



From: Kempster Phillip (RQS) [mailto:KempsterP@dwaf.gov.za]
Sent: 08 July 2008 01:47 PM
To: avantu@mweb.co.za
Cc: Kempster Phillip (RQS); Diefenbach Axel (RQS)
Subject: Bioaugmentation waste treatment

Dear Lohmann,

I refer to our conversation this morning 8 July 2008 on the 50/50 program on the problems in the Kruger National Park area, the use of bioaugmentation seeding of waste streams to accelerate breakdown of organic matter and accelerate the microbial digestion of waste materials, particularly of an organic nature. Such technologies are widely used in the UK for the breakdown of such wastes as sewage as well as wastes containing sizeable lipid content. Use of the correct seeding material works very much like a compost accelerator, and is known to speed up bio degradation processing. Not only does it lower the presence of harmful organisms, but also lowers the toxic potential of organic wastes. Your Avantu bioaugmentation process would assist in biodegrading the organic buildup in the rivers and dams being experienced in and around the Kruger National Park as well as lower the toxic potential of the organic waste and harmful organisms.

Kind regards
Phillip

Dr Phillip Kempster
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From: Kempster Phillip (RQS) [mailto:KempsterP@dwaf.gov.za]
Sent: Monday, November 26, 2007 10:05 AM
To: Ligthelm Magda
Cc: Kempster Phillip (RQS); avantu@mweb.co.za
Subject: Use of Bioaugmentation to accelerate sewage waste decomposition

Dear Magda,

Lohmann Beams came to see me this morning as regards the question of whether bioaugmentation, i.e., the seeding of sewage and other similar wastes actually works or not. Bioaugmentation has been applied in many parts of the world, and provided the appropriate seeding microorganism cocktail is used, it **can and does** speed up the waste degradation process. For instance a different seeding material would be used for fat or oil rich wastes than for normal domestic sewage waste. While it is also true that the process can be hindered by the presence of toxic metals, this also applies to any other normal waste treatment process. It has been shown in the literature that bioaugmentation does speed up the waste degradation process.

My evaluation of the Avantu Bioaugmentation process conforms to the above, and has been found to be both a safe and effective method of contributing to the solution of many waste treatment problems in South Africa.

If you need any further clarification please contact me.
Kind regards

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