

**Summary of Available Data for LOU 55
Area Affected by July 1990 Fire
Tronox Facility – Henderson, Nevada**

- Name of Facility:** LOU 55 – Area Affected by July 1990 Fire
- Goal of Closure:**
- Closure for future commercial/industrial use.
- Site Investigation Area:**
- Size: Approximately 130 feet by 175 feet (0.5 acre) [Ref. 4].
 - Location: North-central portion of the Site, approximately 70 feet south of the groundwater barrier wall.
 - Current Status/Features: The Area Affected by the July 1990 Fire consisted of a concrete pad for storage of ammonium perchlorate (AP) product. LOU 55 is no longer in operation but the pad remains.
- Description:**
- The former AP pad drum storage area at LOU 55 consisted of a concrete pad, constructed in early 1950s, used for storage of 55-gallon drums containing AP product [Ref. 4].
 - The fire occurred on July 18, 1990 when a drum ignited. Four hundred drums (100 tons) of AP burned and approximately 50,000 pounds of hydrogen chloride fumes were released over the 45-minute duration of fire [Ref. 4].
 - Soil surrounding the pad was impacted with AP and decomposition products from the fire-fighting wash water draining off the pad. Impacted soil was excavated, drummed, and transported off-site for disposal as non-hazardous waste at a hazardous waste landfill in Beatty, Nevada [Refs. 1 and 4].

| Process Waste Stream Associated with LOU 55 | Known or Potential Constituents Associated with LOU 55 |
|---|---|
| Fire-fighting water | <ul style="list-style-type: none"> • Ammonium perchlorate residue • Hydrogen chloride residue • Chlorate residue • Dioxins/Furans (incomplete combustion) • Metal residue • SVOCs (from burned asphalt) |

**Summary of Available Data for LOU 55
Area Affected by July 1990 Fire
Tronox Facility – Henderson, Nevada**

Overlapping or Adjacent LOUs: The following LOUs overlap or are adjacent to LOU 55:

Overlapping LOUs

- No overlapping LOUs were identified for LOU 55.

Adjacent LOUs

- LOU 31 (Drum Recycling Area) – Located approximately 125 feet to the southwest (upgradient) of LOU 55.
- LOU 32 (Chromium and Perchlorate Groundwater Remediation Unit) – Located north (downgradient) of LOU 55.

LOU 32 is downgradient of LOU 55; therefore this LOU is not considered to affect LOU 55. LOU 31 is upgradient of LOU 55; however, LOU 55 is not considered to be affected by LOU 31 because LOU 31 was used for crushing cleaned AP drums and the potential for releases from LOU 31 is considered to be minimal. In addition, no releases have been documented from LOU 31 and the chemicals used at both LOUs would have been the same. Therefore, the addition of other chemical classes to the Phase B Analytical Plan for LOU 55 is not required.

For detailed information on the LOUs listed above, please refer to the specific LOU data package.

LOUs Potentially Affecting Soils in LOU 55:

- None identified.

Known or Potential Chemical Classes:

- Metals
- Perchlorate
- Wet chemistry analytes
- Dioxins/Furans
- SVOCs

Known or Potential Release Mechanisms:

- Fire and subsequent surface runoff of fire-fighting water to surrounding soils [Ref. 4].

**Summary of Available Data for LOU 55
Area Affected by July 1990 Fire
Tronox Facility – Henderson, Nevada**

- Results of Historical Sampling:**
- No historical soil sampling was identified in the documents reviewed for this LOU.
 - Cross-gradient (M-64 and M-65), downgradient (M-55 and M-78), and upgradient (M-25 and M-38) groundwater monitoring wells are routinely tested for perchlorate, total chromium, and TDS as part of a periodic or routine groundwater monitoring program. Analytical results are summarized on LOU 55 Table 6 (see attached) [Ref. 3].

- Did Historical Samples Address Potential Release?**
- No historical soil samples were identified for this LOU.

Summary of Phase A SAI:

Soil:

- Boring SA20 is located within LOU 55 and was specifically sampled to evaluate this LOU.

Groundwater:

- Well M-55 is located approximately 20 feet to the north (downgradient) of LOU 55 and was specifically sampled to evaluate this LOU.

Chemical classes detected in Phase A soil borings from SA20 include the following:

- Metals
- Hexavalent chromium
- Perchlorate
- Wet chemistry analytes
- VOCs
- Organochlorine pesticides
- Dioxins/furans
- Radionuclides

As a result of the Phase A data, the Phase B Analytical Plan for samples collected from LOU 55 will be expanded to include analyses for hexavalent chromium, organochlorine pesticides, dioxins/furans, and radionuclides.

- Analytical results for soil and groundwater from the Phase A sampling event are summarized in tables LOU 55 Tables 1 through 5 and LOU 55 Tables 7 through 20 [Ref. 3] (see attached).

- Are Phase A Sample Locations in “Worst Case” Areas?**
- Not completely. The Phase A boring may not have been located in the worst case area of the LOU.

- Is Phase B Investigation Recommended?**
- Yes

**Summary of Available Data for LOU 55
Area Affected by July 1990 Fire
Tronox Facility – Henderson, Nevada**

Proposed Phase B Soil Investigation/Rationale:

The Phase B investigation for LOU 55 consists of collecting soil samples from the following one (1) location:

- One (1) soil boring will be drilled within the southeast portion of LOU 55.
- The one boring along with the analytical program to evaluate soil samples from LOU 55 listed on **Table A – Soil Sampling and Analytical Plan for LOU 55.**
- Soil sample locations consist of only of one randomly-placed location.
- Random sample grid locations:
 - Designed to assess whether unknown constituents associated with the LOUs are present.
 - Boring RSAL6 is a randomly-placed boring.
 - The boring along with the analytical program to evaluate soil samples from LOU 55 listed on **Table A – Soil Sampling and Analytical Plan for LOU 55.**

Proposed Phase B Constituents List for Soils:

The random sample grid location will be analyzed for the following full list of Phase A Site-related chemicals for LOU-specific and area-wide coverage purposes:

- Metals (Phase A list)
- Hexavalent chromium
- Perchlorate
- Wet chemistry analytes
- VOCs
- SVOCs
- TPH-DRO/ORO
- Organochlorine pesticides
- Dioxins/furans
- Radionuclides
- Asbestos

Proposed Phase B Groundwater Investigation/Rationale:

The Phase B groundwater investigation of LOU 55 consists of collecting groundwater samples from four (4) locations to evaluate local groundwater conditions and as part of Site-wide evaluation of constituent trends in groundwater.

- Wells M-55 and M-78 located north (downgradient) of LOU 55 will be used to evaluate local and area-wide groundwater conditions.
- Well M-64 located west (cross-gradient) of LOU 55 will be used to evaluate local and area-wide groundwater conditions.

**Summary of Available Data for LOU 55
Area Affected by July 1990 Fire
Tronox Facility – Henderson, Nevada**

- Well M-25 located south (upgradient) of LOU 55 will be used to evaluate local and area-wide groundwater conditions.
- The sampling wells and the analytical program to evaluate groundwater samples associated with LOU 55 are listed on **Table B – Groundwater Sampling and Analytical Plan for LOU 55.**

Proposed Phase B Constituents List for Groundwater:

Groundwater samples will be analyzed for the following analytes:

- Metals (Phase A list)
- Hexavalent chromium
- Perchlorate
- Wet chemistry analytes
- VOCs
- SVOCs
- Organochlorine pesticides
- Radionuclides

Proposed Phase B Soil Gas Investigation/Rationale:

A soil gas sample will be collected from one (1) location to evaluate area conditions for the presence of vapor-phase VOCs in the vadose zone.

- SG23 is located in Area I to evaluate VOCs detected in monitoring well M-55 and is located approximately 10 feet north of LOU 55.

Details of the soil gas sampling program are contained in the NDEP-approved (March 26, 2008) Soil Gas Survey Work Plan, Tronox LLC, Henderson, Nevada, dated March 20, 2008.

Proposed Phase B Constituents List for Soil Gas:

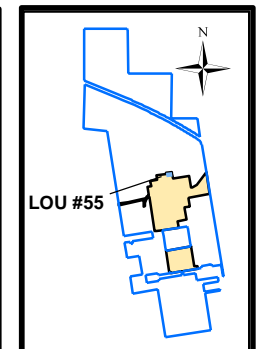
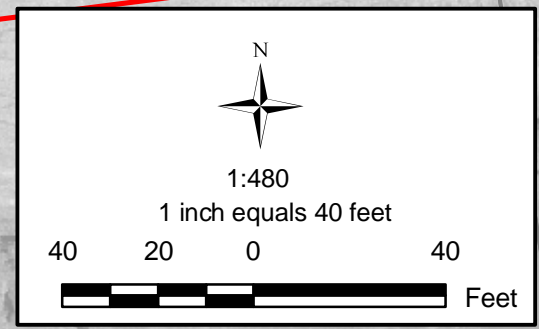
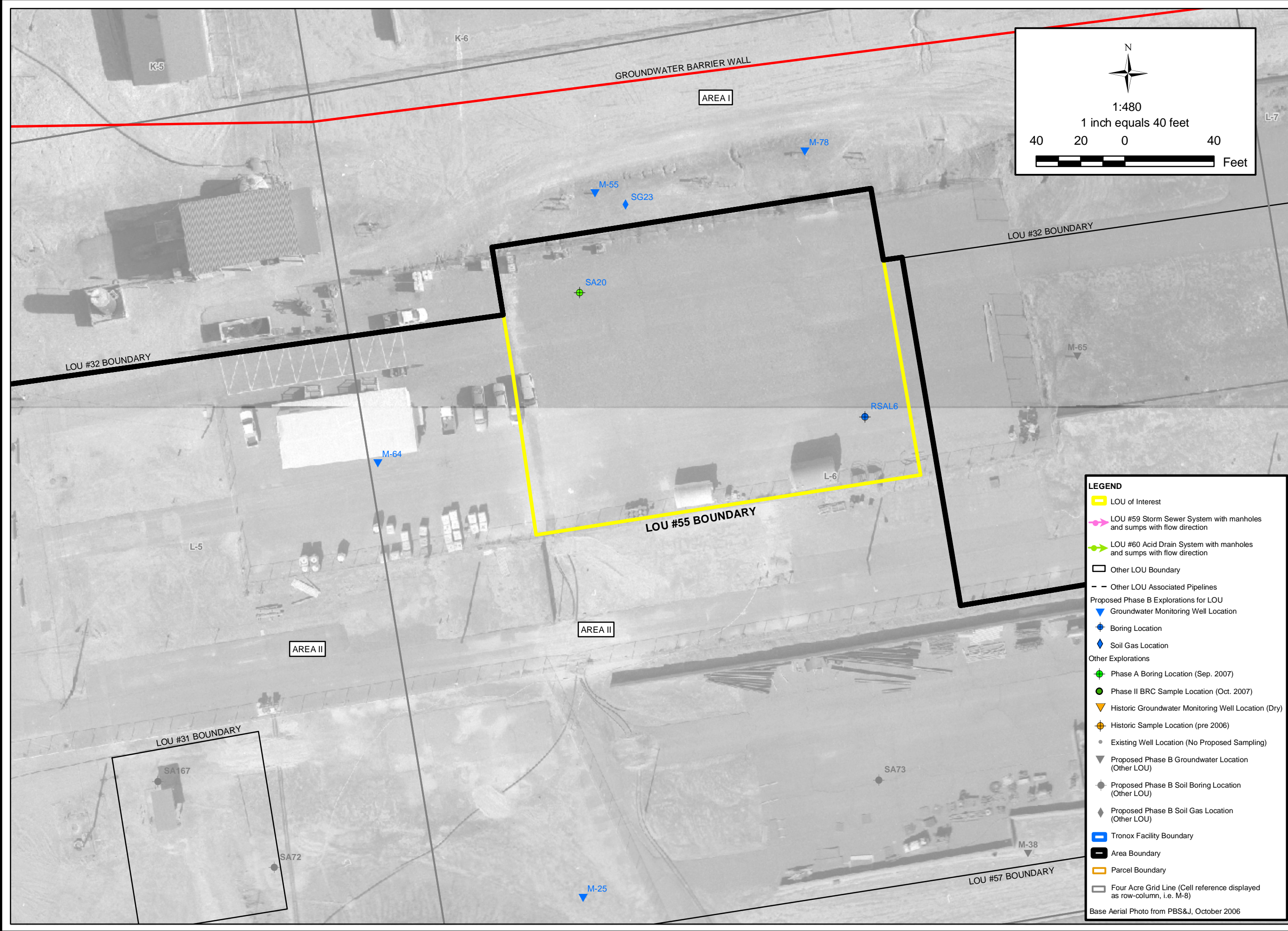
- VOCs (EPA TO-15)

References:

1. ENSR, 2005, Conceptual Site Model, Kerr-McGee Facility, Henderson, Nevada, ENSR, Camarillo, California, 04020-023-130, February 2005 and August 2005.
2. ENSR, 2007a, Phase A Source Area Investigation Results, Tronox Facility, Henderson, Nevada, September 2007.
3. ENSR, 2007b, Quarterly Performance Report for Remediation Systems, Tronox LLC, Henderson, Nevada, July-September 2007, November 2007.
4. Kleinfelder, 1993, Environmental Conditions Assessment, Kerr-McGee Chemical Corporation, Henderson, Nevada Facility, April 15, 1993 (Final).

**Summary of Available Data for LOU 55
Area Affected by July 1990 Fire
Tronox Facility – Henderson, Nevada**

LOU Figure



| | |
|--------------|------------|
| DESIGNED BY: | G. Hells |
| DRAWN BY: | M. Scop |
| CHECKED BY: | C. Schnell |
| APPROVED BY: | B. Ho |

ENSR AECOM

ENSR CORPORATION
 1220 AVENIDA ACASO
 CAMARILLO, CALIFORNIA 93012
 PHONE: (805) 388-3775
 FAX: (805) 388-3577
 WEB: HTTP://WWW.ENSR-AECOM.COM

LEGEND

- LOU of Interest
- LOU #59 Storm Sewer System with manholes and sumps with flow direction
- LOU #60 Acid Drain System with manholes and sumps with flow direction
- Other LOU Boundary
- Other LOU Associated Pipelines
- Proposed Phase B Explorations for LOU
 - ▼ Groundwater Monitoring Well Location
 - ◆ Boring Location
 - ◇ Soil Gas Location
- Other Explorations
 - ◆ Phase A Boring Location (Sep. 2007)
 - Phase II BRC Sample Location (Oct. 2007)
 - ▼ Historic Groundwater Monitoring Well Location (Dry)
 - ◆ Historic Sample Location (pre 2006)
 - Existing Well Location (No Proposed Sampling)
 - ▼ Proposed Phase B Groundwater Location (Other LOU)
 - ◆ Proposed Phase B Soil Boring Location (Other LOU)
 - ◇ Proposed Phase B Soil Gas Location (Other LOU)
- Tronox Facility Boundary
- Area Boundary
- Parcel Boundary
- Four Acre Grid Line (Cell reference displayed as row-column, i.e. M-8)

Base Aerial Photo from PBS&J, October 2006

SAMPLE LOCATIONS FOR LOU #55 AREA AFFECTED BY JULY 1990 FIRE
 Phase B Area II Source Area Investigation
 Tronox Facility
 Henderson, Nevada

| | | |
|----------|-----------|-----------------|
| SCALE: | DATE: | PROJECT NUMBER: |
| AS SHOWN | 6/16/2008 | 04020-023-430 |

FIGURE NUMBER:
1

SHEET NUMBER:
X

**Summary of Available Data for LOU 55
Area Affected by July 1990 Fire
Tronox Facility – Henderson, Nevada**

Sampling and Analytical Plans for LOU 55

Table A – Soil Sampling and Analytical Plan for LOU 55
Table B – Groundwater Sampling and Analytical Plan for LOU 55

| Grid Location | LOU Number | Phase B Boring No. | Sample ID Number | Sample Depths ¹ (ft. bgs) | Perchlorate (EPA 314.0) | Metals (EPA 6020) | Hex Cr (EPA 7199) | TPH-DRO/ORO (EPA 8015B) | TPH-GRO (EPA 8015B) | VOCs ² (EPA 8260B) | Wet Chemistry ³ | Total Cyanide (EPA 9012A) | OCPs ⁴ (EPA 8081A) | SVOCs ⁵ (EPA 8270C) | Radio-nuclides ⁶ | Dioxins/Furans ⁷ | Asbestos ⁹ EPA/540/R-97/028 | Geo-technical Tests ¹⁰ | Rationale |
|---|------------|--------------------|------------------|--------------------------------------|-------------------------|-------------------|-------------------|-------------------------|---------------------|-------------------------------|----------------------------|---------------------------|-------------------------------|--------------------------------|-----------------------------|-----------------------------|--|-----------------------------------|---|
| Borings are organized by grid location as shown on Plate A - Starting point is on the northwestern most grid in Area 2 (M-2) and ending with the southeastern most grid in Area 2 (S-7). | | | | | | | | | | | | | | | | | | | |
| L-6 | 55 | RSAL6 | RSAL6-0.0 | 0.0 | | | | | | | | | | | | | X | | Boring located to evaluate LOU 55 (Area Affected by July 1990 Fire). Random |
| L-6 | 55 | | RSAL6-0.5 | 0.5 | X | X | X | X | | X | X | | X | X | X | X | | | Phase A boring SA20 located in the northwest portion of LOU 55. |
| L-6 | 55 | | RSAL6-10 | 10 | X | X | X | X | | X | X | | Hold | X | X | | | X | |
| L-6 | 55 | | RSAL6-20 | 20 | X | X | X | X | | X | X | | Hold | X | X | | | | |
| L-6 | 55 | | RSAL6-25 | 25 | X | X | X | X | | X | X | | X | X | X | | | | |
| Number of Samples: | | | | | 4 | 4 | 4 | 4 | 0 | 4 | 4 | 0 | 2 | 4 | 4 | 1 | 1 | 1 | |
| Notes: | | | | | | | | | | | | | | | | | | | |
| n/a Not applicable - boring is not associated with a specific LOU but is located to evaluate soil for general area-wide coverage. | | | | | | | | | | | | | | | | | | | |
| X Sample will be collected and analyzed. | | | | | | | | | | | | | | | | | | | |
| No sample collected under Phase B sampling program. | | | | | | | | | | | | | | | | | | | |
| DD* Sample depth to be determined in the field where DD = sample depth (ft). | | | | | | | | | | | | | | | | | | | |
| TPH-DRO/ORO Total petroleum hydrocarbons - Diesel-Range Organics/Oil-Range Organics. | | | | | | | | | | | | | | | | | | | |
| 1. The 0.5 ft bgs sample will be collected from the 0.0 to 0.5 ft bgs interval, unless the area is paved. If area is paved, samples will be collected at 0.5 feet below or from a representative depth beneath the pavement. Alternately, if an unpaved area is within a reasonable distance, the sample will be moved to the unpaved area. | | | | | | | | | | | | | | | | | | | |
| 2. Samples for VOC analysis will be preserved in the field using sodium bisulfate (or DI water) and methanol preservatives per EPA Method 5035. | | | | | | | | | | | | | | | | | | | |
| 3. Consists of wet chemistry parameters (including pH) listed on Table 1 of the Phase B Source Area Work Plan. | | | | | | | | | | | | | | | | | | | |
| 4. Organochlorine Pesticides (includes analysis for hexachlorobenzene). | | | | | | | | | | | | | | | | | | | |
| 5. Semi-volatile Organic Compounds | | | | | | | | | | | | | | | | | | | |
| 6. Radionuclides consists of alpha spec reporting for isotopic thorium and isotopic uranium, and Radium-226, plus Radium-228 by beta counting (per NDEP). | | | | | | | | | | | | | | | | | | | |
| 7. Dioxins/furans will be analyzed by EPA Method 8290 for all samples. Screening reports will be provided for 90% of the samples and full data packages for 10% of the samples. | | | | | | | | | | | | | | | | | | | |
| 8. Polychlorinated biphenyls | | | | | | | | | | | | | | | | | | | |
| 9. Soil samples for asbestos analyses will be collected from a depth of 0 to 2-inches bgs. | | | | | | | | | | | | | | | | | | | |
| 10. Geotechnical Tests consist of: moisture content (ASTM D-2216), grain size analysis (ASTM D-422 and C117-04), Soil Dry Bulk Density (ASTM D-2937), Grain Density (ASTM D-854, Soil-Water Filled Porosity (ASTM D-2216); Vertical Hydraulic Conductivity (ASTM D-5084/USEPA 9100). | | | | | | | | | | | | | | | | | | | |
| 11. SPLP samples will be analyzed by EPA method 1312 using two preparation methods: 1) with extraction fluid #2 (reagent water at pH 5.00 ±0.05), and 2) with extraction method #3 (reagent water); per NDEP. | | | | | | | | | | | | | | | | | | | |

| Grid Location | Location Area | Monitoring Well No. | Screen Interval (ft bgs) | Soil Type Expected Across Screen Interval ¹ | Well Sampled for Phase A? (y/n) | Perchlorate (EPA 314.0) | Hex Cr (EPA 7199) | Metals | VOCs ² (EPA 8260) | Wet Chemistry (a) | OCPs ³ (EPA 8081A) | SVOCs ⁴ (EPA 8270C) | Radionuclides ⁵ | Rationale |
|--|---------------|---------------------|--------------------------|--|---------------------------------|-------------------------|-------------------|----------|------------------------------|-------------------|-------------------------------|--------------------------------|----------------------------|---|
| Wells are organized by grid location as shown on Plate A - Starting point is on the northwestern-most grid in Area II (L-4) and ending with the southeastern-most grid covering Area II (S-7). | | | | | | | | | | | | | | |
| L6 | IIN | M-55 | 14.6 - 44.6 | Qal/MCf _{g1} | yes | X | X | X | X | X | X | X | X | Located as a downgradient stepout to LOU 55; and for general Site coverage. |
| L6 | IIN | M-78 | 21.5 - 41.5 | Qal/MCf _{g1} | no | X | X | X | X | X | X | X | X | Located as a downgradient stepout to LOU 55; and for general Site coverage. |
| L6 | II | M-64 | 12.7 - 37.3 | Qal/MCf _{g1} | no | X | X | X | X | X | X | X | X | Located to evaluate LOU 55; as a downgradient stepout for LOUs 30 and 56 and for general Site coverage. |
| L6 | II | M-25 | 24 - 39 | Qal/MCf _{g1} | no | X | X | X | X | X | X | X | X | Located to serve as a downgradient stepout for LOUs 16, 19 and 53 as an upgradient stepout for LOU 55; and for general Site coverage. |
| Number of Field Samples: | | | | | | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | |
| Notes: | | | | | | | | | | | | | | |
| * Well completion information or boring log not available. Soil type inferred from nearby wells and geologic cross-section provided in the Phase A Source Area Investigation Report (ENSR 2007). ENSR is in the process of obtaining information from BMI. | | | | | | | | | | | | | | |
| X Sample will be collected and analyzed. | | | | | | | | | | | | | | |
| 1 It is anticipated that the large majority of the flow to the well will be from the coarse-grained sediments. As such, in the cases where there are two lithologies present across the screen interval, the water sampled will represent conditions in the coarse-grained interval. | | | | | | | | | | | | | | |
| 2 VOCs = Volatile organic compounds (to include analysis for naphthalene). | | | | | | | | | | | | | | |
| 3 OCPs = Organochlorine pesticides (to include analysis for hexachlorobenzene). | | | | | | | | | | | | | | |
| 4 SVOCs = Semi volatile organic compounds. | | | | | | | | | | | | | | |
| 5 Radionuclides consists of alpha spec reporting for isotopic Thorium and isotopic Uranium, and Radium-226, plus Radium-228 by beta counting (per NDEP). | | | | | | | | | | | | | | |
| IIN/E/W/S Well located outside (north, east, west, or south) of Area II. | | | | | | | | | | | | | | |
| nr Not recorded in the All Wells Database (June 2008). | | | | | | | | | | | | | | |
| TBD To be determined when well is constructed | | | | | | | | | | | | | | |
| (a) Complete list of wet chemistry parameters are shown on Table 1. All groundwater samples will have pH measured in the field. | | | | | | | | | | | | | | |
| Qal Quaternary Alluvium | | | | | | | | | | | | | | |
| MCf _{g1} Muddy Creek Formation - first fine-grained facies | | | | | | | | | | | | | | |
| MCc _{g1} Muddy Creek Formation - first coarse-grained facies | | | | | | | | | | | | | | |

**Summary of Available Data for LOU 55
Area Affected by July 1990 Fire
Tronox Facility – Henderson, Nevada**

Soil and Groundwater Characterization Data

Summary of Available Data for LOU 55
Area Affected by July 1990 Fire
Tronox Facility – Henderson, Nevada

LOU-specific analytes identified include:

- Metals (Phase A list)
- Perchlorate
- Wet chemistry analytes
- Dioxins/Furans
- SVOCs

The tables in **BOLD** below present historical data associated with these LOU specific analytes.

LOU 55 Table 1 - Soil Characterization Data - Wet Chemistry

LOU 55 Table 2 - Groundwater Characterization Data - Wet Chemistry

LOU 55 Table 3 - Soil Characterization Data - Dioxins and Dibenzofurans

LOU 55 Table 4 - Soil Characterization Data - Metals

LOU 55 Table 5 - Groundwater Characterization Data - Metals

LOU 55 Table 6 - Groundwater Characterization Data - Routine Monitoring

LOU 55 Table 7 - Soil Characterization Data - Organochlorine Pesticides (OCPs)

LOU 55 Table 8 - Groundwater Characterization Data - Organochlorine Pesticides (OCPs)

LOU 55 Table 9 - Soil Characterization Data - Organophosphorus Pesticides (OPPs)

LOU 55 Table 10 - Groundwater Characterization Data - Organophosphorus Pesticides (OPPs)

LOU 55 Table 11 - Soil Characterization Data - PCBs

LOU 55 Table 12 - Groundwater Characterization Data - PCBs

LOU 55 Table 13 - Soil Characterization Data - Perchlorate

LOU 55 Table 14 - Groundwater Characterization Data - Perchlorate

LOU 55 Table 15 - Soil Characterization Data - Radionuclides

LOU 55 Table 16 - Soil Characterization Data - SVOCs

LOU 55 Table 17 - Groundwater Characterization Data - SVOCs

LOU 55 Table 18 - Soil Characterization Data - VOCs

LOU 55 Table 19 - Groundwater Characteristic Data - VOCs

LOU 55 Table 20 - Soil Characterization Data - Long Asbestos Fibers in Respirable Soil Fraction

Notes for Phase A Data Tables are presented at the end of the tables.

LOU 55 Table 1
Soil Characterization Data - Wet Chemistry

Area Affected by July 1990 Fire
Tronox Facility - Henderson, Nevada

| Sampling Program | | Ph A ¹ | Ph A | Ph A | Ph A | Ph A | |
|------------------------------------|----------------------------|-------------------|----------------|----------------|---------------|---------------|---------|
| Boring No. | | SA20 | SA20 | SA20 | SA20 | SA20 | |
| Sample ID | | SA20-0.5 | SA20-0.5D | SA20-10 | SA20-20 | SA20-25 | |
| Sample Depth (ft) | | 0.5 | 0.5 | 10 | 20 | 25 | |
| Sample Date | | 11/16/2006 | 11/16/2006 | 11/16/2006 | 11/16/2006 | 11/16/2006 | |
| Wet Chemistry Parameter | MSSL ² mg/kg | | | | | | Units |
| Percent moisture | -- | 10.1 | 19.5 | 15.8 | 5.2 | 15.5 | percent |
| Alkalinity (as CaCO ₃) | -- | 133 | 177 | 97.6 | 52.8 U | 59.2 U | mg/kg |
| Bicarbonate | -- | 714 | 1120 | 277 | 229 | 265 | mg/kg |
| Total Alkalinity | -- | 847 | 1300 | 374 | 240 | 265 | mg/kg |
| Ammonia (as N) | -- | 5.6 UJ | 6.2 UJ | 5.9 UJ | 5.3 UJ | 5.9 UJ | mg/kg |
| Cyanide | 1.37E+04 | R | R | R | R | R | mg/kg |
| MBAS | -- | 4.4 U | 4.4 U | 4.4 U | 3.3 J | 3.1 J | mg/kg |
| pH (solid) | -- | 9.4 | 9.3 | 8.8 | 8.7 | 7.9 | none |
| Bromide | -- | 2.8 UJ | 3.1 UJ | 3.0 UJ | 2.6 UJ | 3.0 UJ | mg/kg |
| Chlorate | -- | 5.6 UJ | 6.2 UJ | 5.9 UJ | 1.8 J- | 4.3 J- | mg/kg |
| Chloride | -- | 1.5 J- | 4.8 J- | 3.4 J- | 283 J- | 382 J- | mg/kg |
| Nitrate (as N) | -- | 0.53 J+ | 0.25 U | 1.1 J+ | 4.6 J+ | 6.3 J+ | mg/kg |
| Nitrite | -- | 0.95 J- | 0.25 UJ | 0.30 J- | 2.1 UJ | 2.4 UJ | mg/kg |
| ortho-Phosphate | -- | 5.6 UJ | 6.2 U | 5.9 U | 5.3 U | 4.1 J | mg/kg |
| Sulfate | -- | 19.7 J+ | 27.3 J+ | 325 | 1810 | 12000 | mg/kg |
| Total Organic Carbon | -- | 11700 J | 2100 J | 7500 J | 1100 J | 1400 J | mg/kg |

Notes:

1. ENSR, 2007, Phase A Source Area Investigation Results, Tronox Facility, Henderson, Nevada, September 2007.
2. U.S. EPA, Region 6, Medium Specific Screening Levels (MSSLs) for Industrial - Outdoor Worker (March, 2008).

LOU 55 Table 2
Groundwater Characterization Data - Wet Chemistry

Area Affected by July 1990 Fire
Tronox Facility - Henderson, Nevada

| Sampling Program | | Ph A ¹ | |
|------------------------------------|--------------------------|-------------------|----------|
| Well ID | | M-55 | |
| Sample ID | | M-55 | |
| Sample Date | | 12/07/2006 | |
| Wet Chemistry Parameters | MCL ² mg/L | | Units |
| Total Dissolved Solids | 5.00E+02 j | 9560 | mg/L |
| Total Suspended Solids | -- | 6.0 J | mg/L |
| Alkalinity (as CaCO ₃) | -- | 5.0 U | mg/L |
| Bicarbonate | -- | 156 | mg/L |
| Total Alkalinity | -- | 156 | mg/L |
| Ammonia (as N) | -- | 2630 | ug/L |
| MBAS | -- | 3.3 | mg/L |
| Cyanide | 2.00E-01 | R | ug/L |
| pH (liquid) | -- | 7.1 J | none |
| Specific Conductance | -- | 3000 J+ | umhos/cm |
| Bromide | -- | 2.5 U | mg/L |
| Chlorate | -- | 3340 | mg/L |
| Chloride | 2.50E+02 | 2030 | mg/L |
| Nitrate (as N) | 1.00E+01 | 28.8 | mg/L |
| Nitrite | 1.00E+00 | 0.20 U | mg/L |
| ortho-Phosphate | -- | 500 U | mg/L |
| Sulfate | 2.50E+02 j | 1210 | mg/L |
| Total Organic Carbon | -- | 50.0 U | mg/L |

Notes:

1. ENSR, 2007, Phase A Source Area Investigation Results, Tronox Facility, Henderson, Nevada, September 2007.
 2. U.S. EPA Maximum Contaminant Level (MCL) values unless noted.
- (j) Secondary Drinking Water Regulation value.

LOU 55 Table 3
Soil Characterization Data - Dioxins and Dibenzofurans

Area Affected by July 1990 Fire
Tronox Facility - Henderson, Nevada

| Sampling Program | | | | Ph A ¹ | Ph A |
|--|-------------|-------|----------------------------|-------------------|--------------|
| Boring No. | | | | SA20 | SA20 |
| Sample ID | | | | SA20-0.5 | SA20-0.5D |
| Sample Depth (ft) | | | | 0.5 | 0.5 |
| Sample Date | | | | 11/16/2006 | 11/16/2006 |
| chemical_name: | Method | Unit | MSSL ² ng/kg | | |
| Dioxin 8290 SCREEN Total TEQ-ENSR Calculated (a) ng/kg | | ng/kg | -- | 0.24 | |
| Dioxin SW 846 8290 Total TEQ-ENSR Calculated (a) ng/kg | | ng/kg | -- | | |
| Dioxin 8290 SCREEN Total TEQ-ENSR Calculated (b) ng/kg | | ng/kg | -- | 0.31 | |
| Dioxin SW 846 8290 Total TEQ-ENSR Calculated (b) ng/kg | | ng/kg | -- | | |
| 1,2,3,4,6,7,8-Heptachlorodibenzofuran | 8290 Screen | ng/kg | -- | 1.328 | 0.543 |
| 1,2,3,4,6,7,8-Heptachlorodibenzofuran | SW 846 8290 | ng/kg | -- | | |
| 1,2,3,4,6,7,8-Heptachlorodibenzo-p-Dioxin | 8290 Screen | ng/kg | -- | 1.317 | 0.910 |
| 1,2,3,4,6,7,8-Heptachlorodibenzo-p-Dioxin | SW 846 8290 | ng/kg | -- | | |
| 1,2,3,4,7,8,9-Heptachlorodibenzofuran | 8290 Screen | ng/kg | -- | 0.805 | 0.071 U |
| 1,2,3,4,7,8,9-Heptachlorodibenzofuran | SW 846 8290 | ng/kg | -- | | |
| 1,2,3,4,7,8-Hexachlorodibenzofuran | 8290 Screen | ng/kg | -- | 0.535 | 0.172 |
| 1,2,3,4,7,8-Hexachlorodibenzofuran | SW 846 8290 | ng/kg | -- | | |
| 1,2,3,4,7,8-Hexachlorodibenzo-p-Dioxin | 8290 Screen | ng/kg | -- | 0.211 | 0.056 U |
| 1,2,3,4,7,8-Hexachlorodibenzo-p-Dioxin | SW 846 8290 | ng/kg | -- | | |
| 1,2,3,6,7,8-Hexachlorodibenzofuran | 8290 Screen | ng/kg | -- | 0.442 | 0.095 |
| 1,2,3,6,7,8-Hexachlorodibenzofuran | SW 846 8290 | ng/kg | -- | | |
| 1,2,3,6,7,8-Hexachlorodibenzo-p-Dioxin | 8290 Screen | ng/kg | -- | 0.338 | 0.050 U |
| 1,2,3,6,7,8-Hexachlorodibenzo-p-Dioxin | SW 846 8290 | ng/kg | -- | | |
| 1,2,3,7,8,9-Hexachlorodibenzofuran | 8290 Screen | ng/kg | -- | 0.345 | 0.053 U |
| 1,2,3,7,8,9-Hexachlorodibenzofuran | SW 846 8290 | ng/kg | -- | | |
| 1,2,3,7,8,9-Hexachlorodibenzo-p-Dioxin | 8290 Screen | ng/kg | -- | 0.351 | 0.052 U |
| 1,2,3,7,8,9-Hexachlorodibenzo-p-Dioxin | SW 846 8290 | ng/kg | -- | | |
| 1,2,3,7,8-Pentachlorodibenzofuran | 8290 Screen | ng/kg | -- | 0.143 | 0.054 U |
| 1,2,3,7,8-Pentachlorodibenzofuran | SW 846 8290 | ng/kg | -- | | |
| 1,2,3,7,8-Pentachlorodibenzo-p-Dioxin | 8290 Screen | ng/kg | -- | 0.086 | 0.074 U |
| 1,2,3,7,8-Pentachlorodibenzo-p-Dioxin | SW 846 8290 | ng/kg | -- | | |
| 2,3,4,6,7,8-Hexachlorodibenzofuran | 8290 Screen | ng/kg | -- | 0.361 | 0.047 U |
| 2,3,4,6,7,8-Hexachlorodibenzofuran | SW 846 8290 | ng/kg | -- | | |
| 2,3,4,7,8-Pentachlorodibenzofuran | 8290 Screen | ng/kg | -- | 0.089 | 0.050 U |
| 2,3,4,7,8-Pentachlorodibenzofuran | SW 846 8290 | ng/kg | -- | | |
| 2,3,7,8-Tetrachlorodibenzofuran | 8290 Screen | ng/kg | -- | 0.220 | 0.080 U |
| 2,3,7,8-Tetrachlorodibenzofuran | SW 846 8290 | ng/kg | -- | | |
| 2,3,7,8-Tetrachlorodibenzo-p-Dioxin | 8290 Screen | ng/kg | 1.00E+03 h,v | 0.078 U | 0.082 U |
| 2,3,7,8-Tetrachlorodibenzo-p-Dioxin | SW 846 8290 | ng/kg | 1.00E+03 h,v | | |
| Octachlorodibenzofuran | 8290 Screen | ng/kg | -- | 3.376 | 1.398 |

LOU 55 Table 3 (continued)
Soil Characterization Data - Dioxins and Dibenzofurans

Area Affected by July 1990 Fire
Tronox Facility - Henderson, Nevada

| Sampling Program | | | | Ph A ¹ | Ph A |
|---|---------------|-------------|-----------------------------------|-------------------|--------------|
| Boring No. | | | | SA20 | SA20 |
| Sample ID | | | | SA20-0.5 | SA20-0.5D |
| Sample Depth (ft) | | | | 0.5 | 0.5 |
| Sample Date | | | | 11/16/2006 | 11/16/2006 |
| chemical_name: | Method | Unit | MSSL² ng/kg | | |
| Octachlorodibenzofuran | SW 846 8290 | ng/kg | -- | | |
| Octachlorodibenzo-p-Dioxin | 8290 Screen | ng/kg | -- | 7.056 | 6.993 |
| Octachlorodibenzo-p-Dioxin | SW 846 8290 | ng/kg | -- | | |
| Tetrachlorinated Dibenzofurans, (Total) | SW 846 8290 | ng/kg | -- | | |
| Total HpCDD | SW 846 8290 | ng/kg | -- | | |
| Total HpCDF | SW 846 8290 | ng/kg | -- | | |
| Total HxCDD | SW 846 8290 | ng/kg | -- | | |
| Total HxCDF | SW 846 8290 | ng/kg | -- | | |
| Total PeCDD | SW 846 8290 | ng/kg | -- | | |
| Total PeCDF | SW 846 8290 | ng/kg | -- | | |
| Total TCDD | SW 846 8290 | ng/kg | -- | | |

Notes:

1. ENSR, 2007, Phase A Source Area Investigation Results, Tronox Facility - Henderson, Nevada, September 2007.
2. U.S. EPA, Region 6, Medium Specific Screening Levels (MSSLs) for Industrial - Outdoor Worker (March, 2008).
 - (a) Calculated assuming 0 for non-detected congeners and 2006 toxic equivalency factors (TEFs).
 - (b) Calculated assuming 1/2 detection limit as proxy for non-detected congeners and 2006 TEFs.
 - (h) Dioxins and furans were expressed as 2,3,7,8- TCDD TEQ (toxic equivalents), calculated using the TEFs published by Van den Berg et al., 2006.
 - (v) USEPA. 1998. Approach for Addressing Dioxin in Soil at CERCLA and RCRA Sites. OSWER Directive 9200.4-26. April, 1998. A value of 1000 ng/kg is applicable to residential soils. The range of 5000 to 20000 ng/kg is applicable to commercial/industrial soils. The Agency for Toxic Substances and Disease Registry (ATSDR) provides a screening level of 50 ng/kg for dioxin in residential soil [<http://www.atsdr.cdc.gov/substances/dioxin/policy/>].

LOU 55 Table 4
Soil Characterization Data - Metals

Area Affected by July 1990 Fire
Tronox Facility - Henderson, Nevada

| Sampling Program | | Ph A ¹ | Ph A | Ph A | Ph A | Ph A | |
|---------------------|----------------------------|-------------------|------------|------------|------------|------------|-------|
| Boring No. | | SA20 | SA20 | SA20 | SA20 | SA20 | |
| Sample ID | | SA20-0.5 | SA20-0.5D | SA20-10 | SA20-20 | SA20-25 | |
| Sample Depth (ft) | | 0.5 | 0.5 | 10 | 20 | 25 | |
| Sample Date | | 11/16/2006 | 11/16/2006 | 11/16/2006 | 11/16/2006 | 11/16/2006 | |
| Metals | MSSL ² mg/kg | | | | | | Units |
| Aluminum | 1.00E+05 | 8090 | 9460 | 7230 | 4170 | 4710 | mg/kg |
| Antimony | 4.50E+02 | 0.19 J- | 0.23 J- | 0.16 J- | 0.13 J- | 0.14 J- | mg/kg |
| Arsenic | 2.80E+02 | 2.7 | 3.1 | 2.3 | 8.8 | 14.1 | mg/kg |
| Barium | 1.00E+05 | 176 | 221 | 149 J | 129 J | 107 J | mg/kg |
| Beryllium | 2.20E+03 | 0.53 | 0.62 | 0.49 | 0.30 | 0.28 | mg/kg |
| Boron | 1.00E+05 | 4.7 J | 7.7 J | 5.5 J- | 6.0 J- | 9.7 J- | mg/kg |
| Cadmium | 5.60E+02 | 0.091 | 0.12 | 0.091 | 0.086 | 0.049 J | mg/kg |
| Calcium | -- | 16600 | 21900 | 14900 | 37600 | 15200 | mg/kg |
| Chromium (Total) | 7.10E+01 | 10.7 J- | 12.6 J- | 9.3 J- | 8.5 J- | 9.6 J- | mg/kg |
| Chromium-hexavalent | 5.00E+02 | 0.22 U | 0.25 U | 0.24 U | 0.72 | 0.29 | mg/kg |
| Cobalt | 2.10E+03 | 6.5 | 8.2 | 6.1 J- | 2.5 J- | 3.2 J- | mg/kg |
| Copper | 4.20E+04 | 12.0 J- | 14.1 J- | 11.6 J- | 5.8 J- | 7.2 J- | mg/kg |
| Iron | 1.00E+05 | 12100 | 14300 | 10300 | 4890 | 6620 | mg/kg |
| Lead | 8.00E+02 | 9.7 | 11.9 | 8.2 | 4.9 | 5.5 | mg/kg |
| Magnesium | -- | 7500 J- | 8460 J- | 6390 J- | 4590 J- | 6080 J- | mg/kg |
| Manganese | 3.50E+04 | 304 | 396 | 334 | 102 | 116 | mg/kg |
| Molybdenum | 5.70E+03 | 0.47 J | 0.61 J | 0.40 J | 0.37 J | 0.50 J | mg/kg |
| Nickel | 2.30E+04 | 13.4 J- | 15.6 J- | 11.5 J- | 7.6 J- | 11.0 J- | mg/kg |
| Platinum | -- | 0.014 J | 0.019 J | 0.012 U | 0.011 U | 0.012 U | mg/kg |
| Potassium | -- | 2470 | 2910 | 2260 | 1170 | 1390 | mg/kg |
| Selenium | 5.70E+03 | 0.12 U | 0.13 U | 0.13 U | 0.11 U | 0.13 U | mg/kg |
| Silver | 5.70E+03 | 0.15 J | 0.17 J | 0.29 | 0.068 J | 0.081 J | mg/kg |
| Sodium | -- | 362 | 420 | 298 J- | 625 J- | 603 J- | mg/kg |
| Strontium | 1.00E+05 | 121 | 141 | 102 J | 852 J | 639 J | mg/kg |
| Thallium | -- | 0.12 J | 0.25 J | 0.14 J | 0.077 J | 0.083 U | mg/kg |
| Tin | -- | 0.51 | 0.67 | 0.43 | 0.32 | 0.34 | mg/kg |
| Titanium | -- | 507 | 572 | 403 J+ | 252 J+ | 318 J+ | mg/kg |
| Tungsten | -- | 0.33 J- | 0.47 J- | 0.32 J- | 0.24 J- | 0.42 J- | mg/kg |
| Uranium | -- | 0.81 | 0.97 | 0.70 | 1.4 | 1.7 | mg/kg |
| Vanadium | 5.70E+03 | 30.5 J- | 34.8 J- | 23.4 J- | 18.0 J- | 35.2 J- | mg/kg |
| Zinc | 1.00E+05 | 26.8 J- | 30.4 J- | 22.8 J- | 13.3 UJ | 15.8 UJ | mg/kg |
| Mercury | 3.41E+02 (t) | 0.046 U | 0.028 U | 0.0079 UJ | 0.0071 UJ | 0.0079 UJ | mg/kg |

Notes:

1. ENSR, 2007, Phase A Source Area Investigation Results, Tronox Facility, Henderson, Nevada, September 2007.
 2. U.S. EPA, Region 6, Medium Specific Screening Levels (MSSLs) for Industrial - Outdoor Worker (March, 2008).
- (t) Value for mercury and compounds.

**LOU 55 Table 5
Groundwater Characterization Data - Metals**

Area Affected by July 1990 Fire
Tronox Facility - Henderson, Nevada

| Sampling Program | | Ph A ¹ | |
|---------------------|--------------------------|-------------------|------|
| Well ID: | | M-55 | |
| Sample ID | | M-55-Z | |
| Sample Date | | 05/08/2007 | |
| Metals | MCL ² ug/L | | Unit |
| Aluminum | 5.00E+01 j | 393 U | ug/L |
| Antimony | 6.00E+00 | 25.0 U | ug/L |
| Arsenic | 1.00E+01 | 128 J | ug/L |
| Barium | 2.00E+03 | 46.5 J | ug/L |
| Beryllium | 4.00E+00 | 4.4 U | ug/L |
| Boron | 7.30E+03 | 9980 | ug/L |
| Cadmium | 5.00E+00 | 2.9 U | ug/L |
| Calcium | -- | 578000 | ug/L |
| Chromium (Total) | 1.00E+02 | 12600 J- | ug/L |
| Chromium-hexavalent | 1.09E+02 | 14300 J | ug/L |
| Cobalt | 7.30E+02 | 15.7 UJ | ug/L |
| Copper | 1.30E+03 p | 12.5 U | ug/L |
| Iron | 3.00E+02 j | 470 UJ | ug/L |
| Lead | 1.50E+01 u | 24.6 U | ug/L |
| Magnesium | 1.50E+05 a | 340000 | ug/L |
| Manganese | 5.00E+01 j | 34.9 U | ug/L |
| Molybdenum | 1.82E+02 | 25.0 U | ug/L |
| Nickel | 7.30E+02 | 25.8 UJ | ug/L |
| Platinum | -- | 5.0 U | ug/L |
| Potassium | -- | 48100 | ug/L |
| Selenium | 5.00E+01 | 50.0 U | ug/L |
| Silver | 1.00E+02 j | 10.1 U | ug/L |
| Sodium | -- | 1780000 | ug/L |
| Strontium | 2.19E+04 | 16100 | ug/L |
| Thallium | 2.00E+00 | 16.0 U | ug/L |
| Tin | 2.19E+04 | 10.0 U | ug/L |
| Titanium | 1.46E+05 | 19.6 U | ug/L |
| Tungsten | -- | 25.0 UJ | ug/L |
| Uranium | 3.00E+01 | 49.1 J+ | ug/L |
| Vanadium | 3.65E+01 | 80.0 UJ | ug/L |
| Zinc | 5.00E+03 j | 50.0 UJ | ug/L |
| Mercury | 2.00E+00 | 0.11 J+ | ug/L |

Notes:

1. ENSR, 2007, Phase A Source Area Investigation Results, Tronox Facility, Henderson, Nevada, September 2007.
2. U.S. EPA Maximum Contaminant Level (MCL) values unless noted.
 - (j) Secondary Drinking Water Regulation value.
 - (p) The national primary drinking water regulations (b) lists a treatment technology action level of 1.3 mg/l as the MCL for Copper. Therefore, the secondary value is not used.
 - (u) See footnote (b). Treatment technology action level.
 - (a) NAC 445A.455 Secondary standards. Certain provisions of the National Primary Drinking Water Regulations are adopted by reference (NAC 445A.4525). These values are listed in the first column of this table and are therefore not listed again here. Only NAC 445A.455 Secondary standards are listed.

**LOU 55 Table 6
Groundwater Characterization Data - Routine Monitoring¹**

Area Affected by July 1990 Fire
Tronox Facility - Henderson, Nevada

| Well ID | Date | Depth to water (ft) | Perchlorate mg/L | Qual | MCL ² mg/L | Total Chromium mg/L | Qual | MCL ² mg/L | TDS mg/L | Qual | MCL ² mg/L | Nitrate (as N) mg/L | Qual | MCL ² mg/L | Chlorate mg/L | Qual | MCL ² mg/L |
|---------|------------|---------------------|------------------|------|-----------------------|---------------------|------|-----------------------|----------|------|-----------------------|---------------------|------|-----------------------|---------------|------|-----------------------|
| M-25 | 2/3/2006 | 30.93 | 740 | d | 1.80E-02 a,m | 11 | d | 1.00E-01 | | | 5.00E+02 j | | | 1.00E+01 | | | -- |
| M-25 | 5/4/2006 | 31.15 | | | 1.80E-02 a,m | | | 1.00E-01 | | | 5.00E+02 j | 3.3 | d | 1.00E+01 | | | -- |
| M-25 | 5/4/2006 | 31.15 | 550 | d | 1.80E-02 a,m | 11 | d | 1.00E-01 | 9980 | | 5.00E+02 j | 28 | d | 1.00E+01 | 3100 | d | -- |
| M-25 | 8/1/2006 | 32.06 | 488 | d | 1.80E-02 a,m | 11 | d | 1.00E-01 | 6940 | | 5.00E+02 j | 7.8 | d | 1.00E+01 | 3200 | d | -- |
| M-25 | 11/2/2006 | 32.18 | 617 | d | 1.80E-02 a,m | 12 | d | 1.00E-01 | 9800 | | 5.00E+02 j | 28.2 | d | 1.00E+01 | 3400 | d | -- |
| M-25 | 1/30/2007 | 32.55 | 523 | | 1.80E-02 a,m | 12 | | 1.00E-01 | 9280 | | 5.00E+02 j | | | 1.00E+01 | | | -- |
| M-25 | 5/1/2007 | 32.97 | 495 | | 1.80E-02 a,m | 12 | | 1.00E-01 | 9380 | | 5.00E+02 j | 11.9 | | 1.00E+01 | 3440 | | -- |
| M-25 | 7/31/2007 | 33.28 | 492 | | 1.80E-02 a,m | 12 | | 1.00E-01 | 9400 | | 5.00E+02 j | | | 1.00E+01 | | | -- |
| M-38 | 2/2/2006 | 30.23 | 1200 | d | 1.80E-02 a,m | 29 | d | 1.00E-01 | | | 5.00E+02 j | | | 1.00E+01 | | | -- |
| M-38 | 5/4/2006 | 30.51 | 1100 | d | 1.80E-02 a,m | 28 | d | 1.00E-01 | 9450 | | 5.00E+02 j | | | 1.00E+01 | | | -- |
| M-38 | 8/3/2006 | 31.65 | 1010 | d | 1.80E-02 a,m | 29 | d | 1.00E-01 | 13300 | | 5.00E+02 j | | | 1.00E+01 | | | -- |
| M-38 | 11/2/2006 | 31.01 | 973 | d | 1.80E-02 a,m | 29 | d | 1.00E-01 | 15300 | | 5.00E+02 j | | | 1.00E+01 | | | -- |
| M-38 | 2/1/2007 | 31.03 | 955 | | 1.80E-02 a,m | 28 | | 1.00E-01 | 14500 | | 5.00E+02 j | | | 1.00E+01 | | | -- |
| M-38 | 5/4/2007 | 31.13 | 863 | | 1.80E-02 a,m | 26 | | 1.00E-01 | 13500 | | 5.00E+02 j | | | 1.00E+01 | | | -- |
| M-38 | 8/3/2007 | 31.43 | 906 | | 1.80E-02 a,m | 26 | | 1.00E-01 | 14600 | | 5.00E+02 j | | | 1.00E+01 | | | -- |
| M-64 | 1/31/2006 | 25.63 | 1000 | d | 1.80E-02 a,m | 8 | d | 1.00E-01 | | | 5.00E+02 j | | | 1.00E+01 | | | -- |
| M-64 | 5/2/2006 | 25.63 | 990 | d | 1.80E-02 a,m | 7.3 | d | 1.00E-01 | 6090 | | 5.00E+02 j | | | 1.00E+01 | | | -- |
| M-64 | 8/1/2006 | 26.75 | 846 | d | 1.80E-02 a,m | 8.2 | d | 1.00E-01 | 7040 | | 5.00E+02 j | | | 1.00E+01 | | | -- |
| M-64 | 10/31/2006 | 27.04 | 737 | d | 1.80E-02 a,m | 6.4 | d | 1.00E-01 | 6290 | | 5.00E+02 j | | | 1.00E+01 | | | -- |
| M-64 | 1/30/2007 | 27.63 | 997 | | 1.80E-02 a,m | 8.8 | | 1.00E-01 | 8550 | | 5.00E+02 j | | | 1.00E+01 | | | -- |
| M-64 | 5/4/2007 | 28.89 | 709 | | 1.80E-02 a,m | 7.2 | | 1.00E-01 | 7900 | | 5.00E+02 j | | | 1.00E+01 | | | -- |
| M-64 | 7/31/2007 | 29.27 | 821 | | 1.80E-02 a,m | 8.2 | | 1.00E-01 | 8170 | | 5.00E+02 j | | | 1.00E+01 | | | -- |
| M-65 | 1/31/2006 | 27.75 | 1400 | d | 1.80E-02 a,m | 36 | d | 1.00E-01 | | | 5.00E+02 j | | | 1.00E+01 | | | -- |
| M-65 | 5/2/2006 | 28.07 | 1500 | d | 1.80E-02 a,m | 30 | d | 1.00E-01 | 11300 | | 5.00E+02 j | | | 1.00E+01 | | | -- |
| M-65 | 8/1/2006 | 28.77 | 1260 | d | 1.80E-02 a,m | 32 | d | 1.00E-01 | 14100 | | 5.00E+02 j | | | 1.00E+01 | | | -- |
| M-65 | 10/31/2006 | 29.03 | 1340 | d | 1.80E-02 a,m | 34 | | 1.00E-01 | 18000 | | 5.00E+02 j | | | 1.00E+01 | | | -- |
| M-65 | 1/30/2007 | 29.52 | 1330 | | 1.80E-02 a,m | 34 | | 1.00E-01 | 16600 | | 5.00E+02 j | | | 1.00E+01 | | | -- |
| M-65 | 5/4/2007 | 30.43 | 1250 | | 1.80E-02 a,m | 33 | | 1.00E-01 | 14700 | | 5.00E+02 j | | | 1.00E+01 | | | -- |
| M-65 | 7/31/2007 | 30.96 | 1460 | | 1.80E-02 a,m | 33 | | 1.00E-01 | 18700 | | 5.00E+02 j | | | 1.00E+01 | | | -- |

Notes:

1. ENSR, 2007, Quarterly Performance Report for Remediation Systems, Tronox LLC, Henderson, Nevada, July-September 2007, November 2007.
2. U.S. EPA Maximum Contaminant Level (MCL) values unless noted.
 - (a) NAC 445A.455 Secondary standards. Certain provisions of the National Primary Drinking Water Regulations are adopted by reference (NAC 445A.4525). These values are listed in the first column of this table and are therefore not listed again here. Only NAC 445A.455 Secondary standards are listed.
 - (m) Equal to the provisional action level derived by NDEP as referenced in "Defining a Perchlorate Drinking Water Standard". NDEP Bureau of Corrective Action. URL: [http://ndep.nv.gov/bca/perchlorate02_05.htm].
 - (j) Secondary Drinking Water Regulation value.

< = less than the reporting limit
 Blank cell or --- = no data and or no qualifier
 Qual = data qualifiers applied by laboratory or during data validation
 TDS = Total Dissolved Solids
 mg/l = milligram per liter

Laboratory Qualifiers:
 d = the sample was diluted

LOU 55 Table 7
Soil Characterization Data - Organochlorine Pesticides (OCPs)

Area Affected by July 1990 Fire
Tronox Facility - Henderson, Nevada

| Sampling Program | | Ph A ¹ | Ph A | |
|---------------------------|----------------------------|-------------------|--------------|-------|
| Boring No. | | SA20 | SA20 | |
| Sample ID | | SA20-0.5 | SA20-0.5D | |
| Sample Depth (ft) | | 0.5 | 0.5 | |
| Sample Date | | 11/16/2006 | 11/16/2006 | |
| Organochlorine Pesticides | MSSL ² mg/kg | | | Unit |
| 4,4'-DDD | 1.10E+01 | 0.0019 U | 0.021 U | mg/kg |
| 4,4'-DDE | 7.80E+00 | 0.0019 U | 0.021 U | mg/kg |
| 4,4'-DDT | 7.80E+00 | 0.0019 U | 0.021 U | mg/kg |
| Aldrin | 1.10E-01 | 0.0019 U | 0.021 U | mg/kg |
| Alpha-BHC | 4.00E-01 | 0.0019 U | 0.021 U | mg/kg |
| Alpha-chlordane | 1.40E+00 (y) | 0.0019 U | 0.021 U | mg/kg |
| Beta-BHC | 1.40E+00 | 0.029 J | 0.032 | mg/kg |
| Delta-BHC | -- | 0.0019 U | 0.021 U | mg/kg |
| Dieldrin | 1.20E-01 | 0.0019 U | 0.021 U | mg/kg |
| Endosulfan I | 4.10E+03 (aa) | 0.0019 U | 0.021 U | mg/kg |
| Endosulfan II | 4.10E+03 (aa) | 0.0019 U | 0.021 U | mg/kg |
| Endosulfan Sulfate | 4.10E+03 (aa) | 0.0019 U | 0.021 U | mg/kg |
| Endrin | 2.10E+02 | 0.0019 U | 0.021 U | mg/kg |
| Endrin Aldehyde | 2.10E+02 (k) | 0.0019 U | 0.021 U | mg/kg |
| Endrin Ketone | 2.10E+02 (k) | 0.0019 U | 0.021 U | mg/kg |
| Gamma-BHC (Lindane) | 1.90E+00 | 0.0019 U | 0.021 U | mg/kg |
| Gamma-Chlordane | 1.40E+00 (y) | 0.0019 U | 0.021 U | mg/kg |
| Heptachlor | 4.30E-01 | 0.0019 U | 0.021 U | mg/kg |
| Heptachlor Epoxide | 2.10E-01 | 0.0019 U | 0.021 U | mg/kg |
| Methoxychlor | 3.40E+03 | 0.0037 U | 0.041 U | mg/kg |
| Tech-Chlordane | 1.40E+00 | 0.011 U | 0.12 U | mg/kg |
| Toxaphene | 1.70E+00 | 0.056 U | 0.62 U | mg/kg |

Notes:

1. ENSR, 2007, Phase A Source Area Investigation Results, Tronox Facility, Henderson, Nevada, September 2007.
2. U.S. EPA, Region 6, Medium Specific Screening Levels (MSSLs) for Industrial - Outdoor Worker (March, 2008).
 - (y) Value for chlordane (technical) used as surrogate for alpha-chlordane and gamma-chlordane based on structural similarities.
 - (aa) Value for endosulfan used as surrogate for endosulfan I, endosulfan II and endosulfan sulfate based on structural similarities.
 - (k) Value for endrin used as surrogate for endrin aldehyde and endrin ketone due to structural similarities.

LOU 55 Table 8
Groundwater Characterization Data - Organochlorine Pesticides (OCP)

Area Affected by July 1990 Fire
Tronox Facility - Henderson, Nevada

| Sampling Program | | Ph A ¹ | Ph A | |
|---------------------------|--------------------------|-------------------|------------|------|
| Well ID | | M-55 | M-55D | |
| Sample ID | | M-55 | M-55D | |
| Sample Date | | 12/07/2006 | 12/07/2006 | |
| Organochlorine Pesticides | MCL ² ug/L | | | Unit |
| 4,4'-DDD | 2.80E-01 | 0.050 U | 0.050 U | ug/L |
| 4,4'-DDE | 1.98E-01 | 0.050 U | 0.050 U | ug/L |
| 4,4'-DDT | 1.98E-01 | 0.050 U | 0.050 U | ug/L |
| Aldrin | 4.00E-03 | 0.050 U | 0.050 U | ug/L |
| Alpha-BHC | 1.10E-02 | 0.050 U | 0.050 U | ug/L |
| Alpha-chlordane | 2.00E+00 (l) | 0.050 U | 0.050 U | ug/L |
| Beta-BHC | 3.74E-02 | 0.050 U | 0.050 U | ug/L |
| Delta-BHC | 1.10E-02 (z) | 0.050 U | 0.050 U | ug/L |
| Dieldrin | 4.20E-03 (z) | 0.050 U | 0.050 U | ug/L |
| Endosulfan I | 2.19E+02 (aa) | 0.050 U | 0.050 U | ug/L |
| Endosulfan II | 2.19E+02 (aa) | 0.050 U | 0.050 U | ug/L |
| Endosulfan Sulfate | 2.19E+02 (aa) | 0.050 U | 0.050 U | ug/L |
| Endrin | 2.00E+00 | 0.050 U | 0.050 U | ug/L |
| Endrin Aldehyde | 1.09E+01 (k) | 0.050 U | 0.050 U | ug/L |
| Endrin Ketone | 1.09E+01 (k) | 0.050 U | 0.050 U | ug/L |
| Gamma-BHC (Lindane) | 2.00E-01 | 0.050 U | 0.050 U | ug/L |
| Gamma-Chlordane | 2.00E+00 (l) | 0.050 U | 0.050 U | ug/L |
| Heptachlor | 4.00E-01 | 0.050 U | 0.050 U | ug/L |
| Heptachlor Epoxide | 2.00E-01 | 0.050 U | 0.050 U | ug/L |
| Methoxychlor | 4.00E+01 | 0.10 U | 0.10 U | ug/L |
| Tech-Chlordane | 2.00E+00 (l) | 0.50 U | 0.50 U | ug/L |
| Toxaphene | 3.00E+00 | 2.0 U | 2.0 U | ug/L |

Notes:

1. ENSR, 2007, Phase A Source Area Investigation Results, Tronox Facility, Henderson, Nevada, September 2007.
2. U.S. EPA Maximum Contaminant Level (MCL) values unless noted.
 - (l) Value for chlordane used as surrogate for alpha-chlordane, chlordane (technical) and gamma-chlordane due to structural similarities.
 - (z) Value for alpha-BHC used as surrogate for delta-BHC based on structural similarities.
 - (aa) Value for endosulfan used as surrogate for endosulfan I, endosulfan II and endosulfan sulfate based on structural similarities.
 - (k) Value for endrin used as surrogate for endrin aldehyde and endrin ketone due to structural similarities.

LOU 55 Table 9
Soil Characterization Data - Organophosphorus Pesticides (OPPs)

Area Affected by July 1990 Fire
Tronox Facility - Henderson, Nevada

| Sampling Program | | Ph A ¹ | Ph A | |
|-------------------|----------------------------|-------------------|------------|-------|
| Boring No. | | SA20 | SA20 | |
| Sample ID | | SA20-0.5 | SA20-0.5D | |
| Sample Depth (ft) | | 0.5 | 0.5 | |
| Sample Date | | 11/16/2006 | 11/16/2006 | |
| OPPs | MSSL ² mg/kg | | | Unit |
| Azinphos-methyl | -- | 0.014 U | 0.016 UJ | mg/kg |
| Bolstar | -- | 0.014 U | 0.016 U | mg/kg |
| Chlorpyrifos | 2.10E+03 | 0.022 U | 0.025 U | mg/kg |
| Coumaphos | -- | 0.014 U | 0.016 UJ | mg/kg |
| Demeton-O | -- | 0.043 U | 0.048 U | mg/kg |
| Demeton-S | -- | 0.017 U | 0.019 U | mg/kg |
| Diazinon | 6.20E+02 | 0.024 U | 0.027 U | mg/kg |
| Dichlorvos | 6.60E+00 | 0.026 U | 0.029 U | mg/kg |
| Dimethoate | -- | 0.024 U | 0.027 UJ | mg/kg |
| Disulfoton | 2.70E+01 | 0.053 U | 0.060 U | mg/kg |
| EPN | -- | 0.014 U | 0.016 UJ | mg/kg |
| Ethoprop | -- | 0.017 U | 0.019 U | mg/kg |
| Ethyl Parathion | 4.10E+03 | 0.020 U | 0.022 U | mg/kg |
| Famphur | -- | 0.014 U | 0.016 UJ | mg/kg |
| Fensulfothion | -- | 0.014 U | 0.016 U | mg/kg |
| Fenthion | 1.70E+02 (ff) | 0.037 U | 0.041 U | mg/kg |
| Malathion | 1.40E+04 | 0.017 U | 0.019 U | mg/kg |
| Merphos | -- | 0.033 U | 0.037 U | mg/kg |
| Methyl parathion | 1.70E+02 | 0.022 U | 0.025 U | mg/kg |
| Mevinphos | -- | 0.017 U | 0.019 U | mg/kg |
| Naled | 1.40E+03 | 0.037 U | 0.041 UJ | mg/kg |
| Phorate | -- | 0.022 U | 0.025 U | mg/kg |
| Ronnel | 3.40E+04 | 0.020 U | 0.022 UJ | mg/kg |
| Stirphos | -- | 0.017 U | 0.019 UJ | mg/kg |
| Sulfotep | -- | 0.022 U | 0.025 U | mg/kg |
| Thionazin | -- | 0.020 U | 0.022 U | mg/kg |
| Tokuthion | -- | 0.022 U | 0.025 U | mg/kg |
| Trichloronate | -- | 0.022 U | 0.025 U | mg/kg |

Notes:

1. ENSR, 2007, Phase A Source Area Investigation Results, Tronox Facility, Henderson, Nevada, September 2007.
 2. U.S. EPA, Region 6, Medium Specific Screening Levels (MSSLs) for Industrial - Outdoor Worker (March, 2008).
- (ff) Value for methyl parathion used as surrogate for fenthion based on structural similarities.

LOU 55 Table 10
Groundwater Characterization Data - Organophosphorus Pesticides (OPPs)

Area Affected by July 1990 Fire
Tronox Facility - Henderson, Nevada

| Sampling Program | | Ph A ¹ | Ph A | |
|------------------|--------------------------|-------------------|------------|------|
| Well ID | | M-55 | M-55D | |
| Sample ID | | M-55 | M-55D | |
| Sample Date | | 12/07/2006 | 12/07/2006 | |
| OPPs | MCL ² ug/L | | | Unit |
| Azinphos-methyl | -- | 2.5 U | 2.5 U | ug/L |
| Bolstar | -- | 1.0 U | 1.0 U | ug/L |
| Chlorpyrifos | 1.09E+02 | 1.0 U | 1.0 U | ug/L |
| Coumaphos | -- | 1.0 U | 1.0 U | ug/L |
| Demeton-O | 1.46E+00 (cc) | 1.0 U | 1.0 U | ug/L |
| Demeton-S | 1.46E+00 (cc) | 1.0 U | 1.0 U | ug/L |
| Diazinon | 3.28E+01 | 1.0 U | 1.0 U | ug/L |
| Dichlorvos | 2.32E-01 | 1.0 U | 1.0 U | ug/L |
| Dimethoate | 7.30E+00 | 1.0 U | 1.0 U | ug/L |
| Disulfoton | 1.46E+00 | 0.50 U | 0.50 U | ug/L |
| EPN | 3.65E-01 | 1.2 U | 1.2 U | ug/L |
| Ethoprop | -- | 0.50 U | 0.50 U | ug/L |
| Ethyl Parathion | 9.12E+00 (tt) | 1.0 U | 1.0 U | ug/L |
| Famphur | -- | 1.0 U | 1.0 U | ug/L |
| Fensulfothion | -- | 2.5 U | 2.5 U | ug/L |
| Fenthion | 9.10E+00 (ff) | 2.5 U | 2.5 U | ug/L |
| Malathion | 7.30E+02 | 1.2 U | 1.2 U | ug/L |
| Merphos | 1.09E+00 | 5.0 U | 5.0 U | ug/L |
| Methyl parathion | 9.12E+00 | 4.0 U | 4.0 U | ug/L |
| Mevinphos | -- | 6.2 U | 6.2 U | ug/L |
| Naled | 7.30E+01 | 1.0 U | 1.0 U | ug/L |
| Phorate | 7.30E+00 | 1.2 U | 1.2 U | ug/L |
| Ronnel | 1.82E+03 | 10 U | 10 U | ug/L |
| Stirphos | -- | 3.5 U | 3.5 U | ug/L |
| Sulfotep | 1.82E+01 | 1.5 U | 1.5 U | ug/L |
| Thionazin | -- | 1.0 U | 1.0 U | ug/L |
| Tokuthion | -- | 1.6 U | 1.6 U | ug/L |
| Trichloronate | -- | 0.50 U | 0.50 U | ug/L |

Notes:

1. ENSR, 2007, Phase A Source Area Investigation Results, Tronox Facility, Henderson, Nevada, September 2007.
2. U.S. EPA Maximum Contaminant Level (MCL) values unless noted.
(cc) Value for demeton used as surrogate for demeton-o and demeton-s based on structural similarities.
(tt) Value for parathion-methyl used as surrogate for parathion-ethyl due to structural similarities.
(ff) Value for methyl parathion used as surrogate for fenthion based on structural similarities.

LOU 55 Table 11
Soil Characterization Data - PCBs

Area Affected by July 1990 Fire
Tronox Facility - Henderson, Nevada

| Sampling Program | | Ph A ¹ | Ph A | Ph A | Ph A | Ph A | |
|-------------------|----------------------------|-------------------|------------|------------|------------|------------|-------|
| Boring ID | | SA20 | SA20 | SA20 | SA20 | SA20 | |
| Sample ID | | SA20-0.5 | SA20-0.5D | SA20-10 | SA20-20 | SA20-25 | |
| Sample Depth (ft) | | 0.5 | 0.5 | 10 | 20 | 25 | |
| Sample Date | | 11/16/2006 | 11/16/2006 | 11/16/2006 | 11/16/2006 | 11/16/2006 | |
| PCBs | MSSL ² mg/kg | | | | | | Unit |
| Aroclor-1016 | 2.40E+01 (i) | 0.037 U | 0.041 U | 0.039 U | 0.035 U | 0.039 U | mg/kg |
| Aroclor-1221 | 8.30E-01 (i) | 0.037 U | 0.041 U | 0.039 U | 0.035 U | 0.039 U | mg/kg |
| Aroclor-1232 | 8.30E-01 (i) | 0.037 U | 0.041 U | 0.039 U | 0.035 U | 0.039 U | mg/kg |
| Aroclor-1242 | 8.30E-01 (i) | 0.037 U | 0.041 U | 0.039 U | 0.035 U | 0.039 U | mg/kg |
| Aroclor-1248 | 8.30E-01 (i) | 0.037 U | 0.041 U | 0.039 U | 0.035 U | 0.039 U | mg/kg |
| Aroclor-1254 | 8.30E-01 (i) | 0.037 U | 0.041 U | 0.039 U | 0.035 U | 0.039 U | mg/kg |
| Aroclor-1260 | 8.30E-01 (i) | 0.037 U | 0.041 U | 0.039 U | 0.035 U | 0.039 U | mg/kg |

Notes:

1. ENSR, 2007, Phase A Source Area Investigation Results, Tronox Facility, Henderson, Nevada, September 2007.
 2. U.S. EPA, Region 6, Medium Specific Screening Levels (MSSLs) for Industrial - Outdoor Worker (March, 2008).
- (i) For PCBs, the individual Aroclors were compared to the TSCA action level of 10 mg/kg, for high occupancy, restricted (non-residential) use. (40 CFR Part 761; 63 FR 35383-35474, June 29, 1998).

LOU 55 Table 12
Groundwater Characterization Data - PCBs

Area Affected by July 1990 Fire
Tronox Facility - Henderson, Nevada

| Sampling Program | | Ph A ¹ | Ph A | |
|------------------|--------------------------|-------------------|------------|------|
| Well ID | | M-55 | M-55D | |
| Sample ID | | M-55 | M-55D | |
| Sample Date | | 12/07/2006 | 12/07/2006 | |
| PCBs | MCL ² ug/L | | | Unit |
| Aroclor-1016 | 5.00E-01 (bb) | 0.10 U | 0.10 U | ug/L |
| Aroclor-1221 | 5.00E-01 (bb) | 0.10 U | 0.10 U | ug/L |
| Aroclor-1232 | 5.00E-01 (bb) | 0.10 U | 0.10 U | ug/L |
| Aroclor-1242 | 5.00E-01 (bb) | 0.10 U | 0.10 U | ug/L |
| Aroclor-1248 | 5.00E-01 (bb) | 0.10 U | 0.10 U | ug/L |
| Aroclor-1254 | 5.00E-01 (bb) | 0.10 U | 0.10 U | ug/L |
| Aroclor-1260 | 5.00E-01 (bb) | 0.10 U | 0.10 U | ug/L |

Notes:

1. ENSR, 2007, Phase A Source Area Investigation Results, Tronox Facility, Henderson, Nevada, September 2007.
2. U.S. EPA Maximum Contaminant Level (MCL) values unless noted.
(bb) Value for total PCBs.

**LOU 55 Table 13
Soil Characterization Data - Perchlorate**

Area Affected by July 1990 Fire
Tronox Facility - Henderson, Nevada

| Boring ID | Sample ID | Sample Depth (ft) | Sample Date | Perchlorate ug/kg | MSSL¹ ug/kg | Sampling Program |
|------------------|------------------|--------------------------|--------------------|--------------------------|-------------------------------|-------------------------|
| SA20 | SA20-0.5 | 0.5 | 11/16/2006 | 150 | 7.95E+05 | Ph A ² |
| SA20 | SA20-0.5D | 0.5 | 11/16/2006 | 158 | 7.95E+05 | Ph A |
| SA20 | SA20-10 | 10 | 11/16/2006 | 855 | 7.95E+05 | Ph A |
| SA20 | SA20-20 | 20 | 11/16/2006 | 60200 | 7.95E+05 | Ph A |
| SA20 | SA20-25 | 25 | 11/16/2006 | 57600 | 7.95E+05 | Ph A |

Notes:

1. U.S. EPA, Region 6, Medium Specific Screening Levels (MSSLs) for Industrial - Outdoor Worker (March, 2008).
2. ENSR, 2007, Phase A Source Area Investigation Results, Tronox Facility, Henderson, Nevada, September 2007.

LOU 55 Table 14
Groundwater Characterization Data - Perchlorate

Area Affected by July 1990 Fire
Tronox Facility - Henderson, Nevada

| Well ID Number | Sample ID | Sample Date | Perchlorate | Units | MCL ¹ ug/L | Sampling Program |
|----------------|-----------|-------------|------------------|-------|--------------------------|-------------------|
| M-55 | M-55 | 12/07/2006 | 577000 J+ | ug/L | 1.80E+01 a,(m) | Ph A ² |
| M-55D | M-55D | 12/07/2006 | 587000 J+ | ug/L | 1.80E+01 a,(m) | Ph A |

Notes:

1. U.S. EPA Maximum Contaminant Level (MCL) values unless noted.
 2. ENSR, 2007, Phase A Source Area Investigation Results, Tronox Facility, Henderson, Nevada, September 2007.
- (a) NAC 445A.455 Secondary standards. Certain provisions of the National Primary Drinking Water Regulations are adopted by reference (NAC 445A.4525). These values are listed in the first column of this table and are therefore not listed again here. Only NAC 445A.455 Secondary standards are listed.
- (m) Equal to the provisional action level derived by NDEP as referenced in "Defining a Perchlorate Drinking Water Standard". NDEP Bureau of Corrective Action. URL [http://ndep.nv.gov/bca/perchlorate02_05.htm].

**LOU 55 Table 15
Soil Characterization Data - Radionuclides**

Area Affected by July 1990 Fire
Tronox Facility - Henderson, Nevada

| Boring ID Number | Sample ID | Sample Depth (ft) | Date | Ra-226 | Ra-228 | Th-228 | Th-230 | Th-232 | U-233/234 | U-235/236 | U-238 | Sampling Program |
|------------------|-----------|-------------------|------------|-----------------|----------------|----------|----------|----------|-----------|-----------|---------|-------------------|
| | | | | (gamma) | (gamma) | (TH MOD) | (TH MOD) | (TH MOD) | (U MOD) | (U MOD) | (U MOD) | |
| | | | | pCi/g | pCi/g | pCi/g | pCi/g | pCi/g | pCi/g | pCi/g | pCi/g | |
| SA20 | SA20-0.5 | 0.5 | 11/16/2006 | 1 J- | 1.87 J- | | | | | | | Ph A ¹ |
| SA20 | SA20-0.5D | 0.5 | 11/16/2006 | 0.863 J- | 1.56 J- | | | | | | | Ph A |
| SA20 | SA20-10 | 10 | 11/16/2006 | 1.31 J- | 1.63 J- | | | | | | | Ph A |
| SA20 | SA20-20 | 20 | 11/16/2006 | 1.47 J- | 1.76 J- | | | | | | | Ph A |
| SA20 | SA20-25 | 25 | 11/16/2006 | 1.52 J- | 1.82 J- | | | | | | | Ph A |

Notes:

1. ENSR, 2007, Phase A Source Area Investigation Results, Tronox Facility, Henderson, Nevada, September 2007.

LOU 55 Table 16
Soil Characterization Data - SVOCs

Area Affected by July 1990 Fire
Tronox Facility - Henderson, Nevada

| Sampling Program | | | Ph A ¹ | Ph A | Ph A | Ph A | Ph A |
|----------------------------|-------------------|----------------------------|-------------------|------------|------------|------------|------------|
| Boring No. | | | SA20 | SA20 | SA20 | SA20 | SA20 |
| Sample ID | | | SA20-0.5 | SA20-0.5D | SA20-10 | SA20-20 | SA20-25 |
| Sample Depth (ft) | | | 0.5 | 0.5 | 10 | 20 | 25 |
| Sample Date | | | 11/15/2006 | 11/15/2006 | 11/15/2006 | 11/15/2006 | 11/15/2006 |
| SVOC | Analytical Method | MSSL ² ug/kg | ug/kg | ug/kg | ug/kg | ug/kg | ug/kg |
| 1,4-Dioxane | non-SIM | 1.70E+05 | 370 U | 410 U | 390 U | 350 U | 390 U |
| 2-Methylnaphthalene | non-SIM | 2.10E+05 (jj) | 370 U | 410 U | 390 U | 350 U | 390 U |
| 2-Methylnaphthalene | SIM | 2.10E+05 (jj) | | | | | |
| Acenaphthene | non-SIM | 3.30E+07 | 370 U | 410 U | 390 U | 350 U | 390 U |
| Acenaphthene | SIM | 3.30E+07 | | | | | |
| Acenaphthylene | non-SIM | 3.30E+07 (pp) | 370 U | 410 U | 390 U | 350 U | 390 U |
| Acenaphthylene | SIM | 3.30E+07 (pp) | | | | | |
| Anthracene | non-SIM | 1.00E+08 | 370 U | 410 U | 390 U | 350 U | 390 U |
| Anthracene | SIM | 1.00E+08 | | | | | |
| Benz(a)anthracene | non-SIM | 2.30E+03 | 370 U | 410 U | 390 U | 350 U | 390 U |
| Benz(a)anthracene | SIM | 2.30E+03 | | | | | |
| Benzo(a)pyrene | non-SIM | 2.30E+02 | 370 U | 410 U | 390 U | 350 U | 390 U |
| Benzo(a)pyrene | SIM | 2.30E+02 | | | | | |
| Benzo(b)fluoranthene | non-SIM | 2.30E+03 | 370 U | 410 U | 390 U | 350 U | 390 U |
| Benzo(b)fluoranthene | SIM | 2.30E+03 | | | | | |
| Benzo(g,h,i)perylene | non-SIM | 3.20E+07 (w) | 370 U | 410 U | 390 U | 350 U | 390 U |
| Benzo(g,h,i)perylene | SIM | 3.20E+07 (w) | | | | | |
| Benzo(k)fluoranthene | non-SIM | 2.30E+04 | 370 U | 410 U | 390 U | 350 U | 390 U |
| Benzo(k)fluoranthene | SIM | 2.30E+04 | | | | | |
| bis(2-Ethylhexyl)phthalate | non-SIM | 1.40E+05 | 370 U | 410 U | 390 U | 350 U | 390 U |
| Butyl benzyl phthalate | non-SIM | 2.40E+05 | 370 U | 410 U | 390 U | 350 U | 390 U |
| Chrysene | non-SIM | 2.30E+05 | 370 U | 410 U | 390 U | 350 U | 390 U |
| Chrysene | SIM | 2.30E+05 | | | | | |
| Dibenz(a,h)anthracene | non-SIM | 2.30E+02 | 370 U | 410 U | 390 U | 350 U | 390 U |
| Dibenz(a,h)anthracene | SIM | 2.30E+02 | | | | | |
| Diethyl phthalate | non-SIM | 1.00E+08 | 370 U | 410 U | 390 U | 350 U | 390 U |
| Dimethyl phthalate | non-SIM | 1.00E+08 | 370 U | 410 U | 390 U | 350 U | 390 U |
| Di-N-Butyl phthalate | non-SIM | 6.80E+07 | 370 U | 410 U | 390 U | 350 U | 390 U |
| Di-N-Octyl phthalate | non-SIM | -- | 370 U | 410 U | 390 U | 350 U | 390 U |
| Fluoranthene | non-SIM | 2.40E+07 | 370 U | 410 U | 390 U | 350 U | 390 U |
| Fluoranthene | SIM | 2.40E+07 | | | | | |
| Fluorene | non-SIM | 2.60E+07 | 370 U | 410 U | 390 U | 350 U | 390 U |
| Fluorene | SIM | 2.60E+07 | | | | | |
| Hexachlorobenzene | non-SIM | 1.20E+03 | 370 U | 410 U | 390 U | 350 U | 390 U |
| Hexachlorobenzene | SIM | 1.20E+03 | | | | | |
| Indeno(1,2,3-cd)pyrene | non-SIM | 2.30E+03 | 370 U | 410 U | 390 U | 350 U | 390 U |
| Indeno(1,2,3-cd)pyrene | SIM | 2.30E+03 | | | | | |
| Naphthalene | non-SIM | 2.10E+05 | 5.6 U | 6.2 U | 5.9 U | 5.3 U | 5.9 U |
| Naphthalene | non-SIM | 2.10E+05 | 370 U | 410 U | 390 U | 350 U | 390 U |

LOU 55 Table 16 (continued)
Soil Characterization Data - SVOCs

Area Affected by July 1990 Fire
Tronox Facility - Henderson, Nevada

| Sampling Program | | | Ph A ¹ | Ph A | Ph A | Ph A | Ph A |
|-------------------|-------------------|----------------------------|-------------------|------------|------------|------------|------------|
| Boring No. | | | SA20 | SA20 | SA20 | SA20 | SA20 |
| Sample ID | | | SA20-0.5 | SA20-0.5D | SA20-10 | SA20-20 | SA20-25 |
| Sample Depth (ft) | | | 0.5 | 0.5 | 10 | 20 | 25 |
| Sample Date | | | 11/15/2006 | 11/15/2006 | 11/15/2006 | 11/15/2006 | 11/15/2006 |
| SVOC | Analytical Method | MSSL ² ug/kg | ug/kg | ug/kg | ug/kg | ug/kg | ug/kg |
| Naphthalene | SIM | 2.10E+05 | | | | | |
| Nitrobenzene | non-SIM | 1.10E+05 | 370 U | 410 U | 390 U | 350 U | 390 U |
| Octachlorostyrene | non-SIM | -- | 370 U | 410 U | 390 U | 350 U | 390 U |
| Phenanthrene | non-SIM | 1.00E+08 (n) | 370 U | 410 U | 390 U | 350 U | 390 U |
| Phenanthrene | SIM | 1.00E+08 (n) | | | | | |
| Pyrene | non-SIM | 3.20E+07 | 370 U | 410 U | 390 U | 350 U | 390 U |
| Pyrene | SIM | 3.20E+07 | | | | | |
| Pyridine | non-SIM | 6.80E+05 | 1800 U | 2000 U | 1900 U | 1700 U | 1900 U |

Notes:

1. ENSR, 2007, Phase A Source Area Investigation Results, Tronox Facility, Henderson, Nevada, September 2007.
2. U.S. EPA, Region 6, Medium Specific Screening Levels (MSSLs) for Industrial - Outdoor Worker (March, 2008).
 - (jj) Value for naphthalene used as surrogate for 2-methylnaphthalene based on structural similarities.
 - (pp) Value for acenaphthene used as surrogate for acenaphthylene based on structural similarities.
 - (w) Value for pyrene used as surrogate for benzo(g,h,i)perylene based on structural similarities.
 - (n) Value for anthracene used as surrogate for phenanthrene due to structural similarities.

LOU 55 Table 17
Groundwater Characterization Data - SVOCs

Area Affected by July 1990 Fire
Tronox Facility - Henderson, Nevada

| Sampling Program | | | Ph A ¹ | Ph A |
|----------------------------|-----------------|--------------------------|-------------------|------------|
| Well No. | | | M55 | M55D |
| Sample ID | | | M55 | M55D |
| Sample Date | | | 12/07/2006 | 12/07/2006 |
| SVOCs | Analytic Method | MCL ² ug/L | ug/L | ug/L |
| 1,4-Dioxane | non-SIM | 6.11E+00 | 10 U | 10 U |
| 2-Methylnaphthalene | non-SIM | 6.20E+00 (jj) | 10 U | 10 U |
| 2-Methylnaphthalene | SIM | 6.20E+00 (jj) | 0.20 U | 0.20 U |
| Acenaphthene | non-SIM | 3.65E+02 | 10 U | 10 U |
| Acenaphthene | SIM | 3.65E+02 | 0.20 U | 0.20 U |
| Acenaphthylene | non-SIM | 3.65E+02 (pp) | 10 U | 10 U |
| Acenaphthylene | SIM | 3.65E+02 (pp) | 0.20 U | 0.20 U |
| Anthracene | non-SIM | 1.83E+03 | 10 U | 10 U |
| Anthracene | SIM | 1.83E+03 | 0.20 U | 0.20 U |
| Benz(a)anthracene | non-SIM | 9.21E-02 | 10 U | 10 U |
| Benz(a)anthracene | SIM | 9.21E-02 | 0.20 U | 0.20 U |
| Benzo(a)pyrene | non-SIM | 2.00E-01 | 10 U | 10 U |
| Benzo(a)pyrene | SIM | 2.00E-01 | 0.20 U | 0.20 U |
| Benzo(b)fluoranthene | non-SIM | 9.21E-02 | 10 U | 10 U |
| Benzo(b)fluoranthene | SIM | 9.21E-02 | 0.20 U | 0.20 U |
| Benzo(g,h,i)perylene | non-SIM | 1.83E+02 (w) | 10 U | 10 U |
| Benzo(g,h,i)perylene | SIM | 1.83E+02 (w) | 0.20 U | 0.20 U |
| Benzo(k)fluoranthene | non-SIM | 9.21E-01 | 10 U | 10 U |
| Benzo(k)fluoranthene | SIM | 9.21E-01 | 0.20 U | 0.20 U |
| bis(2-Ethylhexyl)phthalate | non-SIM | 6.00E+00 | 10 U | 10 U |
| Butyl benzyl phthalate | non-SIM | 7.30E+03 | 10 U | 10 U |
| Chrysene | non-SIM | 9.21E+00 | 10 U | 10 U |
| Chrysene | SIM | 9.21E+00 | 0.20 U | 0.20 U |
| Dibenz(a,h)anthracene | non-SIM | 9.21E-03 | 10 U | 10 U |
| Dibenz(a,h)anthracene | SIM | 9.21E-03 | 0.20 U | 0.20 U |
| Diethyl phthalate | non-SIM | 2.92E+04 | 10 U | 10 U |
| Dimethyl phthalate | non-SIM | 3.65E+05 | 10 U | 10 U |
| Di-N-Butyl phthalate | non-SIM | 3.65E+03 | 10 U | 10 U |
| Di-N-Octyl phthalate | non-SIM | 1.46E+03 | 10 U | 10 U |
| Fluoranthene | non-SIM | 1.46E+03 | 10 U | 10 U |
| Fluoranthene | SIM | 1.46E+03 | 0.23 U | 0.26 U |
| Fluorene | non-SIM | 2.43E+02 | 10 U | 10 U |
| Fluorene | SIM | 2.43E+02 | 0.20 U | 0.20 U |
| Hexachlorobenzene | non-SIM | 1.00E+00 | 10 U | 10 U |
| Hexachlorobenzene | SIM | 1.00E+00 | 0.20 U | 0.20 U |
| Indeno(1,2,3-cd)pyrene | non-SIM | 9.21E-02 | 10 UJ | 10 UJ |
| Indeno(1,2,3-cd)pyrene | SIM | 9.21E-02 | 0.20 U | 0.20 U |
| Naphthalene | non-SIM | 6.20E+00 | 5.0 U | 5.0 U |
| Naphthalene | non-SIM | 6.20E+00 | 10 UJ | 10 UJ |
| Naphthalene | SIM | 6.20E+00 | 0.20 U | 0.20 U |

LOU 55 Table 17 (continued)
Groundwater Characterization Data - SVOCs

Area Affected by July 1990 Fire
Tronox Facility - Henderson, Nevada

| Sampling Program | | | Ph A ¹ | Ph A |
|-------------------|-----------------|--------------------------|-------------------|------------|
| Well No. | | | M55 | M55D |
| Sample ID | | | M55 | M55D |
| Sample Date | | | 12/07/2006 | 12/07/2006 |
| SVOCs | Analytic Method | MCL ² ug/L | ug/L | ug/L |
| Nitrobenzene | non-SIM | 3.40E+00 | 10 U | 10 U |
| Octachlorostyrene | non-SIM | -- | 10 U | 10 U |
| Phenanthrene | non-SIM | 1.80E+03 (n) | 10 U | 10 U |
| Phenanthrene | SIM | 1.80E+03 (n) | 0.20 U | 0.20 U |
| Pyrene | non-SIM | 1.83E+02 | 10 U | 10 U |
| Pyrene | SIM | 1.83E+02 | 0.20 U | 0.20 U |
| Pyridine | non-SIM | 3.65E+01 | 20 U | 20 U |

Notes:

1. ENSR, 2007, Phase A Source Area Investigation Results, Tronox Facility, Henderson, Nevada, September 2007.
2. U.S. EPA Maximum Contaminant Level (MCL) values unless noted.
 - (jj) Value for naphthalene used as surrogate for 2-methylnaphthalene based on structural similarities.
 - (pp) Value for acenaphthene used as surrogate for acenaphthylene based on structural similarities.
 - (w) Value for pyrene used as surrogate for benzo(g,h,i)perylene based on structural similarities.
 - (n) Value for anthracene used as surrogate for phenanthrene due to structural similarities.

LOU 55 Table 18
Soil Characterization Data - VOCs

Area Affected by July 1990 Fire
Tronox Facility - Henderson, Nevada

| Sampling Program | | Ph A ¹ | Ph A | Ph A | Ph A | Ph A |
|-----------------------------|----------------------------|-------------------|------------|---------------|---------------|---------------|
| Boring No. | | SA20 | SA20 | SA20 | SA20 | SA20 |
| Sample ID | | SA20-0.5 | SA20-0.5D | SA20-10 | SA20-20 | SA20-25 |
| Sample Depth (ft) | | 0.5 | 0.5 | 10 | 20 | 25 |
| Sample Date | | 11/16/2006 | 11/16/2006 | 11/16/2006 | 11/16/2006 | 11/16/2006 |
| VOCs | MSSL ² ug/kg | ug/kg | ug/kg | ug/kg | ug/kg | ug/kg |
| Naphthalene | 2.10E+05 | 5.6 U | 6.2 U | 5.9 U | 5.3 U | 5.9 U |
| 1,1,1,2-Tetrachloroethane | 7.60E+03 | 5.6 U | 6.2 U | 5.9 U | 5.3 U | 5.9 U |
| 1,1,1-Trichloroethane | 1.40E+06 | 5.6 U | 6.2 U | 5.9 U | 5.3 U | 5.9 U |
| 1,1,2,2-Tetrachloroethane | 9.70E+02 | 5.6 U | 6.2 U | 5.9 U | 5.3 U | 5.9 U |
| 1,1,2-Trichloroethane | 2.10E+03 | 5.6 U | 6.2 U | 5.9 U | 5.3 U | 5.9 U |
| 1,1-Dichloroethane | 2.30E+06 | 5.6 U | 6.2 U | 5.9 U | 5.3 U | 5.9 U |
| 1,1-Dichloroethene | 4.70E+05 | 5.6 U | 6.2 U | 5.9 U | 5.3 U | 5.9 U |
| 1,1-Dichloropropene | 1.75E+03 (gg) | 5.6 U | 6.2 U | 5.9 U | 5.3 U | 5.9 U |
| 1,2,3-Trichlorobenzene | 2.60E+05 (hh) | 5.6 U | 6.2 U | 5.9 U | 5.3 U | 5.9 U |
| 1,2,3-Trichloropropane | 1.60E+03 | 5.6 U | 6.2 U | 5.9 U | 5.3 U | 5.9 U |
| 1,2,4-Trichlorobenzene | 2.60E+05 | 5.6 U | 6.2 U | 5.9 U | 5.3 U | 5.9 U |
| 1,2,4-Trimethylbenzene | 2.20E+05 | 5.6 U | 6.2 U | 5.9 U | 5.3 U | 5.9 U |
| 1,2-Dibromo-3-chloropropane | 2.00E+01 | 5.6 U | 6.2 U | 5.9 U | 5.3 U | 5.9 U |
| 1,2-Dichlorobenzene | 3.70E+05 | 5.6 U | 6.2 U | 5.9 U | 5.3 U | 5.9 U |
| 1,2-Dichloroethane | 8.40E+02 | 5.6 U | 6.2 U | 5.9 U | 5.3 U | 5.9 U |
| 1,2-Dichloropropane | 8.50E+02 | 5.6 U | 6.2 U | 5.9 U | 5.3 U | 5.9 U |
| 1,3,5-Trimethylbenzene | 7.80E+04 | 5.6 U | 6.2 U | 5.9 U | 0.30 J | 5.9 U |
| 1,3-Dichlorobenzene | 1.40E+05 | 5.6 U | 6.2 U | 5.9 U | 5.3 U | 5.9 U |
| 1,3-Dichloropropane | 4.10E+05 | 5.6 U | 6.2 U | 5.9 U | 5.3 U | 5.9 U |
| 1,4-Dichlorobenzene | 8.10E+03 | 12 | 9.1 | 14 | 11 | 9.0 |
| 2,2-Dichloropropane | 8.50E+02 (ii) | 5.6 U | 6.2 U | 5.9 U | 5.3 U | 5.9 U |
| 2-Butanone | 3.40E+07 | 11 U | 12 U | 12 U | 11 U | 12 U |
| 2-Chlorotoluene | 5.10E+05 | 5.6 U | 6.2 U | 5.9 U | 5.3 U | 5.9 U |
| 2-Hexanone | 1.72E+07 (nn) | 11 UJ | 12 UJ | 12 UJ | 11 UJ | 12 UJ |
| 2-Methoxy-2-methyl-butane | -- | 5.6 U | 6.2 U | 5.9 U | 5.3 U | 5.9 U |
| 4-Chlorotoluene | 5.10E+05 (ww) | 5.6 U | 6.2 U | 5.9 U | 5.3 U | 5.9 U |
| 4-Isopropyltoluene | -- | 5.6 U | 6.2 U | 5.9 U | 5.3 U | 5.9 U |
| 4-Methyl-2-pentanone | 1.70E+07 | 11 U | 12 U | 12 U | 11 U | 12 U |
| Acetone | 6.00E+07 | 11 U | 12 U | 12 U | 29 U | 12 U |
| Benzene | 1.60E+03 | 5.6 U | 6.2 U | 5.9 U | 0.37 J | 5.9 U |
| Bromobenzene | 1.20E+05 | 5.6 U | 6.2 U | 5.9 U | 5.3 U | 5.9 U |
| Bromochloromethane | 1.75E+03 (qq) | 5.6 U | 6.2 U | 5.9 U | 5.3 U | 5.9 U |
| Bromodichloromethane | 2.60E+03 | 5.6 U | 6.2 U | 5.9 U | 5.3 U | 5.9 U |
| Bromoform | 2.40E+05 | 5.6 U | 6.2 U | 5.9 U | 5.3 U | 5.9 U |
| Bromomethane | 1.50E+04 | 11 U | 12 U | 12 U | 11 U | 12 UJ |
| Carbon tetrachloride | 5.80E+02 | 5.6 U | 6.2 U | 5.9 U | 5.3 U | 5.9 U |
| Chlorobenzene | 5.00E+05 | 5.6 U | 6.2 U | 5.9 U | 5.3 U | 5.9 U |
| Chloroethane | 7.20E+03 | 5.6 UJ | 6.2 UJ | 5.9 UJ | 5.3 UJ | 5.9 UJ |
| Chloroform | 5.80E+02 | 0.52 J | 6.2 U | 0.50 J | 0.90 J | 0.67 J |
| Chloromethane | 1.70E+05 | 5.6 UJ | 6.2 UJ | 5.9 UJ | 5.3 UJ | 5.9 UJ |
| cis-1,2-Dichloroethene | 1.60E+05 | 5.6 U | 6.2 U | 5.9 U | 5.3 U | 5.9 U |
| cis-1,3-Dichloropropene | 1.75E+03 (gg) | 5.6 U | 6.2 U | 5.9 U | 5.3 U | 5.9 U |
| Dibromochloromethane | 2.60E+03 | 5.6 U | 6.2 U | 5.9 U | 5.3 U | 5.9 U |
| Dibromomethane | 5.90E+05 (xx) | 5.6 U | 6.2 U | 5.9 U | 5.3 U | 5.9 U |

LOU 55 Table 18 (continued)
Soil Characterization Data - VOCs

Area Affected by July 1990 Fire
Tronox Facility - Henderson, Nevada

| Sampling Program | | Ph A ¹ | Ph A | Ph A | Ph A | Ph A |
|----------------------------|----------------------------|-------------------|------------|---------------|------------|--------------|
| Boring No. | | SA20 | SA20 | SA20 | SA20 | SA20 |
| Sample ID | | SA20-0.5 | SA20-0.5D | SA20-10 | SA20-20 | SA20-25 |
| Sample Depth (ft) | | 0.5 | 0.5 | 10 | 20 | 25 |
| Sample Date | | 11/16/2006 | 11/16/2006 | 11/16/2006 | 11/16/2006 | 11/16/2006 |
| VOCs | MSSL ² ug/kg | ug/kg | ug/kg | ug/kg | ug/kg | ug/kg |
| Dichlorodifluoromethane | 3.40E+05 | 5.6 UJ | 6.2 UJ | 5.9 UJ | 5.3 UJ | 5.9 UJ |
| Ethyl t-butyl ether | 7.90E+04 (kk) | 5.6 U | 6.2 U | 5.9 U | 5.3 U | 5.9 U |
| Ethylbenzene | 2.30E+05 | 5.6 U | 6.2 U | 5.9 U | 5.3 U | 5.9 U |
| Ethylene dibromide | 7.00E+01 | 5.6 U | 6.2 U | 5.9 U | 5.3 U | 5.9 U |
| Hexachlorobutadiene | 2.50E+04 | 5.6 U | 6.2 U | 5.9 U | 5.3 U | 5.9 U |
| isopropyl ether | -- | 5.6 U | 6.2 U | 5.9 U | 5.3 U | 5.9 U |
| Isopropylbenzene | 5.80E+05 | 5.6 U | 6.2 U | 5.9 U | 5.3 U | 5.9 U |
| Methyl tert butyl ether | 7.90E+04 | 5.6 U | 6.2 U | 5.9 U | 5.3 U | 5.9 U |
| Methylene chloride | 2.20E+04 | 5.6 U | 6.2 U | 5.9 U | 5.3 U | 3.8 J |
| N-Butylbenzene | 2.40E+05 | 5.6 U | 6.2 U | 5.9 U | 5.3 U | 5.9 UJ |
| N-Propylbenzene | 2.40E+05 | 5.6 UJ | 6.2 UJ | 5.9 UJ | 5.3 UJ | 5.9 UJ |
| sec-Butylbenzene | 2.20E+05 | 5.6 UJ | 6.2 UJ | 5.9 UJ | 5.3 UJ | 5.9 UJ |
| Styrene | 1.70E+06 | 5.6 U | 6.2 U | 5.9 U | 5.3 U | 5.9 U |
| t-Butyl alcohol | -- | 11 UJ | 12 UJ | 12 UJ | 11 UJ | 12 UJ |
| tert-Butylbenzene | 3.90E+05 | 5.6 U | 6.2 U | 5.9 U | 5.3 U | 5.9 U |
| Tetrachloroethene | 1.70E+03 | 5.6 U | 6.2 U | 5.9 U | 5.3 U | 5.9 U |
| Toluene | 5.20E+05 | 5.6 U | 6.2 U | 0.48 J | 5.3 U | 5.9 U |
| trans-1,2-Dichloroethylene | 2.00E+05 | 5.6 U | 6.2 U | 5.9 U | 5.3 U | 5.9 U |
| trans-1,3-Dichloropropene | 1.75E+03 (gg) | 5.6 U | 6.2 U | 5.9 U | 5.3 U | 5.9 U |
| Trichloroethene | 1.00E+02 | 5.6 U | 6.2 U | 5.9 U | 5.3 U | 5.9 U |
| Trichlorofluoromethane | 1.40E+06 | 5.6 UJ | 6.2 UJ | 5.9 UJ | 5.3 UJ | 5.9 UJ |
| Vinylchloride | 8.60E+02 | 5.6 U | 6.2 U | 5.9 U | 5.3 U | 5.9 U |
| Xylene (Total) | 2.10E+05 | 11 U | 12 U | 12 U | 11 U | 12 U |

Notes:

1. ENSR, 2007, Phase A Source Area Investigation Results, Tronox Facility, Henderson, Nevada, September 2007.
 2. U.S. EPA, Region 6, Medium Specific Screening Levels (MSSLs) for Industrial - Outdoor Worker (March, 2008).
- (gg) Value for 1,3-dichloropropene used as surrogate for 1,1-dichloropropene, cis-1,3-dichloropropene and trans-1,3-dichloropropene based on structural similarities.
- (hh) Value for 1,2,4-trichlorobenzene used as surrogate for 1,2,3-trichlorobenzene based on structural similarities.
- (ii) Value for 1,2-dichloropropane used as surrogate for 2,2-dichloropropane based on structural similarities.
- (nn) Value for methyl isobutyl ketone used as surrogate for 2-hexanone based on structural similarities.
- (ww) Value for 2-chlorotoluene used as surrogate for 4-chlorotoluene based on structural similarities.
- (qq) Value for bromodichloromethane used as surrogate for bromochloromethane due to structural similarities.
- (xx) Value for methylene bromide used as surrogate for dibromomethane based on structural similarities.
- (kk) Value for methyl tertbutyl ether (MTBE) used as surrogate for ethyl-tert-butyl ether (ETBE) based on structural similarities.

LOU 55 Table 19
Groundwater Characteristic Data - VOCs

Area Affected by July 1990 Fire
Tronox Facility - Henderson, Nevada

| Sampling Program | | Ph A ¹ | Ph A |
|-----------------------------|--------------------------|-------------------|---------------|
| Well ID | | M-55 | M-55D |
| Sample ID | | M-55 | M-55D |
| Sample Date | | 12/07/2006 | 12/07/2006 |
| VOCs | MCL ² ug/L | ug/L | ug/L |
| Naphthalene | 6.20E+00 | 5.0 U | 5.0 U |
| 1,1,1,2-Tetrachloroethane | 4.32E-01 | 5.0 U | 5.0 U |
| 1,1,1-Trichloroethane | 2.00E+02 | 5.0 U | 5.0 U |
| 1,1,2,2-Tetrachloroethane | 5.00E+00 | 5.0 U | 5.0 U |
| 1,1,2-Trichloroethane | 5.00E+00 | 5.0 U | 5.0 U |
| 1,1-Dichloroethane | 8.11E+02 | 5.0 U | 5.0 U |
| 1,1-Dichloroethene | 7.00E+00 | 5.0 U | 5.0 U |
| 1,1-Dichloropropene | 3.95E-01 gg | 5.0 U | 5.0 U |
| 1,2,3-Trichlorobenzene | 7.16E+00 hh | 5.0 U | 5.0 U |
| 1,2,3-Trichloropropane | 5.60E-03 | 5.0 U | 5.0 U |
| 1,2,4-Trichlorobenzene | 7.00E+01 | 5.0 U | 5.0 U |
| 1,2,4-Trimethylbenzene | 1.23E+01 | 5.0 U | 5.0 U |
| 1,2-Dibromo-3-chloropropane | 2.00E-01 | 5.0 UJ | 5.0 U |
| 1,2-Dichlorobenzene | 6.00E+02 | 0.61 J+ | 0.55 J |
| 1,2-Dichloroethane | 5.00E+00 | 5.0 UJ | 5.0 U |
| 1,2-Dichloropropane | 5.00E+00 | 5.0 U | 5.0 U |
| 1,3,5-Trimethylbenzene | 1.23E+01 | 5.0 U | 5.0 U |
| 1,3-Dichlorobenzene | 1.83E+02 | 5.0 U | 5.0 U |
| 1,3-Dichloropropane | 1.22E+02 | 5.0 U | 5.0 U |
| 1,4-Dichlorobenzene | 7.50E+01 | 0.68 J+ | 0.71 J |
| 2,2-Dichloropropane | 1.65E-01 ii | 5.0 U | 5.0 U |
| 2-Butanone | 6.97E+03 | 10 U | 10 U |
| 2-Chlorotoluene | 1.22E+02 | 5.0 U | 5.0 U |
| 2-Hexanone | 2.00E+03 nn | 10 U | 10 UJ |
| 2-Methoxy-2-methyl-butane | -- | 5.0 U | 5.0 UJ |
| 4-Chlorotoluene | 1.22E+02 ww | 5.0 U | 5.0 U |
| 4-Isopropyltoluene | -- | 5.0 U | 5.0 U |
| 4-Methyl-2-pentanone | 1.99E+03 | 10 UJ | 10 UJ |
| Acetone | 5.48E+03 | 10 UJ | 10 U |
| Benzene | 5.00E+00 | 5.0 U | 5.0 U |
| Bromobenzene | 2.03E+01 | 5.0 U | 0.38 J |
| Bromochloromethane | 1.81E-01 qq | 5.0 U | 5.0 U |
| Bromodichloromethane | 8.00E+01 r | 5.0 U | 0.43 J |
| Bromoform | 8.00E+01 r | 4.4 J+ | 12 J |
| Bromomethane | 8.66E+00 | 10 UJ | 10 U |
| Carbon tetrachloride | 5.00E+00 | 5.0 U | 5.0 U |
| Chlorobenzene | 1.00E+02 o | 5.0 U | 5.0 U |
| Chloroethane | 4.64E+00 | 5.0 U | 5.0 U |
| Chloroform | 8.00E+01 r | 690 | 660 J+ |
| Chloromethane | 1.58E+02 | 5.0 U | 5.0 U |

LOU 55 Table 19 (continued)
Groundwater Characteristic Data - VOCs

Area Affected by July 1990 Fire
Tronox Facility - Henderson, Nevada

| Sampling Program | | Ph A ¹ | Ph A |
|----------------------------|--------------------------|-------------------|---------------|
| Well ID | | M-55 | M-55D |
| Sample ID | | M-55 | M-55D |
| Sample Date | | 12/07/2006 | 12/07/2006 |
| VOCs | MCL ² ug/L | ug/L | ug/L |
| cis-1,2-Dichloroethene | 7.00E+01 | 5.0 U | 5.0 U |
| cis-1,3-Dichloropropene | 3.95E-01 gg | 5.0 U | 5.0 U |
| Dibromochloromethane | 8.00E+01 r | 5.0 U | 0.50 J |
| Dibromomethane | 6.08E+01 xx | 5.0 U | 5.0 U |
| Dichlorodifluoromethane | 3.95E+02 | 5.0 U | 5.0 UJ |
| Ethyl t-butyl ether | 1.10E+01 kk | 5.0 U | 5.0 UJ |
| Ethylbenzene | 7.00E+02 | 5.0 U | 5.0 U |
| Ethylene dibromide | -- | 5.0 U | 5.0 U |
| Hexachlorobutadiene | 8.62E-01 | 5.0 U | 5.0 U |
| isopropyl ether | -- | 5.0 U | 5.0 UJ |
| Isopropylbenzene | 6.58E+02 | 5.0 U | 5.0 U |
| Methyl tert butyl ether | 2.00E+01 a,uu | 5.0 U | 5.0 U |
| Methylene chloride | 5.00E+00 | 5.0 U | 5.0 UJ |
| N-Butylbenzene | 2.43E+02 | 5.0 U | 5.0 U |
| N-Propylbenzene | 2.43E+02 | 5.0 U | 5.0 U |
| sec-Butylbenzene | 2.43E+02 | 5.0 U | 5.0 U |
| Styrene | 1.00E+02 | 5.0 U | 5.0 U |
| t-Butyl alcohol | -- | 10 UJ | 10 UJ |
| tert-Butylbenzene | 2.43E+02 | 5.0 U | 5.0 U |
| Tetrachloroethene | 5.00E+00 | 5.0 U | 5.0 U |
| Toluene | 1.00E+03 | 5.0 U | 5.0 U |
| trans-1,2-Dichloroethylene | 1.00E+02 | 5.0 U | 5.0 U |
| trans-1,3-Dichloropropene | -- | 5.0 U | 5.0 U |
| Trichloroethene | 5.00E+00 | 12 J+ | 9.9 |
| Trichlorofluoromethane | -- | 5.0 U | 5.0 U |
| Vinylchloride | 2.00E+00 | 5.0 U | 5.0 U |
| Xylene (Total) | 1.00E+04 | 10 U | 10 UJ |

Notes:

1. ENSR, 2007, Phase A Source Area Investigation Results, Tronox Facility, Henderson, Nevada, September 2007.
2. U.S. EPA Maximum Contaminant Level (MCL) values unless noted.
(gg) Value for 1,3-dichloropropene used as surrogate for 1,1-dichloropropene, cis-1,3-dichloropropene and trans-1,3-dichloropropene based on structural similarities.
(hh) Value for 1,2,4-trichlorobenzene used as surrogate for 1,2,3-trichlorobenzene based on structural similarities.

LOU 55 Table 19 (continued)
Groundwater Characteristic Data - VOCs

Area Affected by July 1990 Fire
Tronox Facility - Henderson, Nevada

Notes (continued):

- (ii) Value for 1,2-dichloropropane used as surrogate for 2,2-dichloropropane based on structural similarities.
- (nn) Value for methyl isobutyl ketone used as surrogate for 2-hexanone based on structural similarities.
- (ww) Value for 2-chlorotoluene used as surrogate for 4-chlorotoluene based on structural similarities.
- (qq) Value for bromodichloromethane used as surrogate for bromochloromethane due to structural similarities.
- (o) See footnote (b). Listed under synonym monochlorobenzene.
- (xx) Value for methylene bromide used as surrogate for dibromomethane based on structural similarities.
- (kk) Value for methyl tertbutyl ether (MTBE) used as surrogate for ethyl-tert-butyl ether (ETBE) based on structural similarities.
- (a) NAC 445A.455 Secondary standards. Certain provisions of the National Primary Drinking Water Regulations are adopted by reference (NAC 445A.4525). These values are listed in the first column of this table and are therefore not listed again here. Only NAC 445A.455 Secondary standards are listed.
- (uu) NDEP, 1998. Oxygenated Fuel Corrective Action Guidance. Draft. October, 12 1998. URL [http://ndep.nv.gov/bca/mtbe_doc.htm].

LOU 55 Table 20
Soil Characterization Data - Long Asbestos Fibers in Respirable Soil Fraction

Area Affected by July 1990 Fire
Tronox Facility - Henderson, Nevada

| Boring No. | Sample ID | Sample Date | Long Amphibole Protocol Structures s/gPM10 | Long Amphibole Protocol Structures (structures/samples) | Long Chrysotile Protocol Structures s/gPM10 | Long Chrysotile Protocol Structures (structures/samples) | Sampling Program |
|------------|-----------|-------------|--|---|---|--|-------------------|
| SA20 | SA20 | 12/07/2006 | 2942000 U | 0 | 2942000 U | 0 | Ph A ¹ |

Notes:

1. ENSR, 2007, Phase A Source Area Investigation Results, Tronox Facility, Henderson, Nevada, September 2007.

LOU 55
Notes for Phase A Data Tables

Area Affected by July 1990 Fire
Tronox Facility - Henderson, Nevada

| | |
|-------------|--|
| Blank | Not analyzed. |
| Bold | Bold values are constituents detected above the laboratory sample quantitation limit. |
| Gray | Grayed out values are non-detected values with the laboratory sample quantitation limits shown. |
| B | The result may be a false positive totally attributable to blank contamination. |
| D | Dissolved Metals |
| DO | Dissolved Oxygen |
| J | The result is an estimated quantity. The associated numerical value is the approximate concentration of the analyte in the sample. |
| J- | The result is an estimated quantity and the result may be biased low. |
| J+ | The result is an estimated quantity and the result may be biased high. |
| JB | The result may be biased high partially attributable to blank contamination. |
| JK | The result is an estimated maximum possible concentration. |
| R | The result was rejected and unusable due to serious data deficiencies. The presence or absence of the analyte cannot be verified. |
| S | Soluble metals |
| T | Total Metals |
| U | The analyte was analyzed for, but was not detected above the laboratory sample quantitation limit. |
| UU | The analyte was not detected above the laboratory sample quantitation limit and the limit is approximate. |
| mg/kg | Milligrams per kilogram |
| mg/L | Milligrams per liter |
| ml/min | Milliliters per minute |
| ng/kg | Nanogram per kilogram. |
| nm | Not measured |
| NTUs | Nephelometric Turbidity Units |
| ORP | Oxidation-reduction potential |
| pCi/g | PicoCuries per gram |
| pci/L | PicoCuries per liter |
| s/gPM10 | Revised protocol structures per gram PM10 fraction dust. |
| TEF | Toxic Equivalency Factor |
| TEQ | Toxic Equivalent Concentration |
| ug/kg | Micrograms per kilogram |
| ug/L | Micrograms per liter. |
| umhos/cm | MicroSiemens per centimeter |
| L | Sample ID suffix indicating the sample was collected using low low-flow pumping rates (100-150 ml/min). |
| F | Sample ID suffix indicating the sample was collected using low-flow pumping rates (150-480 ml/min) and field filtered. |
| Z | Sample ID suffix indicating the sample was collected using low-flow pumping rates (150-480 ml/min). |
| * | No analytical data is available for this sample due to a laboratory error. |
| (a) | Calculated assuming 0 for non-detected congeners and 2006 toxic equivalency factors (TEFs). |
| (b) | Calculated assuming 1/2 detection limit as proxy for non-detected congeners and 2006 TEFs. |
| -- | Not established |