



OCEANUS

A LIMS BY ALLOWAY

Product Guide and Visual Tour



TABLE OF CONTENTS

Oceanus—A LIMS by Alloway	3
Advantages of Advanced Data Management.....	4
Finding a LIMS that Fits.....	5
Technical Requirements.....	6
User Licenses.....	7
Customization.....	8
Project Templates.....	9
Sample Log-In and Tracking.....	10
Audit Trail.....	11
Queries and Search.....	12
Data Entry.....	13
Calculations.....	14
Permit Compliance.....	15
Quality Control.....	16
Reports and Exporting Data.....	17
Qualified Training and Support.....	18
Contact Alloway.....	19

OCEANUS — A LIMS BY ALLOWAY

Is your municipal laboratory looking for an information management system that's high performance yet affordable? A system that generates data you can stand by? A system you can depend on? All in an easy-to-use format that's backed by personalized support?

A Laboratory Information Management System (LIMS) organizes samples, performs calculations, stores data, and performs other related functions. LIMS are powerful tools that can revitalize your laboratory and become an indispensable part of your operation. But LIMS can also be complicated and expensive. With so many choices on the market, how do you choose the right LIMS for your lab?

Alloway's approach to LIMS is simple. Your LIMS should adapt to your laboratory—not the other way around. Alloway's Oceanus LIMS is an affordable option for municipal laboratories. You receive a powerful LIMS without sacrificing ease of use.

Alloway is a full-service environmental laboratory with more than 25 years of experience. We're a leader in environmental analysis and lab support products. We recognize your challenges because we face them too. We understand what a LIMS needs to achieve, and we know that impersonal, overly complicated systems are not the answer. We are so confident in Oceanus that we use it in our own labs.

This booklet will give you a visual tour of Oceanus. If you would like to schedule a free, web-based demo, please call [800-436-1243](tel:800-436-1243) or e-mail contact.us@alloway.com



ADVANTAGES OF ADVANCED DATA MANAGEMENT

All laboratories—regardless of size—need a system they can rely on, day-after-day, to seamlessly integrate their facilities, staff, and data. A LIMS can be as simple as a paper-and-pen logbook. At some point, however, your workload may necessitate a more advanced system. What good is a high-powered LIMS if it takes too much time to learn and creates a gap between your lab and your data?

Data management is not a one-size-fits-all solution, so how do you know if your lab needs a LIMS?

Do these scenarios sound familiar?

- Are you using outdated software or a hodgepodge of spreadsheets and charts?
- Are you locked into an inefficient system because “that’s how it’s always been done”?
- Have you exceeded your limits and been unable to pinpoint problems?
- Or worse, have violations gone unnoticed?
- Do you have difficulty tracking data trends or filtering your results?
- Do you find yourself scrambling to prepare for an audit?
- Are you finding errors due to disorganization or oversight?
- Does your lab struggle to measure data against known controls and quality standards?
- Have budget constraints discouraged you from exploring your LIMS options?

If you feel like you’re trying to fix a failing system, all while leaving your lab vulnerable to more problems, you are a candidate for a LIMS. There’s no reason to continue to pour time and resources into a system that just does not work. You deserve a LIMS that meets your needs, and your communities and customers deserve the best data you can provide.

Oceanus LIMS can improve the quality of your laboratory, minimize data entry, centralize your information, expedite data retrieval, facilitate quality control activities, reduce errors, and automate reporting.

Let Alloway’s Oceanus LIMS make the difference for your lab.

FINDING A LIMS THAT FITS

Information management systems do not have to be daunting. You just need to find a LIMS that fits. Alloway recommends you follow these steps when choosing a LIMS:

1. **Analyze your laboratory.** Evaluate your size and the number of analysts who work in your laboratory. List the number of tests you run and how many samples you analyze on a weekly or monthly basis. Reflect on your current methods of logging in samples, tracking data, and generating reports.
2. **Itemize specific needs.** Differentiate between what you need and what you want. Think carefully about your challenges and how a LIMS could alleviate those problems.
3. **Establish your budget and set realistic goals.** Remember that everyone adjusts to change differently. Determine who will be using the LIMS and how you can adequately prepare them for the change.
4. **Choose a reputable vendor with many years of experience.** Your vendor should understand what you do. You may want to ask for customer referrals. Be sure to find out about the vendor's long-term support plan and any support fees.
5. **Ask plenty of questions.** Be sure to preview the LIMS in a demonstration or by doing a test-drive.
6. **Start simple and add on as you go.** You may be tempted to buy a LIMS with all the bells and whistles, but this will increase your purchase cost and make your LIMS that much more complicated and difficult to learn.
7. **Assess and revise.** Once your LIMS has been implemented, assess the system and make modifications as needed. Keep in mind that a LIMS is not a magic bullet. You must commit to using the LIMS to see improvements in your laboratory.

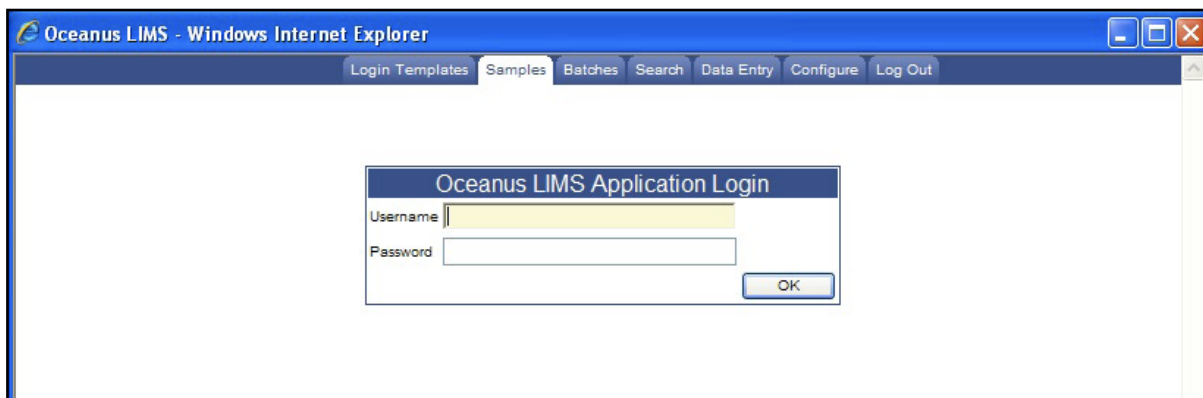
The following pages will give you an overview of the features and benefits of Oceanus.

TECHNICAL REQUIREMENTS

Oceanus is Internet Explorer Based. You must use Microsoft Version 5.5 or higher. Because Oceanus is Internet-based, it loads quickly and does not get bogged down with data.

Oceanus is stored on a network. Even with multiple locations, your staff can access the same LIMS through a Virtual Private Network (VPN).

You do not have to worry about losing your data. A Structured Query Language (SQL) script backs up the database on a hard drive. Alloway can even transfer your old data into Oceanus.



USER LICENSES

Oceanus comes with three standard, concurrent user licenses. Three licenses are plenty for a laboratory with up to 10 users. More licenses are available. A common mistake is to over-buy user licenses. Think about how much time you want your analysts to spend on the LIMS versus performing tests. Most likely they will not be logged in at all times. Oceanus can track your user activity, which will help you analyze how many licenses you really need. You can always add more licenses, but you cannot remove existing licenses.

Each user is assigned a unique user name and password. You can assign different user access levels to increase data security.

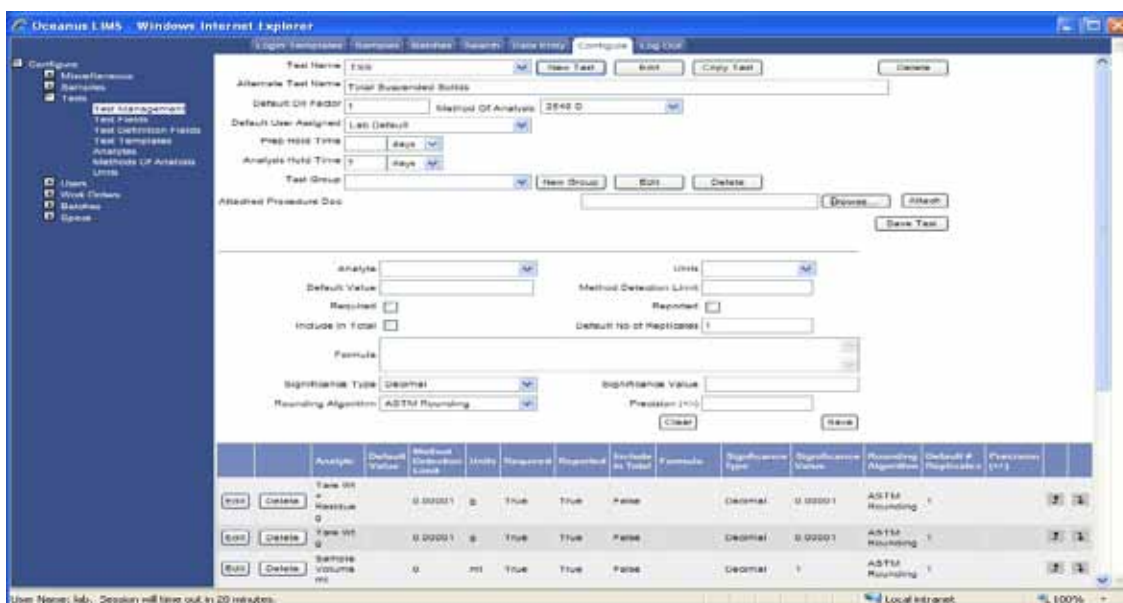
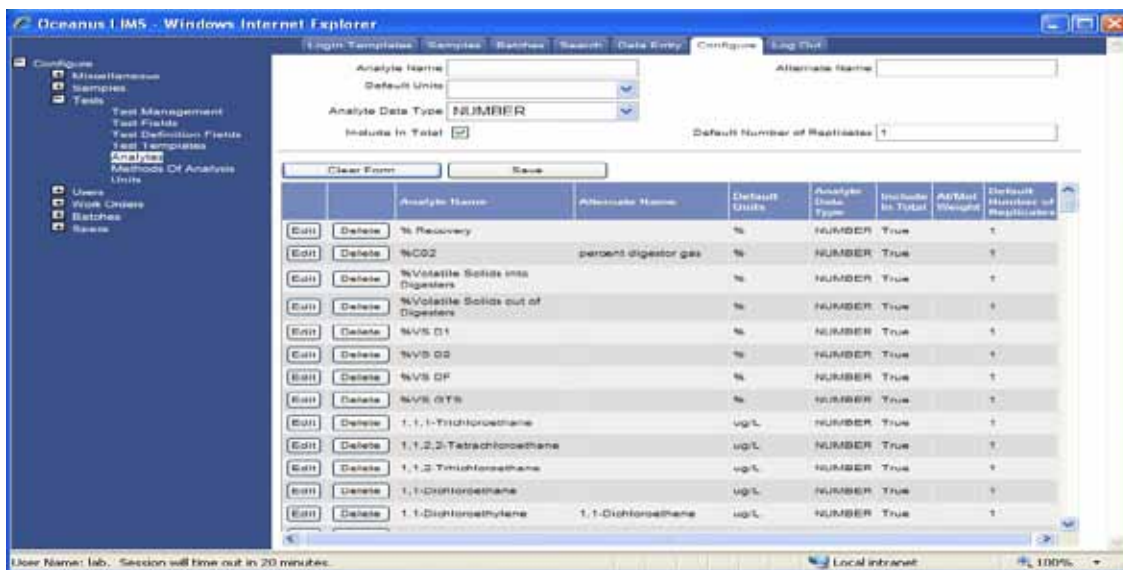
	Last Name	First Name	Login Name	Email Address	User Type	Active
<input type="button" value="Edit"/>	admin	admin	admin		Standard Users	True
<input type="button" value="Edit"/>	Default	Lab	Lab		Standard Users	True
<input type="button" value="Edit"/>	User	Lab	User		Standard Users	True

User Name: lab. Session will time out in 20 minutes. Local intranet 100%

CUSTOMIZATION

Configure Oceanus according to the tests you perform. Set preferred units and analytes. Easily create, edit, and delete tests.

Oceanus can be tailored to your preferences. It is a flexible system that adapts to your laboratory. Alloway listens to your specifications and performs most of the customization prior to installation.



PROJECT TEMPLATES

Project templates save time and ensure consistency. Easily build templates for recurring projects and tests.

The screenshot shows the 'Manage Login Templates' page in the Oceanus LIMS system. The interface is displayed in a Windows Internet Explorer browser window. At the top, there are navigation tabs for 'Login Templates', 'Samples', 'Batches', 'Search', 'Data Entry', 'Configure', and 'Log Out'. Below the navigation is a keyboard layout with letters A-Z and numbers 0-9. The main content area is divided into three sections: 'Work Order Template', 'Sample Data', and 'Test Data'. The 'Work Order Template' section includes a dropdown for 'Work Order Template' (set to 'Weekly Samples') and a 'Work Order Template Status' dropdown (set to 'Default Status'). The 'Sample Data' section contains various input fields: 'Number To Create' (1), 'Sample Status' (RECEIVED), 'Spec to Apply' (empty), 'Sample Location' (Outfall), 'Date Received' (None), 'Sample Preservative' (None), and 'Sample Comments' (empty). It also features a 'Sample Type' dropdown (Basic Sample), a 'Date Sampled' field with a 'Now' button, 'Time Collected' (empty), and a 'Collection Method' dropdown. An 'Assign Spec' button is located between 'Spec to Apply' and 'Date Sampled'. The 'Test Data' section includes a 'Tests to Add' dropdown, a 'Use Templates' checkbox, a 'Priority' field, a 'Default Test Status' dropdown (LOGGED-IN), and a 'Default User Assigned' dropdown with an 'Add' button. At the bottom of the browser window, a status bar shows 'User Name: job', 'Session will time out in 20 minutes', 'Local intranet', and '100%' zoom.

SAMPLE LOG-IN & TRACKING

Once samples are logged in, they are assigned unique, sequential ID numbers. From there, you can print coordinating labels and bench sheets.

Custom statuses help you track samples as they progress through your lab. You will always know what work still needs to be completed.

Even if you subcontract some of your analyses, you can still use Oceanus effectively. Simply log in the sample and then enter the results when you receive them.

The screenshot displays the Oceanus LIMS web application in a Windows Internet Explorer browser window. The interface includes a navigation menu on the left with a tree view of samples, including 5245 (Outfall) and its sub-items: BOD Carb 5 (Lab Default), TSS (Lab Default), 5246 (Primary Effluent), 5247 (Outfall), 5248 (Primary Effluent), 5249 (Outfall), and 5250 (Primary Effluent). The main content area is titled "Sample Data for Sample: 5245" and contains the following fields and controls:

- Navigation:** Login Templates, Samples, Batches, Search, Data Entry, Configure, Log Out
- Search/Filter:** "Samples Saved in Last" dropdown set to "1 Day", "with Status" dropdown, "Add New Sample" button, and "or Saved Query" dropdown.
- Sample Information:** "Sample Type" dropdown (Basic Sample), "Sample ID" text box (5245), "Sample Status" dropdown (RECEIVED), "Date Sampled" text box (9/28/2009 11:28 AM) with a "Now" link, "Spec to Apply" text box with an "Assign Spec" button, "Sample Location" dropdown (Outfall), "Date Received" text box (09/28/2009 11:28 AM) with a "Now" link, "Sample Preservative" dropdown (4 C, None, ICE), and "Collection Method" dropdown (Composite).
- Comments:** "Sample Comments" text area with up/down arrows.
- Actions:** Delete, Remove, Retrieve Sample, Add Like Sample, Print, Save buttons.
- Test Management:** "Add/Remove Tests from Sample: 5245" section with "Use Test Template" checkbox, "Test Name" dropdown, "Assigned To User" dropdown (Lab Default), "Dilution Factor" text box (1), "Sample Test Status" dropdown (LOGGED-IN), and Remove/Add buttons.

At the bottom of the browser window, the status bar shows "User Name: lab. Session will time out in 20 minutes.", "Local intranet", and "100%" zoom level.

AUDIT TRAIL

Oceanus lets you enter information directly from your chain of custody: sample date, time, location, and sampler information. Everything you need to create an audit trail will be right there in Oceanus.

The screenshot shows the 'Sample Fields' configuration page in the Oceanus LIMS application. The interface includes a navigation menu on the left, a top navigation bar, and a main configuration area. The configuration area has a form for creating or editing a field, and a table listing existing fields.

Configuration Form:

- Sample Type: Basic Sample
- Field Name: Associated Sample
- Get Data From List: Sample Location
- Field Type: String
- Field Length: (empty)
- Required Field:
- Copy Field on Add Like:
- Default Value: (empty)

Table of Existing Fields:

		Name	From List	Length	Field Type	Required	Copy Field On Add Like	Default Value	
Edit	Delete	Sample Location	Sample Location		String	True	True		↑ ↓
Edit	Delete	Date Received			Date/Time	True	True		↑ ↓
Edit	Delete	Sample Preservative	Sample Preservative		String	False	True		↑ ↓
Edit	Delete	Collection Method	Collection Method		String	False	True		↑ ↓
Edit	Delete	Sample Comments			Memo	False	True		↑ ↓

Footer: User Name: lab, Session will time out in 20 minutes. Local intranet 100%

QUERIES & SEARCH

Custom queries are easy to create and invaluable for searching the database quickly.

The screenshot displays the Oceanus LIMS search interface within a Windows Internet Explorer browser window. The interface includes a navigation menu with options like 'Login Templates', 'Samples', 'Batches', 'Search', 'Data Entry', 'Configure', and 'Log Out'. The 'Search' tab is active, showing a 'Saved Queries' dropdown set to 'Incomplete BOD' and a 'Delete this Query' button. The 'Search Criteria' section is divided into 'Criteria' and 'Fields to Display' tabs. Under 'Criteria', three conditions are listed: 'Test Name = BOD 5', 'Test Status = LOGGED-IN', and 'Sample Type != QC Sample'. Below the criteria are buttons for 'REMOVE', 'AND', and 'ADD'. At the bottom of the criteria section, there are buttons for 'Save Query As ...' (set to 'Incomplete BOD'), 'Get Samples', 'Go Direct to Excel', and a checked 'Public Query' checkbox. The results table below shows three rows of data:

Sample ID	Sample Location	Test Name	Date Sampled
5246	Primary Effluent	BOD 5	9/28/2009 11:30:00 AM
5248	Primary Effluent	BOD 5	9/28/2009 11:30:00 AM
5250	Primary Effluent	BOD 5	9/28/2009 11:30:00 AM

The footer of the browser window shows 'User Name: lab. Session will time out in 20 minutes.' and 'Local intranet'.

DATA ENTRY

You can enter data directly or use batches.

As your needs grow, you have the option to interface instruments with Oceanus. While this option may reduce transcription errors, instrument interface can be costly. Keep in mind that not all instruments are supplied with LIMS connectivity, and it does not make sense to interface an old instrument that will be replaced soon.

The screenshot shows the Oceanus LIMS Data Entry interface. At the top, there is a navigation menu with options: Login Templates, Samples, Batches, Search, Data Entry (selected), Configure, and Log Out. Below the menu, there are several sections for data loading and entry:

- Load Samples from Saved Query:** A dropdown menu is set to "Incomplete BOD". There is a checkbox for "No Limit Checking on Data Load (Faster Loading)" and a "Refresh Data" button.
- Load Samples from Work Order/Batches:** Radio buttons for "Work Order" (selected) and "Batches". A "Get Samples" button is below.
- Test to Enter Data For:** A dropdown menu is set to "BOD 5".
- Replicate Number:** A dropdown menu is set to "1".
- Export Data To Excel for Analysis:** A button.

Below these sections is a "Data Entry" table. Above the table, there is a "Change Test Status To:" dropdown set to "Don't Change Statuses" and a "Save Data" button.

Sample ID	Sample Location	Test Name	Date Sampled	Prep Date	Date Analyzed	BOD 5	Known Value	% Recovery
5246	Primary Effluent	BOD 5	2009-09-28 11:30:00					
5248	Primary Effluent	BOD 5	2009-09-28 11:30:00					
5250	Primary Effluent	BOD 5	2009-09-28 11:30:00					

At the bottom of the browser window, it shows "User Name: lab. Session will time out in 20 minutes." and "Local intranet" with a 100% zoom level.

CALCULATIONS

Run sophisticated calculations right in Oceanus or with the help of auxiliary spreadsheets in Microsoft® Excel.

Oceanus can handle standard mathematical operators (+, -, *, /) and parentheses. Oceanus also supports the following functions: "sin", "cos", "tan", "arcsin", "arccos", "arctan", "sqrt", "max", "min", "floor", "ceiling", "log", "ln", "round", "abs", "neg", and "pos".

The screenshot displays the Oceanus LIMS web interface within a Windows Internet Explorer browser window. The interface includes a navigation menu on the left with options like 'Login Templates', 'Samples', 'Batches', 'Search', 'Data Entry', 'Configure', and 'Log Out'. The main content area is divided into several sections:

- Batches Saved in Last:** A section with a dropdown menu set to '1 Day' and a 'with Status' dropdown set to '+ALL+'. There is an 'Add New Batch' button and a 'Refresh' button.
- Batch Data:** A form for entering batch information. Fields include:
 - Batch Type: Standard Batch
 - Created By User: Lab Default
 - Text: TSS
 - Batch Run Date: [Blank]
 - Date Out: [Blank]
 - Worksheet: Attach File
 - Method of Analysis: [Blank]
 - Batch Notes: [Text Area]
 - Batch ID: 2033
 - Batch Status: IN-PROCESS
 - Procedure: [Blank]
 - Time In: [Blank]
 - Time Out: [Blank]
- Results:** A table displaying analysis results. The table has columns for Sample ID, Prep Date, Date Analyzed, Tare Wt + Resl, Tare Wt. g, Sample Volum, Wgt. of dried r, TSS, Known Value, and % Recovery. The first row shows data for sample 8248 (Outfall).

At the bottom of the interface, there are buttons for 'Delete', 'Add Existing Sample', 'Add Sample', 'Add Like Batch', 'Print', and 'Save'. The status bar at the bottom indicates 'User Name: lab. Session will time out in 20 minutes.' and 'Local intranet 100%'.

Sample ID	Prep Date	Date Analyzed	Tare Wt + Resl	Tare Wt. g	Sample Volum	Wgt. of dried r	TSS	Known Value	% Recovery
8248 (Outfall)			1.48382	1.48260	800	0.00132	3		
8248 (Primary Effluent)									
8247 (Outfall)									
8248 (Primary Effluent)									
8249 (Outfall)									
8250 (Primary Effluent)									

PERMIT COMPLIANCE

Set up fields according to your permit limitations and be instantly notified when a value is out of range. You can even have an e-mail sent to involved parties. You can be proactive about getting to the root of any problems.

Oceanus also helps you stay organized. All your data are in one place. Once your analyses are complete, you are ready to report. No more missed reporting deadlines.

Define Required Analytes -- Webpage Dialog
Weekly Samples: Basic Sample (1)

Select a Test:

Show Only Required Analytes for Limits and Rounding

Flags and Method Detection Limit Limits Rounding

Analyte Name	Lower Limit	Upper Limit	Lower Warning Limit	Upper Warning Limit
BOD Carb 5		15		10

Oceanus LIMS - Windows Internet Explorer

Login Templates | **Samples** | Batches | Search | Data Entry | Configure | Log Out

Samples Saved in Last:

Test Name:

Dilution Factor:

Prep Hold Date:

Analysis Hold Date:

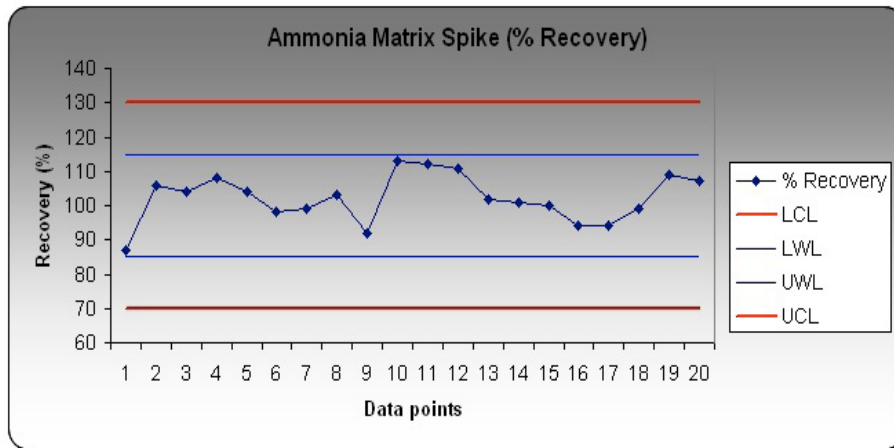
Set-up Date & Time:

Grid Mode:

Analyte	Units	Average	Replicate 1	Replicate
BOD Carb 5	mg/L	20	20	

QUALITY CONTROL

Guarantee your data with enhanced quality control built right into Oceanus: calibration curves, percent recovery, blanks, spikes, duplicates, and relative percent differences. Generate compatible control charts in Microsoft® Excel.



Sample ID	Test Name	% Recovery	Final Vol ml	Initial Vol ml	Instr. Result	Known Value	NH3 N Ammonia
QC9452	Ammonia in Wastewater	87	100	100	31.3	10	31.3
QC9489	Ammonia in Wastewater	106	100	100	31.7	10	31.7
QC9534	Ammonia in Wastewater	104	100	100	28.3	10	28.3
QC9609	Ammonia in Wastewater	108	100	100	27.9	10	27.9
QC9667	Ammonia in Wastewater	104	100	100	30.1	10	30.1
QC9698	Ammonia in Wastewater	98	100	100	25.5	10	25.5
QC9754	Ammonia in Wastewater	99	100	100	26.1	10	26.1
QC9785	Ammonia in Wastewater	103	100	100	26.4	10	26.4
QC9817	Ammonia in Wastewater	92	100	100	25.6	10	25.6
QC9879	Ammonia in Wastewater	113	100	100	33.5	10	33.5
QC9911	Ammonia in Wastewater	112	100	100	27.8	10	27.8
QC9952	Ammonia in Wastewater	111	100	100	27	10	27
QC9992	Ammonia in Wastewater	102	100	100	26.8	10	26.8
QC10029	Ammonia in Wastewater	101	100	100	25.4	10	25.4
QC10079	Ammonia in Wastewater	100	100	100	27.4	10	27.4

REPORTS & EXPORTING DATA

Produce reports that show the data you want to see. Oceanus comes with 5 standard reports. You have the option of adding a report writer for unlimited custom reports.

You can visualize trends and even export data from Oceanus to compatible programs like Operator 10, Microsoft® Excel, and others. Oceanus works with any software that supports copy/paste functions.

You always have final review of your data. You can configure the system so that only select users can approve and change data once entered.

Analyte	Results	Units	PQL	Regulatory Limit	Extraction Date	Analysis Date	Analyst
Analytical Method: SW-8270C							
o-Cresol, TCLP	<0.50	mg/L	0.50	200	09/23/2009	09/23/2009	LW
m,p-Cresol, TCLP	<1.00	mg/L	1.00	200	09/23/2009	09/23/2009	LW
Pentachlorophenol, TCLP	<0.50	mg/L	0.50	100	09/23/2009	09/23/2009	LW
2,4,5-Trichlorophenol, TCLP	<0.50	mg/L	0.50	400	09/23/2009	09/23/2009	LW
2,4,6-Trichlorophenol, TCLP	<0.50	mg/L	0.50	2.00	09/23/2009	09/23/2009	LW
2,4-Dinitrotoluene, TCLP	<0.10	mg/L	0.10	0.13	09/23/2009	09/23/2009	LW

Batch Data

Batch Type: Standard Batch	Batch ID: 2033
Created By User: Lab Default	Batch Status: IN-PROCESS
Test: TSS	Procedure:
Batch Run Date: <input type="text"/>	Time In: <input type="text"/>
Date Out: <input type="text"/>	Time Out: <input type="text"/>
Worksheet: <input type="button" value="Attach File"/>	
Method of Analysis: <input type="text"/>	
Batch Notes: <input style="width: 100%;" type="text"/>	

Results

Grid Mode: Normal - All Analytes Replicate Number: 1

Sample ID	Prep Date	Date Analyzed	Tare Wt + Resl	Tare Wt. g	Sample Volum	Wgt. of dried
8245 (Outfall)			1.45382	1.45250	500	0.00132
8246 (Primary Effluent)						
8247 (Outfall)						
8248 (Primary Effluent)						
8249 (Outfall)						
8250 (Primary Effluent)						

- Copy
- Paste
- Copy Entire Grid to Clipboard
- Export to Excel
- View Details ...
- Delete Replicate(s)



QUALIFIED TRAINING & SUPPORT

Even the most sophisticated LIMS is worthless if you are not trained to use it. With Alloway's professional support, you will feel confident in your LIMS. We listen to your needs and design a system that will work for you. We customize your LIMS prior to installation, shortening the transition period. Most importantly, Alloway is always available if you have questions or problems.

Oceanus LIMS is owned by Wavefront Software, Inc. Alloway has the rights to sell and support a municipal version of the Wavefront LIMS under the name Oceanus LIMS. When you purchase Oceanus, you receive the rights to use Oceanus.

After the first year, there is annual fee that entitles you to continuing support and periodic updates.

CONTACT ALLOWAY

Alloway guarantees that Oceanus is the best choice for your laboratory. Over the past 25 years, we have constantly refined our own data-management process. From our first “homegrown” LIMS to our current system, having a LIMS has made revolutionary improvements in our productivity. We are confident you can experience similar benefits with Oceanus.

If you’re struggling to keep you lab operating the way it should, let Alloway show you how effective information management systems can be.

For more information about Oceanus, please visit www.alloway.com, e-mail contact.us@alloway.com or call [800-436-1243](tel:800-436-1243). We would be happy to arrange a free Web-Ex demonstration of Oceanus.



An underwater photograph showing the sun shining through the surface of the water, creating a bright, hazy glow and rays of light filtering down into the deep blue water. The water's surface is visible at the top, with ripples and reflections of the sun.

IN A SEA OF LIMS POSSIBILITIES,
ONE CHOICE IS CLEAR...

OCEANUS