Ecolyse™

Harnessing Nature for Industrial Biocontrol

MICROBEID®

METAGENOMICS FOR ENERGY PRODUCTION

Ecolyse MicrobeID® Industrial Metagenomics Services robustly identifies the types and relative abundances of bacteria and archaea in your system. MicrobeID® utilizes Illumina MiSeq DNA sequencing platform and bioinformatics to unravel the microbial populations impacting the business of Energy production.

MicrobeID® Industrial Metagenomics Data

- Part of a whole-system approach to monitoring and controlling bacteria
- Determines the specific types and abundances of bacteria associated with biocorrosion, biofouling, biofilms, H_2S (hydrogen sulfide) production, acid production or other undesirable microbial byproducts.
- Better monitor biocide application and/or operation efficiency by determining how treatment affects your specific microbial population.
- Minimizes false-negative results caused by culturing bias associated with bug-bottles
- Provides publication-quality data utilizable for long term monitoring and presentations
- Long-term system monitoring by tracking the evolving microbial populations over time.

ID#	, -001	, -002	Total
Sample Label	Produced Waters	Post Treatment	2 Samples
# Bacteria Tested	17874	16972	34846 Tested
# Unique Species	59	13	68 Species
All Sulfidogens (SRB, SuRB, TRB)	14.1 ; 9	2.92 ; 3	9 Sulfidogens
Methanogen	21.88 ; 2	0.481 ; 2	2 Methanogens
Iron Reducing Bacteria	11.41 ; 2	2.43 ; 2	2 IRB
Key Sulfidogens, SRB, IRB, and Methanogens, % of Sample			
Methanolobus sp	10.464	0.051	Archaea; Methanogen; Anaerobe
Methanothermobacter sp	11.417	0.38	Archaea; Methanogen; Anaerobe
Deferribacter sp	3.044	1.2	Sulfidogen; IRB; Anaerobe
Desulfomicrobium sp	3.15	0.487	Sulfidogen; SRB; Anaerobe
Desulfovibrio alaskensis	0.229	0.006	Sulfidogen; SRB; Anaerobe
Desulfuromonas acetoxidans	8.367	1.236	Sulfidogen; IRB; Anaerobe;

MicrobeID™ reports are given in the form of tables and charts to summarize the data in a user-friendly format. These data indicate the specific bacteria down to the species level, their relative abundances and special metabolic/physiological properties (i.e. hydrogen sulfide producer, acid producer) to call-out those microbes that are disruptive to industrial applications.

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