

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:	Q3586	OrderDate:	11/7/2025 3:20:00 PM
Client:	Remington & Vernick Engineers	Project:	Edison Landfill
Contact:	Kyle Carlson	Location:	D31

LabID	ClientID	Matrix	Test	Method	Sample Date	Prep Date	Anal Date	Received
Q3586-01	SED-1	SOIL			11/06/25 14:15			11/07/25
			Cyanide	9012B		11/10/25	11/10/25 14:47	
			Hexavalent Chromium	7196A		11/10/25	11/10/25 12:45	
Q3586-02	SED-2	SOIL			11/06/25 12:40			11/07/25
			Cyanide	9012B		11/10/25	11/10/25 14:47	
			Hexavalent Chromium	7196A		11/10/25	11/10/25 12:46	
Q3586-03	SED-3	SOIL			11/06/25 11:55			11/07/25
			Cyanide	9012B		11/10/25	11/10/25 14:47	
			Hexavalent Chromium	7196A		11/10/25	11/10/25 12:46	



SAMPLE DATA

Report of Analysis

Client: Remington & Vernick Engineers
Project: Edison Landfill
Client Sample ID: SED-1
Lab Sample ID: Q3586-01

Date Collected: 11/06/25 14:15
Date Received: 11/07/25
SDG No.: Q3586
Matrix: SOIL
% Solid: 62.9

Parameter	Conc.	Qua.	DF	MDL	LOQ / CRQL	Units	Prep Date	Date Ana.	Ana Met.
Cyanide	0.065	U	1	0.065	0.39	mg/Kg	11/10/25 08:15	11/10/25 14:47	9012B
Hexavalent Chromium	0.11	U	1	0.11	0.62	mg/Kg	11/10/25 09:10	11/10/25 12:45	7196A

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: Remington & Vernick Engineers
Project: Edison Landfill
Client Sample ID: SED-2
Lab Sample ID: Q3586-02

Date Collected: 11/06/25 12:40
Date Received: 11/07/25
SDG No.: Q3586
Matrix: SOIL
% Solid: 41.4

Parameter	Conc.	Qua.	DF	MDL	LOQ / CRQL	Units	Prep Date	Date Ana.	Ana Met.
Cyanide	0.10	U	1	0.10	0.60	mg/Kg	11/10/25 08:15	11/10/25 14:47	9012B
Hexavalent Chromium	0.17	U	1	0.17	0.96	mg/Kg	11/10/25 09:10	11/10/25 12:46	7196A

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: Remington & Vernick Engineers
Project: Edison Landfill
Client Sample ID: SED-3
Lab Sample ID: Q3586-03

Date Collected: 11/06/25 11:55
Date Received: 11/07/25
SDG No.: Q3586
Matrix: SOIL
% Solid: 50.9

Parameter	Conc.	Qua.	DF	MDL	LOQ / CRQL	Units	Prep Date	Date Ana.	Ana Met.
Cyanide	0.081	U	1	0.081	0.48	mg/Kg	11/10/25 08:15	11/10/25 14:47	9012B
Hexavalent Chromium	0.14	U	1	0.14	0.78	mg/Kg	11/10/25 09:10	11/10/25 12:46	7196A

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: Remington & Vernick Engineers

SDG No.: Q3586

Project: Edison Landfill

RunNo.: LB137839

Analyte	Units	Result	True Value	% Recovery	Acceptance Window (%R)	Analysis Date
Sample ID: ICV Hexavalent Chromium	mg/L	0.489	0.5	98	90-110	11/10/2025
Sample ID: CCV1 Hexavalent Chromium	mg/L	0.495	0.5	99	90-110	11/10/2025
Sample ID: CCV2 Hexavalent Chromium	mg/L	0.491	0.5	98	90-110	11/10/2025
Sample ID: CCV3 Hexavalent Chromium	mg/L	0.489	0.5	98	90-110	11/10/2025
Sample ID: CCV4 Hexavalent Chromium	mg/L	0.493	0.5	99	90-110	11/10/2025

Initial and Continuing Calibration Verification

Client: Remington & Vernick Engineers

SDG No.: Q3586

Project: Edison Landfill

RunNo.: LB137840

Analyte	Units	Result	True Value	% Recovery	Acceptance Window (%R)	Analysis Date
Sample ID: ICV1 Cyanide	mg/L	0.096	0.099	97	90-110	11/10/2025
Sample ID: CCV1 Cyanide	mg/L	0.24	0.25	96	90-110	11/10/2025
Sample ID: CCV2 Cyanide	mg/L	0.24	0.25	96	90-110	11/10/2025
Sample ID: CCV3 Cyanide	mg/L	0.24	0.25	96	90-110	11/10/2025
Sample ID: CCV4 Cyanide	mg/L	0.25	0.25	100	90-110	11/10/2025

Initial and Continuing Calibration Blank Summary

Client: Remington & Vernick Engineers

SDG No.: Q3586

Project: Edison Landfill

RunNo.: LB137839

Analyte	Units	Result	Acceptance Limits	Conc Qual	MDL	RDL	Analysis Date
Sample ID: ICB Hexavalent Chromium	mg/L	< 0.0050	0.0050	U	0.0029	0.01	11/10/2025
Sample ID: CCB1 Hexavalent Chromium	mg/L	< 0.0050	0.0050	U	0.0029	0.01	11/10/2025
Sample ID: CCB2 Hexavalent Chromium	mg/L	< 0.0050	0.0050	U	0.0029	0.01	11/10/2025
Sample ID: CCB3 Hexavalent Chromium	mg/L	< 0.0050	0.0050	U	0.0029	0.01	11/10/2025
Sample ID: CCB4 Hexavalent Chromium	mg/L	< 0.0050	0.0050	U	0.0029	0.01	11/10/2025

Initial and Continuing Calibration Blank Summary

Client: Remington & Vernick Engineers

SDG No.: Q3586

Project: Edison Landfill

RunNo.: LB137840

Analyte	Units	Result	Acceptance Limits	Conc Qual	MDL	RDL	Analysis Date
Sample ID: ICB1 Cyanide	mg/L	< 0.0025	0.0025	U	0.00096	0.005	11/10/2025
Sample ID: CCB1 Cyanide	mg/L	< 0.0025	0.0025	U	0.00096	0.005	11/10/2025
Sample ID: CCB2 Cyanide	mg/L	< 0.0025	0.0025	U	0.00096	0.005	11/10/2025
Sample ID: CCB3 Cyanide	mg/L	< 0.0025	0.0025	U	0.00096	0.005	11/10/2025
Sample ID: CCB4 Cyanide	mg/L	< 0.0025	0.0025	U	0.00096	0.005	11/10/2025

Preparation Blank Summary

Client: Remington & Vernick Engineers

SDG No.: Q3586

Project: Edison Landfill

Analyte	Units	Result	Acceptance Limits	Conc Qual	MDL	RDL	Analysis Date
Sample ID: PB170464BL							
Hexavalent Chromium	mg/Kg	< 0.2000	0.2000	U	0.07	0.4	11/10/2025
Sample ID: PB170470BL							
Cyanide	mg/Kg	< 0.1250	0.1250	U	0.042	0.25	11/10/2025

Matrix Spike Summary

Client:	Remington & Vernick Engineers	SDG No.:	Q3586
Project:	Edison Landfill	Sample ID:	Q3560-01
Client ID:	SY-10DMS	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	1.90		0.047	U	1.96078	1	97		11/10/2025

Matrix Spike Summary

Client:	Remington & Vernick Engineers	SDG No.:	Q3586
Project:	Edison Landfill	Sample ID:	Q3560-01
Client ID:	SY-10DMSD	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	2.00		0.047	U	1.94175	1	103		11/10/2025

Matrix Spike Summary

Client:	Remington & Vernick Engineers	SDG No.:	Q3586
Project:	Edison Landfill	Sample ID:	Q3562-01
Client ID:	EO-03-110625MS	Percent Solids for Spike Sample:	92.1

Analyte	Units	Acceptance Limit %R	Spiked Result	Conc. Qualifier	Sample Result	Conc. Qualifier	Spike Added	Dilution Factor	% Rec	Qual	Analysis Date
Hexavalent Chromium	mg/Kg	75-125	1340		0.075	U	1390	40	96		11/10/2025

Matrix Spike Summary

Client:	Remington & Vernick Engineers	SDG No.:	Q3586
Project:	Edison Landfill	Sample ID:	Q3562-01
Client ID:	EO-03-110625MS	Percent Solids for Spike Sample:	92.1

Analyte	Units	Acceptance Limit %R	Spiked Result	Conc. Qualifier	Sample Result	Conc. Qualifier	Spike Added	Dilution Factor	% Rec	Qual	Analysis Date
Hexavalent Chromium	mg/Kg	85-115	41.3		0.075	U	43.4	2	95		11/10/2025

Matrix Spike Summary

Client:	Remington & Vernick Engineers	SDG No.:	Q3586
Project:	Edison Landfill	Sample ID:	Q3562-01
Client ID:	EO-03-110625MS	Percent Solids for Spike Sample:	92.1

Analyte	Units	Acceptance Limit %R	Spiked Result	Conc. Qualifier	Sample Result	Conc. Qualifier	Spike Added	Dilution Factor	% Rec	Qual	Analysis Date
Hexavalent Chromium	mg/Kg	75-125	38.0		0.075	U	43.4	2	88		11/10/2025

Duplicate Sample Summary

Client: Remington & Vernick Engineers Project: Edison Landfill Client ID: SY-10DDUP	SDG No.: Q3586 Sample ID: Q3560-01 Percent Solids for Spike Sample: 0
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Analyte	Units	Acceptance Limit	Sample Result	Conc. Qualifier	Duplicate Result	Conc. Qualifier	Dilution Factor	RPD/ AD	Qual	Analysis Date
Cyanide	mg/L	+/-20	0.047	U	0.047	U	1	0		11/10/2025

Duplicate Sample Summary

Client:	Remington & Vernick Engineers	SDG No.:	Q3586
Project:	Edison Landfill	Sample ID:	Q3560-01
Client ID:	SY-10DMSD	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	1.90		2.00		1	5		11/10/2025

Duplicate Sample Summary

Client:	Remington & Vernick Engineers	SDG No.:	Q3586
Project:	Edison Landfill	Sample ID:	Q3562-01
Client ID:	EO-03-110625DUP	Percent Solids for Spike Sample:	92.1

Analyte	Units	Acceptance Limit	Sample Result	Conc. Qualifier	Duplicate Result	Conc. Qualifier	Dilution Factor	RPD/ AD	Qual	Analysis Date
Hexavalent Chromium	mg/Kg	+/-20	0.075	U	0.075	U	1	0		11/10/2025

Laboratory Control Sample Summary

Client: Remington & Vernick Engineers

SDG No.: Q3586

Project: Edison Landfill

Run No.: LB137839

Analyte	Units	True Value	Result	Conc. Qualifier	% Recovery	Dilution Factor	Acceptance Limit %R	Analysis Date
Sample ID	PB170464BS							
Hexavalent Chromium	mg/Kg	20	19.8		99	1	84-110	11/10/2025

Laboratory Control Sample Summary

Client: Remington & Vernick Engineers

SDG No.: Q3586

Project: Edison Landfill

Run No.: LB137840

Analyte	Units	True Value	Result	Conc. Qualifier	% Recovery	Dilution Factor	Acceptance Limit %R	Analysis Date
Sample ID	PB170470BS							
Cyanide	mg/Kg	5	4.90		98	1	85-115	11/10/2025



RAW DATA

Analytical Summary Report

Analysis Method: 7196A

ANALYST: rubina

Parameter: ~~Hexavalent Chromium~~

SUPERVISOR REVIEW BY: Iwona

Run Number: LB137839

pH Meter ID: WC pH Meter-1

Reagent/Standard	Lot/Log #
hexavalent chromium color reagent	WP115554
5N sulfuric acid	WP115340
HNO3 Hex-Chrome, 5M	WP115339
HEX LOD STD, 0.005PPM	WP115587
Hexchrome Cleaning Solution	WP114310

Intercept: 0.0009

Slope: 0.7636

Regression: 0.999952

Seq	Lab ID	True Value (mg/l)	DF	Initial Vol (ml)	Final Vol (ml)	pH HNO3	pH H2SO4	Absorb.at 540nm		Absorbance Difference	Result (mg/L)	%D	Anal Date	Anal Time
								Backgrnd	Color					
1	CAL1	0	1	100	100	7.27	1.99	0.000	0.000	0.000	-0.00		11/10/2025	12:30
2	CAL2	0.01	1	100	100	7.36	2.06	0.000	0.009	0.009	0.010	0	11/10/2025	12:30
3	CAL3	0.025	1	100	100	7.41	2.08	0.000	0.020	0.020	0.025	0	11/10/2025	12:31
4	CAL4	0.05	1	100	100	7.42	2.01	0.000	0.040	0.040	0.051	2	11/10/2025	12:31
5	CAL5	0.1	1	100	100	7.45	1.92	0.000	0.080	0.080	0.103	3	11/10/2025	12:32
6	CAL6	0.5	1	100	100	7.48	1.97	0.000	0.377	0.377	0.492	-1.6	11/10/2025	12:32
7	CAL7	1	1	100	100	7.34	1.94	0.000	0.767	0.767	1.003	0.3	11/10/2025	12:33

Analytical Summary Report

Analysis Method: 7196A

ANALYST: rubina

Parameter: Hexavalent Chromium

SUPERVISOR REVIEW BY: Iwona

Run Number: LB137839

pH Meter ID: WC pH Meter-1

Seq	Lab ID	True Value	DF	Initial Vol (ml/gm)	Final Vol (ml)	pH HN03	pH H2SO4	Absorb.at540nm		Absorbance Difference	Intermediate Result (mg/L)	Anal Date	Anal Time
								Backgrnd	Color				
1	ICV	0.5	1	100	100	7.51	1.84	0.000	0.374	0.374	0.489	11/10/2025	12:33
2	ICB		1	100	100	7.36	1.89	0.000	0.000	0.000	-0.001	11/10/2025	12:34
3	CCV1	0.5	1	100	100	7.49	1.97	0.000	0.379	0.379	0.495	11/10/2025	12:34
4	CCB1		1	100	100	7.30	1.82	0.000	0.000	0.000	-0.001	11/10/2025	12:35
5	RL Check	0.01	1	100	100	7.44	1.97	0.000	0.010	0.010	0.012	11/10/2025	12:35
6	PB170464BL		1	2.50	100	7.44	1.94	0.000	0.001	0.001	0.000	11/10/2025	12:36
7	PB170464BS	20	1	2.50	100	7.40	2.01	0.000	0.379	0.379	0.495	11/10/2025	12:36
8	Q3530-03		1	2.50	100	7.52	2.03	0.000	0.004	0.004	0.004	11/10/2025	12:37
9	Q3562-01		1	2.53	100	7.55	2.10	0.000	0.001	0.001	0.000	11/10/2025	12:37
10	Q3562-01DU		1	2.54	100	7.60	2.14	0.000	0.001	0.001	0.000	11/10/2025	12:38
11	Q3562-01MS	40	2	2.53	100	7.52	2.11	0.000	0.339	0.339	0.443	11/10/2025	12:38
12	Q3562-01MS	1284	40	2.55	100	7.54	2.17	0.000	0.600	0.600	0.785	11/10/2025	12:39
13	Q3562-01MS	40	2	2.51	100	7.50	1.99	0.000	0.365	0.365	0.477	11/10/2025	12:39
14	Q3564-01		1	2.57	100	7.42	1.90	0.000	0.001	0.001	0.000	11/10/2025	12:40
15	Q3577-01		1	2.57	100	7.36	1.98	0.009	0.010	0.001	0.000	11/10/2025	12:40
16	CCV2	0.5	1	100	100	7.52	2.07	0.000	0.376	0.376	0.491	11/10/2025	12:41
17	CCB2		1	100	100	7.40	1.88	0.000	0.001	0.001	0.000	11/10/2025	12:41
18	Q3580-01		1	2.53	100	7.40	2.10	0.032	0.032	0.000	-0.001	11/10/2025	12:42
19	Q3581-01		1	2.56	100	7.36	2.06	0.010	0.011	0.001	0.000	11/10/2025	12:42
20	Q3581-03		1	2.52	100	7.32	1.90	0.014	0.015	0.001	0.000	11/10/2025	12:43
21	Q3581-05		1	2.56	100	7.54	2.22	0.001	0.006	0.005	0.005	11/10/2025	12:43
22	Q3581-07		1	2.54	100	7.60	2.14	0.010	0.010	0.000	-0.001	11/10/2025	12:44
23	Q3582-04		1	2.53	100	7.63	2.02	0.036	0.036	0.000	-0.001	11/10/2025	12:44
24	Q3583-04		1	2.54	100	7.33	2.01	0.036	0.037	0.001	0.000	11/10/2025	12:45
25	Q3586-01		1	2.57	100	7.42	2.00	0.035	0.036	0.001	0.000	11/10/2025	12:45
26	Q3586-02		1	2.51	100	7.48	1.81	0.034	0.035	0.001	0.000	11/10/2025	12:46
27	Q3586-03		1	2.53	100	7.36	1.92	0.033	0.034	0.001	0.000	11/10/2025	12:46
28	CCV3	0.5	1	100	100	7.34	1.94	0.000	0.374	0.374	0.489	11/10/2025	12:47
29	CCB3		1	100	100	7.27	1.90	0.000	0.001	0.001	0.000	11/10/2025	12:47
30	Q3587-01		1	2.53	100	7.58	2.10	0.000	0.000	0.000	-0.001	11/10/2025	12:48
31	Q3588-01		1	2.54	100	7.53	2.19	0.004	0.005	0.001	0.000	11/10/2025	12:48
32	Q3588-03		1	2.54	100	7.39	2.15	0.034	0.035	0.001	0.000	11/10/2025	12:49
33	CCV4	0.5	1	100	100	7.39	1.88	0.000	0.377	0.377	0.493	11/10/2025	12:49
34	CCB4		1	100	100	7.32	1.90	0.000	0.000	0.000	-0.001	11/10/2025	12:50

6137

Test results

Aquakem 7.2AQ1

Page:

Alliance Technical Group

284 Sheffield Street, Mountainside, NJ 07092

Reviewed by : RM

Instrument ID : Konelab

11/10/2025 15:06

Test: Total CN

Sample Id	Result	Dil. 1 +	Response	Errors
ICV1	96.032	0.0	0.084	
ICB1	0.802	0.0	0.002	
CCV1	241.823	0.0	0.209	
CCB1	0.334	0.0	0.001	
PB170440BL	0.260	0.0	0.001	
PB170440BS	97.024	0.0	0.084	
LOWPB170440	10.066	0.0	0.010	
HIGHPB170440	484.070	0.0	0.417	
PB170442BL	0.251	0.0	0.001	
PB170442BS	97.527	0.0	0.085	
Q3560-01	0.766	0.0	0.002	
Q3560-01DUP	0.740	0.0	0.002	
Q3560-01MS	38.135	0.0	0.034	
Q3560-01MSD	40.393	0.0	0.036	
CCV2	243.536	0.0	0.210	
CCB2	0.555	0.0	0.002	
Q3560-03	1.334	0.0	0.002	
Q3560-05	1.259	0.0	0.002	
Q3560-07	0.328	0.0	0.001	
Q3560-09	0.659	0.0	0.002	
Q3569-01	2.939	0.0	0.004	
Q3569-02	0.388	0.0	0.001	
Q3580-01	0.262	0.0	0.001	
Q3580-01DUP	0.163	0.0	0.001	
Q3580-01MS	38.720	0.0	0.034	
Q3580-01MSD	38.592	0.0	0.034	
CCV3	243.845	0.0	0.211	
CCB3	0.507	0.0	0.002	
Q3586-02	-0.045	0.0	0.001	
Q3586-03	0.196	0.0	0.001	
Q3587-01	0.268	0.0	0.001	
Q3588-01	0.694	0.0	0.002	
Q3588-03	1.089	0.0	0.002	
Q3586-01	0.392	0.0	0.001	
Q3582-04	3.210	0.0	0.004	
Q3583-04	7.176	0.0	0.007	
CCV4	254.841	0.0	0.220	
CCB4	0.313	0.0	0.001	

100% (90-110) 11/10/2025
96% (90-110) RM

N 38
Mean 51.301
SD 105.3834
CV% 205.42

Aquakem v. 7.2AQ1

Results from time period:

Mon Nov 10 14:17:11 2025

Mon Nov 10 15:05:22 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	-0.0639	µg/l	11/10/2025 10:56:34	
5.0PPBCN	A	Total CN	P	5.4099	µg/l	11/10/2025 10:56:35	
10PPBCN	A	Total CN	P	9.454	µg/l	11/10/2025 10:56:36	
50PPBCN	A	Total CN	P	49.9297	µg/l	11/10/2025 10:56:37	
100PPBCN	A	Total CN	P	98.5377	µg/l	11/10/2025 10:56:38	
250PPBCN	A	Total CN	P	252.8528	µg/l	11/10/2025 10:56:39	
500PPBCN	A	Total CN	P	498.88	µg/l	11/10/2025 10:56:40	
ICV1	S	Total CN	P	96.0318	µg/l	11/10/2025 14:17:11	
ICB1	S	Total CN	P	0.8023	µg/l	11/10/2025 14:17:14	
CCV1	S	Total CN	P	241.8229	µg/l	11/10/2025 14:17:16	
CCB1	S	Total CN	P	0.3338	µg/l	11/10/2025 14:17:18	
PB170440BL	S	Total CN	P	0.2597	µg/l	11/10/2025 14:17:20	
PB170440BS	S	Total CN	P	97.024	µg/l	11/10/2025 14:17:21	
LOWPB170440	S	Total CN	P	10.0662	µg/l	11/10/2025 14:24:47	
HIGHPB170440	S	Total CN	P	484.0696	µg/l	11/10/2025 14:24:49	
PB170442BL	S	Total CN	P	0.2508	µg/l	11/10/2025 14:24:52	
PB170442BS	S	Total CN	P	97.527	µg/l	11/10/2025 14:24:53	
Q3560-01	S	Total CN	P	0.7657	µg/l	11/10/2025 14:24:55	
Q3560-01DUP	S	Total CN	P	0.74	µg/l	11/10/2025 14:32:22	
Q3560-01MS	S	Total CN	P	38.1354	µg/l	11/10/2025 14:32:24	
Q3560-01MSD	S	Total CN	P	40.3926	µg/l	11/10/2025 14:32:26	
CCV2	S	Total CN	P	243.5355	µg/l	11/10/2025 14:32:27	
CCB2	S	Total CN	P	0.5551	µg/l	11/10/2025 14:32:28	
Q3560-03	S	Total CN	P	1.3344	µg/l	11/10/2025 14:32:30	
Q3560-05	S	Total CN	P	1.2586	µg/l	11/10/2025 14:32:31	
Q3560-07	S	Total CN	P	0.3283	µg/l	11/10/2025 14:39:53	
Q3560-09	S	Total CN	P	0.6591	µg/l	11/10/2025 14:39:54	
Q3569-01	S	Total CN	P	2.9392	µg/l	11/10/2025 14:39:55	
Q3569-02	S	Total CN	P	0.3883	µg/l	11/10/2025 14:39:56	
Q3580-01	S	Total CN	P	0.2617	µg/l	11/10/2025 14:39:57	
Q3580-01DUP	S	Total CN	P	0.1625	µg/l	11/10/2025 14:39:58	
Q3580-01MS	S	Total CN	P	38.7197	µg/l	11/10/2025 14:39:59	
Q3580-01MSD	S	Total CN	P	38.5917	µg/l	11/10/2025 14:40:00	
CCV3	S	Total CN	P	243.8451	µg/l	11/10/2025 14:40:01	
CCB3	S	Total CN	P	0.5066	µg/l	11/10/2025 14:47:01	
Q3586-02	S	Total CN	P	-0.0452	µg/l	11/10/2025 14:47:02	
Q3586-03	S	Total CN	P	0.196	µg/l	11/10/2025 14:47:03	
Q3587-01	S	Total CN	P	0.2675	µg/l	11/10/2025 14:47:04	
Q3588-01	S	Total CN	P	0.6939	µg/l	11/10/2025 14:47:05	

Q3588-03	S	Total CN	P	1.0891 µg/l	11/10/2025 14:47:06
Q3586-01	S	Total CN	P	0.3924 µg/l	11/10/2025 14:47:07
Q3582-04	S	Total CN	P	3.2101 µg/l	11/10/2025 15:00:18
Q3583-04	S	Total CN	P	7.1756 µg/l	11/10/2025 15:05:19
CCV4	S	Total CN	P	254.8412 µg/l	11/10/2025 15:05:21
CCB4	S	Total CN	P	0.3127 µg/l	11/10/2025 15:05:22

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Calibration results Aquakem 7.2AQ1 Page: 1

Alliance Technical Group
284 Sheffield Street, Mountainside, NJ 07092

11/10/2025 10:58

Reviewed by : RN Instrument ID : Konelab

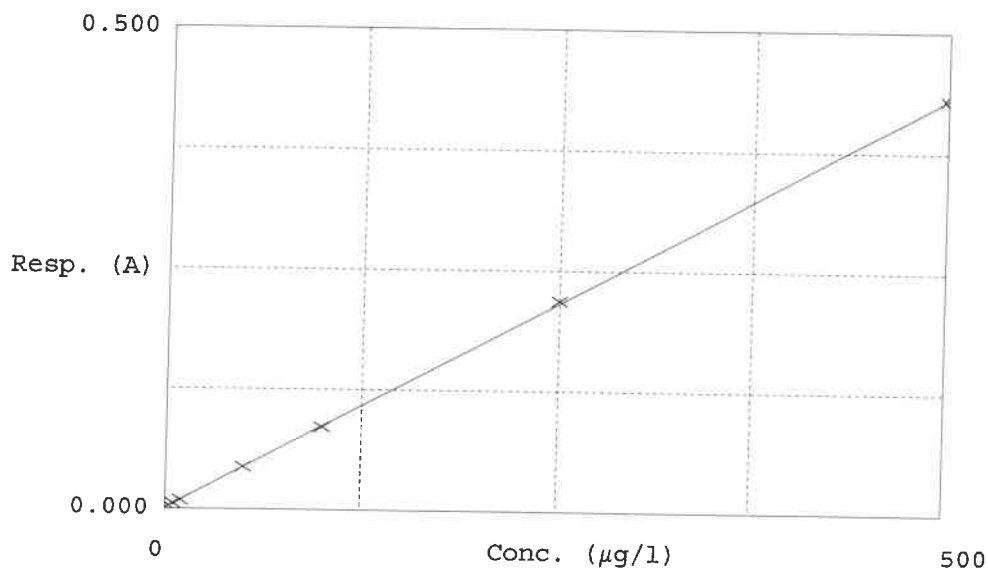
Test Total CN

Accepted 11/10/2025 10:58

Factor 1163
Bias 0.001

Coeff. of det. 0.999942

Errors



	Calibrator	Response	Calc. con.	Conc.	Errors
1	0.0PPBCN	0.001	-0.0639	0.0000	-
2	5.0PPBCN	0.006	5.4099	5.0000	0.2
3	10PPBCN	0.009	9.4540	10.0000	-5.5
4	50PPBCN	0.044	49.9297	50.0000	-0.1
5	100PPBCN	0.086	98.5377	100.0000	-1.5
6	250PPBCN	0.218	252.8528	250.0000	1.1
7	500PPBCN	0.430	498.8800	500.0000	-0.2

11/10/2025
RN

LB137870

Test results

Aquakem 7.2AQ1

Page:

Alliance Technical Group
284 Sheffield Street, Mountainside, NJ 07092Reviewed by : RM

Instrument ID : Konelab

11/12/2025 13:57

Test: TKN-NH3

Sample Id	Result	Dil. 1 +	Response	Errors
ICV1	5.090	0.0	1.016	
ICB1	-0.014	0.0	0.021	
CCV1	4.981	0.0	0.995	
CCB1	0.011	0.0	0.025	
RL CHECK	0.475	0.0	0.116	
11/12/25 RM PB170452BL 510b1	-0.016	0.0	0.020	95% (50-150)
11/12/25 RM PB170452BS 510b3	5.117	0.0	1.021	11/12/2025 RM
Q3530-07	0.241	0.0	0.070	
Q3530-08	0.537	0.0	0.128	
Q3552-01	32.782	0.0	6.418	Abs. high, Init abs., Tes
Q3552-02	13.160	0.0	2.590	Init abs., Test limit hig
Q3552-03	33.601	0.0	6.578	Abs. high, Init abs., Tes
Q3552-04	2.872	0.0	0.583	
Q3552-04DUP	2.701	0.0	0.550	
CCV2	5.046	0.0	1.008	
CCB2	0.028	0.0	0.029	
Q3552-04MS	7.307	0.0	1.449	
Q3552-04MSD	7.196	0.0	1.427	
Q3552-05	31.018	0.0	6.074	Init abs., Test limit hig
Q3560-01	8.250	0.0	1.633	
Q3560-03	0.101	0.0	0.043	
Q3560-05	0.404	0.0	0.102	
Q3560-07	29.862	0.0	5.849	Init abs., Test limit hig
Q3560-09	1.441	0.0	0.304	
Q3569-01	27.813	0.0	5.449	Init abs., Test limit hig
Q3569-02	30.898	0.0	6.051	Init abs., Test limit hig
CCV3	5.068	0.0	1.012	
CCB3	-0.014	0.0	0.021	
Q3584-01	0.655	0.0	0.151	
Q3584-02	0.747	0.0	0.169	
Q3584-03	2.170	0.0	0.447	
Q3584-07	31.572	0.0	6.182	Init abs., Test limit hig
PB170482BL	0.378	0.0	0.097	
PB170482BS	5.351	0.0	1.067	
Q3483-07	30.915	0.0	6.054	Init abs., Test limit hig
Q3530-01	0.232	0.0	0.069	
Q3530-02	0.514	0.0	0.124	
Q3586-02	19.729	0.0	3.872	Init abs., Test limit hig
CCV4	5.118	0.0	1.022	
CCB4	0.161	0.0	0.055	
Q3586-02DUP	19.660	0.0	3.858	Init abs., Test limit hig
Q3586-02MS	22.223	0.0	4.358	Init abs., Test limit hig
Q3586-02MSD	22.373	0.0	4.388	Init abs., Test limit hig
Q3552-01DLX20	7.902	0.0	1.565	
Q3552-02DLX2	6.532	0.0	1.298	
Q3552-03DLX10	8.534	0.0	1.688	
Q3552-05DLX10	6.661	0.0	1.323	
Q3560-07DLX10	4.854	0.0	0.970	
Q3569-01DLX10	3.594	0.0	0.724	
CCV5	4.965	0.0	0.992	
CCB5	-0.023	0.0	0.019	
Q3569-02DLX10	7.098	0.0	1.408	
Q3483-07DLX10	5.586	0.0	1.113	
Q3586-02DLX5	4.526	0.0	0.906	
Q3586-02DUPDLX5	4.428	0.0	0.887	

613787

Test results

Aquakem 7.2AQ1

Page:

Alliance Technical Group

284 Sheffield Street, Mountainside, NJ 07092

11/12/2025 13:57

Reviewed by : RM

Instrument ID : Konelab

Test: TKN-NH3

Sample Id	Result	Dil. 1 +	Response	Errors
Q3484-07DLX20	6.876	0.0	1.365	
CCV6	5.182	0.0	1.034	
CCB6	0.015	0.0	0.026	

N	58
Mean	8.526
SD	10.5347
CV%	123.57

Aquakem v. 7.2AQ1

Results from time period:

Wed Nov 12 10:23:27 2025

Wed Nov 12 13:45:39 2025

Sample Id	Sam/Ctr/c/	Test short r	Test type	Result	Result unit	Result date and time	Stat
0.0PPM	A	TKN-NH3	P	-0.013	mg/l	11/12/2025 10:23:27	
0.5PPM	A	TKN-NH3	P	0.4527	mg/l	11/12/2025 10:23:28	
1.0PPM	A	TKN-NH3	P	0.9186	mg/l	11/12/2025 10:23:29	
2.5PPM	A	TKN-NH3	P	2.5078	mg/l	11/12/2025 10:23:30	
5.0PPM	A	TKN-NH3	P	5.1098	mg/l	11/12/2025 10:23:31	
6.7PPM	A	TKN-NH3	P	6.8781	mg/l	11/12/2025 10:23:32	
10.0PPM	A	TKN-NH3	P	9.8128	mg/l	11/12/2025 10:23:33	
ICV1	S	TKN-NH3	P	5.0902	mg/l	11/12/2025 11:32:42	
ICB1	S	TKN-NH3	P	-0.0135	mg/l	11/12/2025 11:32:44	
CCV1	S	TKN-NH3	P	4.9809	mg/l	11/12/2025 11:32:46	
CCB1	S	TKN-NH3	P	0.0107	mg/l	11/12/2025 11:32:49	
RL CHECK	S	TKN-NH3	P	0.475	mg/l	11/12/2025 11:32:51	
PB170510BL	S	TKN-NH3	P	-0.0164	mg/l	11/12/2025 11:32:53	
PB170510BS	S	TKN-NH3	P	5.1167	mg/l	11/12/2025 11:43:23	
Q3530-07	S	TKN-NH3	P	0.2412	mg/l	11/12/2025 11:43:26	
Q3530-08	S	TKN-NH3	P	0.5368	mg/l	11/12/2025 11:43:27	
Q3552-01	S	TKN-NH3	P	32.7823	mg/l	11/12/2025 11:43:29	
Q3552-02	S	TKN-NH3	P	13.1601	mg/l	11/12/2025 11:43:30	
Q3552-03	S	TKN-NH3	P	33.6011	mg/l	11/12/2025 11:43:31	
Q3552-04	S	TKN-NH3	P	2.8716	mg/l	11/12/2025 11:43:33	
Q3552-04DUP	S	TKN-NH3	P	2.7009	mg/l	11/12/2025 11:43:34	
CCV2	S	TKN-NH3	P	5.0457	mg/l	11/12/2025 11:54:08	
CCB2	S	TKN-NH3	P	0.0282	mg/l	11/12/2025 11:54:09	
Q3552-04MS	S	TKN-NH3	P	7.3071	mg/l	11/12/2025 11:54:10	
Q3552-04MSD	S	TKN-NH3	P	7.196	mg/l	11/12/2025 11:54:11	
Q3552-05	S	TKN-NH3	P	31.0181	mg/l	11/12/2025 11:54:14	
Q3560-01	S	TKN-NH3	P	8.2499	mg/l	11/12/2025 11:54:15	
Q3560-03	S	TKN-NH3	P	0.101	mg/l	11/12/2025 11:54:16	
Q3560-05	S	TKN-NH3	P	0.4044	mg/l	11/12/2025 11:54:17	
Q3560-07	S	TKN-NH3	P	29.8624	mg/l	11/12/2025 11:54:18	
Q3560-09	S	TKN-NH3	P	1.4411	mg/l	11/12/2025 12:04:51	
Q3569-01	S	TKN-NH3	P	27.813	mg/l	11/12/2025 12:04:52	
Q3569-02	S	TKN-NH3	P	30.8975	mg/l	11/12/2025 12:04:53	
CCV3	S	TKN-NH3	P	5.0676	mg/l	11/12/2025 12:04:54	
CCB3	S	TKN-NH3	P	-0.0141	mg/l	11/12/2025 12:04:55	
Q3584-01	S	TKN-NH3	P	0.6552	mg/l	11/12/2025 12:04:56	
Q3584-02	S	TKN-NH3	P	0.7465	mg/l	11/12/2025 12:04:57	
Q3584-03	S	TKN-NH3	P	2.1705	mg/l	11/12/2025 12:04:58	
Q3584-07	S	TKN-NH3	P	31.5722	mg/l	11/12/2025 12:04:59	

PB170482BL	S	TKN-NH3	P	0.3784 mg/l	11/12/2025 12:05:00
PB170482BS	S	TKN-NH3	P	5.3513 mg/l	11/12/2025 12:05:01
Q3483-07	S	TKN-NH3	P	30.9153 mg/l	11/12/2025 12:05:02
Q3530-01	S	TKN-NH3	P	0.2319 mg/l	11/12/2025 12:15:35
Q3530-02	S	TKN-NH3	P	0.5137 mg/l	11/12/2025 12:15:36
Q3586-02	S	TKN-NH3	P	19.7287 mg/l	11/12/2025 12:15:37
CCV4	S	TKN-NH3	P	5.118 mg/l	11/12/2025 12:15:38
CCB4	S	TKN-NH3	P	0.1611 mg/l	11/12/2025 12:15:39
Q3586-02DUP	S	TKN-NH3	P	19.6598 mg/l	11/12/2025 12:15:40
Q3586-02MS	S	TKN-NH3	P	22.2229 mg/l	11/12/2025 12:15:41
Q3586-02MSD	S	TKN-NH3	P	22.3735 mg/l	11/12/2025 12:15:42
Q3552-01DLX20	S	TKN-NH3	P	7.9015 mg/l	11/12/2025 12:15:43
Q3552-02DLX2	S	TKN-NH3	P	6.5321 mg/l	11/12/2025 12:15:45
Q3552-03DLX10	S	TKN-NH3	P	8.5336 mg/l	11/12/2025 12:15:46
Q3552-05DLX10	S	TKN-NH3	P	6.6612 mg/l	11/12/2025 12:26:19
Q3560-07DLX10	S	TKN-NH3	P	4.8544 mg/l	11/12/2025 12:26:20
Q3569-01DLX10	S	TKN-NH3	P	3.5942 mg/l	11/12/2025 12:26:21
CCV5	S	TKN-NH3	P	4.9652 mg/l	11/12/2025 13:42:24
CCB5	S	TKN-NH3	P	-0.0228 mg/l	11/12/2025 13:42:26
Q3569-02DLX10	S	TKN-NH3	P	7.0982 mg/l	11/12/2025 13:42:27
Q3483-07DLX10	S	TKN-NH3	P	5.586 mg/l	11/12/2025 13:42:28
Q3586-02DLX5	S	TKN-NH3	P	4.5261 mg/l	11/12/2025 13:42:31
Q3586-02DUPDLX5	S	TKN-NH3	P	4.4275 mg/l	11/12/2025 13:42:32
Q3484-07DLX20	S	TKN-NH3	P	6.876 mg/l	11/12/2025 13:42:33
CCV6	S	TKN-NH3	P	5.1821 mg/l	11/12/2025 13:42:34
CCB6	S	TKN-NH3	P	0.0153 mg/l	11/12/2025 13:45:39

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Calibration results Aquakem 7.2AQ1 Page: 1

Alliance Technical Group
284 Sheffield Street, Mountainside, NJ 07092

11/12/2025 10:27 Reviewed by : RM Instrument ID : Konelab

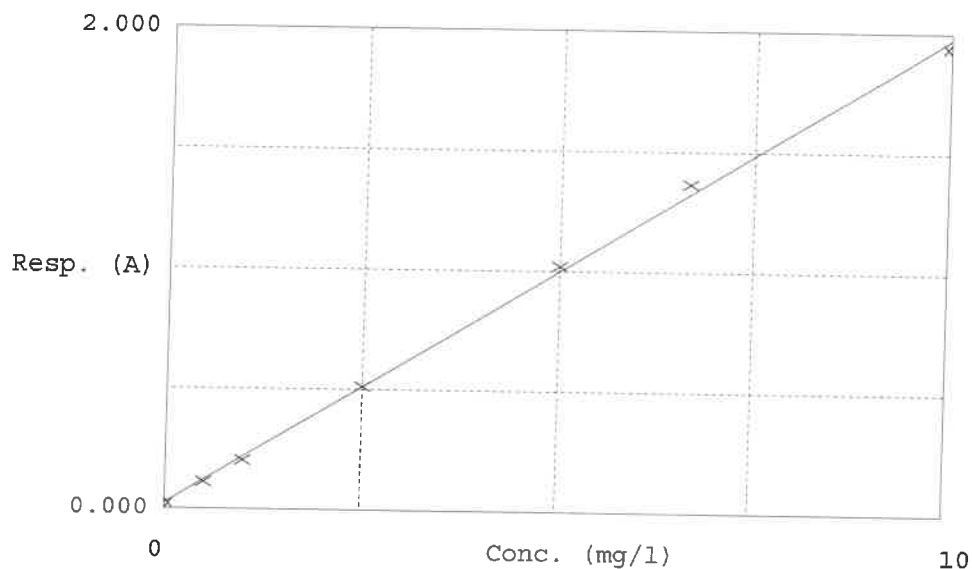
Test TKN-NH3

Accepted 11/12/2025 10:27

Factor 5.126
Bias 0.023

Coeff. of det. 0.998783

Errors



	Calibrator	Response	Calc. con.	Conc.	^{1e} Errors
1	0.00PPM	0.021	-0.0130	0.0000	-
2	TKN-10	0.112	0.4527	0.5000	-9.5
3	TKN-10	0.202	0.9186	1.0000	-8.1
4	TKN-10	0.513	2.5078	2.5000	0.3
5	TKN-10	1.020	5.1098	5.0000	2.2
6	TKN-10	1.365	6.8781	6.6667	2.7
7	TKN-10	1.937	9.8128	10.0000	-1.9

11/12/2025
RM

SOP ID : M3060A,7196A-Hex.Chromium-27

SDG No : N/A

Start Digest Date: 11/10/2025 Time : 09:10 Temp : 90 °C

Matrix : SOIL

End Digest Date: 11/10/2025 Time : 10:10 Temp : 93 °C

Pipette ID : WC

11/10/2025 10:50 90°C RM
11/10/2025 11:50 95°C

Balance ID : WC SC-7

Hood ID : HOOD#3

Digestion tube ID : M6054

Block Thermometer ID : WC-Block#1

Block ID : WC S-2, WC S-1

Filter paper ID : 400213

Prep Technician Signature: *R14*

Weigh By : RM

pH Meter ID : WC pH meter-1

Supervisor Signature: *12*

Standard Name	MLS USED	STD REF. # FROM LOG
PRE-DIGESTION SPIKE	2.0ML	WP113880
INSOLUBLE SPIKE	0.02GM	W2202
POST-DIGESTION SPIKE	2.0ML	WP113880
LCSS	1.0ML	WP113881
PBS003	50.ML	W3112

Chemical Used	ML/SAMPLE USED	Lot Number
MAGNESIUM CHLORIDE	0.4GM	W3152
PHOSPHATE BUFFER	5.0ML	WP115410
HEX. DIGESTION SOLN.	50.0ML	WP115338
5M HNO3	5-7ML	WP115339
5N H2SO4	1-3ML	WP115340
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

LAB SAMPLE ID	CLIENT SAMPLE ID	Vol(ml)	Comment
CAL1	CAL1	2.5ML	W3112
CAL2	CAL2	0.2ML	WP115586
CAL3	CAL3	0.5ML	WP115586
CAL4	CAL4	1ML	WP115586
CAL5	CAL5	0.2ML	WP113880
CAL6	CAL6	1ML	WP113880
CAL7	CAL7	2.0ML	WP113880
ICV	ICV	1ML	WP113881
ICB	ICB	2.5ML	W3112
CCV	CCV	1ML	WP113880
CCB	CCB	2.5ML	W3112

Extraction Conformance/Non-Conformance Comments:

11/10/2025 RM

N/A

Date / Time	Prepped Sample Relinquished By/Location	Received By/Location
	Preparation Group	Analysis Group

Lab Sample ID	Client Sample ID	Initial Weight (g)	Final Vol (ml)	pH	Sulfide	Oxidizing	Nitrate/ Nitrite	Comment	Prep Pos
PB170464BL	PBS464	2.50	100	N/A	N/A	N/A	N/A	N/A	N/A
PB170464BS	LCS464	2.50	100	N/A	N/A	N/A	N/A	N/A	N/A
Q3530-03	MDL-SOIL-03-QT4-2025	2.50	100	N/A	N/A	N/A	N/A	N/A	N/A
Q3562-01	EO-03-110625	2.53	100	N/A	N/A	N/A	N/A	N/A	N/A
Q3562-01DUP	EO-03-110625DUP	2.54	100	N/A	N/A	N/A	N/A	N/A	N/A
Q3562-01MSPre	EO-03-110625MSPRE	2.53	100	N/A	N/A	N/A	N/A	N/A	N/A
Q3562-01MS2Ins	EO-03-110625MS2INS	2.55	100	N/A	N/A	N/A	N/A	N/A	N/A
Q3562-01MS3Post	EO-03-110625MS3POST	2.51	100	N/A	N/A	N/A	N/A	N/A	N/A
Q3564-01	OR-03-11062025	2.57	100	N/A	N/A	N/A	N/A	N/A	N/A
Q3577-01	WC-1A	2.57	100	N/A	N/A	N/A	N/A	N/A	N/A
Q3580-01	346	2.53	100	N/A	N/A	N/A	N/A	N/A	N/A
Q3581-01	VNJ-238	2.56	100	N/A	N/A	N/A	N/A	N/A	N/A
Q3581-03	VNJ-245	2.52	100	N/A	N/A	N/A	N/A	N/A	N/A
Q3581-05	VNJ-240	2.56	100	N/A	N/A	N/A	N/A	N/A	N/A
Q3581-07	RBR200059	2.54	100	N/A	N/A	N/A	N/A	N/A	N/A
Q3582-04	RT4912	2.53	100	N/A	N/A	N/A	N/A	N/A	N/A
Q3583-04	CHRT27080	2.54	100	N/A	N/A	N/A	N/A	N/A	N/A
Q3586-01	SED-1	2.57	100	N/A	N/A	N/A	N/A	N/A	N/A
Q3586-02	SED-2	2.51	100	N/A	N/A	N/A	N/A	N/A	N/A
Q3586-03	SED-3	2.53	100	N/A	N/A	N/A	N/A	N/A	N/A
Q3587-01	NB-08-110725	2.53	100	N/A	N/A	N/A	N/A	N/A	N/A
Q3588-01	TR-06-11072025	2.54	100	N/A	N/A	N/A	N/A	N/A	N/A
Q3588-03	TR-01-11072025	2.54	100	N/A	N/A	N/A	N/A	N/A	N/A

WORKLIST(Hardcopy Internal Chain)

WorkList Name : hex-11-10

WorkList ID : 193015

Department : Distillation

Date : 11-10-2025 08:26:35

Sample	Customer Sample	Matrix	Test	Preservative	Customer	Raw Sample Storage Location	Collect Date	Method
Q3530-03	MDL-SOIL-03-QT4-2025	Solid	Hexavalent Chromium	Cool 4 deg C	ALLI03	QA Of	11/03/2025	7196A
Q3562-01	EO-03-110625	Solid	Hexavalent Chromium	Cool 4 deg C	PSEG05	D41	11/06/2025	7196A
Q3564-01	OR-03-11062025	Solid	Hexavalent Chromium	Cool 4 deg C	PSEG05	D41	11/06/2025	7196A
Q3577-01	WC-1A	Solid	Hexavalent Chromium	Cool 4 deg C	PSEG03	D41	11/07/2025	7196A
Q3580-01	346	Solid	Hexavalent Chromium	Cool 4 deg C	PSEG03	D31	11/07/2025	7196A
Q3581-01	VNJ-238	Solid	Hexavalent Chromium	Cool 4 deg C	PSEG03	D41	11/07/2025	7196A
Q3581-03	VNJ-245	Solid	Hexavalent Chromium	Cool 4 deg C	PSEG03	D41	11/07/2025	7196A
Q3581-05	VNJ-240	Solid	Hexavalent Chromium	Cool 4 deg C	PSEG03	D41	11/07/2025	7196A
Q3581-07	RBR200059	Solid	Hexavalent Chromium	Cool 4 deg C	PSEG03	D41	11/07/2025	7196A
Q3582-04	RT4912	Solid	Hexavalent Chromium	Cool 4 deg C	PSEG03	D31	11/07/2025	7196A
Q3583-04	CHRT27080	Solid	Hexavalent Chromium	Cool 4 deg C	PSEG03	D41	11/07/2025	7196A
Q3586-01	SED-1	Solid	Hexavalent Chromium	Cool 4 deg C	REMI02	D31	11/06/2025	7196A
Q3586-02	SED-2	Solid	Hexavalent Chromium	Cool 4 deg C	REMI02	D31	11/06/2025	7196A
Q3586-03	SED-3	Solid	Hexavalent Chromium	Cool 4 deg C	REMI02	D31	11/06/2025	7196A
Q3587-01	NB-08-110725	Solid	Hexavalent Chromium	Cool 4 deg C	PSEG05	D41	11/07/2025	7196A
Q3588-01	TR-06-11072025	Solid	Hexavalent Chromium	Cool 4 deg C	PSEG05	D41	11/07/2025	7196A
Q3588-03	TR-01-11072025	Solid	Hexavalent Chromium	Cool 4 deg C	PSEG05	D41	11/07/2025	7196A

Date/Time 11/10/2025 08:35
 Raw Sample Received by: RMC
 Raw Sample Relinquished by: RP(wc)

Date/Time 11/10/2025 11:00
 Raw Sample Received by: RP(wc)
 Raw Sample Relinquished by: RMC

SOP ID : M9012B-Total, Amenable and Reactive Cyanide-21

SDG No : N/A

Start Digest Date: 11/10/2025 Time : 08:15 Temp : 124 °C

Matrix : SOIL

End Digest Date: 11/10/2025 Time : 09:45 Temp : 126 °C

Pipette ID : WC

124.15
11.45

124.67
127.67

Balance ID : WC SC-7

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: 

Weigh By : JP

pH Meter ID : N/A

Supervisor Signature: 12

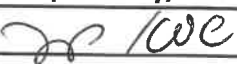
Standard Name	MLS USED	STD REF. # FROM LOG
LCSS	1.0ML	WP113838
MS/MSD SPIKE SOL.	0.40ML	WP113837
PBS003	50.0ML	W3112
N/A	N/A	N/A
N/A	N/A	N/A

Chemical Used	ML/SAMPLE USED	Lot Number
0.25N NaOH	50.0ML	WP113836
50% v/v H2SO4	5.0ML	WP115334
51% w/v MgCL2	2.0ML	WP115335
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

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	N/A	N/A
HIGHSTD	HIGHSTD	5.0ML	WP113837
LOWSTD	LOWSTD	0.1ML	WP113837

Extraction Conformance/Non-Conformance Comments:

N/A

Date / Time	Prepped Sample Relinquished By/Location	Received By/Location
11/10/2025 11:55		RM (WC)
	Preparation Group	Analysis Group

Lab Sample ID	Client Sample ID	Initial Weight (g)	Final Vol (ml)	pH	Sulfide	Oxidizing	Nitrate/ Nitrite	Comment	Prep Pos
PB170470BL	PBS470	1.00	50	N/A	N/A	N/A	N/A	N/A	N/A
PB170470BS	LCS470	1.00	50	N/A	N/A	N/A	N/A	N/A	N/A
Q3580-01DUP	346DUP	1.01	50	N/A	N/A	N/A	N/A	N/A	N/A
Q3580-01MS	346MS	1.02	50	N/A	N/A	N/A	N/A	N/A	N/A
Q3580-01MSD	346MSD	1.01	50	N/A	N/A	N/A	N/A	N/A	N/A
Q3580-01	346	1.01	50	N/A	N/A	N/A	N/A	N/A	N/A
Q3582-04	RT4912	1.04	50	N/A	N/A	N/A	N/A	N/A	N/A
Q3583-04	CHRT27080	1.01	50	N/A	N/A	N/A	N/A	N/A	N/A
Q3586-01	SED-1	1.03	50	N/A	N/A	N/A	N/A	N/A	N/A
Q3586-02	SED-2	1.01	50	N/A	N/A	N/A	N/A	N/A	N/A
Q3586-03	SED-3	1.02	50	N/A	N/A	N/A	N/A	N/A	N/A
Q3587-01	NB-08-110725	1.01	50	N/A	N/A	N/A	N/A	N/A	N/A
Q3588-01	TR-06-11072025	1.03	50	N/A	N/A	N/A	N/A	N/A	N/A
Q3588-03	TR-01-11072025	1.03	50	N/A	N/A	N/A	N/A	N/A	N/A

WORKLIST(Hardcopy Internal Chain)

WorkList Name : cn soil

WorkList ID : 193038

Department : Distillation

Date : 11-10-2025 07:26:05

Sample	Customer Sample	Matrix	Test	Preservative	Customer	Raw Sample Storage Location	Collect Date	Method
Q3580-01	346	Solid	Cyanide	Cool 4 deg C	PSEG03	D31	11/07/2025	9012B
Q3582-04	RT4912	Solid	Cyanide	Cool 4 deg C	PSEG03	D31	11/07/2025	9012B
Q3583-04	CHRT27080	Solid	Cyanide	Cool 4 deg C	PSEG03	D41	11/07/2025	9012B
Q3586-01	SED-1	Solid	Cyanide	Cool 4 deg C	REMI02	D31	11/06/2025	9012B
Q3586-02	SED-2	Solid	Cyanide	Cool 4 deg C	REMI02	D31	11/06/2025	9012B
Q3586-03	SED-3	Solid	Cyanide	Cool 4 deg C	REMI02	D31	11/06/2025	9012B
Q3587-01	NB-08-110725	Solid	Cyanide	Cool 4 deg C	PSEG05	D41	11/07/2025	9012B
Q3588-01	TR-06-11072025	Solid	Cyanide	Cool 4 deg C	PSEG05	D41	11/07/2025	9012B
Q3588-03	TR-01-11072025	Solid	Cyanide	Cool 4 deg C	PSEG05	D41	11/07/2025	9012B

Date/Time 11/10/2025 07:35
 Raw Sample Received by: RM (WC)
 Raw Sample Relinquished by: JP (WC)

Date/Time 11/10/2025 12:30
 Raw Sample Received by: JP (WC)
 Raw Sample Relinquished by: RM (WC)

SOP ID : MSM4500-N Org C-TKN-12

SDG No : N/A

Start Digest Date: 11/11/2025 Time : 08:10 Temp : 380 °C

Matrix : SOIL

End Digest Date: 11/11/2025 Time : 09:40 Temp : 384 °C

Pipette ID : WC

Start Distillation Date: 11/11/2025 Time : 14:40 Temp : 150 °C

Balance ID : WC SC-7

End Distillation Date: 11/11/2025 Time : 15:40 Temp : 160 °C

Hood ID : HOOD#2

Digestion tube ID : M5595

Block Thermometer ID : Therm#2(2179)

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: 12

Standard Name	MLS USED	STD REF. # FROM LOG
TKN CAL STD	50.0ML	WP115592
TKN CCV STD	50.0ML	WP115593
TKN ICV STD	50.0ML	WP115594
TKN LCS STD	50.0ML	WP115595
MS/MSD SPIKE SOL.	0.25ML	WP115085

Chemical Used	ML/SAMPLE USED	Lot Number
TKN DIGESTION FLUID	10.0ML	WP113135
TKN DISTILLATION BUFFER	10.0ML	WP114445
H2SO4 0.04N	5.0ML	WP112828
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:

RL CHECK AS PER PB170510,ALL GLASSWEAR ARE STEAMED OUT AND THERE WERE NO TRACE OF AMMONIA
USING NESLER REAGENT WP114104,LOD WP115596,LOQ WP115597

Date / Time	Prepped Sample Relinquished By/Location	Received By/Location
11/11/2025 15:50	RM (WC)	RM (WC)
	Preparation Group	Analysis Group

Lab Sample ID	Client Sample ID	Initial Weight (g)	Final Vol (ml)	pH	Sulfide	Oxidizing	Nitrate/ Nitrite	Comment	Prep Pos
PB170482BL	PBS482	1.00	50	N/A	N/A	N/A	N/A	N/A	N/A
PB170482BS	LCS482	1.00	50	N/A	N/A	N/A	N/A	N/A	N/A
Q3483-07	HW1025-PT-NUT-SOIL	1.00	50	N/A	N/A	N/A	N/A	N/A	N/A
Q3530-01	LOD-MDL-SOIL-01-QT4-2025	1.00	50	N/A	N/A	N/A	N/A	N/A	N/A
Q3530-02	LOQ-SOIL-02-QT4-2025	1.00	50	N/A	N/A	N/A	N/A	N/A	N/A
Q3586-02	SED-2	1.02	50	N/A	N/A	N/A	N/A	N/A	N/A
Q3586-02DUP	SED-2DUP	1.02	50	N/A	N/A	N/A	N/A	N/A	N/A
Q3586-02MS	SED-2MS	1.01	50	N/A	N/A	N/A	N/A	N/A	N/A
Q3586-02MSD	SED-2MSD	1.02	50	N/A	N/A	N/A	N/A	N/A	N/A

WORKLIST(Hardcopy Internal Chain)

WorkList Name : TKN-SOIL-

WorkList ID : 193020

Department : Distillation

Date : 11-10-2025 17:12:03

Sample	Customer Sample	Matrix	Test	Preservative	Customer	Raw Sample Storage Location	Collect Date	Method
Q3483-07	HW1025-PT-NUT-SOIL	Solid	TKN	Cool 4 deg C	ALLI03	QA Of	10/27/2025	SM4500 N Org
Q3530-01	LOD-MDL-SOIL-01-QT4-2025	Solid	TKN	Cool 4 deg C	ALLI03	QA Of	11/03/2025	SM4500 N Org
Q3530-02	LOQ-SOIL-02-QT4-2025	Solid	TKN	Cool 4 deg C	ALLI03	QA Of	11/03/2025	SM4500 N Org
Q3586-02	SED-2	Solid	TKN	Cool 4 deg C	REMI02	D31	11/06/2025	SM4500 N Org

Date/Time 11/11/2025 07:30
 Raw Sample Received by: RM (w)
 Raw Sample Relinquished by: RM (w)

Date/Time 11/11/2025 07:30
 Raw Sample Received by: RM (w)
 Raw Sample Relinquished by: RM (w)

Instrument ID: SPECTROPHOTOMETER-1

Daily Analysis Runlog For Sequence/QC Batch ID # LB137839

Review By	rubina	Review On	11/10/2025 3:02:02 PM
Supervise By	Iwona	Supervise On	11/12/2025 1:03:38 PM
SubDirectory	LB137839	Test	Hexavalent Chromium
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	WP115554,WP115340,WP115339,WP115587,WP114310		

Sr#	SampleId	ClientID	QcType	Date	Comment	Operator	Status
1	CAL1	CAL1	CAL	11/10/25 12:30		rubina	OK
2	CAL2	CAL2	CAL	11/10/25 12:30		rubina	OK
3	CAL3	CAL3	CAL	11/10/25 12:31		rubina	OK
4	CAL4	CAL4	CAL	11/10/25 12:31		rubina	OK
5	CAL5	CAL5	CAL	11/10/25 12:32		rubina	OK
6	CAL6	CAL6	CAL	11/10/25 12:32		rubina	OK
7	CAL7	CAL7	CAL	11/10/25 12:33		rubina	OK
8	ICV	ICV	ICV	11/10/25 12:33		rubina	OK
9	ICB	ICB	ICB	11/10/25 12:34		rubina	OK
10	CCV1	CCV1	CCV	11/10/25 12:34		rubina	OK
11	CCB1	CCB1	CCB	11/10/25 12:35		rubina	OK
12	RL Check	RL Check	RL	11/10/25 12:35		rubina	OK
13	PB170464BL	PB170464BL	MB	11/10/25 12:36		rubina	OK
14	PB170464BS	PB170464BS	LCS	11/10/25 12:36		rubina	OK
15	Q3530-03	MDL-SOIL-03-QT4-20	SAM	11/10/25 12:37		rubina	OK
16	Q3562-01	EO-03-110625	SAM	11/10/25 12:37		rubina	OK
17	Q3562-01DUP	EO-03-110625DUP	DUP	11/10/25 12:38		rubina	OK
18	Q3562-01MSPre	EO-03-110625MS	MS	11/10/25 12:38		rubina	OK

Instrument ID: SPECTROPHOTOMETER-1

Daily Analysis Runlog For Sequence/QC Batch ID # LB137839

Review By	rubina	Review On	11/10/2025 3:02:02 PM
Supervise By	Iwona	Supervise On	11/12/2025 1:03:38 PM
SubDirectory	LB137839	Test	Hexavalent Chromium
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	WP115554,WP115340,WP115339,WP115587,WP114310		

19	Q3562-01MS2Ins	EO-03-110625MS	MS	11/10/25 12:39		rubina	OK
20	Q3562-01MS3Post	EO-03-110625MS	MS	11/10/25 12:39		rubina	OK
21	Q3564-01	OR-03-11062025	SAM	11/10/25 12:40		rubina	OK
22	Q3577-01	WC-1A	SAM	11/10/25 12:40		rubina	OK
23	CCV2	CCV2	CCV	11/10/25 12:41		rubina	OK
24	CCB2	CCB2	CCB	11/10/25 12:41		rubina	OK
25	Q3580-01	346	SAM	11/10/25 12:42		rubina	OK
26	Q3581-01	VNJ-238	SAM	11/10/25 12:42		rubina	OK
27	Q3581-03	VNJ-245	SAM	11/10/25 12:43		rubina	OK
28	Q3581-05	VNJ-240	SAM	11/10/25 12:43		rubina	OK
29	Q3581-07	RBR200059	SAM	11/10/25 12:44		rubina	OK
30	Q3582-04	RT4912	SAM	11/10/25 12:44		rubina	OK
31	Q3583-04	CHRT27080	SAM	11/10/25 12:45		rubina	OK
32	Q3586-01	SED-1	SAM	11/10/25 12:45		rubina	OK
33	Q3586-02	SED-2	SAM	11/10/25 12:46		rubina	OK
34	Q3586-03	SED-3	SAM	11/10/25 12:46		rubina	OK
35	CCV3	CCV3	CCV	11/10/25 12:47		rubina	OK
36	CCB3	CCB3	CCB	11/10/25 12:47		rubina	OK
37	Q3587-01	NB-08-110725	SAM	11/10/25 12:48		rubina	OK
38	Q3588-01	TR-06-11072025	SAM	11/10/25 12:48		rubina	OK

Instrument ID: SPECTROPHOTOMETER-1

Daily Analysis Runlog For Sequence/QC Batch ID # LB137839

Review By	rubina	Review On	11/10/2025 3:02:02 PM
Supervise By	Iwona	Supervise On	11/12/2025 1:03:38 PM
SubDirectory	LB137839	Test	Hexavalent Chromium
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	WP115554,WP115340,WP115339,WP115587,WP114310		

39	Q3588-03	TR-01-11072025	SAM	11/10/25 12:49		rubina	OK
40	CCV4	CCV4	CCV	11/10/25 12:49		rubina	OK
41	CCB4	CCB4	CCB	11/10/25 12:50		rubina	OK

Instrument ID: KONELAB

Daily Analysis Runlog For Sequence/QC Batch ID # LB137840

Review By	rubina	Review On	11/11/2025 12:55:24 PM
Supervise By	Iwona	Supervise On	11/11/2025 2:08:01 PM
SubDirectory	LB137840	Test	Cyanide
STD. NAME	STD REF.#		
ICAL Standard	WP115577,WP115578,WP115579,WP115580,WP115581,WP115582,WP115583		
ICV Standard	W3012		
CCV Standard	WP115578		
ICSA Standard	N/A		
CRI Standard	N/A		
LCS Standard	WP113838		
Chk Standard	WP115157,WP114324,WP115585		

Sr#	SampleID	ClientID	QcType	Date	Comment	Operator	Status
1	0.0PPBCN	0.0PPBCN	CAL1	11/10/25 10:56		rubina	OK
2	5.0PPBCN	5.0PPBCN	CAL2	11/10/25 10:56		rubina	OK
3	10PPBCN	10PPBCN	CAL3	11/10/25 10:56		rubina	OK
4	50PPBCN	50PPBCN	CAL4	11/10/25 10:56		rubina	OK
5	100PPBCN	100PPBCN	CAL5	11/10/25 10:56		rubina	OK
6	250PPBCN	250PPBCN	CAL6	11/10/25 10:56		rubina	OK
7	500PPBCN	500PPBCN	CAL7	11/10/25 10:56		rubina	OK
8	ICV1	ICV1	ICV	11/10/25 14:17		rubina	OK
9	ICB1	ICB1	ICB	11/10/25 14:17		rubina	OK
10	CCV1	CCV1	CCV	11/10/25 14:17		rubina	OK
11	CCB1	CCB1	CCB	11/10/25 14:17		rubina	OK
12	PB170470BL	PB170470BL	MB	11/10/25 14:17		rubina	OK
13	PB170470BS	PB170470BS	LCS	11/10/25 14:17		rubina	OK
14	LOWPB170440	LOWPB170440	SAM	11/10/25 14:24		rubina	OK
15	HIGHPB170440	HIGHPB170440	SAM	11/10/25 14:24		rubina	OK
16	PB170442BL	PB170442BL	MB	11/10/25 14:24		rubina	OK
17	PB170442BS	PB170442BS	LCS	11/10/25 14:24		rubina	OK
18	Q3560-01	SY-10D	SAM	11/10/25 14:24		rubina	OK

Instrument ID: KONELAB

Daily Analysis Runlog For Sequence/QC Batch ID # LB137840

Review By	rubina	Review On	11/11/2025 12:55:24 PM
Supervise By	Iwona	Supervise On	11/11/2025 2:08:01 PM
SubDirectory	LB137840	Test	Cyanide
STD. NAME	STD REF.#		
ICAL Standard	WP115577,WP115578,WP115579,WP115580,WP115581,WP115582,WP115583		
ICV Standard	W3012		
CCV Standard	WP115578		
ICSA Standard	N/A		
CRI Standard	N/A		
LCS Standard	WP113838		
Chk Standard	WP115157,WP114324,WP115585		

19	Q3560-01DUP	SY-10DDUP	DUP	11/10/25 14:32		rubina	OK
20	Q3560-01MS	SY-10DMS	MS	11/10/25 14:32		rubina	OK
21	Q3560-01MSD	SY-10DMSD	MSD	11/10/25 14:32		rubina	OK
22	CCV2	CCV2	CCV	11/10/25 14:32		rubina	OK
23	CCB2	CCB2	CCB	11/10/25 14:32		rubina	OK
24	Q3560-03	SY-10S	SAM	11/10/25 14:32		rubina	OK
25	Q3560-05	SY-10I	SAM	11/10/25 14:32		rubina	OK
26	Q3560-07	SY-12I	SAM	11/10/25 14:39		rubina	OK
27	Q3560-09	SY-12D	SAM	11/10/25 14:39		rubina	OK
28	Q3569-01	MW-2	SAM	11/10/25 14:39		rubina	OK
29	Q3569-02	MW-12	SAM	11/10/25 14:39		rubina	OK
30	Q3580-01	346	SAM	11/10/25 14:39		rubina	OK
31	Q3580-01DUP	346DUP	DUP	11/10/25 14:39		rubina	OK
32	Q3580-01MS	346MS	MS	11/10/25 14:39		rubina	OK
33	Q3580-01MSD	346MSD	MSD	11/10/25 14:40		rubina	OK
34	CCV3	CCV3	CCV	11/10/25 14:40		rubina	OK
35	CCB3	CCB3	CCB	11/10/25 14:47		rubina	OK
36	Q3586-02	SED-2	SAM	11/10/25 14:47		rubina	OK
37	Q3586-03	SED-3	SAM	11/10/25 14:47		rubina	OK
38	Q3587-01	NB-08-110725	SAM	11/10/25 14:47		rubina	OK

Instrument ID: KONELAB

Daily Analysis Runlog For Sequence/QC Batch ID # LB137840

Review By	rubina	Review On	11/11/2025 12:55:24 PM
Supervise By	Iwona	Supervise On	11/11/2025 2:08:01 PM
SubDirectory	LB137840	Test	Cyanide
STD. NAME	STD REF.#		
ICAL Standard	WP115577,WP115578,WP115579,WP115580,WP115581,WP115582,WP115583		
ICV Standard	W3012		
CCV Standard	WP115578		
ICSA Standard	N/A		
CRI Standard	N/A		
LCS Standard	WP113838		
Chk Standard	WP115157,WP114324,WP115585		

39	Q3588-01	TR-06-11072025	SAM	11/10/25 14:47		rubina	OK
40	Q3588-03	TR-01-11072025	SAM	11/10/25 14:47		rubina	OK
41	Q3586-01	SED-1	SAM	11/10/25 14:47		rubina	OK
42	Q3582-04	RT4912	SAM	11/10/25 15:00		rubina	OK
43	Q3583-04	CHRT27080	SAM	11/10/25 15:05		rubina	OK
44	CCV4	CCV4	CCV	11/10/25 15:05		rubina	OK
45	CCB4	CCB4	CCB	11/10/25 15:05		rubina	OK

Prep Standard - Chemical Standard Summary

Order ID : Q3586
Test : Cyanide,Hexavalent Chromium,Percent Solids
Prepbatch ID : PB170464,PB170470,
Sequence ID/Qc Batch ID: LB137839,LB137840,

Standard ID :
WP113836,WP113837,WP113838,WP113880,WP113881,WP114310,WP114324,WP115157,WP115334,WP115335,WP115338,WP115339,WP115340,WP115410,WP115554,WP115576,WP115577,WP115578,WP115579,WP115580,WP115581,WP115582,WP115583,WP115585,WP115586,WP115587,

Chemical ID :
E3982,M6151,M6162,M6186,M6187,W2202,W2651,W2652,W2668,W2979,W3012,W3019,W3112,W3113,W3139,W3152,W3163,W3168,W3203,W3206,W3214,W3224,



<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>
11	Sodium hydroxide absorbing solution 0.25 N	WP113836	07/08/2025	12/31/2025	Rubina Mughal	WETCHEM_S CALE_8 (WC SC-7)	None	Iwona Zarych 07/08/2025
<u>FROM</u> 21.00000L of W3112 + 210.00000gram of W3113 = Final Quantity: 21.000 L								

<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>
3850	Cyanide MS-MSD spiking solution, 5PPM	WP113837	07/08/2025	11/30/2025	Rubina Mughal	None	WETCHEM_PIPETTE_3	Iwona Zarych
<u>FROM</u>		(WC)						
1.00000ml of W3214 + 199.00000ml of WP113836 = Final Quantity: 200.000 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>
3371	Cyanide LCS Spike Solution, 5PPM	WP113838	07/08/2025	12/24/2025	Rubina Mughal	None	WETCHEM_PIPETTE_3	Iwona Zarych
(WC)								
<u>FROM</u>	1.00000ml of W3224 + 199.00000ml of WP113836 = Final Quantity: 200.000 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>
1993	HEXAVALENTCHROMIUM STOCK STD 1, 50PPM	WP113880	07/10/2025	01/10/2026	Rubina Mughal	WETCHEM_SCALE_5 (WCS-5)	None	Iwona Zarych 07/10/2025
<u>FROM</u> 0.14140gram of W2651 + 1000.00000ml of W3112 = Final Quantity: 1000.000 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>
1994	HEXAVALENTCHROMIUM STOCK STD 2, 50PPM	WP113881	07/10/2025	01/10/2026	Rubina Mughal	WETCHEM_SCALE_5 (WCS-5)	None	Iwona Zarych 07/10/2025
<u>FROM</u> 0.14140gram of W2652 + 1000.00000ml of W3112 = Final Quantity: 1000.000 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>
3354	Hexchrome Cleaning Solution	WP114310	08/19/2025	11/27/2025	Rubina Mughal	None	None	Jignesh Parikh 08/19/2025
<u>FROM</u>	182.00000ml of M6151 + 727.00000ml of W3112 + 91.00000ml of M6162 = Final Quantity: 1000.000 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>
607	PYRIDINE-BARBITURIC ACID	WP114324	08/19/2025	02/17/2026	Rubina Mughal	WETCHEM_SCALE_5 (WCS-5)	Glass Pipette-A	Jignesh Parikh 08/19/2025
<u>FROM</u>	145.00000ml of W3112 + 15.00000gram of W3203 + 15.00000ml of M6151 + 75.00000ml of W3019 = Final Quantity: 250.000 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>
539	CN BUFFER	WP115157	10/10/2025	12/03/2025	Rubina Mughal	WETCHEM_SCALE_8 (WC SC-7)	None	Iwona Zarych 10/14/2025
<u>FROM</u>	138.00000gram of W2668 + 862.00000ml of W3112 = Final Quantity: 1000.000 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>
1714	Sulfuric Acid, 50% (v/v)	WP115334	10/27/2025	04/27/2026	Rubina Mughal	None	None	Jignesh Parikh
								10/27/2025

FROM 500.00000ml of M6186 + 500.00000ml of W3112 = Final Quantity: 1000.000 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>
3214	Magnesium Chloride For Cyanide 2.5M(51%W/V)	WP115335	10/27/2025	04/27/2026	Rubina Mughal	WETCHEM_S CALE_8 (WC SC-7)	None	Jignesh Parikh
								10/27/2025

FROM 500.00000ml of W3112 + 510.00000gram of W3152 = Final Quantity: 1000.000 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>
148	hexchrome digestion fluid	WP115338	10/27/2025	11/27/2025	Rubina Mughal	WETCHEM_SCALE_8 (WC SC-7)	None	Jignesh Parikh
<u>FROM</u> 120.00000gram of W3163 + 4.00000L of W3112 + 80.00000gram of W3113 = Final Quantity: 4000.000 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>
1836	HNO3 Hex-Chrome, 5M	WP115339	10/27/2025	01/28/2026	Rubina Mughal	None	None	Jignesh Parikh
<u>FROM</u> 320.00000ml of M6187 + 680.00000ml of W3112 = Final Quantity: 1000.000 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>
126	5N sulfuric acid	WP115340	10/27/2025	04/27/2026	Rubina Mughal	None	None	Jignesh Parikh
								10/27/2025

FROM 140.00000ml of M6186 + 860.00000ml of W3112 = Final Quantity: 1.000 L

<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>
190	HEX CHROME PHOSPHATE BUFFER	WP115410	11/03/2025	05/03/2026	Rubina Mughal	WETCHEM_SCALE_8 (WC SC-7)	None	Iwona Zarych
								11/03/2025

FROM 0.84500L of W3112 + 68.04000gram of W3206 + 87.09000gram of W3168 = Final Quantity: 1.000 L



<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>
114	hexavalent chromium color reagent	WP115554	11/07/2025	11/14/2025	Rubina Mughal	WETCHEM_SCALE_5 (WCS-5)	None	Iwona Zarych 11/10/2025
<u>FROM</u> 0.25000gram of W2979 + 50.00000ml of E3982 = Final Quantity: 50.000 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>
3456	Cyanide Intermediate Working Std, 5PPM	WP115576	11/10/2025	11/11/2025	Rubina Mughal	None	WETCHEM_PIPETTE_3	Iwona Zarych
<u>FROM</u> 0.25000ml of W3214 + 49.75000ml of WP113836 = Final Quantity: 50.000 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>
4	Calibration standard 500 ppb	WP115577	11/10/2025	11/11/2025	Rubina Mughal	None	WETCHEM_PIPETTE_3	Iwona Zarych
(WC) FROM 45.00000ml of WP113836 + 5.00000ml of WP115576 = Final Quantity: 50.000 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>
3761	Calibration-CCV CN Standard 250 ppb	WP115578	11/10/2025	11/11/2025	Rubina Mughal	None	WETCHEM_PIPETTE_3 (WC)	Iwona Zarych 11/10/2025
<u>FROM</u> 2.50000ml of WP115576 + 47.50000ml of WP113836 = Final Quantity: 50.000 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>
6	Calibration Standard 100 ppb	WP115579	11/10/2025	11/11/2025	Rubina Mughal	None	WETCHEM_PIPETTE_3	Iwona Zarych
(WC) FROM 1.00000ml of WP115576 + 49.00000ml of WP113836 = Final Quantity: 50.000 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>
7	Calibration Standard 50 ppb	WP115580	11/10/2025	11/11/2025	Rubina Mughal	None	WETCHEM_PIPETTE_3 (WC)	Iwona Zarych 11/10/2025
<u>FROM</u>	0.50000ml of WP115576 + 49.50000ml of WP113836 = Final Quantity: 50.000 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>
8	Calibration Standard 10 ppb	WP115581	11/10/2025	11/11/2025	Rubina Mughal	None	WETCHEM_PIPETTE_3	Iwona Zarych
FROM 1.00000ml of WP115577 + 49.00000ml of WP113836 = Final Quantity: 50.000 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>
9	Calibration Standard 5 ppb	WP115582	11/10/2025	11/11/2025	Rubina Mughal	None	WETCHEM_PIPETTE_3 (WC)	Iwona Zarych 11/10/2025
<u>FROM</u>	0.50000ml of WP115577 + 49.50000ml of WP113836 = Final Quantity: 50.000 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>
167	0 ppb CN calibration std	WP115583	11/10/2025	11/11/2025	Rubina Mughal	None	None	Iwona Zarych
								11/10/2025

FROM 50.00000ml of WP113836 = Final Quantity: 50.000 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>
1582	Chloramine T solution, 0.014M	WP115585	11/10/2025	11/11/2025	Rubina Mughal	WETCHEM_S CALE_5 (WC SC-5)	Glass Pipette-A	Iwona Zarych
								11/10/2025

FROM 0.08000gram of W3139 + 20.00000ml of W3112 = Final Quantity: 20.000 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>
1103	HEX CHROME INTERMEDIATE STD SOURCE 1 (5PPM)	WP115586	11/10/2025	11/11/2025	Rubina Mughal	None	WETCHEM_FIPETTE_3 (WC)	Iwona Zarych 11/10/2025
<u>FROM</u> 9.00000ml of W3112 + 1.00000ml of WP113880 = 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>
1986	HEX LOD STD, 0.005PPM	WP115587	11/10/2025	11/11/2025	Rubina Mughal	None	WETCHEM_FIPETTE_3 (WC)	Iwona Zarych 11/10/2025
<u>FROM</u> 99.90000ml of W3112 + 0.10000ml of WP115586 = Final Quantity: 100.000 ml								

CHEMICAL RECEIPT LOG BOOK

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Seidler Chemical	BA-9254-03 / Acetone, Ultra Resi (cs/4x4L)	24L1062001	10/04/2027	10/31/2025 / RUPESH	10/31/2025 / RUPESH	E3982

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Seidler Chemical	BA-9530-33 / Hydrochloric Acid, Instra-Analyzed (cs/6x2.5L)	22G2862015	02/17/2026	02/18/2025 / Sagar	01/15/2025 / Sagar	M6151

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Seidler Chemical	BA-9598-34 / Nitric Acid, Instra-Analyzed (cs/4x2.5L)	24H0162012	11/27/2025	05/27/2025 / Sagar	04/27/2025 / Sagar	M6162

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Seidler Chemical	BA-9673-33 / Sulfuric Acid, Instra-Analyzed (cs/6c2.5L)	23D2462010	07/12/2026	08/13/2025 / Sagar	08/06/2025 / Sagar	M6186

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Seidler Chemical	BA-9598-34 / Nitric Acid, Instra-Analyzed (cs/4x2.5L)	24H0162012	01/28/2026	08/29/2025 / Sagar	08/08/2025 / Sagar	M6187

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
PCI Scientific Supply, Inc.	AA14125-36 / LEAD (II) CHROMATE, ACS, 500G	U19B018	01/23/2027	01/23/2017 / apatel	01/23/2017 / apatel	W2202

CHEMICAL RECEIPT LOG BOOK

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
PCI Scientific Supply, Inc.	AA13450-36 / Potassium Dichromate, 500g(NEW)	T15F019	01/24/2030	01/24/2020 / apatel	01/24/2020 / apatel	W2651

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
PCI Scientific Supply, Inc.	P188-500 / Potassium Dichromate, 500g(new-2nd lot)	194664	01/24/2030	01/24/2020 / apatel	01/24/2020 / apatel	W2652

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
PCI Scientific Supply, Inc.	J3818-5 / SODIUM PHOSPHATE, MONOBAS/HYD, CRYST, ACS, 2.5 KG	0000225799	12/03/2025	04/05/2021 / Alexander	02/10/2020 / apatel	W2668

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
PCI Scientific Supply, Inc.	31390 / 1,5-Diphenylcarbazine	MKCR6636	12/09/2027	12/09/2022 / lwona	12/09/2022 / lwona	W2979

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
EPA	/ ICV-CN	ICV6-400	12/31/2025	01/08/2025 / lwona	02/20/2020 / lwona	W3012

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
SIGMA ALDRICH	270970-1L / Pyridine 1L	SHBQ2113	04/03/2028	04/03/2023 / lwona	04/03/2023 / lwona	W3019

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.	PC19510-7 / Sodium Hydroxide Pellets 12 Kg	23B1556310	12/31/2025	07/08/2024 / lwona	07/08/2024 / lwona	W3113

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
PCI Scientific Supply, Inc.	JTE494-6 / CHLORAMINE-T BAKER 250GM	10239484	09/09/2029	09/09/2024 / lwona	09/09/2024 / lwona	W3139

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
PCI Scientific Supply, Inc.	01237-10KG / Magnesium Chloride Hexahydrate ACS 10KG	002126-2019-201	11/25/2029	11/25/2024 / lwona	11/25/2024 / lwona	W3152

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
PCI Scientific Supply, Inc.	EM-SX0395-3 / SODIUM CARBONATE ANHYDR 2.5KG	24E3156178	09/30/2027	12/10/2024 / lwona	12/10/2024 / lwona	W3163

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
PCI Scientific Supply, Inc.	J3252-1 / POTAS PHOSPHATE, DIBASIC PWD, ACS, 500G	24H0856239	04/19/2028	01/03/2025 / lwona	01/03/2025 / lwona	W3168

CHEMICAL RECEIPT LOG BOOK

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
PCI Scientific Supply, Inc.	EM-BX0035-3 / Barbituric Acid, 100 gms	WXBF3271V	05/16/2029	04/21/2025 / lwona	04/21/2025 / lwona	W3203

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
PCI Scientific Supply, Inc.	J3246-1 / POTAS PHOSPHATE, MONO, CRYST, ACS, 500G	MKCX1379	01/31/2029	04/29/2025 / lwona	04/29/2025 / lwona	W3206

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
PCI Scientific Supply, Inc.	RC2543-4 / CYANIDE STD 1000PPM 4OZ	1505H73	11/30/2025	05/21/2025 / lwona	05/21/2025 / lwona	W3214

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
PCI Scientific Supply, Inc.	LC135457 / Cyanide Standard, 1000 PPM, Second Source	45060288	12/24/2025	07/07/2025 / lwona	07/07/2025 / lwona	W3224

Certificate of analysis

Product No. 14125
Product: Lead(II) chromate, ACS, 98%
Lot No.: U19B018

Test	Limits	Results
Assay	98.0 % min	99.3 %
Soluble matter	0.15 % max	< 0.02 %
Carbon compounds	0.01 % max	< 0.01 %

Traceable to NIST? Yes

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Product No.: 13450
Product: Potassium dichromate, ACS, 99.0% min
Lot No.: T15F019

Test	Limits	Results
Appearance	Orange-red crystals	Orange-red crystals
Identification	To Pass	Passes
Purity	99.0 % min	99.67 %
Insoluble matter	0.005 % max	0.004 %
Loss on drying	0.05 % max	0.03 %
Chloride	0.001 % max	< 0.001 %
Sulfate	0.005 % max	< 0.005 %
Iron	0.001 % max	< 0.001 %
Calcium	0.003 % max	0.0012 %
Sodium	0.02 % max	0.0047 %

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This document has been electronically generated and does not require a signature.

This is to certify that units of the lot number above were tested and found to comply with the specifications of the grade listed. Certain data have been supplied by third parties. Thermo Fisher Scientific expressly disclaims all warranties, expressed or implied, including the implied warranties of merchantability and fitness for a particular purpose. Products are for research use or further manufacturing. Not for direct administration to humans or animals. It is the responsibility of the purchaser, formulator or those performing further manufacturing to determine suitability based upon the intended use of the end product. Products are tested to meet the analytical requirements of the noted grade. The above information is the actual analytical results obtained.

W3019
rec 4/3/23

3050 Spruce Street, Saint Louis, MO 63103, USA

Website: www.sigmaaldrich.comEmail USA: techserv@sial.comOutside USA: eurtechserv@sial.com

Certificate of Analysis

Product Name:

Pyridine - anhydrous, 99.8%

Product Number:

270970

Batch Number:

SHBQ2113

Brand:

SIAL

CAS Number:

110-86-1

MDL Number:

MFCD00011732

Formula:

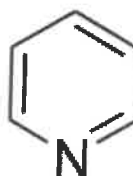
C₅H₅N

Formula Weight:

79.10 g/mol

Quality Release Date:

15 DEC 2022



Test	Specification	Result
Appearance (Color)	Colorless	Colorless
Appearance (Form)	Liquid	Liquid
Infrared Spectrum	Conforms to Structure	Conforms
Purity (GC)	≥ 99.75 %	99.99 %
Water (by Karl Fischer)	≤ 0.003 %	0.002 %
Residue on Evaporation	≤ 0.0005 %	< 0.0001 %


Larry Coers, Director
Quality Control
Sheboygan Falls, WI US

Sigma-Aldrich warrants, that at the time of the quality release or subsequent retest date this product conformed to the information contained in this publication. The current Specification sheet may be available at Sigma-Aldrich.com. For further inquiries, please contact Technical Service. Purchaser must determine the suitability of the product for its particular use. See reverse side of invoice or packing slip for additional terms and conditions of sale.





Certificate of Analysis

1 Reagent Lane
Fair Lawn, NJ 07410
201.796.7100 tel
201.796.1329 fax

Thermo Fisher Scientific's Quality System has been found to conform to Quality Management System
Standard ISO9001:2015 by SAI Global Certificate Number CERT – 0120632

This is to certify that units of the lot number below were tested and found to comply with the specifications of the grade listed. Certain data have been supplied by third parties. Thermo Fisher Scientific expressly disclaims all warranties, expressed or implied, including the implied warranties of merchantability and fitness for a particular purpose. Products are for research use or further manufacturing. Not for direct administration to humans or animals. It is the responsibility of the final formulator and end user to determine suitability based upon the intended use of the end product. Products are tested to meet the analytical requirements of the noted grade. The following information is the actual analytical results obtained.

Catalog Number	P188	Quality Test / Release Date	08/12/2019
Lot Number	194664		
Description	POTASSIUM DICHROMATE, A.C.S.		
Country of Origin	United States	Suggested Retest Date	Aug/2024
Chemical Origin	Inorganic-non animal		
BSE/TSE Comment	No animal products are used as starting raw material ingredients, or used in processing, including lubricants, processing aids, or any other material that might migrate to the finished product.		
Chemical Comment			

N/A			
Result Name	Units	Specifications	Test Value
APPEARANCE		REPORT	Fine, orange-red crystals
ASSAY	%	>= 99	99.2
CALCIUM	%	<= 0.003	<0.003
CHLORIDE	%	<= 0.001	<0.001
LOSS ON DRYING @ 105 C	%	<= 0.05	<0.05
SULFATE (SO4)	%	<= 0.005	<0.005
INSOLUBLE MATTER	%	<= 0.005	0.003
IRON (Fe)	%	<= 0.001	<0.001
SODIUM (Na)	%	<= 0.02	<0.02
IDENTIFICATION	PASS/FAIL	= PASS TEST	PASS TEST

Jerusa Bailey-Wyche

Quality Assurance Specialist - Certificate of Analysis Fair Lawn

Note: The data listed is valid for all package sizes of this lot of this product, expressed as an extension of this catalog number listed above. If there are any questions with this certificate, please call at (800) 227-6701.

*Based on suggested storage condition.

Acetone

BAKER RESI-ANALYZED® Reagent
For Organic Residue Analysis

 **avantors**™



Material No.: 9254-03

Batch No.: 24L1062001

Manufactured Date: 2024-10-04

Expiration Date: 2027-10-04

Revision No.: 0

Certificate of Analysis

Test	Specification	Result
Assay ((CH ₃) ₂ CO) (by GC, corrected for water)	>= 99.4 %	99.7 %
Color (APHA)	<= 10	5
Residue after Evaporation	<= 1.0 ppm	0.3 ppm
Substances Reducing Permanganate	Passes Test	Passes Test
Titration Acid (µeq/g)	<= 0.3	0.1
Titration Base (µeq/g)	<= 0.6	<0.1
Water (H ₂ O)	<= 0.5 %	0.3 %
FID-Sensitive Impurities (as 2-Octanol) Single Impurity Peak (ng/mL)	<= 5	<1
ECD Sensitive Impurities (as Heptachlor Epoxide) Single Peak (pg/mL)	<= 10	1

For Laboratory, Research, or Manufacturing Use

MEETS SPECIFICATIONS WITHIN THE EXPIRATION PERIOD

Country of Origin: United States

Packaging Site: Phillipsburg Mfg Ctr & DC

Received on 10/29/25

E3982

J. Croak

Jamie Croak
Director Quality Operations, Bioscience Production

For questions on this Certificate of Analysis please contact Technical Services at 855.282.6867 or +1.610.386.1700

Avantor Performance Materials LLC



R: 02/20/20
53

Instructions for QATS Reference Material: *Inorganic ICV Solutions*

For ICP-MS use: dilute the ICV1 concentrate 50-fold with 1% (v/v) nitric acid; pipet 2 mL of the concentrate into a 100 mL volumetric flask and dilute to volume with 1% (v/v) nitric acid.

ICV5-0415

For the cold vapor analysis of mercury by AA: dilute the ICV5 concentrate 100-fold with 2% (v/v) nitric acid; pipet 1 mL of the concentrate into a 100 mL volumetric flask and dilute to volume with 2% (v/v) nitric acid. The ICV5 concentrate is prepared in 0.05% (w/v) $K_2Cr_2O_7$ and 5% (v/v) nitric acid.

ICV6-0400

For the analysis of cyanide: dilute the ICV6 concentrate 100-fold with Type II water; pipet 1 mL of the concentrate into a 100 mL volumetric flask and dilute to volume with Type II water. Distill this solution along with the samples before analysis. The cyanide concentrate is prepared from $K_3Fe(CN)_6$, Type II water, and 0.1 % sodium hydroxide, and will decompose rapidly if exposed to light.

NOTE: USE TYPE II WATER AND HIGH-PURITY ACIDS FOR ALL DILUTIONS.

(D) CERTIFIED CONCENTRATIONS OF QATS ICV1, ICV5, AND ICV6 SOLUTIONS

ICV1-1014		
Element	Concentration (µg/L) (after 10-fold dilution)	Concentration (µg/L) (after 50-fold dilution)
Al	2520	504
Sb	1010	202
As	997	199
Ba	518	104
Be	514	103
Cd	514	103
Ca	10000	2000
Cr	517	103
Co	521	104
Cu	505	101
Fe	10100	2020
Pb	1030	206
Mg	5990	1198
Mn	524	105
Ni	525	105
K	9940	1988
Se	1030	206
Ag	252	50
Na	10100	2020
Tl	1040	208
V	504	101
Zn	1010	202

ICV5-0415		ICV6-0400	
Element	Concentration (µg/L) (after 100-fold dilution)	Analyte	Concentration (µg/L) (after 100-fold dilution)
Hg	4.0	CN ⁻	99

W3011
W3012
W3013
W3014
W3015

Hydrochloric Acid, 36.5–38.0%
BAKER INSTRA-ANALYZED® Reagent
For Trace Metal Analysis

 **avantor™**



M6151

R → 11/15/25

Material No.: 9530-33
Batch No.: 22G2862015
Manufactured Date: 2022-06-15
Retest Date: 2027-06-14
Revision No.: 0

Certificate of Analysis

Test	Specification	Result
ACS – Assay (as HCl) (by acid–base titrn)	36.5 – 38.0 %	37.9 %
ACS – Color (APHA)	≤ 10	5
ACS – Residue after Ignition	≤ 3 ppm	< 1 ppm
ACS – Specific Gravity at 60°/60°F	1.185 – 1.192	1.191
ACS – Bromide (Br)	≤ 0.005 %	< 0.005 %
ACS – Extractable Organic Substances	≤ 5 ppm	< 1 ppm
ACS – Free Chlorine (as Cl ₂)	≤ 0.5 ppm	< 0.5 ppm
Phosphate (PO ₄)	≤ 0.05 ppm	< 0.03 ppm
Sulfate (SO ₄)	≤ 0.5 ppm	< 0.3 ppm
Sulfite (SO ₃)	≤ 0.8 ppm	0.3 ppm
Ammonium (NH ₄)	≤ 3 ppm	< 1 ppm
Trace Impurities – Arsenic (As)	≤ 0.010 ppm	< 0.003 ppm
Trace Impurities – Aluminum (Al)	≤ 10.0 ppb	1.3 ppb
Arsenic and Antimony (as As)	≤ 5.0 ppb	< 3.0 ppb
Trace Impurities – Barium (Ba)	≤ 1.0 ppb	0.2 ppb
Trace Impurities – Beryllium (Be)	≤ 1.0 ppb	< 0.2 ppb
Trace Impurities – Bismuth (Bi)	≤ 10.0 ppb	< 1.0 ppb
Trace Impurities – Boron (B)	≤ 20.0 ppb	< 5.0 ppb
Trace Impurities – Cadmium (Cd)	≤ 1.0 ppb	< 0.3 ppb
Trace Impurities – Calcium (Ca)	≤ 50.0 ppb	163.0 ppb
Trace Impurities – Chromium (Cr)	≤ 1.0 ppb	0.7 ppb
Trace Impurities – Cobalt (Co)	≤ 1.0 ppb	< 0.3 ppb
Trace Impurities – Copper (Cu)	≤ 1.0 ppb	< 0.1 ppb
Trace Impurities – Gallium (Ga)	≤ 1.0 ppb	< 0.2 ppb
Trace Impurities – Germanium (Ge)	≤ 3.0 ppb	< 2.0 ppb
Trace Impurities – Gold (Au)	≤ 4.0 ppb	0.6 ppb
Heavy Metals (as Pb)	≤ 100 ppb	< 50 ppb
Trace Impurities – Iron (Fe)	≤ 15 ppb	6 ppb

>>> Continued on page 2 >>>

Hydrochloric Acid, 36.5–38.0%
BAKER INSTRA-ANALYZED® Reagent
For Trace Metal Analysis

 **avantorsm**



Material No.: 9530-33
Batch No.: 22G2862015

Test	Specification	Result
Trace Impurities – Lead (Pb)	≤ 1.0 ppb	< 0.5 ppb
Trace Impurities – Lithium (Li)	≤ 1.0 ppb	< 0.2 ppb
Trace Impurities – Magnesium (Mg)	≤ 10.0 ppb	2.9 ppb
Trace Impurities – Manganese (Mn)	≤ 1.0 ppb	< 0.4 ppb
Trace Impurities – Mercury (Hg)	≤ 0.5 ppb	0.1 ppb
Trace Impurities – Molybdenum (Mo)	≤ 10.0 ppb	< 3.0 ppb
Trace Impurities – Nickel (Ni)	≤ 4.0 ppb	< 0.3 ppb
Trace Impurities – Niobium (Nb)	≤ 1.0 ppb	0.8 ppb
Trace Impurities – Potassium (K)	≤ 9.0 ppb	< 2.0 ppb
Trace Impurities – Selenium (Se), For Information Only		< 1.0 ppb
Trace Impurities – Silicon (Si)	≤ 100.0 ppb	< 10.0 ppb
Trace Impurities – Silver (Ag)	≤ 1.0 ppb	0.5 ppb
Trace Impurities – Sodium (Na)	≤ 100.0 ppb	2.3 ppb
Trace Impurities – Strontium (Sr)	≤ 1.0 ppb	< 0.2 ppb
Trace Impurities – Tantalum (Ta)	≤ 1.0 ppb	1.6 ppb
Trace Impurities – Thallium (Tl)	≤ 5.0 ppb	< 2.0 ppb
Trace Impurities – Tin (Sn)	≤ 5.0 ppb	4.0 ppb
Trace Impurities – Titanium (Ti)	≤ 1.0 ppb	1.5 ppb
Trace Impurities – Vanadium (V)	≤ 1.0 ppb	< 0.2 ppb
Trace Impurities – Zinc (Zn)	≤ 5.0 ppb	0.8 ppb
Trace Impurities – Zirconium (Zr)	≤ 1.0 ppb	0.3 ppb

>>> Continued on page 3 >>>

Hydrochloric Acid, 36.5–38.0%
BAKER INSTRA–ANALYZED® Reagent
For Trace Metal Analysis



Material No.: 9530-33
Batch No.: 22G2862015

Test	Specification	Result
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For Laboratory, Research, or Manufacturing Use
Product Information (not specifications):
Appearance (clear, fuming liquid)
Meets ACS Specifications
Storage Condition: Store below 25 °C.

Country of Origin: USA
Packaging Site: Phillipsburg Mfg Ctr & DC

A handwritten signature in cursive script that reads 'Jamie Ethier'.
Jamie Ethier
Vice President Global Quality

Nitric Acid 69%
CMOS

 **avantors**TM



m-6162

Material No.: 9606-03
Batch No.: 24H0162012
Manufactured Date: 2024-06-28
Retest Date: 2029-06-27
Revision No.: 0

R. Date :- 04/27/2025

Certificate of Analysis

Test	Specification	Result
Assay (HNO ₃)	69.0 – 70.0 %	69.7 %
Appearance	Passes Test	Passes Test
Color (APHA)	≤ 10	5
Residue after Ignition	≤ 2 ppm	< 1 ppm
Chloride (Cl)	≤ 0.08 ppm	0.03 ppm
Phosphate (PO ₄)	≤ 0.10 ppm	< 0.03 ppm
Sulfate (SO ₄)	≤ 0.2 ppm	< 0.2 ppm
Trace Impurities – Aluminum (Al)	≤ 40.0 ppb	< 1.0 ppb
Arsenic and Antimony (as As)	≤ 5.0 ppb	< 2.0 ppb
Trace Impurities – Barium (Ba)	≤ 10.0 ppb	< 1.0 ppb
Trace Impurities – Beryllium (Be)	≤ 10.0 ppb	< 1.0 ppb
Trace Impurities – Bismuth (Bi)	≤ 20.0 ppb	< 1.0 ppb
Trace Impurities – Boron (B)	≤ 10.0 ppb	0.1 ppb
Trace Impurities – Cadmium (Cd)	≤ 50 ppb	< 1 ppb
Trace Impurities – Calcium (Ca)	≤ 50.0 ppb	0.3 ppb
Trace Impurities – Chromium (Cr)	≤ 30.0 ppb	0.1 ppb
Trace Impurities – Cobalt (Co)	≤ 10.0 ppb	< 1.0 ppb
Trace Impurities – Copper (Cu)	≤ 10.0 ppb	< 1.0 ppb
Trace Impurities – Gallium (Ga)	≤ 10.0 ppb	< 1.0 ppb
Trace Impurities – Germanium (Ge)	≤ 20 ppb	< 1 ppb
Trace Impurities – Gold (Au)	≤ 20 ppb	< 1 ppb
Heavy Metals (as Pb)	≤ 100 ppb	< 50 ppb
Trace Impurities – Iron (Fe)	≤ 40.0 ppb	< 1.0 ppb
Trace Impurities – Lead (Pb)	≤ 20.0 ppb	< 1.0 ppb
Trace Impurities – Lithium (Li)	≤ 10.0 ppb	< 1.0 ppb
Trace Impurities – Magnesium (Mg)	≤ 20 ppb	< 1 ppb
Trace Impurities – Manganese (Mn)	≤ 10.0 ppb	< 1.0 ppb
Trace Impurities – Nickel (Ni)	≤ 20.0 ppb	< 1.0 ppb

>>> Continued on page 2 >>>

Nitric Acid 69%
CMOS

 **avantorsTM**



Material No.: 9606-03
Batch No.: 24H0162012

Test	Specification	Result
Trace Impurities – Niobium (Nb)	≤ 50.0 ppb	< 1.0 ppb
Trace Impurities – Potassium (K)	≤ 50 ppb	< 1 ppb
Trace Impurities – Silicon (Si)	≤ 50 ppb	1 ppb
Trace Impurities – Silver (Ag)	≤ 20.0 ppb	< 1.0 ppb
Trace Impurities – Sodium (Na)	≤ 150.0 ppb	< 1.0 ppb
Trace Impurities – Strontium (Sr)	≤ 30.0 ppb	< 1.0 ppb
Trace Impurities – Tantalum (Ta)	≤ 10.0 ppb	< 1.0 ppb
Trace Impurities – Thallium (Tl)	≤ 10.0 ppb	< 1.0 ppb
Trace Impurities – Tin (Sn)	≤ 20.0 ppb	< 1.0 ppb
Trace Impurities – Titanium (Ti)	≤ 10.0 ppb	< 1.0 ppb
Trace Impurities – Vanadium (V)	≤ 10.0 ppb	< 1.0 ppb
Trace Impurities – Zinc (Zn)	≤ 20.0 ppb	< 1.0 ppb
Trace Impurities – Zirconium (Zr)	≤ 10.0 ppb	< 1.0 ppb
Particle Count – 0.5 µm and greater	≤ 60 par/ml	13 par/ml
Particle Count – 1.0 µm and greater	≤ 10 par/ml	5 par/ml

>>> Continued on page 3 >>>

Nitric Acid 69%
CMOS

 **avantor™**



Material No.: 9606-03
Batch No.: 24H0162012

Test	Specification	Result
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For Microelectronic Use

Country of Origin: USA
Packaging Site: Phillipsburg Mfg Ctr & DC



Jamie Croak
Director Quality Operations, Bioscience Production

Sulfuric Acid
BAKER INSTRA-ANALYZED® Reagent
For Trace Metal Analysis
Low Selenium

avantor™



M6186

Reciev Date :- 08/06/25

Material No.: 9673-33
Batch No.: 23D2462010
Manufactured Date: 2023-03-22
Retest Date: 2028-03-20
Revision No.: 0

Certificate of Analysis

Test	Specification	Result
ACS - Assay (H ₂ SO ₄)	95.0 - 98.0 %	96.1 %
Appearance	Passes Test	Passes Test
ACS - Color (APHA)	≤ 10	5
ACS - Residue after Ignition	≤ 3 ppm	< 1 ppm
ACS - Substances Reducing Permanganate (as SO ₂)	≤ 2 ppm	< 2 ppm
Ammonium (NH ₄)	≤ 1 ppm	1 ppm
Chloride (Cl)	≤ 0.1 ppm	< 0.1 ppm
Nitrate (NO ₃)	≤ 0.2 ppm	< 0.1 ppm
Phosphate (PO ₄)	≤ 0.5 ppm	< 0.1 ppm
Trace Impurities - Aluminum (Al)	≤ 30.0 ppb	< 5.0 ppb
Arsenic and Antimony (as As)	≤ 4.0 ppb	< 2.0 ppb
Trace Impurities - Boron (B)	≤ 10.0 ppb	8.5 ppb
Trace Impurities - Cadmium (Cd)	≤ 2.0 ppb	< 0.3 ppb
Trace Impurities - Chromium (Cr)	≤ 6.0 ppb	< 0.4 ppb
Trace Impurities - Cobalt (Co)	≤ 0.5 ppb	< 0.3 ppb
Trace Impurities - Copper (Cu)	≤ 1.0 ppb	< 0.1 ppb
Trace Impurities - Gold (Au)	≤ 10.0 ppb	0.5 ppb
Heavy Metals (as Pb)	≤ 500.0 ppb	< 100.0 ppb
Trace Impurities - Iron (Fe)	≤ 50.0 ppb	1.3 ppb
Trace Impurities - Lead (Pb)	≤ 0.5 ppb	< 0.5 ppb
Trace Impurities - Magnesium (Mg)	≤ 7.0 ppb	0.8 ppb
Trace Impurities - Manganese (Mn)	≤ 1.0 ppb	< 0.4 ppb
Trace Impurities - Mercury (Hg)	≤ 0.5 ppb	< 0.1 ppb
Trace Impurities - Nickel (Ni)	≤ 2.0 ppb	0.3 ppb
Trace Impurities - Potassium (K)	≤ 500.0 ppb	< 2.0 ppb
Trace Impurities - Selenium (Se)	≤ 50.0 ppb	< 0.1 ppb
Trace Impurities - Silicon (Si)	≤ 100.0 ppb	31.5 ppb
Trace Impurities - Silver (Ag)	≤ 1.0 ppb	< 0.3 ppb

>>> Continued on page 2 >>>

Sulfuric Acid
BAKER INSTRA-ANALYZED® Reagent
For Trace Metal Analysis
Low Selenium



Material No.: 9673-33
Batch No.: 23D2462010

Test	Specification	Result
Trace Impurities – Sodium (Na)	≤ 500.0 ppb	5.4 ppb
Trace Impurities – Strontium (Sr)	≤ 5.0 ppb	< 0.2 ppb
Trace Impurities – Tin (Sn)	≤ 5.0 ppb	< 0.8 ppb
Trace Impurities – Zinc (Zn)	≤ 5.0 ppb	0.4 ppb

For Laboratory, Research, or Manufacturing Use

Country of Origin: USA
Packaging Site: Phillipsburg Mfg Ctr & DC

A handwritten signature in cursive script that reads 'Jamie Ethier'.
Jamie Ethier
Vice President Global Quality

Nitric Acid 69%
CMOS



M6187

R.D :- 08/08/25

Material No.: 9606-03
Batch No.: 24H0162012
Manufactured Date: 2024-06-28
Retest Date: 2029-06-27
Revision No.: 0

Certificate of Analysis

Test	Specification	Result
Assay (HNO ₃)	69.0 – 70.0 %	69.7 %
Appearance	Passes Test	Passes Test
Color (APHA)	≤ 10	5
Residue after Ignition	≤ 2 ppm	< 1 ppm
Chloride (Cl)	≤ 0.08 ppm	0.03 ppm
Phosphate (PO ₄)	≤ 0.10 ppm	< 0.03 ppm
Sulfate (SO ₄)	≤ 0.2 ppm	< 0.2 ppm
Trace Impurities – Aluminum (Al)	≤ 40.0 ppb	< 1.0 ppb
Arsenic and Antimony (as As)	≤ 5.0 ppb	< 2.0 ppb
Trace Impurities – Barium (Ba)	≤ 10.0 ppb	< 1.0 ppb
Trace Impurities – Beryllium (Be)	≤ 10.0 ppb	< 1.0 ppb
Trace Impurities – Bismuth (Bi)	≤ 20.0 ppb	< 1.0 ppb
Trace Impurities – Boron (B)	≤ 10.0 ppb	0.1 ppb
Trace Impurities – Cadmium (Cd)	≤ 50 ppb	< 1 ppb
Trace Impurities – Calcium (Ca)	≤ 50.0 ppb	0.3 ppb
Trace Impurities – Chromium (Cr)	≤ 30.0 ppb	0.1 ppb
Trace Impurities – Cobalt (Co)	≤ 10.0 ppb	< 1.0 ppb
Trace Impurities – Copper (Cu)	≤ 10.0 ppb	< 1.0 ppb
Trace Impurities – Gallium (Ga)	≤ 10.0 ppb	< 1.0 ppb
Trace Impurities – Germanium (Ge)	≤ 20 ppb	< 1 ppb
Trace Impurities – Gold (Au)	≤ 20 ppb	< 1 ppb
Heavy Metals (as Pb)	≤ 100 ppb	< 50 ppb
Trace Impurities – Iron (Fe)	≤ 40.0 ppb	< 1.0 ppb
Trace Impurities – Lead (Pb)	≤ 20.0 ppb	< 1.0 ppb
Trace Impurities – Lithium (Li)	≤ 10.0 ppb	< 1.0 ppb
Trace Impurities – Magnesium (Mg)	≤ 20 ppb	< 1 ppb
Trace Impurities – Manganese (Mn)	≤ 10.0 ppb	< 1.0 ppb
Trace Impurities – Nickel (Ni)	≤ 20.0 ppb	< 1.0 ppb

>>> Continued on page 2 >>>

Nitric Acid 69%
CMOS



Material No.: 9606-03
Batch No.: 24H0162012

Test	Specification	Result
Trace Impurities – Niobium (Nb)	≤ 50.0 ppb	< 1.0 ppb
Trace Impurities – Potassium (K)	≤ 50 ppb	< 1 ppb
Trace Impurities – Silicon (Si)	≤ 50 ppb	1 ppb
Trace Impurities – Silver (Ag)	≤ 20.0 ppb	< 1.0 ppb
Trace Impurities – Sodium (Na)	≤ 150.0 ppb	< 1.0 ppb
Trace Impurities – Strontium (Sr)	≤ 30.0 ppb	< 1.0 ppb
Trace Impurities – Tantalum (Ta)	≤ 10.0 ppb	< 1.0 ppb
Trace Impurities – Thallium (Tl)	≤ 10.0 ppb	< 1.0 ppb
Trace Impurities – Tin (Sn)	≤ 20.0 ppb	< 1.0 ppb
Trace Impurities – Titanium (Ti)	≤ 10.0 ppb	< 1.0 ppb
Trace Impurities – Vanadium (V)	≤ 10.0 ppb	< 1.0 ppb
Trace Impurities – Zinc (Zn)	≤ 20.0 ppb	< 1.0 ppb
Trace Impurities – Zirconium (Zr)	≤ 10.0 ppb	< 1.0 ppb
Particle Count – 0.5 µm and greater	≤ 60 par/ml	13 par/ml
Particle Count – 1.0 µm and greater	≤ 10 par/ml	5 par/ml

>>> Continued on page 3 >>>

Nitric Acid 69%
CMOS

 **avantorsTM**



Material No.: 9606-03
Batch No.: 24H0162012

Test	Specification	Result
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For Microelectronic Use

Country of Origin: USA
Packaging Site: Phillipsburg Mfg Ctr & DC



Jamie Croak
Director Quality Operations, Bioscience Production

Sodium Phosphate, Monobasic, Monohydrate,
Crystal
BAKER ANALYZED® A.C.S. Reagent

(sodium dihydrogen phosphate, monohydrate)



Material No.: 3818-05
Batch No.: 0000225799
Manufactured Date: 2018/12/05
Retest Date: 2025/12/03
Revision No: 1

Certificate of Analysis

Meets ACS Reagent Chemical Requirements,

Test	Specification	Result
Assay ($\text{NaH}_2\text{PO}_4 \cdot \text{H}_2\text{O}$)	98.0 – 102.0 %	99.5
pH of 5% Solution at 25°C	4.1 – 4.5	4.3
Insoluble Matter	$\leq 0.01 \%$	< 0.01
Chloride (Cl)	$\leq 5 \text{ ppm}$	< 5
ACS – Sulfate (SO_4)	$\leq 0.003 \%$	< 0.003
Calcium (Ca)	$\leq 0.005 \%$	< 0.005
Potassium (K)	$\leq 0.01 \%$	< 0.01
Heavy Metals (as Pb)	$\leq 0.001 \%$	< 0.001
Trace Impurities – Iron (Fe)	$\leq 0.001 \%$	< 0.001

For Laboratory, Research or Manufacturing Use
Meets Reagent Specifications for testing USP/NF monographs

Country of Origin: IN
Packaging Site: Paris Mfg Ctr & DC


Jamie Ethier
Vice President Global Quality

For questions on this Certificate of Analysis please contact Technical Services at 855.282.6867 or +1.610.386.1700
Avantor Performance Materials, LLC
100 Matsonford Rd, Suite 200, Radnor, PA 19087. U.S.A. Phone: 610.386.1700

W 2979

Rec: 12/09/22

exp. 12/09/27

Product Name:

1,5-Diphenylcarbazide - ACS reagent

Product Number:

259225

Batch Number:

MKCR6636

Brand:

SIAL

CAS Number:

140-22-7

MDL Number:

MFCD00003013

Formula:

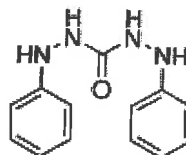
C₁₃H₁₄N₄O

Formula Weight:

242.28 g/mol

Quality Release Date:

02 JUN 2022



Certificate of Analysis

Test	Specification	Result
Appearance (Color)	Conforms to Requirements	Pink
Off-White to Pink, Light Purple or Tan		
Appearance (Form)	Powder or Chunks	Powder
Melting Point	173.0 - 176.0 °C	173.0 °C
Infrared Spectrum	Conforms to Structure	Conforms
Residue on ignition (Ash)	≤ 0.05 %	0.01 %
15 minutes, 800 Degrees Celsius		
Solubility	Pass	Pass
Sensitivity Test	Pass	Pass
Meets ACS Requirements	Current ACS Specification	Conforms



Larry Coers, Director
Quality Control
Milwaukee, WI US

Sigma-Aldrich warrants, that at the time of the quality release or subsequent retest date this product conformed to the information contained in this publication. The current Specification sheet may be available at Sigma-Aldrich.com. For further inquiries, please contact Technical Service. Purchaser must determine the suitability of the product for its particular use. See reverse side of invoice or packing slip for additional terms and conditions of sale.





Certificate of Analysis



Sodium Hydroxide (Pellets)

Material: 0583
Grade: ACS GRADE
Batch Number: 23B1556310

Chemical Formula: NaOH
Molecular Weight: 40
CAS #: 1310-73-2
Appearance:

Manufacture Date: 12/14/2022
Expiration Date: 12/31/2025

Storage: Room Temperature

Pellets

TEST	SPECIFICATION	ANALYSIS	DISPOSITION
Calcium	<= 0.005 %	<0.005 %	PASS
Chloride	<= 0.005 %	0.002 %	PASS
Heavy Metals	<= 0.002 %	<0.002 %	PASS
Iron	<= 0.001 %	<0.001 %	PASS
Magnesium	<= 0.002 %	<0.002 %	PASS
Mercury	<= 0.1 ppm	<0.1 ppm	PASS
Nickel	<= 0.001 %	<0.001 %	PASS
Nitrogen Compounds	<= 0.001 %	<0.001 %	PASS
Phosphate	<= 0.001 %	<0.001 %	PASS
Potassium	<= 0.02 %	<0.02 %	PASS
Purity	>= 97.0 %	99.2 %	PASS
Sodium Carbonate	<= 1.0 %	0.5 %	PASS
Sulfate	<= 0.003 %	<0.003 %	PASS

Internal ID #: 710

Signature

We certify that this batch conforms to the specifications listed.

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

Additional Information

Analysis may have been rounded to significant digits in specification limits.

Product meets analytical specifications of the grades listed.



Sodium Hydroxide (Pellets)

Material: 0583
Grade: ACS GRADE
Batch Number: 23B1556310

Chemical Formula: NaOH
Molecular Weight: 40
CAS #: 1310-73-2
Appearance:

Manufacture Date: 12/14/2022
Expiration Date: 12/31/2025

Storage: Room Temperature

Pellets

Spec Set: 0583ACS

Internal ID #: 710

Signature

We certify that this batch conforms to the specifications listed.

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Leona Edwardson, Quality Control Sr. Manager - Solon
VWR Chemicals, LLC.
28600 Fountain Parkway, Solon OH 44139 USA

Additional Information

Analysis may have been rounded to significant digits in specification limits.

Product meets analytical specifications of the grades listed.

W3139 Received on 9/9/24 by IZ

Product No.: A12044
Product: Chloramine-T trihydrate, 98%
Lot No.: 10239484

Appearance:	White powder
Melting Point:	166°C(dec)
Assay (Iodometric titration):	100.5%
Identification (FTIR):	Conforms

Order our products online thermofisher.com/chemicals

This document has been electronically generated and does not require a signature.

Products are processed under ISO 9001:2015 quality management systems and samples are tested for conformance to the noted specifications. Certain data may have been supplied by third parties. We disclaim the implied warranties of merchantability and fitness for a particular purpose, and the accuracy of third party data or information associated with the product. Products are for research and development use only. Products are not for direct administration to humans or animals. It is the responsibility of the final formulator or end user to determine suitability, and to qualify and/or validate each product for its intended use.

Chem-Impex International, Inc.

Tel: (630) 766-2112**E-mail:** sales@chemimpex.com**Shipping and Correspondence:**

935 Dillon Drive

Wood Dale, IL 60191

Fax: (630) 766-2218**Web site:** www.chemimpex.com**Manufacturing site:**

825 Dillon Drive

Wood Dale, IL 60191

Certificate of Analysis

Catalogue Number	01237
Lot Number	002126-2019-201
Product	Magnesium chloride hexahydrate

Magnesium chloride•6H₂O

CAS Number	7791-18-6
Molecular Formula	MgCl ₂ •6H ₂ O
Molecular Weight	203.3

Appearance	White crystals
Solubility	167 g in 100 mL water
Melting Point	~ 115 °C
Heavy Metals	4.393 ppm
Anion	Nitrate (NO ₃) : < 0.001% Phosphate (PO ₄) : < 5 ppm Sulfate (SO ₄) : < 0.002%
Cation	Ammonium (NH ₄) : < 0.002% Barium (Ba) : 0.005% Calcium (Ca) : 0.01% Iron (Fe) : 4.5 ppm Manganese (Mn) : 0.624 ppm Potassium (K) : 0.004% Sodium (Na) : 0.000003% Strontium (Sr) : 0.005%
Insoluble material	0.0021%
Assay by titration	100.83%
Grade	ACS reagent
Storage	Store at RT

Certificate of Analysis

Catalog Number: 01237

Lot Number: 002126-2019-201

Remarks

See material safety data sheet for additional information

For laboratory use only

The foregoing is a copy of the Certificate of Analysis as provided by our supplier

A handwritten signature in black ink, appearing to read 'Bala Kumar', with a stylized flourish at the end.

Bala Kumar
Quality Control Manager



W3163 Rec. on 12/10/24 by IZ

Certificate of Analysis



Material BDH9284-2.5KG
Material Description BDH SODIUM CARB ANHYD ACS 2.5KG
Grade U S P REAGENT (ACS GRADE)

Batch 24E3156178
Reassay Date 09/30/2027
CAS Number 497-19-8
Molecular Formula Na_2CO_3
Molecular Mass 105.99

Date of Manufacture 09/01/2023
Storage Room Temperature
Material is hygroscopic. Protect from Moisture.
Additional Product Description:

Characteristics	Specifications	Measured Values
Appearance	Fine white granular powder	Fine white granular powder
Calcium	$\leq 0.03 \%$	0.003 %
Chloride	$\leq 0.001 \%$	0.0003 %
Heavy Metals (as Pb)	$\leq 0.0005 \%$	0.0001 %
Insolubles	$\leq 0.01 \%$	0.001 %
Iron	$\leq 0.0005 \%$	0.0001 %
Loss on Heating	$\leq 1.0 \%$	0.03 %
Magnesium	$\leq 0.005 \%$	0.001 %
Phosphate	$\leq 0.001 \%$	0.001 %
Potassium	$\leq 0.005 \%$	0.003 %
Purity	$\geq 99.5 \%$	100.0 %
Silica	$\leq 0.005 \%$	0.001 %
Sulfur Compounds	$\leq 0.003 \%$	0.002 %
Extra Description:	Meets Reagent Specifications for testing USP/NF monographs	

Internal ID #: 710

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.



Material	BDH9266-500G
Material Description	BDH POTASS PHOSPHAT DBSC 500GM
Grade	ACS GRADE
Batch	24H0856239
Reassay Date	04/19/2028
CAS Number	7758-11-4
Molecular Formula	K ₂ HPO ₄
Molecular Mass	174.18
Date of Manufacture	04/19/2024
Storage	Room Temperature

Characteristics	Specifications	Measured Values
Appearance	Fine white crystalline powder	Fine white crystalline powder
Chloride	<= 0.003 %	0.002 %
Heavy Metals (as Pb)	<= 0.0005 %	<0.0005 %
Insolubles	<= 0.01 %	<0.01 %
Iron	<= 0.001 %	<0.001 %
Loss on Drying	<= 1.0 %	<0.5 %
Nitrogen Compounds	<= 0.001 %	<0.001 %
pH (5%, Water) @25C	8.5 - 9.6	8.8
Purity	>= 98.0 %	99.1 %
Sodium	<= 0.05 %	<0.05 %
Sulfate	<= 0.005 %	<0.002 %
CUSTOMER PART # BDH9266-500G		

Internal ID #: 793

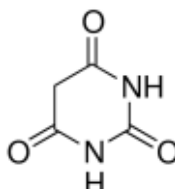
Signature	Additional Information
We certify that this batch conforms to the specifications listed above. This document has been electronically produced and is valid without a signature. Leona Edwardson, Quality Control Sr. Manager - Solon VWR Chemicals, LLC. 28600 Fountain Parkway, Solon OH 44139 USA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

Certificate of Analysis

Product Name:

Barbituric acid - ReagentPlus®, 99%

Product Number: 185698
Batch Number: WXBFB3271V
Brand: SIAL
CAS Number: 67-52-7
Formula: C₄H₄N₂O₃
Formula Weight: 128.09 g/mol
Quality Release Date: 16 MAY 2024



Test	Specification	Result
Appearance (Colour)	White to Off-White	White
Appearance (Form)	Powder	Powder
Infrared spectrum	Conforms to Structure	Conforms
Purity (Titration by NaOH)	98.5 - 101.5 %	100.4 %
GC (area %)	≥ 98 %	100 %
VPCT		



Kang Chen
Quality Manager
Wuxi, China CN

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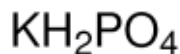


Certificate of Analysis

Product Name:

Potassium phosphate monobasic - ACS reagent, ≥99.0%

Product Number: P0662
Batch Number: MKCX1379
Brand: SIGALD
CAS Number: 7778-77-0
MDL Number: MFCD00011401
Formula: H₂KO₄P
Formula Weight: 136.09 g/mol
Quality Release Date: 27 JAN 2025
Recommended Retest Date: JAN 2029



Test	Specification	Result
Appearance (Color)	White	White
Appearance (Form)	Powder or Crystals	Crystals
Assay	≥ 99.0 %	99.9 %
Insoluble Matter	≤ 0.01 %	< 0.01 %
Loss on Drying	≤ 0.2 %	< 0.1 %
At 105°C		
pH	4.1 - 4.5	4.5
(c = 5%, 25 deg C)		
Chloride Content	≤ 0.001 %	< 0.001 %
Sulfate (SO ₄)	≤ 0.003 %	< 0.003 %
Heavy Metals	≤ 0.001 %	< 0.001 %
by ICP		
Iron (Fe)	≤ 0.002 %	< 0.001 %
Sodium (Na)	≤ 0.005 %	< 0.001 %
Recommended Retest Period	-----	-----
4 Years		



Larry Coers, Director
Quality Control
Milwaukee, WI US

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Certificate of Analysis

Cyanide Standard, 1000 ppm CN⁻

Lot Number: 1505H73

Product Number: 2543

Manufacture Date: MAY 08, 2025

Expiration Date: NOV 2025

This standard is prepared using accurate volumetric techniques from material that has been assayed against Silver Nitrate solution certified traceable to NIST Standard Reference Material 999. The certified value reported is the prepared value based upon the method of preparation of the material. The uncertainty in the prepared value is the combined uncertainty based on the stability of the assayed Potassium Cyanide, and the uncertainty in the mass and volume measurements.

Use 0.16% (w/v) (0.04 N) Sodium Hydroxide or 0.225 % (w/v) (0.04 N) Potassium Hydroxide to make dilutions of this standard. Restandardize weekly if extreme accuracy is required.

Name	CAS#	Grade
Water	7732-18-5	ACS/ASTM/USP/EP
Potassium Cyanide	151-50-8	ACS
Sodium Hydroxide	1310-73-2	Reagent (from ACS)

Test	Specification	Result
Appearance	Colorless liquid	Passed
Cyanide (CN ⁻)	995-1005 ppm	1000 ppm

Specification	Reference
Stock Standard Cyanide Solution	APHA (4500-CN- F)
Stock Cyanide Solution	APHA (4500-CN- E)
Stock Cyanide Solution	APHA (4500-CN- K)
Stock Cyanide Solution	APHA (4500-CN- H)
Cyanide Reference Solution (1000 mg/L)	EPA (SW-846) (7.3.3.2)
Cyanide Calibration Stock Solution (1,000 mg/L CN ⁻)	EPA (SW-846) (9213)
Stock Cyanide Solution	EPA (335.3)
Stock Cyanide Solution	EPA (335.2)
Cyanide Solution Stock	ASTM (D 4282)
Simple Cyanide Solution, Stock (1.0 g/L CN ⁻)	ASTM (D 4374)

Volumetric glassware complies with Class A tolerance requirements of ASTM E 288 and NIST Circular 434; it is calibrated before first use and recalibrated regularly in accordance with ASTM E 542 and NIST Procedure NBSIR 74-461. Balances are calibrated regularly with weights certified traceable to the NIST national mass standard. Thermometers and temperature probes are calibrated before first use and recalibrated regularly with a thermometer traceable to NIST standards. All products are prepared according to master documents that assure manufacture according to validated methods. Batch records document raw material traceability and production and testing history for each lot manufactured.

Part Number	Size / Package Type	Shelf Life (Unopened Container)
2543-16	500 mL amber poly	6 months
2543-32	1 L amber poly	6 months
2543-4	120 mL amber poly	6 months

Recommended Storage: 2°C - 8°C (36°F - 46°F)



Ernest Mahan (05/08/2025)
Plant Manager

This test report shall not be reproduced, except in full, without the written approval of Ricca Chemical Company.



Part of TCP Analytical Group

Jackson's Pointe Commerce Park- Building 1000
1010 Jackson's Pointe Court, Zelienople, PA 16063

Certificate of Analysis

Cyanide Standard 1000 ppm (1ml = 1mg CN)

Product Code: **LC13545**

Manufacture Date: June 25, 2025

Lot Number: **45060288**

Expiration Date: December 24, 2025

Test	Specification	Result
Appearance (clarity)	clear solution	clear solution
Appearance (color)	colorless	colorless
Concentration (CN)	0.990 - 1.010mg/mL	1.000mg/mL
Concentration (CN)	990 - 1,010ppm	1,000ppm
Traceable to NIST SRM	Report	999b

Intended Use - Product is intended for use in manufacturing procedures and laboratory procedures and protocols.

Storage Information - Unless noted on the product label, store the product under normal lab conditions in its tightly closed, original container. Do not pipet directly from the container or return unused portions to the container.

Instructions for Handling and Use - Please refer to the associated product label and Safety Data Sheet (SDS) for information regarding safety and handling of this product.

Preparation - All products are manufactured and tested according to established, documented procedures and methodology. Production documentation records manufacturing data, raw material traceability and testing history on a per lot basis. Balances, thermometers, and glassware are calibrated before first use and on a regular schedule with references traceable to NIST

The suffix of the product code may differ from what is on your product label. The suffix will designate the size and be associated with a numeric digit(s). Visit LabChem.com for more information

Suffix	1	2	3/3S/36/36S	4/4C	5	6	7	8	9	20	44	200	246	486
Size	500mL org	1L or 1kg	2.5L/2.5L Coated/6x2.5L/6x2.5L Coated	4L	20L	10L	125mL	25g	100g	20x20mL	4x4L	200L	24x6mL	48x6mL

Michael Monteleone

Michael Monteleone
Chemistry Supervisor - Quality Control
20250703 15:30:45ahoffman-0-0

ISO9001:2015 Registration #0306-01

PERCENT SOLID

Supervisor: Iwona
Analyst: jignesh
Date: 11/11/2025

OVENTEMP IN Celsius(°C): 107
Time IN: 17:30
In Date: 11/10/2025
Weight Check 1.0g: 1.00
Weight Check 10g: 10.00
OvenID: M OVEN#1

OVENTEMP OUT Celsius(°C): 104
Time OUT: 08:37
Out Date: 11/11/2025
Weight Check 1.0g: 1.00
Weight Check 10g: 10.00
BalanceID: M SC-4
Thermometer ID: % SOLID-OVEN

QC:LB137838

Lab ID	Client SampleID	Dish #	Dish Wt(g) (A)	Sample Wt(g)	Dish + Sample Wt(g) (B)	Dish+Dry Sample Wt(g) (C)	% Solid	Comments
Q3581-01	VNJ-238	1	1.14	10.78	11.92	10.38	85.7	
Q3581-03	VNJ-245	2	1.18	11.48	12.66	11.14	86.8	
Q3581-05	VNJ-240	3	1.19	10.33	11.52	10.38	89.0	
Q3581-07	RBR200059	4	1.13	10.74	11.87	10.48	87.1	
Q3582-04	RT4912	5	1.13	10.66	11.79	9.99	83.1	
Q3582-05	RT4912-E2	6	1.15	10.34	11.49	9.9	84.6	
Q3583-04	CHRT27080	7	1.00	10.99	11.99	2.6	14.6	sludge sample
Q3583-05	CHRT27080	8	1.13	10.53	11.66	2.45	12.5	sludge sample
Q3586-01	SED-1	9	1.18	10.48	11.66	7.77	62.9	
Q3586-02	SED-2	10	1.13	10.64	11.77	5.54	41.4	
Q3586-03	SED-3	11	1.17	10.63	11.8	6.58	50.9	
Q3587-01	NB-08-110725	12	1.16	10.48	11.64	10.81	92.1	
Q3587-02	NB-08-110725-E2	13	1.14	10.88	12.02	10.72	88.1	
Q3588-01	TR-06-11072025	14	1.16	10.27	11.43	10.8	93.9	
Q3588-02	TR-06-11072025-E2	15	1.15	10.40	11.55	10.8	92.8	
Q3588-03	TR-01-11072025	16	1.13	10.49	11.62	10.84	92.6	
Q3588-04	TR-01-11072025-E2	17	1.11	10.35	11.46	10.66	92.3	
Q3589-03	MDL-SOIL-QT4-2025-07	18	1.00	1.00	2.00	2.00	100.0	
Q3589-04	MDL-SOIL-QT4-2025-08	19	1.00	1.00	2.00	2.00	100.0	
Q3589-05	MDL-MED-SOIL-QT4-2025-07	20	1.00	1.00	2.00	2.00	100.0	
Q3589-06	MDL-MED-SOIL-QT4-2025-08	21	1.00	1.00	2.00	2.00	100.0	
Q3590-01	MOO-25-0314-0316-COMP	22	1.13	10.61	11.74	10.05	84.1	
Q3590-02	MOO-25-0314-0316-COMP	23	1.19	10.30	11.49	10.5	90.4	
Q3590-03	MOO-25-0317-0318-COMP	24	1.19	10.55	11.74	6.06	46.2	
Q3590-04	MOO-25-0317-0318-COMP	25	1.13	10.64	11.77	6.42	49.7	
Q3590-05	MOO-25-0319	26	1.00	1.00	2.00	2.00	100.0	plastic-debris sample
Q3590-06	MOO-25-0319	27	1.00	1.00	2.00	2.00	100.0	plastic-debris sample

PERCENT SOLID

Supervisor: Iwona
Analyst: jignesh
Date: 11/11/2025

OVENTEMP IN Celsius(°C): 107
Time IN: 17:30
In Date: 11/10/2025
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Weight Check 1.0g: 1.00
Weight Check 10g: 10.00
BalanceID: M SC-4
Thermometer ID: % SOLID-OVEN

QC:LB137838

Lab ID	Client SampleID	Dish #	Dish Wt(g) (A)	Sample Wt(g)	Dish + Sample Wt(g) (B)	Dish+Dry Sample Wt(g) (C)	% Solid	Comments
Q3591-01	KMH4680-END-1-1	28	1.00	1.00	2.00	2.00	100.0	PILC
Q3591-02	KMH4680-END-1-2	29	1.00	1.00	2.00	2.00	100.0	PILC
Q3591-03	M4-END-A	30	1.00	1.00	2.00	2.00	100.0	PILC
Q3591-04	M4-END-B	31	1.00	1.00	2.00	2.00	100.0	PILC
Q3591-05	M5-END-A	32	1.00	1.00	2.00	2.00	100.0	PILC
Q3591-06	M5-END-B	33	1.00	1.00	2.00	2.00	100.0	PILC
Q3592-01	11625	34	1.00	1.00	2.00	2.00	100.0	Concrete sample
Q3593-04	A-LAW-25-0167-0175-COMP	35	1.19	10.57	11.76	9.63	79.8	
Q3593-05	A-LAW-25-0167-0175-COMP	36	1.15	10.59	11.74	9.6	79.8	
Q3593-06	B-LAW-25-0167-0175-COMP	37	1.19	10.52	11.71	9.56	79.6	
Q3593-07	B-LAW-25-0167-0175-COMP	38	1.13	10.42	11.55	9.42	79.6	
Q3593-08	C-LAW-25-0156-0166-COMP	39	1.19	10.50	11.69	9.41	78.3	
Q3593-09	C-LAW-25-0156-0166-COMP	40	1.18	10.43	11.61	9.82	82.8	
Q3593-10	D-LAW-25-0156-0166-COMP	41	1.11	10.77	11.88	9.75	80.2	
Q3593-11	D-LAW-25-0156-0166-COMP	42	1.19	10.61	11.8	9.77	80.9	
Q3596-01	11-7-25-A	55	1.00	1.00	2.00	2.00	100.0	WIPE SAMPLE
Q3596-02	11-7-25-B	56	1.00	1.00	2.00	2.00	100.0	WIPE SAMPLE
Q3596-03	11-7-25-C	57	1.00	1.00	2.00	2.00	100.0	WIPE SAMPLE
Q3597-01	TP-1	43	1.13	10.69	11.82	11.54	97.4	
Q3597-02	TP-1-EPH-0-3	44	1.15	10.10	11.25	11.08	98.3	
Q3597-03	TP-1-EPH-3-6	45	1.16	10.16	11.32	11.00	96.9	
Q3597-04	TP-2	46	1.15	10.84	11.99	11.82	98.4	
Q3597-05	TP-2-EPH-0-3	47	1.18	10.20	11.38	11.23	98.5	
Q3597-06	TP-2-EPH-3-6	48	1.13	10.22	11.35	11.16	98.1	
Q3597-07	TP-3	49	1.16	10.11	11.27	11.03	97.6	



PERCENT SOLID

Supervisor: Iwona
Analyst: jignesh
Date: 11/11/2025

OVENTEMP IN Celsius(°C): 107
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Weight Check 1.0g: 1.00
Weight Check 10g: 10.00
BalanceID: M SC-4
Thermometer ID: % SOLID-OVEN

QC:LB137838

Lab ID	Client SampleID	Dish #	Dish Wt(g) (A)	Sample Wt(g)	Dish + Sample Wt(g) (B)	Dish+Dry Sample Wt(g) (C)	% Solid	Comments
Q3597-08	TP-3-EPH-0-3	50	1.14	10.52	11.66	11.47	98.2	
Q3597-09	TP-3-EPH-3-6	51	1.18	10.46	11.64	11.38	97.5	
Q3597-10	TP-4	52	1.11	10.71	11.82	11.58	97.8	
Q3597-11	TP-4-EPH-0-3	53	1.15	10.33	11.48	11.07	96.0	
Q3597-12	TP-4-EPH-3-6	54	1.18	10.19	11.37	11.18	98.1	
Q3598-01	EO-CONCRETE	58	1.15	10.14	11.29	10.47	91.9	
Q3599-01	LIVINGSTON-SOIL	59	1.15	10.19	11.34	10.55	92.2	
Q3600-01	CENTRAL-ROW-CONCRETE	60	1.11	10.72	11.83	10.26	85.4	
Q3600-02	CENTRAL-ROW-CONCRETE-E 2	61	1.18	10.44	11.62	10.07	85.2	
Q3601-01	TP-1	62	1.13	10.73	11.86	10.42	86.6	
Q3601-02	TP-1-EPH	63	1.16	10.77	11.93	10.52	86.9	
Q3601-03	TP-1-VOC	64	1.18	10.44	11.62	10.1	85.4	
Q3601-05	TP-2	65	1.17	10.66	11.83	10.48	87.3	
Q3601-06	TP-2-EPH	66	1.17	10.57	11.74	10.34	86.8	
Q3601-07	TP-2-VOC	67	1.18	10.12	11.3	10.05	87.6	
Q3601-09	TP-3	68	1.11	10.70	11.81	10.45	87.3	
Q3601-10	TP-3-EPH	69	1.15	10.00	11.15	9.91	87.6	
Q3601-11	TP-3-VOC	70	1.19	10.53	11.72	10.21	85.7	
Q3601-13	TP-4	71	1.15	10.99	12.14	10.94	89.1	
Q3601-14	TP-4-EPH	72	1.16	10.53	11.69	10.54	89.1	
Q3601-15	TP-4-VOC	73	1.11	10.35	11.46	10.58	91.5	
Q3601-17	TP-5	74	1.15	10.35	11.5	9.93	84.8	
Q3601-18	TP-5-EPH	75	1.16	10.22	11.38	9.68	83.4	
Q3601-19	TP-5-VOC	76	1.19	10.20	11.39	9.69	83.3	

$$\% \text{ Solid} = \frac{(C-A) * 100}{(B-A)}$$

WORKLIST(Hardcopy Internal Chain)

137838

WorkList Name : %1-111025 WorkList ID : 192994 Department : Wet-Chemistry Date : 11-10-2025 08:07:52

Sample	Customer Sample	Matrix	Test	Preservative	Customer	Raw Sample Storage Location	Collect Date	Method
Q3581-01	VNJ-238	Solid	Percent Solids	Cool 4 deg C	PSEG03	D41	11/07/2025	Chemtech -SO
Q3581-03	VNJ-245	Solid	Percent Solids	Cool 4 deg C	PSEG03	D41	11/07/2025	Chemtech -SO
Q3581-05	VNJ-240	Solid	Percent Solids	Cool 4 deg C	PSEG03	D41	11/07/2025	Chemtech -SO
Q3581-07	RBR200059	Solid	Percent Solids	Cool 4 deg C	PSEG03	D41	11/07/2025	Chemtech -SO
Q3582-04	RT4912	Solid	Percent Solids	Cool 4 deg C	PSEG03	D31	11/07/2025	Chemtech -SO
Q3582-05	RT4912-E2	Solid	Percent Solids	Cool 4 deg C	PSEG03	D31	11/07/2025	Chemtech -SO
Q3583-04	CHRT27080	Solid	Percent Solids	Cool 4 deg C	PSEG03	D41	11/07/2025	Chemtech -SO
Q3583-05	CHRT27080	Solid	Percent Solids	Cool 4 deg C	PSEG03	D41	11/07/2025	Chemtech -SO
Q3586-01	SED-1	Solid	Percent Solids	Cool 4 deg C	REMI02	D31	11/06/2025	Chemtech -SO
Q3586-02	SED-2	Solid	Percent Solids	Cool 4 deg C	REMI02	D31	11/06/2025	Chemtech -SO
Q3586-03	SED-3	Solid	Percent Solids	Cool 4 deg C	REMI02	D31	11/06/2025	Chemtech -SO
Q3587-01	NB-08-110725	Solid	Percent Solids	Cool 4 deg C	PSEG05	D41	11/07/2025	Chemtech -SO
Q3587-02	NB-08-110725-E2	Solid	Percent Solids	Cool 4 deg C	PSEG05	D41	11/07/2025	Chemtech -SO
Q3588-01	TR-06-11072025	Solid	Percent Solids	Cool 4 deg C	PSEG05	D41	11/07/2025	Chemtech -SO
Q3588-02	TR-06-11072025-E2	Solid	Percent Solids	Cool 4 deg C	PSEG05	D41	11/07/2025	Chemtech -SO
Q3588-03	TR-01-11072025	Solid	Percent Solids	Cool 4 deg C	PSEG05	D41	11/07/2025	Chemtech -SO
Q3588-04	TR-01-11072025-E2	Solid	Percent Solids	Cool 4 deg C	PSEG05	D41	11/07/2025	Chemtech -SO
Q3589-03	MDL-SOIL-QT4-2025-07	Solid	Percent Solids	Cool 4 deg C	ALLI03	QA Of	11/10/2025	Chemtech -SO
Q3589-04	MDL-SOIL-QT4-2025-08	Solid	Percent Solids	Cool 4 deg C	ALLI03	QA Of	11/10/2025	Chemtech -SO
Q3589-05	MDL-MED-SOIL-QT4-2025-07	Solid	Percent Solids	Cool 4 deg C	ALLI03	QA Of	11/10/2025	Chemtech -SO
Q3589-06	MDL-MED-SOIL-QT4-2025-08	Solid	Percent Solids	Cool 4 deg C	ALLI03	QA Of	11/10/2025	Chemtech -SO

Date/Time 11/10/25 15:00 Date/Time 11/10/25 17:40
 Raw Sample Received by: CP Raw Sample Received by: CP
 Raw Sample Relinquished by: CP Raw Sample Relinquished by: CP

WORKLIST(Hardcopy Internal Chain)

137838

WorkList Name : %1-111025 WorkList ID : 192994 Department : Wet-Chemistry Date : 11-10-2025 08:07:52

Sample	Customer Sample	Matrix	Test	Preservative	Customer	Raw Sample Storage Location	Collect Date	Method
Q3590-01	MOO-25-0314-0316-COMP	Solid	Percent Solids	Cool 4 deg C	PSEG03	D41	11/07/2025	Chemtech -SO
Q3590-02	MOO-25-0314-0316-COMP	Solid	Percent Solids	Cool 4 deg C	PSEG03	D41	11/07/2025	Chemtech -SO
Q3590-03	MOO-25-0317-0318-COMP	Solid	Percent Solids	Cool 4 deg C	PSEG03	D41	11/07/2025	Chemtech -SO
Q3590-04	MOO-25-0317-0318-COMP	Solid	Percent Solids	Cool 4 deg C	PSEG03	D41	11/07/2025	Chemtech -SO
Q3590-05	MOO-25-0319-COMP	Solid	Percent Solids	Cool 4 deg C	PSEG03	D41	11/07/2025	Chemtech -SO
Q3590-06	MOO-25-0319-COMP	Solid	Percent Solids	Cool 4 deg C	PSEG03	D41	11/07/2025	Chemtech -SO
Q3591-01	KMH4680-END-1-1	Solid	Percent Solids	Cool 4 deg C	PSEG03	D41	11/07/2025	Chemtech -SO
Q3591-02	KMH4680-END-1-2	Solid	Percent Solids	Cool 4 deg C	PSEG03	D41	11/07/2025	Chemtech -SO
Q3591-03	M4-END-A	Solid	Percent Solids	Cool 4 deg C	PSEG03	D41	11/07/2025	Chemtech -SO
Q3591-04	M4-END-B	Solid	Percent Solids	Cool 4 deg C	PSEG03	D41	11/07/2025	Chemtech -SO
Q3591-05	M5-END-A	Solid	Percent Solids	Cool 4 deg C	PSEG03	D41	11/07/2025	Chemtech -SO
Q3591-06	M5-END-B	Solid	Percent Solids	Cool 4 deg C	PSEG03	D41	11/07/2025	Chemtech -SO
Q3592-01	11625	Solid	Percent Solids	Cool 4 deg C	PSEG03	D41	11/07/2025	Chemtech -SO
Q3593-04	A-LAW-25-0167-0175-COMP	Solid	Percent Solids	Cool 4 deg C	PSEG03	D41	11/07/2025	Chemtech -SO
Q3593-05	A-LAW-25-0167-0175-COMP	Solid	Percent Solids	Cool 4 deg C	PSEG03	D41	11/07/2025	Chemtech -SO
Q3593-06	B-LAW-25-0167-0175-COMP	Solid	Percent Solids	Cool 4 deg C	PSEG03	D41	11/07/2025	Chemtech -SO
Q3593-07	B-LAW-25-0167-0175-COMP	Solid	Percent Solids	Cool 4 deg C	PSEG03	D41	11/07/2025	Chemtech -SO
Q3593-08	C-LAW-25-0167-0175-COMP	Solid	Percent Solids	Cool 4 deg C	PSEG03	D41	11/07/2025	Chemtech -SO
Q3593-09	C-LAW-25-0167-0175-COMP	Solid	Percent Solids	Cool 4 deg C	PSEG03	D41	11/07/2025	Chemtech -SO
Q3593-10	D-LAW-25-0156-0166-COMP	Solid	Percent Solids	Cool 4 deg C	PSEG03	D41	11/07/2025	Chemtech -SO
Q3593-11	D-LAW-25-0156-0166-COMP	Solid	Percent Solids	Cool 4 deg C	PSEG03	D41	11/07/2025	Chemtech -SO

Date/Time	11.10.25	15.00	Date/Time	11.10.25	17.40
Raw Sample Received by:			Raw Sample Received by:		
Raw Sample Relinquished by:			Raw Sample Relinquished by:		

WORKLIST(Hardcopy Internal Chain)

WorkList Name : %1-111025 WorkList ID : 192994 Department : Wet-Chemistry Date : 11-10-2025 08:07:52

Sample	Customer Sample	Matrix	Test	Preservative	Customer	Raw Sample Storage Location	Collect Date	Method
Q3596-01	11-7-25-A	Solid	Percent Solids	Cool 4 deg C	PSEG03	D31	11/10/2025	Chemtech -SO
Q3596-02	11-7-25-B	Solid	Percent Solids	Cool 4 deg C	PSEG03	D31	11/10/2025	Chemtech -SO
Q3596-03	11-7-25-C	Solid	Percent Solids	Cool 4 deg C	PSEG03	D31	11/10/2025	Chemtech -SO
Q3597-01	TP-1	Solid	Percent Solids	Cool 4 deg C	PSEG03	D41	11/10/2025	Chemtech -SO
Q3597-02	TP-1-EPH-0-3	Solid	Percent Solids	Cool 4 deg C	PSEG03	D41	11/10/2025	Chemtech -SO
Q3597-03	TP-1-EPH-3-6	Solid	Percent Solids	Cool 4 deg C	PSEG03	D41	11/10/2025	Chemtech -SO
Q3597-04	TP-2	Solid	Percent Solids	Cool 4 deg C	PSEG03	D41	11/10/2025	Chemtech -SO
Q3597-05	TP-2-EPH-0-3	Solid	Percent Solids	Cool 4 deg C	PSEG03	D41	11/10/2025	Chemtech -SO
Q3597-06	TP-2-EPH-3-6	Solid	Percent Solids	Cool 4 deg C	PSEG03	D41	11/10/2025	Chemtech -SO
Q3597-07	TP-3	Solid	Percent Solids	Cool 4 deg C	PSEG03	D41	11/10/2025	Chemtech -SO
Q3597-08	TP-3-EPH-0-3	Solid	Percent Solids	Cool 4 deg C	PSEG03	D41	11/10/2025	Chemtech -SO
Q3597-09	TP-3-EPH-3-6	Solid	Percent Solids	Cool 4 deg C	PSEG03	D41	11/10/2025	Chemtech -SO
Q3597-10	TP-4	Solid	Percent Solids	Cool 4 deg C	PSEG03	D41	11/10/2025	Chemtech -SO
Q3597-11	TP-4-EPH-0-3	Solid	Percent Solids	Cool 4 deg C	PSEG03	D41	11/10/2025	Chemtech -SO
Q3597-12	TP-4-EPH-3-6	Solid	Percent Solids	Cool 4 deg C	PSEG03	D41	11/10/2025	Chemtech -SO
Q3598-01	EO-CONCRETE	Solid	Percent Solids	Cool 4 deg C	PSEG03	D41	11/10/2025	Chemtech -SO
Q3599-01	LIVINGSTON-SOIL	Solid	Percent Solids	Cool 4 deg C	PSEG03	D41	11/10/2025	Chemtech -SO
Q3600-01	CENTRAL-ROW-CONCRETE	Solid	Percent Solids	Cool 4 deg C	PSEG03	D41	11/10/2025	Chemtech -SO
Q3600-02	CENTRAL-ROW-CONCRETE-E	Solid	Percent Solids	Cool 4 deg C	PSEG03	D41	11/10/2025	Chemtech -SO
Q3601-01	TP-1	Solid	Percent Solids	Cool 4 deg C	PSEG03	D41	11/10/2025	Chemtech -SO
Q3601-02	TP-1-EPH	Solid	Percent Solids	Cool 4 deg C	PSEG03	D41	11/10/2025	Chemtech -SO

Date/Time 11-10-25 Date/Time 11-10-25
 Raw Sample Received by: JP Raw Sample Received by: JP
 Raw Sample Relinquished by: JP Raw Sample Relinquished by: JP

WORKLIST(Hardcopy Internal Chain)

1378358

WorkList Name : %1-111025 WorkList ID : 192994 Department : Wet-Chemistry Date : 11-10-2025 08:07:52

Sample	Customer Sample	Matrix	Test	Preservative	Customer	Raw Sample Storage Location	Collect Date	Method
Q3601-03	TP-1-VOC	Solid	Percent Solids	Cool 4 deg C	PSEG03	D41	11/10/2025	Chemtech -SO
Q3601-05	TP-2	Solid	Percent Solids	Cool 4 deg C	PSEG03	D41	11/10/2025	Chemtech -SO
Q3601-06	TP-2-EPH	Solid	Percent Solids	Cool 4 deg C	PSEG03	D41	11/10/2025	Chemtech -SO
Q3601-07	TP-2-VOC	Solid	Percent Solids	Cool 4 deg C	PSEG03	D41	11/10/2025	Chemtech -SO
Q3601-09	TP-3	Solid	Percent Solids	Cool 4 deg C	PSEG03	D41	11/10/2025	Chemtech -SO
Q3601-10	TP-3-EPH	Solid	Percent Solids	Cool 4 deg C	PSEG03	D41	11/10/2025	Chemtech -SO
Q3601-11	TP-3-VOC	Solid	Percent Solids	Cool 4 deg C	PSEG03	D41	11/10/2025	Chemtech -SO
Q3601-13	TP-4	Solid	Percent Solids	Cool 4 deg C	PSEG03	D41	11/10/2025	Chemtech -SO
Q3601-14	TP-4-EPH	Solid	Percent Solids	Cool 4 deg C	PSEG03	D41	11/10/2025	Chemtech -SO
Q3601-15	TP-4-VOC	Solid	Percent Solids	Cool 4 deg C	PSEG03	D41	11/10/2025	Chemtech -SO
Q3601-17	TP-5	Solid	Percent Solids	Cool 4 deg C	PSEG03	D41	11/10/2025	Chemtech -SO
Q3601-18	TP-5-EPH	Solid	Percent Solids	Cool 4 deg C	PSEG03	D41	11/10/2025	Chemtech -SO
Q3601-19	TP-5-VOC	Solid	Percent Solids	Cool 4 deg C	PSEG03	D41	11/10/2025	Chemtech -SO

Date/Time 11.10.25 13:00

Raw Sample Received by: [Signature]

Raw Sample Relinquished by: [Signature]

Date/Time 11.10.25 13:40
Raw Sample Received by: [Signature]
Raw Sample Relinquished by: [Signature]



SHIPPING DOCUMENTS

CLIENT INFORMATION

REPORT TO BE SENT TO:

COMPANY: Remington + Vermack Engineers
ADDRESS: 2059 Springdale Rd
CITY: Cherry Hill STATE: NJ ZIP: 08003
ATTENTION: Kyle Carlson @ rve.com
PHONE: 609-682-3019 FAX:

CLIENT PROJECT INFORMATION

PROJECT NAME: Edison Landfill
PROJECT NO.: 1205T007 LOCATION: Edison, NJ
PROJECT MANAGER: Leslie Hartzell
e-mail: Leslie.Hartzell@rve.com
PHONE: 610-663-4665 FAX:

CLIENT BILLING INFORMATION

BILL TO: APinvoices@rve.com PO#: 205T007
ADDRESS: 2059 Springdale Rd
CITY: Cherry Hill STATE: NJ ZIP: 08003
ATTENTION: Leslie Hartzell PHONE: 610-663-4665

ANALYSIS

DATA TURNAROUND INFORMATION

FAX (RUSH) _____ DAYS*
HARDCOPY (DATA PACKAGE): Standard 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 FORM NJ Hartzell

1. TOTAL+30
2. EPH
3. HAZCHROME
4. HAZCHROME
5. VOCs
6. % Solids
7. HAZCHROME
8. HAZCHROME
9. HAZCHROME

ALLIANCE SAMPLE ID	PROJECT SAMPLE IDENTIFICATION	SAMPLE MATRIX	SAMPLE TYPE		SAMPLE COLLECTION		# OF BOTTLES	PRESERVATIVES									COMMENTS	
			COMP	GRAB	DATE	TIME		E	E	E	E	F	F				← Specify Preservatives A-HCl B-HNO3 C-H2SO4	D-NaOH E-ICE F-OTHER
								1	2	3	4	5	6	7	8	9		
1.	SED-1	S		X	11/6/25	14:15	13	6	1	1	1	3	1				Methanol, DI Water	
2.	SED-2	S		X	11/6/25	12:40	13	6	1	1	1	3	1				Methanol, DI Water	
3.	SED-3	S		X	11/6/25	11:35	13	6	1	1	1	3	1				Methanol, DI Water	
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. <u>Arina Maier</u>	DATE/TIME: <u>11/7/25 (10:00)</u>	RECEIVED BY: 1. <u>IT</u>	Conditions of bottles or coolers at receipt: ☒ COMPLIANT ☐ NON COMPLIANT ☐ COOLER TEMP <u>3.5 + 0 = 3.5 °C</u> Comments: _____ _____ _____
RELINQUISHED BY SAMPLER: 2. <u>IT</u>	DATE/TIME: <u>11-7-25</u>	RECEIVED BY: 2. <u>IT</u>	
RELINQUISHED BY SAMPLER: 3. <u>IT</u>	DATE/TIME: <u>11-7-25</u>	RECEIVED BY: 3. <u>IT</u>	

Page 1 of 1 CLIENT: ☐ Hand Delivered ☐ Other 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

LOGIN REPORT/SAMPLE TRANSFER

Order ID : Q3586	REMI02	Order Date : 11/7/2025 3:20:00 PM	Project Mgr :
Client Name : Remington & Vernick Engi		Project Name : Edison Landfill	Report Type : NJ Reduced
Client Contact : Kyle Carlson		Receive DateTime : 11/7/2025 12:00:00 AM	EDD Type : Excel NJ
Invoice Name : Remington & Vernick Engi		Purchase Order : 17:20	Hard Copy Date :
Invoice Contact : Kyle Carlson			Date Signoff :

LAB ID	CLIENT ID	MATRIX	SAMPLE DATE	SAMPLE TIME	TEST	TEST GROUP	METHOD	FAX DATE	DUE DATES
Q3586-01	SED-1	Solid	11/06/2025	14:15	VOC-TCLVOA-10	TCL+30/TAL	8260D	10 Bus. Days	
Q3586-02	SED-2	Solid	11/06/2025	12:40	VOC-TCLVOA-10	TCL+30/TAL	8260D	10 Bus. Days	
Q3586-03	SED-3	Solid	11/06/2025	11:55	VOC-TCLVOA-10	TCL+30/TAL	8260D	10 Bus. Days	

T. Anderson

*Stored in VOA
F22 #02 & Ref # 06*

Relinquished By : *CP*
Date / Time : 11/10/25 12:35

Received By : *W. Duda*
Date / Time : 11/10/25 10:35

Storage Area : VOA Refridgerator Room