ROUTING AND TRANSMITTAL SLIP

Date 12/31

TO: (Name, office symbol, room number, building, Agency/Post)	Initials	Date
1. Allan Ota		
2.		
3.		
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Allan-

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5041-102
☆ U.S.G.P.O.: 1993 300-891/80018

OPTIONAL FORM 41 (Rev. 7-76)
Prescribed by GSA
FPMR (41 CFR) 101-11.206

Rec'd 12/30/96

Copy to N. Vaa
Mike Lee

StarKist Samoa, Inc.

A Subsidiary of Star-Kist Foods, Inc.

P.O. Box 368
Pago Pago, Tutuila Island
American Samoa 96799

Telephone: 684 644-4231
Facsimile: 684 644-2440

Pat Young
American Samoa Program Manager
U.S.E.P.A. Region 1X
75 Hawthorne St
San Francisco, CA 94105

Dec 14/96

Enclosed please find a copy of the "Final Summary Report" summarizing the data collected during the three (3) year term of the waste material and dump site monitoring program for Dissolved Air Floatation Sludge, Cooker Juice and Press Liquor.

The sampling sites are located on land at the Starkist Cannery in American Samoa.

Materials being sampled are Dissolved Air Floatation Sludge, Cooker Juice and Press Liquor.

A sample of each waste stream is taken before they mix. The samples consist of three (3) replicate samples, taken on the scheduled day, pooled for use as a composite sample. This was the case until October 1995 at which time we received an ammended section to our report requesting one sample of the streams after they combined.

This report differs from the OD 90-01 report in that the three (3) streams were combined into one sample station in October 95.

Sincerely

Cliff Johnson
Utilities Super
Starkist Samoa Inc
P O Box 368
Pago Pago
American Samoa 96799

cc: Mr. Topgipa Tausaga; A.S.E.P.A. Director
Mr. Norman Lovelace; OPINAP
Project Leader of U.S.F.W.S.
Executive Director of WPRFMC

Table 1. Star Kist Samoa DAF Sludge Data from September 1993 to October 1995 under OD 93-01

Month	Total Solids (mg/L)	5-Day Biological Oxygen Demand (mg/L)	Total Phosphorus (mg/L)	Total Nitrogen (mg/L)	Oil & Grease (mg/L)	pH (pH units)	Total Volatile Solids (mg/L)	Density (g/mL)	Ammonia (mg/L)
Sept 1993	87,600	57,200	1,020	4,230	29,900	6.82	62,800	0.93	790
Oct 1993	66,600	30,100	163	3,670	4,490	5.96	42,000	0.99	475
Nov 1993	53,400	34,100	636	2,150	9,710	5.90	23,600	1.01	471
Dec 1993	28,800	69,846	437	1,180	1,950	6.35	10,300	1.01	428
Jan 1994	43,300	49,663	556	1,430	6,800	5.76	24,600	1.02	230
Feb 1994	45,000	49,685	600	850	3,640	5.74	24,500	1.01	81
Mar 1994	48,000	87,056	704	* 9610	934	6.38	29,900	1.02	*4,680
Apr 1994	48,400	69,423	1,110	2,590	3,314	5.97	29,600	1.01	291
May 1994	158,000	69,590	998	2,170	42,751	5.94	* 138000	1.00	775
Jun 1994	157,000	64,500	877	2,850	* 119,912	5.32	* 141,000	0.95	190
Jul 1994	34,200	204,167	711	978	4,840	5.71	19,200	1.00	118
Aug 1994	80,200	96,403	857	1,910	* 65,469	5.40	64,600	0.97	137
Sept 1994	33,600	42,599	1,180	1,780	6,392	6.21	14,000	1.02	161
Oct 1994	20,300	54,168	748	411	4,439	5.36	8,550	0.98	236
Nov 1994	51,100	31,250	1,080	3,570	6,249	5.60	33,700	1.01	204
Dec 1994	38,100	61,883	743	1,040	6,586	5.80	16,400	1.00	465
Jan 1995	132,000	93,589	827	1,600	* 86,868	* 5.10	112,000	1.00	296
Feb 1995	*224,000	118,278	569	2,180	*102,055	* 4.80	* 205,000	0.98	116
Mar 1995	* 181000	120,400	395	3,390	51,806	* 5.20	* 159,000	1.02	142
Apr 1995	85,600	76,912	722	3,450	24,776	5.50	70,600	0.98	164
May 1995	132,000	44,373	1,190	1,710	51,579	5.30	111,000	0.99	138
Jun 1995	63,700	30,178	1,120	1,460	8,921	5.95	39,400	1.01	151
Jul 1995	143,000	75,839	1,110	2,760	56,164	5.83	122,000	0.99	212
Aug 1995	132,000	69,717	1,030	1,460	18,888	5.47	111,000	0.99	690
Sept 1995	126,000	55,575	273	407	43,931	5.70	101,000	0.99	272
Oct 1995	163,000	83,775	* 1660	4,730	54,487	5.50	127,000	0.98	277

Month	Total Solids (mg/L)	5-Day Biological Oxygen Demand (mg/L)	Total Phosphorus (mg/L)	Total Nitrogen (mg/L)	Oil & Grease (mg/L)	pH (pH units)	Total Volatile Solids (mg/L)	Density (g/mL)	Ammonia (mg/L)
Maximum	163,000	204,167	1,190	4,730	56,164	6.82	127000	1.02	790
Minimum	20,300	30,100	163	407	934	5.3	8550	0.93	81
Number	26	26	26	26	26	26	26	26	26
Mean	82,121	70,780	786	2,158	20,116	5.8	54443	0.995	300
St. Dev.	46,482	35,945	283	1,150	19,798	0.37	40051	0.021	201
Outlier+	221,568	178,615	1,635	5,608	79,510	7	174596	1	904
Outlier-	-57326	-499900	-4623	-15673	-218731	-20	-483736	-3	-2512
DAF Sludge Data With Outliers Removed and Recommended Permit Limits									
Number	26	26	26	26	26	26	26	26	26
Mean	82,121	70,780	786	2,158	20,116	5.8	54,443	0.995	300
Std. Dev.	46,482	35,945	283	1,150	19,798	0.37	40,051	0.021	201
Upper Limit	163,432	232,319	1,644	7,021	64,101	7.0	136,177	1.06	1,825
Lower Limit						5.3		0.97	
Rounded Limit	163,430	232,320	1,640	7,020	64,100		136,180		1,830
MPRSA Section 102 Special Permit #OD 90-01 DAF Sludge Limits									
Upper Limit	230,460	376,520	3,050	18,100	129,590	7.0	182,210	1.07	7,500
Lower Limit						5.5		0.92	
Changes in DAF Sludge Limits from OD 90-01 to OD 93-01									
Upper Limit	-67030	-144200	-1410	-11080	-65490		-46030	-0.01	-5670
Percent Change	-29	-38	-46	-61	-51		-25	-1	-76
Lower Limit						-0.2		0.05	
Percent Change						-4		5	

Table 1. StarKist Samoa Cooker Juice Data from September 1993 to October 1995 under OD 93-01

Month	Total Solids (mg/L)	5-Day Biological Oxygen Demand (mg/L)	Total Phosphorus (mg/L)	Total Nitrogen (mg/L)	Oil & Grease (mg/L)	pH (pH units)	Total Volatile Solids (mg/L)	Density (g/mL)	Ammonia (mg/L)
Sept1993	80,200	25,800	484	6,510	3,230	6.03	53,900	1.03	500
Oct 1993	56,400	25,000	107	5,400	1,120	6.24	36,700	1.03	257
Nov 1993	*150000	35,000	536	6,360	* 23,900	6.39	* 118000	0.94	332
Dec 1993	62,300	58,148	474	5,110	2,870	6.26	38,100	1.00	245
Jan 1994	68,300	49,771	647	6,510	225	6.18	45,100	1.02	472
Feb 1994	86,100	50,981	758	5,810	1,460	6.01	* 66000	1.02	190
Mar 1994	79,000	59,342	800	* 7670	1,300	5.98	51,100	1.02	278
Apr 1994	89,300	47,426	771	6,170	1,060	6.05	61,200	1.03	148
May 1994	90,100	46,441	* 955	* 8150	1,567	6.13	61,100	1.02	426
Jun1994	74,700	52,429	913	7,520	7,047	5.92	53,800	1.02	190
Jul 1994	97,700	83,892	822	7,250	6,190	* 5.81	74,700	1.03	270
Aug 1994	55,100	72,168	768	5,540	6,205	6.20	44,600	1.00	211
Sept 1994	73,100	65,996	779	6,360	* 13876	6.08	57,100	1.01	157
Oct 1994	35,300	48,731	538	4,800	1,255	5.89	21,600	0.99	234
Nov 1994	65,900	36,205	818	7,060	2,923	5.93	46,200	1.02	218
Dec 1994	74,600	68,346	878	6,770	10,796	6.20	55,100	1.02	245
Jan 1995	69,000	45,318	814	5,620	4,245	6.00	48,500	1.01	334
Feb 1995	89,900	70,051	801	4,970	9,845	5.90	* 70,900	1.01	324
Mar 1995	35,300	54,248	504	4,600	1,320	5.90	15,700	1.01	257
Apr 1995	26,700	40,935	236	1,540	1,876	6.00	15,200	1.00	190
May 1995	91,600	53,862	801	6,140	11,023	5.90	* 64,800	1.01	276
Jun 1995	69,500	69,696	698	5,210	3,074	5.98	45,400	1.01	171
Jul 1995	74,400	90,229	819	6,980	2,490	5.86	48,100	1.01	420
Aug 1995	79,100	46,883	715	6,110	4,209	6.03	49,300	1.01	217
Sept 1995	63,000	50,400	766	6,150	214	5.90	41,900	1.01	290
Oct 1995	66,300	29,000	770	6,470	1,155	6.20	40,100	1.02	443

Month	Total Solids (mg/L)	5-Day Biological Oxygen Demand (mg/L)	Total Phosphorus (mg/L)	Total Nitrogen (mg/L)	Oil & Grease (mg/L)	pH (pH units)	Total Volatile Solids (mg/L)	Density (g/mL)	Ammonia (mg/L)
Maximum	97,700	90,229	913	7,520	11,023	6	74,700	1	500
Minimum	26,700	25,000	107	1,540	214	6	15,200	1	148
Number	26	26	26	26	26	26	26	26	26
Mean	70,116	52,935	681	5,873	3,612	6	45,659	1	281
Std. Dev.	17,707	16,187	194	1,186	3,187	0	14,018	0	98
Outlier+	123,236	101,495	1,263	9,432	13,174	6	87,712	1	573
Outlier-	16,996	4,374	98	2,315	-5949	6	3,607	1	-12
Cooker Juice Data With Outliers Removed and Recommended Permit Limits									
Number	26	26	26	26	26	26	26	26	26
Mean	70,116	52,935	681	5,873	3,612	6	45,659	1	281
Std. Dev.	17,707	16,187	194	1,186	3,187	0	14,018	0	98
Upper Limit	114,174	185,151	937	7,564	11,814	7.0	63,402	1.06	687
Lower Limit						5.9		0.98	
Rounded Limit	114,180	185,150	940	7,560	11,810		63,400		690
MPRSA Section 102 Special Permit #OD 90-01 Cooker Juice Limits									
Upper Limit	158,290	365,450	1,150	21,380	4,830	7.0	146,900	1.06	21,200
Lower Limit						5.5		0.97	
Changes inCooker Juice Sludge Limits from OD 90-01 to OD 93-01									
Upper Limit	-44110	-180300	-210	-13820	6980		-83500	0.00	-20510
Percent Change	-28	-49	-18	-65	69		-57	0	-97
Lower Limit						0.4		0.01	
Percent Change						7		1	

Table 1. StarKist Samoa Press Liquor Data from September 1993 to October 1995 under OD 93-01

Month	Total Solids (mg/L)	5-Day Biological Oxygen Demand (mg/L)	Total Phosphorus (mg/L)	Total Nitrogen (mg/L)	Oil & Grease (mg/L)	pH (pH units)	Total Volatile Solids (mg/L)	Density (g/mL)	Ammonia (mg/L)
Sept 1993	227,000	133,800	2,000	15,600	43,900	6.12	177,000	1.00	780
Oct 1993	223,000	120,000	252	18,400	5,870	6.35	148,000	1.02	803
Nov 1993	241,000	182,000	837	18,100	56,700	5.85	189,000	* 0.96	658
Dec 1993	83,500	171,533	2,030	9,050	3,120	6.38	59,400	1.02	352
Jan 1994	249,000	154,933	2,410	16,900	63,900	6.15	216,000	1.03	415
Feb 1994	218,000	171,062	2,580	17,200	36,000	6.10	181,000	1.05	360
Mar 1994	145,000	205,340	2,160	15,900	28,400	6.07	126,000	1.03	330
Apr 1994	210,000	177,030	2,250	13,800	30,811	6.27	176,000	1.04	502
May 1994	197,000	176,229	2,030	16,800	31,517	6.45	160,000	1.03	* 3,870
Jun 1994	132,000	166,853	3,160	9,840	13,240	6.34	105,000	1.02	* 2,740
Jul 1994	121,000	158,817	1,950	12,200	26,062	6.24	96,300	0.99	* 2,300
Aug 1994	221,000	256,389	2,280	13,900	94,938	5.80	201,000	1.00	429
Sept 1994	288,000	174,542	* 4120	14,000	66,001	6.14	257,000	1.02	399
Oct 1994	231,000	188,556	3,080	17,300	55,505	5.91	204,000	* 0.96	292
Nov 1994	212,000	171,000	1,890	14,400	76,348	6.04	182,000	1.05	404
Dec 1994	193,000	188,750	1,850	10,650	94,879	6.10	160,000	1.03	270
Jan 1995	263,000	140,639	3,000	2,160	85,683	6.10	233,000	1.04	399
Feb 1995	292,000	301,000	2,870	11,600	98,647	6.00	251,000	1.02	367
Mar 1995	73,800	189,646	995	7,480	24,100	6.00	47,700	1.02	586
Apr 1995	186,000	177,835	1,390	4,690	77,250	5.90	132,000	1.04	253
May 1995	186,000	250,500	1,830	9,680	54,917	5.90	156,000	1.02	578
Jun 1995	131,000	123,000	1,220	5,670	27,805	5.95	112,000	1.01	435
Jul 1995	302,000	143,639	* 4,470	* 22,700	71,344	6.04	266,000	1.05	387
Aug 1995	257,000	264,278	* 3,520	16,200	65,288	6.02	212,000	1.04	295
Sept 1995	180,000	192,750	1,785	17,900	37,013	6.00	158,000	1.01	797
Oct 1995	264,000	156,083	* 3290	14,600	69,661	6.30	226,000	1.03	727

Month	Total Solids (mg/L)	5-Day Biological Oxygen Demand (mg/L)	Total Phosphorus (mg/L)	Total Nitrogen (mg/L)	Oil & Grease (mg/L)	pH (pH units)	Total Volatile Solids (mg/L)	Density (g/mL)	Ammonia (mg/L)
Maximum	302000	301000	3160	18400	98647	6.45	266000	1.05	803
Minimum	73800	120000	252	2160	3120	5.8	47700	0.99	253
Number	26	26	26	26	26	26	26	26	26
Mean	204858	182162	1993	12961	51496	6	170438	1	470
Std. Dev.	60007	42718	721	4440	27377	0	56080	0	171
Outlier+	384879	310317	4158	26280	133628	7	338678	1	984
Outlier-	24836	54007	-171	-359	-30636	6	2199	1	-43
Press Liquor Data With Outliers Removed and Recommended Permit Limits									
Number	26	26	26	26	26	26	26	26	26
Mean	204,858	182,162	1,993	12,961	51,496	6	170,438	1	470
Std. Dev.	60,007	42,718	721	4,440	27,377	0	56,080	0	171
Upper Limit	327,871	310,792	3,162	20,359	112,084	7.0	292,281	1.08	1,390
Lower Limit						5.8		0.99	
Rounded Limit	327,870	310,790	3,160	20,360	112,080		292,280		1,390
MPRSA Section 102 Special Permit #OD 90-01 Press Liquor Limits									
Upper Limit	271,920	399,090	1,990	31,550	62,150	7.0	385,630	1.07	21,170
Lower Limit						5.5		0.96	
Changes in Press Liquor Limits from OD 90-01 to OD 93-01									
Upper Limit	55,950	-88030	1,170	-11190	49,930		-93350	0.01	-93350
Percent Change	21	-22	59	-35	80		-24	1	-93
Lower Limit						0.3		0.03	
Percent Change						6		3	

Table 1. StarKist Samoa On Shore Storage Tank Data from November 1995 to August 1996 under OD 93-01

Month	Total Solids (mg/L)	5-Day Biological Oxygen Demand (mg/L)	Total Phosphorus (mg/L)	Total Nitrogen (mg/L)	Oil & Grease (mg/L)	pH (pH units)	Total Volatile Solids (mg/L)	Density (g/mL)	Ammonia (mg/L)
Nov-15-1995	48,500	74,089	691	4,220	33,710	6.60	26,800	1.02	3,410
Nov-28-1995	22,400	70,686	609	5,430	5,038	6.70	10,300	1.00	3,880
Dec-19-1995	80,700	95,661	1,070	8,120	22,771	6.70	61,600	1.04	4,610
Jan-15-1996	35,200	60,901	846	5,010	11,239	6.70	22,900	1.00	3,870
Jan-24-1996	50,300	62,132	975	4,330	21,140	6.46	35,700	1.00	3,740
Feb-07-1996	39,900	63,229	639	5,020	40,929	6.50	24,400	1.00	3,260
Feb-21-1996	51,800	64,295	935	6,720	34,066	6.50	36,900	1.01	3,840
Mar-13-1996	46,900	75,369	654	5,550	18,090	6.40	31,200	1.00	2,910
Mar-22-1996	34,100	68,610	546	4,930	8,526	6.70	18,200	1.01	3,310
Apr-23-1996	43,700	79,633	353	3,400	28,399	6.40	27,100	1.00	1,430
Apr-30-1996	61,500	73,890	951	6,360	39,266	6.70	44,600	1.00	5,270
May-02-1996	60,000	62,077	866	6,070	42,754	6.60	40,200	1.01	4,720
May-15-1996	64,000	65,833	742	7,200	21,046	6.50	47,400	1.00	2,980
Jun-19-1996	* 109400	68,756	1,290	11,900	49,715	6.70	* 94,200	1.00	5,810
Jun-27-1996	62,100	66,239	1,040	8,250	23,065	6.70	43,400	1.00	4,950
Jul-10-1996	77,200	69,327	1,450	8,930	24,258	6.40	70,300	1.00	5,070
Jul-30-1996	81,900	66,493	1,430	7,020	31,960	6.70	57,800	1.02	1,770
Aug-07-1996	74,300	55,259	906	9,160	16,153	6.60	47,600	1.01	4,390
Aug-28-1996	59,400	58,049	811	6,170	22,319	7.00	44,200	1.00	3,140

Month	Total Solids (mg/L)	5-Day Biological Oxygen Demand (mg/L)	Total Phosphorus (mg/L)	Total Nitrogen (mg/L)	Oil & Grease (mg/L)	pH (pH units)	Total Volatile Solids (mg/L)	Density (g/mL)	Ammonia (mg/L)
Maximum	81900	95661	1450	11900	49715	7	70300	1	5810
Minimum	22400	55259	353	3400	5038	6	10300	1	1430
Number	19	19	19	19	19	19	19	19	19
Mean	55217	68449	884	6515	26023	7	38367	1	3808
Std. Dev.	16422	8767	282	2018	11729	0	15194	0	1108
Outlier+	104482	94751	1729	12570	61209	7	83950	1	7132
Outlier-	5952	42147	39	461	-9163	6	-7217	1	485
On Shore Storage Tank Data With Outliers Removed and Recommended Permit Limits									
Number	19	19	19	19	19	19	19	19	19
Mean	55217	68449	884	6515	26023	7	38367	1	3808
Std. Dev.	16422	8767	282	2018	11729	0	15194	0	1108
Upper Limit									
Lower Limit									
Rounded Limit									
MPRSA Section 102 Special Permit #OD 90-01 On Shore Storage Tank Limits									
Upper Limit	None	None	None	None	None	None	None	None	None
Lower Limit									
Changes in DAF Sludge Limits from OD 90-01 to OD 93-01									
Upper Limit	95,760	105,900	3,080	13,370	52,110	6.2 to 7.	77,170	0.93 to 1.0	7,640
Percent Change									
Lower Limit									
Percent Change	*	*	*	*	*	*	*	*	*

* Note: Percent chages were not calculated because Upper Limits were not provided for 1993-1994.

StarKist Samoa, Inc.

A Division of Star-Kist Foods, Inc.
P.O. Box 368
Pago Pago, Tutuila Island
American Samoa 96799
Telephone: 684 644-4231
Facsimile: 684 644-2440

April 25, 2001

Mr. Carl L. Goldstein
U. S. EPA Region 9
Pacific Insular Area Program (CMD-5)
75 Hawthorne Street
San Francisco, CA 94105

Mr. Togipa Tausaga,
Director, ASEPA
Office of the Governor
EOB Utulei, American Samoa 96799

Gentlemen :

Re : **Discharge Monitoring Report for the Months of February and March of 2001, under NPDES No . 0000019 as issued to Star Kist Samoa, INC.**

Attached is the Star Kist Samoa's Discharge Monitoring Reports covering the months of February and March of 2001.

Star Kist Samoa met all Effluent limits except the pH and the Temperature.

The pH was below 6.5 for an hour and fifteen minutes on March 25, 2001 which was a Non-Production Day. The Temperature exceeded 95°F on February 03, 2001, and March 24, 2001 which were Non-Production Days. Both pH and Temperature were corrected immediately upon detection.

The Operators were issued with disiplinary action as well as retraining them with the Work Procedures as well as the EPA Requirements.

Sincerely

Lance Ihaka
Manager , Engineering and Maintenance

LI \ ls : \ npdes \samoa
Attachments :
cc : Ms. Sheila Wiegman
Mr. Peter Peshut
Mr. Alan Ota
Mr. John Brown
Mr. Phil Thirkell

Waste Water Summary Report for the month of February 2001

Date	Production Tons	Flow mgd	Alum #/day	Poly #/day	Max Temp F	pH Limits Lo	pH Limits Hi	Oil &Grease Eff mg/l	Oil &Grease Total #/day	TSS Eff mg/l	TSS Total #/day	TP Eff mg/l	TP Total #/day	TN Eff mg/l	TN Total #/day	Total Ammonia Eff mg/l	BOD Eff mg/l
1	513.2505	1.307087	232.2	6.5	92	6.7	7.0										
2	487.3375	1.216865	236.5	6.6	94	6.8	7.2										
3		0.747227	111.8	3.0	98	6.7	7.3										
4		0.297303	43.0	1.2	85	7.1	7.4										
5		0.498692	81.7	3.0	88	7.0	7.2										
6	513.3195	1.108608	215.0	5.7	95	6.6	7.3										
7	518.1115	1.400768	275.2	7.0	90	6.7	7.2										
8	469.0055	1.375227	408.5	7.0	88	6.7	7.2	21.4	244.7	70.0	800.5	13.0	148.7	90.0	1029.3	40.0	414.0
9	456.1100	1.260965	352.6	5.7	86	6.7	7.1					11.6	121.6	60.0	629.2		
10		0.544120	81.7	3.3	90	6.8	7.1										
11		0.241806	34.4	0.8	76	6.9	7.0										
12		0.517828	107.5	2.9	85	6.8	7.3										
13	517.8945	1.279806	313.9	9.8	86	6.8	7.1										
14	499.9495	1.422052	464.4	11.4	92	6.7	7.0	25.8	305.1	50.0	591.3	12.8	151.4	90.0	1064.3	40.0	
15	496.0150	1.451388	481.6	12.0	91	6.7	7.0					14.0	169.0	80.0	965.6		
16	499.2445	1.433731	438.6	10.0	90	6.7	6.9										
17	SHUT DOWN	0.669605	206.4	5.0	90	6.8	7.3										
18	SHUT DOWN	0.277756	81.7	1.6	82	6.0	7.3										
19	SHUT DOWN	0.343341	98.9	2.1	82	6.6	7.3										
20	SHUT DOWN	0.264567	86.0	1.5	83	7.1	7.5										
21	SHUT DOWN	0.323459	77.4	2.3	84	7.6	7.8										
22	SHUT DOWN	0.241710	73.1	2.2	82	7.0	7.6										
23	SHUT DOWN	0.454441	90.3	2.1	86	6.4	7.6										
24	SHUT DOWN	0.373425	68.8	1.6	80	7.0	7.8										
25	SHUT DOWN	0.141658	30.1	0.7	80	7.4	7.6										
26	SHUT DOWN	0.316256	81.7	2.2	88	7.5	7.7										
27	SHUT DOWN	0.327188	55.9	1.5	82	7.0	7.5										
28	SHUT DOWN	0.266312	111.8	2.7	80	7.0	7.1										
TOT	4970.2380	20.103191	4940.7	121.4					549.8		1391.8		590.7		3688.4		
AVG	497.0238	0.717971	176.5	4.3	87			23.6	274.9	60.0	695.9	12.9	147.7	80.0	922.1	40.0	414.0

PERMITTEE NAME / ADDRESS (Include Facility Name/Location if different)

NAME: STAR KIST SAMOA, Inc

ADDRESS: P. O. BOX 368

PAGO PAGO AMERICAN SAMOA 96799

FACILITY

LOCATION

NATIONAL POLLUTANT DISCHARGE SYSTEM (NPDES)

DISCHARGE MONITORING REPORT (DMR)

Form Approved
OMB No. 2040-0004
Expires 3-31-88

(2-16) PERMIT NUMBER	(17-19) DISCHARGE NUMBER
AS0000019	001

MONITORING PERIOD						
YEAR	MO	DAY		YEAR	MO	DAY
2001	02	01	TO	2001	02	28
(20-21)	(22-23)			(26-27)	(28-29)	(30-31)

NOTE: Read instructions before completing this form.

PARAMETER (32-37)		(3 Card Only) QUANTITY OR LOADING (46-53) AVERAGE	(54-61) MAXIMUM	UNITS	(4 Card Only) QUALITY OR CONCENTRATION (38-45) MINIMUM	(46-53) AVERAGE	(54-61) MAXIMUM	UNITS	NO. EX (62-63)	FREQUENCY OF ANALYSIS (64-68)	SAMPLE TYPE (69-70)
FLOW	SAMPLE MEASUREMENT	0.717971	1.451388						0	Continuous	Recorder
	PERMIT REQUIREMENT		2.9	mgd						"	"
BOD5	SAMPLE MEASUREMENT				414.0	414.0	414.0		0	Once / Mon	Composite
	PERMIT REQUIREMENT				N/A	N/A	N/A	mg/l		" "	"
TSS	SAMPLE MEASUREMENT	695.9	800.5		50.0	60.0	70.0		0	Once/Week	Composite
	PERMIT REQUIREMENT	2996	7536	lbs/day	N/A	N/A	N/A	mg/l		" "	"
OIL & GREASE	SAMPLE MEASUREMENT	274.9	305.1		21.4	23.6	25.8		0	Once/Week	Grab (2)
	PERMIT REQUIREMENT	763	1907	lbs/ day	N/A	N/A	N/A	mg/l		" "	" "
TOTAL PHOSPHORUS	SAMPLE MEASUREMENT	147.7	169.0		11.6	12.9	14.0		0	One Set/Month (3)	Composite
	PERMIT REQUIREMENT	192	309	lbs/day	N/A	N/A	N/A	mg/l		" "	"
TOTAL NITROGEN	SAMPLE MEASUREMENT	922.1	1064.3		60.0	80.0	90.0		0	One Set/Month (3)	Composite
	PERMIT REQUIREMENT	1200	2100	lbs/day	N/A	N/A	N/A	mg/l		" "	"
TOTAL AMMONIA	SAMPLE MEASUREMENT				40.0	40.0	40.0		0	Once / Week	Composite
	PERMIT REQUIREMENT				N/A	N/A	133	mg/l		" "	"

NAME / TITLE PRINCIPAL EXECUTIVE OFFICER

LANCE IHAKA
Manager, Engineering and Maintenance

TYPE OR PRINTED

I CERTIFY UNDER PENALTY OF LAW THAT I HAVE PERSONALLY EXAMINED AND AM FAMILIAR WITH THE INFORMATION SUBMITTED HEREIN AND BASED ON MY INQUIRY OF THOSE INDIVIDUALS IMMEDIATELY RESPONSIBLE FOR OBTAINING THE INFORMATION. I BELIEVE THE SUBMITTED INFORMATION IS TRUE, ACCURATE AND COMPLETE. I AM AWARE THAT THERE ARE SIGNIFICANT PENALTIES FOR SUBMITTING FALSE INFORMATION INCLUDING THE POSSIBILITY OF FINE AND IMPRISONMENT SEE 18 U.S.C. 1001 AND 33 U.S.C. 1319 *(Penalties under these statutes may include fines up to $10,000 and or maximum imprisonment of between 6 month and 5 years)*

SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT

TELEPHONE		DATE		
AREA CODE	NUMBER	YEAR	MO	DAY

COMMENT AND EXPLANATION OF ANY VIOLATIONS(Reference all attachments here)

PERMITTEE NAME / ADDRESS (Include Facility Name/Location if different)

NAME: STAR KIST SAMOA, Inc

ADDRESS: P. O. BOX 368
PAGO PAGO AMERICAN SAMOA 96799

FACILITY

LOCATION

NATIONAL POLLUTANT DISCHARGE SYSTEM (NPDES)

DISCHARGE MONITORING REPORT (DMR)

Form Approved
OMB No. 2040-0004
Expires 3-31-88

(2-16)	(17-19)
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PERMIT NUMBER	DISCHARGE NUMBER

MONITORING PERIOD						
YEAR	MO	DAY		YEAR	MO	DAY
2001	02	01	TO	2001	02	28
(20-21)	(22-23)			(26-27)	(28-29)	(30-31)

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PARAMETER (32-37)		(3 Card Only) QUANTITY OR LOADING (46-53) AVERAGE	(54-61) MAXIMUM	UNITS	(4 Card Only) QUALITY OR CONCENTRATION (38-45) MINIMUM	(46-53) AVERAGE	(54-61) MAXIMUM	UNITS	NO. EX (62-63)	FREQUENCY OF ANALYSIS (64-68)	SAMPLE TYPE (69-70)
TEMPERATURE	SAMPLE MEASUREMENT					87	98	° F	1	Continuous	Continuous
	PERMIT REQUIREMENT					90	95			"	"
pH	SAMPLE MEASUREMENT				6.0		7.8		0	Continuous	Continuous
	PERMIT REQUIREMENT				6.5		8.6			"	"
TOTAL COPPER	SAMPLE MEASUREMENT					8.0	8.0	µg/L	0	Once/Month	Composite
	PERMIT REQUIREMENT					66	108			" "	"
TOTAL ZINC	SAMPLE MEASUREMENT					285.0	285.0	µg/L	0	Once/Month	Composite
	PERMIT REQUIREMENT					1545	1770			" "	"
	SAMPLE MEASUREMENT										
	PERMIT REQUIREMENT										
	SAMPLE MEASUREMENT										
	PERMIT REQUIREMENT										
	SAMPLE MEASUREMENT										
	PERMIT REQUIREMENT										

NAME/TITLE PRINCIPAL EXECUTIVE OFFICER

LANCE IHAKA
Manager, Engineering and Maintenance
TYPE OR PRINTED

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SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT

TELEPHONE		DATE		
AREA CODE	NUMBER	YEAR	MO	DAY

COMMENT AND EXPLANATION OF ANY VIOLATIONS(Reference all attachments here)

We had two (2) pH readings which were below 6.5 through out the month. We did not exceed the one-hour individual excurtion limit or the seven hours and twenty six minutes for the calendar month. This is not considered a violation.

Temperature exceeded 95°F on February 03, 2001 which was a Non-Production Day. It was corrected immediately upon detection. The Operator had been issued with disiplinary action.

Waste Water Summary Report for the month of March 2001

Date	Production Tons	Flow mgd	Alum #/day	Poly #/day	Max Temp F	pH Limits Lo	pH Limits Hi	Oil &Grease Eff mg/l	Oil &Grease Total #/day	TSS Eff mg/l	TSS Total #/day	TP Eff mg/l	TP Total #/day	TN Eff mg/l	TN Total #/day	Total Ammonia Eff mg/l	BOD Eff mg/l
1	SHUT DOWN	0.273160	73.1	1.7	78	7.1	7.6										
2	SHUT DOWN	0.390331	120.4	2.4	78	7.4	7.5										
3	SHUT DOWN	0.476580	133.3	3.0	81	6.8	8.2										
4		0.302493	163.4	2.6	82	6.7	7.0										
5		0.872423	206.4	5.1	82	6.7	7.0										
6	501.2155	1.306299	417.1	10.4	88	6.5	7.1										
7	474.8185	1.506088	503.1	10.5	92	6.7	7.9										
8	484.8905	1.458315	507.4	10.4	90	6.9	7.2	59.0	715.5	58.7	711.9	16.3	197.7	90.0	1091.5	42.0	
9	494.5650	1.350977	442.9	8.9	94	6.6	7.2					17.1	192.1	75.0	842.6		
10		0.752954	240.8	6.2	86	6.7	7.2										
11		0.179849	81.7	1.6	83	7.0	7.3										
12		0.728680	240.8	6.3	85	7.1	7.7										
13	513.5035	1.351728	249.4	6.9	92	6.6	7.4										
14	505.8840	1.662262	240.8	7.4	85	6.9	7.2										
15	493.2385	1.494662	236.5	6.4	87	6.8	7.1	20.8	258.5	98.0	1218.1	17.4	216.3	70.0	870.1	40.5	455.5
16	446.3095	1.204655	184.9	5.3	86	6.7	7.2					24.9	249.4	50.0	500.9		
17		0.543034	86.0	2.2	83	6.8	7.2										
18		0.411005	77.4	1.8	88	7.1	7.3										
19	508.5385	1.141802	240.8	5.5	87	6.9	7.4										
20	495.3060	1.172890	460.1	9.9	87	6.6	7.0	45.2	440.9	54.0	526.7	15.0	146.3	85.0	829.1	31.5	
21	479.7355	1.302522	541.8	12.0	91	6.6	7.0					14.4	156.0	95.0	1029.0		
22	487.4760	1.427617	610.6	13.3	88	6.5	7.4										
23	492.9995	1.286083	464.4	11.2	89	6.6	7.3										
24		0.662589	232.2	4.8	97	6.8	7.4										
25		0.667853	270.9	5.9	88	6.0	8.2										
26	506.9675	1.198279	193.5	6.1	90	6.8	7.3										
27	474.9595	1.375797	240.8	5.7	90	6.8	7.2	28.3	323.8	106.7	1220.8	15.0	171.6	100.0	1144.1	46.5	
28	474.2000	1.335431	215.0	5.8	93	6.7	7.0					12.8	142.1	95.0	1055.0		
29		0.556518	90.3	2.8	86	6.5	7.2										
30		0.407916	43.0	1.4	84	6.6	7.7										
31		0.404145	90.3	1.8	82	7.1	7.4										
TOT	7834.6075	29.204937	7899.1	185.3					1738.7		3677.5		1471.5		7362.3		
AVG	489.6630	0.942095	254.8	6.0	87			38.3	434.7	79.4	919.4	16.6	183.9	82.5	920.3	40.1	455.5

PERMITTEE NAME / ADDRESS (Include Facility Name/Location if different)

NAME STAR KIST SAMOA, Inc

ADDRESS P. O. BOX 368

PAGO PAGO AMERICAN SAMOA 96799

FACILITY

LOCATION

NATIONAL POLLUTANT DISCHARGE SYSTEM (NPDES)

DISCHARGE MONITORING REPORT (DMR)

Form Approved
OMB No. 2040-0004
Expires 3-31-88

(2-16)	(17-19)
AS0000019	001
PERMIT NUMBER	DISCHARGE NUMBER

MONITORING PERIOD						
YEAR	MO	DAY		YEAR	MO	DAY
2001	03	01	TO	2001	03	31
(20-21)	(22-23)			(26-27)	(28-29)	(30-31)

NOTE: Read instructions before completing this form.

PARAMETER (32-37)		(3 Card Only) QUANTITY OR LOADING (46-53) AVERAGE	(54-61) MAXIMUM	UNITS	(4 Card Only) QUALITY OR CONCENTRATION (38-45) MINIMUM	(46-53) AVERAGE	(54-61) MAXIMUM	UNITS	NO. EX (62-63)	FREQUENCY OF ANALYSIS (64-68)	SAMPLE TYPE (69-70)
FLOW	SAMPLE MEASUREMENT	0.942095	1.662262						0	Continuous	Recorder
	PERMIT REQUIREMENT		2.9	mgd						"	"
BOD5	SAMPLE MEASUREMENT				455.5	455.5	455.5		0	Once/Mon	Composite
	PERMIT REQUIREMENT				N/A	N/A	N/A	mg/l		" "	"
TSS	SAMPLE MEASUREMENT	919.4	1220.8		54.0	79.4	106.7		0	Once/Week	Composite
	PERMIT REQUIREMENT	2996	7536	lbs/day	N/A	N/A	N/A	mg/l		" "	"
OIL & GREASE	SAMPLE MEASUREMENT	434.7	715.5		20.8	38.3	59.0		0	Once/Week	Grab (2)
	PERMIT REQUIREMENT	763	1907	lbs/ day	N/A	N/A	N/A	mg/l		" "	" "
TOTAL PHOSPHORUS	SAMPLE MEASUREMENT	183.9	249.4		12.8	16.6	24.9		0	One Set/Month (3)	Composite
	PERMIT REQUIREMENT	192	309	lbs/day	N/A	N/A	N/A	mg/l		" "	"
TOTAL NITROGEN	SAMPLE MEASUREMENT	920.3	1144.1		50.0	82.5	100.0		0	One Set/Month (3)	Composite
	PERMIT REQUIREMENT	1200	2100	lbs/day	N/A	N/A	N/A	mg/l		" "	"
TOTAL AMMONIA	SAMPLE MEASUREMENT				31.5	40.1	46.5		0	Once/Week	Composite
	PERMIT REQUIREMENT				N/A	N/A	133	mg/l		"	"

NAME / TITLE PRINCIPAL EXECUTIVE OFFICER

LANCE IHAKA
Manager, Engineering and Maintenance
TYPE OR PRINTED

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SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT

TELEPHONE		DATE		
AREA CODE	NUMBER	YEAR	MO	DAY

COMMENT AND EXPLANATION OF ANY VIOLATIONS(Reference all attachments here)

PERMITTEE NAME / ADDRESS (Include Facility Name/Location if different)

NAME: STAR KIST SAMOA, Inc

ADDRESS: P. O. BOX 368

PAGO PAGO AMERICAN SAMOA 96799

FACILITY

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NATIONAL POLLUTANT DISCHARGE SYSTEM (NPDES)

DISCHARGE MONITORING REPORT (DMR)

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MONITORING PERIOD						
YEAR	MO	DAY		YEAR	MO	DAY
2001	03	01	TO	2001	03	31
(20-21)	(22-23)			(26-27)	(28-29)	(30-31)

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TEMPERATURE	SAMPLE MEASUREMENT					87	97		1	Continuous	Continuous
	PERMIT REQUIREMENT					90	95	° F		"	"
pH	SAMPLE MEASUREMENT				6.0		8.2		1	Continuous	Continuous
	PERMIT REQUIREMENT				6.5		8.6			"	"
TOTAL COPPER	SAMPLE MEASUREMENT					<20.0	<20.0		0	Once/Month	Composite
	PERMIT REQUIREMENT					66	108	µg/L		" "	"
TOTAL ZINC	SAMPLE MEASUREMENT					400.0	400.0		0	Once/Month	Composite
	PERMIT REQUIREMENT					1545	1770	µg/L		" "	"
	SAMPLE MEASUREMENT										
	PERMIT REQUIREMENT										
	SAMPLE MEASUREMENT										
	PERMIT REQUIREMENT										
	SAMPLE MEASUREMENT										
	PERMIT REQUIREMENT										

NAME/TITLE PRINCIPAL EXECUTIVE OFFICER

LANCE IHAKA
Manager, Engineering and Maintenance
TYPE OR PRINTED

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SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT

TELEPHONE		DATE		
AREA CODE	NUMBER	YEAR	MO	DAY

COMMENT AND EXPLANATION OF ANY VIOLATIONS(Reference all attachments here)

We had one (1) pH reading which was below 6.5 through out the month. The pH reading was 6.0 for an hour and fifteen minutes and had been corrected right away.
The Operator had been issued with disiplinary action also had been retrained on the Procedures and the EPA Requirements.
The Temperature exceeded 95°F on March 24, 2001 which was a Non-Production Day. Temperature was corrected immediately upon detection.

StarKist Samoa, Inc.

A Division of StarKist Foods, Inc.
P.O. Box 368
Pago Pago, Tutuila, 96799
American Samoa 96799
Telephone: 684-644-4201
Facsimile: 684-644-2141

February 20, 2001

Mr. Carl L. Goldstein
U. S. EPA Region 9
Pacific Insular Area Program (CMD-5)
75 Hawthorne Street
San Francisco, CA 94105

Mr. Togipa Tausaga,
Director, ASEPA
Office of the Governor
EOB Utulei, American Samoa 96799

Gentlemen :

Re : **Discharge Monitoring Report for the Months of November and December of 2000, and January of 2001 under NPDES No . 0000019 as issued to Star Kist Samoa ,INC.**

Attached is the Star Kist Samoa's Discharge Monitoring Reports covering the months of November, December of 2000, and January of 2001.

Star Kist Samoa met all Effluent limits.

Sincerely

Lance Ihaka
Manager , Engineering and Maintenance

LI \ ls : \ npdes \samoa

Attachments :
cc : Ms. Sheila Wiegman
Mr. Peter Peshut
Mr. Alan Ota
Mr. John Brown
Mr. Phil Thirkell

PERMITTEE NAME / ADDRESS (Include Facility Name/Location if different)

NAME STAR KIST SAMOA, Inc

ADDRESS P. O. BOX 368

PAGO PAGO AMERICAN SAMOA 96799

FACILITY

LOCATION

NATIONAL POLLUTANT DISCHARGE SYSTEM (NPDES)

DISCHARGE MONITORING REPORT (DMR)

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OMB No. 2040-0004
Expires 3-31-88

(2-16)	(17-19)
AS0000019	001
PERMIT NUMBER	DISCHARGE NUMBER

MONITORING PERIOD						
YEAR	MO	DAY		YEAR	MO	DAY
2000	11	01	TO	2000	11	30
(20-21)	(22-23)			(26-27)	(28-29)	(30-31)

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PARAMETER (32-37)		(3 Card Only) QUANTITY OR LOADING (46-53) AVERAGE	(54-61) MAXIMUM	UNITS	(4 Card Only) QUALITY OR CONCENTRATION (38-45) MINIMUM	(46-53) AVERAGE	(54-61) MAXIMUM	UNITS	NO. EX (62-63)	FREQUENCY OF ANALYSIS (64-68)	SAMPLE TYPE (69-70)
FLOW	SAMPLE MEASUREMENT	0.718147	1.015298						0	Continuous	
	PERMIT REQUIREMENT		2.9	mgd						"	
BOD5	SAMPLE MEASUREMENT				656.0	656.0	656.0		0	2 / Mon	Composite
	PERMIT REQUIREMENT				N/A	N/A	N/A	mg/l		"	"
TSS	SAMPLE MEASUREMENT	842.8	1282.4		74.0	112.2	171.3		0	2 / Week	Composite
	PERMIT REQUIREMENT	2653	6673	lbs/day	N/A	N/A	N/A	mg/l		"	"
OIL & GREASE	SAMPLE MEASUREMENT	359.5	665.2		17.8	46.4	84.7		0	2 / Week	Grab (2)
	PERMIT REQUIREMENT	675	1688	lbs/ day	N/A	N/A	N/A	mg/l		"	" "
TP	SAMPLE MEASUREMENT	144.8	197.4		14.6	19.2	27.7		0	2 / Week	Composite
	PERMIT REQUIREMENT	192	309	lbs/day	N/A	N/A	N/A	mg/l		"	"
TN	SAMPLE MEASUREMENT	925.3	1201.3		80.0	121.1	145.0		0	2 / Week	Composite
	PERMIT REQUIREMENT	1200	2100	lbs/day	N/A	N/A	N/A	mg/l		"	"
TOTAL AMMONIA	SAMPLE MEASUREMENT				25.0	53.3	82.4		0	1 / Week	Composite
	PERMIT REQUIREMENT				N/A	N/A	133	mg/l		"	"

NAME / TITLE PRINCIPAL EXECUTIVE OFFICER

LANCE IHAKA
Manager, Engineering and Maintenance
TYPE OR PRINTED

I CERTIFY UNDER PENALTY OF LAW THAT I HAVE PERSONALLY EXAMINED AND AM FAMILIAR WITH THE INFORMATION SUBMITTED HEREIN AND BASED ON MY INQUIRY OF THOSE INDIVIDUALS IMMEDIATELY RESPONSIBLE FOR OBTAINING THE INFORMATION. I BELIEVE THE SUBMITTED INFORMATION IS TRUE, ACCURATE AND COMPLETE. I AM AWARE THAT THERE ARE SIG. NIFICANT PENALTIES FOR SUBMITTING FALSE INFORMATION INCLUDING THE POSSIBILITY OF FINE AND IMPRISONMENT SEE 18 U.S.C. 1001 AND 33 U.S.C. 1319 *(Penalties under these statutes may include fines up to $10,000 and or maximum imprisonment of between 6 month and 5 years)*

SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT

TELEPHONE		DATE		
AREA CODE	NUMBER	YEAR	MO	DAY

COMMENT AND EXPLANATION OF ANY VIOLATIONS(Reference all attachments here)

PERMITTEE NAME / ADDRESS (Include Facility Name/Location if different)

NAME: STAR KIST SAMOA, Inc

ADDRESS: P. O. BOX 368

PAGO PAGO AMERICAN SAMOA 96799

FACILITY

LOCATION

NATIONAL POLLUTANT DISCHARGE SYSTEM (NPDES)

DISCHARGE MONITORING REPORT (DMR)

Form Approved
OMB No. 2040-0004
Expires 3-31-88

(2-16)	(17-19)
AS0000019	001
PERMIT NUMBER	DISCHARGE NUMBER

MONITORING PERIOD						
YEAR	MO	DAY		YEAR	MO	DAY
2000	11	01	TO	2000	11	30
(20-21)	(22-23)			(26-27)	(28-29)	(30-31)

NOTE: Read instructions before completing this form.

PARAMETER (32-37)		(3 Card Only) QUANTITY OR LOADING (46-53) AVERAGE	(54-61) MAXIMUM	UNITS	(4 Card Only) QUALITY OR CONCENTRATION (38-45) MINIMUM	(46-53) AVERAGE	(54-61) MAXIMUM	UNITS	NO. EX (62-63)	FREQUENCY OF ANALYSIS (64-68)	SAMPLE TYPE (69-70)
TEMPERATURE	SAMPLE MEASUREMENT					83	90	°F	0	Continuous	Continuous
	PERMIT REQUIREMENT					90	95			*	*
pH	SAMPLE MEASUREMENT				6.2		8.4		0	Continuous	Continuous
	PERMIT REQUIREMENT				6.5		8.6			*	*
	SAMPLE MEASUREMENT										
	PERMIT REQUIREMENT										
	SAMPLE MEASUREMENT										
	PERMIT REQUIREMENT										
	SAMPLE MEASUREMENT										
	PERMIT REQUIREMENT										
	SAMPLE MEASUREMENT										
	PERMIT REQUIREMENT										
	SAMPLE MEASUREMENT										
	PERMIT REQUIREMENT										

NAME/TITLE PRINCIPAL EXECUTIVE OFFICER

LANCE IHAKA
Manager, Engineering and Maintenance

TYPE OR PRINTED

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SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT

TELEPHONE		DATE		
AREA CODE	NUMBER	YEAR	MO	DAY

COMMENT AND EXPLANATION OF ANY VIOLATIONS(Reference all attachments here)

We had two (2) pH readings which were below 6.5 through out the calendar month. We did not exceed the one-hour individual excurtion limit or the seven hours and twenty six minutes for the calendar month. This is not considered a violation.

Wastewater Summary Report for the month of November 2000

Date	Production Tons	Flow mgd	Alum #/day	Poly #/day	Max Temp F	pH Limits Lo	pH Limits Hi	Oil &Grease Eff mg/l	Oil &Grease Total #/day	TSS Eff mg/l	TSS Total #/day	TP Eff mg/l	TP Total #/day	TN Eff mg/l	TN Total #/day	Total Ammonia Eff mg/l	BOD Eff mg/l
1	519.0960	0.883000	283.8	9.6	80	6.5	7.8	84.7	622.0	101.3	743.8	14.6	107.2	80.0	587.4	25.0	
2	532.2040	0.904200	240.8	8.6	80	6.2	7.8	73.0	548.9	104.7	787.3	15.8	118.8	100.0	751.9		
3	462.5045	0.831460	137.6	4.0	81	6.6	7.6										
4		0.302172	51.6	2.0	88	6.3	7.1										
5		0.121116	25.8	0.2	82	6.5	6.6										
6		0.596511	116.1	3.8	83	6.5	7.8										
7	534.2415	0.823119	193.5	6.4	80	6.8	7.8										
8	511.1100	0.918314	339.7	8.1	80	6.6	8.4										
9	545.6765	1.008740	481.6	10.5	81	6.5	8.1	79.3	665.2	75.3	631.7	17.2	144.3	130.0	1090.5	82.4	
10	535.2160	0.996272	460.1	11.0	80	6.5	7.3	72.4	599.8	123.3	1021.5	18.7	154.9	145.0	1201.3		656.0
11	435.8605	0.696585	262.3	5.6	88	6.7	7.2										
12		0.720941	215.0	7.1	88	6.7	8.0										
13	534.5255	0.982835	309.6	6.1	84	6.5	7.4										
14	522.9140	0.934777	288.1	6.8	81	6.5	7.9										
15	534.1595	0.993407	387.0	11.6	83	6.6	7.4	22.0	181.7	74.0	611.3	23.9	197.4	140.0	1156.6	51.9	
16	467.3180	0.963274	374.1	11.1	81	6.7	7.8	21.3	170.6	94.7	758.6	20.3	162.6	140.0	1121.5		
17	485.5315	0.666037	197.8	5.9	87	6.6	7.0										
18		0.357922	77.4	2.2	88	6.6	7.0										
19		0.715922	223.6	6.4	88	6.5	7.9										
20	526.7820	1.015298	249.4	6.0	78	6.7	7.2										
21	468.2080	1.009911	331.1	8.4	78	6.5	7.4	22.5	189.0	152.7	1282.4	17.2	144.5	110.0	923.8	45.5	
22	494.1980	0.768190	322.5	8.5	82	6.5	7.3	24.3	155.2	171.3	1094.3	17.7	113.1	125.0	798.5		
23		0.365396	90.3	3.0	87	6.6	7.3										
24		0.098997	12.9	0.8	82	6.7	6.8										
25		0.130252	38.7	1.3	82	6.7	7.0										
26		0.552135	150.5	4.2	82	6.8	7.2										
27	519.7445	0.789802	146.2	7.8	90	6.7	7.9										
28	533.4405	0.790540	189.2	8.4	78	6.6	7.6										
29	489.6910	0.909579	369.8	11.1	80	6.5	8.2										
30	517.2665	0.697701	266.6	8.0	84	6.5	8.1	17.8	103.3	112.7	653.9	27.7	160.7	120.0	696.2	61.9	
TOT	10169.6880	21.544405	6832.7	194.5					3235.7		7584.8		1303.5		8327.7		
AVG	508.4844	0.718147	227.8	6.5	83			46.4	359.5	112.2	842.8	19.2	144.8	121.1	925.3	53.3	656.0

PERMITTEE NAME / ADDRESS (Include Facility Name/Location if different)

NAME STAR KIST SAMOA, Inc

ADDRESS P. O. BOX 368

PAGO PAGO AMERICAN SAMOA 96799

FACILITY

LOCATION

NATIONAL POLLUTANT DISCHARGE SYSTEM (NPDES)

DISCHARGE MONITORING REPORT (DMR)

Form Approved
OMB No. 2040-0004
Expires 3-31-88

(2-16)	(17-19)
AS0000019	001
PERMIT NUMBER	DISCHARGE NUMBER

MONITORING PERIOD						
YEAR	MO	DAY		YEAR	MO	DAY
2000	12	01	TO	2000	12	31
(20-21)	(22-23)			(26-27)	(28-29)	(30-31)

NOTE: Read Instructions before completing this form.

PARAMETER (32-37)		(3 Card Only) QUANTITY OR LOADING (46-53) AVERAGE	(54-61) MAXIMUM	UNITS	(4 Card Only) QUALITY OR CONCENTRATION (38-45) MINIMUM	(46-53) AVERAGE	(54-61) MAXIMUM	UNITS	NO. EX (62-63)	FREQUENCY OF ANALYSIS (64-68)	SAMPLE TYPE (69-70)
FLOW	SAMPLE MEASUREMENT	0.556531	1.431002						0	Continuous	
	PERMIT REQUIREMENT		2.9	mgd						"	
BOD5	SAMPLE MEASUREMENT				244.6	244.6	244.6		0	2 / Mon	Composite
	PERMIT REQUIREMENT				N/A	N/A	N/A	mg/l		"	"
TSS	SAMPLE MEASUREMENT	1004.0	1410.9		36.0	120.5	194.0		0	2 / Week	Composite
	PERMIT REQUIREMENT	2653	6673	lbs/day	N/A	N/A	N/A	mg/l		"	"
OIL & GREASE	SAMPLE MEASUREMENT	282.6	367.7		24.8	30.0	35.9		0	2 / Week	Grab (2)
	PERMIT REQUIREMENT	675	1688	lbs/ day	N/A	N/A	N/A	mg/l		"	" "
TP	SAMPLE MEASUREMENT	177.2	200.9		13.1	20.0	27.2		0	2 / Week	Composite
	PERMIT REQUIREMENT	192	309	lbs/day	N/A	N/A	N/A	mg/l		"	"
TN	SAMPLE MEASUREMENT	923.2	1071.0		90.0	100.0	110.0		0	2 / Week	Composite
	PERMIT REQUIREMENT	1200	2100	lbs/day	N/A	N/A	N/A	mg/l		"	"
TOTAL AMMONIA	SAMPLE MEASUREMENT				38.3	43.5	48.6		0	1 / Week	Composite
	PERMIT REQUIREMENT				N/A	N/A	133	mg/l		"	"

NAME / TITLE PRINCIPAL EXECUTIVE OFFICER

LANCE IHAKA
Manager, Engineering and Maintenance
TYPE OR PRINTED

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SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT

TELEPHONE		DATE		
AREA CODE	NUMBER	YEAR	MO	DAY

COMMENT AND EXPLANATION OF ANY VIOLATIONS(Reference all attachments here)

PERMITTEE NAME / ADDRESS (Include Facility Name/Location if different)

NAME: STAR KIST SAMOA, Inc

ADDRESS: P. O. BOX 368

PAGO PAGO AMERICAN SAMOA 96799

FACILITY

LOCATION

NATIONAL POLLUTANT DISCHARGE SYSTEM (NPDES)

DISCHARGE MONITORING REPORT (DMR)

Form Approved
OMB No. 2040-0004
Expires 3-31-88

(2-16)	(17-19)
AS0000019	001
PERMIT NUMBER	DISCHARGE NUMBER

MONITORING PERIOD						
YEAR	MO	DAY		YEAR	MO	DAY
2000	12	01	TO	2000	12	31
(20-21)	(22-23)			(26-27)	(28-29)	(30-31)

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PARAMETER (32-37)		(3 Card Only) QUANTITY OR LOADING (46-53) AVERAGE	(54-61) MAXIMUM	UNITS	(4 Card Only) QUALITY OR CONCENTRATION (38-45) MINIMUM	(46-53) AVERAGE	(54-61) MAXIMUM	UNITS	NO. EX (62-63)	FREQUENCY OF ANALYSIS (64-68)	SAMPLE TYPE (69-70)
TEMPERATURE	SAMPLE MEASUREMENT					85	95		0	Continuous	Continuous
	PERMIT REQUIREMENT					90	95	°F		"	"
pH	SAMPLE MEASUREMENT				6.3		8.6		0	Continuous	Continuous
	PERMIT REQUIREMENT				6.5		8.6			"	"
	SAMPLE MEASUREMENT										
	PERMIT REQUIREMENT										
	SAMPLE MEASUREMENT										
	PERMIT REQUIREMENT										
	SAMPLE MEASUREMENT										
	PERMIT REQUIREMENT										
	SAMPLE MEASUREMENT										
	PERMIT REQUIREMENT										
	SAMPLE MEASUREMENT										
	PERMIT REQUIREMENT										

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SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT

TELEPHONE		DATE		
AREA CODE	NUMBER	YEAR	MO	DAY

COMMENT AND EXPLANATION OF ANY VIOLATIONS(Reference all attachments here)

We had two (2) pH readings which were below 6.5 through out the calendar month. We did not exceed the one-hour individual excurtion limit or the seven hours and twenty six minutes for the calendar month. This is not considered a violation.

Wastewater Summary Report for the month of December 2000

Date	Production Tons	Flow mgd	Alum #/day	Poly #/day	Max Temp F	pH Limits Lo	pH Limits Hi	Oil &Grease Eff mg/l	Oil &Grease Total #/day	TSS Eff mg/l	TSS Total #/day	TP Eff mg/l	TP Total #/day	TN Eff mg/l	TN Total #/day	Total Ammonia Eff mg/l	BOD Eff mg/l
1		0.442290	116.1	4.1	87	6.7	7.2										
2		0.181903	47.3	1.9	84	6.8	7.1										
3		0.486210	133.3	4.5	83	6.8	7.2										
4	532.0405	0.738645	245.1	4.5	91	6.5	7.8										
5	547.8600	0.874550	365.5	10.3	81	6.5	7.4	35.9	261.1	194.0	1410.9	24.4	177.455	110.0	800.003	38.3	
6	531.7280	0.888207	331.1	9.9	80	6.3	7.4	24.8	183.2	176.7	1305.2	27.2	200.91	110.0	812.5		
7	529.1710	0.753269	159.1	4.7	80	6.5	7.3										
8	486.2825	0.623591	159.1	3.8	92	6.5	7.0										
9		0.332863	73.1	2.2	95	6.5	7.1										
10		0.675966	172.0	6.3	86	6.6	7.3										
11	530.5780	0.875496	129.0	5.1	85	6.6	7.3										
12	518.6960	1.063604	210.7	7.6	94	6.5	7.2										
13	544.2505	1.431002	421.4	10.8	94	6.5	7.1	30.9	367.7	75.3	896.1	15.4	183.26	90.0	1071.0	48.6	
14	528.7305	1.348495	477.3	12.0	89	6.5	7.3	28.4	318.5	36.0	403.7	13.10	146.90	90.0	1009.3		244.6
15	475.6440	1.368382	490.2	12.2	90	6.5	7.2										
16	SHUT DOWN	0.597603	301.0	6.4	86	6.7	8.6										
17	SHUT DOWN	0.280629	141.9	3.0	83	6.6	8.2										
18	SHUT DOWN	0.380211	116.1	2.4	84	6.5	7.4										
19	SHUT DOWN	0.463445	193.5	3.6	86	7.1	7.6										
20	SHUT DOWN	0.445965	154.8	3.4	82	7.0	8.1										
21	SHUT DOWN	0.434655	163.4	3.8	88	6.5	7.4										
22	SHUT DOWN	0.271096	94.6	2.4	94	7.1	7.5										
23	SHUT DOWN	0.288339	116.1	2.0	80	7.1	7.3										
24	SHUT DOWN	0.215196	43.0	1.1	84	7.0	7.2										
25	SHUT DOWN	0.290103	43.0	1.1	75	6.8	7.0										
26	SHUT DOWN	0.282308	94.6	2.6	81	6.7	7.0										
27	SHUT DOWN	0.211250	64.5	1.4	81	6.7	7.2										
28	SHUT DOWN	0.241954	47.3	0.8	81	6.8	7.3										
29	SHUT DOWN	0.326352	47.3	1.5	80	6.6	6.9										
30	SHUT DOWN	0.192019	55.9	1.6	81	6.6	7.0										
31	SHUT DOWN	0.246865	47.3	0.8	80	6.9	7.2										
TOT	5224.9810	17.252463	5254.6	137.8					1130.5		4015.9		708.6		3692.8		
AVG	522.4981	0.556531	169.5	4.4	85			30.0	282.6	120.5	1004.0	20.0	177.2	100.0	923.2	43.5	244.6

PERMITTEE NAME / ADDRESS (Include Facility Name/Location if different)

NAME STAR KIST SAMOA, Inc

ADDRESS P. O. BOX 368

PAGO PAGO AMERICAN SAMOA 96799

FACILITY

LOCATION

NATIONAL POLLUTANT DISCHARGE SYSTEM (NPDES)

DISCHARGE MONITORING REPORT (DMR)

Form Approved
OMB No. 2040-0004
Expires 3-31-88

(2-16)	(17-19)
AS0000019	001
PERMIT NUMBER	DISCHARGE NUMBER

MONITORING PERIOD						
YEAR	MO	DAY		YEAR	MO	DAY
2001	01	01	TO	2001	01	31
(20-21)	(22-23)			(26-27)	(28-29)	(30-31)

NOTE: Read instructions before completing this form.

PARAMETER (32-37)		(3 Card Only) QUANTITY OR LOADING (46-53) AVERAGE	(54-61) MAXIMUM	UNITS	(4 Card Only) QUALITY OR CONCENTRATION (38-45) MINIMUM	(46-53) AVERAGE	(54-61) MAXIMUM	UNITS	NO. EX (62-63)	FREQUENCY OF ANALYSIS (64-68)	SAMPLE TYPE (69-70)
FLOW	SAMPLE MEASUREMENT	0.621718	1.371723						0	Continuous	
	PERMIT REQUIREMENT		2.9	mgd						"	
BOD5	SAMPLE MEASUREMENT				437.3	437.3	437.3		0	2 / Mon	Composite
	PERMIT REQUIREMENT				N/A	N/A	N/A	mg/l		"	"
TSS	SAMPLE MEASUREMENT	543.9	829.0		31.3	54.7	91.3		0	2 / Week	Composite
	PERMIT REQUIREMENT	2653	6673	lbs/day	N/A	N/A	N/A	mg/l		"	"
OIL & GREASE	SAMPLE MEASUREMENT	499.9	957.1		13.1	48.6	83.9		0	2 / Week	Grab (2)
	PERMIT REQUIREMENT	675	1688	lbs/ day	N/A	N/A	N/A	mg/l		2 / Week	Grab (2)
TP	SAMPLE MEASUREMENT	133.2	162.1		11.6	13.0	15.0		0	2 / Week	Composite
	PERMIT REQUIREMENT	192	309	lbs/day	N/A	N/A	N/A	mg/l		"	"
TN	SAMPLE MEASUREMENT	875.6	1188.6		65.0	85.8	110.0		0	2 / Week	Composite
	PERMIT REQUIREMENT	1200	2100	lbs/day	N/A	N/A	N/A	mg/l		"	"
TOTAL AMMONIA	SAMPLE MEASUREMENT				39.8	43.3	50.0		0	1 / Week	Composite
	PERMIT REQUIREMENT				N/A	N/A	133	mg/l		"	"

NAME / TITLE PRINCIPAL EXECUTIVE OFFICER

LANCE IHAKA
Manager, Engineering and Maintenance

TYPE OR PRINTED

I CERTIFY UNDER PENALTY OF LAW THAT I HAVE PERSONALLY EXAMINED AND AM FAMILIAR WITH THE INFORMATION SUBMITTED HEREIN AND BASED ON MY INQUIRY OF THOSE INDIVIDUALS IMMEDIATELY RESPONSIBLE FOR OBTAINING THE INFORMATION. I BELIEVE THE SUBMITTED INFORMATION IS TRUE, ACCURATE AND COMPLETE. I AM AWARE THAT THERE ARE SIG. NIFICANT PENALTIES FOR SUBMITTING FALSE INFORMATION INCLUDING THE POSSIBILITY OF FINE AND IMPRISONMENT SEE 18 U.S.C. 1001 AND 33 U.S.C. 1319 *(Penalties under these statutes may include fines up to $10,000 and or maximum imprisonment of between 6 month and 5 years)*

SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT

TELEPHONE		DATE		
AREA CODE	NUMBER	YEAR	MO	DAY

COMMENT AND EXPLANATION OF ANY VIOLATIONS(Reference all attachments here)

PERMITTEE NAME / ADDRESS (Include Facility Name/Location if different)

NAME: STAR KIST SAMOA, Inc

ADDRESS: P. O. BOX 368

PAGO PAGO AMERICAN SAMOA 96799

FACILITY

LOCATION

NATIONAL POLLUTANT DISCHARGE SYSTEM (NPDES)

DISCHARGE MONITORING REPORT (DMR)

Form Approved
OMB No. 2040-0004
Expires 3-31-88

(2-16)	(17-19)
AS0000019	001
PERMIT NUMBER	DISCHARGE NUMBER

MONITORING PERIOD						
YEAR	MO	DAY		YEAR	MO	DAY
2001	01	01	TO	2001	01	31
(20-21)	(22-23)			(26-27)	(28-29)	(30-31)

NOTE: Read instructions before completing this form.

PARAMETER (32-37)		(3 Card Only) QUANTITY OR LOADING (46-53) AVERAGE	(54-61) MAXIMUM	UNITS	(4 Card Only) QUALITY OR CONCENTRATION (38-45) MINIMUM	(46-53) AVERAGE	(54-61) MAXIMUM	UNITS	NO. EX (62-63)	FREQUENCY OF ANALYSIS (64-68)	SAMPLE TYPE (69-70)
TEMPERATURE	SAMPLE MEASUREMENT					86	94	°F	0	Continuous	Continuous
	PERMIT REQUIREMENT					90	95				
pH	SAMPLE MEASUREMENT				5.8		8.0		0	Continuous	Continuous
	PERMIT REQUIREMENT				6.5		8.6				
	SAMPLE MEASUREMENT										
	PERMIT REQUIREMENT										
	SAMPLE MEASUREMENT										
	PERMIT REQUIREMENT										
	SAMPLE MEASUREMENT										
	PERMIT REQUIREMENT										
	SAMPLE MEASUREMENT										
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	SAMPLE MEASUREMENT										
	PERMIT REQUIREMENT										

NAME/TITLE PRINCIPAL EXECUTIVE OFFICER

LANCE IHAKA
Manager, Engineering and Maintenance
TYPE OR PRINTED

I CERTIFY UNDER PENALTY OF LAW THAT I HAVE PERSONALLY EXAMINED AND AM FAMILIAR WITH THE INFORMATION SUBMITTED HEREIN AND BASED ON MY INQUIRY OF THOSE INDIVIDUALS IMMEDIATELY RESPONSIBLE FOR OBTAINING THE INFORMATION. I BELIEVE THE SUBMITTED INFORMATION IS TRUE, ACCURATE AND COMPLETE. I AM AWARE THAT THERE ARE SIG. NIFICANT PENALTIES FOR SUBMITTING FALSE INFORMATION INCLUDING THE POSSIBILITY OF FINE AND IMPRISONMENT SEE 18 U.S.C. 1001 AND 33 U.S.C. 1319 *(Penalties under these statutes may include fines up to $10,000 and or maximum imprisonment of between 6 month and 5 years)*

SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT

TELEPHONE		DATE		
AREA CODE	NUMBER	YEAR	MO	DAY

COMMENT AND EXPLANATION OF ANY VIOLATIONS (Reference all attachments here)

We had six (6) pH readings which were below 6.5 through out the month. We did not exceed the one hour individual excurtion limit or the seven hours and twenty six minutes for the calendar month. This is not considered a violation.

Wastewater Summary Report for the month of January 2001

Date	Production Tons	Flow mgd	Alum #/day	Poly #/day	Max Temp F	pH Limits Lo	pH Limits Hi	Oil &Grease Eff mg/l	Oil &Grease Total #/day	TSS Eff mg/l	TSS Total #/day	TP Eff mg/l	TP Total #/day	TN Eff mg/l	TN Total #/day	Total Ammonia Eff mg/l	BOD Eff mg/l
1	SHUT DOWN	0.305492	86.0	1.9	88	6.6	7.9										
2	SHUT DOWN	0.206334	51.6	1.5	81	6.5	7.2										
3	SHUT DOWN	0.348509	150.5	3.0	83	6.9	7.5										
4	SHUT DOWN	0.417747	163.4	3.4	85	6.9	7.2										
5	SHUT DOWN	0.190457	94.6	2.1	83	6.8	7.4										
6	SHUT DOWN	0.220988	68.8	1.5	80	7.0	7.4										
7	SHUT DOWN	0.388445	77.4	0.9	81	6.7	7.3										
8	SHUT DOWN	0.353781	193.5	3.4	83	6.6	7.0										
9	SHUT DOWN	0.232803	137.6	2.1	83	6.5	7.7										
10	SHUT DOWN	0.189989	141.9	2.2	82	6.7	7.0										
11	SHUT DOWN	0.177298	64.5	1.3	83	6.7	7.0										
12	SHUT DOWN	0.273753	146.2	2.5	90	6.7	7.1										
13	SHUT DOWN	0.328377	206.4	3.9	85	6.8	7.2										
14		0.701057	193.5	6.5	82	6.5	7.2										
15	515.2605	0.980012	189.2	5.4	92	6.5	7.2										
16	410.7180	1.145473	356.9	9.2	94	6.2	7.4										
17	430.0710	1.269820	490.2	11.9	94	6.5	7.4	13.1	138.3	48.7	514.3	11.6	122.5	75.0	792.0	39.8	437.3
18	460.7150	1.197196	430.0	13.3	88	6.5	7.8	22.4	223.0	62.7	624.2	13.4	133.4	90.0	896.0		
19		0.446584	189.2	3.3	89	6.7	7.2										
20		0.335929	141.9	3.3	88	6.6	7.3										
21		0.600512	232.2	5.4	82	5.8	7.3										
22	520.4400	1.098980	399.9	9.9	94	6.5	7.4										
23	480.4020	1.163430	460.1	10.5	94	7.1	7.7										
24	492.5650	1.371723	507.4	10.8	90	6.8	7.2	83.9	957.1	39.3	448.3	12.0	136.9	65.0	741.5	50.0	
25	495.3250	1.166520	460.1	10.1	94	6.5	8.0			31.3	303.6	13.3	129.0	75.0	727.6		
26		0.680536	215.0	4.7	82	6.5	7.0										
27		0.276084	68.8	1.3	82	6.5	7.2										
28		0.202696	64.5	2.7	81	6.2	7.2										
29		0.611493	227.9	5.8	79	6.5	7.0										
30	524.0320	1.091883	382.7	10.3	88	6.7	7.1	75.0	681.0	91.3	829.0	12.7	115.3	100.0	908.0	40.0	
31	494.7305	1.299353	339.7	9.7	90	6.5	7.2					15.0	162.1	110.0	1188.6		
TOT	4824.2590	19.273254	6931.6	163.8					1999.4		2719.4		799.2		5253.7		
AVG	482.4259	0.621718	223.6	5.3	86			48.6	499.9	54.7	543.9	13.0	133.2	85.8	875.6	43.3	437.3

PERMITTEE NAME / ADDRESS (Include Facility Name/Location if different)

NAME STAR KIST SAMOA, Inc

ADDRESS P. O. BOX 368

PAGO PAGO AMERICAN SAMOA 96799

FACILITY

LOCATION

NATIONAL POLLUTANT DISCHARGE SYSTEM (NPDES)

DISCHARGE MONITORING REPORT (DMR)

Form Approved
OMB No. 2040-0004
Expires 3-31-88

(2-16)	(17-19)
AS0000019	001
PERMIT NUMBER	DISCHARGE NUMBER

MONITORING PERIOD						
YEAR	MO	DAY		YEAR	MO	DAY
2000	09	21	TO			
(20-21)	(22-23)			(26-27)	(28-29)	(30-31)

NOTE: Read instructions before completing this form.

PARAMETER (32-37)		(3 Card Only) QUANTITY OR LOADING (46-53) AVERAGE	(54-61) MAXIMUM	UNITS	(4 Card Only) QUALITY OR CONCENTRATION (38-45) MINIMUM	(46-53) AVERAGE	(54-61) MAXIMUM	UNITS	NO. EX (62-63)	FREQUENCY OF ANALYSIS (64-68)	SAMPLE TYPE (69-70)
TOTAL LEAD	SAMPLE MEASUREMENT	0.005		mg/l						1/6 Month	Composite
	PERMIT REQUIREMENT										
TOTAL CADMIUM	SAMPLE MEASUREMENT	0.009		mg/l						1/6 Month	Composite
	PERMIT REQUIREMENT										
TOTAL CHROMIUM	SAMPLE MEASUREMENT	0.070		mg/l						1/6 Month	Composite
	PERMIT REQUIREMENT										
TOTAL MERCURY	SAMPLE MEASUREMENT	<0.0008		mg/l						1/6 Month	Composite
	PERMIT REQUIREMENT										
TOTAL ZINC	SAMPLE MEASUREMENT	0.581		mg/l						1/6 Month	Composite
	PERMIT REQUIREMENT										
	SAMPLE MEASUREMENT										
	PERMIT REQUIREMENT										
	SAMPLE MEASUREMENT										
	PERMIT REQUIREMENT										

NAME / TITLE PRINCIPAL EXECUTIVE OFFICER

LANCE IHAKA
Manager, Engineering and Maintenance
TYPE OR PRINTED

I CERTIFY UNDER PENALTY OF LAW THAT I HAVE PERSONALLY EXAMINED AND AM FAMILIAR WITH THE INFORMATION SUBMITTED HEREIN AND BASED ON MY INQUIRY OF THOSE INDIVIDUALS IMMEDIATELY RESPONSIBLE FOR OBTAINING THE INFORMATION. I BELIEVE THE SUBMITTED INFORMATION IS TRUE, ACCURATE AND COMPLETE. I AM AWARE THAT THERE ARE SIG. NIFICANT PENALTIES FOR SUBMITTING FALSE INFORMATION INCLUDING THE POSSIBILITY OF FINE AND IMPRISONMENT SEE 18 U.S.C. 1001 AND 33 U.S.C. 1319 *(Penalties under these statutes may include fines up to $10,000 and or maximum imprisonment of between 6 month and 5 years)*

SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT

TELEPHONE		DATE		
AREA CODE	NUMBER	YEAR	MO	DAY

COMMENT AND EXPLANATION OF ANY VIOLATIONS(Reference all attachments here)

StarKist Samoa, Inc.

A Division of Star-Kist Foods, Inc.

P.O. Box 338
Pago Pago, Tutuila Island
American Samoa 96799

Telephone: 684 644-4231
Facsimile: 684 644-2440

July 30, 2001

Mr. Carl L. Goldstein
U. S. EPA Region 9
Pacific Insular Area Program (CMD-5)
75 Hawthorne Street
San Francisco, CA 94105

Mr. Togipa Tausaga,
Director, ASEPA
Office of the Governor
EOB Utulei, American Samoa 96799

Gentlemen :

Re : **Discharge Monitoring Report for the Months of April, May and June of 2001, under NPDES No . 0000019 as issued to Star Kist Samoa, INC.**

Attached is the Star Kist Samoa's Discharge Monitoring Reports covering the months of April to June of 2001.

Star Kist Samoa met all Effluent limits except the Temperature.

The Temperature exceeded 95°F on April 09, 2001 which was a non- Production day during the shut down of the Cannery. Temperature exceeded again in May 02, 2001 and May 25, 2001. Temperatures were corrected immediately upon detection.

The Operators were issued with disiplinary action as well as retraining them with the Work Procedures as well as the EPA Requirements.

Sincerely

Lance Ihaka
Manager , Engineering and Maintenance

LI \ ls : \ npdes \samoa
Attachments :
cc : Mr. Peter Peshut
Mr. Alan Ota
Mr. John Brown
Mr. Phil Thirkell

PERMITTEE NAME / ADDRESS (Include Facility Name/Location if different)

NAME: STAR KIST SAMOA, Inc

ADDRESS: P. O. BOX 368

PAGO PAGO AMERICAN SAMOA 96799

FACILITY

LOCATION

NATIONAL POLLUTANT DISCHARGE SYSTEM (NPDES)

DISCHARGE MONITORING REPORT (DMR)

Form Approved
OMB No. 2040-0004
Expires 3-31-88

(2-16)	(17-19)
AS0000019	001
PERMIT NUMBER	DISCHARGE NUMBER

MONITORING PERIOD						
YEAR	MO	DAY		YEAR	MO	DAY
2001	04	01	TO	2001	04	2001
(20-21)	(22-23)			(26-27)	(28-29)	(30-31)

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PARAMETER (32-37)		(3 Card Only) QUANTITY OR LOADING (46-53) 30-DAY AVERAGE	(54-61) DAILY MAXIMUM	UNITS	(4 Card Only) QUALITY OR CONCENTRATION (38-45) DAILY MINIMUM	(46-53) 30-DAY AVERAGE	(54-61) DAILY MAXIMUM	UNITS	NO. EX (62-63)	FREQUENCY OF ANALYSIS (64-68)	SAMPLE TYPE (69-70)
FLOW	SAMPLE MEASUREMENT	0.641887	1.395623						0	Continuous	Recorder
	PERMIT REQUIREMENT		2.9	mgd						"	"
BOD5	SAMPLE MEASUREMENT				520.5	520.5	520.5		0	Once / Month	Composite
	PERMIT REQUIREMENT				N/A	N/A	N/A	mg/l		" "	"
TSS	SAMPLE MEASUREMENT	1463.3	1956.6		84.7	135.7	186.6		0	Once/Week	Composite
	PERMIT REQUIREMENT	2996	7536	lbs/day	N/A	N/A	N/A	mg/l		" "	"
OIL & GREASE	SAMPLE MEASUREMENT	457.6	494.7		40.1	41.7	43.2		0	Once/Week	Grab (2)
	PERMIT REQUIREMENT	763	1907	lbs/ day	N/A	N/A	N/A	mg/l		" "	" "
TOTAL PHOSPHORUS	SAMPLE MEASUREMENT	149.0	165.7		10.4	13.3	15.8		0	One Set/Month (3)	Composite
	PERMIT REQUIREMENT	192	309	lbs/day	N/A	N/A	N/A	mg/l		" "	"
TOTAL NITROGEN	SAMPLE MEASUREMENT	937.2	1030.7		65.0	83.8	95.0		0	One Set/Month (3)	Composite
	PERMIT REQUIREMENT	1200	2100	lbs/day	N/A	N/A	N/A	mg/l		" "	"
TOTAL AMMONIA	SAMPLE MEASUREMENT				39.5	40.0	40.5		0	Once / Week	Composite
	PERMIT REQUIREMENT				N/A	N/A	133	mg/l		" "	"

NAME / TITLE PRINCIPAL EXECUTIVE OFFICER

LANCE IHAKA
Manager, Engineering and Maintenance

TYPE OR PRINTED

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SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT

TELEPHONE		DATE		
AREA CODE	NUMBER	YEAR	MO	DAY

COMMENT AND EXPLANATION OF ANY VIOLATIONS(Reference all attachments here)

PERMITTEE NAME / ADDRESS (Include Facility Name/Location if different)

NAME: STAR KIST SAMOA, Inc

ADDRESS: P. O. BOX 368

PAGO PAGO AMERICAN SAMOA 96799

FACILITY

LOCATION

NATIONAL POLLUTANT DISCHARGE SYSTEM (NPDES)

DISCHARGE MONITORING REPORT (DMR)

Form Approved
OMB No. 2040-0004
Expires 3-31-88

(2-16)	(17-19)
AS0000019	001
PERMIT NUMBER	DISCHARGE NUMBER

MONITORING PERIOD						
YEAR	MO	DAY		YEAR	MO	DAY
2001	04	01	TO	2001	04	30
(20-21)	(22-23)			(26-27)	(28-29)	(30-31)

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PARAMETER (32-37)		(3 Card Only) QUANTITY OR LOADING (46-53) 30-DAY AVERAGE	(54-61) DAILY MAXIMUM	UNITS	(4 Card Only) QUALITY OR CONCENTRATION (38-45) DAILY MINIMUM	(46-53) 30-DAY AVERAGE	(54-61) DAILY MAXIMUM	UNITS	NO. EX (62-63)	FREQUENCY OF ANALYSIS (64-68)	SAMPLE TYPE (69-70)
TEMPERATURE	SAMPLE MEASUREMENT					87	97	°F	1	Continuous	Continuous
	PERMIT REQUIREMENT					90	95				
pH	SAMPLE MEASUREMENT				6.2		7.9		0	Continuous	Continuous
	PERMIT REQUIREMENT				6.5		8.6				
TOTAL COPPER	SAMPLE MEASUREMENT					34.0	34.0	µg/L	0	Once/Month	Composite
	PERMIT REQUIREMENT					66	108				
TOTAL ZINC	SAMPLE MEASUREMENT					392.0	392.0	µg/L	0	Once/Month	Composite
	PERMIT REQUIREMENT					1545	1770				
	SAMPLE MEASUREMENT										
	PERMIT REQUIREMENT										
	SAMPLE MEASUREMENT										
	PERMIT REQUIREMENT										
	SAMPLE MEASUREMENT										
	PERMIT REQUIREMENT										

NAME/TITLE PRINCIPAL EXECUTIVE OFFICER

LANCE IHAKA
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SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT

TELEPHONE		DATE		
AREA CODE	NUMBER	YEAR	MO	DAY

COMMENT AND EXPLANATION OF ANY VIOLATIONS (Reference all attachments here)

We had two (2) pH readings which were below 6.5 through out the month. W e did not exceed the one-hour individual excurtion limit or the seven hours and twenty six minutes for the calendar month. This is not considered a violation.

The Temperature exceeded 95°F on April 09, 2001 which was a non- Production day during the shut down of the Cannery. Temperature was corrected immediately upon detection. The Operator had been issued with disiplinary action.

Wastewater Summary Report for the month of April 2001

Date	Production Tons	Flow mgd	Alum #/day	Poly #/day	Max Temp °F	pH Limits Lo	pH Limits Hi	Oil &Grease Eff mg/l	Oil &Grease Total #/day	TSS Eff mg/l	TSS Total #/day	TP Eff mg/l	TP Total #/day	TN Eff mg/l	TN Total #/day	Total Ammonia Eff mg/l	BOD Eff mg/l
1		0.474749	38.7	0.9	82	7.0	7.3										
2		0.791001	98.9	4.2	78	6.8	7.5										
3	488.5905	1.274001	249.4	6.7	91	6.5	7.2										
4	457.6960	1.377112	245.1	6.7	89	6.7	7.1	43.2	494.7	84.7	970.0	12.8	146.6	90.0	1030.7	40.5	
5	485.7265	1.395623	253.7	6.4	86	6.7	7.2					10.4	120.7	65.0	754.4		
6	498.1260	1.304267	180.6	5.7	92	6.8	7.2										
7	SHUT DOWN	0.513569	94.6	2.0	94	7.0	7.4										
8	SHUT DOWN	0.220702	55.9	1.1	90	7.0	7.4										
9	SHUT DOWN	0.263836	47.3	1.2	97	6.7	7.8										
10	SHUT DOWN	0.264782	68.8	1.5	87	6.6	7.3										
11	SHUT DOWN	0.317715	47.3	0.8	81	6.8	7.2										
12	SHUT DOWN	0.332369	51.6	1.4	88	6.9	7.4										
13	SHUT DOWN	0.228039	34.4	0.9	85	7.0	7.3										
14	SHUT DOWN	0.259673	43.0	1.2	92	6.2	7.8										
15	SHUT DOWN	0.259611	34.4	1.2	82	7.1	7.4										
16	SHUT DOWN	0.290373	47.3	1.3	81	7.2	7.3										
17	SHUT DOWN	0.250747	47.3	1.4	92	7.1	7.3										
18	SHUT DOWN	0.231095	43.0	0.9	80	7.1	7.2										
19	SHUT DOWN	0.162948	30.1	0.8	80	7.1	7.9										
20	SHUT DOWN	0.355624	77.4	1.9	84	6.9	7.5										
21	SHUT DOWN	0.222498	47.3	1.5	82	6.9	7.2										
22		0.284420	47.3	0.7	86	6.8	7.4										
23		0.749801	137.6	3.0	80	6.6	7.0										
24	503.6100	1.072448	253.7	5.6	93	6.4	7.1										
25	483.0130	1.260902	369.8	9.1	94	6.6	7.0	40.1	420.5	186.6	1956.6	15.8	165.7	95.0	996.1	39.5	520.5
26	515.1575	1.368733	507.4	11.4	92	6.6	7.2					14.3	162.8	85.0	967.5		
27	488.3155	1.176064	322.5	6.8	88	6.6	7.2										
28		0.616786	111.8	3.0	86	6.6	7.6										
29		0.689418	133.3	3.4	90	6.8	7.3										
30	519.1080	1.247715	219.3	4.9	94	6.8	7.4										
TOT	4439.3430	19.256621	3938.8	97.6					915.2		2926.6		595.8		3748.7		
AVG	493.2603	0.641887	131.3	3.3	87			41.7	457.6	135.7	1463.3	13.3	149.0	83.8	937.2	40.0	520.5

PERMITTEE NAME / ADDRESS (Include Facility Name/Location if different)

NAME STAR KIST SAMOA, Inc

ADDRESS P. O. BOX 368

PAGO PAGO AMERICAN SAMOA 96799

FACILITY

LOCATION

NATIONAL POLLUTANT DISCHARGE SYSTEM (NPDES)

DISCHARGE MONITORING REPORT (DMR)

Form Approved
OMB No. 2040-0004
Expires 3-31-88

(2-16)	(17-19)
AS0000019	001
PERMIT NUMBER	DISCHARGE NUMBER

MONITORING PERIOD						
YEAR	MO	DAY		YEAR	MO	DAY
2001	05	01	TO	2001	05	31
(20-21)	(22-23)			(26-27)	(28-29)	(30-31)

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PARAMETER (32-37)		(3 Card Only) QUANTITY OR LOADING (46-53) 30-DAY AVERAGE	(54-61) DAILY MAXIMUM	UNITS	(4 Card Only) QUALITY OR CONCENTRATION (38-45) DAILY MINIMUM	(46-53) 30-DAY AVERAGE	(54-61) DAILY MAXIMUM	UNITS	NO. EX (62-63)	FREQUENCY OF ANALYSIS (64-68)	SAMPLE TYPE (69-70)
FLOW	SAMPLE MEASUREMENT	1.114198	1.578881						0	Continuous	Recorder
	PERMIT REQUIREMENT		2.9	mgd						"	"
BOD5	SAMPLE MEASUREMENT				568.0	568.0	568.0		0	Once/Month	Composite
	PERMIT REQUIREMENT				N/A	N/A	N/A	mg/l		" "	"
TSS	SAMPLE MEASUREMENT	1447.4	2681.7		72.0	126.9	220.0		0	Once/Week	Composite
	PERMIT REQUIREMENT	2996	7536	lbs/day	N/A	N/A	N/A	mg/l		" "	"
OIL & GREASE	SAMPLE MEASUREMENT	493.6	783.8		13.5	44.6	66.3		0	Once/Week	Grab (2)
	PERMIT REQUIREMENT	763	1907	lbs/ day	N/A	N/A	N/A	mg/l	"	" "	" "
TOTAL PHOSPHORUS	SAMPLE MEASUREMENT	158.9	207.3		10.7	14.1	19.0		0	One Set/Month (3)	Composite
	PERMIT REQUIREMENT	192	309	lbs/day	N/A	N/A	N/A	mg/l		" "	"
TOTAL NITROGEN	SAMPLE MEASUREMENT	894.8	1082.0		60.0	79.5	105.0		0	One Set/Month (3)	Composite
	PERMIT REQUIREMENT	1200	2100	lbs/day	N/A	N/A	N/A	mg/l		" "	"
TOTAL AMMONIA	SAMPLE MEASUREMENT				36.0	43.1	50.5		0	Once/Week	Composite
	PERMIT REQUIREMENT				N/A	N/A	133	mg/l		"	"

NAME / TITLE PRINCIPAL EXECUTIVE OFFICER

LANCE IHAKA
Manager, Engineering and Maintenance
TYPE OR PRINTED

I CERTIFY UNDER PENALTY OF LAW THAT I HAVE PERSONALLY EXAMINED AND AM FAMILIAR WITH THE INFORMATION SUBMITTED HEREIN AND BASED ON MY INQUIRY OF THOSE INDIVIDUALS IMMEDIATELY RESPONSIBLE FOR OBTAINING THE INFORMATION. I BELIEVE THE SUBMITTED INFORMATION IS TRUE, ACCURATE AND COMPLETE. I AM AWARE THAT THERE ARE SIGNIFICANT PENALTIES FOR SUBMITTING FALSE INFORMATION INCLUDING THE POSSIBILITY OF FINE AND IMPRISONMENT SEE 18 U.S.C. 1001 AND 33 U.S.C. 1319 *(Penalties under these statutes may include fines up to $10,000 and or maximum imprisonment of between 6 month and 5 years)*

SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT

TELEPHONE		DATE		
AREA CODE	NUMBER	YEAR	MO	DAY

COMMENT AND EXPLANATION OF ANY VIOLATIONS(Reference all attachments here)

PERMITTEE NAME / ADDRESS (Include Facility Name/Location if different)

NAME: STAR KIST SAMOA, Inc

ADDRESS: P. O. BOX 368

PAGO PAGO AMERICAN SAMOA 96799

FACILITY

LOCATION

NATIONAL POLLUTANT DISCHARGE SYSTEM (NPDES)

DISCHARGE MONITORING REPORT (DMR)

Form Approved
OMB No. 2040-0004
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(2-16)	(17-19)
AS0000019	001
PERMIT NUMBER	DISCHARGE NUMBER

MONITORING PERIOD						
YEAR	MO	DAY		YEAR	MO	DAY
2001	05	01	TO	2001	05	31
(20-21)	(22-23)			(26-27)	(28-29)	(30-31)

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PARAMETER (32-37)		(3 Card Only) QUANTITY OR LOADING (46-53) 30-DAY AVERAGE	(54-61) DAILY MAXIMUM	UNITS	(4 Card Only) QUALITY OR CONCENTRATION (38-45) DAILY MINIMUM	(46-53) 30-DAY AVERAGE	(54-61) DAILY MAXIMUM	UNITS	NO. EX (62-63)	FREQUENCY OF ANALYSIS (64-68)	SAMPLE TYPE (69-70)
TEMPERATURE	SAMPLE MEASUREMENT					89	102	°F	2	Continuous	Continuous
	PERMIT REQUIREMENT					90	95				
pH	SAMPLE MEASUREMENT				6.5		8.3		0	Continuous	Continuous
	PERMIT REQUIREMENT				6.5		8.6				
TOTAL COPPER	SAMPLE MEASUREMENT					<10	<10	µg/L	0	Once/Month	Composite
	PERMIT REQUIREMENT					66	108				
TOTAL ZINC	SAMPLE MEASUREMENT					410.0	410.0	µg/L	0	Once/Month	Composite
	PERMIT REQUIREMENT					1545	1770				
	SAMPLE MEASUREMENT										
	PERMIT REQUIREMENT										
	SAMPLE MEASUREMENT										
	PERMIT REQUIREMENT										
	SAMPLE MEASUREMENT										
	PERMIT REQUIREMENT										

NAME/TITLE PRINCIPAL EXECUTIVE OFFICER

LANCE IHAKA
Manager, Engineering and Maintenance
TYPE OR PRINTED

I CERTIFY UNDER PENALTY OF LAW THAT I HAVE PERSONALLY EXAMINED AND AM FAMILIAR WITH THE INFORMATION SUBMITTED HEREIN AND BASED ON MY INQUIRY OF THOSE INDIVIDUALS IMMEDIATELY RESPONSIBLE FOR OBTAINING THE INFORMATION. I BELIEVE THE SUBMITTED INFORMATION IS TRUE, ACCURATE AND COMPLETE. I AM AWARE THAT THERE ARE SIGNIFICANT PENALTIES FOR SUBMITTING FALSE INFORMATION INCLUDING THE POSSIBILITY OF FINE AND IMPRISONMENT SEE 18 U.S.C. 1001 AND 33 U.S.C. 1319 *(Penalties under these statutes may include fines up to $10,000 and or maximum imprisonment of between 6 month and 5 years)*

SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT

TELEPHONE		DATE		
AREA CODE	NUMBER	YEAR	MO	DAY

COMMENT AND EXPLANATION OF ANY VIOLATIONS(Reference all attachments here)

The Temperature exceeded 95°F on May 02, 2001 and May 25, 2001. The Temperature were corrected immediately upon detection.
The Operators were issued with disiplinary action.

Wastewater Summary Report for the month of May 2001

Date	Production Tons	Flow mgd	Alum #/day	Poly #/day	Max Temp °F	pH Limits Lo	pH Limits Hi	Oil &Grease Eff mg/l	Oil &Grease Total #/day	TSS Eff mg/l	TSS Total #/day	TP Eff mg/l	TP Total #/day	TN Eff mg/l	TN Total #/day	Total Ammonia Eff mg/l	BOD Eff mg/l
1	526.2010	1.399043	249.4	7.1	88	6.7	7.4										
2	549.2710	1.369623	219.3	6.3	102	6.9	7.3	20.1	228.9	72.0	820.1	15.2	173.1	95.0	1082.0	50.5	
3	528.3860	1.312080	245.1	6.7	88	6.8	7.3					19.0	207.3	90.0	982.0		
4	478.4010	1.207596	193.5	5.7	89	6.8	7.4										
5		0.587396	98.9	2.2	88	6.9	7.6										
6		0.666019	107.5	2.8	84	7.0	7.3										
7	513.6205	1.275650	150.5	4.1	85	6.7	7.1										
8	489.6100	1.371352	223.6	6.2	82	6.7	7.1										
9	501.5300	1.219499	232.2	7.1	90	6.5	7.9	13.5	136.9	86.0	872.2	14.9	151.1	105.0	1064.8	45.5	568.0
10	480.2870	1.333468	227.9	6.2	94	6.7	7.1					13.3	147.5	75.0	831.7		
11	456.4970	1.185622	133.3	5.6	88	6.8	7.0										
12		0.514603	51.6	2.3	87	6.6	7.3										
13		0.903723	120.4	4.0	82	6.9	7.2										
14	520.0900	1.129009	167.7	5.3	88	6.5	7.8										
15	497.9700	1.578881	163.4	5.7	86	6.8	7.1										
16	507.5750	1.110410	262.3	9.0	90	6.7	7.3	66.3	612.2	78.0	720.3	10.7	98.8	60.0	554.1	38.0	
17	488.9720	1.385917	258.0	10.4	88	6.7	7.6					10.9	125.6	65.0	749.1		
18	472.6245	1.270020	258.0	7.4	89	6.5	7.8										
19		0.633660	120.4	2.9	82	6.6	7.0										
20		0.740607	86.0	2.9	84	6.5	8.3										
21	531.7720	1.218856	184.9	6.1	88	6.7	7.3										
22	524.8630	1.507972	266.6	8.4	88	6.8	7.0										
23	518.6300	1.465796	227.9	9.0	90	6.6	7.0	64.3	783.8	220.0	2681.7	15.3	186.5	80.0	975.2	45.5	
24	523.8685	1.485243	253.7	8.8	95	6.6	7.1					12.8	158.1	70.0	864.6		
25	513.8345	1.291089	227.9	8.0	99	6.8	7.3										
26		0.682539	111.8	3.8	94	7.0	7.3										
27		0.153297	17.2	0.2	82	6.8	6.9										
28		0.496508	103.2	3.2	90	6.6	7.8										
29	528.7170	1.180381	189.2	6.8	86	6.8	7.6										
30	528.8810	1.441781	223.6	8.4	91	6.8	7.1	58.9	706.2	178.7	2142.6	16.1	193.0	70.0	839.3	36.0	
31	481.0810	1.422507	245.1	9.3	92	6.6	7.1					12.5	147.9	85.0	1005.5		
TOT	11162.6820	34.540147	5620.1	181.9					2468.0		7236.9		1588.9		8948.3		
AVG	507.3946	1.114198	181.3	5.9	89			44.6	493.6	126.9	1447.4	14.1	158.9	79.5	894.8	43.1	568.0

PERMITTEE NAME / ADDRESS (Include Facility Name/Location if different)

NAME: STAR KIST SAMOA, Inc

ADDRESS: P. O. BOX 368

PAGO PAGO AMERICAN SAMOA 96799

FACILITY

LOCATION

NATIONAL POLLUTANT DISCHARGE SYSTEM (NPDES)

DISCHARGE MONITORING REPORT (DMR)

Form Approved
OMB No. 2040-0004
Expires 3-31-88

(2-16)	(17-19)
AS0000019	001
PERMIT NUMBER	DISCHARGE NUMBER

MONITORING PERIOD						
YEAR	MO	DAY		YEAR	MO	DAY
2001	06	01	TO	2001	06	30
(20-21)	(22-23)			(26-27)	(28-29)	(30-31)

NOTE: Read instructions before completing this form.

PARAMETER (32-37)		(3 Card Only) QUANTITY OR LOADING (46-53) 30-DAY AVERAGE	(54-61) DAILY MAXIMUM	UNITS	(4 Card Only) QUALITY OR CONCENTRATION (38-45) DAILY MINIMUM	(46-53) 30-DAY AVERAGE	(54-61) DAILY MAXIMUM	UNITS	NO. EX (62-63)	FREQUENCY OF ANALYSIS (64-68)	SAMPLE TYPE (69-70)
FLOW	SAMPLE MEASUREMENT	1.196944	1.569877						0	Continuous	Recorder
	PERMIT REQUIREMENT		2.9	mgd						"	"
BOD5	SAMPLE MEASUREMENT				409.9	409.9	409.9		0	Once/Month	Composite
	PERMIT REQUIREMENT				N/A	N/A	N/A	mg/l		" "	"
TSS	SAMPLE MEASUREMENT	1054.6	1421.6		60.7	88.2	121.3		0	Once/Week	Composite
	PERMIT REQUIREMENT	2996	7536	lbs/day	N/A	N/A	N/A	mg/l		" "	"
OIL & GREASE	SAMPLE MEASUREMENT	413.0	509.6		22.0	34.5	41.8		0	Once/Week	Grab (2)
	PERMIT REQUIREMENT	763	1907	lbs/ day	N/A	N/A	N/A	mg/l		" "	" "
TOTAL PHOSPHORUS	SAMPLE MEASUREMENT	136.2	156.7		8.5	11.0	13.0		0	One Set/Month (3)	Composite
	PERMIT REQUIREMENT	192	309	lbs/day	N/A	N/A	N/A	mg/l		" "	"
TOTAL NITROGEN	SAMPLE MEASUREMENT	1033.0	1406.4		50.0	83.8	120.0		0	One Set/Month (3)	Composite
	PERMIT REQUIREMENT	1200	2100	lbs/day	N/A	N/A	N/A	mg/l		" "	"
TOTAL AMMONIA	SAMPLE MEASUREMENT				30.5	37.0	55.1		0	Once/Week	Composite
	PERMIT REQUIREMENT				N/A	N/A	133	mg/l		"	"

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SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT

TELEPHONE		DATE		
AREA CODE	NUMBER	YEAR	MO	DAY

COMMENT AND EXPLANATION OF ANY VIOLATIONS(Reference all attachments here)

PERMITTEE NAME / ADDRESS (Include Facility Name/Location if different)

NAME: STAR KIST SAMOA, Inc

ADDRESS: P. O. BOX 368

PAGO PAGO AMERICAN SAMOA 96799

FACILITY

LOCATION

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Form Approved
OMB No. 2040-0004
Expires 3-31-88

(2-16)	(17-19)
AS0000019	001
PERMIT NUMBER	DISCHARGE NUMBER

MONITORING PERIOD						
YEAR	MO	DAY		YEAR	MO	DAY
2001	06	01	TO	2001	06	30
(20-21)	(22-23)			(26-27)	(28-29)	(30-31)

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TEMPERATURE	SAMPLE MEASUREMENT					89	94	°F	0	Continuous	Continuous
	PERMIT REQUIREMENT					90	95				
pH	SAMPLE MEASUREMENT				6.4		8.1		0	Continuous	Continuous
	PERMIT REQUIREMENT				6.5		8.6				
TOTAL COPPER	SAMPLE MEASUREMENT					<10	<10	µg/L	0	Once/Month	Composite
	PERMIT REQUIREMENT					66	108				
TOTAL ZINC	SAMPLE MEASUREMENT					300.0	300.0	µg/L	0	Once/Month	Composite
	PERMIT REQUIREMENT					1545	1770				
	SAMPLE MEASUREMENT										
	PERMIT REQUIREMENT										
	SAMPLE MEASUREMENT										
	PERMIT REQUIREMENT										
	SAMPLE MEASUREMENT										
	PERMIT REQUIREMENT										

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TELEPHONE		DATE		
AREA CODE	NUMBER	YEAR	MO	DAY

COMMENT AND EXPLANATION OF ANY VIOLATIONS(Reference all attachments here)

We had one (1) pH reading which was below 6.5 through out the month. We did not exceed the one-hour individual excurtion limit or the seven hours and twenty six minutes for the calendar month. This is not considered a violation.

Wastewater Summary Report for the month of June 2001

Date	Production Tons	Flow mgd	Alum #/day	Poly #/day	Max Temp °F	pH Limits Lo	pH Limits Hi	Oil &Grease Eff mg/l	Oil &Grease Total #/day	TSS Eff mg/l	TSS Total #/day	TP Eff mg/l	TP Total #/day	TN Eff mg/l	TN Total #/day	Total Ammonia Eff mg/l	BOD Eff mg/l
1	466.6690	1.303200	197.8	7.6	92	6.5	7.2										
2		0.751613	116.1	4.0	93	7.0	7.4										
3		0.703086	116.1	4.4	82	6.8	7.2										
4	497.3215	1.280760	197.8	7.6	86	6.6	7.0										
5	498.8460	1.425767	270.9	9.1	88	6.6	7.0	38.8	460.0	84.7	1004.3	10.8	128.1	80.0	948.5	30.5	409.9
6	487.0490	1.537741	236.5	9.0	86	6.8	6.9					12.2	156.0	90.0	1150.9		
7	487.6915	1.426902	215.0	7.6	90	6.8	7.0										
8	440.4605	1.405282	223.6	7.7	90	6.6	7.1										
9		0.739419	124.7	4.2	86	6.8	7.2										
10		0.865460	189.2	5.5	80	6.8	7.2										
11	495.7225	1.270599	202.1	6.7	93	6.8	7.3										
12	497.2675	1.436991	266.6	8.6	94	6.5	8.1										
13	502.1750	1.465977	253.7	8.6	87	6.7	7.6	41.8	509.6	86.0	1048.4	10.6	129.2	70.0	853.4	31.0	
14	496.9710	1.528265	283.8	8.8	87	6.7	7.0					11.4	144.9	90.0	1143.8		
15	500.3490	1.401580	283.8	7.4	92	6.8	7.1										
16		0.681212	133.3	3.8	91	6.6	7.4										
17		0.714147	107.5	3.4	81	6.4	7.4										
18	534.0860	1.229987	219.3	7.5	85	6.8	7.3										
19	498.6545	1.558600	279.5	10.0	89	6.7	7.0										
20	510.0835	1.474311	270.9	9.2	93	6.5	7.1	22.0	269.7	60.7	744.2	9.8	120.5	70.0	858.2	31.5	
21	492.6240	1.435909	266.6	9.5	93	6.7	7.1					8.5	101.5	50.0	597.1		
22	458.0050	1.413009	180.6	6.8	94	6.8	6.9										
23		0.548001	94.6	3.5	88	6.6	7.0										
24		0.579091	98.9	3.2	84	6.9	7.1										
25	521.0985	1.294888	301.0	5.3	90	6.7	7.6										
26	517.3565	1.369370	322.5	9.8	90	6.8	7.0										
27	476.9230	1.409300	455.8	10.5	90	6.7	7.7	35.2	412.5	121.3	1421.6	13.0	152.4	120.0	1406.4	55.1	
28	504.5925	1.569877	481.6	11.7	90	6.7	6.8					12.0	156.7	100.0	1305.5		
29	496.1110	1.449890	434.3	11.2	93	6.9	7.2										
30		0.638090	184.9	4.7	92	6.5	7.8										
TOT	10380.0570	35.908324	7009.0	216.9					1651.8		4218.5		1089.3		8263.8		
AVG	494.2884	1.196944	233.6	7.2	89			34.5	413.0	88.2	1054.6	11.0	136.2	83.8	1033.0	37.0	409.9

```
*****************************************************************************
* User name:   AOTA (52)                    Queue:  R9WATER/LP6              *
* File name:                                Server: JET_WATER_11259          *
* Directory:                                                                 *
* Description: F:\USER\AOTA\LANWIN\WPW\AM_SAMOA.LST                         *
*              December 15, 1997                    12:35pm                  *
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*                                                                           *
*                            A    OOO  TTTTT   A                            *
*                           A A  O   O   T    A A                           *
*                          A   A O   O   T   A   A                          *
*                          A   A O   O   T   A   A                          *
*                          AAAAA O   O   T   AAAAA                          *
*                          A   A O   O   T   A   A                          *
*                          A   A  OOO    T   A   A                          *
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*                          L      SSS  TTTTT                                *
*                          L     S   S   T                                  *
*                          L     S       T    ::                            *
*                          L      SSS    T    ::                            *
*                          L         S   T                                  *
*                          L     S   S   T    ::                            *
*                          LLLLL  SSS    T    ::                            *
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*****************************************************************************
* User name:   AOTA (52)                    Queue:  R9WATER/LP6              *
* File name:                                Server: JET_WATER_11259          *
* Directory:                                                                 *
* Description: F:\USER\AOTA\LANWIN\WPW\FISH_FAC.SHT                         *
*              December 15, 1997                   1:32pm                    *
*****************************************************************************
*                                                                           *
*                            A    OOO  TTTTT   A                            *
*                           A A  O   O   T    A A                           *
*                          A   A O   O   T   A   A                          *
*                          A   A O   O   T   A   A                          *
*                          AAAAA O   O   T   AAAAA                          *
*                          A   A O   O   T   A   A                          *
*                          A   A  OOO    T   A   A                          *
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*                          L      SSS  TTTTT                                *
*                          L     S   S   T                                  *
*                          L     S       T    ::                            *
*                          L      SSS    T    ::                            *
*                          L         S   T                                  *
*                          L     S   S   T    ::                            *
*                          LLLLL  SSS    T    ::                            *
*                                                                           *
*                                                                           *
*                                                                           *
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CALCULATIONS FOR NEW PERMIT LIMITS

Column A Sample Number	Column B Untransformed Total Solids (mg/L)	Column C Transformed Total Solids (mg/L)	Column D Untransformed Mean Minus Untransformed Total Solids Value	Column E Transformed Mean Minus Transformed Total Solids Value	Column F Column D Squared	Column G Column E Squared
1	58,300	10.97335737	-2343.606557	-0.094996169	5492491.696	0.00902427
2	35,800	10.48570317	20156.39344	0.392658031	406280196.6	0.15418033
3	35,400	10.4744671	20556.39344	0.403894104	422565311.4	0.16313045
4	70,140	11.15824852	-14183.60656	-0.279887321	201174695	0.07833691
5	109,000	11.59910316	-53043.60656	-0.720741958	2813624197	0.51946897
6	50,600	10.83170686	5356.393443	0.046654348	28690950.71	0.00217663
7	50,200	10.82377031	5756.393443	0.054590897	33136065.47	0.00298017
8	69,900	11.15482093	-13943.60656	-0.276459725	194424163.8	0.07642998
9	46,300	10.74289724	9656.393443	0.135463963	93245934.32	0.01835049
10	51,300	10.84544603	4656.393443	0.032915172	21681999.89	0.00108341
11	42,100	10.64780302	13856.39344	0.230558183	191999639.2	0.05315708
12	73,600	11.2064003	-17643.60656	-0.328039102	311296852.4	0.10760965
13	30,600	10.32875529	25356.39344	0.549605915	642946688.4	0.30206666
14	39,100	10.57387775	16856.39344	0.304483457	284137999.9	0.09271018
15	46,600	10.74935582	9356.393443	0.129005383	87542098.25	0.01664239
16	36,700	10.51053203	19256.39344	0.367829169	370808688.4	0.1352983
17	48,600	10.79137881	7356.393443	0.086982393	54116524.48	0.00756594
18	55,100	10.916905	856.3934426	-0.038543792	733409.7286	0.00148562
19	37,100	10.52137225	18856.39344	0.356988955	355563573.7	0.12744111
20	54,200	10.90043619	1756.393443	-0.022074984	3084917.925	0.0004873
21	48,200	10.7831143	7756.393443	0.095246903	60161639.24	0.00907197
22	49,700	10.81376021	6256.393443	0.064600991	39142458.91	0.00417329
23	36,700	10.51053203	19256.39344	0.367829169	370808688.4	0.1352983
24	88,900	11.39526742	-32943.60656	-0.516906218	1085281213	0.26719204
25	60,800	11.01534507	-4843.606557	-0.136983865	23460524.48	0.01876458
26	64,000	11.06663836	-8043.606557	-0.188277159	64699606.45	0.03544829
27	64,300	11.07131491	-8343.606557	-0.192953707	69615770.38	0.03723113
28	56,300	10.93844981	-343.6065574	-0.060088611	118065.4663	0.00361064
29	53,600	10.88930435	2356.393443	-0.010943144	5552590.056	0.00011975
30	61,100	11.02026715	-5143.606557	-0.141905942	26456688.42	0.0201373
31	27,300	10.21464198	28656.39344	0.663719222	821188885.1	0.44052321
32	79,300	11.28099341	-23343.60656	-0.402632204	544923967.1	0.16211269
33	46,400	10.74505474	9556.393443	0.133306465	91324655.63	0.01777061
34	41,500	10.63344871	14456.39344	0.244912497	208987311.4	0.05998213
35	53,200	10.88181368	2756.393443	-0.003452472	7597704.811	1.192E-05
36	62,600	11.04452056	-6643.606557	-0.166159354	44137508.09	0.02760893
37	65,700	11.0928542	-9743.606557	-0.214493001	94937868.74	0.04600725
38	60,000	11.00209984	-4043.606557	-0.123738638	16350753.99	0.01531125
39	32,500	10.38899537	23456.39344	0.489365835	550202393.3	0.23947892
40	46,200	10.74073508	9756.393443	0.137626126	95187213.01	0.01894095
41	42,500	10.65725935	13456.39344	0.221101848	181074524.5	0.04888603
42	86,800	11.3713619	-30843.60656	-0.493000698	951328065.5	0.24304969
43	42,700	10.6619542	13256.39344	0.216407004	175731967.1	0.04683199
44	48,500	10.78931908	7456.393443	0.089042126	55597803.17	0.0079285
45	22,400	10.01681624	33556.39344	0.861544965	1126031541	0.74225973
46	80,700	11.29849385	-24743.60656	-0.420132651	612246065.5	0.17651144
47	35,200	10.46880136	20756.39344	0.409559842	430827868.7	0.16773926
48	50,300	10.82576036	5656.393443	0.052600847	31994786.78	0.00276685
49	39,900	10.5941316	16056.39344	0.2842296	257807770.4	0.08078647
50	51,800	10.85514543	4156.393443	0.023215775	17275606.45	0.00053897
51	109,400	11.60276617	-53443.60656	-0.724404966	2856219082	0.52476255
52	62,100	11.03650127	-6143.606557	-0.158140065	37743901.53	0.02500828
53	77,200	11.25415474	-21243.60656	-0.375793533	451290819.6	0.14122078
54	81,900	11.31325427	-25943.60656	-0.434893067	673070721.2	0.18913198
55	74,300	11.21586623	-18343.60656	-0.337505028	336487901.5	0.11390964
56	59,400	10.99204951	-3443.606557	-0.113688302	11858426.12	0.01292503
57	79,600	11.28476937	-23643.60656	-0.406408169	559020131	0.1651676
58	92,600	11.43604442	-36643.60656	-0.557683217	1342753902	0.31101057
59	54,000	10.89673933	1956.393443	-0.018378122	3827475.302	0.00033776
60	48,200	10.7831143	7756.393443	0.095246903	60161639.24	0.00907197
61	34,900	10.46024211	21056.39344	0.418119095	443371704.8	0.17482358
Column Sum	3,413,340	663.5800334			21358403607	6.61308965
Column Sum/N	55,956	10.8783612				
Column Sum/(N-1)					355973393.4	0.11021816
SQRT(Column Sum/(N-1))					18867.25718	0.33199121

	Untransformed	Transformed	Transformed converted to Untransformed
Mean	55956.39344	10.8783612	53016.64518
Std Dev	18867.25718	0.331991206	1.393740592
Permit Limit	93030.5538	11.53072392	101795.7794

Table 3-2 Constant = 1.965

CALCULATIONS FOR NEW PERMIT LIMITS

Column A Sample Number	Column B Untransformed Total Vol. Solids (mg/L)	Column C Transformed Total Vol. Solids (mg/L)	Column D Untransformed Mean Minus Untransformed Total Vol. Solids Valu	Column E Transformed Mean Minus Transforme Total Vol. Solids V	Column F Column D Squared	Column G Column E Squared
1	45,300	10.72106231	-6529.508197	-0.247615014	42634477.29	0.0613132
2	20,800	9.942708266	17970.4918	0.530739032	322938575.7	0.28168392
3	17,400	9.764225485	21370.4918	0.709221813	456697919.9	0.50299558
4	52,600	10.8704714	-13829.5082	-0.397024101	191255297	0.15762814
5	89,300	11.39975677	-50529.5082	-0.926309469	2553231199	0.85804923
6	34,300	10.44290063	4470.491803	0.030546665	19985296.96	0.0009331
7	29,200	10.28192399	9570.491803	0.191523309	91594313.36	0.03668118
8	46,800	10.75363848	-8029.508197	-0.280191184	64473001.88	0.0785071
9	26,200	10.17351469	12570.4918	0.299932608	158017264.2	0.08995957
10	32,900	10.40122794	5870.491803	0.072219361	34462674.01	0.00521564
11	25,700	10.15424627	13070.4918	0.319201027	170837756	0.1018893
12	58,100	10.96992094	-19329.5082	-0.496473645	373629887.1	0.24648608
13	12,800	9.45720045	25970.4918	1.016246848	674466444.5	1.03275766
14	28,900	10.27159687	9870.491803	0.201850424	97426608.44	0.04074359
15	27,000	10.20359214	11770.4918	0.269855153	138544477.3	0.0728218
16	19,600	9.883284845	19170.4918	0.590162453	367507756	0.34829172
17	35,800	10.48570317	2970.491803	-0.012255875	8823821.553	0.00015021
18	38,500	10.55841352	270.4918033	-0.084966223	73165.81564	0.00721926
19	24,200	10.09410791	14570.4918	0.379339386	212299231.4	0.14389837
20	35,300	10.47163824	3470.491803	0.001809055	12044313.36	3.2727E-06
21	26,400	10.18111929	12,370	0.292328009	153029067.5	0.08545566
22	33,300	10.41331268	5,470	0.060134622	29926280.57	0.00361617
23	21,200	9.961756461	17,570	0.511690837	308722182.2	0.26182751
24	63,200	11.05405958	-24,430	-0.580612282	596800870.7	0.33711062
25	44,000	10.69194491	-5,230	-0.218497615	27347755.98	0.04774121
26	44700	10.70772878	-5,930	-0.234281483	35159067.45	0.05488781
27	49400	10.8077057	-10,630	-0.334258405	112986444.5	0.11172868
28	40700	10.61398337	-1,930	-0.140536074	3723001.881	0.01975039
29	38,600	10.56100756	170	-0.087560258	29067.45499	0.0076668
30	84,100	11.33976185	-45,330	-0.866314548	2054764313	0.7505009
31	39,300	10.5789798	-530	-0.1055325	280378.9304	0.01113711
32	20,700	9.937888979	18,070	0.535558318	326542674	0.28682271
33	60,300	11.00708738	-21,530	-0.533640085	463519723.2	0.28477174
34	33,600	10.42228135	5,170	0.051165952	26733985.49	0.00261795
35	29300	10.2853428	9,470	0.188104503	89690215	0.0353833
36	38800	10.56617553	-30	-0.092728228	870.7336737	0.00859852
37	46900	10.75577295	-8,130	-0.282325657	66088903.52	0.07970778
38	45000	10.71441777	-6,230	-0.240970471	38806772.37	0.05806677
39	36800	10.51325312	1,970	-0.039805826	3882837.947	0.0015845
40	18600	9.83091686	20,170	0.642530438	406848739.6	0.41284536
41	30,800	10.33526997	7,970	0.138177329	63528739.59	0.01909297
42	25,000	10.1266311	13,770	0.346816194	189626444.5	0.12028147
43	58,000	10.96819829	-19,230	-0.494750992	369773985.5	0.24477854
44	27,100	10.20728901	11,670	0.266158291	136200378.9	0.07084024
45	26,800	10.19615717	11,970	0.277290131	143292674	0.07688982
46	10,300	9.239899174	28,470	1.233548124	810568903.5	1.52164097
47	61,600	11.02841715	-22,830	-0.554969852	521186444.5	0.30799154
48	22,900	10.03889219	15,870	0.434555108	251872510.1	0.18883814
49	35,700	10.48290597	3,070	-0.00945867	9427919.914	8.9466E-05
50	24,400	10.10233841	14,370	0.371108886	206511034.7	0.13772181
51	36,900	10.51596683	1,870	-0.042519532	3498739.586	0.00180791
52	43,400	10.67821472	-4,630	-0.204767422	21432346.14	0.0419297
53	70,300	11.16052708	-31,530	-0.68707978	994109887.1	0.47207862
54	57,800	10.96474405	-19,030	-0.491296757	362122182.2	0.2413725
55	47,600	10.77058804	-8,830	-0.297140742	77960215	0.08829262
56	44,200	10.69648007	-5,430	-0.22303277	29479559.26	0.04974362
57	63,400	11.05721914	-24,630	-0.583771843	606612674	0.34078956
58	70,500	11.16336799	-31,730	-0.689920691	1006761690	0.47599056
59	38,600	10.56100756	170	-0.087560258	29067.45499	0.0076668
60	34,100	10.43705266	4,670	0.036394634	21813493.68	0.00132457
61	20,000	9.903487553	18,770	0.569959745	352331362.5	0.32485411
Column Sum	2,365,000	638.8802852			16913966885	11.663065
Column Sum/N	38,770	10.4734473				
Column Sum/(N-1)					281899448.1	0.19438442
SQRT(Column Sum/(N-1))					16789.86147	0.44089048

	Untransformed	Transformed	Transformed converted to Untransformed
Mean	38,770	10.4734473	35363.91743
Std Dev	16789.86147	0.440890481	1.55409049
Permit Limit	71762.56959	11.33979709	84102.96428

Table 3-2 Constant = 1.965

CALCULATIONS FOR NEW PERMIT LIMITS

Column A Sample Number	Column B Untransformed 5-Day BOD (mg/L)	Column C Transformed 5-Day BOD (mg/L)	Column D Untransformed Mean Minus Untransformed 5-Day BOD Value	Column E Transformed Mean Minus Transformed 5-Day BOD Value	Column F Column D Squared	Column G Column E Squared
1	73,527	11.20540796	5023.555556	0.029551741	25236110.42	0.00087331
2	67,247	11.11612769	11303.55556	0.118832019	127770368.2	0.01412105
3	57,425	10.95823503	21125.55556	0.276724678	446289097.5	0.07657655
4	60,958	11.01794038	17592.55556	0.217019324	309498011	0.04709739
5	73,236	11.20144238	5314.555556	0.033517323	28244500.75	0.00112341
6	54,610	10.9079723	23940.55556	0.32698741	573150200.3	0.10692077
7	65,167	11.08470848	13383.55556	0.150251221	179119559.3	0.02257543
8	112,261	11.6285818	33710.44444	-0.393622091	1136394065	0.15493835
9	77,425	11.257065	1125.555556	-0.022105299	1266875.309	0.00048864
10	71,905	11.18310108	6645.555556	0.051858623	44163408.64	0.00268932
11	58,327	10.97382039	20223.55556	0.261139319	408992199.3	0.06819374
12	125,375	11.73906453	-46824.44444	-0.50410482	2192528598	0.25412167
13	67,282	11.11664802	11268.55556	0.118311685	126980344.3	0.01399765
14	38,781	10.56568571	39769.55556	0.669273991	1581617549	0.44792767
15	103,767	11.54990328	-25216.44444	-0.314943575	635869070.4	0.09918946
16	131,250	11.78485918	-52699.44444	-0.549899475	2777231445	0.30238943
17	96,833	11.48074312	-18282.44444	-0.245783419	334247774.9	0.06040949
18	103,072	11.54318305	-24521.44444	-0.308223347	601301237.6	0.09500163
19	95,483	11.4667035	-16932.44444	-0.231743795	286707674.9	0.05370519
20	102,428	11.53691539	-23877.44444	-0.301955686	570132353.2	0.09117724
21	95,567	11.46758285	-17016.44444	-0.232623146	289559381.5	0.05411353
22	96,644	11.4787894	-18093.44444	-0.243829697	327372731.9	0.05945292
23	66,709	11.10809516	11841.55556	0.12686455	140222438	0.01609461
24	66,366	11.10294016	12184.55556	0.132019549	148463394.1	0.01742916
25	99,026	11.50313772	-20475.44444	-0.268178015	419243825.2	0.07191945
26	100,911	11.52199422	-22360.44444	-0.287034514	499989475.8	0.08238881
27	74,889	11.2237623	3661.555556	0.011197409	13406989.09	0.00012538
28	82,339	11.31860015	-3788.444444	0.083640445	14352311.31	0.00699572
29	95139	11.46309426	-16588.44444	-0.228134554	275176489.1	0.05204537
30	101978	11.53251238	-23427.44444	-0.297552677	548845153.2	0.0885376
31	106,856	11.57923741	-28305.44444	-0.344277707	801198185.2	0.11852714
32	94,628	11.45770869	-16077.44444	-0.222748989	258484219.9	0.04961711
33	93,505	11.44577019	-14954.44444	-0.210810484	223635408.6	0.04444106
34	50,893	10.83748067	27657.55556	0.397479037	764940379.3	0.15798958
35	111,611	11.62277489	-33060.44444	-0.387815185	1092992987	0.15040062
36	63726	11.06234792	14824.55556	0.172611784	219767447.4	0.02979483
37	113300	11.63779445	-34749.44444	-0.402834741	1207523889	0.16227583
38	95850	11.47053975	-17299.44444	-0.235580043	299270778.1	0.05549796
39	67268	11.11643992	11282.55556	0.118519786	127296059.9	0.01404694
40	77311	11.25559153	1239.555556	-0.020631822	1536497.975	0.00042567
41	64220	11.07006997	14330.55556	0.164889738	205364822.5	0.02718863
42	51,950	10.858037	26,601	0.376922709	707589555.9	0.14207073
43	93,550	11.44625133	-14,999	-0.211291626	224983333.6	0.04464415
44	122,500	11.71586631	-43,949	-0.480906603	1931553667	0.23127116
45	72,289	11.18842725	6,262	0.046532453	39207077.98	0.00216527
46	74,089	11.21302235	4,462	0.021937353	19905477.98	0.00048125
47	70,686	11.16600281	7,865	0.068956893	61851234.09	0.00475505
48	95,661	11.46856597	-17,110	-0.233606265	292767309.1	0.05457189
49	60,901	11.01700487	17,650	0.217954832	311506811.3	0.04750431
50	62,132	11.03701643	16,419	0.197943272	269568966.5	0.03918154
51	63,229	11.05451834	15,322	0.18044137	234750064.6	0.03255909
52	64,295	11.07123715	14,256	0.163722559	203220864.2	0.02680508
53	68,756	11.13831928	9,795	0.096640421	95933318.53	0.00933937
54	66,239	11.10102469	12,312	0.133935013	151574400.2	0.01793859
55	69,327	11.14658972	9,224	0.088369986	85073977.09	0.00780925
56	66,493	11.10485196	12,058	0.130107748	145384646	0.01692803
57	55,259	10.9197865	23,292	0.315173204	542496560.2	0.09933415
58	58,049	10.96904276	20,502	0.265916945	420313780.2	0.07071182
59	57,818	10.96505542	20,733	0.269904281	429838859.9	0.07284832
60	55,617	10.92624419	22,934	0.308715517	525947970.4	0.09530527
61	63,379	11.05688786	15,172	0.17807185	230176098	0.03170958
62	58,238	10.97229334	20,313	0.262666364	412599913.2	0.06899362
63	43,133	10.67204364	35,418	0.562916061	1254403242	0.31687449
Column Sum	4,948,685	707.8024615			28856030434	4.60662731
Column Sum/N	78,551	11.23495971				
Column Sum/(N-1)					465419845.7	0.07430044
SQRT(Column Sum/(N-1))					21573.5914	0.27258107

		Untransformed	Transformed	Transformed converted to Untransformed
Mean		78,551	11.23495971	75732.27523
Std Dev		21573.5914	0.272581071	1.31334993
Permit Limit		120942.6626	11.77058151	129389.3702

Table 3-2 Constant = 1.965

CALCULATIONS FOR NEW PERMIT LIMITS

Column A Sample Number	Column B Untransformed Oil & Grease (mg/L)	Column C Transformed Oil & Grease (mg/L)	Column D Untransformed Mean Minus Untransformed Oil & Grease Value	Column E Transformed Mean Minus Transformed Oil & Grease Value	Column F Column D Squared	Column G Column E Squared
1	4,950	8.507142856	16798.91452	1.30245035	282203528.9	1.69637691
2	10,100	9.220290703	11648.91452	0.589302503	135697209.4	0.34727744
3	8,110	9.000853147	13638.91452	0.808740058	186019989.2	0.65406048
4	19,700	9.888373915	2048.914516	-0.078780709	4198050.694	0.0062064
5	29,800	10.30226367	-8051.085484	-0.492670467	64819977.47	0.24272419
6	14,600	9.588776808	7148.914516	0.220816398	51106978.76	0.04875988
7	4,500	8.411832676	17248.91452	1.39776053	297525052	1.9537345
8	20,100	9.908475094	1648.914516	-0.098881889	2718919.082	0.00977763
9	6,100	8.71604405	15648.91452	1.093549155	244888525.5	1.19584975
10	7,660	8.943767263	14088.91452	0.865825943	198497512.2	0.74965456
11	13,669	9.522885774	8079.914516	0.286707431	65285018.59	0.08220115
12	22,352	10.01467108	-603.0854839	-0.205077876	363712.1009	0.04205694
13	6,535	8.784927626	15213.91452	1.024665579	231463194.9	1.04993955
14	23,013	10.04381455	-1264.085484	-0.234221347	1597912.111	0.05485964
15	26,415	10.18168731	-4666.085484	-0.372094104	21772353.74	0.13845402
16	14,979	9.614404499	6769.914516	0.195188706	45831742.56	0.03809863
17	51,903	10.85713187	-30154.08548	-1.047538666	909268871.4	1.09733726
18	32,696	10.39500803	-10947.08548	-0.58541482	119838680.6	0.34271051
19	13,433	9.505469645	8315.914516	0.30412356	69154434.24	0.09249114
20	15,008	9.616338671	6740.914516	0.193254534	45439928.51	0.03734731
21	14,123	9.555559953	7625.914516	0.254033252	58154572.21	0.06453289
22	18,779	9.840494503	2969.914516	-0.030901298	8820392.233	0.00095489
23	16,179	9.691469384	5569.914516	0.118123821	31023947.72	0.01395324
24	30,084	10.31174875	-8335.085484	-0.502155543	69473650.02	0.25216019
25	25,340	10.14013945	-3591.085484	-0.330546248	12895894.95	0.10926082
26	22,721	10.03104489	-972.0854839	-0.221451681	944950.188	0.04904085
27	56793	10.94716836	-35044.08548	-1.137575152	1228087927	1.29407723
28	50204	10.82384998	-28455.08548	-1.014256778	809691889.9	1.02871681
29	39,360	10.58050535	-17611.08548	-0.770912146	310150331.9	0.59430554
30	36,286	10.49918727	-14537.08548	-0.689594066	211326854.4	0.47553998
31	40,968	10.62054655	-19219.08548	-0.810953348	369373246.8	0.65764533
32	17,648	9.778377741	4100.914516	0.031215464	16817499.87	0.00097441
33	31,841	10.36851005	-10092.08548	-0.558916841	101850189.4	0.31238804
34	16,791	9.728598308	4957.914516	0.080994898	24580916.35	0.00656017
35	18098	9.803556714	3650.914516	0.006036491	13329176.8	3.6439E-05
36	13526	9.512369038	8222.914516	0.297224167	67616323.14	0.08834221
37	35005	10.46324619	-13256.08548	-0.653652982	175723802.4	0.42726222
38	18619	9.831937844	3129.914516	-0.022344638	9796364.878	0.00049928
39	13579	9.516279761	8169.914516	0.293313445	66747503.2	0.08603278
40	9103	9.116359309	12645.91452	0.693233897	159919153.9	0.48057324
41	5,134	8.543640361	16,615	1.265952844	276055384.4	1.6026366
42	10,898	9.296334565	10,851	0.51325864	117742345.8	0.26343443
43	14,635	9.591171199	7,114	0.218422006	50607779.74	0.04770817
44	13,504	9.510741217	8,245	0.298851989	67978615.38	0.08931251
45	33,710	10.42554981	-11,961	-0.615956603	143067566	0.37940254
46	5,038	8.524764457	16,711	1.284828748	279254664	1.65078491
47	22,771	10.03324308	-1,022	-0.22364987	1044658.736	0.05001926
48	11,239	9.327118458	10,510	0.482474747	110464609.2	0.23278188
49	21,140	9.958922259	609	0.149329054	370776.888	0.02229917
50	40,929	10.61959414	-19,180	-0.810000932	367875679.2	0.65610151
51	34,066	10.4360551	-12,317	-0.626461893	151710594.8	0.3924545
52	49,715	10.81406198	-27,966	-1.004468772	782101937.3	1.00895751
53	23,065	10.0460716	-1,316	-0.236478391	1732081.001	0.05592203
54	24,258	10.09650174	-2,509	-0.286908533	6295509.965	0.08231651
55	31,960	10.3722404	-10,211	-0.562647194	104266266.8	0.31657187
56	16,153	9.68986107	5,596	0.119732135	31314259.27	0.01433578
57	22,319	10.01319361	-570	-0.203600407	324997.4589	0.04145313
58	25,354	10.14069179	-3,605	-0.331098582	12996641.35	0.10962627
59	27,124	10.20817422	-5,375	-0.398581018	28891543.96	0.15886683
60	26,426	10.18210365	-4,677	-0.372510448	21875128.62	0.13876403
61	11,480	9.34836167	10,269	0.461231536	105450605.3	0.21273453
62	6,845	8.831273738	14,904	0.978319468	222126667.9	0.95710898
Column Sum	1,348,433	608.1947787			9607564493	24.3063674
Column Sum/N	21,749	9.809593205				
Column Sum/(N-1)					157501057.3	0.39846504
SQRT(Column Sum/(N-1))					12549.94252	0.63124087
			Untransformed	Transformed	Transformed converted to Untransformed	
		Mean	21,749	9.809593205	18207.57883	
		Std Dev	12549.94252	0.631240873	1.879941901	
		Permit Limit	46409.55157	11.04998152	62942.79143	

Table 3-2 Constant = 1.965

CALCULATIONS FOR NEW PERMIT LIMITS						
Column A	Column B	Column C	Column D	Column E	Column F	Column G
Sample Number	Untransformed Total Phos (mg/L)	Transformed Total Phos (mg/L)	Untransformed Mean Minus Untransformed Total Phos Value	Transformed Mean Minus Transformed Total Phos Value	Column D Squared	Column E Squared
1	651	6.478509642	265.3770492	0.272109115	70424.97823	0.07404337
2	502	6.21860012	414.3770492	0.532018637	171708.3389	0.28304383
3	526	6.265301213	390.3770492	0.485317544	152394.2405	0.23553312
4	1,040	6.946975992	-123.6229508	-0.196357235	15282.63397	0.03855616
5	1,250	7.13089883	-333.6229508	-0.380280073	111304.2733	0.14461293
6	915	6.818924065	1.37704918	-0.068305308	1.896264445	0.00466562
7	897	6.799055862	19.37704918	-0.048437105	375.4700349	0.00234615
8	985	6.892641641	-68.62295082	-0.142022884	4709.109379	0.0201705
9	798	6.682108597	118.3770492	0.06851016	14013.12577	0.00469364
10	655	6.484635236	261.3770492	0.265983521	68317.96184	0.07074723
11	1,072	6.977281342	-155.6229508	-0.226662585	24218.50282	0.05137593
12	608	6.410174882	308.3770492	0.340443875	95096.40446	0.11590203
13	734	6.598509029	182.3770492	0.152109728	33261.38807	0.02313737
14	1,740	7.461640392	-823.6229508	-0.711021635	678354.7651	0.50555177
15	674	6.513230111	242.3770492	0.237388646	58746.63397	0.05635337
16	2,530	7.835974582	-1613.622951	-1.085355825	2603779.027	1.17799727
17	1,040	6.946975992	-123.6229508	-0.196357235	15282.63397	0.03855616
18	1,270	7.146772179	-353.6229508	-0.396153422	125049.1913	0.15693753
19	618	6.426488457	298.3770492	0.3241303	89028.86348	0.10506045
20	620	6.429719478	296.3770492	0.320899279	87839.35528	0.10297635
21	512	6.238324625	404.3770492	0.512294132	163520.7979	0.26244528
22	950	6.856461985	-33.62295082	-0.105843228	1130.502822	0.01120279
23	662	6.495265556	254.3770492	0.255353201	64707.68315	0.06520526
24	1,180	7.073269717	-263.6229508	-0.32265096	69497.0602	0.10410364
25	1,110	7.012115294	-193.6229508	-0.261496537	37489.84708	0.06838044
26	789	6.670766321	127.3770492	0.079852436	16224.91266	0.00637641
27	1,110	7.012115294	-193.6229508	-0.261496537	37489.84708	0.06838044
28	997	6.90475077	80.62295082	-0.154132013	6500.060199	0.02375668
29	612	6.416732283	304.3770492	0.333886475	92645.38807	0.11148018
30	933	6.838405201	-16.62295082	-0.087786444	276.322494	0.00770646
31	361	5.888877958	555.3770492	0.861740799	308443.6668	0.7425972
32	1,400	7.244227516	-483.6229508	-0.493608759	233891.1586	0.24364961
33	666	6.501289671	250.3770492	0.249329087	62688.66676	0.06216499
34	502	6.21860012	414.3770492	0.532018637	171708.3389	0.28304383
35	791	6.673297968	125.3770492	0.077320789	15719.40446	0.0059785
36	940	6.845879875	-23.62295082	-0.095261118	558.0438054	0.00907468
37	1,100	7.003065459	-183.6229508	-0.252446702	33717.38807	0.06372934
38	817	6.705639095	99.37704918	0.044979662	9875.797904	0.00202317
39	525	6.263398263	391.3770492	0.487220494	153175.9946	0.23738381
40	652	6.480044562	264.3770492	0.270574195	69895.22413	0.0732104
41	667	6.502790046	249.3770492	0.247828711	62188.91266	0.06141907
42	2,200	7.696212639	-1283.622951	-0.945593882	1647687.88	0.89414779
43	626	6.439350371	290.3770492	0.311268386	84318.83069	0.09688801
44	691	6.538139824	225.3770492	0.212478933	50794.8143	0.0451473
45	609	6.411818268	307.3770492	0.338800489	94480.65036	0.11478577
46	1,070	6.975413927	-153.6229508	-0.22479517	23600.01102	0.05053287
47	846	6.74051936	70.37704918	0.010099397	4952.929051	0.000102
48	975	6.882437471	-58.62295082	-0.131818714	3436.650363	0.01737617
49	639	6.459904454	277.3770492	0.290714303	76938.02741	0.08451481
50	935	6.840546529	-18.62295082	-0.089927772	346.8142972	0.008087
51	1,290	7.162397497	-373.6229508	-0.41177874	139594.1094	0.16956173
52	1,040	6.946975992	-123.6229508	-0.196357235	15282.63397	0.03855616
53	1,450	7.279318835	-533.6229508	-0.528700078	284753.4536	0.27952377
54	1,430	7.265429723	-513.6229508	-0.514810966	263808.5356	0.26503033
55	906	6.809039306	10.37704918	-0.058420549	107.6831497	0.00341296
56	811	6.698268054	105.3770492	0.052350703	11104.32249	0.0027406
57	981	6.88857246	-64.62295082	-0.137953703	4176.125773	0.01903122
58	902	6.80461452	14.37704918	-0.053995763	206.6995431	0.00291554
59	771	6.647688374	145.3770492	0.102930383	21134.48643	0.01059466
60	694	6.542471961	222.3770492	0.208146797	49451.552	0.04332509
61	632	6.448889394	284.3770492	0.301729363	80870.3061	0.09104061
Column Sum	55,899	411.7877442			8887580.328	7.96288736
Column Sum/N	916	6.750618757				
Column Sum/(N-1)					148126.3388	0.13271479
SQRT(Column Sum/(N-1))					384.8718472	0.36430041
			Untransformed	Transformed	Transformed converted to Untransformed	
		Mean	916	6.750618757	854.5873809	
		Std Dev	384.8718472	0.364300411	1.439506593	
		Permit Limit	1672.650229	7.466469064	1748.422207	
		Table 3-2 Constant = 1.965				

CALCULATIONS FOR NEW PERMIT LIMITS

Column A Sample Number	Column B Untransformed Total Nitrogen (mg/L)	Column C Transformed Total Nitrogen (mg/L)	Column D Untransformed Mean Minus Untransformed Total Nitrogen Value	Column E Transformed Mean Minus Transformed Total Nitrogen Value	Column F Column D Squared	Column G Column E Squared
1	7,000	8.853665428	-1369.032258	-0.277032399	1874249.324	0.07674695
2	5,110	8.538954683	520.9677419	0.037678345	271407.3881	0.00141966
3	6,380	8.760923376	-749.0322581	-0.184290348	561049.3236	0.03396293
4	7,850	8.968268811	-2219.032258	-0.391635782	4924104.162	0.15337859
5	7,290	8.894258825	-1659.032258	-0.317625796	2752388.033	0.10088615
6	7,480	8.919988071	-1849.032258	-0.343355042	3418920.291	0.11789269
7	1,750	7.467371067	3880.967742	1.109261962	15061910.61	1.2304621
8	2,530	7.835974582	3100.967742	0.740658447	9616000.937	0.54857494
9	5,630	8.635864721	0.967741935	-0.059231692	0.936524454	0.00350839
10	5,120	8.540909718	510.9677419	0.035723311	261088.0333	0.00127615
11	6,900	8.839276691	-1269.032258	-0.262643662	1610442.872	0.06898169
12	4,940	8.50512061	690.9677419	0.071512418	477436.4204	0.00511403
13	4,600	8.433811582	1030.967742	0.142821446	1062894.485	0.02039797
14	7,090	8.86644062	-1459.032258	-0.289807591	2128775.13	0.08398844
15	5,390	8.592300664	240.9677419	-0.015667635	58065.45265	0.00024547
16	5,330	8.581106517	300.9677419	-0.004473488	90581.58169	2.0012E-05
17	3,180	8.064636476	2450.967742	0.511996553	6007242.872	0.26214047
18	5,190	8.554488976	440.9677419	0.022144053	194452.5494	0.00049036
19	5,120	8.540909718	510.9677419	0.035723311	261088.0333	0.00127615
20	5,540	8.61974978	90.96774194	-0.043116751	8275.130073	0.00185905
21	5,040	8.525161361	590.9677419	0.051471668	349242.872	0.00264933
22	8,290	9.022805248	-2659.032258	-0.446172219	7070452.549	0.19906965
23	6,150	8.724207361	-519	-0.147574332	269394.4849	0.02177818
24	5,060	8.529121762	570.9677419	0.047511266	326004.1623	0.00225732
25	2,370	7.770645234	3260.967742	0.805987795	10633910.61	0.64961632
26	4,100	8.318742253	1530.967742	0.257890776	2343862.227	0.06650765
27	6660	8.803874764	-1029.032258	-0.227241735	1058907.388	0.05163881
28	6660	8.803874764	-1029.032258	-0.227241735	1058907.388	0.05163881
29	3940	8.278936002	1690.967742	0.297697026	2859371.904	0.08862352
30	4500	8.411832676	1130.967742	0.164800353	1279088.033	0.02715916
31	4370	8.382518288	1260.967742	0.194114741	1590039.646	0.03768053
32	2820	7.944492164	2810.967742	0.632140865	7901539.646	0.39960207
33	1790	7.489970899	3840.967742	1.08666213	14753033.19	1.18083458
34	6390	8.762489547	-759.0322581	-0.185856519	576129.9688	0.03454265
35	4820	8.480529207	810.9677419	0.096103822	657668.6785	0.00923594
36	2870	7.962067309	2760.967742	0.61456572	7622942.872	0.37769102
37	5570	8.625150333	60.96774194	-0.048517304	3717.065557	0.00235393
38	9640	9.173676388	-4009.032258	-0.597043359	16072339.65	0.35646077
39	5920	8.686091728	289.0322581	-0.109458699	83539.6462	0.01198121
40	6350	8.756210092	-719.0322581	-0.179577063	517007.3881	0.03224792
41	3490	8.157657015	2140.967742	0.418976013	4583742.872	0.1755409
42	3,250	8.086410275	2380.967742	0.490222753	5669007.388	0.24031835
43	4,980	8.51318517	650.9677419	0.063447859	423759.001	0.00402563
44	6,490	8.77801781	-859.0322581	-0.201384781	737936.4204	0.04055583
45	5,820	8.669055541	-189.0322581	-0.092422512	35733.19459	0.00854192
46	4,220	8.347590407	1410.967742	0.229042622	1990829.969	0.05246052
47	5,430	8.599694413	200.9677419	-0.023061384	40388.0333	0.00053183
48	8,120	9.002085433	-2489.032258	-0.425452404	6195281.582	0.18100975
49	5,010	8.519191194	620.9677419	0.057441835	385600.9365	0.00329956
50	4,330	8.373322821	1300.967742	0.203310208	1692517.066	0.04133504
51	5,020	8.521185213	610.9677419	0.055447816	373281.5817	0.00307446
52	6,720	8.812843434	-1089.032258	-0.236210405	1185991.259	0.05579536
53	8,250	9.017968479	-2619.032258	-0.441335451	6859329.969	0.19477698
54	8,930	9.097171674	-3299.032258	-0.520538645	10883613.84	0.27096048
55	7,020	8.856518497	-1389.032258	-0.279885468	1929410.614	0.07833588
56	9,160	9.122601458	-3529.032258	-0.545968429	12454068.68	0.29808153
57	6,170	8.727454117	-539.0322581	-0.150821088	290555.7752	0.022747
58	8,290	9.022805248	-2659.032258	-0.446172219	7070452.549	0.19906965
59	6,850	8.832003931	-1219.032258	-0.255370903	1486039.646	0.0652143
60	6,890	8.837826364	-1259.032258	-0.261193335	1585162.227	0.06822196
61	6,100	8.71604405	-469.0322581	-0.139411021	219991.2591	0.01943543
62	5,850	8.67419694	-219.0322581	-0.097563912	47975.13007	0.00951872
Column Sum	349,120	531.7512478			193808141.9	8.34904264
Column Sum/N	5,631	8.576633029				
Column Sum/(N-1)					3177182.655	0.13686955
SQRT(Column Sum/(N-1))					1782.465331	0.36995885

	Untransformed	Transformed	Transformed converted to Untransformed
Mean	5,631	8.576633029	5306.209559
Std Dev	1782.465331	0.369958851	1.447675043
Permit Limit	9133.512117	9.303602171	10977.49087

Table 3-2 Constant = 1.965

CALCULATIONS FOR NEW PERMIT LIMITS

Column A Sample Number	Column B Untransformed Ammonia (mg/L)	Column C Transformed Ammonia (mg/L)	Column D Untransformed Mean Minus Untransformed Ammonia Value	Column E Transformed Mean Minus Transformed Ammonia Value	Column F Column D Squared	Column G Column E Squared
1	4,190	8.340456013	-538.3492063	-0.267534819	289819.868	0.07157488
2	3,040	8.019612794	611.6507937	0.0533084	374116.6934	0.00284179
3	4,930	8.503094267	-1278.349206	-0.430173073	1634176.693	0.18504887
4	4,230	8.349957272	578.3492063	-0.277036078	334487.8045	0.07674899
5	3,690	8.213381737	-38.34920635	-0.140460543	1470.661628	0.01972916
6	4,140	8.328451067	-488.3492063	-0.255529873	238484.9473	0.06529552
7	283	5.645446898	3368.650794	2.427474297	11347808.17	5.89263146
8	5,400	8.594154233	-1748.349206	-0.521233038	3056724.947	0.27168388
9	3,960	8.283999304	-308.3492063	-0.21107811	95079.23306	0.04455397
10	3,510	8.163371316	141.6507937	-0.090450122	20064.94734	0.00818122
11	4,410	8.391629968	-758.3492063	-0.318708774	575093.5188	0.10157528
12	3,420	8.13739583	231.6507937	-0.064474636	53662.0902	0.00415698
13	2,290	7.736307097	1361.650794	0.336614098	1854092.884	0.11330905
14	5,200	8.556413905	-1548.349206	-0.48349271	2397385.265	0.2337652
15	4,470	8.405143688	-818.3492063	-0.332222493	669695.4235	0.11037179
16	1,910	7.554858521	1741.650794	0.518062673	3033347.487	0.26838893
17	282	5.641907071	3369.650794	2.431014123	11354546.47	5.90982967
18	4,580	8.429454277	-928.3492063	-0.356533083	861832.2489	0.12711584
19	3,990	8.29154651	-338.3492063	-0.218625316	114480.1854	0.04779703
20	3,060	8.026170195	591.6507937	0.046750999	350050.6616	0.00218566
21	3,900	8.268731832	-248.3492063	-0.195810638	61677.32829	0.03834181
22	4,300	8.366370302	-648.3492063	-0.293449107	420356.6934	0.08611238
23	4,220	8.347590407	-568.3492063	-0.274669213	323020.8204	0.07544318
24	3,390	8.1285852	261.6507937	-0.055664006	68461.13782	0.00309848
25	295	5.686975356	3356.650794	2.385945838	11267104.55	5.69273754
26	4,800	8.476371197	-1148.349206	-0.403450003	1318705.9	0.1627719
27	5160	8.548691858	-1508.349206	-0.475770664	2275117.328	0.22635772
28	5170	8.550627968	-1518.349206	0.477706773	2305384.312	0.22820376
29	3330	8.110727583	321.6507937	-0.037806389	103459.2331	0.00142932
30	3650	8.202482447	1.650793651	-0.129561252	2.725119678	0.01678612
31	3720	8.221478947	-68.34920635	-0.148557753	4671.614009	0.02206941
32	2290	7.736307097	1361.650794	0.336614098	1854092.884	0.11330905
33	1560	7.3524411	2091.650794	0.720480094	4375003.043	0.51909157
34	434	6.073044534	3217.650794	1.99987666	10353276.63	3.99950666
35	4050	8.30647216	-398.3492063	-0.233550966	158682.0902	0.05454605
36	2310	7.745002804	1341.650794	0.327918391	1800026.852	0.10753047
37	3870	8.261009786	-218.3492063	-0.188088592	47676.37591	0.03537732
38	5230	8.562166557	-1578.349206	-0.489245363	2491186.217	0.23936103
39	4470	8.405143688	-818.3492063	-0.332222493	669695.4235	0.11037179
40	3990	8.29154651	-338.3492063	-0.218625316	114480.1854	0.04779703
41	2990	8.003028666	661.6507937	0.069892528	437781.7727	0.00488497
42	2,910	7.97590836	741.6507937	0.097012834	550045.8997	0.00941149
43	3,060	8.026170195	591.6507937	0.046750999	350050.6616	0.00218566
44	3,850	8.255828427	198.3492063	-0.182907233	39342.40766	0.03345506
45	4,210	8.345217927	-558.3492063	-0.272296732	311753.8362	0.07414551
46	3,410	8.13446757	241.6507937	-0.061546376	58395.10607	0.00378796
47	3,880	8.263590433	-228.3492063	-0.190669238	52143.36004	0.03635476
48	4,610	8.435983136	-958.3492063	-0.363061942	918433.2013	0.13181397
49	3,870	8.261009786	-218.3492063	-0.188088592	47676.37591	0.03537732
50	3,740	8.22684089	-88.34920635	-0.153919696	7805.582263	0.02369127
51	3,260	8.089482474	391.6507937	-0.01656128	153390.3442	0.00027428
52	3,840	8.253227646	-188.3492063	-0.180306451	35475.42353	0.03251042
53	5,810	8.66733585	-2158.349206	-0.594414656	4658471.297	0.35332878
54	4,950	8.507142856	-1298.349206	-0.434221661	1685710.662	0.18854845
55	5,070	8.531096097	-1418.349206	-0.458174902	2011714.471	0.20992424
56	1,770	7.478734826	1881.650794	0.594186369	3540609.709	0.35305744
57	4,390	8.387084506	-738.3492063	-0.314163312	545159.5505	0.09869859
58	3,140	8.051978079	511.6507937	0.020943115	261786.5346	0.00043861
59	4,550	8.422882512	-898.3492063	-0.349961318	807031.2965	0.12247292
60	4,970	8.511175119	-1318.349206	-0.438253925	1738044.63	0.1920665
61	3,980	8.289037098	-328.3492063	-0.216115904	107813.2013	0.04670608
62	3,180	8.064636476	471.6507937	0.008284718	222454.4712	6.8637E-05
63	3,490	8.157657015	161.6507937	-0.084735821	26130.97909	0.00718016
Column Sum	230,054	508.5940352			97235722.32	27.2974108
Column Sum/N	3,652	8.072921194				
Column Sum/(N-1)					1568318.102	0.44028082
SQRT(Column Sum/(N-1))					1252.325078	0.6635366

		Untransformed	Transformed	Transformed converted to Untransformed
	Mean	3,652	8.072921194	3206.454839
	Std Dev	1252.325078	0.6635366	1.941647035
	Permit Limit	6112.469573	9.376770613	11810.81142

Table 3-2 Constant = 1.965

CALCULATIONS FOR NEW PERMIT LIMITS

Column A Sample Number	Column B Untransformed pH (pH Units)	Column C Transformed pH (pH Units)	Column D Untransformed Mean Minus Untransformed pH Value	Column E Transformed Mean Minus Transformed pH Value	Column F Column D Squared	Column G Column E Squared
1	6.86	1.925707442	-0.252903226	-0.038152461	0.063960042	0.00145561
2	6.5	1.871802177	0.107096774	0.015752804	0.011469719	0.00024815
3	6.93	1.935859813	-0.322903226	-0.048304832	0.104266493	0.00233336
4	6.88	1.928618652	-0.272903226	-0.041063671	0.074476171	0.00168623
5	6.5	1.871802177	0.107096774	0.015752804	0.011469719	0.00024815
6	6.73	1.906575144	-0.122903226	-0.019020163	0.015105203	0.00036177
7	6.98	1.943048917	-0.372903226	-0.055493936	0.139056816	0.00307958
8	7.13	1.964311234	-0.522903226	-0.076756254	0.273427784	0.00589152
9	6.85	1.924248652	-0.242903226	-0.036693671	0.059001977	0.00134643
10	6.74	1.908059925	-0.132903226	-0.020504944	0.017663267	0.00042045
11	6.84	1.922787732	-0.232903226	-0.035232751	0.054243913	0.00124135
12	6.18	1.821318271	0.427096774	0.066236709	0.182411655	0.0043873
13	6.46	1.865629318	0.147096774	0.021925663	0.021637461	0.00048073
14	6.23	1.829376333	0.377096774	0.058178648	0.142201977	0.00338476
15	6.73	1.906575144	-0.122903226	-0.019020163	0.015105203	0.00036177
16	6.68	1.899117988	-0.072903226	0.011563007	0.00531488	0.0001337
17	6.52	1.874874376	0.087096774	0.012680605	0.007585848	0.0001608
18	6.96	1.940179474	-0.352903226	-0.052624493	0.124540687	0.00276934
19	6.62	1.89009537	-0.012903226	-0.002540389	0.000166493	6.4536E-06
20	6.35	1.848454813	0.257096774	0.039100168	0.066098751	0.00152882
21	6.52	1.874874376	0.087096774	0.012680605	0.007585848	0.0001608
22	6.71	1.903598951	-0.102903226	-0.01604397	0.010589074	0.00025741
23	6.63	1.891604804	-0.022903226	-0.004049823	0.000524558	1.6401E-05
24	6.1	1.808288771	0.507096774	0.07926621	0.257147138	0.00628313
25	6.4	1.85629799	0.207096774	0.031256991	0.042889074	0.000977
26	6.9	1.931521412	-0.292903226	-0.043966431	0.0857923	0.00193305
27	6.8	1.916922612	-0.192903226	-0.029367631	0.037211655	0.00086246
28	6.44	1.86252854	0.167096774	0.025026441	0.027921332	0.00062632
29	6.3	1.840549633	0.307096774	0.047005347	0.094308429	0.0022095
30	6.2	1.824549292	0.407096774	0.063005689	0.165727784	0.00396972
31	6.4	1.85629799	0.207096774	0.031256991	0.042889074	0.000977
32	6.6	1.887069649	0.007096774	0.000485332	5.03642E-05	2.3555E-07
33	6.3	1.840549633	0.307096774	0.047005347	0.094308429	0.0022095
34	6.6	1.887069649	0.007096774	0.000485332	5.03642E-05	2.3555E-07
35	6.49	1.870262531	0.117096774	0.01729245	0.013711655	0.00029903
36	6.75	1.909542505	0.142903226	0.021987524	0.020421332	0.00048345
37	6.76	1.91102289	-0.152903226	-0.023467909	0.023379396	0.00055074
38	6.73	1.906575144	-0.122903226	-0.019020163	0.015105203	0.00036177
39	6.71	1.903598951	-0.102903226	-0.01604397	0.010589074	0.00025741
40	6.56	1.880990603	0.047096774	0.006564378	0.002218106	4.3091E-05
41	6.00	1.791759469	0.607096774	0.095795512	0.368566493	0.00917678
42	6.40	1.85629799	0.207096774	0.031256991	0.042889074	0.000977
43	6.50	1.871802177	0.107096774	0.015752804	0.011469719	0.00024815
44	6.50	1.871802177	0.107096774	0.015752804	0.011469719	0.00024815
45	6.60	1.887069649	0.007096774	0.000485332	5.03642E-05	2.3555E-07
46	6.70	1.902107526	-0.092903226	-0.014552546	0.008631009	0.00021178
47	6.70	1.902107526	-0.092903226	-0.014552546	0.008631009	0.00021178
48	6.70	1.902107526	-0.092903226	-0.014552546	0.008631009	0.00021178
49	6.46	1.865629318	0.147096774	0.021925663	0.021637461	0.00048073
50	6.50	1.871802177	0.107096774	0.015752804	0.011469719	0.00024815
51	6.50	1.871802177	0.107096774	0.015752804	0.011469719	0.00024815
52	6.70	1.902107526	-0.092903226	-0.014552546	0.008631009	0.00021178
53	6.70	1.902107526	-0.092903226	-0.014552546	0.008631009	0.00021178
54	6.40	1.85629799	0.207096774	0.031256991	0.042889074	0.000977
55	6.70	1.902107526	-0.092903226	-0.014552546	0.008631009	0.00021178
56	6.60	1.887069649	0.007096774	0.000485332	5.03642E-05	2.3555E-07
57	7.00	1.945910149	-0.392903226	-0.058355168	0.154372945	0.00340533
58	6.80	1.916922612	-0.192903226	-0.029367631	0.037211655	0.00086246
59	6.60	1.887069649	0.007096774	0.000485332	5.03642E-05	2.3555E-07
60	6.80	1.916922612	0.192903226	0.029367631	0.037211655	0.00086246
61	6.70	1.902107526	-0.092903226	-0.014552546	0.008631009	0.00021178
62	6.51	1.873339456	0.097096774	0.014215525	0.009427784	0.00020208
Column Sum	409.64	117.0284088			3.162277419	0.07342409
Column Sum/N	6.61	1.887554981				
Column Sum/(N-1)					0.051840613	0.00120367
SQRT(Column Sum/(N-1))					0.227685339	0.034694

	Untransformed	Transformed	Transformed converted to Untransformed
Mean	6.61	1.887554981	6.603203968
Std Dev	0.227685339	0.034693999	1.035302857
Upper Permit Limit	7.054498465	1.955728689	7.069068303
Lower Permit Limit	6.159695084	1.819381272	6.168040931

Table 3-2 Constant = 1.965

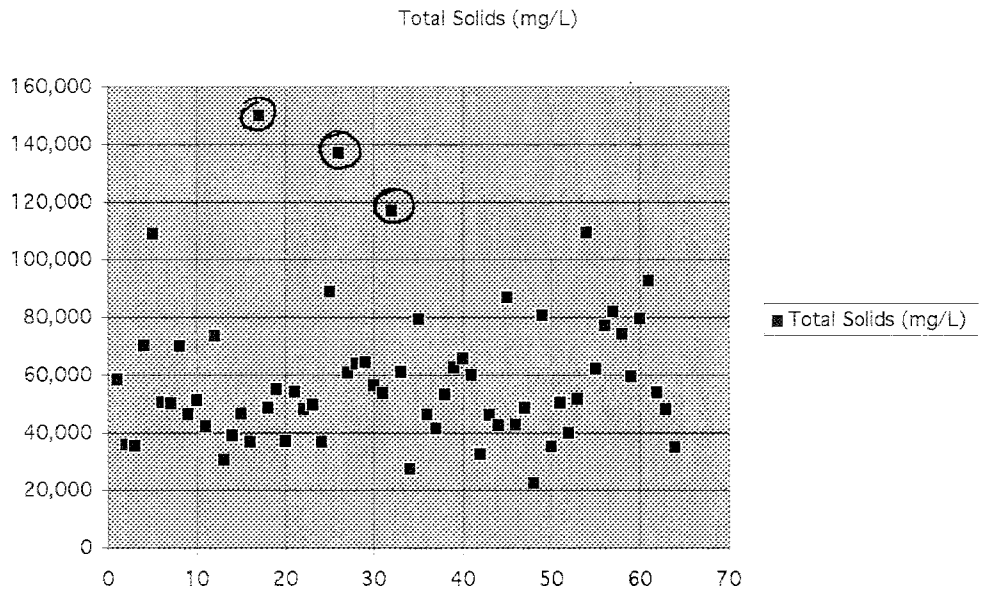
CALCULATIONS FOR NEW PERMIT LIMITS

Column A Sample Number	Column B Untransformed Density (g/mL)	Column C Transformed Density (g/mL)	Column D Untransformed Mean Minus Untransformed Density Value	Column E Transformed Mean Minus Transformed Density Value	Column F Column D Squared	Column G Column E Squared
1	1	0	0.002258065	0.002146901	5.09886E-06	4.6092E-06
2	1.03	0.029558802	-0.027741935	-0.027411902	0.000769615	0.00075141
3	0.99	-0.010050336	0.012258065	0.012197236	0.00015026	0.00014877
4	0.98	-0.020202707	0.022258065	0.022349608	0.000495421	0.0004995
5	1.01	0.009950331	-0.007741935	-0.00780343	5.99376E-05	6.0894E-05
6	0.97	-0.030459207	0.032258065	0.032606108	0.001040583	0.00106316
7	0.96	-0.040821995	0.042258065	0.042968895	0.001785744	0.00184633
8	1.01	0.009950331	-0.007741935	-0.00780343	5.99376E-05	6.0894E-05
9	0.99	-0.010050336	0.012258065	0.012197236	0.00015026	0.00014877
10	1	0.019802627	-0.017741935	-0.017655727	0.000314776	0.00031172
11	0.97	-0.030459207	0.032258065	0.032606108	0.001040583	0.00106316
12	1.02	0.019802627	0.017741935	-0.017655727	0.000314776	0.00031172
13	1	0	0.002258065	0.002146901	5.09886E-06	4.6092E-06
14	0.99	-0.010050336	0.012258065	0.012197236	0.00015026	0.00014877
15	1.01	0.009950331	-0.007741935	-0.00780343	5.99376E-05	6.0894E-05
16	0.97	-0.030459207	0.032258065	0.032606108	0.001040583	0.00106316
17	0.98	-0.020202707	0.022258065	0.022349608	0.000495421	0.0004995
18	0.99	-0.010050336	0.012258065	0.012197236	0.00015026	0.00014877
19	1	0	0.002258065	0.002146901	5.09886E-06	4.6092E-06
20	0.99	-0.010050336	0.012258065	0.012197236	0.00015026	0.00014877
21	1.01	0.009950331	-0.007741935	-0.00780343	5.99376E-05	6.0894E-05
22	1.01	0.009950331	-0.007741935	-0.00780343	5.99376E-05	6.0894E-05
23	1.03	0.029558802	-0.027741935	-0.027411902	0.000769615	0.00075141
24	1	0	0.002258065	0.002146901	5.09886E-06	4.6092E-06
25	1.01	0.009950331	-0.007741935	-0.00780343	5.99376E-05	6.0894E-05
26	1.01	0.009950331	-0.007741935	-0.00780343	5.99376E-05	6.0894E-05
27	0.99	-0.010050336	0.012258065	0.012197236	0.00015026	0.00014877
28	1.01	0.009950331	-0.007741935	-0.00780343	5.99376E-05	6.0894E-05
29	1	0	0.002258065	0.002146901	5.09886E-06	4.6092E-06
30	1.01	0.009950331	-0.007741935	-0.00780343	5.99376E-05	6.0894E-05
31	1	0	0.002258065	0.002146901	5.09886E-06	4.6092E-06
32	0.99	-0.010050336	0.012258065	0.012197236	0.00015026	0.00014877
33	1	0	0.002258065	0.002146901	5.09886E-06	4.6092E-06
34	1	0	0.002258065	0.002146901	5.09886E-06	4.6092E-06
35	1.01	0.009950331	-0.007741935	-0.00780343	5.99376E-05	6.0894E-05
36	1.01	0.009950331	-0.007741935	-0.00780343	5.99376E-05	6.0894E-05
37	1	0	0.002258065	0.002146901	5.09886E-06	4.6092E-06
38	1	0	0.002258065	0.002146901	5.09886E-06	4.6092E-06
39	1	0	0.002258065	0.002146901	5.09886E-06	4.6092E-06
40	0.99	0.010050336	0.012258065	0.012197236	0.00015026	0.00014877
41	1.00	0	0.002258065	0.002146901	5.09886E-06	4.6092E-06
42	1.00	0	0.002258065	0.002146901	5.09886E-06	4.6092E-06
43	1.01	0.009950331	-0.007741935	-0.00780343	5.99376E-05	6.0894E-05
44	1.00	0	0.002258065	0.002146901	5.09886E-06	4.6092E-06
45	1.02	0.019802627	-0.017741935	-0.017655727	0.000314776	0.00031172
46	1.00	0	0.002258065	0.002146901	5.09886E-06	4.6092E-06
47	1.04	0.039220713	-0.037741935	-0.037073813	0.001424454	0.00137447
48	1.00	0	0.002258065	0.002146901	5.09886E-06	4.6092E-06
49	1.00	0	0.002258065	0.002146901	5.09886E-06	4.6092E-06
50	1.00	0	0.002258065	0.002146901	5.09886E-06	4.6092E-06
51	1.01	0.009950331	-0.007741935	-0.00780343	5.99376E-05	6.0894E-05
52	1	0	0.002258065	0.002146901	5.09886E-06	4.6092E-06
53	1	0	0.002258065	0.002146901	5.09886E-06	4.6092E-06
54	1	0	0.002258065	0.002146901	5.09886E-06	4.6092E-06
55	1.02	0.019802627	-0.017741935	-0.017655727	0.000314776	0.00031172
56	1.01	0.009950331	-0.007741935	-0.00780343	5.99376E-05	6.0894E-05
57	1	0	0.002258065	0.002146901	5.09886E-06	4.6092E-06
58	1.00	0	0.002258065	0.002146901	5.09886E-06	4.6092E-06
59	1.02	0.019802627	-0.017741935	-0.017655727	0.000314776	0.00031172
60	1.01	0.009950331	0.007741935	-0.00780343	5.99376E-05	6.0894E-05
61	1.01	0.009950331	-0.007741935	-0.00780343	5.99376E-05	6.0894E-05
62	1.03	0.029558802	-0.027741935	-0.027411902	0.000769615	0.00075141
Column Sum	62.14	0.133107832			0.013483871	0.01349263
Column Sum/N	1.00	0.002146901				
Column Sum/(N-1)					0.000221047	0.00022119
SQRT(Column Sum/(N-1))					0.014867652	0.01487248

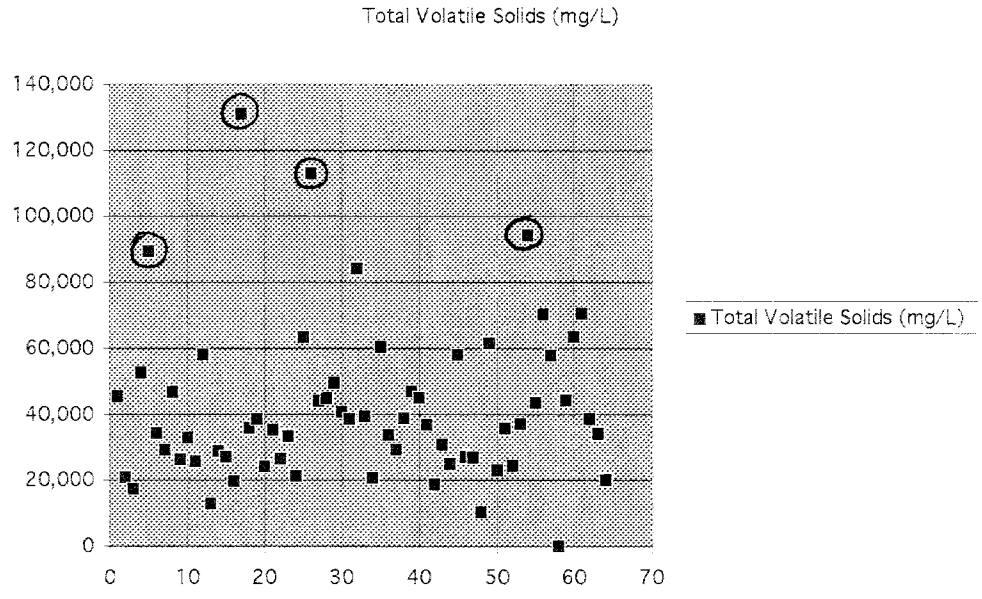
		Untransformed	Transformed	Transformed converted to Untransformed
Mean		1.00	0.002146901	1.002149207
Std Dev		0.014867652	0.014872478	1.014983624
Upper Permit Limit		1.031473	0.03137132	1.031868586
Lower Permit Limit		0.973043129	-0.027077519	0.97328579

Table 3-2 Constant = 1.965

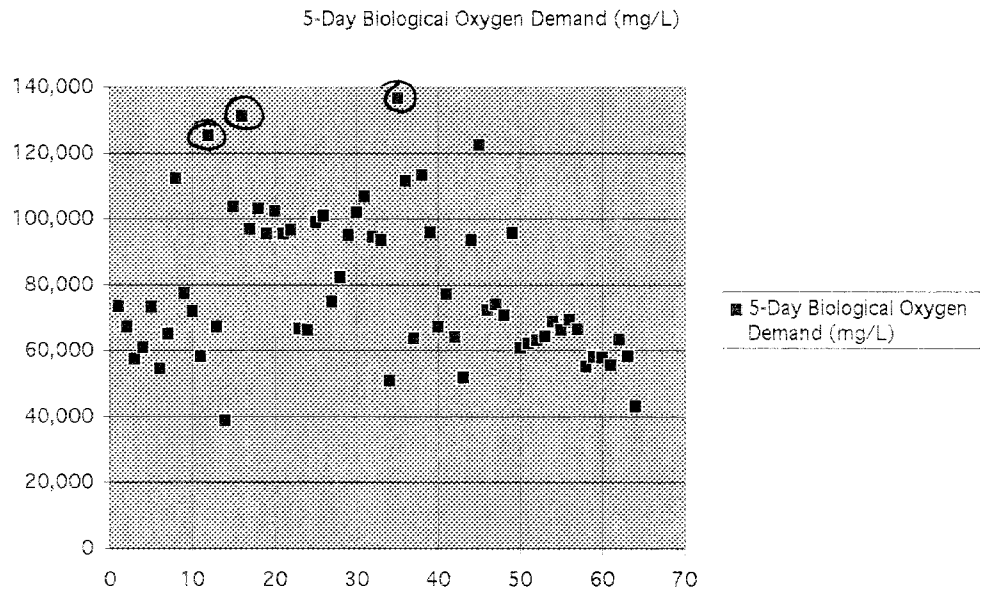
OD 93-01									
Permit Limits	No limit								
		Total Volatile	5-Day Biological						
	Total Solids	Solids	Oxygen Demand	Oil and Grease	Total Phosphorus	Total Nitrogen	Ammonia	pH	Density
Month & Year	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(pH units)	(g/mL)
12/10/93	58,300	45,300	73,527	4,950	651	7,000	4,190	6.86	0.95
12/17/93	35,800	20,800	67,247	10,100	502	5,110	3,040	6.50	1.00
1/21/94	35,400	17,400	57,425	8,110	526	6,380	4,930	6.93	1.03
1/28/94	70,140	52,600	60,958	19,700	1,040	7,850	4,230	6.88	0.99
2/9/94	109,000	89,300	73,236	29,800	1,250	7,290	3,690	6.50	0.98
2/17/94	50,600	34,300	54,610	14,600	915	7,480	4,140	6.73	1.01
3/09/94	50,200	29,200	65,167	4,500	897	1,750	283	6.98	0.97
3/24/94	69,900	46,800	112,261	20,100	3,210	14,300	9,700	7.13	0.96
4/26/94	46,300	26,200	77,425	6,100	985	2,530	5,400	6.85	1.01
5/3/94	51,300	32,900	71,905	7,660	798	5,630	3,960	6.74	0.99
5/23/94	42,100	25,700	58,327	13,669	655	5,120	3,510	6.84	1.02
5/30/94	73,600	58,100	125,375	22,352	1,072	6,900	4,410	6.18	0.97
6/15/94	30,600	12,800	67,282	6,535	608	4,940	3,420	6.46	1.02
6/22/94	39,100	28,900	38,781	23,013	734	4,600	2,290	6.23	1.00
7/20/94	46,600	27,000	103,767	26,415	1,740	7,090	5,200	6.73	0.99
7/27/94	36,700	19,600	131,250	14,979	674	5,390	4,470	6.68	1.01
8/16/94	150,000	131,000	96,833	51,903	2,530	5,330	1,910	6.52	0.94
8/25/94	48,600	35,800	103,072	76,256	1,040	3,180	282	5.47	0.97
9/20/94	55,100	38,500	95,483	32,696	1,270	5,190	4,580	6.96	0.98
9/27/94	37,100	24,200	102,428	13,433	618	5,120	3,990	6.62	0.99
10/1/94	54,200	35,300	95,567	15,008	620	5,540	3,060	6.35	1.00
10/7/94	48,200	26,400	96,644	14,123	512	5,040	3,900	6.52	0.99
11/17/94	49,700	33,300	66,709	18,779	950	8,290	4,300	6.71	1.01
11/23/94	36,700	21,200	66,366	16,179	662	6,150	4,220	6.63	1.01
12/14/94	88,900	63,200	99,026	30,084	1,180	5,060	3,390	6.10	1.03
12/21/94	137,000	113,000	100,911	61,901	1,110	2,370	295	5.40	1.00
1/27/95	60,800	44,000	74,889	25,340	789	4,100	4,800	6.40	1.01
1/31/95	64,000	44,700	82,339	22,721	1,110	6,660	5,160	6.90	1.01
2/25/95	64,300	49,400	95,139	56,793	997	6,660	5,170	6.80	0.99
3/2/95	56,300	40,700	101,978	50,204	612	3,940	3,330	6.44	1.01
3-03-95	53,600	38,600	106,856	39,360	933	4,500	3,650	6.30	1.00
3-11-95	117,000	84,100	94,628	36,286	3,830	4,370	3,720	6.20	1.01
4-07-95	61,100	39,300	93,505	40,968	3,100	2,820	2,290	6.40	1.00
4-13-95	27,300	20,700	50,893	17,648	361	1,790	1,560	6.60	0.99
5-03-95	79,300	60,300	136,750	31,841	1,400	6,390	434	6.30	1.00
5-10-95	46,400	33,600	111,611	16,791	666	4,820	4,050	6.60	1.00
6/28/95	41,500	29,300	63,726	18,098	502	2,870	2,310	6.49	1.01
7/5/95	53,200	38,800	113,300	13,526	791	5,570	3,870	6.75	1.01
7/6/95	62,600	46,900	95,850	35,005	940	9,640	5,230	6.76	1.00
7/26/95	65,700	45,000	67,268	18,619	1,100	5,920	4,470	6.73	1.00
08-01-95	60,000	36,800	77,311	13,579	817	6,350	3,990	6.71	1.00
8/9/95	32,500	18,600	64,220	9,103	525	3,490	2,990	6.56	0.99
09-14-95	46,200	30,800	51,950	5,134	652	3,250	2,910	6.00	1.00
09-28-95	42,500	25,000	93,550	10,898	667	4,980	3,060	6.40	1.00
10-19-95	86,800	58,000	122,500	14,635	2,200	6,490	3,850	6.50	1.01
10-27-95	42,700	27,100	72,289	13,504	626	5,820	4,210	6.50	1.00
11-15-95	48,500	26,800	74,089	33,710	691	4,220	3,410	6.60	1.02
11-28-95	22,400	10,300	70,686	5,038	609	5,430	3,880	6.70	1.00
12-19-95	80,700	61,600	95,661	22,771	1,070	8,120	4,610	6.70	1.04
01-15-96	35,200	22,900	60,901	11,239	846	5,010	3,870	6.70	1.00
01-24-96	50,300	35,700	62,132	21,140	975	4,330	3,740	6.46	1.00
02-07-96	39,900	24,400	63,229	40,929	639	5,020	3,260	6.50	1.00
02-21-96	51,800	36,900	64,295	34,066	935	6,720	3,840	6.50	1.01
06-19-96	109,400	94,200	68,756	49,715	1,290	11,900	5,810	6.7	1
06-27-96	62,100	43,400	66,239	23,065	1,040	8,250	4,950	6.7	1
07-10-96	77,200	70,300	69,327	24,258	1,450	8,930	5,070	6.4	1
07-30-96	81,900	57,800	66,493	31,960	1,430	7,020	1,770	6.7	1.02
8/7/96	74,300	47, 600	55,259	16,153	906	9,160	4,390	6.6	1.01
8/28/96	59,400	44,200	58,049	22,319	811	6,170	3,140	7	1
9/5/96	79,600	63,400	57,818	25,354	981	8,290	4,550	6.8	1.00
9/19/96	92,600	70,500	55,617	27,124	902	6,850	4,970	6.6	1.02
10/9/96	54,000	38,600	63,379	26,426	771	6,890	3,980	6.8	1.01
10-29-96	48,200	34,100	58,238	11,480	694	6,100	3,180	6.7	1.01
11-15-96	34,900	20,000	43,133	6,845	632	5,850	3,490	6.51	1.03



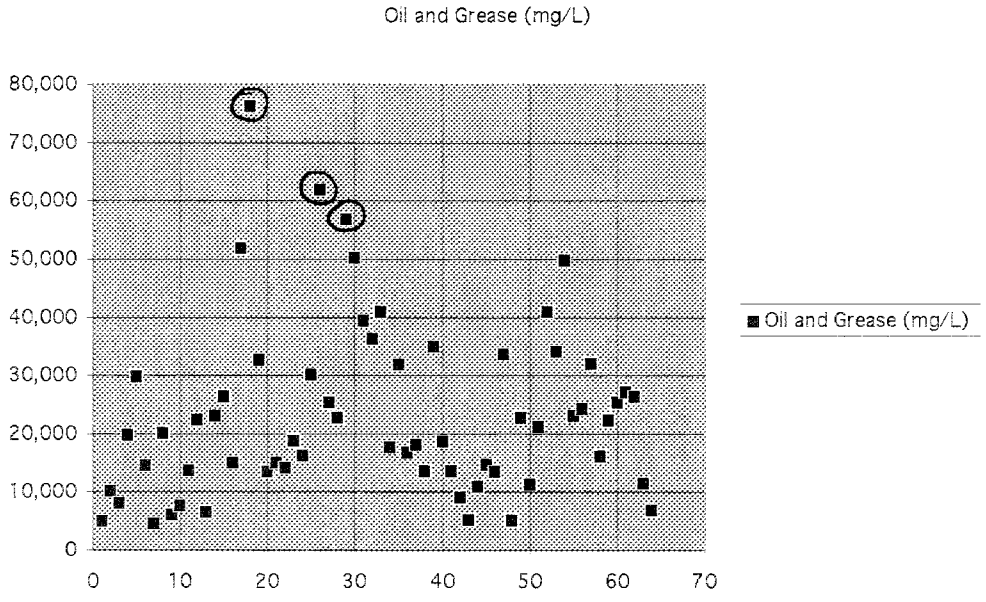
Mean =	59,646
Standard Deviation =	25079.4852
2 x Standard Deviation =	50158.9705
Outliers Deleted Above	109,805



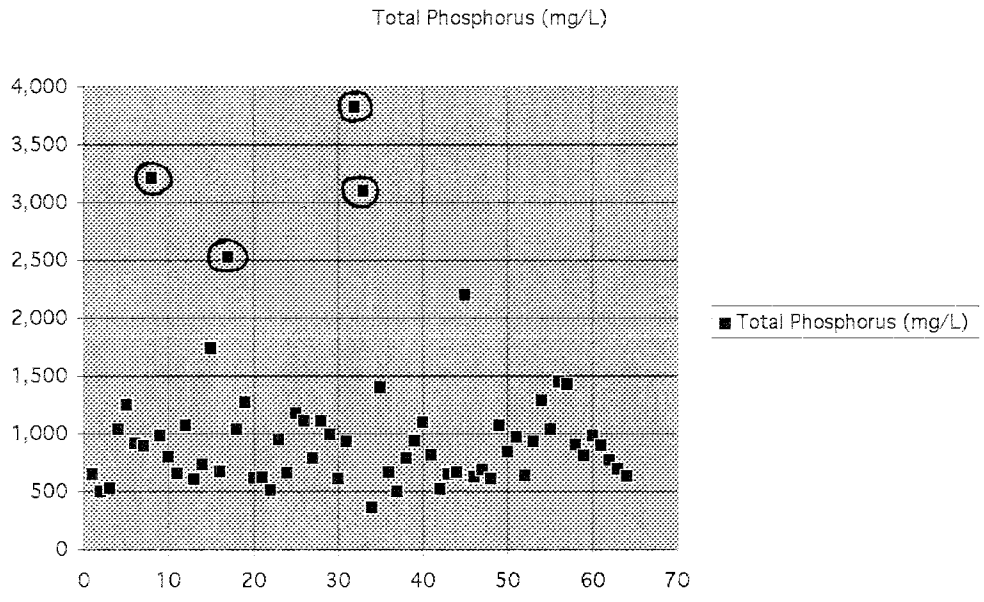
Mean =	42,152
Standard Deviation =	23141.9871
2 x Standard Deviation =	46283.9742
Outliers Deleted Above	88,436



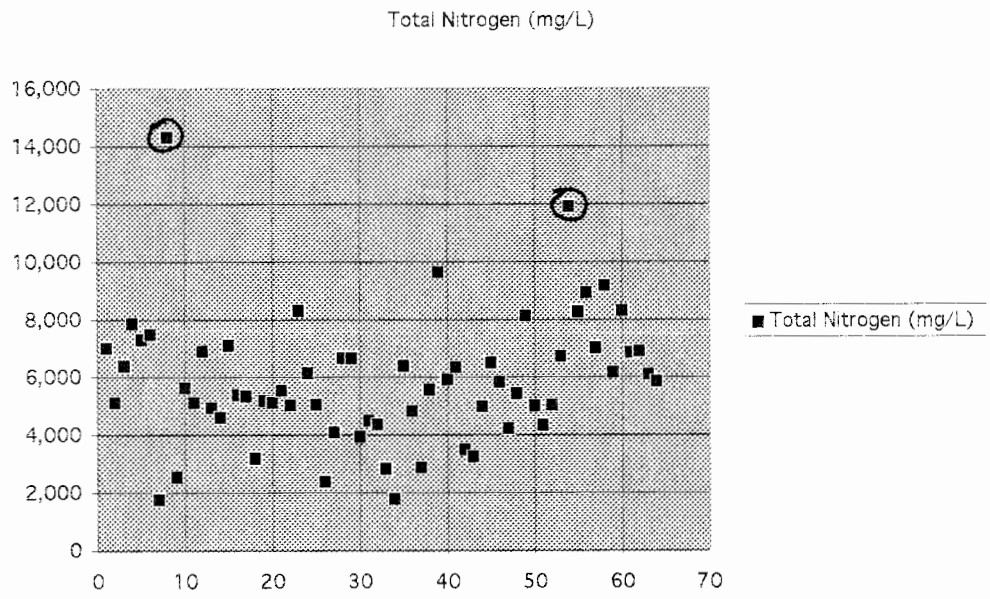
Mean =	79.460
Standard Deviation =	22604.3545
2 x Standard Deviation =	45208.7091
Outliers Deleted Above	124,669



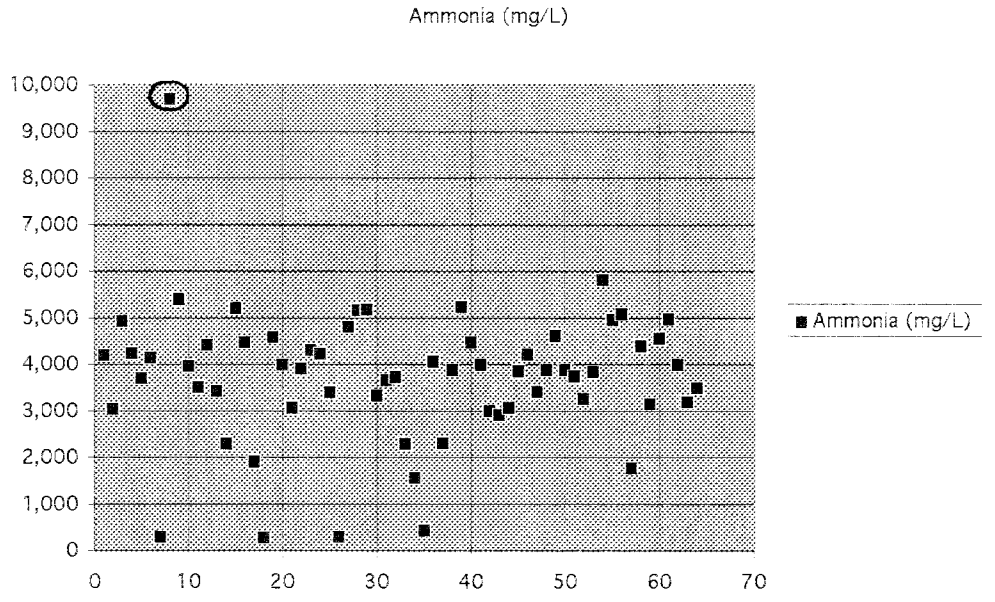
Mean =	23,228
Standard Deviation =	14934.1258
2 x Standard Deviation =	29868.2517
Outliers Deleted Above	53,096



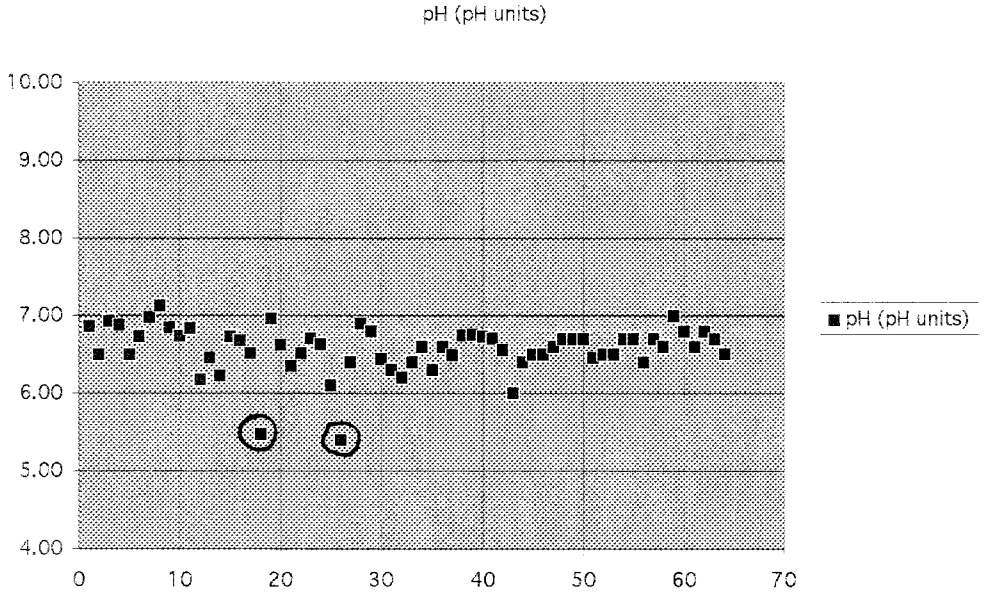
Mean =	1,032
Standard Deviation =	649.201949
2 x Standard Deviation =	1298.4039
Outliers Deleted Above	2,330



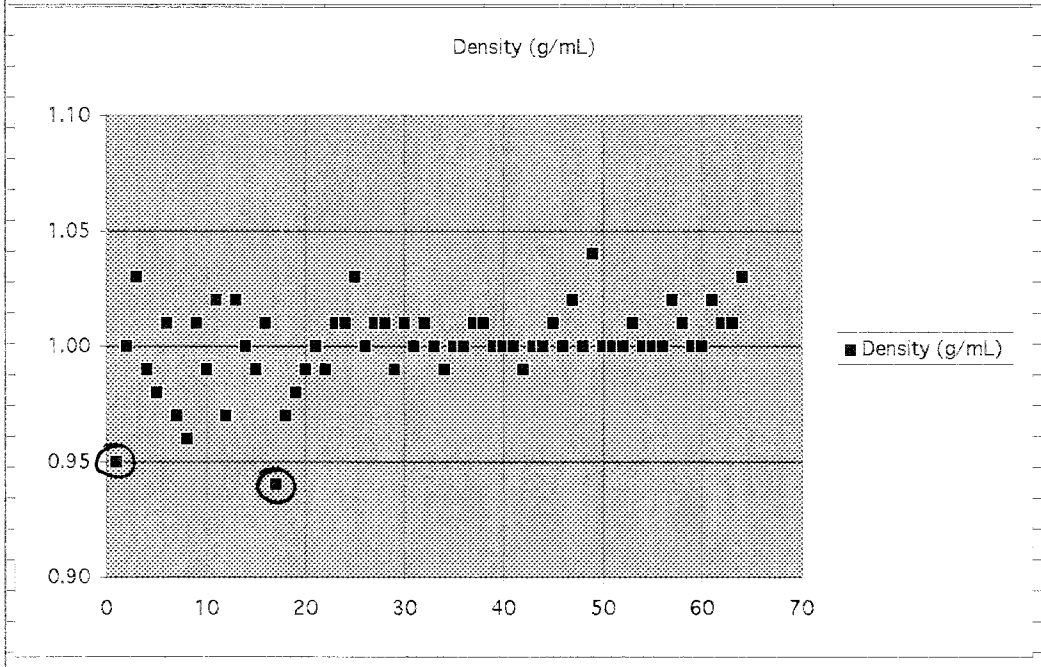
Mean =	5,864
Standard Deviation =	2199.47459
2 x Standard Deviation =	4398.94919
Outliers Deleted Above	10,263



Mean =	3,746
Standard Deviation =	1454.31295
2 x Standard Deviation =	2908.62591
Outliers Deleted Above	6,655



Mean =	6.57
Standard Deviation =	0.30411166
2 x Standard Deviation =	0.60822333
Outliers Deleted Above	7.18
Outliers Deleted Below	5.96



Mean =	1.00
Standard Deviation =	0.01776654
2 x Standard Deviation =	0.03553307
Outliers Deleted Above	1.04
Outliers Deleted Below	0.96

CALCULATIONS FOR NEW PERMIT LIMITS

Column A Sample Number	Column B Untransformed Total Solids (mg/L)	Column C Transformed Total Solids (mg/L)	Column D Untransformed Mean Minus Untransformed Total Solids Value	Column E Transformed Mean Minus Transformed Total Solids Value	Column F Column D Squared	Column G Column E Squared
1	17,300	9.75846178	2091.147541	0.010281173	4372898.038	0.000105703
2	6,790	8.823206221	12601.14754	0.945536733	158788919.3	0.894039713
3	8,480	9.045465729	10911.14754	0.723277224	119053140.7	0.523129943
4	19,200	9.862665558	191.147541	-0.093922605	36537.38242	0.008821456
5	27,500	10.22194128	-8108.852459	-0.45319833	65753488.2	0.205388727
6	17,600	9.775654181	1791.147541	-0.006911228	3208209.514	4.77651E-05
7	12,100	9.400960732	7291.147541	0.367782222	53160832.46	0.135263763
8	33,200	10.41030515	-13808.85246	-0.641562202	190684406.2	0.411602059
9	15,600	9.655026193	3791.147541	0.11371676	14372799.68	0.012931502
10	7,730	8.952864142	11661.14754	0.815878812	135982362	0.665658235
11	16,300	9.698920387	3091.147541	0.069822566	9555193.12	0.004875191
12	14,500	9.581903928	4891.147541	0.186839025	23923324.27	0.034908821
13	11,900	9.384293679	7491.147541	0.384449274	56117291.48	0.147801244
14	9,900	9.200290036	9491.147541	0.568452917	90081881.64	0.323138719
15	12,000	9.392661929	7391.147541	0.376081025	54629061.97	0.141436937
16	12,700	9.449357272	6691.147541	0.319385681	44771455.42	0.102007213
17	5,390	8.592300664	14001.14754	1.176442289	196032132.5	1.38401646
18	9,350	9.143131622	10041.14754	0.625611331	100824643.9	0.391389537
19	33,500	10.41930072	-14108.85246	-0.650557765	199059717.7	0.423225405
20	45,900	10.7342204	-26508.85246	-0.965477443	702719258.7	0.932146692
21	22,000	9.998797732	-2608.852459	-0.230054779	6806111.153	0.052925201
22	18,700	9.836278803	691.147541	-0.06753585	477684.9234	0.004561091
23	45,300	10.72106231	-25908.85246	-0.952319358	671268635.7	0.90691216
24	16,200	9.692766521	3191.147541	0.075976432	10183422.63	0.005772418
25	26,000	10.16585182	-6608.852459	-0.397108864	43676930.83	0.15769545
26	22,600	10.02570519	-3208.852459	-0.256962232	10296734.1	0.066029589
27	24,600	10.11050172	-5208.852459	-0.341758769	27132143.94	0.116799056
28	20,700	9.937888979	-1308.852459	-0.169146026	1713094.759	0.028610378
29	18,400	9.820105944	991.147541	-0.05136299	982373.448	0.002638157
30	22,600	10.02570519	-3208.852459	-0.256962232	10296734.1	0.066029589
31	10,000	9.210340372	9391.147541	0.558402581	88193652.14	0.311813443
32	12,300	9.417354541	7091.147541	0.351388412	50284373.45	0.123473816
33	13,700	9.525151112	5691.147541	0.243591841	32389160.33	0.059336985
34	12,600	9.441452093	6791.147541	0.32729086	46119684.92	0.107119307
35	16,900	9.735068901	2491.147541	0.033674052	6205816.071	0.001133942
36	16,700	9.723163998	2691.147541	0.045578955	7242275.087	0.002077441
37	19,300	9.867860375	91.14754098	-0.099117422	8307.874227	0.009824263
38	24,000	10.08580911	-4608.852459	-0.317066156	21241520.99	0.100530947
39	15,700	9.661415991	3691.147541	0.107326962	13624570.17	0.011519077
40	16,100	9.686574551	3291.147541	0.082168402	10831652.14	0.006751646
41	15,700	9.661415991	3691.147541	0.107326962	13624570.17	0.011519077
42	15,700	9.661415991	3691.147541	0.107326962	13624570.17	0.011519077
43	15,600	9.655026193	3791.147541	0.11371676	14372799.68	0.012931502
44	17,000	9.740968623	2391.147541	0.02777433	5717586.563	0.000771413
45	14,700	9.595602773	4691.147541	0.173140181	22006865.25	0.029977522
46	10,600	9.26860928	8791.147541	0.500133673	77284275.09	0.250133691
47	37,000	10.51867319	-17608.85246	-0.749930238	310071684.9	0.562395362
48	35,400	10.4744671	-16008.85246	-0.705724146	256283357.1	0.49804657
49	14,700	9.595602773	4691.147541	0.173140181	22006865.25	0.029977522
50	18,700	9.836278803	691.147541	-0.06753585	477684.9234	0.004561091
51	16,600	9.717157974	2791.147541	0.051584979	7790504.596	0.00266101
52	18,200	9.809176873	1191.147541	-0.04043392	1418832.464	0.001634902
53	22,500	10.02127059	-3108.852459	-0.252527635	9664963.612	0.063770206
54	13,200	9.487972109	6191.147541	0.280770845	38330307.87	0.078832267
55	9,740	9.183996397	9651.147541	0.584746557	93144648.86	0.341928536
56	21,600	9.980448594	-2208.852459	-0.21170564	4879029.186	0.044819278
57	35,100	10.46595641	-15708.85246	-0.697213456	246768045.6	0.486106603
58	16,280	9.69769264	3111.147541	0.071050314	9679239.022	0.005048147
59	34,400	10.44581184	-15008.85246	-0.67706889	225265652.1	0.458422282
60	37,400	10.52942598	-18008.85246	-0.76068303	324318766.9	0.578638672
61	31,400	10.35456317	-12008.85246	-0.585820219	144212537.4	0.343185329
	1,182,860	595.8933201				
Column Sum	19391.14754	9.768742953			5123045220	12.7003691
Column Sum/N						
Column Sum/(N-1)					85384086.99	0.211672818
SQRT(Column Sum/(N-1))					9240.351021	0.460079144

		Untransformed	Transformed	Transformed converted to Untransformed
Mean		19391.14754	9.768742953	17478.78176
Std Dev		9240.351021	0.460079144	1.584199359
Permit Limit		37548.4373	10.67279847	43165.5702

Table 3-2 Constant = 1.965

CALCULATIONS FOR NEW PERMIT LIMITS

Column A Sample Number	Column B Untransformed Total Vol. Solids (mg/L)	Column C Transformed Total Vol. Solids (mg/L)	Column D Untransformed Mean Minus Untransformed Total Vol. Solids Valu	Column E Transformed Mean Minus Transformed Total Vol. Solids V	Column F Column D Squared	Column G Column E Squared
1	9,920	9.2023082	1305.032787	-0.130220301	1703110.575	0.016957327
2	897	6.799055862	10328.03279	2.273032038	106668261.2	5.166674644
3	3,390	8.1285852	7835.032787	0.943502699	61387738.77	0.890197344
4	9,270	9.134538659	1955.032787	-0.062450759	3822153.198	0.003900097
5	13,900	9.539644119	-2674.967213	-0.467556219	7155449.591	0.218608818
6	8,890	9.092682329	2335.032787	-0.020594429	5452378.116	0.00042413
7	6,270	8.743531634	4955.032787	0.328556266	24552349.92	0.10794922
8	25,000	10.1266311	-13774.96721	-1.054543204	189749721.7	1.112061369
9	7,170	8.877660934	4055.032787	0.194426966	16443290.9	0.037801845
10	2,440	7.799753318	8785.032787	1.272334581	77176801.07	1.618835287
11	8,430	9.039552051	2795.032787	0.032535849	7812208.28	0.001058581
12	7,050	8.860782896	4175.032787	0.211305004	17430898.77	0.044649805
13	5,090	8.53503311	6135.032787	0.53705479	37638627.3	0.288427848
14	2,870	7.962067309	8355.032787	1.110020591	69806572.87	1.232145712
15	5,820	8.669055541	5405.032787	0.403032359	29214379.43	0.162435082
16	5,980	8.696175847	5245.032787	0.375912053	27510368.94	0.141309871
17	1,430	7.265429723	9795.032787	1.806658176	95942667.3	3.264013767
18	5,940	8.689464412	5285.032787	0.382623487	27931571.56	0.146400733
19	27,000	10.20359214	-15774.96721	-1.131504245	248849590.6	1.280301857
20	38,400	10.55581274	-27174.96721	-1.483724839	738478843	2.201439397
21	16,400	9.705036614	-5174.967213	-0.632948714	26780285.66	0.400624075
22	10,700	9.27799902	525	-0.205911121	275659.4273	0.04239939
23	35,300	10.47163824	-24,075	-1.399550343	579604046.3	1.958741163
24	8,300	9.024010794	2,925	0.048077106	8555816.804	0.002311408
25	20,000	9.903487553	-8,775	-0.831399653	77000049.59	0.691225383
26	10,300	9.239899174	925	-0.167811274	855685.6568	0.028160624
27	15,400	9.642122788	-4,175	-0.570034889	17430351.23	0.324939774
28	11,000	9.305650552	225	-0.233562652	50639.75517	0.054551512
29	8,850	9.088172738	2,375	-0.016084838	5640780.739	0.000258722
30	13,000	9.472704636	-1,775	-0.400616737	3150508.608	0.16049377
31	3,190	8.067776196	8,035	1.004311704	64561751.89	1.008641999
32	3,420	8.13739583	7,805	0.93469207	60918536.8	0.873649265
33	5,730	8.65347081	5,495	0.41861709	30195385.33	0.175240268
34	2,170	7.682482447	9,055	1.389605453	81993618.77	1.931003316
35	7,200	8.881836305	4,025	0.190251595	16200888.94	0.036195669
36	7,490	8.921324077	3,735	0.150763823	13950469.92	0.02272973
37	12,200	9.409191231	-975	-0.337103331	950561.0666	0.113638656
38	16,100	9.686574551	-4,875	-0.614486651	23765305.33	0.377593845
39	9,500	9.159047078	1,725	-0.086959178	2975738.116	0.007561899
40	8,690	9.069928218	2,535	0.002159681	6426391.231	4.66422E-06
41	7,460	8.917310693	3,765	0.154777207	14175471.89	0.023955984
42	7,280	8.892886141	3,945	0.179201759	15563283.69	0.03211327
43	7,260	8.890135108	3,965	0.181952792	15721485	0.033106818
44	7,510	8.923990745	3,715	0.148097155	13801468.61	0.021932767
45	6,640	8.800867242	4,585	0.271220657	21022525.66	0.073560645
46	3,860	8.258422462	7,365	0.813665437	54243707.95	0.662051444
47	27,900	10.23638197	-16,675	-1.164294068	278054531.6	1.355580677
48	25,200	10.13459927	-13,975	-1.062511374	195299708.6	1.128930419
49	7,540	8.927977461	3,685	0.144110439	13579466.64	0.020767819
50	9,760	9.186047679	1,465	-0.11395978	2146321.067	0.012986831
51	7,860	8.969541885	3,365	0.102546014	11323445.66	0.010515685
52	11,900	9.384293679	-675	-0.312205779	455580.7388	0.097472449
53	13,400	9.503009986	-2,175	-0.430922086	4730482.378	0.185693844
54	6,130	8.720950029	5,095	0.351137871	25959359.1	0.123297804
55	4,530	8.418477218	6,695	0.653610681	44823464.02	0.427206923
56	10,400	9.249561085	825	-0.177473185	680679.0994	0.031496732
57	23,900	10.08163374	-12,675	-1.009545838	160654793.9	1.019182799
58	10,400	9.249561085	825	-0.177473185	680679.0994	0.031496732
59	22,700	10.0301202	-11,475	-0.958032304	131674872.5	0.917825895
60	26,300	10.17732422	-15,075	-1.105236318	227254636.5	1.22154732
61	16,700	9.723163998	-5,475	-0.651076099	29975265.98	0.423900086
Column Sum	684,727	553.3973619			4077830684	34.00018081
Column Sum/N	11,225	9.0720879				
Column Sum/(N-1)					67963844.73	0.56666968
SQRT(Column Sum/(N-1))					8244.018725	0.752774654

	Untransformed	Transformed	Transformed converted to Untransformed
Mean	11,225	9.0720879	8708.787913
Std Dev	8244.018725	0.752774654	2.122882116
Permit Limit	27424.52958	10.5512901	38226.72264

Table 3-2 Constant = 1.965

CALCULATIONS FOR NEW PERMIT LIMITS

Column A Sample Number	Column B Untransformed 5-Day BOD (mg/L)	Column C Transformed 5-Day BOD (mg/L)	Column D Untransformed Mean Minus Untransformed 5-Day BOD Value	Column E Transformed Mean Minus Transformed 5-Day BOD Value	Column F Column D Squared	Column G Column E Squared
1	33,500	10.41930072	-7254.098361	-0.341824912	52621943.03	0.116844271
2	30,700	10.33201793	-4454.098361	-0.254542128	19838992.21	0.064791695
3	32,000	10.37349118	-5754.098361	-0.296015376	33109647.94	0.087625103
4	27,100	10.20728901	-854.0983607	-0.129813201	729484.0097	0.016851467
5	13,800	9.532423871	12445.90164	0.545051934	154900467.6	0.297081611
6	21,000	9.952277717	5245.901639	0.125198089	27519484.01	0.015674561
7	24,400	10.10233841	1845.901639	-0.024862606	3407352.862	0.000618149
8	13,200	9.487972109	13045.90164	0.589503697	170195549.6	0.347514609
9	24,100	10.08996712	2145.901639	-0.012491314	4604893.846	0.000156033
10	18,000	9.798127037	8245.901639	0.279348769	67994893.85	0.078035735
11	19,900	9.898475011	6345.901639	0.179000795	40270467.62	0.032041285
12	20,100	9.908475094	6145.901639	0.169000712	37772106.96	0.02856124
13	18,900	9.846917201	7345.901639	0.230558605	53962270.89	0.05315727
14	19,300	9.867860375	6945.901639	0.209615431	48245549.58	0.043938629
15	11,300	9.332558005	14945.90164	0.744917801	223379975.8	0.55490253
16	14,400	9.574983486	11845.90164	0.50249232	140325385.6	0.252498532
17	22,500	10.02127059	3745.901639	0.056205217	14031779.09	0.003159026
18	54,500	10.90595598	-28254.09836	-0.828480175	798294074.2	0.686379401
19	73,200	11.2009507	-46954.09836	-1.123474894	2204687353	1.262195838
20	26,400	10.18111929	-154.0983607	-0.103643484	23746.30476	0.010741972
21	57,800	10.96474405	-31554.09836	-0.887268249	995661123.4	0.787244946
22	99,800	11.51092346	-73554.09836	-1.433447657	5410205386	2.054772185
23	21,600	9.980448594	4645.901639	0.097027212	21584402.04	0.00941428
24	23,300	10.05620864	2945.901639	0.021267166	8678336.469	0.000452292
25	24,200	10.09410791	2045.901639	-0.016632107	4185713.518	0.000276627
26	20,700	9.937888979	5545.901639	0.139586826	30757024.99	0.019484482
27	16,000	9.680344001	10245.90164	0.397131804	104978500.4	0.15771367
28	15,600	9.655026193	10645.90164	0.422449612	113335221.7	0.178463675
29	32,400	10.3859137	-6154.098361	-0.308437896	37872926.63	0.095133936
30	16,500	9.71111566	9745.901639	0.366360146	94982598.76	0.134219756
31	20,300	9.918376165	5945.901639	0.159099641	35353746.3	0.025312696
32	18,600	9.83091686	7645.901639	0.246558946	58459811.88	0.060791314
33	21,000	9.952277717	5245.901639	0.125198089	27519484.01	0.015674561
34	39,100	10.57387775	-12854.09836	-0.49640194	165227844.7	0.246414886
35	21,500	9.975808214	4745.901639	0.101667591	22523582.37	0.010336299
36	26,600	10.18866649	-354.0983607	-0.111190689	125385.649	0.012363369
37	36,200	10.4968144	-9954.098361	-0.419338592	99084074.17	0.175844855
38	22,900	10.03889219	3345.901639	0.038583616	11195057.78	0.001488695
39	29,100	10.27849345	-2854.098361	-0.201017648	8145877.452	0.040408095
40	27,400	10.21829829	-1154.098361	-0.140822487	1331943.026	0.019830973
41	19,400	9.873028345	6845.901639	0.204447461	46866369.26	0.041798764
42	18,000	9.798127037	8245.901639	0.279348769	67994893.85	0.078035735
43	20,500	9.928180165	5745.901639	0.14929564	33015385.65	0.022289188
44	18,700	9.836278803	7545.901639	0.241197003	56940631.55	0.058175994
45	18,900	9.846917201	7345.901639	0.230558605	53962270.89	0.05315727
46	43,500	10.68051622	-17254.09836	-0.603040412	297703910.2	0.363657738
47	32,000	10.37349118	-5754.098361	-0.296015376	33109647.94	0.087625103
48	29,200	10.28192399	-2954.098361	-0.204448183	8726697.124	0.041799059
49	24,600	10.11050172	1645.901639	-0.033025916	2708992.206	0.001090711
50	23,900	10.08163374	2345.901639	-0.004157932	5503254.501	1.72884E-05
51	41,300	10.62861778	-15054.09836	-0.551141973	226625877.5	0.303757475
52	23,100	10.0475879	3145.901639	0.029887909	9896697.124	0.000893287
53	27,000	10.20359214	-754.0983607	-0.126116339	568664.3375	0.015905331
54	14,200	9.560997244	12045.90164	0.516478562	145103746.3	0.266750105
55	12,500	9.433483923	13745.90164	0.643991882	188949811.9	0.414725544
56	21,700	9.98506754	4545.901639	0.092408266	20665221.71	0.008539288
57	29,500	10.29214554	-3254.098361	-0.214669737	10589156.14	0.046083096
58	18,400	9.820105944	7845.901639	0.257369862	61558172.53	0.066239246
59	19,400	9.873028345	6845.901639	0.204447461	46866369.26	0.041798764
60	21,000	9.952277717	5245.901639	0.125198089	27519484.01	0.015674561
61	15,300	9.635608107	10945.90164	0.441867698	119812762.7	0.195247063
Column Sum	1,601,000	614.7260241			12811811475	10.12167116
Column Sum/N	26,246	10.07747581				
Column Sum/(N-1)					213530191.3	0.168694519
SQRT(Column Sum/(N-1))					14612.67228	0.410724384

	Untransformed	Transformed	Transformed converted to Untransformed
Mean	26,246	10.07747581	23800.83173
Std Dev	14612.67228	0.410724384	1.507909695
Permit Limit	54959.80268	10.88454922	53345.73018

Table 3-2 Constant = 1.965

CALCULATIONS FOR NEW PERMIT LIMITS						
Column A	Column B	Column C	Column D	Column E	Column F	Column G
	Untransformed	Transformed	Untransformed Mean	Transformed Mean		
Sample Number	Oil & Grease	Oil & Grease	Minus Untransformed	Minus Transformed	Column D	Column E
	(mg/L)	(mg/L)	Oil & Grease Value	Oil & Grease Value	Squared	Squared
1	20,588	9.932463661	1362.233333	-0.54074514	1855679.654	0.292405306
2	33,370	10.41541257	-11419.76667	-1.023694051	130411070.7	1.04794951
3	5,680	8.644706512	16270.23333	0.747012009	264720492.7	0.558026942
4	16,700	9.723163998	5250.233333	-0.331445477	27564950.05	0.109856104
5	8,520	9.05017162	13430.23333	0.341546901	180371167.4	0.116654286
6	14,580	9.587406006	7370.233333	-0.195687485	54320339.39	0.038293592
7	4,006	8.295548516	17944.23333	1.096170005	321995509.9	1.201588679
8	5,240	8.564076777	16710.23333	0.827641744	279231898.1	0.684990856
9	2,460	7.807916629	19490.23333	1.583801892	379869195.4	2.508428433
10	10,240	9.234056899	11710.23333	0.157661622	137129564.7	0.024857187
11	7,240	8.887376485	14710.23333	0.504342036	216390964.7	0.254360889
12	3,700	8.216088099	18250.23333	1.175630422	333071016.7	1.38210689
13	1,958	7.579678823	19992.23333	1.812039698	399689393.7	3.283487867
14	17,440	9.766521697	4510.233333	-0.374803176	20342204.72	0.140477421
15	19,040	9.854297308	2910.233333	-0.462578787	8469458.054	0.213979134
16	16,200	9.692766521	5750.233333	-0.301048	33065183.39	0.090629898
17	9,780	9.188094763	12170.23333	0.203623758	148114579.4	0.041462635
18	8,880	9.091556836	13070.23333	0.300161685	170830999.4	0.090097037
19	28,120	10.24423635	-6169.766667	-0.852517825	38066020.72	0.726786642
20	37,900	10.54270639	-15949.76667	-1.15098787	254395056.7	1.324773077
21	7,212	8.883501584	14738.23333	0.508216937	217215521.8	0.258284455
22	28,840	10.26951859	-6889.766667	-0.87780007	47468884.72	0.770532964
23	5,788	8.663542088	16162.23333	0.728176433	261217786.3	0.530240918
24	57,260	10.95535758	-35309.76667	-1.563639058	1246779622	2.444967103
25	37,660	10.5363538	-15709.76667	-1.144635281	246796766.7	1.310189927
26	19,460	9.876116356	2490.233333	-0.484397835	6201262.054	0.234641262
27	15,940	9.676586952	6010.233333	-0.284868431	36122904.72	0.081150023
28	919	6.823286122	21031.23333	2.568432399	442312775.5	6.596844986
29	1,789	7.489412084	20161.23333	1.902306438	406475329.5	3.618769782
30	13,360	9.500020447	8590.233333	-0.108301926	73792108.72	0.011729307
31	1,161	7.057036982	20789.23333	2.334681539	432192222.6	5.45073789
32	62,820	11.04802677	-40869.76667	-1.656310252	1670337827	2.743363651
33	62,000	11.03488966	-40049.76667	-1.643171143	1603983810	2.700011405
34	68,020	11.12755706	-46069.76667	-1.735838538	2122423401	3.013135428
35	49,140	10.80242865	-27189.76667	-1.410710125	739283411.4	1.990103057
36	10,460	9.255313738	11490.23333	0.136404783	132025462.1	0.018606265
37	7,600	8.935903526	14350.23333	0.455814995	205929196.7	0.207767309
38	9,360	9.144200569	12590.23333	0.247517952	158513975.4	0.061265136
39	7,600	8.935903526	14350.23333	0.455814995	205929196.7	0.207767309
40	11,440	9.344871265	10510.23333	0.046847256	110465004.7	0.002194665
41	2,240	7.714231145	19710.23333	1.677487376	388493298.1	2.813963897
42	14,780	9.601030195	7170.233333	-0.209311673	51412246.05	0.043811377
43	15,580	9.653743319	6370.233333	-0.262024798	40579872.72	0.068656995
44	78,640	11.27263575	-56689.76667	-1.880917234	3213729645	3.53784964
45	10,120	9.222268943	11830.23333	0.169449578	139954420.7	0.02871316
46	23,800	10.07744086	-1849.766667	-0.685722339	3421636.721	0.470215126
47	20,500	9.928180165	1450.233333	-0.536461644	2103176.721	0.287791096
48	24,600	10.11050172	-2649.766667	-0.718783201	7021263.388	0.51664929
49	59,920	11.00076562	-37969.76667	-1.609047097	1441703181	2.589032561
50	115,060	11.65320901	-93109.76667	-2.261490489	8669428649	5.114339234
51	12,468	9.430920641	9482.233333	-0.03920212	89912748.99	0.001536806
52	97,560	11.48822285	-75609.76667	-2.096504331	5716836815	4.395330411
53	5,590	8.628734566	16360.23333	0.762983955	267657234.7	0.582144515
54	62,200	11.03811028	-40249.76667	-1.646391758	1620043717	2.71060582
55	3,760	8.232174236	18190.23333	1.159544285	330884588.7	1.344542948
56	5,200	8.556413905	16750.23333	0.835304616	280570316.7	0.697733802
57	3,860	8.258422462	18090.23333	1.133296059	327256542.1	1.284359956
58	6,380	8.760923376	15570.23333	0.630795145	242432166.1	0.397902515
59	4,375	8.383661799	17575.23333	1.008056722	308888826.7	1.016178355
60	910	6.8134446	21040.23333	2.578273921	442691418.7	6.647496414
Column Sum	1,317,014	563.5031113			37350392981	80.93236915
Column Sum/N	21,950	9.391718521				
Column Sum/(N-1)					633057508.1	1.37173507
SQRT(Column Sum/(N-1))					25160.6341	1.171210942
					Transformed converted	
			Untransformed	Transformed	to Untransformed	
		Mean	21,950	9.391718521	11988.68445	
		Std Dev	25160.6341	1.171210942	3.225896648	
		Permit Limit	71390.87933	11.69314802	119748.3842	
		Table 3-2 Constant = 1.965				

New

CALCULATIONS FOR NEW PERMIT LIMITS						
Column A	Column B	Column C	Column D	Column E	Column F	Column G
	Untransformed	Transformed	Untransformed Mean	Transformed Mean		
Sample Number	Oil & Grease	Oil & Grease	Minus Untransformed	Minus Transformed	Column D	Column E
	(mg/L)	(mg/L)	Oil & Grease Value	Oil & Grease Value	Squared	Squared
1	20,588	9.932463661	3625.344262	-0.498266278	13143121.02	0.248269284
2	33,370	10.41541257	-9156.655738	-0.981215189	83844344.3	0.962783247
3	5,680	8.644706512	18533.34426	0.789490871	343484849.5	0.623295836
4	16,700	9.723163998	7513.344262	-0.288966616	56450342	0.083501705
5	8,520	9.05017162	15693.34426	0.384025763	246281054.1	0.147475787
6	14,580	9.587406006	9633.344262	-0.153208623	92801321.68	0.023472882
7	4,006	8.295548516	20207.34426	1.138648867	408336762.1	1.296521241
8	5,240	8.564076777	18973.34426	0.870120606	359987792.5	0.757109868
9	2,460	7.807916629	21753.34426	1.626280754	473207986.6	2.644789091
10	10,240	9.234056899	13973.34426	0.200140484	195254349.9	0.040056213
11	7,240	8.887376485	16973.34426	0.546820897	288094415.4	0.299013094
12	3,700	8.216088099	20513.34426	1.218109284	420797292.8	1.483790228
13	1,958	7.579678823	22255.34426	1.85451856	495300348.2	3.439239089
14	17,440	9.766521697	6773.344262	-0.332324315	45878192.5	0.11043945
15	19,040	9.854297308	5173.344262	-0.420099925	26763490.86	0.176483947
16	16,200	9.692766521	8013.344262	-0.258569138	64213686.27	0.066857999
17	9,780	9.188094763	14433.34426	0.24610262	208321426.6	0.060566499
18	8,880	9.091556836	15333.34426	0.342640547	235111446.3	0.117402544
19	28,120	10.24423635	-3906.655738	-0.610038963	15261959.05	0.656163122
20	37,900	10.54270639	-13686.65574	-1.108509008	187324545.3	1.228792221
21	7,212	8.883501584	17001.34426	0.550695799	289045706.7	0.303265863
22	28,840	10.26951859	-4626.655738	-0.835321209	21405943.32	0.697761521
23	5,788	8.663542088	18425.34426	0.770655295	339493311.2	0.593909584
24	57,260	10.95535758	-33046.65574	-1.521160196	1092081455	2.313928341
25	37,660	10.5363538	-13446.65574	-1.102156419	180812550.5	1.214748773
26	19,460	9.876116356	4753.344262	-0.441918973	22594281.68	0.195292379
27	15,940	9.676586952	8273.344262	-0.242389569	68448225.28	0.058752703
28	160,000	11.98292909	-135786.6557	-2.548731711	18438015876	6.496033336
29	919	6.823286122	23294.34426	2.610911261	542626474.6	6.81685761
30	1,789	7.489412084	22424.34426	1.944785299	502851215.6	3.782189861
31	13,360	9.500020447	10853.34426	-0.065823064	117795081.7	0.004332676
32	1,161	7.057036982	23052.34426	2.377160401	531410576	5.650891573
33	62,820	11.04802877	-38606.65574	-1.61363139	1490473867	2.604451756
34	62,000	11.03488966	-37786.65574	-1.600692281	1427831352	2.562215779
35	68,020	11.12755706	-43806.65574	-1.693359676	1919023087	2.867466991
36	49,140	10.80242865	-24926.65574	-1.368231263	621338166.3	1.87205679
37	10,460	9.255313738	13753.34426	0.178883645	189154478.4	0.031999359
38	7,600	8.935903526	16613.34426	0.498293857	276003207.6	0.248296768
39	9,360	9.144200569	14853.34426	0.289996813	220621835.8	0.084096152
40	7,600	8.935903526	16613.34426	0.498293857	276003207.6	0.248296768
41	11,440	9.344871265	12773.34426	0.089326118	163158323.6	0.007979155
42	2,240	7.714231145	21973.34426	1.719966238	482827658.1	2.95828386
43	14,780	9.601030195	9433.344262	-0.166832812	88987983.97	0.027833187
44	15,580	9.653743319	8633.344262	-0.219545937	74534633.15	0.048200418
45	78,640	11.27263575	-54426.65574	-1.838438372	2962260855	3.379855647
46	10,120	9.222268943	14093.34426	0.21192844	198622352.5	0.044913664
47	23,800	10.07744086	413.3442623	-0.643243477	170853.4792	0.41376217
48	20,500	9.928180165	3713.344262	-0.493982762	13788925.61	0.244018989
49	24,600	10.11050172	-386.6557377	-0.676304339	149502.6595	0.457387559
50	59,920	11.00076562	-35706.65574	-1.566568235	1274965264	2.454136036
51	115,060	11.65320901	-90846.65574	-2.219011628	8253114859	4.924012603
52	12,468	9.430920641	11745.34426	0.003276742	137953111.8	1.0737E-05
53	97,560	11.48822285	-73346.65574	-2.054025469	5379731908	4.219020629
54	5,590	8.628734566	18623.34426	0.805462817	346828951.5	0.648770349
55	62,200	11.03811028	-37986.65574	-1.603912896	1442986014	2.572536578
56	3,760	8.232174236	20453.34426	1.202023146	418339291.5	1.444859645
57	5,200	8.556413905	19013.34426	0.877783478	361507260	0.770503835
58	3,860	8.258422462	20353.34426	1.17577492	414258622.7	1.382446663
59	6,380	8.760923376	17833.34426	0.673274007	318028167.6	0.453297888
60	4,375	8.383661799	19838.34426	1.050535584	393559903.1	1.103625013
61	910	6.8134446	23303.34426	2.620752783	543045853.8	6.868345151
Column Sum	1,477,014	575.4860404			56095709122	87.53666971
Column Sum/N	24,213	9.434197383				
Column Sum/(N-1)					934928485.4	1.458944495
SQRT(Column Sum/(N-1))					30576.60029	1.207867747
					Transformed converted	
			Untransformed	Transformed	to Untransformed	
		Mean	24,213	9.434197383	12508.92143	
		Std Dev	30576.60029	1.207867747	3.346341794	
		Permit Limit	84296.36383	11.80765751	134276.6505	
		Table 3-2 Constant = 1.965				

OLD

CALCULATIONS FOR NEW PERMIT LIMITS

Column A Sample Number	Column B Untransformed Total Phos (mg/L)	Column C Transformed Total Phos (mg/L)	Column D Untransformed Mean Minus Untransformed Total Phos Value	Column E Transformed Mean Minus Transformed Total Phos Value	Column F Column D Squared	Column G Column E Squared
1	750	6.620073207	410.359375	0.310354791	168394.8167	0.096320097
2	1,400	7.244227516	-239.640625	-0.313799518	57427.62915	0.098470137
3	2,400	7.783224016	-1239.640625	-0.852796018	1536708.879	0.727261049
4	2,100	7.649692624	939.640625	-0.719264626	882924.5042	0.517341602
5	2,200	7.696212639	-1039.640625	-0.765784641	1080852.629	0.586426117
6	600	6.396929655	560.359375	0.533498343	314002.6292	0.284620482
7	1,200	7.090076836	-39.640625	-0.159648838	1571.37915	0.025487751
8	1,000	6.907755279	160.359375	0.022672719	25715.12915	0.000514052
9	1,200	7.090076836	-39.640625	-0.159648838	1571.37915	0.025487751
10	1,000	6.907755279	160.359375	0.022672719	25715.12915	0.000514052
11	1,000	6.907755279	160.359375	0.022672719	25715.12915	0.000514052
12	600	6.396929655	560.359375	0.533498343	314002.6292	0.284620482
13	800	6.684611728	360.359375	0.24581627	129858.8792	0.060425639
14	1,900	7.549609165	-739.640625	-0.61918167	547068.2542	0.383385318
15	2,000	7.60090246	-839.640625	-0.670474462	704996.3792	0.449536004
16	1,200	7.090076836	-39.640625	-0.159648838	1571.37915	0.025487751
17	1,200	7.090076836	-39.640625	-0.159648838	1571.37915	0.025487751
18	1,000	6.907755279	160.359375	0.022672719	25715.12915	0.000514052
19	1,000	6.907755279	160.359375	0.022672719	25715.12915	0.000514052
20	1,000	6.907755279	160.359375	0.022672719	25715.12915	0.000514052
21	700	6.551080335	460.359375	0.379347663	211930.7542	0.143904649
22	1,200	7.090076836	-39.640625	-0.159648838	1571.37915	0.025487751
23	1,000	6.907755279	160.359375	0.022672719	25715.12915	0.000514052
24	2,400	7.783224016	-1239.640625	-0.852796018	1536708.879	0.727261049
25	1,200	7.090076836	-39.640625	-0.159648838	1571.37915	0.025487751
26	1,200	7.090076836	-39.640625	-0.159648838	1571.37915	0.025487751
27	1,200	7.090076836	-39.640625	-0.159648838	1571.37915	0.025487751
28	1,700	7.43838353	-539.640625	-0.507955532	291212.0042	0.258018823
29	1,200	7.090076836	-39.640625	-0.159648838	1571.37915	0.025487751
30	2,000	7.60090246	-839.640625	-0.670474462	704996.3792	0.449536004
31	1,500	7.313220387	-339.640625	-0.382792389	115355.7542	0.146530013
32	2,000	7.60090246	-839.640625	-0.670474462	704996.3792	0.449536004
33	1,000	6.907755279	160.359375	0.022672719	25715.12915	0.000514052
34	1,300	7.170119543	-139.640625	-0.239691546	19499.50415	0.057452037
35	1,700	7.43838353	-539.640625	-0.507955532	291212.0042	0.258018823
36	1,200	7.090076836	-39.640625	-0.159648838	1571.37915	0.025487751
37	1,200	7.090076836	-39.640625	-0.159648838	1571.37915	0.025487751
38	2,000	7.60090246	-839.640625	-0.670474462	704996.3792	0.449536004
39	1,200	7.090076836	-39.640625	-0.159648838	1571.37915	0.025487751
40	1,800	7.495541944	-639.640625	-0.565113946	409140.1292	0.319353772
41	1,300	7.170119543	-139.640625	-0.239691546	19499.50415	0.057452037
42	1,000	6.907755279	160.359375	0.022672719	25715.12915	0.000514052
43	700	6.551080335	460.359375	0.379347663	211930.7542	0.143904649
44	1,200	7.090076836	-39.640625	-0.159648838	1571.37915	0.025487751
45	287	5.659482216	873.359375	1.270945782	762756.5979	1.615303181
46	310	5.736572297	850.359375	1.1938557	723111.0667	1.425291433
47	333	5.80814249	827.359375	1.122285508	684523.5354	1.259524761
48	507	6.228511004	653.359375	0.701916994	426878.4729	0.492687467
49	780	6.65929392	380.359375	0.271134078	144673.2542	0.073513688
50	793	6.675823222	367.359375	0.254604776	134952.9104	0.064823592
51	368	5.908082938	792.359375	1.02234506	627833.3792	1.045189421
53	1,059	6.965080346	101.359375	-0.034652348	10273.7229	0.001200785
54	655	6.484635236	505.359375	0.445792762	255388.0979	0.198731187
55	616	6.423246964	544.359375	0.507181034	296327.1292	0.257232602
56	1,287	7.160069208	-126.640625	-0.22964121	16037.8479	0.052735085
57	984	6.891625897	176.359375	0.038802101	31102.62915	0.001505603
58	818	6.706862337	342.359375	0.223565661	117209.9417	0.049981605
59	371	5.916202063	789.359375	1.014225935	623088.2229	1.028654248
60	736	6.601230119	424.359375	0.329197879	180080.8792	0.108371244
61	404	6.001414878	756.359375	0.92901312	572079.5042	0.863065377
62	2,156	7.676009932	-995.640625	-0.745581934	991300.2542	0.555892421
63	2,163	7.679251426	-1002.640625	-0.748823428	1005288.223	0.560736526
64	427	6.056784013	733.359375	0.873643985	537815.9729	0.763253812
65	759	6.632001777	401.359375	0.29842622	161089.3479	0.089058209
Column Sum	74,263	443.5473919			19511390.73	17.79163027
Column Sum/N	1,160	6.930427998				
Column Sum/(N-1)					304865.4802	0.277994223
SQRT(Column Sum/(N-1))					552.1462489	0.527251575

	Untransformed	Transformed	Transformed converted to Untransformed
Mean	1,160	6.930427998	1022.931699
Std Dev	552.1462489	0.527251575	1.694269331
Permit Limit	2245.326754	7.966477342	2882.684745

Table 3-2 Constant = 1.965

CALCULATIONS FOR NEW PERMIT LIMITS

Column A Sample Number	Column B Untransformed Total Nitrogen (mg/L)	Column C Transformed Total Nitrogen (mg/L)	Column D Untransformed Mean Minus Untransformed Total Nitrogen Value	Column E Transformed Mean Minus Transformed Total Nitrogen Valu	Column F Column D Squared	Column G Column E Squared
1	2,940	7.98616486	3073.206349	0.659880311	9444597.265	0.435442025
2	3,080	8.032684876	2933.206349	0.613360295	8603699.487	0.376210852
3	5,880	8.679312041	133.2063492	-0.03326687	17743.93147	0.001106685
4	6,160	8.725832057	-146.7936508	-0.079786885	21548.37591	0.006365947
5	7,840	8.966994113	-1826.793651	-0.320948942	3337175.043	0.103008223
6	4,480	8.407378325	1533.206349	0.238666846	2350721.709	0.056961863
7	8,120	9.002085433	-2106.793651	-0.356040262	4438579.487	0.126764668
8	5,880	8.679312041	133.2063492	-0.03326687	17743.93147	0.001106685
9	5,880	8.679312041	133.2063492	-0.03326687	17743.93147	0.001106685
10	5,880	8.679312041	133.2063492	-0.03326687	17743.93147	0.001106685
11	4,760	8.468002947	1253.206349	0.178042224	1570526.154	0.031699034
12	7,280	8.892886141	-1266.793651	-0.24684097	1604766.154	0.060930464
13	6,160	8.725832057	-146.7936508	-0.079786885	21548.37591	0.006365947
14	5,880	8.679312041	133.2063492	-0.03326687	17743.93147	0.001106685
15	7,280	8.892886141	-1266.793651	-0.24684097	1604766.154	0.060930464
16	1,960	7.580699752	4053.206349	1.065345419	16428481.71	1.134960862
17	4,760	8.468002947	1253.206349	0.178042224	1570526.154	0.031699034
18	4,480	8.407378325	1533.206349	0.238666846	2350721.709	0.056961863
19	7,560	8.930626469	-1546.793651	-0.284581298	2392570.598	0.080986515
20	2,800	7.937374696	3213.206349	0.708670475	10324695.04	0.502213842
21	4,480	8.407378325	1533.206349	0.238666846	2350721.709	0.056961863
22	3,080	8.032684876	2933.206349	0.613360295	8603699.487	0.376210852
23	7,560	8.930626469	-1546.793651	-0.284581298	2392570.598	0.080986515
24	3,920	8.273846933	2,093	0.372198238	4381512.82	0.138531529
25	4,480	8.407378325	1533.206349	0.238666846	2350721.709	0.056961863
26	8,960	9.100525506	2946.793651	0.454480335	8683592.82	0.206552375
27	6,160	8.725832057	-146.7936508	-0.079786885	21548.37591	0.006365947
28	7,280	8.892886141	-1266.793651	-0.24684097	1604766.154	0.060930464
29	7,560	8.930626469	-1546.793651	-0.284581298	2392570.598	0.080986515
30	5,320	8.579228582	693.2063492	0.066816589	480535.0426	0.004464457
31	7,560	8.930626469	-1546.793651	-0.284581298	2392570.598	0.080986515
32	4,480	8.407378325	1533.206349	0.238666846	2350721.709	0.056961863
33	5,320	8.579228582	693.2063492	0.066816589	480535.0426	0.004464457
34	7,280	8.892886141	-1266.793651	-0.24684097	1604766.154	0.060930464
35	7,560	8.930626469	-1546.793651	-0.284581298	2392570.598	0.080986515
36	6,160	8.725832057	-146.7936508	-0.079786885	21548.37591	0.006365947
37	4,480	8.407378325	1533.206349	0.238666846	2350721.709	0.056961863
38	5,264	8.568646473	749.2063492	0.077398698	561310.1537	0.005990558
39	6,348	8.755895082	-334.7936508	-0.10984991	112086.7886	0.012067003
40	5,040	8.525161361	973.2063492	0.12088381	947130.5981	0.014612896
41	7,840	8.966994113	-1826.793651	-0.320948942	3337175.043	0.103008223
42	7,840	8.966994113	-1826.793651	-0.320948942	3337175.043	0.103008223
43	4,760	8.468002947	1253.206349	0.178042224	1570526.154	0.031699034
44	6,160	8.725832057	-146.7936508	-0.079786885	21548.37591	0.006365947
45	7,560	8.930626469	-1546.793651	-0.284581298	2392570.598	0.080986515
46	7,560	8.930626469	-1546.793651	-0.284581298	2392570.598	0.080986515
47	8,400	9.035986985	-2386.793651	-0.389941814	5696783.931	0.152054618
48	8,960	9.100525506	-2946.793651	-0.454480335	8683592.82	0.206552375
49	8,120	9.002085433	-2106.793651	-0.356040262	4438579.487	0.126764668
50	5,880	8.679312041	133.2063492	-0.03326687	17743.93147	0.001106685
51	8,400	9.035986985	-2386.793651	-0.389941814	5696783.931	0.152054618
52	7,280	8.892886141	-1266.793651	-0.24684097	1604766.154	0.060930464
53	6,720	8.812843434	-706.7936508	-0.166798262	499557.2648	0.02782166
54	8,960	9.100525506	-2946.793651	-0.454480335	8683592.82	0.206552375
55	5,880	8.679312041	133.2063492	-0.03326687	17743.93147	0.001106685
56	5,320	8.579228582	693.2063492	0.066816589	480535.0426	0.004464457
57	5,320	8.579228582	693.2063492	0.066816589	480535.0426	0.004464457
58	5,600	8.630521877	413.2063492	0.015523294	170739.487	0.000240973
59	3,080	8.032684876	2933.206349	0.613360295	8603699.487	0.376210852
60	11,760	9.372459221	-5746.793651	-0.72641405	33025637.26	0.527677372
61	3,640	8.199738961	2373.206349	0.446306211	5632108.376	0.199189234
62	3,360	8.119696253	2653.206349	0.526348918	7039503.931	0.277043184
63	3,080	8.032684876	2933.206349	0.613360295	8603699.487	0.376210852
Column Sum	378,832	544.7008458			225057012.3	7.632815473
Column Sum/N	6,013	8.646045171				
Column Sum/(N-1)					3629951.812	0.123109927
SQRT(Column Sum/(N-1))					1905.243242	0.350870242

	Untransformed	Transformed	Transformed converted to Untransformed
Mean	6,013	8.646045171	5687.608677
Std Dev	1905.243242	0.350870242	1.420303019
Permit Limit	9757.00932	9.335505197	11333.3524

Table 3-2 Constant = 1.965

CALCULATIONS FOR NEW PERMIT LIMITS

Column A Sample Number	Column B Untransformed Ammonia (mg/L)	Column C Transformed Ammonia (mg/L)	Column D Untransformed Mean Minus Untransformed Ammonia Value	Column E Transformed Mean Minus Transformed Ammonia Value	Column F Column D Squared	Column G Column E Squared
1	560	6.327936784	1876.349206	1.420116254	3520686.344	2.016730174
2	840	6.733401892	1596.349206	1.014651146	2548330.789	1.029516947
3	3,450	8.14612951	-1013.650794	-0.398076473	1027487.931	0.158464878
4	3,480	8.154787573	-1043.650794	-0.406734535	1089206.979	0.165432982
5	1,880	7.539027056	556.3492063	0.209025982	309524.4394	0.043691861
6	1,180	7.073269717	1256.349206	0.67478332	1578413.328	0.455332529
7	2,650	7.882314919	-213.6507937	-0.134261882	45646.66163	0.018026253
8	1,850	7.522940918	586.3492063	0.225112119	343805.3918	0.050675466
9	2,390	7.779048645	46.34920635	-0.030995608	2148.248929	0.000960728
10	2,000	7.60090246	436.3492063	0.147150578	190400.6299	0.021653293
11	2,290	7.736307097	146.3492063	0.011745941	21418.0902	0.000137967
12	2,500	7.824046011	-63.65079365	-0.075992973	4051.423532	0.005774932
13	2,050	7.625595072	386.3492063	0.122457965	149265.7092	0.014995953
14	2,300	7.740664402	136.3492063	0.007388635	18591.10607	5.45919E-05
15	1,960	7.580699752	476.3492063	0.167353285	226908.5664	0.028007122
16	1,590	7.371489295	846.3492063	0.376563742	716306.9791	0.141800252
17	2,030	7.615791072	406.3492063	0.132261965	165119.6775	0.017493227
18	2,250	7.718685495	186.3492063	0.029367542	34726.02671	0.000862453
19	1,220	7.106606138	1216.349206	0.6414469	1479505.392	0.411454125
20	1,440	7.272398393	996.3492063	0.475654645	992711.741	0.226247341
21	2,800	7.937374696	-363.6507937	-0.189321659	132241.8997	0.03584269
22	2,240	7.714231145	196.3492063	0.033821893	38553.01083	0.00114392
23	3,370	8.122668023	-933.6507937	-0.374614986	871703.8045	0.140336388
24	3,530	8.16905315	-1093.650794	-0.421000113	1196072.058	0.177241095
25	2,960	7.992944547	-523.6507937	-0.24489151	274210.1537	0.059971852
26	2,170	7.682482447	266.3492063	0.065570591	70941.89972	0.004299502
27	3,340	8.113726086	-903.6507937	-0.365673049	816584.7569	0.133716778
28	3,240	8.083328609	-803.6507937	-0.335275571	645854.5981	0.112409709
29	3,530	8.16905315	-1093.650794	-0.421000113	1196072.058	0.177241095
30	3,930	8.276394705	-1493.650794	-0.528341667	2230992.693	0.279144918
31	3,310	8.104703468	-873.6507937	-0.356650431	763265.7092	0.12719953
32	2,800	7.937374696	-363.6507937	-0.189321659	132241.8997	0.03584269
33	3,320	8.107720062	-883.6507937	-0.359667025	780838.7251	0.129360369
34	2,870	7.962067309	-433.6507937	-0.214014271	188053.0108	0.045802108
35	3,720	8.221478947	-1283.650794	-0.47342591	1647759.36	0.224132092
36	2,710	7.904703914	-273.6507937	-0.156650876	74884.75687	0.024539497
37	2,550	7.843848638	-113.6507937	-0.095795601	12916.5029	0.009176797
38	2,690	7.897296473	-253.6507937	-0.149243435	64338.72512	0.022273603
39	2,730	7.912056888	-293.6507937	-0.164003851	86230.78861	0.026897263
40	2,420	7.791522819	16.34920635	-0.043469782	267.2965482	0.001889622
41	2,340	7.757906208	96.34920635	-0.009853171	9283.169564	9.7085E-05
42	2,050	7.625595072	386.3492063	0.122457965	149265.7092	0.014995953
43	2,170	7.682482447	266.3492063	0.065570591	70941.89972	0.004299502
44	2,210	7.700747795	226.3492063	0.047305243	51233.96321	0.002237786
45	2,400	7.783224016	36.34920635	-0.035170979	1321.264802	0.001236998
46	2,290	7.736307097	146.3492063	0.011745941	21418.0902	0.000137967
47	2,300	7.740664402	136.3492063	0.007388635	18591.10607	5.45919E-05
48	2,760	7.922985959	-323.6507937	-0.174932921	104749.8362	0.030601527
49	2,900	7.972466016	-463.6507937	-0.224412979	214972.0585	0.050361185
50	2,870	7.962067309	-433.6507937	-0.214014271	188053.0108	0.045802108
51	2,670	7.889833751	-233.6507937	-0.141780714	54592.69337	0.020101771
52	2,790	7.933796875	-353.6507937	-0.185743837	125068.8838	0.034500773
53	1,260	7.138867	1176.349206	0.609186037	1383797.455	0.371107628
54	2,150	7.673223121	286.3492063	0.074829916	81995.86798	0.005599516
55	3,080	8.032684876	-643.6507937	-0.284631839	414286.3442	0.081015284
56	1,930	7.565275282	506.3492063	0.182777755	256389.5188	0.033407708
57	1,730	7.455876687	706.3492063	0.29217635	498929.2013	0.085367019
58	2,440	7.799753318	-3.650793651	0.051700281	13.32829428	0.002672919
59	2,440	7.799753318	-3.650793651	-0.051700281	13.32829428	0.002672919
60	1,840	7.517520851	596.3492063	0.230532187	355632.3759	0.053145089
61	2,420	7.791522819	16.34920635	-0.043469782	267.2965482	0.001889622
62	2,260	7.723120092	176.3492063	0.024932945	31099.04258	0.000621652
63	2,050	7.625595072	386.3492063	0.122457965	149265.7092	0.014995953
Column Sum	153,490	488.1273414			29869460.32	7.432697151
Column Sum/N	2,436	7.748053037				
Column Sum/(N-1)					481765.489	0.119882212
SQRT(Column Sum/(N-1))					694.0932855	0.346240108

		Untransformed	Transformed	Transformed converted to Untransformed
Mean		2,436	7.748053037	2317.056797
Std Dev		694.0932855	0.346240108	1.413742025
Permit Limit		3800.242512	8.428414849	4575.241892

Table 3-2 Constant = 1.965

CALCULATIONS FOR NEW PERMIT LIMITS

Column A Sample Number	Column B Untransformed pH (pH Units)	Column C Transformed pH (pH Units)	Column D Untransformed Mean Minus Untransformed pH Value	Column E Transformed Mean Minus Transformed pH Value	Column F Column D Squared	Column G Column E Squared
1	6.65	1.894616855	-0.056333333	-0.010424592	0.003173444	0.000108672
2	7.06	1.954445052	-0.466333333	-0.070252789	0.217466778	0.004935454
3	6.61	1.888583654	-0.016333333	-0.004391391	0.000266778	1.92843E-05
4	7.39	2.000127735	-0.796333333	-0.115935472	0.634146778	0.013441034
5	6.73	1.906575144	-0.136333333	-0.022382881	0.018586778	0.000500993
6	6.87	1.927164106	-0.276333333	-0.042971843	0.076360111	0.001846579
7	6.43	1.860974538	0.163666667	0.023217725	0.026786778	0.000539063
8	6.28	1.83736998	0.313666667	0.046822282	0.098386778	0.002192326
9	6.86	1.925707442	-0.266333333	-0.041515179	0.070933444	0.00172351
10	6.74	1.908059925	-0.146333333	-0.023867662	0.021413444	0.000569665
11	6.93	1.935859813	-0.336333333	-0.05166755	0.113120111	0.002669536
12	6.96	1.940179474	-0.366333333	-0.055987211	0.134200111	0.003134568
13	6.94	1.937301775	-0.346333333	-0.053109512	0.119946778	0.00282062
14	6.68	1.899117988	-0.086333333	-0.014925725	0.007453444	0.000222777
15	7.00	1.945910149	-0.406333333	-0.061717886	0.165106778	0.003809097
16	6.72	1.905088155	-0.126333333	-0.020895892	0.015960111	0.000436638
17	7.36	1.996059933	-0.766333333	-0.11186767	0.587266778	0.012514376
18	6.32	1.843719208	0.273666667	0.040473055	0.074893444	0.001638068
19	6.02	1.795087259	0.573666667	0.089105004	0.329093444	0.007939702
20	6.16	1.818076778	0.433666667	0.066115485	0.188066778	0.004371257
21	6.25	1.832581464	0.343666667	0.051610799	0.118106778	0.002663675
22	6.20	1.824549292	0.393666667	0.059642971	0.154973444	0.003557284
23	6.00	1.791759469	0.593666667	0.092432794	0.352440111	0.008543821
24	6.02	1.795087259	0.573666667	0.089105004	0.329093444	0.007939702
25	6.50	1.871802177	0.093666667	0.012390086	0.008773444	0.000153514
26	6.03	1.796747011	0.563666667	0.087445252	0.317720111	0.007646672
27	6.00	1.791759469	0.593666667	0.092432794	0.352440111	0.008543821
28	5.90	1.774952351	0.693666667	0.109239912	0.481173444	0.011933358
29	5.60	1.722766598	0.993666667	0.161425665	0.987373444	0.026058245
30	5.40	1.686398954	1.193666667	0.197793309	1.424840111	0.039122193
31	6.70	1.902107526	-0.106333333	-0.017915263	0.011306778	0.000320957
32	6.80	1.916922612	-0.206333333	-0.032730349	0.042573444	0.001071276
33	6.70	1.902107526	-0.106333333	-0.017915263	0.011306778	0.000320957
34	6.50	1.871802177	0.093666667	0.012390086	0.008773444	0.000153514
35	6.00	1.791759469	0.593666667	0.092432794	0.352440111	0.008543821
36	6.80	1.916922612	-0.206333333	-0.032730349	0.042573444	0.001071276
37	6.60	1.887069649	-0.006333333	-0.002877386	4.01111E-05	8.27935E-06
38	6.80	1.916922612	-0.206333333	-0.032730349	0.042573444	0.001071276
39	6.60	1.887069649	-0.006333333	-0.002877386	4.01111E-05	8.27935E-06
40	6.90	1.931521412	-0.306333333	-0.047329149	0.093840111	0.002240048
41	7.10	1.960094784	-0.506333333	-0.075902521	0.256373444	0.005761193
42	6.60	1.887069649	-0.006333333	-0.002877386	4.01111E-05	8.27935E-06
43	6.80	1.916922612	-0.206333333	-0.032730349	0.042573444	0.001071276
44	6.60	1.887069649	-0.006333333	-0.002877386	4.01111E-05	8.27935E-06
45	6.70	1.902107526	-0.106333333	-0.017915263	0.011306778	0.000320957
46	7.00	1.945910149	-0.406333333	-0.061717886	0.165106778	0.003809097
47	6.20	1.824549292	0.393666667	0.059642971	0.154973444	0.003557284
48	6.60	1.887069649	-0.006333333	-0.002877386	4.01111E-05	8.27935E-06
49	6.50	1.871802177	0.093666667	0.012390086	0.008773444	0.000153514
50	6.70	1.902107526	-0.106333333	-0.017915263	0.011306778	0.000320957
51	6.50	1.871802177	0.093666667	0.012390086	0.008773444	0.000153514
52	6.70	1.902107526	-0.106333333	-0.017915263	0.011306778	0.000320957
53	7.00	1.945910149	-0.406333333	-0.061717886	0.165106778	0.003809097
54	6.90	1.931521412	-0.306333333	-0.047329149	0.093840111	0.002240048
55	6.80	1.916922612	-0.206333333	-0.032730349	0.042573444	0.001071276
56	7.30	1.987874348	-0.706333333	-0.103682085	0.498906778	0.010749975
57	7.00	1.945910149	-0.406333333	-0.061717886	0.165106778	0.003809097
58	6.54	1.877937165	0.053666667	0.006255097	0.002880111	3.91262E-05
59	6.61	1.888583654	-0.016333333	-0.004391391	0.000266778	1.92843E-05
60	6.46	1.865629318	0.133666667	0.018562945	0.017866778	0.000344583
Column Sum	395.62	113.0515358			9.692193333	0.233981264
Column Sum/N	6.59	1.884192263				
Column Sum/(N-1)					0.164274463	0.003965784
SQRT(Column Sum/(N-1))					0.405307862	0.062974472

	Untransformed	Transformed	Transformed converted to Untransformed
Mean	6.59	1.884192263	6.581036547
Std Dev	0.405307862	0.062974472	1.064999652
Upper Permit Limit	7.390096616	2.007937101	7.447937144
Lower Permit Limit	5.797236717	1.760447425	5.815038607

Table 3-2 Constant = 1.965

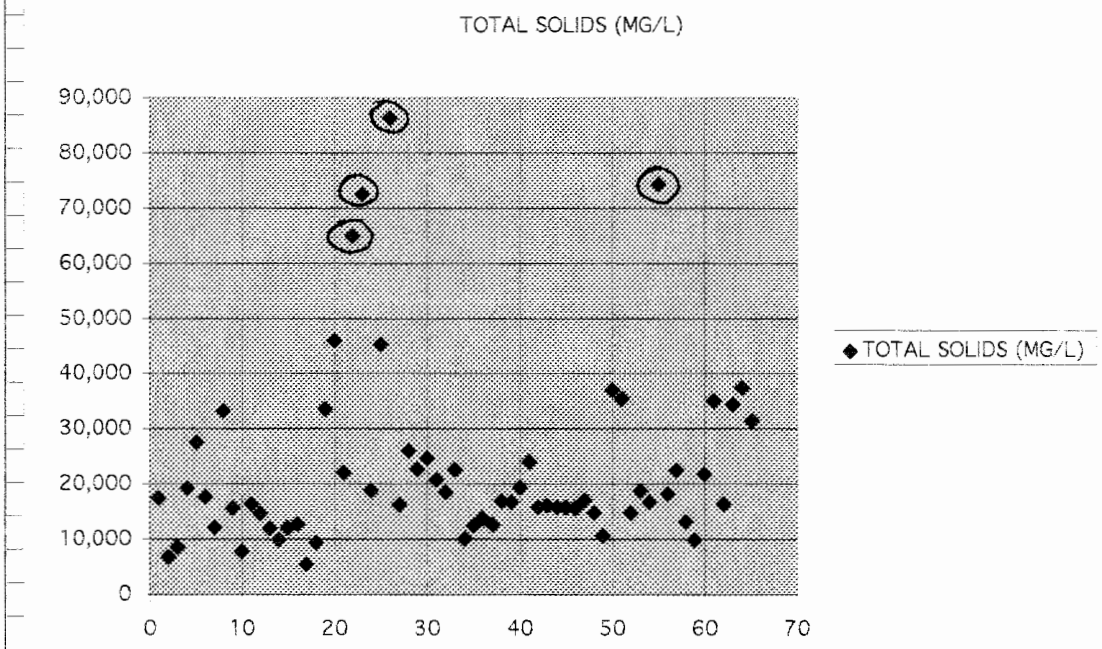
CALCULATIONS FOR NEW PERMIT LIMITS

Column A Sample Number	Column B Untransformed Density (g/mL)	Column C Transformed Density (g/mL)	Column D Untransformed Mean Minus Untransformed Density Value	Column E Transformed Mean Minus Transformed Density Value	Column F Column D Squared	Column G Column E Squared
1	0.98	-0.020202707	0.01984127	0.020000315	0.000393676	0.000400013
2	1.02	0.019802627	-0.02015873	-0.02000502	0.000406374	0.000400201
3	1.01	0.009950331	-0.01015873	-0.010152723	0.0001032	0.000103078
4	1.00	0	0.00015873	-0.000202392	2.51953E-08	4.09626E-08
5	1.02	0.019802627	-0.02015873	-0.02000502	0.000406374	0.000400201
6	1.02	0.019802627	-0.02015873	-0.02000502	0.000406374	0.000400201
7	1.01	0.009950331	-0.01015873	-0.010152723	0.0001032	0.000103078
8	1.02	0.019802627	-0.02015873	0.02000502	0.000406374	0.000400201
9	0.98	-0.020202707	0.01984127	0.020000315	0.000393676	0.000400013
10	1.00	0	-0.00015873	0.000202392	2.51953E-08	4.09626E-08
11	1.00	0	-0.00015873	-0.000202392	2.51953E-08	4.09626E-08
12	0.99	-0.010050336	0.00984127	0.009847944	9.68506E-05	9.6982E-05
13	0.98	-0.020202707	0.01984127	0.020000315	0.000393676	0.000400013
14	1.01	0.009950331	-0.01015873	-0.010152723	0.0001032	0.000103078
15	1.01	0.009950331	-0.01015873	-0.010152723	0.0001032	0.000103078
16	0.98	-0.020202707	0.01984127	0.020000315	0.000393676	0.000400013
17	0.99	-0.010050336	0.00984127	0.009847944	9.68506E-05	9.6982E-05
18	1.00	0	-0.00015873	-0.000202392	2.51953E-08	4.09626E-08
19	1.00	0	-0.00015873	-0.000202392	2.51953E-08	4.09626E-08
20	1.00	0	-0.00015873	-0.000202392	2.51953E-08	4.09626E-08
21	0.99	-0.010050336	0.00984127	0.009847944	9.68506E-05	9.6982E-05
22	1.00	0	-0.00015873	-0.000202392	2.51953E-08	4.09626E-08
23	1.00	0	-0.00015873	0.000202392	2.51953E-08	4.09626E-08
24	1.00	0	-0.00015873	-0.000202392	2.51953E-08	4.09626E-08
25	1.01	0.009950331	-0.01015873	-0.010152723	0.0001032	0.000103078
26	0.99	-0.010050336	0.00984127	0.009847944	9.68506E-05	9.6982E-05
27	1.00	0	-0.00015873	-0.000202392	2.51953E-08	4.09626E-08
28	0.99	-0.010050336	0.00984127	0.009847944	9.68506E-05	9.6982E-05
29	1.00	0	-0.00015873	-0.000202392	2.51953E-08	4.09626E-08
30	1.00	0	-0.00015873	0.000202392	2.51953E-08	4.09626E-08
31	1.00	0	-0.00015873	-0.000202392	2.51953E-08	4.09626E-08
32	1.01	0.009950331	-0.01015873	-0.010152723	0.0001032	0.000103078
33	0.99	-0.010050336	0.00984127	0.009847944	9.68506E-05	9.6982E-05
34	0.99	-0.010050336	0.00984127	0.009847944	9.68506E-05	9.6982E-05
35	1.00	0	-0.00015873	-0.000202392	2.51953E-08	4.09626E-08
36	1.01	0.009950331	-0.01015873	-0.010152723	0.0001032	0.000103078
37	0.99	-0.010050336	0.00984127	0.009847944	9.68506E-05	9.6982E-05
38	1.00	0	-0.00015873	-0.000202392	2.51953E-08	4.09626E-08
39	1.00	0	-0.00015873	-0.000202392	2.51953E-08	4.09626E-08
40	1.00	0	-0.00015873	-0.000202392	2.51953E-08	4.09626E-08
41	0.99	-0.010050336	0.00984127	0.009847944	9.68506E-05	9.6982E-05
42	0.99	-0.010050336	0.00984127	0.009847944	9.68506E-05	9.6982E-05
43	1.00	0	-0.00015873	-0.000202392	2.51953E-08	4.09626E-08
44	1.00	0	-0.00015873	-0.000202392	2.51953E-08	4.09626E-08
45	1.00	0	-0.00015873	-0.000202392	2.51953E-08	4.09626E-08
46	0.99	-0.010050336	0.00984127	0.009847944	9.68506E-05	9.6982E-05
47	1.00	0	-0.00015873	-0.000202392	2.51953E-08	4.09626E-08
48	1.00	0	-0.00015873	-0.000202392	2.51953E-08	4.09626E-08
49	1.00	0	-0.00015873	-0.000202392	2.51953E-08	4.09626E-08
50	1.00	0	-0.00015873	-0.000202392	2.51953E-08	4.09626E-08
51	1.00	0	-0.00015873	-0.000202392	2.51953E-08	4.09626E-08
52	1.00	0	-0.00015873	-0.000202392	2.51953E-08	4.09626E-08
53	1.00	0	-0.00015873	-0.000202392	2.51953E-08	4.09626E-08
54	1.00	0	-0.00015873	-0.000202392	2.51953E-08	4.09626E-08
55	1.01	0.009950331	-0.01015873	-0.010152723	0.0001032	0.000103078
56	1.01	0.009950331	-0.01015873	-0.010152723	0.0001032	0.000103078
57	1.00	0	-0.00015873	-0.000202392	2.51953E-08	4.09626E-08
58	1.00	0	-0.00015873	-0.000202392	2.51953E-08	4.09626E-08
59	1.00	0	-0.00015873	-0.000202392	2.51953E-08	4.09626E-08
60	0.99	-0.010050336	0.00984127	0.009847944	9.68506E-05	9.6982E-05
61	1.01	0.009950331	-0.01015873	-0.010152723	0.0001032	0.000103078
62	1.01	0.009950331	-0.01015873	-0.010152723	0.0001032	0.000103078
63	1.00	0	-0.00015873	-0.000202392	2.51953E-08	4.09626E-08
Column Sum	62.99	0.012750711			0.005498413	0.005499804
Column Sum/N	1.00	-0.000202392				
Column Sum/(N-1)					8.86841E-05	8.87065E-05
SQRT(Column Sum/(N-1))					0.009417222	0.009418414

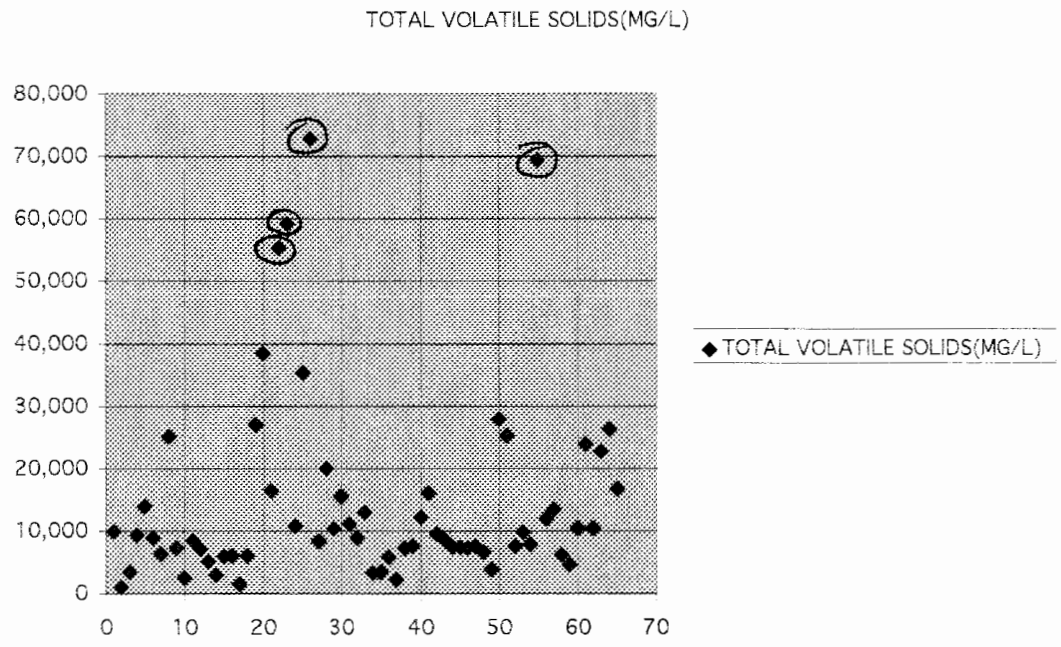
	Untransformed	Transformed	Transformed converted to Untransformed
Mean	1.00	-0.000202392	0.999797628
Std Dev	0.009417222	0.009418414	1.009462907
Upper Permit Limit	1.018346112	0.018304791	1.01847335
Lower Permit Limit	0.981336428	-0.018709575	0.981464363

Table 3-2 Constant = 1.965

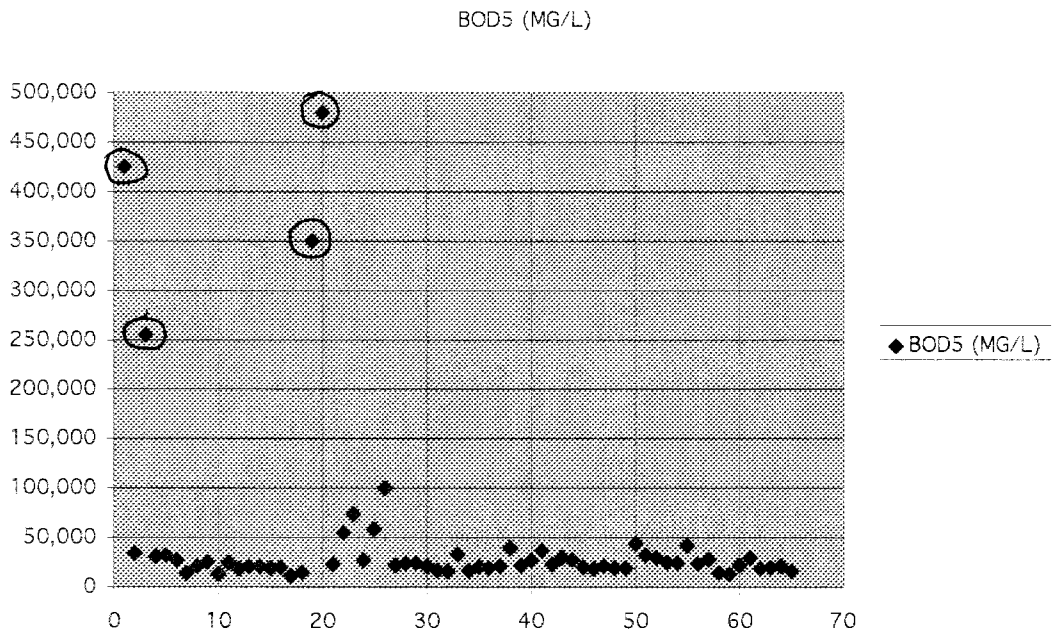
SAMPLE DATE	TOTAL SOLIDS (MG/L)	TOTAL VOLATILE SOLIDS(MG/L)	BOD5 (MG/L)	OIL/GREASE (MG/L)	PHOSPHORUS MG/L)	TOTAL NITROGEN (MG/L)	AMMONIA (MG/L)	PH	DENSITY (G/ML)
09 08-93	17,300	9,920	425,000	20,588	3,500	19,040	8,400	6.65	0.98
10-06-93	6,790	897	33,500	33,370	750	2,940	560	7.06	1.02
10-14-93	8,480	3,390	255,000	5,680	1,400	3,080	840	6.61	1.01
11 03-93	19,200	9,270	30,700	16,700	2,400	5,880	3,450	7 39	1.03
11 09-93	27,500	13,900	32,000	8,520	2,100	6,160	3,480	6.73	1.03
11 16-93	17,600	8,890	27,100	14,580	2,200	7,840	6,580	6.87	1.00
12 06-93	12,100	6,270	13,800	4,006	600	4,480	1,880	6.43	1 02
12-13-93	33,200	25,000	21,000	5,240	1,200	8,120	1,180	6.28	1.02
01 04-94	15,600	7,170	24,400	2,460	1,000	5,880	2,650	6.86	1.01
01-10-94	7,730	2,440	13,200	10,240	1,200	5,880	1,850	6.74	1.02
02-01-94	16,300	8,430	24,100	7,240	1,000	5,880	2,390	6.93	0.98
02 07-94	14,500	7,050	18,000	3,700	1,000	4,760	2,000	6.96	1.00
03 01-94	11,900	5,090	19,900	1,958	600	7,280	2,290	6.94	1.00
03-07-94	9,900	2,870	20,100	17,440	800	6,160	2,500	6.68	0.99
04-04-94	12,000	5,820	18,900	19,040	1,900	5,880	2,050	7.00	0.98
04 11-94	12,700	5,980	19,300	16,200	2,000	7,280	2,300	6.72	1.01
05 02-94	5,390	1,430	11,300	9,780	1,200	1,960	1,960	7.36	1.01
05 10-94	9,350	5,940	14,400	8,880	1,200	4,760	1,590	6.32	0.98
06 07-94	33,500	27,000	350,000	28,120	1,000	4,480	2,030	6.02	0.99
06-14-94	45,900	38,400	480,000	37,900	1,000	7,560	2,250	6.16	1.00
07-05-94	22,000	16,400	22,500	7,212	1,000	2,800	1,220	6.25	1.00
07-12-94	64,800	55,300	54,500	28,840	700	4,480	1,440	6.20	1.00
08-01-94	72,400	59,200	73,200	5,788	1,200	3,080	2,800	6.00	0.99
08-08-94	18,700	10,700	26,400	57,260	1,000	7,560	2,240	6.02	1.00
09-06-94	45,300	35,300	57,800	37,660	2,400	3,920	3,370	6.50	1.00
09-12-94	86,300	72,800	99,800	19,460	1,200	4,480	3,530	6.03	1.00
10-03-94	16,200	8,300	21,600	15,940	1,200	8,960	2,960	6.00	1.01
10-25-94	26,000	20,000	23,300	160,000	1,200	6,160	2,170	5.90	0.99
11-01-94	22,600	10,300	24,200	919	1,700	7,280	3,340	5.30	1.00
11-06-94	24,600	15,400	20,700	1,789	1,200	7,560	3,240	5.60	0.99
12-05-94	20,700	11,000	16,000	13,360	2,000	5,320	3,530	5.40	1.00
12-12-94	18,400	8,850	15,600	1,161	1,500	7,560	3,930	5.00	1.00
01-03-95	22,600	13,000	32,400	62,820	2,000	4,480	3,310	6.70	1.00
01-13-95	10,000	3,190	16,500	62,000	1,000	5,320	2,800	5.00	1.01
02-01-95	12,300	3,420	20,300	68,020	1,300	7,280	3,320	6.80	0.99
02-16-95	13,700	5,730	18,600	49,140	1,700	7,560	2,870	6.70	0.99
03-01-95	12,600	2,170	21,000	10,460	1,200	6,160	3,720	6.50	1.00
03-09-95	16,900	7,200	39,100	7,600	1,200	4,480	2,710	6.00	1.01
04-03-95	16,700	7,490	21,500	9,360	2,000	5,264	2,550	6.80	0.99
04-13-95	19,300	12,200	26,600	7,600	1,200	6,348	2,690		1.00
05-01-95	24,000	16,100	36,200	11,440	1,800	5,040	2,730	6.60	1.00
05-12-95	15,700	9,500	22,900	2,240	1,300	7,840	2,420		1.00
06-01-95	16,100	8,690	29,100	14,780	1,000	7,840	2,340	6.80	0.99
06-16-95	15,700	7,460	27,400	15,580	700	4,760	2,050	6.60	0 99
07-05-95	15,700	7,280	19,400	404,200	1,200	6,160	2,170	6.90	1.00
07-18-95	15,600	7,260	18,000	78,640	287	7,560	2,210	7.10	1.00
08-02-95	17,000	7,510	20,500	259,880	310	7,560	2,400	6.60	1.00
08-17-95	14,700	6,640	18,700	10,120	333	8,400	2,290	6.80	0.99
09-06-95	10,600	3,860	18,900		507	8,960	2,300	6.60	1.00
09-12-95	37,000	27,900	43,500	23,800	780	17,640	2,760	6.70	1.00
10-03-95	35,400	25,200	32,000	20,500	793	8,120	2,900	7.00	1.00
11-06-95	14,700	7,540	29,200	24,600	368	5,880	2,870	6.20	1.00
12-06-95	18,700	9,760	24,600	59,920	1,059	8,400	2,670	6.60	1.00
JAN.96	16600	7860	23900	115060	655	7280	2790	6.5	1.00
FEB.96	74300	69400	41300	178560	616	6720	1260	6.7	1.00
MAR.96	18200	11900	23100	12468	1287	8960	2150	6.5	1.00
APR96	22500	13400	27000	97560	984	5880	3080	6.7	1.01
MAY96	13200	6130	14200	5590	818	5320	1930	7.0	1.01
JUN96	9740	4530	12500	62200	371	5320	1730	6.9	1.00
JUL96	21600	10400	21700	3760	736	5600	2440	6.8	1.00
AUG96	35100	23900	29500	5200	404	3080	2440	7.3	1.00
SEP96	16280	10400	18400	3860	2156	11760	1840	7.0	0.99
OCT96	34400	22700	19400	6380	2163	3640	2420	6.54	1.01
NOV96	37400	26300	21000	4375	427	3360	2260	6.61	1.01
DEC96	31400	16700	15300	910	759	3080	2050	6.46	1.00



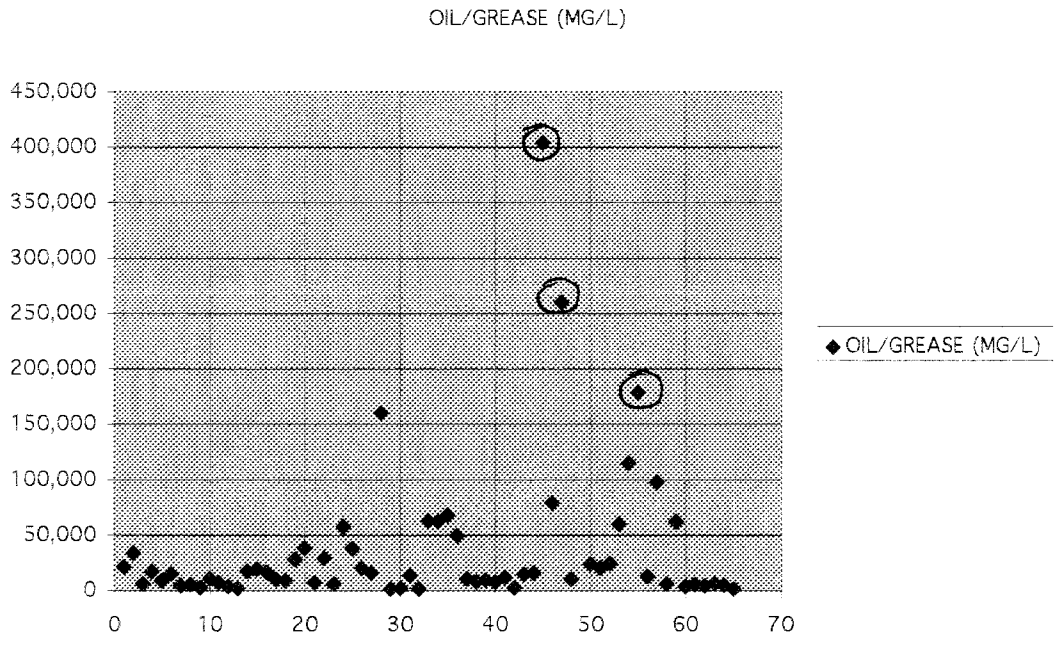
Mean =	22,779
Standard Deviation =	16173.1425
2 x Standard Deviation =	32346.2849
Outliers Deleted Above	55,126



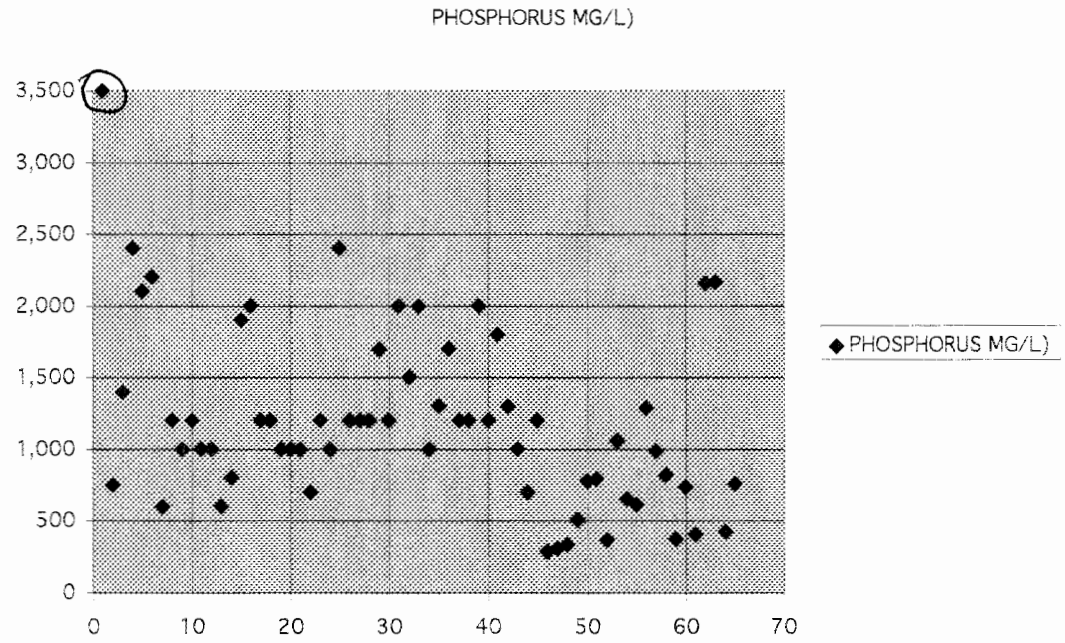
Mean =	14,483
Standard Deviation =	15210.8581
2 x Standard Deviation =	30421.7161
Outliers Deleted Above	44,905



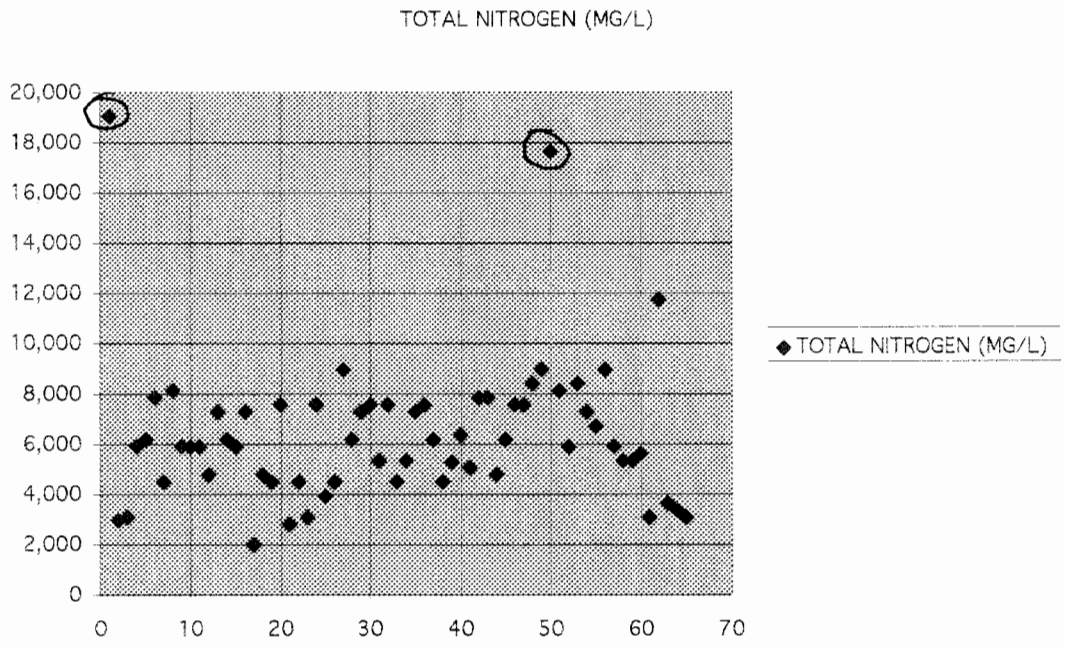
Mean =	47,862
Standard Deviation =	88783.8187
2 x Standard Deviation =	177567.637
Outliers Deleted Above	225,429



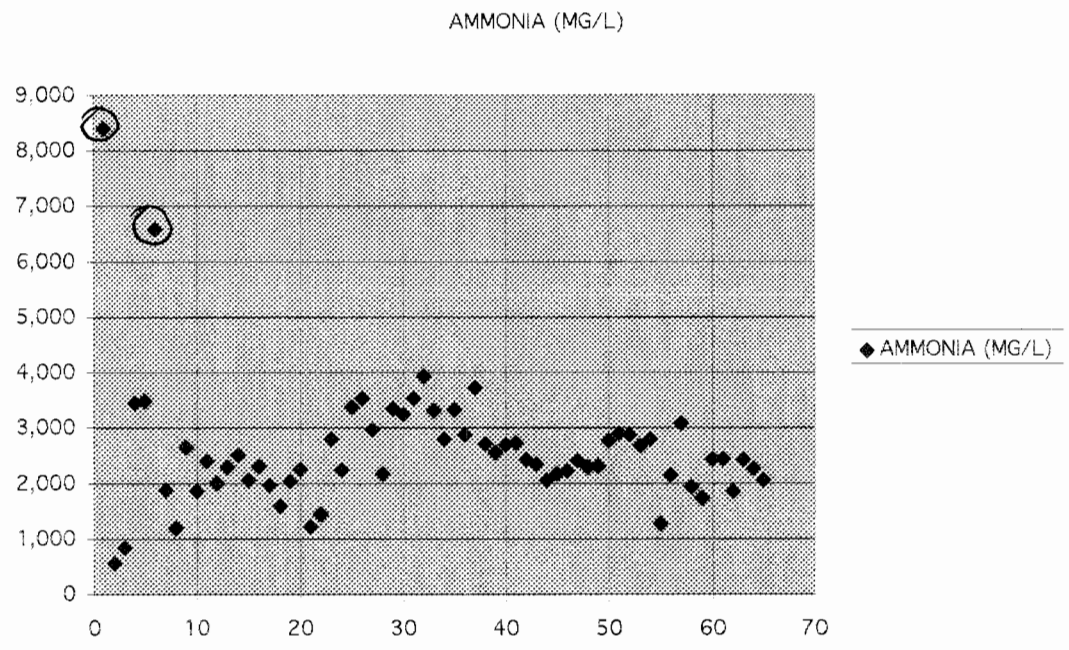
Mean =	36,245
Standard Deviation =	65536.0277
2 x Standard Deviation =	131072.055
Outliers Deleted Above	167,317



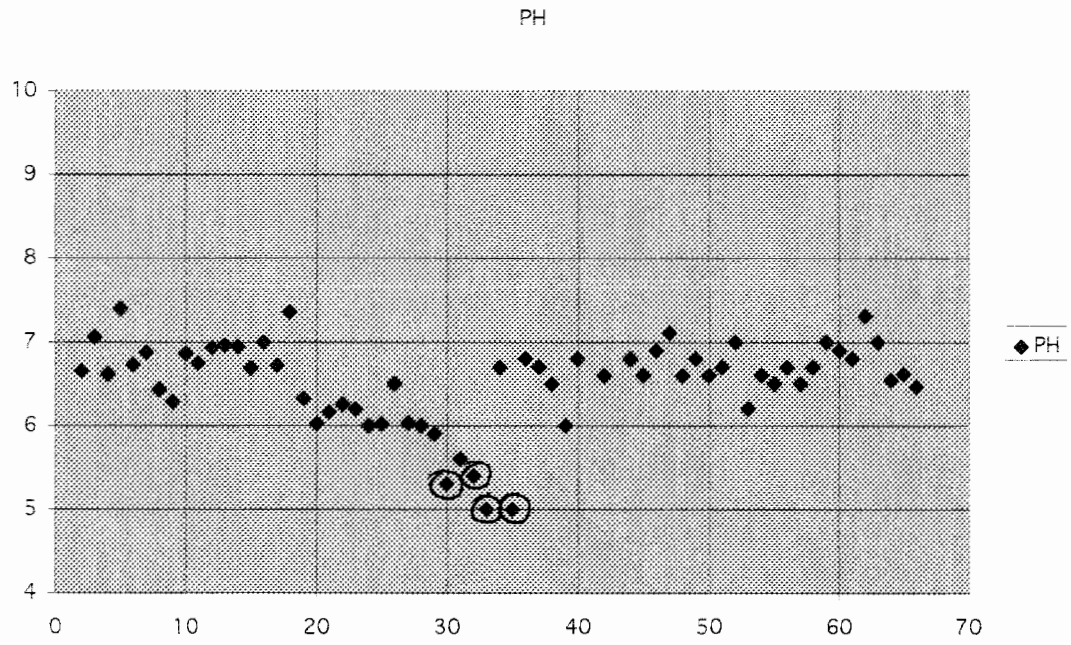
Mean =	1,196
Standard Deviation =	623.762461
2 x Standard Deviation =	1247.52492
Outliers Deleted Above	2,444



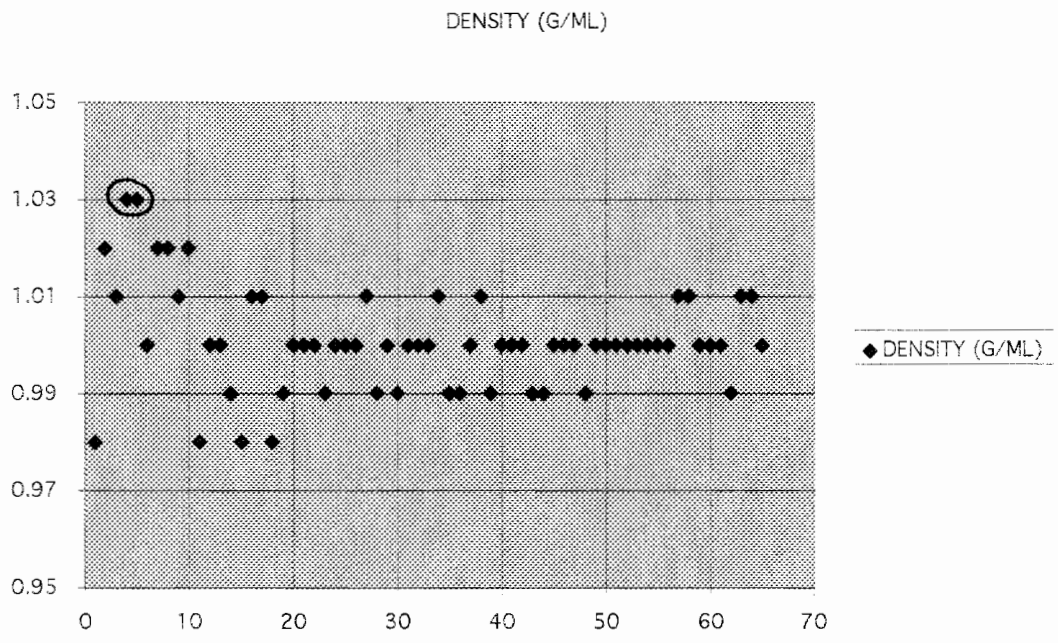
Mean =	6,392
Standard Deviation =	2852.04405
2 x Standard Deviation =	5704.0881
Outliers Deleted Above	12,097



Mean =	2,592
Standard Deviation =	1125.22761
2 x Standard Deviation =	2250.45521
Outliers Deleted Above	4,842



Mean =	6.52
Standard Deviation =	0.51000622
2 x Standard Deviation =	1.02001245
Outliers Deleted Above	7.54
Outliers Deleted Below	5.50



Mean =	1.00
Standard Deviation =	0.01065183
2 x Standard Deviation =	0.02130367
Outliers Deleted Above	1.02
Outliers Deleted Below	0.98

Allan – We asked that the canneries submit hard copy of ocean dumping data & data on disk:

① Is this size disk ok; if not, I'll have them send small disk

② Can you read the data even though we use different Lotus version?

Let me know. I need to call Jim to have him send hard copies. Pat 1594 11/9/93

ASS MAIL

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AGENCY, REGION IX
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AND NATIVE AMERICAN PROGRAMS (E4)
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