

DATA PACKAGE

GENERAL CHEMISTRY
METALS

PROJECT NAME : ROTOR CLIP - PO# 5183.0001

VERINA CONSULTING GROUP, LLC

1011 US Highway 22, Suite 302

Bridgewater, NJ - 08807

Phone No: 908-864-4400

ORDER ID : P4763

ATTENTION : Michael Valenzi



Laboratory Certification ID # 20012



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DATA OF KNOWN QUALITY CONFORMANCE/NON-CONFORMANCE SUMMARY QUESTIONNAIRE

1

Laboratory Name : Alliance Technical Group LLC Client : VERINA CONSULTING GROUP, LLC
 Project Location : NJ Project Number : 5183.0001
 Laboratory Sample ID(s) : P4763 Sampling Date(s) : 11/07/2024
 List DKQP Methods Used (e.g., 8260,8270, et Cetra) **6010D,SM4500 CI G,SM4500-NH3**

1	For each analytical method referenced in this laboratory report package, were all specified QA/QC performance criteria followed, including the requirement to explain any criteria falling outside of acceptable guidelines, as specified in the NJDEP Data of Known Quality performance standards?	☒ Yes ☐ No
1A	Were the method specified handling, preservation, and holding time requirements met?	☐ Yes ☒ No
1B	EPH Method: Was the EPH method conducted without significant modifications (see Section 11.3 of respective DKQ methods)	☐ Yes ☐ No ☒ N/A
2	Were all samples received by the laboratory in a condition consistent with that described on the associated chain-of-custody document(s)?	☒ Yes ☐ No
3	Were samples received at an appropriate temperature (4±2° C)?	☒ Yes ☐ No ☐ N/A
4	Were all QA/QC performance criteria specified in the NJDEP DKQP standards achieved?	☐ Yes ☒ No
5	a)Were reporting limits specified or referenced on the chain-of-custody or communicated to the laboratory prior to sample receipt? b)Were these reporting limits met?	☒ Yes ☐ No ☒ Yes ☐ No ☐ N/A
6	For each analytical method referenced in this laboratory report package, were results reported for all constituents identified in the method-specific analyte lists presented in the DKQP documents and/or site-specific QAPP?	☒ Yes ☐ No
7	Are project-specific matrix spikes and/or laboratory duplicates included in this data set?	☒ Yes ☐ No

Notes: For all questions to which the response was “No” (with the exception of question #7), additional information should be provided in an attached narrative. If the answer to question #1, #1A, or #1B is “No”, the data package does not meet the requirements for “Data of Known Quality.”

Cover Page

Order ID : P4763

Project ID : Rotor Clip - PO# 5183.0001

Client : VERINA CONSULTING GROUP, LLC

Lab Sample Number

P4763-01

Client Sample Number

Water Treatment Discharge

I certify that the data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hard copy data package has been authorized by the laboratory manager or his designee, as verified by the following signature.

Signature : _____

Date: 11/18/2024

NYDOH CERTIFICATION NO - 11376

NJDEP CERTIFICATION NO - 20012



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CASE NARRATIVE

VERINA CONSULTING GROUP, LLC

Project Name: Rotor Clip - PO# 5183.0001

Project # N/A

Chemtech Project # P4763

Test Name: Metals Group4

A. Number of Samples and Date of Receipt:

1 Water sample was received on 11/07/2024.

B. Parameters:

According to the Chain of Custody document, the following analyses were requested: Ammonia, Metals Group4 and Residual Chlorine. This data package contains results for Metals Group4.

C. Analytical Techniques:

The analysis of Metals Group4 was based on method 6010D and digestion based on method 3010 (waters).

D. QA/ QC Samples:

The Holding Times were met for all analysis.

The Blank Spike met requirements for all samples.

The Duplicate analysis met criteria for all samples.

The Matrix Spike analysis met criteria for all samples.

The Matrix Spike Duplicate (Water Treatment DischargeMSD) analysis met criteria for all samples except for Zinc due to Chemical interference during Digestion Process.

The Blank analysis did not indicate the presence of lab contamination.

The Calibration met the requirements.

The Serial Dilution met the acceptable requirements.

E. Additional Comments:

I certify that the data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. The laboratory manager or his designee, as verified by the following signature has authorized release of the data contained in this hard copy data package.

Signature_____



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CASE NARRATIVE

VERINA CONSULTING GROUP, LLC

Project Name: Rotor Clip - PO# 5183.0001

Project # N/A

Chemtech Project # P4763

Test Name: Residual Chlorine

A. Number of Samples and Date of Receipt:

1 Water sample was received on 11/07/2024.

B. Parameters:

According to the Chain of Custody document, the following analyses were requested: Ammonia, Metals Group4 and Residual Chlorine. This data package contains results for Residual Chlorine.

C. Analytical Techniques:

The analysis of Residual Chlorine was based on method SM4500 Cl G.

D. QA/ QC Samples:

The Holding Times were met for all samples except for Water Treatment Discharge of Residual Chlorine as samples was receive out of holding time.

The Blank Spike met requirements for all samples.

The Duplicate analysis met criteria for all samples.

The Matrix Spike (Water Treatment DischargeMS) analysis met criteria for all samples except for Ammonia as N due to Matrix interference.

The Matrix Spike Duplicate (Water Treatment DischargeMSD) analysis met criteria for all samples except for Ammonia as N due to Matrix interference.

The Blank analysis did not indicate the presence of lab contamination.

The Calibration met the requirements.

E. Additional Comments:

I certify that the data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. The laboratory manager or his designee, as verified by the following signature has authorized release of the data contained in this hard copy data package.

Signature_____

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

APPENDIX A

QA REVIEW GENERAL DOCUMENTATION

Project #: P4763

Completed

For thorough review, the report must have the following:

GENERAL:

Are all original paperwork present (chain of custody, record of communication,airbill, sample management lab chronicle, login page)

✓

Check chain-of-custody for proper relinquish/return of samples

✓

Is the chain of custody signed and complete

✓

Check internal chain-of-custody for proper relinquish/return of samples /sample extracts

✓

Collect information for each project id from server. Were all requirements followed

✓

COVER PAGE:

Do numbers of samples correspond to the number of samples in the Chain of Custody on login page

✓

Do lab numbers and client Ids on cover page agree with the Chain of Custody

✓

CHAIN OF CUSTODY:

Do requested analyses on Chain of Custody agree with form I results

✓

Do requested analyses on Chain of Custody agree with the log-in page

✓

Were the correct method log-in for analysis according to the Analytical Request and Chain of Custody

✓

Were the samples received within hold time

✓

Were any problems found with the samples at arrival recorded in the Sample Management Laboratory Chronicle

✓

ANALYTICAL:

Was method requirement followed?

✓

Was client requirement followed?

✓

Does the case narrative summarize all QC failure?

✓

All runlogs and manual integration are reviewed for requirements

✓

All manual calculations and /or hand notations verified

✓

QA Review Signature: SOHIL JODHANI

Date: 11/18/2024

Hit Summary Sheet SW-846

SDG No.:	P4763	Order ID:	P4763
Client:	VERINA CONSULTING GROUP, LLC	Project ID:	Rotor Clip - PO# 5183.0001

Sample ID	Client ID	Matrix	Parameter	Concentration	C	MDL	RDL	Units
Client ID : Water Treatment Discharge								
P4763-01	Water Treatment Discharge	Water	Chromium	47.6		0.66	5.00	ug/L
P4763-01	Water Treatment Discharge	Water	Copper	14.7		7.07	10.0	ug/L
P4763-01	Water Treatment Discharge	Water	Nickel	18.4	J	0.85	20.0	ug/L
P4763-01	Water Treatment Discharge	Water	Zinc	88.2		1.75	20.0	ug/L



SAMPLE DATA

Report of Analysis

Client:	VERINA CONSULTING GROUP, LLC	Date Collected:	11/07/24
Project:	Rotor Clip - PO# 5183.0001	Date Received:	11/07/24
Client Sample ID:	Water Treatment Discharge	SDG No.:	P4763
Lab Sample ID:	P4763-01	Matrix:	Water
Level (low/med):	low	% Solid:	0

Cas	Parameter	Conc.	Qua.	DF	MDL	LOQ / CRQL	Units	Prep Date	Date Ana.	Ana Met.	Prep Met.
7440-47-3	Chromium	47.6		1	0.66	5.00	ug/L	11/08/24 12:30	11/11/24 16:30	SW6010	SW3010
7440-50-8	Copper	14.7		1	7.07	10.0	ug/L	11/08/24 12:30	11/11/24 16:30	SW6010	SW3010
7440-02-0	Nickel	18.4	J	1	0.85	20.0	ug/L	11/08/24 12:30	11/11/24 16:30	SW6010	SW3010
7440-66-6	Zinc	88.2	N	1	1.75	20.0	ug/L	11/08/24 12:30	11/11/24 16:30	SW6010	SW3010

Color Before:	Colorless	Clarity Before:	Clear	Texture:
Color After:	Colorless	Clarity After:	Clear	Artifacts:
Comments:	Metals Group4			

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

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



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Metals

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INITIAL AND CONTINUING CALIBRATION BLANK SUMMARY

Client: VERINA CONSULTING GROUP, LLC **SDG No.:** P4763
Contract: VERI01 **Lab Code:** CHEM **Case No.:** P4763 **SAS No.:** P4763

Sample ID	Analyte	Result ug/L	Acceptance Limit	Conc Qual	CRQL	M	Analysis Date	Analysis Time	Run Number
ICB01	Chromium	10.0	+/-10.0	U	10.0	P	11/11/2024	14:52	LB133395
	Copper	20.0	+/-20.0	U	20.0	P	11/11/2024	14:52	LB133395
	Nickel	40.0	+/-40.0	U	40.0	P	11/11/2024	14:52	LB133395
	Zinc	40.0	+/-40.0	U	40.0	P	11/11/2024	14:52	LB133395

Metals

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INITIAL AND CONTINUING CALIBRATION BLANK SUMMARY

Client: VERINA CONSULTING GROUP, LLC SDG No.: P4763
Contract: VERI01 Lab Code: CHEM Case No.: P4763 SAS No.: P4763

Sample ID	Analyte	Result ug/L	Acceptance Limit	Conc Qual	CRQL	M	Analysis Date	Analysis Time	Run Number
CCB01	Chromium	10.0	+/-10.0	U	10.0	P	11/11/2024	15:23	LB133395
	Copper	20.0	+/-20.0	U	20.0	P	11/11/2024	15:23	LB133395
	Nickel	40.0	+/-40.0	U	40.0	P	11/11/2024	15:23	LB133395
	Zinc	40.0	+/-40.0	U	40.0	P	11/11/2024	15:23	LB133395
CCB02	Chromium	10.0	+/-10.0	U	10.0	P	11/11/2024	15:42	LB133395
	Copper	20.0	+/-20.0	U	20.0	P	11/11/2024	15:42	LB133395
	Nickel	40.0	+/-40.0	U	40.0	P	11/11/2024	15:42	LB133395
	Zinc	40.0	+/-40.0	U	40.0	P	11/11/2024	15:42	LB133395
CCB03	Chromium	10.0	+/-10.0	U	10.0	P	11/11/2024	16:43	LB133395
	Copper	20.0	+/-20.0	U	20.0	P	11/11/2024	16:43	LB133395
	Nickel	40.0	+/-40.0	U	40.0	P	11/11/2024	16:43	LB133395
	Zinc	40.0	+/-40.0	U	40.0	P	11/11/2024	16:43	LB133395
CCB04	Chromium	10.0	+/-10.0	U	10.0	P	11/11/2024	17:43	LB133395
	Copper	20.0	+/-20.0	U	20.0	P	11/11/2024	17:43	LB133395
	Nickel	40.0	+/-40.0	U	40.0	P	11/11/2024	17:43	LB133395
	Zinc	40.0	+/-40.0	U	40.0	P	11/11/2024	17:43	LB133395

Metals
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PREPARATION BLANK SUMMARY

Client: VERINA CONSULTING GROUP, LLC

SDG No.: P4763

Instrument: P4

Sample ID	Analyte	Result (ug/L)	Acceptance Limit	Conc Qual	CRQL ug/L	M	Analysis Date	Analysis Time	Run
PB164796BL	WATER			Batch Number:	PB164796		Prep Date:	11/08/2024	
	Chromium	5.00	<5.00	U	5.00	P	11/11/2024	17:16	LB133395
	Copper	10.0	<10.0	U	10.0	P	11/11/2024	17:16	LB133395
	Nickel	20.0	<20.0	U	20.0	P	11/11/2024	17:16	LB133395
	Zinc	20.0	<20.0	U	20.0	P	11/11/2024	17:16	LB133395



METAL CALIBRATION DATA

Metals

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INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: VERINA CONSULTING GROUP, LLC **SDG No.:** P4763
Contract: VERI01 **Lab Code:** CHEM **Case No.:** P4763 **SAS No.:** P4763
Initial Calibration Source: EPA
Continuing Calibration Source: Inorganic Ventures

Sample ID	Analyte	Result ug/L	True Value	% Recovery	Acceptance Window (%R)	M	Analysis Date	Analysis Time	Run Number
ICV01	Chromium	526	520	101	90 - 110	P	11/11/2024	14:25	LB133395
	Copper	534	510	105	90 - 110	P	11/11/2024	14:25	LB133395
	Nickel	520	530	98	90 - 110	P	11/11/2024	14:25	LB133395
	Zinc	1060	1000	106	90 - 110	P	11/11/2024	14:25	LB133395

Metals

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INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: VERINA CONSULTING GROUP, LLC SDG No.: P4763
 Contract: VERI01 Lab Code: CHEM Case No.: P4763 SAS No.: P4763
 Initial Calibration Source: EPA
 Continuing Calibration Source: Inorganic Ventures

Sample ID	Analyte	Result ug/L	True Value	% Recovery	Acceptance Window (%R)	M	Analysis Date	Analysis Time	Run Number
LLICV01	Chromium	8.58	10.0	86	80 - 120	P	11/11/2024	14:47	LB133395
	Copper	21.4	20.0	107	80 - 120	P	11/11/2024	14:47	LB133395
	Nickel	36.1	40.0	90	80 - 120	P	11/11/2024	14:47	LB133395
	Zinc	42.1	40.0	105	80 - 120	P	11/11/2024	14:47	LB133395

Metals

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INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: VERINA CONSULTING GROUP, LLC SDG No.: P4763
Contract: VERI01 Lab Code: CHEM Case No.: P4763 SAS No.: P4763
Initial Calibration Source: EPA
Continuing Calibration Source: Inorganic Ventures

Sample ID	Analyte	Result ug/L	True Value	% Recovery	Acceptance Window (%R)	M	Analysis Date	Analysis Time	Run Number
CCV01	Chromium	953	1000	95	90 - 110	P	11/11/2024	15:14	LB133395
	Copper	1250	1250	100	90 - 110	P	11/11/2024	15:14	LB133395
	Nickel	2410	2500	96	90 - 110	P	11/11/2024	15:14	LB133395
	Zinc	2530	2500	101	90 - 110	P	11/11/2024	15:14	LB133395
CCV02	Chromium	931	1000	93	90 - 110	P	11/11/2024	15:37	LB133395
	Copper	1210	1250	97	90 - 110	P	11/11/2024	15:37	LB133395
	Nickel	2340	2500	94	90 - 110	P	11/11/2024	15:37	LB133395
	Zinc	2480	2500	99	90 - 110	P	11/11/2024	15:37	LB133395
CCV03	Chromium	938	1000	94	90 - 110	P	11/11/2024	16:39	LB133395
	Copper	1230	1250	98	90 - 110	P	11/11/2024	16:39	LB133395
	Nickel	2370	2500	95	90 - 110	P	11/11/2024	16:39	LB133395
	Zinc	2490	2500	100	90 - 110	P	11/11/2024	16:39	LB133395
CCV04	Chromium	948	1000	95	90 - 110	P	11/11/2024	17:38	LB133395
	Copper	1280	1250	102	90 - 110	P	11/11/2024	17:38	LB133395
	Nickel	2440	2500	98	90 - 110	P	11/11/2024	17:38	LB133395
	Zinc	2510	2500	101	90 - 110	P	11/11/2024	17:38	LB133395



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Metals

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CRDL STANDARD FOR AA & ICP

Client: VERINA CONSULTING GROUP, LLC

SDG No.: P4763

Contract: VERI01

Lab Code: CHEM

Case No.: P4763

SAS No.: P4763

Initial Calibration Source: _____

Continuing Calibration Source: _____

Sample ID	Analyte	Result ug/L	True Value ug/L	% Recovery	Acceptance Window (%R)	M	Analysis Date	Analysis Time	Run Number
CRI01	Chromium	8.50	10.0	85	40 - 160	P	11/11/2024	14:59	LB133395
	Copper	20.7	20.0	104	40 - 160	P	11/11/2024	14:59	LB133395
	Nickel	36.2	40.0	90	40 - 160	P	11/11/2024	14:59	LB133395
	Zinc	41.1	40.0	103	40 - 160	P	11/11/2024	14:59	LB133395

Metals
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INTERFERENCE CHECK SAMPLE

Client: VERINA CONSULTING GROUP, LLC **SDG No.:** P4763
Contract: VERI01 **Lab Code:** CHEM **Case No.:** P4763 **SAS No.:** P4763
ICS Source: EPA **Instrument ID:** P4

Sample ID	Analyte	Result ug/L	True Value ug/L	% Recovery	Low Limit (ug/L)	High Limit (ug/L)	Analysis Date	Analysis Time	Run Number
ICSA01	Chromium	52.2	52.0	100	42	62	11/11/2024	15:04	LB133395
	Copper	15.3	2.0	765	-18	22	11/11/2024	15:04	LB133395
	Nickel	2.14	2.0	107	-38	42	11/11/2024	15:04	LB133395
	Zinc	-1.46			-40	40	11/11/2024	15:04	LB133395
ICSAB01	Chromium	541	542	100	460	624	11/11/2024	15:08	LB133395
	Copper	503	511	98	434	588	11/11/2024	15:08	LB133395
	Nickel	988	954	104	810	1100	11/11/2024	15:08	LB133395
	Zinc	834	952	88	809	1095	11/11/2024	15:08	LB133395



METAL QC DATA

metals
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MATRIX SPIKE SUMMARY

client: <u>VERINA CONSULTING GROUP, LLC</u>	level: <u>low</u>	sdg no.: <u>P4763</u>
contract: <u>VERI01</u>	lab code: <u>CHEM</u>	case no.: <u>P4763</u> sas no.: <u>P4763</u>
matrix: <u>Water</u>	sample id: <u>P4763-01</u>	client id: <u>Water Treatment DischargeMS</u>
Percent Solids for Sample: <u>NA</u>	Spiked ID: <u>P4763-01MS</u>	Percent Solids for Spike Sample: <u>NA</u>

Analyte	Units	Acceptance Limit %R	Spiked Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Chromium	ug/L	75 - 125	228		47.6		200	90		P
Copper	ug/L	75 - 125	152		14.7		150	91		P
Nickel	ug/L	75 - 125	265		18.4	J	250	99		P
Zinc	ug/L	75 - 125	208		88.2		100	120		P

metals
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MATRIX SPIKE DUPLICATE SUMMARY

client: VERINA CONSULTING GROUP, LLC	level: low	sdg no.: P4763
contract: VERI01	lab code: CHEM	case no.: P4763 sas no.: P4763
matrix: Water	sample id: P4763-01	client id: Water Treatment DischargeMSD
Percent Solids for Sample: NA	Spiked ID: P4763-01MSD	Percent Solids for Spike Sample: NA

Analyte	Units	Acceptance Limit %R	MSD Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Chromium	ug/L	75 - 125	230		47.6		200	91		P
Copper	ug/L	75 - 125	154		14.7		150	93		P
Nickel	ug/L	75 - 125	268		18.4	J	250	100		P
Zinc	ug/L	75 - 125	216		88.2		100	128	N	P

Metals
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POST DIGEST SPIKE SUMMARY

Client: VERINA CONSULTING GROUP, LLC

SDG No.: P4763

Contract: VERI01

Lab Code: CHEM

Case No.: P4763

SAS No.: P4763

Matrix: Water

Level: LOW

Client ID: Water Treatment DischargeA

Sample ID: P4763-01

Spiked ID: P4763-01A

Analyte	Units	Acceptance Limit %R	Spiked Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Zinc	ug/L	75 - 125	214		88.2		100	126		P

A

B

C

D

E

F

G

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J

Metals

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DUPLICATE SAMPLE SUMMARY

Client: VERINA CONSULTING GROUP, LLC **Level:** LOW **SDG No.:** P4763
Contract: VERI01 **Lab Code:** CHEM **Case No.:** P4763 **SAS No.:** P4763
Matrix: Water **Sample ID:** P4763-01 **Client ID:** Water Treatment DischargeDUP
Percent Solids for Sample: NA **Duplicate ID** P4763-01DUP **Percent Solids for Spike Sample:** NA

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Chromium	ug/L	20	47.6		50.1		5		P
Copper	ug/L	20	14.7		15.6		6		P
Nickel	ug/L	20	18.4	J	19.6	J	6		P
Zinc	ug/L	20	88.2		95.3		8		P

“A control limit of $\pm 20\%$ RPD for each matrix applies for sample values greater than 10 times Detection Limit”

Metals

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DUPLICATE SAMPLE SUMMARY

Client: VERINA CONSULTING GROUP, LLC **Level:** LOW **SDG No.:** P4763
Contract: VERI01 **Lab Code:** CHEM **Case No.:** P4763 **SAS No.:** P4763
Matrix: Water **Sample ID:** P4763-01MS **Client ID:** Water Treatment DischargeMSD
Percent Solids for Sample: NA **Duplicate ID** P4763-01MSD **Percent Solids for Spike Sample:** NA

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Chromium	ug/L	20	228		230		1		P
Copper	ug/L	20	152		154		1		P
Nickel	ug/L	20	265		268		1		P
Zinc	ug/L	20	208		216		4		P

“A control limit of $\pm 20\%$ RPD for each matrix applies for sample values greater than 10 times Detection Limit”

Metals

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LABORATORY CONTROL SAMPLE SUMMARY

Client: VERINA CONSULTING GROUP, LLC **SDG No.:** P4763
Contract: VERI01 **Lab Code:** CHEM **Case No.:** P4763 **SAS No.:** P4763

Analyte	Units	True Value	Result	C	% Recovery	Acceptance Limits	M
PB164796BS							
Chromium	ug/L	200	197		98	80 - 120	P
Copper	ug/L	150	158		105	80 - 120	P
Nickel	ug/L	250	246		98	80 - 120	P
Zinc	ug/L	100	107		107	80 - 120	P

Metals
-9 -
ICP SERIAL DILUTIONS

SAMPLE NO.

Water Treatment DischargeL

Lab Name: Chemtech Consulting Group **Contract:** VERI01
Lab Code: CHEM **Lb No.:** lb133395 **Lab Sample ID :** P4763-01L **SDG No.:** P4763
Matrix (soil/water): Water **Level (low/med):** LOW
Concentration Units: ug/L

Analyte	Initial Sample Result (I)		Serial Dilution Result (S)		% Differ- ence		Q	M
	C		C					
Chromium	47.6		49.2		3			P
Copper	14.7		50.0	U	100.0			P
Nickel	18.4	J	19.1	J	4			P
Zinc	88.2		89.5	J	1			P

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metals
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ANALYSIS RUN LOG

Client: VERINA CONSULTING GROUP, LLC

Contract: VERI01

Lab code: CHEM

Case no.: P4763

Sas no.: P4763

Sdg no.: P4763

Instrument id number:

Method:

Run number: LB133395

Start date: 11/11/2024

End date: 11/11/2024

Lab sample id.	Client Sample Id	d/f	Time	Parameter list
S0	S0	1	1359	Cr,Cu,Ni,Zn
S1	S1	1	1404	Cr,Cu,Ni,Zn
S2	S2	1	1408	Cr,Cu,Ni,Zn
S3	S3	1	1412	Cr,Cu,Ni,Zn
S4	S4	1	1417	Cr,Cu,Ni,Zn
S5	S5	1	1421	Cr,Cu,Ni,Zn
ICV01	ICV01	1	1425	Cr,Cu,Ni,Zn
LLICV01	LLICV01	1	1447	Cr,Cu,Ni,Zn
ICB01	ICB01	1	1452	Cr,Cu,Ni,Zn
CRI01	CRI01	1	1459	Cr,Cu,Ni,Zn
ICSA01	ICSA01	1	1504	Cr,Cu,Ni,Zn
ICSAB01	ICSAB01	1	1508	Cr,Cu,Ni,Zn
CCV01	CCV01	1	1514	Cr,Cu,Ni,Zn
CCB01	CCB01	1	1523	Cr,Cu,Ni,Zn
CCV02	CCV02	1	1537	Cr,Cu,Ni,Zn
CCB02	CCB02	1	1542	Cr,Cu,Ni,Zn
P4763-01	Water Treatment Discharge	1	1630	Cr,Cu,Ni,Zn
CCV03	CCV03	1	1639	Cr,Cu,Ni,Zn
CCB03	CCB03	1	1643	Cr,Cu,Ni,Zn
P4763-01DUP	Water Treatment DischargeDUP	1	1655	Cr,Cu,Ni,Zn
P4763-01L	Water Treatment DischargeL	5	1659	Cr,Cu,Ni,Zn
P4763-01MS	Water Treatment DischargeMS	1	1704	Cr,Cu,Ni,Zn
P4763-01MSD	Water Treatment DischargeMSD	1	1708	Cr,Cu,Ni,Zn
P4763-01A	Water Treatment DischargeA	1	1712	Zn
PB164796BL	PB164796BL	1	1716	Cr,Cu,Ni,Zn
PB164796BS	PB164796BS	1	1720	Cr,Cu,Ni,Zn
CCV04	CCV04	1	1738	Cr,Cu,Ni,Zn
CCB04	CCB04	1	1743	Cr,Cu,Ni,Zn



METAL PREPARATION & INSTRUMENT DATA

Metals

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ICP INTERELEMENT CORRECTION FACTORS

Client: VERINA CONSULTING GROUP, LLC

SDG No.: P4763

Contract: VERI01

Lab Code: CHEM

Case No.: P4763

SAS No.: P4763

Instrument ID: _____

Date: _____

Interelement Correction Factors (apparent ppb analyte/ppm interferent)

Analyte	Wave- Length (nm)	ICP Interelement Correction Factors For:				
		Al	Ca	Fe	Mg	Ag
Chromium	267.716	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Copper	224.700	0.0000000	0.0000000	0.0007850	0.0000000	0.0000000
Nickel	231.604	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Zinc	213.800	0.0000000	0.0000000	0.0001050	0.0000000	0.0000000

Metals

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ICP INTERELEMENT CORRECTION FACTORS

Client: VERINA CONSULTING GROUP, LLC

SDG No.: P4763

Contract: VERI01

Lab Code: CHEM

Case No.: P4763

SAS No.: P4763

Instrument ID: _____

Date: _____

Interelement Correction Factors (apparent ppb analyte/ppm interferent)

Analyte	Wave- Length (nm)	ICP Interelement Correction Factors For:				
		As	Ba	Be	Cd	Co
Chromium	267.716	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Copper	224.700	0.0000000	0.0000000	0.0000000	0.0000000	0.0009530
Nickel	231.604	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Zinc	213.800	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000

Metals

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ICP INTERELEMENT CORRECTION FACTORS

Client: VERINA CONSULTING GROUP, LLC

SDG No.: P4763

Contract: VERI01

Lab Code: CHEM

Case No.: P4763

SAS No.: P4763

Instrument ID: _____

Date: _____

Interement Correction Factors (apparent ppb analyte/ppm interferent)

Analyte	Wave- Length (nm)	ICP Interement Correction Factors For:				
		Cr	Cu	K	Mn	Mo
Chromium	267.716	0.0000000	0.0000000	0.0000070	0.0002200	0.0000000
Copper	224.700	0.0000000	0.0000000	0.0000000	0.0006510	0.0020500
Nickel	231.604	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Zinc	213.800	0.0000000	0.0009010	0.0000000	0.0000000	0.0000000

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Metals

- 11 -

ICP INTERELEMENT CORRECTION FACTORS

Client: VERINA CONSULTING GROUP, LLC

SDG No.: P4763

Contract: VERI01

Lab Code: CHEM

Case No.: P4763

SAS No.: P4763

Instrument ID: _____

Date: _____

Interelement Correction Factors (apparent ppb analyte/ppm interferent)

Analyte	Wave- Length (nm)	ICP Interelement Correction Factors For:				
		Na	Ni	Pb	Sb	Se
Chromium	267.716	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Copper	224.700	0.0000000	-0.0047000	0.0036100	0.0000000	0.0000000
Nickel	231.604	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Zinc	213.800	0.0000000	0.0067600	0.0000000	0.0000000	0.0000000

Metals

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ICP INTERELEMENT CORRECTION FACTORS

Client: VERINA CONSULTING GROUP, LLC

SDG No.: P4763

Contract: VERI01

Lab Code: CHEM

Case No.: P4763

SAS No.: P4763

Instrument ID: _____

Date: _____

Interelement Correction Factors (apparent ppb analyte/ppm interferent)

Analyte	Wave- Length (nm)	ICP Interelement Correction Factors For:				
		Sn	Ti	Tl	V	Zn
Chromium	267.716	0.0000000	0.0000000	0.0000000	0.0001110	0.0000000
Copper	224.700	0.0000000	0.0003840	0.0000000	0.0000000	0.0000000
Nickel	231.604	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Zinc	213.800	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000

LAB CHRONICLE

OrderID:	P4763	OrderDate:	11/7/2024 12:44:00 PM
Client:	VERINA CONSULTING GROUP, LLC	Project:	Rotor Clip - PO# 5183.0001
Contact:	Michael Valenzi	Location:	L11

LabID	ClientID	Matrix	Test	Method	Sample Date	Prep Date	Anal Date	Received
P4763-01	Water Treatment Discharge	Water	Metals Group4	6010D	11/07/24	11/08/24	11/11/24	11/07/24



METAL PREPARATION & ANALYICAL SUMMARY

Metals
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SAMPLE PREPARATION SUMMARY

Client: VERINA CONSULTING GROUP, LLC **SDG No.:** P4763
Contract: VERI01 **Lab Code:** CHEM **Method:** _____
Case No.: P4763 **SAS No.:** P4763

Sample ID	Client ID	Sample Type	Matrix	Prep Date	Initial Sample Size(mL)	Final Sample Volume (mL)	Percent Solids
Batch Number: PB164796							
P4763-01	Water Treatment Discharge	SAM	WATER	11/08/2024	50.0	25.0	
P4763-01DUP	Water Treatment DischargeDUP	DUP	WATER	11/08/2024	50.0	25.0	
P4763-01MS	Water Treatment DischargeMS	MS	WATER	11/08/2024	50.0	25.0	
P4763-01MSD	Water Treatment DischargeMSD	MSD	WATER	11/08/2024	50.0	25.0	
PB164796BL	PB164796BL	MB	WATER	11/08/2024	50.0	25.0	
PB164796BS	PB164796BS	LCS	WATER	11/08/2024	50.0	25.0	

Instrument ID: P4

Daily Analysis Runlog For Sequence/QC Batch ID # LB133395

Review By	kareem	Review On	11/12/2024 2:12:26 PM
Supervise By	jaswal	Supervise On	11/12/2024 9:51:41 PM
STD. NAME	STD REF.#		
ICAL Standard	MP83078,MP8379,MP83080,MP83081,MP83082,MP83084		
ICV Standard	MP83085		
CCV Standard	MP83088		
ICSA Standard	MP83086,MP83087		
CRI Standard	MP83084		
LCS Standard			
Chk Standard	MP83091,MP83092		

Sr#	SampleId	ClientID	QcType	Date	Comment	Operator	Status
1	S0	S0	CAL1	11/11/24 13:59		Kareem	OK
2	S1	S1	CAL2	11/11/24 14:04		Kareem	OK
3	S2	S2	CAL3	11/11/24 14:08		Kareem	OK
4	S3	S3	CAL4	11/11/24 14:12		Kareem	OK
5	S4	S4	CAL5	11/11/24 14:17		Kareem	OK
6	S5	S5	CAL6	11/11/24 14:21		Kareem	OK
7	ICV01	ICV01	ICV	11/11/24 14:25		Kareem	OK
8	LLICV01	LLICV01	LLICV	11/11/24 14:47		Kareem	OK
9	ICB01	ICB01	ICB	11/11/24 14:52		Kareem	OK
10	CRI01	CRI01	CRDL	11/11/24 14:59		Kareem	OK
11	ICSA01	ICSA01	ICSA	11/11/24 15:04		Kareem	OK
12	ICSAB01	ICSAB01	ICSAB	11/11/24 15:08		Kareem	OK
13	CCV01	CCV01	CCV	11/11/24 15:14		Kareem	OK
14	CCB01	CCB01	CCB	11/11/24 15:23		Kareem	OK
15	P4797-01	2885	SAM	11/11/24 15:28		Kareem	OK
16	P4701-04	BP-F3	SAM	11/11/24 15:33		Kareem	OK
17	CCV02	CCV02	CCV	11/11/24 15:37		Kareem	OK
18	CCB02	CCB02	CCB	11/11/24 15:42		Kareem	OK

Instrument ID: P4

Daily Analysis Runlog For Sequence/QC Batch ID # LB133395

Review By	kareem	Review On	11/12/2024 2:12:26 PM
Supervise By	jaswal	Supervise On	11/12/2024 9:51:41 PM
STD. NAME	STD REF.#		
ICAL Standard	MP83078,MP8379,MP83080,MP83081,MP83082,MP83084		
ICV Standard	MP83085		
CCV Standard	MP83088		
ICSA Standard	MP83086,MP83087		
CRI Standard	MP83084		
LCS Standard			
Chk Standard	MP83091,MP83092		

19	P4791-02	HINCHMAN-OILY-WA	SAM	11/11/24 15:46		Kareem	OK
20	P4791-02DUP	HINCHMAN-OILY-WA	DUP	11/11/24 15:51		Kareem	OK
21	P4791-02L	HINCHMAN-OILY-WA	SD	11/11/24 15:55		Kareem	OK
22	P4791-02MS	HINCHMAN-OILY-WA	MS	11/11/24 15:59	0.1ML OF M6010 AND M6001 WERE ADDED TO 10ML OF SAMPLE	Kareem	OK
23	P4791-02MSD	HINCHMAN-OILY-WA	MSD	11/11/24 16:03	0.1ML OF M6010 AND M6001 WERE ADDED TO 10ML OF SAMPLE	Kareem	OK
24	P4791-02A	HINCHMAN-OILY-WA	PS	11/11/24 16:07	0.1ML OF M6010 AND M6001 WERE ADDED TO 10ML OF SAMPLE	Kareem	OK
25	P4792-04	MANHOLE-WASTE-D	SAM	11/11/24 16:11		Kareem	OK
26	PB164826BL	PB164826BL	MB	11/11/24 16:22		Kareem	OK
27	PB164826BS	PB164826BS	LCS	11/11/24 16:26	0.1ML OF M6010 AND M6001 WERE ADDED TO 10ML OF SAMPLE	Kareem	OK
28	P4763-01	Water Treatment Disc	SAM	11/11/24 16:30		Kareem	OK
29	CCV03	CCV03	CCV	11/11/24 16:39		Kareem	OK
30	CCB03	CCB03	CCB	11/11/24 16:43		Kareem	OK
31	P4763-01DUP	Water Treatment Disc	DUP	11/11/24 16:55		Kareem	OK
32	P4763-01L	Water Treatment Disc	SD	11/11/24 16:59		Kareem	OK
33	P4763-01MS	Water Treatment Disc	MS	11/11/24 17:04	0.1ML OF M6010 AND M6001 WERE ADDED TO 10ML OF SAMPLE	Kareem	OK

Instrument ID: P4

Daily Analysis Runlog For Sequence/QC Batch ID # LB133395

Review By	kareem	Review On	11/12/2024 2:12:26 PM
Supervise By	jaswal	Supervise On	11/12/2024 9:51:41 PM

STD. NAME	STD REF.#
ICAL Standard	MP83078,MP8379,MP83080,MP83081,MP83082,MP83084
ICV Standard	MP83085
CCV Standard	MP83088
ICSA Standard	MP83086,MP83087
CRI Standard	MP83084
LCS Standard	
Chk Standard	MP83091,MP83092

34	P4763-01MSD	Water Treatment Disc	MSD	11/11/24 17:08	0.1ML OF M6010 AND M6001 WERE ADDED TO 10ML OF SAMPLE	Kareem	OK
35	P4763-01A	Water Treatment Disc	PS	11/11/24 17:12	0.1ML OF M6010 AND M6001 WERE ADDED TO 10ML OF SAMPLE	Kareem	OK
36	PB164796BL	PB164796BL	MB	11/11/24 17:16		Kareem	OK
37	PB164796BS	PB164796BS	LCS	11/11/24 17:20	0.1ML OF M6010 AND M6001 WERE ADDED TO 10ML OF SAMPLE	Kareem	OK
38	LR1	LR1	HIGH STD	11/11/24 17:28		Kareem	OK
39	LR2	LR2	HIGH STD	11/11/24 17:33		Kareem	OK
40	CCV04	CCV04	CCV	11/11/24 17:38		Kareem	OK
41	CCB04	CCB04	CCB	11/11/24 17:43		Kareem	OK

SOP ID : M3010A-Digestion-17

SDG No : N/A

Matrix : WATER

Pipette ID: ICP A

Balance ID : M SC-2

Filter paper ID : N/A

pH Strip ID : M6069

Hood ID : #3

Block ID: 1. HOT BLOCK #3 2. N/A

Start Digest Date: 11/08/2024 Time : 12:30 Temp : 96 °C

End Digest Date: 11/08/2024 Time : 15:35 Temp : 96 °C

Digestion tube ID: M6054

Block thermometer ID: MET-DIG. #3

Dig Technician Signature: *JSP*

Supervisor Signature: *[Signature]*

Temp : 1. 96°C 2. N/A

Standard Name	MLS USED	STD REF. # FROM LOG
LFS-1	0.25	M6000
LFS-2	0.25	M6009
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A

Chemical Used	ML/SAMPLE USED	Lot Number
Conc. HNO3	3.00	M6116
1:1 HCL	5.00	MP82127
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A

Extraction Conformance/Non-Conformance Comments:

HOT BLOCK #1 Cell #50 : 96 C

Date / Time	Prepped Sample Relinquished By/Location	Received By/Location
11/8/24 16:00	<i>JSP Met dig</i>	<i>[Signature]</i>
	Preparation Group	Analysis Group

Lab Sample ID	Client Sample ID	pH	Initial Vol (ml)	Final Vol (ml)	Color Before	Color After	Clarity Before	Clarity After	Comment	Prep Pos
P4763-01	WATER TREATMENT DISCHARGE	<2	50	25	Colorless	Colorless	Clear	Clear	N/A	1
P4763-01DUP	WATER TREATMENT DISCHARGE DUP	<2	50	25	Colorless	Colorless	Clear	Clear	N/A	2
P4763-01MS	WATER TREATMENT DISCHARGE MS	<2	50	25	Colorless	Colorless	Clear	Clear	M6000,M6009	3
P4763-01MSD	WATER TREATMENT DISCHARGE MSD	<2	50	25	Colorless	Colorless	Clear	Clear	M6000,M6009	4
PB164796BL	PBW796	<2	50	25	Colorless	Colorless	Clear	Clear	N/A	5
PB164796BS	LCS796	<2	50	25	Colorless	Colorless	Clear	Clear	M6000,M6009	6

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SAMPLE DATA

Report of Analysis

Client:	VERINA CONSULTING GROUP, LLC	Date Collected:	11/07/24 10:13
Project:	Rotor Clip - PO# 5183.0001	Date Received:	11/07/24
Client Sample ID:	Water Treatment Discharge	SDG No.:	P4763
Lab Sample ID:	P4763-01	Matrix:	WATER
		% Solid:	0

Parameter	Conc.	Qua.	DF	MDL	LOQ / CRQL	Units	Prep Date	Date Ana.	Ana Met.
Ammonia as N	0.42		1	0.045	0.10	mg/L	11/08/24 09:30	11/08/24 13:39	SM 4500-NH3 B plus G-11
Residual Chlorine	0.024	HJ	1	0.016	0.10	mg/L		11/08/24 09:42	SM 4500-Cl G-11

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: VERINA CONSULTING GROUP, LLC

SDG No.: P4763

Project: Rotor Clip - PO# 5183.0001

RunNo.: LB133358

Analyte	Units	Result	True Value	% Recovery	Acceptance Window (%R)	Analysis Date
Sample ID: ICV1 Ammonia as N	mg/L	0.99	1	99	90-110	11/08/2024
Sample ID: CCV1 Ammonia as N	mg/L	1	1	100	90-110	11/08/2024
Sample ID: CCV2 Ammonia as N	mg/L	0.97	1	97	90-110	11/08/2024
Sample ID: CCV3 Ammonia as N	mg/L	1	1	100	90-110	11/08/2024
Sample ID: CCV4 Ammonia as N	mg/L	1	1	100	90-110	11/08/2024
Sample ID: CCV5 Ammonia as N	mg/L	0.96	1	96	90-110	11/08/2024

Initial and Continuing Calibration Verification

Client: VERINA CONSULTING GROUP, LLC

SDG No.: P4763

Project: Rotor Clip - PO# 5183.0001

RunNo.: LB133363

Analyte	Units	Result	True Value	% Recovery	Acceptance Window (%R)	Analysis Date
Sample ID: ICV Residual Chlorine	mg/L	0.407	0.4	102	90-110	11/08/2024
Sample ID: CCV1 Residual Chlorine	mg/L	0.397	0.4	99	90-110	11/08/2024
Sample ID: CCV2 Residual Chlorine	mg/L	0.397	0.4	99	90-110	11/08/2024

Initial and Continuing Calibration Blank Summary

Client: VERINA CONSULTING GROUP, LLC

SDG No.: P4763

Project: Rotor Clip - PO# 5183.0001

RunNo.: LB133358

Analyte	Units	Result	Acceptance Limits	Conc Qual	MDL	RDL	Analysis Date
Sample ID: ICB1 Ammonia as N	mg/L	< 0.0500	0.0500	U	0.045	0.1	11/08/2024
Sample ID: CCB1 Ammonia as N	mg/L	< 0.0500	0.0500	U	0.045	0.1	11/08/2024
Sample ID: CCB2 Ammonia as N	mg/L	< 0.0500	0.0500	U	0.045	0.1	11/08/2024
Sample ID: CCB3 Ammonia as N	mg/L	< 0.0500	0.0500	U	0.045	0.1	11/08/2024
Sample ID: CCB4 Ammonia as N	mg/L	< 0.0500	0.0500	U	0.045	0.1	11/08/2024
Sample ID: CCB5 Ammonia as N	mg/L	< 0.0500	0.0500	U	0.045	0.1	11/08/2024

Initial and Continuing Calibration Blank Summary

Client: VERINA CONSULTING GROUP, LLC

SDG No.: P4763

Project: Rotor Clip - PO# 5183.0001

RunNo.: LB133363

Analyte	Units	Result	Acceptance Limits	Conc Qual	MDL	RDL	Analysis Date
Sample ID: ICB Residual Chlorine	mg/L	< 0.0500	0.0500	U	0.016	0.1	11/08/2024
Sample ID: CCB1 Residual Chlorine	mg/L	< 0.0500	0.0500	U	0.016	0.1	11/08/2024
Sample ID: CCB2 Residual Chlorine	mg/L	< 0.0500	0.0500	U	0.016	0.1	11/08/2024

Preparation Blank Summary

Client: VERINA CONSULTING GROUP, LLC

SDG No.: P4763

Project: Rotor Clip - PO# 5183.0001

Analyte	Units	Result	Acceptance Limits	Conc Qual	MDL	RDL	Analysis Date
Sample ID: LB133363BL							
Residual Chlorine	mg/L	< 0.0500	0.0500	U	0.016	0.1	11/08/2024
Sample ID: PB164764BL							
Ammonia as N	mg/L	< 0.0500	0.0500	U	0.045	0.1	11/08/2024

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Matrix Spike Summary

Client:

VERINA CONSULTING GROUP, LLC

Project:

Rotor Clip - PO# 5183.0001

Client ID:

Water Treatment DischargeMS

SDG No.:

P4763

Sample ID:

P4763-01

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
Residual Chlorine	mg/L	71-148	0.43		0.024	J	0.4	1	101		11/08/2024
Ammonia as N	mg/L	75-125	1.00		0.42		1	1	58	*	11/08/2024

Matrix Spike Summary

Client:	VERINA CONSULTING GROUP, LLC	SDG No.:	P4763
Project:	Rotor Clip - PO# 5183.0001	Sample ID:	P4763-01
Client ID:	Water Treatment DischargeMSD	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
Residual Chlorine	mg/L	71-148	0.44		0.024	J	0.4	1	104		11/08/2024
Ammonia as N	mg/L	75-125	0.98		0.42		1	1	56	*	11/08/2024

Duplicate Sample Summary

Client:	VERINA CONSULTING GROUP, LLC	SDG No.:	P4763
Project:	Rotor Clip - PO# 5183.0001	Sample ID:	P4763-01
Client ID:	Water Treatment DischargeDUP	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
Ammonia as N	mg/L	+/-20	0.42		0.44		1	5		11/08/2024
Residual Chlorine	mg/L	+/-20	0.024	J	0.026	J	1	8		11/08/2024

Duplicate Sample Summary

Client:	VERINA CONSULTING GROUP, LLC	SDG No.:	P4763
Project:	Rotor Clip - PO# 5183.0001	Sample ID:	P4763-01
Client ID:	Water Treatment DischargeMSD	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
Ammonia as N	mg/L	+/-20	1.00		0.98		1	2		11/08/2024
Residual Chlorine	mg/L	+/-20	0.43		0.44		1	2.54		11/08/2024

Laboratory Control Sample Summary

Client:	VERINA CONSULTING GROUP, LLC	SDG No.:	P4763
Project:	Rotor Clip - PO# 5183.0001	Run No.:	LB133363

Analyte	Units	True Value	Result	Conc. Qualifier	% Recovery	Dilution Factor	Acceptance Limit %R	Analysis Date
Sample ID	LB133363BS							
Residual Chlorine	mg/L	0.4	0.41		102	1	90-110	11/08/2024

Laboratory Control Sample Summary

Client:	VERINA CONSULTING GROUP, LLC	SDG No.:	P4763
Project:	Rotor Clip - PO# 5183.0001	Run No.:	LB133358

Analyte	Units	True Value	Result	Conc. Qualifier	% Recovery	Dilution Factor	Acceptance Limit %R	Analysis Date
Sample ID	PB164764BS							
Ammonia as N	mg/L	1	0.98		98	1	90-110	11/08/2024

Instrument ID: KONELAB

Daily Analysis Runlog For Sequence/QC Batch ID # LB133358

Review By	rubina	Review On	11/11/2024 11:41:51 AM
Supervise By	Iwona	Supervise On	11/11/2024 11:46:49 AM
SubDirectory	LB133358	Test	Ammonia
STD. NAME	STD REF.#		
ICAL Standard	WP110607		
ICV Standard	WP110609		
CCV Standard	WP110608		
ICSA Standard	N/A		
CRI Standard	N/A		
LCS Standard	WP110181		
Chk Standard	WP110416,WP110019,WP108709,WP108840		

Sr#	SampleId	ClientID	QcType	Date	Comment	Operator	Status
1	0.1PPM	0.1PPM	CAL1	11/08/24 12:11		rubina	OK
2	0.2PPM	0.2PPM	CAL2	11/08/24 12:11		rubina	OK
3	0.4PPM	0.4PPM	CAL3	11/08/24 12:11		rubina	OK
4	1.0PPM	1.0PPM	CAL4	11/08/24 12:11		rubina	OK
5	1.3PPM	1.3PPM	CAL5	11/08/24 12:11		rubina	OK
6	2.0PPM	2.0PPM	CAL6	11/08/24 12:11		rubina	OK
7	ICV1	ICV1	ICV	11/08/24 13:06		rubina	OK
8	ICB1	ICB1	ICB	11/08/24 13:06		rubina	OK
9	CCV1	CCV1	CCV	11/08/24 13:06		rubina	OK
10	CCB1	CCB1	CCB	11/08/24 13:06		rubina	OK
11	RL	RL	SAM	11/08/24 13:06		rubina	OK
12	PB164763BL	PB164763BL	MB	11/08/24 13:07		rubina	OK
13	PB164763BS	PB164763BS	LCS	11/08/24 13:17		rubina	OK
14	P4722-03	WC-1(0-6)	SAM	11/08/24 13:17		rubina	OK
15	P4722-08	WC-2(0-6)	SAM	11/08/24 13:17		rubina	OK
16	RL	RL	SAM	11/08/24 13:17		rubina	OK
17	CCV2	CCV2	CCV	11/08/24 13:28		rubina	OK
18	CCB2	CCB2	CCB	11/08/24 13:28		rubina	OK

Instrument ID: KONELAB

Daily Analysis Runlog For Sequence/QC Batch ID # LB133358

Review By	rubina	Review On	11/11/2024 11:41:51 AM
Supervise By	Iwona	Supervise On	11/11/2024 11:46:49 AM
SubDirectory	LB133358	Test	Ammonia
STD. NAME	STD REF.#		
ICAL Standard	WP110607		
ICV Standard	WP110609		
CCV Standard	WP110608		
ICSA Standard	N/A		
CRI Standard	N/A		
LCS Standard	WP110181		
Chk Standard	WP110416,WP110019,WP108709,WP108840		

19	PB164764BL	PB164764BL	MB	11/08/24 13:28		rubina	OK
20	PB164764BS	PB164764BS	LCS	11/08/24 13:28		rubina	OK
21	P4735-01	EFFLUENT	SAM	11/08/24 13:28	High	rubina	Dilution
22	P4735-05	INFLUENT	SAM	11/08/24 13:39	High	rubina	Dilution
23	P4763-01	Water Treatment Disc	SAM	11/08/24 13:39		rubina	OK
24	P4763-01DUP	Water Treatment Disc	DUP	11/08/24 13:39		rubina	OK
25	P4763-01MS	Water Treatment Disc	MS	11/08/24 13:39		rubina	OK
26	P4763-01MSD	Water Treatment Disc	MSD	11/08/24 13:39		rubina	OK
27	P4765-01	DSN002	SAM	11/08/24 13:39		rubina	OK
28	P4765-03	DSN001	SAM	11/08/24 13:49		rubina	OK
29	CCV3	CCV3	CCV	11/08/24 13:49		rubina	OK
30	CCB3	CCB3	CCB	11/08/24 13:49		rubina	OK
31	P4765-05	DSN003	SAM	11/08/24 13:49		rubina	OK
32	CCV4	CCV4	CCV	11/08/24 13:49		rubina	OK
33	CCB4	CCB4	CCB	11/08/24 13:49		rubina	OK
34	P4722-13	WC-3(0-6)	SAM	11/08/24 14:24		rubina	OK
35	P4722-13DUP	WC-3(0-6)DUP	DUP	11/08/24 14:24		rubina	OK
36	P4722-13MS	WC-3(0-6)MS	MS	11/08/24 14:24		rubina	OK
37	P4722-13MSD	WC-3(0-6)MSD	MSD	11/08/24 14:24		rubina	OK
38	P4735-01DL	EFFLUENTDL	SAM	11/08/24 14:24	Report 10X	rubina	Confirms

Instrument ID: KONELAB

Daily Analysis Runlog For Sequence/QC Batch ID # LB133358

Review By	rubina	Review On	11/11/2024 11:41:51 AM
Supervise By	Iwona	Supervise On	11/11/2024 11:46:49 AM
SubDirectory	LB133358	Test	Ammonia
STD. NAME	STD REF.#		
ICAL Standard	WP110607		
ICV Standard	WP110609		
CCV Standard	WP110608		
ICSA Standard	N/A		
CRI Standard	N/A		
LCS Standard	WP110181		
Chk Standard	WP110416,WP110019,WP108709,WP108840		

39	P4735-05DL	INFLUENTDL	SAM	11/08/24 14:24	Report 5X	rubina	Confirms
40	CCV5	CCV5	CCV	11/08/24 14:24		rubina	OK
41	CCB5	CCB5	CCB	11/08/24 14:24		rubina	OK

Instrument ID: SPECTROPHOTOMETER-1

Daily Analysis Runlog For Sequence/QC Batch ID # LB133363

Review By	Niha	Review On	11/8/2024 4:53:59 PM
Supervise By	jignesh	Supervise On	11/8/2024 4:59:40 PM
SubDirectory	LB133363	Test	Residual Chlorine
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	WP110619,WP110618,WP110613,WP110614,WP110615,WP110612,WP110616,WP110620,WP110617,W3147		

Sr#	SampleId	ClientID	QcType	Date	Comment	Operator	Status
1	CAL1	CAL1	CAL	11/08/24 09:00		Niha	OK
2	CAL2	CAL2	CAL	11/08/24 09:03		Niha	OK
3	CAL3	CAL3	CAL	11/08/24 09:06		Niha	OK
4	CAL4	CAL4	CAL	11/08/24 09:09		Niha	OK
5	CAL5	CAL5	CAL	11/08/24 09:12		Niha	OK
6	CAL6	CAL6	CAL	11/08/24 09:15		Niha	OK
7	ICV	ICV	ICV	11/08/24 09:18		Niha	OK
8	ICB	ICB	ICB	11/08/24 09:21		Niha	OK
9	CCV1	CCV1	CCV	11/08/24 09:24		Niha	OK
10	CCB1	CCB1	CCB	11/08/24 09:27		Niha	OK
11	LB133363BL	LB133363BL	MB	11/08/24 09:30		Niha	OK
12	LB133363BS	LB133363BS	LCS	11/08/24 09:33		Niha	OK
13	P4368-07	LOD-MDL-WATER-01	SAM	11/08/24 09:36		Niha	OK
14	P4368-08	LOQ-WATER-02-QT4	SAM	11/08/24 09:39		Niha	OK
15	P4763-01	Water Treatment Disc	SAM	11/08/24 09:42		Niha	OK
16	P4763-01DUP	Water Treatment Disc	DUP	11/08/24 09:45		Niha	OK
17	P4763-01MS	Water Treatment Disc	MS	11/08/24 09:48		Niha	OK
18	P4763-01MSD	Water Treatment Disc	MSD	11/08/24 09:52		Niha	OK

Instrument ID: SPECTROPHOTOMETER-1

Daily Analysis Runlog For Sequence/QC Batch ID # LB133363

Review By	Niha	Review On	11/8/2024 4:53:59 PM
Supervise By	jignesh	Supervise On	11/8/2024 4:59:40 PM
SubDirectory	LB133363	Test	Residual Chlorine
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	WP110619,WP110618,WP110613,WP110614,WP110615,WP110612,WP110616,WP110620,WP110617,W3147		

19	CCV2	CCV2	CCV	11/08/24 09:55		Niha	OK
20	CCB2	CCB2	CCB	11/08/24 09:58		Niha	OK

LAB CHRONICLE

OrderID:	P4763	OrderDate:	11/7/2024 12:44:00 PM
Client:	VERINA CONSULTING GROUP, LLC	Project:	Rotor Clip - PO# 5183.0001
Contact:	Michael Valenzi	Location:	L11

LabID	ClientID	Matrix	Test	Method	Sample Date	Prep Date	Anal Date	Received
P4763-01	Water Treatment Discharge	WATER			11/07/24 10:13			11/07/24
			Ammonia	SM4500-NH3		11/08/24	11/08/24 13:39	
			Residual Chlorine	SM4500 Cl G			11/08/24 09:42	

SOP ID : MSM4500-NH3 B,G-Ammonia-17

SDG No : N/A

Start Digest Date: 11/08/2024 Time : 09:30 Temp : 150 °C

Matrix : WATER

End Digest Date: 11/08/2024 Time : 10:30 Temp : 160 °C

Pipette ID : WC

11 batch 11/08/2024 10:50 150°C RM
11/08/2024 11:50 158°C RM

Balance ID : N/A

Hood ID : HOOD#2

Digestion tube ID : M5595

Block Thermometer ID : WC CYANIDE

Block ID : WC-DIST-BLOCK-1

Filter paper ID : N/A

Prep Technician Signature: RM

Weigh By : N/A

pH Meter ID : N/A

Supervisor Signature: JB

Standardized Name	MLS USED	STD REF. # FROM LOG
LCSW	1.0ML	WP110181
MS/MSD SPIKE SOL.	1.0ML	WP110180
PBW	50.0ML	W3112
RL CHECK	0.1ML	WP110180
N/A	N/A	N/A

Chemical Used	ML/SAMPLE USED	Lot Number
BORATE BUFFER	2.5ML	WP108708
NAOH 6N	0.5-2.0ML	WP108660
H2SO4 0.04N	5.0ML	WP110335
pH strip-Ammonia	N/A	W3133
KI-starch paper	N/A	W2965
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A

Extraction Conformance/Non-Conformance Comments:

ALL GLASSWEAR ARE STEAMED OUT AND THERE WERE NO TRACE OF AMMONIA USING NESLER REAGENT
WP108814.P4735-01,05ARE CLOUDY AND BAD SMELL SAMPLES SO I TOOK 1ML INSTEAD OF 50ML.

Date / Time	Prepped Sample Relinquished By/Location	Received By/Location
11/08/2024 12:05	RM CWC	RM CWC
	Preparation Group	Analysis Group

Lab Sample ID	Client Sample ID	Initial Vol (ml)	Final Vol (ml)	pH	Sulfide	Oxidizing	Nitrate/ Nitrite	Comment	Prep Pos
P4735-01	EFFLUENT	1	50	<2	N/A	Negative	N/A	AFTER ADDING 6N NAOH PH IS 9.5	N/A
P4735-05	INFLUENT	1	50	<2	N/A	Negative	N/A	AFTER ADDING 6N NAOH PH IS 9.5	N/A
P4763-01	WATER TREATMENT DISCHARGE	50	50	<2	N/A	Negative	N/A	AFTER ADDING 6N NAOH PH IS 9.5	N/A
P4763-01DUP	WATER TREATMENT DISCHARGEDUP	50	50	<2	N/A	Negative	N/A	AFTER ADDING 6N NAOH PH IS 9.5	N/A
P4763-01MS	WATER TREATMENT DISCHARGEMS	50	50	<2	N/A	Negative	N/A	AFTER ADDING 6N NAOH PH IS 9.5	N/A
P4763-01MSD	WATER TREATMENT DISCHARGEMS	50	50	<2	N/A	Negative	N/A	AFTER ADDING 6N NAOH PH IS 9.5	N/A
P4765-01	DSN002	50	50	<2	N/A	Negative	N/A	AFTER ADDING 6N NAOH PH IS 9.5	N/A
P4765-03	DSN001	50	50	<2	N/A	Negative	N/A	AFTER ADDING 6N NAOH PH IS 9.5	N/A
P4765-05	DSN003	50	50	<2	N/A	Negative	N/A	AFTER ADDING 6N NAOH PH IS 9.5	N/A
PB164764BL	PBW764	50	50	<2	N/A	Negative	N/A	AFTER ADDING 6N NAOH PH IS 9.5	N/A
PB164764BS	LCS764	50	50	<2	N/A	Negative	N/A	AFTER ADDING 6N NAOH PH IS 9.5	N/A



SHIPPING DOCUMENTS

CLIENT INFORMATION

CLIENT PROJECT INFORMATION

CLIENT BILLING INFORMATION

REPORT TO BE SENT TO:

COMPANY: Verina Consulting Group
ADDRESS: 1011 US-22, Suite 302
CITY: Bridgewater STATE: NJ ZIP: 08807
ATTENTION: Michael Valenzi
PHONE: 908-864-4400 FAX: 908-864-4400

PROJECT NAME: Rotor Clip
PROJECT NO.: 5183.0001 LOCATION: NJ
PROJECT MANAGER: Michael Valenzi
e-mail: mvalenzi@vcg-llc.com
PHONE: 908-864-4400 FAX: 908-864-4400

BILL TO: SEE LEFT PO#: 5183.0001
ADDRESS:
CITY STATE: ZIP:
ATTENTION: PHONE:

ANALYSIS

DATA TURNAROUND INFORMATION

DATA DELIVERABLE INFORMATION

FAX (RUSH) 5 DAYS*
HARDCOPY (DATA PACKAGE): 5 DAYS*
EDD: 5 DAYS*

*TO BE APPROVED BY CHEMTECH
STANDARD HARDCOPY TURNAROUND TIME IS 10 BUSINESS

☐ 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. Cr, Cu, Ni, Zn
2. Chlorine Demand
3. Ammonia
4.
5.
6.
7.
8.
9.

ALLIANCE SAMPLE ID	PROJECT SAMPLE IDENTIFICATION	SAMPLE MATRIX	SAMPLE TYPE		SAMPLE COLLECTION		# OF BOTTLES	PRESERVATIVES									COMMENTS
			COMP	GRAB	DATE	TIME		B	E	C							
1.	Water Treatment Discharge	ww	X		11/07/24	10:13	3	X	X	X							← Specify Preservatives A-HCl D-NaOH B-HNO3 E-ICE C-H2SO4 F-OTHER
2.																	
3.																	
4.																	
5.																	
6.																	
7.																	
8.																	
9.																	
10.																	

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

RELINQUISHED BY SAMPLER: 1. <i>Levin Valenz</i>	DATE/TIME: 11/07/24	RECEIVED BY: <i>[Signature]</i> 1215 11-7-24	Conditions of bottles or coolers at receipt: ☐ COMPLIANT ☐ NON COMPLIANT ☐ COOLER TEMP 2.76 °C Comments: Flow rate: 49 pH: 9.13 Temperature: 71.4 °F
RELINQUISHED BY SAMPLER: 2. <i>[Signature]</i>	DATE/TIME:	RECEIVED BY: 2. <i>[Signature]</i>	
RELINQUISHED BY SAMPLER: 3. <i>[Signature]</i>	DATE/TIME: 11-7-24	RECEIVED BY: 3. <i>[Signature]</i>	

Page 1 of 1

CLIENT: ☐ Hand Delivered ☐ Other

Shipment Complete

☐ YES ☐ NO

Laboratory Certification

Certified By	License No.
CAS EPA CLP Contract	68HERH20D0011
Connecticut	PH-0830
DOD ELAP (ANAB)	L2219
Maine	2024021
Maryland	296
New Hampshire	255424 Rev 1
New Jersey	20012
New York	11376
Pennsylvania	68-00548
Soil Permit	525-24-234-08441
Texas	T104704488