APPENDIX III TABLE III

### METHODS AND DETECTION/QUANTITATION LIMITS FOR SPECIFIED ANALYTES OF CONCERN TO RISK ASSESSMENT

### AQUEOUS MATRICES

| ANALYTE/<br>COMMON NAME<br>CAS NUMBER | METHOD REFERENCE/TITLE OF METHOD   | INSTRUMENT-<br>ATION | QUANTITATION/<br>DETECTION LIMIT |
|---------------------------------------|--|----------------------|----------------------------------|
| Dieldrin<br>60571                     | SMEWW METHOD 6630C "Liquid-Liquid Extraction Gas Chromatographic Method II"  | GC-ECD               | MDL = 0.014 ug/L                 |
|                                       | CLP SOW METHOD LC-ORG "Chemical Analytical Services for the Analysis of Low Concentration Water Samples for Organic Compounds by Gas Chromatography-Mass Spectrometry (GC-MS) and Gas Chromatography-Electron Capture (GC-ECD) Techniques" | GC-ECD               | CRQL = 0.02  ug/L                |
|                                       | CLP SOW METHOD ORG "Statement of Work for Organics Analysis - Multi-Media, Multi-Concentration"  | GC-ECD               | CRQL = 0.1  ug/L                 |
| 180                                   | CLP SOW METHOD QTM "Chemical Analytical Services for Multi-Media, Multi-Concentration Samples for Organic Analysis by Quick Turnaround Gas Chromatography Techniques"  | GC-ECD               | CRQL = 0.1  ug/L                 |
|                                       | EPA METHOD 608/SW846 Method 8080 "Organochlorine Pesticides and PCBs"  | GC-ECD               | MDL = 0.002  ug/L                |
|                                       | EPA METHOD 625 "Base/Neutrals and Acids"   | GC-MS                | MDL = 2.5  ug/L                  |
|                                       | EPA DW METHOD 505 "Analysis of Organohalide Pesticides and Aroclors in Water by Microextraction and Chromatography"  | GC-ECD               | MDL = 0.012  ug/L                |
|                                       | EPA DW METHOD 508 "Determination of Chlorinated Pesticides in Water by Gas Chromatography with an Electron Capture Detector"   | GC-ECD               | EDL = 0.02  ug/L                 |
|                                       | SMEWW METHOD 6410B "Liquid-Liquid Extraction Gas Chromatographic-Mass Spectrometric Method"  | GC-MS                | MDL = 2.5  ug/L                  |
|                                       | SMEWW METHOD 6630B "Liquid-Liquid Extraction Gas Chromatographic Method I"   | GC-MS                | MDL = 0.002  ug/L                |
|                                       | SMEWW METHOD 6630C "Liquid-Liquid Extraction Gas Chromatographic Method II"  | GC-ECD               | MDL = 0.002  ug/L                |

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### METHODS AND DETECTION/QUANTITATION LIMITS FOR SPECIFIED ANALYTES OF CONCERN TO RISK ASSESSMENT

| ANALYTE/                  |  |                      |                                  |
|---------------------------|--|----------------------|----------------------------------|
| COMMON NAME<br>CAS NUMBER | METHOD REFERENCE/TITLE OF METHOD   | INSTRUMENT-<br>ATION | QUANTITATION/<br>DETECTION LIMIT |
| Heptachlor<br>76448       | CLP SOW METHOD LC-ORG "Chemical Analytical Services for the Analysis of Low Concentration Water Samples for Organic Compounds by Gas Chromatography-Mass Spectrometry (GC-MS) and Gas Chromatography-Electron Capture (GC-ECD) Techniques" | GC-ECD               | CRQL = 0.01 ug/L                 |
|                           | CLP SOW METHOD ORG "Statement of Work for Organics Analysis - Multi-Media, Multi-Concentration"  | GC-ECD               | CRQL = 0.05  ug/L                |
|                           | CLP SOW METHOD QTM "Chemical Analytical Services for Multi-Media, Multi-Concentration Samples for Organic Analysis by Quick Turnaround Gas Chromatography Techniques"  | GC-ECD               | CRQL = 0.1 ug/L                  |
|                           | EPA METHOD 608/SW846 Method 8080 "Organochlorine Pesticides and PCBs"  | GC-ECD               | MDL = 0.003  ug/L                |
|                           | EPA METHOD 625 "Base/Neutrals and Acids"   | GC-MS                | MDL = 1.9  ug/L                  |
|                           | EPA DW METHOD 505 "Analysis of Organohalide Pesticides and Aroclors in Water by Microextraction and Chromatography"  | GC-ECD               | MDL = 0.003  ug/L                |
|                           | EPA DW METHOD 508 "Determination of Chlorinated Pesticides in Water by Gas Chromatography with an Electron Capture Detector"   | GC-ECD               | EDL = 0.01  ug/L                 |
|                           | EPA DW METHOD 525 "Determination of Organic Compounds in Drinking Water by Liquid-Solid Extraction and Capillary Column Gas Chromatography-Mass Spectrometry"  | GC-MS                | MDL = 0.04  ug/L                 |
|                           | SMEWW METHOD 6410B "Liquid-Liquid Extraction Gas Chromatographic-Mass Spectrometric Method"  | GC-MS                | MDL = 1.9  ug/L                  |
|                           | SMEWW METHOD 6630B "Liquid-Liquid Extraction Gas Chromatographic Method I"   | GC-MS                | MDL = 0.003  ug/L                |
|                           | SMEWW METHOD 6630C "Liquid-Liquid Extraction Gas Chromatographic Method II"  | GC-ECD               | MDL = 0.003  ug/L                |
|                           |  |                      |                                  |

# APPENDIX III TABLE III METHODS AND DETECTION/QUANTITATION LIMITS FOR SPECIFIED ANALYTES OF CONCERN TO RISK ASSESSMENT

| ANALYTE/<br>COMMON NAME<br>CAS NUMBER | METHOD REFERENCE/TITLE OF METHOD   | INSTRUMENT-<br>ATION | QUANTITATION/ DETECTION LIMIT    |
|---------------------------------------|--|----------------------|----------------------------------|
| Lindane<br>58899                      | CLP SOW METHOD LC-ORG "Chemical Analytical Services for the Analysis of Low Concentration Water Samples for Organic Compounds by Gas Chromatography-Mass Spectrometry (GC-MS) and Gas Chromatography-Electron Capture (GC-ECD) Techniques" | GC-ECD               | CRQL = 0.01 ug/L                 |
|                                       | CLP SOW METHOD "Statement of Work for Organics Analysis - Multi-Media, Multi-Concentration"  | GC-ED                | CRQL = 0.5  ug/L                 |
|                                       | CLP SOW METHOD QTM "Chemical Analytical Services for Multi-Media, Multi-Concentration Samples for Organic Analysis by Quick Turnaround Gas Chromatography Techniques"  | GC-ECD               | CRQL = 0.1  ug/L                 |
| 191                                   | EPA METHOD 608/SW846 Method 8080 "Organochlorine Pesticides and PCBs"  | GC-ECD               | MDL = 0.009  ug/L,<br>0.004 ug/L |
| -                                     | EPA METHOD 625 "Base/Neutrals and Acids"   | GC-MS                | MDL = 3.1  ug/L                  |
|                                       | EPA DW METHOD 505 "Analysis of Organohalide Pesticides and Aroclors in Water by Microextraction and Chromatography"  | GC-ECD               | MDL = 0.003  ug/L                |
|                                       | EPA DW METHOD 508 "Determination of Chlorinated Pesticides in Water by Gas Chromatography with an Electron Capture Detector"   | GC-ECD               | EDL = 0.015  ug/L                |
|                                       | EPA DW METHOD 525 "Determination of Organic Compounds in Drinking Water by Liquid-Solid Extraction and Capillary Column Gas Chromatography-Mass Spectrometry"  | GC-MS                | MDL = 0.1  ug/L                  |
| p,p'-DDE<br>72559                     | CLP SOW METHOD LC-ORG "Chemical Analytical Services for the Analysis of Low Concentration Water Samples for Organic Compounds by Gas Chromatography-Mass Spectrometry (GC-MS) and Gas Chromatography-Electron Capture (GC-ECD) Techniques" | GC-ECD               | CRQL = 0.02  ug/L                |
|                                       | CLP SOW METHOD ORG "Statement of Work for Organics Analysis - Multi-Media, Multi-Concentration"  | GC-ECD               | CRQL = 0.1  ug/L                 |

## METHODS AND DETECTION/QUANTITATION LIMITS FOR SPECIFIED ANALYTES OF CONCERN TO RISK ASSESSMENT

| ANALYTE/<br>COMMON NAME<br>CAS NUMBER | METHOD REFERENCE/TITLE OF METHOD   | INSTRUMENT-<br>ATION | QUANTITATION/<br>DETECTION LIMIT |
|---------------------------------------|--|----------------------|----------------------------------|
| p,p'-DDE<br>72559                     | CLP SOW METHOD QTM "Chemical Analytical Services for Multi-Media,<br>Multi-Concentration Samples for Organic Analysis by Quick Turnaround Gas<br>Chromatography Techniques"  | GC-ECD               | CRQL = 0.1  ug/L                 |
|                                       | EPA METHOD 608/SW846 Method 8080 "Organochlorine Pesticides and PCBs"  | GC-ED                | MDL = 0.004  ug/L                |
|                                       | EPA METHOD 625 "Base/Neutrals and Acids"   | GC-MS                | MDL = 5.6  ug/L                  |
|                                       | EPA DW METHOD 508 "Determination of Chlorinated Pesticides in Water by<br>Gas Chromatography with an Electron Capture Detector"  | GC-ECD               | EDL = 0.01  ug/L                 |
| 192                                   | SMEWW METHOD 6410B "Liquid-Liquid Extraction Gas Chromatographic-Mass Spectrometric Method"  | GC-MS                | MDL = 5.6  ug/L                  |
|                                       | SMEWW METHOD 6630B "Liquid-Liquid Extraction Gas Chromatographic Method I"   | GC-MS                | MDL = 0.004  ug/L                |
|                                       | SMEWW METHOD 6630C "Liquid-Liquid Extraction Gas Chromatographic Method II"  | GC-ECD               | MDL = 0.004  ug/L                |
| p,p'-DDT<br>50293                     | CLP SOW METHOD LC-ORG "Chemical Analytical Services for the Analysis of Low Concentration Water Samples for Organic Compounds by Gas Chromatography-Mass Spectrometry (GC-MS) and Gas Chromatography-Electron Capture (GC-ECD) Techniques" | GC-ECD               | CRQL = 0.02  ug/L                |
|                                       | CLP SOW METHOD ORG "Statement of Work for Organics Analysis - Multi-<br>Media, Multi-Concentration"  | GC-ECD               | CRQL = 0.10  ug/L                |
|                                       | CLP SOW METHOD QTM "Chemical Analytical Services for Multi-Media, Multi-Concentration Samples for Organic Analysis by Quick Turnaround Gas Chromatography Techniques"  | GC-ECD               | CRQL = 0.1  ug/L                 |
|                                       | EPA METHOD 608/SW846 Method 8080 "Organochlorine Pesticides and PCBs"  | GC-ECD               | MDL = 0.012 ug/L                 |
|                                       |  |                      | /                                |

# METHODS AND DETECTION/QUANTITATION LIMITS FOR SPECIFIED ANALYTES OF CONCERN TO RISK ASSESSMENT

|   | AQUEOUS MATRICES   |                      |                                  |
|---|--|----------------------|----------------------------------|
| ANALYTE/<br>COMMON NAME<br>CAS NUMBER                         | METHOD REFERENCE/TITLE OF METHOD   | INSTRUMENT-<br>ATION | QUANTITATION/<br>DETECTION LIMIT |
| p,p'-DDT  | EPA METHOD 625 "Base/Neutrals and Acids"   | GC-MS                | MDL = 4.7  ug/L                  |
| 50293   | EPA DW METHOD 508 "Determination of Chlorinated Pesticides in Water by Gas Chromatography with an Electron Capture Detector"   | GC-ECD               | EDL = 0.06  ug/L                 |
|   | SMEWW METHOD 6410B "Liquid-Liquid Extraction Gas Chromatographic-<br>Mass Spectrometric Method"  | GC-MS                | MDL = 4.7  ug/L                  |
|   | SMEWW METHOD 6630B "Liquid-Liquid Extraction Gas Chromatographic Method I"   | GC-MS                | MDL = 0.012  ug/L                |
| •   | SMEWW METHOD 6630C "Liquid-Liquid Extraction Gas Chromatographic Method II"  | GC-ECD               | MDL = 0.012  ug/L                |
| SEMIVOLATILE CON  | <u>APOUNDS</u>   |                      |                                  |
| 3,5,5-trimethyl-2-cyclohexene-<br>1-one (Isophorone)<br>78591 | CLP SOW METHOD LC-ORG "Chemical Analytical Services for the Analysis of Low Concentration Water Samples for Organic Compounds by Gas Chromatography-Mass Spectrometry (GC-MS) and Gas Chromatography-Electron Capture (GC-ECD) Techniques" | GC-MS                | CRQL = 5.0  ug/L                 |
| ,,  | CLP SOW METHOD ORG "Statement of Work for Organics Analysis - Multi-<br>Media, Multi-Concentration"  | GC-MS                | CRQL = 10  ug/L                  |
|   | EPA METHOD 609 "Nitroaromatics and Isphorone"  | GC-FID               | MDL = 5.7  ug/L                  |
|   | EPA METHOD 609 "Nitroaromatics and Isphorone"  | GC-ECD               | MDL = 15.7  ug/L                 |
|   | EPA METHOD 625 "Base/Neutrals and Acids"   | GC-MS                | MDL = 2.2  ug/L                  |
|   | SMEWW METHOD 6410B "Liquid-Liquid Extraction Gas Chromatographic-<br>Mass Spectrometric Method"  | GC-MS                | MDL = 2.2  ug/L                  |
|   | SW846 METHOD 8270 "Gas Chromatography-Mass Spectrometry for Semivolatile Organics: Capillary Column Technique"   | GC-MS                | PQL = 10  ug/L                   |

# METHODS AND DETECTION/QUANTITATION LIMITS FOR SPECIFIED ANALYTES OF CONCERN TO RISK ASSESSMENT

| ANALYTE/ COMMON NAME CAS NUMBER | METHOD REFERENCE/TITLE OF METHOD  | INSTRUMENT-<br>ATION | QUANTITATION/<br>DETECTION LIMIT |
|---------------------------------|---|----------------------|----------------------------------|
| Benzo <a> pyrene<br/>50328</a>  | CLP SOW METHOD LC-ORG "Chemical Analytical Services for the Analysis of<br>Low Concentration Water Samples for Organic Compounds by Gas<br>Chromatography-Mass Spectrometry (GC-MS) and Gas Chromatography-Electron<br>Capture (GC-ECD) Techniques" | GC-MS                | CRQL = 5.0 ug/L                  |
|                                 | CLP SOW METHOD ORG "Statement of Work for Organics Analysis - Multi-Media, Multi-Concentration"   | GC-MS                | CRQL = 10  ug/L                  |
|                                 | EPA METHOD 610/SW846 Method 8100 "Polynuclear Aromatic Hydrocarbons"  | GC-FID               | MDL = 0.023  ug/L                |
|                                 | EPA METHOD 625 "Base/Neutrals and Acids"  | GC-MS                | MDL = 2.5  ug/L                  |
|                                 | EPA DW METHOD 525 "Determination of Organic Compounds in Drinking Water by Liquid-Solid Extraction and Capillary Column Gas Chromatography-Mass Spectrometry"   | GC-MS                | MDL = 0.04  ug/L                 |
|                                 | SMEWW METHOD 6410B "Liquid-Liquid Extraction Gas Chromatographic-Mass Spectrometric Method"   | GC-MS                | MDL = 2.5  ug/L                  |
| ,                               | CLP SOW METHOD QTM "Chemical Analytical Services for Multi-Media, Multi-Concentration Samples for Organic Analysis by Quick Turnaround Gas Chromatography Techniques"   | GC-ECD               | CRQL = 20  ug/L                  |
|                                 | SMEWW METHOD 6440B "Liquid-Liquid Extraction Chromatographic Method"  | GC-MS                | MDL = 0.023  ug/L                |
|                                 | SW846 METHOD 8270 "Gas Chromatography-Mass Spectrometry for Semivolatile Organics: Capillary Column Technique"  | GC-MS                | PQL = 10 ug/L                    |
|                                 | SW846 METHOD 8310 "Polynuclear Aromatic Hydrocarbons"   | HPLC                 | MDL = 0.023 ug/L                 |

## METHODS AND DETECTION/QUANTITATION LIMITS FOR SPECIFIED ANALYTES OF CONCERN TO RISK ASSESSMENT

| ANALYTE/<br>COMMON NAME<br>CAS NUMBER     | METHOD REFERENCE/TITLE OF METHOD   | INSTRUMENT-<br>ATION | QUANTITATION/<br>DETECTION LIMIT |  |
|---|--|----------------------|----------------------------------|--|
| Bis-(2-Chloroethyl)<br>ether<br>111444    | CLP SOW METHOD LC-ORG "Chemical Analytical Services for the Analysis of Low Concentration Water Samples for Organic Compounds by Gas Chromatography-Mass Spectrometry (GC-MS) and Gas Chromatography-Electron Capture (GC-ECD) Techniques" | GC-MS                | CRQL = 5.0 ug/L                  |  |
|   | CLP SOW METHOD ORG "Statement of Work for Organics Analysis - Multi-Media, Multi-Concentration"  | GC-MS                | CRQL = 10 ug/L                   |  |
|   | EPA METHOD 625 "Base/Neutrals and Acids"   | GC-MS                | MDL = 5.7  ug/L                  |  |
| <b>:</b>                                  | SMEWW METHOD 6040B "Closed-Loop Stripping, Gas-Chromatographic-Mass-Spectrometric Analysis"  | GC-MS                | EDL = 0.001  ug/L                |  |
| 195                                       | SMEWW METHOD 6410B "Liquid-Liquid Extraction Gas Chromatographic-<br>Mass Spectrometric Method"  | GC-MS                | MDL = 5.7  ug/L                  |  |
|   | SW846 METHOD 8250 "Gas Chromatography-Mass Spectrometry for Semivolatile Organics: Packed Column Technique"  | GC-MS                | MDL = 5.7  ug/L                  |  |
| Bis (2-ethylhexyl)<br>phthalate<br>117817 | CLP SOW METHOD LC-ORG "Chemical Analytical Services for the Analysis of Low Concentration Water Samples for Organic Compounds by Gas Chromatography-Mass Spectrometry (GC-MS) and Gas Chromatography-Electron Capture (GC-ECD) Techniques" | GC-MS                | CRQL = 5.0  ug/L                 |  |
|   | CLP SOW METHOD ORG "Statement of Work for Organics Analysis - Multi-Media, Multi-Concentration"  | GC-MS                | CRQL = 10 ug/L                   |  |
|   | EPA METHOD 606 "Phthalate Ester"   | GC-ECD               | MDL = 2.0  ug/L                  |  |
|   | EPA METHOD 625 "Base/Neutrals and Acids"   | GC-MS                | MDL = 2.5  ug/L                  |  |
|   | EPA DW METHOD 525 "Determination of Organic Compounds in Drinking Water by Liquid-Solid Extraction and Capillary Column Gas Chromatography-Mass Spectrometry"  | GC-MS                | MDL = 0.8  ug/L                  |  |
|   |  |                      |                                  |  |

# METHODS AND DETECTION/QUANTITATION LIMITS FOR SPECIFIED ANALYTES OF CONCERN TO RISK ASSESSMENT

| ANALYTE/<br>COMMON NAME<br>CAS NUMBER     | METHOD REFERENCE/TITLE OF METHOD  | INSTRUMENT-<br>ATION | QUANTITATION/<br>DETECTION LIMIT |
|---|---|----------------------|----------------------------------|
| Bis (2-ethylhexyl)<br>phthalate<br>117817 | SMEWW METHOD 6410B "Liquid-Liquid Extraction Gas Chromatographic-<br>Mass Spectrometric Method"   | GC-MS                | MDL = 2.5  ug/L                  |
|   | SW846 METHOD 8060 "Phthalate Esters"  | GC-ECD               | MDL = 2.0  ug/L                  |
|   | SW846 METHOD 8270 "Gas Chromatography-Mass Spectrometry for Semivolatile Organics: Capillary Column Technique"  | GC-MS                | PQL = 10  ug/L                   |
|   | SW846 METHOD 8250 "Gas Chromatography-Mass Spectrometry for Semi-Violatile Organics: Packed Column Technique"   | GC-MS                | MDL = 2.5  ug/L                  |
| N-nitrosodi-<br>phenylamine<br>86306      | CLP SOW METHOD LC-ORG "Chemical Analytical Services for the Analysis of Low Concentration Water Samples for Organic Compounds by Gas Chromatography-Mass Spectrometry (GC-MS) and Gas Chromatography-Electron Capture (GC-ECD) Techniques"          | GC-MS                | CRQL = 5.0  ug/L                 |
|   | CLP SOW METHOD ORG "Statement of Work for Organics Analysis - Multi-Media, Multi-Concentration"   | GC-MS                | CRQL = 10  ug/L                  |
|   | EPA METHOD 607 "Nitrosamines"   | GC-ELCD              | MDL = 0.81  ug/L                 |
|   | EPA METHOD 625 "Base/Neutrals and Acids"  | GC-MS                | MDL = 1.9  ug/L                  |
|   | SMEWW METHOD 6410B "Liquid-Liquid Extraction Gas Chromatographic-Mass Spectrometric (GC-MS) Method"   | GC-MS                | MDL = 1.9  ug/L                  |
|   | SW846 METHOD 8270 "Gas Chromatography-Mass Spectrometry for Semivolatile Organics: Capillary Column Technique"  | GC-MS                | PQL = 10  ug/L                   |
| VOLATILE COMPOU                           | <u>NDS</u>  |                      |                                  |
| 1,1-dichloroethane<br>75343               | CLP SOW METHOD LC-ORG "Chemical Analytical Services for the Analysis of<br>Low Concentration Water Samples for Organic Compounds by Gas<br>Chromatography-Mass Spectrometry (GC-MS) and Gas Chromatography-Electron<br>Capture (GC-ECD) Techniques" | GC-MS                | CRQL = 1.0  ug/L                 |

### METHODS AND DETECTION/QUANTITATION LIMITS FOR SPECIFIED ANALYTES OF CONCERN TO RISK ASSESSMENT

| ANALYTE/<br>COMMON NAME<br>CAS NUMBER | METHOD REFERENCE/TITLE OF METHOD   | INSTRUMENT-<br>ATION | QUANTITATION/<br>DETECTION LIMIT  |
|---------------------------------------|--|----------------------|-----------------------------------|
| 1,1-dichloroethane<br>75343           | CLP SOW METHOD QTM "Chemical Analytical Services for Multi-Media,<br>Multi-Concentration Samples for Organic Analysis by Quick Turnaround Gas<br>Chromatography Techniques"                  | GC-PID               | CRQL = 20 ug/L                    |
|                                       | CLP SOW METHOD ORG "Statement of Work for Organics Analysis - Multi-Media, Multi-Concentration"  | GC-MS                | CRQL = 10  ug/L                   |
|                                       | EPA METHOD 601/SW846 Method 8010/SMEWW Method 6230B "Purgeable Halocarbons"  | GC-ELCD              | MDL = 0.07  ug/L                  |
|                                       | EPA METHOD 624 "Purgeables"  | GC-MS                | MDL = 4.7  ug/L                   |
|                                       | EPA DW METHOD 502.1 "Volatile Halogenated Organic Compounds in Water<br>by Purge and Trap Gas Chromatography"  | GC-ELCD              | MDL = 0.003  ug/L                 |
|                                       | EPA DW METHOD 502.2 "Volatile Organic Compounds in Water by Purge and Trap Capillary Column Gas Chromatography with Photoionization and Electrolytic Conductivity Detectors in Series"       | GC-ELCD              | MDL = 0.07  ug/L                  |
|                                       | EPA DW METHOD 524.1/SMEWW Method 6210B (Method I)/SMEWW Method 6210C (Method II) "Measurement of Purgeable Organic Compounds in Water by Packed Column Gas Chromatography-Mass Spectrometry" | GC-MS                | MDL = 0.2  ug/L $MDL = 4.7  ug/L$ |
|                                       | EPA DW METHOD 524.2/SMEWW Method 6210D "Measurement of Purgeable Organic Compounds in Water by Capillary Column Gas Chromatography-Mass Spectrometry"  | GC-MS                | MDL = 0.04  ug/L                  |
|                                       | SMEWW METHOD 6230C "Purge and Trap Packed-Column Gas Chromatographic Method II"  | GC-MS                | MDL = 0.07  ug/L                  |
|                                       | SMEWW METHOD 6230D "Purge and Trap Capillary-Column Gas Chromatographic Method"  | GC-ECD               | NA                                |

## APPENDIX III

# TABLE III METHODS AND DETECTION/QUANTITATION LIMITS FOR SPECIFIED ANALYTES OF CONCERN TO RISK ASSESSMENT

| ANALYTE/<br>COMMON NAME<br>CAS NUMBER | METHOD REFERENCE/TITLE OF METHOD   | INSTRUMENT-<br>ATION | QUANTITATION/<br>DETECTION LIMIT      |
|---------------------------------------|--|----------------------|---------------------------------------|
| 1,1-dichloroethane<br>75343           | SW846 METHOD 8240 "Gas Chromatography-Mass Spectrometry for Volatile Organics"   | GC-MS                | PQL = 5.0 ug/L                        |
| 1,1-dichloroethene<br>75354           | CLP SOW METHOD LC-ORG "Chemical Analytical Services for the Analysis of Low Concentration Water Samples for Organic Compounds by Gas Chromatography-Mass Spectrometry (GC-MS) and Gas Chromatography-Electron Capture (GC-ECD) Techniques" | GC-MS                | CRQL = 1.0 ug/L                       |
|                                       | CLP SOW METHOD ORG "Statement of Work for Organics Analysis - Multi-Media, Multi-Concentration"  | GC-MS                | CRQL = 10  ug/L                       |
|                                       | CLP SOW METHOD QTM "Chemical Analytical Services for Multi-Media,<br>Multi-Concentration Samples for Organic Analysis by Quick Turnaround Gas<br>Chromatography Techniques"  | GC-ECD               | CRQL = 20  ug/L                       |
|                                       | EPA METHOD 624 "Purgeables"  | GC-MS                | MDL = 2.8  ug/L                       |
|                                       | EPA METHOD 601/SMEWW Method 6230B "Purgeable Hydrocarbons"   | GC-ELCD              | MDL = 0.13  ug/L                      |
|                                       | EPA DW METHOD 502.1 "Volatile Halogenated Organic Compounds in Water<br>by Purge and Trap Gas Chromatography"  | GC-ELCD              | MDL = 0.003  ug/L                     |
|                                       | EPA DW METHOD 502.2 "Volatile Organic Compounds in Water by Purge and Trap Capillary Column Gas Chromatography with Photoionization and Electrolytic Conductivity Detectors in Series"   | GC-PID               | NA                                    |
|                                       | EPA DW METHOD 502.2 "Volatile Organic Compounds in Water by Purge and Trap Capillary Column Gas Chromatography with Photoionization and Electrolytic Conductivity Detectors in Series"   | GC-ELCD              | MDL = 0.07  ug/L                      |
|                                       | EPA DW METHOD 524.1/SMEWW Method 6210B (Method I)/SMEWW Method 6210C (Method II) "Measurement of Purgeable Organic Compounds in Water by Packed Column Gas Chromatography-Mass Spectrometry"   | GC-MS                | MDL = 0.2 ug/L<br>MDL = 2.8 ug/L, 2.8 |

# APPENDIX III TABLE III METHODS AND DETECTION/QUANTITATION LIMITS FOR SPECIFIED ANALYTES OF CONCERN TO RISK ASSESSMENT

| ANALYTE/<br>COMMON NAME<br>CAS NUMBER | METHOD REFERENCE/TITLE OF METHOD   | INSTRUMENT-<br>ATION | QUANTITATION/<br>DETECTION LIMIT                 |
|---------------------------------------|--|----------------------|--|
| 1,1-dichloroethene<br>75354           | EPA DW METHOD 524.2/SMEWW Method 6210D "Measurement of Purgeable Organic Compounds in Water by Capillary Column Gas Chromatography-Mass Spectrometry"  | GC-MS                | MDL = 0.12  ug/L                                 |
|                                       | CLP SOW METHOD QTM "Chemical Analytical Services for Multi-Media,<br>Multi-Concentration Samples for Organic Analysis by Quick Turnaround Gas  | GC-PID               | MDL = 20  ug/L                                   |
|                                       | Chromatography Techniques"   | 1 10 1               | and the second second                            |
|                                       | SMEWW METHOD 6230C "Purge and Trap Packed-Column Gas<br>Chromatographic Method II"   | GC-MS                | MDL = 0.13  ug/L                                 |
|                                       | SMEWW METHOD 6230D "Purge and Trap Capillary-Column Gas Chromatographic Method"  | GC-PID/<br>GC-ECD    | * <b>NA</b> ************************************ |
|                                       | SW846 METHOD 8240 "Gas Chromatography-Mass Spectrometry for Volatile Organics"   | GC-MS                | PQL = 5.0  ug/L                                  |
| 1,1,2-trichloroethane<br>79005        | CLP SOW METHOD LC-ORG "Chemical Analytical Services for the Analysis of Low Concentration Water Samples for Organic Compounds by Gas Chromatography-Mass Spectrometry (GC-MS) and Gas Chromatography-Electron Capture (GC-ECD) Techniques" | GC-MS                | CRQL = 1.0  ug/L                                 |
|                                       | CLP SOW METHOD ORG OLM01.0 "Statement of Work for Organics Analysis - Multi-Media, Multi-Concentration"  | GC-MS                | CRQL = 10  ug/L                                  |
|                                       | EPA METHOD 601/SW846 Method 8010/SMEWW Method 623OB "Purgeable Halocarbons"  | GC-ELCD              | MDL = 0.02  ug/L                                 |
|                                       | EPA METHOD 624 "Purgeables"  | GC-MS                | MDL = 5.0  ug/L                                  |
|                                       | EPA DW METHOD 502.1 "Volatile Halogenated Organic Compounds in Water<br>by Purge and Trap Gas Chromatography"  | GC-ELCD              | MDL = 0.007  ug/L                                |

### METHODS AND DETECTION/QUANTITATION LIMITS FOR SPECIFIED ANALYTES OF CONCERN TO RISK ASSESSMENT

| ANALYTE/<br>COMMON NAME<br>CAS NUMBER  | METHOD REFERENCE/TITLE OF METHOD   | INSTRUMENT-<br>ATION | QUANTITATION/<br>DETECTION LIMIT |
|--|--|----------------------|----------------------------------|
| 1,1,2-trichloroethane<br>79005         | EPA DW METHOD 502.2 "Volatile Organic Compounds in Water by Purge and Trap Capillary Column Gas Chromatography with Photoionization and Electrolytic Conductivity Detectors in Series"   | GC-ELCD              | NA                               |
|  | EPA DW METHOD 524.2 "Measurement of Purgeable Organic Compounds in Water by Capillary Column Gas Chromatography-Mass Spectrometry"   | GC-MS                | MDL = 0.1  ug/L                  |
|  | SMEWW METHOD 6040B "Closed-Loop Stripping, Gas-Chromatographic-Mass Spectrometric Analysis"  | GC-MS                | EDL = 0.002  ug/L                |
|  | SMEWW METHOD 6210B "Purge and Trap Packed-Column Gas<br>Chromatographic-Mass Spectrometric Method I"   | GC-MS                | MDL = 5.0  ug/L                  |
|  | SMEWW METHOD 6230C "Purge and Trap Packed-Column Gas<br>Chromatographic Method II"   | GC-MS                | MDL = 0.02  ug/L                 |
|  | SMEWW METHOD 6230D "Purge and Trap Capillary-Column Gas Chromatographic Method"  | GC-ECD               | NA                               |
|  | SW846 METHOD 8240 "Gas Chromatography-Mass Spectrometry for Volatile Organics"   | GC-MS                | PQL = 5.0  ug/L                  |
| 1,1,2,2-<br>tetrachloroethane<br>79345 | CLP SOW METHOD LC-ORG "Chemical Analytical Services for the Analysis of Low Concentration Water Samples for Organic Compounds by Gas Chromatography-Mass Spectrometry (GC-MS) and Gas Chromatography-Electron Capture (GC-ECD) Techniques" | GC-MS                | CRQL = 1.0  ug/L                 |
|  | CLP SOW METHOD ORG, "Statement of Work for Organics Analysis - Multi-Media, Multi-Concentration"   | GC-MS                | CRQL = 10 ug/L                   |
|  | CLP SOW METHOD QTM "Chemical Analytical Services for Multi-Media, Multi-Concentration Samples for Organic Analysis by Quick Turnaround Gas Chromatography Techniques"  | GC-PID               | CRQL = 20 ug/L                   |

### METHODS AND DETECTION/QUANTITATION LIMITS FOR SPECIFIED ANALYTES OF CONCERN TO RISK ASSESSMENT

| ANALYTE/<br>COMMON NAME<br>CAS NUMBER   | METHOD REFERENCE/TITLE OF METHOD  | INSTRUMENT-<br>ATION | QUANTITATION/<br>DETECTION LIMIT    |
|---|---|----------------------|-------------------------------------|
| 1,1,2,2-<br>tetrachloroethane<br>79345  | EPA METHOD 601/SW846 Method 8010/SMEWW Method 6230B "Purgeable Halocarbons"   | GC-ELCD              | MDL = 0.03  ug/L                    |
| .,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,, | EPA METHOD 624 "Purgeables"   | GC-MS                | MDL = 6.9  ug/L                     |
|   | EPA DW METHOD 502.1 "Volatile Halogenated Organic Compounds in Water by Purge and Trap Gas Chromatography"  | GC-ELCD              | MDL = 0.01  ug/L                    |
|   | EPA DW METHOD 502.2 "Volatile Organic Compounds in Water by Purge and Trap Capillary Column Gas Chromatography with Photoionization and Electrolytic Conductivity Detectors in Series"  | GC-ELCD              | MDL = 0.08  ug/L                    |
|   | EPA DW METHOD 524.1/SMEWW Method 6210B "Measurement of Purgeable Organic Compounds in Water by Packed Column Gas Chromatography-Mass Spectrometry"  | GC-MS                | MDL = 0.4 ug/L<br>MDL = 6.9 ug/L    |
|   | EPA DW METHOD 524.2/SMEWW Method 6210D "Measurement of Purgeable Organic Compounds in Water by Capillary Column Gas Chromatography-Mass Spectrometry"   | GC-MS                | MDL = 0.04  ug/L $MDL = 1.11  ug/L$ |
|   | SMEWW METHOD 6040B "Closed-Loop Stripping, Gas-Chromatographic-Mass-Spectrometric Analysis"   | GC-MS                | EDL = 50  ug/L                      |
|   | SMEWW METHOD 6230D "Purge and Trap Capillary-Column Gas<br>Chromatographic Method"  | GC-PID               | MDL = 0.03  ug/L                    |
|   | SW846 METHOD 8240 "Gas Chromatography-Mass Spectrometry for Volatile Organics"  | GC-MS                | PQL = 5.0  ug/L                     |
| 1,2-dichloroethane<br>107062            | CLP SOW METHOD LC-ORG "Chemical Analytical Services for the Analysis of<br>Low Concentration Water Samples for Organic Compounds by Gas<br>Chromatography-Mass Spectrometry (GC-MS) and Gas Chromatography-Electron<br>Capture (GC-ECD) Techniques" | GC-MS                | CRQL = 1.0  ug/L                    |

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# APPENDIX III TABLE III METHODS AND DETECTION/QUANTITATION LIMITS FOR SPECIFIED ANALYTES OF CONCERN TO RISK ASSESSMENT

| ANALYTE/<br>COMMON NAME<br>CAS NUMBER | METHOD REFERENCE/TITLE OF METHOD  | INSTRUMENT-<br>ATION | QUANTITATION/<br>DETECTION LIMIT            |
|---------------------------------------|---|----------------------|---|
| 1,2-dichloroethane<br>107062          | CLP SOW METHOD ORG "Statement of Work for Organics Analysis - Multi-<br>Media, Multi-Concentration"   | GC-MS                | CRQL = 10 ug/L                              |
|                                       | CLP SOW METHOD QTM "Chemical Analytical Services for Multi-Media, Multi-Concentration Samples for Organic Analysis by Quick Turnaround Gas Chromatography Techniques"                         | GC-EC                | CRQL = 20  ug/L                             |
|                                       | EPA METHOD 601/SW846 Method 8010/SMEWW Method 6230B "Purgeable Halocarbons"   | GC-ELCD              | MDL = 0.03  ug/L                            |
|                                       | EPA METHOD 624 "Purgeables"   | GC-MS                | MDL = 2.8  ug/L                             |
| •                                     | EPA DW METHOD 502.1 "Volatile Halogenated Organic Compounds in Water<br>by Purge and Trap Gas Chromatography"   | GC-ELCD              | MDL = 0.002  ug/L                           |
|                                       | EPA DW METHOD 502.2 "Volatile Organic Compounds in Water by Purge and Trap Capillary Column Gas Chromatography with Photoionization and Electrolytic Conductivity Detectors in Series"        | GC-ELCD              | MDL = 0.03  ug/L                            |
|                                       | EPA DW METHOD 524.1/SMEWW Method 6210B (Method I)/SMEWW Method 6210 C (Method II) "Measurement of Purgeable Organic Compounds in Water by Packed Column Gas Chromatography-Mass Spectrometry" | GC-MS                | MDL = 0.2 ug/L, 2.8 ug/L,<br>MDL = 2.8 ug/L |
|                                       | EPA DW METHOD 524.2 "Measurement of Purgeable Organic Compounds in Water by Capillary Column Gas Chromatography-Mass Spectrometry"  | GC-MS                | MDL = 0.06  ug/L                            |
|                                       | SMEWW METHOD 6230C "Purge and Trap Packed Column Gas Chromatographic Method II"   | GC-MS                | MDL = 0.03  ug/L                            |
|                                       | SMEWW METHOD 6230D "Purge and Trap Capillary Column Gas<br>Chromatographic Method"  | GC-ECD               | NA  |

### ${\tt METHODS} \ {\tt AND} \ {\tt DETECTION/QUANTITATION} \ {\tt LIMITS} \ {\tt FOR} \ {\tt SPECIFIED} \ {\tt ANALYTES} \ {\tt OF} \ {\tt CONCERN} \ {\tt TO} \ {\tt RISK} \ {\tt ASSESSMENT}$

| ANALYTE/<br>COMMON NAME<br>CAS NUMBER | METHOD REFERENCE/TITLE OF METHOD   | INSTRUMENT-<br>ATION | QUANTITATION/<br>DETECTION LIMIT           |
|---------------------------------------|--|----------------------|--|
| 1,2-dichloroethane<br>107062          | SW846 METHOD 8240 "Gas Chromatography-Mass Spectrometry for Volatile Organics"   | GC-MS                | PQL = 5.0 ug/L                             |
| 1,2-dichloropropane<br>78875          | CLP SOW METHOD LC-ORG "Chemical Analytical Services for the Analysis of Low Concentration Water Samples for Organic Compounds by Gas Chromatography-Mass Spectrometry (GC-MS) and Gas Chromatography-Electron Capture (GC-ECD) Techniques" | GC-MS                | CRQL = 1.0 ug/L                            |
|                                       | CLP SOW METHOD ORG "Statement of Work for Organics Analysis - Multi-Media, Multi-Concentration"  | GC-MS                | CRQL = 10  ug/L                            |
|                                       | EPA METHOD 601/SW846 Method 8010/SMEWW Method 6230B "Purgeable Halocarbons"  | GC-ELCD              | MDL = 0.04  ug/L                           |
|                                       | EPA METHOD 624 "Purgeables"  | GC-MS                | MDL = 6.0  ug/L                            |
|                                       | EPA DW METHOD 502.1 "Volatile Halogenated Organic Compounds in Water<br>by Purge and Trap Gas Chromatography"  | GC-ELCD              | NA   |
|                                       | EPA DW METHOD 502.2 "Volatile Organic Compounds in Water by Purge and Trap Capillary Column Gas Chromatography with Photoionization and Electrolytic Conductivity Detectors in Series"   | GC-PID               | NA   |
|                                       | EPA DW METHOD 502.2 "Volatile Organic Compounds in Water by Purge and Trap Capillary Column Gas Chromatography with Photoionization and Electrolytic Conductivity Detectors in Series"   | GC-ELCD              | MDL = 0.01 ug/L                            |
|                                       | EPA DW METHOD 524.1/SMEWW Method 6210B/SMEWW Method 6210C "Measurement of Purgeable Organic Compounds in Water by Packed Column Gas Chromatography-Mass Spectrometry"  | GC-MS                | MDL = 0.2 ug/L<br>MDL = 6.0 ug/L, 6.0 ug/L |
|                                       | EPA DW METHOD 524.2/SMEWW Method 6210D "Measurement of Purgeable Organic Compounds in Water by Capillary Column Gas Chromatography-Mass Spectrometry"  | GC-MS                | MDL = 0.04  ug/L                           |

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# APPENDIX III TABLE III METHODS AND DETECTION/QUANTITATION LIMITS FOR SPECIFIED ANALYTES OF CONCERN TO RISK ASSESSMENT

| ANALYTE/<br>COMMON NAME<br>CAS NUMBER | METHOD REFERENCE/TITLE OF METHOD   | INSTRUMENT-<br>ATION | QUANTITATION/<br>DETECTION LIMIT |
|---------------------------------------|--|----------------------|----------------------------------|
| 1,2-dichloropropane<br>78875          | EPA SMEWW METHOD 6230C "Purge and Trap Packed-Column Gas<br>Chromatographic Method II"   | GC-MS                | MDL = 0.04 ug/L                  |
|                                       | SMEWW METHOD 6230D "Purge and Trap Capillary-Column Gas Chromatographic Method"  | GC-ECD               | NA                               |
|                                       | SW846 METHOD 8240 "Gas Chromatography-Mass Spectrometry for Volatile Organics"   | GC-MS                | PQL = 5.0  ug/L                  |
| 1,4-dichlorobenzene<br>106467         | CLP SOW METHOD LC-ORG "Chemical Analytical Services for the Analysis of Low Concentration Water Samples for Organic Compounds by Gas Chromatography-Mass Spectrometry (GC-MS) and Gas Chromatography-Electron Capture (GC-ECD) Techniques" | GC-MS                | CRQL = 1.0  ug/L                 |
|                                       | CLP SOW METHOD ORG "Statement of Work for Organics Analysis - Multi-Media, Multi-Concentration"  | GC-MS                | CRQL = 10 ug/L                   |
|                                       | EPA METHOD 601/SW846 Method 8010/SMEWW Method 6230B "Purgeable Halocarbons"  | GC-ELCD              | MDL = 0.24  ug/L                 |
|                                       | EPA METHOD 602/SW846 Method 8020/SMEWW Method 6220B "Purgeable Aromatics"  | GC-PID               | MDL = 0.3  ug/L                  |
|                                       | EPA METHOD 612 "Chlorinated Hydrocarbons"  | GC-ED                | MDL = 1.34  ug/L                 |
|                                       | EPA METHOD 624 "Purgeables"  | GC-MS                | NA                               |
|                                       | EPA METHOD 625 "Base/Neutrals and Acids"   | GC-MS                | MDL = 4.4  ug/L                  |
|                                       | EPA DW METHOD 502.1 "Volatile Halogenated Organic Compounds in Water<br>by Purge and Trap Gas Chromatography"  | GC-ELCD              | NA                               |
|                                       | EPA DW METHOD 502.2 "Volatile Organic Compounds in Water by Purge and Trap Capillary Column Gas Chromatography with Photoionization and Electrolytic Conductivity Detectors in Series"   | GC-PID               | MDL = 0.01 ug/L                  |

### METHODS AND DETECTION/QUANTITATION LIMITS FOR SPECIFIED ANALYTES OF CONCERN TO RISK ASSESSMENT

| ANALYTE/<br>COMMON NAME<br>CAS NUMBER | METHOD REFERENCE/TITLE OF METHOD   | INSTRUMENT-<br>ATION | QUANTITATION/<br>DETECTION LIMIT |
|---------------------------------------|--|----------------------|----------------------------------|
| 1,4-dichlorobenzene<br>106467         | EPA DW METHOD 502.2 "Volatile Organic Compounds in Water by Purge and Trap Capillary Column Gas Chromatography with Photoionization and Electrolytic Conductivity Detectors in Series"   | GC-ELCD              | MDL = 0.01 ug/L                  |
|                                       | EPA DW METHOD 503.1 "Volatile Aromatic and Unsaturated Organic Compounds in Water by Purge and Trap Gas Chromatography"  | GC-PID               | MDL = 0.006  ug/L                |
|                                       | EPA DW METHOD 524.1/SMEWW Method 6210B (Method I)/SMEWW Method 6210C (Method II) "Measurement of Purgeable Organic Compounds in Water by Packed Column Gas Chromatography-Mass Spectrometry"   | GC-MS                | MDL = 2.0  ug/L                  |
|                                       | EPA DW METHOD 524.2/SMEWW Method 6210D "Measurement of Purgeable Organic Compounds in Water by Capillary Column Gas Chromatography-Mass Spectrometry"  | GC-MS                | MDL = 0.03  ug/L                 |
|                                       | SMEWW METHOD 6230C "Purge and Trap Packed-Column Gas Chromatographic Method II"  | GC-MS                | MDL = 0.24  ug/L                 |
|                                       | SMEWW METHOD 6230D "Purge and Trap Capillary-Column Gas Chromatographic Method"  | GC-PID/<br>GC-ECD    | NA                               |
|                                       | SMEWW METHOD 6410B "Liquid-Liquid Extraction Gas Chromatographic-Mass Spectrometric Method"  | GC-MS                | MDL = 4.4  ug/L                  |
|                                       | SW846 METHOD 8270 "Gas Chromatography-Mass Spectrometry for Semivolatile Organics: Capillary Column Technique"   | GC-MS                | PQL = 10  ug/L                   |
| Benzene<br>71432                      | CLP SOW METHOD LC-ORG "Chemical Analytical Services for the Analysis of Low Concentration Water Samples for Organic Compounds by Gas Chromatography-Mass Spectrometry (GC-MS) and Gas Chromatography-Electron Capture (GC-ECD) Techniques" | GC-MS                | CRQL = 1.0  ug/L                 |

# APPENDIX III

# TABLE III METHODS AND DETECTION/QUANTITATION LIMITS FOR SPECIFIED ANALYTES OF CONCERN TO RISK ASSESSMENT

| ANALYTE/<br>COMMON NAME<br>CAS NUMBER | METHOD REFERENCE/TITLE OF METHOD   | INSTRUMENT-<br>ATION | QUANTITATION/<br>DETECTION LIMIT           |
|---------------------------------------|--|----------------------|--|
| Benzene<br>71432                      | CLP SOW METHOD ORG "Statement of Work for Organics Analysis - Multi-<br>Media, Multi-Concentration"  | GC-MS                | CRQL = 5.0 ug/L                            |
|                                       | CLP SOW METHOD QTM "Chemical Analytical Services for Multi-Media, Multi-Concentration Samples for Organic Analysis by Quick Turnaround Gas Chromatography Techniques"                        | GC-ECD               | CRQL = 20  ug/L                            |
|                                       | EPA METHOD 602/SW846 Method 8020/SMEWW Method 6220B "Purgeable Aromatics"  | GC-PID               | MDL = 0.2  ug/L                            |
|                                       | EPA METHOD 624 "Purgeables"  | GC-MS                | MDL = 4.4  ug/L                            |
|                                       | EPA DW METHOD 502.2 "Volatile Organic Compounds in Water by Purge and Trap Capillary Column Gas Chromatography with Photoionization and Electrolytic Conductivity Detectors in Series"       | GC-PID               | MDL = 0.01 ug/L                            |
|                                       | EPA DW METHOD 503.1 "Volatile Aromatic and Unsaturated Organic Compounds in Water by Purge and Trap Gas Chromatography"  | GC-PID               | MDL = 0.02  ug/L                           |
|                                       | EPA DW METHOD 524.1/SMEWW Method 6210B (Method I)/SMEWW Method 6210C (Method II) "Measurement of Purgeable Organic Compounds in Water by Packed Column Gas Chromatography-Mass Spectrometry" | GC-MS                | MDL = 0.1 ug/L, 4.4 ug/L<br>MDL = 4.4 ug/L |
|                                       | EPA DW METHOD 524.2/SMEWW Method 6210D "Measurement of Purgeable Organic Compounds in Water by Capillary Column Gas Chromatography-Mass Spectrometry"  | GC-MS                | MDL = 0.04  ug/L                           |
| •                                     | SMEWW METHOD 6220C "Purge and Trap Gas Chromatographic Method II"  | GC-MS                | MDL = 0.2  ug/L                            |
|                                       | SMEWW METHOD 6230D "Purge and Trap Capillary-Column Gas<br>Chromatographic Method"   | GC-ECD               | NA   |

### METHODS AND DETECTION/QUANTITATION LIMITS FOR SPECIFIED ANALYTES OF CONCERN TO RISK ASSESSMENT

### **AQUEOUS MATRICES**

| ANALYTE/<br>COMMON NAME<br>CAS NUMBER     | METHOD REFERENCE/TITLE OF METHOD   | INSTRUMENT-<br>ATION | QUANTITATION/<br>DETECTION LIMIT |
|---|--|----------------------|----------------------------------|
| Benzene<br>71432                          | SW846 METHOD 8240 "Gas Chromatography-Mass Spectrometry for Volatile Organics"   | GC-MS                | PQL = 5.0  ug/L                  |
| Chloroethene<br>(Vinyl Chloride)<br>75014 | CLP SOW METHOD LC-ORG "Chemical Analytical Services for the Analysis of Low Concentration Water Samples for Organic Compounds by Gas Chromatography-Mass Spectrometry (GC-MS) and Gas Chromatography-Electron Capture (GC-ECD) Techniques" | GC-MS                | CRQL = 1.0  ug/L                 |
|   | CLP SOW METHOD ORG "Statement of Work for Organics Analysis - Multi-Media, Multi-Concentration"  | GC-MS                | CRQL = 10  ug/L                  |
|   | CLP SOW METHOD QTM "Chemical Analytical Services for Multi-Media, Multi-Concentration Samples for Organic Analysis by Quick Turnaround Gas Chromatography Techniques"  | GC-ECD               | CRQL = 20  ug/L                  |
|   | EPA METHOD 601/SW846 Method 8010/SMEWW Method 6230 "Purgeable Halocarbons"   | GC-ELCD              | MDL = 0.18  ug/L                 |
|   | EPA METHOD 624 "Purgeables"  | GC-MS                | NA                               |
|   | EPA DW METHOD 502.1 "Volatile Halogenated Organic Compounds in Water<br>by Purge and Trap Gas Chromatography"  | GC-ELCD              | MDL = 0.01  ug/L                 |
|   | EPA DW METHOD 502.2 "Volatile Organic Compounds in Water by Purge and Trap Capillary Column Gas Chromatography with Photoionization and Electrolytic Conductivity Detectors in Series"   | GC-PID               | MDL = 0.02  ug/L                 |
|   | EPA DW METHOD 502.2 "Volatile Organic Compounds in Water by Purge and Trap Capillary Column Gas Chromatography with Photoionization and Electrolytic Conductivity Detectors in Series"   | GC-ELCD              | MDL = 0.04 ug/L                  |
|   | EPA DW METHOD 524.1/SMEWW Method 6210B (Method I)/SMEWW Method 6210C (Method II) "Measurement of Purgeable Organic Compounds in Water by Packed Column Gas Chromatography-Mass Spectrometry"   | GC-MS                | MDL = 0.3  ug/L                  |

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# APPENDIX III

# TABLE III METHODS AND DETECTION/QUANTITATION LIMITS FOR SPECIFIED ANALYTES OF CONCERN TO RISK ASSESSMENT

| ANALYTE/   |  |                      |                                  |
|--|--|----------------------|----------------------------------|
| COMMON NAME<br>CAS NUMBER                        | METHOD REFERENCE/TITLE OF METHOD   | INSTRUMENT-<br>ATION | QUANTITATION/<br>DETECTION LIMIT |
| Chloroethene<br>(Vinyl Chloride)<br>75014        | EPA DW METHOD 524.2/SMEWW Method 6210D "Measurement of Purgeable Organic Compounds in Water by Capillary Column Gas Chromatography-Mass Spectrometry"  | GC-MS                | MDL = 0.17  ug/L                 |
|  | SMEWW METHOD 6230C "Purge and Trap Packed-Column Gas Chromatographic Method II"  | GC-MS                | MDL = 0.18 ug/L                  |
|  | SMEWW METHOD 6230D "Purge and Trap Capillary Column Gas Chromatographic Method"  | GC-PID/<br>GC-ECD    | NA                               |
|  | SW846 METHOD 8010 "Halogenated Volatile Organics"  | GC-ELCD              | MDL = 0.18 ug/L                  |
|  | SW846 METHOD 8240 "Gas Chromatography-Mass Spectrometry for Volatile Organics"   | GC-MS                | PQL = 10  ug/L                   |
| Dichloromethane<br>(Methylene Chloride)<br>75092 | CLP SOW METHOD LC-ORG "Chemical Analytical Services for the Analysis of Low Concentration Water Samples for Organic Compounds by Gas Chromatography-Mass Spectrometry (GC-MS) and Gas Chromatography-Electron Capture (GC-ECD) Techniques" | GC-MS                | CRQL = 2.0  ug/L                 |
|  | CLP SOW METHOD ORG "Statement of Work for Organics Analysis - Multi-<br>Media, Multi-Concentration"  | GC-MS                | CRQL = 10  ug/L                  |
|  | EPA METHOD 601/SMEWW Method 6230B "Purgeable Halocarbons"  | GC-ELCD              | MDL = 0.25  ug/L                 |
|  | EPA METHOD 624 "Purgeables"  | GC-MS                | MDL = 2.8  ug/L                  |
|  | EPA DW METHOD 502.1 "Volatile Halogenated Organic Compounds in Water<br>by Purge and Trap Gas Chromatography"  | GC-ELCD              | NA                               |
|  | EPA DW METHOD 502.2 "Volatile Organic Compounds in Water by Purge and Trap Capillary Column Gas Chromatography with Photoionization and Electrolytic Conductivity Detectors in Series"   | GC-ELCD              | MDL = 0.02  ug/L                 |

# APPENDIX III TABLE III METHODS AND DETECTION/QUANTITATION LIMITS FOR SPECIFIED ANALYTES OF CONCERN TO RISK ASSESSMENT

| ANALYTE/<br>COMMON NAME<br>CAS NUMBER            | METHOD REFERENCE/TITLE OF METHOD   | INSTRUMENT-<br>ATION | QUANTITATION/<br>DETECTION LIMIT |
|--|--|----------------------|----------------------------------|
| Dichloromethane<br>(Methylene Chloride)<br>75092 | EPA DW METHOD 524.1/SMEWW Method 6210B (Method I)/SMEWW Method 6210C (Method II) "Measurement of Purgeable Organic Compounds in Water by Packed Column Gas Chromatography-Mass Spectrometry"   | GC-MS                | MDL = 1.0 ug/L<br>MDL = 2.8 ug/L |
|  | EPA DW METHOD 524.2 /SMEWW Method 6210D "Measurement of Purgeable Organic Compounds in Water by Capillary Column Gas Chromatography-Mass Spectrometry"   | GC-MS                | MDL = 0.03 ug/L                  |
|  | SMEWW METHOD 6230C "Purge and Trap Packed-Column Gas Chromatographic Method II"  | GC-MS                | MDL = 0.25  ug/L                 |
|  | SMEWW METHOD 6230D "Purge and Trap Capillary-Column Gas Chromatographic Method"  | GC-ECD               | NA                               |
|  | SW846 METHOD 8240 "Gas Chromatography-Mass Spectrometry for Volatile Organics"   | .GC-MS               | PQL = 5.0  ug/L                  |
| Ethenyl Benzene<br>(Styrene)<br>100425           | CLP SOW METHOD LC-ORG "Chemical Analytical Services for the Analysis of Low Concentration Water Samples for Organic Compounds by Gas Chromatography-Mass Spectrometry (GC-MS) and Gas Chromatography-Electron Capture (GC-ECD) Techniques" | GC-MS                | CRQL = 1.0  ug/L                 |
|  | CLP SOW METHOD ORG "Statement of Work for Organics Analysis - Multi-Media, Multi-Concentration"  | GC-MS                | CRQL = 10  ug/L                  |
| • •  | EPA METHOD 602 "Purgeable Aromatics"   | GC-PID               | MDL = 0.20  ug/L                 |
|  | EPA DW METHOD 502.2 "Volatile Organic Compounds in Water by Purge and Trap Capillary Column Gas Chromatography with Photoionization and Electrolytic Conductivity Detectors in Series"   | GC-PID               | MDL = 0.01  ug/L                 |
|  | EPA DW METHOD 503.1 "Volatile Aromatic and Unsaturated Organic Compounds in Water by Purge and Trap Gas Chromatography"  | GC-PID               | MDL = 0.008  ug/L                |

### METHODS AND DETECTION/QUANTITATION LIMITS FOR SPECIFIED ANALYTES OF CONCERN TO RISK ASSESSMENT

| ANALYTE/<br>COMMON NA<br>CAS NUMBER   |  | INSTRUMENT-<br>ATION | QUANTITATION/<br>DETECTION LIMIT |
|---------------------------------------|--|----------------------|----------------------------------|
| Ethenyl Benzen<br>(Styrene)<br>100425 | EPA DW METHOD 524.1/SMEWW Method 6210C "Measurement of Purgeable Organic Compounds in Water by Packed Column Gas Chromatography-Mass Spectrometry"   | GC-MS                | MDL = 0.2 ug/L                   |
|                                       | EPA DW METHOD 524.2 /SMEWW Method 6210D "Measurement of Purgeable Organic Compounds in Water by Capillary Column Gas Chromatography-Mass Spectrometry"   | GC-MS                | MDL = 0.04 ug/L                  |
|                                       | SW846 METHOD 8240 "Gas Chromatography-Mass Spectrometry for Volatile Organics"   | GC-MS                | PQL = 5.0  ug/L                  |
| Tetrachloroethe                       |  | GC-MS                | CRQL = 10  ug/L                  |
| 127184                                | CLP SOW LC-ORG "Chemical Analytical Services for Analysis of Low Concentration Water Samples for Organic Compounds by Gas Chromatography-Mass Spectrometry (GC-MS) and Gas Chromatography-Electron Capture (GC-ECD) Technique" | GC-MS                | CRQL = 1.0 ug/L                  |
|                                       | CLP SOW METHOD QTM "Chemical Analytical Services for Multi-Media, Multi-Concentration Samples for Organic Analysis by Quick Turnaround Gas Chromatography Techniques"  | GC-ECD               | CRQL = 20 ug/L                   |
| ,                                     | EPA METHOD 601/SW846 Method 8010/SMEWW Method 6230B "Purgeable Halocarbons"  | GC-ELCD              | MDL = 0.03  ug/L                 |
|                                       | EPA METHOD 624 "Purgeables"  | GC-MS                | MDL = 4.1  ug/L                  |
|                                       | EPA DW METHOD 502.1 "Volatile Halogenated Organic Compounds in Water<br>by Purge and Trap Gas Chromatography"  | GC-ELCD              | MDL = 0.001  ug/L                |
|                                       | EPA DW METHOD 502.2 "Volatile Organic Compounds in Water by Purge and Trap Capillary Column Gas Chromatography with Photoionization and Electrolytic Conductivity Detectors in Series"   | GC-PID               | MDL = 0.05  ug/L                 |

# APPENDIX III

# TABLE III METHODS AND DETECTION/QUANTITATION LIMITS FOR SPECIFIED ANALYTES OF CONCERN TO RISK ASSESSMENT

| ANALYTE/<br>COMMON NAME<br>CAS NUMBER                 | METHOD REFERENCE/TITLE OF METHOD   | INSTRUMENT-<br>ATION | QUANTITATION/ DETECTION LIMIT              |
|---|--|----------------------|--|
| Tetrachloroethene<br>(Tetrachloroethylene)<br>127184  | EPA DW METHOD 502.2 "Volatile Organic Compounds in Water by Purge and Trap Capillary Column Gas Chromatography with Photoionization and Electrolytic Conductivity Detectors in Series"   | GC-ELCD              | MDL = 0.04  ug/L                           |
|   | EPA DW METHOD 503.1 "Volatile Aromatic and Unsaturated Organic Compounds in Water by Purge and Trap Gas Chromatography"  | GC-PID               | MDL = 0.01  ug/L                           |
|   | EPA DW METHOD 524.1/SMEWW Method 6210B (Method I)/SMEWW Method 6210C (Method II) "Measurement of Purgeable Organic Compounds in Water by Packed Column Gas Chromatography-Mass Spectrometry"   | GC-MS                | MDL = 0.3 ug/L, 4.1 ug/L<br>MDL = 4.1 ug/L |
| <u>3</u>  | EPA DW METHOD 524.2/SMEWW Method 6210D "Measurement of Purgeable Organic Compounds in Water by Capillary Column Gas Chromatography-Mass Spectrometry"  | GC-MS                | MDL = 0.14  ug/L                           |
|   | SMEWW METHOD 6040B "Closed-Loop Stripping, Gas-Chromatographic-Mass-Spectrometric Analysis"  | GC-MC                | EDL = 0.10  ug/L                           |
|   | SMEWW METHOD 6230C Purge and Trap Packed-Column Gas<br>Chromatographic Method II"  | GC-MS                | MDL = 0.03  ug/L                           |
|   | SMEWW METHOD 6230D "Purge and Trap Capillary-Column Gas Chromatographic Method"  | GC-PID/<br>GC-ECD    | NA   |
|   | SW846 METHOD 8240G "Gas Chromatography-Mass Spectrometry for Volatile Organics"  | GC-MS                | PQL = 5.0  ug/L                            |
| Tetrachloromethane<br>(Carbon Tetrachloride)<br>56235 | CLP SOW METHOD LC-ORG "Chemical Analytical Services for the Analysis of Low Concentration Water Samples for Organic Compounds by Gas Chromatography-Mass Spectrometry (GC-MS) and Gas Chromatography-Electron Capture (GC-ECD) Techniques" | GC-MS                | CRQL = 1.0 ug/L                            |
|   | CLP SOW METHOD ORG "Statement of Work for Organics Analysis - Multi-Media, Multi-Concentration"  | GC-MS                | CRQL = 10  ug/L                            |