

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:	Q3158	OrderDate:	9/19/2025 4:04:00 PM
Client:	Tanagro Corp.	Project:	Semi-Annual 2025
Contact:	Marcelo Pittari	Location:	D31

LabID	ClientID	Matrix	Test	Method	Sample Date	Prep Date	Anal Date	Received
Q3158-02	EFF-DAY-1-1-4CN	WATER			09/19/25 12:00			09/19/25
			Cyanide-Amenable	SM4500-CN B,G			09/23/25 00:00	
			Cyanide	SM4500-CN C,E		09/22/25	09/23/25 10:49	



SAMPLE DATA

Report of Analysis

Client:	Tanagro Corp.	Date Collected:	09/19/25 00:00
Project:	Semi-Annual 2025	Date Received:	09/19/25
Client Sample ID:	EFF-DAY-1-1-4CN	SDG No.:	Q3158
Lab Sample ID:	Q3158-02	Matrix:	WATER
		% Solid:	0

Parameter	Conc.	Qua.	DF	MDL	LOQ / CRQL	Units	Prep Date	Date Ana.	Ana Met.
Cyanide	0.0012	U	1	0.0012	0.0050	mg/L	09/22/25 13:00	09/23/25 10:49	SM 4500-CN C-21 plus E-21
Cyanide-Amenable	0.0012	U	1	0.0012	0.0050	mg/L		09/23/25 00:00	SM 4500-CN B-16 plus G-16

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: Tanagro Corp.

SDG No.: Q3158

Project: Semi-Annual 2025

RunNo.: LB137275

Analyte		Units	Result	True Value	% Recovery	Acceptance Window (%R)	Analysis Date
Sample ID: Cyanide	ICV1	mg/L	0.095	0.099	96	85-115	09/23/2025
Sample ID: Cyanide	CCV1	mg/L	0.24	0.25	96	90-110	09/23/2025
Sample ID: Cyanide	CCV2	mg/L	0.26	0.25	104	90-110	09/23/2025

Initial and Continuing Calibration Blank Summary

Client: Tanagro Corp.

SDG No.: Q3158

Project: Semi-Annual 2025

RunNo.: LB137275

Analyte		Units	Result	Acceptance Limits	Conc Qual	MDL	RDL	Analysis Date
Sample ID:	ICB1							
Cyanide		mg/L	< 0.0025	0.0025	U	0.0012	0.005	09/23/2025
Sample ID:	CCB1							
Cyanide		mg/L	< 0.0025	0.0025	U	0.0012	0.005	09/23/2025
Sample ID:	CCB2							
Cyanide		mg/L	< 0.0025	0.0025	U	0.0012	0.005	09/23/2025

Preparation Blank Summary

Client: Tanagro Corp.

SDG No.: Q3158

Project: Semi-Annual 2025

Analyte	Units	Result	Acceptance Limits	Conc Qual	MDL	RDL	Analysis Date
Sample ID: Cyanide	PB169790BL mg/L	< 0.0025	0.0025	U	0.0012	0.005	09/23/2025

Matrix Spike Summary

Client:	Tanagro Corp.	SDG No.:	Q3158
Project:	Semi-Annual 2025	Sample ID:	Q3158-02
Client ID:	EFF-DAY-1-1-4CNMS	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
Cyanide	mg/L	75-125	0.039		0.0012	U	0.04	1	98		09/23/2025

Matrix Spike Summary

Client:	Tanagro Corp.	SDG No.:	Q3158
Project:	Semi-Annual 2025	Sample ID:	Q3158-02
Client ID:	EFF-DAY-1-1-4CNMSD	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
Cyanide	mg/L	75-125	0.040		0.0012	U	0.04	1	100		09/23/2025

Duplicate Sample Summary

Client:	Tanagro Corp.	SDG No.:	Q3158
Project:	Semi-Annual 2025	Sample ID:	Q3158-02
Client ID:	EFF-DAY-1-1-4CNDUP	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
Cyanide	mg/L	+/-20	0.0012	U	0.0012	U	1	0		09/23/2025

Duplicate Sample Summary

Client:	Tanagro Corp.	SDG No.:	Q3158
Project:	Semi-Annual 2025	Sample ID:	Q3158-02
Client ID:	EFF-DAY-1-1-4CNMSD	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
Cyanide	mg/L	+/-20	0.039		0.040		1	3		09/23/2025

Laboratory Control Sample Summary

Client: Tanagro Corp.

SDG No.: Q3158

Project: Semi-Annual 2025

Run No.: LB137275

Analyte	Units	True Value	Result	Conc. Qualifier	% Recovery	Dilution Factor	Acceptance Limit %R	Analysis Date
Sample ID	PB169790BS							
Cyanide	mg/L	0.1	0.10		100	1	85-115	09/23/2025



RAW DATA

Test results

Aquakem 7.2AQ1

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Alliance Technical Group
 284 Sheffield Street, Mountainside, NJ 07092

Reviewed by : RM Instrument ID : Konelab

9/23/2025 11:01

Test: Total CN

Sample Id	Result	Dil. 1 +	Response	Errors
ICV1	95.489	0.0	0.082	
ICB1	-1.509	0.0	0.001	
CCV1	239.974	0.0	0.203	
CCB1	-1.380	0.0	0.001	
RL CHECK	3.496	0.0	0.005	
PB169790BL	-1.382	0.0	0.001	69% (50-150)
PB169790BS	102.917	0.0	0.088	
MIDPB169790	251.129	0.0	0.213	09/23/2025 RM
Q3158-02	-0.634	0.0	0.002	100% (90-110)
Q3158-02DUP	-0.916	0.0	0.001	
Q3158-02MS	39.367	0.0	0.035	
Q3158-02MSD	40.306	0.0	0.036	
CCV2	257.763	0.0	0.218	
CCB2	-1.320	0.0	0.001	
N	14			
Mean	73.093			
SD	101.9822			
CV%	139.52			

Aquakem v. 7.2AQ1

Results from time period:

Tue Sep 23 08:43:56 2025

Tue Sep 23 11:01:37 2025

Sample Id	Sam/Ctr/c/	Test short r	Test type	Result	Result unit	Result date and time	Stat
0.0PPBCN	A	Total CN	P	-1.5575	µg/l	9/23/2025 10:10:51	
5.0PPBCN	A	Total CN	P	3.859	µg/l	9/23/2025 10:10:52	
10PPBCN	A	Total CN	P	9.9383	µg/l	9/23/2025 10:10:53	
50PPBCN	A	Total CN	P	47.2357	µg/l	9/23/2025 10:10:54	
100PPBCN	A	Total CN	P	102.6954	µg/l	9/23/2025 10:10:55	
250PPBCN	A	Total CN	P	256.1582	µg/l	9/23/2025 10:10:56	
500PPBCN	A	Total CN	P	496.6709	µg/l	9/23/2025 10:10:57	
ICV1	S	Total CN	P	95.4889	µg/l	9/23/2025 10:39:00	
ICB1	S	Total CN	P	-1.5091	µg/l	9/23/2025 10:39:02	
CCV1	S	Total CN	P	239.9742	µg/l	9/23/2025 10:39:03	
CCB1	S	Total CN	P	-1.3802	µg/l	9/23/2025 10:39:05	
RL CHECK	S	Total CN	P	3.4963	µg/l	9/23/2025 10:39:07	
PB169790BL	S	Total CN	P	-1.3818	µg/l	9/23/2025 10:43:47	
PB169790BS	S	Total CN	P	102.9168	µg/l	9/23/2025 10:43:50	
MIDPB169790	S	Total CN	P	251.1291	µg/l	9/23/2025 10:49:52	
Q3158-02	S	Total CN	P	-0.6345	µg/l	9/23/2025 10:49:55	
Q3158-02DUP	S	Total CN	P	-0.9157	µg/l	9/23/2025 10:54:37	
Q3158-02MS	S	Total CN	P	39.3666	µg/l	9/23/2025 10:59:24	
Q3158-02MSD	S	Total CN	P	40.3055	µg/l	9/23/2025 10:59:25	
CCV2	S	Total CN	P	257.7626	µg/l	9/23/2025 10:59:27	
CCB2	S	Total CN	P	-1.3203	µg/l	9/23/2025 10:59:28	

Calibration results

Aquakem 7.2AQ1

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Alliance Technical Group
284 Sheffield Street, Mountainside, NJ 07092

Reviewed by : RM

Instrument ID : Konelab

9/23/2025 10:12

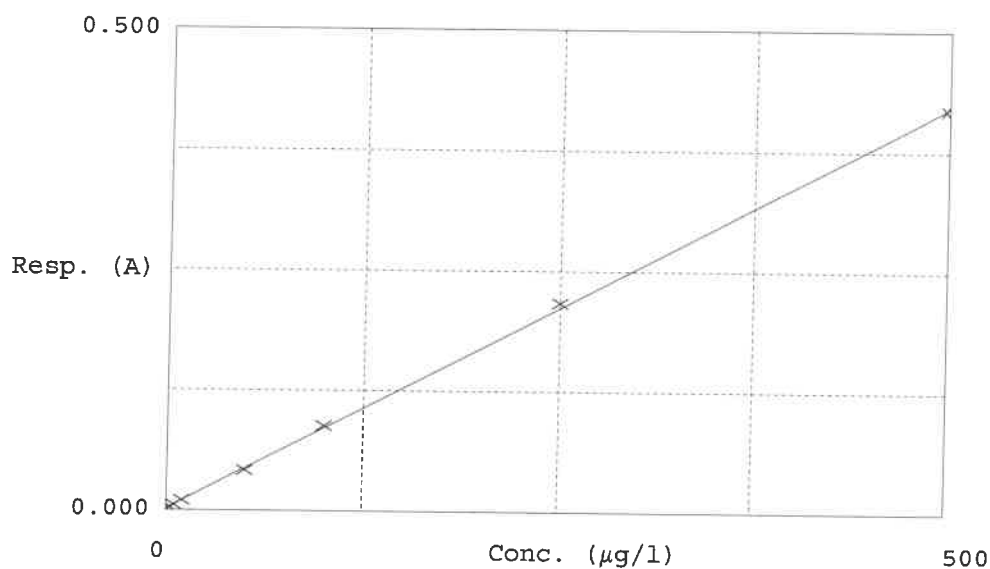
Test Total CN

Accepted 9/23/2025 10:12

Factor 1193
Bias 0.002

Coeff. of det. 0.999671

Errors



	Calibrator	Response	Calc. con.	Conc.	Errors
1	0.0PPBCN	0.001	-1.5575	0.0000	-
2	5.0PPBCN	0.005	3.8590	5.0000	-22.8
3	10PPBCN	0.010	9.9383	10.0000	-0.6
4	50PPBCN	0.042	47.2357	50.0000	-5.5
5	100PPBCN	0.088	102.6954	100.0000	2.7
6	250PPBCN	0.217	256.1582	250.0000	2.5
7	500PPBCN	0.418	496.6709	500.0000	-0.7

09/23/2025

RM

SOP ID : MSM4500-CN C,E-Cyanide-13

SDG No : N/A

Start Digest Date: 09/22/2025 **Time :** 13:00 **Temp :** 123 °C

Matrix : WATER

End Digest Date: 09/22/2025 **Time :** 14:30 **Temp :** 126 °C

Pipette ID : WC

Balance ID : N/A

Hood ID : HOOD#1

Digestion tube ID : M5595

Block Thermometer ID : WC CYANIDE

Block ID : MC-1,MC-2

Filter paper ID : N/A

Prep Technician Signature: *JP*
Weigh By : N/A

pH Meter ID : N/A

Supervisor Signature: *12*

Standard Name	MLS USED	STD REF. # FROM LOG
LCSW	1.0ML	WP113838
MS/MSD SPIKE SOL.	0.40ML	WP113837
PBW	50.0ML	W3112
RL CHECK	50.0ML	WP114857
N/A	N/A	N/A

Chemical Used	ML/SAMPLE USED	Lot Number
0.25N NaOH	50.0ML	WP113836
50% v/v H2SO4	5.0ML	WP112826
51% w/v MgCL2	2.0ML	WP112827
pH Paper 0-14	N/A	W3215
Nitrate/Nitrite Strip	N/A	W3182
Lead Acetate strip	N/A	W3134
KI-starch paper	N/A	W3155
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A

LAB SAMPLE ID	CLIENT SAMPLE ID	Wt(g)/Vol(ml)	Comment
S0	S0	N/A	N/A
S5.0	S5.0	N/A	N/A
S10.0	S10.0	N/A	N/A
S100.0	S100.0	N/A	N/A
S250.0	S250.0	N/A	N/A
S500.0	S500.0	N/A	N/A
ICV	ICV	0.5ML	W3012
ICB	ICB	N/A	N/A
CCV	CCV	N/A	N/A
CCB	CCB	N/A	N/A
Midrange	Midrange	2.5ML	WP113837
HIGHSTD	HIGHSTD	N/A	N/A
LOWSTD	LOWSTD	N/A	N/A

Extraction Conformance/Non-Conformance Comments:

N/A

Date / Time	Prepped Sample Relinquished By/Location	Received By/Location
09/22/2025 14:45	<i>JP</i> / WC	<i>RM</i> / WC
	Preparation Group	Analysis Group

Lab Sample ID	Client Sample ID	Initial Vol (ml)	Final Vol (ml)	pH	Sulfide	Oxidizing	Nitrate/ Nitrite	Comment	Prep Pos
PB169790BL	PBW790	50	50	>12	Negative	Negative	Negative	N/A	N/A
PB169790BS	LCS790	50	50	>12	Negative	Negative	Negative	N/A	N/A
Q3158-02DUP	EFF-DAY-1-1-4CNDUP	50	50	>12	Negative	Negative	Negative	N/A	N/A
Q3158-02MS	EFF-DAY-1-1-4CNMS	50	50	>12	Negative	Negative	Negative	N/A	N/A
Q3158-02MSD	EFF-DAY-1-1-4CNMSD	50	50	>12	Negative	Negative	Negative	N/A	N/A
Q3158-02	EFF-DAY-1-1-4CN	50	50	>12	Negative	Negative	Negative	N/A	N/A

WORKLIST(Hardcopy Internal Chain)

WorkList Name : CN Q3158

WorkList ID : 191998

Department : Distillation

Date : 09-22-2025 11:37:53

Sample	Customer Sample	Matrix	Test	Preservative	Customer	Raw Sample Storage Location	Collect Date	Method
Q3158-02	EFF-DAY-1-1-4CN	Water	Cyanide	1:1 NaOH to pH >12	TANA01	D31	09/19/2025	SM4500-CN C

Date/Time 09/22/2025 17:00
Raw Sample Received by: JO WWC
Raw Sample Relinquished by: JDSM

Date/Time 09/22/2025 13:10
Raw Sample Received by: JDSM
Raw Sample Relinquished by: JO WWC

Instrument ID: KONELAB

Daily Analysis Runlog For Sequence/QC Batch ID # LB137275

Review By	rubina	Review On	9/23/2025 2:41:17 PM
Supervise By		Supervise On	
SubDirectory	LB137275	Test	Cyanide
STD. NAME	STD REF.#		
ICAL Standard	WP114860,WP114861,WP114862,WP114863,WP114864,WP114865,WP114866		
ICV Standard	W3012		
CCV Standard	WP114861		
ICSA Standard	N/A		
CRI Standard	N/A		
LCS Standard	WP113838		
Chk Standard	WP112643,WP114324,WP114868		

Sr#	SampleID	ClientID	QcType	Date	Comment	Operator	Status
1	0.0PPBCN	0.0PPBCN	CAL1	09/23/25 10:10		rubina	OK
2	5.0PPBCN	5.0PPBCN	CAL2	09/23/25 10:10		rubina	OK
3	10PPBCN	10PPBCN	CAL3	09/23/25 10:10		rubina	OK
4	50PPBCN	50PPBCN	CAL4	09/23/25 10:10		rubina	OK
5	100PPBCN	100PPBCN	CAL5	09/23/25 10:10		rubina	OK
6	250PPBCN	250PPBCN	CAL6	09/23/25 10:10		rubina	OK
7	500PPBCN	500PPBCN	CAL7	09/23/25 10:10		rubina	OK
8	ICV1	ICV1	ICV	09/23/25 10:39		rubina	OK
9	ICB1	ICB1	ICB	09/23/25 10:39		rubina	OK
10	CCV1	CCV1	CCV	09/23/25 10:39		rubina	OK
11	CCB1	CCB1	CCB	09/23/25 10:39		rubina	OK
12	RL	RL	LOQ	09/23/25 10:39		rubina	OK
13	PB169790BL	PB169790BL	MB	09/23/25 10:43		rubina	OK
14	PB169790BS	PB169790BS	LCS	09/23/25 10:43		rubina	OK
15	MIDPB169790	MIDPB169790	SAM	09/23/25 10:49		rubina	OK
16	Q3158-02	EFF-DAY-1-1-4CN	SAM	09/23/25 10:49		rubina	OK
17	Q3158-02DUP	EFF-DAY-1-1-4CN DU	DUP	09/23/25 10:54		rubina	OK
18	Q3158-02MS	EFF-DAY-1-1-4CNMS	MS	09/23/25 10:59		rubina	OK

Instrument ID: KONELAB

Daily Analysis Runlog For Sequence/QC Batch ID # LB137275

Review By	rubina	Review On	9/23/2025 2:41:17 PM
Supervise By		Supervise On	
SubDirectory	LB137275	Test	Cyanide
STD. NAME	STD REF.#		
ICAL Standard	WP114860,WP114861,WP114862,WP114863,WP114864,WP114865,WP114866		
ICV Standard	W3012		
CCV Standard	WP114861		
ICSA Standard	N/A		
CRI Standard	N/A		
LCS Standard	WP113838		
Chk Standard	WP112643,WP114324,WP114868		

19	Q3158-02MSD	EFF-DAY-1-1-4CNMS	MSD	09/23/25 10:59		rubina	OK
20	CCV2	CCV2	CCV	09/23/25 10:59		rubina	OK
21	CCB2	CCB2	CCB	09/23/25 10:59		rubina	OK



284 Sheffield Street, Mountainside, New Jersey 07092, Phone : 908 789 8900,
Fax : 908 789 8922

Instrument ID:

Daily Analysis Runlog For Sequence/QC Batch ID #

Review By	Review On
Supervise By	Supervise On

STD. NAME	STD REF.#
ICAL Standard ICV Standard CCV Standard ICSA Standard CRI Standard LCS Standard Chk Standard	

Sr#	SampleId	ClientID	QcType	Date	Comment	Operator	Status



SHIPPING DOCUMENTS

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