

Table 1 Oxidative stress response results from the AREc32 reporter gene assay of water samples across three South African provinces.

Sample site code	Sample site name	Water type	Dry Season			Wet Season		
			IC ₁₀ ± SE (REF)	EC _{IR1.5} ± SE (REF)	Dichlorvos-EQ (µg/L)	IC ₁₀ ± SE (REF)	EC _{IR1.5} ± SE (REF)	Dichlorvos-EQ (µg/L)
Gauteng								
GP1	DWTP raw	SW	42.6 ± 3.3	6.7 ± 0.3	253.9	>200	>200	-
GP2	DWTP final treated	RW	64.3 ± 20.7	5 ± 0.2	342.4	60.9 ± 13.9	5.1 ± 0.2	333.4
GP3	DWTP backwash	RW	48.1 ± 3.4	6.5 ± 0.4	263.1	>200	>200	-
Limpopo								
LP1	Luvuvhu River	SW	188.2 ± 57	19 ± 0.9	89.7	30.7 ± 3.6	>30	-
LP2	Doornspruit River	SW	>200	37.4 ± 1	45.4	>200	21.1 ± 2.2	80.4

LP3	Albasini Dam outlet	SW	66.8 ± 10.2	24 ± 1.1	70.9	14.2 ± 1.1	>14	-
LP4	Nandoni Dam inlet	SW	23.8 ± 2	29.4 ± 2.3	57.9	13.8 ± 1.5	>14	-
LP5	Nandoni Dam outlet	SW	52.6 ± 9.2	41.1 ± 2.6	41.4	22.8 ± 1.6	47.2 ± 7.8	36
Mpumalanga								
MP1	Borehole water	GW	>200	135.5 ± 9	12.6	20.0 ± 6.4	>200	-
MP2	Middle of wetland	SW		1.5 ± 0.1	1106		4.9 ± 0.1	345
MP3	Bottled water	DW	>200	29.3 ± 3.1	57.9	>200	82.9 ± 6.9	20.5
MP4	Natural spring	SW	53.4 ± 5.3	7.8 ± 0.4	217.9	>200	38.8 ± 1.7	43.8
MP5	Upstream wetland	SW	>200	20.9 ± 1	81.2	63.3 ± 9.1	12.9 ± 0.5	131.7
MP6	Martin's Dam (DWTP raw)	SW		4.6 ± 0.1	367.2	>200	84.3 ± 7.5	20.2
MP7	Downstream wetland	SW		4.5 ± 0.2	376		75.5 ± 7.7	22.6

MP8	DWTP final treated	DW		135,5 ± 9	12.5		60.8 ± 2.5	28.0
MP9	WWTP effluent	WW	>200	1.8 ± 0.1	945.5	>200	4 ± 0.1	421.9
MP10	Zaaihoek Dam inlet	SW	72.4 ± 22.4	5.7 ± 0.3	299.9	>200	113.3 ± 17.2	15