

## **APPENDIX B**

### **T-TEST ANALYSES FOR HISTORICAL DATA**

Results of T Test Analyses for Temporal Trends of Indicator Data

Segment 1101

<i>11446 - Enterococci</i>	<i>FO</i>	<i>GC</i>
Mean	219.8125	2138.33333
Variance	186887.1	84296875.7
Observations	16	21
Hypothesized Mean Difference	0	
df	20	
t Stat	-0.95618	
P(T<=t) two-tail	0.350398	
t Critical two-tail	2.085963	

<i>15458 - Fecal Coliform</i>	<i>GC</i>	<i>HH</i>
Mean	75	1719.39024
Variance	6870	14901782.7
Observations	6	41
Hypothesized Mean Difference	0	
df	40	
t Stat	-2.723295	
P(T<=t) two-tail	0.009533	
t Critical two-tail	2.021075	

Segment 1102 - E.Coli

<i>11450</i>	<i>FO</i>	<i>GC</i>
Mean	3820.5	2582.34
Variance	47158247.5	38244313.9
Observations	6	50
Hypothesized Mean Difference	0	
df	6	
t Stat	0.42160663	
P(T<=t) two-tail	0.68799955	
t Critical two-tail	2.44691185	

<i>11451</i>	<i>GC</i>	<i>PL</i>
Mean	2782.2	813.4
Variance	38166135.2	470586.8
Observations	25	5
Hypothesized Mean Difference	0	
df	26	
t Stat	1.54647134	
P(T<=t) two-tail	0.13407744	
t Critical two-tail	2.05552942	

<i>11452</i>	<i>FO</i>	<i>PL</i>
Mean	509.411765	524
Variance	1486537.63	481380
Observations	17	5
Hypothesized Mean Difference	0	
df	12	
t Stat	-0.03403496	
P(T<=t) two-tail	0.97340885	
t Critical two-tail	2.17881283	

<i>14229</i>	<i>GC</i>	<i>PL</i>
Mean	1904.21277	750.8
Variance	17189288.1	782049.7
Observations	47	5
Hypothesized Mean Difference	0	
df	30	
t Stat	1.59621538	
P(T<=t) two-tail	0.12092252	
t Critical two-tail	2.04227245	

<i>16803</i>	<i>GC</i>	<i>PL</i>
Mean	54.5	245.2
Variance	8465.42857	79264.7
Observations	8	5
Hypothesized Mean Difference	0	
df	5	
t Stat	-1.46644077	
P(T<=t) two-tail	0.2024371	
t Critical two-tail	2.57058183	

Results of T Test Analyses for Temporal Trends of Indicator Data

Segment 1102 - E.Coli

Segment 1102 - E.Coli

17068	GC	PL
Mean	1605.045	730.8
Variance	14841633	1758126.7
Observations	22	5
Hypothesized Mean Difference	0	
df	20	
t Stat	0.862994	
P(T<=t) two-tail	0.398372	
t Critical two-tail	2.085963	

17079	GC	PL
Mean	438.066667	584.2
Variance	619180.638	393303.2
Observations	15	5
Hypothesized Mean Difference	0	
df	9	
t Stat	-0.42195724	
P(T<=t) two-tail	0.68295676	
t Critical two-tail	2.26215716	

17073	GC	PL
Mean	1409.92	713
Variance	22610254	1951870
Observations	25	5
Hypothesized Mean Difference	0	
df	23	
t Stat	0.612469	
P(T<=t) two-tail	0.546236	
t Critical two-tail	2.068658	

17915	GC	PL
Mean	995.111111	1234.2
Variance	7253812.11	7398828.2
Observations	9	5
Hypothesized Mean Difference	0	
df	8	
t Stat	-0.15814138	
P(T<=t) two-tail	0.87826433	
t Critical two-tail	2.30600413	

17076	GC	PL
Mean	1770.478	513.8
Variance	17235591	133707.2
Observations	23	5
Hypothesized Mean Difference	0	
df	23	
t Stat	1.426465	
P(T<=t) two-tail	0.167168	
t Critical two-tail	2.068658	

17916	GC	PL
Mean	114.875	88
Variance	40030.6964	3045.5
Observations	8	5
Hypothesized Mean Difference	0	
df	9	
t Stat	0.35871818	
P(T<=t) two-tail	0.72807677	
t Critical two-tail	2.26215716	

17074	GC	PL
Mean	2299	669
Variance	47371986	1426183
Observations	23	5
Hypothesized Mean Difference	0	
df	26	
t Stat	1.064453	
P(T<=t) two-tail	0.29691	
t Critical two-tail	2.055529	

17917	GC	PL
Mean	340.777778	72.4
Variance	364943.194	2338.3
Observations	9	5
Hypothesized Mean Difference	0	
df	8	
t Stat	1.32515023	
P(T<=t) two-tail	0.22171661	
t Critical two-tail	2.30600413	

17077	GC	PL
Mean	1411.417	469.2
Variance	13082601	412006.7
Observations	24	5
Hypothesized Mean Difference	0	
df	27	
t Stat	1.189435	
P(T<=t) two-tail	0.244624	
t Critical two-tail	2.05183	

17918	GC	PL
Mean	164.8	67.6
Variance	44782.4	2719.3
Observations	10	5
Hypothesized Mean Difference	0	
df	11	
t Stat	1.37158772	
P(T<=t) two-tail	0.1975197	
t Critical two-tail	2.20098516	