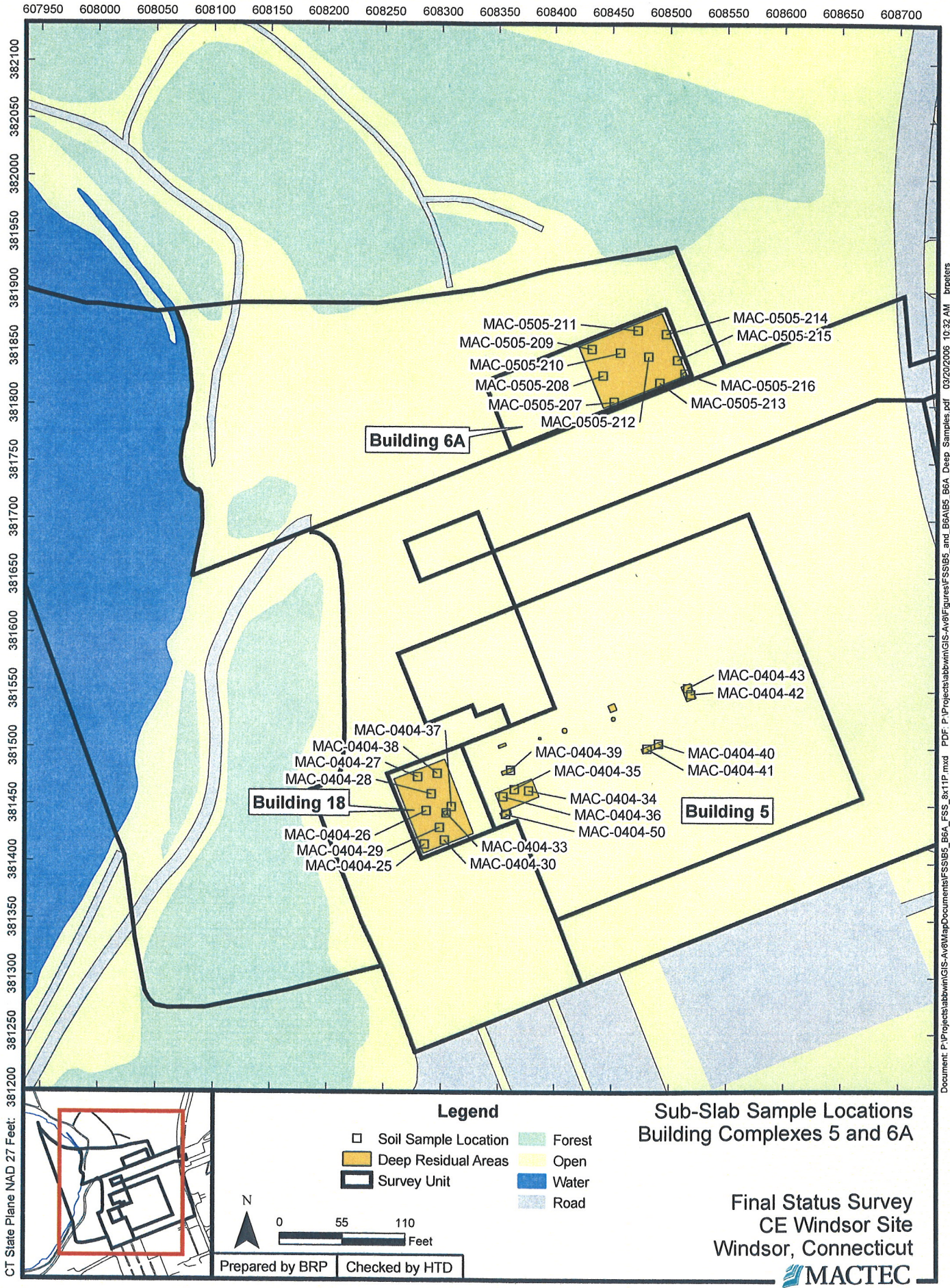


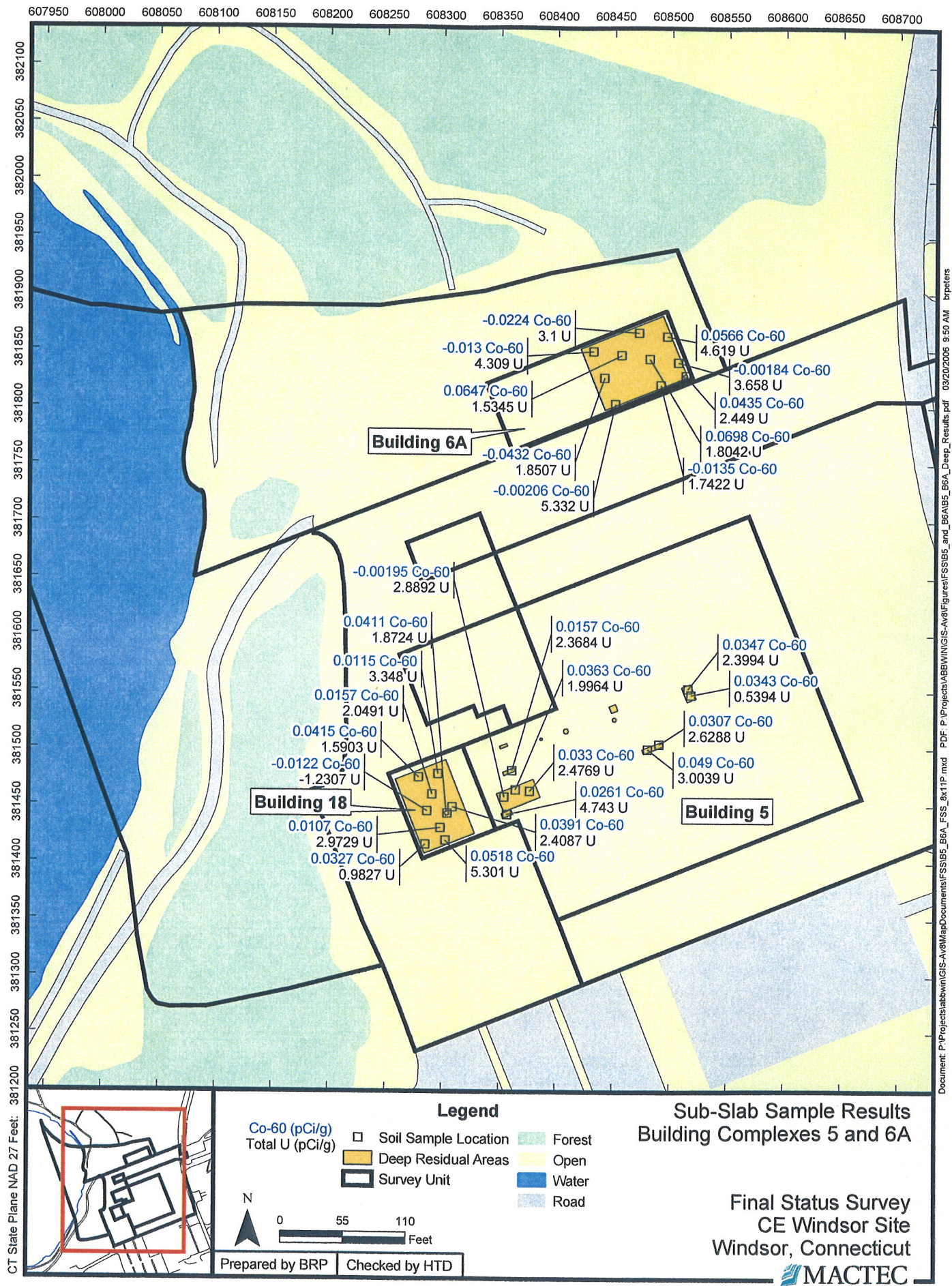
## **APPENDIX J**

### **SUB-SLAB RESULTS AND DATA EVALUATION**











# Building Complexes 5/6A Sub-Slab

## Unbiased Volumetric Soil Sample Results

| Sample ID    | Building | Co-60     |          |          |           |           | U-235    |          |           |          |         | Total U<br>(pCi/g) | Sum of<br>Fraction |
|--------------|----------|-----------|----------|----------|-----------|-----------|----------|----------|-----------|----------|---------|--------------------|--------------------|
|              |          | Activity  | Uncert.  | MDC      | Qualifier | Activity  | Uncert.  | MDC      | Qualifier | Activity | Uncert. |                    |                    |
| MAC-0404-025 | 18       | 3.27E-02  | 4.17E-02 | 8.17E-02 | U         | 3.17E-02  | 4.85E-02 | 8.85E-02 | U         |          |         | 1.0                | 0.008              |
| MAC-0404-026 | 18       | -1.22E-02 | 1.79E-01 | 2.70E-01 | U         | -3.97E-02 | 1.78E-01 | 2.97E-01 | U         |          |         | -1.2               | -0.005             |
| MAC-0404-027 | 18       | 4.15E-02  | 3.54E-02 | 7.56E-02 | U         | 5.13E-02  | 2.05E-02 | 8.38E-02 | U         |          |         | 1.6                | 0.011              |
| MAC-0404-028 | 18       | 1.57E-02  | 3.00E-02 | 6.14E-02 | U         | 6.61E-02  | 7.86E-02 | 1.01E-01 | U         |          |         | 2.0                | 0.007              |
| MAC-0404-029 | 18       | 1.07E-02  | 4.49E-02 | 9.25E-02 | U         | 9.59E-02  | 5.39E-02 | 1.05E-01 | U         |          |         | 3.0                | 0.007              |
| MAC-0404-030 | 18       | 5.18E-02  | 6.89E-02 | 1.72E-01 | U         | 1.71E-01  | 7.81E-02 | 2.03E-01 | U         |          |         | 5.3                | 0.020              |
| MAC-0404-035 | 5        | 3.63E-02  | 4.03E-02 | 8.34E-02 | U         | 6.44E-02  | 5.27E-02 | 9.57E-02 | U         |          |         | 2.0                | 0.011              |
| MAC-0404-037 | 18       | 3.91E-02  | 3.38E-02 | 7.13E-02 | U         | 7.77E-02  | 4.05E-02 | 7.59E-02 | U         |          |         | 2.4                | 0.012              |
| MAC-0505-207 | 6A       | -2.06E-03 | 6.93E-02 | 1.49E-01 | U         | 1.72E-01  | 1.20E-01 | 2.41E-01 | U         |          |         | 5.3                | 0.009              |
| MAC-0505-208 | 6A       | -4.32E-02 | 8.61E-02 | 1.39E-01 | U         | 5.97E-02  | 1.06E-01 | 2.03E-01 | U         |          |         | 1.9                | -0.005             |
| MAC-0505-209 | 6A       | -1.30E-02 | 7.45E-02 | 1.56E-01 | U         | 1.39E-01  | 1.16E-01 | 2.25E-01 | U         |          |         | 4.3                | 0.005              |
| MAC-0505-210 | 6A       | 6.47E-02  | 9.63E-02 | 2.11E-01 | U         | 4.95E-02  | 1.16E-01 | 2.17E-01 | U         |          |         | 1.5                | 0.016              |
| MAC-0505-211 | 6A       | -2.24E-02 | 9.71E-02 | 1.61E-01 | U         | 1.00E-01  | 1.23E-01 | 2.36E-01 | U         |          |         | 3.1                | 0.001              |
| MAC-0505-212 | 6A       | 6.98E-02  | 8.23E-02 | 1.99E-01 | U         | 5.82E-02  | 1.08E-01 | 2.00E-01 | U         |          |         | 1.8                | 0.017              |
| MAC-0505-213 | 6A       | -1.35E-02 | 6.87E-02 | 1.31E-01 | U         | 5.62E-02  | 1.09E-01 | 2.06E-01 | U         |          |         | 1.7                | 0.000              |
| MAC-0505-214 | 6A       | 5.66E-02  | 7.14E-02 | 1.84E-01 | U         | 1.49E-01  | 1.15E-01 | 2.27E-01 | U         |          |         | 4.6                | 0.020              |
| MAC-0505-215 | 6A       | -1.84E-03 | 9.98E-02 | 1.81E-01 | U         | 1.18E-01  | 1.14E-01 | 2.25E-01 | U         |          |         | 3.7                | 0.006              |

## Biased Volumetric Soil Sample Results

| Sample ID    | Building | Co-60     |          |          |           |          | U-235    |          |           |          |         | Total U<br>(pCi/g) | Sum of<br>Fraction |
|--------------|----------|-----------|----------|----------|-----------|----------|----------|----------|-----------|----------|---------|--------------------|--------------------|
|              |          | Activity  | Uncert.  | MDC      | Qualifier | Activity | Uncert.  | MDC      | Qualifier | Activity | Uncert. |                    |                    |
| MAC-0404-033 | 18       | 4.11E-02  | 4.87E-02 | 1.06E-01 | U         | 6.04E-02 | 3.92E-02 | 1.08E-01 | U         |          |         | 1.9                | 0.012              |
| MAC-0404-034 | 5        | 3.30E-02  | 5.72E-02 | 1.22E-01 | U         | 7.99E-02 | 7.26E-02 | 1.36E-01 | U         |          |         | 2.5                | 0.011              |
| MAC-0404-036 | 5        | -1.95E-03 | 3.83E-02 | 6.96E-02 | U         | 9.32E-02 | 3.59E-02 | 1.16E-01 | U         |          |         | 2.9                | 0.005              |
| MAC-0404-038 | 18       | 1.15E-02  | 4.37E-02 | 8.32E-02 | U         | 1.08E-01 | 4.95E-02 | 9.52E-02 | U         |          |         | 3.3                | 0.008              |
| MAC-0404-039 | 5        | 1.57E-02  | 5.00E-02 | 9.85E-02 | U         | 7.64E-02 | 6.34E-02 | 1.19E-01 | U         |          |         | 2.4                | 0.007              |
| MAC-0404-040 | 5        | 3.07E-02  | 3.34E-02 | 6.98E-02 | U         | 8.48E-02 | 3.50E-02 | 9.41E-02 | U         |          |         | 2.6                | 0.011              |
| MAC-0404-041 | 5        | 4.90E-02  | 1.29E-02 | 3.19E-02 | U         | 9.69E-02 | 1.92E-02 | 6.48E-02 | U         |          |         | 3.0                | 0.015              |
| MAC-0404-042 | 5        | 3.43E-02  | 8.60E-02 | 1.95E-01 | U         | 1.74E-02 | 1.07E-01 | 1.99E-01 | U         |          |         | 0.5                | 0.008              |
| MAC-0404-043 | 5        | 3.47E-02  | 7.04E-02 | 1.37E-01 | U         | 7.74E-02 | 6.85E-02 | 1.29E-01 | U         |          |         | 2.4                | 0.011              |
| MAC-0404-050 | 5        | 2.61E-02  | 6.22E-02 | 1.31E-01 | U         | 1.53E-01 | 7.58E-02 | 1.49E-01 | U         |          |         | 4.7                | 0.014              |
| MAC-0505-216 | 6A       | 4.35E-02  | 7.10E-02 | 1.75E-01 | U         | 7.90E-02 | 1.20E-01 | 2.25E-01 | U         |          |         | 2.4                | 0.013              |



# Descriptive Statistics Report

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## Summary Section of Sub Co-60 Unbiased

| Count | Mean         | Standard Deviation | Standard Error | Minimum | Maximum | Range |
|-------|--------------|--------------------|----------------|---------|---------|-------|
| 17    | 1.827647E-02 | 3.367229E-02       | 8.166729E-03   | -0.0432 | 0.0698  | 0.113 |

## Counts Section of Sub Co-60 Unbiased

| Rows | Sum of Frequencies | Sum of Values | Distinct Values | Sum    | Total Sum Squares | Adjusted Sum Squares |
|------|--------------------|---------------|-----------------|--------|-------------------|----------------------|
| 28   | 17                 | 11            | 17              | 0.3107 | 2.381967E-02      | 1.814117E-02         |

## Means Section of Sub Co-60 Unbiased

| Parameter  | Mean         | Median  | Geometric Mean | Harmonic Mean | Sum       | Mode |
|------------|--------------|---------|----------------|---------------|-----------|------|
| Value      | 1.827647E-02 | 0.0157  | 3.657521E-02   | -1.703472E-02 | 0.3107    |      |
| Std Error  | 8.166729E-03 |         |                |               | 0.1388344 |      |
| 95% LCL    | 9.637766E-04 | -0.0122 | 2.369581E-02   | 3.022513E-02  | 0.0163842 |      |
| 95% UCL    | 3.558917E-02 | 0.0415  | 5.645497E-02   | -6.644858E-03 | 0.6050158 |      |
| T-Value    | 2.2379       |         |                |               |           |      |
| Prob Level | 0.039801     |         |                |               |           |      |
| Count      | 17           |         | 10             | 17            |           |      |

The geometric mean confidence interval assumes that the  $\ln(y)$  are normally distributed.

The harmonic mean confidence interval assumes that the  $1/y$  are normally distributed.

## Variation Section of Sub Co-60 Unbiased

| Parameter | Variance     | Standard Deviation | Unbiased Std Dev | Std Error of Mean | Interquartile Range | Range |
|-----------|--------------|--------------------|------------------|-------------------|---------------------|-------|
| Value     | 1.133823E-03 | 3.367229E-02       | 3.420221E-02     | 8.166729E-03      | 0.05925             | 0.113 |
| Std Error | 2.544851E-04 | 5.344101E-03       |                  | 1.296135E-03      |                     |       |
| 95% LCL   | 6.289114E-04 | 2.507811E-02       |                  | 6.082334E-03      |                     |       |
| 95% UCL   | 2.626238E-03 | 5.124683E-02       |                  | 1.242918E-02      |                     |       |

## Skewness and Kurtosis Section of Sub Co-60 Unbiased

| Parameter | Skewness      | Kurtosis  | Fisher's g1   | Fisher's g2 | Coefficient of Variation | Coefficient % UCL |
|-----------|---------------|-----------|---------------|-------------|--------------------------|-------------------|
| Value     | -7.835988E-02 | 1.856412  | -8.615628E-02 | -1.111206   | 1.842385                 | 1.835894          |
| Std Error | 0.3759609     | 0.2603101 |               |             | 0.8417849                |                   |

## Trimmed Section of Sub Co-60 Unbiased

| Parameter    | 5% Trimmed   | 10% Trimmed  | 15% Trimmed  | 25% Trimmed  | 35% Trimmed  | 45% Trimmed  |
|--------------|--------------|--------------|--------------|--------------|--------------|--------------|
| Trim-Mean    | 1.882941E-02 | 0.0187125    | 1.832731E-02 | 0.01795      | 1.870823E-02 | 1.817059E-02 |
| Trim-Std Dev | 2.976313E-02 | 2.678212E-02 | 2.448412E-02 | 1.982926E-02 | 1.594968E-02 | 1.192378E-02 |
| Count        | 15.3         | 13.6         | 11.9         | 8.5          | 5.1          | 1.7          |

## Mean-Deviation Section of Sub Co-60 Unbiased

| Parameter | X-Mean       | X-Median     | (X-Mean)^2   | (X-Mean)^3    | (X-Mean)^4   |
|-----------|--------------|--------------|--------------|---------------|--------------|
| Average   | 2.897509E-02 | 2.882353E-02 | 1.067128E-03 | -2.731608E-06 | 2.114011E-06 |
| Std Error | 4.905039E-03 |              | 2.395154E-04 | 1.324497E-05  | 8.52513E-07  |



## Descriptive Statistics Report

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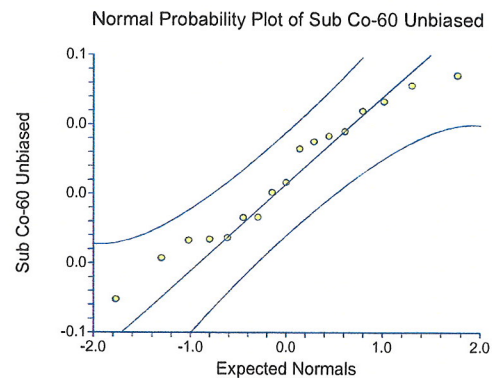
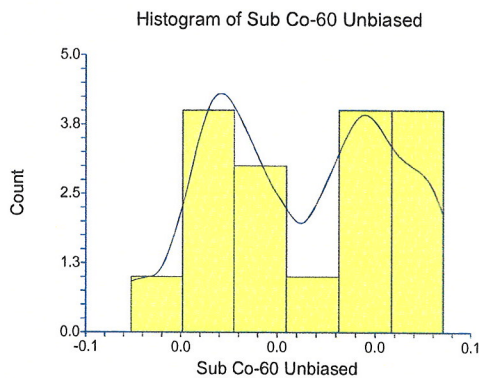
### Quartile Section of Sub Co-60 Unbiased

| Parameter | 10th Percentile | 25th Percentile | 50th Percentile | 75th Percentile | 90th Percentile |
|-----------|-----------------|-----------------|-----------------|-----------------|-----------------|
| Value     | -0.02656        | -0.0126         | 0.0157          | 0.04665         | 0.06572         |
| 95% LCL   |                 | -0.0432         | -0.0122         | 0.0327          |                 |
| 95% UCL   |                 | 0.0107          | 0.0415          | 0.0698          |                 |

### Normality Test Section of Sub Co-60 Unbiased

| Test Name           | Test Value | Prob Level | 10% Critical Value | 5% Critical Value | Decision (5%)          |
|---------------------|------------|------------|--------------------|-------------------|------------------------|
| Shapiro-Wilk W      | 0.9551865  | 0.543472   |                    |                   | Can't reject normality |
| Anderson-Darling    | 0.3274788  | 0.518626   |                    |                   | Can't reject normality |
| Martinez-Iglewicz   | 0.9771775  |            | 1.252524           | 1.438767          | Can't reject normality |
| Kolmogorov-Smirnov  | 0.1366509  |            | 0.19               | 0.207             | Can't reject normality |
| D'Agostino Skewness | -0.1662    | 0.868023   | 1.645              | 1.960             | Can't reject normality |
| D'Agostino Kurtosis | -1.3252    | 0.185118   | 1.645              | 1.960             | Can't reject normality |
| D'Agostino Omnibus  | 1.7837     | 0.409905   | 4.605              | 5.991             | Can't reject normality |

### Plots Section of Sub Co-60 Unbiased



# Descriptive Statistics Report

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## Percentile Section of Sub Co-60 Unbiased

| Percentile | Value     | 95% LCL  | 95% UCL | Exact Conf. Level |
|------------|-----------|----------|---------|-------------------|
| 99.0       | 0.0698    |          |         |                   |
| 95.0       | 0.0698    |          |         |                   |
| 90.0       | 0.06572   |          |         |                   |
| 85.0       | 0.05903   |          |         |                   |
| 80.0       | 0.05372   | 0.0327   | 0.0698  | 96.6548           |
| 75.0       | 0.04665   | 0.0327   | 0.0698  | 95.2246           |
| 70.0       | 0.04054   | 0.0107   | 0.0647  | 96.8032           |
| 65.0       | 0.03826   | -0.00184 | 0.0566  | 95.5248           |
| 60.0       | 0.03558   | -0.00184 | 0.0566  | 95.2868           |
| 55.0       | 0.031     | -0.00206 | 0.0518  | 95.1454           |
| 50.0       | 0.0157    | -0.0122  | 0.0415  | 95.0958           |
| 45.0       | 0.0112    | -0.013   | 0.0391  | 95.1454           |
| 40.0       | 0.000668  | -0.0135  | 0.0363  | 95.2868           |
| 35.0       | -0.001994 | -0.0224  | 0.0327  | 95.4972           |
| 30.0       | -0.008144 | -0.0224  | 0.0327  | 96.8032           |
| 25.0       | -0.0126   | -0.0432  | 0.0107  | 95.2246           |
| 20.0       | -0.0132   | -0.0432  | 0.0107  | 96.6548           |
| 15.0       | -0.01617  |          |         |                   |
| 10.0       | -0.02656  |          |         |                   |
| 5.0        | -0.0432   |          |         |                   |
| 1.0        | -0.0432   |          |         |                   |

Percentile Formula: Ave  $X(p[n+1])$

## Stem-Leaf Plot Section of Sub Co-60 Unbiased

| Depth | Stem | Leaves |
|-------|------|--------|
| 1     | -4   | 3      |
| 1     | -3   |        |
| 2     | -2   | 2      |
| 5     | -1   | 332    |
| 7     | -0   | 21     |
| 7     | 0    |        |
| (2)   | 1    | 05     |
| 8     | 2    |        |
| 8     | 3    | 269    |
| 5     | 4    | 1      |
| 4     | 5    | 16     |
| 2     | 6    | 49     |

Unit = .001 Example: 1 | 2 Represents 0.012



# Descriptive Statistics Report

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## Summary Section of Sub Total U Unbiased

| Count | Mean     | Standard Deviation | Standard Error | Minimum | Maximum | Range |
|-------|----------|--------------------|----------------|---------|---------|-------|
| 17    | 2.588235 | 1.677007           | 0.406734       | -1.2    | 5.3     | 6.5   |

## Counts Section of Sub Total U Unbiased

| Rows | Sum of Frequencies | Sum of Values | Distinct Values | Sum | Total Sum Squares | Adjusted Sum Squares |
|------|--------------------|---------------|-----------------|-----|-------------------|----------------------|
| 28   | 17                 | 11            | 15              | 44  | 158.88            | 44.99765             |

## Means Section of Sub Total U Unbiased

| Parameter  | Mean     | Median | Geometric Mean | Harmonic Mean | Sum      | Mode |
|------------|----------|--------|----------------|---------------|----------|------|
| Value      | 2.588235 | 2      | 2.514932       | 2.699013      | 44       |      |
| Std Error  | 0.406734 |        |                |               | 6.914477 |      |
| 95% LCL    | 1.725998 | 1.7    | 1.925976       | 1.773611      | 29.34196 |      |
| 95% UCL    | 3.450473 | 3.7    | 3.283988       | 5.643659      | 58.65804 |      |
| T-Value    | 6.3635   |        |                |               |          |      |
| Prob Level | 0.000009 |        |                |               |          |      |
| Count      | 17       |        | 16             | 17            |          |      |

The geometric mean confidence interval assumes that the  $\ln(y)$  are normally distributed.

The harmonic mean confidence interval assumes that the  $1/y$  are normally distributed.

## Variation Section of Sub Total U Unbiased

| Parameter | Variance  | Standard Deviation | Unbiased Std Dev | Std Error of Mean | Interquartile Range | Range |
|-----------|-----------|--------------------|------------------|-------------------|---------------------|-------|
| Value     | 2.812353  | 1.677007           | 1.703399         | 0.406734          | 2.35                | 6.5   |
| Std Error | 0.9515086 | 0.4012018          |                  | 9.730572E-02      |                     |       |
| 95% LCL   | 1.559962  | 1.248984           |                  | 0.3029232         |                     |       |
| 95% UCL   | 6.514163  | 2.552286           |                  | 0.6190202         |                     |       |

## Skewness and Kurtosis Section of Sub Total U Unbiased

| Parameter | Skewness   | Kurtosis  | Fisher's g1 | Fisher's g2 | Coefficient of Variation | Coefficient % UCL |
|-----------|------------|-----------|-------------|-------------|--------------------------|-------------------|
| Value     | -0.1084006 | 2.945964  | -0.1191859  | 0.3830361   | 0.6479346                | 0.6294118         |
| Std Error | 0.4203046  | 0.6036923 |             |             | 0.1531484                |                   |

## Trimmed Section of Sub Total U Unbiased

| Parameter    | 5% Trimmed | 10% Trimmed | 15% Trimmed | 25% Trimmed | 35% Trimmed | 45% Trimmed |
|--------------|------------|-------------|-------------|-------------|-------------|-------------|
| Trim-Mean    | 2.648039   | 2.609559    | 2.541597    | 2.382353    | 2.263726    | 2.082353    |
| Trim-Std Dev | 1.361154   | 1.139958    | 0.9821298   | 0.6745223   | 0.4627039   | 0.2520504   |
| Count        | 15.3       | 13.6        | 11.9        | 8.5         | 5.1         | 1.7         |

## Mean-Deviation Section of Sub Total U Unbiased

| Parameter | X-Mean    | X-Median | (X-Mean)^2 | (X-Mean)^3 | (X-Mean)^4 |
|-----------|-----------|----------|------------|------------|------------|
| Average   | 1.315571  | 1.258824 | 2.64692    | -0.4668129 | 20.63997   |
| Std Error | 0.2442894 |          | 0.8955376  | 1.972854   | 11.74693   |

## Descriptive Statistics Report

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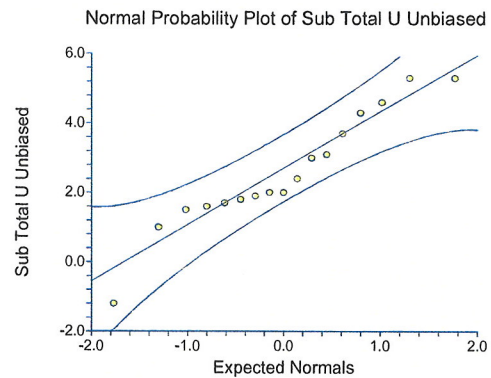
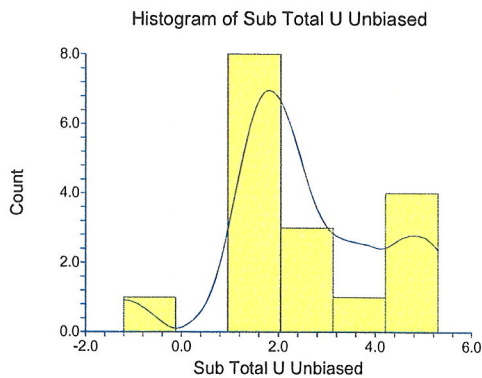
### Quartile Section of Sub Total U Unbiased

| Parameter | 10th Percentile | 25th Percentile | 50th Percentile | 75th Percentile | 90th Percentile |
|-----------|-----------------|-----------------|-----------------|-----------------|-----------------|
| Value     | 0.56            | 1.65            | 2               | 4               | 5.3             |
| 95% LCL   |                 | -1.2            | 1.7             | 2.4             |                 |
| 95% UCL   |                 | 2               | 3.7             | 5.3             |                 |

### Normality Test Section of Sub Total U Unbiased

| Test Name           | Test Value | Prob Level | 10% Critical Value | 5% Critical Value | Decision (5%)          |
|---------------------|------------|------------|--------------------|-------------------|------------------------|
| Shapiro-Wilk W      | 0.9400086  | 0.318288   |                    |                   | Can't reject normality |
| Anderson-Darling    | 0.4689631  | 0.248456   |                    |                   | Can't reject normality |
| Martinez-Iglewicz   | 1.034243   |            | 1.252524           | 1.438767          | Can't reject normality |
| Kolmogorov-Smirnov  | 0.1665294  |            | 0.19               | 0.207             | Can't reject normality |
| D'Agostino Skewness | -0.2298    | 0.818276   | 1.645              | 1.960             | Can't reject normality |
| D'Agostino Kurtosis | 0.5898     | 0.555296   | 1.645              | 1.960             | Can't reject normality |
| D'Agostino Omnibus  | 0.4007     | 0.818442   | 4.605              | 5.991             | Can't reject normality |

### Plots Section of Sub Total U Unbiased





# Descriptive Statistics Report

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## Percentile Section of Sub Total U Unbiased

| Percentile | Value | 95% LCL | 95% UCL | Exact Conf. Level |
|------------|-------|---------|---------|-------------------|
| 99.0       | 5.3   |         |         |                   |
| 95.0       | 5.3   |         |         |                   |
| 90.0       | 5.3   |         |         |                   |
| 85.0       | 4.81  |         |         |                   |
| 80.0       | 4.42  | 2.4     | 5.3     | 96.6548           |
| 75.0       | 4     | 2.4     | 5.3     | 95.2246           |
| 70.0       | 3.46  | 2       | 5.3     | 96.8032           |
| 65.0       | 3.07  | 1.9     | 4.6     | 95.5248           |
| 60.0       | 2.88  | 1.9     | 4.6     | 95.2868           |
| 55.0       | 2.36  | 1.8     | 4.3     | 95.1454           |
| 50.0       | 2     | 1.7     | 3.7     | 95.0958           |
| 45.0       | 2     | 1.6     | 3.1     | 95.1454           |
| 40.0       | 1.92  | 1.5     | 3       | 95.2868           |
| 35.0       | 1.83  | 1       | 2.4     | 95.4972           |
| 30.0       | 1.74  | 1       | 2.4     | 96.8032           |
| 25.0       | 1.65  | -1.2    | 2       | 95.2246           |
| 20.0       | 1.56  | -1.2    | 2       | 96.6548           |
| 15.0       | 1.35  |         |         |                   |
| 10.0       | 0.56  |         |         |                   |
| 5.0        | -1.2  |         |         |                   |
| 1.0        | -1.2  |         |         |                   |

Percentile Formula: Ave  $X(p[n+1])$

## Stem-Leaf Plot Section of Sub Total U Unbiased

| Depth | Stem | Leaves |
|-------|------|--------|
| 1     | -1   | 2      |
| 1     | -0   |        |
| 1     | 0    |        |
| 7     | 1    | 056789 |
| (3)   | 2    | 004    |
| 7     | 3    | 017    |
| 4     | 4    | 36     |
| 2     | 5    | 33     |

Unit = .1 Example: 1 | 2 Represents 1.2

# Descriptive Statistics Report

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## Summary Section of Sub SOF Unbiased

| Count | Mean         | Standard Deviation | Standard Error | Minimum | Maximum | Range |
|-------|--------------|--------------------|----------------|---------|---------|-------|
| 17    | 8.235294E-03 | 7.636503E-03       | 1.852124E-03   | -0.005  | 0.02    | 0.025 |

## Counts Section of Sub SOF Unbiased

| Rows | Sum of Frequencies | Sum of Values | Distinct Values | Sum  | Total Sum Squares | Adjusted Sum Squares |
|------|--------------------|---------------|-----------------|------|-------------------|----------------------|
| 28   | 17                 | 11            | 13              | 0.14 | 0.002086          | 9.330589E-04         |

## Means Section of Sub SOF Unbiased

| Parameter  | Mean         | Median | Geometric Mean | Harmonic Mean | Sum          | Mode |
|------------|--------------|--------|----------------|---------------|--------------|------|
| Value      | 8.235294E-03 | 0.008  | 8.800706E-03   | 8.101401E-03  | 0.14         |      |
| Std Error  | 1.852124E-03 |        |                |               | 3.148611E-02 |      |
| 95% LCL    | 4.308966E-03 | 0.005  | 5.652295E-03   | 3.822456E-03  | 7.325243E-02 |      |
| 95% UCL    | 1.216162E-02 | 0.012  | 1.370283E-02   | -0.067838     | 0.2067476    |      |
| T-Value    | 4.4464       |        |                |               |              |      |
| Prob Level | 0.000406     |        |                |               |              |      |
| Count      | 17           |        | 14             | 16            |              |      |

The geometric mean confidence interval assumes that the  $\ln(y)$  are normally distributed.

The harmonic mean confidence interval assumes that the  $1/y$  are normally distributed.

## Variation Section of Sub SOF Unbiased

| Parameter | Variance     | Standard Deviation | Unbiased Std Dev | Std Error of Mean | Interquartile Range | Range |
|-----------|--------------|--------------------|------------------|-------------------|---------------------|-------|
| Value     | 5.831618E-05 | 7.636503E-03       | 7.756682E-03     | 1.852124E-03      | 0.011               | 0.025 |
| Std Error | 1.603302E-05 | 1.484587E-03       |                  | 3.600653E-04      |                     |       |
| 95% LCL   | 3.234694E-05 | 5.687437E-03       |                  | 1.379406E-03      |                     |       |
| 95% UCL   | 1.350759E-04 | 1.162221E-02       |                  | 2.818801E-03      |                     |       |

## Skewness and Kurtosis Section of Sub SOF Unbiased

| Parameter | Skewness   | Kurtosis  | Fisher's g1 | Fisher's g2 | Coefficient of Variation | Coefficient % UCL |
|-----------|------------|-----------|-------------|-------------|--------------------------|-------------------|
| Value     | -0.1633043 | 2.284995  | -0.1795522  | -0.5234357  | 0.9272897                | 0.7352941         |
| Std Error | 0.2805122  | 0.5036679 |             |             | 0.254192                 |                   |

## Trimmed Section of Sub SOF Unbiased

| Parameter    | 5% Trimmed   | 10% Trimmed  | 15% Trimmed  | 25% Trimmed  | 35% Trimmed  | 45% Trimmed |
|--------------|--------------|--------------|--------------|--------------|--------------|-------------|
| Trim-Mean    | 8.316994E-03 | 8.419118E-03 | 8.457983E-03 | 8.441176E-03 | 8.401961E-03 | 0.008       |
| Trim-Std Dev | 6.826586E-03 | 5.630917E-03 | 4.550975E-03 | 2.369123E-03 | 1.698348E-03 | 0.001       |
| Count        | 15.3         | 13.6         | 11.9         | 8.5          | 5.1          | 1.7         |

## Mean-Deviation Section of Sub SOF Unbiased

| Parameter | X-Mean       | X-Median     | (X-Mean)^2   | (X-Mean)^3    | (X-Mean)^4   |
|-----------|--------------|--------------|--------------|---------------|--------------|
| Average   | 5.896194E-03 | 5.882353E-03 | 5.488581E-05 | -6.640301E-08 | 6.883438E-09 |
| Std Error | 1.112408E-03 |              | 1.50899E-05  | 1.1576E-07    | 2.477863E-09 |

## Descriptive Statistics Report

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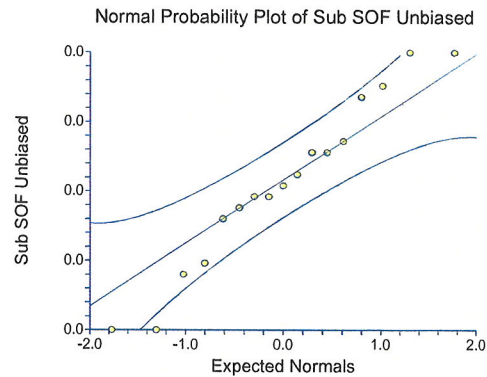
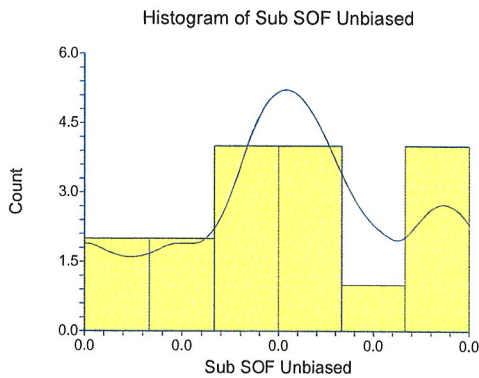
### Quartile Section of Sub SOF Unbiased

| Parameter | 10th Percentile | 25th Percentile | 50th Percentile | 75th Percentile | 90th Percentile |
|-----------|-----------------|-----------------|-----------------|-----------------|-----------------|
| Value     | -0.005          | 0.003           | 0.008           | 0.014           | 0.02            |
| 95% LCL   |                 | -0.005          | 0.005           | 0.009           |                 |
| 95% UCL   |                 | 0.007           | 0.012           | 0.02            |                 |

### Normality Test Section of Sub SOF Unbiased

| Test Name           | Test Value   | Prob Level | 10% Critical Value | 5% Critical Value | Decision (5%)          |
|---------------------|--------------|------------|--------------------|-------------------|------------------------|
| Shapiro-Wilk W      | 0.9571512    | 0.578706   |                    |                   | Can't reject normality |
| Anderson-Darling    | 0.233701     | 0.796098   |                    |                   | Can't reject normality |
| Martinez-Iglewicz   | 0.9233811    |            | 1.252524           | 1.438767          | Can't reject normality |
| Kolmogorov-Smirnov  | 7.611359E-02 |            | 0.19               | 0.207             | Can't reject normality |
| D'Agostino Skewness | -0.3457      | 0.729576   | 1.645              | 1.960             | Can't reject normality |
| D'Agostino Kurtosis | -0.3799      | 0.704042   | 1.645              | 1.960             | Can't reject normality |
| D'Agostino Omnibus  | 0.2638       | 0.876428   | 4.605              | 5.991             | Can't reject normality |

### Plots Section of Sub SOF Unbiased





# Descriptive Statistics Report

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## Percentile Section of Sub SOF Unbiased

| Percentile | Value   | 95% LCL | 95% UCL | Exact Conf. Level |
|------------|---------|---------|---------|-------------------|
| 99.0       | 0.02    |         |         |                   |
| 95.0       | 0.02    |         |         |                   |
| 90.0       | 0.02    |         |         |                   |
| 85.0       | 0.0179  |         |         |                   |
| 80.0       | 0.0164  | 0.009   | 0.02    | 96.6548           |
| 75.0       | 0.014   | 0.009   | 0.02    | 95.2246           |
| 70.0       | 0.0116  | 0.007   | 0.02    | 96.8032           |
| 65.0       | 0.011   | 0.007   | 0.017   | 95.5248           |
| 60.0       | 0.0106  | 0.007   | 0.017   | 95.2868           |
| 55.0       | 0.0089  | 0.006   | 0.016   | 95.1454           |
| 50.0       | 0.008   | 0.005   | 0.012   | 95.0958           |
| 45.0       | 0.0071  | 0.001   | 0.011   | 95.1454           |
| 40.0       | 0.007   | 0       | 0.011   | 95.2868           |
| 35.0       | 0.0063  | -0.005  | 0.009   | 95.4972           |
| 30.0       | 0.0054  | -0.005  | 0.009   | 96.8032           |
| 25.0       | 0.003   | -0.005  | 0.007   | 95.2246           |
| 20.0       | 0.0006  | -0.005  | 0.007   | 96.6548           |
| 15.0       | -0.0015 |         |         |                   |
| 10.0       | -0.005  |         |         |                   |
| 5.0        | -0.005  |         |         |                   |
| 1.0        | -0.005  |         |         |                   |

Percentile Formula: Ave  $X(p[n+1])$

## Stem-Leaf Plot Section of Sub SOF Unbiased

| Depth | Stem | Leaves |
|-------|------|--------|
| 2     | -0*  | 55     |
| 4     | 0*   | 01     |
| (6)   | .    | 567789 |
| 7     | 1*   | 112    |
| 4     | .    | 67     |
| 2     | 2*   | 00     |

Unit = .001 Example: 1 | 2 Represents 0.012

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## Summary Section of Sub Co-60 Biased

| Count | Mean         | Standard Deviation | Standard Error | Minimum  | Maximum | Range   |
|-------|--------------|--------------------|----------------|----------|---------|---------|
| 11    | 2.887727E-02 | 1.511759E-02       | 4.558126E-03   | -0.00195 | 0.049   | 0.05095 |

## Counts Section of Sub Co-60 Biased

| Rows | Sum of Frequencies | Sum of Values | Distinct Values | Sum     | Total Sum Squares | Adjusted Sum Squares |
|------|--------------------|---------------|-----------------|---------|-------------------|----------------------|
| 28   | 11                 | 17            | 11              | 0.31765 | 1.145828E-02      | 2.285417E-03         |

## Means Section of Sub Co-60 Biased

| Parameter  | Mean         | Median | Geometric Mean | Harmonic Mean | Sum          | Mode |
|------------|--------------|--------|----------------|---------------|--------------|------|
| Value      | 2.887727E-02 | 0.033  | 2.949199E-02   | -8.131362E-02 | 0.31765      |      |
| Std Error  | 4.558126E-03 |        |                |               | 5.013939E-02 |      |
| 95% LCL    | 1.872113E-02 | 0.0115 | 2.126396E-02   | 9.996236E-03  | 0.2059325    |      |
| 95% UCL    | 3.903341E-02 | 0.0411 | 4.090384E-02   | -8.023507E-03 | 0.4293675    |      |
| T-Value    | 6.3353       |        |                |               |              |      |
| Prob Level | 0.000085     |        |                |               |              |      |
| Count      | 11           |        | 10             | 11            |              |      |

The geometric mean confidence interval assumes that the  $\ln(y)$  are normally distributed.

The harmonic mean confidence interval assumes that the  $1/y$  are normally distributed.

## Variation Section of Sub Co-60 Biased

| Parameter | Variance     | Standard Deviation | Unbiased Std Dev | Std Error of Mean | Interquartile Range | Range   |
|-----------|--------------|--------------------|------------------|-------------------|---------------------|---------|
| Value     | 2.285417E-04 | 1.511759E-02       | 1.549966E-02     | 4.558126E-03      | 0.0254              | 0.05095 |
| Std Error | 8.854338E-05 | 4.141507E-03       |                  | 1.248711E-03      |                     |         |
| 95% LCL   | 1.115753E-04 | 1.056292E-02       |                  | 3.184841E-03      |                     |         |
| 95% UCL   | 7.038608E-04 | 2.653038E-02       |                  | 7.999209E-03      |                     |         |

## Skewness and Kurtosis Section of Sub Co-60 Biased

| Parameter | Skewness   | Kurtosis | Fisher's g1 | Fisher's g2 | Coefficient of Variation | Coefficient % UCL |
|-----------|------------|----------|-------------|-------------|--------------------------|-------------------|
| Value     | -0.7078729 | 2.651103 | -0.8249148  | 0.2518376   | 0.5235119                | 0.3320937         |
| Std Error | 0.4643341  | 1.085819 |             |             | 0.1590445                |                   |

## Trimmed Section of Sub Co-60 Biased

| Parameter    | 5% Trimmed   | 10% Trimmed  | 15% Trimmed  | 25% Trimmed  | 35% Trimmed  | 45% Trimmed  |
|--------------|--------------|--------------|--------------|--------------|--------------|--------------|
| Trim-Mean    | 2.947197E-02 | 0.030125     | 0.0305       | 3.145454E-02 | 3.246061E-02 | 3.295454E-02 |
| Trim-Std Dev | 0.0131394    | 1.053013E-02 | 9.260976E-03 | 5.488749E-03 | 2.431217E-03 | 1.862061E-03 |
| Count        | 9.9          | 8.8          | 7.7          | 5.5          | 3.3          | 1.1          |

## Mean-Deviation Section of Sub Co-60 Biased

| Parameter | X-Mean       | X-Median     | (X-Mean)^2   | (X-Mean)^3    | (X-Mean)^4   |
|-----------|--------------|--------------|--------------|---------------|--------------|
| Average   | 1.166529E-02 | 1.095909E-02 | 2.077652E-04 | -2.119895E-06 | 1.144385E-07 |
| Std Error | 2.732243E-03 |              | 8.049398E-05 | 1.407755E-06  | 6.036709E-08 |

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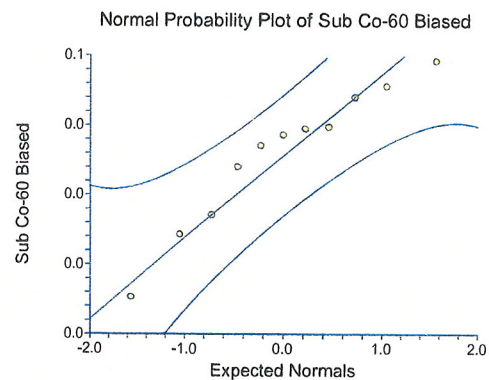
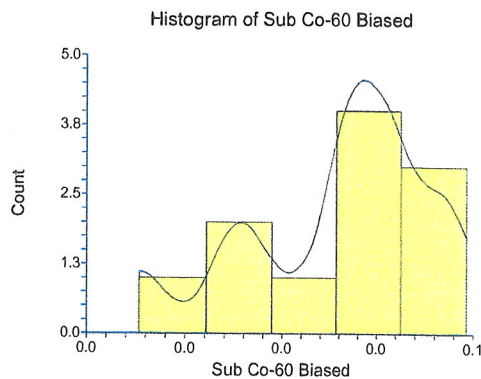
### Quartile Section of Sub Co-60 Biased

| Parameter | 10th Percentile | 25th Percentile | 50th Percentile | 75th Percentile | 90th Percentile |
|-----------|-----------------|-----------------|-----------------|-----------------|-----------------|
| Value     | 0.00074         | 0.0157          | 0.033           | 0.0411          | 0.0479          |
| 95% LCL   |                 | -0.00195        | 0.0115          | 0.0307          |                 |
| 95% UCL   |                 | 0.0343          | 0.0411          | 0.049           |                 |

### Normality Test Section of Sub Co-60 Biased

| Test Name           | Test Value | Prob Level | 10% Critical Value | 5% Critical Value | Decision (5%)          |
|---------------------|------------|------------|--------------------|-------------------|------------------------|
| Shapiro-Wilk W      | 0.9406376  | 0.528023   |                    |                   | Can't reject normality |
| Anderson-Darling    | 0.3381617  | 0.503485   |                    |                   | Can't reject normality |
| Martinez-Iglewicz   | 1.156391   |            | 1.390037           | 1.823783          | Can't reject normality |
| Kolmogorov-Smirnov  | 0.0934387  |            | 0.231              | 0.251             | Can't reject normality |
| D'Agostino Skewness | -1.2738    | 0.202733   | 1.645              | 1.960             | Can't reject normality |
| D'Agostino Kurtosis | 0.4101     | 0.681767   | 1.645              | 1.960             | Can't reject normality |
| D'Agostino Omnibus  | 1.7907     | 0.408460   | 4.605              | 5.991             | Can't reject normality |

### Plots Section of Sub Co-60 Biased





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## Percentile Section of Sub Co-60 Biased

| Percentile | Value    | 95% LCL  | 95% UCL | Exact Conf. Level |
|------------|----------|----------|---------|-------------------|
| 99.0       | 0.049    |          |         |                   |
| 95.0       | 0.049    |          |         |                   |
| 90.0       | 0.0479   |          |         |                   |
| 85.0       | 0.0446   |          |         |                   |
| 80.0       | 0.04254  |          |         |                   |
| 75.0       | 0.0411   | 0.0307   | 0.049   | 95.0204           |
| 70.0       | 0.03726  | 0.0307   | 0.049   | 95.8608           |
| 65.0       | 0.03462  | 0.0261   | 0.049   | 97.9007           |
| 60.0       | 0.03438  | 0.0157   | 0.0435  | 96.3842           |
| 55.0       | 0.03378  | 0.0157   | 0.0435  | 97.1266           |
| 50.0       | 0.033    | 0.0115   | 0.0411  | 96.1426           |
| 45.0       | 0.03162  | 0.0115   | 0.0411  | 97.1266           |
| 40.0       | 0.02978  | -0.00195 | 0.0347  | 96.7091           |
| 35.0       | 0.02702  | -0.00195 | 0.0347  | 97.9007           |
| 30.0       | 0.02194  | -0.00195 | 0.0343  | 95.8608           |
| 25.0       | 0.0157   | -0.00195 | 0.0343  | 95.0204           |
| 20.0       | 0.01318  |          |         |                   |
| 15.0       | 0.00881  |          |         |                   |
| 10.0       | 0.00074  |          |         |                   |
| 5.0        | -0.00195 |          |         |                   |
| 1.0        | -0.00195 |          |         |                   |

Percentile Formula: Ave  $X(p[n+1])$

## Stem-Leaf Plot Section of Sub Co-60 Biased

| Depth | Stem | Leaves |
|-------|------|--------|
| 1     | -0   | 1      |
| 1     | 0    |        |
| 3     | 1    | 15     |
| 4     | 2    | 6      |
| (4)   | 3    | 0344   |
| 3     | 4    | 139    |

Unit = .001 Example: 1 |2 Represents 0.012

# Descriptive Statistics Report

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## Summary Section of Sub Total U Biased

| Count | Mean | Standard Deviation | Standard Error | Minimum | Maximum | Range |
|-------|------|--------------------|----------------|---------|---------|-------|
| 11    | 2.6  | 1.00896            | 0.3042128      | 0.5     | 4.7     | 4.2   |

## Counts Section of Sub Total U Biased

| Rows | Sum of Frequencies | Sum of Values | Distinct Values | Sum  | Total Sum Squares | Adjusted Sum Squares |
|------|--------------------|---------------|-----------------|------|-------------------|----------------------|
| 28   | 11                 | 17            | 9               | 28.6 | 84.54             | 10.18                |

## Means Section of Sub Total U Biased

| Parameter  | Mean      | Median | Geometric Mean | Harmonic Mean | Sum      | Mode |
|------------|-----------|--------|----------------|---------------|----------|------|
| Value      | 2.6       | 2.5    | 2.340013       | 1.911418      | 28.6     | 2.4  |
| Std Error  | 0.3042128 |        |                |               | 3.346341 |      |
| 95% LCL    | 1.922172  | 1.9    | 1.6045         | 1.167516      | 21.14389 |      |
| 95% UCL    | 3.277828  | 3      | 3.41269        | 5.268047      | 36.05611 |      |
| T-Value    | 8.5466    |        |                |               |          |      |
| Prob Level | 0.000007  |        |                |               |          |      |
| Count      | 11        |        | 11             | 11            |          | 3    |

The geometric mean confidence interval assumes that the  $\ln(y)$  are normally distributed.  
The harmonic mean confidence interval assumes that the  $1/y$  are normally distributed.

## Variation Section of Sub Total U Biased

| Parameter | Variance  | Standard Deviation | Unbiased Std Dev | Std Error of Mean | Interquartile Range | Range |
|-----------|-----------|--------------------|------------------|-------------------|---------------------|-------|
| Value     | 1.018     | 1.00896            | 1.034459         | 0.3042128         | 0.6                 | 4.2   |
| Std Error | 0.5476666 | 0.3838198          |                  | 0.115726          |                     |       |
| 95% LCL   | 0.4969932 | 0.7049775          |                  | 0.2125587         |                     |       |
| 95% UCL   | 3.135228  | 1.770658           |                  | 0.5338733         |                     |       |

## Skewness and Kurtosis Section of Sub Total U Biased

| Parameter | Skewness     | Kurtosis | Fisher's g1  | Fisher's g2 | Coefficient of Variation | Coefficient % UCL |
|-----------|--------------|----------|--------------|-------------|--------------------------|-------------------|
| Value     | 6.739359E-03 | 4.183682 | 7.853666E-03 | 2.806137    | 0.3880615                | 0.2509091         |
| Std Error | 0.5720815    | 1.894477 |              |             | 0.1128554                |                   |

## Trimmed Section of Sub Total U Biased

| Parameter    | 5% Trimmed | 10% Trimmed | 15% Trimmed | 25% Trimmed | 35% Trimmed | 45% Trimmed |
|--------------|------------|-------------|-------------|-------------|-------------|-------------|
| Trim-Mean    | 2.6        | 2.6         | 2.6         | 2.572727    | 2.513636    | 2.5         |
| Trim-Std Dev | 0.7737985  | 0.4022373   | 0.3284973   | 0.2240581   | 0.139699    | 0.1         |
| Count        | 9.9        | 8.8         | 7.7         | 5.5         | 3.3         | 1.1         |

## Mean-Deviation Section of Sub Total U Biased

| Parameter | X-Mean    | X-Median  | (X-Mean)^2 | (X-Mean)^3 | (X-Mean)^4 |
|-----------|-----------|-----------|------------|------------|------------|
| Average   | 0.6363636 | 0.6272727 | 0.9254546  | 0.006      | 3.583182   |
| Std Error | 0.182352  |           | 0.4978788  | 0.5092601  | 2.255109   |

## Descriptive Statistics Report

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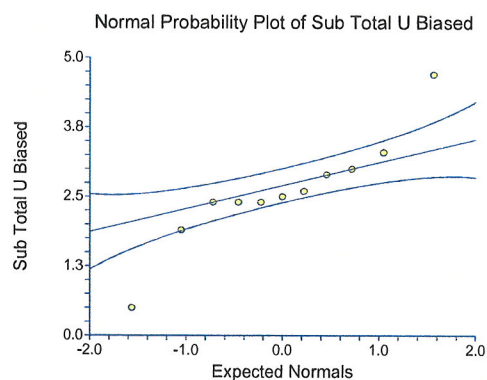
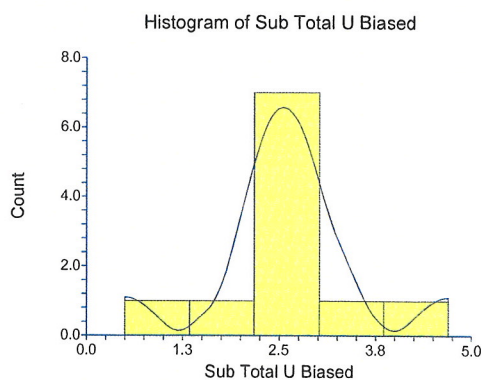
### Quartile Section of Sub Total U Biased

| Parameter | 10th Percentile | 25th Percentile | 50th Percentile | 75th Percentile | 90th Percentile |
|-----------|-----------------|-----------------|-----------------|-----------------|-----------------|
| Value     | 0.78            | 2.4             | 2.5             | 3               | 4.42            |
| 95% LCL   |                 | 0.5             | 1.9             | 2.4             |                 |
| 95% UCL   |                 | 2.6             | 3               | 4.7             |                 |

### Normality Test Section of Sub Total U Biased

| Test Name           | Test Value | Prob Level | 10% Critical Value | 5% Critical Value | Decision (5%)          |
|---------------------|------------|------------|--------------------|-------------------|------------------------|
| Shapiro-Wilk W      | 0.9062726  | 0.220175   |                    |                   | Can't reject normality |
| Anderson-Darling    | 0.6171907  | 0.108310   |                    |                   | Can't reject normality |
| Martinez-Iglewicz   | 1.763373   |            | 1.390037           | 1.823783          | Can't reject normality |
| Kolmogorov-Smirnov  | 0.1640691  |            | 0.231              | 0.251             | Can't reject normality |
| D'Agostino Skewness | 0.0124     | 0.990102   | 1.645              | 1.960             | Can't reject normality |
| D'Agostino Kurtosis | 1.8230     | 0.068301   | 1.645              | 1.960             | Can't reject normality |
| D'Agostino Omnibus  | 3.3235     | 0.189803   | 4.605              | 5.991             | Can't reject normality |

### Plots Section of Sub Total U Biased



# Descriptive Statistics Report

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## Percentile Section of Sub Total U Biased

| Percentile | Value | 95% LCL | 95% UCL | Exact Conf. Level |
|------------|-------|---------|---------|-------------------|
| 99.0       | 4.7   |         |         |                   |
| 95.0       | 4.7   |         |         |                   |
| 90.0       | 4.42  |         |         |                   |
| 85.0       | 3.58  |         |         |                   |
| 80.0       | 3.18  |         |         |                   |
| 75.0       | 3     | 2.4     | 4.7     | 95.0204           |
| 70.0       | 2.94  | 2.4     | 4.7     | 95.8608           |
| 65.0       | 2.84  | 2.4     | 4.7     | 97.9007           |
| 60.0       | 2.66  | 2.4     | 3.3     | 96.3842           |
| 55.0       | 2.56  | 2.4     | 3.3     | 97.1266           |
| 50.0       | 2.5   | 1.9     | 3       | 96.1426           |
| 45.0       | 2.44  | 1.9     | 3       | 97.1266           |
| 40.0       | 2.4   | 0.5     | 2.9     | 96.7091           |
| 35.0       | 2.4   | 0.5     | 2.9     | 97.9007           |
| 30.0       | 2.4   | 0.5     | 2.6     | 95.8608           |
| 25.0       | 2.4   | 0.5     | 2.6     | 95.0204           |
| 20.0       | 2.1   |         |         |                   |
| 15.0       | 1.62  |         |         |                   |
| 10.0       | 0.78  |         |         |                   |
| 5.0        | 0.5   |         |         |                   |
| 1.0        | 0.5   |         |         |                   |

Percentile Formula: Ave  $X(p[n+1])$

## Stem-Leaf Plot Section of Sub Total U Biased

| Depth | Stem | Leaves |
|-------|------|--------|
| Low   |      | 5      |
| 2     | 1.   | 9      |
| 2     | 2*   |        |
| 2     | T    |        |
| (4)   | F    | 4445   |
| 5     | S    | 6      |
| 4     | .    | 9      |
| 3     | 3*   | 0      |
| 2     | T    | 3      |
| High  |      | 47     |

Unit = .1 Example: 1 | 2 Represents 1.2



# Descriptive Statistics Report

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## Summary Section of Sub SOF Biased

| Count | Mean         | Standard Deviation | Standard Error | Minimum | Maximum | Range |
|-------|--------------|--------------------|----------------|---------|---------|-------|
| 11    | 1.045455E-02 | 3.110101E-03       | 9.377307E-04   | 0.005   | 0.015   | 0.01  |

## Counts Section of Sub SOF Biased

| Rows | Sum of Frequencies | Sum of Values | Distinct Values | Sum   | Total Sum Squares | Adjusted Sum Squares |
|------|--------------------|---------------|-----------------|-------|-------------------|----------------------|
| 28   | 11                 | 17            | 8               | 0.115 | 0.001299          | 9.672727E-05         |

## Means Section of Sub SOF Biased

| Parameter  | Mean         | Median | Geometric Mean | Harmonic Mean | Sum          | Mode  |
|------------|--------------|--------|----------------|---------------|--------------|-------|
| Value      | 1.045455E-02 | 0.011  | 9.978609E-03   | 9.450691E-03  | 0.115        | 0.011 |
| Std Error  | 9.377307E-04 |        |                |               | 1.031504E-02 |       |
| 95% LCL    | 8.365151E-03 | 0.007  | 7.97412E-03    | 7.551028E-03  | 9.201667E-02 |       |
| 95% UCL    | 1.254394E-02 | 0.013  | 1.248697E-02   | 1.262747E-02  | 0.1379833    |       |
| T-Value    | 11.1488      |        |                |               |              |       |
| Prob Level | 0.000001     |        |                |               |              |       |
| Count      | 11           |        | 11             | 11            |              | 3     |

The geometric mean confidence interval assumes that the  $\ln(y)$  are normally distributed.

The harmonic mean confidence interval assumes that the  $1/y$  are normally distributed.

## Variation Section of Sub SOF Biased

| Parameter | Variance     | Standard Deviation | Unbiased Std Dev | Std Error of Mean | Interquartile Range | Range |
|-----------|--------------|--------------------|------------------|-------------------|---------------------|-------|
| Value     | 9.672727E-06 | 3.110101E-03       | 3.188702E-03     | 9.377307E-04      | 0.005               | 0.01  |
| Std Error | 2.970665E-06 | 6.75405E-04        |                  | 2.036423E-04      |                     |       |
| 95% LCL   | 4.722279E-06 | 2.173081E-03       |                  | 6.552084E-04      |                     |       |
| 95% UCL   | 2.978999E-05 | 5.45802E-03        |                  | 1.645655E-03      |                     |       |

## Skewness and Kurtosis Section of Sub SOF Biased

| Parameter | Skewness   | Kurtosis | Fisher's g1 | Fisher's g2 | Coefficient of Variation | Coefficient % UCL |
|-----------|------------|----------|-------------|-------------|--------------------------|-------------------|
| Value     | -0.2577606 | 2.037534 | -0.3003795  | -0.7707768  | 0.2974879                | 0.214876          |
| Std Error | 0.4334917  | 1.068417 |             |             | 5.763965E-02             |                   |

## Trimmed Section of Sub SOF Biased

| Parameter    | 5% Trimmed   | 10% Trimmed  | 15% Trimmed  | 25% Trimmed  | 35% Trimmed  | 45% Trimmed  |
|--------------|--------------|--------------|--------------|--------------|--------------|--------------|
| Trim-Mean    | 1.050505E-02 | 1.055682E-02 | 1.056494E-02 | 1.059091E-02 | 1.090909E-02 | 0.011        |
| Trim-Std Dev | 2.783877E-03 | 2.368912E-03 | 2.126329E-03 | 1.655264E-03 | 8.001976E-04 | 3.738455E-10 |
| Count        | 9.9          | 8.8          | 7.7          | 5.5          | 3.3          | 1.1          |

## Mean-Deviation Section of Sub SOF Biased

| Parameter | X-Mean       | X-Median     | (X-Mean)^2   | (X-Mean)^3    | (X-Mean)^4   |
|-----------|--------------|--------------|--------------|---------------|--------------|
| Average   | 2.512397E-03 | 2.363636E-03 | 8.793389E-06 | -6.721262E-09 | 1.575496E-10 |
| Std Error | 5.620967E-04 |              | 2.700605E-06 | 1.111388E-08  | 0            |

# Descriptive Statistics Report

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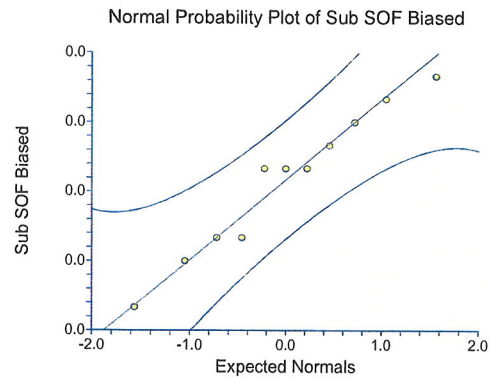
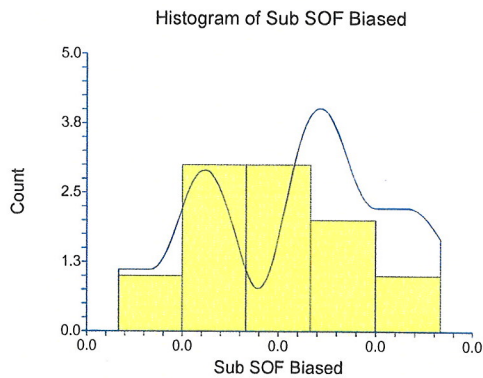
## Quartile Section of Sub SOF Biased

| Parameter | 10th Percentile | 25th Percentile | 50th Percentile | 75th Percentile | 90th Percentile |
|-----------|-----------------|-----------------|-----------------|-----------------|-----------------|
| Value     | 0.0054          | 0.008           | 0.011           | 0.013           | 0.0148          |
| 95% LCL   |                 | 0.005           | 0.007           | 0.011           |                 |
| 95% UCL   |                 | 0.011           | 0.013           | 0.015           |                 |

## Normality Test Section of Sub SOF Biased

| Test Name           | Test Value | Prob Level | 10% Critical Value | 5% Critical Value | Decision (5%)          |
|---------------------|------------|------------|--------------------|-------------------|------------------------|
| Shapiro-Wilk W      | 0.9575443  | 0.740725   |                    |                   | Can't reject normality |
| Anderson-Darling    | 0.276003   | 0.657715   |                    |                   | Can't reject normality |
| Martinez-Iglewicz   | 1.058651   |            | 1.390037           | 1.823783          | Can't reject normality |
| Kolmogorov-Smirnov  | 0.1486439  |            | 0.231              | 0.251             | Can't reject normality |
| D'Agostino Skewness | -0.4730    | 0.636230   | 1.645              | 1.960             | Can't reject normality |
| D'Agostino Kurtosis | -0.5368    | 0.591387   | 1.645              | 1.960             | Can't reject normality |
| D'Agostino Omnibus  | 0.5119     | 0.774184   | 4.605              | 5.991             | Can't reject normality |

## Plots Section of Sub SOF Biased



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## Percentile Section of Sub SOF Biased

| Percentile | Value  | 95% LCL | 95% UCL | Exact Conf. Level |
|------------|--------|---------|---------|-------------------|
| 99.0       | 0.015  |         |         |                   |
| 95.0       | 0.015  |         |         |                   |
| 90.0       | 0.0148 |         |         |                   |
| 85.0       | 0.0142 |         |         |                   |
| 80.0       | 0.0136 |         |         |                   |
| 75.0       | 0.013  | 0.011   | 0.015   | 95.0204           |
| 70.0       | 0.0124 | 0.011   | 0.015   | 95.8608           |
| 65.0       | 0.0118 | 0.008   | 0.015   | 97.9007           |
| 60.0       | 0.0112 | 0.008   | 0.014   | 96.3842           |
| 55.0       | 0.011  | 0.008   | 0.014   | 97.1266           |
| 50.0       | 0.011  | 0.007   | 0.013   | 96.1426           |
| 45.0       | 0.011  | 0.007   | 0.013   | 97.1266           |
| 40.0       | 0.0104 | 0.005   | 0.012   | 96.7091           |
| 35.0       | 0.0086 | 0.005   | 0.012   | 97.9007           |
| 30.0       | 0.008  | 0.005   | 0.011   | 95.8608           |
| 25.0       | 0.008  | 0.005   | 0.011   | 95.0204           |
| 20.0       | 0.0074 |         |         |                   |
| 15.0       | 0.0066 |         |         |                   |
| 10.0       | 0.0054 |         |         |                   |
| 5.0        | 0.005  |         |         |                   |
| 1.0        | 0.005  |         |         |                   |

Percentile Formula: Ave  $X(p[n+1])$

## Stem-Leaf Plot Section of Sub SOF Biased

| Depth | Stem | Leaves |
|-------|------|--------|
| 1     | F    | 5      |
| 2     | S    | 7      |
| 4     | .    | 88     |
| (3)   | 1*   | 111    |
| 4     | T    | 23     |
| 2     | F    | 45     |

Unit = .001 Example: 1 |2 Represents 0.012

# Descriptive Statistics Report

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## Summary Section of Sub Co-60 All

| Count | Mean         | Standard Deviation | Standard Error | Minimum | Maximum | Range |
|-------|--------------|--------------------|----------------|---------|---------|-------|
| 28    | 2.244107E-02 | 2.800602E-02       | 5.292641E-03   | -0.0432 | 0.0698  | 0.113 |

## Counts Section of Sub Co-60 All

| Rows | Sum of Frequencies | Sum of Values | Distinct Values | Sum     | Total Sum Squares | Adjusted Sum Squares |
|------|--------------------|---------------|-----------------|---------|-------------------|----------------------|
| 28   | 28                 | 0             | 27              | 0.62835 | 3.527795E-02      | 0.0211771            |

## Means Section of Sub Co-60 All

| Parameter  | Mean         | Median   | Geometric Mean | Harmonic Mean | Sum       | Mode   |
|------------|--------------|----------|----------------|---------------|-----------|--------|
| Value      | 2.244107E-02 | 0.0317   | 0.0328432      | -2.470791E-02 | 0.62835   | 0.0157 |
| Std Error  | 5.292641E-03 |          |                |               | 0.1481939 |        |
| 95% LCL    | 1.158147E-02 | -0.00184 | 2.557491E-02   | 3.782643E-02  | 0.3242812 |        |
| 95% UCL    | 3.330067E-02 | 0.0363   | 4.217712E-02   | -9.312523E-03 | 0.9324188 |        |
| T-Value    | 4.2401       |          |                |               |           |        |
| Prob Level | 0.000234     |          |                |               |           |        |
| Count      | 28           |          | 20             | 28            |           | 2      |

The geometric mean confidence interval assumes that the  $\ln(y)$  are normally distributed.

The harmonic mean confidence interval assumes that the  $1/y$  are normally distributed.

## Variation Section of Sub Co-60 All

| Parameter | Variance     | Standard Deviation | Unbiased Std Dev | Std Error of Mean | Interquartile Range | Range |
|-----------|--------------|--------------------|------------------|-------------------|---------------------|-------|
| Value     | 7.843372E-04 | 2.800602E-02       | 2.826648E-02     | 5.292641E-03      | 0.0433225           | 0.113 |
| Std Error | 1.808125E-04 | 4.565224E-03       |                  | 8.627463E-04      |                     |       |
| 95% LCL   | 4.902731E-04 | 2.214211E-02       |                  | 4.184465E-03      |                     |       |
| 95% UCL   | 1.453136E-03 | 3.812002E-02       |                  | 7.204006E-03      |                     |       |

## Skewness and Kurtosis Section of Sub Co-60 All

| Parameter | Skewness   | Kurtosis  | Fisher's g1 | Fisher's g2 | Coefficient of Variation | Coefficient % UCL |
|-----------|------------|-----------|-------------|-------------|--------------------------|-------------------|
| Value     | -0.4302465 | 2.488022  | -0.4549932  | -0.3675056  | 1.247981                 | 0.7073569         |
| Std Error | 0.3202623  | 0.5134915 |             |             | 0.3654551                |                   |

## Trimmed Section of Sub Co-60 All

| Parameter    | 5% Trimmed   | 10% Trimmed  | 15% Trimmed  | 25% Trimmed  | 35% Trimmed  | 45% Trimmed  |
|--------------|--------------|--------------|--------------|--------------|--------------|--------------|
| Trim-Mean    | 2.320754E-02 | 2.343616E-02 | 2.398929E-02 | 2.569714E-02 | 2.767381E-02 | 3.108571E-02 |
| Trim-Std Dev | 2.325929E-02 | 2.032435E-02 | 1.769558E-02 | 1.299876E-02 | 8.321936E-03 | 2.805097E-03 |
| Count        | 25.2         | 22.4         | 19.6         | 14           | 8.4          | 2.8          |

## Mean-Deviation Section of Sub Co-60 All

| Parameter | X-Mean       | X-Median     | (X-Mean)^2   | (X-Mean)^3    | (X-Mean)^4   |
|-----------|--------------|--------------|--------------|---------------|--------------|
| Average   | 2.327449E-02 | 2.242322E-02 | 7.563251E-04 | -8.949117E-06 | 1.423218E-06 |
| Std Error | 3.18339E-03  |              | 1.743549E-04 | 7.173312E-06  | 6.152386E-07 |



## Descriptive Statistics Report

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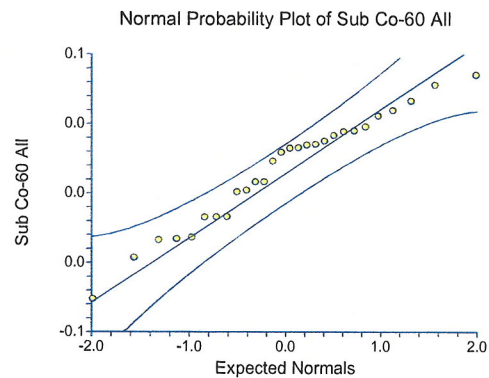
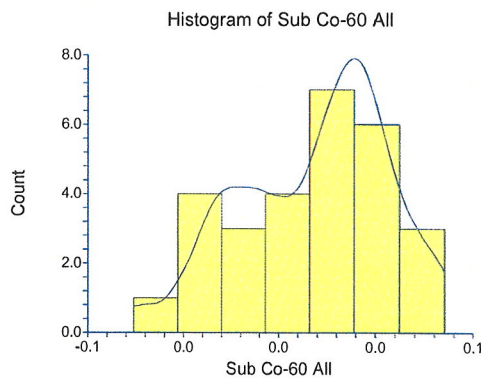
### Quartile Section of Sub Co-60 All

| Parameter | 10th Percentile | 25th Percentile | 50th Percentile | 75th Percentile | 90th Percentile |
|-----------|-----------------|-----------------|-----------------|-----------------|-----------------|
| Value     | -0.01439        | -0.0019225      | 0.0317          | 0.0414          | 0.05741         |
| 95% LCL   |                 | -0.0135         | -0.00184        | 0.0343          |                 |
| 95% UCL   |                 | 0.0157          | 0.0363          | 0.0566          |                 |

### Normality Test Section of Sub Co-60 All

| Test Name           | Test Value | Prob Level | 10% Critical Value | 5% Critical Value | Decision (5%)          |
|---------------------|------------|------------|--------------------|-------------------|------------------------|
| Shapiro-Wilk W      | 0.9654921  | 0.466200   |                    |                   | Can't reject normality |
| Anderson-Darling    | 0.4290679  | 0.309642   |                    |                   | Can't reject normality |
| Martinez-Iglewicz   | 1.024736   |            | 1.158157           | 1.244733          | Can't reject normality |
| Kolmogorov-Smirnov  | 0.1159642  |            | 0.151              | 0.164             | Can't reject normality |
| D'Agostino Skewness | -1.0725    | 0.283503   | 1.645              | 1.960             | Can't reject normality |
| D'Agostino Kurtosis | -0.2897    | 0.772021   | 1.645              | 1.960             | Can't reject normality |
| D'Agostino Omnibus  | 1.2342     | 0.539516   | 4.605              | 5.991             | Can't reject normality |

### Plots Section of Sub Co-60 All



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## Percentile Section of Sub Co-60 All

| Percentile | Value      | 95% LCL  | 95% UCL | Exact Conf. Level |
|------------|------------|----------|---------|-------------------|
| 99.0       | 0.0698     |          |         |                   |
| 95.0       | 0.067505   |          |         |                   |
| 90.0       | 0.05741    |          |         |                   |
| 85.0       | 0.05082    | 0.0391   | 0.0698  | 97.1728           |
| 80.0       | 0.0446     | 0.0347   | 0.0647  | 96.9663           |
| 75.0       | 0.0414     | 0.0343   | 0.0566  | 95.3974           |
| 70.0       | 0.0397     | 0.0327   | 0.0518  | 96.3583           |
| 65.0       | 0.03606    | 0.0307   | 0.049   | 95.2711           |
| 60.0       | 0.03446    | 0.0157   | 0.0415  | 96.0423           |
| 55.0       | 0.032985   | 0.0115   | 0.0411  | 96.3315           |
| 50.0       | 0.0317     | -0.00184 | 0.0363  | 95.0150           |
| 45.0       | 0.02633    | -0.00195 | 0.0347  | 95.9895           |
| 40.0       | 0.0157     | -0.00206 | 0.0343  | 96.7350           |
| 35.0       | 0.01213    | -0.0122  | 0.0327  | 95.2711           |
| 30.0       | 0.006938   | -0.013   | 0.0307  | 96.3583           |
| 25.0       | -0.0019225 | -0.0135  | 0.0157  | 95.3974           |
| 20.0       | -0.004088  | -0.0432  | 0.0115  | 95.8995           |
| 15.0       | -0.01272   | -0.0432  | 0.0107  | 97.1728           |
| 10.0       | -0.01439   |          |         |                   |
| 5.0        | -0.03384   |          |         |                   |
| 1.0        | -0.0432    |          |         |                   |

Percentile Formula: Ave  $X(p[n+1])$

## Stem-Leaf Plot Section of Sub Co-60 All

| Depth | Stem | Leaves  |
|-------|------|---------|
| 1     | -4   | 3       |
| 1     | -3   |         |
| 2     | -2   | 2       |
| 5     | -1   | 332     |
| 8     | -0   | 211     |
| 8     | 0    |         |
| 12    | 1    | 0155    |
| 13    | 2    | 6       |
| (7)   | 3    | 0234469 |
| 8     | 4    | 1139    |
| 4     | 5    | 16      |
| 2     | 6    | 49      |

Unit = .001 Example: 1 |2 Represents 0.012

# Descriptive Statistics Report

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## Summary Section of Sub Total U All

| Count | Mean     | Standard Deviation | Standard Error | Minimum | Maximum | Range |
|-------|----------|--------------------|----------------|---------|---------|-------|
| 28    | 2.592857 | 1.429563           | 0.270162       | -1.2    | 5.3     | 6.5   |

## Counts Section of Sub Total U All

| Rows | Sum of Frequencies | Sum of Values | Distinct Values | Sum  | Total Sum Squares | Adjusted Sum Squares |
|------|--------------------|---------------|-----------------|------|-------------------|----------------------|
| 28   | 28                 | 0             | 21              | 72.6 | 243.42            | 55.17857             |

## Means Section of Sub Total U All

| Parameter  | Mean     | Median | Geometric Mean | Harmonic Mean | Sum      | Mode |
|------------|----------|--------|----------------|---------------|----------|------|
| Value      | 2.592857 | 2.4    | 2.442143       | 2.322979      | 72.6     | 2.4  |
| Std Error  | 0.270162 |        |                |               | 7.564537 |      |
| 95% LCL    | 2.03853  | 1.9    | 1.990444       | 1.679752      | 57.07885 |      |
| 95% UCL    | 3.147184 | 3      | 2.996349       | 3.764531      | 88.12115 |      |
| T-Value    | 9.5974   |        |                |               |          |      |
| Prob Level | 0.000000 |        |                |               |          |      |
| Count      | 28       |        | 27             | 28            |          | 4    |

The geometric mean confidence interval assumes that the  $\ln(y)$  are normally distributed.  
The harmonic mean confidence interval assumes that the  $1/y$  are normally distributed.

## Variation Section of Sub Total U All

| Parameter | Variance  | Standard Deviation | Unbiased Std Dev | Std Error of Mean | Interquartile Range | Range |
|-----------|-----------|--------------------|------------------|-------------------|---------------------|-------|
| Value     | 2.043651  | 1.429563           | 1.442858         | 0.270162          | 1.425               | 6.5   |
| Std Error | 0.6216418 | 0.3074835          |                  | 5.810893E-02      |                     |       |
| 95% LCL   | 1.277444  | 1.130241           |                  | 0.2135954         |                     |       |
| 95% UCL   | 3.786257  | 1.945831           |                  | 0.3677274         |                     |       |

## Skewness and Kurtosis Section of Sub Total U All

| Parameter | Skewness   | Kurtosis  | Fisher's g1 | Fisher's g2 | Coefficient of Variation | Coefficient % UCL |
|-----------|------------|-----------|-------------|-------------|--------------------------|-------------------|
| Value     | -0.1068372 | 3.590747  | -0.1129822  | 0.9608541   | 0.5513467                | 0.4285714         |
| Std Error | 0.4463041  | 0.7796114 |             |             | 0.1041247                |                   |

## Trimmed Section of Sub Total U All

| Parameter    | 5% Trimmed | 10% Trimmed | 15% Trimmed | 25% Trimmed | 35% Trimmed | 45% Trimmed  |
|--------------|------------|-------------|-------------|-------------|-------------|--------------|
| Trim-Mean    | 2.62619    | 2.595536    | 2.536735    | 2.464286    | 2.452381    | 2.414286     |
| Trim-Std Dev | 1.090013   | 0.8693523   | 0.684449    | 0.4180672   | 0.2703732   | 4.364358E-02 |
| Count        | 25.2       | 22.4        | 19.6        | 14          | 8.4         | 2.8          |

## Mean-Deviation Section of Sub Total U All

| Parameter | X-Mean    | X-Median | (X-Mean)^2 | (X-Mean)^3 | (X-Mean)^4 |
|-----------|-----------|----------|------------|------------|------------|
| Average   | 1.04898   | 1.028571 | 1.970663   | -0.2955568 | 13.94472   |
| Std Error | 0.1624956 |          | 0.5994403  | 1.315889   | 7.430549   |

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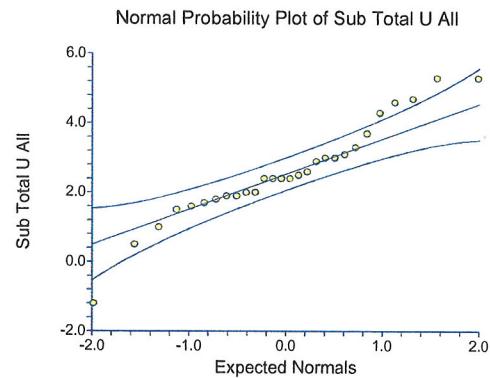
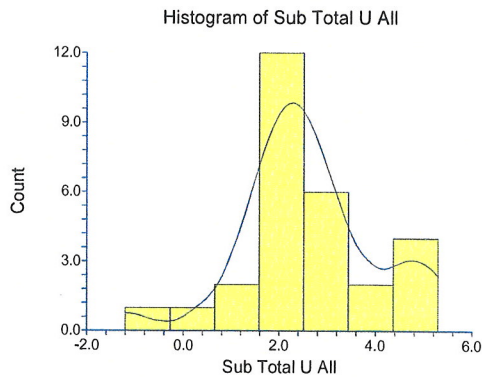
## Quartile Section of Sub Total U All

| Parameter | 10th Percentile | 25th Percentile | 50th Percentile | 75th Percentile | 90th Percentile |
|-----------|-----------------|-----------------|-----------------|-----------------|-----------------|
| Value     | 0.95            | 1.825           | 2.4             | 3.25            | 4.76            |
| 95% LCL   |                 | 1               | 1.9             | 2.6             |                 |
| 95% UCL   |                 | 2.4             | 3               | 4.7             |                 |

## Normality Test Section of Sub Total U All

| Test Name           | Test Value | Prob Level | 10% Critical Value | 5% Critical Value | Decision (5%)          |
|---------------------|------------|------------|--------------------|-------------------|------------------------|
| Shapiro-Wilk W      | 0.9550582  | 0.264761   |                    |                   | Can't reject normality |
| Anderson-Darling    | 0.5233372  | 0.182754   |                    |                   | Can't reject normality |
| Martinez-Iglewicz   | 1.153031   |            | 1.158157           | 1.244733          | Can't reject normality |
| Kolmogorov-Smirnov  | 0.111387   |            | 0.151              | 0.164             | Can't reject normality |
| D'Agostino Skewness | -0.2720    | 0.785631   | 1.645              | 1.960             | Can't reject normality |
| D'Agostino Kurtosis | 1.1939     | 0.232530   | 1.645              | 1.960             | Can't reject normality |
| D'Agostino Omnibus  | 1.4993     | 0.472533   | 4.605              | 5.991             | Can't reject normality |

## Plots Section of Sub Total U All



# Descriptive Statistics Report

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## Percentile Section of Sub Total U All

| Percentile | Value  | 95% LCL | 95% UCL | Exact Conf. Level |
|------------|--------|---------|---------|-------------------|
| 99.0       | 5.3    |         |         |                   |
| 95.0       | 5.3    |         |         |                   |
| 90.0       | 4.76   |         |         |                   |
| 85.0       | 4.495  | 3       | 5.3     | 97.1728           |
| 80.0       | 3.82   | 2.9     | 5.3     | 96.9663           |
| 75.0       | 3.25   | 2.6     | 4.7     | 95.3974           |
| 70.0       | 3.03   | 2.4     | 4.6     | 96.3583           |
| 65.0       | 2.985  | 2.4     | 4.3     | 95.2711           |
| 60.0       | 2.72   | 2       | 3.3     | 96.0423           |
| 55.0       | 2.495  | 2       | 3.1     | 96.3315           |
| 50.0       | 2.4    | 1.9     | 3       | 95.0150           |
| 45.0       | 2.4    | 1.8     | 2.9     | 95.9895           |
| 40.0       | 2.24   | 1.7     | 2.6     | 96.7350           |
| 35.0       | 2      | 1.6     | 2.4     | 95.2711           |
| 30.0       | 1.9    | 1.5     | 2.4     | 96.3583           |
| 25.0       | 1.825  | 1       | 2.4     | 95.3974           |
| 20.0       | 1.68   | -1.2    | 2       | 95.8995           |
| 15.0       | 1.535  | -1.2    | 1.9     | 97.1728           |
| 10.0       | 0.95   |         |         |                   |
| 5.0        | -0.435 |         |         |                   |
| 1.0        | -1.2   |         |         |                   |

Percentile Formula: Ave  $X(p[n+1])$

## Stem-Leaf Plot Section of Sub Total U All

| Depth | Stem | Leaves |
|-------|------|--------|
| Low   |      | -12    |
| 2     | .    | 5      |
| 3     | 1*   | 0      |
| 9     | .    | 567899 |
| (6)   | 2*   | 004444 |
| 13    | .    | 569    |
| 10    | 3*   | 0013   |
| 6     | .    | 7      |
| 5     | 4*   | 3      |
| 4     | .    | 67     |
| High  |      | 53, 53 |

Unit = .1 Example: 1 |2 Represents 1.2



# Descriptive Statistics Report

Page

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## Summary Section of Sub SOF All

| Count | Mean         | Standard Deviation | Standard Error | Minimum | Maximum | Range |
|-------|--------------|--------------------|----------------|---------|---------|-------|
| 28    | 9.107143E-03 | 6.273632E-03       | 1.185605E-03   | -0.005  | 0.02    | 0.025 |

## Counts Section of Sub SOF All

| Rows | Sum of Frequencies | Sum of Values | Distinct Values | Sum   | Total Sum Squares | Adjusted Sum Squares |
|------|--------------------|---------------|-----------------|-------|-------------------|----------------------|
| 28   | 28                 | 0             | 16              | 0.255 | 0.003385          | 1.062679E-03         |

## Means Section of Sub SOF All

| Parameter  | Mean         | Median | Geometric Mean | Harmonic Mean | Sum          | Mode  |
|------------|--------------|--------|----------------|---------------|--------------|-------|
| Value      | 9.107143E-03 | 0.01   | 9.300807E-03   | 8.601731E-03  | 0.255        | 0.011 |
| Std Error  | 1.185605E-03 |        |                |               | 3.319694E-02 |       |
| 95% LCL    | 6.674482E-03 | 0.007  | 7.238058E-03   | 5.132098E-03  | 0.1868855    |       |
| 95% UCL    | 0.0115398    | 0.011  | 1.195141E-02   | 2.655389E-02  | 0.3231145    |       |
| T-Value    | 7.6814       |        |                |               |              |       |
| Prob Level | 0.000000     |        |                |               |              |       |
| Count      | 28           |        | 25             | 27            |              | 5     |

The geometric mean confidence interval assumes that the  $\ln(y)$  are normally distributed.

The harmonic mean confidence interval assumes that the  $1/y$  are normally distributed.

## Variation Section of Sub SOF All

| Parameter | Variance     | Standard Deviation | Unbiased Std Dev | Std Error of Mean | Interquartile Range | Range |
|-----------|--------------|--------------------|------------------|-------------------|---------------------|-------|
| Value     | 3.935847E-05 | 6.273632E-03       | 6.331978E-03     | 1.185605E-03      | 0.0065              | 0.025 |
| Std Error | 1.094401E-05 | 1.233509E-03       |                  | 2.331113E-04      |                     |       |
| 95% LCL   | 2.460217E-05 | 4.960057E-03       |                  | 9.373627E-04      |                     |       |
| 95% UCL   | 7.291915E-05 | 8.539271E-03       |                  | 1.61377E-03       |                     |       |

## Skewness and Kurtosis Section of Sub SOF All

| Parameter | Skewness   | Kurtosis  | Fisher's g1 | Fisher's g2 | Coefficient of Variation | Coefficient % UCL |
|-----------|------------|-----------|-------------|-------------|--------------------------|-------------------|
| Value     | -0.4943863 | 3.164883  | -0.5228222  | 0.4478519   | 0.6888695                | 0.475             |
| Std Error | 0.2744025  | 0.6887207 |             |             | 0.1503187                |                   |

## Trimmed Section of Sub SOF All

| Parameter    | 5% Trimmed   | 10% Trimmed  | 15% Trimmed  | 25% Trimmed  | 35% Trimmed  | 45% Trimmed  |
|--------------|--------------|--------------|--------------|--------------|--------------|--------------|
| Trim-Mean    | 9.285714E-03 | 0.0094375    | 9.540817E-03 | 0.0095       | 9.595238E-03 | 9.857143E-03 |
| Trim-Std Dev | 5.049928E-03 | 3.798133E-03 | 2.885516E-03 | 1.951331E-03 | 1.543242E-03 | 1.480026E-03 |
| Count        | 25.2         | 22.4         | 19.6         | 14           | 8.4          | 2.8          |

## Mean-Deviation Section of Sub SOF All

| Parameter | X-Mean       | X-Median | (X-Mean)^2   | (X-Mean)^3    | (X-Mean)^4   |
|-----------|--------------|----------|--------------|---------------|--------------|
| Average   | 0.00475      | 0.00475  | 3.795281E-05 | -1.155932E-07 | 4.558747E-09 |
| Std Error | 7.131115E-04 |          | 1.055315E-05 | 7.754988E-08  | 1.777727E-09 |

# Descriptive Statistics Report

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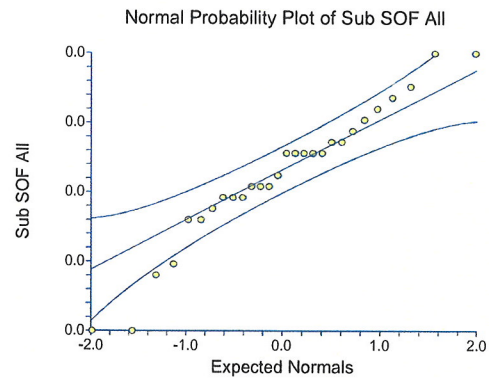
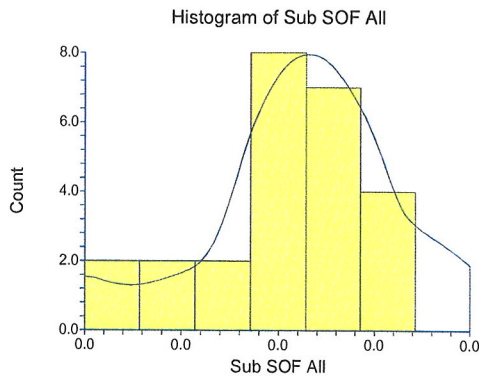
## Quartile Section of Sub SOF All

| Parameter | 10th Percentile | 25th Percentile | 50th Percentile | 75th Percentile | 90th Percentile |
|-----------|-----------------|-----------------|-----------------|-----------------|-----------------|
| Value     | -0.0005         | 0.00625         | 0.01            | 0.01275         | 0.0173          |
| 95% LCL   |                 | 0               | 0.007           | 0.011           |                 |
| 95% UCL   |                 | 0.008           | 0.011           | 0.017           |                 |

## Normality Test Section of Sub SOF All

| Test Name           | Test Value   | Prob Level | 10% Critical Value | 5% Critical Value | Decision (5%)          |
|---------------------|--------------|------------|--------------------|-------------------|------------------------|
| Shapiro-Wilk W      | 0.9556034    | 0.273053   |                    |                   | Can't reject normality |
| Anderson-Darling    | 0.4332827    | 0.302586   |                    |                   | Can't reject normality |
| Martinez-Iglewicz   | 1.108151     |            | 1.158157           | 1.244733          | Can't reject normality |
| Kolmogorov-Smirnov  | 8.285154E-02 |            | 0.151              | 0.164             | Can't reject normality |
| D'Agostino Skewness | -1.2240      | 0.220937   | 1.645              | 1.960             | Can't reject normality |
| D'Agostino Kurtosis | 0.7368       | 0.461233   | 1.645              | 1.960             | Can't reject normality |
| D'Agostino Omnibus  | 2.0412       | 0.360383   | 4.605              | 5.991             | Can't reject normality |

## Plots Section of Sub SOF All



# Descriptive Statistics Report

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## Percentile Section of Sub SOF All

| Percentile | Value   | 95% LCL | 95% UCL | Exact Conf. Level |
|------------|---------|---------|---------|-------------------|
| 99.0       | 0.02    |         |         |                   |
| 95.0       | 0.02    |         |         |                   |
| 90.0       | 0.0173  |         |         |                   |
| 85.0       | 0.01565 | 0.012   | 0.02    | 97.1728           |
| 80.0       | 0.0142  | 0.011   | 0.02    | 96.9663           |
| 75.0       | 0.01275 | 0.011   | 0.017   | 95.3974           |
| 70.0       | 0.012   | 0.011   | 0.016   | 96.3583           |
| 65.0       | 0.011   | 0.009   | 0.015   | 95.2711           |
| 60.0       | 0.011   | 0.008   | 0.013   | 96.0423           |
| 55.0       | 0.011   | 0.007   | 0.012   | 96.3315           |
| 50.0       | 0.01    | 0.007   | 0.011   | 95.0150           |
| 45.0       | 0.00805 | 0.006   | 0.011   | 95.9895           |
| 40.0       | 0.008   | 0.005   | 0.011   | 96.7350           |
| 35.0       | 0.00715 | 0.005   | 0.011   | 95.2711           |
| 30.0       | 0.007   | 0.001   | 0.009   | 96.3583           |
| 25.0       | 0.00625 | 0       | 0.008   | 95.3974           |
| 20.0       | 0.005   | -0.005  | 0.007   | 95.8995           |
| 15.0       | 0.0024  | -0.005  | 0.007   | 97.1728           |
| 10.0       | -0.0005 |         |         |                   |
| 5.0        | -0.005  |         |         |                   |
| 1.0        | -0.005  |         |         |                   |

Percentile Formula: Ave  $X(p[n+1])$

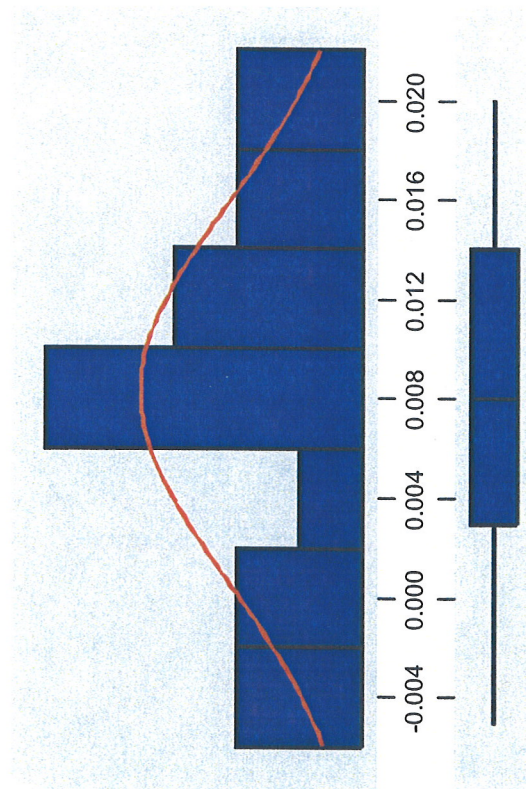
## Stem-Leaf Plot Section of Sub SOF All

| Depth | Stem | Leaves |
|-------|------|--------|
| Low   |      | -5,-5  |
| 4     | 0*   | 01     |
| 4     | T    |        |
| 6     | F    | 55     |
| 10    | S    | 6777   |
| 14    | .    | 8889   |
| 14    | 1*   | 11111  |
| 9     | T    | 223    |
| 6     | F    | 45     |
| 4     | S    | 67     |
| 2     | .    |        |
| 2     | 2*   | 00     |

Unit = .001 Example: 1 | 2 Represents 0.012

# Descriptive Statistics

Variable: Sub SOF Unbi



Anderson-Darling Normality Test

A-Squared: 0.232  
P-Value: 0.764

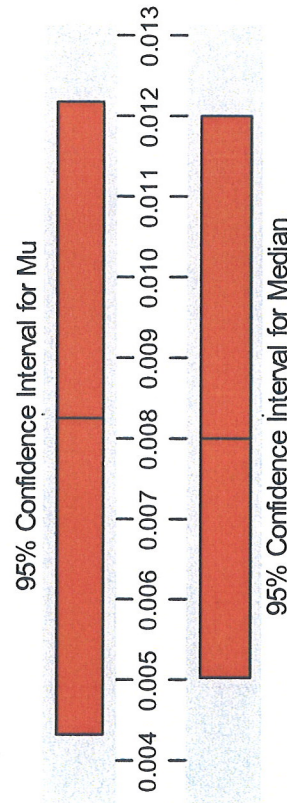
Mean 8.24E-03  
StDev 7.64E-03  
Variance 5.83E-05  
Skewness -1.8E-01  
Kurtosis -5.2E-01  
N 17

Minimum -5.0E-03  
1st Quartile 3.00E-03  
Median 8.00E-03  
3rd Quartile 1.40E-02  
Maximum 2.00E-02

95% Confidence Interval for Mu  
4.31E-03 1.22E-02

95% Confidence Interval for Sigma  
5.69E-03 1.16E-02

95% Confidence Interval for Median  
5.02E-03 1.20E-02





# Descriptive Statistics

Variable: Sub SOF Bias

Anderson-Darling Normality Test

A-Squared: 0.271  
P-Value: 0.599

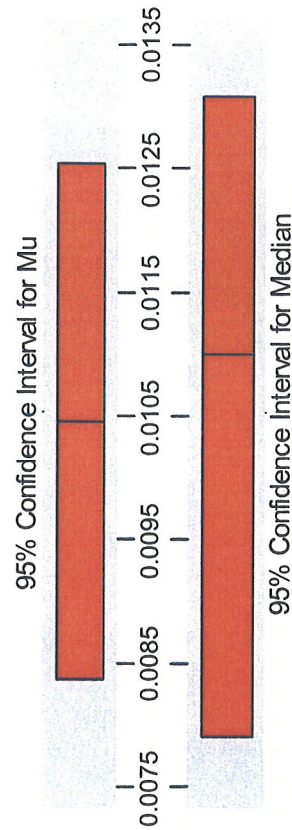
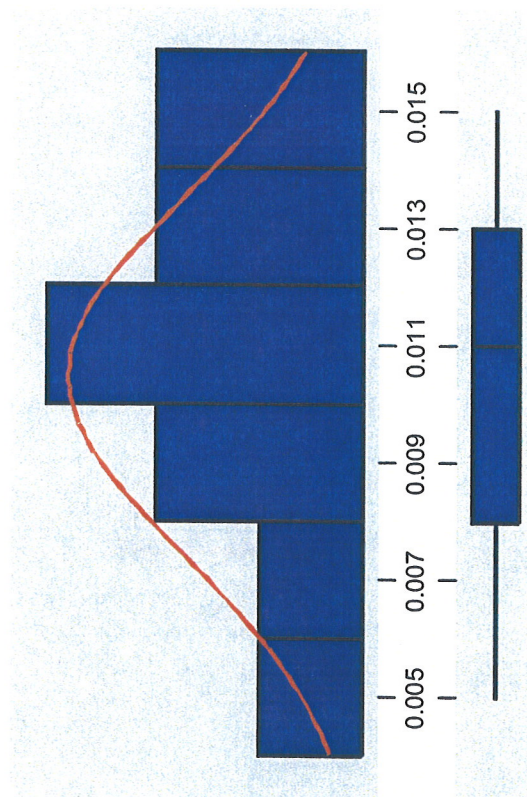
Mean 1.05E-02  
StDev 3.11E-03  
Variance 9.67E-06  
Skewness -3.0E-01  
Kurtosis -7.7E-01  
N 11

Minimum 5.00E-03  
1st Quartile 8.00E-03  
Median 1.10E-02  
3rd Quartile 1.30E-02  
Maximum 1.50E-02

95% Confidence Interval for Mu  
8.37E-03 1.25E-02

95% Confidence Interval for Sigma  
2.17E-03 5.46E-03

95% Confidence Interval for Median  
7.92E-03 1.31E-02





# Descriptive Statistics

Variable: Sub SOF All

Anderson-Darling Normality Test

A-Squared: 0.432  
P-Value: 0.284

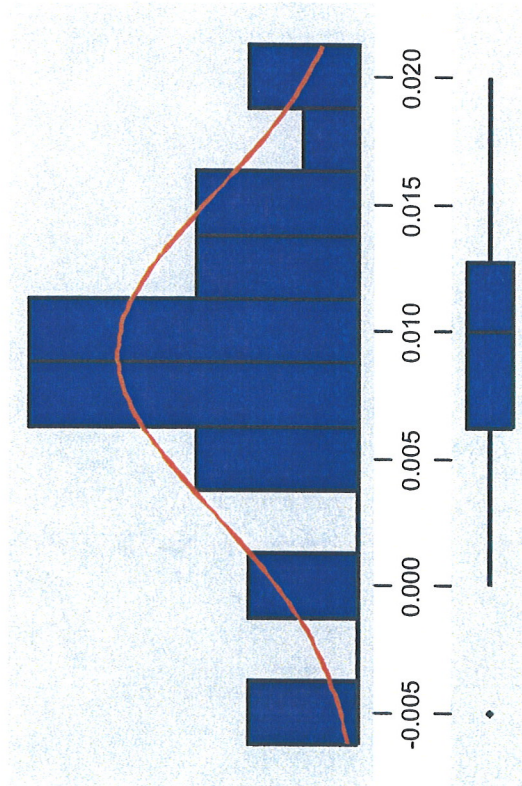
Mean 9.11E-03  
StDev 6.27E-03  
Variance 3.94E-05  
Skewness -5.2E-01  
Kurtosis 0.447852  
N 28

Minimum -5.0E-03  
1st Quartile 6.25E-03  
Median 1.00E-02  
3rd Quartile 1.27E-02  
Maximum 2.00E-02

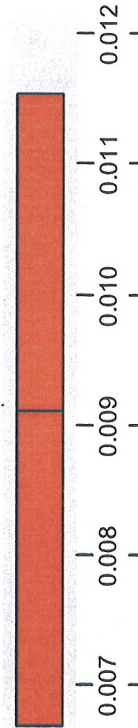
95% Confidence Interval for Mu  
6.67E-03 1.15E-02

95% Confidence Interval for Sigma  
4.96E-03 8.54E-03

95% Confidence Interval for Median  
7.00E-03 1.16E-02



95% Confidence Interval for Mu



95% Confidence Interval for Median



# One-Sample T-Test Report

Page 1  
Variable Sub SOF Unbiased

## Descriptive Statistics Section

| Variable                         | Count | Mean         | Standard Deviation | Standard Error | 95% LCL of Mean | 95% UCL of Mean |
|----------------------------------|-------|--------------|--------------------|----------------|-----------------|-----------------|
| Sub SOF Unbiased                 | 17    | 8.235294E-03 | 7.636503E-03       | 1.852124E-03   | 4.308966E-03    | 1.216162E-02    |
| T for Confidence Limits = 2.1199 |       |              |                    |                |                 |                 |

## Tests of Assumptions Section

| Assumption              | Value   | Probability | Decision(5%)            |
|-------------------------|---------|-------------|-------------------------|
| Skewness Normality      | -0.3457 | 0.729576    | Cannot reject normality |
| Kurtosis Normality      | -0.3799 | 0.704042    | Cannot reject normality |
| Omnibus Normality       | 0.2638  | 0.876428    | Cannot reject normality |
| Correlation Coefficient |         |             |                         |

## T-Test For Difference Between Mean and Value Section

| Alternative Hypothesis | T-Value   | Prob Level | Decision (5%) | Power (Alpha=.05) | Power (Alpha=.01) |
|------------------------|-----------|------------|---------------|-------------------|-------------------|
| Sub SOF Unbiased<>1    | -535.4742 | 0.000000   | Reject Ho     | 1.000000          | 1.000000          |
| Sub SOF Unbiased<1     | -535.4742 | 0.000000   | Reject Ho     | 1.000000          | 1.000000          |
| Sub SOF Unbiased>1     | -535.4742 | 1.000000   | Accept Ho     | 0.000000          | 0.000000          |

## Nonparametric Tests Section

### Quantile (Sign) Test

| Hypothesized Value | Quantile | Number Lower | Number Higher | Prob Lower | Prob Higher | Prob Both |
|--------------------|----------|--------------|---------------|------------|-------------|-----------|
| 1                  | 0.5      | 17           | 0             | 1.000000   | 0.000008    | 0.000015  |

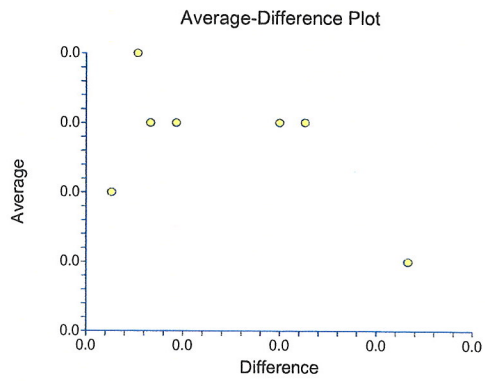
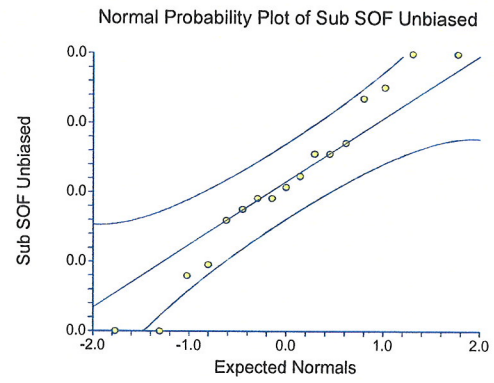
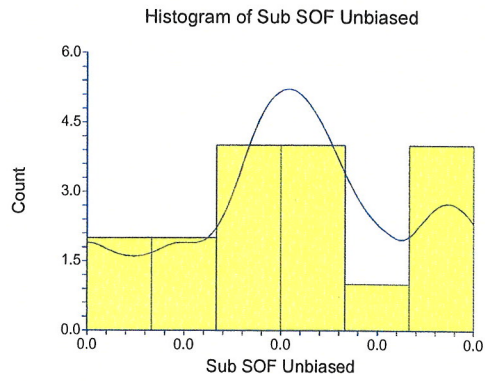
### Wilcoxon Signed-Rank Test for Difference in Medians

| W Sum Ranks | Mean of W | Std Dev of W | Number of Zeros | Number Sets of Ties | Multiplicity Factor |
|-------------|-----------|--------------|-----------------|---------------------|---------------------|
| 0           | 76.5      | 21.11279     | 0               | 4                   | 24                  |

| Alternative Hypothesis | Exact Probability |               | Approximation Without Continuity Correction |            |               | Approximation With Continuity Correction |            |               |
|------------------------|-------------------|---------------|---------------------------------------------|------------|---------------|------------------------------------------|------------|---------------|
|                        | Prob Level        | Decision (5%) | Z-Value                                     | Prob Level | Decision (5%) | Z-Value                                  | Prob Level | Decision (5%) |
| Median<>1              |                   |               | 3.6234                                      | 0.000291   | Reject Ho     | 3.5997                                   | 0.000319   | Reject Ho     |
| Median<1               |                   |               | -3.6234                                     | 0.000145   | Reject Ho     | -3.5997                                  | 0.000159   | Reject Ho     |
| Median>1               |                   |               | -3.6234                                     | 0.999855   | Accept Ho     | -3.6471                                  | 0.999867   | Accept Ho     |

## One-Sample T-Test Report

### Plots Section



# One-Sample T-Test Report

Page 1  
Variable Sub SOF Biased

## Descriptive Statistics Section

| Variable                         | Count | Mean         | Standard Deviation | Standard Error | 95% LCL of Mean | 95% UCL of Mean |
|----------------------------------|-------|--------------|--------------------|----------------|-----------------|-----------------|
| Sub SOF Biased                   | 11    | 1.045455E-02 | 3.110101E-03       | 9.377307E-04   | 8.365151E-03    | 1.254394E-02    |
| T for Confidence Limits = 2.2281 |       |              |                    |                |                 |                 |

## Tests of Assumptions Section

| Assumption              | Value   | Probability | Decision(5%)            |
|-------------------------|---------|-------------|-------------------------|
| Skewness Normality      | -0.4730 | 0.636230    | Cannot reject normality |
| Kurtosis Normality      | -0.5368 | 0.591387    | Cannot reject normality |
| Omnibus Normality       | 0.5119  | 0.774184    | Cannot reject normality |
| Correlation Coefficient |         |             |                         |

## T-Test For Difference Between Mean and Value Section

| Alternative Hypothesis | T-Value    | Prob Level | Decision (5%) | Power (Alpha=.05) | Power (Alpha=.01) |
|------------------------|------------|------------|---------------|-------------------|-------------------|
| Sub SOF Biased<>1      | -1055.2555 | 0.000000   | Reject Ho     | 1.000000          | 1.000000          |
| Sub SOF Biased<1       | -1055.2555 | 0.000000   | Reject Ho     | 1.000000          | 1.000000          |
| Sub SOF Biased>1       | -1055.2555 | 1.000000   | Accept Ho     | 0.000000          | 0.000000          |

## Nonparametric Tests Section

### Quantile (Sign) Test

| Hypothesized Value | Quantile | Number Lower | Number Higher | Prob Lower | Prob Higher | Prob Both |
|--------------------|----------|--------------|---------------|------------|-------------|-----------|
| 1                  | 0.5      | 11           | 0             | 1.000000   | 0.000488    | 0.000977  |

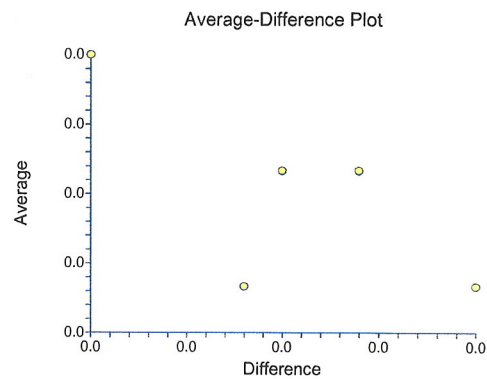
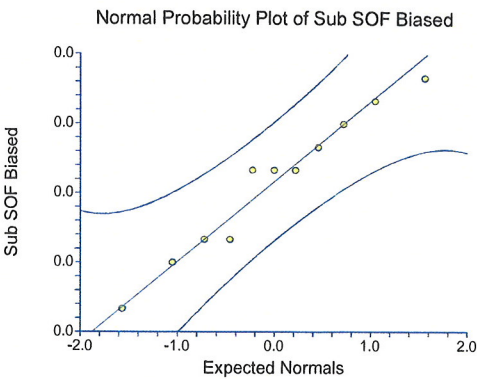
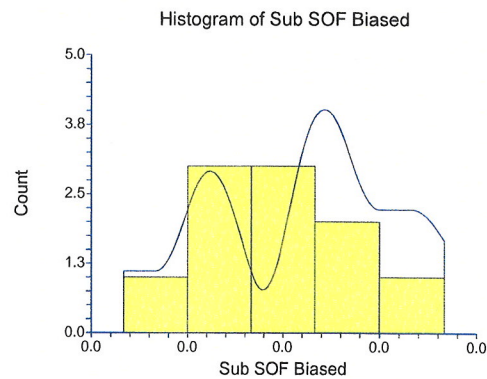
### Wilcoxon Signed-Rank Test for Difference in Medians

| W | Mean of W | Std Dev of W | Number of Zeros | Number Sets of Ties | Multiplicity Factor |
|---|-----------|--------------|-----------------|---------------------|---------------------|
| 0 | 33        | 11.2194      | 0               | 2                   | 30                  |

| Alternative Hypothesis | Exact Probability |               | Approximation Without Continuity Correction |            |               | Approximation With Continuity Correction |            |               |
|------------------------|-------------------|---------------|---------------------------------------------|------------|---------------|------------------------------------------|------------|---------------|
|                        | Prob Level        | Decision (5%) | Z-Value                                     | Prob Level | Decision (5%) | Z-Value                                  | Prob Level | Decision (5%) |
| Median<>1              |                   |               | 2.9413                                      | 0.003268   | Reject Ho     | 2.8968                                   | 0.003770   | Reject Ho     |
| Median<1               |                   |               | -2.9413                                     | 0.001634   | Reject Ho     | -2.8968                                  | 0.001885   | Reject Ho     |
| Median>1               |                   |               | -2.9413                                     | 0.998366   | Accept Ho     | -2.9859                                  | 0.998586   | Accept Ho     |

One-Sample T-Test Report

Plots Section





# One-Sample T-Test Report

Page 1  
Variable Sub SOF All

## Descriptive Statistics Section

| Variable    | Count | Mean         | Standard Deviation | Standard Error | 95% LCL of Mean | 95% UCL of Mean |
|-------------|-------|--------------|--------------------|----------------|-----------------|-----------------|
| Sub SOF All | 28    | 9.107143E-03 | 6.273632E-03       | 1.185605E-03   | 6.674482E-03    | 0.0115398       |

T for Confidence Limits = 2.0518

## Tests of Assumptions Section

| Assumption              | Value   | Probability | Decision(5%)            |
|-------------------------|---------|-------------|-------------------------|
| Skewness Normality      | -1.2240 | 0.220937    | Cannot reject normality |
| Kurtosis Normality      | 0.7368  | 0.461233    | Cannot reject normality |
| Omnibus Normality       | 2.0412  | 0.360383    | Cannot reject normality |
| Correlation Coefficient |         |             |                         |

## T-Test For Difference Between Mean and Value Section

| Alternative Hypothesis | T-Value   | Prob Level | Decision (5%) | Power (Alpha=.05) | Power (Alpha=.01) |
|------------------------|-----------|------------|---------------|-------------------|-------------------|
| Sub SOF All<>1         | -835.7697 | 0.000000   | Reject Ho     | 1.000000          | 1.000000          |
| Sub SOF All<1          | -835.7697 | 0.000000   | Reject Ho     | 1.000000          | 1.000000          |
| Sub SOF All>1          | -835.7697 | 1.000000   | Accept Ho     | 0.000000          | 0.000000          |

## Nonparametric Tests Section

### Quantile (Sign) Test

| Hypothesized Value | Quantile | Number Lower | Number Higher | Prob Lower | Prob Higher | Prob Both |
|--------------------|----------|--------------|---------------|------------|-------------|-----------|
| 1                  | 0.5      | 28           | 0             | 1.000000   | 0.000000    | 0.000000  |

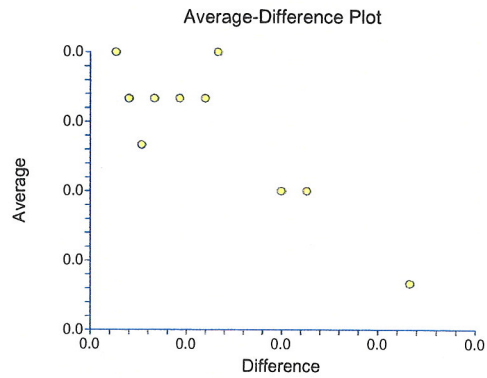
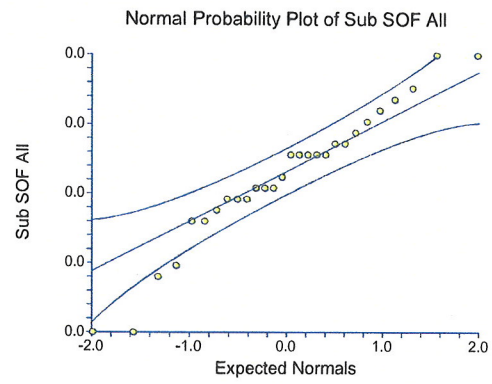
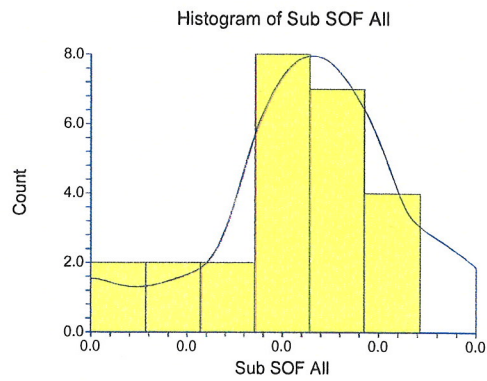
### Wilcoxon Signed-Rank Test for Difference in Medians

| W | Mean of W | Std Dev of W | Number of Zeros | Number Sets of Ties | Multiplicity Factor |
|---|-----------|--------------|-----------------|---------------------|---------------------|
| 0 | 203       | 43.86913     | 0               | 7                   | 192                 |

| Alternative Hypothesis | Exact Probability |               | Approximation Without Continuity Correction |            |               | Approximation With Continuity Correction |            |               |
|------------------------|-------------------|---------------|---------------------------------------------|------------|---------------|------------------------------------------|------------|---------------|
|                        | Prob Level        | Decision (5%) | Z-Value                                     | Prob Level | Decision (5%) | Z-Value                                  | Prob Level | Decision (5%) |
| Median<>1              |                   |               | 4.6274                                      | 0.000004   | Reject Ho     | 4.6160                                   | 0.000004   | Reject Ho     |
| Median<1               |                   |               | -4.6274                                     | 0.000002   | Reject Ho     | -4.6160                                  | 0.000002   | Reject Ho     |
| Median>1               |                   |               | -4.6274                                     | 0.999998   | Accept Ho     | -4.6388                                  | 0.999998   | Accept Ho     |

## One-Sample T-Test Report

### Plots Section



\*\*\*\*\*  
 \*\*\*\*\* C E R T I F I C A T E O F A N A L Y S I S \*\*\*\*\*  
 \*\*\*\*\*

Site Location: CE Windsor  
 Sample ID: MAC-0404-25  
 Sample Title: Bld.18 Sub Slab Soil Sample Location #1  
 Detector Name: 30%HPGE  
 Nuclide Library Used: C:\GENIE2K\CAMFILES\FSS.NLB  
 Sample Size: 9.767E+002 g  
 Sample Taken On: 4/21/2004 10:50:00 AM  
 Acquisition Started: 5/10/2004 11:07:53 AM  
 Live Time: 2821.6 seconds  
 Real Time: 2825.9 seconds  
 Dead Time: 0.15 %  
 Efficiency ID: srs035

| Nuclide Name | IDENTIFIED RADIONUCLIDES       |                                  |                     | UNIDENTIFIED RADIONUCLIDES |                          |                  |
|--------------|--------------------------------|----------------------------------|---------------------|----------------------------|--------------------------|------------------|
|              | Nuclide Activity (pCi/g)       | Nuclide Activity Uncert. (pCi/g) | Nuclide MDA (pCi/g) | Line Activity (pCi/g)      | Line Act Uncert. (pCi/g) | Line MDA (pCi/g) |
| K-40         | 1.37E+001                      | 2.69E+000                        | 8.33E-001           | FOUND                      |                          |                  |
| MN-54        | NOT FOUND/DATA for 834.83 keV  |                                  |                     | -1.21E-002                 | 3.24E-002                | 5.79E-002        |
| CO-57        | NOT FOUND/DATA for 122.06 keV  |                                  |                     | 9.23E-003                  | 3.42E-002                | 6.09E-002        |
| CO-60        | NOT FOUND/DATA for 1332.50 keV |                                  |                     | 3.27E-002                  | 4.17E-002                | 8.17E-002        |
| ZN-65        | NOT FOUND/DATA for 1115.55 keV |                                  |                     | 2.88E-002                  | 6.49E-002                | 1.31E-001        |
| AG-110m      | NOT FOUND/DATA for 657.76 keV  |                                  |                     | -1.66E-003                 | 3.34E-002                | 5.67E-002        |
| SB-125       | NOT FOUND/DATA for 427.89 keV  |                                  |                     | 7.87E-002                  | 1.07E-001                | 1.89E-001        |
| CS-134       | NOT FOUND/DATA for 604.70 keV  |                                  |                     | -1.27E-002                 | 2.63E-002                | 5.78E-002        |
| CS-137       | NOT FOUND/DATA for 661.66 keV  |                                  |                     | -2.25E-002                 | 4.06E-002                | 6.32E-002        |
| TL-208       | 2.20E-001                      | 1.17E-001                        | 9.69E-002           | FOUND                      |                          |                  |
| PB-212       | 6.72E-001                      | 1.49E-001                        | 1.70E-001           | FOUND                      |                          |                  |
| BI-214       | 7.13E-001                      | 2.44E-001                        | 2.08E-001           | FOUND                      |                          |                  |
| PB-214       | 4.99E-001                      | 2.31E-001                        | 2.34E-001           | FOUND                      |                          |                  |
| RA-226       | NOT FOUND/DATA for 186.10 keV  |                                  |                     | 1.64E+000                  | 7.99E-001                | 1.52E+000        |
| AC-228       | 6.74E-001                      | 1.31E-001                        | 2.68E-001           | FOUND                      |                          |                  |
| TH-230       | NOT FOUND/DATA for 67.67 keV   |                                  |                     | -2.82E+000                 | 1.74E+001                | 2.77E+001        |
| PA-231       | NOT FOUND/DATA for 300.02 keV  |                                  |                     | 5.55E-001                  | 1.12E+000                | 2.02E+000        |
| PA-234       | NOT FOUND/DATA for 131.20 keV  |                                  |                     | -1.61E-002                 | 1.38E-001                | 2.43E-001        |
| PA-234M      | NOT FOUND/DATA for 1001.03 keV |                                  |                     | 3.73E+000                  | 5.44E+000                | 1.10E+001        |
| TH-234       | NOT FOUND/DATA for 92.60 keV   |                                  |                     | 8.44E-001                  | 6.86E-001                | 1.16E+000        |
| U-234        | NOT FOUND/DATA for 53.20 keV   |                                  |                     | 7.35E+001                  | 1.54E+002                | 2.53E+002        |
| U-235        | NOT FOUND/DATA for 185.71 keV  |                                  |                     | 3.17E-002                  | 4.85E-002                | 8.85E-002        |
| U-238        | NOT FOUND/DATA for 92.60 keV   |                                  |                     | 8.44E-001                  | 6.86E-001                | 1.16E+000        |
| AM-241       | NOT FOUND/DATA for 59.54 keV   |                                  |                     | 1.27E-002                  | 2.69E-001                | 4.34E-001        |

Uncertainty reported at 2.0 sigma

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 \*\*\*\*\* C E R T I F I C A T E O F A N A L Y S I S \*\*\*\*\*  
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Site Location: CE Windsor  
 Sample ID: MAC-0404-26  
 Sample Title: Sub Slab Soil Sample Bld.18 Hole#2  
 Detector Name: 30%HPGE  
 Nuclide Library Used: C:\GENIE2K\CAMFILES\FSS.NLB  
 Sample Size: 8.727E+002 g  
 Sample Taken On: 4/21/2004 12:00:00 PM  
 Acquisition Started: 5/24/2004 3:28:33 PM  
 Live Time: 246.7 seconds  
 Real Time: 247.0 seconds  
 Dead Time: 0.14 %  
 Efficiency ID: srs035

| Nuclide<br>Name | IDENTIFIED RADIONUCLIDES        |                                 |                            | UNIDENTIFIED RADIONUCLIDES   |                                 |                         |
|-----------------|---------------------------------|---------------------------------|----------------------------|------------------------------|---------------------------------|-------------------------|
|                 | Nuclide<br>Activity<br>(pCi/g ) | Activity<br>Uncert.<br>(pCi/g ) | Nuclide<br>MDA<br>(pCi/g ) | Line<br>Activity<br>(pCi/g ) | Line Act<br>Uncert.<br>(pCi/g ) | Line<br>MDA<br>(pCi/g ) |
| K-40            | 1.27E+001                       | 2.76E+001                       | 3.02E+000                  | FOUND                        |                                 |                         |
| MN-54           | NOT FOUND/DATA                  | for                             | 834.83 keV                 | 5.60E-002                    | 7.93E-002                       | 2.60E-001               |
| CO-57           | NOT FOUND/DATA                  | for                             | 122.06 keV                 | -2.42E-002                   | 1.02E-001                       | 1.90E-001               |
| CO-60           | NOT FOUND/DATA                  | for                             | 1332.50 keV                | -1.22E-002                   | 1.79E-001                       | 2.70E-001               |
| ZN-65           | NOT FOUND/DATA                  | for                             | 1115.55 keV                | 0.00E+000                    | 0.00E+000                       | 1.89E-001               |
| AG-110m         | NOT FOUND/DATA                  | for                             | 763.94 keV                 | 0.00E+000                    | 0.00E+000                       | 3.23E-001               |
| SB-125          | NOT FOUND/DATA                  | for                             | 427.89 keV                 | 2.26E-001                    | 3.43E-001                       | 7.92E-001               |
| CS-134          | NOT FOUND/DATA                  | for                             | 604.70 keV                 | 1.09E-002                    | 1.29E-001                       | 2.78E-001               |
| CS-137          | NOT FOUND/DATA                  | for                             | 661.66 keV                 | 1.10E-001                    | 1.58E-001                       | 3.83E-001               |
| TL-208          | NOT FOUND/DATA                  | for                             | 583.19 keV                 | 3.77E-001                    | 2.15E-001                       | 5.31E-001               |
| PB-212          | NOT FOUND/DATA                  | for                             | 238.63 keV                 | 4.92E-001                    | 2.99E-001                       | 6.55E-001               |
| BI-214          | NOT FOUND/DATA                  | for                             | 609.31 keV                 | 9.17E-001                    | 4.93E-001                       | 1.17E+000               |
| PB-214          | NOT FOUND/DATA                  | for                             | 351.92 keV                 | 4.24E-001                    | 3.69E-001                       | 8.36E-001               |
| RA-226          | NOT FOUND/DATA                  | for                             | 186.10 keV                 | 2.15E-002                    | 2.86E+000                       | 5.05E+000               |
| AC-228          | NOT FOUND/DATA                  | for                             | 911.21 keV                 | 5.23E-001                    | 4.69E-001                       | 1.37E+000               |
| TH-230          | NOT FOUND/DATA                  | for                             | 67.67 keV                  | 2.16E+000                    | 7.01E+001                       | 1.22E+002               |
| PA-231          | NOT FOUND/DATA                  | for                             | 300.02 keV                 | -5.45E-001                   | 4.40E+000                       | 8.04E+000               |
| PA-234          | NOT FOUND/DATA                  | for                             | 98.44 keV                  | -1.44E-001                   | 5.13E-001                       | 9.37E-001               |
| PA-234M         | NOT FOUND/DATA                  | for                             | 1001.03 keV                | -8.84E+000                   | 2.40E+001                       | 4.69E+001               |
| TH-234          | NOT FOUND/DATA                  | for                             | 92.60 keV                  | -9.51E-001                   | 2.09E+000                       | 3.49E+000               |
| U-234           | NOT FOUND/DATA                  | for                             | 53.20 keV                  | -2.15E+002                   | 5.23E+002                       | 8.29E+002               |
| U-235           | NOT FOUND/DATA                  | for                             | 185.71 keV                 | -3.97E-002                   | 1.78E-001                       | 2.97E-001               |
| U-238           | NOT FOUND/DATA                  | for                             | 92.60 keV                  | -9.51E-001                   | 2.09E+000                       | 3.49E+000               |
| AM-241          | NOT FOUND/DATA                  | for                             | 59.54 keV                  | -2.38E-002                   | 9.27E-001                       | 1.73E+000               |

Uncertainty reported at 2.0 sigma

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 \*\*\*\*\* C E R T I F I C A T E O F A N A L Y S I S \*\*\*\*\*  
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Site Location: CE Windsor  
 Sample ID: MAC-0404-27  
 Sample Title: Bld.18 Sub Slab Soil  
 Detector Name: 30%HPGE  
 Nuclide Library Used: C:\GENIE2K\CAMFILES\FSS.NLB  
 Sample Size: 8.551E+002 g  
 Sample Taken On: 4/21/2004 12:00:00 PM  
 Acquisition Started: 5/24/2004 10:39:53 AM  
 Live Time: 3600.0 seconds  
 Real Time: 3605.2 seconds  
 Dead Time: 0.14 %  
 Efficiency ID: srs035

| Nuclide Name | IDENTIFIED RADIONUCLIDES |                          |                     | UNIDENTIFIED RADIONUCLIDES |                          |                  |
|--------------|--------------------------|--------------------------|---------------------|----------------------------|--------------------------|------------------|
|              | Nuclide Activity (pCi/g) | Activity Uncert. (pCi/g) | Nuclide MDA (pCi/g) | Line Activity (pCi/g)      | Line Act Uncert. (pCi/g) | Line MDA (pCi/g) |
| K-40         | 1.42E+001                | 2.61E+000                | 6.63E-001           | FOUND                      |                          |                  |
| MN-54        | NOT FOUND/DATA for       | 834.83 keV               | 1.25E-002           | 3.51E-002                  | 6.57E-002                |                  |
| CO-57        | NOT FOUND/DATA for       | 122.06 keV               | -2.14E-002          | 2.91E-002                  | 4.92E-002                |                  |
| CO-60        | NOT FOUND/DATA for       | 1332.50 keV              | 4.15E-002           | 3.54E-002                  | 7.56E-002                |                  |
| ZN-65        | NOT FOUND/DATA for       | 1115.55 keV              | -4.45E-002          | 7.29E-002                  | 1.24E-001                |                  |
| AG-110m      | NOT FOUND/DATA for       | 657.76 keV               | 1.13E-002           | 3.49E-002                  | 6.38E-002                |                  |
| SB-125       | NOT FOUND/DATA for       | 427.89 keV               | 4.60E-002           | 8.86E-002                  | 1.64E-001                |                  |
| CS-134       | NOT FOUND/DATA for       | 604.70 keV               | -2.27E-002          | 3.16E-002                  | 5.24E-002                |                  |
| CS-137       | NOT FOUND/DATA for       | 661.66 keV               | 4.17E-002           | 3.65E-002                  | 7.17E-002                |                  |
| TL-208       | 1.49E-001                | 1.05E-001                | 7.45E-002           | FOUND                      |                          |                  |
| PB-212       | 5.02E-001                | 7.92E-002                | 1.65E-001           | FOUND                      |                          |                  |
| BI-214       | 6.67E-001                | 1.86E-001                | 1.59E-001           | FOUND                      |                          |                  |
| PB-214       | 4.71E-001                | 6.84E-002                | 1.30E-001           | FOUND                      |                          |                  |
| RA-226       | 8.43E-001                | 3.36E-001                | 1.38E+000           | FOUND                      |                          |                  |
| AC-228       | 5.39E-001                | 1.84E-001                | 2.83E-001           | FOUND                      |                          |                  |
| TH-230       | NOT FOUND/DATA for       | 67.67 keV                | 1.07E+001           | 1.47E+001                  | 2.52E+001                |                  |
| PA-231       | NOT FOUND/DATA for       | 300.02 keV               | 1.06E+000           | 1.12E+000                  | 1.92E+000                |                  |
| PA-234       | NOT FOUND/DATA for       | 98.44 keV                | 1.01E-001           | 1.15E-001                  | 2.04E-001                |                  |
| PA-234M      | NOT FOUND/DATA for       | 1001.03 keV              | 9.27E-001           | 5.32E+000                  | 9.95E+000                |                  |
| TH-234       | NOT FOUND/DATA for       | 92.60 keV                | 5.02E-001           | 5.34E-001                  | 9.64E-001                |                  |
| U-234        | NOT FOUND/DATA for       | 53.20 keV                | 1.01E+002           | 1.23E+002                  | 2.12E+002                |                  |
| U-235        | 5.13E-002                | 2.05E-002                | 8.38E-002           | FOUND                      |                          |                  |
| U-238        | NOT FOUND/DATA for       | 92.60 keV                | 5.02E-001           | 5.34E-001                  | 9.64E-001                |                  |
| AM-241       | NOT FOUND/DATA for       | 59.54 keV                | 7.04E-002           | 2.47E-001                  | 4.17E-001                |                  |

Uncertainty reported at 2.0 sigma



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 C E R T I F I C A T E O F A N A L Y S I S  
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Site Location: CE Windsor  
 Sample ID: MAC-0404-28  
 Sample Title: B18-4 Pit  
 Detector Name: 2108  
 Nuclide Library Used: C:\GENIE2K\CAMFILES\FSS.NLB  
 Sample Size: 9.109E+002 g  
 Sample Taken On: 4/21/2004 10:00:00 AM  
 Acquisition Started: 5/20/2004 1:21:59 PM  
 Live Time: 3600.0 seconds  
 Real Time: 3605.3 seconds  
 Dead Time: 0.15 %  
 Efficiency ID: srs035

| Nuclide Name | IDENTIFIED RADIONUCLIDES |                                  |                              | UNIDENTIFIED RADIONUCLIDES |                          |                      |
|--------------|--------------------------|----------------------------------|------------------------------|----------------------------|--------------------------|----------------------|
|              | Nuclide Activity (pCi/g) | Nuclide Activity Uncert. (pCi/g) | Nuclide Activity MDA (pCi/g) | Line Activity (pCi/g)      | Line Act Uncert. (pCi/g) | Line Act MDA (pCi/g) |
| K-40         | 1.36E+001                | 1.27E+000                        | 7.67E-001                    | FOUND                      |                          |                      |
| MN-54        | NOT FOUND/DATA for       | 834.83 keV                       | 2.56E-003                    | 3.15E-002                  | 5.86E-002                |                      |
| CO-57        | NOT FOUND/DATA for       | 122.06 keV                       | 6.16E-003                    | 2.88E-002                  | 5.07E-002                |                      |
| CO-60        | NOT FOUND/DATA for       | 1332.50 keV                      | 1.57E-002                    | 3.00E-002                  | 6.14E-002                |                      |
| ZN-65        | NOT FOUND/DATA for       | 1115.55 keV                      | -3.00E-002                   | 7.61E-002                  | 1.28E-001                |                      |
| AG-110m      | NOT FOUND/DATA for       | 657.76 keV                       | -1.50E-002                   | 3.13E-002                  | 5.38E-002                |                      |
| SB-125       | NOT FOUND/DATA for       | 427.89 keV                       | -2.78E-002                   | 7.84E-002                  | 1.37E-001                |                      |
| CS-134       | NOT FOUND/DATA for       | 604.70 keV                       | -2.20E-002                   | 3.03E-002                  | 5.04E-002                |                      |
| CS-137       | 2.78E-002                | 2.31E-002                        | 5.26E-002                    | FOUND                      |                          |                      |
| TL-208       | 1.88E-001                | 3.81E-002                        | 6.82E-002                    | FOUND                      |                          |                      |
| PB-212       | 5.13E-001                | 1.59E-001                        | 1.10E-001                    | FOUND                      |                          |                      |
| BI-214       | 6.02E-001                | 1.76E-001                        | 1.52E-001                    | FOUND                      |                          |                      |
| PB-214       | 4.38E-001                | 7.84E-002                        | 1.55E-001                    | FOUND                      |                          |                      |
| RA-226       | 1.09E+000                | 1.29E+000                        | 1.66E+000                    | FOUND                      |                          |                      |
| AC-228       | 5.24E-001                | 1.38E-001                        | 2.99E-001                    | FOUND                      |                          |                      |
| TH-230       | NOT FOUND/DATA for       | 67.67 keV                        | -7.78E+000                   | 1.39E+001                  | 2.18E+001                |                      |
| PA-231       | NOT FOUND/DATA for       | 300.02 keV                       | 9.61E-001                    | 1.09E+000                  | 1.86E+000                |                      |
| PA-234       | NOT FOUND/DATA for       | 98.44 keV                        | 2.00E-002                    | 1.10E-001                  | 1.94E-001                |                      |
| PA-234M      | NOT FOUND/DATA for       | 1001.03 keV                      | 8.60E+000                    | 5.40E+000                  | 1.14E+001                |                      |
| TH-234       | NOT FOUND/DATA for       | 92.60 keV                        | 4.49E-001                    | 5.10E-001                  | 9.22E-001                |                      |
| U-234        | NOT FOUND/DATA for       | 53.20 keV                        | -8.53E+001                   | 1.21E+002                  | 1.89E+002                |                      |
| U-235        | 6.61E-002                | 7.86E-002                        | 1.01E-001                    | FOUND                      |                          |                      |
| U-238        | NOT FOUND/DATA for       | 92.60 keV                        | 4.49E-001                    | 5.10E-001                  | 9.22E-001                |                      |
| AM-241       | NOT FOUND/DATA for       | 59.54 keV                        | 1.66E-001                    | 2.30E-001                  | 3.97E-001                |                      |

Uncertainty reported at 2.0 sigma

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 \*\*\*\*\* CERTIFICATE OF ANALYSIS \*\*\*\*\*  
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Site Location: CE Windsor  
 Sample ID: MAC-0404-29  
 Sample Title: Bld. 18 Sub Slab Soil Sample Loc #5  
 Detector Name: 30%HPGE  
 Nuclide Library Used: C:\GENIE2K\CAMFILES\FSS.NLB  
 Sample Size: 9.557E+002 g  
 Sample Taken On: 4/21/2004 12:00:00 PM  
 Acquisition Started: 5/25/2004 7:33:49 AM  
 Live Time: 1800.0 seconds  
 Real Time: 1802.6 seconds  
 Dead Time: 0.15 %  
 Efficiency ID: srs035

| Nuclide Name | IDENTIFIED RADIONUCLIDES  |                           |                      | UNIDENTIFIED RADIONUCLIDES |                           |                   |
|--------------|---------------------------|---------------------------|----------------------|----------------------------|---------------------------|-------------------|
|              | Nuclide Activity (pCi/g ) | Activity Uncert. (pCi/g ) | Nuclide MDA (pCi/g ) | Line Activity (pCi/g )     | Line Act Uncert. (pCi/g ) | Line MDA (pCi/g ) |
| K-40         | 1.38E+001                 | 6.67E+001                 | 8.79E-001            | FOUND                      |                           |                   |
| MN-54        | NOT FOUND/DATA            | for                       | 834.83 keV           | -2.00E-002                 | 3.64E-002                 | 6.37E-002         |
| CO-57        | NOT FOUND/DATA            | for                       | 122.06 keV           | 3.21E-003                  | 3.89E-002                 | 6.89E-002         |
| CO-60        | NOT FOUND/DATA            | for                       | 1332.50 keV          | 1.07E-002                  | 4.49E-002                 | 9.25E-002         |
| ZN-65        | NOT FOUND/DATA            | for                       | 1115.55 keV          | -7.65E-003                 | 9.98E-002                 | 1.86E-001         |
| AG-110m      | NOT FOUND/DATA            | for                       | 657.76 keV           | 1.85E-002                  | 3.63E-002                 | 7.36E-002         |
| SB-125       | NOT FOUND/DATA            | for                       | 427.89 keV           | -7.74E-002                 | 1.10E-001                 | 1.86E-001         |
| CS-134       | NOT FOUND/DATA            | for                       | 604.70 keV           | -1.77E-002                 | 3.85E-002                 | 6.78E-002         |
| CS-137       | NOT FOUND/DATA            | for                       | 661.66 keV           | -8.10E-003                 | 3.90E-002                 | 7.16E-002         |
| TL-208       | 1.33E-001                 | 1.41E-001                 | 8.71E-002            | FOUND                      |                           |                   |
| PB-212       | 3.71E-001                 | 7.04E-002                 | 1.80E-001            | FOUND                      |                           |                   |
| BI-214       | 4.07E-001                 | 1.09E-001                 | 1.98E-001            | FOUND                      |                           |                   |
| PB-214       | 3.86E-001                 | 9.75E-002                 | 1.93E-001            | FOUND                      |                           |                   |
| RA-226       | NOT FOUND/DATA            | for                       | 186.10 keV           | 1.12E+000                  | 8.86E-001                 | 1.69E+000         |
| AC-228       | NOT FOUND/DATA            | for                       | 911.21 keV           | 5.78E-001                  | 2.36E-001                 | 5.15E-001         |
| TH-230       | NOT FOUND/DATA            | for                       | 67.67 keV            | 4.57E+000                  | 1.91E+001                 | 3.25E+001         |
| PA-231       | NOT FOUND/DATA            | for                       | 300.02 keV           | 6.81E-001                  | 1.31E+000                 | 2.41E+000         |
| PA-234       | NOT FOUND/DATA            | for                       | 98.44 keV            | 1.05E-001                  | 1.41E-001                 | 2.58E-001         |
| PA-234M      | NOT FOUND/DATA            | for                       | 1001.03 keV          | -7.49E+000                 | 7.25E+000                 | 1.10E+001         |
| TH-234       | NOT FOUND/DATA            | for                       | 92.60 keV            | 3.73E-001                  | 6.77E-001                 | 1.24E+000         |
| U-234        | NOT FOUND/DATA            | for                       | 53.20 keV            | -5.69E+001                 | 1.57E+002                 | 2.57E+002         |
| U-235        | NOT FOUND/DATA            | for                       | 185.71 keV           | 9.59E-002                  | 5.39E-002                 | 1.05E-001         |
| U-238        | NOT FOUND/DATA            | for                       | 92.60 keV            | 3.73E-001                  | 6.77E-001                 | 1.24E+000         |
| AM-241       | NOT FOUND/DATA            | for                       | 59.54 keV            | -1.48E-001                 | 2.89E-001                 | 4.69E-001         |

Uncertainty reported at 2.0 sigma

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\*\*\*\*\* CERTIFICATE OF ANALYSIS \*\*\*\*\*  
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Site Location: CE Windsor  
Sample ID: MAC-0404-30  
Sample Title: Sub Slab Soil Sample Bld.18 Location #6  
Detector Name: 30%HPGE  
Nuclide Library Used: C:\GENIE2K\CAMFILES\FSS.NLB  
Sample Size: 9.700E+002 g  
Sample Taken On: 4/21/2004 12:00:00 PM  
Acquisition Started: 5/24/2004 4:06:21 PM  
Live Time: 670.4 seconds  
Real Time: 671.4 seconds  
Dead Time: 0.15 %  
Efficiency ID: srs035

| Nuclide<br>Name | IDENTIFIED RADIONUCLIDES        |                                 |                            | UNIDENTIFIED RADIONUCLIDES   |                                 |                         |
|-----------------|---------------------------------|---------------------------------|----------------------------|------------------------------|---------------------------------|-------------------------|
|                 | Nuclide<br>Activity<br>(pCi/g ) | Activity<br>Uncert.<br>(pCi/g ) | Nuclide<br>MDA<br>(pCi/g ) | Line<br>Activity<br>(pCi/g ) | Line Act<br>Uncert.<br>(pCi/g ) | Line<br>MDA<br>(pCi/g ) |
| K-40            | 1.09E+001                       | 2.28E+000                       | 1.37E+000                  | FOUND                        |                                 |                         |
| MN-54           | NOT FOUND/DATA for              | 834.83 keV                      |                            | 3.27E-002                    | 7.44E-002                       | 1.62E-001               |
| CO-57           | NOT FOUND/DATA for              | 122.06 keV                      |                            | 1.96E-002                    | 6.33E-002                       | 1.18E-001               |
| CO-60           | NOT FOUND/DATA for              | 1332.50 keV                     |                            | 5.18E-002                    | 6.89E-002                       | 1.72E-001               |
| ZN-65           | NOT FOUND/DATA for              | 1115.55 keV                     |                            | 1.29E-001                    | 1.64E-001                       | 3.85E-001               |
| AG-110m         | NOT FOUND/DATA for              | 657.76 keV                      |                            | -2.36E-003                   | 7.35E-002                       | 1.44E-001               |
| SB-125          | NOT FOUND/DATA for              | 427.89 keV                      |                            | 4.07E-002                    | 1.93E-001                       | 3.82E-001               |
| CS-134          | NOT FOUND/DATA for              | 604.70 keV                      |                            | -5.69E-003                   | 6.71E-002                       | 1.17E-001               |
| CS-137          | NOT FOUND/DATA for              | 661.66 keV                      |                            | 2.09E-002                    | 7.43E-002                       | 1.53E-001               |
| TL-208          | NOT FOUND/DATA for              | 583.19 keV                      |                            | 1.26E-001                    | 8.86E-002                       | 1.99E-001               |
| PB-212          | 4.99E-001                       | 4.28E-001                       | 3.19E-001                  | FOUND                        |                                 |                         |
| BI-214          | NOT FOUND/DATA for              | 609.31 keV                      |                            | 1.70E-001                    | 2.02E-001                       | 4.15E-001               |
| PB-214          | 5.37E-001                       | 1.52E-001                       | 3.41E-001                  | FOUND                        |                                 |                         |
| RA-226          | 2.81E+000                       | 1.28E+000                       | 3.33E+000                  | FOUND                        |                                 |                         |
| AC-228          | NOT FOUND/DATA for              | 911.21 keV                      |                            | 8.77E-001                    | 4.34E-001                       | 1.01E+000               |
| TH-230          | NOT FOUND/DATA for              | 67.67 keV                       |                            | -1.06E+001                   | 3.00E+001                       | 5.03E+001               |
| PA-231          | NOT FOUND/DATA for              | 300.02 keV                      |                            | 1.40E+000                    | 2.15E+000                       | 4.22E+000               |
| PA-234          | NOT FOUND/DATA for              | 98.44 keV                       |                            | -1.25E-001                   | 2.19E-001                       | 3.75E-001               |
| PA-234M         | NOT FOUND/DATA for              | 1001.03 keV                     |                            | 2.06E+001                    | 1.40E+001                       | 3.46E+001               |
| TH-234          | NOT FOUND/DATA for              | 92.60 keV                       |                            | 9.13E-001                    | 1.13E+000                       | 2.21E+000               |
| U-234           | NOT FOUND/DATA for              | 53.20 keV                       |                            | 1.37E+002                    | 2.68E+002                       | 4.95E+002               |
| U-235           | 1.71E-001                       | 7.81E-002                       | 2.03E-001                  | FOUND                        |                                 |                         |
| U-238           | NOT FOUND/DATA for              | 92.60 keV                       |                            | 9.13E-001                    | 1.13E+000                       | 2.21E+000               |
| AM-241          | NOT FOUND/DATA for              | 59.54 keV                       |                            | -1.32E-001                   | 4.92E-001                       | 8.33E-001               |

Uncertainty reported at 2.0 sigma

\*\*\*\*\*  
 \*\*\*\*\* C E R T I F I C A T E O F A N A L Y S I S \*\*\*\*\*  
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Site Location: CE Windsor  
 Sample ID: MAC-0404-33  
 Sample Title: Bld. 18 Sump Sub Slab Soil Sample  
 Detector Name: 30%HPGE  
 Nuclide Library Used: C:\GENIE2K\CAMFILES\FSS.NLB  
 Sample Size: 9.750E+002 g  
 Sample Taken On: 4/22/2004 12:00:00 PM  
 Acquisition Started: 5/25/2004 8:41:48 AM  
 Live Time: 1800.0 seconds  
 Real Time: 1802.4 seconds  
 Dead Time: 0.13 %  
 Efficiency ID: srs035

| Nuclide Name | IDENTIFIED RADIONUCLIDES |                          |                     | UNIDENTIFIED RADIONUCLIDES |                          |                  |
|--------------|--------------------------|--------------------------|---------------------|----------------------------|--------------------------|------------------|
|              | Nuclide Activity (pCi/g) | Activity Uncert. (pCi/g) | Nuclide MDA (pCi/g) | Line Activity (pCi/g)      | Line Act Uncert. (pCi/g) | Line MDA (pCi/g) |
| K-40         | 1.48E+001                | 3.54E+000                | 9.11E-001           | FOUND                      |                          |                  |
| MN-54        | NOT FOUND/DATA for       | 834.83 keV               | 3.43E-003           | 3.78E-002                  | 7.32E-002                |                  |
| CO-57        | NOT FOUND/DATA for       | 122.06 keV               | 4.13E-002           | 4.15E-002                  | 7.70E-002                |                  |
| CO-60        | NOT FOUND/DATA for       | 1332.50 keV              | 4.11E-002           | 4.87E-002                  | 1.06E-001                |                  |
| ZN-65        | NOT FOUND/DATA for       | 1115.55 keV              | -3.42E-002          | 1.21E-001                  | 2.01E-001                |                  |
| AG-110m      | NOT FOUND/DATA for       | 657.76 keV               | 1.12E-002           | 4.30E-002                  | 8.23E-002                |                  |
| SB-125       | NOT FOUND/DATA for       | 427.89 keV               | -1.48E-002          | 1.13E-001                  | 2.05E-001                |                  |
| CS-134       | NOT FOUND/DATA for       | 604.70 keV               | -9.67E-003          | 3.69E-002                  | 6.39E-002                |                  |
| CS-137       | NOT FOUND/DATA for       | 661.66 keV               | 3.49E-002           | 4.97E-002                  | 9.81E-002                |                  |
| TL-208       | 2.13E-001                | 1.49E-001                | 9.07E-002           | FOUND                      |                          |                  |
| PB-212       | 6.92E-001                | 9.29E-002                | 1.96E-001           | FOUND                      |                          |                  |
| BI-214       | 7.26E-001                | 3.55E-001                | 1.96E-001           | FOUND                      |                          |                  |
| PB-214       | 6.42E-001                | 1.14E-001                | 3.32E-001           | FOUND                      |                          |                  |
| RA-226       | 9.92E-001                | 6.43E-001                | 1.77E+000           | FOUND                      |                          |                  |
| AC-228       | 4.04E-001                | 2.35E-001                | 3.66E-001           | FOUND                      |                          |                  |
| TH-230       | NOT FOUND/DATA for       | 67.67 keV                | 3.49E+000           | 2.03E+001                  | 3.44E+001                |                  |
| PA-231       | NOT FOUND/DATA for       | 300.02 keV               | 1.10E+000           | 1.43E+000                  | 2.58E+000                |                  |
| PA-234       | NOT FOUND/DATA for       | 98.44 keV                | -7.42E-002          | 1.51E-001                  | 2.56E-001                |                  |
| PA-234M      | NOT FOUND/DATA for       | 1001.03 keV              | 4.42E+000           | 7.49E+000                  | 1.52E+001                |                  |
| TH-234       | NOT FOUND/DATA for       | 92.60 keV                | 9.87E-001           | 7.37E-001                  | 1.38E+000                |                  |
| U-234        | NOT FOUND/DATA for       | 53.20 keV                | 5.25E+001           | 1.73E+002                  | 2.99E+002                |                  |
| U-235        | 6.04E-002                | 3.92E-002                | 1.08E-001           | FOUND                      |                          |                  |
| U-238        | NOT FOUND/DATA for       | 92.60 keV                | 9.87E-001           | 7.36E-001                  | 1.38E+000                |                  |
| AM-241       | NOT FOUND/DATA for       | 59.54 keV                | 2.16E-002           | 3.42E-001                  | 5.73E-001                |                  |

Uncertainty reported at 2.0 sigma

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 \*\*\*\*\* CERTIFICATE OF ANALYSIS \*\*\*\*\*  
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Site Location: CE Windsor  
 Sample ID: MAC-0404-34  
 Sample Title: Bld.5 HB Sub Slab Soil Sample Loc#1  
 Detector Name: 30%HPGE  
 Nuclide Library Used: C:\GENIE2K\CAMFILES\FSS.NLB  
 Sample Size: 7.648E+002 g  
 Sample Taken On: 4/22/2004 12:00:00 PM  
 Acquisition Started: 5/25/2004 3:18:35 PM  
 Live Time: 1800.0 seconds  
 Real Time: 1802.4 seconds  
 Dead Time: 0.13 %  
 Efficiency ID: srs035

| Nuclide<br>Name | IDENTIFIED RADIONUCLIDES        |                                 |                            | UNIDENTIFIED RADIONUCLIDES   |                                 |                         |
|-----------------|---------------------------------|---------------------------------|----------------------------|------------------------------|---------------------------------|-------------------------|
|                 | Nuclide<br>Activity<br>(pCi/g ) | Activity<br>Uncert.<br>(pCi/g ) | Nuclide<br>MDA<br>(pCi/g ) | Line<br>Activity<br>(pCi/g ) | Line Act<br>Uncert.<br>(pCi/g ) | Line<br>MDA<br>(pCi/g ) |
| K-40            | 2.25E+001                       | 4.93E+000                       | 1.45E+000                  | FOUND                        |                                 |                         |
| MN-54           | NOT FOUND/DATA for              |                                 | 834.83 keV                 | -3.42E-002                   | 6.08E-002                       | 1.05E-001               |
| CO-57           | NOT FOUND/DATA for              |                                 | 122.06 keV                 | 1.10E-002                    | 5.05E-002                       | 9.05E-002               |
| CO-60           | NOT FOUND/DATA for              |                                 | 1332.50 keV                | 3.30E-002                    | 5.72E-002                       | 1.22E-001               |
| ZN-65           | NOT FOUND/DATA for              |                                 | 1115.55 keV                | 4.58E-002                    | 1.29E-001                       | 2.57E-001               |
| AG-110m         | NOT FOUND/DATA for              |                                 | 657.76 keV                 | 2.13E-003                    | 5.28E-002                       | 9.77E-002               |
| SB-125          | NOT FOUND/DATA for              |                                 | 427.89 keV                 | 5.91E-002                    | 1.42E-001                       | 2.71E-001               |
| CS-134          | NOT FOUND/DATA for              |                                 | 604.70 keV                 | -5.34E-003                   | 5.30E-002                       | 9.64E-002               |
| CS-137          | NOT FOUND/DATA for              |                                 | 661.66 keV                 | 3.00E-002                    | 5.35E-002                       | 1.07E-001               |
| TL-208          | 4.06E-001                       | 1.65E-001                       | 1.15E-001                  | FOUND                        |                                 |                         |
| PB-212          | 9.32E-001                       | 1.37E-001                       | 2.83E-001                  | FOUND                        |                                 |                         |
| BI-214          | 8.30E-001                       | 2.72E-001                       | 2.35E-001                  | FOUND                        |                                 |                         |
| PB-214          | 9.10E-001                       | 2.75E-001                       | 3.02E-001                  | FOUND                        |                                 |                         |
| RA-226          | NOT FOUND/DATA for              |                                 | 186.10 keV                 | 1.86E+000                    | 1.18E+000                       | 2.28E+000               |
| AC-228          | 1.42E+000                       | 2.45E-001                       | 4.66E-001                  | FOUND                        |                                 |                         |
| TH-230          | NOT FOUND/DATA for              |                                 | 67.67 keV                  | -5.97E+000                   | 2.59E+001                       | 4.29E+001               |
| PA-231          | NOT FOUND/DATA for              |                                 | 300.02 keV                 | 3.05E+000                    | 1.97E+000                       | 3.16E+000               |
| PA-234          | NOT FOUND/DATA for              |                                 | 98.44 keV                  | -1.19E-001                   | 1.98E-001                       | 3.30E-001               |
| PA-234M         | NOT FOUND/DATA for              |                                 | 1001.03 keV                | 2.26E+000                    | 9.59E+000                       | 1.86E+001               |
| TH-234          | NOT FOUND/DATA for              |                                 | 92.60 keV                  | 7.59E-001                    | 9.61E-001                       | 1.76E+000               |
| U-234           | NOT FOUND/DATA for              |                                 | 53.20 keV                  | -9.23E+001                   | 2.20E+002                       | 3.51E+002               |
| U-235           | NOT FOUND/DATA for              |                                 | 185.71 keV                 | 7.99E-002                    | 7.26E-002                       | 1.36E-001               |
| U-238           | NOT FOUND/DATA for              |                                 | 92.60 keV                  | 7.59E-001                    | 9.61E-001                       | 1.76E+000               |
| AM-241          | NOT FOUND/DATA for              |                                 | 59.54 keV                  | -1.88E-001                   | 4.11E-001                       | 6.64E-001               |

Uncertainty reported at 2.0 sigma

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 \*\*\* CERTIFICATE OF ANALYSIS \*\*\*  
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Site Location:      CE Windsor
Sample ID:          MAC-0404-35
Sample Title:       Sub Slab Soil Sample Bld.5 HB Location #
Detector Name:      30%HPGE
Nuclide Library Used: C:\GENIE2K\CAMFILES\FSS.NLB
Sample Size:        7.647E+002 g
Sample Taken On:    4/22/2004 12:00:00 PM
Acquisition Started: 5/24/2004 5:05:29 PM
Live Time:          3600.0 seconds
Real Time:          3604.9 seconds
Dead Time:          0.14 %
Efficiency ID:      srs035

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| Nuclide Name | IDENTIFIED RADIONUCLIDES |           |             | UNIDENTIFIED RADIONUCLIDES |           |           |
|--------------|--------------------------|-----------|-------------|----------------------------|-----------|-----------|
|              | Nuclide                  | Activity  | Nuclide     | Line                       | Line Act  | Line      |
|              | Activity                 | Uncert.   | MDA         | Activity                   | Uncert.   | MDA       |
|              | (pCi/g )                 | (pCi/g )  | (pCi/g )    | (pCi/g )                   | (pCi/g )  | (pCi/g )  |
| K-40         | 2.17E+001                | 3.70E+000 | 9.90E-001   | FOUND                      |           |           |
| MN-54        | NOT FOUND/DATA           | for       | 834.83 keV  | 4.21E-002                  | 4.06E-002 | 7.92E-002 |
| CO-57        | NOT FOUND/DATA           | for       | 122.06 keV  | 7.58E-003                  | 3.61E-002 | 6.35E-002 |
| CO-60        | NOT FOUND/DATA           | for       | 1332.50 keV | 3.63E-002                  | 4.03E-002 | 8.34E-002 |
| ZN-65        | NOT FOUND/DATA           | for       | 1115.55 keV | -4.19E-002                 | 9.47E-002 | 1.64E-001 |
| AG-110m      | NOT FOUND/DATA           | for       | 657.76 keV  | -4.21E-002                 | 3.43E-002 | 5.41E-002 |
| SB-125       | NOT FOUND/DATA           | for       | 427.89 keV  | -1.61E-002                 | 8.85E-002 | 1.56E-001 |
| CS-134       | NOT FOUND/DATA           | for       | 604.70 keV  | -1.13E-002                 | 3.71E-002 | 6.28E-002 |
| CS-137       | NOT FOUND/DATA           | for       | 661.66 keV  | 6.05E-002                  | 4.37E-002 | 8.62E-002 |
| TL-208       | 3.52E-001                | 2.04E-001 | 8.48E-002   | FOUND                      |           |           |
| PB-212       | 1.08E+000                | 1.06E-001 | 1.67E-001   | FOUND                      |           |           |
| BI-214       | 9.06E-001                | 1.83E-001 | 1.96E-001   | FOUND                      |           |           |
| PB-214       | 8.24E-001                | 2.97E-001 | 1.97E-001   | FOUND                      |           |           |
| RA-226       | NOT FOUND/DATA           | for       | 186.10 keV  | 1.36E+000                  | 8.65E-001 | 1.59E+000 |
| AC-228       | 8.53E-001                | 2.31E-001 | 3.52E-001   | FOUND                      |           |           |
| TH-230       | NOT FOUND/DATA           | for       | 67.67 keV   | -5.19E+000                 | 1.74E+001 | 2.84E+001 |
| PA-231       | NOT FOUND/DATA           | for       | 300.02 keV  | 2.28E+000                  | 1.61E+000 | 2.46E+000 |
| PA-234       | NOT FOUND/DATA           | for       | 98.44 keV   | -4.65E-002                 | 1.35E-001 | 2.32E-001 |
| PA-234M      | NOT FOUND/DATA           | for       | 1001.03 keV | 6.70E+000                  | 6.77E+000 | 1.35E+001 |
| TH-234       | NOT FOUND/DATA           | for       | 92.60 keV   | 5.47E-001                  | 6.63E-001 | 1.18E+000 |
| U-234        | NOT FOUND/DATA           | for       | 53.20 keV   | -4.11E+001                 | 5.46E+001 | 2.57E+002 |
| U-235        | NOT FOUND/DATA           | for       | 185.71 keV  | 6.44E-002                  | 5.27E-002 | 9.57E-002 |
| U-238        | NOT FOUND/DATA           | for       | 92.60 keV   | 5.47E-001                  | 6.63E-001 | 1.18E+000 |
| AM-241       | NOT FOUND/DATA           | for       | 59.54 keV   | 5.37E-002                  | 2.83E-001 | 4.76E-001 |

Uncertainty reported at 2.0 sigma



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 \*\*\*\*\* CERTIFICATE OF ANALYSIS \*\*\*\*\*  
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Site Location: CE Windsor  
 Sample ID: MAC-0404-36  
 Sample Title: B5-3 HB  
 Detector Name: 2108  
 Nuclide Library Used: C:\GENIE2K\CAMFILES\FSS.NLB  
 Sample Size: 9.141E+002 g  
 Sample Taken On: 4/22/2004 10:00:00 AM  
 Acquisition Started: 5/20/2004 11:27:22 AM  
 Live Time: 3600.0 seconds  
 Real Time: 3604.7 seconds  
 Dead Time: 0.13 %  
 Efficiency ID: srs035

| Nuclide Name | IDENTIFIED RADIONUCLIDES |                          |                     | UNIDENTIFIED RADIONUCLIDES |                          |                  |
|--------------|--------------------------|--------------------------|---------------------|----------------------------|--------------------------|------------------|
|              | Nuclide Activity (pCi/g) | Activity Uncert. (pCi/g) | Nuclide MDA (pCi/g) | Line Activity (pCi/g)      | Line Act Uncert. (pCi/g) | Line MDA (pCi/g) |
| K-40         | 2.06E+001                | 3.14E+000                | 8.30E-001           | FOUND                      |                          |                  |
| MN-54        | NOT FOUND/DATA for       |                          | 834.83 keV          | 5.99E-003                  | 2.96E-002                | 5.62E-002        |
| CO-57        | NOT FOUND/DATA for       |                          | 122.06 keV          | 2.11E-003                  | 3.12E-002                | 5.45E-002        |
| CO-60        | NOT FOUND/DATA for       |                          | 1332.50 keV         | -1.95E-003                 | 3.83E-002                | 6.96E-002        |
| ZN-65        | NOT FOUND/DATA for       |                          | 1115.55 keV         | -3.37E-002                 | 8.69E-002                | 1.36E-001        |
| AG-110m      | NOT FOUND/DATA for       |                          | 657.76 keV          | -1.89E-002                 | 3.17E-002                | 5.29E-002        |
| SB-125       | NOT FOUND/DATA for       |                          | 427.89 keV          | -2.89E-002                 | 9.08E-002                | 1.57E-001        |
| CS-134       | NOT FOUND/DATA for       |                          | 604.70 keV          | -2.24E-002                 | 3.01E-002                | 5.40E-002        |
| CS-137       | 5.13E-002                | 2.75E-002                | 6.61E-002           | FOUND                      |                          |                  |
| TL-208       | 3.75E-001                | 5.18E-002                | 8.41E-002           | FOUND                      |                          |                  |
| PB-212       | 1.14E+000                | 1.64E-001                | 1.62E-001           | FOUND                      |                          |                  |
| BI-214       | 8.56E-001                | 2.28E-001                | 1.46E-001           | FOUND                      |                          |                  |
| PB-214       | 7.37E-001                | 1.28E-001                | 1.88E-001           | FOUND                      |                          |                  |
| RA-226       | 1.53E+000                | 5.88E-001                | 1.91E+000           | FOUND                      |                          |                  |
| AC-228       | 8.03E-001                | 2.16E-001                | 3.11E-001           | FOUND                      |                          |                  |
| TH-230       | NOT FOUND/DATA for       |                          | 67.67 keV           | -1.22E+001                 | 1.64E+001                | 2.61E+001        |
| PA-231       | NOT FOUND/DATA for       |                          | 300.02 keV          | 8.49E-001                  | 1.18E+000                | 2.04E+000        |
| PA-234       | NOT FOUND/DATA for       |                          | 98.44 keV           | -2.06E-002                 | 1.23E-001                | 2.13E-001        |
| PA-234M      | NOT FOUND/DATA for       |                          | 1001.03 keV         | 6.99E+000                  | 6.09E+000                | 1.22E+001        |
| TH-234       | NOT FOUND/DATA for       |                          | 92.60 keV           | 1.13E+000                  | 6.09E-001                | 1.11E+000        |
| U-234        | NOT FOUND/DATA for       |                          | 53.20 keV           | -5.08E+001                 | 1.44E+002                | 2.33E+002        |
| U-235        | 9.32E-002                | 3.59E-002                | 1.16E-001           | FOUND                      |                          |                  |
| U-238        | NOT FOUND/DATA for       |                          | 92.60 keV           | 1.13E+000                  | 6.08E-001                | 1.11E+000        |
| AM-241       | NOT FOUND/DATA for       |                          | 59.54 keV           | 7.62E-002                  | 2.65E-001                | 4.45E-001        |

Uncertainty reported at 2.0 sigma

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 \*\*\*\*\* C E R T I F I C A T E O F A N A L Y S I S \*\*\*\*\*  
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Site Location: CE Windsor  
 Sample ID: MAC-0404-37  
 Sample Title: B18-7 Pit  
 Detector Name: 2108  
 Nuclide Library Used: C:\GENIE2K\CAMFILES\FSS.NLB  
 Sample Size: 9.300E+002 g  
 Sample Taken On: 4/22/2004 10:00:00 AM  
 Acquisition Started: 5/20/2004 2:56:44 PM  
 Live Time: 3600.0 seconds  
 Real Time: 3605.0 seconds  
 Dead Time: 0.14 %  
 Efficiency ID: srs035

| Nuclide Name | IDENTIFIED RADIONUCLIDES  |                           |                      | UNIDENTIFIED RADIONUCLIDES |                           |                   |
|--------------|---------------------------|---------------------------|----------------------|----------------------------|---------------------------|-------------------|
|              | Nuclide Activity (pCi/g ) | Activity Uncert. (pCi/g ) | Nuclide MDA (pCi/g ) | Line Activity (pCi/g )     | Line Act Uncert. (pCi/g ) | Line MDA (pCi/g ) |
| K-40         | 1.46E+001                 | 2.58E+000                 | 5.73E-001            | FOUND                      |                           |                   |
| MN-54        | NOT FOUND/DATA for        | 834.83 keV                | -1.28E-002           | 3.20E-002                  | 5.79E-002                 |                   |
| CO-57        | NOT FOUND/DATA for        | 122.06 keV                | -8.88E-003           | 2.86E-002                  | 4.91E-002                 |                   |
| CO-60        | NOT FOUND/DATA for        | 1332.50 keV               | 3.91E-002            | 3.38E-002                  | 7.13E-002                 |                   |
| ZN-65        | NOT FOUND/DATA for        | 1115.55 keV               | -2.06E-002           | 6.89E-002                  | 1.23E-001                 |                   |
| AG-110m      | NOT FOUND/DATA for        | 657.76 keV                | -1.89E-002           | 3.13E-002                  | 5.15E-002                 |                   |
| SB-125       | NOT FOUND/DATA for        | 427.89 keV                | -1.73E-002           | 7.54E-002                  | 1.33E-001                 |                   |
| CS-134       | NOT FOUND/DATA for        | 604.70 keV                | 9.13E-003            | 3.03E-002                  | 5.39E-002                 |                   |
| CS-137       | NOT FOUND/DATA for        | 661.66 keV                | 2.60E-002            | 3.58E-002                  | 6.77E-002                 |                   |
| TL-208       | 1.95E-001                 | 1.14E-001                 | 6.90E-002            | FOUND                      |                           |                   |
| PB-212       | 5.41E-001                 | 1.10E-001                 | 1.48E-001            | FOUND                      |                           |                   |
| BI-214       | 5.21E-001                 | 7.56E-002                 | 1.43E-001            | FOUND                      |                           |                   |
| PB-214       | 4.70E-001                 | 7.99E-002                 | 1.51E-001            | FOUND                      |                           |                   |
| RA-226       | NOT FOUND/DATA for        | 186.10 keV                | 9.81E-001            | 6.57E-001                  | 1.21E+000                 |                   |
| AC-228       | 5.84E-001                 | 8.68E-002                 | 2.09E-001            | FOUND                      |                           |                   |
| TH-230       | NOT FOUND/DATA for        | 67.67 keV                 | 1.57E+000            | 1.28E+001                  | 2.12E+001                 |                   |
| PA-231       | NOT FOUND/DATA for        | 300.02 keV                | 2.22E-001            | 1.01E+000                  | 1.79E+000                 |                   |
| PA-234       | NOT FOUND/DATA for        | 131.20 keV                | -1.78E-001           | 1.54E-001                  | 1.80E-001                 |                   |
| PA-234M      | NOT FOUND/DATA for        | 1001.03 keV               | 1.61E+000            | 5.60E+000                  | 1.01E+001                 |                   |
| TH-234       | 7.62E-001                 | 1.77E+000                 | 9.11E-001            | FOUND                      |                           |                   |
| U-234        | NOT FOUND/DATA for        | 53.20 keV                 | 7.50E-001            | 1.17E+002                  | 1.95E+002                 |                   |
| U-235        | NOT FOUND/DATA for        | 185.71 keV                | 7.77E-002            | 4.05E-002                  | 7.59E-002                 |                   |
| U-238        | 7.62E-001                 | 1.77E+000                 | 9.11E-001            | FOUND                      |                           |                   |
| AM-241       | NOT FOUND/DATA for        | 59.54 keV                 | -7.32E-002           | 2.31E-001                  | 3.76E-001                 |                   |

Uncertainty reported at 2.0 sigma

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 \*\*\*\*\* CERTIFICATE OF ANALYSIS \*\*\*\*\*  
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Site Location: CE Windsor  
 Sample ID: MAC-0404-38  
 Sample Title: Sub Slab Soil Sample  
 Detector Name: 30%HPGE  
 Nuclide Library Used: C:\GENIE2K\CAMFILES\FSS.NLB  
 Sample Size: 9.378E+002 g  
 Sample Taken On: 4/22/2004 12:00:00 PM  
 Acquisition Started: 5/24/2004 2:05:56 PM  
 Live Time: 2541.3 seconds  
 Real Time: 2545.0 seconds  
 Dead Time: 0.14 %  
 Efficiency ID: srs035

| Nuclide Name | IDENTIFIED RADIONUCLIDES |                          |                     | UNIDENTIFIED RADIONUCLIDES |                          |                  |
|--------------|--------------------------|--------------------------|---------------------|----------------------------|--------------------------|------------------|
|              | Nuclide Activity (pCi/g) | Activity Uncert. (pCi/g) | Nuclide MDA (pCi/g) | Line Activity (pCi/g)      | Line Act Uncert. (pCi/g) | Line MDA (pCi/g) |
| K-40         | 1.47E+001                | 2.70E+000                | 6.00E-001           | FOUND                      |                          |                  |
| MN-54        | NOT FOUND/DATA for       |                          | 834.83 keV          | 3.26E-002                  | 3.77E-002                | 7.63E-002        |
| CO-57        | NOT FOUND/DATA for       |                          | 122.06 keV          | 1.01E-002                  | 3.22E-002                | 5.77E-002        |
| CO-60        | NOT FOUND/DATA for       |                          | 1173.24 keV         | 1.15E-002                  | 4.37E-002                | 8.32E-002        |
| ZN-65        | NOT FOUND/DATA for       |                          | 1115.55 keV         | -6.07E-003                 | 9.19E-002                | 1.54E-001        |
| AG-110m      | NOT FOUND/DATA for       |                          | 657.76 keV          | -2.99E-002                 | 3.42E-002                | 5.52E-002        |
| SB-125       | NOT FOUND/DATA for       |                          | 427.89 keV          | 6.79E-002                  | 9.93E-002                | 1.87E-001        |
| CS-134       | NOT FOUND/DATA for       |                          | 604.70 keV          | -3.05E-002                 | 3.41E-002                | 5.56E-002        |
| CS-137       | NOT FOUND/DATA for       |                          | 661.66 keV          | 3.81E-002                  | 4.50E-002                | 8.42E-002        |
| TL-208       | 1.78E-001                | 4.55E-002                | 9.06E-002           | FOUND                      |                          |                  |
| PB-212       | 5.25E-001                | 7.26E-002                | 1.33E-001           | FOUND                      |                          |                  |
| BI-214       | 5.05E-001                | 1.74E-001                | 1.80E-001           | FOUND                      |                          |                  |
| PB-214       | 7.11E-001                | 2.79E-001                | 1.90E-001           | FOUND                      |                          |                  |
| RA-226       | NOT FOUND/DATA for       |                          | 186.10 keV          | 1.53E+000                  | 8.07E-001                | 1.54E+000        |
| AC-228       | NOT FOUND/DATA for       |                          | 911.21 keV          | 5.46E-001                  | 1.99E-001                | 4.26E-001        |
| TH-230       | NOT FOUND/DATA for       |                          | 67.67 keV           | 2.05E+001                  | 1.67E+001                | 2.99E+001        |
| PA-231       | NOT FOUND/DATA for       |                          | 300.02 keV          | 1.61E+000                  | 1.38E+000                | 2.30E+000        |
| PA-234       | NOT FOUND/DATA for       |                          | 98.44 keV           | -6.14E-002                 | 1.33E-001                | 2.27E-001        |
| PA-234M      | NOT FOUND/DATA for       |                          | 1001.03 keV         | -1.65E+000                 | 5.82E+000                | 1.02E+001        |
| TH-234       | 7.90E-001                | 3.74E-001                | 1.20E+000           | FOUND                      |                          |                  |
| U-234        | NOT FOUND/DATA for       |                          | 53.20 keV           | 5.30E-001                  | 1.36E+002                | 2.30E+002        |
| U-235        | NOT FOUND/DATA for       |                          | 185.71 keV          | 1.08E-001                  | 4.95E-002                | 9.52E-002        |
| U-238        | 7.90E-001                | 3.73E-001                | 1.20E+000           | FOUND                      |                          |                  |
| AM-241       | NOT FOUND/DATA for       |                          | 59.54 keV           | -2.33E-002                 | 2.64E-001                | 4.37E-001        |

Uncertainty reported at 2.0 sigma

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 \*\*\*\*\* C E R T I F I C A T E O F A N A L Y S I S \*\*\*\*\*  
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Site Location: CE Windsor  
 Sample ID: MAC-0404-39  
 Sample Title: Bld. 5HB Sub Slab Soil Sample Location #  
 Detector Name: 30%HPGE  
 Nuclide Library Used: C:\GENIE2K\CAMFILES\FSS.NLB  
 Sample Size: 9.181E+002 g  
 Sample Taken On: 4/23/2004 12:00:00 PM  
 Acquisition Started: 5/25/2004 11:23:08 AM  
 Live Time: 1800.0 seconds  
 Real Time: 1802.6 seconds  
 Dead Time: 0.15 %  
 Efficiency ID: srs035

| Nuclide Name | IDENTIFIED RADIONUCLIDES |                          |                     | UNIDENTIFIED RADIONUCLIDES |                          |                  |
|--------------|--------------------------|--------------------------|---------------------|----------------------------|--------------------------|------------------|
|              | Nuclide Activity (pCi/g) | Activity Uncert. (pCi/g) | Nuclide MDA (pCi/g) | Line Activity (pCi/g)      | Line Act Uncert. (pCi/g) | Line MDA (pCi/g) |
| K-40         | 2.11E+001                | 4.66E+000                | 7.09E-001           | FOUND                      |                          |                  |
| MN-54        | NOT FOUND/DATA           | for                      | 834.83 keV          | -5.85E-003                 | 4.19E-002                | 7.76E-002        |
| CO-57        | NOT FOUND/DATA           | for                      | 122.06 keV          | 3.31E-002                  | 4.30E-002                | 7.90E-002        |
| CO-60        | NOT FOUND/DATA           | for                      | 1173.24 keV         | 1.57E-002                  | 5.00E-002                | 9.85E-002        |
| ZN-65        | NOT FOUND/DATA           | for                      | 1115.55 keV         | 7.05E-002                  | 1.27E-001                | 2.48E-001        |
| AG-110m      | NOT FOUND/DATA           | for                      | 657.76 keV          | 2.04E-002                  | 4.03E-002                | 8.11E-002        |
| SB-125       | NOT FOUND/DATA           | for                      | 427.89 keV          | 1.54E-002                  | 1.18E-001                | 2.18E-001        |
| CS-134       | NOT FOUND/DATA           | for                      | 604.70 keV          | -3.86E-003                 | 4.03E-002                | 7.30E-002        |
| CS-137       | NOT FOUND/DATA           | for                      | 661.66 keV          | 1.84E-002                  | 5.23E-002                | 9.90E-002        |
| TL-208       | 4.39E-001                | 2.16E-001                | 1.09E-001           | FOUND                      |                          |                  |
| PB-212       | 1.16E+000                | 2.17E-001                | 2.28E-001           | FOUND                      |                          |                  |
| BI-214       | 8.80E-001                | 1.50E-001                | 2.26E-001           | FOUND                      |                          |                  |
| PB-214       | 6.61E-001                | 1.26E-001                | 2.15E-001           | FOUND                      |                          |                  |
| RA-226       | NOT FOUND/DATA           | for                      | 186.10 keV          | 1.21E+000                  | 1.05E+000                | 1.96E+000        |
| AC-228       | 1.01E+000                | 1.82E-001                | 3.54E-001           | FOUND                      |                          |                  |
| TH-230       | NOT FOUND/DATA           | for                      | 67.67 keV           | 1.40E+001                  | 2.16E+001                | 3.74E+001        |
| PA-231       | NOT FOUND/DATA           | for                      | 300.02 keV          | 2.23E+000                  | 1.89E+000                | 3.18E+000        |
| PA-234       | NOT FOUND/DATA           | for                      | 98.44 keV           | 6.21E-002                  | 1.67E-001                | 3.00E-001        |
| PA-234M      | NOT FOUND/DATA           | for                      | 1001.03 keV         | -3.81E+000                 | 1.04E+001                | 1.71E+001        |
| TH-234       | NOT FOUND/DATA           | for                      | 92.60 keV           | 4.58E-001                  | 8.56E-001                | 1.53E+000        |
| U-234        | NOT FOUND/DATA           | for                      | 53.20 keV           | 4.76E+001                  | 2.01E+002                | 3.43E+002        |
| U-235        | NOT FOUND/DATA           | for                      | 185.71 keV          | 7.64E-002                  | 6.34E-002                | 1.19E-001        |
| U-238        | NOT FOUND/DATA           | for                      | 92.60 keV           | 4.58E-001                  | 8.56E-001                | 1.53E+000        |
| AM-241       | NOT FOUND/DATA           | for                      | 59.54 keV           | -2.31E-001                 | 3.79E-001                | 6.08E-001        |

Uncertainty reported at 2.0 sigma

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 \*\*\*\*\* CERTIFICATE OF ANALYSIS \*\*\*\*\*  
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Site Location: CE Windsor  
 Sample ID: MAC-0404-40  
 Sample Title: B5-6 HB SW Pit East  
 Detector Name: 2108  
 Nuclide Library Used: C:\GENIE2K\CAMFILES\FSS.NLB  
 Sample Size: 8.994E+002 g  
 Sample Taken On: 4/22/2004 10:00:00 AM  
 Acquisition Started: 5/20/2004 4:14:28 PM  
 Live Time: 3600.0 seconds  
 Real Time: 3604.8 seconds  
 Dead Time: 0.13 %  
 Efficiency ID: srs035

| Nuclide Name | IDENTIFIED RADIONUCLIDES |                          |                     | UNIDENTIFIED RADIONUCLIDES |                          |                  |
|--------------|--------------------------|--------------------------|---------------------|----------------------------|--------------------------|------------------|
|              | Nuclide Activity (pCi/g) | Activity Uncert. (pCi/g) | Nuclide MDA (pCi/g) | Line Activity (pCi/g)      | Line Act Uncert. (pCi/g) | Line MDA (pCi/g) |
| K-40         | 2.00E+001                | 3.13E+000                | 8.43E-001           | FOUND                      |                          |                  |
| MN-54        | NOT FOUND/DATA for       |                          | 834.83 keV          | -2.05E-003                 | 3.16E-002                | 5.85E-002        |
| CO-57        | NOT FOUND/DATA for       |                          | 122.06 keV          | -1.34E-002                 | 3.18E-002                | 5.43E-002        |
| CO-60        | NOT FOUND/DATA for       |                          | 1332.50 keV         | 3.07E-002                  | 3.34E-002                | 6.98E-002        |
| ZN-65        | NOT FOUND/DATA for       |                          | 1115.55 keV         | -1.59E-002                 | 8.38E-002                | 1.42E-001        |
| AG-110m      | NOT FOUND/DATA for       |                          | 657.76 keV          | -6.06E-003                 | 3.35E-002                | 5.89E-002        |
| SB-125       | NOT FOUND/DATA for       |                          | 427.89 keV          | -7.35E-002                 | 8.36E-002                | 1.35E-001        |
| CS-134       | NOT FOUND/DATA for       |                          | 604.70 keV          | -2.84E-002                 | 2.97E-002                | 4.77E-002        |
| CS-137       | NOT FOUND/DATA for       |                          | 661.66 keV          | 5.54E-002                  | 3.84E-002                | 7.59E-002        |
| TL-208       | 2.72E-001                | 1.35E-001                | 8.12E-002           | FOUND                      |                          |                  |
| PB-212       | 8.83E-001                | 1.24E-001                | 1.31E-001           | FOUND                      |                          |                  |
| BI-214       | 7.33E-001                | 9.37E-002                | 1.50E-001           | FOUND                      |                          |                  |
| PB-214       | 7.39E-001                | 1.28E-001                | 1.56E-001           | FOUND                      |                          |                  |
| RA-226       | 1.39E+000                | 5.73E-001                | 1.55E+000           | FOUND                      |                          |                  |
| AC-228       | 7.19E-001                | 1.48E-001                | 2.75E-001           | FOUND                      |                          |                  |
| TH-230       | NOT FOUND/DATA for       |                          | 67.67 keV           | 5.61E+000                  | 1.58E+001                | 2.65E+001        |
| PA-231       | NOT FOUND/DATA for       |                          | 300.02 keV          | 1.35E+000                  | 1.26E+000                | 2.09E+000        |
| PA-234       | NOT FOUND/DATA for       |                          | 98.44 keV           | 1.96E-002                  | 1.25E-001                | 2.18E-001        |
| PA-234M      | NOT FOUND/DATA for       |                          | 1001.03 keV         | 3.36E-001                  | 5.96E+000                | 1.08E+001        |
| TH-234       | NOT FOUND/DATA for       |                          | 92.60 keV           | 8.21E-001                  | 5.78E-001                | 1.05E+000        |
| U-234        | NOT FOUND/DATA for       |                          | 53.20 keV           | -3.82E+001                 | 1.37E+002                | 2.23E+002        |
| U-235        | 8.48E-002                | 3.50E-002                | 9.41E-002           | FOUND                      |                          |                  |
| U-238        | NOT FOUND/DATA for       |                          | 92.60 keV           | 8.21E-001                  | 5.77E-001                | 1.05E+000        |
| AM-241       | NOT FOUND/DATA for       |                          | 59.54 keV           | 1.17E-001                  | 2.53E-001                | 4.30E-001        |

Uncertainty reported at 2.0 sigma

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 C E R T I F I C A T E O F A N A L Y S I S  
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Site Location: CE Windsor  
 Sample ID: MAC-0404-41  
 Sample Title: B5- High Bay SW Pit West  
 Detector Name: 30%HPGE  
 Nuclide Library Used: C:\GENIE2K\CAMFILES\FSS.NLB  
 Sample Size: 9.740E+002 g  
 Sample Taken On: 4/23/2004 10:50:00 AM  
 Acquisition Started: 5/6/2004 4:29:20 PM  
 Live Time: 14400.0 seconds  
 Real Time: 14421.0 seconds  
 Dead Time: 0.15 %  
 Efficiency ID: srs035

| Nuclide Name | IDENTIFIED RADIONUCLIDES  |                           |                      | UNIDENTIFIED RADIONUCLIDES |                           |                   |
|--------------|---------------------------|---------------------------|----------------------|----------------------------|---------------------------|-------------------|
|              | Nuclide Activity (pCi/g ) | Activity Uncert. (pCi/g ) | Nuclide MDA (pCi/g ) | Line Activity (pCi/g )     | Line Act Uncert. (pCi/g ) | Line MDA (pCi/g ) |
| K-40         | 1.88E+001                 | 1.74E+000                 | 3.48E-001            | FOUND                      |                           |                   |
| MN-54        | NOT FOUND/DATA for        |                           | 834.83 keV           | 7.56E-003                  | 1.55E-002                 | 2.80E-002         |
| CO-57        | NOT FOUND/DATA for        |                           | 122.06 keV           | -6.72E-004                 | 1.57E-002                 | 2.70E-002         |
| CO-60        | 4.90E-002                 | 1.29E-002                 | 3.19E-002            | FOUND                      |                           |                   |
| ZN-65        | NOT FOUND/DATA for        |                           | 1115.55 keV          | 7.87E-003                  | 2.68E-002                 | 5.89E-002         |
| AG-110m      | NOT FOUND/DATA for        |                           | 657.76 keV           | -6.56E-003                 | 1.10E-002                 | 2.69E-002         |
| SB-125       | NOT FOUND/DATA for        |                           | 427.89 keV           | -9.70E-003                 | 5.03E-002                 | 8.04E-002         |
| CS-134       | NOT FOUND/DATA for        |                           | 604.70 keV           | -5.05E-003                 | 1.41E-002                 | 2.51E-002         |
| CS-137       | 3.23E-002                 | 4.21E-002                 | 4.52E-002            | FOUND                      |                           |                   |
| TL-208       | 2.95E-001                 | 6.76E-002                 | 5.14E-002            | FOUND                      |                           |                   |
| PB-212       | 8.94E-001                 | 1.00E-001                 | 6.36E-002            | FOUND                      |                           |                   |
| BI-214       | 7.85E-001                 | 1.24E-001                 | 9.81E-002            | FOUND                      |                           |                   |
| PB-214       | 6.64E-001                 | 1.04E-001                 | 1.18E-001            | FOUND                      |                           |                   |
| RA-226       | 1.59E+000                 | 3.13E-001                 | 1.06E+000            | FOUND                      |                           |                   |
| AC-228       | 8.53E-001                 | 1.02E-001                 | 1.64E-001            | FOUND                      |                           |                   |
| TH-230       | NOT FOUND/DATA for        |                           | 67.67 keV            | -4.94E+000                 | 8.44E+000                 | 1.29E+001         |
| PA-231       | NOT FOUND/DATA for        |                           | 300.02 keV           | 1.18E+000                  | 7.04E-001                 | 9.24E-001         |
| PA-234       | NOT FOUND/DATA for        |                           | 98.44 keV            | 2.10E-002                  | 6.96E-002                 | 1.09E-001         |
| PA-234M      | NOT FOUND/DATA for        |                           | 1001.03 keV          | -9.36E-001                 | 2.43E+000                 | 4.24E+000         |
| TH-234       | 1.10E+000                 | 4.38E-001                 | 6.42E-001            | FOUND                      |                           |                   |
| U-234        | NOT FOUND/DATA for        |                           | 53.20 keV            | -1.21E+001                 | 7.26E+001                 | 1.13E+002         |
| U-235        | 9.69E-002                 | 1.92E-002                 | 6.48E-002            | FOUND                      |                           |                   |
| U-238        | 1.10E+000                 | 4.37E-001                 | 6.42E-001            | FOUND                      |                           |                   |
| AM-241       | NOT FOUND/DATA for        |                           | 59.54 keV            | 9.64E-002                  | 1.40E-001                 | 2.20E-001         |

Uncertainty reported at 2.0 sigma



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 \*\*\*\*\* CERTIFICATE OF ANALYSIS \*\*\*\*\*  
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Site Location: CE Windsor  
 Sample ID: MAC-0404-42  
 Sample Title: Sub Slab Soil Sample Bld.5 Location #7  
 Detector Name: 30%HPGE  
 Nuclide Library Used: C:\GENIE2K\CAMFILES\FSS.NLB  
 Sample Size: 8.341E+002 g  
 Sample Taken On: 4/24/2004 12:00:00 PM  
 Acquisition Started: 5/24/2004 4:19:33 PM  
 Live Time: 686.2 seconds  
 Real Time: 687.2 seconds  
 Dead Time: 0.14 %  
 Efficiency ID: srs035

| Nuclide Name | IDENTIFIED RADIONUCLIDES |                          |                     | UNIDENTIFIED RADIONUCLIDES |                          |                  |
|--------------|--------------------------|--------------------------|---------------------|----------------------------|--------------------------|------------------|
|              | Nuclide Activity (pCi/g) | Activity Uncert. (pCi/g) | Nuclide MDA (pCi/g) | Line Activity (pCi/g)      | Line Act Uncert. (pCi/g) | Line MDA (pCi/g) |
| K-40         | 1.69E+001                | 3.00E+000                | 2.27E+000           | FOUND                      |                          |                  |
| MN-54        | NOT FOUND/DATA for       |                          | 834.83 keV          | 5.57E-002                  | 9.91E-002                | 2.11E-001        |
| CO-57        | NOT FOUND/DATA for       |                          | 122.06 keV          | -4.44E-002                 | 7.70E-002                | 1.33E-001        |
| CO-60        | NOT FOUND/DATA for       |                          | 1332.50 keV         | 3.43E-002                  | 8.60E-002                | 1.95E-001        |
| ZN-65        | NOT FOUND/DATA for       |                          | 1115.55 keV         | 5.42E-003                  | 1.81E-001                | 3.67E-001        |
| AG-110m      | NOT FOUND/DATA for       |                          | 657.76 keV          | 2.13E-002                  | 5.74E-002                | 1.31E-001        |
| SB-125       | NOT FOUND/DATA for       |                          | 427.89 keV          | 1.57E-001                  | 2.00E-001                | 4.33E-001        |
| CS-134       | NOT FOUND/DATA for       |                          | 604.70 keV          | -3.15E-002                 | 8.68E-002                | 1.55E-001        |
| CS-137       | NOT FOUND/DATA for       |                          | 661.66 keV          | 4.59E-002                  | 8.32E-002                | 1.80E-001        |
| TL-208       | 2.05E-001                | 2.67E-001                | 1.49E-001           | FOUND                      |                          |                  |
| PB-212       | NOT FOUND/DATA for       |                          | 238.63 keV          | 6.19E-001                  | 2.22E-001                | 4.49E-001        |
| BI-214       | NOT FOUND/DATA for       |                          | 609.31 keV          | 7.08E-001                  | 2.75E-001                | 6.21E-001        |
| PB-214       | 6.09E-001                | 2.14E-001                | 3.67E-001           | FOUND                      |                          |                  |
| RA-226       | NOT FOUND/DATA for       |                          | 186.10 keV          | 6.22E-001                  | 1.75E+000                | 3.30E+000        |
| AC-228       | NOT FOUND/DATA for       |                          | 911.21 keV          | 1.00E+000                  | 5.29E-001                | 1.19E+000        |
| TH-230       | NOT FOUND/DATA for       |                          | 67.67 keV           | -6.55E+000                 | 3.37E+001                | 5.71E+001        |
| PA-231       | NOT FOUND/DATA for       |                          | 300.02 keV          | 1.27E+000                  | 2.76E+000                | 5.27E+000        |
| PA-234       | NOT FOUND/DATA for       |                          | 98.44 keV           | -1.19E-001                 | 2.81E-001                | 4.93E-001        |
| PA-234M      | NOT FOUND/DATA for       |                          | 1001.03 keV         | 1.04E+001                  | 1.70E+001                | 3.70E+001        |
| TH-234       | NOT FOUND/DATA for       |                          | 92.60 keV           | 1.19E+000                  | 1.27E+000                | 2.51E+000        |
| U-234        | NOT FOUND/DATA for       |                          | 53.20 keV           | 1.69E+001                  | 3.06E+002                | 5.45E+002        |
| U-235        | NOT FOUND/DATA for       |                          | 185.71 keV          | 1.74E-002                  | 1.07E-001                | 1.99E-001        |
| U-238        | NOT FOUND/DATA for       |                          | 92.60 keV           | 1.19E+000                  | 1.27E+000                | 2.51E+000        |
| AM-241       | NOT FOUND/DATA for       |                          | 59.54 keV           | -5.89E-001                 | 6.31E-001                | 9.63E-001        |

Uncertainty reported at 2.0 sigma

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 \*\*\*\*\* CERTIFICATE OF ANALYSIS \*\*\*\*\*  
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Site Location: CE Windsor  
 Sample ID: MAC-0404-43  
 Sample Title: Bld. 5 Sub Slab Soil Sample Location #8  
 Detector Name: 30%HPGE  
 Nuclide Library Used: C:\GENIE2K\CAMFILES\FSS.NLB  
 Sample Size: 8.184E+002 g  
 Sample Taken On: 4/22/2004 12:00:00 PM  
 Acquisition Started: 5/25/2004 10:49:26 AM  
 Live Time: 1800.0 seconds  
 Real Time: 1802.5 seconds  
 Dead Time: 0.14 %  
 Efficiency ID: srs035

| Nuclide Name | IDENTIFIED RADIONUCLIDES  |                           |                      | UNIDENTIFIED RADIONUCLIDES |                           |                   |
|--------------|---------------------------|---------------------------|----------------------|----------------------------|---------------------------|-------------------|
|              | Nuclide Activity (pCi/g ) | Activity Uncert. (pCi/g ) | Nuclide MDA (pCi/g ) | Line Activity (pCi/g )     | Line Act Uncert. (pCi/g ) | Line MDA (pCi/g ) |
| K-40         | 2.12E+001                 | 4.86E+000                 | 1.22E+000            | FOUND                      |                           |                   |
| MN-54        | NOT FOUND/DATA for        | 834.83 keV                | 2.27E-002            | 4.77E-002                  | 9.62E-002                 |                   |
| CO-57        | NOT FOUND/DATA for        | 122.06 keV                | -1.21E-002           | 4.73E-002                  | 8.10E-002                 |                   |
| CO-60        | NOT FOUND/DATA for        | 1173.24 keV               | 3.47E-002            | 7.04E-002                  | 1.37E-001                 |                   |
| ZN-65        | NOT FOUND/DATA for        | 1115.55 keV               | 3.48E-002            | 1.19E-001                  | 2.29E-001                 |                   |
| AG-110m      | NOT FOUND/DATA for        | 657.76 keV                | 1.03E-002            | 5.25E-002                  | 9.97E-002                 |                   |
| SB-125       | NOT FOUND/DATA for        | 427.89 keV                | -6.36E-002           | 1.35E-001                  | 2.30E-001                 |                   |
| CS-134       | NOT FOUND/DATA for        | 604.70 keV                | 1.58E-002            | 5.09E-002                  | 9.62E-002                 |                   |
| CS-137       | NOT FOUND/DATA for        | 661.66 keV                | 4.73E-002            | 5.89E-002                  | 1.15E-001                 |                   |
| TL-208       | 2.40E-001                 | 6.42E-002                 | 1.05E-001            | FOUND                      |                           |                   |
| PB-212       | 9.61E-001                 | 2.16E-001                 | 2.48E-001            | FOUND                      |                           |                   |
| BI-214       | 8.75E-001                 | 2.92E-001                 | 2.27E-001            | FOUND                      |                           |                   |
| PB-214       | 6.64E-001                 | 1.34E-001                 | 2.50E-001            | FOUND                      |                           |                   |
| RA-226       | NOT FOUND/DATA for        | 186.10 keV                | 1.70E+000            | 1.13E+000                  | 2.16E+000                 |                   |
| AC-228       | 8.42E-001                 | 1.77E-001                 | 4.03E-001            | FOUND                      |                           |                   |
| TH-230       | NOT FOUND/DATA for        | 67.67 keV                 | 5.78E+000            | 2.34E+001                  | 3.96E+001                 |                   |
| PA-231       | NOT FOUND/DATA for        | 300.02 keV                | 2.10E-001            | 1.57E+000                  | 2.84E+000                 |                   |
| PA-234       | NOT FOUND/DATA for        | 98.44 keV                 | -9.90E-002           | 1.78E-001                  | 3.03E-001                 |                   |
| PA-234M      | NOT FOUND/DATA for        | 1001.03 keV               | 1.81E+000            | 8.69E+000                  | 1.66E+001                 |                   |
| TH-234       | NOT FOUND/DATA for        | 92.60 keV                 | 3.83E-001            | 8.73E-001                  | 1.58E+000                 |                   |
| U-234        | NOT FOUND/DATA for        | 53.20 keV                 | -4.44E+001           | 2.10E+002                  | 3.46E+002                 |                   |
| U-235        | NOT FOUND/DATA for        | 185.71 keV                | 7.74E-002            | 6.85E-002                  | 1.29E-001                 |                   |
| U-238        | NOT FOUND/DATA for        | 92.60 keV                 | 3.83E-001            | 8.73E-001                  | 1.58E+000                 |                   |
| AM-241       | NOT FOUND/DATA for        | 59.54 keV                 | -2.19E-002           | 3.85E-001                  | 6.42E-001                 |                   |

Uncertainty reported at 2.0 sigma

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 C E R T I F I C A T E O F A N A L Y S I S  
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Site Location: CE Windsor  
 Sample ID: MAC-0404-50  
 Sample Title: Bld. 5 Sump Sub Slab Soil Sample  
 Detector Name: 30%HPGE  
 Nuclide Library Used: C:\GENIE2K\CAMFILES\FSS.NLB  
 Sample Size: 6.710E+002 g  
 Sample Taken On: 4/27/2004 12:00:00 PM  
 Acquisition Started: 5/25/2004 9:14:18 AM  
 Live Time: 1800.0 seconds  
 Real Time: 1802.8 seconds  
 Dead Time: 0.15 %  
 Efficiency ID: srs035

| Nuclide<br>Name | IDENTIFIED RADIONUCLIDES        |                                 |                            | UNIDENTIFIED RADIONUCLIDES   |                                 |                         |
|-----------------|---------------------------------|---------------------------------|----------------------------|------------------------------|---------------------------------|-------------------------|
|                 | Nuclide<br>Activity<br>(pCi/g ) | Activity<br>Uncert.<br>(pCi/g ) | Nuclide<br>MDA<br>(pCi/g ) | Line<br>Activity<br>(pCi/g ) | Line Act<br>Uncert.<br>(pCi/g ) | Line<br>MDA<br>(pCi/g ) |
| K-40            | 2.08E+001                       | 5.67E+000                       | 1.43E+000                  | FOUND                        |                                 |                         |
| MN-54           | NOT FOUND/DATA for              | 834.83 keV                      |                            | 2.89E-002                    | 5.16E-002                       | 1.08E-001               |
| CO-57           | NOT FOUND/DATA for              | 122.06 keV                      |                            | 1.20E-002                    | 5.26E-002                       | 9.38E-002               |
| CO-60           | NOT FOUND/DATA for              | 1332.50 keV                     |                            | 2.61E-002                    | 6.22E-002                       | 1.31E-001               |
| ZN-65           | NOT FOUND/DATA for              | 1115.55 keV                     |                            | -3.93E-002                   | 1.34E-001                       | 2.39E-001               |
| AG-110m         | NOT FOUND/DATA for              | 657.76 keV                      |                            | -2.18E-002                   | 4.73E-002                       | 8.26E-002               |
| SB-125          | NOT FOUND/DATA for              | 427.89 keV                      |                            | 1.03E-002                    | 1.37E-001                       | 2.56E-001               |
| CS-134          | NOT FOUND/DATA for              | 604.70 keV                      |                            | -3.07E-002                   | 4.69E-002                       | 8.03E-002               |
| CS-137          | NOT FOUND/DATA for              | 661.66 keV                      |                            | 6.48E-002                    | 6.53E-002                       | 1.30E-001               |
| TL-208          | 1.86E-001                       | 6.81E-002                       | 1.30E-001                  | FOUND                        |                                 |                         |
| PB-212          | 6.33E-001                       | 3.29E-001                       | 2.90E-001                  | FOUND                        |                                 |                         |
| BI-214          | 5.88E-001                       | 4.59E-001                       | 2.81E-001                  | FOUND                        |                                 |                         |
| PB-214          | 5.19E-001                       | 1.35E-001                       | 2.68E-001                  | FOUND                        |                                 |                         |
| RA-226          | NOT FOUND/DATA for              | 186.10 keV                      |                            | 1.88E+000                    | 1.22E+000                       | 2.36E+000               |
| AC-228          | 1.00E+000                       | 7.62E-001                       | 4.45E-001                  | FOUND                        |                                 |                         |
| TH-230          | NOT FOUND/DATA for              | 67.67 keV                       |                            | -4.91E+000                   | 2.48E+001                       | 4.09E+001               |
| PA-231          | NOT FOUND/DATA for              | 300.02 keV                      |                            | 1.73E+000                    | 1.95E+000                       | 3.51E+000               |
| PA-234          | NOT FOUND/DATA for              | 131.20 keV                      |                            | -2.40E-001                   | 2.48E-001                       | 3.31E-001               |
| PA-234M         | NOT FOUND/DATA for              | 1001.03 keV                     |                            | 8.26E+000                    | 1.18E+001                       | 2.34E+001               |
| TH-234          | NOT FOUND/DATA for              | 92.60 keV                       |                            | 4.38E-001                    | 9.10E-001                       | 1.67E+000               |
| U-234           | NOT FOUND/DATA for              | 53.20 keV                       |                            | 1.08E+002                    | 2.20E+002                       | 3.85E+002               |
| U-235           | NOT FOUND/DATA for              | 185.71 keV                      |                            | 1.53E-001                    | 7.58E-002                       | 1.49E-001               |
| U-238           | NOT FOUND/DATA for              | 92.60 keV                       |                            | 4.38E-001                    | 9.10E-001                       | 1.67E+000               |
| AM-241          | NOT FOUND/DATA for              | 59.54 keV                       |                            | 2.76E-001                    | 4.24E-001                       | 7.57E-001               |

Uncertainty reported at 2.0 sigma

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 \*\*\*\*\* C E R T I F I C A T E O F A N A L Y S I S \*\*\*\*\*  
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Site Location: CE Windsor  
 Sample ID: MAC-0505-207  
 Sample Title: B6A Sub Floor Soil Sample - #1  
 Detector Name: 30%HPGE  
 Nuclide Library Used: C:\GENIE2K\CAMFILES\FSS.NLB  
 Sample Size: 9.396E+002 g  
 Sample Taken On: 5/21/2005 11:15:00 AM  
 Acquisition Started: 5/24/2005 6:08:57 AM  
 Live Time: 600.0 seconds  
 Real Time: 600.8 seconds  
 Dead Time: 0.14 %  
 Efficiency ID: srs035

| Nuclide Name | IDENTIFIED RADIONUCLIDES |                          |                     | UNIDENTIFIED RADIONUCLIDES |                          |                  |
|--------------|--------------------------|--------------------------|---------------------|----------------------------|--------------------------|------------------|
|              | Nuclide Activity (pCi/g) | Activity Uncert. (pCi/g) | Nuclide MDA (pCi/g) | Line Activity (pCi/g)      | Line Act Uncert. (pCi/g) | Line MDA (pCi/g) |
| K-40         | 2.11E+001                | 3.32E+000                | 2.39E+000           | FOUND                      |                          |                  |
| MN-54        | NOT FOUND/DATA for       |                          | 834.83 keV          | 1.30E-002                  | 7.70E-002                | 1.59E-001        |
| CO-57        | NOT FOUND/DATA for       |                          | 122.06 keV          | 1.02E-002                  | 7.37E-002                | 1.26E-001        |
| CO-60        | NOT FOUND/DATA for       |                          | 1332.50 keV         | -2.06E-003                 | 6.93E-002                | 1.49E-001        |
| ZN-65        | NOT FOUND/DATA for       |                          | 1115.55 keV         | -6.11E-002                 | 1.66E-001                | 2.94E-001        |
| AG-110m      | NOT FOUND/DATA for       |                          | 657.76 keV          | -4.76E-003                 | 8.02E-002                | 1.53E-001        |
| SB-125       | NOT FOUND/DATA for       |                          | 427.89 keV          | -7.98E-003                 | 2.26E-001                | 3.97E-001        |
| CS-134       | NOT FOUND/DATA for       |                          | 604.70 keV          | 3.35E-002                  | 6.77E-002                | 1.43E-001        |
| CS-137       | NOT FOUND/DATA for       |                          | 661.66 keV          | -7.25E-003                 | 9.53E-002                | 1.62E-001        |
| TL-208       | NOT FOUND/DATA for       |                          | 583.19 keV          | 2.32E-001                  | 1.36E-001                | 2.93E-001        |
| PB-212       | 8.59E-001                | 3.26E-001                | 4.20E-001           | FOUND                      |                          |                  |
| BI-214       | 1.09E+000                | 2.78E-001                | 3.41E-001           | FOUND                      |                          |                  |
| PB-214       | 9.56E-001                | 2.50E-001                | 4.35E-001           | FOUND                      |                          |                  |
| RA-226       | NOT FOUND/DATA for       |                          | 186.10 keV          | 3.35E+000                  | 1.94E+000                | 3.99E+000        |
| AC-228       | NOT FOUND/DATA for       |                          | 911.21 keV          | 5.38E-001                  | 4.87E-001                | 1.06E+000        |
| TH-230       | NOT FOUND/DATA for       |                          | 67.67 keV           | 2.08E+001                  | 3.21E+001                | 6.36E+001        |
| PA-231       | NOT FOUND/DATA for       |                          | 300.02 keV          | 1.31E+000                  | 2.90E+000                | 5.35E+000        |
| PA-234       | NOT FOUND/DATA for       |                          | 131.20 keV          | 3.35E-002                  | 3.29E-001                | 5.41E-001        |
| PA-234M      | NOT FOUND/DATA for       |                          | 1001.03 keV         | -4.68E+000                 | 1.74E+001                | 2.90E+001        |
| TH-234       | NOT FOUND/DATA for       |                          | 92.60 keV           | 1.01E+000                  | 1.56E+000                | 2.81E+000        |
| U-234        | NOT FOUND/DATA for       |                          | 53.20 keV           | 1.25E+000                  | 2.71E+002                | 5.09E+002        |
| U-235        | NOT FOUND/DATA for       |                          | 185.71 keV          | 1.72E-001                  | 1.20E-001                | 2.41E-001        |
| U-238        | NOT FOUND/DATA for       |                          | 92.60 keV           | 1.01E+000                  | 1.56E+000                | 2.81E+000        |
| AM-241       | NOT FOUND/DATA for       |                          | 59.54 keV           | -6.05E-001                 | 5.49E-001                | 8.36E-001        |

Uncertainty reported at 2.0 sigma

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 \*\*\*\*\* C E R T I F I C A T E O F A N A L Y S I S \*\*\*\*\*  
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Site Location: CE Windsor  
 Sample ID: MAC-0505-208  
 Sample Title: B6A Sub Floor Soil Sample - #2  
 Detector Name: 30%HPGE  
 Nuclide Library Used: C:\GENIE2K\CAMFILES\FSS.NLB  
 Sample Size: 1.006E+003 g  
 Sample Taken On: 5/21/2005 11:15:00 AM  
 Acquisition Started: 5/24/2005 6:20:14 AM  
 Live Time: 600.0 seconds  
 Real Time: 600.9 seconds  
 Dead Time: 0.15 %  
 Efficiency ID: srs035

| Nuclide Name | IDENTIFIED RADIONUCLIDES |                          |                     | UNIDENTIFIED RADIONUCLIDES |                          |                  |
|--------------|--------------------------|--------------------------|---------------------|----------------------------|--------------------------|------------------|
|              | Nuclide Activity (pCi/g) | Activity Uncert. (pCi/g) | Nuclide MDA (pCi/g) | Line Activity (pCi/g)      | Line Act Uncert. (pCi/g) | Line MDA (pCi/g) |
| K-40         | 2.23E+001                | 3.33E+000                | 2.29E+000           | FOUND                      |                          |                  |
| MN-54        | NOT FOUND/DATA for       | 834.83 keV               | -5.52E-002          | 9.58E-002                  | 1.22E-001                |                  |
| CO-57        | NOT FOUND/DATA for       | 122.06 keV               | -2.29E-002          | 7.68E-002                  | 1.28E-001                |                  |
| CO-60        | NOT FOUND/DATA for       | 1332.50 keV              | -4.32E-002          | 8.61E-002                  | 1.39E-001                |                  |
| ZN-65        | NOT FOUND/DATA for       | 1115.55 keV              | -2.31E-001          | 2.39E-001                  | 2.99E-001                |                  |
| AG-110m      | NOT FOUND/DATA for       | 1384.30 keV              | 0.00E+000           | 0.00E+000                  | 1.49E-001                |                  |
| SB-125       | NOT FOUND/DATA for       | 427.89 keV               | -1.33E-002          | 1.83E-001                  | 3.47E-001                |                  |
| CS-134       | NOT FOUND/DATA for       | 604.70 keV               | -3.89E-002          | 6.92E-002                  | 1.04E-001                |                  |
| CS-137       | NOT FOUND/DATA for       | 661.66 keV               | 5.05E-002           | 8.15E-002                  | 1.77E-001                |                  |
| TL-208       | NOT FOUND/DATA for       | 583.19 keV               | 3.26E-001           | 1.29E-001                  | 2.93E-001                |                  |
| PB-212       | NOT FOUND/DATA for       | 238.63 keV               | 8.68E-001           | 2.28E-001                  | 4.79E-001                |                  |
| BI-214       | 1.01E+000                | 7.66E-001                | 3.31E-001           | FOUND                      |                          |                  |
| PB-214       | 8.00E-001                | 2.22E-001                | 4.55E-001           | FOUND                      |                          |                  |
| RA-226       | NOT FOUND/DATA for       | 186.10 keV               | 1.41E+000           | 1.80E+000                  | 3.47E+000                |                  |
| AC-228       | 1.12E+000                | 4.72E-001                | 6.31E-001           | FOUND                      |                          |                  |
| TH-230       | NOT FOUND/DATA for       | 67.67 keV                | 1.25E+001           | 3.07E+001                  | 5.94E+001                |                  |
| PA-231       | NOT FOUND/DATA for       | 300.02 keV               | 1.28E+000           | 2.76E+000                  | 5.06E+000                |                  |
| PA-234       | NOT FOUND/DATA for       | 131.20 keV               | -2.14E-002          | 3.15E-001                  | 5.34E-001                |                  |
| PA-234M      | NOT FOUND/DATA for       | 1001.03 keV              | -3.88E+000          | 1.60E+001                  | 3.00E+001                |                  |
| TH-234       | NOT FOUND/DATA for       | 92.60 keV                | 1.04E+000           | 1.49E+000                  | 2.69E+000                |                  |
| U-234        | NOT FOUND/DATA for       | 53.20 keV                | -1.15E+001          | 2.60E+002                  | 4.84E+002                |                  |
| U-235        | NOT FOUND/DATA for       | 185.71 keV               | 5.97E-002           | 1.06E-001                  | 2.03E-001                |                  |
| U-238        | NOT FOUND/DATA for       | 92.60 keV                | 1.04E+000           | 1.49E+000                  | 2.69E+000                |                  |
| AM-241       | NOT FOUND/DATA for       | 59.54 keV                | 1.76E-002           | 5.17E-001                  | 9.28E-001                |                  |

Uncertainty reported at 2.0 sigma

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 \*\*\*\*\* C E R T I F I C A T E O F A N A L Y S I S \*\*\*\*\*  
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Site Location: CE Windsor  
 Sample ID: MAC-0505-209  
 Sample Title: B6A Sub Floor Soil Sample - #3  
 Detector Name: 30%HPGE  
 Nuclide Library Used: C:\GENIE2K\CAMFILES\FSS.NLB  
 Sample Size: 1.001E+003 g  
 Sample Taken On: 5/21/2005 11:15:00 AM  
 Acquisition Started: 5/24/2005 6:33:23 AM  
 Live Time: 600.0 seconds  
 Real Time: 600.8 seconds  
 Dead Time: 0.13 %  
 Efficiency ID: srs035

| Nuclide Name | IDENTIFIED RADIONUCLIDES |                          |                     | UNIDENTIFIED RADIONUCLIDES |                          |                  |
|--------------|--------------------------|--------------------------|---------------------|----------------------------|--------------------------|------------------|
|              | Nuclide Activity (pCi/g) | Activity Uncert. (pCi/g) | Nuclide MDA (pCi/g) | Line Activity (pCi/g)      | Line Act Uncert. (pCi/g) | Line MDA (pCi/g) |
| K-40         | 2.14E+001                | 8.90E+000                | 2.62E+000           | FOUND                      |                          |                  |
| MN-54        | NOT FOUND/DATA for       |                          | 834.83 keV          | -3.31E-002                 | 8.01E-002                | 1.41E-001        |
| CO-57        | NOT FOUND/DATA for       |                          | 122.06 keV          | -1.74E-003                 | 6.88E-002                | 1.18E-001        |
| CO-60        | NOT FOUND/DATA for       |                          | 1332.50 keV         | -1.30E-002                 | 7.45E-002                | 1.56E-001        |
| ZN-65        | NOT FOUND/DATA for       |                          | 1115.55 keV         | -9.75E-002                 | 1.73E-001                | 3.01E-001        |
| AG-110m      | NOT FOUND/DATA for       |                          | 884.68 keV          | -3.61E-002                 | 9.04E-002                | 1.46E-001        |
| SB-125       | NOT FOUND/DATA for       |                          | 427.89 keV          | -1.63E-001                 | 2.03E-001                | 3.36E-001        |
| CS-134       | NOT FOUND/DATA for       |                          | 604.70 keV          | -2.30E-002                 | 6.69E-002                | 1.23E-001        |
| CS-137       | NOT FOUND/DATA for       |                          | 661.66 keV          | 3.28E-002                  | 1.03E-001                | 2.05E-001        |
| TL-208       | 3.19E-001                | 1.16E-001                | 2.13E-001           | FOUND                      |                          |                  |
| PB-212       | NOT FOUND/DATA for       |                          | 238.63 keV          | 7.97E-001                  | 2.29E-001                | 4.77E-001        |
| BI-214       | 6.73E-001                | 6.33E-001                | 2.67E-001           | FOUND                      |                          |                  |
| PB-214       | 6.79E-001                | 1.70E-001                | 3.67E-001           | FOUND                      |                          |                  |
| RA-226       | NOT FOUND/DATA for       |                          | 186.10 keV          | 2.75E+000                  | 1.89E+000                | 3.80E+000        |
| AC-228       | 1.43E+000                | 3.74E-001                | 5.68E-001           | FOUND                      |                          |                  |
| TH-230       | NOT FOUND/DATA for       |                          | 67.67 keV           | -2.85E+000                 | 2.89E+001                | 5.36E+001        |
| PA-231       | NOT FOUND/DATA for       |                          | 300.02 keV          | 1.79E+000                  | 2.89E+000                | 5.30E+000        |
| PA-234       | NOT FOUND/DATA for       |                          | 131.20 keV          | -1.88E-001                 | 3.20E-001                | 4.77E-001        |
| PA-234M      | NOT FOUND/DATA for       |                          | 1001.03 keV         | 1.30E+001                  | 1.56E+001                | 3.41E+001        |
| TH-234       | NOT FOUND/DATA for       |                          | 92.60 keV           | 1.14E+000                  | 1.41E+000                | 2.58E+000        |
| U-234        | NOT FOUND/DATA for       |                          | 53.20 keV           | -1.75E+002                 | 2.85E+002                | 4.59E+002        |
| U-235        | NOT FOUND/DATA for       |                          | 185.71 keV          | 1.39E-001                  | 1.16E-001                | 2.25E-001        |
| U-238        | NOT FOUND/DATA for       |                          | 92.60 keV           | 1.14E+000                  | 1.41E+000                | 2.58E+000        |
| AM-241       | NOT FOUND/DATA for       |                          | 59.54 keV           | 7.80E-002                  | 5.68E-001                | 1.06E+000        |

Uncertainty reported at 2.0 sigma

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 \*\*\*\*\* CERTIFICATE OF ANALYSIS \*\*\*\*\*  
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Site Location: CE Windsor  
 Sample ID: MAC-0505-210  
 Sample Title: B6A Sub Floor Soil Sample - #4  
 Detector Name: 30%HPGE  
 Nuclide Library Used: C:\GENIE2K\CAMFILES\FSS.NLB  
 Sample Size: 9.453E+002 g  
 Sample Taken On: 5/21/2005 11:15:00 AM  
 Acquisition Started: 5/24/2005 6:44:37 AM  
 Live Time: 600.0 seconds  
 Real Time: 600.9 seconds  
 Dead Time: 0.15 %  
 Efficiency ID: srs035

| Nuclide Name | IDENTIFIED RADIONUCLIDES |                          |                     | UNIDENTIFIED RADIONUCLIDES |                          |                  |
|--------------|--------------------------|--------------------------|---------------------|----------------------------|--------------------------|------------------|
|              | Nuclide Activity (pCi/g) | Activity Uncert. (pCi/g) | Nuclide MDA (pCi/g) | Line Activity (pCi/g)      | Line Act Uncert. (pCi/g) | Line MDA (pCi/g) |
| K-40         | 1.60E+001                | 8.65E+000                | 1.78E+000           | FOUND                      |                          |                  |
| MN-54        | NOT FOUND/DATA for       |                          | 834.83 keV          | 1.56E-002                  | 7.95E-002                | 1.66E-001        |
| CO-57        | NOT FOUND/DATA for       |                          | 122.06 keV          | -3.69E-002                 | 8.37E-002                | 1.35E-001        |
| CO-60        | NOT FOUND/DATA for       |                          | 1173.24 keV         | 6.47E-002                  | 9.63E-002                | 2.11E-001        |
| ZN-65        | NOT FOUND/DATA for       |                          | 1115.55 keV         | -2.13E-002                 | 1.95E-001                | 3.43E-001        |
| AG-110m      | NOT FOUND/DATA for       |                          | 657.76 keV          | 5.35E-002                  | 8.81E-002                | 1.81E-001        |
| SB-125       | NOT FOUND/DATA for       |                          | 427.89 keV          | 0.00E+000                  | 1.82E-001                | 3.56E-001        |
| CS-134       | NOT FOUND/DATA for       |                          | 604.70 keV          | 2.69E-002                  | 7.18E-002                | 1.48E-001        |
| CS-137       | NOT FOUND/DATA for       |                          | 661.66 keV          | 6.49E-002                  | 9.86E-002                | 2.06E-001        |
| TL-208       | 1.84E-001                | 1.02E-001                | 1.89E-001           | FOUND                      |                          |                  |
| PB-212       | 8.30E-001                | 1.96E-001                | 3.64E-001           | FOUND                      |                          |                  |
| BI-214       | 5.68E-001                | 2.28E-001                | 3.41E-001           | FOUND                      |                          |                  |
| PB-214       | 7.18E-001                | 7.92E-001                | 3.88E-001           | FOUND                      |                          |                  |
| RA-226       | NOT FOUND/DATA for       |                          | 186.10 keV          | 4.90E-001                  | 1.90E+000                | 3.52E+000        |
| AC-228       | NOT FOUND/DATA for       |                          | 911.21 keV          | 1.01E+000                  | 5.37E-001                | 1.22E+000        |
| TH-230       | NOT FOUND/DATA for       |                          | 67.67 keV           | -2.36E+000                 | 3.34E+001                | 6.17E+001        |
| PA-231       | NOT FOUND/DATA for       |                          | 300.02 keV          | 1.05E+000                  | 2.90E+000                | 5.31E+000        |
| PA-234       | NOT FOUND/DATA for       |                          | 98.44 keV           | 2.18E-001                  | 3.08E-001                | 5.56E-001        |
| PA-234M      | NOT FOUND/DATA for       |                          | 1001.03 keV         | 4.31E+000                  | 1.61E+001                | 2.70E+001        |
| TH-234       | NOT FOUND/DATA for       |                          | 92.60 keV           | 6.60E-001                  | 1.38E+000                | 2.49E+000        |
| U-234        | NOT FOUND/DATA for       |                          | 53.20 keV           | -9.38E+001                 | 2.93E+002                | 5.24E+002        |
| U-235        | NOT FOUND/DATA for       |                          | 185.71 keV          | 4.95E-002                  | 1.16E-001                | 2.17E-001        |
| U-238        | NOT FOUND/DATA for       |                          | 92.60 keV           | 6.60E-001                  | 1.38E+000                | 2.49E+000        |
| AM-241       | NOT FOUND/DATA for       |                          | 59.54 keV           | -7.29E-002                 | 5.37E-001                | 9.88E-001        |

Uncertainty reported at 2.0 sigma



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 \*\*\*\*\* C E R T I F I C A T E O F A N A L Y S I S \*\*\*\*\*  
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Site Location: CE Windsor  
 Sample ID: MAC-0505-211  
 Sample Title: B6A Sub Floor Soil Sample - #5  
 Detector Name: 30%HPGE  
 Nuclide Library Used: C:\GENIE2K\CAMFILES\FSS.NLB  
 Sample Size: 9.716E+002 g  
 Sample Taken On: 5/21/2005 11:15:00 AM  
 Acquisition Started: 5/24/2005 6:55:22 AM  
 Live Time: 600.0 seconds  
 Real Time: 600.9 seconds  
 Dead Time: 0.15 %  
 Efficiency ID: srs035

| Nuclide Name | IDENTIFIED RADIONUCLIDES |                          |                     | UNIDENTIFIED RADIONUCLIDES |                          |                  |
|--------------|--------------------------|--------------------------|---------------------|----------------------------|--------------------------|------------------|
|              | Nuclide Activity (pCi/g) | Activity Uncert. (pCi/g) | Nuclide MDA (pCi/g) | Line Activity (pCi/g)      | Line Act Uncert. (pCi/g) | Line MDA (pCi/g) |
| K-40         | 2.24E+001                | 1.04E+001                | 2.34E+000           | FOUND                      |                          |                  |
| MN-54        | NOT FOUND/DATA           | for                      | 834.83 keV          | 5.36E-002                  | 7.82E-002                | 1.75E-001        |
| CO-57        | NOT FOUND/DATA           | for                      | 122.06 keV          | 2.64E-002                  | 7.95E-002                | 1.39E-001        |
| CO-60        | NOT FOUND/DATA           | for                      | 1332.50 keV         | -2.24E-002                 | 9.71E-002                | 1.61E-001        |
| ZN-65        | NOT FOUND/DATA           | for                      | 1115.55 keV         | -1.45E-001                 | 2.31E-001                | 3.94E-001        |
| AG-110m      | NOT FOUND/DATA           | for                      | 657.76 keV          | -1.21E-003                 | 6.89E-002                | 1.34E-001        |
| SB-125       | NOT FOUND/DATA           | for                      | 427.89 keV          | 1.70E-001                  | 2.10E-001                | 4.48E-001        |
| CS-134       | NOT FOUND/DATA           | for                      | 604.70 keV          | -3.33E-002                 | 8.24E-002                | 1.38E-001        |
| CS-137       | NOT FOUND/DATA           | for                      | 661.66 keV          | 3.92E-002                  | 8.76E-002                | 1.83E-001        |
| TL-208       | 3.67E-001                | 3.95E-001                | 1.70E-001           | FOUND                      |                          |                  |
| PB-212       | 6.19E-001                | 1.88E-001                | 3.82E-001           | FOUND                      |                          |                  |
| BI-214       | 1.04E+000                | 5.76E-001                | 3.22E-001           | FOUND                      |                          |                  |
| PB-214       | 7.42E-001                | 1.64E-001                | 4.29E-001           | FOUND                      |                          |                  |
| RA-226       | 3.93E+000                | 3.84E-001                | 3.89E+000           | FOUND                      |                          |                  |
| AC-228       | NOT FOUND/DATA           | for                      | 911.21 keV          | 1.06E+000                  | 4.79E-001                | 1.14E+000        |
| TH-230       | NOT FOUND/DATA           | for                      | 67.67 keV           | -5.35E+001                 | 3.50E+001                | 5.35E+001        |
| PA-231       | NOT FOUND/DATA           | for                      | 300.02 keV          | 1.09E+000                  | 3.04E+000                | 5.32E+000        |
| PA-234       | NOT FOUND/DATA           | for                      | 98.44 keV           | -1.32E-001                 | 3.37E-001                | 5.46E-001        |
| PA-234M      | NOT FOUND/DATA           | for                      | 1001.03 keV         | -4.27E+000                 | 1.54E+001                | 2.63E+001        |
| TH-234       | NOT FOUND/DATA           | for                      | 92.60 keV           | 1.11E-001                  | 1.49E+000                | 2.56E+000        |
| U-234        | NOT FOUND/DATA           | for                      | 53.20 keV           | 2.95E+002                  | 3.10E+002                | 6.05E+002        |
| U-235        | NOT FOUND/DATA           | for                      | 185.71 keV          | 1.00E-001                  | 1.23E-001                | 2.36E-001        |
| U-238        | NOT FOUND/DATA           | for                      | 92.60 keV           | 1.11E-001                  | 1.49E+000                | 2.56E+000        |
| AM-241       | NOT FOUND/DATA           | for                      | 59.54 keV           | -3.72E-002                 | 5.32E-001                | 9.30E-001        |

Uncertainty reported at 2.0 sigma

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 \*\*\*\*\* C E R T I F I C A T E O F A N A L Y S I S \*\*\*\*\*  
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Site Location: CE Windsor  
 Sample ID: MAC-0505-212  
 Sample Title: B6A Sub Floor Soil Sample - #6  
 Detector Name: 30%HPGE  
 Nuclide Library Used: C:\GENIE2K\CAMFILES\FSS.NLB  
 Sample Size: 1.093E+003 g  
 Sample Taken On: 5/21/2005 11:15:00 AM  
 Acquisition Started: 5/24/2005 7:13:35 AM  
 Live Time: 600.0 seconds  
 Real Time: 600.9 seconds  
 Dead Time: 0.15 %  
 Efficiency ID: srs035

| Nuclide Name | IDENTIFIED RADIONUCLIDES  |                           |                      | UNIDENTIFIED RADIONUCLIDES |                           |                   |
|--------------|---------------------------|---------------------------|----------------------|----------------------------|---------------------------|-------------------|
|              | Nuclide Activity (pCi/g ) | Activity Uncert. (pCi/g ) | Nuclide MDA (pCi/g ) | Line Activity (pCi/g )     | Line Act Uncert. (pCi/g ) | Line MDA (pCi/g ) |
| K-40         | 1.60E+001                 | 1.05E+001                 | 2.37E+000            | FOUND                      |                           |                   |
| MN-54        | NOT FOUND/DATA for        |                           | 834.83 keV           | 2.40E-002                  | 7.44E-002                 | 1.56E-001         |
| CO-57        | NOT FOUND/DATA for        |                           | 122.06 keV           | -7.34E-003                 | 6.30E-002                 | 1.07E-001         |
| CO-60        | NOT FOUND/DATA for        |                           | 1332.50 keV          | 6.98E-002                  | 8.23E-002                 | 1.99E-001         |
| ZN-65        | NOT FOUND/DATA for        |                           | 1115.55 keV          | -1.82E-001                 | 2.02E-001                 | 2.52E-001         |
| AG-110m      | NOT FOUND/DATA for        |                           | 884.68 keV           | -1.94E-002                 | 6.37E-002                 | 1.15E-001         |
| SB-125       | NOT FOUND/DATA for        |                           | 427.89 keV           | 2.73E-002                  | 1.95E-001                 | 3.80E-001         |
| CS-134       | NOT FOUND/DATA for        |                           | 604.70 keV           | -3.05E-002                 | 7.03E-002                 | 1.18E-001         |
| CS-137       | NOT FOUND/DATA for        |                           | 661.66 keV           | 2.07E-002                  | 8.34E-002                 | 1.63E-001         |
| TL-208       | 2.86E-001                 | 1.03E-001                 | 1.64E-001            | FOUND                      |                           |                   |
| PB-212       | 7.82E-001                 | 1.86E-001                 | 3.34E-001            | FOUND                      |                           |                   |
| BI-214       | 7.60E-001                 | 2.27E-001                 | 3.09E-001            | FOUND                      |                           |                   |
| PB-214       | 5.94E-001                 | 1.41E-001                 | 3.73E-001            | FOUND                      |                           |                   |
| RA-226       | NOT FOUND/DATA for        |                           | 186.10 keV           | 1.98E+000                  | 1.74E+000                 | 3.43E+000         |
| AC-228       | NOT FOUND/DATA for        |                           | 911.21 keV           | 7.23E-001                  | 4.22E-001                 | 9.68E-001         |
| TH-230       | NOT FOUND/DATA for        |                           | 67.67 keV            | 2.97E+000                  | 3.08E+001                 | 5.66E+001         |
| PA-231       | NOT FOUND/DATA for        |                           | 300.02 keV           | -3.56E-001                 | 2.77E+000                 | 4.79E+000         |
| PA-234       | NOT FOUND/DATA for        |                           | 98.44 keV            | -2.61E-001                 | 2.88E-001                 | 4.25E-001         |
| PA-234M      | NOT FOUND/DATA for        |                           | 1001.03 keV          | 3.70E+000                  | 1.13E+001                 | 2.49E+001         |
| TH-234       | NOT FOUND/DATA for        |                           | 92.60 keV            | 1.31E+000                  | 1.29E+000                 | 2.41E+000         |
| U-234        | NOT FOUND/DATA for        |                           | 53.20 keV            | 1.53E+002                  | 2.47E+002                 | 4.91E+002         |
| U-235        | NOT FOUND/DATA for        |                           | 185.71 keV           | 5.82E-002                  | 1.08E-001                 | 2.00E-001         |
| U-238        | NOT FOUND/DATA for        |                           | 92.60 keV            | 1.31E+000                  | 1.29E+000                 | 2.41E+000         |
| AM-241       | NOT FOUND/DATA for        |                           | 59.54 keV            | -2.30E-001                 | 5.59E-001                 | 9.45E-001         |

Uncertainty reported at 2.0 sigma

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 \*\*\*\*\* C E R T I F I C A T E O F A N A L Y S I S \*\*\*\*\*  
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Site Location: CE Windsor  
 Sample ID: MAC-0505-213  
 Sample Title: B6A Sub Floor Soil Sample - #7  
 Detector Name: 30%HPGE  
 Nuclide Library Used: C:\GENIE2K\CAMFILES\FSS.NLB  
 Sample Size: 1.070E+003 g  
 Sample Taken On: 5/21/2005 11:15:00 AM  
 Acquisition Started: 5/24/2005 7:45:38 AM  
 Live Time: 600.0 seconds  
 Real Time: 600.9 seconds  
 Dead Time: 0.15 %  
 Efficiency ID: srs035

| Nuclide Name | IDENTIFIED RADIONUCLIDES |                          |                     | UNIDENTIFIED RADIONUCLIDES |                          |                  |
|--------------|--------------------------|--------------------------|---------------------|----------------------------|--------------------------|------------------|
|              | Nuclide Activity (pCi/g) | Activity Uncert. (pCi/g) | Nuclide MDA (pCi/g) | Line Activity (pCi/g)      | Line Act Uncert. (pCi/g) | Line MDA (pCi/g) |
| K-40         | 1.89E+001                | 3.02E+000                | 2.53E+000           | FOUND                      |                          |                  |
| MN-54        | NOT FOUND/DATA           | for                      | 834.83 keV          | 1.48E-002                  | 7.03E-002                | 1.46E-001        |
| CO-57        | NOT FOUND/DATA           | for                      | 122.06 keV          | -3.89E-002                 | 7.09E-002                | 1.15E-001        |
| CO-60        | NOT FOUND/DATA           | for                      | 1332.50 keV         | -1.35E-002                 | 6.87E-002                | 1.31E-001        |
| ZN-65        | NOT FOUND/DATA           | for                      | 1115.55 keV         | 2.57E-002                  | 1.46E-001                | 2.81E-001        |
| AG-110m      | NOT FOUND/DATA           | for                      | 657.76 keV          | 1.57E-002                  | 7.20E-002                | 1.45E-001        |
| SB-125       | NOT FOUND/DATA           | for                      | 427.89 keV          | 5.74E-002                  | 1.95E-001                | 3.89E-001        |
| CS-134       | NOT FOUND/DATA           | for                      | 604.70 keV          | 3.25E-002                  | 7.19E-002                | 1.48E-001        |
| CS-137       | NOT FOUND/DATA           | for                      | 661.66 keV          | -4.31E-002                 | 6.54E-002                | 1.12E-001        |
| TL-208       | NOT FOUND/DATA           | for                      | 583.19 keV          | 2.33E-001                  | 1.14E-001                | 2.55E-001        |
| PB-212       | 1.20E+000                | 5.12E-001                | 3.54E-001           | FOUND                      |                          |                  |
| BI-214       | 7.68E-001                | 7.50E-001                | 3.08E-001           | FOUND                      |                          |                  |
| PB-214       | 7.90E-001                | 6.61E-001                | 3.63E-001           | FOUND                      |                          |                  |
| RA-226       | NOT FOUND/DATA           | for                      | 186.10 keV          | 1.72E+000                  | 1.78E+000                | 3.46E+000        |
| AC-228       | NOT FOUND/DATA           | for                      | 911.21 keV          | 8.29E-001                  | 4.62E-001                | 1.05E+000        |
| TH-230       | NOT FOUND/DATA           | for                      | 67.67 keV           | 1.57E+001                  | 3.00E+001                | 5.78E+001        |
| PA-231       | NOT FOUND/DATA           | for                      | 300.02 keV          | 1.97E+000                  | 2.69E+000                | 4.89E+000        |
| PA-234       | NOT FOUND/DATA           | for                      | 131.20 keV          | -3.09E-002                 | 2.96E-001                | 5.02E-001        |
| PA-234M      | NOT FOUND/DATA           | for                      | 1001.03 keV         | -2.15E+000                 | 1.31E+001                | 2.54E+001        |
| TH-234       | NOT FOUND/DATA           | for                      | 92.60 keV           | 7.60E-001                  | 1.37E+000                | 2.45E+000        |
| U-234        | NOT FOUND/DATA           | for                      | 53.20 keV           | 7.88E+001                  | 2.50E+002                | 4.86E+002        |
| U-235        | NOT FOUND/DATA           | for                      | 185.71 keV          | 5.62E-002                  | 1.09E-001                | 2.06E-001        |
| U-238        | NOT FOUND/DATA           | for                      | 92.60 keV           | 7.60E-001                  | 1.37E+000                | 2.45E+000        |
| AM-241       | NOT FOUND/DATA           | for                      | 59.54 keV           | -2.37E-001                 | 4.78E-001                | 8.44E-001        |

Uncertainty reported at 2.0 sigma

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 C E R T I F I C A T E O F A N A L Y S I S  
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Site Location: CE Windsor  
 Sample ID: MAC-0505-214  
 Sample Title: B6A Sub Floor Soil Sample - #8  
 Detector Name: 30%HPGE  
 Nuclide Library Used: C:\GENIE2K\CAMFILES\FSS.NLB  
 Sample Size: 9.986E+002 g  
 Sample Taken On: 5/21/2005 11:15:00 AM  
 Acquisition Started: 5/24/2005 7:58:17 AM  
 Live Time: 600.0 seconds  
 Real Time: 600.8 seconds  
 Dead Time: 0.13 %  
 Efficiency ID: srs035

| Nuclide Name | IDENTIFIED RADIONUCLIDES  |                           |                      | UNIDENTIFIED RADIONUCLIDES |                           |                   |
|--------------|---------------------------|---------------------------|----------------------|----------------------------|---------------------------|-------------------|
|              | Nuclide Activity (pCi/g ) | Activity Uncert. (pCi/g ) | Nuclide MDA (pCi/g ) | Line Activity (pCi/g )     | Line Act Uncert. (pCi/g ) | Line MDA (pCi/g ) |
| K-40         | 2.00E+001                 | 8.55E+000                 | 2.69E+000            | FOUND                      |                           |                   |
| MN-54        | NOT FOUND/DATA for        |                           | 834.83 keV           | 9.73E-002                  | 8.30E-002                 | 1.95E-001         |
| CO-57        | NOT FOUND/DATA for        |                           | 122.06 keV           | -2.66E-002                 | 7.64E-002                 | 1.27E-001         |
| CO-60        | NOT FOUND/DATA for        |                           | 1332.50 keV          | 5.66E-002                  | 7.14E-002                 | 1.84E-001         |
| ZN-65        | NOT FOUND/DATA for        |                           | 1115.55 keV          | -1.03E-001                 | 2.37E-001                 | 3.45E-001         |
| AG-110m      | NOT FOUND/DATA for        |                           | 657.76 keV           | 1.89E-002                  | 7.99E-002                 | 1.55E-001         |
| SB-125       | NOT FOUND/DATA for        |                           | 427.89 keV           | -6.71E-002                 | 1.99E-001                 | 3.62E-001         |
| CS-134       | NOT FOUND/DATA for        |                           | 795.84 keV           | -1.66E-002                 | 6.99E-002                 | 1.27E-001         |
| CS-137       | NOT FOUND/DATA for        |                           | 661.66 keV           | 7.31E-003                  | 8.47E-002                 | 1.59E-001         |
| TL-208       | 3.76E-001                 | 3.51E-001                 | 1.78E-001            | FOUND                      |                           |                   |
| PB-212       | 9.13E-001                 | 1.97E-001                 | 4.14E-001            | FOUND                      |                           |                   |
| BI-214       | 8.03E-001                 | 7.59E-001                 | 3.54E-001            | FOUND                      |                           |                   |
| PB-214       | 8.88E-001                 | 2.35E-001                 | 4.00E-001            | FOUND                      |                           |                   |
| RA-226       | NOT FOUND/DATA for        |                           | 186.10 keV           | 2.29E+000                  | 1.84E+000                 | 3.65E+000         |
| AC-228       | NOT FOUND/DATA for        |                           | 338.32 keV           | 8.24E-001                  | 5.83E-001                 | 1.25E+000         |
| TH-230       | NOT FOUND/DATA for        |                           | 67.67 keV            | 1.38E+001                  | 3.35E+001                 | 6.40E+001         |
| PA-231       | NOT FOUND/DATA for        |                           | 300.02 keV           | 1.66E+000                  | 2.89E+000                 | 5.31E+000         |
| PA-234       | NOT FOUND/DATA for        |                           | 131.20 keV           | 7.55E-003                  | 3.39E-001                 | 5.56E-001         |
| PA-234M      | NOT FOUND/DATA for        |                           | 1001.03 keV          | 4.60E+000                  | 1.62E+001                 | 3.16E+001         |
| TH-234       | NOT FOUND/DATA for        |                           | 92.60 keV            | 9.97E-001                  | 1.59E+000                 | 2.80E+000         |
| U-234        | NOT FOUND/DATA for        |                           | 53.20 keV            | -6.40E+001                 | 2.68E+002                 | 4.87E+002         |
| U-235        | NOT FOUND/DATA for        |                           | 185.71 keV           | 1.49E-001                  | 1.15E-001                 | 2.27E-001         |
| U-238        | NOT FOUND/DATA for        |                           | 92.60 keV            | 9.97E-001                  | 1.59E+000                 | 2.80E+000         |
| AM-241       | NOT FOUND/DATA for        |                           | 59.54 keV            | 1.97E-001                  | 4.43E-001                 | 8.89E-001         |

Uncertainty reported at 2.0 sigma

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 \*\*\*\*\* C E R T I F I C A T E O F A N A L Y S I S \*\*\*\*\*  
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Site Location: CE Windsor  
 Sample ID: MAC-0505-215  
 Sample Title: B6A Sub Floor Soil Sample - #9  
 Detector Name: 30%HPGE  
 Nuclide Library Used: C:\GENIE2K\CAMFILES\FSS.NLB  
 Sample Size: 9.424E+002 g  
 Sample Taken On: 5/21/2005 11:15:00 AM  
 Acquisition Started: 5/24/2005 8:24:55 AM  
 Live Time: 600.0 seconds  
 Real Time: 600.8 seconds  
 Dead Time: 0.14 %  
 Efficiency ID: srs035

| Nuclide Name | IDENTIFIED RADIONUCLIDES |                          |                     | UNIDENTIFIED RADIONUCLIDES |                          |                  |
|--------------|--------------------------|--------------------------|---------------------|----------------------------|--------------------------|------------------|
|              | Nuclide Activity (pCi/g) | Activity Uncert. (pCi/g) | Nuclide MDA (pCi/g) | Line Activity (pCi/g)      | Line Act Uncert. (pCi/g) | Line MDA (pCi/g) |
| K-40         | 1.99E+001                | 9.93E+000                | 2.34E+000           | FOUND                      |                          |                  |
| MN-54        | NOT FOUND/DATA for       |                          | 834.83 keV          | 5.74E-002                  | 8.02E-002                | 1.81E-001        |
| CO-57        | NOT FOUND/DATA for       |                          | 122.06 keV          | -1.96E-002                 | 8.05E-002                | 1.34E-001        |
| CO-60        | NOT FOUND/DATA for       |                          | 1332.50 keV         | -1.84E-003                 | 9.98E-002                | 1.81E-001        |
| ZN-65        | NOT FOUND/DATA for       |                          | 1115.55 keV         | 5.79E-002                  | 1.78E-001                | 3.87E-001        |
| AG-110m      | NOT FOUND/DATA for       |                          | 884.68 keV          | -7.01E-002                 | 1.33E-001                | 1.73E-001        |
| SB-125       | NOT FOUND/DATA for       |                          | 427.89 keV          | -5.10E-002                 | 2.37E-001                | 4.19E-001        |
| CS-134       | NOT FOUND/DATA for       |                          | 604.70 keV          | -2.99E-002                 | 7.55E-002                | 1.37E-001        |
| CS-137       | NOT FOUND/DATA for       |                          | 661.66 keV          | 3.96E-002                  | 1.01E-001                | 2.06E-001        |
| TL-208       | 2.35E-001                | 1.05E-001                | 1.68E-001           | FOUND                      |                          |                  |
| PB-212       | NOT FOUND/DATA for       |                          | 238.63 keV          | 7.58E-001                  | 2.23E-001                | 4.72E-001        |
| BI-214       | 9.66E-001                | 5.16E-001                | 3.23E-001           | FOUND                      |                          |                  |
| PB-214       | 7.28E-001                | 1.88E-001                | 4.48E-001           | FOUND                      |                          |                  |
| RA-226       | NOT FOUND/DATA for       |                          | 186.10 keV          | 1.87E+000                  | 1.86E+000                | 3.67E+000        |
| AC-228       | 7.10E-001                | 3.82E-001                | 6.84E-001           | FOUND                      |                          |                  |
| TH-230       | NOT FOUND/DATA for       |                          | 67.67 keV           | -5.19E+000                 | 3.23E+001                | 5.86E+001        |
| PA-231       | NOT FOUND/DATA for       |                          | 300.02 keV          | 4.38E-001                  | 2.67E+000                | 4.85E+000        |
| PA-234       | NOT FOUND/DATA for       |                          | 131.20 keV          | -6.92E-002                 | 3.27E-001                | 5.39E-001        |
| PA-234M      | NOT FOUND/DATA for       |                          | 1001.03 keV         | 6.82E+000                  | 1.46E+001                | 3.05E+001        |
| TH-234       | NOT FOUND/DATA for       |                          | 92.60 keV           | 1.90E-001                  | 1.61E+000                | 2.78E+000        |
| U-234        | NOT FOUND/DATA for       |                          | 53.20 keV           | 1.36E+001                  | 2.84E+002                | 5.35E+002        |
| U-235        | NOT FOUND/DATA for       |                          | 185.71 keV          | 1.18E-001                  | 1.14E-001                | 2.25E-001        |
| U-238        | NOT FOUND/DATA for       |                          | 92.60 keV           | 1.90E-001                  | 1.61E+000                | 2.78E+000        |
| AM-241       | NOT FOUND/DATA for       |                          | 59.54 keV           | 7.25E-002                  | 5.35E-001                | 1.02E+000        |

Uncertainty reported at 2.0 sigma

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 \*\*\*\*\* CERTIFICATE OF ANALYSIS \*\*\*\*\*  
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Site Location: CE Windsor  
 Sample ID: MAC-0505-216  
 Sample Title: B6A Sub Floor Soil Sample - #10  
 Detector Name: 30%HPGE  
 Nuclide Library Used: C:\GENIE2K\CAMFILES\FSS.NLB  
 Sample Size: 9.788E+002 g  
 Sample Taken On: 5/21/2005 11:15:00 AM  
 Acquisition Started: 5/24/2005 8:58:17 AM  
 Live Time: 600.0 seconds  
 Real Time: 600.9 seconds  
 Dead Time: 0.14 %  
 Efficiency ID: srs035

| Nuclide Name | IDENTIFIED RADIONUCLIDES  |                           |                      | UNIDENTIFIED RADIONUCLIDES |                           |                   |
|--------------|---------------------------|---------------------------|----------------------|----------------------------|---------------------------|-------------------|
|              | Nuclide Activity (pCi/g ) | Activity Uncert. (pCi/g ) | Nuclide MDA (pCi/g ) | Line Activity (pCi/g )     | Line Act Uncert. (pCi/g ) | Line MDA (pCi/g ) |
| K-40         | 2.29E+001                 | 8.79E+000                 | 2.13E+000            | FOUND                      |                           |                   |
| MN-54        | NOT FOUND/DATA for        |                           | 834.83 keV           | -1.31E-002                 | 7.41E-002                 | 1.44E-001         |
| CO-57        | NOT FOUND/DATA for        |                           | 122.06 keV           | -4.47E-002                 | 8.22E-002                 | 1.23E-001         |
| CO-60        | NOT FOUND/DATA for        |                           | 1332.50 keV          | 4.35E-002                  | 7.10E-002                 | 1.75E-001         |
| ZN-65        | NOT FOUND/DATA for        |                           | 1115.55 keV          | -3.56E-002                 | 1.89E-001                 | 3.52E-001         |
| AG-110m      | NOT FOUND/DATA for        |                           | 657.76 keV           | -1.20E-002                 | 7.44E-002                 | 1.40E-001         |
| SB-125       | NOT FOUND/DATA for        |                           | 427.89 keV           | -1.05E-002                 | 1.85E-001                 | 3.56E-001         |
| CS-134       | NOT FOUND/DATA for        |                           | 604.70 keV           | 6.32E-002                  | 8.58E-002                 | 1.66E-001         |
| CS-137       | NOT FOUND/DATA for        |                           | 661.66 keV           | 8.14E-002                  | 8.15E-002                 | 1.88E-001         |
| TL-208       | NOT FOUND/DATA for        |                           | 583.19 keV           | 2.92E-001                  | 1.41E-001                 | 3.07E-001         |
| PB-212       | 1.39E+000                 | 3.75E-001                 | 4.16E-001            | FOUND                      |                           |                   |
| BI-214       | 6.92E-001                 | 9.25E-001                 | 3.01E-001            | FOUND                      |                           |                   |
| PB-214       | 6.95E-001                 | 6.25E-001                 | 4.03E-001            | FOUND                      |                           |                   |
| RA-226       | NOT FOUND/DATA for        |                           | 186.10 keV           | 1.85E+000                  | 1.99E+000                 | 3.81E+000         |
| AC-228       | NOT FOUND/DATA for        |                           | 911.21 keV           | 6.72E-001                  | 4.66E-001                 | 1.05E+000         |
| TH-230       | NOT FOUND/DATA for        |                           | 67.67 keV            | -7.59E+000                 | 3.27E+001                 | 5.80E+001         |
| PA-231       | NOT FOUND/DATA for        |                           | 300.02 keV           | 1.74E+000                  | 3.00E+000                 | 5.48E+000         |
| PA-234       | NOT FOUND/DATA for        |                           | 98.44 keV            | 7.05E-002                  | 3.01E-001                 | 5.12E-001         |
| PA-234M      | NOT FOUND/DATA for        |                           | 1001.03 keV          | -2.85E+000                 | 1.37E+001                 | 2.61E+001         |
| TH-234       | NOT FOUND/DATA for        |                           | 92.60 keV            | 1.33E+000                  | 1.49E+000                 | 2.75E+000         |
| U-234        | NOT FOUND/DATA for        |                           | 53.20 keV            | -7.59E+001                 | 3.03E+002                 | 5.15E+002         |
| U-235        | NOT FOUND/DATA for        |                           | 185.71 keV           | 7.90E-002                  | 1.20E-001                 | 2.25E-001         |
| U-238        | NOT FOUND/DATA for        |                           | 92.60 keV            | 1.33E+000                  | 1.49E+000                 | 2.75E+000         |
| AM-241       | NOT FOUND/DATA for        |                           | 59.54 keV            | -3.82E-001                 | 5.30E-001                 | 8.90E-001         |

Uncertainty reported at 2.0 sigma