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Mr. Jerry Fife
Pirana Systems
1875 Joy Road
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SUBJECT: Malibu Gardens Pirana Demonstration Project Laboratory Test Results

The Malibu Gardens Pirana Demonstration Project is evaluating seepage pit restoration with Pirana blend bacteria generated in onsite septic tanks. Four P-80 Pirana aerobic generators are installed in each of the systems tanks, which are a 6,000 gallon tank, 8,000 gallon tank, and lower tank group. Wastewater samples are being collected on a monthly basis as part of this project. Sample collection is witnessed by me, but independently tested by FGL Environmental, a California certified testing laboratory.

Attached, for your review, are spread sheets showing laboratory test results from December 2007 thru September 24, 2009 for the Pirana Demonstration Project. A final report is anticipated to be completed late 2010 or early 2011.

Please feel free to contact me at 805 520-0831 with any questions or comments.



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MALIBU GARDENS

Effluent Pump Station Lower Area Tank

Analytical Test Results	Date of Sampling																			
	December 2007	February 18, 2008	March 26, 2008	June 26, 2008	July 24, 2008	August 29, 2008	September 26, 2008	October 31, 2008	November 25, 2008	December 23, 2008	January 20, 2009	February 26, 2009	March 27, 2009	April 23, 2009	May 27, 2009	June 25, 2009	July 24, 2009	August 26, 2009	September 24, 2009	
Testing Laboratory	PGL	PGL	PGL	PGL	PGL	PGL	PGL	PGL	PGL	PGL	PGL	PGL	PGL	PGL	PGL	PGL	PGL	PGL	PGL	PGL
Constituent																				
Temperature (°C)	23.3	21.9	24.5	25.9	25.4	25.9	26	24.6	22.4	19.6	21.1	20.7	20.6	19.4	23	23.5	21.5	27.5	27.6	
pH (units)	7.48	7.78	7.92	7.74	7.67	7.55	7.5		7.59		7.78	7.85		7.75	7.78	7.7	7.41	7.83		
Conductivity (umhos/cm)	1024	1230	1370	1353	1128	1083	883	1309	10.17	1029	1044	1185	1207	1284	1296	1281	1078	1240	1118	
Oxygen, Dissolved (mg/L)	7.34	ND	3.93	0.05	2.04	4.82	2.14	3.16	1.85	5.56	2.21	3.74	5.32	5.78	5.58	5.29	5.09	1.34	5.8	
Ammonia-N (mg/L)	26	26	39	7	49	39	22	32	33	37	28	25	6.7	26	49	27	11.5	21.5	26	
BOD (mg/L)	88	70	80	42.9		ND	29.6	34.4	97.3		85.7	29.6		33.7	18.8	24	11.8	51.1		
BOD-Soluble (mg/L)	ND	ND	15.6	14.8	10.1	3.1	8.36	10.7	18.2	4.4	9	5.6	4.53	7.1	4.6	2.2	2.4	8.32	3.6	
Nitrate (mg/L)	ND	ND	1.1	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.7	0.4	ND	ND	
Nitrite (mg/L)	ND	ND	ND	ND	ND	22.6	ND	ND	ND	ND	ND	ND	ND	ND	ND	29.9	24.2	ND	ND	
Nitrogen, Total Kjeldahl (mg/L)	41.9	40	—	40	57	55	28	40	30	40	40	50	75	87	34	33	27	30	22	
Oil and Grease (mg/L)	6	9	6	17	3	5	5	9	7	16	8	4	5	7	ND	3	3	7	3	
Solids, Total Suspended (TSS) (mg/L)	61	50	31	10		21	17	22	40		41	19		20	26	15	12	17		
Turbidity (NTU)	48.6	35.8	24.3	13.9	20.8	5.3	8.6	15.4	20.2	10.2	21.3	9.2	8.9	7.3	0.4	8.1	7.8	29.1	10.1	
Total Coliform (MPN/100ml)	>1600	>1600	>1800	>1600	>1600	>1600	>1600	>1600	>1600	>1600	>1600	>1600	>1600	>1600	>1600	>1600	>1600	>1600	>1600	
Fecal Coliform (MPN/100ml)	>1600	>1600	>1600	>1600	>1600	>1600	>1600	>1600	>1600	>1600	>1600	>1600	>1600	>1600	>1600	500	>1600	>1600	>1600	
Enterococcus (MPN/100ml)	24200	—	>2420	>2420	>2420	>2420	>2420	>2420	>2420	>2420	>2420	>2420	>2420	>2420	>2420	816	>2420	>2420	>2420	