

**Table ES-1**  
**Summary of Evaluation of Phase A Adequacy of Characterization**  
Phase A Source Area Investigation Results  
Tronox Facility - Henderson, Nevada

| Analyte                                    | Chemical Abstracts Service Number | Site-Related Chemical? (Yes or No) | Soil                   |   |  |  |   |  | Groundwater                                |                               |  |  |  |  |
|--|-----------------------------------|------------------------------------|------------------------|---|--|--|---|--|--|-------------------------------|--|--|--|--|
|  |                                   |                                    | Phase A                |   |  | Phase B  |   |  | Phase A                                    |                               |  | Phase B  |  |  |
|  |                                   |                                    | Never Detected In Soil | Not Consistent with Background Shallow Soil (0-15 ft bgs) (a,b,c) | Not Consistent with Background Any Soil Depths (a,b) | Max> Comparison Level Direct Contact Pathways? | Include for Further Evaluation of the Soil to Groundwater Pathway? (See Table 5-31) | Not Proposed for Further Evaluation in Phase B (j) | Proposed for Further Evaluation in Phase B | Never Detected In Groundwater | Max> Comparison Level Direct Contact Pathways? | Max> Comparison Level Vapor Intrusion Pathway? | Not Proposed for Further Evaluation in Phase B (j) | Proposed for Further Evaluation in Phase B |
| <b>Wet Chemistry</b>                       |                                   |                                    |                        |   |  |  |   |  |  |                               |  |  |  |  |
| Alkalinity (total, CO3--, HCO3-)           | Alk as CaCO3                      | Yes                                |                        |   |  |  | X   | X  |  |                               |  |  |  | X  |
| Ammonia                                    | 7664-41-7                         | Yes                                |                        |   |  |  | X   |  | X  |                               |  |  | X  | X  |
| Bromide                                    | 24959-67-9                        | Yes                                |                        |   |  |  |   | X  |  |                               | X  |  |  |  |
| Chlorate                                   | 14866-68-3                        | Yes                                |                        |   |  |  | X   | X  |  |                               |  |  |  | X  |
| Chloride                                   | 16887-00-6                        | Yes                                |                        |   | X  |  | X   | X  |  | X                             |  |  |  | X  |
| Conductivity                               | COND                              | Yes                                |                        |   |  |  |   | X  |  |                               |  |  |  | X  |
| Cyanide (total)                            | 57-12-5                           | Yes                                | X                      |   |  |  |   | X  |  |                               | X  |  |  |  |
| Nitrate                                    | NO3                               | Yes                                |                        |   | X  |  | X   | X  |  |                               | X  |  |  | X  |
| Nitrite                                    | 14797-55-8                        | Yes                                |                        |   | X  |  | X   | X  |  |                               | X  |  |  | X  |
| Percent Moisture                           | Per Moisture                      | No                                 |                        |   |  |  |   | X  |  |                               |  |  | X  |  |
| Perchlorate                                | 14797-73-0                        | Yes                                |                        | X   | X  | X  | X   |  | X  |                               |  | X  | X  |  |
| pH   | PH                                | Yes                                |                        |   |  |  |   | X  |  |                               |  |  | X  |  |
| Phosphate (ortho)                          | 14265-44-2                        | Yes                                |                        |   |  |  | X   | X  |  |                               |  |  | X  |  |
| Sulfate                                    | 14808-79-8                        | Yes                                |                        |   | X  |  | X   | X  |  |                               | X  |  | X  |  |
| Surfactants (MBAS)                         | MBAS                              | Yes                                |                        |   |  |  |   | X  |  |                               | X  |  |  |  |
| Total Dissolved Solids (TDS)               | TDS                               | Yes                                |                        |   |  |  |   | X  | (h)  |                               | X  |  | (h)  | X  |
| Total Organic Carbon (TOC)                 | TOC                               | Yes                                |                        |   |  |  |   | X  |  |                               | X  |  |  |  |
| Total Suspended Solids (TSS)               | TSS                               | Yes                                |                        |   |  |  |   | X  |  |                               | X  |  |  |  |
| <b>Dioxins and Furans</b>                  |                                   |                                    |                        |   |  |  |   |  |  |                               |  |  |  |  |
| PCDD/PCDFs total TEQ as 2,3,7,8-TCDD       | TCDF2378                          | Yes                                |                        |   |  |  |   | X  |  |                               | NA   |  |  | X  |
| 1,2,3,4,6,7,8,9-Octachlorodibenzofuran     | 39001-02-0                        | Yes                                |                        |   |  |  |   | X  |  |                               | NA   |  |  | X  |
| 1,2,3,4,6,7,8,9-Octachlorodibenzo-p-dioxin | 3268-87-9                         | Yes                                |                        |   |  |  |   | X  |  |                               | NA   |  |  | X  |
| 1,2,3,4,6,7,8-Heptachlorodibenzofuran      | 67562-39-4                        | Yes                                |                        |   |  |  |   | X  |  |                               | NA   |  |  | X  |
| 1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin  | 35822-46-9                        | Yes                                |                        |   |  |  |   | X  |  |                               | NA   |  |  | X  |
| 1,2,3,4,7,8,9-Heptachlorodibenzofuran      | 55673-89-7                        | Yes                                |                        |   |  |  |   | X  |  |                               | NA   |  |  | X  |
| 1,2,3,4,7,8-Hexachlorodibenzofuran         | 70648-26-9                        | Yes                                |                        |   |  |  |   | X  |  |                               | NA   |  |  | X  |
| 1,2,3,4,7,8-Hexachlorodibenzo-p-dioxin     | 39227-28-6                        | Yes                                |                        |   |  |  |   | X  |  |                               | NA   |  |  | X  |
| 1,2,3,6,7,8-Hexachlorodibenzofuran         | 57117-44-9                        | Yes                                |                        |   |  |  |   | X  |  |                               | NA   |  |  | X  |
| 1,2,3,6,7,8-Hexachlorodibenzo-p-dioxin     | 57653-85-7                        | Yes                                |                        |   |  |  |   | X  |  |                               | NA   |  |  | X  |
| 1,2,3,7,8,9-Hexachlorodibenzofuran         | 72918-21-9                        | Yes                                |                        |   |  |  |   | X  |  |                               | NA   |  |  | X  |
| 1,2,3,7,8,9-Hexachlorodibenzo-p-dioxin     | 19408-74-3                        | Yes                                |                        |   |  |  |   | X  |  |                               | NA   |  |  | X  |
| 1,2,3,7,8-Pentachlorodibenzofuran          | 40321-76-4                        | Yes                                |                        |   |  |  |   | X  |  |                               | NA   |  |  | X  |
| 1,2,3,7,8-Pentachlorodibenzo-p-dioxin      | 57117-41-6                        | Yes                                |                        |   |  |  |   | X  |  |                               | NA   |  |  | X  |
| 2,3,4,6,7,8-Hexachlorodibenzofuran         | 60851-34-5                        | Yes                                |                        |   |  |  |   | X  |  |                               | NA   |  |  | X  |
| 2,3,4,7,8-Pentachlorodibenzofuran          | 57117-31-4                        | Yes                                |                        |   |  |  |   | X  |  |                               | NA   |  |  | X  |
| 2,3,7,8-Tetrachlorodibenzofuran            | 51207-31-9                        | Yes                                |                        |   |  |  |   | X  |  |                               | NA   |  |  | X  |
| 2,3,7,8-Tetrachlorodibenzo-p-dioxin        | 1746-01-6                         | Yes                                |                        |   |  |  |   | X  |  |                               | NA   |  |  | X  |
| <b>Metals</b>                              |                                   |                                    |                        |   |  |  |   |  |  |                               |  |  |  |  |
| Aluminum                                   | 7429-90-5                         | Yes                                |                        |   |  |  |   | X  | X  |                               | X  |  |  | X  |

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| Analyte                                 | Chemical Abstracts Service Number | Site-Related Chemical? (Yes or No) | Soil                   |   |  |  |   |  | Groundwater                                |                               |  |  |  |  |  |
|---|-----------------------------------|------------------------------------|------------------------|---|--|--|---|--|--|-------------------------------|--|--|--|--|--|
|   |                                   |                                    | Phase A                |   |  | Phase B  |   |  | Phase A                                    |                               |  | Phase B  |  |  |  |
|   |                                   |                                    | Never Detected In Soil | Not Consistent with Background Shallow Soil (0-15 ft bgs) (a,b,c) | Not Consistent with Background Any Soil Depths (a,b) | Max> Comparison Level Direct Contact Pathways? | Include for Further Evaluation of the Soil to Groundwater Pathway? (See Table 5-31) | Not Proposed for Further Evaluation in Phase B (j) | Proposed for Further Evaluation in Phase B | Never Detected In Groundwater | Max> Comparison Level Direct Contact Pathways? | Max> Comparison Level Vapor Intrusion Pathway? | Not Proposed for Further Evaluation in Phase B (j) | Proposed for Further Evaluation in Phase B | Proposed for Further Sampling to Evaluate Background Groundwater |
| Antimony                                | 7440-36-0                         | Yes                                |                        |   |  |  | X   | X  |  |                               |  |  | X  |  |  |
| Arsenic                                 | 7440-38-2                         | Yes                                |                        | X   | X  | X  | X   |  | X  |                               | X  |  |  | X  | X  |
| Barium                                  | 7440-39-3                         | Yes                                |                        |   |  |  | X   | X  |  | X                             |  | X  |  | X  |  |
| Beryllium                               | 7440-41-7                         | Yes                                |                        |   |  |  |   | X  |  | X                             |  | X  |  | X  |  |
| Boron                                   | 7440-42-8                         | Yes                                |                        |   | X  |  |   | X  |  | X                             |  | X  |  | X  | X  |
| Cadmium                                 | 7440-43-9                         | Yes                                |                        |   |  |  |   | X  | X  |                               | X  |  | X  |  |  |
| Calcium                                 | 7440-70-2                         | Yes                                |                        |   |  |  |   | X  | X  |                               |  |  | X  |  | X  |
| Chromium (hexavalent)                   | 18540-29-9                        | Yes                                |                        | X   | X  | X  | X   |  | X  |                               | X  |  |  | X  | X  |
| Chromium (total)                        | 7440-47-3                         | Yes                                |                        | X   | X  | X  |   |  | X  |                               | X  |  |  | X  |  |
| Cobalt                                  | 7440-48-4                         | Yes                                |                        |   |  |  |   | X  | X  |                               |  |  | X  |  |  |
| Copper                                  | 7440-50-8                         | Yes                                |                        |   |  |  |   |  | X  |                               |  |  | X  |  |  |
| Iron                                    | 7439-89-6                         | Yes                                |                        |   |  |  |   | X  |  | X                             |  | X  |  | X  |  |
| Lead                                    | 7439-92-1                         | Yes                                |                        | X   | X  | X  | X   |  | X  |                               | X  |  | X  |  | X  |
| Magnesium                               | 7439-95-4                         | Yes                                |                        |   | X  |  |   | X  | X  |                               | X  |  | X  |  |  |
| Manganese                               | 7439-96-5                         | Yes                                |                        | X   |  | X  |   | X  |  | X                             |  | X  |  | X  | X  |
| Mercury                                 | 7439-97-6                         | Yes                                |                        |   |  |  |   |  | X  |                               |  |  | X  |  |  |
| Molybdenum                              | 7439-98-7                         | Yes                                |                        |   |  |  |   | X  |  | X                             |  | X  |  | X  | X  |
| Nickel                                  | 7440-02-0                         | Yes                                |                        |   |  |  |   | X  | X  |                               |  |  | X  |  |  |
| Platinum                                | 7440-06-4                         | Yes                                |                        |   |  |  |   |  | X  |                               |  |  | X  |  |  |
| Potassium                               | 7440-09-7                         | Yes                                |                        |   | X  |  |   | X  | X  |                               |  |  |  |  | X  |
| Selenium                                | 7782-49-2                         | Yes                                | X                      |   |  |  |   |  | X  |                               |  |  | X  |  |  |
| Silver                                  | 7440-22-4                         | Yes                                |                        |   |  |  |   |  | X  |                               |  |  | X  |  |  |
| Sodium                                  | 7440-23-5                         | Yes                                |                        |   | X  |  |   | X  | X  |                               |  |  |  |  | X  |
| Strontium                               | 7440-24-6                         | Yes                                |                        |   |  |  |   | X  |  | X                             |  |  |  | X  | X  |
| Thallium                                | 7440-28-0                         | Yes                                |                        |   |  |  |   | X  | X  |                               |  |  | X  |  |  |
| Tin                                     | 7440-31-5                         | Yes                                |                        |   |  |  |   |  | X  |                               |  |  | X  |  |  |
| Titanium                                | 7440-32-6                         | Yes                                |                        |   |  |  |   |  | X  |                               |  |  | X  |  |  |
| Tungsten                                | 7440-33-7                         | Yes                                |                        |   |  |  |   |  | X  |                               |  |  | X  |  |  |
| Uranium                                 | 7440-61-1                         | Yes                                |                        |   | X  |  |   | X  |  | X                             |  |  |  | X  | X  |
| Vanadium                                | 7440-62-2                         | Yes                                |                        |   |  |  |   |  | X  |                               |  |  | X  |  | X  |
| Zinc                                    | 7440-66-6                         | Yes                                |                        |   |  |  |   |  | X  |                               |  |  | X  |  |  |
| <b>Organochlorine Pesticides (OCPs)</b> |                                   |                                    |                        |   |  |  |   |  |  |                               |  |  |  |  |  |
| 4,4'-DDD                                | 72-54-8                           | Yes                                |                        |   |  |  |   |  |  | (e)                           | X  |  |  | (e)  |  |
| 4,4'-DDE                                | 72-55-9                           | Yes                                |                        |   |  |  |   |  |  | (e)                           | X  |  |  | (e)  |  |
| 4,4'-DDT                                | 50-29-3                           | Yes                                |                        |   |  |  |   |  |  | (e)                           | X  |  |  | (e)  |  |
| Aldrin                                  | 309-00-2                          | Yes                                | X                      |   |  |  |   |  |  | (e)                           | X  |  |  | (e)  |  |
| alpha-BHC                               | 319-84-6                          | Yes                                | X                      |   |  |  |   |  |  | (e)                           |  | X  | X  | X  |  |
| alpha-Chlordane                         | 5103-71-9                         | Yes                                | X                      |   |  |  |   |  |  | (e)                           | X  |  |  | (e)  |  |
| beta-BHC                                | 319-85-7                          | Yes                                |                        |   |  | X  | X   |  |  | (e)                           |  | X  |  | X  |  |
| Chlordane, technical                    | 57-74-9                           | Yes                                | X                      |   |  |  |   |  |  | (e)                           | X  |  |  | (e)  |  |
| delta-BHC                               | 319-86-8                          | Yes                                | X                      |   |  |  |   |  |  | (e)                           |  | X  |  | (e)  |  |
| Dieldrin                                | 60-57-1                           | Yes                                | X                      |   |  |  |   |  |  | (e)                           | X  |  |  | (e)  |  |

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|--|-----------------------------------|------------------------------------|------------------------|---|--|--|---|--|--|-------------------------------|--|--|--|--|
|  |                                   |                                    | Phase A                |   |  | Phase B  |   |  | Phase A                                    |                               |  | Phase B  |  |  |
|  |                                   |                                    | Never Detected In Soil | Not Consistent with Background Shallow Soil (0-15 ft bgs) (a,b,c) | Not Consistent with Background Any Soil Depths (a,b) | Max> Comparison Level Direct Contact Pathways? | Include for Further Evaluation of the Soil to Groundwater Pathway? (See Table 5-31) | Not Proposed for Further Evaluation in Phase B (j) | Proposed for Further Evaluation in Phase B | Never Detected In Groundwater | Max> Comparison Level Direct Contact Pathways? | Max> Comparison Level Vapor Intrusion Pathway? | Not Proposed for Further Evaluation in Phase B (j) | Proposed for Further Evaluation in Phase B |
| Endosulfan I                                     | 959-98-8                          | Yes                                | X                      |   |  |  |   | (e)  | X  |                               |  |  | (e)  |  |
| Endosulfan II                                    | 33213-65-9                        | Yes                                | X                      |   |  |  |   | (e)  | X  |                               |  |  | (e)  |  |
| Endosulfan sulfate                               | 1031-07-8                         | Yes                                | X                      |   |  |  |   | (e)  | X  |                               |  |  | (e)  |  |
| Endrin   | 72-20-8                           | Yes                                | X                      |   |  |  |   | (e)  | X  |                               |  |  | (e)  |  |
| Endrin aldehyde                                  | 7421-93-4                         | Yes                                |                        |   |  |  |   | (e)  | X  |                               |  |  | (e)  |  |
| Endrin Ketone                                    | 53494-70-5                        | Yes                                | X                      |   |  |  |   | (e)  | X  |                               |  |  | (e)  |  |
| gamma-BHC (Lindane)                              | 58-89-9                           | Yes                                | X                      |   |  |  |   | (e)  |  | X                             |  |  | X  |  |
| gamma-Chlordane                                  | 5103-74-2                         | Yes                                | X                      |   |  |  |   | (e)  |  |                               |  |  | (e)  |  |
| Heptachlor                                       | 76-44-8                           | Yes                                | X                      |   |  |  |   | (e)  |  | X                             | X  |  | X  |  |
| Heptachlor epoxide                               | 1024-57-3                         | Yes                                | X                      |   |  |  |   | (e)  | X  |                               |  |  | (e)  |  |
| Methoxychlor                                     | 72-43-5                           | Yes                                |                        |   |  |  |   | (e)  |  |                               |  |  | (e)  |  |
| Toxaphene  | 8001-35-2                         | Yes                                | X                      |   |  |  |   | (e)  | X  |                               |  |  | (e)  |  |
| <b>Organophosphorus Pesticides (OPPs)</b>        |                                   |                                    |                        |   |  |  |   |  |  |                               |  |  |  |  |
| Azinphos-methyl                                  | 86-50-0                           | Yes                                | X                      |   |  |  |   |  | X  |                               |  |  | X  |  |
| Bolstar  | 35400-43-2                        | Yes                                | X                      |   |  |  |   |  | X  |                               |  |  | X  |  |
| Chlorpyrifos                                     | 2921-88-2                         | Yes                                | X                      |   |  |  |   |  | X  |                               |  |  | X  |  |
| Coumaphos  | 56-72-4                           | Yes                                | X                      |   |  |  |   |  | X  |                               |  |  | X  |  |
| Demeton-O  | 298-03-3                          | Yes                                |                        |   |  |  | X   |  | X  |                               |  |  | X  |  |
| Demeton-S  | 126-75-0                          | Yes                                | X                      |   |  |  |   |  | X  |                               |  |  | X  |  |
| Diazinon   | 333-41-5                          | Yes                                | X                      |   |  |  |   |  | X  |                               |  |  | X  |  |
| Dichlorvos                                       | 62-73-7                           | Yes                                | X                      |   |  |  |   |  | X  |                               |  |  | X  |  |
| Dimethoate                                       | 60-51-5                           | Yes                                |                        |   |  |  |   | X  | X  |                               |  |  | X  |  |
| Disulfoton                                       | 298-04-4                          | Yes                                | X                      |   |  |  |   |  | X  |                               |  |  | X  |  |
| EPN (Ethyl p-nitrophenyl phenylphosphorothioate) | 2104-64-5                         | Yes                                | X                      |   |  |  |   |  | X  |                               |  |  | X  |  |
| Ethoprop   | 13194-48-4                        | Yes                                | X                      |   |  |  |   |  | X  |                               |  |  | X  |  |
| Famphur  | 52-85-7                           | Yes                                | X                      |   |  |  |   |  | X  |                               |  |  | X  |  |
| Fensulfothion                                    | 115-90-2                          | Yes                                | X                      |   |  |  |   |  | X  |                               |  |  | X  |  |
| Fenthion   | 55-38-9                           | Yes                                | X                      |   |  |  |   |  | X  |                               |  |  | X  |  |
| Malathion  | 121-75-5                          | Yes                                | X                      |   |  |  |   |  | X  |                               |  |  | X  |  |
| Merphos  | 150-50-5                          | Yes                                | X                      |   |  |  |   |  | X  |                               |  |  | X  |  |
| Mevinphos  | 7786-34-7                         | Yes                                | X                      |   |  |  |   |  | X  |                               |  |  | X  |  |
| Naled  | 300-76-5                          | Yes                                | X                      |   |  |  |   |  | X  |                               |  |  | X  |  |
| Parathion-ethyl (Ethyl Parathion)                | 56-38-2                           | Yes                                | X                      |   |  |  |   |  | X  |                               |  |  | X  |  |
| Parathion-methyl (Methyl Parathion)              | 298-00-0                          | Yes                                | X                      |   |  |  |   |  | X  |                               |  |  | X  |  |
| Phorate  | 298-02-2                          | Yes                                | X                      |   |  |  |   |  | X  |                               |  |  | X  |  |
| Ronnel   | 299-84-3                          | Yes                                | X                      |   |  |  |   |  | X  |                               |  |  | X  |  |
| Stirphos   | 22248-79-9                        | Yes                                | X                      |   |  |  |   |  | X  |                               |  |  | X  |  |
| Sulfotepp (Tetraethylthiopyrophosphate)          | 3689-24-5                         | Yes                                | X                      |   |  |  |   |  | X  |                               |  |  | X  |  |
| Thionazin  | 297-97-2                          | Yes                                | X                      |   |  |  |   |  | X  |                               |  |  | X  |  |
| Tokuthion  | 34643-46-4                        | Yes                                | X                      |   |  |  |   |  | X  |                               |  |  | X  |  |
| Trichloronate                                    | 327-98-0                          | Yes                                | X                      |   |  |  |   |  | X  |                               |  |  | X  |  |

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|--|-----------------------------------|------------------------------------|------------------------|---|--|--|---|--|--|-------------------------------|--|--|--|--|
|  |                                   |                                    | Phase A                |   |  | Phase B  |   |  | Phase A                                    |                               |  | Phase B  |  |  |
|  |                                   |                                    | Never Detected In Soil | Not Consistent with Background Shallow Soil (0-15 ft bgs) (a,b,c) | Not Consistent with Background Any Soil Depths (a,b) | Max> Comparison Level Direct Contact Pathways? | Include for Further Evaluation of the Soil to Groundwater Pathway? (See Table 5-31) | Not Proposed for Further Evaluation in Phase B (j) | Proposed for Further Evaluation in Phase B | Never Detected In Groundwater | Max> Comparison Level Direct Contact Pathways? | Max> Comparison Level Vapor Intrusion Pathway? | Not Proposed for Further Evaluation in Phase B (j) | Proposed for Further Evaluation in Phase B |
| <b>Organochlorine Herbicides</b>                   |                                   |                                    |                        |   |  |  |   |  |  |                               |  |  |  |  |
| Silvex (2-(2,4,5-trichlorophenoxy) propionic acid) | 93-72-1                           | Yes                                | X                      |   |  |  |   |  | X  |                               |  | X  |  |  |
| <b>Polychlorinated Biphenyl (PCB) Compounds</b>    |                                   |                                    |                        |   |  |  |   |  |  |                               |  |  |  |  |
| Aroclor 1016                                       | 12674-11-2                        | Yes                                | X                      |   |  |  |   |  | X  |                               |  | X  |  |  |
| Aroclor 1221                                       | 11104-28-2                        | Yes                                | X                      |   |  |  |   |  | X  |                               |  | X  |  |  |
| Aroclor 1232                                       | 11141-16-5                        | Yes                                | X                      |   |  |  |   |  | X  |                               |  | X  |  |  |
| Aroclor 1242                                       | 53469-21-9                        | Yes                                | X                      |   |  |  |   |  | X  |                               |  | X  |  |  |
| Aroclor 1248                                       | 12672-29-6                        | Yes                                | X                      |   |  |  |   |  | X  |                               |  | X  |  |  |
| Aroclor 1254                                       | 11097-69-1                        | Yes                                | X                      |   |  |  |   |  | X  |                               |  | X  |  |  |
| Aroclor 1260                                       | 11096-82-5                        | Yes                                |                        |   |  |  |   | X  | X  |                               |  | X  |  |  |
| <b>Radionuclides</b>                               |                                   |                                    |                        |   |  |  |   |  |  |                               |  |  |  |  |
| Radium 226   | 13982-63-3                        | Yes                                |                        |   | X  | X  | X   | X  |  |                               |  | X  |  |  |
| Radium 228   | 15262-20-1                        | Yes                                |                        |   |  | X  | X   | X  |  |                               |  | X  |  |  |
| Thorium 228  | 14274-82-9                        |                                    |                        |   |  | X  | X   | X  |  | X                             |  | X  |  |  |
| Thorium 230  | 14269-63-7                        | Yes                                |                        |   |  | X  | X   | X  |  |                               |  | X  |  |  |
| Thorium 232  | 7440-29-1                         | Yes                                |                        |   |  |  |   | X  |  | X                             |  | X  |  |  |
| Uranium 234  | 13966-29-5                        | Yes                                |                        |   |  |  |   | X  | X  |                               |  | X  | X  | X  |
| Uranium 235  | 15117-96-1                        | Yes                                |                        |   |  | X  | X   | X  |  |                               |  | X  |  |  |
| Uranium 238  | 7440-61-1                         | Yes                                |                        |   |  | X  | X   | X  |  |                               |  | X  | X  | X  |
| <b>Semi-Volatile Organic Compounds (SVOCs)</b>     |                                   |                                    |                        |   |  |  |   |  |  |                               |  |  |  |  |
| 1,4-Dioxane  | 123-91-1                          | Yes                                | X                      |   |  |  |   |  | X  |                               |  | X  |  |  |
| 2-Methylnaphthalene                                | 91-57-6                           | Yes                                | X                      |   |  |  |   |  | X  |                               |  | X  |  |  |
| Acenaphthene                                       | 83-32-9                           | Yes                                | X                      |   |  |  |   |  |  | (i)                           |  | X  |  |  |
| Acenaphthylene                                     | 208-96-8                          | Yes                                | X                      |   |  |  |   |  |  | (i)                           |  | X  |  |  |
| Anthracene   | 120-12-7                          | Yes                                | X                      |   |  |  |   |  |  | (i)                           |  | X  |  |  |
| Benzo(a)anthracene                                 | 56-55-3                           | Yes                                |                        |   |  |  |   | X  |  | (i)                           |  | X  |  |  |
| Benzo(a)pyrene                                     | 50-32-8                           | Yes                                |                        |   |  | X  |   |  |  | (i)                           |  | X  |  |  |
| Benzo(b)fluoranthene                               | 205-99-2                          | Yes                                |                        |   |  |  |   |  |  | (i)                           |  | X  |  |  |
| Benzo(g,h,i)perylene                               | 191-24-2                          | Yes                                |                        |   |  |  |   |  |  | (i)                           |  | X  |  |  |
| Benzo(k)fluoranthene                               | 207-08-9                          | Yes                                |                        |   |  |  |   |  |  | (i)                           |  | X  |  |  |
| Bis(2-ethylhexyl)phthalate                         | 117-81-7                          | Yes                                |                        |   |  |  |   |  | X  |                               |  | X  |  |  |
| Butylbenzylphthalate                               | 85-68-7                           | Yes                                | X                      |   |  |  |   |  | X  |                               |  | X  |  |  |
| Chrysene   | 218-01-9                          | Yes                                |                        |   |  |  |   |  |  | (i)                           |  | X  |  |  |
| Dibenzo(a,h)anthracene                             | 53-70-3                           | Yes                                | X                      |   |  |  |   |  |  | (i)                           |  | X  |  |  |
| Diethylphthalate                                   | 84-66-2                           | Yes                                |                        |   |  |  |   |  | X  |                               |  | X  |  |  |
| Dimethylphthalate                                  | 131-11-3                          | Yes                                | X                      |   |  |  |   |  | X  |                               |  | X  |  |  |
| Di-n-butylphthalate                                | 84-74-2                           | Yes                                |                        |   |  |  |   |  | X  |                               |  | X  |  |  |
| Di-n-octylphthalate                                | 117-84-0                          | Yes                                | X                      |   |  |  |   |  | X  |                               |  | X  |  |  |
| Fluoranthene                                       | 206-44-0                          | Yes                                |                        |   |  |  |   |  |  | (i)                           |  | X  |  |  |
| Fluorene   | 86-73-7                           | Yes                                | X                      |   |  |  |   |  |  | (i)                           |  | X  |  |  |
| Hexachlorobenzene                                  | 118-74-1                          | Yes                                |                        |   |  | X  | X   |  |  | (g)                           |  | X  |  |  |
| Indeno(1,2,3-cd)pyrene                             | 193-39-5                          | Yes                                |                        |   |  |  |   |  |  | (i)                           |  | X  |  |  |
| Naphthalene  | 91-20-3                           | Yes                                | X                      |   |  |  |   |  |  | (i)                           |  | X  |  |  |

**Table ES-1**  
**Summary of Evaluation of Phase A Adequacy of Characterization**  
Phase A Source Area Investigation Results  
Tronox Facility - Henderson, Nevada

| Analyte   | Chemical Abstracts Service Number | Site-Related Chemical? (Yes or No) | Soil                   |   |  |  |   |  | Groundwater                                |                               |  |  |  |  |  |
|---|-----------------------------------|------------------------------------|------------------------|---|--|--|---|--|--|-------------------------------|--|--|--|--|--|
|   |                                   |                                    | Phase A                |   |  | Phase B  |   |  | Phase A                                    |                               |  | Phase B  |  |  |  |
|   |                                   |                                    | Never Detected In Soil | Not Consistent with Background Shallow Soil (0-15 ft bgs) (a,b,c) | Not Consistent with Background Any Soil Depths (a,b) | Max> Comparison Level Direct Contact Pathways? | Include for Further Evaluation of the Soil to Groundwater Pathway? (See Table 5-31) | Not Proposed for Further Evaluation in Phase B (j) | Proposed for Further Evaluation in Phase B | Never Detected In Groundwater | Max> Comparison Level Direct Contact Pathways? | Max> Comparison Level Vapor Intrusion Pathway? | Not Proposed for Further Evaluation in Phase B (j) | Proposed for Further Evaluation in Phase B | Proposed for Further Sampling to Evaluate Background Groundwater |
| Nitrobenzene  | 98-95-3                           | Yes                                | X                      |   |  |  |   | X  |  |                               | X  |  |  | X  |  |
| Octachlorostyrene   | 29082-74-4                        | Yes                                |                        |   |  |  |   | X  |  |                               | X  |  |  | X  |  |
| Phenanthrene  | 85-01-8                           | Yes                                |                        |   |  |  |   |  | (i)  |                               | X  |  |  | X  |  |
| Pyrene  | 129-00-0                          | Yes                                |                        |   |  |  |   |  | (i)  |                               | X  |  |  | X  |  |
| Pyridine  | 110-86-1                          | Yes                                | X                      |   |  |  |   | X  |  |                               | X  |  |  | X  |  |
| <b>Total Petroleum Hydrocarbons (TPH) and fuel alcohols</b> |                                   |                                    |                        |   |  |  |   |  |  |                               |  |  |  |  |  |
| GRO(C6 -C10)  | TPH-gasoline                      | Yes                                |                        |   |  |  |   | X  |  |                               | X  |  |  | X  |  |
| DRO(C10 -C28)   | TPH-diesel                        | Yes                                |                        |   |  | X  |   |  | (i)  |                               | X  |  |  | X  |  |
| ORO (C28 -C38)  | TPH-MOTOR                         | Yes                                |                        |   |  | X  |   |  | (i)  |                               | X  |  |  | X  |  |
| Methanol  | 67-56-1                           | Yes                                | X                      |   |  |  |   | X  |  |                               | X  |  |  | X  |  |
| Ethanol   | 64-17-5                           | Yes                                | X                      |   |  |  |   | X  |  |                               | X  |  |  | X  |  |
| Ethylene glycol   | 107-21-1                          | Yes                                | X                      |   |  |  |   | X  |  |                               | X  |  |  | X  |  |
| <b>Volatile Organic Compounds (VOCs)</b>                    |                                   |                                    |                        |   |  |  |   |  |  |                               |  |  |  |  |  |
| 1,1,1,2-Tetrachloroethane                                   | 630-20-6                          | No                                 | X                      |   |  |  |   |  | (f)  |                               | X  |  |  | (f)  |  |
| 1,1,1-Trichloroethane                                       | 71-55-6                           | Yes                                |                        |   |  |  |   |  | (f)  |                               |  |  |  | (f)  |  |
| 1,1,2,2-Tetrachloroethane                                   | 79-34-5                           | No                                 | X                      |   |  |  |   |  | (f)  |                               | X  |  |  | (f)  |  |
| 1,1,2-Trichloroethane                                       | 79-00-5                           | No                                 | X                      |   |  |  |   |  | (f)  |                               | X  |  |  | (f)  |  |
| 1,1-Dichloroethane  | 75-34-3                           | No                                 |                        |   |  |  |   |  | (f)  |                               |  |  |  | (f)  |  |
| 1,1-Dichloroethene  | 75-35-4                           | No                                 | X                      |   |  |  |   |  | (f)  |                               |  | X  |  | X  |  |
| 1,1-Dichloropropene   | 563-58-6                          | No                                 | X                      |   |  |  |   |  | (f)  |                               | X  |  |  | (f)  |  |
| 1,2,3-Trichlorobenzene                                      | 87-61-6                           | No                                 |                        |   |  |  | X   |  | X  |                               |  |  |  | (f)  |  |
| 1,2,3-Trichloropropane                                      | 96-18-4                           | No                                 | X                      |   |  |  |   |  | (f)  |                               | X  |  |  | (f)  |  |
| 1,2,4-Trichlorobenzene                                      | 120-82-1                          | No                                 |                        |   |  |  | X   |  | X  |                               |  |  |  | (f)  |  |
| 1,2,4-Trimethylbenzene                                      | 95-63-6                           | Yes                                | X                      |   |  |  |   |  | (f)  |                               | X  |  |  | (f)  |  |
| 1,2-Dibromo-3-chloropropane                                 | 96-12-8                           | No                                 | X                      |   |  |  |   |  | (f)  |                               | X  |  |  | (f)  |  |
| 1,2-Dibromoethane (Ethylene Dibromide)                      | 106-93-4                          | No                                 | X                      |   |  |  |   |  | (f)  |                               | X  |  |  | (f)  |  |
| 1,2-Dichlorobenzene   | 95-50-1                           | Yes                                |                        |   |  |  |   |  | (f)  |                               |  | X  | X  | X  |  |
| 1,2-Dichloroethane  | 107-06-2                          | No                                 |                        |   |  |  | X   |  | X  |                               |  |  |  | (f)  |  |
| 1,2-Dichloropropane   | 78-87-5                           | No                                 | X                      |   |  |  |   |  | (f)  |                               | X  |  |  | (f)  |  |
| 1,3,5-Trimethylbenzene                                      | 108-67-8                          | Yes                                |                        |   |  |  |   |  | (f)  |                               | X  |  |  | (f)  |  |
| 1,3-Dichlorobenzene   | 541-73-1                          | Yes                                |                        |   |  |  |   |  | (f)  |                               |  |  |  | (f)  |  |
| 1,3-Dichloropropane   | 142-28-9                          | No                                 | X                      |   |  |  |   |  | (f)  |                               | X  |  |  | (f)  |  |
| 1,4-Dichlorobenzene   | 106-46-7                          | Yes                                |                        |   |  |  | X   |  | X  |                               |  | X  | X  | X  |  |
| 2,2-Dichloropropane   | 594-20-7                          | No                                 | X                      |   |  |  |   |  | (f)  |                               | X  |  |  | (f)  |  |
| 2-Butanone  | 78-93-3                           | Yes                                |                        |   |  |  |   |  | (f)  |                               | X  |  |  | (f)  |  |
| 2-Chlorotoluene   | 95-49-8                           | No                                 |                        |   |  |  |   |  | (f)  |                               | X  |  |  | (f)  |  |
| 2-Hexanone  | 591-78-6                          | Yes                                |                        |   |  |  |   |  | (f)  |                               | X  |  |  | (f)  |  |
| 4-Chlorotoluene   | 106-43-4                          | No                                 | X                      |   |  |  |   |  | (f)  |                               | X  |  |  | (f)  |  |
| 4-Methyl-2-pentanone  | 108-10-1                          | Yes                                | X                      |   |  |  |   |  | (f)  |                               | X  |  |  | (f)  |  |
| Acetone   | 67-64-1                           | Yes                                |                        |   |  |  |   |  | (f)  |                               | X  |  |  | (f)  |  |
| Benzene   | 71-43-2                           | Yes                                |                        |   |  | X  |   | X  | X  |                               |  | X  | X  | X  |  |

**Table ES-1**  
**Summary of Evaluation of Phase A Adequacy of Characterization**  
Phase A Source Area Investigation Results  
Tronox Facility - Henderson, Nevada

| Analyte                        | Chemical Abstracts Service Number | Site-Related Chemical? (Yes or No) | Soil                   |   |  |  |   |  | Groundwater                                |                               |  |  |  |  |
|--------------------------------|-----------------------------------|------------------------------------|------------------------|---|--|--|---|--|--|-------------------------------|--|--|--|--|
|                                |                                   |                                    | Phase A                |   |  | Phase B  |   |  | Phase A                                    |                               |  | Phase B  |  |  |
|                                |                                   |                                    | Never Detected In Soil | Not Consistent with Background Shallow Soil (0-15 ft bgs) (a,b,c) | Not Consistent with Background Any Soil Depths (a,b) | Max> Comparison Level Direct Contact Pathways? | Include for Further Evaluation of the Soil to Groundwater Pathway? (See Table 5-31) | Not Proposed for Further Evaluation in Phase B (j) | Proposed for Further Evaluation in Phase B | Never Detected In Groundwater | Max> Comparison Level Direct Contact Pathways? | Max> Comparison Level Vapor Intrusion Pathway? | Not Proposed for Further Evaluation in Phase B (j) | Proposed for Further Evaluation in Phase B |
| Bromobenzene                   | 108-86-1                          | No                                 | X                      |   |  |  |   | (f)  |  |                               |  |  | (f)  |  |
| Bromochloromethane             | 74-97-5                           | No                                 | X                      |   |  |  |   | (f)  | X  |                               |  |  | (f)  |  |
| Bromodichloromethane           | 75-27-4                           | No                                 | X                      |   |  |  |   | (f)  |  |                               | X  |  | X  |  |
| Bromoform                      | 75-25-2                           | No                                 |                        |   |  |  |   | (f)  |  |                               | X  |  | X  |  |
| Bromomethane                   | 74-83-9                           | No                                 | X                      |   |  |  |   | (f)  |  |                               | X  |  | X  |  |
| Carbon Tetrachloride           | 56-23-5                           | No                                 |                        |   |  |  |   | X  |  | X                             | X  |  | X  |  |
| Chlorobenzene                  | 108-90-7                          | Yes                                |                        |   |  |  |   | X  |  | X                             | X  |  | X  |  |
| Chloroethane                   | 75-00-3                           | No                                 | X                      |   |  |  |   | (f)  | X  |                               |  |  | (f)  |  |
| Chloroform                     | 67-66-3                           | Yes                                |                        |   |  | X  |   | X  |  | X                             | X  |  | X  |  |
| Chloromethane                  | 74-87-3                           | No                                 | X                      |   |  |  |   | (f)  |  |                               | X  |  | X  |  |
| cis-1,2-Dichloroethene         | 156-59-2                          | No                                 | X                      |   |  |  |   | (f)  | X  |                               |  |  | (f)  |  |
| cis-1,3-Dichloropropene        | 10061-01-5                        | No                                 | X                      |   |  |  |   | (f)  | X  |                               |  |  | (f)  |  |
| Dibromochloromethane           | 124-48-1                          | No                                 | X                      |   |  |  |   | (f)  |  |                               | X  |  | X  |  |
| Dibromomethane                 | 74-95-3                           | No                                 | X                      |   |  |  |   | (f)  | X  |                               |  |  | (f)  |  |
| Dichlorodifluoromethane        | 75-71-8                           | No                                 | X                      |   |  |  |   | (f)  | X  |                               |  |  | (f)  |  |
| Diisopropyl ether (DIPE)       | 108-20-3                          | Yes                                | X                      |   |  |  |   | (f)  | X  |                               |  |  | (f)  |  |
| Ethylbenzene                   | 100-41-4                          | Yes                                | X                      |   |  |  |   | (i)  | X  |                               |  |  | (f)  |  |
| Ethyl-tert-butyl ether (ETBE)  | 637-92-3                          | Yes                                | X                      |   |  |  |   | (f)  | X  |                               |  |  | (f)  |  |
| Hexachlorobutadiene            | 87-68-3                           | No                                 |                        |   |  |  |   | (f)  | X  |                               |  |  | (f)  |  |
| Isopropyl Benzene (Cumene)     | 98-82-8                           | Yes                                | X                      |   |  |  |   | (f)  | X  |                               |  |  | (f)  |  |
| Methylene Chloride             | 75-09-2                           | No                                 |                        |   |  |  |   | X  | X  |                               |  |  | (f)  |  |
| Methyl-tert-butyl ether (MTBE) | 1634-04-4                         | Yes                                | X                      |   |  |  |   | (f)  |  |                               |  |  | (f)  |  |
| Naphthalene                    | 91-20-3                           | Yes                                |                        |   |  |  |   | (f)  | X  |                               |  |  | (f)  |  |
| n-Butylbenzene                 | 104-51-8                          | Yes                                | X                      |   |  |  |   | (f)  | X  |                               |  |  | (f)  |  |
| n-Propylbenzene                | 103-65-1                          | Yes                                | X                      |   |  |  |   | (f)  | X  |                               |  |  | (f)  |  |
| p-Isopropyltoluene             | 99-87-6                           | Yes                                | X                      |   |  |  |   | (f)  | X  |                               |  |  | (f)  |  |
| sec-Butylbenzene               | 135-98-8                          | Yes                                | X                      |   |  |  |   | (f)  | X  |                               |  |  | (f)  |  |
| Styrene                        | 100-42-5                          | No                                 | X                      |   |  |  |   | (f)  | X  |                               |  |  | (f)  |  |
| tert-Amyl-methyl ether (TAME)  | 994-05-8                          | Yes                                | X                      |   |  |  |   | (f)  | X  |                               |  |  | (f)  |  |
| tert-Butyl alcohol (TBA)       | 75-65-0                           | Yes                                | X                      |   |  |  |   | (f)  | X  |                               |  |  | (f)  |  |
| tert-Butylbenzene              | 98-06-6                           | Yes                                | X                      |   |  |  |   | (f)  | X  |                               |  |  | (f)  |  |
| Tetrachloroethene              | 127-18-4                          | Yes                                |                        |   |  |  |   | X  |  | X                             | X  |  | X  |  |
| Toluene                        | 108-88-3                          | Yes                                |                        |   |  |  |   | (i)  |  |                               |  |  | (f)  |  |
| trans-1,2-Dichloroethene       | 156-60-5                          | No                                 | X                      |   |  |  |   | (f)  | X  |                               |  |  | (f)  |  |
| trans-1,3-Dichloropropene      | 10061-02-6                        | No                                 | X                      |   |  |  |   | (f)  | X  |                               |  |  | (f)  |  |
| Trichloroethene                | 79-01-6                           | Yes                                |                        |   |  |  |   | X  |  | X                             | X  |  | X  |  |
| Trichlorofluoromethane         | 75-69-4                           | No                                 |                        |   |  |  |   | (f)  |  | X                             | X  |  | X  |  |
| Vinyl Chloride                 | 75-01-4                           | No                                 | X                      |   |  |  |   | (f)  | X  |                               |  |  | (f)  |  |
| Xylenes (total)                | 1330-20-7                         | Yes                                | X                      |   |  |  |   | (i)  | X  |                               |  |  | (f)  |  |
| <b>Asbestos</b>                |                                   |                                    |                        |   |  |  |   |  |  |                               |  |  |  |  |
| Asbestos                       | 132207-33-1                       | Yes                                |                        |   |  |  | Yes (d)   |  | X  | NA                            |  |  |  |  |

Notes:  
SIM - Selected Ion Monitoring  
(a) Determined not to be consistent with background to direct contact comparison levels. See Table 5-15.  
(b) Background comparisons only performed for inorganic parameters; organic parameters are generally non detect in background soils. The inorganic parameters calculated include metals, radionuclides and chloride, nitrate, sulfate and perchlorate.  
(c) The background comparison for shallow soils (0-15 ft bgs) was only performed for those parameters listed in (b) that also exceeded the risk-based comparison for direct contact.  
(d) Further characterization of asbestos identified for specific areas on-site. See Table 5-16.  
(e) Analyte does not need to be further evaluated in Phase B, but will be analyzed nonetheless as part of the entire suite of OCPs since Beta-BHC must be further evaluated in Phase B.  
(f) Analyte does not need to be further evaluated in Phase B, but will be analyzed nonetheless as part of the entire suite of VOCs since individual VOCs must be further evaluated in Phase B.  
(g) Will be evaluated using EPA method 8081A for organochlorine pesticides.  
(h) TDS is evaluated through characterization of major contributors to TDS: chlorate, chloride, sulfate, calcium, magnesium, and sodium.  
(i) Polycyclic Aromatic hydrocarbons, benzene, toluene, ethylbenzene, & xylenes, and TPH are included in Ph B in select locations to address potential historical source areas not evaluated in Phase A.  
(j) Refer to text of report for additional explanation of why the constituent is not proposed for further evaluation in Phase B.