Reasonable Potential Analyzer

Facility Name **City of Belen**

NPDES Permit Number NM0020150   Outfall Number 001

Proposed Critical Dilution* 18

*Critical Dilution in draft permit, do not use % sign.

Enter data in yellow shaded cells only. Fifty percent should be entered as 50, not 50%.

Test Data

Date (mm/yyyy)	VERTEBRATE				INVERTEBRATE			
	Lethal NOEC	Sublethal NOEC	Lethal TU	Sublethal TU	Lethal NOEC	Sublethal NOEC	Lethal TU	Sublethal TU
9/30/20	23	23	4.35	4.35	23	23	4.35	4.35
12/31/20	23	23	4.35	4.35	23	23	4.35	4.35
3/31/21	23	23	4.35	4.35	23	23	4.35	4.35
6/30/21	23	23	4.35	4.35	23	23	4.35	4.35
9/30/21	23	23	4.35	4.35	23	23	4.35	4.35
12/31/21	23	23	4.35	4.35	23	23	4.35	4.35
3/31/22	23	23	4.35	4.35	23	23	4.35	4.35
6/30/22	23	23	4.35	4.35	23	23	4.35	4.35
9/30/22	23	23	4.35	4.35	23	23	4.35	4.35
12/31/22	23	23	4.35	4.35	23	23	4.35	4.35
3/31/23	23	23	4.35	4.35	23	23	4.35	4.35
6/30/23	23	23	4.35	4.35	23	23	4.35	4.35
9/30/23	23	23	4.35	4.35	23	23	4.35	4.35
12/31/23	23	23	4.35	4.35	23	23	4.35	4.35
3/31/24	23	23	4.35	4.35	23	23	4.35	4.35
6/30/24	23	23	4.35	4.35	23	23	4.35	4.35
9/30/24	23	23	4.35	4.35	23	23	4.35	4.35
Dec-24	23	23	4.35	4.35	23	23	4.35	4.35
	23	23	4.35	4.35	23	23	4.35	4.35
Count			18	18			18	18
Mean			4.348	4.348			4.348	4.348
Std. Dev.			0.000	0.000			0.000	0.000
CV			0.0	0			0	0

RPMF 1.1 #N/A   1.1 #N/A

5.556 Reasonable Potential Acceptance Criteria

Vertebrate Lethal   0.861   No Reasonable Potential exists. Permit requires WET monitoring, but no WE

No Reasonable Potential exists. Permit requires WET monitoring, l

Vertebrate Sublethal   #N/A   #N/A

No Reasonable Potential exists. Permit requires WET monitoring, l

Invertebrate Lethal   0.861   No Reasonable Potential exists. Permit requires WET monitoring, but no WE

No Reasonable Potential exists. Permit requires WET monitoring, l

Invertebrate Sublethal   #N/A   #N/A

No Reasonable Potential exists. Permit requires WET monitoring, l

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Date (mm/yyyy)	VERTEBRATE				INVERTEBRATE			
	Lethal NOEC	Sublethal NOEC	Lethal TU	Sublethal TU	Lethal NOEC	Sublethal NOEC	Lethal TU	Sublethal TU

Determining "Reasonable Potential" for Excursions Above Ambient Criteria Using Effluent Data Only

EPA recommends finding that a permittee has "reasonable potential" to exceed a receiving water quality standard if it cannot be demonstrated with a high confidence level that the upper bound of the lognormal distribution of effluent concentrations is below the receiving water criteria at specified low-flow conditions.

Step 1   Determine the number of total observations ("n") for a particular set of effluent data (concentration or toxic units [TUs]), and determine the highest value from that data set.

Step 2   Determine the coefficient of variation for the data set. For a data set where n<10, the coefficient of variation (CV) is estimated to equal 0.6, or the CV is calculated from data obtained from a discharger. For a data set where n>0, the CV is calculate as standard deviation/mean. For less than 10 items of data, the uncertainty in the CV is too large to calculate a standard deviation or mean with sufficient confidence.

Step 3   Determine the appropriate ratio from the table below.

Step 4   Multiply the highest value from a data set by the value from the table below. Use this value with the appropriate dilution to project a maximum receiving water concentration (RWC).

Step 5   Compare the projected maximum RWC to the applicable standard (criteria maximum concentration, criteria continuous concentration [CCC], or reference ambient concentration). EPA recommends that permitting authorities find reasonable potential when the projected RWC is greater than an ambient criterion.

T limit.
but no WET limit.

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Determining "Reasonable Potential" for Excursions Above Ambient Criteria Using Effluent Data Only

EPA recommends finding that a permittee has "reasonable potential" to exceed a receiving water quality standard if it cannot be demonstrated with a high confidence level that the upper bound of

Reasonable Potential Analyzer

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