

Stack - 2025 (Every 2 Years)

ALS Canada Ltd.

Permit: 1057 / Due Date: March 31, 2025

08 - Minerals Lab - Digestion Fume hood #2 (EF-P2)					
Hydrochloric acid					
Test Dates:	Mar 13, 2025	Mar 13, 2025	Mar 13, 2025		
Test Results:	< 2.5000 mg/m3	< 2.6000 mg/m3	< 2.6000 mg/m3		
Average of Test Results:	2.567 mg/m3				
Contaminant Permit Limit:	20.0000 mg/m3				
Test Result Comments:					
Flow Results:	23.500 m3/min	23.700 m3/min	22.600 m3/min		
Average of Flow Results:	23.267 m3/min				
Permitted Flow Limit:	36.20 m3/min				
Flow Result Comments:					
Hydrofluoric acid					
Test Dates:	Mar 13, 2025	Mar 13, 2025	Mar 13, 2025		
Test Results:	< 1.7000 mg/m3	< 1.7000 mg/m3	< 2.6000 mg/m3		
Average of Test Results:	2 mg/m3				
Contaminant Permit Limit:	10.0000 mg/m3				
Test Result Comments:					
Flow Results:	23.500 m3/min	23.700 m3/min	22.600 m3/min		
Average of Flow Results:	23.267 m3/min				
Permitted Flow Limit:	36.20 m3/min				
Flow Result Comments:					
Nitric acid					
Test Dates:	Mar 13, 2025	Mar 13, 2025	Mar 13, 2025		
Test Results:	< 0.6000 mg/m3	< 0.5000 mg/m3	< 0.4000 mg/m3		
Average of Test Results:	0.5 mg/m3				
Contaminant Permit Limit:	10.0000 mg/m3				
Test Result Comments:					
Flow Results:	23.500 m3/min	23.700 m3/min	22.600 m3/min		
Average of Flow Results:	23.267 m3/min				
Permitted Flow Limit:	36.20 m3/min				
Flow Result Comments:					

09 - Minerals Lab - Digestion Fume hood #3 (EF-P3)					
Hydrochloric acid					
Test Dates:	Mar 13, 2025	Mar 13, 2025	Mar 13, 2025		
Test Results:	< 2.6000 mg/m3	< 7.0000 mg/m3	< 2.6000 mg/m3		
Average of Test Results:	4.067 mg/m3				
Contaminant Permit Limit:	20.0000 mg/m3				
Test Result Comments:					
Flow Results:	24.800 m3/min	25.000 m3/min	25.400 m3/min		
Average of Flow Results:	25.067 m3/min				
Permitted Flow Limit:	36.20 m3/min				
Flow Result Comments:					
Hydrofluoric acid					
Test Dates:	Mar 13, 2025				
Test Results:	28.2000 mg/m3	21.2000 mg/m3	9.8000 mg/m3		
Average of Test Results:	19.733 mg/m3				
Contaminant Permit Limit:	10.0000 mg/m3				
Out of Compliance Explanation:	The fumehoods inside the department have been inspected, and no clear cause for the out-of-range readings could be identified. All fumehoods were performing the same tasks (Totals Digest), and each fumehood was digesting the same number of racks with the same amount of acid. Facilities Maintenance conducted an inspection of the scrubber and found no apparent issues. This will be further investigated by Facilities Maintenance to determine whether the scrubber’s functionality could have contributed to the increased release of fumes.				
Plan of Action to Obtain Compliance:	Conduct a detailed inspection of the scrubber system to verify its operation schedule and ensure it is functioning correctly. If necessary, perform further inspections or make adjustments to the scrubber system to improve fume containment and exhaust efficiency.				
Test Result Comments:					
Flow Results:	24.800 m3/min	25.000 m3/min	25.400 m3/min		
Average of Flow Results:	25.067 m3/min				
Permitted Flow Limit:	36.20 m3/min				
Flow Result Comments:					

Nitric acid					
Test Dates:	Mar 13, 2025	Mar 13, 2025	Mar 13, 2025		
Test Results:	5.4000 mg/m3	3.1000 mg/m3	0.6000 mg/m3		
Average of Test Results:	3.033 mg/m3				
Contaminant Permit Limit:	10.0000 mg/m3				
Test Result Comments:					
Flow Results:	24.800 m3/min	25.000 m3/min	25.400 m3/min		
Average of Flow Results:	25.067 m3/min				
Permitted Flow Limit:	36.20 m3/min				
Flow Result Comments:					
13 - Minerals Lab - Digestion Fume hood #7 (EF-P7)					
Hydrochloric acid					
Test Dates:	Mar 13, 2025				
Test Results:	< 2.6000 mg/m3	< 2.6000 mg/m3	< 3.4000 mg/m3		
Average of Test Results:	2.867 mg/m3				
Contaminant Permit Limit:	20.0000 mg/m3				
Test Result Comments:					
Flow Results:	26.600 m3/min	26.600 m3/min	27.600 m3/min		
Average of Flow Results:	26.933 m3/min				
Permitted Flow Limit:	36.20 m3/min				
Flow Result Comments:					
Hydrofluoric acid					
Test Dates:	Mar 13, 2025	Mar 13, 2025	Mar 13, 2025		
Test Results:	< 7.7000 mg/m3	< 1.8000 mg/m3	< 5.7000 mg/m3	<	
Average of Test Results:	5.067 mg/m3				
Contaminant Permit Limit:	10.0000 mg/m3				
Test Result Comments:					
Flow Results:	26.600 m3/min	26.600 m3/min	27.600 m3/min		
Average of Flow Results:	26.933 m3/min				
Permitted Flow Limit:	36.20 m3/min				
Flow Result Comments:					

Nitric acid					
Test Dates:	Mar 13, 2025				
Test Results:	< 1.1000 mg/m3	< 0.5000 mg/m3	< 2.2000 mg/m3		
Average of Test Results:	1.267 mg/m3				
Contaminant Permit Limit:	10.0000 mg/m3				
Test Result Comments:					
Flow Results:	26.600 m3/min	26.600 m3/min	27.600 m3/min		
Average of Flow Results:	26.933 m3/min				
Permitted Flow Limit:	36.20 m3/min				
Flow Result Comments:					
18 - Minerals Lab - Digestion Fume hood #12 (EF-P12)					
Hydrochloric acid					
Test Dates:	Mar 13, 2025				
Test Results:	< 2.6000 mg/m3	< 2.6000 mg/m3	< 10.3000 mg/m3		
Average of Test Results:	5.167 mg/m3				
Contaminant Permit Limit:	20.0000 mg/m3				
Test Result Comments:					
Flow Results:	25.100 m3/min	24.300 m3/min	21.200 m3/min		
Average of Flow Results:	23.533 m3/min				
Permitted Flow Limit:	36.20 m3/min				
Flow Result Comments:					

Hydrofluoric acid					
Test Dates:	Mar 13, 2025				
Test Results:	< 7.7000 mg/m3	< 2.7000 mg/m3	21.2000 mg/m3		
Average of Test Results:	10.533 mg/m3				
Contaminant Permit Limit:	10.0000 mg/m3				
Out of Compliance Explanation:	The fumehoods inside the department have been inspected, and no clear cause for the out-of-range readings could be identified. All fumehoods were performing the same tasks (Totals Digest), and each fumehood was digesting the same number of racks with the same amount of acid. Facilities Maintenance conducted an inspection of the scrubber and found no apparent issues. This will be further investigated by Facilities Maintenance to determine whether the scrubber's functionality could have contributed to the increased release of fume				
Plan of Action to Obtain Compliance:	Conduct a detailed inspection of the scrubber system to verify its operation schedule and ensure it is functioning correctly. If necessary, perform further inspections or make adjustments to the scrubber system to improve fume containment and exhaust efficiency.				
Test Result Comments:					
Flow Results:	25.100 m3/min	24.300 m3/min	21.200 m3/min		
Average of Flow Results:	23.533 m3/min				
Permitted Flow Limit:	36.20 m3/min				
Flow Result Comments:					
Nitric acid					
Test Dates:	Mar 13, 2025				
Test Results:	< 1.6000 mg/m3	< 0.4000 mg/m3	< 6.4000 mg/m3		
Average of Test Results:	2.8 mg/m3				
Contaminant Permit Limit:	10.0000 mg/m3				
Test Result Comments:					
Flow Results:	25.100 m3/min	24.300 m3/min	21.200 m3/min		
Average of Flow Results:	23.533 m3/min				
Permitted Flow Limit:	36.20 m3/min				
Flow Result Comments:					