO	
	Dissolved O <sub>2</sub>	<u>12.1 mg/L</u>
<u>CHLORIDE</u>	503FO	
	Conductance	
<u>AMMONIA</u>	500FO	
	pH	<u>8.3 SU</u>

Comments & Unusual Conditions & Severity: (If applicable, Stamp- "No Visible Problem This Visit"):

Weather Conditions: \_\_\_\_\_

NO<sub>3</sub>/NO<sub>2</sub>  
P  
TKN  
ICP 22

Remarks: SAMPLE COLLECTED APPROXIMATELY 8 FEET FROM LEFT DESCENDING BANK, UPSTREAM OF FACILITY

Sampling Techniques: GRAB - LIQUID

FOR LABORATORY USE ONLY

23A0126-01

LAB ID NO.



Sample Received By: \_\_\_\_\_

Corrected Receipt Temp: 2 °C TMD ID: 8

Date/Time Received: 1/12/23 09:10

Supervisor: \_\_\_\_\_

Mail To:



IEPA - BW/DWPC/FOS - LAB SHEET

V  
BW

Field ID: CO1

09-Funding Code: WPO2 10-Agency Routing PR 12-File Code: EMER 13-Sample Type: S

15-Reporting: B 16-DID: Basin DR County 099 Plant      17-Sampling Program: ER

18-Facility/Sample Pt: CARUS CHEMICAL CO / CO1  
(50-character limit)

19-Begin 230111 20-Begin 1650

Date: Y Y M M D D H H M M  
(24-hour clock)

23-Instructions to Lab: \_\_\_\_\_

21-Collected by: PDJ 22-Transported by: KBP

27-Received by: \_\_\_\_\_ Date: \_\_\_\_\_  
Y Y M M D D

Received by: \_\_\_\_\_ Date: \_\_\_\_\_  
Y Y M M D D

Circle One: Effluent  Stream  Specials:  
Influent  Process Flows  WWTP  
Sludge  Cooling Water  Other

Program: \_\_\_\_\_

NPDES No. I10002623 BW ID: W099030006

Receiving Stream Name: LITTLE VERMILION RIVER

Receiving Stream Conditions (velocity, etc): \_\_\_\_\_

Effluent Conditions: \_\_\_\_\_

Weather Conditions: \_\_\_\_\_

Composite Sample

Ending Date: 5 2 9 F 0  
Y Y M M D D

Ending Time: 5 2 9 F 0  
H H M M  
(24-hour clock)

03-Lab Parameter Group: \_\_\_\_\_

Additional Lab Parameters:	Field Parameters:	Results
	501F0	
	Air Temp (°C)	
	502F0	
<u>BOD<sub>5</sub></u>	Water Temp (°C)	<u>8.5°C</u>
	504F0	
<u>TSS</u>	Dissolved O <sub>2</sub>	<u>12.0 mg/L</u>
	503F0	
<u>CHLORIDE</u>	Conductance	
	500F0	
<u>AMMONIA</u>	pH	<u>8.1 SU</u>

NO<sub>3</sub>/NO<sub>2</sub>  
P

TKN

ICP 22

Comments & Unusual Conditions & Severity: (If applicable, Stamp- "No Visible Problem This Visit"):

Remarks: SAMPLE COLLECTED APPROXIMATELY 8 FEET FROM RIGHT DESCENDING BANK, DOWNSTREAM OF FACILITY

Sampling Techniques: GRAB - LIQUID

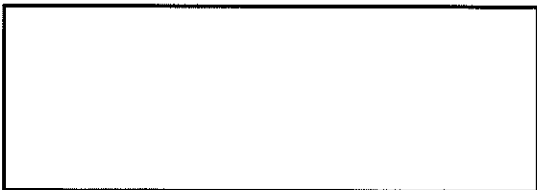
FOR LABORATORY USE ONL

23A0126-02

LAB ID NO.



Mail To:



Sample Received By: \_\_\_\_\_

Corrected Receipt Temp: 2 °C TMD ID: 8

Date/Time Received: 1/12/23 09:10

Supervisor: \_\_\_\_\_