301(h)-Modified
NPDES Permit Reissuance
Questionnaire for Small Dischargers

Attachment C: Supporting Technical Analysis
Receiving Water Data

UTULEI WASTEWATER
TREATMENT PLANT

NPDES Permit No. AS0020001

Submitted By

AMERICAN SAMOA POWER AUTHORITY

May 1, 2006

Table 1
Receiving Water, Pago Pago Harbor
2002-2005 Results for Enterococci (Col/100ml)

American Samoa Water Quality Standard = 35/100 ml (geometric mean) or 104/100 ml (single sample maximum)

Location	Station	Depth	Aug-02	Mar-03	Aug-03	Feb-04	Sep-04	Feb-05	Aug-05	Min	Avg	Max
		Near Surface (3 ft)	41	0	0	0	0	0	250	0	42	250
		Mid Depth (60 ft)	0	30	727	10	20	85	41	0	130	727
	A1	Bottom (90-120 ft)	0	73	132	20	0	109	120	0	65	132
		Near Surface (3 ft)	327	0	10	10	41	0	238	0	89	327
		Mid Depth (60 ft)	91	41	0	0	0	0	145	0	40	145
	B1	Bottom (120 ft)	0	428	10	0	0	0	134	0	82	428
		Min	0	0	0	0	0	0	41			
		Avg	77	95	147	7	10	32	155			
		Max	327	428	727	20	41	109	250			
ZOM		**Geo.mean[1]**	**10**	**18**	**15**	**4**	**3**	**5**	**134**	0	75	727
		Near Surface (3 ft)	1421	0	0	52	0	0	0	0	210	1421
		Mid Depth (35-55 ft)	0	10	0	0	0	0	0	0	1	10
	C	Bottom (70-110 ft)	0	41	0	0	0	0	0	0	6	41
		Near Surface (3 ft)	0	0	0	10	0	0	0	0	1	10
		Mid Depth (60 ft)	0	0	0	10	0	0	10	0	3	10
	16	Bottom (120 ft)	0	0	0	0	0	10	20	0	4	20
		Near Surface (3 ft)	0	0	0	0	20	0	10	0	4	20
		Mid Depth (60 ft)	0	0	0	0	0	0	31	0	4	31
	18	Bottom (120 ft)	0	0	0	10	0	41	0	0	7	41
		Min	0	0	0	0	0	0	0			
		Avg	158	6	0	9	2	6	8			
		Max	1421	41	0	52	20	41	31			
Farfield		**Geo.mean[1]**	**2**	**2**	**1**	**3**	**1**	**2**	**3**	0	27	1421

	Depth (ft)	Min	Avg	Max	Geo. Mean
	Surface	0	69	1421	4
	Mid-depth	0	36	727	4
	Bottom	0	33	428	4
All Stations	All	0	46	1421	4

Comments: Stations where no enterococci were found (a value of 0), a value of 1 was used in order to calculate geometric mean.

Table 2
Receiving Water, Pago Pago Harbor
2002-2005 Results for Water Temperature (ºC)

Location	Station	Depth (ft)	Aug-02	Mar-03	Aug-03	Feb-04	Sep-04	Feb-05	Aug-05	Min	Avg	Max
Diffuser	U	3	27.3	30.6	27.7	30.1	28.0	29.4	N/A	27.3	28.9	30.6
		60	27.3	29.9	27.7	29.5	27.9	29.2	N/A	27.3	28.6	29.9
		90-120	27.2	29.7	27.7	29.5	27.9	29.1	N/A	27.2	28.5	29.7
	Min		27.2	29.7	27.7	29.5	27.9	29.1	N/A	27.2	28.6	30.6
	Avg		27.3	30.1	27.7	29.7	27.9	29.2	N/A			
	Max		27.3	30.6	27.7	30.1	28.0	29.4	N/A			
ZOM	A1	3	27.3	30.4	28.2	29.9	28.3	29.7	N/A	27.3	29.0	30.4
		60	27.3	30.0	27.7	29.5	27.9	29.2	N/A	27.3	28.6	30.0
		90-120	27.2	29.7	27.8	29.3	27.8	29.0	N/A	27.2	28.5	29.7
	B1	3	27.2	30.5	28.4	30.0	28.4	29.7	N/A	27.2	29.0	30.5
		60	27.4	29.8	27.8	29.5	27.9	29.4	N/A	27.4	28.6	29.8
		120	27.2	29.4	27.7	29.4	27.8	29.1	N/A	27.2	28.4	29.4
	Min		27.2	29.4	27.7	29.3	27.8	29.0	N/A	27.2	28.7	30.5
	Avg		27.3	30.0	27.9	29.6	28.0	29.4	N/A			
	Max		27.4	30.5	28.4	30.0	28.4	29.7	N/A			
Farfield	C	3	27.2	29.6	28.1	30.2	28.6	29.5	N/A	27.2	28.9	30.2
		35	27.6	29.7	27.7	29.6	27.9	29.3	N/A	27.6	28.6	29.7
		70-110	27.5	29.6	27.7	29.6	27.8	29.2	N/A	27.5	28.6	29.6
	16	3	28.0	30.2	28.9	30.0	28.2	30.0	N/A	28.0	29.2	30.2
		60	28.2	29.9	27.7	29.5	27.9	29.5	N/A	27.7	28.8	29.9
		120	28.1	29.8	27.6	29.4	27.8	29.4	N/A	27.6	28.7	29.8
	18	3	28.4	30.1	27.8	29.8	28.1	30.0	N/A	27.8	29.0	30.1
		60	28.0	29.9	27.7	29.5	27.9	29.4	N/A	27.7	28.7	29.9
		120	27.6	29.8	27.6	29.4	27.8	29.4	N/A	27.6	28.6	29.8
	Min		27.2	29.6	27.6	29.4	27.8	29.2	N/A	27.2	28.8	30.2
	Avg		27.8	29.8	27.9	29.7	28.0	29.5	N/A			
	Max		28.4	30.2	28.9	30.2	28.6	30.0	N/A			
Reference	5	3	27.6	30.3	28.1	29.9	27.9	29.4	N/A	27.6	28.9	30.3
		60	27.4	29.9	28.0	29.5	27.9	29.4	N/A	27.4	28.7	29.9
		120	27.2	29.8	28.1	29.6	27.8	29.3	N/A	27.2	28.6	29.8
	Min		27.2	29.8	28.0	29.5	27.8	29.3	N/A	27.2	28.7	30.3
	Avg		27.4	30.0	28.1	29.7	27.9	29.4	N/A			
	Max		27.6	30.3	28.1	29.9	27.9	29.4	N/A			

All Stations	Depth (ft)	Min	Avg	Max	Comments:
	Surface	27.2	29.0	30.6	
	Mid-depth	27.3	28.7	30.0	
	Bottom	27.2	28.6	29.8	
	All	27.2	28.7	30.6	

Table 3
Receiving Water, Pago Pago Harbor
2002-2005 Results for Salinity (PSU)

Location	Station	Depth (ft)	Aug-02	Mar-03	Aug-03	Feb-04	Sep-04	Feb-05	Aug-05	Min	Avg	Max
Diffuser	U	3	34.4	34.6	34.2	34.3	35.3	35.7	34.1	34.1	34.7	35.7
		60	35.5	35.1	34.2	34.8	35.4	35.7	34.2	34.2	35.0	35.7
		90-120	35.5	35.0	34.3	34.5	35.4	35.7	34.2	34.2	34.9	35.7
	Min		34.4	34.6	34.2	34.3	35.3	35.7	34.1	34.1	34.9	35.7
	Avg		35.1	34.9	34.2	34.5	35.3	35.7	34.2			
	Max		35.5	35.1	34.3	34.8	35.4	35.7	34.2			
ZOM	A1	3	34.7	34.9	34.1	34.3	35.3	35.1	33.0	33.0	34.5	35.3
		60	35.4	35.1	34.2	34.9	35.4	35.5	33.2	33.2	34.8	35.5
		90-120	35.5	35.2	34.3	34.9	35.4	35.6	33.4	33.4	34.9	35.6
	B1	3	34.4	34.9	34.8	34.5	35.3	35.3	34.6	34.4	34.8	35.3
		60	35.4	35.1	34.2	34.9	35.4	35.3	34.7	34.2	35.0	35.4
		120	35.5	35.1	34.3	34.9	35.4	35.3	34.8	34.3	35.0	35.5
	Min		34.4	34.9	34.1	34.3	35.3	35.1	33.0	33.0	34.8	35.6
	Avg		35.2	35.1	34.3	34.7	35.4	35.4	34.0			
	Max		35.5	35.2	34.8	34.9	35.4	35.6	34.8			
Farfield	C	3	33.2	35.2	33.8	34.4	35.3	35.1	35.3	33.2	34.6	35.3
		35	35.2	35.2	34.2	34.8	35.4	35.3	35.2	34.2	35.0	35.4
		70-110	35.4	35.3	34.2	34.9	35.4	35.4	35.0	34.2	35.1	35.4
	16	3	35.1	34.3	33.9	34.4	35.3	35.6	35.2	33.9	34.8	35.6
		60	35.3	35.0	34.2	34.8	35.4	35.7	35.4	34.2	35.1	35.7
		120	35.3	35.2	34.2	34.9	35.4	35.8	35.6	34.2	35.2	35.8
	18	3	35.0	34.7	33.9	34.2	35.3	35.5	36.0	33.9	34.9	36.0
		60	35.4	35.0	34.2	34.8	35.4	35.6	35.0	34.2	35.1	35.6
		120	35.5	35.1	34.3	34.9	35.4	35.5	34.8	34.3	35.1	35.5
	Min		33.2	34.3	33.8	34.2	35.3	35.1	34.8	33.2	35.0	36.0
	Avg		35.0	35.0	34.1	34.7	35.4	35.5	35.3			
	Max		35.5	35.3	34.3	34.9	35.4	35.8	36.0			
Reference	5	3	34.6	34.3	33.9	34.8	35.4	35.6	36.3	33.9	35.0	36.3
		60	35.6	35.1	34.3	34.9	35.4	35.0	36.4	34.3	35.2	36.4
		120	35.5	35.1	34.2	34.9	35.4	34.2	36.4	34.2	35.1	36.4
	Min		34.6	34.3	33.9	34.8	35.4	34.2	36.3	33.9	35.1	36.4
	Avg		35.2	34.8	34.1	34.9	35.4	34.9	36.4			
	Max		35.6	35.1	34.3	34.9	35.4	35.6	36.4			

All Stations	Depth (ft)	Min	Avg	Max
	Surface	33.0	34.8	36.3
	Mid-depth	33.2	35.0	36.4
	Bottom	33.4	35.0	36.4
	All	33.0	34.9	36.4

Comments:

Table 4
Receiving Water, Pago Pago Harbor
2002-2005 Results for DO (mg/l)

American Samoa Water Quality Standard = Not less than 70% saturation or less than 5.0 mg/l

Location	Station	Depth (ft)	Aug-02	Mar-03	Aug-03	Feb-04	Sep-04	Feb-05	Aug-05	Min	Avg	Max
Diffuser	U	3	6.17	6.52	6.17	6.22	6.14	5.82	6.45	5.82	6.21	6.52
		60	6.09	6.18	6.12	6.07	6.34	5.90	6.60	5.90	6.19	6.60
		90-120	5.94	5.78	6.13	6.01	6.13	5.63	6.39	5.63	6.00	6.39
	Min		5.94	5.78	6.12	6.01	6.13	5.63	6.39	5.63	6.13	6.60
	Avg		6.07	6.16	6.14	6.10	6.20	5.78	6.48			
	Max		6.17	6.52	6.17	6.22	6.34	5.90	6.60			
	Geo.mean		**6.07**	**6.15**	**6.14**	**6.10**	**6.20**	**5.78**	**6.48**			
ZOM	A1	3	6.32	6.36	6.85	6.17	6.11	5.94	6.52	5.94	6.32	6.85
		60	6.25	5.85	6.19	6.00	6.11	5.78	6.51	5.78	6.10	6.51
		90-120	6.04	5.64	5.95	5.88	6.03	5.85	6.69	5.64	6.01	6.69
	B1	3	6.30	6.11	6.23	6.03	6.18	5.87	6.47	5.87	6.17	6.47
		60	6.21	5.89	6.18	6.14	6.19	5.91	6.28	5.89	6.11	6.28
		120	6.18	5.08	6.08	6.01	5.97	5.93	6.37	5.08	5.95	6.37
	Min		6.04	5.08	5.95	5.88	5.97	5.78	6.28	5.08	6.11	6.85
	Avg		6.22	5.82	6.25	6.04	6.10	5.88	6.47			
	Max		6.32	6.36	6.85	6.17	6.19	5.94	6.69			
	Geo.mean		**6.22**	**5.81**	**6.24**	**6.04**	**6.10**	**5.88**	**6.47**			
Farfield	C	3	5.84	5.86	5.69	5.64	7.37	5.15	6.87	5.15	6.06	7.37
		35	5.97	5.84	6.17	5.99	6.19	5.73	6.69	5.73	6.08	6.69
		70-110	6.01	5.67	6.19	5.80	6.14	5.63	6.71	5.63	6.02	6.71
	16	3	6.18	6.05	6.24	5.77	6.15	5.84	6.79	5.77	6.15	6.79
		60	6.22	6.09	6.28	6.10	6.12	5.90	6.56	5.90	6.18	6.56
		120	6.07	5.86	6.17	5.83	6.22	5.80	6.88	5.80	6.12	6.88
	18	3	6.37	6.17	6.32	6.06	6.12	5.97	6.53	5.97	6.22	6.53
		60	6.27	6.05	6.30	5.76	5.98	5.98	6.86	5.76	6.17	6.86
		120	6.14	5.90	6.13	6.04	6.05	5.97	7.04	5.90	6.18	7.04
	Min		5.84	5.67	5.69	5.64	5.98	5.15	6.53	5.15	6.13	7.37
	Avg		6.12	5.94	6.17	5.89	6.26	5.77	6.77			
	Max		6.37	6.17	6.32	6.10	7.37	5.98	7.04			
	Geo.mean		**6.12**	**5.94**	**6.16**	**5.89**	**6.25**	**5.77**	**6.77**			
Reference	5	3	6.53	6.23	6.01	5.82	6.25	5.97	6.31	5.82	6.16	6.53
		60	6.55	5.89	6.27	6.41	6.49	6.06	6.25	5.89	6.27	6.55
		120	6.33	5.58	6.16	5.51	6.28	5.95	6.30	5.51	6.02	6.33
	Min		6.33	5.58	6.01	5.51	6.25	5.95	6.25	5.51	6.15	6.55
	Avg		6.47	5.90	6.15	5.91	6.34	5.99	6.29			
	Max		6.55	6.23	6.27	6.41	6.49	6.06	6.31			
	Geo.mean		**6.47**	**5.89**	**6.15**	**5.90**	**6.34**	**5.99**	**6.29**			

All Stations	Depth (ft)	Min	Avg	Max	Comments:
	Surface	5.15	6.18	7.37	
	Mid-depth	5.73	6.16	6.86	
	Bottom	5.08	6.04	7.04	
	All	5.08	6.13	7.37	

Table 5
Receiving Water, Pago Pago Harbor
2002-2005 Results for pH (S.U.)
American Samoa Water Quality Standard = range shall be 6.5 to 8.6 and be within 0.2 pH units of that which occurs naturally

Location	Station	Depth (ft)	Aug-02	Mar-03	Aug-03	Feb-04	Sep-04	Feb-05	Aug-05	Min	Avg	Max
Diffuser	U	3	8.12	8.16	8.14	8.05	8.23	8.12	8.29	8.05	8.16	8.29
		60	8.17	8.18	8.13	8.11	8.22	8.12	8.20	8.11	8.16	8.22
		90-120	8.12	8.15	8.07	8.10	8.14	8.11	8.24	8.07	8.13	8.24
	Min		8.12	8.15	8.07	8.05	8.14	8.11	8.20	8.05	8.15	8.29
	Avg		8.14	8.16	8.11	8.09	8.20	8.12	8.24			
	Max		8.17	8.18	8.14	8.11	8.23	8.12	8.29			
ZOM	A1	3	8.01	8.15	8.13	8.03	8.21	8.18	8.28	8.01	8.14	8.28
		60	8.14	8.11	8.11	8.05	8.20	8.18	8.26	8.05	8.15	8.26
		90-120	8.03	8.05	8.11	8.11	8.22	8.18	8.26	8.03	8.14	8.26
	B1	3	8.11	8.10	8.11	8.06	8.21	8.10	8.23	8.06	8.13	8.23
		60	8.18	8.15	8.14	8.13	8.22	8.23	8.20	8.13	8.18	8.23
		120	8.14	8.07	8.08	8.06	8.20	8.21	8.16	8.06	8.13	8.21
	Min		8.01	8.05	8.08	8.03	8.20	8.10	8.16	8.01	8.15	8.28
	Avg		8.10	8.11	8.11	8.07	8.21	8.18	8.23			
	Max		8.18	8.15	8.14	8.13	8.22	8.23	8.28			
Farfield	C	3	7.99	8.06	8.01	7.96	8.24	8.05	7.99	7.96	8.04	8.24
		35	8.12	8.06	8.11	8.06	8.19	8.22	8.05	8.05	8.12	8.22
		70-110	8.17	7.96	8.13	8.08	8.22	8.15	7.98	7.96	8.10	8.22
	16	3	8.13	8.12	8.10	8.01	8.19	8.19	8.25	8.01	8.14	8.25
		60	8.14	8.18	8.11	8.04	8.20	8.20	8.26	8.04	8.16	8.26
		120	8.18	8.15	8.05	8.04	8.18	8.18	8.29	8.04	8.15	8.29
	18	3	8.17	8.17	8.04	8.07	8.17	8.22	8.32	8.04	8.17	8.32
		60	8.22	8.17	8.12	8.06	8.11	8.22	8.34	8.06	8.18	8.34
		120	8.21	8.14	8.05	8.04	8.17	8.24	8.27	8.04	8.16	8.27
	Min		7.99	7.96	8.01	7.96	8.11	8.05	7.98	7.96	8.14	8.34
	Avg		8.15	8.11	8.08	8.04	8.19	8.19	8.19			
	Max		8.22	8.18	8.13	8.08	8.24	8.24	8.34			
Reference	5	3	8.22	8.18	8.08	7.95	8.20	8.19	8.29	7.95	8.16	8.29
		60	8.23	8.18	8.10	8.04	8.14	8.22	8.28	8.04	8.17	8.28
		120	8.15	8.14	7.97	7.97	8.14	8.10	8.28	7.97	8.11	8.28
	Min		8.15	8.14	7.97	7.95	8.14	8.10	8.28	7.95	8.15	8.29
	Avg		8.20	8.17	8.05	7.99	8.16	8.17	8.28			
	Max		8.23	8.18	8.10	8.04	8.20	8.22	8.29			

	Depth (ft)	Min	Avg	Max	Comments:
All Stations	Surface	7.95	8.13	8.32	
	Mid-depth	8.04	8.16	8.34	
	Bottom	7.96	8.13	8.29	
	All	7.95	8.14	8.34	

Table 6
Receiving Water, Pago Pago Harbor
2002-2005 Results for Turbidity (NTU)
American Samoa Water Quality Standard = Average not to exceed 0.75 NTU

Location	Station	Depth (ft)	Aug-02	Mar-03	Aug-03	Aug-03	Feb-04	Sep-04	Sep-04	Feb-05	Aug-05	Min	Avg	Max
			Lab	Lab	Lab	CTD	Lab	Lab	CTD	Lab	Lab			
Diffuser	U	3	0.03	0.67	NS	0.20	NS	NS	0.55	0.17	0.16	0.03	0.30	0.67
		60	0.13	0.36	NS	0.36	NS	NS	0.58	0.20	0.14	0.13	0.30	0.58
		90-120	0.15	0.40	NS	0.27	NS	NS	0.44	0.19	0.12	0.12	0.26	0.44
	Min		0.03	0.36	0.20		NS	0.44		0.17	0.12	0.03	0.28	0.67
	Avg		0.10	0.48	0.28		NS	0.52		0.19	0.14			
	Max		0.15	0.67	0.36		NS	0.58		0.20	0.16			
ZOM	A1	3	0.06	0.24	NS	0.32	NS	NS	0.69	0.15	0.12	0.06	0.26	0.69
		60	0.07	0.20	NS	0.37	NS	NS	0.51	0.18	0.14	0.07	0.25	0.51
		90-120	0.15	0.22	NS	0.51	NS	NS	0.93	0.20	0.15	0.15	0.36	0.93
	B1	3	0.20	0.38	NS	0.31	NS	NS	0.59	0.15	0.16	0.15	0.30	0.59
		60	0.06	0.14	NS	0.30	NS	NS	0.36	0.11	0.13	0.06	0.18	0.36
		120	0.09	0.24	NS	0.28	NS	NS	0.62	0.16	0.18	0.09	0.26	0.62
	Min		0.06	0.14	0.28		NS	0.36		0.11	0.12	0.06	0.27	0.93
	Avg		0.11	0.24	0.35		NS	0.62		0.16	0.15			
	Max		0.20	0.38	0.51		NS	0.93		0.20	0.18			
Farfield	C	3	0.46	0.30	NS	0.29	NS	NS	0.67	0.20	0.12	0.12	0.34	0.67
		35	0.10	0.16	NS	0.26	NS	NS	0.59	0.17	0.14	0.10	0.24	0.59
		70-110	0.05	0.41	NS	0.51	NS	NS	0.48	0.19	0.16	0.05	0.30	0.51
	16	3	0.05	0.15	0.31	0.44	0.20	0.20	0.60	0.18	0.13	0.05	0.25	0.60
		60	0.08	0.13	0.05	0.27	0.12	0.16	0.33	0.14	0.14	0.05	0.16	0.33
		120	0.09	0.10	0.06	0.38	1.60	0.17	0.31	0.19	0.15	0.06	0.34	1.60
	18	3	0.11	0.40	0.12	0.35	0.20	0.20	0.82	0.18	0.13	0.11	0.28	0.82
		60	0.20	0.11	0.11	0.21	0.30	0.16	0.46	0.14	0.14	0.11	0.20	0.46
		120	0.19	0.12	0.08	0.38	0.15	0.15	0.25	0.15	0.11	0.08	0.18	0.38
	Min		0.05	0.10	0.05		0.12	0.15		0.14	0.11	0.05	0.25	1.60
	Avg		0.15	0.21	0.25		0.43	0.37		0.17	0.14			
	Max		0.46	0.41	0.51		1.60	0.82		0.20	0.16			
Reference	5	3	0.07	0.12	0.70	0.28	NS	0.20	0.23	0.16	0.11	0.07	0.23	0.70
		60	0.12	0.24	0.45	0.27	NS	0.17	0.22	0.17	0.11	0.11	0.22	0.45
		120	0.08	0.14	0.45	0.25	NS	0.18	0.28	0.15	0.13	0.08	0.21	0.45
	Min		0.07	0.12	0.25		NS	0.17		0.15	0.11	0.07	0.22	0.70
	Avg		0.09	0.17	0.40		NS	0.21		0.16	0.12			
	Max		0.12	0.24	0.70		NS	0.28		0.17	0.13			

All Stations	Depth (ft)	Min	Avg	Max
	Surface	0.03	0.28	0.82
	Mid-depth	0.05	0.22	0.59
	Bottom	0.05	0.27	1.60
	All	0.03	0.25	1.60

Comments:
Lab = Value reported by laboratory
CTD = Value reported by Sonde unit in the field
NS = Not Samples

Table 7
Receiving Water, Pago Pago Harbor
2002-2005 Results for Total Nitogen (TN) (mg/l)
American Samoa Water Quality Standard = 0.2 mg/l (200 µg/l)

Location	Station	Depth (ft)	Aug-02	Mar-03	Aug-03	Feb-04	Sep-04	Feb-05	Aug-05	Min	Avg	Max
Diffuser	U	3	0.06	0.32	0.15	0.21	0.11	0.12	0.11	0.06	0.15	0.32
		60	0.19	0.23	0.15	0.23	0.11	0.15	0.11	0.11	0.17	0.23
		90-120	0.18	0.36	0.15	0.30	0.11	0.11	0.11	0.11	0.19	0.36
	Min		0.06	0.23	0.15	0.21	0.11	0.11	0.11	0.06	0.17	0.36
	Avg		0.14	0.30	0.15	0.25	0.11	0.13	0.11			
	Max		0.19	0.36	0.15	0.30	0.11	0.15	0.11			
ZOM	A1	3	0.06	0.25	0.12	0.23	0.12	0.12		0.06	0.15	0.25
		60	0.06	0.31	0.10	0.28	0.11	0.12	0.13	0.06	0.16	0.31
		90-120	0.18	0.26	0.14	0.18	0.12	0.11	0.19	0.11	0.17	0.26
	B1	3	0.08	0.28	0.05	0.16	0.12	0.12	0.15	0.05	0.14	0.28
		60	0.07	0.21	0.08	0.19	0.11	0.11	0.14	0.07	0.13	0.21
		120	0.06	0.28	0.09	0.31	0.12	0.11	0.16	0.06	0.16	0.31
	Min		0.06	0.21	0.05	0.16	0.11	0.11	0.13	0.05	0.15	0.31
	Avg		0.08	0.27	0.10	0.23	0.12	0.12	0.16			
	Max		0.18	0.31	0.14	0.31	0.12	0.12	0.19			
Farfield	C	3	0.07	0.24	0.05	0.32	0.12	0.12	0.18	0.05	0.16	0.32
		35	0.06	0.23	0.09	0.27	0.11	0.14	0.12	0.06	0.15	0.27
		70-110	0.07	0.31	0.12	0.37	0.11	0.11	0.11	0.07	0.17	0.37
	16	3	0.16	0.06	0.15	0.19	0.12	0.12	0.11	0.06	0.13	0.19
		60	0.21	0.06	0.06	0.17	0.12	0.18	0.11	0.06	0.13	0.21
		120	0.26	0.05	0.20	0.17	0.11	0.31	0.11	0.05	0.17	0.31
	18	3	0.17	0.04	0.09	0.15	0.12	0.11	0.11	0.04	0.11	0.17
		60	0.18	0.06	0.09	0.16	0.11	0.21	0.11	0.06	0.13	0.21
		120	0.27	0.29	0.05	0.16	0.11	0.10	0.11	0.05	0.15	0.29
	Min		0.06	0.04	0.05	0.15	0.11	0.10	0.11	0.04	0.14	0.37
	Avg		0.16	0.15	0.10	0.22	0.11	0.16	0.12			
	Max		0.27	0.31	0.20	0.37	0.12	0.31	0.18			
Reference	5	3	0.40	0.13	0.14	0.18	0.22	1.20	0.11	0.11	0.34	1.20
		60	0.13	0.06	0.13	0.16	0.11	0.15	0.11	0.06	0.12	0.16
		120	0.15	0.05	0.17	0.14	0.11	0.11	0.11	0.05	0.12	0.17
	Min		0.13	0.05	0.13	0.14	0.11	0.11	0.11	0.05	0.19	1.20
	Avg		0.23	0.08	0.15	0.16	0.15	0.49	0.11			
	Max		0.40	0.13	0.17	0.18	0.22	1.20	0.11			

All Stations	Depth (ft)	Min	Avg	Max
	Surface	0.04	0.17	1.20
	Mid-depth	0.06	0.14	0.31
	Bottom	0.05	0.16	0.37
	All	0.04	0.16	1.20

Comments:

Table 8
Receiving Water, Pago Pago Harbor
2002-2005 Results for Total Phosphorus (mg/l)
American Samoa Water Quality Standard = 0.03 mg/l (300 µg/l)

Location	Station	Depth (ft)	Aug-02	Mar-03	Aug-03	Feb-04	Sep-04	Feb-05	Aug-05	Min	Avg	Max
Diffuser	U	3	0.012	0.005	0.042	0.03	0.03	0.01	0.03	0.01	0.02	0.04
		60	0.009	0.006	0.032	0.02	0.01	0.02	0.01	0.01	0.02	0.03
		90-120	0.018	0.024	0.030	0.02	0.01	0.02	0.02	0.01	0.02	0.03
	Min		0.009	0.005	0.030	0.02	0.01	0.01	0.01	0.01	0.02	0.04
	Avg		0.013	0.012	0.035	0.02	0.02	0.02	0.02			
	Max		0.018	0.024	0.042	0.03	0.03	0.02	0.03			
ZOM	A1	3	0.017	0.005	0.025	0.14	0.02	0.02		0.01	0.04	0.14
		60	0.014	0.005	0.037	0.03	0.02	0.01	0.05	0.01	0.02	0.05
		90-120	0.005	0.005	0.043	0.02	0.02	0.01	0.04	0.01	0.02	0.04
	B1	3	0.015	0.005	0.043	0.03	0.01	0.02	0.02	0.01	0.02	0.04
		60	0.005	0.005	0.017	0.02	0.01	0.01	0.03	0.01	0.01	0.03
		120	0.005	0.016	0.031	0.03	0.02	0.01	0.02	0.01	0.02	0.03
	Min		0.005	0.005	0.017	0.02	0.01	0.01	0.02	0.01	0.02	0.14
	Avg		0.010	0.007	0.033	0.05	0.02	0.01	0.03			
	Max		0.017	0.016	0.043	0.14	0.02	0.02	0.05			
Farfield	C	3	0.005	0.005	0.032	0.03	0.18	0.02	0.01	0.01	0.04	0.18
		35	0.005	0.028	0.025	0.03	0.03	0.01	0.03	0.01	0.02	0.03
		70-110	0.005	0.005	0.030	0.02	0.03	0.01	0.03	0.01	0.02	0.03
	16	3	0.005	0.005	0.005	0.02	0.02	0.01	0.02	0.01	0.01	0.02
		60	0.005	0.005	0.005	0.02	0.01	0.01	0.03	0.01	0.01	0.03
		120	0.005	0.005	0.005	0.03	0.01	0.02	0.01	0.01	0.01	0.03
	18	3	0.230	0.073	0.005	0.01	0.03	0.01	0.01	0.01	0.05	0.23
		60	0.180	0.005	0.005	0.03	0.01	0.01	0.01	0.01	0.04	0.18
		120	0.056	0.005	0.005	0.02	0.01	0.01	0.01	0.01	0.02	0.06
	Min		0.005	0.005	0.005	0.01	0.01	0.01	0.01	0.01	0.02	0.23
	Avg		0.055	0.015	0.013	0.02	0.04	0.01	0.02			
	Max		0.230	0.073	0.032	0.03	0.18	0.02	0.03			
Reference	5	3	0.005	0.005	0.032	0.03	0.01	0.02	0.01	0.01	0.02	0.03
		60	0.071	0.005	0.022	0.03	0.02	0.02	0.02	0.01	0.03	0.07
		120	0.021	0.005	0.020	0.02	0.02	0.02	0.01	0.01	0.02	0.02
	Min		0.005	0.005	0.020	0.02	0.01	0.02	0.01	0.01	0.02	0.07
	Avg		0.032	0.005	0.025	0.03	0.02	0.02	0.01			
	Max		0.071	0.005	0.032	0.03	0.02	0.02	0.02			

	Depth (ft)	Min	Avg	Max	Comments:
All Stations	Surface	0.005	0.029	0.230	
	Mid-depth	0.005	0.021	0.180	
	Bottom	0.005	0.018	0.056	
	All	0.005	0.022	0.230	

Table 9
Receiving Water, Pago Pago Harbor
2002-2005 Results for Chlorophyll-a (mg/m3)
American Samoa Water Quality Standard = 1.0 mg/m3

Location	Station	Depth (ft)	Aug-02	Mar-03	Aug-03	Feb-04	Sep-04	Feb-05	Aug-05	Min	Avg	Max
Diffuser	U	3	0.150	2.800	0.300	0.40	0.33	0.32	0.40	0.15	0.67	2.80
		60	0.550	1.500	0.700	0.27	0.53	0.30	0.80	0.27	0.66	1.50
		90-120	0.340	0.720	0.700	0.27	0.08	0.32	0.27	0.08	0.39	0.72
	Min		0.150	0.720	0.300	0.27	0.08	0.30	0.27	0.08	0.57	2.80
	Avg		0.347	1.673	0.567	0.31	0.31	0.31	0.49			
	Max		0.550	2.800	0.700	0.40	0.53	0.32	0.80			
ZOM	A1	3	0.440	2.100	0.150	0.08	0.90	0.27	0.05	0.05	0.57	2.10
		60	0.560	1.200	0.300	0.40	0.53	0.03	0.27	0.03	0.47	1.20
		90-120	0.470	1.100	0.150	0.08	0.53	0.27	0.40	0.08	0.43	1.10
	B1	3	0.200	3.100	0.300	0.08	0.53	0.03	0.13	0.03	0.62	3.10
		60	0.350	0.940	0.830	0.08	0.27	0.14	0.13	0.08	0.39	0.94
		120	0.430	0.860	0.150	0.08	0.90	0.18	0.13	0.08	0.39	0.90
	Min		0.200	0.860	0.150	0.08	0.27	0.03	0.05	0.03	0.48	3.10
	Avg		0.408	1.550	0.313	0.13	0.61	0.15	0.19			
	Max		0.560	3.100	0.830	0.40	0.90	0.27	0.40			
Farfield	C	3	0.440	1.400	0.150	0.08	0.27	0.32	0.13	0.08	0.40	1.40
		35	0.560	0.820	0.150	0.08	0.08	0.50	0.13	0.08	0.33	0.82
		70-110	0.490	0.790	0.150	0.27	0.40	0.05	0.13	0.05	0.33	0.79
	16	3	0.340	0.910	0.440	0.08	0.27	0.03	0.13	0.03	0.31	0.91
		60	0.370	0.640	0.150	0.08	0.67	0.55	0.13	0.08	0.37	0.67
		120	0.360	0.740	0.150	0.50	0.53	0.14	0.27	0.14	0.38	0.74
	18	3	0.700	1.100	0.300	0.08	0.69	0.18	0.27	0.08	0.47	1.10
		60	0.460	0.490	0.150	0.08	0.08	0.40	0.27	0.08	0.28	0.49
		120	0.450	0.740	0.300	0.13	0.27	0.20	0.27	0.13	0.34	0.74
	Min		0.340	0.490	0.150	0.08	0.08	0.03	0.13	0.03	0.36	1.40
	Avg		0.463	0.848	0.216	0.15	0.36	0.26	0.19			
	Max		0.700	1.400	0.440	0.50	0.69	0.55	0.27			
Reference	5	3	0.360	0.780	0.430	0.08	0.13	0.32	0.13	0.08	0.32	0.78
		60	0.370	0.730	0.150	0.08	0.67	0.30	0.27	0.08	0.37	0.73
		120	0.150	0.740	0.170	0.08	1.10	0.40	0.13	0.08	0.40	1.10
	Min		0.150	0.730	0.150	0.08	0.13	0.30	0.13	0.08	0.36	1.10
	Avg		0.293	0.750	0.250	0.08	0.63	0.34	0.18			
	Max		0.370	0.780	0.430	0.08	1.10	0.40	0.27			

	Depth (ft)	Min	Avg	Max	Comments:
All Stations	Surface	0.025	0.481	3.100	
	Mid-depth	0.025	0.410	1.500	
	Bottom	0.045	0.378	1.100	
	All	0.025	0.423	3.100	

Table 10
Receiving Water, Pago Pago Harbor
2002-2005 Results for Total Suspended Solids (TSS) (mg/l)
(TSS is not a required monitoring parameter)

Location	Station	Depth (ft)	Feb-05	Aug-05	Min	Avg	Max
Diffuser	U	3	**1**	NS	1	1	1
		60	**1**	NS	1	1	1
		90-120	**1**	NS	1	1	1
	Min		1	NS	1	1	1
	Avg		1	NS			
	Max		1	NS			
ZOM	A1	3	**1**	NS	1	1	1
		60	**1**	NS	1	1	1
		90-120	**1**	NS	1	1	1
	B1	3	**1**	NS	1	1	1
		60	2	NS	2	2	2
		120	2	NS	2	2	2
	Min		1	NS	1	1	2
	Avg		1	NS			
	Max		2	NS			
Farfield	C	3	2	NS	2	2	2
		35	2	NS	2	2	2
		70-110	5	NS	5	5	5
	16	3	2	1	1	2	2
		60	2	2	2	2	2
		120	**1**	1	1	1	1
	18	3	2	2	2	2	2
		60	11	2	2	7	11
		120	1	1	1	1	1
	Min		1	1	1	2	11
	Avg		3	2			
	Max		11	2			
Reference	5	3	**2**	1	1	2	2
		60	3	2	2	3	3
		120	2	2	2	2	2
	Min		2	1	1	2	3
	Avg		2	2			
	Max		3	2			
All Stations		Depth (ft)	Min	Avg	Max		
		Surface	1	2	2		
		Mid-depth	1	3	11		
		Bottom	1	2	5		
		All	1	2	11		