UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION 5 CHICAGO REGIONAL LABORATORY

536 SOUTH CLARK STREET

CHICAGO, ILLINOIS 60605

Date: **6/19/2018**

Subject: **Review of Region 5 Data for Central Sands**

To: **Water Division, WECA Region 5**
77 West Jackson Boulevard
Chicago, IL 60604

From: **Anna Knoebel, Chemist**
US EPA Region 5 Chicago Regional Laboratory

The data transmitted under this cover memo successfully passed CRL's data review procedures as documented in the current Quality Management Plan and applicable Standard Operating Procedures. In accordance with the EPA QA/G-8 *Guidance on Environmental Data Verification and Data Validation* and the U.S. EPA Region 5 RMD QMP, CRL performs data verification on all the data generated internally. CRL does not perform data validation or quality assessment procedures.

This report was reviewed and the information provided herein accurately represents the analysis performed.

Anna Knoebel

Please contact the analyst with any technical report issues, Robert Thompson at (312)-353-9078 for sample project concerns, and Sylvia Griffin at (312)-353-9073 with data transmittal questions. Thank you.

Attached are Results for: **Central Sands**

Analyses included in this report:

Nitrate-Nitrite N DA, Enzymatic reduction

Report Name: 1805005,1805007 Nitrate-Nitrite N DA, Enzymatic reduction FINAL Jun 19 18 0803

Environmental Protection Agency Region 5
Chicago Regional Laboratory

536 South Clark Street, Chicago, IL 60605
Phone:(312)353-8370 Fax:(312)886-2591

Water Division, WECA Region 5	Project: Central Sands	
77 West Jackson Boulevard	Project Number: CB022018	**Reported:**
Chicago IL, 60604	Project Manager: Cheryl Burdett	Jun-19-18 08:03

Accredited Analyses included in this Report

Method: *ASTM D7781-14 in Water*
Analysis: *Nitrate-Nitrite N DA, Enzymatic reduction*

Analyte	Certifications
Nitrate-Nitrite N	ISO/IEC 17025:2005

Analytes not listed above are not accredited by ANAB.

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Water Division, WECA Region 5	Project: Central Sands	
77 West Jackson Boulevard	Project Number: CB022018	**Reported:**
Chicago IL, 60604	Project Manager: Cheryl Burdett	Jun-19-18 08:03

AMENDED ANALYSIS CASE NARRATIVE – Nitrate-Nitrite Nitrogen in Water

Work Order: 1805005, 1805007
Analyst: Anna Knoebel
Phone #: (312) 353-9467

General Information

Ninety-eight water samples for Nitrate-Nitrite Nitrogen were received on May 2, 2018 and May 4, 2018. All holding times were met.

AMENDED SECTION: A discrepancy between CRL and University of Nebraska results was observed by the client. This discrepancy was determined to have been caused by over-preservation of the samples that were sent to the CRL. The over-preservation interferes with the analysis and the sample data may be estimated. This issue has been previously seen with Nitrate-Nitrite N results for other project's samples that were over-preserved.

NOTE: Documentation of this instance can be found in Qualtrax Client Contact ID 14731.

Sample Analysis and Results

The samples were analyzed for Nitrate-Nitrite Nitrogen in water on May 10, 2018 using CRL SOP AIG031B, Version # 4 (SOP based on NECi Method N070003). The samples were stored in the refrigerator at all times except when in use.

The data reported herein meets any laboratory specifications referenced in the sampling QAPP "*FINAL_2018 GW Sampling Plan4_27_2018.pdf*" and the requirements referenced in CRL SOP AIG031B, Version # 4 (based on NECi Method N070003) except for those listed in the quality control section below.

Quality Control

Matrix Spike (MS)

All five matrix spike recoveries were outside the acceptance limit (90 – 110 %). The source samples were not affected by these recoveries and are not qualified because the samples were either non-detect or the spikes were diluted out.

Blank Spike (BS)

Four of the eighteen BS sample recoveries were slightly higher than the acceptance limit (90 – 110 %). The samples affected by these spikes were qualified "K" (The identification of the analyte is acceptable; the reported value may be biased high. The actual value is expected to be less than the reported value).

All other quality control audits were within CRL limits or did not result in qualification of the data.

Environmental Protection Agency Region 5
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536 South Clark Street, Chicago, IL 60605
Phone:(312)353-8370 Fax:(312)886-2591

WORK ORDER **Printed: 5/3/2018 3:33:25PM**

1805005

US EPA Region 5 Chicago Regional Laboratory

Client: **Water Division, WECA Region 5** **Project Manager:** **Angela Ockrassa Davis**
Project: **Central Sands** **Project Number:** **[none]**

Report To:
Cheryl Burdett, Water Division, WECA Region 5 | 77 West Jackson Boulevard, Chicago, IL 60604 | Phone: (312) 886-1463, Fax: (312) 886-2001

Date Due: Jun-04-18 15:00 (32 day TAT)
Received By: Colin Breslin Date Received: May-02-18 09:55
Logged In By: Robert Snyder Date Logged In: May-03-18 09:30

Samples Received at:

Sample tags/labels	Yes
Seals Intact	Yes
Received on ice	Yes
Paperwork Included	Yes

Work Order Comments:
Anions: Chloride and nitrate as NO3
Full List metals

Sample ID: **1805005-01** **Sampled:** **Apr-30-18 07:19** **Matrix:** **Water**
Sample Name: **A1a** **Sample Location/Comments:** **1st Street**
Sample Comments:

Analysis	Hold time (days)	Expires	Comments
Ammonia N DA, Distilled	28	May-28-18 07:19	pH = 2
Anions by IC	28	May-28-18 07:19	pH = 7
Metals ICP-AES (w)	180	Oct-27-18 07:19	pH = 3
Nitrate-Nitrite N DA, Enzymatic reduction	28	May-28-18 07:19	pH = 2
Solids, TDS	7	May-07-18 07:19	pH = 7
TKN DA	28	May-28-18 07:19	pH = 2
TOC	28	May-28-18 07:19	pH = 2
Total Phosphorus DA	28	May-28-18 07:19	pH = 2

Sample ID: **1805005-02** **Sampled:** **Apr-30-18 07:32** **Matrix:** **Water**
Sample Name: **A1b** **Sample Location/Comments:** **1st Street**
Sample Comments:

Analysis	Hold time (days)	Expires	Comments
Ammonia N DA, Distilled	28	May-28-18 07:32	pH = 2
Anions by IC	28	May-28-18 07:32	pH = 5
Metals ICP-AES (w)	180	Oct-27-18 07:32	pH = 2
Nitrate-Nitrite N DA, Enzymatic reduction	28	May-28-18 07:32	pH = 2

1805005

US EPA Region 5 Chicago Regional Laboratory

Client: Water Division, WECA Region 5 **Project Manager:** Angela Ockrassa Davis
Project: Central Sands **Project Number:** [none]

Sample ID: 1805005-02 **Sampled:** Apr-30-18 07:32 **Matrix:** Water

Sample Name: A1b **Sample Location/Comments:** 1st Street

Sample Comments:

Analysis	Hold time (days)	Expires	Comments
Solids, TDS	7	May-07-18 07:32	pH = 5
TKN DA	28	May-28-18 07:32	pH = 2
TOC	28	May-28-18 07:32	pH = 2
Total Phosphorus DA	28	May-28-18 07:32	pH = 2

Sample ID: 1805005-03 **Sampled:** Apr-30-18 08:15 **Matrix:** Water

Sample Name: A2a **Sample Location/Comments:** 22nd Avenue North

Sample Comments:

Analysis	Hold time (days)	Expires	Comments
Ammonia N DA, Distilled	28	May-28-18 08:15	pH = 2
Anions by IC	28	May-28-18 08:15	pH = 6
Metals ICP-AES (w)	180	Oct-27-18 08:15	pH = 2
Nitrate-Nitrite N DA, Enzymatic reduction	28	May-28-18 08:15	pH = 2
Solids, TDS	7	May-07-18 08:15	pH = 6
TKN DA	28	May-28-18 08:15	pH = 2
TOC	28	May-28-18 08:15	pH = 2
Total Phosphorus DA	28	May-28-18 08:15	pH = 2

Sample ID: 1805005-04 **Sampled:** Apr-30-18 08:24 **Matrix:** Water

Sample Name: A2b **Sample Location/Comments:** 22nd Avenue North

Sample Comments:

Analysis	Hold time (days)	Expires	Comments
Ammonia N DA, Distilled	28	May-28-18 08:24	pH = 2
Anions by IC	28	May-28-18 08:24	pH = 6
Metals ICP-AES (w)	180	Oct-27-18 08:24	pH = 5
Nitrate-Nitrite N DA, Enzymatic reduction	28	May-28-18 08:24	pH = 2
Solids, TDS	7	May-07-18 08:24	pH = 6
TKN DA	28	May-28-18 08:24	pH = 2
TOC	28	May-28-18 08:24	pH = 2
Total Phosphorus DA	28	May-28-18 08:24	pH = 2

1805005

US EPA Region 5 Chicago Regional Laboratory

Client: Water Division, WECA Region 5 **Project Manager:** Angela Ockrassa Davis
Project: Central Sands **Project Number:** [none]

Sample ID: 1805005-05 **Sampled:** Apr-30-18 09:06 **Matrix:** Water *QC Source Sample MS/MSD*

Sample Name: A3a **Sample Location/Comments:** 2nd Street

Sample Comments: MS/MSD

Analysis	Hold time (days)	Expires	Comments
Ammonia N DA, Distilled	28	May-28-18 09:06	pH = 2
Anions by IC	28	May-28-18 09:06	pH = 6
Metals ICP-AES (w)	180	Oct-27-18 09:06	pH = 2
Nitrate-Nitrite N DA, Enzymatic reduction	28	May-28-18 09:06	pH = 2
Solids, TDS	7	May-07-18 09:06	pH = 6
TKN DA	28	May-28-18 09:06	pH = 2
TOC	28	May-28-18 09:06	pH = 2
Total Phosphorus DA	28	May-28-18 09:06	pH = 2

Sample ID: 1805005-06 **Sampled:** Apr-30-18 09:14 **Matrix:** Water

Sample Name: A3b **Sample Location/Comments:** 2nd Street

Sample Comments:

Analysis	Hold time (days)	Expires	Comments
Ammonia N DA, Distilled	28	May-28-18 09:14	pH = 2
Anions by IC	28	May-28-18 09:14	pH = 6
Metals ICP-AES (w)	180	Oct-27-18 09:14	pH = 2
Nitrate-Nitrite N DA, Enzymatic reduction	28	May-28-18 09:14	pH = 2
Solids, TDS	7	May-07-18 09:14	pH = 6
TKN DA	28	May-28-18 09:14	pH = 2
TOC	28	May-28-18 09:14	pH = 2
Total Phosphorus DA	28	May-28-18 09:14	pH = 2

Sample ID: 1805005-07 **Sampled:** Apr-30-18 09:38 **Matrix:** Water

Sample Name: A4 Equip **Sample Location/Comments:** Cranberry Rock Road

Sample Comments:

Analysis	Hold time (days)	Expires	Comments
Ammonia N DA, Distilled	28	May-28-18 09:38	pH = 2
Anions by IC	28	May-28-18 09:38	pH = 5
Metals ICP-AES (w)	180	Oct-27-18 09:38	pH = 2
Nitrate-Nitrite N DA, Enzymatic reduction	28	May-28-18 09:38	pH = 2
Solids, TDS	7	May-07-18 09:38	pH = 5
TKN DA	28	May-28-18 09:38	pH = 2
TOC	28	May-28-18 09:38	pH = 2

1805005

US EPA Region 5 Chicago Regional Laboratory

Client: Water Division, WECA Region 5 **Project Manager:** Angela Ockrassa Davis
Project: Central Sands **Project Number:** [none]

Sample ID: 1805005-07 **Sampled:** Apr-30-18 09:38 **Matrix:** Water

Sample Name: A4 Equip **Sample Location/Comments:** Cranberry Rock Road

Sample Comments:

Analysis	Hold time (days)	Expires	Comments
Total Phosphorus DA	28	May-28-18 09:38	pH = 2

Sample ID: 1805005-08 **Sampled:** Apr-30-18 09:06 **Matrix:** Water

Sample Name: A3a (Dup) **Sample Location/Comments:** 2nd Street

Sample Comments:

Analysis	Hold time (days)	Expires	Comments
Ammonia N DA, Distilled	28	May-28-18 09:06	pH = 2
Anions by IC	28	May-28-18 09:06	pH = 6
Metals ICP-AES (w)	180	Oct-27-18 09:06	pH = 2
Nitrate-Nitrite N DA, Enzymatic reduction	28	May-28-18 09:06	pH = 2
Solids, TDS	7	May-07-18 09:06	pH = 6
TKN DA	28	May-28-18 09:06	pH = 2
TOC	28	May-28-18 09:06	pH = 2
Total Phosphorus DA	28	May-28-18 09:06	pH = 2

Sample ID: 1805005-09 **Sampled:** Apr-30-18 09:49 **Matrix:** Water

Sample Name: FB1 **Sample Location/Comments:** Cranberry Rock Road

Sample Comments:

Analysis	Hold time (days)	Expires	Comments
Ammonia N DA, Distilled	28	May-28-18 09:49	pH = 2
Anions by IC	28	May-28-18 09:49	pH = 4
Metals ICP-AES (w)	180	Oct-27-18 09:49	pH = 2
Nitrate-Nitrite N DA, Enzymatic reduction	28	May-28-18 09:49	pH = 2
Solids, TDS	7	May-07-18 09:49	pH = 4
TKN DA	28	May-28-18 09:49	pH = 2
TOC	28	May-28-18 09:49	pH = 2
Total Phosphorus DA	28	May-28-18 09:49	pH = 2

Sample ID: 1805005-10 **Sampled:** Apr-30-18 09:58 **Matrix:** Water

Sample Name: A4a **Sample Location/Comments:** Cranberry Rock Road

Sample Comments:

Analysis	Hold time (days)	Expires	Comments
Ammonia N DA, Distilled	28	May-28-18 09:58	pH = 2
Anions by IC	28	May-28-18 09:58	pH = 6

1805005

US EPA Region 5 Chicago Regional Laboratory

Client: Water Division, WECA Region 5 **Project Manager:** Angela Ockrassa Davis
Project: Central Sands **Project Number:** [none]

Sample ID: 1805005-10 **Sampled:** Apr-30-18 09:58 **Matrix:** Water

Sample Name: A4a **Sample Location/Comments:** Cranberry Rock Road

Sample Comments:

Analysis	Hold time (days)	Expires	Comments
Metals ICP-AES (w)	180	Oct-27-18 09:58	pH = 2
Nitrate-Nitrite N DA, Enzymatic reduction	28	May-28-18 09:58	pH = 2
Solids, TDS	7	May-07-18 09:58	pH = 6
TKN DA	28	May-28-18 09:58	pH = 2
TOC	28	May-28-18 09:58	pH = 2
Total Phosphorus DA	28	May-28-18 09:58	pH = 2

Sample ID: 1805005-11 **Sampled:** Apr-30-18 10:09 **Matrix:** Water

Sample Name: A4b **Sample Location/Comments:** Cranberry Rock Road

Sample Comments:

Analysis	Hold time (days)	Expires	Comments
Ammonia N DA, Distilled	28	May-28-18 10:09	pH = 2
Anions by IC	28	May-28-18 10:09	pH = 5
Metals ICP-AES (w)	180	Oct-27-18 10:09	pH = 2
Nitrate-Nitrite N DA, Enzymatic reduction	28	May-28-18 10:09	pH = 2
Solids, TDS	7	May-07-18 10:09	pH = 5
TKN DA	28	May-28-18 10:09	pH = 2
TOC	28	May-28-18 10:09	pH = 2
Total Phosphorus DA	28	May-28-18 10:09	pH = 2

Sample ID: 1805005-12 **Sampled:** Apr-30-18 10:51 **Matrix:** Water

Sample Name: B1a **Sample Location/Comments:** 20th Avenue

Sample Comments:

Analysis	Hold time (days)	Expires	Comments
Ammonia N DA, Distilled	28	May-28-18 10:51	pH = 3
Anions by IC	28	May-28-18 10:51	pH = 5
Metals ICP-AES (w)	180	Oct-27-18 10:51	pH = 2
Nitrate-Nitrite N DA, Enzymatic reduction	28	May-28-18 10:51	pH = 3
Solids, TDS	7	May-07-18 10:51	pH = 5
TKN DA	28	May-28-18 10:51	pH = 3
TOC	28	May-28-18 10:51	pH = 3
Total Phosphorus DA	28	May-28-18 10:51	pH = 3

1805005

US EPA Region 5 Chicago Regional Laboratory

Client: Water Division, WECA Region 5 **Project Manager:** Angela Ockrassa Davis
Project: Central Sands **Project Number:** [none]

Sample ID: 1805005-13 **Sampled:** Apr-30-18 10:58 **Matrix:** Water

Sample Name: B1b **Sample Location/Comments:** 20th Avenue

Sample Comments:

Analysis	Hold time (days)	Expires	Comments
Ammonia N DA, Distilled	28	May-28-18 10:58	pH = 2
Anions by IC	28	May-28-18 10:58	pH = 5
Metals ICP-AES (w)	180	Oct-27-18 10:58	pH = 2
Nitrate-Nitrite N DA, Enzymatic reduction	28	May-28-18 10:58	pH = 2
Solids, TDS	7	May-07-18 10:58	pH = 5
TKN DA	28	May-28-18 10:58	pH = 2
TOC	28	May-28-18 10:58	pH = 2
Total Phosphorus DA	28	May-28-18 10:58	pH = 2

Sample ID: 1805005-14 **Sampled:** Apr-30-18 11:40 **Matrix:** Water

Sample Name: B2a **Sample Location/Comments:** 3rd Street

Sample Comments:

Analysis	Hold time (days)	Expires	Comments
Ammonia N DA, Distilled	28	May-28-18 11:40	pH = 2
Anions by IC	28	May-28-18 11:40	pH = 7
Metals ICP-AES (w)	180	Oct-27-18 11:40	pH = 4
Nitrate-Nitrite N DA, Enzymatic reduction	28	May-28-18 11:40	pH = 2
Solids, TDS	7	May-07-18 11:40	pH = 7
TKN DA	28	May-28-18 11:40	pH = 2
TOC	28	May-28-18 11:40	pH = 2
Total Phosphorus DA	28	May-28-18 11:40	pH = 2

Sample ID: 1805005-15 **Sampled:** Apr-30-18 11:48 **Matrix:** Water

Sample Name: B2b **Sample Location/Comments:** 3rd Street

Sample Comments:

Analysis	Hold time (days)	Expires	Comments
Ammonia N DA, Distilled	28	May-28-18 11:48	pH = 2
Anions by IC	28	May-28-18 11:48	pH = 5
Metals ICP-AES (w)	180	Oct-27-18 11:48	pH = 2
Nitrate-Nitrite N DA, Enzymatic reduction	28	May-28-18 11:48	pH = 2
Solids, TDS	7	May-07-18 11:48	pH = 5
TKN DA	28	May-28-18 11:48	pH = 2
TOC	28	May-28-18 11:48	pH = 2

1805005

US EPA Region 5 Chicago Regional Laboratory

Client: Water Division, WECA Region 5 **Project Manager:** Angela Ockrassa Davis
Project: Central Sands **Project Number:** [none]

Sample ID: 1805005-15 **Sampled:** Apr-30-18 11:48 **Matrix:** Water

Sample Name: B2b **Sample Location/Comments:** 3rd Street

Sample Comments:

Analysis	Hold time (days)	Expires	Comments
Total Phosphorus DA	28	May-28-18 11:48	pH = 2

Sample ID: 1805005-16 **Sampled:** Apr-30-18 12:29 **Matrix:** Water

Sample Name: B3a **Sample Location/Comments:** 3rd Street

Sample Comments:

Analysis	Hold time (days)	Expires	Comments
Ammonia N DA, Distilled	28	May-28-18 12:29	pH = 2
Anions by IC	28	May-28-18 12:29	pH = 6
Metals ICP-AES (w)	180	Oct-27-18 12:29	pH = 2
Nitrate-Nitrite N DA, Enzymatic reduction	28	May-28-18 12:29	pH = 2
Solids, TDS	7	May-07-18 12:29	pH = 6
TKN DA	28	May-28-18 12:29	pH = 2
TOC	28	May-28-18 12:29	pH = 2
Total Phosphorus DA	28	May-28-18 12:29	pH = 2

Sample ID: 1805005-17 **Sampled:** Apr-30-18 12:36 **Matrix:** Water

Sample Name: B3b **Sample Location/Comments:** 3rd Street

Sample Comments:

Analysis	Hold time (days)	Expires	Comments
Ammonia N DA, Distilled	28	May-28-18 12:36	pH = 2
Anions by IC	28	May-28-18 12:36	pH = 5
Metals ICP-AES (w)	180	Oct-27-18 12:36	pH = 3
Nitrate-Nitrite N DA, Enzymatic reduction	28	May-28-18 12:36	pH = 2
Solids, TDS	7	May-07-18 12:36	pH = 5
TKN DA	28	May-28-18 12:36	pH = 2
TOC	28	May-28-18 12:36	pH = 2
Total Phosphorus DA	28	May-28-18 12:36	pH = 2

Sample ID: 1805005-18 **Sampled:** Apr-30-18 13:10 **Matrix:** Water

Sample Name: B4a **Sample Location/Comments:** 3rd Street

Sample Comments:

Analysis	Hold time (days)	Expires	Comments
Ammonia N DA, Distilled	28	May-28-18 13:10	pH = 2
Anions by IC	28	May-28-18 13:10	pH = 5

1805005

US EPA Region 5 Chicago Regional Laboratory

Client: Water Division, WECA Region 5 **Project Manager:** Angela Ockrassa Davis
Project: Central Sands **Project Number:** [none]

Sample ID: 1805005-18 **Sampled:** Apr-30-18 13:10 **Matrix:** Water

Sample Name: B4a **Sample Location/Comments:** 3rd Street

Sample Comments:

Analysis	Hold time (days)	Expires	Comments
Metals ICP-AES (w)	180	Oct-27-18 13:10	pH = 2
Nitrate-Nitrite N DA, Enzymatic reduction	28	May-28-18 13:10	pH = 2
Solids, TDS	7	May-07-18 13:10	pH = 5
TKN DA	28	May-28-18 13:10	pH = 2
TOC	28	May-28-18 13:10	pH = 2
Total Phosphorus DA	28	May-28-18 13:10	pH = 2

Sample ID: 1805005-19 **Sampled:** Apr-30-18 13:41 **Matrix:** Water

Sample Name: B4b **Sample Location/Comments:** 3rd Street

Sample Comments:

Analysis	Hold time (days)	Expires	Comments
Ammonia N DA, Distilled	28	May-28-18 13:41	pH = 2
Anions by IC	28	May-28-18 13:41	pH = 5
Metals ICP-AES (w)	180	Oct-27-18 13:41	pH = 4
Nitrate-Nitrite N DA, Enzymatic reduction	28	May-28-18 13:41	pH = 2
Solids, TDS	7	May-07-18 13:41	pH = 5
TKN DA	28	May-28-18 13:41	pH = 2
TOC	28	May-28-18 13:41	pH = 2
Total Phosphorus DA	28	May-28-18 13:41	pH = 2

Sample ID: 1805005-20 **Sampled:** Apr-30-18 15:02 **Matrix:** Water

Sample Name: C1a **Sample Location/Comments:** 2nd Street

Sample Comments:

Analysis	Hold time (days)	Expires	Comments
Ammonia N DA, Distilled	28	May-28-18 15:02	pH = 2
Anions by IC	28	May-28-18 15:02	pH = 5
Metals ICP-AES (w)	180	Oct-27-18 15:02	pH = 2
Nitrate-Nitrite N DA, Enzymatic reduction	28	May-28-18 15:02	pH = 2
Solids, TDS	7	May-07-18 15:02	pH = 5
TKN DA	28	May-28-18 15:02	pH = 2
TOC	28	May-28-18 15:02	pH = 2
Total Phosphorus DA	28	May-28-18 15:02	pH = 2

1805005

US EPA Region 5 Chicago Regional Laboratory

Client: Water Division, WECA Region 5 **Project Manager:** Angela Ockrassa Davis
Project: Central Sands **Project Number:** [none]

Sample ID: 1805005-21 **Sampled:** Apr-30-18 15:27 **Matrix:** Water

Sample Name: C1b **Sample Location/Comments:** 2nd Street

Sample Comments:

Analysis	Hold time (days)	Expires	Comments
Ammonia N DA, Distilled	28	May-28-18 15:27	pH = 2
Anions by IC	28	May-28-18 15:27	pH = 5
Metals ICP-AES (w)	180	Oct-27-18 15:27	pH = 2
Nitrate-Nitrite N DA, Enzymatic reduction	28	May-28-18 15:27	pH = 2
Solids, TDS	7	May-07-18 15:27	pH = 5
TKN DA	28	May-28-18 15:27	pH = 2
TOC	28	May-28-18 15:27	pH = 2
Total Phosphorus DA	28	May-28-18 15:27	pH = 2

Sample ID: 1805005-22 **Sampled:** Apr-30-18 16:06 **Matrix:** Water

Sample Name: C2a **Sample Location/Comments:** Nelson Road

Sample Comments:

Analysis	Hold time (days)	Expires	Comments
Ammonia N DA, Distilled	28	May-28-18 16:06	pH = 2
Anions by IC	28	May-28-18 16:06	pH = 5
Metals ICP-AES (w)	180	Oct-27-18 16:06	pH = 2
Nitrate-Nitrite N DA, Enzymatic reduction	28	May-28-18 16:06	pH = 2
Solids, TDS	7	May-07-18 16:06	pH = 5
TKN DA	28	May-28-18 16:06	pH = 2
TOC	28	May-28-18 16:06	pH = 2
Total Phosphorus DA	28	May-28-18 16:06	pH = 2

Sample ID: 1805005-23 **Sampled:** Apr-30-18 16:14 **Matrix:** Water

Sample Name: C2b **Sample Location/Comments:** Nelson Road

Sample Comments:

Analysis	Hold time (days)	Expires	Comments
Ammonia N DA, Distilled	28	May-28-18 16:14	pH = 2
Anions by IC	28	May-28-18 16:14	pH = 5
Metals ICP-AES (w)	180	Oct-27-18 16:14	pH = 2
Nitrate-Nitrite N DA, Enzymatic reduction	28	May-28-18 16:14	pH = 2
Solids, TDS	7	May-07-18 16:14	pH = 5
TKN DA	28	May-28-18 16:14	pH = 2
TOC	28	May-28-18 16:14	pH = 2

1805005

US EPA Region 5 Chicago Regional Laboratory

Client: Water Division, WECA Region 5 **Project Manager:** Angela Ockrassa Davis
Project: Central Sands **Project Number:** [none]

Sample ID: 1805005-23 **Sampled:** Apr-30-18 16:14 **Matrix:** Water

Sample Name: C2b **Sample Location/Comments:** Nelson Road

Sample Comments:

Analysis	Hold time (days)	Expires	Comments
Total Phosphorus DA	28	May-28-18 16:14	pH = 2

Sample ID: 1805005-24 **Sampled:** Apr-30-18 14:16 **Matrix:** Water

Sample Name: C3a **Sample Location/Comments:** 3rd Street

Sample Comments:

Analysis	Hold time (days)	Expires	Comments
Ammonia N DA, Distilled	28	May-28-18 14:16	pH = 2
Anions by IC	28	May-28-18 14:16	pH = 5
Metals ICP-AES (w)	180	Oct-27-18 14:16	pH = 3
Nitrate-Nitrite N DA, Enzymatic reduction	28	May-28-18 14:16	pH = 2
Solids, TDS	7	May-07-18 14:16	pH = 5
TKN DA	28	May-28-18 14:16	pH = 2
TOC	28	May-28-18 14:16	pH = 2
Total Phosphorus DA	28	May-28-18 14:16	pH = 2

Sample ID: 1805005-25 **Sampled:** Apr-30-18 14:26 **Matrix:** Water

Sample Name: C3b **Sample Location/Comments:** 3rd Street

Sample Comments:

Analysis	Hold time (days)	Expires	Comments
Ammonia N DA, Distilled	28	May-28-18 14:26	pH = 2
Anions by IC	28	May-28-18 14:26	pH = 5
Metals ICP-AES (w)	180	Oct-27-18 14:26	pH = 2
Nitrate-Nitrite N DA, Enzymatic reduction	28	May-28-18 14:26	pH = 2
Solids, TDS	7	May-07-18 14:26	pH = 5
TKN DA	28	May-28-18 14:26	pH = 2
TOC	28	May-28-18 14:26	pH = 2
Total Phosphorus DA	28	May-28-18 14:26	pH = 2

Sample ID: 1805005-26 **Sampled:** May-01-18 06:29 **Matrix:** Water

Sample Name: C5Aa **Sample Location/Comments:** CR G (Nelson Road)

Sample Comments:

Analysis	Hold time (days)	Expires	Comments
Ammonia N DA, Distilled	28	May-29-18 06:29	pH = 2
Anions by IC	28	May-29-18 06:29	pH = 5

1805005

US EPA Region 5 Chicago Regional Laboratory

Client: Water Division, WECA Region 5 **Project Manager:** Angela Ockrassa Davis
Project: Central Sands **Project Number:** [none]

Sample ID: 1805005-26 **Sampled:** May-01-18 06:29 **Matrix:** Water

Sample Name: C5Aa **Sample Location/Comments:** CR G (Nelson Road)

Sample Comments:

Analysis	Hold time (days)	Expires	Comments
Metals ICP-AES (w)	180	Oct-28-18 06:29	pH = 2
Nitrate-Nitrite N DA, Enzymatic reduction	28	May-29-18 06:29	pH = 2
Solids, TDS	7	May-08-18 06:29	pH = 5
TKN DA	28	May-29-18 06:29	pH = 2
TOC	28	May-29-18 06:29	pH = 2
Total Phosphorus DA	28	May-29-18 06:29	pH = 2

Sample ID: 1805005-27 **Sampled:** May-01-18 06:43 **Matrix:** Water

Sample Name: C5Ab **Sample Location/Comments:** CR G (Nelson Road)

Sample Comments:

Analysis	Hold time (days)	Expires	Comments
Ammonia N DA, Distilled	28	May-29-18 06:43	pH = 2
Anions by IC	28	May-29-18 06:43	pH = 5
Metals ICP-AES (w)	180	Oct-28-18 06:43	pH = 2
Nitrate-Nitrite N DA, Enzymatic reduction	28	May-29-18 06:43	pH = 2
Solids, TDS	7	May-08-18 06:43	pH = 5
TKN DA	28	May-29-18 06:43	pH = 2
TOC	28	May-29-18 06:43	pH = 2
Total Phosphorus DA	28	May-29-18 06:43	pH = 2

Sample ID: 1805005-28 **Sampled:** May-01-18 07:06 **Matrix:** Water

Sample Name: C6a **Sample Location/Comments:** CR G (Nelson Road)

Sample Comments:

Analysis	Hold time (days)	Expires	Comments
Ammonia N DA, Distilled	28	May-29-18 07:06	pH = 2
Anions by IC	28	May-29-18 07:06	pH = 6
Metals ICP-AES (w)	180	Oct-28-18 07:06	pH = 2
Nitrate-Nitrite N DA, Enzymatic reduction	28	May-29-18 07:06	pH = 2
Solids, TDS	7	May-08-18 07:06	pH = 6
TKN DA	28	May-29-18 07:06	pH = 2
TOC	28	May-29-18 07:06	pH = 2
Total Phosphorus DA	28	May-29-18 07:06	pH = 2

1805005

US EPA Region 5 Chicago Regional Laboratory

Client: Water Division, WECA Region 5 **Project Manager:** Angela Ockrassa Davis
Project: Central Sands **Project Number:** [none]

Sample ID: 1805005-29 **Sampled:** May-01-18 07:15 **Matrix:** Water

Sample Name: C6b **Sample Location/Comments:** CR G (Nelson Road)

Sample Comments:

Analysis	Hold time (days)	Expires	Comments
Ammonia N DA, Distilled	28	May-29-18 07:15	pH = 3
Anions by IC	28	May-29-18 07:15	pH = 5
Metals ICP-AES (w)	180	Oct-28-18 07:15	pH = 2
Nitrate-Nitrite N DA, Enzymatic reduction	28	May-29-18 07:15	pH = 3
Solids, TDS	7	May-08-18 07:15	pH = 5
TKN DA	28	May-29-18 07:15	pH = 3
TOC	28	May-29-18 07:15	pH = 3
Total Phosphorus DA	28	May-29-18 07:15	pH = 3

Sample ID: 1805005-30 **Sampled:** May-01-18 07:48 **Matrix:** Water

Sample Name: C7a **Sample Location/Comments:** 4th Street

Sample Comments:

Analysis	Hold time (days)	Expires	Comments
Ammonia N DA, Distilled	28	May-29-18 07:48	pH = 2
Anions by IC	28	May-29-18 07:48	pH = 6
Metals ICP-AES (w)	180	Oct-28-18 07:48	pH = 2
Nitrate-Nitrite N DA, Enzymatic reduction	28	May-29-18 07:48	pH = 2
Solids, TDS	7	May-08-18 07:48	pH = 6
TKN DA	28	May-29-18 07:48	pH = 2
TOC	28	May-29-18 07:48	pH = 2
Total Phosphorus DA	28	May-29-18 07:48	pH = 2

Sample ID: 1805005-31 **Sampled:** May-01-18 08:02 **Matrix:** Water

Sample Name: C7b **Sample Location/Comments:** 4th Street

Sample Comments:

Analysis	Hold time (days)	Expires	Comments
Ammonia N DA, Distilled	28	May-29-18 08:02	pH = 2
Anions by IC	28	May-29-18 08:02	pH = 5
Metals ICP-AES (w)	180	Oct-28-18 08:02	pH = 2
Nitrate-Nitrite N DA, Enzymatic reduction	28	May-29-18 08:02	pH = 2
Solids, TDS	7	May-08-18 08:02	pH = 5
TKN DA	28	May-29-18 08:02	pH = 2
TOC	28	May-29-18 08:02	pH = 2

1805005

US EPA Region 5 Chicago Regional Laboratory

Client: Water Division, WECA Region 5 **Project Manager:** Angela Ockrassa Davis
Project: Central Sands **Project Number:** [none]

Sample ID: 1805005-31 **Sampled:** May-01-18 08:02 **Matrix:** Water

Sample Name: C7b **Sample Location/Comments:** 4th Street

Sample Comments:

Analysis	Hold time (days)	Expires	Comments
Total Phosphorus DA	28	May-29-18 08:02	pH = 2

Sample ID: 1805005-32 **Sampled:** May-01-18 07:39 **Matrix:** Water

Sample Name: FB2 **Sample Location/Comments:** 4th Street

Sample Comments:

Analysis	Hold time (days)	Expires	Comments
Ammonia N DA, Distilled	28	May-29-18 07:39	pH = 2
Anions by IC	28	May-29-18 07:39	pH = 4
Metals ICP-AES (w)	180	Oct-28-18 07:39	pH = 2
Nitrate-Nitrite N DA, Enzymatic reduction	28	May-29-18 07:39	pH = 2
Solids, TDS	7	May-08-18 07:39	pH = 4
TKN DA	28	May-29-18 07:39	pH = 2
TOC	28	May-29-18 07:39	pH = 2
Total Phosphorus DA	28	May-29-18 07:39	pH = 2

Sample ID: 1805005-33 **Sampled:** May-01-18 07:38 **Matrix:** Water

Sample Name: C7 equip **Sample Location/Comments:** 4th Street

Sample Comments:

Analysis	Hold time (days)	Expires	Comments
Ammonia N DA, Distilled	28	May-29-18 07:38	pH = 2
Anions by IC	28	May-29-18 07:38	pH = 4
Metals ICP-AES (w)	180	Oct-28-18 07:38	pH = 2
Nitrate-Nitrite N DA, Enzymatic reduction	28	May-29-18 07:38	pH = 2
Solids, TDS	7	May-08-18 07:38	pH = 4
TKN DA	28	May-29-18 07:38	pH = 2
TOC	28	May-29-18 07:38	pH = 2
Total Phosphorus DA	28	May-29-18 07:38	pH = 2

Sample ID: 1805005-34 **Sampled:** May-01-18 08:02 **Matrix:** Water

Sample Name: C7 Dup **Sample Location/Comments:** 4th Street

Sample Comments:

Analysis	Hold time (days)	Expires	Comments
Ammonia N DA, Distilled	28	May-29-18 08:02	pH = 2
Anions by IC	28	May-29-18 08:02	pH = 5

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US EPA Region 5 Chicago Regional Laboratory

Client: Water Division, WECA Region 5 **Project Manager:** Angela Ockrassa Davis
Project: Central Sands **Project Number:** [none]

Sample ID: 1805005-34 **Sampled:** May-01-18 08:02 **Matrix:** Water

Sample Name: C7 Dup **Sample Location/Comments:** 4th Street

Sample Comments:

Analysis	Hold time (days)	Expires	Comments
Metals ICP-AES (w)	180	Oct-28-18 08:02	pH = 2
Nitrate-Nitrite N DA, Enzymatic reduction	28	May-29-18 08:02	pH = 2
Solids, TDS	7	May-08-18 08:02	pH = 5
TKN DA	28	May-29-18 08:02	pH = 2
TOC	28	May-29-18 08:02	pH = 2
Total Phosphorus DA	28	May-29-18 08:02	pH = 2

Sample ID: 1805005-35 **Sampled:** May-01-18 08:35 **Matrix:** Water

Sample Name: C8a **Sample Location/Comments:** 4th Street

Sample Comments:

Analysis	Hold time (days)	Expires	Comments
Ammonia N DA, Distilled	28	May-29-18 08:35	pH = 2
Anions by IC	28	May-29-18 08:35	pH = 5
Metals ICP-AES (w)	180	Oct-28-18 08:35	pH = 2
Nitrate-Nitrite N DA, Enzymatic reduction	28	May-29-18 08:35	pH = 2
Solids, TDS	7	May-08-18 08:35	pH = 5
TKN DA	28	May-29-18 08:35	pH = 2
TOC	28	May-29-18 08:35	pH = 2
Total Phosphorus DA	28	May-29-18 08:35	pH = 2

Sample ID: 1805005-36 **Sampled:** May-01-18 08:42 **Matrix:** Water

Sample Name: C8b **Sample Location/Comments:** 4th Street

Sample Comments:

Analysis	Hold time (days)	Expires	Comments
Ammonia N DA, Distilled	28	May-29-18 08:42	pH = 2
Anions by IC	28	May-29-18 08:42	pH = 5
Metals ICP-AES (w)	180	Oct-28-18 08:42	pH = 2
Nitrate-Nitrite N DA, Enzymatic reduction	28	May-29-18 08:42	pH = 2
Solids, TDS	7	May-08-18 08:42	pH = 5
TKN DA	28	May-29-18 08:42	pH = 2
TOC	28	May-29-18 08:42	pH = 2
Total Phosphorus DA	28	May-29-18 08:42	pH = 2

1805005

US EPA Region 5 Chicago Regional Laboratory

Client: Water Division, WECA Region 5 **Project Manager:** Angela Ockrassa Davis
Project: Central Sands **Project Number:** [none]

Sample ID: 1805005-37 **Sampled:** May-01-18 10:00 **Matrix:** Water

Sample Name: C9a **Sample Location/Comments:** 4th Street

Sample Comments:

Analysis	Hold time (days)	Expires	Comments
Ammonia N DA, Distilled	28	May-29-18 10:00	pH = 2
Anions by IC	28	May-29-18 10:00	pH = 5
Metals ICP-AES (w)	180	Oct-28-18 10:00	pH = 2
Nitrate-Nitrite N DA, Enzymatic reduction	28	May-29-18 10:00	pH = 2
Solids, TDS	7	May-08-18 10:00	pH = 5
TKN DA	28	May-29-18 10:00	pH = 2
TOC	28	May-29-18 10:00	pH = 2
Total Phosphorus DA	28	May-29-18 10:00	pH = 2

Sample ID: 1805005-38 **Sampled:** May-01-18 10:21 **Matrix:** Water

Sample Name: C9b **Sample Location/Comments:** 4th Street

Sample Comments:

Analysis	Hold time (days)	Expires	Comments
Ammonia N DA, Distilled	28	May-29-18 10:21	pH = 2
Anions by IC	28	May-29-18 10:21	pH = 5
Metals ICP-AES (w)	180	Oct-28-18 10:21	pH = 2
Nitrate-Nitrite N DA, Enzymatic reduction	28	May-29-18 10:21	pH = 2
Solids, TDS	7	May-08-18 10:21	pH = 5
TKN DA	28	May-29-18 10:21	pH = 2
TOC	28	May-29-18 10:21	pH = 2
Total Phosphorus DA	28	May-29-18 10:21	pH = 2

Sample ID: 1805005-39 **Sampled:** May-01-18 11:05 **Matrix:** Water

Sample Name: C10a **Sample Location/Comments:** 4th Street

Sample Comments:

Analysis	Hold time (days)	Expires	Comments
Ammonia N DA, Distilled	28	May-29-18 11:05	pH = 2
Anions by IC	28	May-29-18 11:05	pH = 6
Metals ICP-AES (w)	180	Oct-28-18 11:05	pH = 2
Nitrate-Nitrite N DA, Enzymatic reduction	28	May-29-18 11:05	pH = 2
Solids, TDS	7	May-08-18 11:05	pH = 6
TKN DA	28	May-29-18 11:05	pH = 2
TOC	28	May-29-18 11:05	pH = 2

1805005

US EPA Region 5 Chicago Regional Laboratory

Client: Water Division, WECA Region 5 **Project Manager:** Angela Ockrassa Davis
Project: Central Sands **Project Number:** [none]

Sample ID: 1805005-39 **Sampled:** May-01-18 11:05 **Matrix:** Water

Sample Name: C10a **Sample Location/Comments:** 4th Street

Sample Comments:

Analysis	Hold time (days)	Expires	Comments
Total Phosphorus DA	28	May-29-18 11:05	pH = 2

Sample ID: 1805005-40 **Sampled:** May-01-18 11:12 **Matrix:** Water

Sample Name: C10b **Sample Location/Comments:** 4th Street

Sample Comments:

Analysis	Hold time (days)	Expires	Comments
Ammonia N DA, Distilled	28	May-29-18 11:12	pH = 2
Anions by IC	28	May-29-18 11:12	pH = 5
Metals ICP-AES (w)	180	Oct-28-18 11:12	pH = 2
Nitrate-Nitrite N DA, Enzymatic reduction	28	May-29-18 11:12	pH = 2
Solids, TDS	7	May-08-18 11:12	pH = 5
TKN DA	28	May-29-18 11:12	pH = 2
TOC	28	May-29-18 11:12	pH = 2
Total Phosphorus DA	28	May-29-18 11:12	pH = 2

Sample ID: 1805005-41 **Sampled:** May-01-18 11:46 **Matrix:** Water

Sample Name: C11a **Sample Location/Comments:** 20th Avenue

Sample Comments:

Analysis	Hold time (days)	Expires	Comments
Ammonia N DA, Distilled	28	May-29-18 11:46	pH = 3
Anions by IC	28	May-29-18 11:46	pH = 6
Metals ICP-AES (w)	180	Oct-28-18 11:46	pH = 2
Nitrate-Nitrite N DA, Enzymatic reduction	28	May-29-18 11:46	pH = 3
Solids, TDS	7	May-08-18 11:46	pH = 6
TKN DA	28	May-29-18 11:46	pH = 3
TOC	28	May-29-18 11:46	pH = 3
Total Phosphorus DA	28	May-29-18 11:46	pH = 3

Sample ID: 1805005-42 **Sampled:** May-01-18 11:52 **Matrix:** Water

Sample Name: C11b **Sample Location/Comments:** 20th Avenue

Sample Comments:

Analysis	Hold time (days)	Expires	Comments
Ammonia N DA, Distilled	28	May-29-18 11:52	pH = 2
Anions by IC	28	May-29-18 11:52	pH = 5

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US EPA Region 5 Chicago Regional Laboratory

Client: Water Division, WECA Region 5 **Project Manager:** Angela Ockrassa Davis
Project: Central Sands **Project Number:** [none]

Sample ID: 1805005-42 **Sampled:** May-01-18 11:52 **Matrix:** Water

Sample Name: C11b **Sample Location/Comments:** 20th Avenue

Sample Comments:

Analysis	Hold time (days)	Expires	Comments
Metals ICP-AES (w)	180	Oct-28-18 11:52	pH = 2
Nitrate-Nitrite N DA, Enzymatic reduction	28	May-29-18 11:52	pH = 2
Solids, TDS	7	May-08-18 11:52	pH = 5
TKN DA	28	May-29-18 11:52	pH = 2
TOC	28	May-29-18 11:52	pH = 2
Total Phosphorus DA	28	May-29-18 11:52	pH = 2

Sample ID: 1805005-43 **Sampled:** May-01-18 12:41 **Matrix:** Water

Sample Name: C12a **Sample Location/Comments:** 19th Avenue

Sample Comments:

Analysis	Hold time (days)	Expires	Comments
Ammonia N DA, Distilled	28	May-29-18 12:41	pH = 2
Anions by IC	28	May-29-18 12:41	pH = 7
Metals ICP-AES (w)	180	Oct-28-18 12:41	pH = 2
Nitrate-Nitrite N DA, Enzymatic reduction	28	May-29-18 12:41	pH = 2
Solids, TDS	7	May-08-18 12:41	pH = 7
TKN DA	28	May-29-18 12:41	pH = 2
TOC	28	May-29-18 12:41	pH = 2
Total Phosphorus DA	28	May-29-18 12:41	pH = 2

Sample ID: 1805005-44 **Sampled:** May-01-18 12:47 **Matrix:** Water

Sample Name: C12b **Sample Location/Comments:** 19th Avenue

Sample Comments:

Analysis	Hold time (days)	Expires	Comments
Ammonia N DA, Distilled	28	May-29-18 12:47	pH = 2
Anions by IC	28	May-29-18 12:47	pH = 7
Metals ICP-AES (w)	180	Oct-28-18 12:47	pH = 2
Nitrate-Nitrite N DA, Enzymatic reduction	28	May-29-18 12:47	pH = 2
Solids, TDS	7	May-08-18 12:47	pH = 7
TKN DA	28	May-29-18 12:47	pH = 2
TOC	28	May-29-18 12:47	pH = 2
Total Phosphorus DA	28	May-29-18 12:47	pH = 2

1805005

US EPA Region 5 Chicago Regional Laboratory

Client: Water Division, WECA Region 5 **Project Manager:** Angela Ockrassa Davis
Project: Central Sands **Project Number:** [none]

Sample ID: 1805005-45 **Sampled:** May-01-18 13:30 **Matrix:** Water

Sample Name: C13a **Sample Location/Comments:** 4th Street

Sample Comments:

Analysis	Hold time (days)	Expires	Comments
Ammonia N DA, Distilled	28	May-29-18 13:30	pH = 3
Anions by IC	28	May-29-18 13:30	pH = 6
Metals ICP-AES (w)	180	Oct-28-18 13:30	pH = 2
Nitrate-Nitrite N DA, Enzymatic reduction	28	May-29-18 13:30	pH = 3
Solids, TDS	7	May-08-18 13:30	pH = 6
TKN DA	28	May-29-18 13:30	pH = 3
TOC	28	May-29-18 13:30	pH = 3
Total Phosphorus DA	28	May-29-18 13:30	pH = 3

Sample ID: 1805005-46 **Sampled:** May-01-18 13:39 **Matrix:** Water

Sample Name: C13b **Sample Location/Comments:** 4th Street

Sample Comments:

Analysis	Hold time (days)	Expires	Comments
Ammonia N DA, Distilled	28	May-29-18 13:39	pH = 2
Anions by IC	28	May-29-18 13:39	pH = 5
Metals ICP-AES (w)	180	Oct-28-18 13:39	pH = 2
Nitrate-Nitrite N DA, Enzymatic reduction	28	May-29-18 13:39	pH = 2
Solids, TDS	7	May-08-18 13:39	pH = 5
TKN DA	28	May-29-18 13:39	pH = 2
TOC	28	May-29-18 13:39	pH = 2
Total Phosphorus DA	28	May-29-18 13:39	pH = 2

Sample ID: 1805005-47 **Sampled:** May-01-18 14:19 **Matrix:** Water

Sample Name: D1a **Sample Location/Comments:** 5th Street

Sample Comments:

Analysis	Hold time (days)	Expires	Comments
Ammonia N DA, Distilled	28	May-29-18 14:19	pH = 2
Anions by IC	28	May-29-18 14:19	pH = 6
Metals ICP-AES (w)	180	Oct-28-18 14:19	pH = 2
Nitrate-Nitrite N DA, Enzymatic reduction	28	May-29-18 14:19	pH = 2
Solids, TDS	7	May-08-18 14:19	pH = 6
TKN DA	28	May-29-18 14:19	pH = 2
TOC	28	May-29-18 14:19	pH = 2

1805005

US EPA Region 5 Chicago Regional Laboratory

Client: Water Division, WECA Region 5 **Project Manager:** Angela Ockrassa Davis
Project: Central Sands **Project Number:** [none]

Sample ID: 1805005-47 **Sampled:** May-01-18 14:19 **Matrix:** Water

Sample Name: D1a **Sample Location/Comments:** 5th Street

Sample Comments:

Analysis	Hold time (days)	Expires	Comments
Total Phosphorus DA	28	May-29-18 14:19	pH = 2

Sample ID: 1805005-48 **Sampled:** May-01-18 14:26 **Matrix:** Water

Sample Name: D1b **Sample Location/Comments:** 5th Street

Sample Comments:

Analysis	Hold time (days)	Expires	Comments
Ammonia N DA, Distilled	28	May-29-18 14:26	pH = 3
Anions by IC	28	May-29-18 14:26	pH = 5
Metals ICP-AES (w)	180	Oct-28-18 14:26	pH = 3
Nitrate-Nitrite N DA, Enzymatic reduction	28	May-29-18 14:26	pH = 3
Solids, TDS	7	May-08-18 14:26	pH = 5
TKN DA	28	May-29-18 14:26	pH = 3
TOC	28	May-29-18 14:26	pH = 3
Total Phosphorus DA	28	May-29-18 14:26	pH = 3

Sample ID: 1805005-49 **Sampled:** May-01-18 15:00 **Matrix:** Water

Sample Name: D2a **Sample Location/Comments:** 5th Street

Sample Comments:

Analysis	Hold time (days)	Expires	Comments
Ammonia N DA, Distilled	28	May-29-18 15:00	pH = 3
Anions by IC	28	May-29-18 15:00	pH = 6
Metals ICP-AES (w)	180	Oct-28-18 15:00	pH = 2
Nitrate-Nitrite N DA, Enzymatic reduction	28	May-29-18 15:00	pH = 3
Solids, TDS	7	May-08-18 15:00	pH = 6
TKN DA	28	May-29-18 15:00	pH = 3
TOC	28	May-29-18 15:00	pH = 3
Total Phosphorus DA	28	May-29-18 15:00	pH = 3

Sample ID: 1805005-50 **Sampled:** May-01-18 15:06 **Matrix:** Water

Sample Name: D2b **Sample Location/Comments:** 5th Street

Sample Comments:

Analysis	Hold time (days)	Expires	Comments
Ammonia N DA, Distilled	28	May-29-18 15:06	pH = 2
Anions by IC	28	May-29-18 15:06	pH = 6

1805005

US EPA Region 5 Chicago Regional Laboratory

Client: Water Division, WECA Region 5 **Project Manager:** Angela Ockrassa Davis
Project: Central Sands **Project Number:** [none]

Sample ID: 1805005-50 **Sampled:** May-01-18 15:06 **Matrix:** Water

Sample Name: D2b **Sample Location/Comments:** 5th Street

Sample Comments:

Analysis	Hold time (days)	Expires	Comments
Metals ICP-AES (w)	180	Oct-28-18 15:06	pH = 2
Nitrate-Nitrite N DA, Enzymatic reduction	28	May-29-18 15:06	pH = 2
Solids, TDS	7	May-08-18 15:06	pH = 6
TKN DA	28	May-29-18 15:06	pH = 2
TOC	28	May-29-18 15:06	pH = 2
Total Phosphorus DA	28	May-29-18 15:06	pH = 2

Sample ID: 1805005-51 **Sampled:** May-01-18 15:41 **Matrix:** Water

Sample Name: D3a **Sample Location/Comments:** 5th Street

Sample Comments:

Analysis	Hold time (days)	Expires	Comments
Ammonia N DA, Distilled	28	May-29-18 15:41	pH = 2
Anions by IC	28	May-29-18 15:41	pH = 6
Metals ICP-AES (w)	180	Oct-28-18 15:41	pH = 2
Nitrate-Nitrite N DA, Enzymatic reduction	28	May-29-18 15:41	pH = 2
Solids, TDS	7	May-08-18 15:41	pH = 6
TKN DA	28	May-29-18 15:41	pH = 2
TOC	28	May-29-18 15:41	pH = 2
Total Phosphorus DA	28	May-29-18 15:41	pH = 2

Sample ID: 1805005-52 **Sampled:** May-01-18 15:48 **Matrix:** Water

Sample Name: D3b **Sample Location/Comments:** 5th Street

Sample Comments:

Analysis	Hold time (days)	Expires	Comments
Ammonia N DA, Distilled	28	May-29-18 15:48	pH = 2
Anions by IC	28	May-29-18 15:48	pH = 5
Metals ICP-AES (w)	180	Oct-28-18 15:48	pH = 2
Nitrate-Nitrite N DA, Enzymatic reduction	28	May-29-18 15:48	pH = 2
Solids, TDS	7	May-08-18 15:48	pH = 5
TKN DA	28	May-29-18 15:48	pH = 2
TOC	28	May-29-18 15:48	pH = 2
Total Phosphorus DA	28	May-29-18 15:48	pH = 2

1805005

US EPA Region 5 Chicago Regional Laboratory

Client: Water Division, WECA Region 5 **Project Manager:** Angela Ockrassa Davis
Project: Central Sands **Project Number:** [none]

Sample ID: 1805005-53 **Sampled:** May-01-18 16:19 **Matrix:** Water

Sample Name: D4a **Sample Location/Comments:** 5th Street

Sample Comments:

Analysis	Hold time (days)	Expires	Comments
Ammonia N DA, Distilled	28	May-29-18 16:19	pH = 2
Anions by IC	28	May-29-18 16:19	pH = 6
Metals ICP-AES (w)	180	Oct-28-18 16:19	pH = 2
Nitrate-Nitrite N DA, Enzymatic reduction	28	May-29-18 16:19	pH = 2
Solids, TDS	7	May-08-18 16:19	pH = 6
TKN DA	28	May-29-18 16:19	pH = 2
TOC	28	May-29-18 16:19	pH = 2
Total Phosphorus DA	28	May-29-18 16:19	pH = 2

Sample ID: 1805005-54 **Sampled:** May-01-18 16:26 **Matrix:** Water

Sample Name: D4b **Sample Location/Comments:** 5th Street

Sample Comments:

Analysis	Hold time (days)	Expires	Comments
Ammonia N DA, Distilled	28	May-29-18 16:26	pH = 2
Anions by IC	28	May-29-18 16:26	pH = 5
Metals ICP-AES (w)	180	Oct-28-18 16:26	pH = 3
Nitrate-Nitrite N DA, Enzymatic reduction	28	May-29-18 16:26	pH = 2
Solids, TDS	7	May-08-18 16:26	pH = 5
TKN DA	28	May-29-18 16:26	pH = 2
TOC	28	May-29-18 16:26	pH = 2
Total Phosphorus DA	28	May-29-18 16:26	pH = 2

WORK ORDER MEMO: NCR 14118

PROJECT COMMENTS: Anions: Chloride, fluoride, bromide, sullfate.
Full List metals

REVIEWED
By Amanda Wroble at 3:35 pm, May 03, 2018

Reviewed By Date

Environmental Protection Agency Region 5
Chicago Regional Laboratory
536 South Clark Street, Chicago, IL 60605
Phone:(312)353-8370 Fax:(312)886-2591

WORK ORDER **Printed: 5/7/2018 9:53:28AM**

1805007

US EPA Region 5 Chicago Regional Laboratory

Client: **Water Division, WECA Region 5** **Project Manager:** **Angela Ockrassa Davis**
Project: **Central Sands** **Project Number:** **CB022018**

Report To:
Cheryl Burdett
Water Division, WECA Region 5
77 West Jackson Boulevard
Chicago, IL 60604
Phone: (312) 886-1463
Fax: (312) 886-2001

Date Due: Jun-04-18 15:00 (30 day TAT)
Received By: Robert Snyder Date Received: May-04-18 10:00
Logged In By: Robert Snyder Date Logged In: May-07-18 07:38

Samples Received at:

Sample tags/labels	Yes
Seals Intact	Yes
Received on ice	Yes
Paperwork Included	Yes

Work Order Comments:
Copy/Relog from 1805005. Anions: Chloride and nitrate as NO3
Full List metals
pH paper used in SC 16H2601

Sample ID: **1805007-01** **Sampled:** **May-02-18 06:38** **Matrix:** **Water**
Sample Name: **D5a** **Sample Location/Comments:** **5th Street**
Sample Comments:

Analysis	Hold time (days)	Expires	Comments
Ammonia N DA, Distilled	28	May-30-18 06:38	pH = 1
Anions by IC	28	May-30-18 06:38	pH = 6
Metals ICP-AES (w)	180	Oct-29-18 06:38	pH = 1
Nitrate-Nitrite N DA, Enzymatic reduction	28	May-30-18 06:38	pH = 1
Solids, TDS	7	May-09-18 06:38	pH = 6
TKN DA	28	May-30-18 06:38	pH = 1
TOC	28	May-30-18 06:38	pH = 1
Total Phosphorus DA	28	May-30-18 06:38	pH = 1

Sample ID: **1805007-02** **Sampled:** **May-02-18 06:46** **Matrix:** **Water**
Sample Name: **D5b** **Sample Location/Comments:** **5th Street**
Sample Comments:

Analysis	Hold time (days)	Expires	Comments
Ammonia N DA, Distilled	28	May-30-18 06:46	pH = 1
Anions by IC	28	May-30-18 06:46	pH = 5
Metals ICP-AES (w)	180	Oct-29-18 06:46	pH = 1
Nitrate-Nitrite N DA, Enzymatic reduction	28	May-30-18 06:46	pH = 1

1805007

US EPA Region 5 Chicago Regional Laboratory

Client: Water Division, WECA Region 5
Project: Central Sands
Project Manager: Angela Ockrassa Davis
Project Number: CB022018

Sample ID: 1805007-02 **Sampled:** May-02-18 06:46 **Matrix:** Water

Sample Name: D5b **Sample Location/Comments:** 5th Street

Sample Comments:

Analysis	Hold time (days)	Expires	Comments
Solids, TDS	7	May-09-18 06:46	pH = 5
TKN DA	28	May-30-18 06:46	pH = 1
TOC	28	May-30-18 06:46	pH = 1
Total Phosphorus DA	28	May-30-18 06:46	pH = 1

Sample ID: 1805007-03 **Sampled:** May-02-18 07:17 **Matrix:** Water

Sample Name: D6a **Sample Location/Comments:** 5th Street

Sample Comments:

Analysis	Hold time (days)	Expires	Comments
Ammonia N DA, Distilled	28	May-30-18 07:17	pH = 1
Anions by IC	28	May-30-18 07:17	pH = 6
Metals ICP-AES (w)	180	Oct-29-18 07:17	pH = 1
Nitrate-Nitrite N DA, Enzymatic reduction	28	May-30-18 07:17	pH = 1
Solids, TDS	7	May-09-18 07:17	pH = 6
TKN DA	28	May-30-18 07:17	pH = 1
TOC	28	May-30-18 07:17	pH = 1
Total Phosphorus DA	28	May-30-18 07:17	pH = 1

Sample ID: 1805007-04 **Sampled:** May-02-18 07:29 **Matrix:** Water

Sample Name: D6b **Sample Location/Comments:** 5th Street

Sample Comments:

Analysis	Hold time (days)	Expires	Comments
Ammonia N DA, Distilled	28	May-30-18 07:29	pH = 1
Anions by IC	28	May-30-18 07:29	pH = 6
Metals ICP-AES (w)	180	Oct-29-18 07:29	pH = 1
Nitrate-Nitrite N DA, Enzymatic reduction	28	May-30-18 07:29	pH = 1
Solids, TDS	7	May-09-18 07:29	pH = 6
TKN DA	28	May-30-18 07:29	pH = 1
TOC	28	May-30-18 07:29	pH = 1
Total Phosphorus DA	28	May-30-18 07:29	pH = 1

1805007

US EPA Region 5 Chicago Regional Laboratory

Client: Water Division, WECA Region 5
Project: Central Sands
Project Manager: Angela Ockrassa Davis
Project Number: CB022018

Sample ID: 1805007-05 **Sampled:** May-02-18 08:01 **Matrix:** Water

Sample Name: D7 equip **Sample Location/Comments:** 23rd Avenue

Sample Comments:

Analysis	Hold time (days)	Expires	Comments
Ammonia N DA, Distilled	28	May-30-18 08:01	pH = 1
Anions by IC	28	May-30-18 08:01	pH = 5
Metals ICP-AES (w)	180	Oct-29-18 08:01	pH = 1
Nitrate-Nitrite N DA, Enzymatic reduction	28	May-30-18 08:01	pH = 1
Solids, TDS	7	May-09-18 08:01	pH = 5
TKN DA	28	May-30-18 08:01	pH = 1
TOC	28	May-30-18 08:01	pH = 1
Total Phosphorus DA	28	May-30-18 08:01	pH = 1

Sample ID: 1805007-06 **Sampled:** May-02-18 08:03 **Matrix:** Water

Sample Name: FB3 **Sample Location/Comments:** 23rd Avenue

Sample Comments:

Analysis	Hold time (days)	Expires	Comments
Ammonia N DA, Distilled	28	May-30-18 08:03	pH = 1
Anions by IC	28	May-30-18 08:03	pH = 4
Metals ICP-AES (w)	180	Oct-29-18 08:03	pH = 1
Nitrate-Nitrite N DA, Enzymatic reduction	28	May-30-18 08:03	pH = 1
Solids, TDS	7	May-09-18 08:03	pH = 4
TKN DA	28	May-30-18 08:03	pH = 1
TOC	28	May-30-18 08:03	pH = 1
Total Phosphorus DA	28	May-30-18 08:03	pH = 1

Sample ID: 1805007-07 **Sampled:** May-02-18 08:12 **Matrix:** Water

Sample Name: D7a Dup **Sample Location/Comments:** 23rd Avenue

Sample Comments:

Analysis	Hold time (days)	Expires	Comments
Ammonia N DA, Distilled	28	May-30-18 08:12	pH = 1
Anions by IC	28	May-30-18 08:12	pH = 6
Metals ICP-AES (w)	180	Oct-29-18 08:12	pH = 1
Nitrate-Nitrite N DA, Enzymatic reduction	28	May-30-18 08:12	pH = 1
Solids, TDS	7	May-09-18 08:12	pH = 6
TKN DA	28	May-30-18 08:12	pH = 1
TOC	28	May-30-18 08:12	pH = 1

1805007

US EPA Region 5 Chicago Regional Laboratory

Client: Water Division, WECA Region 5
Project: Central Sands
Project Manager: Angela Ockrassa Davis
Project Number: CB022018

Sample ID: 1805007-07 **Sampled:** May-02-18 08:12 **Matrix:** Water

Sample Name: D7a Dup **Sample Location/Comments:** 23rd Avenue

Sample Comments:

Analysis	Hold time (days)	Expires	Comments
Total Phosphorus DA	28	May-30-18 08:12	pH = 1

Sample ID: 1805007-08 **Sampled:** May-02-18 08:12 **Matrix:** Water *QC Source Sample MS/MSD*

Sample Name: D7a **Sample Location/Comments:** 23rd Avenue

Sample Comments: MS/MSD

Analysis	Hold time (days)	Expires	Comments
Ammonia N DA, Distilled	28	May-30-18 08:12	pH = 1
Anions by IC	28	May-30-18 08:12	pH = 6
Metals ICP-AES (w)	180	Oct-29-18 08:12	pH = 1
Nitrate-Nitrite N DA, Enzymatic reduction	28	May-30-18 08:12	pH = 1
Solids, TDS	7	May-09-18 08:12	pH = 6
TKN DA	28	May-30-18 08:12	pH = 1
TOC	28	May-30-18 08:12	pH = 1
Total Phosphorus DA	28	May-30-18 08:12	pH = 1

Sample ID: 1805007-09 **Sampled:** May-02-18 08:19 **Matrix:** Water

Sample Name: D7b **Sample Location/Comments:** 23rd Avenue

Sample Comments:

Analysis	Hold time (days)	Expires	Comments
Ammonia N DA, Distilled	28	May-30-18 08:19	pH = 1
Anions by IC	28	May-30-18 08:19	pH = 5
Metals ICP-AES (w)	180	Oct-29-18 08:19	pH = 1
Nitrate-Nitrite N DA, Enzymatic reduction	28	May-30-18 08:19	pH = 1
Solids, TDS	7	May-09-18 08:19	pH = 5
TKN DA	28	May-30-18 08:19	pH = 1
TOC	28	May-30-18 08:19	pH = 1
Total Phosphorus DA	28	May-30-18 08:19	pH = 1

Sample ID: 1805007-10 **Sampled:** May-02-18 08:55 **Matrix:** Water

Sample Name: D8a **Sample Location/Comments:** 23rd Avenue

Sample Comments:

Analysis	Hold time (days)	Expires	Comments
Ammonia N DA, Distilled	28	May-30-18 08:55	pH = 1
Anions by IC	28	May-30-18 08:55	pH = 6

1805007

US EPA Region 5 Chicago Regional Laboratory

Client: Water Division, WECA Region 5
Project: Central Sands
Project Manager: Angela Ockrassa Davis
Project Number: CB022018

Sample ID: 1805007-10 **Sampled:** May-02-18 08:55 **Matrix:** Water

Sample Name: D8a **Sample Location/Comments:** 23rd Avenue

Sample Comments:

Analysis	Hold time (days)	Expires	Comments
Metals ICP-AES (w)	180	Oct-29-18 08:55	pH = 1
Nitrate-Nitrite N DA, Enzymatic reduction	28	May-30-18 08:55	pH = 1
Solids, TDS	7	May-09-18 08:55	pH = 6
TKN DA	28	May-30-18 08:55	pH = 1
TOC	28	May-30-18 08:55	pH = 1
Total Phosphorus DA	28	May-30-18 08:55	pH = 1

Sample ID: 1805007-11 **Sampled:** May-02-18 09:11 **Matrix:** Water

Sample Name: D8b **Sample Location/Comments:** 23rd Avenue

Sample Comments:

Analysis	Hold time (days)	Expires	Comments
Ammonia N DA, Distilled	28	May-30-18 09:11	pH = 1
Anions by IC	28	May-30-18 09:11	pH = 6
Metals ICP-AES (w)	180	Oct-29-18 09:11	pH = 1
Nitrate-Nitrite N DA, Enzymatic reduction	28	May-30-18 09:11	pH = 1
Solids, TDS	7	May-09-18 09:11	pH = 6
TKN DA	28	May-30-18 09:11	pH = 1
TOC	28	May-30-18 09:11	pH = 1
Total Phosphorus DA	28	May-30-18 09:11	pH = 1

Sample ID: 1805007-12 **Sampled:** May-02-18 09:45 **Matrix:** Water

Sample Name: D9a **Sample Location/Comments:** 23rd Avenue

Sample Comments:

Analysis	Hold time (days)	Expires	Comments
Ammonia N DA, Distilled	28	May-30-18 09:45	pH = 1
Anions by IC	28	May-30-18 09:45	pH = 6
Metals ICP-AES (w)	180	Oct-29-18 09:45	pH = 1
Nitrate-Nitrite N DA, Enzymatic reduction	28	May-30-18 09:45	pH = 1
Solids, TDS	7	May-09-18 09:45	pH = 6
TKN DA	28	May-30-18 09:45	pH = 1
TOC	28	May-30-18 09:45	pH = 1
Total Phosphorus DA	28	May-30-18 09:45	pH = 1

1805007

US EPA Region 5 Chicago Regional Laboratory

Client: Water Division, WECA Region 5
Project: Central Sands
Project Manager: Angela Ockrassa Davis
Project Number: CB022018

Sample ID: 1805007-13 **Sampled:** May-02-18 09:54 **Matrix:** Water

Sample Name: D9b **Sample Location/Comments:** 23rd Avenue

Sample Comments:

Analysis	Hold time (days)	Expires	Comments
Ammonia N DA, Distilled	28	May-30-18 09:54	pH = 1
Anions by IC	28	May-30-18 09:54	pH = 6
Metals ICP-AES (w)	180	Oct-29-18 09:54	pH = 1
Nitrate-Nitrite N DA, Enzymatic reduction	28	May-30-18 09:54	pH = 1
Solids, TDS	7	May-09-18 09:54	pH = 6
TKN DA	28	May-30-18 09:54	pH = 1
TOC	28	May-30-18 09:54	pH = 1
Total Phosphorus DA	28	May-30-18 09:54	pH = 1

Sample ID: 1805007-14 **Sampled:** May-02-18 10:29 **Matrix:** Water

Sample Name: D10a **Sample Location/Comments:** 23rd Avenue

Sample Comments:

Analysis	Hold time (days)	Expires	Comments
Ammonia N DA, Distilled	28	May-30-18 10:29	pH = 1
Anions by IC	28	May-30-18 10:29	pH = 6
Metals ICP-AES (w)	180	Oct-29-18 10:29	pH = 1
Nitrate-Nitrite N DA, Enzymatic reduction	28	May-30-18 10:29	pH = 1
Solids, TDS	7	May-09-18 10:29	pH = 6
TKN DA	28	May-30-18 10:29	pH = 1
TOC	28	May-30-18 10:29	pH = 1
Total Phosphorus DA	28	May-30-18 10:29	pH = 1

Sample ID: 1805007-15 **Sampled:** May-02-18 10:29 **Matrix:** Water

Sample Name: D10a Dup **Sample Location/Comments:** 23rd Avenue

Sample Comments:

Analysis	Hold time (days)	Expires	Comments
Ammonia N DA, Distilled	28	May-30-18 10:29	pH = 1
Anions by IC	28	May-30-18 10:29	pH = 6
Metals ICP-AES (w)	180	Oct-29-18 10:29	pH = 1
Nitrate-Nitrite N DA, Enzymatic reduction	28	May-30-18 10:29	pH = 1
Solids, TDS	7	May-09-18 10:29	pH = 6
TKN DA	28	May-30-18 10:29	pH = 1
TOC	28	May-30-18 10:29	pH = 1

1805007

US EPA Region 5 Chicago Regional Laboratory

Client: Water Division, WECA Region 5
Project: Central Sands
Project Manager: Angela Ockrassa Davis
Project Number: CB022018

Sample ID: 1805007-15 **Sampled:** May-02-18 10:29 **Matrix:** Water

Sample Name: D10a Dup **Sample Location/Comments:** 23rd Avenue

Sample Comments:

Analysis	Hold time (days)	Expires	Comments
Total Phosphorus DA	28	May-30-18 10:29	pH = 1

Sample ID: 1805007-16 **Sampled:** May-02-18 10:41 **Matrix:** Water

Sample Name: D10b **Sample Location/Comments:** 23rd Avenue

Sample Comments:

Analysis	Hold time (days)	Expires	Comments
Ammonia N DA, Distilled	28	May-30-18 10:41	pH = 1
Anions by IC	28	May-30-18 10:41	pH = 5
Metals ICP-AES (w)	180	Oct-29-18 10:41	pH = 1
Nitrate-Nitrite N DA, Enzymatic reduction	28	May-30-18 10:41	pH = 1
Solids, TDS	7	May-09-18 10:41	pH = 5
TKN DA	28	May-30-18 10:41	pH = 1
TOC	28	May-30-18 10:41	pH = 1
Total Phosphorus DA	28	May-30-18 10:41	pH = 1

Sample ID: 1805007-17 **Sampled:** May-02-18 10:41 **Matrix:** Water

Sample Name: D10b Dup **Sample Location/Comments:** 23rd Avenue

Sample Comments:

Analysis	Hold time (days)	Expires	Comments
Ammonia N DA, Distilled	28	May-30-18 10:41	pH = 1
Anions by IC	28	May-30-18 10:41	pH = 5
Metals ICP-AES (w)	180	Oct-29-18 10:41	pH = 1
Nitrate-Nitrite N DA, Enzymatic reduction	28	May-30-18 10:41	pH = 1
Solids, TDS	7	May-09-18 10:41	pH = 5
TKN DA	28	May-30-18 10:41	pH = 1
TOC	28	May-30-18 10:41	pH = 1
Total Phosphorus DA	28	May-30-18 10:41	pH = 1

Sample ID: 1805007-18 **Sampled:** May-02-18 11:19 **Matrix:** Water

Sample Name: D11a **Sample Location/Comments:** 23rd Avenue

Sample Comments:

Analysis	Hold time (days)	Expires	Comments
Ammonia N DA, Distilled	28	May-30-18 11:19	pH = 1
Anions by IC	28	May-30-18 11:19	pH = 6

1805007

US EPA Region 5 Chicago Regional Laboratory

Client: Water Division, WECA Region 5
Project: Central Sands
Project Manager: Angela Ockrassa Davis
Project Number: CB022018

Sample ID: 1805007-18 **Sampled:** May-02-18 11:19 **Matrix:** Water

Sample Name: D11a **Sample Location/Comments:** 23rd Avenue

Sample Comments:

Analysis	Hold time (days)	Expires	Comments
Metals ICP-AES (w)	180	Oct-29-18 11:19	pH = 1
Nitrate-Nitrite N DA, Enzymatic reduction	28	May-30-18 11:19	pH = 1
Solids, TDS	7	May-09-18 11:19	pH = 6
TKN DA	28	May-30-18 11:19	pH = 1
TOC	28	May-30-18 11:19	pH = 1
Total Phosphorus DA	28	May-30-18 11:19	pH = 1

Sample ID: 1805007-19 **Sampled:** May-02-18 11:42 **Matrix:** Water

Sample Name: D11b **Sample Location/Comments:** 23rd Avenue

Sample Comments:

Analysis	Hold time (days)	Expires	Comments
Ammonia N DA, Distilled	28	May-30-18 11:42	pH = 1
Anions by IC	28	May-30-18 11:42	pH = 5
Metals ICP-AES (w)	180	Oct-29-18 11:42	pH = 1
Nitrate-Nitrite N DA, Enzymatic reduction	28	May-30-18 11:42	pH = 1
Solids, TDS	7	May-09-18 11:42	pH = 5
TKN DA	28	May-30-18 11:42	pH = 1
TOC	28	May-30-18 11:42	pH = 1
Total Phosphorus DA	28	May-30-18 11:42	pH = 1

Sample ID: 1805007-20 **Sampled:** May-02-18 12:41 **Matrix:** Water

Sample Name: E1a **Sample Location/Comments:** 23rd Avenue

Sample Comments:

Analysis	Hold time (days)	Expires	Comments
Ammonia N DA, Distilled	28	May-30-18 12:41	pH = 1
Anions by IC	28	May-30-18 12:41	pH = 6
Metals ICP-AES (w)	180	Oct-29-18 12:41	pH = 1
Nitrate-Nitrite N DA, Enzymatic reduction	28	May-30-18 12:41	pH = 1
Solids, TDS	7	May-09-18 12:41	pH = 6
TKN DA	28	May-30-18 12:41	pH = 1
TOC	28	May-30-18 12:41	pH = 1
Total Phosphorus DA	28	May-30-18 12:41	pH = 1

1805007

US EPA Region 5 Chicago Regional Laboratory

Client: Water Division, WECA Region 5
Project: Central Sands
Project Manager: Angela Ockrassa Davis
Project Number: CB022018

Sample ID: 1805007-21 **Sampled:** May-02-18 12:58 **Matrix:** Water

Sample Name: E1b **Sample Location/Comments:** 23rd Avenue

Sample Comments:

Analysis	Hold time (days)	Expires	Comments
Ammonia N DA, Distilled	28	May-30-18 12:58	pH = 1
Anions by IC	28	May-30-18 12:58	pH = 6
Metals ICP-AES (w)	180	Oct-29-18 12:58	pH = 1
Nitrate-Nitrite N DA, Enzymatic reduction	28	May-30-18 12:58	pH = 1
Solids, TDS	7	May-09-18 12:58	pH = 6
TKN DA	28	May-30-18 12:58	pH = 1
TOC	28	May-30-18 12:58	pH = 1
Total Phosphorus DA	28	May-30-18 12:58	pH = 1

Sample ID: 1805007-22 **Sampled:** May-02-18 13:28 **Matrix:** Water

Sample Name: E2a **Sample Location/Comments:** Porter Road

Sample Comments:

Analysis	Hold time (days)	Expires	Comments
Ammonia N DA, Distilled	28	May-30-18 13:28	pH = 1
Anions by IC	28	May-30-18 13:28	pH = 6
Metals ICP-AES (w)	180	Oct-29-18 13:28	pH = 1
Nitrate-Nitrite N DA, Enzymatic reduction	28	May-30-18 13:28	pH = 1
Solids, TDS	7	May-09-18 13:28	pH = 6
TKN DA	28	May-30-18 13:28	pH = 1
TOC	28	May-30-18 13:28	pH = 1
Total Phosphorus DA	28	May-30-18 13:28	pH = 1

Sample ID: 1805007-23 **Sampled:** May-02-18 13:37 **Matrix:** Water

Sample Name: E2b **Sample Location/Comments:** Porter Road

Sample Comments:

Analysis	Hold time (days)	Expires	Comments
Ammonia N DA, Distilled	28	May-30-18 13:37	pH = 1
Anions by IC	28	May-30-18 13:37	pH = 5
Metals ICP-AES (w)	180	Oct-29-18 13:37	pH = 1
Nitrate-Nitrite N DA, Enzymatic reduction	28	May-30-18 13:37	pH = 1
Solids, TDS	7	May-09-18 13:37	pH = 5
TKN DA	28	May-30-18 13:37	pH = 1
TOC	28	May-30-18 13:37	pH = 1

1805007

US EPA Region 5 Chicago Regional Laboratory

Client: Water Division, WECA Region 5
Project: Central Sands
Project Manager: Angela Ockrassa Davis
Project Number: CB022018

Sample ID: 1805007-23 **Sampled:** May-02-18 13:37 **Matrix:** Water

Sample Name: E2b **Sample Location/Comments:** Porter Road

Sample Comments:

Analysis	Hold time (days)	Expires	Comments
Total Phosphorus DA	28	May-30-18 13:37	pH = 1

Sample ID: 1805007-24 **Sampled:** May-02-18 13:28 **Matrix:** Water

Sample Name: E2a Dup **Sample Location/Comments:** Porter Road

Sample Comments:

Analysis	Hold time (days)	Expires	Comments
Ammonia N DA, Distilled	28	May-30-18 13:28	pH = 1
Anions by IC	28	May-30-18 13:28	pH = 6
Metals ICP-AES (w)	180	Oct-29-18 13:28	pH = 1
Nitrate-Nitrite N DA, Enzymatic reduction	28	May-30-18 13:28	pH = 1
Solids, TDS	7	May-09-18 13:28	pH = 6
TKN DA	28	May-30-18 13:28	pH = 1
TOC	28	May-30-18 13:28	pH = 1
Total Phosphorus DA	28	May-30-18 13:28	pH = 1

Sample ID: 1805007-25 **Sampled:** May-02-18 13:37 **Matrix:** Water

Sample Name: E2b Dup **Sample Location/Comments:** Porter Road

Sample Comments:

Analysis	Hold time (days)	Expires	Comments
Ammonia N DA, Distilled	28	May-30-18 13:37	pH = 1
Anions by IC	28	May-30-18 13:37	pH = 5
Metals ICP-AES (w)	180	Oct-29-18 13:37	pH = 1
Nitrate-Nitrite N DA, Enzymatic reduction	28	May-30-18 13:37	pH = 1
Solids, TDS	7	May-09-18 13:37	pH = 5
TKN DA	28	May-30-18 13:37	pH = 1
TOC	28	May-30-18 13:37	pH = 1
Total Phosphorus DA	28	May-30-18 13:37	pH = 1

Sample ID: 1805007-26 **Sampled:** May-02-18 14:03 **Matrix:** Water

Sample Name: E3a **Sample Location/Comments:** 7th Street

Sample Comments:

Analysis	Hold time (days)	Expires	Comments
Ammonia N DA, Distilled	28	May-30-18 14:03	pH = 1
Anions by IC	28	May-30-18 14:03	pH = 6

1805007

US EPA Region 5 Chicago Regional Laboratory

Client: Water Division, WECA Region 5
Project: Central Sands
Project Manager: Angela Ockrassa Davis
Project Number: CB022018

Sample ID: 1805007-26 **Sampled:** May-02-18 14:03 **Matrix:** Water

Sample Name: E3a **Sample Location/Comments:** 7th Street

Sample Comments:

Analysis	Hold time (days)	Expires	Comments
Metals ICP-AES (w)	180	Oct-29-18 14:03	pH = 1
Nitrate-Nitrite N DA, Enzymatic reduction	28	May-30-18 14:03	pH = 1
Solids, TDS	7	May-09-18 14:03	pH = 6
TKN DA	28	May-30-18 14:03	pH = 1
TOC	28	May-30-18 14:03	pH = 1
Total Phosphorus DA	28	May-30-18 14:03	pH = 1

Sample ID: 1805007-27 **Sampled:** May-02-18 14:09 **Matrix:** Water

Sample Name: E3b **Sample Location/Comments:** 7th Street

Sample Comments:

Analysis	Hold time (days)	Expires	Comments
Ammonia N DA, Distilled	28	May-30-18 14:09	pH = 1
Anions by IC	28	May-30-18 14:09	pH = 6
Metals ICP-AES (w)	180	Oct-29-18 14:09	pH = 1
Nitrate-Nitrite N DA, Enzymatic reduction	28	May-30-18 14:09	pH = 1
Solids, TDS	7	May-09-18 14:09	pH = 6
TKN DA	28	May-30-18 14:09	pH = 1
TOC	28	May-30-18 14:09	pH = 1
Total Phosphorus DA	28	May-30-18 14:09	pH = 1

Sample ID: 1805007-28 **Sampled:** May-02-18 14:37 **Matrix:** Water

Sample Name: E4a **Sample Location/Comments:** 7th Street

Sample Comments:

Analysis	Hold time (days)	Expires	Comments
Ammonia N DA, Distilled	28	May-30-18 14:37	pH = 1
Anions by IC	28	May-30-18 14:37	pH = 6
Metals ICP-AES (w)	180	Oct-29-18 14:37	pH = 1
Nitrate-Nitrite N DA, Enzymatic reduction	28	May-30-18 14:37	pH = 1
Solids, TDS	7	May-09-18 14:37	pH = 6
TKN DA	28	May-30-18 14:37	pH = 1
TOC	28	May-30-18 14:37	pH = 1
Total Phosphorus DA	28	May-30-18 14:37	pH = 1

1805007

US EPA Region 5 Chicago Regional Laboratory

Client: Water Division, WECA Region 5
Project: Central Sands
Project Manager: Angela Ockrassa Davis
Project Number: CB022018

Sample ID: 1805007-29 **Sampled:** May-02-18 14:43 **Matrix:** Water

Sample Name: E4b **Sample Location/Comments:** 7th Street

Sample Comments:

Analysis	Hold time (days)	Expires	Comments
Ammonia N DA, Distilled	28	May-30-18 14:43	pH = 1
Anions by IC	28	May-30-18 14:43	pH = 6
Metals ICP-AES (w)	180	Oct-29-18 14:43	pH = 1
Nitrate-Nitrite N DA, Enzymatic reduction	28	May-30-18 14:43	pH = 1
Solids, TDS	7	May-09-18 14:43	pH = 6
TKN DA	28	May-30-18 14:43	pH = 1
TOC	28	May-30-18 14:43	pH = 1
Total Phosphorus DA	28	May-30-18 14:43	pH = 1

Sample ID: 1805007-30 **Sampled:** May-02-18 15:08 **Matrix:** Water

Sample Name: E5a **Sample Location/Comments:** 7th Street

Sample Comments:

Analysis	Hold time (days)	Expires	Comments
Ammonia N DA, Distilled	28	May-30-18 15:08	pH = 1
Anions by IC	28	May-30-18 15:08	pH = 6
Metals ICP-AES (w)	180	Oct-29-18 15:08	pH = 1
Nitrate-Nitrite N DA, Enzymatic reduction	28	May-30-18 15:08	pH = 1
Solids, TDS	7	May-09-18 15:08	pH = 6
TKN DA	28	May-30-18 15:08	pH = 1
TOC	28	May-30-18 15:08	pH = 1
Total Phosphorus DA	28	May-30-18 15:08	pH = 1

Sample ID: 1805007-31 **Sampled:** May-02-18 15:13 **Matrix:** Water

Sample Name: E5b **Sample Location/Comments:** 7th Street

Sample Comments:

Analysis	Hold time (days)	Expires	Comments
Ammonia N DA, Distilled	28	May-30-18 15:13	pH = 1
Anions by IC	28	May-30-18 15:13	pH = 6
Metals ICP-AES (w)	180	Oct-29-18 15:13	pH = 1
Nitrate-Nitrite N DA, Enzymatic reduction	28	May-30-18 15:13	pH = 1
Solids, TDS	7	May-09-18 15:13	pH = 6
TKN DA	28	May-30-18 15:13	pH = 1
TOC	28	May-30-18 15:13	pH = 1

1805007

US EPA Region 5 Chicago Regional Laboratory

Client: Water Division, WECA Region 5
Project: Central Sands
Project Manager: Angela Ockrassa Davis
Project Number: CB022018

Sample ID: 1805007-31 **Sampled:** May-02-18 15:13 **Matrix:** Water

Sample Name: E5b **Sample Location/Comments:** 7th Street

Sample Comments:

Analysis	Hold time (days)	Expires	Comments
Total Phosphorus DA	28	May-30-18 15:13	pH = 1

Sample ID: 1805007-32 **Sampled:** May-02-18 15:38 **Matrix:** Water

Sample Name: E6a **Sample Location/Comments:** 20th Avenue

Sample Comments:

Analysis	Hold time (days)	Expires	Comments
Ammonia N DA, Distilled	28	May-30-18 15:38	pH = 1
Anions by IC	28	May-30-18 15:38	pH = 6
Metals ICP-AES (w)	180	Oct-29-18 15:38	pH = 1
Nitrate-Nitrite N DA, Enzymatic reduction	28	May-30-18 15:38	pH = 1
Solids, TDS	7	May-09-18 15:38	pH = 6
TKN DA	28	May-30-18 15:38	pH = 1
TOC	28	May-30-18 15:38	pH = 1
Total Phosphorus DA	28	May-30-18 15:38	pH = 1

Sample ID: 1805007-33 **Sampled:** May-02-18 15:44 **Matrix:** Water

Sample Name: E6b **Sample Location/Comments:** 20th Avenue

Sample Comments:

Analysis	Hold time (days)	Expires	Comments
Ammonia N DA, Distilled	28	May-30-18 15:44	pH = 1
Anions by IC	28	May-30-18 15:44	pH = 6
Metals ICP-AES (w)	180	Oct-29-18 15:44	pH = 1
Nitrate-Nitrite N DA, Enzymatic reduction	28	May-30-18 15:44	pH = 1
Solids, TDS	7	May-09-18 15:44	pH = 6
TKN DA	28	May-30-18 15:44	pH = 1
TOC	28	May-30-18 15:44	pH = 1
Total Phosphorus DA	28	May-30-18 15:44	pH = 1

Sample ID: 1805007-34 **Sampled:** May-02-18 16:09 **Matrix:** Water

Sample Name: E7a **Sample Location/Comments:** 7th Street

Sample Comments:

Analysis	Hold time (days)	Expires	Comments
Ammonia N DA, Distilled	28	May-30-18 16:09	pH = 1
Anions by IC	28	May-30-18 16:09	pH = 5

1805007

US EPA Region 5 Chicago Regional Laboratory

Client: Water Division, WECA Region 5
Project: Central Sands
Project Manager: Angela Ockrassa Davis
Project Number: CB022018

Sample ID: 1805007-34 **Sampled:** May-02-18 16:09 **Matrix:** Water

Sample Name: E7a **Sample Location/Comments:** 7th Street

Sample Comments:

Analysis	Hold time (days)	Expires	Comments
Metals ICP-AES (w)	180	Oct-29-18 16:09	pH = 1
Nitrate-Nitrite N DA, Enzymatic reduction	28	May-30-18 16:09	pH = 1
Solids, TDS	7	May-09-18 16:09	pH = 5
TKN DA	28	May-30-18 16:09	pH = 1
TOC	28	May-30-18 16:09	pH = 1
Total Phosphorus DA	28	May-30-18 16:09	pH = 1

Sample ID: 1805007-35 **Sampled:** May-02-18 16:35 **Matrix:** Water

Sample Name: E7b **Sample Location/Comments:** 7th Street

Sample Comments:

Analysis	Hold time (days)	Expires	Comments
Ammonia N DA, Distilled	28	May-30-18 16:35	pH = 1
Anions by IC	28	May-30-18 16:35	pH = 5
Metals ICP-AES (w)	180	Oct-29-18 16:35	pH = 1
Nitrate-Nitrite N DA, Enzymatic reduction	28	May-30-18 16:35	pH = 1
Solids, TDS	7	May-09-18 16:35	pH = 5
TKN DA	28	May-30-18 16:35	pH = 1
TOC	28	May-30-18 16:35	pH = 1
Total Phosphorus DA	28	May-30-18 16:35	pH = 1

Sample ID: 1805007-36 **Sampled:** May-03-18 08:40 **Matrix:** Water

Sample Name: E8a **Sample Location/Comments:** 7th Street

Sample Comments:

Analysis	Hold time (days)	Expires	Comments
Ammonia N DA, Distilled	28	May-31-18 08:40	pH = 1
Anions by IC	28	May-31-18 08:40	pH = 5
Metals ICP-AES (w)	180	Oct-30-18 08:40	pH = 1
Nitrate-Nitrite N DA, Enzymatic reduction	28	May-31-18 08:40	pH = 1
Solids, TDS	7	May-10-18 08:40	pH = 5
TKN DA	28	May-31-18 08:40	pH = 1
TOC	28	May-31-18 08:40	pH = 1
Total Phosphorus DA	28	May-31-18 08:40	pH = 1

1805007

US EPA Region 5 Chicago Regional Laboratory

Client: Water Division, WECA Region 5
Project: Central Sands
Project Manager: Angela Ockrassa Davis
Project Number: CB022018

Sample ID: 1805007-37 **Sampled:** May-03-18 08:48 **Matrix:** Water

Sample Name: E8b **Sample Location/Comments:** 7th Street

Sample Comments:

Analysis	Hold time (days)	Expires	Comments
Ammonia N DA, Distilled	28	May-31-18 08:48	pH = 1
Anions by IC	28	May-31-18 08:48	pH = 6
Metals ICP-AES (w)	180	Oct-30-18 08:48	pH = 1
Nitrate-Nitrite N DA, Enzymatic reduction	28	May-31-18 08:48	pH = 1
Solids, TDS	7	May-10-18 08:48	pH = 6
TKN DA	28	May-31-18 08:48	pH = 1
TOC	28	May-31-18 08:48	pH = 1
Total Phosphorus DA	28	May-31-18 08:48	pH = 1

Sample ID: 1805007-38 **Sampled:** May-03-18 07:15 **Matrix:** Water

Sample Name: E10a **Sample Location/Comments:** 8th Street

Sample Comments:

Analysis	Hold time (days)	Expires	Comments
Ammonia N DA, Distilled	28	May-31-18 07:15	pH = 1
Anions by IC	28	May-31-18 07:15	pH = 6
Metals ICP-AES (w)	180	Oct-30-18 07:15	pH = 1
Nitrate-Nitrite N DA, Enzymatic reduction	28	May-31-18 07:15	pH = 1
Solids, TDS	7	May-10-18 07:15	pH = 6
TKN DA	28	May-31-18 07:15	pH = 1
TOC	28	May-31-18 07:15	pH = 1
Total Phosphorus DA	28	May-31-18 07:15	pH = 1

Sample ID: 1805007-39 **Sampled:** May-03-18 07:15 **Matrix:** Water

Sample Name: E10a Dup **Sample Location/Comments:** 8th Street

Sample Comments:

Analysis	Hold time (days)	Expires	Comments
Ammonia N DA, Distilled	28	May-31-18 07:15	pH = 1
Anions by IC	28	May-31-18 07:15	pH = 6
Metals ICP-AES (w)	180	Oct-30-18 07:15	pH = 1
Nitrate-Nitrite N DA, Enzymatic reduction	28	May-31-18 07:15	pH = 1
Solids, TDS	7	May-10-18 07:15	pH = 6
TKN DA	28	May-31-18 07:15	pH = 1
TOC	28	May-31-18 07:15	pH = 1

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US EPA Region 5 Chicago Regional Laboratory

Client: Water Division, WECA Region 5
Project: Central Sands
Project Manager: Angela Ockrassa Davis
Project Number: CB022018

Sample ID: 1805007-39 **Sampled:** May-03-18 07:15 **Matrix:** Water

Sample Name: E10a Dup **Sample Location/Comments:** 8th Street

Sample Comments:

Analysis	Hold time (days)	Expires	Comments
Total Phosphorus DA	28	May-31-18 07:15	pH = 1

Sample ID: 1805007-40 **Sampled:** May-03-18 07:27 **Matrix:** Water

Sample Name: E10b **Sample Location/Comments:** 8th Street

Sample Comments:

Analysis	Hold time (days)	Expires	Comments
Ammonia N DA, Distilled	28	May-31-18 07:27	pH = 1
Anions by IC	28	May-31-18 07:27	pH = 6
Metals ICP-AES (w)	180	Oct-30-18 07:27	pH = 1
Nitrate-Nitrite N DA, Enzymatic reduction	28	May-31-18 07:27	pH = 1
Solids, TDS	7	May-10-18 07:27	pH = 6
TKN DA	28	May-31-18 07:27	pH = 1
TOC	28	May-31-18 07:27	pH = 1
Total Phosphorus DA	28	May-31-18 07:27	pH = 1

Sample ID: 1805007-41 **Sampled:** May-03-18 07:36 **Matrix:** Water

Sample Name: FB4 **Sample Location/Comments:** 8th Street

Sample Comments:

Analysis	Hold time (days)	Expires	Comments
Ammonia N DA, Distilled	28	May-31-18 07:36	pH = 1
Anions by IC	28	May-31-18 07:36	pH = 4
Metals ICP-AES (w)	180	Oct-30-18 07:36	pH = 1
Nitrate-Nitrite N DA, Enzymatic reduction	28	May-31-18 07:36	pH = 1
Solids, TDS	7	May-10-18 07:36	pH = 4
TKN DA	28	May-31-18 07:36	pH = 1
TOC	28	May-31-18 07:36	pH = 1
Total Phosphorus DA	28	May-31-18 07:36	pH = 1

Sample ID: 1805007-42 **Sampled:** May-03-18 07:13 **Matrix:** Water

Sample Name: E10 Equip **Sample Location/Comments:** 8th Street

Sample Comments:

Analysis	Hold time (days)	Expires	Comments
Ammonia N DA, Distilled	28	May-31-18 07:13	pH = 1
Anions by IC	28	May-31-18 07:13	pH = 4

1805007

US EPA Region 5 Chicago Regional Laboratory

Client: Water Division, WECA Region 5
Project: Central Sands
Project Manager: Angela Ockrassa Davis
Project Number: CB022018

Sample ID: 1805007-42 **Sampled:** May-03-18 07:13 **Matrix:** Water

Sample Name: E10 Equip **Sample Location/Comments:** 8th Street

Sample Comments:

Analysis	Hold time (days)	Expires	Comments
Metals ICP-AES (w)	180	Oct-30-18 07:13	pH = 1
Nitrate-Nitrite N DA, Enzymatic reduction	28	May-31-18 07:13	pH = 1
Solids, TDS	7	May-10-18 07:13	pH = 4
TKN DA	28	May-31-18 07:13	pH = 1
TOC	28	May-31-18 07:13	pH = 1
Total Phosphorus DA	28	May-31-18 07:13	pH = 1

Sample ID: 1805007-43 **Sampled:** May-03-18 09:53 **Matrix:** Water

Sample Name: E9a **Sample Location/Comments:** 7th Street

Sample Comments:

Analysis	Hold time (days)	Expires	Comments
Ammonia N DA, Distilled	28	May-31-18 09:53	pH = 1
Anions by IC	28	May-31-18 09:53	pH = 5
Metals ICP-AES (w)	180	Oct-30-18 09:53	pH = 1
Nitrate-Nitrite N DA, Enzymatic reduction	28	May-31-18 09:53	pH = 1
Solids, TDS	7	May-10-18 09:53	pH = 5
TKN DA	28	May-31-18 09:53	pH = 1
TOC	28	May-31-18 09:53	pH = 1
Total Phosphorus DA	28	May-31-18 09:53	pH = 1

Sample ID: 1805007-44 **Sampled:** May-03-18 10:02 **Matrix:** Water

Sample Name: E9b **Sample Location/Comments:** 7th Street

Sample Comments:

Analysis	Hold time (days)	Expires	Comments
Ammonia N DA, Distilled	28	May-31-18 10:02	pH = 1
Anions by IC	28	May-31-18 10:02	pH = 5
Metals ICP-AES (w)	180	Oct-30-18 10:02	pH = 1
Nitrate-Nitrite N DA, Enzymatic reduction	28	May-31-18 10:02	pH = 1
Solids, TDS	7	May-10-18 10:02	pH = 5
TKN DA	28	May-31-18 10:02	pH = 1
TOC	28	May-31-18 10:02	pH = 1
Total Phosphorus DA	28	May-31-18 10:02	pH = 1

Reviewed By Date

1805007

US EPA Region 5 Chicago Regional Laboratory

Client:	Water Division, WECA Region 5	Project Manager:	Angela Ockrassa Davis
Project:	Central Sands	Project Number:	CB022018

PROJECT COMMENTS: Anions: Chloride, fluoride, bromide, sullfate.
Full List metals

REVIEWED
By Robert Thompson at 9:54 am, May 07, 2018

Reviewed By Date

Environmental Protection Agency Region 5
Chicago Regional Laboratory
536 South Clark Street, Chicago, IL 60605
Phone:(312)353-8370 Fax:(312)886-2591

Water Division, WECA Region 5	Project: Central Sands	
77 West Jackson Boulevard	Project Number: CB022018	**Reported:**
Chicago IL, 60604	Project Manager: Cheryl Burdett	Jun-19-18 08:03

Nitrate-Nitrite Nitrogen, Nitrate Reductase, ASTM D7781 - 14 (modified)
US EPA Region 5 Chicago Regional Laboratory

A1a (1805005-01) **Matrix: Water** **Sampled: Apr-30-18 07:19** **Received: May-02-18 09:55**

Analyte	Result	Flags / Qualifiers	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed
Nitrate-Nitrite N	**U**	U	0.05	0.10	mg/L	1	B18E022	May-09-18	May-10-18

A1b (1805005-02) **Matrix: Water** **Sampled: Apr-30-18 07:32** **Received: May-02-18 09:55**

Analyte	Result	Flags / Qualifiers	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed
Nitrate-Nitrite N	**1.79**		0.05	0.10	mg/L	1	B18E022	May-09-18	May-10-18

A2a (1805005-03) **Matrix: Water** **Sampled: Apr-30-18 08:15** **Received: May-02-18 09:55**

Analyte	Result	Flags / Qualifiers	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed
Nitrate-Nitrite N	**36.9**		0.50	1.00	mg/L	10	B18E022	May-09-18	May-10-18

A2b (1805005-04) **Matrix: Water** **Sampled: Apr-30-18 08:24** **Received: May-02-18 09:55**

Analyte	Result	Flags / Qualifiers	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed
Nitrate-Nitrite N	**U**	U	0.05	0.10	mg/L	1	B18E022	May-09-18	May-10-18

A3a (1805005-05) **Matrix: Water** **Sampled: Apr-30-18 09:06** **Received: May-02-18 09:55**

Analyte	Result	Flags / Qualifiers	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed
Nitrate-Nitrite N	**U**	U	0.05	0.10	mg/L	1	B18E022	May-09-18	May-10-18

A3b (1805005-06) **Matrix: Water** **Sampled: Apr-30-18 09:14** **Received: May-02-18 09:55**

Analyte	Result	Flags / Qualifiers	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed
Nitrate-Nitrite N	**0.12**		0.05	0.10	mg/L	1	B18E022	May-09-18	May-10-18

A4 Equip (1805005-07) **Matrix: Water** **Sampled: Apr-30-18 09:38** **Received: May-02-18 09:55**

Analyte	Result	Flags / Qualifiers	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed
Nitrate-Nitrite N	**U**	U	0.05	0.10	mg/L	1	B18E022	May-09-18	May-10-18

A3a (Dup) (1805005-08) **Matrix: Water** **Sampled: Apr-30-18 09:06** **Received: May-02-18 09:55**

Analyte	Result	Flags / Qualifiers	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed
Nitrate-Nitrite N	**U**	U	0.05	0.10	mg/L	1	B18E022	May-09-18	May-10-18

Environmental Protection Agency Region 5
Chicago Regional Laboratory
536 South Clark Street, Chicago, IL 60605
Phone:(312)353-8370 Fax:(312)886-2591

Water Division, WECA Region 5	Project: Central Sands	
77 West Jackson Boulevard	Project Number: CB022018	**Reported:**
Chicago IL, 60604	Project Manager: Cheryl Burdett	Jun-19-18 08:03

Nitrate-Nitrite Nitrogen, Nitrate Reductase, ASTM D7781 - 14 (modified)
US EPA Region 5 Chicago Regional Laboratory

FB1 (1805005-09) **Matrix: Water** **Sampled: Apr-30-18 09:49** **Received: May-02-18 09:55**

Analyte	Result	Flags / Qualifiers	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed
Nitrate-Nitrite N	**U**	U	0.05	0.10	mg/L	1	B18E022	May-09-18	May-10-18

A4a (1805005-10) **Matrix: Water** **Sampled: Apr-30-18 09:58** **Received: May-02-18 09:55**

Analyte	Result	Flags / Qualifiers	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed
Nitrate-Nitrite N	**1.25**		0.05	0.10	mg/L	1	B18E022	May-09-18	May-10-18

A4b (1805005-11) **Matrix: Water** **Sampled: Apr-30-18 10:09** **Received: May-02-18 09:55**

Analyte	Result	Flags / Qualifiers	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed
Nitrate-Nitrite N	**4.61**		0.05	0.10	mg/L	1	B18E022	May-09-18	May-10-18

B1a (1805005-12) **Matrix: Water** **Sampled: Apr-30-18 10:51** **Received: May-02-18 09:55**

Analyte	Result	Flags / Qualifiers	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed
Nitrate-Nitrite N	**U**	U	0.05	0.10	mg/L	1	B18E022	May-09-18	May-10-18

B1b (1805005-13) **Matrix: Water** **Sampled: Apr-30-18 10:58** **Received: May-02-18 09:55**

Analyte	Result	Flags / Qualifiers	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed
Nitrate-Nitrite N	**U**	U	0.05	0.10	mg/L	1	B18E022	May-09-18	May-10-18

B2a (1805005-14) **Matrix: Water** **Sampled: Apr-30-18 11:40** **Received: May-02-18 09:55**

Analyte	Result	Flags / Qualifiers	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed
Nitrate-Nitrite N	**U**	U	0.05	0.10	mg/L	1	B18E022	May-09-18	May-10-18

B2b (1805005-15) **Matrix: Water** **Sampled: Apr-30-18 11:48** **Received: May-02-18 09:55**

Analyte	Result	Flags / Qualifiers	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed
Nitrate-Nitrite N	**0.23**	K	0.05	0.10	mg/L	1	B18E022	May-09-18	May-10-18

B3a (1805005-16) **Matrix: Water** **Sampled: Apr-30-18 12:29** **Received: May-02-18 09:55**

Analyte	Result	Flags / Qualifiers	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed
Nitrate-Nitrite N	**4.53**	K	0.05	0.10	mg/L	1	B18E022	May-09-18	May-10-18

Environmental Protection Agency Region 5
Chicago Regional Laboratory
536 South Clark Street, Chicago, IL 60605
Phone:(312)353-8370 Fax:(312)886-2591

Water Division, WECA Region 5	Project: Central Sands	
77 West Jackson Boulevard	Project Number: CB022018	**Reported:**
Chicago IL, 60604	Project Manager: Cheryl Burdett	Jun-19-18 08:03

Nitrate-Nitrite Nitrogen, Nitrate Reductase, ASTM D7781 - 14 (modified)
US EPA Region 5 Chicago Regional Laboratory

B3b (1805005-17) **Matrix: Water** **Sampled: Apr-30-18 12:36** **Received: May-02-18 09:55**

Analyte	Result	Flags / Qualifiers	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed
Nitrate-Nitrite N	**0.96**	K	0.05	0.10	mg/L	1	B18E022	May-09-18	May-10-18

B4a (1805005-18) **Matrix: Water** **Sampled: Apr-30-18 13:10** **Received: May-02-18 09:55**

Analyte	Result	Flags / Qualifiers	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed
Nitrate-Nitrite N	**33.3**	K	0.50	1.00	mg/L	10	B18E022	May-09-18	May-10-18

B4b (1805005-19) **Matrix: Water** **Sampled: Apr-30-18 13:41** **Received: May-02-18 09:55**

Analyte	Result	Flags / Qualifiers	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed
Nitrate-Nitrite N	**28.0**	K	0.50	1.00	mg/L	10	B18E022	May-09-18	May-10-18

C1a (1805005-20) **Matrix: Water** **Sampled: Apr-30-18 15:02** **Received: May-02-18 09:55**

Analyte	Result	Flags / Qualifiers	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed
Nitrate-Nitrite N	**0.12**	K	0.05	0.10	mg/L	1	B18E022	May-09-18	May-10-18

C1b (1805005-21) **Matrix: Water** **Sampled: Apr-30-18 15:27** **Received: May-02-18 09:55**

Analyte	Result	Flags / Qualifiers	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed
Nitrate-Nitrite N	**U**	U	0.05	0.10	mg/L	1	B18E022	May-09-18	May-10-18

C2a (1805005-22) **Matrix: Water** **Sampled: Apr-30-18 16:06** **Received: May-02-18 09:55**

Analyte	Result	Flags / Qualifiers	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed
Nitrate-Nitrite N	**42.1**	K	0.50	1.00	mg/L	10	B18E022	May-09-18	May-10-18

C2b (1805005-23) **Matrix: Water** **Sampled: Apr-30-18 16:14** **Received: May-02-18 09:55**

Analyte	Result	Flags / Qualifiers	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed
Nitrate-Nitrite N	**3.39**	K	0.05	0.10	mg/L	1	B18E022	May-09-18	May-10-18

C3a (1805005-24) **Matrix: Water** **Sampled: Apr-30-18 14:16** **Received: May-02-18 09:55**

Analyte	Result	Flags / Qualifiers	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed
Nitrate-Nitrite N	**27.7**	K	0.50	1.00	mg/L	10	B18E022	May-09-18	May-10-18

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Water Division, WECA Region 5	Project: Central Sands	
77 West Jackson Boulevard	Project Number: CB022018	**Reported:**
Chicago IL, 60604	Project Manager: Cheryl Burdett	Jun-19-18 08:03

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C3b (1805005-25) **Matrix: Water** **Sampled: Apr-30-18 14:26** **Received: May-02-18 09:55**

Analyte	Result	Flags / Qualifiers	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed
Nitrate-Nitrite N	**2.62**	K	0.05	0.10	mg/L	1	B18E022	May-09-18	May-10-18

C5Aa (1805005-26) **Matrix: Water** **Sampled: May-01-18 06:29** **Received: May-02-18 09:55**

Analyte	Result	Flags / Qualifiers	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed
Nitrate-Nitrite N	**44.3**	K	0.50	1.00	mg/L	10	B18E022	May-09-18	May-10-18

C5Ab (1805005-27) **Matrix: Water** **Sampled: May-01-18 06:43** **Received: May-02-18 09:55**

Analyte	Result	Flags / Qualifiers	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed
Nitrate-Nitrite N	**59.2**	K	1.00	2.00	mg/L	20	B18E022	May-09-18	May-10-18

C6a (1805005-28) **Matrix: Water** **Sampled: May-01-18 07:06** **Received: May-02-18 09:55**

Analyte	Result	Flags / Qualifiers	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed
Nitrate-Nitrite N	**36.8**	K	0.50	1.00	mg/L	10	B18E022	May-09-18	May-10-18

C6b (1805005-29) **Matrix: Water** **Sampled: May-01-18 07:15** **Received: May-02-18 09:55**

Analyte	Result	Flags / Qualifiers	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed
Nitrate-Nitrite N	**25.3**	K	0.50	1.00	mg/L	10	B18E022	May-09-18	May-10-18

C7a (1805005-30) **Matrix: Water** **Sampled: May-01-18 07:48** **Received: May-02-18 09:55**

Analyte	Result	Flags / Qualifiers	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed
Nitrate-Nitrite N	**31.7**	K	0.50	1.00	mg/L	10	B18E022	May-09-18	May-10-18

C7b (1805005-31) **Matrix: Water** **Sampled: May-01-18 08:02** **Received: May-02-18 09:55**

Analyte	Result	Flags / Qualifiers	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed
Nitrate-Nitrite N	**37.3**	K	0.50	1.00	mg/L	10	B18E022	May-09-18	May-10-18

FB2 (1805005-32) **Matrix: Water** **Sampled: May-01-18 07:39** **Received: May-02-18 09:55**

Analyte	Result	Flags / Qualifiers	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed
Nitrate-Nitrite N	**U**	U	0.05	0.10	mg/L	1	B18E022	May-09-18	May-10-18

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Chicago IL, 60604	Project Manager: Cheryl Burdett	Jun-19-18 08:03

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C7 equip (1805005-33) **Matrix: Water** **Sampled: May-01-18 07:38** **Received: May-02-18 09:55**

Analyte	Result	Flags / Qualifiers	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed
Nitrate-Nitrite N	**U**	U	0.05	0.10	mg/L	1	B18E022	May-09-18	May-10-18

C7b Dup (1805005-34) **Matrix: Water** **Sampled: May-01-18 08:02** **Received: May-02-18 09:55**

Analyte	Result	Flags / Qualifiers	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed
Nitrate-Nitrite N	**36.5**	K	0.50	1.00	mg/L	10	B18E022	May-09-18	May-10-18

C8a (1805005-35) **Matrix: Water** **Sampled: May-01-18 08:35** **Received: May-02-18 09:55**

Analyte	Result	Flags / Qualifiers	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed
Nitrate-Nitrite N	**17.1**	K	0.50	1.00	mg/L	10	B18E022	May-09-18	May-10-18

C8b (1805005-36) **Matrix: Water** **Sampled: May-01-18 08:42** **Received: May-02-18 09:55**

Analyte	Result	Flags / Qualifiers	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed
Nitrate-Nitrite N	**2.95**	K	0.05	0.10	mg/L	1	B18E022	May-09-18	May-10-18

C9a (1805005-37) **Matrix: Water** **Sampled: May-01-18 10:00** **Received: May-02-18 09:55**

Analyte	Result	Flags / Qualifiers	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed
Nitrate-Nitrite N	**2.48**	K	0.05	0.10	mg/L	1	B18E022	May-09-18	May-10-18

C9b (1805005-38) **Matrix: Water** **Sampled: May-01-18 10:21** **Received: May-02-18 09:55**

Analyte	Result	Flags / Qualifiers	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed
Nitrate-Nitrite N	**0.69**	K	0.05	0.10	mg/L	1	B18E022	May-09-18	May-10-18

C10a (1805005-39) **Matrix: Water** **Sampled: May-01-18 11:05** **Received: May-02-18 09:55**

Analyte	Result	Flags / Qualifiers	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed
Nitrate-Nitrite N	**8.33**		0.50	1.00	mg/L	10	B18E022	May-09-18	May-10-18

C10b (1805005-40) **Matrix: Water** **Sampled: May-01-18 11:12** **Received: May-02-18 09:55**

Analyte	Result	Flags / Qualifiers	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed
Nitrate-Nitrite N	**16.7**		0.50	1.00	mg/L	10	B18E022	May-09-18	May-10-18

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Chicago IL, 60604	Project Manager: Cheryl Burdett	Jun-19-18 08:03

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C11a (1805005-41) **Matrix: Water** **Sampled: May-01-18 11:46** **Received: May-02-18 09:55**

Analyte	Result	Flags / Qualifiers	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed
Nitrate-Nitrite N	**U**	U	0.05	0.10	mg/L	1	B18E022	May-09-18	May-10-18

C11b (1805005-42) **Matrix: Water** **Sampled: May-01-18 11:52** **Received: May-02-18 09:55**

Analyte	Result	Flags / Qualifiers	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed
Nitrate-Nitrite N	**0.57**	K	0.05	0.10	mg/L	1	B18E022	May-09-18	May-10-18

C12a (1805005-43) **Matrix: Water** **Sampled: May-01-18 12:41** **Received: May-02-18 09:55**

Analyte	Result	Flags / Qualifiers	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed
Nitrate-Nitrite N	**U**	U	0.05	0.10	mg/L	1	B18E022	May-09-18	May-10-18

C12b (1805005-44) **Matrix: Water** **Sampled: May-01-18 12:47** **Received: May-02-18 09:55**

Analyte	Result	Flags / Qualifiers	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed
Nitrate-Nitrite N	**U**	U	0.05	0.10	mg/L	1	B18E022	May-09-18	May-10-18

C13a (1805005-45) **Matrix: Water** **Sampled: May-01-18 13:30** **Received: May-02-18 09:55**

Analyte	Result	Flags / Qualifiers	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed
Nitrate-Nitrite N	**U**	U	0.05	0.10	mg/L	1	B18E022	May-09-18	May-10-18

C13b (1805005-46) **Matrix: Water** **Sampled: May-01-18 13:39** **Received: May-02-18 09:55**

Analyte	Result	Flags / Qualifiers	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed
Nitrate-Nitrite N	**U**	U	0.05	0.10	mg/L	1	B18E022	May-09-18	May-10-18

D1a (1805005-47) **Matrix: Water** **Sampled: May-01-18 14:19** **Received: May-02-18 09:55**

Analyte	Result	Flags / Qualifiers	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed
Nitrate-Nitrite N	**U**	U	0.05	0.10	mg/L	1	B18E022	May-09-18	May-10-18

D1b (1805005-48) **Matrix: Water** **Sampled: May-01-18 14:26** **Received: May-02-18 09:55**

Analyte	Result	Flags / Qualifiers	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed
Nitrate-Nitrite N	**U**	U	0.05	0.10	mg/L	1	B18E022	May-09-18	May-10-18

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Chicago IL, 60604	Project Manager: Cheryl Burdett	Jun-19-18 08:03

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D2a (1805005-49) **Matrix: Water** **Sampled: May-01-18 15:00** **Received: May-02-18 09:55**

Analyte	Result	Flags / Qualifiers	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed
Nitrate-Nitrite N	**2.86**		0.05	0.10	mg/L	1	B18E022	May-09-18	May-10-18

D2b (1805005-50) **Matrix: Water** **Sampled: May-01-18 15:06** **Received: May-02-18 09:55**

Analyte	Result	Flags / Qualifiers	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed
Nitrate-Nitrite N	**32.7**		0.50	1.00	mg/L	10	B18E022	May-09-18	May-10-18

D3a (1805005-51) **Matrix: Water** **Sampled: May-01-18 15:41** **Received: May-02-18 09:55**

Analyte	Result	Flags / Qualifiers	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed
Nitrate-Nitrite N	**21.1**		0.50	1.00	mg/L	10	B18E022	May-09-18	May-10-18

D3b (1805005-52) **Matrix: Water** **Sampled: May-01-18 15:48** **Received: May-02-18 09:55**

Analyte	Result	Flags / Qualifiers	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed
Nitrate-Nitrite N	**23.4**		0.50	1.00	mg/L	10	B18E022	May-09-18	May-10-18

D4a (1805005-53) **Matrix: Water** **Sampled: May-01-18 16:19** **Received: May-02-18 09:55**

Analyte	Result	Flags / Qualifiers	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed
Nitrate-Nitrite N	**20.5**		0.50	1.00	mg/L	10	B18E022	May-09-18	May-10-18

D4b (1805005-54) **Matrix: Water** **Sampled: May-01-18 16:26** **Received: May-02-18 09:55**

Analyte	Result	Flags / Qualifiers	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed
Nitrate-Nitrite N	**50.6**		0.50	1.00	mg/L	10	B18E022	May-09-18	May-10-18

D5a (1805007-01) **Matrix: Water** **Sampled: May-02-18 06:38** **Received: May-04-18 10:00**

Analyte	Result	Flags / Qualifiers	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed
Nitrate-Nitrite N	**0.29**		0.05	0.10	mg/L	1	B18E022	May-09-18	May-10-18

D5b (1805007-02) **Matrix: Water** **Sampled: May-02-18 06:46** **Received: May-04-18 10:00**

Analyte	Result	Flags / Qualifiers	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed
Nitrate-Nitrite N	**1.36**		0.05	0.10	mg/L	1	B18E022	May-09-18	May-10-18

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Chicago IL, 60604	Project Manager: Cheryl Burdett	Jun-19-18 08:03

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D6a (1805007-03) **Matrix: Water** **Sampled: May-02-18 07:17** **Received: May-04-18 10:00**

Analyte	Result	Flags / Qualifiers	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed
Nitrate-Nitrite N	**U**	U	0.05	0.10	mg/L	1	B18E022	May-09-18	May-10-18

D6b (1805007-04) **Matrix: Water** **Sampled: May-02-18 07:29** **Received: May-04-18 10:00**

Analyte	Result	Flags / Qualifiers	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed
Nitrate-Nitrite N	**U**	U	0.05	0.10	mg/L	1	B18E022	May-09-18	May-10-18

D7 equip (1805007-05) **Matrix: Water** **Sampled: May-02-18 08:01** **Received: May-04-18 10:00**

Analyte	Result	Flags / Qualifiers	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed
Nitrate-Nitrite N	**U**	U	0.05	0.10	mg/L	1	B18E022	May-09-18	May-10-18

FB3 (1805007-06) **Matrix: Water** **Sampled: May-02-18 08:03** **Received: May-04-18 10:00**

Analyte	Result	Flags / Qualifiers	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed
Nitrate-Nitrite N	**U**	U	0.05	0.10	mg/L	1	B18E022	May-09-18	May-10-18

D7a Dup (1805007-07) **Matrix: Water** **Sampled: May-02-18 08:12** **Received: May-04-18 10:00**

Analyte	Result	Flags / Qualifiers	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed
Nitrate-Nitrite N	**33.7**		0.50	1.00	mg/L	10	B18E022	May-09-18	May-10-18

D7a (1805007-08) **Matrix: Water** **Sampled: May-02-18 08:12** **Received: May-04-18 10:00**

Analyte	Result	Flags / Qualifiers	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed
Nitrate-Nitrite N	**U**	U	0.05	0.10	mg/L	1	B18E022	May-09-18	May-10-18

D7b (1805007-09) **Matrix: Water** **Sampled: May-02-18 08:19** **Received: May-04-18 10:00**

Analyte	Result	Flags / Qualifiers	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed
Nitrate-Nitrite N	**36.8**		0.50	1.00	mg/L	10	B18E022	May-09-18	May-10-18

D8a (1805007-10) **Matrix: Water** **Sampled: May-02-18 08:55** **Received: May-04-18 10:00**

Analyte	Result	Flags / Qualifiers	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed
Nitrate-Nitrite N	**42.3**		0.50	1.00	mg/L	10	B18E022	May-09-18	May-10-18

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D8b (1805007-11) **Matrix: Water** **Sampled: May-02-18 09:11** **Received: May-04-18 10:00**

Analyte	Result	Flags / Qualifiers	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed
Nitrate-Nitrite N	**U**	U	0.05	0.10	mg/L	1	B18E022	May-09-18	May-10-18

D9a (1805007-12) **Matrix: Water** **Sampled: May-02-18 09:45** **Received: May-04-18 10:00**

Analyte	Result	Flags / Qualifiers	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed
Nitrate-Nitrite N	**U**	U	0.05	0.10	mg/L	1	B18E022	May-09-18	May-10-18

D9b (1805007-13) **Matrix: Water** **Sampled: May-02-18 09:54** **Received: May-04-18 10:00**

Analyte	Result	Flags / Qualifiers	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed
Nitrate-Nitrite N	**2.29**		0.05	0.10	mg/L	1	B18E022	May-09-18	May-10-18

D10a (1805007-14) **Matrix: Water** **Sampled: May-02-18 10:29** **Received: May-04-18 10:00**

Analyte	Result	Flags / Qualifiers	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed
Nitrate-Nitrite N	**14.3**		0.50	1.00	mg/L	10	B18E022	May-09-18	May-10-18

D10a Dup (1805007-15) **Matrix: Water** **Sampled: May-02-18 10:29** **Received: May-04-18 10:00**

Analyte	Result	Flags / Qualifiers	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed
Nitrate-Nitrite N	**U**	U	0.05	0.10	mg/L	1	B18E022	May-09-18	May-10-18

D10b (1805007-16) **Matrix: Water** **Sampled: May-02-18 10:41** **Received: May-04-18 10:00**

Analyte	Result	Flags / Qualifiers	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed
Nitrate-Nitrite N	**U**	U	0.05	0.10	mg/L	1	B18E022	May-09-18	May-10-18

D10b Dup (1805007-17) **Matrix: Water** **Sampled: May-02-18 10:41** **Received: May-04-18 10:00**

Analyte	Result	Flags / Qualifiers	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed
Nitrate-Nitrite N	**16.2**		0.50	1.00	mg/L	10	B18E022	May-09-18	May-10-18

D11a (1805007-18) **Matrix: Water** **Sampled: May-02-18 11:19** **Received: May-04-18 10:00**

Analyte	Result	Flags / Qualifiers	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed
Nitrate-Nitrite N	**32.2**		0.50	1.00	mg/L	10	B18E022	May-09-18	May-10-18

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D11b (1805007-19) **Matrix: Water** **Sampled: May-02-18 11:42** **Received: May-04-18 10:00**

Analyte	Result	Flags / Qualifiers	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed
Nitrate-Nitrite N	**23.9**		0.50	1.00	mg/L	10	B18E022	May-09-18	May-10-18

E1a (1805007-20) **Matrix: Water** **Sampled: May-02-18 12:41** **Received: May-04-18 10:00**

Analyte	Result	Flags / Qualifiers	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed
Nitrate-Nitrite N	**27.2**		0.50	1.00	mg/L	10	B18E022	May-09-18	May-10-18

E1b (1805007-21) **Matrix: Water** **Sampled: May-02-18 12:58** **Received: May-04-18 10:00**

Analyte	Result	Flags / Qualifiers	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed
Nitrate-Nitrite N	**25.7**		0.50	1.00	mg/L	10	B18E022	May-09-18	May-10-18

E2a (1805007-22) **Matrix: Water** **Sampled: May-02-18 13:28** **Received: May-04-18 10:00**

Analyte	Result	Flags / Qualifiers	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed
Nitrate-Nitrite N	**1.52**		0.05	0.10	mg/L	1	B18E022	May-09-18	May-10-18

E2b (1805007-23) **Matrix: Water** **Sampled: May-02-18 13:37** **Received: May-04-18 10:00**

Analyte	Result	Flags / Qualifiers	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed
Nitrate-Nitrite N	**3.15**		0.05	0.10	mg/L	1	B18E022	May-09-18	May-10-18

E2a Dup (1805007-24) **Matrix: Water** **Sampled: May-02-18 13:28** **Received: May-04-18 10:00**

Analyte	Result	Flags / Qualifiers	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed
Nitrate-Nitrite N	**1.58**		0.05	0.10	mg/L	1	B18E022	May-09-18	May-10-18

E2b Dup (1805007-25) **Matrix: Water** **Sampled: May-02-18 13:37** **Received: May-04-18 10:00**

Analyte	Result	Flags / Qualifiers	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed
Nitrate-Nitrite N	**3.16**		0.05	0.10	mg/L	1	B18E022	May-09-18	May-10-18

E3a (1805007-26) **Matrix: Water** **Sampled: May-02-18 14:03** **Received: May-04-18 10:00**

Analyte	Result	Flags / Qualifiers	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed
Nitrate-Nitrite N	**6.58**		0.50	1.00	mg/L	10	B18E022	May-09-18	May-10-18

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Water Division, WECA Region 5	Project: Central Sands	
77 West Jackson Boulevard	Project Number: CB022018	**Reported:**
Chicago IL, 60604	Project Manager: Cheryl Burdett	Jun-19-18 08:03

Nitrate-Nitrite Nitrogen, Nitrate Reductase, ASTM D7781 - 14 (modified)
US EPA Region 5 Chicago Regional Laboratory

E3b (1805007-27) **Matrix: Water** **Sampled: May-02-18 14:09** **Received: May-04-18 10:00**

Analyte	Result	Flags / Qualifiers	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed
Nitrate-Nitrite N	**7.40**		0.50	1.00	mg/L	10	B18E022	May-09-18	May-10-18

E4a (1805007-28) **Matrix: Water** **Sampled: May-02-18 14:37** **Received: May-04-18 10:00**

Analyte	Result	Flags / Qualifiers	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed
Nitrate-Nitrite N	**23.3**		0.50	1.00	mg/L	10	B18E022	May-09-18	May-10-18

E4b (1805007-29) **Matrix: Water** **Sampled: May-02-18 14:43** **Received: May-04-18 10:00**

Analyte	Result	Flags / Qualifiers	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed
Nitrate-Nitrite N	**26.8**		0.50	1.00	mg/L	10	B18E022	May-09-18	May-10-18

E5a (1805007-30) **Matrix: Water** **Sampled: May-02-18 15:08** **Received: May-04-18 10:00**

Analyte	Result	Flags / Qualifiers	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed
Nitrate-Nitrite N	**38.7**		0.50	1.00	mg/L	10	B18E022	May-09-18	May-10-18

E5b (1805007-31) **Matrix: Water** **Sampled: May-02-18 15:13** **Received: May-04-18 10:00**

Analyte	Result	Flags / Qualifiers	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed
Nitrate-Nitrite N	**26.9**		0.50	1.00	mg/L	10	B18E022	May-09-18	May-10-18

E6a (1805007-32) **Matrix: Water** **Sampled: May-02-18 15:38** **Received: May-04-18 10:00**

Analyte	Result	Flags / Qualifiers	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed
Nitrate-Nitrite N	**0.15**		0.05	0.10	mg/L	1	B18E022	May-09-18	May-10-18

E6b (1805007-33) **Matrix: Water** **Sampled: May-02-18 15:44** **Received: May-04-18 10:00**

Analyte	Result	Flags / Qualifiers	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed
Nitrate-Nitrite N	**0.15**		0.05	0.10	mg/L	1	B18E022	May-09-18	May-10-18

E7a (1805007-34) **Matrix: Water** **Sampled: May-02-18 16:09** **Received: May-04-18 10:00**

Analyte	Result	Flags / Qualifiers	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed
Nitrate-Nitrite N	**U**	U	0.05	0.10	mg/L	1	B18E022	May-09-18	May-10-18

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E7b (1805007-35) **Matrix: Water** **Sampled: May-02-18 16:35** **Received: May-04-18 10:00**

Analyte	Result	Flags / Qualifiers	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed
Nitrate-Nitrite N	**U**	U	0.05	0.10	mg/L	1	B18E022	May-09-18	May-10-18

E8a (1805007-36) **Matrix: Water** **Sampled: May-03-18 08:40** **Received: May-04-18 10:00**

Analyte	Result	Flags / Qualifiers	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed
Nitrate-Nitrite N	**U**	U	0.05	0.10	mg/L	1	B18E022	May-09-18	May-10-18

E8b (1805007-37) **Matrix: Water** **Sampled: May-03-18 08:48** **Received: May-04-18 10:00**

Analyte	Result	Flags / Qualifiers	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed
Nitrate-Nitrite N	**U**	U	0.05	0.10	mg/L	1	B18E022	May-09-18	May-10-18

E10a (1805007-38) **Matrix: Water** **Sampled: May-03-18 07:15** **Received: May-04-18 10:00**

Analyte	Result	Flags / Qualifiers	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed
Nitrate-Nitrite N	**1.13**		0.05	0.10	mg/L	1	B18E022	May-09-18	May-10-18

E10a Dup (1805007-39) **Matrix: Water** **Sampled: May-03-18 07:15** **Received: May-04-18 10:00**

Analyte	Result	Flags / Qualifiers	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed
Nitrate-Nitrite N	**1.22**		0.05	0.10	mg/L	1	B18E022	May-09-18	May-10-18

E10b (1805007-40) **Matrix: Water** **Sampled: May-03-18 07:27** **Received: May-04-18 10:00**

Analyte	Result	Flags / Qualifiers	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed
Nitrate-Nitrite N	**U**	U	0.05	0.10	mg/L	1	B18E022	May-09-18	May-10-18

FB4 (1805007-41) **Matrix: Water** **Sampled: May-03-18 07:36** **Received: May-04-18 10:00**

Analyte	Result	Flags / Qualifiers	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed
Nitrate-Nitrite N	**U**	U	0.05	0.10	mg/L	1	B18E022	May-09-18	May-10-18

E10 Equip (1805007-42) **Matrix: Water** **Sampled: May-03-18 07:13** **Received: May-04-18 10:00**

Analyte	Result	Flags / Qualifiers	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed
Nitrate-Nitrite N	**U**	U	0.05	0.10	mg/L	1	B18E022	May-09-18	May-10-18

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Chicago IL, 60604	Project Manager: Cheryl Burdett	Jun-19-18 08:03

Nitrate-Nitrite Nitrogen, Nitrate Reductase, ASTM D7781 - 14 (modified)
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E9a (1805007-43) **Matrix: Water** **Sampled: May-03-18 09:53** **Received: May-04-18 10:00**

Analyte	Result	Flags / Qualifiers	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed
Nitrate-Nitrite N	**U**	U	0.05	0.10	mg/L	1	B18E022	May-09-18	May-10-18

E9b (1805007-44) **Matrix: Water** **Sampled: May-03-18 10:02** **Received: May-04-18 10:00**

Analyte	Result	Flags / Qualifiers	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed
Nitrate-Nitrite N	**20.2**		0.50	1.00	mg/L	10	B18E022	May-09-18	May-10-18

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Chicago IL, 60604	Project Manager: Cheryl Burdett	Jun-19-18 08:03

Notes and Definitions

K	The identification of the analyte is acceptable; the reported value may be biased high. The actual value is expected to be less than the reported value.
*	This Quality Control measure meets the requirements of the CRL SOP for this analyte.
U	Not Detected
NR	Not Reported
Q	QC limit Exceeded