



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

**Arun Apte**  
CEO, [CloudLIMS.com](https://www.cloudlims.com)

# 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

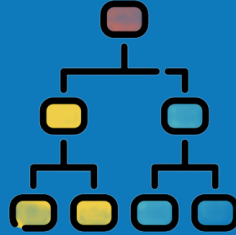


# ISO/IEC 17025:2017 Requirements

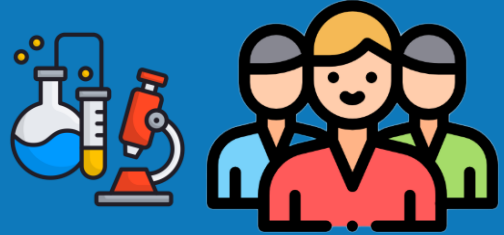
These requirements are covered in five sections:



General Requirements



Structural Requirements



Resource Requirements



Process Requirements



Management System Requirements

# General Requirements

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

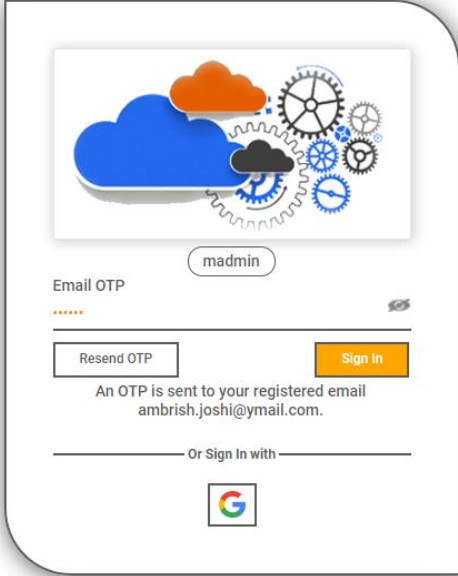
Confidentiality of Information

✓ **Clause 4.2**



# Two-Factor Authentication

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



The image shows a login interface for CloudLIMS Enterprise. At the top, the logo "CloudLIMS Empowering Labs Enterprise" is displayed. Below it is a graphic of a blue cloud, an orange cloud, and several interlocking gears. A text input field contains the username "madmin". Below the username field, the text "Email OTP" is shown, followed by a series of five asterisks representing the OTP. There are two buttons: "Resend OTP" and "Sign In". Below these buttons, a message states: "An OTP is sent to your registered email ambrish.joshi@gmail.com." At the bottom, there is a link "Or Sign In with" followed by a Google logo.

CloudLIMS  
Empowering Labs  
Enterprise

madmin

Email OTP  
\*\*\*\*\*

Resend OTP Sign In

An OTP is sent to your registered email  
ambrish.joshi@gmail.com.

Or Sign In with

G

# Structural Requirements

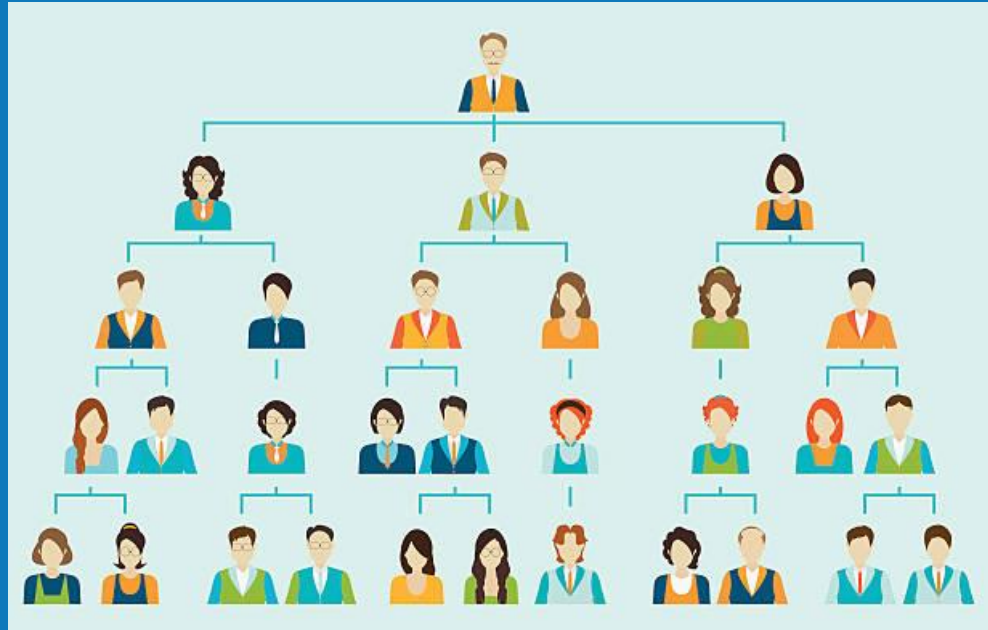
## ✓ Clause 5.5

**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 type="checkbox"/> Samples	<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 type="checkbox"/>	<input type="checkbox"/>
	<input type="checkbox"/> Edit	<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"/> Manage Access Permissions	<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"/> Transfer	<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"/> Restore	<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"/> Include Image Section	<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"/> Unlock Process Workflow	<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"/> Restricted Attachments View	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> Test	<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 type="checkbox"/>	<input type="checkbox"/>
	<input type="checkbox"/> Edit	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
	<input type="checkbox"/> Delete	<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"/> Transfer	<input type="checkbox"/>	<input 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"/> Validate Test Results: Review Process	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	<input type="checkbox"/> Unlock Test Results	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

# 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	: <a href="#">Link</a>
Instrument Name	: Q Exactive	Custodian *	: USR_1	Activated Alarms	: Maintenance
Instrument ID [External]	:	Custodian Name	: Master Admin	Associated Components	:
Type	: Fluorescence Spectrophotometer	Calibration History	: <a href="#">Link</a>		

**Purchase Information**

Serial Number	:	Purchased Date	:	Warranty	:
Manufacturer/Maker	: Thermo Scientific	Bill No.	:	Installed Date	:
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**

Maintenance Performed By	: USR_6	Order Provider	:	Maintenance Period	: Successful
--------------------------	---------	----------------	---	--------------------	--------------

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:

Show 50 entries











First

Previous

1

Next

Last

	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_4
8	Reagents_7	Solvent-C	Reagents				ml	No	26 Dec, 2032			31	Hazardous_4
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

# Process Requirements

## Review of Requests, Tenders, & Contracts

## ✓ Clause 7.1

## Validation of Methods

## ✓ Clause 7.2.2



## Assuring the Validity of Results

## ✓ Clause 7.7.1

 <b>Portland State</b> 1000 NE Oregon Street Portland, OR 97232		<b>PURCHASE ORDER WORKSHEET</b>				
<b>Portland State University</b> 1st Knowledge Center Plaza City		P.O. # _____ DATED: _____				
Department of Biology 4000 Lewis Center Blvd PO Box 751 Portland, OR 97237		Contract: _____ Quote from: _____				
VENUE		SUPP # _____ Department of Biology 750 4th St 1735 SW 10th Ave., Room 2-4 Portland, OR 97201				
FOR CASH		CREDIT TERM				
<input type="checkbox"/> 30 days <input type="checkbox"/> Other: _____		<input type="checkbox"/> Net 30 <input type="checkbox"/> Other: _____				
DELIVERY DATE						
INDEX #	CATALOG #	DESCRIPTION	QUANTITY	UNIT	UNIT PRICE	TOTAL
SUBTOTAL _____ Shipping Cost _____ Tax _____ Total _____						
EQUIPMENT: _____ Serial Number: _____ Location: _____ Date Received: _____						

## 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


 **CloudLIMS**  
Empowering Labs


 ENVIRO LAB


Master Admin  
Last Login: Apr 02, 2025 06:14:52 PM


 Home

 Dashboard


 All Tasks

 Alerts (202)





 Audit Trail

 My Tasks

☒ From 01 Jan, 2025 To 05 Feb, 2025

Filter:  

Show 50 entries

	Action	Task ID	Status	Task Assignment Status	Entry Date/Time	Category	Details	From User	To User	Status Changed By	
1	Accept   Reject	TSK_54		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	31 .
2	Accept   Reject	TSK_53		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	17 .
3	Accept   Reject	TSK_52		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	14 .
4	Accept   Reject	TSK_51		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	06 .

Showing 1 to 4 of 4 entries

# 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]

View Last Saved Results: [Link](#)

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

Test Analyte Runs

Test Run: [Icon] [Icon] Runs 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	TCLP Metals	Arsenic	SW-846 60100	0.03	0.04	BRL	mg/L
2	TCLP Metals	Cadmium	SW-846 60100	0.042	0.04	ARL	mg/L
3	TCLP Metals	Lead	SW-846 60100	0.04	0.04	0.04	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 : Result Verified By : M\_ADMIN

Result Entry By : CL\_ADMIN Result Upload Time : 00:44 Result Verified (Name) : Nick Freeman

Result Date and Time : Result Entry By (Name) : CloudLIMS Admin

Turnaround Time Status

File Testing Start Date : Turnaround Time : Turnaround Time Status :

Save Results Cancel

## Send For Validation

### Send for Validation

Validation Process : ☐ For Review ☒ For Approval

Send

Cancel

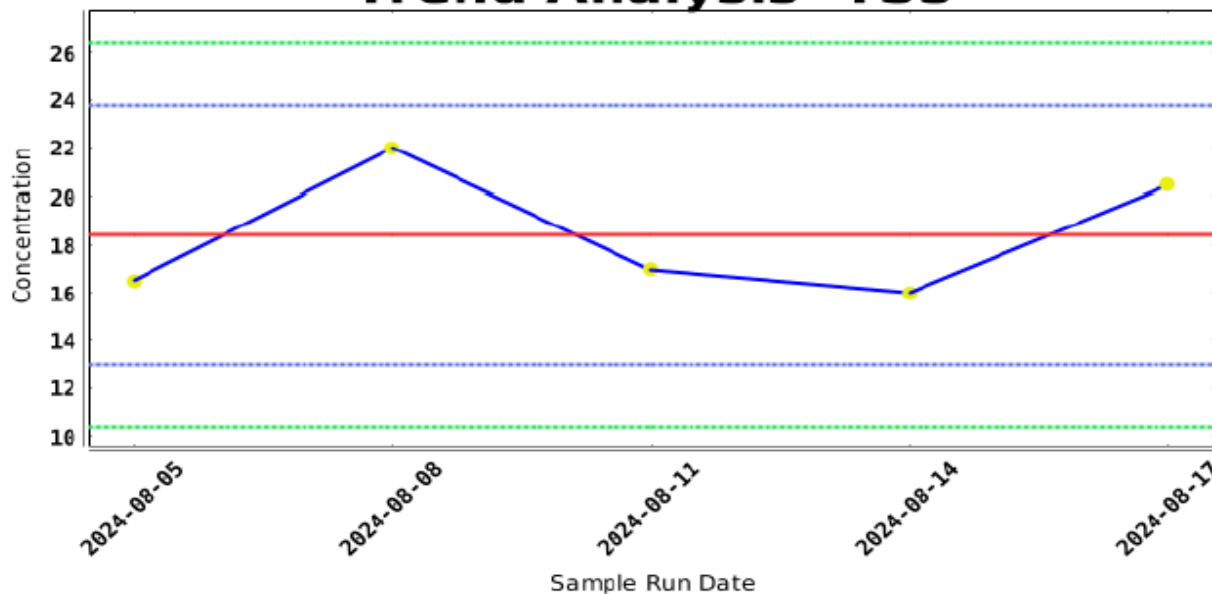
# QC Feature: Trend Analysis

Analyze trends across a set of test results

Identify variation in test results

Take corrective actions

## Trend Analysis- TSS



**Limits: 15.0-24.0**

—●— **#1-Result**

**#1-Plotted: 5**

**#1-Rejected: 3**

— **Mean: 18.4**

**Std. Deviation: 2.68**

- - - **2s: 13.04-23.76**

- - - **3s: 10.36-26.44**

# Manage QC Samples & Their Test Results

Automate tracking of QC samples: blanks, spikes, duplicates

Compare QC results against defined limits

Result Entries

Test ID:

Test Type:

Test Group:

Test Code:

Associated Samples

#	Sample ID	Sample ID [External]	Sample Testing Status	Type	QC Sample?	Associated Analyte
1	DWAT_26	1A0109	Under Testing	Drinking Water		<input type="text" value="Bromide* Chloride"/>
2	QC_Sample_3	QC3	Under Testing	QC Samples	QC Sample	<input type="text" value="Bromide* Chloride"/>

Flagging Sets :

Test Results For Sample ID: DWAT\_26

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

☐ Update

Quantity to be Deducted

Total Consumed

ml

Current Quantity:

ml

View Last Saved Results: [Link](#)

Test Analyte Runs

Test Runs:

Runs Number:

Freeze:

Select Attributes to be Copied:

Update Records: From:

To:

Apply

<input type="checkbox"/>	#	Analyte Group	Flagging Set Name	Analyte Name *	Observed Value	Unit	Limit
<input type="checkbox"/>	1	<input type="text" value="Inorganic"/>	<input type="text" value="Env_Flag"/>	<input type="text" value="Bromide"/>	<input type="text" value="0.3"/>	<input type="text" value="mg/L"/>	<input type="text"/>
<input type="checkbox"/>	2	<input type="text" value="Inorganic"/>	<input type="text" value="Env_Flag"/>	<input type="text" value="Chloride"/>	<input type="text" value="0.9"/>	<input type="text" value="mg/L"/>	<input type="text"/>

# 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

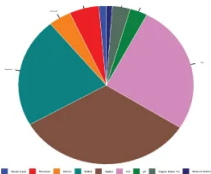
**Sample ID [External]:** So\_Nhs\_01      **Temperature at Collection Site:** 10  
**Temperature at Collection Site-Unit:** °C      **Collection Date:** 10 Jun, 2019  
**Entry Date:** 10 Jun, 2019      **Entry Time:** 06:37:35 PM

### Analytes and Results

Analyte Name	Observed Value	PPM	Equivilate	% 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)	TTLIC (mg/kg)
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:

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	
127	DWAT_26	1A0109		Drinking Water		56	Tim David	USR_3	<a href="#">Log</a>	ml	1A0109150372300	pH 6-9.5	32	4
128	DWAT_25	1A0110		Drinking Water		23	Tim David	USR_3	<a href="#">Log</a>	ml	1A0109150372301	Potable Water Analysis	30	6
129	DWAT_24	1A0111		Drinking Water		5	Tim David	USR_3	<a href="#">Log</a>	ml	1A0109150372302	Potable Water Analysis	30	6
130	DWAT_23	1A0112		Drinking Water		23	Tim David	USR_3	<a href="#">Log</a>	ml	1A0109150372303	Bacteriological Analysis needed	30	1
131	DWAT_22	1A0113		Drinking Water		43	Tim David	USR_3	<a href="#">Log</a>	ml	1A01091503723012	Potable Water Analysis	27	4
132	DWAT_21	1A0114		Drinking Water		51	Master Admin	USR_1	<a href="#">Log</a>	ml	1A01091503723014	Less than 10 color units	30	4
133	DWAT_20	1A0115		Drinking Water		50	Master Admin	USR_1	<a href="#">Log</a>	ml	1A01091503723015	pH 6-9.5	33	4
134	DWAT_19	1A0116		Drinking Water		55	Master Admin	USR_1	<a href="#">Log</a>	ml	1A01091503723016	Potable Water Analysis	30	4
135	DWAT_18	1A0117		Drinking Water		5	Master Admin	USR_1	<a href="#">Log</a>	ml	1A01091503723017	Potable 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	Modified On	: 23 Apr, 2025
Document ID [External]	: TSS	Time of Creation	: 02:47:32 PM	Time of Modification	: 02:49:48 PM
Version	: 1.2	Expiration Date	: 22 Apr, 2026	Approvers	: USR_2
Custodian	: USR_1	Remind Before Expiry (Days)	: 30	Custodian Name	: Master Admin



\* 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

Environmental-Policy-SOP.pdf

EPA.pdf

Environmental Management Plan.pdf

THE ENVIRONMENTAL GOODS AND SERVICES.pdf

ENVIRONMENTAL ASSESSMENT GUIDELINES.pdf

Documents

Lab-SoP.pdf

Environmental

Properties

History

General Information

Folder ID \*

Title \*

Folder ID [External]

Type

Custodian

Created On

Time of Creation


Modified On


Time of Modification

Custodian Name


\* 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 Import Data Log

View: Current ☒ Show All ☐ Selective Display: From  To  Select User: Master Admin (USR\_1) Select Module: Test Management Show

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

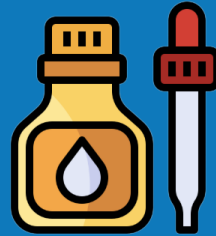
Training Management

# 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!



[www.cloudlims.com](http://www.cloudlims.com)  
+1-302-789-0447  
[support@cloudlims.com](mailto:support@cloudlims.com)

