

DATA REPORTING QUALIFIERS- INORGANIC

For reporting results, the following “ Results Qualifiers” are used:

J	Indicates the reported value was obtained from a reading that was less than the Contract Required Detection Limit (CRDL), but greater than or equal to the Instrument Detection Limit (IDL).
U	Indicates the analyte was analyzed for, but not detected.
ND	Indicates the analyte was analyzed for, but not detected
E	Indicates the reported value is estimated because of the presence of interference
M	Indicates Duplicate injection precision not met.
N	Indicates the spiked sample recovery is not within control limits.
S	Indicates the reported value was determined by the Method of Standard Addition (MSA).
*	Indicates that the duplicate analysis is not within control limits.
+	Indicates the correlation coefficient for the MSA is less than 0.995.
D	Indicates the reported value is from a secondary analysis with a dilution factor. The original analysis exceeded the calibration range.
M	Method qualifiers “P” for ICP instrument “PM” for ICP when Microwave Digestion is used “CV” for Manual Cold Vapor AA “AV” for automated Cold Vapor AA “CA” for MIDI-Distillation Spectrophotometric “AS” for Semi -Automated Spectrophotometric “C” for Manual Spectrophotometric “T” for Titrimetric “NR” for analyte not required to be analyzed
OR	Indicates the analyte’s concentration exceeds the calibrated range of the instrument for that specific analysis.
Q	Indicates the LCS did not meet the control limits requirements
H	Sample Analysis Out Of Hold Time

LAB CHRONICLE

OrderID:	Q3219	OrderDate:	9/26/2025 10:37:00 AM
Client:	ATG-GREENVILLE AEC	Project:	AEC-2025-0013- CSC 4027 Worcester
Contact:	Staci Bruce	Location:	J32

LabID	ClientID	Matrix	Test	Method	Sample Date	Prep Date	Anal Date	Received
Q3219-01	Outfall 001	Water			09/25/25 17:20			09/26/25
			COD	SM5220 D			10/03/25 14:19	
			TSS	SM2540 D			09/30/25 10:00	
Q3219-02	Outfall 002	Water			09/25/25 17:25			09/26/25
			COD	SM5220 D			10/03/25 14:20	
			TSS	SM2540 D			09/30/25 10:00	
Q3219-03	Outfall 003	Water			09/25/25 17:30			09/26/25
			COD	SM5220 D			10/03/25 14:21	
			TSS	SM2540 D			09/30/25 10:00	



SAMPLE DATA

Report of Analysis

Client:	ATG-GREENVILLE AEC	Date Collected:	09/25/25 17:20
Project:	AEC-2025-0013- CSC 4027 Worcester	Date Received:	09/26/25
Client Sample ID:	Outfall 001	SDG No.:	Q3219
Lab Sample ID:	Q3219-01	Matrix:	Water
		% Solid:	0

Parameter	Conc.	Qua.	DF	MDL	LOQ / CRQL	Units	Prep Date	Date Ana.	Ana Met.
COD	29.9		1	1.50	10.0	mg/L		10/03/25 14:19	SM 5220 D-11
TSS	13.4		1	1.00	4.00	mg/L		09/30/25 10:00	SM 2540 D-20

Comments:

U = Not Detected

LOQ = Limit of Quantitation

MDL = Method Detection Limit

LOD = Limit of Detection

D = Dilution

Q = indicates LCS control criteria did not meet requirements

H = Sample Analysis Out Of Hold Time

J = Estimated Value

B = Analyte Found in Associated Method Blank

* = indicates the duplicate analysis is not within control limits.

E = Indicates the reported value is estimated because of the presence of interference.

OR = Over Range

N =Spiked sample recovery not within control limits

Report of Analysis

Client:	ATG-GREENVILLE AEC	Date Collected:	09/25/25 17:25
Project:	AEC-2025-0013- CSC 4027 Worcester	Date Received:	09/26/25
Client Sample ID:	Outfall 002	SDG No.:	Q3219
Lab Sample ID:	Q3219-02	Matrix:	Water
		% Solid:	0

Parameter	Conc.	Qua.	DF	MDL	LOQ / CRQL	Units	Prep Date	Date Ana.	Ana Met.
COD	19.8		1	1.50	10.0	mg/L		10/03/25 14:20	SM 5220 D-11
TSS	6.50		1	1.00	4.00	mg/L		09/30/25 10:00	SM 2540 D-20

Comments: _____

U = Not Detected

LOQ = Limit of Quantitation

MDL = Method Detection Limit

LOD = Limit of Detection

D = Dilution

Q = indicates LCS control criteria did not meet requirements

H = Sample Analysis Out Of Hold Time

J = Estimated Value

B = Analyte Found in Associated Method Blank

* = indicates the duplicate analysis is not within control limits.

E = Indicates the reported value is estimated because of the presence of interference.

OR = Over Range

N =Spiked sample recovery not within control limits

Report of Analysis

Client:	ATG-GREENVILLE AEC	Date Collected:	09/25/25 17:30
Project:	AEC-2025-0013- CSC 4027 Worcester	Date Received:	09/26/25
Client Sample ID:	Outfall 003	SDG No.:	Q3219
Lab Sample ID:	Q3219-03	Matrix:	Water
		% Solid:	0

Parameter	Conc.	Qua.	DF	MDL	LOQ / CRQL	Units	Prep Date	Date Ana.	Ana Met.
COD	18.8		1	1.50	10.0	mg/L		10/03/25 14:21	SM 5220 D-11
TSS	29.8		1	1.00	4.00	mg/L		09/30/25 10:00	SM 2540 D-20

Comments: _____

U = Not Detected

LOQ = Limit of Quantitation

MDL = Method Detection Limit

LOD = Limit of Detection

D = Dilution

Q = indicates LCS control criteria did not meet requirements

H = Sample Analysis Out Of Hold Time

J = Estimated Value

B = Analyte Found in Associated Method Blank

* = indicates the duplicate analysis is not within control limits.

E = Indicates the reported value is estimated because of the presence of interference.

OR = Over Range

N =Spiked sample recovery not within control limits



QC RESULT SUMMARY

Initial and Continuing Calibration Verification

Client: ATG-GREENVILLE AEC

SDG No.: Q3219

Project: AEC-2025-0013- CSC 4027 Worcester

RunNo.: LB137422

Analyte	Units	Result	True Value	% Recovery	Acceptance Window (%R)	Analysis Date
Sample ID: ICV COD	mg/L	50.173	50	100	95-105	09/08/2025
Sample ID: CCV1 COD	mg/L	49.161	50	98	95-105	10/03/2025
Sample ID: CCV2 COD	mg/L	48.150	50	96	95-105	10/03/2025
Sample ID: CCV3 COD	mg/L	50.173	50	100	95-105	10/03/2025

Initial and Continuing Calibration Blank Summary

Client: ATG-GREENVILLE AEC

SDG No.: Q3219

Project: AEC-2025-0013- CSC 4027 Worcester

RunNo.: LB137422

Analyte	Units	Result	Acceptance Limits	Conc Qual	MDL	RDL	Analysis Date
Sample ID: ICB COD	mg/L	< 5.0000	5.0000	U	1.50	10	09/08/2025
Sample ID: CCB1 COD	mg/L	< 5.0000	5.0000	U	1.50	10	10/03/2025
Sample ID: CCB2 COD	mg/L	< 5.0000	5.0000	U	1.50	10	10/03/2025
Sample ID: CCB3 COD	mg/L	< 5.0000	5.0000	U	1.50	10	10/03/2025

Preparation Blank Summary

Client: ATG-GREENVILLE AEC

SDG No.: Q3219

Project: AEC-2025-0013- CSC 4027 Worcester

Analyte	Units	Result	Acceptance Limits	Conc Qual	MDL	RDL	Analysis Date
Sample ID: LB137356BL							
TSS	mg/L	1	2.0000	J	1	4	09/30/2025
Sample ID: LB137422BL							
COD	mg/L	< 5.0000	5.0000	U	1.5	10.0	10/03/2025

Matrix Spike Summary

Client:	ATG-GREENVILLE AEC	SDG No.:	Q3219
Project:	AEC-2025-0013- CSC 4027 Worcester	Sample ID:	Q3263-02
Client ID:	266380MS	Percent Solids for Spike Sample:	0

Analyte	Units	Acceptance Limit %R	Spiked Result	Conc. Qualifier	Sample Result	Conc. Qualifier	Spike Added	Dilution Factor	% Rec	Qual	Analysis Date
COD	mg/L	75-125	48.2		1.50	U	50.0	1	96		10/03/2025

Matrix Spike Summary

Client:	ATG-GREENVILLE AEC	SDG No.:	Q3219
Project:	AEC-2025-0013- CSC 4027 Worcester	Sample ID:	Q3263-02
Client ID:	266380MSD	Percent Solids for Spike Sample:	0

Analyte	Units	Acceptance Limit %R	Spiked Result	Conc. Qualifier	Sample Result	Conc. Qualifier	Spike Added	Dilution Factor	% Rec	Qual	Analysis Date
COD	mg/L	75-125	47.1		1.50	U	50.0	1	94		10/03/2025

Duplicate Sample Summary

Client: ATG-GREENVILLE AEC	SDG No.: Q3219
Project: AEC-2025-0013- CSC 4027 Worcester	Sample ID: Q3202-11
Client ID: SY-3DDUP	Percent Solids for Spike Sample: 0

Analyte	Units	Acceptance Limit	Sample Result	Conc. Qualifier	Duplicate Result	Conc. Qualifier	Dilution Factor	RPD/ AD	Qual	Analysis Date
TSS	mg/L	+/-5	42.0		42.2		1	0.48		09/30/2025

Duplicate Sample Summary

Client: ATG-GREENVILLE AEC	SDG No.: Q3219
Project: AEC-2025-0013- CSC 4027 Worcester	Sample ID: Q3263-02
Client ID: 266380DUP	Percent Solids for Spike Sample: 0

Analyte	Units	Acceptance Limit	Sample Result	Conc. Qualifier	Duplicate Result	Conc. Qualifier	Dilution Factor	RPD/ AD	Qual	Analysis Date
COD	mg/L	+/-20	1.50	U	1.50	U	1	0		10/03/2025

Duplicate Sample Summary

Client:	ATG-GREENVILLE AEC	SDG No.:	Q3219
Project:	AEC-2025-0013- CSC 4027 Worcester	Sample ID:	Q3263-02
Client ID:	266380MSD	Percent Solids for Spike Sample:	0

Analyte	Units	Acceptance Limit	Sample Result	Conc. Qualifier	Duplicate Result	Conc. Qualifier	Dilution Factor	RPD/ AD	Qual	Analysis Date
COD	mg/L	+/-20	48.2		47.1		1	2.31		10/03/2025

Laboratory Control Sample Summary

Client: ATG-GREENVILLE AEC

SDG No.: Q3219

Project: AEC-2025-0013- CSC 4027 Worcester

Run No.: LB137356

Analyte	Units	True Value	Result	Conc. Qualifier	% Recovery	Dilution Factor	Acceptance Limit %R	Analysis Date
Sample ID	LB137356BS							
TSS	mg/L	550	532		97	1	90-110	09/30/2025

Laboratory Control Sample Summary

Client: ATG-GREENVILLE AEC

SDG No.: Q3219

Project: AEC-2025-0013- CSC 4027 Worcester

Run No.: LB137422

Analyte	Units	True Value	Result	Conc. Qualifier	% Recovery	Dilution Factor	Acceptance Limit %R	Analysis Date
Sample ID	LB137422BS							
COD	mg/L	50	51.2		102	1	90-110	10/03/2025



RAW DATA

TOTAL SUSPENDED SOLIDS - SM2540D

SUPERVISOR: Iwona

ANALYST: JIGNESH

Date: 09/29/2025

Run Number: LB137356

BalanceID: WC SC-5

OvenID: WC OVEN-1

FilterID: 17416528

ThermometerID: WET OVEN#1

TEMP1 IN: 104 °C 09/29/2025 14:30 **TEMP1 OUT:** 103 °C 09/29/2025 15:30
TEMP2 IN: 104 °C 09/29/2025 16:00 **TEMP2 OUT:** 104 °C 09/29/2025 17:00
TEMP3 IN: 103 °C 09/30/2025 10:00 **TEMP3 OUT:** 103 °C 09/30/2025 11:40
TEMP4 IN: 104 °C 09/30/2025 12:30 **TEMP4 OUT:** 103 °C 09/30/2025 14:00

Dish #	Lab ID	Client ID	Empty Dish Weight (g)	Final Empty Dish Weight (g)	Sample Volume (ml)	1st Empty Dish+Sample weight after 1.5hr drying @103-@105°C (g)	2nd Empty Dish+Sample weight after 1.5hr drying @103-@105°C (g)	Final Empty Dish+Sample weight after 1.5hr drying @103-@105°C (g)	Weight (g)	Result mg/L
1	LB137356BL	LB137356BL	1.4563	1.4563	100	1.4564	1.4564	1.4564	0.0001	1
2	LB137356BS	LB137356BS	1.4874	1.4874	100	1.5406	1.5406	1.5406	0.0532	532
3	Q3202-01	SY-6	1.4903	1.4904	2000	1.5176	1.5176	1.5176	0.0272	13.6
4	Q3202-03	SY-2R	1.4906	1.4907	2000	1.4949	1.4949	1.4949	0.0042	2.1
5	Q3202-05	SY-2D	1.4782	1.4782	1000	1.5332	1.5332	1.5332	0.0550	55
6	Q3202-07	SY-5	1.5019	1.5019	1000	1.5608	1.5608	1.5608	0.0589	58.9
7	Q3202-09	SY-3DD	1.4772	1.4772	1000	1.4798	1.4798	1.4798	0.0026	2.6
8	Q3202-11	SY-3D	1.4676	1.4677	1000	1.5097	1.5097	1.5097	0.0420	42
9	Q3202-11DUP	SY-3DDUP	1.4000	1.4000	1000	1.4422	1.4422	1.4422	0.0422	42.2
10	Q3202-17	SY-3	1.3697	1.3698	20	2.3650	2.3650	2.3650	0.9952	49760
11	Q3219-01	Outfall 001	1.4971	1.4971	1000	1.5105	1.5105	1.5105	0.0134	13.4
12	Q3219-02	Outfall 002	1.4269	1.4269	1000	1.4334	1.4334	1.4334	0.0065	6.5
13	Q3219-03	Outfall 003	1.3926	1.3926	1000	1.4224	1.4224	1.4224	0.0298	29.8
14	Q3227-01	Outfall 001	1.3916	1.3916	500	1.4343	1.4343	1.4343	0.0427	85.4
15	Q3234-01	DA-1	1.3970	1.3970	500	1.7252	1.7252	1.7252	0.3282	656.4

TOTAL SUSPENDED SOLIDS - SM2540D

SUPERVISOR: Iwona

ANALYST: JIGNESH

Date: 09/29/2025

Run Number: LB137356

BalanceID: WC SC-5

OvenID: WC OVEN-1

FilterID: 17416528

ThermometerID: WET OVEN#1

TEMP1 IN: 104 °C 09/29/2025 14:30 TEMP1 OUT: 103 °C 09/29/2025 15:30
 TEMP2 IN: 104 °C 09/29/2025 16:00 TEMP2 OUT: 104 °C 09/29/2025 17:00
 TEMP3 IN: 103 °C 09/30/2025 10:00 TEMP3 OUT: 103 °C 09/30/2025 11:40
 TEMP4 IN: 104 °C 09/30/2025 12:30 TEMP4 OUT: 103 °C 09/30/2025 14:00

Dish #	Lab ID	Client ID	Empty Dish Weight (g)	Final Empty Dish Weight (g)	Sample Volume (ml)	1st Empty Dish+Sample weight after 1.5hr drying @103-@105°C (g)	2nd Empty Dish+Sample weight after 1.5hr drying @103-@105°C (g)	Final Empty Dish+Sample weight after 1.5hr drying @103-@105°C (g)	Weight (g)	Result mg/L
16	Q3234-02	DA-2	1.4677	1.4677	600	1.5919	1.5919	1.5919	0.1242	207
17	Q3237-01	RW8-SP100-20250926	1.4998	1.4998	1900	1.5008	1.5008	1.5008	0.0010	0.5
18	Q3237-02	RW8-SP303-20250926	1.4894	1.4894	1900	1.4899	1.4899	1.4899	0.0005	0.3

A = Sample Volume (ml)
 B = Final Empty Dish Weight (g)
 C = Final Empty Dish + Sample weight after 1.5 hr drying @105°C(g)
 D = Weight (g)

Weight (g) = C - B

Result mg/L = $\frac{D}{A} \times 1000 \times 1000$

WORKLIST(Hardcopy Internal Chain)

WB 13 7356

WorkList Name : tss q3202

WorkList ID : 192158

Department : Wet-Chemistry

Date : 09-30-2025 06:03:26

Sample	Customer Sample	Matrix	Test	Preservative	Customer	Raw Sample Storage Location	Collect Date	Method
Q3202-01	SY-6 K.L	Water	TSS	Cool 4 deg C	LOCK01	I63	09/23/2025	SM2540 D
Q3202-03	SY-2R K.L	Water	TSS	Cool 4 deg C	LOCK01	I63	09/23/2025	SM2540 D
Q3202-05	SY-2D K	Water	TSS	Cool 4 deg C	LOCK01	I63	09/23/2025	SM2540 D
Q3202-07	SY-5 K	Water	TSS	Cool 4 deg C	LOCK01	I63	09/23/2025	SM2540 D
Q3202-09	SY-3DD K.L	Water	TSS	Cool 4 deg C	LOCK01	I63	09/23/2025	SM2540 D
Q3202-11	SY-3D K.L	Water	TSS	Cool 4 deg C	LOCK01	I63	09/23/2025	SM2540 D
Q3202-17	SY-3 K	Water	TSS	Cool 4 deg C	LOCK01	I63	09/23/2025	SM2540 D
Q3219-01	Outfall 001 B	Water	TSS	Cool 4 deg C	ATGG01	J32	09/25/2025	SM2540 D
Q3219-02	Outfall 002 B	Water	TSS	Cool 4 deg C	ATGG01	J32	09/25/2025	SM2540 D
Q3219-03	Outfall 003 B	Water	TSS	Cool 4 deg C	ATGG01	J32	09/25/2025	SM2540 D
Q3227-01	Outfall 001 B	Water	TSS	Cool 4 deg C	ATGG01	J22	09/25/2025	SM2540 D
Q3234-01	DA-1 B	Water	TSS	Cool 4 deg C	ATGG01	D31	09/29/2025	SM2540 D
Q3234-02	DA-2 B	Water	TSS	Cool 4 deg C	ATGG01	D31	09/29/2025	SM2540 D
Q3237-01	RW8-SP100-20250926 B,C	Water	TSS	Cool 4 deg C	TETR06	D31	09/26/2025	SM2540 D
Q3237-02	RW8-SP303-20250926 B,C	Water	TSS	Cool 4 deg C	TETR06	D31	09/26/2025	SM2540 D

Date/Time 09/30/25 06:25

Raw Sample Received by: [Signature]

Raw Sample Relinquished by: [Signature]

Date/Time 09/30/25

Raw Sample Received by: [Signature]

Raw Sample Relinquished by: [Signature]

15:00

Analytical Summary Report

Analysis Method: SM5220 D

ANALYST: Iwona

Parameter: COD

SUPERVISOR REVIEW BY: jignesh

Run Number: LB137422

Reagent/Standard	Lot/Log #
COD calibration std. 150 ppm	WP114659
COD calibration std. 100 ppm	WP114658
COD calibration std. 50 ppm	WP114656
COD calibration std. 10 ppm	WP114655
COD calibration std. 0 ppm	WP114654
COD ICV-LCS std, 50ppm	WP114661
COD calibration std. 75 ppm	WP114657
COD CCV std, 50ppm	WP114941
COD ICV-LCS std, 50ppm	WP114942
RL CHECK	WP114943
COD Digestion Vials Low Level 0-150Mg/L	W3230

Temp In (C): 148	Date In: 10/03/2025	Time In: 10:55
Temp Out (C): 150	Date Out: 10/03/2025	Time Out: 12:55

Intercept: 0.3943

Slope: 0.9887

Regression: 0.9996

Seq	Lab ID	TrueValue (mg/l)	DF	MATRIX	Reading	Result (mg/l)	%D	Anal Date	Anal Time
1	CAL1	0	1	Water	0.000	-0.399		09/08/2025	13:30
2	CAL2	10	1	Water	9.000	8.704	-13	09/08/2025	13:30
3	CAL3	50	1	Water	51.000	51.184	2.4	09/08/2025	13:31
4	CAL4	75	1	Water	77.000	77.481	3.3	09/08/2025	13:31
5	CAL5	100	1	Water	98.000	98.721	-1.3	09/08/2025	13:32
6	CAL6	150	1	Water	148.000	149.293	-0.5	09/08/2025	13:32

Analytical Summary Report

Analysis Method: SM5220 D

ANALYST: Iwona

Parameter: COD

SUPERVISOR REVIEW BY: jignesh

Run Number: LB137422

Seq	Lab ID	True Value (mg/l)	Initial Weight (g)	Final Vol (ml)	DF	MATRIX	Reading	Result	AnalDate	AnalTime
1	ICV	50	NA	NA	1	Water	50.000	50.173	09/08/2025	13:33
2	ICB		NA	NA	1	Water	1.000	0.613	09/08/2025	13:33
3	CCV1	50	NA	NA	1	Water	49.000	49.161	10/03/2025	14:15
4	CCB1		NA	NA	1	Water	1.000	0.613	10/03/2025	14:15
5	RL Check	10	NA	NA	1	Water	7.000	6.681	10/03/2025	14:16
6	LB137422BL		NA	NA	1	Water	0.000	-0.399	10/03/2025	14:16
7	LB137422BS	50	NA	NA	1	Water	51.000	51.184	10/03/2025	14:17
8	Q3217-01		NA	NA	5	Water	36.000	36.013	10/03/2025	14:17
9	Q3218-01		NA	NA	10	Water	26.000	25.898	10/03/2025	14:18
10	Q3218-02		NA	NA	1	Water	69.000	69.390	10/03/2025	14:18
11	Q3218-03		NA	NA	5	Water	37.000	37.024	10/03/2025	14:19
12	Q3219-01		NA	NA	1	Water	30.000	29.944	10/03/2025	14:19
13	Q3219-02		NA	NA	1	Water	20.000	19.830	10/03/2025	14:20
14	Q3219-03		NA	NA	1	Water	19.000	18.818	10/03/2025	14:21
15	Q3227-01		NA	NA	1	Water	41.000	41.070	10/03/2025	14:21
16	CCV2	50	NA	NA	1	Water	48.000	48.150	10/03/2025	14:22
17	CCB2		NA	NA	1	Water	1.000	0.613	10/03/2025	14:22
18	Q3263-01		NA	NA	1	Water	1.000	0.613	10/03/2025	14:23
19	Q3263-02		NA	NA	1	Water	1.000	0.613	10/03/2025	14:23
20	Q3263-02DUP		NA	NA	1	Water	1.000	0.613	10/03/2025	14:24
21	Q3263-02MS	50	NA	NA	1	Water	48.000	48.150	10/03/2025	14:24
22	Q3263-02MSD	50	NA	NA	1	Water	47.000	47.138	10/03/2025	14:25
23	CCV3	50	NA	NA	1	Water	50.000	50.173	10/03/2025	14:25
24	CCB3		NA	NA	1	Water	1.000	0.613	10/03/2025	14:26

WORKLIST(Hardcopy Internal Chain)

LB137422

WorkList Name : COD-100325

WorkList ID : 192281

Department : Wet-Chemistry

Date : 10-03-2025 09:59:13

Sample	Customer Sample	Matrix	Test	Preservative	Customer	Raw Sample Storage Location	Collect Date	Method
Q3217-01	Outfall 1	Water	COD	Conc H2SO4 to pH < 2	ATGG01	J42	09/25/2025	SM5220 D
Q3218-01	Outfall 1	Water	COD	Conc H2SO4 to pH < 2	ATGG01	J33	09/25/2025	SM5220 D
Q3218-02	Outfall 2	Water	COD	Conc H2SO4 to pH < 2	ATGG01	J33	09/25/2025	SM5220 D
Q3218-03	Outfall 3	Water	COD	Conc H2SO4 to pH < 2	ATGG01	J33	09/25/2025	SM5220 D
Q3219-01	Outfall 001	Water	COD	Conc H2SO4 to pH < 2	ATGG01	J32	09/25/2025	SM5220 D
Q3219-02	Outfall 002	Water	COD	Conc H2SO4 to pH < 2	ATGG01	J32	09/25/2025	SM5220 D
Q3219-03	Outfall 003	Water	COD	Conc H2SO4 to pH < 2	ATGG01	J32	09/25/2025	SM5220 D
Q3227-01	Outfall 001	Water	COD	Conc H2SO4 to pH < 2	ATGG01	J22	09/25/2025	SM5220 D
Q3263-01	251818	Water	COD	Conc H2SO4 to pH < 2	PSEG03	D31	10/01/2025	SM5220 D
Q3263-02	266380	Water	COD	Conc H2SO4 to pH < 2	PSEG03	D31	10/01/2025	SM5220 D

Date/Time

10/03/25 10:15

Raw Sample Received by:

12/20

Raw Sample Relinquished by:

206007

Date/Time

10/03/25

Raw Sample Received by:

11:20

Raw Sample Relinquished by:

12/20

Instrument ID: WC SC-3

Daily Analysis Runlog For Sequence/QC Batch ID # LB137356

Review By	JIGNESH	Review On	10/1/2025 10:27:07 AM
Supervise By	Iwona	Supervise On	10/1/2025 11:30:50 AM
SubDirectory	LB137356	Test	TSS
STD. NAME	STD REF.#		
ICAL Standard	N/A		
ICV Standard	N/A		
CCV Standard	N/A		
ICSA Standard	N/A		
CRI Standard	N/A		
LCS Standard	N/A		
Chk Standard	N/A		

Sr#	SampleId	ClientID	QcType	Date	Comment	Operator	Status
1	LB137356BL	LB137356BL	MB	09/30/25 10:00		JIGNESH	OK
2	LB137356BS	LB137356BS	LCS	09/30/25 10:00	55 mg w3186+ 100ml w3112	JIGNESH	OK
3	Q3202-01	SY-6	SAM	09/30/25 10:00		JIGNESH	OK
4	Q3202-03	SY-2R	SAM	09/30/25 10:00		JIGNESH	OK
5	Q3202-05	SY-2D	SAM	09/30/25 10:00		JIGNESH	OK
6	Q3202-07	SY-5	SAM	09/30/25 10:00		JIGNESH	OK
7	Q3202-09	SY-3DD	SAM	09/30/25 10:00		JIGNESH	OK
8	Q3202-11	SY-3D	SAM	09/30/25 10:00		JIGNESH	OK
9	Q3202-11DUP	SY-3DDUP	DUP	09/30/25 10:00		JIGNESH	OK
10	Q3202-17	SY-3	SAM	09/30/25 10:00		JIGNESH	OK
11	Q3219-01	Outfall 001	SAM	09/30/25 10:00		JIGNESH	OK
12	Q3219-02	Outfall 002	SAM	09/30/25 10:00		JIGNESH	OK
13	Q3219-03	Outfall 003	SAM	09/30/25 10:00		JIGNESH	OK
14	Q3227-01	Outfall 001	SAM	09/30/25 10:00		JIGNESH	OK
15	Q3234-01	DA-1	SAM	09/30/25 10:00		JIGNESH	OK
16	Q3234-02	DA-2	SAM	09/30/25 10:00		JIGNESH	OK
17	Q3237-01	RW8-SP100-2025092	SAM	09/30/25 10:00		JIGNESH	OK
18	Q3237-02	RW8-SP303-2025092	SAM	09/30/25 10:00		JIGNESH	OK

Instrument ID: SPECTROPHOTOMETER-2

Daily Analysis Runlog For Sequence/QC Batch ID # LB137422

Review By	Iwona	Review On	10/3/2025 4:10:07 PM
Supervise By	jignesh	Supervise On	10/3/2025 4:11:10 PM
SubDirectory	LB137422	Test	COD
STD. NAME	STD REF.#		
ICAL Standard	N/A		
ICV Standard	N/A		
CCV Standard	N/A		
ICSA Standard	N/A		
CRI Standard	N/A		
LCS Standard	N/A		
Chk Standard	WP114659,WP114658,WP114656,WP114655,WP114654,WP114661,WP114657,WP114941,WP114942,WP114943,V		

Sr#	SampleId	ClientID	QcType	Date	Comment	Operator	Status
1	CAL1	CAL1	CAL	09/08/25 13:30		Iwona	OK
2	CAL2	CAL2	CAL	09/08/25 13:30		Iwona	OK
3	CAL3	CAL3	CAL	09/08/25 13:31		Iwona	OK
4	CAL4	CAL4	CAL	09/08/25 13:31		Iwona	OK
5	CAL5	CAL5	CAL	09/08/25 13:32		Iwona	OK
6	CAL6	CAL6	CAL	09/08/25 13:32		Iwona	OK
7	ICV	ICV	ICV	09/08/25 13:33		Iwona	OK
8	ICB	ICB	ICB	09/08/25 13:33		Iwona	OK
9	CCV1	CCV1	CCV	10/03/25 14:15		Iwona	OK
10	CCB1	CCB1	CCB	10/03/25 14:15		Iwona	OK
11	RL Check	RL Check	RL	10/03/25 14:16		Iwona	OK
12	LB137422BL	LB137422BL	MB	10/03/25 14:16		Iwona	OK
13	LB137422BS	LB137422BS	LCS	10/03/25 14:17		Iwona	OK
14	Q3217-01	Outfall 1	SAM	10/03/25 14:17		Iwona	OK
15	Q3218-01	Outfall 1	SAM	10/03/25 14:18		Iwona	OK
16	Q3218-02	Outfall 2	SAM	10/03/25 14:18		Iwona	OK
17	Q3218-03	Outfall 3	SAM	10/03/25 14:19		Iwona	OK
18	Q3219-01	Outfall 001	SAM	10/03/25 14:19		Iwona	OK

Instrument ID: SPECTROPHOTOMETER-2

Daily Analysis Runlog For Sequence/QCBatch ID # LB137422

Review By	Iwona	Review On	10/3/2025 4:10:07 PM
Supervise By	jignesh	Supervise On	10/3/2025 4:11:10 PM
SubDirectory	LB137422	Test	COD
STD. NAME	STD REF.#		
ICAL Standard	N/A		
ICV Standard	N/A		
CCV Standard	N/A		
ICSA Standard	N/A		
CRI Standard	N/A		
LCS Standard	N/A		
Chk Standard	WP114659,WP114658,WP114656,WP114655,WP114654,WP114661,WP114657,WP114941,WP114942,WP114943,V		

19	Q3219-02	Outfall 002	SAM	10/03/25 14:20		Iwona	OK
20	Q3219-03	Outfall 003	SAM	10/03/25 14:21		Iwona	OK
21	Q3227-01	Outfall 001	SAM	10/03/25 14:21		Iwona	OK
22	CCV2	CCV2	CCV	10/03/25 14:22		Iwona	OK
23	CCB2	CCB2	CCB	10/03/25 14:22		Iwona	OK
24	Q3263-01	251818	SAM	10/03/25 14:23		Iwona	OK
25	Q3263-02	266380	SAM	10/03/25 14:23		Iwona	OK
26	Q3263-02DUP	266380DUP	DUP	10/03/25 14:24		Iwona	OK
27	Q3263-02MS	266380MS	MS	10/03/25 14:24		Iwona	OK
28	Q3263-02MSD	266380MSD	MSD	10/03/25 14:25		Iwona	OK
29	CCV3	CCV3	CCV	10/03/25 14:25		Iwona	OK
30	CCB3	CCB3	CCB	10/03/25 14:26		Iwona	OK

Prep Standard - Chemical Standard Summary

Order ID : Q3219

Test : COD,TSS

Prepbatch ID :

Sequence ID/Qc Batch ID: LB137356, LB137422,

Standard ID :

WP114652, WP114653, WP114654, WP114655, WP114656, WP114657, WP114658, WP114659, WP114661, WP114939, WP
114940, WP114941, WP114942, WP114943,

Chemical ID :

W3112, W3169, W3219, W3230,



<u>Recipe ID</u>	<u>NAME</u>	<u>NO.</u>	<u>Prep Date</u>	<u>Expiration Date</u>	<u>Prepared By</u>	<u>ScaleID</u>	<u>PipetteID</u>	<u>Supervised By</u>
2456	COD Stock std, 1000ppm	WP114652	09/08/2025	09/15/2025	Iwona Zarych	WETCHEM_SCALE_5 (WCS-5)	None	Jignesh Parikh
<u>FROM</u> 0.08500gram of W3219 + 100.00000ml of W3112 = Final Quantity: 100.000 ml								

<u>Recipe ID</u>	<u>NAME</u>	<u>NO.</u>	<u>Prep Date</u>	<u>Expiration Date</u>	<u>Prepared By</u>	<u>ScaleID</u>	<u>PipetteID</u>	<u>Supervised By</u>
2457	COD Stock std-SS, 1000ppm	WP114653	09/08/2025	09/15/2025	Iwona Zarych	WETCHEM_SCALE_5 (WC SC-5)	None	Jignesh Parikh 09/11/2025
<u>FROM</u> 0.08500gram of W3169 + 100.00000ml of W3112 = Final Quantity: 100.000 ml								

Wet Chemistry STANDARD PREPARATION LOG

<u>Recipe ID</u>	<u>NAME</u>	<u>NO.</u>	<u>Prep Date</u>	<u>Expiration Date</u>	<u>Prepared By</u>	<u>ScaleID</u>	<u>PipetteID</u>	<u>Supervised By</u>
139	COD calibration std. 0 ppm	WP114654	09/08/2025	09/15/2025	Iwona Zarych	None	None	Jignesh Parikh
								09/11/2025

FROM 10.00000ml of W3112 = Final Quantity: 10.000 ml

<u>Recipe ID</u>	<u>NAME</u>	<u>NO.</u>	<u>Prep Date</u>	<u>Expiration Date</u>	<u>Prepared By</u>	<u>ScaleID</u>	<u>PipetteID</u>	<u>Supervised By</u>
138	COD calibration std. 10 ppm	WP114655	09/08/2025	09/15/2025	Iwona Zarych	None	WETCHEM_FIPETTE_3	Jignesh Parikh
							(WC)	09/11/2025

FROM 9.90000ml of W3112 + 0.10000ml of WP114652 = Final Quantity: 10.000 ml



<u>Recipe ID</u>	<u>NAME</u>	<u>NO.</u>	<u>Prep Date</u>	<u>Expiration Date</u>	<u>Prepared By</u>	<u>ScaleID</u>	<u>PipetteID</u>	<u>Supervised By</u>
137	COD calibration std. 50 ppm	WP114656	09/08/2025	09/15/2025	Iwona Zarych	None	WETCHEM_PIPETTE_3	Jignesh Parikh
(WC)								
<u>FROM</u>	9.50000ml of W3112 + 0.50000ml of WP114652 = Final Quantity: 10.000 ml							

<u>Recipe ID</u>	<u>NAME</u>	<u>NO.</u>	<u>Prep Date</u>	<u>Expiration Date</u>	<u>Prepared By</u>	<u>ScaleID</u>	<u>PipetteID</u>	<u>Supervised By</u>
4161	COD calibration std. 75 ppm	WP114657	09/08/2025	09/15/2025	Iwona Zarych	None	WETCHEM_PIPETTE_3 (WC)	Jignesh Parikh 09/11/2025
<u>FROM</u> 9.25000ml of W3112 + 0.75000ml of WP114652 = Final Quantity: 10.000 ml								

Wet Chemistry STANDARD PREPARATION LOG

<u>Recipe ID</u>	<u>NAME</u>	<u>NO.</u>	<u>Prep Date</u>	<u>Expiration Date</u>	<u>Prepared By</u>	<u>ScaleID</u>	<u>PipetteID</u>	<u>Supervised By</u>
136	COD calibration std. 100 ppm	WP114658	09/08/2025	09/15/2025	Iwona Zarych	None	WETCHEM_F IPETTE_3 (WC)	Jignesh Parikh 09/11/2025
FROM 9.00000ml of W3112 + 1.00000ml of WP114652 = Final Quantity: 10.000 ml								

<u>Recipe ID</u>	<u>NAME</u>	<u>NO.</u>	<u>Prep Date</u>	<u>Expiration Date</u>	<u>Prepared By</u>	<u>ScaleID</u>	<u>PipetteID</u>	<u>Supervised By</u>
135	COD calibration std. 150 ppm	WP114659	09/08/2025	09/15/2025	Iwona Zarych	None	WETCHEM_F IPETTE_3 (WC)	Jignesh Parikh 09/11/2025
FROM 8.50000ml of W3112 + 1.50000ml of WP114652 = Final Quantity: 10.000 ml								

Wet Chemistry STANDARD PREPARATION LOG

<u>Recipe ID</u>	<u>NAME</u>	<u>NO.</u>	<u>Prep Date</u>	<u>Expiration Date</u>	<u>Prepared By</u>	<u>ScaleID</u>	<u>PipetteID</u>	<u>Supervised By</u>
2459	COD ICV-LCS std, 50ppm	WP114661	09/08/2025	09/15/2025	Iwona Zarych	None	WETCHEM_F IPETTE_3 (WC)	Jignesh Parikh 09/11/2025

FROM 9.50000ml of W3112 + 0.50000ml of WP114653 = Final Quantity: 10.000 ml

<u>Recipe ID</u>	<u>NAME</u>	<u>NO.</u>	<u>Prep Date</u>	<u>Expiration Date</u>	<u>Prepared By</u>	<u>ScaleID</u>	<u>PipetteID</u>	<u>Supervised By</u>
2456	COD Stock std, 1000ppm	WP114939	09/29/2025	10/06/2025	Iwona Zarych	WETCHEM_S CALE_5 (WC SC-5)	None	Jignesh Parikh 09/30/2025

FROM 0.08500gram of W3219 + 100.00000ml of W3112 = Final Quantity: 100.000 ml



<u>Recipe ID</u>	<u>NAME</u>	<u>NO.</u>	<u>Prep Date</u>	<u>Expiration Date</u>	<u>Prepared By</u>	<u>ScaleID</u>	<u>PipetteID</u>	<u>Supervised By</u>
2457	COD Stock std-SS, 1000ppm	WP114940	09/29/2025	10/06/2025	Iwona Zarych	WETCHEM_S CALE_5 (WC SC-5)	None	Jignesh Parikh 09/30/2025
<u>FROM</u>	0.08500gram of W3169 + 100.00000ml of W3112 = Final Quantity: 100.000 ml							

<u>Recipe ID</u>	<u>NAME</u>	<u>NO.</u>	<u>Prep Date</u>	<u>Expiration Date</u>	<u>Prepared By</u>	<u>ScaleID</u>	<u>PipetteID</u>	<u>Supervised By</u>
2458	COD CCV std, 50ppm	WP114941	09/29/2025	10/06/2025	Iwona Zarych	None	WETCHEM_FIPETTE_3 (WC)	Jignesh Parikh 09/30/2025
<u>FROM</u>	9.50000ml of W3112 + 0.50000ml of WP114939 = Final Quantity: 10.000 ml							



<u>Recipe ID</u>	<u>NAME</u>	<u>NO.</u>	<u>Prep Date</u>	<u>Expiration Date</u>	<u>Prepared By</u>	<u>ScaleID</u>	<u>PipetteID</u>	<u>Supervised By</u>
2459	COD ICV-LCS std, 50ppm	WP114942	09/29/2025	10/06/2025	Iwona Zarych	None	WETCHEM_FIPETTE_3 (WC)	Jignesh Parikh 09/30/2025
<u>FROM</u> 9.50000ml of W3112 + 0.50000ml of WP114940 = Final Quantity: 10.000 ml								

<u>Recipe ID</u>	<u>NAME</u>	<u>NO.</u>	<u>Prep Date</u>	<u>Expiration Date</u>	<u>Prepared By</u>	<u>ScaleID</u>	<u>PipetteID</u>	<u>Supervised By</u>
4162	RL CHECK	WP114943	09/29/2025	10/06/2025	Iwona Zarych	None	WETCHEM_FIPETTE_3 (WC)	Jignesh Parikh 09/30/2025
<u>FROM</u> 9.90000ml of W3112 + 0.10000ml of WP114939 = Final Quantity: 10.000 ml								

CHEMICAL RECEIPT LOG BOOK

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Seidler Chemical	DIW / DI Water	Daily Lab-Certified	07/03/2029	07/03/2024 / lwona	07/03/2024 / lwona	W3112

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
PCI Scientific Supply, Inc.	P243-500 / Potassium Hydrogen Phthalate, 500 gms	24H0956262	04/28/2026	01/03/2025 / lwona	01/03/2025 / lwona	W3169

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
PCI Scientific Supply, Inc.	P243-500 / Potassium Hydrogen Phthalate, 500 gms	2025040493	06/30/2030	06/26/2025 / lwona	06/26/2025 / lwona	W3219

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Environmental Express LTD	B1010 / COD Digestion Vials Low Level 0-150Mg/L	5GE0517	05/31/2030	10/03/2025 / lwona	07/11/2025 / lwona	W3230



Material	BDH9260-500G
Material Description	BDH POTASS HYDRGN PHTHLTE 500G
Grade	ACS GRADE
Batch	24H0956262
Reassay Date	04/28/2026
CAS Number	877-24-7
Molecular Formula	HOCC6H4COOK
Molecular Mass	204.22
Date of Manufacture	04/29/2023
Storage	Room Temperature

Characteristics	Specifications	Measured Values
Appearance	White crystals.	White crystals.
Assay (dried basis)	99.95 - 100.05 %	99.98 %
Chlorine Compounds	<= 0.003 %	<0.003 %
Heavy Metals (as Pb)	<= 5 ppm	<5 ppm
Insoluble Matter	<= 0.005 %	0.003 %
Iron	<= 5 ppm	<5 ppm
pH (0.05M, Water) @25C	4.00 - 4.02	4.00
Sodium	<= 0.005 %	<0.005 %
Sulfur Compounds	<= 0.002 %	<0.002 %

Internal ID #: 322

Signature	Additional Information
We certify that this batch conforms to the specifications listed above. This document has been electronically produced and is valid without a signature. Leona Edwardson, Quality Control Sr. Manager - Solon VWR Chemicals, LLC. 28600 Fountain Parkway, Solon OH 44139 USA	Analysis may have been rounded to significant digits in specification limits Product meets analytical specifications of the grades listed.

Certificate Of Analysis



Date of Release: 4/8/2025

Name: **Potassium Hydrogen Phthalate**

ACS

Item No: **PX1476 All Sizes**

Lot / Batch No: **2025040493**

Country of Origin: **USA**

Item	Specifications	Analysis
Assay (Dried Basis)	99.95-100.05%	99.98%
Chlorine compounds (as Cl)	0.003% max.	<0.003%
Color	White	Passes Test
Form	Crystals	Passes Test
Heavy metals (by ICP-OES)	5 ppm max.	<5 ppm
Insoluble Matter	0.005% max.	<0.005%
Iron (Fe)	5 ppm max.	<5 ppm
pH of a 0.05m solution @ 25.0C	4.00-4.02	4.00
Sodium (Na)	0.005% max.	<0.005%
Sulfur compounds (as S)	0.002% max.	<0.002%

Joe Schoellkopf

Quality Control Manager

This document has been produced electronically and is valid without a signature.

EMD Millipore is a division of Merck KGaA, Darmstadt, Germany

EMD Millipore Corporation

400 Summit Drive
Burlington, MA 01803
U.S.A.

Form number: 00005624CA, Rev. 2.0

W 3228

W 3229

W 3230

Rec. on 7/11/25 by 12



environmental
express®

2345A Charleston Regional
Charleston, South Carolina 29492
environmentalexpress.com
+1 843.881.6560

May 12, 2025

CERTIFICATE OF ANALYSIS

Environmental Express certifies that the following COD Reagent Vials have been rigorously checked against NIST Traceable standards and also compared for conformance to another major brand name product. Environmental Express COD Vial performance is evaluated using bench top spectrophotometers. Acceptance guidelines are strict and ensure dependable, quality results.

Environmental Express further certifies that the COD products listed below are recognized by the United States Environmental Protection Agency (USEPA) as equivalent to an approved Water Pollutant Testing Procedure for COD (Federal Register, Vol. 45, No. 78, Monday, April 20th, 1980, page 26811) and as such can be used for National Pollution Discharge Elimination System (NPDES) reporting.

<u>Cat. No.</u>	<u>Lot No.</u>	<u>Product Description</u>	<u>Expiration Date</u>
B1010	5GE0517	COD Reagent Vials, 0 - 150 ppm	May-30



SHIPPING DOCUMENTS

CLIENT INFORMATION

REPORT TO BE SENT TO:

COMPANY: Durham School Services
ADDRESS: 42 A. Harlow Street
CITY Worcester STATE: MA ZIP: _____
ATTENTION: alluray.stormwater@alliantg.com
PHONE: _____ FAX: _____

CLIENT PROJECT INFORMATION

PROJECT NAME: CSC 4027 Worcester
PROJECT NO.: AEL-2025-001 LOCATION: Worcester
PROJECT MANAGER: _____
e-mail: _____
PHONE: _____ FAX: _____

CLIENT BILLING INFORMATION

BILL TO: _____ PO#: _____
ADDRESS: _____
CITY _____ STATE: _____ ZIP: _____
ATTENTION: _____ PHONE: _____

ANALYSIS

DATA TURNAROUND INFORMATION

FAX (RUSH) _____ DAYS*
HARDCOPY (DATA PACKAGE): _____ DAYS*
EDD: _____ DAYS*
*TO BE APPROVED BY CHEMTECH
STANDARD HARDCOPY TURNAROUND TIME IS 10 BUSINESS

DATA DELIVERABLE INFORMATION

☐ Level 1 (Results Only) ☐ Level 4 (QC + Full Raw Data)
☐ Level 2 (Results + QC) ☐ NJ Reduced ☐ US EPA CLP
☐ Level 3 (Results + QC) ☐ NYS ASP A ☐ NYS ASP B
+ Raw Data ☐ Other _____
☐ EDD FORMAT _____

1	2	3	4	5	6	7	8	9

PRESERVATIVES

COMMENTS

← Specify Preservatives
A-HCl D-NaOH
B-HNO3 E-ICE
C-H2SO4 F-OTHER

ALLIANCE SAMPLE ID	PROJECT SAMPLE IDENTIFICATION	SAMPLE MATRIX	SAMPLE TYPE		SAMPLE COLLECTION		# OF BOTTLES										
			COMP	GRAB	DATE	TIME		1	2	3	4	5	6	7	8	9	
1.	Outfall 001			X	9/25	5:20	2	1	1	2							
2.	Outfall 002			X	9/25	5:25	2	1	1	2							
3.	Outfall 003			X	9/25	5:30pm	2	1	1	2							
4.																	
5.																	
6.																	
7.																	
8.																	
9.																	
10.																	

SAMPLE CUSTODY MUST BE DOCUMENTED BELOW EACH TIME SAMPLES CHANGE POSSESSION INCLUDING COURIER DELIVERY

RELINQUISHED BY SAMPLER:	DATE/TIME:	RECEIVED BY:	Conditions of bottles or coolers at receipt: ☐ COMPLIANT ☐ NON COMPLIANT ☐ COOLER TEMP <u>23.5</u> °C
1.	<u>9/26/25</u>	<u>CR</u>	Comments: <u>Outfall 1 - pH level - 7.16 pH @ 24.3°C</u>
RELINQUISHED BY SAMPLER:	DATE/TIME:	RECEIVED BY:	<u>Outfall 2 - pH level - 6.94 pH @ 24.5°C</u>
2.			<u>Outfall 3 - pH level - 7.52 pH @ 23.5°C</u>
RELINQUISHED BY SAMPLER:	DATE/TIME:	RECEIVED BY:	CLIENT: ☐ Hand Delivered ☐ Other
3.			Page ____ of ____ Shipment Complete ☐ YES ☐ NO

Laboratory Certification

Certified By	License No.
Connecticut	PH-0830
DOD ELAP (ANAB)	L2219
Maine	2024021
Maryland	296
New Hampshire	255425
New Jersey	20012
New York	11376
Pennsylvania	68-00548
Soil Permit	525-24-234-08441
Texas	TX-C25-00189
Virginia	460312