

Nailing Compliance: Building and Maintaining an AI-powered ISO 17025-Compliant Environmental Testing Lab

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Agenda

- Introduction to ISO 17025:2017
- Importance of ISO 17025 accreditation for environmental testing labs
- ISO 17025:2017 requirements
- LIMS - A framework to achieve and maintain ISO 17025 compliance in the environmental testing industry
- The impact of AI-powered LIMS in transforming lab operations



ISO 17025 Accreditation: Why It Matters

- Globally recognized standard for testing and calibration labs
- Assures reliable, accurate, and reproducible test results
- Demonstrates technical competence of staff and procedures
- Builds trust with clients, regulators, and stakeholders
- Promotes international acceptance of test results
- Drives continuous improvement through audits

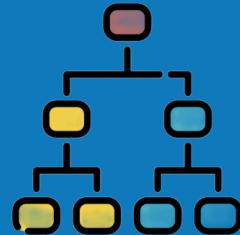


ISO/IEC 17025:2017 Requirements

These requirements are covered in five sections:



General Requirements



Structural Requirements



Resource Requirements



Process Requirements



Management System Requirements

General Requirements

Testing activities must be conducted **impartially** and **confidentially**.

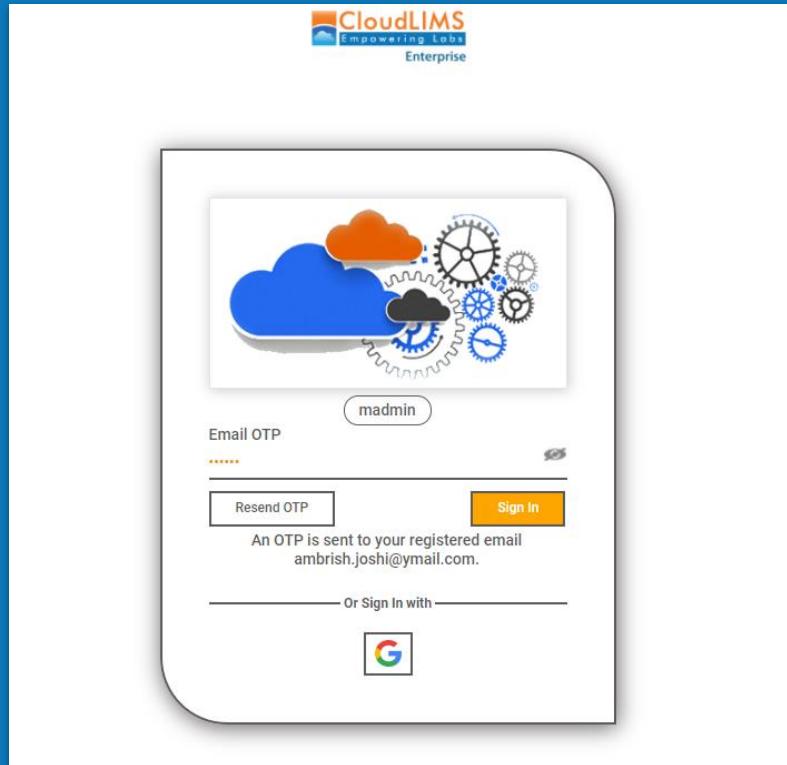
Confidentiality of Information

✓ Clause 4.2



Two-Factor Authentication

Enable users to leverage two-factor authentication mechanism (OTP and password-based login) for secure data access

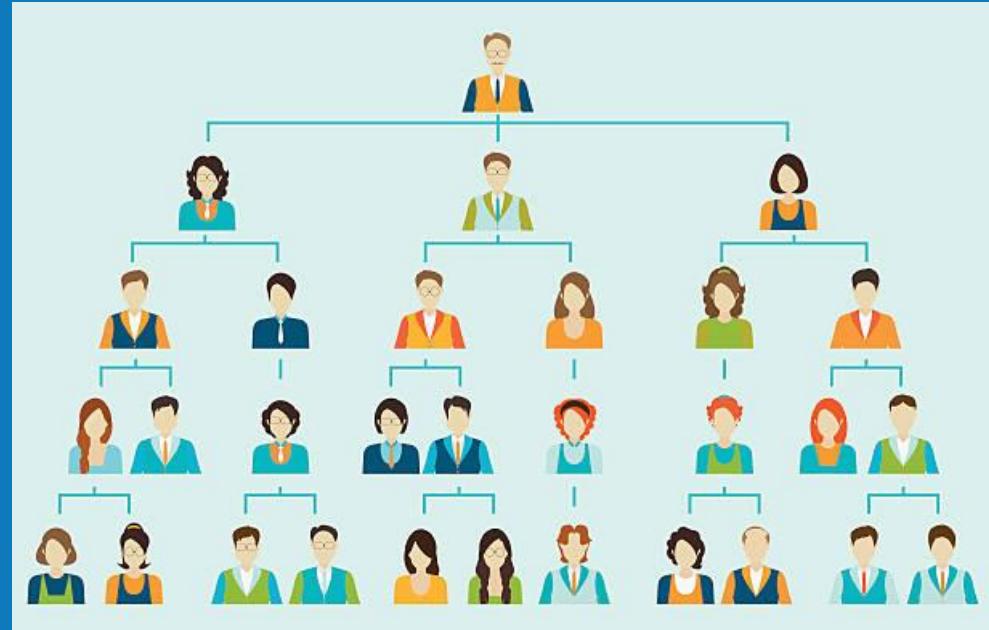


Structural Requirements

✓ Clause 5.5

Environmental testing labs must:

- ▶ Define their management structure
- ▶ Clearly document all activities claiming conformity to the standard
- ▶ Clarify responsibility, authority, and interrelationships of staff



Organizational Structure: Role-based Permission to Staff

Assign Rights/Permissions

User Roles ► Manager Technician Lab Incharge

	<input checked="" type="checkbox"/> View	<input checked="" type="checkbox"/> 	<input checked="" type="checkbox"/> 	<input checked="" type="checkbox"/> 
<input type="checkbox"/>  Create	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>  Edit	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>  Delete Permanently	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>  Manage Access Permissions	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>  Cart	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>  Transfer	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>  Dispose	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>  Restore	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>  Update Barcode	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>  Include Image Section	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>  Process Workflow	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>  Unlock Process Workflow	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>  Restricted Attributes View	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>  Restricted Attachments View	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>  Samples	<input checked="" type="checkbox"/> View	<input checked="" type="checkbox"/> 	<input checked="" type="checkbox"/> 	<input checked="" type="checkbox"/> 
<input type="checkbox"/>  Test	<input checked="" type="checkbox"/> Create	<input checked="" type="checkbox"/> 	<input checked="" type="checkbox"/> 	<input type="checkbox"/> 
<input type="checkbox"/>  Validate Test Results: Approval Process	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>  Validate Test Results: Review Process	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>  Unlock Test Results	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

 **CloudLIMS**
Empowering Labs

Resource Requirements

Personnel

✓ Clause 6.2



Equipment

✓ Clause 6.4



External Products & Services

✓ Clause 6.6



Personnel Training

- Compare the relative performance of staff
- Assign analytical tasks only to personnel verified as competent

1		Master Admin	George Jayson	Tim David	Rock Demon	Marry Smith	Tim Smith
2	ISO Certification Training	4	3	5	5	0	5
3	LIMS Data Entry and Reporting for Environmental Samples	5	5	4	5	4	5
4	GC-MS Calibration and Maintenance Procedures	5	3	4	5	5	0
5	LIMS Training Session	4	5	5	4	0	4
6	State Reporting Protocol	5	0	3	4	5	5
7	Safe Handling of Hazardous Wastes	5	4	4	4	4	5
8	LIMS Data Entry and Reporting for Environmental Samples	3	4	5	5	4	3
9	LIMS Data Entry and Reporting for Environmental Samples	5	5	5	5	5	5
10	EPA Method 3050B for Metals Analysis	5	4	0	5	5	4
11	GC-MS Calibration and Maintenance Procedures	5	4	5	5	4	5
12	Safe Handling of Hazardous Wastes	5	0	4	4	3	5

Equipment Calibration and Maintenance

- Schedule instrument calibration & manage maintenance data.
- Set up alerts to know when the next calibration/maintenance is due.

Update Equipment Information

General Information

Instrument ID	: FLUORESCENCE_11	Status *	: Active	Maintenance History	: Link
Instrument Name	: Q Exactive	Custodian *	: USR_1	Activated Alarms	: Maintenance
Instrument ID [External]	:	Custodian Name	: Master Admin	Associated Components	: Link
Type	: Fluorescence Spectrophotometer	Calibration History	: Link		

Purchase Information

Serial Number	:	Purchased Date	: <input type="button" value="Calendar"/>	Warranty	:
Manufacturer/Maker	: Thermo Scientific	Bill No.	:	Installed Date	: <input type="button" value="Calendar"/>
Model Name/No.	:				

Calibration Information

Calibration Performed By	: USR_6	Next Calibration Date	: 28 Apr, 2025	Expired	: Yes
Calibration Performed By (Name)	: Marry Smith	Remind Before Next Calibration Date (Days)	: 2	Calibration Frequency (Days)	: 60
Last Calibration Date	: 28 Feb, 2025	Calibration Result	: Ok Good		

Maintenance Information

[View Details](#) [Perform Preventive](#) [Perform Corrective](#) [Perform Emergency](#) [Perform Preventive](#) [Perform Corrective](#) [Perform Emergency](#)

[Update](#) [Cancel](#)

Equipment: Calibration and Maintenance (Continued...)

Equipment Information

Instrument ID	:	FLUORESCENCE_11	Instrument ID [External]	:	
Name	:	Q Exactive	Type	:	Fluorescence Spectrophotometer
Purchased Date	:		Installed Date	:	

S. No.	Last Calibration Date	Next Calibration Date	Calibration Result	Calibration Performed By	Activity Date/Time
1	01 Jul, 2024	01 Aug, 2024	Successful	USR_4	04 Jul, 2024 12:21:02 AM
2	07 Aug, 2024	31 Aug, 2024	Ok Good	USR_6	07 Aug, 2024 04:57:09 AM
3	31 Aug, 2024	31 Oct, 2024	Ok Good	USR_6	24 Apr, 2025 06:08:05 AM
4	31 Oct, 2024	31 Dec, 2024	Ok Good	USR_6	24 Apr, 2025 06:08:56 AM
5	31 Dec, 2024	28 Feb, 2025			
6	28 Feb, 2025	28 Apr, 2025			

Equipment Information

Instrument ID	:	FLUORESCENCE_11	Instrument ID [External]	:	
Name	:	Q Exactive	Type	:	Fluorescence Spectrophotometer
Purchased Date	:		Installed Date	:	

S. No.	Last Maintenance Date	Next Maintenance Date	Maintenance Result	Maintenance Performed By	Activity Date/Time
1	01 Jul, 2024	01 Aug, 2024	Successful	USR_6	04 Jul, 2024 12:21:03 AM
2	07 Aug, 2024	31 Aug, 2024	Successful-ok	USR_2	07 Aug, 2024 04:57:09 AM
3	07 Aug, 2024	07 Oct, 2024	Successful-ok	USR_2	24 Apr, 2025 06:08:05 AM
4	07 Oct, 2024	07 Dec, 2024	Successful-ok	USR_2	24 Apr, 2025 06:08:56 AM
5	07 Dec, 2024	28 Feb, 2025	Successful-ok	USR_2	24 Apr, 2025 06:10:54 AM
6	28 Feb, 2025	28 Apr, 2025	Successful-ok	USR_2	24 Apr, 2025 06:12:04 AM

External Products & Services

CloudLIMS Empowering Labs

ENVIRO LAB

Master Admin Last Login: Apr 24, 2025 11:28:36 AM

Lab Inventory Type: Reagents

Inventory Filter: Select options

Show 50 entries

Item ID	Item Name	Type	Barcode Image	Lot Number	Current Quantity	Current Quantity-Unit	Expired	Expiration Date	Associated Samples Count	Activated Alarms	Remind Before Expiry (Days)	Associated
1	Reagents_14	Methanol	Reagents	LM0014	100	ml	No	22 Apr, 2027			30	
2	Reagents_13	Acetone	Reagents	AC0023	100	ml	No	20 Aug, 2026			30	
3	Reagents_12	Sodium Chloride	Reagents	SC0012	825	gm	No	31 Dec, 2024		Expiry	5	TOXIC_9
4	Reagents_11	Ethanol	Reagents	ETh00147	50	ml	No	18 Jul, 2024		Expiry	2	
5	Reagents_10	Labware	Reagents			units	No	26 Dec, 2030			30	
6	Reagents_9	Solvent-B	Reagents			units	No	22 Dec, 2032			15	
7	Reagents_8	Conductivity Meters	Reagents			ml	No	17 Nov, 2035			10	Hazardous_0
8	Reagents_7	Solvent-C	Reagents			ml	No	26 Dec, 2032			31	Hazardous_0
9	Reagents_6	LFB-3rd Source	Reagents	LFB-3-032	50	ml	No	29 Nov, 2030			10	
10	Reagents_5	Weber Scientific BOD SEED	Reagents	BOD054	500	units	No	26 Dec, 2025			30	DRINKING_4
11	Reagents_4	High-Purity Water	Reagents	WATER-001	50	ml	No	22 Dec, 2024			15	

Process Requirements

Review of Requests,
Tenders, & Contracts

✓ Clause 7.1

PURCHASE ORDER WORKSHEET					
Portland State University 1900 University Boulevard Department of Biology 1000 NW 18th Ave. Portland, OR 97237			P.O. # Date:		
VENDOR			SAP: Department of Biology ID: 1000 1719 NW 18th Ave, Room 240 Portland, OR 97201		
FOR CODE		SHIPPING TERMS		DELIVERY DATE	
<input type="checkbox"/> Ship point		<input type="checkbox"/> Other: _____		<input type="checkbox"/> Net 30	
<input type="checkbox"/> Other: _____		<input type="checkbox"/> Other: _____		<input type="checkbox"/> Other: _____	
ITEM #	CATALOG #	DESCRIPTION	QUANTITY	UOM	UNIT PRICE
Equipment:		Serial Number:	Serial:		
Location:		Shipping Cost:	Total:		
Date Received:					

Validation of Methods

✓ Clause 7.2.2



Assuring the Validity of
Results

✓ Clause 7.7.1

Accurate Reporting of Results

✓ Clause 7.8



Review of Requests

- Lab managers can view, accept, reject, or assign incoming client requests
- Ensure all resource and competency checks before test request acceptance

Action	Task ID	Status	Task Assignment Status	Entry Date/Time	Category	Details	From User	To User	Status Changed By
Accept Reject	TSK_54	Green	Assign To:USR_1	31 Jan, 2025 [04:11:59 PM GMT+05:30]	Request Management	Sample testing request assigned for processing (Request ID: ANLT-Testing_46)	CLIENT_12	USR_1	CLIENT_12
Accept Reject	TSK_53	Green	Assign To:USR_1	17 Jan, 2025 [02:32:50 AM GMT+05:30]	Request Management	Sample testing request assigned for processing (Request ID: ANLT-Testing_45)	CLIENT_12	USR_1	CLIENT_12
Accept Reject	TSK_52	Green	Assign To:USR_1	14 Jan, 2025 [02:33:10 AM GMT+05:30]	Request Management	Sample testing request assigned for processing (Request ID: ANLT-Testing_44)	USR_1	USR_1	USR_1
Accept Reject	TSK_51	Green	Assign To:USR_1	06 Jan, 2025 [05:48:11 PM GMT+05:30]	Request Management	Sample testing request assigned for processing (Request ID: ANLT-Testing_43)	CLIENT_12	USR_1	CLIENT_12

Validate Methods

- Manage and compare test results obtained from different methods
- Submit the results for review or approval
- Finalize one or more method(s) for client sample testing

Result Entries

Flagging Sets : Out-of-Spec Flag

Test Results For Sample ID: WW_250414-001

Result Entry Completed [\[Check this to notify other users.\]](#)

Update Quantity to be Deducted: 0 Total Consumed: 0 (ml) Current Quantity: 100 (ml)

Test Analyte Runs

Test Runs: 1 Run Number: 1 Freeze: Analyte Name View Existing Dependencies

Select Attributes to be Copied: [Select options](#) Update Records: From: To: [Apply](#)

#	Analyte Group	Analyte Name *	Method	Observed Value	RL	Result	Unit
1	TOLP Metals	Arsenic	SW-846 6010D	0.03	0.04	BRL	mg/L
2	TOLP Metals	Cadmium	SW-846 6010D	0.042	0.04	ARL	mg/L
3	TOLP Metals	Lead	SW-846 6010D	0.04	0.04	BRL	mg/L
4	Water Soluble Anions	Chloride	D512	251.3	250	250	mg/L
5	Water Soluble Anions	Bromide	D1246-16(2021)	2.9	3	3	mg/L

Non Analyte Results

Testing Results Status

Sample Testing Status	: Under Testing
Result Upload Date	: <input type="text"/>
Result Upload Time	: 00:44 [Clock]
Result Entry By	: CL_ADMIN [User]
Result Date and Time	: <input type="text"/>
Result Entry By (Name)	: CloudLIMS Admin [User]

Turnaround Time Status

Sample Testing Start Date	: <input type="text"/>
Turnaround Time	: <input type="text"/>
Turnaround Time Status	: <input type="text"/>

[Save Results](#) [Cancel](#)

Send For Validation

Send for Validation

Validation Process : For Review For Approval

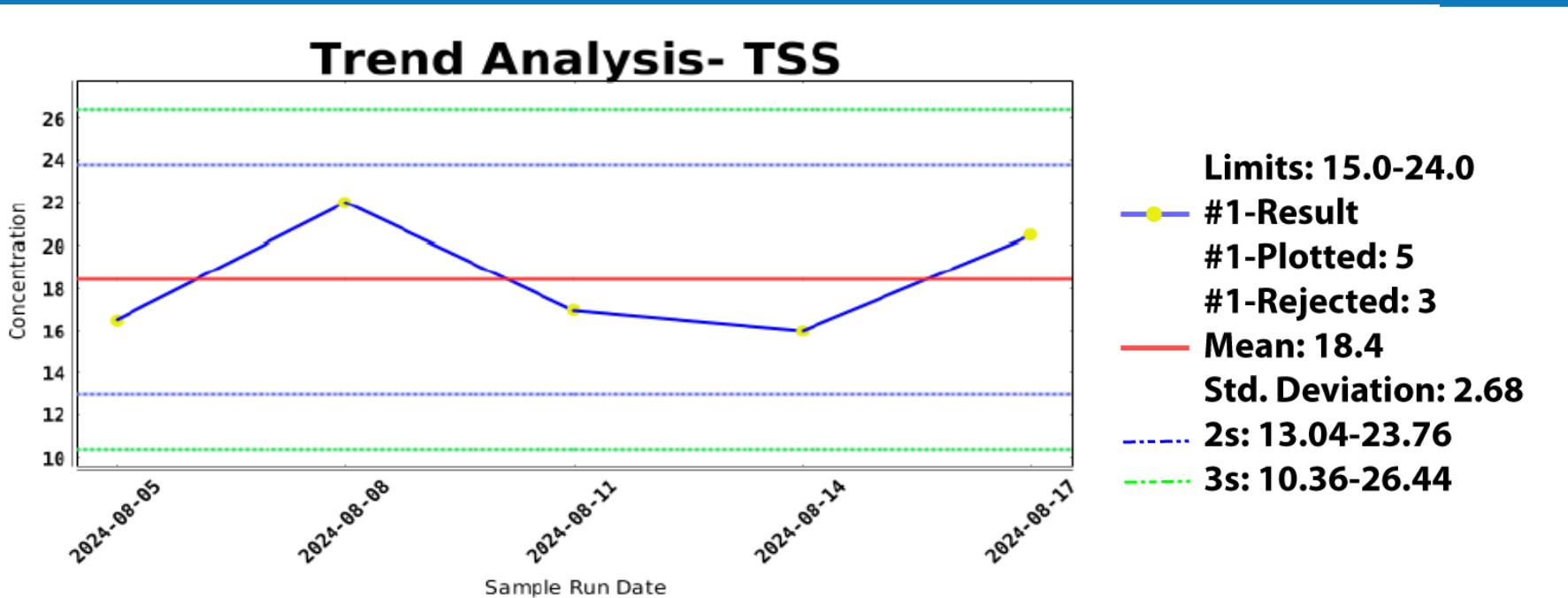
Send **Cancel**

QC Feature: Trend Analysis

Analyze trends across a set of test results

Identify variation in test results

Take corrective actions



Manage QC Samples & Their Test Results

- Automate tracking of QC samples: blanks, spikes, duplicates
- Compare QC results against defined limits

Result Entries

Test ID:	ORG_1	Test Type:	Quantitative	Test Group:	Inorganic Chemistry	Test Code:	Inorganic Chemistry of Drinking
Associated Samples							
#	Sample ID	Sample ID [External]	Sample Testing Status	Type	QC Sample?	Associated Analytes	
1	DWAT_26	1A0109	Under Testing	Drinking Water		Bromide	Chloride
2	QC_Sample_3	QC3	Under Testing	QC Samples	QC Sample	Bromide	Chloride

Flagging Sets : Env_Flag

Test Results For Sample ID: DWAT_26

Result Entry Completed [\[Check this to notify other users.\]](#)

[View Last Saved Results: Link](#)

Update Quantity to be Deducted: 0 Total Consumed: 0 ml Current Quantity: 56 ml

Test Analyte Runs

Test Runs: Runs Number: 1 Freeze: Analyte Name

Select Attributes to be Copied: Update Records: From: To:

#	Analyte Group	Flagging Set Name	Analyte Name *	Observed Value	Unit	Limit
1	Inorganic	Env_Flag	Bromide	0.3	mg/L	
2	Inorganic	Env_Flag	Chloride	0.9	mg/L	

Accurate Result Reporting

My Testing Lab
Roseblock Avenue
99345-1123



Certificate of Analysis

Report ID: 58

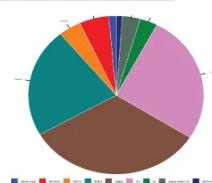
First Name: John Last Name: Brown
Identification Number: 078346GH Email: john@brown.com

Sample Details

Sample ID [External]: So_Nhs_01 Temperature at Collection Site: 10
Temperature at Collection Site-Unit: °C Collection Date: 10 Jun, 2019
Entry Date: 10 Jun, 2019 Entry Time: 06:37:35 PM

Analytes and Results

Analyte Name	Observed Value	PPM	Equiviate	% CEC
Nitrate N ppm	0.04	1000	0.7	0.904
Potassium	0.164	1000	0.5	0.464
Calcium	0.124	1000	0.7	0.845
Sodium	0.67	1000	0.9	0.897
Sulphur	0.98	1000	0.8	0.675
Iron	0.789	1000	0.9	0.908
pH	0.097	1000	0.6	0.087
Organic Matter (%)	0.099	1000	0.5	0.99
Moisture Content	0.034	1000	0.6	0.1



Disclaimer

All Results are duly Validated

George Jayson

George Jayson
Laboratory Director
22 Dec, 2022



LABORATORY REPORT

Characteristics of Hazardous Waste - Title 22, Article 3.

‡ Aqueous Samples

Date: 04 Apr, 2024

Sample ID [External]: 10.0 ug/L multi Sample Description:
Sample Matrix: Attention:
Date Completed: Received Date: 07 Mar, 2024

Characteristics

Analytical Parameter	Method	PQL	Result	Unit	STLC (mg/L)	TTLC (mg/L)
Antimony	EPA 200.8	Non Detect	mg/L			
Arsenic	EPA 200.8	Non Detect	mg/L			
Barium	EPA 200.8	Non Detect	mg/L			
Beryllium	EPA 200.8	0.02	mg/L			
Boron	EPA 200.8		mg/L			
Cadmium	EPA 200.8	Non Detect	mg/L			
Chromium	EPA 200.8	Non Detect	mg/L			
Cobalt	EPA 200.8	0.02	mg/L			
Copper	EPA 200.8	Non Detect	mg/L			
Iron	EPA 200.8		mg/L			
Lead	EPA 200.8	Non Detect	mg/L			
Manganese	EPA 200.8		mg/L			
Molybdenum	EPA 200.8		mg/L			
Nickel	EPA 200.8	Non Detect	mg/L			
Selenium	EPA 200.8	Non Detect	mg/L			
Silver	EPA 200.8	Non Detect	mg/L			
Thallium	EPA 200.8	0.02	mg/L			
Vanadium	EPA 200.8	0.02	mg/L			
Zinc	EPA 200.8	Non Detect	mg/L			
Iron	EPA 200.8		mg/L			

Constituents for aqueous samples exceeding STLC values shall be considered a hazardous waste.

Management System Requirements

Control of Records

✓ Clause 8.4



Document Control

✓ Clause 8.3

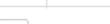


Internal Audits

✓ Clause 8.8



Control of Records

 CloudLIMS Empowering Labs	 ENVIRO LAB	Master Admin	Last Login: Apr 25, 2025 12:50:54 PM																												
 Samples	Type: Drinking Water 																														
																															
 Filter: Select options 																															
Show 200  entries	 First	 Previous	 1	 Next	 Last																										
                                               	Sample ID	Sample ID [External]	Status	Type	Barcode Image	Current Quantity	Custodian Name	Custodian	Trace Log	Current Quantity-Unit	Sales Order Number	Comments	Temperature on Arrival	Entered By																	
127	DWAT_26	1A0109		Drinking Water		56	Tim David	USR_3	Log	ml	1A0109150372300	pH 6.9.5	32	4																	
128	DWAT_25	1A0110		Drinking Water		23	Tim David	USR_3	Log	ml	1A0109150372301	Portable Water Analysis	30	6																	
129	DWAT_24	1A0111		Drinking Water		5	Tim David	USR_3	Log	ml	1A0109150372302	Portable Water Analysis	30	6																	
130	DWAT_23	1A0112		Drinking Water		23	Tim David	USR_3	Log	ml	1A0109150372303	Bacteriological Analysis needed	30	1																	
131	DWAT_22	1A0113		Drinking Water		43	Tim David	USR_3	Log	ml	1A01091503723012	Portable Water Analysis	27	4																	
132	DWAT_21	1A0114		Drinking Water		51	Master Admin	USR_1	Log	ml	1A01091503723014	Less than 10 color units	30	4																	
133	DWAT_20	1A0115		Drinking Water		50	Master Admin	USR_1	Log	ml	1A01091503723015	pH 6.9.5	33	1																	
134	DWAT_19	1A0116		Drinking Water		55	Master Admin	USR_1	Log	ml	1A01091503723016	Portable Water Analysis	30	4																	
135	DWAT_18	1A0117		Drinking Water		5	Master Admin	USR_1	Log	ml	1A01091503723017	Portable Water Analysis	30	1																	

Chain of Custody Log for 'DWAT 23'

S. No.	Activity Date/Time	Updated By	Action Performed	Attribute Name	Original Value	Original Value (Name)	Current Value	Current Value (Name)
1	25 Apr, 2025 [02:07:42 PM GMT+05:30]	Master Admin	Transferred	Custodian	USR_3	Tim David	USR_2	George Jayson

Document Control

Add Document Information

Selected Folder: [ID: FLDR_1]

Upload...

TSS-Reference Materials.pdf : 181.68 KB

General Information

Title *	: TSS-Reference Materials.pdf	Created On	: 24 Apr, 2025 <input type="button" value="Calendar"/>	Modified On	: 23 Apr, 2025 <input type="button" value="Calendar"/>
Document ID [External]	: TSS	Time of Creation	: 02:47:32 PM <input type="button" value="Clock"/>	Time of Modification	: 02:49:48 PM <input type="button" value="Clock"/>
Version	: 1.2	Expiration Date	: 22 Apr, 2026 <input type="button" value="Calendar"/>	Approvers	: USR_2 <input type="button" value="Search"/>
Custodian	: USR_1 <input type="button" value="Search"/>	Remind Before Expiry (Days)	: 30	Custodian Name	: Master Admin <input type="button" value="Search"/>



* Fields are Mandatory

CloudLIMS Empowering Labs

ENVIRO LAB

Master Admin Last Login: Apr 24, 2025 11:47:20 AM

Documents

Expand All Collapse All Clear Selection

Environmental

Properties History

General Information

Folder ID *	: FLDR_1	Custodian	: USR_1	Modified On	:
Title *	: Environmental	Created On	: 21 Mar, 2024	Time of Modification	:
Folder ID [External]	:	Time of Creation	: 01:06:19 PM <input type="button" value="Clock"/>	Custodian Name	: Master Admin
Type	: Folder				

* Fields are Mandatory

Internal Audits: Audit Trail

CloudLIMS Empowering Labs

ENVIRO LAB

Master Admin Last Login: Apr 24, 2025 11:47:20 AM

Home

Dashboard All Tasks Alerts (210) Audit Trail My Tasks

View: Current Show All Selective Display: From To Select User: Master Admin (USR_1) Select Module: Test Management

View Import Data Log

Show 50 entries First Previous Next Last

Activity ID	Activity Date/Time	Attribute Name	Module Name	ID	Action Performed
1	ACT_4429 24 Apr, 2025 [02:43:44 PM GMT+05:30]		Test Management	Exported File: Report.pdf	Report Exported
2	ACT_4421 24 Apr, 2025 [02:43:21 PM GMT+05:30]	Result Date and Time	Test Management	ORG_1 (Sample ID : DWAT_26)	Updated
3	ACT_4421 24 Apr, 2025 [02:43:21 PM GMT+05:30]	Result Upload Time	Test Management	ORG_1 (Sample ID : DWAT_26)	Updated
4	ACT_4422 24 Apr, 2025 [02:43:21 PM GMT+05:30]	Result Update Time	Test Management	ORG_1 (Sample ID : DWAT_26 Analyte Name : Bromide)	Updated
5	ACT_4423 24 Apr, 2025 [02:43:21 PM GMT+05:30]	Result Update Time	Test Management	ORG_1 (Sample ID : DWAT_26 Analyte Name : Chloride)	Updated
6	ACT_4425 24 Apr, 2025 [02:43:21 PM GMT+05:30]	Result Entry By	Test Management	ORG_1 (Sample ID : QC_Sample_3)	Updated
7	ACT_4425 24 Apr, 2025 [02:43:21 PM GMT+05:30]	Result Entry By (Name)	Test Management	ORG_1 (Sample ID : QC_Sample_3)	Updated
8	ACT_4425 24 Apr, 2025 [02:43:21 PM GMT+05:30]	Result Date and Time	Test Management	ORG_1 (Sample ID : QC_Sample_3)	Updated
9	ACT_4425 24 Apr, 2025 [02:43:21 PM GMT+05:30]	Result Upload Date	Test Management	ORG_1 (Sample ID : QC_Sample_3)	Updated
10	ACT_4425 24 Apr, 2025 [02:43:21 PM GMT+05:30]	Result Upload Time	Test Management	ORG_1 (Sample ID : QC_Sample_3)	Updated
11	ACT_4425 24 Apr, 2025 [02:43:21 PM GMT+05:30]	Turnaround Time	Test Management	ORG_1 (Sample ID : QC_Sample_3)	Updated
12	ACT_4426 24 Apr, 2025 [02:43:21 PM GMT+05:30]	Critical High	Test Management	ORG_1 (Sample ID : QC_Sample_3 Analyte Name : Bromide)	Updated

All Sample Management Study Management Storage Management Test Management User/Staff Management Request Management Inventory Management Client Management Instrument Management Kits Management Documentation Management Training Management

Why AI-Powered LIMS?

Facilitates predictive maintenance of lab equipment



Identifies bad reagents



Automates ordering



Identifies vendors that provide quality products



Helps set competitive pricing





In Conclusion...

What?

is ISO 17025
Accreditation?



Most Important
Standard

WHY?

does my lab
need it?



Legally Required



Credible



Competitive



How?

do I achieve it?



Deploy a LIMS

Parting Shot!

- Compliance is not optional—it's non-negotiable
- ISO 17025 builds trust with regulators, clients, and the public
- A smart LIMS is your lab's best compliance partner



Thank You For Your Attention!



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