



Australian Institute of Sport

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14 February 2000
Canberra ACT

David Telfer
Steve Johnson
Anti Bio Technology

Re: Revisiting Anti Bio benefits

Dear David and Steve

I'm very pleased to report that after 559 days of Anti Bio fitted at AIS Swim complex the benefits enjoyed are multiple. These benefits did not stop on saving in Chlorine only, but they extend to the overall savings in the chemicals for maintaining the proper water balance thus achieving better water quality. Also the maintenance of the Pool equipment is improved. For this 559 days we have no down time in the pool operation. A considerable saving in backwash water was also noted. Using my data delivery reference for Chlorine supply (before and after), the following is the outcome:

With Anti Bio (period 24/6/98 – 8/2/00)

Total Chlorine delivered to the site	36700 litres
Average daily use (36700:559)	65.65 litres
Cost per litre	\$0.31
Total cost	\$11,377.00

Please note that the above is the total chlorine delivery on site, which is also used for cleaning, supply for Hydrotherapy Pool, two Spa baths and two Plunge pools. Total amount of water in the complex is 3450000 Litres (3400m3)

Without Anti Bio (period 2/1/97 – 24/6/98)

Total chlorine delivered to the site	62800 litres
Average daily use (62800:559)	112.34 litres
Cost per litre	\$.31
Total cost	\$19,468.00
Total difference	\$8,091.00 or 41.56% savings

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The other benefits are as follow:

Before Anti Bio

Calcium 6 pallets @ 780Kgs each	4680Kgs per year
Acid (CO2-122.5Litres/week)	6370 Litres
Bicarb 2 pallets	1560Kgs
Backwash 4 filters@16m3 per B/W @ 6.5min x 52)	3328m3/year
Time spend in the Plant Room	3.5 hrs/day

With Anti Bio

Calcium 4 pallets @ 780Kgs =	3120Kgs.	Difference 1560Kgs	-33.3%
Acid (CO2-87.5 Lit/week)	4550Litres	Difference 1820 lit.	- 28%
Bicarb 1.4 pallets	1092Kgs.	Difference 468	-30%
Backwash time cut to 4 min/each	2048m3	Difference 1280m3	-38%
Time spend in the Plant Room	2hrs day.	Difference	-57%

I find this figures very interesting.

Please find attached the chlorine delivery data for the above period. Invoices for the other chemicals can be supplied on request.

Regards



Mick Vidinovski
Water Quality Officer AIS



To
Mr. David Telfer
Mr. Steve Johnson

Anti Bio Technology
Brisbane Queensland
PO Box 600
Ashmore 4214
from
Mick Vidinovski
Water Quality Control Officer

Re: Anti Bio Technology system

Dear Steve

The Anti Bio Technology System (ABTS), was introduced to me back in June 98. Since than, I have had time for testing the system under different conditions such as:

- a) High bathers load with high TDS levels and acceptable water balance,
- b) Pool water balance at minimal accepted level or deteriorated until such a time when there was no balance at all,
- c) Pool water in proper water balance

After three months of experimentation, I can state that in all of the above conditions the system was performing well in the way of reducing the need for chlorine and acid dosing, in order of 10 -40%.

a) Under the situation of high bathers load, the TDS level did not rise from it's starting point of 1800 ppm but leveled out, with the tendency to go down. Water looked good at all times. Also, it was noticed that the required Backwash time will need to be shortened for one minute which in term made saving of up to 3.5m3 of required water. No need for extra chlorine to compensate for higher pool demand, and very steady pH level..

b) Under the second condition, again, there was no need for extra chlorine, but the need for pH control (Acid demand) did increase. It is something which is absolutely normal under these conditions where the Alkalinity is high and the water balance is not there.

- c) Under the last condition, when all of the perimeters for good balanced water where met, the performance of the device is above all expectations. The saving on the chlorine needed, reached up to 40%, the demand for acid (CO2) lowered for 25% with pH "concreted" on 7.6 Also, the ORP level stabilised, and chemicals need for holding the water balance reduced to 60%

I will highly recommend the use of ANTI BIO TECHNOLOGY SYSTEM for commercial types of Swimming Pools, and I strongly feel that this would be money well spend.

Your sincerely

Mick Vidinovski
Water Quality Control Officer AIS
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