

Reasonable Potential Analyzer

Facility Name **Targa Midstream Chico Gas Plant**
 NPDES Permit Number **TX0000612**
 Proposed Critical Dilution* **4.73**

Outfall Number **001**

***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
Apr-11	56		1.79		75		1.33	
Oct-11	100		1.00		100		1.00	
Apr-12	59		1.69		59		1.69	
Oct-12	59		1.69		59		1.69	
Apr-13	59		1.69		59		1.69	
Oct-13	59		1.69		59		1.69	
Apr-14	59		1.69		59		1.69	
Oct-14	59		1.69		59		1.69	
Apr-15	59		1.69		59		1.69	
Oct-15	59		1.69		59		1.69	
Apr-16	59		1.69		59		1.69	

	56	0	1.79	#DIV/0!	59	0	1.69	#DIV/0!
Count			11	0			11	0
Mean			1.640	#DIV/0!			1.599	#DIV/0!
Std. Dev.			0.214	#DIV/0!			0.226	#DIV/0!
CV			0.1	0.6			0.1	0.6

RPMF			1.1	6.2			1.1	6.2
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Vertebrate Lethal 21.142 Reasonable Potential Acceptance Criteria
0.093 No Reasonable Potential exists. Permit requires WET monitoring, but no WET limit.

Vertebrate Sublethal #DIV/0! #DIV/0!

Invertebrate Lethal 0.088 No Reasonable Potential exists. Permit requires WET monitoring, but no WET limit.

Invertebrate Sublethal #DIV/0! #DIV/0!

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 $n > 10$, the CV is calculated 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.