

A Comprehensive Study on The Microbicidal Properties of Stabilized and Unstabilized Chlorine and The Relationships of Other Chemical and Physical Variables in Public Swimming Pools; A Report of A Study Carried Out in Pinellas County, Florida, Summer/Fall, 1992

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Appendix FF

Results of the T Tests of the Means of the Variables for the SAT 1-5CL2-290 and UNSAT A-42 Pools Categories

**SAT Pool Categories
Definitions and Criteria**

SAT Pool Definition: Pool conditions meet every one of the indicated pool category criteria.

Pool Category

Criteria

SAT 1-5CL2-290

- 1) Free chlorine = 1.0 - 5.0 ppm
- 2) Heterotrophic bacteria (HPC) < 501 CFU/ml
- 3) Total Coliform bacteria (TCOLI) = 0 CFU/100 ml
- 4) Non-coliform bacteria (NCOLI) < 201 CFU/100 ml

SAT 1-3CL2-135

- 1) Free chlorine = 1.0 - 3.0 ppm
- 2) HPC, TCOLI and NCOLI same as SAT 1-5CL2

SAT 3.1-5CL2-155

- 1) Free chlorine = 3.1 - 5.0 ppm
- 2) HPC, TCOLI and NCOLI same as SAT 1-5CL2

SAT FLCODE-201

Comply with the following Florida swimming pool code standards:

- 1) Free chlorine = 1.0 - 5.0 ppm
- 2) pH = 7.2 - 8.0
- 3) Cyanuric acid < 100 ppm
- 4) No HPC, TCOLI and NCOLI required unless advised by epidemiology department.

SAT OSTCODE-101

Comply with the following swimming pool code standards often used in other states:

- 1) Free chlorine 1.0 - 3.0 ppm
- 2) pH, cyanuric acid and bacteriological standards the same as the Florida swimming pool code

UNSAT Pool Categories Definitions and Criteria

UNSAT Pool Definition: Pool conditions fail to meet one or more of the SAT Pool criteria.

Pool Category

Criteria

UNSAT A-42

- 1) Free chlorine > 5.0 ppm (exceeds SAT pool standard)
- 2) Meet all of the following SAT pool category bacteria criteria:
 - Heterotrophic bacteria (HPC) < 501 CFU/ml
 - Total Coliform bacteria (TCOLI) = 0 CFU/100 ml
 - Non-coliform bacteria (NCOLI) < 201 CFU/100 ml

UNSAT B-4

- 1) Free chlorine > 5.0 ppm (exceeds SAT pool standard)
- 2) HPC, TCOLI or NCOLI fail to meet one or more of SAT pool bacteria criteria (cf. bacteria criteria in UNSAT A-42 pool category above)

UNSAT C-58

- 1) Free chlorine < 1.0 ppm (below SAT pool minimum standard)
- 2) HPC, TCOLI and NCOLI meet SAT Pool bacteria criteria (cf. bacteria criteria in UNSAT A-42 pool category above)

UNSAT D-47

- 1) Free chlorine < 1.0 ppm (below SAT pool minimum standard)
- 2) HPC, TCOLI or NCOLI fail to meet one or more SAT pool bacteria criteria (cf. bacteria standards in UNSAT A-42 Pool category above)

UNSAT E-31

- 1) Free chlorine = 1.0 - 5.0 ppm (SAT Pool standard)
- 2) HPC, TCOLI or NCOLI fail to meet one or more of SAT Pool bacteria standards (cf., bacteria standards in UNSAT A-42 pool category above)

UNSAT F-14

- 1) Free chlorine = 1.0 - 5.0 ppm (SAT Pool standard)
- 2) HPC < 501 CFU/ml (SAT Pool standard)
- 3) NCOLI > 200 CFU/100 ml (exceeds SAT Pool standard)
- 4) TCOLI inconclusive since NCOLI > 200 CFU/100 ml

**Algae Pools
Definitions and Statistical Parameters**

<u>Pool Category</u>	<u>Criteria</u>
ALGAE	Contains black, yellow, green or pink algae
ALGAE_BLK	Contains black and possibly yellow but no green or pink algae
ALGAE_YL	Contains yellow and possibly black algae

Algae Extent of Growth Criteria

- 1) Algae** – yes or no.
- 2) Type** – black, yellow, green or pink.
- 3) Extent of growth:**
 - a. Light** – Algae not noticeable on approach to pool and inspector must get down and look for algae.
 - b. Heavy** – Algae covers 25 % or more of the pool surface (walls, floor, gutter) and could present a safety (slipping) hazard.
 - c. Medium** – Algae growth is between the light and heavy extremes.

INTERPRETATION OF T TEST DATA

T tests are used to determine if the value of two (2) means (averages) of a given variable calculated from different samples of populations (classes) are statistically different. If they are, it can then be hypothesized that the samples come from different populations and that the classification variable differences may be causative.

The following is an example of the results obtained from a T test conducted to determine if the mean Heterotrophic bacteria population at free chlorine concentrations of less than 3 ppm is significantly different from the mean Heterotrophic bacteria population at free chlorine concentrations equal to or more than 3 ppm.

Variable: HPC^a

<u>CLASS^b</u>	<u>N^c</u>	<u>Mean^d</u>	<u>Std Dev^e</u>	<u>Std Error^f</u>
CL2 < 3 PPM	233	2292.935	7365.263	482.514
CL2 >= 3 PPM	253	471.438	3407.268	214.213

<u>Variations</u>	<u>T^g</u>	<u>DF</u>	<u>Prob.> T ^h</u>
Unequal	3.4503	321.0	0.0006
Equal	3.5437	484.0	0.0004

For H₀: Variations are equal, $F' = 4.67^i$ DF = (232,252) Prob.>F' = 0.0000^j

Notes:

- a. The variable whose means are being tested.
- b. The classification variable, in this case free chlorine. The classifications are free chlorine less than 3 ppm and free chlorine greater than or equal to 3 ppm.
- c. The number of data points in each classification.
- d. The mean of the variable being tested (HPC) for each classification. These are the values that are being compared. The question is "Does a mean of 2292.9 come from a different population than a mean of 471.4?". The samples in this case coming from different free chlorine levels. Intuitively the answer may be "of course", this technique allows us to answer the question with some statistical confidence.
- e. The standard deviation of the HPC values in each classification.
- f. The standard error of the mean. If you repeatedly draw samples of size n from a population and compute the mean of each sample, then the sample means themselves have a distribution. This number is the standard deviation of that distribution. It is an indication of the accuracy of a sample mean as an estimate of the population mean.
- g. The calculated T value. Two values are calculated, for unequal and equal variations of the sample being tested.
- h. The probability of a larger absolute T existing for these two classes of samples. The criteria used in this document is: Means are statistically different if the probability of a larger T value existing randomly is 0.05 or less.
- i. The F value for determining if the variations of the two classes are equal. Determining whether the variations are unequal or equal will determine which T value to use.
- j. The probability that a larger value of F exists. Using the same 0.05 criteria. If the probability is 0.05 (5 chances in 100) or less, it is concluded that the variations are unequal and the corresponding T statistic is used.

For this example, the variations are unequal and the probability of a larger T value is 0.0006. In other words, there are 6 chances in 10,000 that T value will larger and the conclusion will be wrong. Therefore, it can then be concluded that the means for the two classification variables are different (2293 vs 471).

SAFE VS HIGH CL2 LOW BACTERIA
 15:24 Thursday, February 3, 1994 22
 TTEST PROCEDURE

Variable: CL2FREE

CLASS	N	Mean	Std Dev	Std Error
SAFE	290	3.40172414	1.32687047	0.07791652
UNHCLLBA	42	10.82857143	5.96045037	0.91971746

Variances	T	DF	Prob> T
Unequal	-8.0463	41.6	0.0001
Equal	-18.4327	330.0	0.0000

For H0: Variances are equal, F' = 20.18 DF = (41,289) Prob>F' = **0.0000**

Variable: CL2TOT

CLASS	N	Mean	Std Dev	Std Error
SAFE	290	3.44068966	1.32792715	0.07797857
UNHCLLBA	42	10.88809524	6.14968579	0.94891712

Variances	T	DF	Prob> T
Unequal	-7.8220	41.6	0.0001
Equal	-18.0536	330.0	0.0000

For H0: Variances are equal, F' = 21.45 DF = (41,289) Prob>F' = **0.0000**

Variable: PH

CLASS	N	Mean	Std Dev	Std Error
SAFE	290	7.58275862	0.23831729	0.01399447
UNHCLLBA	41	7.62195122	0.19301839	0.03014441

Variances	T	DF	Prob> T
Unequal	-1.1793	58.7	0.2430
Equal	-1.0069	329.0	0.3147

For H0: Variances are equal, F' = 1.52 DF = (289,40) Prob>F' = 0.1071

SAFE VS HIGH CL2 LOW BACTERIA
 15:24 Thursday, February 3, 1994 23
 TTEST PROCEDURE

Variable: ALK

CLASS	N	Mean	Std Dev	Std Error
SAFE	289	101.74740484	34.10016702	2.00589218
UNHCLLBA	42	100.95238095	28.65348264	4.42132836

Variances	T	DF	Prob> T
Unequal	0.1638	59.3	0.8705
Equal	0.1438	329.0	0.8857

For H0: Variances are equal, F' = 1.42 DF = (288,41) Prob>F' = 0.1773

Variable: CYN

CLASS	N	Mean	Std Dev	Std Error
SAFE	290	82.08620690	87.48134442	5.13708143
UNHCLLBA	42	89.40476190	63.20892941	9.75334956

Variances	T	DF	Prob> T
Unequal	-0.6639	66.2	0.5091
Equal	-0.5225	330.0	0.6017

For H0: Variances are equal, F' = 1.92 DF = (289,41) Prob>F' = **0.0134**

Variable: TEMP

CLASS	N	Mean	Std Dev	Std Error
SAFE	266	82.13157895	5.10138521	0.31278600
UNHCLLBA	36	83.91666667	2.93135756	0.48855959

Variances	T	DF	Prob> T
Unequal	-3.0772	68.1	0.00306
Equal	-2.0522	300.0	0.0410

For H0: Variances are equal, F' = 3.03 DF = (265,35) Prob>F' = **0.0002**

SAFE VS HIGH CL2 LOW BACTERIA
 15:24 Thursday, February 3, 1994 24
 TTEST PROCEDURE

Variable: VOLUME

CLASS	N	Mean	Std Dev	Std Error
SAFE	290	32752.12068966	18129.63762874	1064.60897881
UNHCLLEA	42	32476.16666667	25855.53959035	3989.59637387

Variances	T	DF	Prob> T
Unequal	0.0668	47.0	0.9470
Equal	0.0868	330.0	0.9309

For H0: Variances are equal, F' = 2.03 DF = (41,289) Prob>F' = **0.0009**

Variable: INW

CLASS	N	Mean	Std Dev	Std Error
SAFE	289	0.93771626	1.74888744	0.10287573
UNHCLLBA	42	0.85714286	2.09029615	0.32253970

Variances	T	DF	Prob> T
Unequal	0.2380	49.7	0.8129
Equal	0.2718	329.0	0.7859

For H0: Variances are equal, F' = 1.43 DF = (41,288) Prob>F' = 0.1021

Variable: CU

CLASS	N	Mean	Std Dev	Std Error
SAFE	274	0.22299270	0.18151929	0.01096598
UNHCLLBA	31	0.19193548	0.16232517	0.02915446

Variances	T	DF	Prob> T
Unequal	0.9971	39.0	0.3249
Equal	0.9120	303.0	0.3625

For H0: Variances are equal, F' = 1.25 DF = (273,30) Prob>F' = 0.4700

SAFE VS HIGH CL2 LOW BACTERIA
 15:24 Thursday, February 3, 1994 25
 TTEST PROCEDURE

Variable: NIT

CLASS	N	Mean	Std Dev	Std Error
SAFE	276	20.11594203	15.70318901	0.94522090
UNHCLLEA	32	16.09375000	16.60229167	2.93489826

Variances	T	DF	Prob> T
Unequal	1.3045	37.7	0.2000
Equal	1.3635	306.0	0.1737

For H0: Variances are equal, F' = 1.12 DF = (31,275) Prob>F' = 0.6228

Variable: TDS

CLASS	N	Mean	Std Dev	Std Error
SAFE	290	1680.51034483	1180.77165325	69.33729894
UNHCLLBA	42	1402.23809524	997.43093922	153.90693528

Variances	T	DF	Prob> T
Unequal	1.6485	59.0	0.1046
Equal	1.4535	330.0	0.1470

For H0: Variances are equal, F' = 1.40 DF = (289,41) Prob>F' = 0.1908

Variable: HARD

CLASS	N	Mean	Std Dev	Std Error
SAFE	270	305.81481481	136.88000797	8.33025200
UNHCLLBA	35	299.88571429	74.42436802	12.58001426

Variances	T	DF	Prob> T
Unequal	0.3930	68.7	0.6956
Equal	0.2512	303.0	0.8018

For H0: Variances are equal, F' = 3.38 DF = (269,34) Prob>F' = **0.0000**

SAFE VS HIGH CL2 LOW BACTERIA
 15:24 Thursday, February 3, 1994 26
 TTEST PROCEDURE

Variable: HPC

CLASS	N	Mean	Std Dev	Std Error
SAFE	290	11.38275862	29.55720006	1.73565855
UNHCLLBA	42	6.30952381	4.27407440	0.65950400

Variiances	T	DF	Prob> T	
Unequal	2.7323	330.0	0.0066	
Equal	1.1093	330.0	0.2681	

For H0: Variiances are equal, F' = 47.82 DF = (289,41) Prob>F' = **0.0000**

Variable: TCOLI

CLASS	N	Mean	Std Dev	Std Error
SAFE	290	0	0	0
UNHCLLBA	42	0	0	0

Variiances	T	DF	Prob> T	
Unequal	.	.	.	
Equal	.	.	.	

NOTE: All values are the same for one CLASS level.

Variable: FCOLI

CLASS	N	Mean	Std Dev	Std Error
SAFE	290	0.05172414	0.82400016	0.04838696
UNHCLLBA	42	0.00000000	0.00000000	0.00000000

Variiances	T	DF	Prob> T	
Unequal	1.0690	289.0	0.2860	
Equal	0.4063	330.0	0.6848	

NOTE: All values are the same for one CLASS level.

SAFE VS HIGH CL2 LOW BACTERIA
 15:24 Thursday, February 3, 1994 27
 TTEST PROCEDURE

Variable: NCOLI

CLASS	N	Mean	Std Dev	Std Error
SAFE	290	12.83793103	30.69491481	1.80246746
UNHCLLBA	42	8.64285714	16.83611309	2.59786865

Variiances	T	DF	Prob> T
Unequal	1.3267	87.1	0.1881
Equal	0.8663	330.0	0.3870

For H0: Variiances are equal, F' = 3.32 DF = (289,41) Prob>F' = **0.0000**

Variable: PSEUD

CLASS	N	Mean	Std Dev	Std Error
SAFE	12	0.01666667	0.05773503	0.01666667
UNHCLLBA	1	0.00000000	.	.

Variiances	T	DF	Prob> T
Unequal	.	.	.
Equal	0.2774	11.0	0.7867

NOTE: All values are the same for one CLASS level.

Variable: TSTAPH

CLASS	N	Mean	Std Dev	Std Error
SAFE	12	3.66666667	6.09520427	1.75953391
UNHCLLBA	1	2.00000000	.	.

Variiances	T	DF	Prob> T
Unequal	.	.	.
Equal	0.2627	11.0	0.7976

NOTE: All values are the same for one CLASS level.

SAFE VS HIGH CL2 LOW BACTERIA
 15:24 Thursday, February 3, 1994 28
 TTEST PROCEDURE

Variable: FSTREP

CLASS	N	Mean	Std Dev	Std Error
SAFE	12	0	0	0
UNHCLLBA	1	0	.	.

Variances	T	DF	Prob> T
Unequal	.	.	.
Equal	.	.	.

NOTE: All values are the same for one CLASS level.

Variable: DATE

CLASS	N	Mean	Std Dev	Std Error
SAFE	290	11954.54482759	31.32074924	1.83921772
UNHCLLBA	42	11920.52380952	20.81654841	3.21206315

Variances	T	DF	Prob> T
Unequal	9.1915	71.2	0.0001
Equal	6.8199	330.0	0.0000

For H0: Variances are equal, F' = 2.26 DF = (289,41) Prob>F' = **0.0022**

Variable: ION_N

CLASS	N	Mean	Std Dev	Std Error
SAFE	9	1.11111111	0.33333333	0.11111111
UNHCLLBA	0	.	.	.

Variances	T	DF	Prob> T
Unequal	.	.	.
Equal	.	.	.

NOTE: All values are the same for one CLASS level.

SAFE VS HIGH CL2 LOW BACTERIA
 15:24 Thursday, February 3, 1994 29
 TTEST PROCEDURE

Variable: RAIN_N

CLASS	N	Mean	Std Dev	Std Error
SAFE	255	1.82745098	0.98494143	0.06167942
UNHCLLBA	37	1.81081081	0.93801913	0.15420939

Variances	T	DF	Prob> T
Unequal	0.1002	48.3	0.9206
Equal	0.0966	290.0	0.9231

For H0: Variances are equal, F' = 1.10 DF = (254,36) Prob>F' = 0.7500

Variable: USE_N

CLASS	N	Mean	Std Dev	Std Error
SAFE	289	2.11418685	1.47576703	0.08680983
UNHCLLBA	42	2.23809524	1.28422937	0.19816089

Variances	T	DF	Prob> T
Unequal	-0.5727	57.9	0.5690
Equal	-0.5163	329.0	0.6060

For H0: Variances are equal, F' = 1.32 DF = (288,41) Prob>F' = 0.2821

Variable: SURF_N

CLASS	N	Mean	Std Dev	Std Error
SAFE	290	1.94827586	0.22185236	0.01302762
UNHCLLEA	42	1.90476190	0.29710176	0.04584380

Variances	T	DF	Prob> T
Unequal	0.9130	47.8	0.3658
Equal	1.1335	330.0	0.2578

For H0: Variances are equal, F' = 1.79 DF = (41,289) Prob>F' = **0.0067**

SAFE VS HIGH CL2 LOW BACTERIA
 15:24 Thursday, February 3, 1994 30
 TTEST PROCEDURE

Variable: DAY_N

CLASS	N	Mean	Std Dev	Std Error
SAFE	290	2.42068966	0.95699187	0.05619650
UNHCLLBA	42	3.02380952	0.74859528	0.11551076

Variances	T	DF	Prob> T
Unequal	-4.6952	62.2	0.0001
Equal	-3.9127	330.0	0.0001

For H0: Variances are equal, F' = 1.63 DF = (289,41) Prob>F' = 0.0583

Variable: TUR_N

CLASS	N	Mean	Std Dev	Std Error
SAFE	275	1.07272727	0.40320547	0.02431420
UNHCLLBA	36	1.02777778	0.16666667	0.02777778

Variances	T	DF	Prob> T
Unequal	1.2176	101.6	0.2262
Equal	0.6608	309.0	0.5093

For H0: Variances are equal, F' = 5.85 DF = (274,35) Prob>F' = **0.0000**

Variable: CL2_N

CLASS	N	Mean	Std Dev	Std Error
SAFE	284	4.31338028	1.86573071	0.11071075
UNHCLLEA	42	4.59523810	1.92619331	0.29721808

Variances	T	DF	Prob> T
Unequal	-0.8887	53.0	0.3782
Equal	-0.9100	324.0	0.3635

For H0: Variances are equal, F' = 1.07 DF = (41,283) Prob>F' = 0.7411

SAFE VS HIGH CL2 LOW BACTERIA
 15:24 Thursday, February 3, 1994 31
 TTEST PROCEDURE

Variable: FCOND_N

CLASS	N	Mean	Std Dev	Std Error
SAFE	289	1.43252595	0.60361830	0.03550696
UNHCLLBA	42	1.33333333	0.47711872	0.07362102

Variances	T	DF	Prob> T
Unequal	1.2136	61.8	0.2295
Equal	1.0192	329.0	0.3088

For H0: Variances are equal, F' = 1.60 DF = (288,41) Prob>F' = 0.0695

Variable: OFLO_N

CLASS	N	Mean	Std Dev	Std Error
SAFE	287	1.05574913	0.22983739	0.01356687
UNHCLLBA	42	1.07142857	0.26066118	0.04022089

Variances	T	DF	Prob> T
Unequal	-0.3694	50.8	0.7134
Equal	-0.4057	327.0	0.6852

For H0: Variances are equal, F' = 1.29 DF = (41,286) Prob>F' = 0.2476

Variable: BK_N

CLASS	N	Mean	Std Dev	Std Error
SAFE	290	1.50000000	0.74056931	0.04348773
UNHCLLBA	42	1.19047619	0.39743662	0.06132580

Variances	T	DF	Prob> T
Unequal	4.1171	89.4	0.0001
Equal	2.6515	330.0	0.0084

For H0: Variances are equal, F' = 3.47 DF = (289,41) Prob>F' = **0.0000**

SAFE VS HIGH CL2 LOW BACTERIA
 15:24 Thursday, February 3, 1994 32
 TTEST PROCEDURE

Variable: YL_N

CLASS	N	Mean	Std Dev	Std Error
SAFE	290	1.07241379	0.33003780	0.01938049
UNHCLLBA	42	1.04761905	0.21554027	0.03325859

Variances	T	DF	Prob> T
Unequal	0.6441	72.4	0.5215
Equal	0.4722	330.0	0.6371

For H0: Variances are equal, $F' = 2.34$ DF = (289,41) Prob>F' = **0.0015**

Variable: GN_N

CLASS	N	Mean	Std Dev	Std Error
SAFE	290	1.02068966	0.21911952	0.01286714
UNHCLLEA	42	1.00000000	0.00000000	0.00000000

Variances	T	DF	Prob> T
Unequal	1.6079	289.0	0.1089
Equal	0.6111	330.0	0.5415

NOTE: All values are the same for one CLASS level.

Variable: PK_N

CLASS	N	Mean	Std Dev	Std Error
SAFE	290	1.00344828	0.05872202	0.00344828
UNHCLLBA	42	1.00000000	0.00000000	0.00000000

Variances	T	DF	Prob> T
Unequal	1.0000	289.0	0.3181
Equal	0.3801	330.0	0.7041

NOTE: All values are the same for one CLASS level.

Appendix GG

Statistical Characteristics of the UNSAT B-4 Pools Category

Note:

Refer to Appendix FF for:

**Definition of the SAT Pool Categories
Definition of the UNSAT Pool Categories
Definition of Algae Pool Categories**

Table 17: UNSAT B-4 Pool Data

FREE CL2 GT 5 PPM HPC GT 500 OR TCOLI GT 0 OR NCOLI GT 200
 12:32 Thursday, January 20, 1994

OBS	CL2FREE	CL2TOT	PH	ALK	CYN	TEMP	VOLUME	INW	CU	NIT	TDS	HARD	HPC	TCOLI
1	9	9	7.7	150	0	84	46400	2	.	.	400	400	210	1
2	18	18	8.2	.	10	80	50000	0	0.25	0	5000	400	10	1
3	6	6	7.5	100	220	84	33600	1	.	.	400	400	16	4
4	10	10	7.3	120	200	81	26600	0	0.10	10	2600	250	18	8

OBS	FCOLI	NCOLI	PSEUD	TSTAPH	FSTREP	N	PERMITNO	POOLNAME
1	0	46	.	.	.	35	0260-65	HOLIDAY INN-CLEARWATER
2	0	1	.	.	.	157	0438-70	STETSON UNIVERSITY COLLEGE
3	2	30	.	.	.	19	1240-81	AZALEA WOODS CONDO.
4	2	130	.	.	.	49	1456-84	EAST LK WDLNDS-THE MEADOWS

OBS	INSP	DATE	DAY	TUR	CL2	ION	TIME	RAIN	COMMENTS
1	Curt	10AUG1992	Mon	N	C		10:10	N	
2	Hend	31AUG1992	Mon	N	C		10:20	M	Shocking pool
3	Curt	04AUG1992	Tue	N	T		09:20	M	
4	Curt	18AUG1992	Tue		T		9:45	M	

OBS	USE	TYPE	SURF	FCOND	OFLO	BK	YL	GN	PK	GOOD	SWIMMERS	CYNLEVEL
1	T	P	M	G	G	M	N	N	N	BAD	YES	LOW
2	M	P	M	F	G	N	N	N	N	BAD	NO	LOW
3	C	P	M	G	G	L	N	N	N	BAD	YES	HIGH
4	C	P	M	G	G	N	N	N	N	BAD	NO	HIGH

Appendix HH

Results of the T Tests of the Means of the Variables for the SAT 1-5CL2-290 and UNSAT C-58 Pools Categories

Note:

Refer to Appendix FF for:

**Definition of the SAT Pool Categories
Definition of the UNSAT Pool Categories
Definition of Algae Pool Categories
Interpretation of T Test Data**

SAFE VS LOW CL2 LOW BACTERIA
 15:24 Thursday, February 3, 1994 33
 TTEST PROCEDURE

Variable: CL2FREE

CLASS	N	Mean	Std Dev	Std Error
SAFE	290	3.40172414	1.32687047	0.07791652
UNLCLLBA	58	0.29827586	0.25235131	0.03313535

Variances	T	DF	Prob> T
Unequal	36.6536	345.7	0.0001
Equal	17.7290	346.0	0.0000

For H0: Variances are equal, F' = 27.65 DF = (289,57) Prob>F' = **0.0000**

Variable: CL2TOT

CLASS	N	Mean	Std Dev	Std Error
SAFE	290	3.44068966	1.32792715	0.07797857
UNLCLLBA	58	0.51551724	0.42583323	0.05591464

Variances	T	DF	Prob> T
Unequal	30.4853	283.1	0.0001
Equal	16.5894	346.0	0.0000

For H0: Variances are equal, F' = 9.72 DF = (289,57) Prob>F' = **0.0000**

Variable: PH

CLASS	N	Mean	Std Dev	Std Error
SAFE	290	7.58275862	0.23831729	0.01399447
UNLCLLBA	58	7.53103448	0.30216000	0.03967555

Variances	T	DF	Prob> T
Unequal	1.2294	71.8	0.2229
Equal	1.4386	346.0	0.1512

For H0: Variances are equal, F' = 1.61 DF = (57,289) Prob>F' = **0.0132**

SAFE VS LOW CL2 LOW BACTERIA
 15:24 Thursday, February 3, 1994 34
 TTEST PROCEDURE

Variable: ALK

CLASS	N	Mean	Std Dev	Std Error
SAFE	289	101.74740484	34.10016702	2.00589218
UNLCLLBA	58	94.74137931	35.18650077	4.62021390

Variances	T	DF	Prob> T
Unequal	1.3910	80.0	0.1681
Equal	1.4204	345.0	0.1564

For H0: Variances are equal, F' = 1.06 DF = (57,288) Prob>F' = 0.7239

Variable: CYN

CLASS	N	Mean	Std Dev	Std Error
SAFE	290	82.08620690	87.48134442	5.13708143
UNLCLLBA	58	52.15517241	68.70424837	9.02130978

Variances	T	DF	Prob> T
Unequal	2.8831	97.9	0.0048
Equal	2.4575	346.0	0.0148

For H0: Variances are equal, F' = 1.62 DF = (289,57) Prob>F' = **0.0291**

Variable: TEMP

CLASS	N	Mean	Std Dev	Std Error
SAFE	266	82.13157895	5.10138521	0.31278600
UNLCLLBA	52	82.26923077	5.41644332	0.751125S4

Variances	T	DF	Prob> T
Unequal	-0.1692	68.8	0.8661
Equal	-0.1762	316.0	0.8603

For H0: Variances are equal, F' = 1.13 DF = (51,265) Prob>F' = 0.5423

SAFE VS LOW CL2 LOW BACTERIA
 15:24 Thursday, February 3, 1994 35
 TTEST PROCEDURE

Variable: VOLUME

CLASS	N	Mean	Std Dev	Std Error
SAFE	290	32752.12068966	18129.63762874	1064.60897881
UNLCLLBA	58	29463.10344828	14198.54092910	1864.35976121

Variances	T	DF	Prob> T
Unequal	1.5320	98.2	0.1287
Equal	1.3034	346.0	0.1933

For H0: Variances are equal, F' = 1.63 DF = (289,57) Prob>F' = **0.0274**

Variable: INW

CLASS	N	Mean	Std Dev	Std Error
SAFE	289	0.93771626	1.74888744	0.10287573
UNLCLLBA	58	1.58620690	3.36668134	0.44206692

Variances	T	DF	Prob> T
Unequal	-1.4288	63.3	0.1580
Equal	-2.1424	345.0	0.0329

For H0: Variances are equal, F' = 3.71 DF = (57,288) Prob>F' = **0.0000**

Variable: CU

CLASS	N	Mean	Std Dev	Std Error
SAFE	274	0.22299270	0.18151929	0.01096598
UNLCLLBA	55	0.18636364	0.17518629	0.02362211

Variances	T	DF	Prob> T
Unequal	1.4065	79.1	0.1635
Equal	1.3735	327.0	0.1705

For H0: Variances are equal, F' = 1.07 DF = (273,54) Prob>F' = 0.7743

SAFE VS LOW CL2 LOW BACTERIA
 15:24 Thursday, February 3, 1994 36
 TTEST PROCEDURE

Variable: NIT

CLASS	N	Mean	Std Dev	Std Error
SAFE	276	20.11594203	15.70318901	0.94522090
UNLCLLBA	57	21.92982456	15.63405126	2.07078068

Variances	T	DF	Prob> T
Unequal	-0.7969	81.0	0.4279
Equal	-0.7945	331.0	0.4275

For H0: Variances are equal, F' = 1.01 DF = (275,56) Prob>F' = 1.0000

Variable: TDS

CLASS	N	Mean	Std Dev	Std Error
SAFE	290	1680.51034483	1180.77165325	69.33729894
UNLCLLBA	58	1861.46551724	1180.15759006	154.96228336

Variances	T	DF	Prob> T
Unequal	-1.0659	81.5	0.2896
Equal	-1.0655	346.0	0.2874

For H0: Variances are equal, F' = 1.00 DF = (289,57) Prob>F' = 1.0000

Variable: HARD

CLASS	N	Mean	Std Dev	Std Error
SAFE	270	305.81481481	136.88000797	8.33025200
UNLCLLBA	56	305.17857143	133.27334960	17.80940046

Variances	T	DF	Prob> T
Unequal	0.0324	80.9	0.9743
Equal	0.0318	324.0	0.9747

For H0: Variances are equal, F' = 1.05 DF = (269,55) Prob>F' = 0.8360

SAFE VS LOW CL2 LOW BACTERIA
 15:24 Thursday, February 3, 1994 37
 TTEST PROCEDURE

Variable: HPC

CLASS	N	Mean	Std Dev	Std Error
SAFE	290	11.38275862	29.55720006	1.73565855
UNLCLLBA	58	27.00000000	59.95056443	7.87189476

Variances	T	DF	Prob> T
Unequal	-1.9374	62.6	0.0572
Equal	-2.9864	346.0	0.0030

For H0: Variances are equal, F' = 4.11 DF = (57,289) Prob>F' = **0.0000**

Variable: TCOLI

CLASS	N	Mean	Std Dev	Std Error
SAFE	290	0	0	0
UNLCLLBA	58	0	0	0

Variances	T	DF	Prob> T
Unequal	.	.	.
Equal	.	.	.

NOTE: All values are the same for one CLASS level.

Variable: FCOLI

CLASS	N	Mean	Std Dev	Std Error
SAFE	290	0.05172414	0.82400016	0.04838696
UNLCLLBA	58	0.00000000	0.00000000	0.00000000

Variances	T	DF	Prob> T
Unequal	1.0690	289.0	0.2860
Equal	0.4775	346.0	0.6333

NOTE: All values are the same for one CLASS level.

SAFE VS LOW CL2 LOW BACTERIA
 15:24 Thursday, February 3, 1994 38
 TTEST PROCEDURE

Variable: NCOLI

CLASS	N	Mean	Std Dev	Std Error
SAFE	290	12.83793103	30.69491481	1.80246746
UNLCLLBA	58	23.22413793	43.35938883	5.69336668

Variances	T	DF	Prob> T
Unequal	-1.7392	68.9	0.0865
Equal	-2.1804	346.0	0.0299

For H0: Variances are equal, $F' = 2.00$ DF = (57,289) Prob>F' = **0.0002**

Variable: PSEUD

CLASS	N	Mean	Std Dev	Std Error
SAFE	12	0.01666667	0.05773503	0.01666667
UNLCLLBA	8	3.40000000	7.33445879	2.59312277

Variances	T	DF	Prob> T
Unequal	-1.3047	7.0	0.2332
Equal	-1.6206	18.0	0.1225

For H0: Variances are equal, $F' = 9999.99$ DF = (7,11) Prob>F' = **0.0001**

Variable: TSTAPH

CLASS	N	Mean	Std Dev	Std Error
SAFE	12	3.66666667	6.09520427	1.75953391
UNLCLLBA	8	2.87500000	2.23207143	0.78915642

Variances	T	DF	Prob> T
Unequal	0.4105	14.9	0.6873
Equal	0.3494	18.0	0.7308

For H0: Variances are equal, $F' = 7.46$ DF = (11,7) Prob>F' = **0.0136**

SAFE VS LOW CL2 LOW BACTERIA
 15:24 Thursday, February 3, 1994 39
 TTEST PROCEDURE

Variable: FSTREP

CLASS	N	Mean	Std Dev	Std Error
SAFE	12	0	0	0
UNLCLLBA	8	0	0	0

Variances	T	DF	Prob> T
Unequal	.	.	.
Equal	.	.	.

NOTE: All values are the same for one CLASS level.

Variable: DATE

CLASS	N	Mean	Std Dev	Std Error
SAFE	290	11954.54482759	31.32074924	1.83921772
UNLCLLBA	58	11961.34482759	28.24737325	3.70906182

Variances	T	DF	Prob> T
Unequal	-1.6425	87.4	0.1041
Equal	-1.5331	346.0	0.1262

For H0: Variances are equal, $F' = 1.23$ DF = (289,57) Prob>F' = 0.3488

Variable: ION_N

CLASS	N	Mean	Std Dev	Std Error
SAFE	9	1.11111111	0.33333333	0.11111111
UNLCLLBA	2	1.00000000	0.00000000	0.00000000

Variances	T	DF	Prob> T
Unequal	1.0000	8.0	0.3466
Equal	0.4523	9.0	0.6618

NOTE: All values are the same for one CLASS level.

SAFE VS LOW CL2 LOW BACTERIA
 15:24 Thursday, February 3, 1994 40
 TTEST PROCEDURE

Variable: RAIN_N

CLASS	N	Mean	Std Dev	Std Error
SAFE	255	1.82745098	0.98494143	0.06167942
UNLCLLBA	54	1.94444444	1.05359522	0.14337615

Variances	T	DF	Prob> T
Unequal	-0.7496	73.9	0.4559
Equal	-0.7832	307.0	0.4341

For H0: Variances are equal, $F' = 1.14$ DF = (53,254) Prob>F' = 0.4930

Variable: USE_N

CLASS	N	Mean	Std Dev	Std Error
SAFE	289	2.11418685	1.47576703	0.08680983
UNLCLLBA	57	2.36842105	1.65434038	0.21912274

Variances	T	DF	Prob> T
Unequal	-1.0787	74.6	0.2842
Equal	-1.1646	344.0	0.2450

For H0: Variances are equal, $F' = 1.26$ DF = (56,288) Prob>F' = 0.2385

Variable: SURF_N

CLASS	N	Mean	Std Dev	Std Error
SAFE	290	1.94827586	0.22185236	0.01302762
UNLCLLBA	58	1.96551724	0.18405922	0.02416816

Variances	T	DF	Prob> T
Unequal	-0.6280	93.4	0.5316
Equal	-0.5547	346.0	0.5794

For H0: Variances are equal, $F' = 1.45$ DF = (289,57) Prob>F' = 0.0896

SAFE VS LOW CL2 LOW BACTERIA
 15:24 Thursday, February 3, 1994 41
 TTEST PROCEDURE

Variable: DAY_N

CLASS	N	Mean	Std Dev	Std Error
SAFE	290	2.42068966	0.95699187	0.05619650
UNLCLLBA	58	2.05172414	0.98091282	0.12880016

Variances		T	DF	Prob> T
Unequal	2.6256	80.2	0.0104	0.0104
Equal	2.6693	346.0	0.0080	0.0080

For H0: Variances are equal, F' = 1.05 DF = (57,289) Prob>F' = 0.7736

Variable: TUR_N

CLASS	N	Mean	Std Dev	Std Error
SAFE	275	1.07272727	0.40320547	0.02431420
UNLCLLBA	56	1.16071429	0.49641572	0.06633634

Variances		T	DF	Prob> T
Unequal	-1.2454	70.5	0.2171	
Equal	-1.4282	329.0	0.1542	

For H0: Variances are equal, F' = 1.52 DF = (55,274) Prob>F' = **0.0337**

Variable: CL2_N

CLASS	N	Mean	Std Dev	Std Error
SAFE	284	4.31338028	1.86573071	0.11071075
UNLCLLBA	54	3.77777778	1.86998806	0.25447314

Variances		T	DF	Prob> T
Unequal	1.9300	74.5	0.0574	
Equal	1.9330	336.0	0.0541	

For H0: Variances are equal, F' = 1.00 DF = (53,283) Prob>F' = 0.9443

SAFE VS LOW CL2 LOW BACTERIA
 15:24 Thursday, February 3, 1994 42
 TTEST PROCEDURE

Variable: FCOND_N

CLASS	N	Mean	Std Dev	Std Error
SAFE	289	1.43252595	0.60361830	0.03550696
UNLCLLBA	58	1.43103448	0.67828651	0.08906338

Variances	T	DF	Prob> T
Unequal	0.0156	76.2	0.9876
Equal	0.0168	345.0	0.9866

For H0: Variances are equal, F' = 1.26 DF = (57,288) Prob>F' = 0.2260

Variable: OFLO_N

CLASS	N	Mean	Std Dev	Std Error
SAFE	287	1.05574913	0.22983739	0.01356687
UNLCLLBA	57	1.03508772	0.18563715	0.02458824

Variances	T	DF	Prob> T
Unequal	0.7357	93.6	0.4637
Equal	0.6384	342.0	0.5237

For H0: Variances are equal, F' = 1.53 DF = (286,56) Prob>F' = 0.0550

Variable: BK_N

CLASS	N	Mean	Std Dev	Std Error
SAFE	290	1.50000000	0.74056931	0.04348773
UNLCLLBA	58	1.60344828	0.77095646	0.10123154

Variances	T	DF	Prob> T
Unequal	-0.9389	75.4	0.3506
Equal	-0.9645	346.0	0.3355

For H0: Variances are equal, F' = 1.08 DF = (57,289) Prob>F' = 0.6592

SAFE VS LOW CL2 LOW BACTERIA
 15:24 Thursday, February 3, 1994 43
 TTEST PROCEDURE

Variable: YL_N

CLASS	N	Mean	Std Dev	Std Error
SAFE	290	1.07241379	0.33003780	0.01938049
UNLCLLBA	58	1.12068966	0.37825018	0.04966668

Variances	T	DF	Prob> T
Unequal	-0.9055	75.3	0.3681
Equal	-0.9916	346.0	0.3221

For H0: Variances are equal, F' = 1.31 DF = (57,289) Prob>F' = 0.1573

Variable: GN_N

CLASS	N	Mean	Std Dev	Std Error
SAFE	290	1.02068966	0.21911952	0.01286714
UNLCLLBA	58	1.03448276	0.26261287	0.03448276

Variances	T	DF	Prob> T
Unequal	-0.3748	73.7	0.7089
Equal	-0.4227	346.0	0.6728

For H0: Variances are equal, F' = 1.44 DF = (57,289) Prob>F' = 0.0600

Variable: PK_N

CLASS	N	Mean	Std Dev	Std Error
SAFE	290	1.00344828	0.05872202	0.00344828
UNLCLLBA	58	1.00000000	0.00000000	0.00000000

Variances	T	DF	Prob> T
Unequal	1.0000	289.0	0.3181
Equal	0.4467	346.0	0.6554

NOTE: All values are the same for one CLASS level.

Appendix II

Results of the T Tests of the Means of the Variables for the SAT 1-5CL2-290 and UNSAT D-47 Pools Categories

Note:

Refer to Appendix FF for:

**Definition of the SAT Pool Categories
Definition of the UNSAT Pool Categories
Definition of Algae Pool Categories
Interpretation of T Test Data**

SAFE VS LOW CL2 HIGH BACTERIA
 15:24 Thursday, February 3, 1994 55
 TTEST PROCEDURE

Variable: CL2FREE

CLASS	N	Mean	Std Dev	Std Error
SAFE	290	3.40172414	1.32687047	0.07791652
UNLCLHBA	47	0.13191489	0.21780165	0.03176964

Variances	T	DF	Prob> T
Unequal	38.8595	334.9	0.0001
Equal	16.8372	335.0	0.0000

For H0: Variances are equal, F' = 37.11 DF = (289,46) Prob>F' = **0.0000**

Variable: CL2TOT

CLASS	N	Mean	Std Dev	Std Error
SAFE	290	3.44068966	1.32792715	0.07797857
UNLCLHBA	47	0.24468085	0.24742896	0.03609122

Variances	T	DF	Prob> T
Unequal	37.1950	330.7	0.0001
Equal	16.4340	335.0	0.0000

For H0: Variances are equal, F' = 28.80 DF = (289,46) Prob>F' = **0.0000**

Variable: PH

CLASS	N	Mean	Std Dev	Std Error
SAFE	290	7.58275862	0.23831729	0.01399447
UNLCLHBA	47	7.55531915	0.32290025	0.04709984

Variances	T	DF	Prob> T
Unequal	0.5585	54.4	0.5788
Equal	0.6935	335.0	0.4885

For H0: Variances are equal, F' = 1.84 DF = (46,289) Prob>F' = **0.0031**

SAFE VS LOW CL2 HIGH BACTERIA
 15:24 Thursday, February 3, 1994 56
 TTEST PROCEDURE

Variable: ALK

CLASS	N	Mean	Std Dev	Std Error
SAFE	289	101.74740484	34.10016702	2.00589218
UNLCLHBA	47	97.87234043	40.19983616	5.86374876

Variances	T	DF	Prob> T
Unequal	0.6253	57.3	0.5343
Equal	0.7039	334.0	0.4820

For H0: Variances are equal, F' = 1.39 DF = (46,288) Prob>F' = 0.1152

Variable: CYN

CLASS	N	Mean	Std Dev	Std Error
SAFE	290	82.08620690	87.48134442	5.13708143
UNLCLHBA	47	69.68085106	69.39493353	10.12229139

Variances	T	DF	Prob> T
Unequal	1.0929	72.0	0.2781
Equal	0.9257	335.0	0.3553

For H0: Variances are equal, F' = 1.59 DF = (289,46) Prob>F' = 0.0585

Variable: TEMP

CLASS	N	Mean	Std Dev	Std Error
SAFE	266	82.13157895	5.10138521	0.31278600
UNLCLHBA	41	84.68292683	3.40909830	0.53241171

Variances	T	DF	Prob> T
Unequal	-4.1318	71.1	0.0001
Equal	-3.0953	305.0	0.0021

For H0: Variances are equal, F' = 2.24 DF = (265,40) Prob>F' = **0.0029**

SAFE VS LOW CL2 HIGH BACTERIA
 15:24 Thursday, February 3, 1994 57
 TTEST PROCEDURE

Variable: VOLUME

CLASS	N	Mean	Std Dev	Std Error
SAFE	290	32752.12068966	18129.63762874	1064.60897881
UNLCLHBA	47	30564.76595745	15876.99625273	2315.89792342

Variances	T	DF	Prob> T
Unequal	0.8582	67.0	0.3939
Equal	0.7799	335.0	0.4360

For H0: Variances are equal, F' = 1.30 DF = (289,46) Prob>F' = 0.2767

Variable: INW

CLASS	N	Mean	Std Dev	Std Error
SAFE	289	0.93771626	1.74888744	0.10287573
UNLCLHBA	47	2.06382979	3.57773462	0.52186623

Variances	T	DF	Prob> T
Unequal	-2.1171	49.6	0.0393
Equal	-3.4133	334.0	0.0007

For H0: Variances are equal, F' = 4.18 DF = (46,288) Prob>F' = **0.0000**

Variable: CU

CLASS	N	Mean	Std Dev	Std Error
SAFE	274	0.22299270	0.18151929	0.01096598
UNLCLHBA	38	0.18026316	0.15091589	0.02448179

Variances	T	DF	Prob> T
Unequal	1.5929	53.0	0.1171
Equal	1.3856	310.0	0.1669

For H0: Variances are equal, F' = 1.45 DF = (273,37) Prob>F' = 0.1752

SAFE VS LOW CL2 HIGH BACTERIA
 15:24 Thursday, February 3, 1994 58
 TTEST PROCEDURE

Variable: NIT

CLASS	N	Mean	Std Dev	Std Error
SAFE	276	20.11594203	15.70318901	0.94522090
UNLCLHBA	36	19.72222222	20.03370176	3.33895029

Variances	T	DF	Prob> T
Unequal	0.1135	40.8	0.9102
Equal	0.1367	310.0	0.8913

For H0: Variances are equal, F' = 1.63 DF = (35,275) Prob>F' = **0.0355**

Variable: TDS

CLASS	N	Mean	Std Dev	Std Error
SAFE	290	1680.51034483	1180.77165325	69.33729894
UNLCLHBA	47	2018.51063830	1684.55900399	245.71818479

Variances	T	DF	Prob> T
Unequal	-1.3239	53.6	0.1912
Equal	-1.7034	335.0	0.0894

For H0: Variances are equal, F' = 2.04 DF = (46,289) Prob>F' = **0.0005**

Variable: HARD

CLASS	N	Mean	Std Dev	Std Error
SAFE	270	305.81481481	136.88000797	8.33025200
UNLCLHBA	41	306.09756098	101.06008235	15.78293324

Variances	T	DF	Prob> T
Unequal	-0.0158	64.6	0.9874
Equal	-0.0127	309.0	0.9899

For H0: Variances are equal, F' = 1.83 DF = (269,40) Prob>F' = **0.0224**

SAFE VS LOW CL2 HIGH BACTERIA
 15:24 Thursday, February 3, 1994 59
 TTEST PROCEDURE

Variable: HPC

CLASS	N	Mean	Std Dev	Std Error
SAFE	290	11.38275862	29.55720006	1.73565855
UNLCLHBA	47	8989.17021277	12358.59508218	1802.68636659

Variances	T	DF	Prob> T
Unequal	-4.9802	46.0	0.0001
Equal	-12.4672	335.0	0.0000

For H0: Variances are equal, F' = 9999.99 DF = (46,289) Prob>F' = **0.0001**

Variable: TCOLI

CLASS	N	Mean	Std Dev	Std Error
SAFE	290	0.00000000	0.00000000	0.00000000
UNLCLHBA	47	30.97872340	65.99258501	9.62600785

Variances	T	DF	Prob> T
Unequal	-3.2182	46.0	0.0024
Equal	-8.0565	335.0	0.0000

NOTE: All values are the same for one CLASS level.

Variable: FCOLI

CLASS	N	Mean	Std Dev	Std Error
SAFE	290	0.05172414	0.82400016	0.04838696
UNLCLHBA	47	8.29787234	31.90332877	4.65357878

Variances	T	DF	Prob> T
Unequal	-1.7719	46.0	0.0830
Equal	-4.4267	335.0	0.0000

For H0: Variances are equal, F' = 1499.05 DF = (46,289) Prob>F' = **0.0000**

SAFE VS LOW CL2 HIGH BACTERIA
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 TTEST PROCEDURE

Variable: NCOLI

CLASS	N	Mean	Std Dev	Std Error
SAFE	290	12.83793103	30.69491481	1.80246746
UNLCLHBA	47	278.25531915	309.38174450	45.12796553

Variances	T	DF	Prob> T
Unequal	-5.8768	46.1	0.0001
Equal	-14.2883	335.0	0.0000

For H0: Variances are equal, F' = 101.59 DF = (46,289) Prob>F' = **0.0000**

Variable: PSEUD

CLASS	N	Mean	Std Dev	Std Error
SAFE	12	0.01666667	0.05773503	0.01666667
UNLCLHBA	3	0.46666667	0.50332230	0.29059326

Variances	T	DF	Prob> T
Unequal	-1.5460	2.0	0.2616
Equal	-3.4100	13.0	0.0047

For H0: Variances are equal, F' = 76.00 DF = (2,11) Prob>F' = **0.0000**

Variable: TSTAPH

CLASS	N	Mean	Std Dev	Std Error
SAFE	12	3.66666667	6.09520427	1.75953391
UNLCLHBA	3	1.66666667	0.57735027	0.33333333

Variances	T	DF	Prob> T
Unequal	1.1168	11.7	0.2865
Equal	0.5522	13.0	0.5902

For H0: Variances are equal, F' = 111.45 DF = (11,2) Prob>F' = **0.0178**

SAFE VS LOW CL2 HIGH BACTERIA
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 TTEST PROCEDURE

Variable: FSTREP

CLASS	N	Mean	Std Dev	Std Error
SAFE	12	0.00000000	0.00000000	0.00000000
UNLCLHBA	2	1.00000000	1.41421356	1.00000000

Variances	T	DF	Prob> T
Unequal	-1.0000	1.0	0.5000
Equal	-3.2071	12.0	0.0075

NOTE: All values are the same for one CLASS level.

Variable: DATE

CLASS	N	Mean	Std Dev	Std Error
SAFE	290	11954.54482759	31.32074924	1.83921772
UNLCLHBA	47	11935.76595745	29.08848029	4.24299093

Variances	T	DF	Prob> T
Unequal	4.0608	64.5	0.0001
Equal	3.8495	335.0	0.0001

For H0: Variances are equal, F' = 1.16 DF = (289,46) Prob>F' = 0.5544

Variable: ION_N

CLASS	N	Mean	Std Dev	Std Error
SAFE	9	1.11111111	0.33333333	0.11111111
UNLCLHBA	3	1.00000000	0.00000000	0.00000000

Variances	T	DF	Prob> T
Unequal	1.0000	8.0	0.3466
Equal	0.5590	10.0	0.5884

NOTE: All values are the same for one CLASS level.

SAFE VS LOW CL2 HIGH BACTERIA
 15:24 Thursday, February 3, 1994 62
 TTEST PROCEDURE

Variable: RAIN_N

CLASS	N	Mean	Std Dev	Std Error
SAFE	255	1.82745098	0.98494143	0.06167942
UNLCLHBA	41	2.07317073	1.10431526	0.17246507

Variances	T	DF	Prob> T
Unequal	-1.3415	50.8	0.1857
Equal	-1.4574	294.0	0.1461

For H0: Variances are equal, F' = 1.26 DF = (40,254) Prob>F' = 0.3013

Variable: USE_N

CLASS	N	Mean	Std Dev	Std Error
SAFE	289	2.11418685	1.47576703	0.08680983
UNLCLHBA	47	2.59574468	1.75275652	0.25566581

Variances	T	DF	Prob> T
Unequal	-1.7835	57.1	0.0798
Equal	-2.0184	334.0	0.0445

For H0: Variances are equal, F' = 1.41 DF = (46,288) Prob>F' = 0.0995

Variable: SURF_N

CLASS	N	Mean	Std Dev	Std Error
SAFE	290	1.94827586	0.22185236	0.01302762
UNLCLHBA	47	1.95744681	0.20402971	0.02976079

Variances	T	DF	Prob> T
Unequal	-0.2823	64.9	0.7786
Equal	-0.2657	335.0	0.7906

For H0: Variances are equal, F' = 1.18 DF = (289,46) Prob>F' = 0.4996

SAFE VS LOW CL2 HIGH BACTERIA
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 TTEST PROCEDURE

Variable: DAY_N

CLASS	N	Mean	Std Dev	Std Error
SAFE	290	2.42068966	0.95699187	0.05619650
UNLCLHBA	47	2.29787234	0.97612574	0.14238257

Variances	T	DF	Prob> T
Unequal	0.8024	61.2	0.4255
Equal	0.8139	335.0	0.4163

For H0: Variances are equal, F' = 1.04 DF = (46,289) Prob>F' = 0.8172

Variable: TUR_N

CLASS	N	Mean	Std Dev	Std Error
SAFE	275	1.07272727	0.40320547	0.02431420
UNLCLHBA	44	1.20454545	0.59374826	0.08951092

Variances	T	DF	Prob> T
Unequal	-1.4212	49.5	0.1615
Equal	-1.8707	317.0	0.0623

For H0: Variances are equal, F' = 2.17 DF = (43,274) Prob>F' = **0.0002**

Variable: CL2_N

CLASS	N	Mean	Std Dev	Std Error
SAFE	284	4.31338028	1.86573071	0.11071075
UNLCLHBA	41	5.12195122	1.50324851	0.23476798

Variances	T	DF	Prob> T
Unequal	-3.1151	59.4	0.0028
Equal	-2.6523	323.0	0.0084

For H0: Variances are equal, F' = 1.54 DF = (283,40) Prob>F' = 0.0991

SAFE VS LOW CL2 HIGH BACTERIA
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 TTEST PROCEDURE

Variable: FCOND_N

CLASS	N	Mean	Std Dev	Std Error
SAFE	289	1.43252595	0.60361830	0.03550696
UNLCLHBA	46	1.43478261	0.54373907	0.08016995

Variances	T	DF	Prob> T
Unequal	-0.0257	64.0	0.9795
Equal	-0.0239	333.0	0.9810

For H0: Variances are equal, $F' = 1.23$ DF = (288,45) Prob>F' = 0.4002

Variable: OFLO_N

CLASS	N	Mean	Std Dev	Std Error
SAFE	287	1.05574913	0.22983739	0.01356687
UNLCLHBA	47	1.04255319	0.20402971	0.02976079

Variances	T	DF	Prob> T
Unequal	0.4035	66.6	0.6879
Equal	0.3703	332.0	0.7114

For H0: Variances are equal, $F' = 1.27$ DF = (286,46) Prob>F' = 0.3302

Variable: BK_N

CLASS	N	Mean	Std Dev	Std Error
SAFE	290	1.50000000	0.74056931	0.04348773
UNLCLHBA	46	1.50000000	0.65828059	0.09705818

Variances	T	DF	Prob> T
Unequal	0.0000	64.5	1.0000
Equal	0.0000	334.0	1.0000

For H0: Variances are equal, $F' = 1.27$ DF = (289,45) Prob>F' = 0.3409

SAFE VS LOW CL2 HIGH BACTERIA
 15:24 Thursday, February 3, 1994 65
 TTEST PROCEDURE

Variable: YL_N

CLASS	N	Mean	Std Dev	Std Error
SAFE	290	1.07241379	0.33003780	0.01938049
UNLCLHBA	46	1.15217391	0.51499261	0.07593152

Variances	T	DF	Prob> T
Unequal	-1.0178	51.0	0.3136
Equal	-1.3940	334.0	0.1643

For H0: Variances are equal, F' = 2.43 DF = (45,289) Prob>F' = **0.0000**

Variable: GN_N

CLASS	N	Mean	Std Dev	Std Error
SAFE	290	1.02068966	0.21911952	0.01286714
UNLCLHEA	46	1.00000000	0.00000000	0.00000000

Variances	T	DF	Prob> T
Unequal	1.6079	289.0	0.1089
Equal	0.6396	334.0	0.5229

NOTE: All values are the same for one CLASS level.

Variable: PK_N

CLASS	N	Mean	Std Dev	Std Error
SAFE	290	1.00344828	0.05872202	0.00344828
UNLCLHBA	46	1.00000000	0.00000000	0.00000000

Variances	T	DF	Prob> T
Unequal	1.0000	289.0	0.3181
Equal	0.3978	334.0	0.6911

NOTE: All values are the same for one CLASS level.

Appendix JJ

Results of the T Tests of the Means of the Variables for the SAT 1-5CL2-290 and UNSAT E-31 Pools Categories

Note:

Refer to Appendix FF for:

**Definition of the SAT Pool Categories
Definition of the UNSAT Pool Categories
Definition of Algae Pool Categories
Interpretation of T Test Data**

SAFE POOLS VS UNSAFE GT 501
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 TTEST PROCEDURE

Variable: CL2FREE

CLASS	N	Mean	Std Dev	Std Error
HPCGT500	31	3.30645161	1.48367460	0.26647582
SAFE	290	3.40172414	1.32687047	0.07791652

Variances	T	DF	Prob> T
Unequal	-0.3432	35.3	0.7335
Equal	-0.3756	319.0	0.7075

For H0: Variances are equal, $F' = 1.25$ DF = (30,289) Prob>F' = 0.3576

Variable: CL2TOT

CLASS	N	Mean	Std Dev	Std Error
HPCGT500	31	3.40322581	1.37416250	0.24680687
SAFE	290	3.44068966	1.32792715	0.07797857

Variances	T	DF	Prob> T
Unequal	-0.1447	36.3	0.8857
Equal	-0.1488	319.0	0.8818

For H0: Variances are equal, $F' = 1.07$ DF = (30,289) Prob>F' = 0.7433

Variable: PH

CLASS	N	Mean	Std Dev	Std Error
HPCGT500	31	7.54838710	0.22341437	0.04012640
SAFE	290	7.58275862	0.23831729	0.01399447

Variances	T	DF	Prob> T
Unequal	-0.8088	37.7	0.4237
Equal	-0.7676	319.0	0.4433

For H0: Variances are equal, $F' = 1.14$ DF = (289,30) Prob>F' = 0.6944

SAFE POOLS VS UNSAFE GT 501
 11:21 Wednesday, February 9, 1994 16
 TTEST PROCEDURE

Variable: ALK

CLASS	N	Mean	Std Dev	Std Error
HPCGT500	31	95.80645161	31.38727912	5.63732175
SAFE	289	101.74740484	34.10016702	2.00589218

Variances	T	DF	Prob> T
Unequal	-0.9929	38.0	0.3270
Equal	-0.9286	318.0	0.3538

For H0: Variances are equal, F' = 1.18 DF = (288,30) Prob>F' = 0.6014

Variable: CYN

CLASS	N	Mean	Std Dev	Std Error
HPCGT500	31	91.93548387	93.54746941	16.80162150
SAFE	290	82.08620690	87.48134442	5.13708143

Variances	T	DF	Prob> T
Unequal	0.5606	35.8	0.5786
Equal	0.5918	319.0	0.5544

For H0: Variances are equal, F' = 1.14 DF = (30,289) Prob>F' = 0.5650

Variable: TEMP

CLASS	N	Mean	Std Dev	Std Error
HPCGT500	29	83.00000000	4.80327269	0.89194535
SAFE	266	82.13157895	5.10138521	0.31278600

Variances	T	DF	Prob> T
Unequal	0.9188	35.3	0.3645
Equal	0.8753	293.0	0.3821

For H0: Variances are equal, F' = 1.13 DF = (265,28) Prob>F' = 0.7305

SAFE POOLS VS UNSAFE GT 501
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 TTEST PROCEDURE

Variable: VOLUME

CLASS	N	Mean	Std Dev	Std Error
HPCGT500	31	39110.16129032	22766.36365650	4088.95962058
SAFE	290	32752.12068966	18129.63762874	1064.60897881

Variances	T	DF	Prob> T
Unequal	1.5048	34.2	0.1416
Equal	1.8075	319.0	0.0716

For H0: Variances are equal, F' = 1.58 DF = (30,289) Prob>F' = 0.0637

Variable: INW

CLASS	N	Mean	Std Dev	Std Error
HPCGT500	31	2.12903226	3.20147815	0.57500245
SAFE	289	0.93771626	1.74888744	0.10287573

Variances	T	DF	Prob> T
Unequal	2.0395	31.9	0.0497
Equal	3.2608	318.0	0.0012

For H0: Variances are equal, F' = 3.35 DF = (30,288) Prob>F' = **0.0000**

Variable: CU

CLASS	N	Mean	Std Dev	Std Error
HPCGT500	28	0.20178571	0.10842487	0.02049037
SAFE	274	0.22299270	0.18151929	0.01096598

Variances	T	DF	Prob> T
Unequal	-0.9125	44.3	0.3664
Equal	-0.6067	300.0	0.5445

For H0: Variances are equal, F' = 2.80 DF = (273,27) Prob>F' = **0.0022**

SAFE POOLS VS UNSAFE GT 501
 11:21 Wednesday, February 9, 1994 18
 TTEST PROCEDURE

Variable: NIT

CLASS	N	Mean	Std Dev	Std Error
HPCGT500	28	23.92857143	15.11420370	2.85631602
SAFE	276	20.11594203	15.70318901	0.94522090

Variances	T	DF	Prob> T
Unequal	1.2672	33.2	0.2139
Equal	1.2282	302.0	0.2203

For H0: Variances are equal, $F' = 1.08$ DF = (275,27) Prob>F' = 0.8523

Variable: TDS

CLASS	N	Mean	Std Dev	Std Error
HPCGT500	31	1636.29032258	1125.64497640	202.17180596
SAFE	290	1680.51034483	1180.77165325	69.33729894

Variances	T	DF	Prob> T
Unequal	-0.2069	37.4	0.8372
Equal	-0.1990	319.0	0.8424

For H0: Variances are equal, $F' = 1.10$ DF = (289,30) Prob>F' = 0.7845

Variable: HARD

CLASS	N	Mean	Std Dev	Std Error
HPCGT500	29	319.65517241	111.59501905	20.72267480
SAFE	270	305.81481481	136.88000797	8.33025200

Variances	T	DF	Prob> T
Unequal	0.6197	31.7	0.5392
Equal	0.5258	297.0	0.5994

For H0: Variances are equal, $F' = 1.50$ DF = (269,28) Prob>F' = 0.1947

SAFE POOLS VS UNSAFE GT 501
 11:21 Wednesday, February 9, 1994 19
 TTEST PROCEDURE

Variable: HPC

CLASS	N	Mean	Std Dev	Std Error
HPCGT500	31	7212.00000000	12048.15348784	2163.91224605
SAFE	290	11.38275862	29.55720006	1.73565855

Variances	T	DF	Prob> T
Unequal	3.3276	30.0	0.0023
Equal	10.3133	319.0	0.0000

For H0: Variances are equal, F' = 9999.99 DF = (30,289) Prob>F' = **0.0001**

Variable: TCOLI

CLASS	N	Mean	Std Dev	Std Error
HPCGT500	31	24.74193548	56.50838743	10.14920599
SAFE	290	0.00000000	0.00000000	0.00000000

Variances	T	DF	Prob> T
Unequal	2.4378	30.0	0.0209
Equal	7.5558	319.0	0.0000

NOTE: All values are the same for one CLASS level.

Variable: FCOLI

CLASS	N	Mean	Std Dev	Std Error
HPCGT500	31	16.00000000	49.81365275	8.94679615
SAFE	290	0.05172414	0.82400016	0.04838696

Variances	T	DF	Prob> T
Unequal	1.7825	30.0	0.0848
Equal	5.5177	319.0	0.0000

For H0: Variances are equal, F' = 3654.62 DF = (30,289) Prob>F' = **0.0000**

SAFE POOLS VS UNSAFE GT 501
 11:21 Wednesday, February 9, 1994 20
 TTEST PROCEDURE

Variable: NCOLI

CLASS	N	Mean	Std Dev	Std Error
HPCGT500	31	165.90322581	77.11608342	13.85045745
SAFE	290	12.83793103	30.69491481	1.80246746

Variiances	T	DF	Prob> T	
Unequal	10.9589	31.0	0.0001	
Equal	21.5505	319.0	0.0000	

For H0: Variiances are equal, F' = 6.31 DF = (30,289) Prob>F' = **0.0000**

Variable: PSEUD

CLASS	N	Mean	Std Dev	Std Error
HPCGT500	1	0.00000000		
SAFE	12	0.01666667	0.05773503	0.01666667

Variiances	T	DF	Prob> T	
Unequal	.	.	.	
Equal	-0.2774	11.0	0.7867	

NOTE: All values are the same for one CLASS level.

Variable: TSTAPH

CLASS	N	Mean	Std Dev	Std Error
HPCGT500	1	2.00000000	.	.
SAFE	12	3.66666667	6.09520427	1.75953391

Variiances	T	DF	Prob> T	
Unequal	.	.	.	
Equal	-0.2627	11.0	0.7976	

NOTE: All values are the same for one CLASS level.

SAFE POOLS VS UNSAFE GT 501
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 TTEST PROCEDURE

Variable: FSTREP

CLASS	N	Mean	Std Dev	Std Error
HPCGT500	1	0	.	.
SAFE	12	0	0	0

Variiances	T	DF	Prob> T	
Unequal	.	.	.	
Equal	.	.	.	

NOTE: All values are the same for one CLASS level.

Variable: DATE

CLASS	N	Mean	Std Dev	Std Error
HPCGT500	31	11952.09677419	26.57737740	4.77343789
SAFE	290	11954.54482759	31.32074924	1.83921772

Variiances	T	DF	Prob> T	
Unequal	-0.4786	39.5	0.6349	
Equal	-0.4192	319.0	0.6754	

For H0: Variiances are equal, F' = 1.39 DF = (289,30) Prob>F' = 0.2794

Variable: ION_N

CLASS	N	Mean	Std Dev	Std Error
HPCGT500	1	1.00000000	.	.
SAFE	9	1.11111111	0.33333333	0.11111111

Variiances	T	DF	Prob> T	
Unequal	.	.	.	
Equal	-0.3162	8.0	0.7599	

NOTE: All values are the same for one CLASS level.

SAFE POOLS VS UNSAFE GT 501
 11:21 Wednesday, February 9, 1994 22
 TTEST PROCEDURE

Variable: RAIN_N

CLASS	N	Mean	Std Dev	Std Error
HPCGT500	28	1.92857143	0.93999887	0.17764309
SAFE	255	1.82745098	0.98494143	0.06167942

Variances	T	DF	Prob> T
Unequal	0.5377	33.9	0.5943
Equal	0.5179	281.0	0.6049

For H0: Variances are equal, F' = 1.10 DF = (254,27) Prob>F' = 0.8073

Variable: USE_N

CLASS	N	Mean	Std Dev	Std Error
HPCGT500	31	2.45161290	1.58826341	0.28526053
SAFE	289	2.11418685	1.47576703	0.08680983

Variances	T	DF	Prob> T
Unequal	1.1316	35.8	0.2653
Equal	1.2009	318.0	0.2307

For H0: Variances are equal, F' = 1.16 DF = (30,288) Prob>F' = 0.5324

Variable: SURF_N

CLASS	N	Mean	Std Dev	Std Error
HPCGT500	31	1.96774194	0.17960530	0.03225806
SAFE	290	1.94827586	0.22185236	0.01302762

Variances	T	DF	Prob> T
Unequal	0.5595	40.5	0.5789
Equal	0.4721	319.0	0.6372

For H0: Variances are equal, F' = 1.53 DF = (289,30) Prob>F' = 0.1633

SAFE POOLS VS UNSAFE GT 501
 11:21 Wednesday, February 9, 1994 23
 TTEST PROCEDURE

Variable: DAY_N

CLASS	N	Mean	Std Dev	Std Error
HPCGT500	31	2.54838710	0.96051062	0.17251280
SAFE	290	2.42068966	0.95699187	0.05619650

Variances	T	DF	Prob> T
Unequal	0.7038	36.7	0.4860
Equal	0.7059	319.0	0.4808

For H0: Variances are equal, F' = 1.01 DF = (30,289) Prob>F' = 0.9199

Variable: TUR_N

CLASS	N	Mean	Std Dev	Std Error
HPCGT500	28	1.28571429	1.04906106	0.19825390
SAFE	275	1.07272727	0.40320547	0.02431420

Variances	T	DF	Prob> T
Unequal	1.0663	27.8	0.2954
Equal	2.1616	301.0	0.0314

For H0: Variances are equal, F' = 6.77 DF = (27,274) Prob>F' = 0.0000

Variable: CL2_N

CLASS	N	Mean	Std Dev	Std Error
HPCGT500	30	4.56666667	1.65432210	0.30203651
SAFE	284	4.31338028	1.86573071	0.11071075

Variances	T	DF	Prob> T
Unequal	0.7874	37.2	0.4360
Equal	0.7143	312.0	0.4756

For H0: Variances are equal, F' = 1.27 DF = (283,29) Prob>F' = 0.4431

SAFE POOLS VS UNSAFE GT 501
 11:21 Wednesday, February 9, 1994 24
 TTEST PROCEDURE

Variable: FCOND_N

CLASS	N	Mean	Std Dev	Std Error
HPCGT500	31	1.54838710	0.62389688	0.11205519
SAFE	289	1.43252595	0.60361830	0.03550696

Variances	T	DF	Prob> T
Unequal	0.9857	36.3	0.3308
Equal	1.0124	318.0	0.3121

For H0: Variances are equal, F' = 1.07 DF = (30,288) Prob>F' = 0.7500

Variable: OFLO_N

CLASS	N	Mean	Std Dev	Std Error
HPCGT500	31	1.16129032	0.37387825	0.06715052
SAFE	287	1.05574913	0.22983739	0.01356687

Variances	T	DF	Prob> T
Unequal	1.5406	32.5	0.1331
Equal	2.2588	316.0	0.0246

For H0: Variances are equal, F' = 2.65 DF = (30,286) Prob>F' = 0.0000

Variable: BK_N

CLASS	N	Mean	Std Dev	Std Error
HPCGT500	31	1.45161290	0.62389688	0.11205519
SAFE	290	1.50000000	0.74056931	0.04348773

Variances	T	DF	Prob> T
Unequal	-0.4026	39.6	0.6894
Equal	-0.3506	319.0	0.7261

For H0: Variances are equal, F' = 1.41 DF = (289,30) Prob>F' = 0.2585

SAFE POOLS VS UNSAFE GT 501
 11:21 Wednesday, February 9, 1994 25
 TTEST PROCEDURE

Variable: YL_N

CLASS	N	Mean	Std Dev	Std Error
HPCGT500	31	1.03225806	0.17960530	0.03225806
SAFE	290	1.07241379	0.33003780	0.01938049

Variances	T	DF	Prob> T
unequal	-1.0671	54.8	0.2906
Equal	-0.6663	319.0	0.5057

For H0: Variances are equal, $F' = 3.38$ DF = (289,30) Prob>F' = 0.0001

Variable: GN_N

CLASS	N	Mean	Std Dev	Std Error
HPCGT500	31	1.00000000	0.00000000	0.00000000
SAFE	290	1.02068966	0.21911952	0.01286714

Variances	T	DF	Prob> T
unequal	-1.6079	289.0	0.1089
Equal	-0.5250	319.0	0.6000

NOTE: All values are the same for one CLASS level.

Variable: PK_N

CLASS	N	Mean	Std Dev	Std Error
HPCGT500	31	1.00000000	0.00000000	0.00000000
SAFE	290	1.00344828	0.05872202	0.00344828

Variances	T	DF	Prob> T
Unequal	-1.0000	289.0	0.3181
Equal	-0.3265	319.0	0.7443

NOTE: All values are the same for one CLASS level.

Appendix KK

Results of the T Tests of the Means of the Variables for the SAT 1-5CL2-290 and UNSAT F-14 Pools Categories

Note:

Refer to Appendix FF for:

**Definition of the SAT Pool Categories
Definition of the UNSAT Pool Categories
Definition of Algae Pool Categories
Interpretation of T Test Data**

SAFE POOLS VS UNSAFE LT 501
 11:21 Wednesday, February 9, 1994 4
 TTEST PROCEDURE

Variable: CL2FREE

CLASS	N	Mean	Std Dev	Std Error
HPCLT500	14	4.24285714	0.92546395	0.24734064
SAFE	290	3.40172414	1.32687047	0.07791652

Variances	T	DF	Prob> T
Unequal	3.2436	15.7	0.0052
Equal	2.3427	302.0	0.0198

For H0: Variances are equal, F' = 2.06 DF = (289,13) Prob>F' = 0.1371

Variable: CL2TOT

CLASS	N	Mean	Std Dev	Std Error
HPCLT500	14	4.25000000	0.91462477	0.24444375
SAFE	290	3.44068966	1.32792715	0.07797857

Variances	T	DF	Prob> T
Unequal	3.1542	15.8	0.0062
Equal	2.2529	302.0	0.0250

For H0: Variances are equal, F' = 2.11 DF = (289,13) Prob>F' = 0.1243

Variable: PH

CLASS	N	Mean	Std Dev	Std Error
HPCLT500	14	7.60000000	0.17541160	0.04688072
SAFE	290	7.58275862	0.23831729	0.01399447

Variances	T	DF	Prob> T
Unequal	0.3524	15.4	0.7293
Equal	0.2670	302.0	0.7896

For H0: Variances are equal, F' = 1.85 DF = (289,13) Prob>F' = 0.2051

SAFE POOLS VS UNSAFE LT 501
 11:21 Wednesday, February 9, 1994 5
 TTEST PROCEDURE

Variable: ALK

CLASS	N	Mean	Std Dev	Std Error
HPCLT500	14	97.14285714	29.72400517	7.94407454
SAFE	289	101.74740484	34.10016702	2.00589218

Variances	T	DF	Prob> T
Unequal	-0.5620	14.7	0.5826
Equal	-0.4960	301.0	0.6203

For H0: Variances are equal, $F' = 1.32$ DF = (288,13) Prob>F' = 0.5952

Variable: CYN

CLASS	N	Mean	Std Dev	Std Error
HPCLT500	14	91.78571429	67.35688940	18.00188591
SAFE	290	82.08620690	87.48134442	5.13708143

Variances	T	DF	Prob> T
Unequal	0.5181	15.2	0.6118
Equal	0.4088	302.0	0.6830

For H0: Variances are equal, $F' = 1.69$ DF = (289,13) Prob>F' = 0.2810

Variable: TEMP

CLASS	N	Mean	Std Dev	Std Error
HPCLT500	14	80.78571429	4.33551650	1.15871552
SAFE	266	82.13157895	5.10138521	0.31278600

Variances	T	DF	Prob> T
Unequal	-1.1214	15.0	0.2798
Equal	-0.9685	278.0	0.3337

For H0: Variances are equal, $F' = 1.38$ DF = (265,13) Prob>F' = 0.5185

SAFE POOLS VS UNSAFE LT 501
 11:21 Wednesday, February 9, 1994 6
 TTEST PROCEDURE

Variable: VOLUME

CLASS	N	Mean	Std Dev	Std Error
HPCLT500	14	27561.92857143	10054.02841930	2687.05212156
SAFE	290	32752.12068966	18129.63762874	1064.60897881

Variances	T	DF	Prob> T
Unequal	-1.7957	17.4	0.0900
Equal	-1.0622	302.0	0.2890

For H0: Variances are equal, $F' = 3.25$ DF = (289,13) Prob>F' = **0.0186**

Variable: INW

CLASS	N	Mean	Std Dev	Std Error
HPCLT500	14	0.42857143	0.93761446	0.25058801
SAFE	289	0.93771626	1.74888744	0.10287573

Variances	T	DF	Prob> T
Unequal	-1.8796	17.7	0.0767
Equal	-1.0806	301.0	0.2807

For H0: Variances are equal, $F' = 3.48$ DF = (288,13) Prob>F' = **0.0134**

Variable: CU

CLASS	N	Mean	Std Dev	Std Error
HPCLT500	12	0.19166667	0.16213537	0.04680445
SAFE	274	0.22299270	0.18151929	0.01096598

Variances	T	DF	Prob> T
Unequal	-0.6516	12.2	0.5267
Equal	-0.5875	284.0	0.5574

For H0: Variances are equal, $F' = 1.25$ DF = (273,11) Prob>F' = 0.7155

SAFE POOLS VS UNSAFE LT 501
 11:21 Wednesday, February 9, 1994 7
 TTEST PROCEDURE

Variable: NIT

CLASS	N	Mean	Std Dev	Std Error
HPCLT500	12	24.58333333	14.99368554	4.32830419
SAFE	276	20.11594203	15.70318901	0.94522090

Variances	T	DF	Prob> T
Unequal	1.0084	12.1	0.3331
Equal	0.9664	286.0	0.3347

For H0: Variances are equal, $F' = 1.10$ DF = (275,11) Prob>F' = 0.9410

Variable: TDS

CLASS	N	Mean	Std Dev	Std Error
HPCLT500	14	962.35714286	821.21257504	219.47829268
SAFE	290	1680.51034483	1180.77165325	69.33729894

Variances	T	DF	Prob> T
Unequal	-3.1201	15.7	0.0067
Equal	-2.2478	302.0	0.0253

For H0: Variances are equal, $F' = 2.07$ DF = (289,13) Prob>F' = 0.1341

Variable: HARD

CLASS	N	Mean	Std Dev	Std Error
HPCLT500	12	260.83333333	85.54194435	24.69383230
SAFE	270	305.81481481	136.88000797	8.33025200

Variances	T	DF	Prob> T
Unequal	-1.7260	13.6	0.1069
Equal	-1.1275	280.0	0.2605

For H0: Variances are equal, $F' = 2.56$ DF = (269,11) Prob>F' = 0.0817

SAFE POOLS VS UNSAFE LT 501
 11:21 Wednesday, February 9, 1994 8
 TTEST PROCEDURE

Variable: HPC

CLASS	N	Mean	Std Dev	Std Error
HPCLT500	14	148.50000000	191.00453076	51.04810810
SAFE	290	11.38275862	29.55720006	1.73565855

Variances	T	DF	Prob> T
Unequal	2.6845	13.0	0.0187
Equal	10.2148	302.0	0.0000

For H0: Variances are equal, F' = 41.76 DF = (13,289) Prob>F' = **0.0000**

Variable: TCOLI

CLASS	N	Mean	Std Dev	Std Error
HPCLT500	14	0	0	0
SAFE	290	0	0	0

Variances	T	DF	Prob> T
Unequal	.	.	.
Equal	.	.	.

NOTE: All values are the same for one CLASS level.

Variable: FCOLI

CLASS	N	Mean	Std Dev	Std Error
HPCLT500	14	0.00000000	0.00000000	0.00000000
SAFE	290	0.05172414	0.82400016	0.04838696

Variances	T	DF	Prob> T
Unequal	-1.0690	289.0	0.2860
Equal	-0.2345	302.0	0.8148

NOTE: All values are the same for one CLASS level.

SAFE POOLS VS UNSAFE LT 501
 11:21 Wednesday, February 9, 1994 9
 TTEST PROCEDURE

Variable: NCOLI

CLASS	N	Mean	Std Dev	Std Error
HPCLT500	14	219.00000000	44.53347920	11.90207296
SAFE	290	12.83793103	30.69491481	1.80246746

Variiances	T	DF	Prob> T	
Unequal	17.1262	13.6	0.0001	
Equal	23.9816	302.0	0.0000	

For H0: Variiances are equal, F' = 2.10 DF = (13,289) Prob>F' = **0.0279**

Variable: PSEUD

CLASS	N	Mean	Std Dev	Std Error
HPCLT500	2	0.00000000	0.00000000	0.00000000
SAFE	12	0.01666667	0.05773503	0.01666667

Variiances	T	DF	Prob> T	
Unequal	-1.0000	11.0	0.3388	
Equal	-0.3948	12.0	0.6999	

NOTE: All values are the same for one CLASS level.

Variable: TSTAPH

CLASS	N	Mean	Std Dev	Std Error
HPCLT500	2	2.00000000	0.00000000	0.00000000
SAFE	12	3.66666667	6.09520427	1.75953391

Variiances	T	DF	Prob> T	
Unequal	-0.9472	11.0	0.3639	
Equal	-0.3739	12.0	0.7150	

NOTE: All values are the same for one CLASS level.

SAFE POOLS VS UNSAFE LT 501
 11:21 Wednesday, February 9, 1994 10
 TTEST PROCEDURE

Variable: FSTREP

CLASS	N	Mean	Std Dev	Std Error
HPCLT500	2	0.50000000	0.70710678	0.50000000
SAFE	12	0.00000000	0.00000000	0.00000000

Variances	T	DF	Prob> T	
Unequal	1.0000	1.0	0.5000	
Equal	3.2071	12.0	0.0075	

NOTE: All values are the same for one CLASS level.

Variable: DATE

CLASS	N	Mean	Std Dev	Std Error
HPCLT500	14	11968.57142857	41.17638286	11.00485122
SAFE	290	11954.54482759	31.32074924	1.83921772

Variances	T	DF	Prob> T	
Unequal	1.2571	13.7	0.2297	
Equal	1.6115	302.0	0.1081	

For H0: Variances are equal, F' = 1.73 DF = (13,289) Prob>F' = 0.1093

Variable: ION_N

CLASS	N	Mean	Std Dev	Std Error
HPCLT500	0	.	.	.
SAFE	9	1.11111111	0.33333333	0.11111111

Variances	T	DF	Prob> T	
Unequal	.	.	.	
Equal	.	.	.	

NOTE: All values are the same for one CLASS level.

SAFE POOLS VS UNSAFE LT 501
 11:21 Wednesday, February 9, 1994 11
 TTEST PROCEDURE

Variable: RAIN_N

CLASS	N	Mean	Std Dev	Std Error
HPCLT500	13	1.76923077	1.01273937	0.28088336
SAFE	255	1.82745098	0.98494143	0.06167942

Variances	T	DF	Prob> T
Unequal	-0.2025	13.2	0.8427
Equal	-0.2076	266.0	0.8357

For H0: Variances are equal, F' = 1.06 DF = (12,254) Prob>F' = 0.7942

Variable: USE_N

CLASS	N	Mean	Std Dev	Std Error
HPCLT500	14	2.50000000	1.55662356	0.41602515
SAFE	289	2.11418685	1.47576703	0.08680983

Variances	T	DF	Prob> T
Unequal	0.9078	14.2	0.3792
Equal	0.9530	301.0	0.3413

For H0: Variances are equal, F' = 1.11 DF = (13,288) Prob>F' = 0.6954

Variable: SURF_N

CLASS	N	Mean	Std Dev	Std Error
HPCLT500	14	1.92857143	0.26726124	0.07142857
SAFE	290	1.94827586	0.22185236	0.01302762

Variances	T	DF	Prob> T
Unequal	-0.2714	13.9	0.7901
Equal	-0.3215	302.0	0.7481

For H0: Variances are equal, F' = 1.45 DF = (13,289) Prob>F' = 0.2707

SAFE POOLS VS UNSAFE LT 501
 11:21 Wednesday, February 9, 1994 12
 TTEST PROCEDURE

Variable: DAY_N

CLASS	N	Mean	Std Dev	Std Error
HPCLT500	14	2.07142857	0.73004591	0.19511298
SAFE	290	2.42068966	0.95699187	0.05619650

Variiances	T	DF	Prob> T	
Unequal	-1.7201	15.2	0.1057	
Equal	-1.3459	302.0	0.1793	

For H0: Variiances are equal, F' = 1.72 DF = (289,13) Prob>F' = 0.2638

Variable: TUR_N

CLASS	N	Mean	Std Dev	Std Error
HPCLT500	14	1.00000000	0.00000000	0.00000000
SAFE	275	1.07272727	0.40320547	0.02431420

Variiances	T	DF	Prob> T	
Unequal	-2.9911	274.0	0.0030	
Equal	-0.6738	287.0	0.5010	

NOTE: All values are the same for one CLASS level.

Variable: CL2_N

CLASS	N	Mean	Std Dev	Std Error
HPCLTSOO	14	5.50000000	1.09192843	0.29183015
SAFE	284	4.31338028	1.86573071	0.11071075

Variiances	T	DF	Prob> T	
Unequal	3.8018	17.0	0.0014	
Equal	2.3574	296.0	0.0191	

For H0: Variiances are equal, F' = 2.92 DF = (283,13) Prob>F' = **0.0309**

SAFE POOLS VS UNSAFE LT 501
 11:21 Wednesday, February 9, 1994 13
 TTEST PROCEDURE

Variable: FCOND_N

CLASS	N	Mean	Std Dev	Std Error
HPCLT500	14	1.71428571	0.82542031	0.22060286
SAFE	289	1.43252595	0.60361830	0.03550696

Variances	T	DF	Prob> T
Unequal	1.2610	13.7	0.2284
Equal	1.6746	301.0	0.0951

For H0: Variances are equal, F' = 1.87 DF = (13,288) Prob>F' = 0.0665

Variable: OFLO_N

CLASS	N	Mean	Std Dev	Std Error
HPCLT500	14	1.07142857	0.26726124	0.07142857
SAFE	287	1.05574913	0.22983739	0.01356687

Variances	T	DF	Prob> T
Unequal	0.2157	14.0	0.8324
Equal	0.2474	299.0	0.8048

For H0: Variances are equal, F' = 1.35 DF = (13,286) Prob>F' = 0.3647

Variable: BK_N

CLASS	N	Mean	Std Dev	Std Error
HPCLT500	14	1.42857143	0.75592895	0.20203051
SAFE	290	1.50000000	0.74056931	0.04348773

Variances	T	DF	Prob> T
Unequal	-0.3456	14.2	0.7347
Equal	-0.3522	302.0	0.7250

For H0: Variances are equal, F' = 1.04 DF = (13,289) Prob>F' = 0.8219

SAFE POOLS VS UNSAFE LT 501
 11:21 Wednesday, February 9, 1994 14
 TTEST PROCEDURE

Variable: YL_N

CLASS	N	Mean	Std Dev	Std Error
HPCLT500	14	1.28571429	0.61124985	0.16336339
SAFE	290	1.07241379	0.33003780	0.01938049

Variances	T	DF	Prob> T
Unequal	1.2966	13.4	0.2167
Equal	2.2472	302.0	0.0253

For H0: Variances are equal, F' = 3.43 DF = (13,289) Prob>F' = **0.0001**

Variable: GN_N

CLASS	N	Mean	Std Dev	Std Error
HPCLT500	14	1.00000000	0.00000000	0.00000000
SAFE	290	1.02068966	0.21911952	0.01286714

Variances	T	DF	Prob> T
Unequal	-1.6079	289.0	0.1089
Equal	-0.3527	302.0	0.7245

NOTE: All values are the same for one CLASS level.

Variable: PK_N

CLASS	N	Mean	Std Dev	Std Error
HPCLT500	14	1.00000000	0.00000000	0.00000000
SAFE	290	1.00344828	0.05872202	0.00344828

Variances	T	DF	Prob> T
Unequal	-1.0000	289.0	0.3181
Equal	-0.2194	302.0	0.8265

NOTE: All values are the same for one CLASS level.

Appendix LL

Results of the T Tests of the Means for the Variables for the UNSAT E-31 and UNSAT F-14 Pools Categories

Note:

Refer to Appendix FF for:

**Definition of the SAT Pool Categories
Definition of the UNSAT Pool Categories
Definition of Algae Pool Categories
Interpretation of T Test Data**

UNSAFE HPC GT 500 VS UNSAFE HPC LT 501
 10:48 Wednesday, February 9, 1994 3
 TTEST PROCEDURE

Variable: CL2FREE

CLASS	N	Mean	Std Dev	Std Error
HPCGT500	31	3.30645161	1.48367460	0.26647582
HPCLT500	14	4.24285714	0.92546395	0.24734064

Variances	T	DF	Prob> T
Unequal	-2.5756	38.3	0.0140
Equal	-2.1707	43.0	0.0355

For H0: Variances are equal, $F' = 2.57$ DF = (30,13) Prob>F' = 0.0745

Variable: CL2TOT

CLASS	N	Mean	Std Dev	Std Error
HPCGT500	31	3.40322581	1.37416250	0.24680687
HPCLT500	14	4.25000000	0.91462477	0.24444375

Variances	T	DF	Prob> T
Unequal	-2.4377	36.6	0.0198
Equal	-2.0985	43.0	0.0418

For H0: Variances are equal, $F' = 2.26$ DF = (30,13) Prob>F' = 0.1217

Variable: PH

CLASS	N	Mean	Std Dev	Std Error
HPCGT500	31	7.54838710	0.22341437	0.04012640
HPCLT500	14	7.60000000	0.17541160	0.04688072

Variances	T	DF	Prob> T
Unequal	-0.8364	31.7	0.4092
Equal	-0.7630	43.0	0.4496

For H0: Variances are equal, $F' = 1.62$ DF = (30,13) Prob>F' = 0.3575

UNSAFE HPC GT 500 VS UNSAFE HPC LT 501
 10:48 Wednesday, February 9, 1994 4
 TTEST PROCEDURE

Variable: ALK

CLASS	N	Mean	Std Dev	Std Error
HPCGT500	31	95.80645161	31.38727912	5.63732175
HPCLT500	14	97.14285714	29.72400517	7.94407454

Variances	T	DF	Prob> T
Unequal	-0.1372	26.5	0.8919
Equal	-0.1343	43.0	0.8938

For H0: Variances are equal, F' = 1.12 DF = (30,13) Prob>F' = 0.8689

Variable: CYN

CLASS	N	Mean	Std Dev	Std Error
HPCGT500	31	91.93548387	93.54746941	16.80162150
HPCLT500	14	91.78571429	67.35688940	18.00188591

Variances	T	DF	Prob> T
Unequal	0.0061	34.3	0.9952
Equal	0.0054	43.0	0.9957

For H0: Variances are equal, F' = 1.93 DF = (30,13) Prob>F' = 0.2100

Variable: TEMP

CLASS	N	Mean	Std Dev	Std Error
HPCGT500	29	83.00000000	4.80327269	0.89194535
HPCLT500	14	80.78571429	4.33551650	1.15871552

Variances	T	DF	Prob> T
Unequal	1.5143	28.3	0.1410
Equal	1.4601	41.0	0.1519

For H0: Variances are equal, F' = 1.23 DF = (28,13) Prob>F' = 0.7171

UNSAFE HPC GT 500 VS UNSAFE HPC LT 501
 10:48 Wednesday, February 9, 1994 5
 TTEST PROCEDURE

Variable: VOLUME

CLASS	N	Mean	Std Dev	Std Error
HPCGT500	31	39110.16129032	22766.36365650	4088.95962058
HPCLT500	14	27561.92857143	10054.02841930	2687.05212156

Variances	T	DF	Prob> T
Unequal	2.3602	43.0	0.0229
Equal	1.8110	43.0	0.0771

For H0: Variances are equal, F' = 5.13 DF = (30,13) Prob>F' = **0.0032**

Variable: INW

CLASS	N	Mean	Std Dev	Std Error
HPCGT500	31	2.12903226	3.20147815	0.57500245
HPCLT500	14	0.42857143	0.93761446	0.25058801

Variances	T	DF	Prob> T
Unequal	2.7110	39.2	0.0099
Equal	1.9391	43.0	0.0591

For H0: Variances are equal, F' = 11.66 DF = (30,13) Prob>F' = **0.0000**

Variable: CU

CLASS	N	Mean	Std Dev	Std Error
HPCGT500	28	0.20178571	0.10842487	0.02049037
HPCLT500	12	0.19166667	0.16213537	0.04680445

Variances	T	DF	Prob> T
Unequal	0.1981	15.4	0.8456
Equal	0.2321	38.0	0.8177

For H0: Variances are equal, F' = 2.24 DF = (11,27) Prob>F' = 0.0868

UNSAFE HPC GT 500 VS UNSAFE HPC LT 501
 10:48 Wednesday, February 9, 1994 6
 TTEST PROCEDURE

Variable: NIT

CLASS	N	Mean	Std Dev	Std Error
HPCGT500	28	23.92857143	15.11420370	2.85631602
HPCLT500	12	24.58333333	14.99368554	4.32830419

Variances	T	DF	Prob> T	
Unequal	-0.1263	21.0	0.9007	
Equal	-0.1258	38.0	0.9005	

For H0: Variances are equal, F' = 1.02 DF = (27,11) Prob>F' = 1.0000

Variable: TDS

CLASS	N	Mean	Std Dev	Std Error
HPCGT500	31	1636.29032258	1125.64497640	202.17180596
HPCLT500	14	962.35714286	821.21257504	219.47829268

Variances	T	DF	Prob> T	
Unequal	2.2585	33.9	0.0305	
Equal	2.0066	43.0	0.0511	

For H0: Variances are equal, F' = 1.88 DF = (30,13) Prob>F' = 0.2287

Variable: HARD

CLASS	N	Mean	Std Dev	Std Error
HPCGT500	29	319.65517241	111.59501905	20.72267480
HPCLT500	12	260.83333333	85.54194435	24.69383230

Variances	T	DF	Prob> T	
Unequal	1.8247	26.7	0.0792	
Equal	1.6336	39.0	0.1104	

For H0: Variances are equal, F' = 1.70 DF = (28,11) Prob>F' = 0.3547

UNSAFE HPC GT 500 VS UNSAFE HPC LT 501
 10:48 Wednesday, February 9, 1994 7
 TTEST PROCEDURE

Variable: HPC

CLASS	N	Mean	Std Dev	Std Error
HPCGT500	31	7212.00000000	12048.15348784	2163.91224605
HPCLT500	14	148.50000000	191.00453076	51.04810810

Variances	T	DF	Prob> T
Unequal	3.2633	30.0	0.0027
Equal	2.1797	43.0	0.0348

For H0: Variances are equal, F' = 3978.81 DF = (30,13) Prob>F' = **0.0000**

Variable: TCOLI

CLASS	N	Mean	Std Dev	Std Error
HPCGT500	31	24.74193548	56.50838743	10.14920599
HPCLT500	14	0.00000000	0.00000000	0.00000000

Variances	T	DF	Prob> T
Unequal	2.4378	30.0	0.0209
Equal	1.6279	43.0	0.1108

NOTE: All values are the same for one CLASS level.

Variable: FCOLI

CLASS	N	Mean	Std Dev	Std Error
HPCGT500	31	16.00000000	49.81365275	8.94679615
HPCLT500	14	0.00000000	0.00000000	0.00000000

Variances	T	DF	Prob> T
Unequal	1.7883	30.0	0.0838
Equal	1.1942	43.0	0.2389

NOTE: All values are the same for one CLASS level.

UNSAFE HPC GT 500 VS UNSAFE HPC LT 501
 10:48 Wednesday, February 9, 1994 8
 TTEST PROCEDURE

Variable: NCOLI

CLASS	N	Mean	Std Dev	Std Error
HPCGT500	31	165.90322581	77.11608342	13.85045745
HPCLT500	14	219.00000000	44.53347920	11.90207296

Variances	T	DF	Prob> T	
Unequal	-2.9075	40.1	0.0059	
Equal	-2.3929	43.0	0.0212	

For H0: Variances are equal, F' = 3.00 DF = (30,13) Prob>F' = **0.0397**

Variable: PSEUD

CLASS	N	Mean	Std Dev	Std Error
HPCGT500	1	0	.	.
HPCLT500	2	0	0	0

Variances	T	DF	Prob> T	
Unequal	.	.	.	
Equal	.	.	.	

NOTE: All values are the same for one CLASS level.

Variable: TSTAPH

CLASS	N	Mean	Std Dev	Std Error
HPCGT500	1	2.00000000	.	.
HPCLT500	2	2.00000000	0	0

Variances	T	DF	Prob> T	
Unequal	.	.	.	
Equal	.	.	.	

NOTE: All values are the same for one CLASS level.

UNSAFE HPC GT 500 VS UNSAFE HPC LT 501
 10:48 Wednesday, February 9, 1994 9
 TTEST PROCEDURE

Variable: FSTREP

CLASS	N	Mean	Std Dev	Std Error
HPCGT500	1	0.00000000	.	.
HPCLT500	2	0.50000000	0.70710678	0.50000000

Variances	T	DF	Prob> T	
Unequal	.	.	.	
Equal	-0.5774	1.0	0.6667	

NOTE: All values are the same for one CLASS level.

Variable: DATE

CLASS	N	Mean	Std Dev	Std Error
HPCGT500	31	11952.09677419	26.57737740	4.77343789
HPCLT500	14	11968.57142857	41.17638286	11.00485122

Variances	T	DF	Prob> T	
Unequal	-1.3734	18.1	0.1864	
Equal	-1.6136	43.0	0.1139	

For H0: Variances are equal, F' = 2.40 DF = (13,30) Prob>F' = 0.0470

Variable: ION_N

CLASS	N	Mean	Std Dev	Std Error
HPCGT500	1	1.00000000	.	.
HPCLT500	0	.	.	.

Variances	T	DF	Prob> T	
Unequal	.	.	.	
Equal	.	.	.	

NOTE: All values are the same for one CLASS level.

UNSAFE HPC GT 500 VS UNSAFE HPC LT 501
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 TTEST PROCEDURE

Variable: RAIN_N

CLASS	N	Mean	Std Dev	Std Error
HPCGT500	28	1.92857143	0.93999887	0.17764309
HPCLT500	13	1.76923077	1.01273937	0.28088336

Variances	T	DF	Prob> T
Unequal	0.4794	22.0	0.6364
Equal	0.4930	39.0	0.6248

For H0: Variances are equal, F' = 1.16 DF = (12,27) Prob>F' = 0.7145

Variable: USE_N

CLASS	N	Mean	Std Dev	Std Error
HPCGT500	31	2.45161290	1.58826341	0.28526053
HPCLT500	14	2.50000000	1.55662356	0.41602515

Variances	T	DF	Prob> T
Unequal	-0.0959	25.6	0.9243
Equal	-0.0952	43.0	0.9246

For H0: Variances are equal, F' = 1.04 DF = (30,13) Prob>F' = 0.9824

Variable: SURF_N

CLASS	N	Mean	Std Dev	Std Error
HPCGT500	31	1.96774194	0.17960530	0.03225806
HPCLT500	14	1.92857143	0.26726124	0.07142857

Variances	T	DF	Prob> T
Unequal	0.4998	18.5	0.6231
Equal	0.5793	43.0	0.5654

For H0: Variances are equal, F' = 2.21 DF = (13,30) Prob>F' = 0.0712

UNSAFE HPC GT 500 VS UNSAFE HPC LT 501
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 TTEST PROCEDURE

Variable: DAY_N

CLASS	N	Mean	Std Dev	Std Error
HPCGT500	31	2.54838710	0.96051062	0.17251280
HPCLT500	14	2.07142857	0.73004591	0.19511298

Variances	T	DF	Prob> T
Unequal	1.8313	32.6	0.0762
Equal	1.6511	43.0	0.1060

For H0: Variances are equal, F' = 1.73 DF = (30,13) Prob>F' = 0.2954

Variable: TUR_N

CLASS	N	Mean	Std Dev	Std Error
HPCGT500	28	1.28571429	1.04906106	0.19825390
HPCLT500	14	1.00000000	0.00000000	0.00000000

Variances	T	DF	Prob> T
Unequal	1.4412	27.0	0.1610
Equal	1.0127	40.0	0.3173

NOTE: All values are the same for one CLASS level.

Variable: CL2_N

CLASS	N	Mean	Std Dev	Std Error
HPCGT500	30	4.56666667	1.65432210	0.30203651
HPCLT500	14	5.50000000	1.09192843	0.29183015

Variances	T	DF	Prob> T
Unequal	-2.2223	36.8	0.0325
Equal	-1.9187	42.0	0.0618

For H0: Variances are equal, F' = 2.30 DF = (29,13) Prob>F' = 0.1154

UNSAFE HPC GT 500 VS UNSAFE HPC LT 501
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 TTEST PROCEDURE

Variable: FCOND_N

CLASS	N	Mean	Std Dev	Std Error
HPCGT500	31	1.54838710	0.62389688	0.11205519
HPCLT500	14	1.71428571	0.82542031	0.22060286

Variances	T	DF	Prob> T	
Unequal	-0.6705	20.0	0.5102	
Equal	-0.7455	43.0	0.4600	

For H0: Variances are equal, F' = 1.75 DF = (13,30) Prob>F' = 0.2015

Variable: OFLO_N

CLASS	N	Mean	Std Dev	Std Error
HPCGT500	31	1.16129032	0.37387825	0.06715052
HPCLT500	14	1.07142857	0.26726124	0.07142857

Variances	T	DF	Prob> T	
Unequal	0.9166	34.5	0.3657	
Equal	0.8086	43.0	0.4232	

For H0: Variances are equal, F' = 1.96 DF = (30,13) Prob>F' = 0.2002

Variable: BK_N

CLASS	N	Mean	Std Dev	Std Error
HPCGT500	31	1.45161290	0.62389688	0.11205519
HPCLT500	14	1.42857143	0.75592895	0.20203051

Variances	T	DF	Prob> T	
Unequal	0.0997	21.4	0.9215	
Equal	0.1073	43.0	0.9150	

For H0: Variances are equal, F' = 1.47 DF = (13,30) Prob>F' = 0.3744

UNSAFE HPC GT 500 VS UNSAFE HPC LT 501
 10:48 Wednesday, February 9, 1994 13
 TTEST PROCEDURE

Variable: YL_N

CLASS	N	Mean	Std Dev	Std Error
HPCGT500	31	1.03225806	0.17960530	0.03225806
HPCLT500	14	1.28571429	0.61124985	0.16336339

Variances	T	DF	Prob> T	
Unequal	-1.5221	14.0	0.1502	
Equal	-2.1386	43.0	0.0382	

For H0: Variances are equal, F' = 11.58 DF = (13,30) Prob>F' = 0.0000

Variable: GN_N

CLASS	N	Mean	Std Dev	Std Error
HPCGT500	31	1.00000000	0	0
HPCLT500	14	1.00000000	0	0

Variances	T	DF	Prob> T	
Unequal	.	.	.	
Equal	.	.	.	

NOTE: All values are the same for one CLASS level.

Variable: PK_N

CLASS	N	Mean	Std Dev	Std Error
HPCGT500	31	1.00000000	0	0
HPCLT500	14	1.00000000	0	0

Variances	T	DF	Prob> T	
Unequal	.	.	.	
Equal	.	.	.	

NOTE: All values are the same for one CLASS level.

Appendix MM

Results of the T Tests of the Means of the Variables for the SAT FLCODE-201 and SAT OSTCODE-101 Pools Categories

Note:

Refer to Appendix FF for:

**Definition of the SAT Pool Categories
Definition of the UNSAT Pool Categories
Definition of Algae Pool Categories
Interpretation of T Test Data**

FLORIDA VS OTHER STATE CODES
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TTEST PROCEDURE

Variable: CL2FREE

CLASS	N	Mean	Std Dev	Std Error
FLORIDA	201	3.27114428	1.33407765	0.09409858
OTHSTATE	101	2.08910891	0.68321314	0.06798225

Variances	T	DF	Prob> T
Unequal	10.1823	299.9	0.0001
Equal	8.3655	300.0	0.0000

For H0: Variances are equal, $F' = 3.81$ DF = (200,100) Prob>F' = **0.0000**

Variable: CL2TOT

CLASS	N	Mean	Std Dev	Std Error
FLORIDA	201	3.31144279	1.29140172	0.09108845
OTHSTATE	101	2.16435644	0.64429561	0.06410981

Variances	T	DF	Prob> T
Unequal	10.2982	300.0	0.0001
Equal	8.4113	300.0	0.0000

For H0: Variances are equal, $F' = 4.02$ DF = (200,100) Prob>F' = **0.0000**

Variable: PH

CLASS	N	Mean	Std Dev	Std Error
FLORIDA	201	7.56517413	0.16149642	0.01139108
OTHSTATE	101	7.56336634	0.15857035	0.01577834

Variances	T	DF	Prob> T
Unequal	0.0929	203.7	0.9261
Equal	0.0923	300.0	0.9265

For H0: Variances are equal, $F' = 1.04$ DF = (200,100) Prob>F' = 0.8485

FLORIDA VS OTHER STATE CODES
8:47 Friday, July 29, 1994 17
TTEST PROCEDURE

Variable: ALK

CLASS	N	Mean	Std Dev	Std Error
FLORIDA	201	96.14427861	32.34476897	2.28142410
OTHSTATE	101	95.59405941	31.45065284	3.12945692

Variances	T	DF	Prob> T
Unequal	0.1421	205.5	0.8872
Equal	0.1408	300.0	0.8882

For H0: Variances are equal, F' = 1.06 DF = (200,100) Prob>F' = 0.7620

Variable: CYN

CLASS	N	Mean	Std Dev	Std Error
FLORIDA	201	44.42786070	32.79551829	2.31321750
OTHSTATE	101	37.42574257	31.53263279	3.13761423

Variances	T	DF	Prob> T
Unequal	1.7963	207.6	0.0739
Equal	1.7730	300.0	0.0772

For H0: Variances are equal, F' = 1.08 DF = (200,100) Prob>F' = 0.6662

Variable: TEMP

CLASS	N	Mean	Std Dev	Std Error
FLORIDA	184	82.32065217	4.44522309	0.32770619
OTHSTATE	89	82.19101124	4.72631993	0.50098891

Variances	T	DF	Prob> T
Unequal	0.2166	164.9	0.8288
Equal	0.2212	271.0	0.8251

For H0: Variances are equal, F' = 1.13 DF = (88,183) Prob>F' = 0.4882

FLORIDA VS OTHER STATE CODES
8:47 Friday, July 29, 1994 18
TTEST PROCEDURE

Variable: VOLUME

CLASS	N	Mean	Std Dev	Std Error
FLORIDA	201	35055.46268657	21266.02356977	1499.98964917
OTHSTATE	101	37108.52475248	25232.34019531	2510.71168904

Variances	T	DF	Prob> T
Unequal	-0.7020	173.1	0.4836
Equal	-0.7427	300.0	0.4583

For H0: Variances are equal, F' = 1.41 DF = (100,200) Prob>F' = 0.0430

Variable: INW

CLASS	N	Mean	Std Dev	Std Error
FLORIDA	200	1.02000000	1.96696333	0.13908531
OTHSTATE	100	1.12000000	2.35393502	0.23539350

Variances	T	DF	Prob> T
Unequal	-0.3657	169.9	0.7150
Equal	-0.3882	298.0	0.6982

For H0: Variances are equal, F' = 1.43 DF = (99,199) Prob>F' = 0.0342

Variable: CU

CLASS	N	Mean	Std Dev	Std Error
FLORIDA	190	0.21026316	0.16614978	0.01205377
OTHSTATE	95	0.22000000	0.17156972	0.01760268

Variances	T	DF	Prob> T
Unequal	-0.4564	182.8	0.6486
Equal	-0.4613	283.0	0.6449

For H0: Variances are equal, F' = 1.07 DF = (94,189) Prob>F' = 0.7037

FLORIDA VS OTHER STATE CODES
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TTEST PROCEDURE

Variable: NIT

CLASS	N	Mean	Std Dev	Std Error
FLORIDA	186	20.99462366	16.30536218	1.19556716
OTHSTATE	92	21.68478261	17.57491303	1.83231135

Variances	T	DF	Prob> T
Unequal	-0.3154	169.8	0.7528
Equal	-0.3236	276.0	0.7465

For H0: Variances are equal, F' = 1.16 DF = (91,185) Prob>F' = 0.3932

Variable: TDS

CLASS	N	Mean	Std Dev	Std Error
FLORIDA	201	1651.70149254	1177.41298636	83.04830880
OTHSTATE	101	1698.83168317	1242.62831184	123.64613839

Variances	T	DF	Prob> T
Unequal	-0.3164	191.1	0.7520
Equal	-0.3221	300.0	0.7476

For H0: Variances are equal, F' = 1.11 DF = (100,200) Prob>F' = 0.5194

Variable: HARD

CLASS	N	Mean	Std Dev	Std Error
FLORIDA	192	315.31250000	141.65959586	10.22340073
OTHSTATE	95	325.89473684	140.11389544	14.37538235

Variances	T	DF	Prob> T
Unequal	-0.5999	189.3	0.5493
Equal	-0.5977	285.0	0.5505

For H0: Variances are equal, F' = 1.02 DF = (191,94) Prob>F' = 0.9183

FLORIDA VS OTHER STATE CODES
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TTEST PROCEDURE

Variable: HPC

CLASS	N	Mean	Std Dev	Std Error
FLORIDA	201	925.93532338	4906.07582400	346.04790735
OTHSTATE	101	1067.20792079	5356.04462326	532.94635926

Variances	T	DF	Prob> T
Unequal	-0.2223	185.6	0.8243
Equal	-0.2289	300.0	0.8191

For H0: Variances are equal, F' = 1.19 DF = (100,200) Prob>F' = 0.2983

Variable: TCOLI

CLASS	N	Mean	Std Dev	Std Error
FLORIDA	201	2.24875622	18.08473973	1.27559919
OTHSTATE	101	2.40594059	15.93811671	1.58590189

Variances	T	DF	Prob> T
Unequal	-0.0772	224.3	0.9385
Equal	-0.0741	300.0	0.9410

For H0: Variances are equal, F' = 1.29 DF = (200,100) Prob>F' = 0.1569

Variable: FCOLI

CLASS	N	Mean	Std Dev	Std Error
FLORIDA	201	0.29850746	2.20237321	0.15534343
OTHSTATE	101	0.35643564	2.10990122	0.20994302

Variances	T	DF	Prob> T
Unequal	-0.2218	208.3	0.8247
Equal	-0.2187	300.0	0.8271

For H0: Variances are equal, F' = 1.09 DF = (200,100) Prob>F' = 0.6364

FLORIDA VS OTHER STATE CODES
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TTEST PROCEDURE

Variable: NCOLI

CLASS	N	Mean	Std Dev	Std Error
FLORIDA	201	37.06965174	73.77272616	5.20352690
OTHSTATE	101	34.16831683	70.92292567	7.05709487

Variances	T	DF	Prob> T
Unequal	0.3309	207.6	0.7411
Equal	0.3266	300.0	0.7442

For H0: Variances are equal, F' = 1.08 DF = (200,100) Prob>F' = 0.6652

Variable: PSEUD

CLASS	N	Mean	Std Dev	Std Error
FLORIDA	9	0	0	0
OTHSTATE	3	0	0	0

Variances	T	DF	Prob> T
Unequal	.	.	.
Equal	.	.	.

NOTE: All values are the same for one CLASS level.

Variable: TSTAPH

CLASS	N	Mean	Std Dev	Std Error
FLORIDA	9	1.88888889	0.33333333	0.11111111
OTHSTATE	3	2.00000000	0.00000000	0.00000000

Variances	T	DF	Prob> T
Unequal	-1.0000	8.0	0.3466
Equal	-0.5590	10.0	0.5884

NOTE: All values are the same for one CLASS level.

FLORIDA VS OTHER STATE CODES
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TTEST PROCEDURE

Variable: FSTREP

CLASS	N	Mean	Std Dev	Std Error
FLORIDA	9	0.11111111	0.33333333	0.11111111
OTHSTATE	3	0.00000000	0.00000000	0.00000000

Variances	T	DF	Prob> T
Unequal	1.0000	8.0	0.3466
Equal	0.5590	10.0	0.5884

NOTE: All values are the same for one CLASS level.

Variable: ION_N

CLASS	N	Mean	Std Dev	Std Error
FLORIDA	5	1.20000000	0.44721360	0.20000000
OTHSTATE	2	1.50000000	0.70710678	0.50000000

Variances	T	DF	Prob> T
Unequal	-0.5571	1.3	0.6620
Equal	-0.7032	5.0	0.5133

For H0: Variances are equal, F' = 2.50 DF = (1,4) Prob>F' = 0.3780

Variable: RAIN_N

CLASS	N	Mean	Std Dev	Std Error
FLORIDA	178	1.81460674	0.95338239	0.07145903
OTHSTATE	90	1.83333333	0.95104910	0.10024938

Variances	T	DF	Prob> T
Unequal	-0.1521	179.2	0.8793
Equal	-0.1520	266.0	0.8793

For H0: Variances are equal, F' = 1.00 DF = (177,89) Prob>F' = 0.9950

FLORIDA VS OTHER STATE CODES
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 TTEST PROCEDURE

Variable: USE_N

CLASS	N	Mean	Std Dev	Std Error
FLORIDA	201	2.24378109	1.52160232	0.10732555
OTHSTATE	101	2.36633663	1.48810465	0.14807195

Variances	T	DF	Prob> T
Unequal	-0.6702	204.5	0.5035
Equal	-0.6652	300.0	0.5064

For H0: Variances are equal, F' = 1.05 DF = (200,100) Prob>F' = 0.8129

Variable: SURF_N

CLASS	N	Mean	Std Dev	Std Error
FLORIDA	201	1.94527363	0.22801327	0.01608282
OTHSTATE	101	1.90099010	0.30016497	0.02986753

Variances	T	DF	Prob> T
Unequal	1.3054	159.7	0.1936
Equal	1.4275	300.0	0.1545

For H0: Variances are equal, F' = 1.73 DF = (100,200) Prob>F' = 0.0011

Variable: TUR_N

CLASS	N	Mean	Std Dev	Std Error
FLORIDA	191	1.07853403	0.46916493	0.03394758
OTHSTATE	95	1.09473684	0.58480192	0.05999941

Variances	T	DF	Prob> T
Unequal	-0.2350	155.9	0.8145
Equal	-0.2529	284.0	0.8005

For H0: Variances are equal, F' = 1.55 DF = (94,190) Prob>F' = 0.0111

FLORIDA VS OTHER STATE CODES
8:47 Friday, July 29, 1994 24
TTEST PROCEDURE

Variable: CL2_N

CLASS	N	Mean	Std Dev	Std Error
FLORIDA	195	3.95384615	1.85086301	0.13254305
OTHSTATE	98	3.96938776	1.86367380	0.18825948

Variances	T	DF	Prob> T
Unequal	-0.0675	193.3	0.9463
Equal	-0.0677	291.0	0.9461

For H0: Variances are equal, F' = 1.01 DF = (97,194) Prob>F' = 0.9220

Variable: FCOND_N

CLASS	N	Mean	Std Dev	Std Error
FLORIDA	200	1.42000000	0.60450570	0.04274501
OTHSTATE	100	1.37000000	0.54411452	0.05441145

Variances	T	DF	Prob> T
Unequal	0.7226	217.7	0.4707
Equal	0.6977	298.0	0.4859

For H0: Variances are equal, F' = 1.23 DF = (199,99) Prob>F' = 0.2405

Variable: OFLO_N

CLASS	N	Mean	Std Dev	Std Error
FLORIDA	199	1.04522613	0.20832382	0.01476768
OTHSTATE	99	1.03030303	0.17229220	0.01731602

Variances	T	DF	Prob> T
Unequal	0.6557	231.7	0.5126
Equal	0.6155	296.0	0.5387

For H0: Variances are equal, F' = 1.46 DF = (198,98) Prob>F' = 0.0357

FLORIDA VS OTHER STATE CODES
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TTEST PROCEDURE

Variable: BK_N

CLASS	N	Mean	Std Dev	Std Error
FLORIDA	201	1.49751244	0.75580671	0.05331049
OTHSTATE	101	1.46534653	0.75583538	0.07520843

Variances	T	DF	Prob> T
Unequal	0.3489	200.4	0.7275
Equal	0.3489	300.0	0.7274

For H0: Variances are equal, F' = 1.00 DF = (100,200) Prob>F' = 0.9843

Variable: YL_N

CLASS	N	Mean	Std Dev	Std Error
FLORIDA	201	1.07462687	0.33076122	0.02333010
OTHSTATE	101	1.06930693	0.35376336	0.03520077

Variances	T	DF	Prob> T
Unequal	0.1260	188.9	0.8999
Equal	0.1288	300.0	0.8976

For H0: Variances are equal, F' = 1.14 DF = (100,200) Prob>F' = 0.4238

Variable: GN_N

CLASS	N	Mean	Std Dev	Std Error
FLORIDA	201	1.00497512	0.07053456	0.00497512
OTHSTATE	101	1.00990099	0.09950372	0.00990099

Variances	T	DF	Prob> T
Unequal	-0.4445	152.0	0.6573
Equal	-0.4965	300.0	0.6199

For H0: Variances are equal, F' = 1.99 DF = (100,200) Prob>F' = 0.0000

FLORIDA VS OTHER STATE CODES
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 TTEST PROCEDURE

Variable: PK_N

CLASS	N	Mean	Std Dev	Std Error
FLORIDA	201	1.00497512	0.07053456	0.00497512
OTHSTATE	101	1.00990099	0.09950372	0.00990099

Variances	T	DF	Prob> T
Unequal	-0.4445	152.0	0.6573
Equal	-0.4965	300.0	0.6199

For H0: Variances are equal, F' = 1.99 DF = (100,200) Prob>F' = 0.0000

Appendix NN

Results of the T Tests of the Means of the Variables for the SAT 1-3CL2-135 and SAT 3.1-5CL2-157 Pools Categories

Note:

Refer to Appendix FF for:

**Definition of the SAT Pool Categories
Definition of the UNSAT Pool Categories
Definition of Algae Pool Categories
Interpretation of T Test Data**

1-3 VS 3-5 PPM FREE CL2
 9:29 Friday, February 4, 1994 1
 TTEST PROCEDURE

Variable: CL2FREE

CLASS	N	Mean	Std Dev	Std Error
FRCL1-3	135	2.13555556	0.68157704	0.05866081
FRCL3-5	157	4.50955414	0.52645201	0.04201544

Variances	T	DF	Prob> T
Unequal	-32.9012	250.2	0.0001
Equal	-33.5359	290.0	0.0000

For H0: Variances are equal, F' = 1.68 DF = (134,156) Prob>F' = **0.0019**

Variable: CL2TOT

CLASS	N	Mean	Std Dev	Std Error
FRCL1-3	135	2.24000000	0.80901636	0.06962904
FRCL3-5	157	4.49299363	0.61133677	0.04878999

Variances	T	DF	Prob> T
Unequal	-26.4991	246.8	0.0001
Equal	-27.0519	290.0	0.0000

For H0: Variances are equal, F' = 1.75 DF = (134,156) Prob>F' = **0.0008**

Variable: PH

CLASS	N	Mean	Std Dev	Std Error
FRCL1-3	135	7.60888889	0.23130605	0.01990765
FRCL3-5	157	7.55732484	0.24237178	0.01934337

Variances	T	DF	Prob> T
Unequal	1.8577	286.8	0.0642
Equal	1.8511	290.0	0.0652

For H0: Variances are equal, F' = 1.10 DF = (156,134) Prob>F' = 0.5788

1-3 VS 3-5 PPM FREE CL2
 9:29 Friday, February 4, 1994 2
 TTEST PROCEDURE

Variable: ALK

CLASS	N	Mean	Std Dev	Std Error
FRCL1-3	135	104.07407407	35.11805880	3.02248126
FRCL3-5	156	99.58333333	32.92689034	2.63626108

Variances	T	DF	Prob> T
Unequal	1.1197	276.9	0.2638
Equal	1.1249	289.0	0.2616

For H0: Variances are equal, F' = 1.14 DF = (134,155) Prob>F' = 0.4377

Variable: CYN

CLASS	N	Mean	Std Dev	Std Error
FRCL1-3	135	70.88888889	98.13154944	8.44581904
FRCL3-5	157	93.37579618	77.02858394	6.14755026

Variances	T	DF	Prob> T
Unequal	-2.1526	252.7	0.0323
Equal	-2.1916	290.0	0.0292

For H0: Variances are equal, F' = 1.62 DF = (134,156) Prob>F' = **0.0036**

Variable: TEMP

CLASS	N	Mean	Std Dev	Std Error
FRCL1-3	119	81.88235294	5.07265262	0.46500930
FRCL3-5	148	82.37837838	5.13677604	0.42224039

Variances	T	DF	Prob> T
Unequal	-0.7897	254.1	0.4304
Equal	-0.7886	265.0	0.4310

For H0: Variances are equal, F' = 1.03 DF = (147,118) Prob>F' = 0.8910

1-3 VS 3-5 PPM FREE CL2
 9:29 Friday, February 4, 1994 3
 TTEST PROCEDURE

Variable: VOLUME

CLASS	N	Mean	Std Dev	Std Error
FRCL1-3	135	34591.97037037	21655.54501116	1863.81255958
FRCL3-5	157	31162.41401274	14297.21999158	1141.04237596

Variances	T	DF	Prob> T
Unequal	1.5693	226.0	0.1180
Equal	1.6167	290.0	0.1070

For H0: Variances are equal, F' = 2.29 DF = (134,156) Prob>F' = 0.0000

Variable: INW

CLASS	N	Mean	Std Dev	Std Error
FRCL1-3	134	0.85820896	1.69098888	0.14607919
FRCL3-5	157	1.03184713	1.81666213	0.14498542

Variances	T	DF	Prob> T
Unequal	-0.8437	286.8	0.3996
Equal	-0.8389	289.0	0.4022

For H0: Variances are equal, F' = 1.15 DF = (156,133) Prob>F' = 0.3947

Variable: CU

CLASS	N	Mean	Std Dev	Std Error
FRCL1-3	123	0.22967480	0.18071323	0.01629436
FRCL3-5	153	0.21928105	0.18282543	0.01478056

Variances	T	DF	Prob> T
Unequal	0.4725	262.6	0.6370
Equal	0.4719	274.0	0.6374

For H0: Variances are equal, F' = 1.02 DF = (152,122) Prob>F' = 0.8977

1-3 VS 3-5 PPM FREE CL2
 9:29 Friday, February 4, 1994 4
 TTEST PROCEDURE

Variable: NIT

CLASS	N	Mean	Std Dev	Std Error
FRCL1-3	124	21.83064516	17.74192672	1.59327205
FRCL3-5	154	18.92857143	13.69752954	1.10377839

Variances	T	DF	Prob> T
Unequal	1.4973	227.3	0.1357
Equal	1.5389	276.0	0.1250

For H0: Variances are equal, F' = 1.68 DF = (123,153) Prob>F' = 0.0024

Variable: TDS

CLASS	N	Mean	Std Dev	Std Error
FRCL1-3	135	1753.37037037	1263.16731583	108.71613284
FRCL3-5	157	1626.70700637	1103.12936720	88.03930798

Variances	T	DF	Prob> T
Unequal	0.9054	268.3	0.3661
Equal	0.9147	290.0	0.3611

For H0: Variances are equal, F' = 1.31 DF = (134,156) Prob>F' = 0.1029

Variable: HARD

CLASS	N	Mean	Std Dev	Std Error
FRCL1-3	124	316.65322581	142.36207385	12.78449164
FRCL3-5	147	296.97278912	131.32824846	10.83177137

Variances	T	DF	Prob> T
Unequal	1.1745	253.1	0.2413
Equal	1.1826	269.0	0.2380

For H0: Variances are equal, F' = 1.18 DF = (123,146) Prob>F' = 0.3487

1-3 VS 3-5 PPM FREE CL2
 9:29 Friday, February 4, 1994 5
 TTEST PROCEDURE

Variable: HPC

CLASS	N	Mean	Std Dev	Std Error
FRCL1-3	135	15.21481481	41.40469819	3.56354903
FRCL3-5	157	8.38216561	11.39136821	0.90913016

Variances	T	DF	Prob> T
Unequal	1.8579	151.5	0.0651
Equal	1.9828	290.0	0.0483

For H0: Variances are equal, F' = 13.21 DF = (134,156) Prob>F' = **0.0000**

Variable: TCOLI

CLASS	N	Mean	Std Dev	Std Error
FRCL1-3	135	0.01481481	0.17213259	0.01481481
FRCL3-5	157	0.02547771	0.19444347	0.01551828

Variances	T	DF	Prob> T
Unequal	-0.4970	289.7	0.6196
Equal	-0.4925	290.0	0.6228

For H0: Variances are equal, F' = 1.28 DF = (156,134) Prob>F' = 0.1470

Variable: FCOLI

CLASS	N	Mean	Std Dev	Std Error
FRCL1 3	135	0	0	0
FRCL3-5	157	0	0	0

Variances	T	DF	Prob> T
Unequal	.	.	.
Equal	.	.	.

NOTE: All values are the same for one CLASS level.

1-3 VS 3-5 PPM FREE CL2
 9:29 Friday, February 4, 1994 6
 TTEST PROCEDURE

Variable: NCOLI

CLASS	N	Mean	Std Dev	Std Error
FRCL1-3	135	14.34074074	34.75203483	2.99097894
FRCL3-5	157	12.79617834	30.01382990	2.39536440

Variances	T	DF	Prob> T
Unequal	0.4031	266.8	0.6872
Equal	0.4075	290.0	0.6839

For H0: Variances are equal, $F' = 1.34$ DF = (134,156) Prob>F' = 0.0776

Variable: PSEUD

CLASS	N	Mean	Std Dev	Std Error
FRCL1-3	9	0.02222222	0.06666667	0.02222222
FRCL3-5	3	0.00000000	0.00000000	0.00000000

Variances	T	DF	Prob> T
Unequal	1.0000	8.0	0.3466
Equal	0.5590	10.0	0.5884

NOTE: All values are the same for one CLASS level.

Variable: TSTAPH

CLASS	N	Mean	Std Dev	Std Error
FRCL1-3	9	4.33333333	7.00000000	2.33333333
FRCL3-5	3	1.66666667	0.57735027	0.33333333

Variances	T	DF	Prob> T
Unequal	1.1314	8.3	0.2896
Equal	0.6383	10.0	0.5376

For H0: Variances are equal, $F' = 147.00$ DF = (8,2) Prob>F' = 0.0135

1-3 VS 3-5 PPM FREE CL2
 9:29 Friday, February 4, 1994 7
 TTEST PROCEDURE

Variable: FSTREP

CLASS	N	Mean	Std Dev	Std Error
FRCL1-3	9	0	0	0
FRCL3-5	3	0	0	0

Variiances	T	DF	Prob> T	
Unequal	.	.	.	
Equal	.	.	.	

NOTE: All values are the same for one CLASS level.

Variable: DATE

CLASS	N	Mean	Std Dev	Std Error
FRCL1-3	135	11951.80000000	32.92161654	2.83344161
FRCL3-5	157	11956.52866242	29.82632646	2.38040000

Variiances	T	DF	Prob> T	
Unequal	-1.2778	273.1	0.2024	
Equal	-1.2873	290.0	0.1990	

For H0: Variiances are equal, F' = 1.22 DF = (134,156) Prob>F' = 0.2342

Variable: ION_N

CLASS	N	Mean	Std Dev	Std Error
FRCL1-3	5	1.20000000	0.44721360	0.20000000
FRCL3-5	4	1.00000000	0.00000000	0.00000000

Variiances	T	DF	Prob> T	
Unequal	1.0000	4.0	0.3739	
Equal	0.8819	7.0	0.4071	

NOTE: All values are the same for one CLASS level.

1-3 VS 3-5 PPM FREE CL2
 9:29 Friday, February 4, 1994 8
 TTEST PROCEDURE

Variable: RAIN_N

CLASS	N	Mean	Std Dev	Std Error
FRCL1-3	118	1.85593220	0.98080225	0.09029017
FRCL3-5	139	1.81294964	0.98957131	0.08393434

Variiances	T	DF	Prob> T	

Unequal	0.3487	249.0	0.7276	
Equal	0.3484	255.0	0.7278	

For H0: Variances are equal, F' = 1.02 DF = (138,117) Prob>F' = 0.9243

Variable: USE_N

CLASS	N	Mean	Std Dev	Std Error
FRCL1-3	135	2.15555556	1.47043839	0.12655519
FRCL3-5	156	2.05128205	1.45821310	0.11675049

Variiances	T	DF	Prob> T	

Unequal	0.6056	282.3	0.5453	
Equal	0.6060	289.0	0.5450	

For H0: Variances are equal, F' = 1.02 DF = (134,155) Prob>F' = 0.9172

Variable: SURF_N

CLASS	N	Mean	Std Dev	Std Error
FRCL1-3	135	1.92592593	0.26286679	0.02262397
FRCL3-5	157	1.96815287	0.17615488	0.01405869

Variiances	T	DF	Prob> T	

Unequal	-1.5853	228.2	0.1143	
Equal	-1.6316	290.0	0.1039	

For H0: Variances are equal, F' = 2.23 DF = (134,156) Prob>F' = 0.0000

1-3 VS 3-5 PPM FREE CL2
 9:29 Friday, February 4, 1994 9
 TTEST PROCEDURE

Variable: DAY_N

CLASS	N	Mean	Std Dev	Std Error
FRCL1-3	135	2.31851852	0.92761813	0.07983666
FRCL3-5	157	2.51592357	0.98452836	0.07857392

Variances	T	DF	Prob> T	

Unequal	-1.7623	287.6	0.0791	
Equal	-1.7544	290.0	0.0804	

For H0: Variances are equal, F' = 1.13 DF = (156,134) Prob>F' = 0.4788

Variable: TUR_N

CLASS	N	Mean	Std Dev	Std Error
FRCL1-3	127	1.09448819	0.51072732	0.04531972
FRCL3-5	149	1.05369128	0.27960481	0.02290612

Variances	T	DF	Prob> T	

Unequal	0.8034	188.1	0.4228	
Equal	0.8388	274.0	0.4023	

For H0: Variances are equal, F' = 3.34 DF = (126,148) Prob>F' = 0.0000

Variable: CL2_N

CLASS	N	Mean	Std Dev	Std Error
FRCL1-3	133	4.27067669	1.88345194	0.16331600
FRCL3-5	153	4.36601307	1.84872514	0.14946057

Variances	T	DF	Prob> T	

Unequal	-0.4306	277.0	0.6671	
Equal	-0.4312	284.0	0.6666	

For H0: Variances are equal, F' = 1.04 DF = (132,152) Prob>F' = 0.8221

1-3 VS 3-5 PPM FREE CL2
 9:29 Friday, February 4, 1994 10
 TTEST PROCEDURE

Variable: FCOND_N

CLASS	N	Mean	Std Dev	Std Error
FRCL1-3	134	1.38059701	0.58547296	0.05057716
FRCL3-5	157	1.48407643	0.61607833	0.04916840

Variances	T	DF	Prob> T
Unequal	-1.4670	285.7	0.1435
Equal	-1.4611	289.0	0.1451

For H0: Variances are equal, F' = 1.11 DF = (156,133) Prob>F' = 0.5458

Variable: OFLO_N

CLASS	N	Mean	Std Dev	Std Error
FRCL1-3	133	1.06015038	0.23866416	0.02069481
FRCL3-5	156	1.04487179	0.20768924	0.01662845

Variances	T	DF	Prob> T
Unequal	0.5755	263.8	0.5654
Equal	0.5819	287.0	0.5611

For H0: Variances are equal, F' = 1.32 DF = (132,155) Prob>F' = 0.0959

Variable: BK_N

CLASS	N	Mean	Std Dev	Std Error
FRCL1-3	135	1.56296296	0.78803939	0.06782363
FRCL3-5	157	1.42038217	0.68056715	0.05431517

Variances	T	DF	Prob> T
Unequal	1.6409	266.7	0.1020
Equal	1.6591	290.0	0.0982

For H0: Variances are equal, F' = 1.34 DF = (134,156) Prob>F' = 0.0776

1-3 VS 3-5 PPM FREE CL2
 9:29 Friday, February 4, 1994 11
 TTEST PROCEDURE

Variable: YL_N

CLASS	N	Mean	Std Dev	Std Error
FRCL1-3	135	1.09629630	0.40286426	0.03467303
FRCL3-5	157	1.04458599	0.23599079	0.01883412

Variances	T	DF	Prob> T
Unequal	1.3105	209.1	0.1915
Equal	1.3599	290.0	0.1749

For H0: Variances are equal, F' = 2.91 DF = (134,156) Prob>F' = 0.0000

Variable: GN_N

CLASS	N	Mean	Std Dev	Std Error
FRCL1-3	135	1.04444444	0.320,13679	0.02755299
FRCL3-5	157	1.00000000	0.00000000	0.00000000

Variances	T	DF	Prob> T
Unequal	1.6131	134.0	0.1091
Equal	1.7400	290.0	0.0829

NOTE: All values are the same for one CLASS level.

Variable: PK_N

CLASS	N	Mean	Std Dev	Std Error
FRCL1-3	135	1.00740741	0.08606630	0.00740741
FRCL3-5	157	1.00000000	0.00000000	0.00000000

Variances	T	DF	Prob> T
Unequal	1.0000	134.0	0.3191
Equal	1.0787	290.0	0.2816

NOTE: All values are the same for one CLASS level.

Appendix OO

Results of the T Tests of the Means of the Variables for the SAT 1-5CL2-290 and SAT FLCODE-201 Pools Categories

Note:

Refer to Appendix FF for:

**Definition of the SAT Pool Categories
Definition of the UNSAT Pool Categories
Definition of Algae Pool Categories
Interpretation of T Test Data**

SAFE VS SAFE NO BACTERIA
 19:32 Wednesday, February 16, 1994 1
 TTEST PROCEDURE

Variable: CL2FREE

CLASS	N	Mean	Std Dev	Std Error
SAFE	290	3.40172414	1.32687047	0.07791652
SAFENOBA	201	3.27114428	1.33407765	0.09409858

Variances	T	DF	Prob> T
Unequal	1.0688	428.8	0.2857
Equal	1.0699	489.0	0.2852

For H0: Variances are equal, F' = 1.01 DF = (200,289) Prob>F' = 0.9274

Variable: CL2TOT

CLASS	N	Mean	Std Dev	Std Error
SAFE	290	3.44068966	1.32792715	0.07797857
SAFENOBA	201	3.31144279	1.29140172	0.09108845

Variances	T	DF	Prob> T
Unequal	1.0779	437.8	0.2817
Equal	1.0724	489.0	0.2840

For H0: Variances are equal, F' = 1.06 DF = (289,200) Prob>F' = 0.6747

Variable: PH

CLASS	N	Mean	Std Dev	Std Error
SAFE	290	7.58275862	0.23831729	0.01399447
SAFENOBA	201	7.56517413	0.16149642	0.01139108

Variances	T	DF	Prob> T
Unequal	0.9745	488.8	0.3303
Equal	0.9110	489.0	0.3628

For H0: Variances are equal, F' = 2.18 DF = (289,200) Prob>F' = 0.0000

SAFE VS SAFE NO BACTERIA
 19:32 Wednesday, February 16, 1994 2
 TTEST PROCEDURE

Variable: ALK

CLASS	N	Mean	Std Dev	Std Error
SAFE	289	101.74740484	34.10016702	2.00589218
SAFENOBA	201	96.14427861	32.34476897	2.28142410

Variances	T	DF	Prob> T
Unequal	1.8444	444.3	0.0658
Equal	1.8270	488.0	0.0683

For H0: Variances are equal, F' = 1.11 DF = (288,200) Prob>F' = 0.4234

Variable: CYN

CLASS	N	Mean	Std Dev	Std Error
SAFE	290	82.08620690	87.48134442	5.13708143
SAFENOBA	201	44.42786070	32.79551829	2.31321750

Variances	T	DF	Prob> T
Unequal	6.6843	394.6	0.0001
Equal	5.8244	489.0	0.0000

For H0: Variances are equal, F' = 7.12 DF = (289,200) Prob>F' = **0.0000**

Variable: TEMP

CLASS	N	Mean	Std Dev	Std Error
SAFE	266	82.13157895	5.10138521	0.31278600
SAFENOBA	184	82.32065217	4.44522309	0.32770619

Variances	T	DF	Prob> T
Unequal	-0.4174	424.8	0.6766
Equal	-0.4071	448.0	0.6842

For H0: Variances are equal, F' = 1.32 DF = (265,183) Prob>F' = 0.0460

SAFE VS SAFE NO BACTERIA
 19:32 Wednesday, February 16, 1994 3
 TTEST PROCEDURE

Variable: VOLUME

CLASS	N	Mean	Std Dev	Std Error
SAFE	290	32752.12068966	18129.63762874	1064.60897881
SAFENOBA	201	35055.46268657	21266.02356977	1499.98964917

Variances	T	DF	Prob> T
Unequal	-1.2522	384.7	0.2112
Equal	-1.2888	489.0	0.1981

For H0: Variances are equal, $F' = 1.38$ DF = (200,289) Prob>F' = 0.0132

Variable: INW

CLASS	N	Mean	Std Dev	Std Error
SAFE	289	0.93771626	1.74888744	0.10287573
SAFENOBA	200	1.02000000	1.96696333	0.13908531

Variances	T	DF	Prob> T
Unequal	-0.4756	394.7	0.6346
Equal	-0.4859	487.0	0.6273

For H0: Variances are equal, $F' = 1.26$ DF = (199,288) Prob>F' = 0.0688

Variable: CU

CLASS	N	Mean	Std Dev	Std Error
SAFE	274	0.22299270	0.18151929	0.01096598
SAFENOBA	190	0.21026316	0.16614978	0.01205377

Variances	T	DF	Prob> T
Unequal	0.7812	428.2	0.4351
Equal	0.7688	462.0	0.4424

For H0: Variances are equal, $F' = 1.19$ DF = (273,189) Prob>F' = 0.1920

SAFE VS SAFE NO BACTERIA
 19:32 Wednesday, February 16, 1994 4
 TTEST PROCEDURE

Variable: NIT

CLASS	N	Mean	Std Dev	Std Error
SAFE	276	20.11594203	15.70318901	0.94522090
SAFENOBA	186	20.99462366	16.30536218	1.19556716

Variances	T	DF	Prob> T
Unequal	-0.5765	386.9	0.5646
Equal	-0.5808	460.0	0.5617

For H0: Variances are equal, F' = 1.08 DF = (185,275) Prob>F' = 0.5693

Variable: TDS

CLASS	N	Mean	Std Dev	Std Error
SAFE	290	1680.51034483	1180.77165325	69.33729894
SAFENOBA	201	1651.70149254	1177.41298636	83.04830880

Variances	T	DF	Prob> T
Unequal	0.2663	431.1	0.7901
Equal	0.2661	489.0	0.7902

For H0: Variances are equal, F' = 1.01 DF = (289,200) Prob>F' = 0.9714

Variable: HARD

CLASS	N	Mean	Std Dev	Std Error
SAFE	270	305.81481481	136.88000797	8.33025200
SAFENOBA	192	315.31250000	141.65959586	10.22340073

Variances	T	DF	Prob> T
Unequal	-0.7202	402.8	0.4718
Equal	-0.7244	460.0	0.4692

For H0: Variances are equal, F' = 1.07 DF = (191,269) Prob>F' = 0.6024

SAFE VS SAFE NO BACTERIA
 19:32 Wednesday, February 16, 1994 5
 TTEST PROCEDURE

Variable: HPC

CLASS	N	Mean	Std Dev	Std Error
SAFE	290	11.38275862	29.55720006	1.73565855
SAFENOBA	201	925.93532338	4906.07582400	346.04790735

Variances	T	DF	Prob> T
Unequal	-2.6428	200.0	0.0089
Equal	-3.1758	489.0	0.0016

For H0: Variances are equal, F' = 9999.99 DF = (200,289) Prob>F' = **0.0001**

Variable: TCOLI

CLASS	N	Mean	Std Dev	Std Error
SAFE	290	0.00000000	0.00000000	0.00000000
SAFENOBA	201	2.24875622	18.08473973	1.27559919

Variances	T	DF	Prob> T
Unequal	-1.7629	200.0	0.0794
Equal	-2.1185	489.0	0.0346

NOTE: All values are the same for one CLASS level.

Variable: FCOLI

CLASS	N	Mean	Std Dev	Std Error
SAFE	290	0.05172414	0.82400016	0.04838696
SAFENOBA	201	0.29850746	2.20237321	0.15534343

Variances	T	DF	Prob> T
Unequal	-1.5168	239.1	0.1306
Equal	-1.7411	489.0	0.0823

For H0: Variances are equal, F' = 7.14 DF = (200,289) Prob>F' = 0.0000

SAFE VS SAFE NO BACTERIA
 19:32 Wednesday, February 16, 1994 6
 TTEST PROCEDURE

Variable: NCOLI

CLASS	N	Mean	Std Dev	Std Error
SAFE	290	12.83793103	30.69491481	1.80246746
SAFENOBA	201	37.06965174	73.77272616	5.20352690

Variances	T	DF	Prob> T
Unequal	-4.4003	248.4	0.0001
Equal	-5.0050	489.0	0.0000

For H0: Variances are equal, F' = 5.78 DF = (200,289) Prob>F' = **0.0000**

Variable: PSEUD

CLASS	N	Mean	Std Dev	Std Error
SAFE	12	0.01666667	0.05773503	0.01666667
SAFENOBA	9	0.00000000	0.00000000	0.00000000

Variances	T	DF	Prob> T
Unequal	1.0000	11.0	0.3388
Equal	0.8604	19.0	0.4003

NOTE: All values are the same for one CLASS level.

Variable: TSTAPH

CLASS	N	Mean	Std Dev	Std Error
SAFE	12	3.66666667	6.09520427	1.75953391
SAFENOBA	9	1.88888889	0.33333333	0.11111111

Variances	T	DF	Prob> T
Unequal	1.0084	11.1	0.3348
Equal	0.8684	19.0	0.3960

For H0: Variances are equal, F' = 334.36 DF = (11,8) Prob>F' = 0.0000

SAFE VS SAFE NO BACTERIA
 19:32 Wednesday, February 16, 1994 7
 TTEST PROCEDURE

Variable: FSTREP

CLASS	N	Mean	Std Dev	Std Error
SAFE	12	0.00000000	0.00000000	0.00000000
SAFENOBA	9	0.11111111	0.33333333	0.11111111

Variances	T	DF	Prob> T	
Unequal	-1.0000	8.0	0.3466	
Equal	-1.1650	19.0	0.2585	

NOTE: All values are the same for one CLASS level.

Variable: DATE

CLASS	N	Mean	Std Dev	Std Error
SAFE	290	11954.54482759	31.32074924	1.83921772
SAFENOBA	201	11954.22388060	31.67435282	2.23413659

Variances	T	DF	Prob> T	
Unequal	0.1109	427.2	0.9117	
Equal	0.1111	489.0	0.9116	

For H0: Variances are equal, F' = 1.02 DF = (200,289) Prob>F' = 0.8568

Variable: CYA

CLASS	N	Mean	Std Dev	Std Error
SAFE	0	.	.	.
SAFENOBA	0	.	.	.

Variances	T	DF	Prob> T	
Unequal	.	.	.	
Equal	.	.	.	

NOTE: All values are the same for one CLASS level.

SAFE VS SAFE NO BACTERIA
 19:32 Wednesday, February 16, 1994 8
 TTEST PROCEDURE

Variable: ION_N

CLASS	N	Mean	Std Dev	Std Error
SAFE	9	1.11111111	0.33333333	0.11111111
SAFENOBA	5	1.20000000	0.44721360	0.20000000

Variances	T	DF	Prob> T
Unequal	-0.3885	6.5	0.7100
Equal	-0.4248	12.0	0.6785

For H0: Variances are equal, F' = 1.80 DF = (4,8) Prob>F' = 0.4442

Variable: RAIN_N

CLASS	N	Mean	Std Dev	Std Error
SAFE	255	1.82745098	0.98494143	0.06167942
SAFENOBA	178	1.81460674	0.95338239	0.07145903

Variances	T	DF	Prob> T
Unequal	0.1361	388.7	0.8918
Equal	0.1353	431.0	0.8925

For H0: Variances are equal, F' = 1.07 DP = (254,177) Prob>F' = 0.6451

Variable: USE_N

CLASS	N	Mean	Std Dev	Std Error
SAFE	289	2.11418685	1.47576703	0.08680983
SAFENOBA	201	2.24378109	1.52160232	0.10732555

Variances	T	DF	Prob> T
Unequal	-0.9388	421.9	0.3484
Equal	-0.9440	488.0	0.3456

For H0: Variances are equal, F' = 1.06 DF = (200,288) Prob>F' = 0.6326

SAFE VS SAFE NO BACTERIA
 19:32 Wednesday, February 16, 1994 9
 TTEST PROCEDURE

Variable: SURF_N

CLASS	N	Mean	Std Dev	Std Error
SAFE	290	1.94827586	0.22185236	0.01302762
SAFENOBA	201	1.94527363	0.22801327	0.01608282

Variances	T	DF	Prob> T
Unequal	0.1451	422.6	0.8847
Equal	0.1458	489.0	0.8842

For H0: Variances are equal, F' = 1.06 DF = (200,289) Prob>F' = 0.6677

Variable: DAY_N

CLASS	N	Mean	Std Dev	Std Error
SAFE	290	2.42068966	0.95699187	0.05619650
SAFENOBA	201	2.37810945	0.86966569	0.06134149

Variances	T	DF	Prob> T
Unequal	0.5118	454.9	0.6090
Equal	0.5030	489.0	0.6152

For H0: Variances are equal, F' = 1.21 DF = (289,200) Prob>F' = 0.1464

Variable: TUR_N

CLASS	N	Mean	Std Dev	Std Error
SAFE	275	1.07272727	0.40320547	0.02431420
SAFENOBA	191	1.07853403	0.46916493	0.03394758

Variances	T	DF	Prob> T
Unequal	-0.1391	367.8	0.8895
Equal	-0.1429	464.0	0.8864

For H0: Variances are equal, F' = 1.35 DF = (190,274) Prob>F' = 0.0219

SAFE VS SAFE NO BACTERIA
 19:32 Wednesday, February 16, 1994 10
 TTEST PROCEDURE

Variable: CL2_N

CLASS	N	Mean	Std Dev	Std Error
SAFE	284	4.31338028	1.86573071	0.11071075
SAFENOBA		3.95384615	1.85086301	0.13254305

Variances	T	DF	Prob> T
Unequal	2.0819	419.2	0.0380
Equal	2.0788	477.0	0.0382

For H0: Variances are equal, F' = 1.02 DF = (283,194) Prob>F' = 0.9100

Variable: FCOND_N

CLASS	N	Mean	Std Dev	Std Error
SAFE	289	1.43252595	0.60361830	0.03550696
SAFENOBA	200	1.42000000	0.60450570	0.04274501

Variances	T	DF	Prob> T
Unequal	0.2254	427.7	0.8218
Equal	0.2255	487.0	0.8217

For H0: Variances are equal, F' = 1.00 DF = (199,288) Prob>F' = 0.9757

Variable: OFLO_N

CLASS	N	Mean	Std Dev	Std Error
SAFE	287	1.05574913	0.22983739	0.01356687
SAFENOBA	199	1.04522613	0.20832382	0.01476768

Variances	T	DF	Prob> T
Unequal	0.5247	450.9	0.6000
Equal	0.5155	484.0	0.6064

For H0: Variances are equal, F' = 1.22 DF = (286,198) Prob>F' = 0.1379

SAFE VS SAFE NO BACTERIA
 19:32 Wednesday, February 16, 1994 11
 TTEST PROCEDURE

Variable: BK_N

CLASS	N	Mean	Std Dev	Std Error
SAFE	290	1.50000000	0.74056931	0.04348773
SAFENOBA	201	1.49751244	0.75580671	0.05331049

Variances	T	DF	Prob> T
Unequal	0.0362	424.6	0.9712
Equal	0.0363	489.0	0.9711

For H0: Variances are equal, F' = 1.04 DF = (200,289) Prob>F' = 0.7481

Variable: YL_N

CLASS	N	Mean	Std Dev	Std Error
SAFE	290	1.07241379	0.33003780	0.01938049
SAFENOBA	201	1.07462687	0.33076122	0.02333010

Variances	T	DF	Prob> T
Unequal	-0.0730	429.7	0.9419
Equal	-0.0730	489.0	0.9418

For H0: Variances are equal, F' = 1.00 DF = (200,289) Prob>F' = 0.9669

Variable: GN_N

CLASS	N	Mean	Std Dev	Std Error
SAFE	290	1.02068966	0.21911952	0.01286714
SAFENOBA	201	1.00497512	0.07053456	0.00497512

Variances	T	DF	Prob> T
Unequal	1.1391	369.9	0.2554
Equal	0.9818	489.0	0.3267

For H0: Variances are equal, F' = 9.65 DF = (289,200) Prob>F' = 0.0000

SAFE VS SAFE NO BACTERIA
19:32 Wednesday, February 16, 1994 12
TTEST PROCEDURE

Variable: PK_N

CLASS	N	Mean	Std Dev	Std Error
SAFE	290	1.00344828	0.05872202	0.00344828
SAFENOBA	201	1.00497512	0.07053456	0.00497512

Variances	T	DF	Prob> T
Unequal	-0.2522	378.0	0.8010
Equal	-0.2607	489.0	0.7944

For H0: Variances are equal, F' = 1.44 DF = (200,289) Prob>F' = 0.0044

Appendix PP

Results of the T Tests of the Means of the Variables for the SAT 1-5CL2-290 and SAT OSTCODE-101 Pools Categories

Note:

Refer to Appendix FF for:

**Definition of the SAT Pool Categories
Definition of the UNSAT Pool Categories
Definition of Algae Pool Categories
Interpretation of T Test Data**

SAFE VS OTHER STATE CODES
 10:55 Tuesday, February 22, 1994 1
 TTEST PROCEDURE

Variable: CL2FREE

CLASS	N	Mean	Std Dev	Std Error
OTHSTATE	101	2.08910891	0.68321314	0.06798225
SAFE	290	3.40172414	1.32687047	0.07791652

Variances	T	DF	Prob> T
Unequal	-12.6939	335.2	0.0001
Equal	-9.5071	389.0	0.0000

For H0: Variances are equal, F' = 3.77 DF = (289,100) Prob>F' = **0.0000**

Variable: CL2TOT

CLASS	N	Mean	Std Dev	Std Error
OTHSTATE	101	2.16435644	0.64429561	0.06410981
SAFE	290	3.44.68966	1.32792715	0.07797857

Variances	T	DF	Prob> T
Unequal	-12.6433	349.8	0.0001
Equal	-9.2807	389.0	0.0000

For H0: Variances are equal, F' = 4.25 DF = (289,100) Prob>F' = **0.0000**

Variable: PH

CLASS	N	Mean	Std Dev	Std Error
OTHSTATE	101	7.56336634	0.15857035	0.01577834
SAFE	290	7.58275862	0.23831729	0.01399447

Variances	T	DF	Prob> T
Unequal	-0.9195	262.9	0.3587
Equal	-0.7609	389.0	0.4472

For H0: Variances are equal, F' = 2.26 DF = (289,100) Prob>F' = 0.0000

SAFE VS OTHER STATE CODES
 10:55 Tuesday, February 22, 1994 2
 TTEST PROCEDURE

Variable: ALK

CLASS	N	Mean	Std Dev	Std Error
OTHSTATE	101	95.59405941	31.45065284	3.12945692
SAFE	289	101.74740484	34.10016702	2.00589218

Variances	T	DF	Prob> T
Unequal	-1.6554	188.0	0.0995
Equal	-1.5920	388.0	0.1122

For H0: Variances are equal, F' = 1.18 DF = (288,100) Prob>F' = 0.3449

Variable: CYN

CLASS	N	Mean	Std Dev	Std Error
OTHSTATE	101	37.42574257	31.53263279	3.13761423
SAFE	290	82.08620690	87.48134442	5.13708143

Variances	T	DF	Prob> T
Unequal	-7.4193	388.6	0.0001
Equal	-5.0148	389.0	0.0000

For H0: Variances are equal, F' = 7.70 DF = (289,100) Prob>F' = **0.0000**

Variable: TEMP

CLASS	N	Mean	Std Dev	Std Error
OTHSTATE	89	82.19101124	4.72631993	0.50098891
SAFE	266	82.13157895	5.10138521	0.31278600

Variances	T	DF	Prob> T
Unequal	0.1006	161.8	0.9200
Equal	0.969	353.0	0.9229

For H0: Variances are equal, F' = 1.17 DF = (265,88) Prob>F' = 0.4032

SAFE VS OTHER STATE CODES
 10:55 Tuesday, February 22, 1994 3
 TTEST PROCEDURE

Variable: VOLUME

CLASS	N	Mean	Std Dev	Std Error
OTHSTATE	101	37108.52475248	25232.34019531	2510.71168904
SAFE	290	32752.12068966	18129.63762874	1064.60897881

Variances	T	DF	Prob> T
Unequal	1.5975	137.7	0.1125
Equal	1.8670	389.0	0.0627

For H0: Variances are equal, F' = 1.94 DF = (100,289) Prob>F' = 0.0000

Variable: INW

CLASS	N	Mean	Std Dev	Std Error
OTHSTATE	100	1.12000000	2.35393502	0.23539350
SAFE	289	0.93771626	1.74888744	0.10287573

Variances	T	DF	Prob> T
Unequal	0.7096	138.7	0.4792
Equal	0.8175	387.0	0.4141

For H0: Variances are equal, F' = 1.81 DF = (99,288) Prob>F' = 0.0001

Variable: CU

CLASS	N	Mean	Std Dev	Std Error
OTHSTATE	95	0.22000000	0.17156972	0.01760268
SAFE	274	0.22299270	0.18151929	0.01096598

Variances	T	DF	Prob> T
Unequal	-0.1443	172.2	0.8854
Equal	-0.1404	367.0	0.8884

For H0: Variances are equal, F' = 1.12 DF = (273,94) Prob>F' = 0.5274

SAFE VS OTHER STATE CODES
 10:55 Tuesday, February 22, 1994 4
 TTEST PROCEDURE

Variable: NIT

CLASS	N	Mean	Std Dev	Std Error
OTHSTATE	92	21.68478261	17.57491303	1.83231135
SAFE	276	20.11594203	15.70318901	0.94522090

Variances	T	DF	Prob> T
Unequal	0.7609	142.5	0.4480
Equal	0.8050	366.0	0.4213

For H0: Variances are equal, F' = 1.25 DF = (91,275) Prob>F' = 0.1714

Variable: TDS

CLASS	N	Mean	Std Dev	Std Error
OTHSTATE	101	1698.83168317	1242.62831184	123.64613839
SAFE	290	1680.51034483	1180.77165325	69.33729894

Variances	T	DF	Prob> T
Unequal	0.1292	167.1	0.8973
Equal	0.1325	389.0	0.8947

For H0: Variances are equal, F' = 1.11 DF = (100,289) Prob>F' = 0.5136

Variable: HARD

CLASS	N	Mean	Std Dev	Std Error
OTHSTATE	95	325.89473684	140.11389544	14.37538235
SAFE	270	305.81481481	136.88000797	8.33025200

Variances	T	DF	Prob> T
Unequal	1.2086	161.4	0.2286
Equal	1.2222	363.0	0.2224

For H0: Variances are equal, F' = 1.05 DF = (94,269) Prob>F' = 0.7615

SAFE VS OTHER STATE CODES
 10:55 Tuesday, February 22, 1994 5
 TTEST PROCEDURE

Variable: HPC

CLASS	N	Mean	Std Dev	Std Error
OTHSTATE	101	1067.20792079	5356.04462326	532.94635926
SAFE	290	11.38275862	29.55720006	1.73565855

Variances	T	DF	Prob> T
Unequal	1.9811	100.0	0.0503
Equal	3.3649	389.0	0.0008

For H0: Variances are equal, F' = 9999.99 DF = (100,289) Prob>F' = **0.0001**

Variable: TCOLI

CLASS	N	Mean	Std Dev	Std Error
OTHSTATE	101	2.40594059	15.93811671	1.58590189
SAFE	290	0.00000000	0.00000000	0.00000000

Variances	T	DF	Prob> T
Unequal	1.5171	100.0	0.1324
Equal	2.5769	389.0	0.0103

NOTE: All values are the same for one CLASS level.

Variable: FCOLI

CLASS	N	Mean	Std Dev	Std Error
OTHSTATE	101	0.3564j564	2.10990122	0.20994302
SAFE	290	0.05172414	0.82400016	0.04838696

Variances	T	DF	Prob> T
Unequal	1.4143	110.8	0.1601
Equal	2.0539	389.0	0.0407

For H0: Variances are equal, F' = 6.56 DF = (100,289) Prob>F' = **0.0000**

SAFE VS OTHER STATE CODES
 10:55 Tuesday, February 22, 1994 6
 TTEST PROCEDURE

Variable: NCOLI

CLASS	N	Mean	Std Dev	Std Error
OTHSTATE	101	34.16831683	70.92292567	7.05709487
SAFE	290	12.83793103	30.69491481	1.80246746

Variances	T	DF	Prob> T
Unequal	2.9285	113.3	0.0041
Equal	4.1353	389.0	0.0000

For H0: Variances are equal, $F' = 5.34$ DF = (100,289) Prob>F' = **0.0000**

Variable: PSEUD

CLASS	N	Mean	Std Dev	Std Error
OTHSTATE	3	0.00000000	0.00000000	0.00000000
SAFE	12	0.01666667	0.05773503	0.01666667

Variances	T	DF	Prob> T
Unequal	-1.0000	11.0	0.3388
Equal	-0.4862	13.0	0.6349

NOTE: All values are the same for one CLASS level.

Variable: TSTAPH

CLASS	N	Mean	Std Dev	Std Error
OTHSTATE	3	2.00000000	0.00000000	0.00000000
SAFE	12	3.66666667	6.09520427	1.75953391

Variances	T	DF	Prob> T
Unequal	-0.9472	11.0	0.3639
Equal	-0.4605	13.0	0.6528

NOTE: All values are the same for one CLASS level.

SAFE VS OTHER STATE CODES
 10:55 Tuesday, February 22, 1994 7
 TTEST PROCEDURE

Variable: FSTREP

CLASS	N	Mean	Std Dev	Std Error
OTHSTATE	3	0	0	0
SAFE	12	0	0	0

Variances	T	DF	Prob> T	
Unequal	.	.	.	
Equal	.	.	.	

NOTE: All values are the same for one CLASS level.

Variable: DATE

CLASS	N	Mean	Std Dev	Std Error
OTHSTATE	101	11949.89108911	32.46441159	3.23032969
SAFE	290	11954.54482759	31.32074924	1.83921772

Variances	T	DF	Prob> T	
Unequal	-1.2519	169.2	0.2123	
Equal	-1.2739	389.0	0.2035	

For H0: Variances are equal, $F' = 1.07$ DF = (100,289) Prob>F' = 0.6415

Variable: ION_N

CLASS	N	Mean	Std Dev	Std Error
OTHSTATE	2	1.50000000	0.70710678	0.50000000
SAFE	9		0.33333333	0.11111111

Variances	T	DF	Prob> T	
Unequal	0.7593	1.1	0.5806	
Equal	1.2663	9.0	0.2372	

For H0: Variances are equal, $F' = 4.50$ DF = (1,8) Prob>F' = 0.1334

SAFE VS OTHER STATE CODES
 10:55 Tuesday, February 22, 1994 8
 TTEST PROCEDURE

Variable: RAIN_N

CLASS	N	Mean	Std Dev	Std Error
OTHSTATE	90	1.83333333	0.95104910	0.10024938
SAFE	255	1.82745098	0.98494143	0.06167942

Variances	T	DF	Prob> T
Unequal	0.0500	161.0	0.9602
Equal	0.0491	343.0	0.9608

For H0: Variances are equal, F' = 1.07 DF = (254,89) Prob>F' = 0.7105

Variable: USE_N

CLASS	N	Mean	Std Dev	Std Error
OTHSTATE	101	2.36633663	1.48810465	0.14807195
SAFE	289	2.11418685	1.47576703	0.08680983

Variances	T	DF	Prob> T
Unequal	1.4690	173.4	0.1436
Equal	1.4750	388.0	0.1410

For H0: Variances are equal, F' = 1.02 DF = (100,288) Prob>F' = 0.8982

Variable: SURF_N

CLASS	N	Mean	Std Dev	Std Error
OTHSTATE	101	1.90099010	0.30016497	0.02986753
SAFE	290	1.94827586	0.22185236	0.01302762

Variances	T	DF	Prob> T
Unequal	-1.4511	139.9	0.1490
Equal	-1.6746	389.0	0.0948

For H0: Variances are equal, F' = 1.83 DF = (100,289) Prob>F' = 0.0001

SAFE VS OTHER STATE CODES
 10:55 Tuesday, February 22, 1994 9
 TTEST PROCEDURE

Variable: DAY_N

CLASS	N	Mean	Std Dev	Std Error
OTHSTATE	101	2.31683168	0.83583124	0.08316832
SAFE	290	2.42068966	0.95699187	0.05619650

Variances	T	DF	Prob> T
Unequal	-1.0347	197.9	0.3021
Equal	-0.9693	389.0	0.3330

For H0: Variances are equal, F' = 1.31 DF = (289,100) Prob>F' = 0.1132

Variable: TUR_N

CLASS	N	Mean	Std Dev	Std Error
OTHSTATE	95	1.09473684	0.58480192	0.05999941
SAFE	275	1.07272727	0.40320547	0.02431420

Variances	T	DF	Prob> T
Unequal	0.3400	126.2	0.7344
Equal	0.4051	368.0	0.6856

For H0: Variances are equal, F' = 2.10 DF = (94,274) Prob>F' = 0.0000

Variable: CL2_N

CLASS	N	Mean	Std Dev	Std Error
OTHSTATE	98	3.96938776	1.86367380	0.18825948
SAFE	284	4.31338028	1.86573071	0.11071075

Variances	T	DF	Prob> T
Unequal	-1.5751	168.8	0.1171
Equal	-1.5742	380.0	0.1163

For H0: Variances are equal, F' = 1.00 DF = (283,97) Prob>F' = 1.0000

SAFE VS OTHER STATE CODES
 10:55 Tuesday, February 22, 1994 10
 TTEST PROCEDURE

Variable: FCOND_N

CLASS	N	Mean	Std Dev	Std Error
OTHSTATE	100	1.37000000	0.54411452	0.05441145
SAFE	289	1.43252595	0.60361830	0.03550696

Variances	T	DF	Prob> T
Unequal	-0.9624	189.5	0.3371
Equal	-0.9150	387.0	0.3607

For H0: Variances are equal, $F' = 1.23$ DF = (288,99) Prob>F' = 0.2265

Variable: OFLO_N

CLASS	N	Mean	Std Dev	Std Error
OTHSTATE	99	1.03030303	0.17229220	0.01731602
SAFE	287	1.05574913	0.22983739	0.01356687

Variances	T	DF	Prob> T
Unequal	-1.1568	226.1	0.2486
Equal	-1.0079	384.0	0.3141

For H0: Variances are equal, $F' = 1.78$ DF = (286,98) Prob>F' = 0.0010

Variable: BK_N

CLASS	N	Mean	Std Dev	Std Error
OTHSTATE	101	1.46534653	0.75583538	0.07520843
SAFE	290	1.50000000	0.74056931	0.04348773

Variances	T	DF	Prob> T
Unequal	-0.3989	171.4	0.6905
Equal	-0.4028	389.0	0.6873

For H0: Variances are equal, $F' = 1.04$ DF = (100,289) Prob>F' = 0.7827

SAFE VS OTHER STATE CODES
 10:55 Tuesday, February 22, 1994 11
 TTEST PROCEDURE

Variable: YL_N

CLASS	N	Mean	Std Dev	Std Error
OTHSTATE	101	1.06930693	0.35376336	0.03520077
SAFE	290	1.07241379	0.33003780	0.01938049

Variances	T	DF	Prob> T
Unequal	-0.0773	164.6	0.9385
Equal	-0.0800	389.0	0.9363

For H0: Variances are equal, $F' = 1.15$ DF = (100,289) Prob>F' = 0.3784

Variable: GN_N

CLASS	N	Mean	Std Dev	Std Error
OTHSTATE	101	1.00990099	0.09950372	0.00990099
SAFE	290	1.02068966	0.21911952	0.01286714

Variances	T	DF	Prob> T
Unequal	-0.6645	363.9	0.5068
Equal	-0.4777	389.0	0.6332

For H0: Variances are equal, $F' = 4.85$ DF = (289,100) Prob>F' = 0.0000

Variable: PK_N

CLASS	N	Mean	Std Dev	Std Error
OTHSTATE	101	1.00990099	0.09950372	0.00990099
SAFE	290	1.00344828	0.05872202	0.00344828

Variances	T	DF	Prob> T
Unequal	0.6155	125.1	0.5394
Equal	0.7815	389.0	0.4350

For H0: Variances are equal, $F' = 2.87$ DF = (100,289) Prob>F' = 0.0000

Appendix QQ

Results of Data Analyses Showing The Relative Percentages of the Bacteriologically Satisfactory and Unsatisfactory Pools in the Pools Deemed To Be Satisfactory for Swimming by Judgment Models A thru F

Table 18: Results of Analysis Showing the Number and Percentages of Bacteriologically Satisfactory and Unsatisfactory Pools Present in Each Group of Pools Judged to be Satisfactory for Swimming by Models A – F

	All Pools			CYA < 21			CYA > 20			CYA < 101			CYA > 100		
MODEL A BACTERIA ONLY															
Total No. of Pools	486			130	26.7%		356	73.3%		364	74.9%		122	25.1%	
# Bacteriologically safe	390	80.2%		101	77.7%		289	81.2%		294	80.8%		96	78.7%	
# Bacteriologically unsafe	96	19.8%		29	22.3%		67	18.8%		70	19.2%		26	21.3%	
			% of safe (390)			% of safe (101)			% of safe (289)			% of safe (294)		% of safe (96)	
MODEL B FREE CHLORINE 1-5															
# Pools Passed	335	68.8%		78	60.0%		257	72.2%		246	67.6%		89	73.0%	
# Bacteriologically safe	290	86.6%	74.4%	68	87.2%	67.3%	222	86.4%	76.8%	214	87.0%	72.8%	76	85.4%	79.2%
# Bacteriologically unsafe	45	13.4%		10	12.8%		35	13.6%		32	13.0%		13	14.6%	
# Pools Failed	151	31.1%		52	40.0%		99	27.8%		118	32.4%		33	27.0%	
# Bacteriologically safe	100	66.2%	25.6%	33	63.5%	32.7%	67	67.7%	23.2%	80	67.8%	27.2%	20	60.6%	20.8%
# Bacteriologically unsafe	51	33.8%		19	36.5%		32	32.3%		38	32.2%		13	39.4%	
			% of safe (390)			% of safe (101)			% of safe (289)			% of safe (294)		% of safe (96)	
MODEL C FREE CHLORINE 1-5 MEETS BACTERIA															
# Pools Passed	290	59.7%		68	52.3%		222	62.4%		214	58.8%		76	62.3%	
# Bacteriologically safe	290	100.0%	74.4%	68	100.0%	67.3%	222	100.0%	76.8%	214	100.0%	72.8%	76	100.0%	79.2%
# Bacteriologically unsafe	0	0.0%		0	0.0%		0	0.0%		0	0.0%		0	0.0%	
# Pools Failed	196	40.3%		62	47.7%		134	37.6%		150	41.2%		46	37.7%	
# Bacteriologically safe	100	51.0%	25.6%	33	53.2%	32.7%	67	50.0%	23.2%	80	53.3%	27.2%	20	43.5%	20.8%
# Bacteriologically unsafe	96	49.0%		29	46.8%		67	50.0%		70	46.7%		26	56.5%	
			% of safe (390)			% of safe (101)			% of safe (289)			% of safe (294)		% of safe (96)	
MODEL D FREE CHLORINE 1-5 pH 7.2-7.8															
# Pools Passed	285	58.6%		59	45.4%		226	63.5%		201	55.2%		84	68.9%	
# Bacteriologically safe	245	86.0%	62.8%	20	84.7%	49.5%	195	86.3%	67.5%	173	86.1%	58.8%	72	85.7%	75.0%
# Bacteriologically unsafe	40	14.0%		9	15.3%		31	13.7%		28	13.9%		12	14.3%	
# Pools Failed	201	41.4%		71	54.6%		130	36.5%		163	44.8%		38	31.1%	
# Bacteriologically safe	145	72.1%	37.2%	51	71.8%	50.5%	94	72.3%	32.5%	121	74.2%	41.2%	24	63.2%	25.0%
# Bacteriologically unsafe	56	27.9%		20	28.2%		36	27.7%		42	25.8%		14	36.8%	
			% of safe (390)			% of safe (101)			% of safe (289)			% of safe (294)		% of safe (96)	
MODEL E FREE CHLORINE 1-5 pH 7.2-7.8 CYA < 101															
# Pools Passed	201	41.4%		59	45.4%		142	39.9%		201	55.2%		0		
# Bacteriologically safe	173	86.1%	44.4%	50	84.7%	49.5%	123	86.6%	42.6%	173	86.1%	58.8%	0		
# Bacteriologically unsafe	28	13.9%		9	15.3%		19	13.4%		28	13.9%		0		
# Pools Failed	285	58.6%		71	54.6%		214	60.1%		163	44.8%		122	100.0%	
# Bacteriologically safe	217	76.1%	55.6%	51	71.8%	50.5%	166	77.6%	57.4%	121	74.2%	41.2%	96	78.7%	100.0%
# Bacteriologically unsafe	68	23.9%		20	28.2%		48	22.4%		42	25.8%		26	21.3%	
			% of safe (390)			% of safe (101)			% of safe (289)			% of safe (294)		% of safe (96)	
MODEL F FREE CHLORINE 1-3 pH 7.2-7.8 CYA < 101															
# Pools Passed	101	20.8%		37	28.5%		64	18.0%		101	27.7%		0		
# Bacteriologically safe	86	85.1%	22.1%	31	83.8%	30.7%	55	85.9%	19.0%	86	85.1%	29.3%	0		
# Bacteriologically unsafe	15	14.9%		6	16.2%		9	14.1%		15	14.9%		0		
# Pools Failed	385	79.2%		93	71.5%		292	82.0%		263	72.3%		122	100.0%	
# Bacteriologically safe	304	79.0%	77.9%	70	75.3%	69.3%	234	80.1%	81.0%	208	79.1%	70.7%	96	78.7%	100.0%
# Bacteriologically unsafe	81	21.0%		23	24.7%		58	19.9%		55	20.9%		26	21.3%	

FIGURE 192: # OF BACTERIOLOGICALLY SATISFACTORY AND UNSATISFACTORY POOLS PRESENT IN POOLS JUDGED TO BE SATISFACTORY FOR SWIMMING BY MODELS A – F

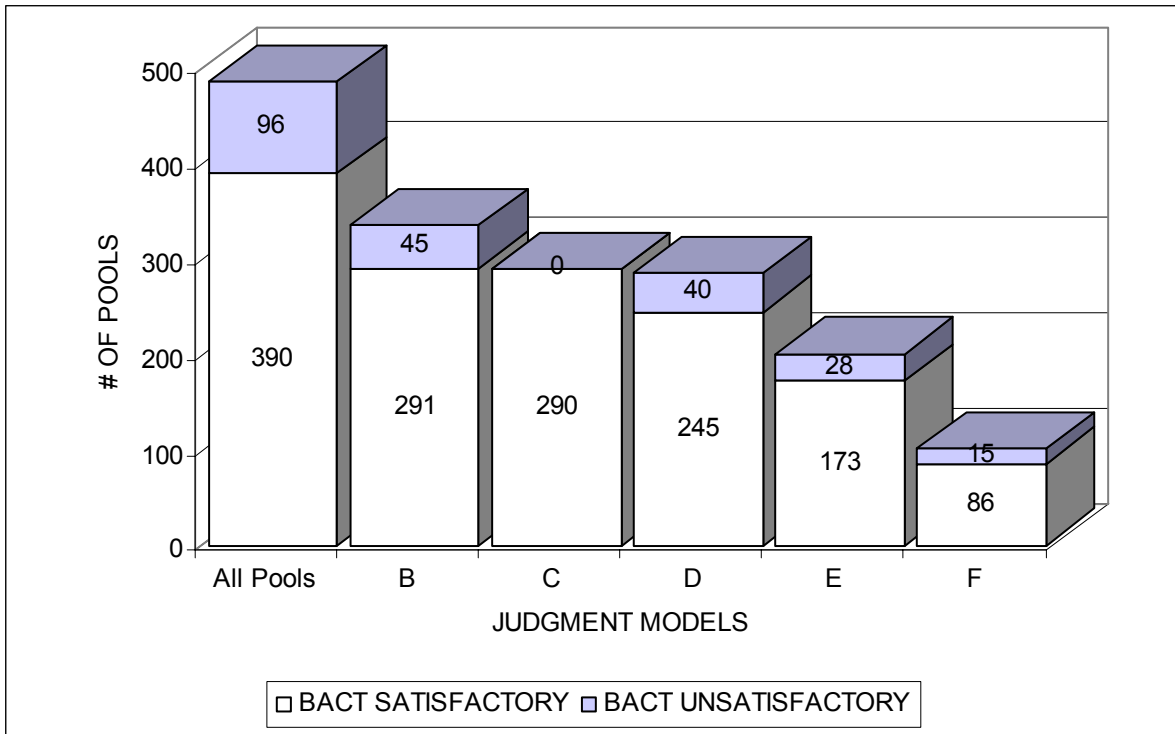
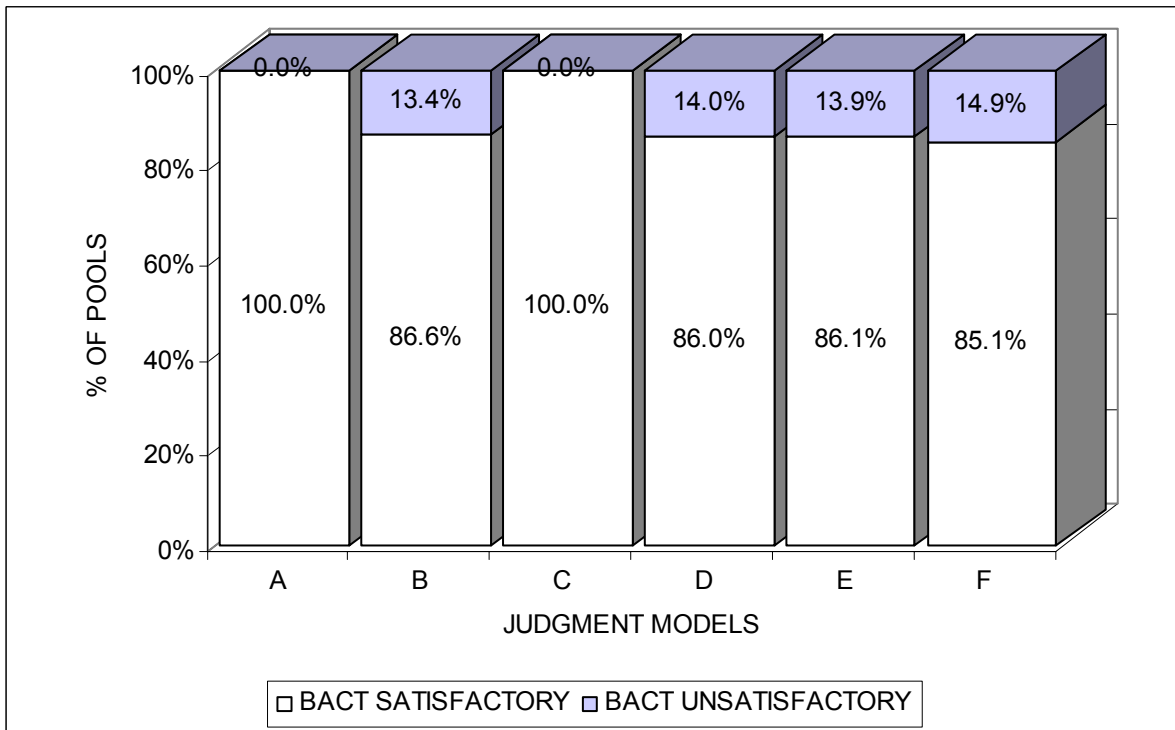


FIGURE 193: % OF BACTERIOLOGICALLY SATISFACTORY AND UNSATISFACTORY POOLS PRESENT IN POOLS JUDGED TO BE SATISFACTORY FOR SWIMMING BY MODELS A – F



Appendix RR

Results of the T Tests of the Means of the Variables for the ALGAE BLK-182 and NO ALGAE-297 Pools Categories

Note:

Refer to Appendix FF for:

**Definition of the SAT Pool Categories
Definition of the UNSAT Pool Categories
Definition of Algae Pool Categories
Interpretation of T Test Data**

BLACK ALGAE VS NO ALGAE
8:42 Monday, January 31, 1994 5
TTEST PROCEDURE

Variable: CL2FREE

B-ALGAE	N	Mean	Std Dev	Std Error
NO	304	3.80592105	3.84970503	0.22079573
YES	182	2.81703297	2.49715551	0.18510148

Variances	T	DF	Prob> T
Unequal	3.4322	480.9	0.0007
Equal	3.0966	484.0	0.0021

For H0: Variances are equal, F' = 2.38 DF = (303,181) Prob>F' = **0.0000**

Variable: CL2TOT

B-ALGAE	N	Mean	Std Dev	Std Error
NO	304	3.86743421	3.82753943	0.21952444
YES	182	2.90549451	2.57689962	0.19101251

Variances	T	DF	Prob> T
Unequal	3.3057	477.4	0.0010
Equal	3.0064	484.0	0.0028

For H0: Variances are equal, F' = 2.21 DF = (303,181) Prob>F' = **0.0000**

Variable: PH

B-ALGAE	N	Mean	Std Dev	Std Error
NO	303	7.59537954	0.23341356	0.01340926
YES	182	7.54450549	0.27621660	0.02047454

Variances	T	DF	Prob> T
Unequal	2.0786	332.9	0.0380
Equal	2.1672	483.0	0.0307

For H0: Variances are equal, F' = 1.40 DF = (181,302) Prob>F' = **0.0101**

BLACK ALGAE VS NO ALGAE
 8:42 Monday, January 31, 1994 6
 TTEST PROCEDURE

Variable: ALK

B-ALGAE	N	Mean	Std Dev	Std Error
NO	302	101.75496689	33.20228285	1.91057668
YES	182	97.30769231	35.39288323	2.62349505

Variances	T	DF	Prob> T
Unequal	1.3703	362.6	0.1714
Equal	1.3922	482.0	0.1645

For H0: Variances are equal, F' = 1.14 DF = (181,301) Prob>F' = 0.3293

Variable: CYN

B-ALGAE	N	Mean	Std Dev	Std Error
NO	304	78.14144737	77.42823608	4.44081390
YES	182	80.60439560	90.32120449	6.69505311

Variances	T	DF	Prob> T
Unequal	-0.3066	336.4	0.7594
Equal	-0.3186	484.0	0.7502

For H0: Variances are equal, F' = 1.36 DF = (181,303) Prob>F' = **0.0186**

Variable: TEMP

B-ALGAE	N	Mean	Std Dev	Std Error
NO	268	82.10447761	4.99253174	0.30496741
YES	174	83.22413793	4.57958439	0.34717740

Variances	T	DF	Prob> T
Unequal	-2.4230	391.8	0.0159
Equal	-2.3789	440.0	0.0178

For H0: Variances are equal, F' = 1.19 DF = (267,173) Prob>F' = 0.2182

BLACK ALGAE VS NO ALGAE
8:42 Monday, January 31, 1994 7
TTEST PROCEDURE

Variable: VOLUME

B-ALGAE	N	Mean	Std Dev	Std Error
NO	304	30105.63815789	15941.85777942	914.32825043
YES	182	36320.25274725	21530.53143029	1595.94917101

Variances	T	DF	Prob> T
Unequal	-3.3788	300.0	0.0008
Equal	-3.6366	484.0	0.0003

For H0: Variances are equal, F' = 1.82 DF = (181,303) Prob>F' = **0.0000**

Variable: INW

B-ALGAE	N	Mean	Std Dev	Std Error
NO	303	1.02310231	2.20688138	0.12678202
YES	182	1.43406593	2.60758434	0.19328701

Variances	T	DF	Prob> T
Unequal	-1.7779	333.3	0.0763
Equal	-1.8529	483.0	0.0645

For H0: Variances are equal, F' = 1.40 DF = (181,302) Prob>F' = **0.0108**

Variable: CU

B-ALGAE	N	Mean	Std Dev	Std Error
NO	271	0.20645756	0.16634635	0.01010482
YES	169	0.21591633	0.18178781	0.01398368

Variances	T	DF	Prob> T
Unequal	-0.5517	332.8	0.5815
Equal	-0.5632	438.0	0.5736

For H0: Variances are equal, F' = 1.19 DF = (168,270) Prob>F' = 0.1954

BLACK ALGAE VS NO ALGAE
8:42 Monday, January 31, 1994 8
TTEST PROCEDURE

Variable: NIT

B-ALGAE	N	Mean	Std Dev	Std Error
NO	274	20.52189781	16.29336913	0.98431843
YES	169	19.99408284	15.82549820	1.21734602

Variances	T	DF	Prob> T
Unequal	0.3372	363.8	0.7362
Equal	0.3348	441.0	0.7379

For H0: Variances are equal, F' = 1.06 DF = (273,168) Prob>F' = 0.6835

Variable: TDS

B-ALGAE	N	Mean	Std Dev	Std Error
NO	304	1722.82894737	1299.09437242	74.50817220
YES	182	1637.00549451	1105.29424845	81.92986064

Variances	T	DF	Prob> T
Unequal	0.7750	428.9	0.4388
Equal	0.7444	484.0	0.4570

For H0: Variances are equal, F' = 1.38 DF = (303,181) Prob>F' = **0.0173**

Variable: HARD

B-ALGAE	N	Mean	Std Dev	Std Error
NO	273	313.09890110	136.36677847	8.25329289
YES	174	293.56321839	107.65742082	8.16148801

Variances	T	DF	Prob> T
Unequal	1.6831	425.0	0.0931
Equal	1.5985	445.0	0.1106

For H0: Variances are equal, F' = 1.60 DF = (272,173) Prob>F' = **0.0008**

BLACK ALGAE VS NO ALGAE
8:42 Monday, January 31, 1994 9
TTEST PROCEDURE

Variable: HPC

B-ALGAE	N	Mean	Std Dev	Std Error
NO	304	1194.47368421	5376.20665335	308.34659870
YES	182	1595.64835165	6279.51148269	465.46835955

Variances	T	DF	Prob> T
Unequal	-0.7185	336.1	0.4729
Equal	-0.7469	484.0	0.4555

For H0: Variances are equal, F' = 1.36 DF = (181,303) Prob>F' = **0.0176**

Variable: TCOLI

B-ALGAE	N	Mean	Std Dev	Std Error
NO	304	2.39473684	18.19319058	1.04345104
YES	182	8.29120879	36.84712077	2-.73129031

Variances	T	DF	Prob> T
Unequal	-2.0167	234.7	0.0449
Equal	-2.3529	484.0	0.0190

For H0: Variances are equal, F' = 4.10 DF = (181,303) Prob>F' = **0.0000**

Variable: FCOLI

B-ALGAE	N	Mean	Std Dev	Std Error
NO	304	1.10855263	11.95997419	0.68595156
YES	182	3.12087912	21.94308820	1.62652991

Variances	T	DF	Prob> T
Unequal	-1.1400	246.5	0.2554
Equal	-1.3076	484.0	0.1916

For H0: Variances are equal, F' = 3.37 DF = (181,303) Prob>F' = **0.0000**

BLACK ALGAE VS NO ALGAE
8:42 Monday, January 31, 1994 10
TTEST PROCEDURE

Variable: NCOLI

B-ALGAE	N	Mean	Std Dev	Std Error
NO	304	51.10197368	99.70027424	5.71820290
YES	182	62.59340659	178.16281448	13.20630645

Variances	T	DF	Prob> T
Unequal	-0.7985	250.0	0.4253
Equal	-0.9115	484.0	0.3625

For H0: Variances are equal, F' = 3.19 DF = (181,303) Prob>F' = **0.0000**

Variable: PSEUD

B-ALGAE	N	Mean	Std Dev	Std Error
NO	10	2.20000000	6.61311828	2.09125162
YES	17	0.40000000	1.26293309	0.30630627

Variances	T	DF	Prob> T
Unequal	0.8516	9.4	0.4157
Equal	1.1031	25.0	0.2805

For H0: Variances are equal, F' = 27.42 DF = (9,16) Prob>F' = **0.0000**

Variable: TSTAPH

B-ALGAE	N	Mean	Std Dev	Std Error
NO	10	1.90000000	0.31622777	0.10000000
YES	17	3.58823529	5.24474527	1.27203757

Variances	T	DF	Prob> T
Unequal	-1.3231	16.2	0.2042
Equal	-1.0086	25.0	0.3228

For H0: Variances are equal, F' = 275.07 DF = (16,9) Prob>F' = **0.0000**

BLACK ALGAE VS NO ALGAE
 8:42 Monday, January 31, 1994 11
 TTEST PROCEDURE

Variable: FSTREP

B-ALGAE	N	Mean	Std Dev	Std Error
NO	9	0.00000000	0.00000000	0.00000000
YES	17	0.17647059	0.52859414	0.12820291

Variances	T	DF	Prob> T	
Unequal	-1.3765	16.0	0.1876	
Equal	-0.9919	24.0	0.3312	

NOTE: All values are the same for one CLASS level.

Appendix SS

Results of Special Black Algae Pool Analyses Techniques

TABLE 19: BLACK ALGAE POOLS – AVERAGE CHLORINE VS SANITIZER USED

BLACK ALGAE	ALL POOLS	AVERAGE FREE CHLORINE, PPM					
		CALCIUM HYPO POOLS		SODIUM HYPO POOLS		TRICHLOR POOLS	
YES	177 *	2.93	(49) **	2.35	(35) **	2.98	(93) **
NO	287 *	3.36	(117) **	3.33	(36) **	4.53	(134) **

* Pools treated with bromine, sodium dichloroisocyanurate and gaseous chlorine excluded.

** Number of pools in each category.

FIGURE 194: AVERAGE FREE CHLORINE IN POOLS WITH OR WITHOUT BLACK ALGAE VS SANITIZER USED

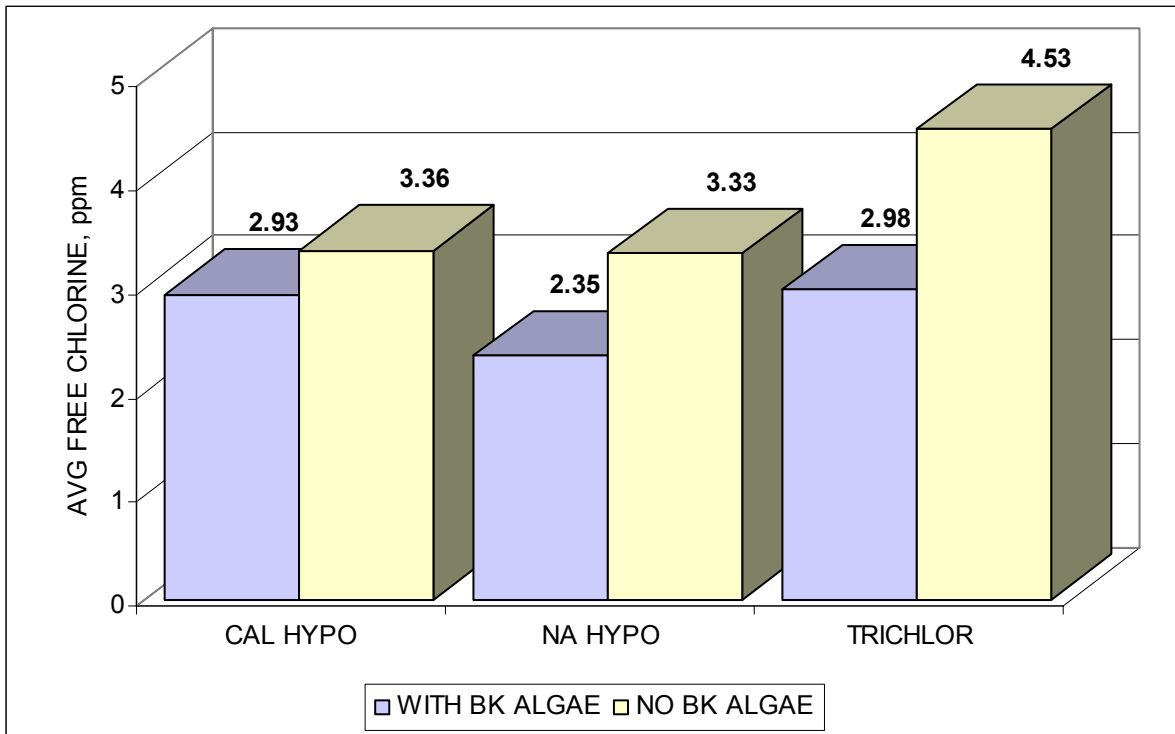


TABLE 20: POOLS WITH OVER 5 PPM FREE CHLORINE VS SANITIZER USED

	TOTAL POOLS > 5 PPM	CALCIUM HYPO POOLS	SODIUM HYPO POOLS	TRICHLOR POOLS
# OF POOLS	45	15	2	28
% OF TOTAL		33.3%	4.4%	62.2%
AVG. PPM CL2	10.8	8.8	12	11.9

**FIGURE 195: PERCENTAGE OF POOLS WITH
OVER 5 PPM FREE CHLORINE VS SANITIZER USED**

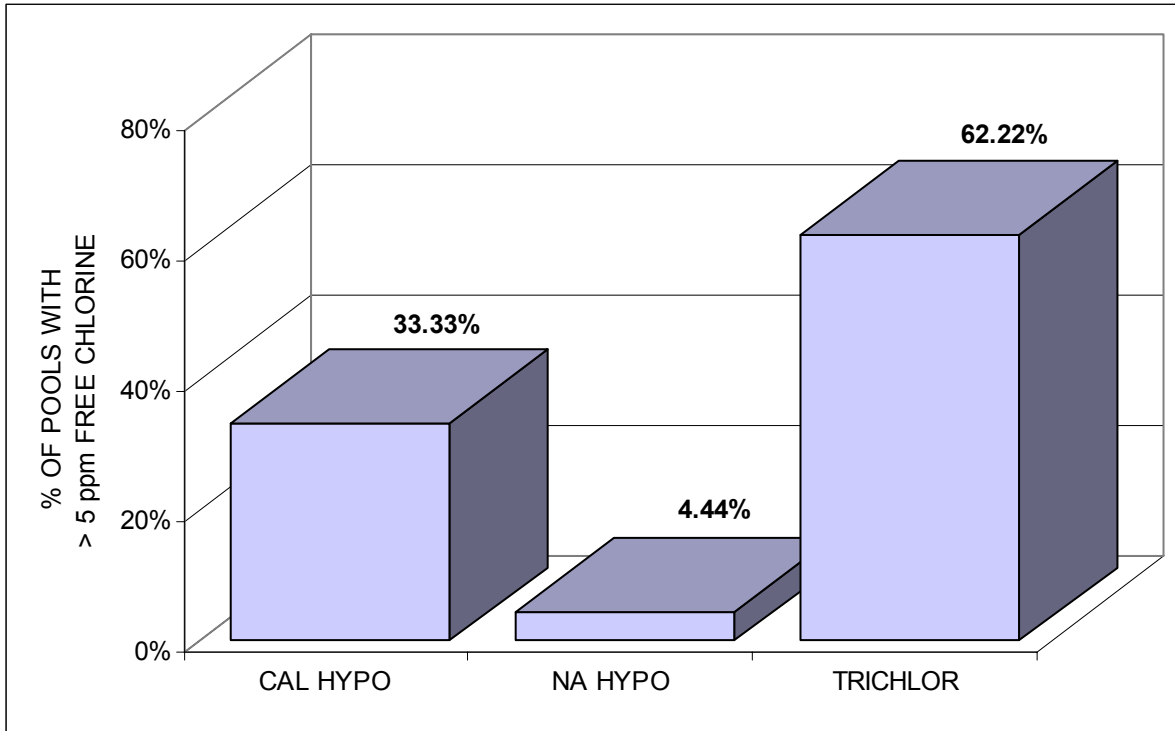


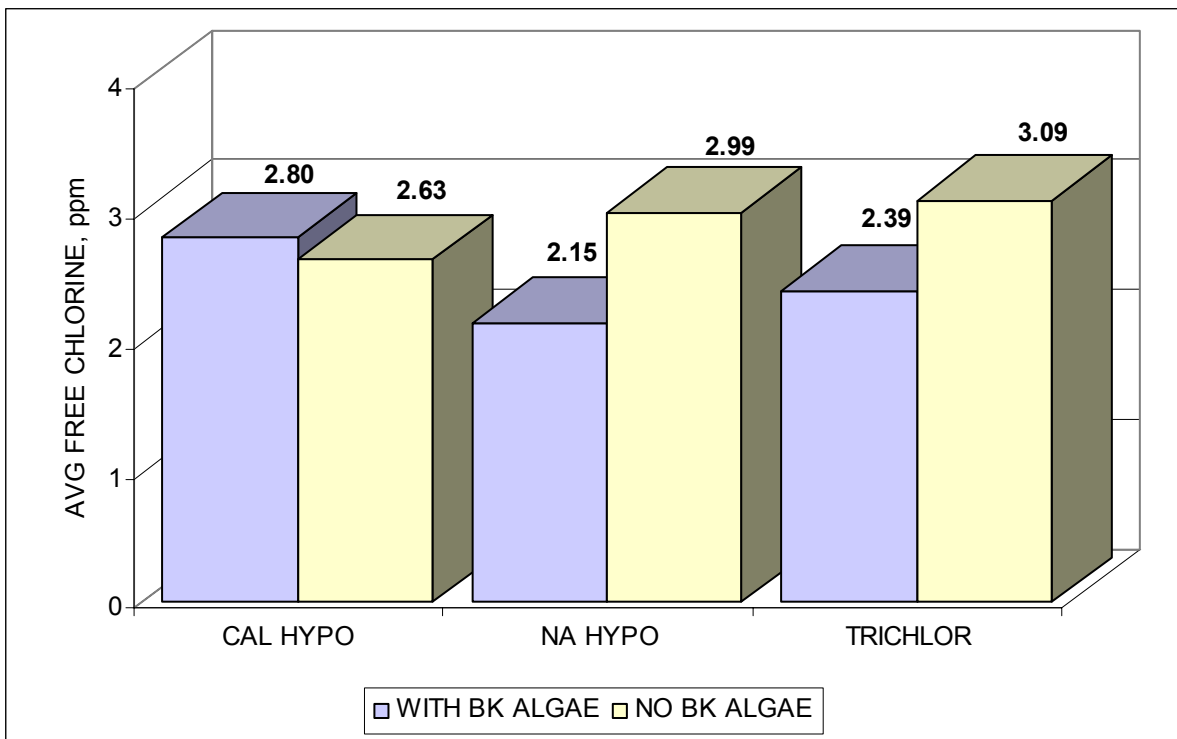
TABLE 21: BLACK ALGAE POOLS – AVERAGE CHLORINE VS SANITIZER USED FOR POOLS WITH FREE CHLORINE < 5.1 PPM

BLACK ALGAE	ALL POOLS	AVERAGE FREE CHLORINE, PPM					
		CALCIUM HYPO POOLS		SODIUM HYPO POOLS		TRICHLOR POOLS	
YES	172 *	2.80	(48) **	2.15	(34) **	2.39	(90) **
NO	247 *	2.63	(103) **	2.99	(35) **	3.09	(109) **

* Pools treated with bromine, sodium dichloroisocyanurate and gaseous chlorine excluded.

** Number of pools in each category.

FIGURE 196: AVERAGE FREE CHLORINE, PPM, IN POOLS WITH OR WITHOUT BLACK ALGAE VS SANITIZER USED FOR POOLS WITH FREE CHLORINE < 5.1 PPM



Appendix TT

Results of the T Tests of the Means of the Variables for the ALGAE YL-32 and NO ALGAE-297 Pool Categories

Note:

Refer to Appendix FF for:

**Definition of the SAT Pool Categories
Definition of the UNSAT Pool Categories
Definition of Algae Pool Categories
Interpretation of T Test Data**

YELLOW ALGAE VS NO ALGAE
 14:20 Tuesday, April 12, 1994 1
 TTEST PROCEDURE

Variable: CL2FREE

CLASS	N	Mean	Std Dev	Std Error
NONE	297	3.77878788	3.85885099	0.22391324
YELLOW	32	2.54375000	2.55316849	0.45134069

Variances	T	DF	Prob> T
Unequal	2.4513	47.8	0.0179
Equal	1.7680	327.0	0.0780

For H0: Variances are equal, F' = 2.28 DF = (296,31) Prob>F' = **0.0070**

Variable: CL2TOT

CLASS	N	Mean	Std Dev	Std Error
NONE	297	3.84074074	3.83712177	0.22265239
YELLOW	32	2.59687500	2.51851010	0.44521389

Variances	T	DF	Prob> T
Unequal	2.4988	48.1	0.0159
Equal	1.7913	327.0	0.0742

For H0: Variances are equal, F' = 2.32 DF = (296,31) Prob>F' = **0.0061**

Variable: PH

CLASS	N	Mean	Std Dev	Std Error
NONE	296	7.59527027	0.23371269	0.01358427
YELLOW	32	7.55000000	0.30053715	0.05312796

Variances	T	DF	Prob> T
Unequal	0.8255	35.2	0.4146
Equal	1.0100	326.0	0.3132

For H0: Variances are equal, F' = 1.65 DF = (31,295) Prob>F' = 0.0373

YELLOW ALGAE VS NO ALGAE
 14:20 Tuesday, April 12, 1994 2
 TTEST PROCEDURE

Variable: ALK

CLASS	N	Mean	Std Dev	Std Error
NONE	295	101.79661017	33.35022344	1.94172508
YELLOW	32	94.68750000	37.50134406	6.62936367

Variances	T	DF	Prob> T
Unequal	1.0291	36.5	0.3102
Equal	1.1311	325.0	0.2588

For H0: Variances are equal, F' = 1.26 DF = (31,294) Prob>F' = 0.3288

Variable: CYN

CLASS	N	Mean	Std Dev	Std Error
NONE	297	77.72727273	77.92908482	4.52190414
YELLOW	32	92.18750000	84.53799966	14.94434821

Variances	T	DF	Prob> T
Unequal	-0.9261	36.9	0.3604
Equal	-0.9891	327.0	0.3234

For H0: Variances are equal, F' = 1.18 DF = (31,296) Prob>F' = 0.4877

Variable: TEMP

CLASS	N	Mean	Std Dev	Std Error
NONE	262	82.18702290	4.98804543	0.30816248
YELLOW	31	82.74193548	4.73263663	0.85000663

Variances	T	DF	Prob> T
Unequal	-0.6137	38.3	0.5430
Equal	-0.5888	291.0	0.5565

For H0: Variances are equal, F' = 1.11 DF = (261,30) Prob>F' = 0.7590

YELLOW ALGAE VS NO ALGAE
 14:20 Tuesday, April 12, 1994 3
 TTEST PROCEDURE

Variable: VOLUME

CLASS	N	Mean	Std Dev	Std Error
NONE	297	29696.48484848	14548.54917609	844.19244604
YELLOW	32	42194.28125000	31608.20266572	5587.59361151

Variances	T	DF	Prob> T
Unequal	-2.2116	32.4	0.0342
Equal	-3.9698	327.0	0.0001

For H0: Variances are equal, F' = 4.72 DF = (31,296) Prob>F' = **0.0000**

Variable: INW

CLASS	N	Mean	Std Dev	Std Error
NONE	296	1.04729730	2.22721064	0.12945399
YELLOW	32	1.93750000	3.96710262	0.70129129

Variances	T	DF	Prob> T
Unequal	-1.2483	33.1	0.2207
Equal	-1.9554	326.0	0.0514

For H0: Variances are equal, F' = 3.17 DF = (31,295) Prob>F' = 0.0000

Variable: CU

CLASS	N	Mean	Std Dev	Std Error
NONE	265	0.20471698	0.16624876	0.01021258
YELLOW	31	0.19838710	0.16097819	0.02891254

Variances	T	DF	Prob> T
Unequal	0.2064	37.9	0.8376
Equal	0.2012	294.0	0.8407

For H0: Variances are equal, F' = 1.07 DF = (264,30) Prob>F' = 0.8718

YELLOW ALGAE VS NO ALGAE
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 TTEST PROCEDURE

Variable: NIT

CLASS	N	Mean	Std Dev	Std Error
NONE	268	20.51492537	16.34746087	0.99858011
YELLOW	29	20.86206897	13.76258940	2.55564869

Variances	T	DF	Prob> T
Unequal	-0.1265	37.1	0.9000
Equal	-0.1102	295.0	0.9124

For H0: Variances are equal, F' = 1.41 DF = (267,28) Prob>F' = 0.2755

Variable: TDS

CLASS	N	Mean	Std Dev	Std Error
NONE	297	1746.24579125	1302.80624487	75.59648576
YELLOW	32	1328.28125000	963.32221636	170.29291791

Variances	T	DF	Prob> T
Unequal	2.2433	44.2	0.0299
Equal	1.7626	327.0	0.0789

For H0: Variances are equal, F' = 1.83 DF = (296,31) Prob>F' = **0.0445**

Variable: HARD

CLASS	N	Mean	Std Dev	Std Error
NONE	267	314.98501873	137.07601672	8.38891599
YELLOW	31	235.32258065	70.31992942	12.62983216

Variances	T	DF	Prob> T
Unequal	5.2541	61.0	0.0001
Equal	3.1840	296.0	0.0016

For H0: Variances are equal, F' = 3.80 DF = (266,30) Prob>F' = **0.0000**

YELLOW ALGAE VS NO ALGAE
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 TTEST PROCEDURE

Variable: HPC

CLASS	N	Mean	Std Dev	Std Error
NONE	297	1222.44107744	5436.27126633	315.44445306
YELLOW	32	654.65625000	2137.71289616	377.89782128

Variances	T	DF	Prob> T	

Unequal	1.1534	84.9	0.2520	
Equal	0.5853	327.0	0.5588	

For H0: Variances are equal, F' = 6.47 DF = (296,31) Prob>F' = 0.0000

Variable: TCOLI

CLASS	N	Mean	Std Dev	Std Error
NONE	297	2.45117845	18.40328464	1.06786688
YELLOW	32	8.34375000	31.83081219	5.62694579

Variances	T	DF	Prob> T	

Unequal	-1.0288	33.3	0.3110	
Equal	-1.5784	327.0	0.1154	

For H0: Variances are equal, F' = 2.99 DF = (31,296) Prob>F' = 0.0000

Variable: FCOLI

CLASS	N	Mean	Std Dev	Std Error
NONE	297	1.13468013	12.09933726	0.70207476
YELLOW	32	3.06250000	14.97511376	2.64725112

Variances	T	DF	Prob> T	

Unequal	-0.7039	35.5	0.4861	
Equal	-0.8356	327.0	0.4040	

For H0: Variances are equal, F' = 1.53 DF = (31,296) Prob>F' = 0.0784

YELLOW ALGAE VS NO ALGAE
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 TTEST PROCEDURE

Variable: NCOLI

CLASS	N	Mean	Std Dev	Std Error
NONE	297	51.98316498	100.66231540	5.84101997
YELLOW	32	66.75000000	83.48768501	14.75867705

Variances	T	DF	Prob> T
Unequal	-0.9303	41.4	0.3576
Equal	-0.8004	327.0	0.4241

For H0: Variances are equal, F' = 1.45 DF = (296,31) Prob>F' = 0.2088

Variable: PSEUD

CLASS	N	Mean	Std Dev	Std Error
NONE	10	2.20000000	6.61311828	2.09125162
YELLOW	7	0.97142857	1.89887185	0.71770610

Variances	T	DF	Prob> T
Unequal	0.5557	11.0	0.5895
Equal	0.4738	15.0	0.6424

For H0: Variances are equal, F' = 12.13 DF = (9,6) Prob>F' = 0.0066

Variable: TSTAPH

CLASS	N	Mean	Std Dev	Std Error
NONE	10	1.90000000	0.31622777	0.10000000
YELLOW	7	2.85714286	2.26778684	0.85714286

Variances	T	DF	Prob> T
Unequal	-1.1091	6.2	0.3089
Equal	-1.3348	15.0	0.2018

For H0: Variances are equal, F' = 51.43 DF = (6,9) Prob>F' = 0.0000

YELLOW ALGAE VS NO ALGAE
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 TTEST PROCEDURE

Variable: FSTREP

CLASS	N	Mean	Std Dev	Std Error
NONE	9	0.00000000	0.00000000	0.00000000
YELLOW	7	0.42857143	0.78679579	0.29738086

Variances	T	DF	Prob> T
Unequal	-1.4412	6.0	0.1996
Equal	-1.6510	14.0	0.1210

NOTE: All values are the same for one CLASS level.

Variable: DATE

CLASS	N	Mean	Std Dev	Std Error
NONE	297	11949.97306397	34.06342378	1.97656032
YELLOW	32	11958.31250000	30.13457718	5.32709097

Variances	T	DF	Prob> T
Unequal	-1.4677	40.0	0.1500
Equal	-1.3296	327.0	0.1846

For H0: Variances are equal, F' = 1.28 DF = (296,31) Prob>F' = 0.4159

Variable: HOUR1

CLASS	N	Mean	Std Dev	Std Error
NONE	297	11.82154882	2.52791315	0.14668440
YELLOW	32	12.46875000	2.44928396	0.43297632

Variances	T	DF	Prob> T
Unequal	-1.4157	38.5	0.1649
Equal	-1.3801	327.0	0.1685

For H0: Variances are equal, F' = 1.07 DF = (296,31) Prob>F' = 0.8715

YELLOW ALGAE VS NO ALGAE
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 TTEST PROCEDURE

Variable: ION_N

CLASS	N	Mean	Std Dev	Std Error
NONE	8	1.12500000	0.35355339	0.12500000
YELLOW	2	1.00000000	0.00000000	0.00000000

Variances	T	DF	Prob> T	
Unequal	1.0000	7.0	0.3506	
Equal	0.4781	8.0	0.6454	

NOTE: All values are the same for one CLASS level.

Variable: RAIN_N

CLASS	N	Mean	Std Dev	Std Error
NONE	261	1.87356322	1.00159025	0.06199688
YELLOW	30	1.93333333	1.11210683	0.20304200

Variances	T	DF	Prob> T	
Unequal	-0.2815	34.6	0.7800	
Equal	-0.3060	289.0	0.7598	

For H0: Variances are equal, F' = 1.23 DF = (29,260) Prob>F' = 0.3959

Variable: USE_N

CLASS	N	Mean	Std Dev	Std Error
NONE	297	2.28282828	1.49576251	0.08679294
YELLOW	32	1.96875000	1.40240289	0.24791215

Variances	T	DF	Prob> T	
Unequal	1.1957	39.0	0.2390	
Equal	1.1351	327.0	0.2572	

For H0: Variances are equal, F' = 1.14 DF = (296,31) Prob>F' = 0.6885

YELLOW ALGAE VS NO ALGAE
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 TTEST PROCEDURE

Variable: SURF_N

CLASS	N	Mean	Std Dev	Std Error
NONE	297	1.92929293	0.25676753	0.01489916
YELLOW	32	2.00000000	0.00000000	0.00000000

Variances	T	DF	Prob> T	
Unequal	-4.7457	296.0	0.0001	
Equal	-1.5556	327.0	0.1208	

NOTE: All values are the same for one CLASS level.

Variable: DAY_N

CLASS	N	Mean	Std Dev	Std Error
NONE	297	2.47138047	0.91903065	0.05332757
YELLOW	32	1.75000000	0.87988269	0.15554275

Variances	T	DF	Prob> T	
Unequal	4.3871	38.7	0.0001	
Equal	4.2356	327.0	0.0000	

For H0: Variances are equal, F' = 1.09 DF = (296,31) Prob>F' = 0.8033

Variable: TUR_N

CLASS	N	Mean	Std Dev	Std Error
NONE	282	1.04964539	0.33377473	0.01987600
YELLOW	31	1.32258065	0.74775650	0.13430103

Variances	T	DF	Prob> T	
Unequal	-2.0104	31.3	0.0531	
Equal	-3.6686	311.0	0.0003	

For H0: Variances are equal, F' = 5.02 DF = (30,281) Prob>F' = **0.0000**

YELLOW ALGAE VS NO ALGAE
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Variable: CL2_N

CLASS	N	Mean	Std Dev	Std Error
NONE	284	4.18661972	1.89951561	0.11271551
YELLOW	31	5.32258065	1.35122406	0.24268700

Variances	T	DF	Prob> T	
Unequal	-4.2452	44.1	0.0001	
Equal	-3.2392	313.0	0.0013	

For H0: Variances are equal, F' = 1.98 DF = (283,30) Prob>F' = **0.0269**

Variable: FCOND_N

CLASS	N	Mean	Std Dev	Std Error
NONE	295	1.32203390	0.50979114	0.02968119
YELLOW	32	1.78125000	0.75067174	0.13270127

Variances	T	DF	Prob> T	
Unequal	-3.3771	34.2	0.0018	
Equal	-4.5909	325.0	0.0000	

For H0: Variances are equal, F' = 2.17 DF = (31,294) Prob>F' = **0.0010**

Variable: OFLO_N

CLASS	N	Mean	Std Dev	Std Error
NONE	294	1.07142857	0.25797849	0.01504561
YELLOW	32	1.12500000	0.33601075	0.05939887

Variances	T	DF	Prob> T	
Unequal	-0.8743	35.1	0.3879	
Equal	-1.0801	324.0	0.2809	

For H0: Variances are equal, F' = 1.70 DF = (31,293) Prob>F' = 0.0284

YELLOW ALGAE VS NO ALGAE
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 TTEST PROCEDURE

Variable: BK_N

CLASS	N	Mean	Std Dev	Std Error
NONE	297	1.00000000	0.00000000	0.00000000
YELLOW	32	2.18720000	0.82060167	0.14506325

Variances	T	DF	Prob> T	
Unequal	-8.1861	31.0	0.0001	
Equal	-25.2609	327.0	0.0000	

NOTE: All values are the same for one CLASS level.

Variable: YL_N

CLASS	N	Mean	Std Dev	Std Error
NONE	297	1.00000000	0.00000000	0.00000000
YELLOW	32	2.31250000	0.53506105	0.09458632

Variances	T	DF	Prob> T	
Unequal	-13.8762	31.0	0.0001	
Equal	-42.8198	327.0	0.0000	

NOTE: All values are the same for one CLASS level.

Variable: GN_N

CLASS	N	Mean	Std Dev	Std Error
NONE	297	1.00000000	0.00000000	0.00000000
YELLOW	32	1.09375000	0.53033009	0.09375000

Variances	T	DF	Prob> T	
Unequal	-1.0000	31.0	0.3251	
Equal	-3.0858	327.0	0.0022	

NOTE: All values are the same for one CLASS level.

YELLOW ALGAE VS NO ALGAE
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 TTEST PROCEDURE

Variable: PK_N

CLASS	N	Mean	Std Dev	Std Error
NONE	297	1.00000000	0	0
YELLOW	32	1.00000000	0	0

Variances	T	DF	Prob> T
Unequal	.	.	.
Equal	.	.	.

NOTE: All values are the same for one CLASS level.

Appendix UU

Results of Special Data Analyses for Yellow Algae Pools

**TABLE 22: FREE CHLORINE, CYANURIC ACID AND SANITIZER USED
IN POOLS CONTAINING YELLOW ALGAE**

YELLOW ALGAE	FREE CHLORINE (ppm)	CYANURIC ACID (ppm)	SANITIZER USED *
M	0.0	200	T
M	0.0	80	T
L	0.0	0	U
L	0.0	110	T
L	0.0	400	T
M	0.0	100	T
M	0.0	160	T
L	0.2	25	T
L	0.3	0	N
L	0.4	30	T
L	1.4	50	N
M	1.4	280	T
L	1.4	100	T
L	1.7	45	T
L	1.8	0	T
L	2.0	50	C
H	2.5	80	T
L	2.5	70	T
L	2.5	50	T
L	2.5	65	T
M	2.8	10	C
L	4.0	10	C
L	4.0	35	N
L	4.0	100	T
M	4.0	100	T
L	4.0	70	N
M	5.0	140	N
L	5.0	80	T
L	5.0	100	T
L	5.0	110	T
L	6.0	100	C
L	12.0	200	T

* C = Calcium Hypo
 N = Sodium Hypo
 T = Trichlor

Appendix VV

Results Showing Frequency of Algae Incidences in Pools Deemed Satisfactory for Swimming by The Pool Judgment Models A – F

TABLE 23: ALGAE AND NO ALGAE POOLS BASED UPON MODEL CRITERIA

JUDGMENT CRITERIA	# OF POOLS NO ALGAE	# OF POOLS WITH ALGAE	% OF POOLS NO ALGAE	% OF POOLS WITH ALGAE
TOTAL POOLS	297	189	61.1%	38.9%
MODEL A	238	152	61.0%	39.0%
MODEL B	204	132	60.7%	39.3%
MODEL C	174	116	60.0%	40.0%
MODEL D	172	113	60.4%	39.6%
MODEL E	123	78	61.2%	38.8%
MODEL F	64	37	63.4%	36.6%

FIGURE 197: # OF ALGAE AND NO ALGAE POOLS PRESENT IN POOLS JUDGED TO BE SATISFACTORY FOR SWIMMING BY MODELS A - F

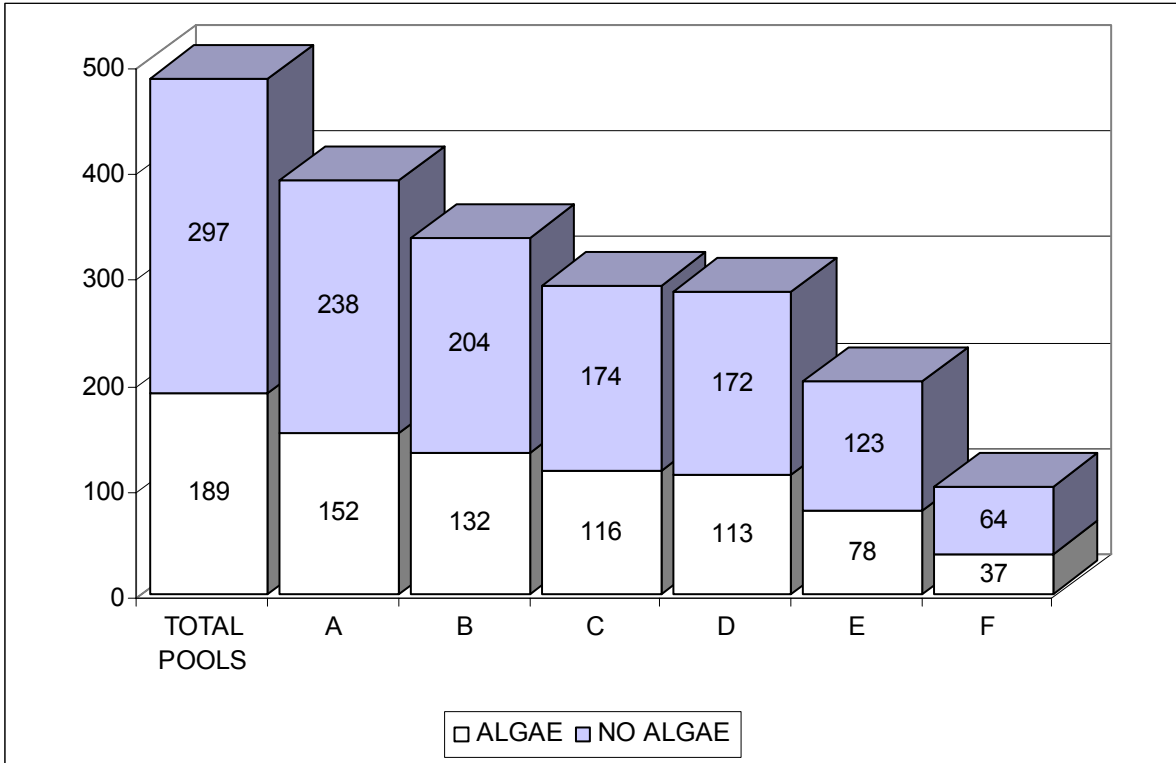


FIGURE 198: % OF ALGAE AND NO ALGAE POOLS PRESENT IN POOLS JUDGED TO BE SATISFACTORY FOR SWIMMING BY MODELS A - F

