

Example Sampling Schedule

Water System XY-1234567	Task Type ID	Requirement ID	Requirement Description	Sample For	SPS Date	SPE Date	PEV Date	ST Date	PE Violation	MCL Level	Sample Result
Rule - Test Rule											
Treatment Plant 1											
Sampling Point 1											
		12345	7983475	Routine Sample	Compound 1	6/1/2020	8/31/2020	9/15/2020	M, R	0.5 µg/ml	
		12346	7983476	Routine Sample	Compound 2	6/1/2020	8/31/2020	9/15/2020	M, R	0.5 µg/ml	
		12347	7983477	Routine Sample	Compound 3	6/1/2020	8/31/2020	9/15/2020	M, R	0.5 µg/ml	
		89265	7983478	Waived Sample	Compound 4	6/1/2020	8/31/2020	WAIVED	WAIVED		
		12349	7983479	Routine Sample	Compound 5	6/1/2020	8/31/2020	9/15/2020	M, R	0.2 µg/ml	
		12350	7983480	Routine Sample	Compound 6	6/1/2020	8/31/2020	9/15/2020	M, R	0.5 µg/ml	
Intake 1											
Sampling Point 1											
		12345	7983481	Routine Sample	Compound 1	6/1/2020	8/31/2020	9/15/2020	M, R	0.5 µg/ml	
		12346	7983482	Routine Sample	Compound 2	6/1/2020	8/31/2020	9/15/2020	M, R	0.5 µg/ml	
		12347	7983483	Routine Sample	Compound 3	6/1/2020	8/31/2020	9/15/2020	M, R	0.5 µg/ml	
		89265	7983484	Waived Sample	Compound 4	6/1/2020	8/31/2020	WAIVED	WAIVED		
		12349	7983485	Routine Sample	Compound 5	6/1/2020	8/31/2020	9/15/2020	M, R	0.2 µg/ml	
		12350	7983486	Routine Sample	Compound 6	6/1/2020	8/31/2020	9/15/2020	M, R	0.5 µg/ml	

Example Temporal Testing Outline

Scenario	Set Date/Time (Local Time)	Transaction	Test Criteria	Expected Result(s)	Outcome
1	5/15/2020 24:00:00	Synopsis: The water system took a sample at the treatment plant <i>before</i> the SPS date on 5/1/2020. Because the samples were not taken during the specified timeframe, the water system did not meet the sampling requirements.			
1.1		Receive sample result for requirement 7983475, ST date = 5/4/2020, sample result = NON DETECT	Was sample taken during the sampling period?	No	Sample taken before sampling period, do not use sample result for compliance.
1.2			Did sample exceed MCL?	No	Record result, requirement pending.
1.3		Receive sample result for requirement 7983476, ST date = 5/4/2020, sample result = NON DETECT	Was sample taken during the sampling period?	No	Sample taken before sampling period, not use sample result for compliance.
1.4			Did sample exceed MCL?	No	Record result, requirement pending.
1.5		Receive sample result for requirement 7983477, ST date = 5/4/2020, sample result = NON DETECT	Was sample taken during the sampling period?	No	Sample taken before sampling period, not use sample result for compliance.
1.6			Did sample exceed MCL?	No	Record result, requirement pending.
1.7		Receive sample result for requirement 7983479, ST date = 5/4/2020, sample result = 0.4 µg/ml	Was sample taken during the sampling period?	No	Sample taken before sampling period, not use sample result for compliance.
1.8			Did sample exceed MCL?	Yes	Sample taken before sampling period, not use sample result for compliance, but generate an alert about result exceeding the MCL.
1.9		Receive sample result for requirement 7983480, ST date = 5/4/2020, sample result = NON DETECT	Was sample taken during the sampling period?	No	Do not use sample result for compliance.
1.10		Did sample exceed MCL?	No	Record result, requirement pending.	
2	6/25/2020 24:00:00	Synopsis: After receiving notification from the regulator that samples were taken too early for the treatment plant, the water system took another sample on 6/16/2020 during the sampling period. However, the laboratory failed to report the sample result for requirement 7983480. Samples were received within the 10 business day processing period.			
2.1		Receive sample result for requirement 7983475, ST date = 6/16/2020, sample result = NON DETECT	Was sample taken during the sampling period?	Yes	Record result, use result for compliance determination, requirement completed.
2.2			Did sample exceed MCL?	No	Water system is in compliance.
2.3			Was the sample reported within the 10 business day processing period?	Yes	No action

Example Temporal Testing Outline

Scenario	Set Date/Time (Local Time)	Transaction	Test Criteria	Expected Result(s)	Outcome	
2.4		Receive sample result for requirement 7983476, ST date = 6/16/2020, sample result = NON DETECT	Was sample taken during the sampling period?	Yes	Record result, use result for compliance determination, requirement completed.	
2.5			Did sample exceed MCL?	No	Water system is in compliance.	
2.6			Was the sample reported within the 10 business day processing period?	Yes	No action	
2.7			Receive sample result for requirement 7983477, ST date = 6/16/2020, sample result = NON DETECT	Was sample taken during the sampling period?	Yes	Record result, use result for compliance determination, requirement completed.
2.8				Did sample exceed MCL?	No	Water system is in compliance.
2.9				Was the sample reported within the 10 business day processing period?	Yes	No action
2.10			Receive sample result for requirement 7983479, ST date = 6/16/2020, sample result = 0.4 µg/ml	Was sample taken during the sampling period?	Yes	Record result, use result for compliance determination, requirement completed.
2.11				Did sample exceed MCL?	Yes	Issue candidate MCL violation.
2.12				Was the sample reported within the 10 business day processing period?	Yes	No action
3	7/7/2020 24:00:00	Synopsis: A follow-up call from the regulator informed the water system that sample results for requirement 7983480 were not received. The water system reported the requirement on 7/7/2020 - after the 10 business day processing period.				
3.1		Receive sample result for requirement 7983480, ST date = 6/16/2020, sample result = NON DETECT	Was sample taken during the sampling period?	Yes	Record result, use result for compliance determination, requirement completed.	
3.2			Did sample exceed MCL?	No	Water system is in compliance.	
3.3			Was the sample reported within the 10 business day processing period?	No	Issue candidate reporting violation.	
4	8/11/2020 24:00:00	Synopsis: The water system takes samples for the intake on 8/4/2020 - within the sampling period. In another goof, the laboratory fails to report the results for requirement 7983482 by the end of the 10-day reporting period. All of the other sample results for Intake 1 are received on time.				

Example Temporal Testing Outline

Scenario	Set Date/Time (Local Time)	Transaction	Test Criteria	Expected Result(s)	Outcome
4.1		Receive sample result for requirement 7983481, ST date = 8/4/2020, sample result = NON DETECT	Was sample taken during the sampling period?	Yes	Record result, use result for compliance determination, requirement completed.
4.2			Did sample exceed MCL?	No	Water system is in compliance.
4.3			Was the sample reported within the 10 business day processing period?	Yes	No action.
4.4		Receive sample result for requirement 7983483, ST date = 8/4/2020, sample result = NON DETECT	Was sample taken during the sampling period?	Yes	Record result, use result for compliance determination, requirement completed.
4.5			Did sample exceed MCL?	No	Water system is in compliance.
4.6			Was the sample reported within the 10 business day processing period?	Yes	No action.
4.7		Receive sample result for requirement 7983484, ST date = 8/4/2020, sample result = NON DETECT	Was sample taken during the sampling period?	Yes	Record result, use result for compliance determination, requirement completed.
4.8			Did sample exceed MCL?	No	Water system is in compliance.
4.9			Was the sample reported within the 10 business day processing period.	Yes	No action.
4.10		Receive sample result for requirement 7983485, ST date = 8/4/2020, sample result = 0.4 µg/ml	Was sample taken during the sampling period?	Yes	Record result, use result for compliance determination, requirement completed.
4.11			Did sample exceed MCL?	Yes	Issue candidate MCL violation
4.12			Was the sample reported within the 10 business day processing period?	Yes	No action
4.13		Receive sample result for requirement 7983486, ST date = 8/4/2020, sample result = NON DETECT	Was sample taken during the sampling period?	Yes	Record result, use result for compliance determination, requirement completed.
4.14			Did sample exceed MCL?	No	Water system is in compliance.
4.15			Was the sample reported within the 10 business day processing period?	Yes	No action.

Example Temporal Testing Outline

Scenario	Set Date/Time (Local Time)	Transaction	Test Criteria	Expected Result(s)	Outcome
5	9/15/2020 24:00:00	Synopsis: Water system XY-1234567 sends in the sample result for requirement 7983482. However, the sample results were received after the PEV date.			
5.1		Check for sample results received for requirement 7983482.	Where sample results received?	No	1. Issue candidate Reporting Violation. 2. Issue candidate Monitoring Violation
6	9/17/2020 24:00:00	Synopsis: After receiving a verbal notice of violation (monitoring and reporting), water system XY-1234567 sends the missing sample result for requirement in for requirement 7983482.			
6.1		Receive sample result for requirement 7983486, ST date = 8/4/2020, sample result = NON DETECT	Was sample taken during the sampling period?	Yes	No action
6.12			Is there a pending monitoring violation (candidate) for this requirement?	Yes	Rescind Monitoring Violation, reason = sample taken on time, rescinded by system.
6.3			Did sample exceed MCL?	No	Water system is in compliance.