

**H. A. Bader, Consultants**

TLI Project: 56392  
Client Sample: 613

Method 8290 PCDD/PCDF Analysis (b)  
Analysis File: W010211

|                 |                      |                  |            |             |          |
|-----------------|----------------------|------------------|------------|-------------|----------|
| Client Project: | NYC WTC area testing | Date Received:   | 01/12/2002 | ICal:       | WF56281  |
| Sample Matrix:  | WIPE                 | Date Extracted:  | 01/14/2002 | Spike File: | SPMIT34W |
| TLI ID:         | 315-65-10            | Date Analyzed:   | 01/16/2002 | 1st CCal:   | W020100  |
|                 |                      |                  |            | End CCal:   | W020103  |
| Sample Size:    | 1.000                | Dilution Factor: | n/a        | % Moisture: | n/a      |
| Dry Weight:     | n/a                  | Blank File:      | S020226    | % Lipid:    | n/a      |
| GC Column:      | DB-5                 | Analyst:         | JSY        | % Solids:   | n/a      |

| Analytes             | Amt. (ng) | DL | EMPC | Ratio | RT    | Flags |
|----------------------|-----------|----|------|-------|-------|-------|
| 2,3,7,8-TCDD         | 0.13      |    |      | 0.84  | 26:36 | B_    |
| 1,2,3,7,8-PeCDD      | 0.39      |    |      | 1.52  | 30:54 | —     |
| 1,2,3,4,7,8-HxCDD    | 0.24      |    |      | 1.11  | 34:02 | —     |
| 1,2,3,6,7,8-HxCDD    | 0.42      |    |      | 1.19  | 34:07 | —     |
| 1,2,3,7,8,9-HxCDD    | 0.69      |    |      | 1.06  | 34:23 | —     |
| 1,2,3,4,6,7,8-HpCDD  | 1.9       |    |      | 0.97  | 37:20 | —     |
| 1,2,3,4,6,7,8,9-OCDD | 4.0       |    |      | 0.77  | 40:55 | —     |
| 2,3,7,8-TCDF         | 4.9       |    |      | 0.72  | 25:57 | —     |
| 1,2,3,7,8-PeCDF      | EMPC      |    | 0.81 |       |       | X_    |
| 2,3,4,7,8-PeCDF      | 0.98      |    |      | 1.48  | 30:34 | —     |
| 2,3,4,7,8-HxCDF      | 1.7       |    |      | 1.25  | 33:19 | —     |
| 1,2,3,6,7,8-HxCDF    | 0.65      |    |      | 1.18  | 33:26 | —     |
| 2,3,4,6,7,8-HxCDF    | 0.72      |    |      | 1.19  | 33:54 | —     |
| 1,2,3,7,8,9-HxCDF    | EMPC      |    | 0.21 |       |       | X_    |
| 1,2,3,4,6,7,8-HpCDF  | 2.1       |    |      | 1.11  | 36:18 | —     |
| 1,2,3,4,7,8,9-HpCDF  | 0.33      |    |      | 0.93  | 37:49 | —     |
| 1,2,3,4,6,7,8,9-OCDF | 1.1       |    |      | 0.88  | 41:07 | —     |

| Totals      | Amt. (ng) | Number | DL | EMPC | Flags |
|-------------|-----------|--------|----|------|-------|
| Total TCDD  | 40.0      | 12     |    |      | E_    |
| Total PeCDD | 29.5      | 8      |    | 30.8 | —     |
| Total HxCDD | 17.0      | 7      |    |      | —     |
| Total HpCDD | 4.5       | 2      |    |      | —     |
| Total TCDF  | 27.2      | 13     |    | 28.1 | —     |
| Total PeCDF | 14.0      | 14     |    | 15.4 | —     |
| Total HxCDF | 6.5       | 11     |    | 6.7  | —     |
| Total HpCDF | 3.1       | 3      |    | 3.6  | —     |

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| Internal Standards                                  | Amt. (ng) | % Recovery | QC Limits | Ratio | RT    | Flags |
|-----------------------------------------------------|-----------|------------|-----------|-------|-------|-------|
| <sup>13</sup> C <sub>12</sub> -2,3,7,8-TCDF         | 2.5       | 63.6       | 40%-130%  | 0.74  | 25:55 | —     |
| <sup>13</sup> C <sub>12</sub> -2,3,7,8-TCDD         | 2.5       | 63.4       | 40%-130%  | 0.80  | 26:37 | —     |
| <sup>13</sup> C <sub>12</sub> -1,2,3,7,8-PeCDF      | 3.0       | 75.8       | 40%-130%  | 1.49  | 29:51 | —     |
| <sup>13</sup> C <sub>12</sub> -1,2,3,7,8-PeCDD      | 3.2       | 79.6       | 40%-130%  | 1.57  | 30:53 | —     |
| <sup>13</sup> C <sub>12</sub> -1,2,3,6,7,8-HxCDF    | 2.5       | 62.0       | 40%-130%  | 0.49  | 33:25 | —     |
| <sup>13</sup> C <sub>12</sub> -1,2,3,6,7,8-HxCDD    | 2.5       | 62.1       | 40%-130%  | 1.19  | 34:06 | —     |
| <sup>13</sup> C <sub>12</sub> -1,2,3,4,6,7,8-HpCDF  | 1.9       | 46.8       | 25%-130%  | 0.43  | 36:18 | —     |
| <sup>13</sup> C <sub>12</sub> -1,2,3,4,6,7,8-HpCDD  | 2.3       | 57.6       | 25%-130%  | 1.06  | 37:19 | —     |
| <sup>13</sup> C <sub>12</sub> -1,2,3,4,6,7,8,9-OCDD | 3.6       | 44.9       | 25%-130%  | 0.84  | 40:54 | —     |

| Surrogate Standards (Type B)                       | Amt. (ng) | % Recovery | QC Limits | Ratio | RT    | Flags |
|----------------------------------------------------|-----------|------------|-----------|-------|-------|-------|
| <sup>13</sup> C <sub>12</sub> -2,3,4,7,8-PeCDF     | 3.1       | 78.4       | 40%-130%  | 1.48  | 30:33 | —     |
| <sup>13</sup> C <sub>12</sub> -1,2,3,4,7,8-HxCDF   | 2.4       | 60.2       | 40%-130%  | 0.51  | 33:19 | —     |
| <sup>13</sup> C <sub>12</sub> -1,2,3,4,7,8-HxCDD   | 2.4       | 59.3       | 40%-130%  | 1.19  | 34:01 | —     |
| <sup>13</sup> C <sub>12</sub> -1,2,3,4,7,8,9-HpCDF | 2.2       | 54.5       | 25%-130%  | 0.43  | 37:49 | —     |

| Other Standard                              | Amt. (ng) | % Recovery | QC Limits | RT    | Flags |
|---------------------------------------------|-----------|------------|-----------|-------|-------|
| <sup>37</sup> Cl <sub>4</sub> -2,3,7,8-TCDD | 0.27      | 66.8       | 40%-130%  | 26:39 | —     |

| Alternate Standards (Type B)                     | Amt. (ng) | % Recovery | QC Limits | Ratio | RT    | Flags |
|--------------------------------------------------|-----------|------------|-----------|-------|-------|-------|
| <sup>13</sup> C <sub>12</sub> -1,2,3,7,8,9-HxCDF | 2.2       | 55.0       | 40%-130%  | 0.50  | 34:40 | —     |
| <sup>13</sup> C <sub>12</sub> -2,3,4,6,7,8-HxCDF | 2.4       | 59.5       | 40%-130%  | 0.50  | 33:54 | —     |

| Recovery Standards                               | Ratio | RT    | Flags |
|--------------------------------------------------|-------|-------|-------|
| <sup>13</sup> C <sub>12</sub> -1,2,3,4-TCDD      | 0.81  | 26:27 | —     |
| <sup>13</sup> C <sub>12</sub> -1,2,3,7,8,9-HxCDD | 1.26  | 34:24 | —     |

Data Reviewer: KW 01/17/2002

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Printed: 14:57 01/17/2002

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