Reasonable Potential Analyzer

Facility Name AF	CWUA Sout	hside Water F	Reclaimation Plant		
NPDES Permit Number	NMO	022250		Outfall Number	001
Proposed Critical Dilution	100	%			

*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		Enter data in yellow shaded cells only. Fifty percent should be entered as 50, not 50%.									
		VERTEBRATE				INVERTEBRAT	E				
Date (mm/vvvv)	Lethal NOEC	Sublethal NOEC	Lethal TU	Sublethal TU	Lethal NOEC	Sublethal NOEC		Sublethal TU			
Mar-20	92	92	1.09		92	92	1.09	1.09			
May-20	92	92	1.09	1.09	92	92	1.09	1.09			
Aug-20	92	92	1.09	1.09	92	92	1.09	1.09			
Nov-20	92	92	1.09	1.09	92	92	1.09	1.09			
Feb-21	92	92	1.09	1.09	92	92	1.09	1.09			
May-21	92	92	1.09	1.09	92	92	1.09	1.09			
Aug-21	92	92	1.09	1.09	92	92	1.09	1.09			
Nov-21	92	92	1.09	1.09	92	92	1.09	1.09			
Feb-22	92	92	1.09	1.09	92	92	1.09	1.09			
May-22	92	92	1.09	1.09	92	92	1.09	1.09			
Aug-22	92	92	1.09	1.09	92	92	1.09	1.09			
Nov-22	92	92	1.09	1.09	92	92	1.09	1.09			
Feb-23	92	92	1.09	1.09	92	92	1.09	1.09			
	92	92		1.09	92	92					
May-23			1.09				1.09	1.09			
Aug-23	92 92	92 92	1.09 1.09	1.09 1.09	92 92	92 92	1.09 1.09	1.09			
Nov-23											
Mar-24	92	92	1.09	1.09	92	92	1.09	1.09			
	92	92	1.09	1.09	92	92	1.09	1.09			
Count			17	17			17	17			
Mean			1.087	1.087	1		1.087	1.087			
Std. Dev.			0.000	0.000			0.000	0.000			
CV			0.0		•		0	0			
					1						
RPMF			#N/A	#N/A	Ī		#N/A	#N/A			
		1			ı Acceptance C	riteria					
Vertebrate Le	athal			c i otennai P	eceptance C	1110114					
verteorate Le	tulai	#N/A	#N/A	D 11	D	D		n ', ' ' ' '			
			1	Reasonabl	e Potential e	xısts, Permit re	equires WE	Γ monitoring and W			
Vertebrate Su	ıblethal	#N/A	#N/A								
			-	Reasonabl	e Potential e	xists, Permit re	quires WE	Γ monitoring and W			
Invertebrate I	Lethal	#N/A	#N/A			,	. –	6			
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I	SI-1-41 1	10.77	<i>Ш</i> ХТ/ А	Reasonabl	e rotellital e	Aisis, i cillii It	quites WE	i monnornig and W			
Invertebrate S	Subjethal	#N/A	#N/A		.			.			
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Reasonable Potential Analyzer

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.

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